



Analytical Resources, LLC
Analytical Chemists and Consultants

12 March 2023

Ali Judkins
Anchor QEA, LLC
1201 3rd Ave, Suite 2600
Seattle, WA 98101

RE: AOC5 MR Phase 1

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

<u>Associated Work Order(s)</u>	<u>Associated SDG ID(s)</u>
23A0032	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclosed Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

Susan Dunnihoo, Director, Client Services

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



1 of 2

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No **3374**

Project/Client Name: AOC5 MR Phasel
 Project Number: 210075.01.02
 Contact Name: Amara Vandervoort
 Sampled By: Windward

Ship to: ARL
 Attn: Sue Dunningo Shipping Date: 1/3/23
 Shipper: COUNTER Airbill Number: _____
 Form filled out by: AV/CC Turnaround requested: std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)								Comments / Instructions [Jar tag number(s)]
					PCBS	SMS SVDCs	SMS metals	TOC / Total Solids	D/F	Archive	Arsenic	CPAHs	
1/3/23	0852	LDW23-IT1246	5	sediment	X			X	NA	X	X	X	
	0912	LDW23-IT1264	5		X			X	X	X	X	X	
	0936	LDW23-IT1269	5 4		X			X	NA	X	X	X	
	1045	LDW23-IT1272	4		X			X	NA	X	X	X	
	1321	LDW23-IT1224	4		X	X	X	X	NA	X			
	1334	LDW23-IT1235	4		X			X	X	X	X	X	
	1436	LDW23-IT1202	4		X			X	X	X	X	X	
AV 1/3/23													
Total Number of Containers			30	Purchase Order / Statement of Work # ARJ-110222 - AOC5 - ARL									

1) Released by: <u>Amara Vandervoort</u> Print name: <u>Amara Vandervoort</u> Signature: <u>[Signature]</u> Company: <u>Windward</u> Date/Time: <u>1/3/23 16:25</u>	1) Rec'd by: <u>YARED</u> Print name: <u>YARED</u> Signature: <u>[Signature]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>1/3/23 4:30</u>	2) Released by: <u>YARED LISANEUBANK</u> Print name: <u>YARED LISANEUBANK</u> Signature: <u>[Signature]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>1/3/23 4:57</u>	2) Rec'd by: <u>Philip</u> Print name: <u>Philip</u> Signature: <u>[Signature]</u> Company: <u>AR</u> Date/Time: <u>1/3/23 11:03/23 16:57</u>
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* Distribution: White copies accompany shipment; yellow retained by consignor.



200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364

To be completed by Laboratory upon sample receipt:

Date of receipt: <u>1/03/23</u>	Laboratory W.O. #: <u>23A0032</u>
Condition upon receipt: <u>good</u>	Time of receipt: <u>16:57</u>
Cooler temperature: <u>5.80C</u>	Received by: <u>Philip Bates</u>

2 of 2

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 3373

Project/Client Name: AOCS MR Phase 1
 Project Number: 210075.01.02
 Contact Name: Amara Vandervort
 Sampled By: Windward

Ship to: ARL
 Attn: Sue Dunnington Shipping Date: 1/3/23
 Shipper: COWI Airbill Number: _____
 Form filled out by: AV/CC Turnaround requested: std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions [Jar tag number(s)]
					PCBs	SMS SVOCs	SMS metals	Total PCBs	DIF	Archive		
1/3/23	1235	8" LDW23 - SC1226B	4	sediment	X	X	X	X	X	X		
	1401	LDW23 - SC1212	4		X	X	X	X	X	X	CC	
	1421	LDW23 - SC1203	3		X			X		X		
	1421	LDW23 - SC1203-FD	3		X			X		X		
	1401	LDW23 - SC1212	4		X	X	X	X	X	X		

AV 11/3/23

Total Number of Containers <u>14</u>		Purchase Order / Statement of Work # <u>APJ-110222-AOCS-ARL</u>	
1) Released by: <u>Amara Vandervort</u> Print name: <u>Amara Vandervort</u> Signature: <u>[Signature]</u> Company: <u>Windward</u> Date/Time: <u>1/3/23 16:25</u>	1) Rec'd by: <u>YARED</u> Print name: <u>YARED</u> Signature: <u>[Signature]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>1/3/23 4:30</u>	2) Released by: <u>Phillip Bates</u> Print name: <u>Phillip Bates</u> Signature: <u>[Signature]</u> Company: <u>AR</u> Date/Time: <u>1/3/23 16:57</u>	2) Rec'd by: <u>Phillip Bates</u> Print name: <u>Phillip Bates</u> Signature: <u>[Signature]</u> Company: <u>AR</u> Date/Time: <u>1/3/23 4:30</u>

* Distribution: White copies accompany shipment; yellow retained by consignee.



200 1st Ave W, Suite 500
 Seattle, WA 98119
 206.378.1364

To be completed by Laboratory upon sample receipt:

Date of receipt: <u>1/03/23</u>	Laboratory W.O. #: <u>23A0032</u>
Condition upon receipt: <u>good</u>	Time of receipt: <u>16:57</u>
Cooler temperature: <u>5.8°C</u>	Received by: <u>Phillip Bates</u>



Cooler Receipt Form

ARI Client: Windward / Anchor QEA
 COC No(s): 3374, 3373 PIB
 Assigned ARI Job No: 23A0032

Project Name: AOC5 MR Phase I
 Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
 Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO
 Were custody papers included with the cooler? YES NO
 Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)
 Time 16:52 5.8 4.6 5.6 5.1 5.5
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 7009708
 Cooler Accepted by: PIB Date: 11/03/23 Time: 16:57

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO
 What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____
 Was sufficient ice used (if appropriate)? NA YES NO
 How were bottles sealed in plastic bags? Individually Grouped Not
 Did all bottles arrive in good condition (unbroken)? YES NO
 Were all bottle labels complete and legible? YES NO
 Did the number of containers listed on COC match with the number of containers received? YES NO
 Did all bottle labels and tags agree with custody papers? YES NO
 Were all bottles used correct for the requested analyses? YES NO
 Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO
 Were all VOC vials free of air bubbles? NA YES NO
 Was sufficient amount of sample sent in each bottle? YES NO
 Date VOC Trip Blank was made at ARI: NA
 Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: PIB Date: 11/04/23 Time: 8:43 Labels checked by: _____

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



Anchor QEA, LLC
1201 3rd Ave, Suite 2600
Seattle, WA 98101

Project: AOC5 MR Phase 1
Project Number: 210075.01.02
Project Manager: Ali Judkins

Reported:
03/12/2023 12:56

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
23A0032-01	LDW23-IT1246	Solid	01/03/23 08:52	01/03/23 16:57
23A0032-02	LDW23-IT1264	Solid	01/03/23 09:12	01/03/23 16:57
23A0032-03	LDW23-IT1269	Solid	01/03/23 09:36	01/03/23 16:57
23A0032-04	LDW23-IT1272	Solid	01/03/23 10:45	01/03/23 16:57
23A0032-05	LDW23-IT1224	Solid	01/03/23 13:21	01/03/23 16:57
23A0032-06	LDW23-IT1235	Solid	01/03/23 13:34	01/03/23 16:57
23A0032-07	LDW23-IT1202	Solid	01/03/23 14:36	01/03/23 16:57
23A0032-08	LDW23-SC1226B	Solid	01/03/23 12:35	01/03/23 16:57
23A0032-09	LDW23-SC1203	Solid	01/03/23 14:21	01/03/23 16:57
23A0032-10	LDW23-SC1203-FD	Solid	01/03/23 14:21	01/03/23 16:57
23A0032-11	LDW23-SC1212	Solid	01/03/23 14:01	01/03/23 16:57



Anchor QEA, LLC
1201 3rd Ave, Suite 2600
Seattle WA, 98101

Project: AOC5 MR Phase 1
Project Number: 210075.01.02
Project Manager: Ali Judkins

Reported:
31-Mar-2023 13:02

Case Narrative

Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Work Order: 23A0032

Sample receipt

Samples as listed on the preceding page were received 03-Jan-2023 16:57 under ARI work order 23A0032. For details regarding sample receipt, please refer to the Cooler Receipt Form. Samples were frozen on receipt to preserve holding times.

Semivolatiles - EPA Method SW8270E

The sample(s) were extracted and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements, with accepted excursions for active analytes. Associated positive results have been "Q"-flagged.

Internal standard areas were outside control limits for several samples, attributed to matrix effect, The samples were reanalyzed at dilution, bringing internal standards into control. Both data sets are included here.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

The matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent difference (RPD) were within advisory control limits.

The reference material (SRM) percent recoveries were within control limits.

A blank run after the calibration standard for sequence SLB0157 was omitted.

Semivolatiles - EPA Method SW8270E-SIM

The sample(s) were extracted and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements, with accepted excursions for active analytes. Associated positive results have been "Q"-flagged.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries were within control limits. The relative percent difference (RPD) for 2,4-dichlorophenol was outside control limits and flagged on the summary sheet.

The batch BLA0087 matrix spike/matrix spike duplicate (MS/MSD) percent recoveries for pentachlorophenol were high of advisory control limits and relative the percent difference (RPD) were within advisory control limits, reported under work order 23A0087.



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Project: AOC5 MR Phase 1
Project Number: 210075.01.02
Project Manager: Ali Judkins

Reported:
31-Mar-2023 13:02

Case Narrative

The reference material (SRM) percent recovery for pentachlorophenol was high of limits and flagged on the summary sheet.

Polynuclear Aromatic Hydrocarbons (cPAH) - EPA Method SW8270E-SIM

The sample(s) were extracted and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) spike recoveries for benzofluoranthenes were high of limits and relative percent difference (RPD) showed all results high outside control limits, indicating an issue in the blowdown in the extractions laboratory. As the MS/MSD and SRM were within control limits, the client was informed of the issue, outliers are flagged and no further action was taken.

The matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent difference (RPD) were within advisory control limits.

The reference material (SRM) percent recoveries were within control limits.

PCB Aroclors - EPA Method SW8082A

The sample(s) were extracted and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements, with the exception of ICV2 and CCV8 which failed low for 1260 on the ZB5 column. Data is reported from ZB5 as primary for associated samples.

Internal standard areas were within limits, with failures for hexabromobiphenyl (HBB) on the ZB5 column, attributed to matrix interference. Results have been reported from the ZB35 column for these instances. HBB IS failed on both columns in sample LDW23-IT IT1235 (23A0032-06).

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

The matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent difference (RPD) were within advisory control limits.

The reference material (SRM) percent recoveries were within control limits.

Pesticides - EPA Method SW8081B (Hexachlorobenzene)

The sample(s) were extracted and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements.



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Seattle WA, 98101

Project: AOC5 MR Phase 1
Project Number: 210075.01.02
Project Manager: Ali Judkins

Reported:
31-Mar-2023 13:02

Case Narrative

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

The matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent difference (RPD) were within advisory control limits.

The analyst noted interfering peaks in some samples and chose to report the lower column when necessary.

Total Metals - EPA Method 6020B

The sample(s) were digested and analyzed within the recommended holding times for samples stored frozen.

The calibrations SLC0028-CCB3, SLC0028-CCB4, and SLC0028-IFA1 were noted by the analyst to have high response for chromium-53. The calibration SLC0078-CAL6 showed response for scandium and the associated group to be slightly noisy. As the intensities, R-values, and QC were passing, no corrective action was taken. The initial analysis for SCL0078- IFA showed high chromium but was passing in the rerun.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries for lead and zinc were high of advisory control limits. and the matrix spike duplicate (MSD) percent recovery for copper was low of advisory limits. The relative percent difference (RPD) was outside advisory limits for lead. Post spikes for all elements were in control.

The duplicate (DUP) relative percent difference (RPD) were within advisory control limits.

The reference material (SRM) percent recoveries were within control limits.

As detailed above for standards, the analyst noted some analytes and internal standards were noisy as well as some internal standards high of limit attributed to the matrix and noted in the run logs

Total Mercury - EPA Method 7471B

The sample(s) were digested and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The reference material (SRM) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries and the duplicate (DUP) relative percent difference (RPD) were within advisory control limits.

The duplicate (DUP) relative percent difference (RPD) were within advisory control limits.



Anchor QEA, LLC
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Seattle WA, 98101

Project: AOC5 MR Phase 1
Project Number: 210075.01.02
Project Manager: Ali Judkins

Reported:
31-Mar-2023 13:02

Case Narrative

Wet Chemistry (Total Organic Carbon and Total Solids)

The sample(s) were prepared and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The reference material (SRM) percent recoveries were within control limits.

The batch BLA0124 matrix spike (MS) percent recoveries and the duplicate (DUP) relative percent difference (RPD) were within advisory control limits and reported in work order 23A0031.

Dioxin/Furans - EPA Method 1613

The sample(s) were extracted and analyzed within the recommended holding times. Analysis was performed using an application specific column developed by Restek. The RTX-Dioxin2 column has unique isomer separation for the 2378-TCDF, eliminating the need for confirmation analysis.

Initial and continuing calibrations were within method requirements.

Labeled internal standard areas were within limits, with exception of a high recovery for 13C12-1,2,3,6,7,8-HxCDF in the OPR and two samples (125%), flagged on the summary sheet.

The cleanup surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits, with low level response or EMPC response below the detection limit. Associates positive results have been "B" flagged.

The OPR (Ongoing Precision and Recovery) standard percent recoveries were within control limits.

The batch BLA0256 duplicate (DUP) relative percent difference (RPD) were outside advisory control limits for compounds flagged on the summary sheet and reported in work order 23A0031.

The reference material (SRM) percent recoveries were within control limits.

Several results have been "X"-flagged, indicating possible interference from CDPEs (chlorinated diphenyl ethers).

Revised to clarify metals narrative 03/31/2023

Revised to clear metals highlights 04/05/2023



QUALIFIERS AND NOTES

Qualifier	Definition
X	Indicates possible CDPE interference.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20% RSD, <20% drift or minimum RRF)
P1	The reported value is greater than 40% difference between the concentrations determined on two GC columns where applicable.
NRS	This surrogate not reported due to chromatographic interference
L	Analyte concentration is ≤ 5 times the reporting limit and the replicate control limit defaults to +/- RL instead of 20% RPD
J	Estimated concentration value detected below the reporting limit.
HC	The natural concentration of the spiked analyte is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
EMPC	Estimated Maximum Possible Concentration qualifier for HRGCMS Dioxin
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
D	The reported value is from a dilution
B	This analyte was detected in the method blank.
*	Flagged value is not within established control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

ICP-MS Metals

Analyzed with Secondary Isotopes

ICPMS metals are quantitated with the primary Ion and major wavelength unless interference is noted. When secondary ions are used for quantitation, both ions will be reported for laboratory and matrix QC.

These results were reported from a secondary ion:

<u>Labnumber</u>	<u>SampleName</u>	<u>Analyte</u>
23A0032-01	LDW23-IT1246	Zinc-67



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-05 A

SDG: 23A0032

Sampled: 01/03/23 13:21

Prepared: 01/10/23 11:20

File ID: NT1802172313.D

% Solids: 67.90

Preparation: EPA 3546 (Microwave)

Analyzed: 02/17/23 14:18

Batch: BLA0163

Sequence: SLB0249

Initial/Final: 14.76 g Wet / 1 mL

Instrument: NT18

Column: ZB-5MS

Calibration: GB00036

Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
108-95-2	Phenol	1	35.5		4.4	20.0
106-44-5	4-Methylphenol	1	92.3		7.4	20.0
91-20-3	Naphthalene	1	372		4.2	20.0
91-57-6	2-Methylnaphthalene	1	37.3		4.5	20.0
208-96-8	Acenaphthylene	1	141		6.2	20.0
131-11-3	Dimethylphthalate	1	20.0	U	4.4	20.0
83-32-9	Acenaphthene	1	76.8		5.2	20.0
132-64-9	Dibenzofuran	1	40.8		14.1	20.0
86-73-7	Fluorene	1	74.0		14.5	20.0
85-01-8	Phenanthrene	1	387		8.7	20.0
120-12-7	Anthracene	1	103		7.2	20.0
206-44-0	Fluoranthene	1	430		6.1	20.0
129-00-0	Pyrene	1	526		5.7	20.0
85-68-7	Butylbenzylphthalate	1	20.0	U	9.4	20.0
56-55-3	Benzo(a)anthracene	1	136		5.9	20.0
218-01-9	Chrysene	1	140		6.0	20.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	49.9	U	5.4	49.9
	Benzo(a)fluoranthenes, Total	1	229		10.0	39.9
50-32-8	Benzo(a)pyrene	1	129		4.2	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	66.5		14.6	20.0
53-70-3	Dibenzo(a,h)anthracene	1	19.4	J	17.2	20.0
191-24-2	Benzo(g,h,i)perylene	1	91.0	Q	13.6	20.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	748.35	558	74.5	27 - 120	Q
Phenol-d5	748.35	566	75.6	29 - 120	
2-Chlorophenol-d4	748.35	549	73.4	31 - 120	
1,2-Dichlorobenzene-d4	498.90	322	64.5	32 - 120	
Nitrobenzene-d5	498.90	419	83.9	30 - 120	
2-Fluorobiphenyl	498.90	340	68.2	35 - 120	



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-05 A

SDG: 23A0032

Sampled: 01/03/23 13:21

Prepared: 01/10/23 11:20

File ID: NT1802172313.D

% Solids: 67.90

Preparation: EPA 3546 (Microwave)

Analyzed: 02/17/23 14:18

Batch: BLA0163

Sequence: SLB0249

Initial/Final: 14.76 g Wet / 1 mL

Instrument: NT18

Column: ZB-5MS

Calibration: GB00036

Cleanups: GPC

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2,4,6-Tribromophenol	748.35	507	67.7	24 - 134	Q
p-Terphenyl-d14	498.90	343	68.7	37 - 120	

Data File: \\target\share\chem3\nt18.1\20230217.16\NT1802172313.D

Date: 17-FEB-2023 14:18

Client ID:

Sample Info: 23A0032-05

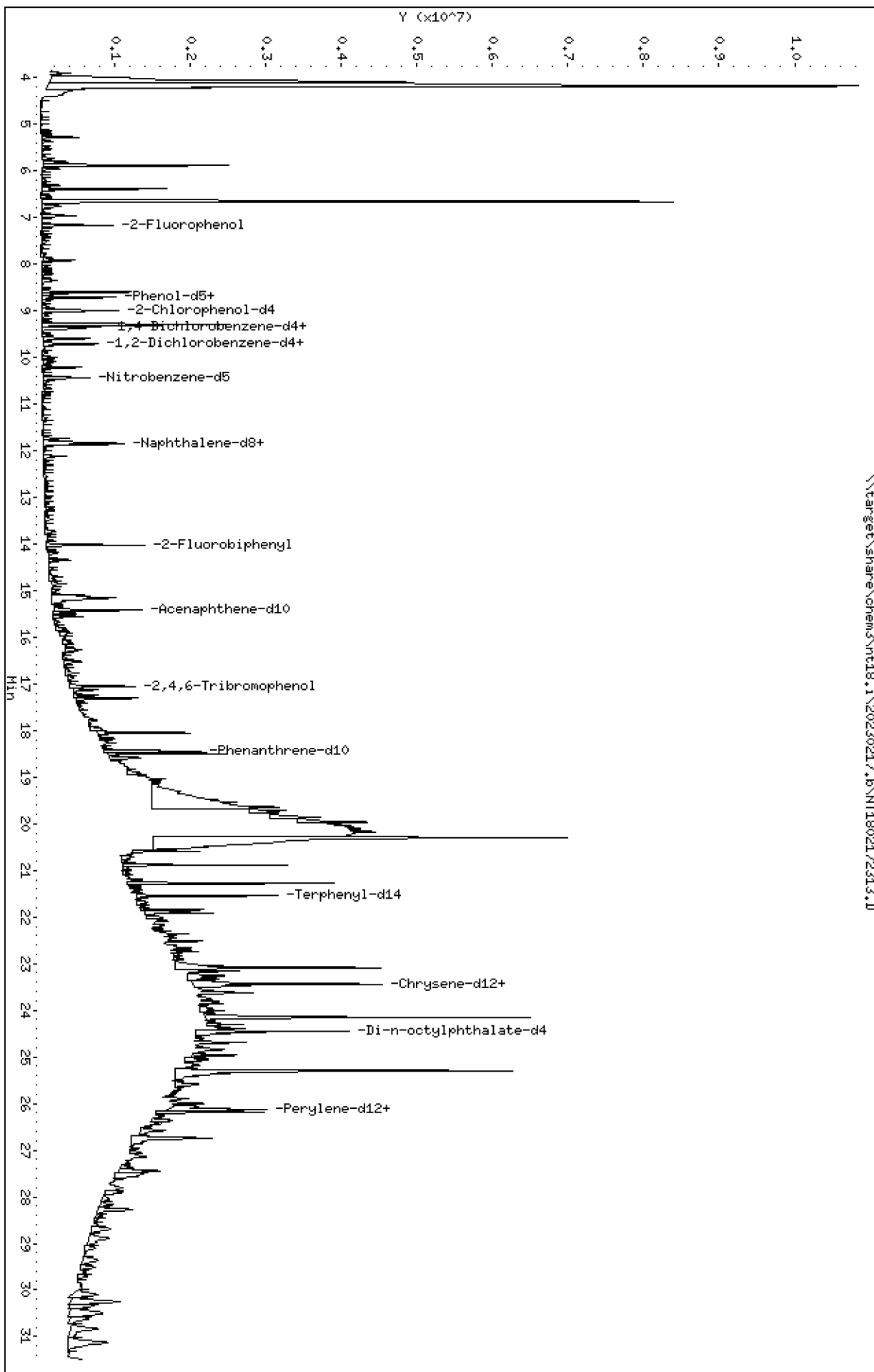
Page 1

Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

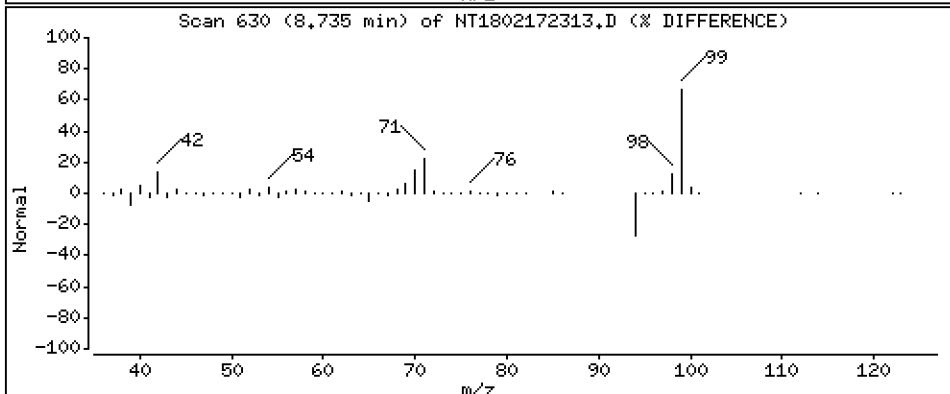
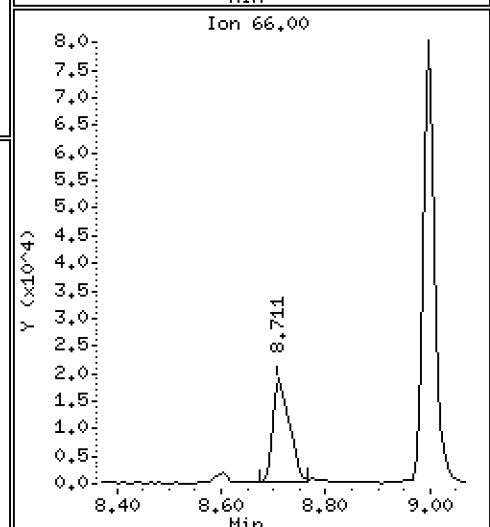
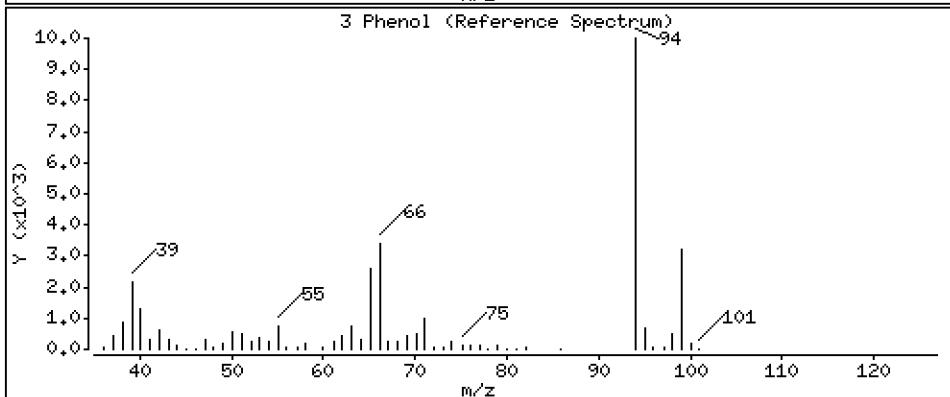
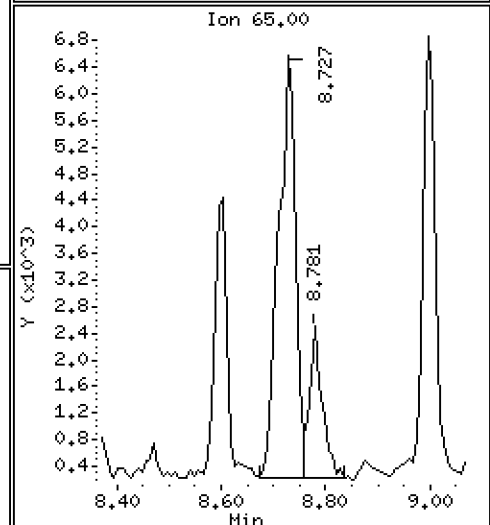
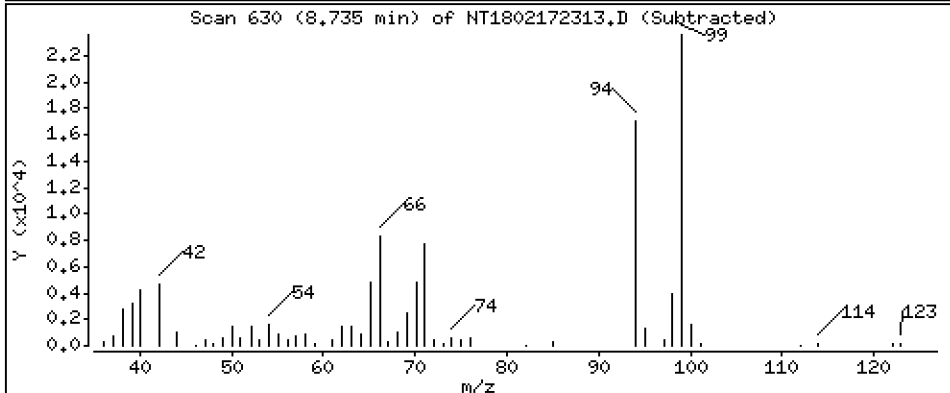
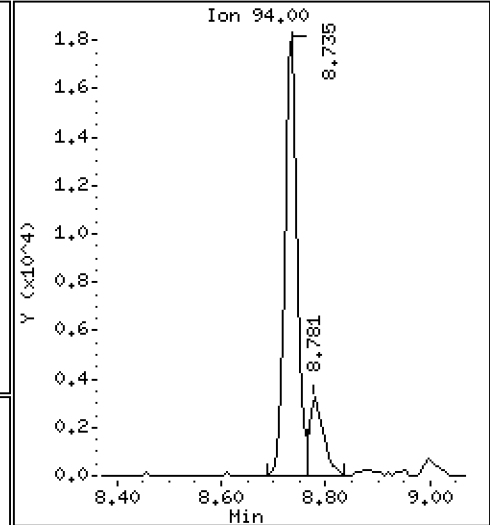
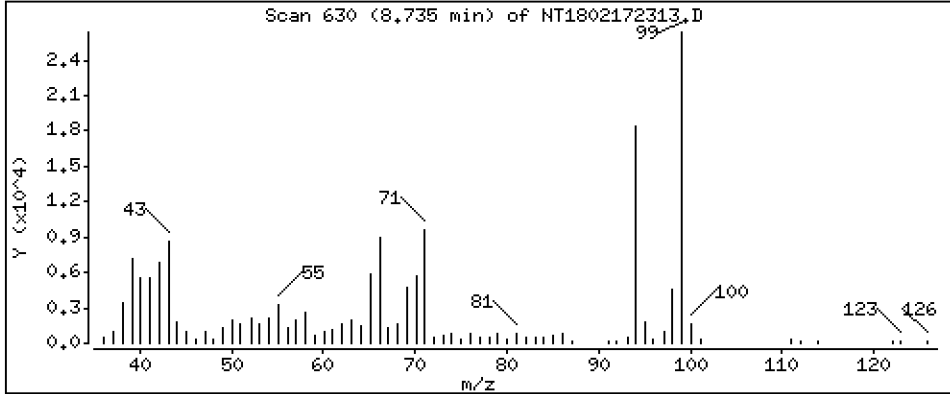
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,3558 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

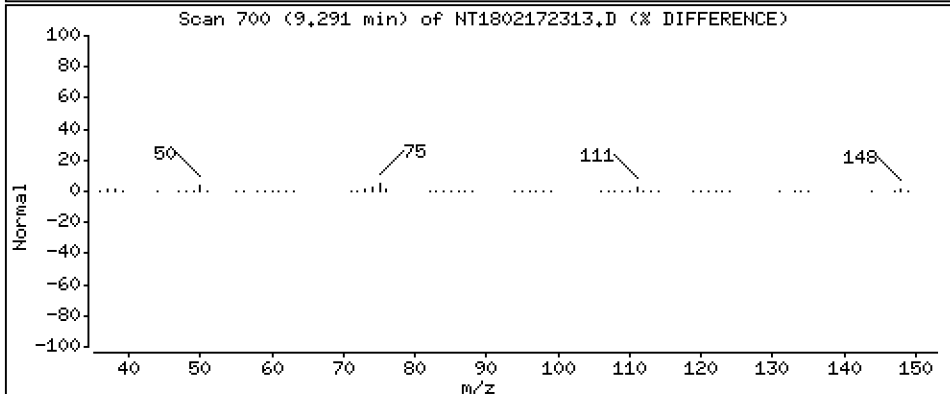
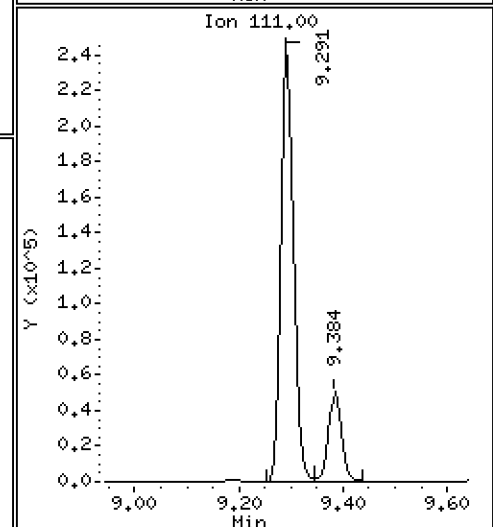
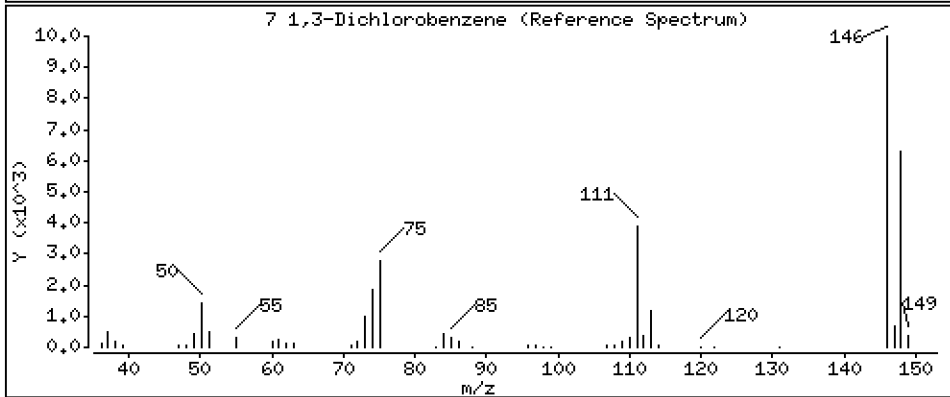
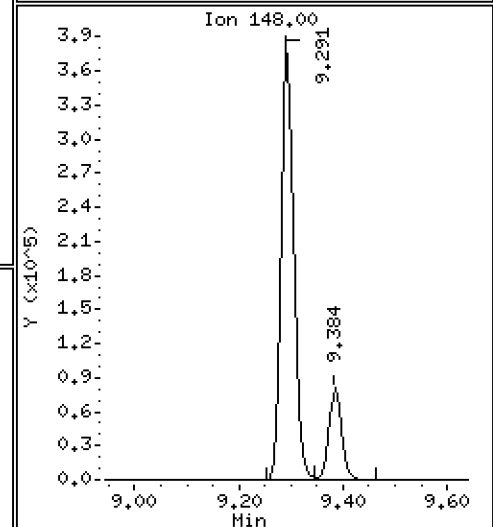
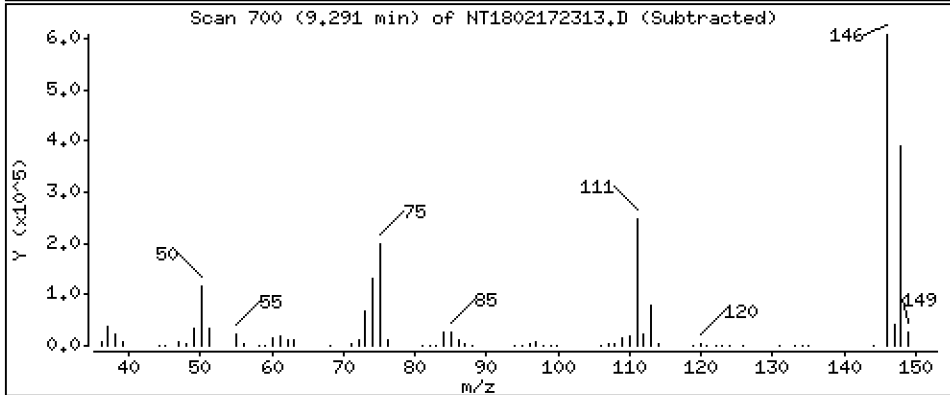
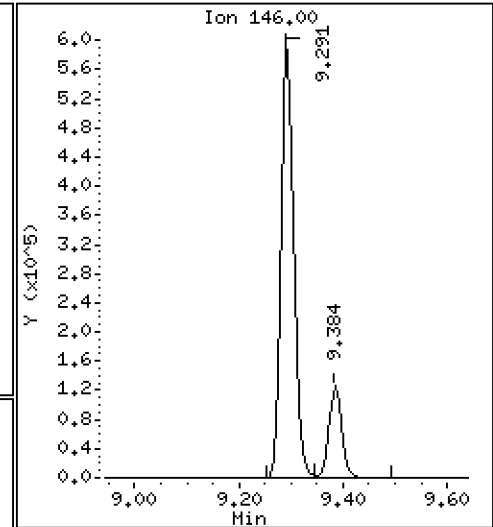
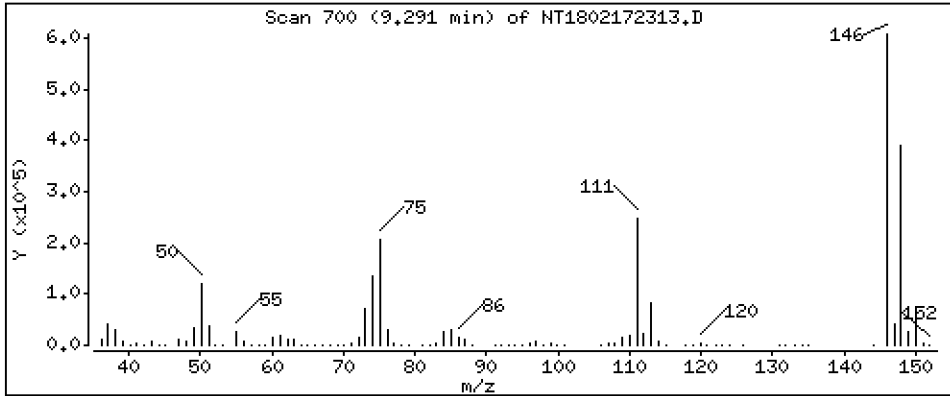
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 12,08 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

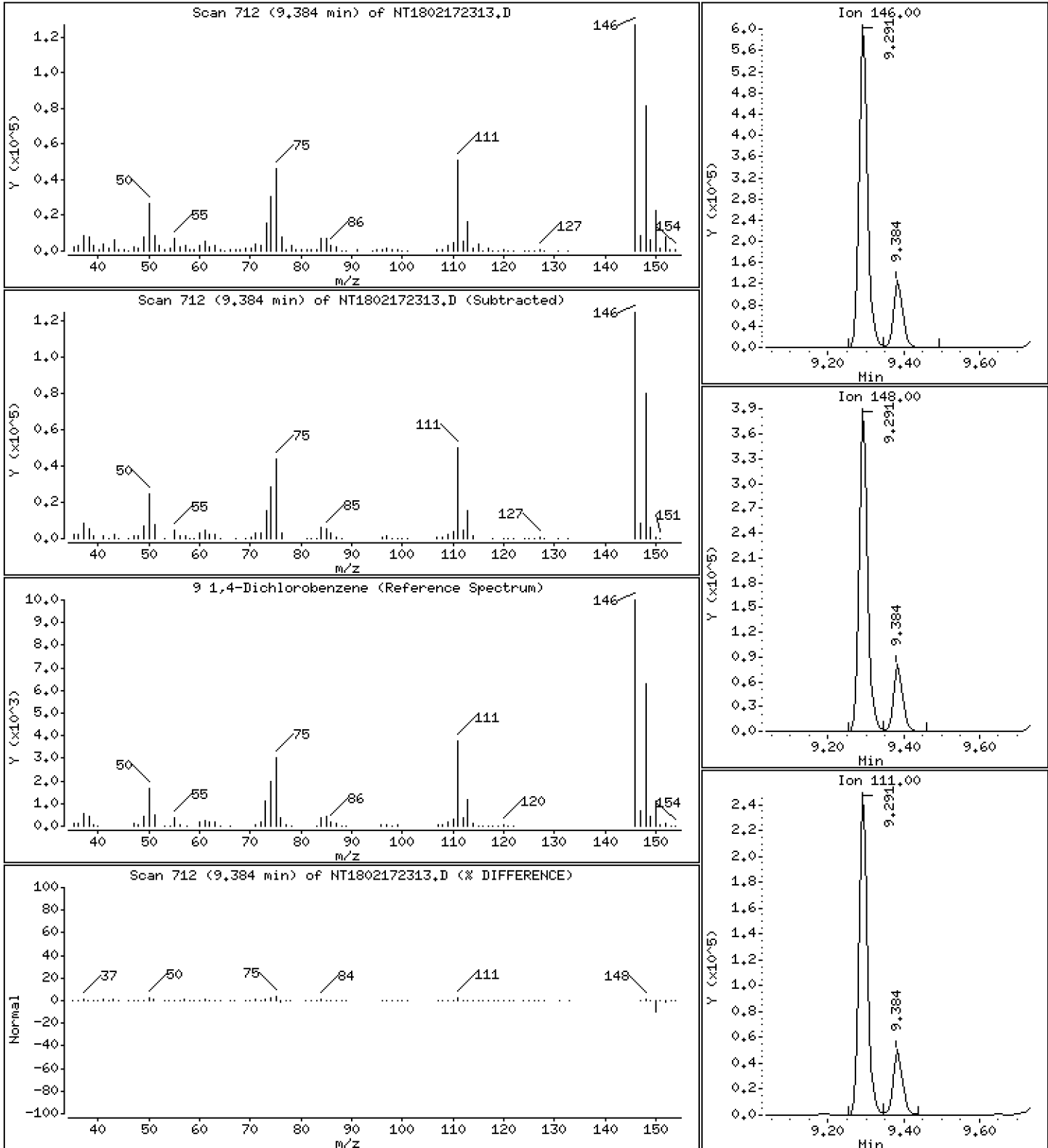
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 2,370 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

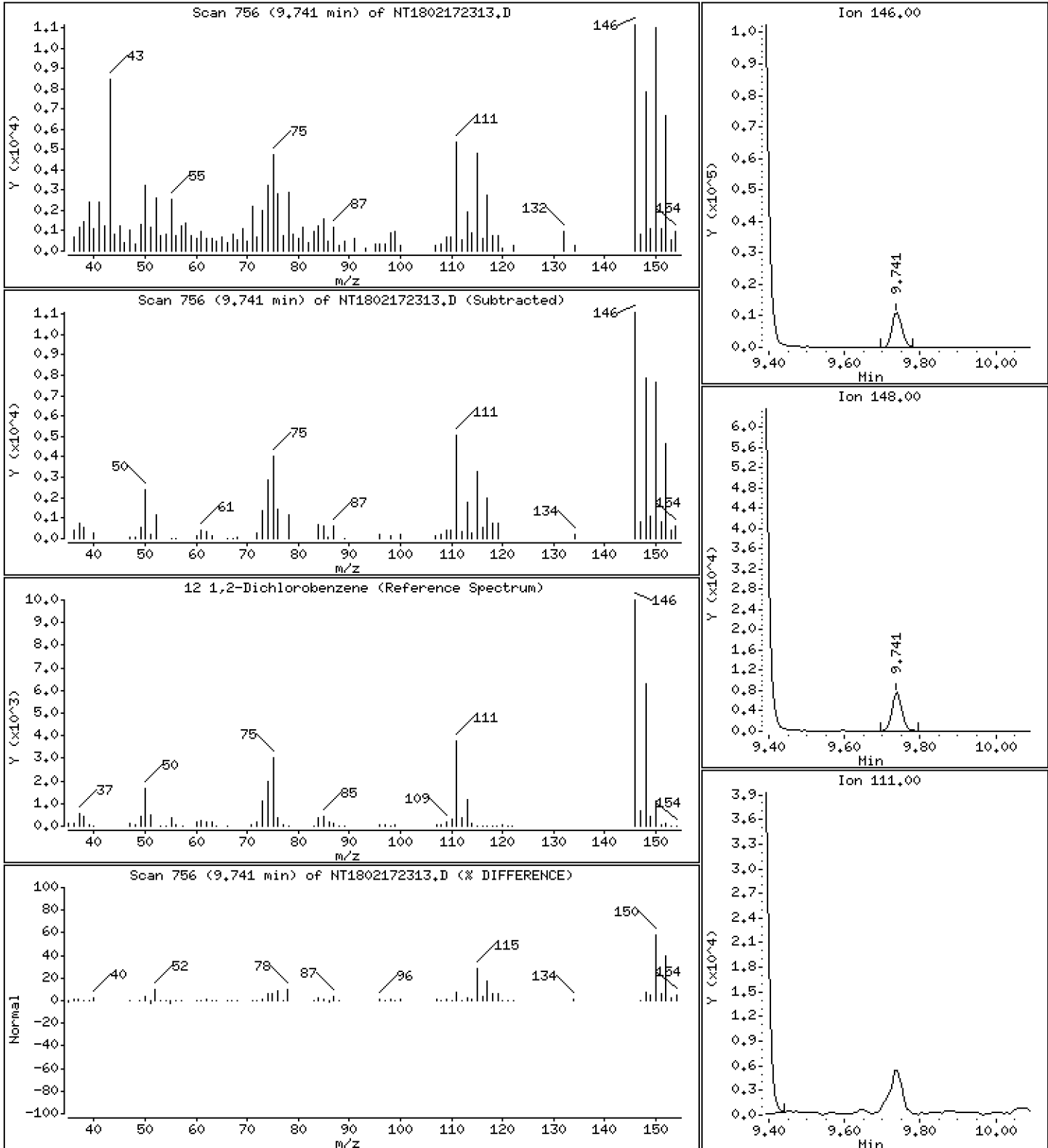
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,2400 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

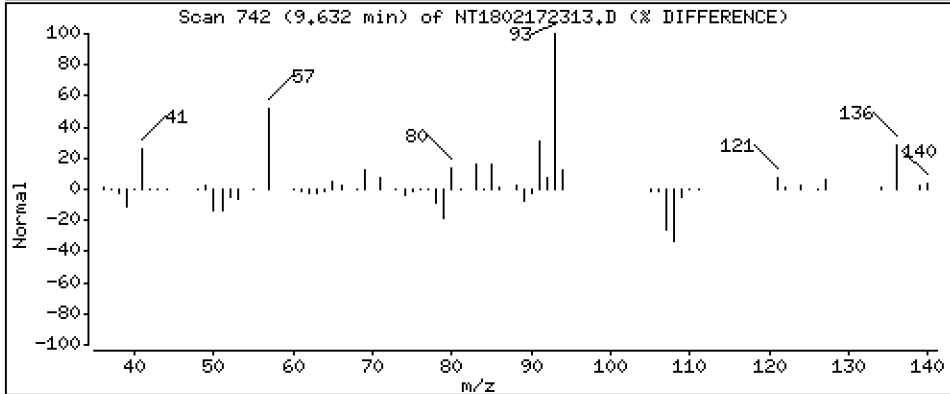
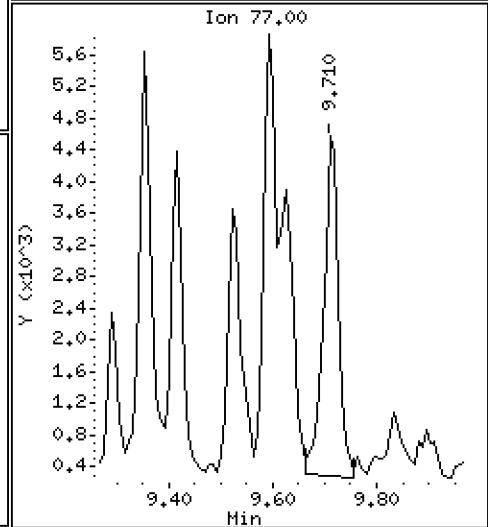
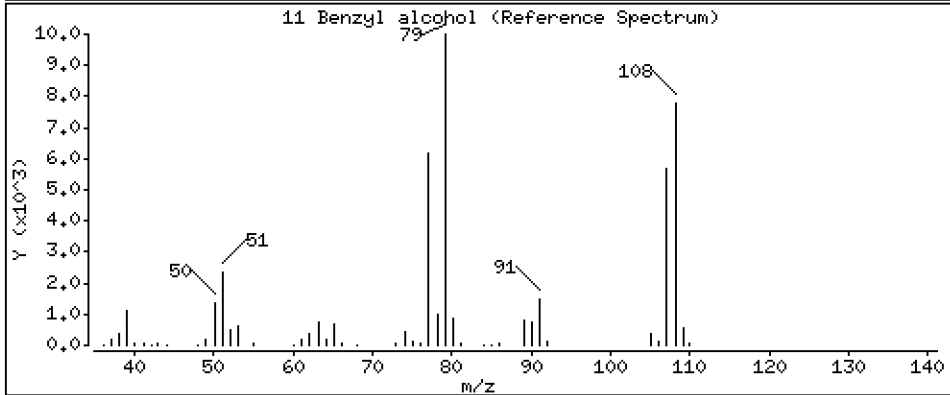
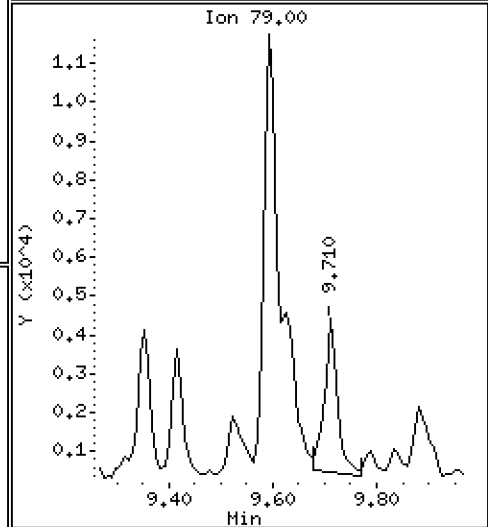
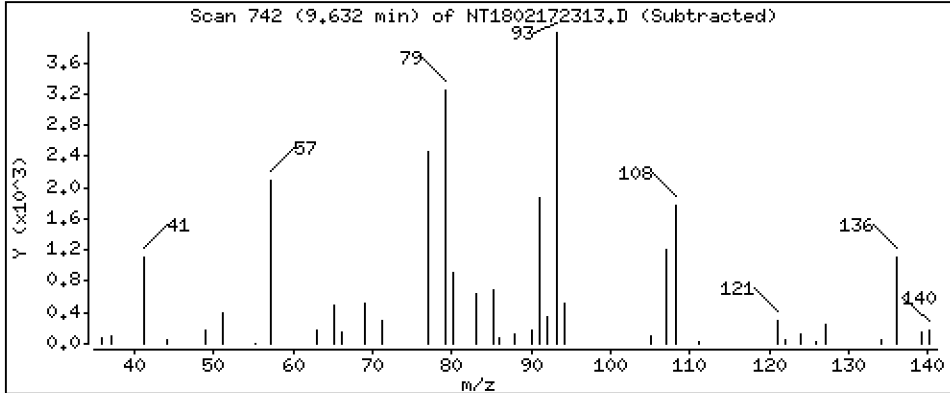
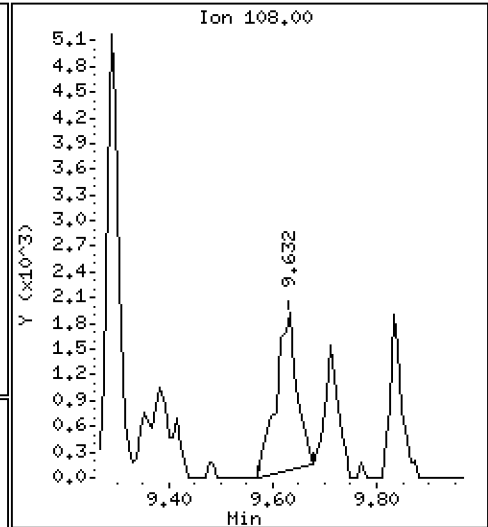
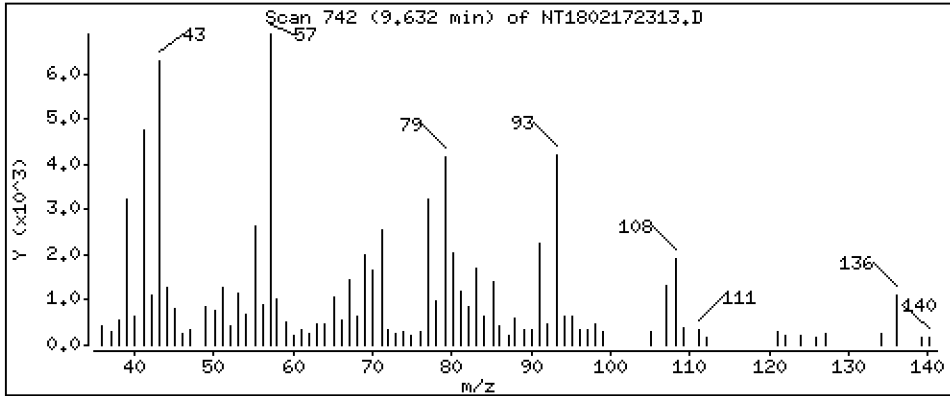
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.1080 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

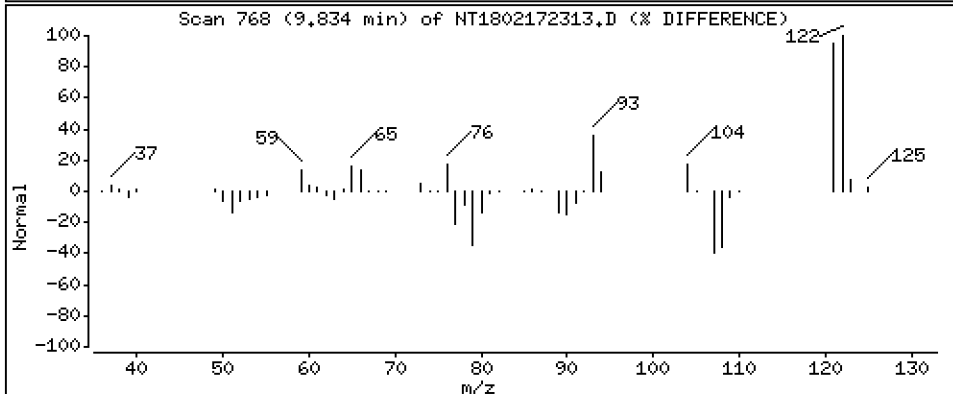
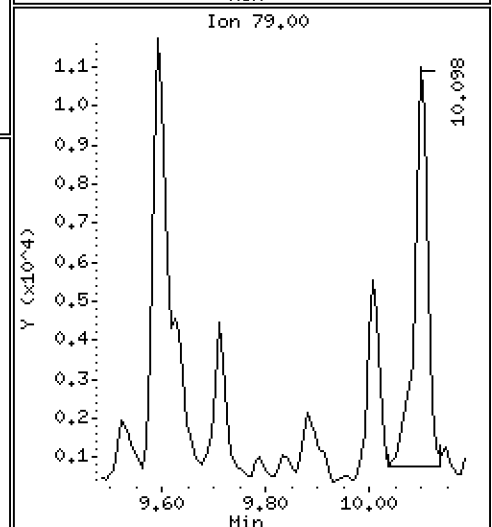
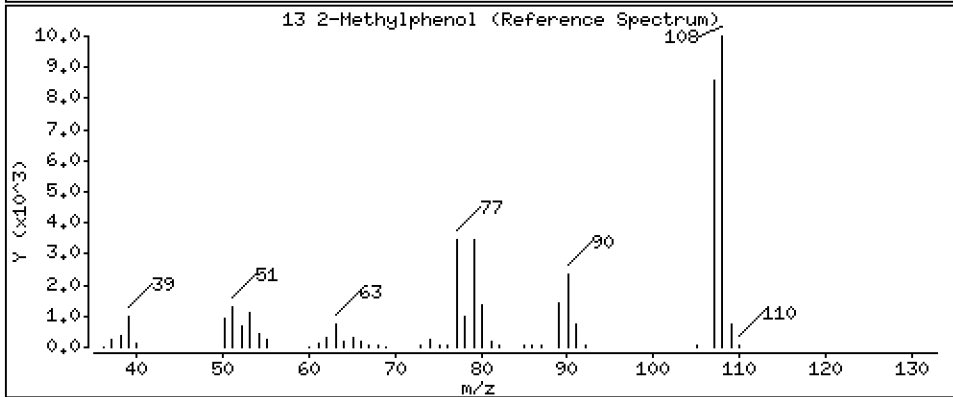
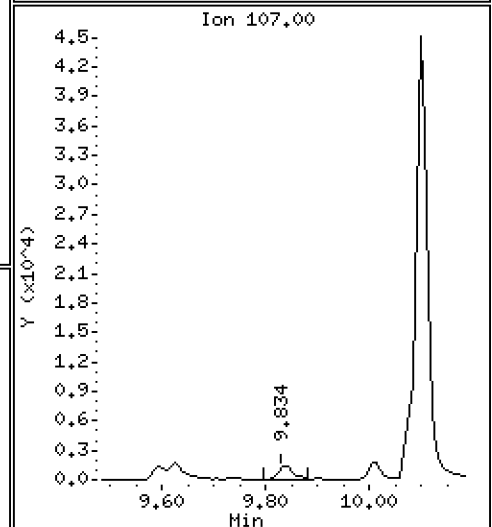
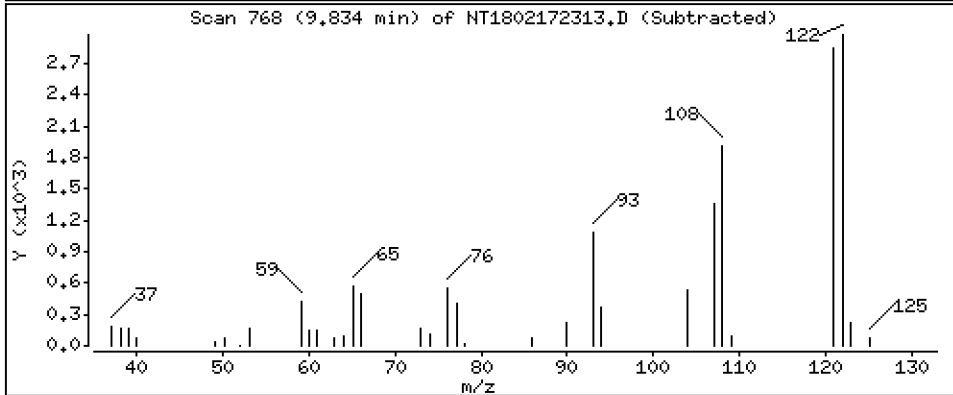
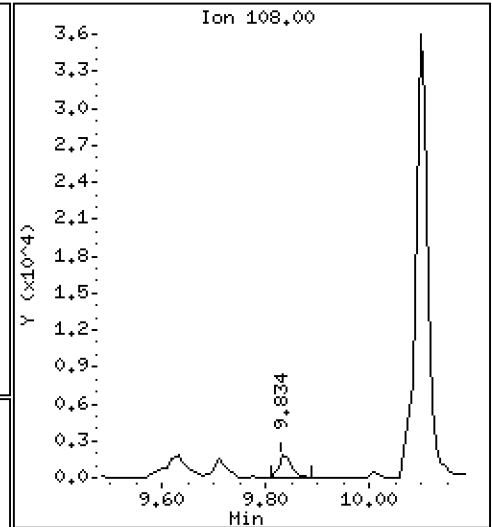
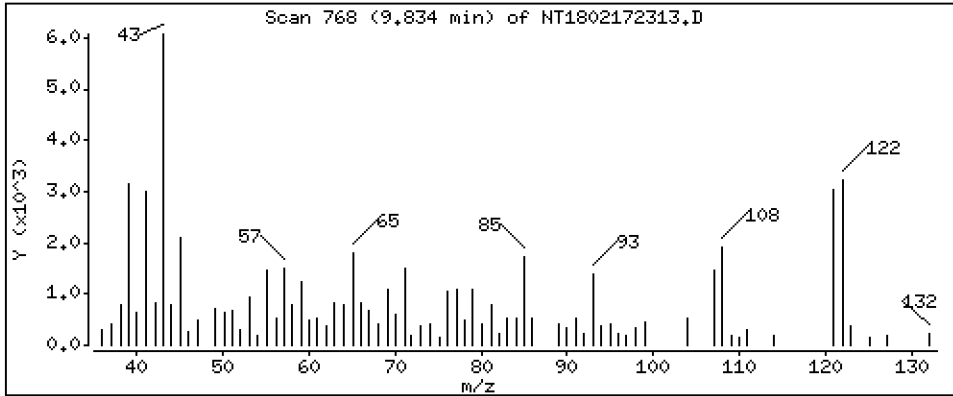
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Concentration: 0.04757 ug/mL

13 2-Methylphenol



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

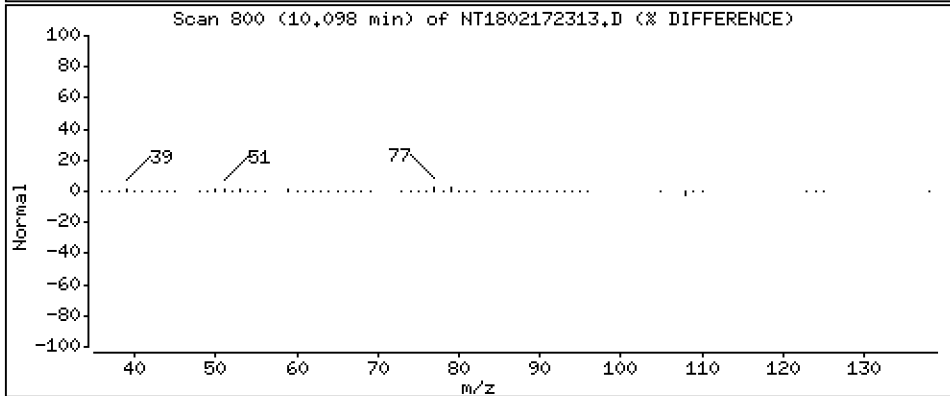
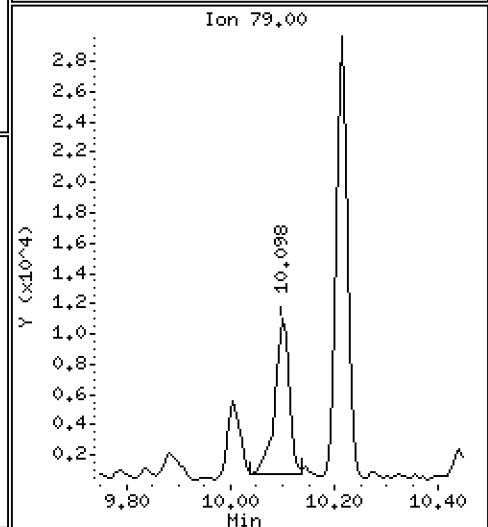
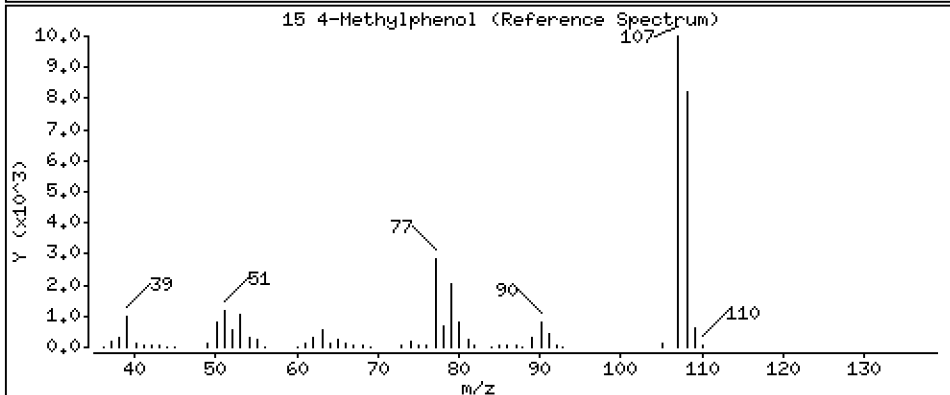
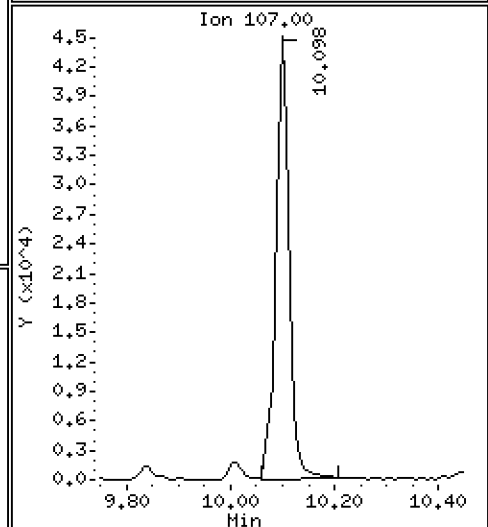
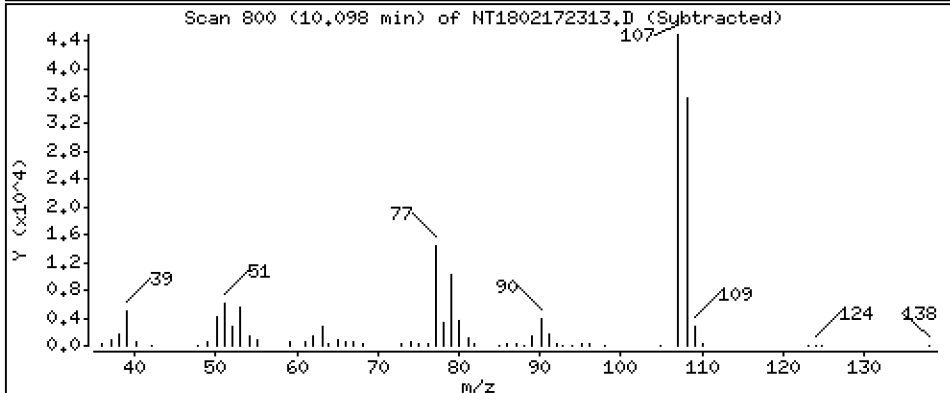
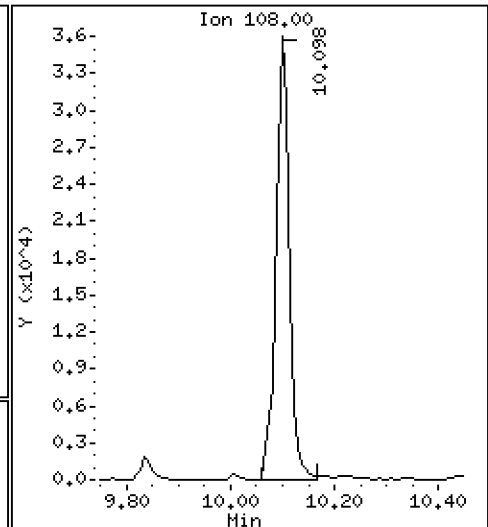
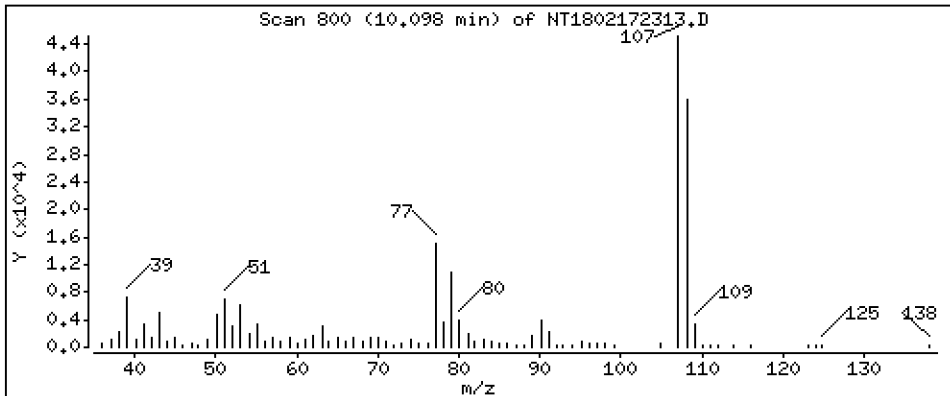
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 0,9246 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

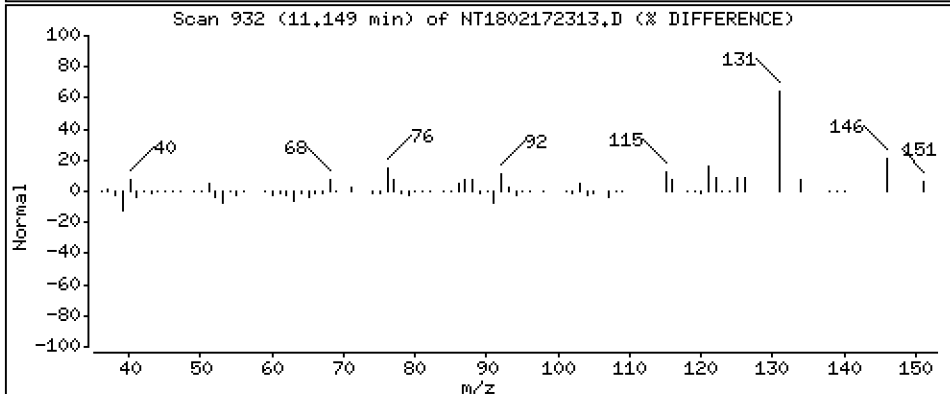
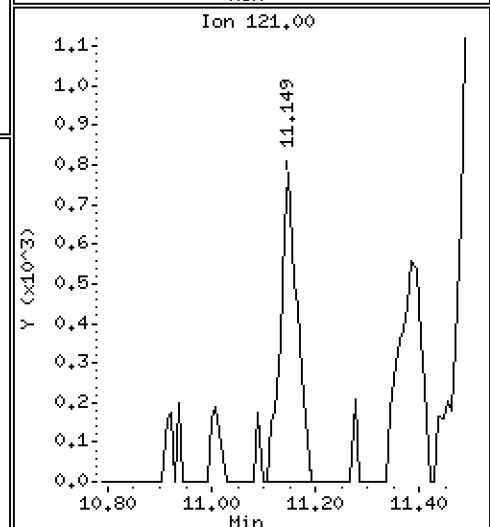
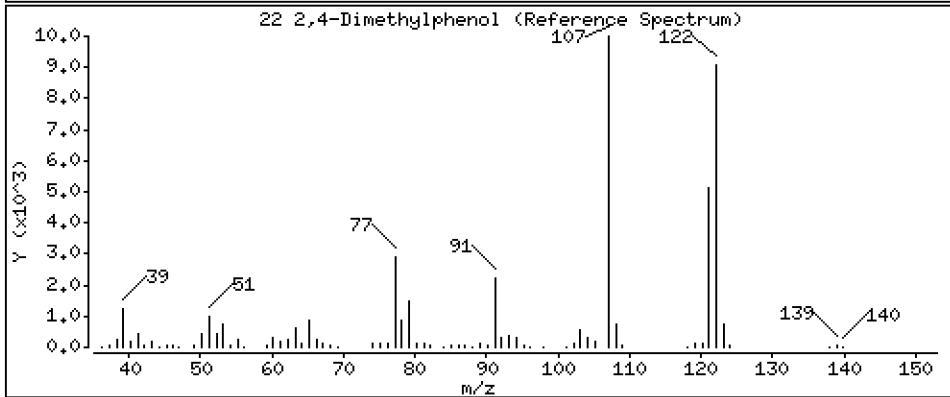
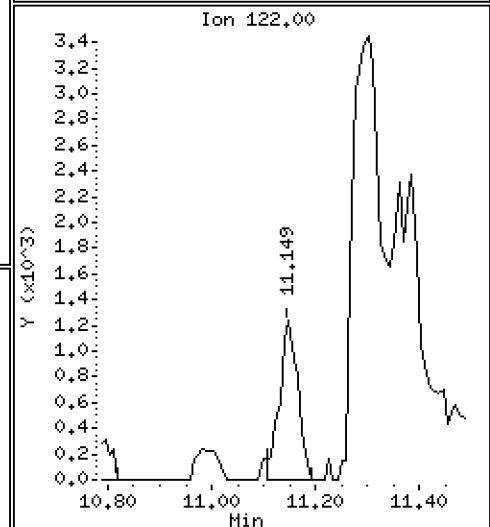
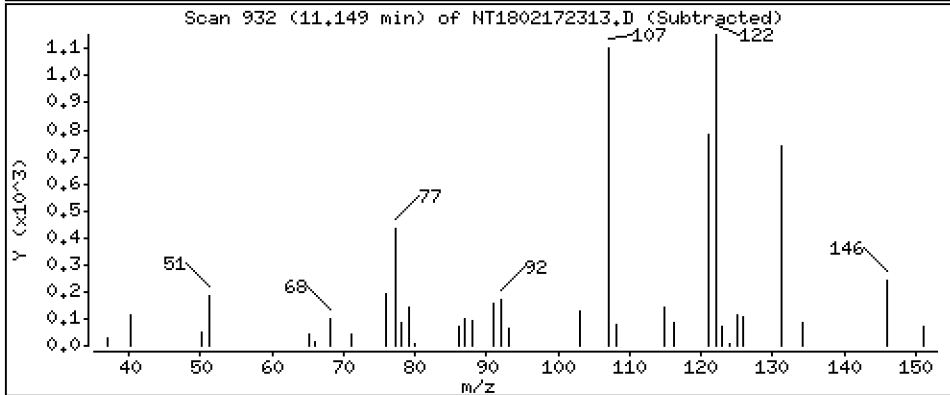
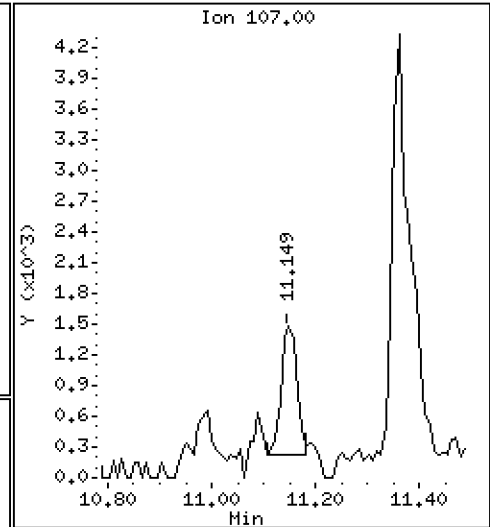
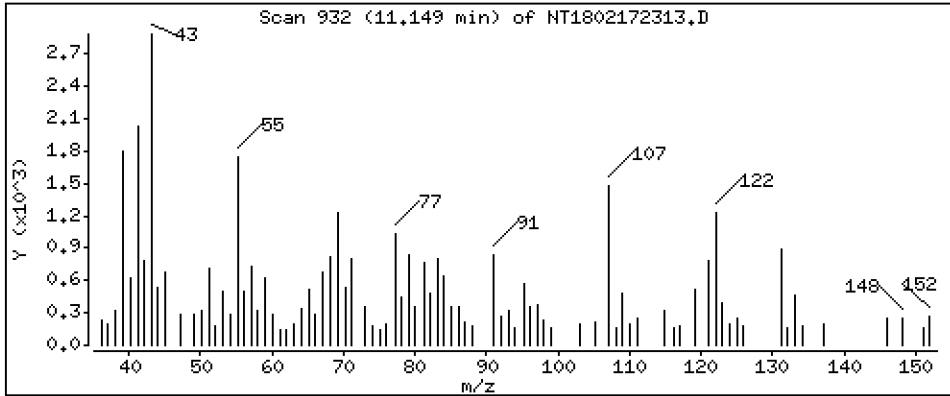
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 0.04265 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

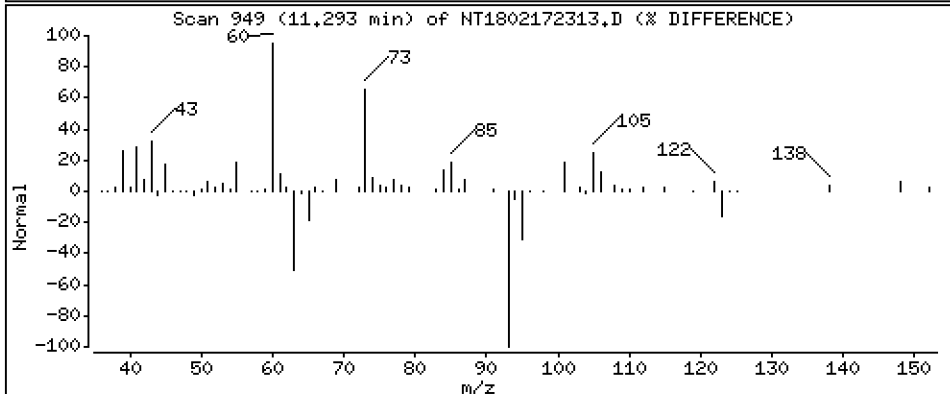
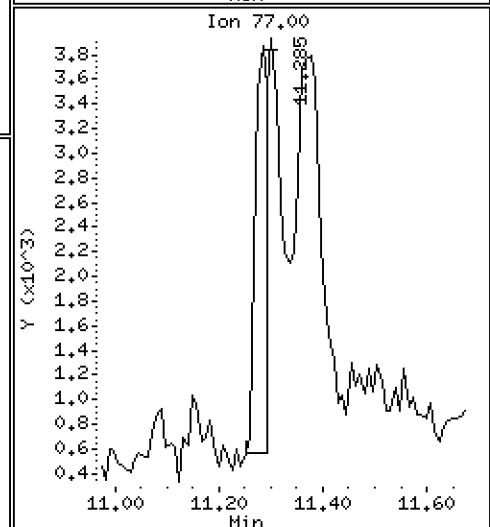
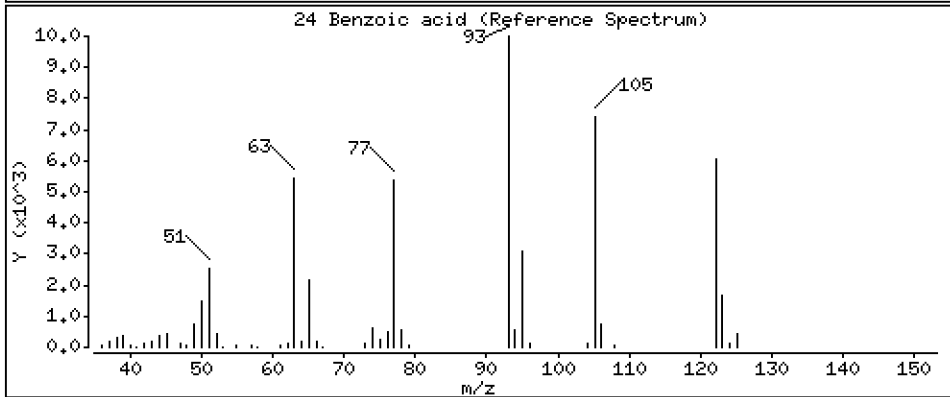
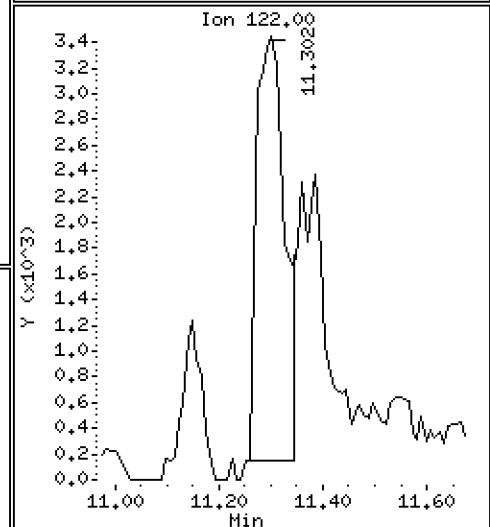
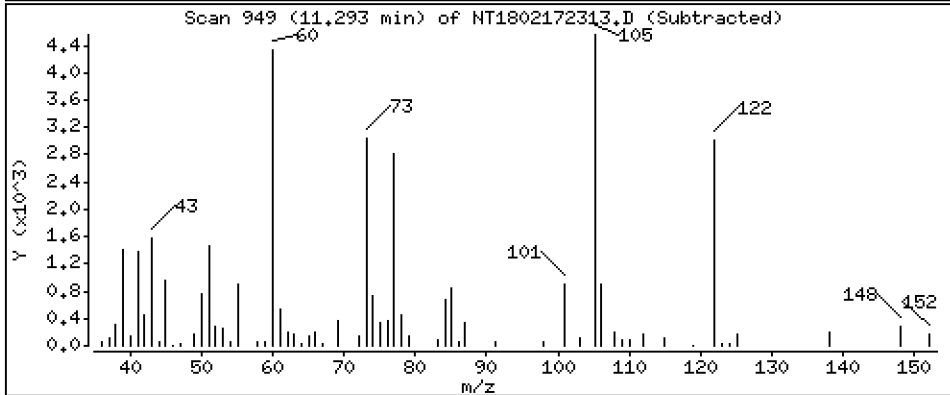
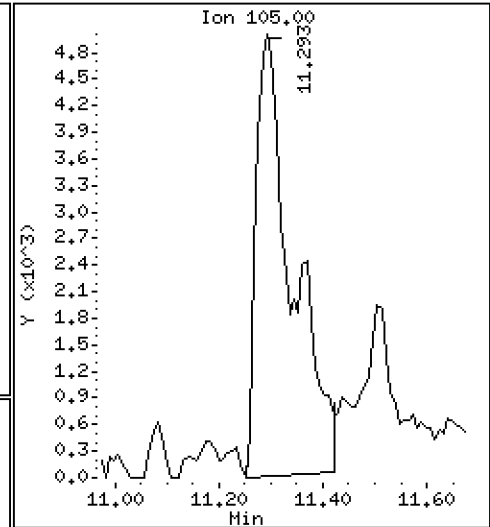
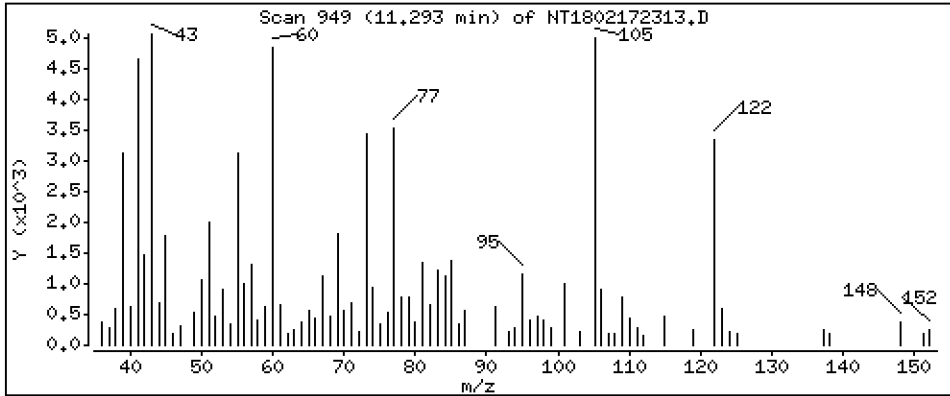
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.6206 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

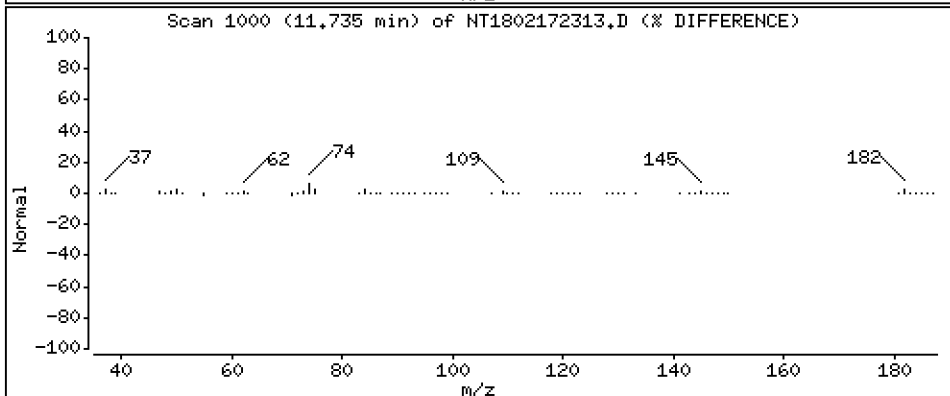
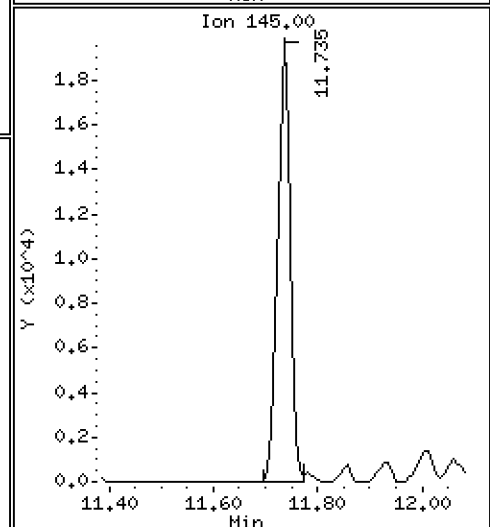
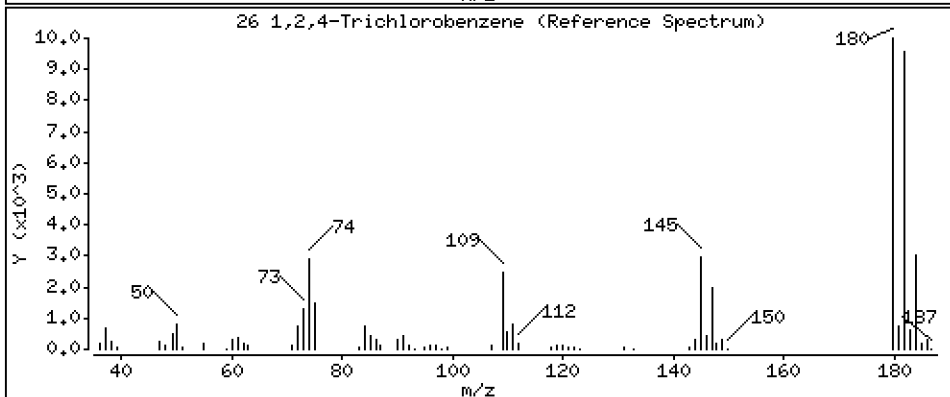
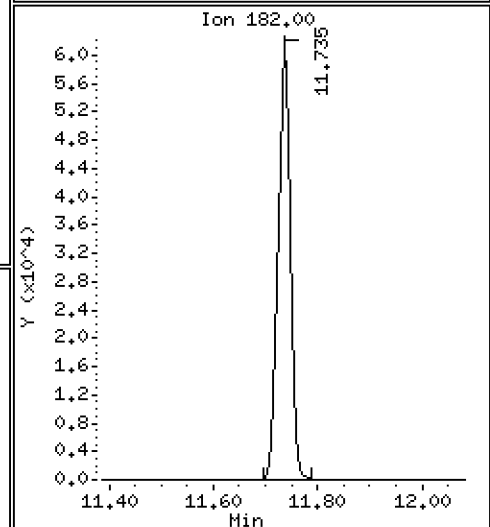
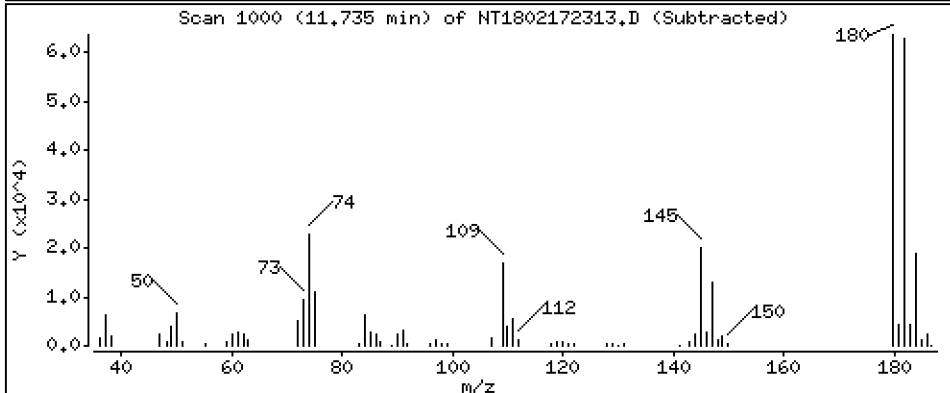
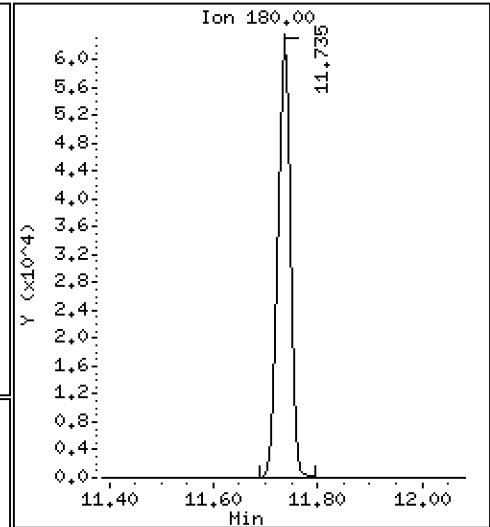
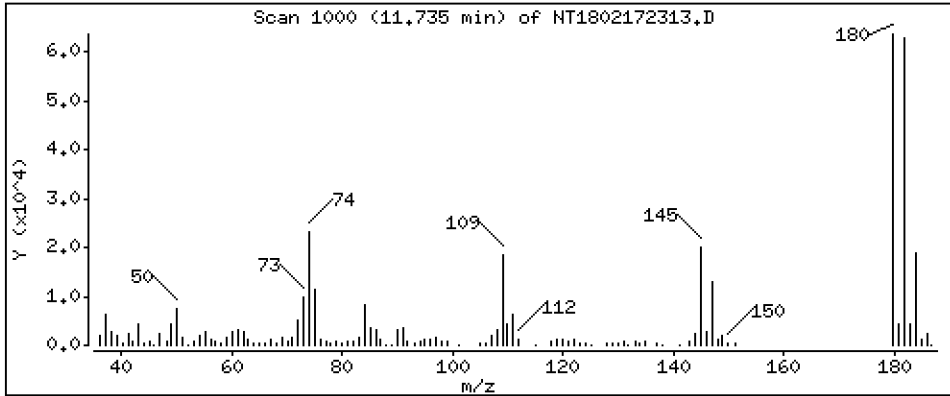
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 1,503 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

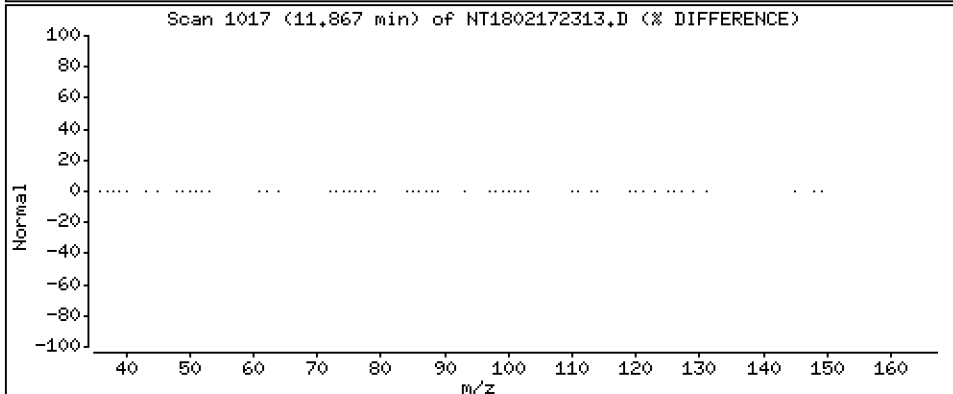
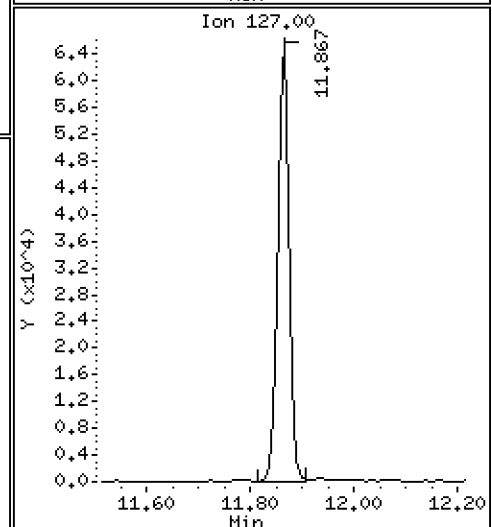
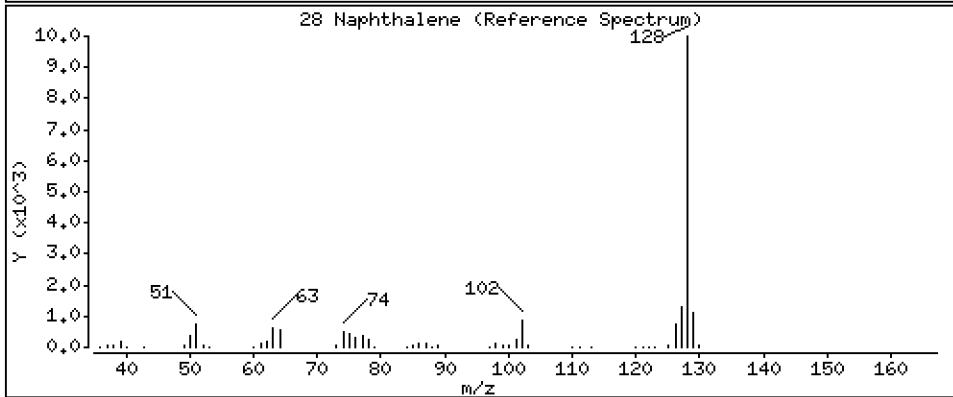
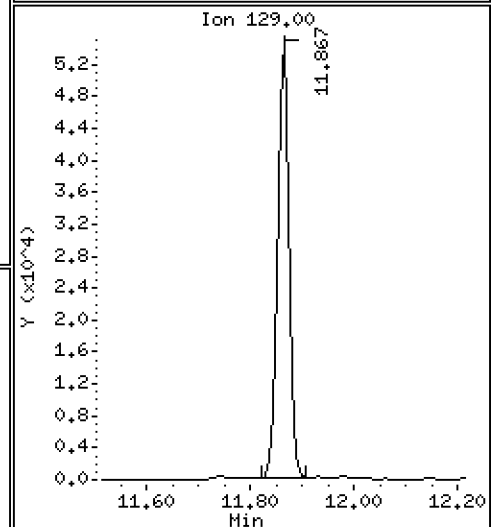
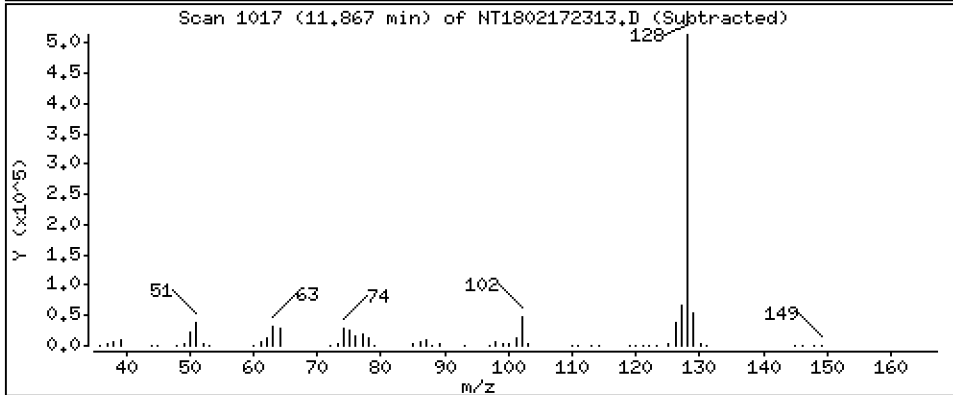
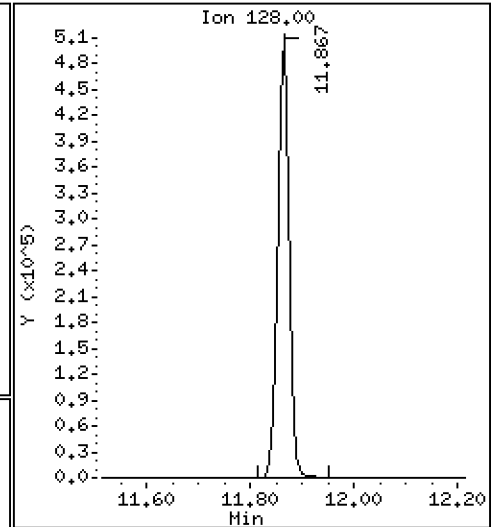
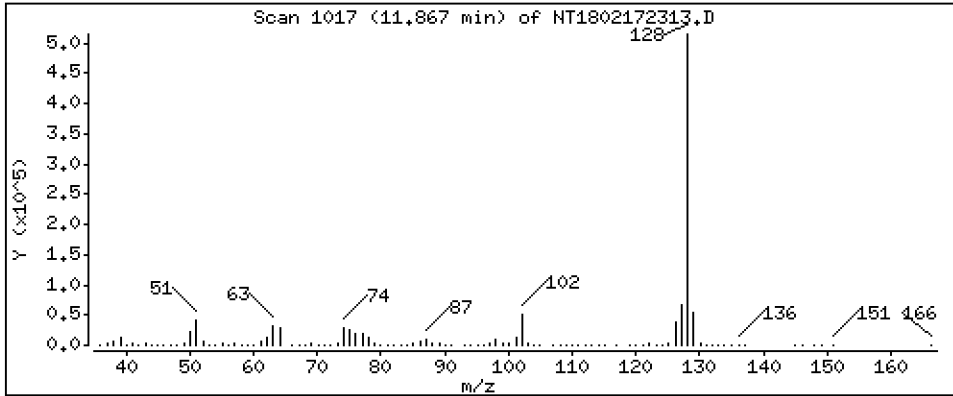
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 3,724 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

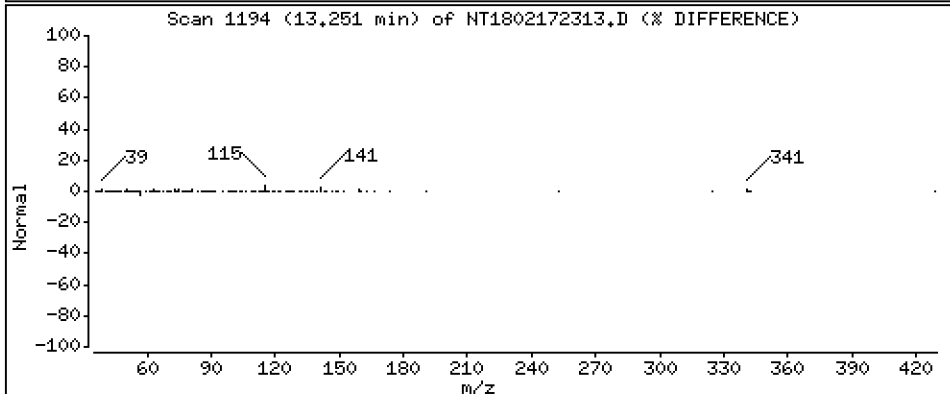
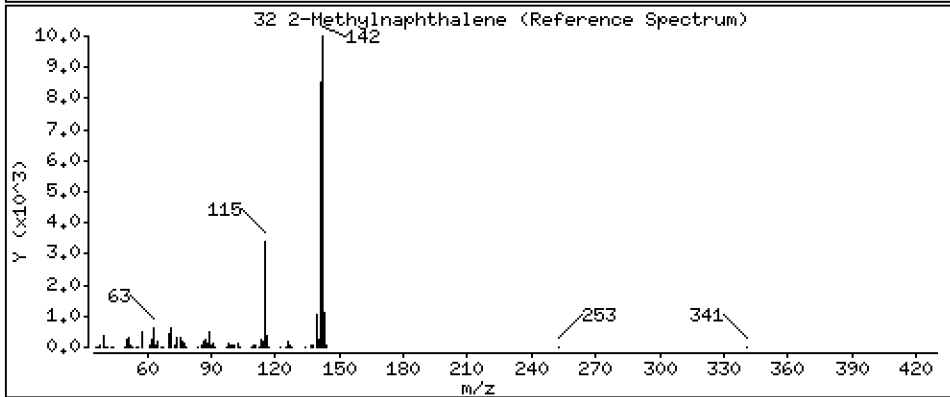
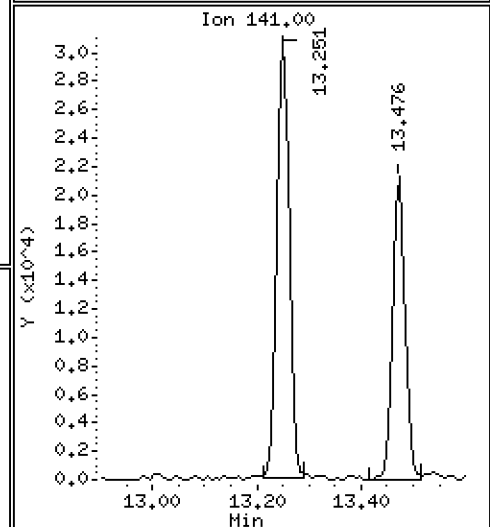
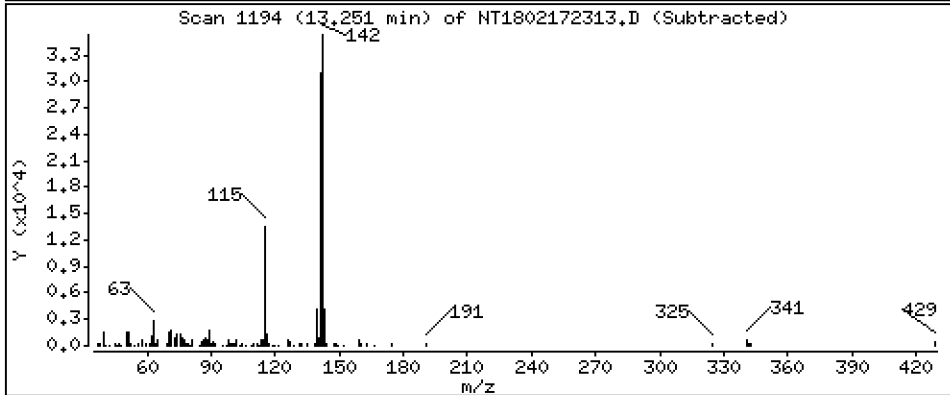
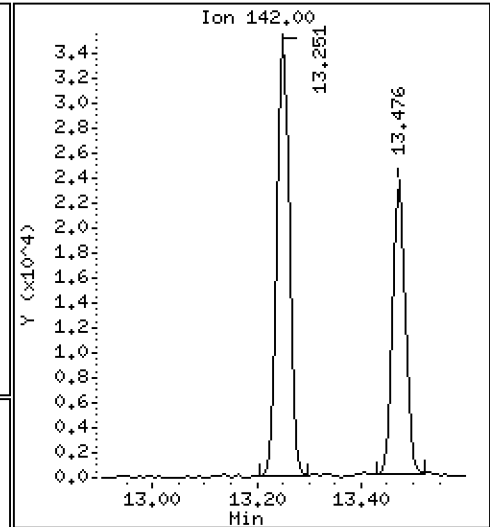
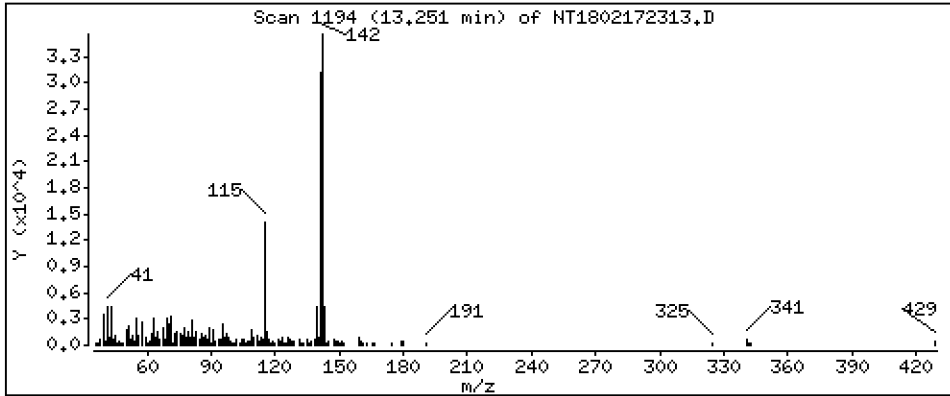
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,3740 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

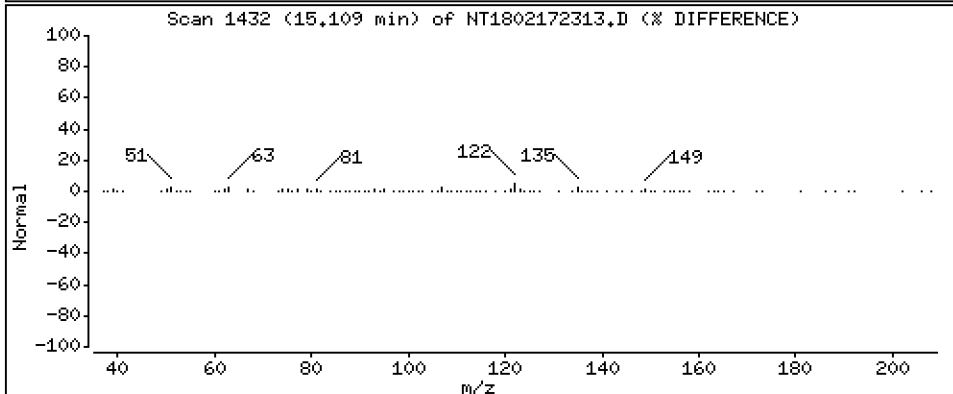
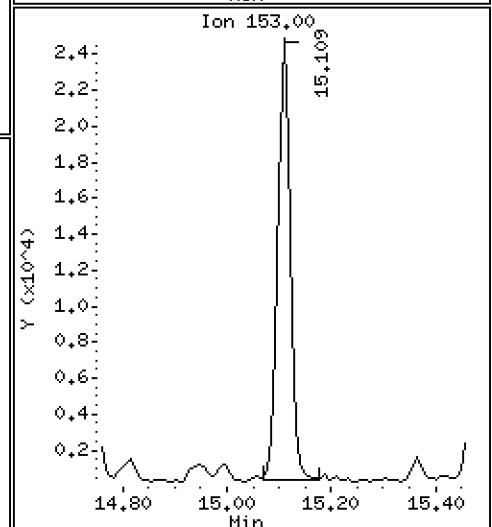
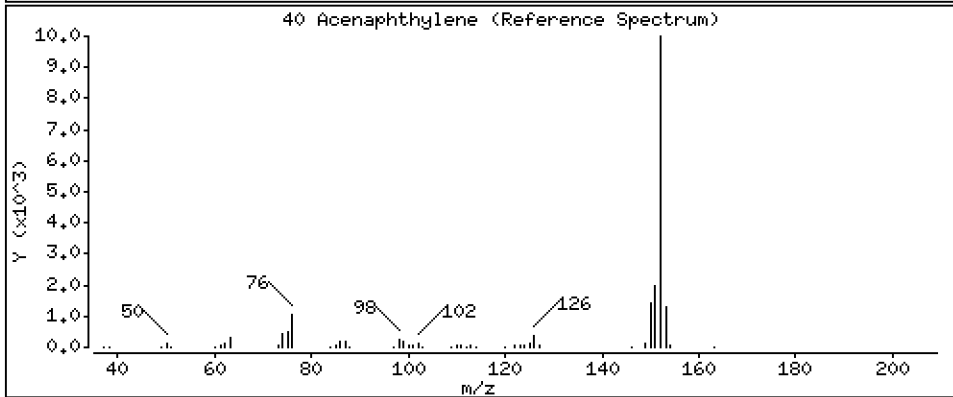
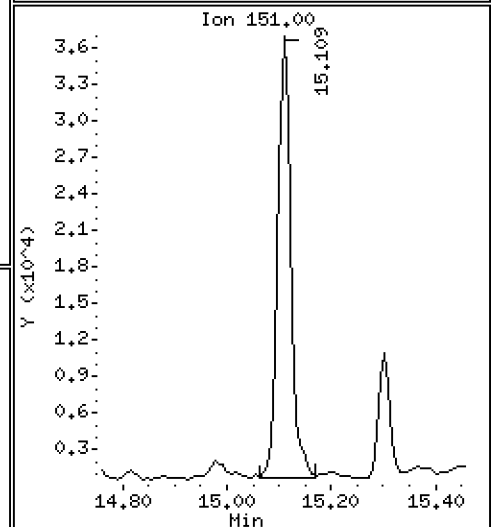
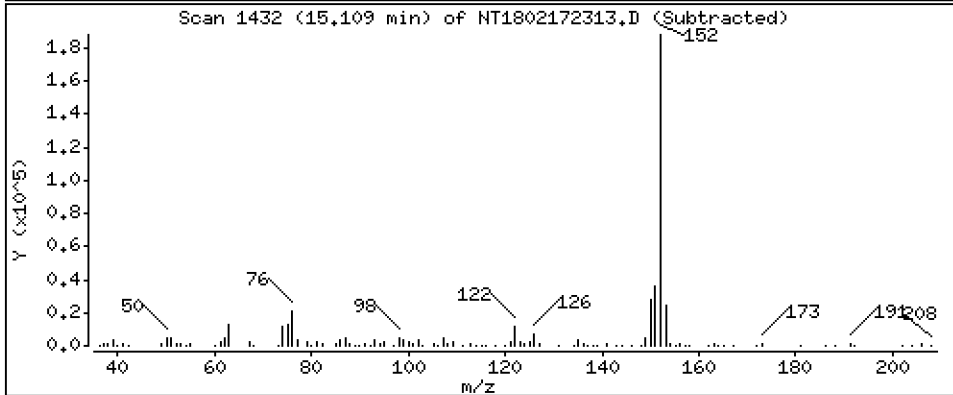
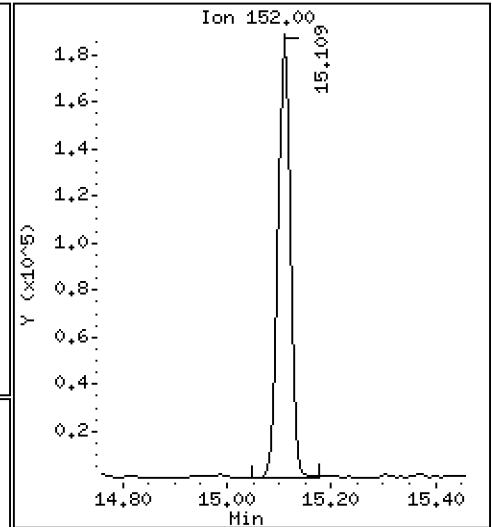
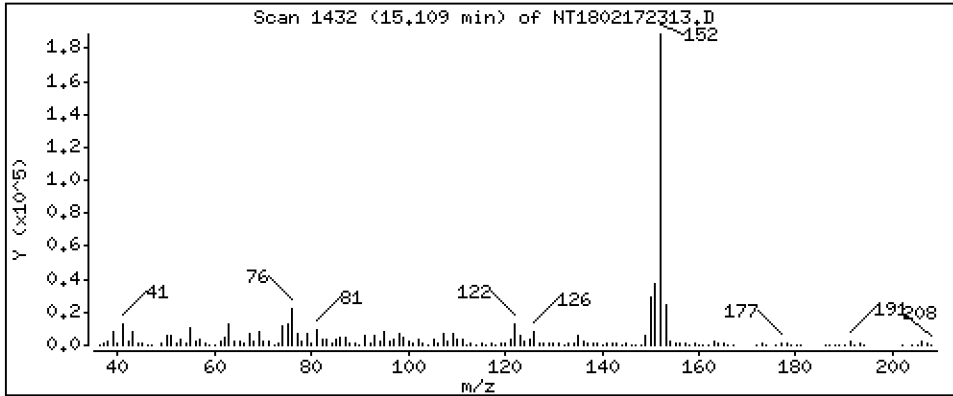
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 1,414 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

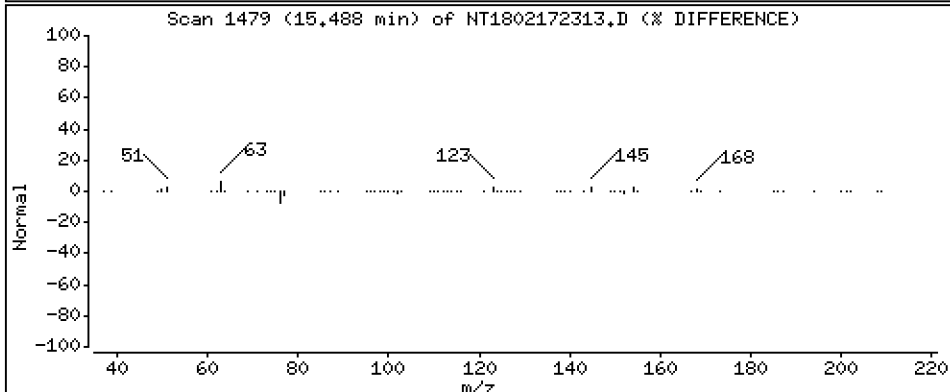
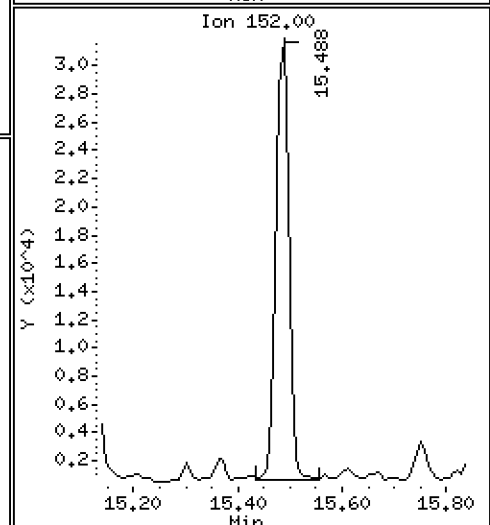
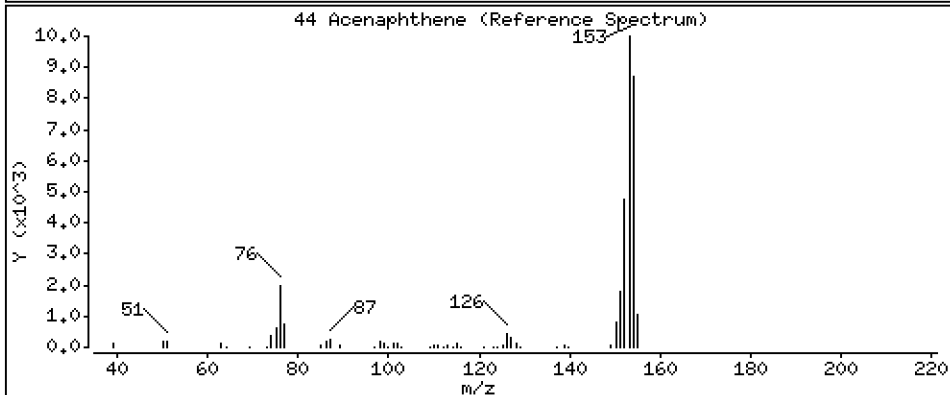
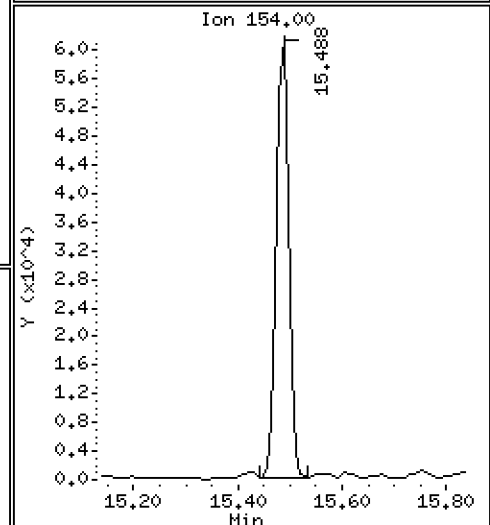
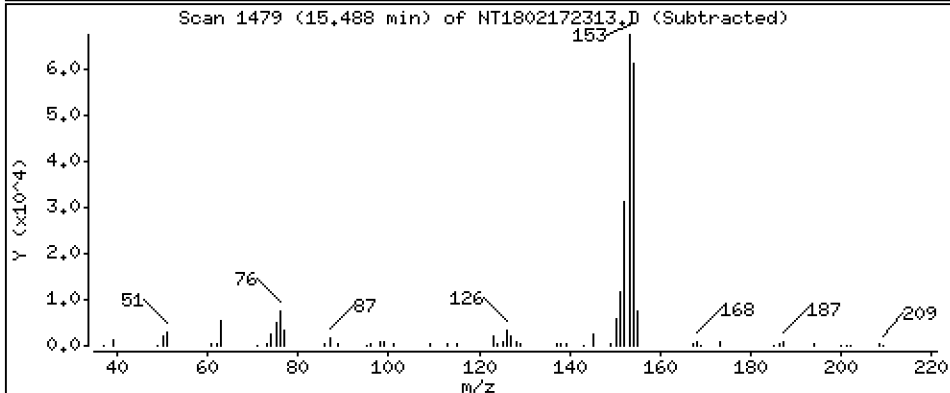
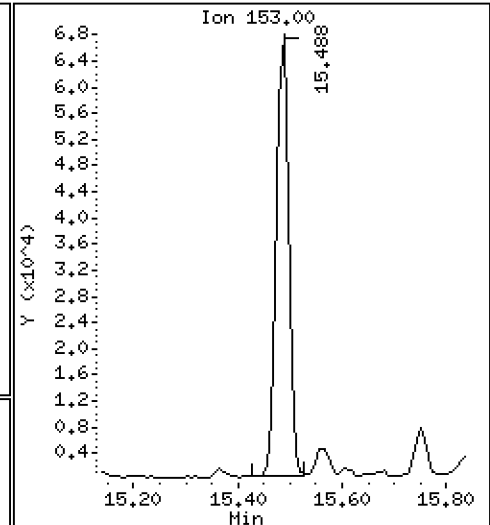
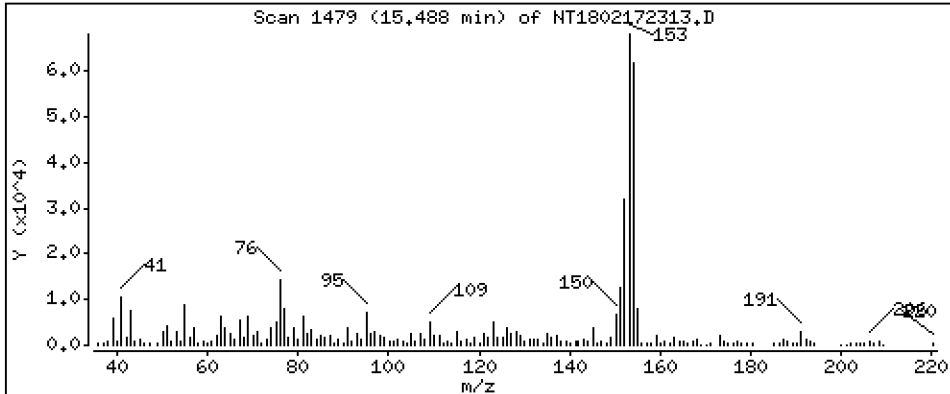
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,7701 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

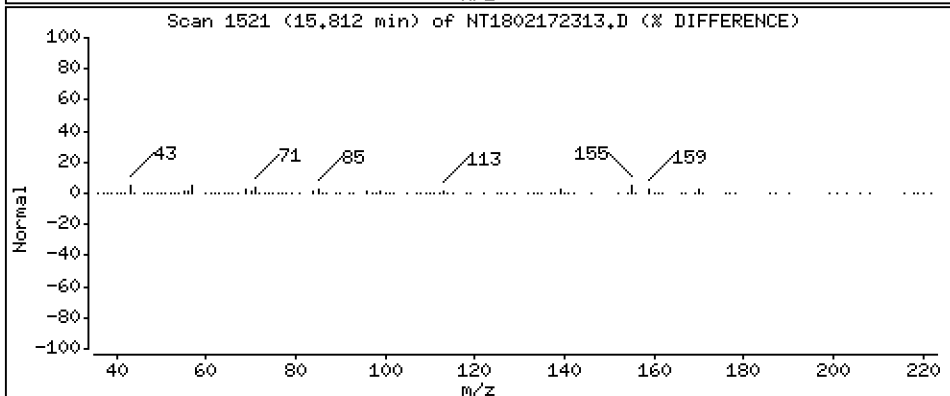
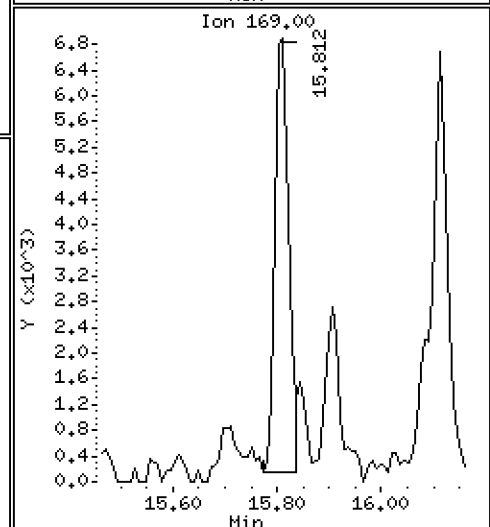
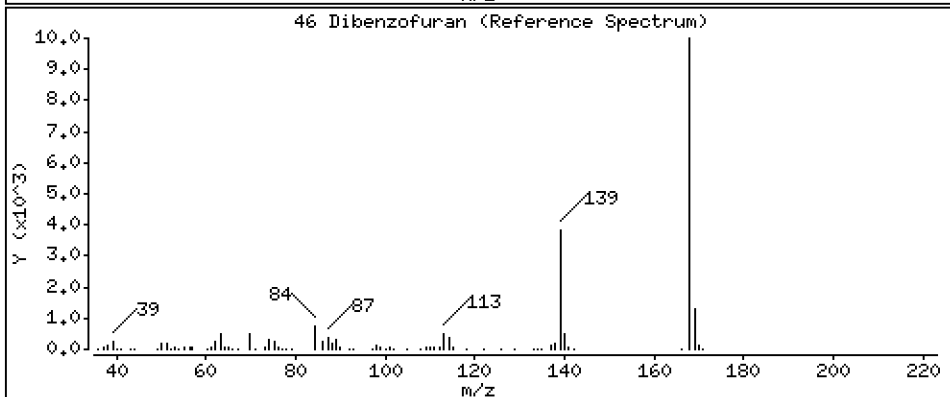
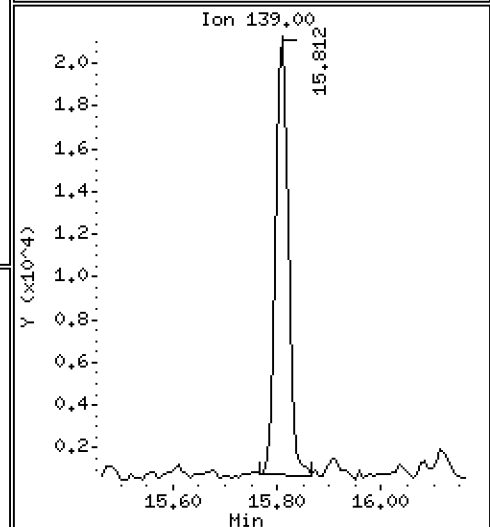
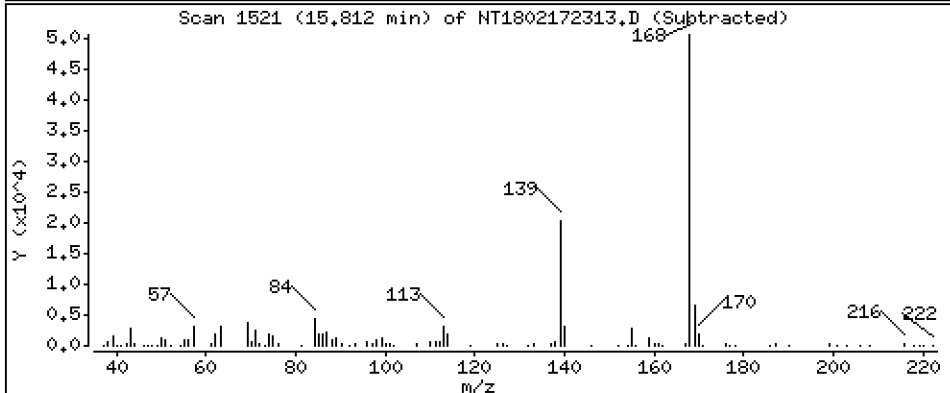
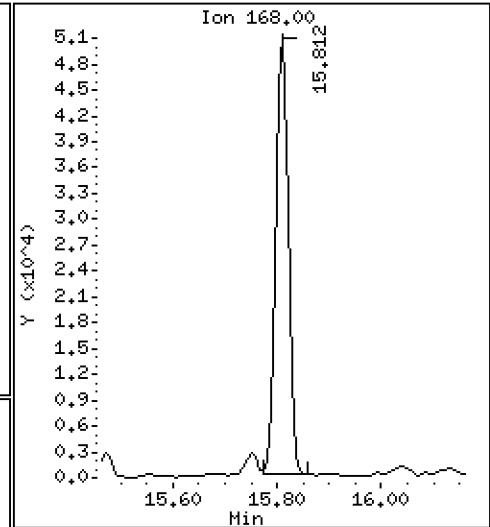
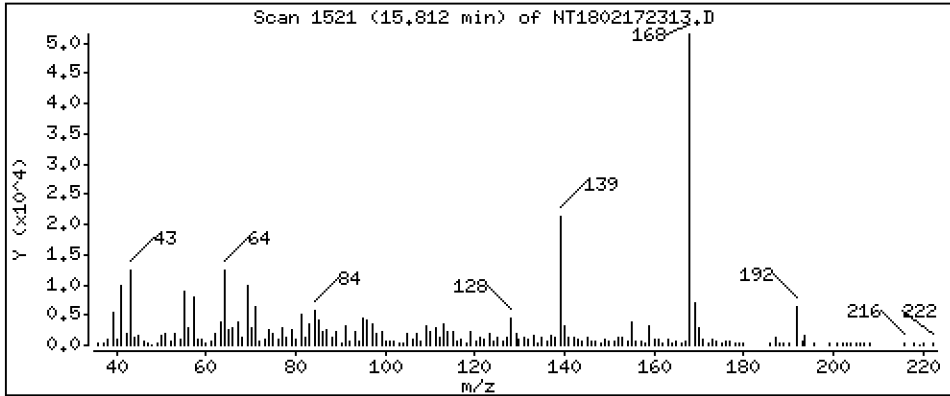
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,4085 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

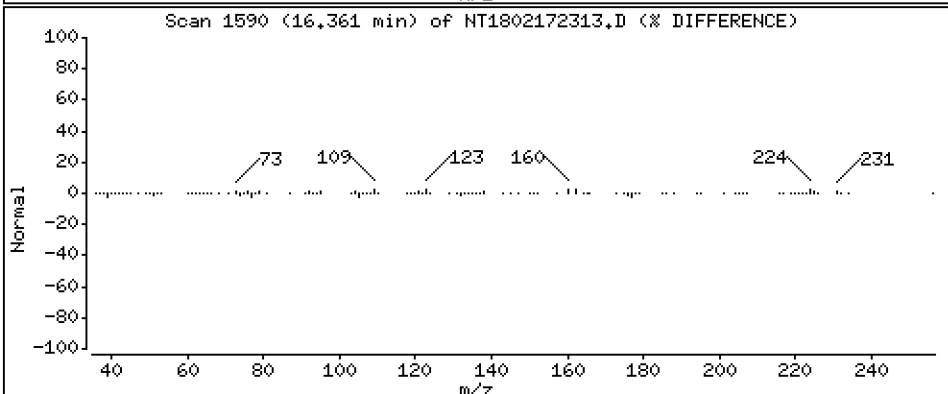
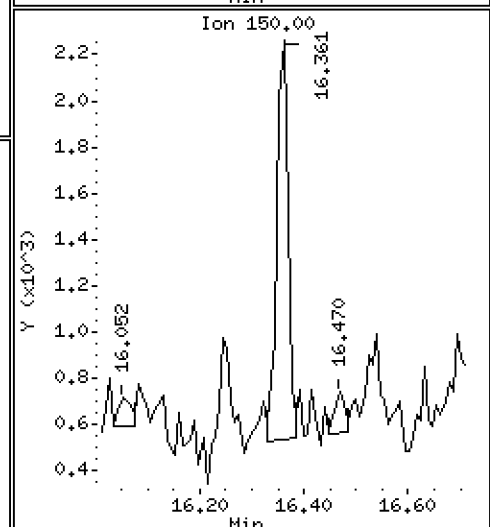
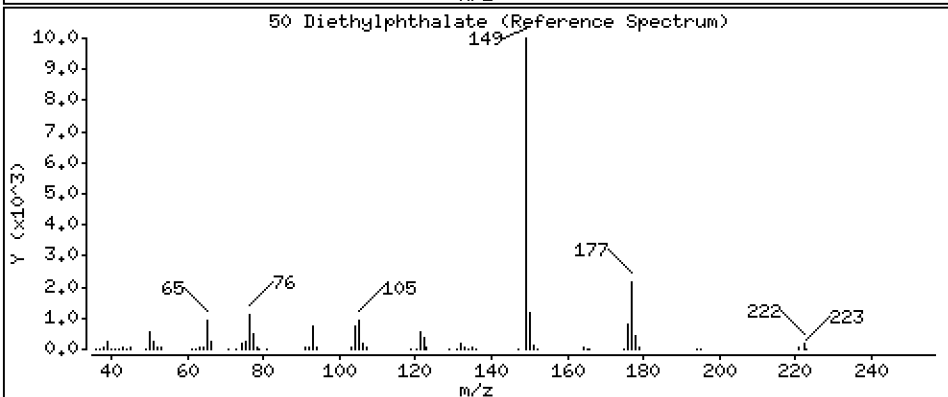
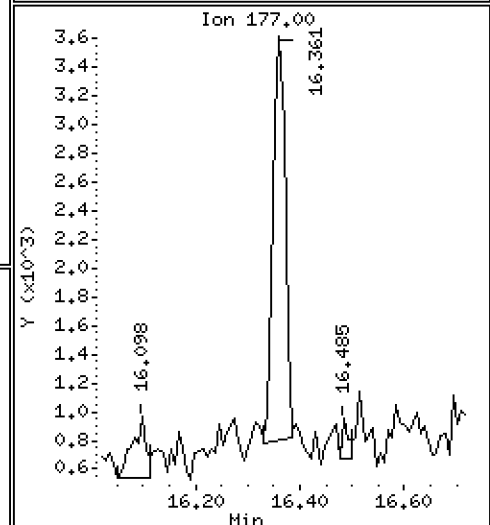
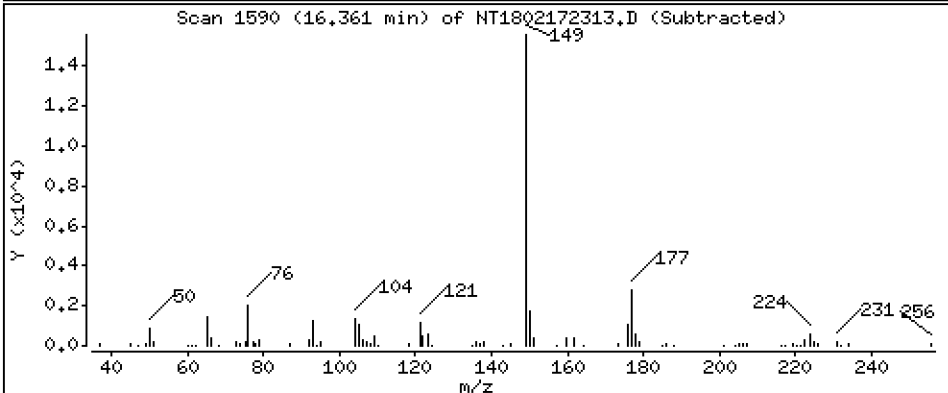
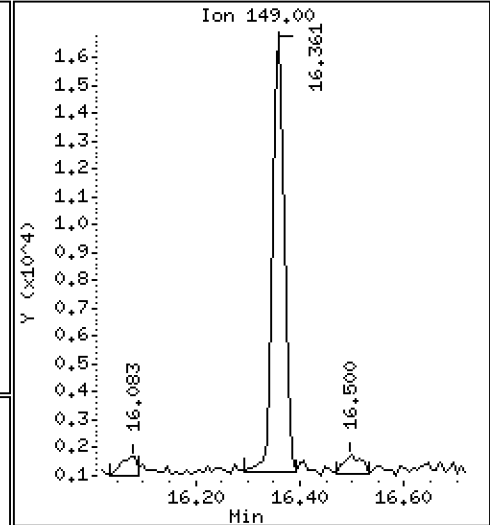
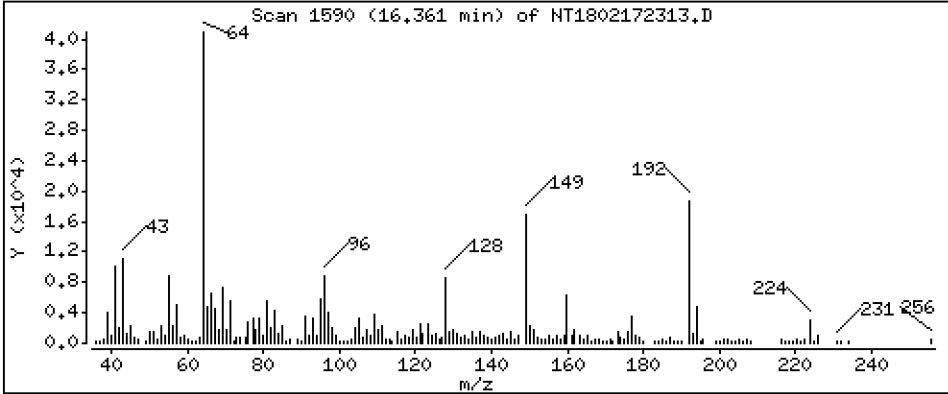
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.1891 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18,i

Sample Info: 23A0032-05

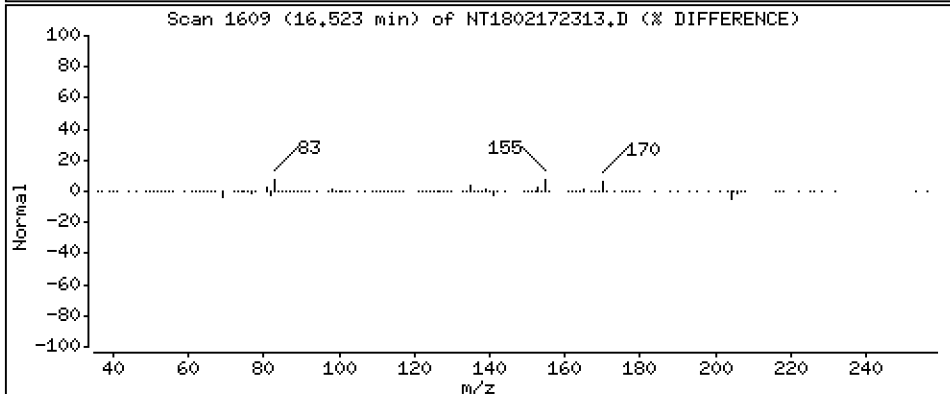
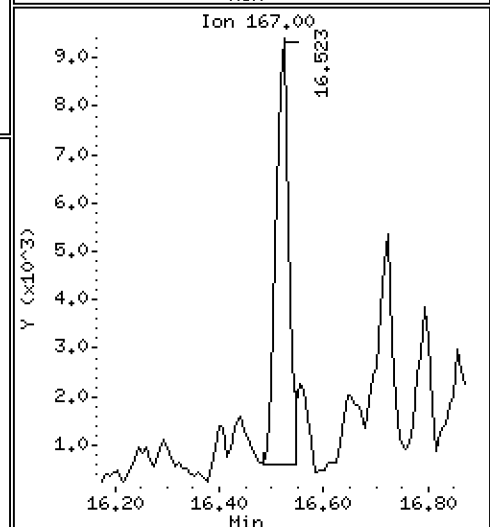
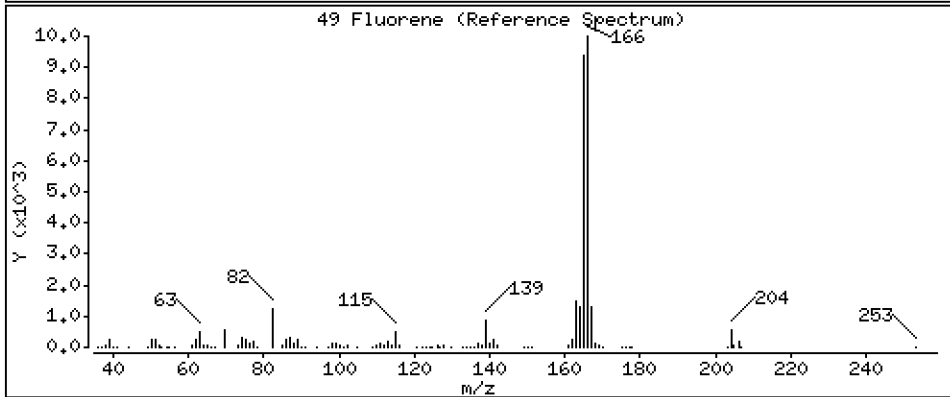
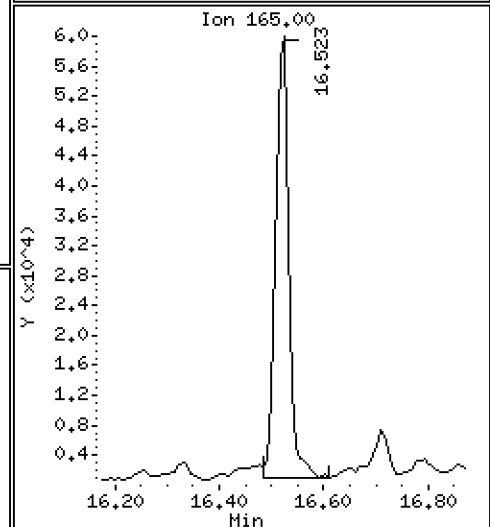
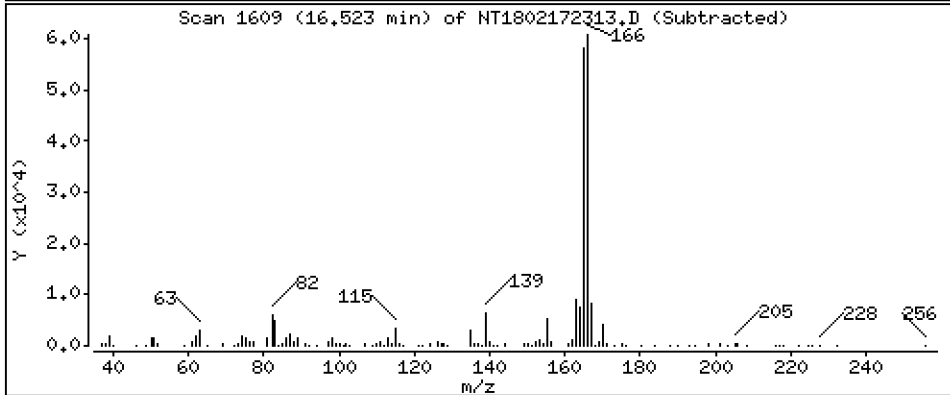
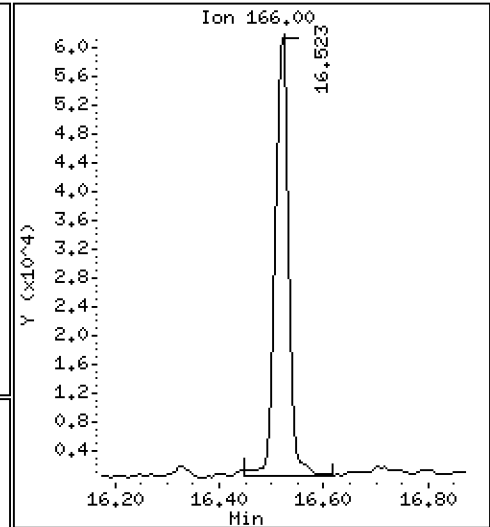
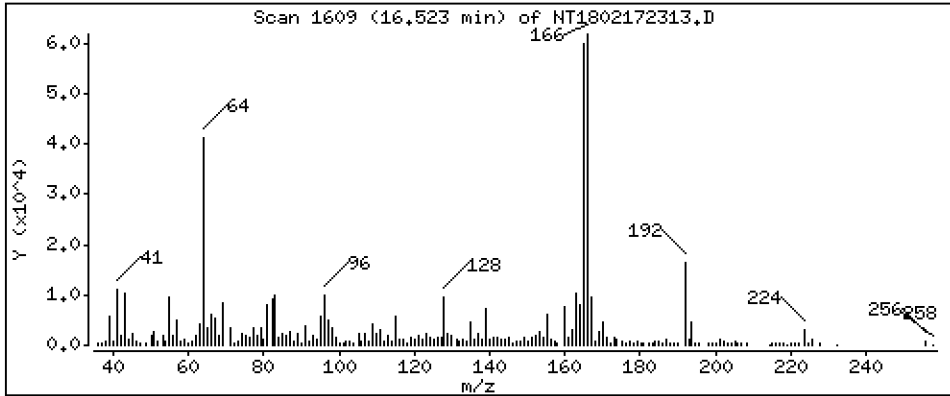
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,7414 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

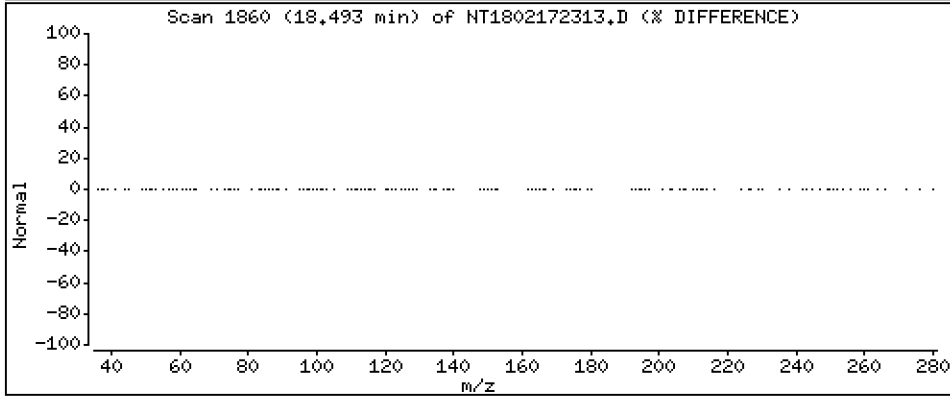
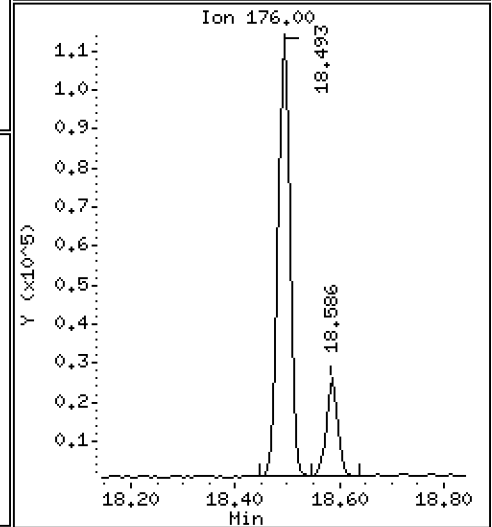
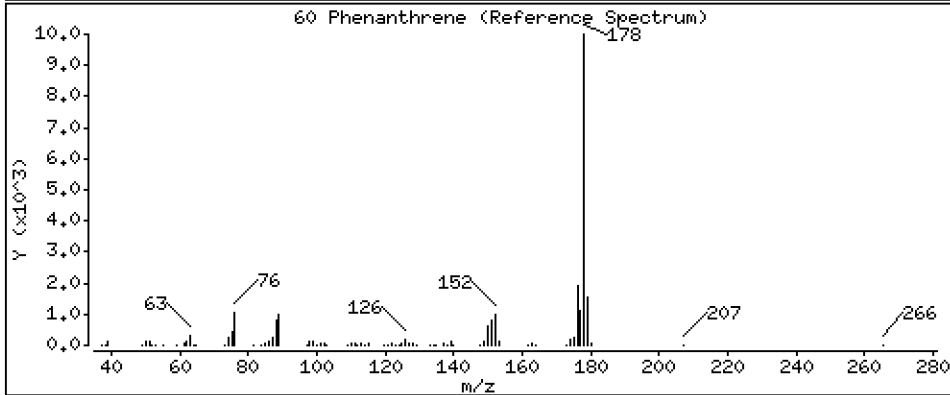
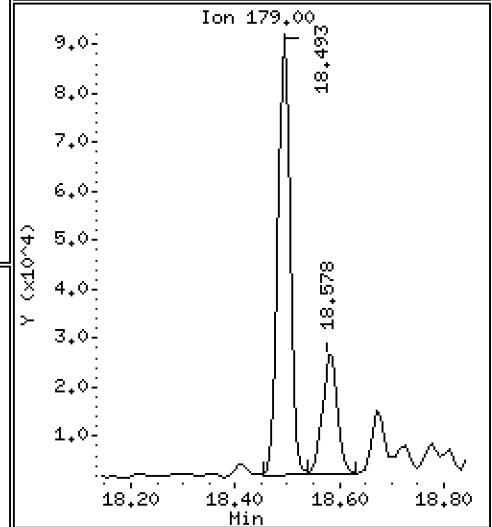
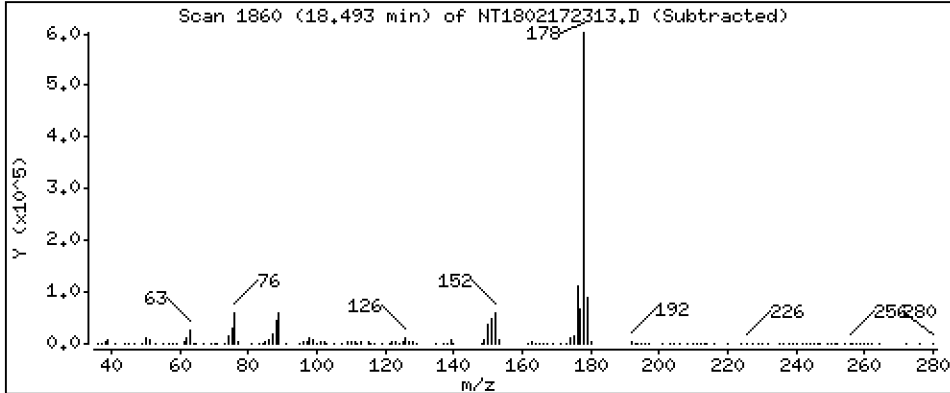
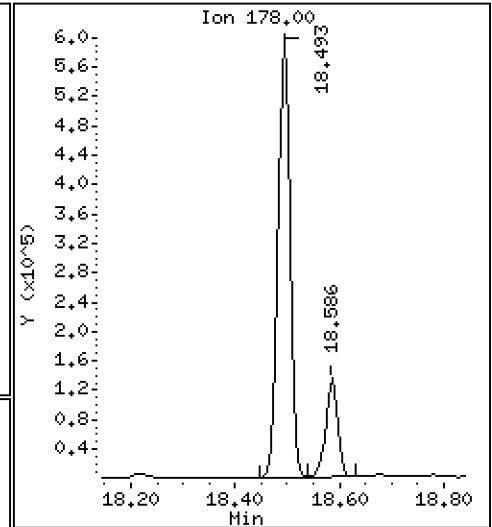
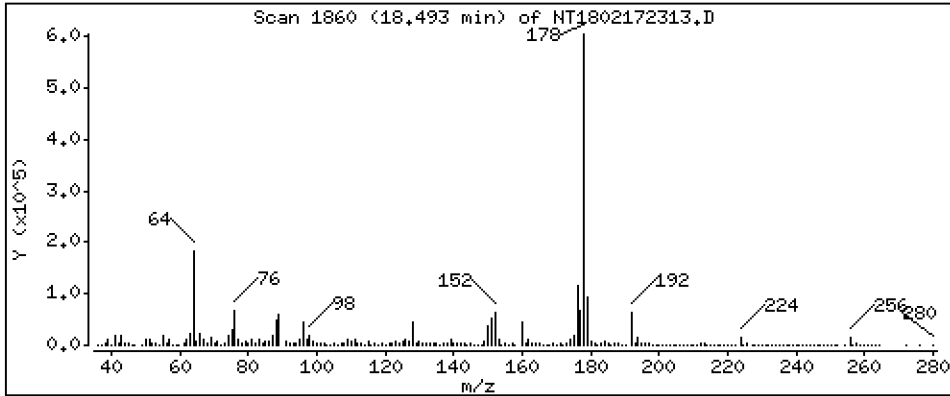
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 3,877 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

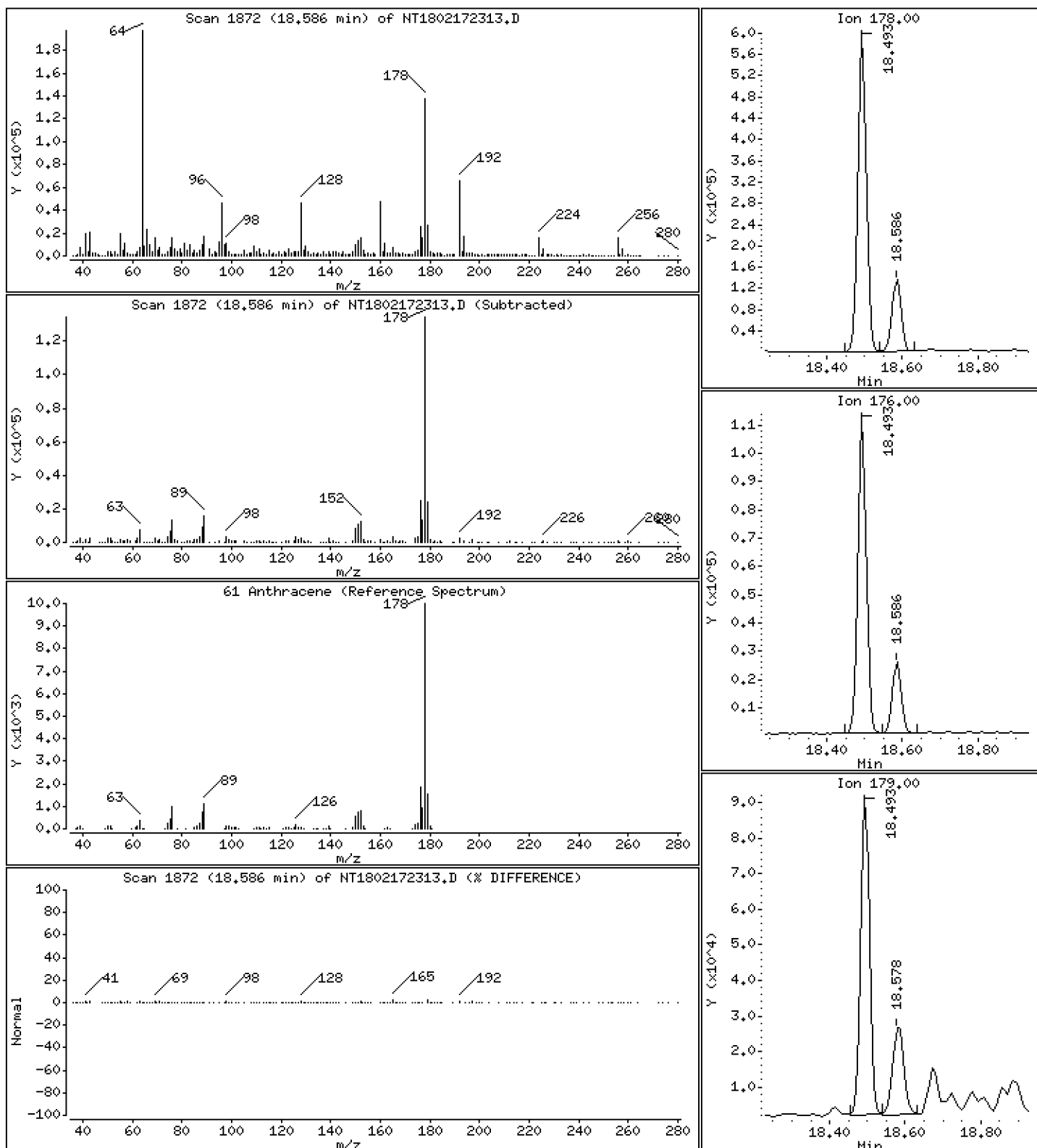
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 1,032 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

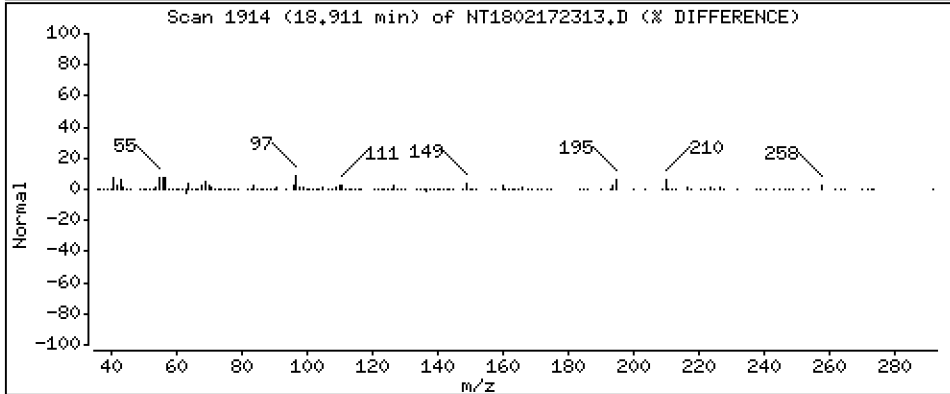
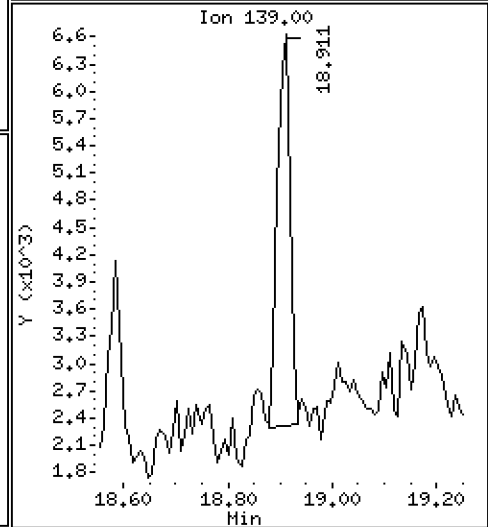
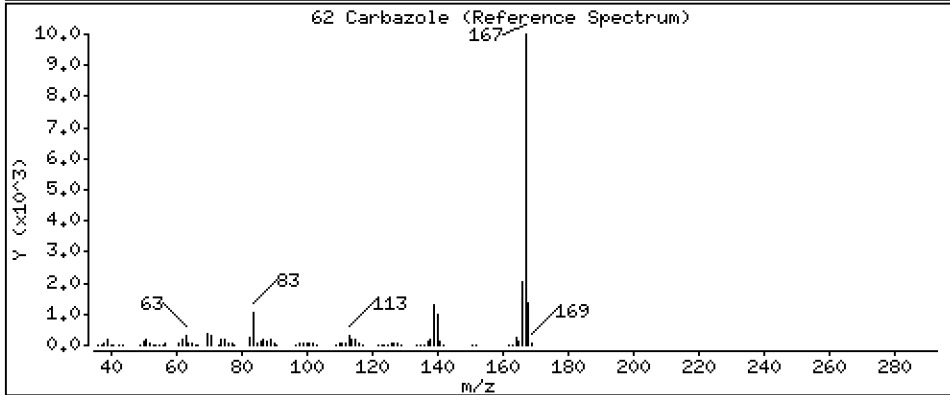
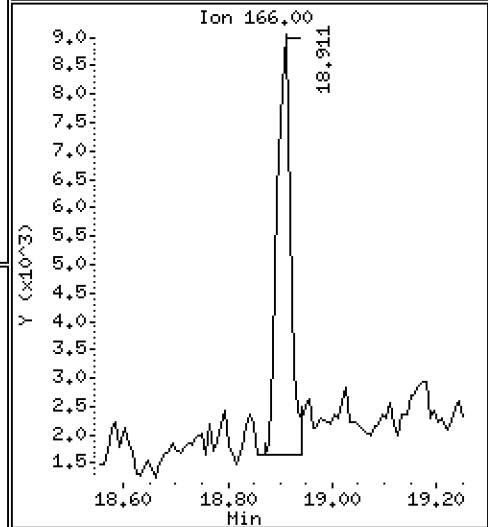
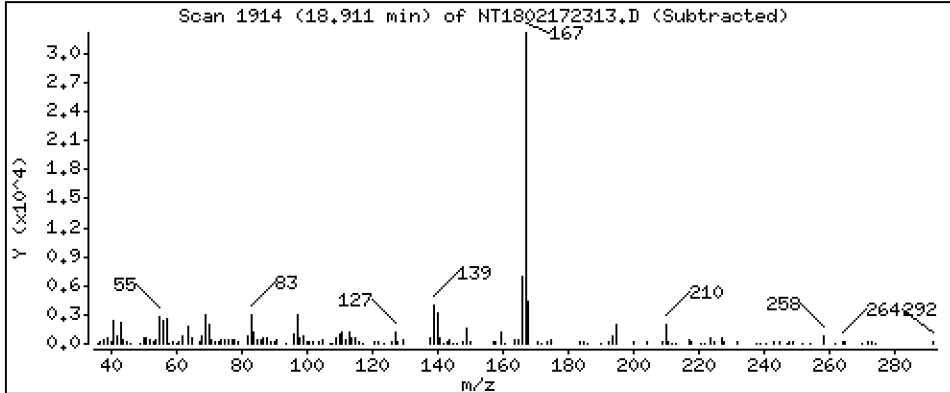
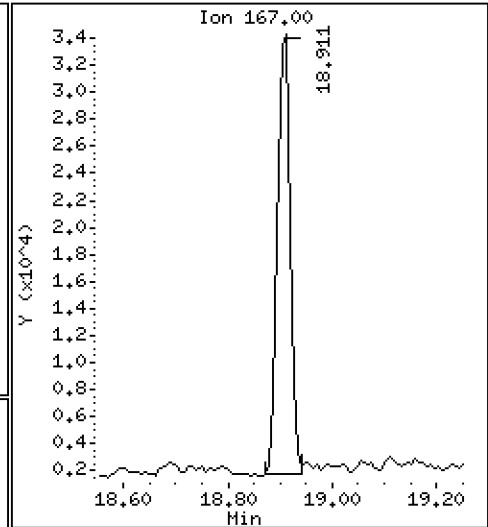
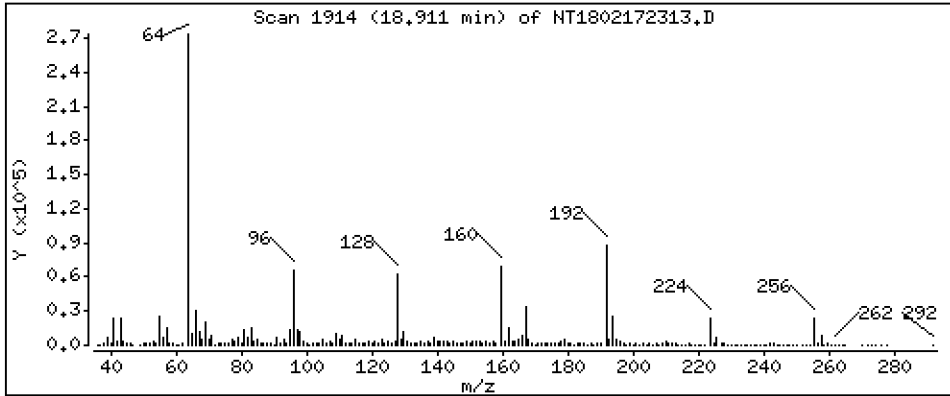
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

62 Carbazole

Concentration: 0.2555 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

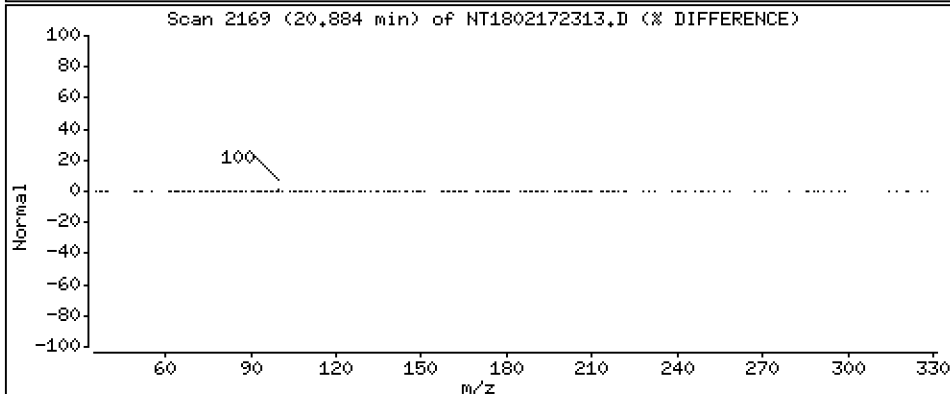
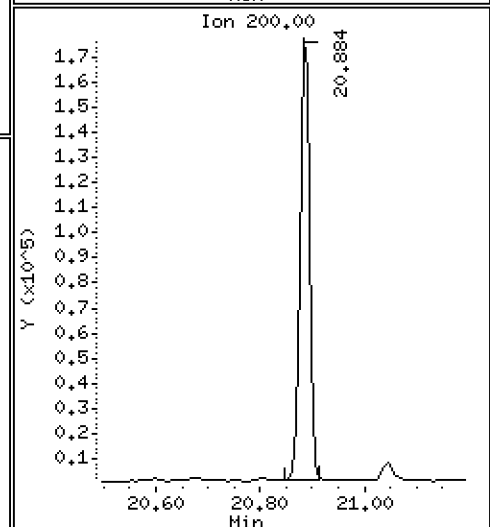
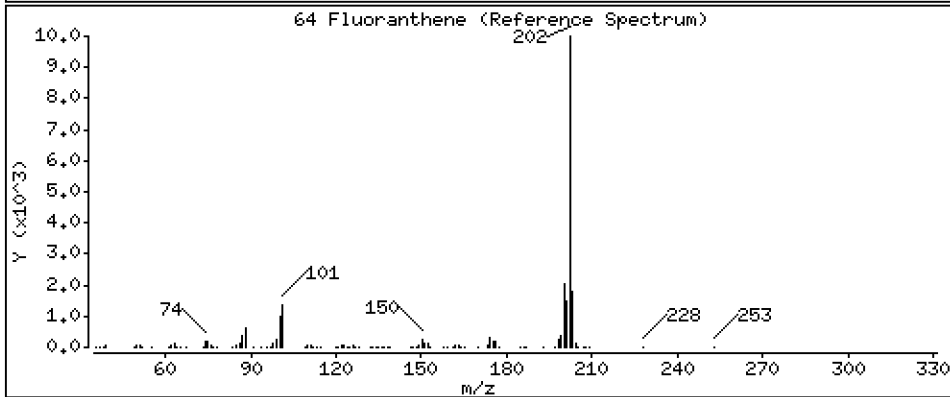
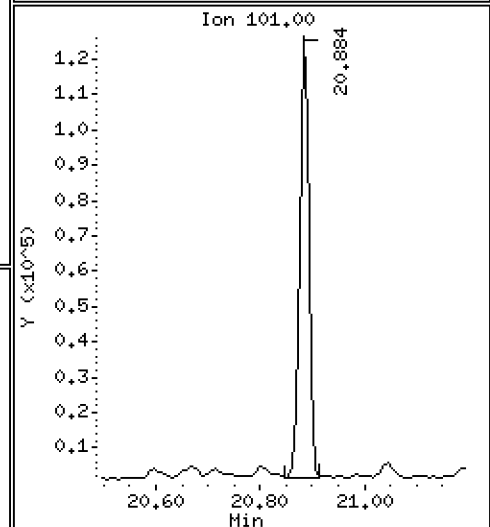
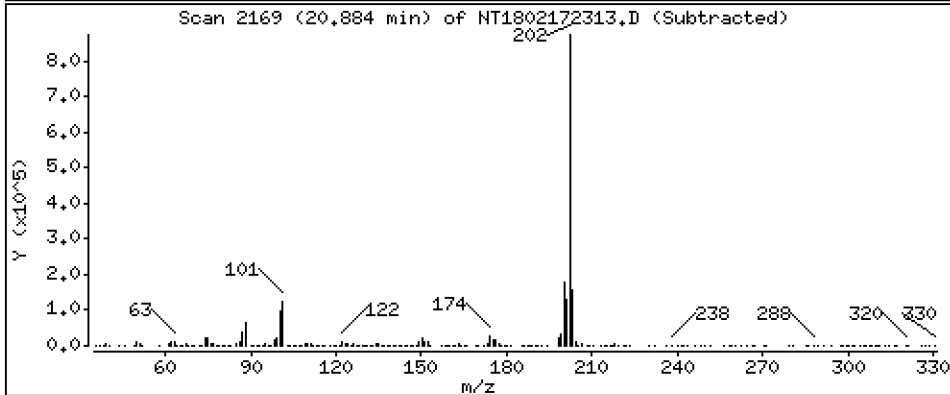
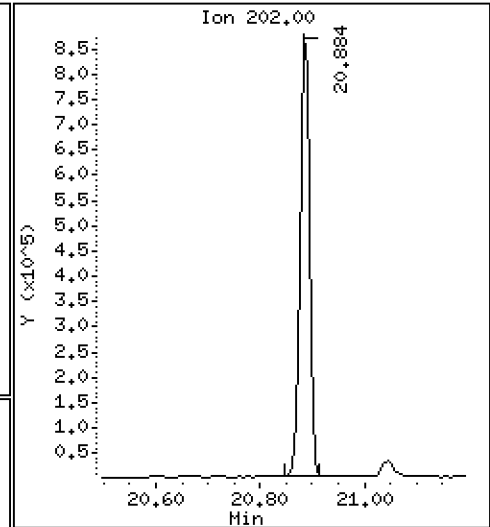
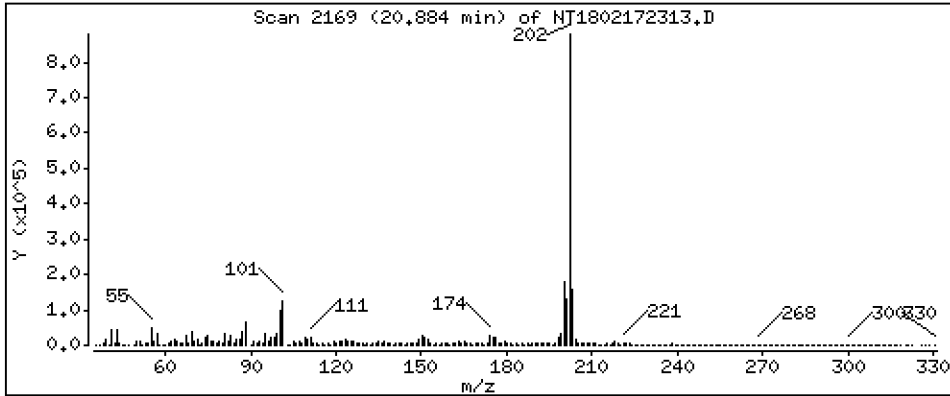
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,305 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

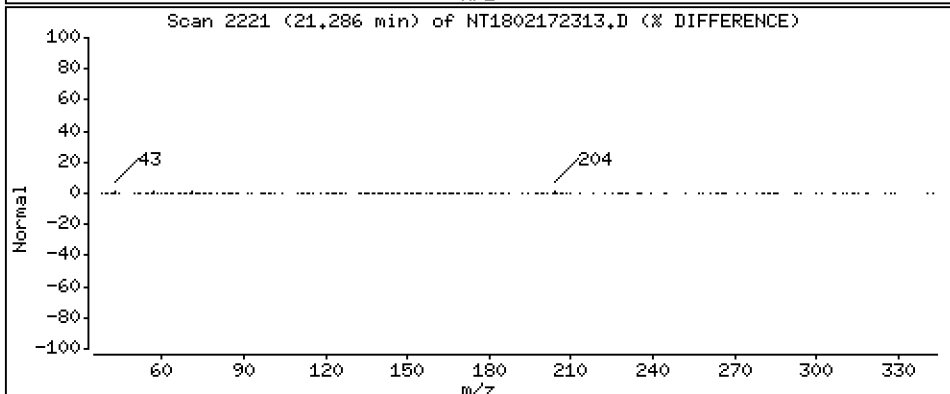
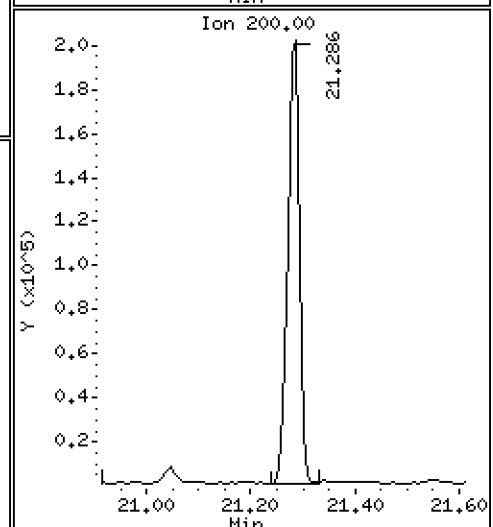
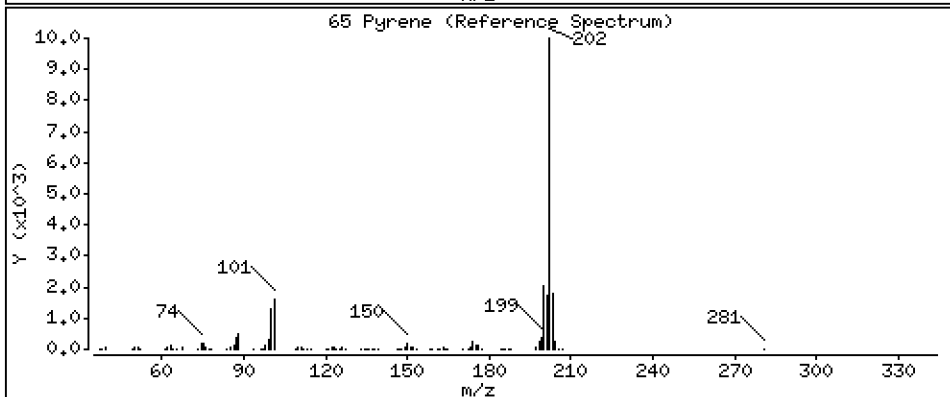
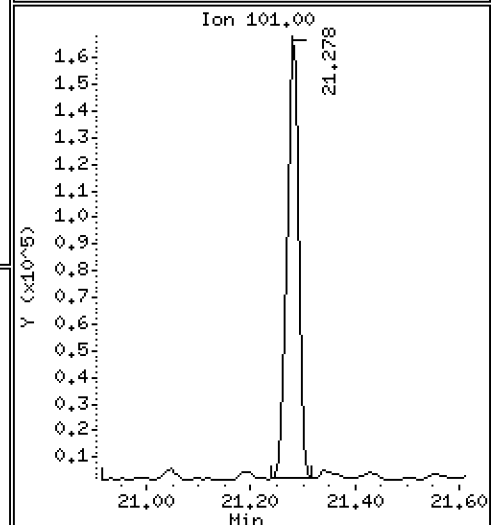
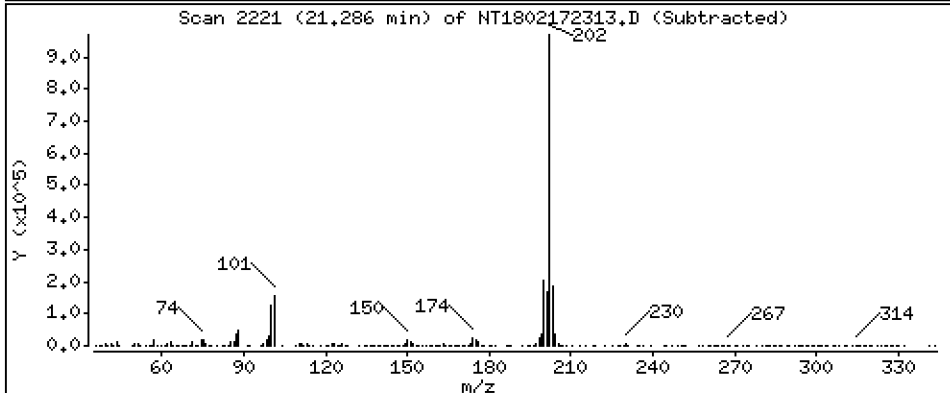
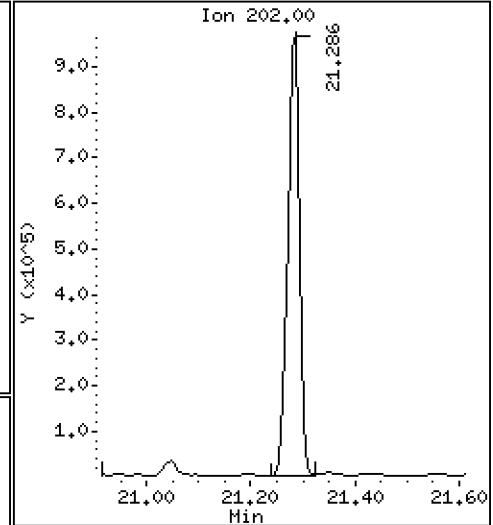
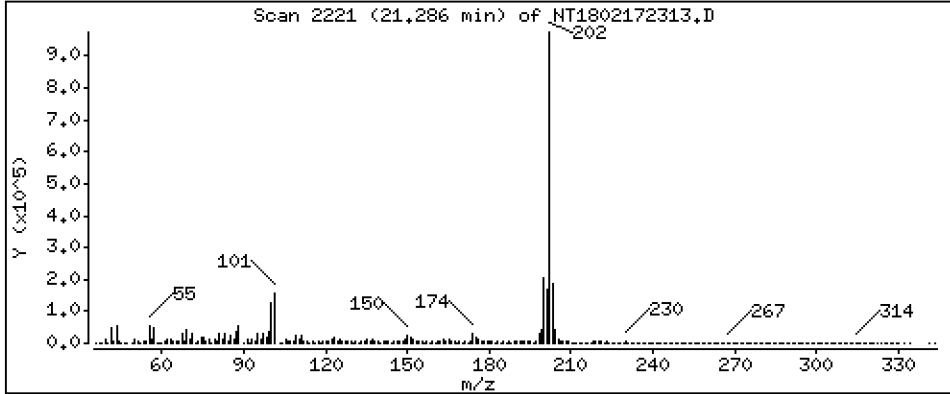
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 5,274 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

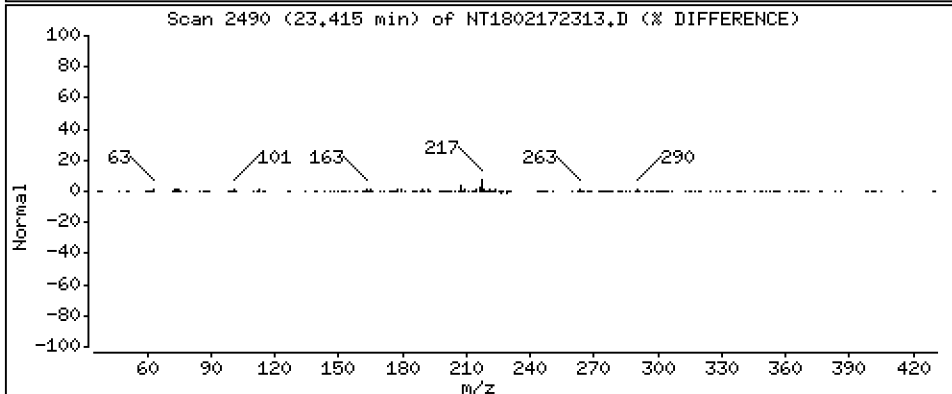
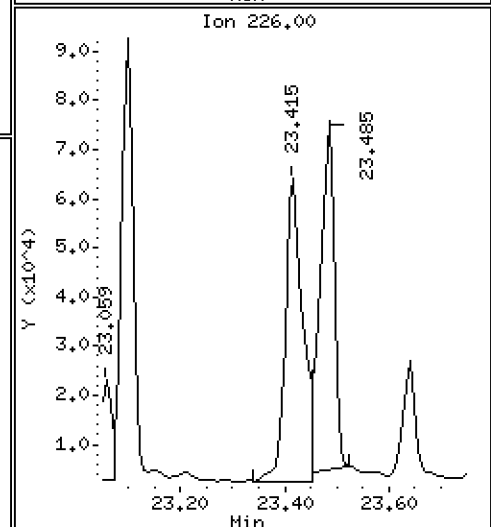
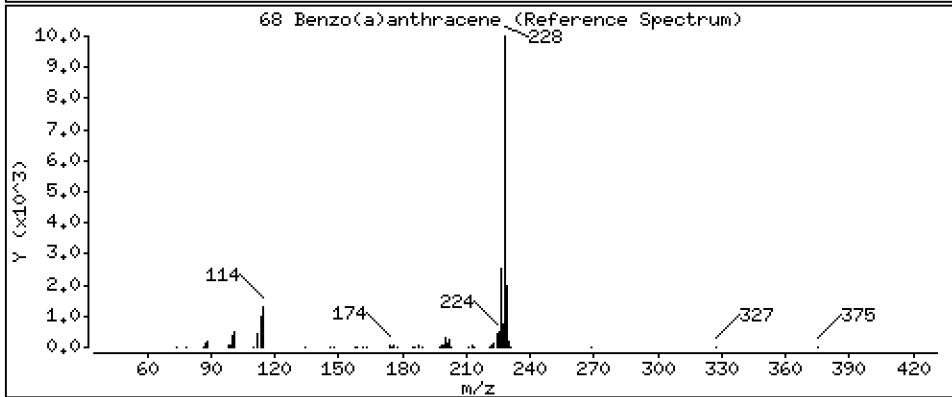
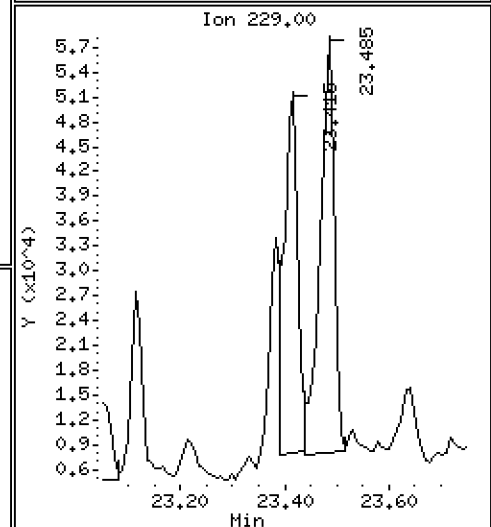
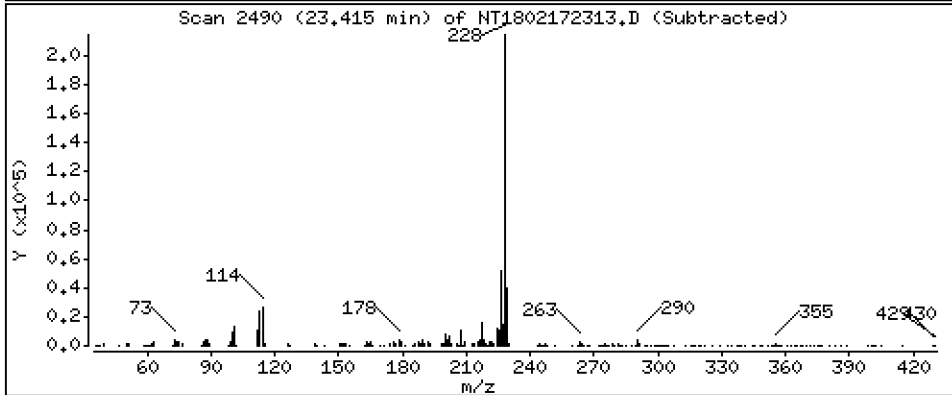
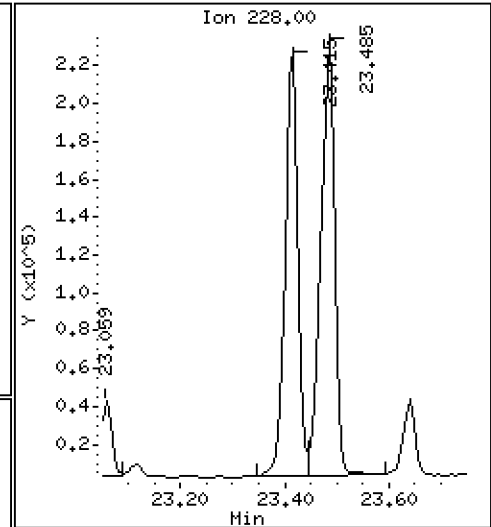
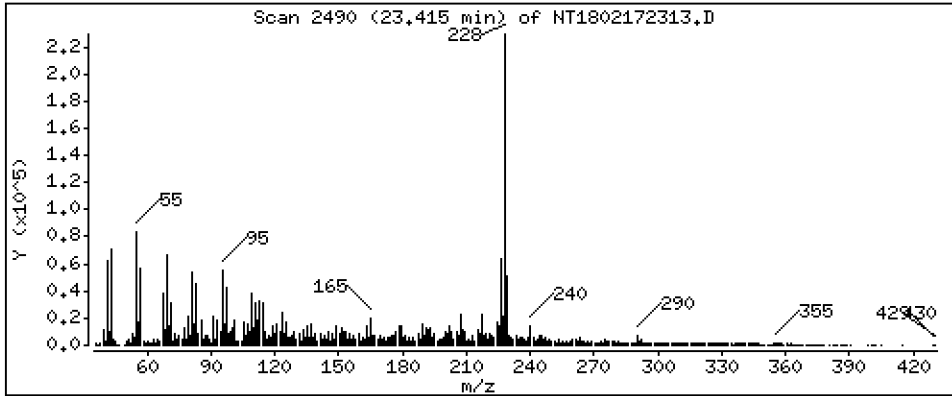
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 1,366 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

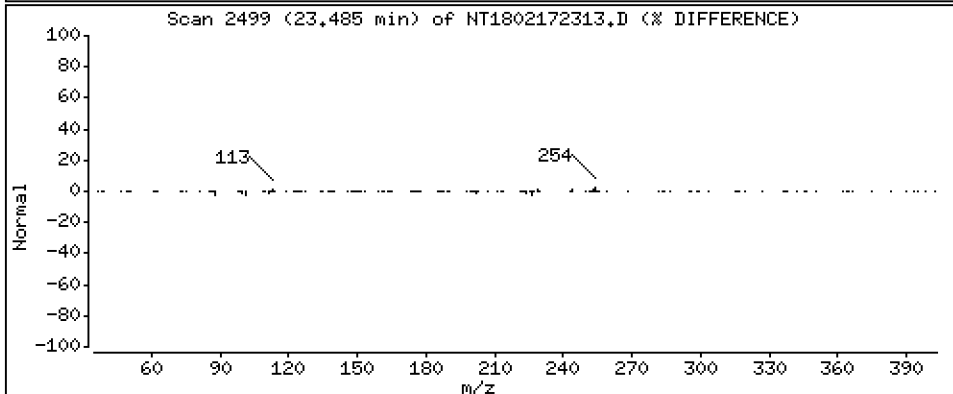
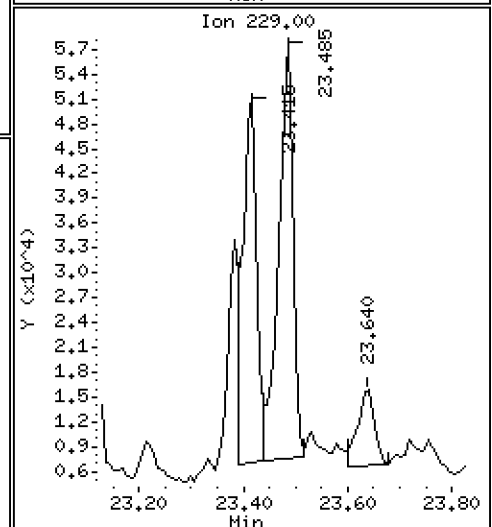
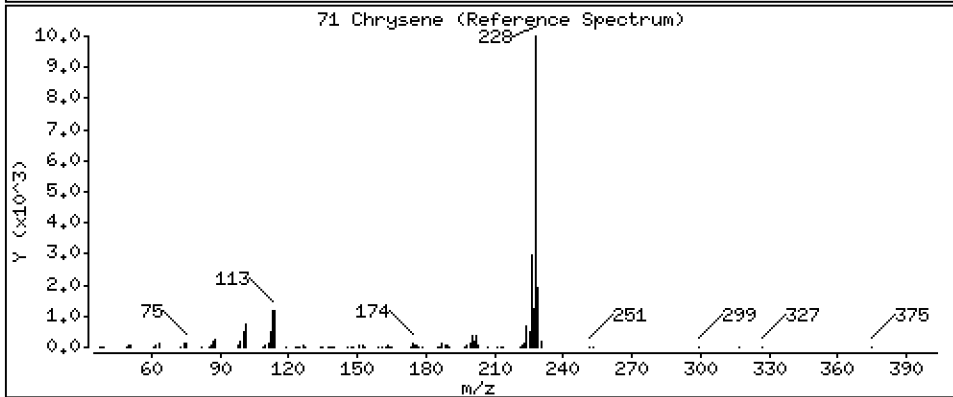
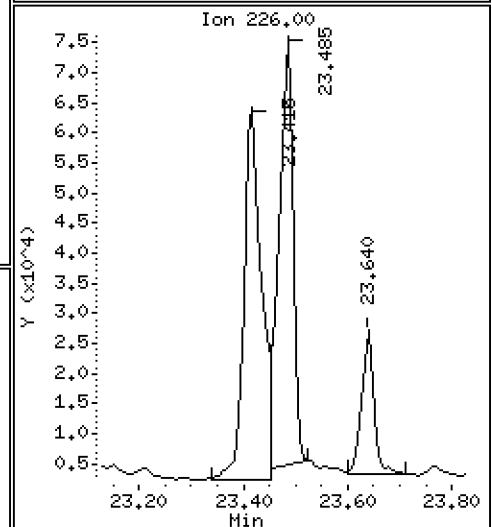
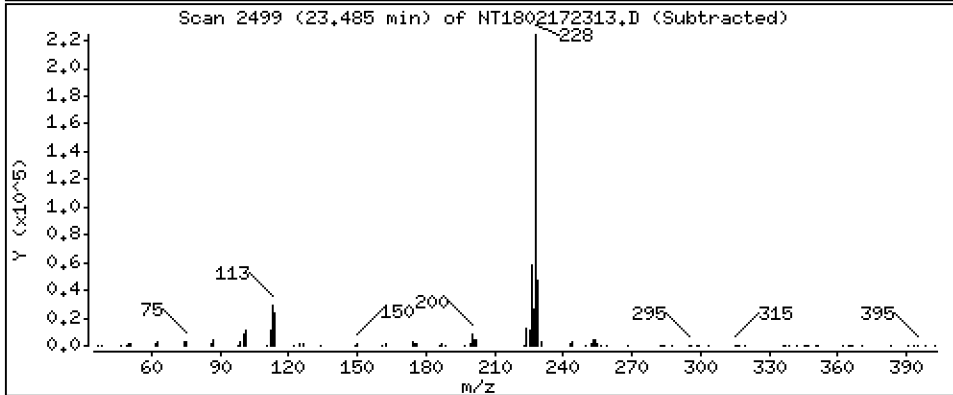
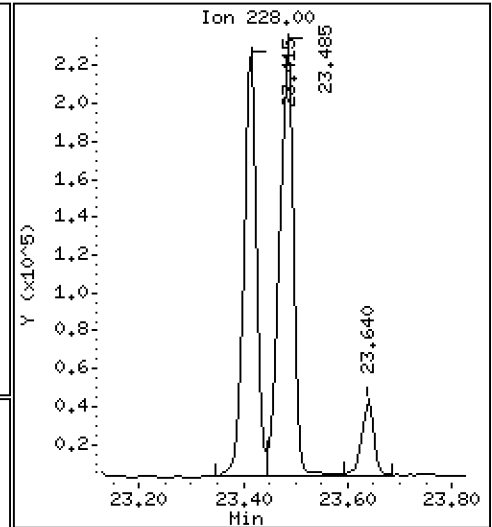
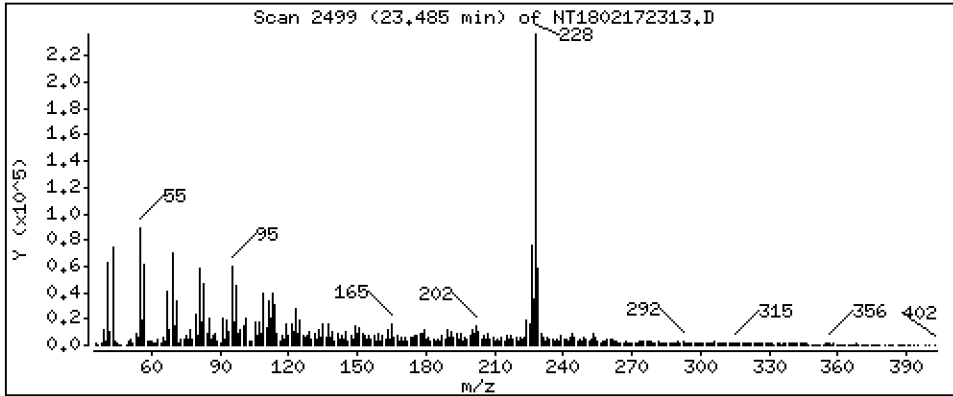
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 1,402 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

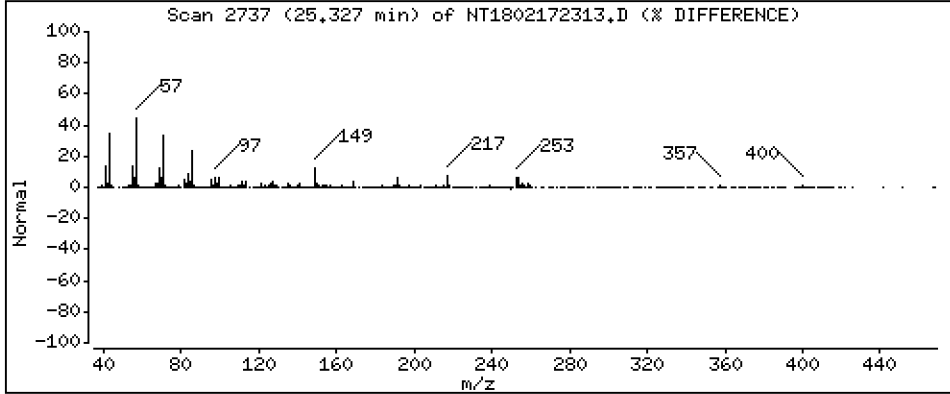
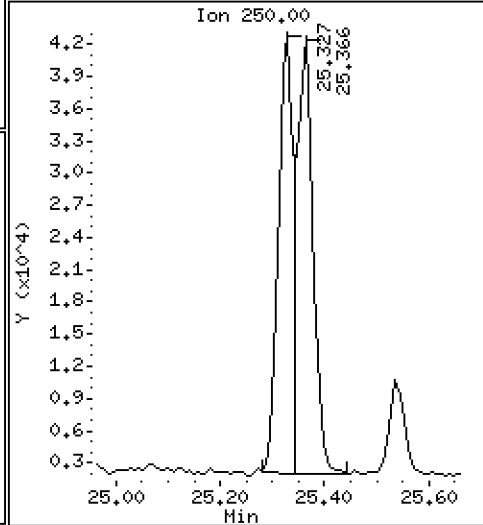
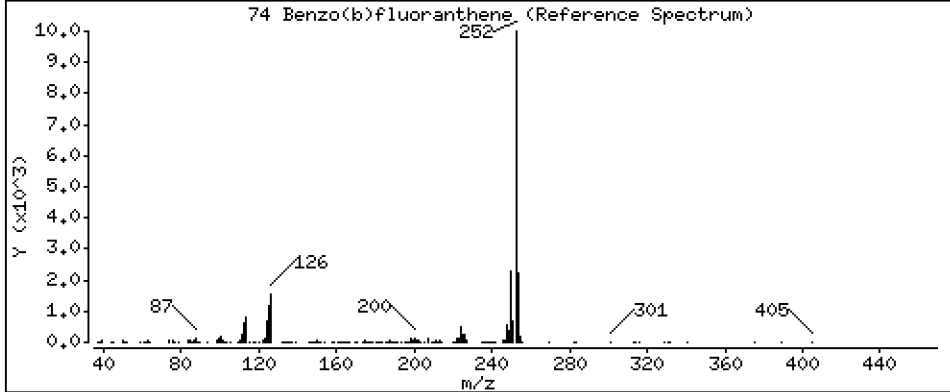
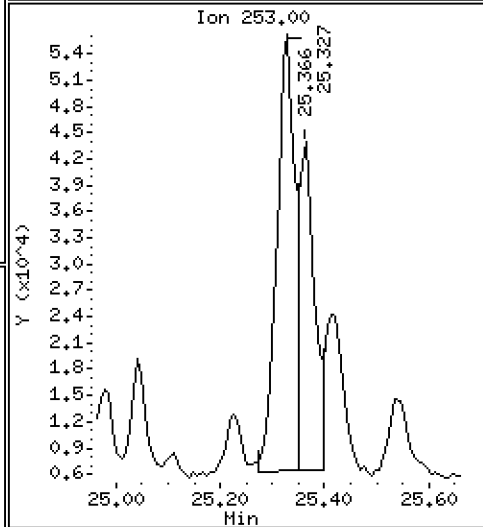
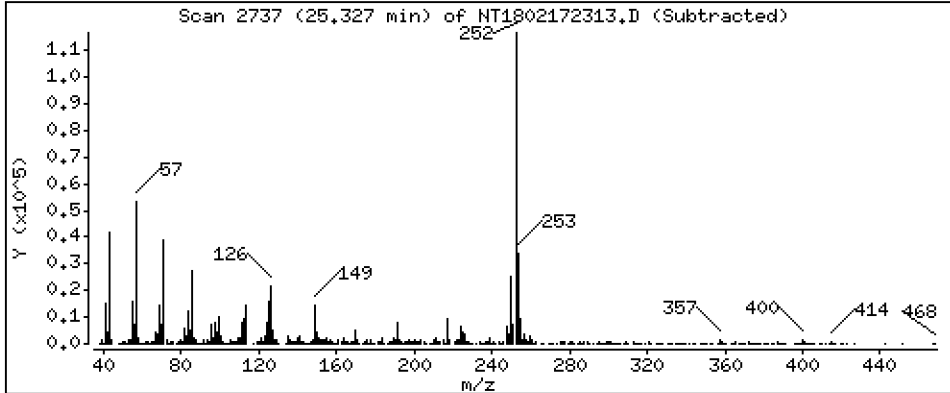
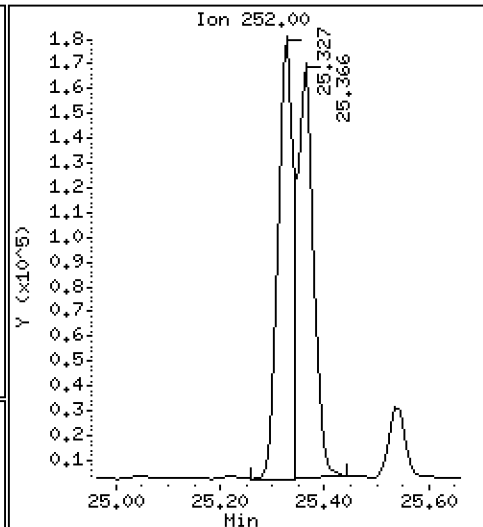
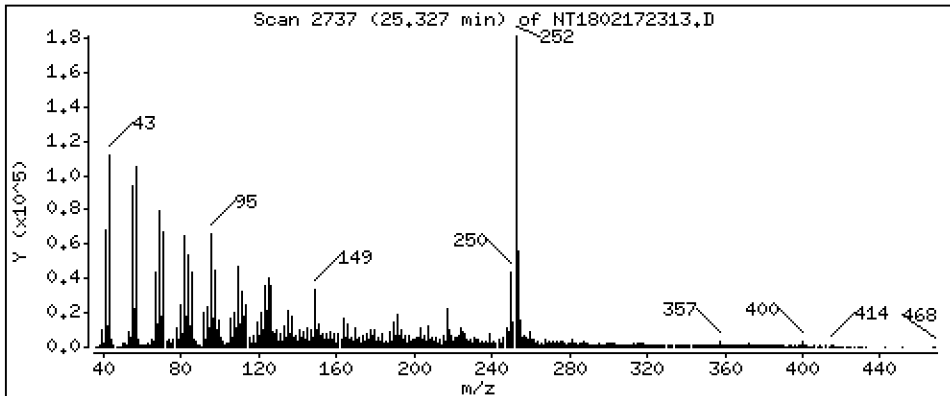
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 1,223 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

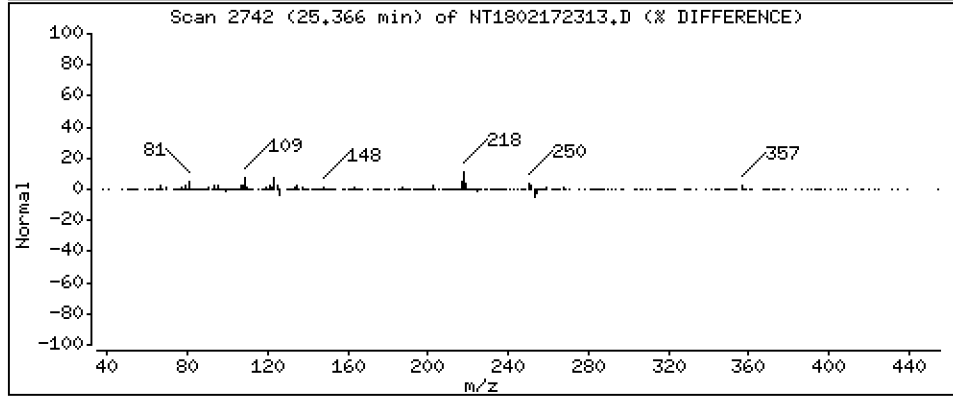
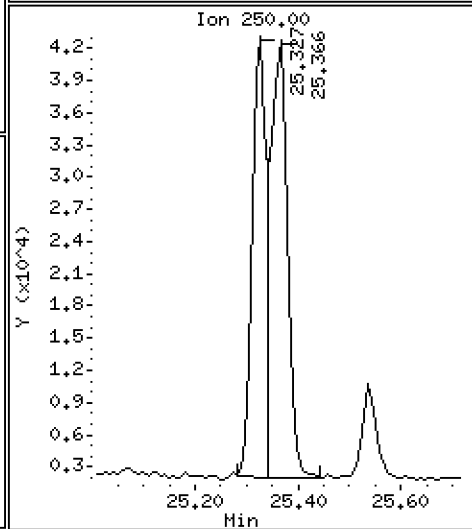
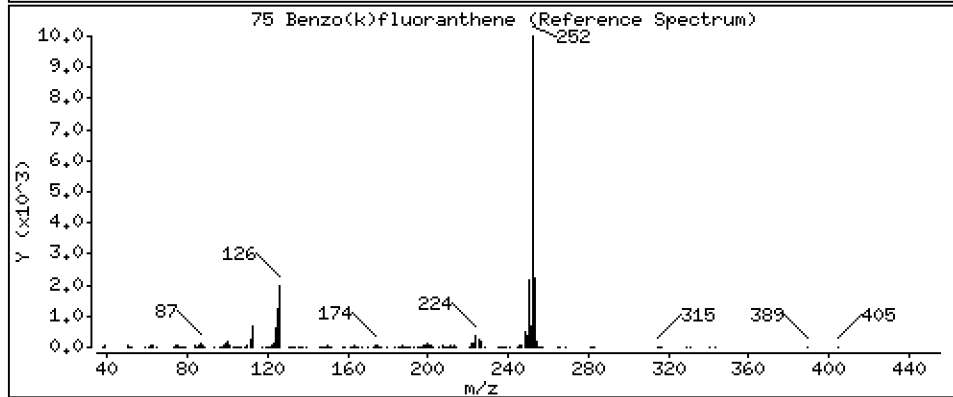
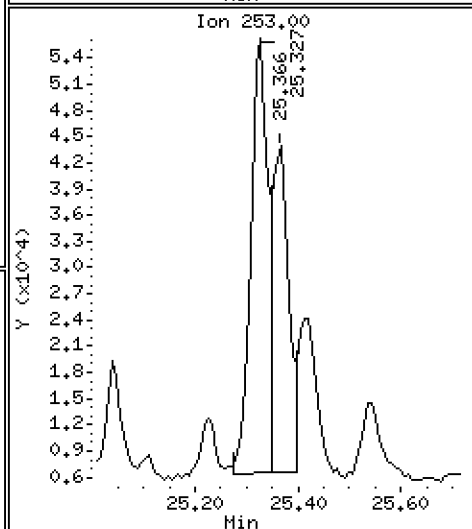
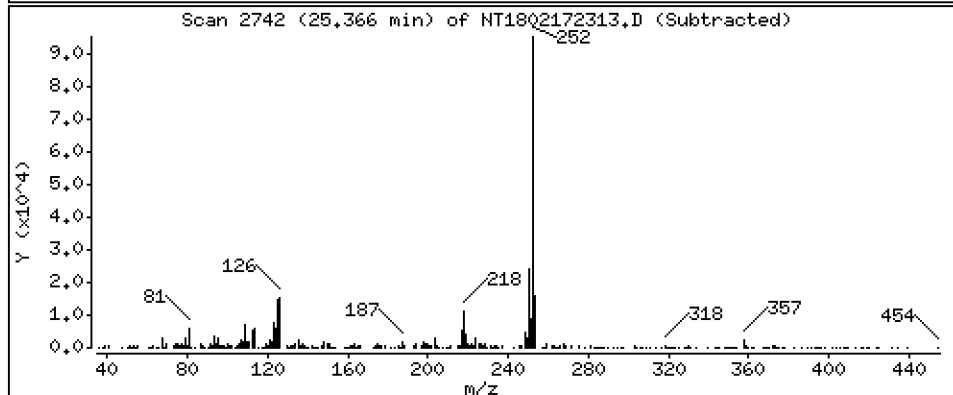
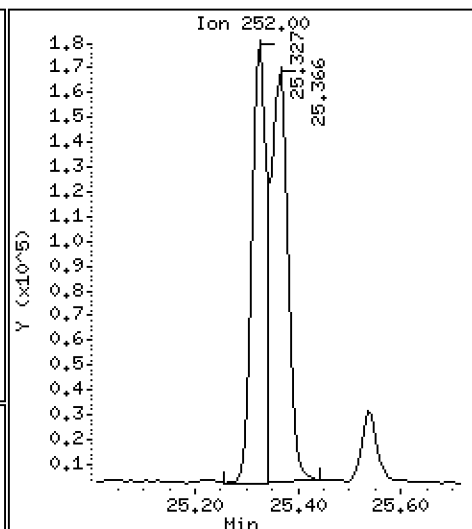
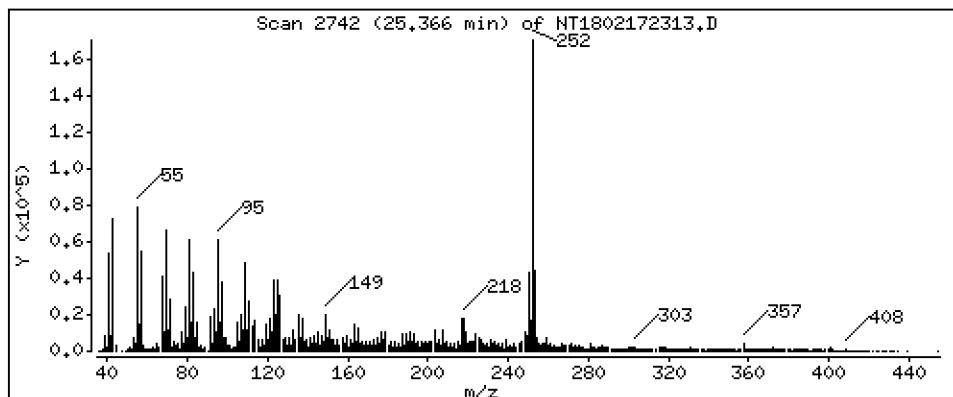
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 1,167 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

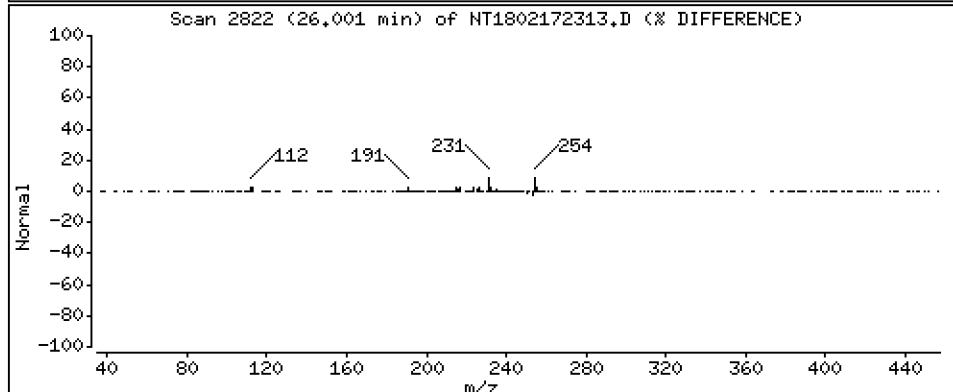
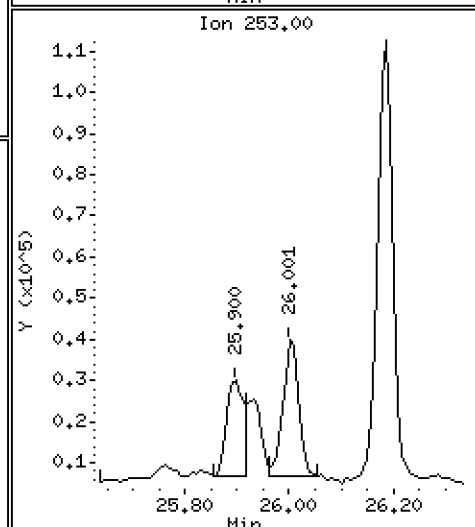
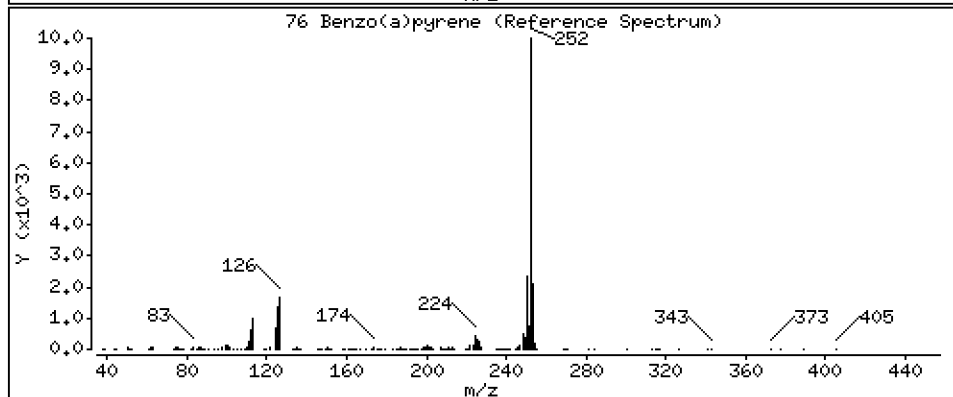
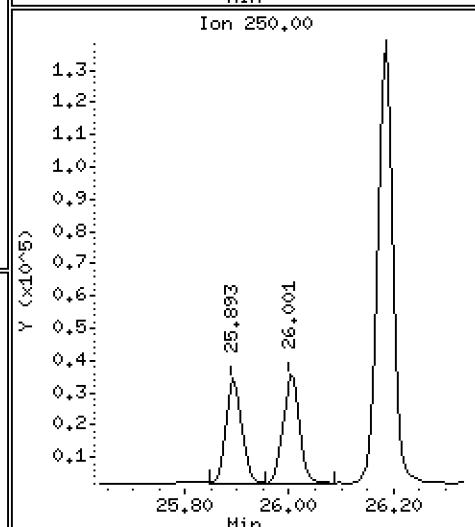
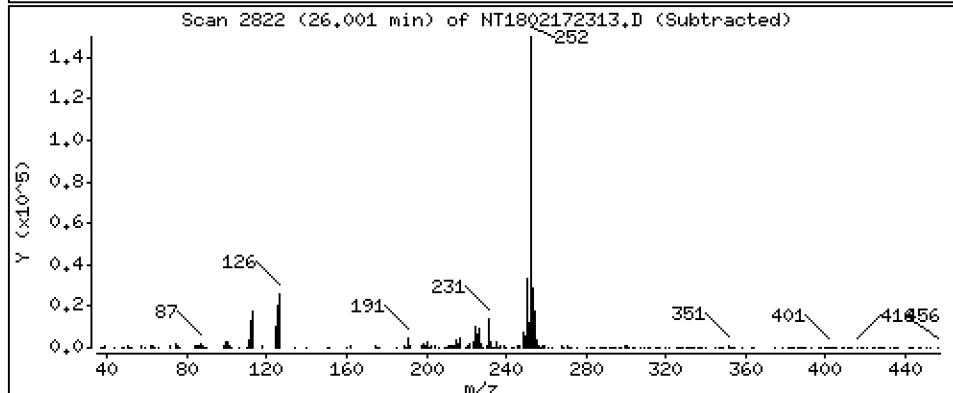
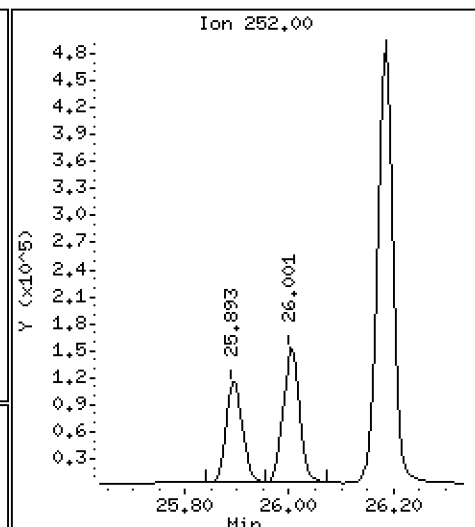
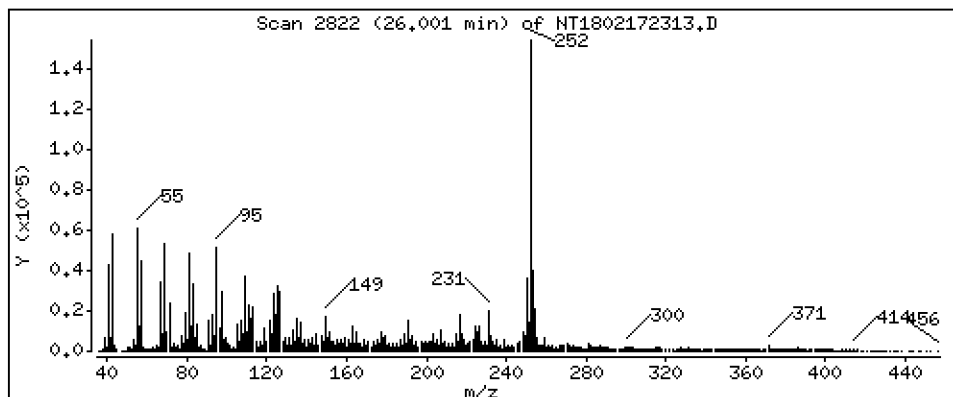
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 1,294 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

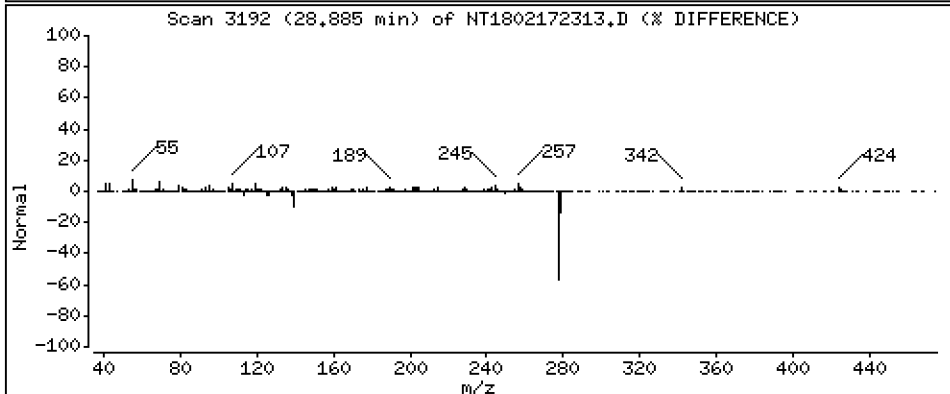
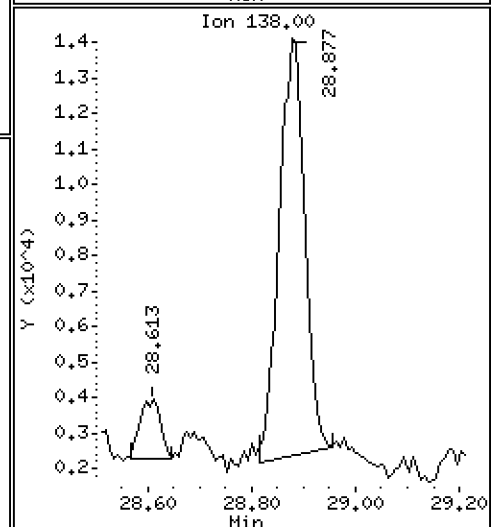
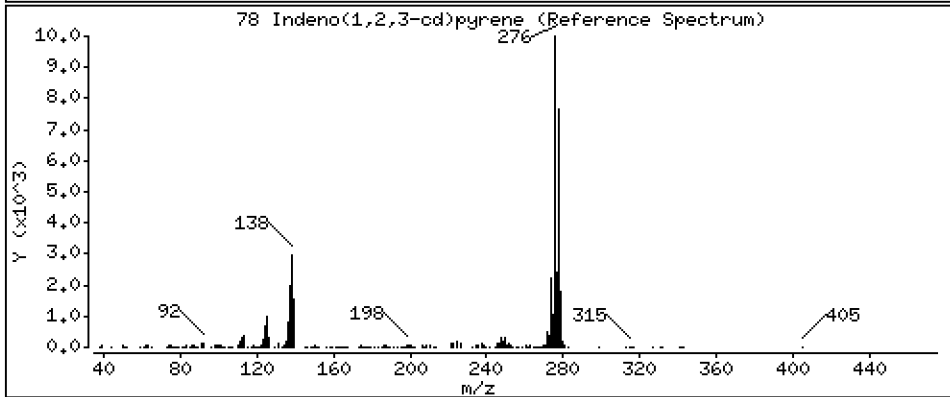
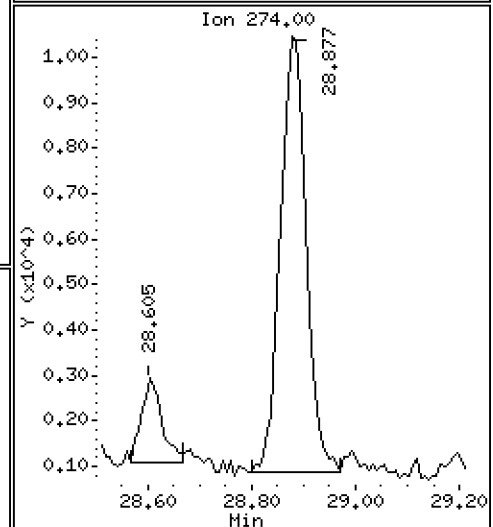
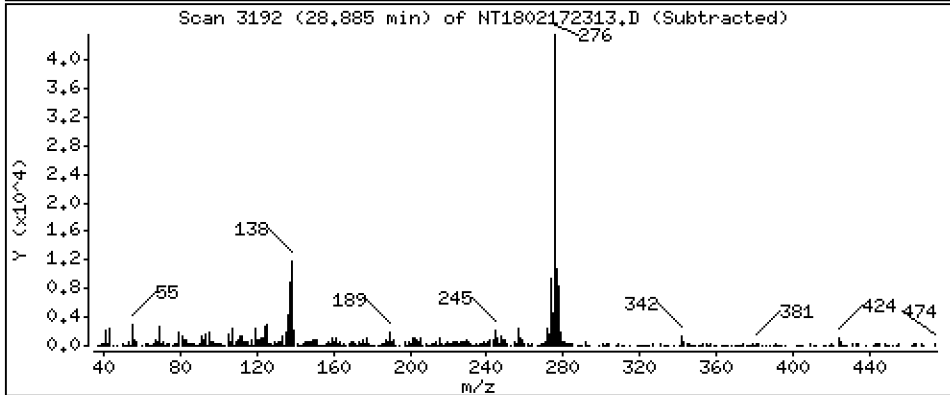
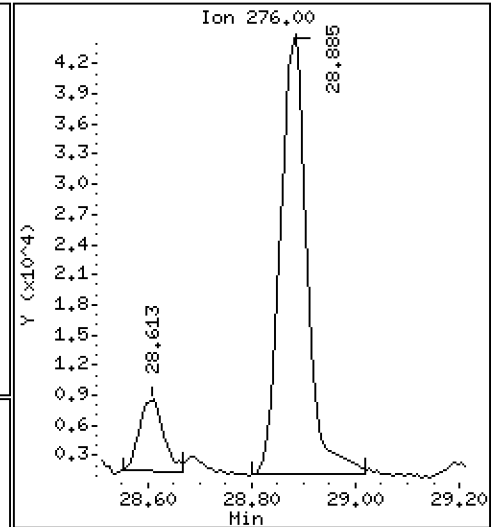
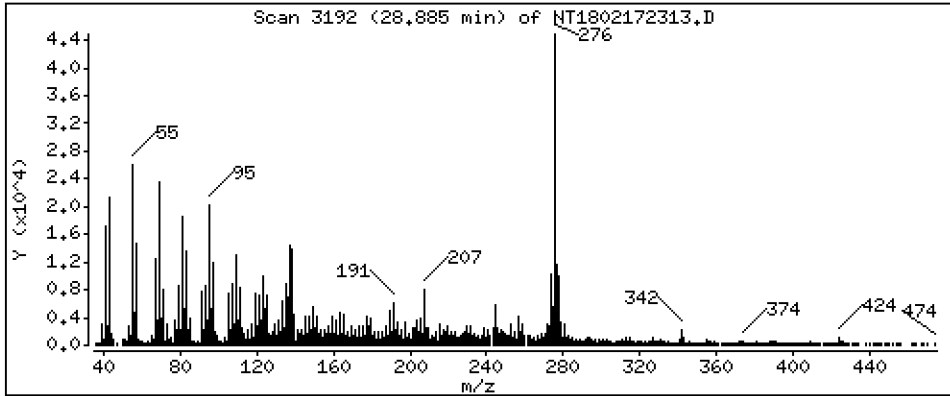
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 0,6667 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

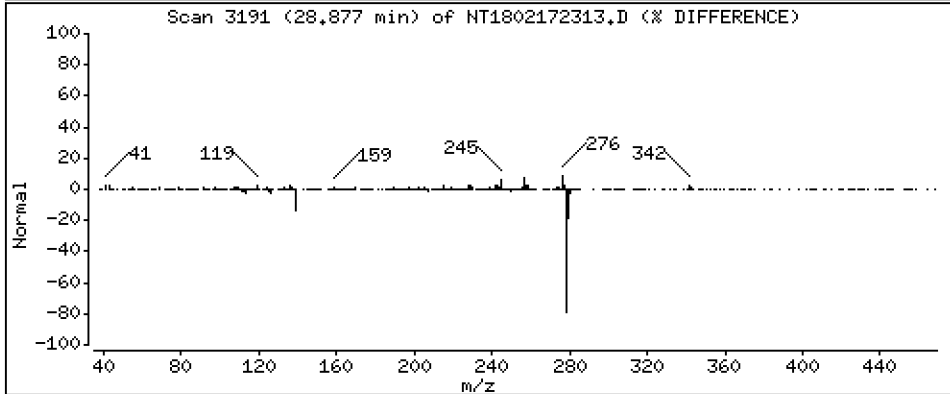
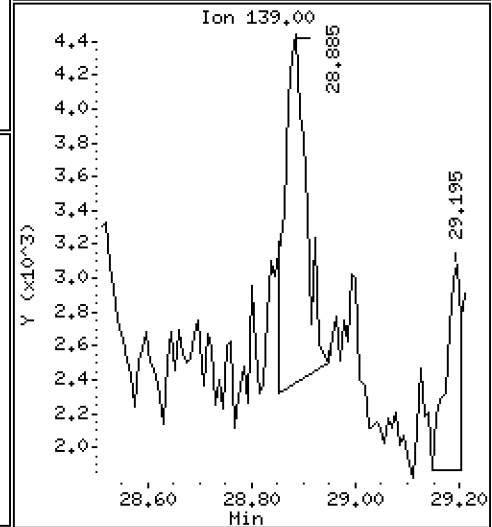
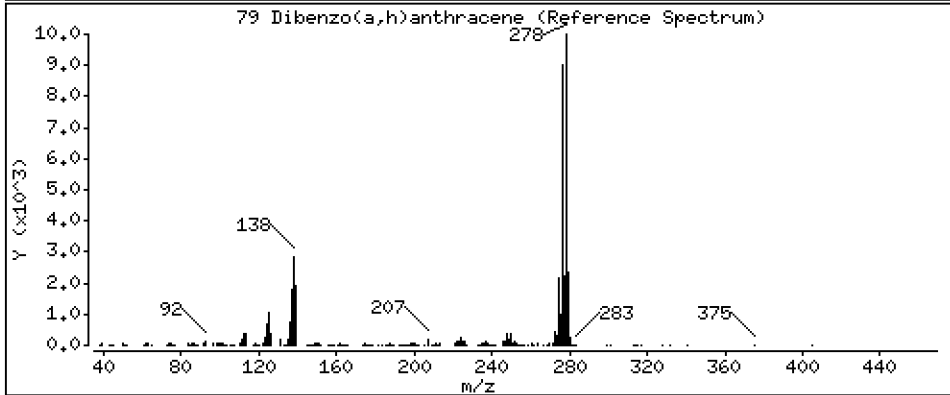
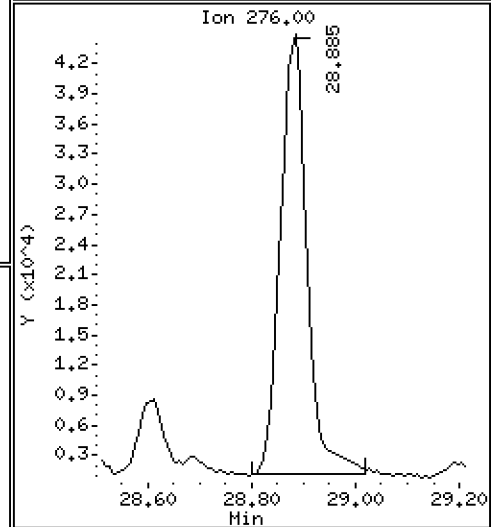
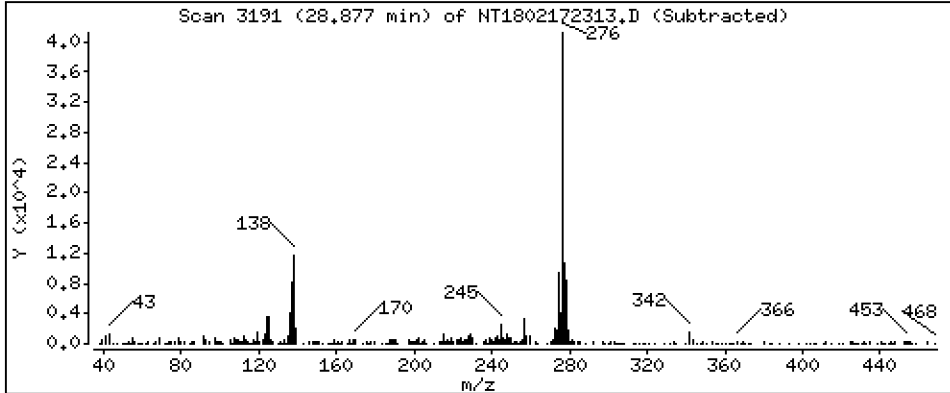
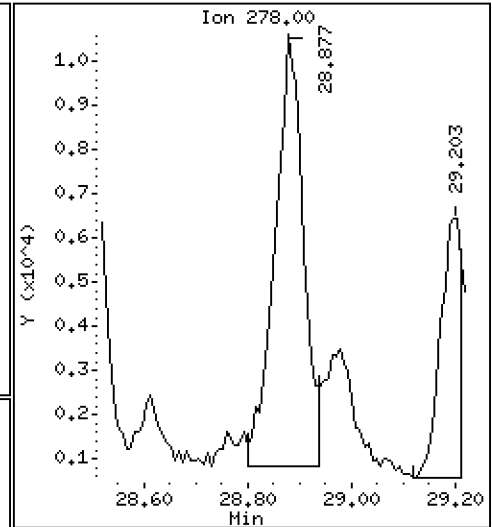
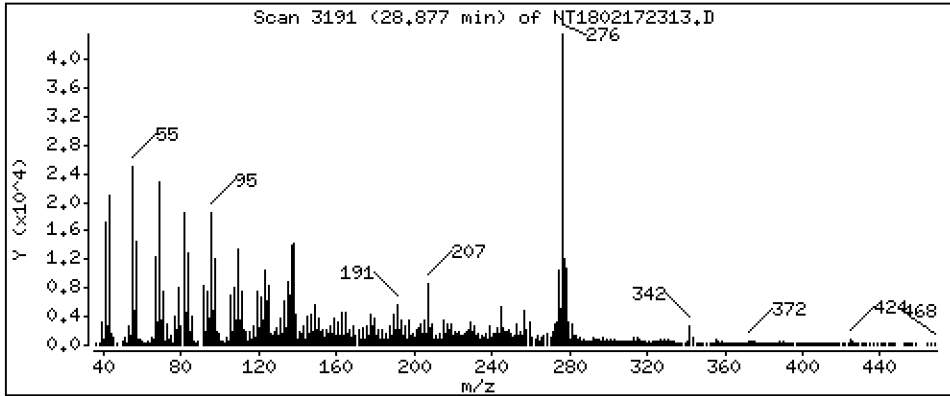
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,1949 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18,i

Sample Info: 23A0032-05

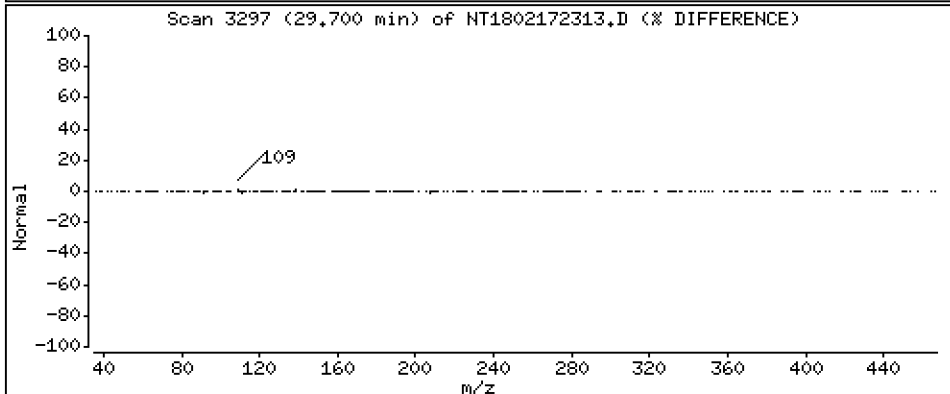
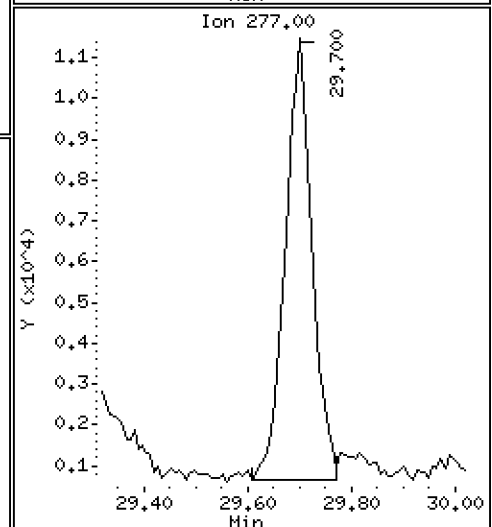
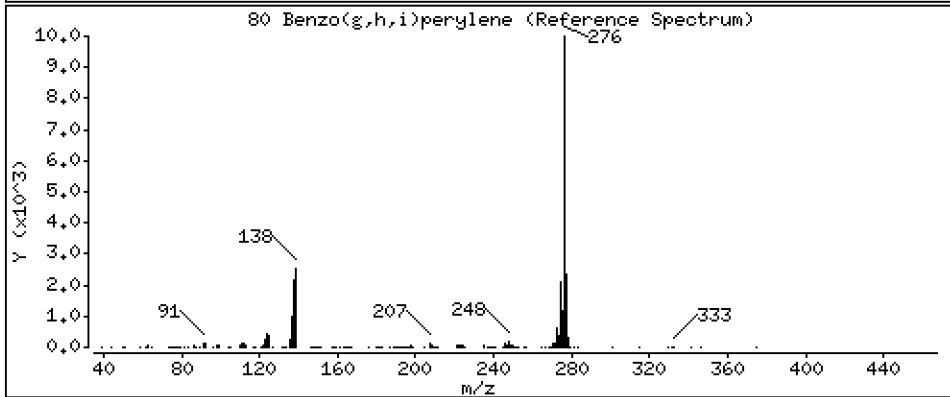
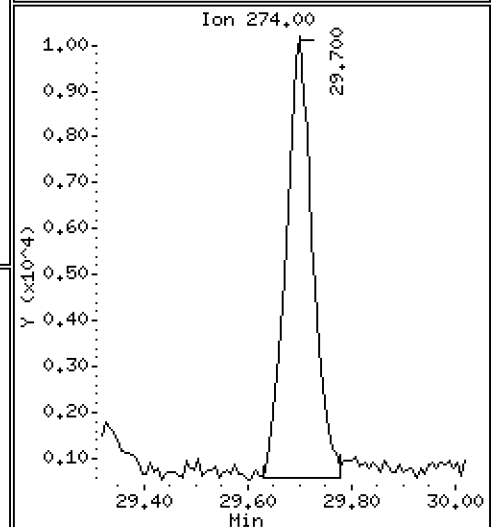
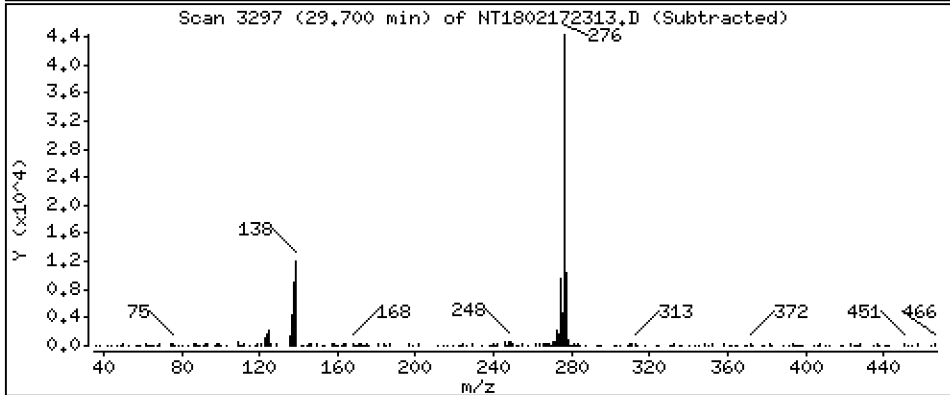
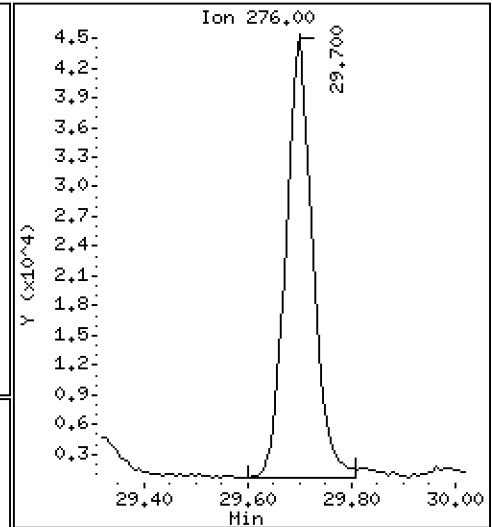
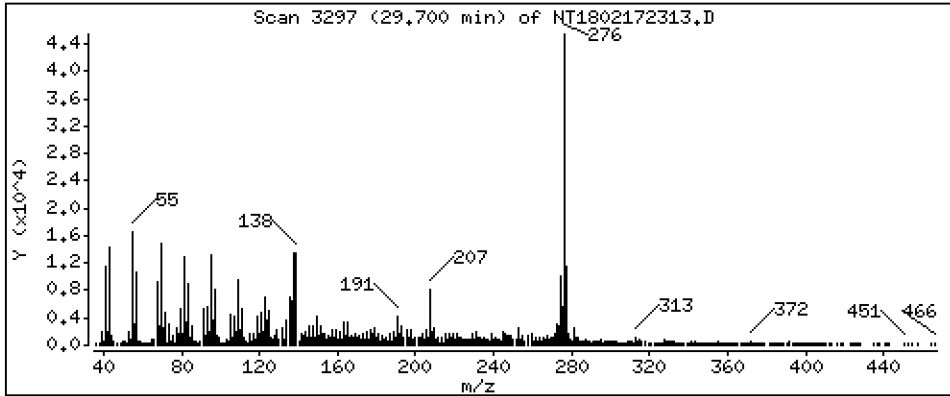
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,9120 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05

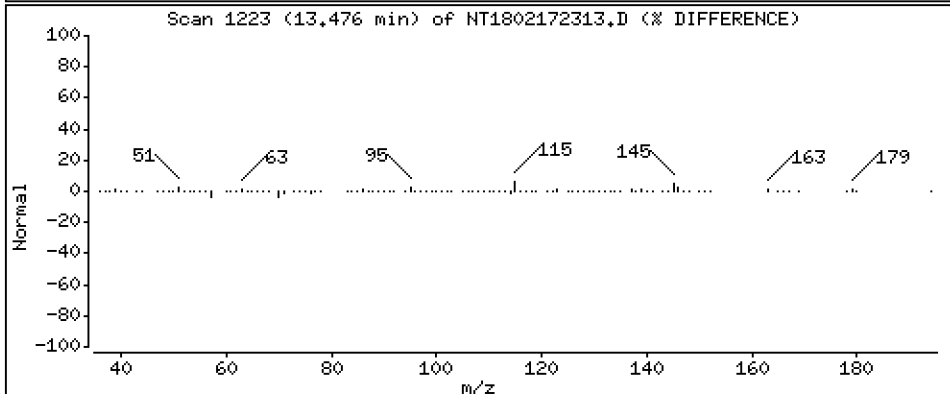
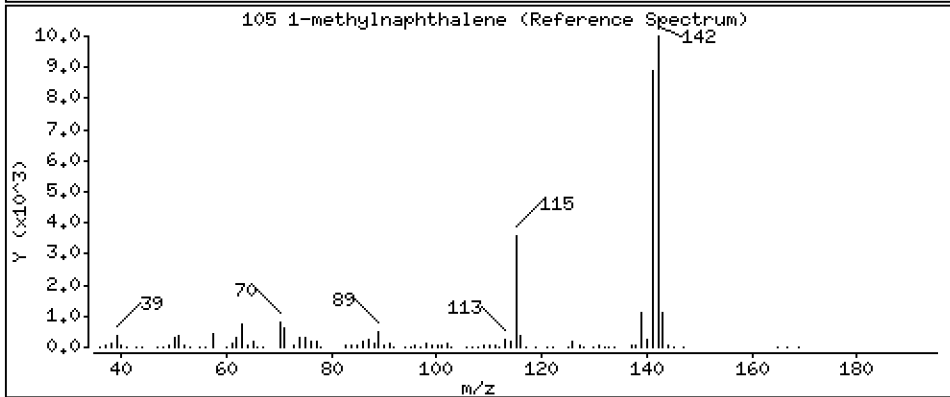
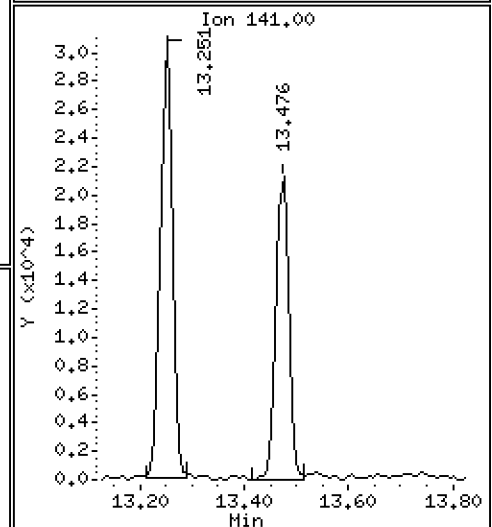
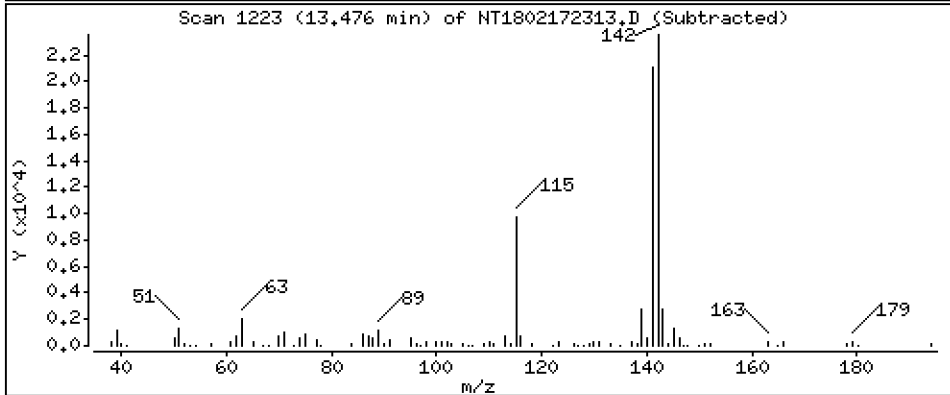
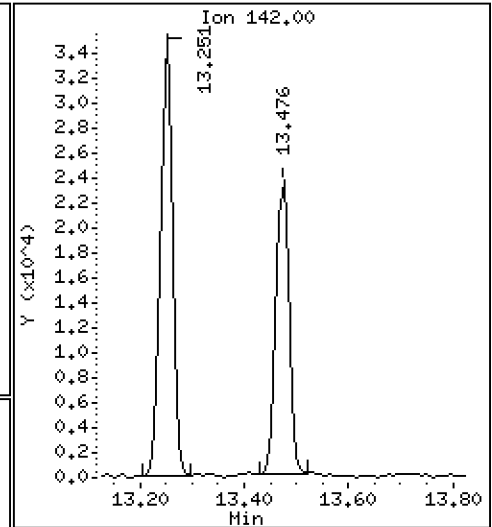
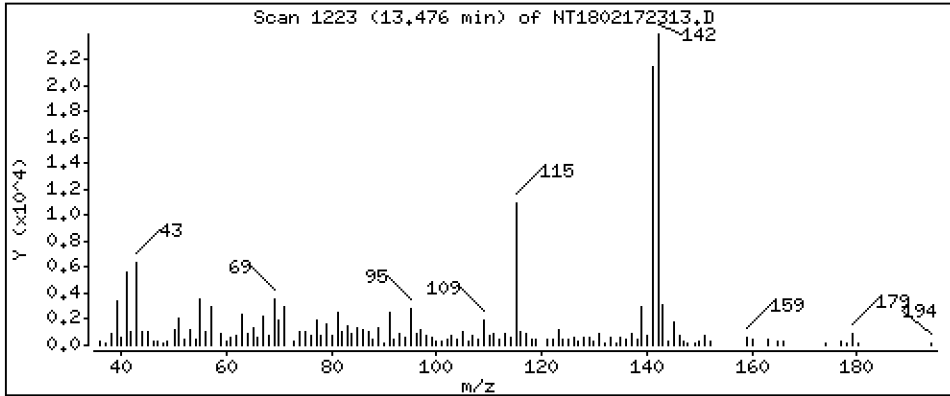
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,2749 ug/mL



Date : 17-FEB-2023 14:18

Client ID:

Instrument: nt18,i

Sample Info: 23A0032-05

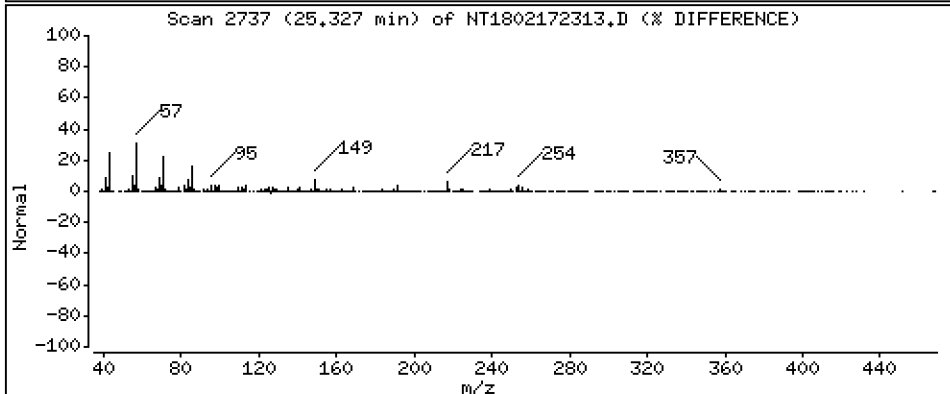
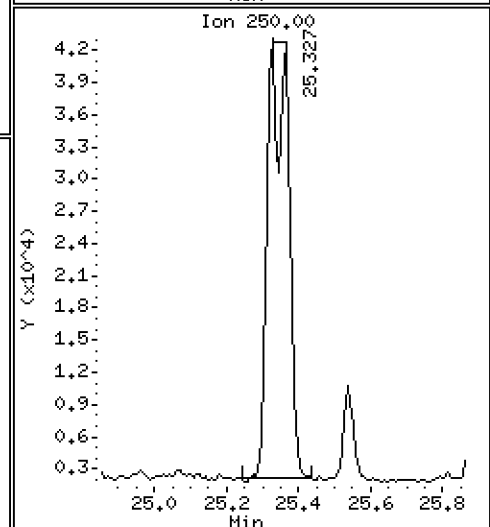
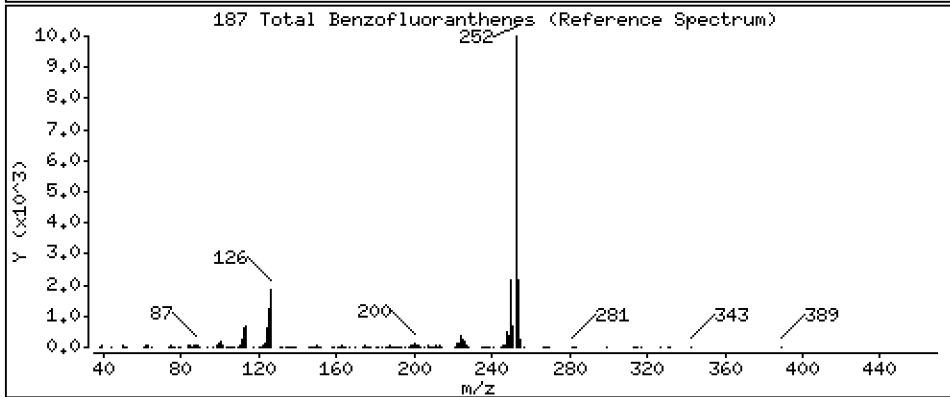
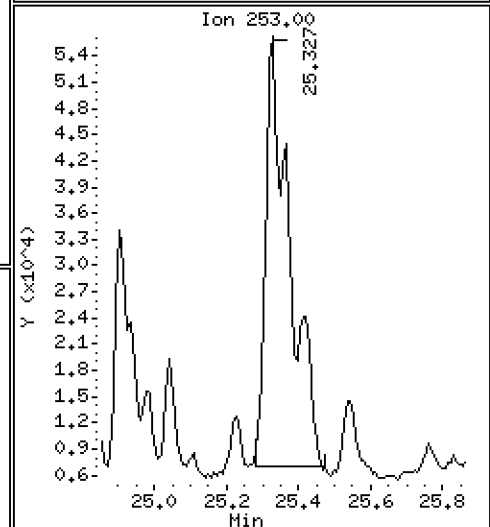
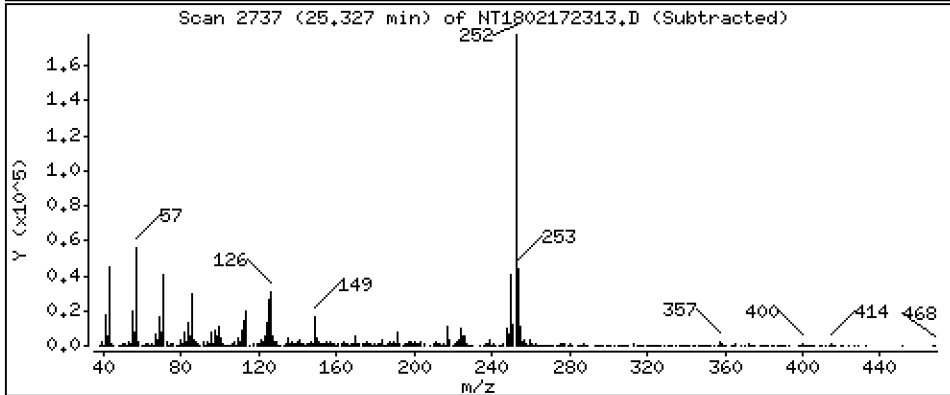
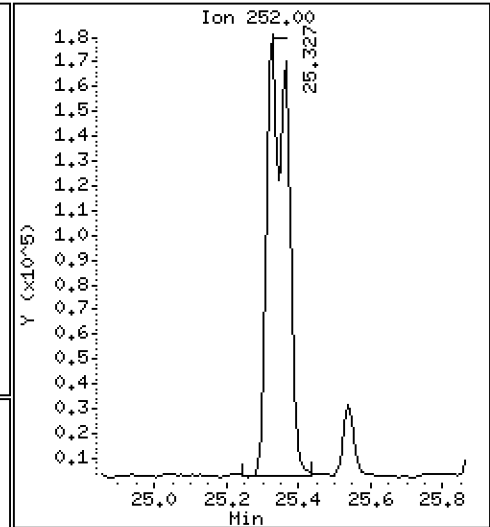
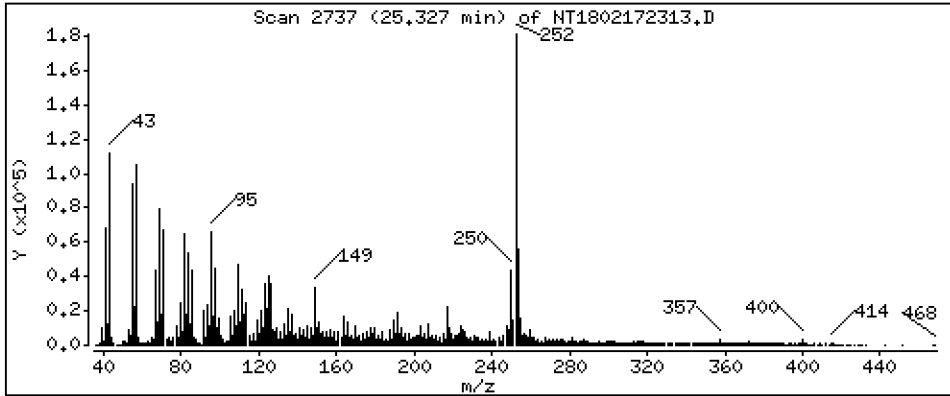
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 2,295 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230217.b\NT1802172313.D
 Lab Smp Id: 23A0032-05
 Inj Date : 17-FEB-2023 14:18
 Operator : VTS
 Smp Info : 23A0032-05
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230217.b\ABN.m
 Meth Date : 18-Feb-2023 10:52 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 31
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: JOSHR-201909

Inst ID: nt18.i

Quant Type: ISTD
 Cal File: NT1802102308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.166	7.142	(0.766)	385288	5.58938	5.589
\$ 2 Phenol-d5	99		8.711	8.703	(0.931)	494896	5.67130	5.671
3 Phenol	94		8.734	8.719	(0.934)	30426	0.35579	0.3558
\$ 5 2-Chlorophenol-d4	132		8.997	8.989	(0.962)	417625	5.50475	5.505
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		9.291	9.290	(0.993)	967745	12.0781	12.08
* 8 1,4-Dichlorobenzene-d4	152		9.353	9.352	(1.000)	198562	4.00000	
9 1,4-Dichlorobenzene	146		9.384	9.383	(1.003)	203698	2.37007	2.370
\$ 10 1,2-Dichlorobenzene-d4	152		9.710	9.709	(1.038)	176192	3.22663	3.227
12 1,2-Dichlorobenzene	146		9.741	9.740	(1.041)	19080	0.23998	0.2400 (M)
11 Benzyl alcohol	108		9.632	9.616	(1.030)	5007	0.10801	0.1080 (M)
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		9.834	9.834	(1.051)	2948	0.04757	0.04757 (M)
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		10.098	10.098	(1.080)	66926	0.92462	0.9246
\$ 18 Nitrobenzene-d5	82		10.439	10.439	(0.883)	309979	4.19519	4.195
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		11.149	11.140	(0.943)	2667	0.04265	0.04265
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		11.293	11.327	(0.955)	23980	0.62064	0.6206 (M)
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		11.735	11.735	(0.992)	103262	1.50309	1.503
* 27 Naphthalene-d8	136		11.828	11.827	(1.000)	750760	4.00000	
28 Naphthalene	128		11.866	11.866	(1.003)	803690	3.72389	3.724
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		13.251	13.251	(1.120)	54943	0.37403	0.3740
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196							
35 2,4,5-Trichlorophenol	196							
§ 36 2-Fluorobiphenyl	172		14.025	14.024	(0.910)	613682	3.40897	3.409
37 2-Chloronaphthalene	162							
38 2-Nitroaniline	65							
39 Dimethylphthalate	163							
40 Acenaphthylene	152		15.108	15.108	(0.980)	291796	1.41387	1.414
41 2,6-Dinitrotoluene	165							
* 42 Acenaphthene-d10	164		15.418	15.417	(1.000)	407188	4.00000	
43 3-Nitroaniline	138							
44 Acenaphthene	153		15.487	15.487	(1.004)	105989	0.77015	0.7701
45 2,4-Dinitrophenol	184							
46 Dibenzofuran	168		15.812	15.812	(1.026)	80550	0.40854	0.4085
47 4-Nitrophenol	109							
48 2,4-Dinitrotoluene	165							
50 Diethylphthalate	149		16.361	16.368	(1.061)	27331	0.18906	0.1891
49 Fluorene	166		16.523	16.523	(1.072)	115622	0.74138	0.7414
51 4-Chlorophenyl-phenylether	204							
52 4-Nitroaniline	138							
53 4,6-Dinitro-2-methylphenol	198							
54 N-Nitrosodiphenylamine	169							
§ 55 2,4,6-Tribromophenol	330		17.055	17.047	(1.106)	134047	5.07639	5.076
56 4-Bromophenyl-phenylether	248							
57 Hexachlorobenzene	284							
58 Pentachlorophenol	266							
* 59 Phenanthrene-d10	188		18.446	18.446	(1.000)	770722	4.00000	
60 Phenanthrene	178		18.492	18.492	(1.003)	902745	3.87693	3.877
61 Anthracene	178		18.585	18.585	(1.008)	215031	1.03247	1.032
62 Carbazole	167		18.910	18.902	(1.025)	53190	0.25546	0.2555
63 Di-n-butylphthalate	149							
64 Fluoranthene	202		20.883	20.844	(0.891)	1157247	4.30479	4.305
65 Pyrene	202		21.285	21.262	(0.908)	1507037	5.27357	5.274
§ 66 Terphenyl-d14	244		21.549	21.541	(0.919)	904867	3.43358	3.434
67 Butylbenzylphthalate	149							
68 Benzo(a)anthracene	228		23.415	23.399	(0.999)	384608	1.36592	1.366
* 69 Chrysene-d12	240		23.438	23.430	(1.000)	852076	4.00000	
70 3,3'-Dichlorobenzidine	252							
71 Chrysene	228		23.484	23.476	(1.002)	416101	1.40206	1.402
72 bis(2-Ethylhexyl)phthalate	149							
* 134 Di-n-octylphthalate-d4	153		24.452	24.444	(1.000)	1335362	4.00000	
73 Di-n-octylphthalate	149							
74 Benzo(b)fluoranthene	252		25.327	25.311	(0.969)	370449	1.22256	1.223
75 Benzo(k)fluoranthene	252		25.366	25.358	(0.971)	386748	1.16678	1.167 (H)
76 Benzo(a)pyrene	252		26.001	25.985	(0.995)	320302	1.29425	1.294
* 77 Perylene-d12	264		26.124	26.101	(1.000)	868065	4.00000	
78 Indeno(1,2,3-cd)pyrene	276		28.884	28.861	(1.106)	157924	0.66670	0.6667
79 Dibenzo(a,h)anthracene	278		28.876	28.869	(1.105)	37793	0.19487	0.1949
80 Benzo(g,h,i)perylene	276		29.700	29.669	(1.137)	163040	0.91203	0.9120
90 N-Nitrosodimethylamine	74							
91 Aniline	93							
93 Benzidine	184							
103 Pyridine	79							
105 1-methylnaphthalene	142		13.475	13.475	(1.139)	39379	0.27486	0.2749
111 Azobenzene (1,2-DP-Hydrazine)	77							

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.327	25.358	(0.969)	696738	2.29511	2.295
120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 17-FEB-2023
 Lab File ID: NT1802172313.D Calibration Time: 08:32
 Lab Smp Id: 23A0032-05
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230217.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF	
		LOWER	UPPER			
8 1,4-Dichlorobenze	90874	45437	181748	198562	118.50	<-
27 Naphthalene-d8	389492	194746	778984	750760	92.75	
42 Acenaphthene-d10	208278	104139	416556	407188	95.50	
59 Phenanthrene-d10	368411	184206	736822	770722	109.20	<-
69 Chrysene-d12	371440	185720	742880	852076	129.40	<-
134 Di-n-octylphthala	512242	256121	1024484	1335362	160.69	<-
77 Perylene-d12	350166	175083	700332	868065	147.90	<-

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.35	8.85	9.85	9.35	0.00
27 Naphthalene-d8	11.83	11.33	12.33	11.83	0.00
42 Acenaphthene-d10	15.42	14.92	15.92	15.42	0.00
59 Phenanthrene-d10	18.45	17.95	18.95	18.45	0.00
69 Chrysene-d12	23.43	22.93	23.93	23.44	0.03
134 Di-n-octylphthala	24.44	23.94	24.94	24.45	0.03
77 Perylene-d12	26.10	25.60	26.60	26.12	0.09

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802172313.D

Lab ID: 23A0032-05
nt18.i, ABN.m, 17-FEB-2023 14:18

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

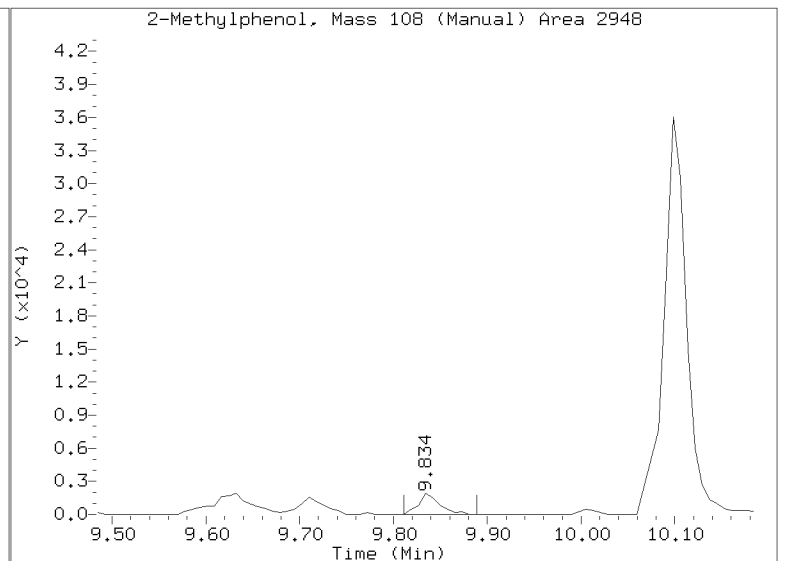
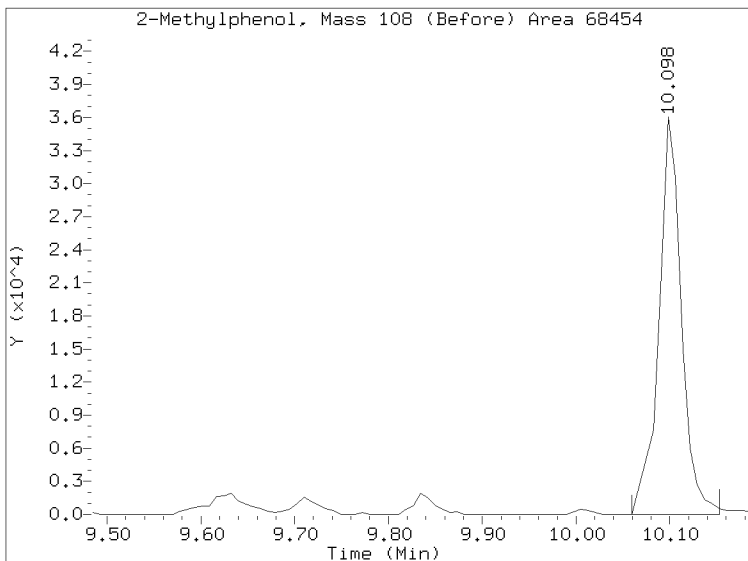
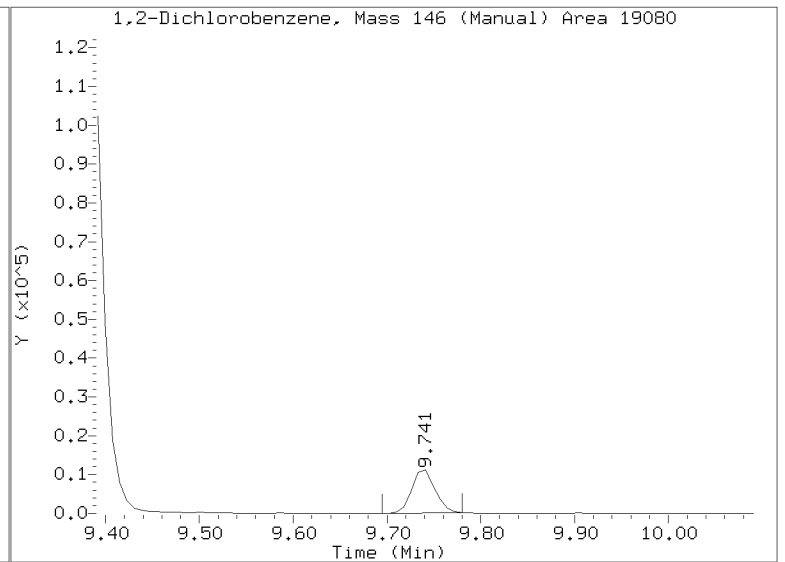
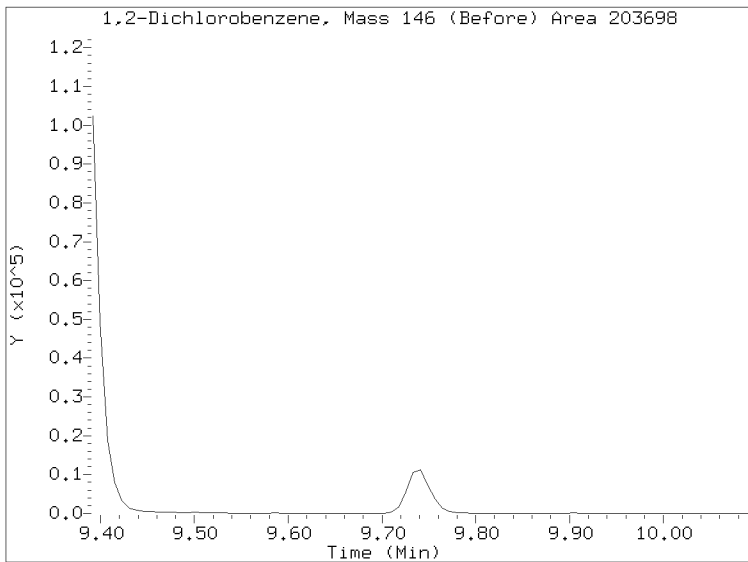
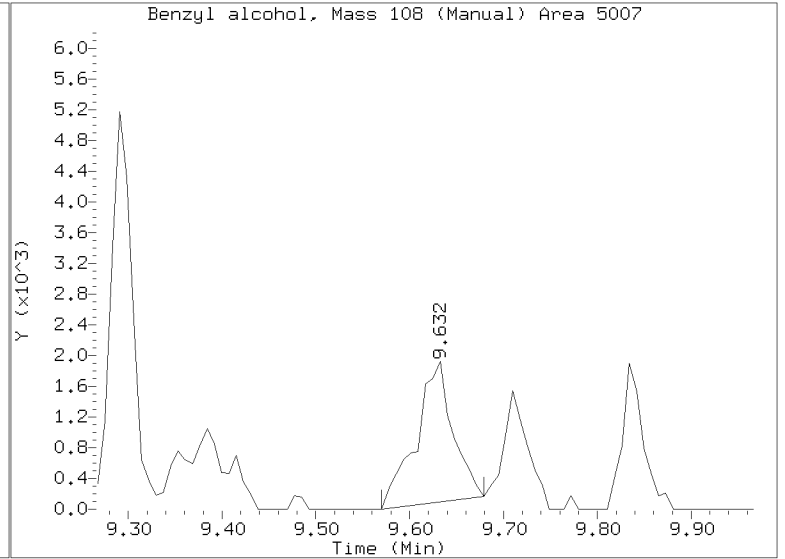
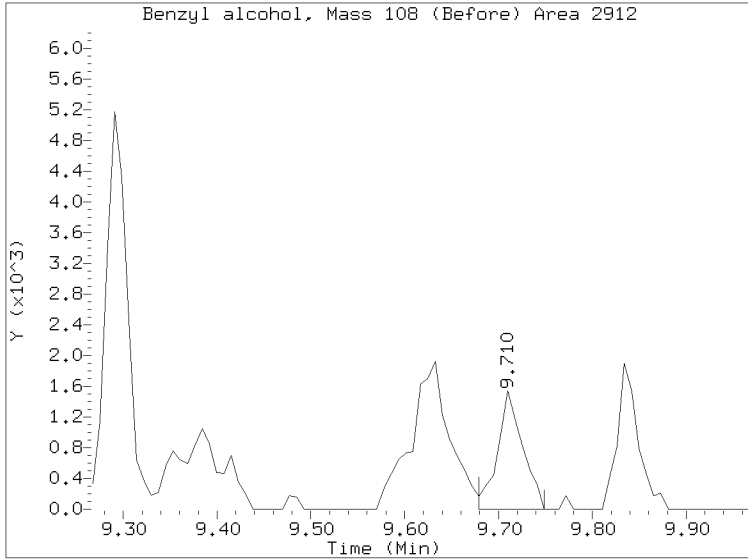
RRT check based on Ccal File: NT1802172306.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

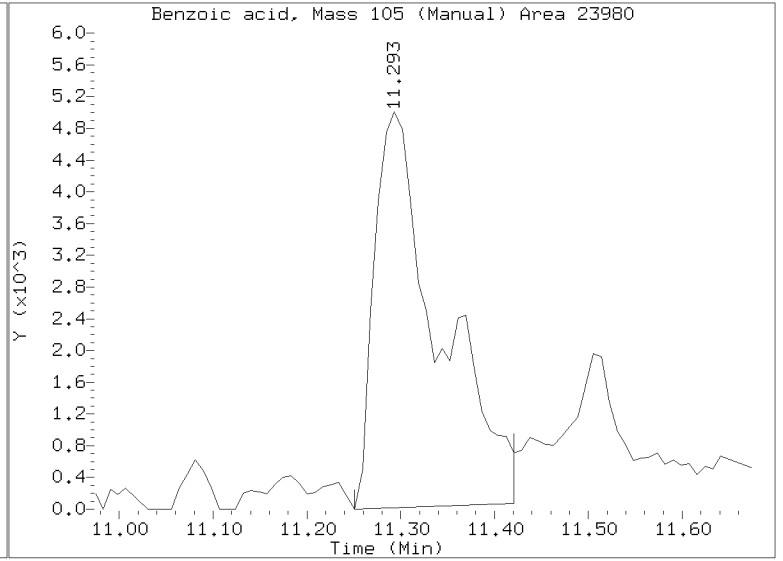
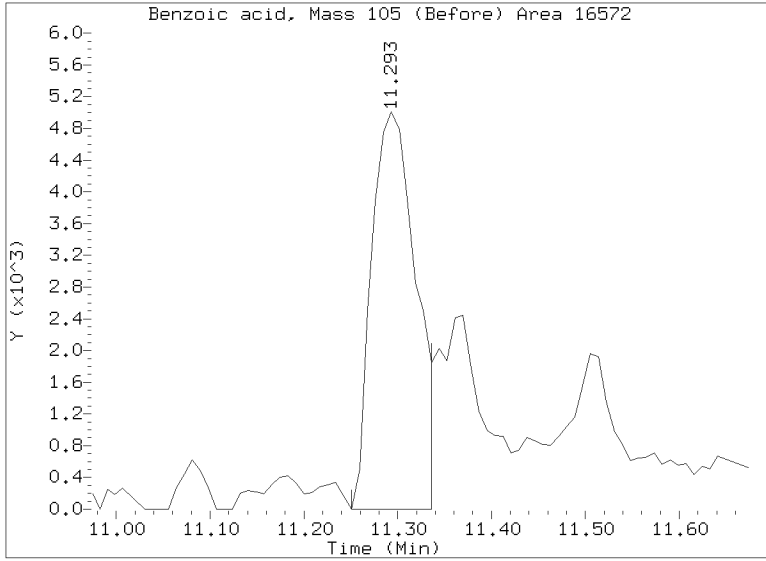
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt18.i/20230217.b/NT1802172313.D
Injection Date: 17-FEB-2023 14:18
Lab ID:23A0032-05 Client ID:
Report Date: 02/18/2023 11:19



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt18.i/20230217.b/NT1802172313.D
Injection Date: 17-FEB-2023 14:18
Lab ID:23A0032-05 Client ID:
Report Date: 02/18/2023 11:19





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-05RE1 A

SDG: 23A0032

Sampled: 01/03/23 13:21

Prepared: 01/10/23 11:20

File ID: NT1802192311.D

% Solids: 67.90

Preparation: EPA 3546 (Microwave)

Analyzed: 02/19/23 15:38

Batch: BLA0163

Sequence: SLC0060

Initial/Final: 14.76 g Wet / 1 mL

Instrument: NT18

Column: ZB-5MS

Calibration: GB00036

Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
108-95-2	Phenol	1	42.8		4.4	20.0
106-44-5	4-Methylphenol	1	82.9		7.4	20.0
91-20-3	Naphthalene	1	368		4.2	20.0
91-57-6	2-Methylnaphthalene	1	38.9		4.5	20.0
208-96-8	Acenaphthylene	1	144		6.2	20.0
131-11-3	Dimethylphthalate	1	20.0	U	4.4	20.0
83-32-9	Acenaphthene	1	76.9		5.2	20.0
132-64-9	Dibenzofuran	1	43.4		14.1	20.0
86-73-7	Fluorene	1	61.9		14.5	20.0
85-01-8	Phenanthrene	1	381		8.7	20.0
120-12-7	Anthracene	1	100		7.2	20.0
206-44-0	Fluoranthene	1	451		6.1	20.0
129-00-0	Pyrene	1	552		5.7	20.0
85-68-7	Butylbenzylphthalate	1	20.0	U	9.4	20.0
56-55-3	Benzo(a)anthracene	1	141		5.9	20.0
218-01-9	Chrysene	1	135		6.0	20.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	6.8	J	5.4	49.9
	Benzo(a)fluoranthene, Total	1	240		10.0	39.9
50-32-8	Benzo(a)pyrene	1	134		4.2	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	58.7	Q	14.6	20.0
53-70-3	Dibenzo(a,h)anthracene	1	20.0	U	17.2	20.0
191-24-2	Benzo(g,h,i)perylene	1	76.6	Q	13.6	20.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	748.35	561	75.0	27 - 120	
Phenol-d5	748.35	578	77.2	29 - 120	
2-Chlorophenol-d4	748.35	565	75.5	31 - 120	
1,2-Dichlorobenzene-d4	498.90	320	64.1	32 - 120	
Nitrobenzene-d5	498.90	424	85.1	30 - 120	
2-Fluorobiphenyl	498.90	351	70.4	35 - 120	



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-05RE1 A

SDG: 23A0032

Sampled: 01/03/23 13:21

Prepared: 01/10/23 11:20

File ID: NT1802192311.D

% Solids: 67.90

Preparation: EPA 3546 (Microwave)

Analyzed: 02/19/23 15:38

Batch: BLA0163

Sequence: SLC0060

Initial/Final: 14.76 g Wet / 1 mL

Instrument: NT18

Column: ZB-5MS

Calibration: GB00036

Cleanups: GPC

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2,4,6-Tribromophenol	748.35	503	67.3	24 - 134	
p-Terphenyl-d14	498.90	355	71.2	37 - 120	

Data File: \\target\share\chem3\nt18.1\20230219.1\NT1802192311.D

Date: 19-FEB-2023 15:38

Client ID:

Sample Info: 23A0032-05RE1

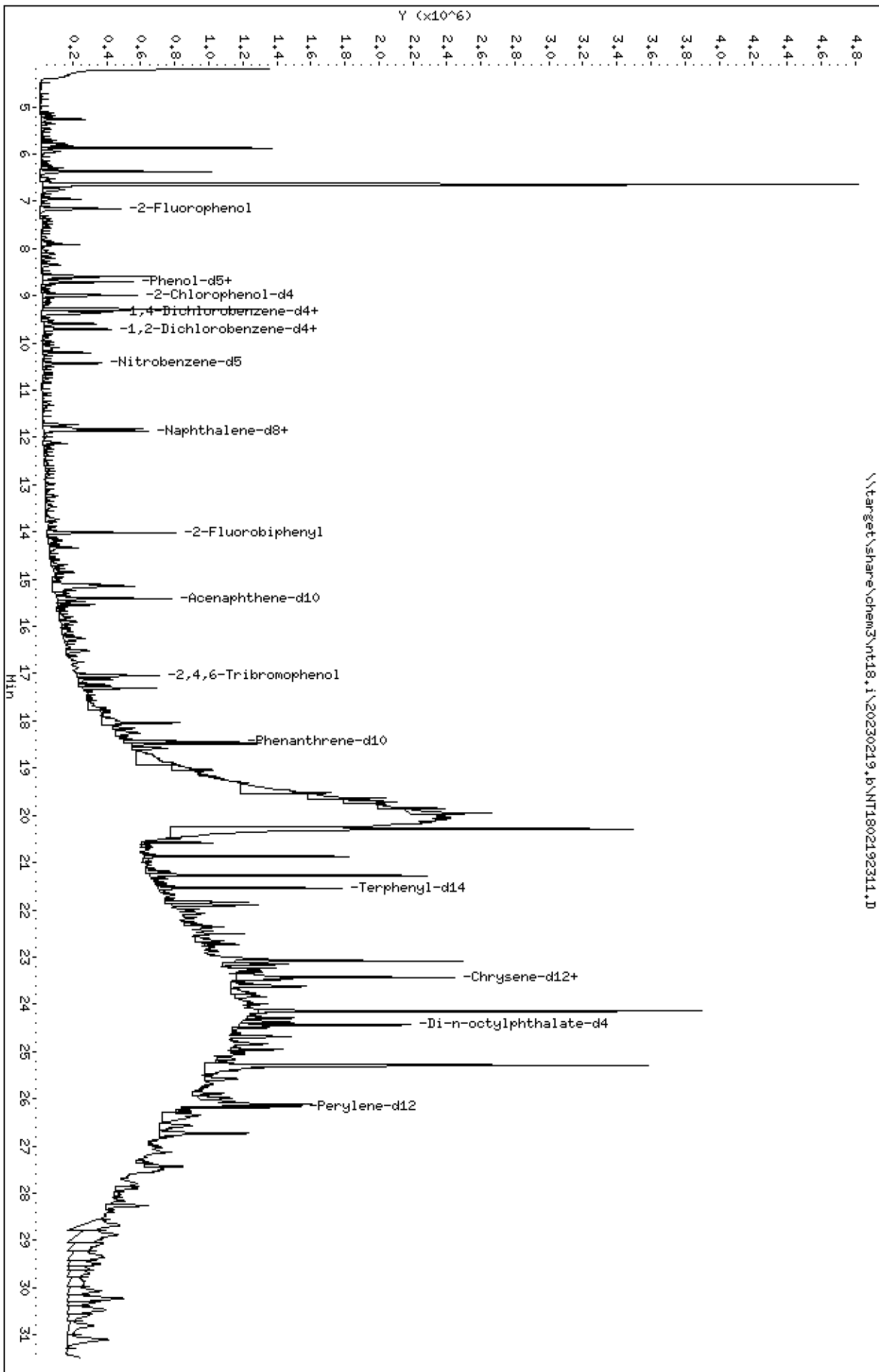
Page 1

Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

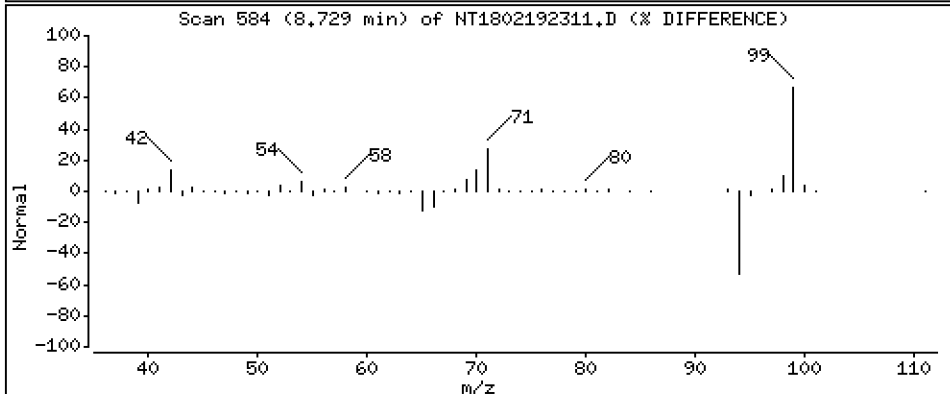
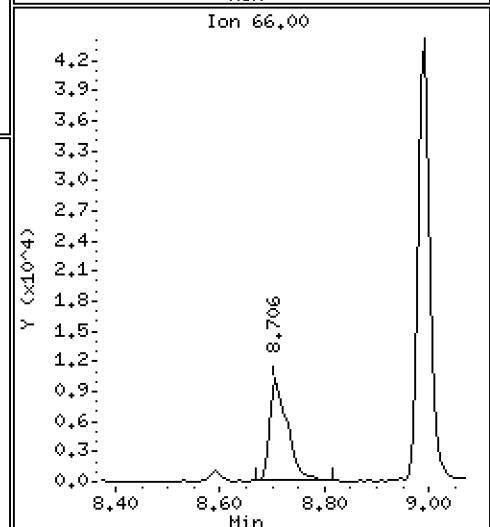
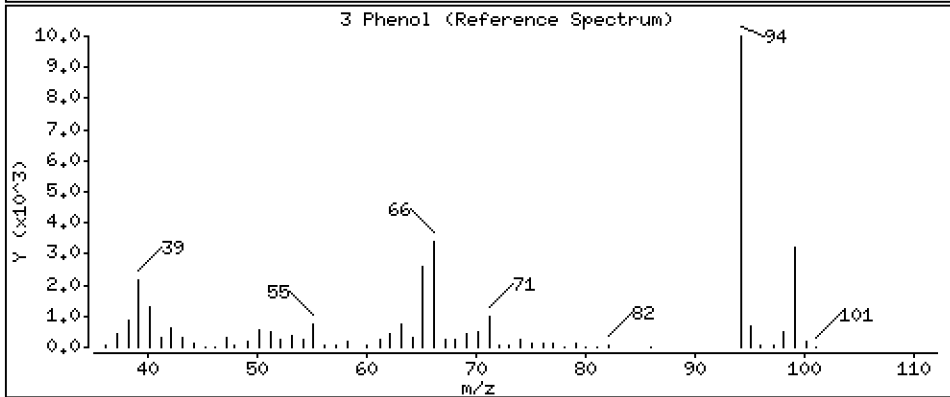
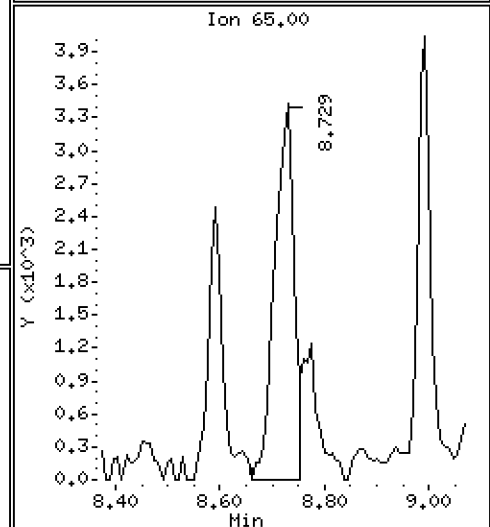
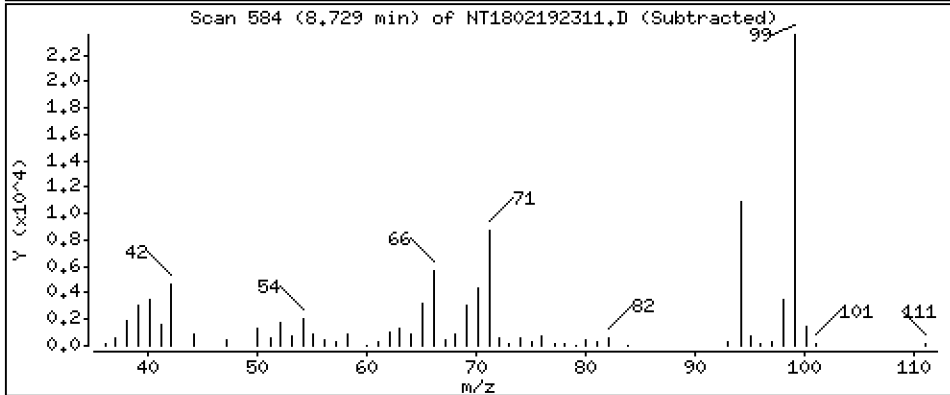
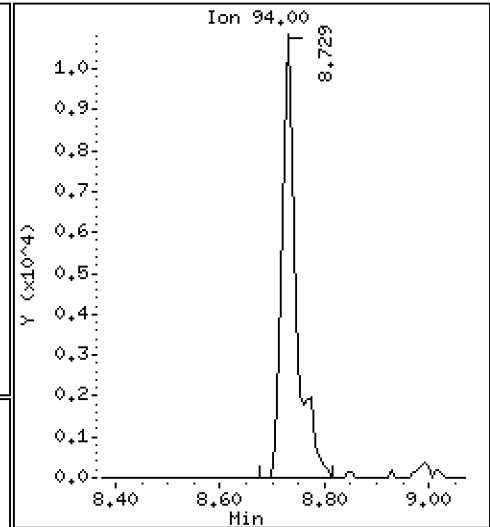
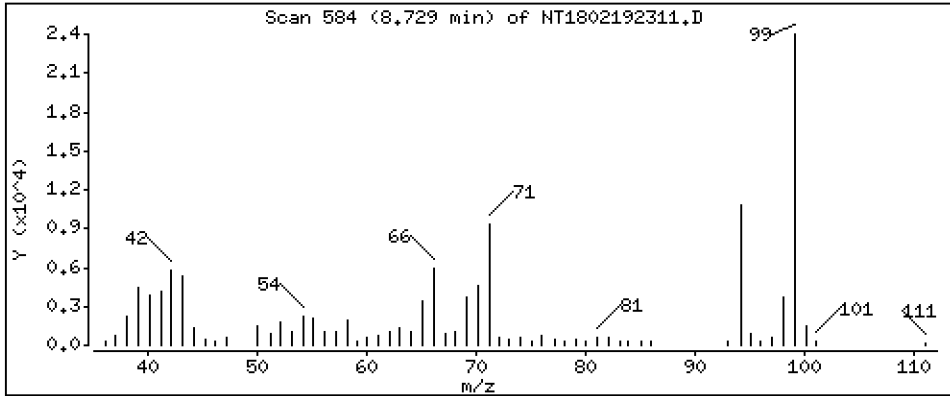
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,4294 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

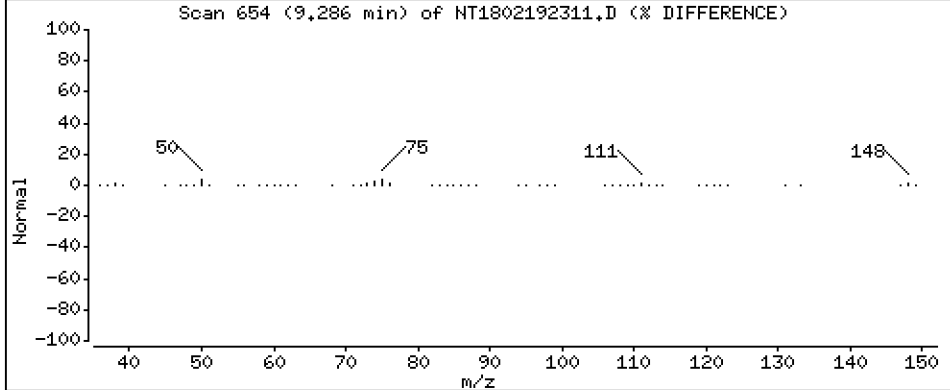
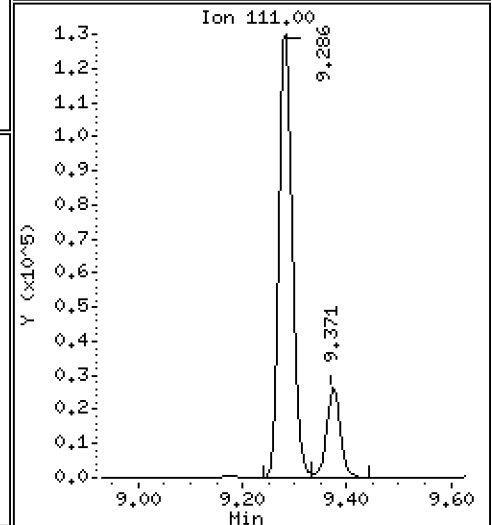
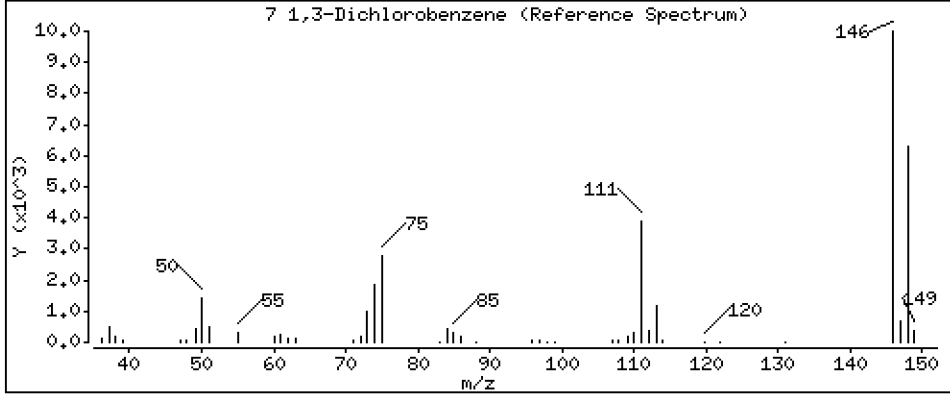
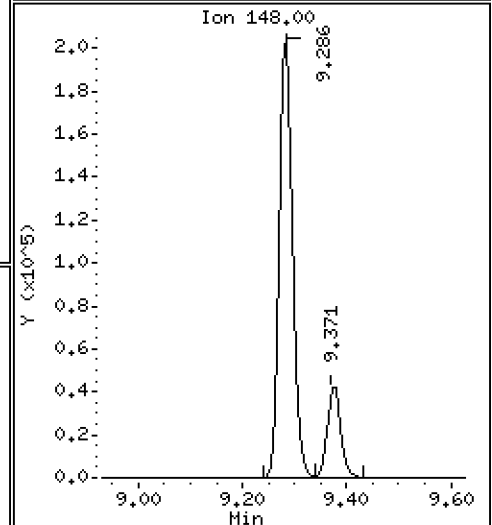
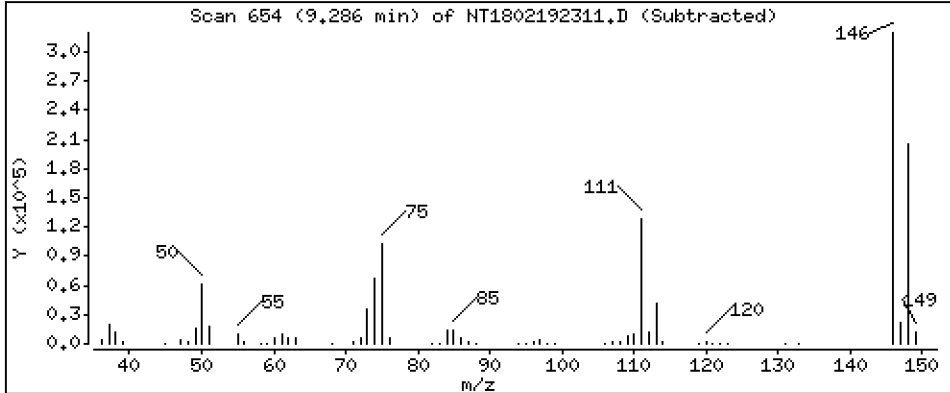
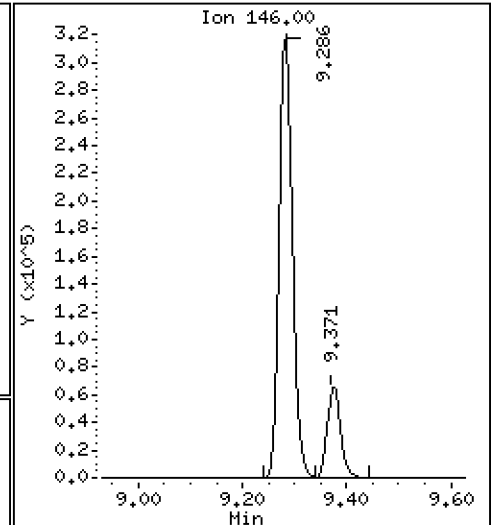
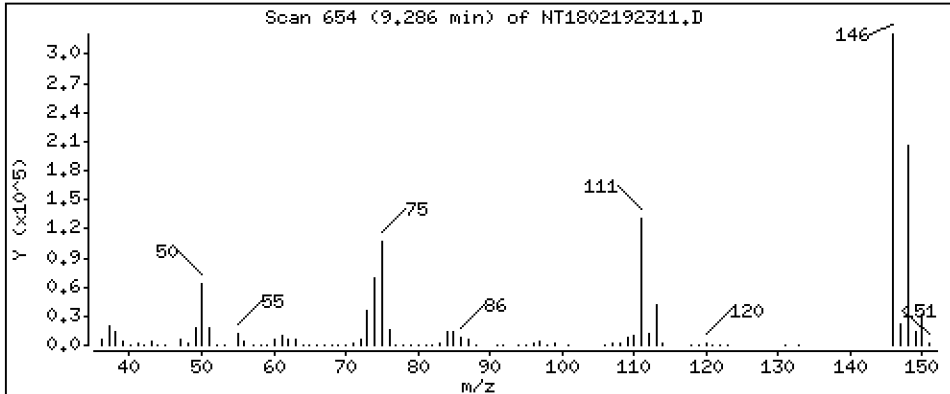
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 12,04 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

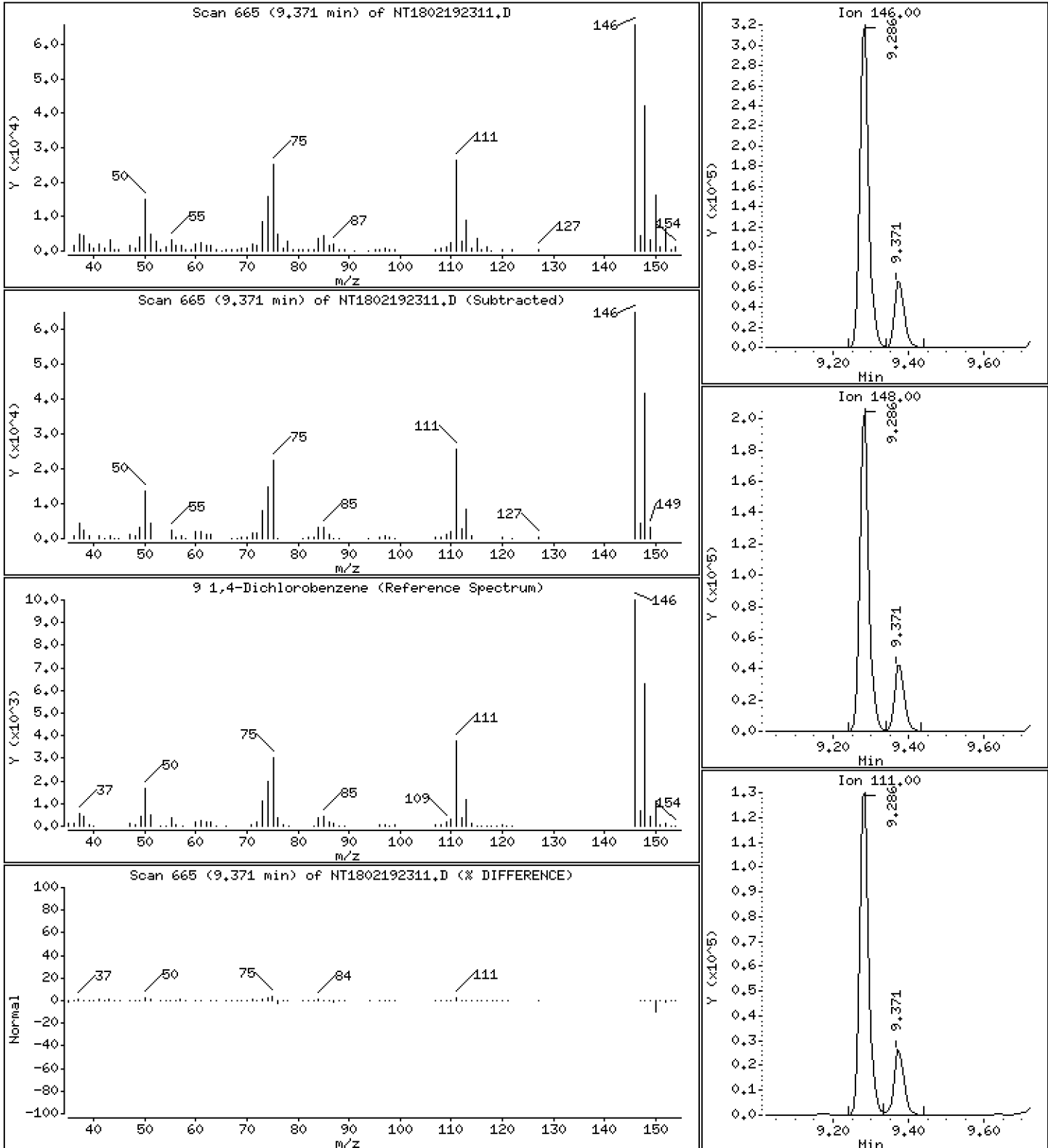
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 2,320 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

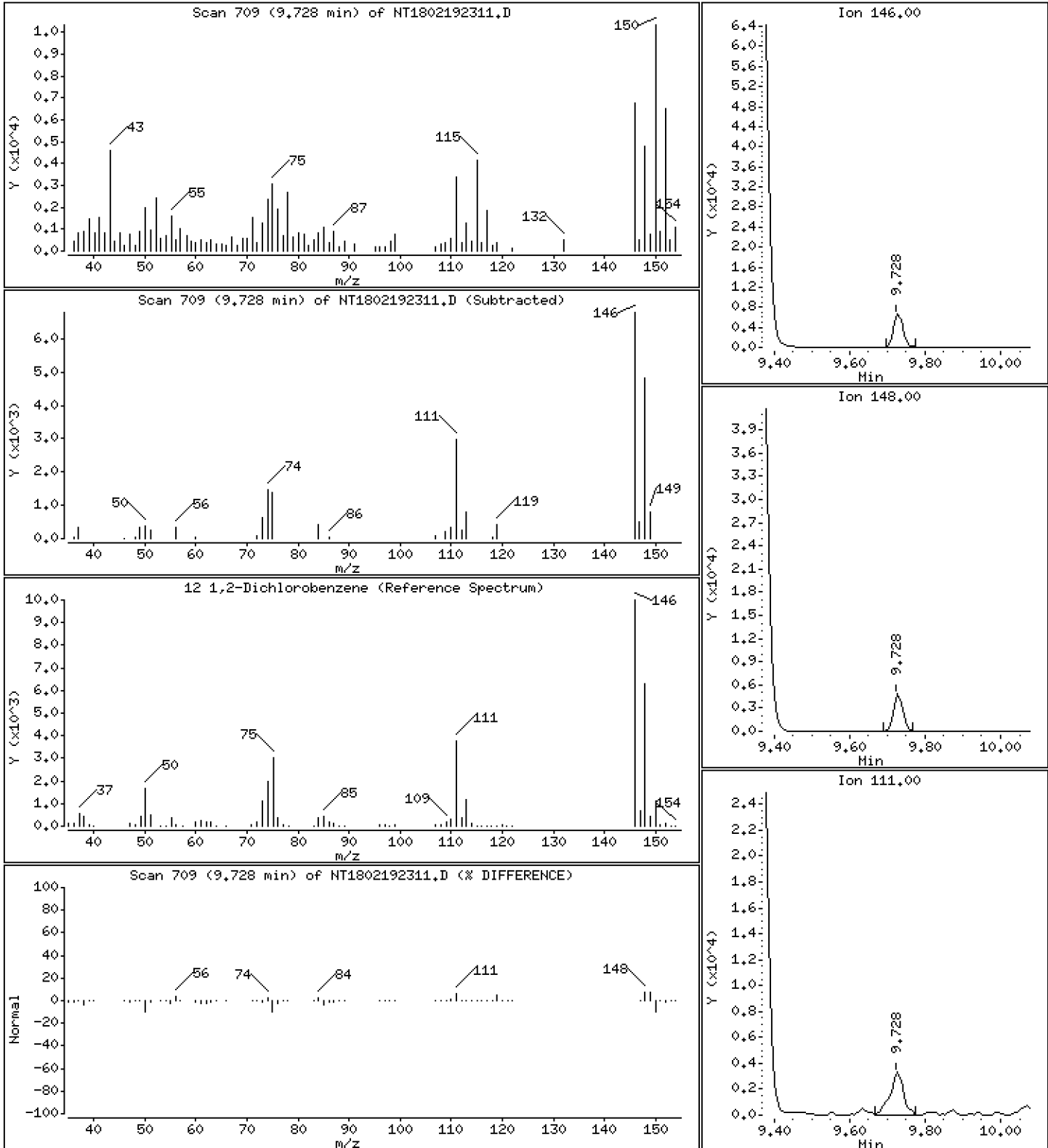
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,2527 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

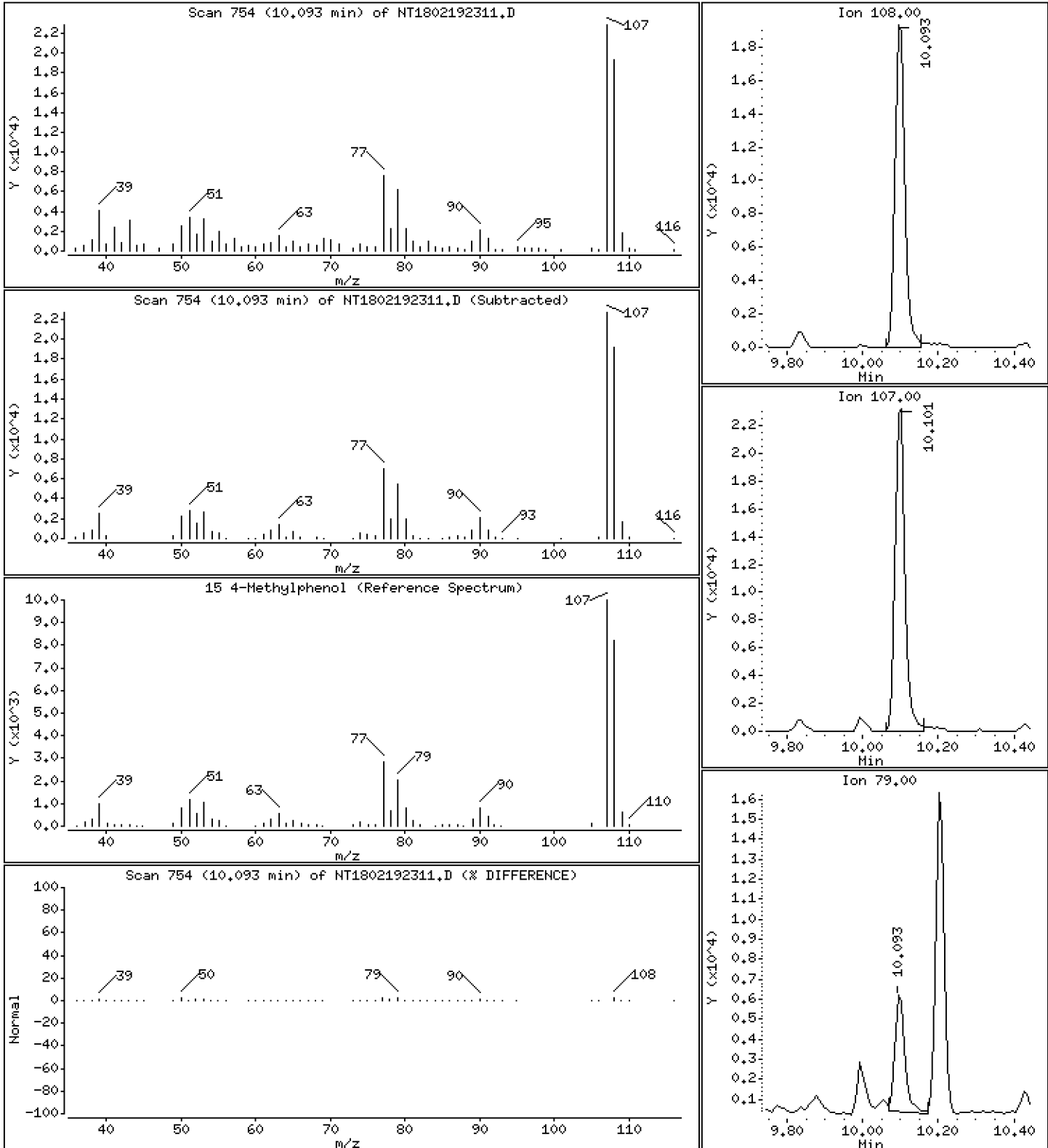
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 0,8307 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

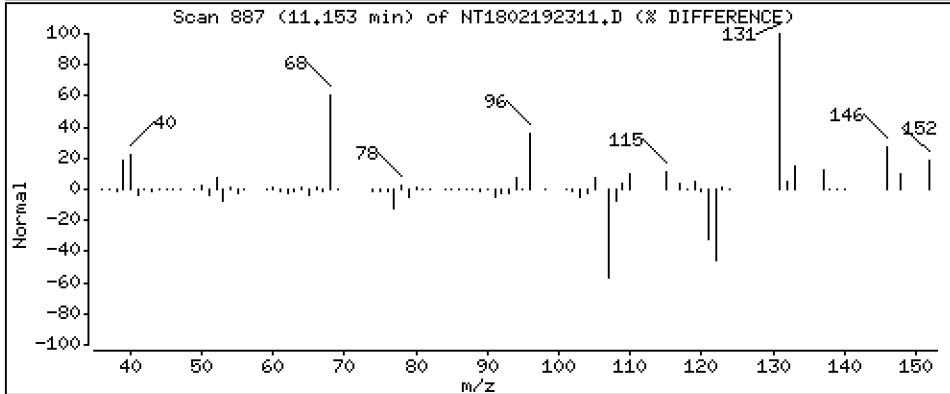
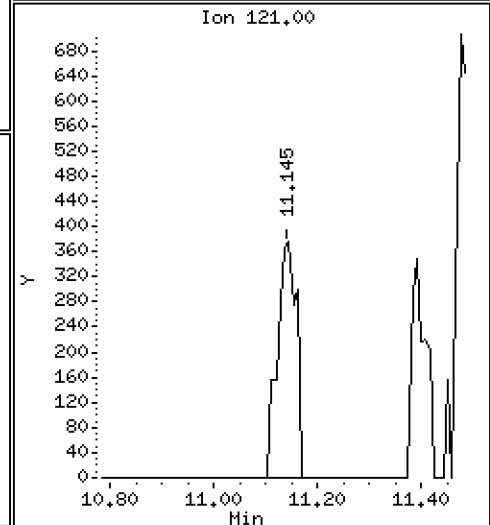
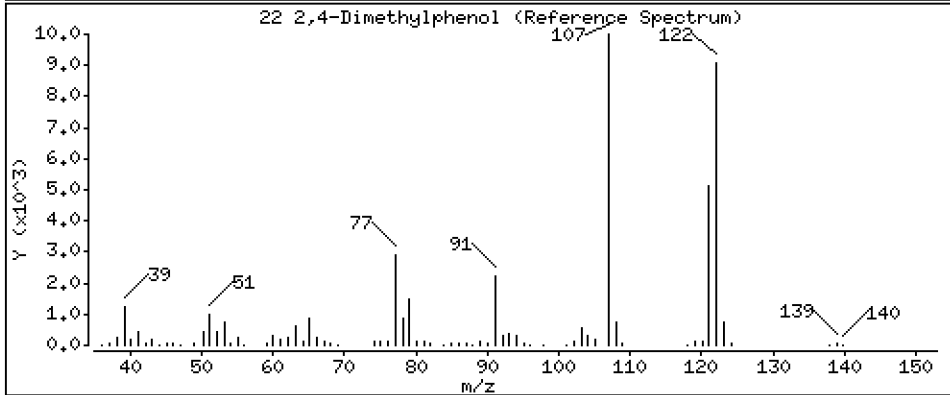
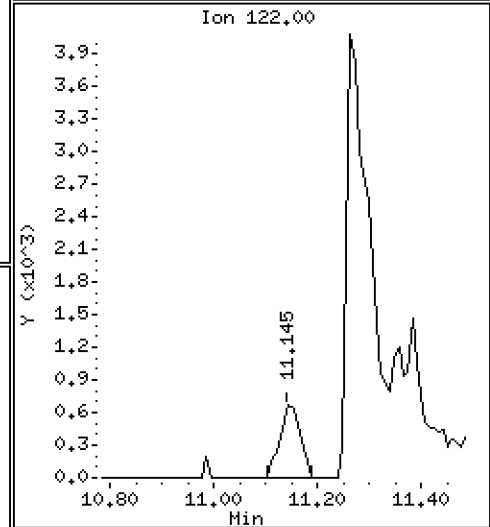
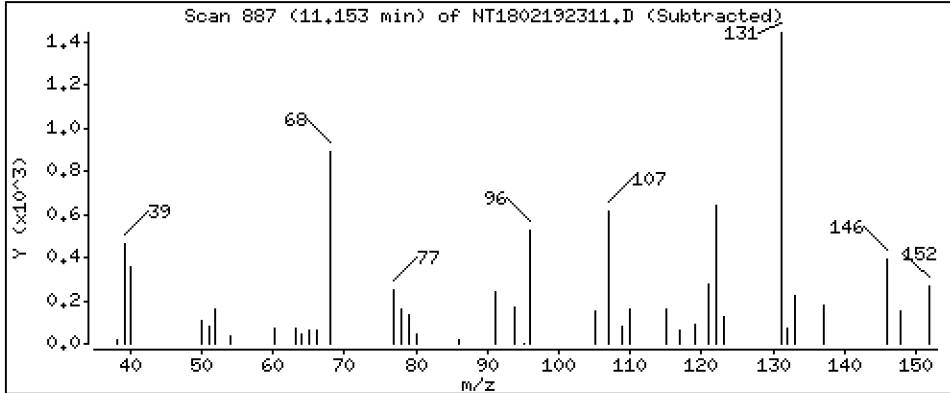
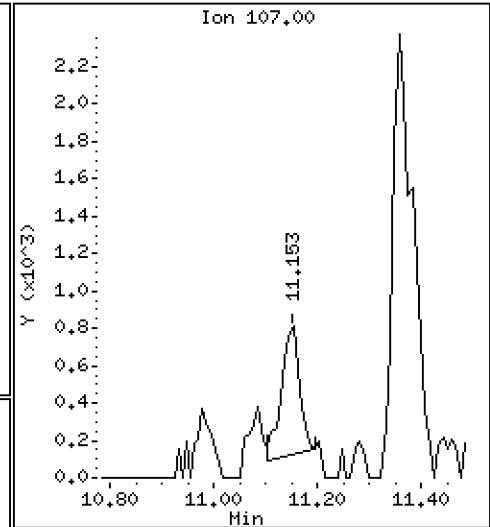
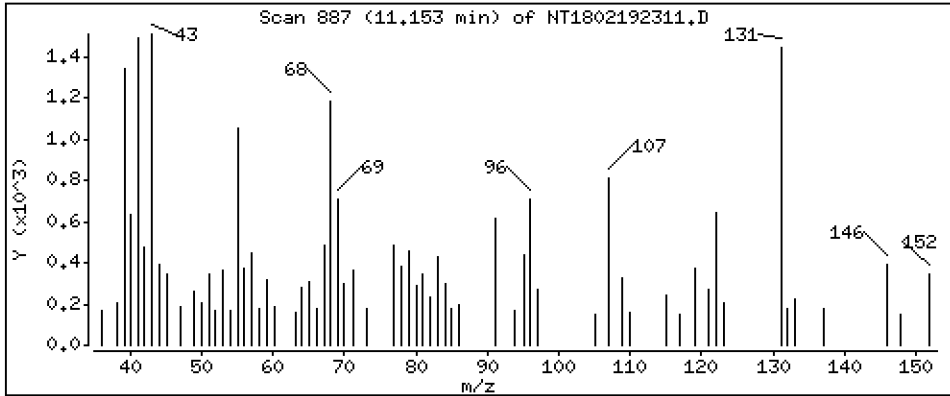
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 0.04855 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

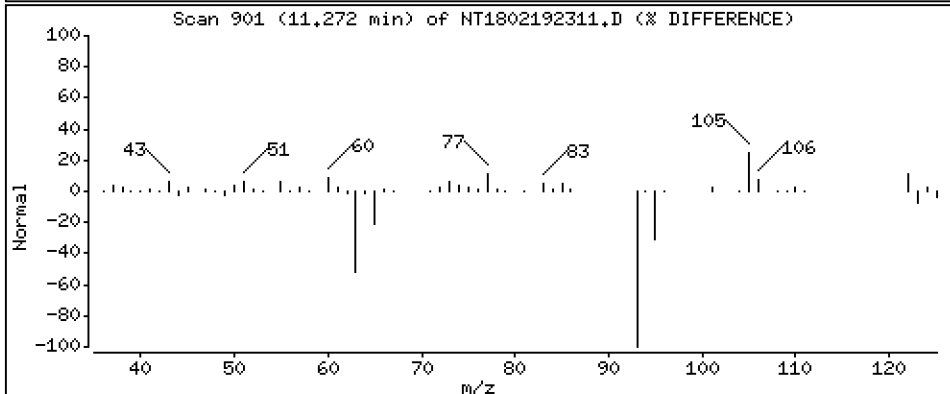
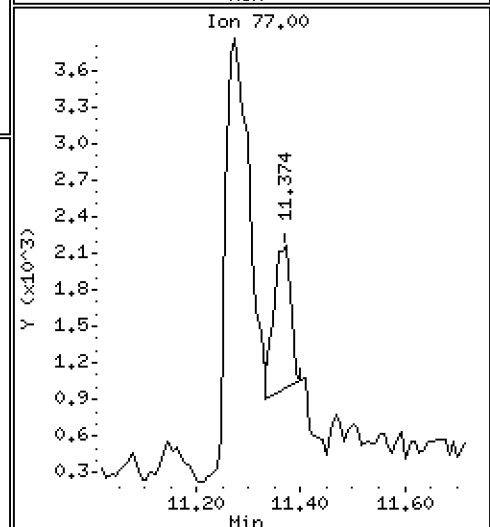
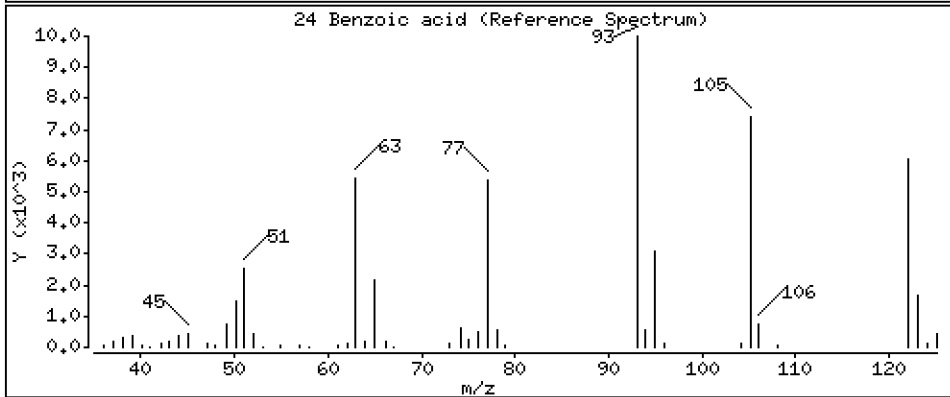
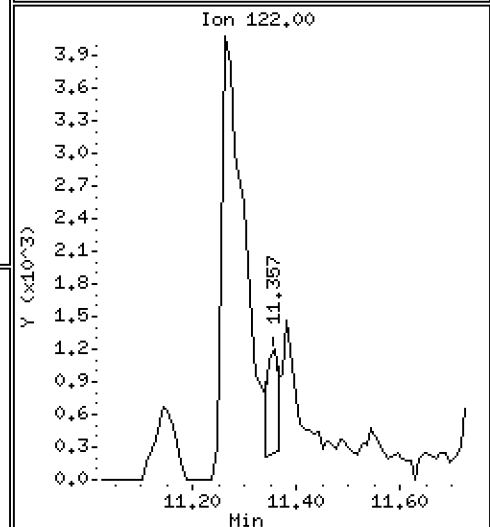
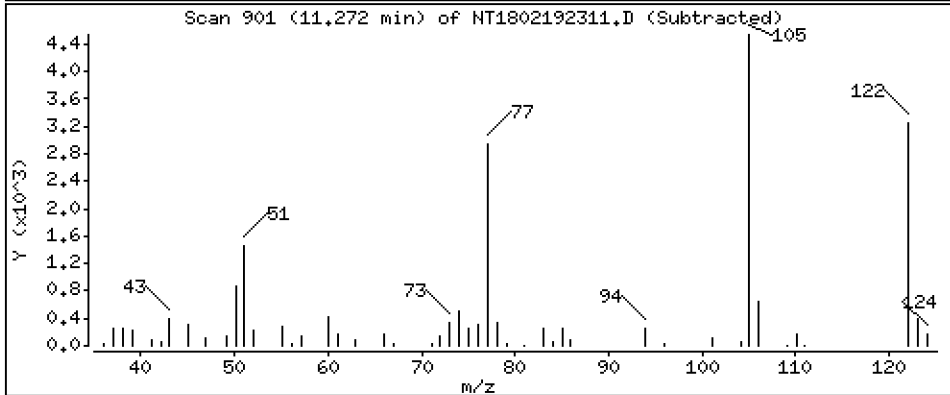
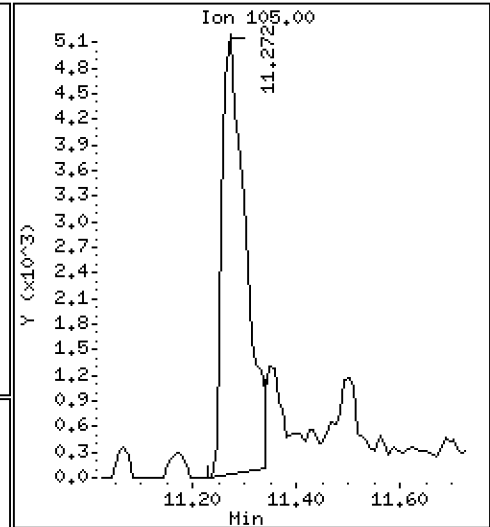
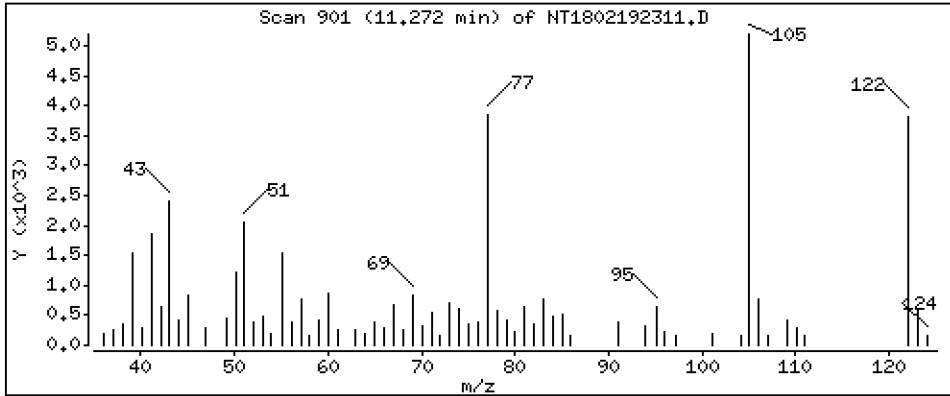
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 0,7393 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

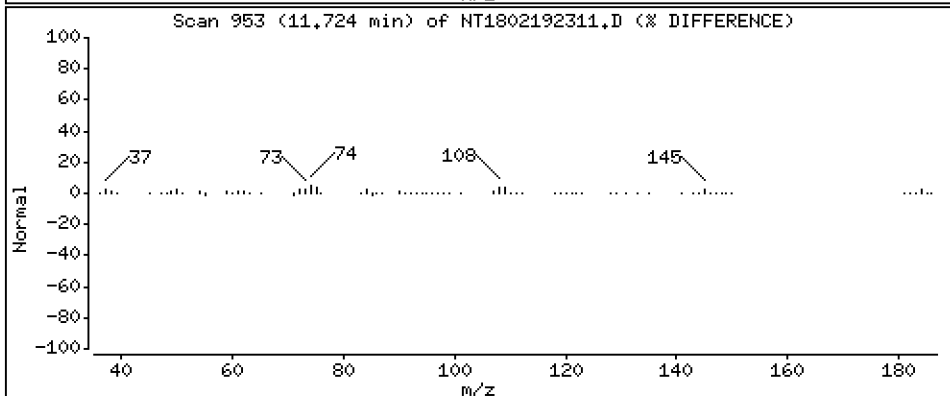
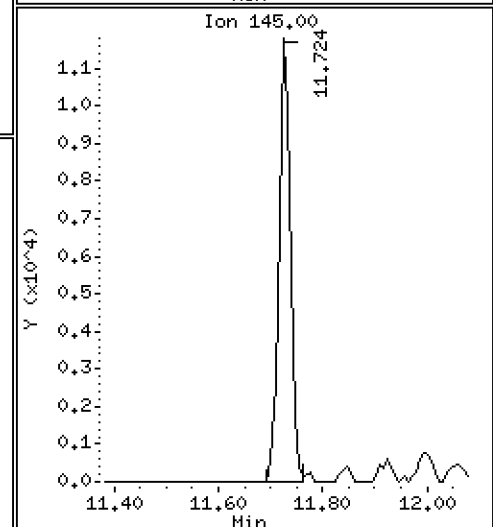
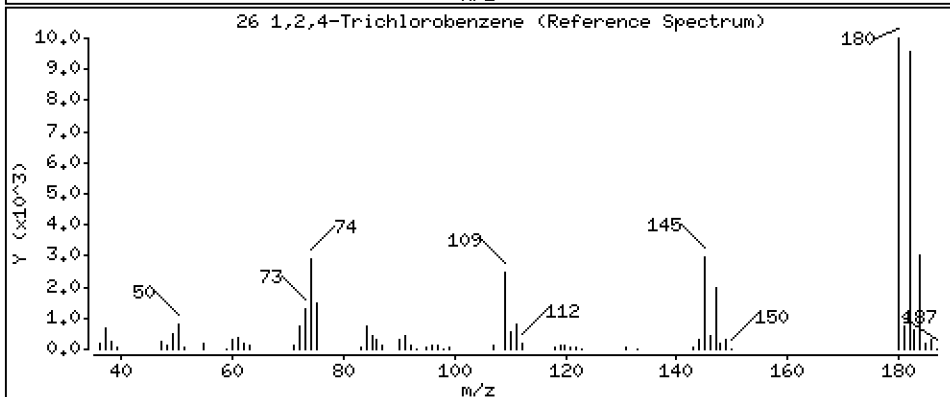
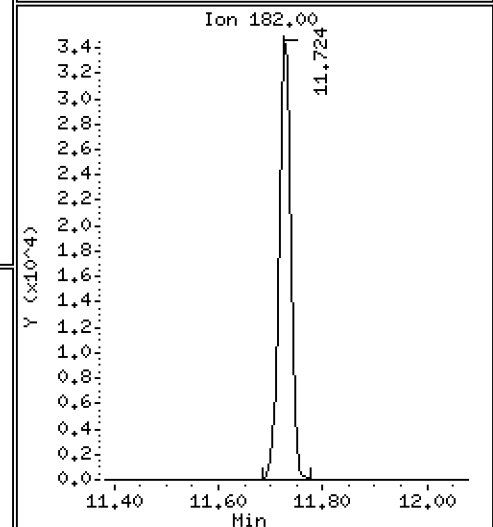
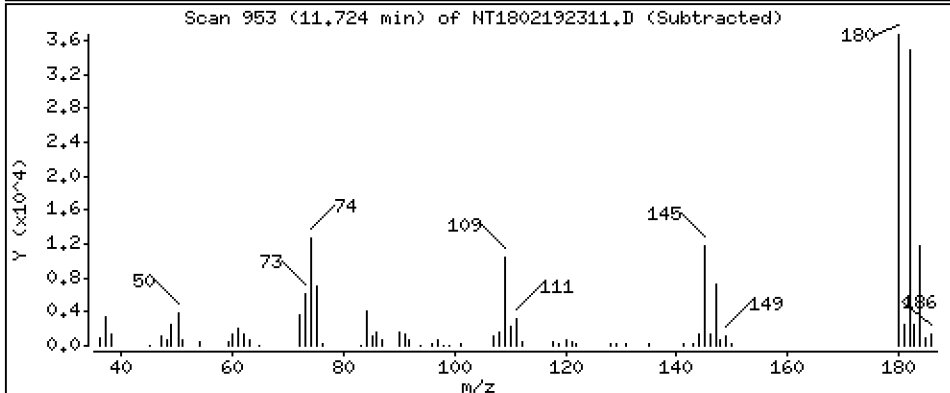
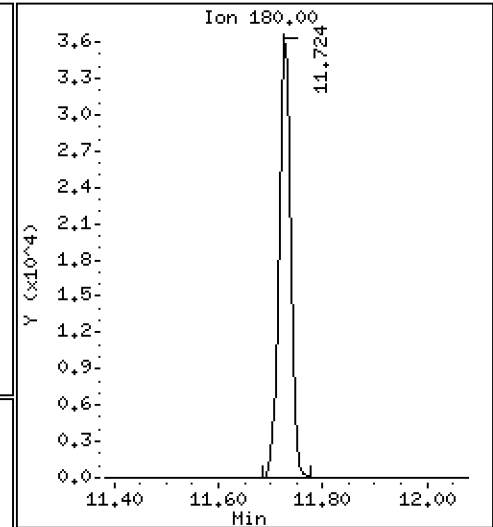
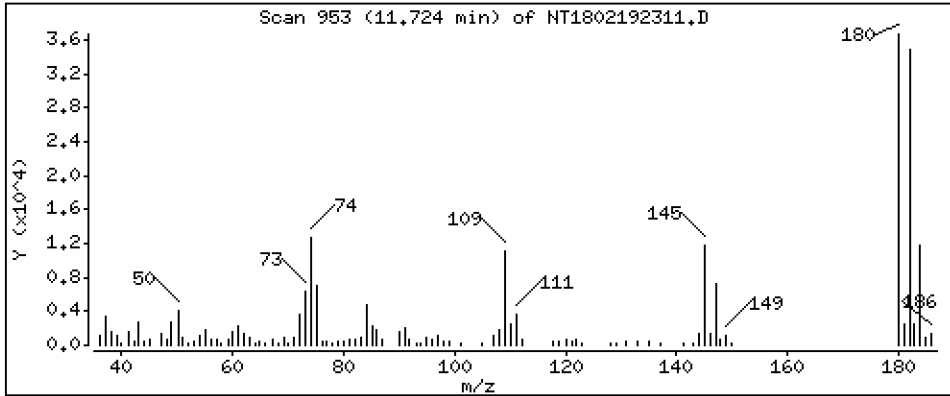
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 1,501 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

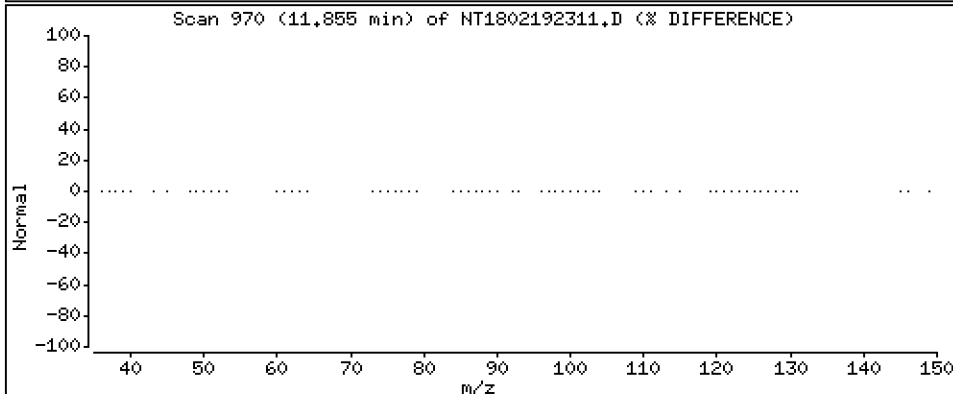
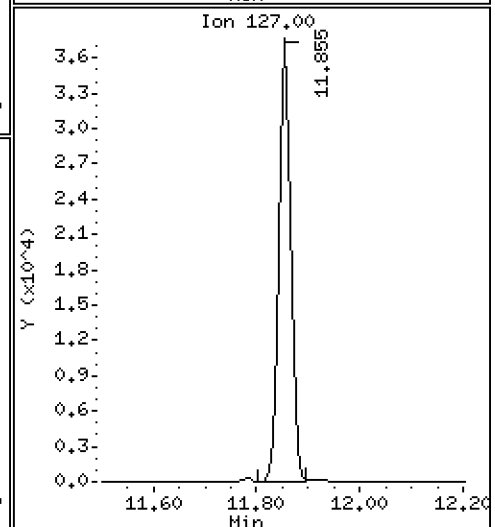
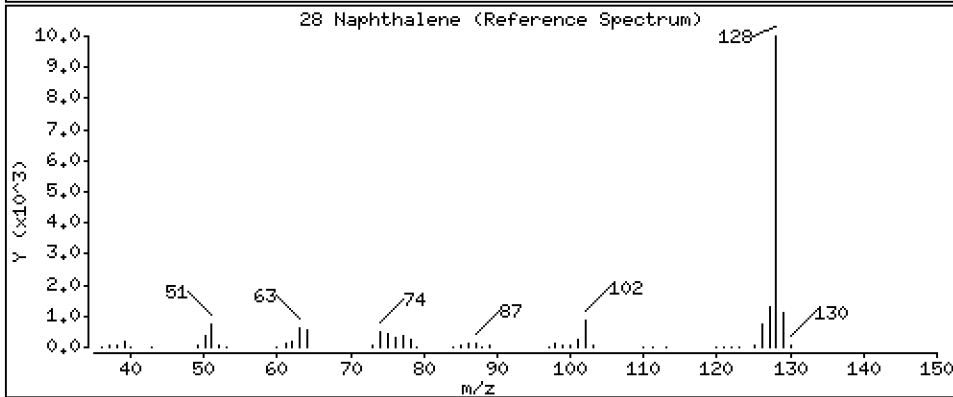
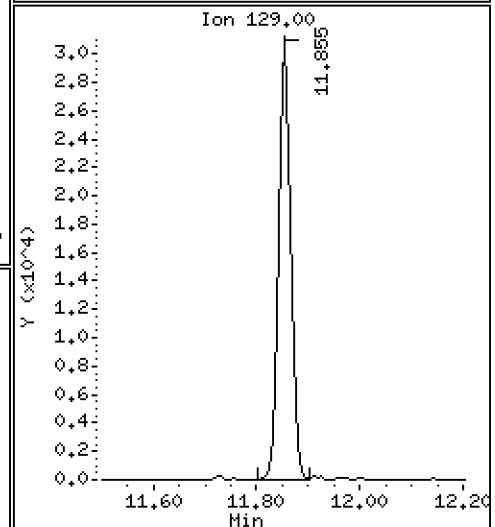
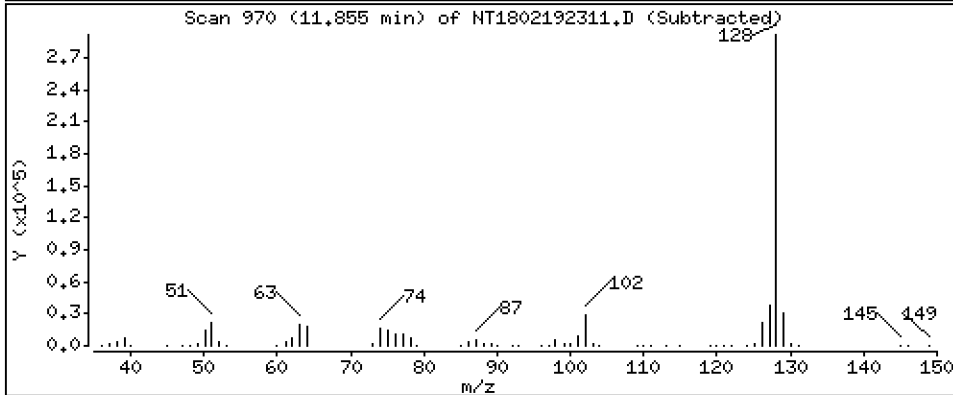
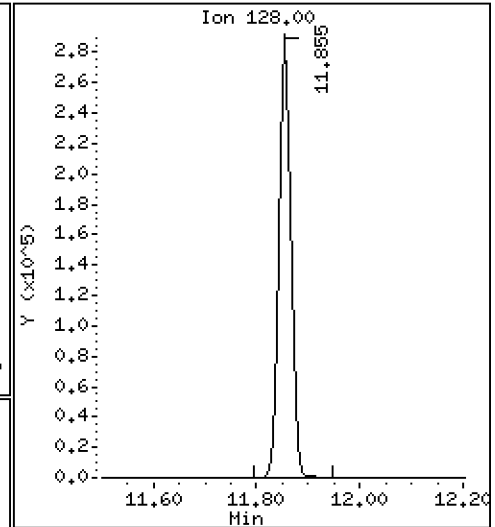
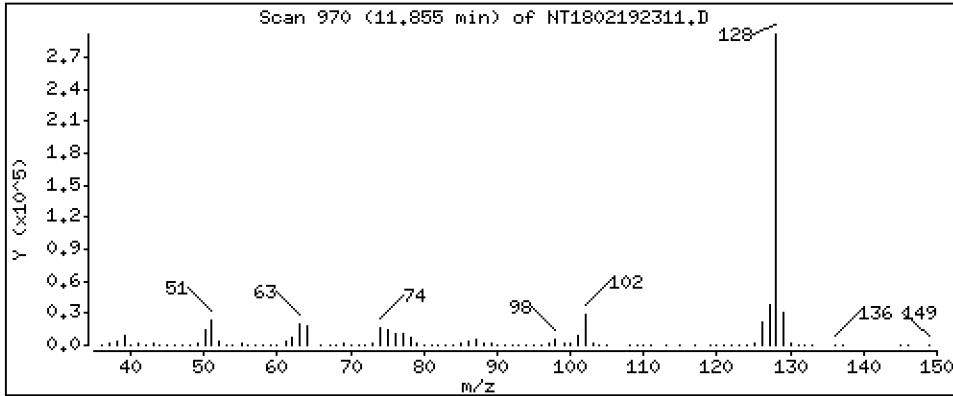
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 3,686 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

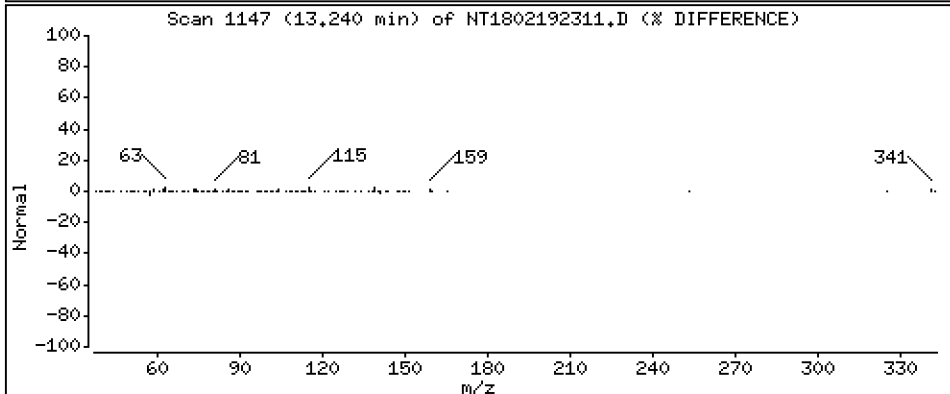
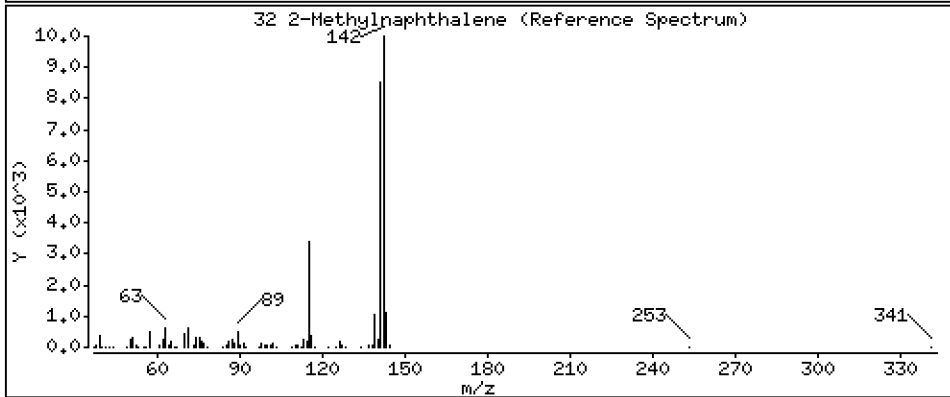
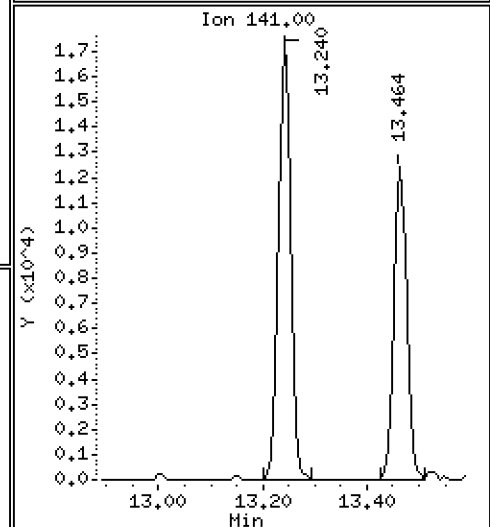
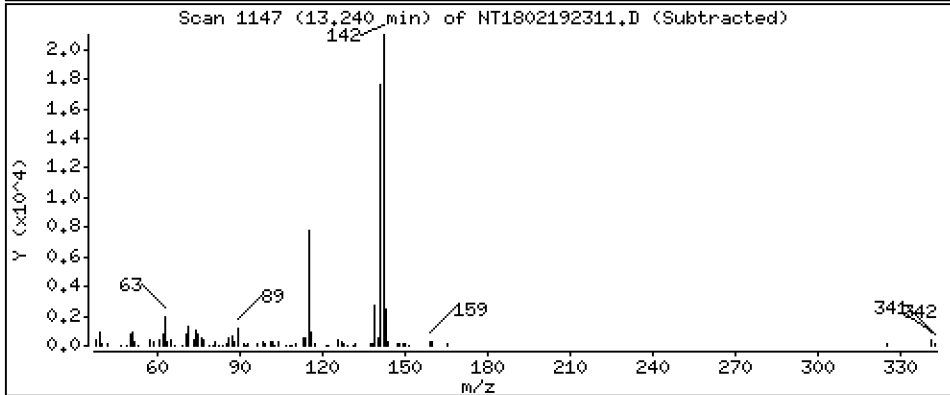
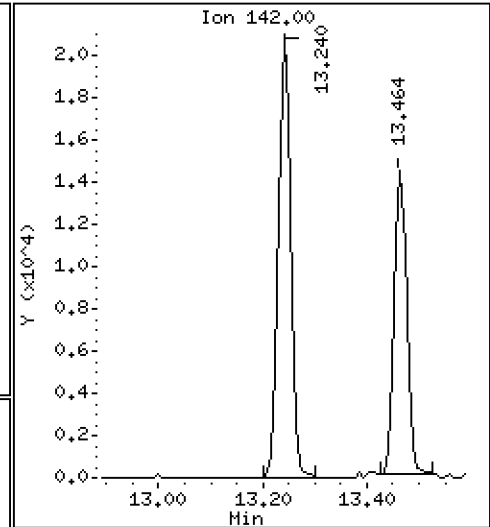
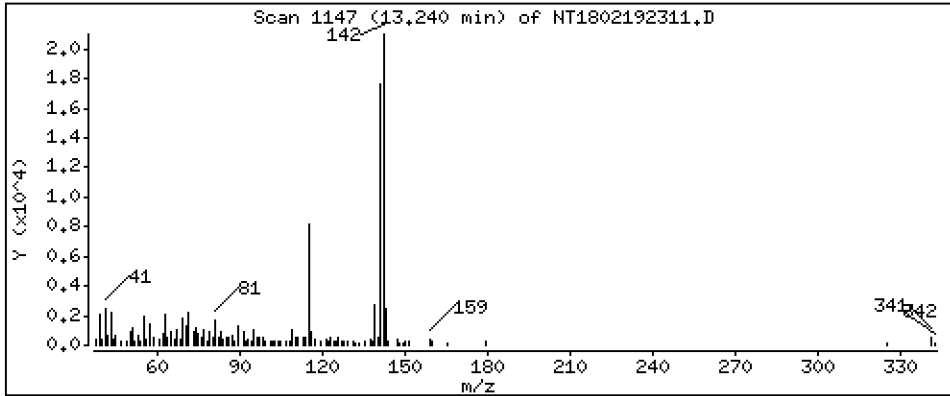
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,3901 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

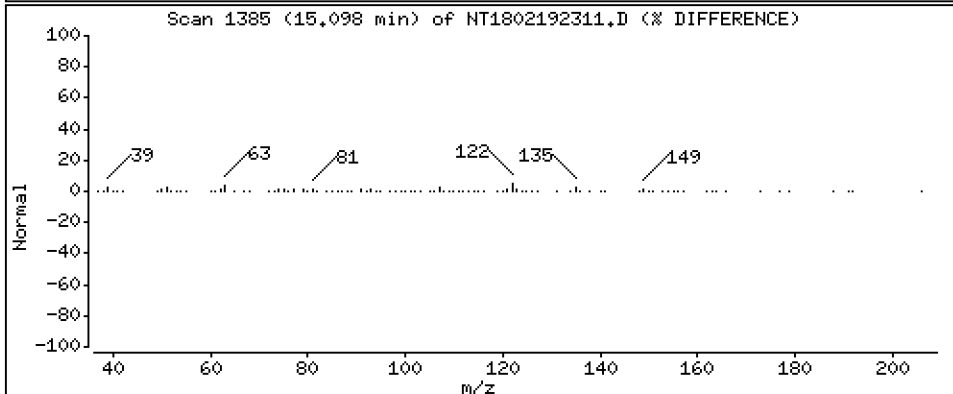
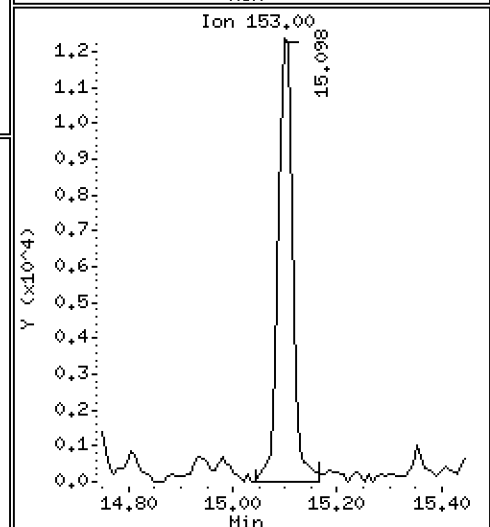
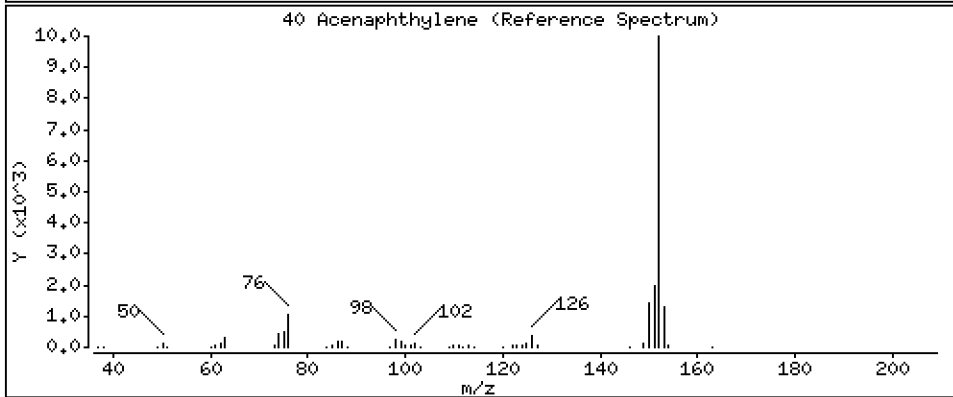
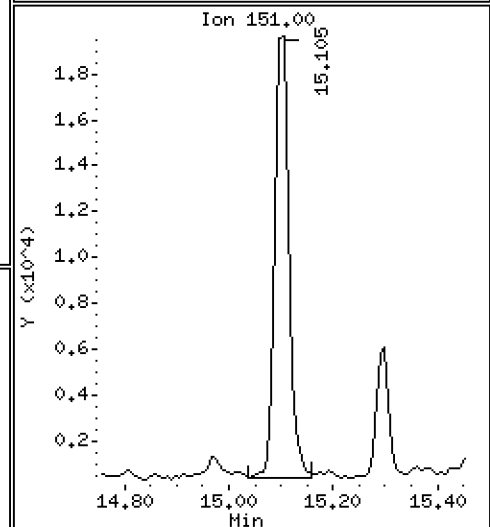
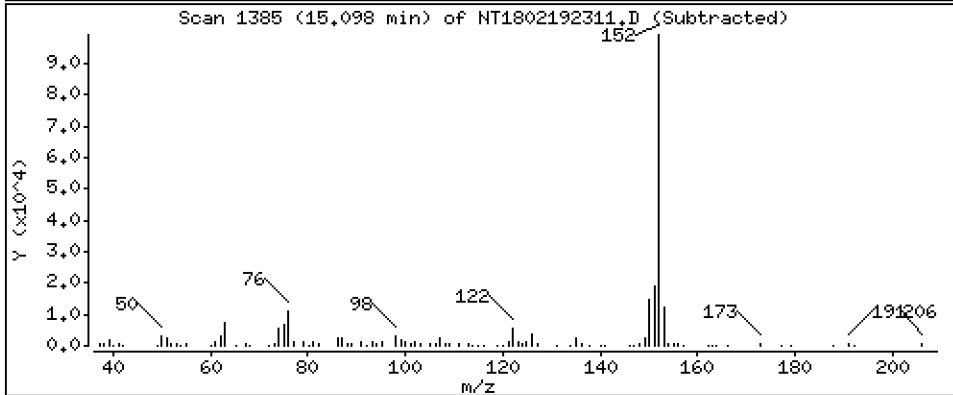
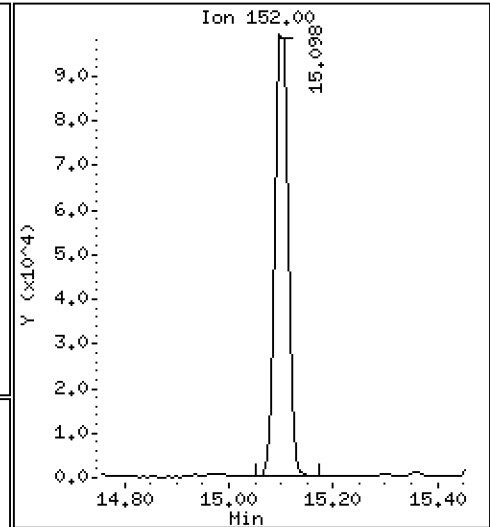
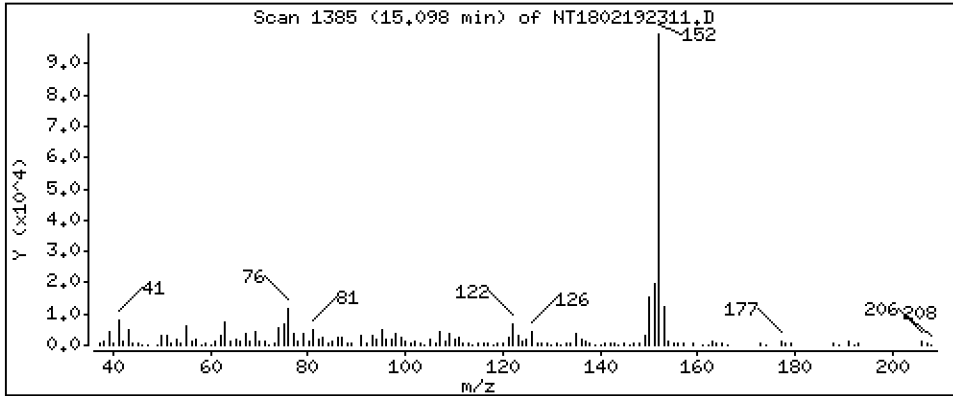
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 1,440 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

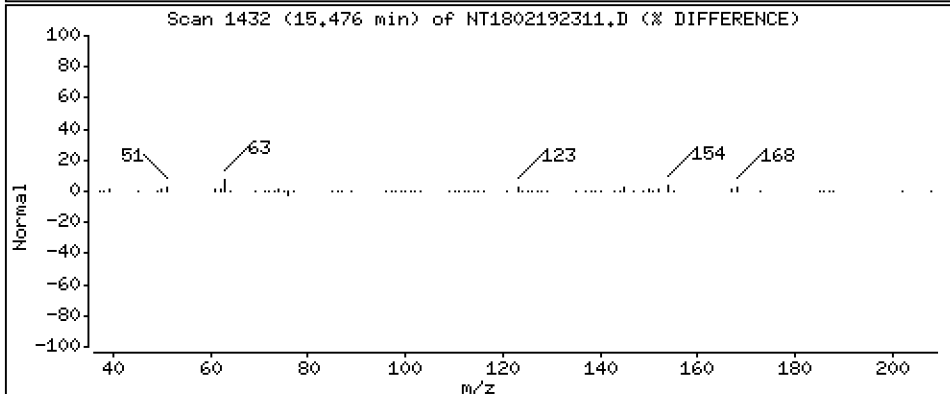
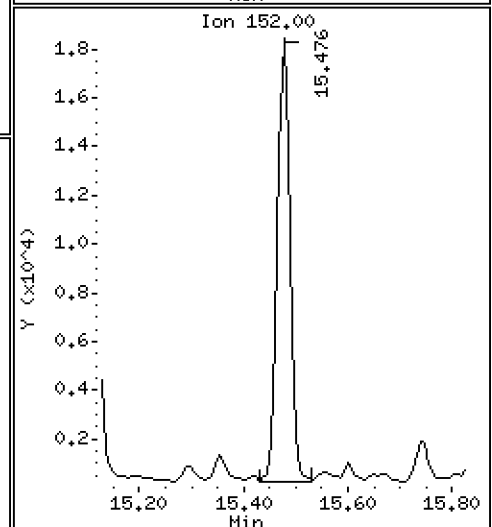
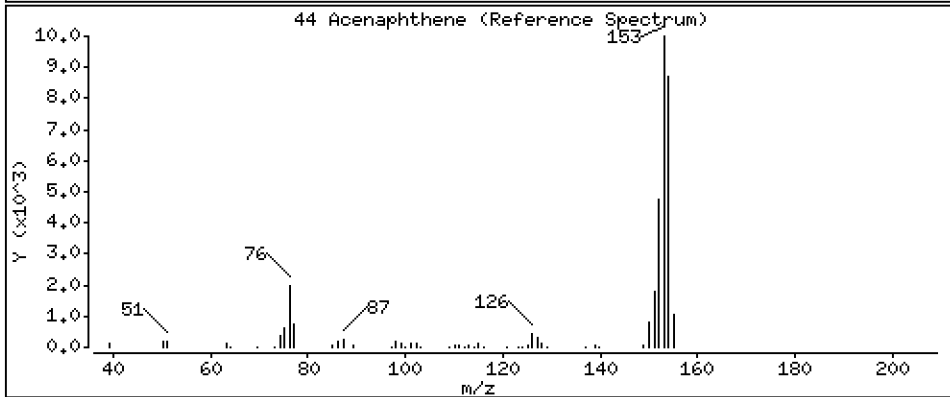
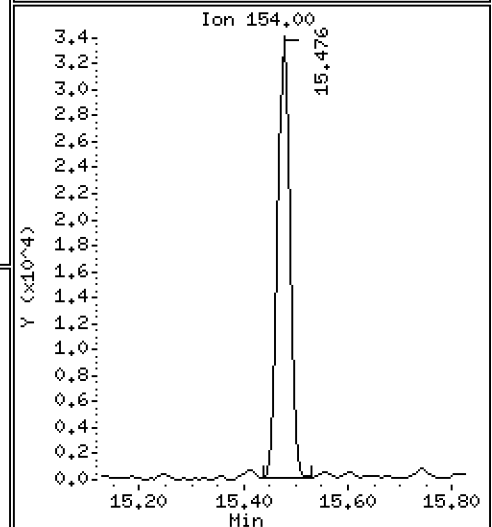
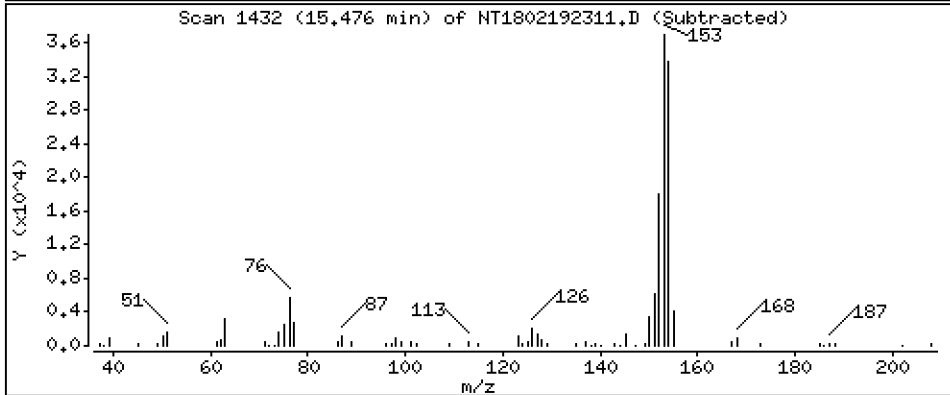
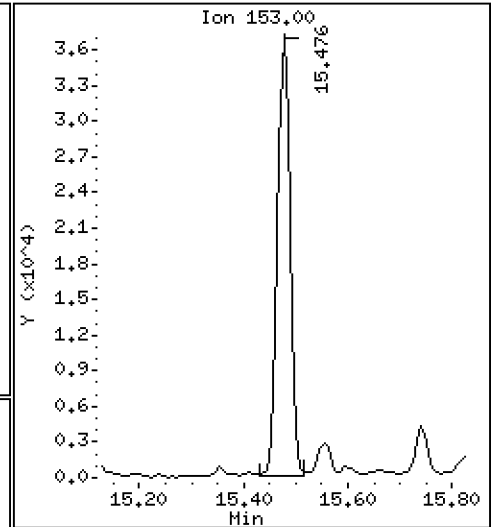
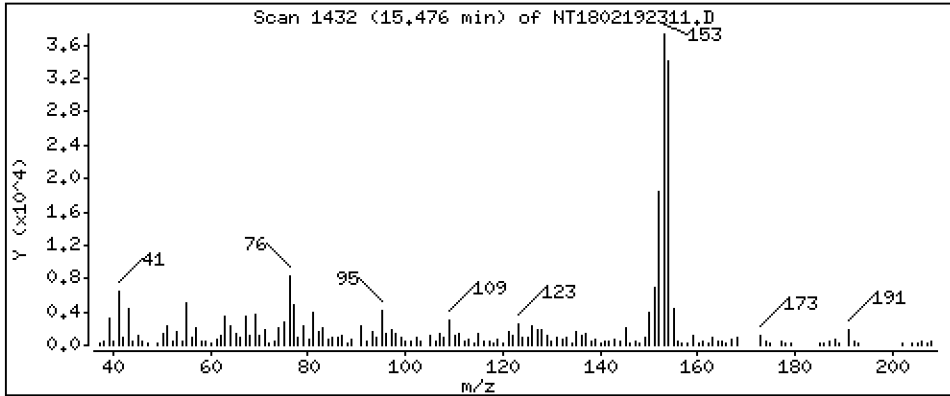
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,7704 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

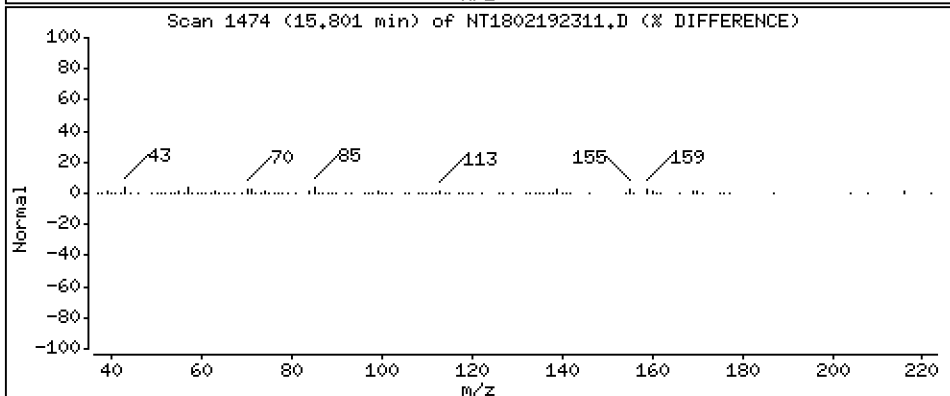
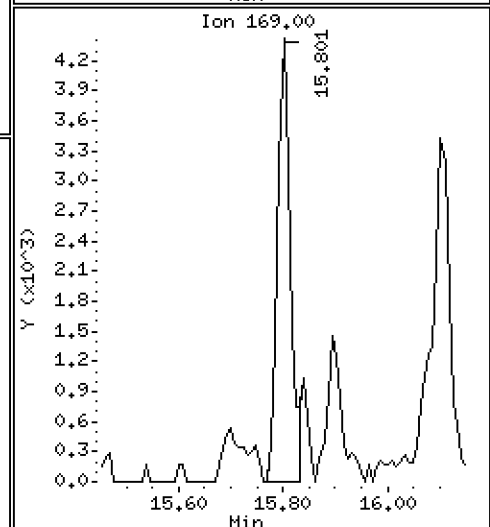
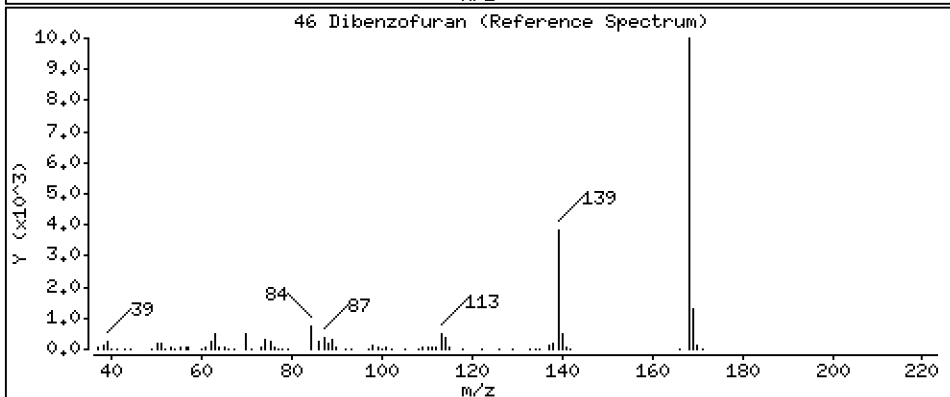
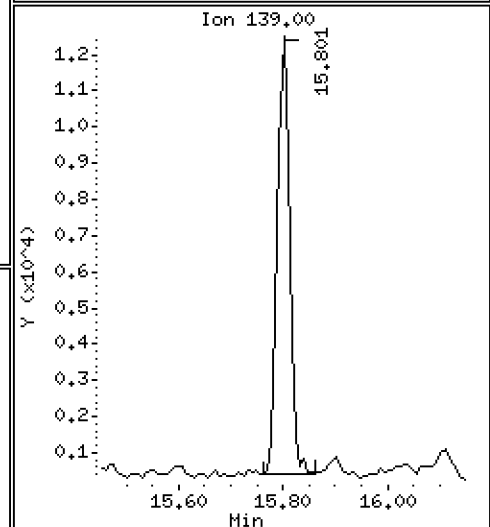
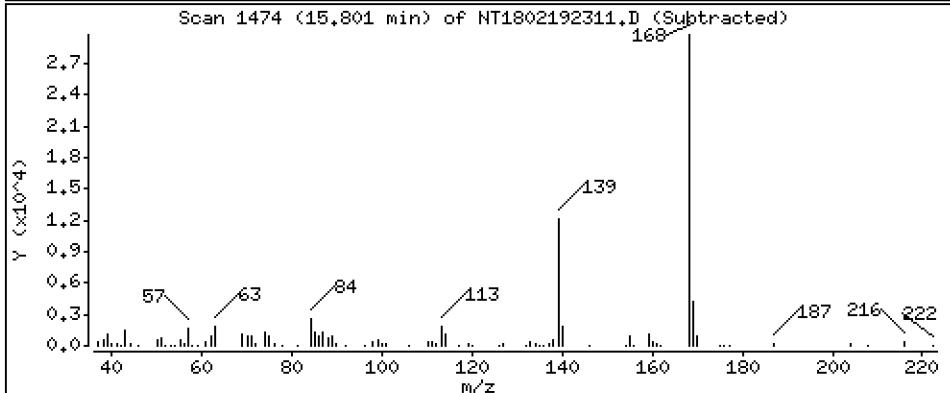
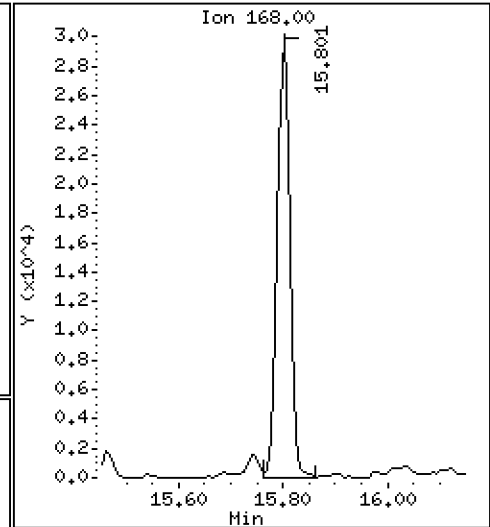
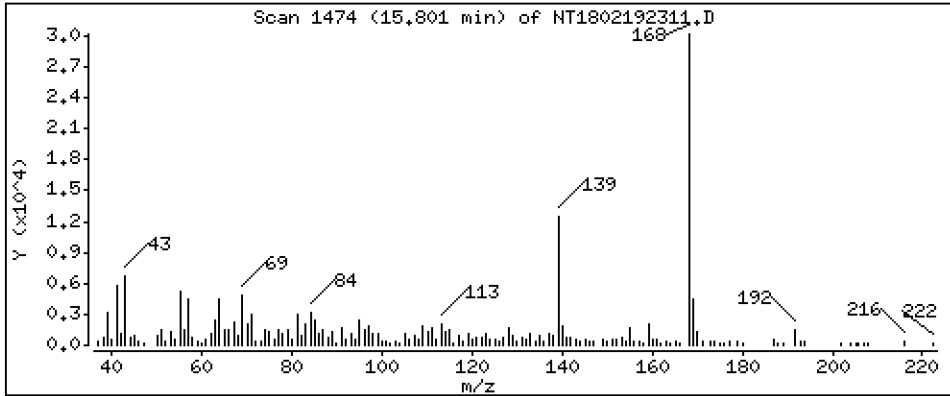
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,4347 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

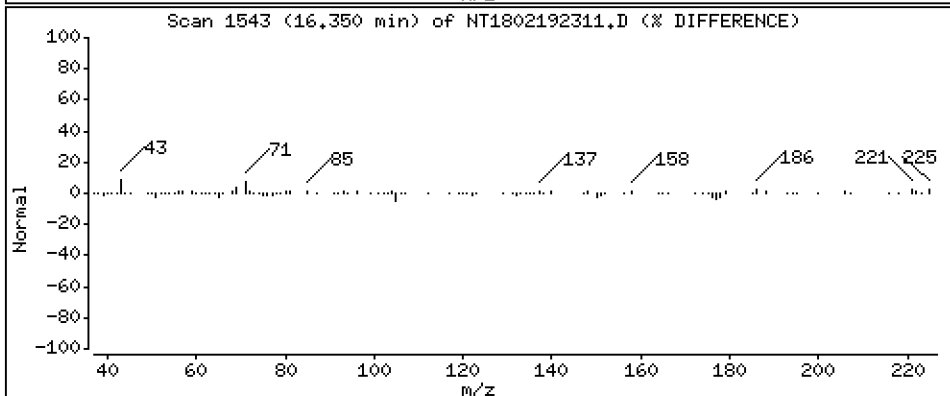
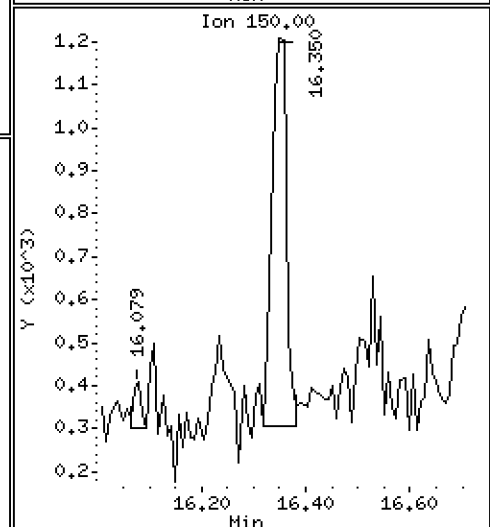
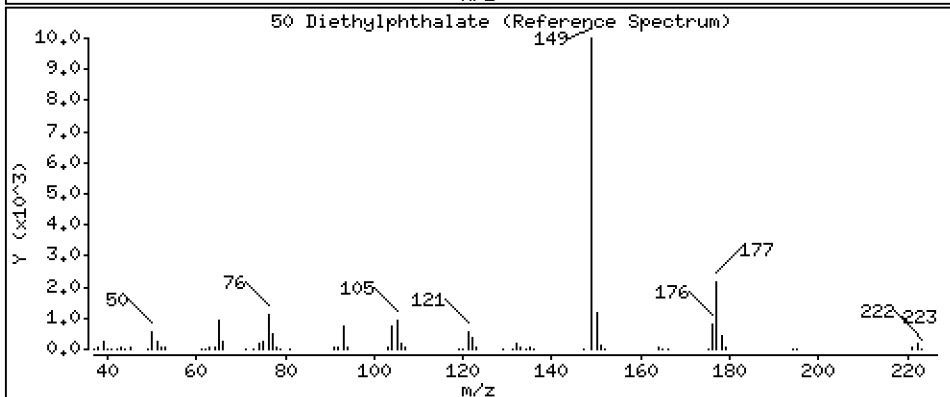
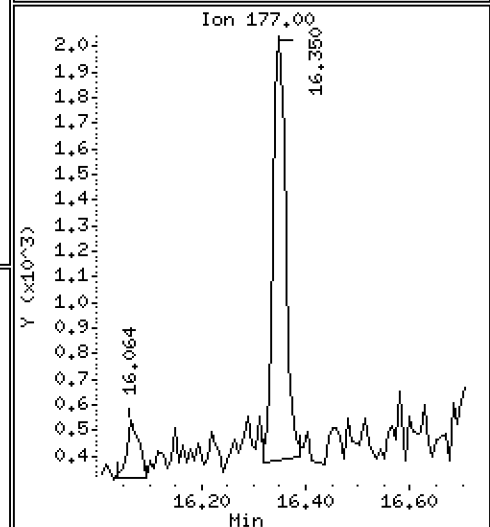
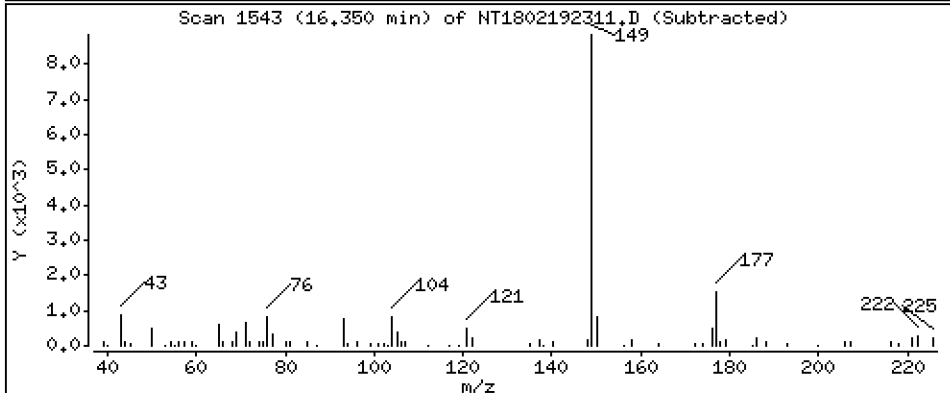
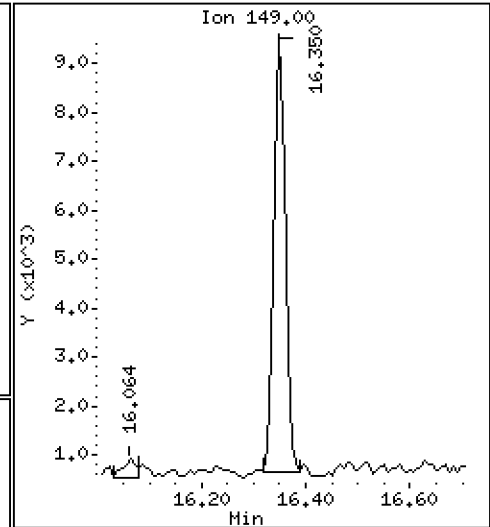
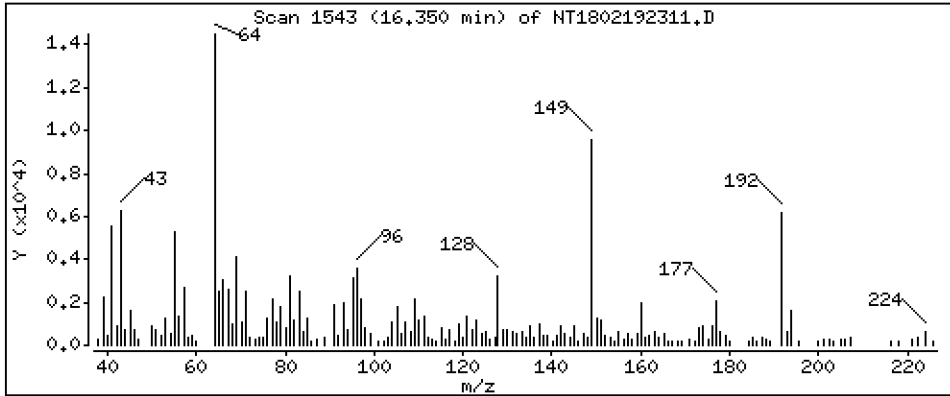
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.1570 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

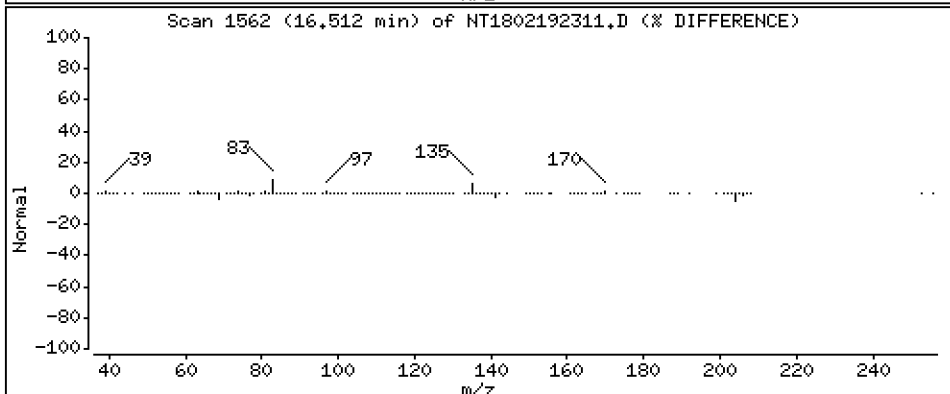
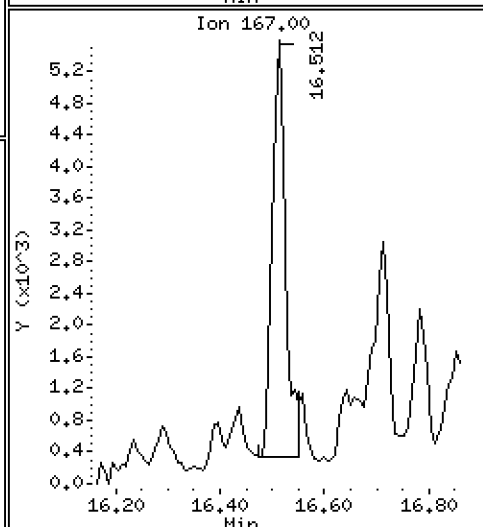
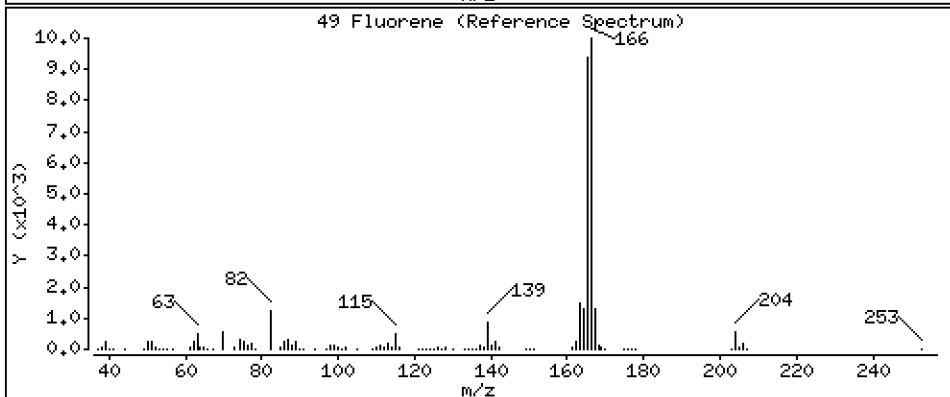
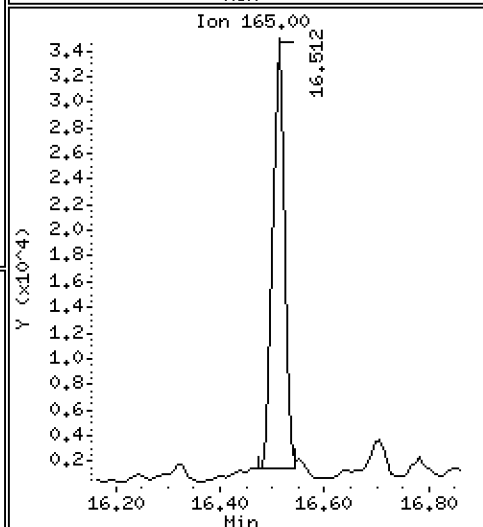
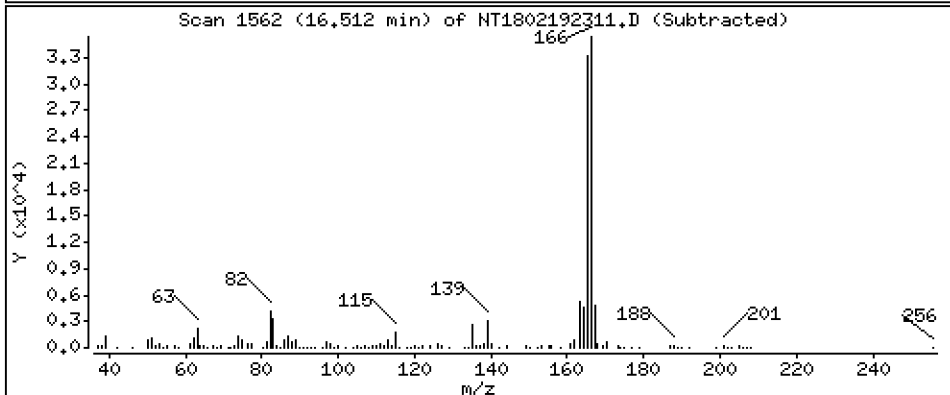
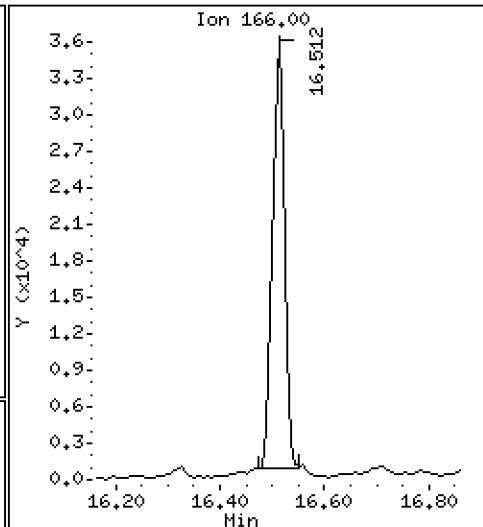
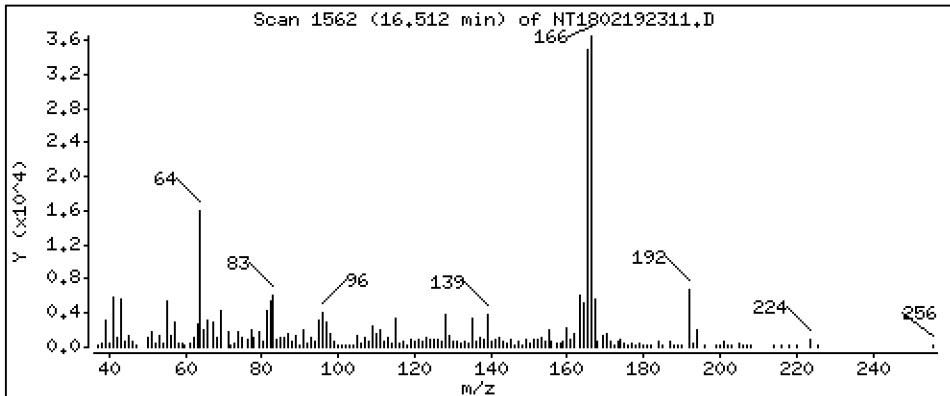
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,6208 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

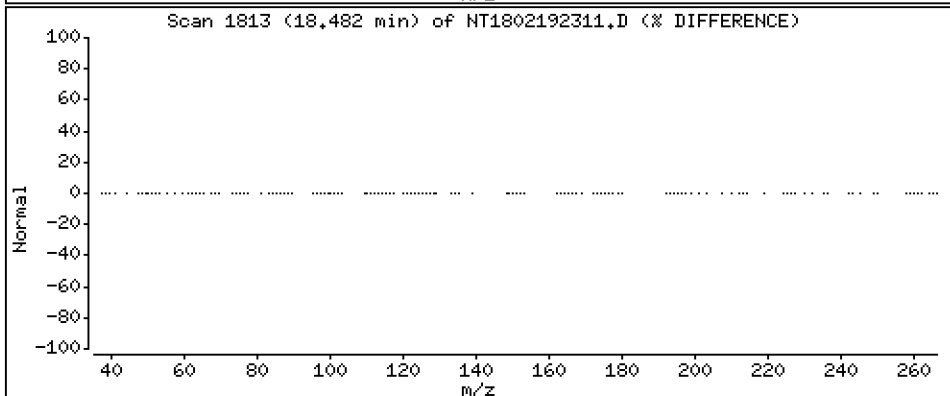
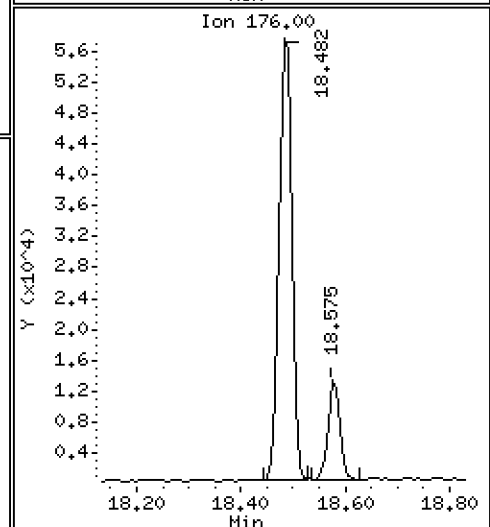
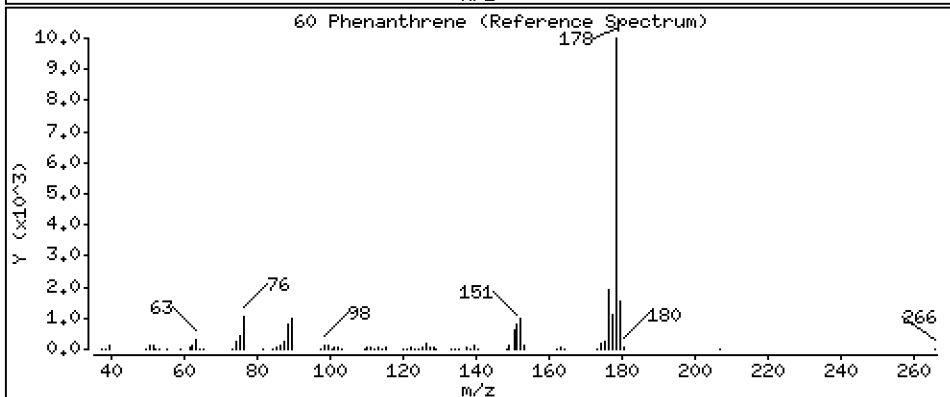
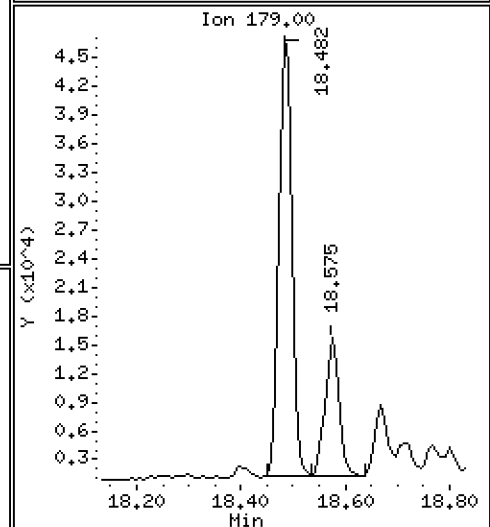
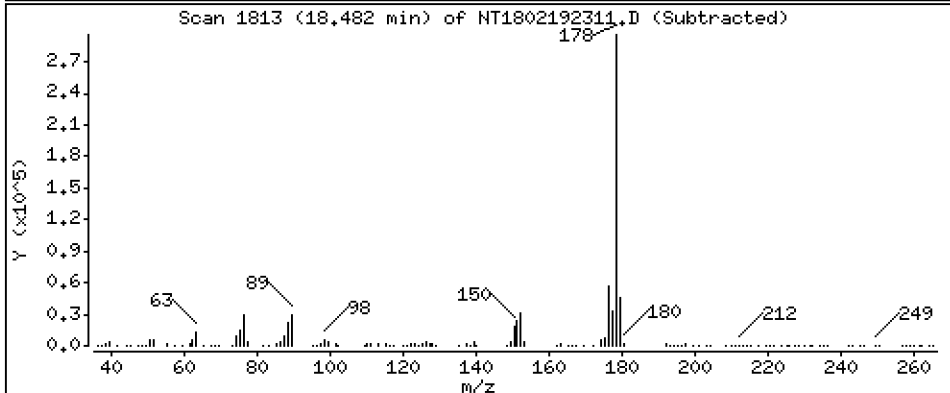
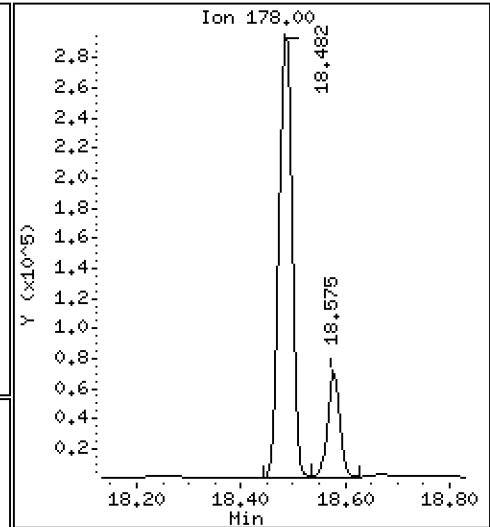
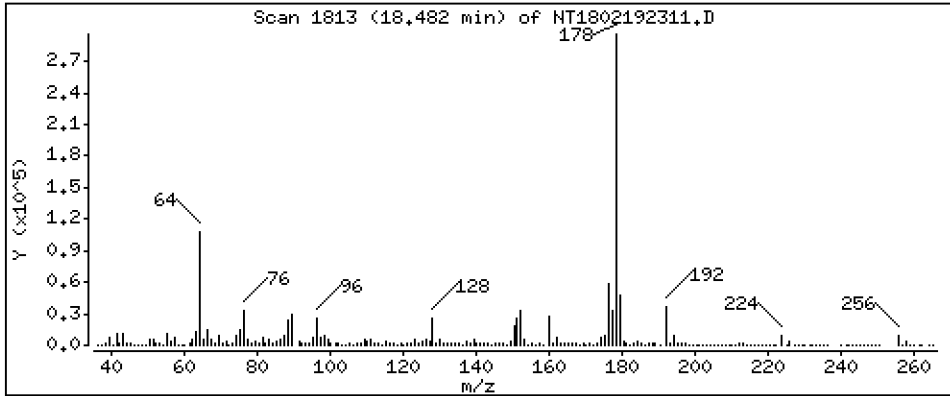
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 3,814 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

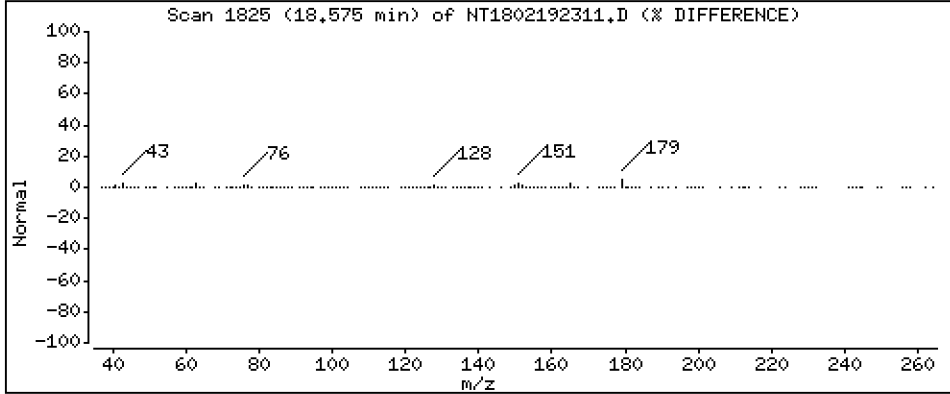
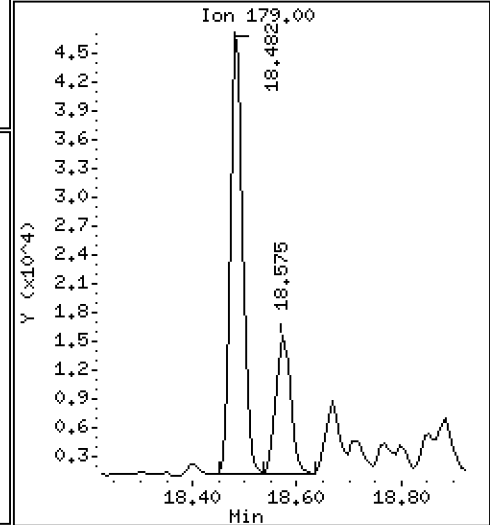
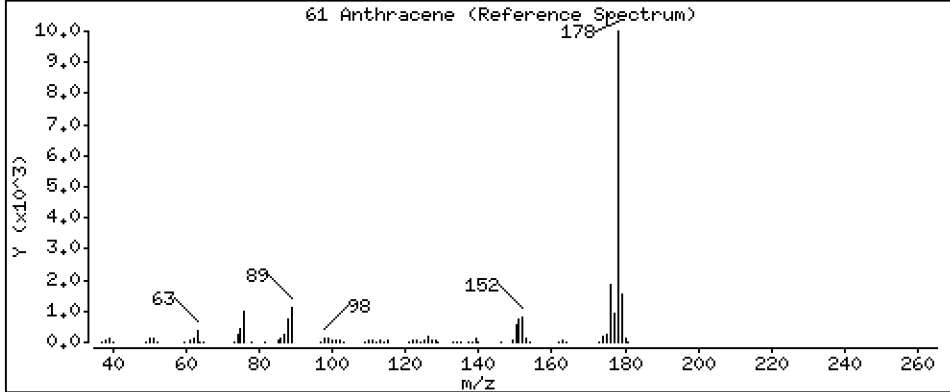
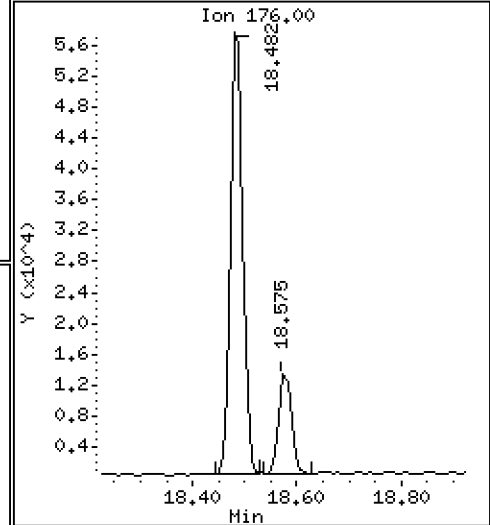
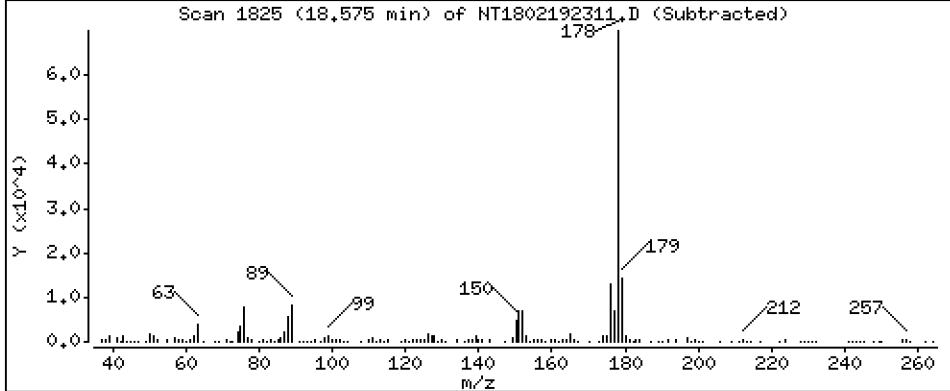
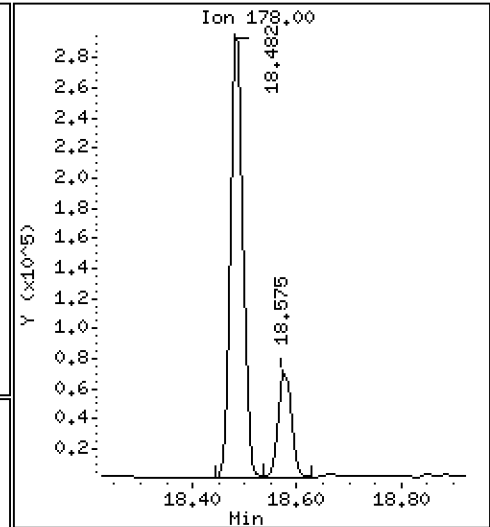
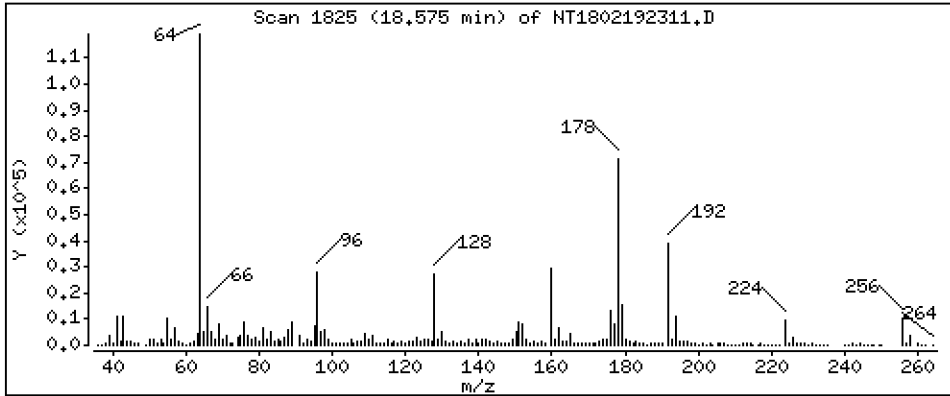
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 1,002 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

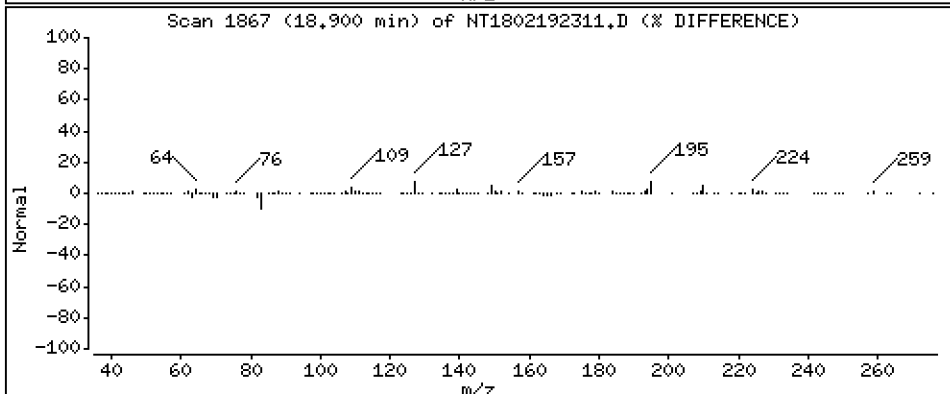
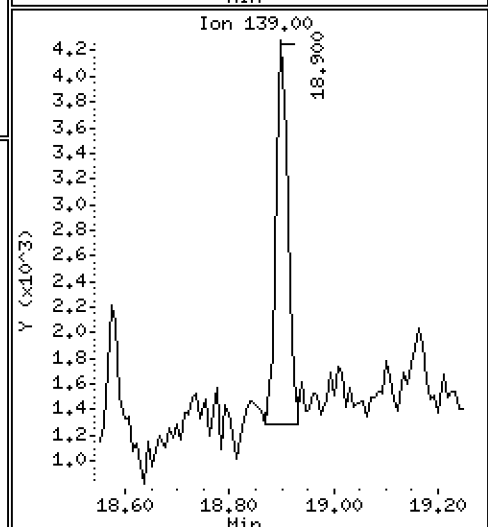
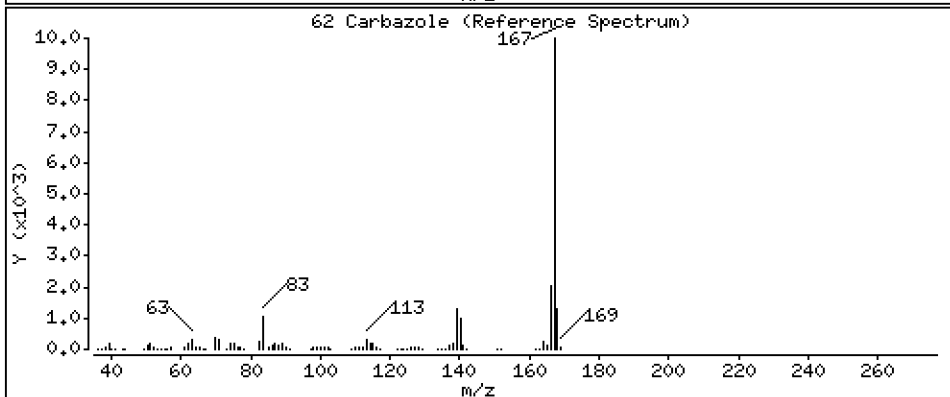
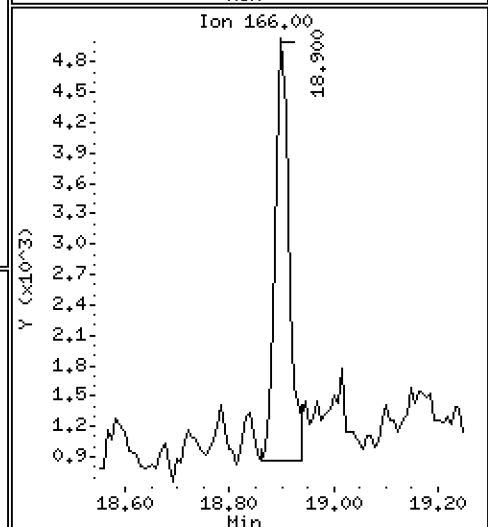
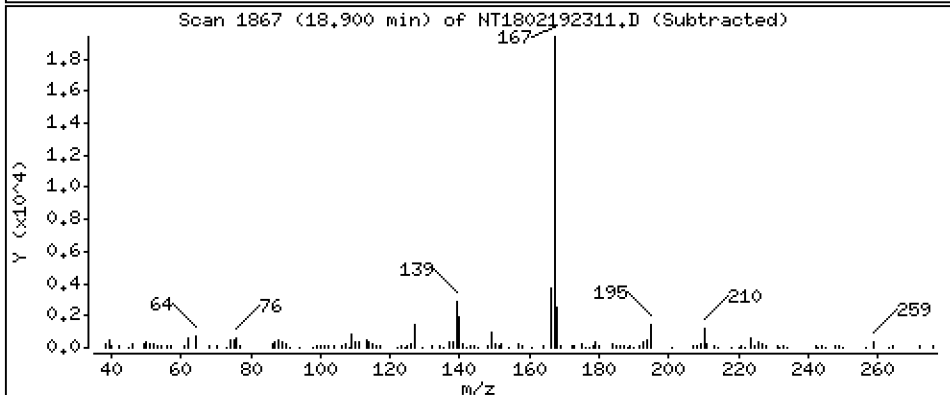
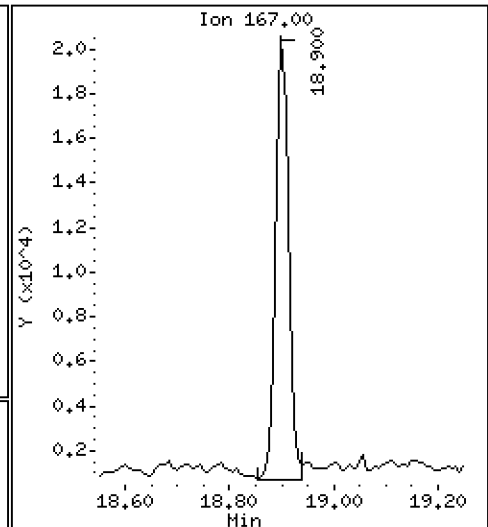
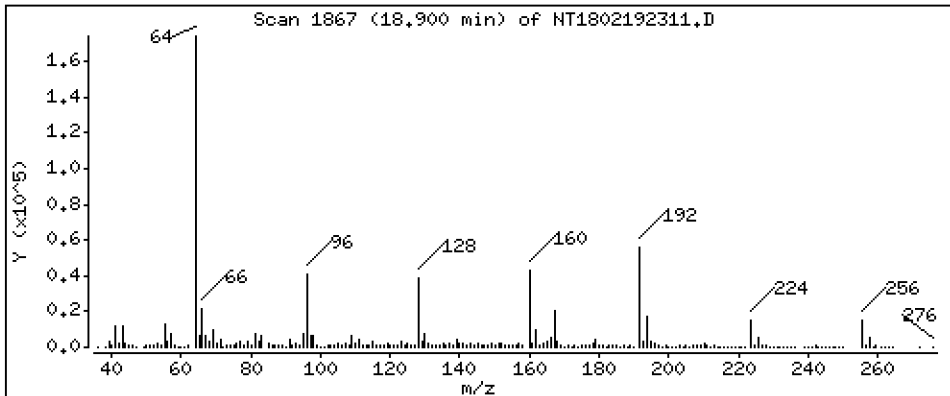
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,2807 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18,i

Sample Info: 23A0032-05RE1

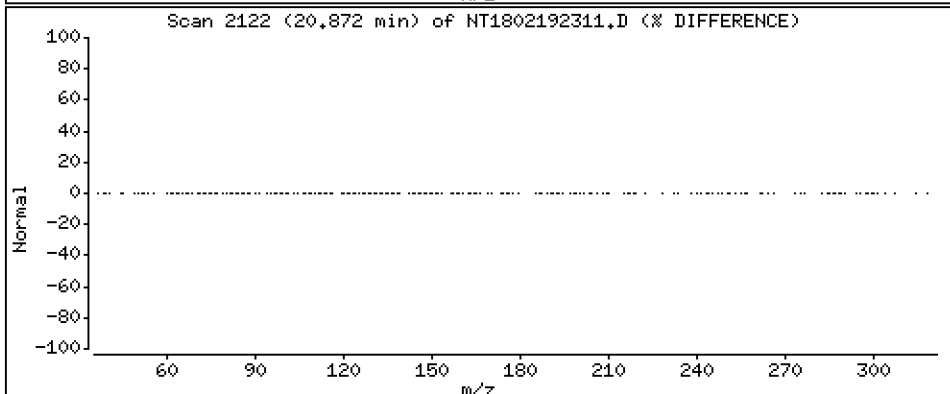
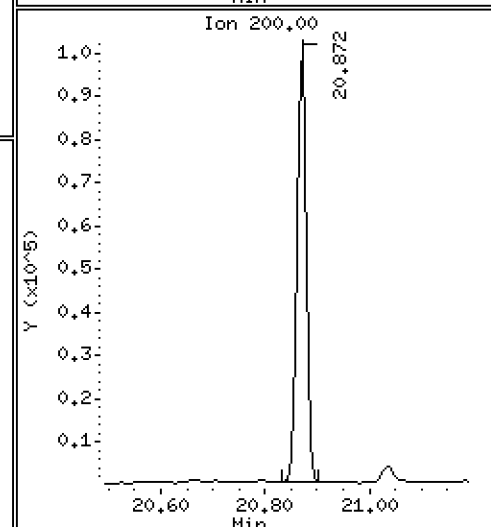
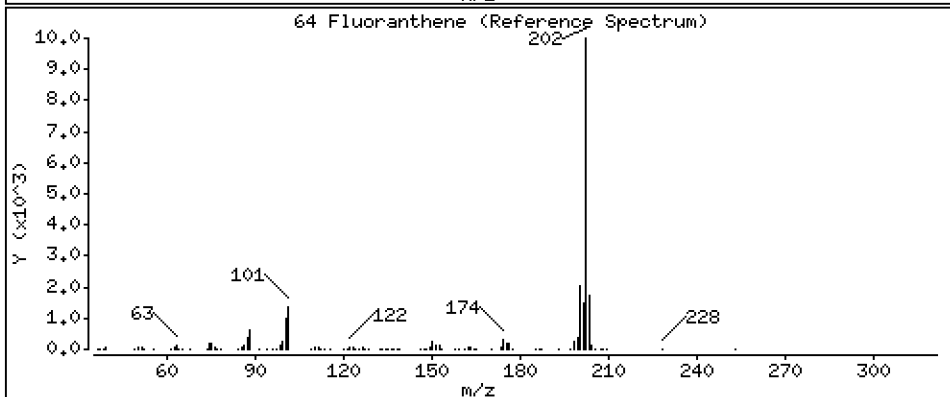
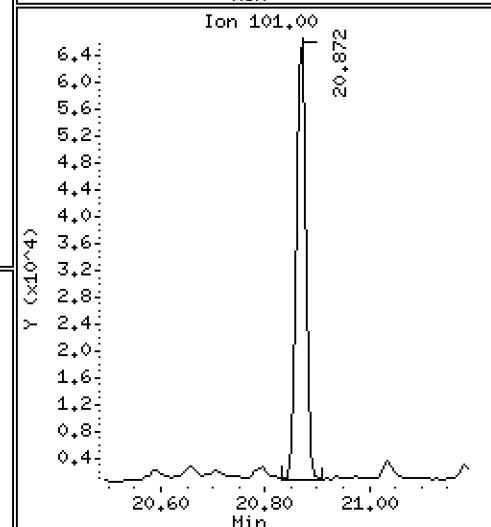
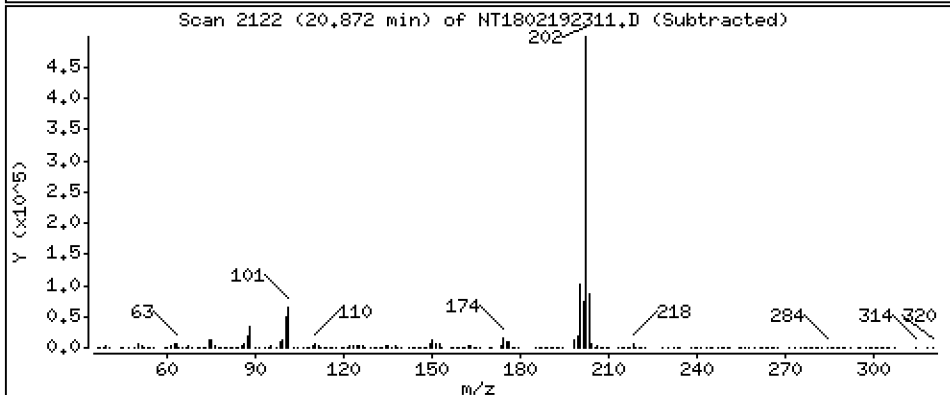
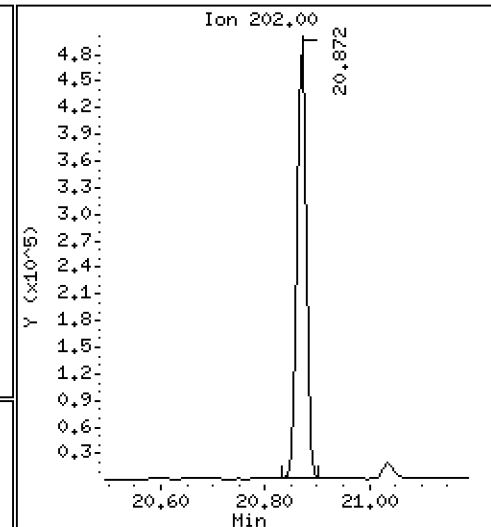
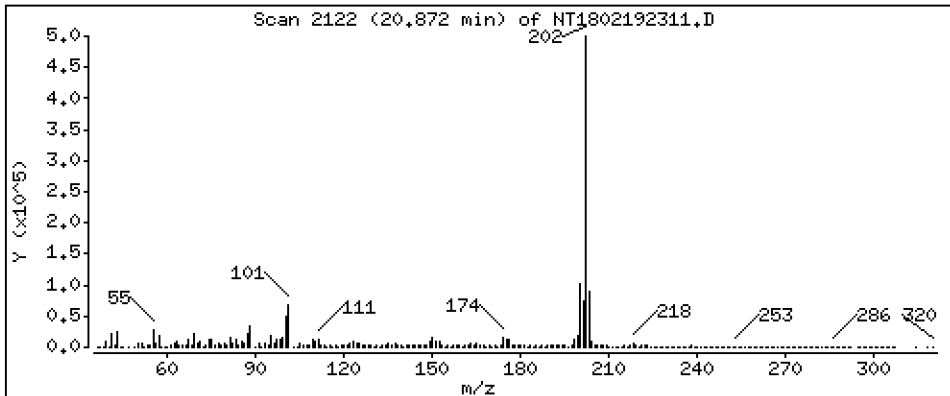
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,519 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

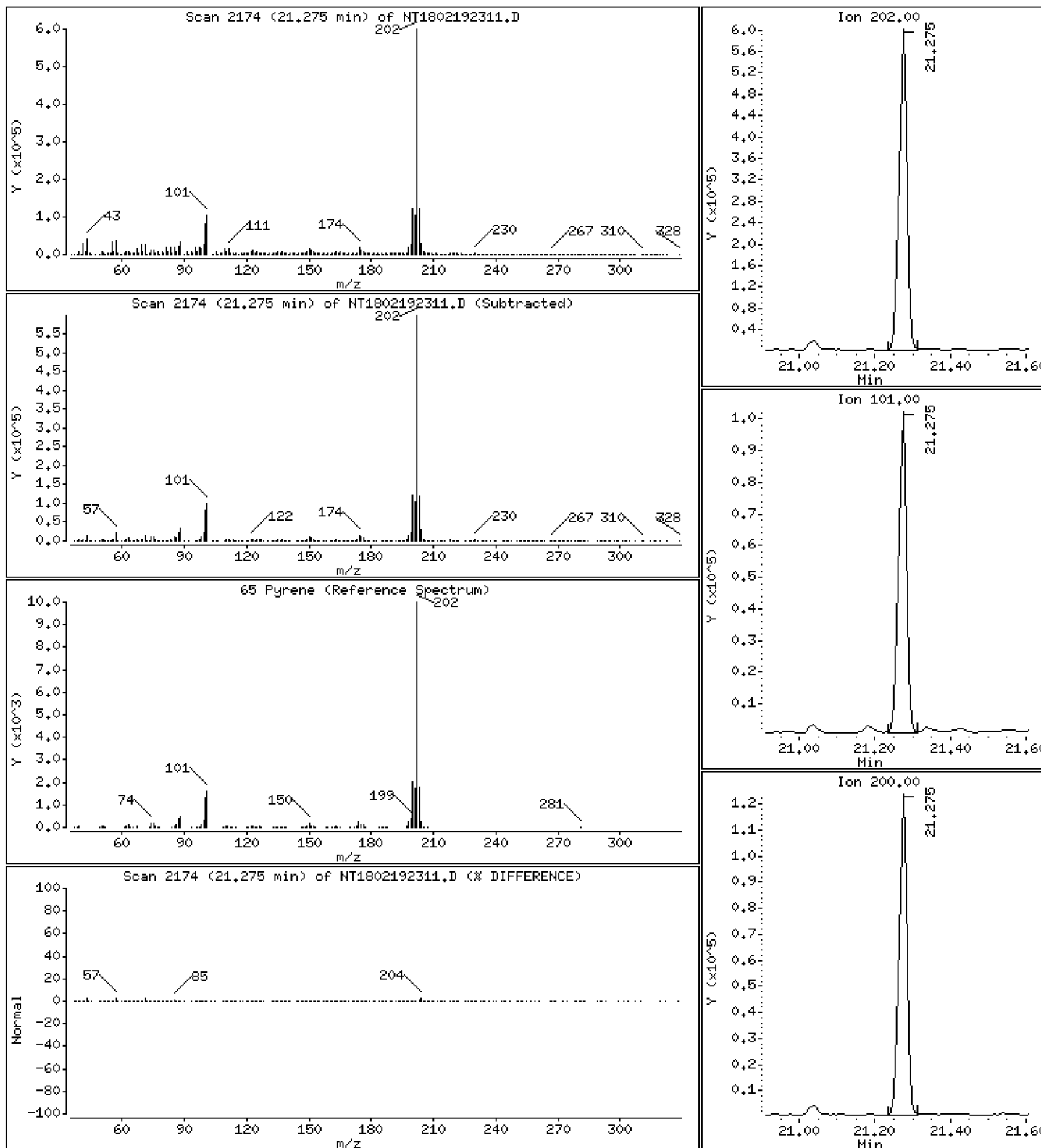
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 5,533 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

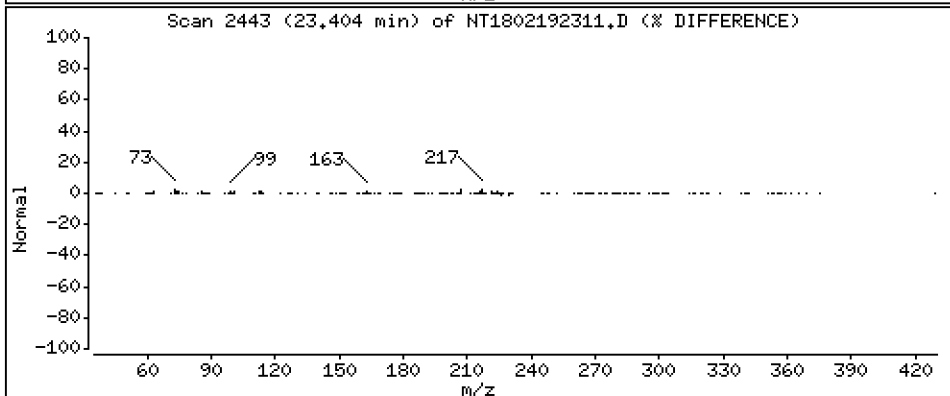
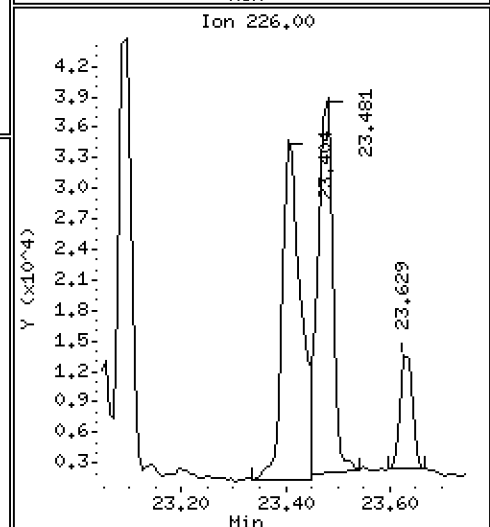
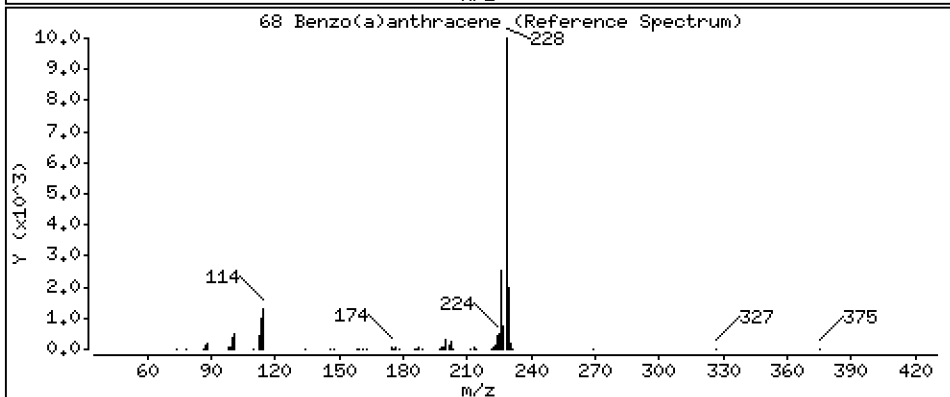
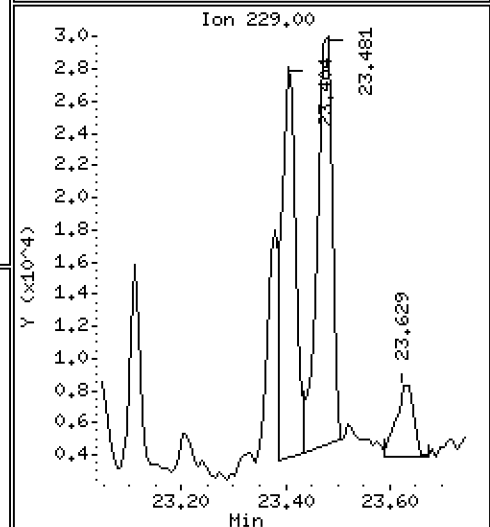
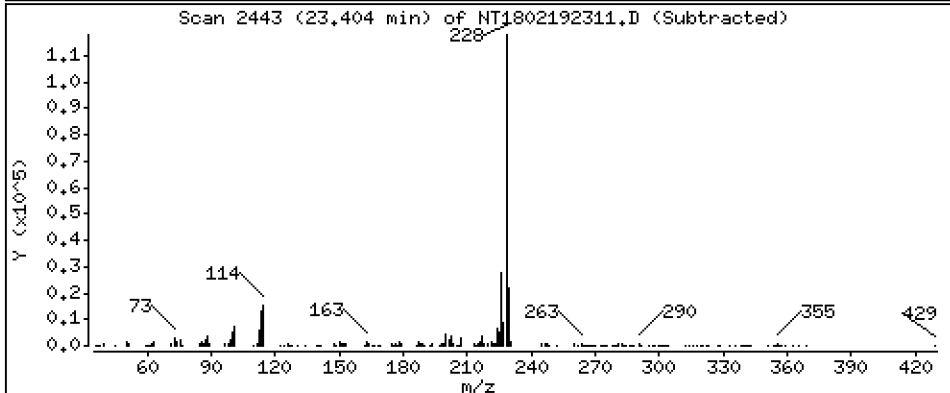
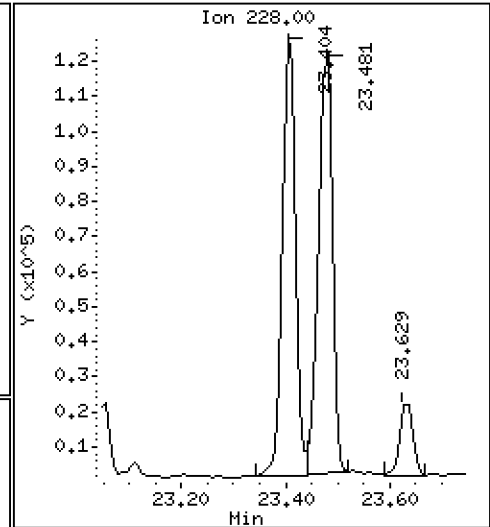
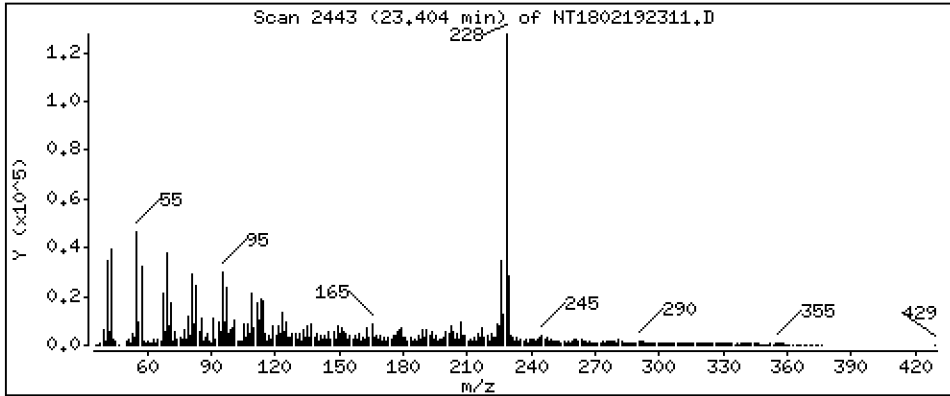
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 1,415 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

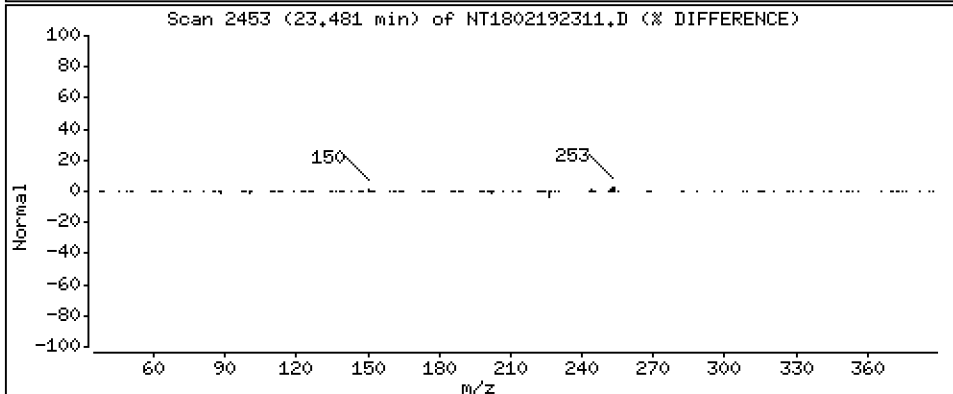
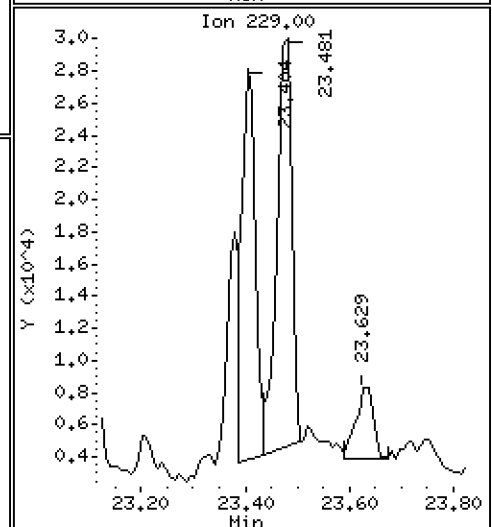
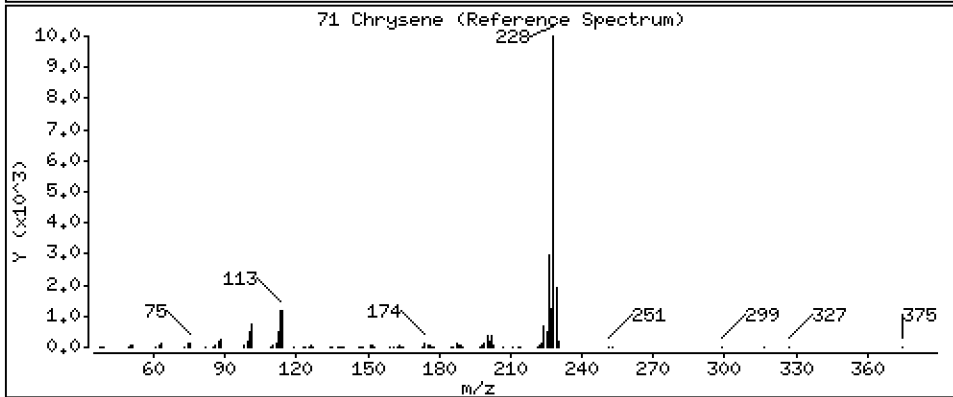
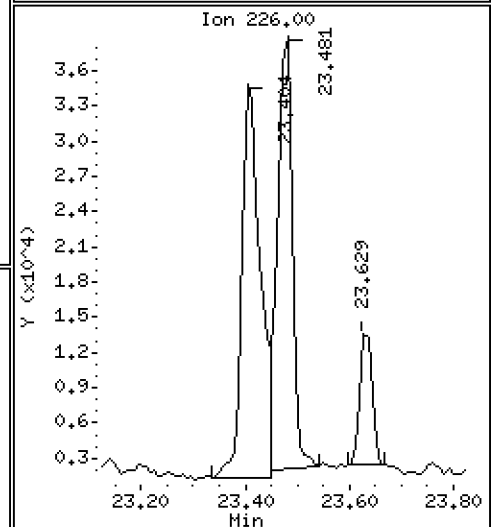
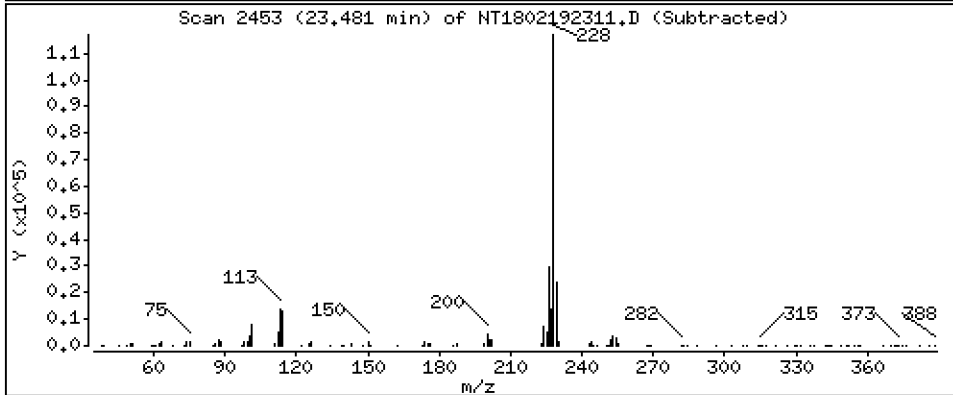
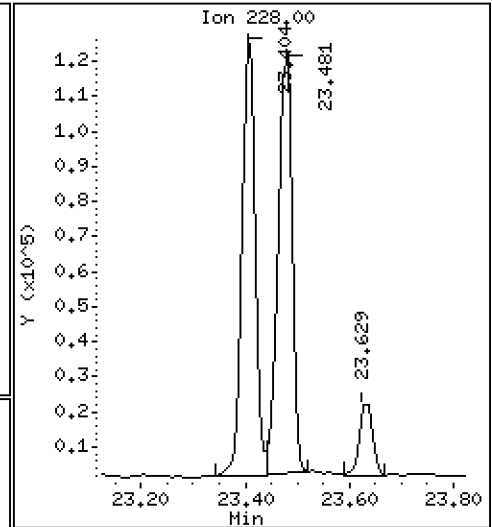
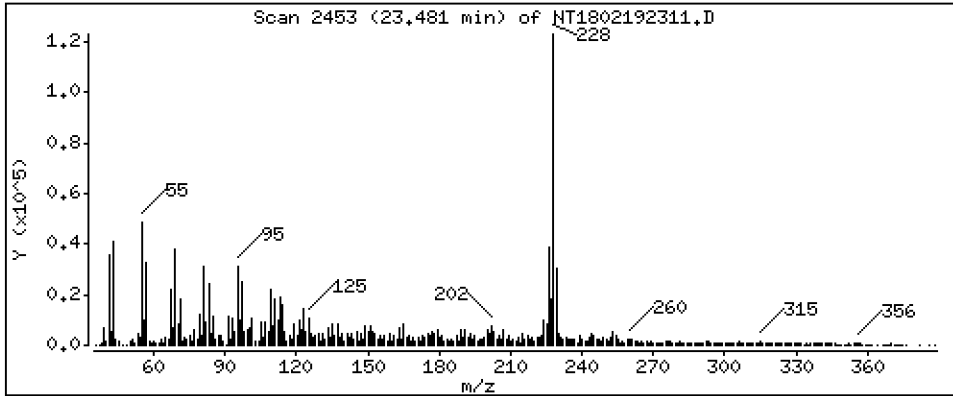
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 1,354 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

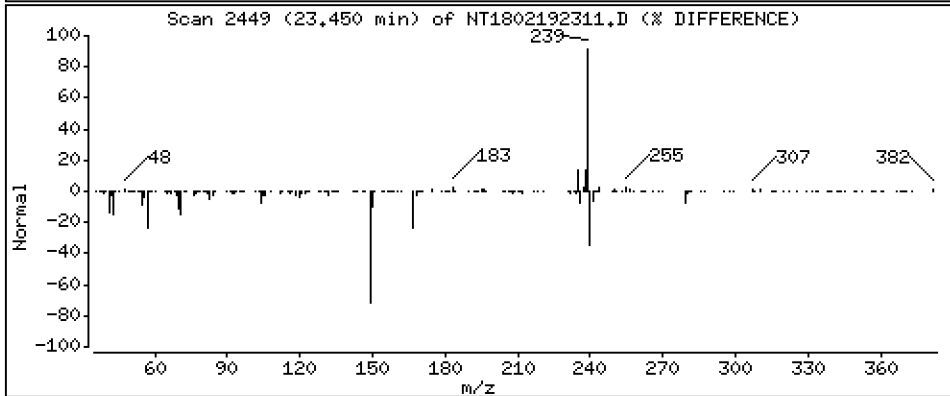
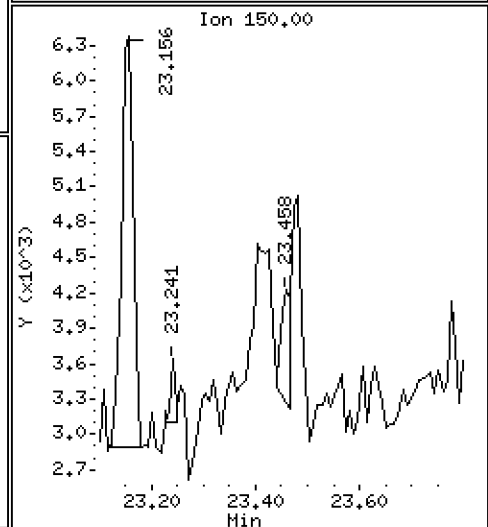
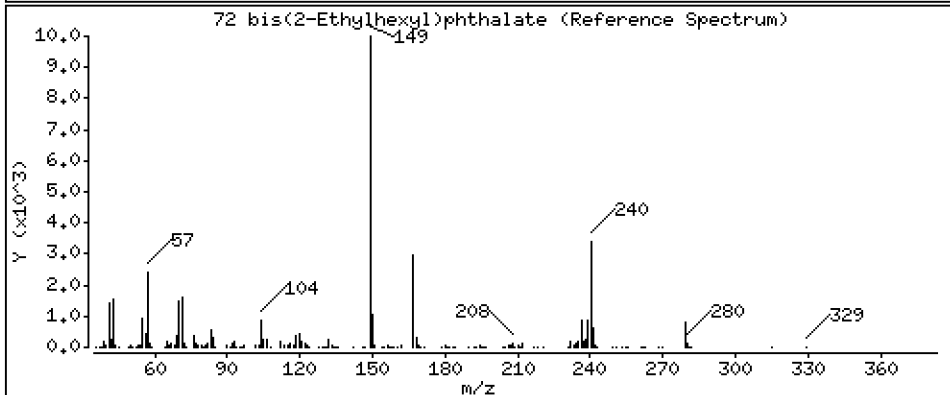
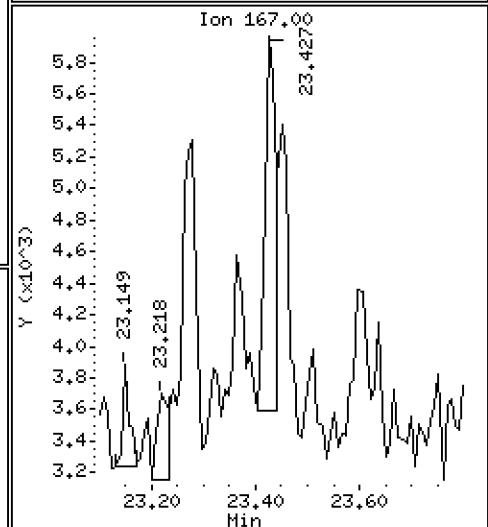
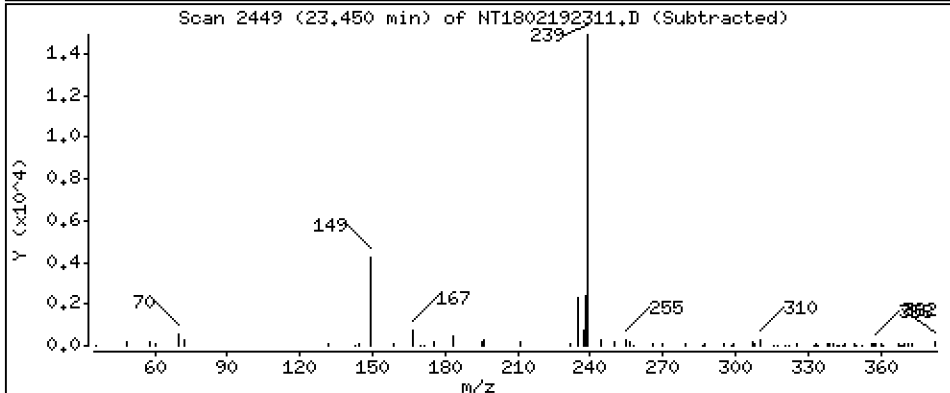
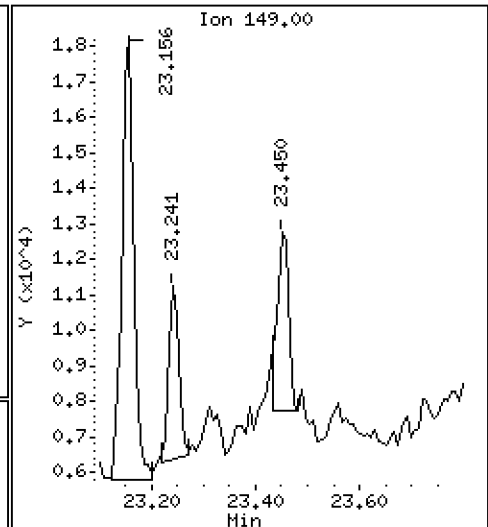
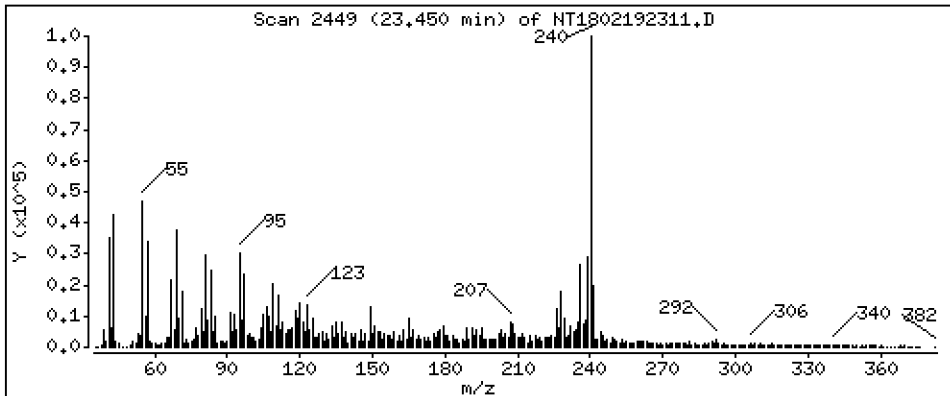
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,06784 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

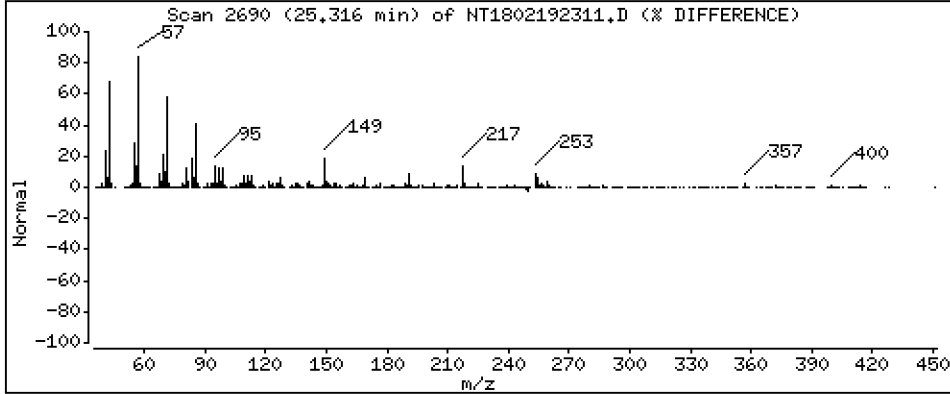
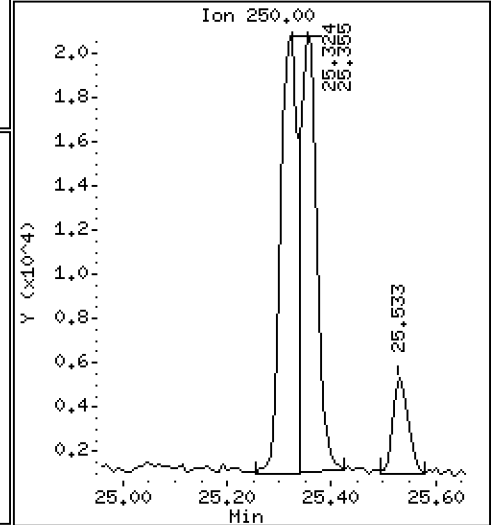
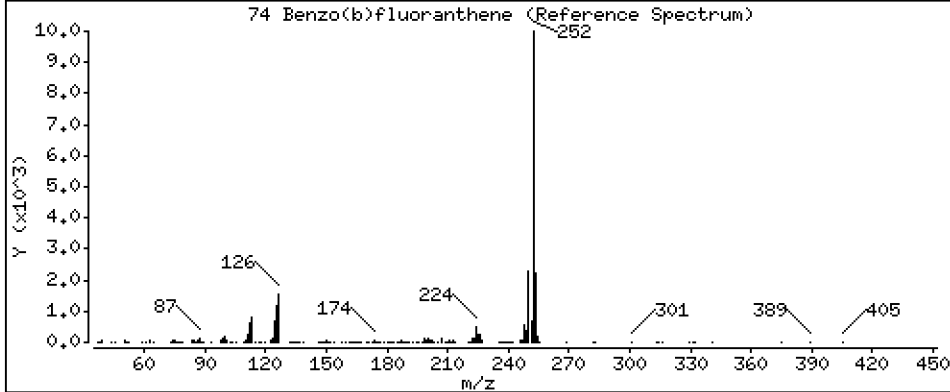
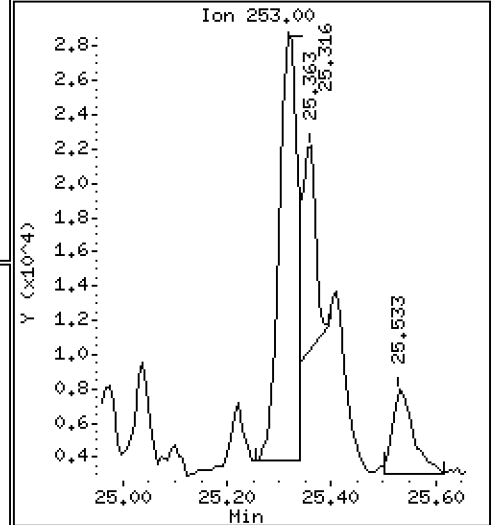
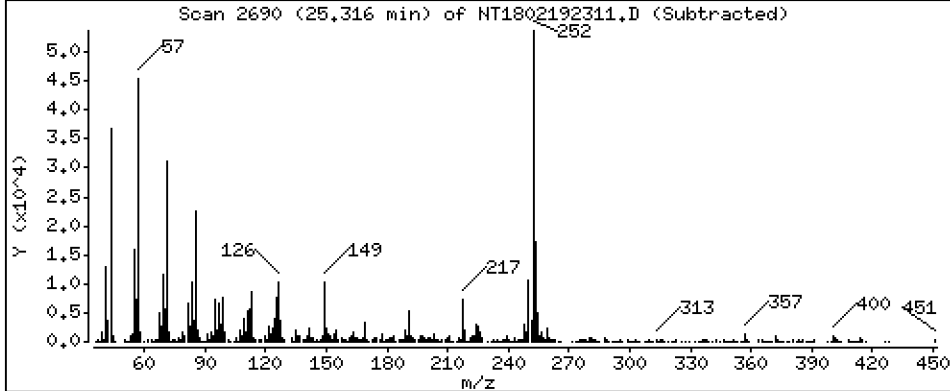
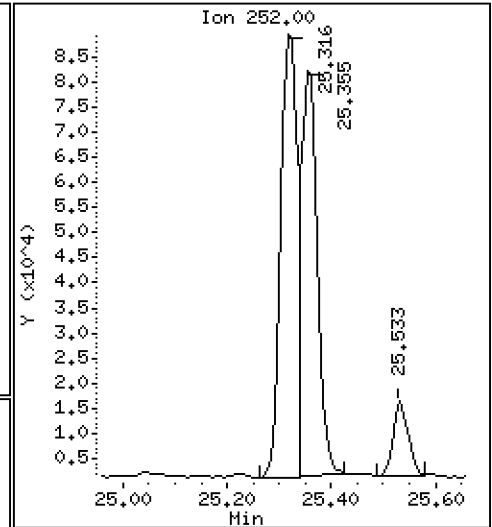
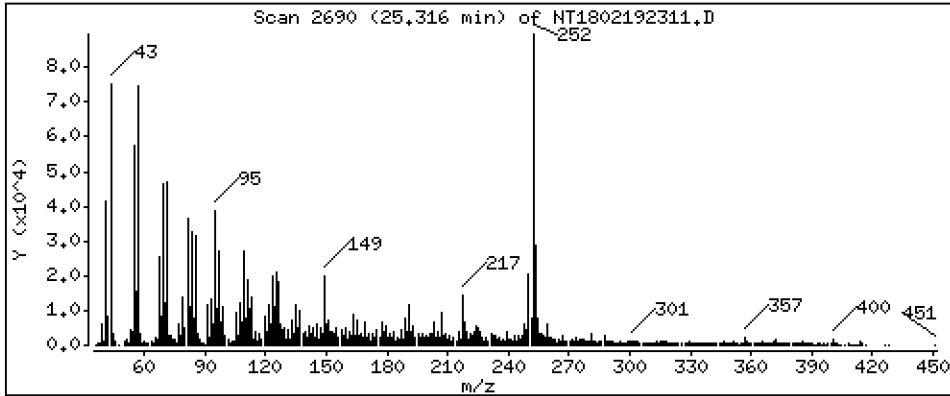
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 1,327 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

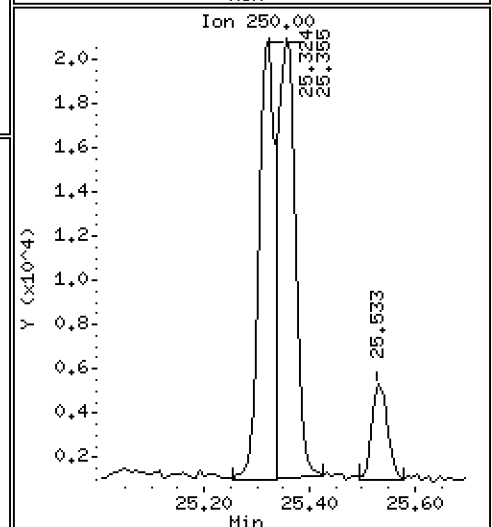
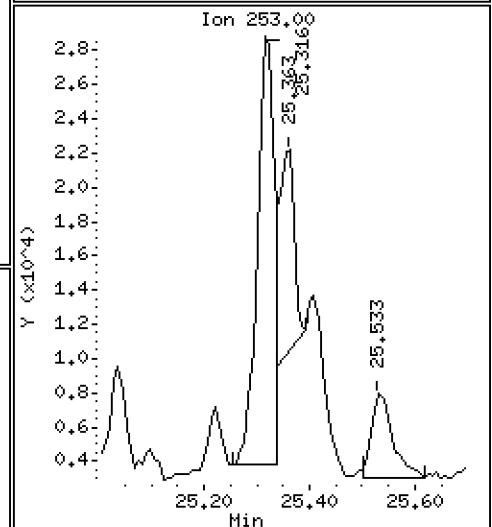
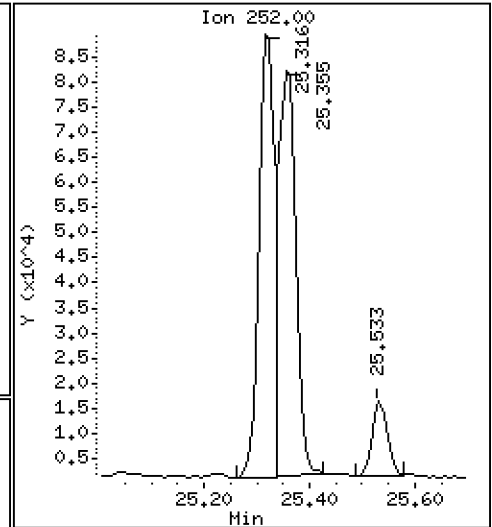
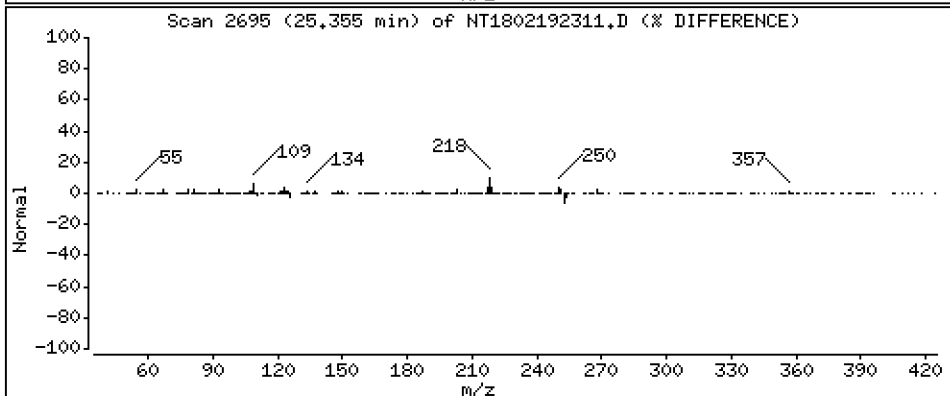
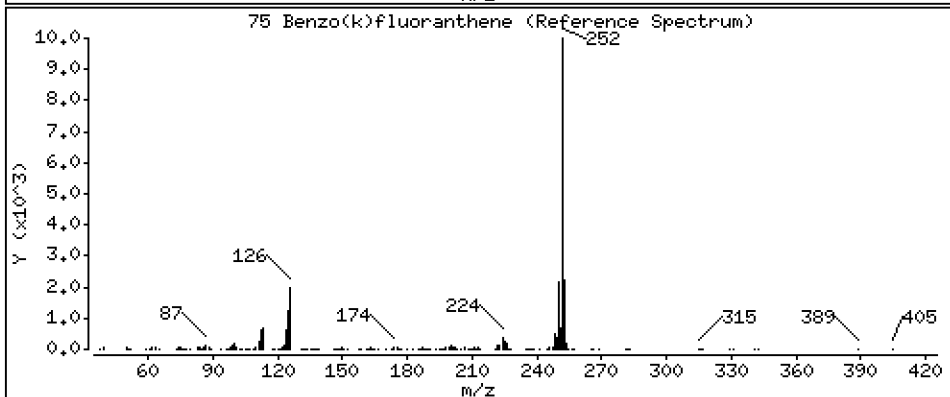
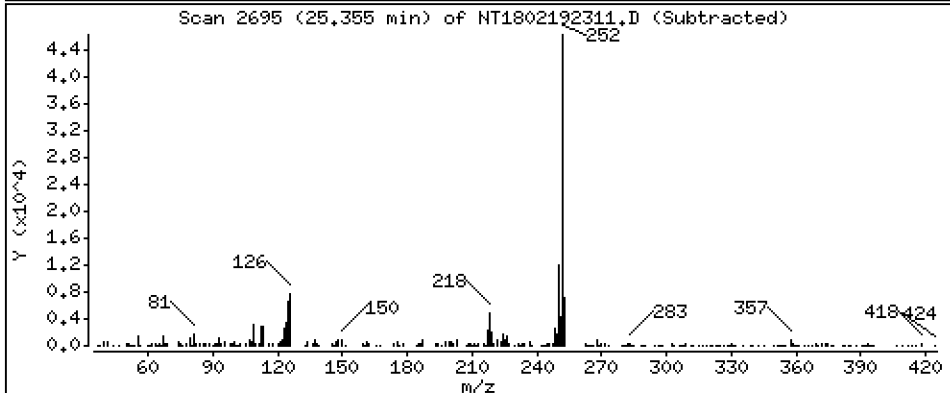
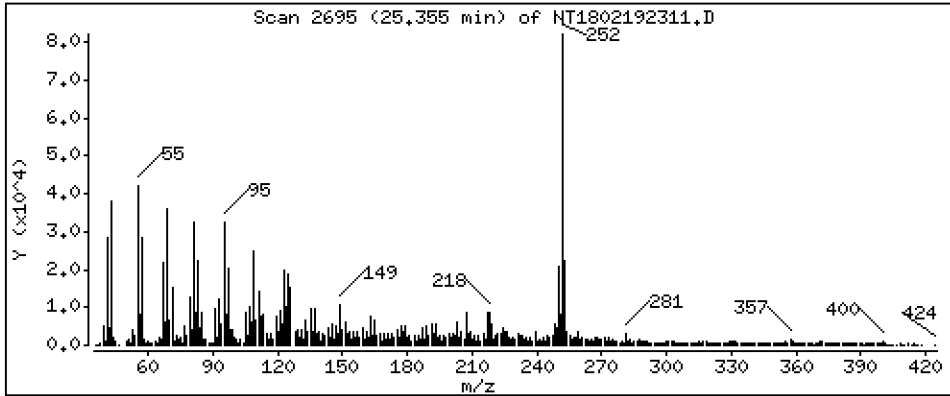
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 1,142 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

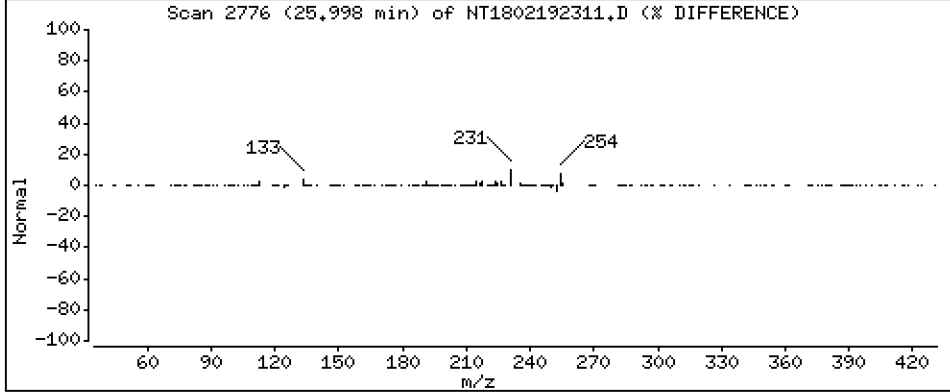
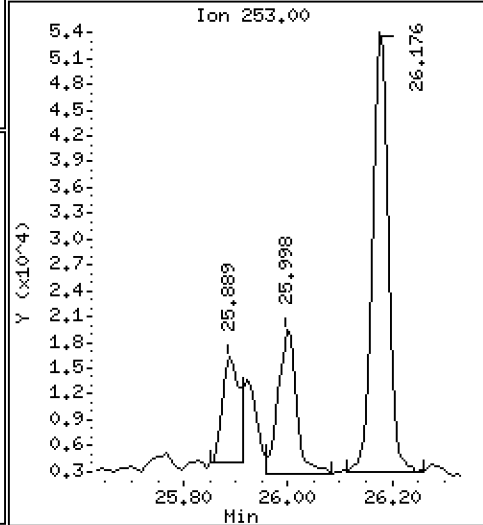
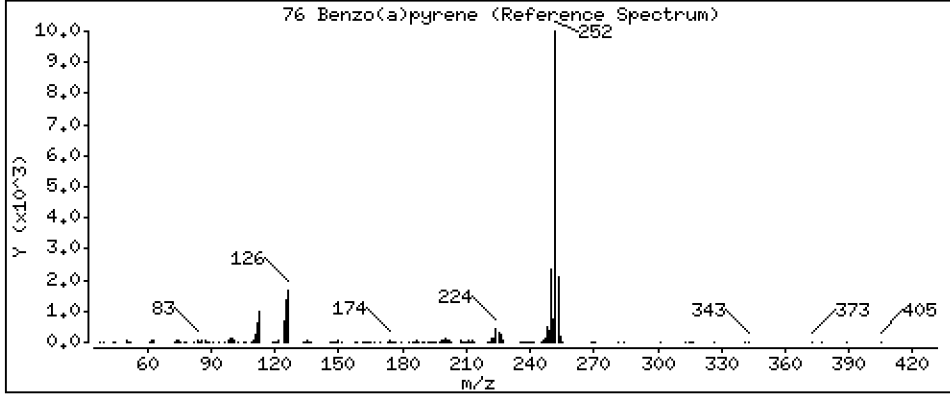
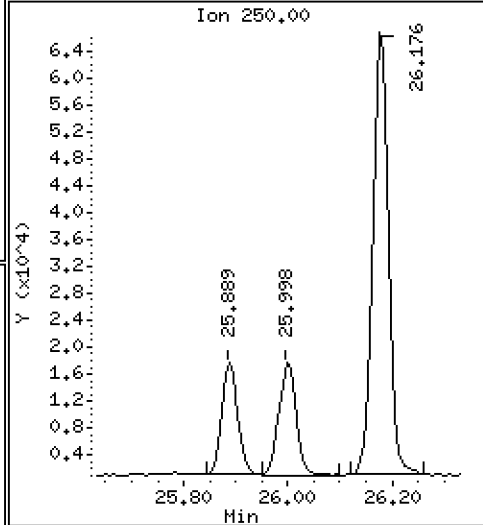
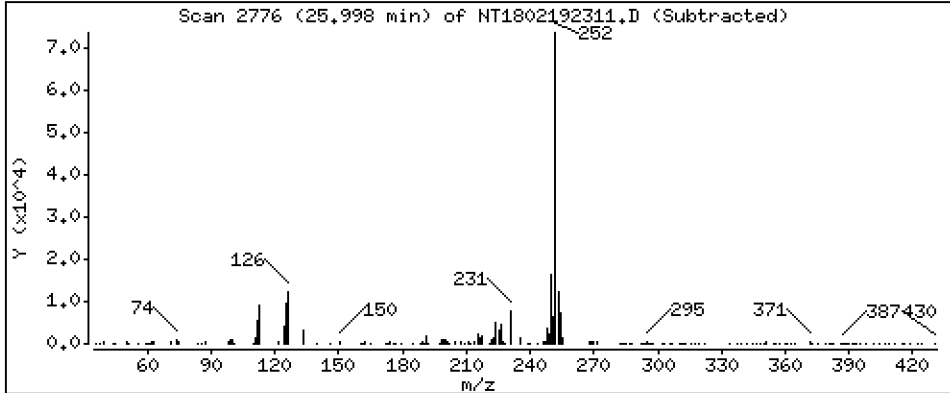
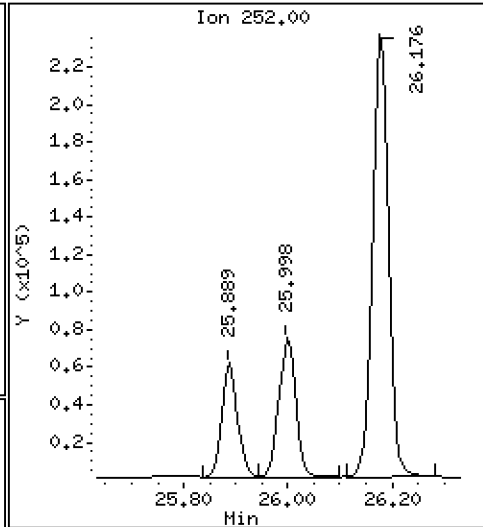
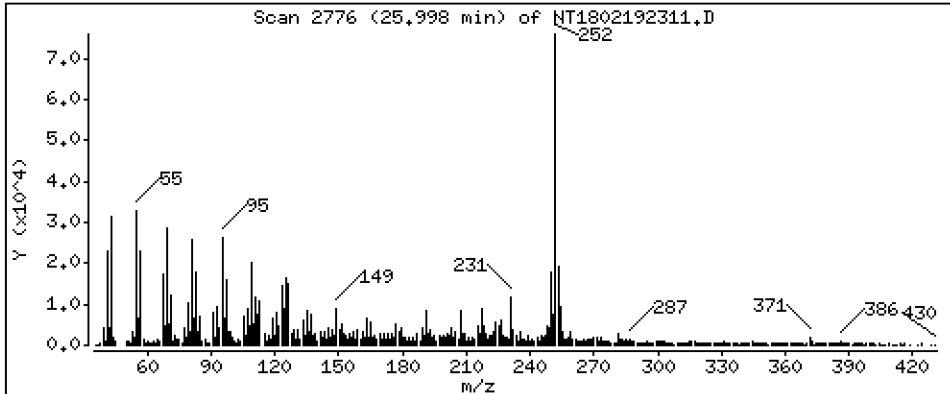
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 1,342 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

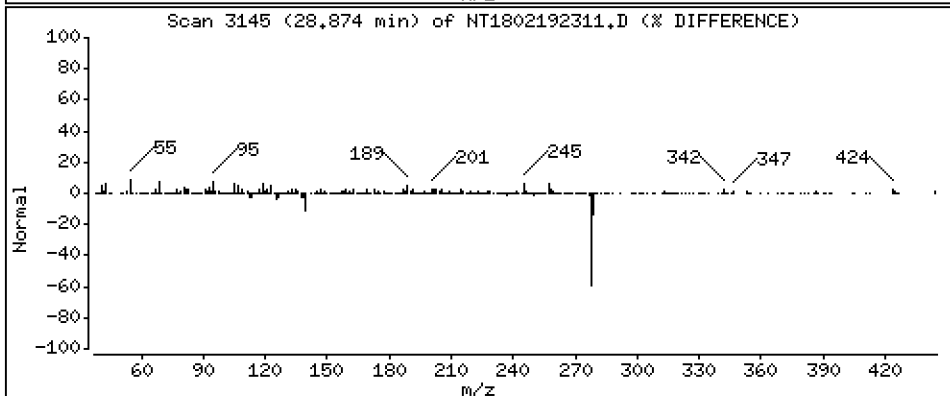
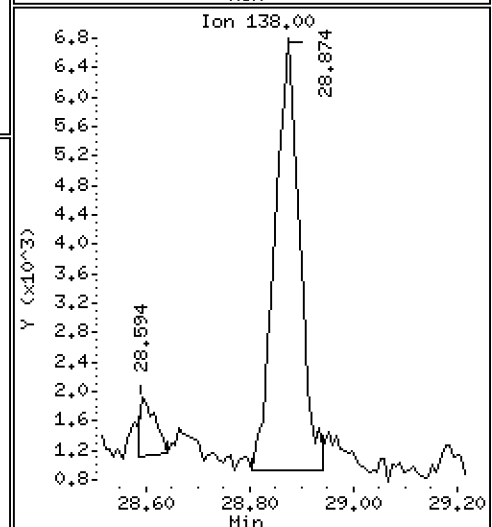
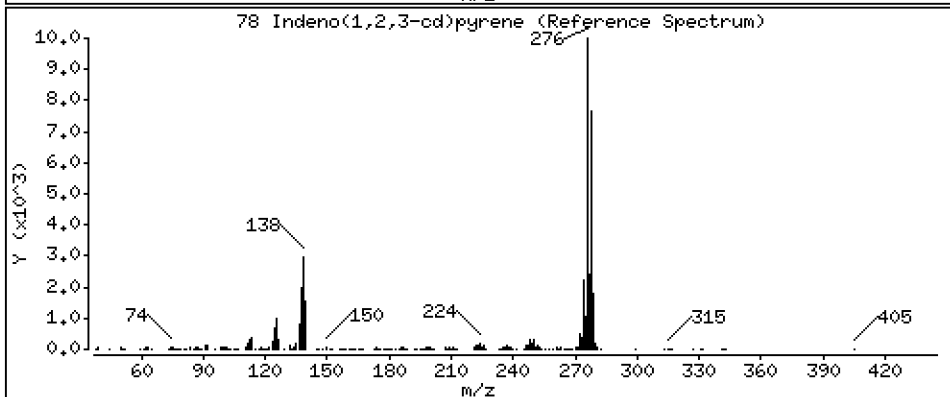
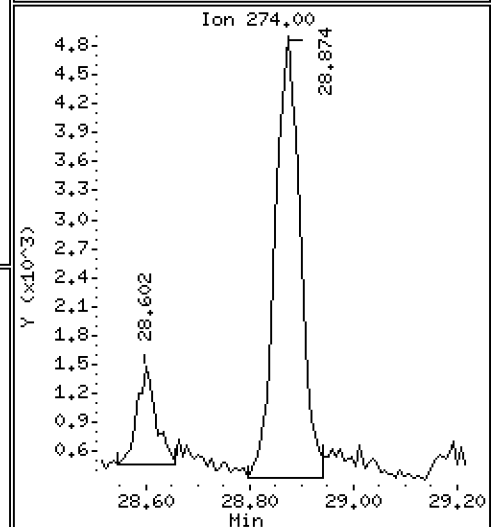
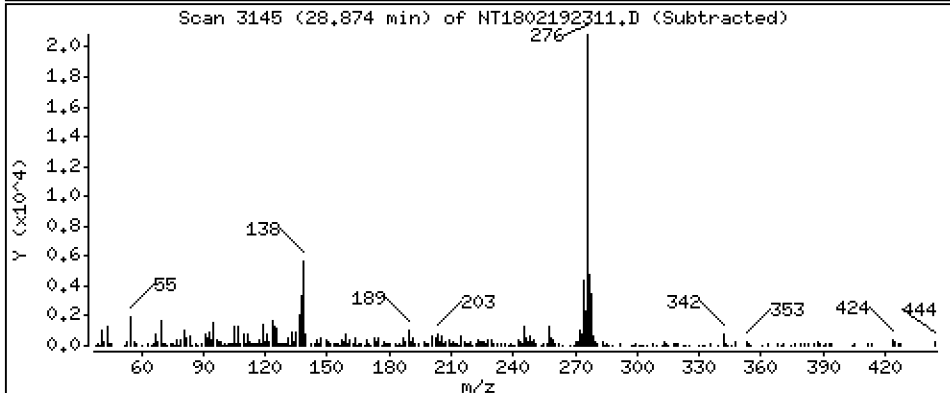
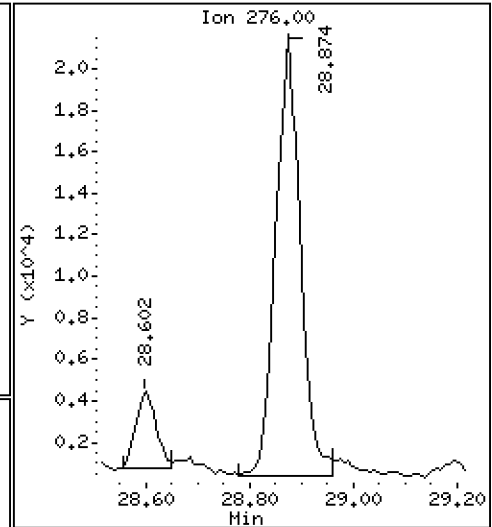
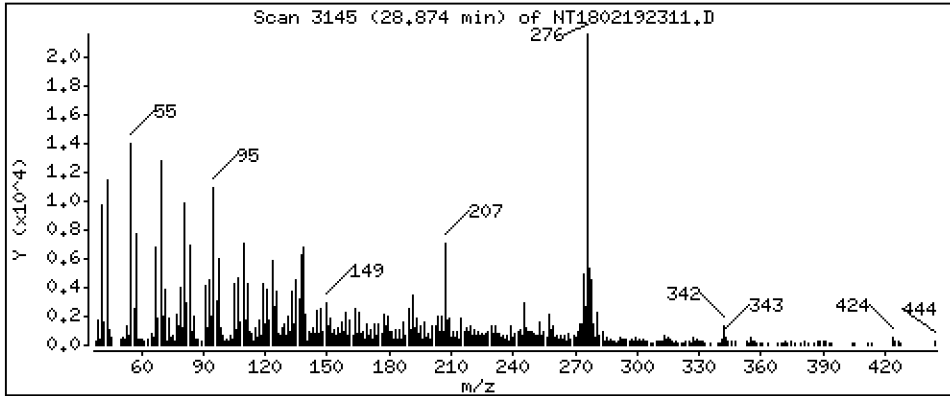
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 0,5879 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

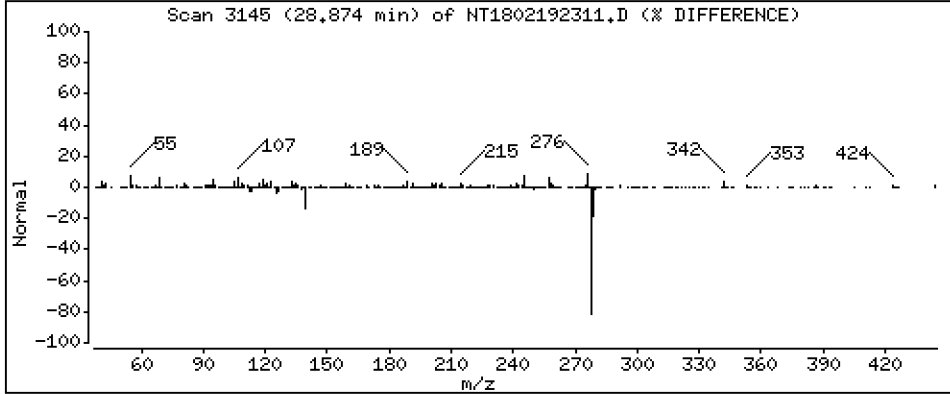
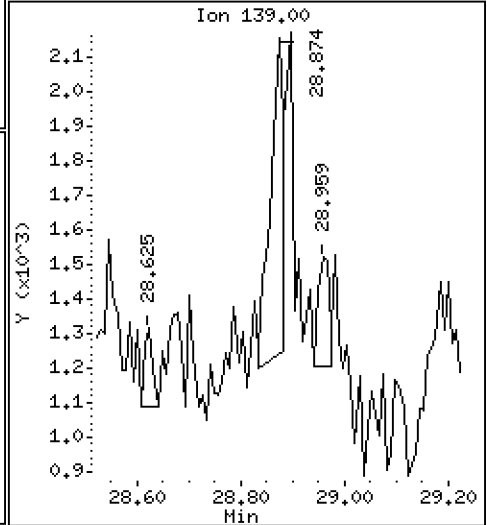
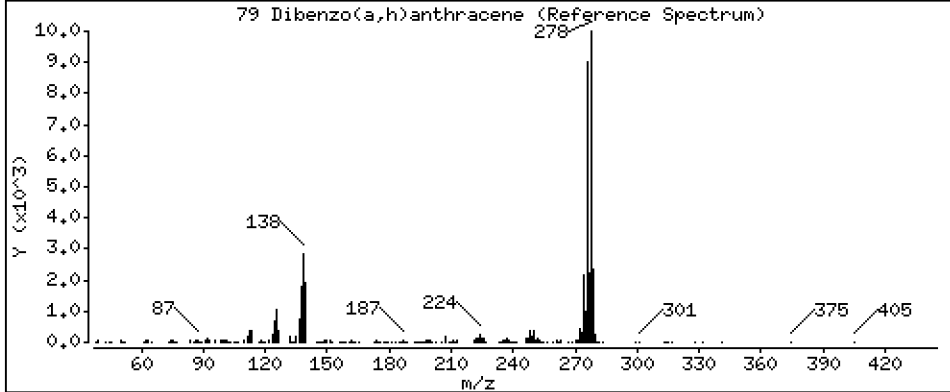
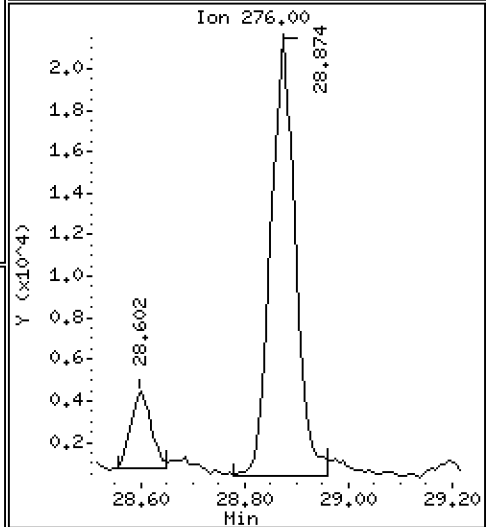
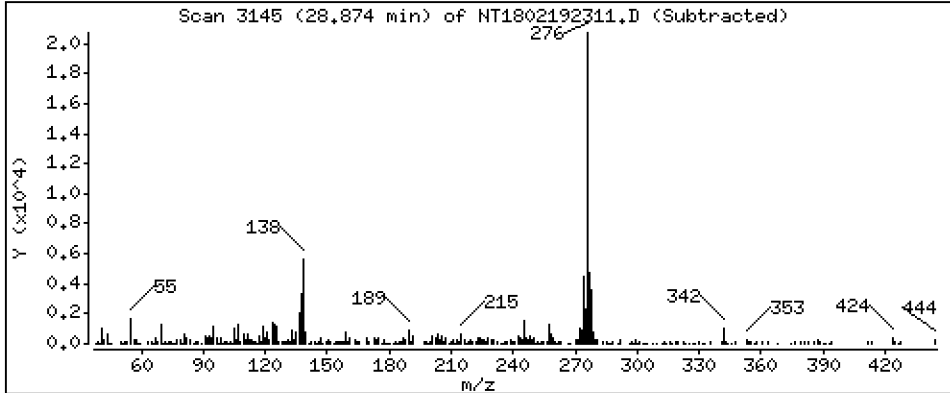
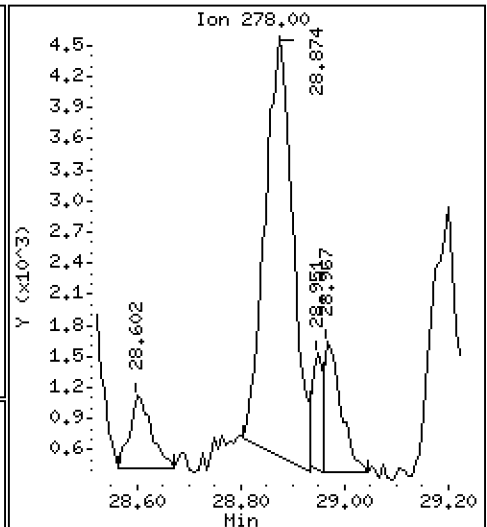
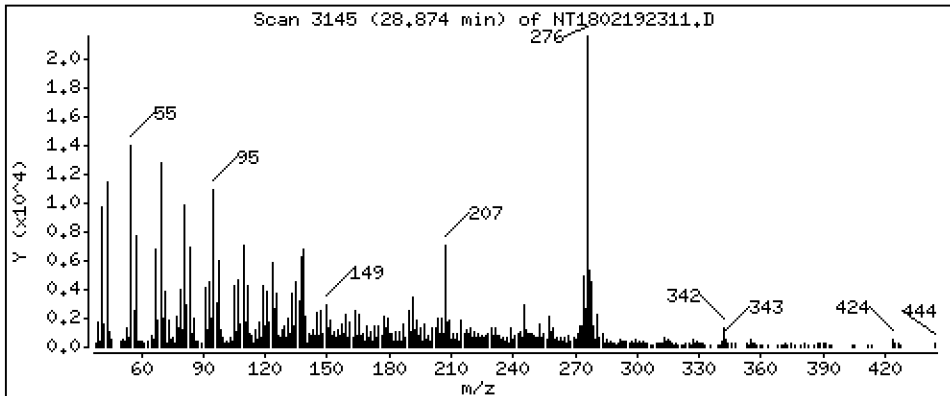
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,1579 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

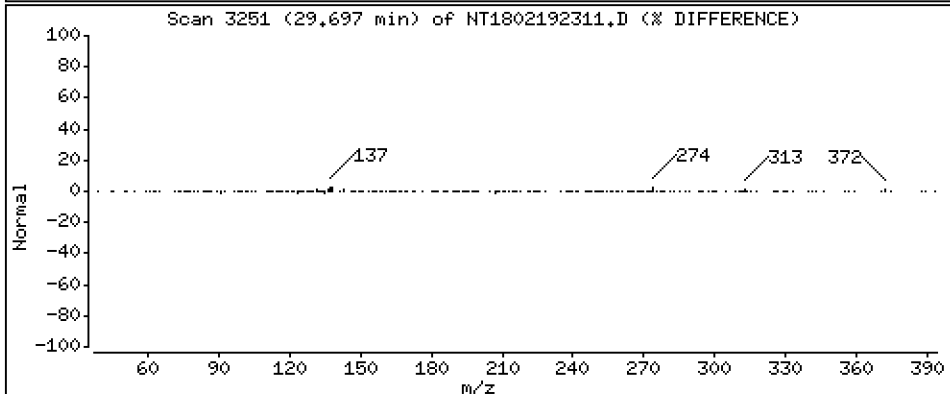
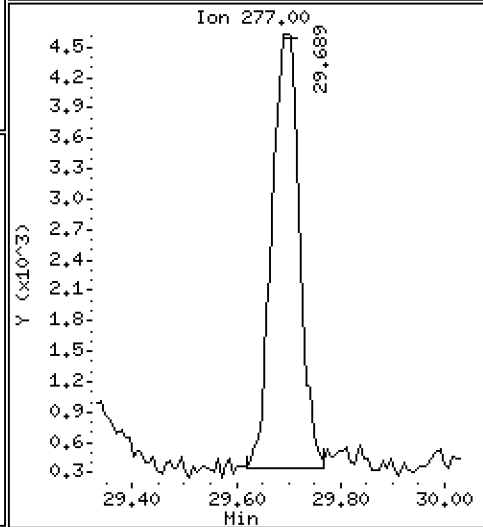
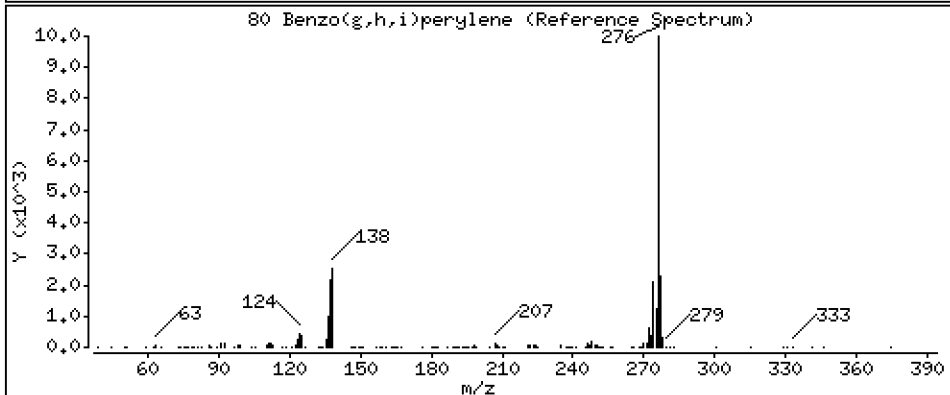
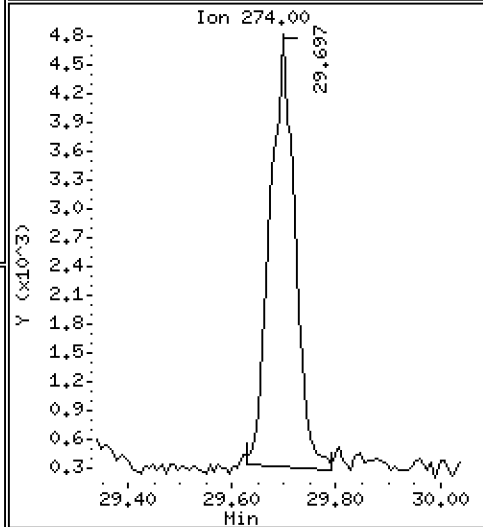
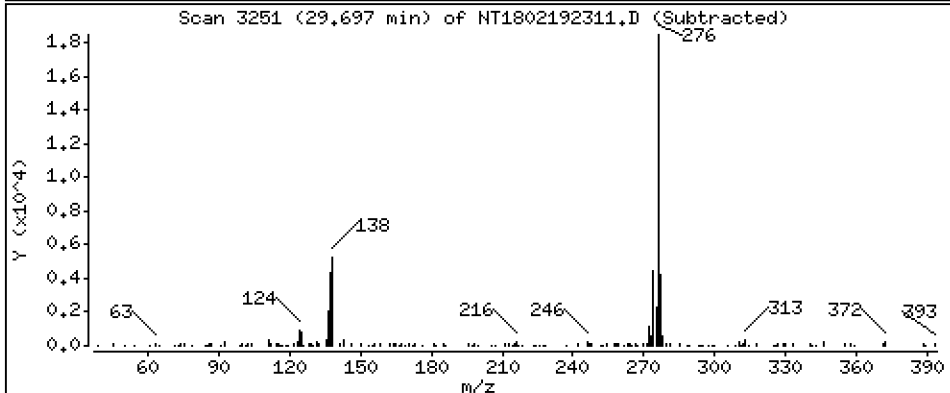
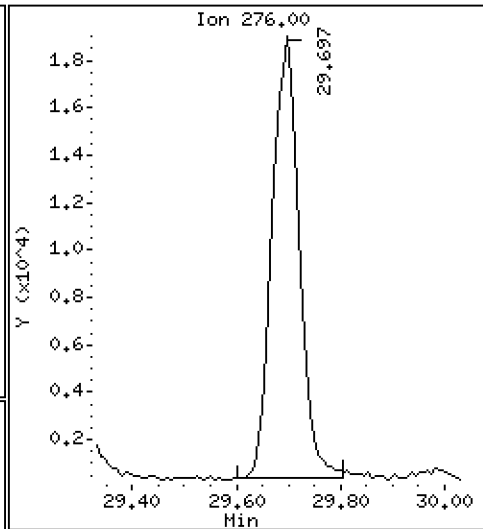
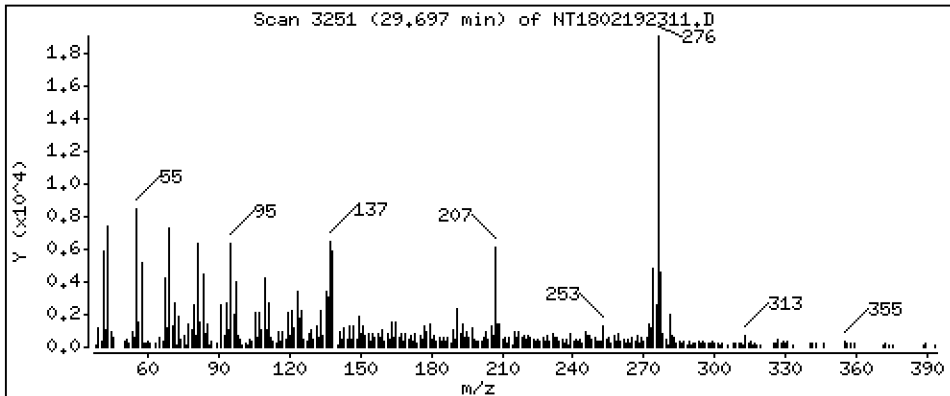
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,7678 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

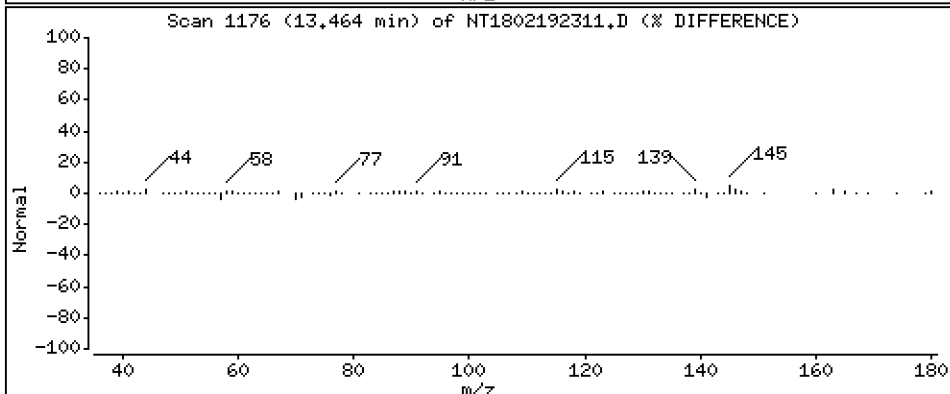
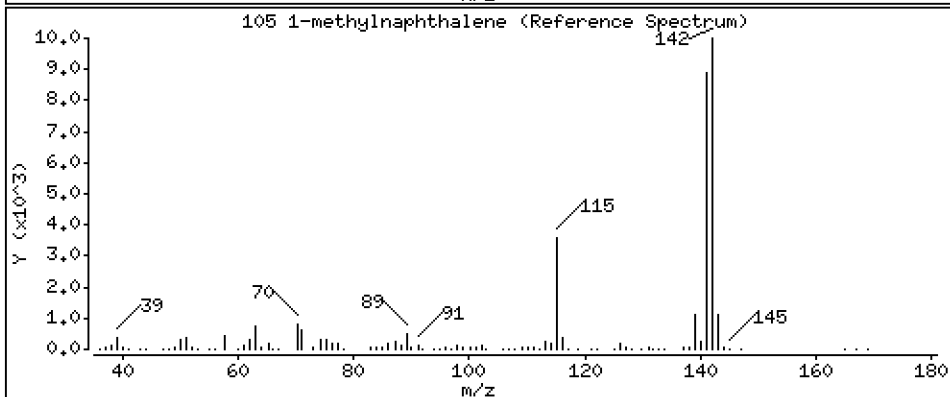
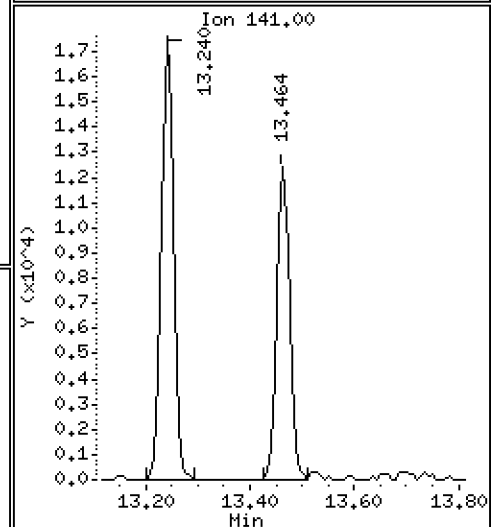
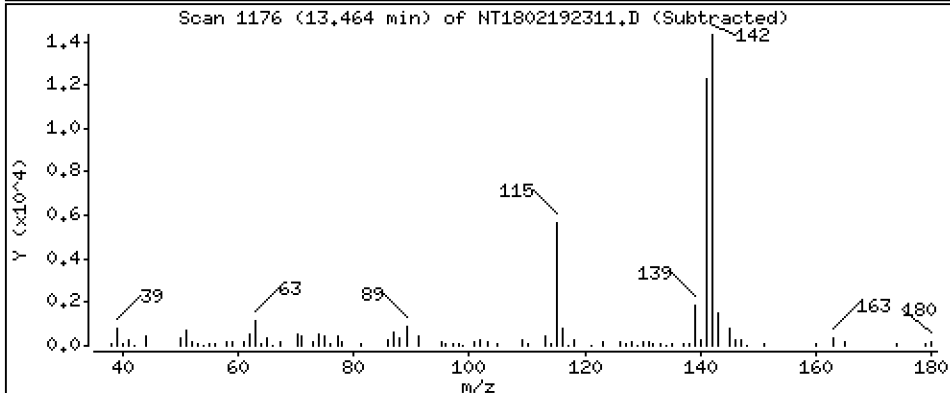
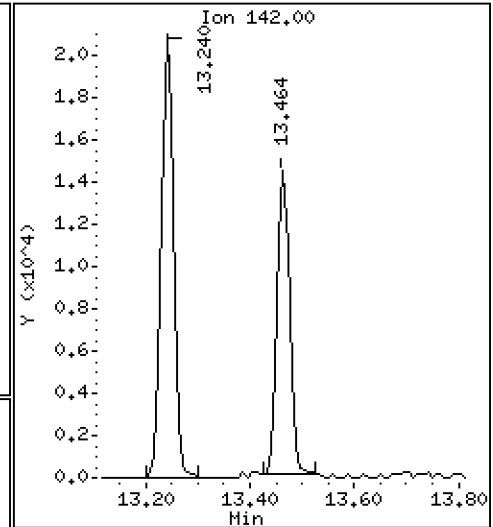
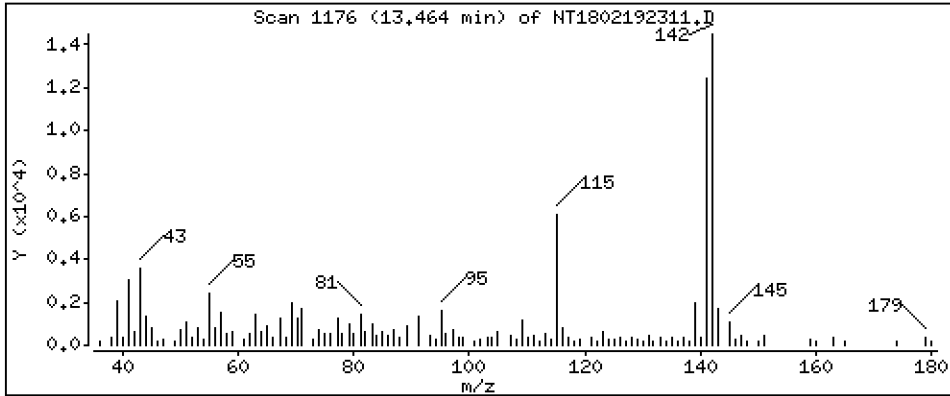
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,2797 ug/mL



Date : 19-FEB-2023 15:38

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-05RE1

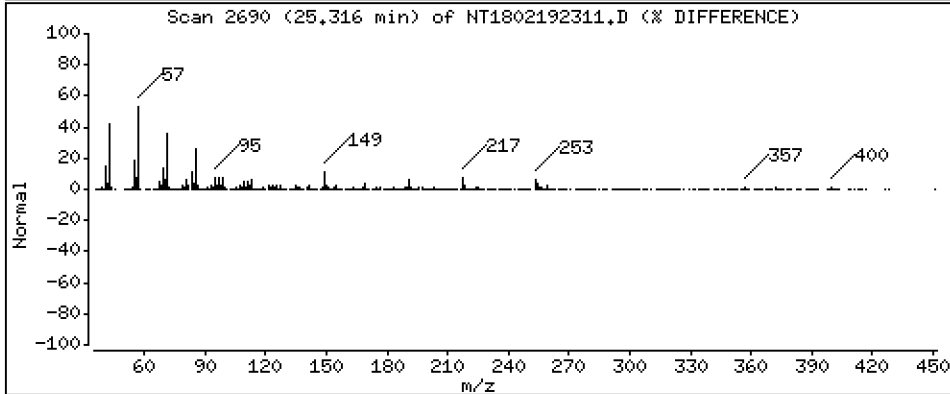
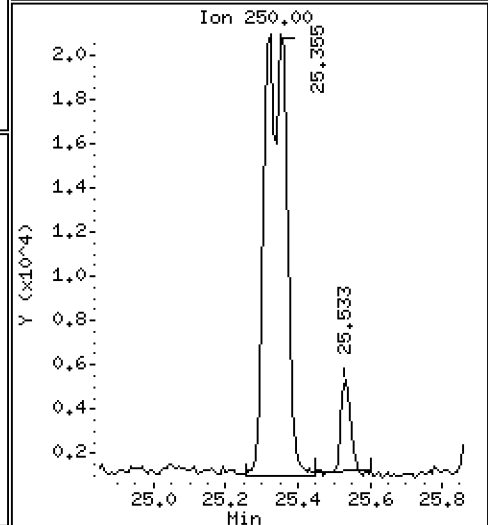
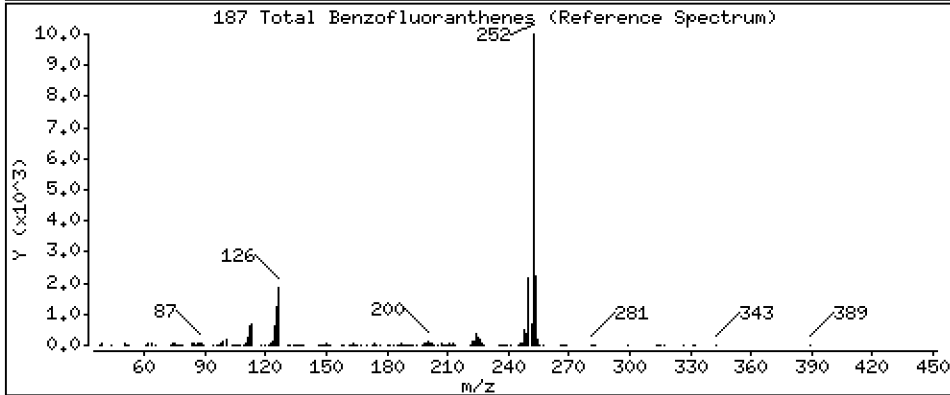
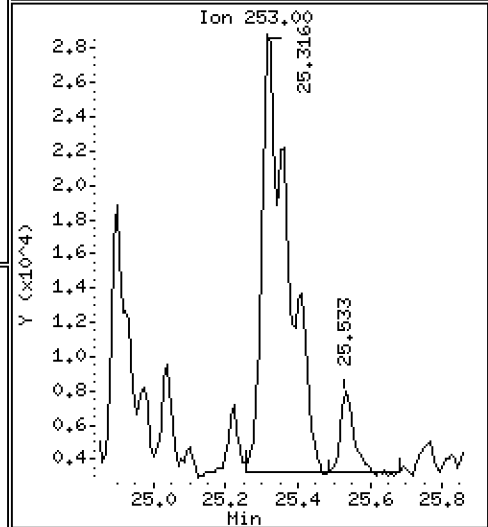
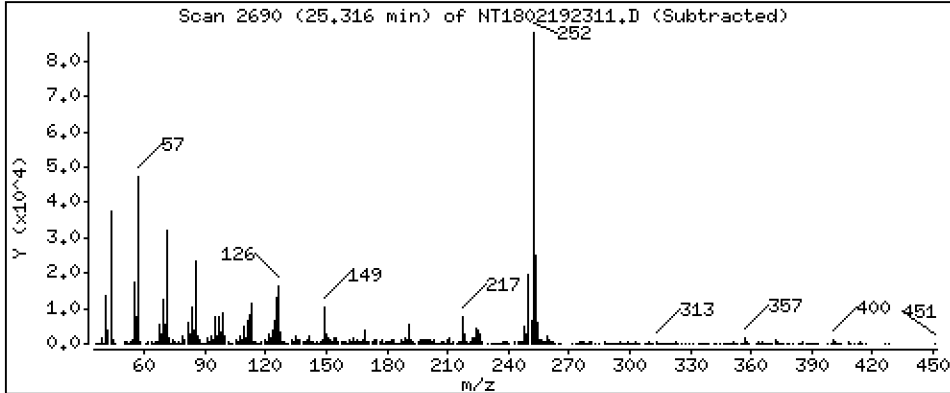
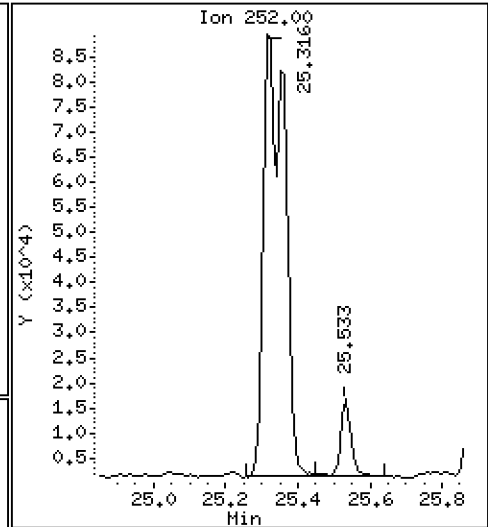
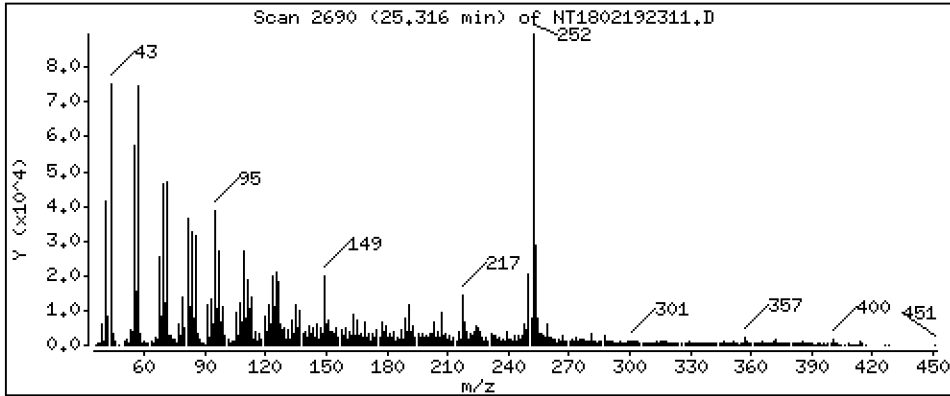
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 2,403 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230219.b\NT1802192311.D
 Lab Smp Id: 23A0032-05RE1
 Inj Date : 19-FEB-2023 15:38
 Operator : VTS
 Smp Info : 23A0032-05RE1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230219.b\ABN.m
 Meth Date : 04-Mar-2023 07:29 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i

Quant Type: ISTD
 Cal File: NT1802102308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.160	7.137	(0.766)	216717	5.62615	5.626
\$ 2 Phenol-d5	99		8.706	8.698	(0.931)	282545	5.79358	5.794
3 Phenol	94		8.729	8.721	(0.934)	20520	0.42936	0.4294 (M)
\$ 5 2-Chlorophenol-d4	132		8.992	8.984	(0.962)	240013	5.66078	5.661
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		9.286	9.278	(0.993)	539092	12.0390	12.04
* 8 1,4-Dichlorobenzene-d4	152		9.348	9.340	(1.000)	110970	4.00000	
9 1,4-Dichlorobenzene	146		9.371	9.371	(1.002)	111416	2.31960	2.320
\$ 10 1,2-Dichlorobenzene-d4	152		9.705	9.705	(1.038)	97848	3.20631	3.206
12 1,2-Dichlorobenzene	146		9.728	9.728	(1.041)	11230	0.25274	0.2527
11 Benzyl alcohol	108		Compound Not Detected.					
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		10.093	10.093	(1.080)	33613	0.83073	0.8307
\$ 18 Nitrobenzene-d5	82		10.426	10.434	(0.882)	177865	4.25301	4.253
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		11.153	11.136	(0.944)	1718	0.04855	0.04855
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		11.272	11.373	(0.954)	16170	0.73930	0.7393 (M)
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		11.724	11.731	(0.992)	58359	1.50086	1.501
* 27 Naphthalene-d8	136		11.816	11.816	(1.000)	424927	4.00000	
28 Naphthalene	128		11.855	11.855	(1.003)	450285	3.68623	3.686
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		13.240	13.239	(1.120)	32435	0.39012	0.3901
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196							
35 2,4,5-Trichlorophenol	196							
\$ 36 2-Fluorobiphenyl	172		14.013	14.013	(0.909)	352255	3.51835	3.518
37 2-Chloronaphthalene	162							
38 2-Nitroaniline	65							
39 Dimethylphthalate	163							
40 Acenaphthylene	152		15.097	15.105	(0.979)	165278	1.43995	1.440
41 2,6-Dinitrotoluene	165							
* 42 Acenaphthene-d10	164		15.414	15.414	(1.000)	226461	4.00000	
43 3-Nitroaniline	138							
44 Acenaphthene	153		15.476	15.476	(1.004)	58964	0.77037	0.7704
45 2,4-Dinitrophenol	184							
46 Dibenzofuran	168		15.801	15.801	(1.025)	47669	0.43471	0.4347
47 4-Nitrophenol	109							
48 2,4-Dinitrotoluene	165							
50 Diethylphthalate	149		16.350	16.357	(1.061)	12621	0.15698	0.1570
49 Fluorene	166		16.512	16.512	(1.071)	53842	0.62076	0.6208
51 4-Chlorophenyl-phenylether	204							
52 4-Nitroaniline	138							
53 4,6-Dinitro-2-methylphenol	198							
54 N-Nitrosodiphenylamine	169							
\$ 55 2,4,6-Tribromophenol	330		17.044	17.044	(1.106)	74066	5.04396	5.044
56 4-Bromophenyl-phenylether	248							
57 Hexachlorobenzene	284							
58 Pentachlorophenol	266							
* 59 Phenanthrene-d10	188		18.435	18.435	(1.000)	427003	4.00000	
60 Phenanthrene	178		18.481	18.481	(1.003)	491973	3.81356	3.814
61 Anthracene	178		18.574	18.574	(1.008)	115591	1.00177	1.002
62 Carbazole	167		18.899	18.899	(1.025)	32377	0.28068	0.2807
63 Di-n-butylphthalate	149							
64 Fluoranthene	202		20.872	20.841	(0.891)	645323	4.51913	4.519
65 Pyrene	202		21.274	21.259	(0.908)	839874	5.53281	5.533
\$ 66 Terphenyl-d14	244		21.537	21.530	(0.919)	498688	3.56240	3.562
67 Butylbenzylphthalate	149							
68 Benzo(a)anthracene	228		23.404	23.396	(0.999)	211578	1.41458	1.415
* 69 Chrysene-d12	240		23.434	23.427	(1.000)	452613	4.00000	
70 3,3'-Dichlorobenzidine	252							
71 Chrysene	228		23.481	23.473	(1.002)	213504	1.35433	1.354
72 bis(2-Ethylhexyl)phthalate	149		23.450	23.450	(0.959)	7546	0.06784	0.06784
* 134 Di-n-octylphthalate-d4	153		24.441	24.441	(1.000)	731113	4.00000	
73 Di-n-octylphthalate	149							
74 Benzo(b)fluoranthene	252		25.316	25.308	(0.969)	199255	1.32670	1.327
75 Benzo(k)fluoranthene	252		25.354	25.354	(0.971)	187677	1.14234	1.142
76 Benzo(a)pyrene	252		25.997	25.982	(0.995)	164585	1.34175	1.342
* 77 Perylene-d12	264		26.121	26.105	(1.000)	430259	4.00000	
78 Indeno(1,2,3-cd)pyrene	276		28.873	28.865	(1.105)	68987	0.58788	0.5879
79 Dibenzo(a,h)anthracene	278		28.873	28.873	(1.105)	15172	0.15787	0.1579
80 Benzo(g,h,i)perylene	276		29.696	29.681	(1.137)	67980	0.76776	0.7678
90 N-Nitrosodimethylamine	74							
91 Aniline	93							
93 Benzidine	184							
103 Pyridine	79							
105 1-methylnaphthalene	142		13.464	13.464	(1.139)	22685	0.27975	0.2797
111 Azobenzene (1,2-DP-Hydrazine)	77							

Compounds	QUANT MASS	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
							ON-COLUMN (ug/mL)	FINAL (ug/mL)	
187 Total Benzofluoranthenes	252		25.316	25.354	(0.969)	361516	2.40261	2.403	
120 2,3,4,6-Tetrachlorophenol	232		Compound Not Detected.						

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 19-FEB-2023
 Lab File ID: NT1802192311.D Calibration Time: 12:57
 Lab Smp Id: 23A0032-05RE1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230219.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	118224	59112	236448	110970	-6.14
27 Naphthalene-d8	457373	228687	914746	424927	-7.09
42 Acenaphthene-d10	241384	120692	482768	226461	-6.18
59 Phenanthrene-d10	431840	215920	863680	427003	-1.12
69 Chrysene-d12	407698	203849	815396	452613	11.02
134 Di-n-octylphthala	661131	330566	1322262	731113	10.59
77 Perylene-d12	411276	205638	822552	430259	4.62

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.34	8.84	9.84	9.35	0.08
27 Naphthalene-d8	11.82	11.32	12.32	11.82	0.00
42 Acenaphthene-d10	15.41	14.91	15.91	15.41	0.00
59 Phenanthrene-d10	18.44	17.94	18.94	18.44	0.00
69 Chrysene-d12	23.43	22.93	23.93	23.43	0.03
134 Di-n-octylphthala	24.44	23.94	24.94	24.44	0.00
77 Perylene-d12	26.11	25.61	26.61	26.12	0.06

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802192311.D

Lab ID: 23A0032-05RE1
nt18.i, ABN.m, 19-FEB-2023 15:38

RT	CO-ELUTION COMPOUNDS
28.874	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
28.874	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.954	0.963	-0.0086	Benzoic acid

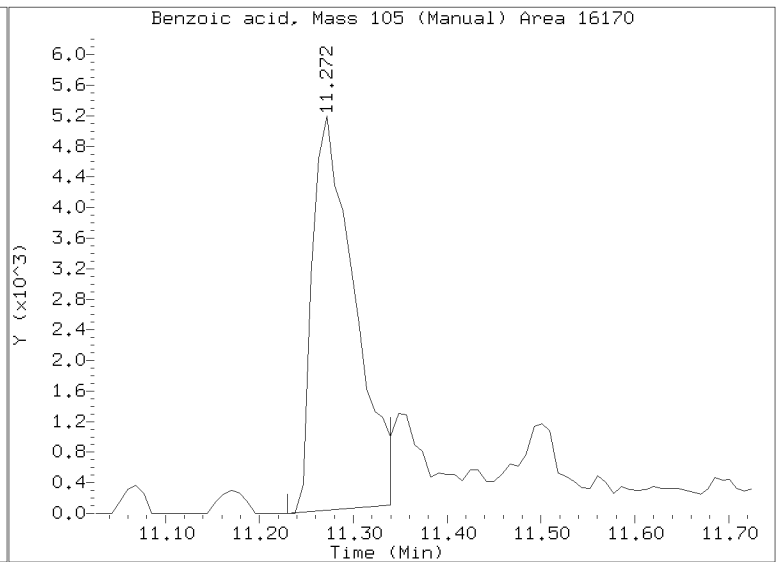
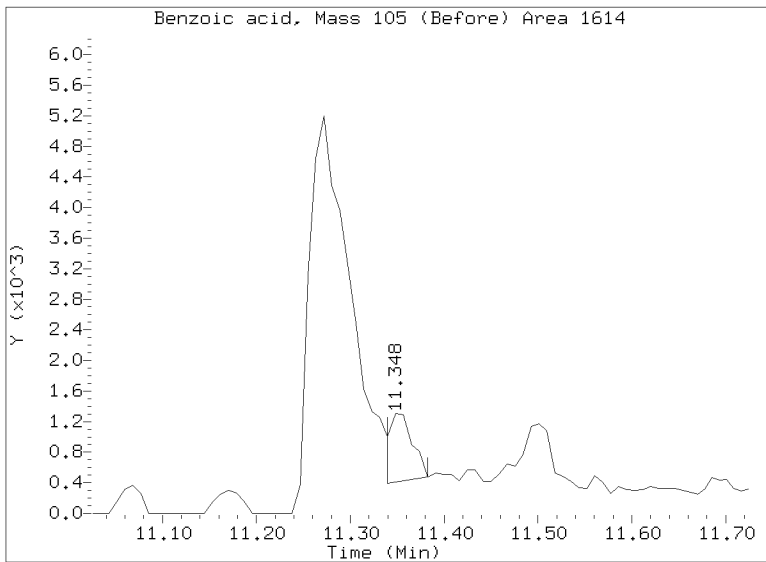
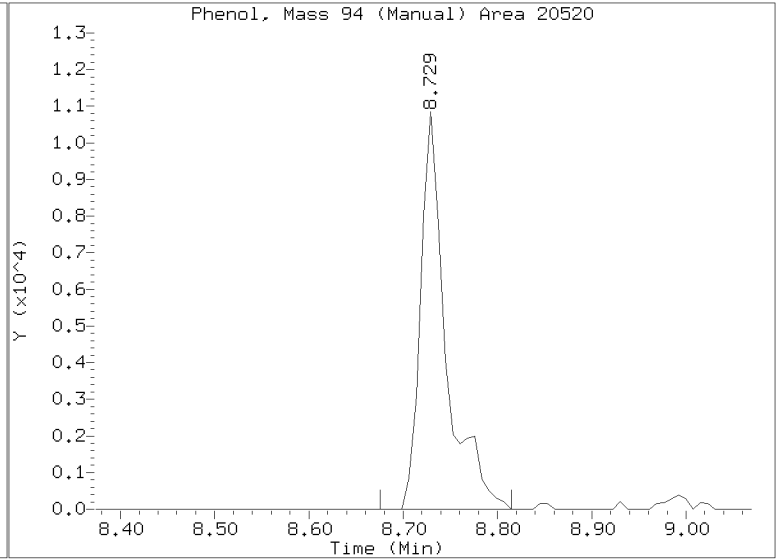
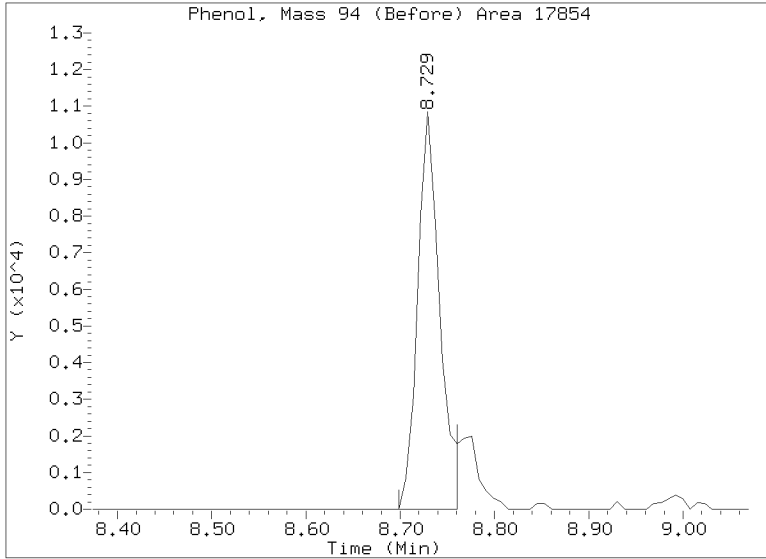
RRT check based on Ccal File: NT1802192303.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt18.i/20230219.b/NT1802192311.D
Injection Date: 19-FEB-2023 15:38
Lab ID:23A0032-05RE1 Client ID:
Report Date: 03/04/2023 10:22





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-08 A

SDG: 23A0032

Sampled: 01/03/23 12:35

Prepared: 01/10/23 11:20

File ID: NT1802172314.D

% Solids: 61.88

Preparation: EPA 3546 (Microwave)

Analyzed: 02/17/23 14:59

Batch: BLA0163

Sequence: SLB0249

Initial/Final: 16.22 g Wet / 1 mL

Instrument: NT18

Column: ZB-5MS

Calibration: GB00036

Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
108-95-2	Phenol	1	72.2		4.4	19.9
106-44-5	4-Methylphenol	1	19.9	U	7.4	19.9
91-20-3	Naphthalene	1	32.6		4.2	19.9
91-57-6	2-Methylnaphthalene	1	27.2		4.5	19.9
208-96-8	Acenaphthylene	1	19.9	U	6.2	19.9
131-11-3	Dimethylphthalate	1	6.2	J	4.4	19.9
83-32-9	Acenaphthene	1	16.9	J	5.2	19.9
132-64-9	Dibenzofuran	1	19.9	U	14.1	19.9
86-73-7	Fluorene	1	19.9	U	14.5	19.9
85-01-8	Phenanthrene	1	74.1		8.7	19.9
120-12-7	Anthracene	1	22.6		7.2	19.9
206-44-0	Fluoranthene	1	122		6.1	19.9
129-00-0	Pyrene	1	249		5.7	19.9
85-68-7	Butylbenzylphthalate	1	20.5		9.4	19.9
56-55-3	Benzo(a)anthracene	1	63.7		5.9	19.9
218-01-9	Chrysene	1	77.5		6.0	19.9
117-81-7	bis(2-Ethylhexyl)phthalate	1	89.6		5.4	49.8
	Benzo(a)fluoranthene, Total	1	218		10.0	39.9
50-32-8	Benzo(a)pyrene	1	94.9		4.2	19.9
193-39-5	Indeno(1,2,3-cd)pyrene	1	51.8		14.6	19.9
53-70-3	Dibenzo(a,h)anthracene	1	17.3	J	17.2	19.9
191-24-2	Benzo(g,h,i)perylene	1	54.9	Q	13.5	19.9

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	747.24	524	70.1	27 - 120	Q
Phenol-d5	747.24	546	73.1	29 - 120	
2-Chlorophenol-d4	747.24	531	71.0	31 - 120	
1,2-Dichlorobenzene-d4	498.16	308	61.8	32 - 120	
Nitrobenzene-d5	498.16	394	79.2	30 - 120	
2-Fluorobiphenyl	498.16	307	61.7	35 - 120	



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-08 A

SDG: 23A0032

Sampled: 01/03/23 12:35

Prepared: 01/10/23 11:20

File ID: NT1802172314.D

% Solids: 61.88

Preparation: EPA 3546 (Microwave)

Analyzed: 02/17/23 14:59

Batch: BLA0163

Sequence: SLB0249

Initial/Final: 16.22 g Wet / 1 mL

Instrument: NT18

Column: ZB-5MS

Calibration: GB00036

Cleanups: GPC

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2,4,6-Tribromophenol	747.24	473	63.3	24 - 134	Q
p-Terphenyl-d14	498.16	321	64.4	37 - 120	

Data File: \\target\share\chem3\nt18.1\20230217.16\NT1802172314.D

Date: 17-FEB-2023 14:59

Client ID:

Sample Info: 23A0032-08

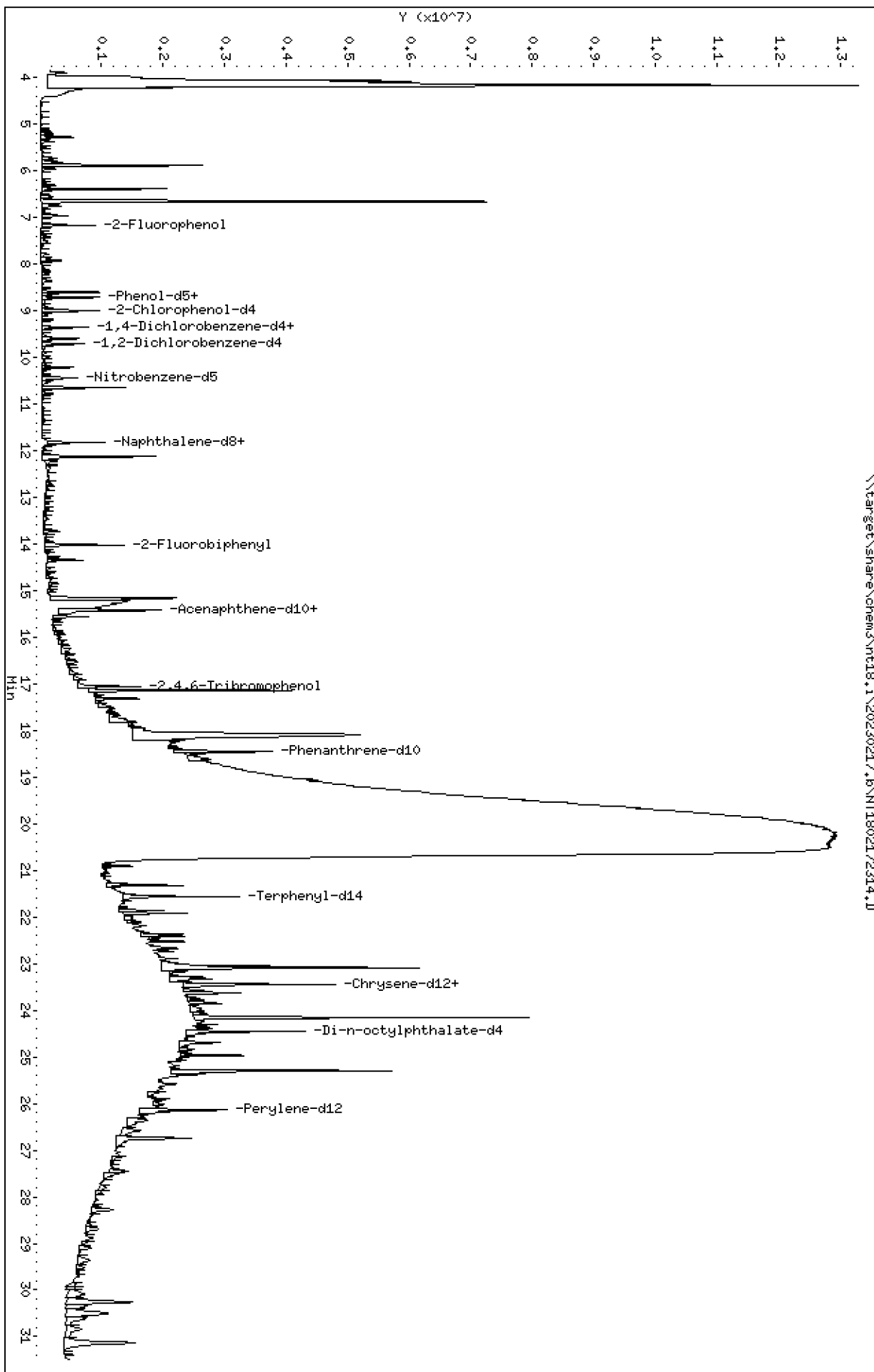
Page 1

Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

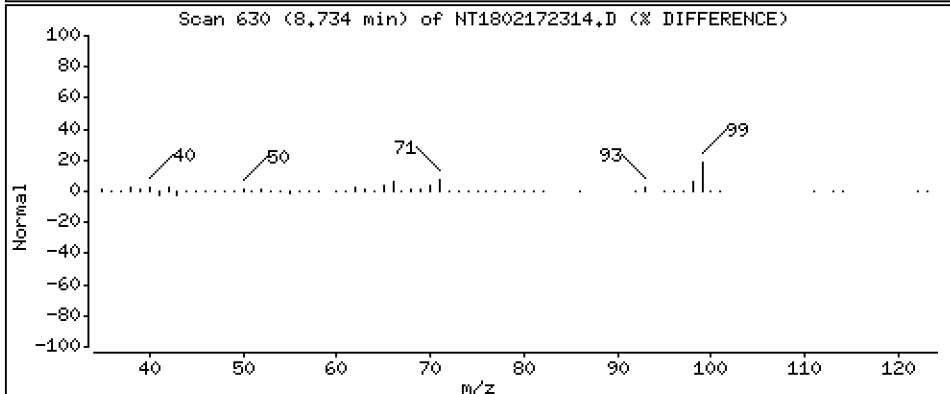
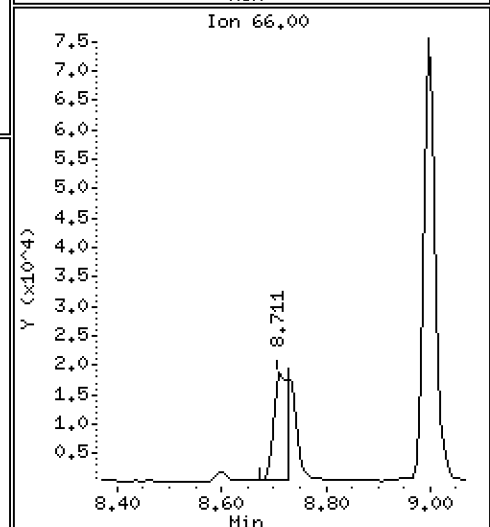
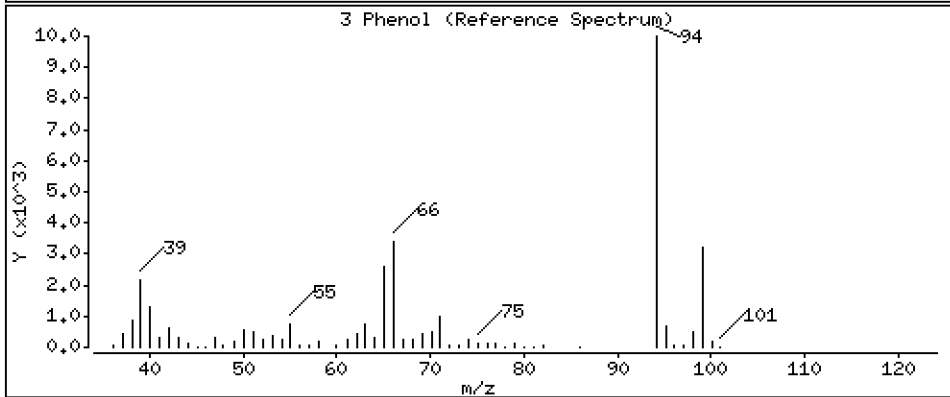
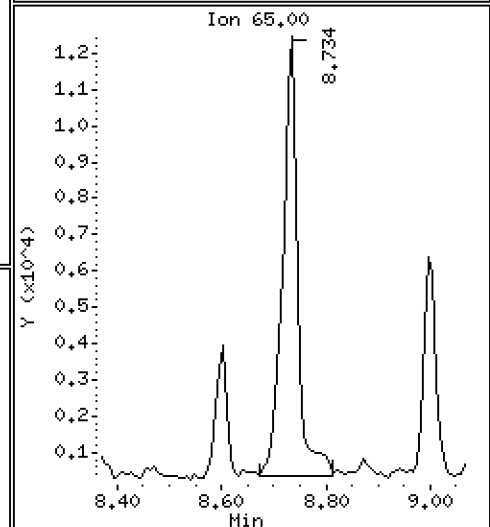
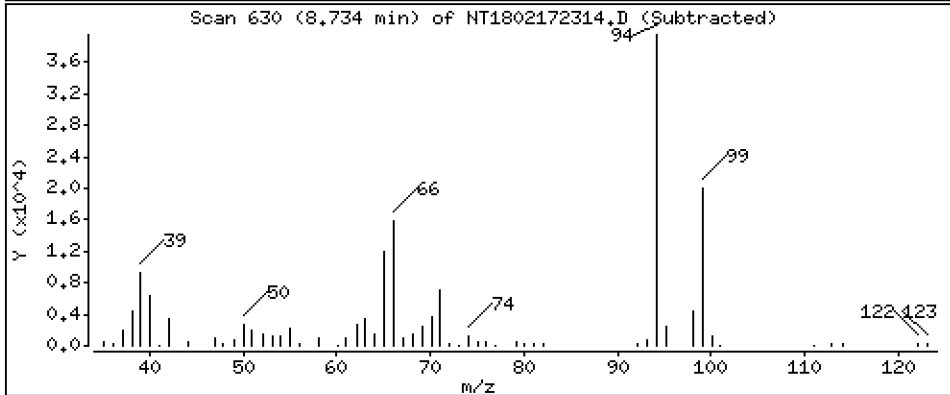
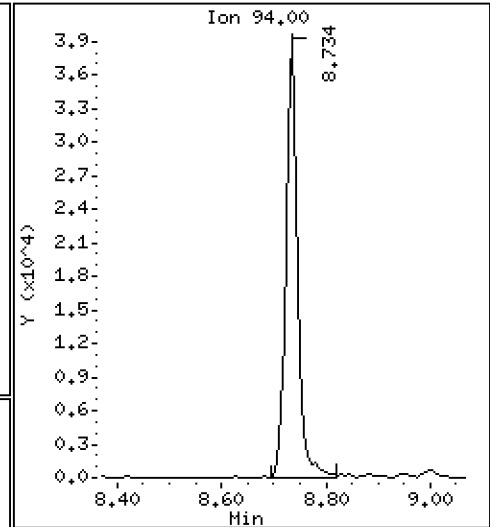
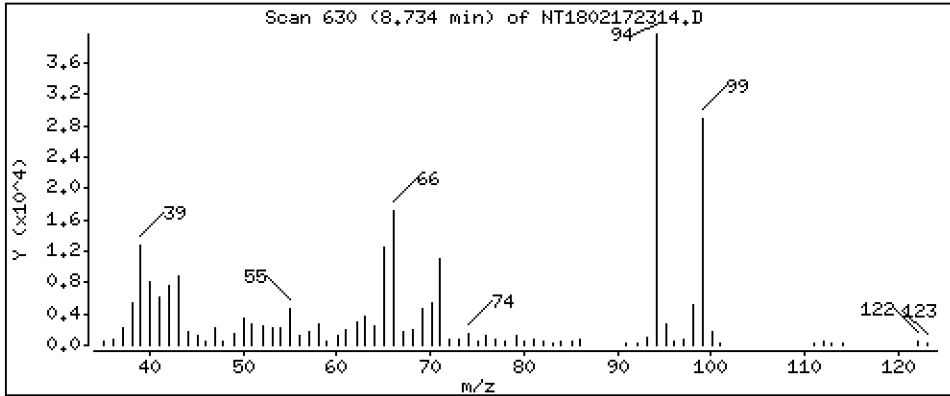
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,7249 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

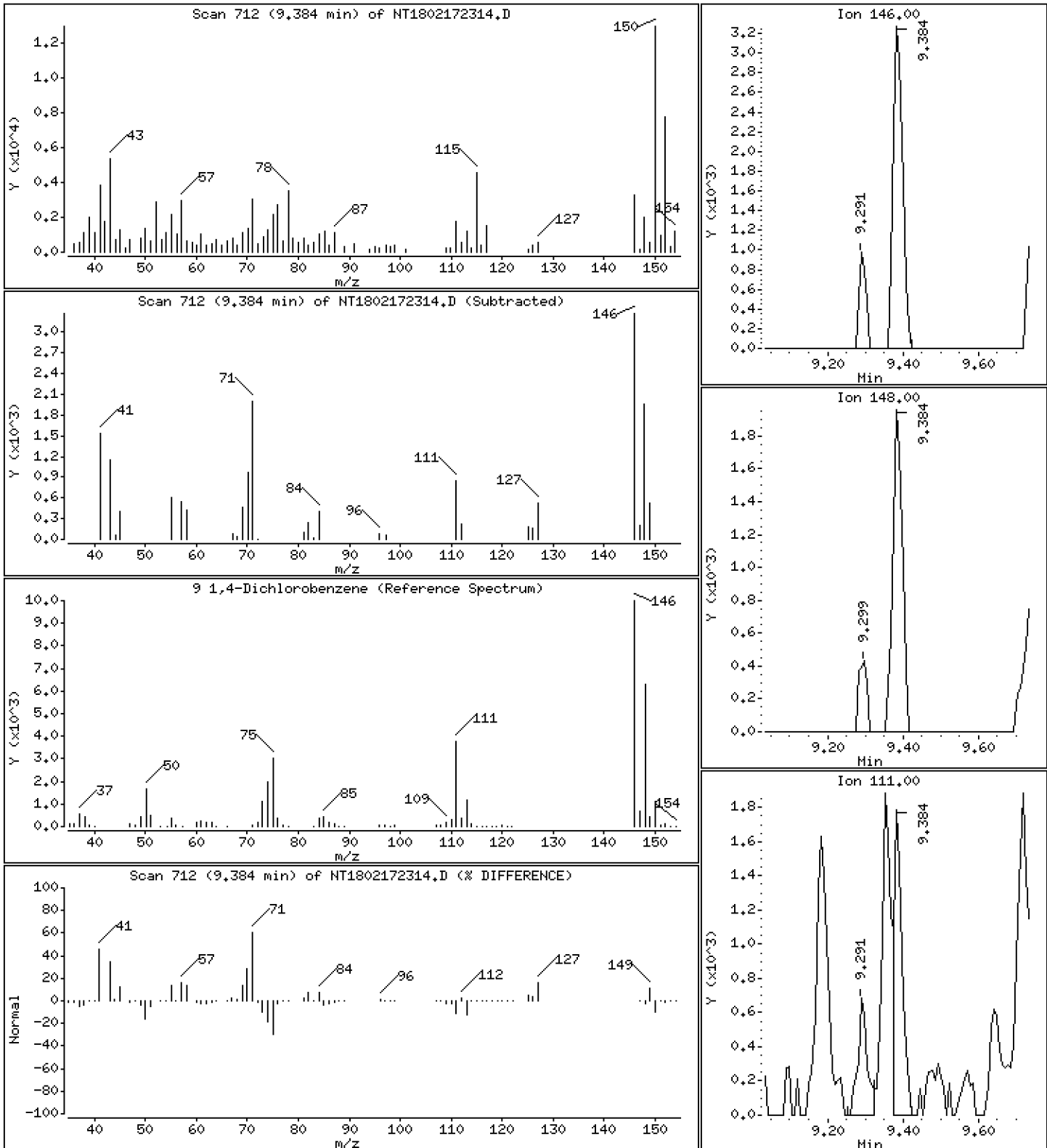
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

9,1,4-Dichlorobenzene

Concentration: 0.06464 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

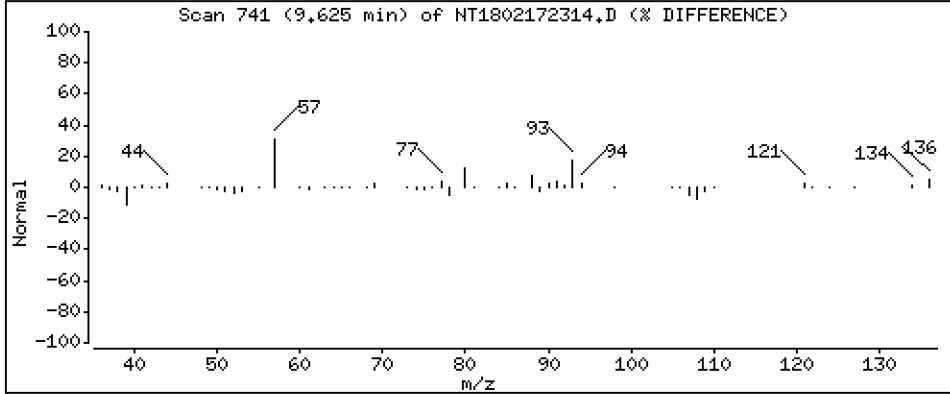
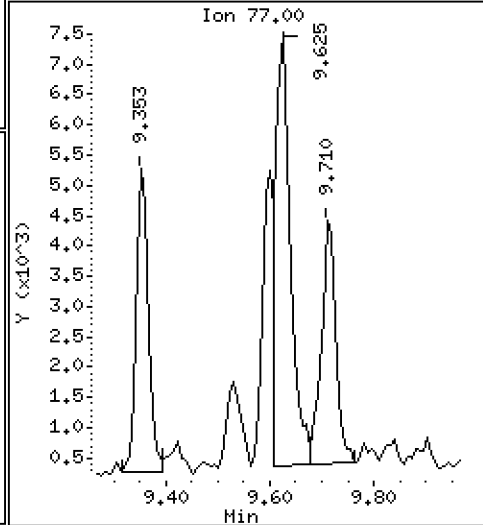
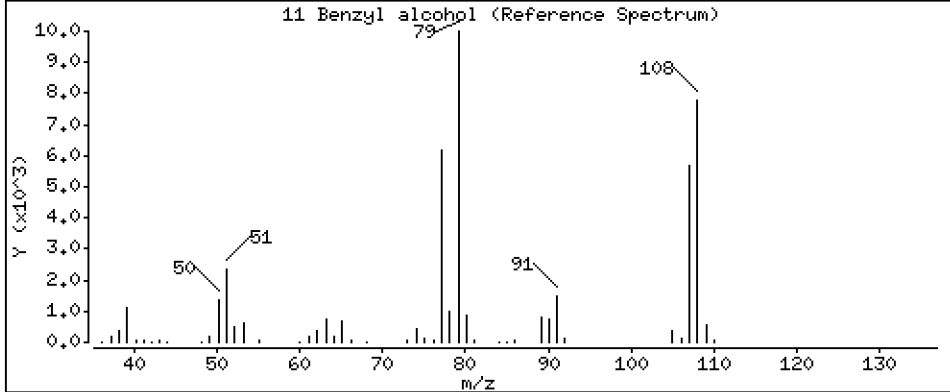
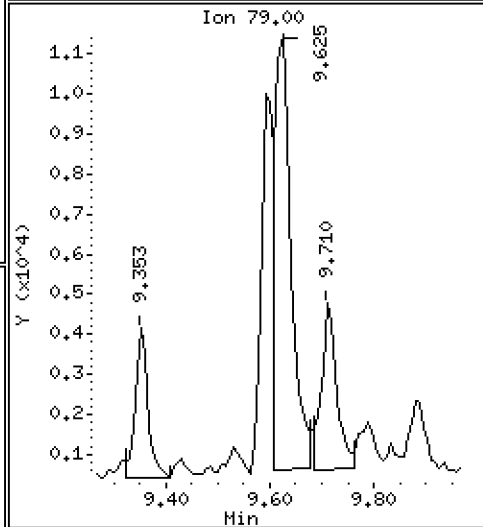
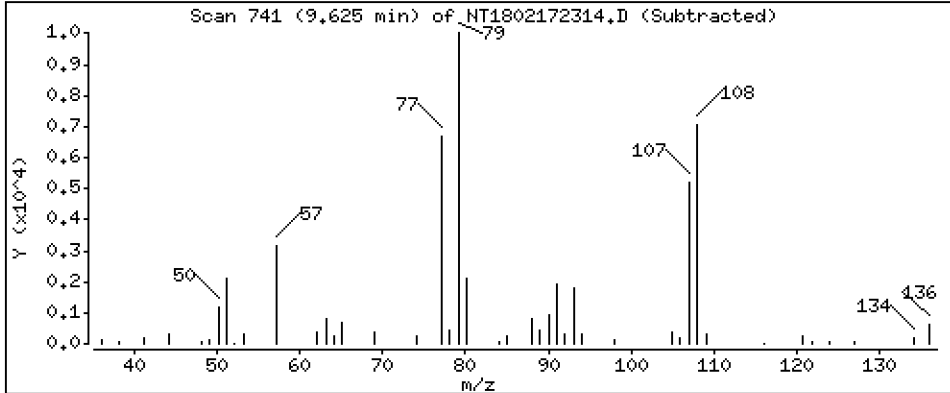
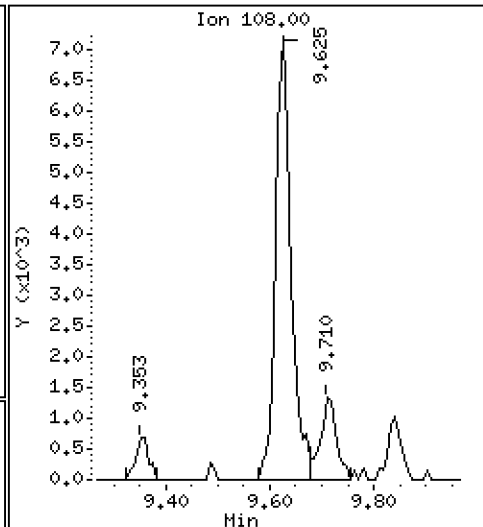
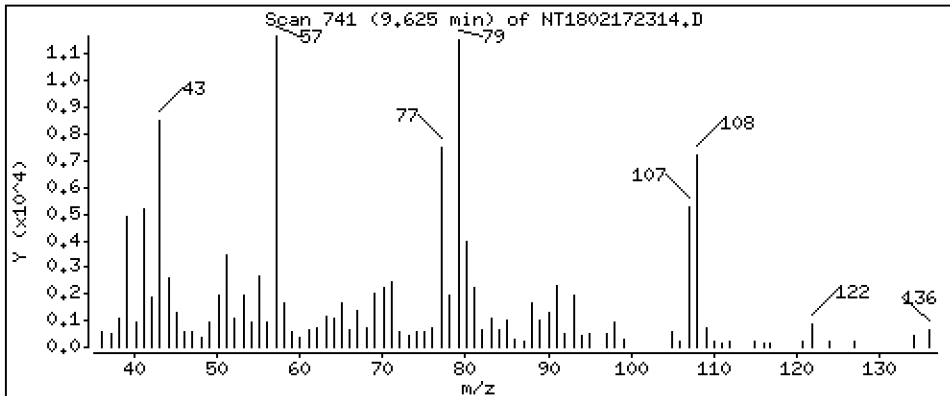
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.3104 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

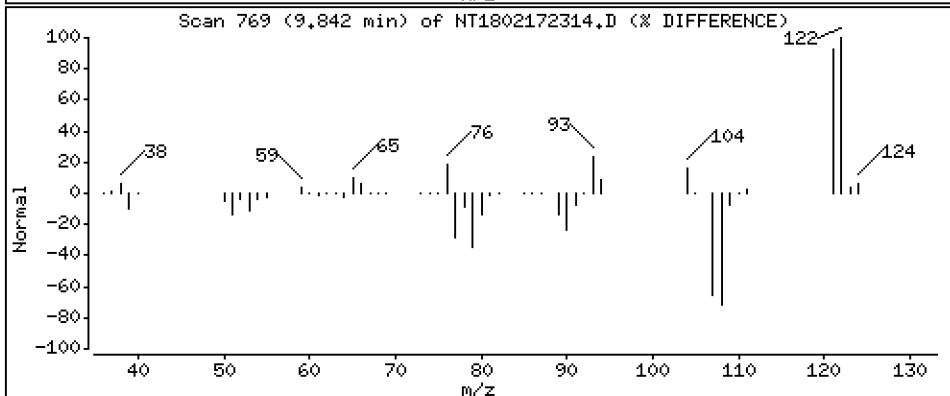
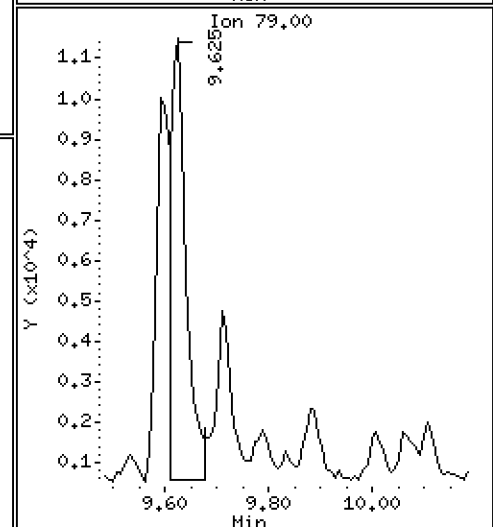
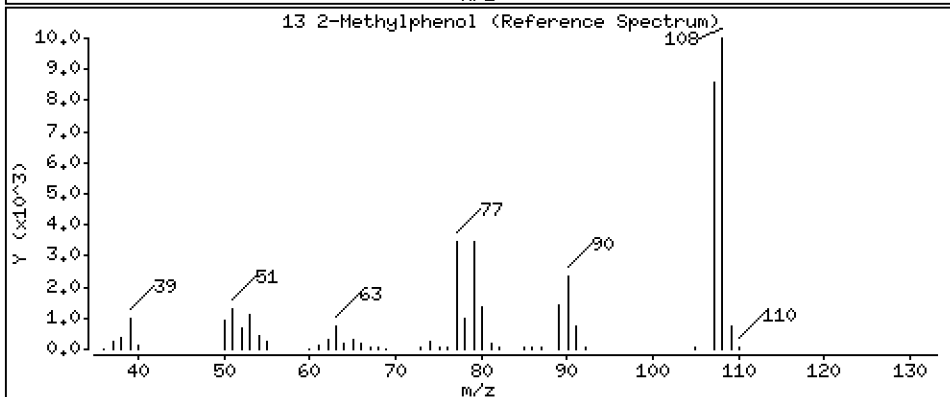
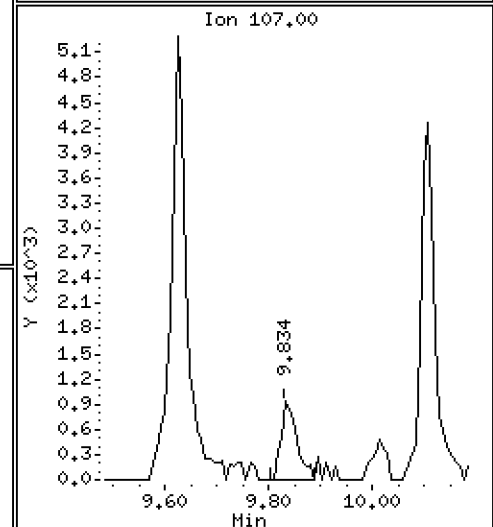
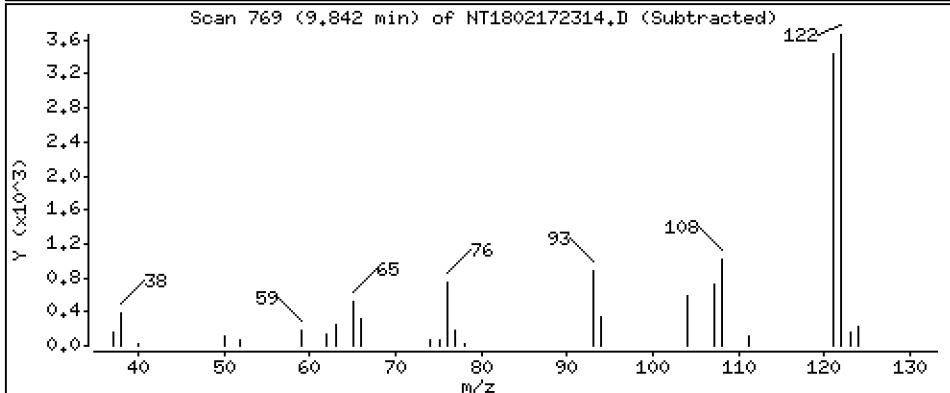
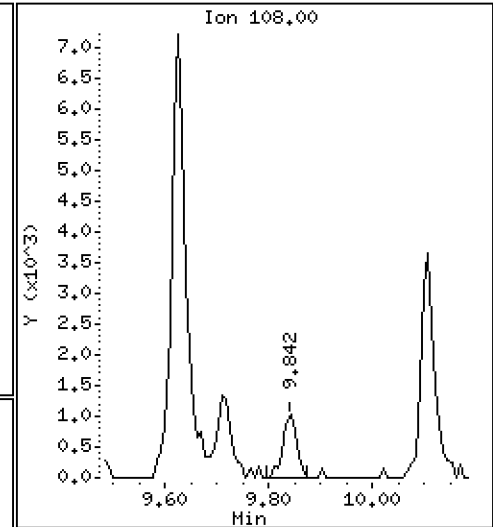
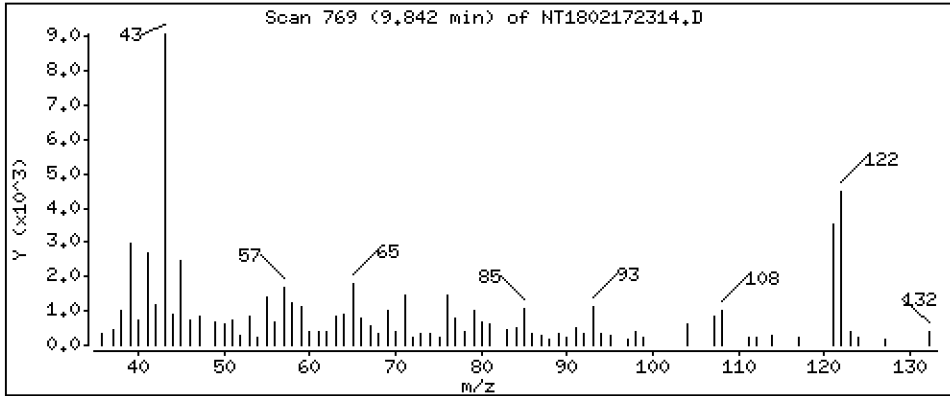
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

Concentration: 0,02936 ug/mL

13 2-Methylphenol



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

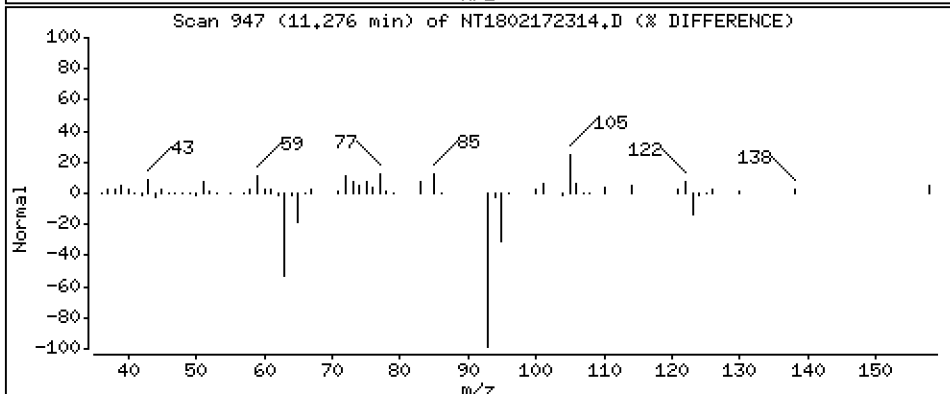
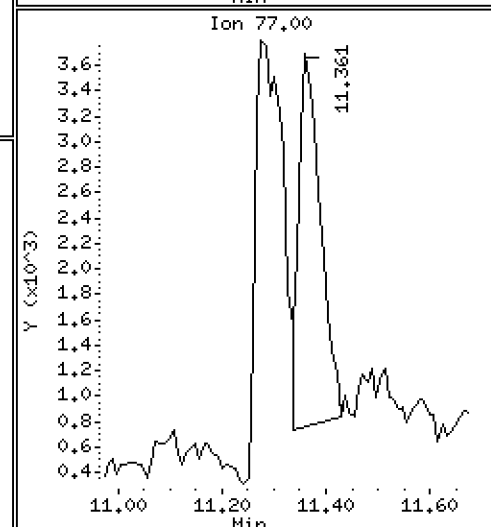
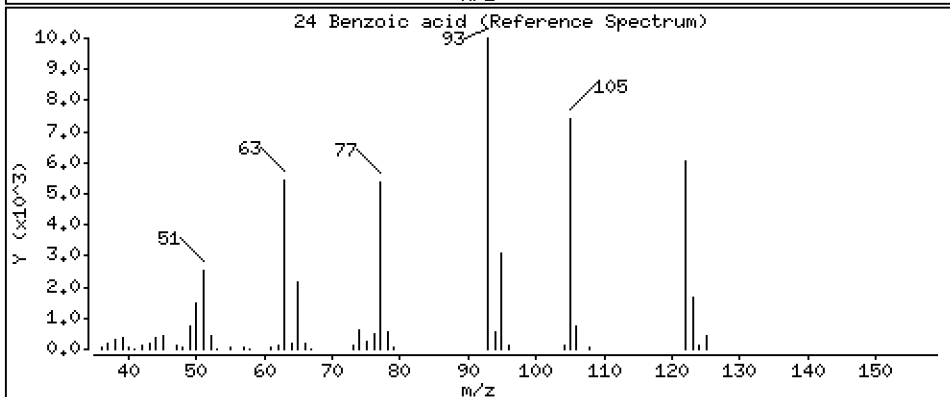
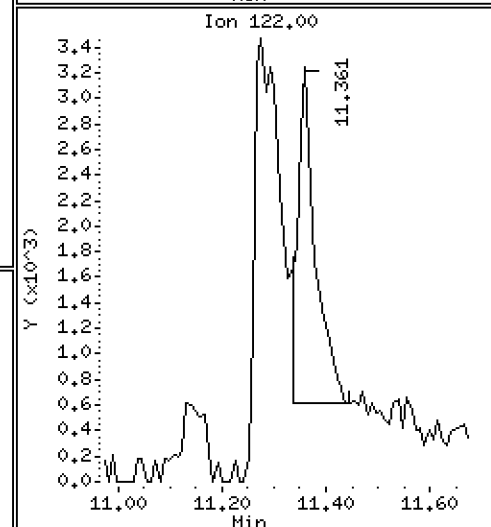
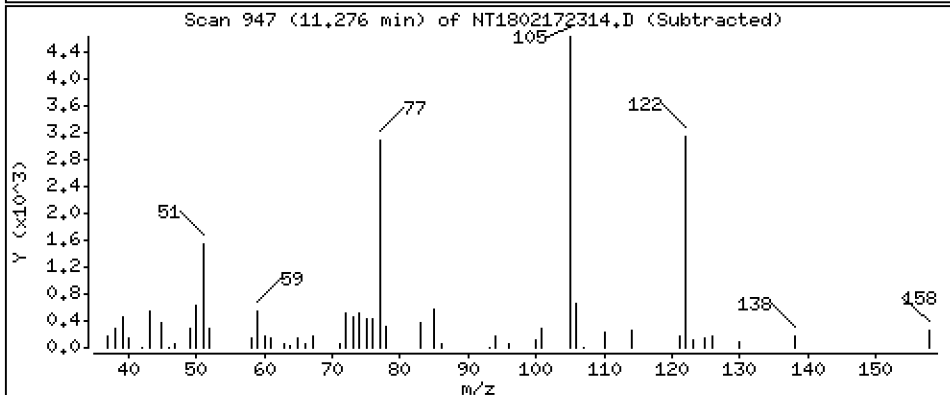
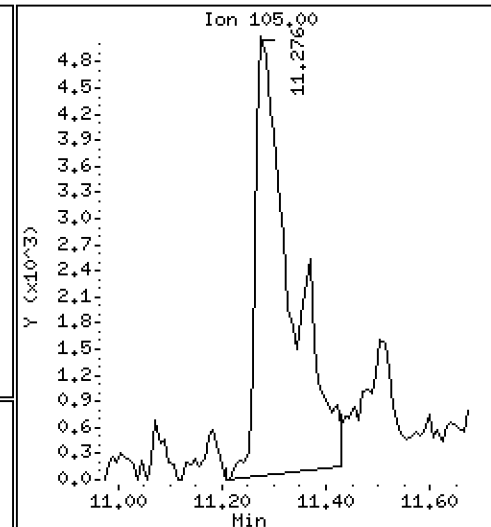
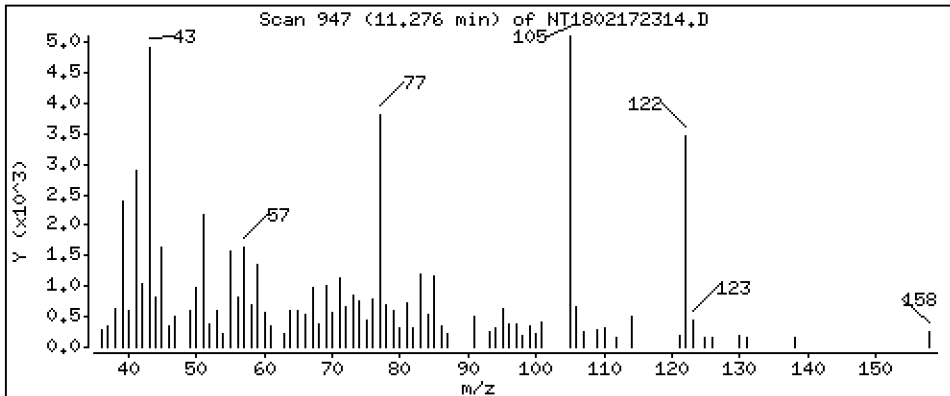
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 0,6122 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

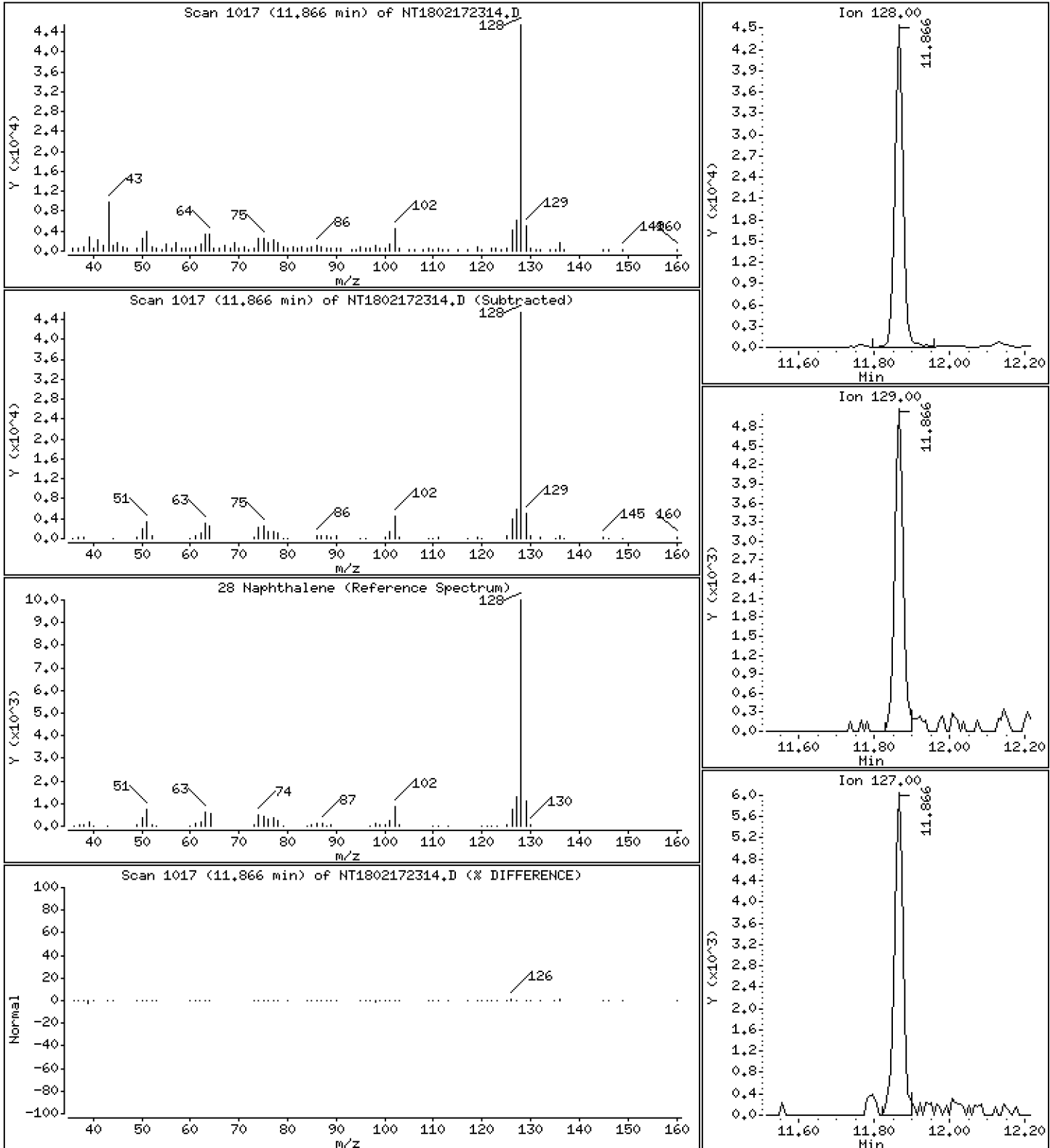
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,3275 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

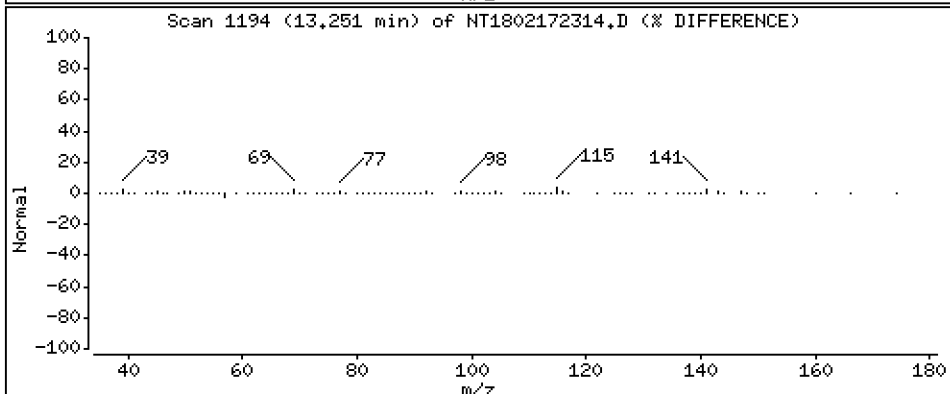
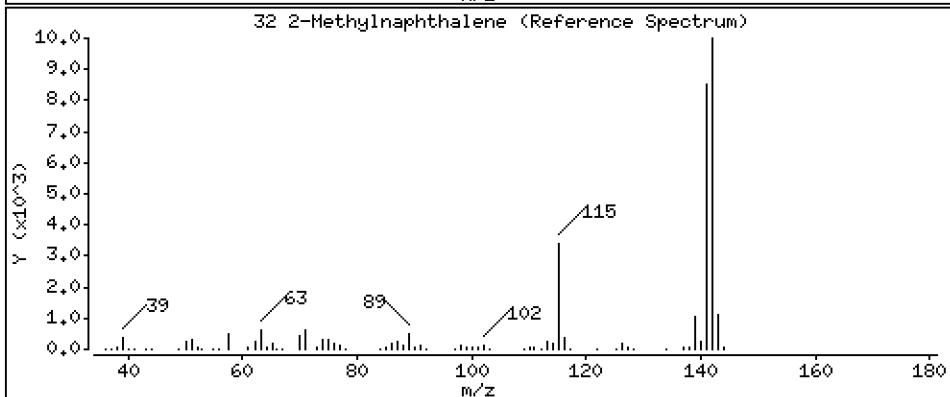
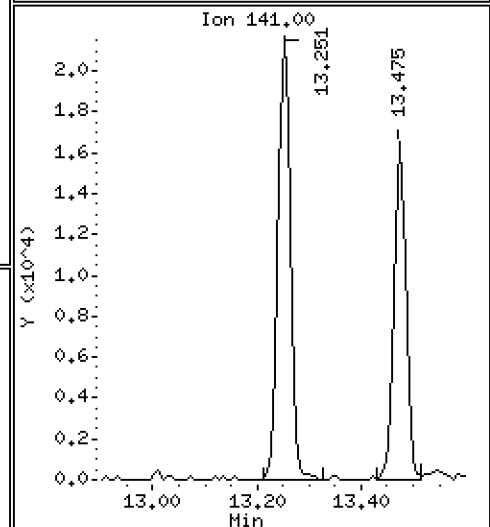
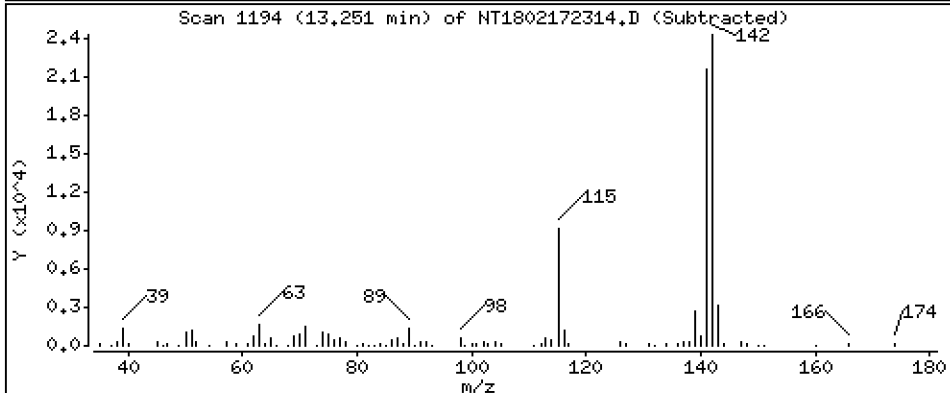
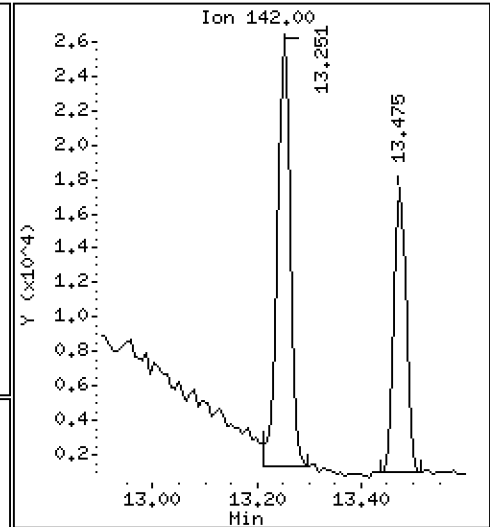
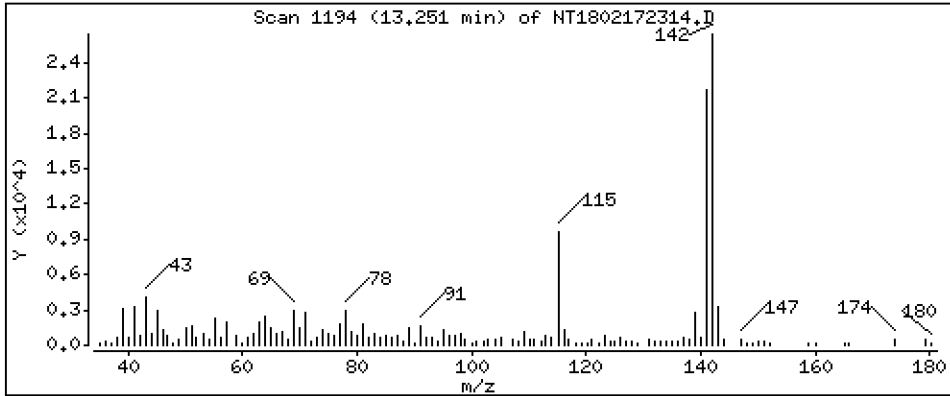
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,2726 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

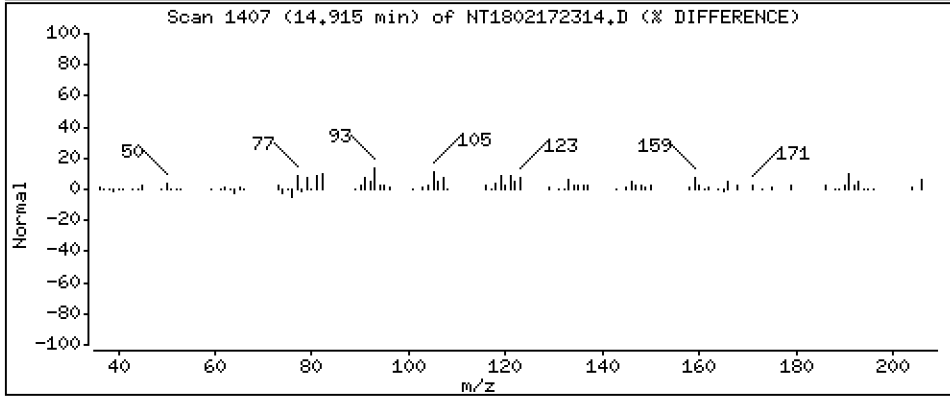
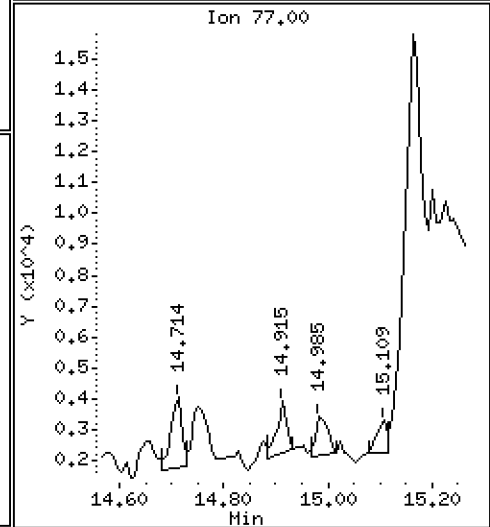
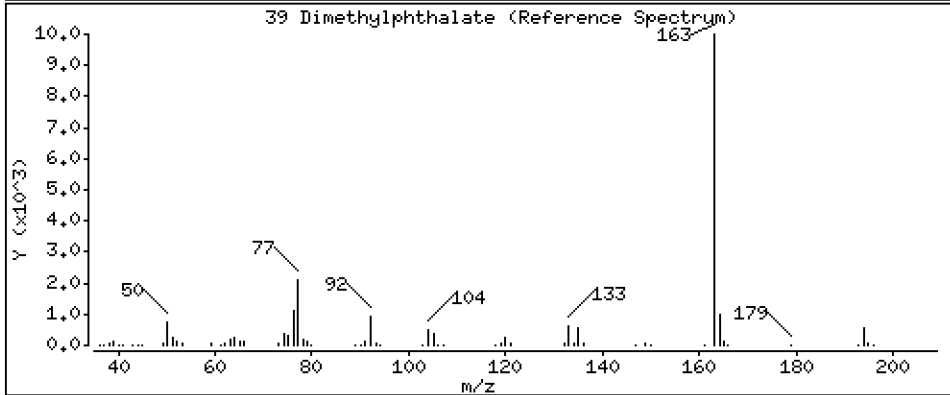
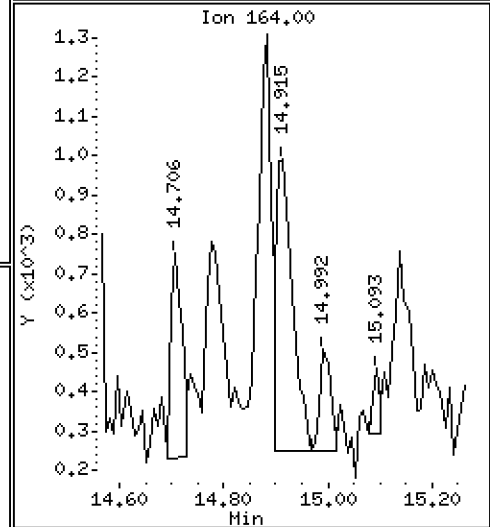
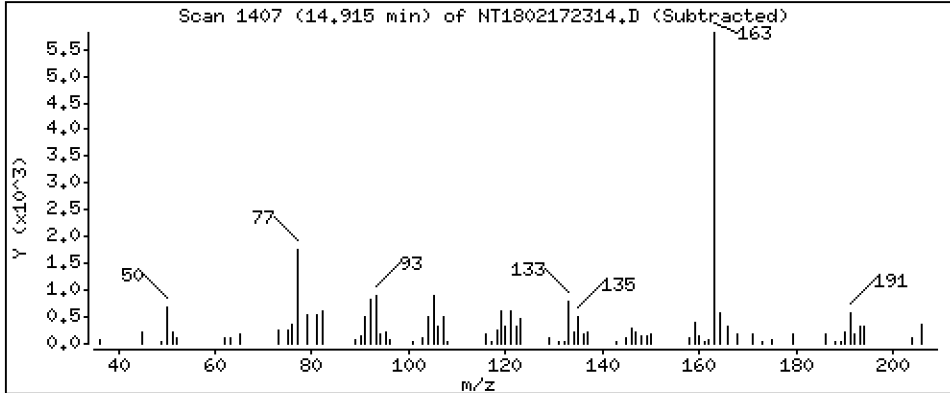
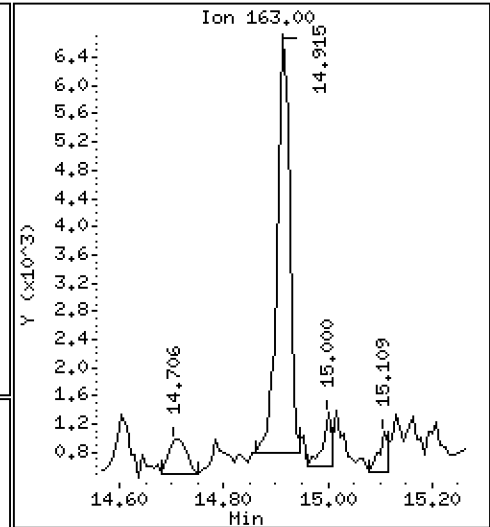
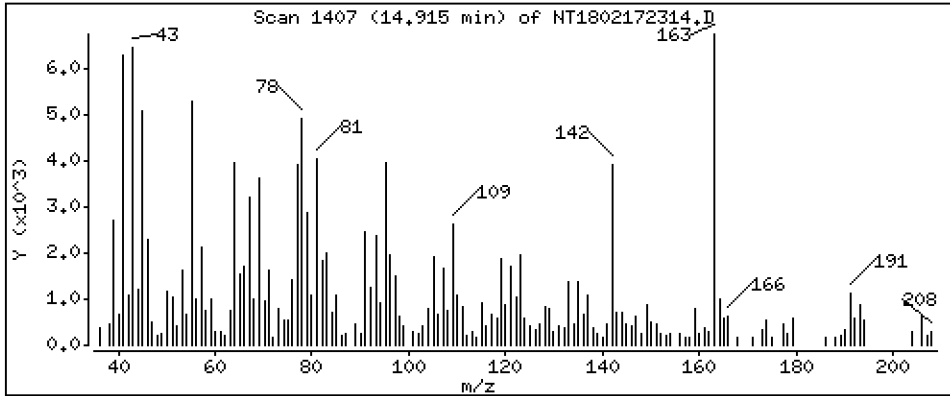
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 0.06190 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

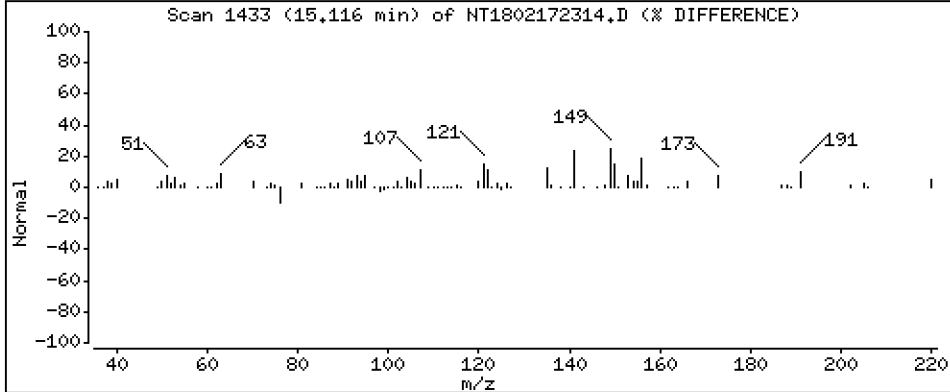
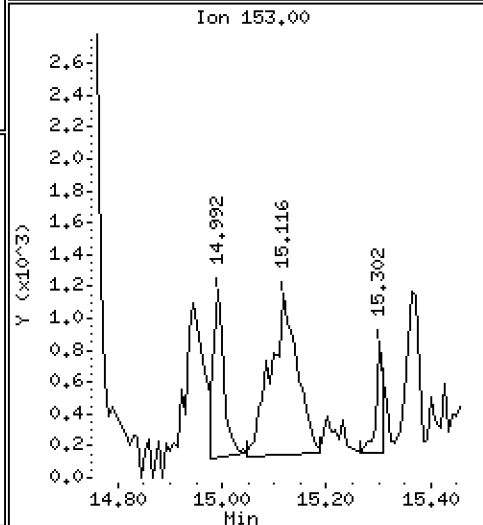
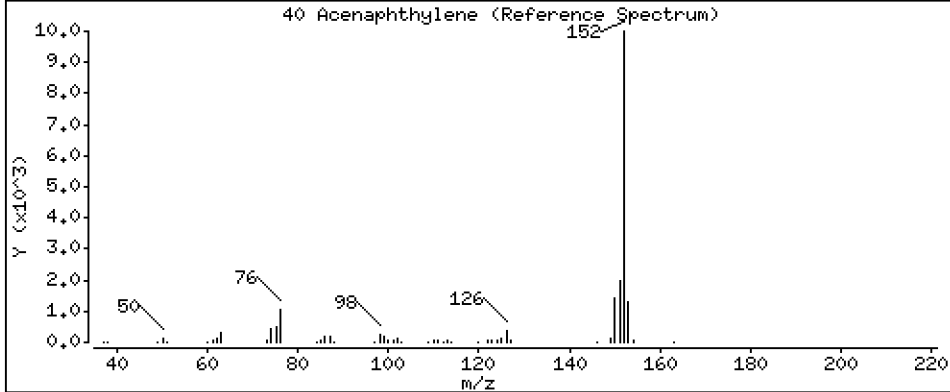
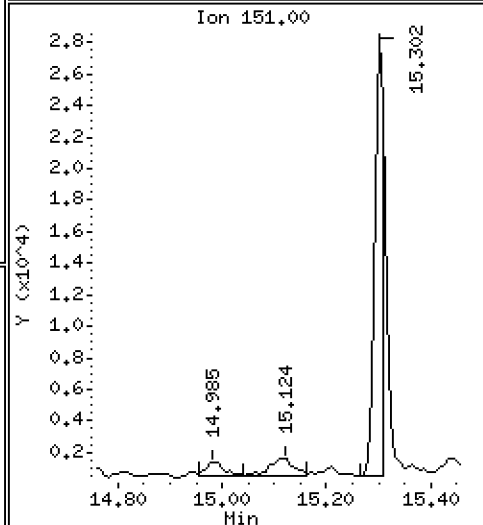
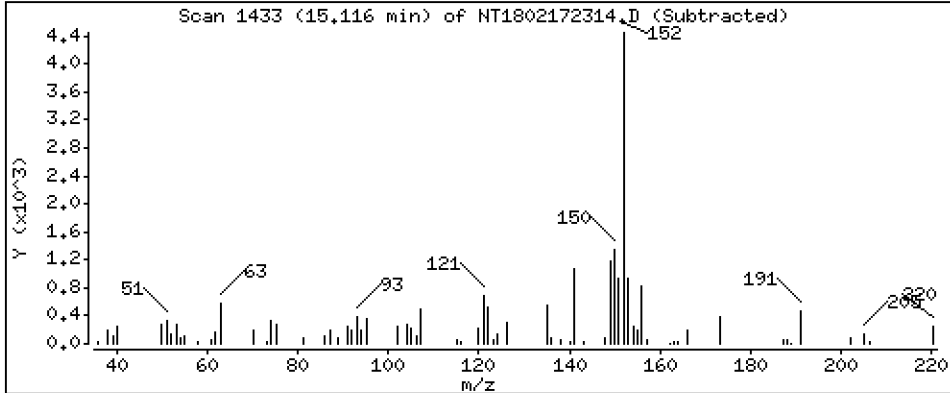
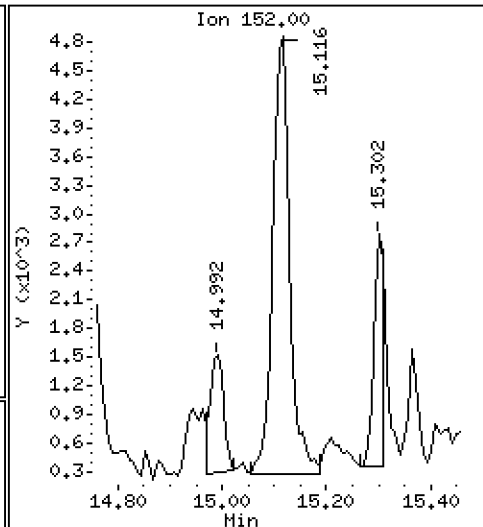
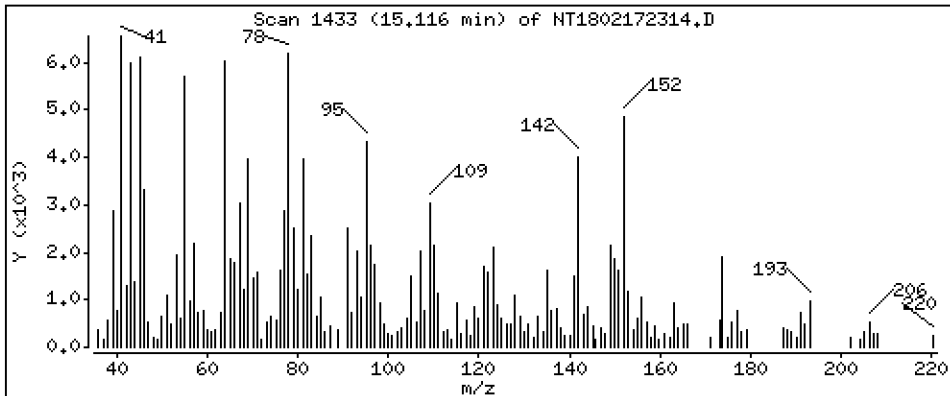
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

40 Acenaphthylene

Concentration: 0.04636 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

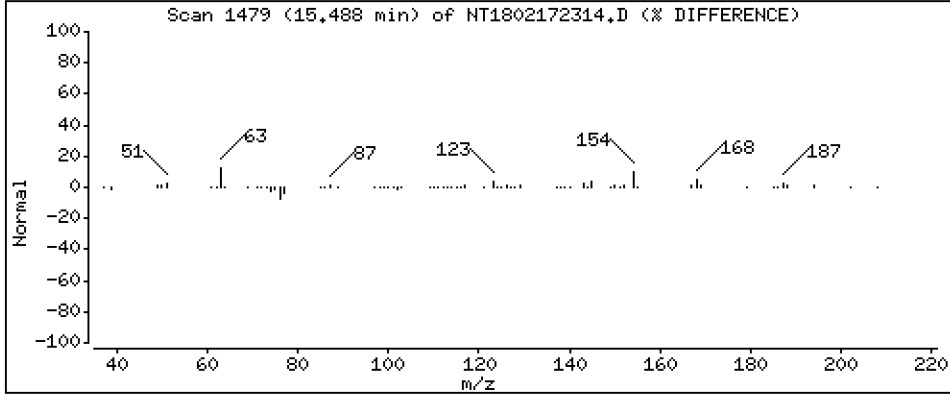
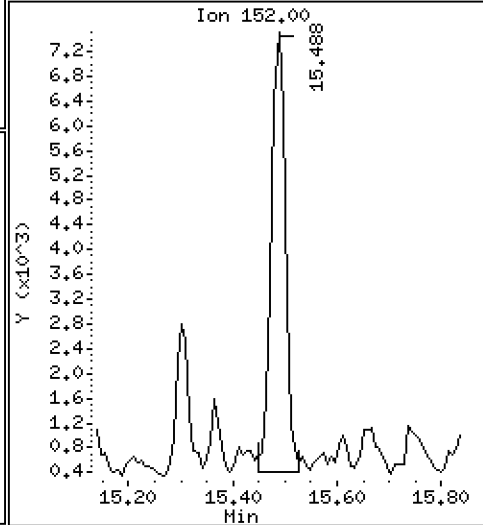
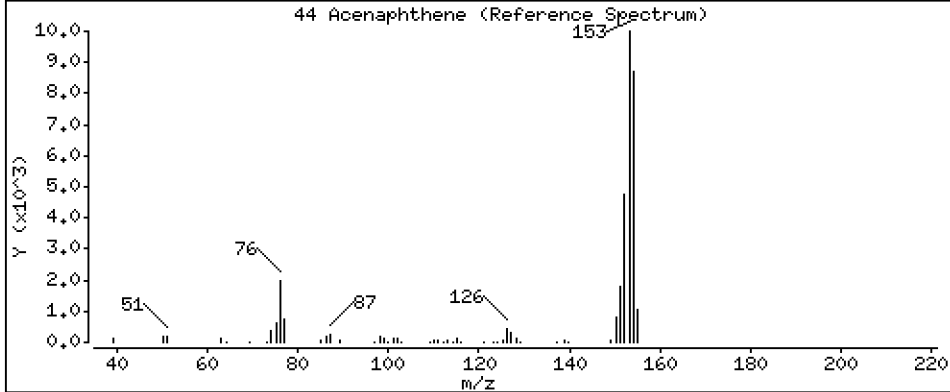
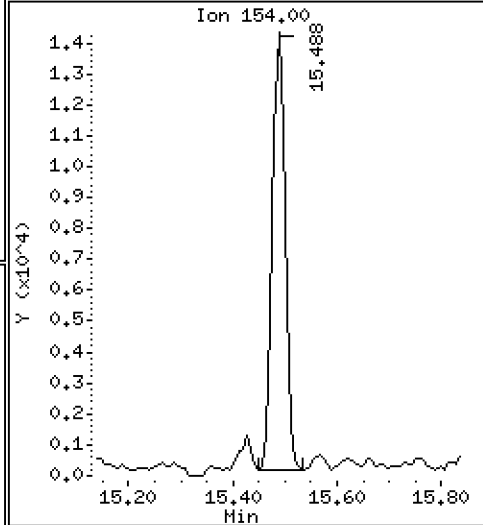
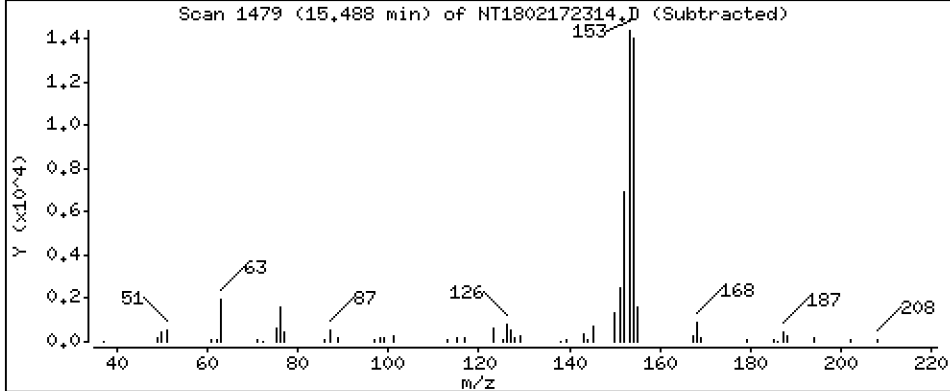
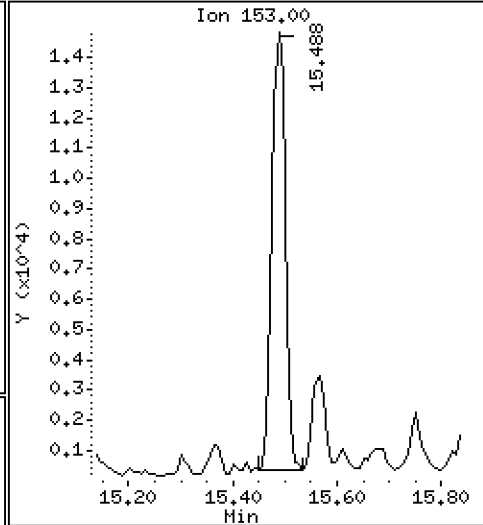
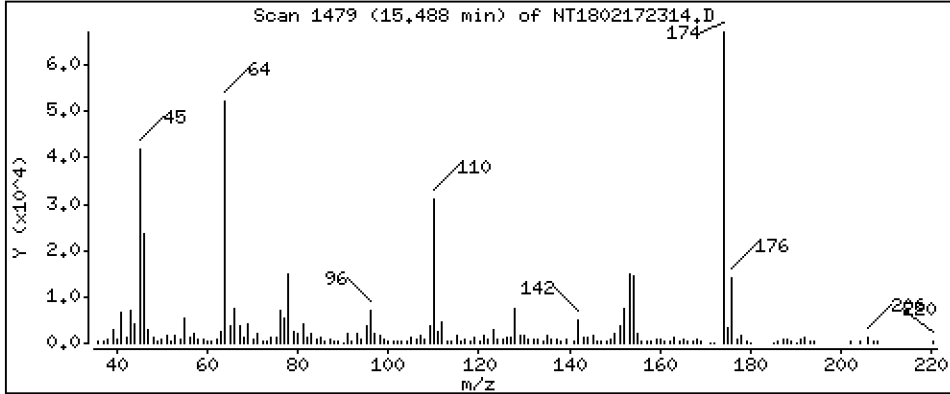
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,1696 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

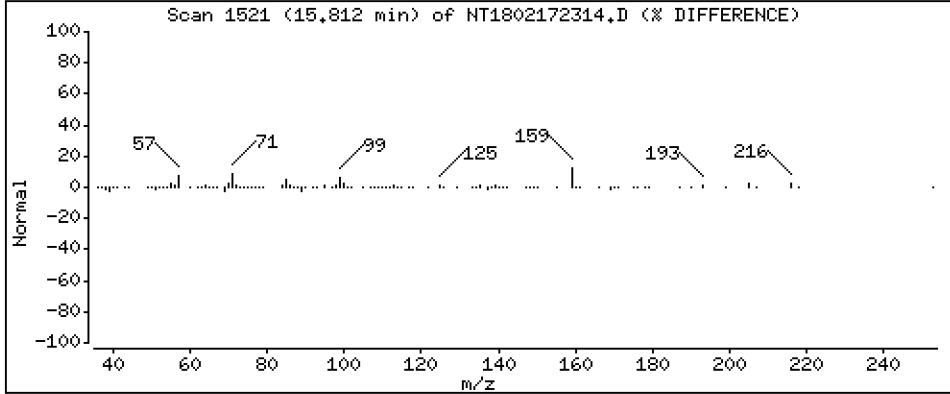
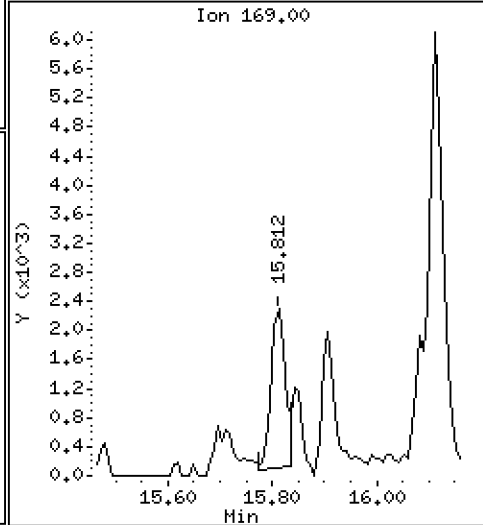
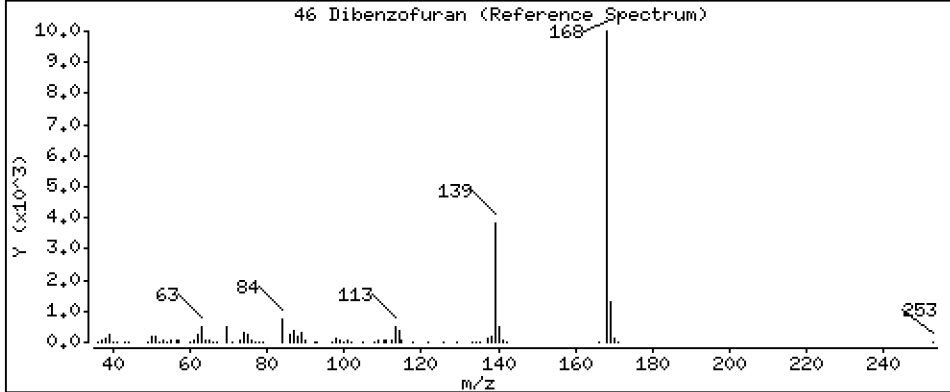
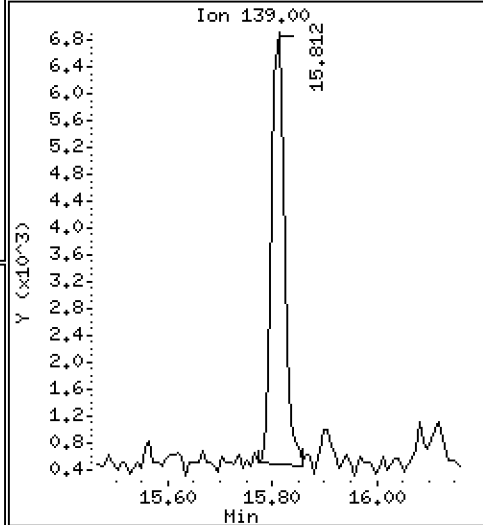
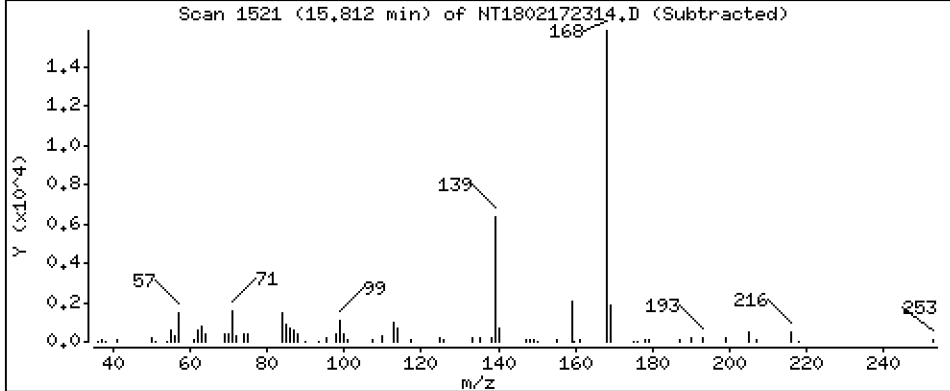
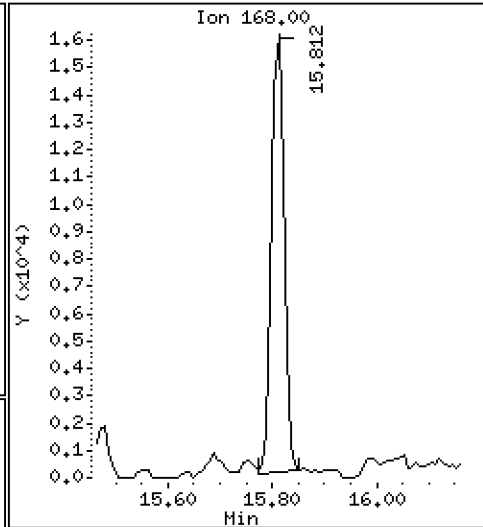
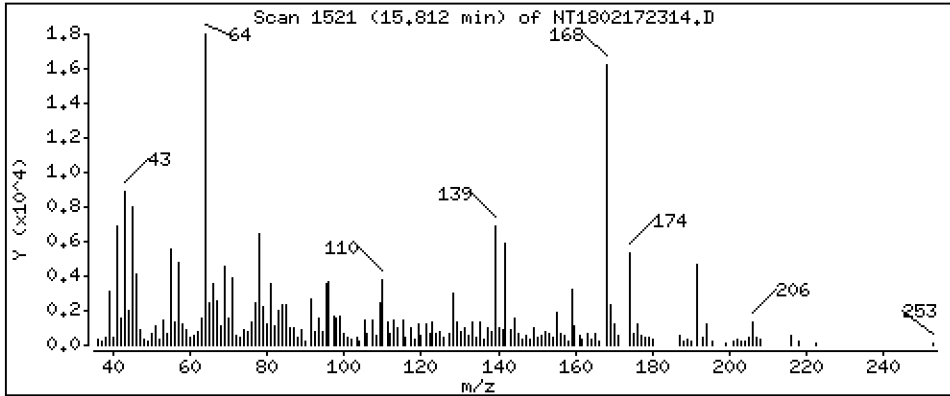
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,1220 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

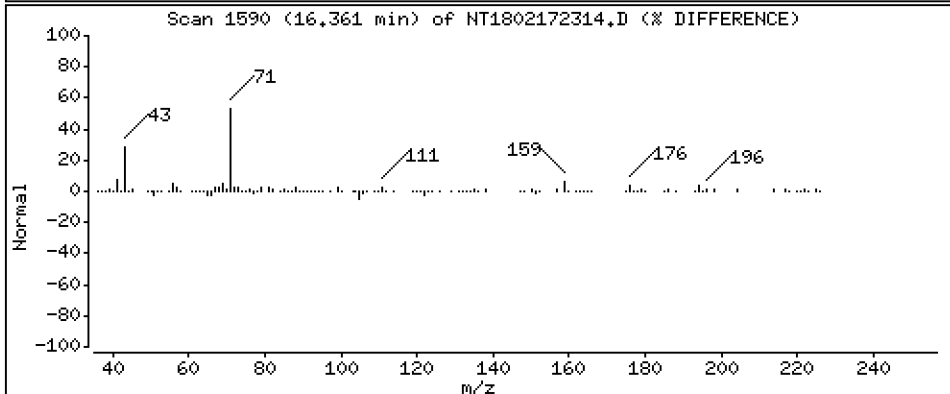
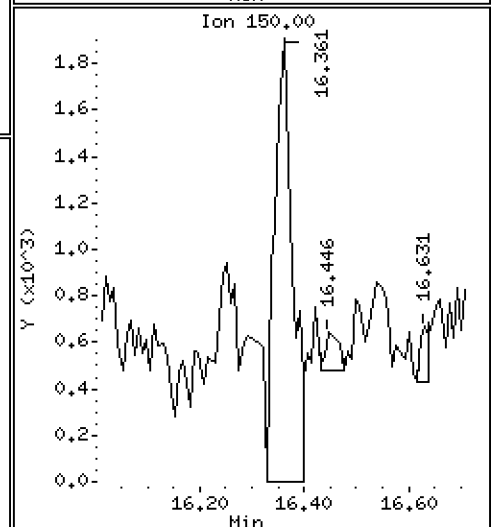
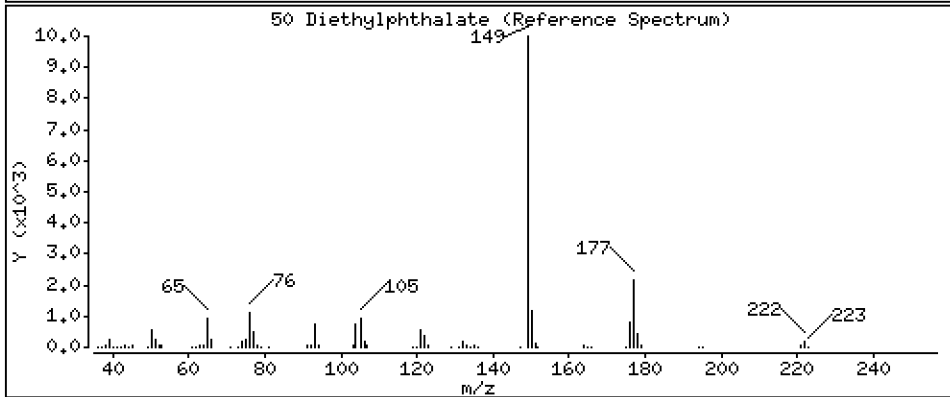
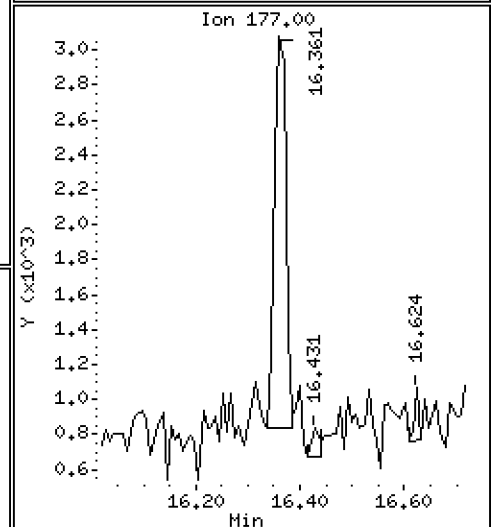
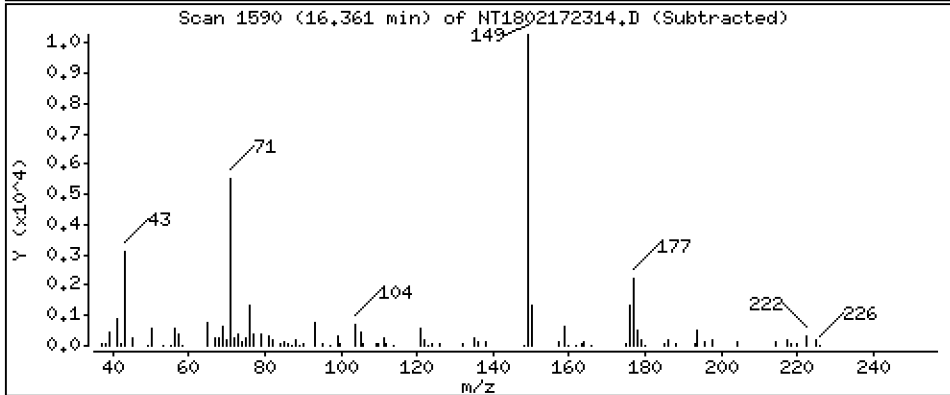
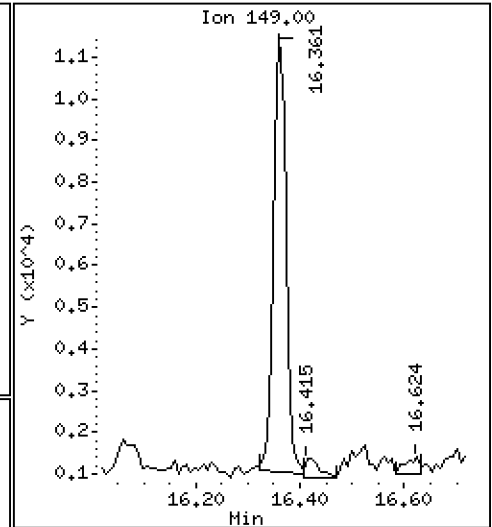
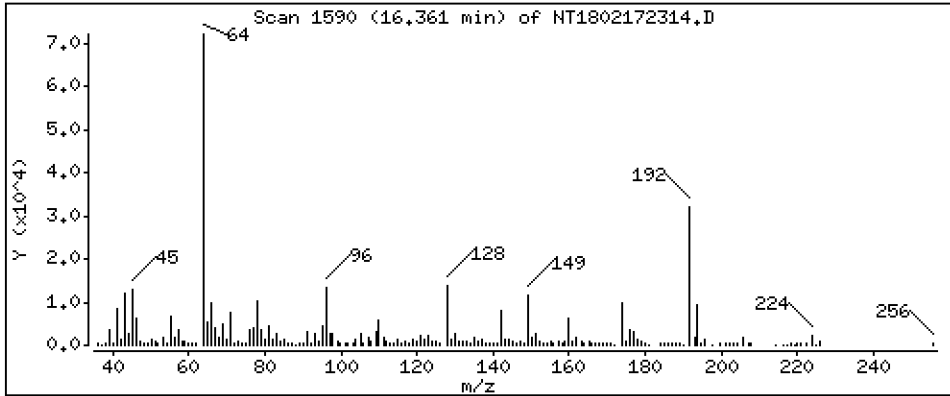
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.1068 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

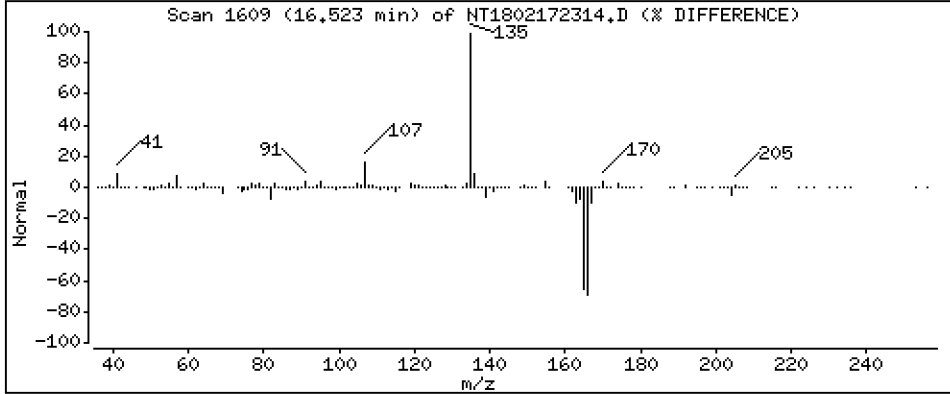
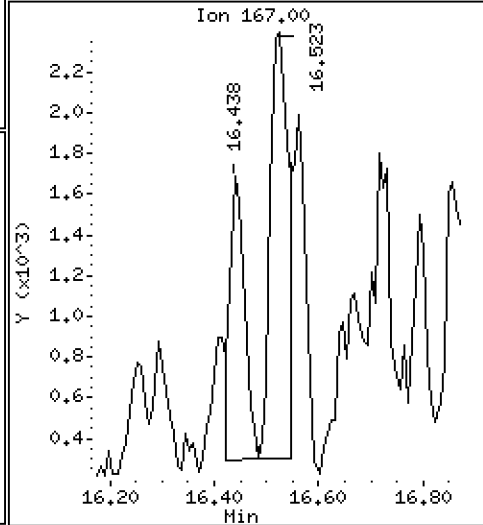
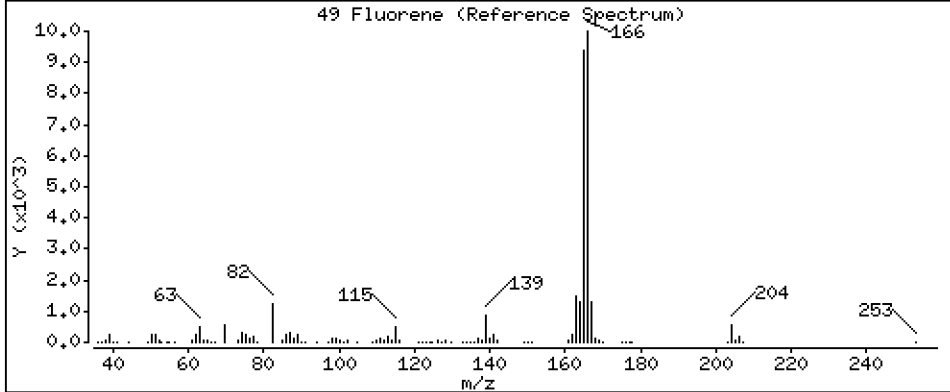
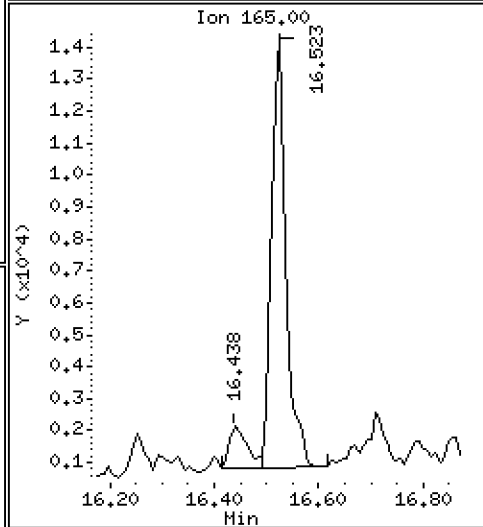
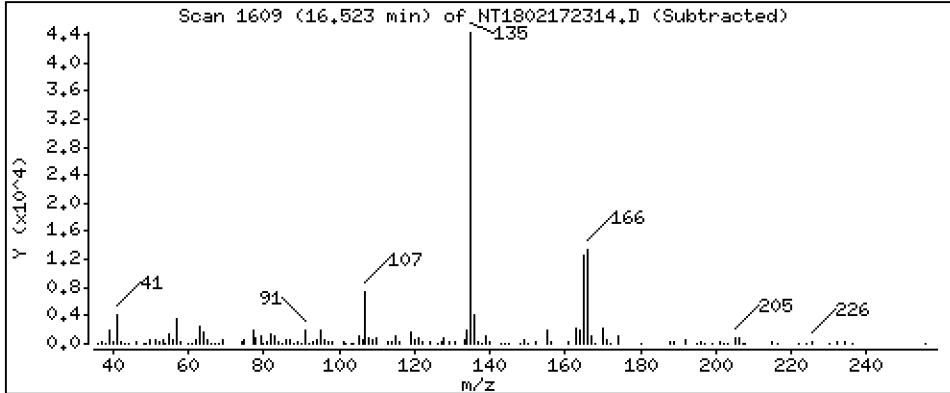
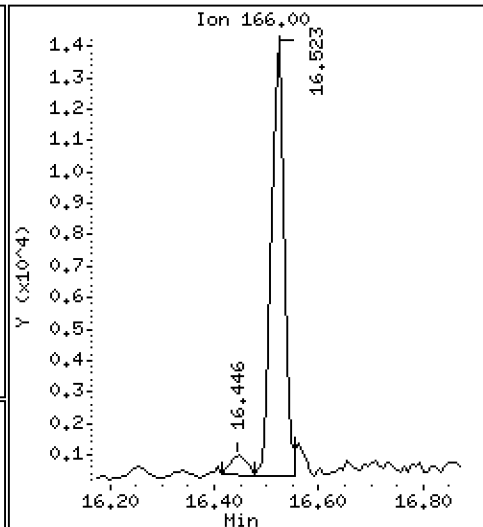
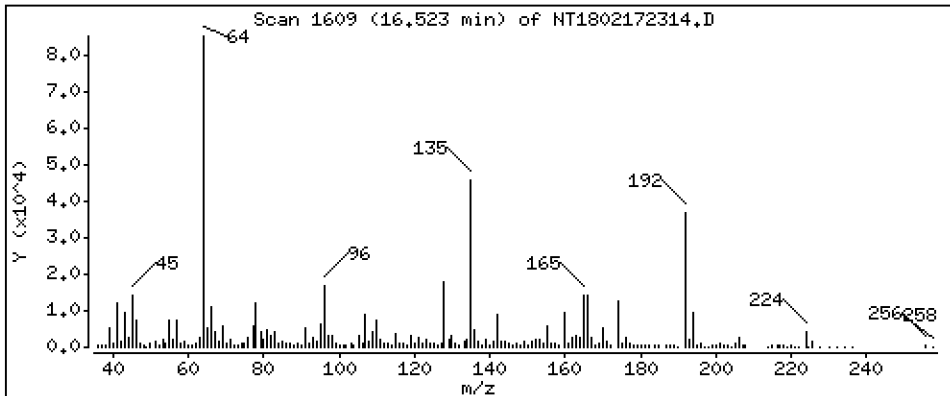
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

49 Fluorene

Concentration: 0.1404 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

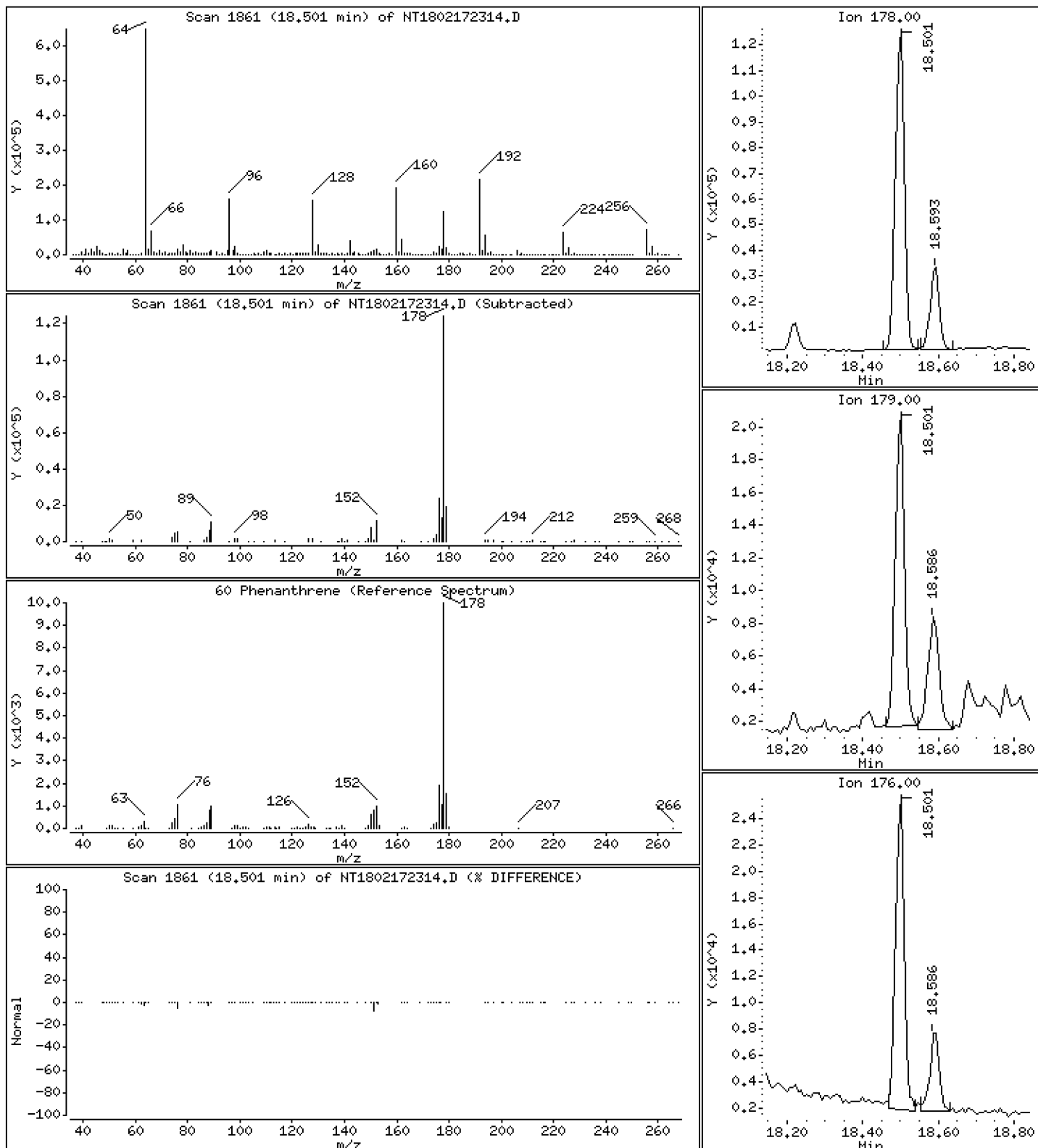
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,7441 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

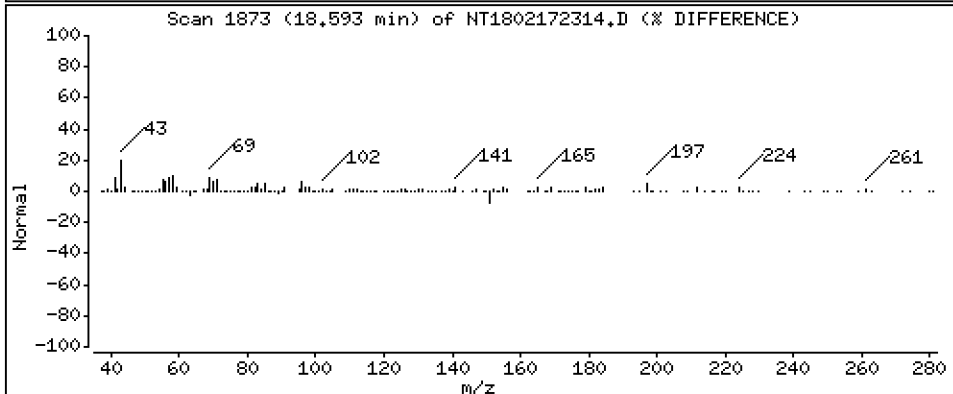
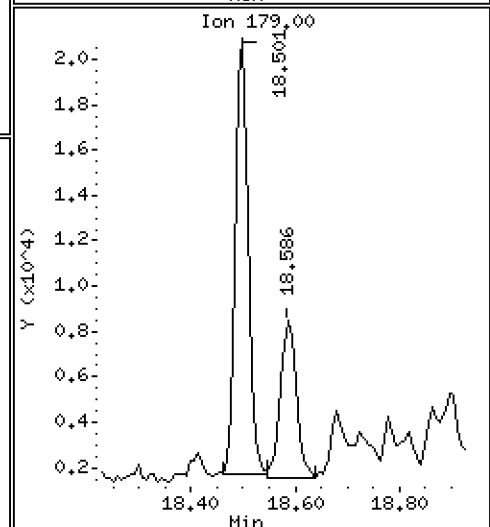
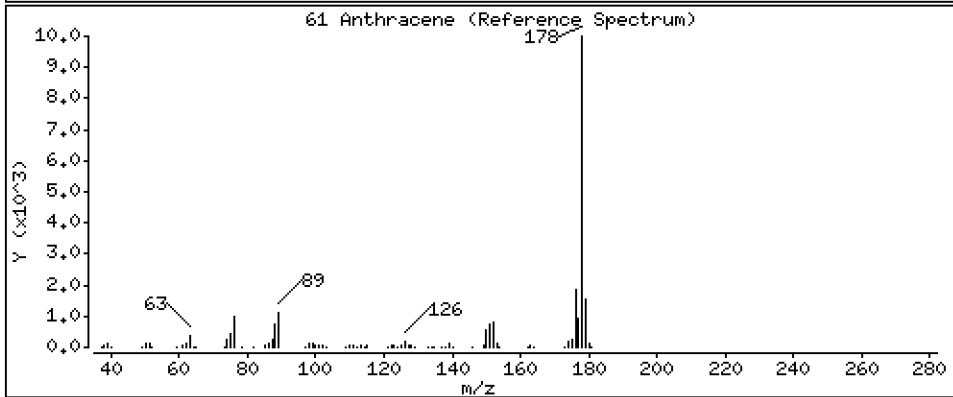
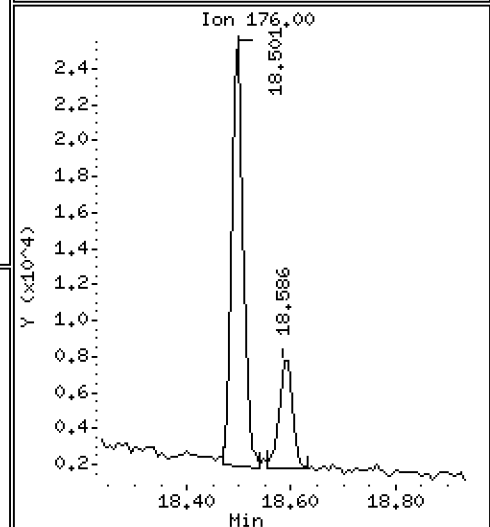
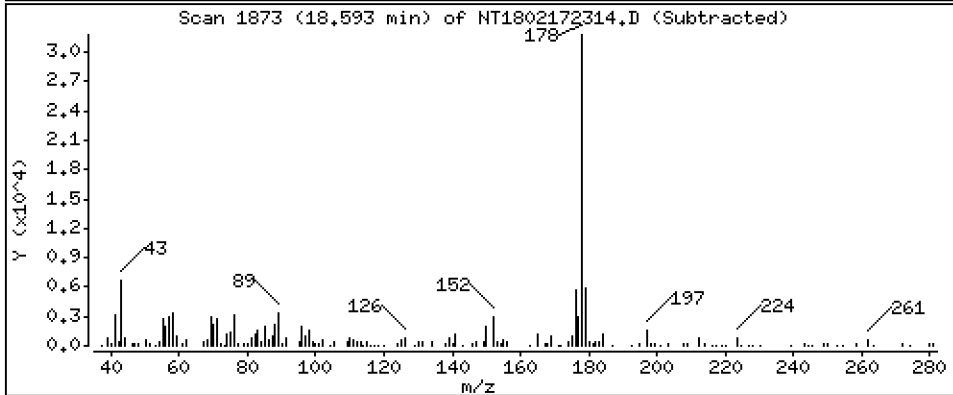
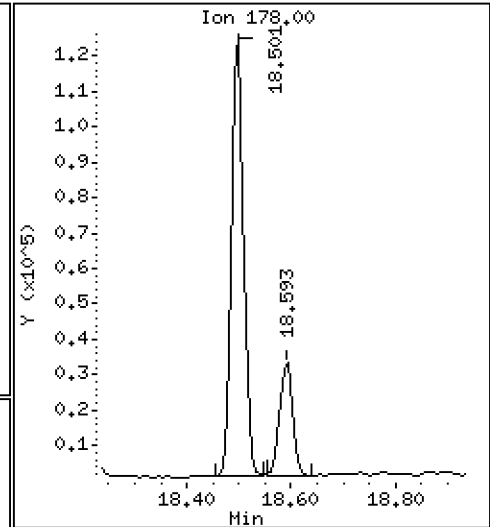
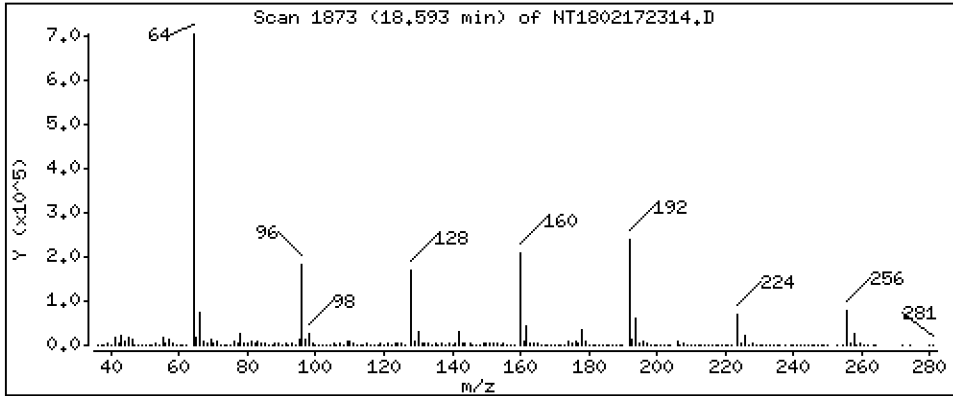
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,2270 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

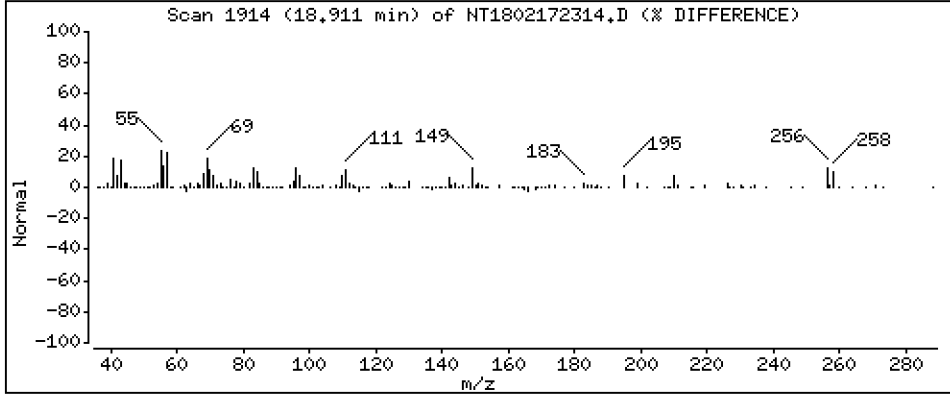
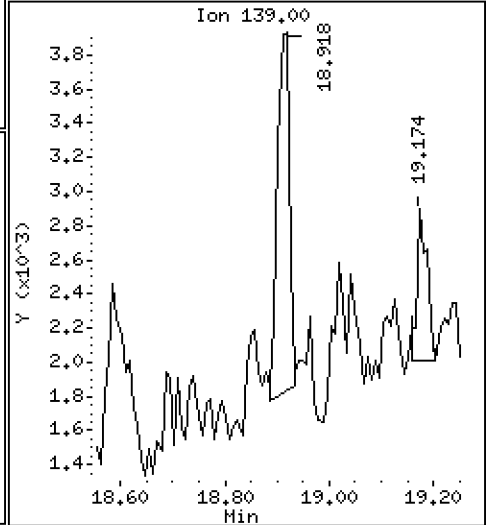
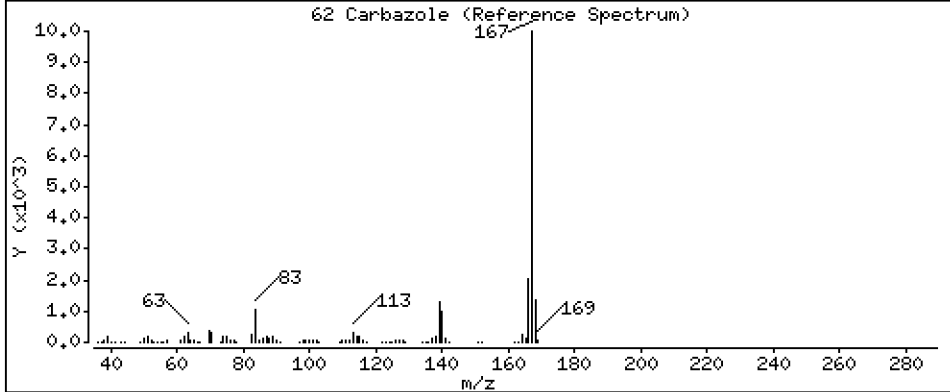
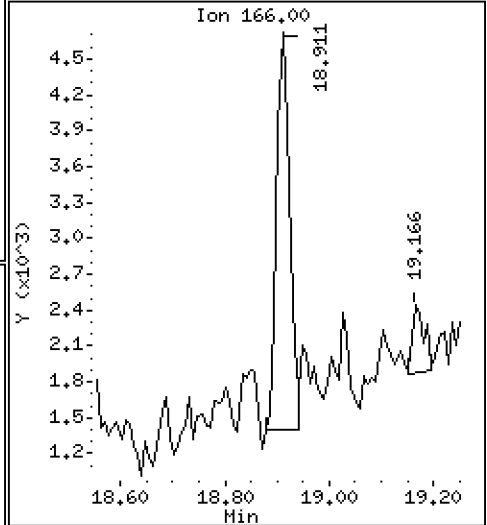
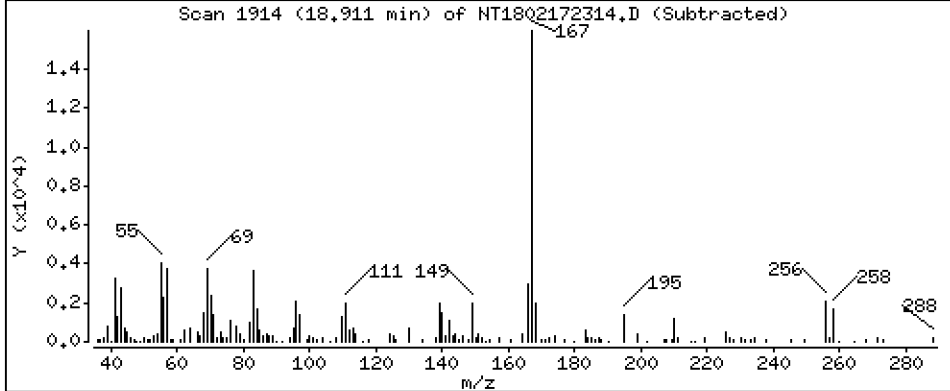
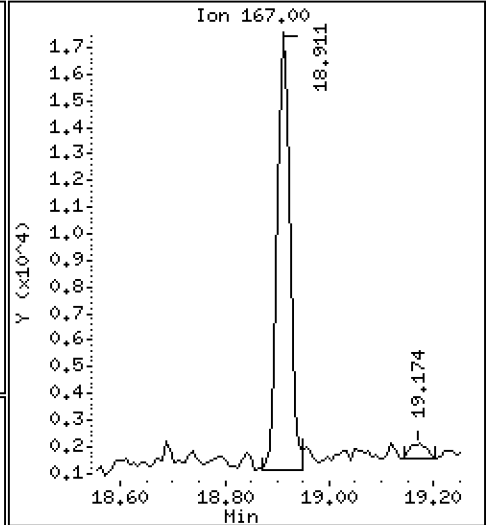
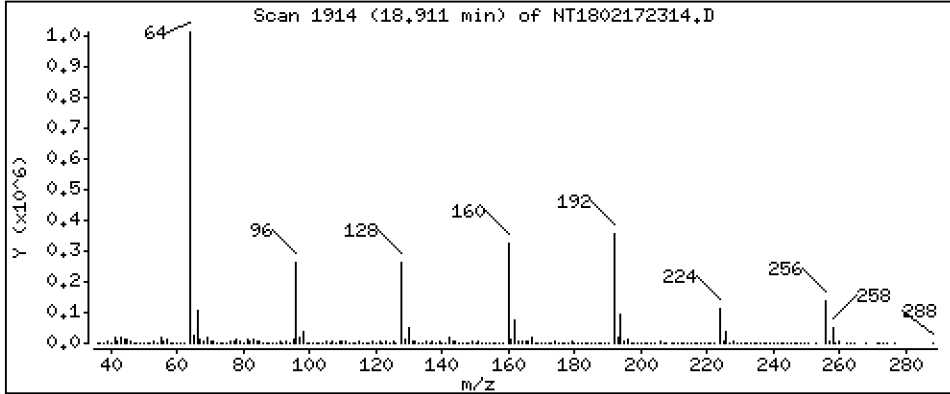
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,1112 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18,i

Sample Info: 23A0032-08

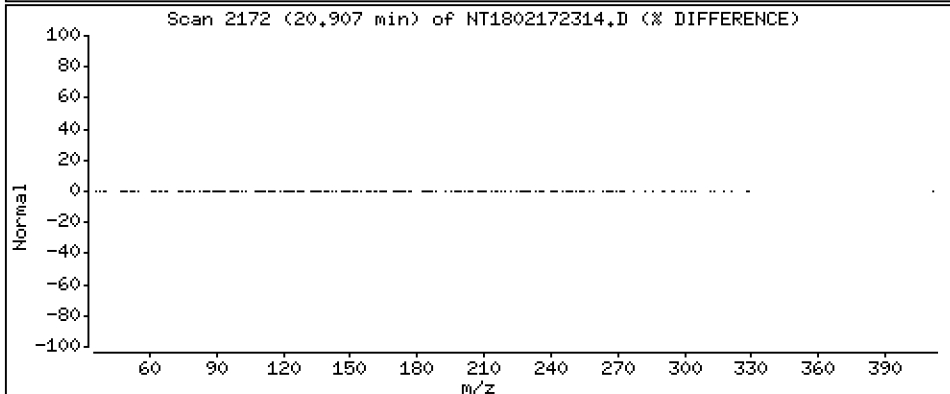
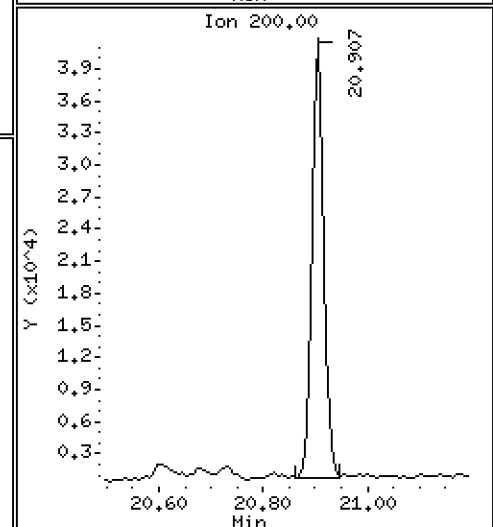
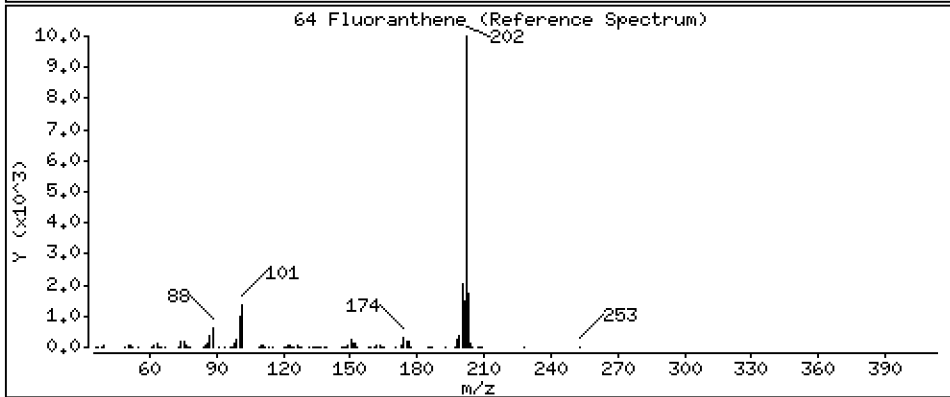
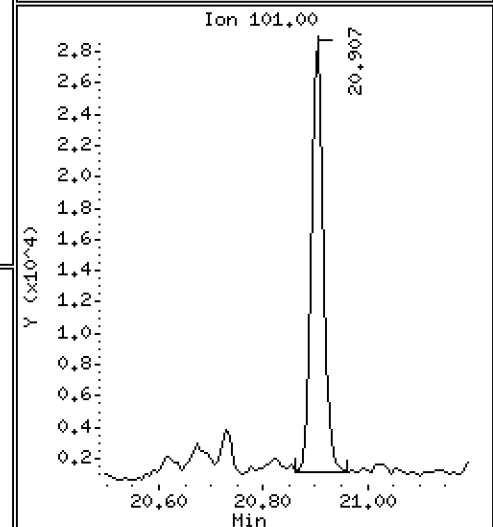
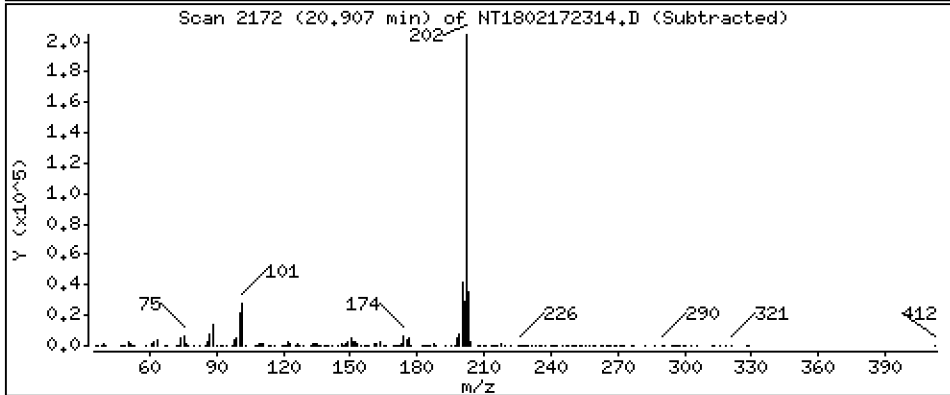
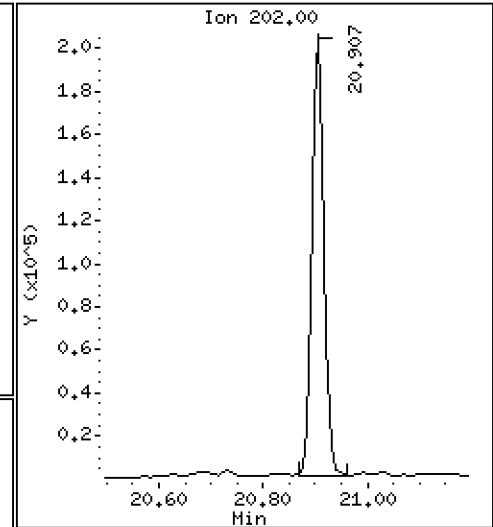
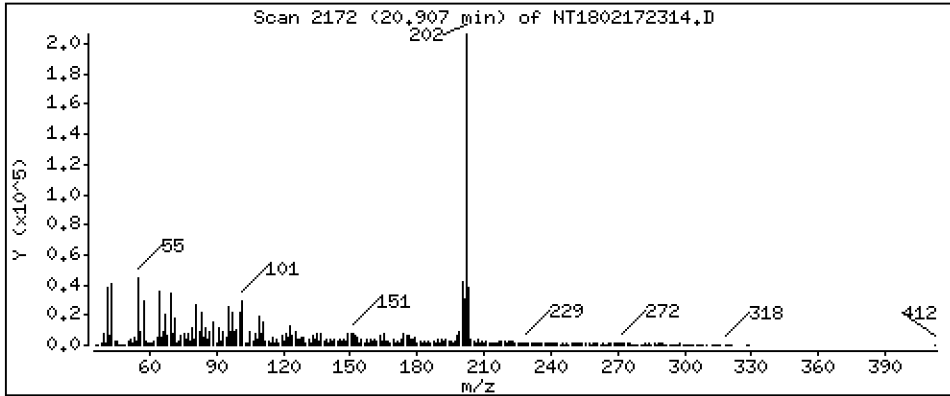
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 1,223 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

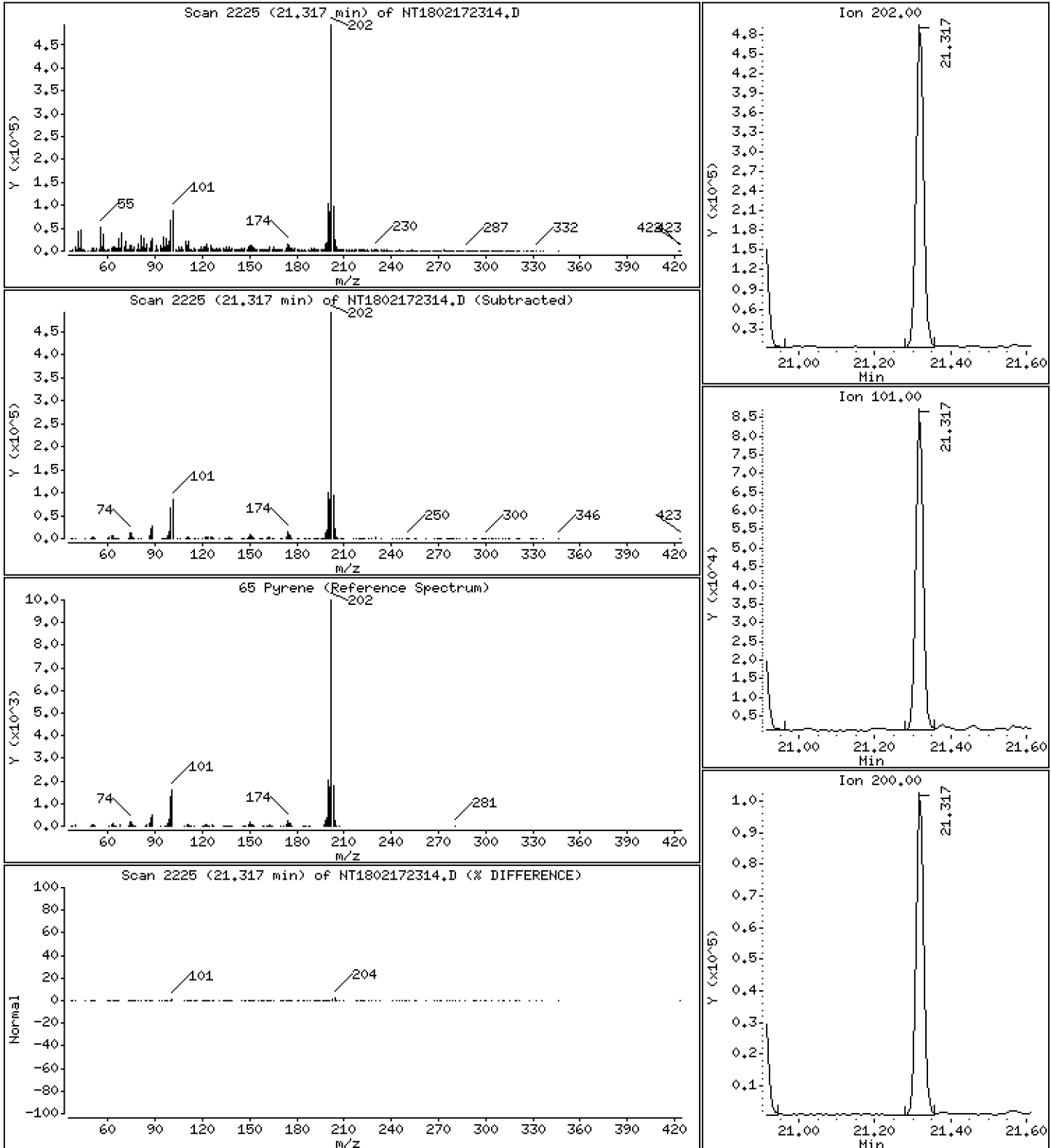
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 2,495 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

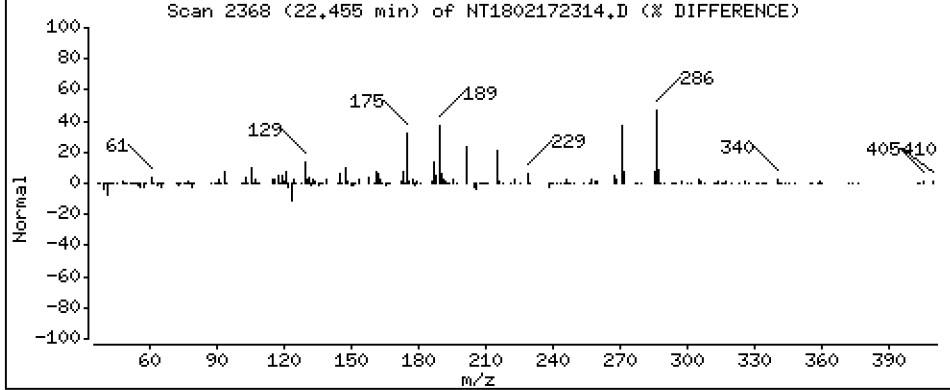
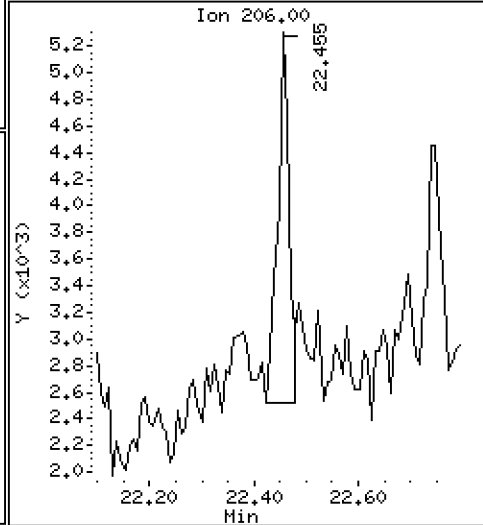
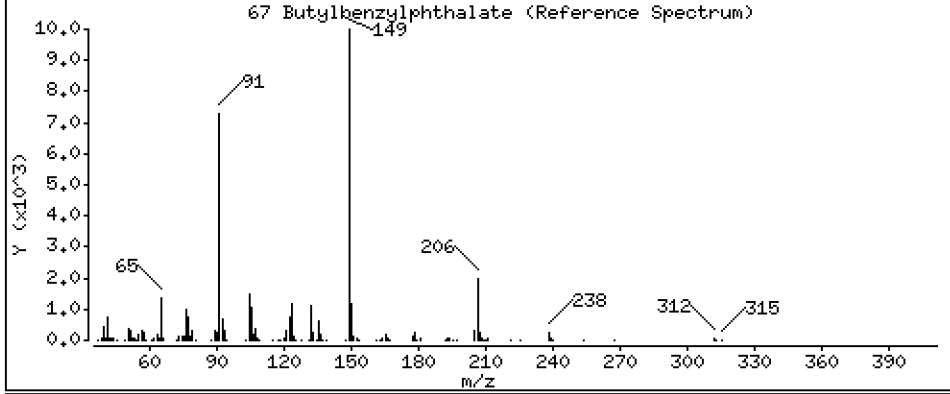
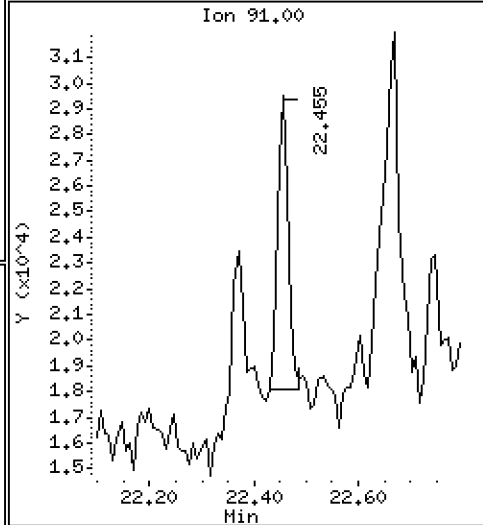
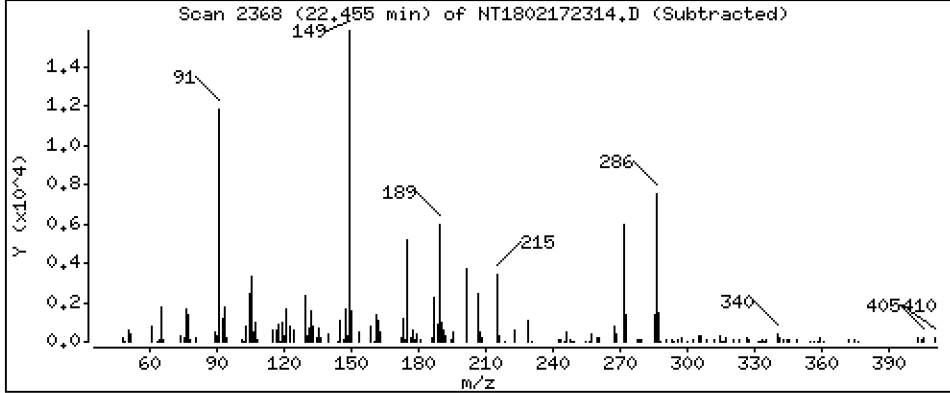
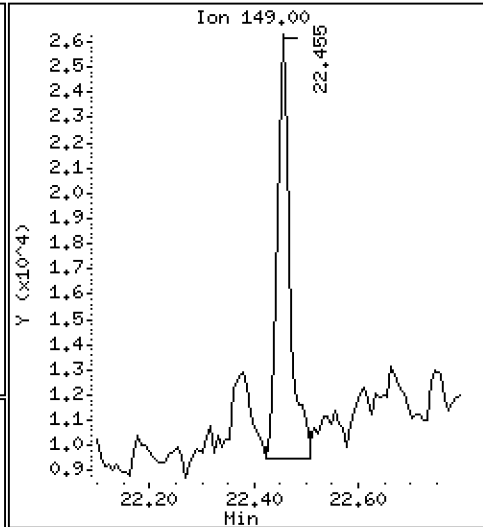
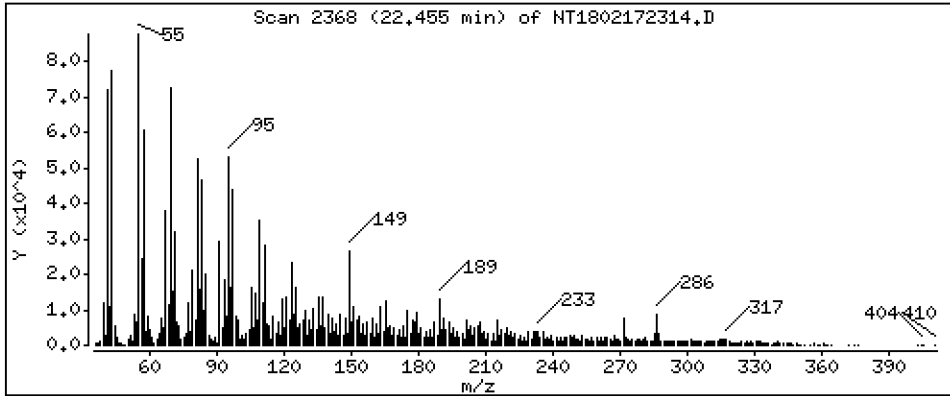
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.2056 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

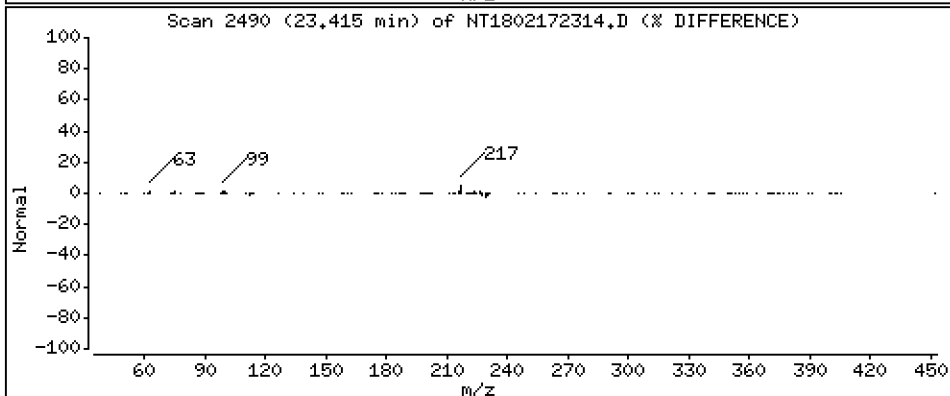
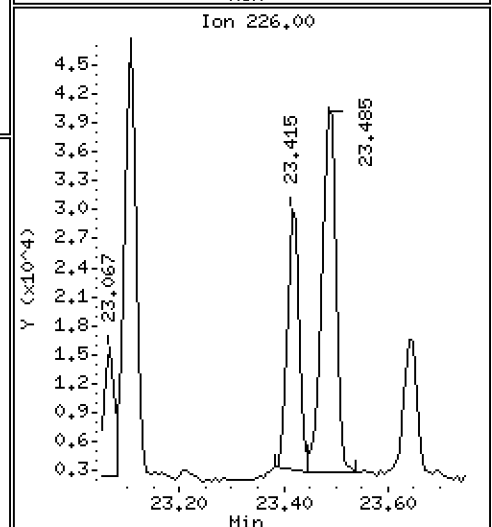
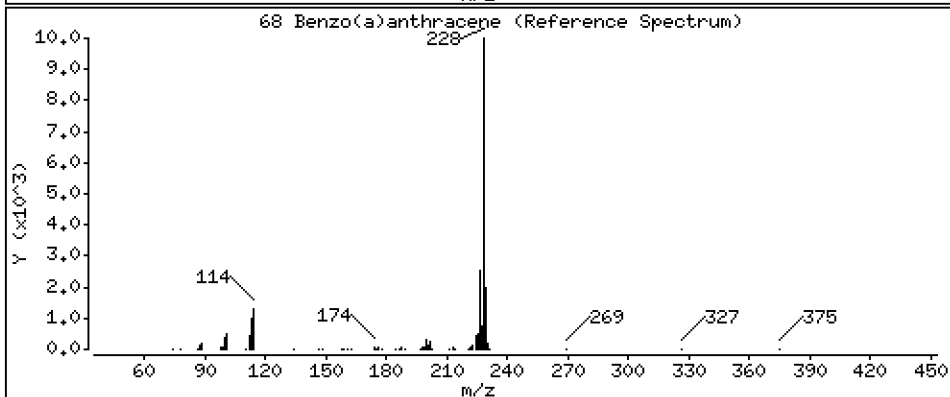
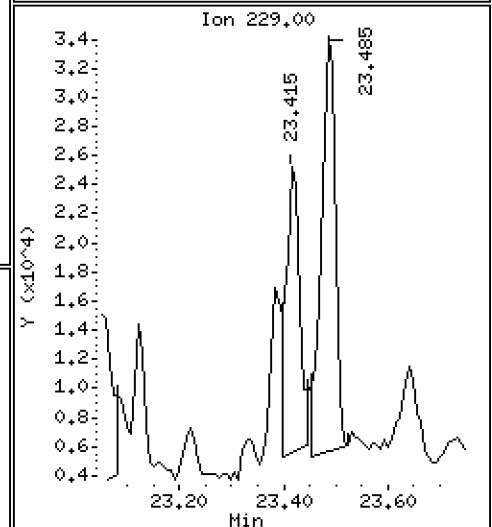
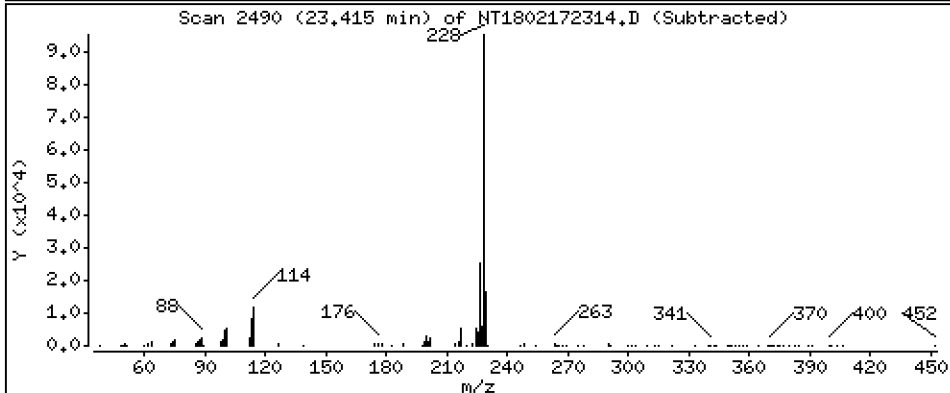
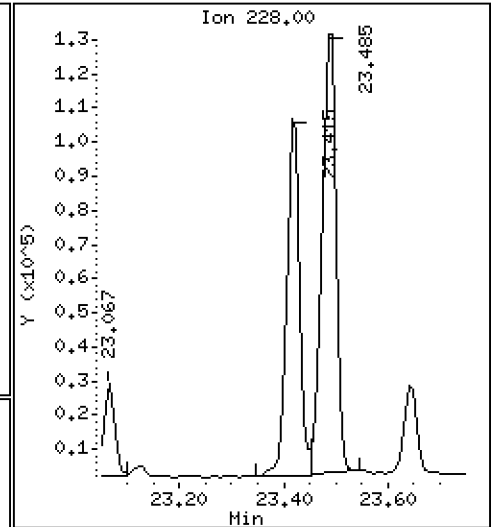
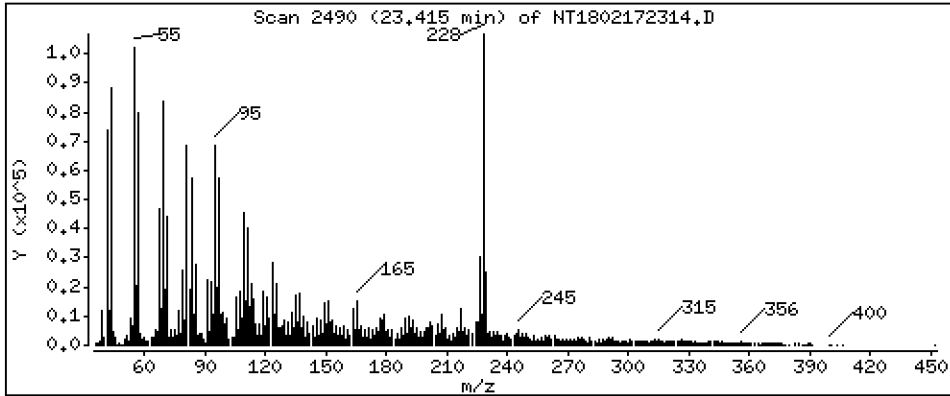
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,6395 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

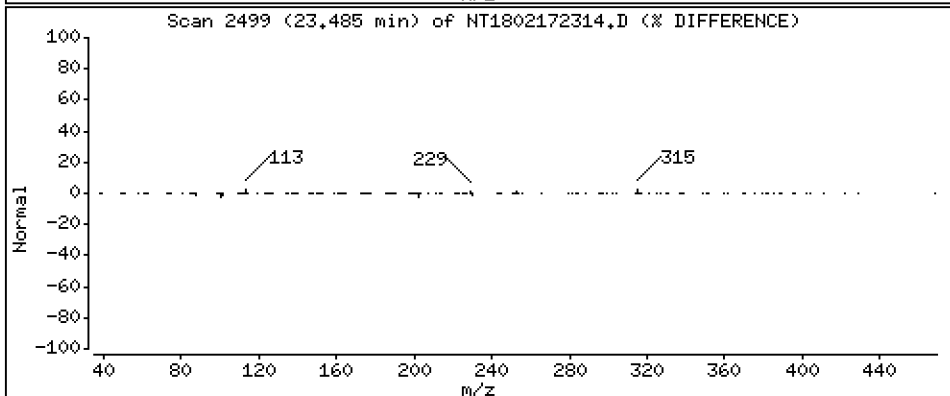
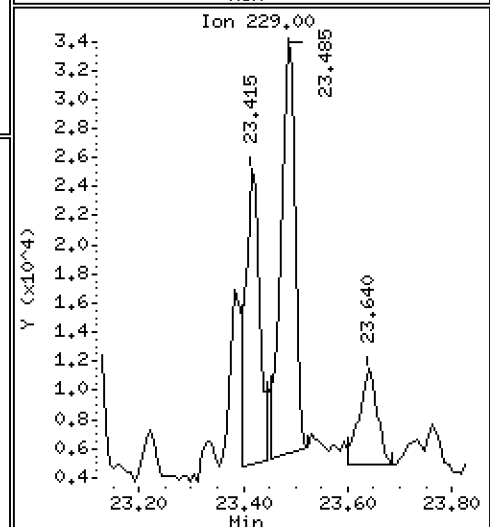
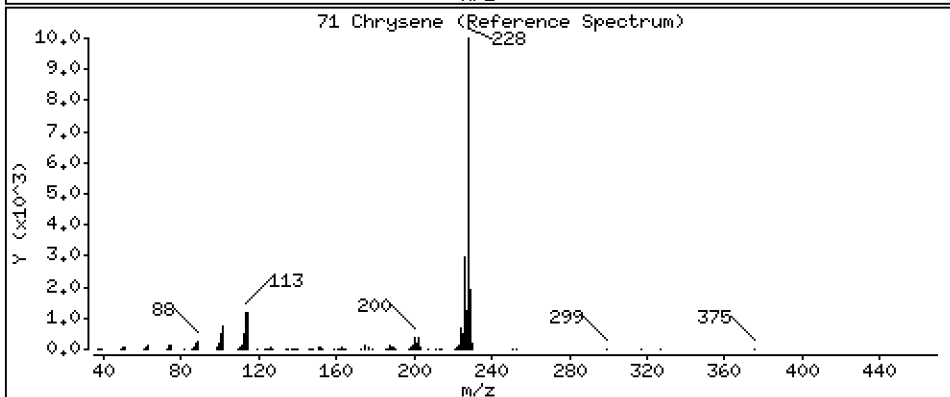
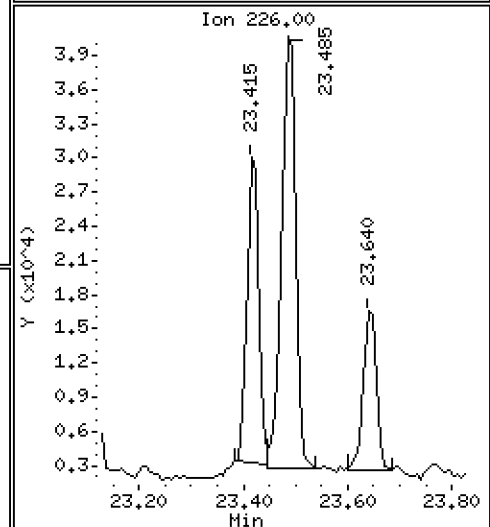
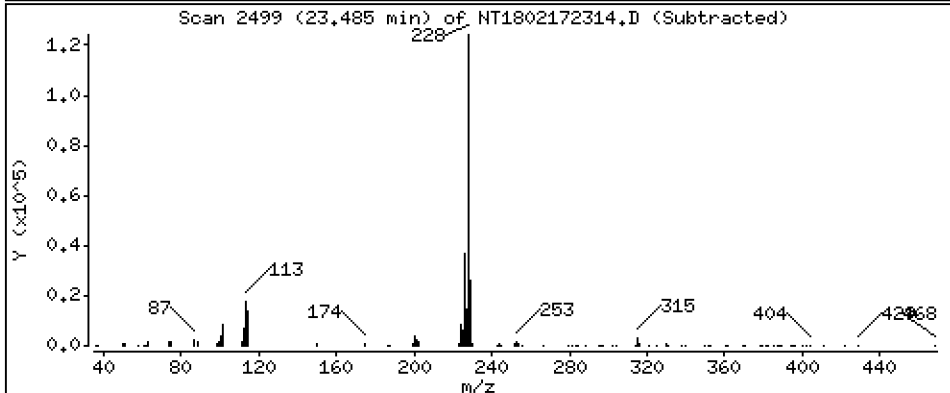
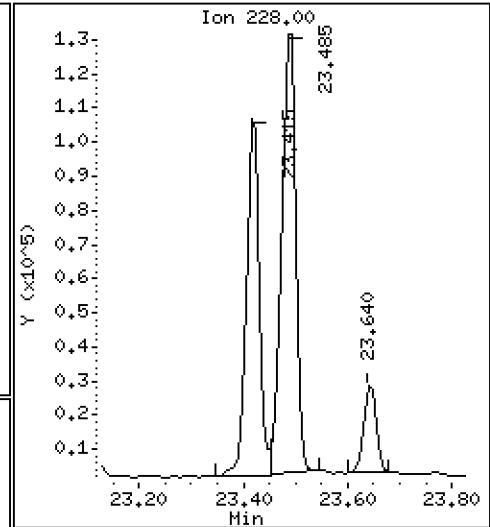
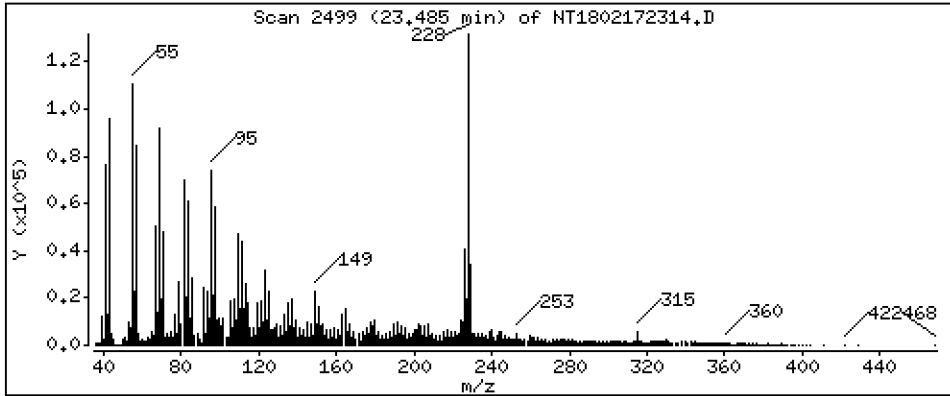
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,7774 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

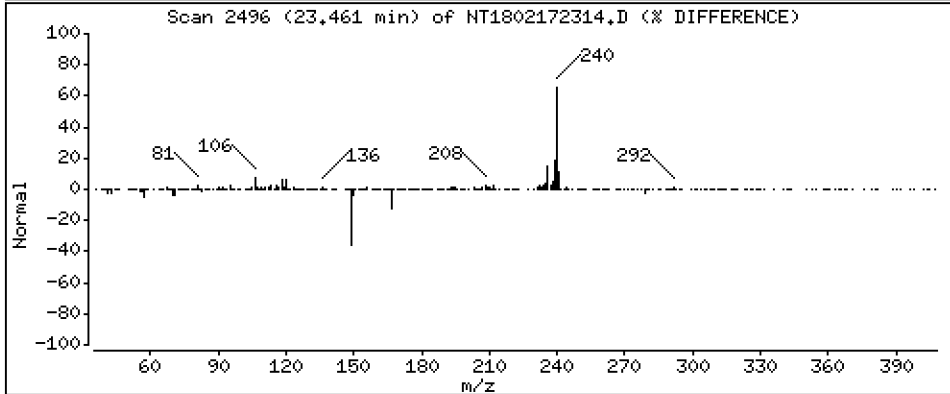
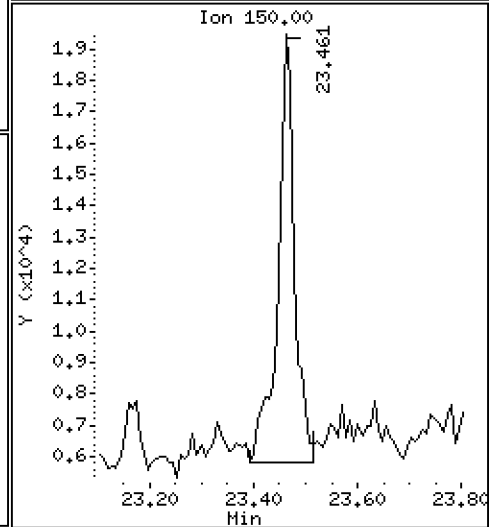
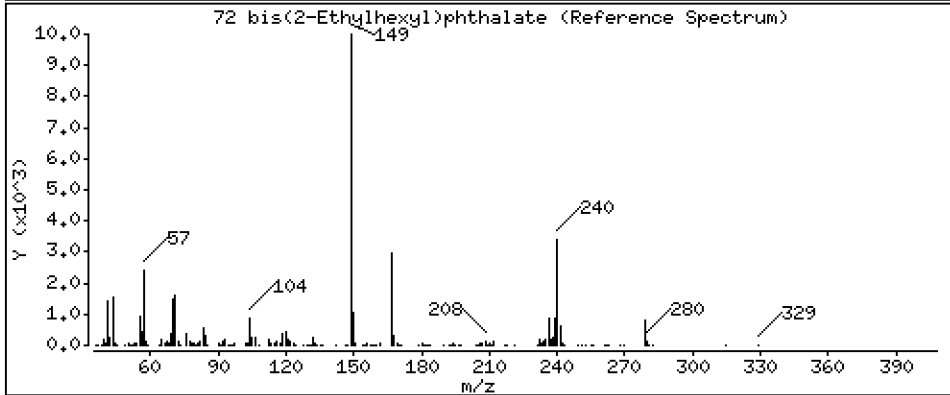
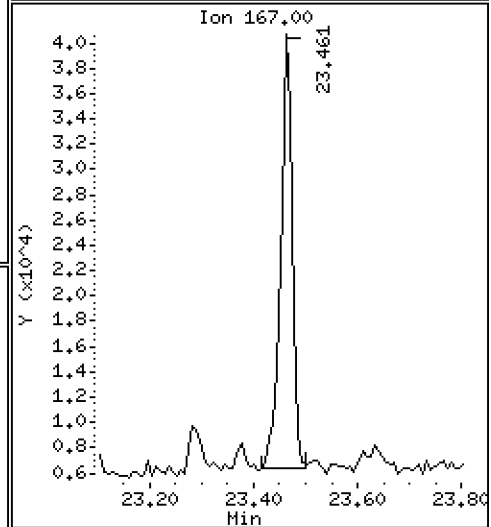
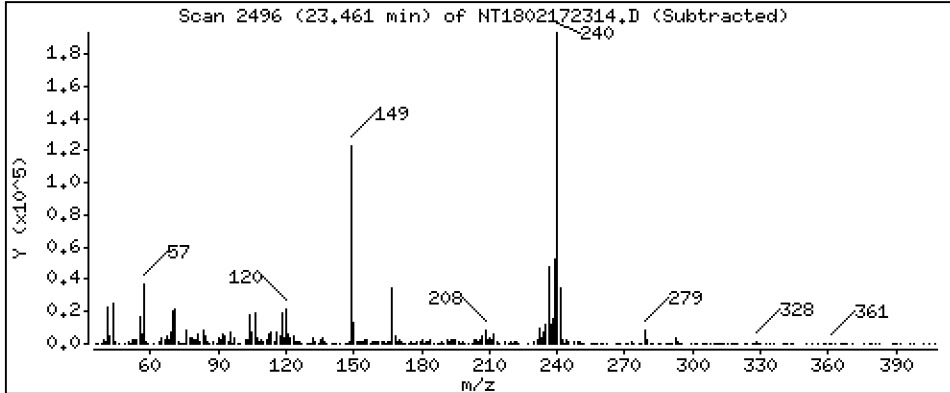
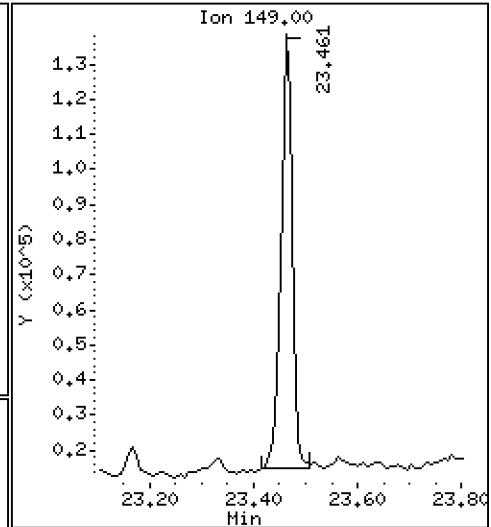
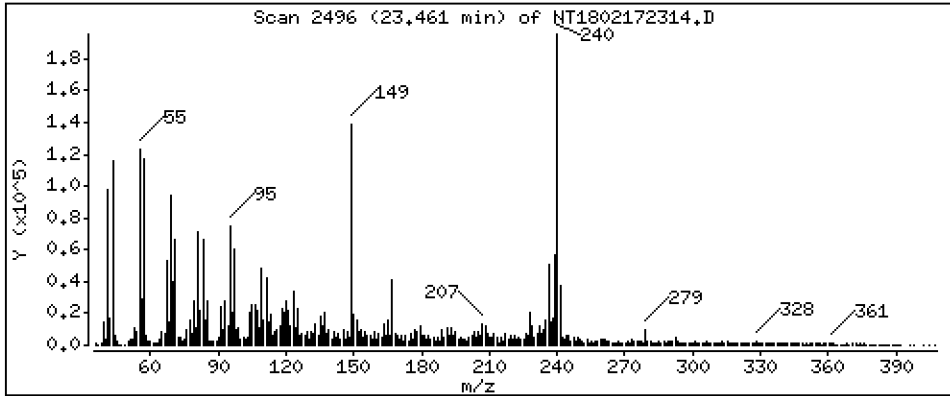
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0.8990 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

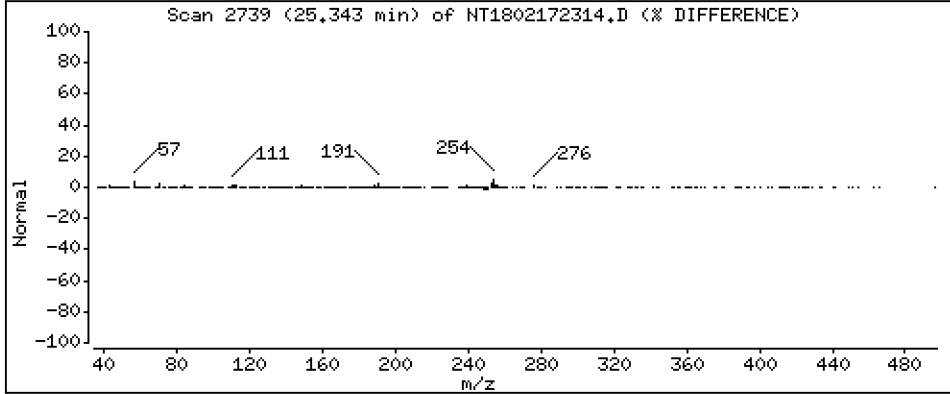
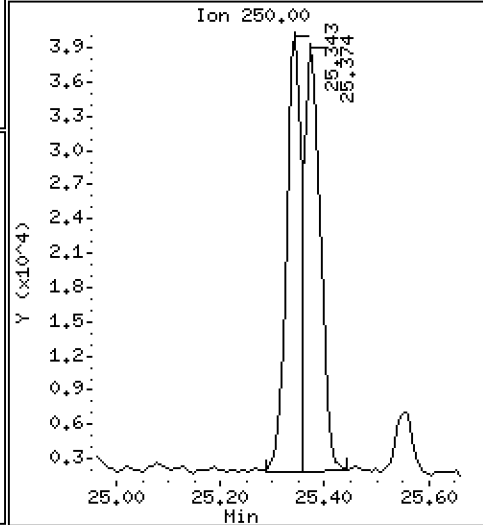
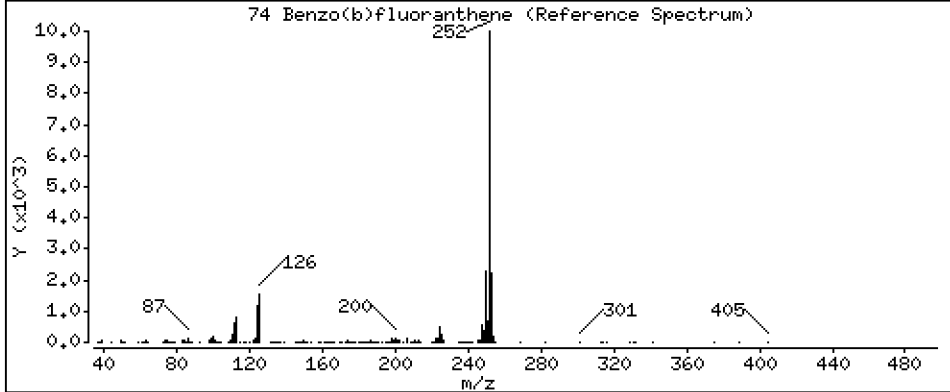
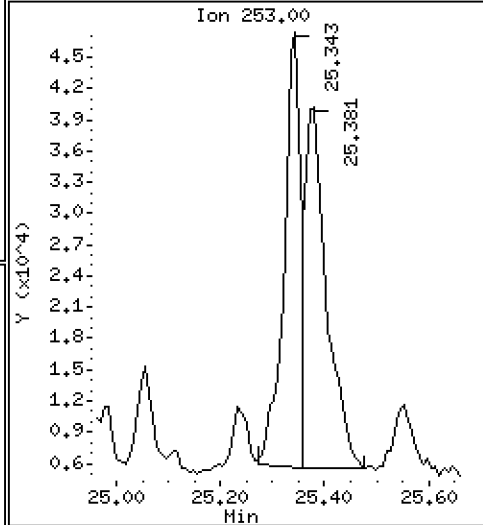
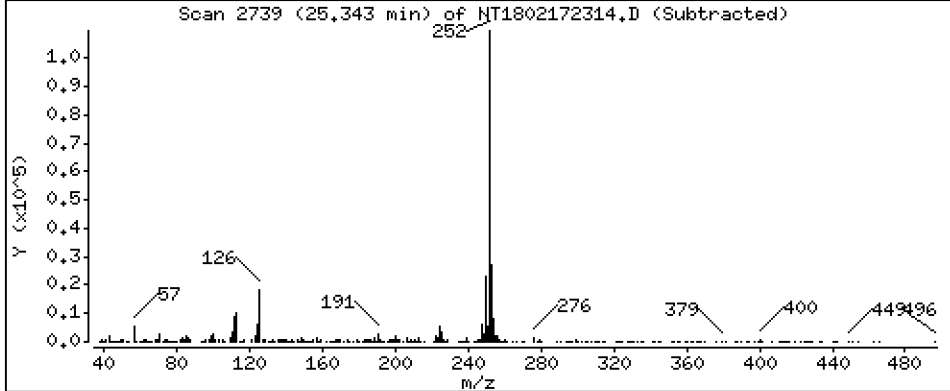
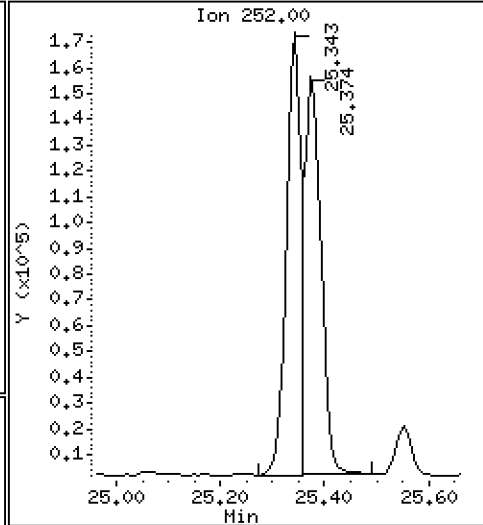
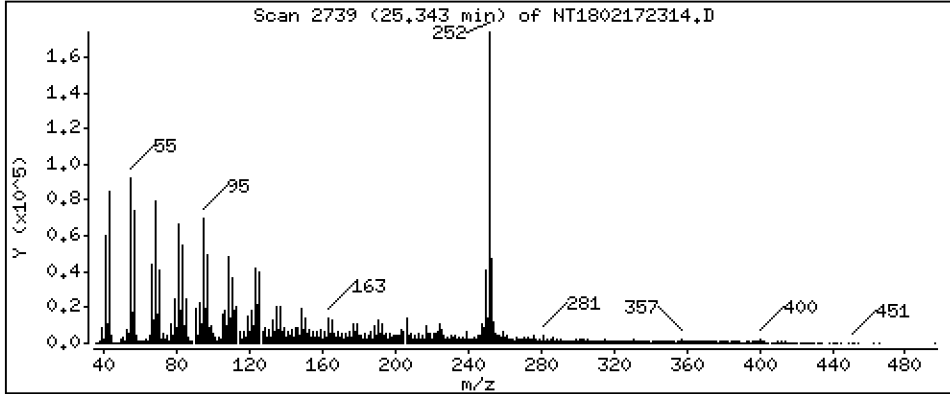
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 1,171 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

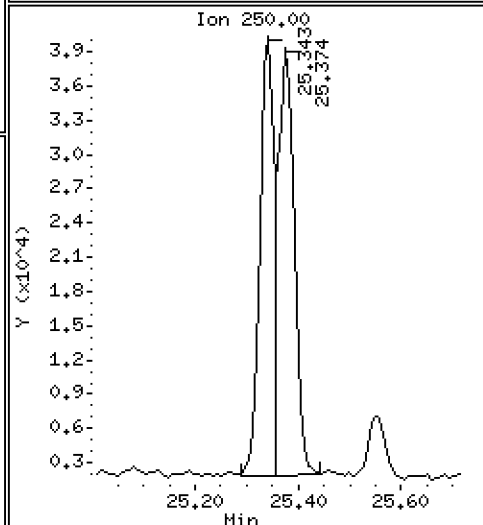
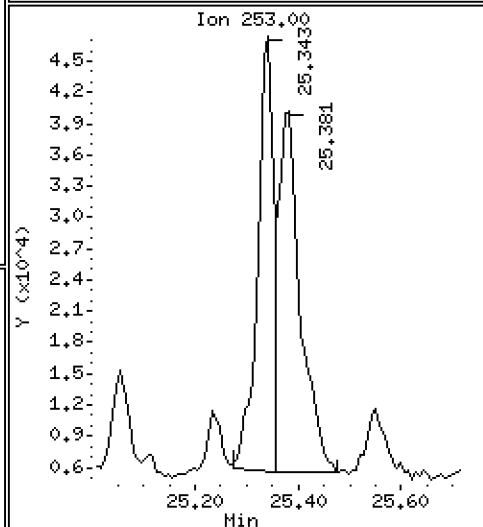
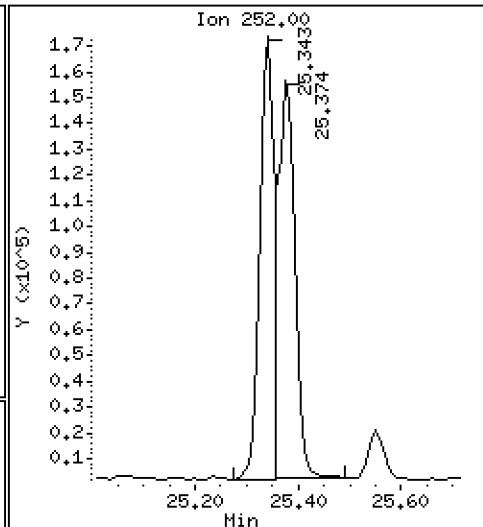
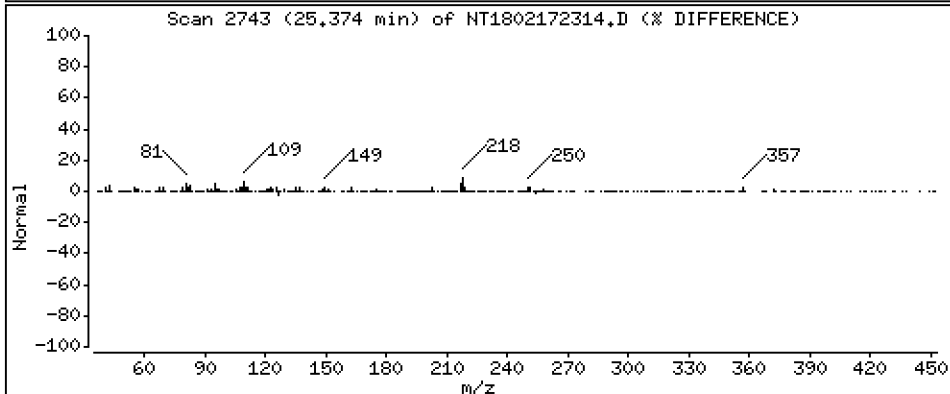
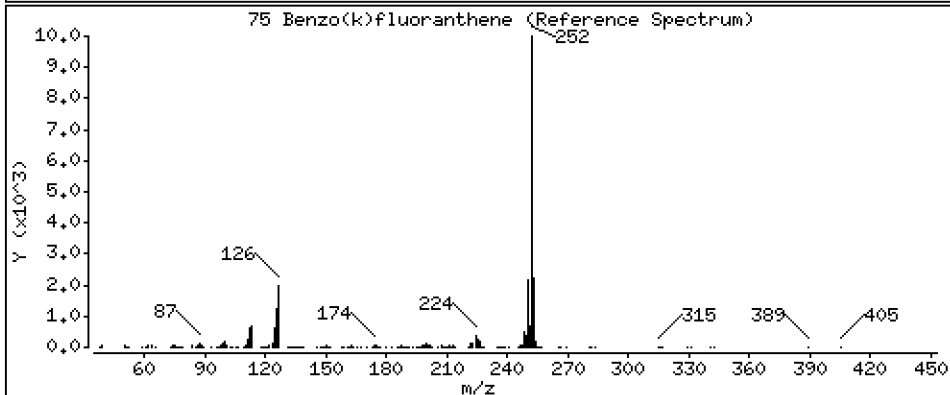
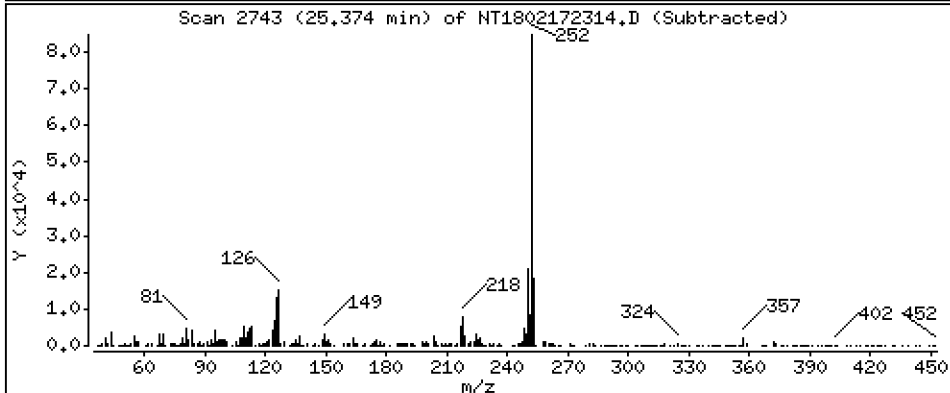
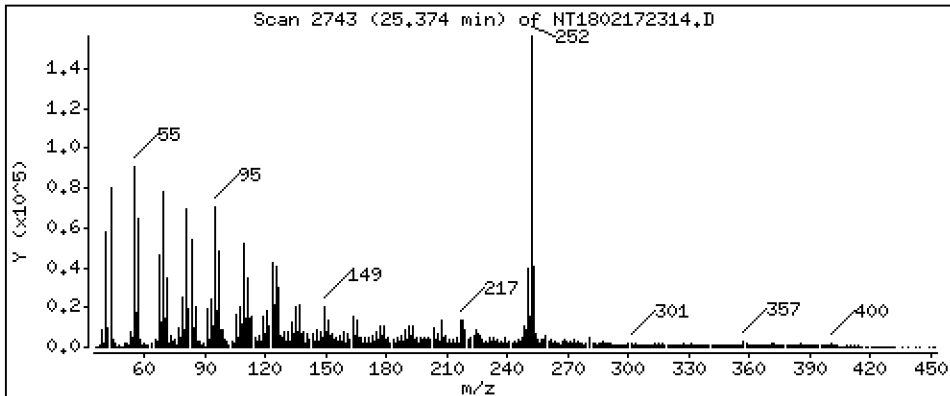
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

75 Benzo(k)fluoranthene

Concentration: 1.095 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

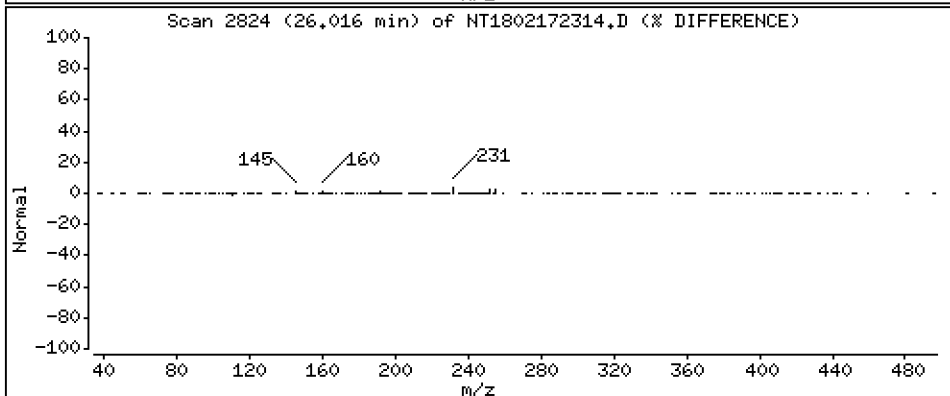
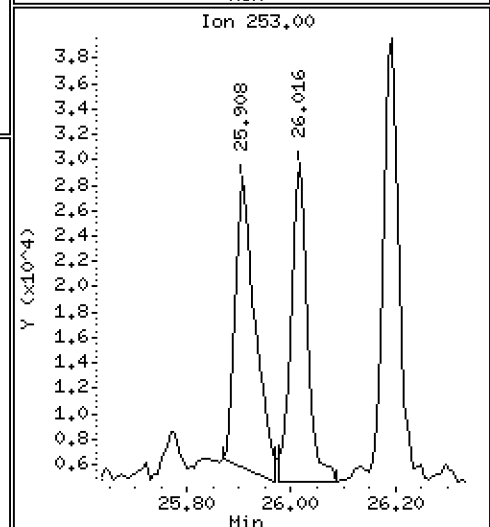
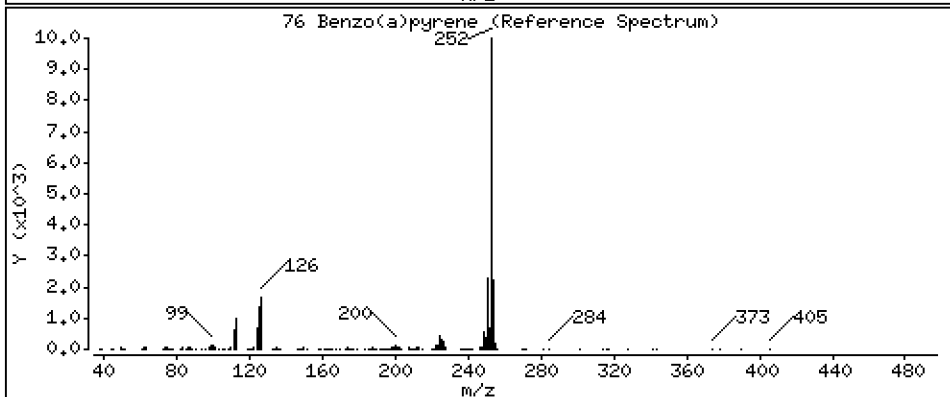
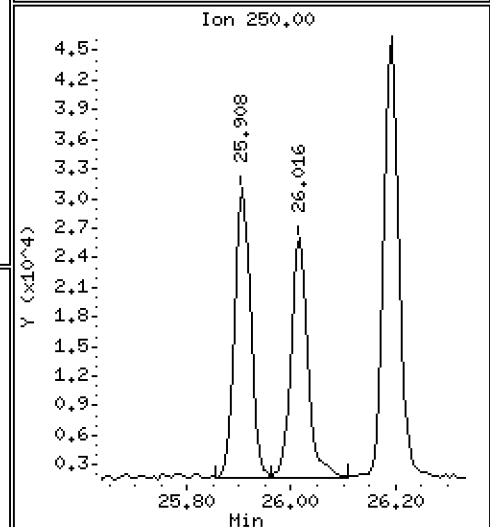
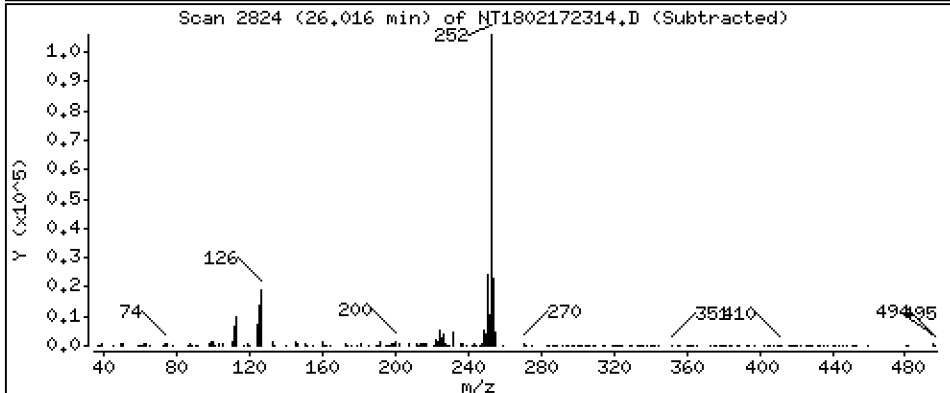
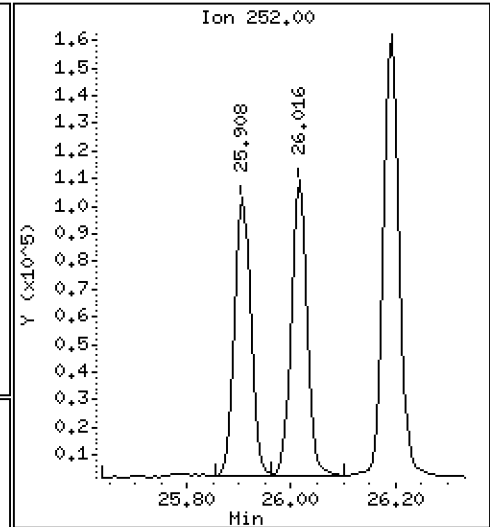
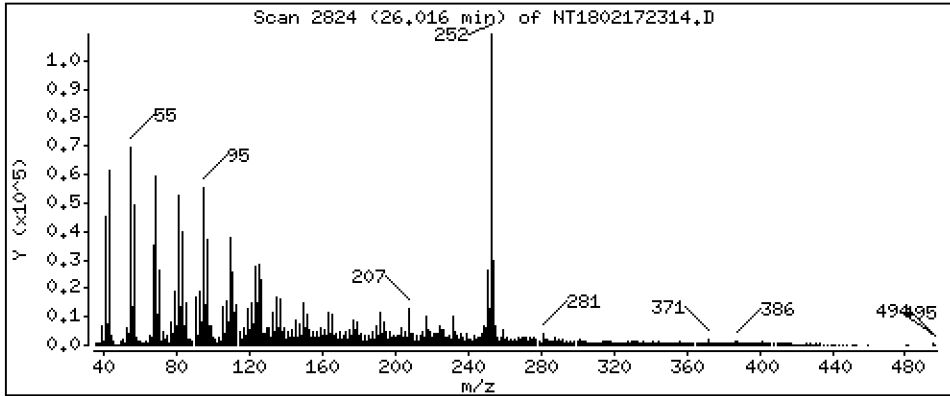
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,9528 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

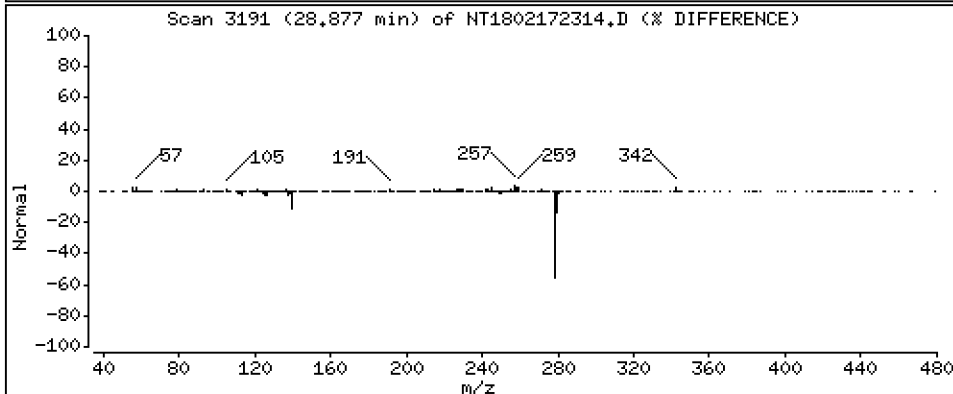
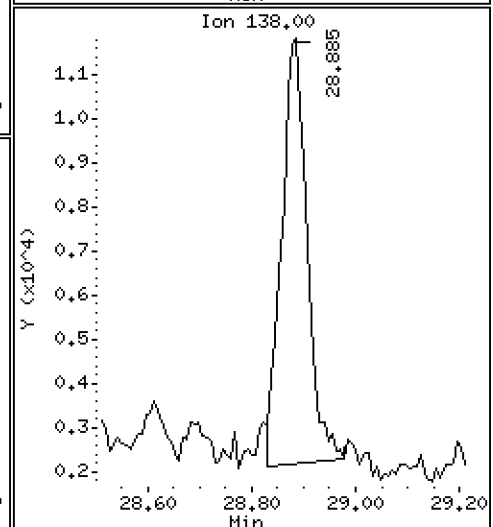
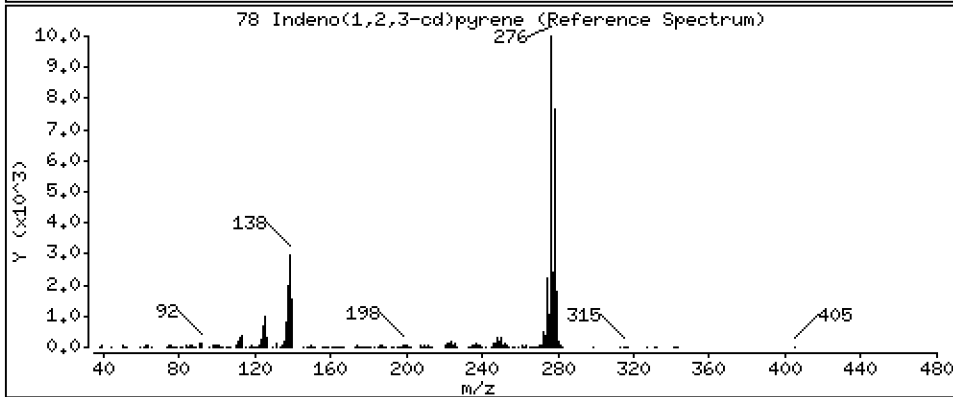
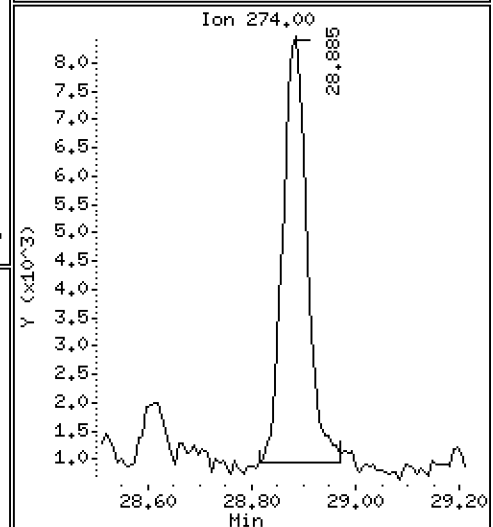
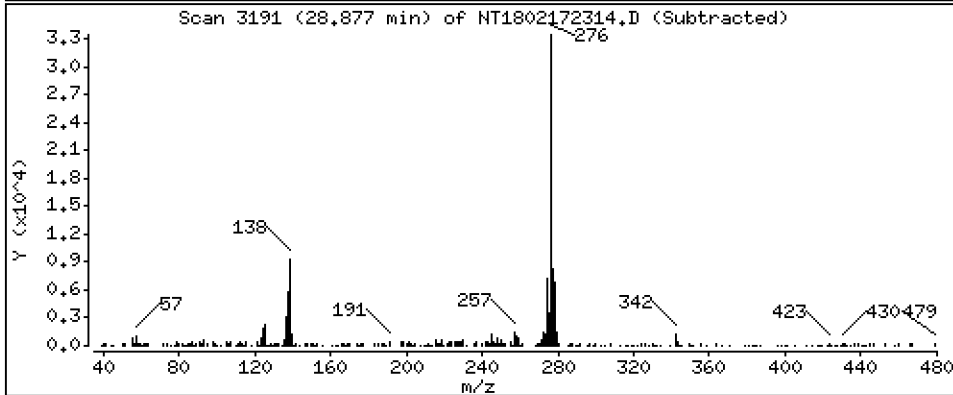
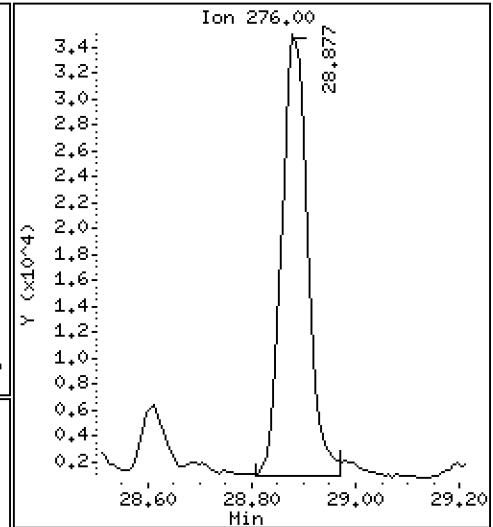
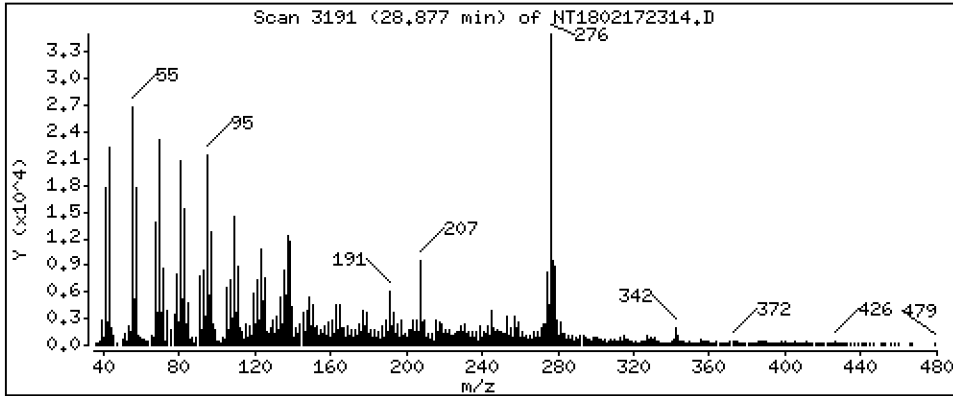
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 0,5198 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

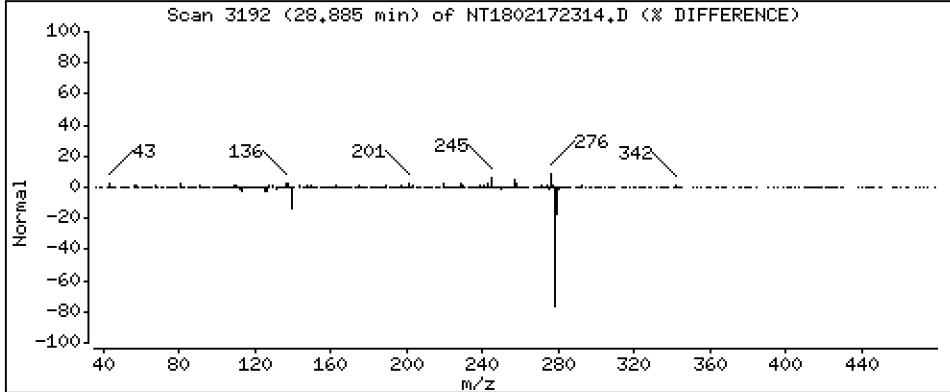
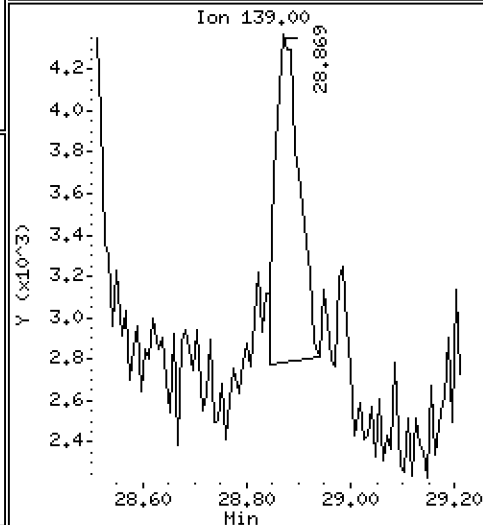
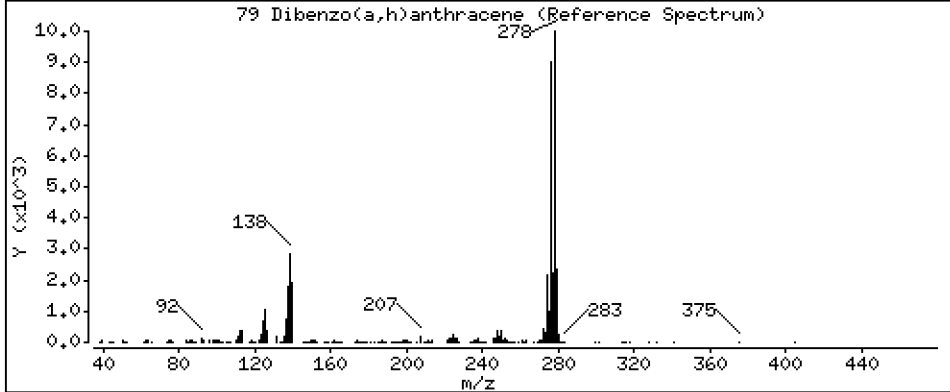
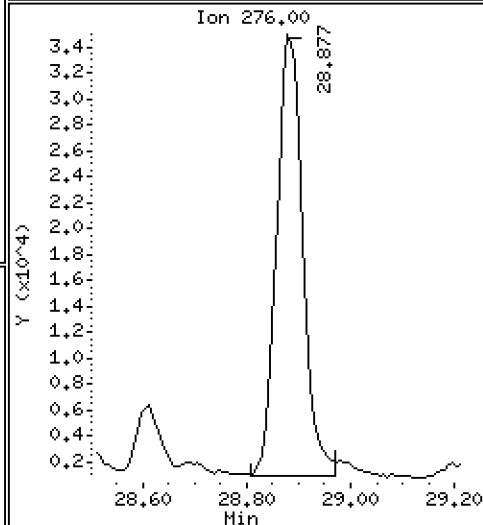
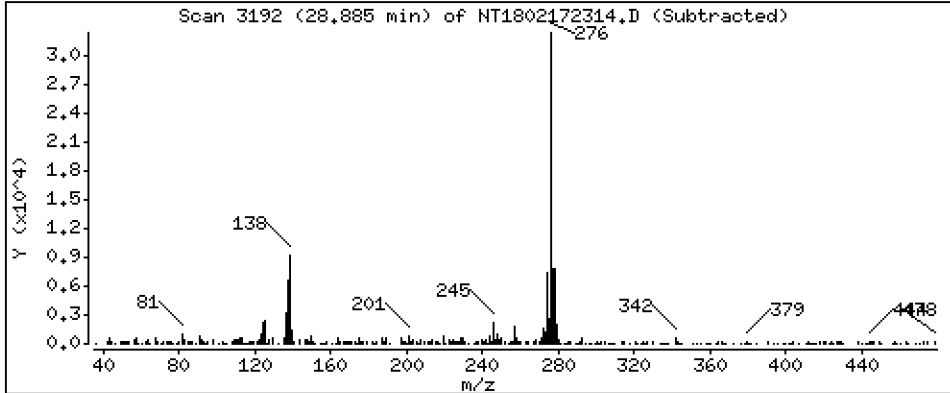
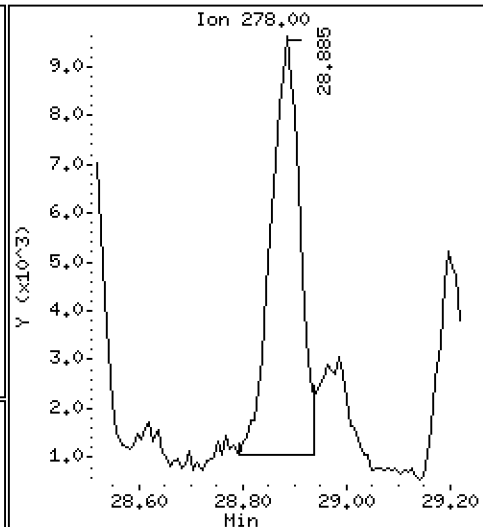
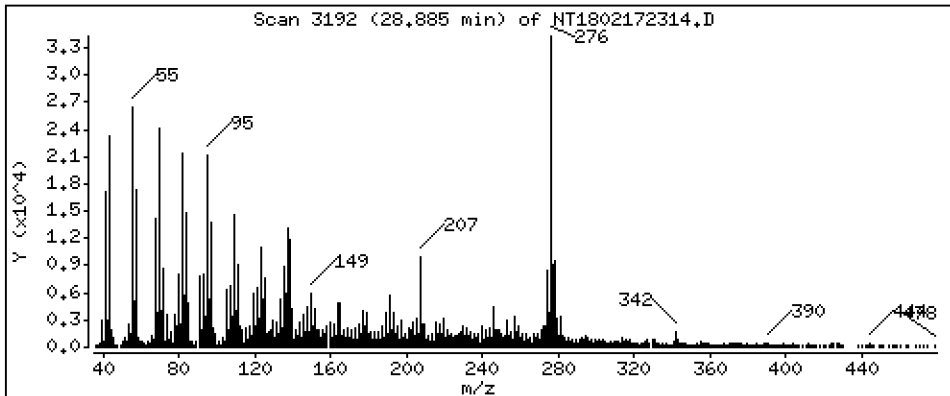
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,1734 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

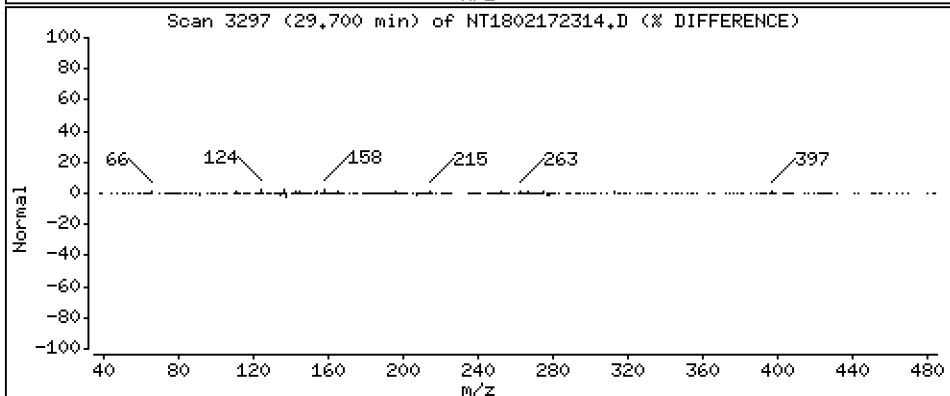
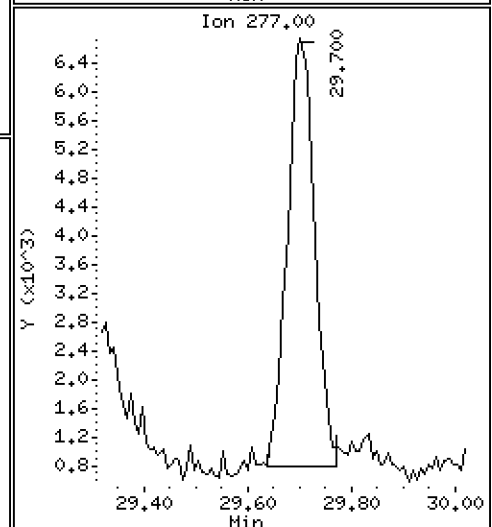
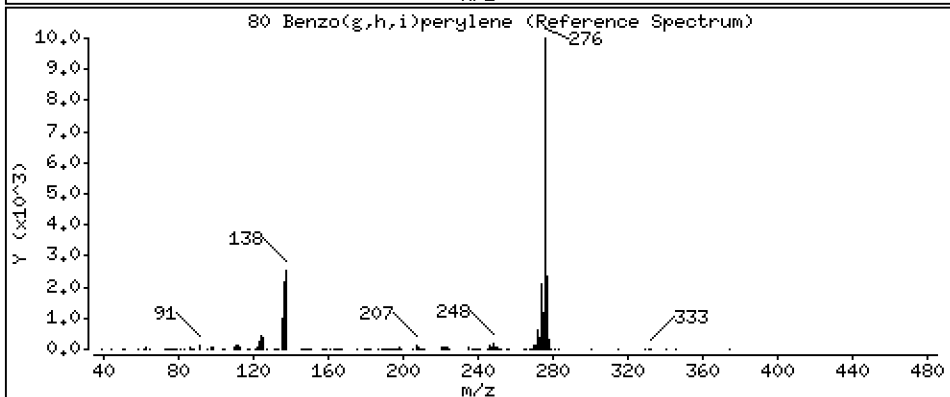
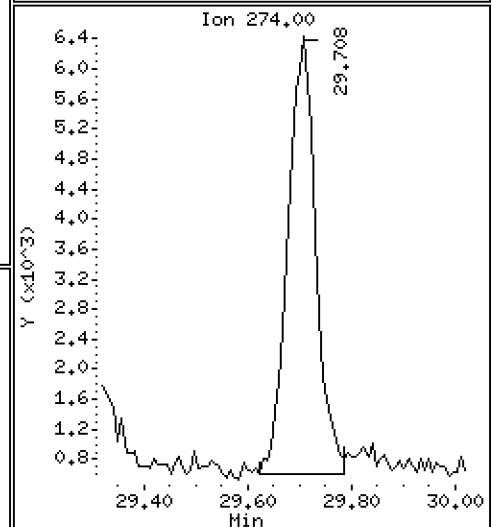
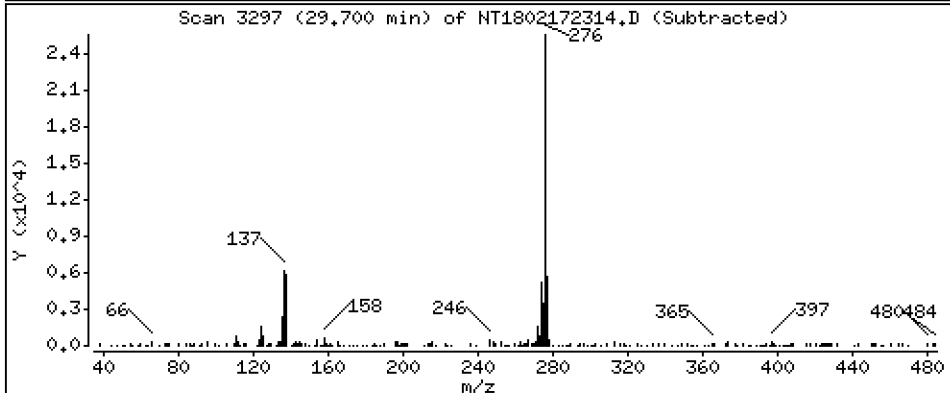
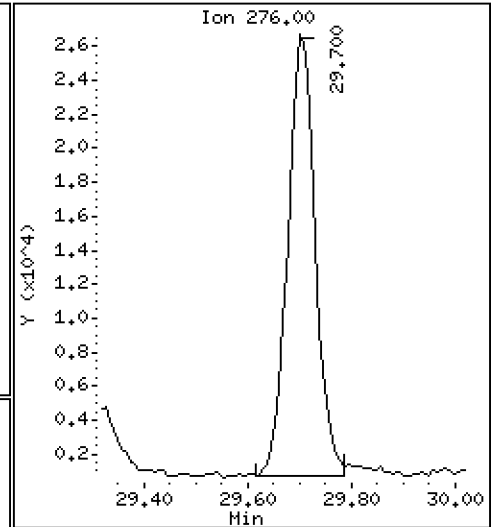
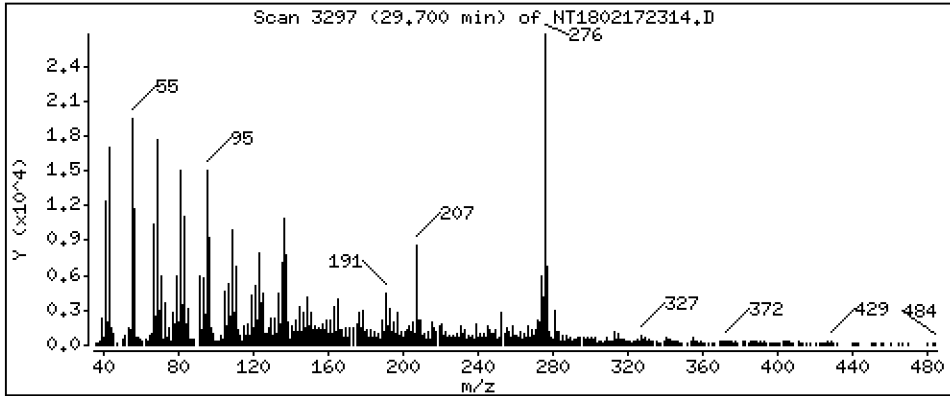
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

80 Benzo(g,h,i)perylene

Concentration: 0.5513 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

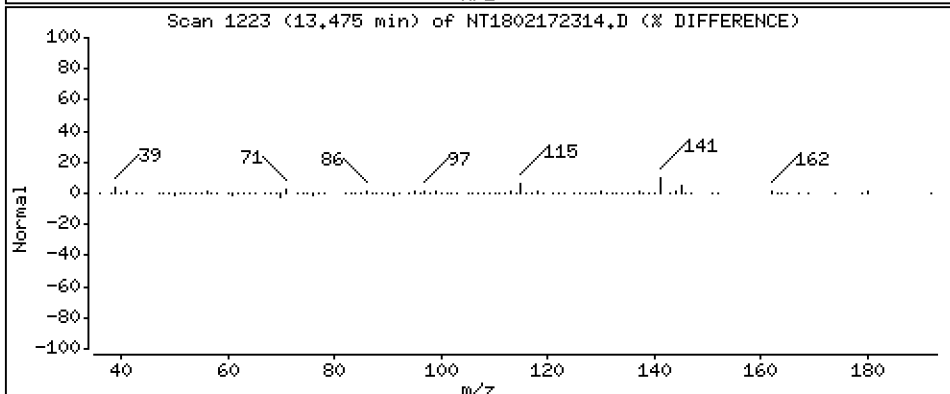
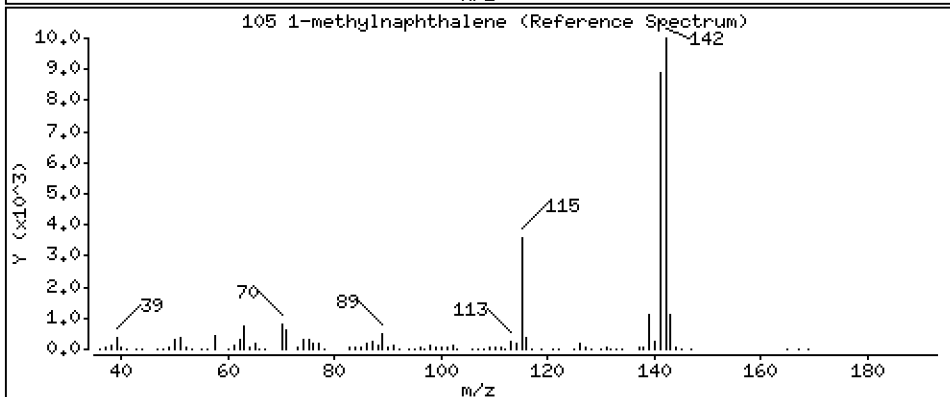
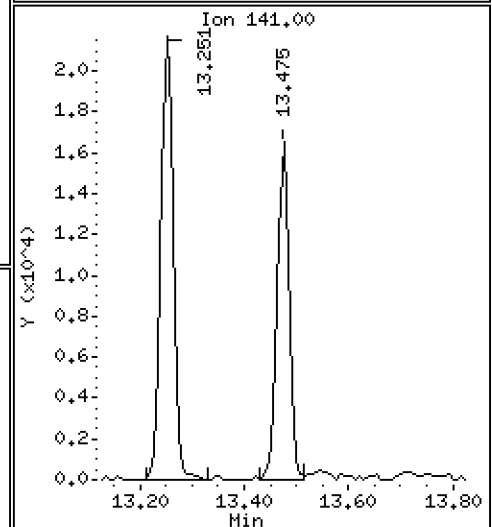
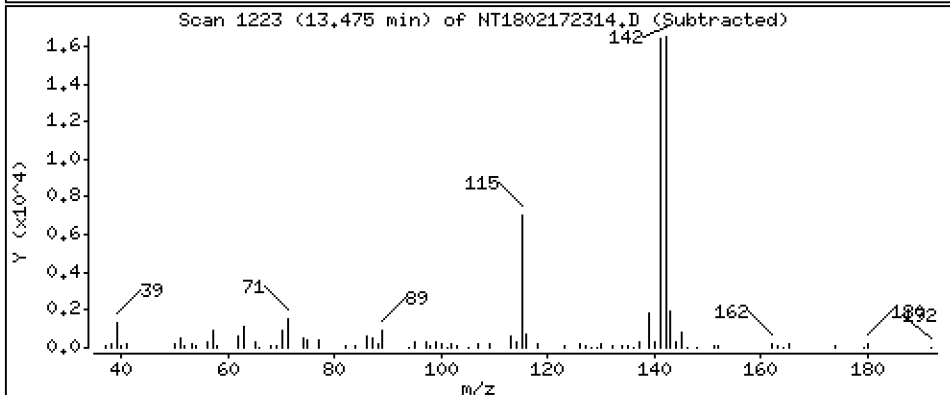
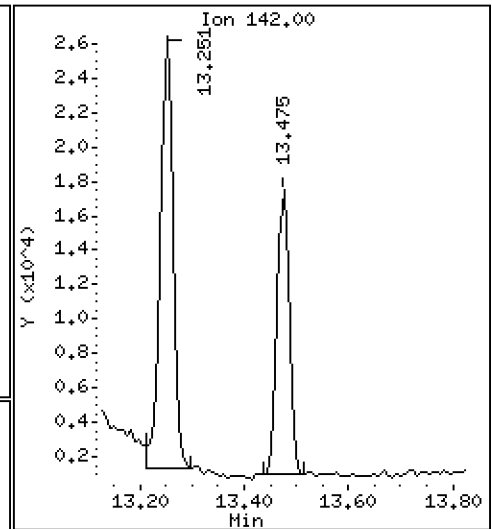
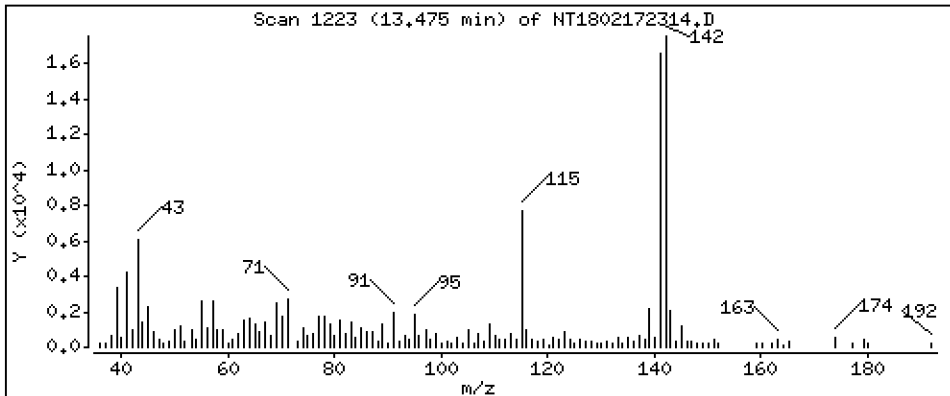
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,1784 ug/mL



Date : 17-FEB-2023 14:59

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08

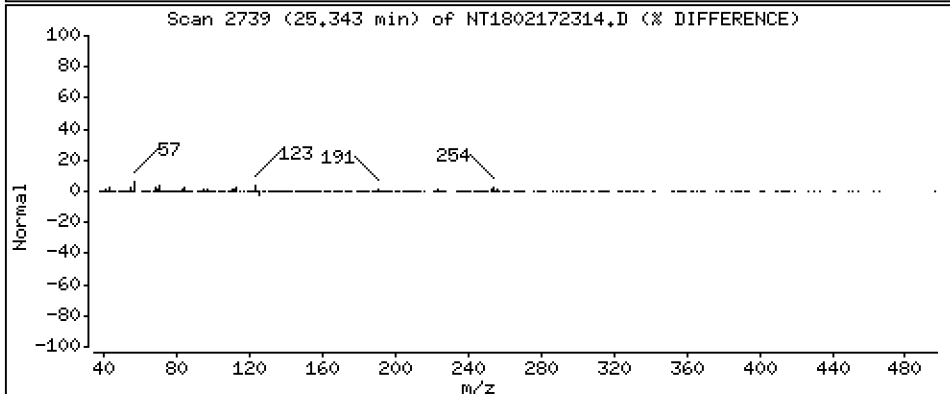
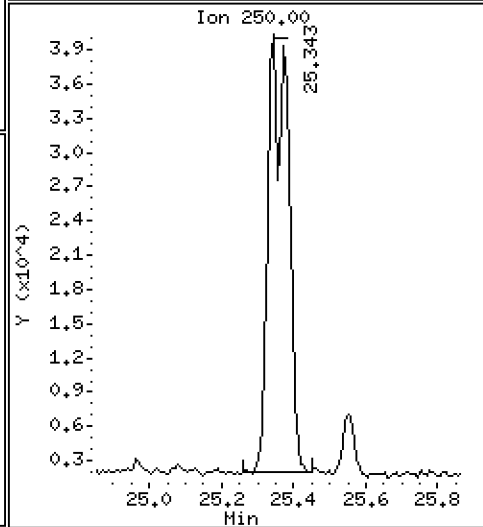
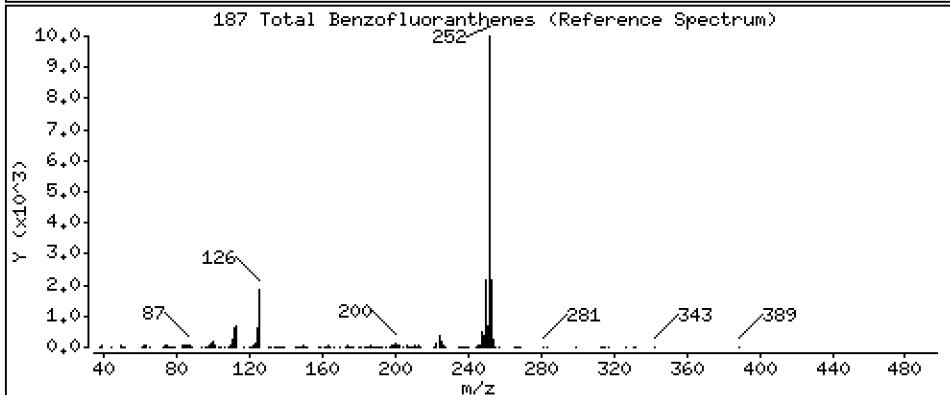
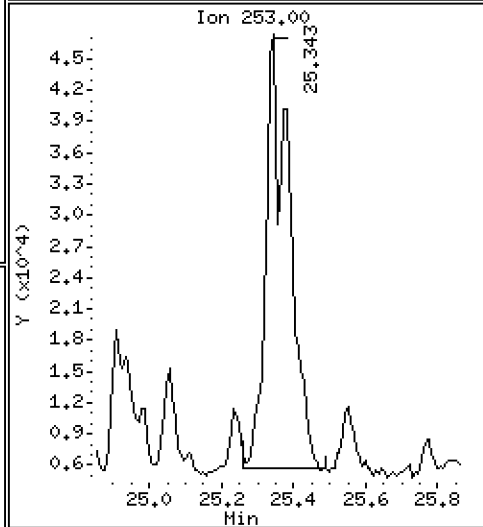
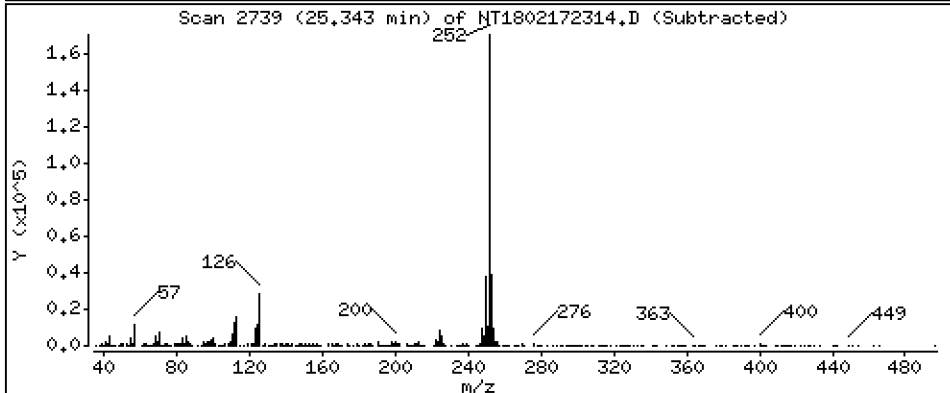
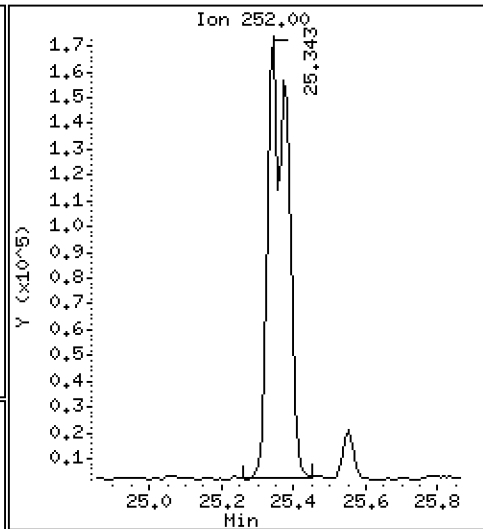
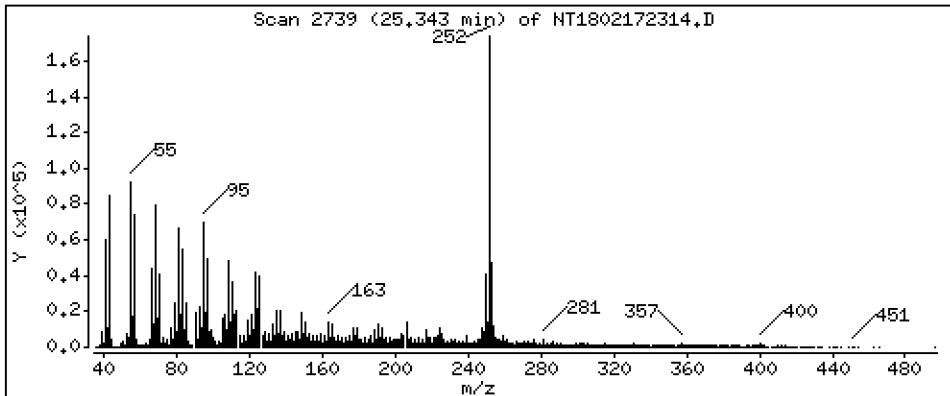
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 2,186 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230217.b\NT1802172314.D
 Lab Smp Id: 23A0032-08
 Inj Date : 17-FEB-2023 14:59
 Operator : VTS
 Smp Info : 23A0032-08
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230217.b\ABN.m
 Meth Date : 18-Feb-2023 10:52 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 32
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: JOSHR-201909

Inst ID: nt18.i

Quant Type: ISTD
 Cal File: NT1802102308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.166	7.142	(0.766)	360277	5.26049	5.260
\$ 2 Phenol-d5	99		8.711	8.703	(0.931)	474814	5.48212	5.482
3 Phenol	94		8.734	8.719	(0.934)	61527	0.72489	0.7249
\$ 5 2-Chlorophenol-d4	132		8.997	8.989	(0.962)	401110	5.32684	5.327
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.352	9.352	(1.000)	197079	4.00000	
9 1,4-Dichlorobenzene	146		9.383	9.383	(1.003)	5514	0.06464	0.06464
\$ 10 1,2-Dichlorobenzene-d4	152		9.717	9.709	(1.039)	167386	3.08843	3.088
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		9.624	9.616	(1.029)	14277	0.31037	0.3104
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		9.841	9.834	(1.052)	1806	0.02936	0.02936 (M)
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		Compound Not Detected.					
\$ 18 Nitrobenzene-d5	82		10.439	10.439	(0.883)	295218	3.95889	3.959
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		11.276	11.327	(0.953)	23871	0.61218	0.6122 (M)
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.827	11.827	(1.000)	757687	4.00000	
28 Naphthalene	128		11.866	11.866	(1.003)	71329	0.32748	0.3275
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		13.251	13.251	(1.120)	40419	0.27264	0.2726
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
34 2,4,6-Trichlorophenol	196					Compound Not Detected.		
35 2,4,5-Trichlorophenol	196					Compound Not Detected.		
\$ 36 2-Fluorobiphenyl	172		14.024	14.024	(0.909)	588408	3.08534	3.085
37 2-Chloronaphthalene	162					Compound Not Detected.		
38 2-Nitroaniline	65					Compound Not Detected.		
39 Dimethylphthalate	163		14.914	14.914	(0.967)	9338	0.06190	0.06190
40 Acenaphthylene	152		15.116	15.108	(0.980)	10137	0.04636	0.04636
41 2,6-Dinitrotoluene	165					Compound Not Detected.		
* 42 Acenaphthene-d10	164		15.425	15.417	(1.000)	431371	4.00000	
43 3-Nitroaniline	138					Compound Not Detected.		
44 Acenaphthene	153		15.487	15.487	(1.004)	24732	0.16964	0.1696
45 2,4-Dinitrophenol	184					Compound Not Detected.		
46 Dibenzofuran	168		15.812	15.812	(1.025)	25492	0.12204	0.1220
47 4-Nitrophenol	109					Compound Not Detected.		
48 2,4-Dinitrotoluene	165					Compound Not Detected.		
50 Diethylphthalate	149		16.361	16.368	(1.061)	16354	0.10679	0.1068
49 Fluorene	166		16.523	16.523	(1.071)	23198	0.14041	0.1404
51 4-Chlorophenyl-phenylether	204					Compound Not Detected.		
52 4-Nitroaniline	138					Compound Not Detected.		
53 4,6-Dinitro-2-methylphenol	198					Compound Not Detected.		
54 N-Nitrosodiphenylamine	169					Compound Not Detected.		
\$ 55 2,4,6-Tribromophenol	330		17.055	17.047	(1.106)	132741	4.75101	4.751
56 4-Bromophenyl-phenylether	248					Compound Not Detected.		
57 Hexachlorobenzene	284					Compound Not Detected.		
58 Pentachlorophenol	266					Compound Not Detected.		
* 59 Phenanthrene-d10	188		18.454	18.446	(1.000)	883440	4.00000	
60 Phenanthrene	178		18.500	18.492	(1.002)	198599	0.74408	0.7441
61 Anthracene	178		18.593	18.585	(1.008)	54181	0.22696	0.2270
62 Carbazole	167		18.910	18.902	(1.025)	26550	0.11125	0.1112
63 Di-n-butylphthalate	149					Compound Not Detected.		
64 Fluoranthene	202		20.906	20.844	(0.892)	330350	1.22343	1.223
65 Pyrene	202		21.316	21.262	(0.909)	716253	2.49531	2.495
\$ 66 Terphenyl-d14	244		21.564	21.541	(0.920)	852848	3.22190	3.222
67 Butylbenzylphthalate	149		22.454	22.447	(0.958)	27904	0.20558	0.2056
68 Benzo(a)anthracene	228		23.415	23.399	(0.999)	180872	0.63952	0.6395
* 69 Chrysene-d12	240		23.445	23.430	(1.000)	855856	4.00000	
70 3,3'-Dichlorobenzidine	252					Compound Not Detected.		
71 Chrysene	228		23.484	23.476	(1.002)	231746	0.77742	0.7774
72 bis(2-Ethylhexyl)phthalate	149		23.461	23.453	(0.959)	183944	0.89903	0.8990
* 134 Di-n-octylphthalate-d4	153		24.452	24.444	(1.000)	1344753	4.00000	
73 Di-n-octylphthalate	149					Compound Not Detected.		
74 Benzo(b)fluoranthene	252		25.342	25.311	(0.969)	349566	1.17069	1.171
75 Benzo(k)fluoranthene	252		25.373	25.358	(0.971)	357589	1.09475	1.095 (H)
76 Benzo(a)pyrene	252		26.016	25.985	(0.995)	232357	0.95277	0.9528
* 77 Perylene-d12	264		26.140	26.101	(1.000)	855423	4.00000	
78 Indeno(1,2,3-cd)pyrene	276		28.876	28.861	(1.105)	121221	0.51980	0.5198
79 Dibenzo(a,h)anthracene	278		28.884	28.869	(1.105)	33127	0.17336	0.1734
80 Benzo(g,h,i)perylene	276		29.700	29.669	(1.136)	96951	0.55131	0.5513
90 N-Nitrosodimethylamine	74					Compound Not Detected.		
91 Aniline	93					Compound Not Detected.		
93 Benzidine	184					Compound Not Detected.		
103 Pyridine	79					Compound Not Detected.		
105 1-methylnaphthalene	142		13.475	13.475	(1.139)	25799	0.17842	0.1784
111 Azobenzene (1,2-DP-Hydrazine)	77					Compound Not Detected.		

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.342	25.358	(0.969)	653848	2.18565	2.186
120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.					

QC Flag Legend

- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 17-FEB-2023
 Lab File ID: NT1802172314.D Calibration Time: 08:32
 Lab Smp Id: 23A0032-08
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230217.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF	
		LOWER	UPPER			
8 1,4-Dichlorobenze	90874	45437	181748	197079	116.87	<-
27 Naphthalene-d8	389492	194746	778984	757687	94.53	
42 Acenaphthene-d10	208278	104139	416556	431371	107.11	<-
59 Phenanthrene-d10	368411	184206	736822	883440	139.80	<-
69 Chrysene-d12	371440	185720	742880	855856	130.42	<-
134 Di-n-octylphthala	512242	256121	1024484	1344753	162.52	<-
77 Perylene-d12	350166	175083	700332	855423	144.29	<-

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.35	8.85	9.85	9.35	0.00
27 Naphthalene-d8	11.83	11.33	12.33	11.83	0.00
42 Acenaphthene-d10	15.42	14.92	15.92	15.43	0.05
59 Phenanthrene-d10	18.45	17.95	18.95	18.45	0.04
69 Chrysene-d12	23.43	22.93	23.93	23.45	0.07
134 Di-n-octylphthala	24.44	23.94	24.94	24.45	0.03
77 Perylene-d12	26.10	25.60	26.60	26.14	0.15

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802172314.D

Lab ID: 23A0032-08
nt18.i, ABN.m, 17-FEB-2023 14:59

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1802172306.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

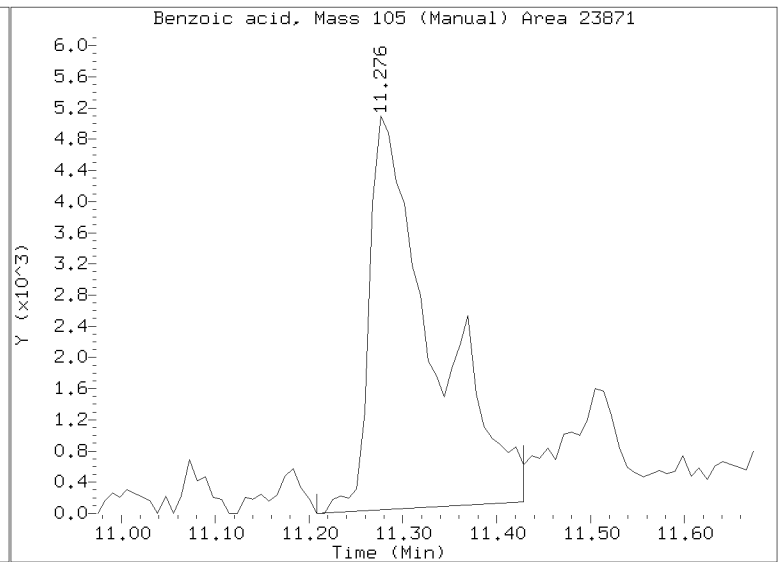
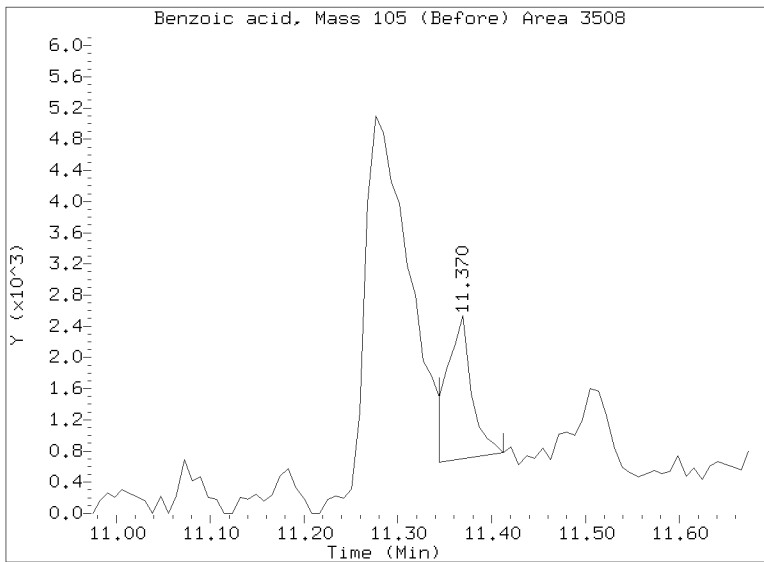
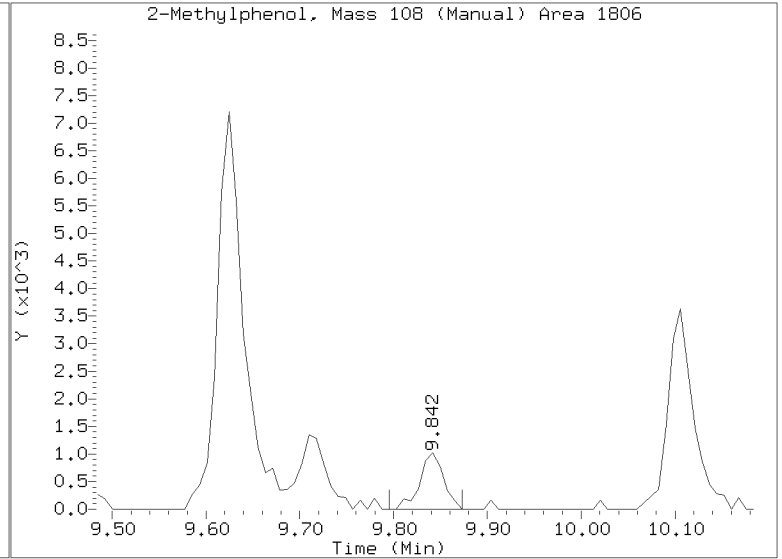
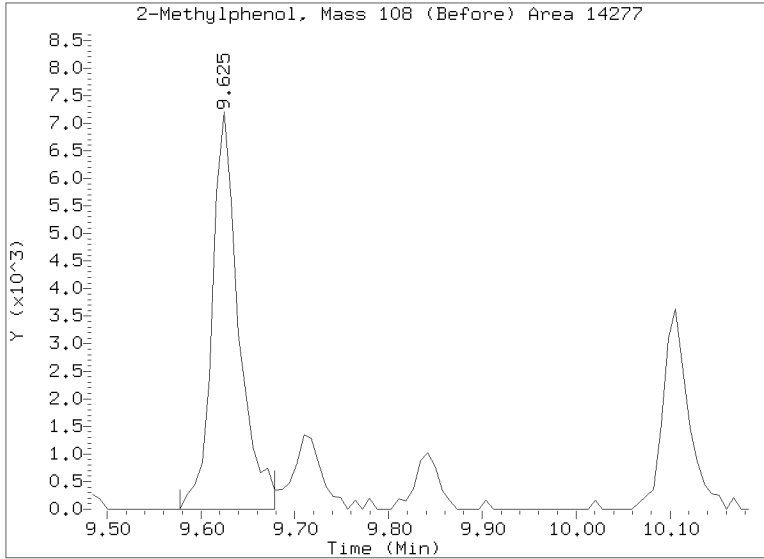
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt18.i/20230217.b/NT1802172314.D

Injection Date: 17-FEB-2023 14:59

Lab ID:23A0032-08 Client ID:

Report Date: 02/18/2023 11:19





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-08RE1 A

SDG: 23A0032

Sampled: 01/03/23 12:35

Prepared: 01/10/23 11:20

File ID: NT1802192313.D

% Solids: 61.88

Preparation: EPA 3546 (Microwave)

Analyzed: 02/19/23 16:58

Batch: BLA0163

Sequence: SLC0060

Initial/Final: 16.22 g Wet / 1 mL

Instrument: NT18

Column: ZB-5MS

Calibration: GB00036

Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
108-95-2	Phenol	1	72.6		4.4	19.9
106-44-5	4-Methylphenol	1	9.6	J	7.4	19.9
91-20-3	Naphthalene	1	32.0		4.2	19.9
91-57-6	2-Methylnaphthalene	1	26.6		4.5	19.9
208-96-8	Acenaphthylene	1	19.9	U	6.2	19.9
131-11-3	Dimethylphthalate	1	7.4	J	4.4	19.9
83-32-9	Acenaphthene	1	17.3	J	5.2	19.9
132-64-9	Dibenzofuran	1	19.9	U	14.1	19.9
86-73-7	Fluorene	1	19.9	U	14.5	19.9
85-01-8	Phenanthrene	1	74.8		8.7	19.9
120-12-7	Anthracene	1	22.4		7.2	19.9
206-44-0	Fluoranthene	1	127		6.1	19.9
129-00-0	Pyrene	1	261		5.7	19.9
85-68-7	Butylbenzylphthalate	1	18.2	J	9.4	19.9
56-55-3	Benzo(a)anthracene	1	62.9		5.9	19.9
218-01-9	Chrysene	1	79.5		6.0	19.9
117-81-7	bis(2-Ethylhexyl)phthalate	1	87.8		5.4	49.8
	Benzo(a)fluoranthene, Total	1	238		10.0	39.9
50-32-8	Benzo(a)pyrene	1	101		4.2	19.9
193-39-5	Indeno(1,2,3-cd)pyrene	1	43.9	Q	14.6	19.9
53-70-3	Dibenzo(a,h)anthracene	1	19.9	U	17.2	19.9
191-24-2	Benzo(g,h,i)perylene	1	44.7	Q	13.5	19.9

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	747.24	527	70.6	27 - 120	
Phenol-d5	747.24	551	73.7	29 - 120	
2-Chlorophenol-d4	747.24	537	71.9	31 - 120	
1,2-Dichlorobenzene-d4	498.16	305	61.2	32 - 120	
Nitrobenzene-d5	498.16	392	78.7	30 - 120	
2-Fluorobiphenyl	498.16	318	63.9	35 - 120	



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-08RE1 A

SDG: 23A0032

Sampled: 01/03/23 12:35

Prepared: 01/10/23 11:20

File ID: NT1802192313.D

% Solids: 61.88

Preparation: EPA 3546 (Microwave)

Analyzed: 02/19/23 16:58

Batch: BLA0163

Sequence: SLC0060

Initial/Final: 16.22 g Wet / 1 mL

Instrument: NT18

Column: ZB-5MS

Calibration: GB00036

Cleanups: GPC

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2,4,6-Tribromophenol	747.24	473	63.3	24 - 134	
p-Terphenyl-d14	498.16	328	65.9	37 - 120	

Data File: \\target\share\chem3\nt18.1\20230219.1\NT1802192313.D

Date: 19-FEB-2023 16:58

Client ID:

Sample Info: 23A0032-08RE1

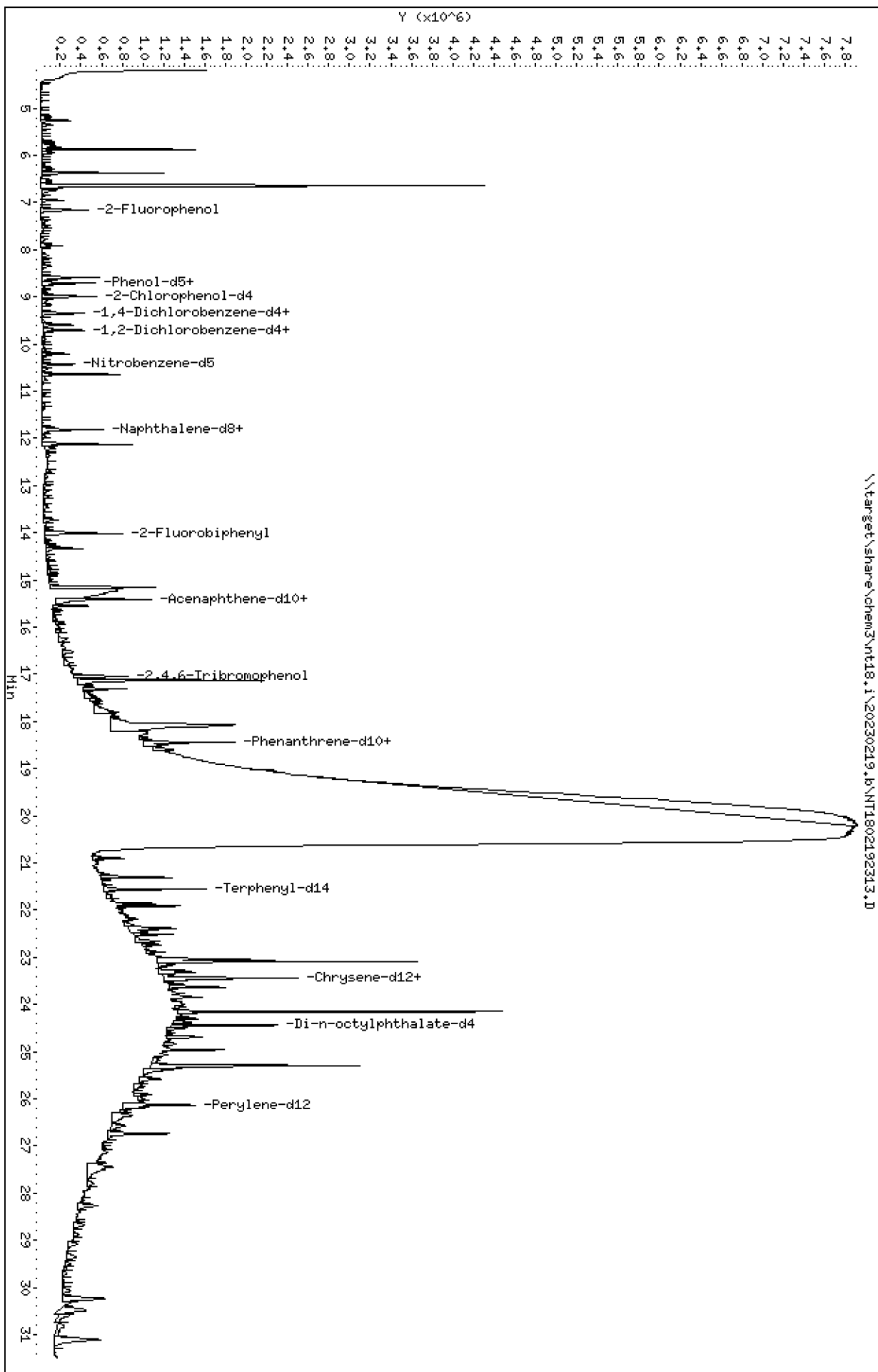
Page 1

Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

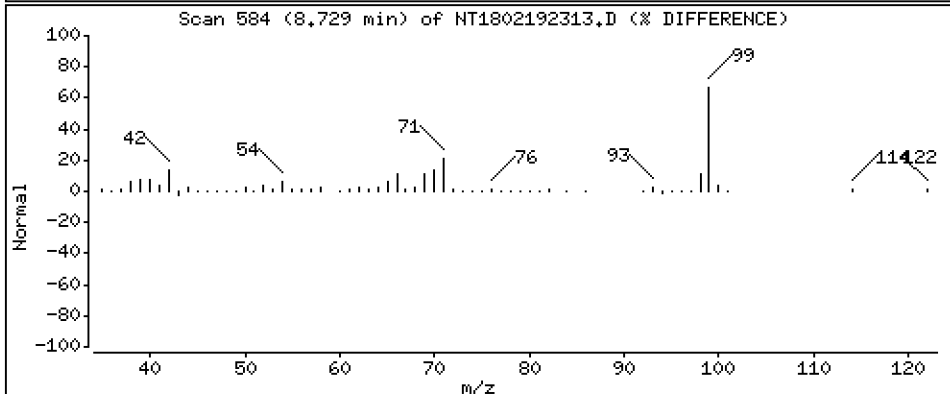
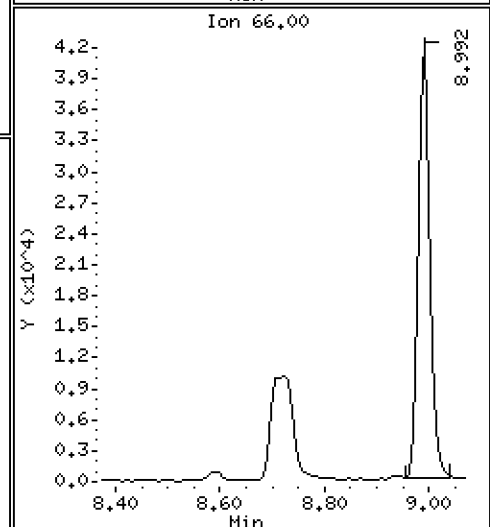
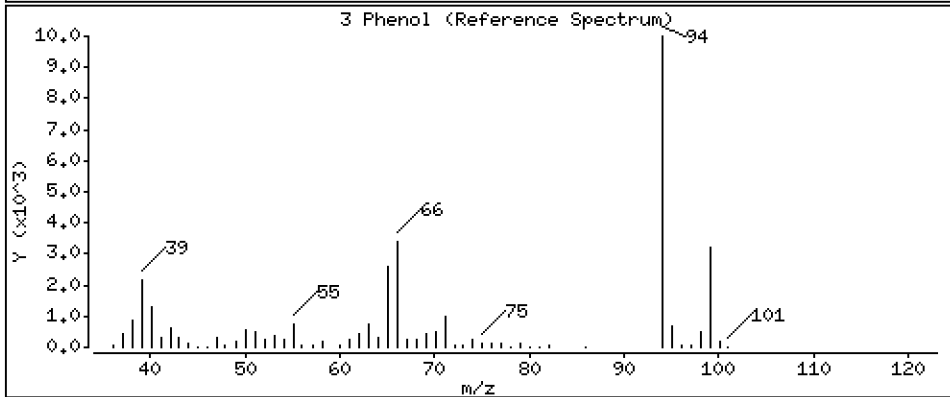
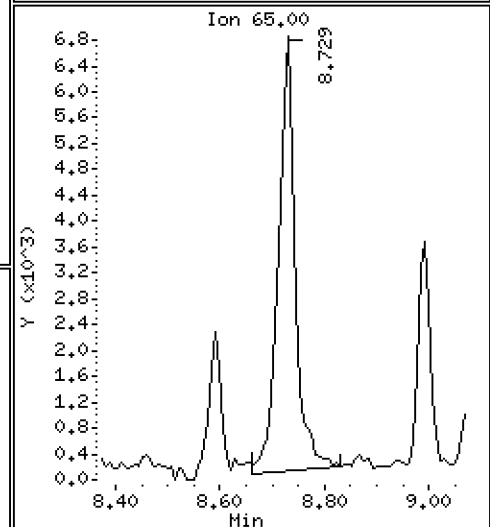
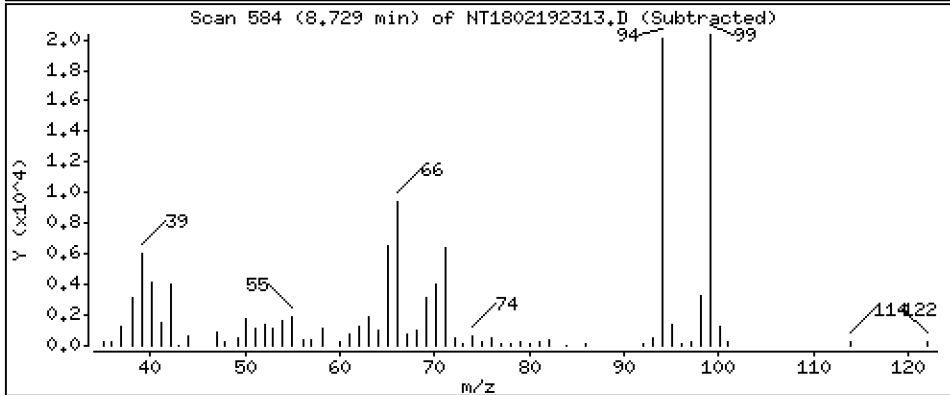
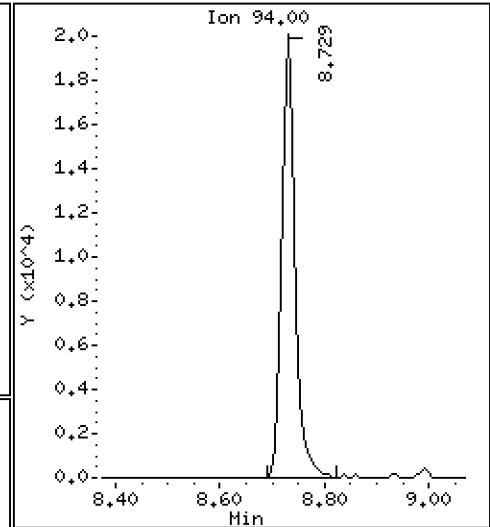
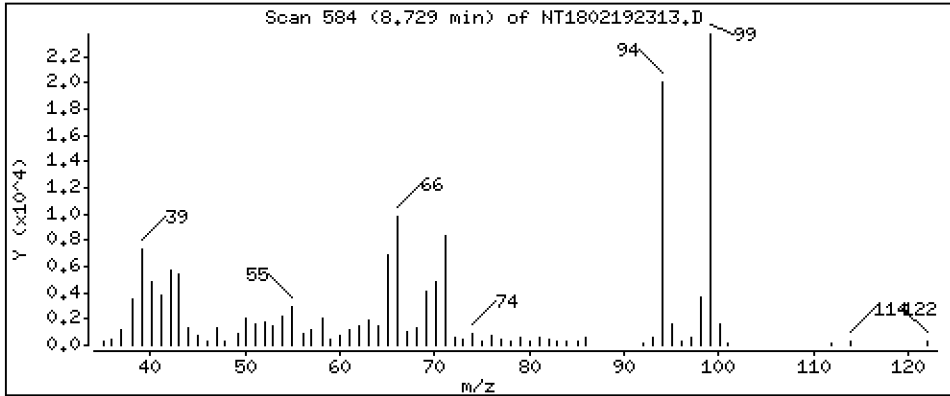
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,7289 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

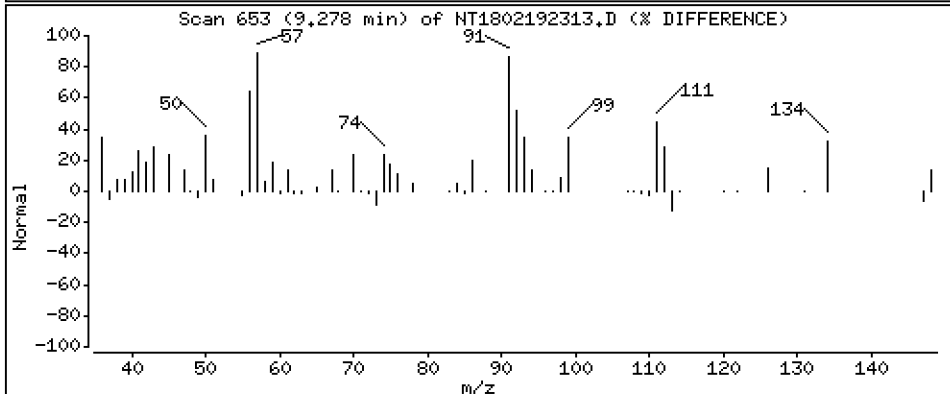
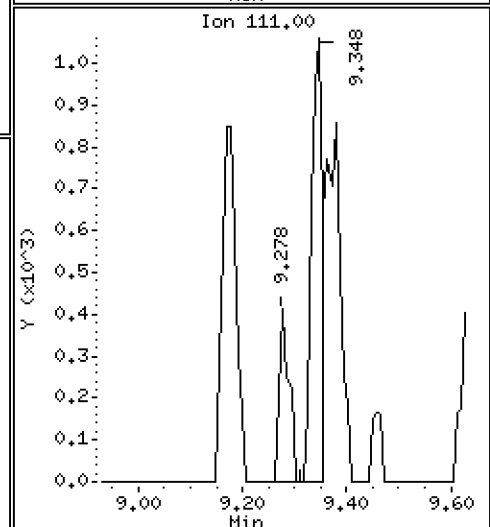
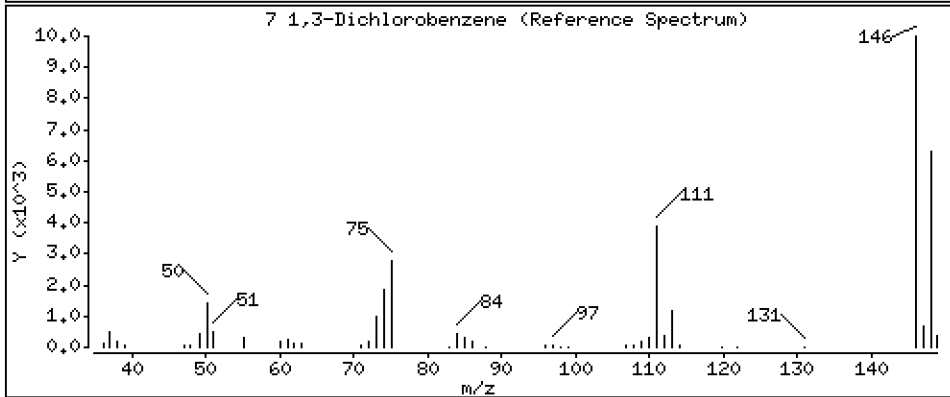
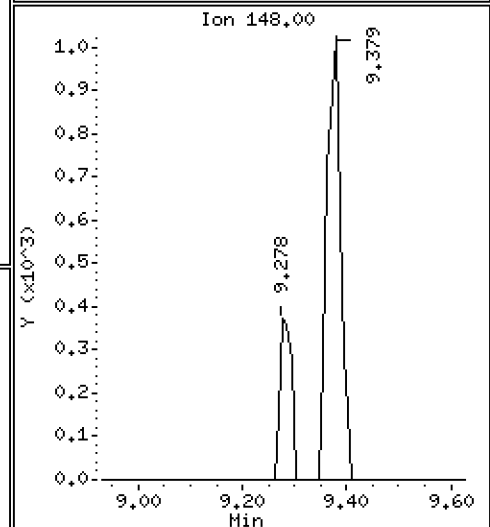
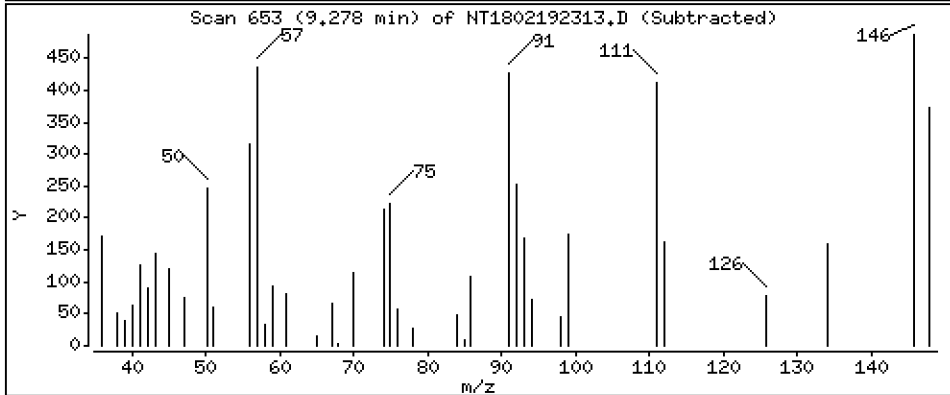
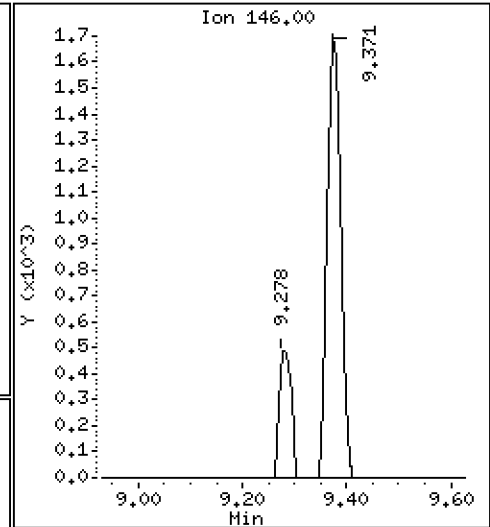
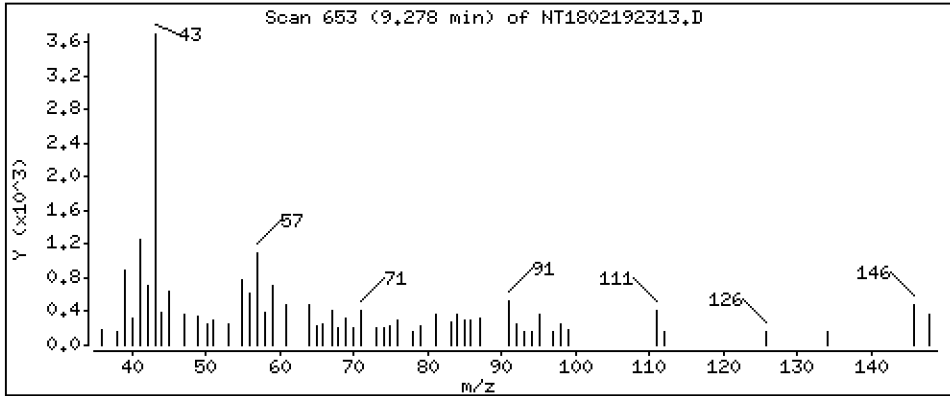
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,01631 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

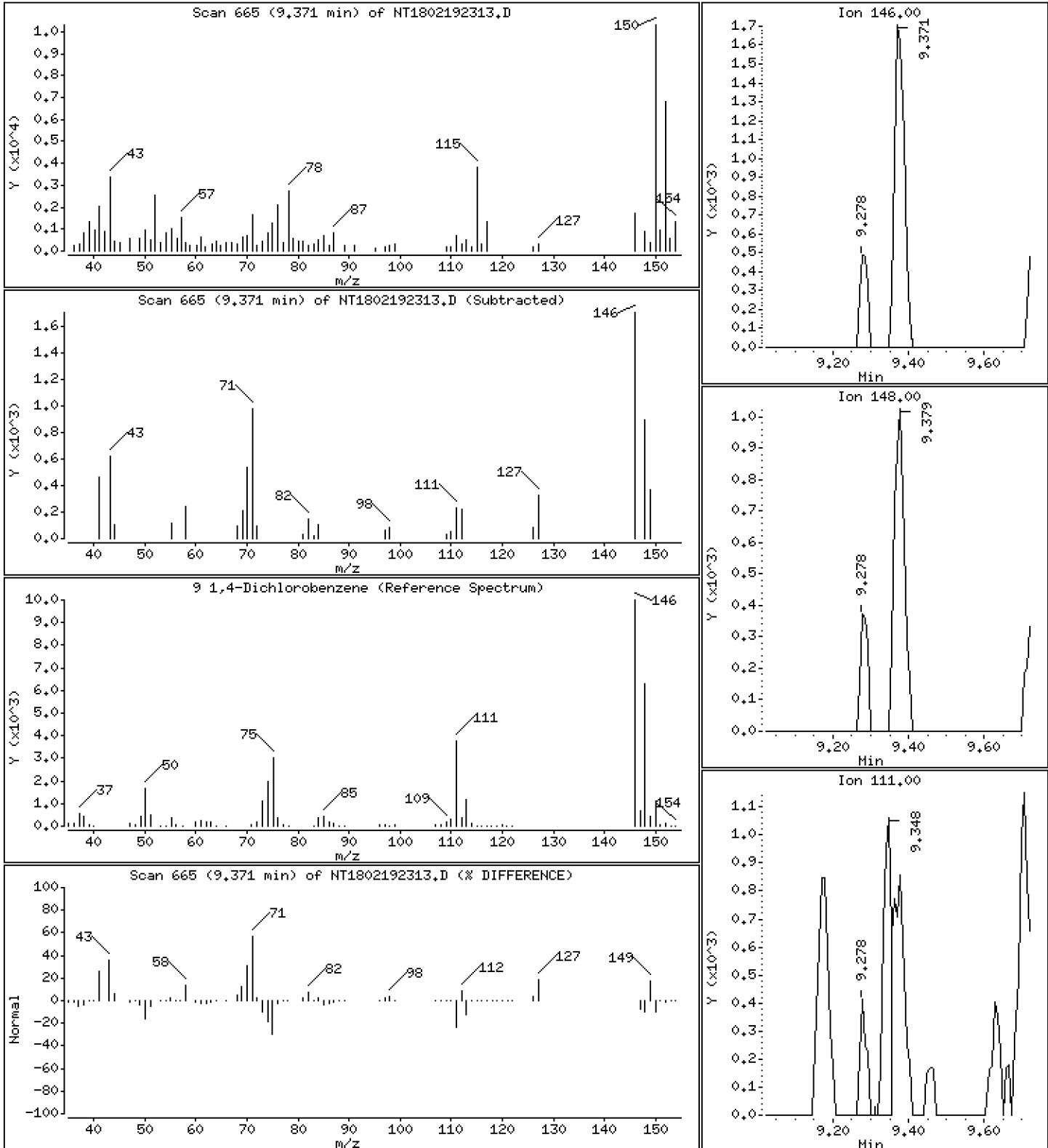
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 0.06175 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

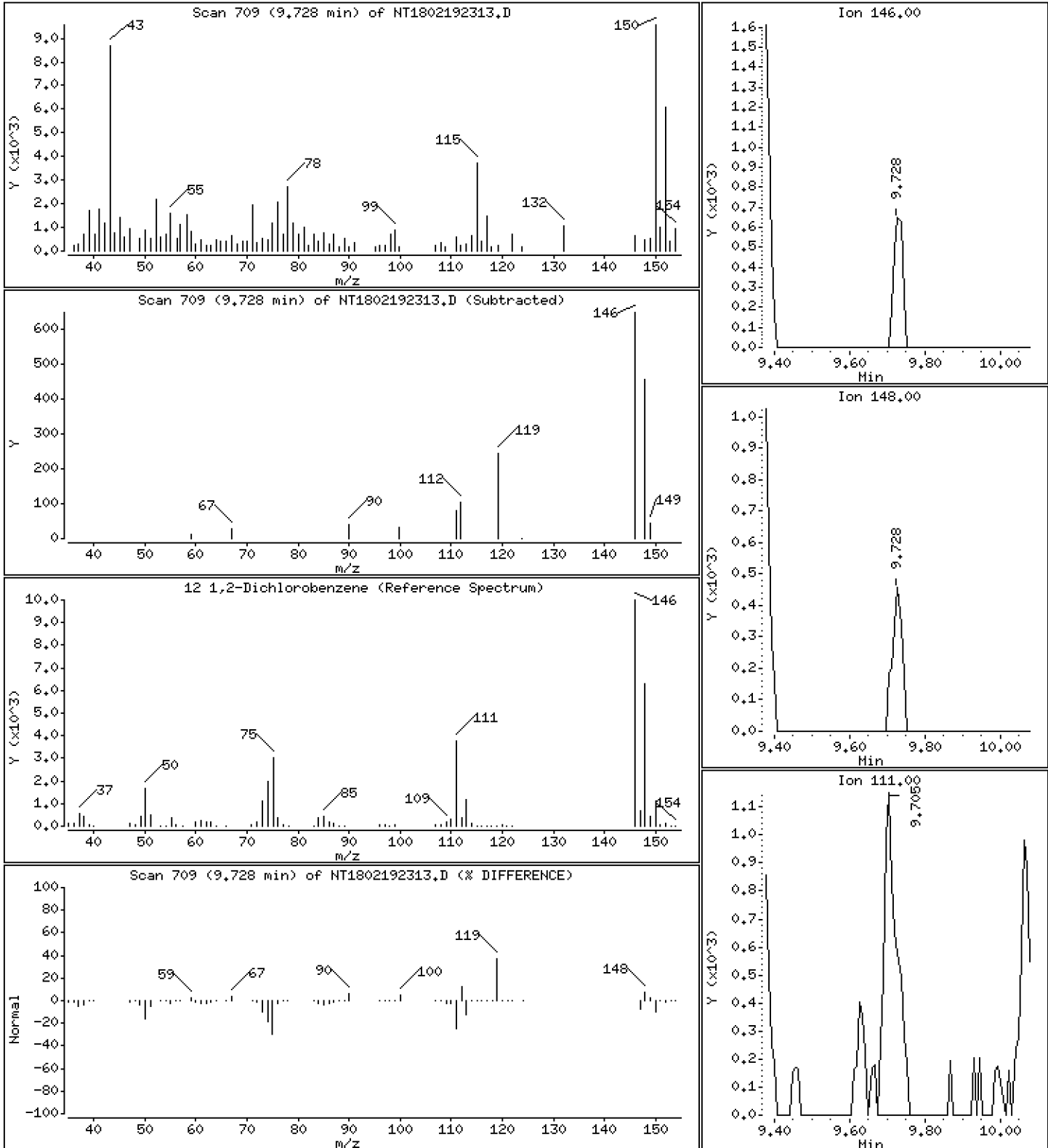
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,02318 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

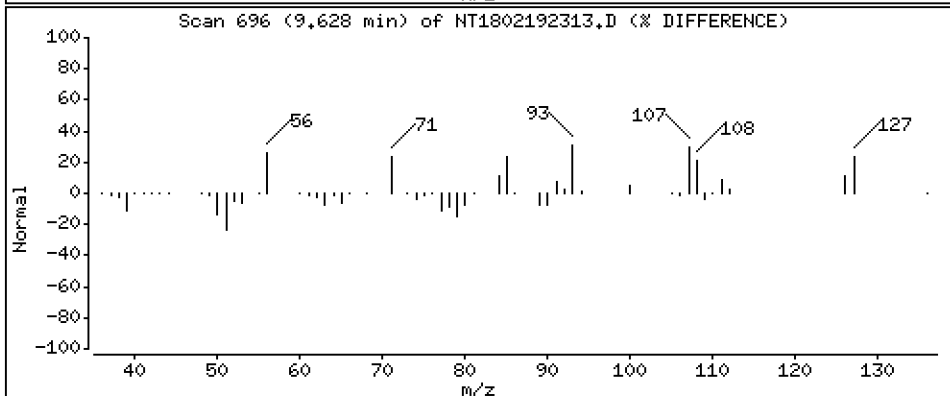
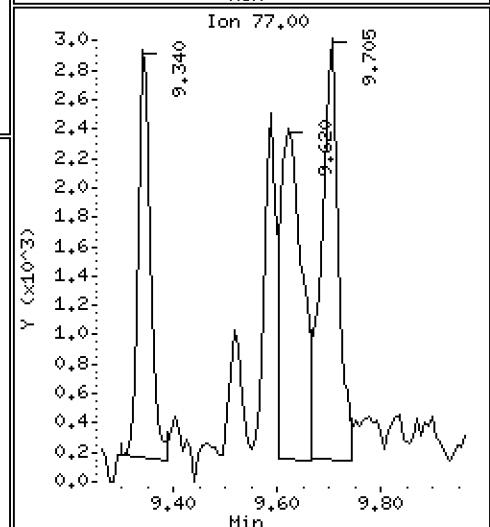
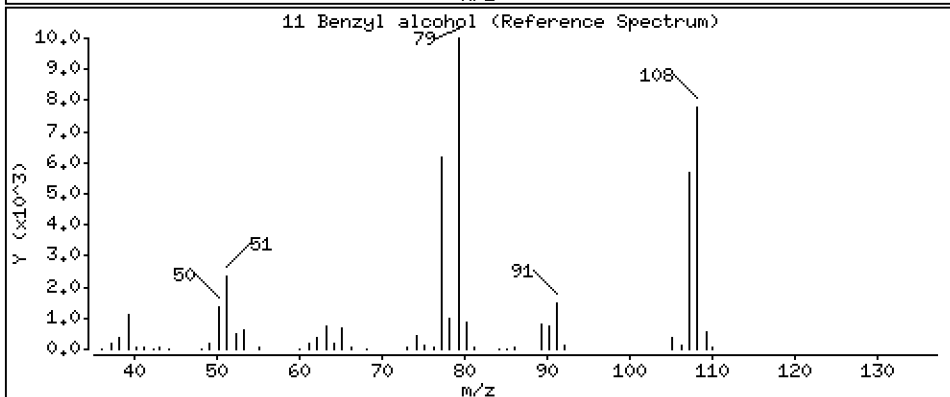
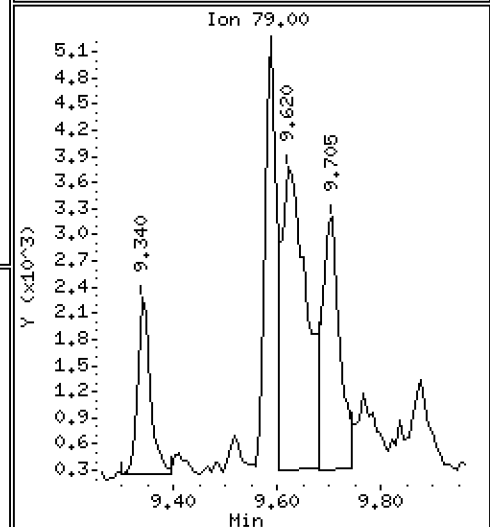
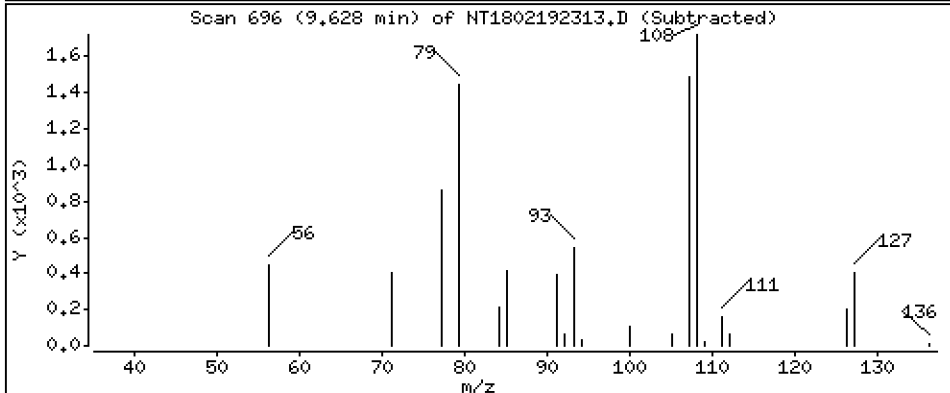
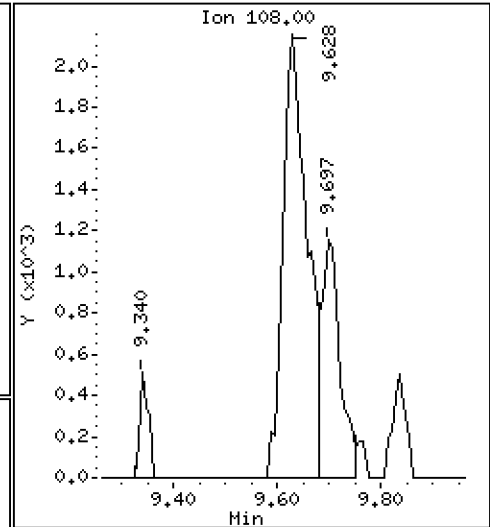
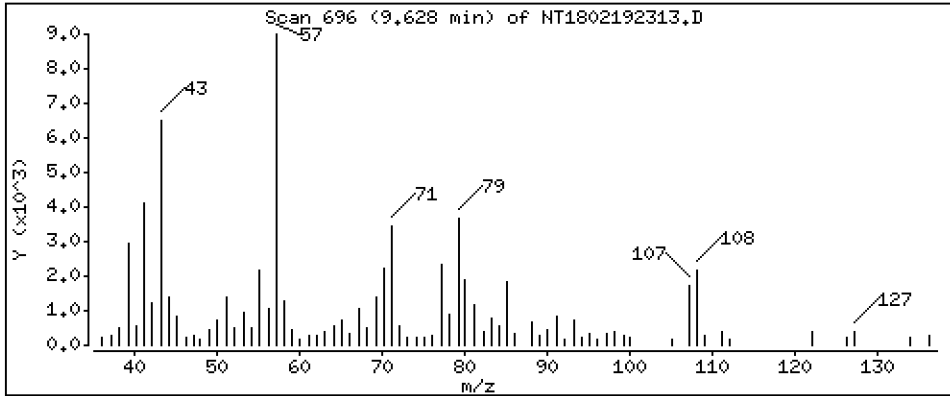
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 0,2726 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

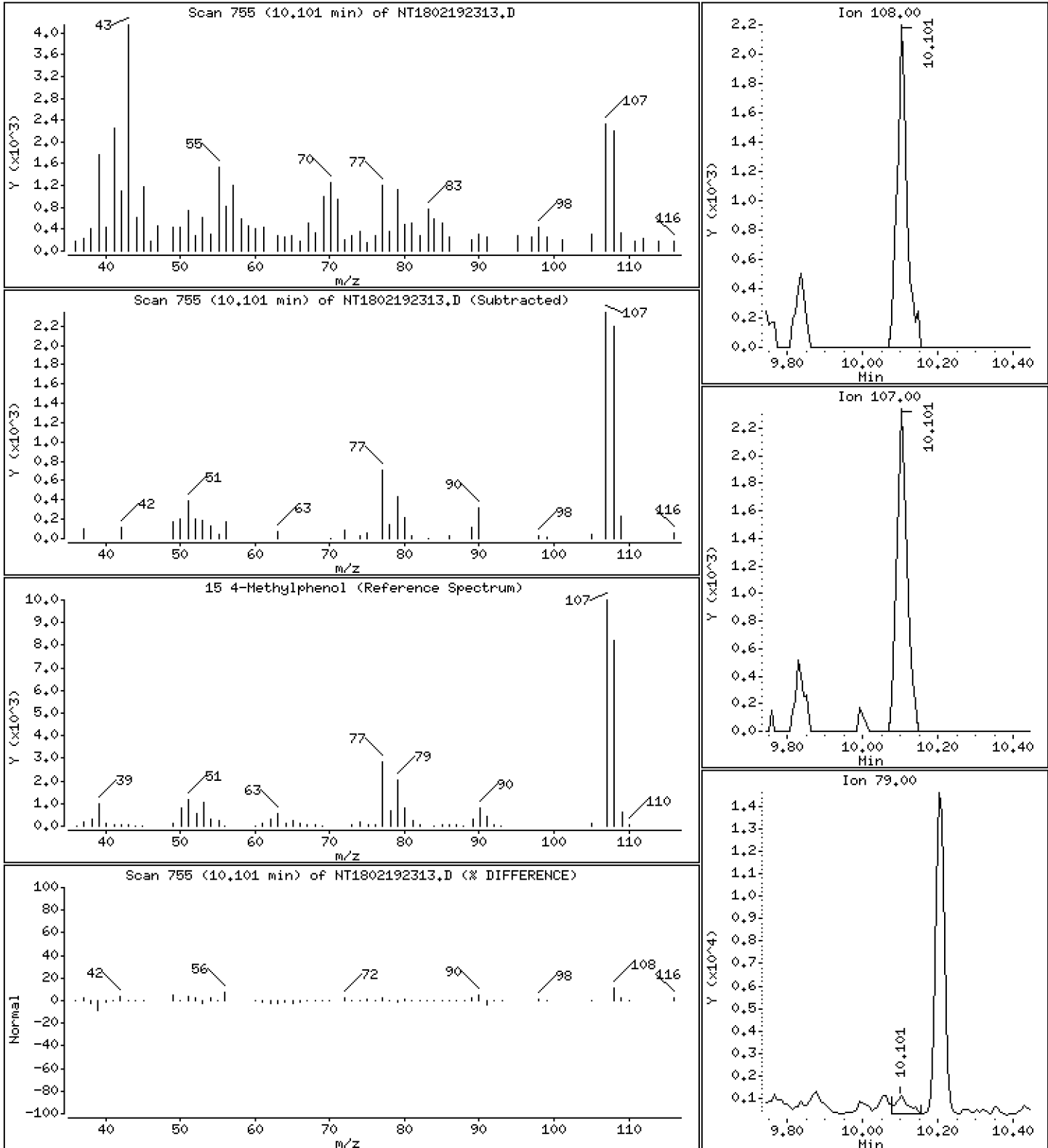
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 0,09645 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

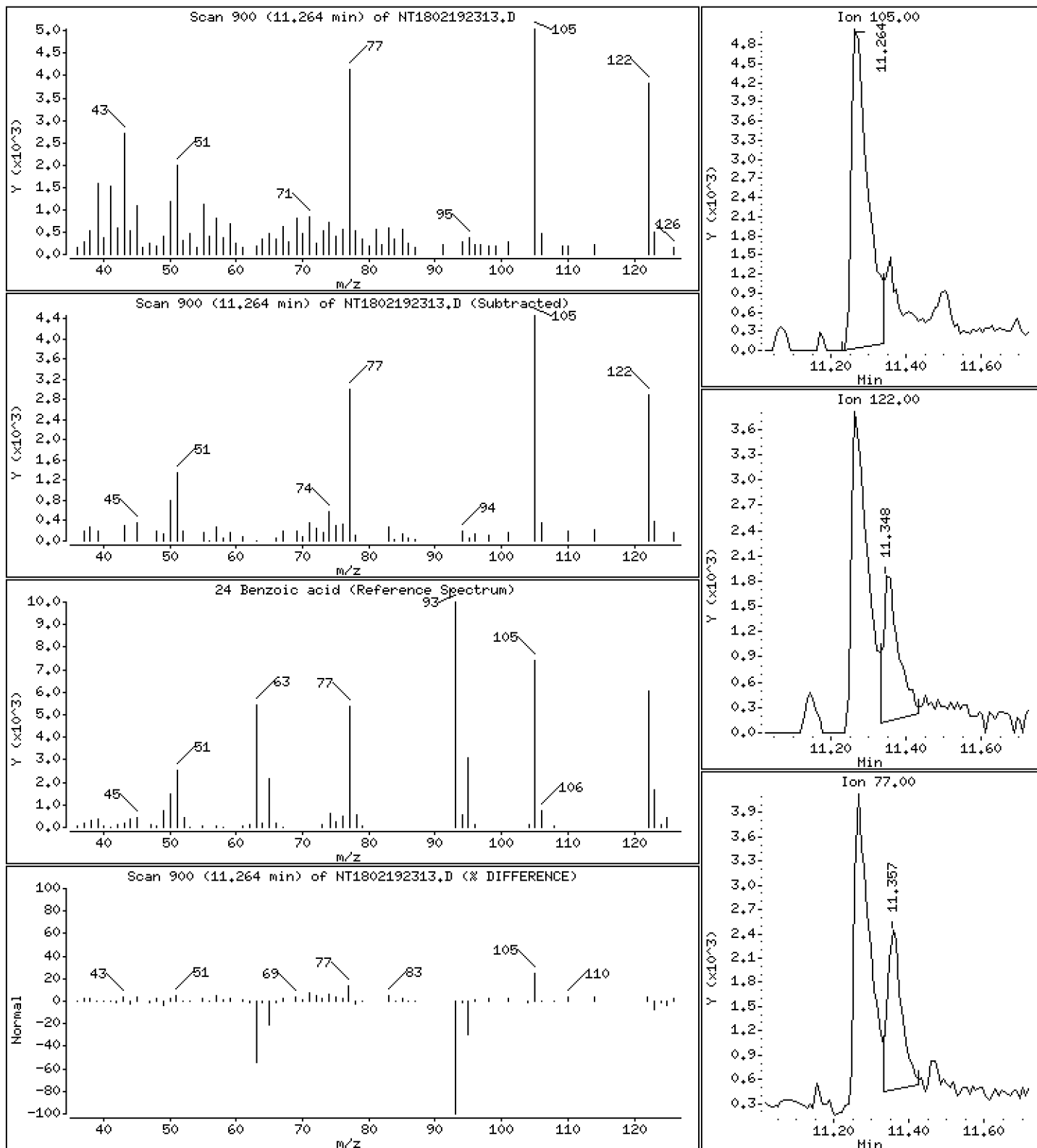
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.6862 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

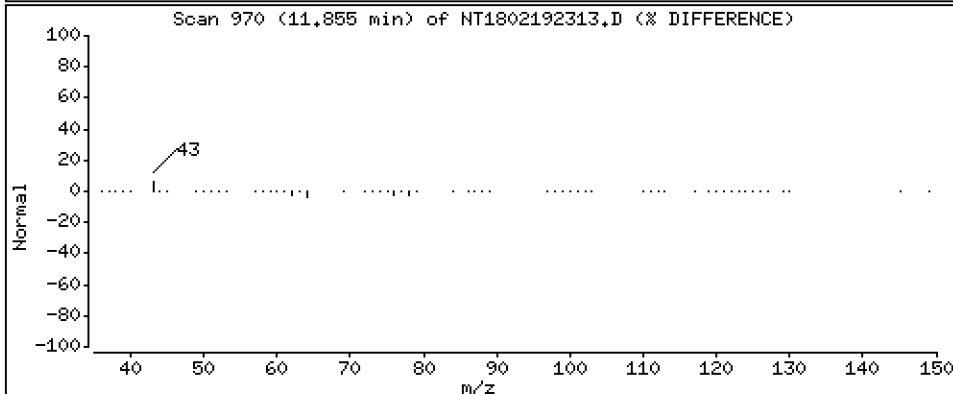
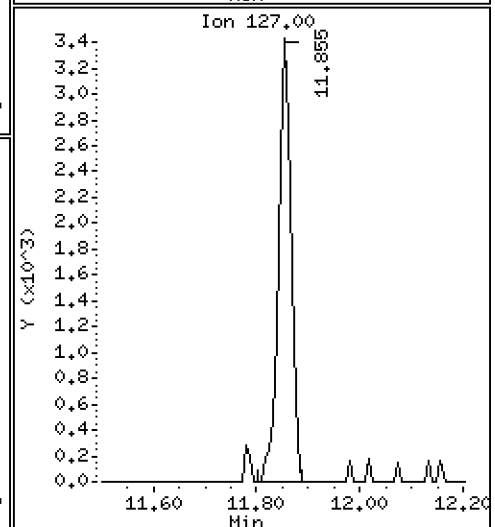
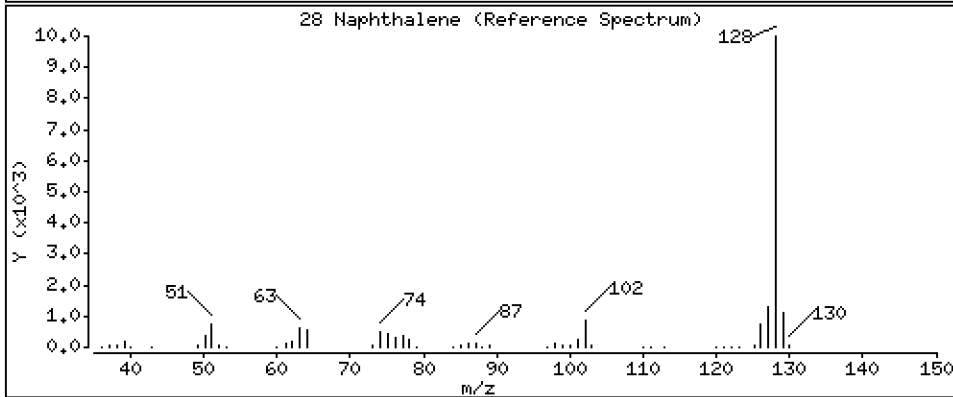
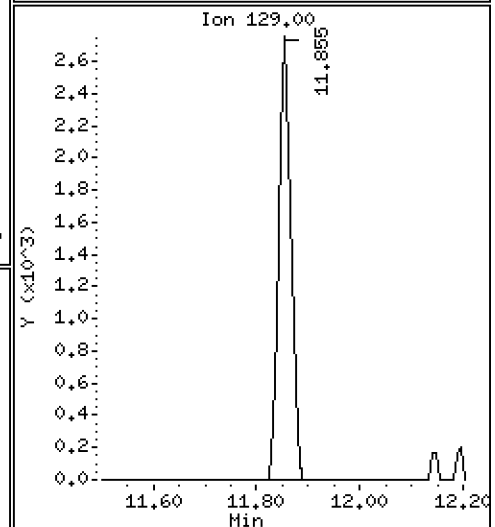
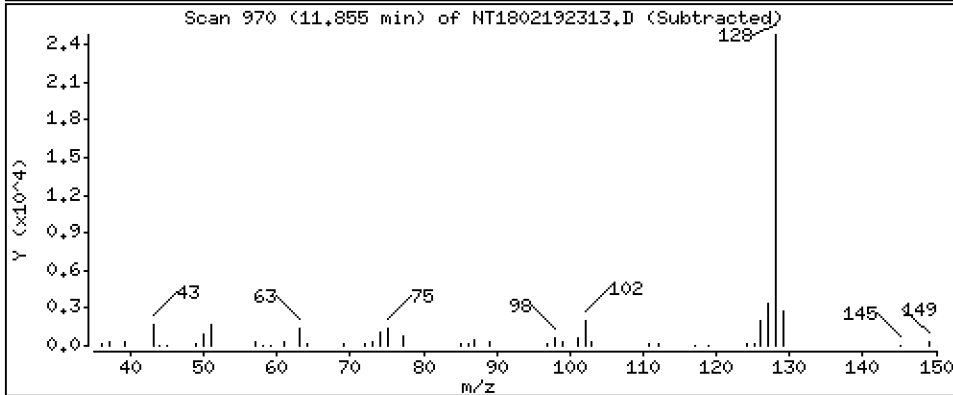
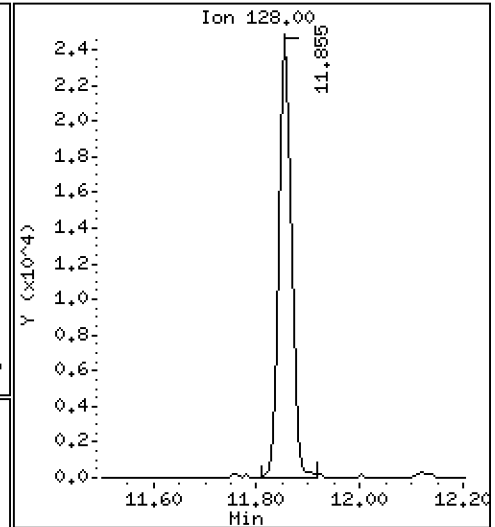
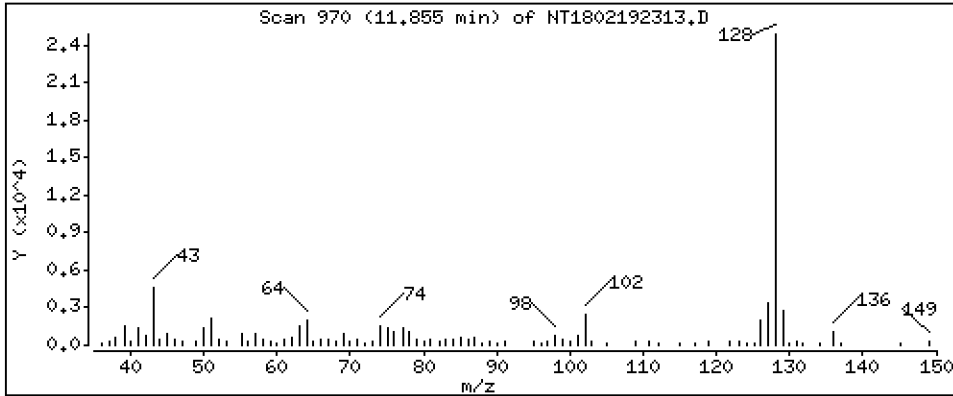
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,3209 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

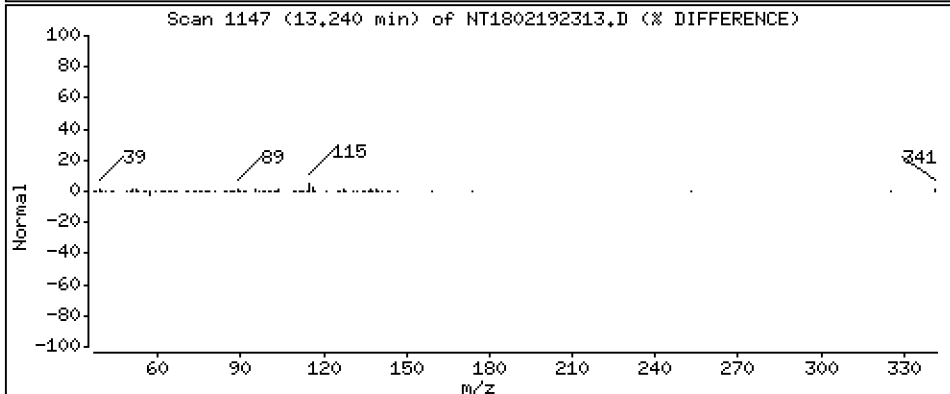
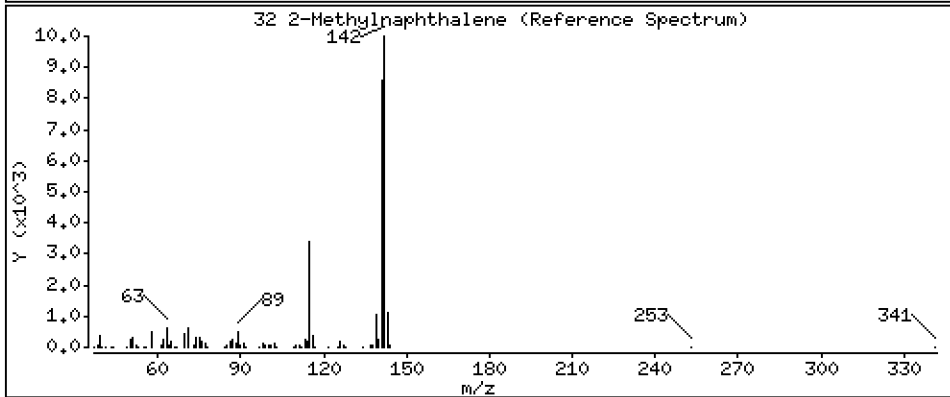
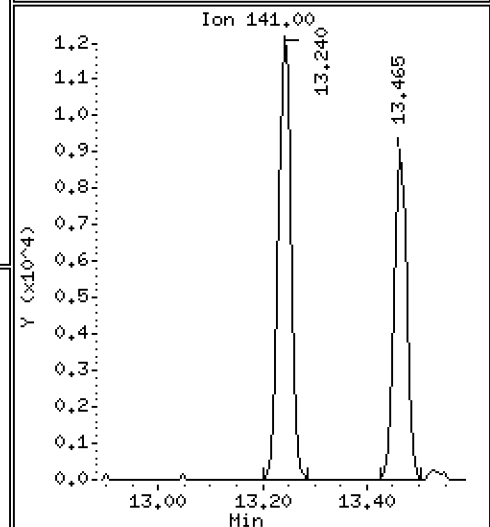
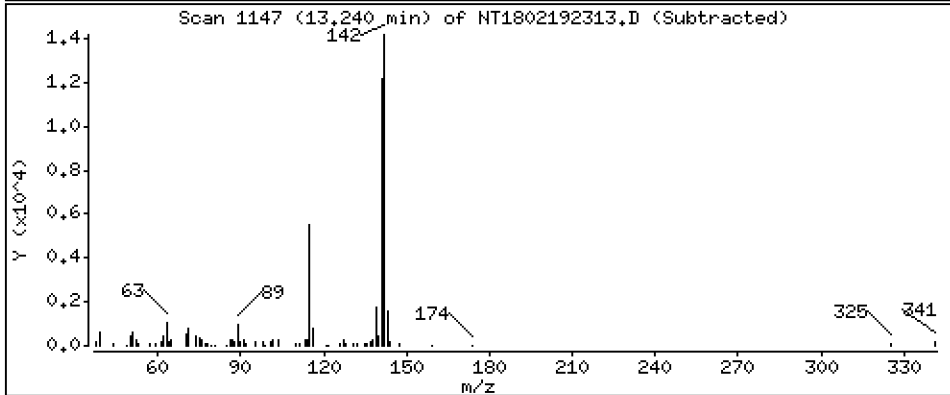
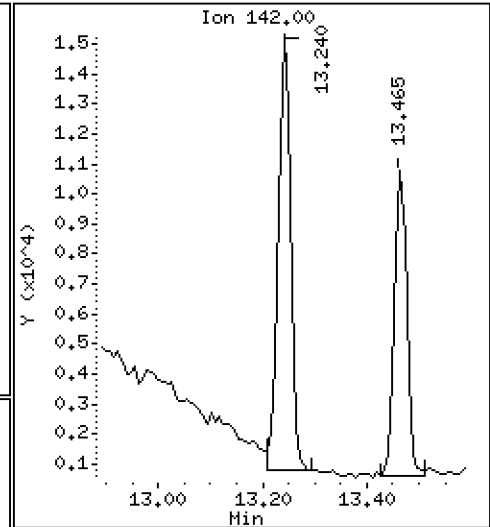
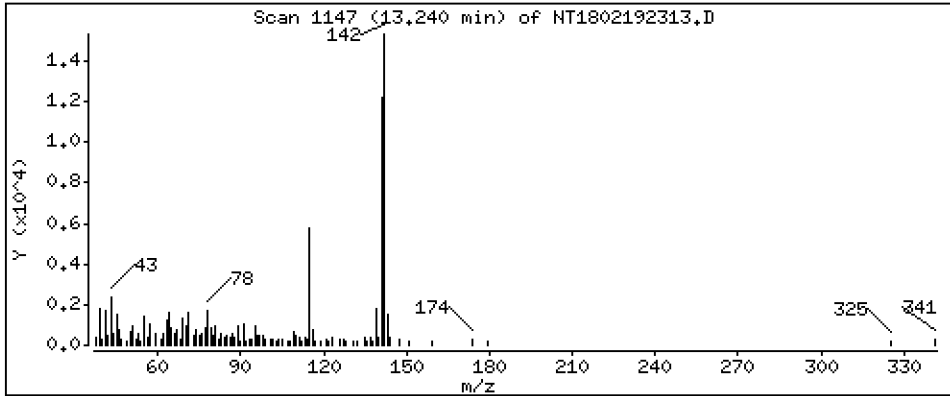
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,2665 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

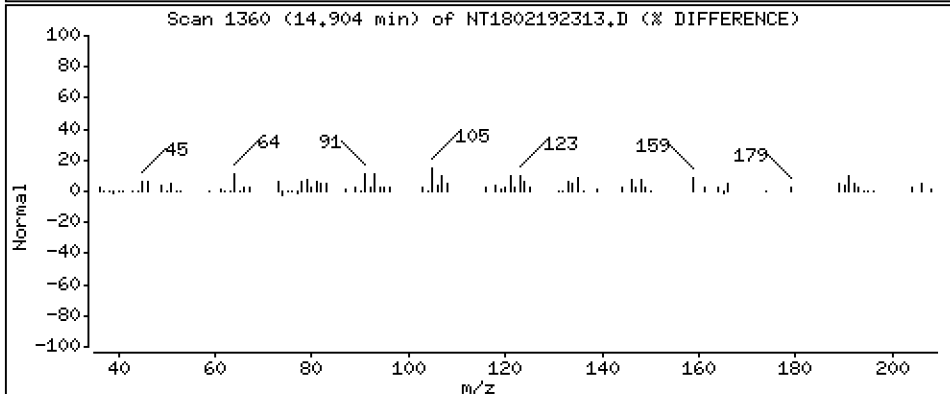
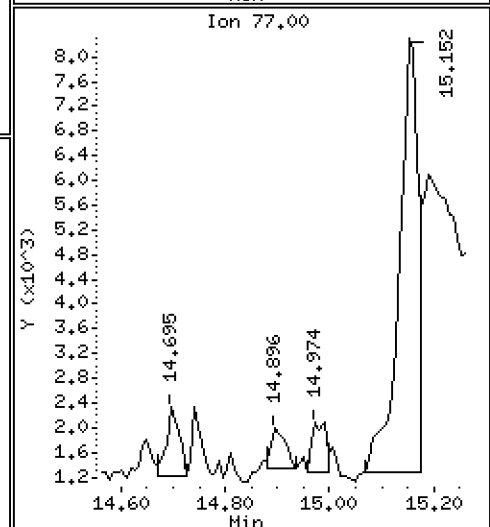
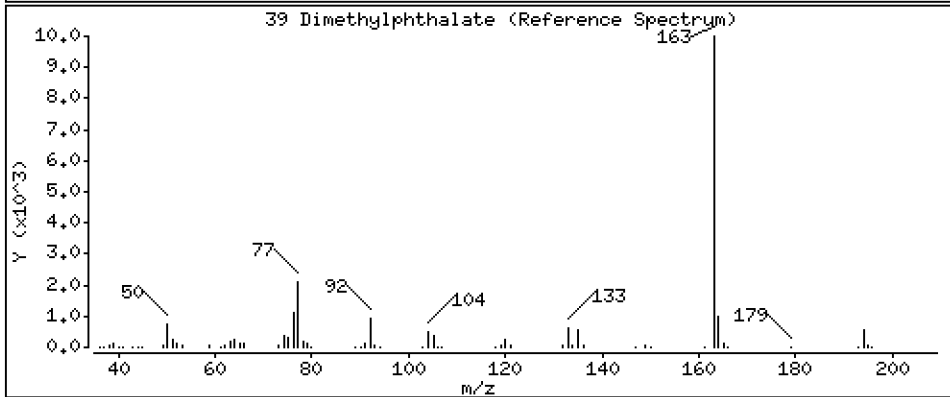
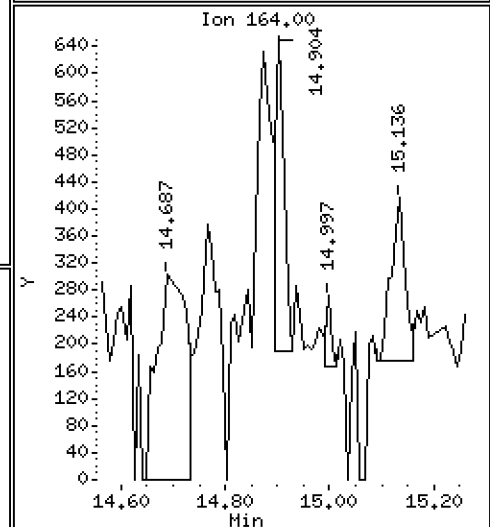
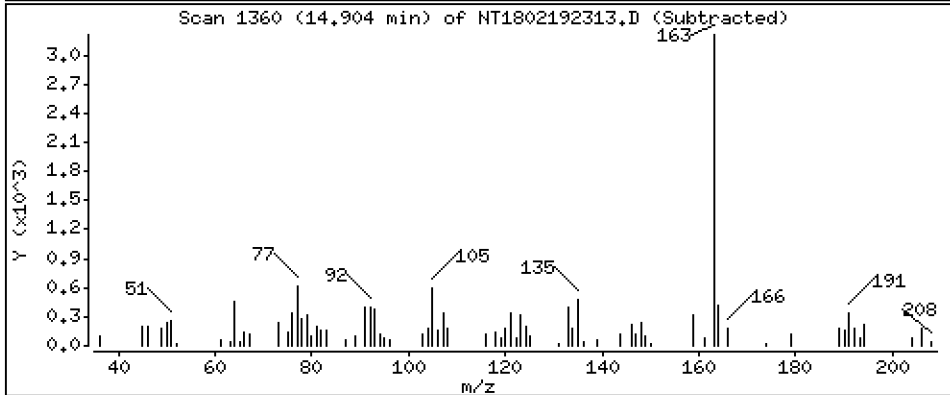
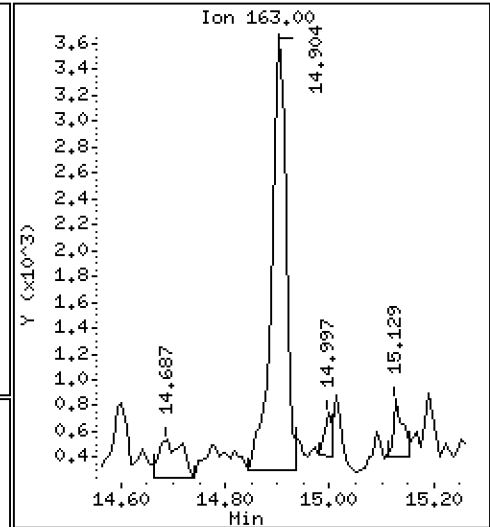
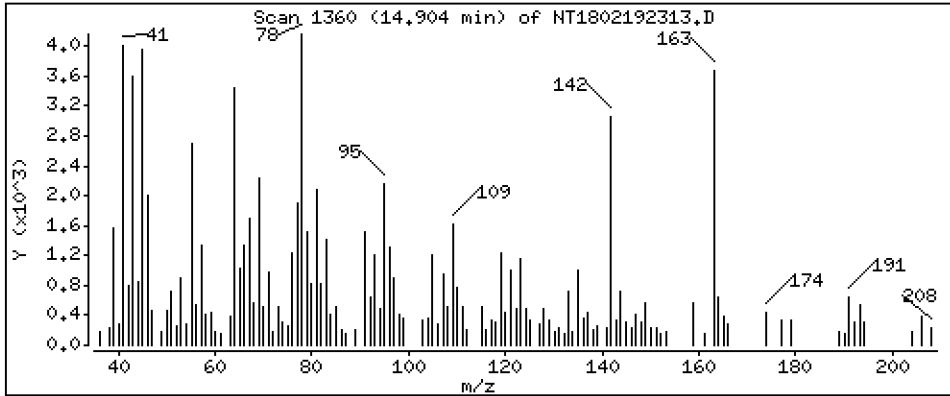
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 0.07391 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

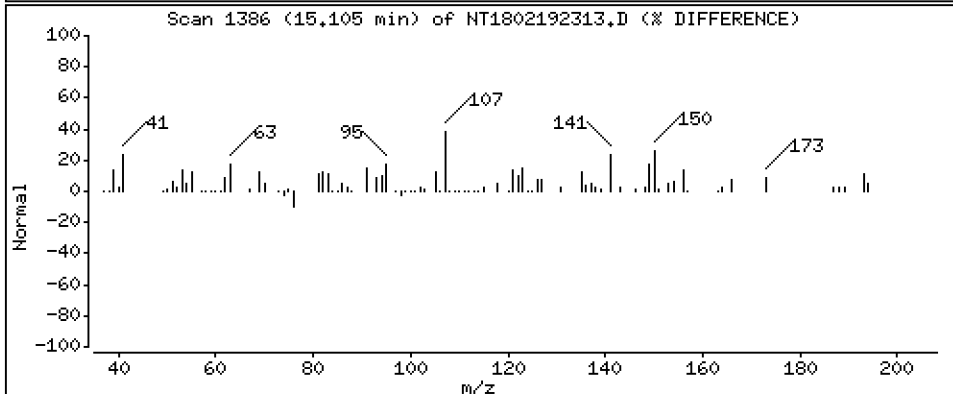
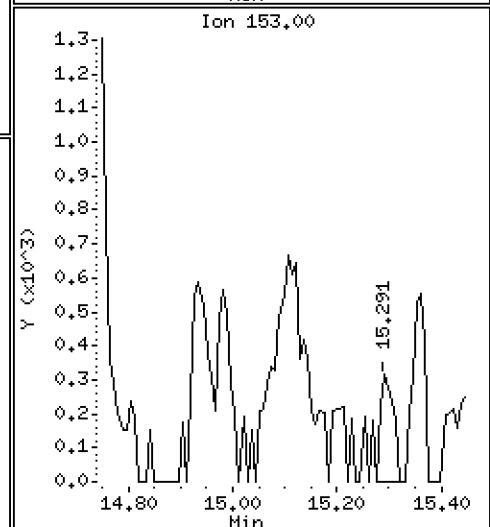
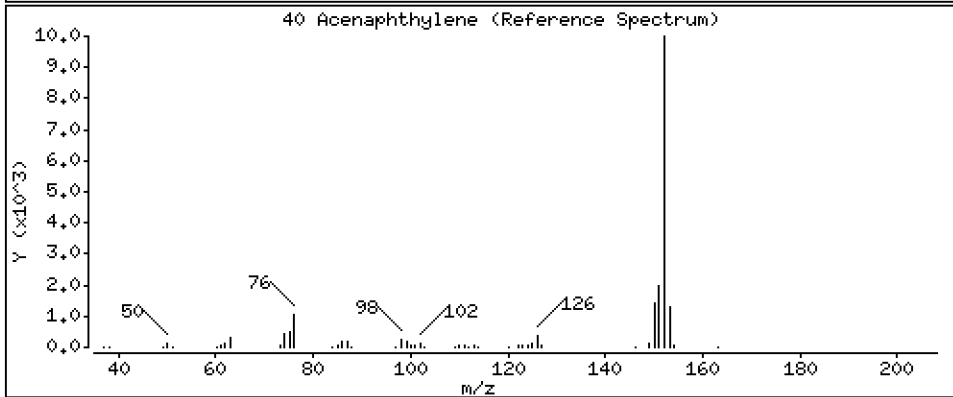
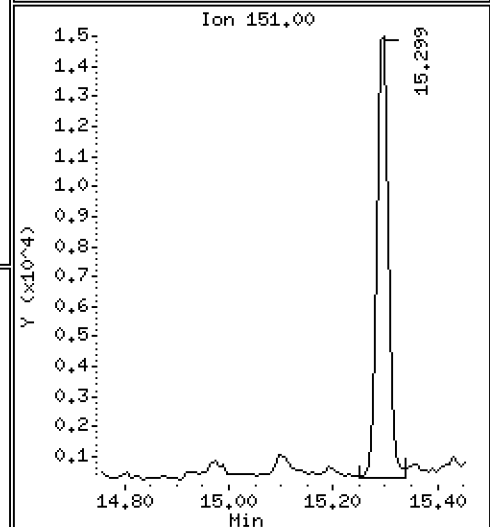
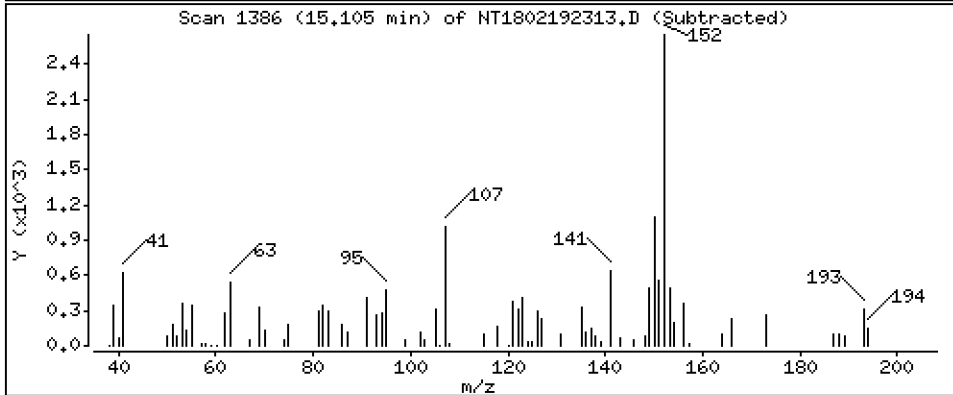
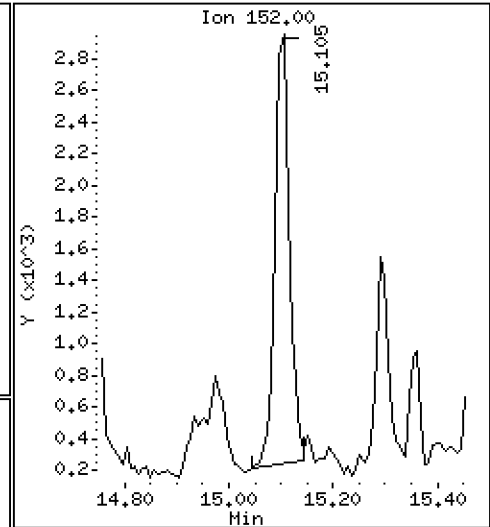
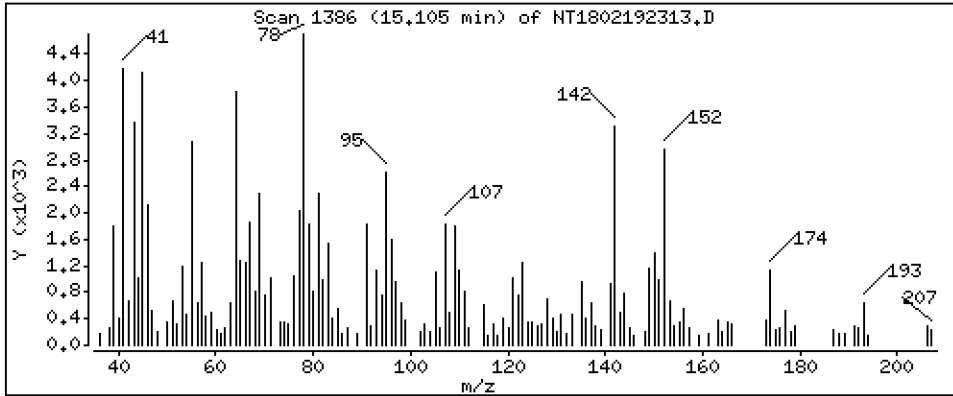
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,04106 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

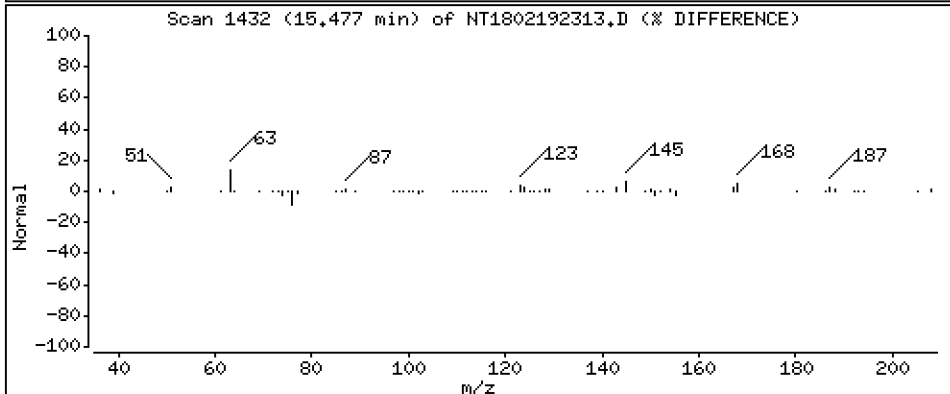
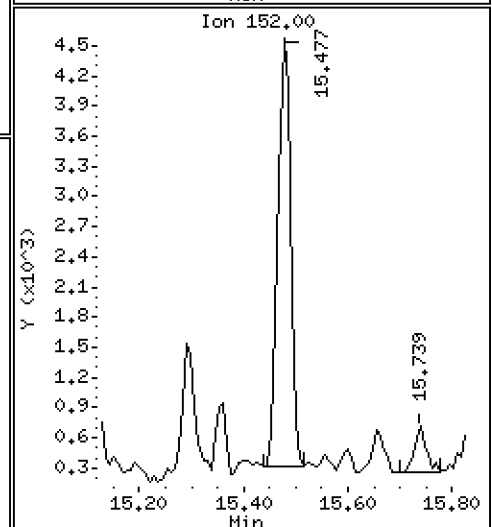
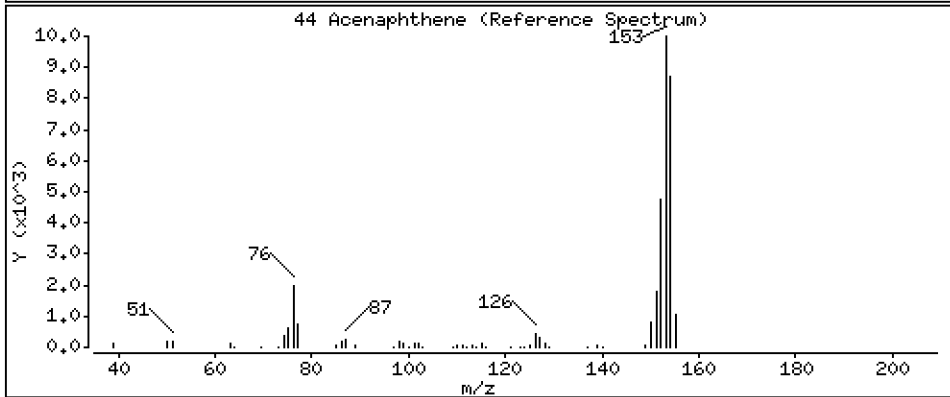
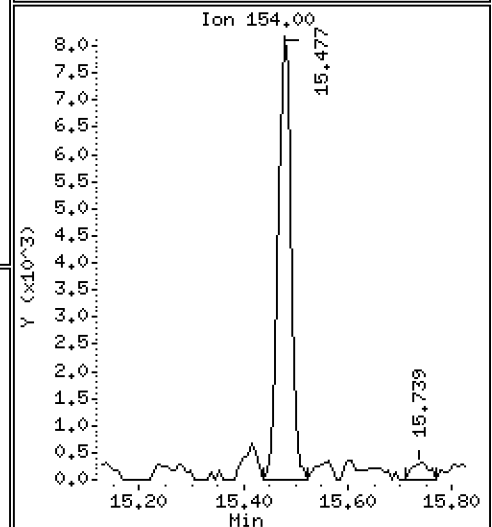
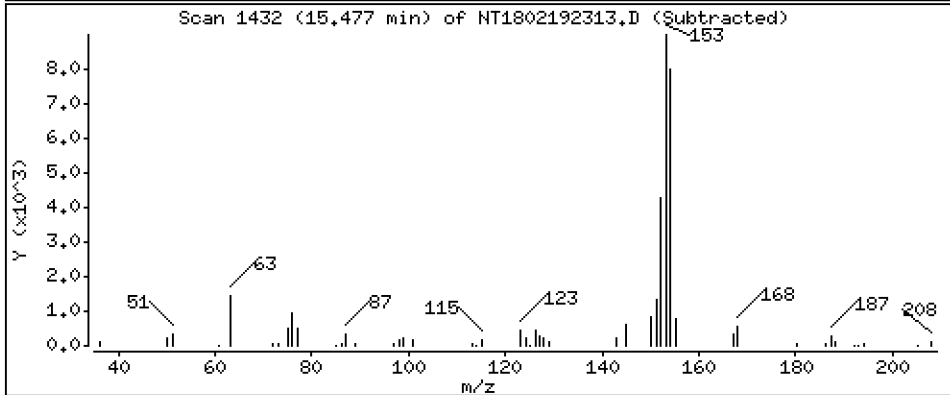
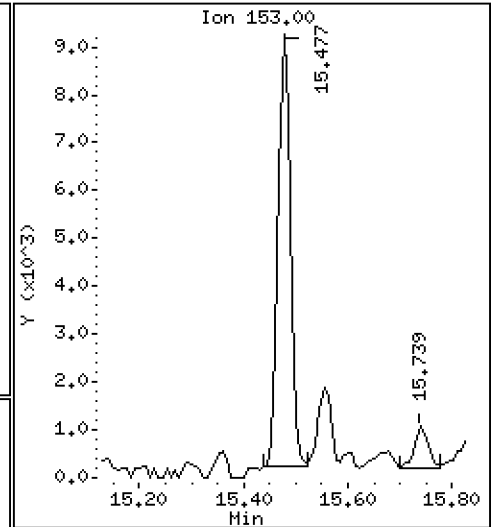
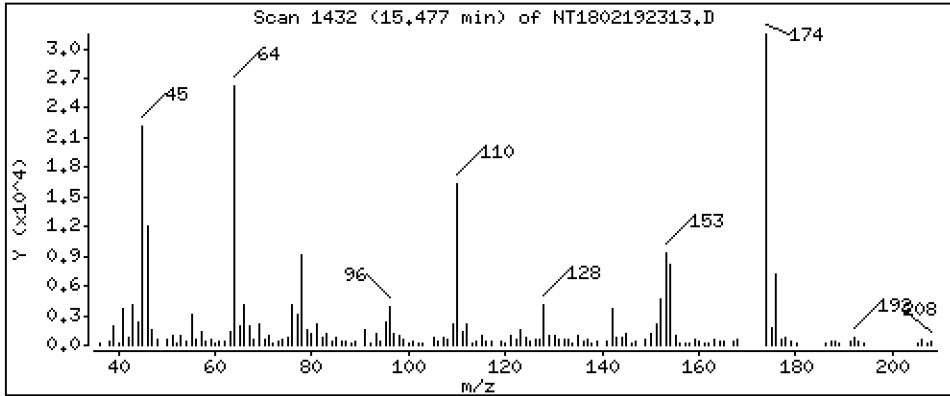
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,1733 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

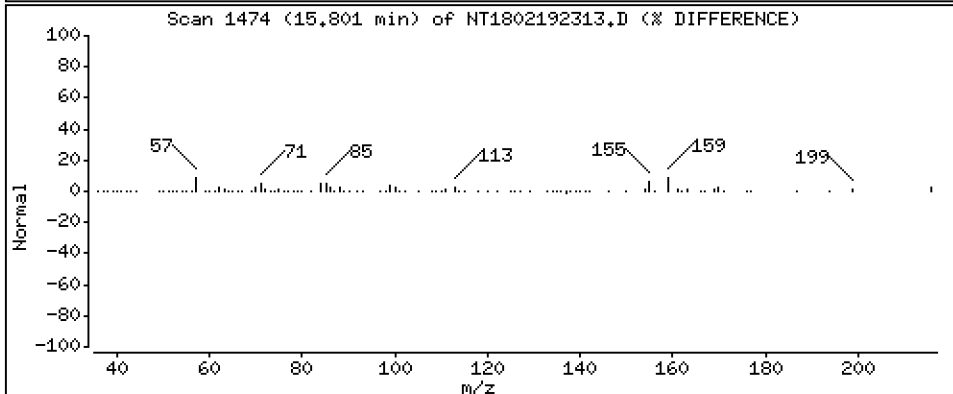
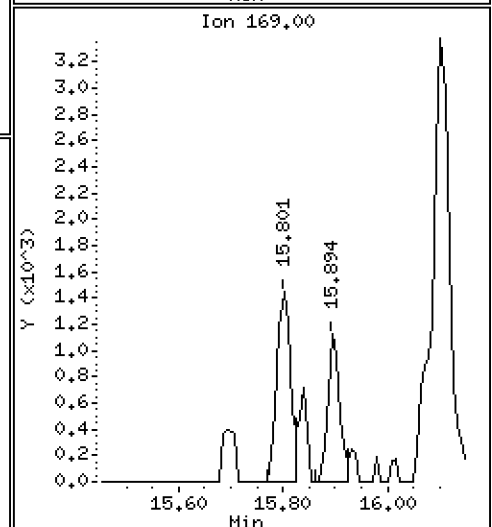
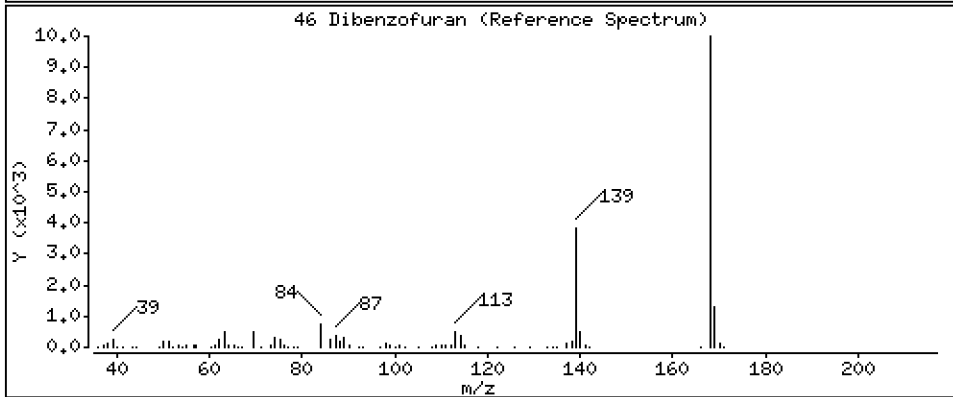
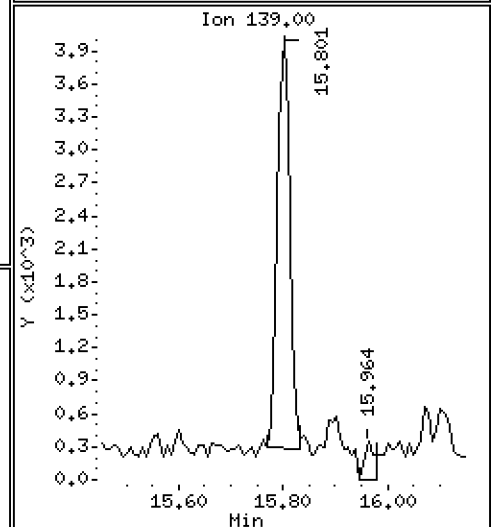
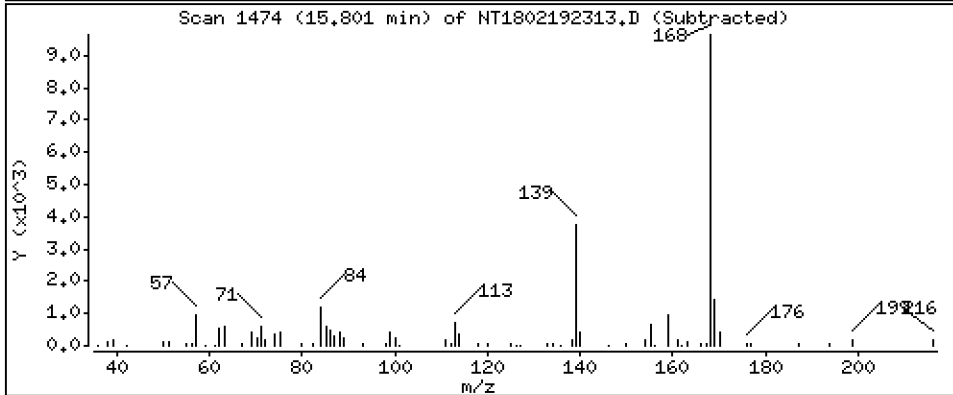
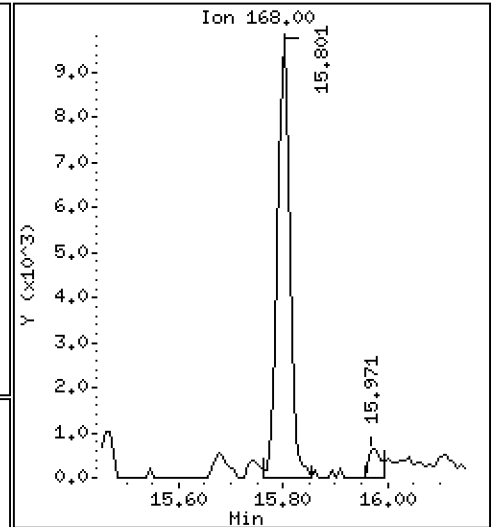
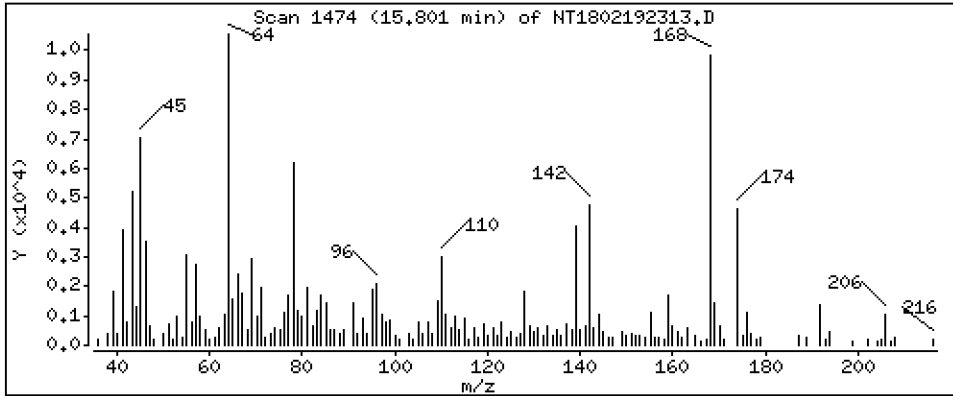
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,1302 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

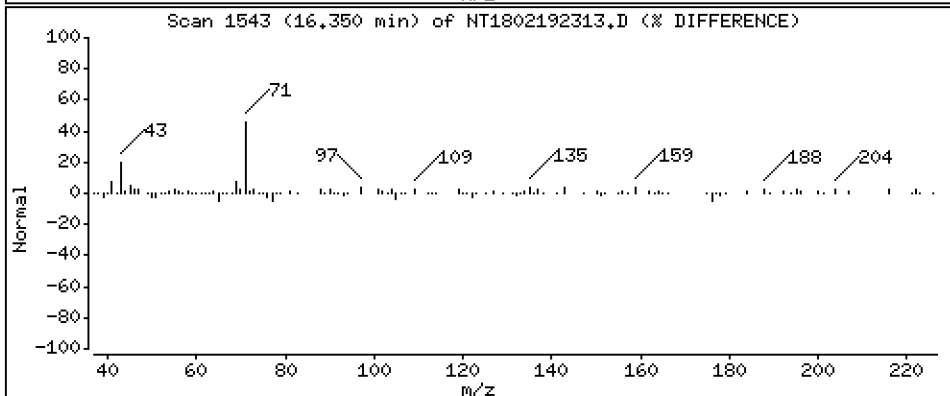
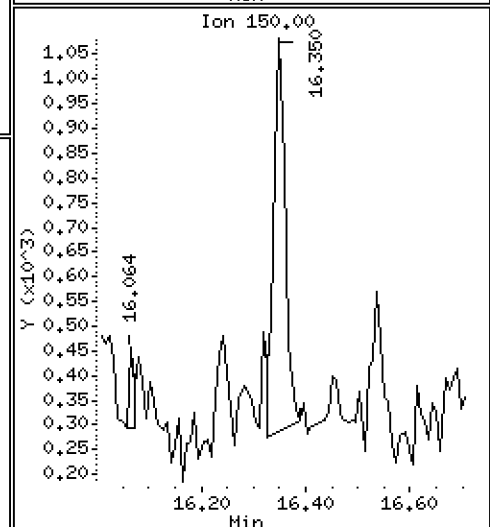
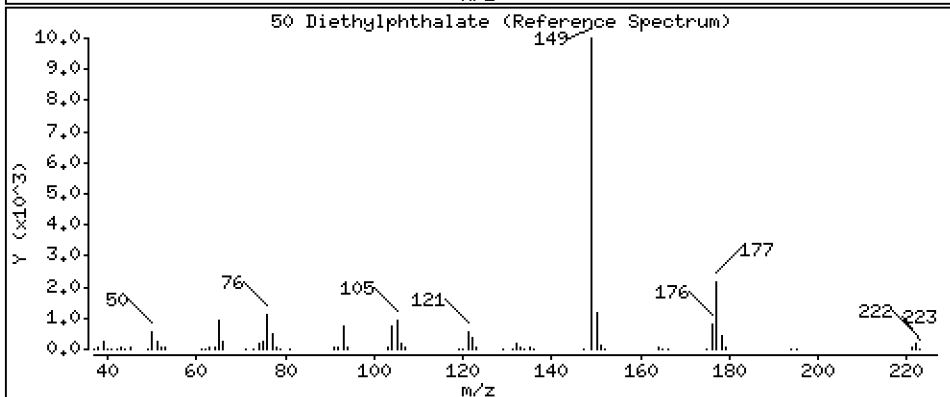
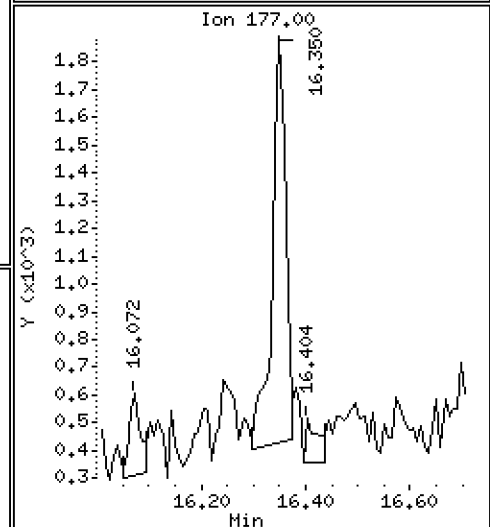
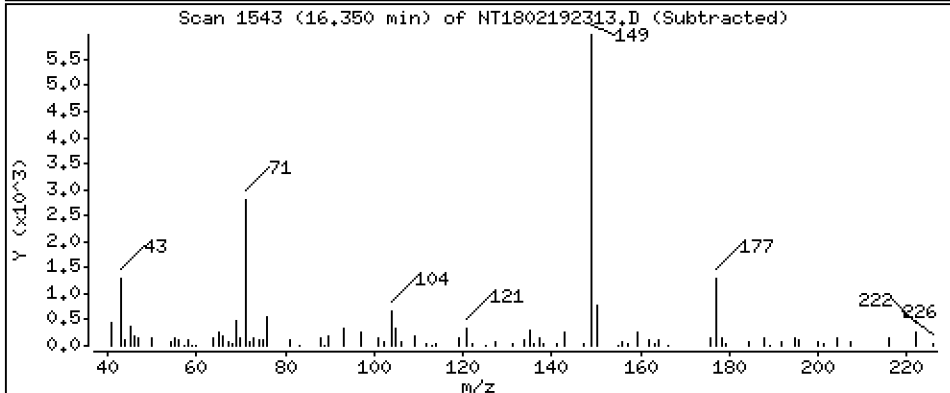
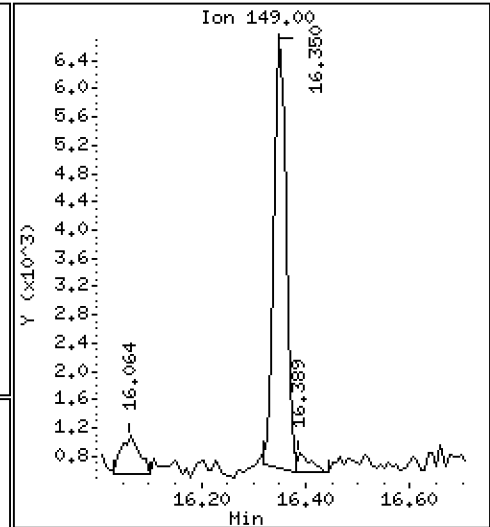
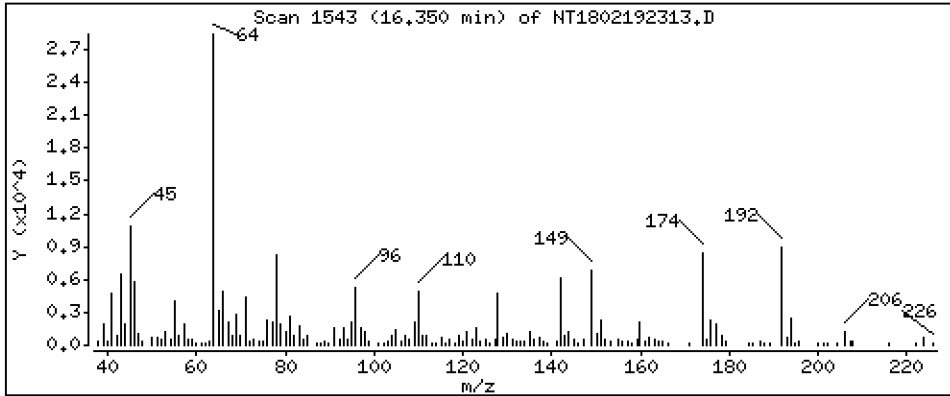
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.1095 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

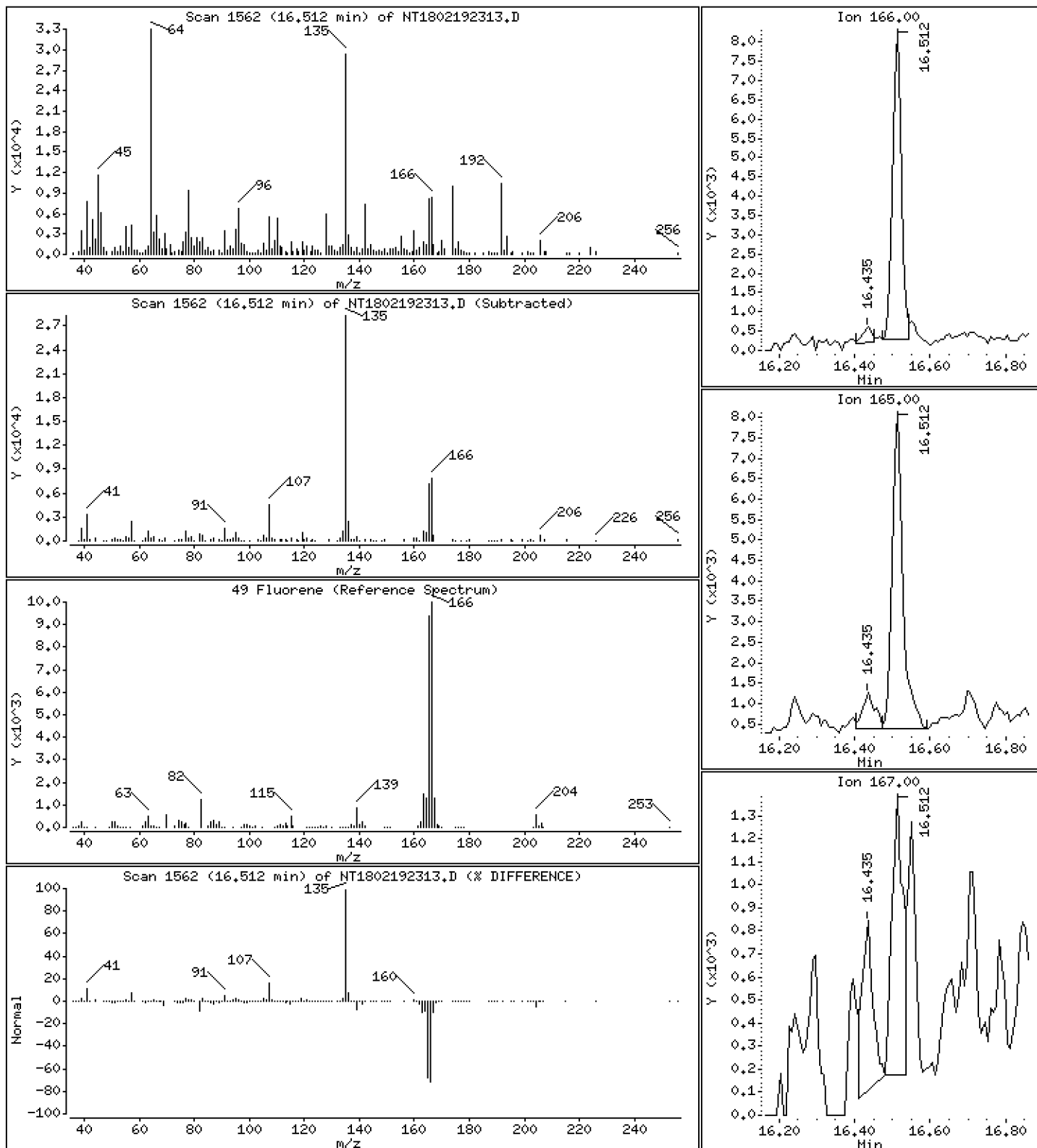
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,1369 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

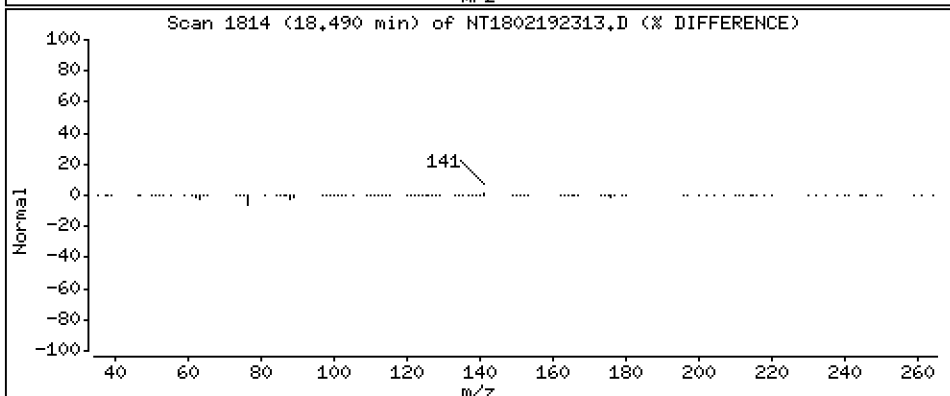
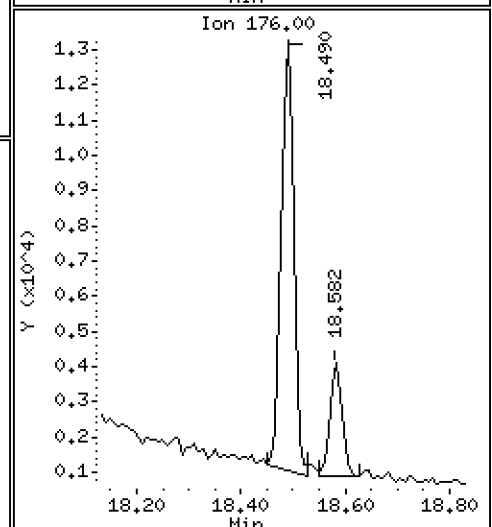
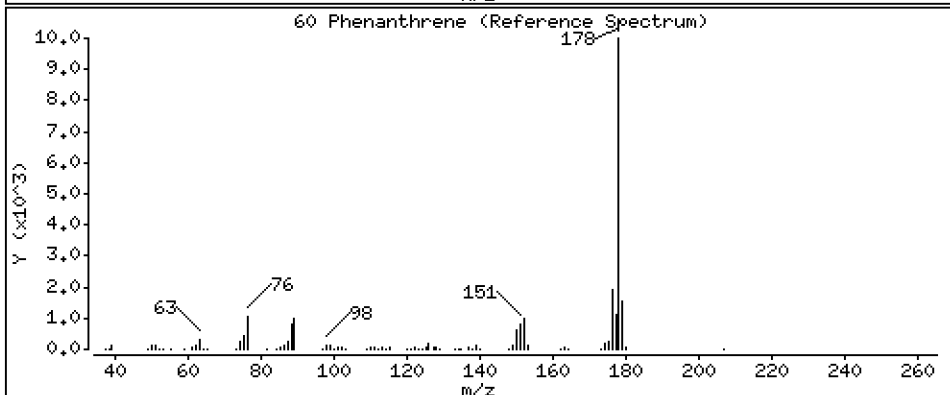
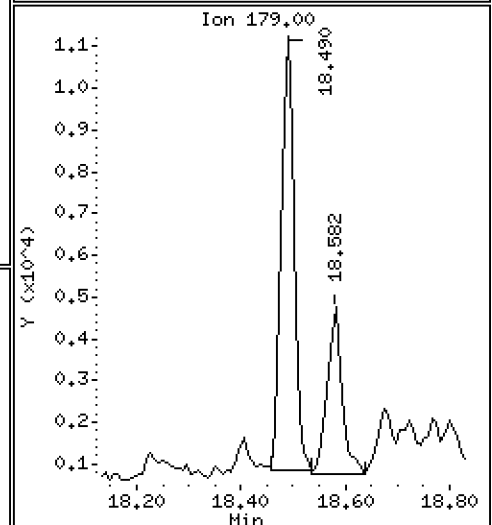
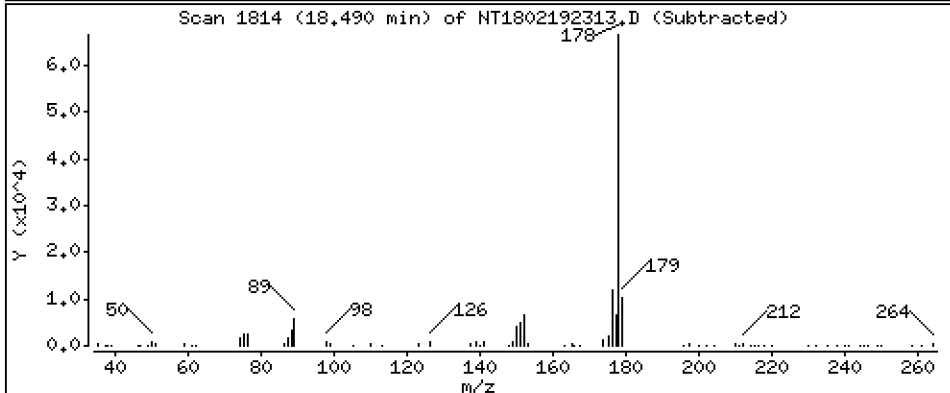
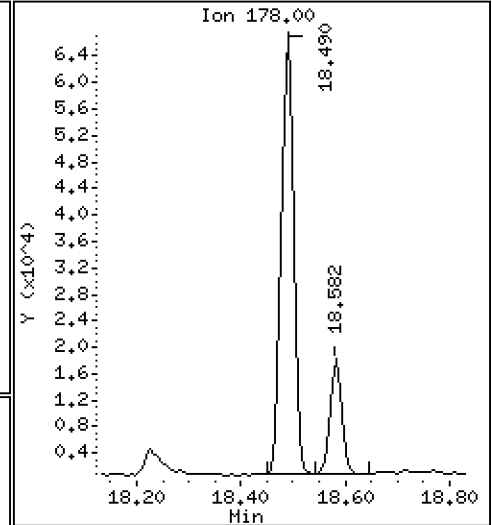
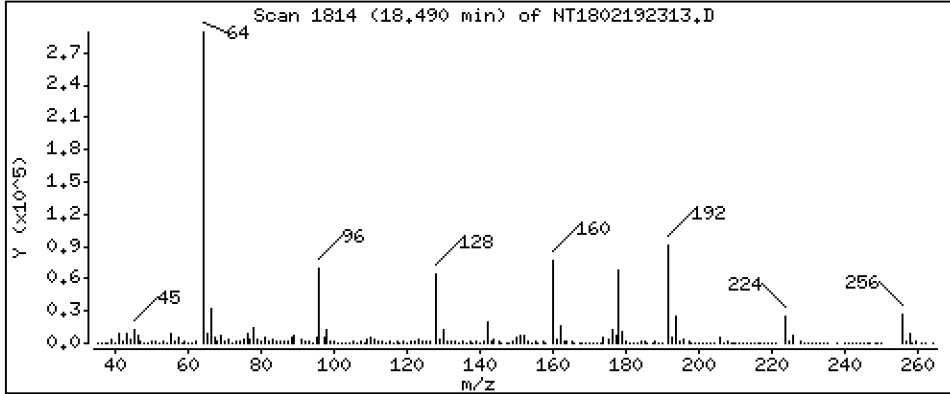
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,7510 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

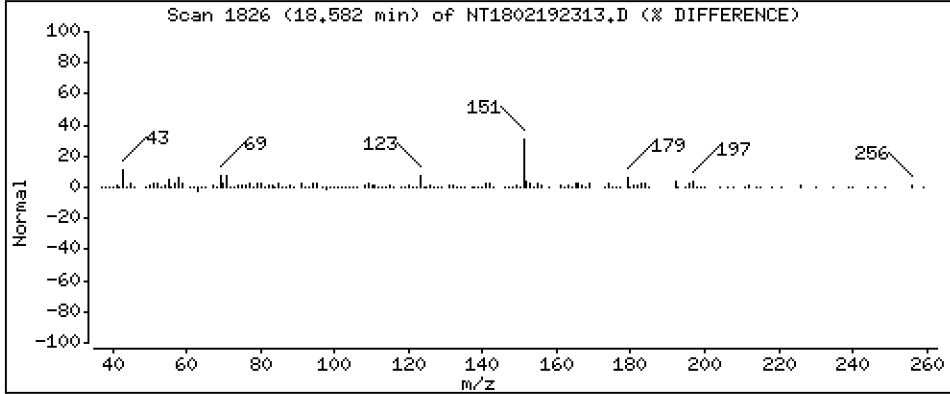
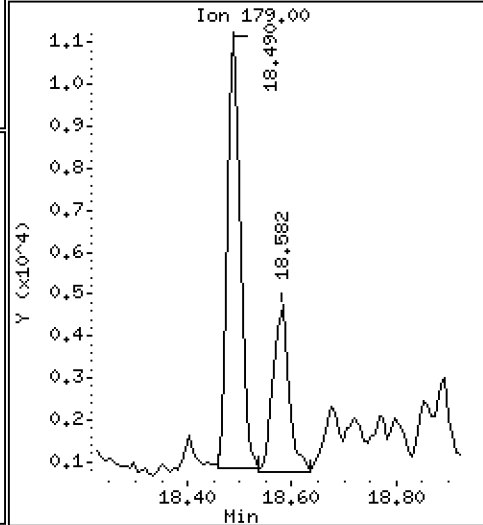
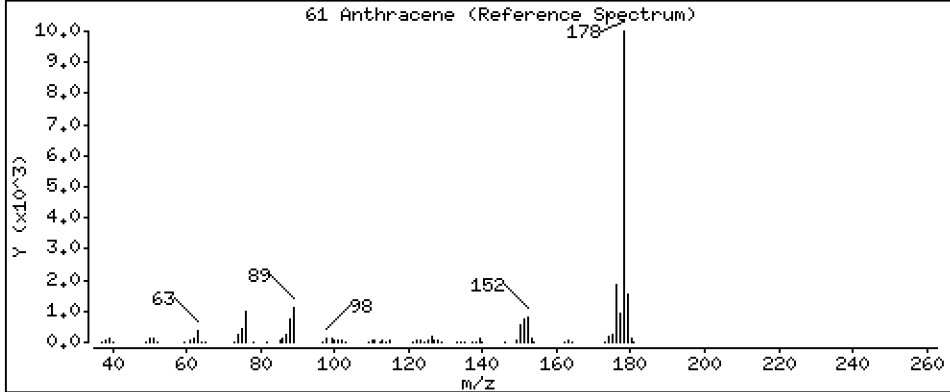
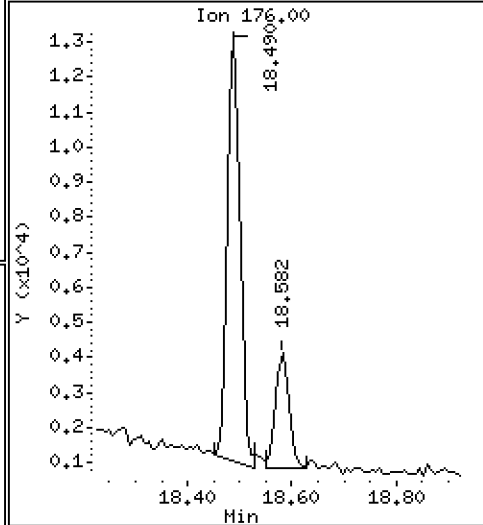
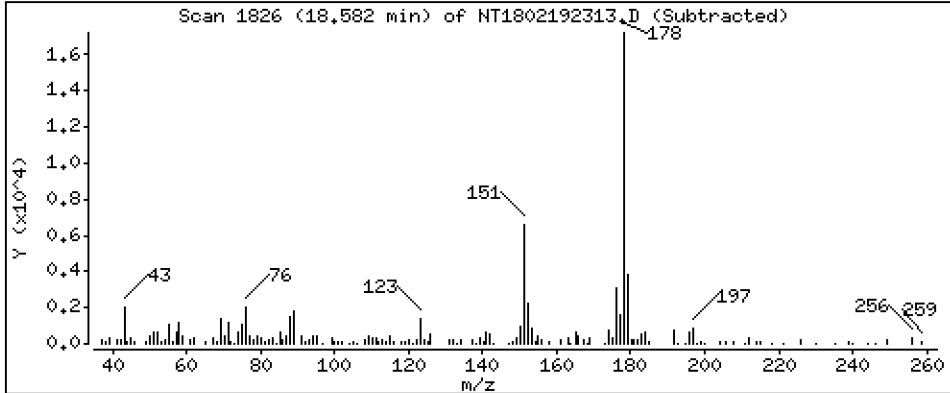
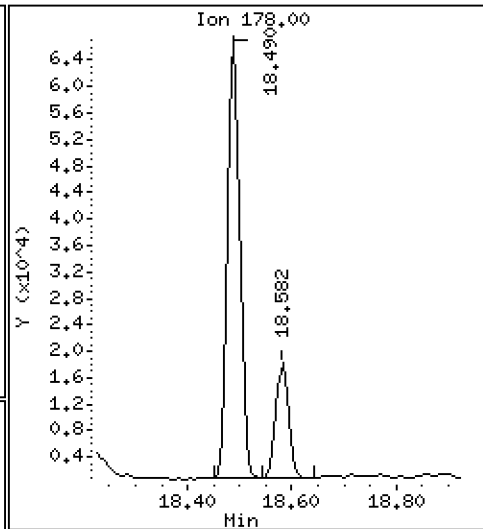
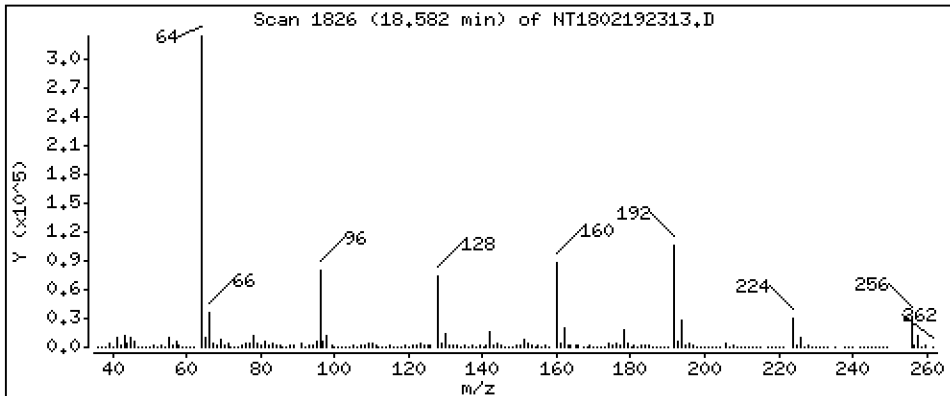
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,2246 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

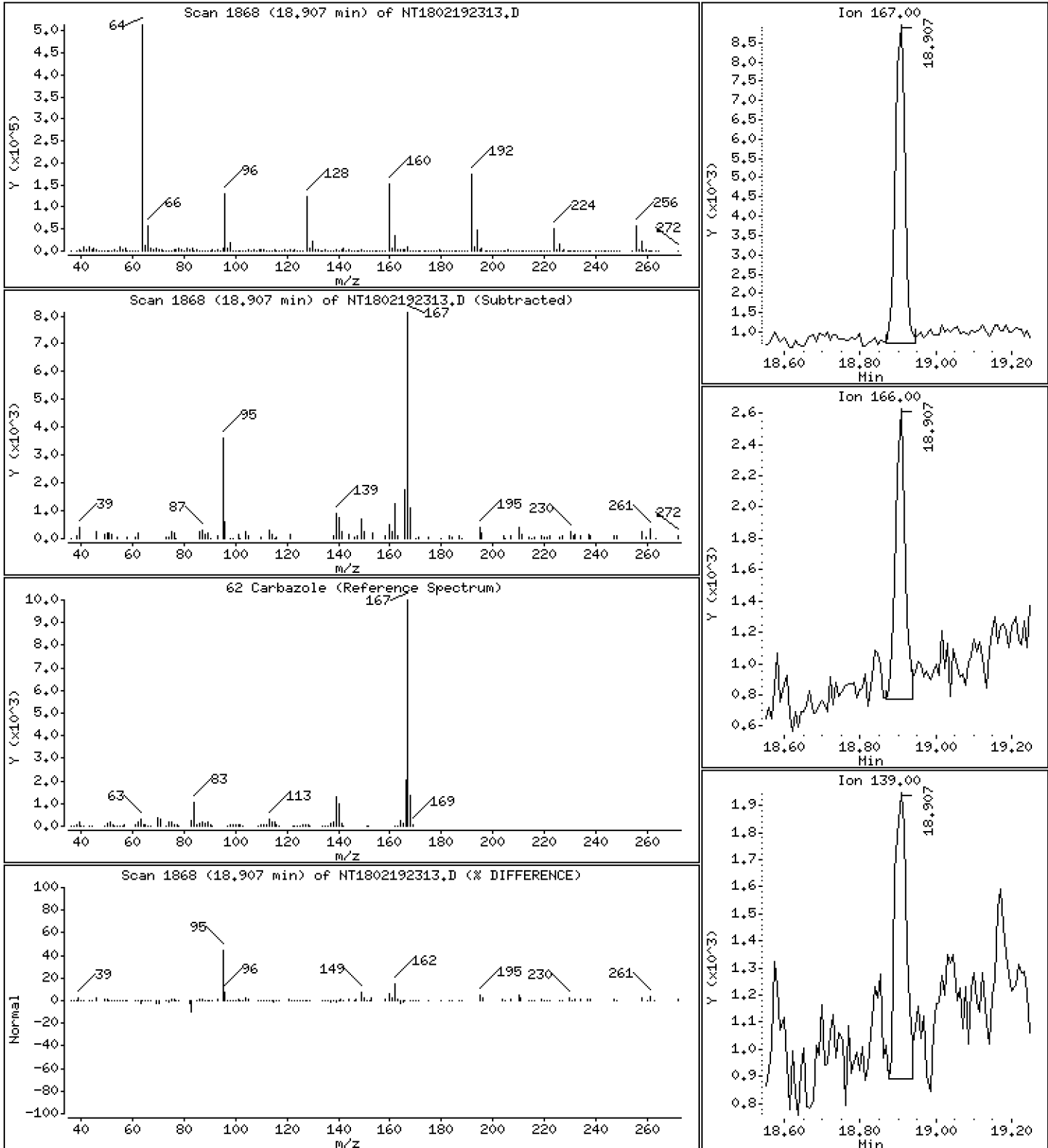
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,1058 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

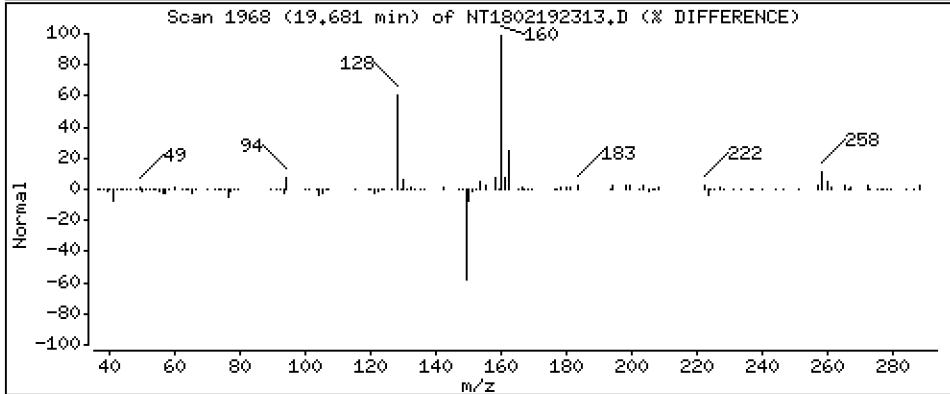
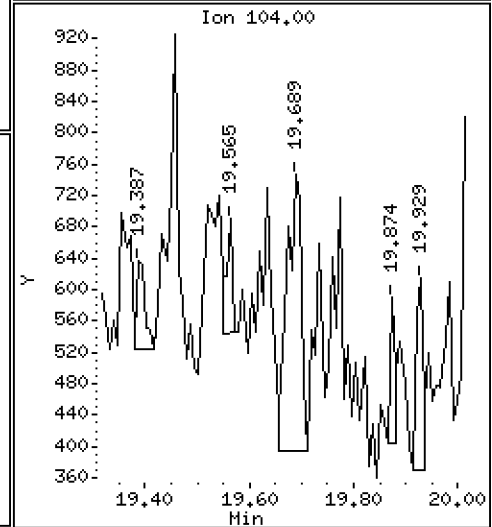
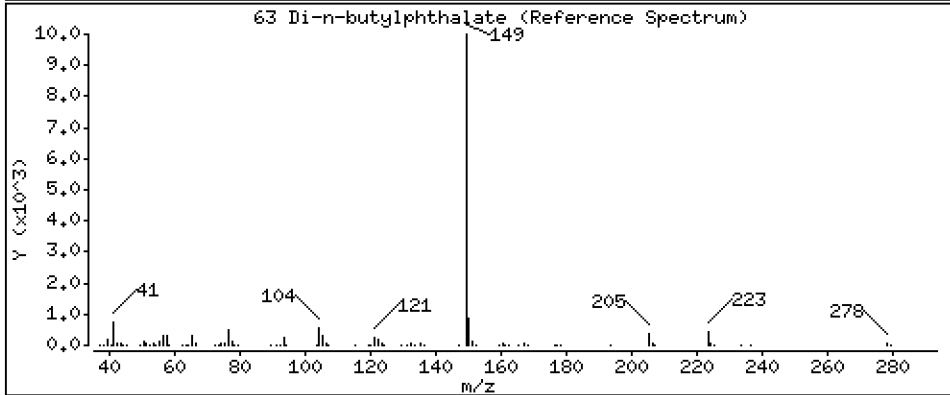
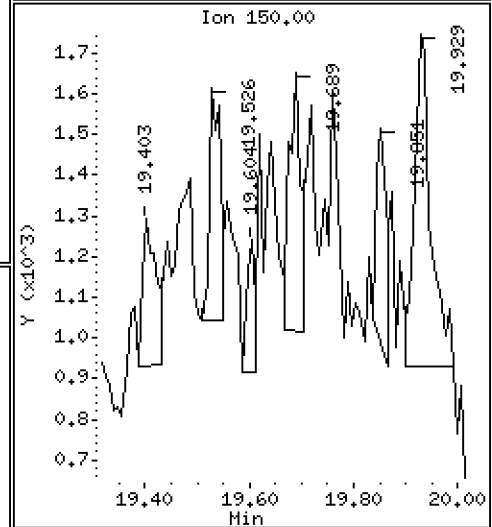
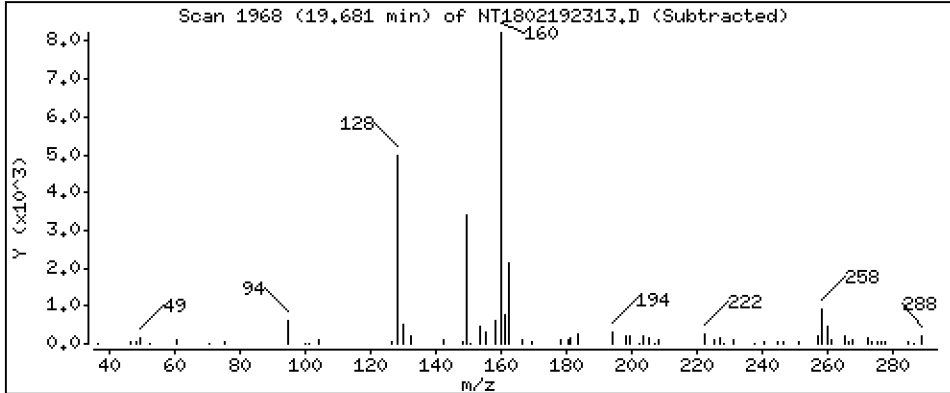
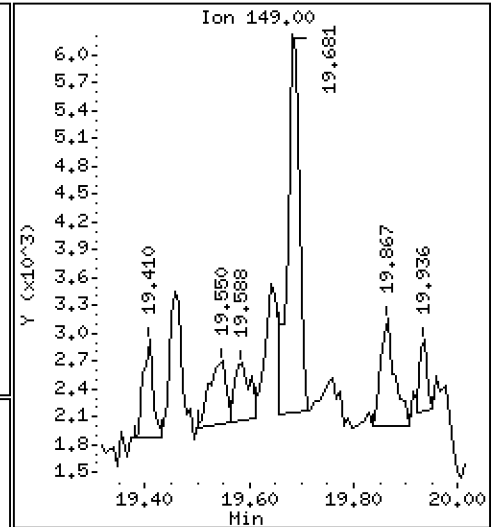
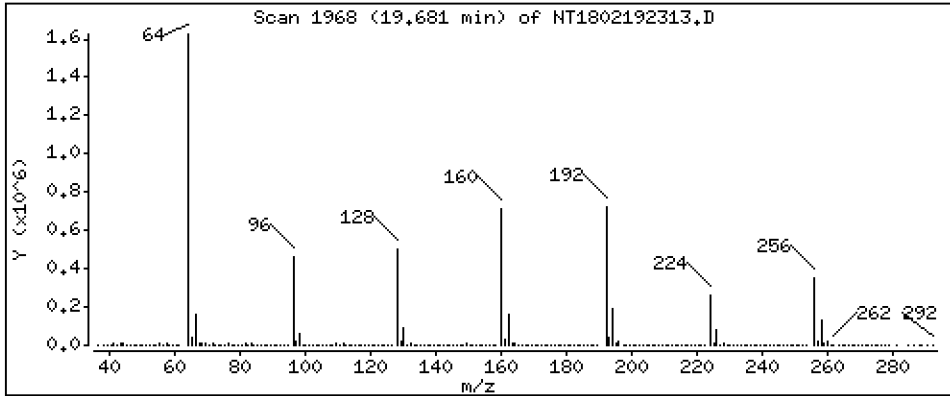
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

63 Di-n-butylphthalate

Concentration: 0.04048 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

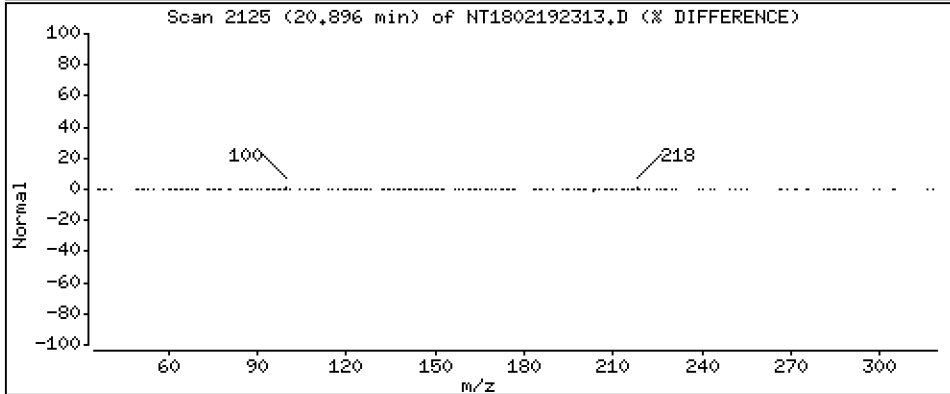
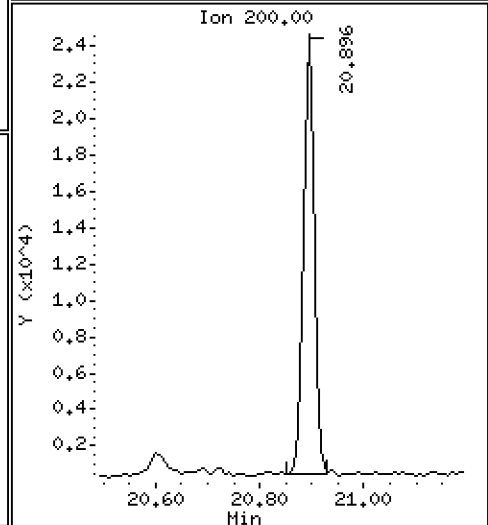
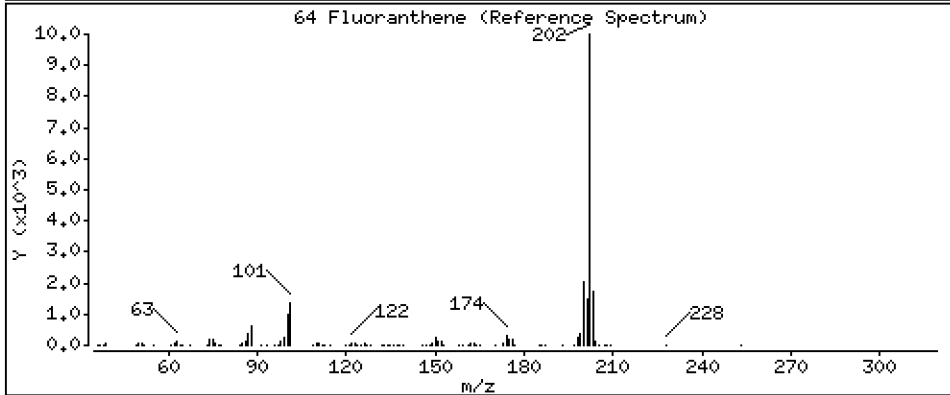
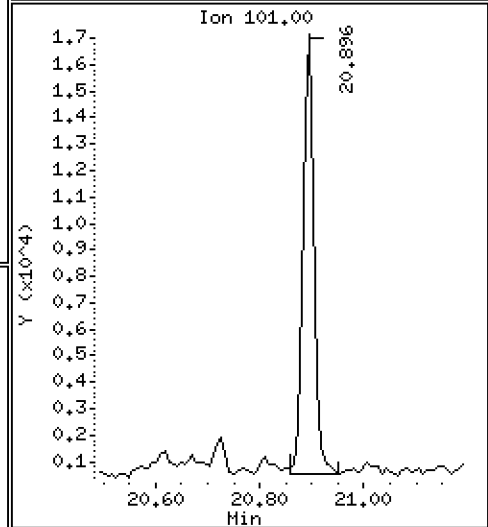
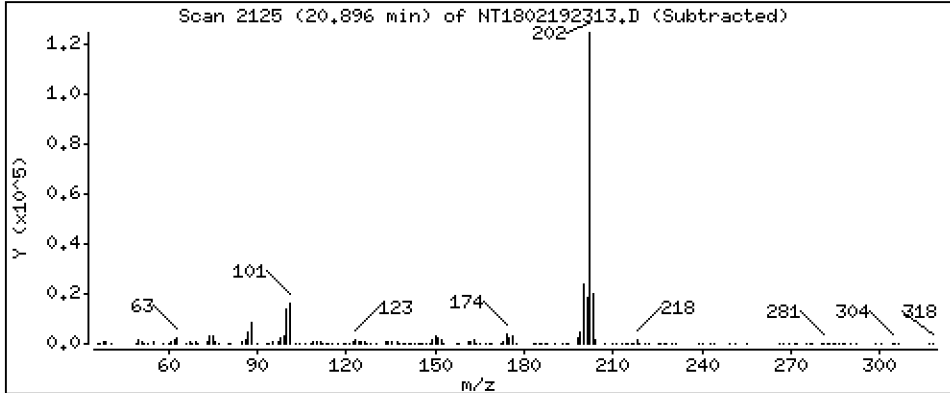
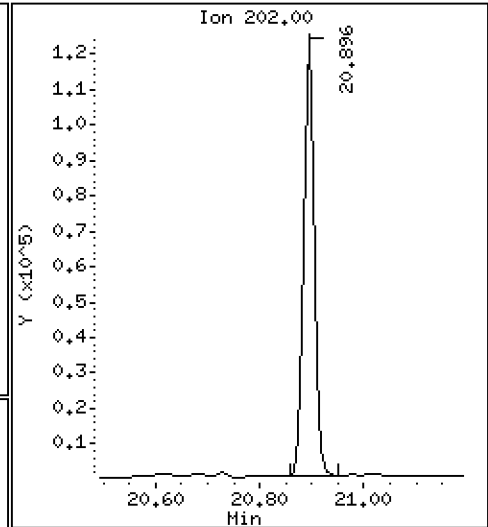
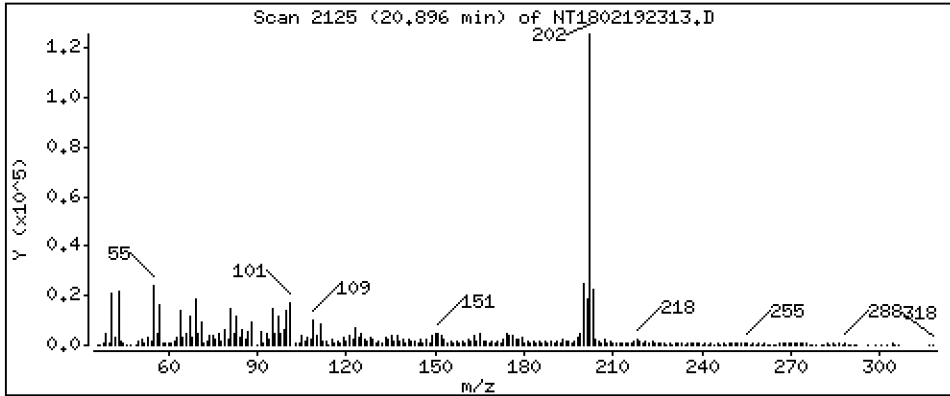
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 1,272 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

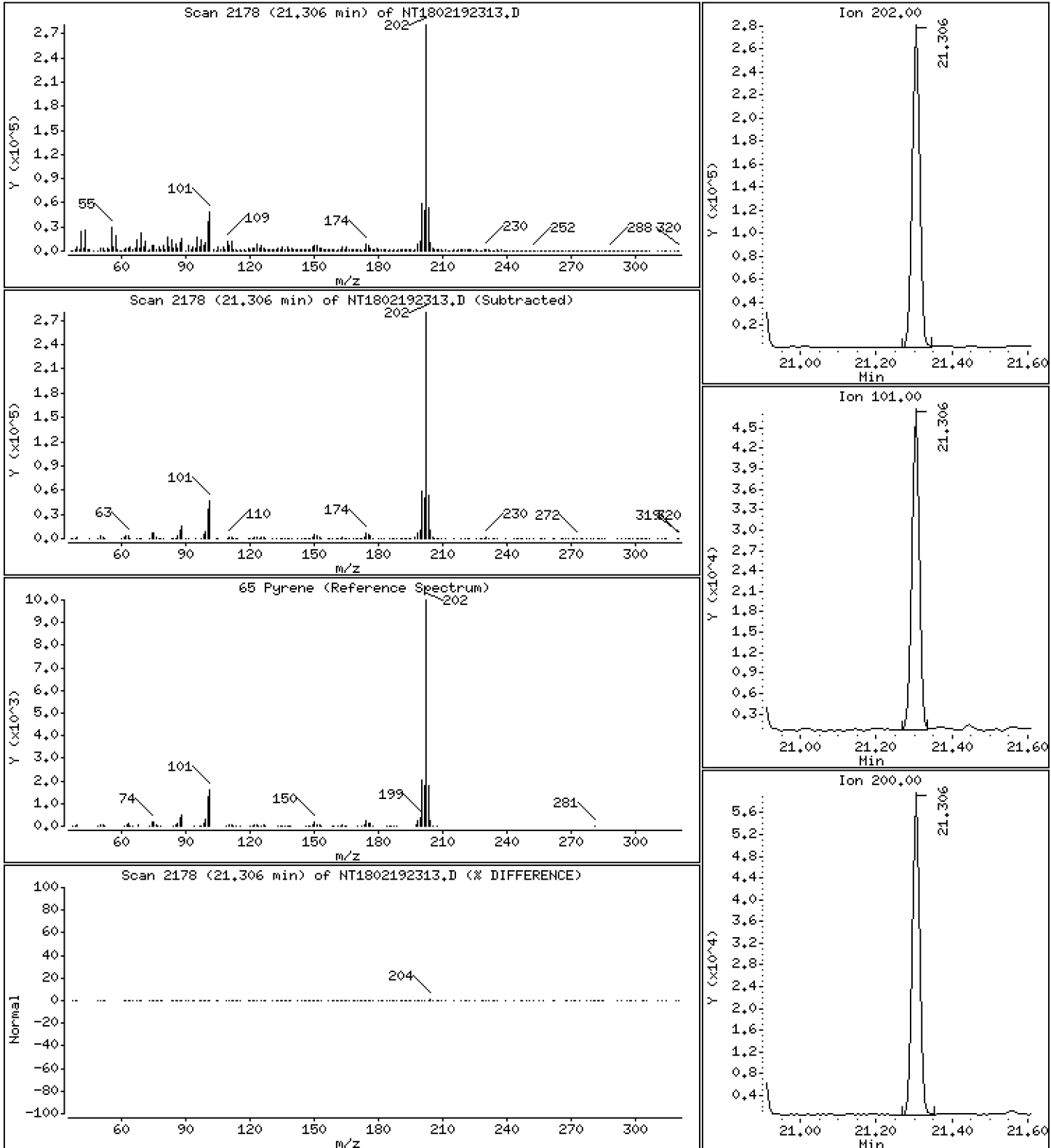
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 2,622 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

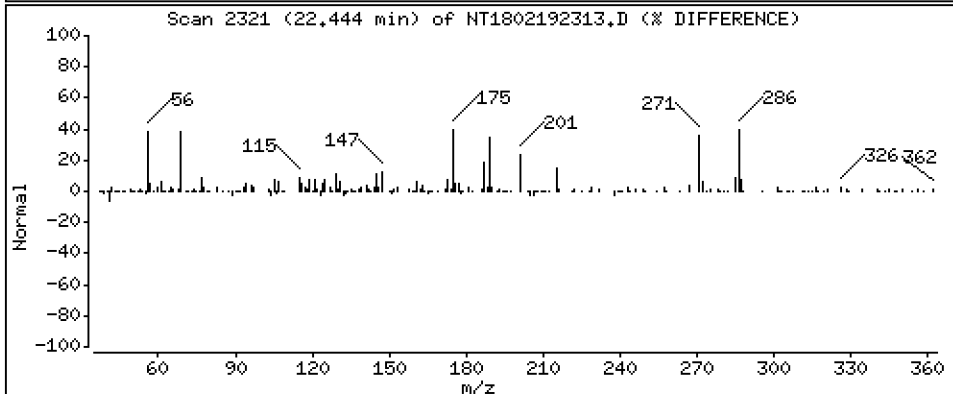
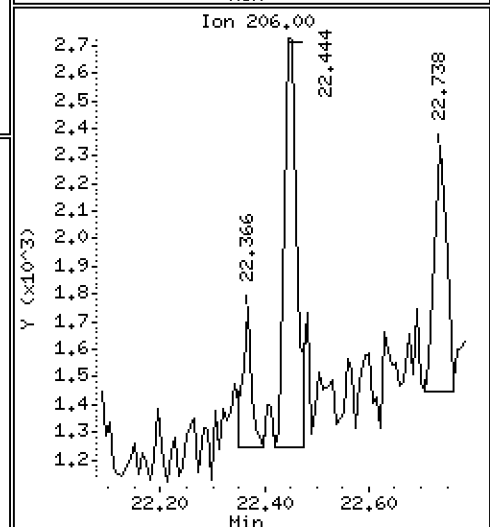
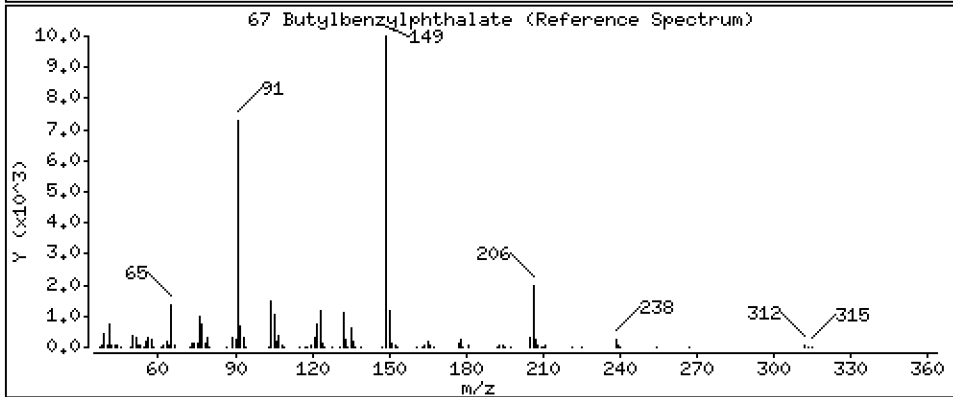
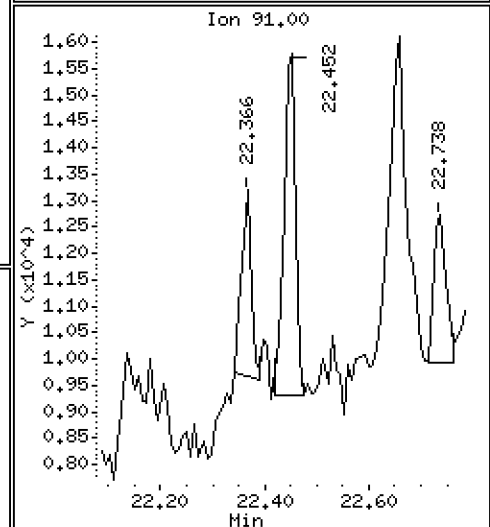
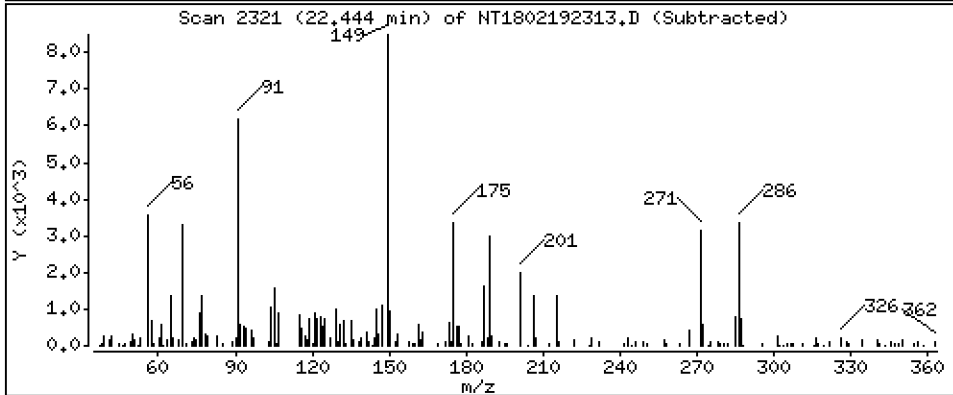
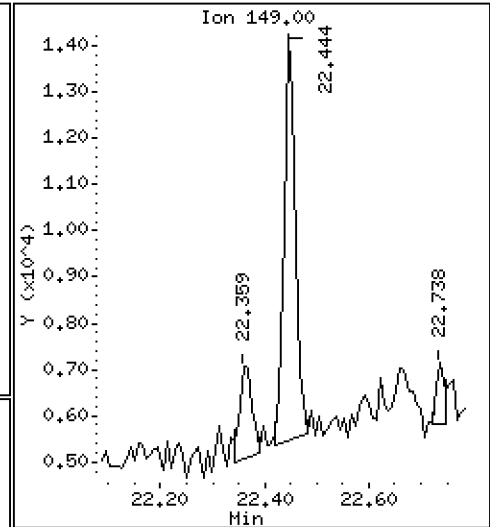
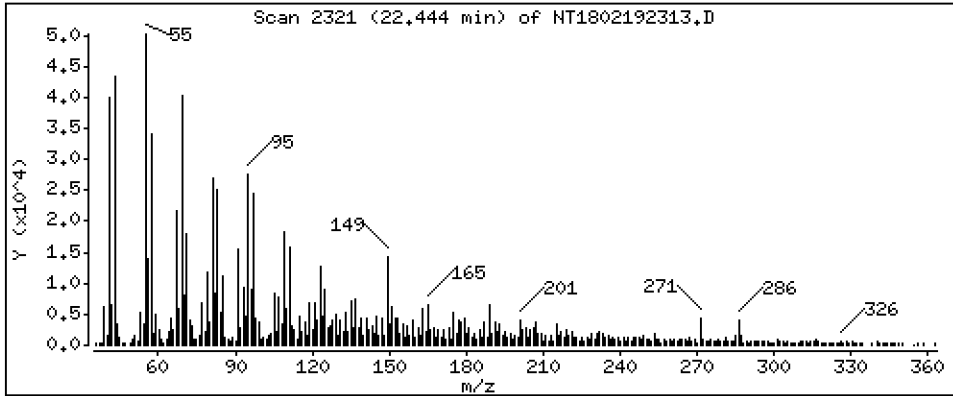
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 0,1823 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

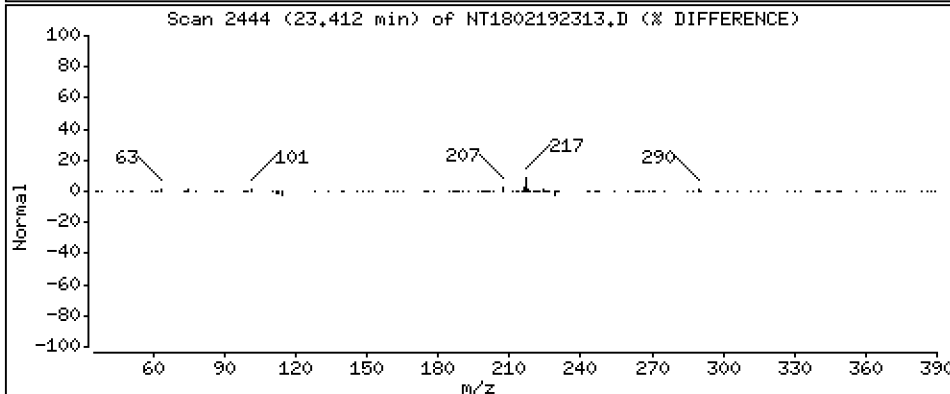
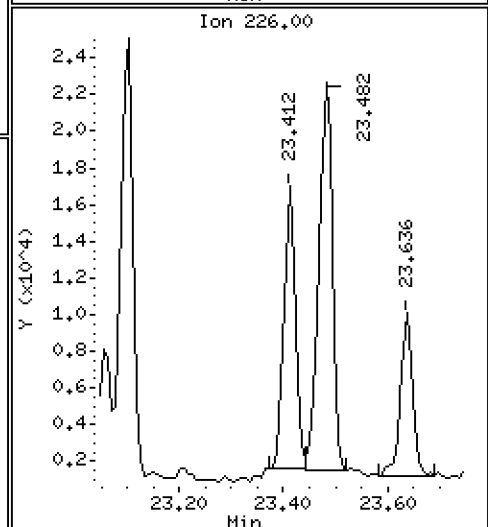
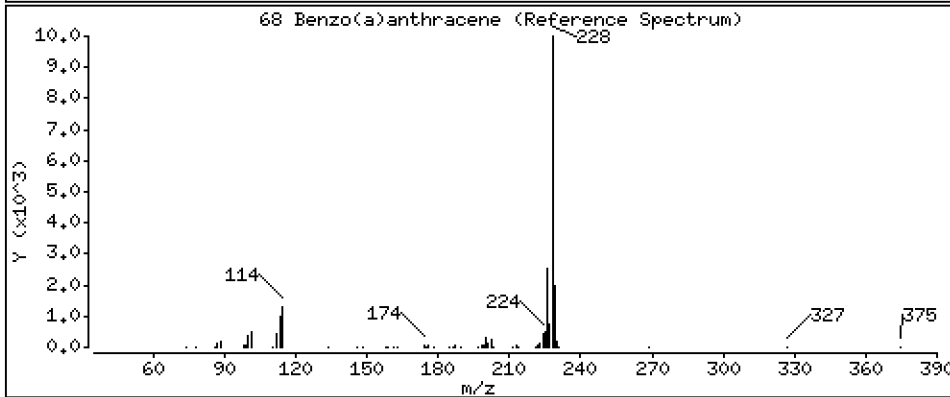
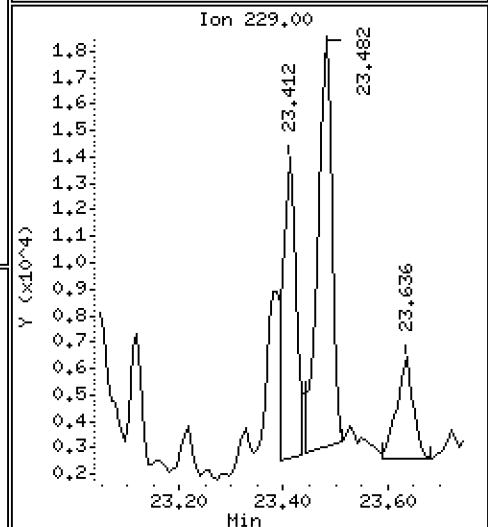
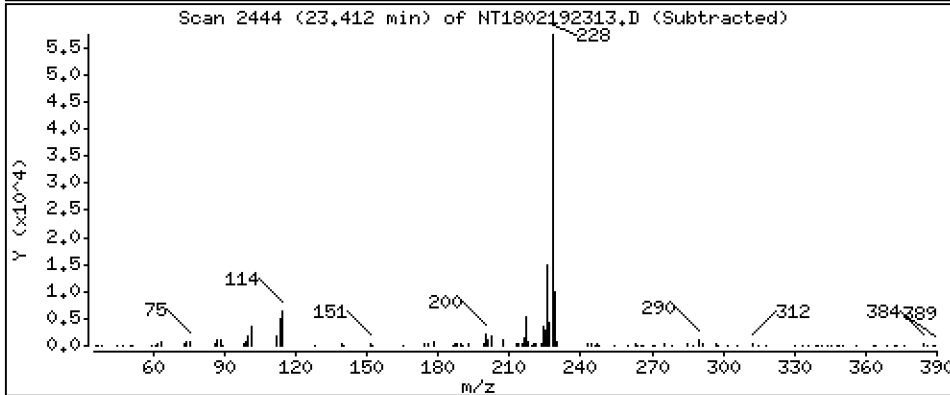
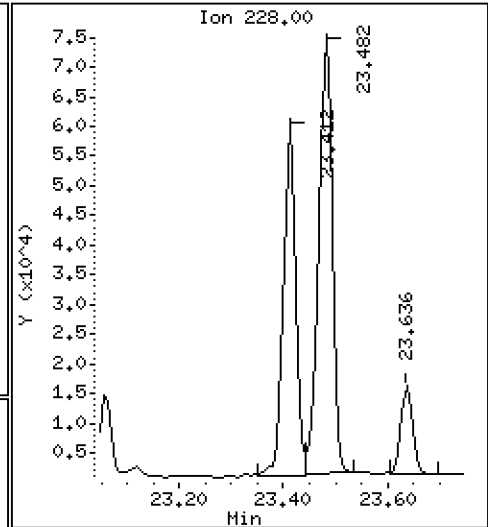
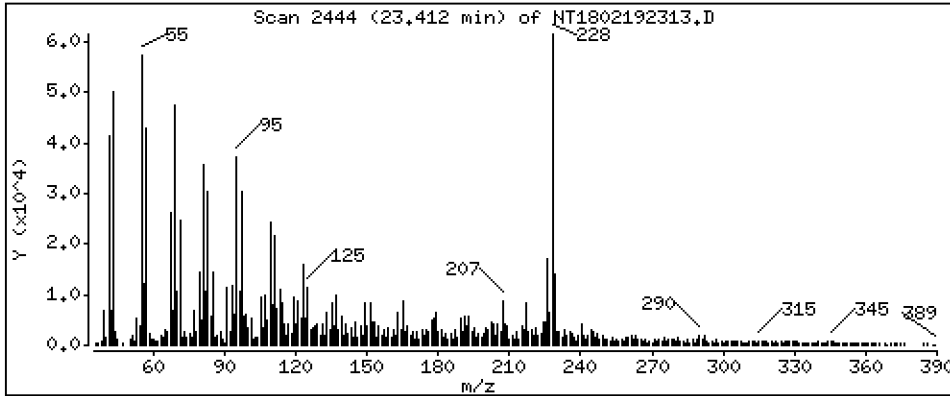
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

68 Benzo(a)anthracene

Concentration: 0.6318 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

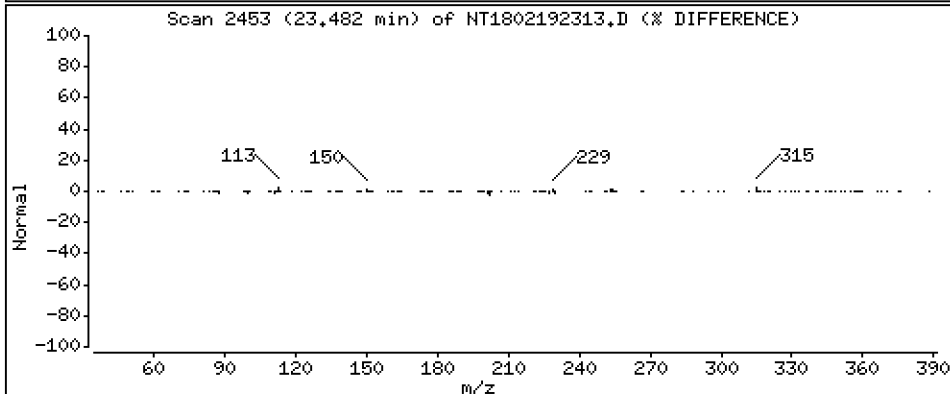
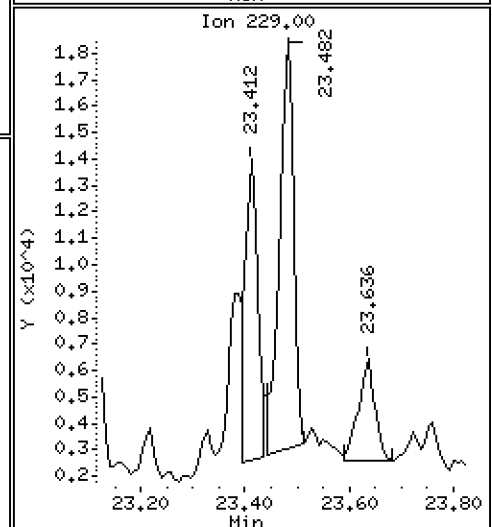
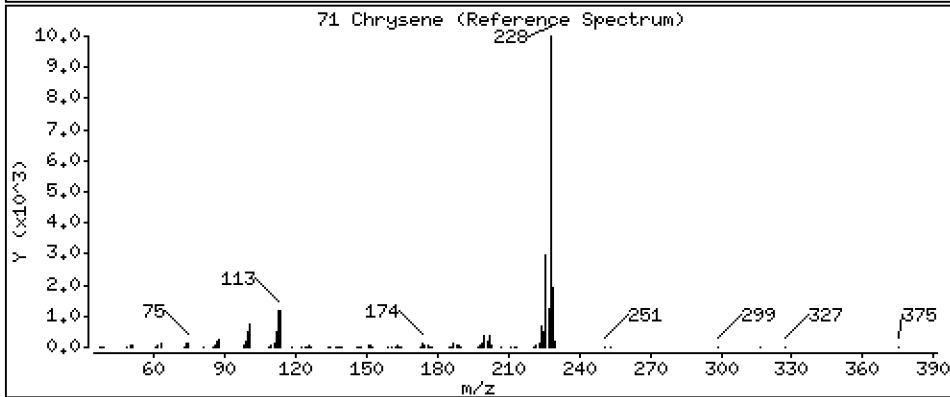
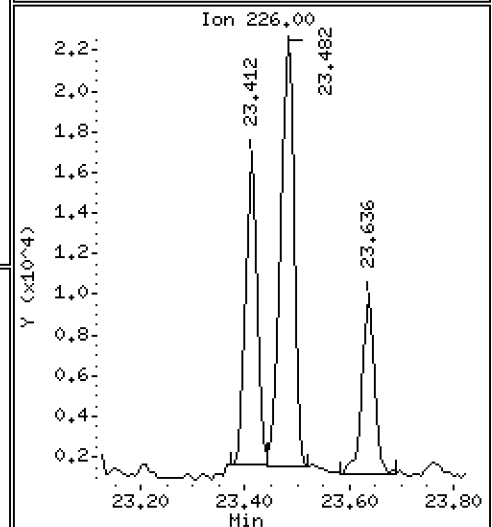
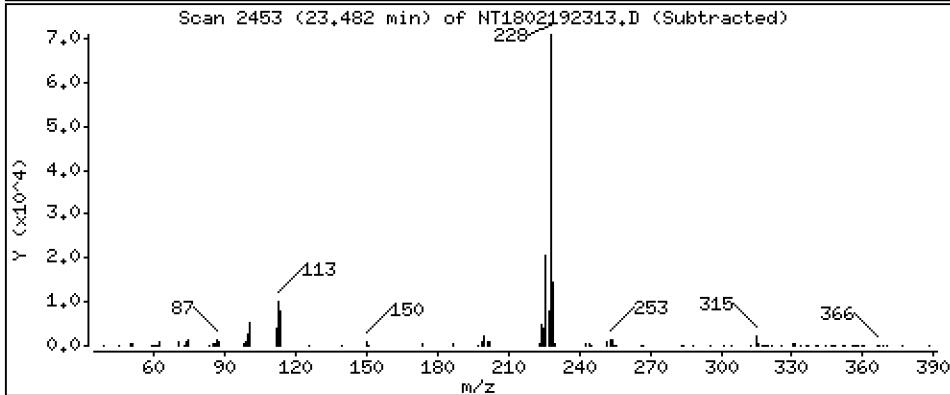
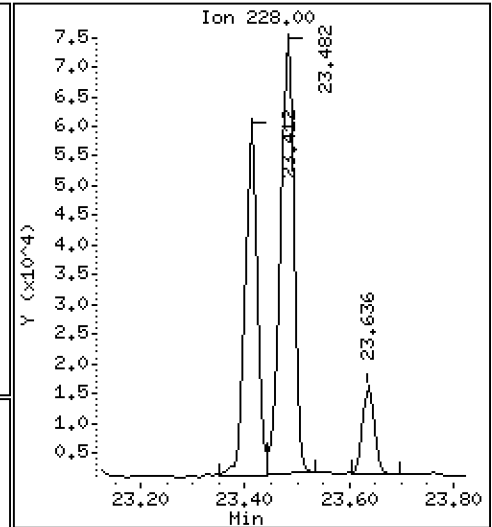
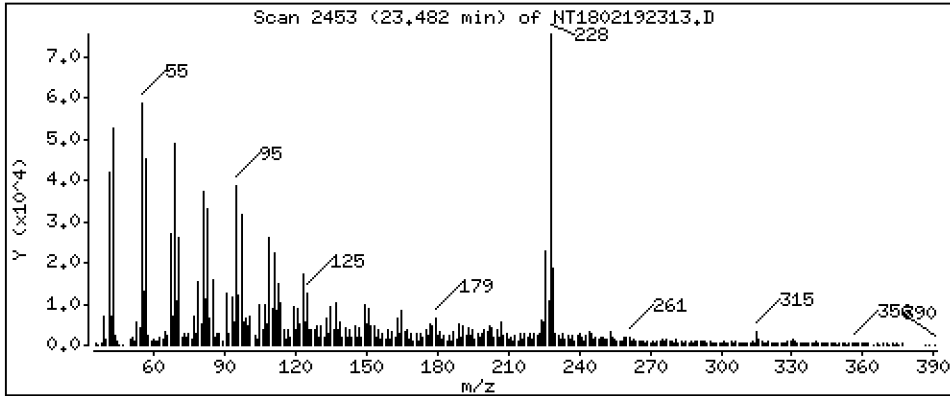
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,7984 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

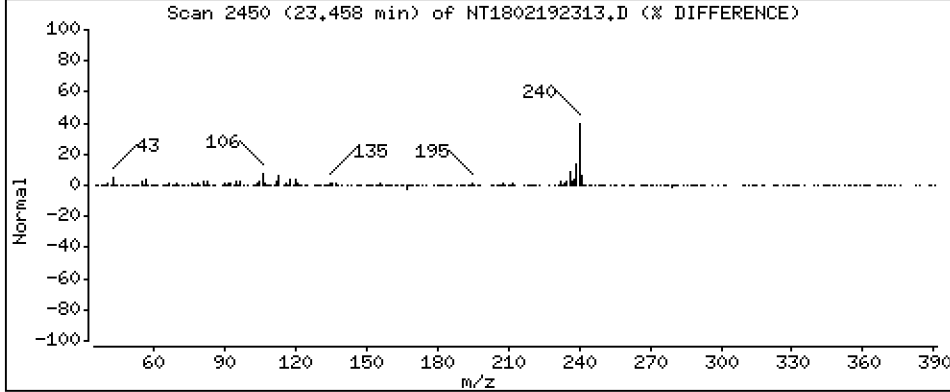
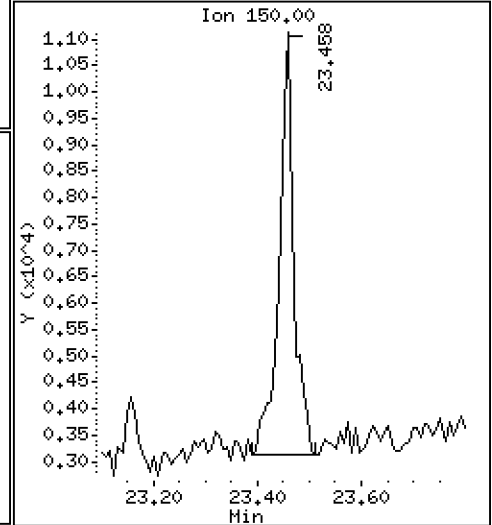
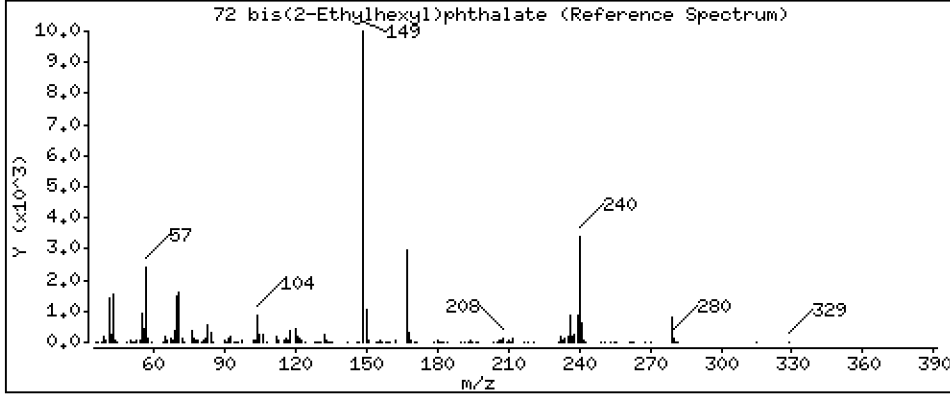
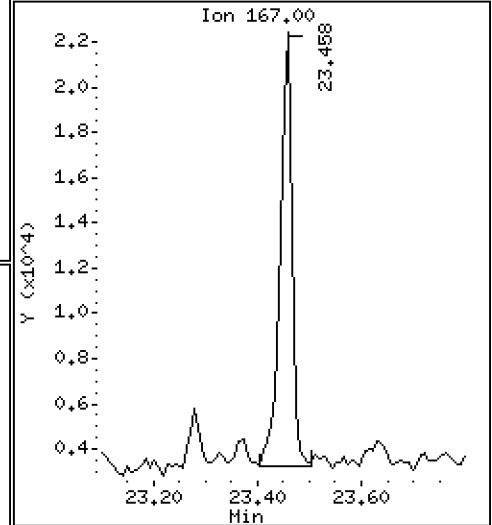
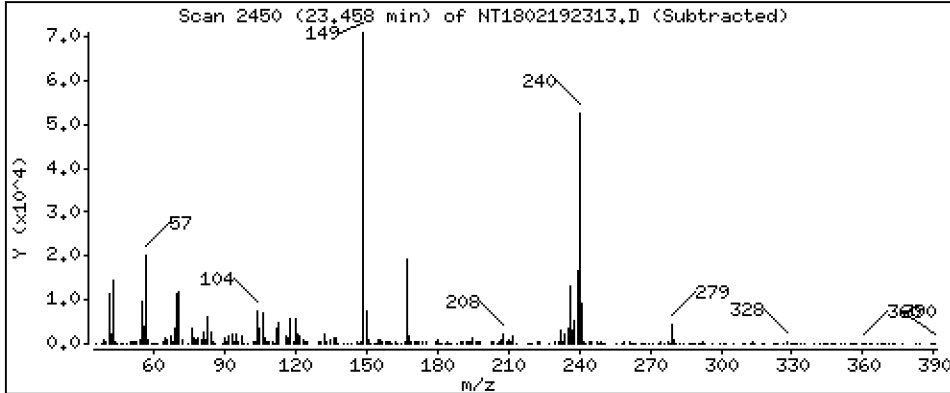
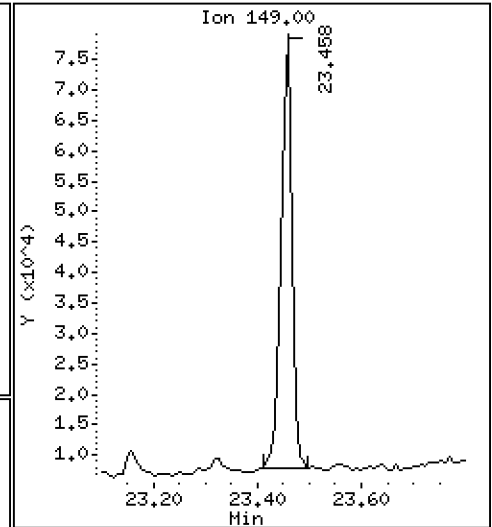
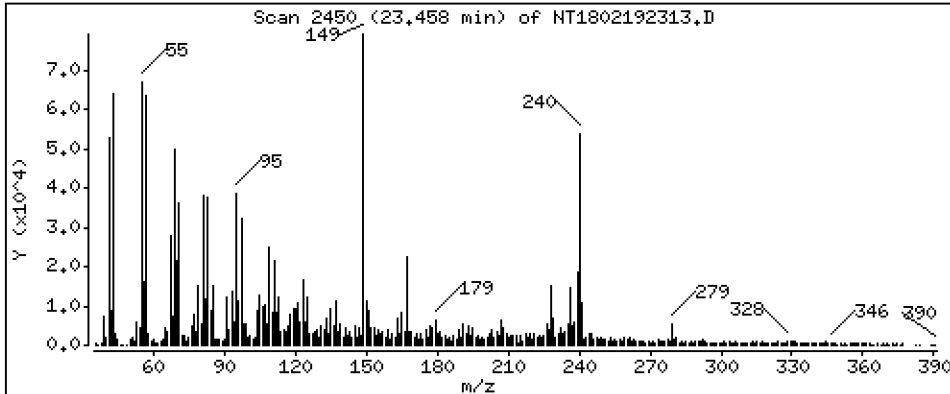
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,8814 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

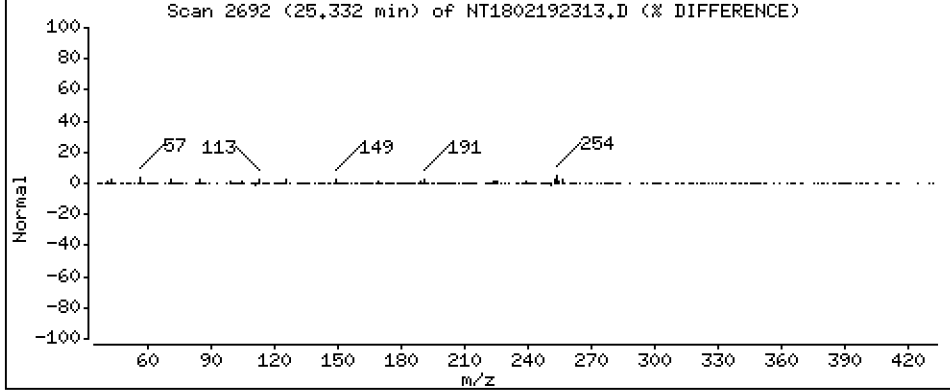
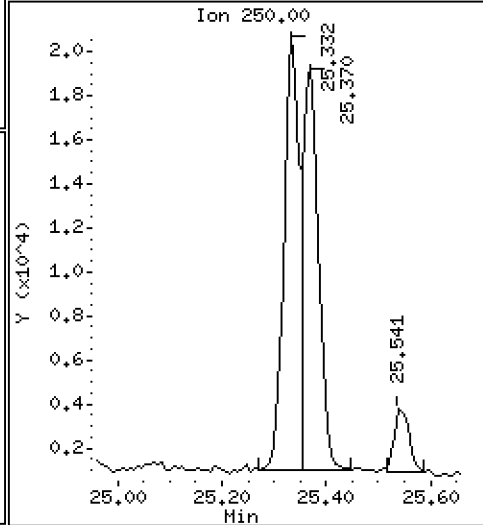
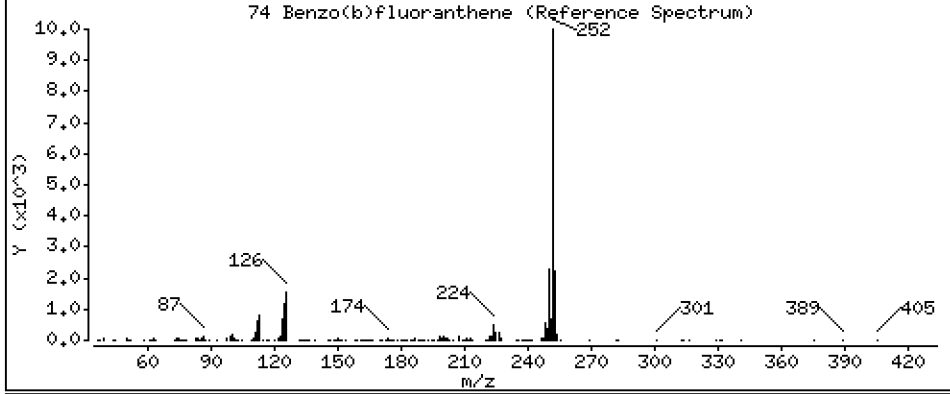
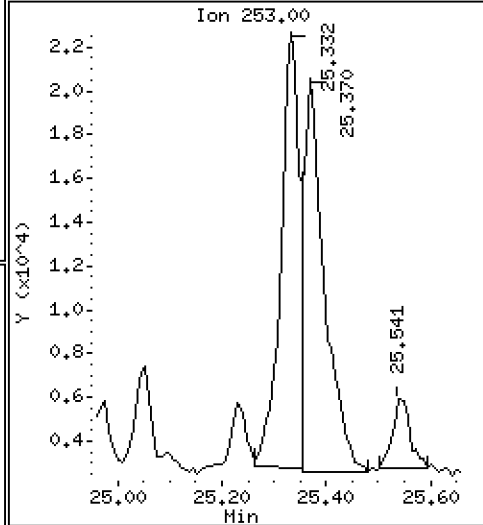
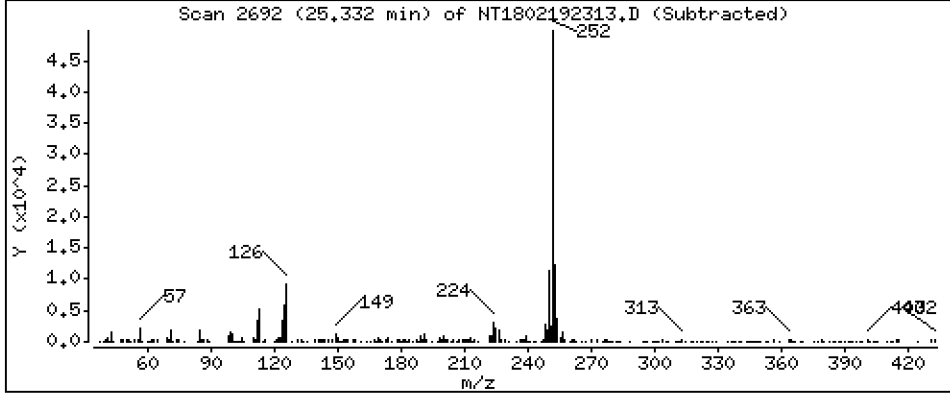
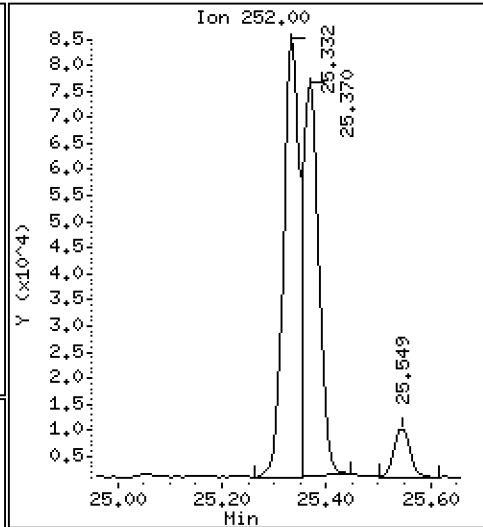
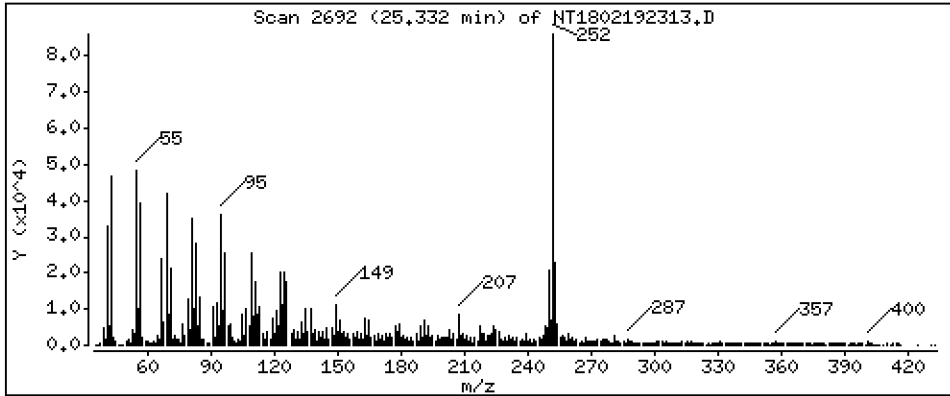
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 1,394 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

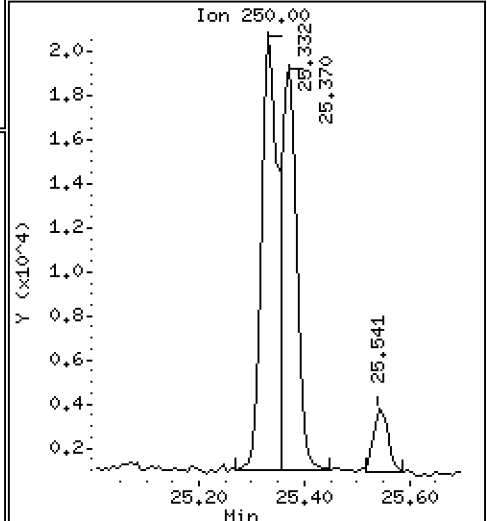
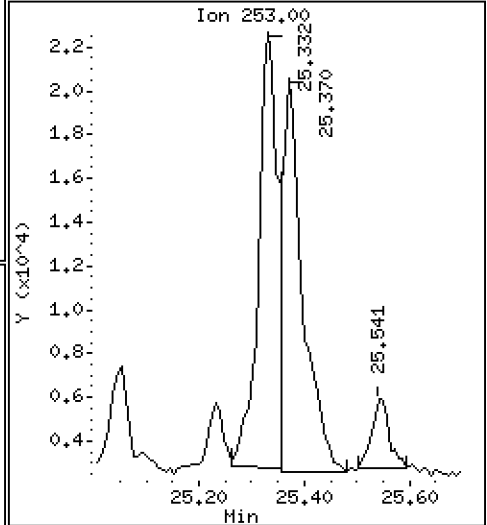
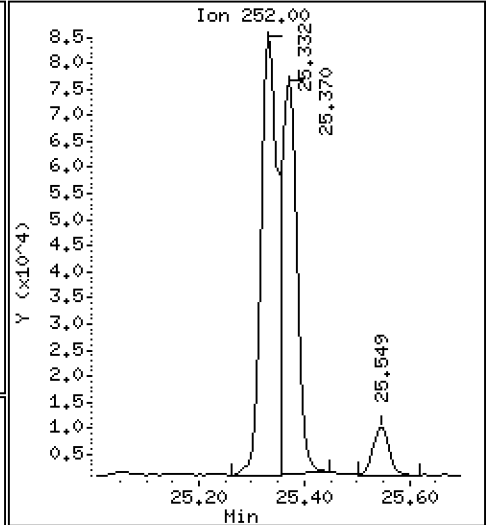
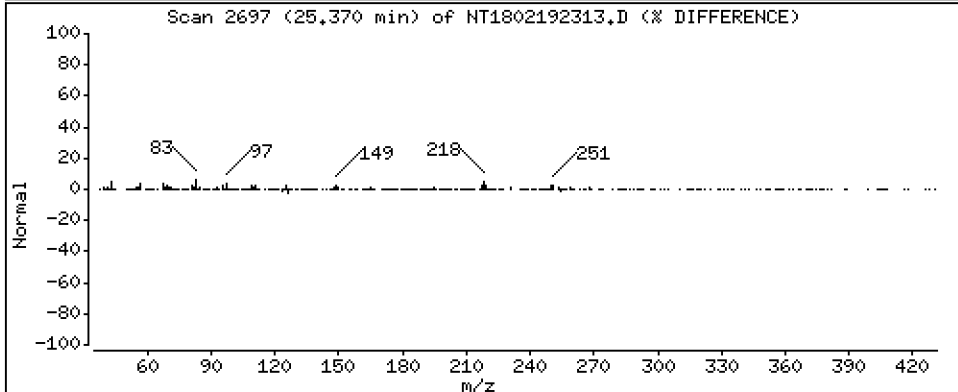
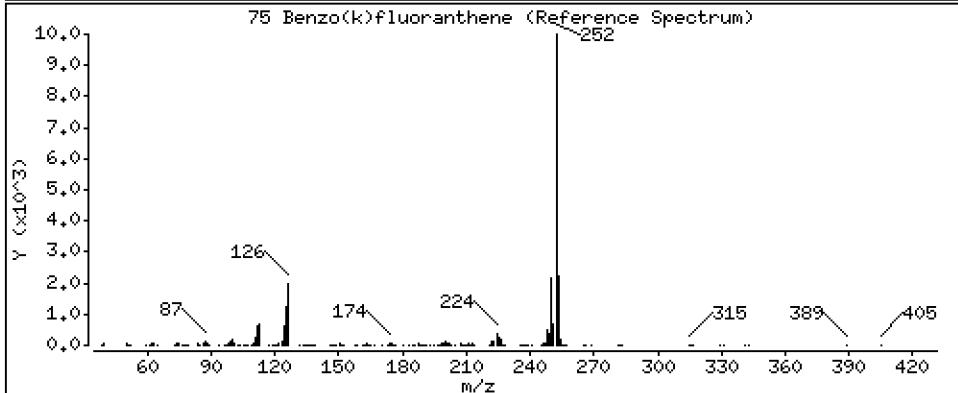
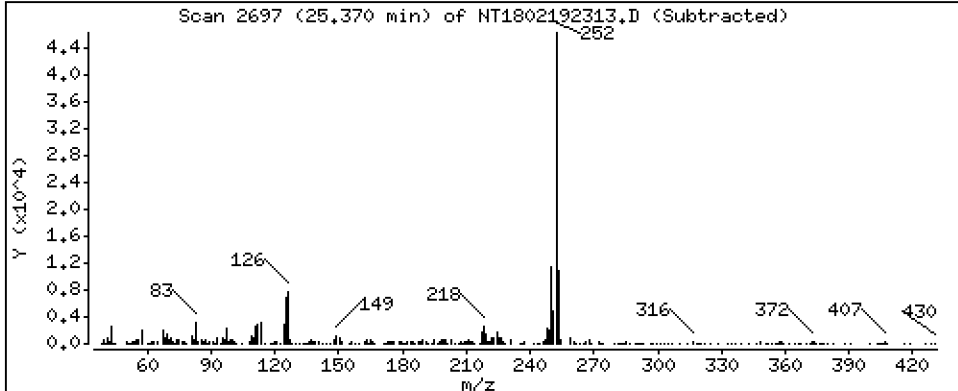
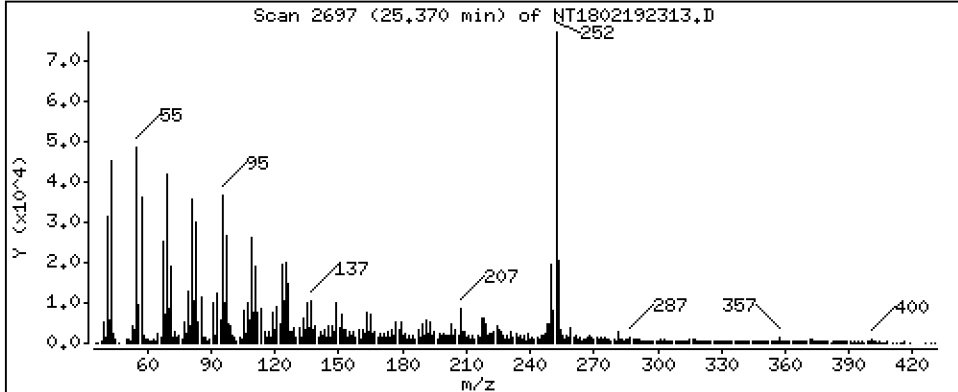
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 1,068 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

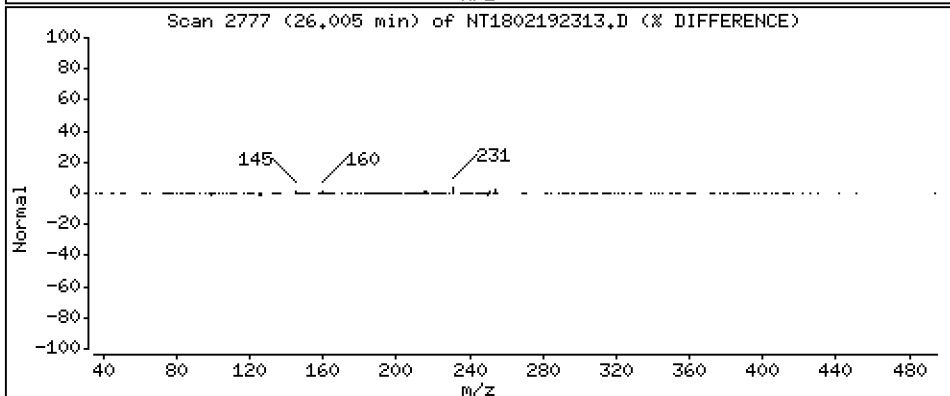
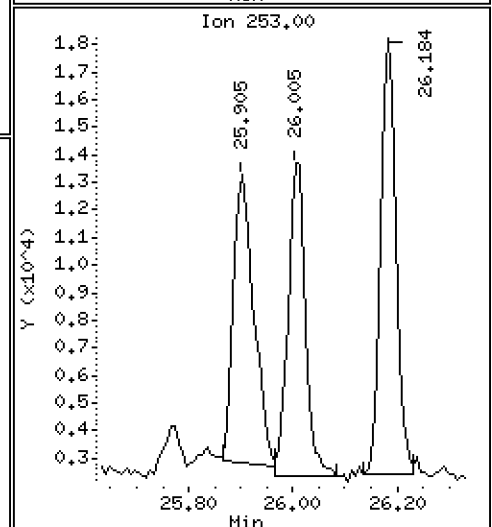
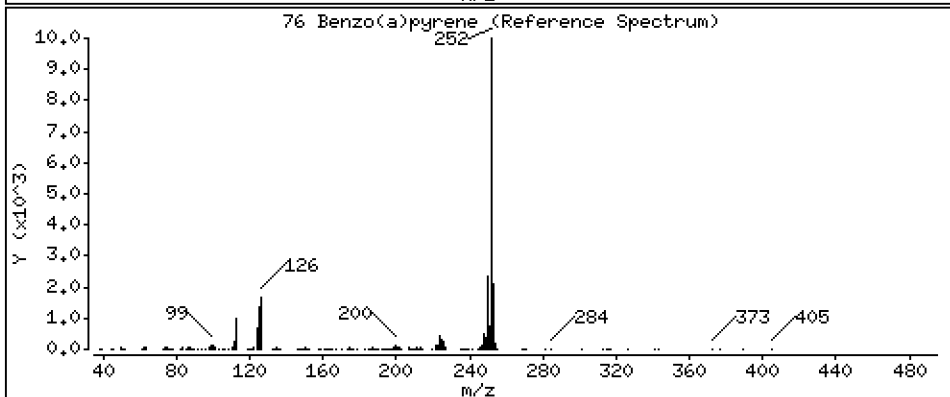
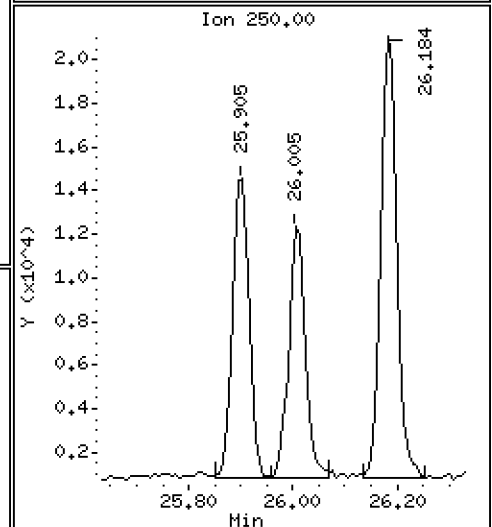
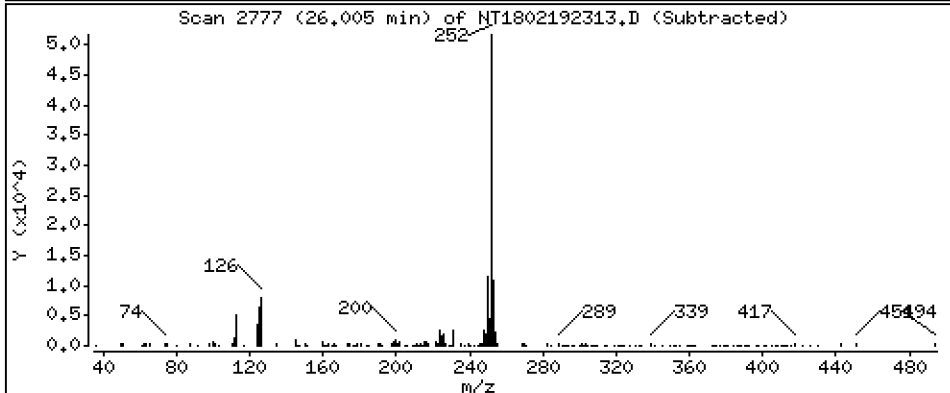
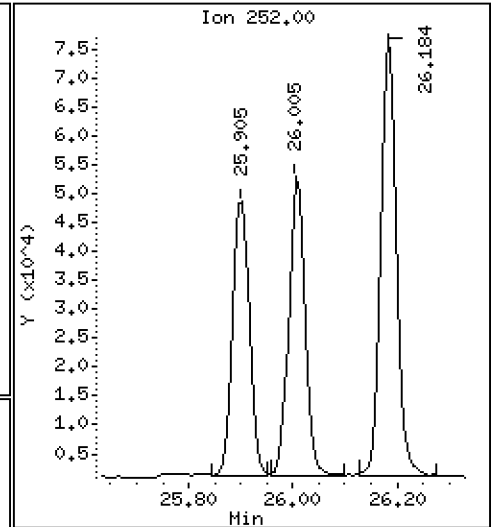
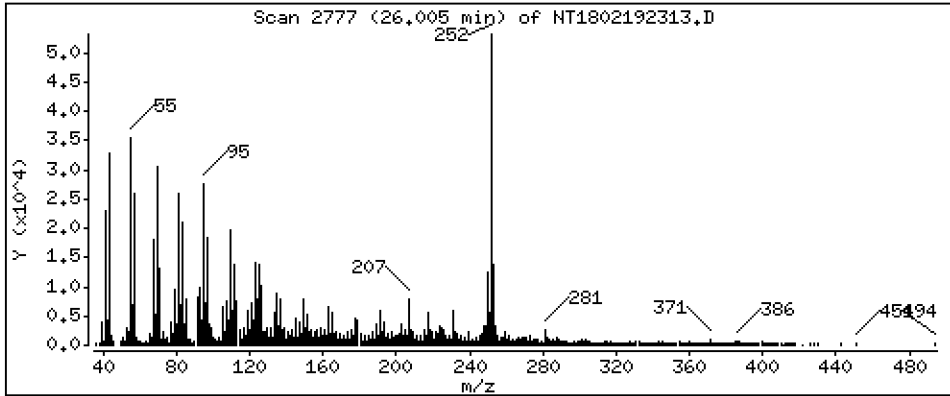
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 1,009 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

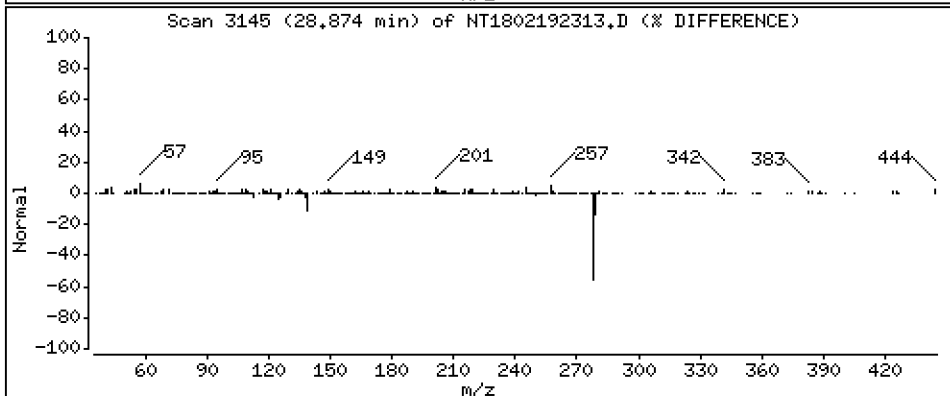
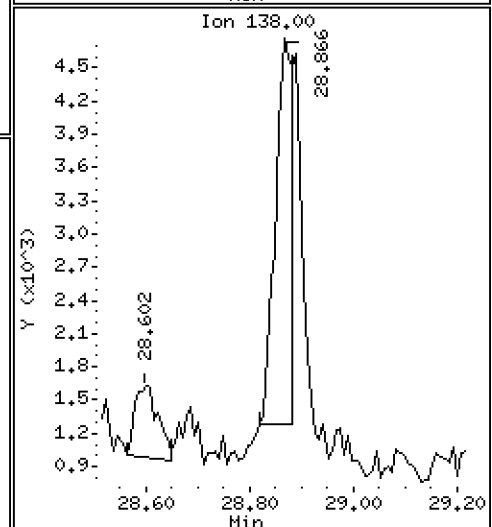
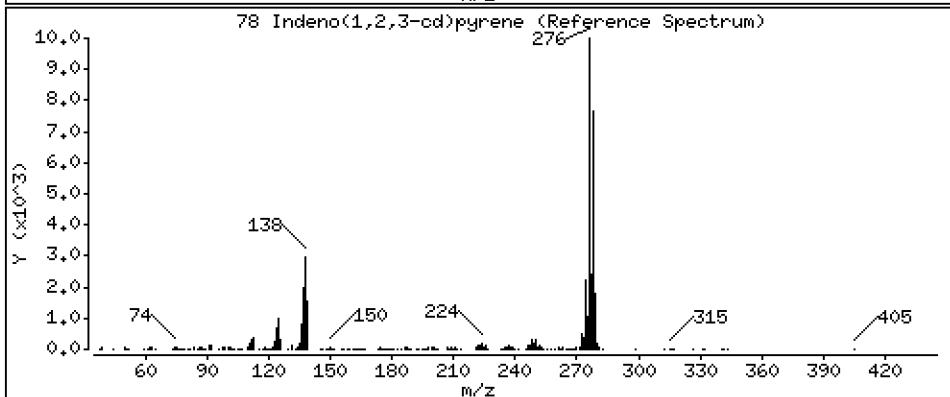
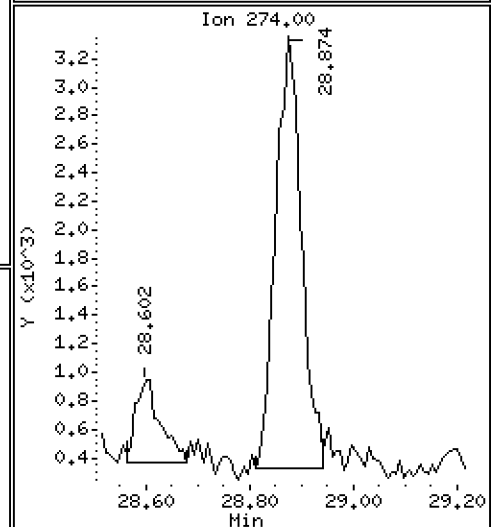
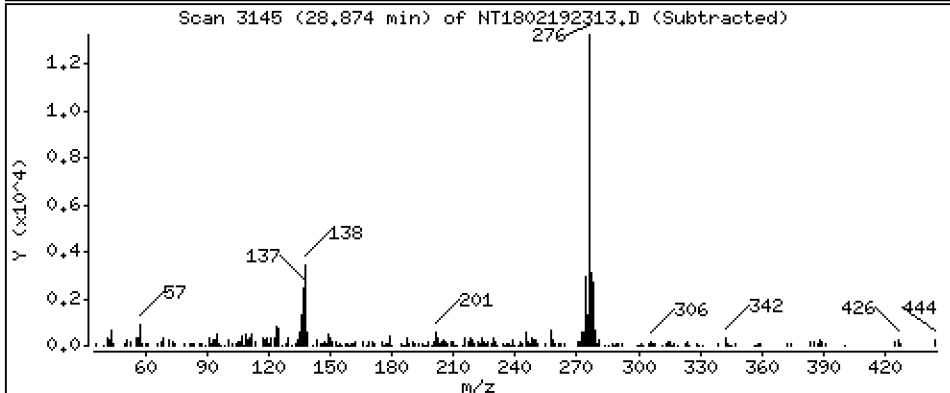
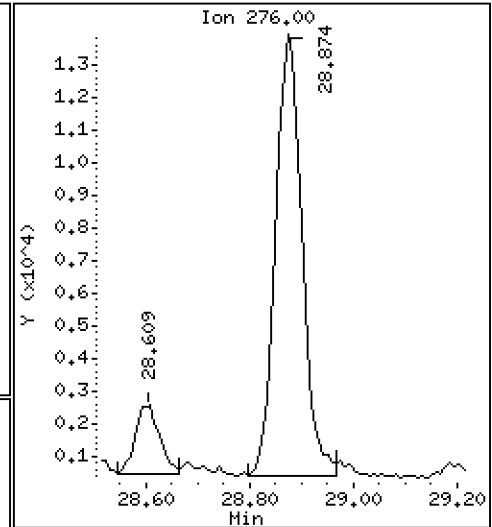
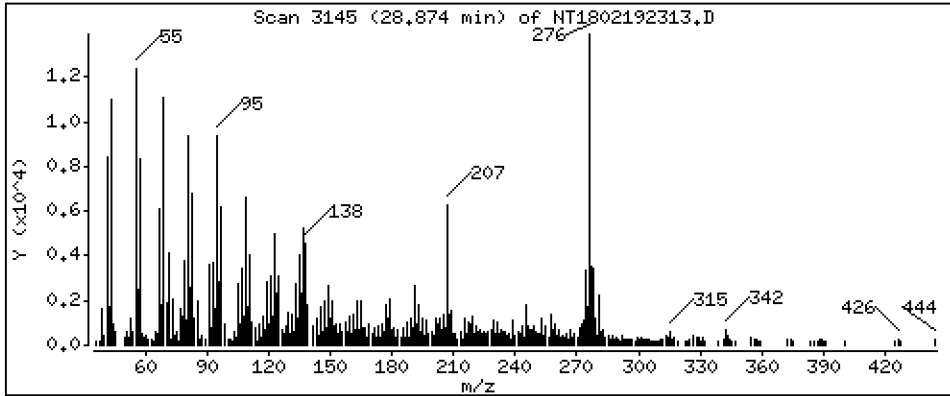
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 0,4407 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

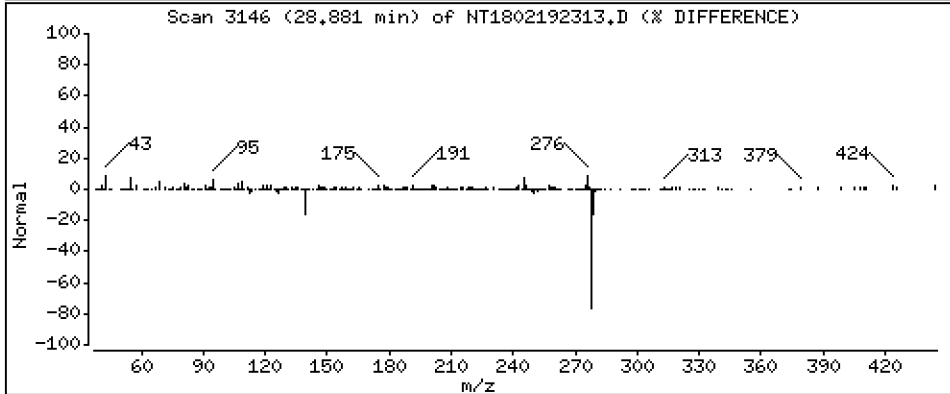
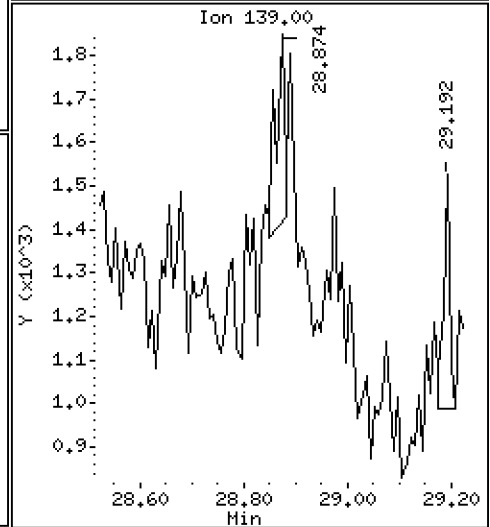
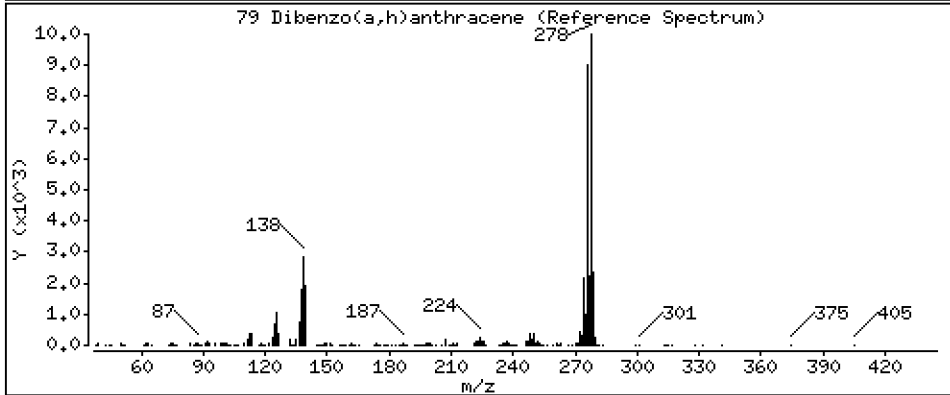
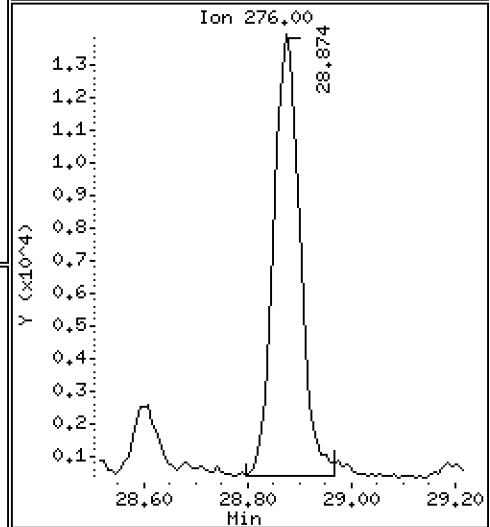
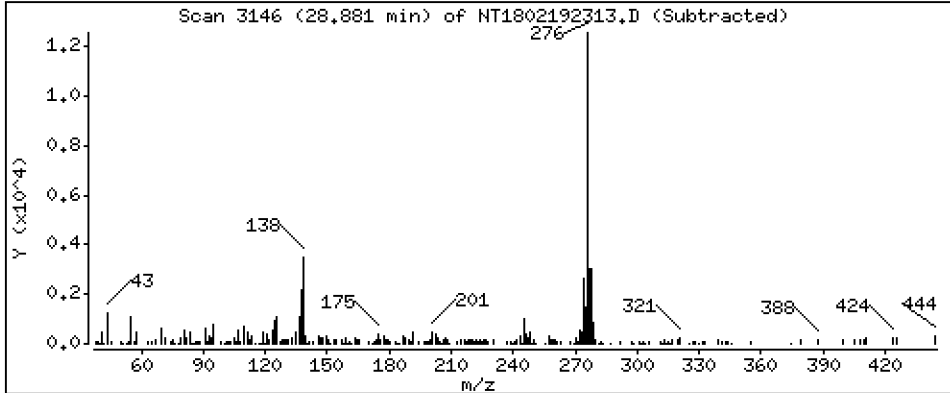
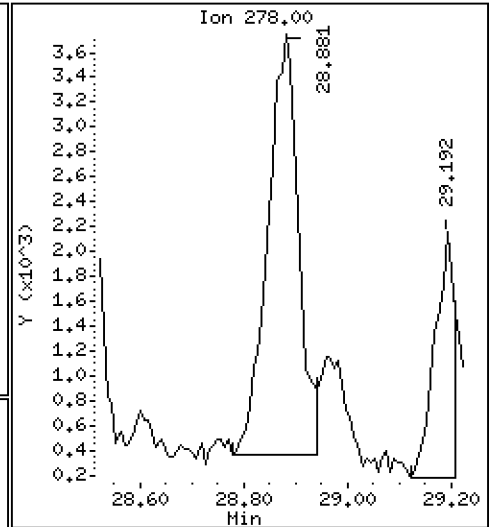
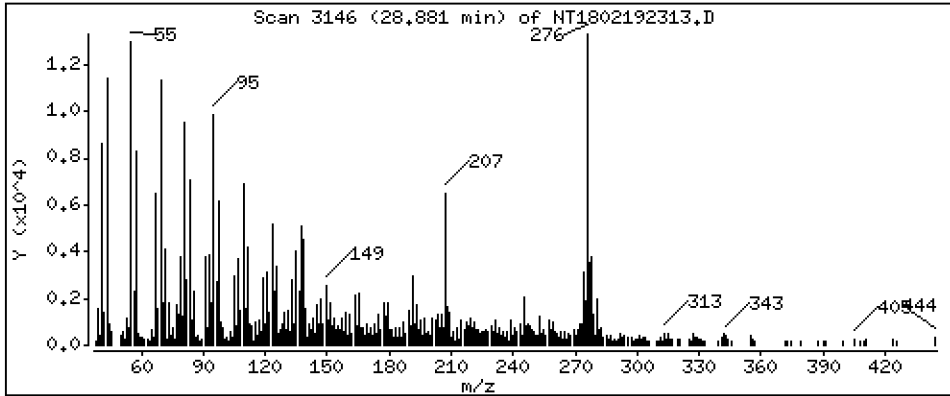
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

79 Dibenzo(a,h)anthracene

Concentration: 0.1579 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

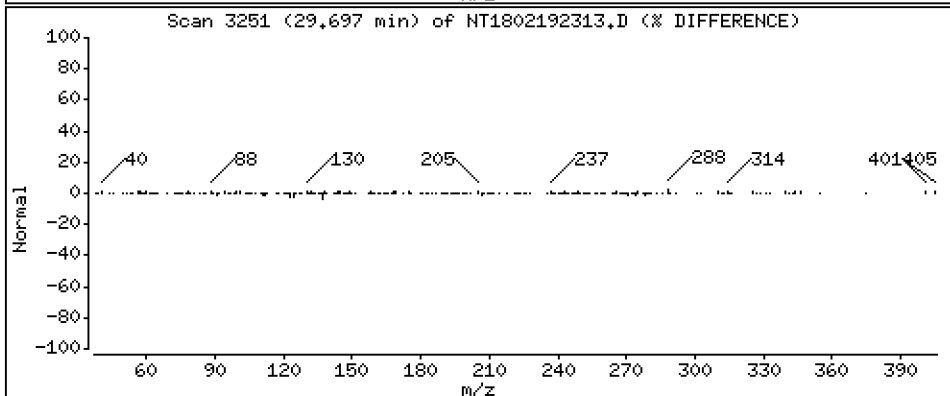
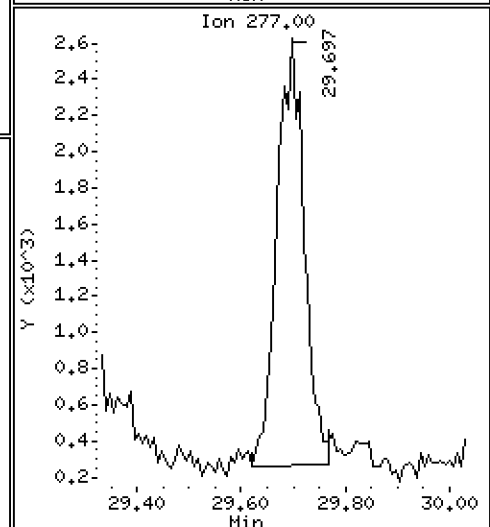
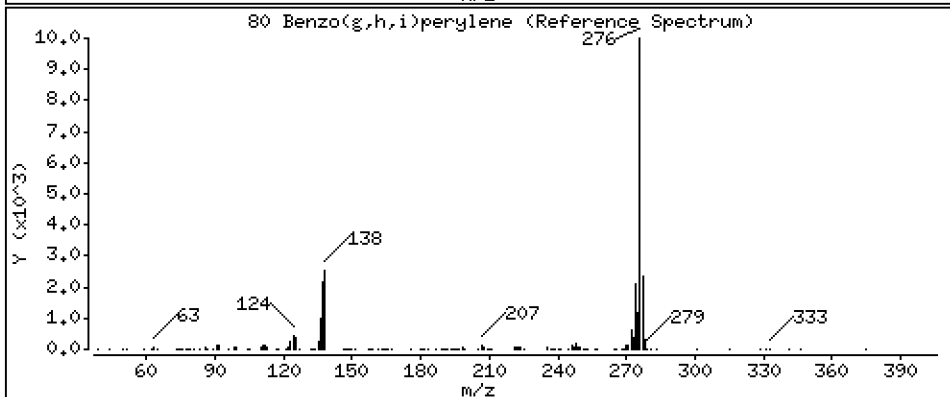
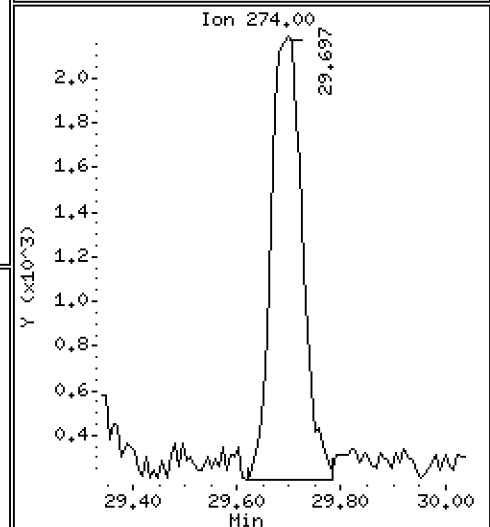
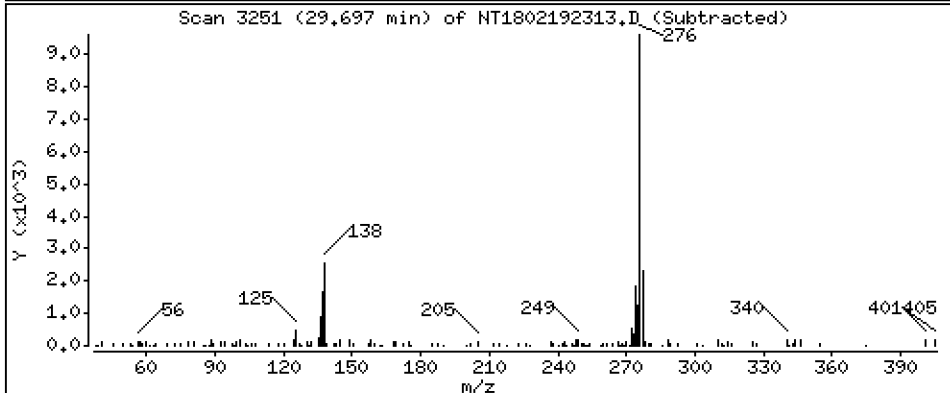
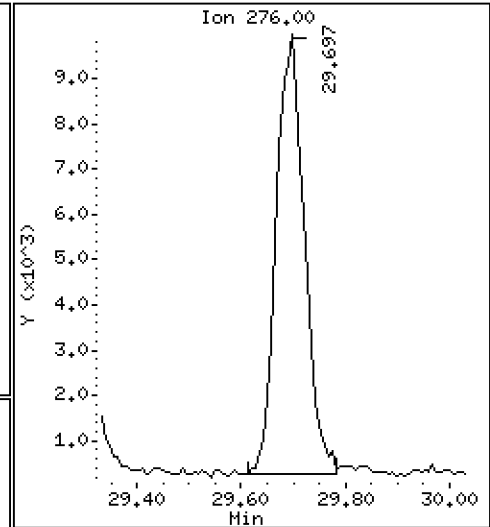
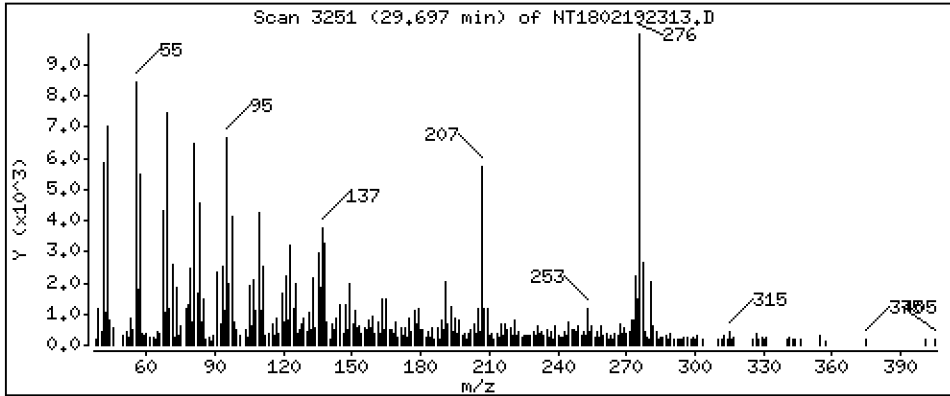
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,4486 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

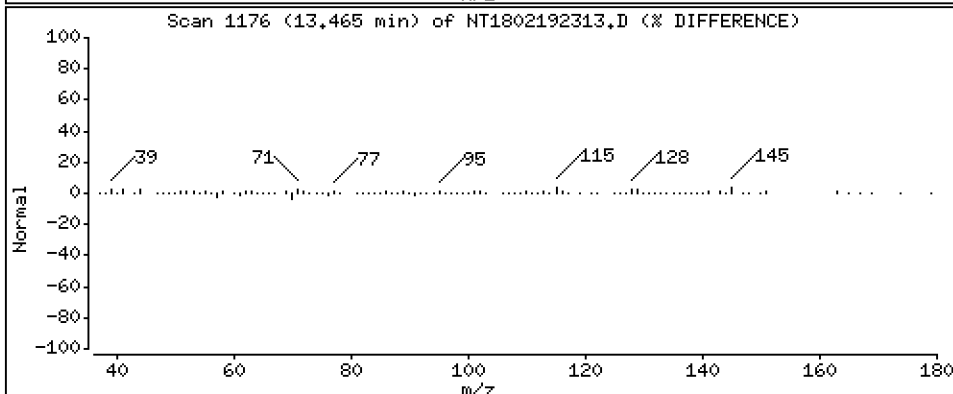
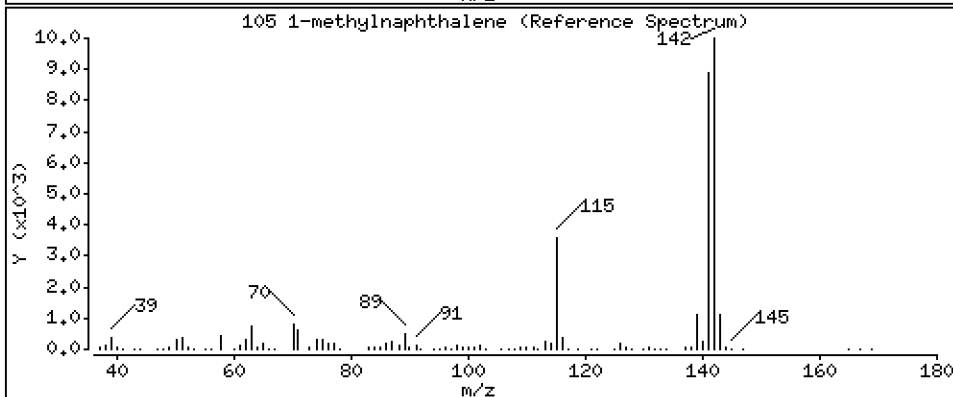
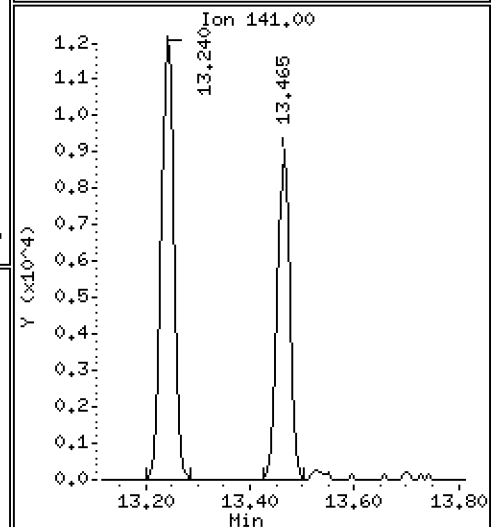
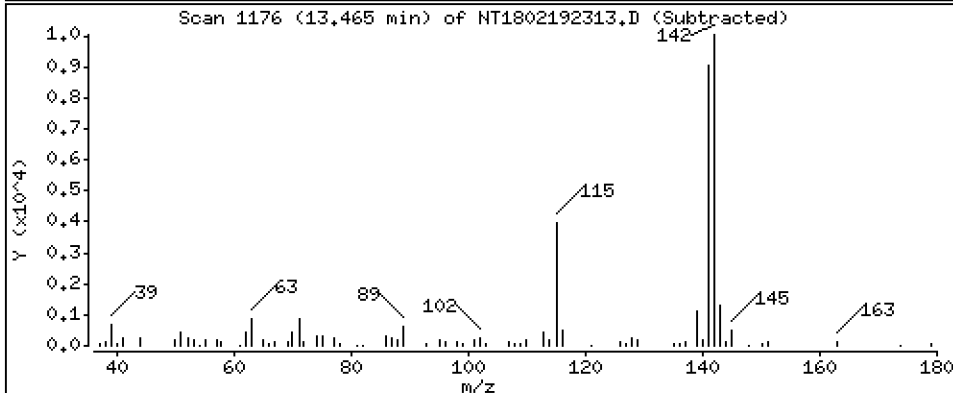
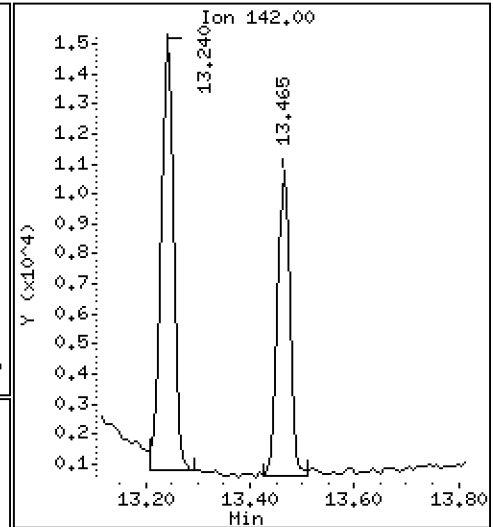
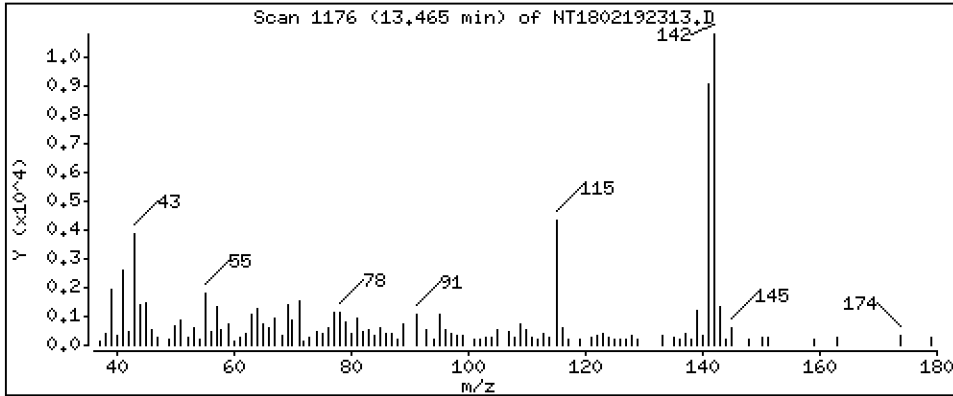
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,1892 ug/mL



Date : 19-FEB-2023 16:58

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-08RE1

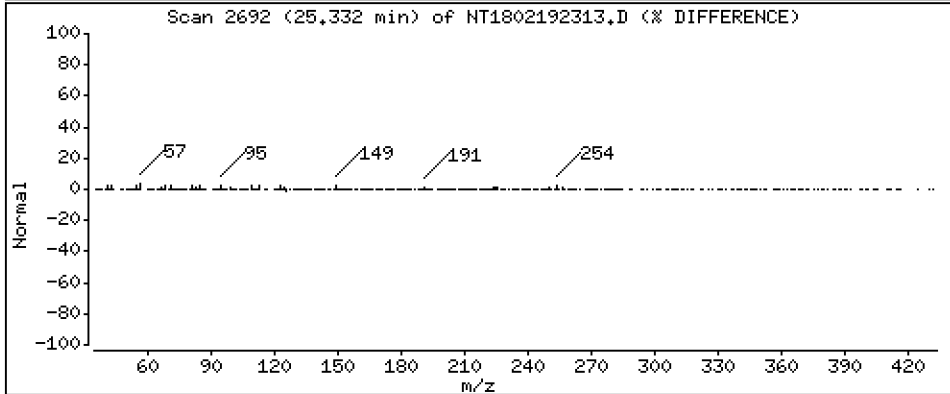
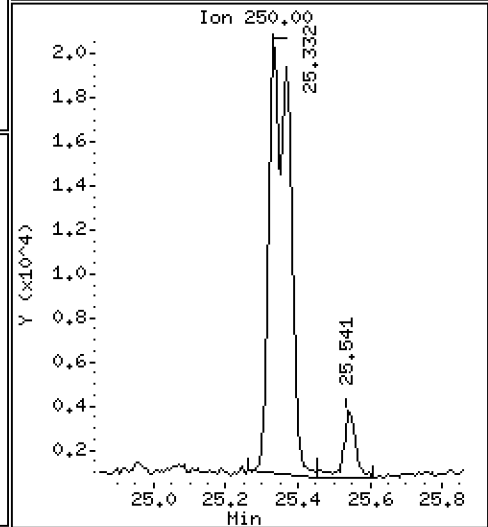
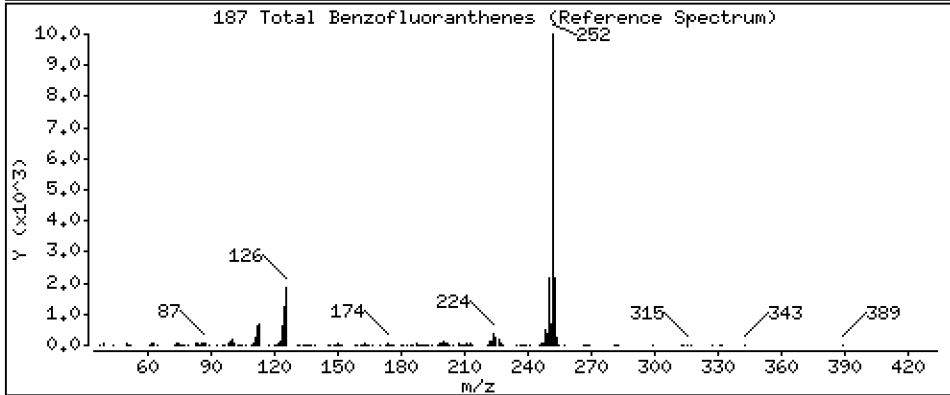
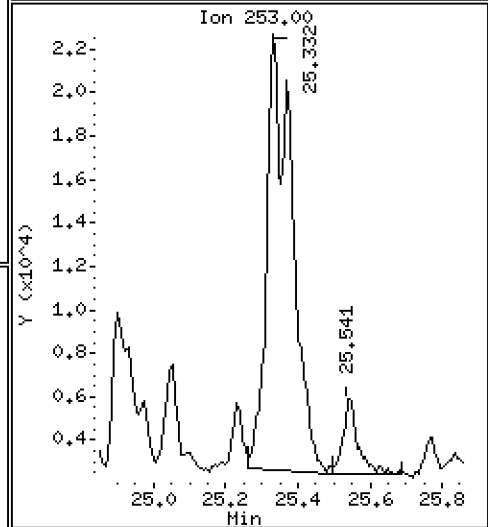
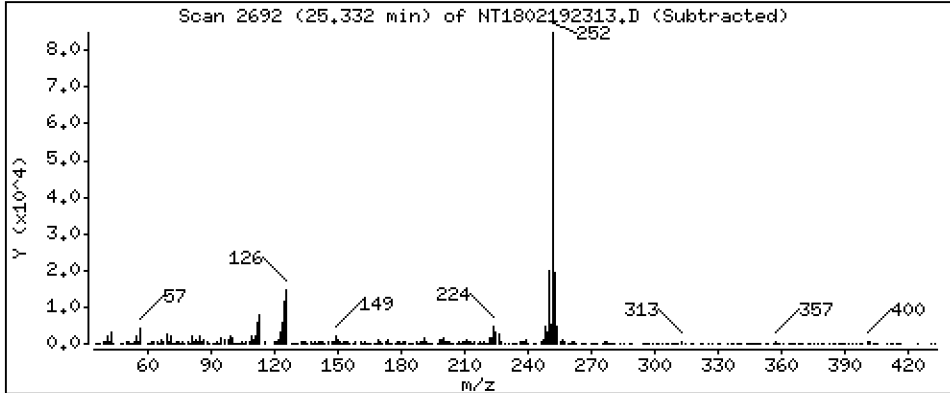
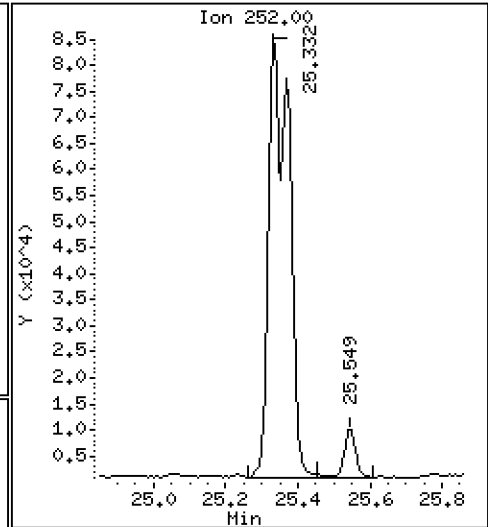
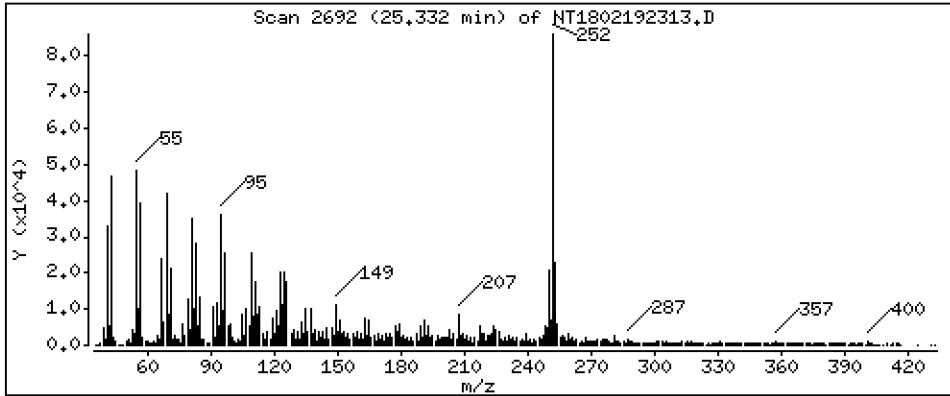
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 2,390 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230219.b\NT1802192313.D
 Lab Smp Id: 23A0032-08RE1
 Inj Date : 19-FEB-2023 16:58
 Operator : VTS
 Smp Info : 23A0032-08RE1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230219.b\ABN.m
 Meth Date : 04-Mar-2023 07:29 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i

Quant Type: ISTD
 Cal File: NT1802102308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.161	7.137	(0.766)	203718	5.29411	5.294
\$ 2 Phenol-d5	99		8.706	8.698	(0.931)	269001	5.52722	5.527
3 Phenol	94		8.729	8.721	(0.934)	34763	0.72888	0.7289
\$ 5 2-Chlorophenol-d4	132		8.992	8.984	(0.962)	228249	5.39440	5.394
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		9.278	9.278	(0.993)	729	0.01631	0.01631
* 8 1,4-Dichlorobenzene-d4	152		9.348	9.340	(1.000)	110742	4.00000	
9 1,4-Dichlorobenzene	146		9.371	9.371	(1.002)	2960	0.06175	0.06175
\$ 10 1,2-Dichlorobenzene-d4	152		9.705	9.705	(1.038)	93127	3.05790	3.058
12 1,2-Dichlorobenzene	146		9.728	9.728	(1.041)	1028	0.02318	0.02318
11 Benzyl alcohol	108		9.627	9.611	(1.030)	7047	0.27261	0.2726
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		10.101	10.093	(1.081)	3902	0.09645	0.09645
\$ 18 Nitrobenzene-d5	82		10.427	10.434	(0.882)	169515	3.93620	3.936
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		11.263	11.373	(0.953)	15455	0.68623	0.6862 (M)
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.816	11.816	(1.000)	437574	4.00000	
28 Naphthalene	128		11.855	11.855	(1.003)	40368	0.32092	0.3209
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		13.240	13.239	(1.120)	22820	0.26654	0.2665
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT MASS	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196					Compound Not Detected.		
35 2,4,5-Trichlorophenol	196					Compound Not Detected.		
\$ 36 2-Fluorobiphenyl	172		14.014	14.013	(0.909)	340447	3.19584	3.196
37 2-Chloronaphthalene	162					Compound Not Detected.		
38 2-Nitroaniline	65					Compound Not Detected.		
39 Dimethylphthalate	163		14.904	14.911	(0.967)	6228	0.07391	0.07391
40 Acenaphthylene	152		15.105	15.105	(0.980)	5014	0.04106	0.04106 (MH)
41 2,6-Dinitrotoluene	165					Compound Not Detected.		
* 42 Acenaphthene-d10	164		15.414	15.414	(1.000)	240957	4.00000	
43 3-Nitroaniline	138					Compound Not Detected.		
44 Acenaphthene	153		15.476	15.476	(1.004)	14115	0.17332	0.1733
45 2,4-Dinitrophenol	184					Compound Not Detected.		
46 Dibenzofuran	168		15.801	15.801	(1.025)	15191	0.13020	0.1302
47 4-Nitrophenol	109					Compound Not Detected.		
48 2,4-Dinitrotoluene	165					Compound Not Detected.		
50 Diethylphthalate	149		16.350	16.357	(1.061)	9368	0.10951	0.1095
49 Fluorene	166		16.512	16.512	(1.071)	12637	0.13693	0.1369
51 4-Chlorophenyl-phenylether	204					Compound Not Detected.		
52 4-Nitroaniline	138					Compound Not Detected.		
53 4,6-Dinitro-2-methylphenol	198					Compound Not Detected.		
54 N-Nitrosodiphenylamine	169					Compound Not Detected.		
\$ 55 2,4,6-Tribromophenol	330		17.044	17.044	(1.106)	74109	4.74862	4.749
56 4-Bromophenyl-phenylether	248					Compound Not Detected.		
57 Hexachlorobenzene	284					Compound Not Detected.		
58 Pentachlorophenol	266					Compound Not Detected.		
* 59 Phenanthrene-d10	188		18.443	18.435	(1.000)	473792	4.00000	
60 Phenanthrene	178		18.489	18.481	(1.003)	107495	0.75097	0.7510
61 Anthracene	178		18.582	18.574	(1.008)	28753	0.22458	0.2246
62 Carbazole	167		18.907	18.899	(1.025)	13546	0.10583	0.1058
63 Di-n-butylphthalate	149		19.681	19.665	(1.067)	6737	0.04048	0.04048
64 Fluoranthene	202		20.895	20.841	(0.891)	183234	1.27166	1.272
65 Pyrene	202		21.305	21.259	(0.909)	401581	2.62176	2.622
\$ 66 Terphenyl-d14	244		21.553	21.530	(0.919)	465425	3.29496	3.295
67 Butylbenzylphthalate	149		22.443	22.436	(0.957)	13210	0.18232	0.1823
68 Benzo(a)anthracene	228		23.411	23.396	(0.999)	95347	0.63176	0.6318
* 69 Chrysene-d12	240		23.442	23.427	(1.000)	456709	4.00000	
70 3,3'-Dichlorobenzidine	252					Compound Not Detected.		
71 Chrysene	228		23.481	23.473	(1.002)	127002	0.79839	0.7984
72 bis(2-Ethylhexyl)phthalate	149		23.458	23.450	(0.960)	99031	0.88135	0.8814
* 134 Di-n-octylphthalate-d4	153		24.441	24.441	(1.000)	738505	4.00000	
73 Di-n-octylphthalate	149					Compound Not Detected.		
74 Benzo(b)fluoranthene	252		25.331	25.308	(0.969)	193677	1.39413	1.394
75 Benzo(k)fluoranthene	252		25.370	25.354	(0.971)	162294	1.06794	1.068
76 Benzo(a)pyrene	252		26.005	25.982	(0.995)	114491	1.00905	1.009
* 77 Perylene-d12	264		26.129	26.105	(1.000)	397988	4.00000	
78 Indeno(1,2,3-cd)pyrene	276		28.873	28.865	(1.105)	47794	0.44072	0.4407
79 Dibenzo(a,h)anthracene	278		28.881	28.873	(1.105)	14035	0.15788	0.1579
80 Benzo(g,h,i)perylene	276		29.696	29.681	(1.137)	36685	0.44860	0.4486
90 N-Nitrosodimethylamine	74					Compound Not Detected.		
91 Aniline	93					Compound Not Detected.		
93 Benzidine	184					Compound Not Detected.		
103 Pyridine	79					Compound Not Detected.		
105 1-methylnaphthalene	142		13.464	13.464	(1.139)	15800	0.18921	0.1892
111 Azobenzene (1,2-DP-Hydrazine)	77					Compound Not Detected.		

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/mL)	FINAL (ug/mL)	
187 Total Benzofluoranthenes	252	25.331	25.354	(0.969)	332712	2.39047	2.390	
120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.						

QC Flag Legend

- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 19-FEB-2023
 Lab File ID: NT1802192313.D Calibration Time: 12:57
 Lab Smp Id: 23A0032-08RE1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230219.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	118224	59112	236448	110742	-6.33
27 Naphthalene-d8	457373	228687	914746	437574	-4.33
42 Acenaphthene-d10	241384	120692	482768	240957	-0.18
59 Phenanthrene-d10	431840	215920	863680	473792	9.71
69 Chrysene-d12	407698	203849	815396	456709	12.02
134 Di-n-octylphthala	661131	330566	1322262	738505	11.70
77 Perylene-d12	411276	205638	822552	397988	-3.23

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.34	8.84	9.84	9.35	0.08
27 Naphthalene-d8	11.82	11.32	12.32	11.82	0.00
42 Acenaphthene-d10	15.41	14.91	15.91	15.41	0.00
59 Phenanthrene-d10	18.44	17.94	18.94	18.44	0.04
69 Chrysene-d12	23.43	22.93	23.93	23.44	0.07
134 Di-n-octylphthala	24.44	23.94	24.94	24.44	0.00
77 Perylene-d12	26.11	25.61	26.61	26.13	0.09

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802192313.D

Lab ID: 23A0032-08RE1
nt18.i, ABN.m, 19-FEB-2023 16:58

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.953	0.963	-0.0093	Benzoic acid

RRT check based on Ccal File: NT1802192303.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

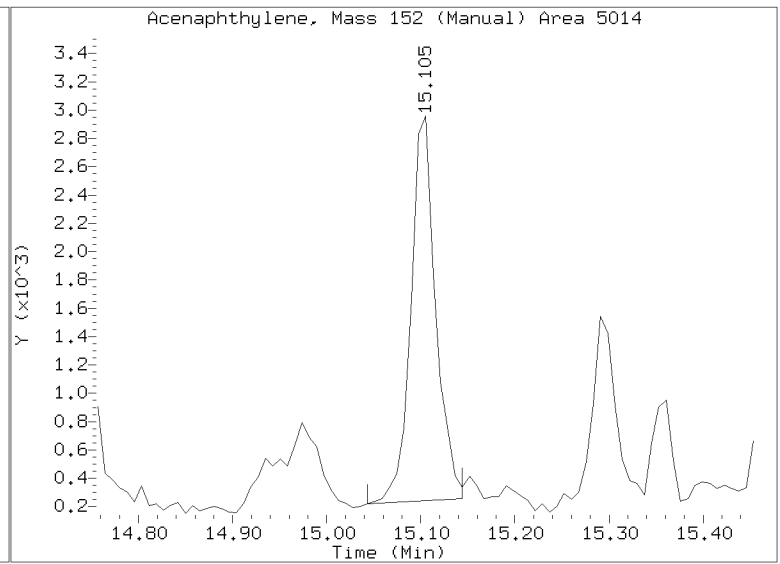
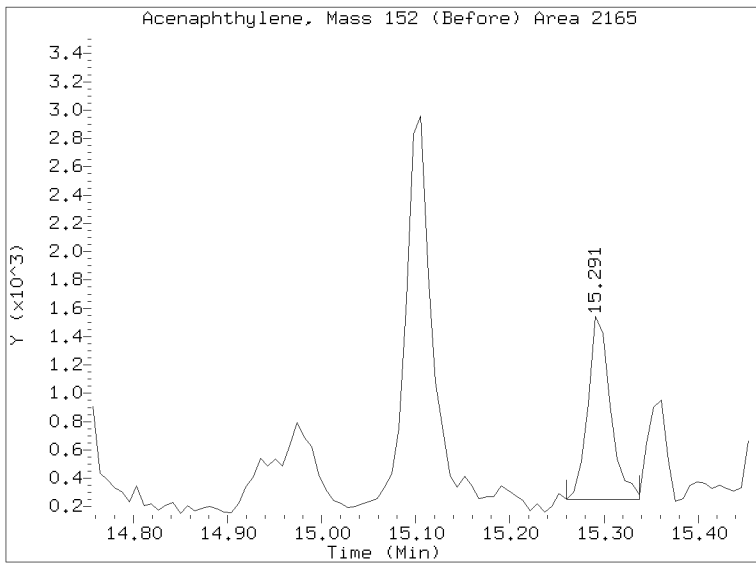
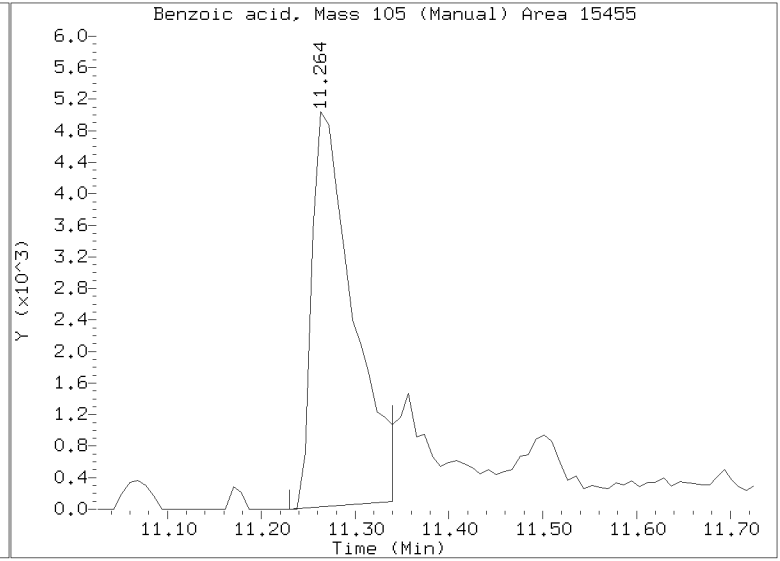
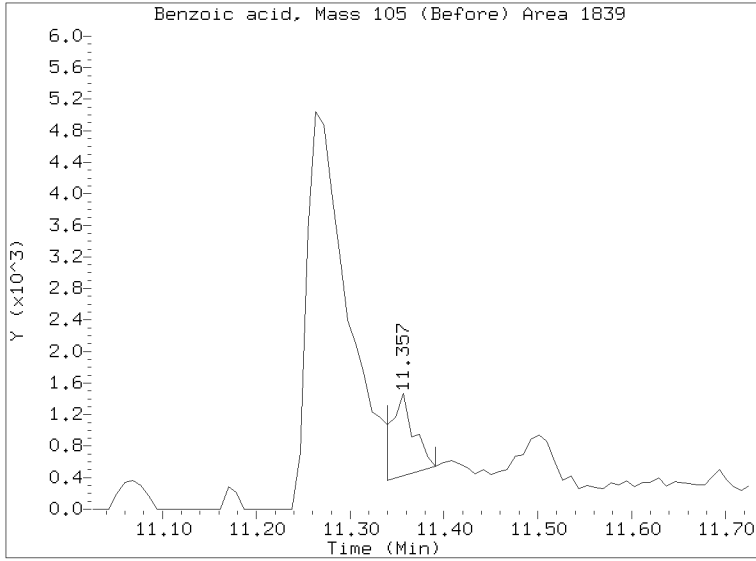
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt18.i/20230219.b/NT1802192313.D

Injection Date: 19-FEB-2023 16:58

Lab ID: 23A0032-08RE1 Client ID:

Report Date: 03/04/2023 10:22





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-11RE1 A

SDG: 23A0032

Sampled: 01/03/23 14:01

Prepared: 01/10/23 11:20

File ID: NT1802192314.D

% Solids: 53.06

Preparation: EPA 3546 (Microwave)

Analyzed: 02/19/23 17:39

Batch: BLA0163

Sequence: SLC0060

Initial/Final: 18.9 g Wet / 1 mL

Instrument: NT18

Column: ZB-5MS

Calibration: GB00036

Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
108-95-2	Phenol	1	89.1		4.4	19.9
106-44-5	4-Methylphenol	1	10.3	J	7.4	19.9
91-20-3	Naphthalene	1	33.9		4.2	19.9
91-57-6	2-Methylnaphthalene	1	26.0		4.5	19.9
208-96-8	Acenaphthylene	1	46.4		6.2	19.9
131-11-3	Dimethylphthalate	1	7.0	J	4.4	19.9
83-32-9	Acenaphthene	1	59.1		5.2	19.9
132-64-9	Dibenzofuran	1	34.4		14.1	19.9
86-73-7	Fluorene	1	34.9		14.5	19.9
85-01-8	Phenanthrene	1	541		8.7	19.9
120-12-7	Anthracene	1	194		7.2	19.9
206-44-0	Fluoranthene	1	1530		6.1	19.9
129-00-0	Pyrene	1	2590	E	5.7	19.9
85-68-7	Butylbenzylphthalate	1	30.6		9.4	19.9
56-55-3	Benzo(a)anthracene	1	819		5.9	19.9
218-01-9	Chrysene	1	1010		6.0	19.9
117-81-7	bis(2-Ethylhexyl)phthalate	1	229		5.4	49.9
	Benzo(a)fluoranthene, Total	1	1970		10.0	39.9
50-32-8	Benzo(a)pyrene	1	725		4.2	19.9
193-39-5	Indeno(1,2,3-cd)pyrene	1	80.6	Q	14.6	19.9
53-70-3	Dibenzo(a,h)anthracene	1	30.2	Q	17.2	19.9
191-24-2	Benzo(g,h,i)perylene	1	69.5	Q	13.6	19.9

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	747.88	527	70.4	27 - 120	
Phenol-d5	747.88	559	74.7	29 - 120	
2-Chlorophenol-d4	747.88	541	72.3	31 - 120	
1,2-Dichlorobenzene-d4	498.59	295	59.2	32 - 120	
Nitrobenzene-d5	498.59	398	79.9	30 - 120	
2-Fluorobiphenyl	498.59	312	62.7	35 - 120	



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC
 Client: Anchor OEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment
 Sampled: 01/03/23 14:01
 % Solids: 53.06
 Batch: BLA0163
 Instrument: NT18
 Cleanups: GPC

Laboratory ID: 23A0032-11RE1 A
 Prepared: 01/10/23 11:20
 Preparation: EPA 3546 (Microwave)
 Sequence: SLC0060
 Column: ZB-5MS

SDG: 23A0032
 File ID: NT1802192314.D
 Analyzed: 02/19/23 17:39
 Initial/Final: 18.9 g Wet / 1 mL
 Calibration: GB00036

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2,4,6-Tribromophenol	747.88	493	65.9	24 - 134	
p-Terphenyl-d14	498.59	282	56.6	37 - 120	

Data File: \\target\share\chem3\nt18.1\20230219.1\NT1802192314.D

Date: 19-FEB-2023 17:39

Client ID:

Sample Info: 23A0032-11RE1

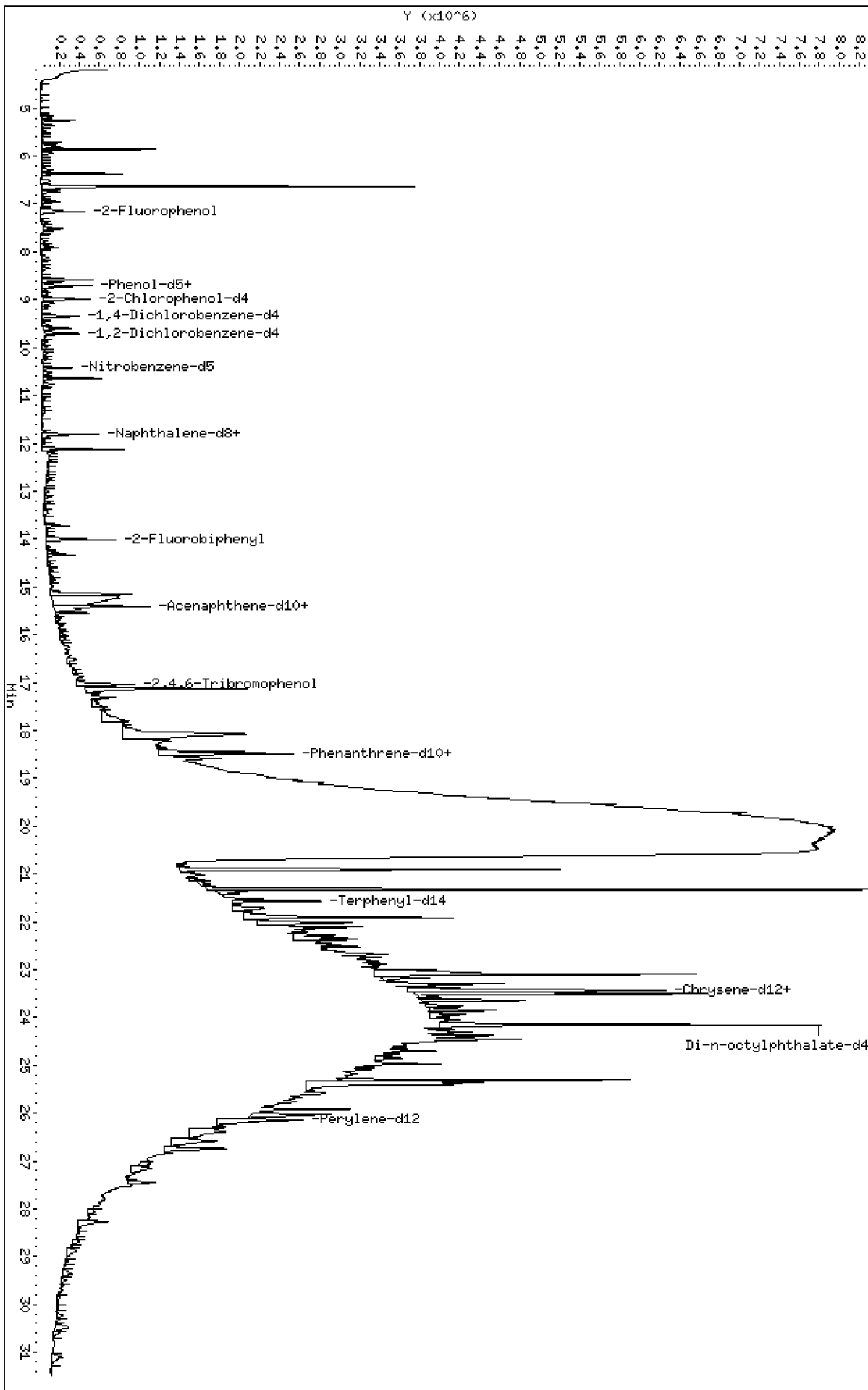
Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

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Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

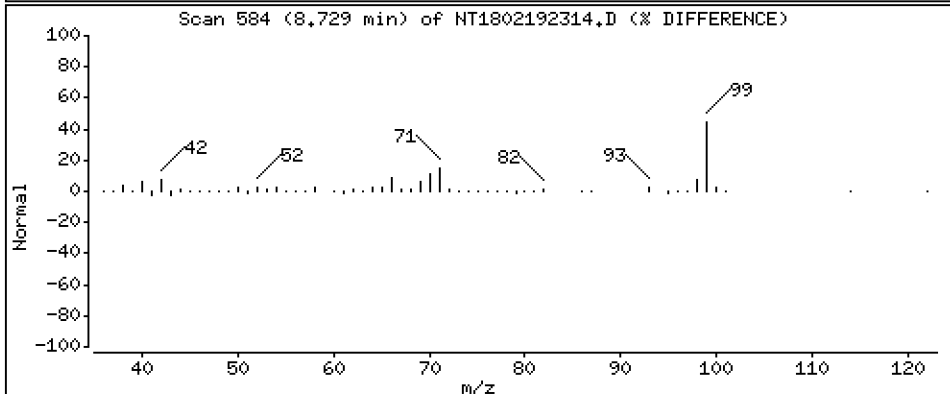
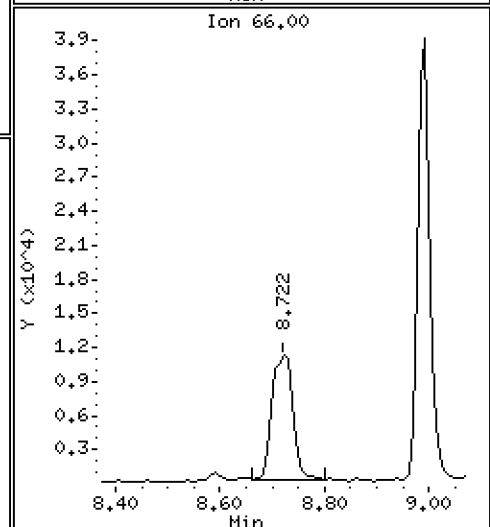
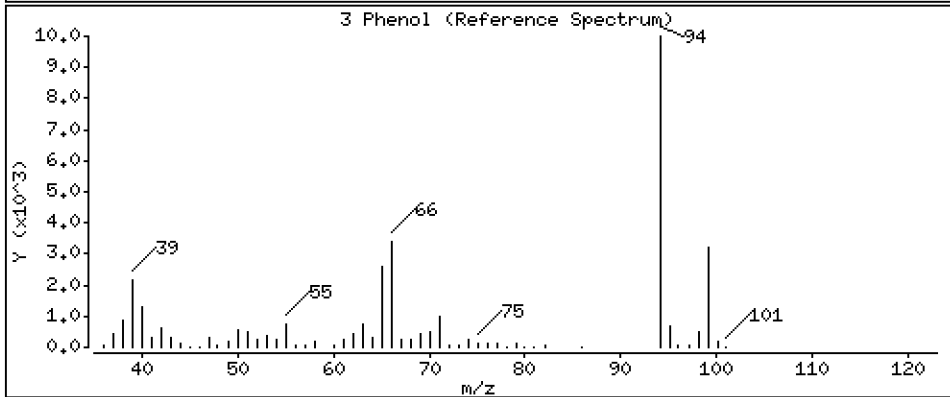
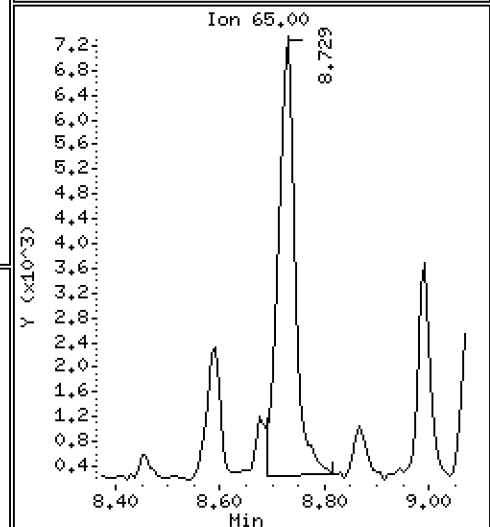
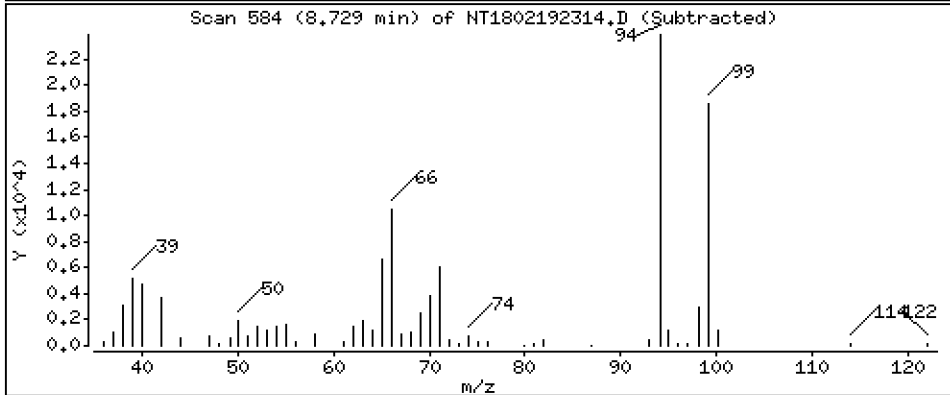
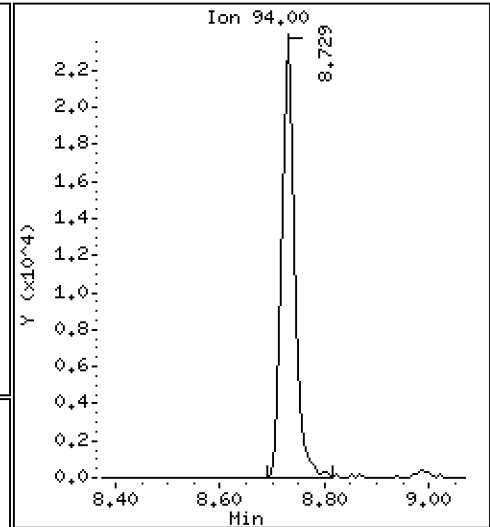
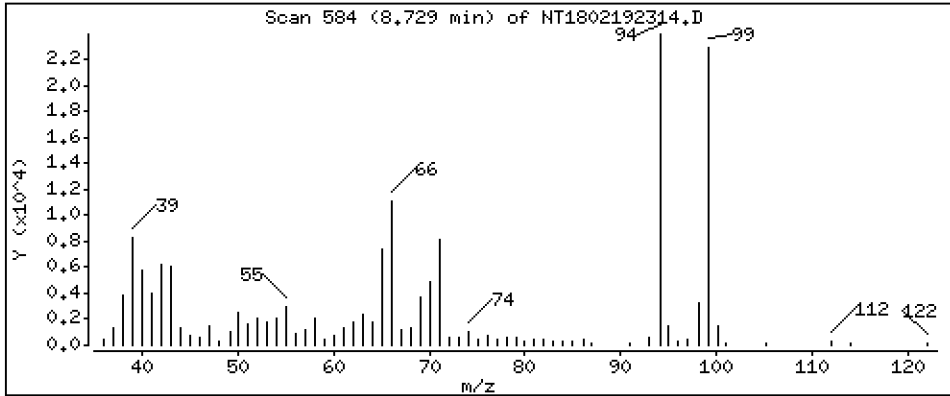
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,8936 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

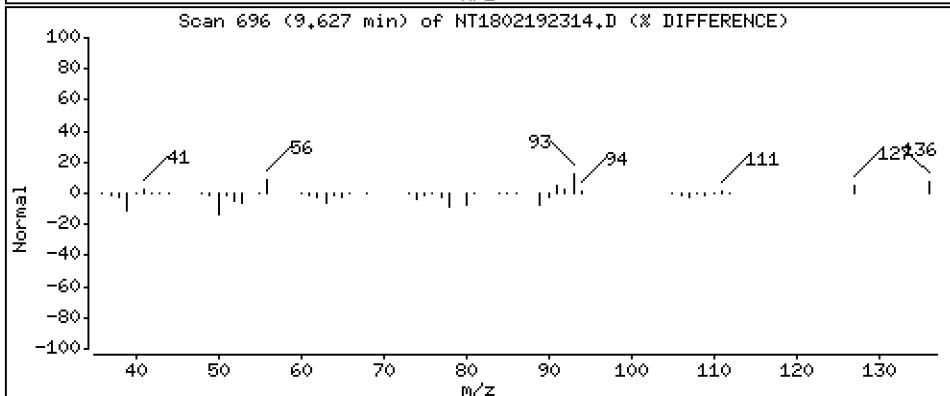
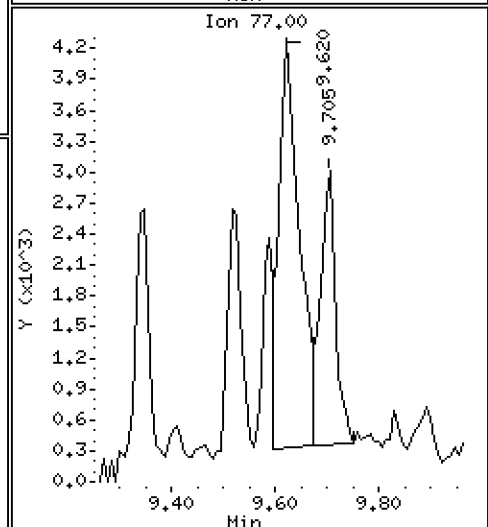
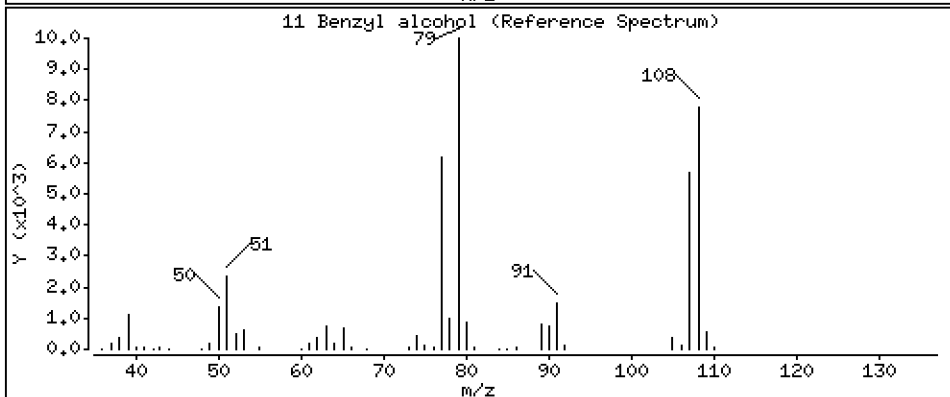
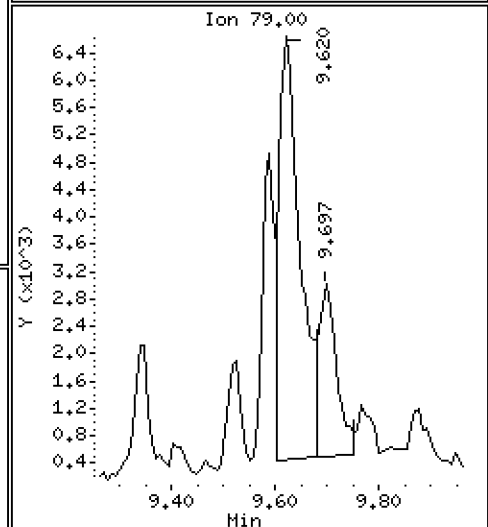
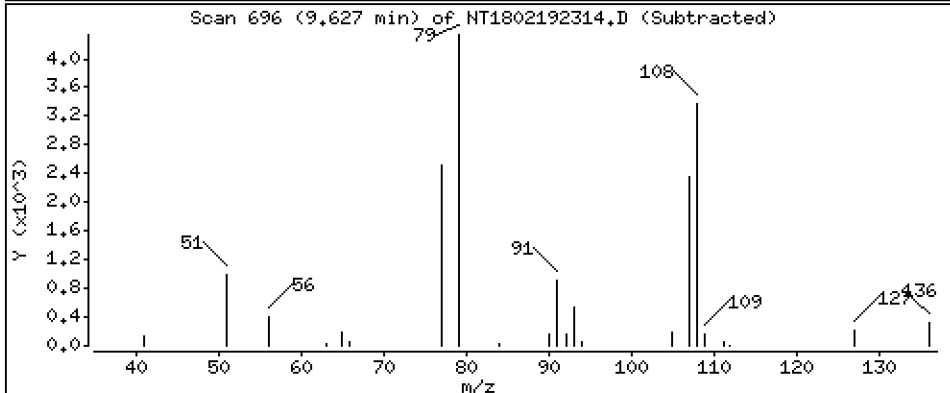
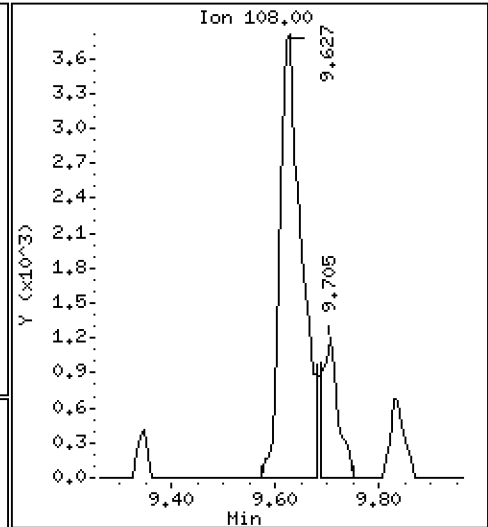
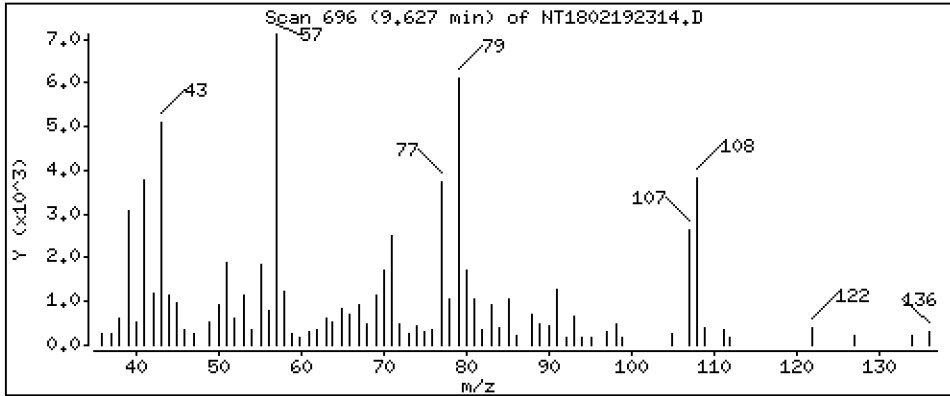
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.4507 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

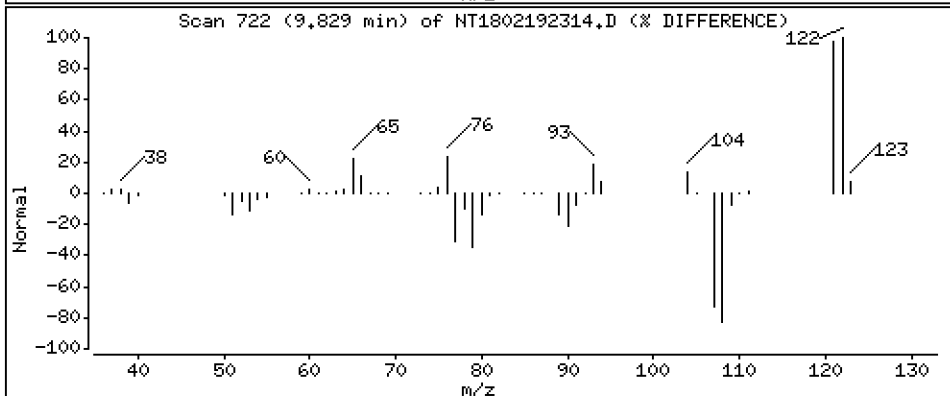
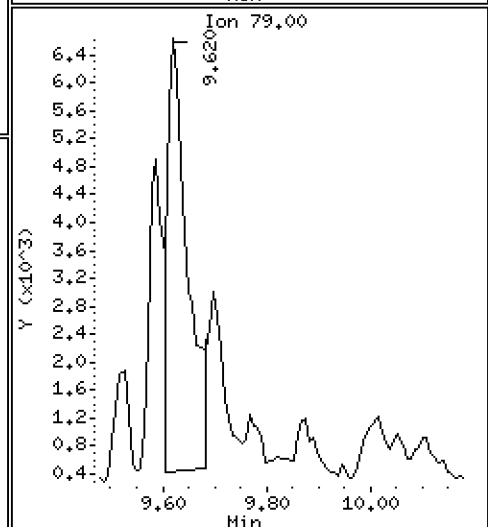
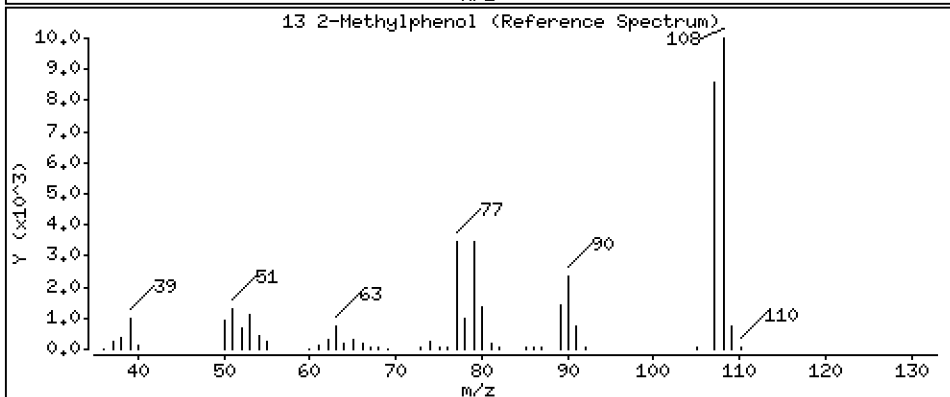
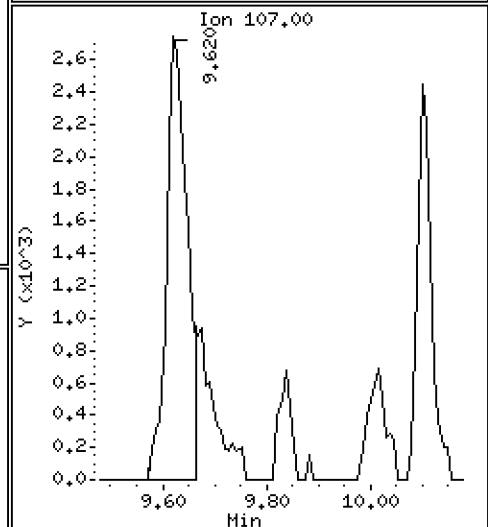
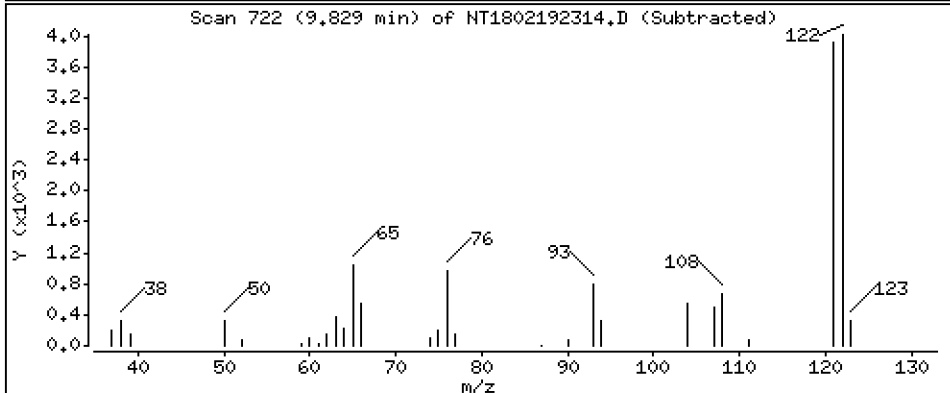
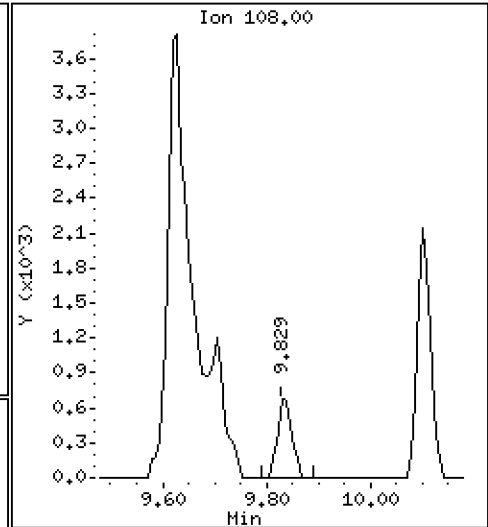
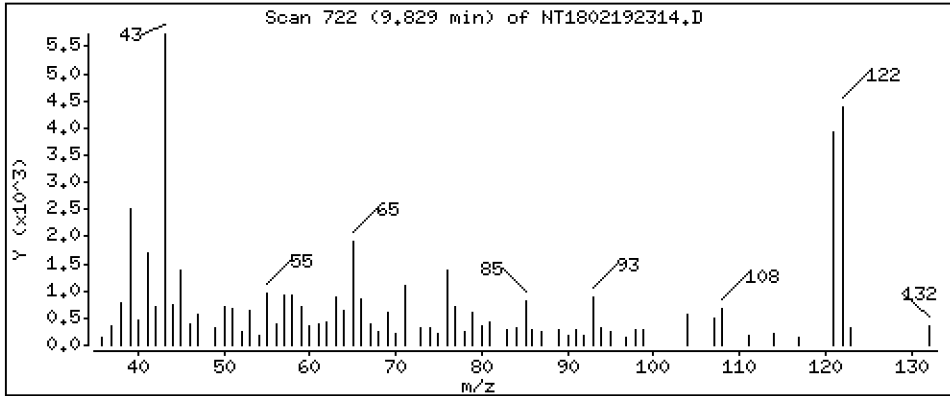
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.03819 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

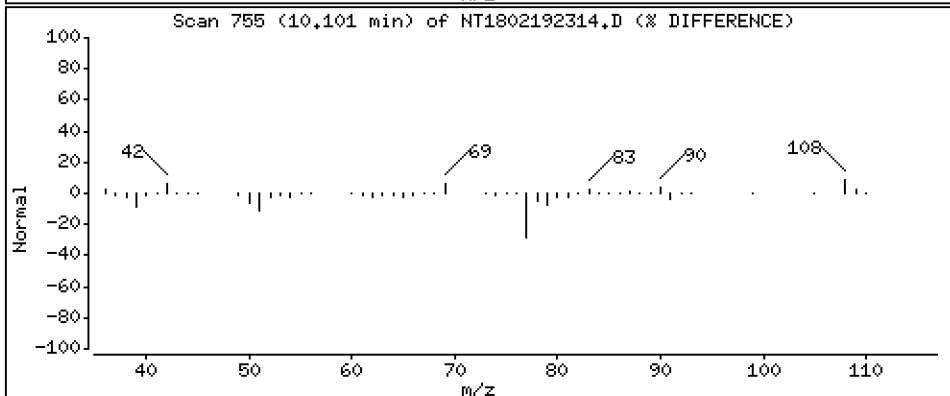
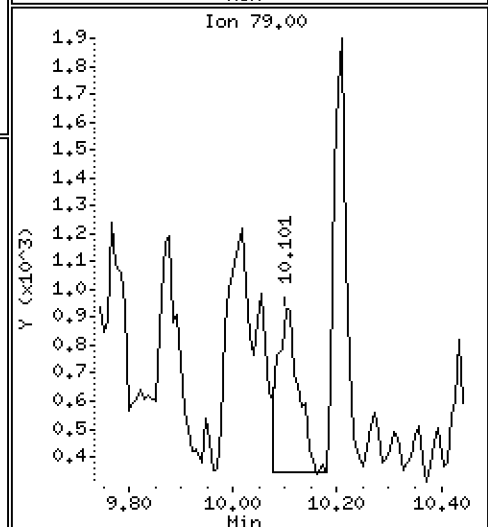
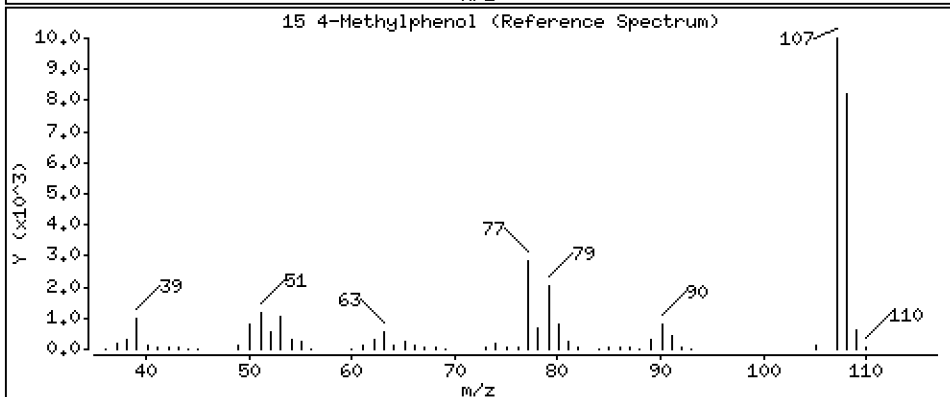
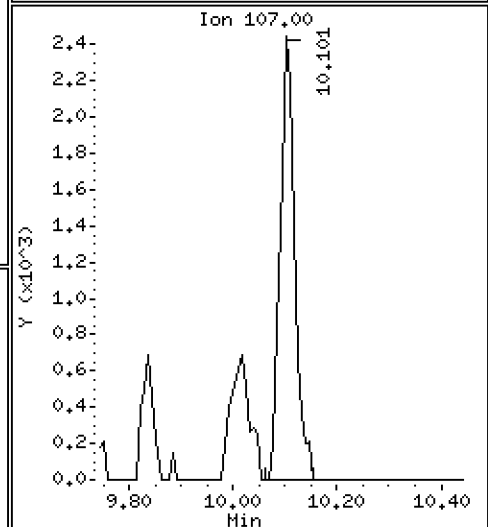
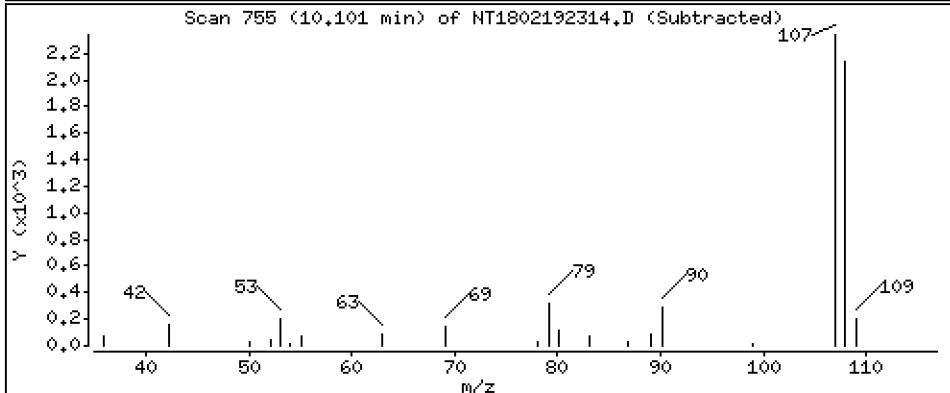
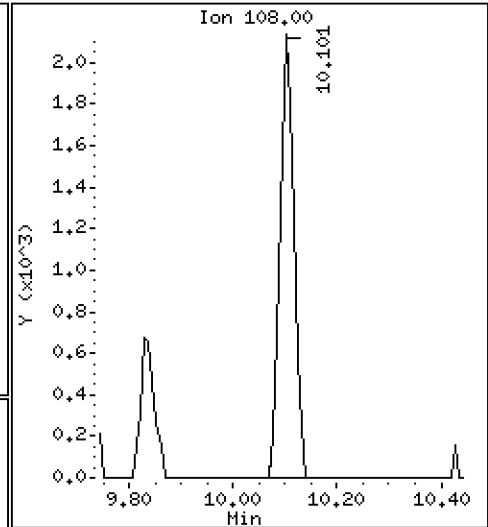
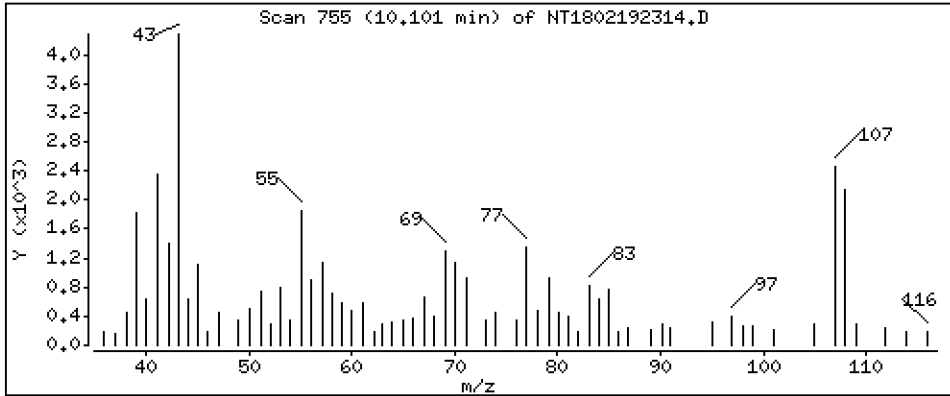
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.1031 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

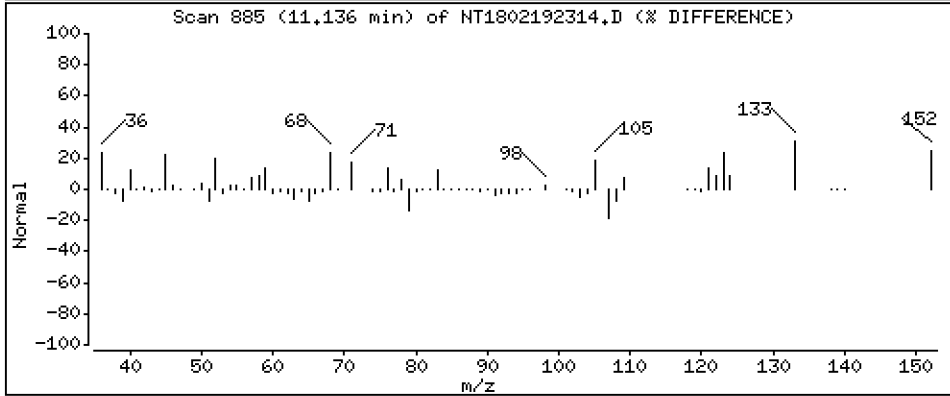
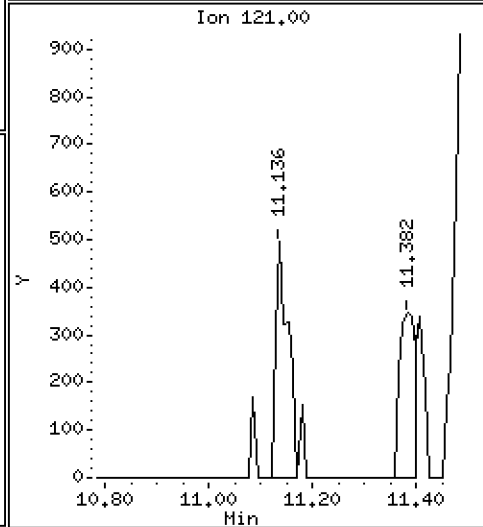
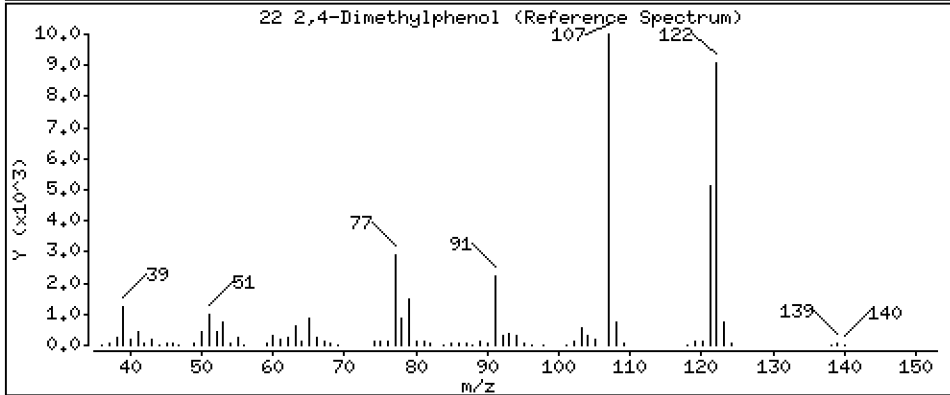
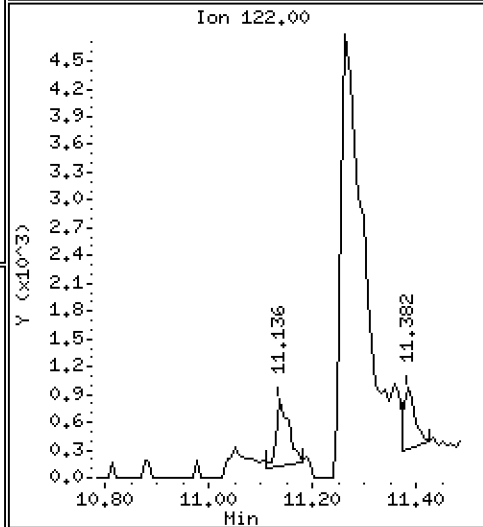
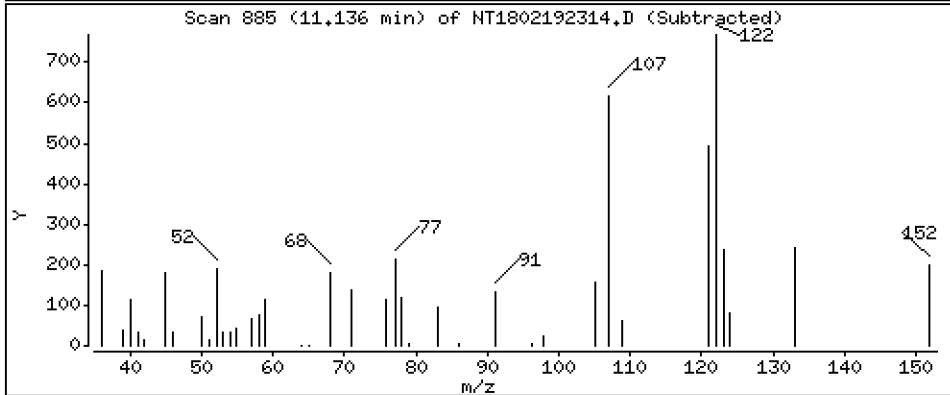
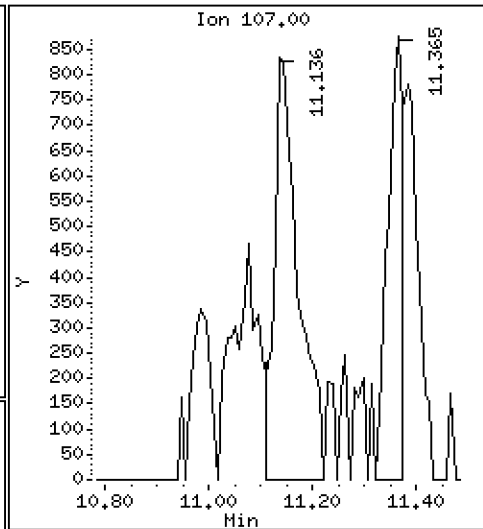
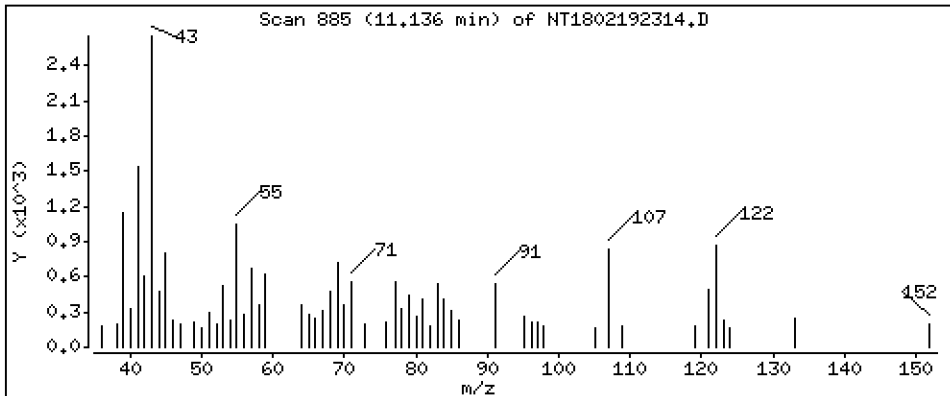
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 0.08063 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

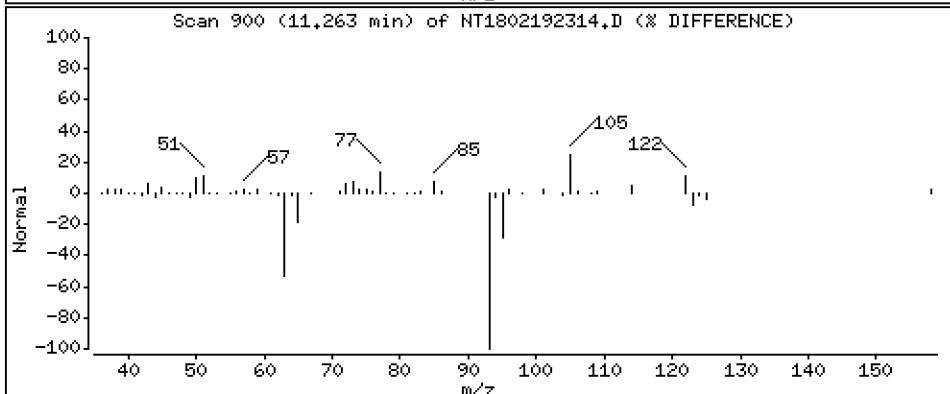
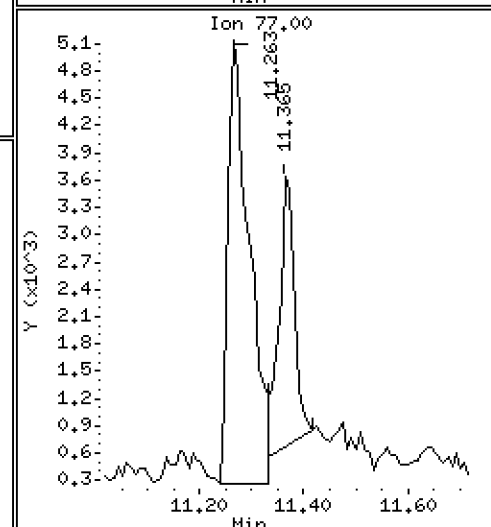
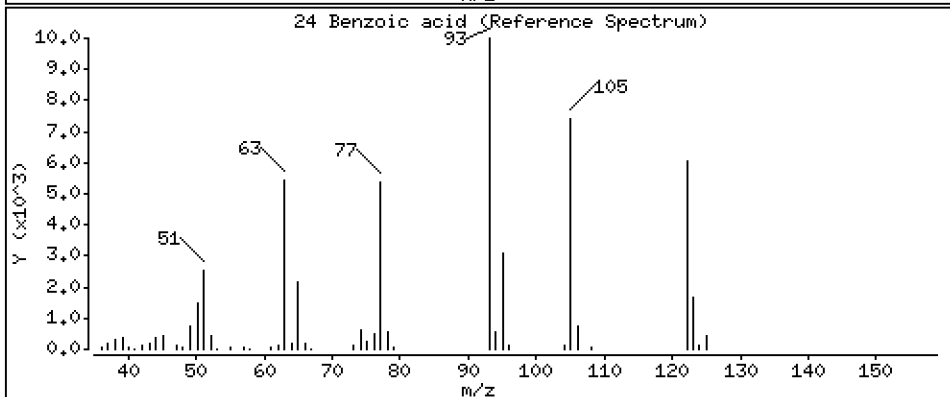
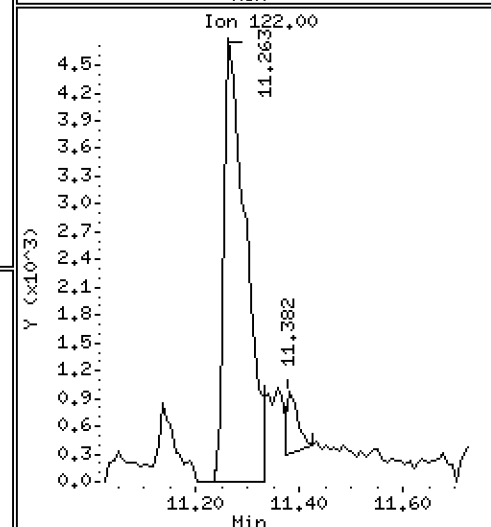
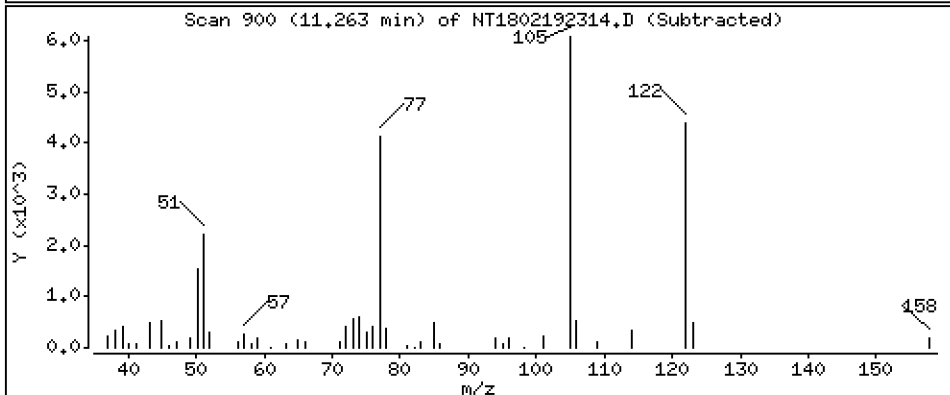
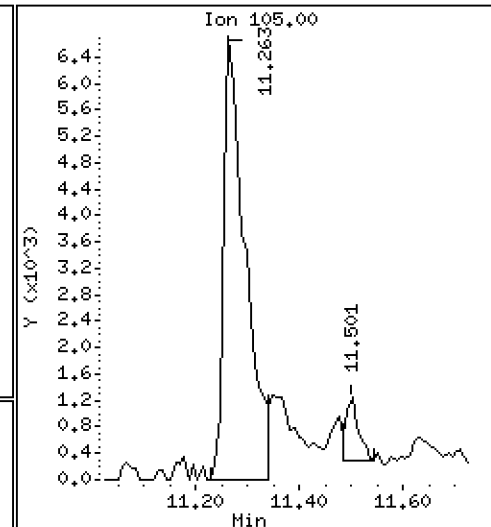
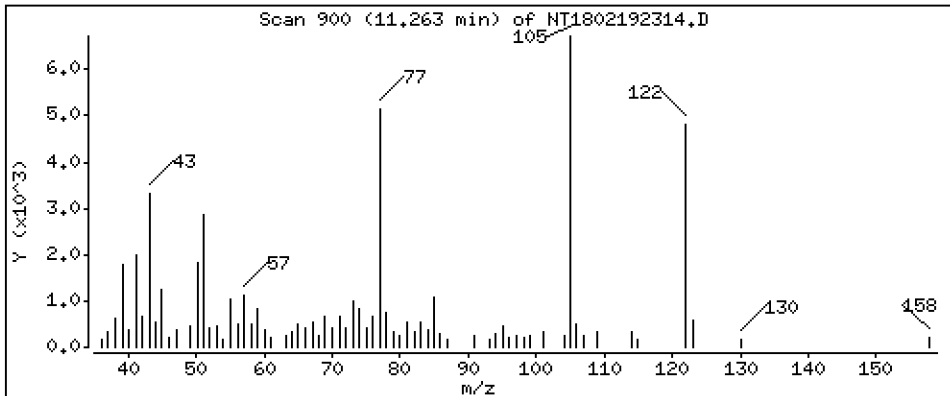
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 0,9230 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

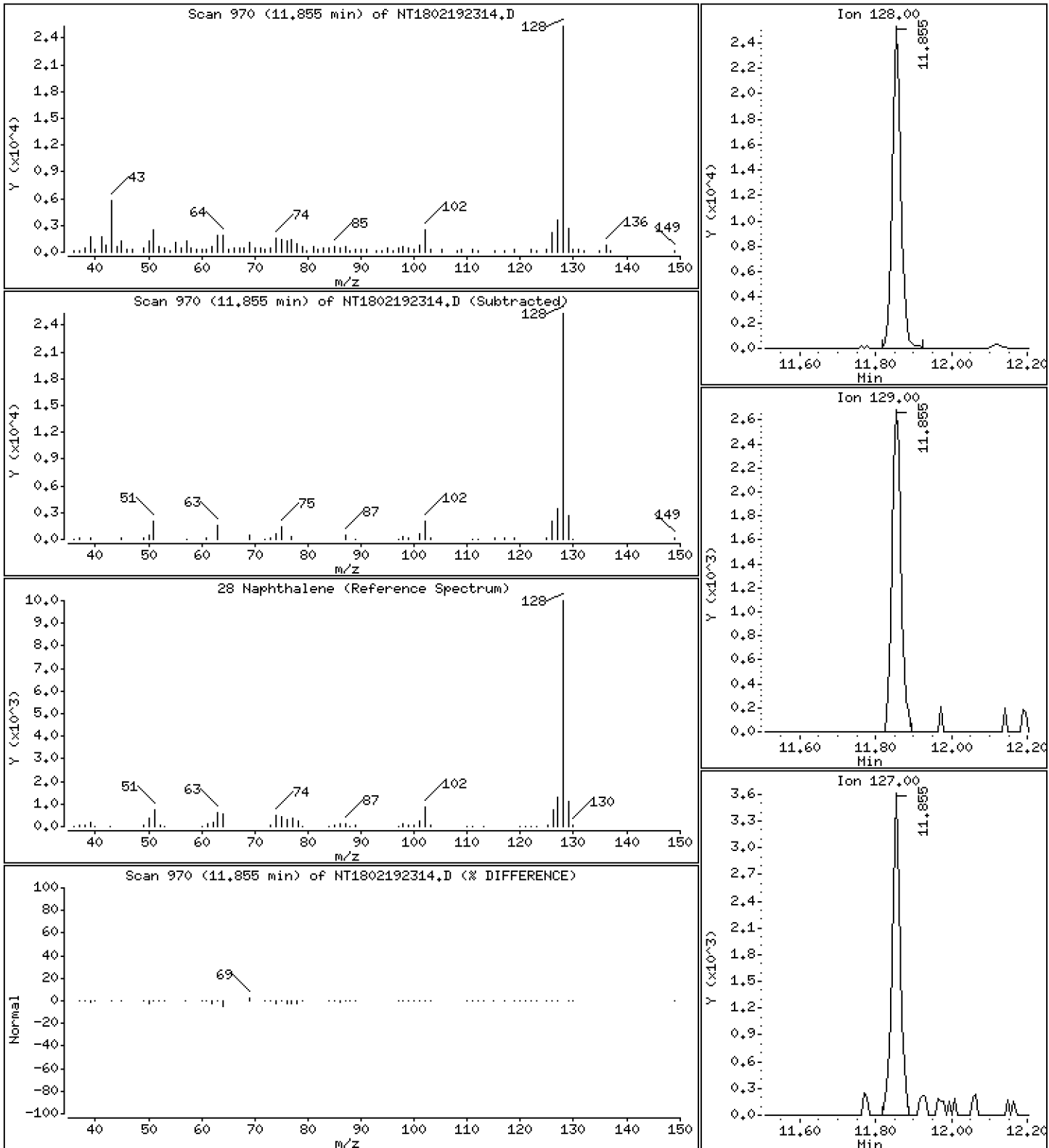
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,3402 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

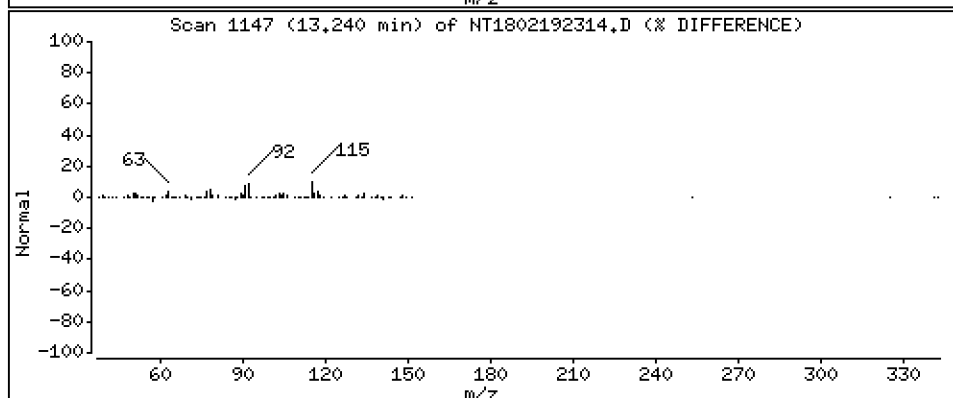
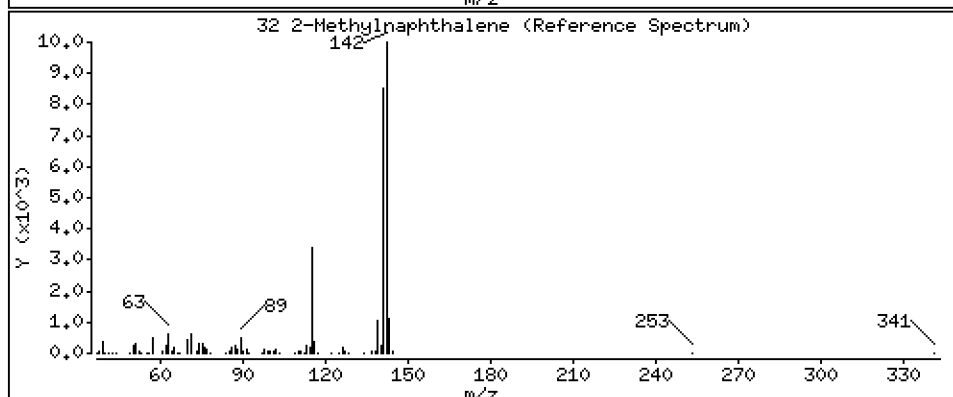
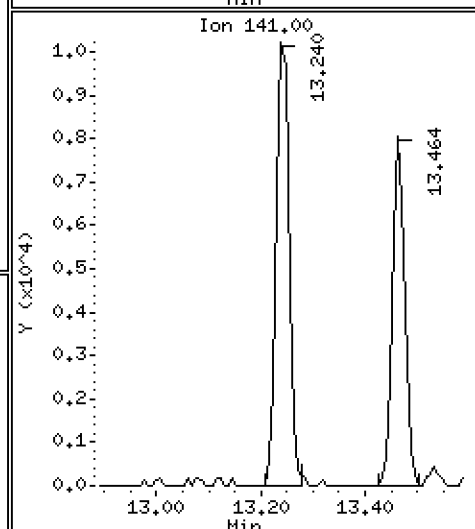
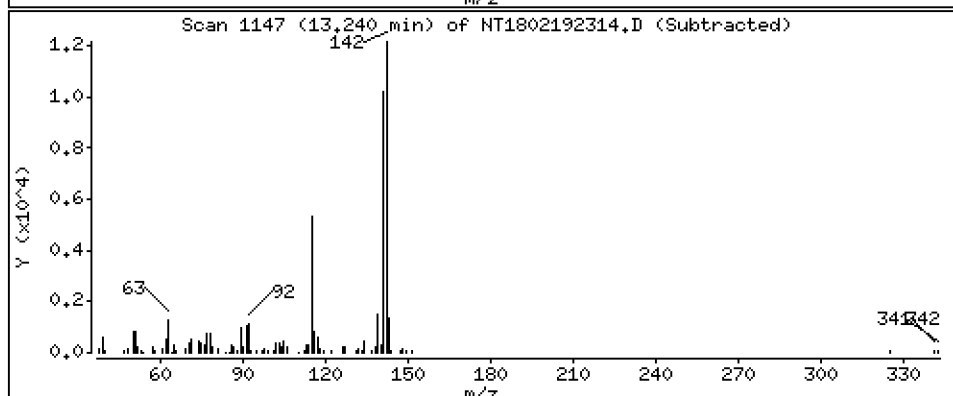
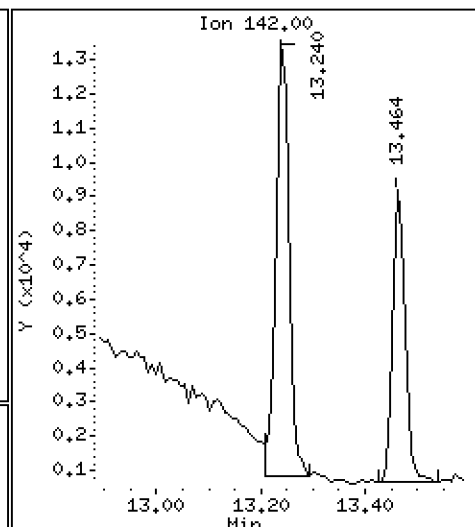
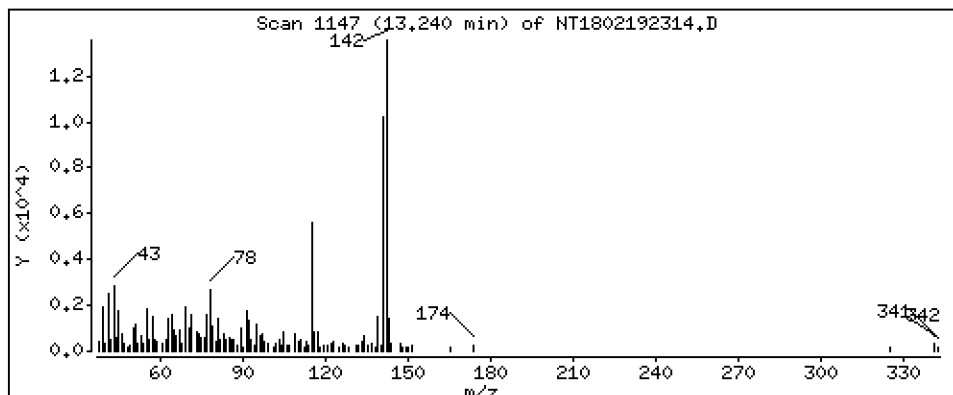
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,2609 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

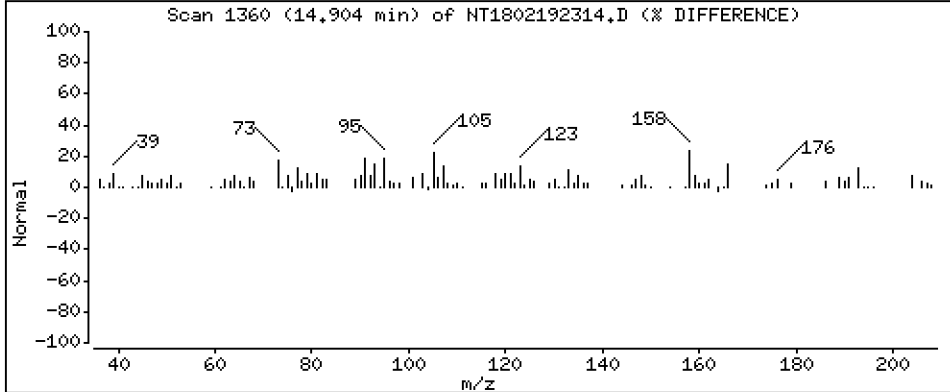
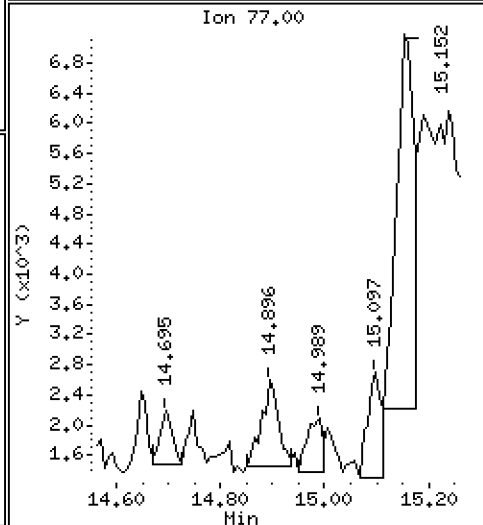
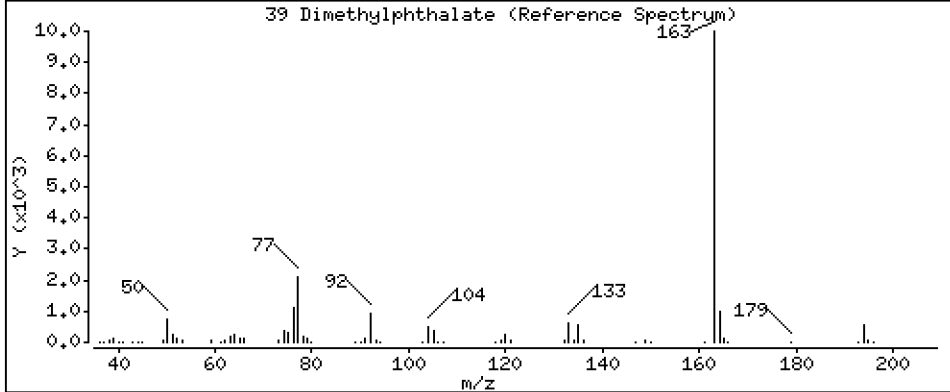
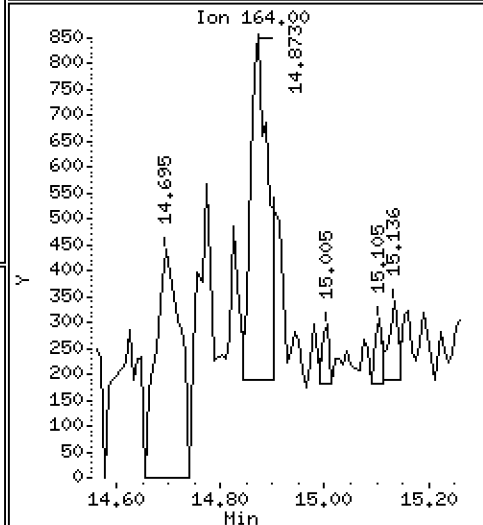
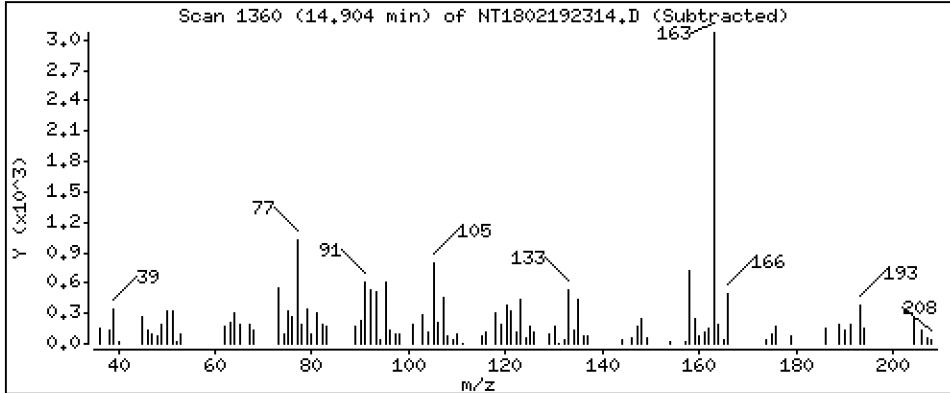
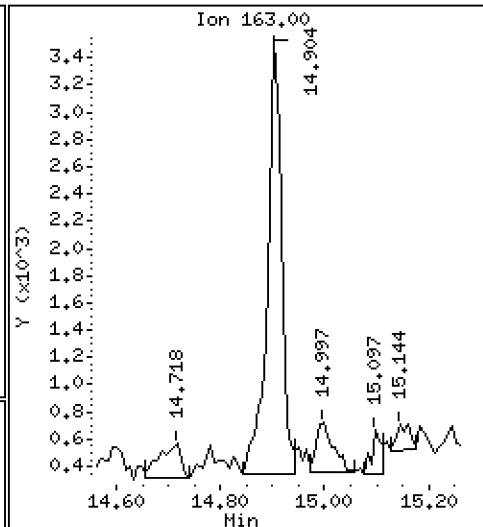
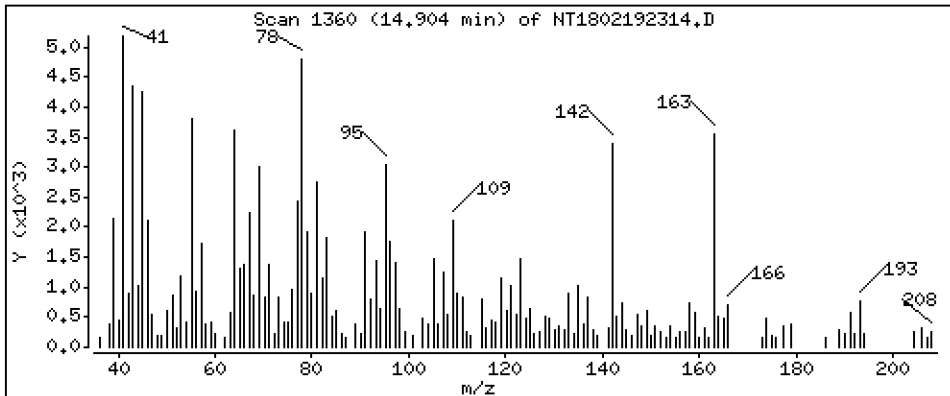
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 0.07035 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

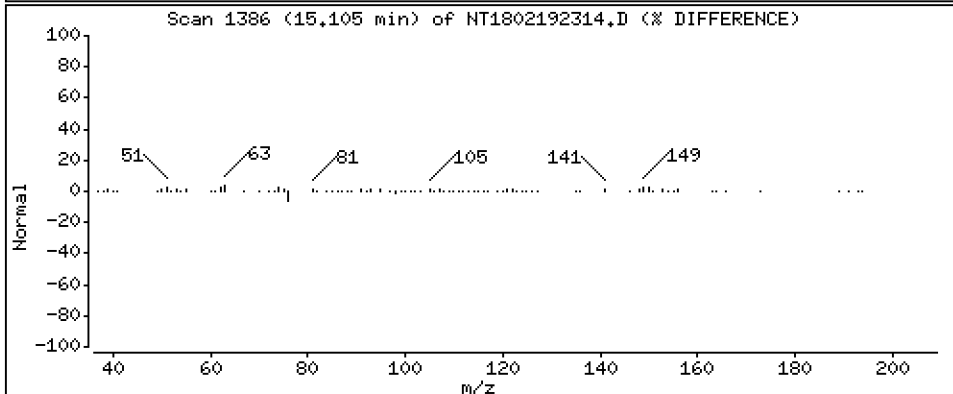
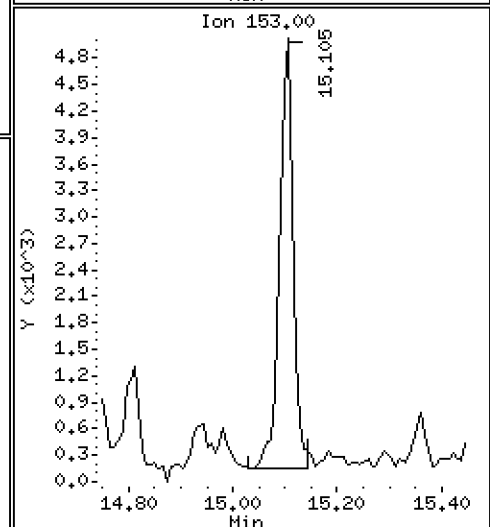
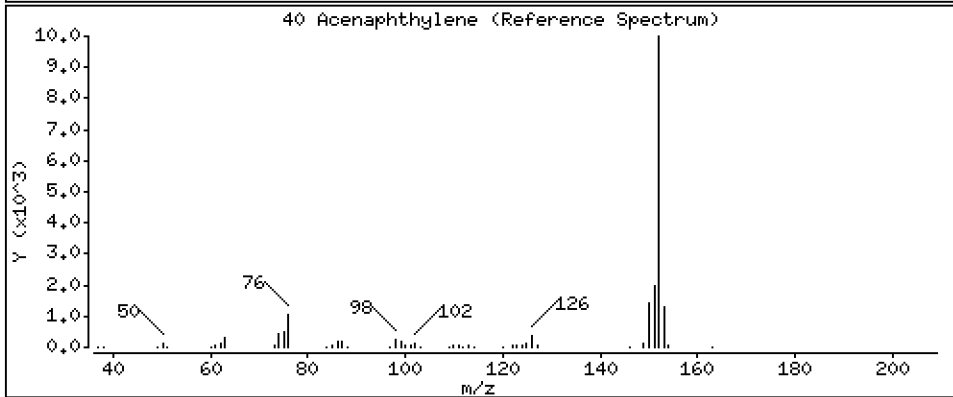
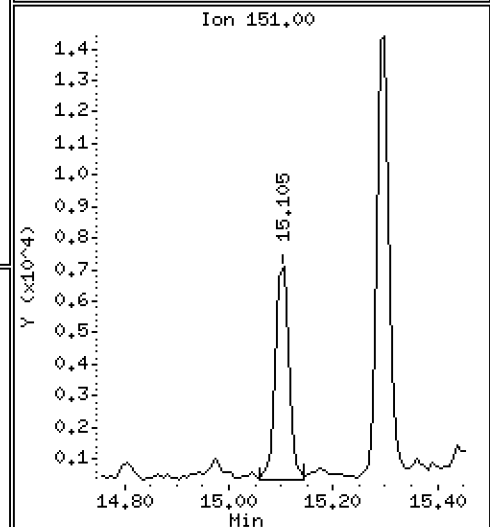
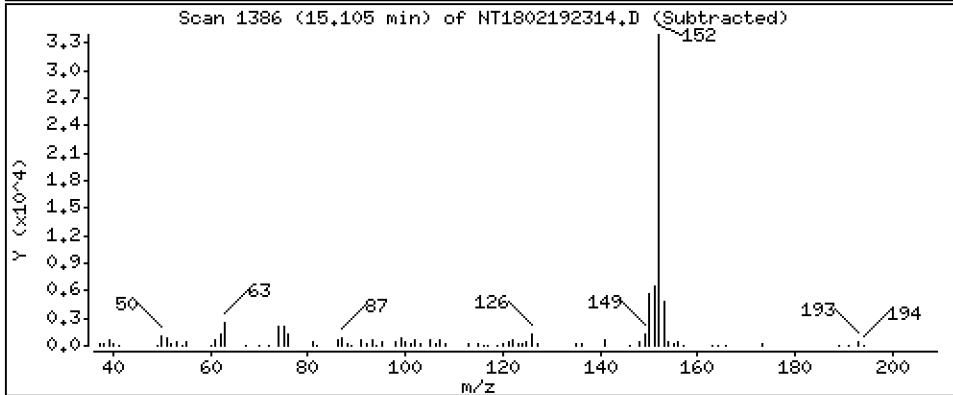
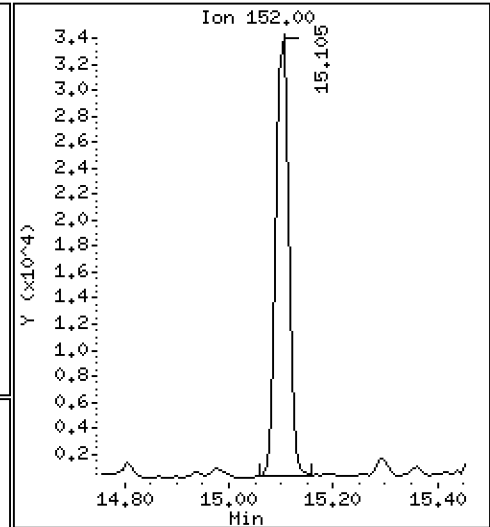
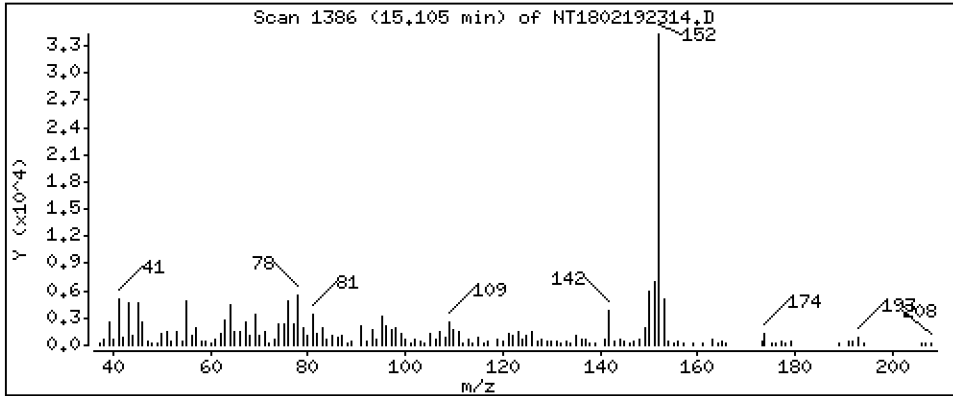
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

40 Acenaphthylene

Concentration: 0.4655 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18,i

Sample Info: 23A0032-11RE1

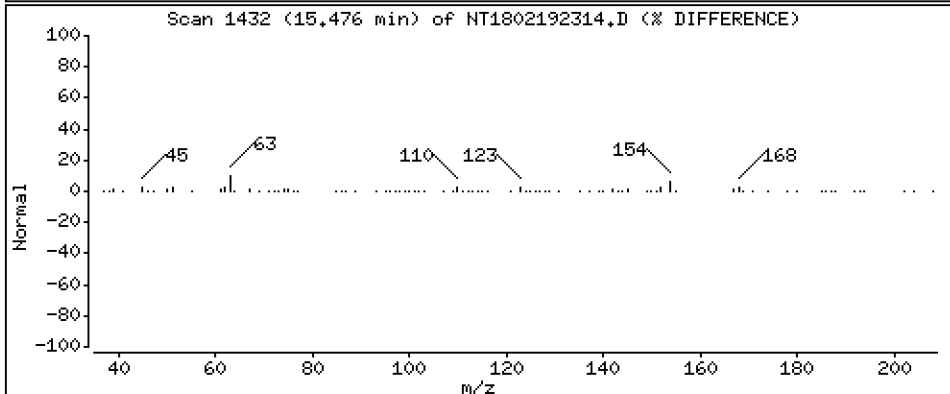
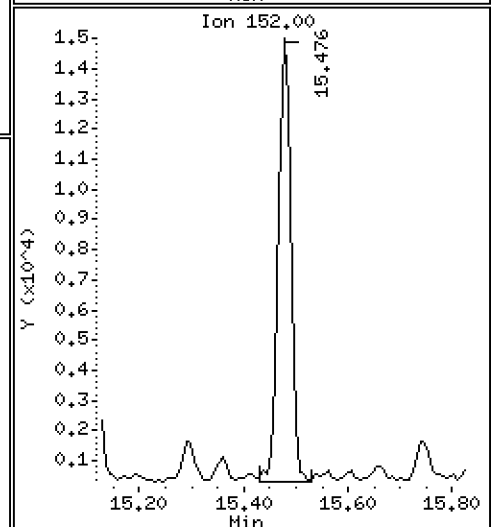
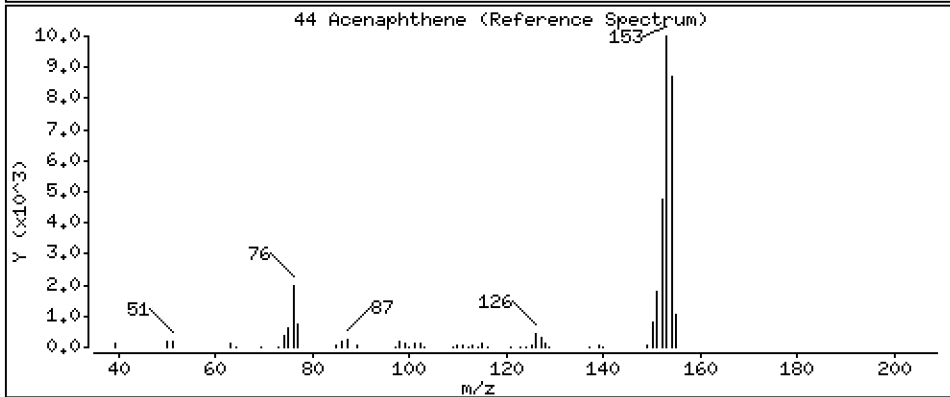
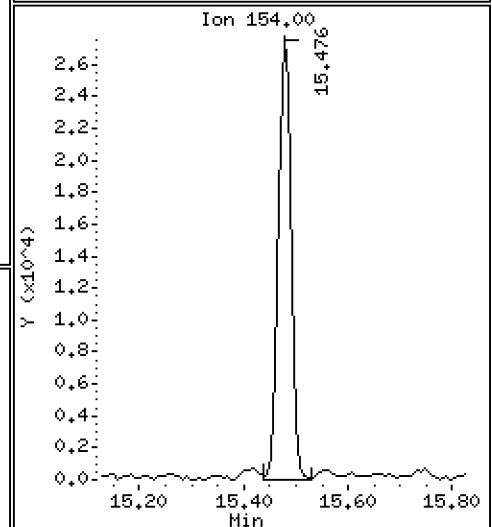
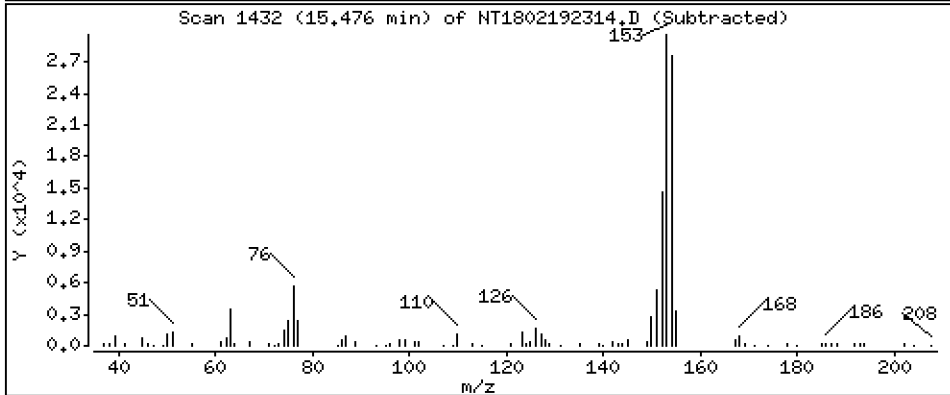
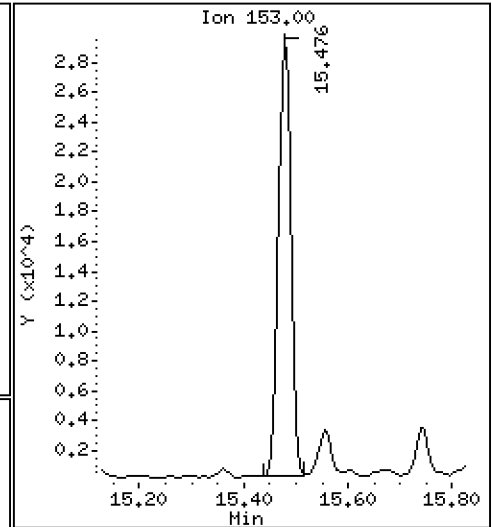
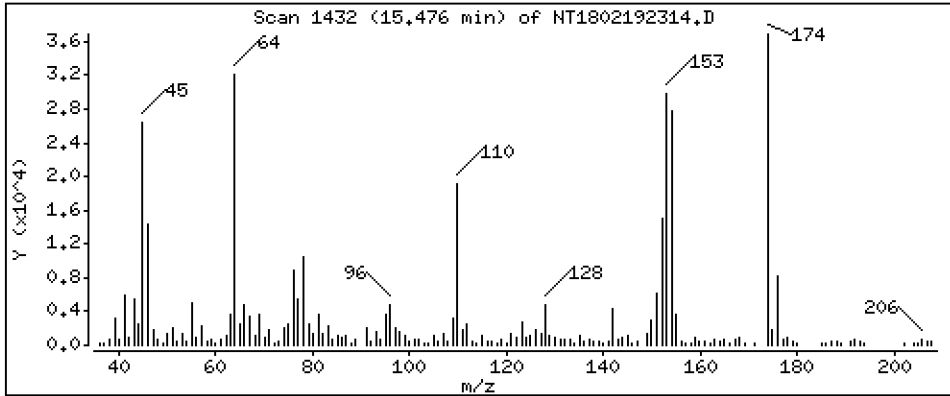
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,5930 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

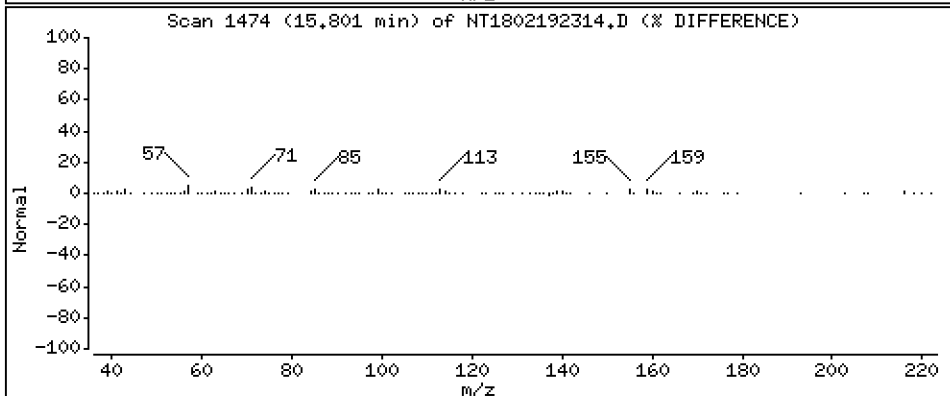
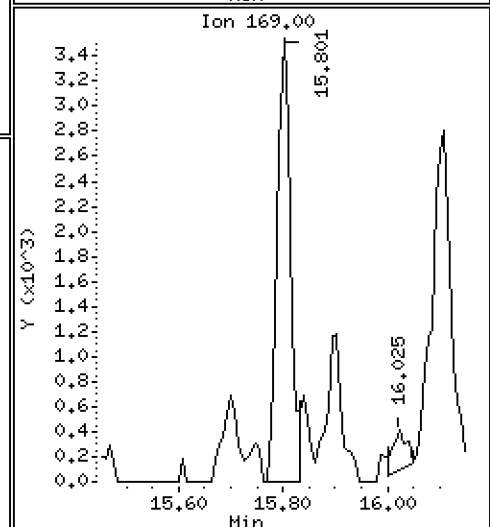
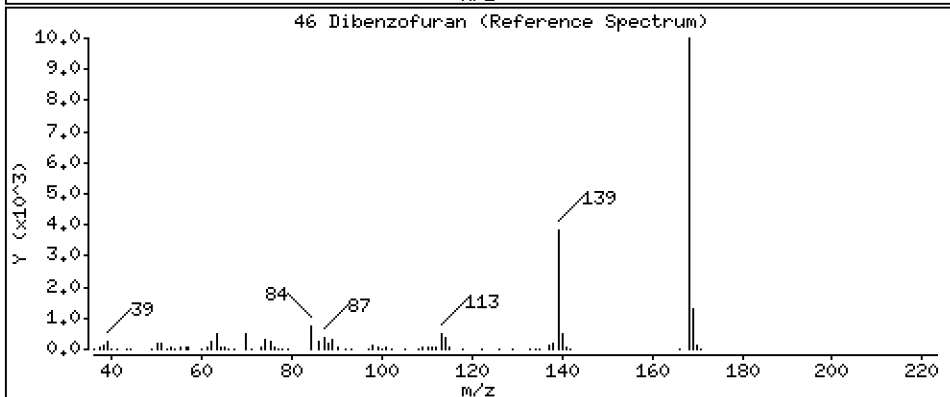
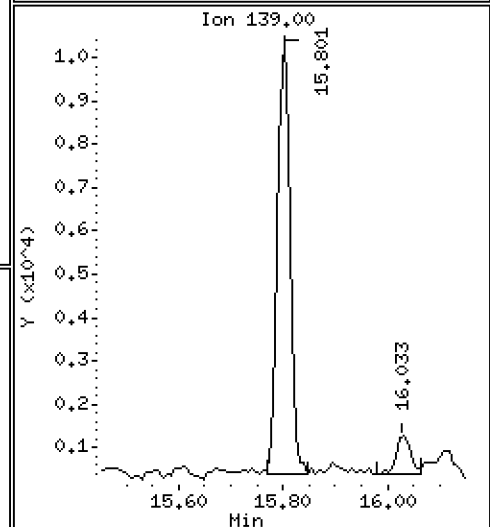
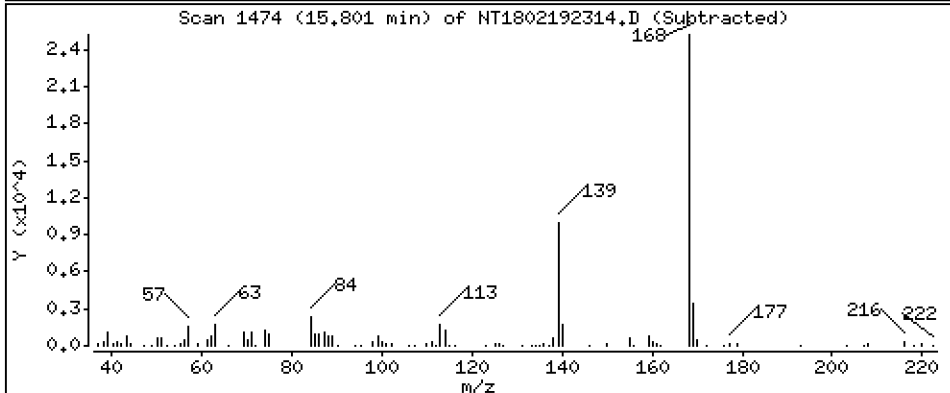
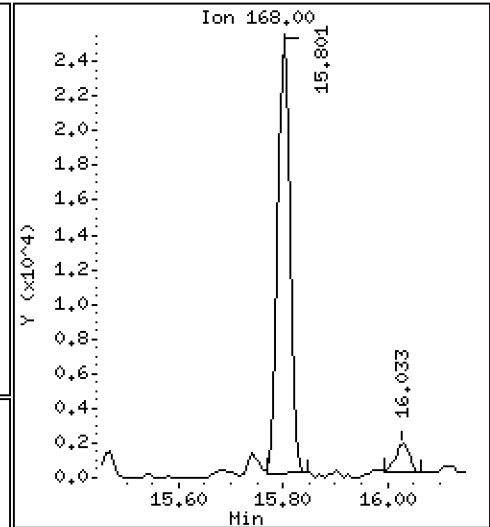
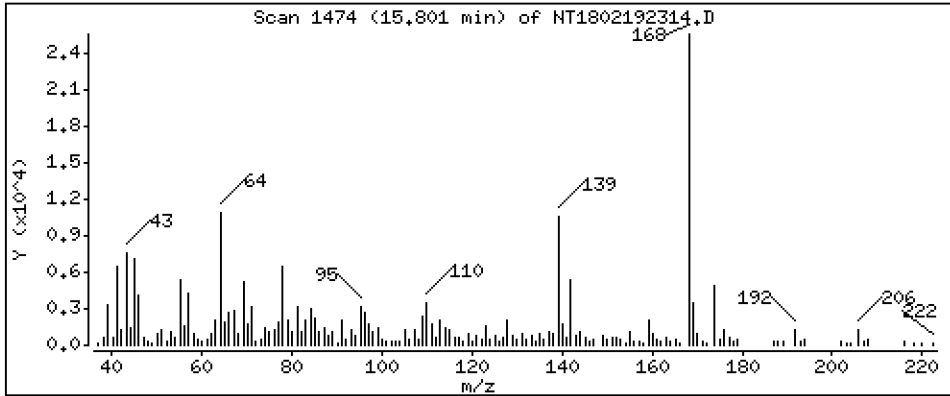
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,3451 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

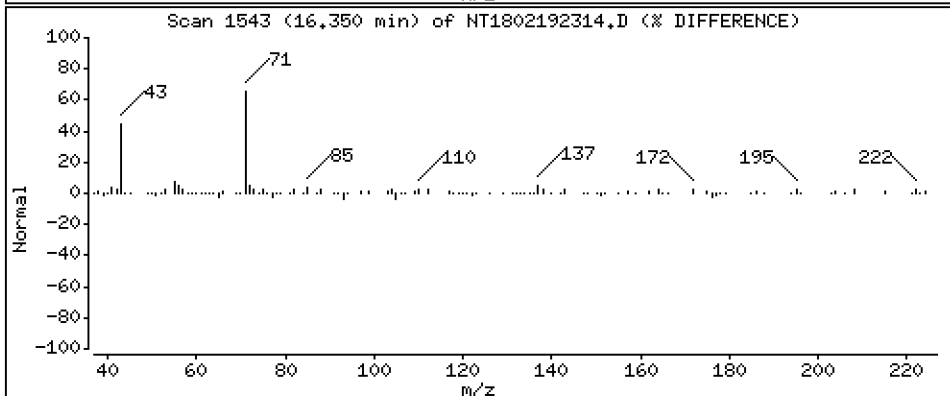
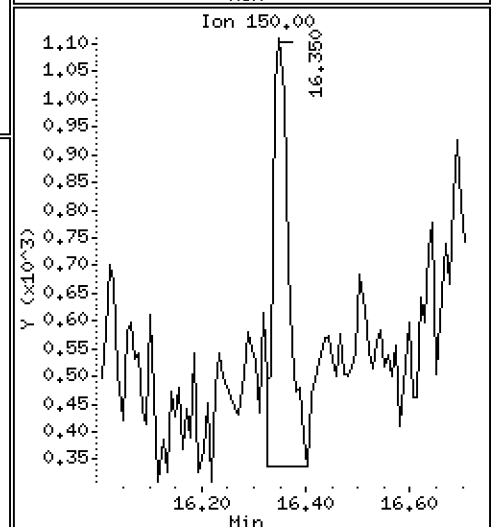
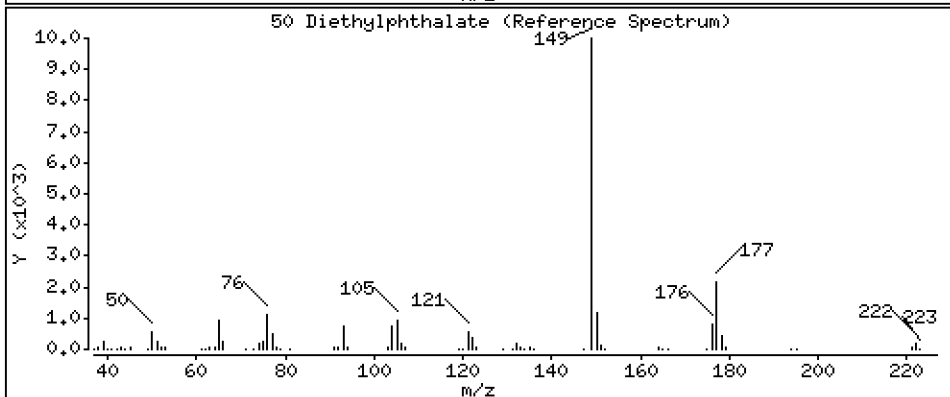
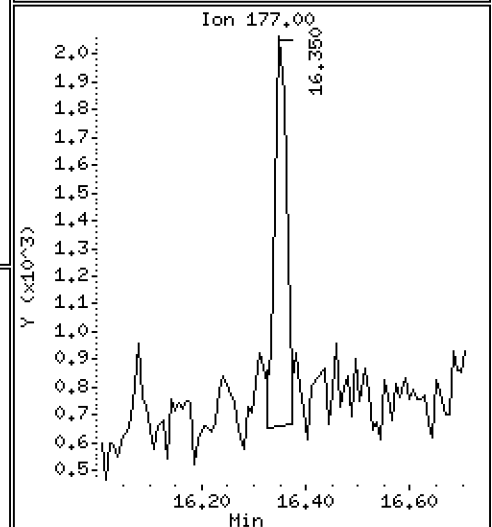
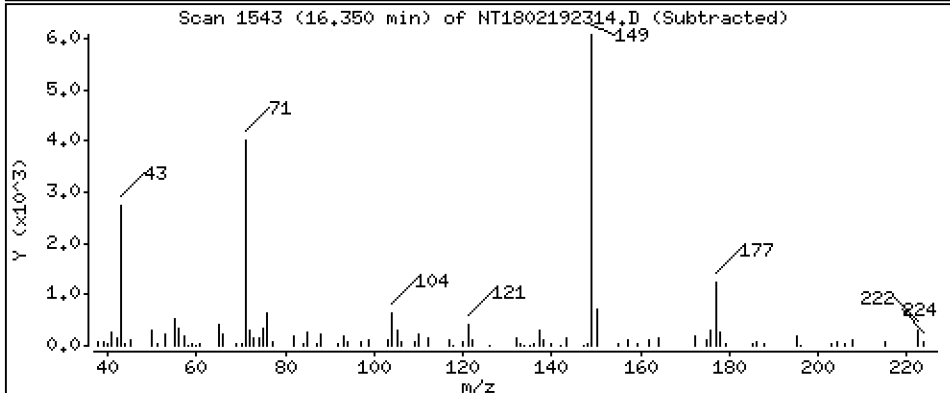
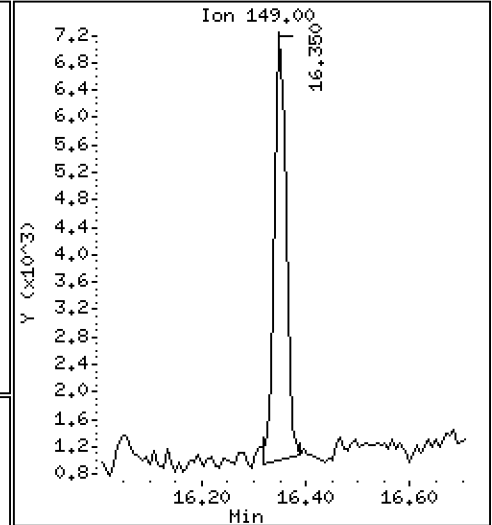
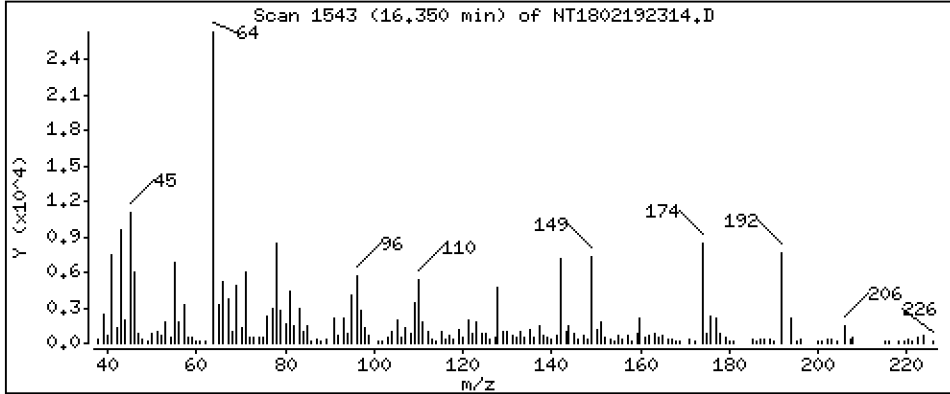
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.1108 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

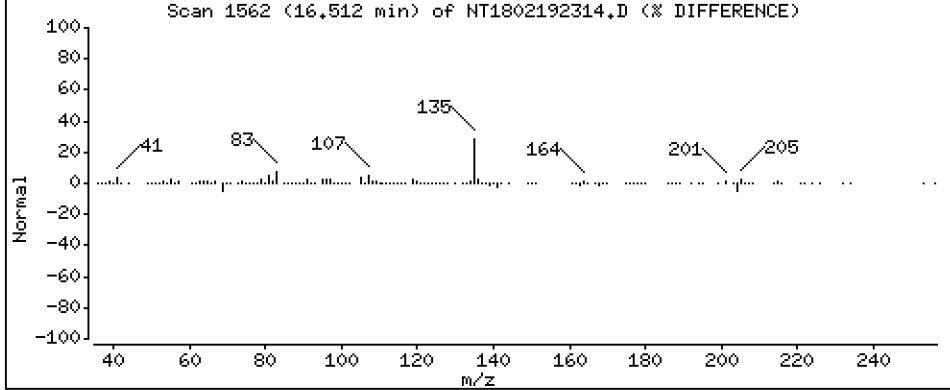
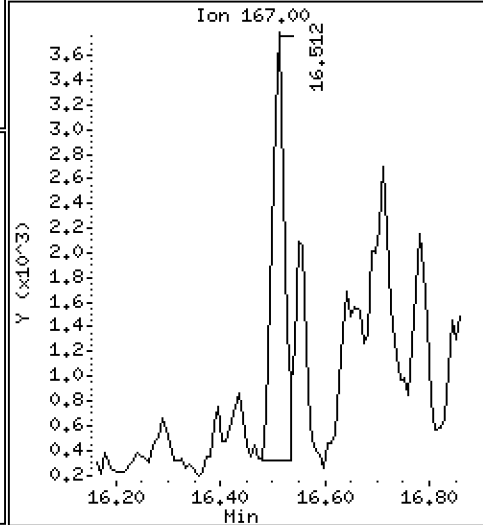
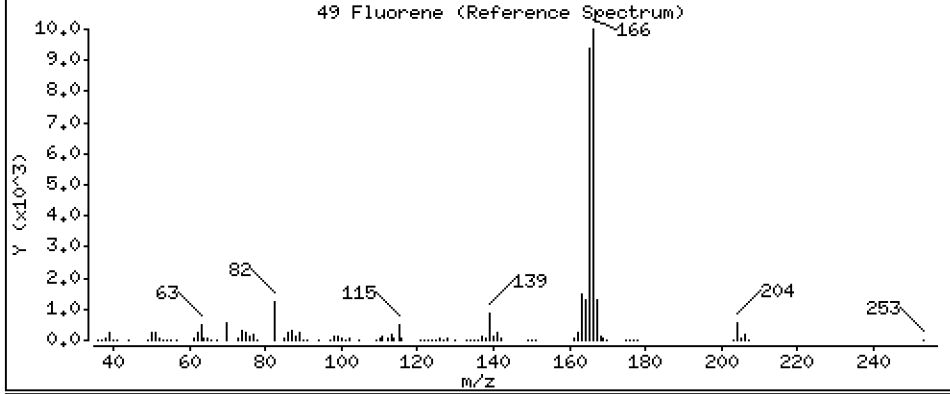
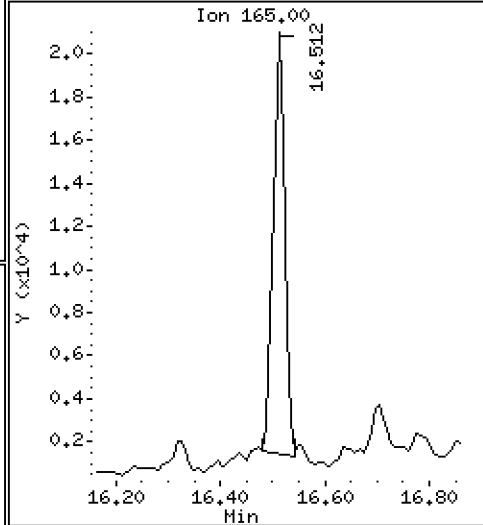
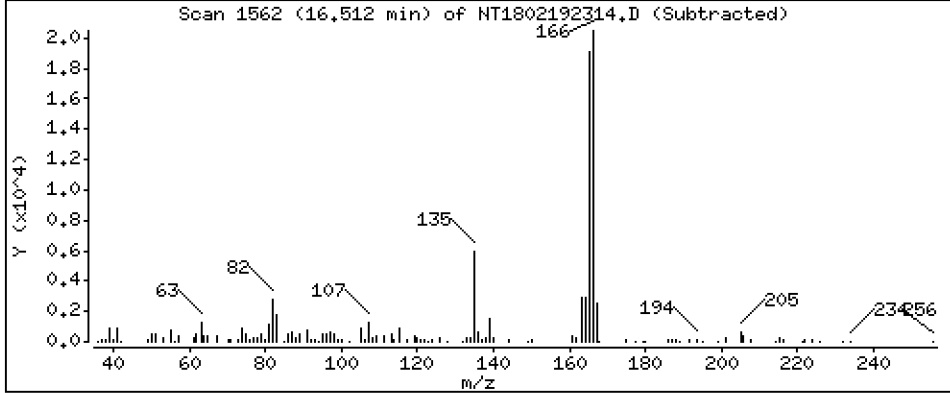
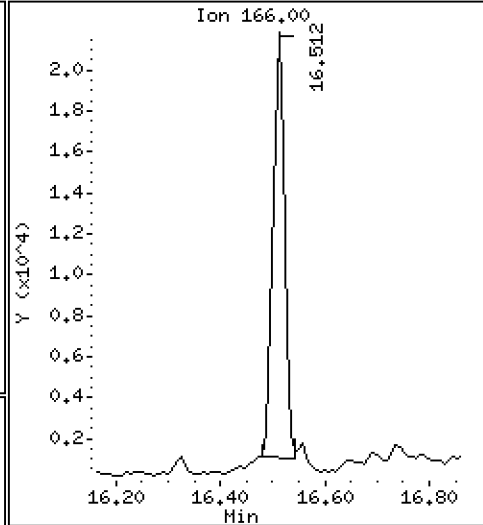
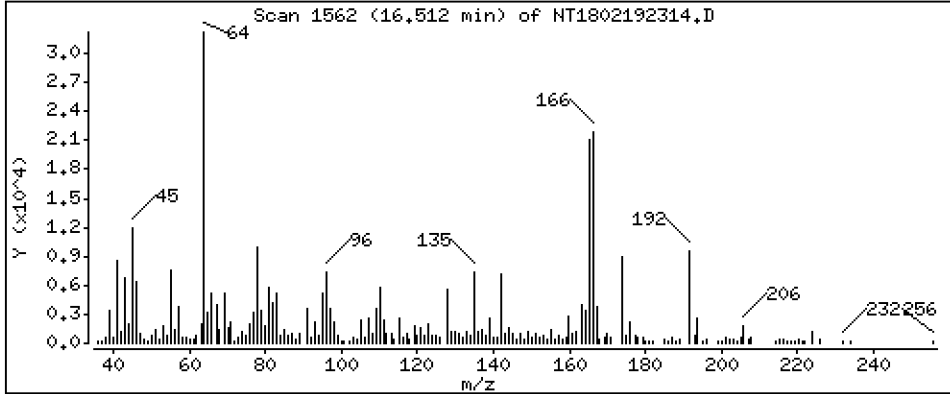
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,3500 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18,i

Sample Info: 23A0032-11RE1

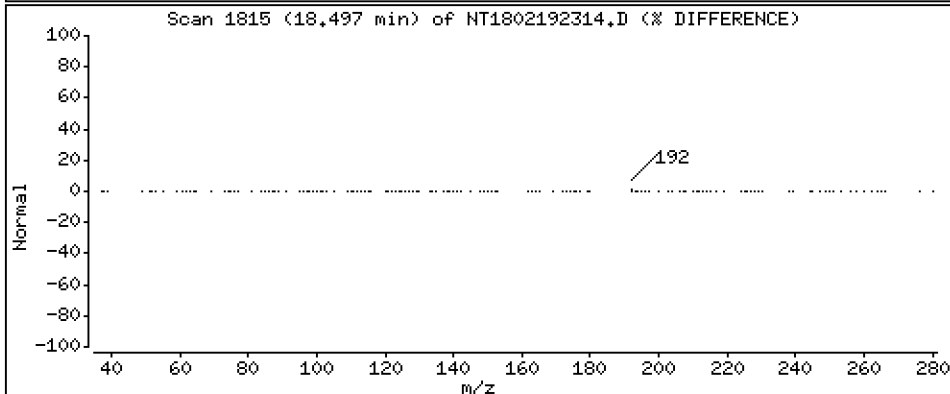
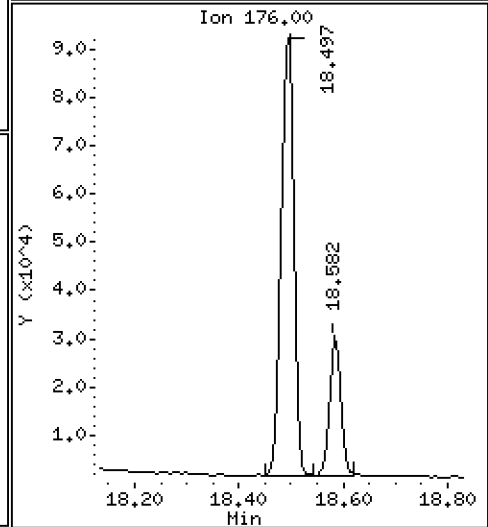
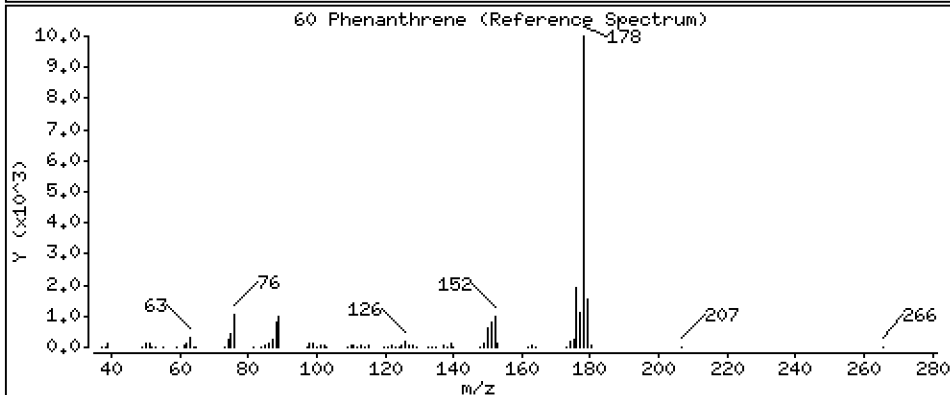
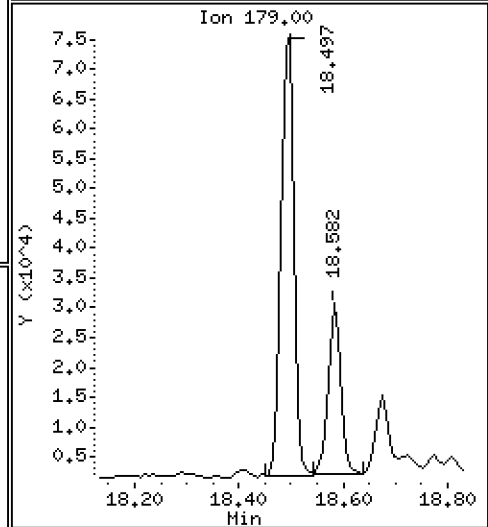
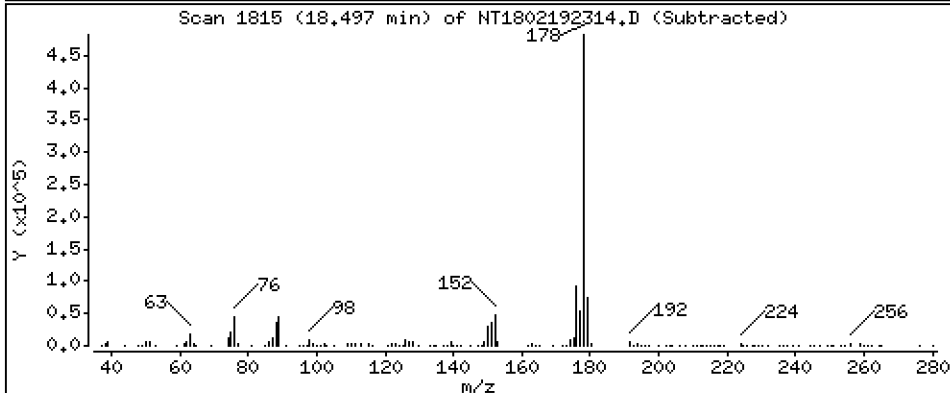
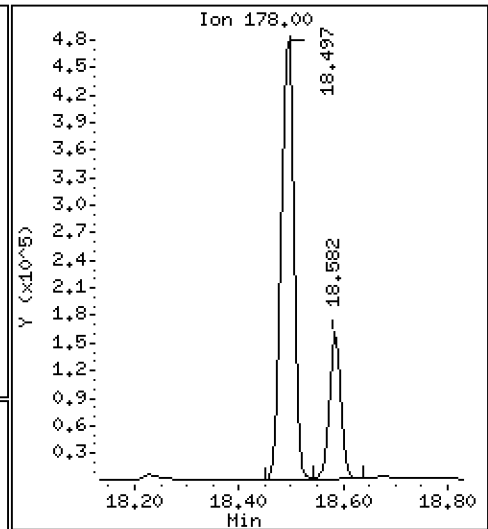
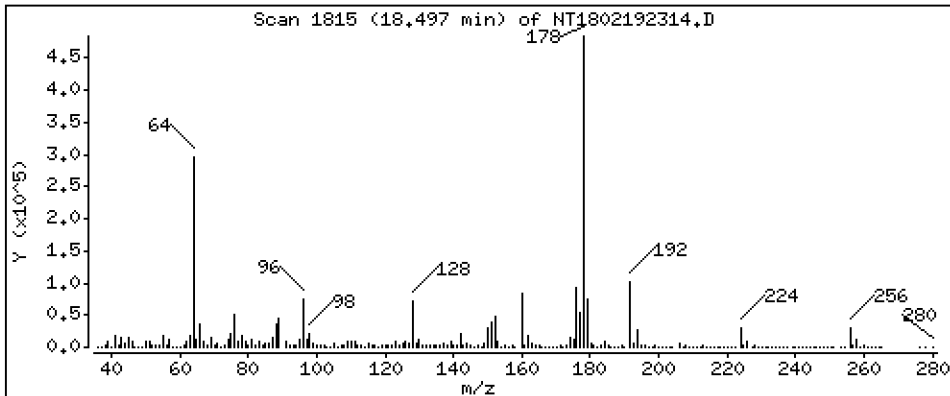
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 5,430 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

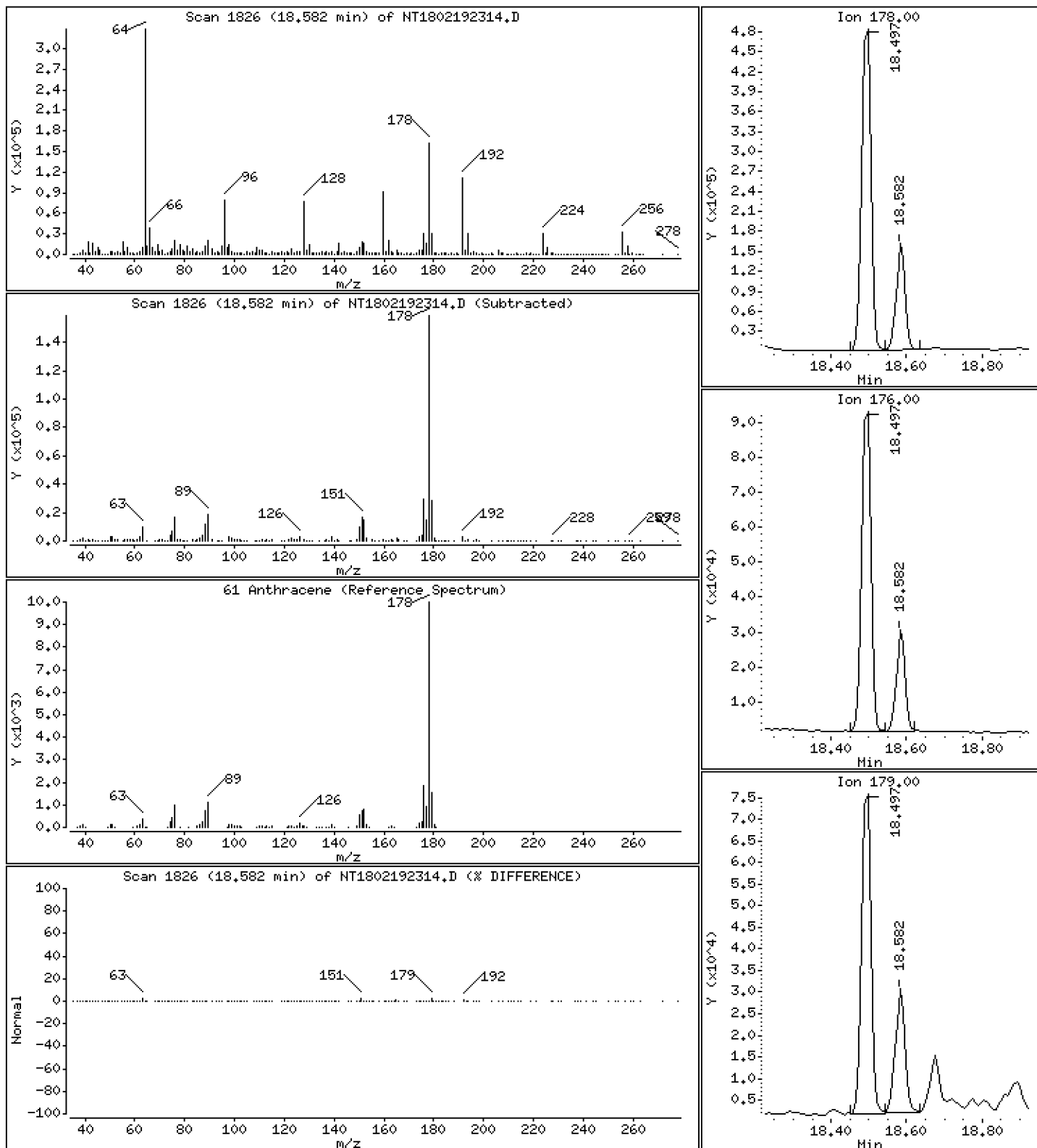
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 1,950 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

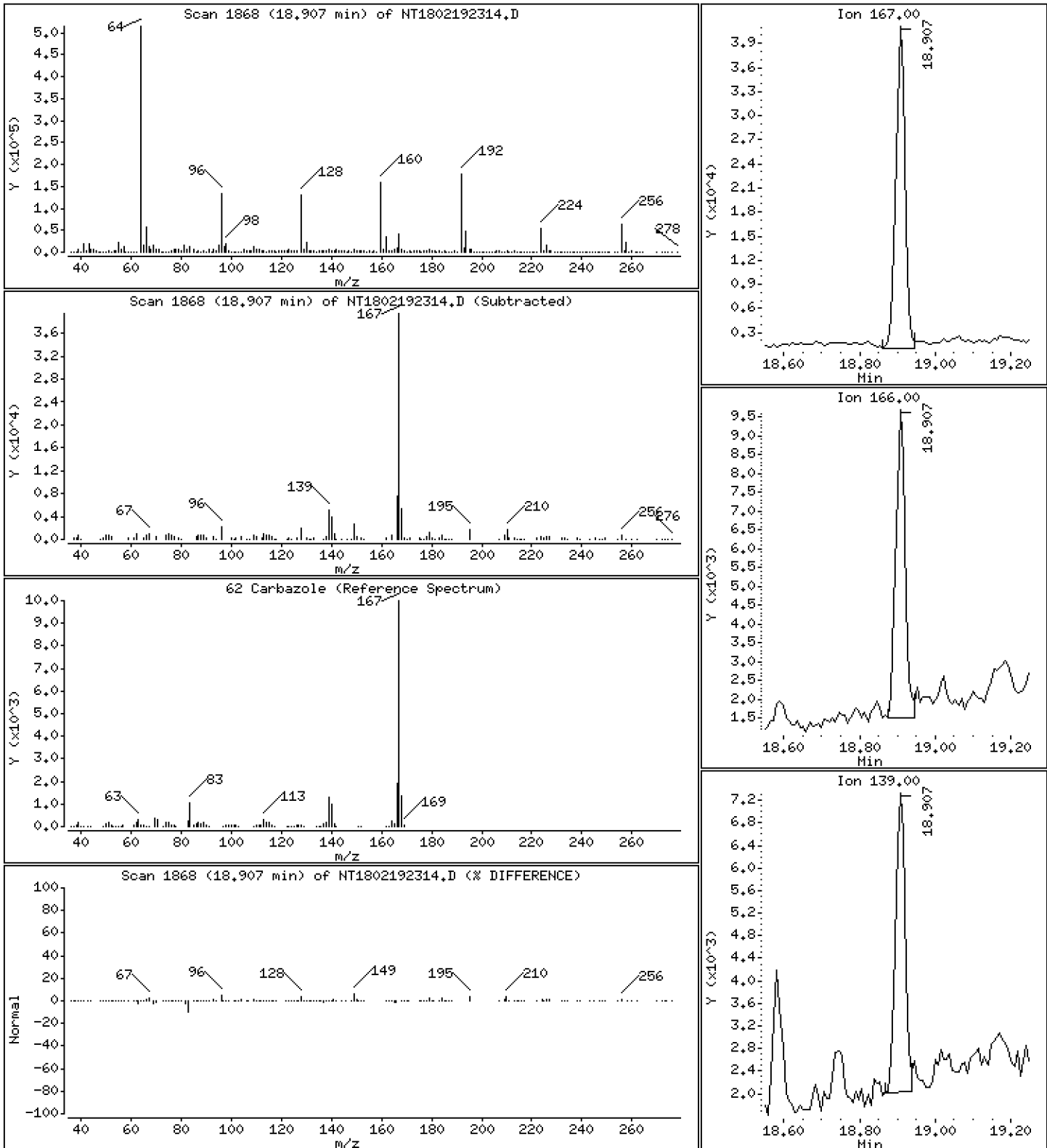
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,5174 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

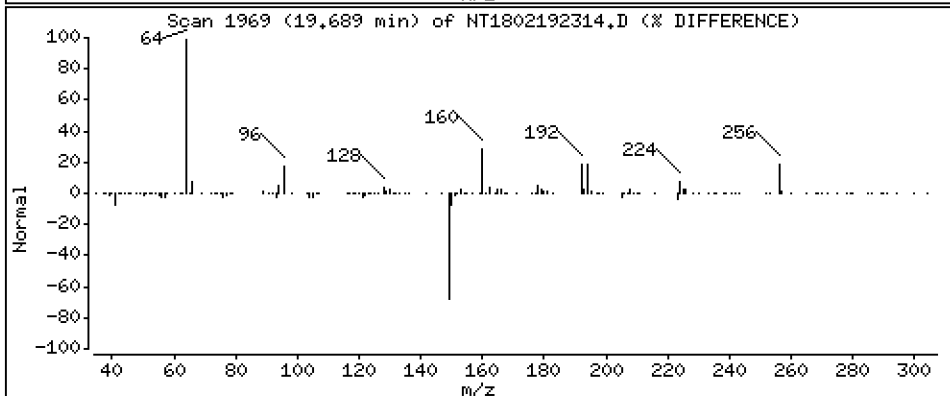
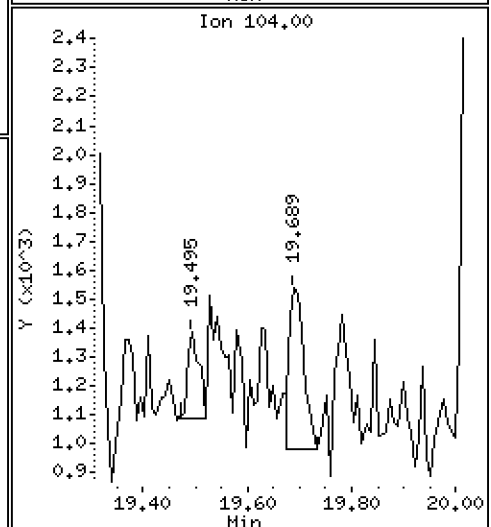
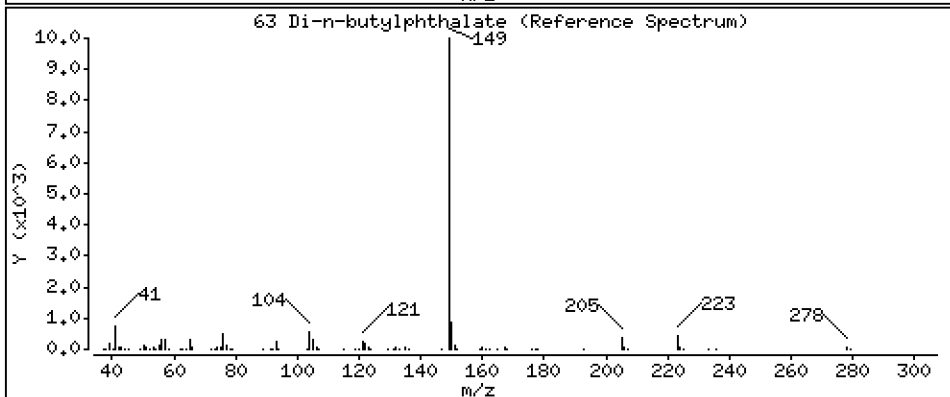
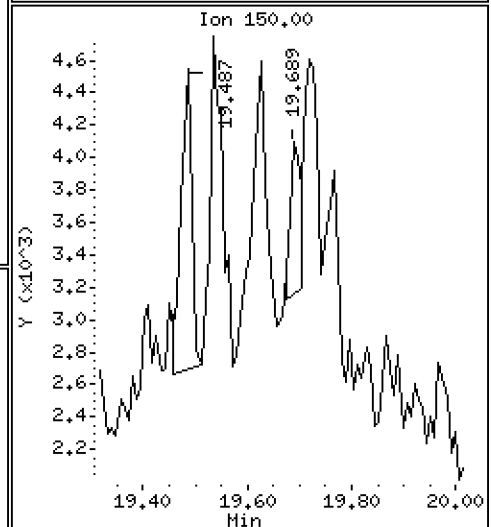
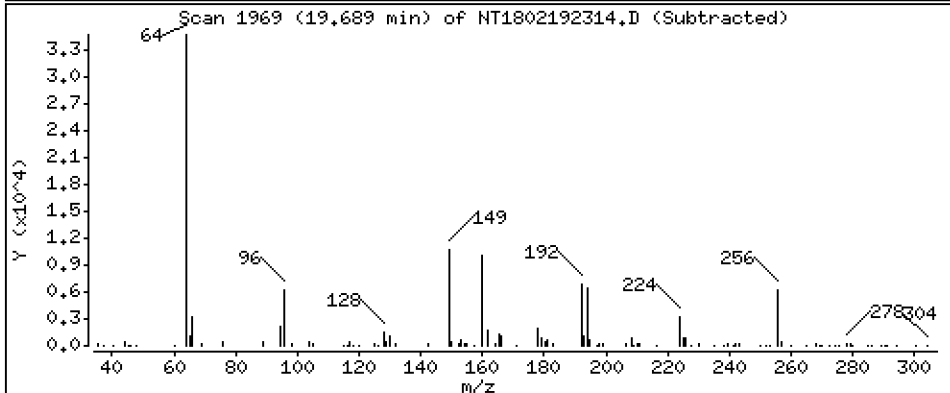
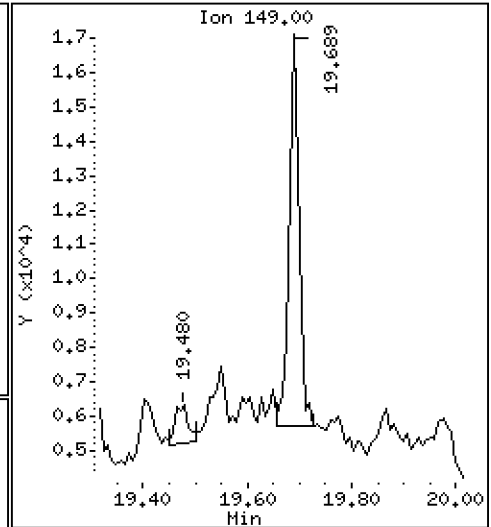
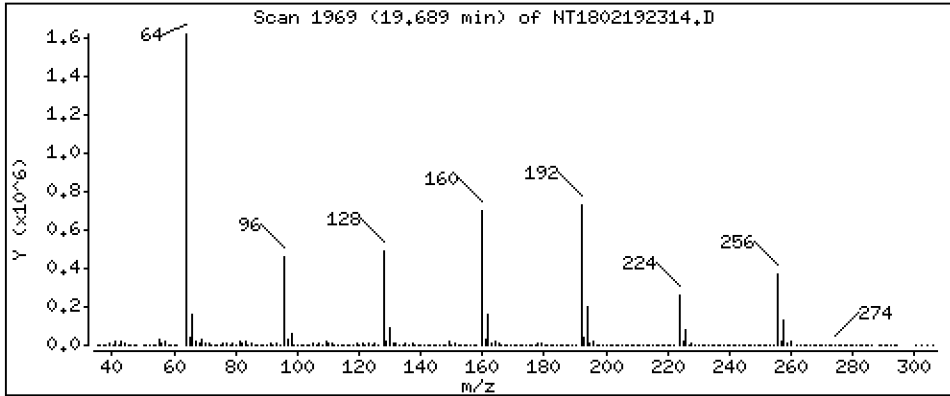
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

63 Di-n-butylphthalate

Concentration: 0.09426 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

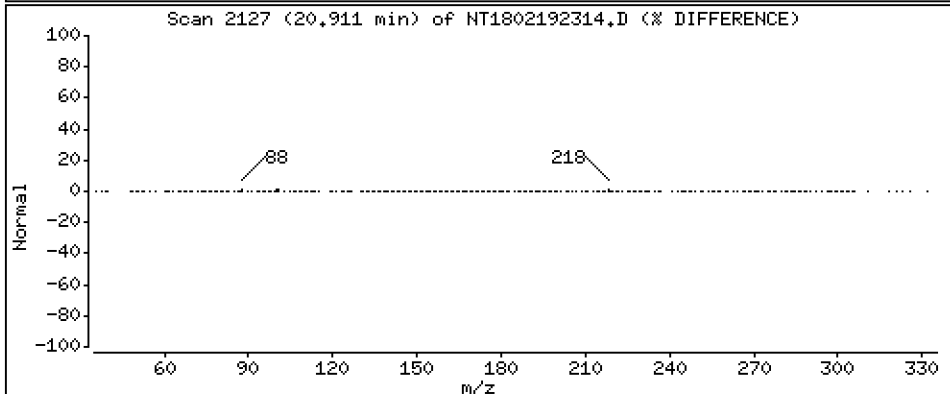
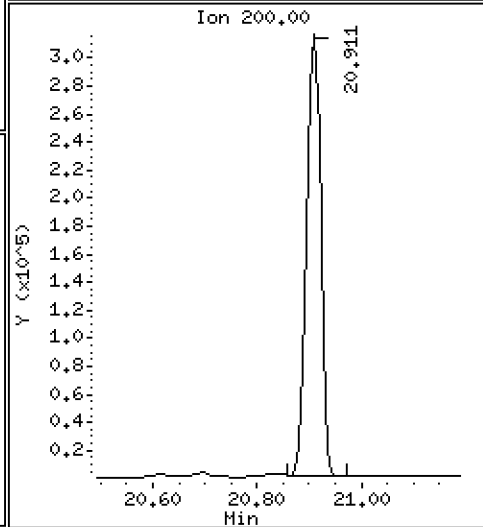
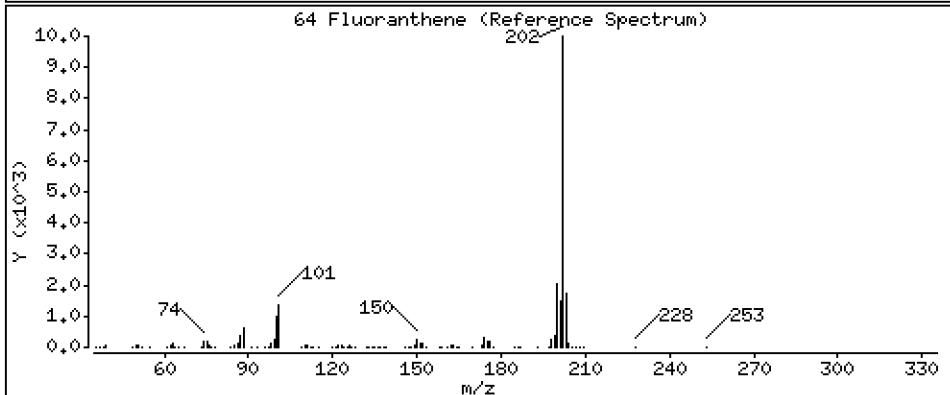
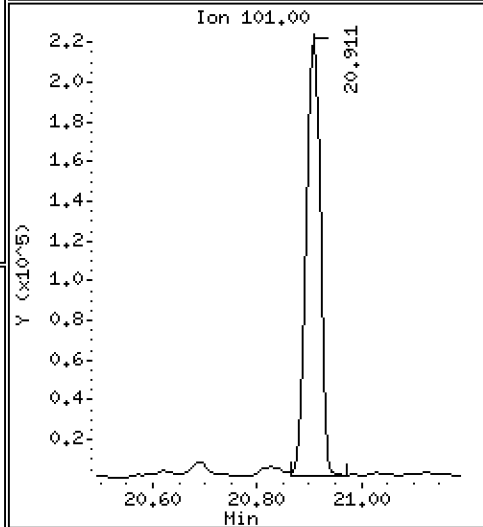
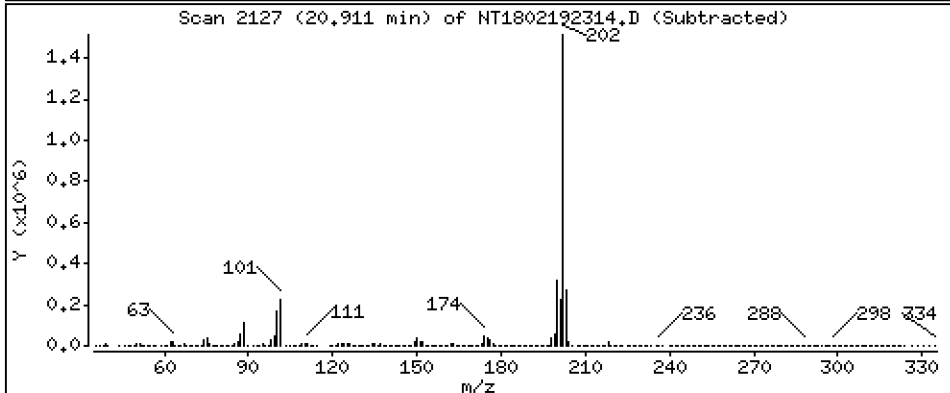
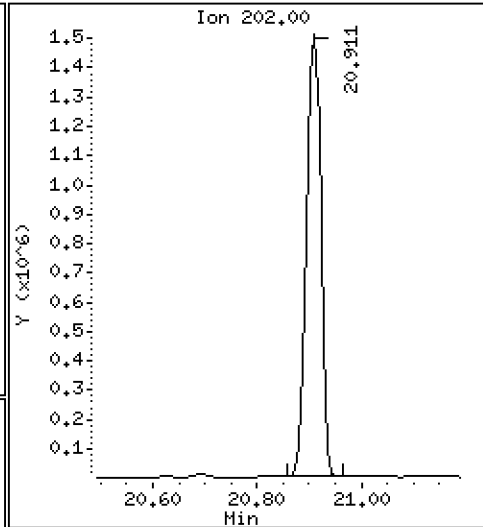
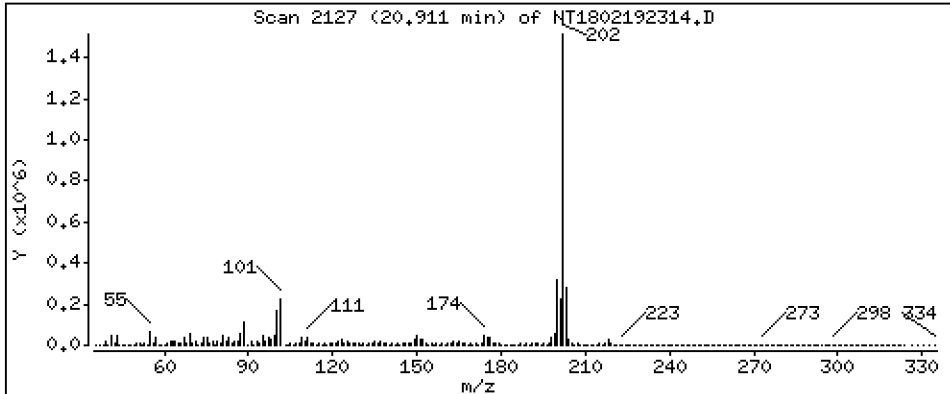
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 15,32 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

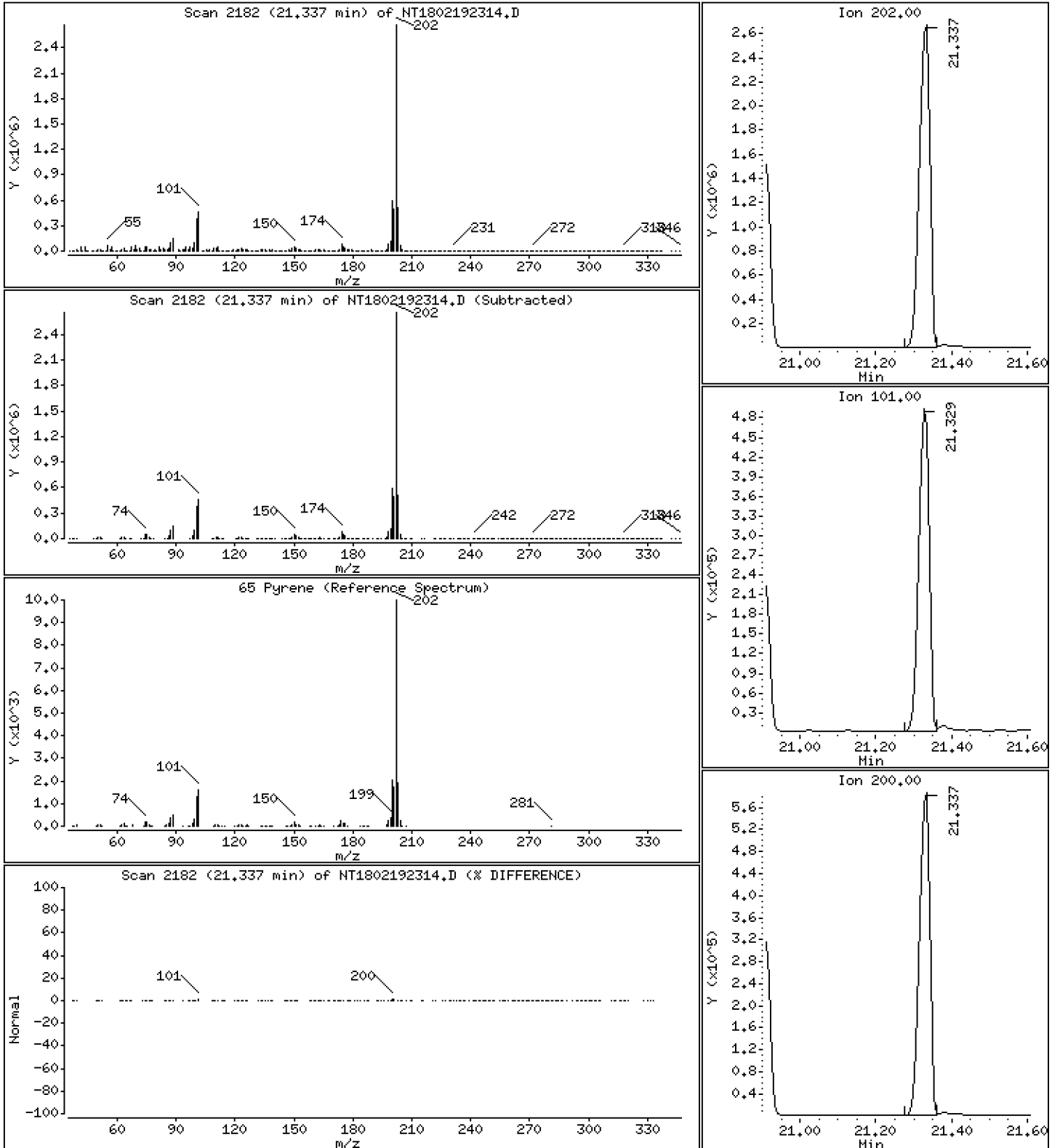
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 25,95 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

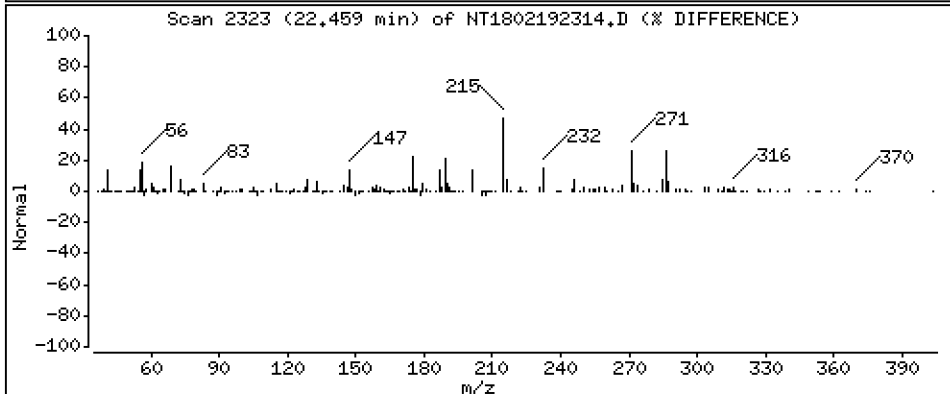
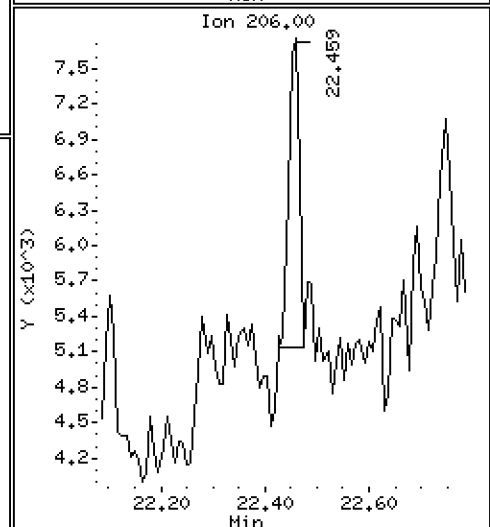
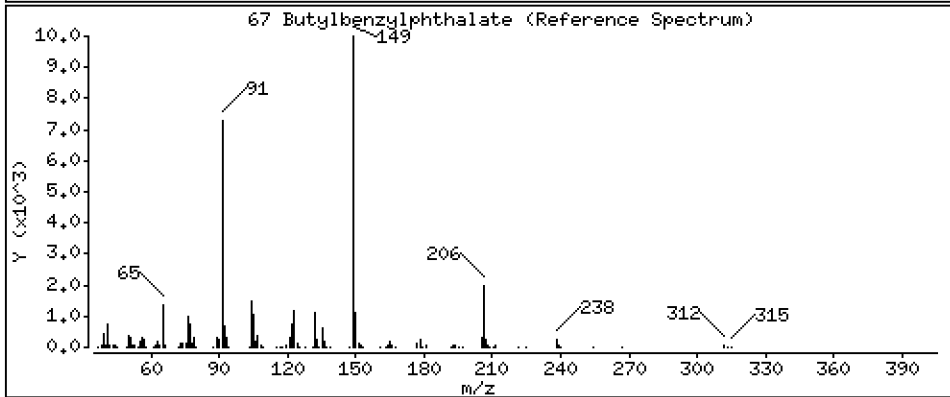
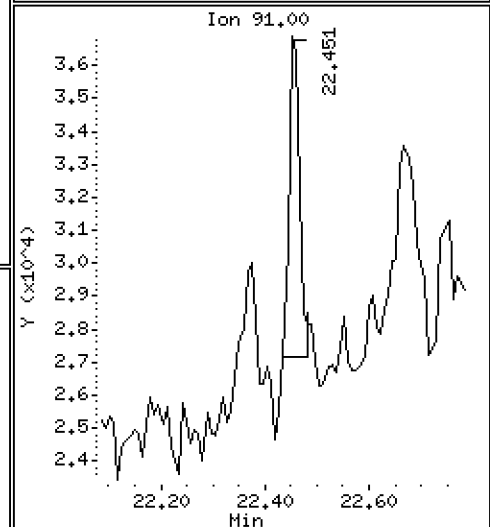
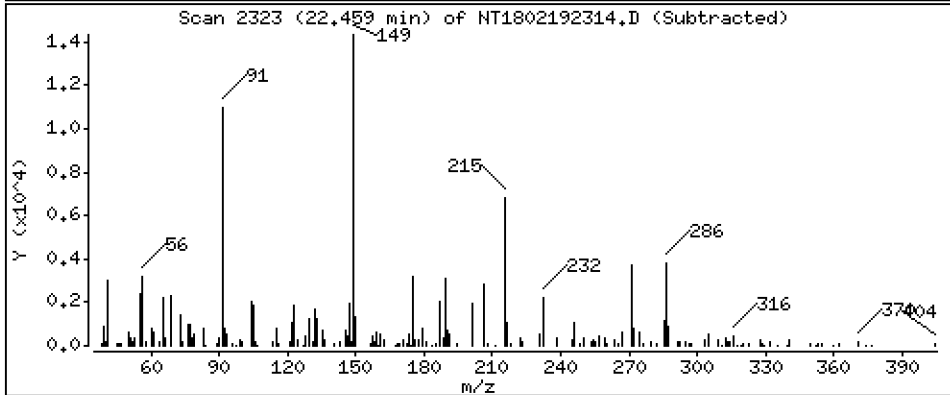
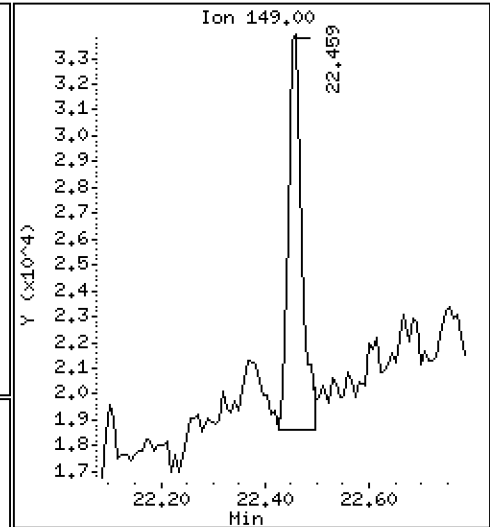
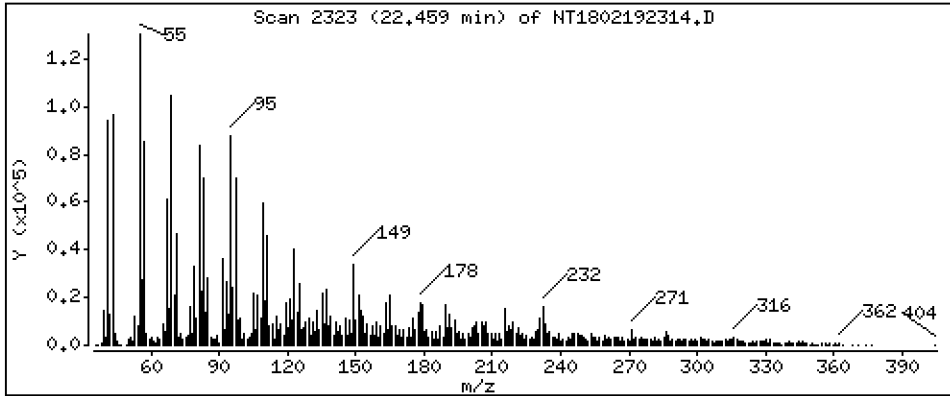
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.3073 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

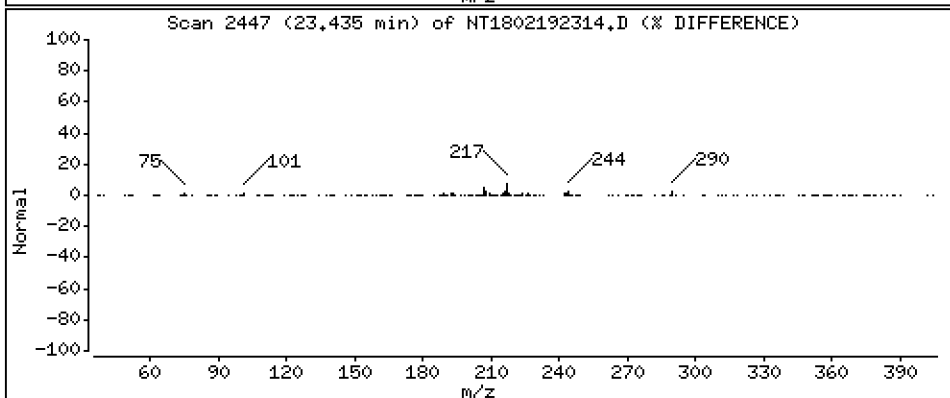
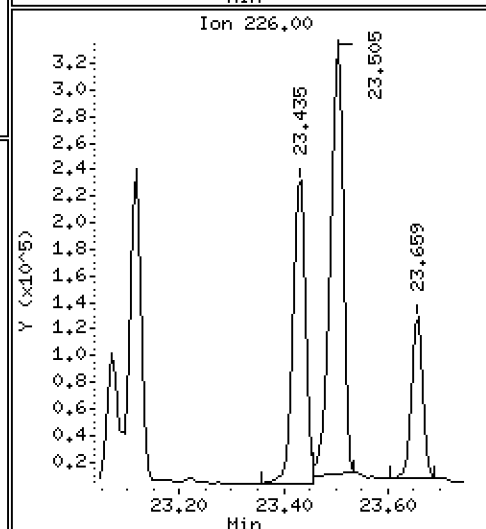
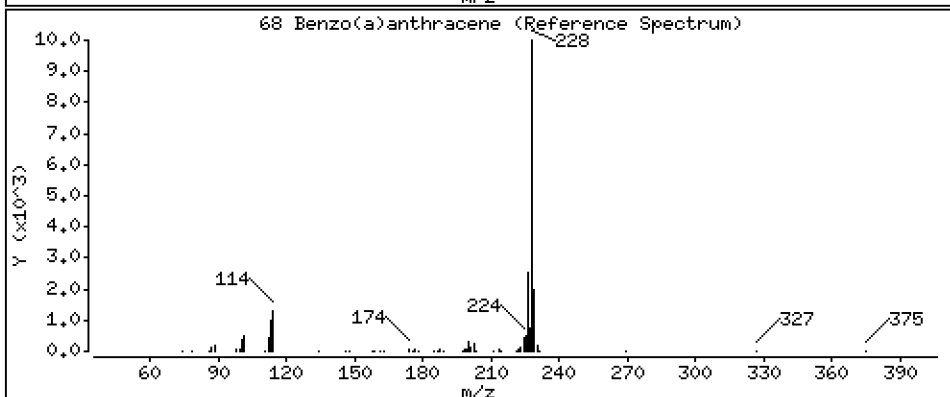
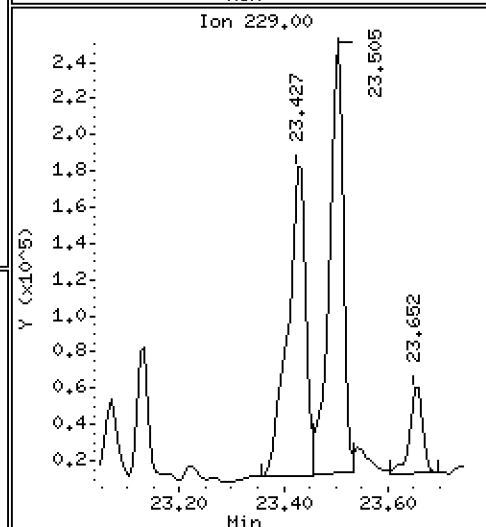
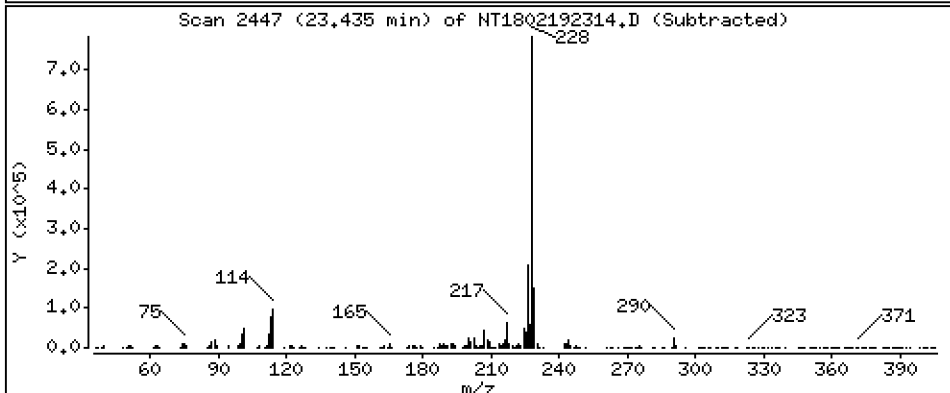
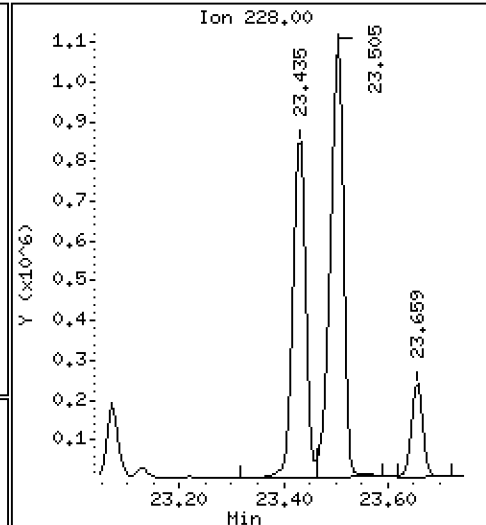
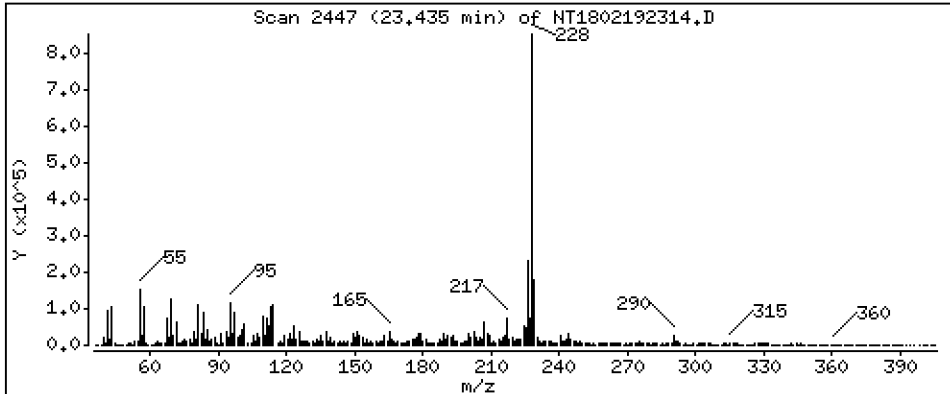
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 8,217 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

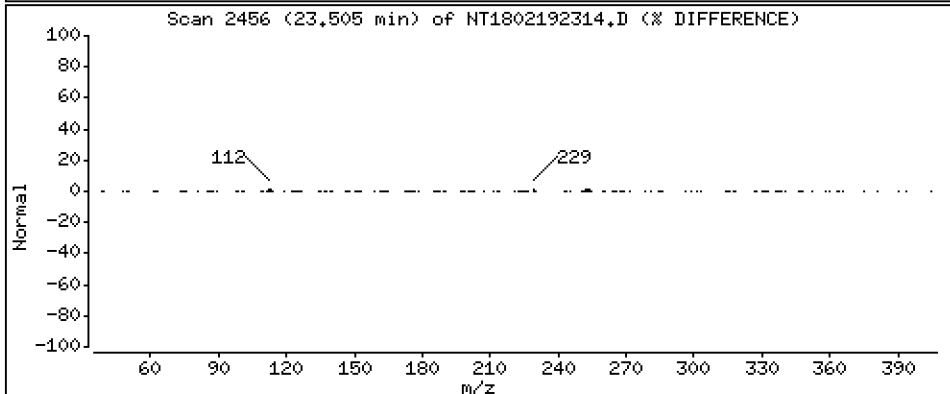
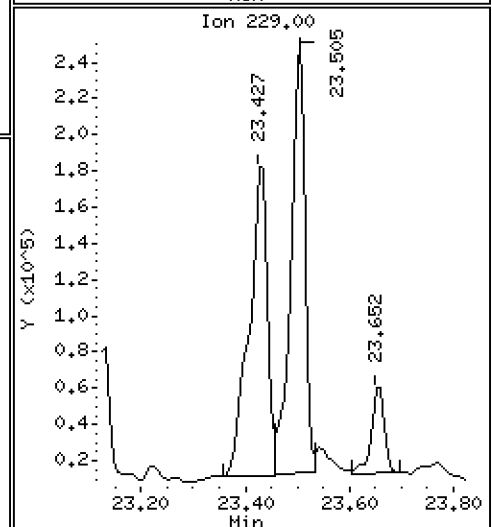
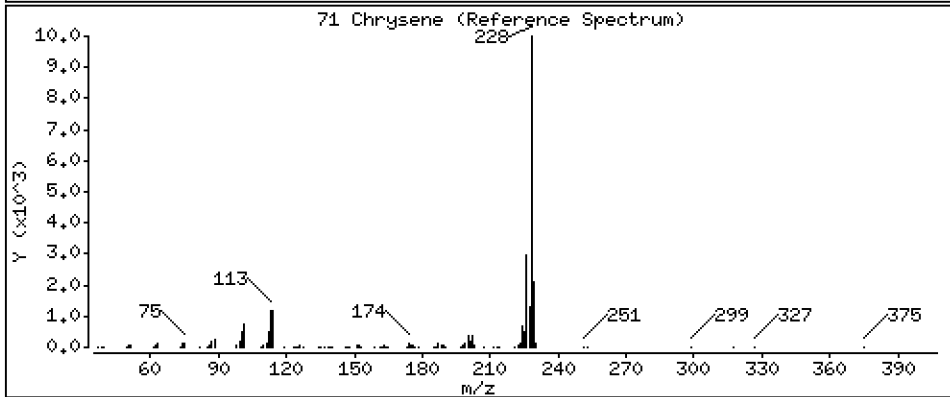
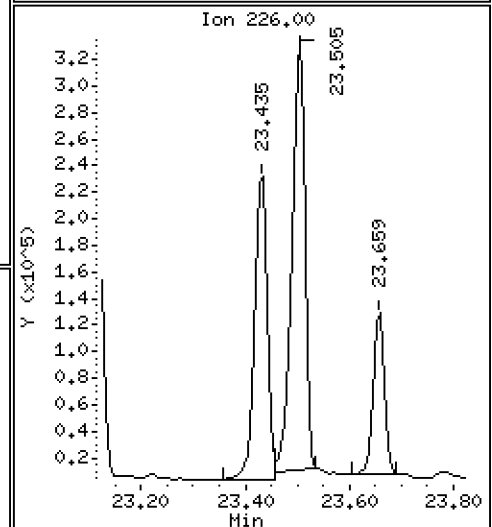
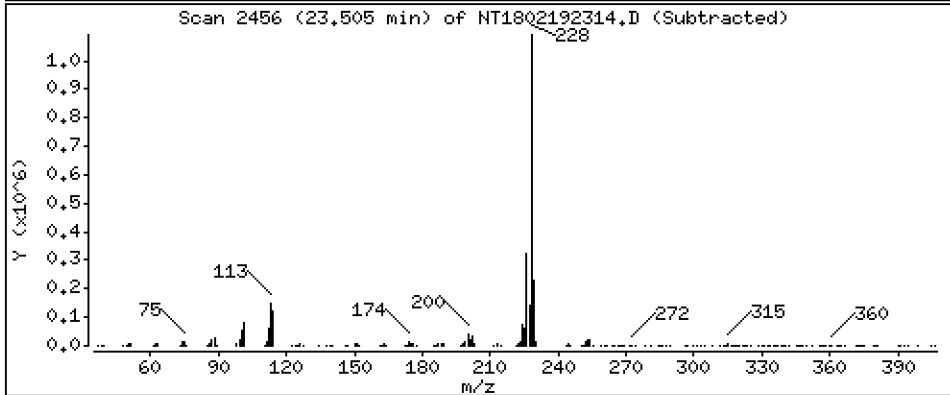
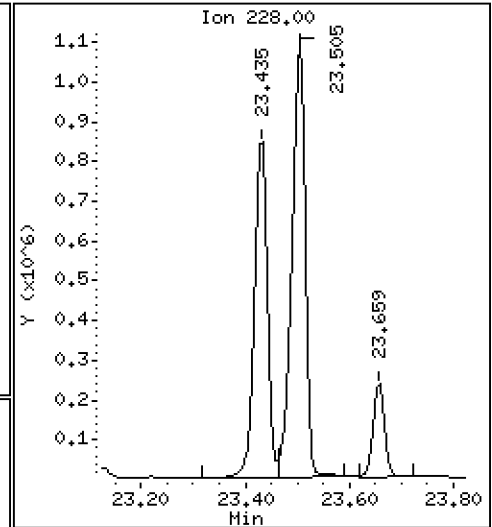
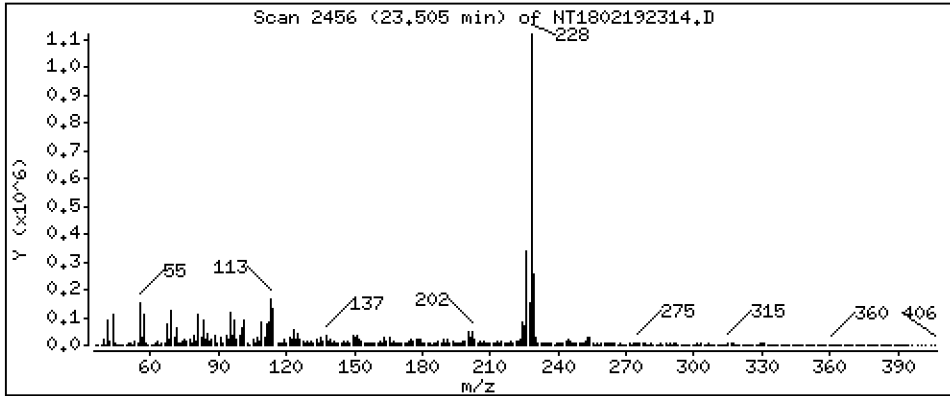
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 10,11 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

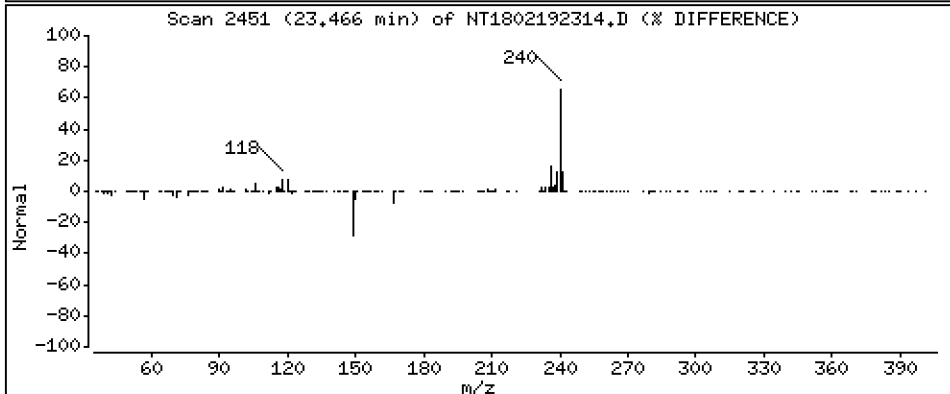
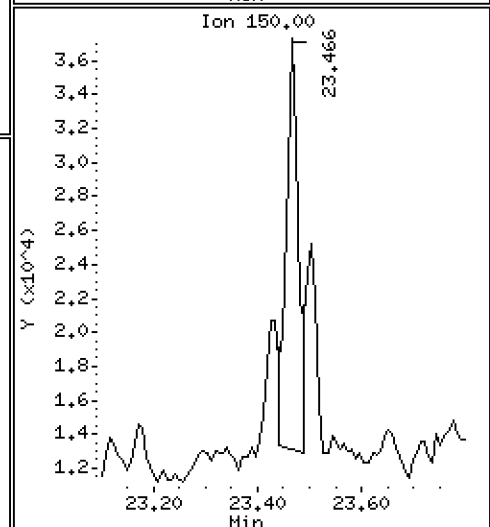
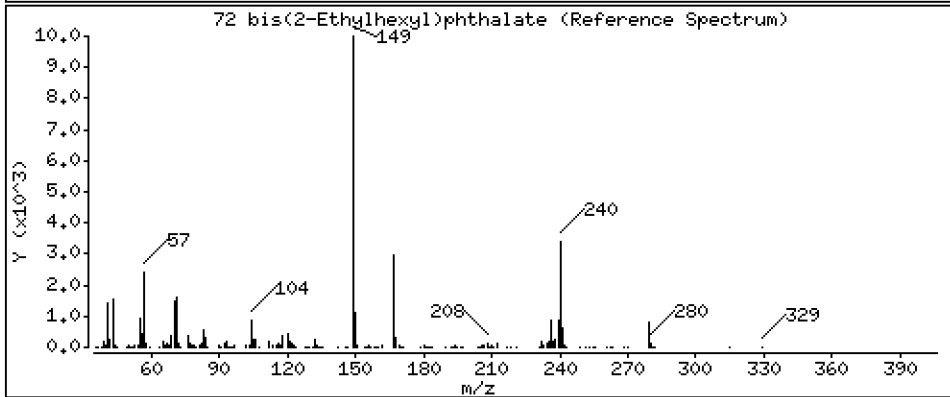
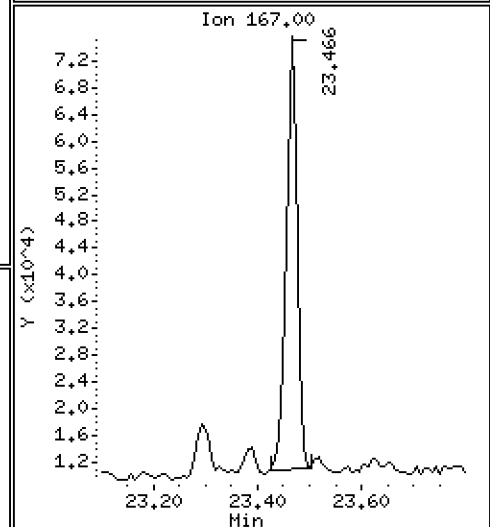
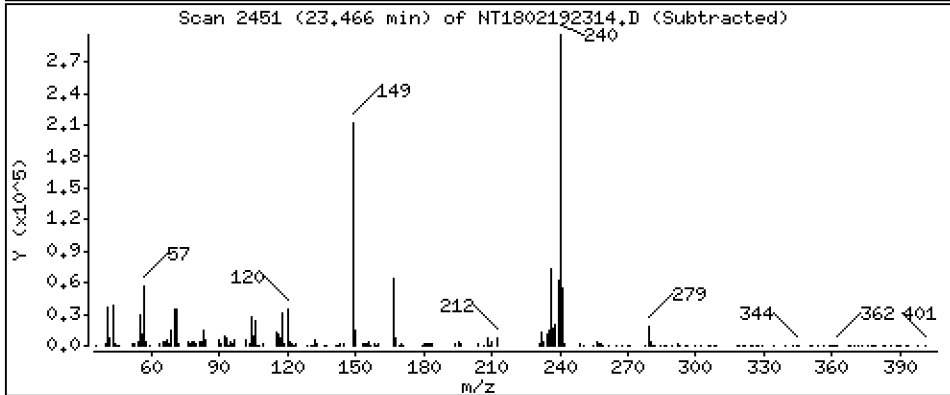
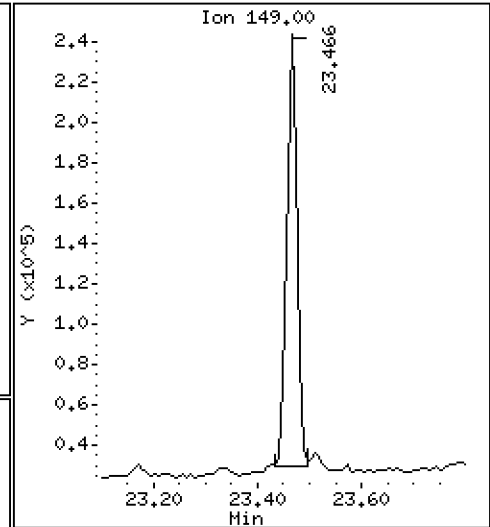
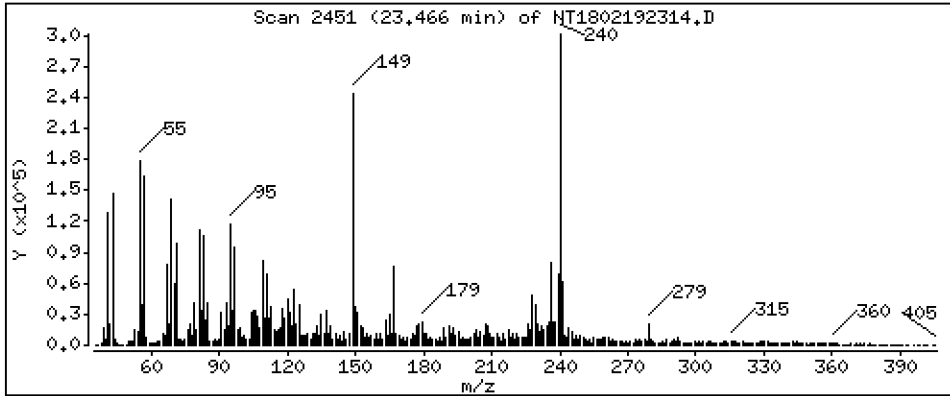
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 2,299 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

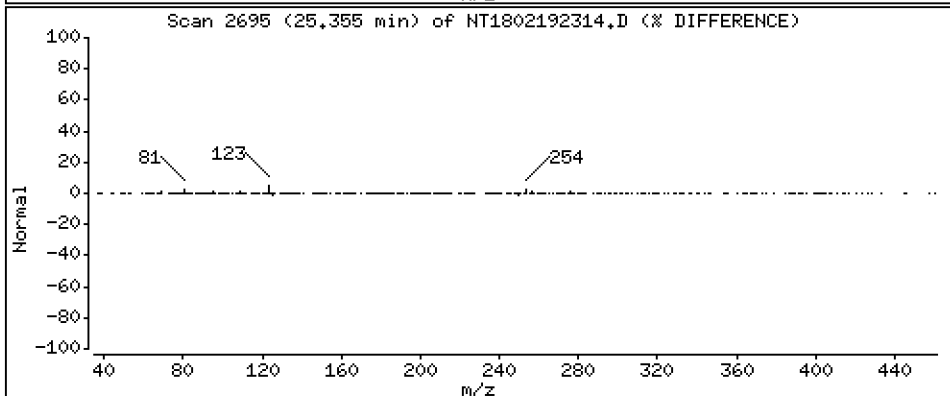
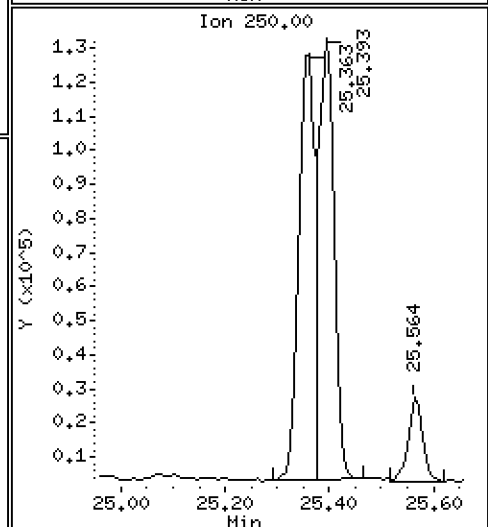
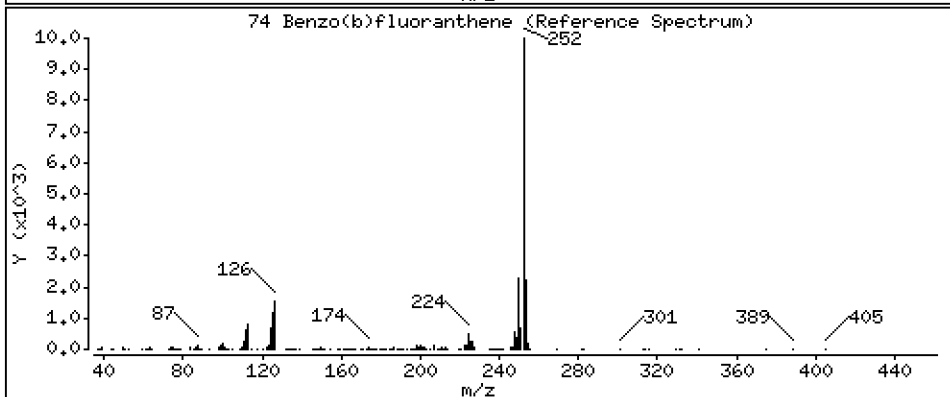
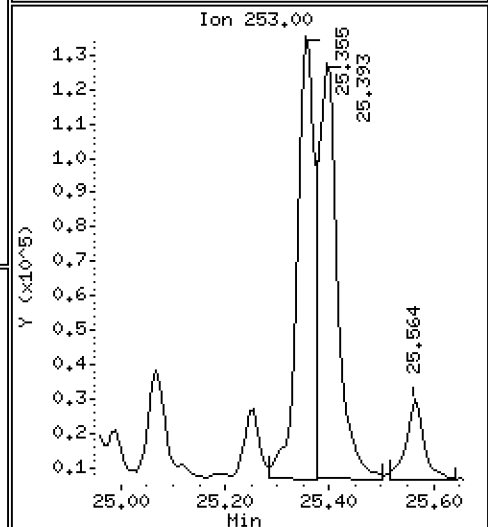
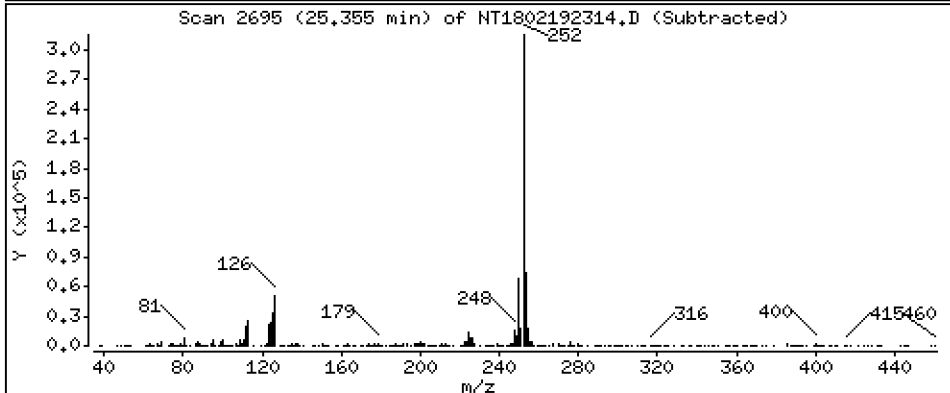
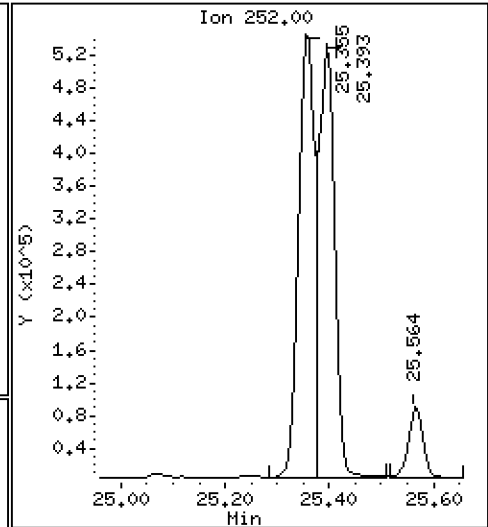
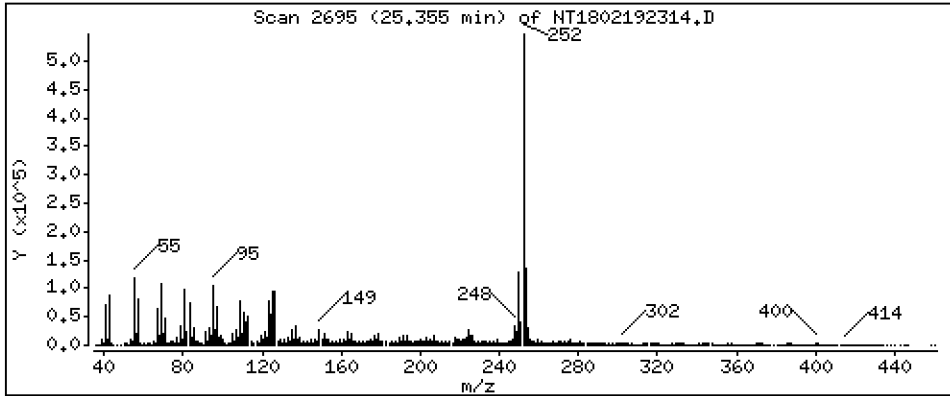
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 11,45 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

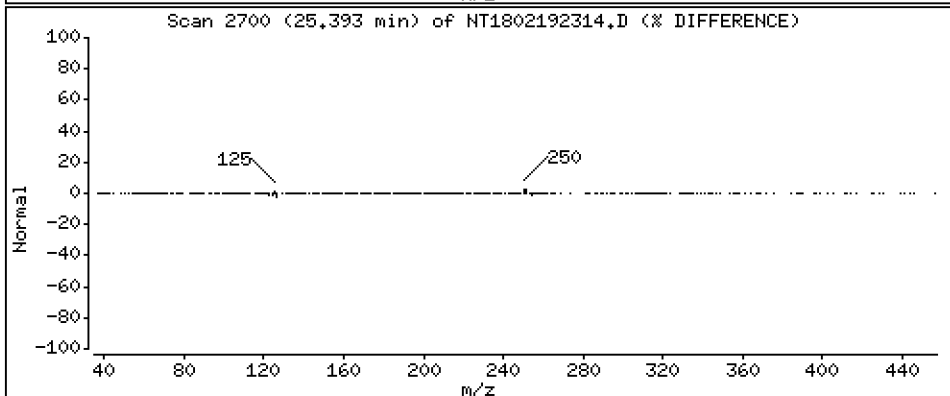
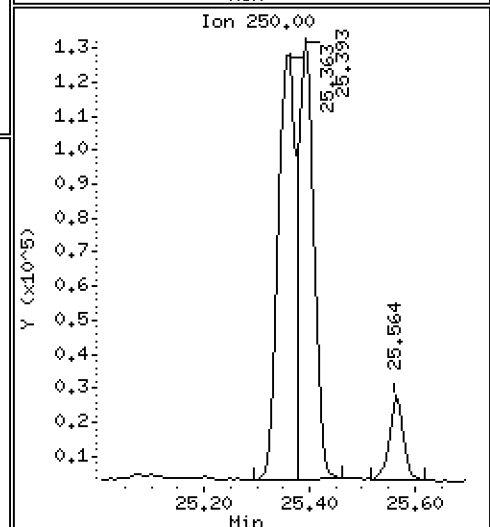
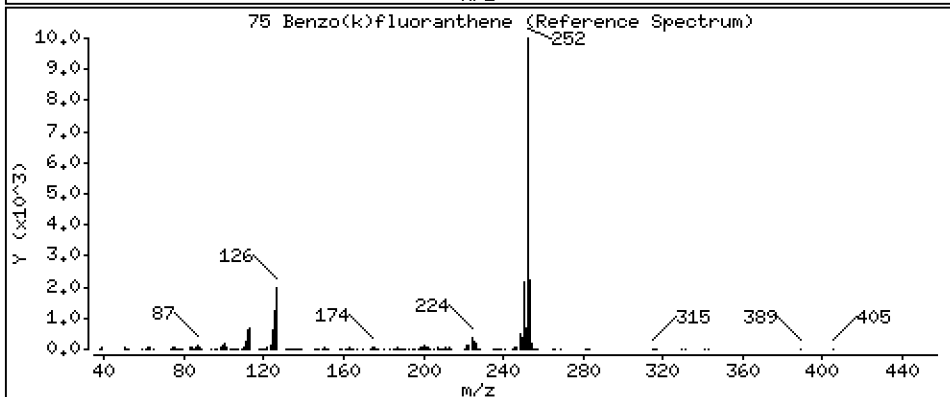
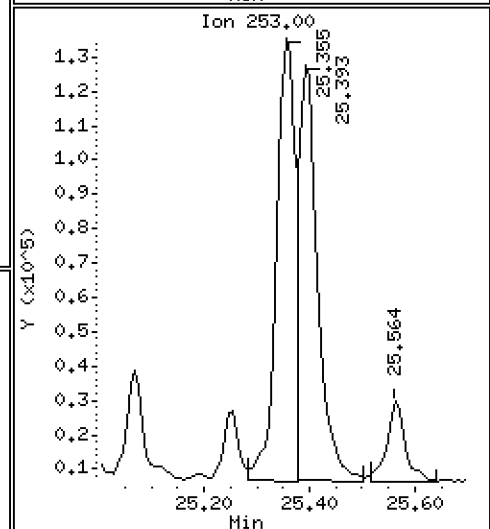
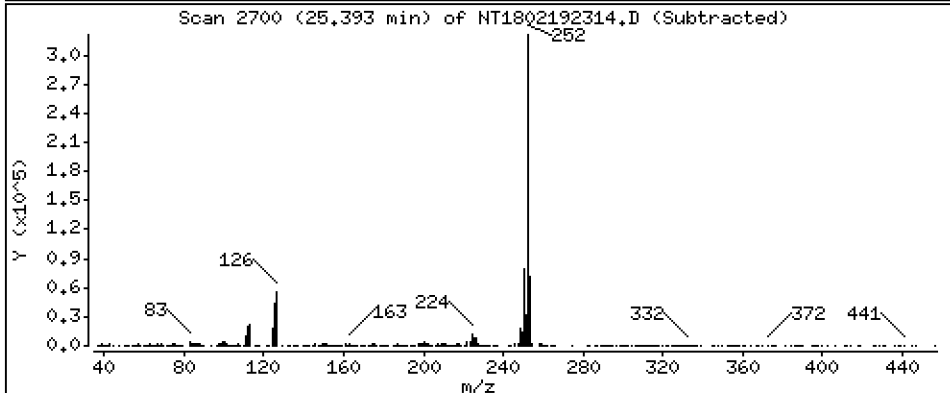
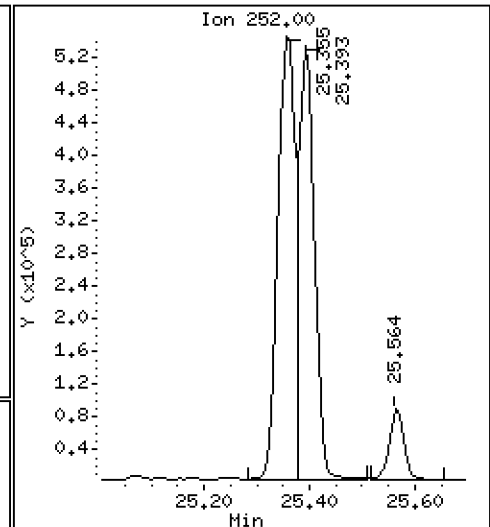
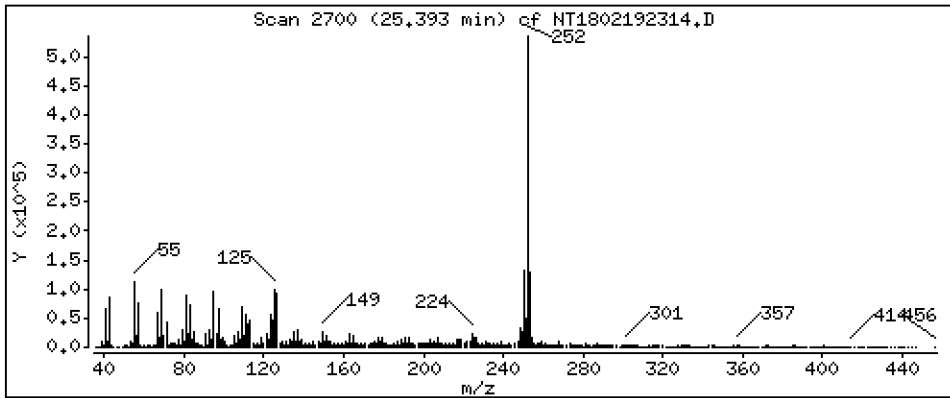
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 9,108 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

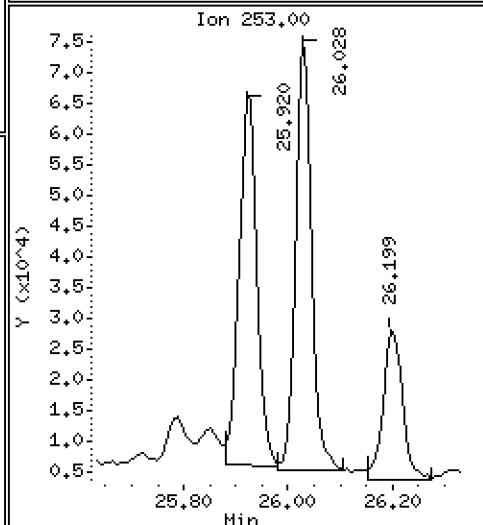
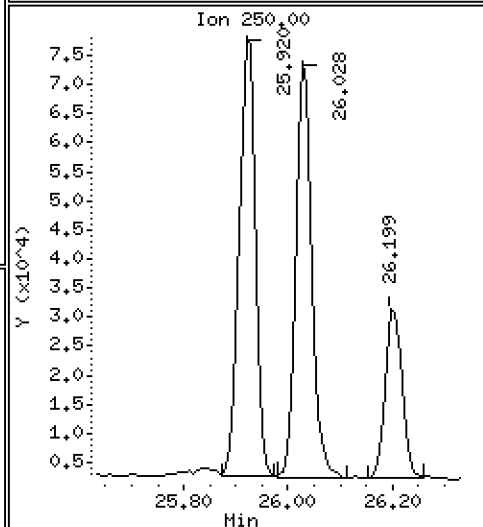
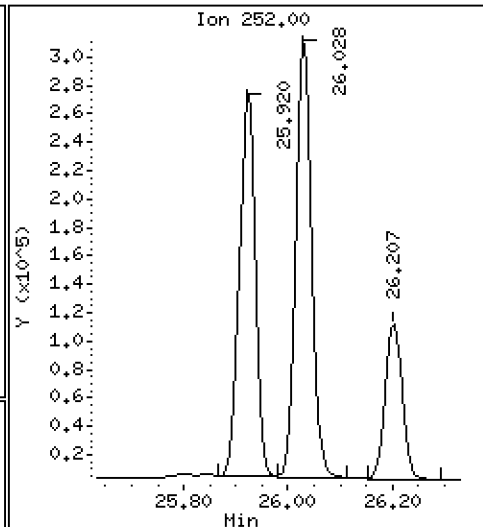
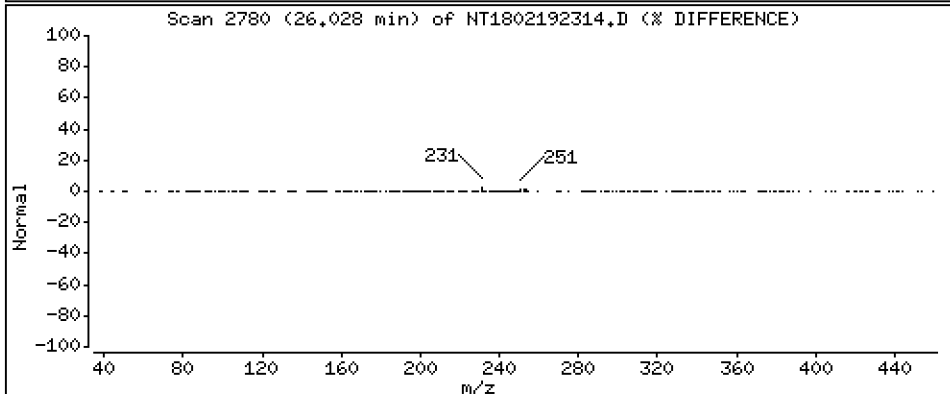
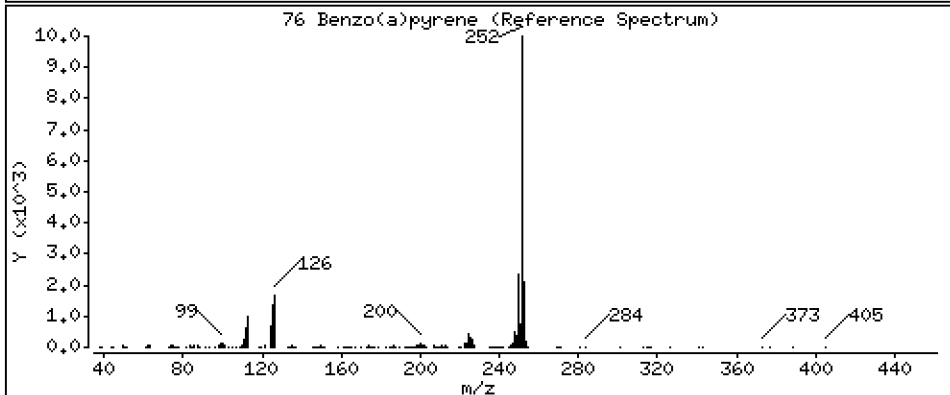
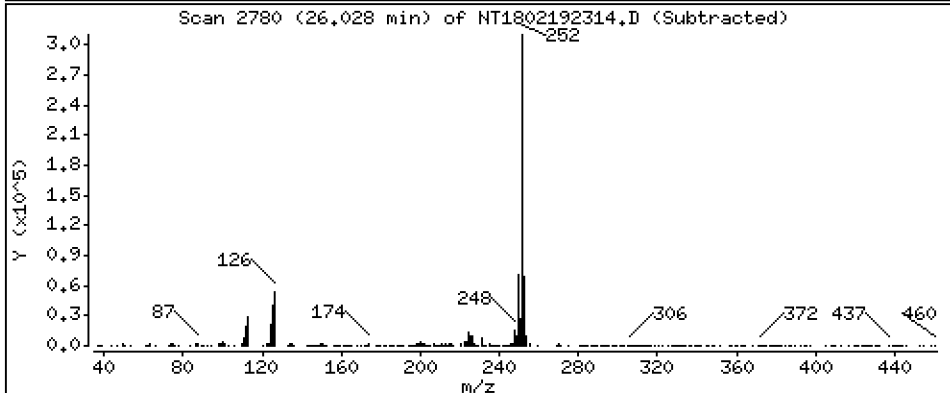
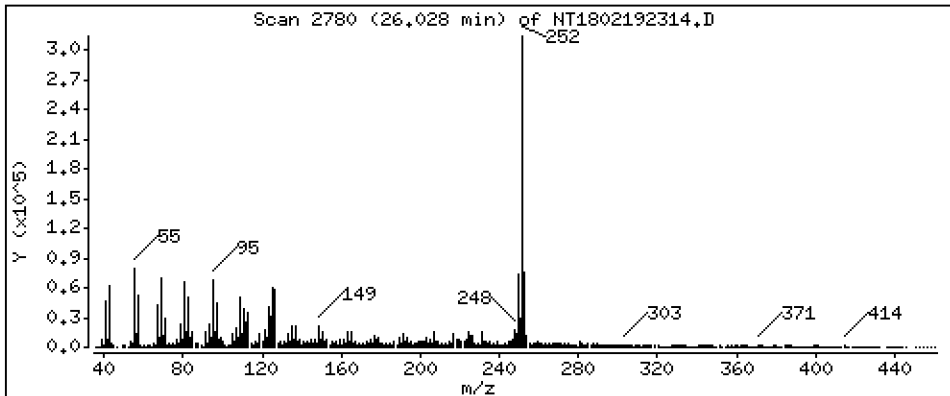
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 7,270 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

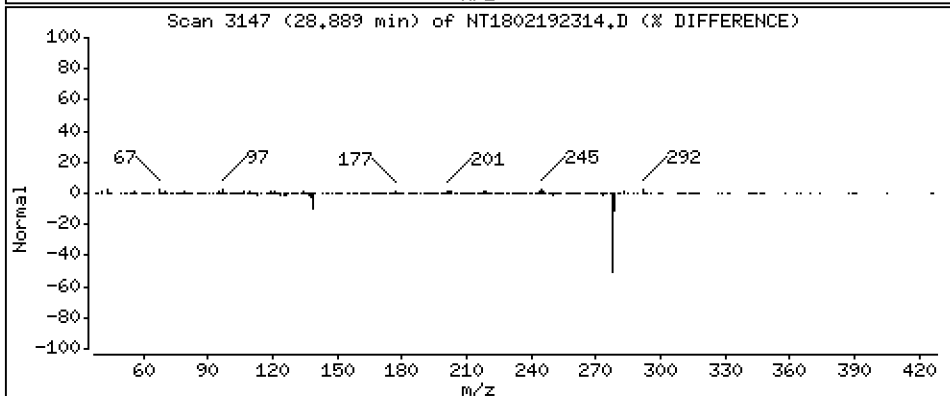
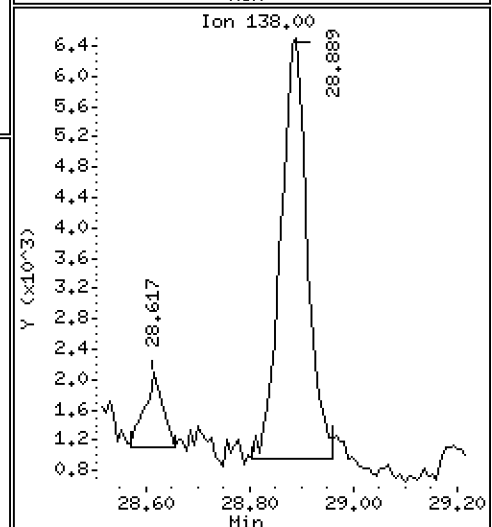
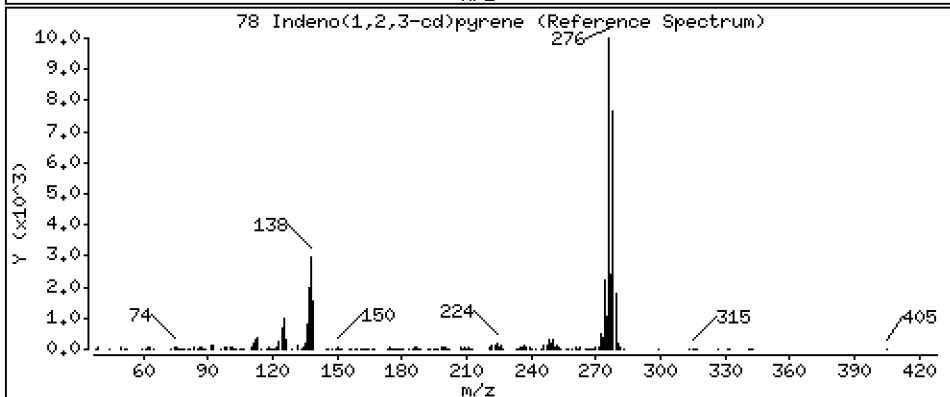
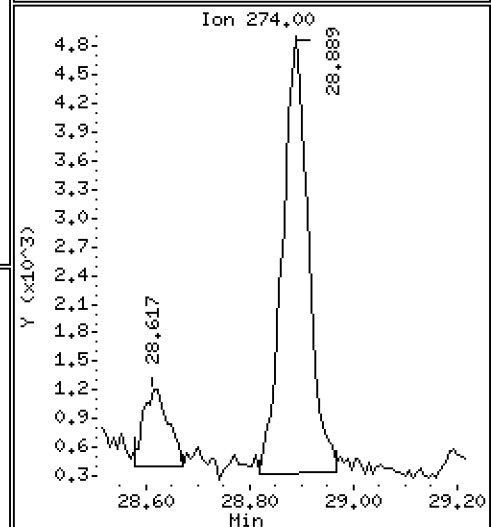
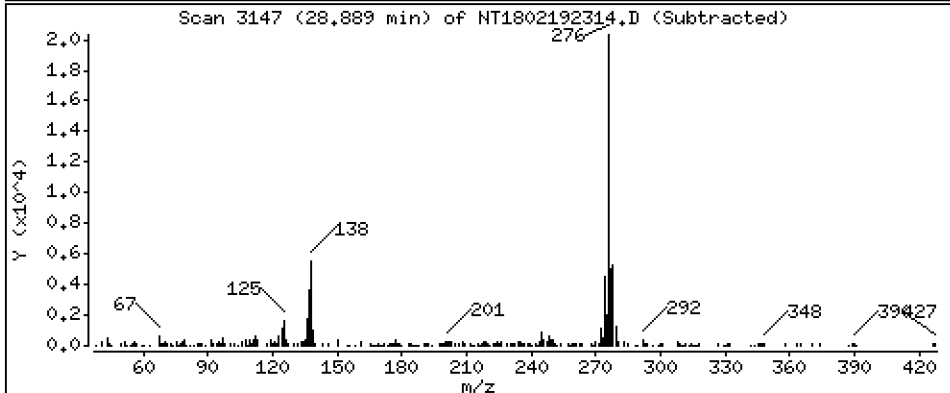
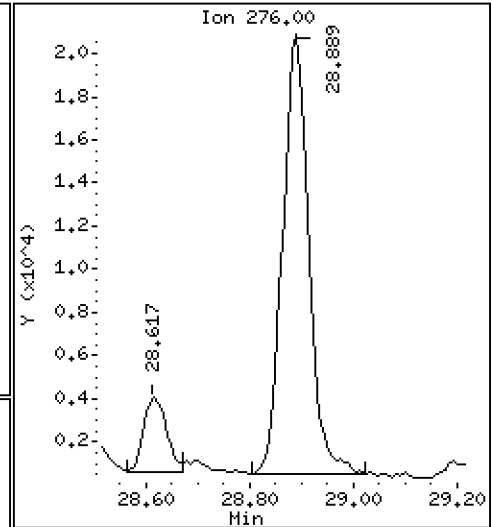
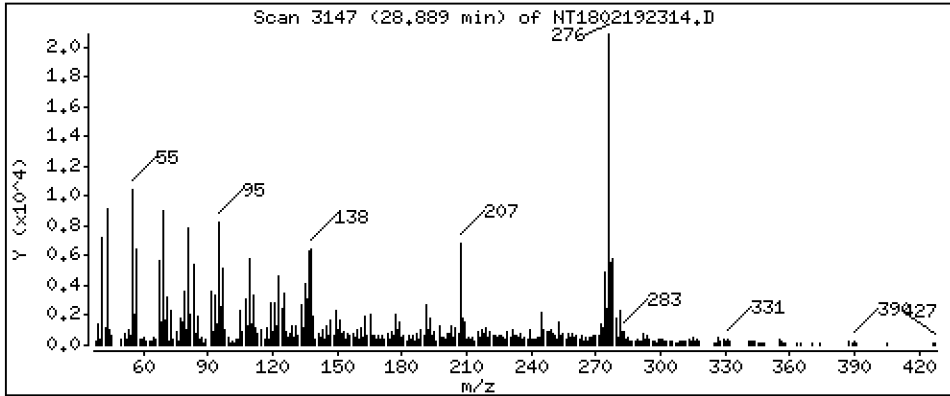
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 0,8083 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

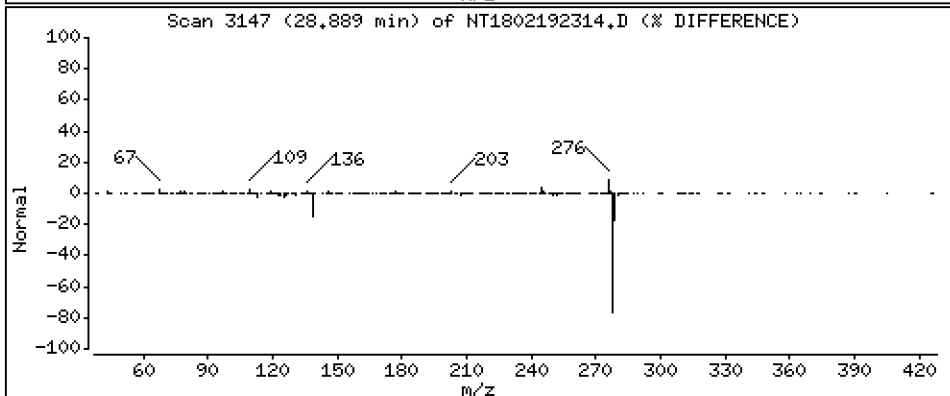
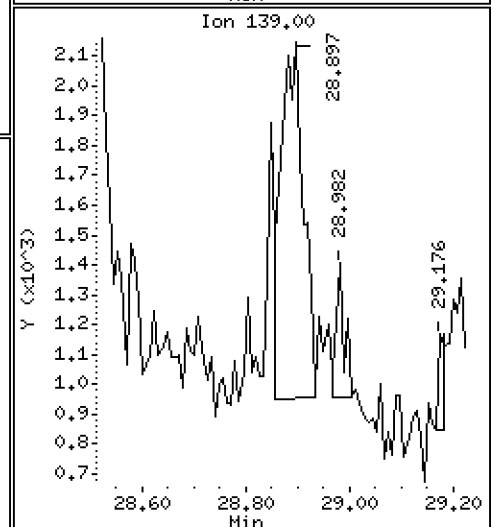
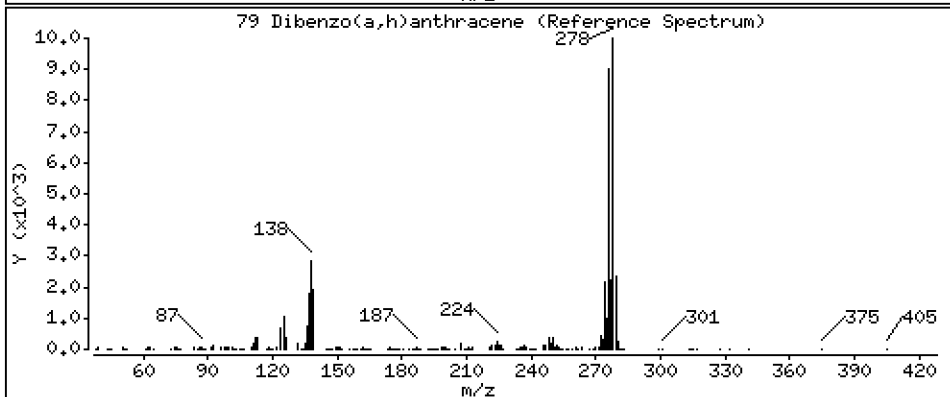
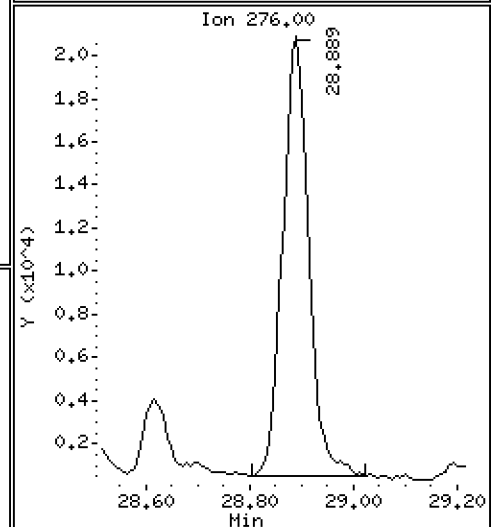
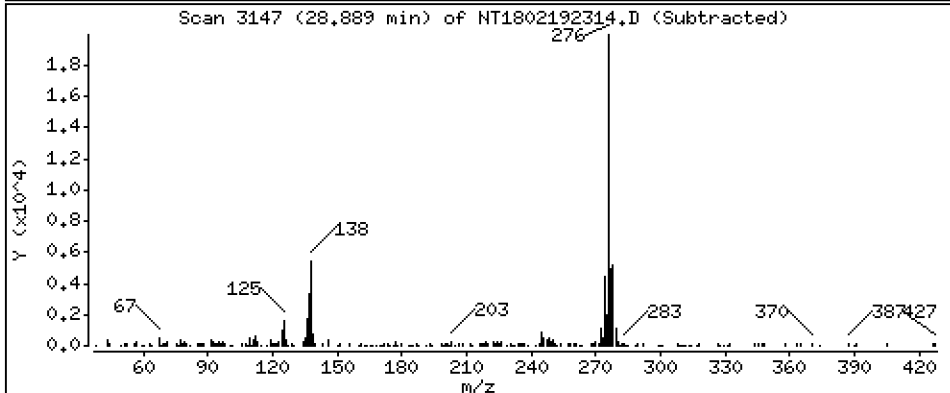
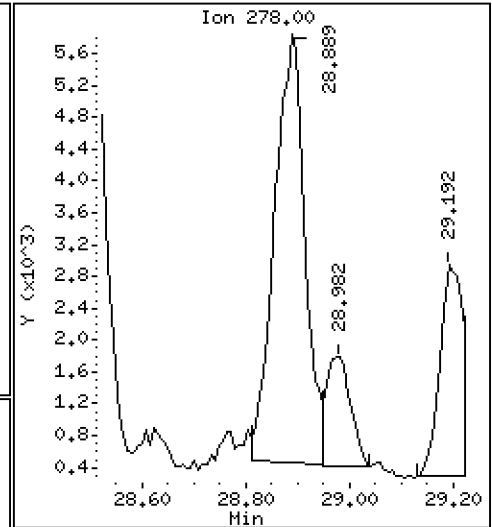
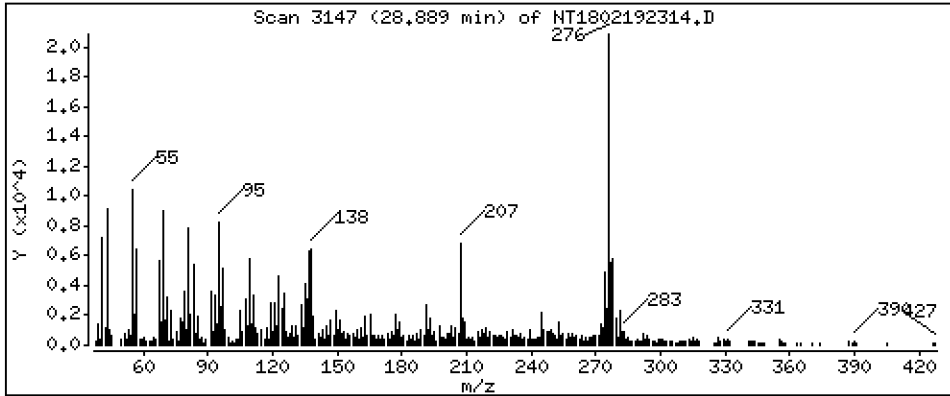
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,3029 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

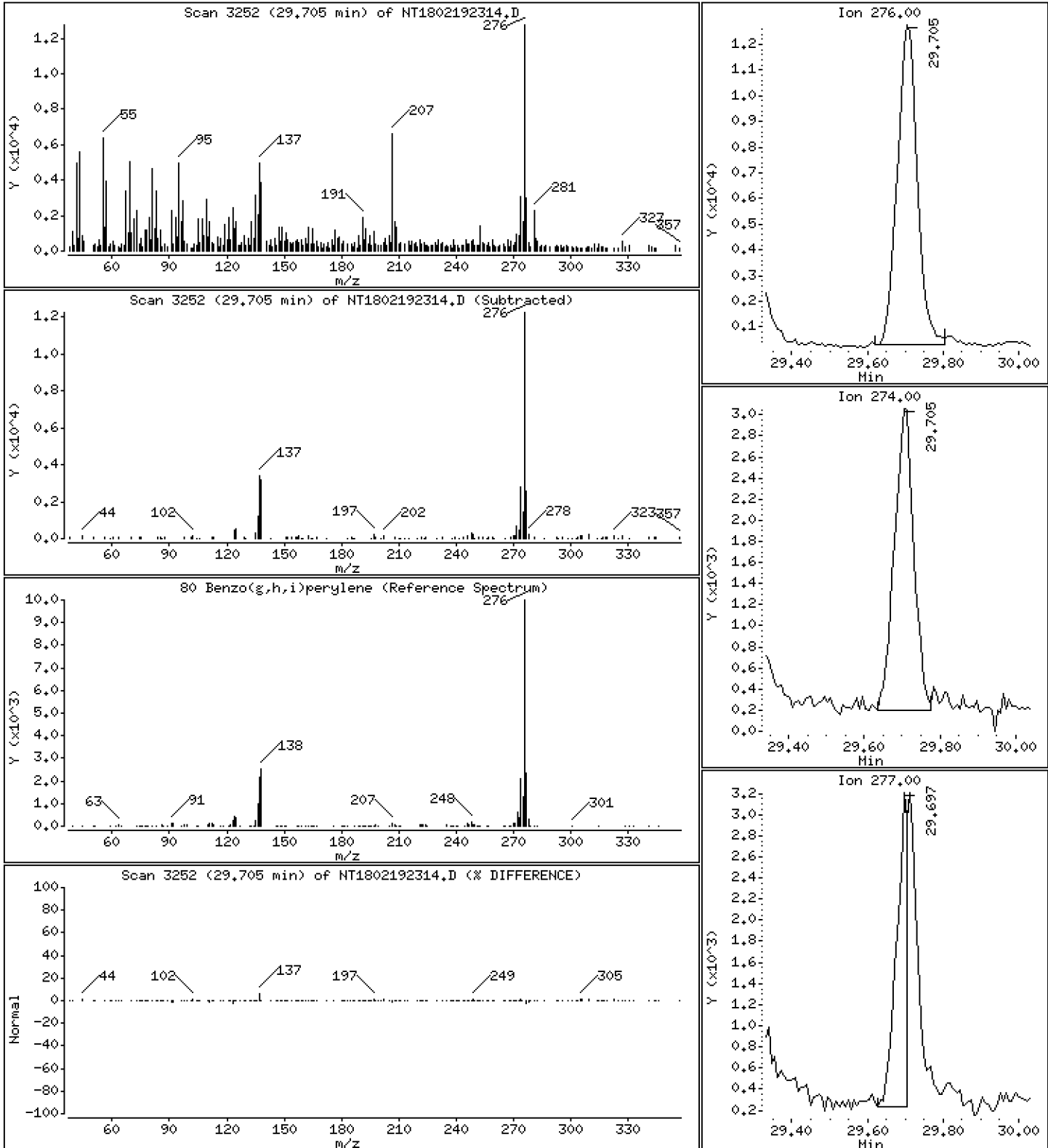
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,6965 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

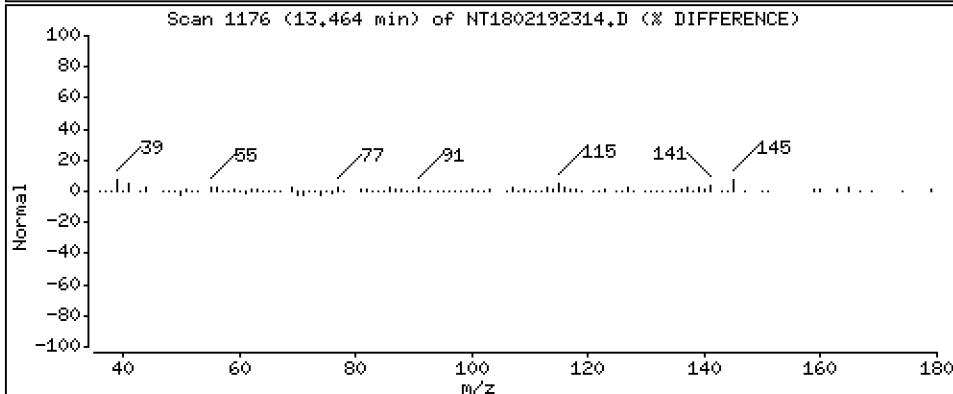
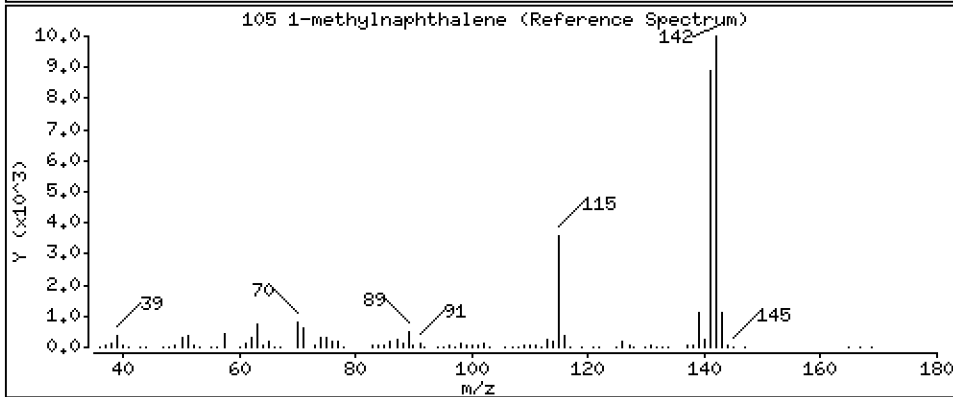
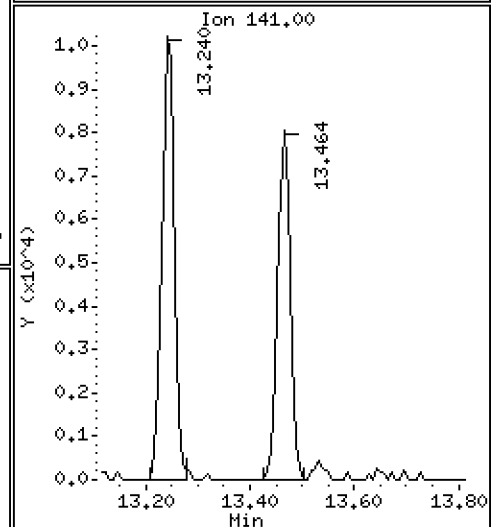
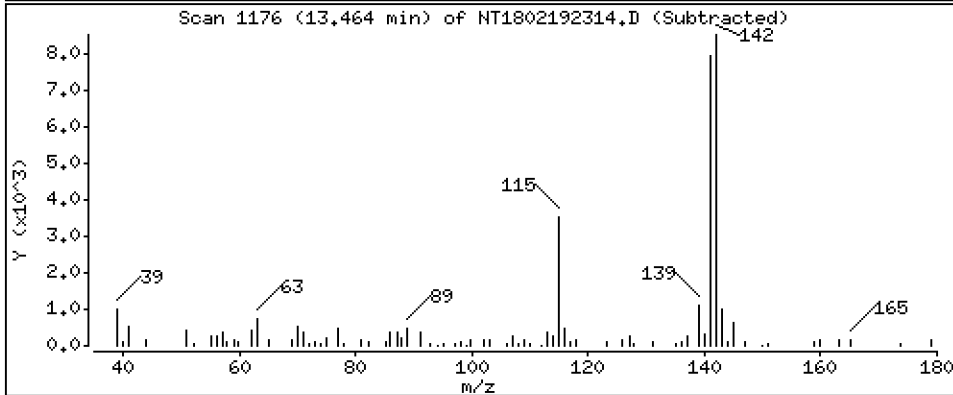
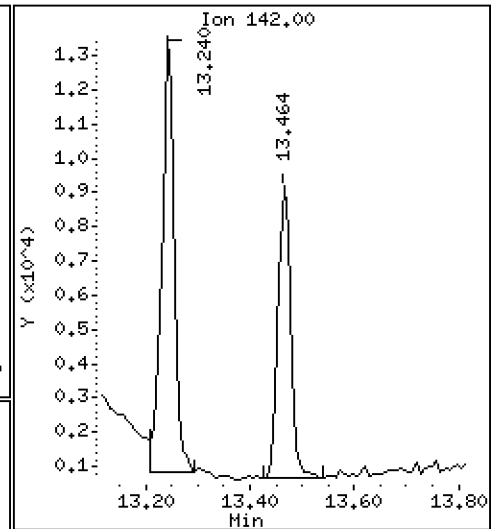
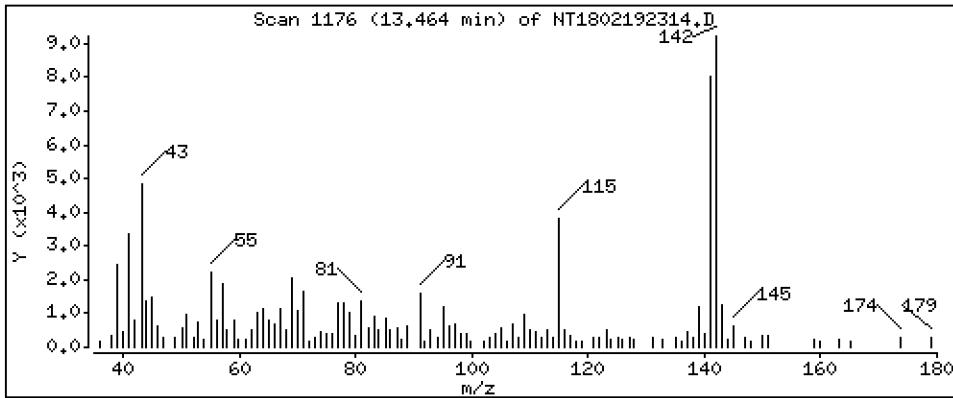
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,1757 ug/mL



Date : 19-FEB-2023 17:39

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE1

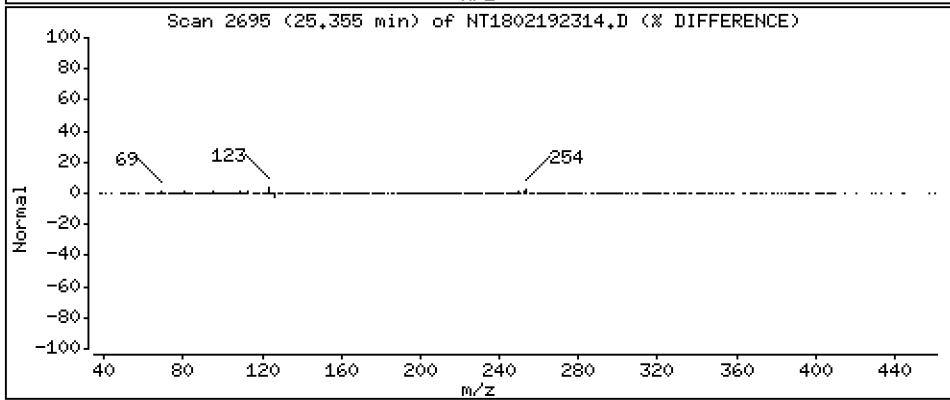
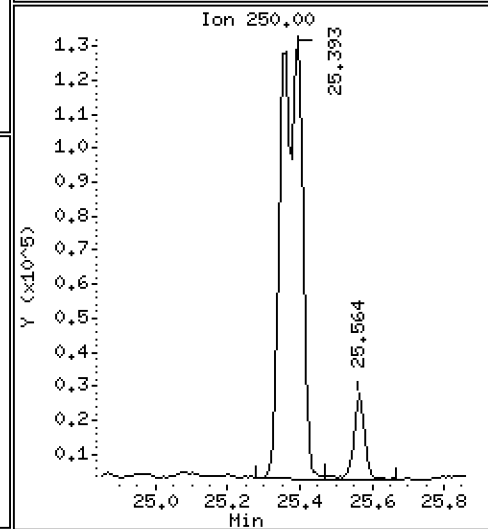
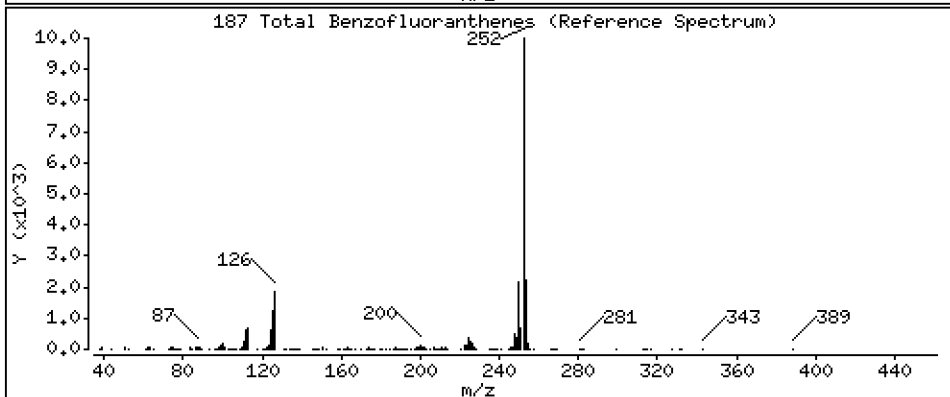
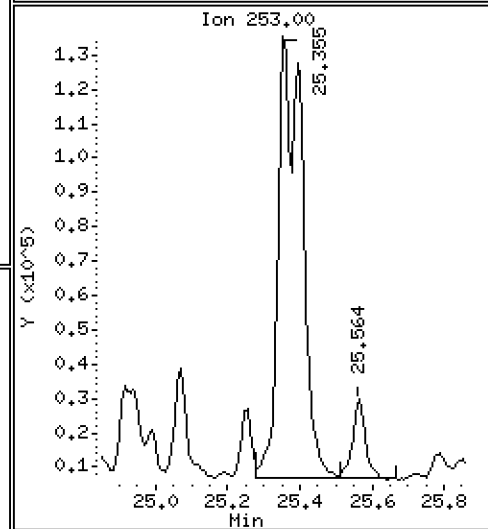
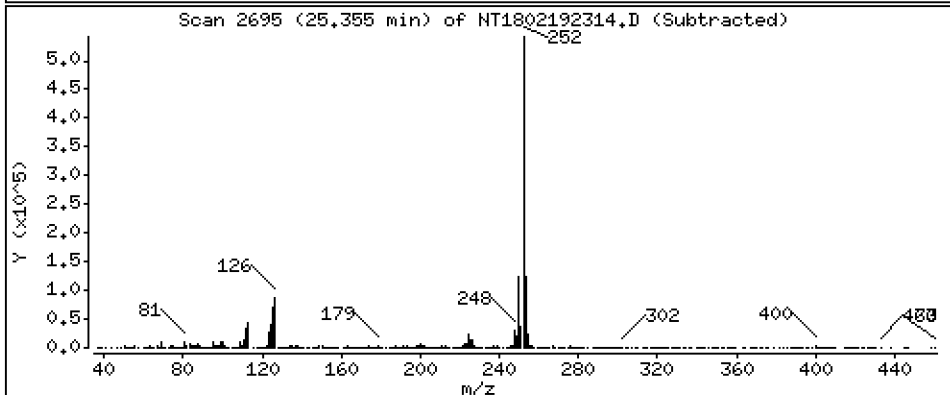
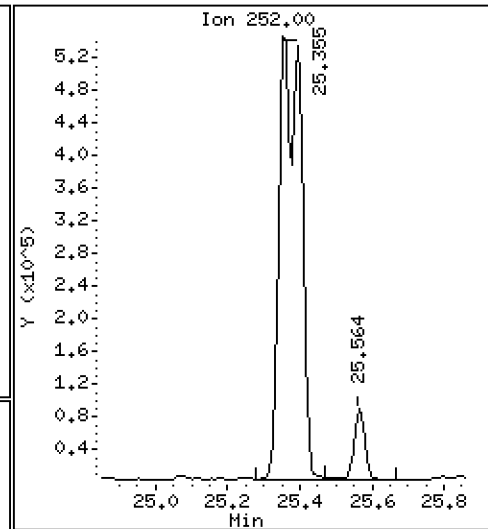
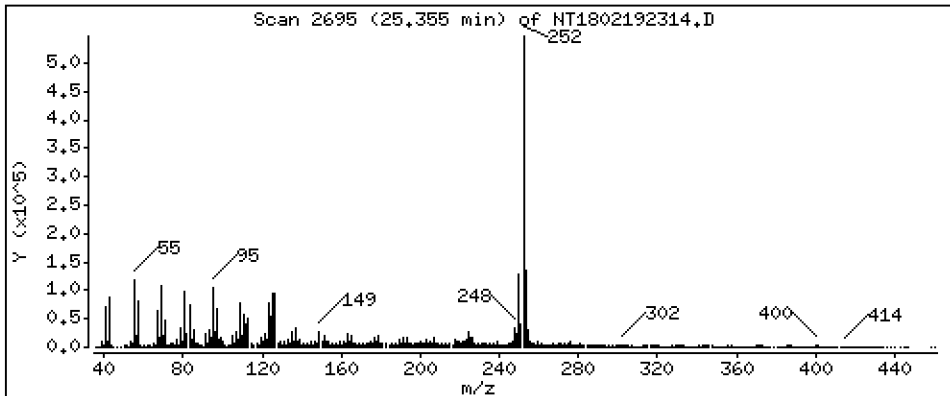
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 19,77 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230219.b\NT1802192314.D
 Lab Smp Id: 23A0032-11RE1
 Inj Date : 19-FEB-2023 17:39
 Operator : VTS
 Smp Info : 23A0032-11RE1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230219.b\ABN.m
 Meth Date : 04-Mar-2023 07:29 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i

Quant Type: ISTD
 Cal File: NT1802102308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.153	7.137	(0.765)	192367	5.28360	5.284
\$ 2 Phenol-d5	99		8.706	8.698	(0.931)	258061	5.60435	5.604
3 Phenol	94		8.729	8.721	(0.934)	40321	0.89355	0.8936
\$ 5 2-Chlorophenol-d4	132		8.991	8.984	(0.962)	216995	5.42044	5.420
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.347	9.340	(1.000)	104776	4.00000	
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
\$ 10 1,2-Dichlorobenzene-d4	152		9.704	9.705	(1.038)	85227	2.95784	2.958
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		9.627	9.611	(1.030)	11021	0.45072	0.4507
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		9.829	9.829	(1.051)	1249	0.03819	0.03819 (M)
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		10.100	10.093	(1.081)	3946	0.10309	0.1031
\$ 18 Nitrobenzene-d5	82		10.426	10.434	(0.882)	161320	3.99527	3.995
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		11.136	11.136	(0.942)	2755	0.08063	0.08063
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		11.263	11.373	(0.953)	19495	0.92296	0.9230
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.816	11.816	(1.000)	410263	4.00000	
28 Naphthalene	128		11.855	11.855	(1.003)	40125	0.34022	0.3402
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		13.239	13.239	(1.120)	20942	0.26089	0.2609
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196							
35 2,4,5-Trichlorophenol	196							
\$ 36 2-Fluorobiphenyl	172		14.013	14.013	(0.909)	322986	3.13337	3.133
37 2-Chloronaphthalene	162							
38 2-Nitroaniline	65							
39 Dimethylphthalate	163		14.903	14.911	(0.967)	5736	0.07035	0.07035
40 Acenaphthylene	152		15.105	15.105	(0.980)	55013	0.46553	0.4655
41 2,6-Dinitrotoluene	165							
* 42 Acenaphthene-d10	164		15.414	15.414	(1.000)	233156	4.00000	
43 3-Nitroaniline	138							
44 Acenaphthene	153		15.476	15.476	(1.004)	46729	0.59299	0.5930
45 2,4-Dinitrophenol	184							
46 Dibenzofuran	168		15.801	15.801	(1.025)	38964	0.34512	0.3451
47 4-Nitrophenol	109							
48 2,4-Dinitrotoluene	165							
50 Diethylphthalate	149		16.349	16.357	(1.061)	9169	0.11077	0.1108
49 Fluorene	166		16.512	16.512	(1.071)	31258	0.35003	0.3500
51 4-Chlorophenyl-phenylether	204							
52 4-Nitroaniline	138							
53 4,6-Dinitro-2-methylphenol	198							
54 N-Nitrosodiphenylamine	169							
\$ 55 2,4,6-Tribromophenol	330		17.044	17.044	(1.106)	74664	4.94063	4.941
56 4-Bromophenyl-phenylether	248							
57 Hexachlorobenzene	284							
58 Pentachlorophenol	266							
* 59 Phenanthrene-d10	188		18.442	18.435	(1.000)	474860	4.00000	
60 Phenanthrene	178		18.497	18.481	(1.003)	779012	5.42999	5.430
61 Anthracene	178		18.582	18.574	(1.008)	250230	1.95006	1.950
62 Carbazole	167		18.907	18.899	(1.025)	66375	0.51741	0.5174
63 Di-n-butylphthalate	149		19.688	19.665	(1.068)	15721	0.09426	0.09426
64 Fluoranthene	202		20.911	20.841	(0.891)	2785287	15.3159	15.32
65 Pyrene	202		21.336	21.259	(0.910)	5016479	25.9493	25.95
\$ 66 Terphenyl-d14	244		21.568	21.530	(0.919)	504814	2.83166	2.832
67 Butylbenzylphthalate	149		22.459	22.436	(0.957)	28054	0.30733	0.3073
68 Benzo(a)anthracene	228		23.434	23.396	(0.999)	1565125	8.21678	8.217
* 69 Chrysene-d12	240		23.458	23.427	(1.000)	576410	4.00000	
70 3,3'-Dichlorobenzidine	252							
71 Chrysene	228		23.504	23.473	(1.002)	2030234	10.1126	10.11
72 bis(2-Ethylhexyl)phthalate	149		23.465	23.450	(0.959)	285344	2.29888	2.299
* 134 Di-n-octylphthalate-d4	153		24.456	24.441	(1.000)	815803	4.00000	
73 Di-n-octylphthalate	149							
74 Benzo(b)fluoranthene	252		25.354	25.308	(0.970)	1298718	11.4549	11.45
75 Benzo(k)fluoranthene	252		25.393	25.354	(0.971)	1129590	9.10786	9.108
76 Benzo(a)pyrene	252		26.028	25.982	(0.996)	673168	7.26973	7.270
* 77 Perylene-d12	264		26.144	26.105	(1.000)	324801	4.00000	
78 Indeno(1,2,3-cd)pyrene	276		28.888	28.865	(1.105)	71700	0.80826	0.8083
79 Dibenzo(a,h)anthracene	278		28.888	28.873	(1.105)	22000	0.30293	0.3029
80 Benzo(g,h,i)perylene	276		29.704	29.681	(1.136)	46541	0.69653	0.6965
90 N-Nitrosodimethylamine	74							
91 Aniline	93							
93 Benzidine	184							
103 Pyridine	79							
105 1-methylnaphthalene	142		13.464	13.464	(1.139)	13754	0.17567	0.1757
111 Azobenzene (1,2-DP-Hydrazine)	77							

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/mL)	FINAL (ug/mL)	
187 Total Benzofluoranthenes	252	25.354	25.354	(0.970)	2246056	19.7737	19.77	
120 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.						

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 19-FEB-2023
 Lab File ID: NT1802192314.D Calibration Time: 12:57
 Lab Smp Id: 23A0032-11RE1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230219.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	118224	59112	236448	104776	-11.38
27 Naphthalene-d8	457373	228687	914746	410263	-10.30
42 Acenaphthene-d10	241384	120692	482768	233156	-3.41
59 Phenanthrene-d10	431840	215920	863680	474860	9.96
69 Chrysene-d12	407698	203849	815396	576410	41.38
134 Di-n-octylphthala	661131	330566	1322262	815803	23.40
77 Perylene-d12	411276	205638	822552	324801	-21.03

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.34	8.84	9.84	9.35	0.08
27 Naphthalene-d8	11.82	11.32	12.32	11.82	-0.00
42 Acenaphthene-d10	15.41	14.91	15.91	15.41	-0.00
59 Phenanthrene-d10	18.44	17.94	18.94	18.44	0.04
69 Chrysene-d12	23.43	22.93	23.93	23.46	0.13
134 Di-n-octylphthala	24.44	23.94	24.94	24.46	0.06
77 Perylene-d12	26.11	25.61	26.61	26.14	0.15

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802192314.D

Lab ID: 23A0032-11RE1
nt18.i, ABN.m, 19-FEB-2023 17:39

RT	CO-ELUTION COMPOUNDS
28.889	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
28.889	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.953	0.963	-0.0093	Benzoic acid

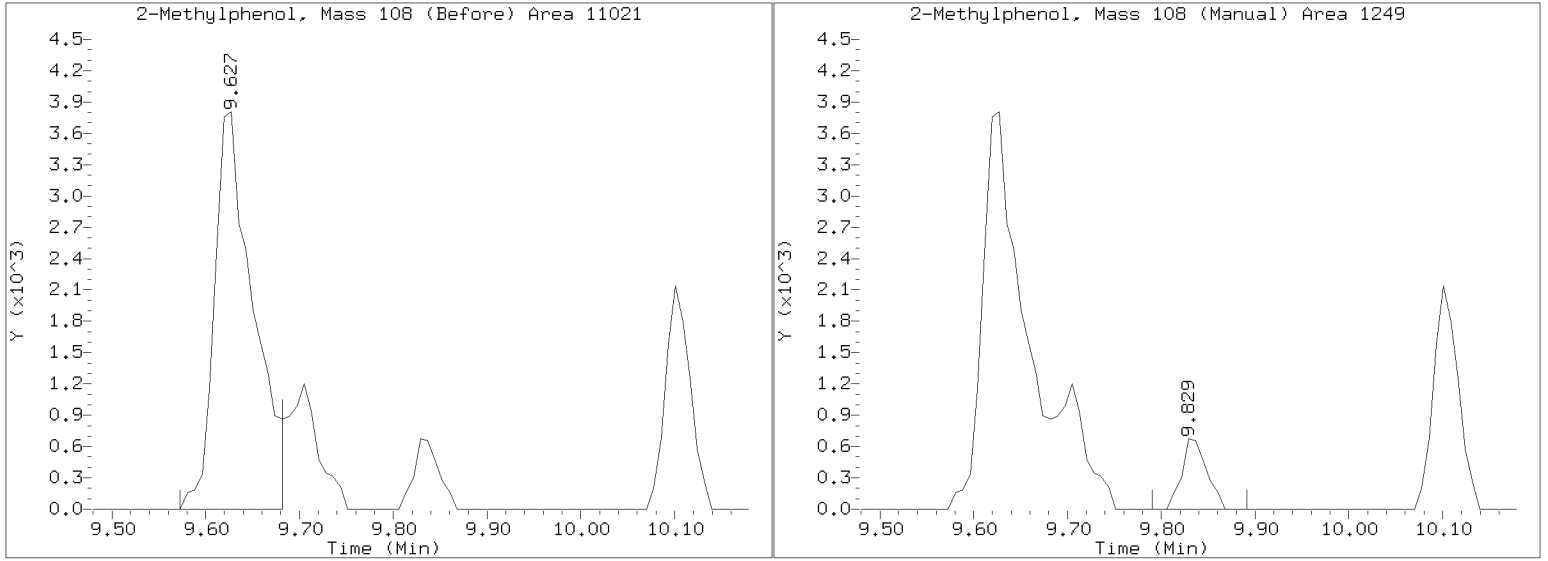
RRT check based on Ccal File: NT1802192303.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt18.i/20230219.b/NT1802192314.D
Injection Date: 19-FEB-2023 17:39
Lab ID: 23A0032-11RE1 Client ID:
Report Date: 03/04/2023 10:22





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-11RE2 A

SDG: 23A0032

Sampled: 01/03/23 14:01

Prepared: 01/10/23 11:20

File ID: NT1802192315.D

% Solids: 53.06

Preparation: EPA 3546 (Microwave)

Analyzed: 02/19/23 18:19

Batch: BLA0163

Sequence: SLC0060

Initial/Final: 18.9 g Wet / 1 mL

Instrument: NT18

Column: ZB-5MS

Calibration: GB00036

Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
108-95-2	Phenol	5	77.6	J, D	21.9	99.7
106-44-5	4-Methylphenol	5	99.7	U	36.8	99.7
91-20-3	Naphthalene	5	32.2	J, D	21.1	99.7
91-57-6	2-Methylnaphthalene	5	24.5	J, D	22.5	99.7
208-96-8	Acenaphthylene	5	44.2	J, D	31.1	99.7
131-11-3	Dimethylphthalate	5	99.7	U	21.9	99.7
83-32-9	Acenaphthene	5	61.3	J, D	26.0	99.7
132-64-9	Dibenzofuran	5	99.7	U	70.4	99.7
86-73-7	Fluorene	5	99.7	U	72.6	99.7
85-01-8	Phenanthrene	5	489	D	43.5	99.7
120-12-7	Anthracene	5	179	D	35.8	99.7
206-44-0	Fluoranthene	5	1660	D	30.4	99.7
129-00-0	Pyrene	5	3030	D	28.3	99.7
85-68-7	Butylbenzylphthalate	5	99.7	U	46.9	99.7
56-55-3	Benzo(a)anthracene	5	804	D	29.7	99.7
218-01-9	Chrysene	5	1020	D	30.2	99.7
117-81-7	bis(2-Ethylhexyl)phthalate	5	223	J, D	27.2	249
	Benzo(a)fluoranthenes, Total	5	1490	D	49.9	199
50-32-8	Benzo(a)pyrene	5	661	D	21.1	99.7
193-39-5	Indeno(1,2,3-cd)pyrene	5	203	Q, D	73.0	99.7
53-70-3	Dibenzo(a,h)anthracene	5	88.2	J, D	85.9	99.7
191-24-2	Benzo(g,h,i)perylene	5	206	Q, D	67.8	99.7

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	747.88	481	64.3	27 - 120	
Phenol-d5	747.88	515	68.8	29 - 120	
2-Chlorophenol-d4	747.88	503	67.3	31 - 120	
1,2-Dichlorobenzene-d4	498.59	277	55.6	32 - 120	
Nitrobenzene-d5	498.59	372	74.7	30 - 120	
2-Fluorobiphenyl	498.59	312	62.6	35 - 120	



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E
Semivolatiles (20ug/kg - 0.2ug/L SepF)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-11RE2 A

SDG: 23A0032

Sampled: 01/03/23 14:01

Prepared: 01/10/23 11:20

File ID: NT1802192315.D

% Solids: 53.06

Preparation: EPA 3546 (Microwave)

Analyzed: 02/19/23 18:19

Batch: BLA0163

Sequence: SLC0060

Initial/Final: 18.9 g Wet / 1 mL

Instrument: NT18

Column: ZB-5MS

Calibration: GB00036

Cleanups: GPC

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2,4,6-Tribromophenol	747.88	424	56.6	24 - 134	
p-Terphenyl-d14	498.59	292	58.6	37 - 120	

Data File: \\target\share\chem3\nt18.1\20230219.1\NT1802192315.D

Date: 19-FEB-2023 18:19

Client ID:

Sample Info: 23A0032-11RE2.5

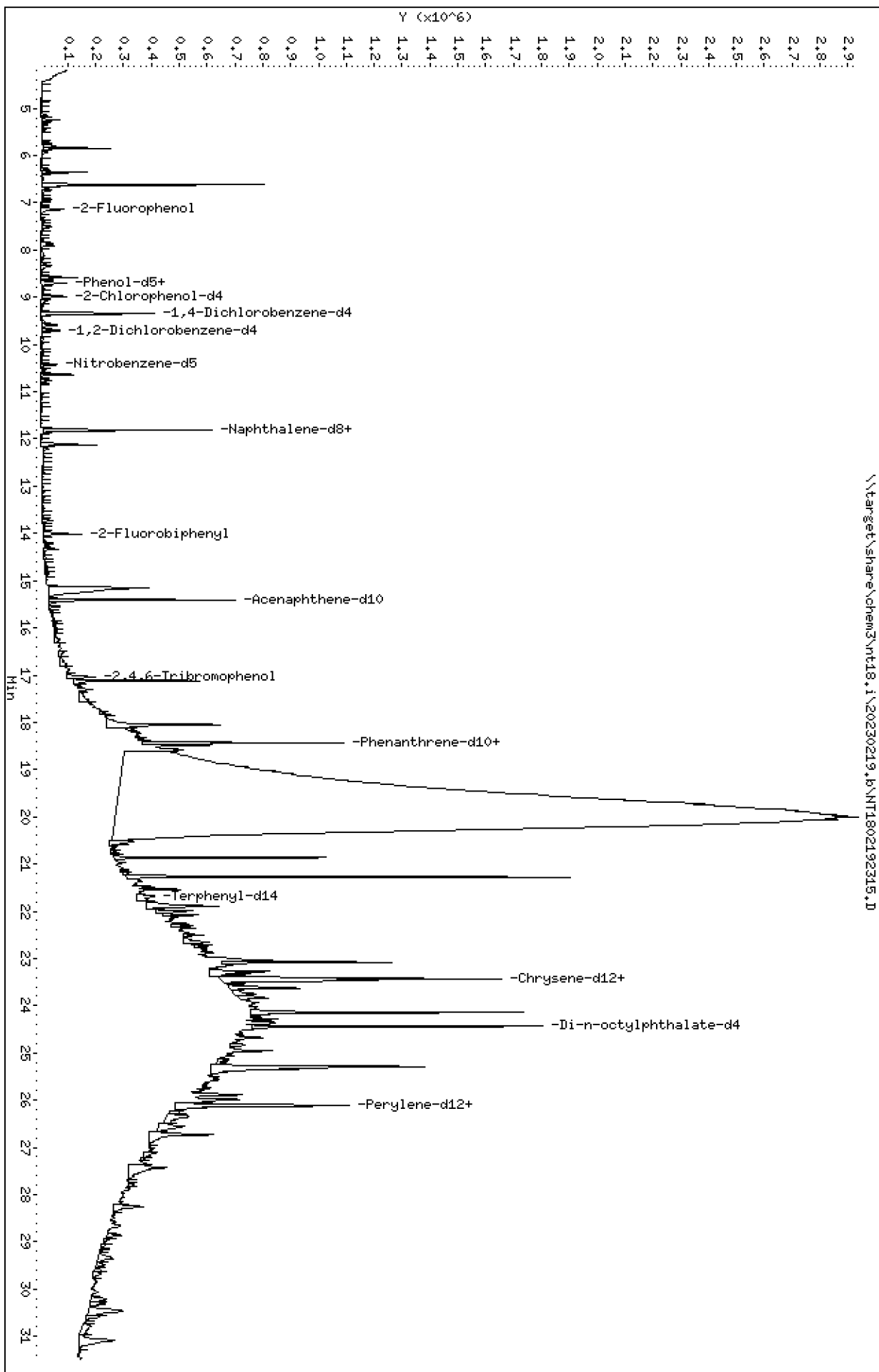
Page 1

Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

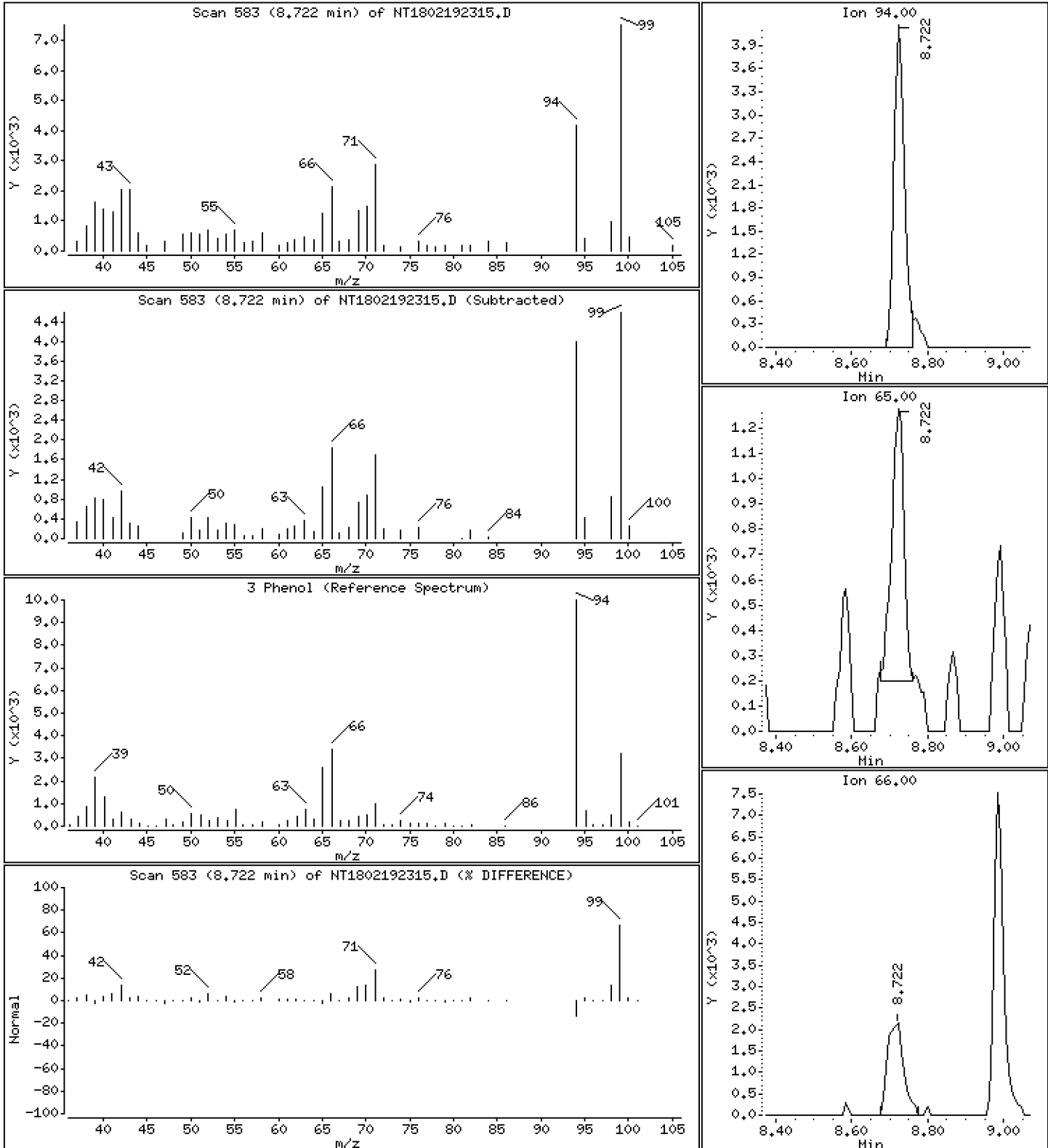
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,7784 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

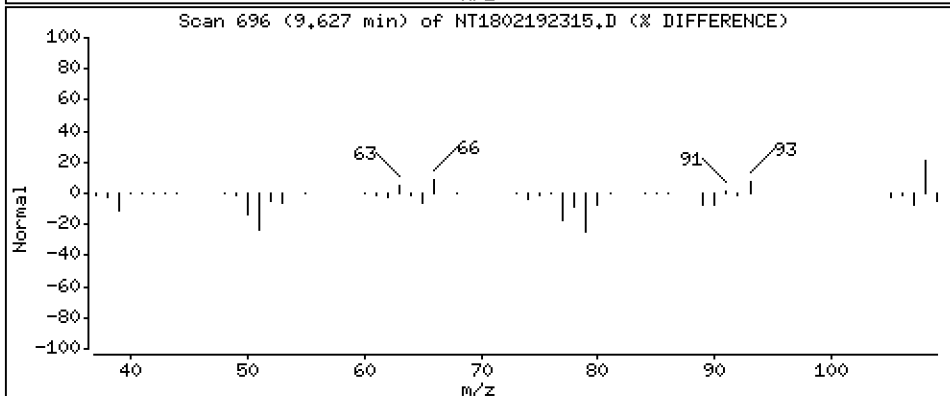
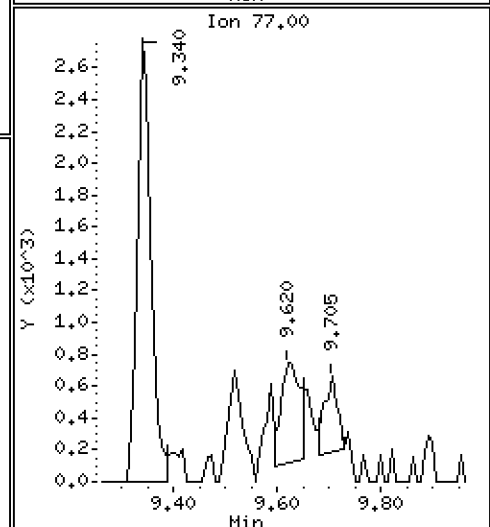
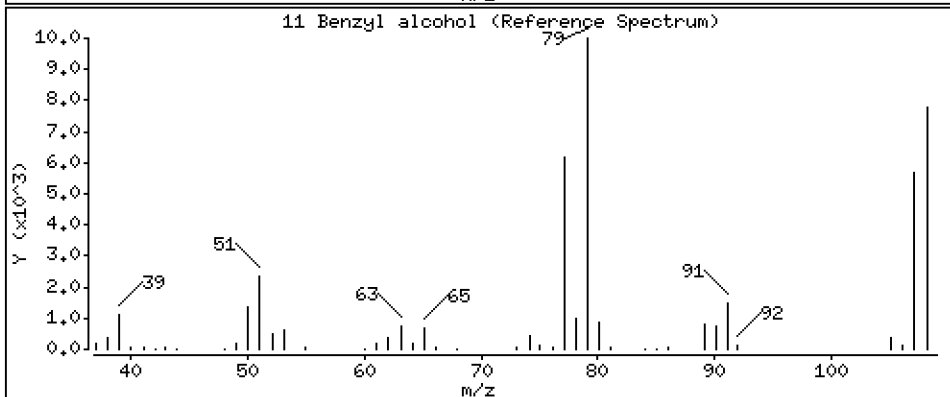
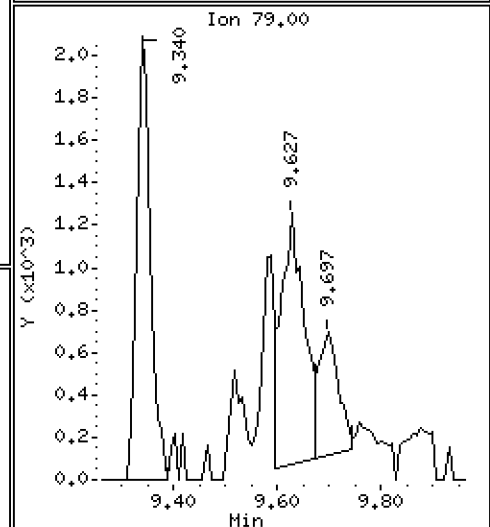
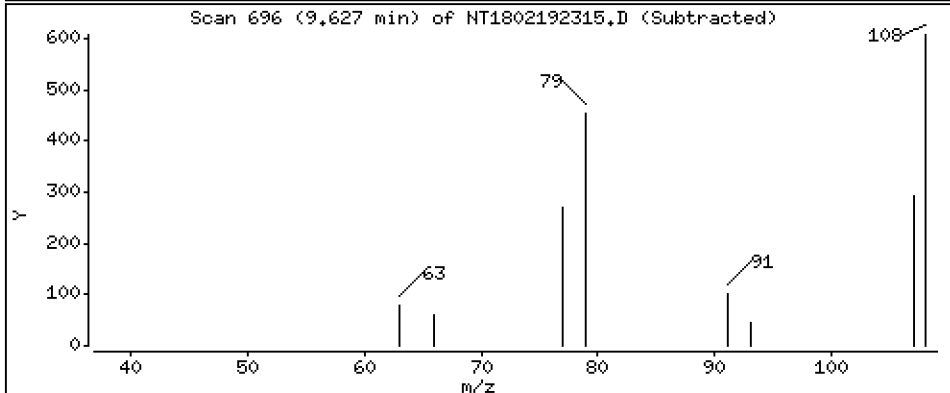
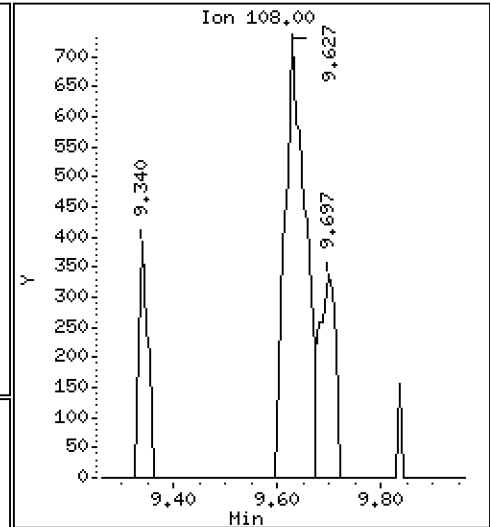
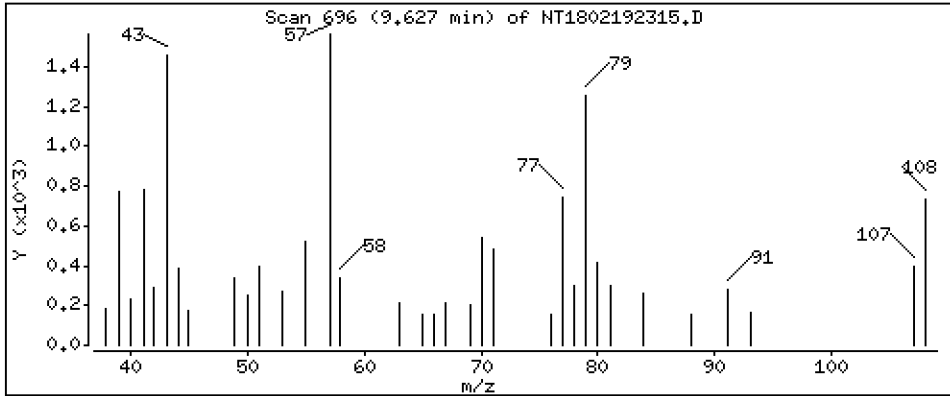
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 0,3821 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

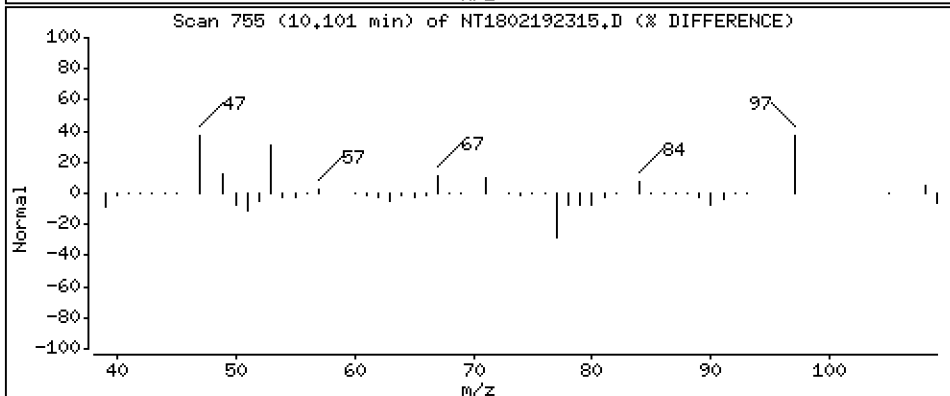
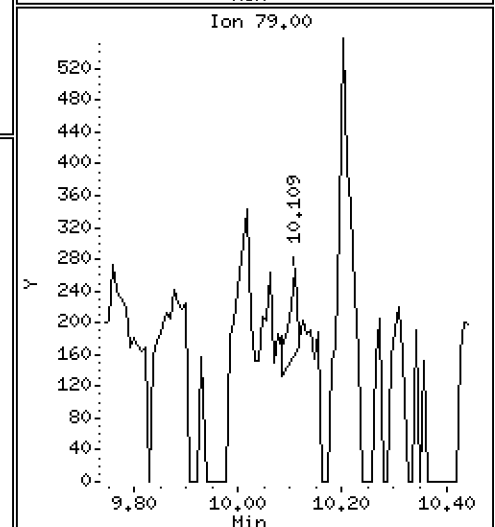
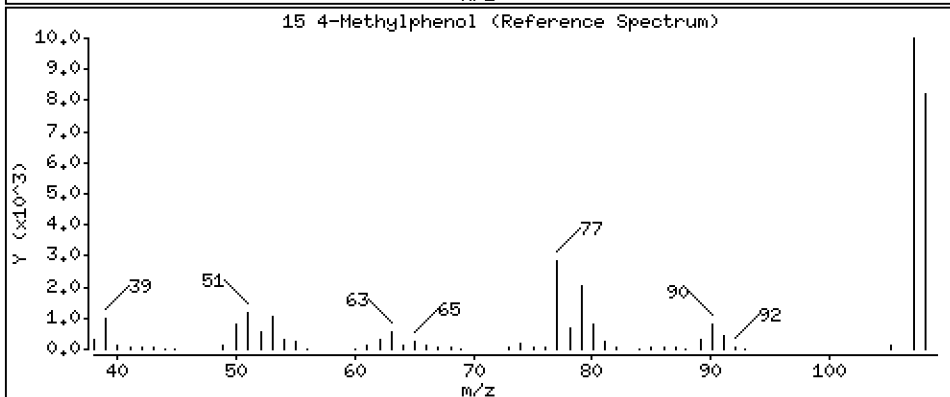
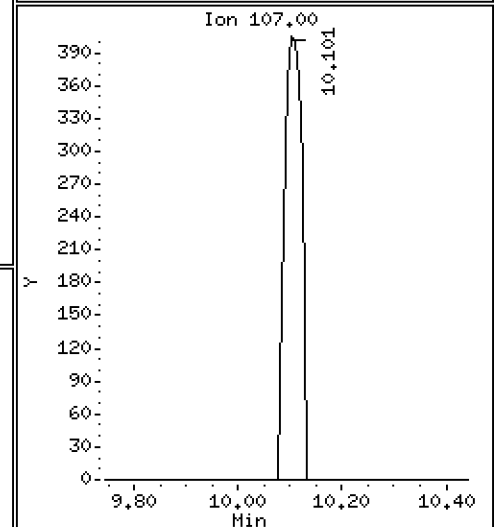
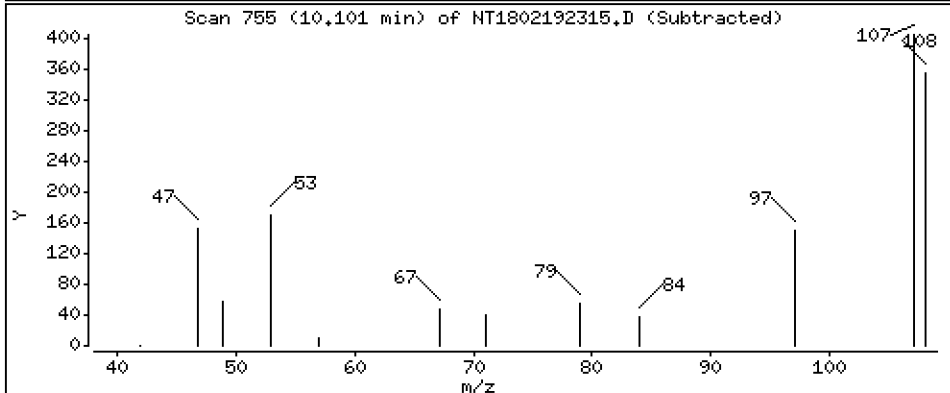
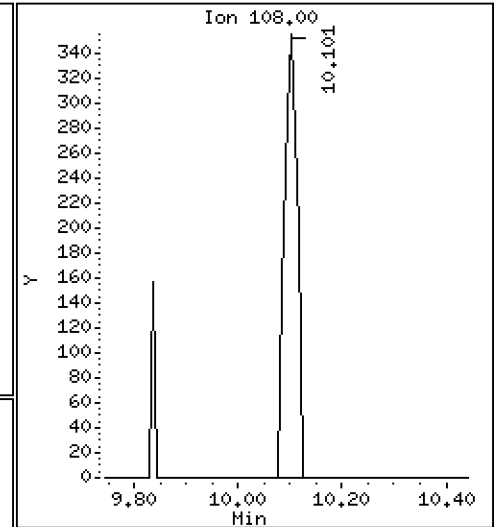
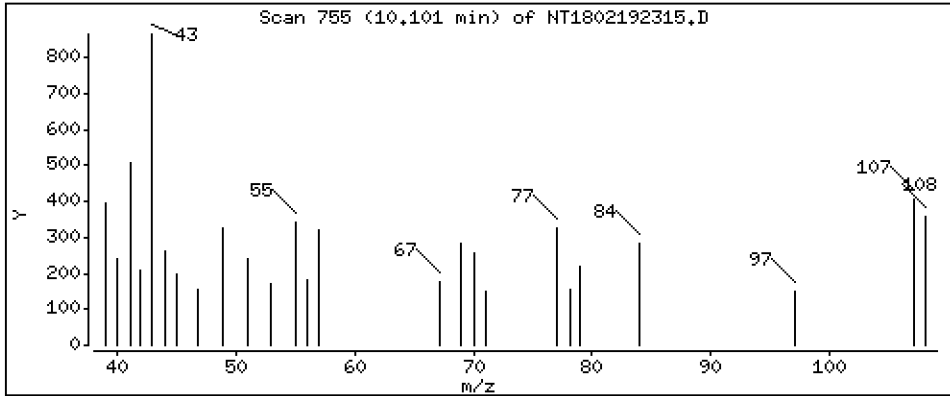
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 0,07119 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

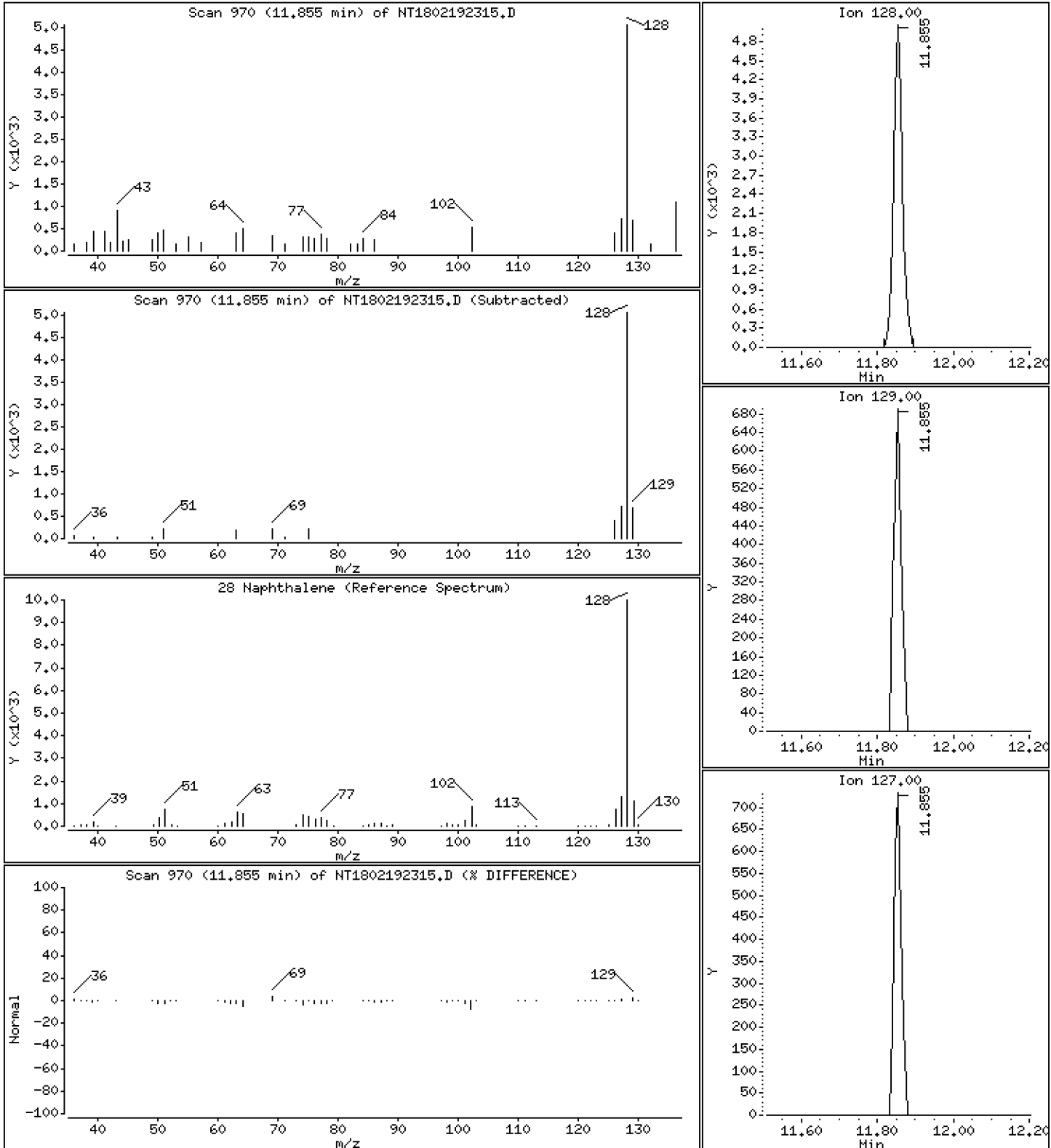
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,3229 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

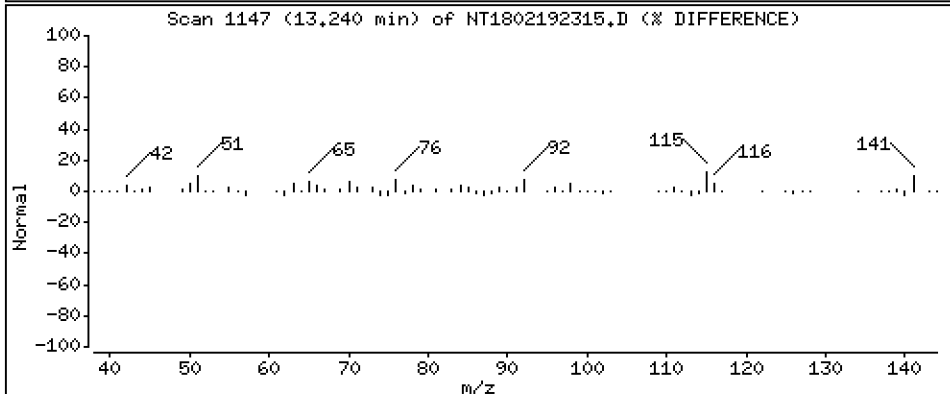
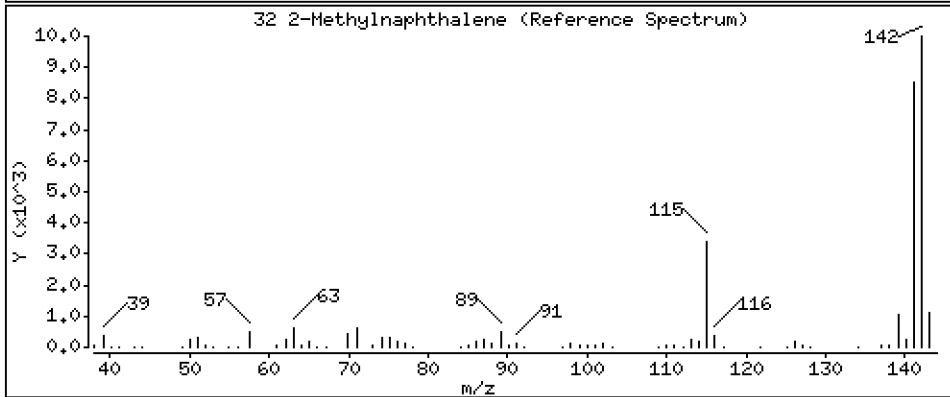
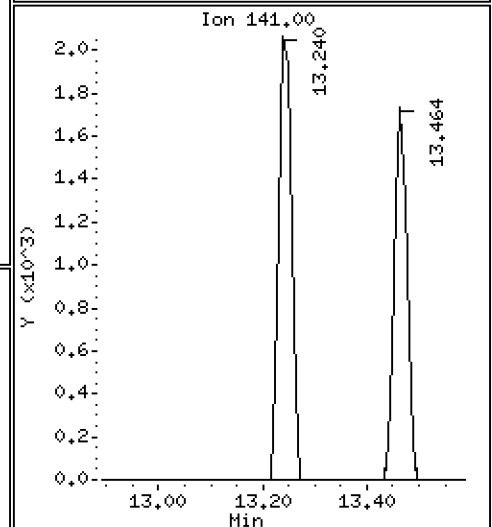
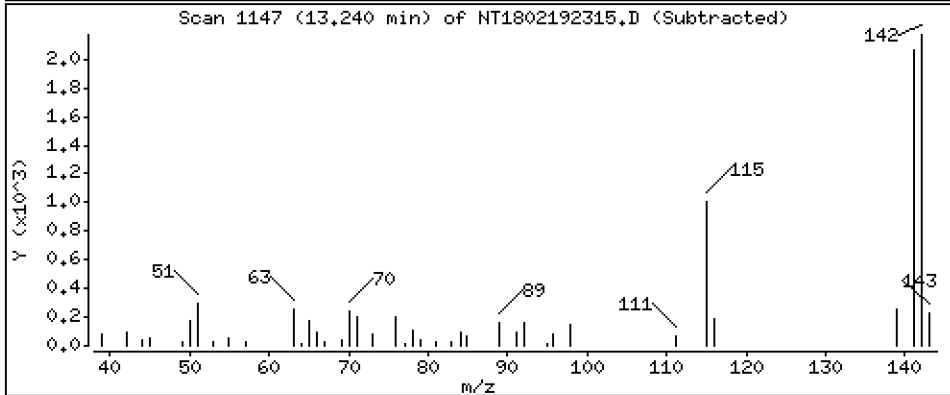
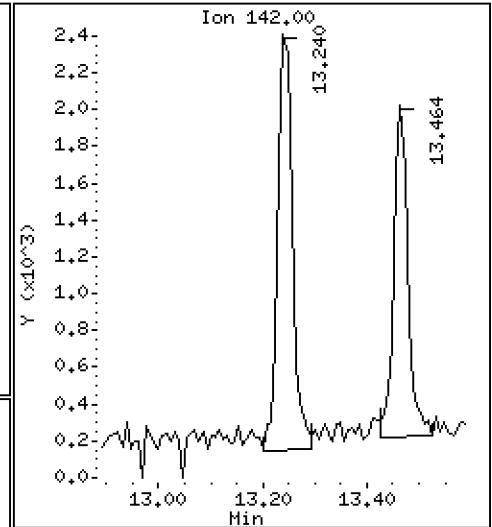
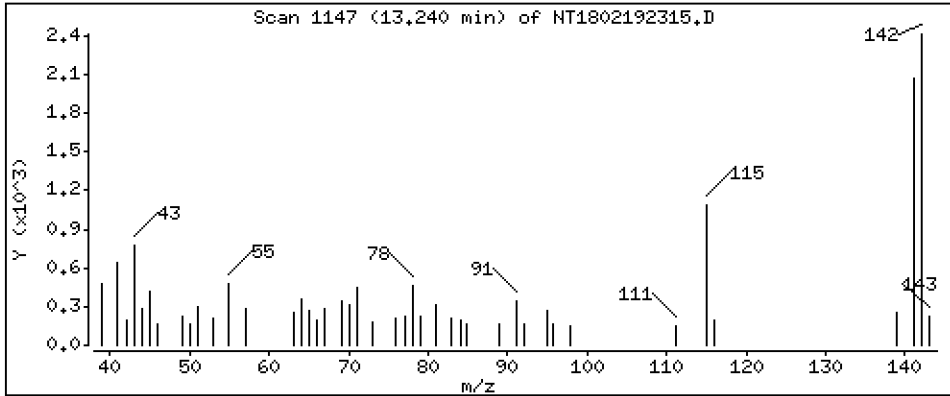
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,2457 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

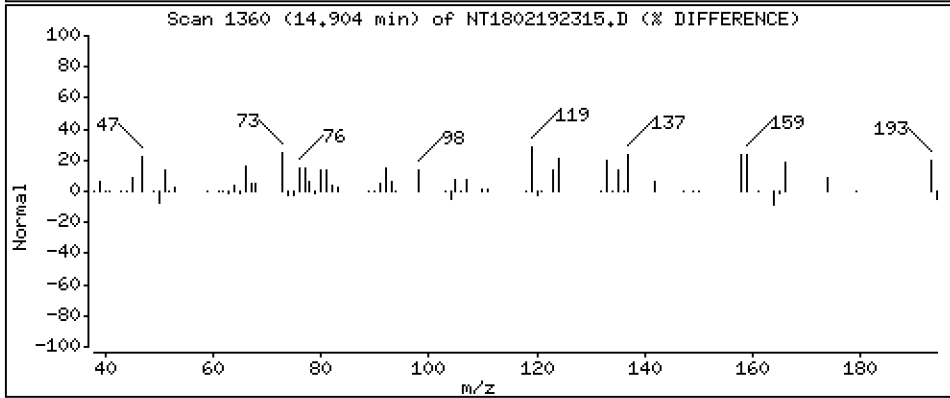
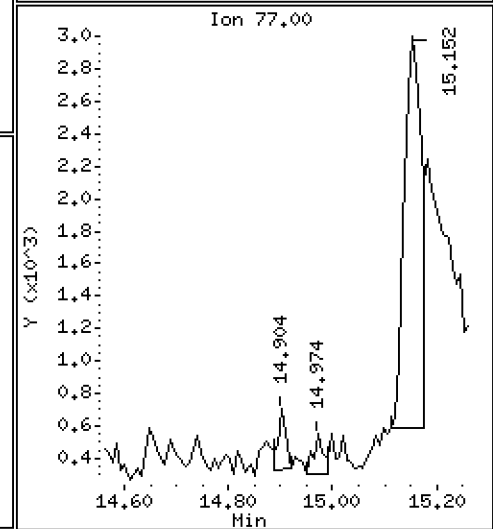
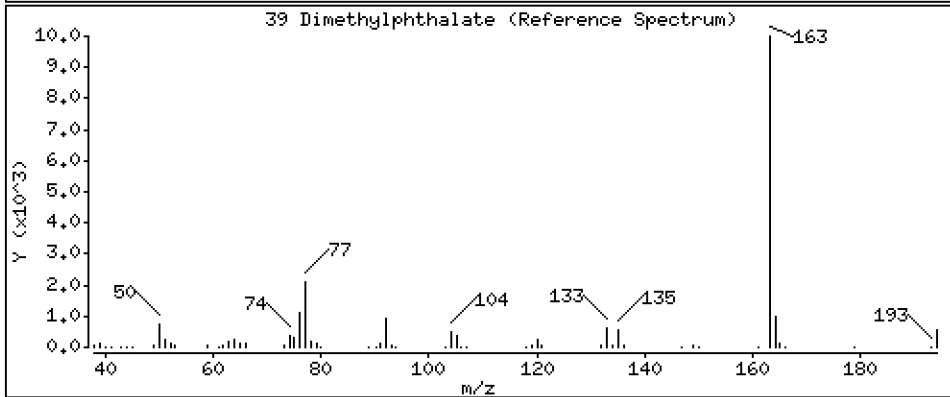
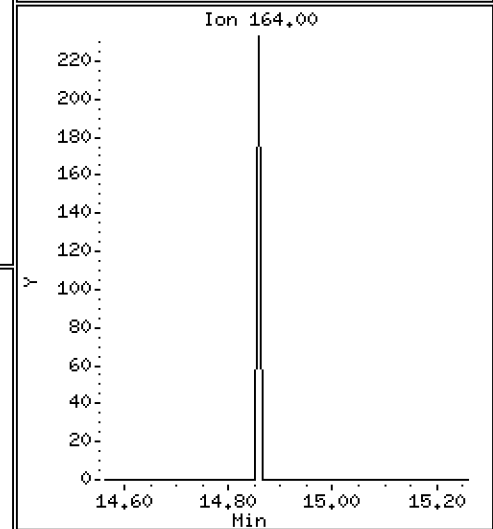
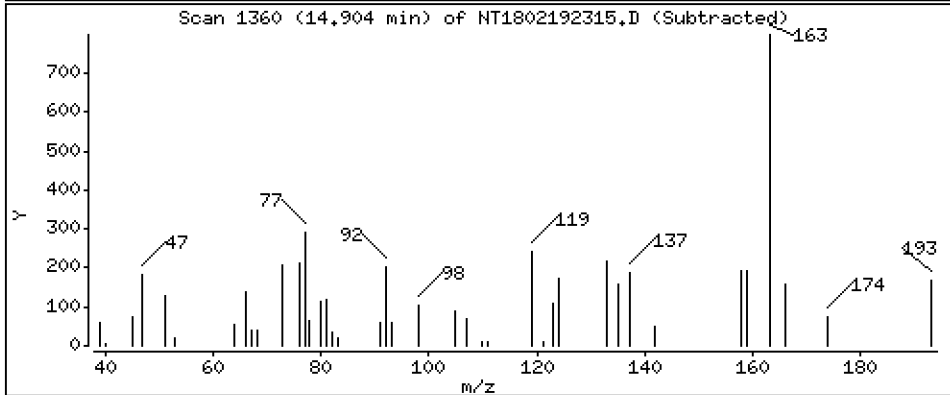
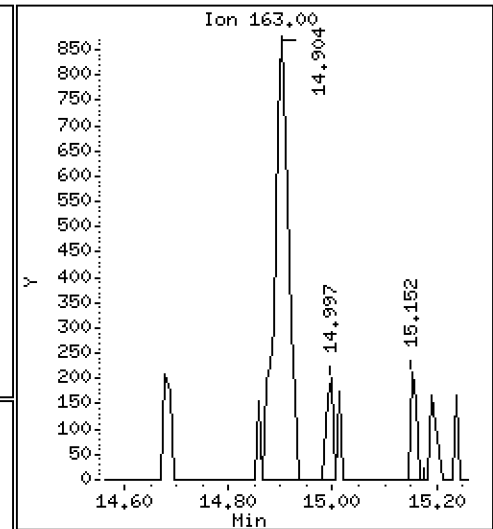
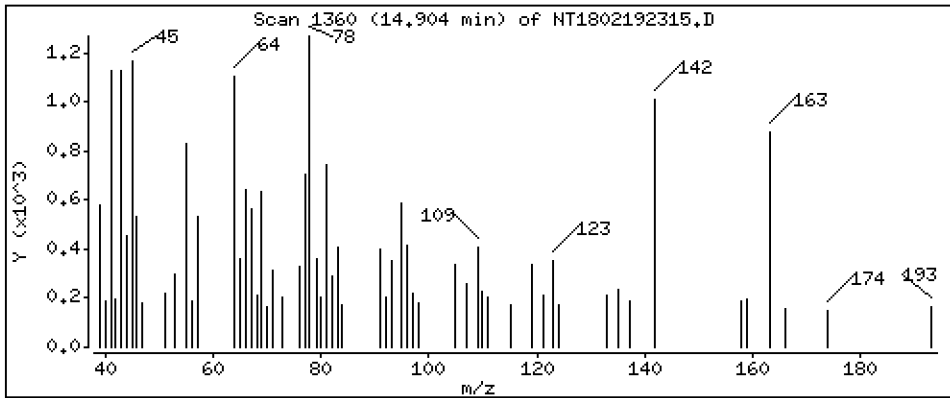
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

Concentration: 0,09413 ug/mL

39 Dimethylphthalate



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

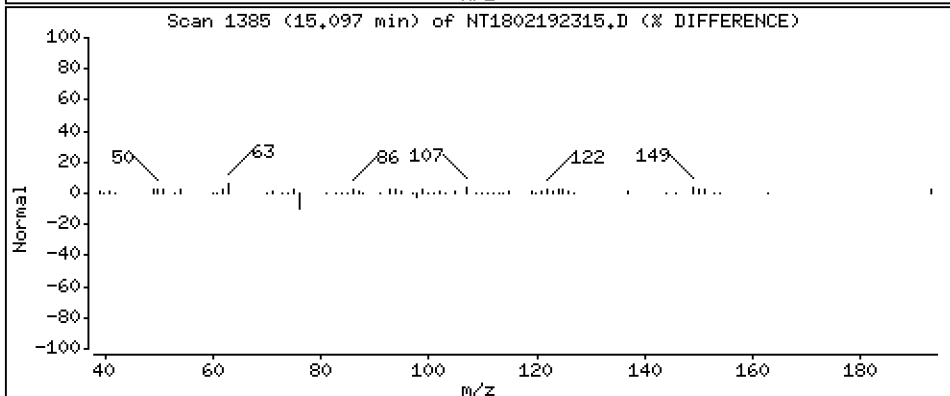
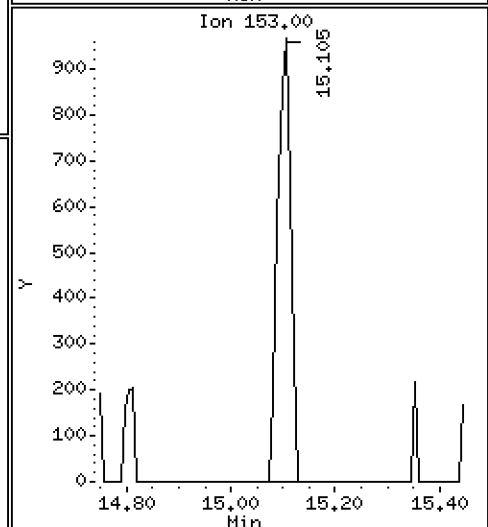
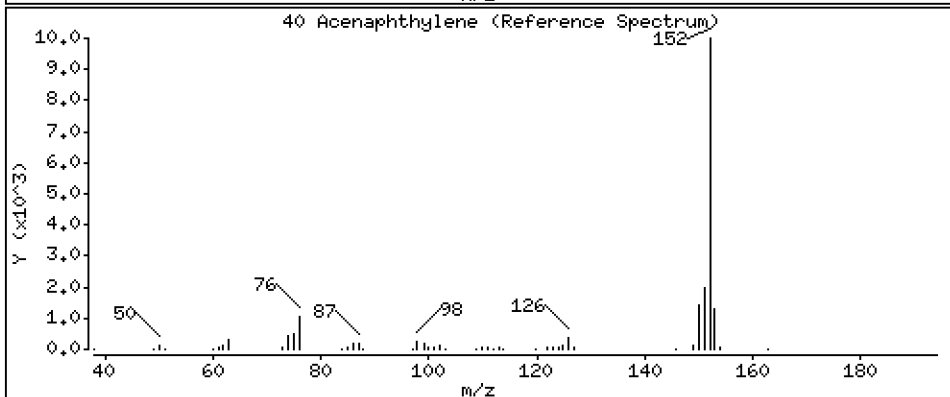
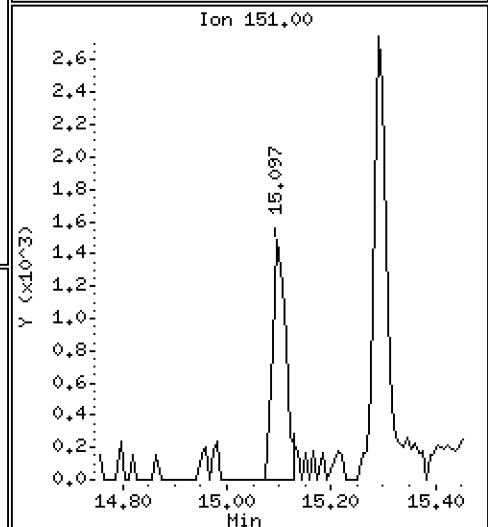
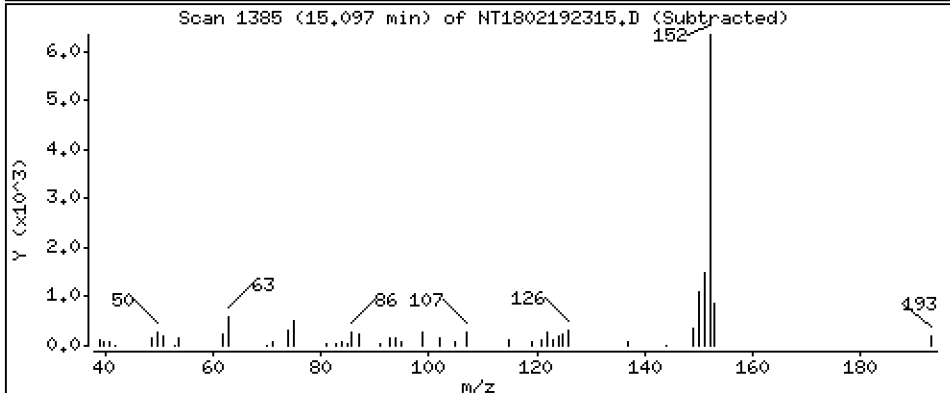
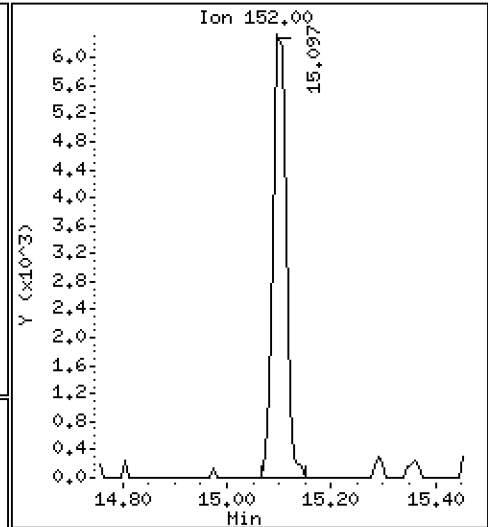
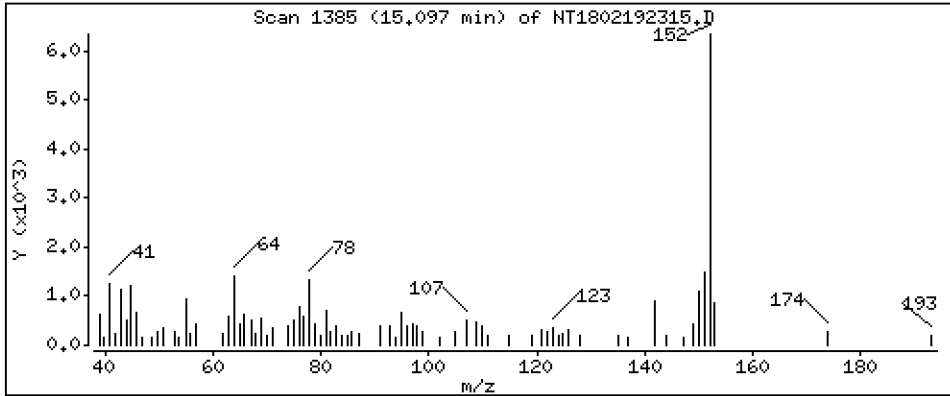
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,4436 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

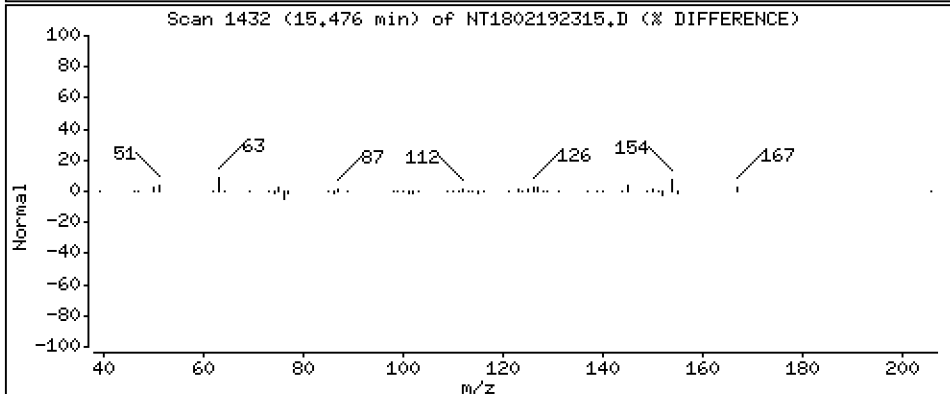
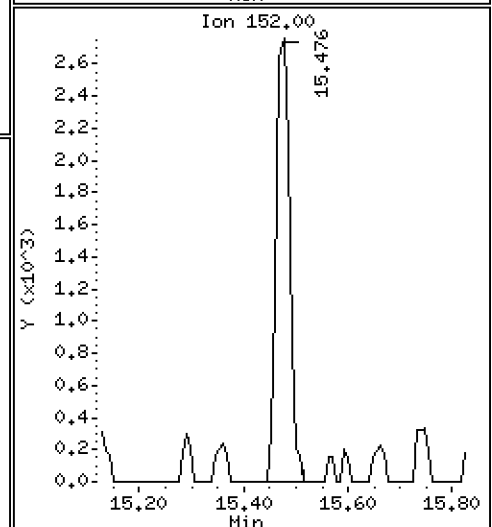
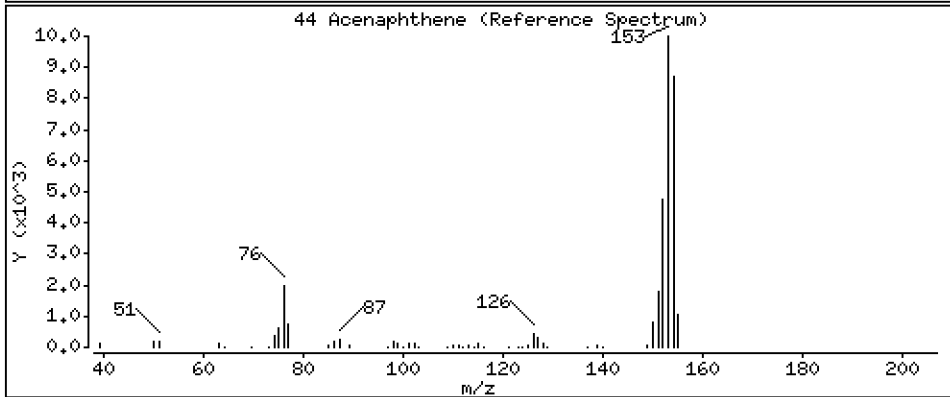
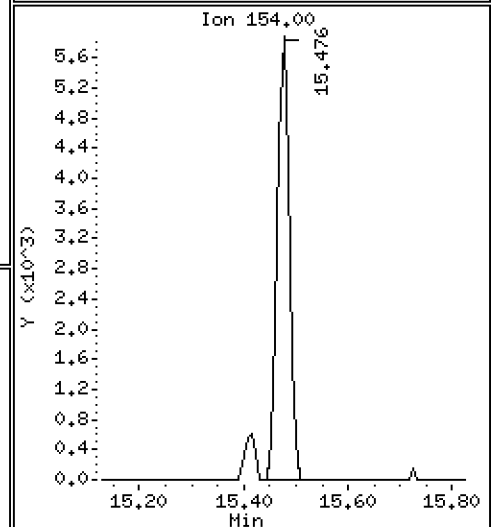
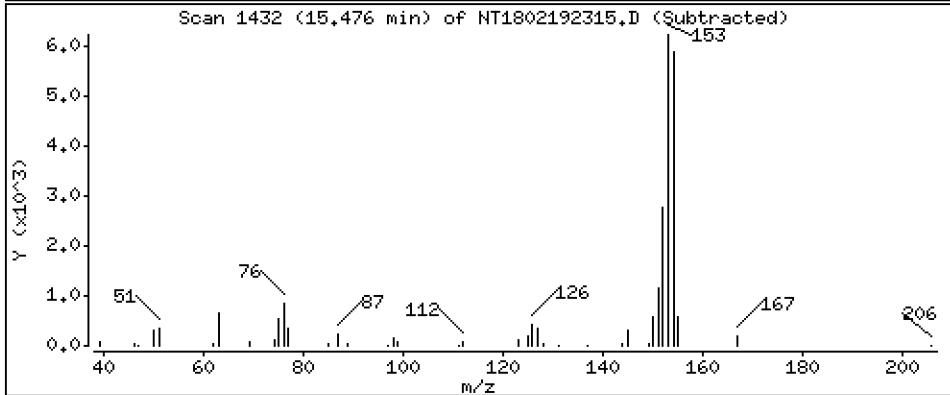
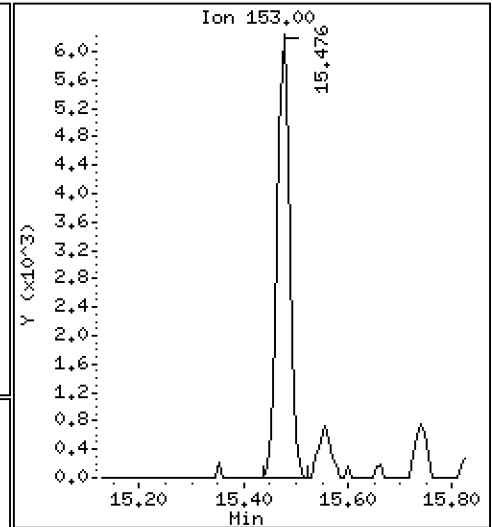
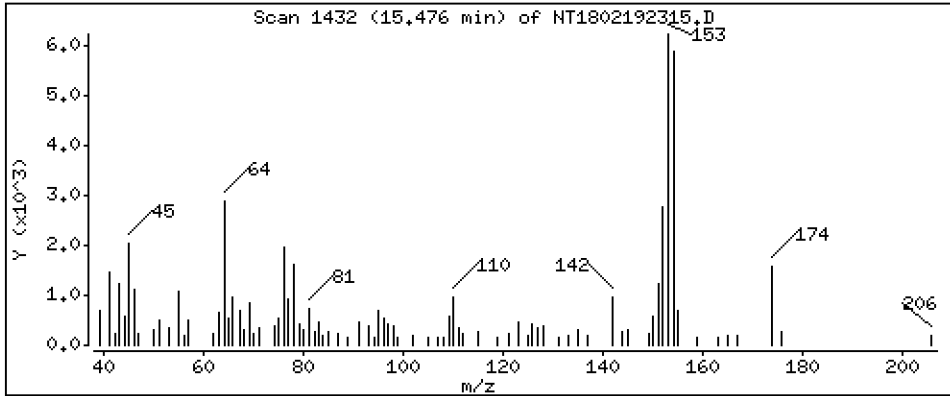
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,6152 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

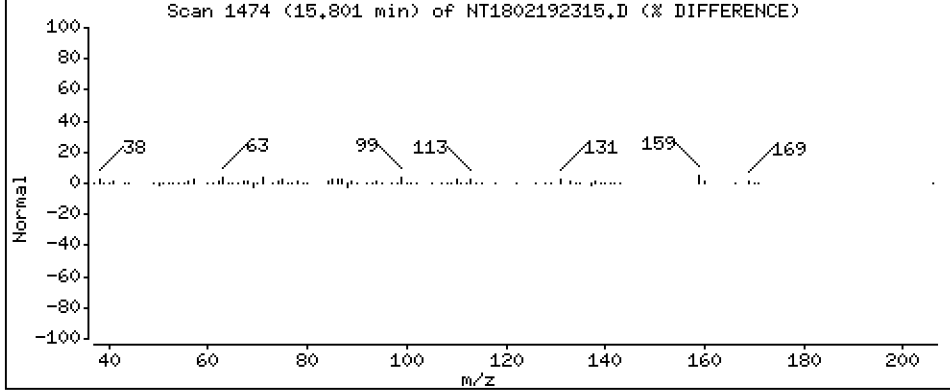
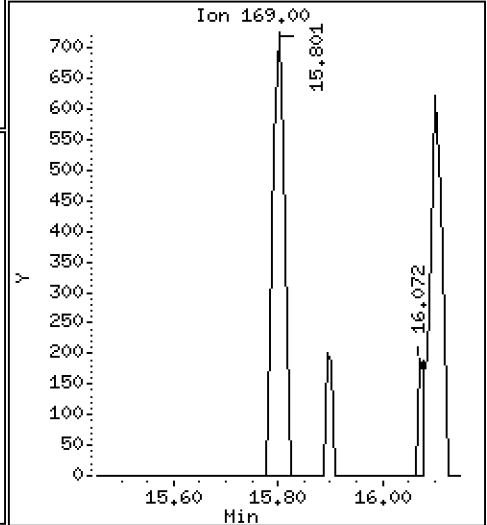
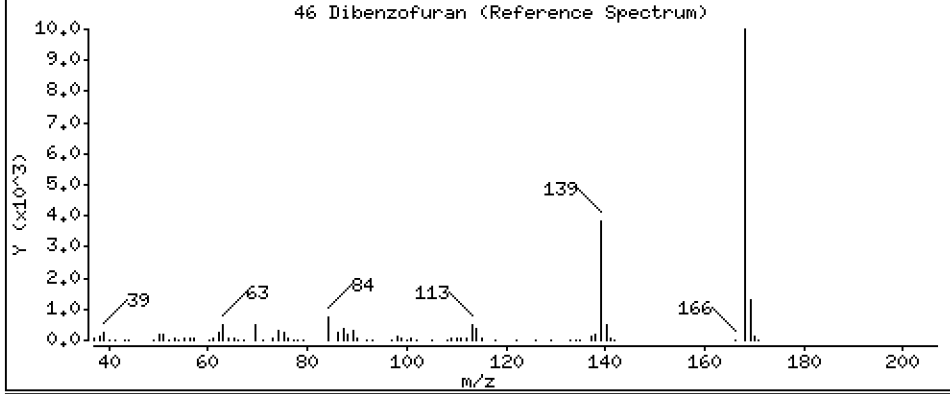
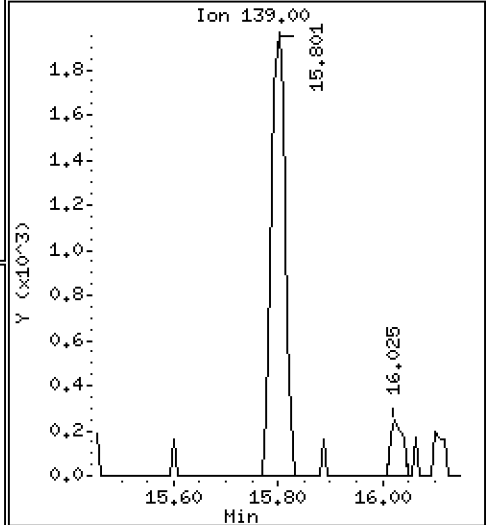
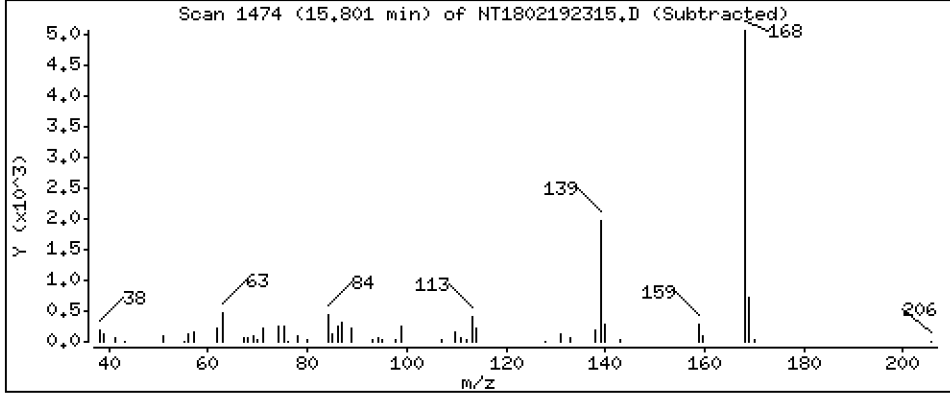
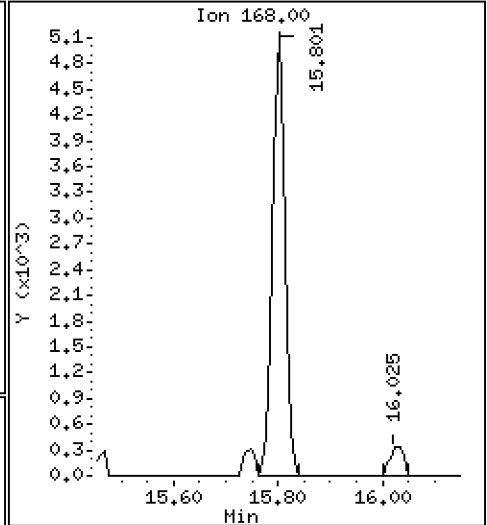
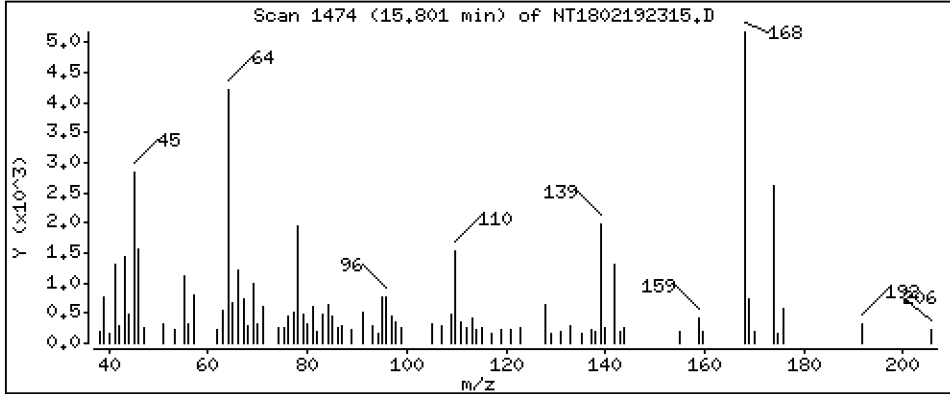
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,3518 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

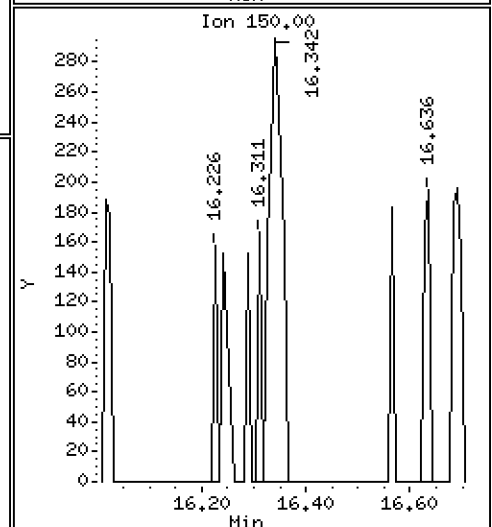
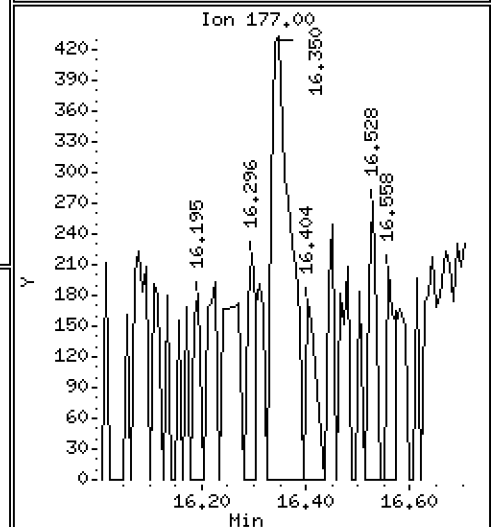
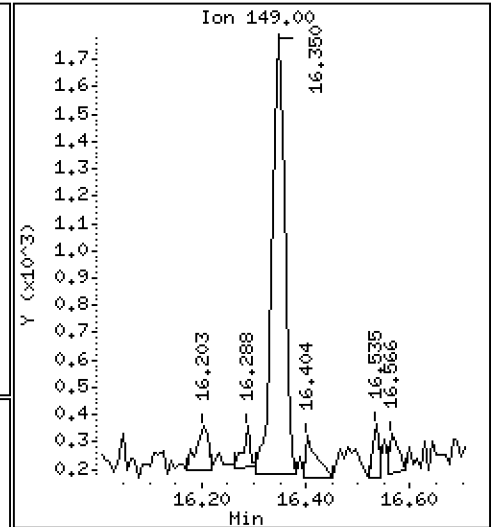
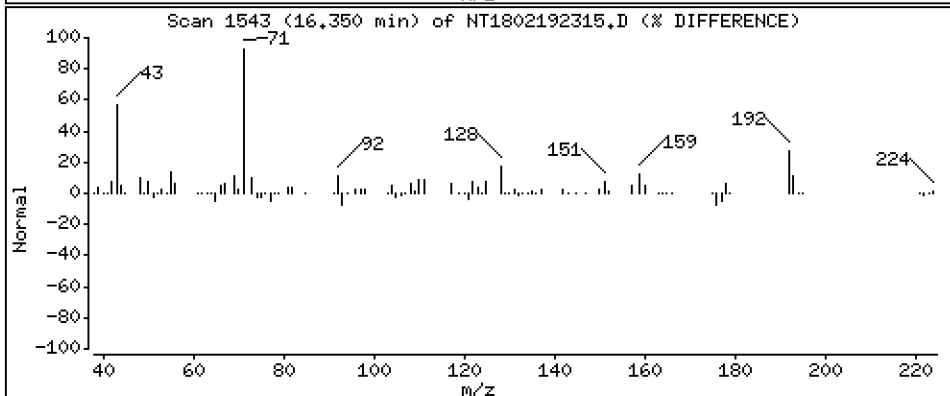
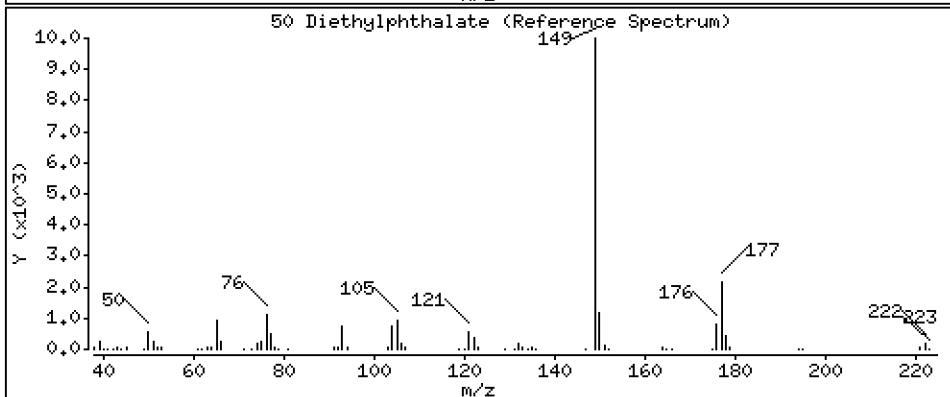
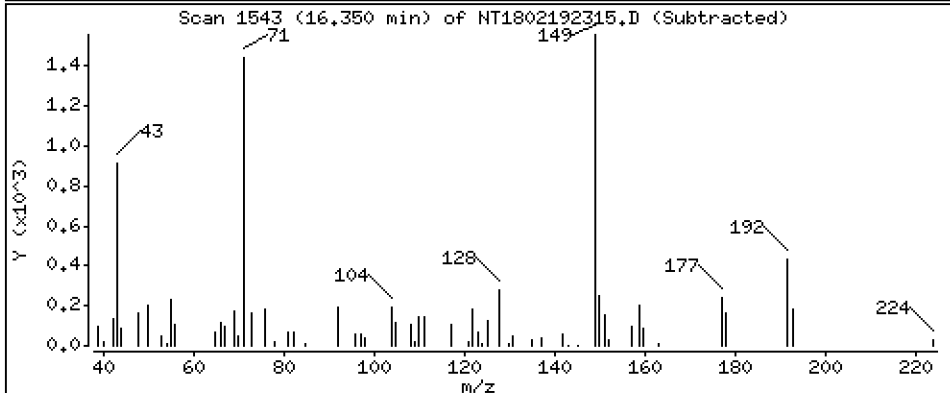
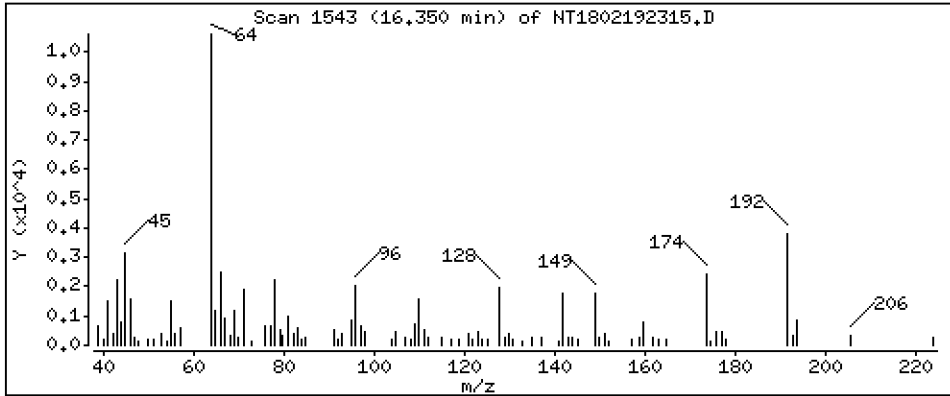
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.1536 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

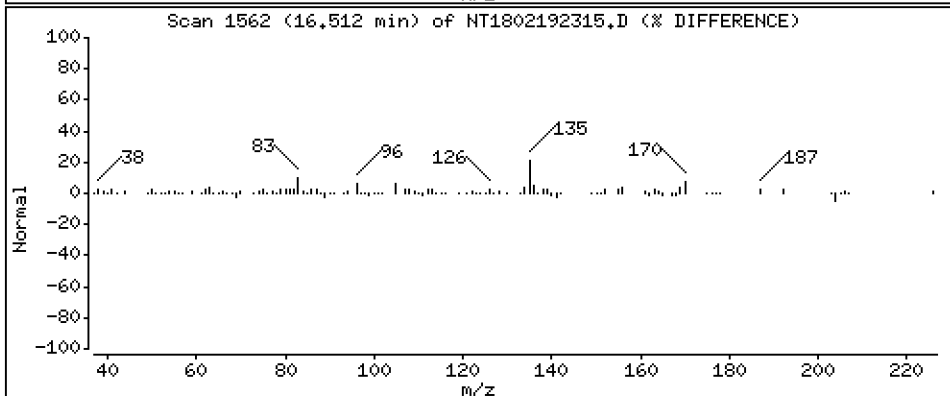
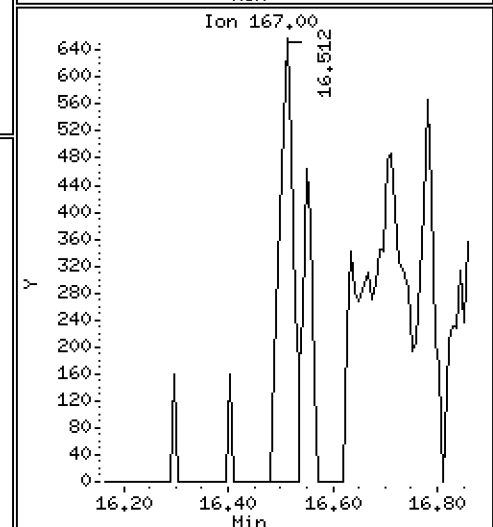
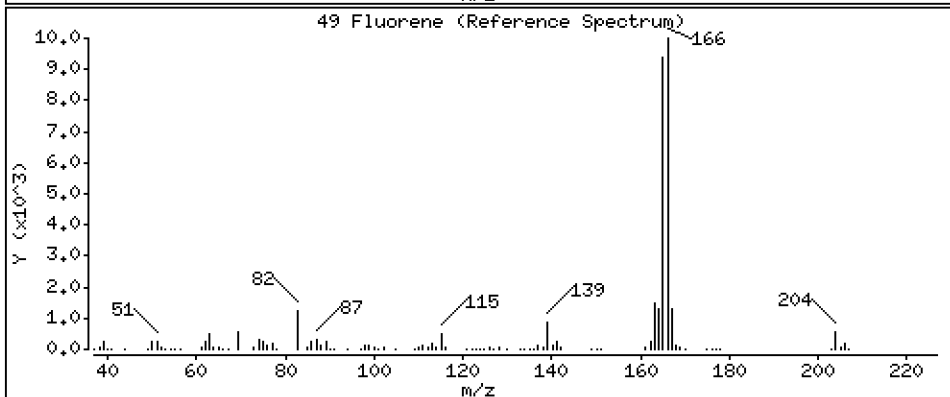
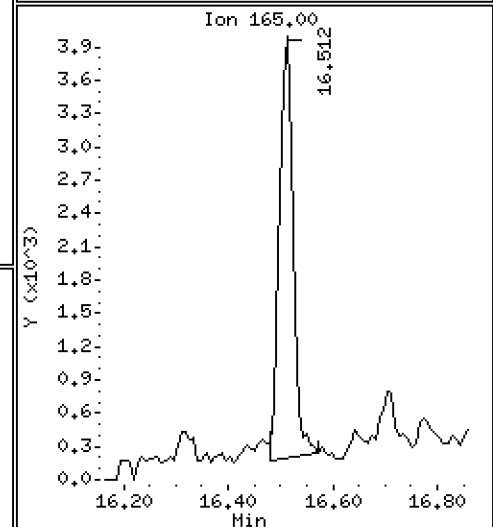
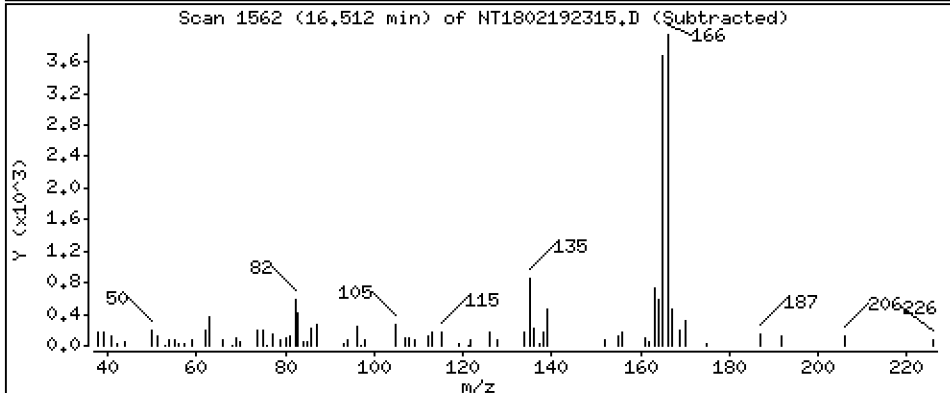
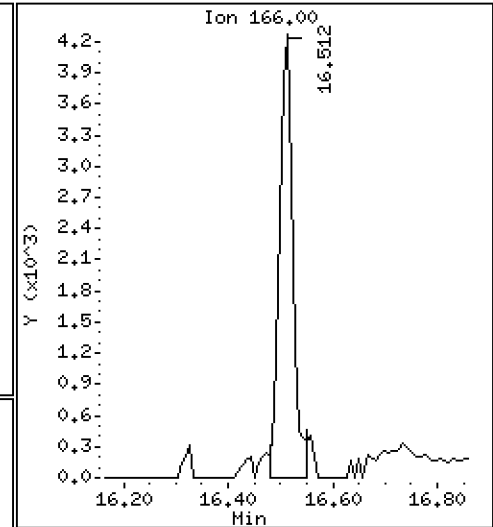
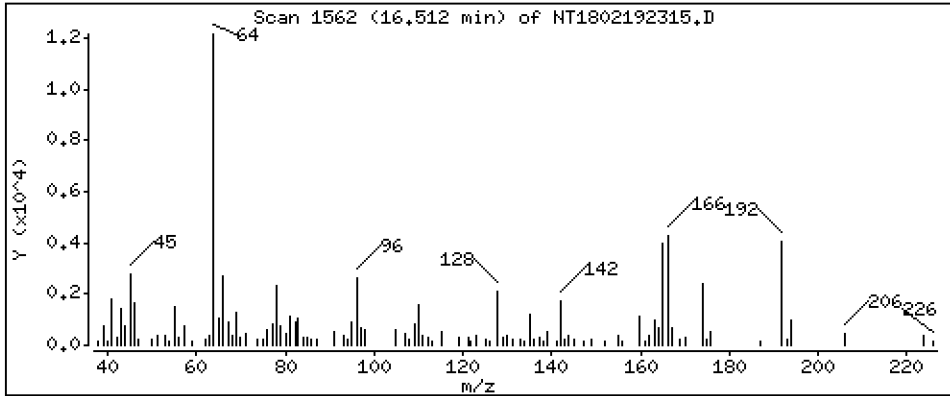
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,4140 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18,i

Sample Info: 23A0032-11RE2,5

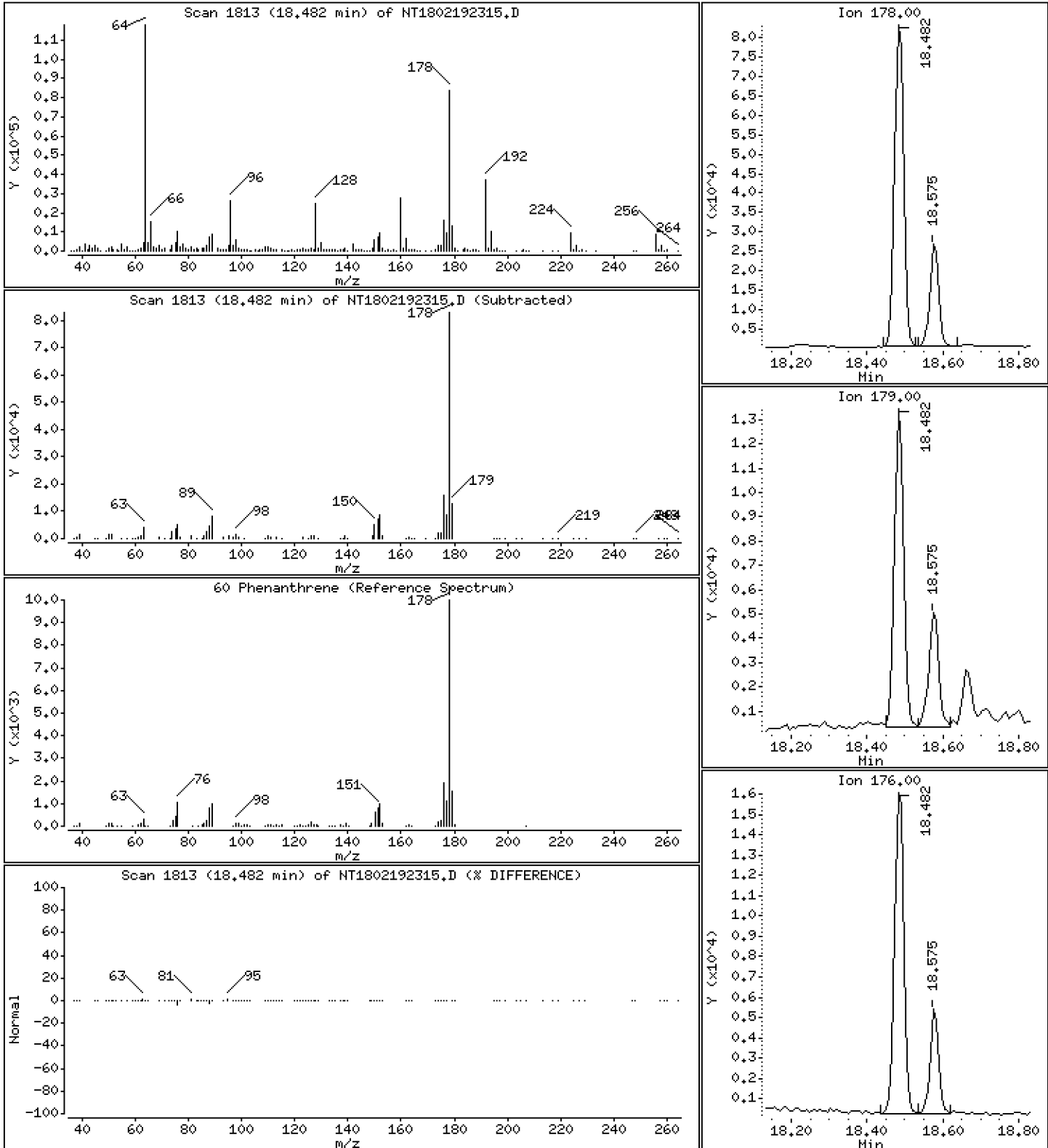
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,906 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

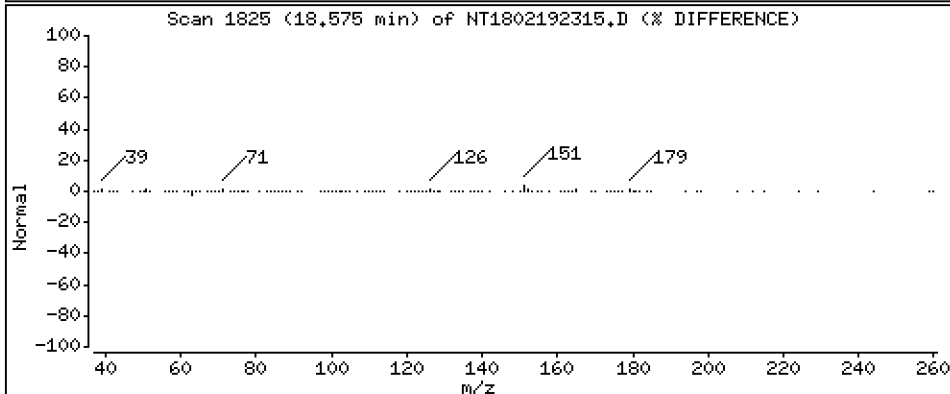
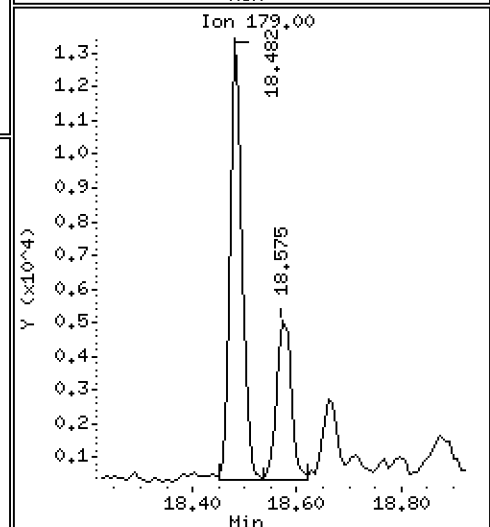
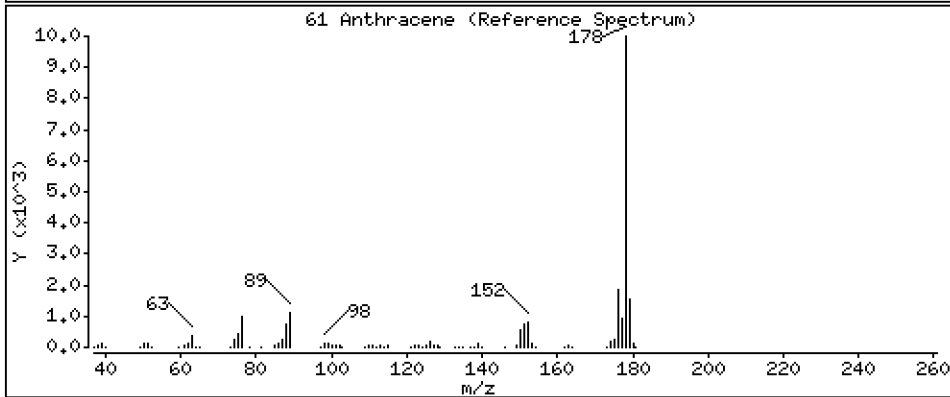
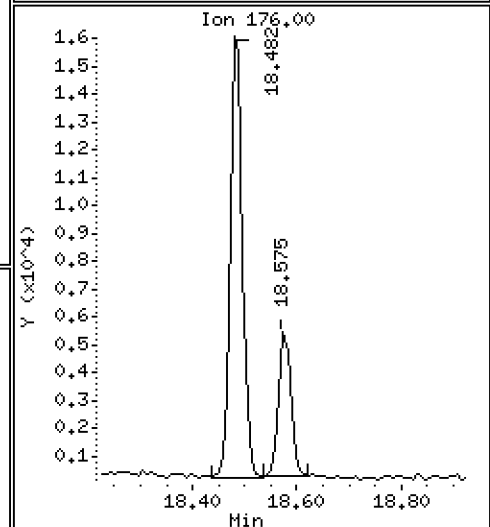
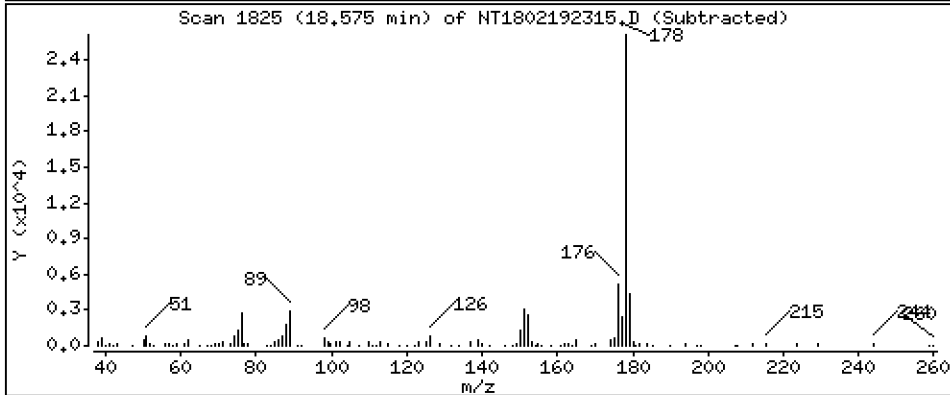
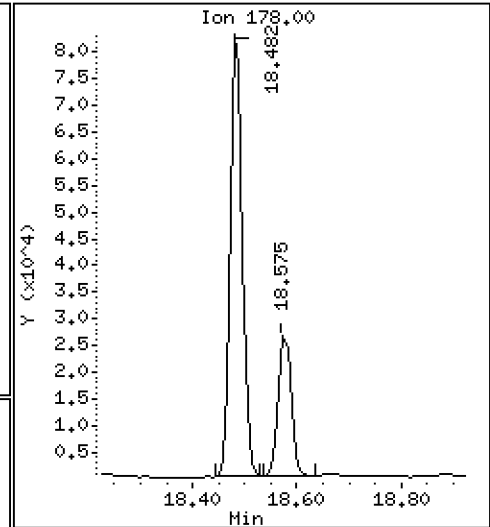
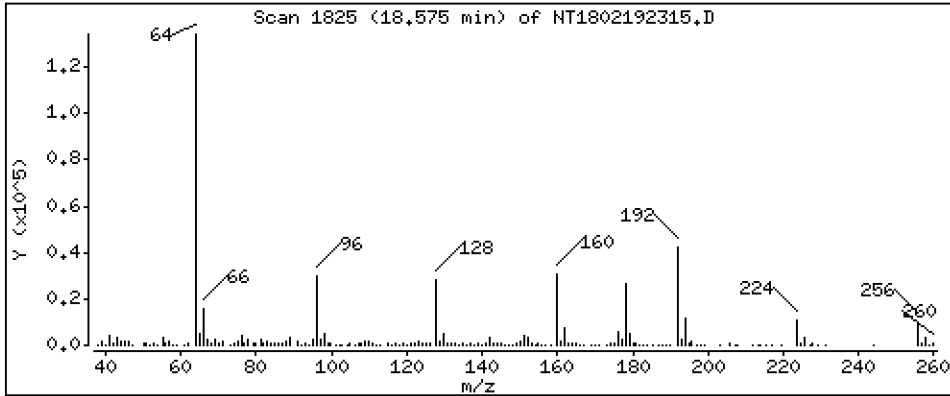
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 1,792 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

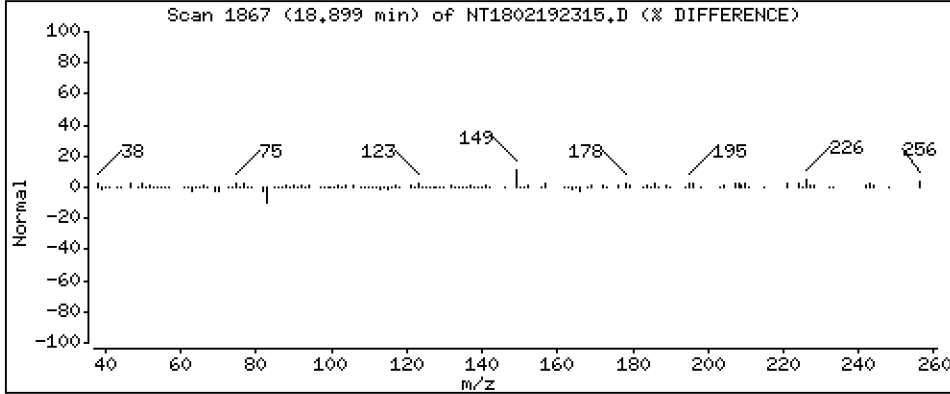
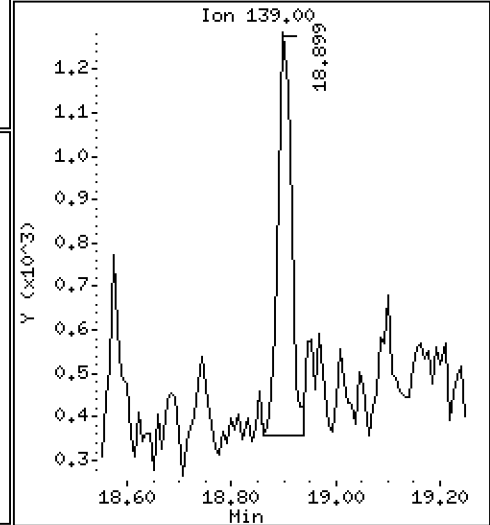
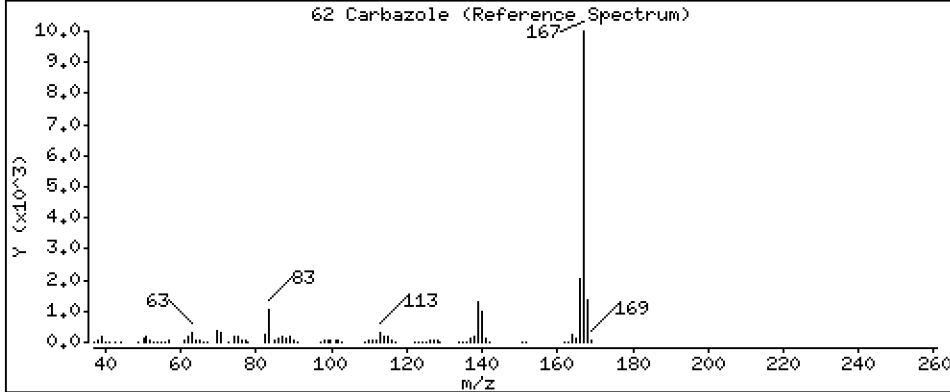
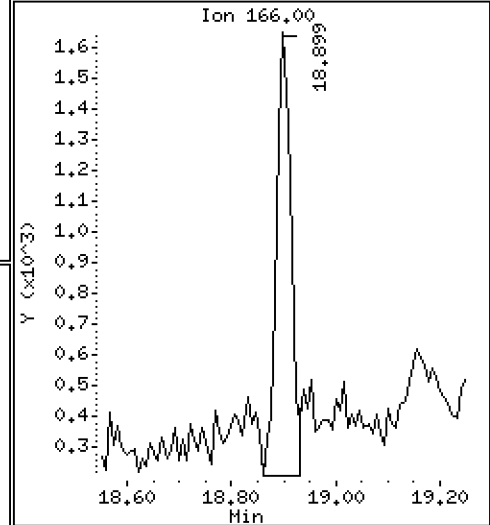
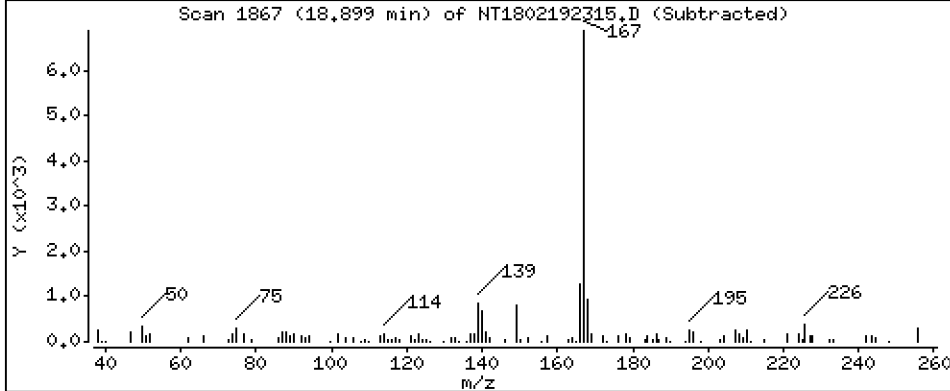
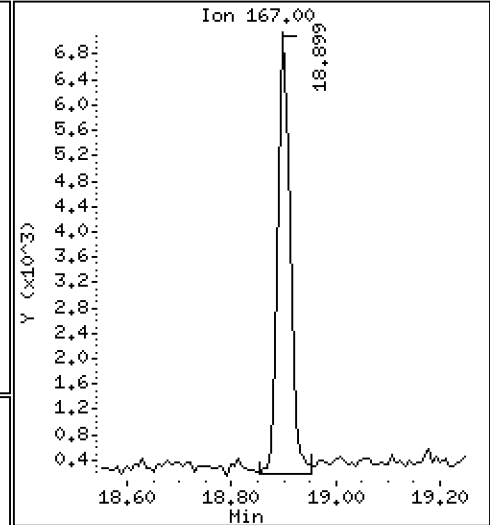
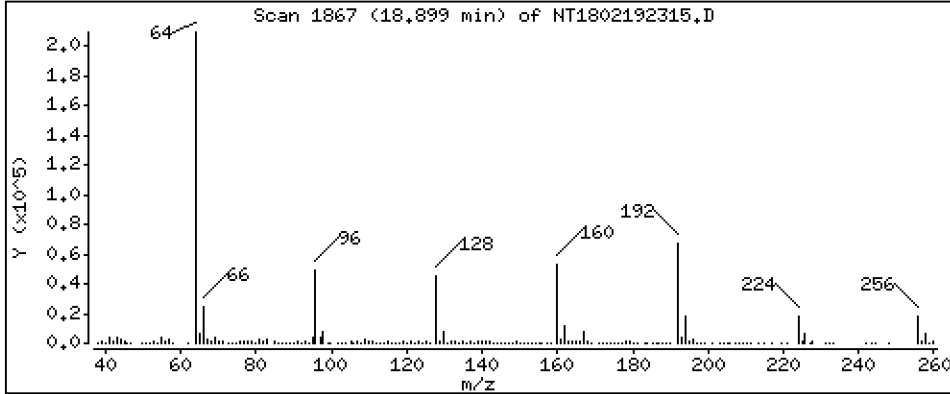
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,4510 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

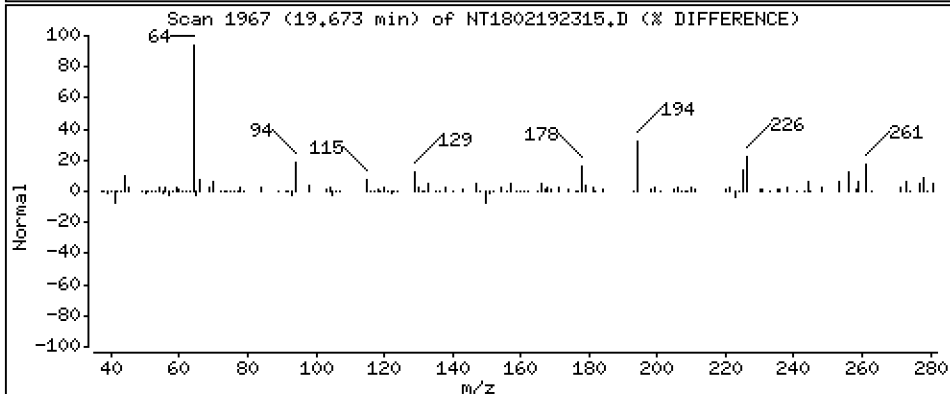
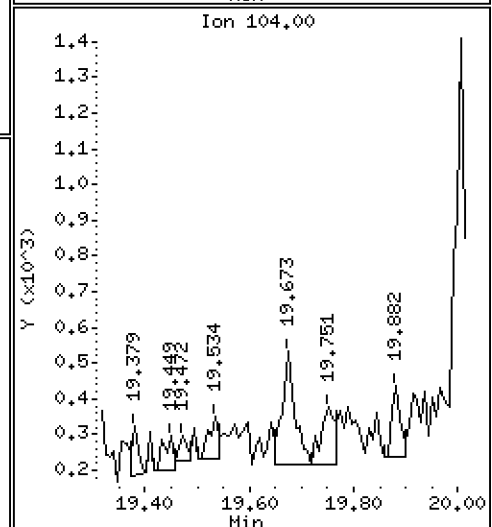
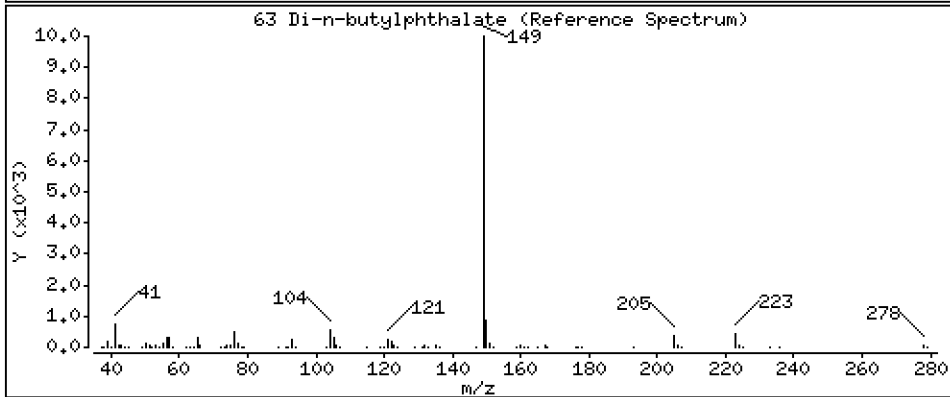
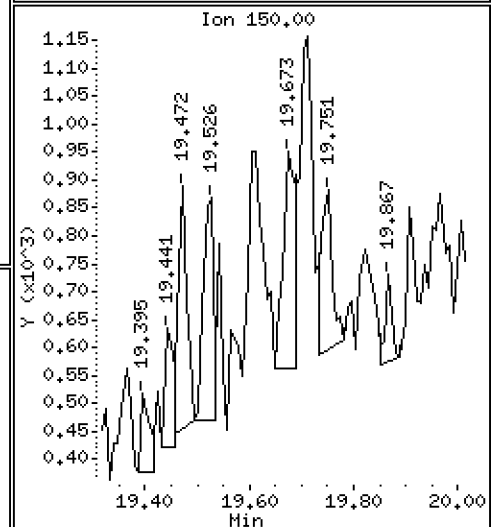
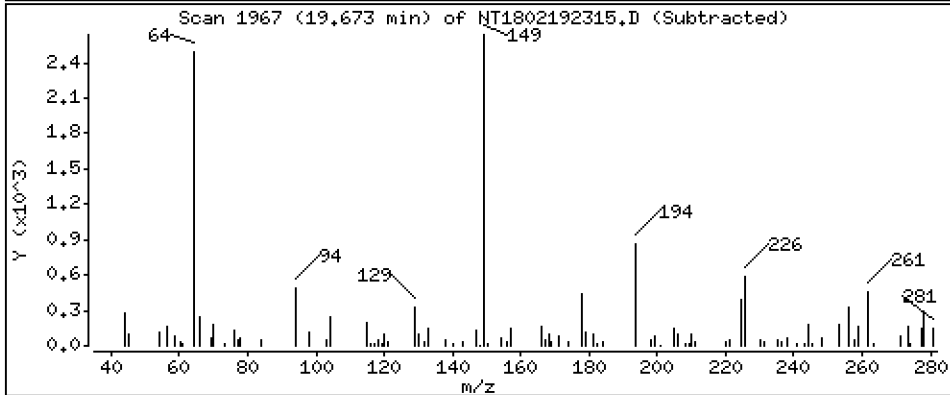
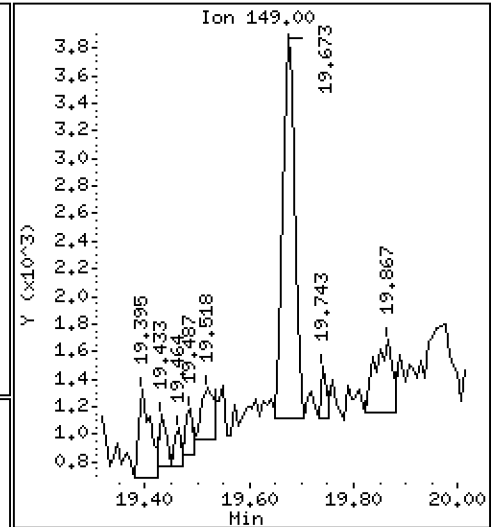
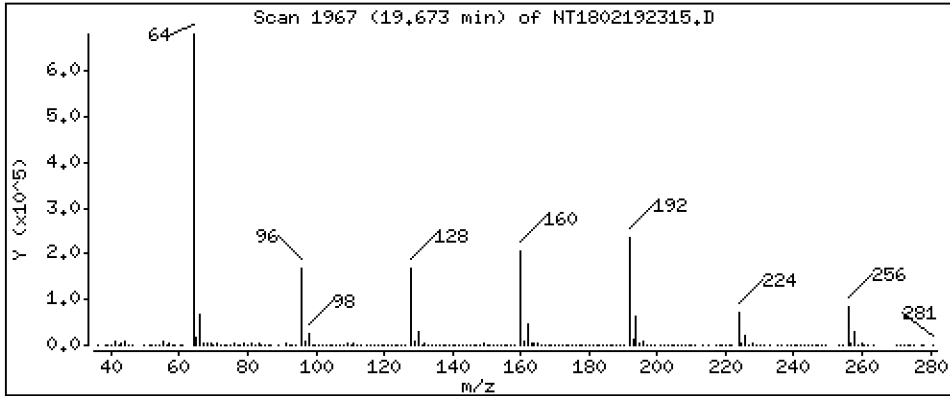
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 0,1324 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18,i

Sample Info: 23A0032-11RE2,5

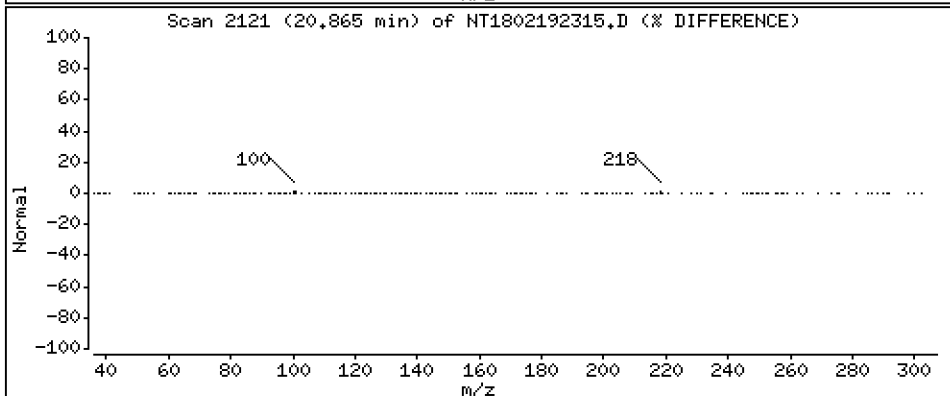
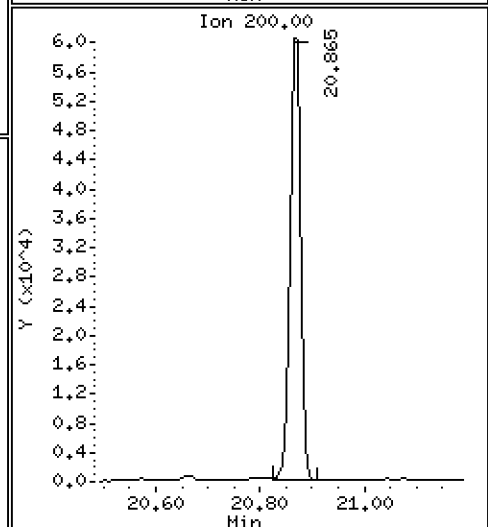
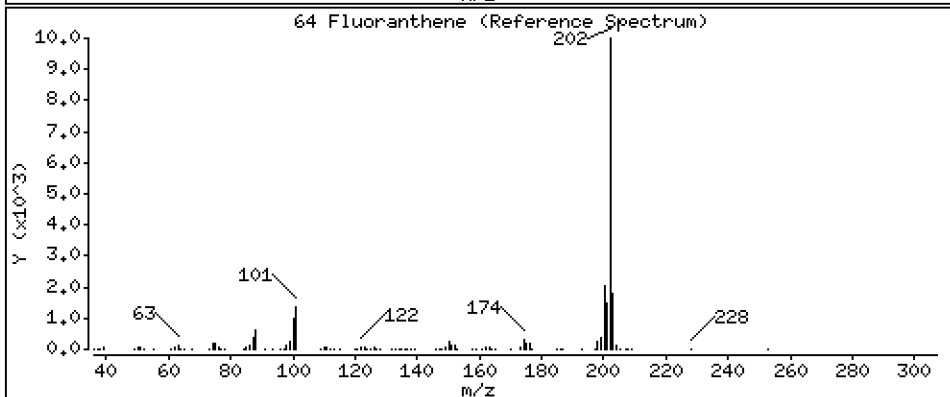
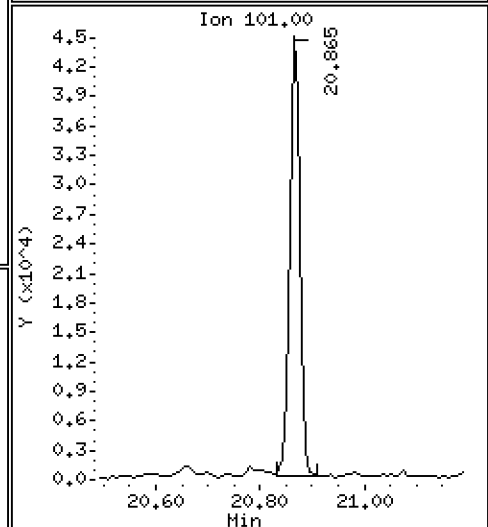
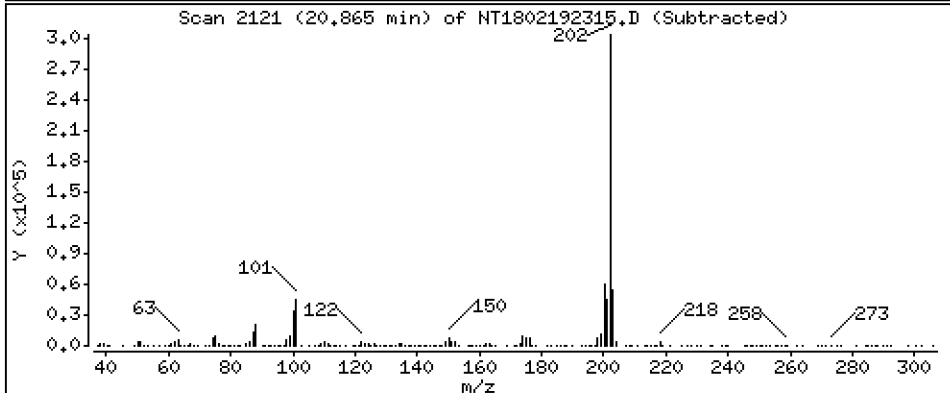
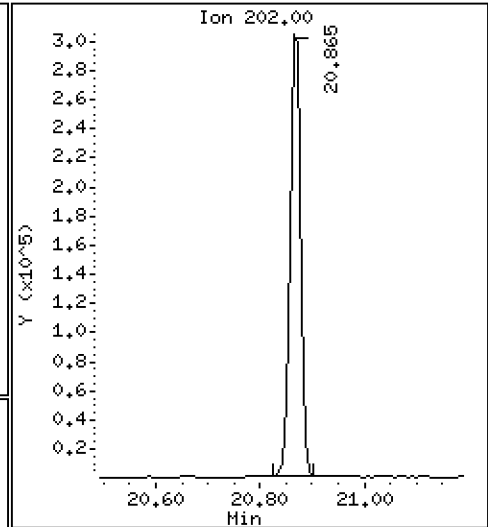
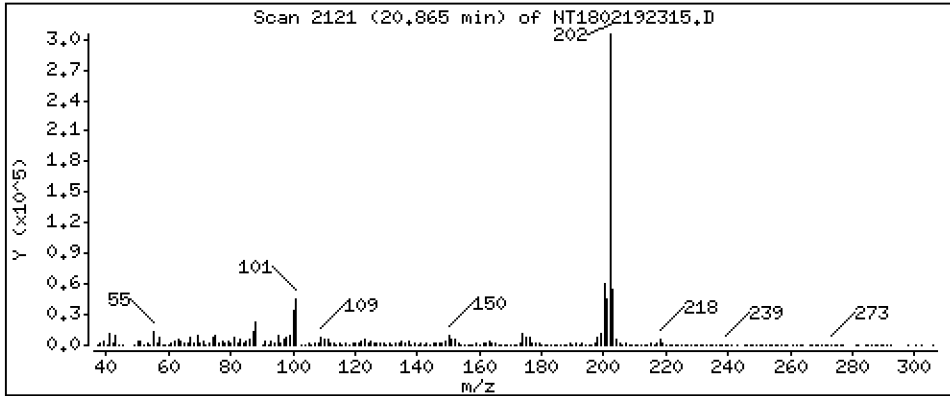
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 16,65 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

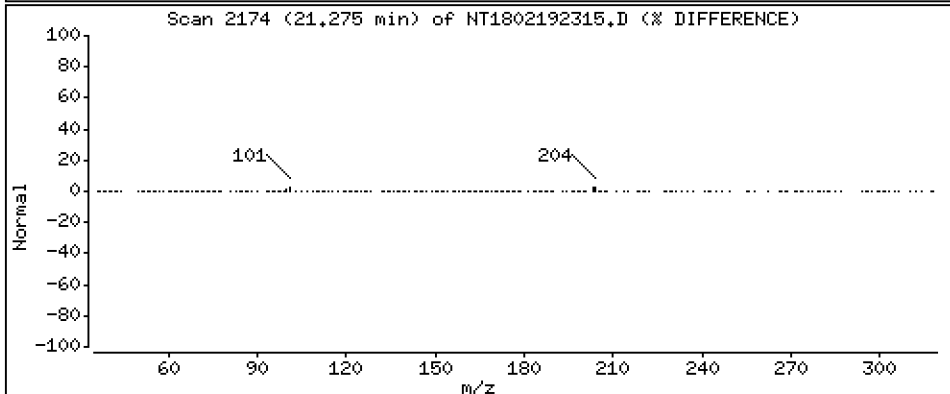
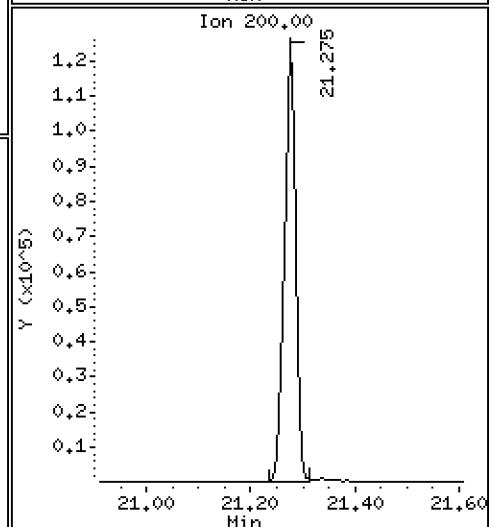
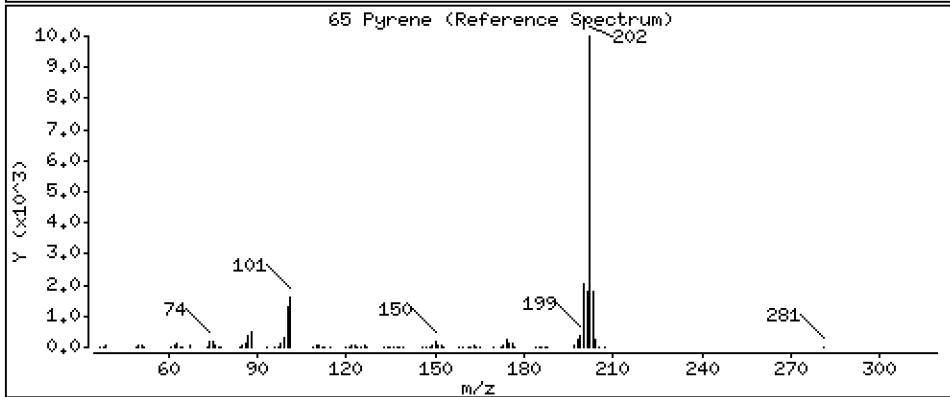
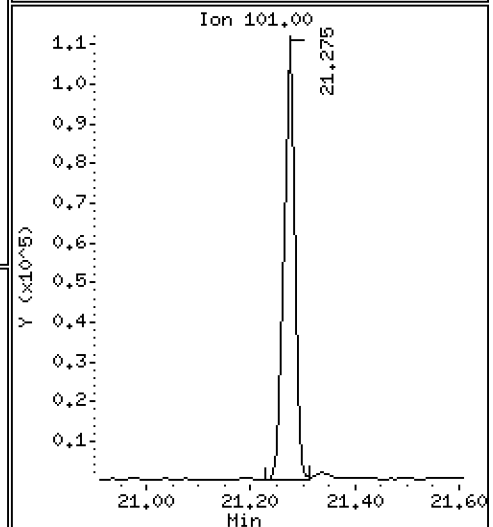
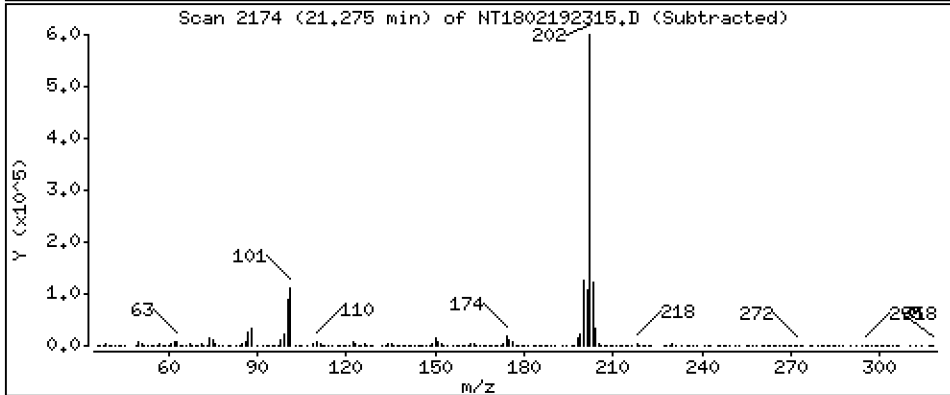
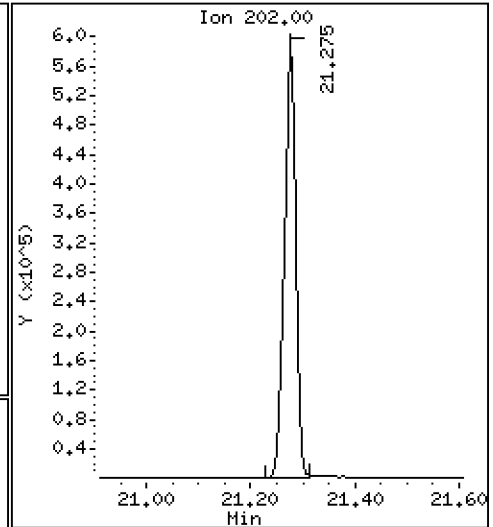
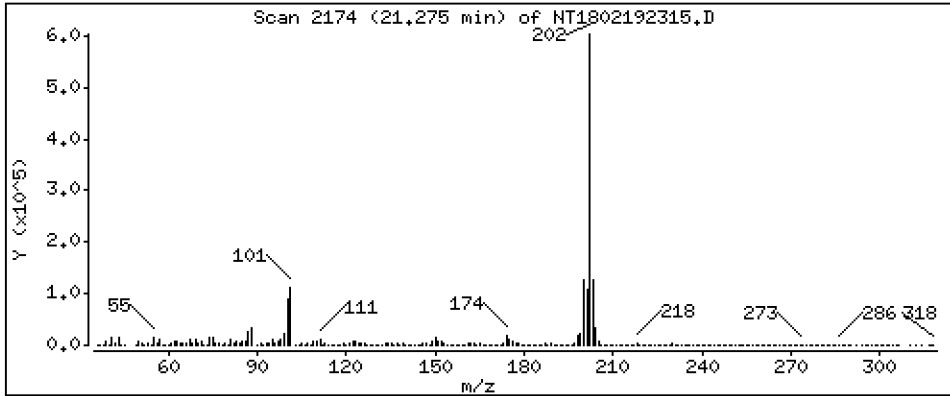
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 30,42 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

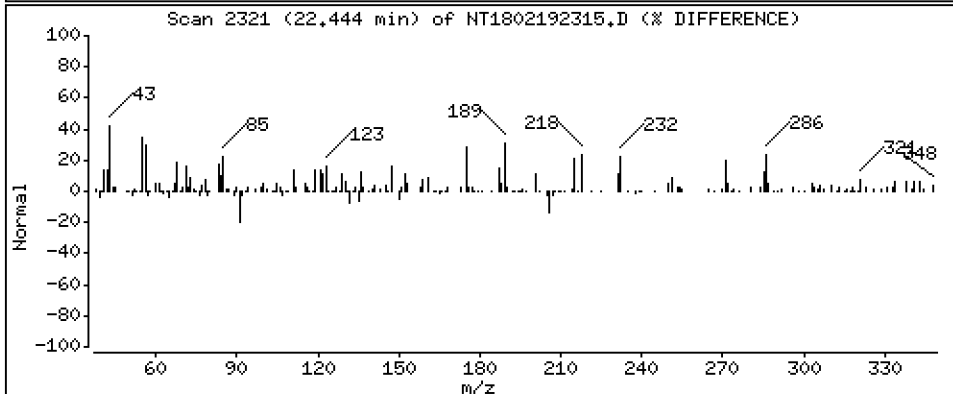
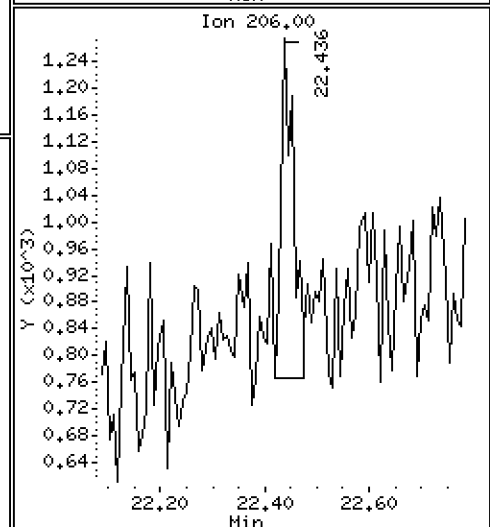
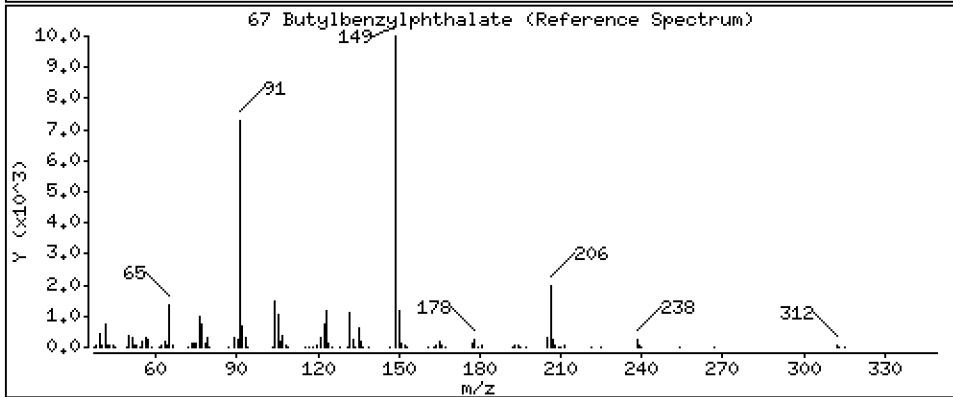
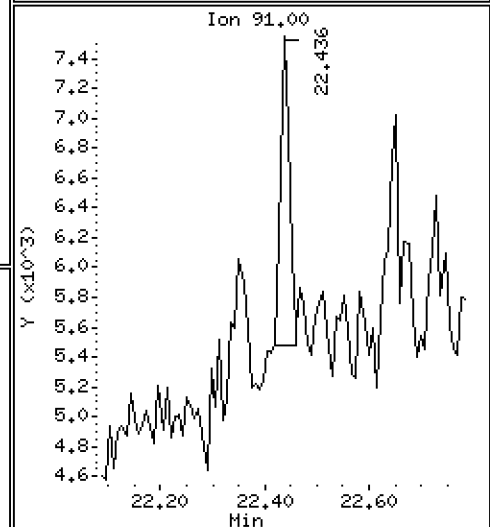
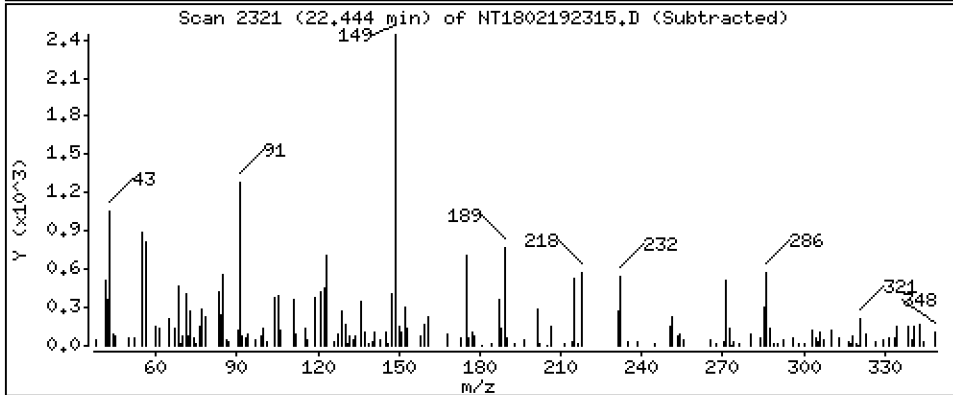
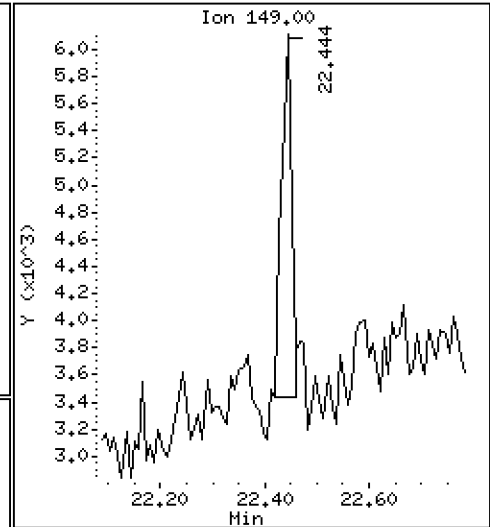
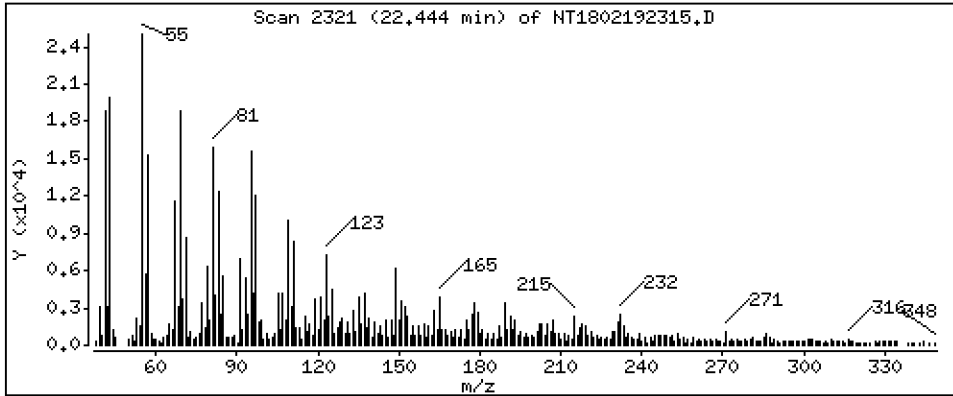
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 0,2577 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

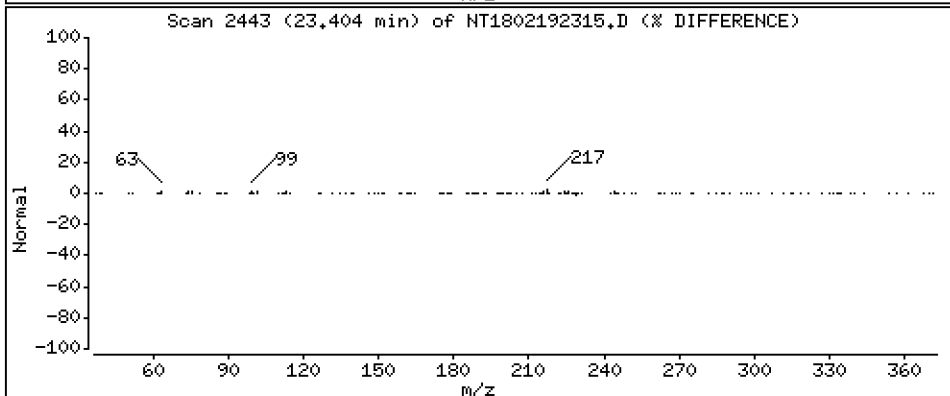
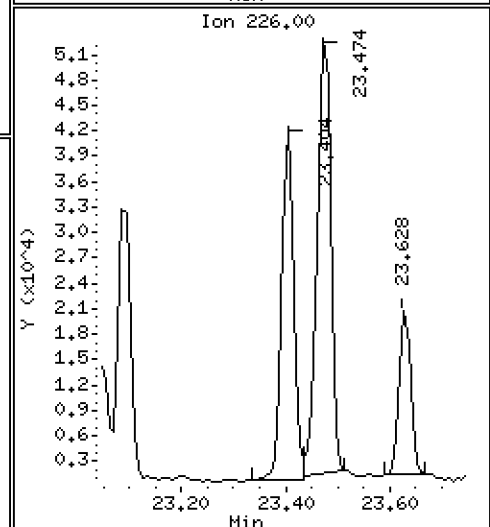
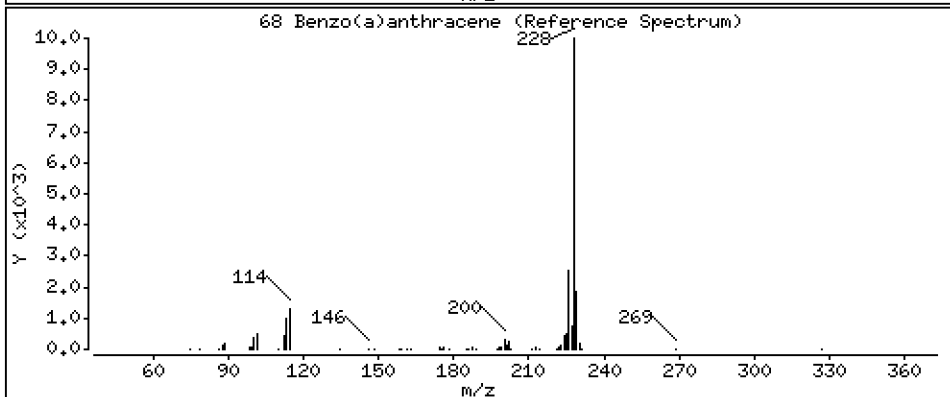
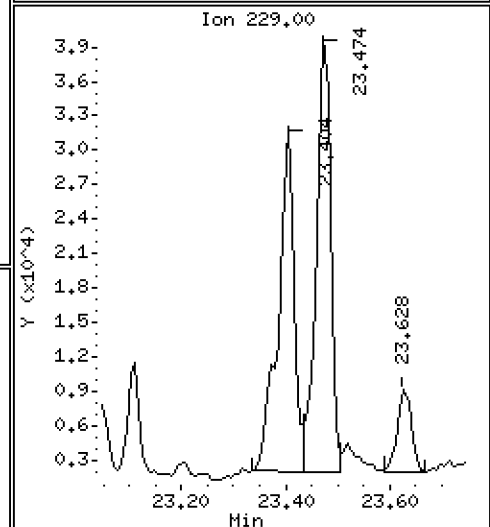
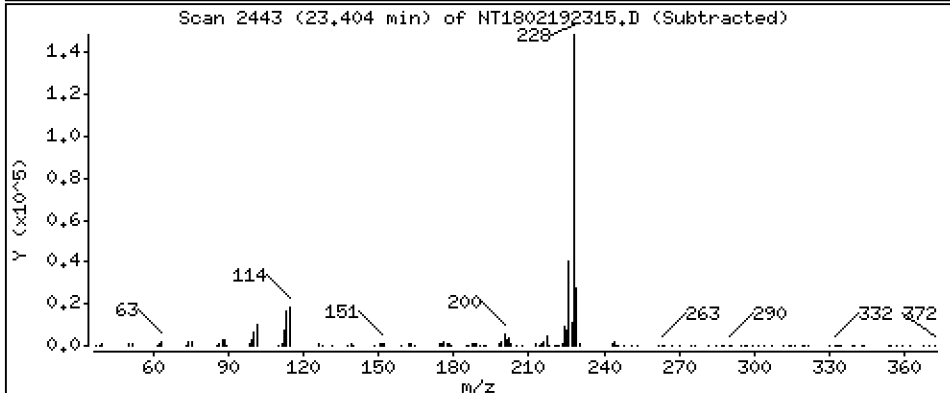
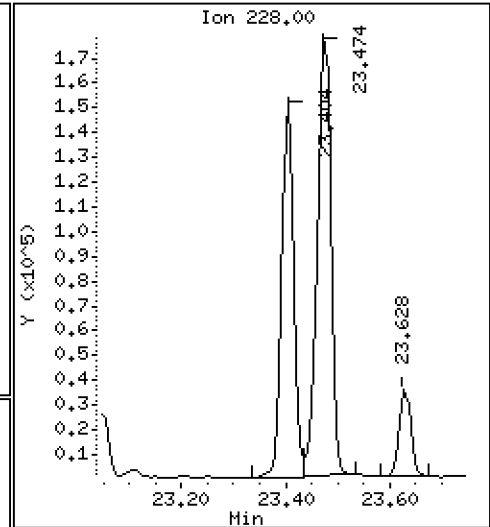
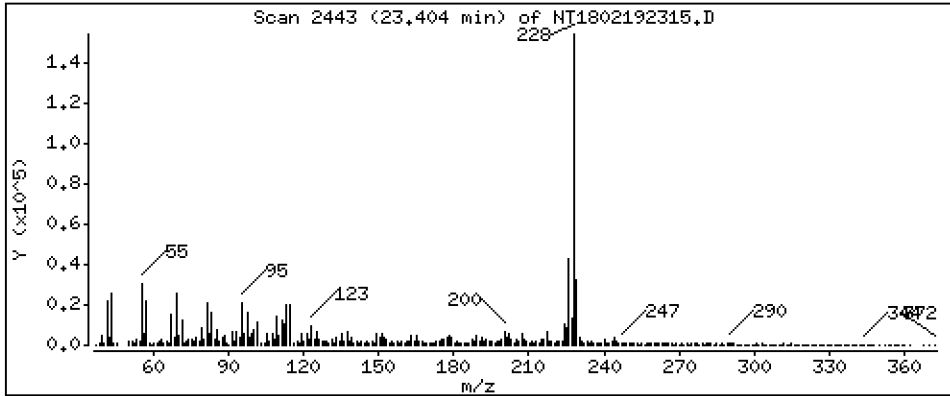
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 8,060 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

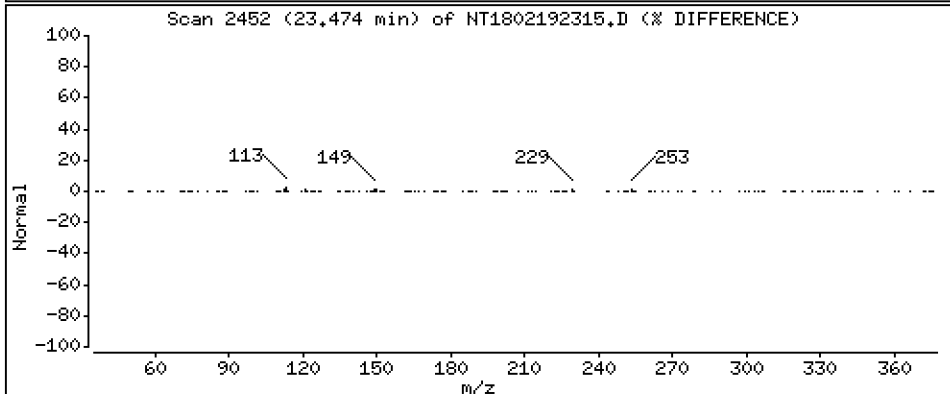
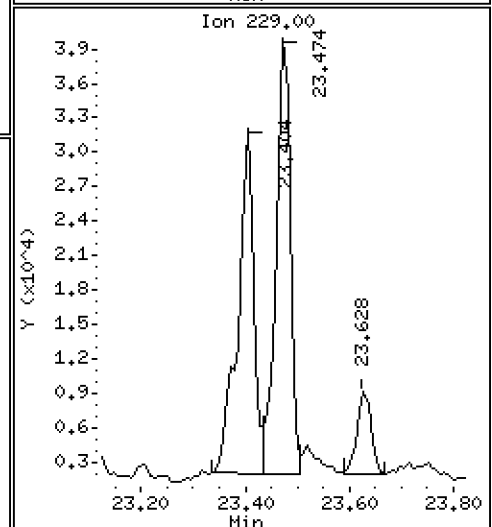
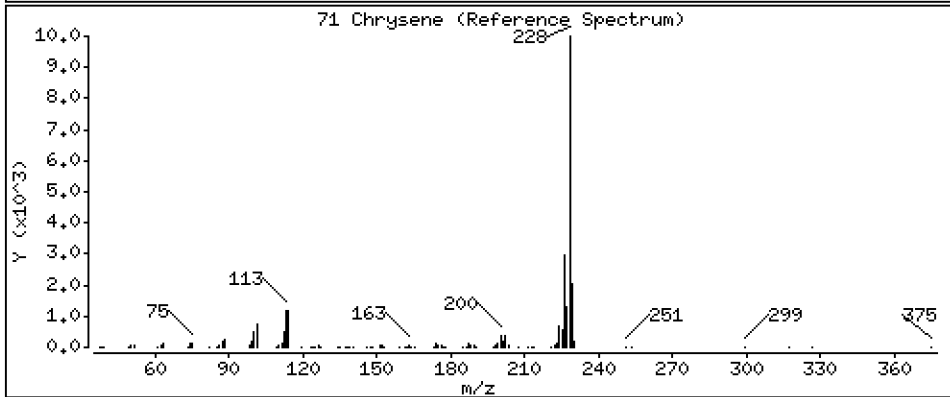
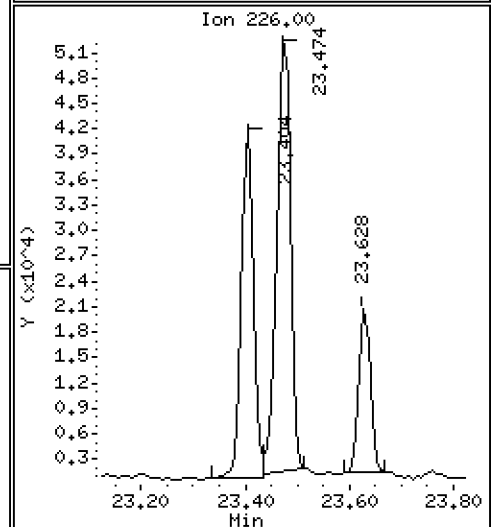
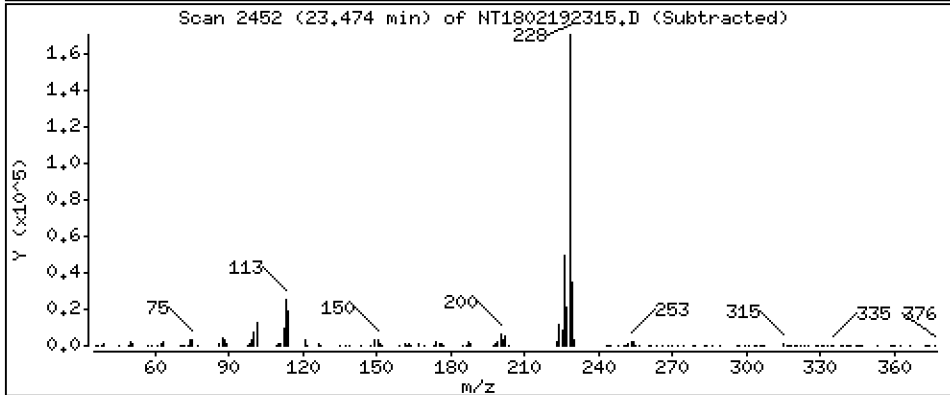
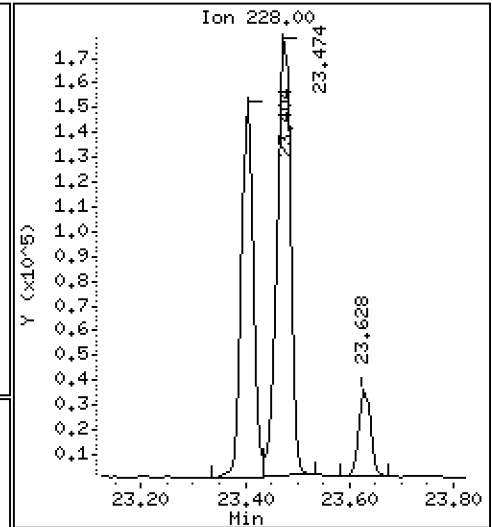
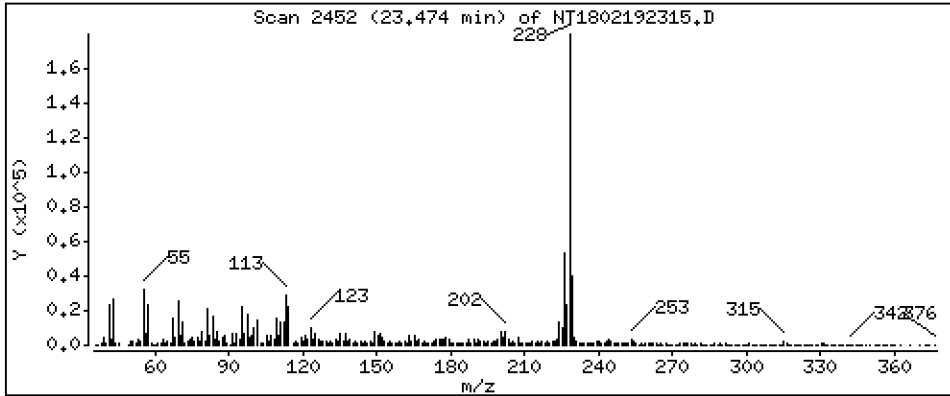
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 10,19 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

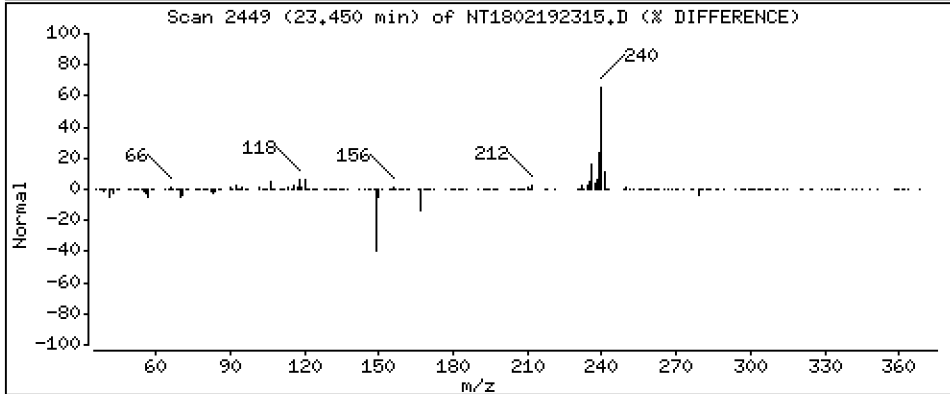
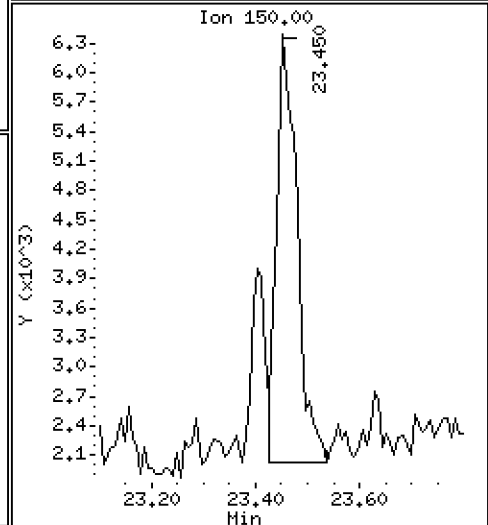
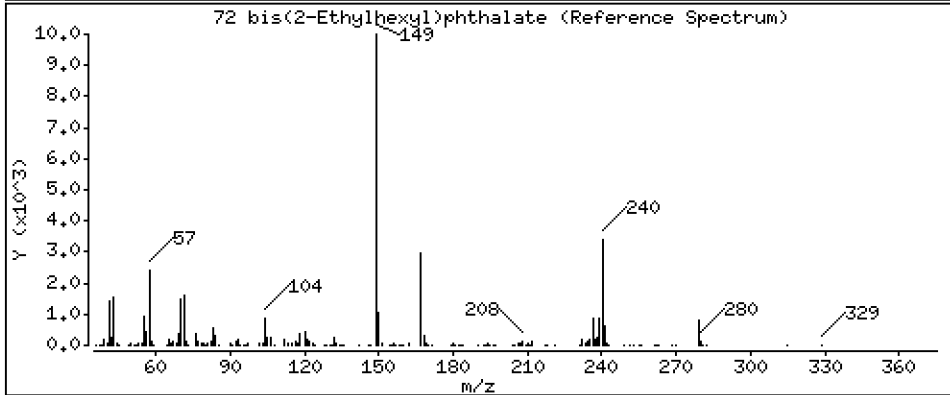
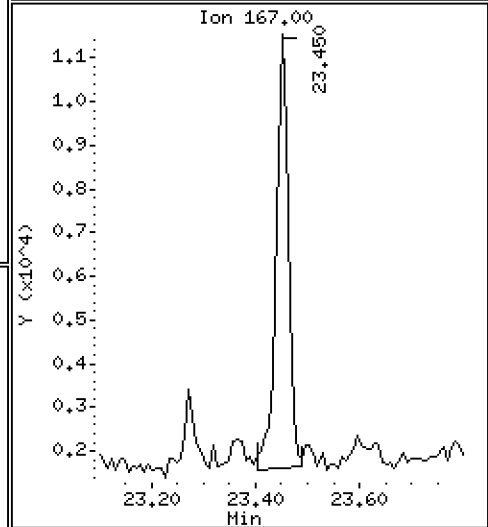
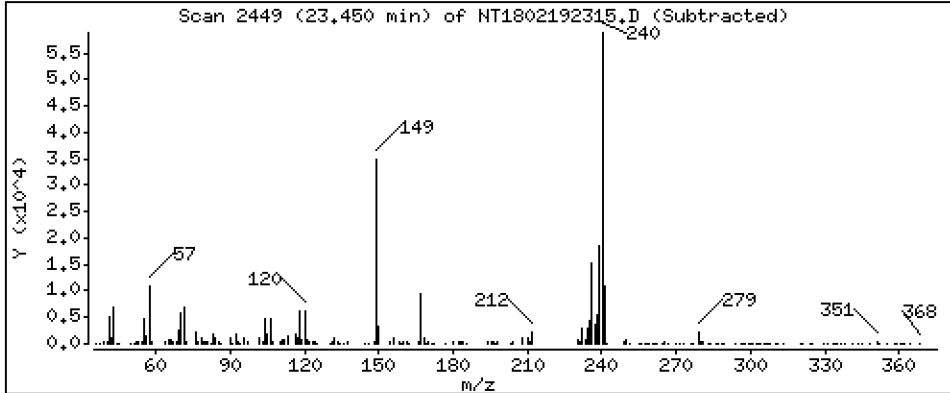
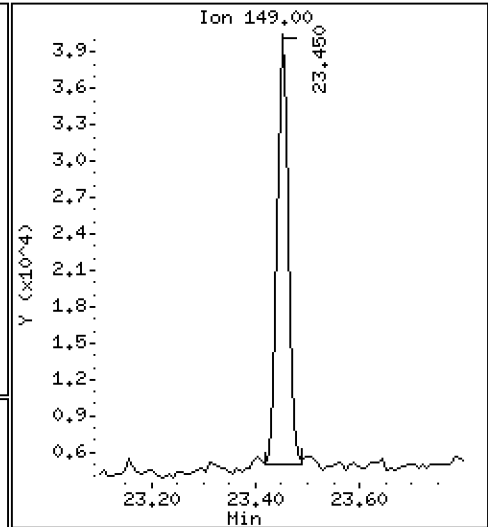
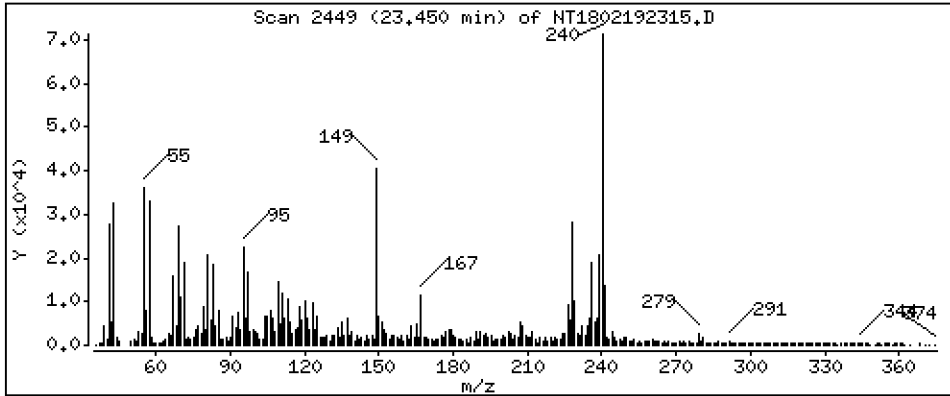
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 2,236 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

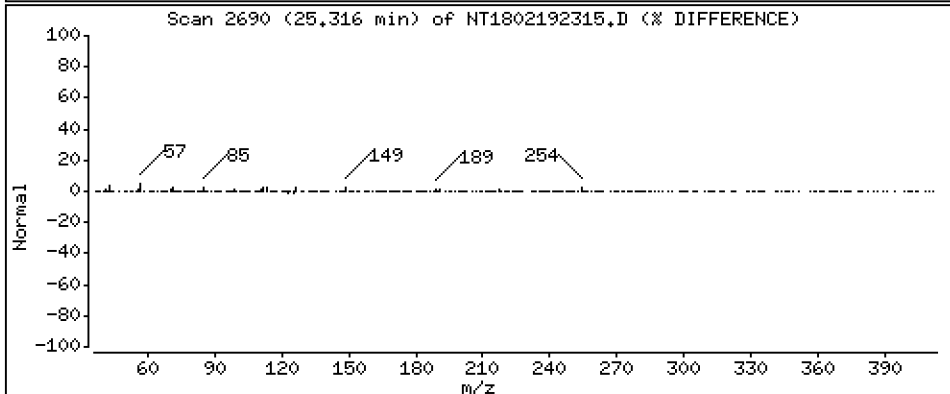
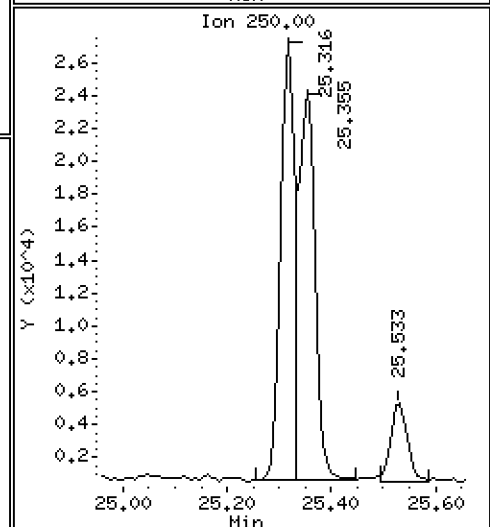
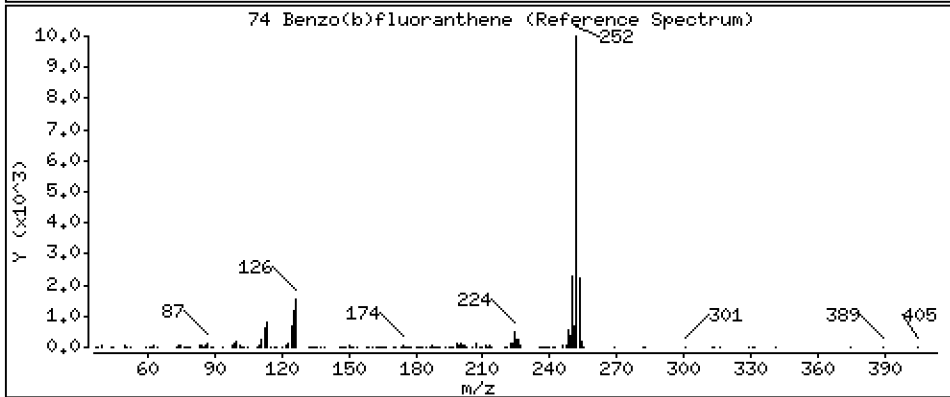
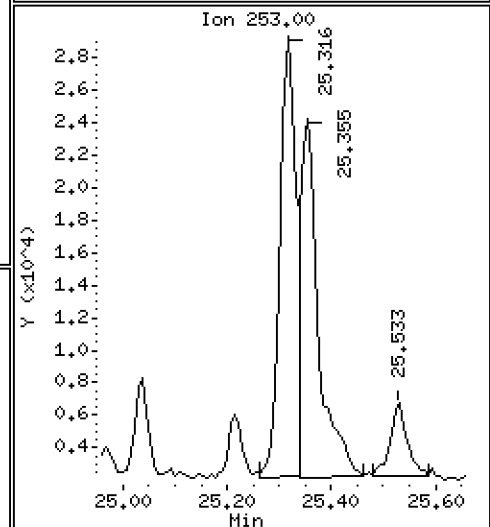
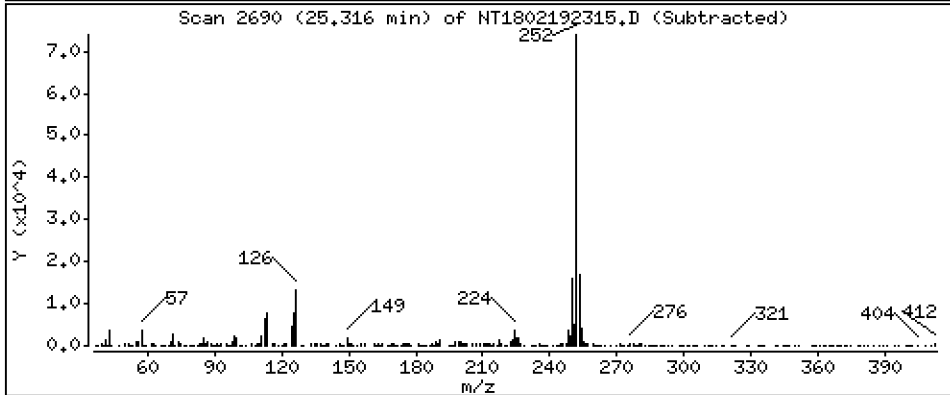
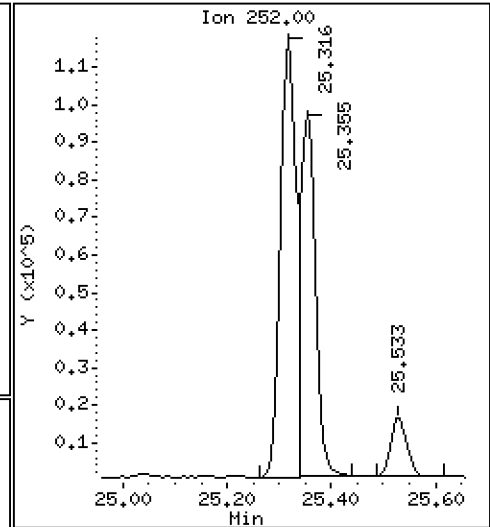
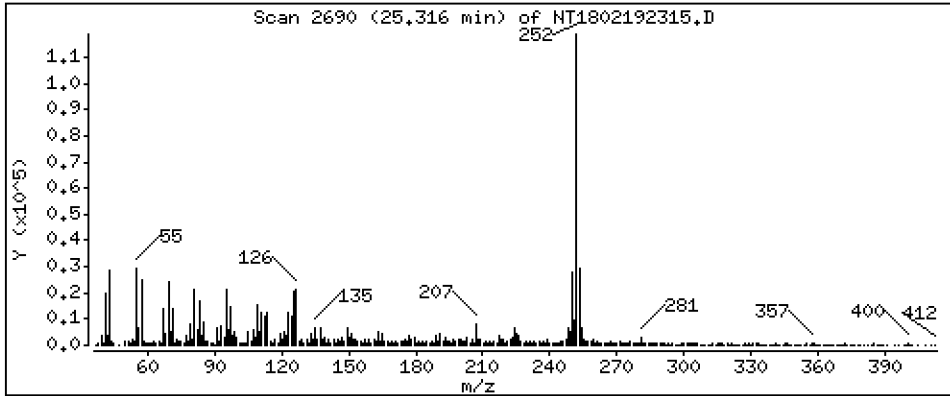
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 8,811 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

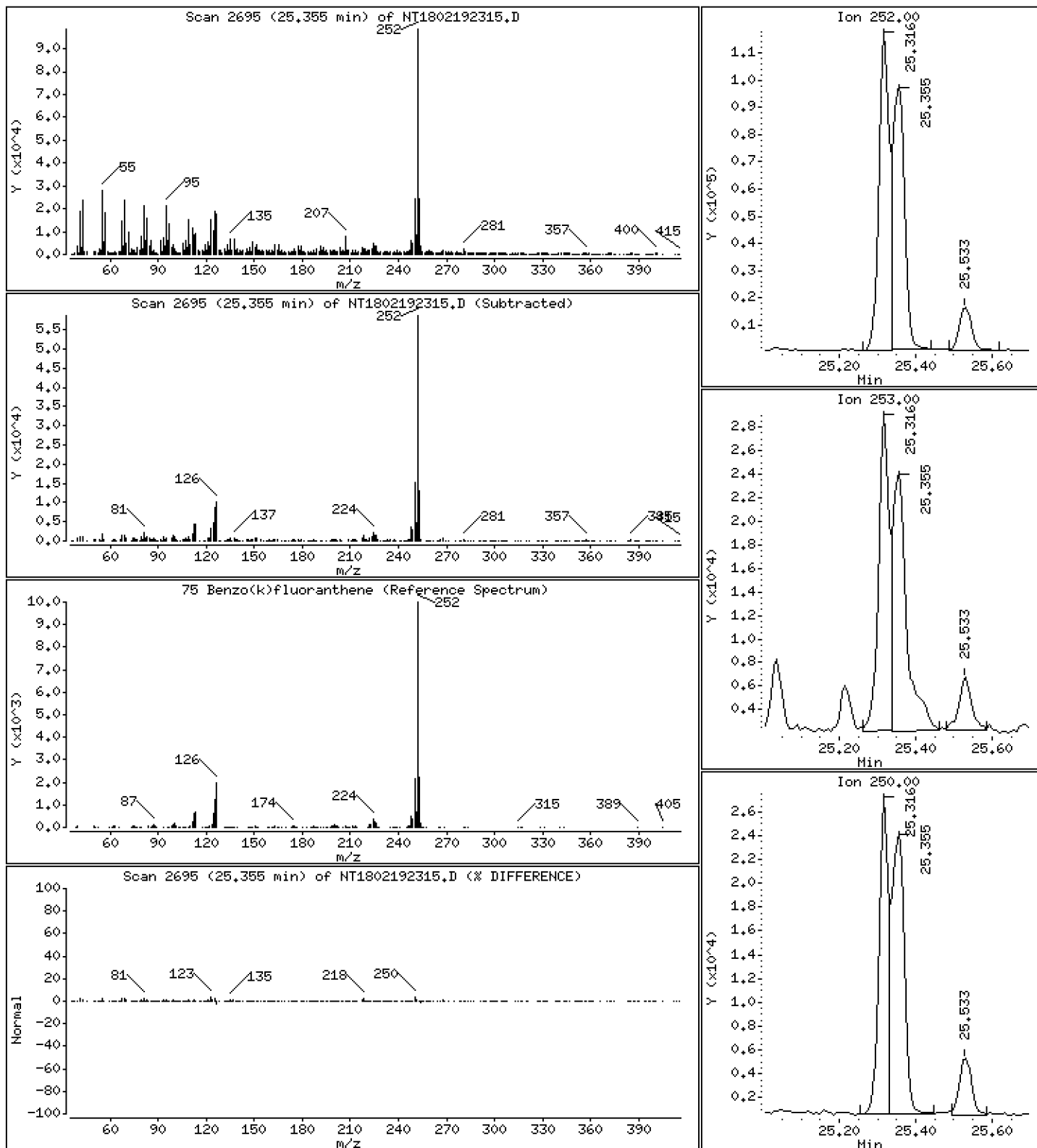
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 6,653 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

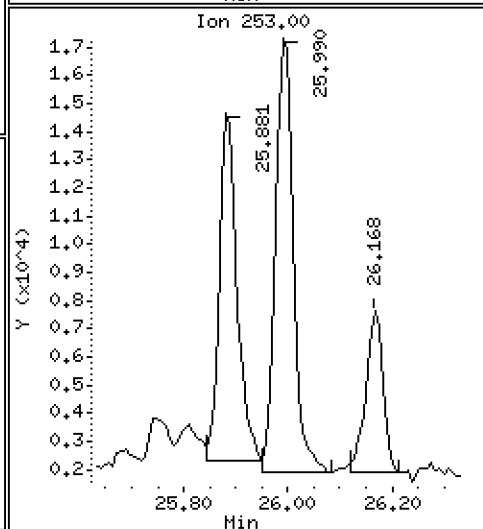
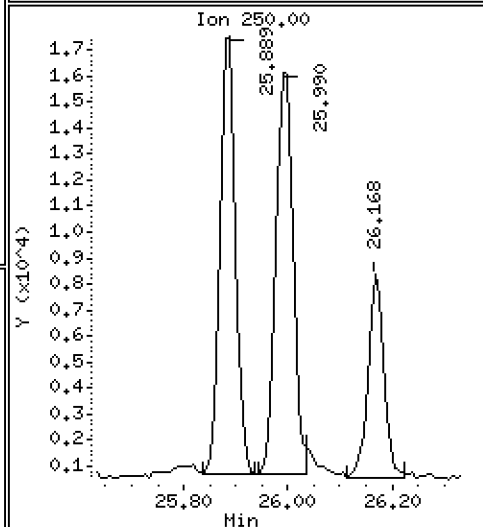
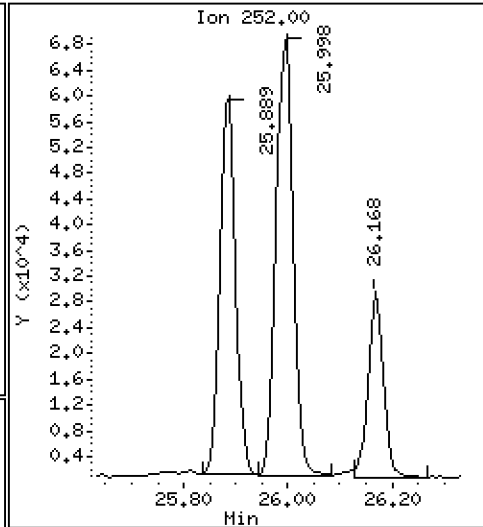
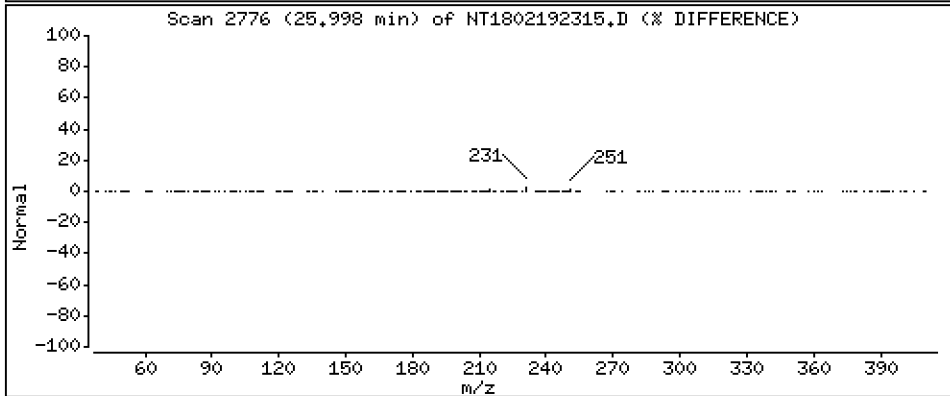
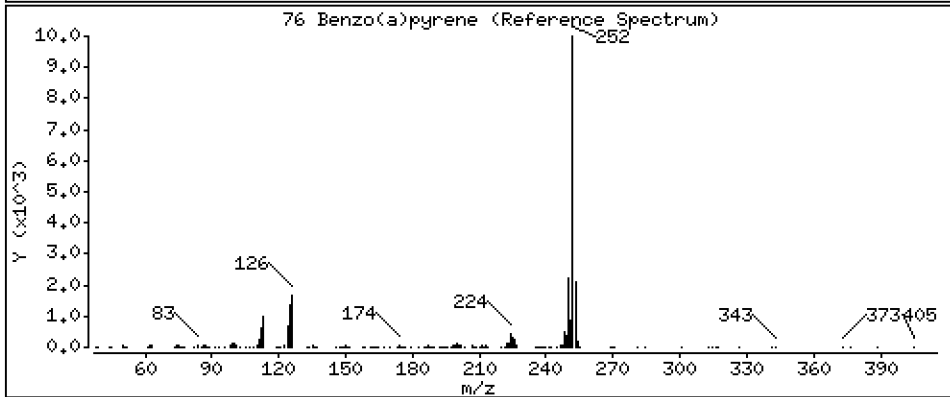
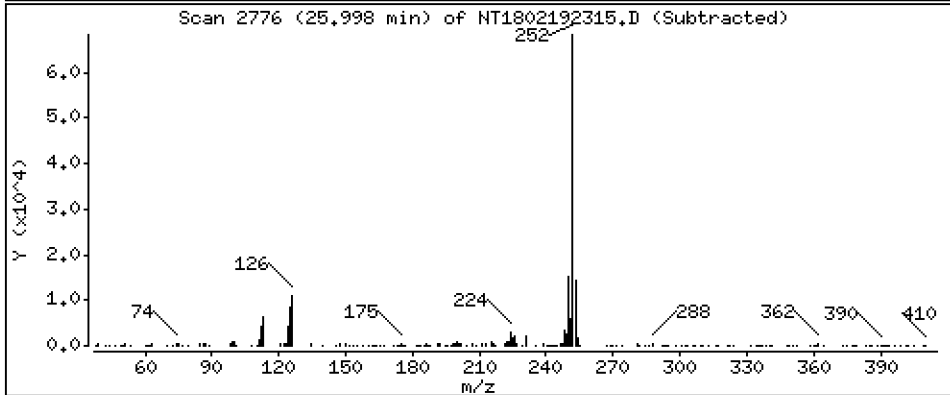
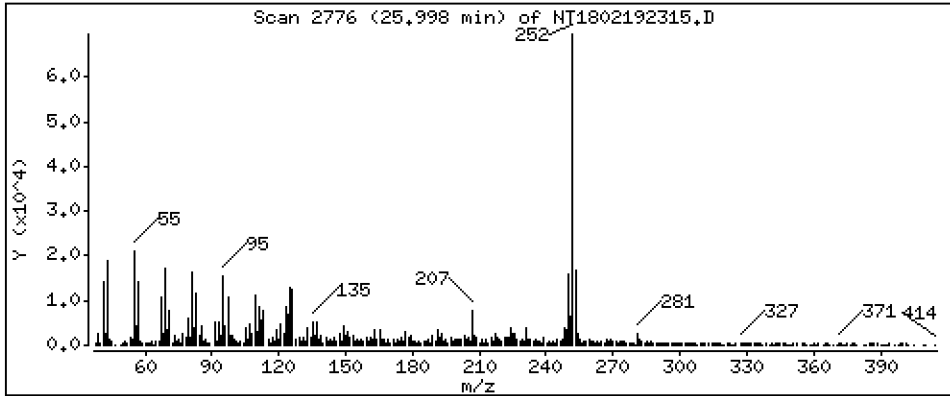
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 6,626 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

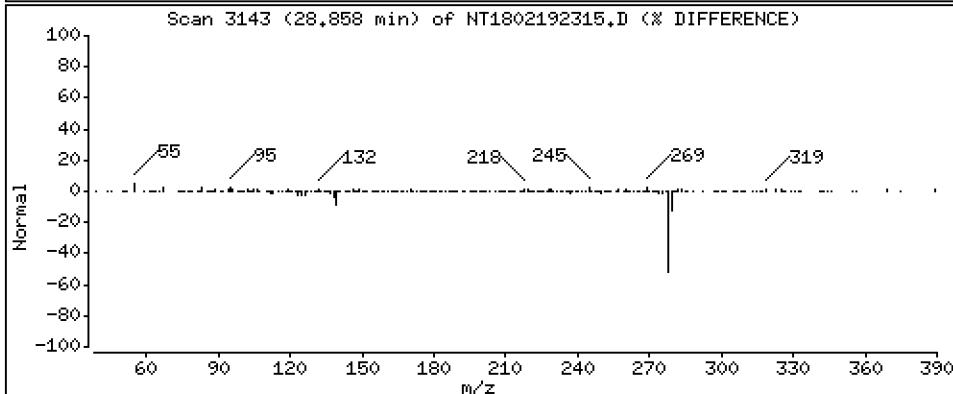
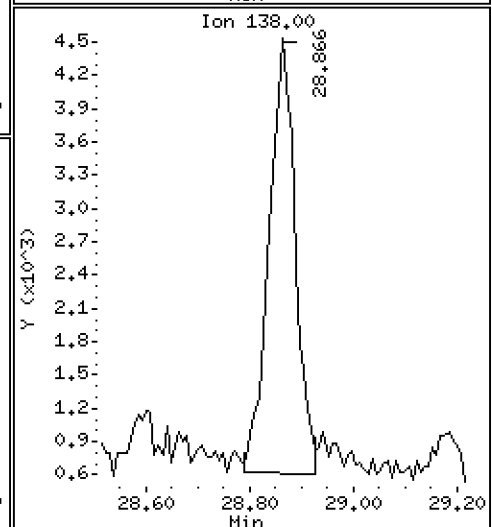
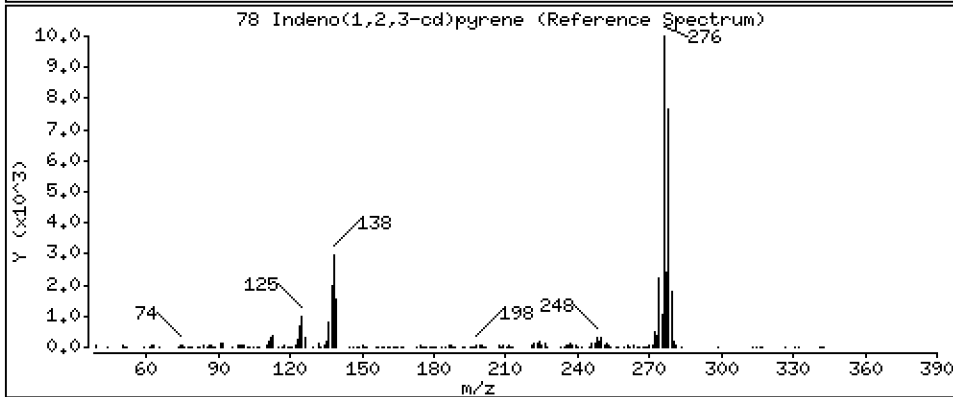
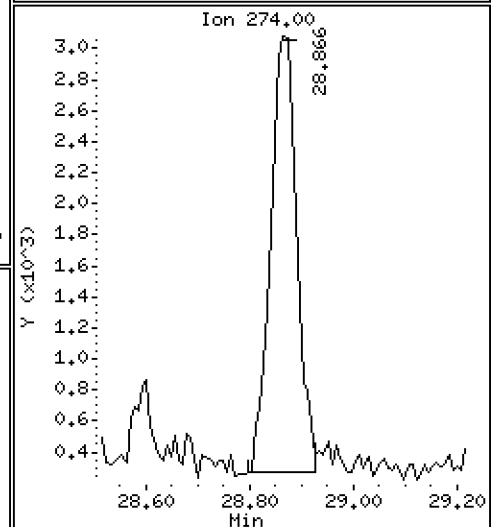
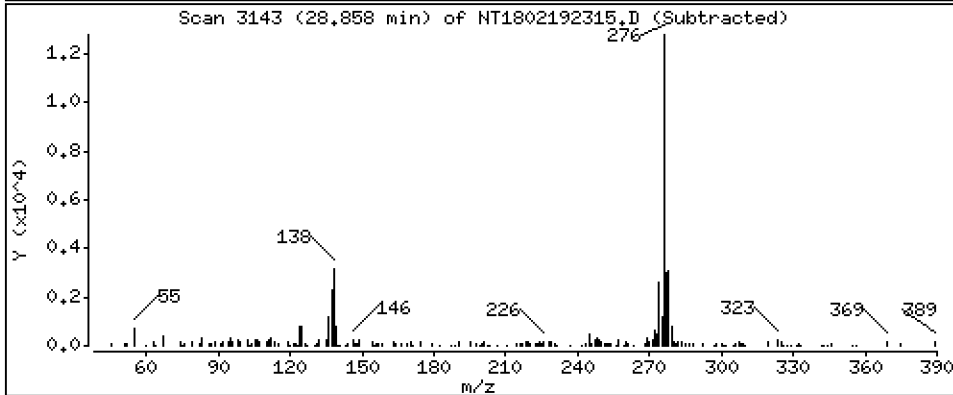
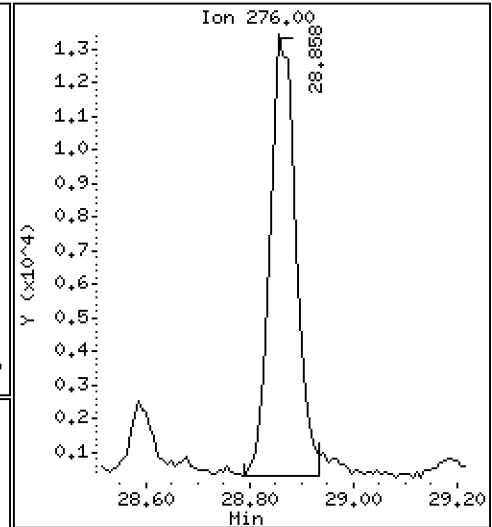
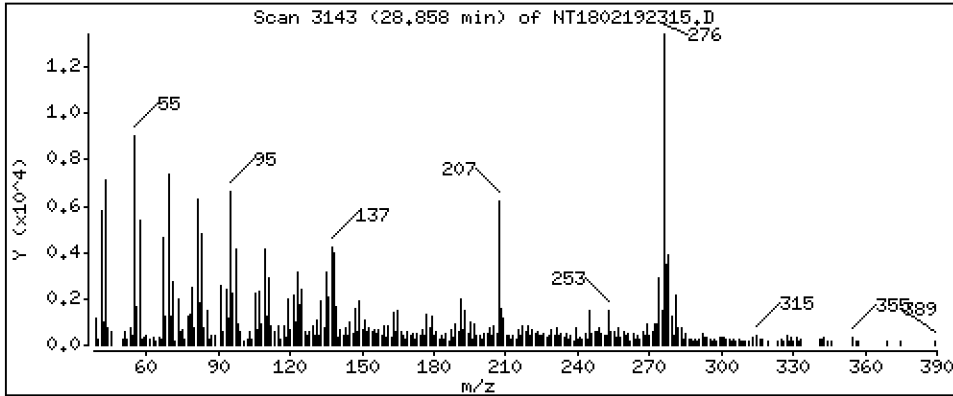
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 2,040 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

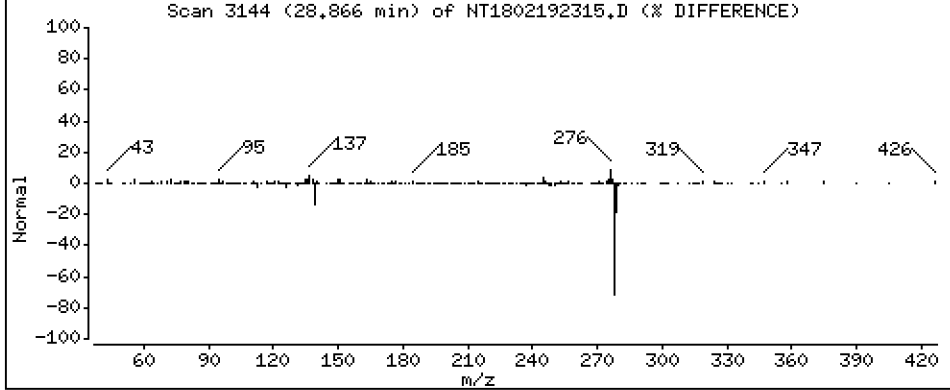
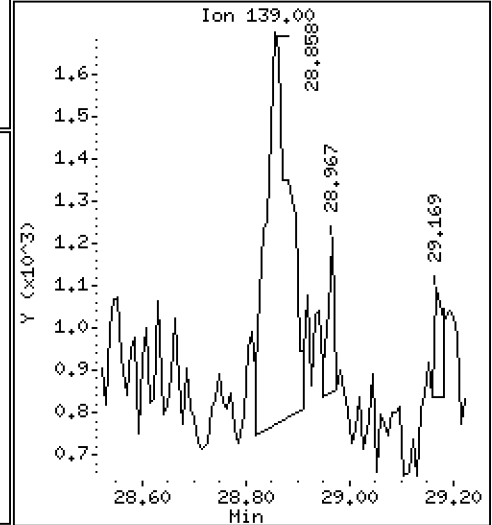
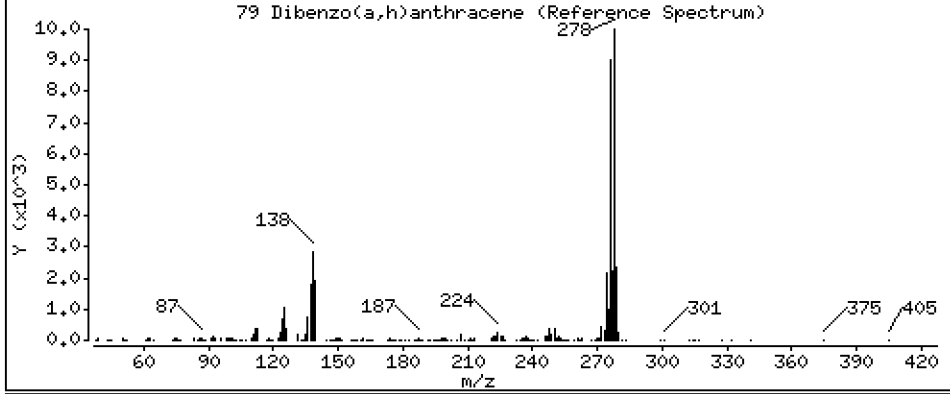
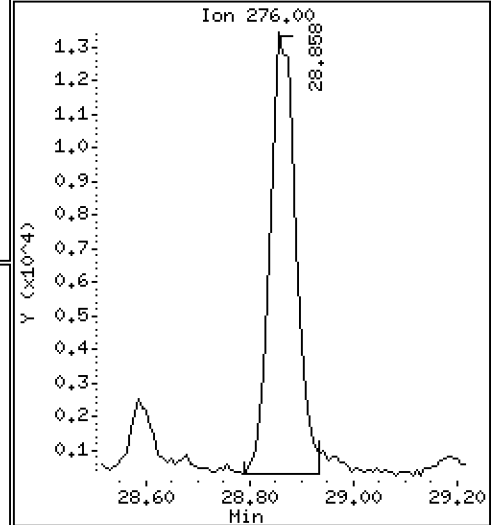
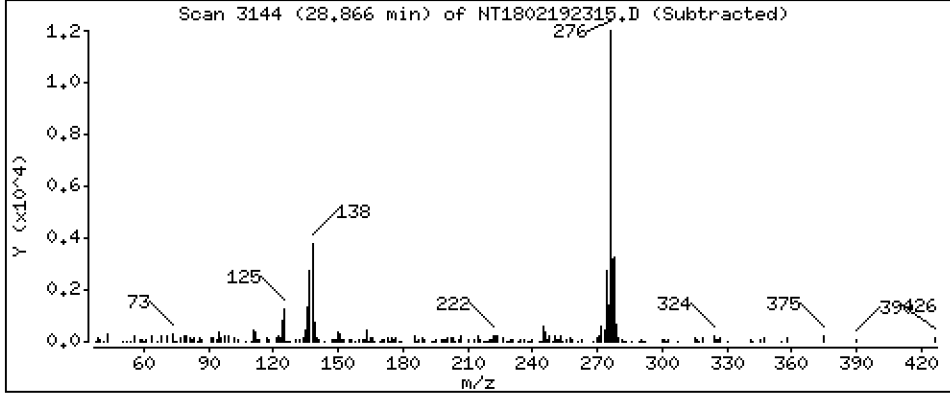
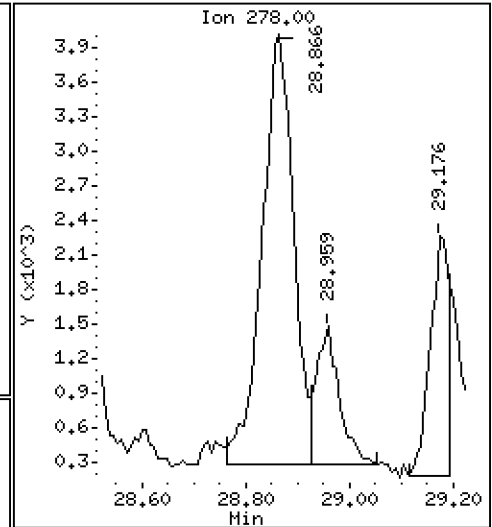
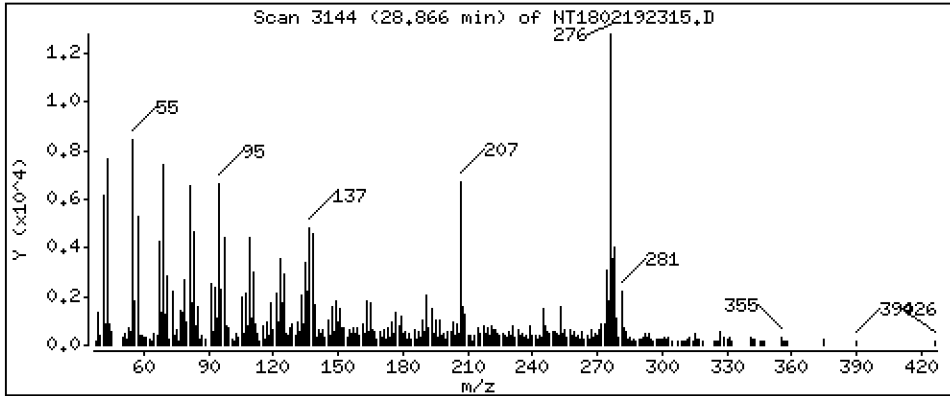
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,8842 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

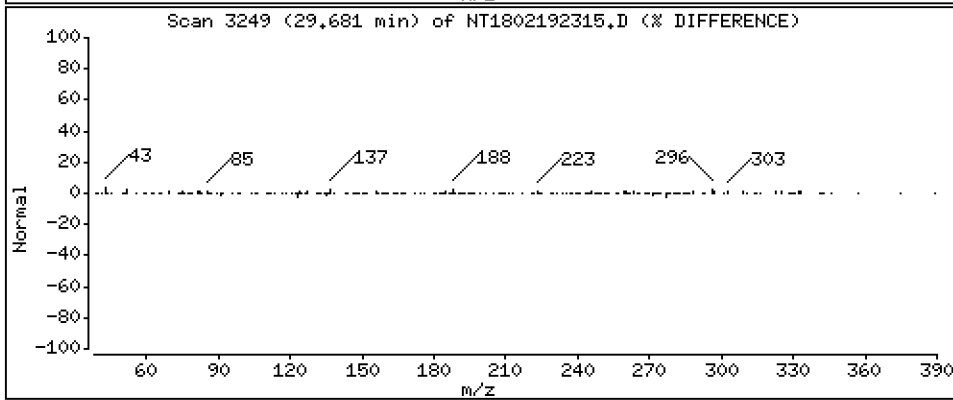
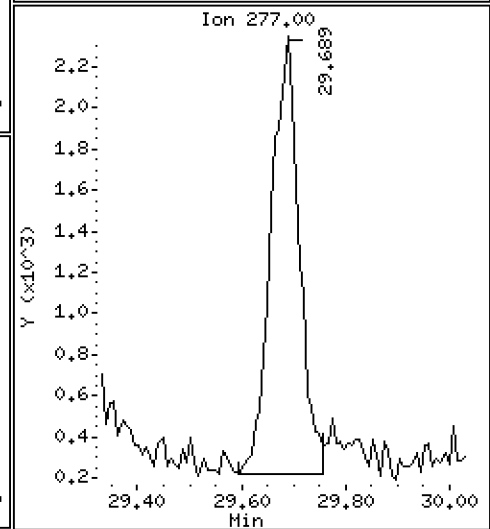
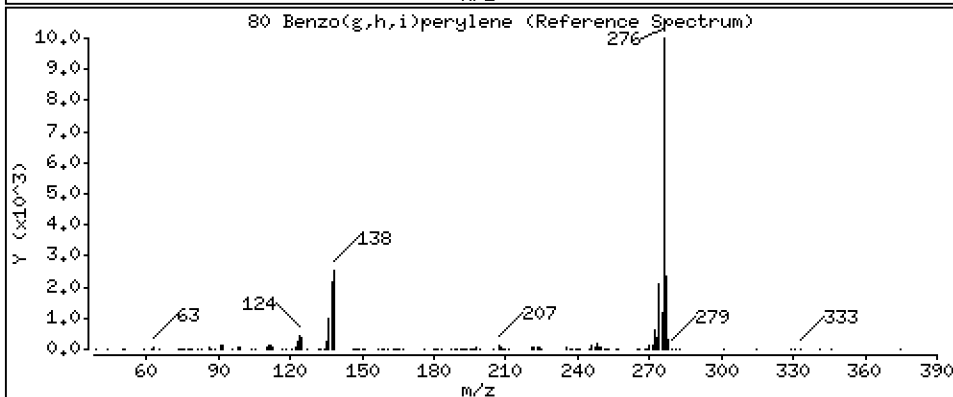
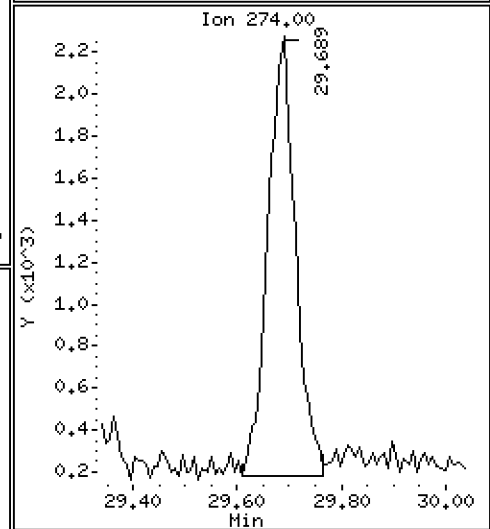
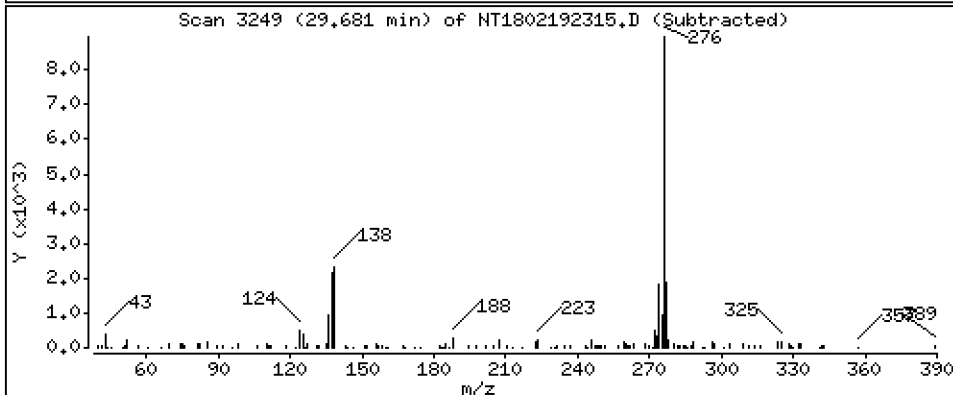
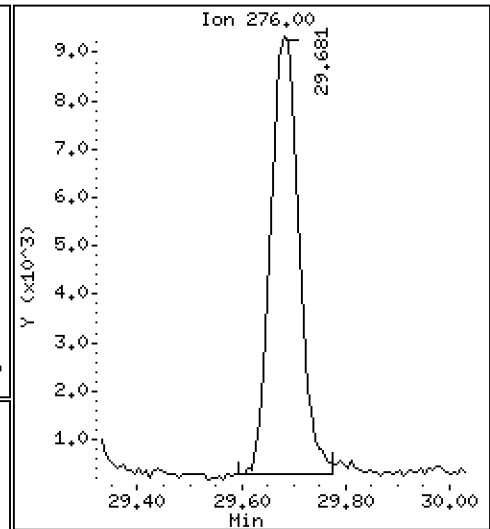
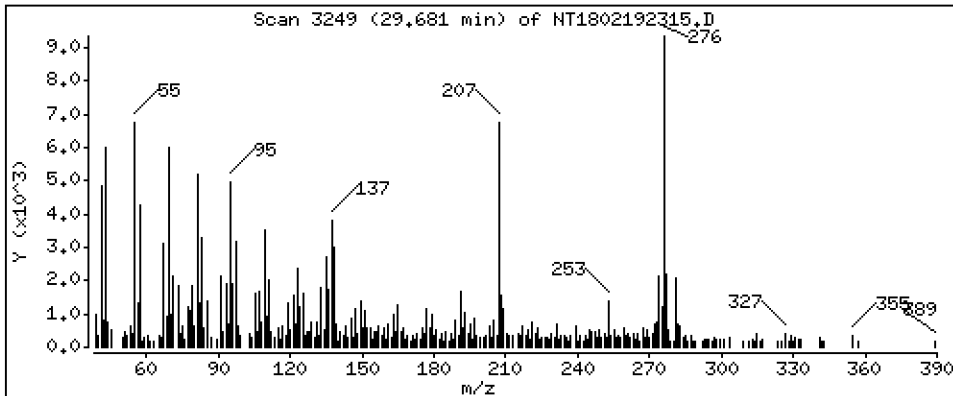
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 2,063 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

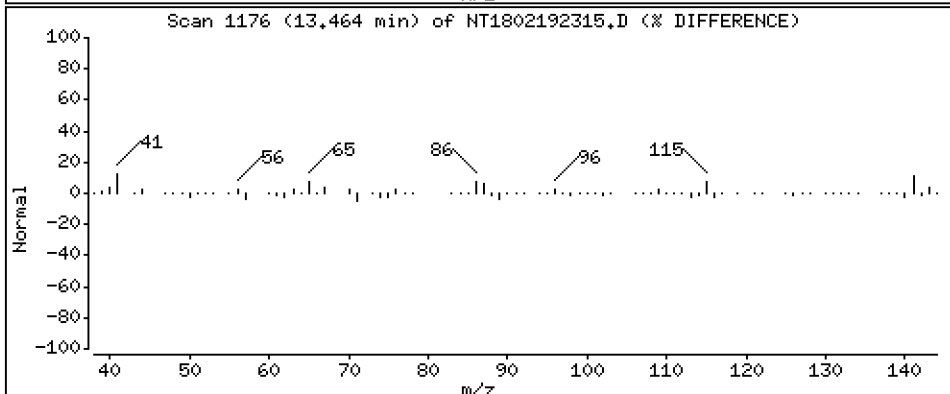
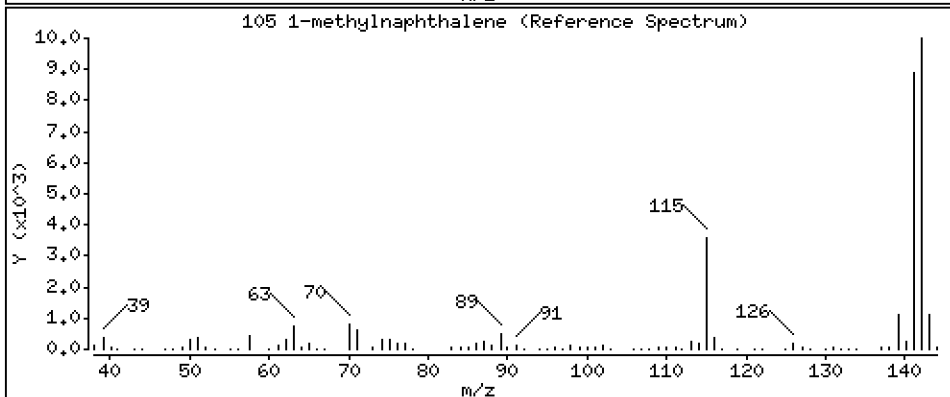
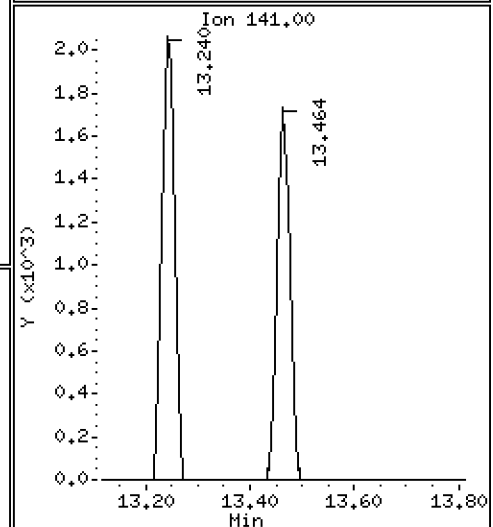
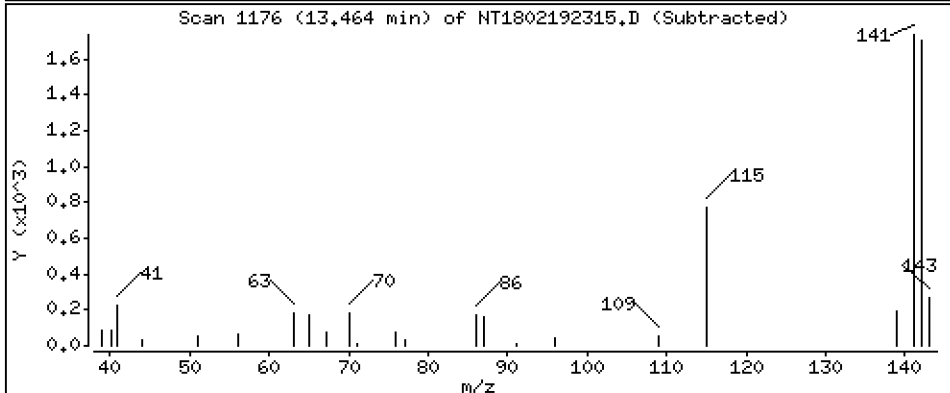
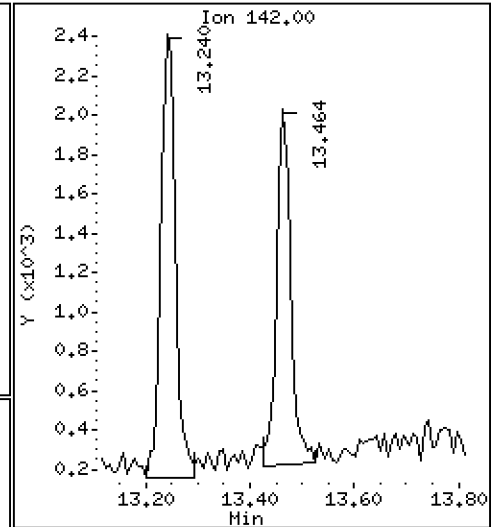
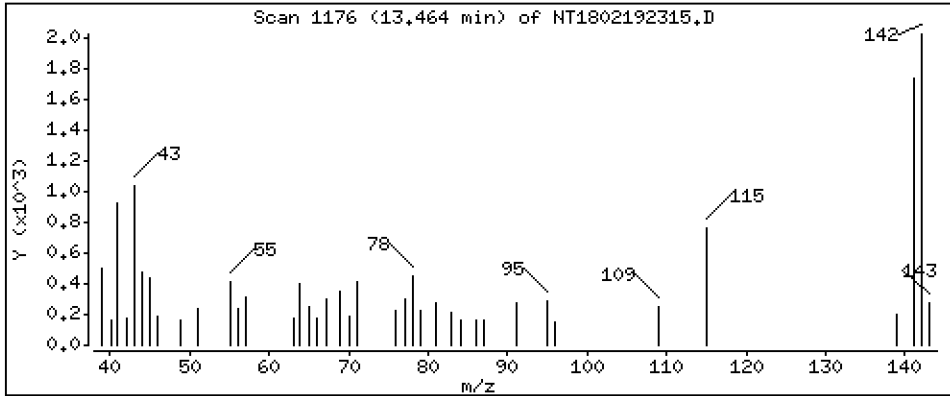
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,1913 ug/mL



Date : 19-FEB-2023 18:19

Client ID:

Instrument: nt18.i

Sample Info: 23A0032-11RE2,5

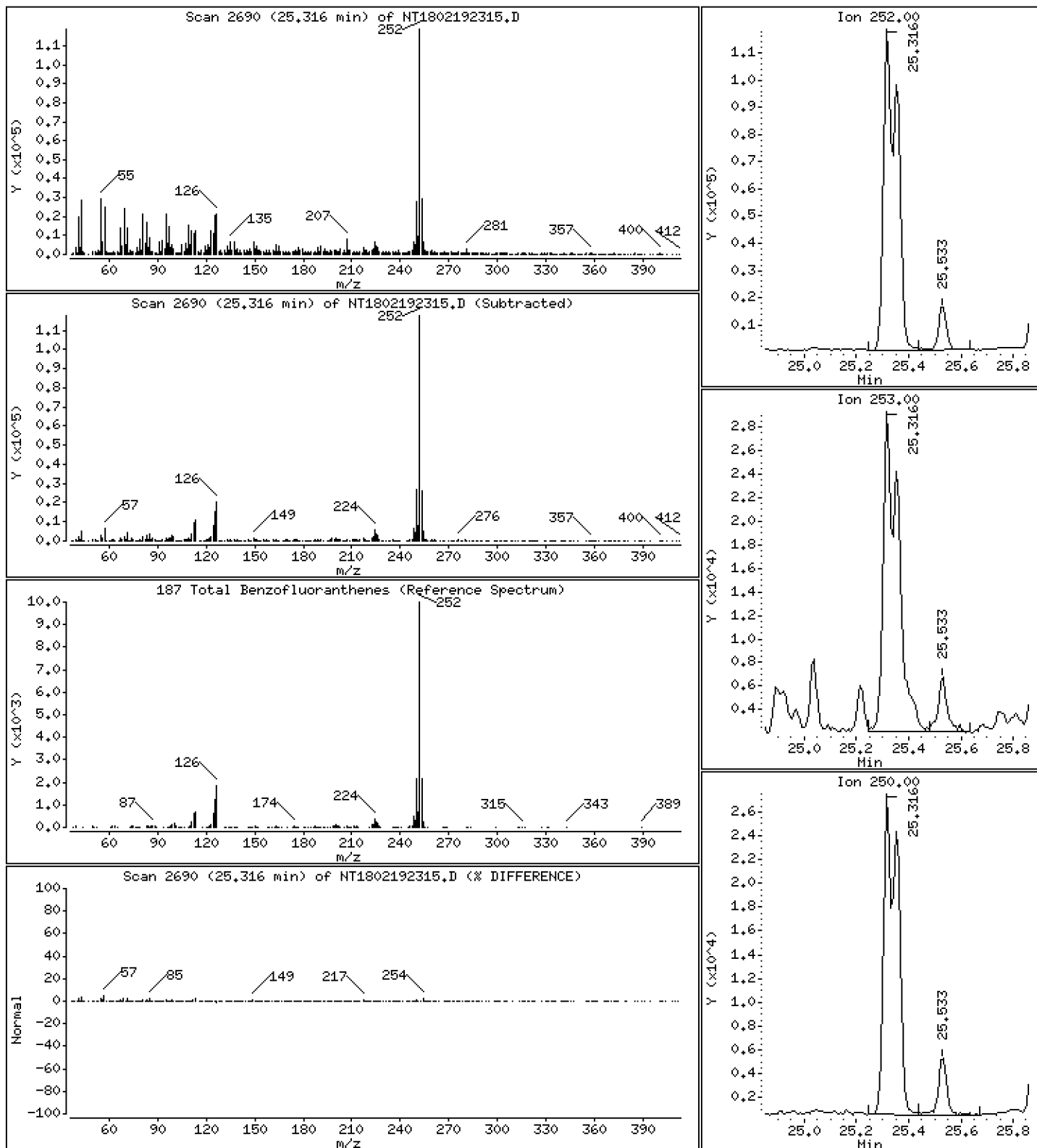
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 14,98 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230219.b\NT1802192315.D
 Lab Smp Id: 23A0032-11RE2
 Inj Date : 19-FEB-2023 18:19
 Operator : VTS
 Smp Info : 23A0032-11RE2,5
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230219.b\ABN.m
 Meth Date : 04-Mar-2023 07:29 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 10
 Dil Factor: 5.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i

Quant Type: ISTD
 Cal File: NT1802102308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
\$ 1 2-Fluorophenol	112		7.145	7.137	(0.765)	38678	0.96485	4.824
\$ 2 Phenol-d5	99		8.698	8.698	(0.931)	51642	1.03268	5.163
3 Phenol	94		8.721	8.721	(0.934)	7629	0.15567	0.7784
\$ 5 2-Chlorophenol-d4	132		8.984	8.984	(0.962)	43867	1.00898	5.045
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.340	9.340	(1.000)	113789	4.00000	
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
\$ 10 1,2-Dichlorobenzene-d4	152		9.704	9.705	(1.039)	17408	0.55630	2.781
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		9.627	9.611	(1.031)	2030	0.07641	0.3821
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		10.100	10.093	(1.081)	592	0.01424	0.07119
\$ 18 Nitrobenzene-d5	82		10.426	10.434	(0.882)	32774	0.74661	3.733
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		Compound Not Detected.					
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.816	11.816	(1.000)	446021	4.00000	
28 Naphthalene	128		11.855	11.855	(1.003)	8279	0.06457	0.3229
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		13.239	13.239	(1.120)	4288	0.04914	0.2457
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196							
35 2,4,5-Trichlorophenol	196							
\$ 36 2-Fluorobiphenyl	172		14.013	14.013	(0.909)	65070	0.62637	3.132
37 2-Chloronaphthalene	162							
38 2-Nitroaniline	65							
39 Dimethylphthalate	163		14.903	14.911	(0.967)	1547	0.01883	0.09413
40 Acenaphthylene	152		15.097	15.105	(0.979)	10566	0.08872	0.4436
41 2,6-Dinitrotoluene	165							
* 42 Acenaphthene-d10	164		15.414	15.414	(1.000)	234976	4.00000	
43 3-Nitroaniline	138							
44 Acenaphthene	153		15.476	15.476	(1.004)	9771	0.12303	0.6152
45 2,4-Dinitrophenol	184							
46 Dibenzofuran	168		15.801	15.801	(1.025)	8005	0.07036	0.3518
47 4-Nitrophenol	109							
48 2,4-Dinitrotoluene	165							
50 Diethylphthalate	149		16.349	16.357	(1.061)	2562	0.03071	0.1536
49 Fluorene	166		16.512	16.512	(1.071)	7451	0.08279	0.4140
51 4-Chlorophenyl-phenylether	204							
52 4-Nitroaniline	138							
53 4,6-Dinitro-2-methylphenol	198							
54 N-Nitrosodiphenylamine	169							
\$ 55 2,4,6-Tribromophenol	330		17.044	17.044	(1.106)	12744	0.84963	4.248
56 4-Bromophenyl-phenylether	248							
57 Hexachlorobenzene	284							
58 Pentachlorophenol	266							
* 59 Phenanthrene-d10	188		18.435	18.435	(1.000)	448299	4.00000	
60 Phenanthrene	178		18.481	18.481	(1.003)	132891	0.98118	4.906
61 Anthracene	178		18.574	18.574	(1.008)	43419	0.35842	1.792
62 Carbazole	167		18.899	18.899	(1.025)	10923	0.09019	0.4510
63 Di-n-butylphthalate	149		19.673	19.665	(1.067)	4171	0.02649	0.1324
64 Fluoranthene	202		20.864	20.841	(0.890)	450365	3.33099	16.65
65 Pyrene	202		21.274	21.259	(0.908)	874444	6.08409	30.42
\$ 66 Terphenyl-d14	244		21.537	21.530	(0.919)	77677	0.58605	2.930
67 Butylbenzylphthalate	149		22.443	22.436	(0.958)	3510	0.05153	0.2577
68 Benzo(a)anthracene	228		23.403	23.396	(0.999)	228284	1.61200	8.060
* 69 Chrysene-d12	240		23.434	23.427	(1.000)	428544	4.00000	
70 3,3'-Dichlorobenzidine	252							
71 Chrysene	228		23.473	23.473	(1.002)	304185	2.03793	10.19
72 bis(2-Ethylhexyl)phthalate	149		23.450	23.450	(0.959)	49241	0.44728	2.236
* 134 Di-n-octylphthalate-d4	153		24.441	24.441	(1.000)	723574	4.00000	
73 Di-n-octylphthalate	149							
74 Benzo(b)fluoranthene	252		25.316	25.308	(0.969)	248442	1.76219	8.811
75 Benzo(k)fluoranthene	252		25.354	25.354	(0.971)	205214	1.33062	6.653
76 Benzo(a)pyrene	252		25.997	25.982	(0.996)	152589	1.32516	6.626
* 77 Perylene-d12	264		26.113	26.105	(1.000)	403893	4.00000	
78 Indeno(1,2,3-cd)pyrene	276		28.857	28.865	(1.105)	44894	0.40801	2.040
79 Dibenzo(a,h)anthracene	278		28.865	28.873	(1.105)	15956	0.17685	0.8842
80 Benzo(g,h,i)perylene	276		29.681	29.681	(1.137)	34234	0.41258	2.063
90 N-Nitrosodimethylamine	74							
91 Aniline	93							
93 Benzidine	184							
103 Pyridine	79							
105 1-methylnaphthalene	142		13.464	13.464	(1.139)	3257	0.03827	0.1913
111 Azobenzene (1,2-DP-Hydrazine)	77							

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====	=====	=====	=====	=====	=====	=====	=====	
187 Total Benzofluoranthenes	252		25.316	25.354	(0.969)	423239	2.99643	14.98	
120 2,3,4,6-Tetrachlorophenol	232		Compound Not Detected.						

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 19-FEB-2023
 Lab File ID: NT1802192315.D Calibration Time: 12:57
 Lab Smp Id: 23A0032-11RE2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230219.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	118224	59112	236448	113789	-3.75
27 Naphthalene-d8	457373	228687	914746	446021	-2.48
42 Acenaphthene-d10	241384	120692	482768	234976	-2.65
59 Phenanthrene-d10	431840	215920	863680	448299	3.81
69 Chrysene-d12	407698	203849	815396	428544	5.11
134 Di-n-octylphthala	661131	330566	1322262	723574	9.44
77 Perylene-d12	411276	205638	822552	403893	-1.80

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.34	8.84	9.84	9.34	-0.00
27 Naphthalene-d8	11.82	11.32	12.32	11.82	-0.00
42 Acenaphthene-d10	15.41	14.91	15.91	15.41	-0.00
59 Phenanthrene-d10	18.44	17.94	18.94	18.44	-0.00
69 Chrysene-d12	23.43	22.93	23.93	23.43	0.03
134 Di-n-octylphthala	24.44	23.94	24.94	24.44	-0.00
77 Perylene-d12	26.11	25.61	26.61	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802192315.D

Lab ID: 23A0032-11RE2
nt18.i, ABN.m, 19-FEB-2023 18:19

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1802192303.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *



PREPARATION BATCH SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC SDG: 23A0032
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Batch: BLA0163 Batch Matrix: Solid Preparation: EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1224	23A0032-05	NT1802172313.D	01/10/23 11:20	
LDW23-IT1224	23A0032-05RE1	NT1802192311.D	01/10/23 11:20	Added 2/18/2023 by VTS
LDW23-SC1226B	23A0032-08	NT1802172314.D	01/10/23 11:20	
LDW23-SC1226B	23A0032-08RE1	NT1802192313.D	01/10/23 11:20	Added 2/18/2023 by VTS
LDW23-SC1212	23A0032-11RE1	NT1802192314.D	01/10/23 11:20	Added 2/18/2023 by VTS
LDW23-SC1212	23A0032-11RE2	NT1802192315.D	01/10/23 11:20	Added 3/4/2023 by VTS
Blank	BLA0163-BLK1	NT1023020913.D	01/10/23 11:20	
LCS	BLA0163-BS1	NT1023020914.D	01/10/23 11:20	
LCS Dup	BLA0163-BSD1	NT1023020915.D	01/10/23 11:20	
Reference	BLA0163-SRM1	NT1023020916.D	01/10/23 11:20	



WO Comments

23A0031: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0032: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0087: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Analysis: 8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf)

Lab Number & Container	% Solids	Initial (g)		(REQ) GPC C/U (1:1) 1 2 3	Water Wash 1mL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual					
23A0031-21 A	67.4	(14.85)	14.85	(1:1)	1mL	1	0.5	
23A0032-05 A	67.9	(14.73)	14.76	(1:1)	1mL	1	0.5	
23A0032-08 A	61.9	(16.16)	16.22	(1:1)	1mL	1	0.5	
23A0032-11 A	53.1	(18.85)	18.94	(1:1)	1mL	1	0.5	
23A0087-01 A	54.3	(18.42)	18.44	(1:1)	1mL	1	0.5	
23A0087-02 A	64.9	(15.40)	15.41	(1:1)	1mL	1	0.5	
23A0087-03 A	70.9	(14.10)	14.11	(1:1)	1mL	1	0.5	
23A0087-04 A	71.8	(13.92)	13.97	(1:1)	1mL	1	0.5	
23A0087-05 A	67.4	(14.84)	14.87	(1:1)	1mL	1	0.5	
23A0087-06 A	68.6	(14.59)	14.61	(1:1)	1mL	1	0.5	
23A0087-07 A	59.4	(16.84)	16.94	(1:1)	1mL	1	0.5	
23A0087-08 A	52.7	(18.99)	18.99	(1:1)	1mL	1	0.5	
23A0087-09 A	73.7	(13.57)	13.57	(1:1)	1mL	1	0.5	
23A0087-10 A	62.8	(15.93)	15.94	(1:1)	1mL	1	0.5	
23A0087-11 A	63.9	(15.65)	15.68	(1:1)	1mL	1	0.5	
23A0087-12 A	43.0	(23.24)	23.25	(1:1)	1mL	1	0.5	
23A0087-13 A	51.9	(19.27)	19.29	(1:1)	1mL	1	0.5	
23A0087-14 A	78.2	(12.79)	12.81	(1:1)	1mL	1	0.5	
23A0087-15 A	67.7	(14.77)	14.79	(1:1)	1mL	1	0.5	

Batch QC

Lab Number	% Solids	Initial (g)		(REQ) GPC C/U (1:1) 1 2 3	Water Wash 1mL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual					
BLA0163-BLK1	100.0	(10.00)	10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLA0163-BS1	100.0	(10.00)	10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLA0163-BSD1	100.0	(10.00)	10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLA0163-MS1	73.7	(13.57)	13.57	(1:1)	1mL	1	0.5	Use 23A0087-09
BLA0163-MSD1	73.7	(13.57)	13.57	(1:1)	1mL	1	0.5	Use 23A0087-09
BLA0163-SRM1	100.0	(10.00)	10.00	(1:1)	1mL	1	0.5	Use K003477

+1g DI WATER



Batch: BLA0163

Prepared using: EPA 3546 (Microwave)

8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf) in Solid (Version:AOC4 List)

Matrix: Solid

Date Prepared: 11/14/23

Balance ID: B146462614

Set Up By: CPO 1/9/22

WO Comments

23A0031: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0032: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
23A0087: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

The following standards may be missing from this batch!

Designator	Description
39	Benzidine Spike
QLS 14	QLS Spike (Freezer)



Batch: BLA0163

Prepared using: EPA 3546 (Microwave)

8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf) in Solid (Version:AOC4 List)

WO Comments

23A0031: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43,
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7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

 01/14/23
Client ID Verified By _____ Date

NRB 1/20/23
Preparation Reviewed By _____ Date

01/14/23 11:20
Extraction Date and Time _____



Batch: BLA0163

Prepared using: EPA 3546 (Microwave)

8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf) in Solid (Version:AOC4 List)

WO Comments
 23A0031: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
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 <H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Steps	Reagents Used	Surrogates & Spike Standards Used																																													
Microwave ① 2 3 φ1/φ123 Analyst/Date	Station/Reagent Microwave Analyst: φ1/φ123 Date: φ1/φ123 Anhydrous Sodium Sulfate Lφφφφ92 1:1 Methylene Chloride/Acetone Kφ115φ7 Methylene Chloride Kφφ79φ2 Pre-Deactivated Glass Wool Kφ(φ195	<table border="1"> <thead> <tr> <th>Type</th> <th>Vial ID / Standard ID</th> <th>Vol uL</th> <th>Analyst</th> <th>Witness</th> </tr> </thead> <tbody> <tr> <td>Surrogate</td> <td>A K010466⁹²</td> <td>50μL</td> <td>CT</td> <td>W</td> </tr> <tr> <td>100/150μg/mL</td> <td>Exp Date: 5/9/2φ23</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Full List Spike (Freezer)</td> <td>7 K011369 (V)</td> <td>50μL</td> <td>CT</td> <td>W</td> </tr> <tr> <td>100μg/mL</td> <td>Exp Date: Kφ11297 8/31/2φ23</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Base Spike</td> <td>56 K011369 (V)</td> <td>50μL</td> <td>CT</td> <td>W</td> </tr> <tr> <td>200μg/mL</td> <td>Exp Date: Kφφ3759 4/19/2φ23</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Acid Spike</td> <td>38 K011369 (V)</td> <td>50μL</td> <td>CT</td> <td>W</td> </tr> <tr> <td>100/200μg/mL</td> <td>Exp Date: Kφφ376φ 4/19/2φ23</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Type	Vial ID / Standard ID	Vol uL	Analyst	Witness	Surrogate	A K010466 ⁹²	50μL	CT	W	100/150μg/mL	Exp Date: 5/9/2φ23				Full List Spike (Freezer)	7 K011369 (V)	50μL	CT	W	100μg/mL	Exp Date: Kφ11297 8/31/2φ23				Base Spike	56 K011369 (V)	50μL	CT	W	200μg/mL	Exp Date: Kφφ3759 4/19/2φ23				Acid Spike	38 K011369 (V)	50μL	CT	W	100/200μg/mL	Exp Date: Kφφ376φ 4/19/2φ23			
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100/200μg/mL	Exp Date: Kφφ376φ 4/19/2φ23																																														
Pre-GPC KD 100°C Exchange to Hexane (add 10 mL to KD) ② ④ ⑤ ⑥ AA 1-16-23 Analyst/Date	Pre GPC KD Analyst: AA Date: 1-16-23 Pre-Deactivated Glass Wool NA Anhydrous Sodium Sulfate NA Methylene Chloride K007902 Hexane K008310	<p>MANUALLY ENTER EXPIRATION DATES!</p> <p>(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.</p> <p>If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).</p>																																													
Turbo Vap Pre GPC 1 2 3 ④ 5 TWC 1/18/23 Analyst/Date	GPC Filter Prep Analyst: TWC Date: 1/18/23 Methylene Chloride Kφφ5942 GPC Analyst: TWC Date: 1/18/23 Methylene Chloride Kφφ5942																																														
Post GPC KD 80-85°C 1 0 ② ④ ⑤ ⑥ LS 1/19/23 Analyst/Date	GPC Calibration File CLAφφ86- GPC1 Post GPC KD Analyst: LS Date: 1/19/23 Methylene Chloride K005942																																														
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 <H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Instructions	
<p>SPECIAL INSTRUCTIONS:</p> <ol style="list-style-type: none"> 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. 3. Add DCM ONLY to the vessels (until solvent is 3 inches above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-re-homogenize while hot then let cool 10-15 min in Refridgerator 05. Re-homogenize while cool. 7. Decant DCM into Erlenmeyer flask with a funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using 1:1 DCM/ACE. 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM. 11. KD: Add 10 mL Hexane directly to extract in the KD. 12. GPC REQUIRED 100°C water bath (CLP) KD to 5mL. 13. Vialers to take 1:5 Split Pre- GPC. 14. (After GPC): KD at 80°C. 15. TurboVap to 1mL in DCM. 16. WATER WASH REQUIRED: <ol style="list-style-type: none"> 16a. Vial 1mL of all extracts in 2mL amber vials in DCM. 16b. Add ~0.5mL DI water and vortex for ~5 seconds each. 16c. Centrifuge extracts for 5 minutes at 1500-2000rpm. 16d. Transfer and vial 0.5mL to new 2mL amber vials (Avoiding collecting water in syringe and cleaning syringe with Acetone and DCM between each vial). 17. Archive water wahed vials and deliever new vials to GC Department for analysis. <p>A. Need Total Solids Y <input checked="" type="checkbox"/> N</p> <p>B. Archive/Freeze <input checked="" type="checkbox"/> Y N</p>	



Extraction Parameter: SVOA Extraction Batch BLA0163

Total Solids Batch: BLA0149 Work Order(s): 23A0087

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>φ1-15.</u>	<u>4/6/23</u> <u>φ1/φ6/23</u>
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= <u>φ1-φ6, φ8-15.</u>	<u>φ1/φ6/23</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y/N <u>N</u>	<u>φ1/φ6/23</u>
<input checked="" type="checkbox"/> Multiple Jars Y/N <u>N</u>	<u>φ1/φ6/23</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



Extraction Parameter: Sr0A Extraction Batch BLA063

Total Solids Batch: BLA0096 Work Order(s): 23A0031 01-21

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= 01-07, 09-21	CR 1/6/2023
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= 01-21	CR 1/6/2023
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input checked="" type="checkbox"/> Previously Frozen = 01-21	CR 1/6/2023
<input checked="" type="checkbox"/> Other (Details)= 08 contains chunks of plastic like material	CR 1/6/2023
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / (N)	CR 1/6/2023
<input checked="" type="checkbox"/> Multiple Jars Y / (N)	CR 1/6/2023
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



Extraction Parameter: SWA Extraction Batch BLA0163

Total Solids Batch: BLA0147 Work Order(s): 23A0032

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>φ1, φ4, φ6, φ7.</u>	<u>N</u> <u>φ1/φ7/23</u>
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= <u>φ1, φ2, φ3, φ5, φ7, φ8, 11.</u>	<u>N</u> <u>φ1/φ7/23</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	<u>N</u>
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input checked="" type="checkbox"/> Rocks (%+size)? <u>φ11 = 10.φ⁰ = φ2, φ3.</u>	<u>N</u> <u>φ1/φ7/23</u>
<input checked="" type="checkbox"/> Organics (Leaves/sticks/grass)= <u>5.φ⁰ = φ5</u>	<u>N</u> <u>φ1/φ7/23</u>
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors= <u>φ8, φ9, 1φ, 11.</u>	<u>N</u> <u>φ1/φ7/23</u>
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	<u>N</u>
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / N	<u>N</u> <u>φ1/φ7/23</u>
<input checked="" type="checkbox"/> Multiple Jars Y / N	<u>N</u> <u>φ1/φ7/23</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	<u>N</u>
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLA0177

Cleanup Type: GPC

Cleanup Method: EPA 3640A GPC Cleanup 1:1

Analysis: EPA 8270E

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	BLA0163-BLK1	NT1023020913.D	01/20/2023	
LCS	BLA0163-BS1	NT1023020914.D	01/20/2023	
LCS Dup	BLA0163-BSD1	NT1023020915.D	01/20/2023	
LDW23-IT1224	23A0032-05	NT1802172313.D	01/20/2023	
Reference	BLA0163-SRM1	NT1023020916.D	01/20/2023	
LDW23-SC1212	23A0032-11	NT1802172315.D	01/20/2023	
LDW23-SC1226B	23A0032-08	NT1802172314.D	01/20/2023	



CLEANUP BENCH SHEET

CLA0177

Matrix: Solid Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1 Check Standard: CLA0166-GPC1 Printed: 1/20/2023 12:43:21PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0031-21	A	LDW23-SS1232	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0031-21	A	LDW23-SS1232	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0032-05	A	LDW23-IT1224	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0032-05	A	LDW23-IT1224	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0032-08	A	LDW23-SC1226B	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0032-08	A	LDW23-SC1226B	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0032-11	A	LDW23-SC1212	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0032-11	A	LDW23-SC1212	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-01	A	LDW23-SS1264	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-01	A	LDW23-SS1264	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-02	A	LDW23-SS1272	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-02	A	LDW23-SS1272	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-03	A	LDW23-SS1235	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-03	A	LDW23-SS1235	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-04	A	LDW23-SS1224	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-04	A	LDW23-SS1224	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-05	A	LDW23-SS1212	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-05	A	LDW23-SS1212	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-06	A	LDW23-SS1212-FD	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-06	A	LDW23-SS1212-FD	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-07	A	LDW23-SS1211	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-07	A	LDW23-SS1211	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	



CLEANUP BENCH SHEET

CLA0177

Matrix: Solid Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1 Check Standard: CLA0166-GPC1 Printed: 1/20/2023 12:43:21PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0087-08	A	LDW23-SS1203	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-08	A	LDW23-SS1203	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-09	A	LDW23-SS1189	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-09	A	LDW23-SS1189	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-10	A	LDW23-SS1267	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-10	A	LDW23-SS1267	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-11	A	LDW23-SS1267-FD	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-11	A	LDW23-SS1267-FD	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-12	A	LDW23-SS1251	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-12	A	LDW23-SS1251	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-13	A	LDW23-SS1240	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-13	A	LDW23-SS1240	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-14	A	LDW23-SS1229	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-14	A	LDW23-SS1229	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-15	A	LDW23-SS1228	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-15	A	LDW23-SS1228	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
BLA0163-BLK1	-	Blank	-	1	1	-	1/20/2023	NRB	
BLA0163-BLK2	-	Blank	-	1	1	-	1/20/2023	NRB	
BLA0163-BS1	-	LCS	-	1	1	-	1/20/2023	NRB	
BLA0163-BS2	-	LCS	-	1	1	-	1/20/2023	NRB	
BLA0163-BSD1	-	LCS Dup	-	1	1	-	1/20/2023	NRB	
BLA0163-BSD2	-	LCS Dup	-	1	1	-	1/20/2023	NRB	



CLEANUP BENCH SHEET

CLA0177

Matrix: Solid Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1 Check Standard: CLA0166-GPC1 Printed: 1/20/2023 12:43:21PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BLA0163-MS1	-	Matrix Spike	-	1	1	-	1/20/2023	NRB	
BLA0163-MS2	-	Matrix Spike	-	1	1	-	1/20/2023	NRB	
BLA0163-MSD1	-	Matrix Spike Dup	-	1	1	-	1/20/2023	NRB	
BLA0163-MSD2	-	Matrix Spike Dup	-	1	1	-	1/20/2023	NRB	
BLA0163-SRM1	-	Reference	-	1	1	-	1/20/2023	NRB	
BLA0163-SRM2	-	Reference	-	1	1	-	1/20/2023	NRB	



Form I
METHOD BLANK DATA SHEET
EPA 8270E

Blank

Laboratory: Analytical Resources, LLC SDG: 23A0032
 Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
 Matrix: Solid Laboratory ID: BLA0163-BLK1 File ID: NT1023020913.D
 Sampled: N/A Prepared: 01/10/23 11:20 Analyzed: 02/09/23 20:39
 Solids: Preparation: EPA 3546 (Microwave) Initial/Final: 10 g / 1 mL
 Batch: BLA0163 Sequence: SLB0122 Calibration: GB00018
 Instrument: NT10 Column: ZB-5MSi Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
108-95-2	Phenol	1	20.0	U	4.4	20.0
106-44-5	4-Methylphenol	1	20.0	U	7.4	20.0
91-20-3	Naphthalene	1	20.0	U	4.2	20.0
91-57-6	2-Methylnaphthalene	1	20.0	U	4.5	20.0
208-96-8	Acenaphthylene	1	20.0	U	6.2	20.0
131-11-3	Dimethylphthalate	1	20.0	U	4.4	20.0
83-32-9	Acenaphthene	1	20.0	U	5.2	20.0
132-64-9	Dibenzofuran	1	20.0	U	14.1	20.0
86-73-7	Fluorene	1	20.0	U	14.6	20.0
85-01-8	Phenanthrene	1	20.0	U	8.7	20.0
120-12-7	Anthracene	1	20.0	U	7.2	20.0
206-44-0	Fluoranthene	1	20.0	U	6.1	20.0
129-00-0	Pyrene	1	20.0	U	5.7	20.0
85-68-7	Butylbenzylphthalate	1	20.0	U	9.4	20.0
56-55-3	Benzo(a)anthracene	1	20.0	U	6.0	20.0
218-01-9	Chrysene	1	20.0	U	6.1	20.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	50.0	U	5.5	50.0
	Benzo(a)fluoranthene, Total	1	40.0	U	10.0	40.0
50-32-8	Benzo(a)pyrene	1	20.0	U	4.2	20.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	20.0	U	14.7	20.0
53-70-3	Dibenzo(a,h)anthracene	1	20.0	U	17.2	20.0
191-24-2	Benzo(g,h,i)perylene	1	20.0	U	13.6	20.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
2-Fluorophenol	750.00	493	65.7	27 - 120	
Phenol-d5	750.00	508	67.8	29 - 120	
2-Chlorophenol-d4	750.00	591	78.8	31 - 120	
1,2-Dichlorobenzene-d4	500.00	353	70.7	32 - 120	
Nitrobenzene-d5	500.00	397	79.4	30 - 120	
2-Fluorobiphenyl	500.00	410	82.0	35 - 120	
2,4,6-Tribromophenol	750.00	524	69.8	24 - 134	
p-Terphenyl-d14	500.00	387	77.4	37 - 120	

Data File: \\target\share\chem3\nt10.1\20230209.1\NT1023020913.D

Date: 09-FEB-2023 20:39

Client ID:

Sample Info: BLR0163-BLK1

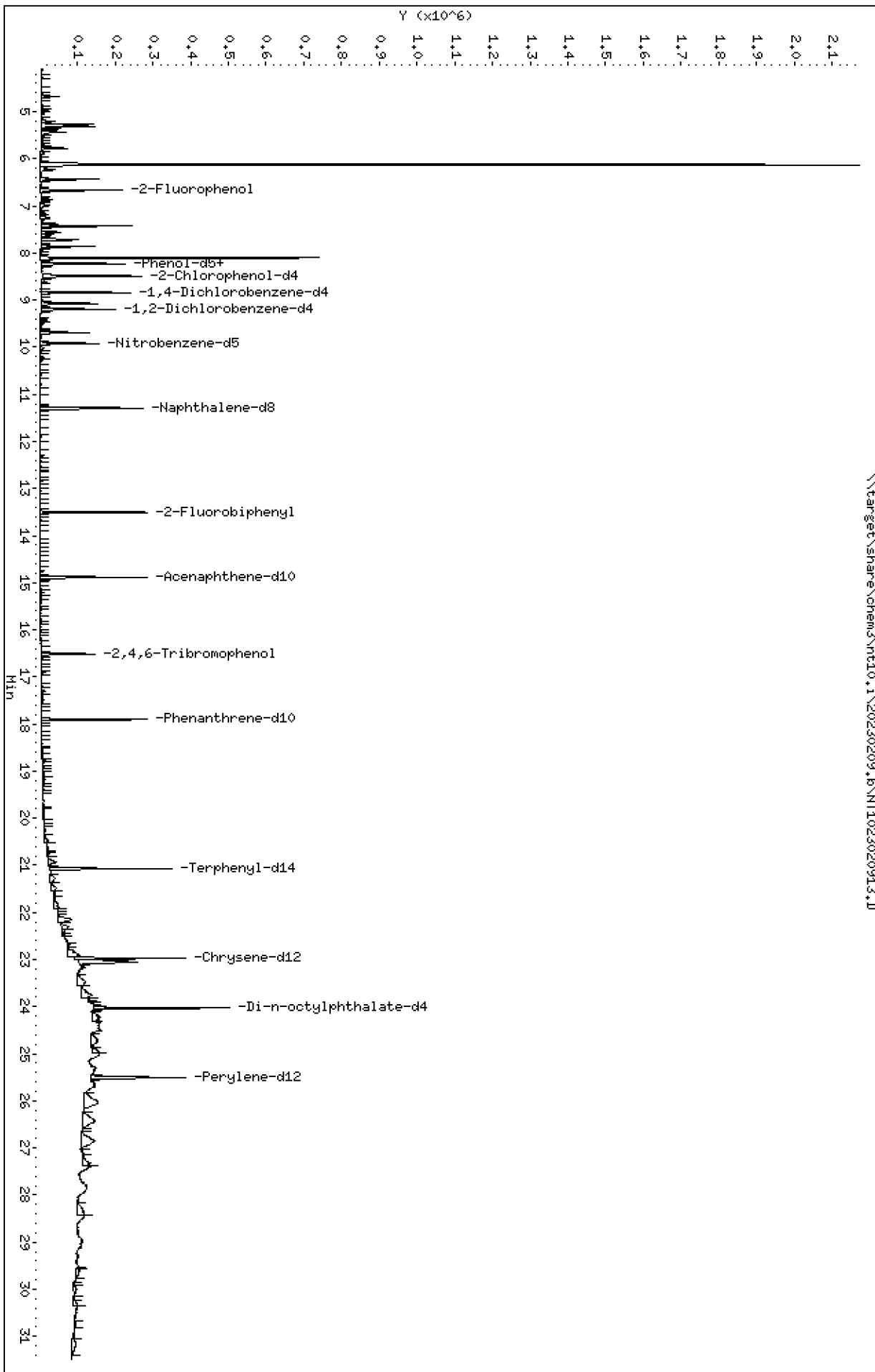
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230209.1\NT1023020913.D



Date : 09-FEB-2023 20:39

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BLK1

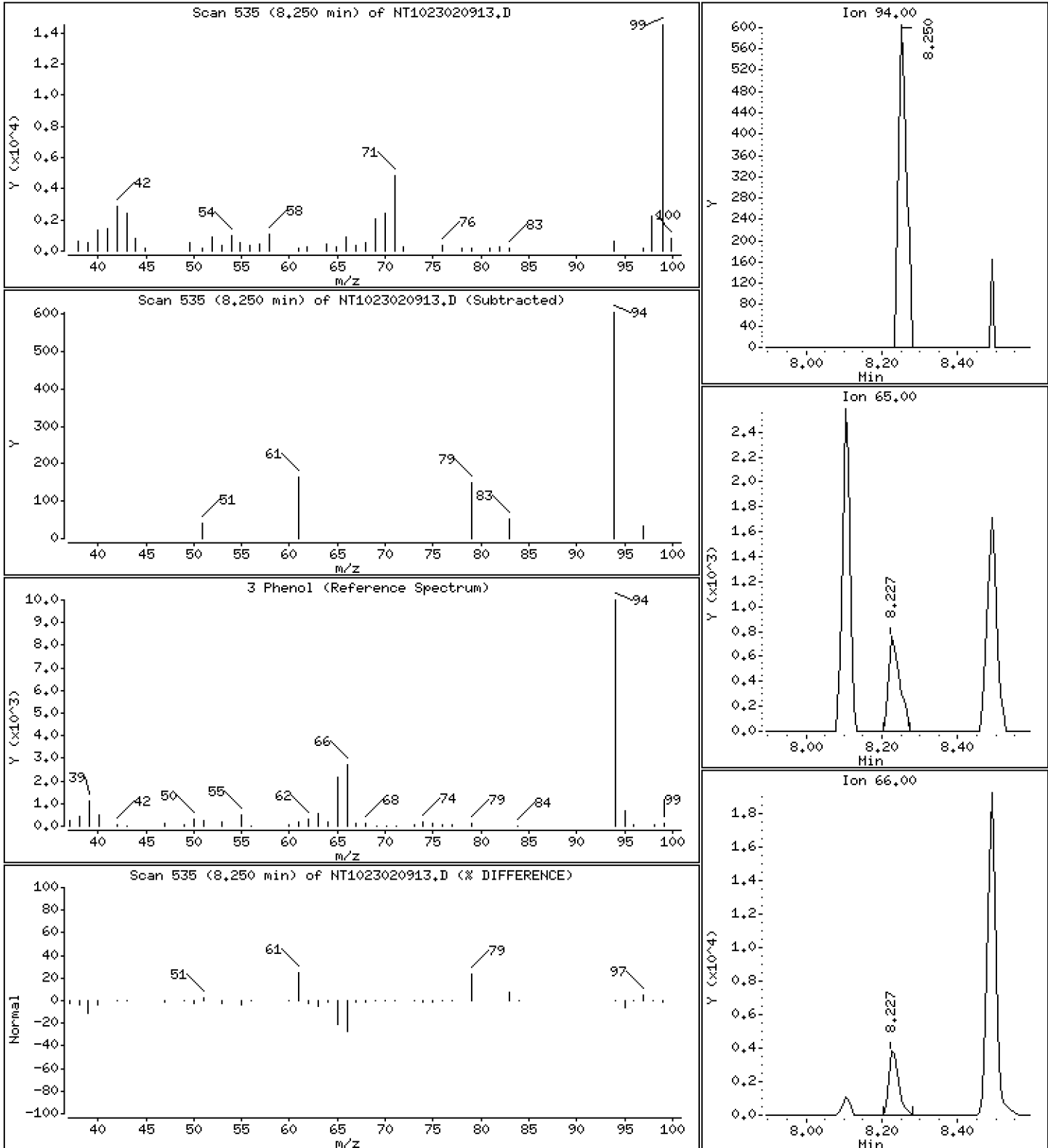
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,03255 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230209.b\NT1023020913.D
 Lab Smp Id: BLA0163-BLK1
 Inj Date : 09-FEB-2023 20:39
 Operator : VTS
 Smp Info : BLA0163-BLK1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230209.b\ABN.m
 Meth Date : 09-Feb-2023 14:46 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 13
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		6.666	6.651	(0.754)	93714	4.92916	4.929
\$ 2 Phenol-d5	99		8.226	8.219	(0.931)	130386	5.08370	5.084
3 Phenol	94		8.250	8.242	(0.933)	903	0.03255	0.03255
\$ 5 2-Chlorophenol-d4	132		8.489	8.482	(0.961)	122983	5.90823	5.908
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		8.838	8.838	(1.000)	59802	4.00000	
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
\$ 10 1,2-Dichlorobenzene-d4	152		9.195	9.187	(1.040)	50356	3.53417	3.534
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		Compound Not Detected.					
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		Compound Not Detected.					
\$ 18 Nitrobenzene-d5	82		9.916	9.909	(0.878)	86575	3.96865	3.969
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		Compound Not Detected.					
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.293	11.286	(1.000)	220806	4.00000	
28 Naphthalene	128		Compound Not Detected.					
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		Compound Not Detected.					
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					
34 2,4,6-Trichlorophenol	196		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====	=====	=====	=====	=====	=====	=====	=====
35 2,4,5-Trichlorophenol	196					Compound Not Detected.		
\$ 36 2-Fluorobiphenyl	172		13.506	13.491	(0.907)	158843	4.09778	4.098
37 2-Chloronaphthalene	162					Compound Not Detected.		
38 2-Nitroaniline	65					Compound Not Detected.		
39 Dimethylphthalate	163					Compound Not Detected.		
40 Acenaphthylene	152					Compound Not Detected.		
41 2,6-Dinitrotoluene	165					Compound Not Detected.		
* 42 Acenaphthene-d10	164		14.884	14.869	(1.000)	107566	4.00000	
43 3-Nitroaniline	138					Compound Not Detected.		
44 Acenaphthene	153					Compound Not Detected.		
45 2,4-Dinitrophenol	184					Compound Not Detected.		
46 Dibenzofuran	168					Compound Not Detected.		
47 4-Nitrophenol	109					Compound Not Detected.		
48 2,4-Dinitrotoluene	165					Compound Not Detected.		
50 Diethylphthalate	149					Compound Not Detected.		
49 Fluorene	166					Compound Not Detected.		
51 4-Chlorophenyl-phenylether	204					Compound Not Detected.		
52 4-Nitroaniline	138					Compound Not Detected.		
53 4,6-Dinitro-2-methylphenol	198					Compound Not Detected.		
54 N-Nitrosodiphenylamine	169					Compound Not Detected.		
\$ 55 2,4,6-Tribromophenol	330		16.514	16.506	(1.109)	28200	5.23557	5.236
56 4-Bromophenyl-phenylether	248					Compound Not Detected.		
57 Hexachlorobenzene	284					Compound Not Detected.		
58 Pentachlorophenol	266					Compound Not Detected.		
* 59 Phenanthrene-d10	188		17.905	17.890	(1.000)	179972	4.00000	
60 Phenanthrene	178					Compound Not Detected.		
61 Anthracene	178					Compound Not Detected.		
62 Carbazole	167					Compound Not Detected.		
63 Di-n-butylphthalate	149					Compound Not Detected.		
64 Fluoranthene	202					Compound Not Detected.		
65 Pyrene	202					Compound Not Detected.		
\$ 66 Terphenyl-d14	244		21.069	21.054	(0.917)	172185	3.87167	3.872
67 Butylbenzylphthalate	149					Compound Not Detected.		
68 Benzo(a)anthracene	228					Compound Not Detected.		
* 69 Chrysene-d12	240		22.974	22.959	(1.000)	155797	4.00000	
70 3,3'-Dichlorobenzidine	252					Compound Not Detected.		
71 Chrysene	228					Compound Not Detected.		
72 bis(2-Ethylhexyl)phthalate	149					Compound Not Detected.		
* 134 Di-n-octylphthalate-d4	153		24.035	24.020	(1.000)	260415	4.00000	
73 Di-n-octylphthalate	149					Compound Not Detected.		
74 Benzo(b)fluoranthene	252					Compound Not Detected.		
75 Benzo(k)fluoranthene	252					Compound Not Detected.		
76 Benzo(a)pyrene	252					Compound Not Detected.		
* 77 Perylene-d12	264		25.506	25.483	(1.000)	184534	4.00000	
78 Indeno(1,2,3-cd)pyrene	276					Compound Not Detected.		
79 Dibenzo(a,h)anthracene	278					Compound Not Detected.		
80 Benzo(g,h,i)perylene	276					Compound Not Detected.		
90 N-Nitrosodimethylamine	74					Compound Not Detected.		
91 Aniline	93					Compound Not Detected.		
93 Benzidine	184					Compound Not Detected.		
103 Pyridine	79					Compound Not Detected.		
105 1-methylnaphthalene	142					Compound Not Detected.		
111 Azobenzene (1,2-DP-Hydrazine)	77					Compound Not Detected.		
187 Total Benzofluoranthenes	252					Compound Not Detected.		

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
=====	=====	=====	=====	=====	=====	=====	(ug/mL)	(ug/mL)
120 2,3,4,6-Tetrachlorophenol	232					Compound Not Detected.		

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 09-FEB-2023
 Lab File ID: NT1023020913.D Calibration Time: 13:31
 Lab Smp Id: BLA0163-BLK1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230209.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	89503	44752	179006	59802	-33.18
27 Naphthalene-d8	348104	174052	696208	220806	-36.57
42 Acenaphthene-d10	183525	91763	367050	107566	-41.39
59 Phenanthrene-d10	295489	147745	590978	179972	-39.09
69 Chrysene-d12	239590	119795	479180	155797	-34.97
134 Di-n-octylphthala	404293	202147	808586	260415	-35.59
77 Perylene-d12	274336	137168	548672	184534	-32.73

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	-0.01
27 Naphthalene-d8	11.29	10.79	11.79	11.29	0.06
42 Acenaphthene-d10	14.87	14.37	15.37	14.88	0.10
59 Phenanthrene-d10	17.89	17.39	18.39	17.91	0.08
69 Chrysene-d12	22.96	22.46	23.46	22.97	0.07
134 Di-n-octylphthala	24.02	23.52	24.52	24.04	0.06
77 Perylene-d12	25.48	24.98	25.98	25.51	0.09

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020913.D

Lab ID: BLA0163-BLK1
nt10.i, 20230209.b\ABN.m, 09-FEB-2023 20:39

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1023020902.D

On Column LOD for nt10.i, 20230209.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *



LCS / LCS DUPLICATE RECOVERY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Analyzed: 02/09/23 21:17

Batch: BLA0163

Laboratory ID: BLA0163-BS1

Preparation: EPA 3546 (Microwave)

Sequence Name: LCS

Initial/Final: 10 g / 1 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Phenol	500	315		63.0	34 - 120
4-Methylphenol	500	317		63.4	29 - 120
Naphthalene	500	363		72.5	43 - 120
2-Methylnaphthalene	500	352		70.3	43 - 120
Acenaphthylene	500	367		73.3	42 - 120
Dimethylphthalate	500	397		79.5	43 - 120
Acenaphthene	500	385		77.1	45 - 120
Dibenzofuran	500	366		73.1	43 - 120
Fluorene	500	317		63.4	45 - 120
Phenanthrene	500	390		78.0	49 - 120
Anthracene	500	330		65.9	45 - 120
Fluoranthene	500	365		73.1	53 - 145
Pyrene	500	362		72.4	52 - 134
Butylbenzylphthalate	500	402		80.5	45 - 132
Benzo(a)anthracene	500	399		79.8	49 - 120
Chrysene	500	393		78.6	47 - 120
bis(2-Ethylhexyl)phthalate	500	261		52.3	34 - 130
Benzofluoranthenes, Total	1000	812		81.2	30 - 160
Benzo(a)pyrene	500	404		80.8	42 - 120
Indeno(1,2,3-cd)pyrene	500	352		70.3	42 - 163
Dibenzo(a,h)anthracene	500	369		73.8	30 - 133
Benzo(g,h,i)perylene	500	308		61.6	46 - 148

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Phenol	500	356		71.3	12.4	30	34 - 120
4-Methylphenol	500	339		67.8	6.70	30	29 - 120
Naphthalene	500	409		81.8	12.0	30	43 - 120
2-Methylnaphthalene	500	391		78.2	10.6	30	43 - 120
Acenaphthylene	500	405		81.0	9.99	30	42 - 120
Dimethylphthalate	500	437		87.5	9.60	30	43 - 120
Acenaphthene	500	426		85.3	10.1	30	45 - 120

* Indicates values outside of QC limits



LCS / LCS DUPLICATE RECOVERY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Analyzed: 02/09/23 21:56

Batch: BLA0163

Laboratory ID: BLA0163-BSD1

Preparation: EPA 3546 (Microwave)

Sequence Name: LCS Dup

Initial/Final: 10 g / 1 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Dibenzofuran	500	405		80.9	10.1	30	43 - 120
Fluorene	500	356		71.1	11.5	30	45 - 120
Phenanthrene	500	429		85.8	9.55	30	49 - 120
Anthracene	500	368		73.7	11.1	30	45 - 120
Fluoranthene	500	406		81.1	10.5	30	53 - 145
Pyrene	500	393		78.5	8.15	30	52 - 134
Butylbenzylphthalate	500	433		86.6	7.34	30	45 - 132
Benzo(a)anthracene	500	433		86.6	8.25	30	49 - 120
Chrysene	500	432		86.4	9.52	30	47 - 120
bis(2-Ethylhexyl)phthalate	500	276		55.3	5.56	30	34 - 130
Benzo(a)fluoranthene, Total	1000	897		89.7	9.95	30	30 - 160
Benzo(a)pyrene	500	433		86.7	7.06	30	42 - 120
Indeno(1,2,3-cd)pyrene	500	381		76.3	8.13	30	42 - 163
Dibenzo(a,h)anthracene	500	402		80.4	8.56	30	30 - 133
Benzo(g,h,i)perylene	500	333		66.5	7.63	30	46 - 148

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230209.1\NT1023020914.D

Date: 09-FEB-2023 21:17

Client ID:

Sample Info: BLR0163-BS1

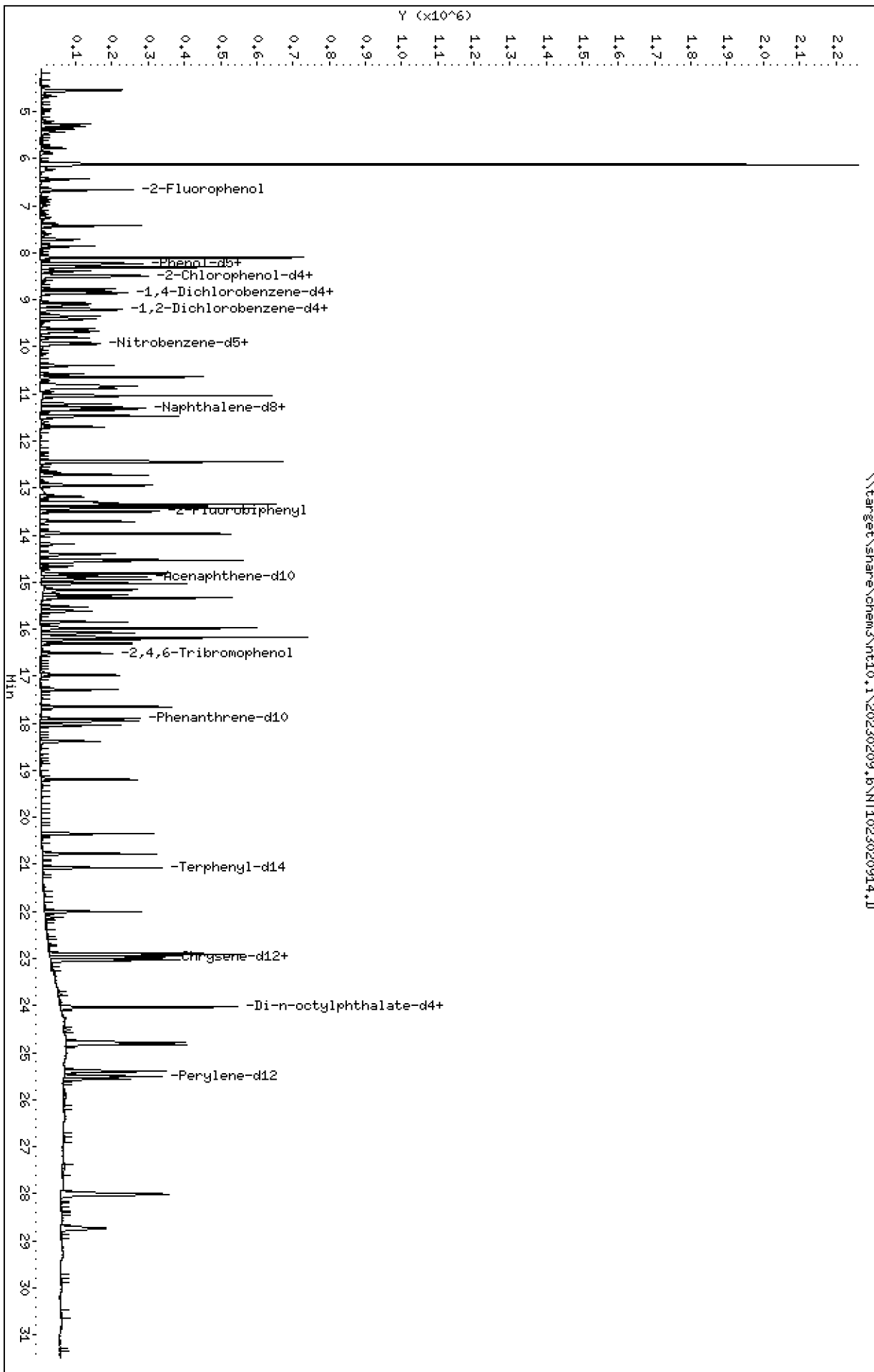
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

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Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

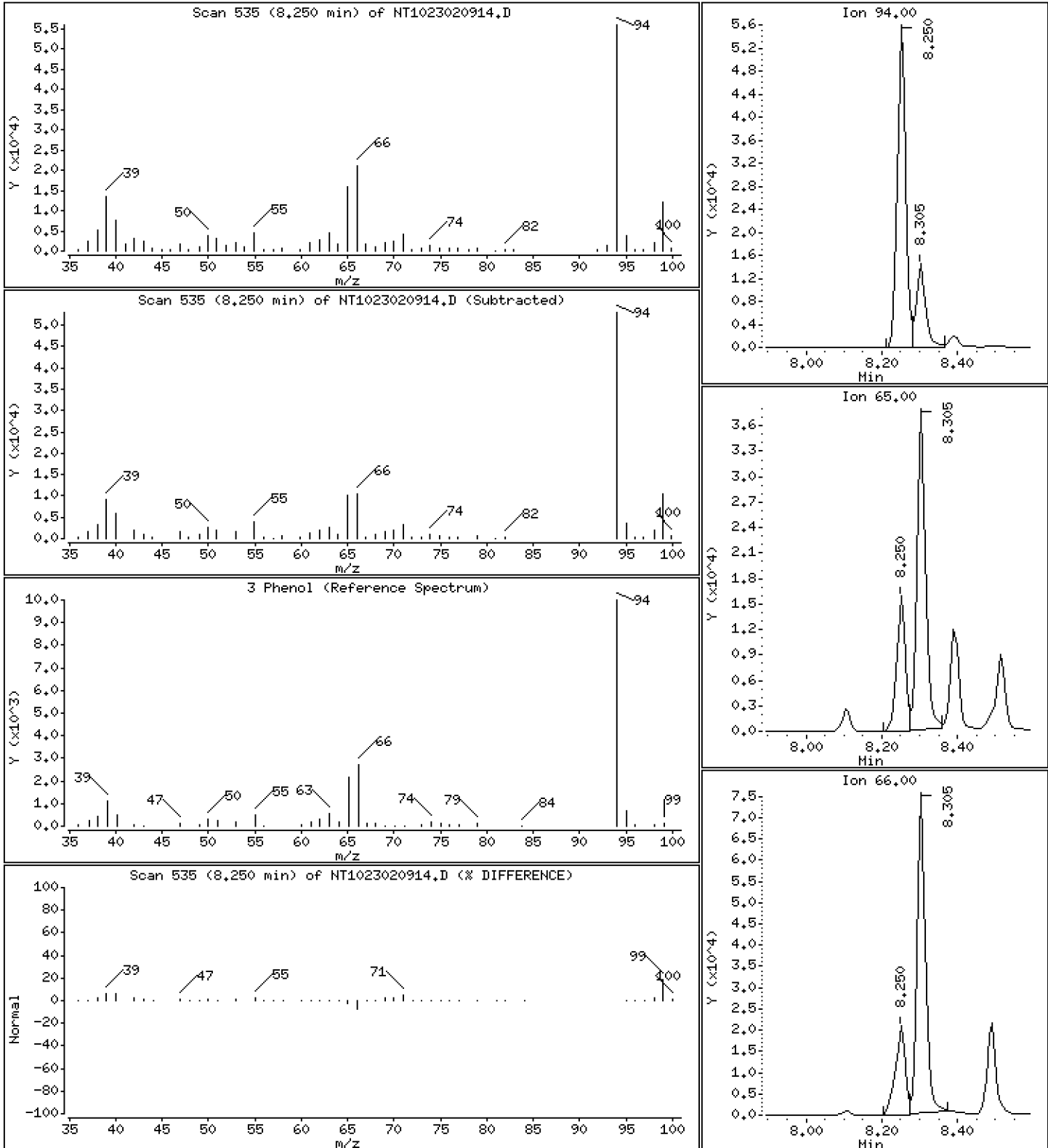
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 3,149 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

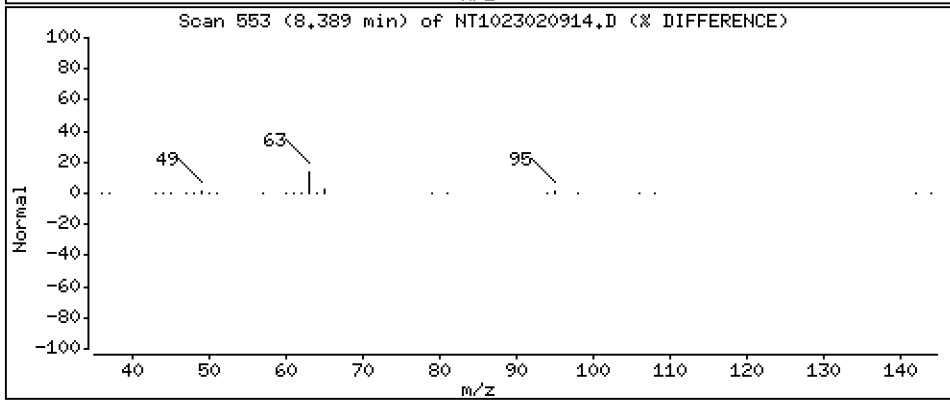
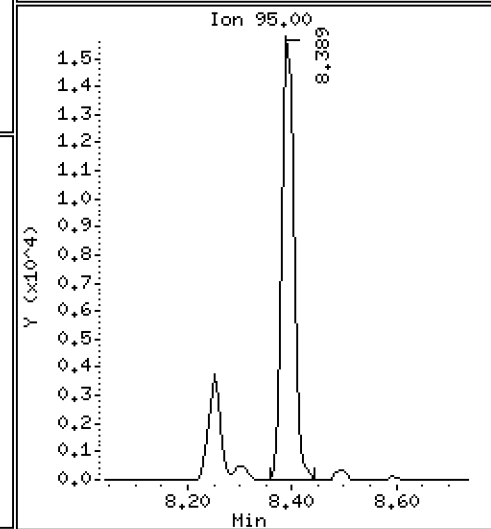
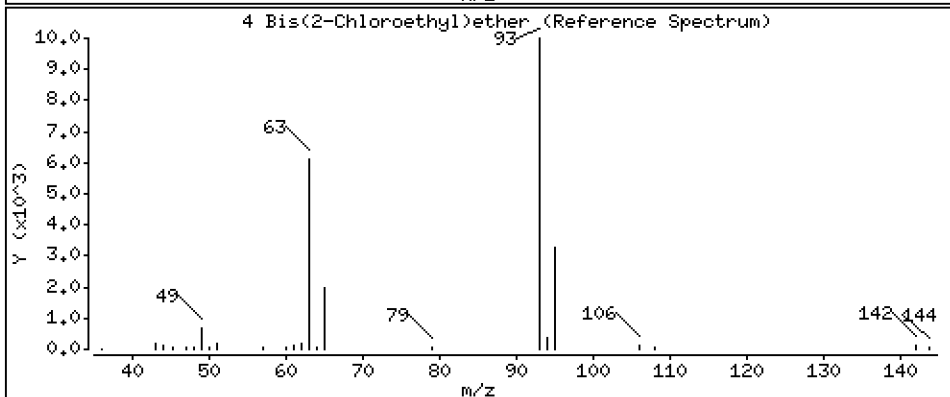
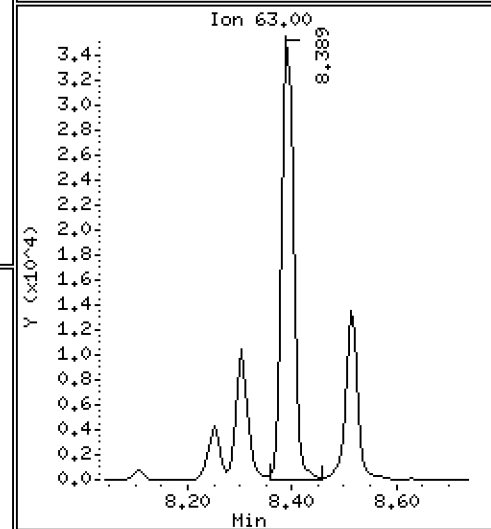
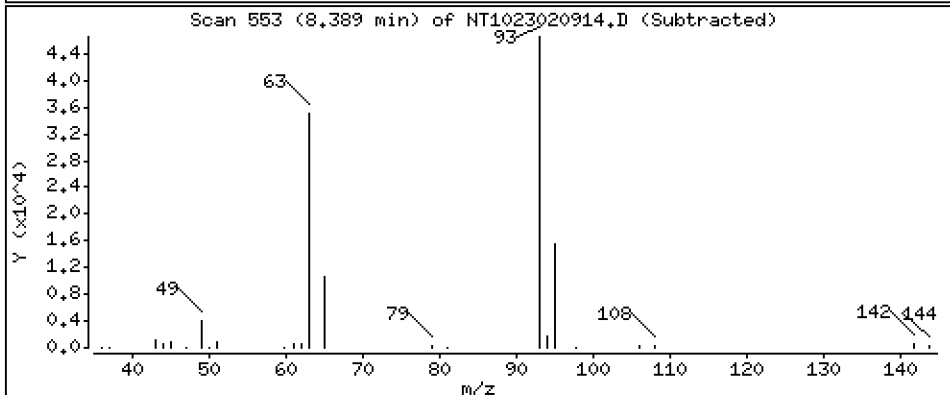
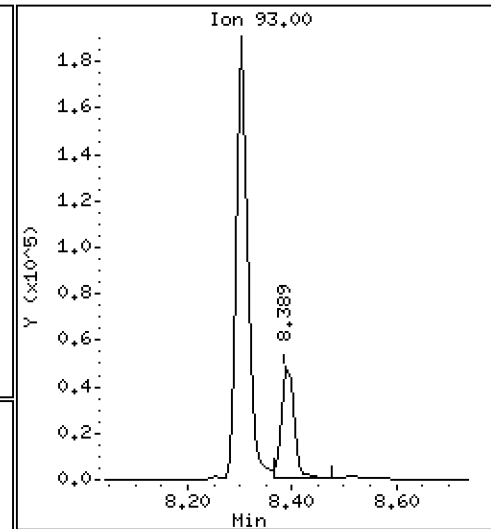
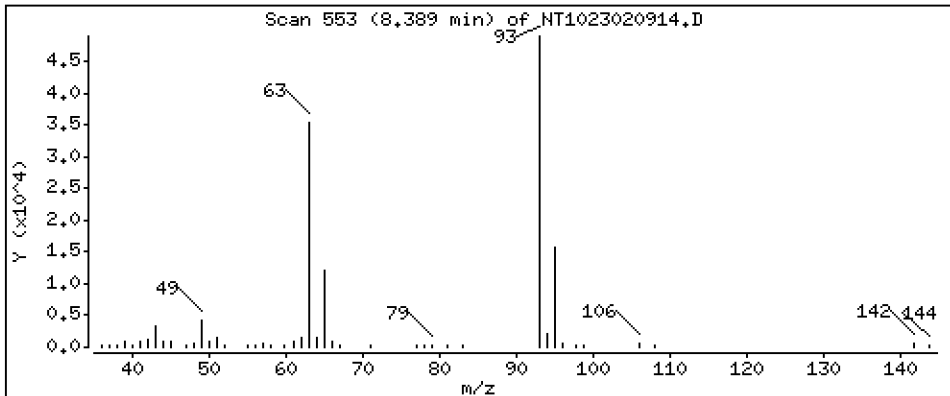
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 3,826 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

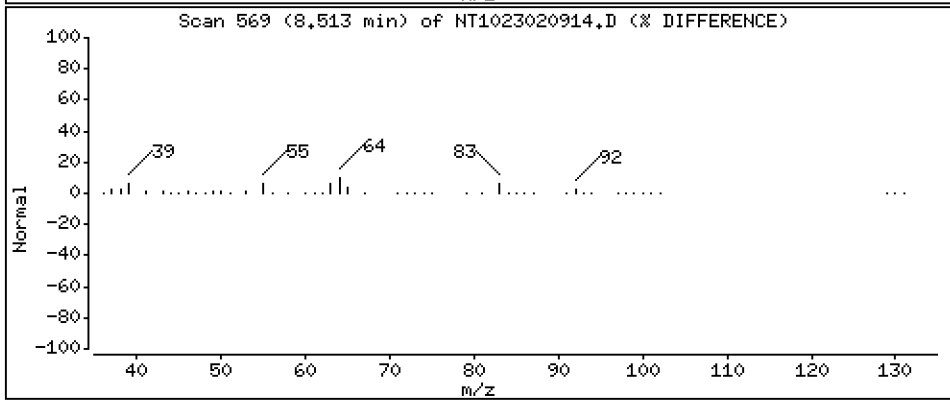
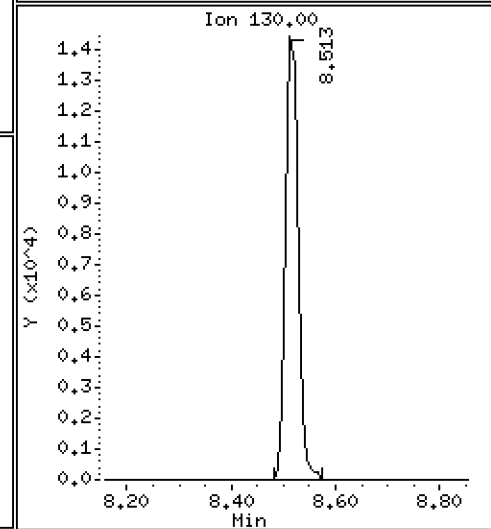
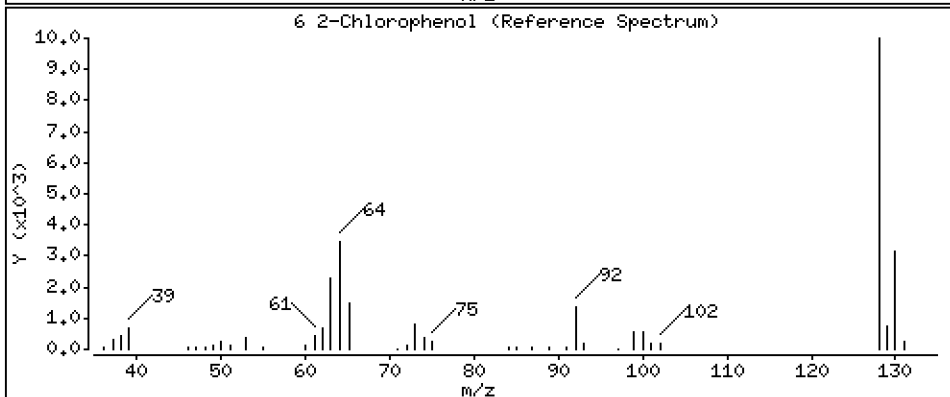
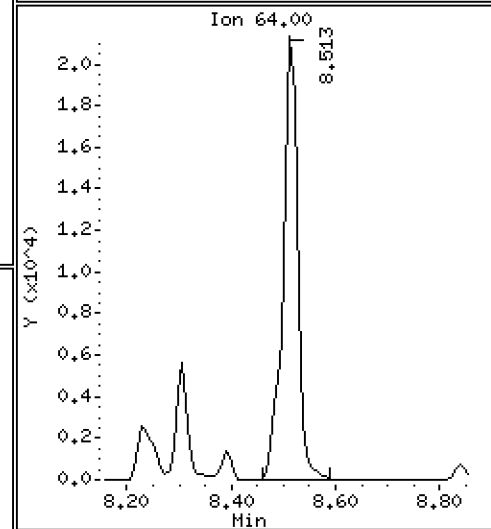
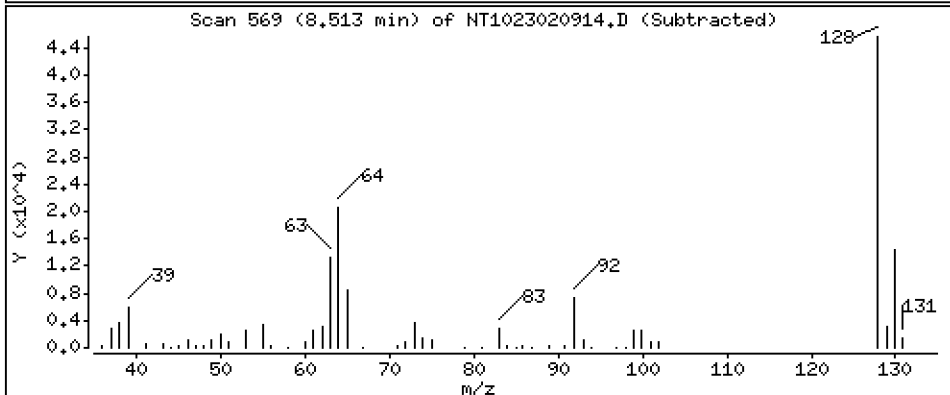
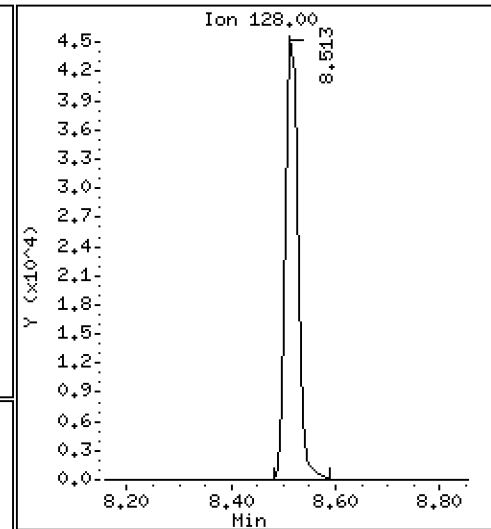
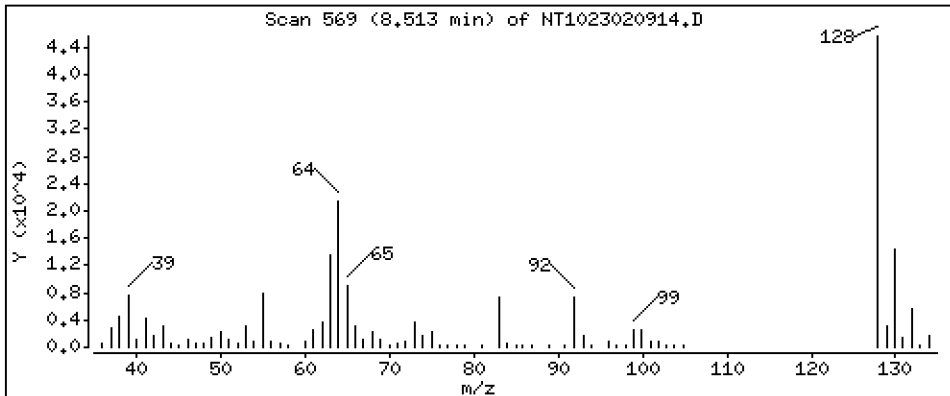
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 3,284 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

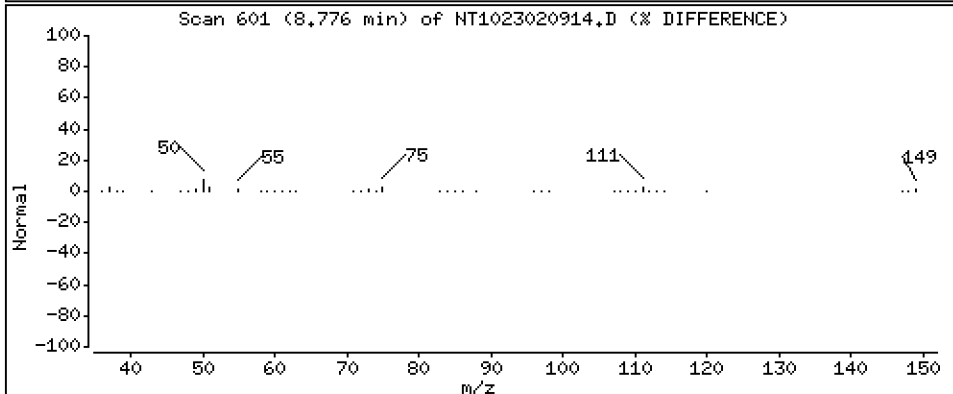
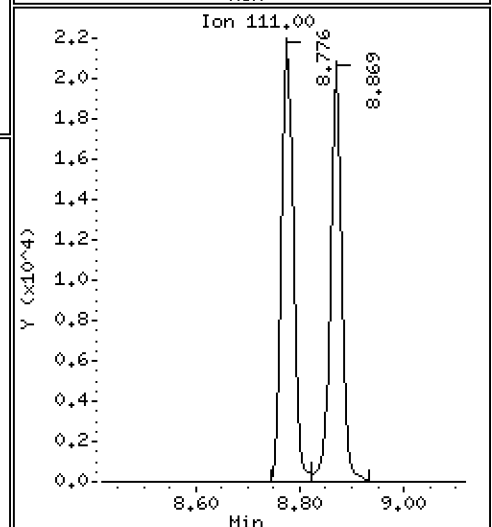
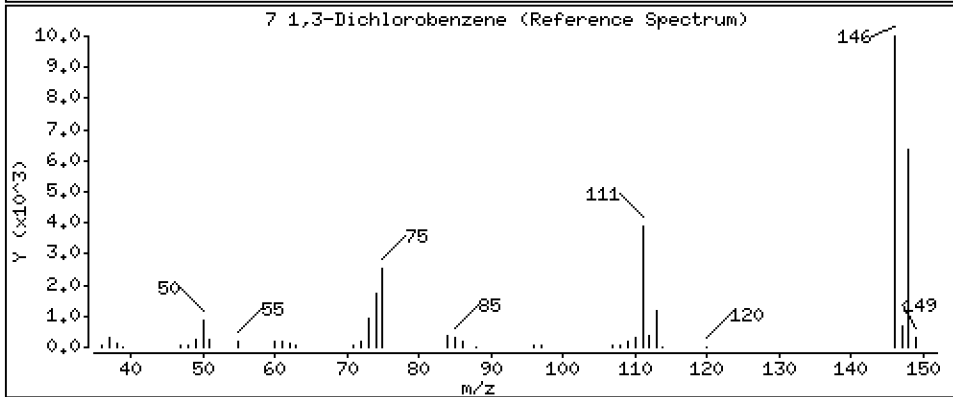
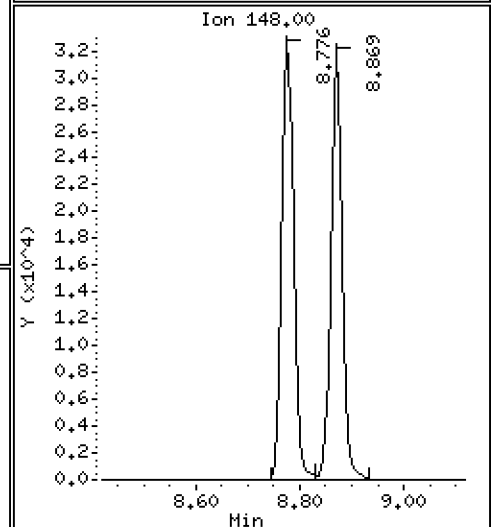
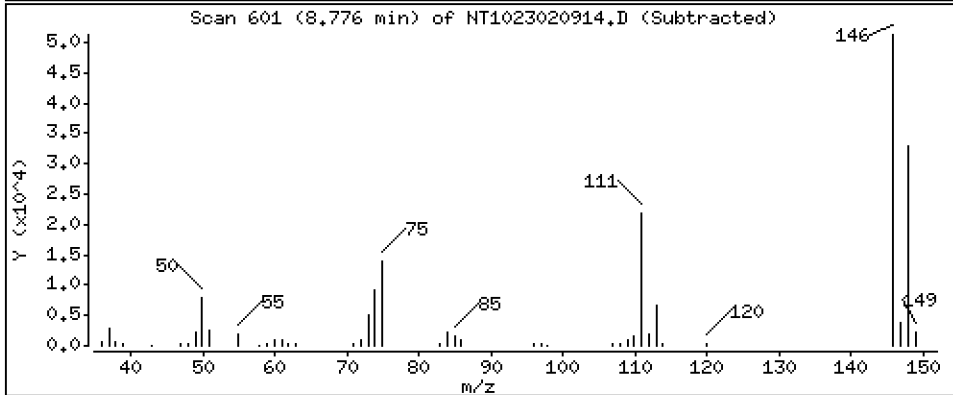
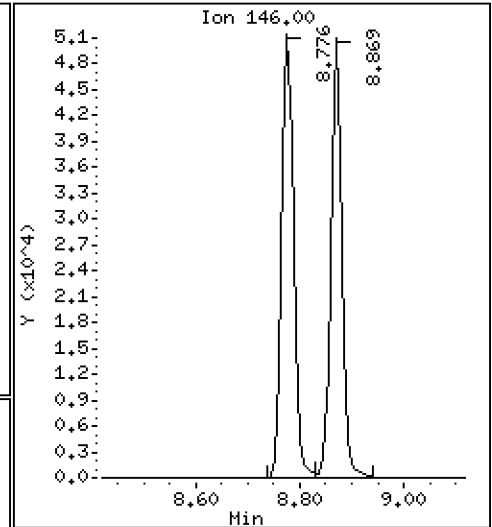
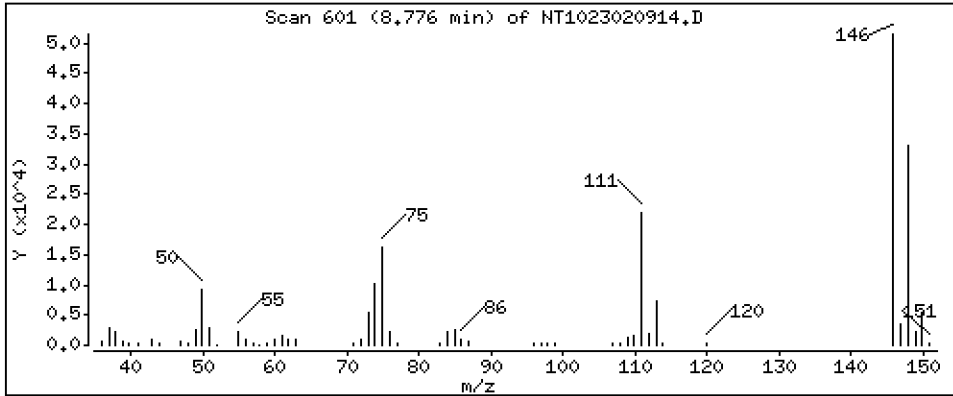
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 3,369 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

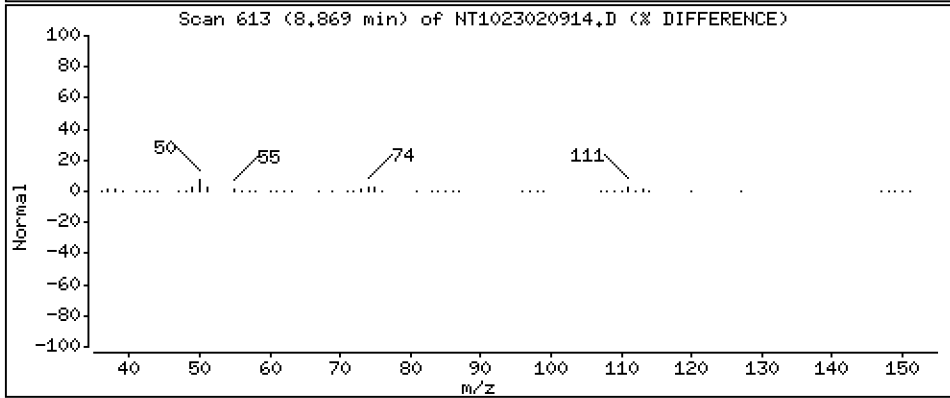
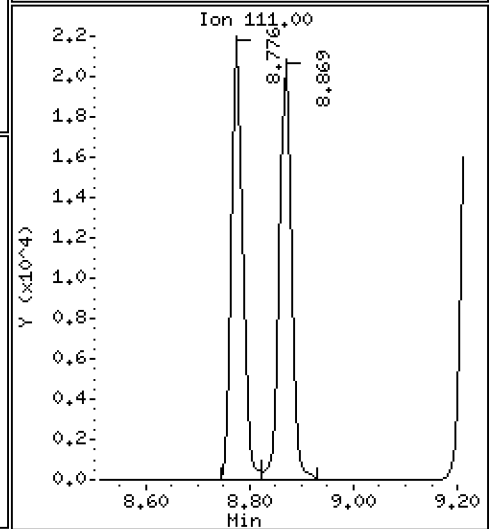
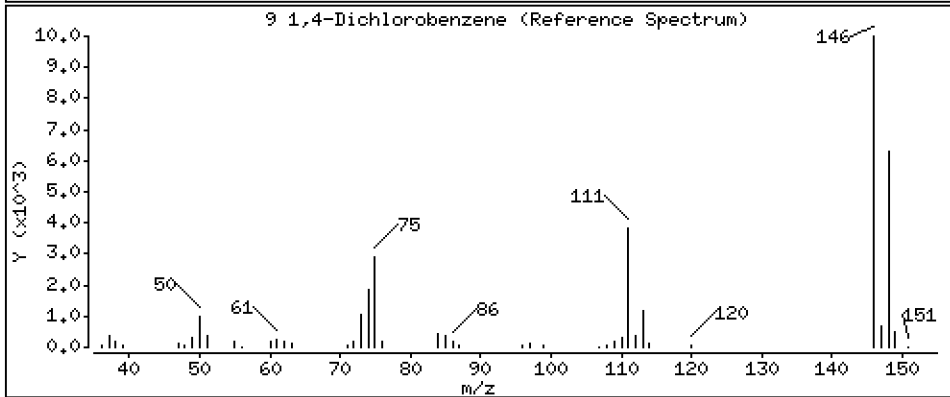
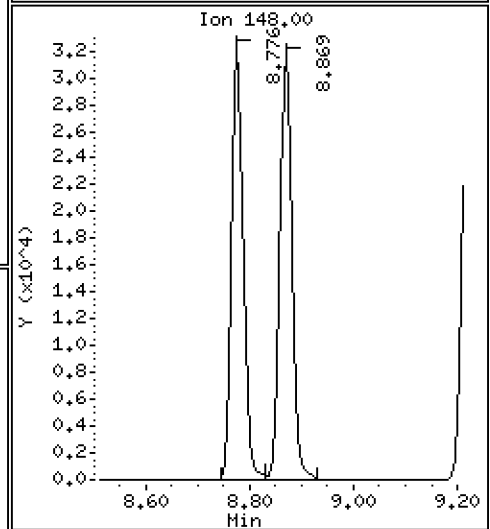
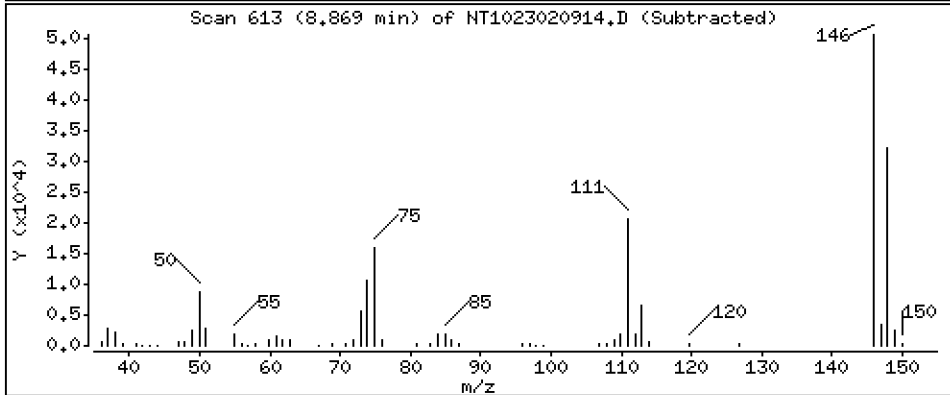
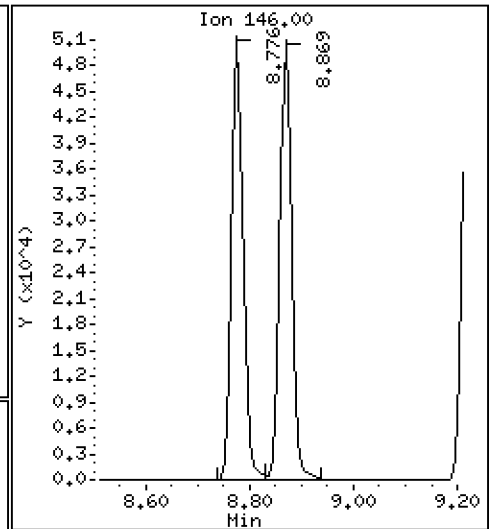
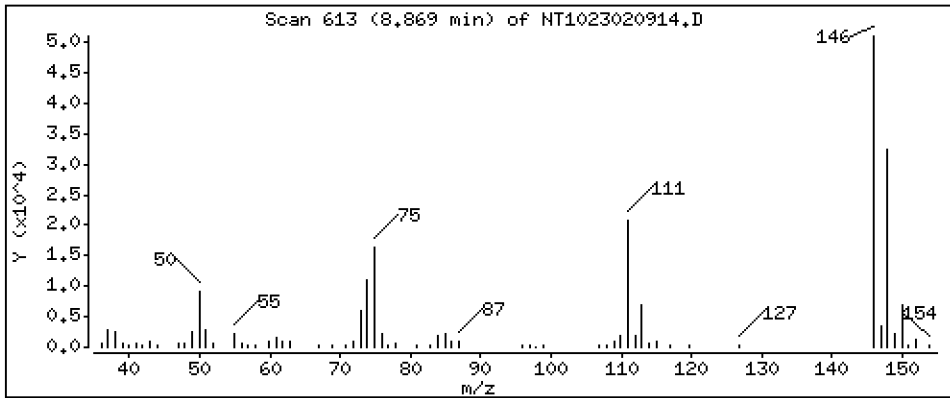
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 3,349 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

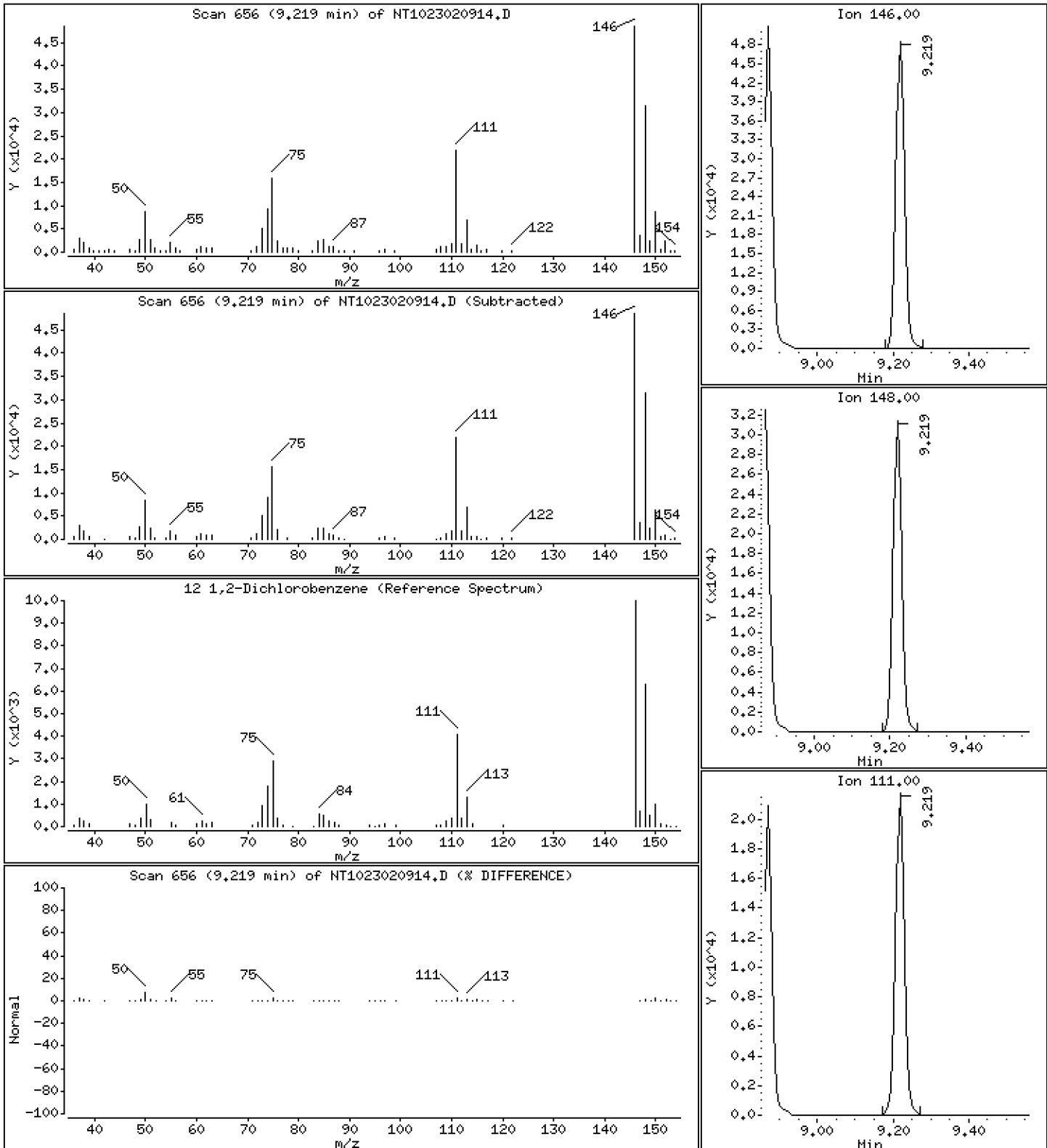
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 3,389 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

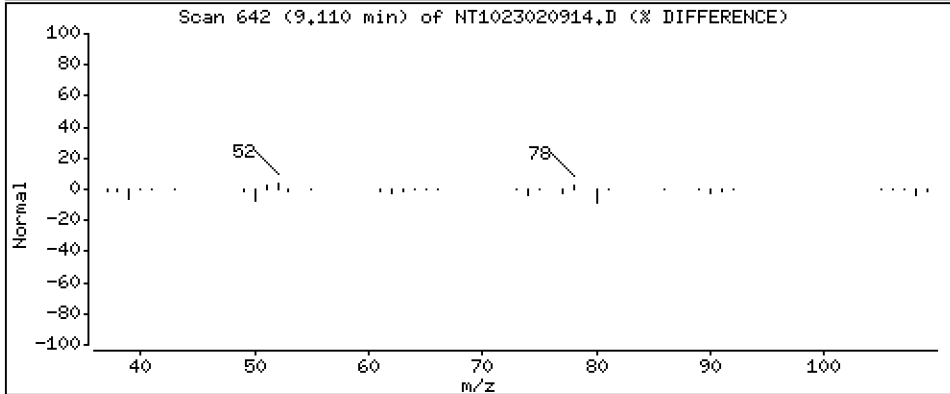
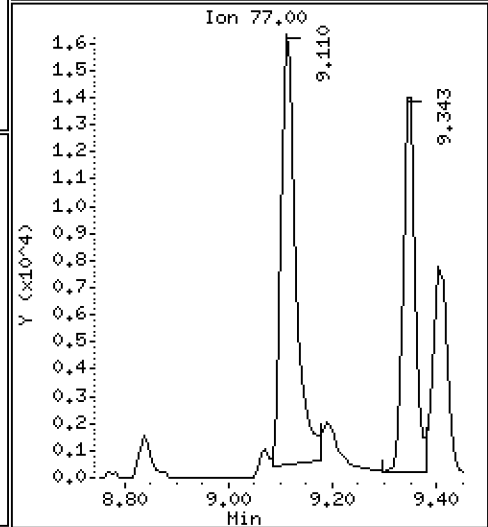
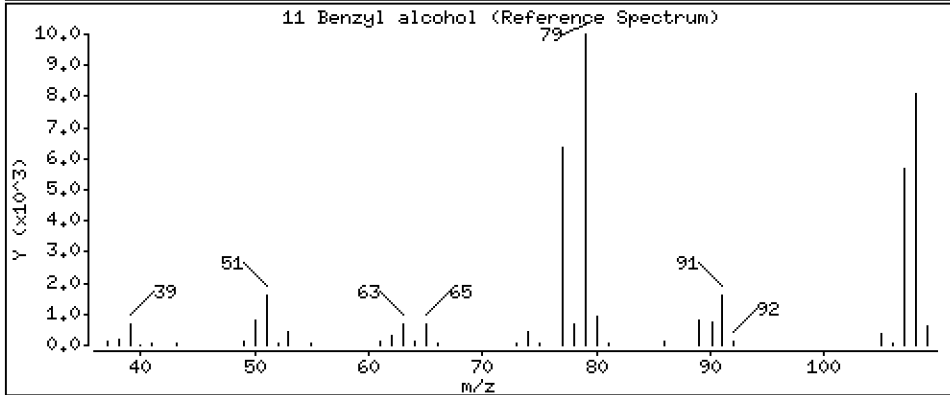
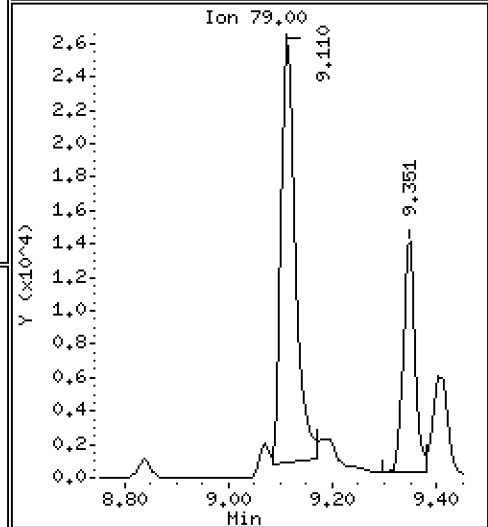
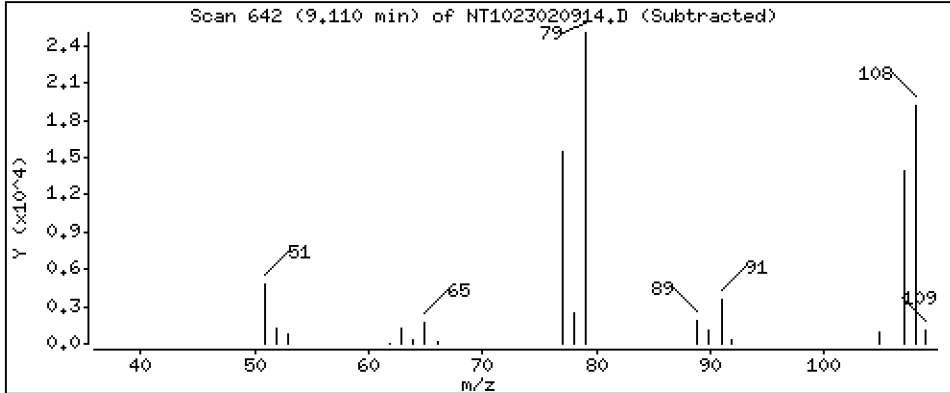
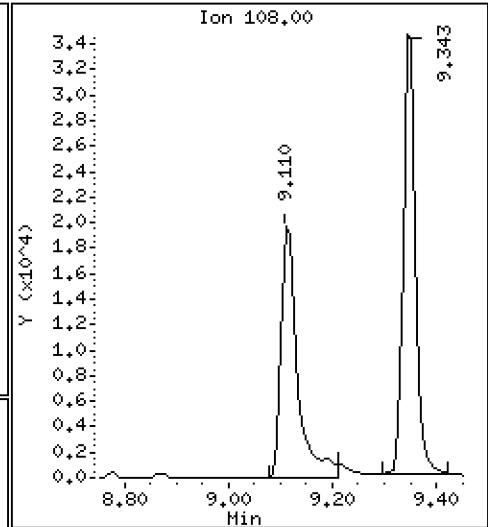
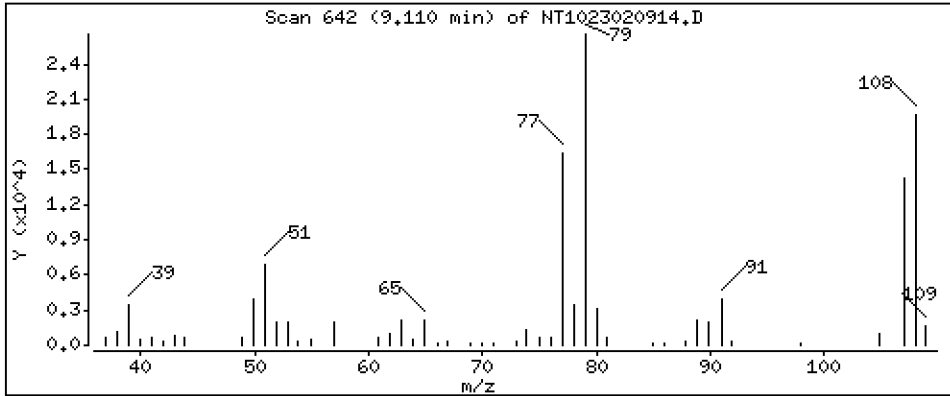
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 3,587 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

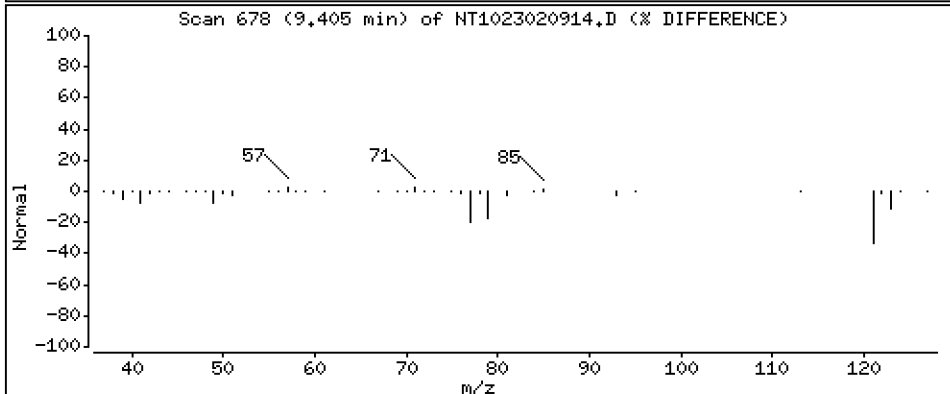
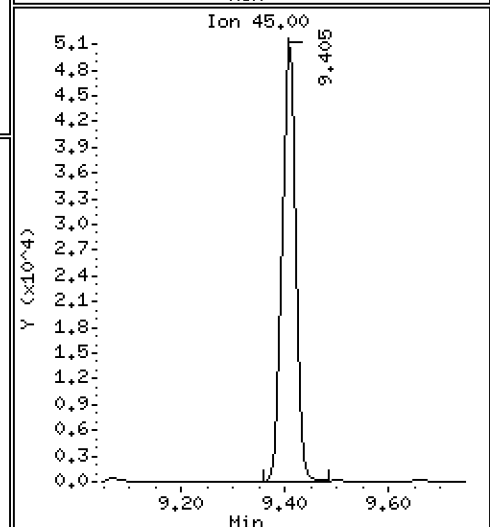
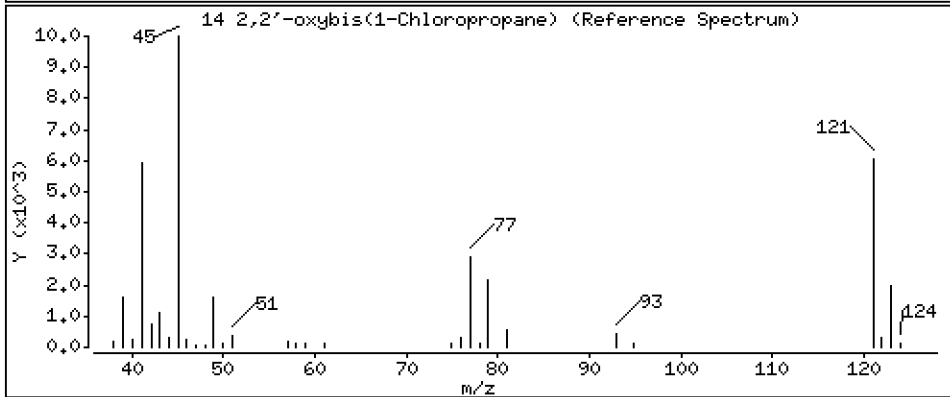
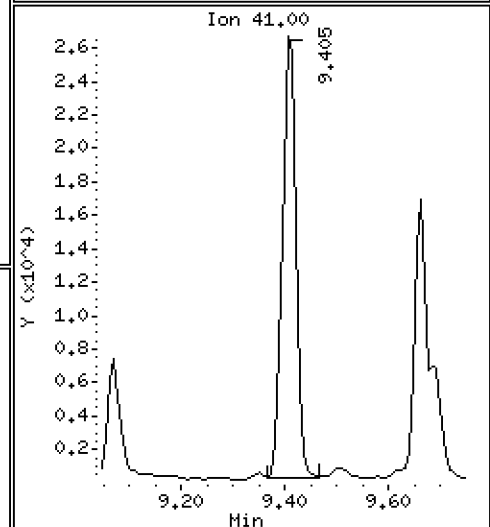
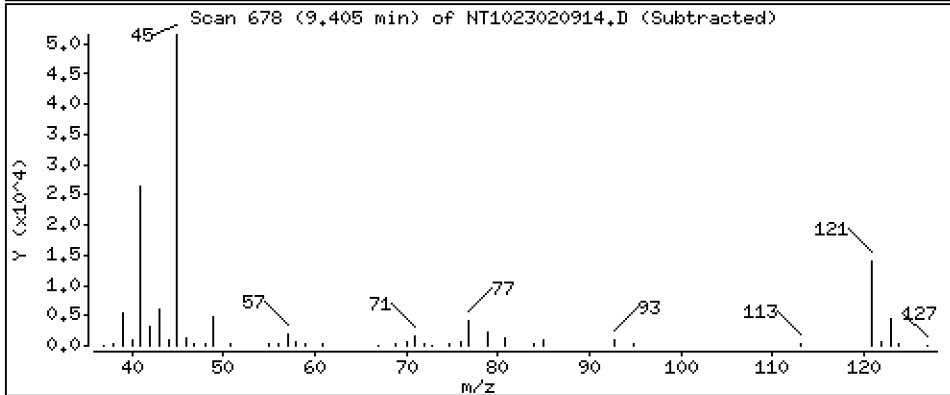
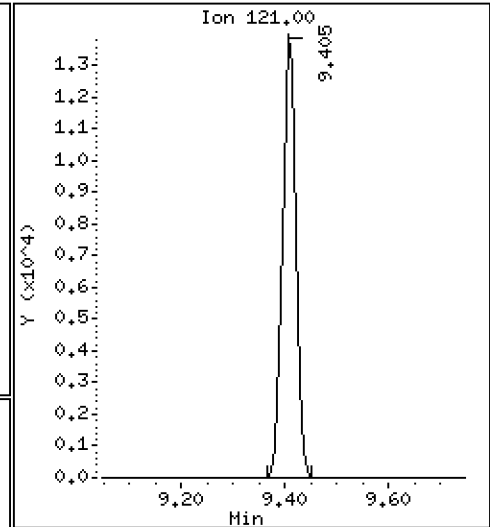
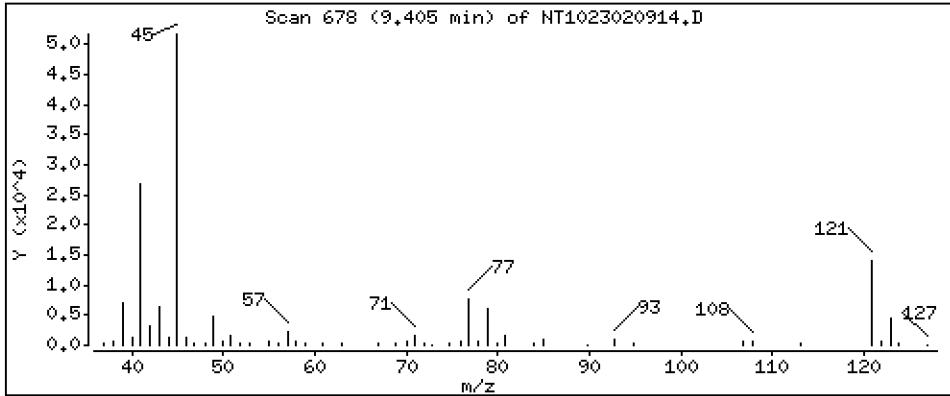
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 3,942 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

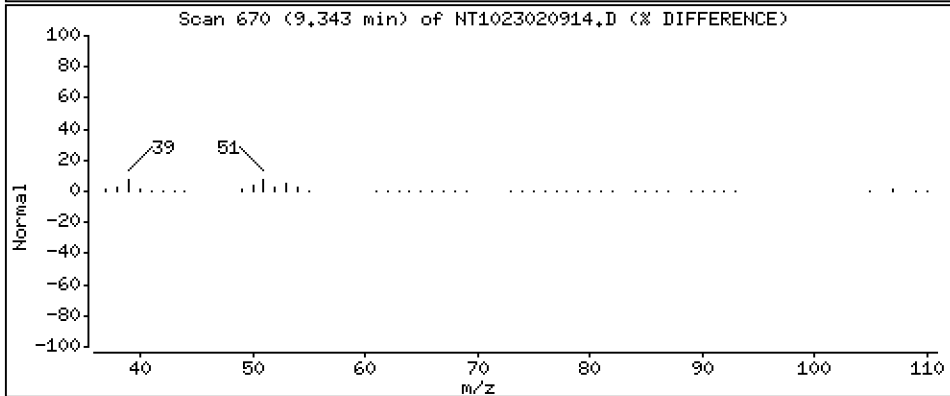
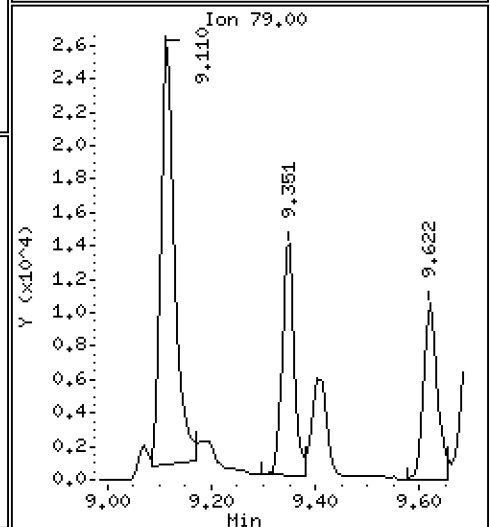
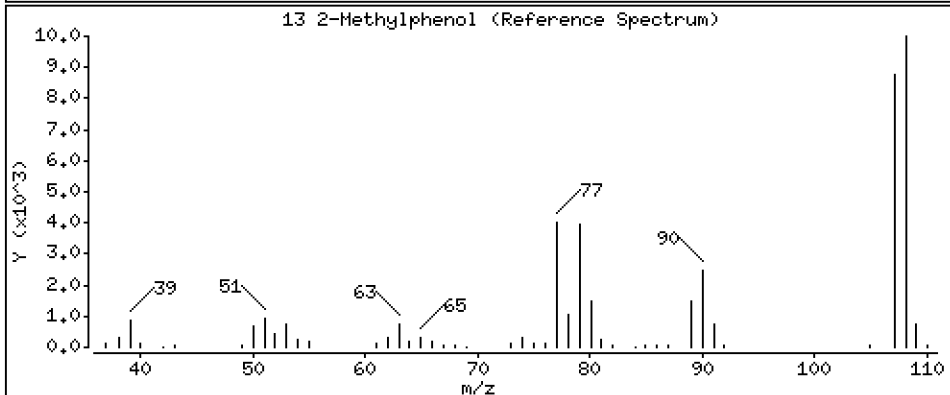
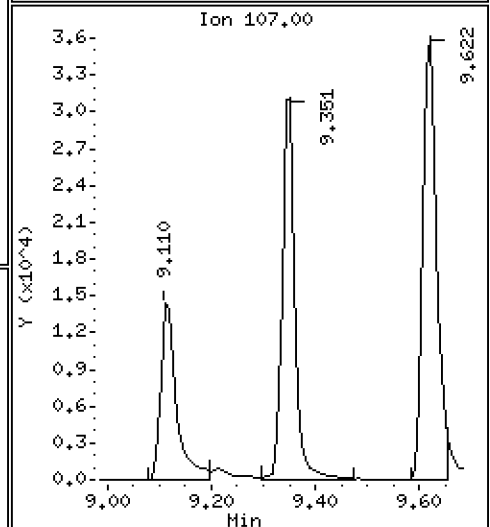
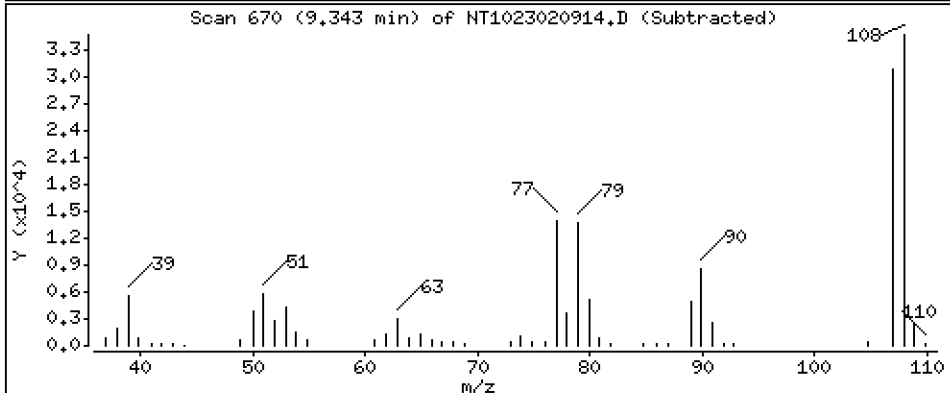
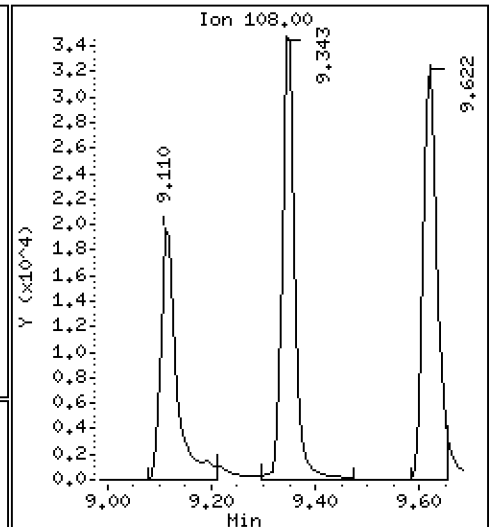
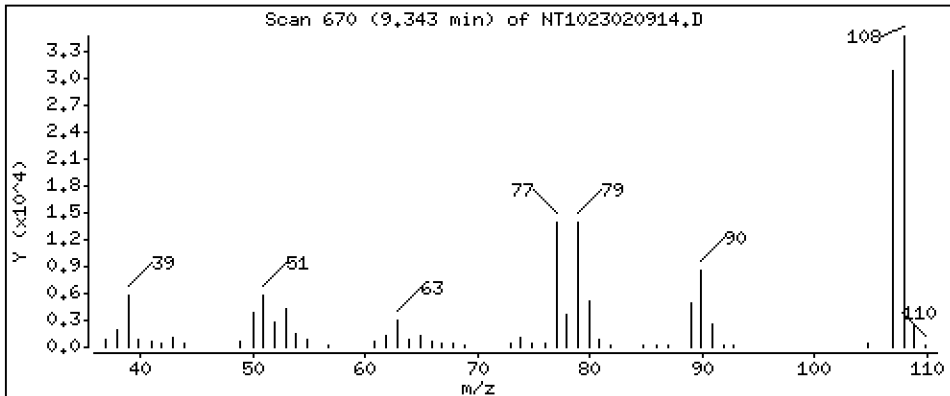
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 3,228 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

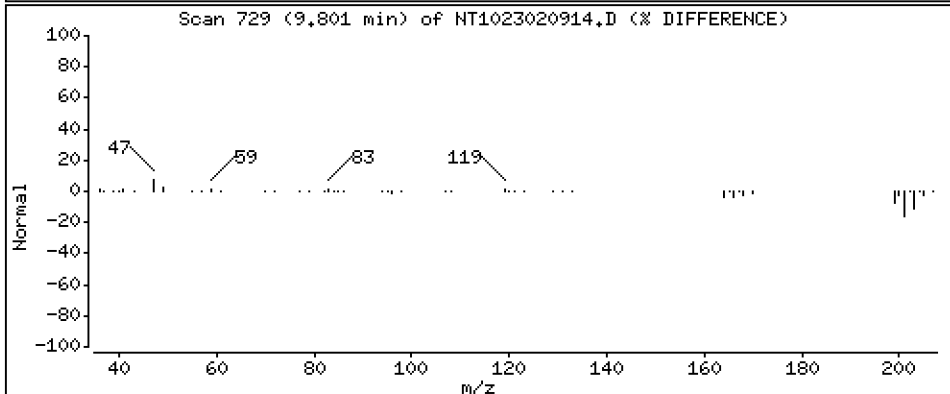
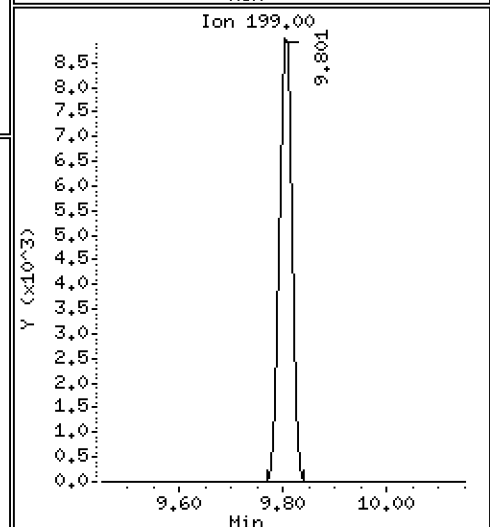
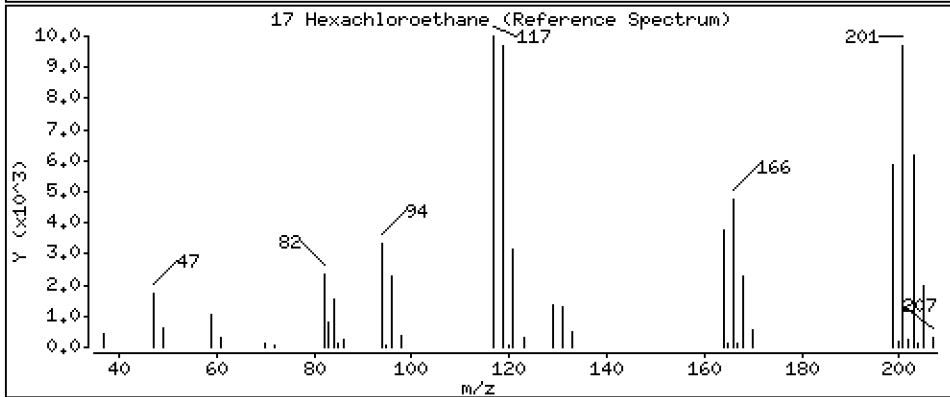
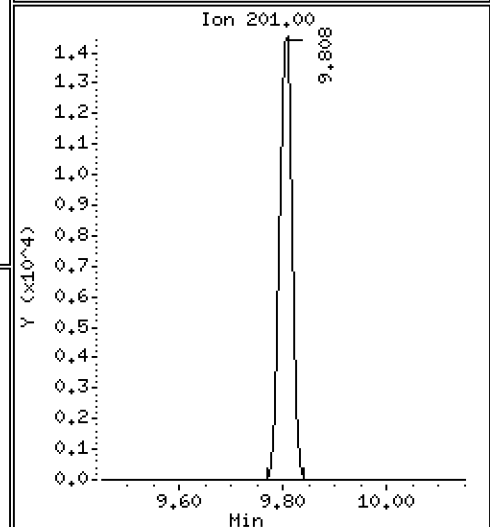
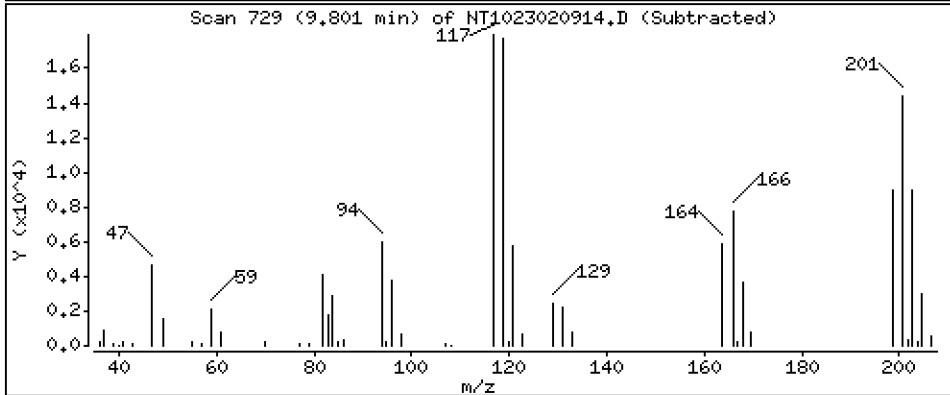
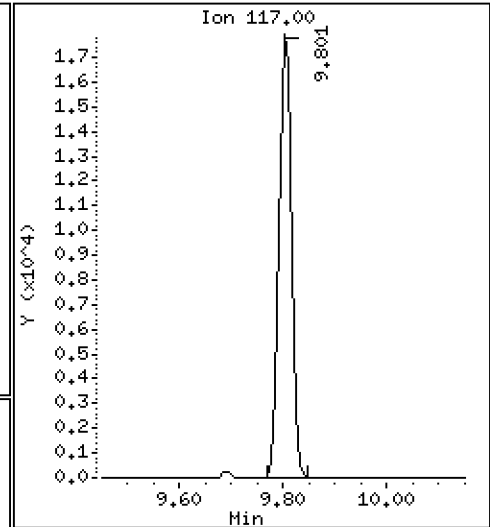
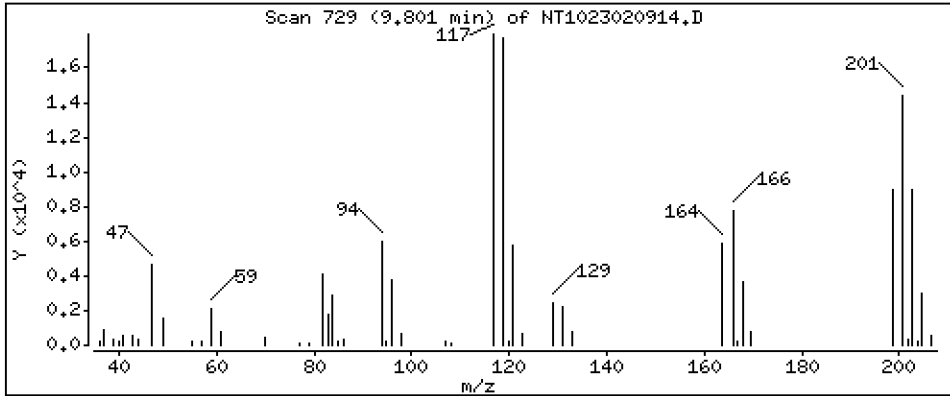
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

17 Hexachloroethane

Concentration: 3,258 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

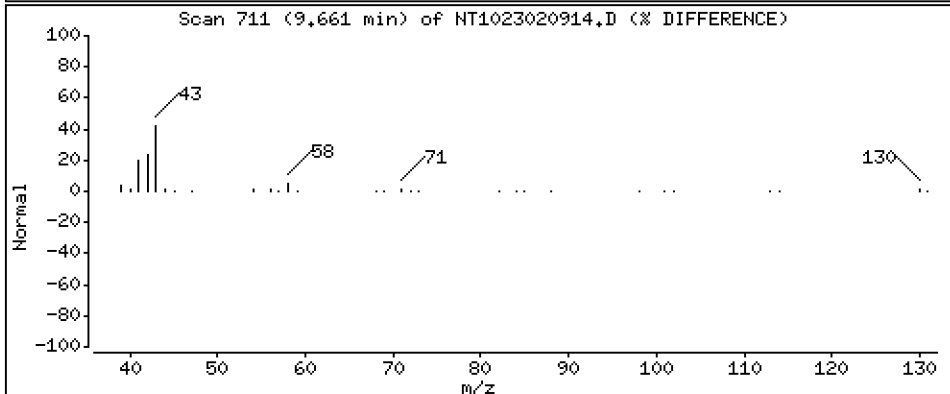
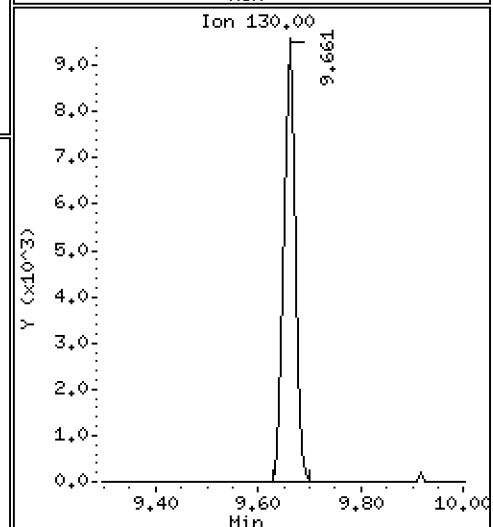
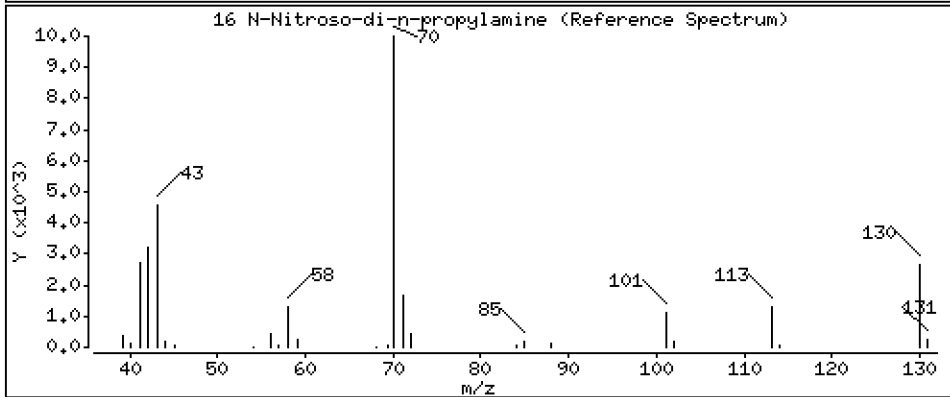
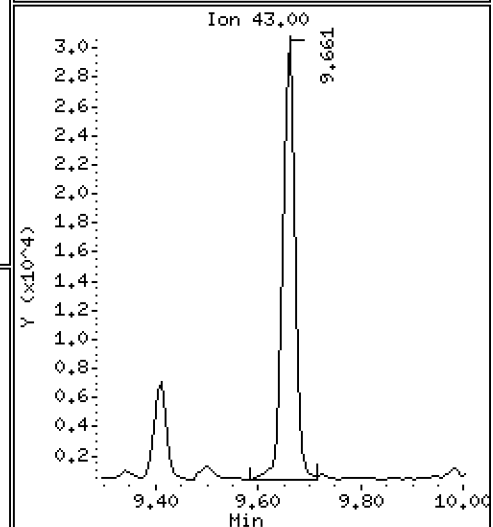
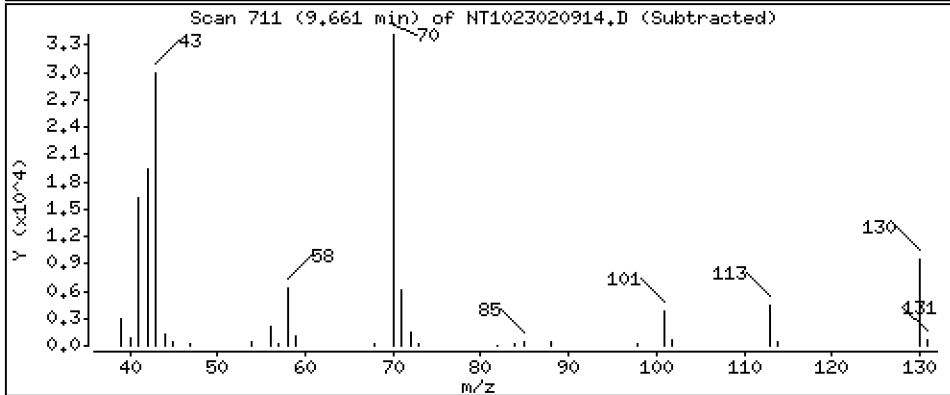
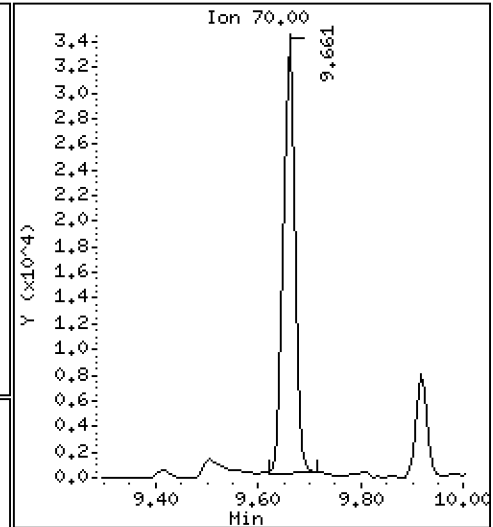
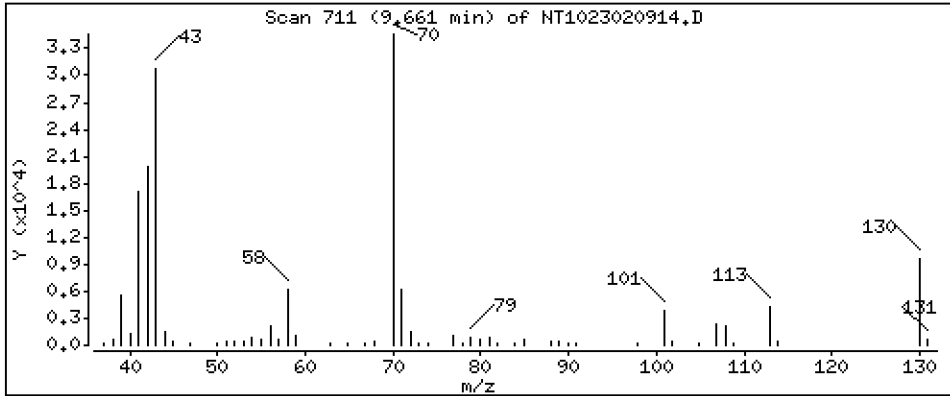
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 3.430 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

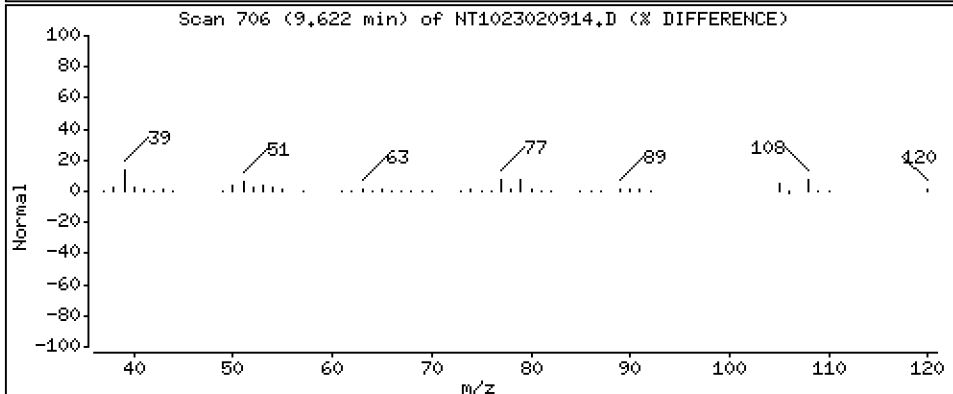
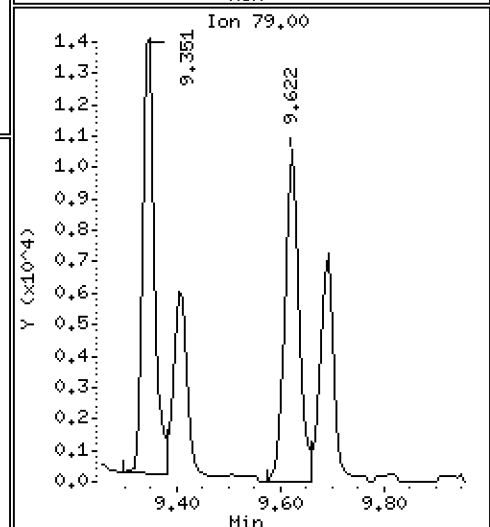
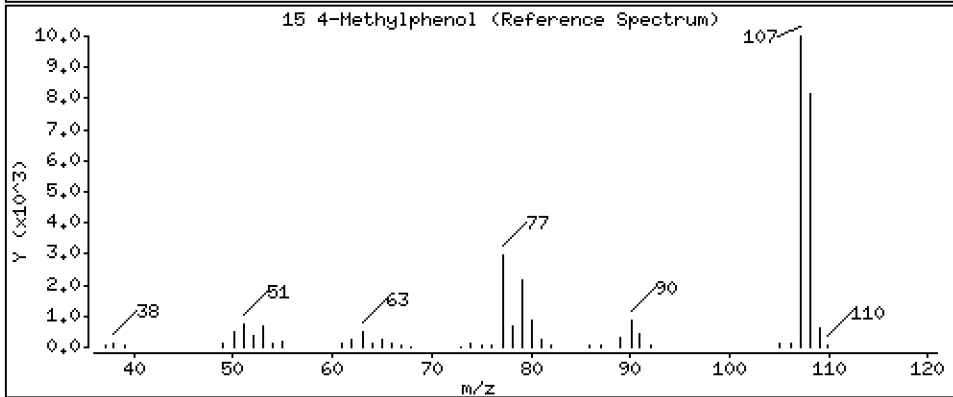
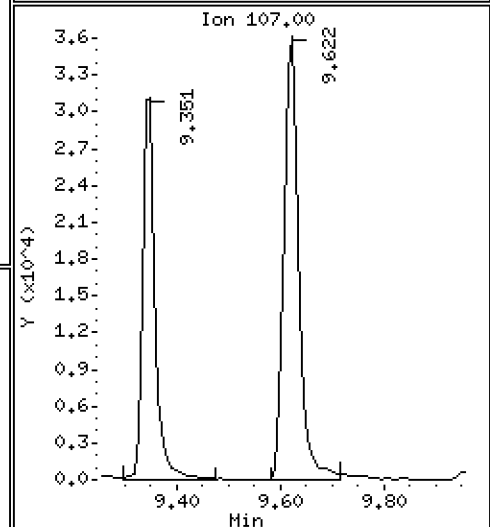
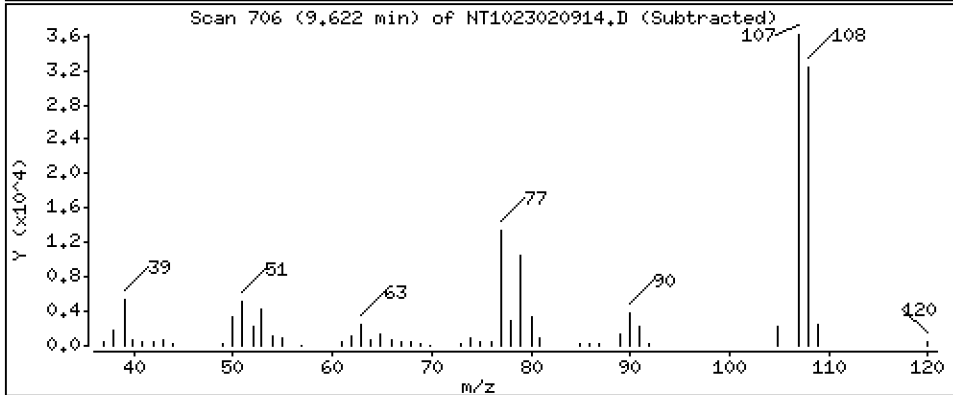
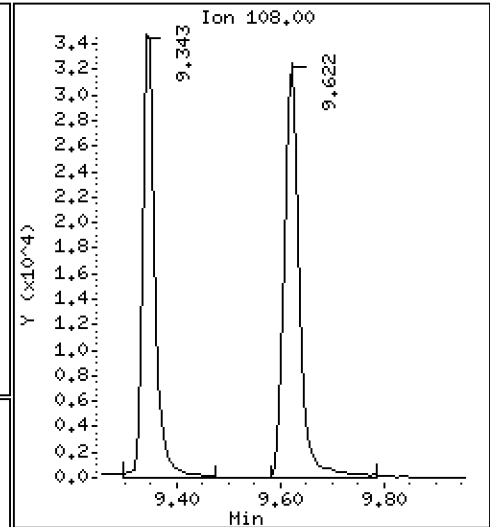
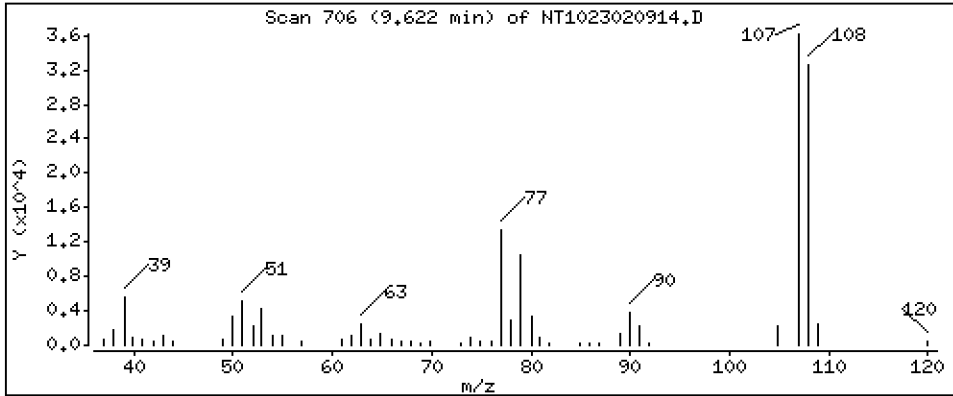
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Concentration: 3,168 ug/mL

15 4-Methylphenol



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

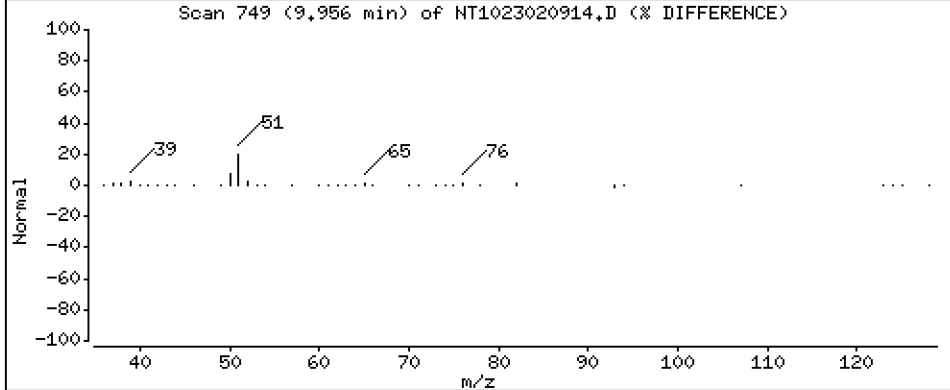
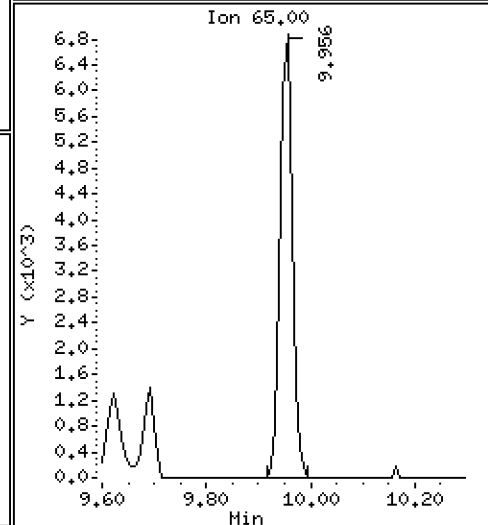
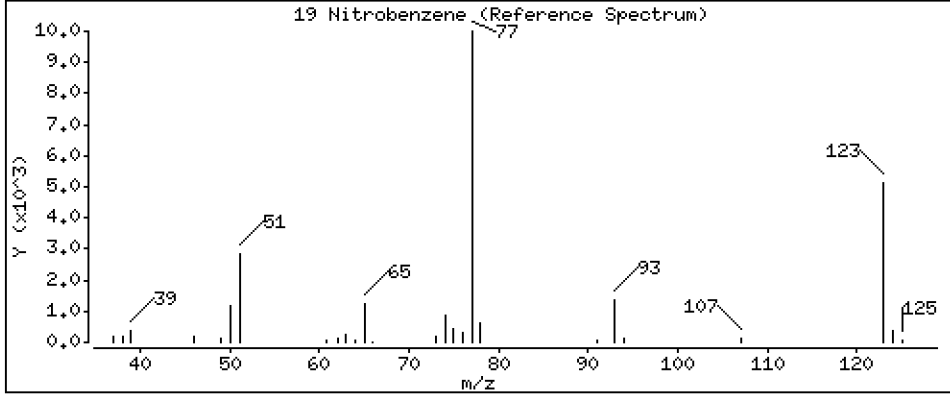
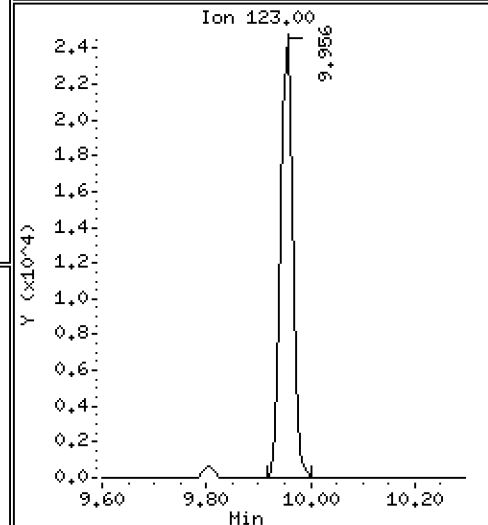
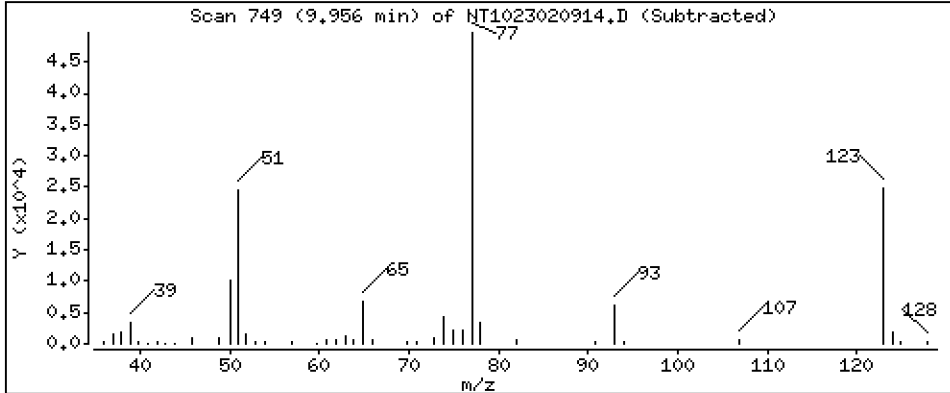
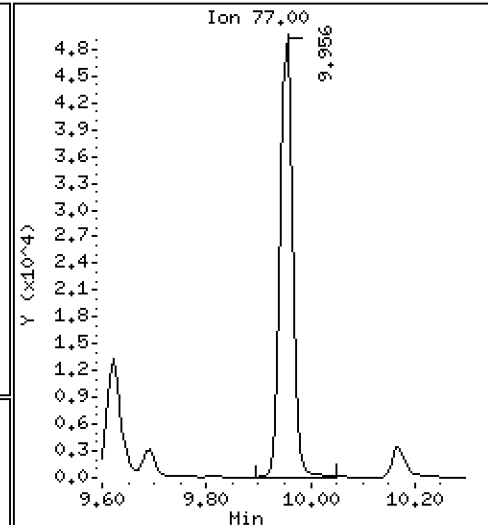
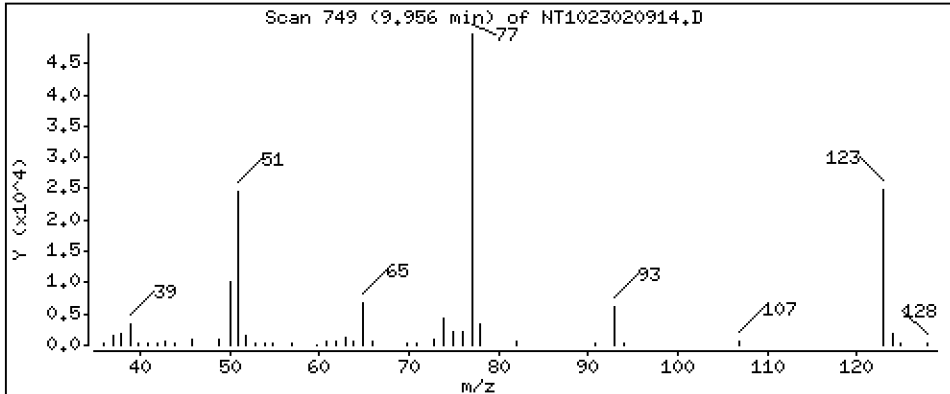
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 3,735 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

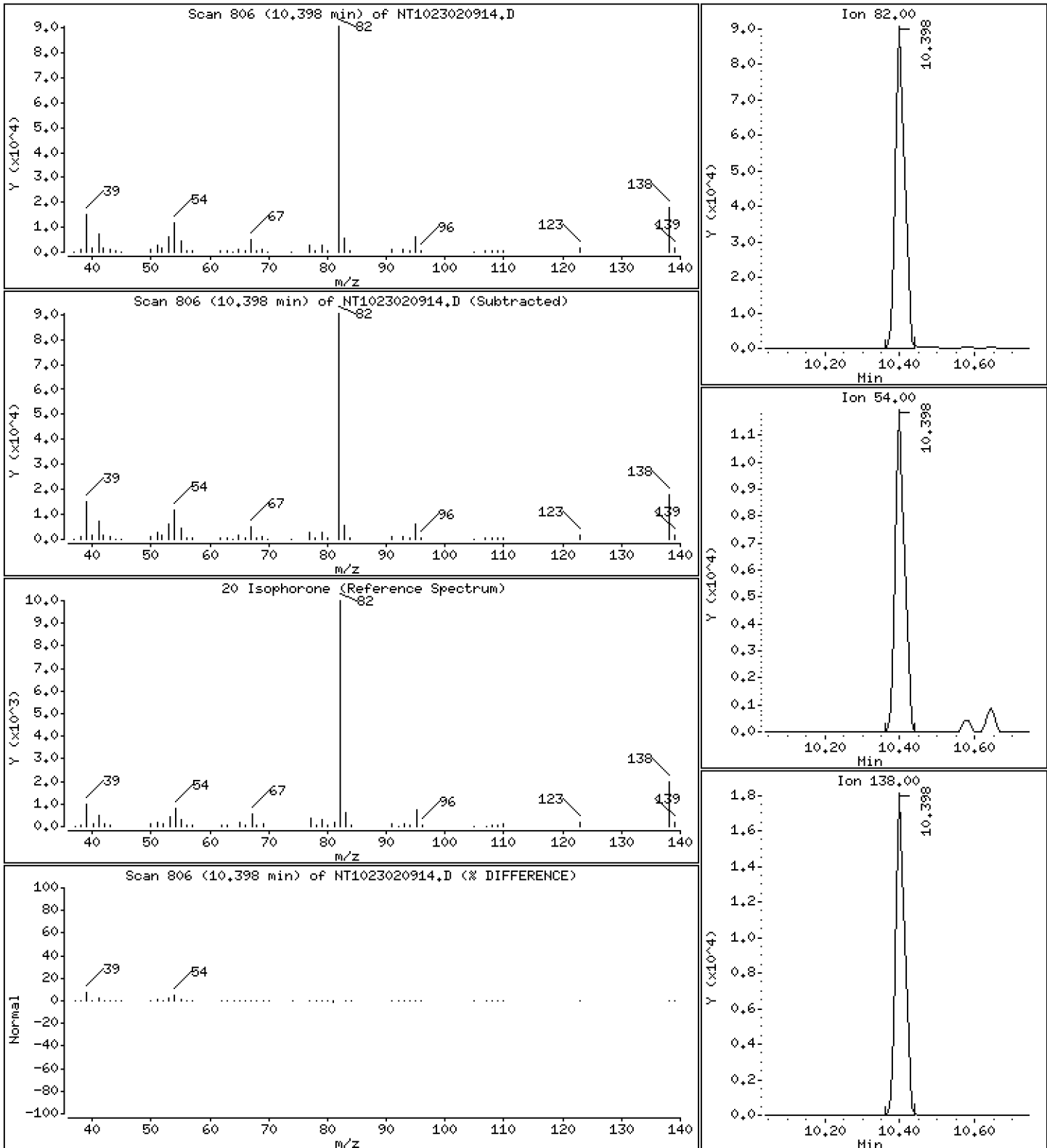
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 5,319 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

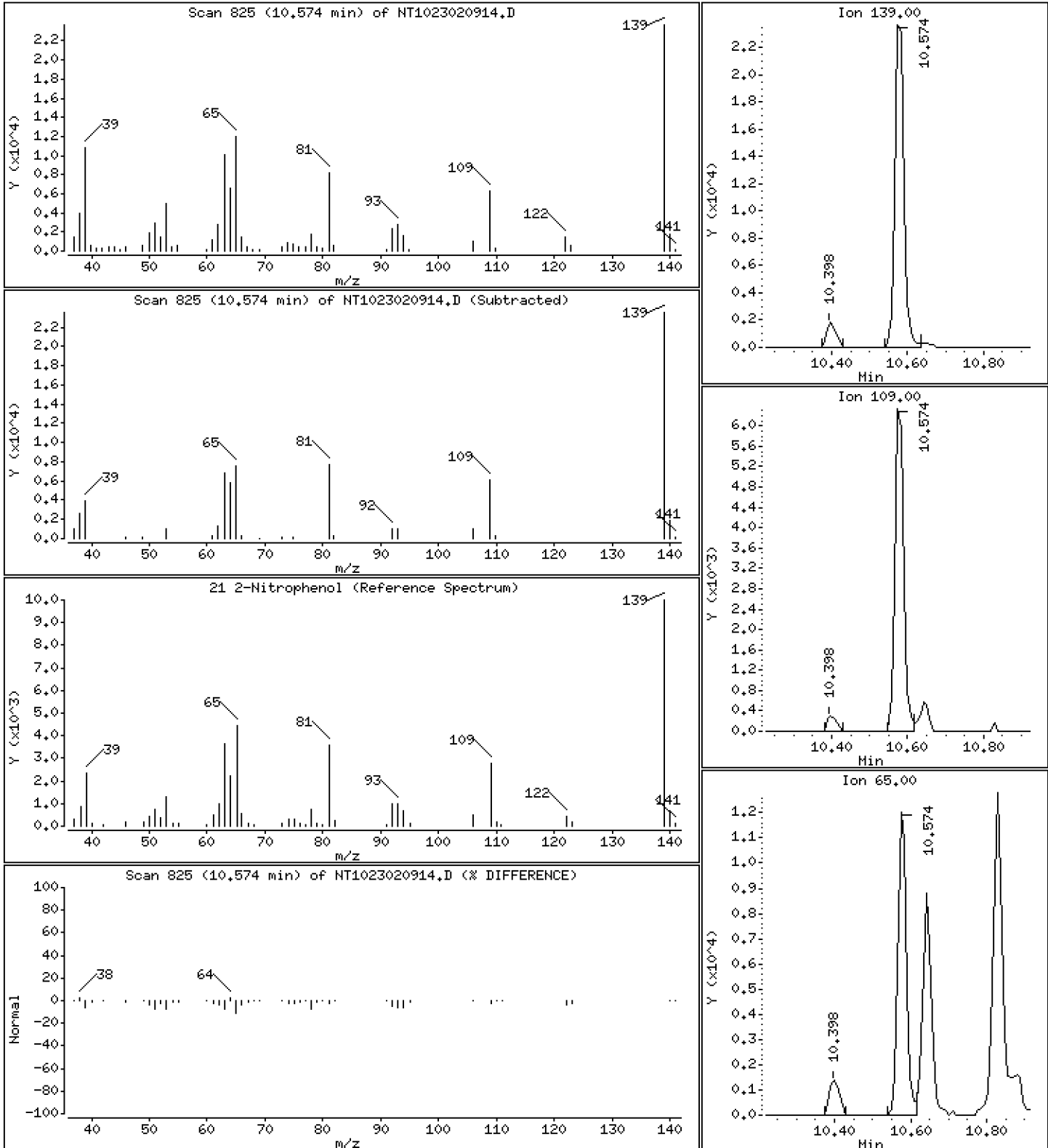
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 3,587 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

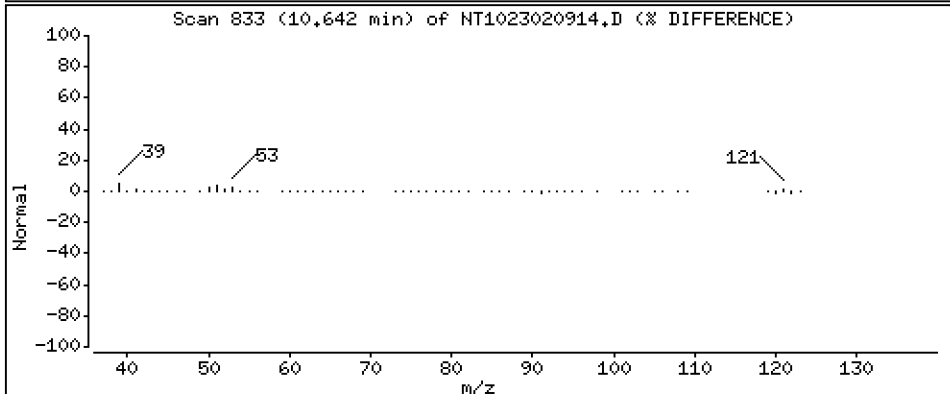
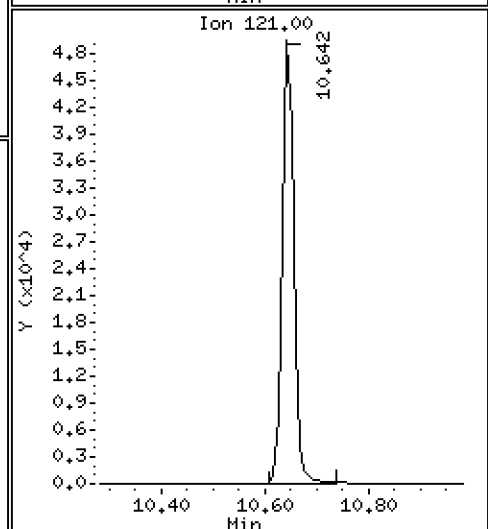
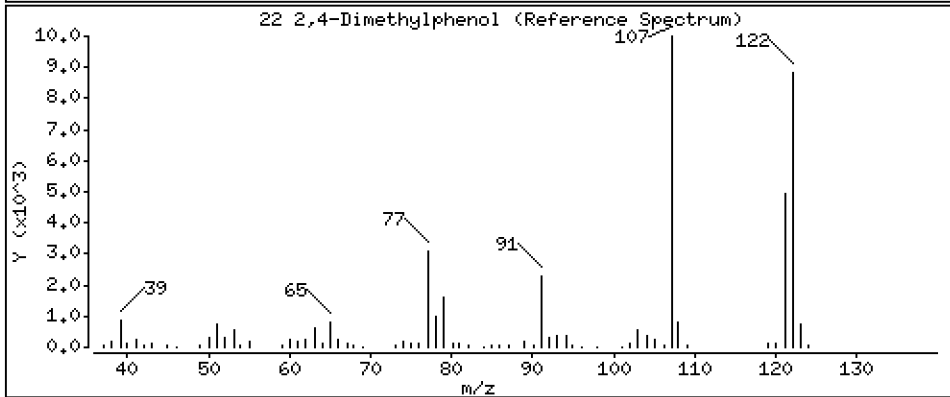
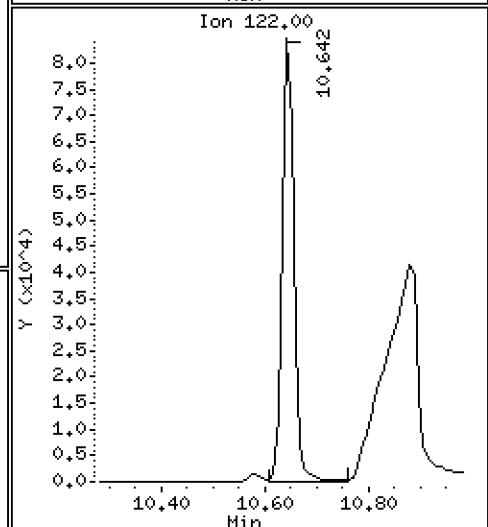
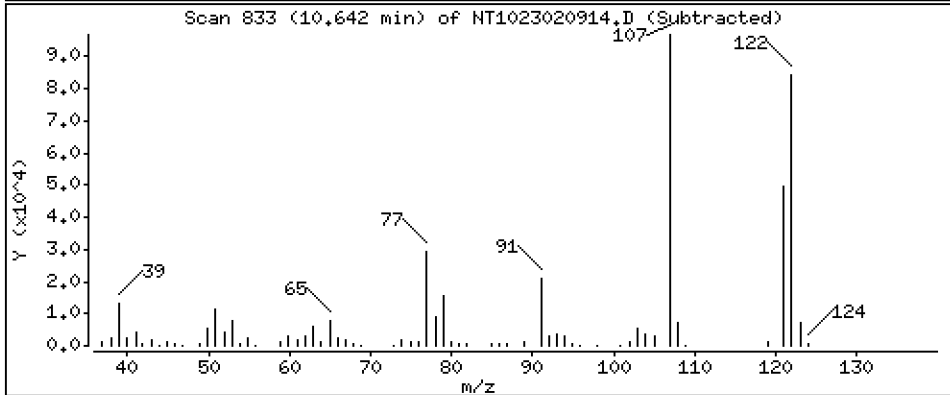
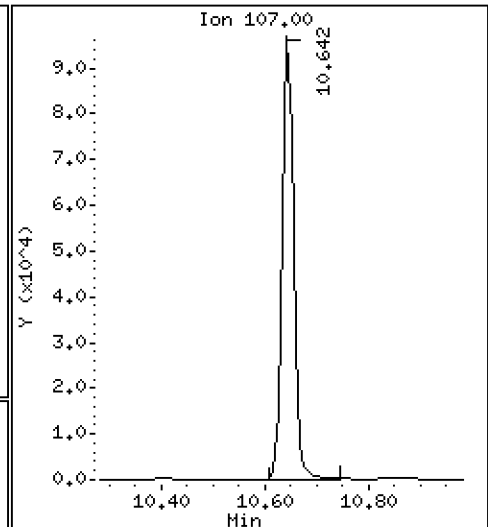
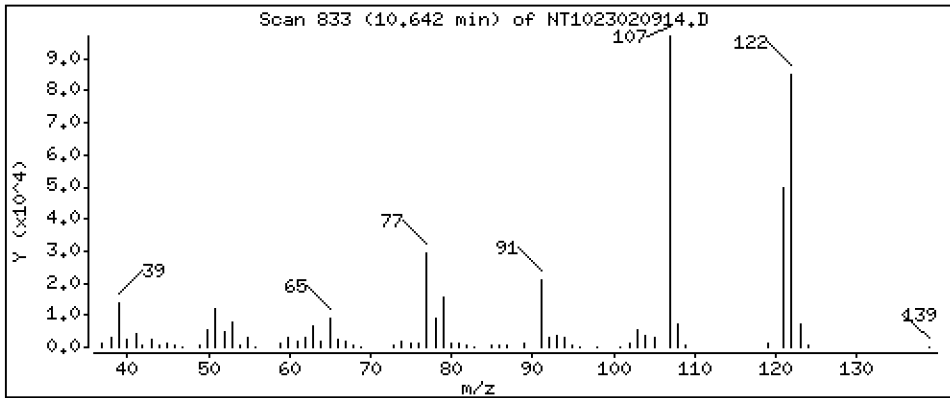
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 7,690 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

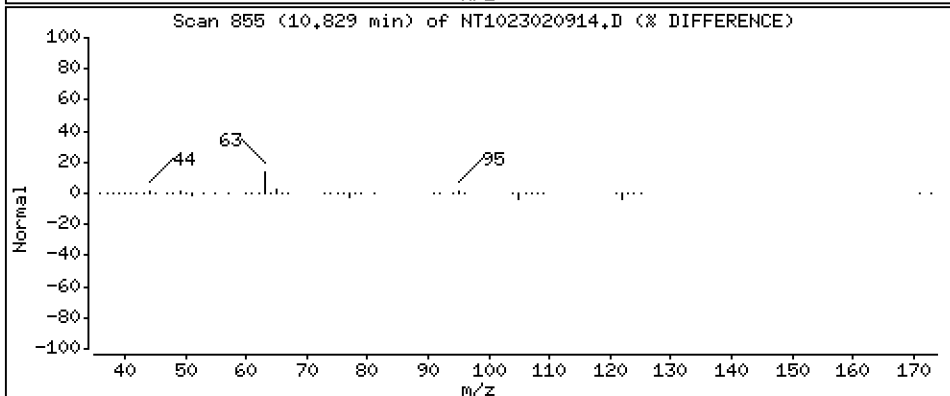
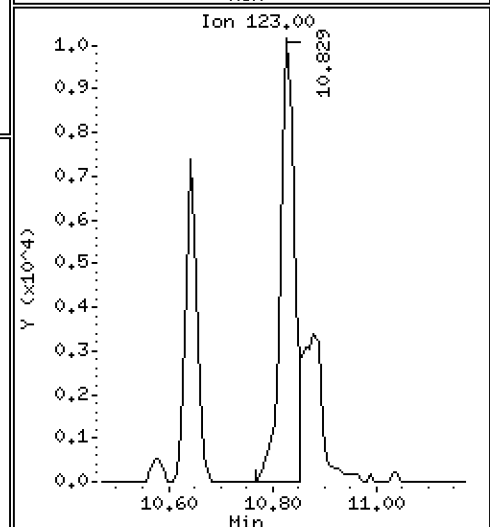
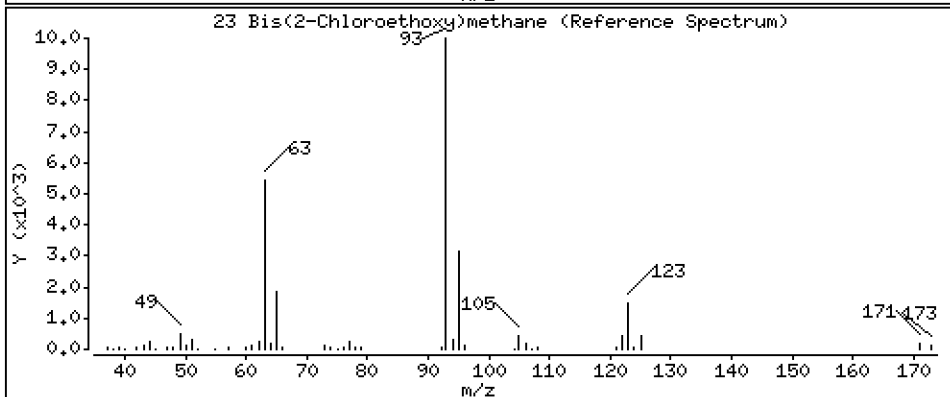
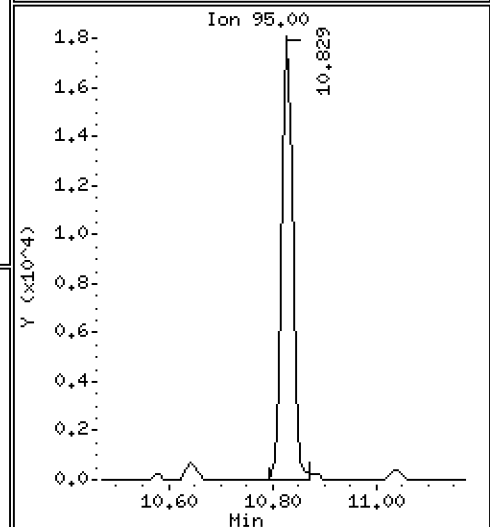
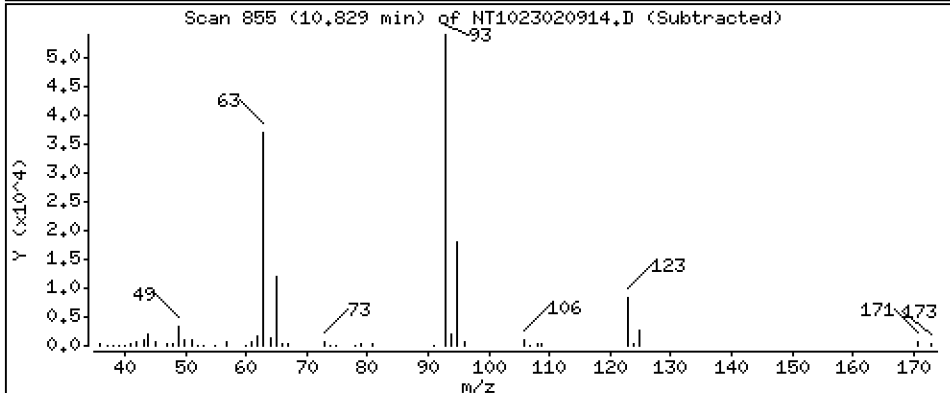
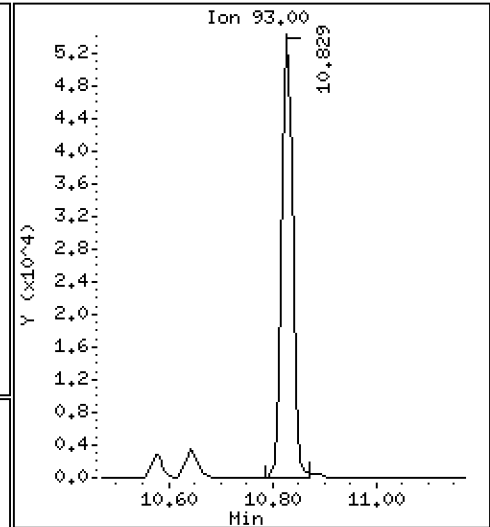
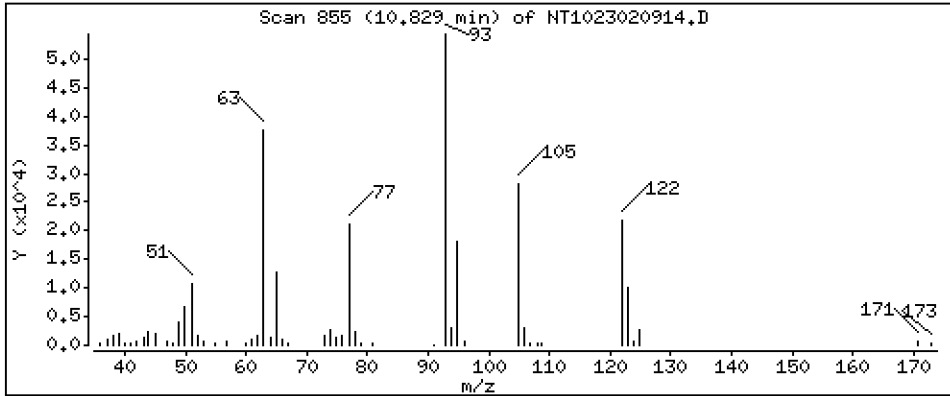
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 4,268 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

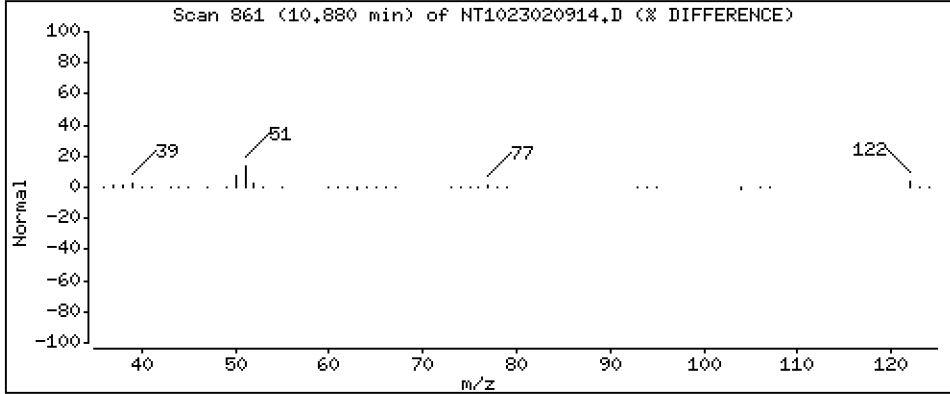
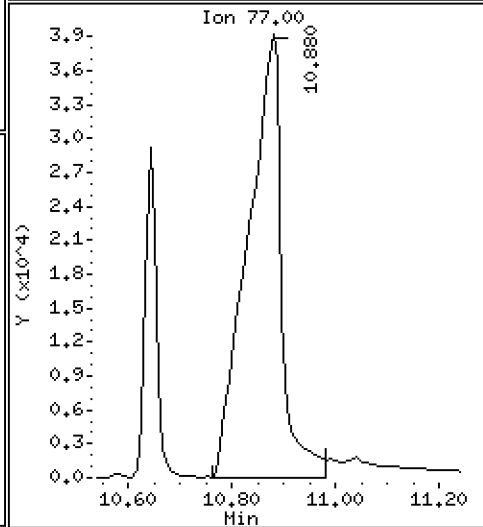
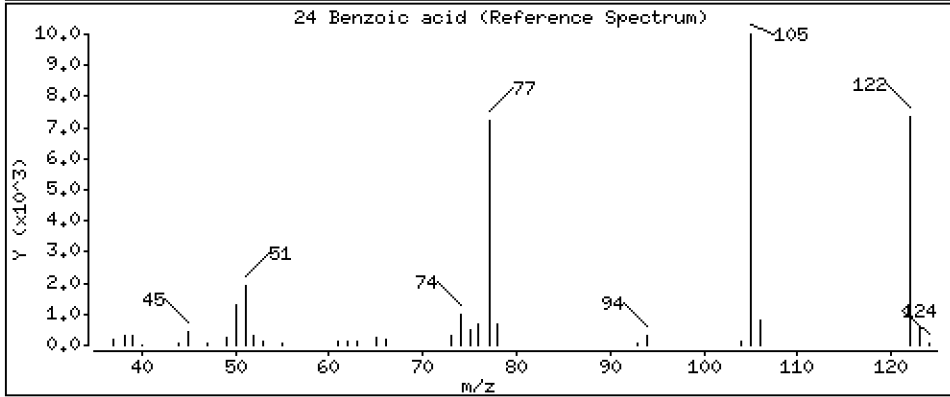
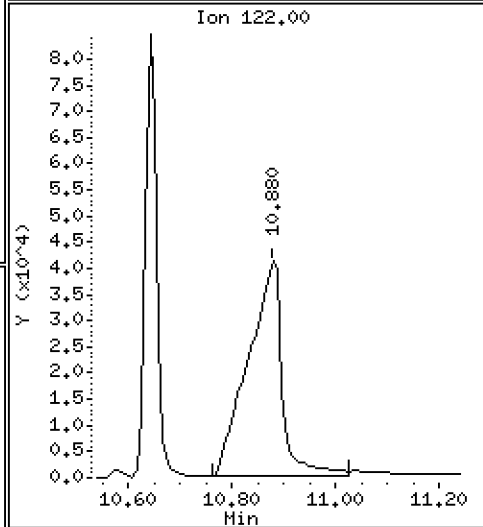
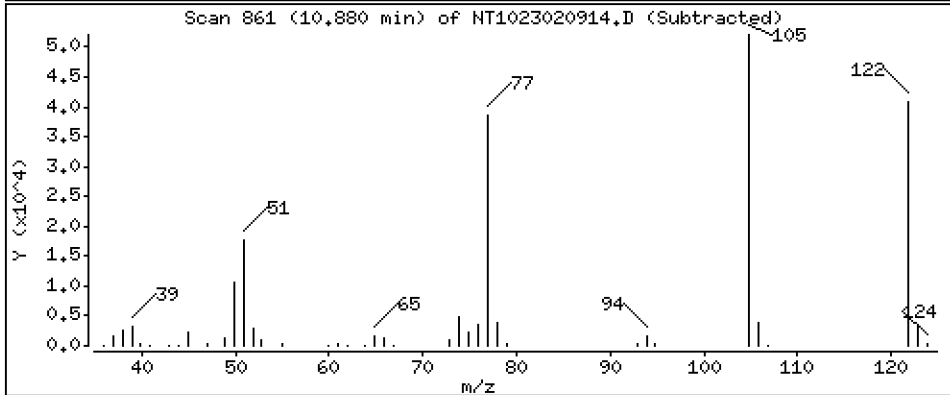
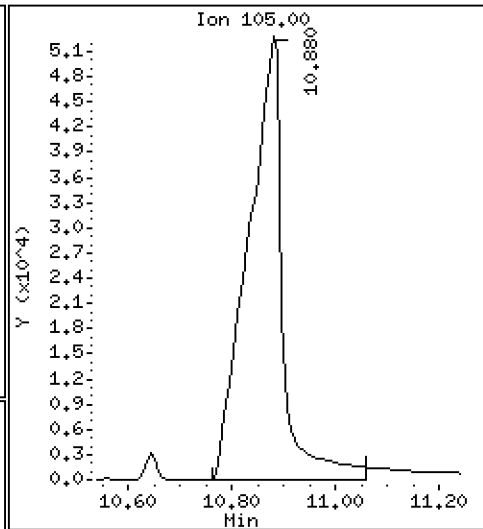
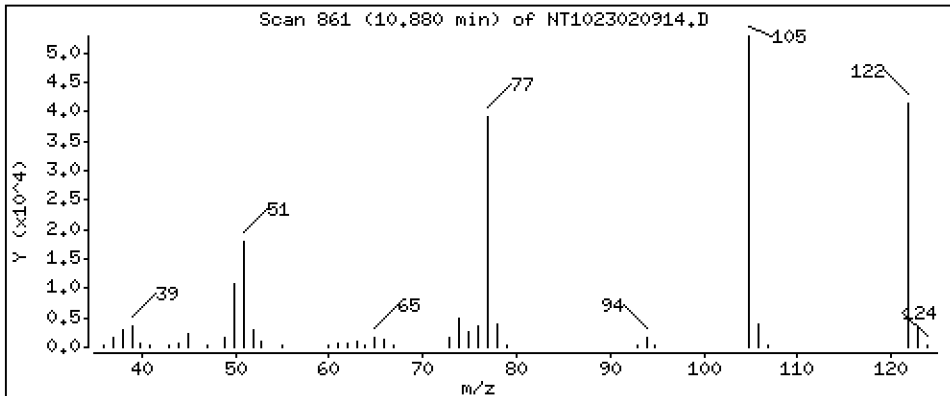
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 21,47 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

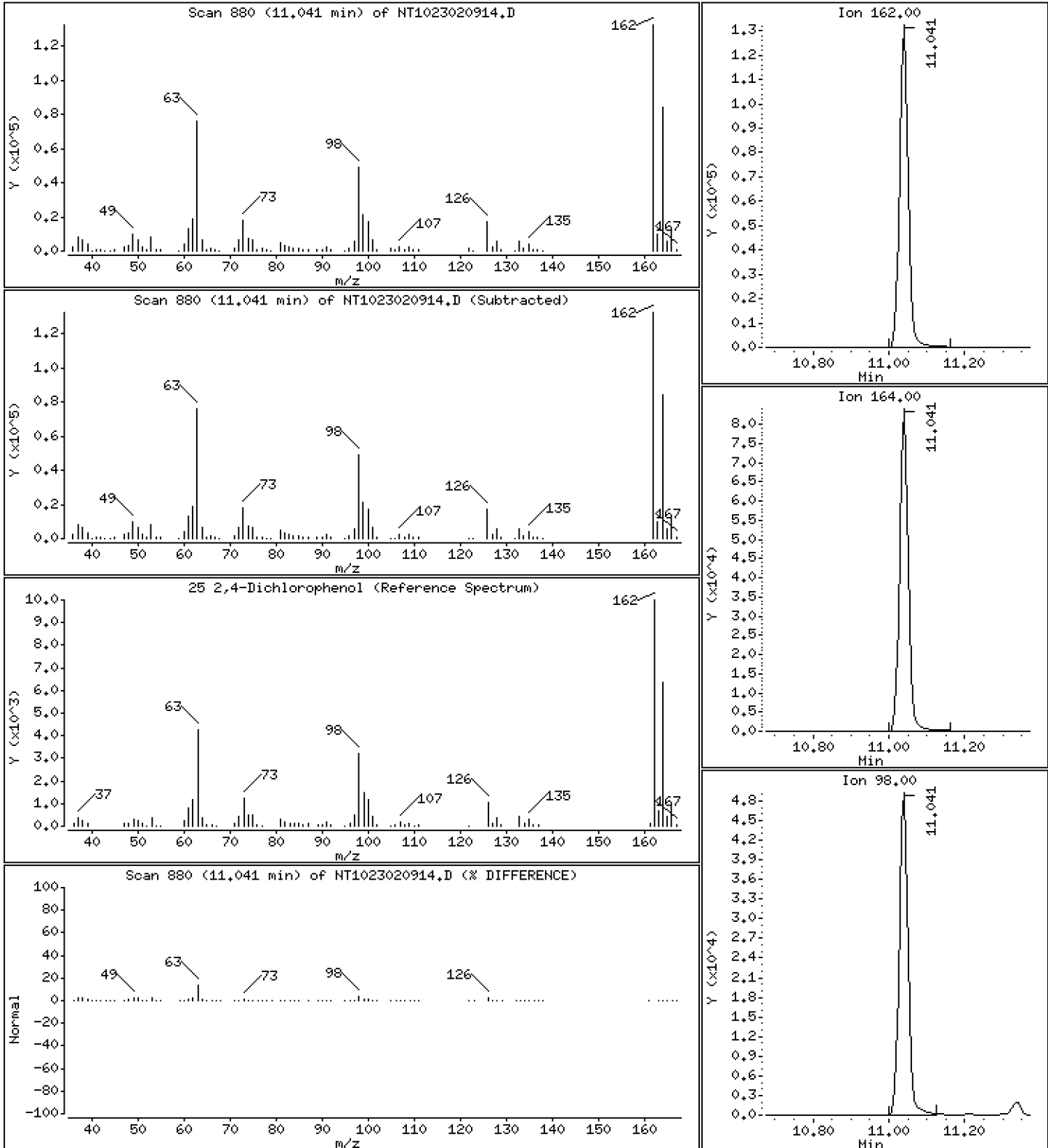
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 14,08 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

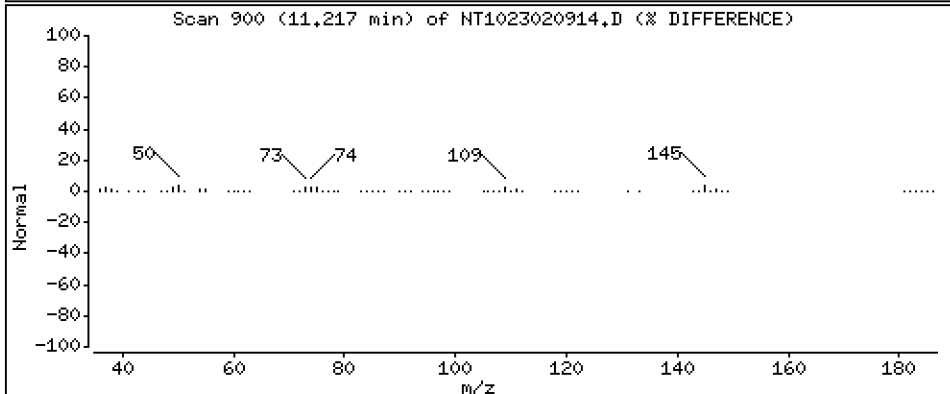
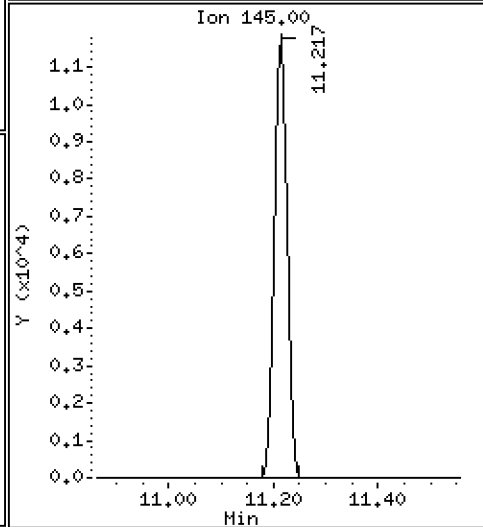
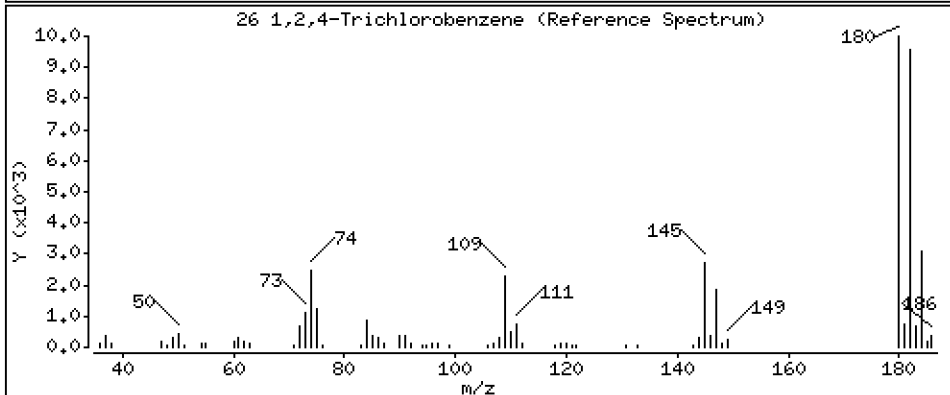
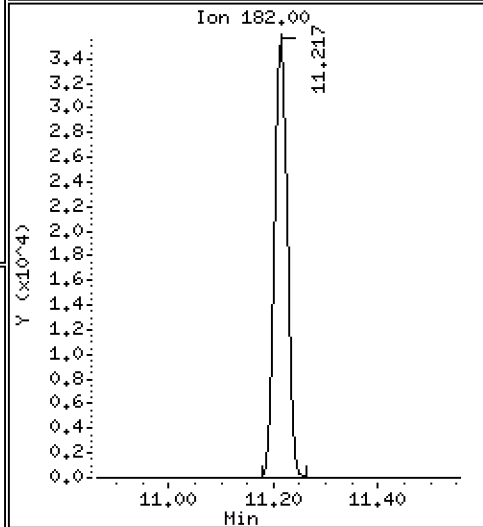
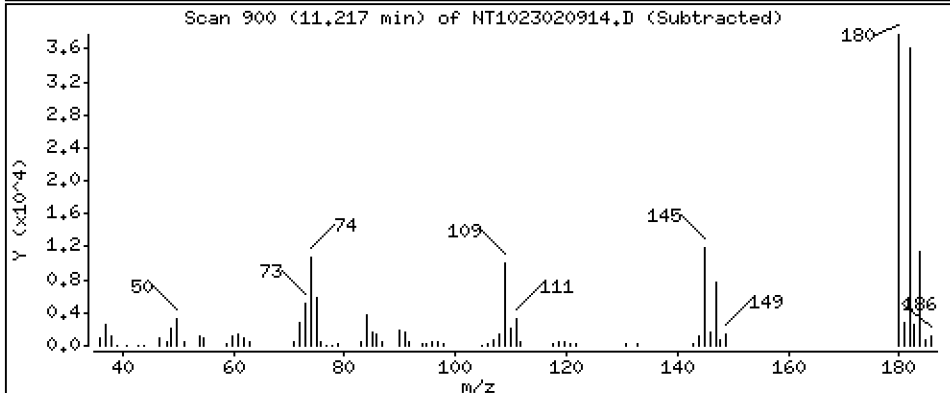
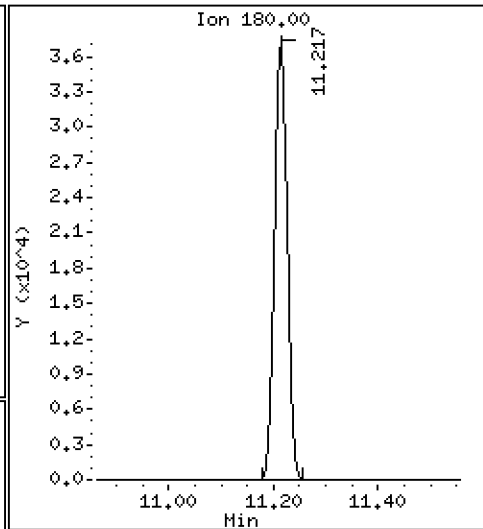
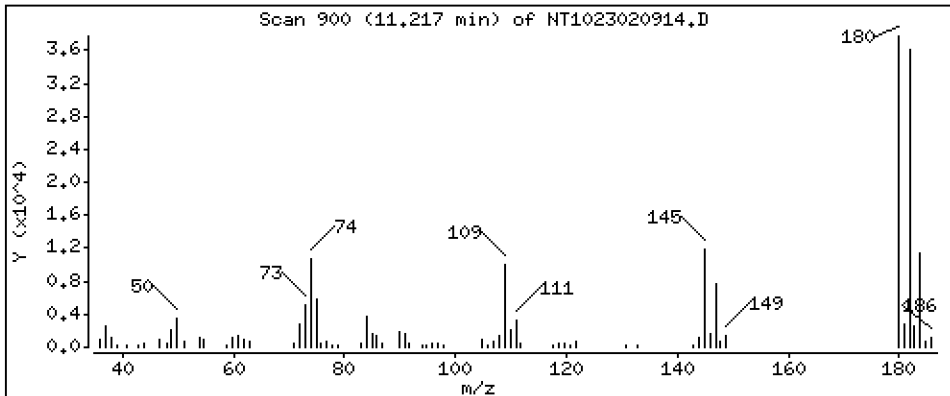
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 3,487 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

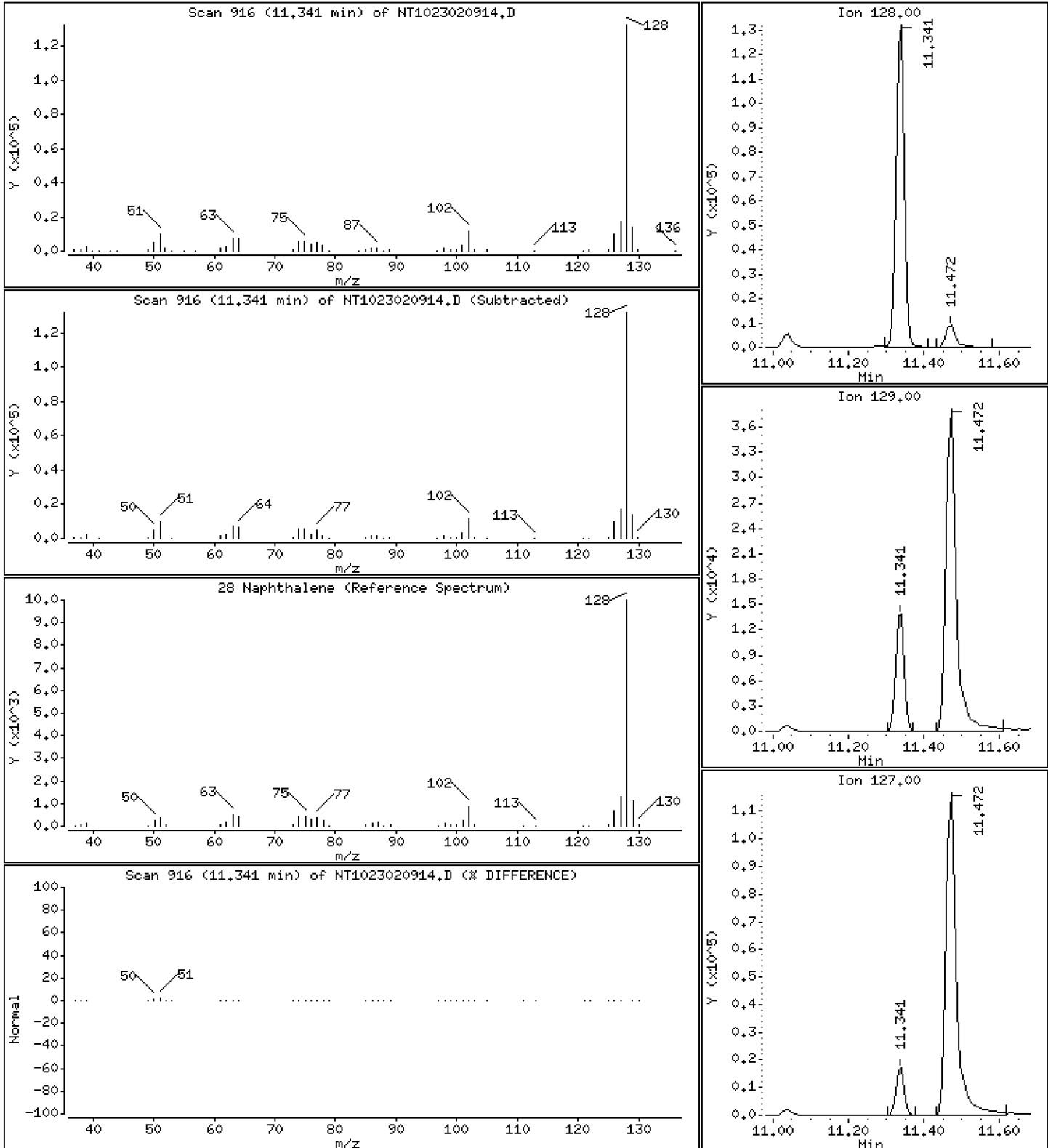
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

28 Naphthalene

Concentration: 3.627 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

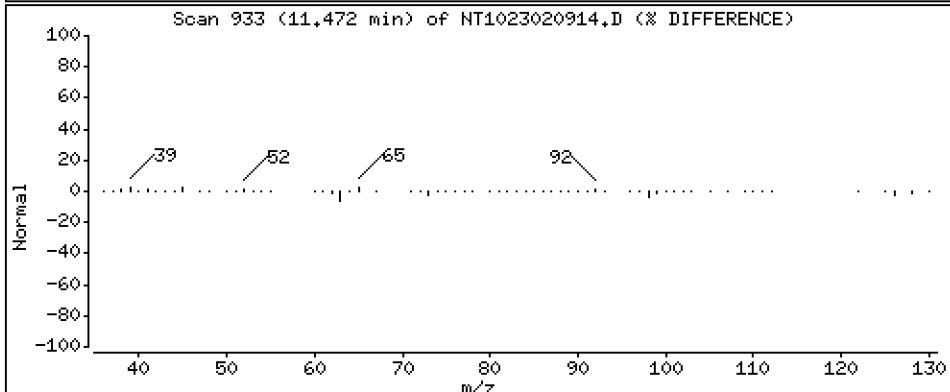
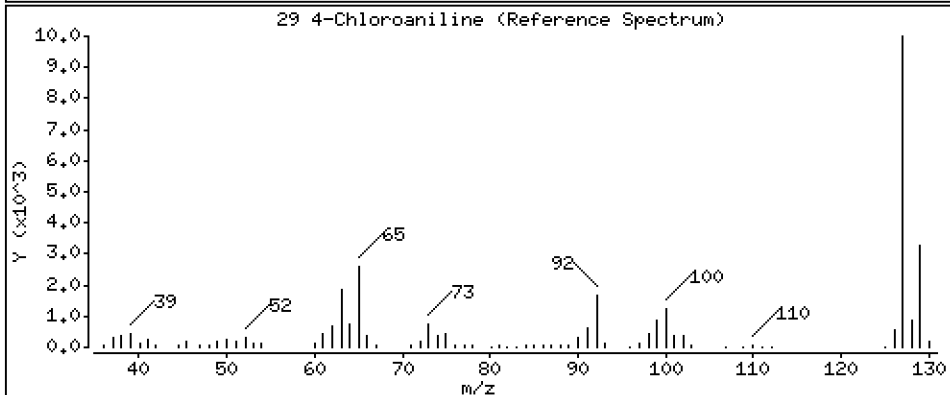
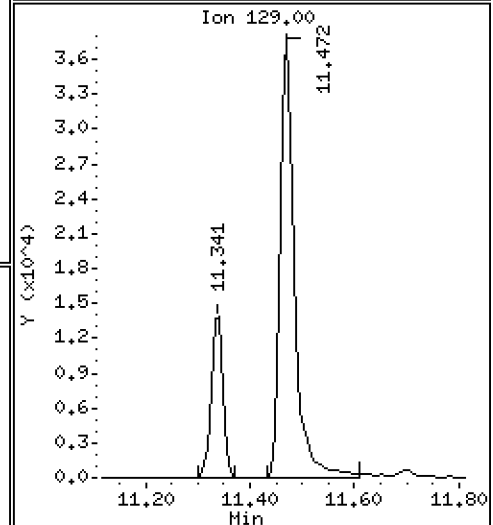
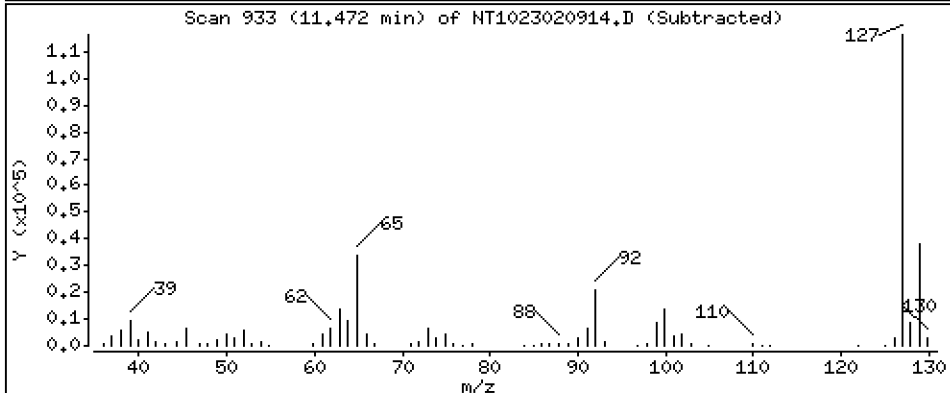
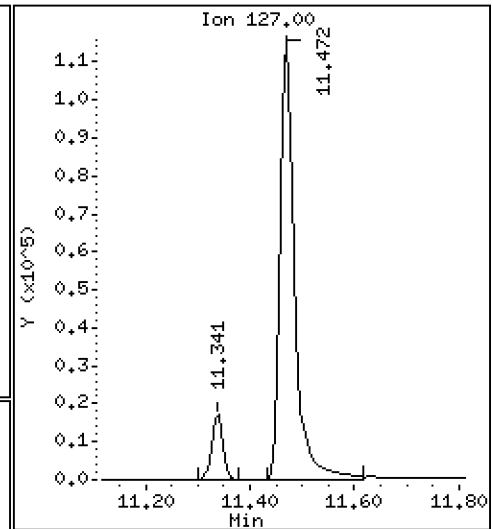
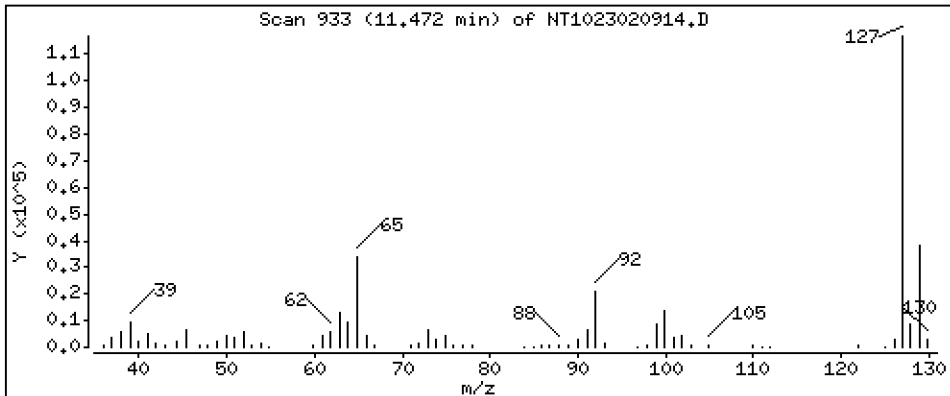
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 9,108 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

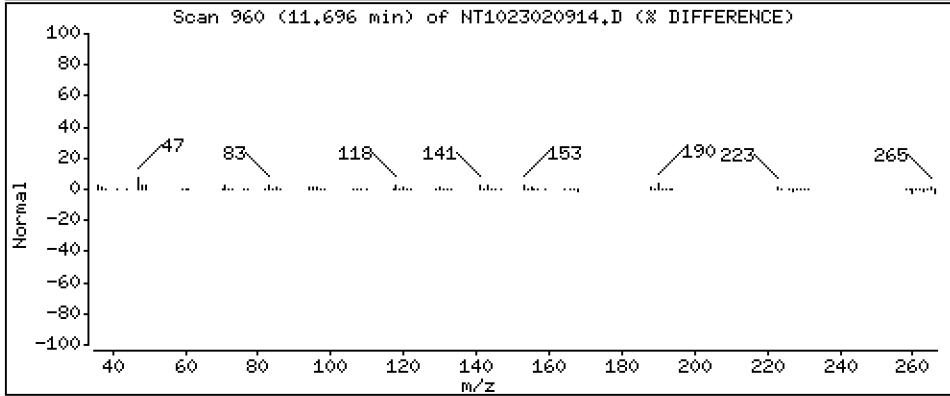
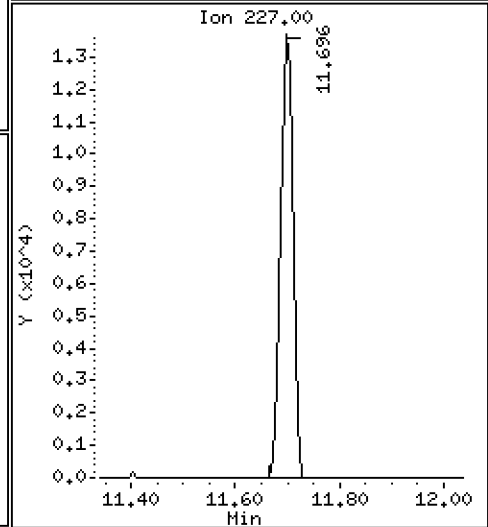
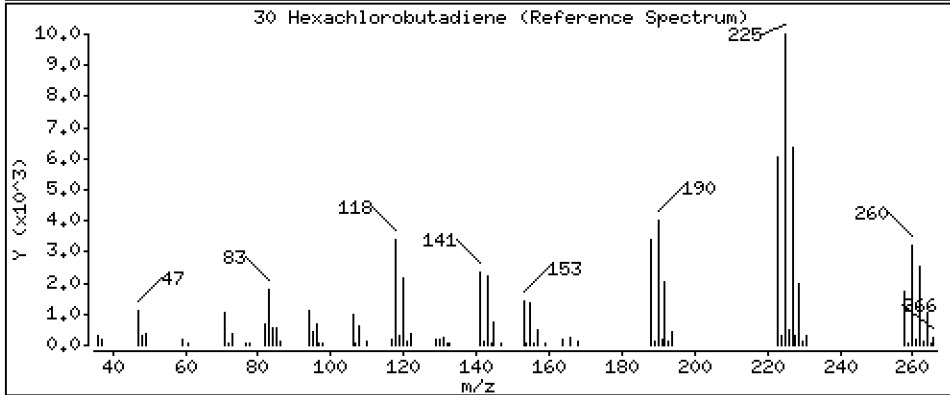
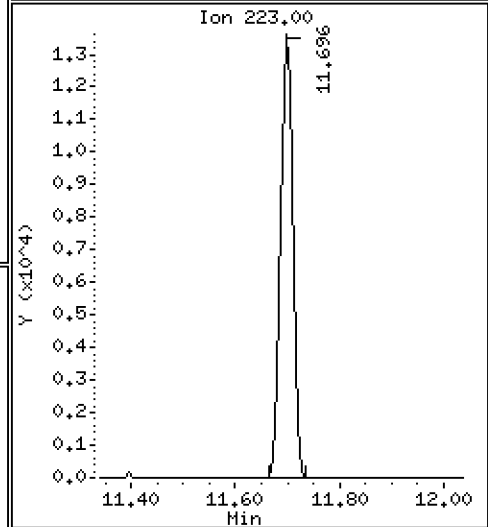
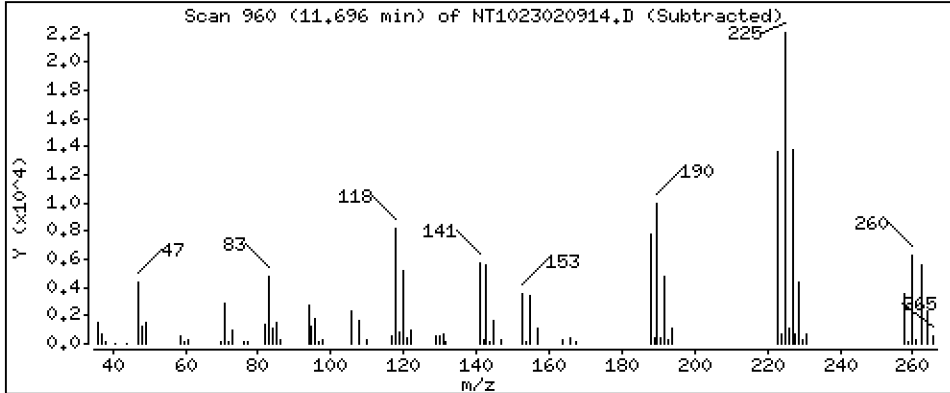
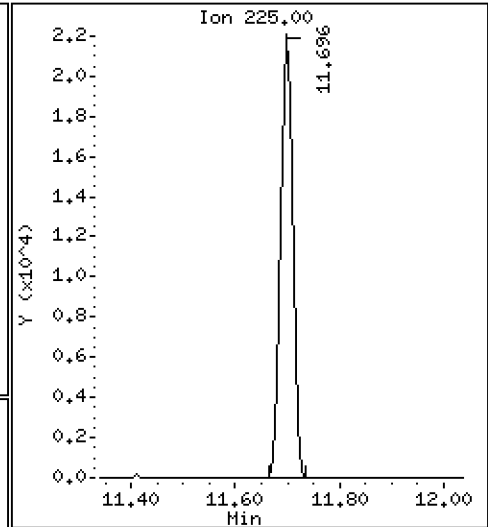
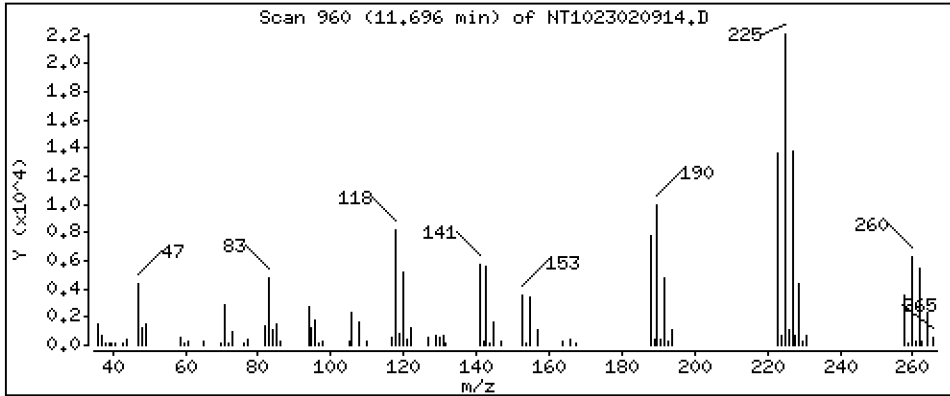
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 3,792 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

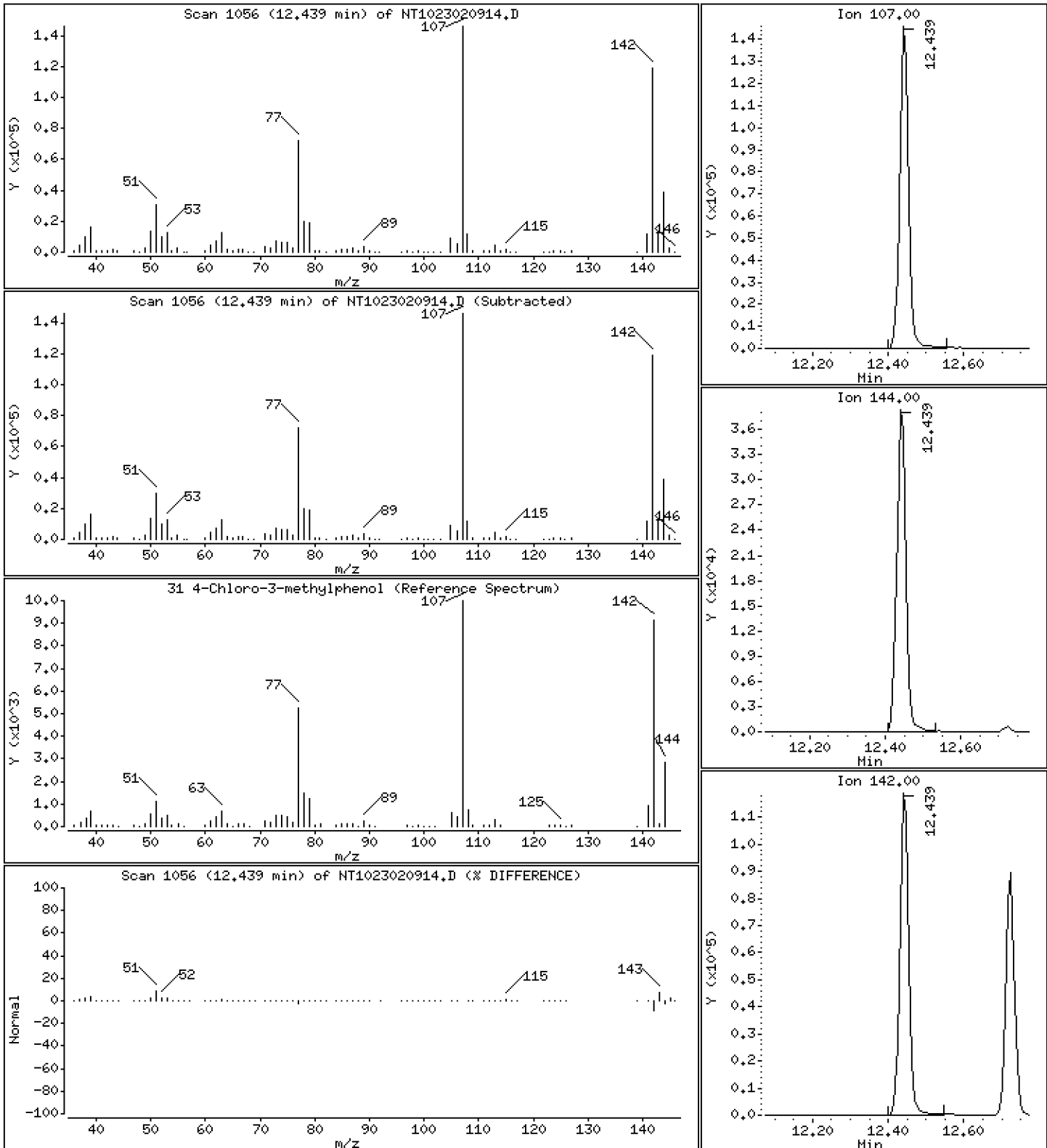
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 13,96 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

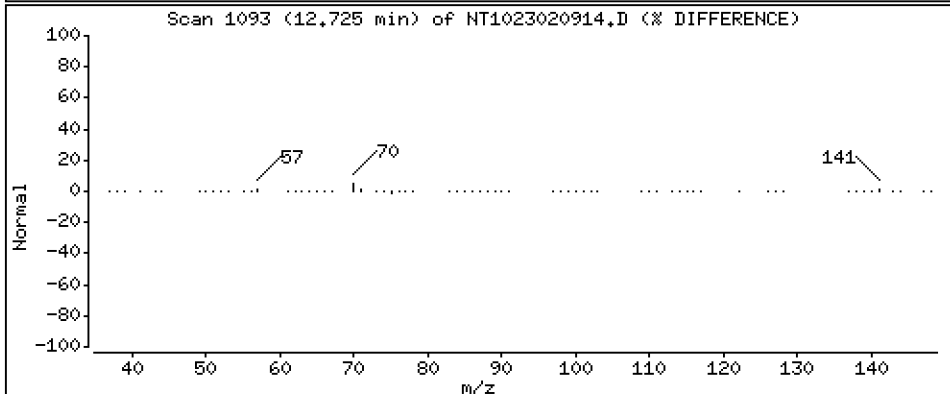
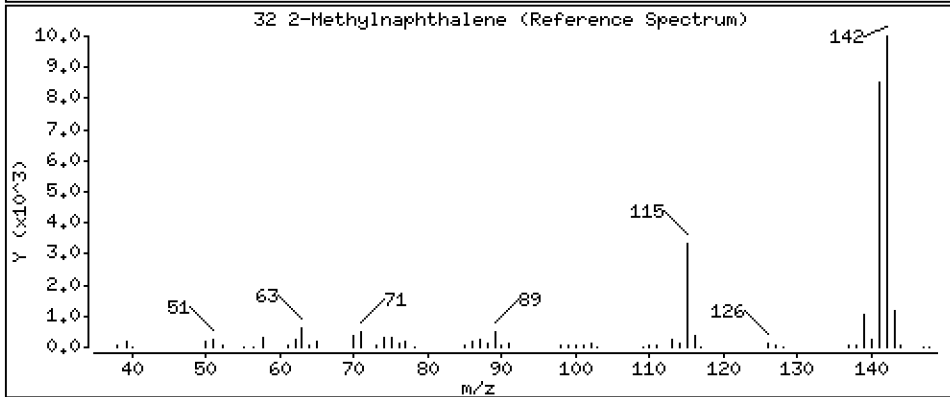
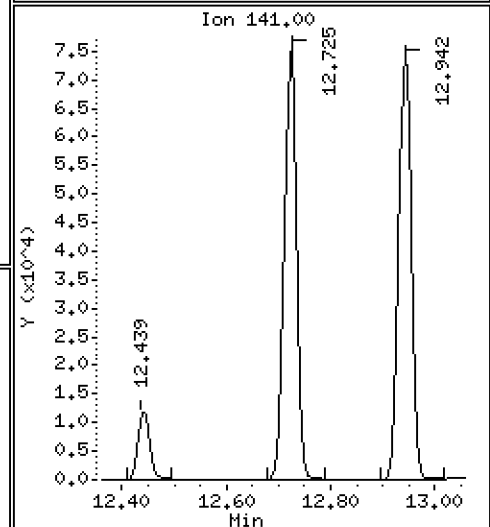
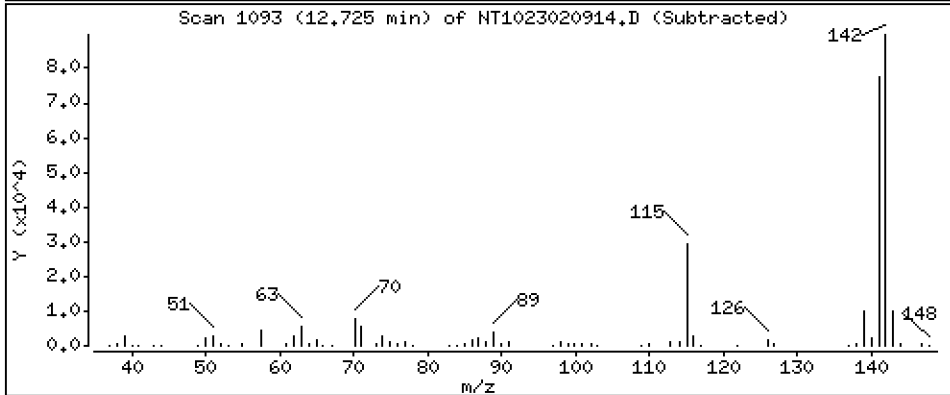
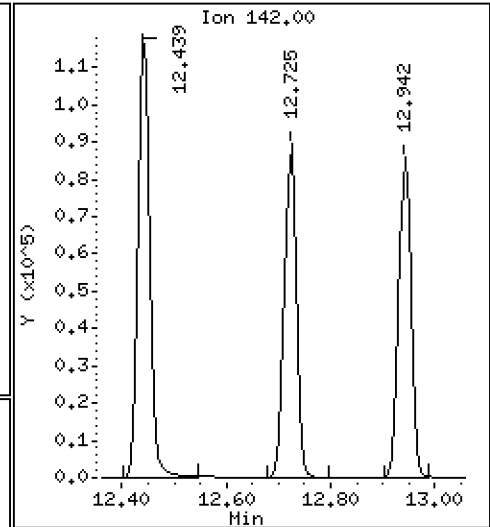
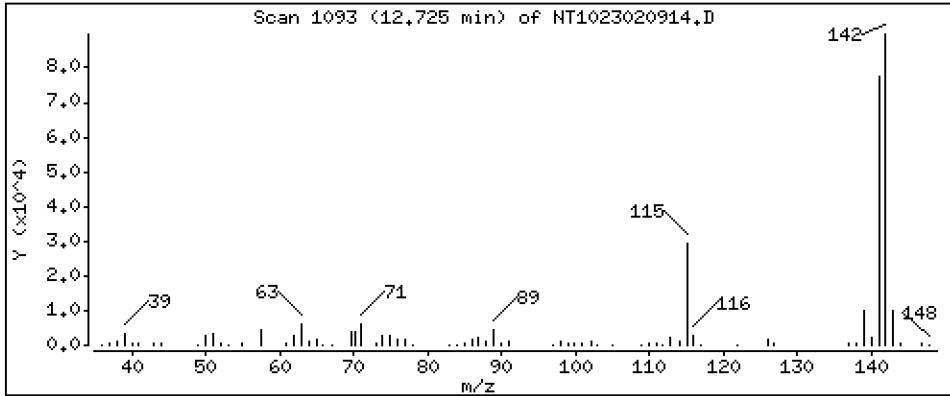
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 3,516 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

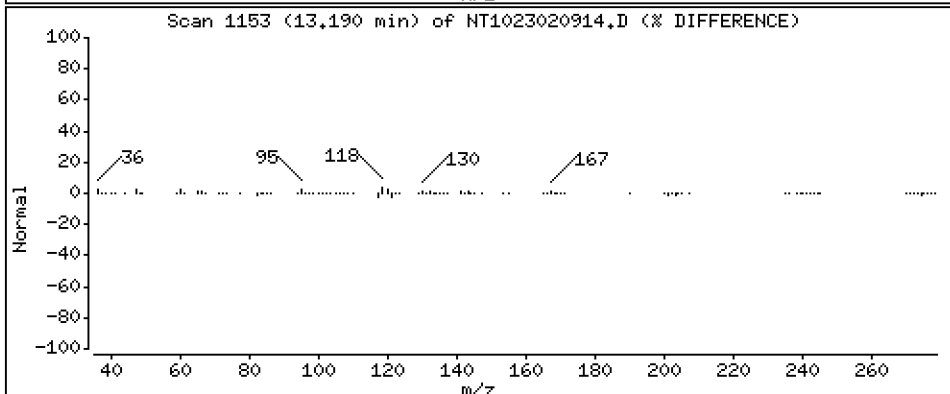
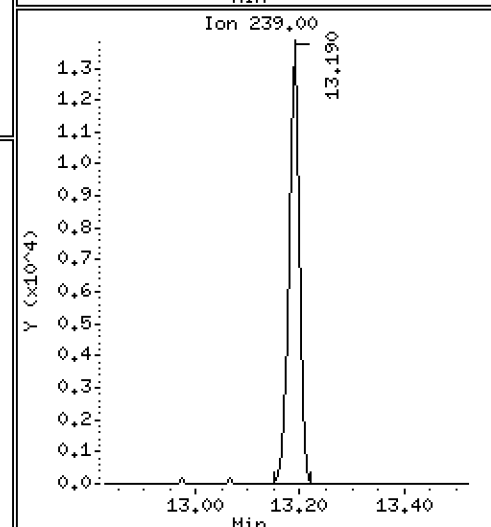
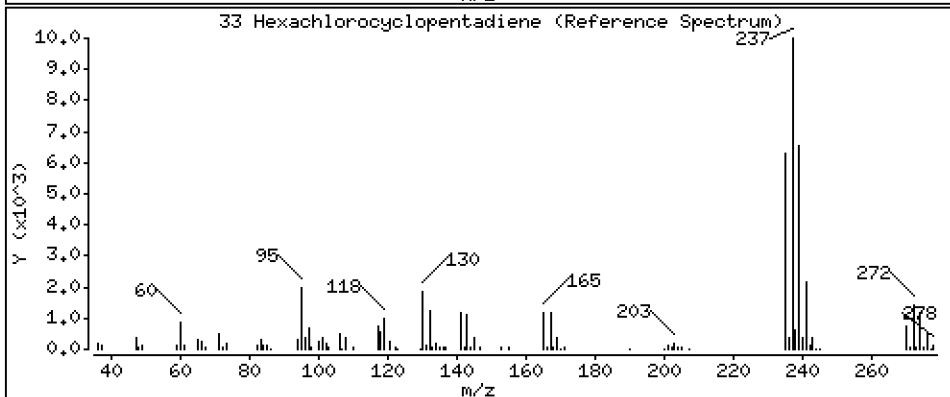
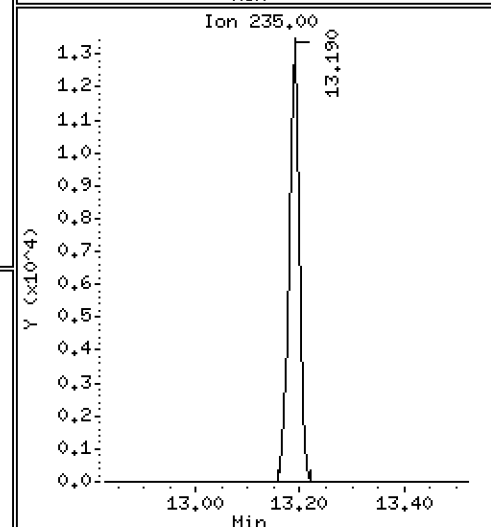
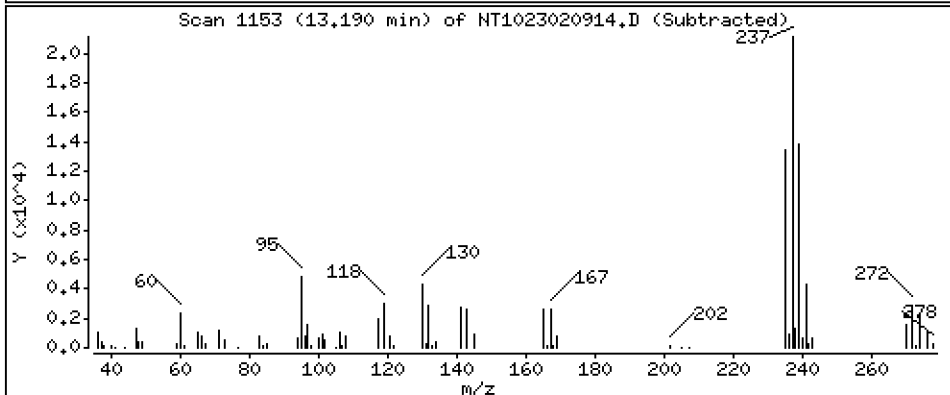
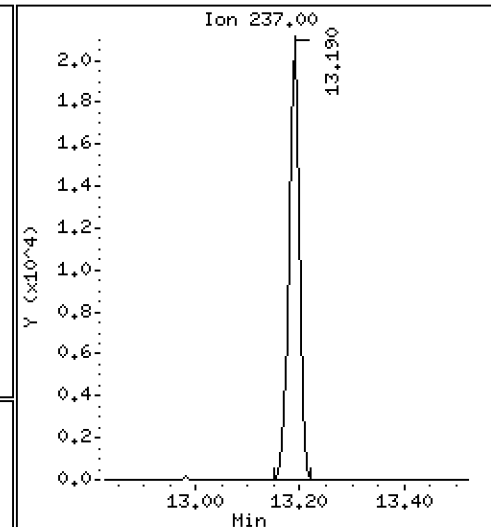
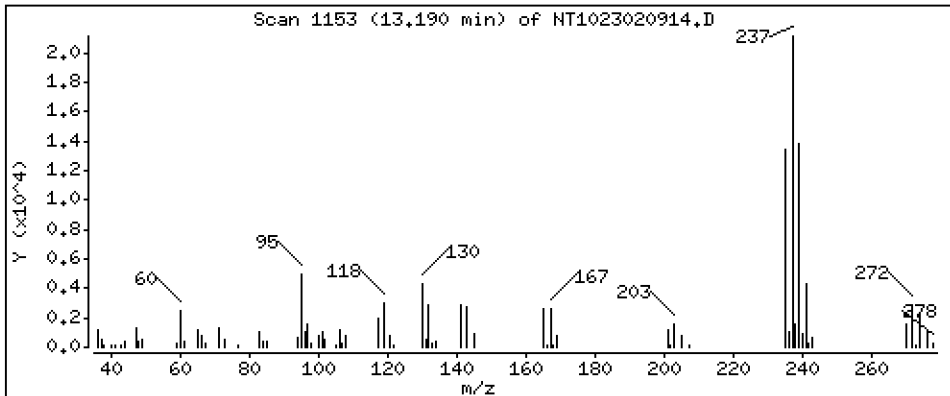
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 4,449 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

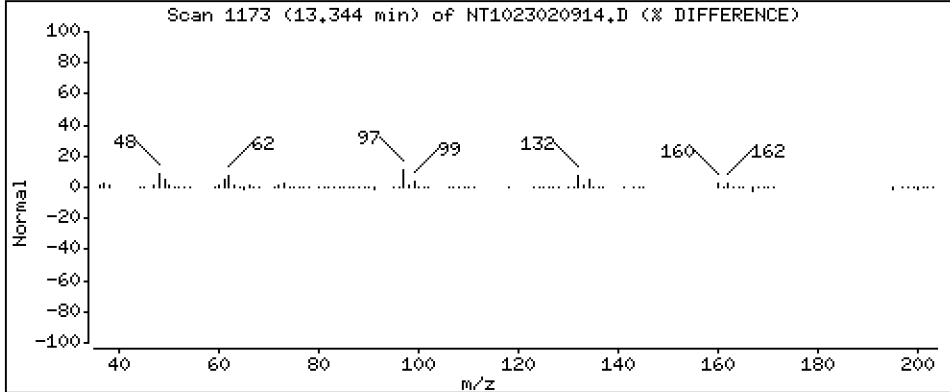
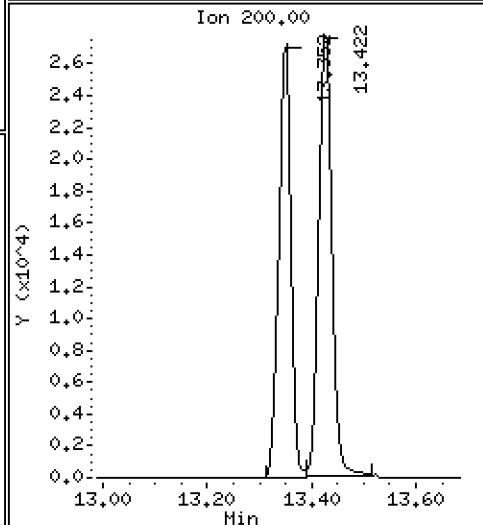
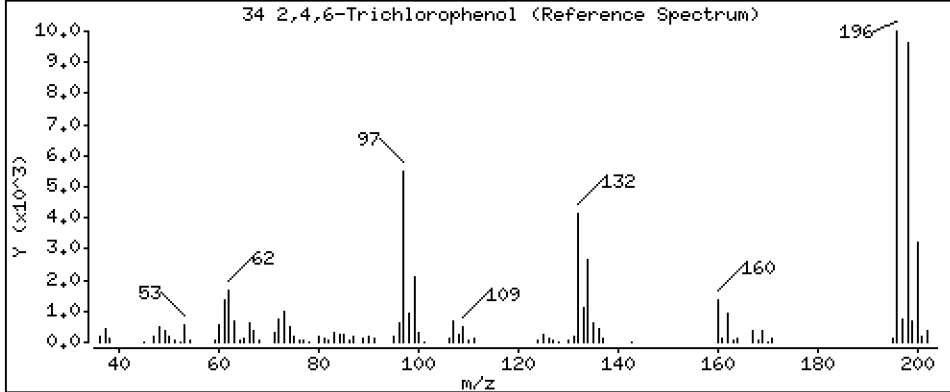
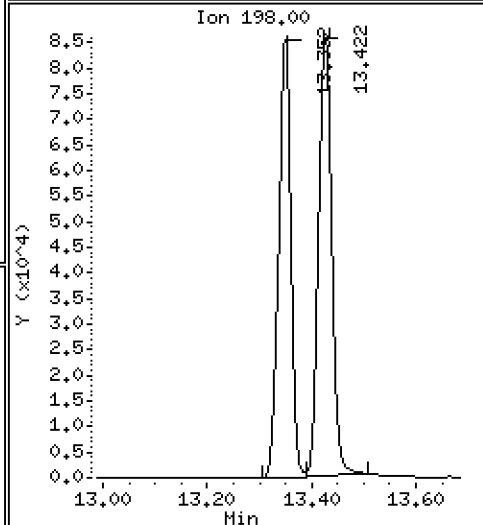
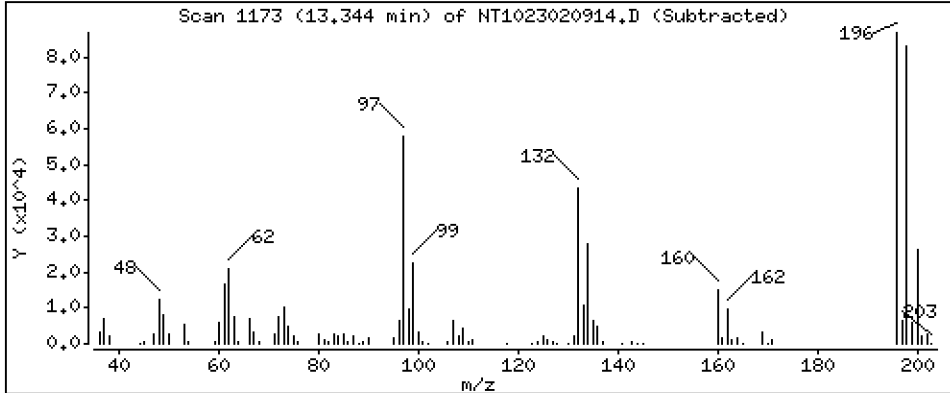
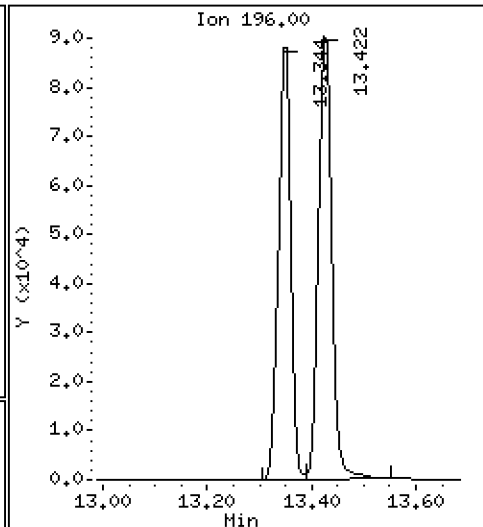
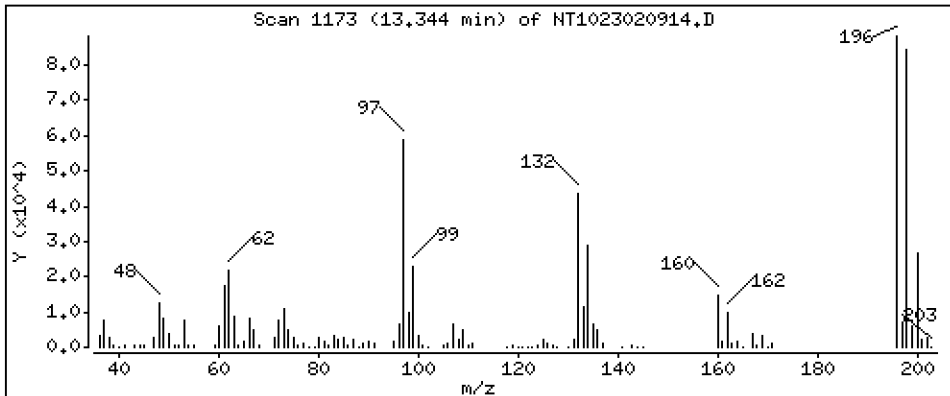
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 15,23 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

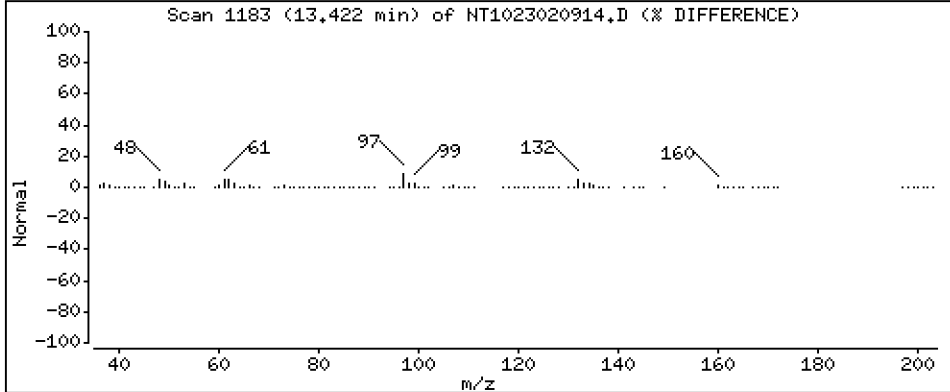
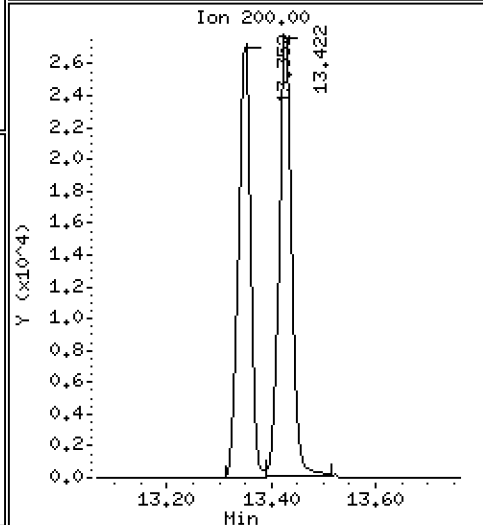
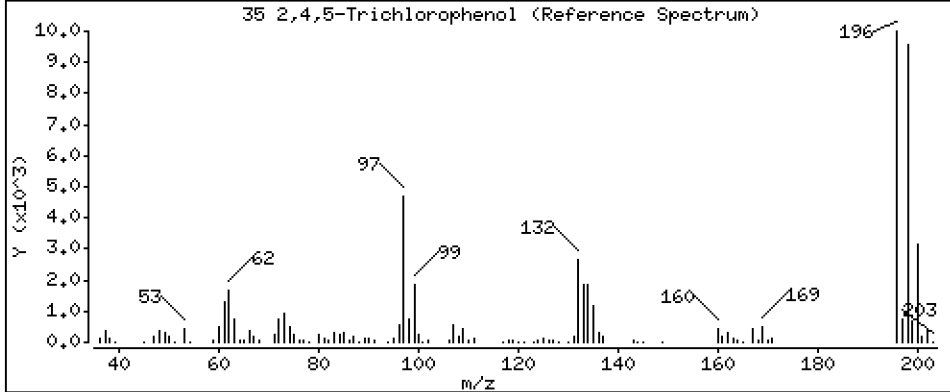
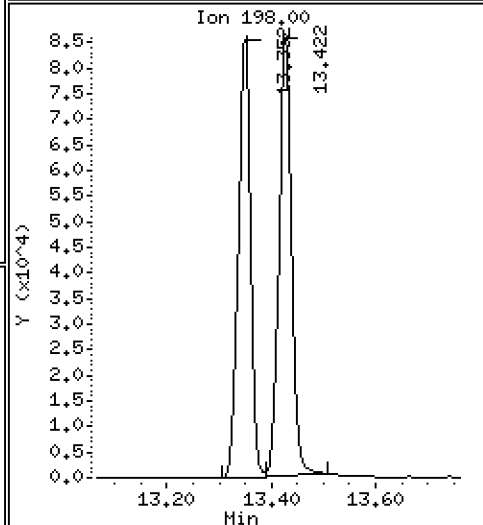
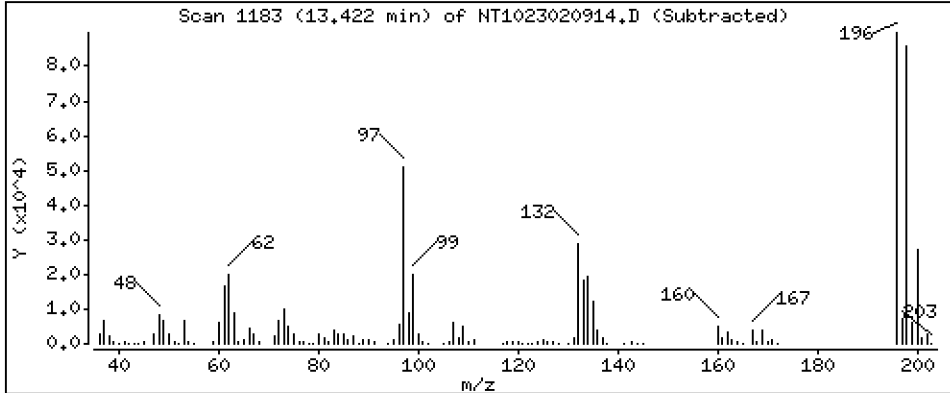
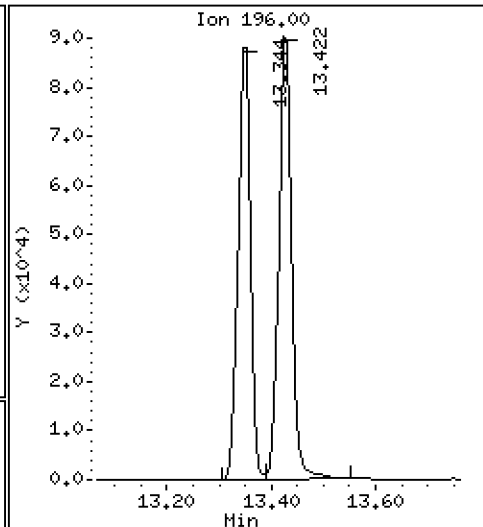
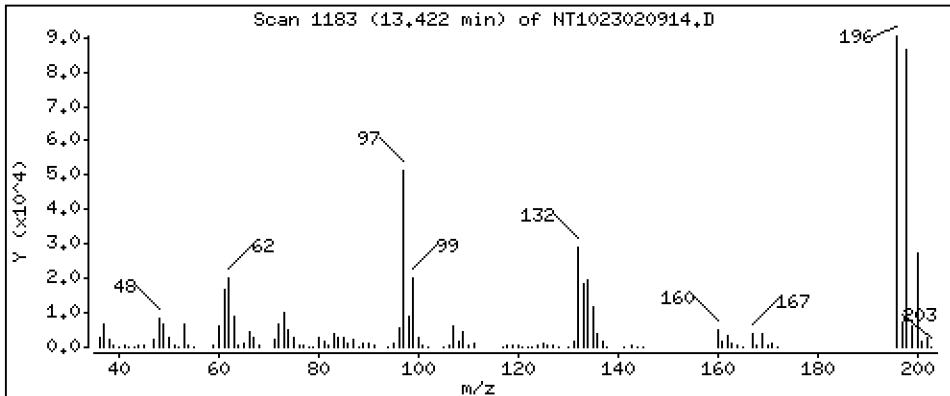
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 15,05 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

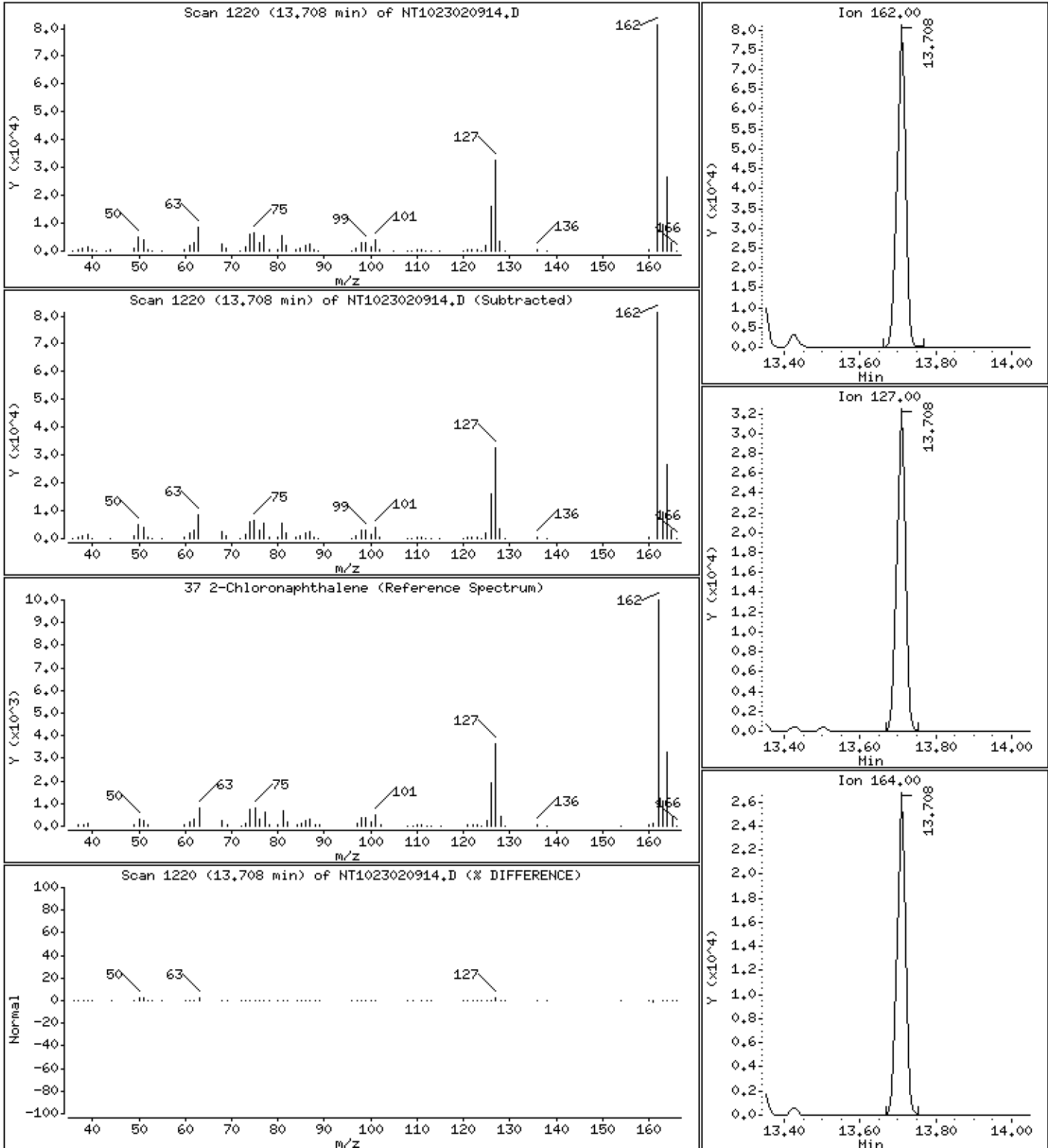
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 3,752 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

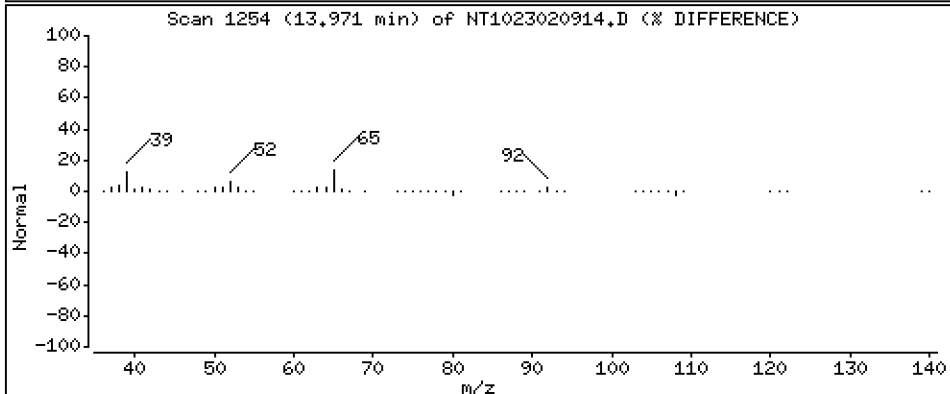
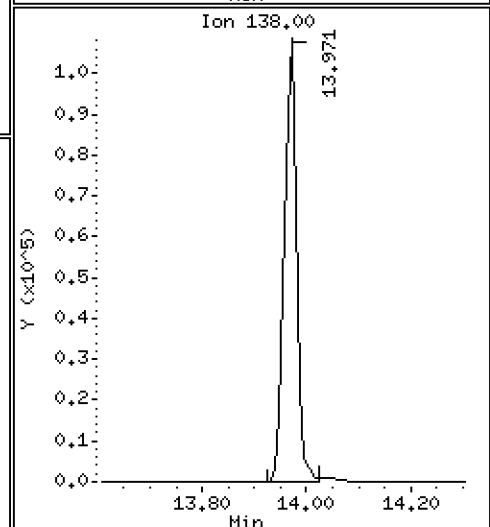
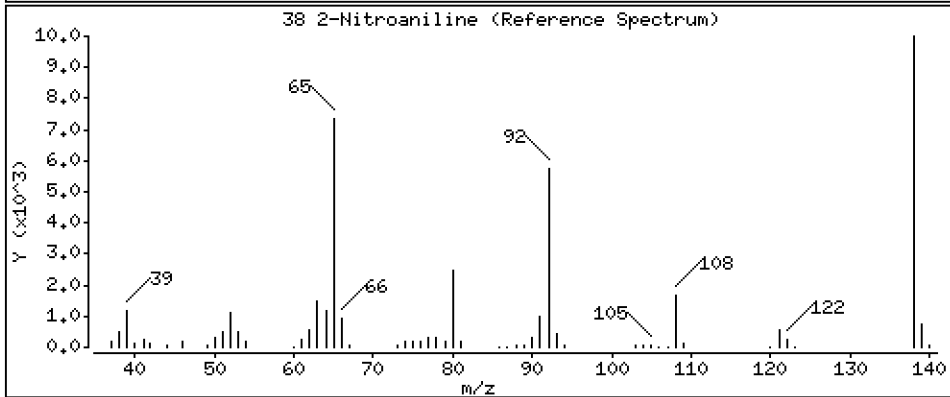
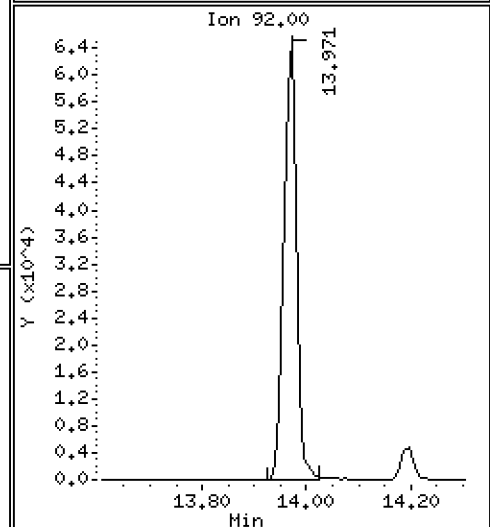
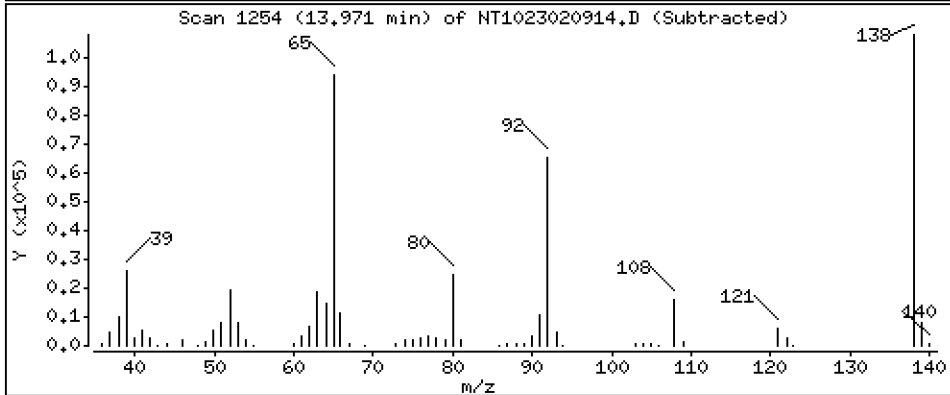
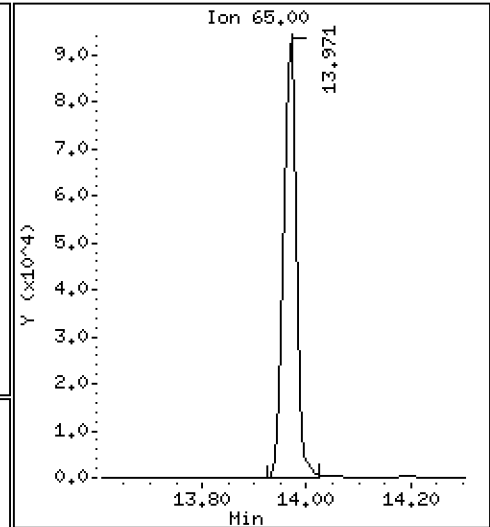
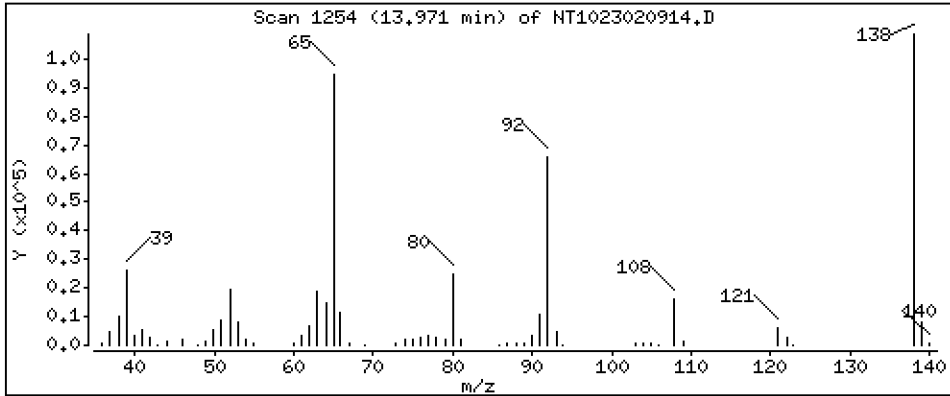
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

38 2-Nitroaniline

Concentration: 17.08 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

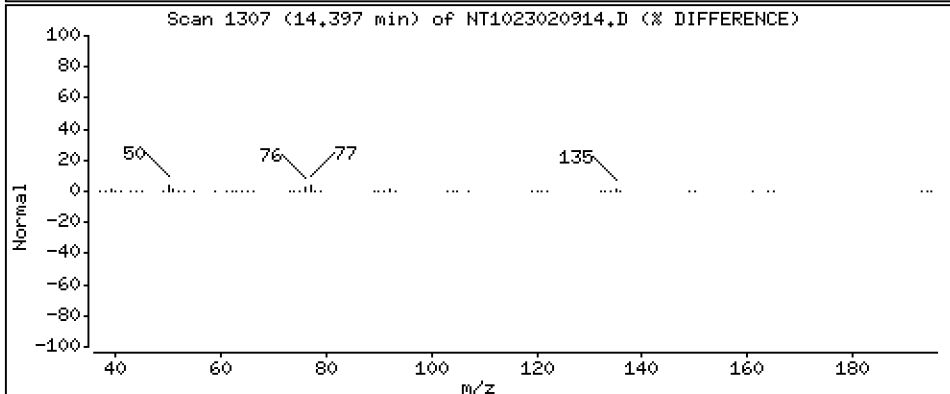
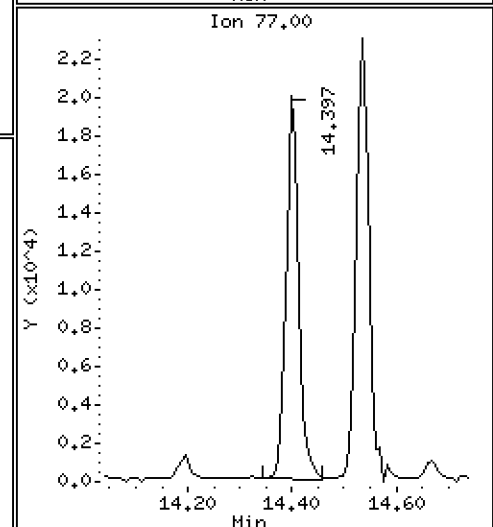
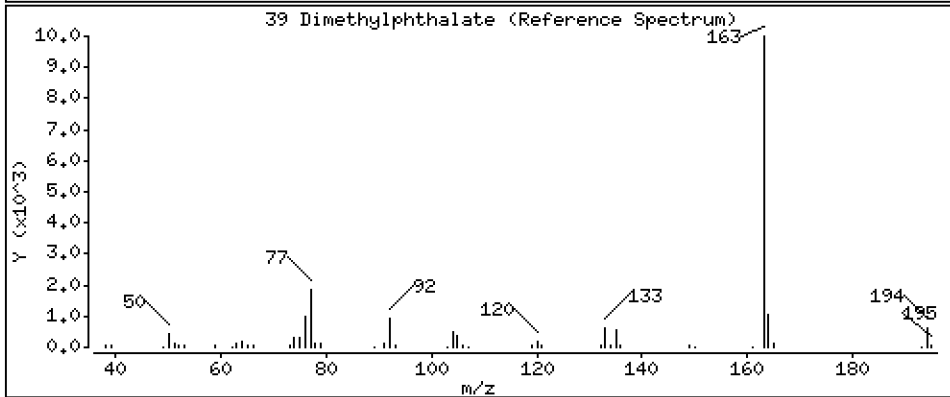
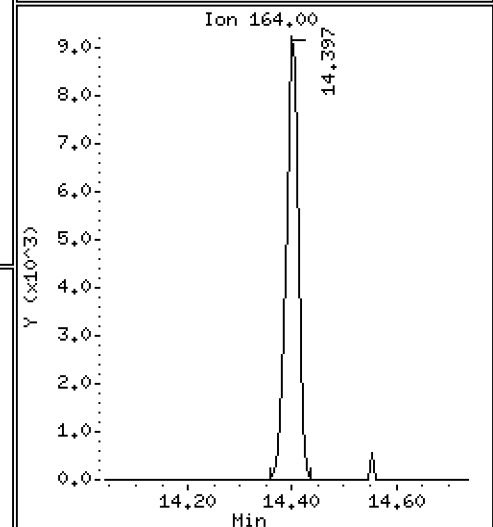
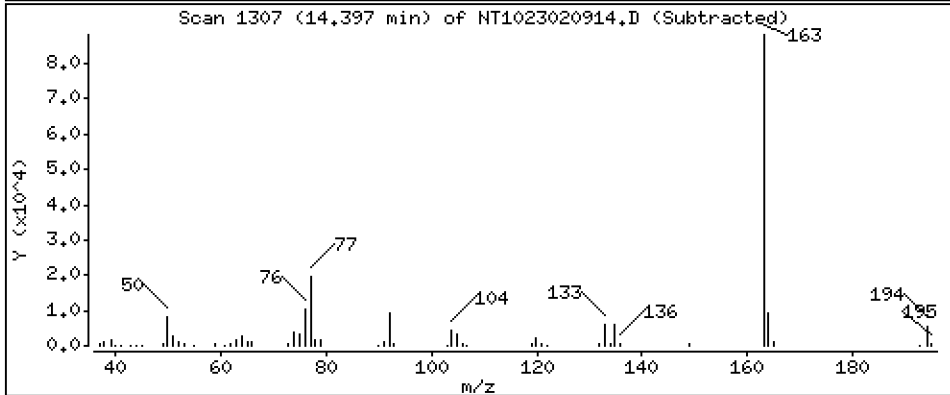
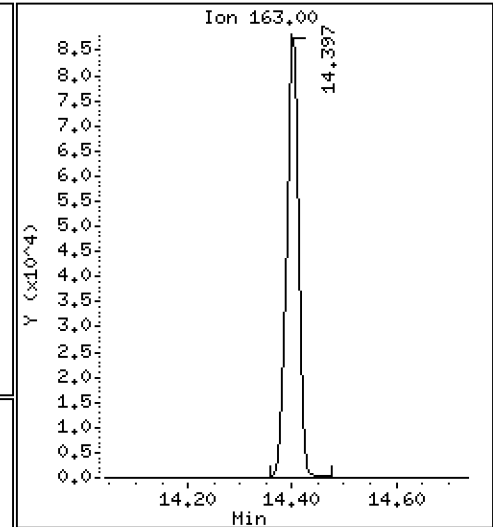
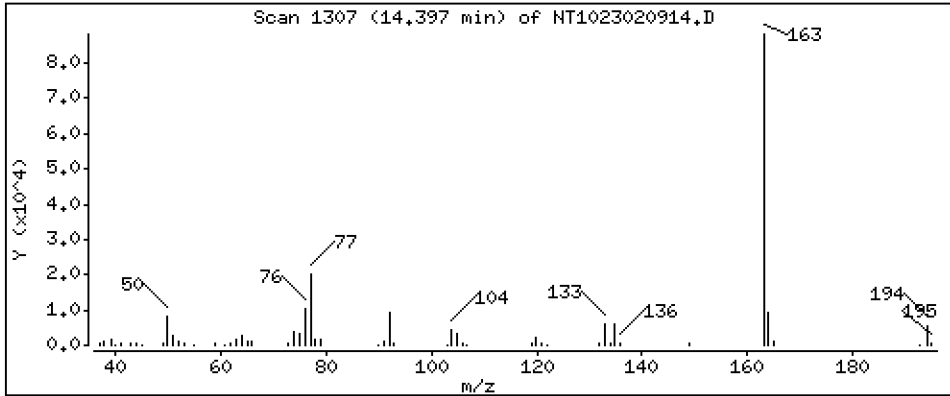
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 3,974 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

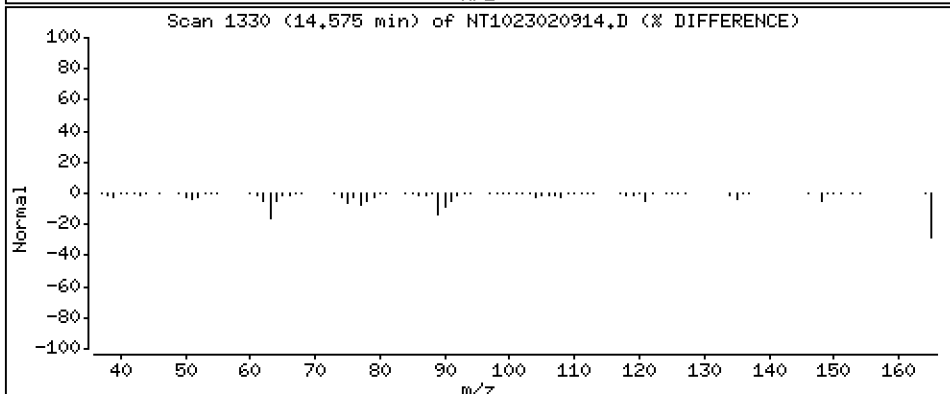
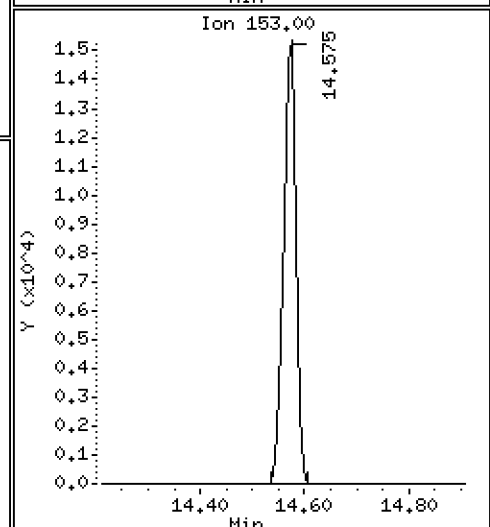
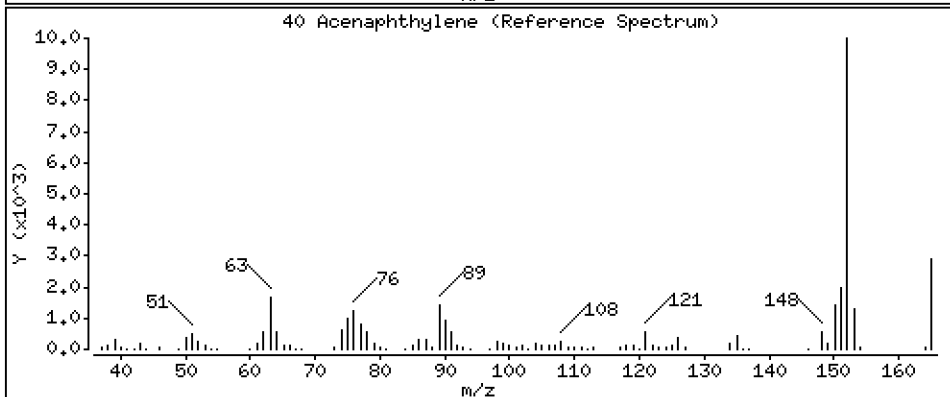
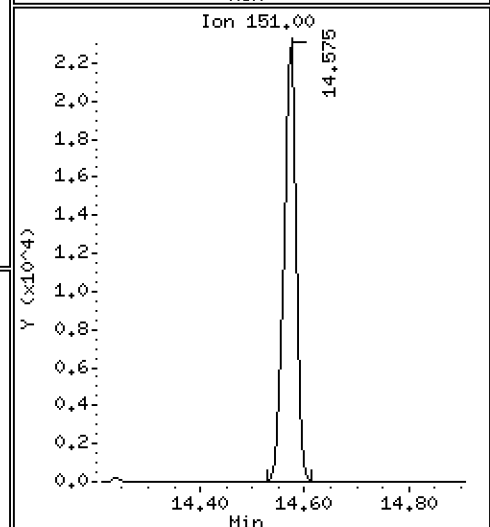
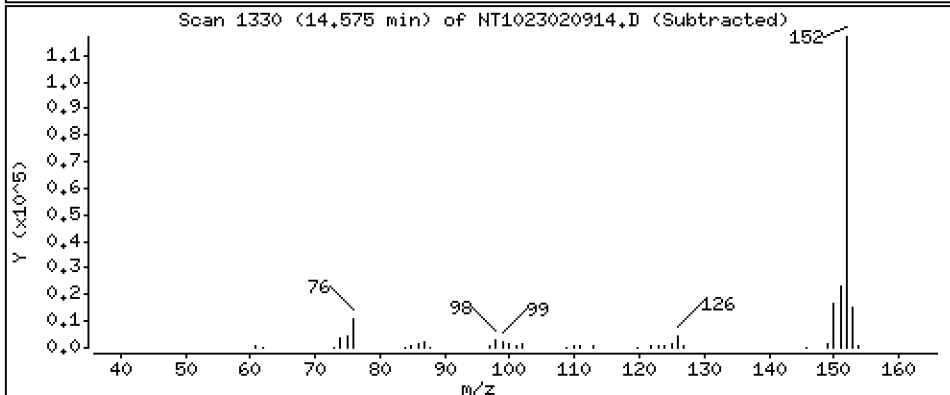
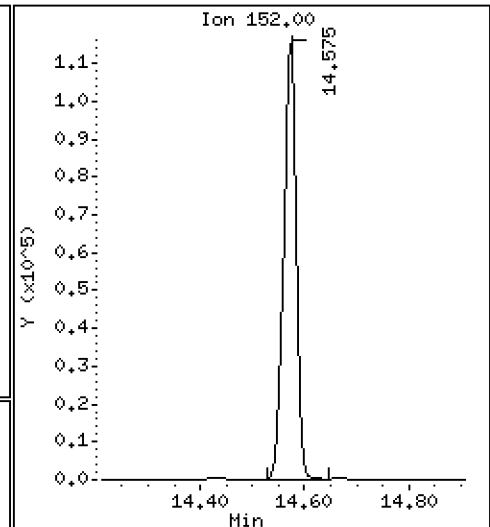
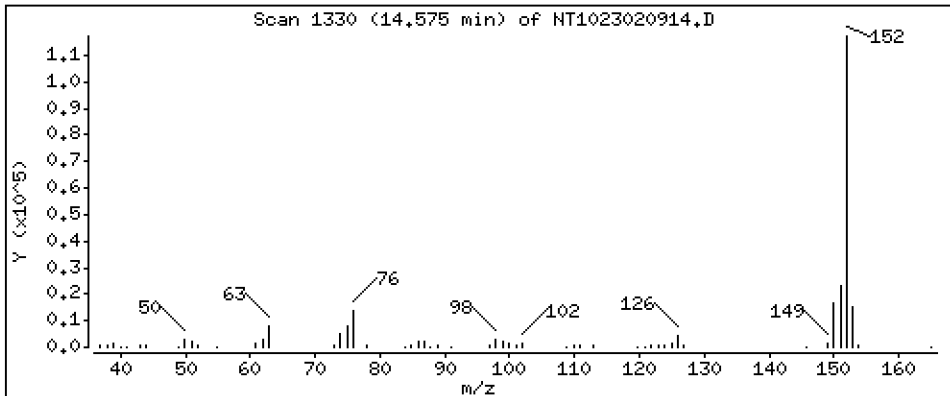
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 3,666 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

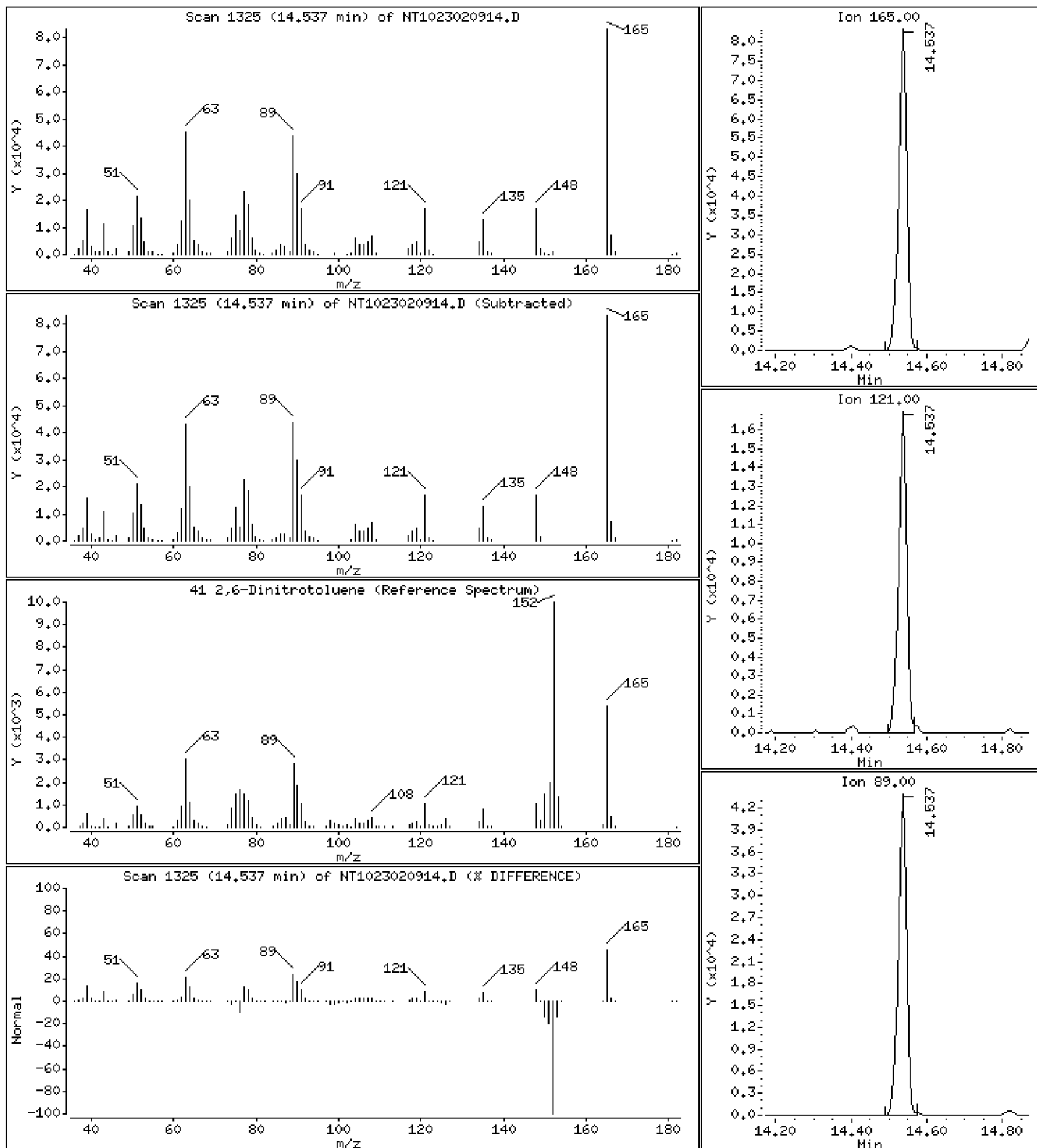
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 14.99 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

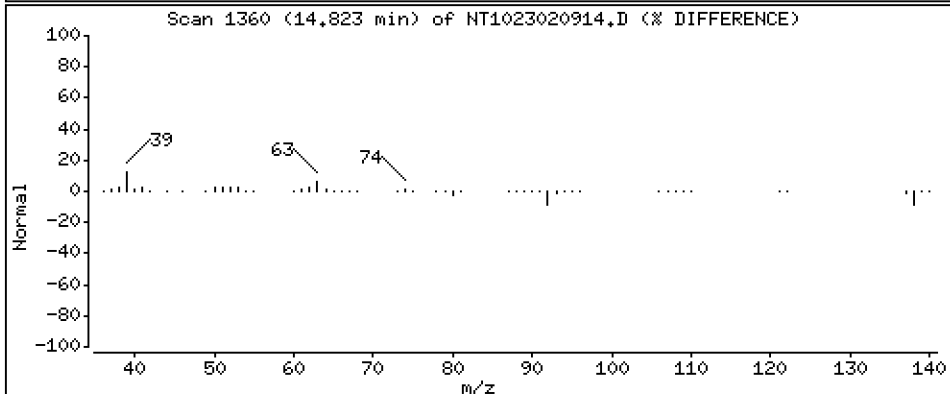
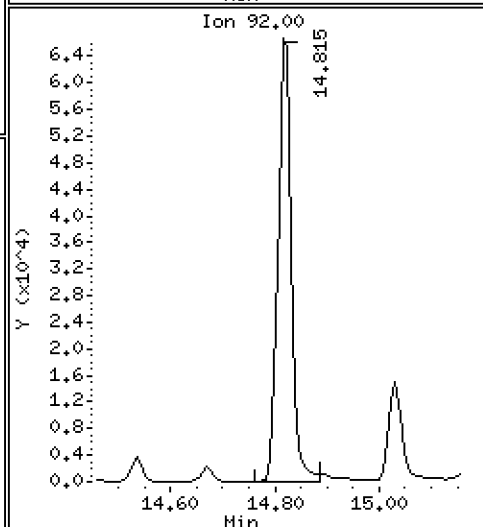
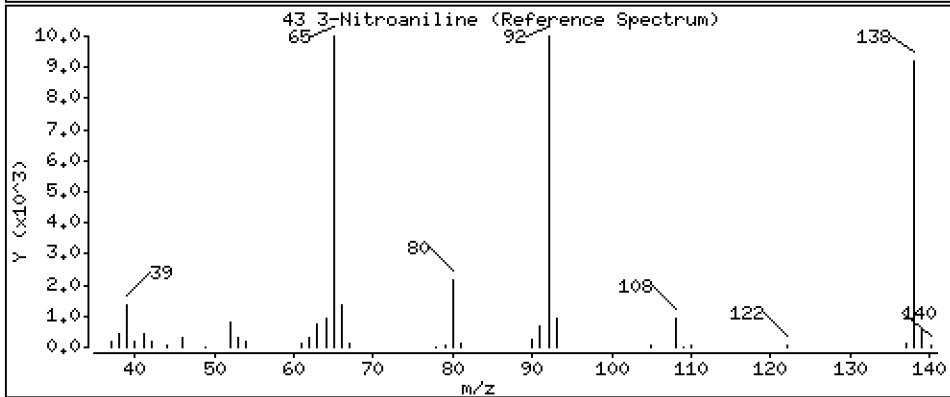
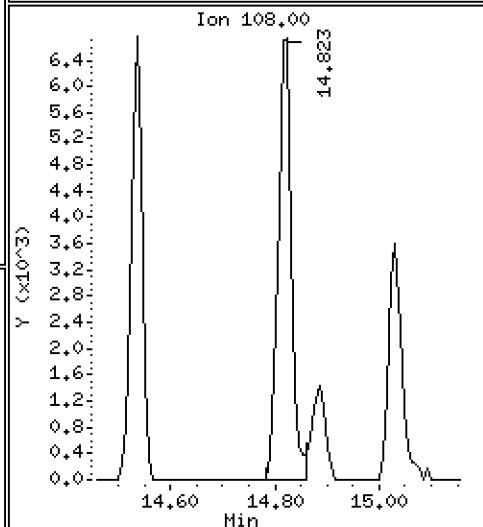
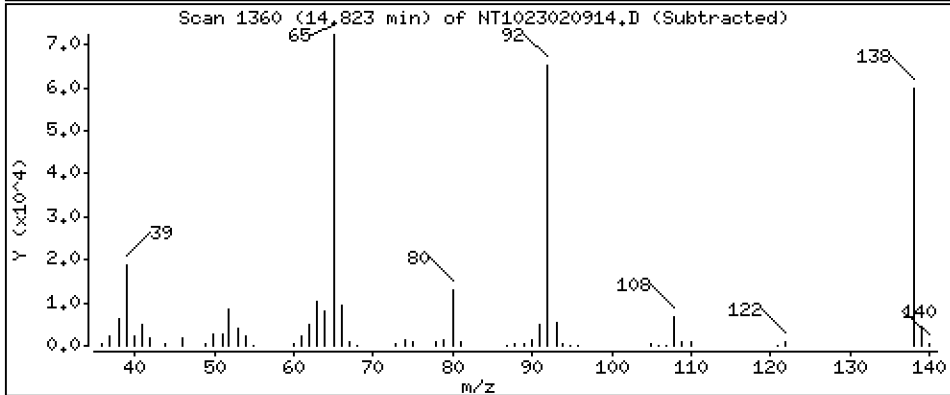
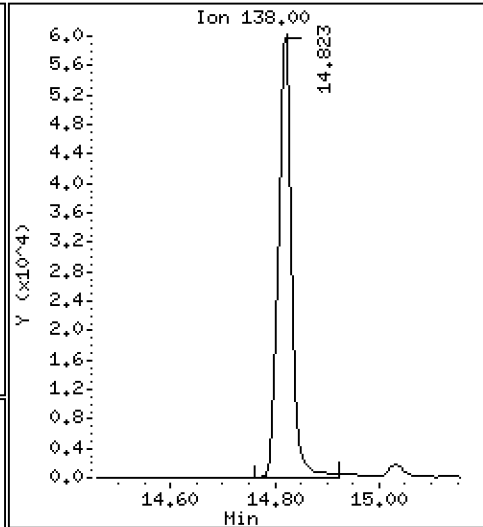
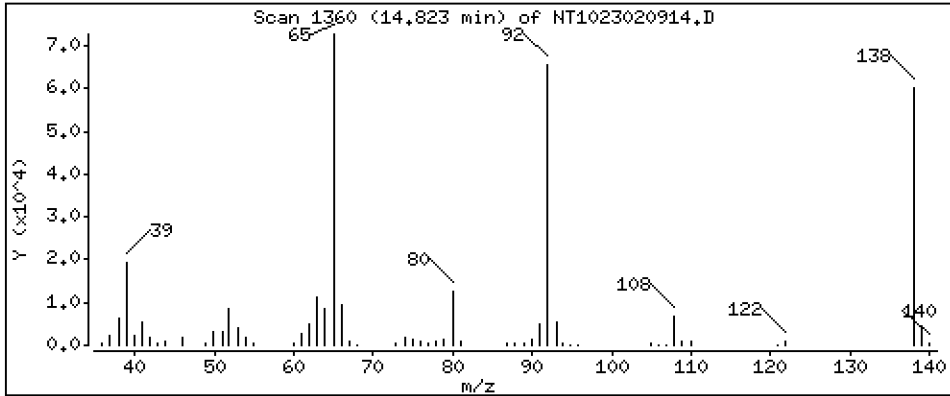
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 12,13 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

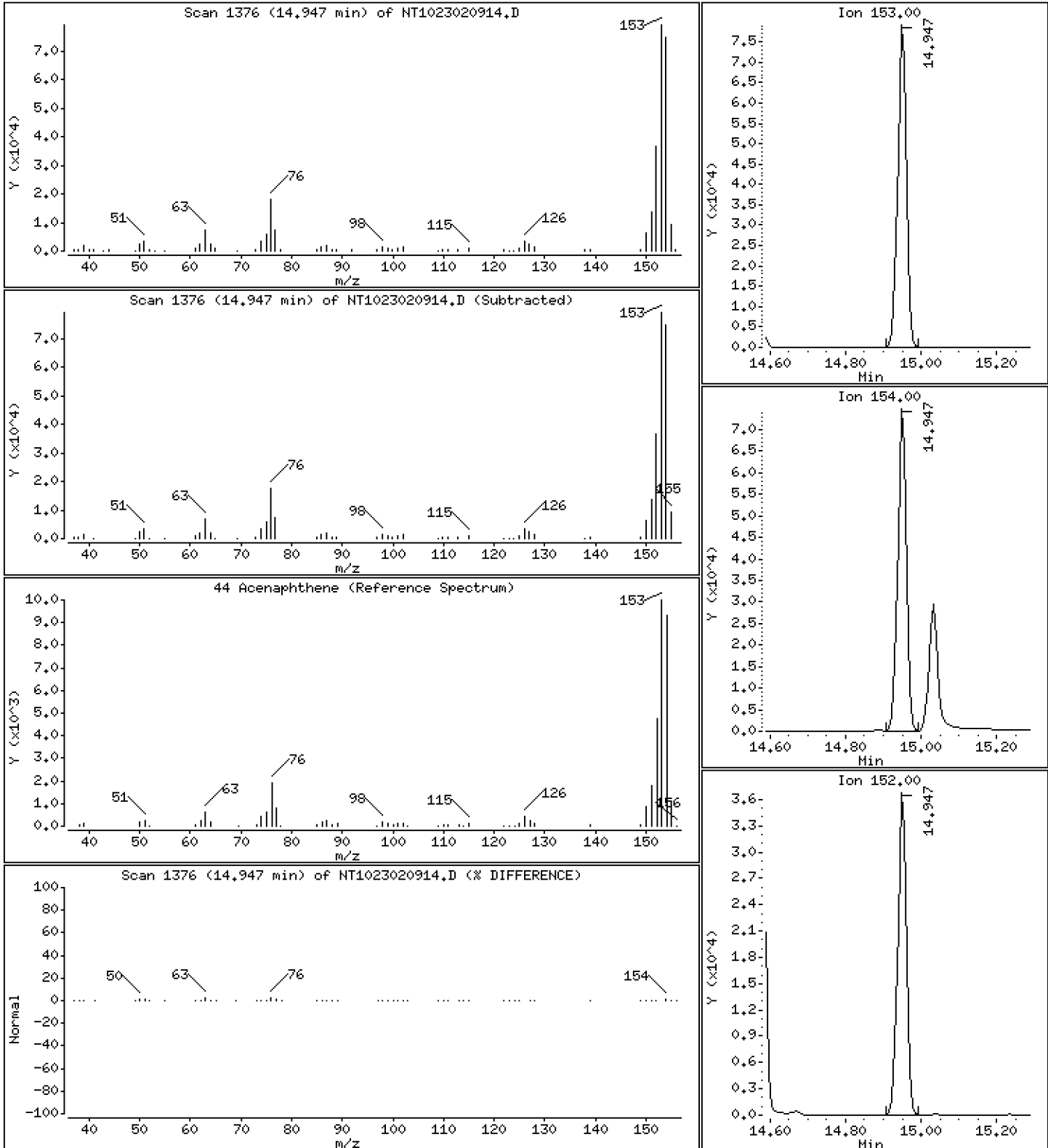
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 3,854 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

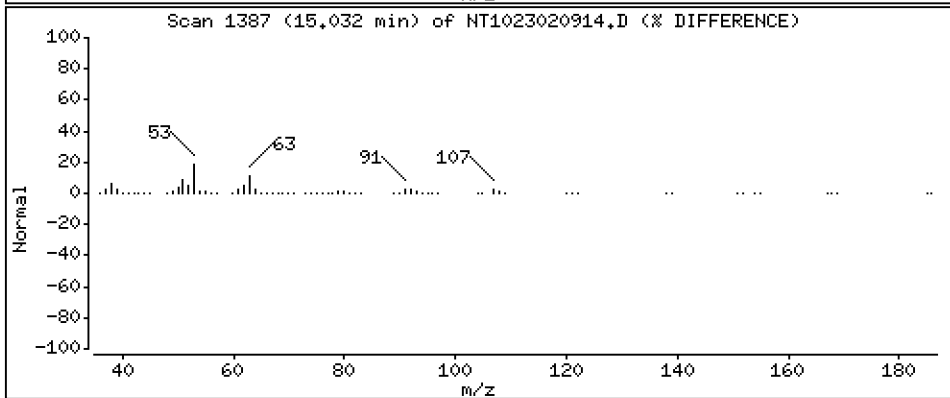
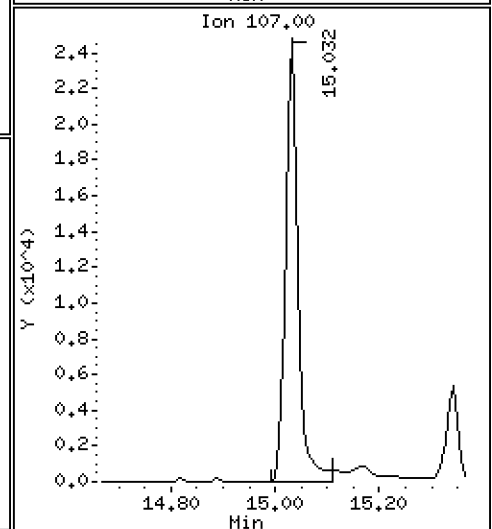
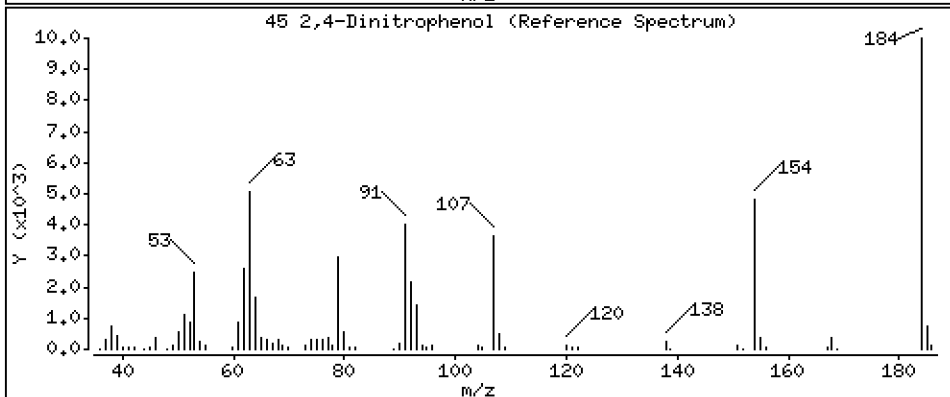
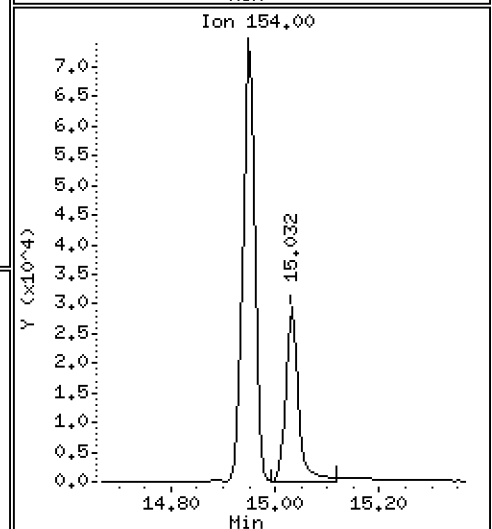
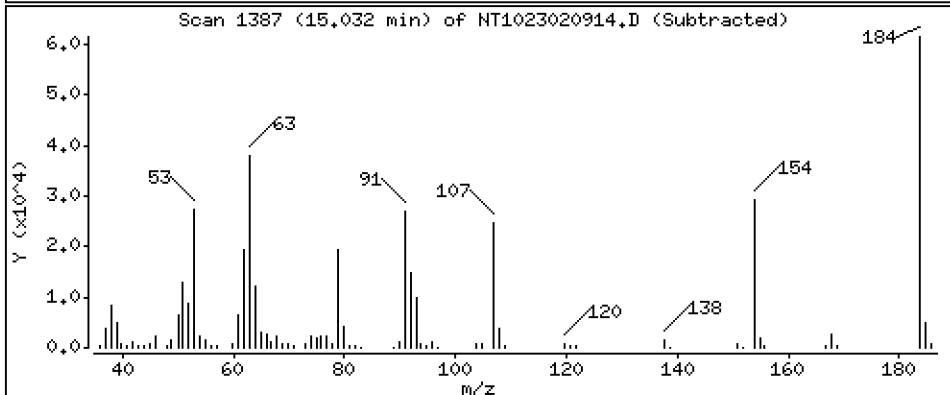
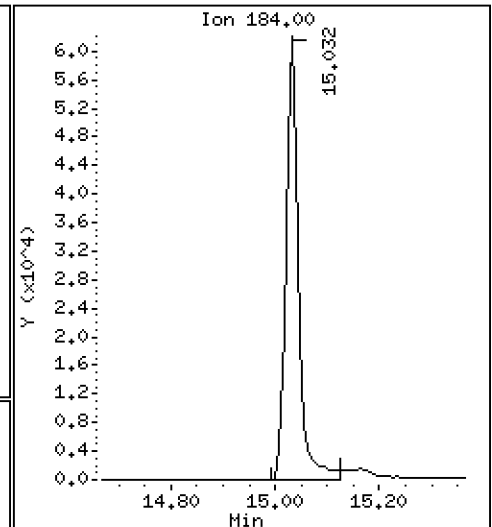
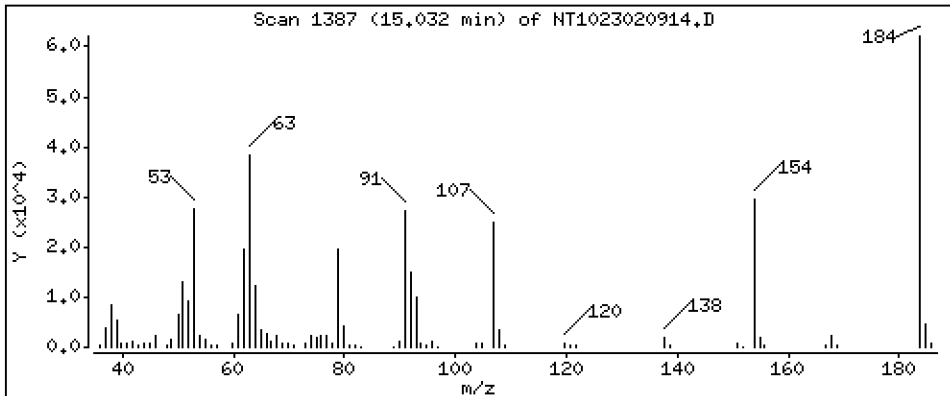
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 22,81 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

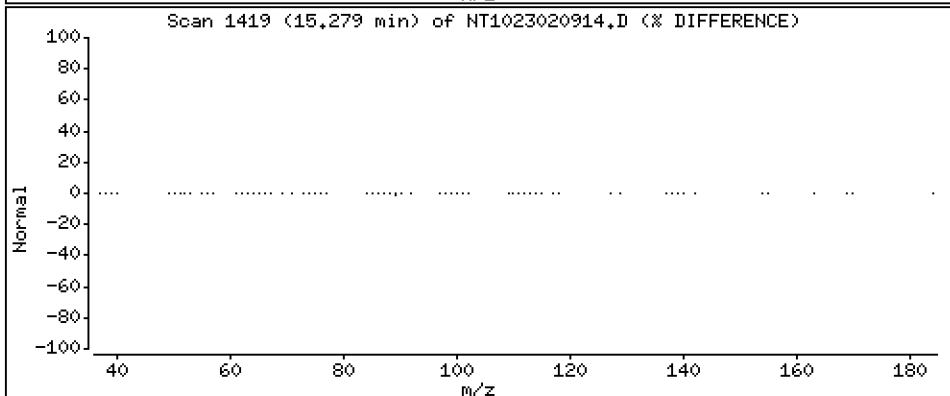
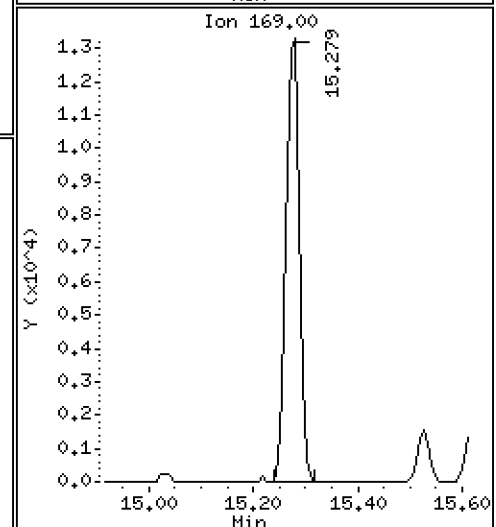
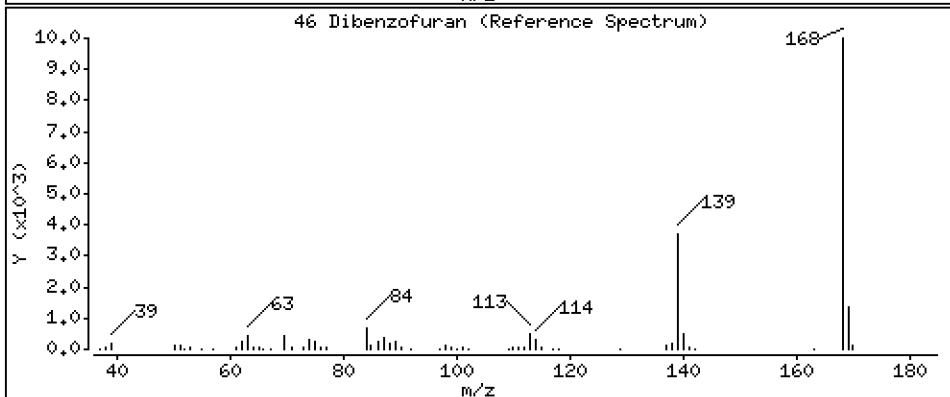
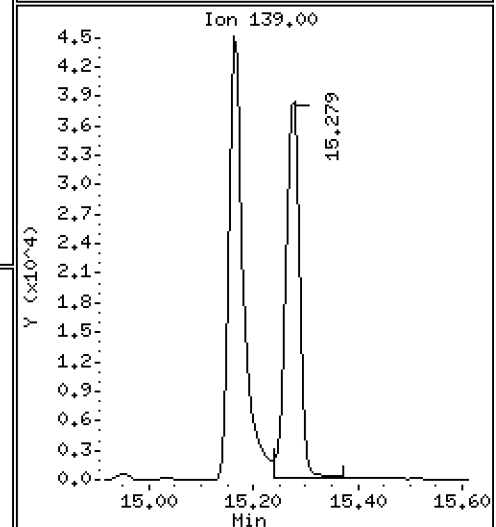
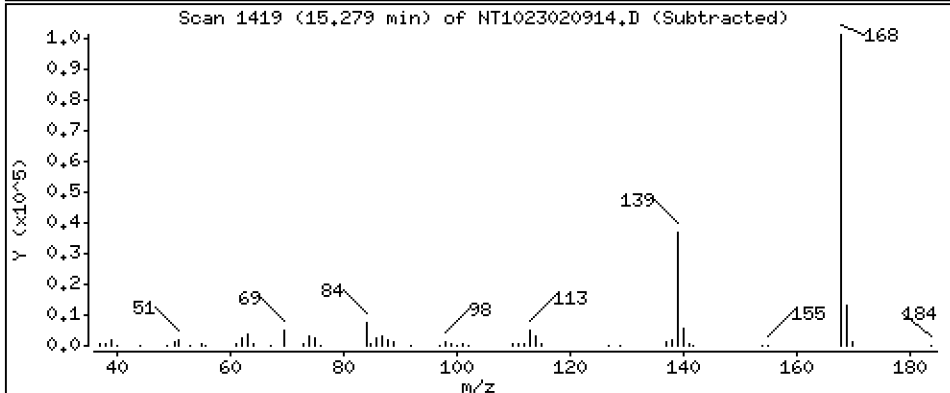
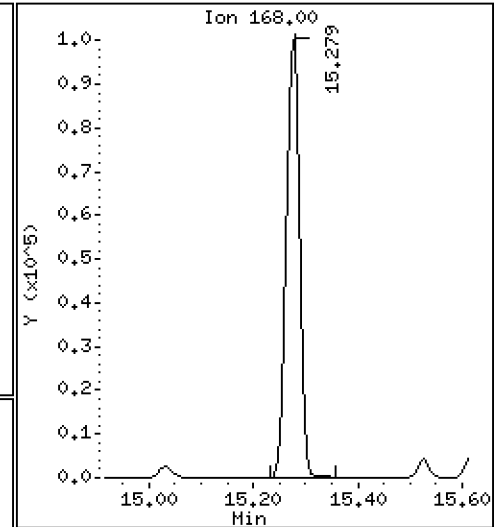
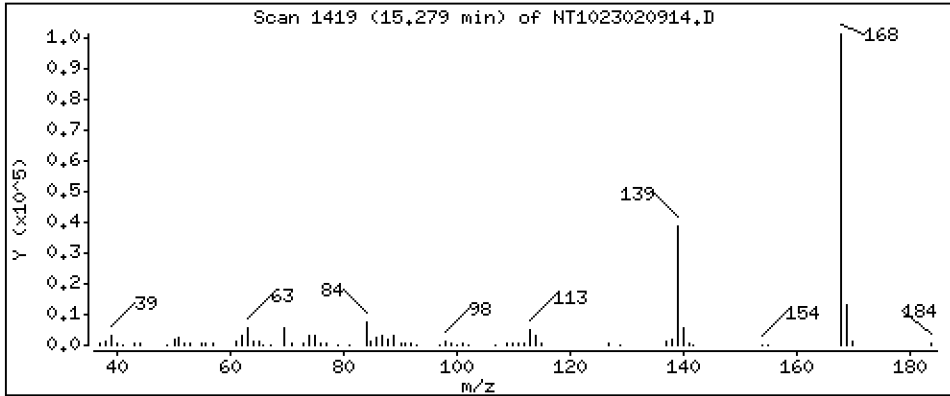
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 3,657 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

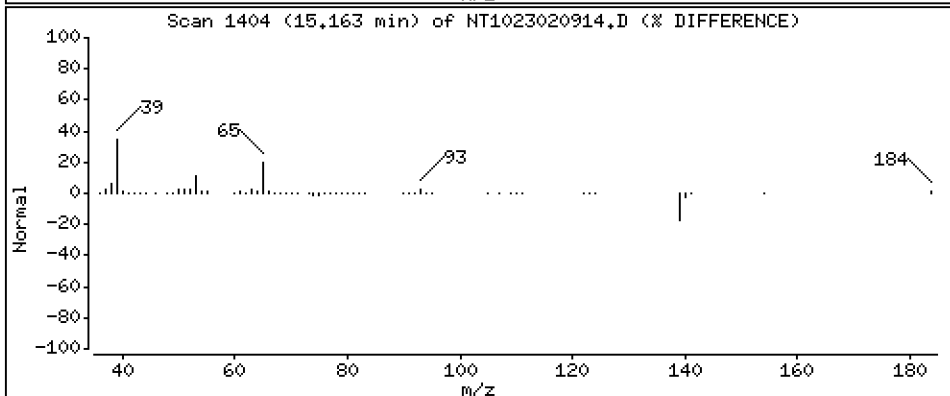
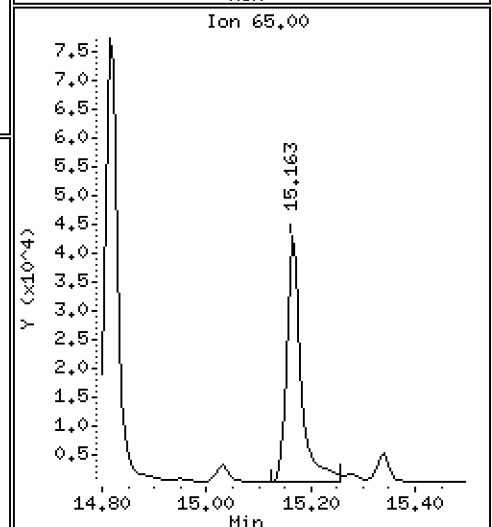
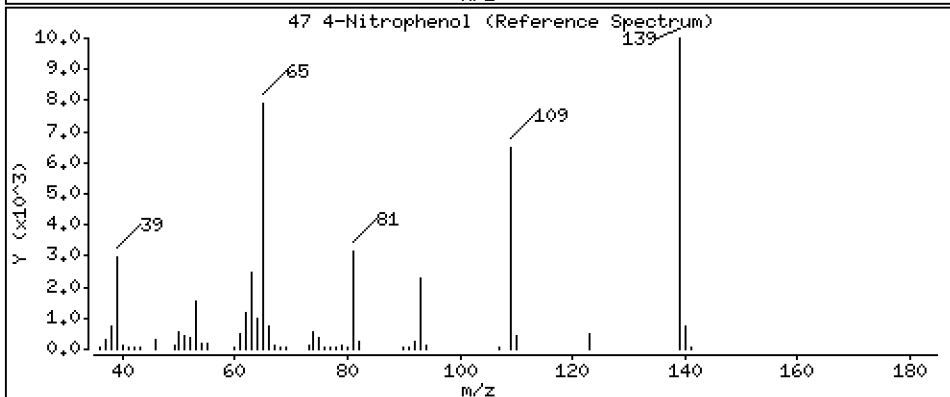
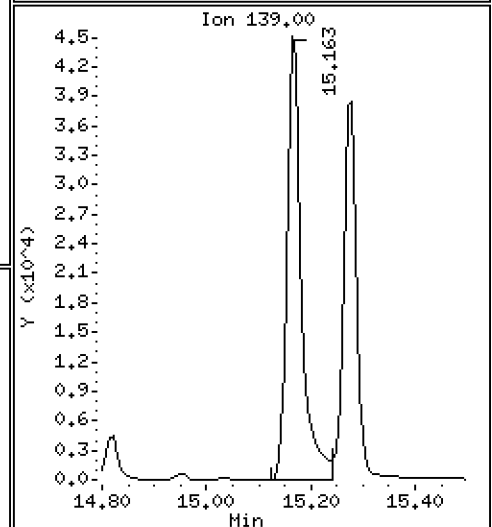
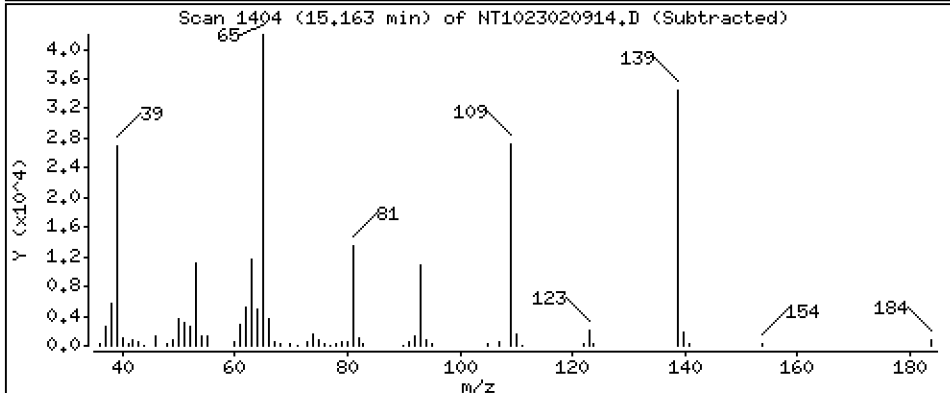
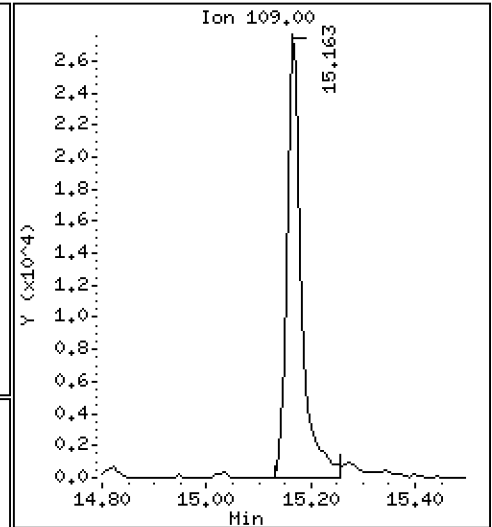
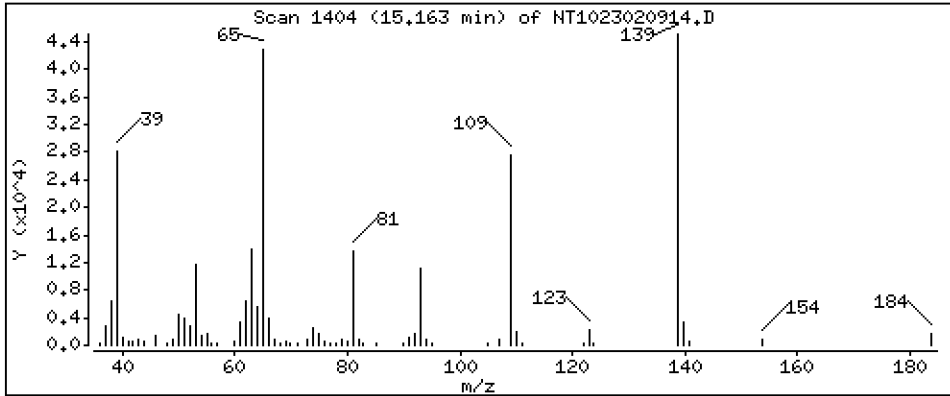
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 15,12 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

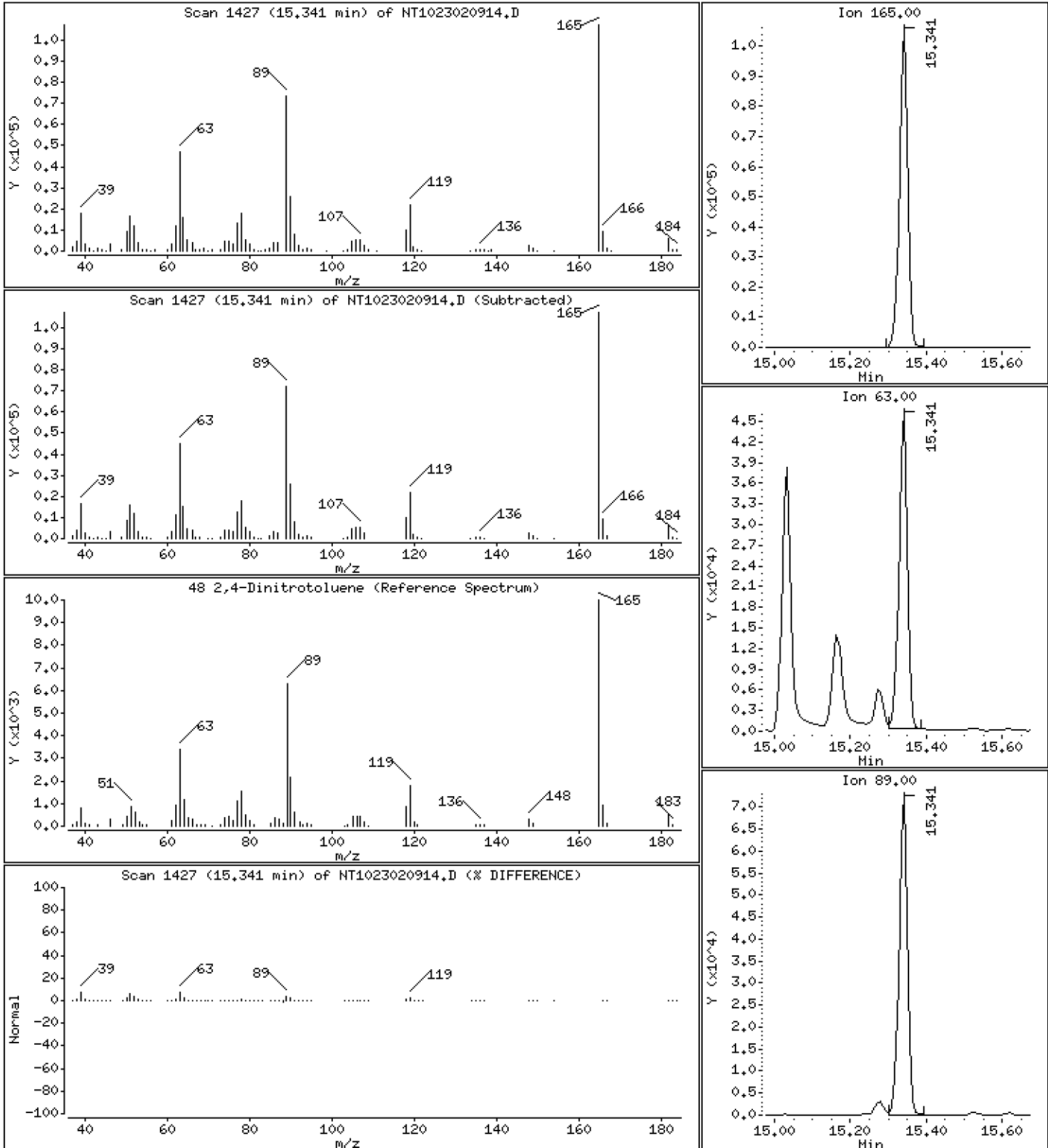
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 13,90 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

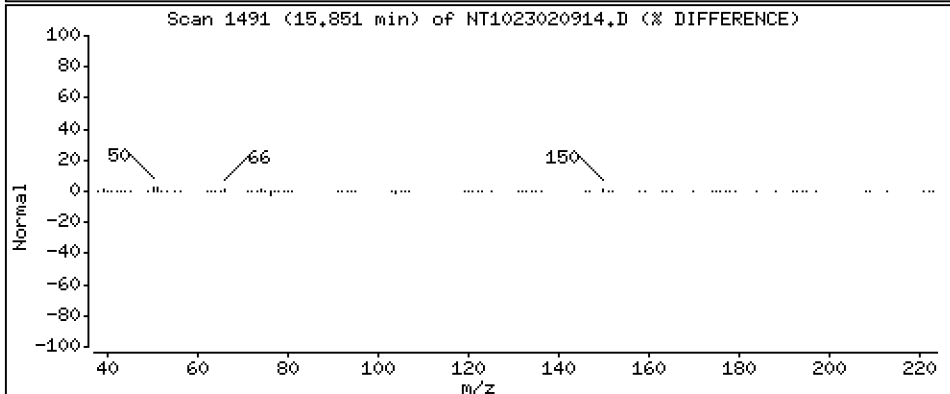
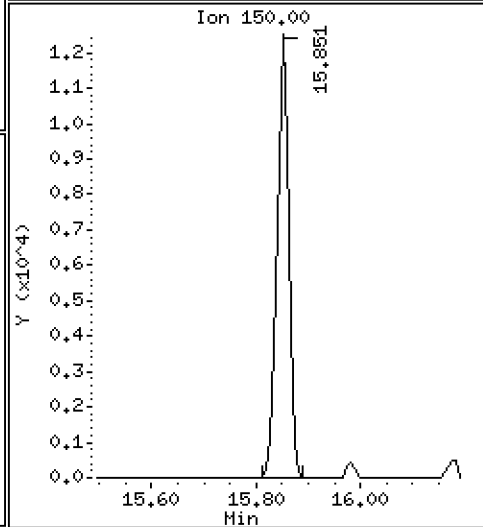
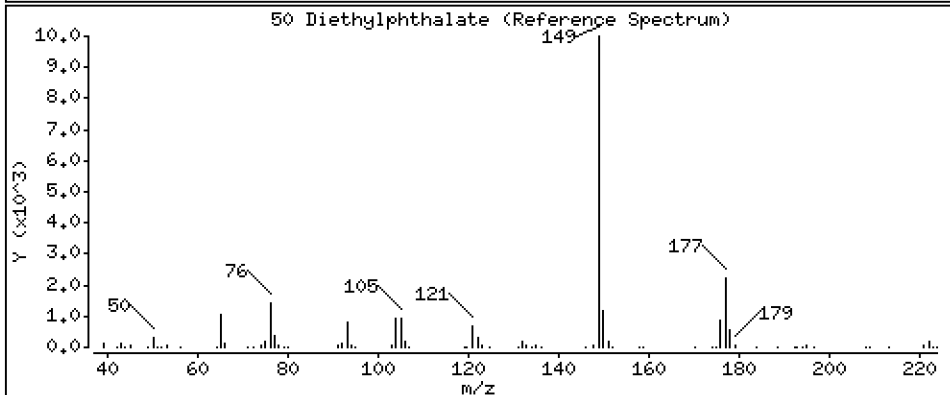
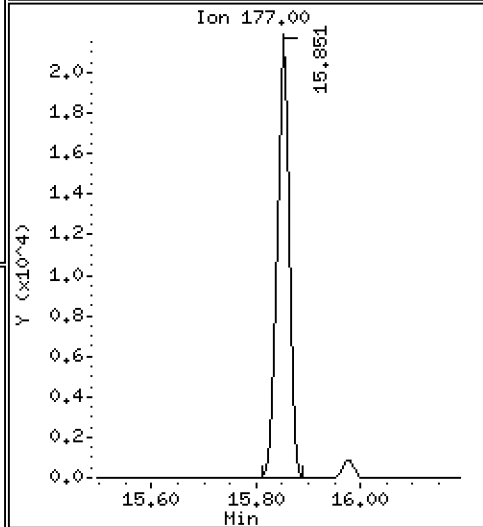
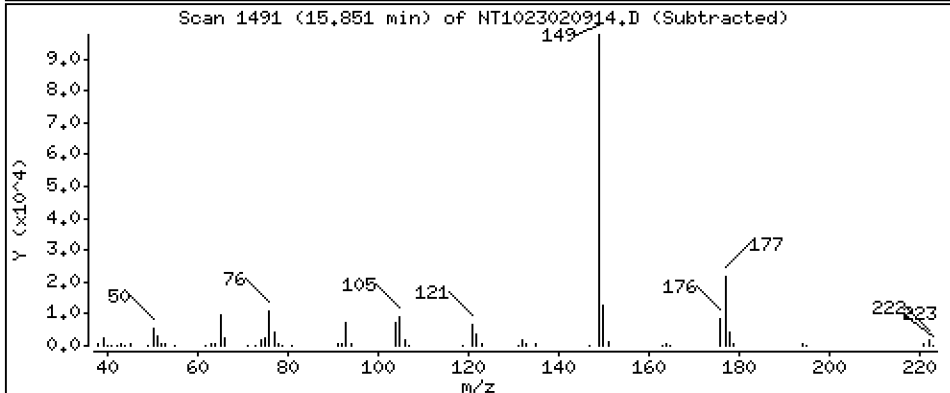
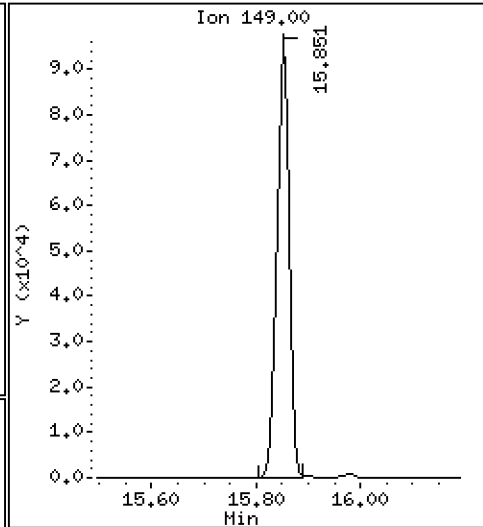
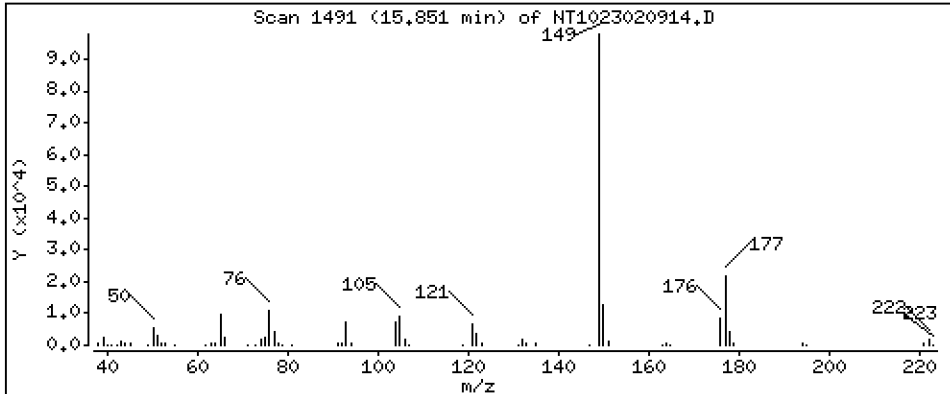
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,491 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

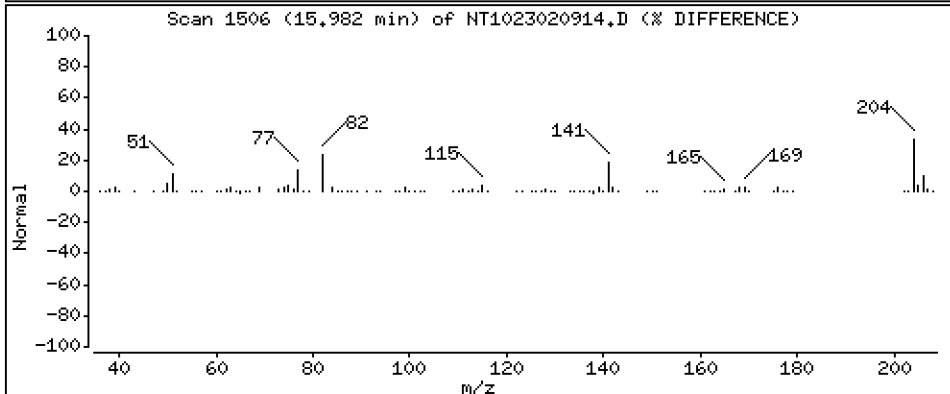
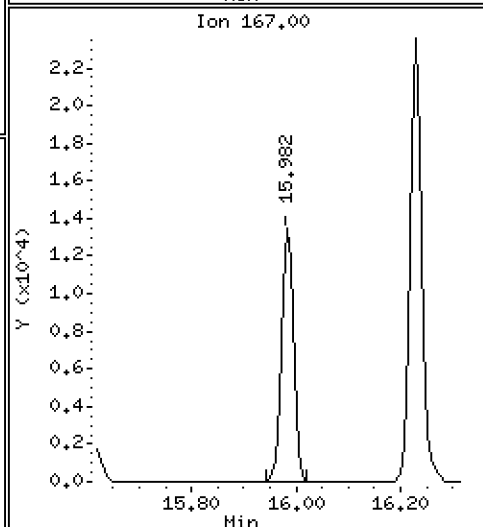
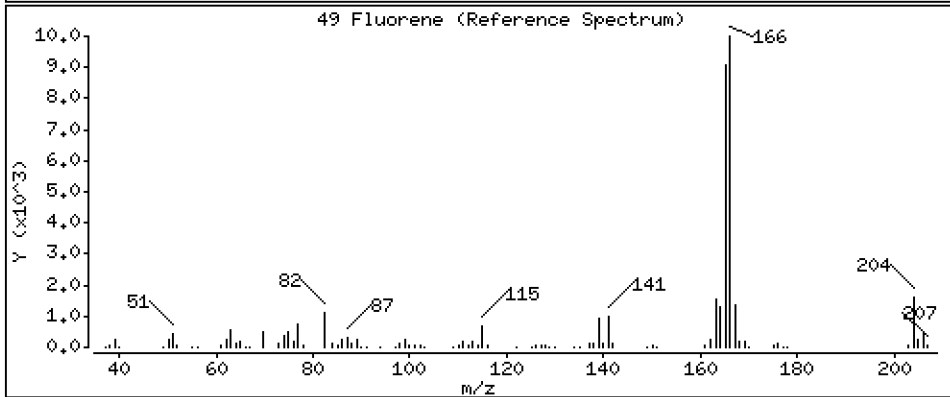
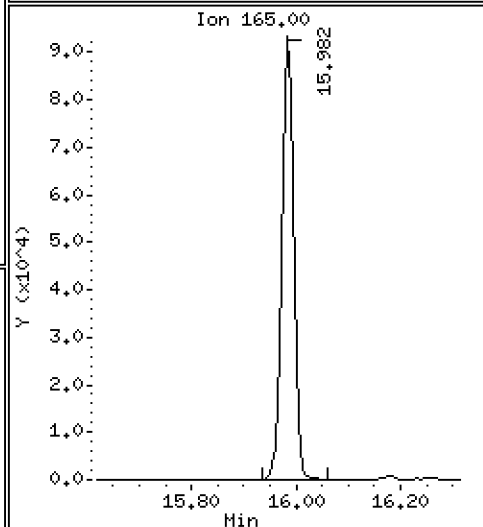
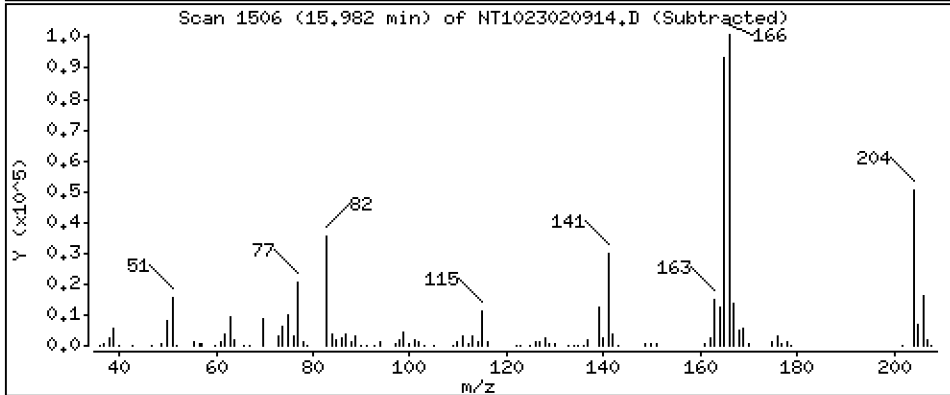
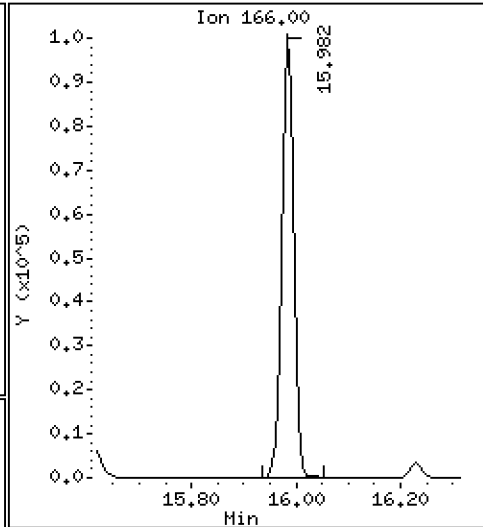
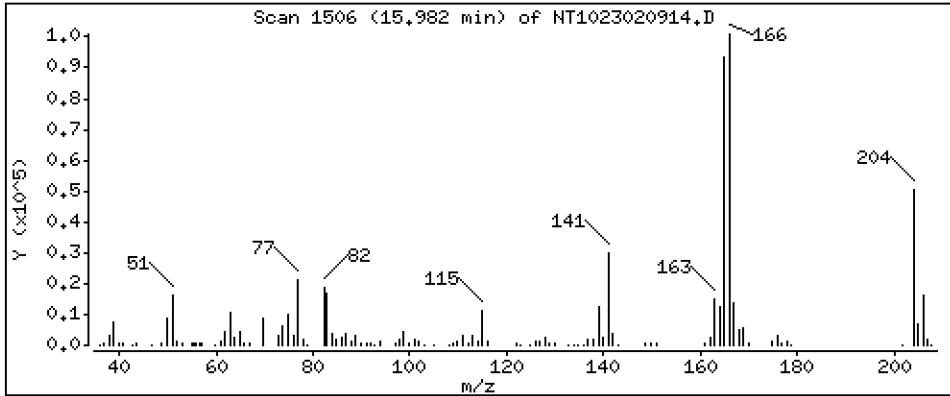
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 3,169 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

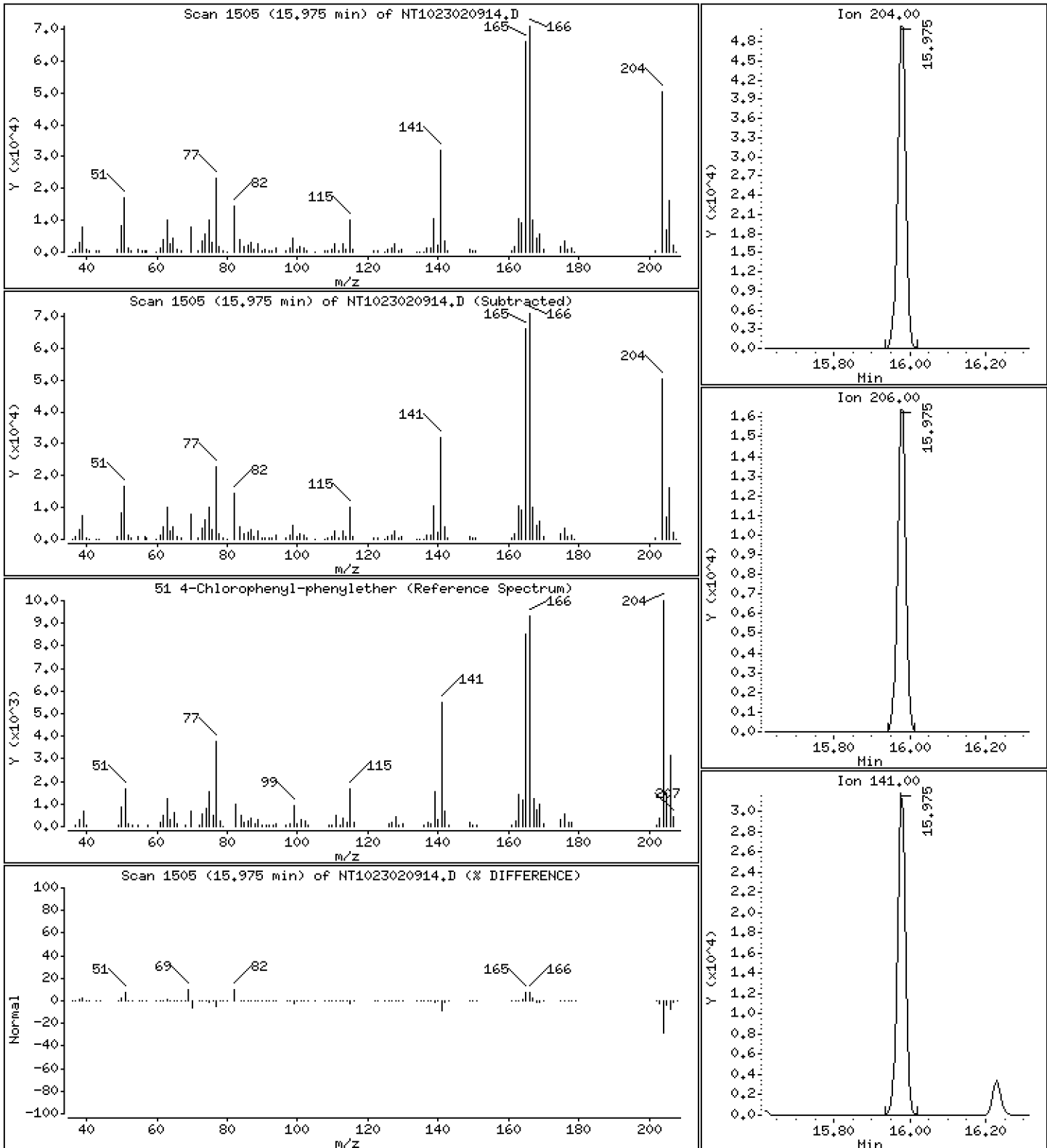
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 3,076 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

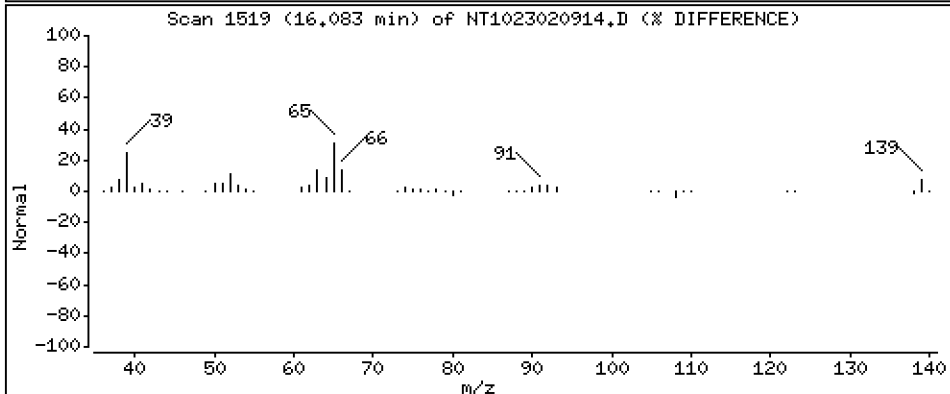
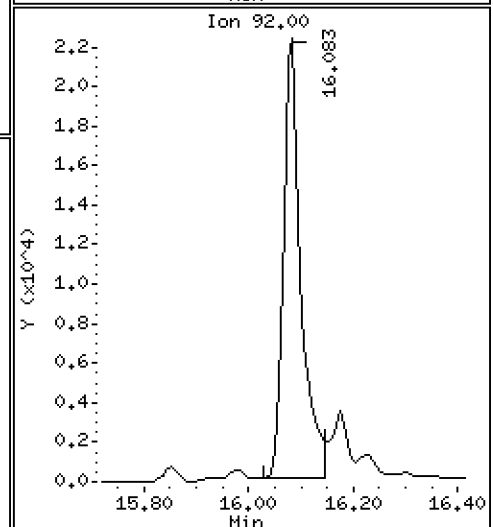
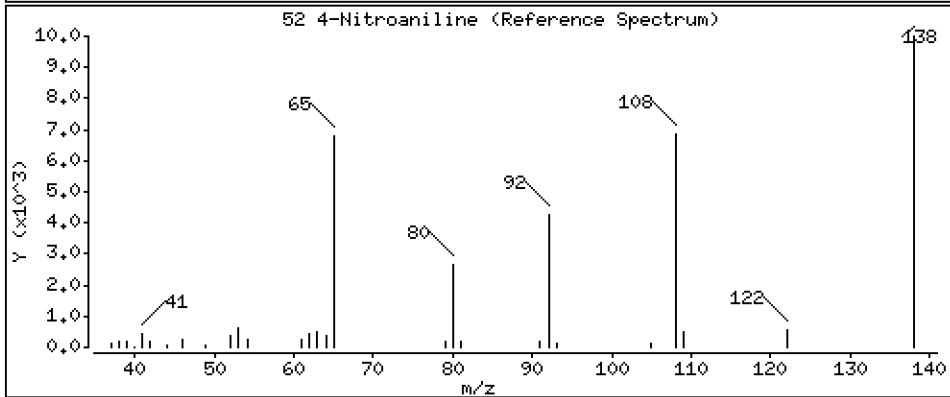
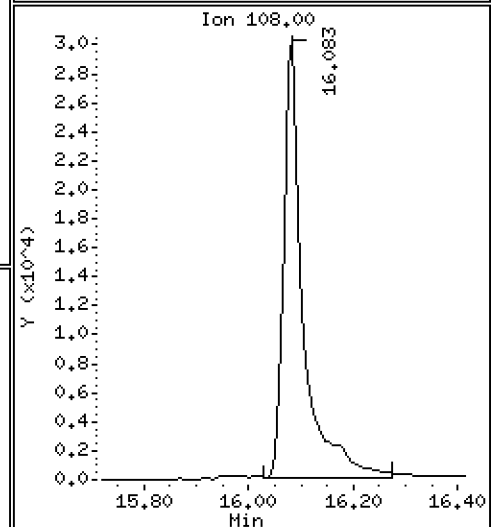
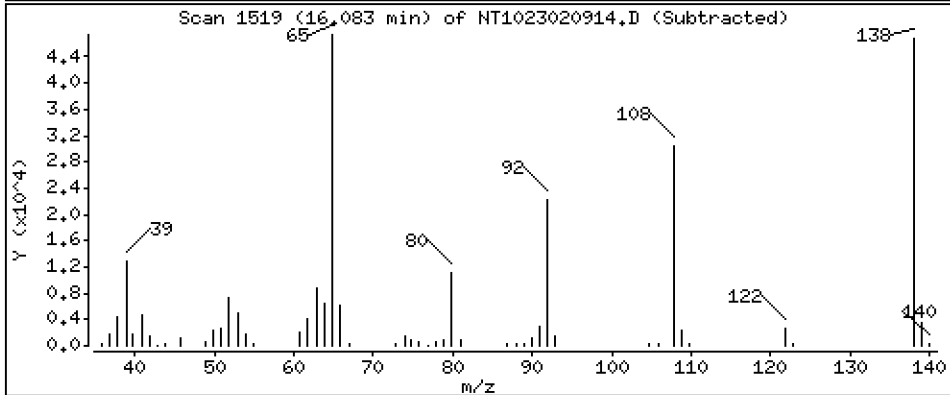
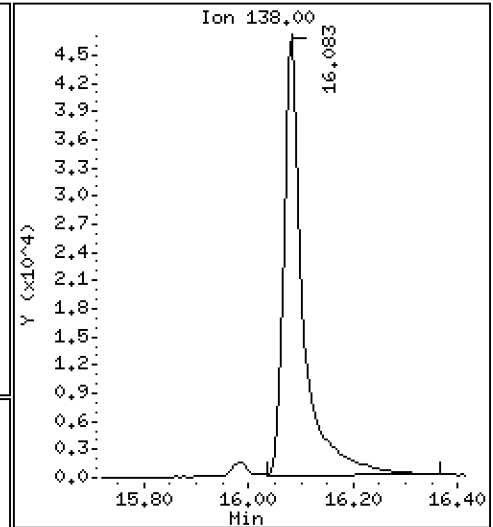
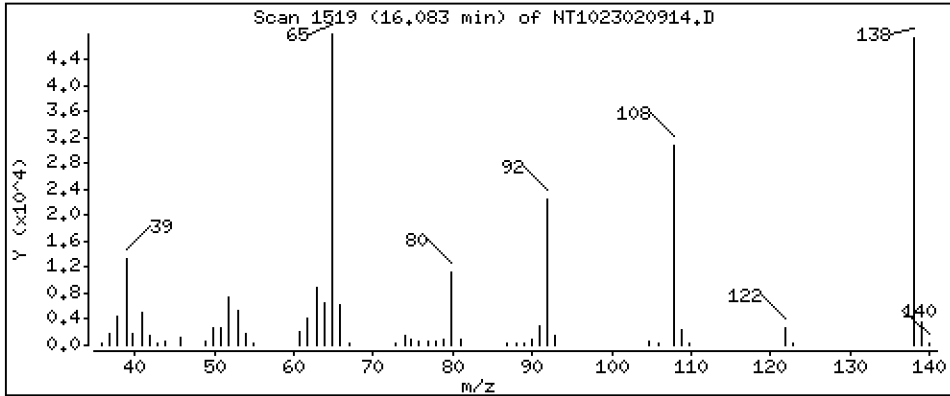
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 10,90 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

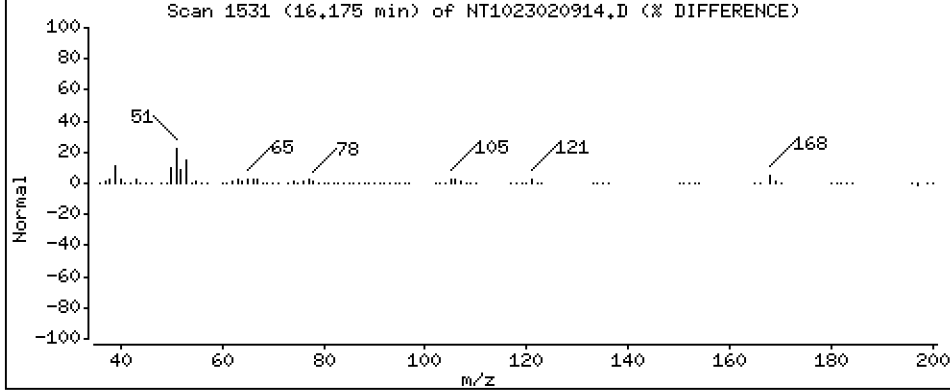
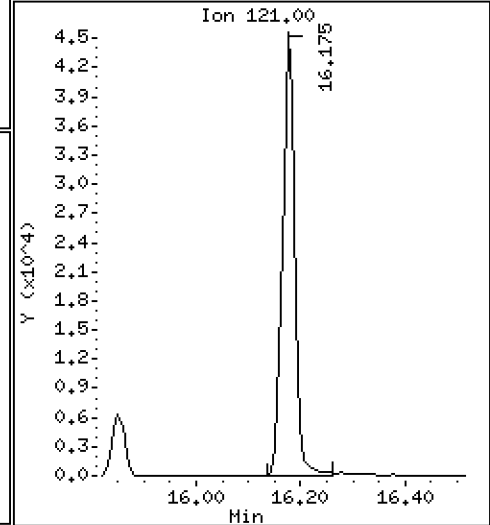
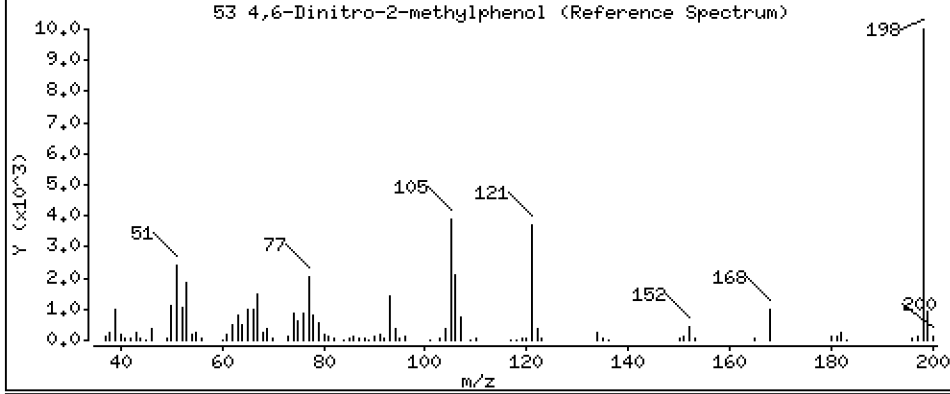
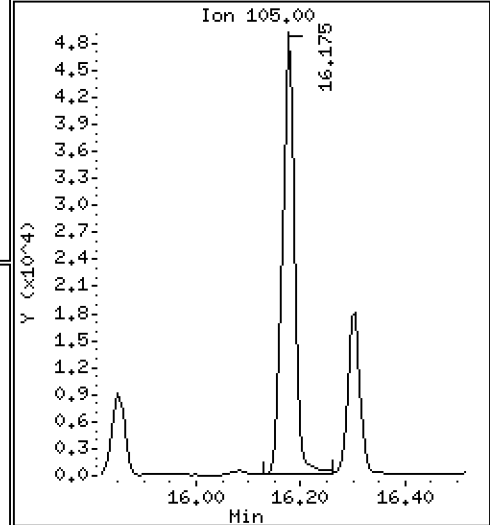
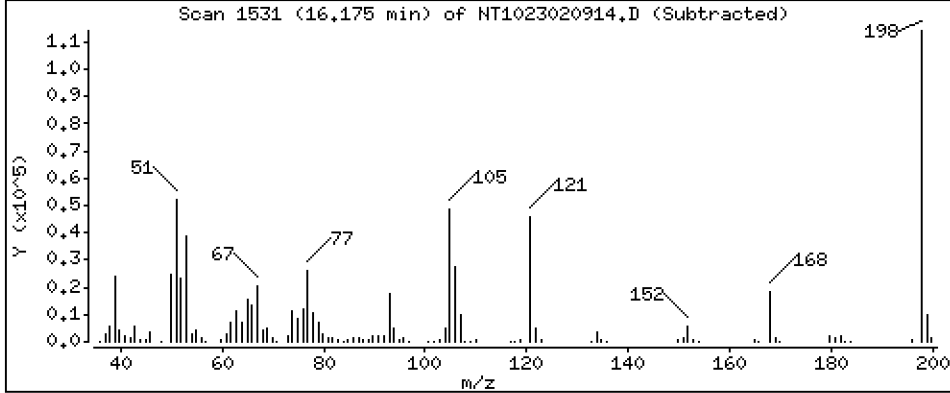
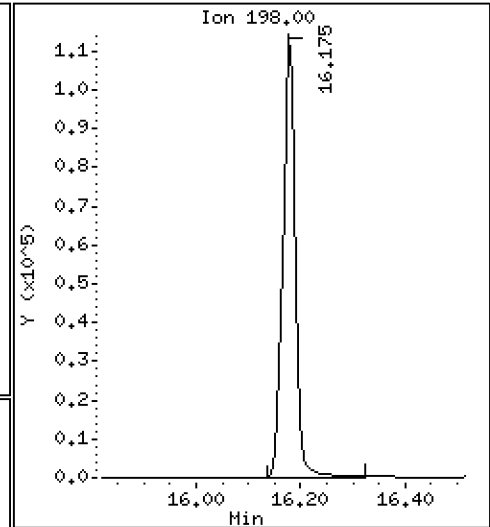
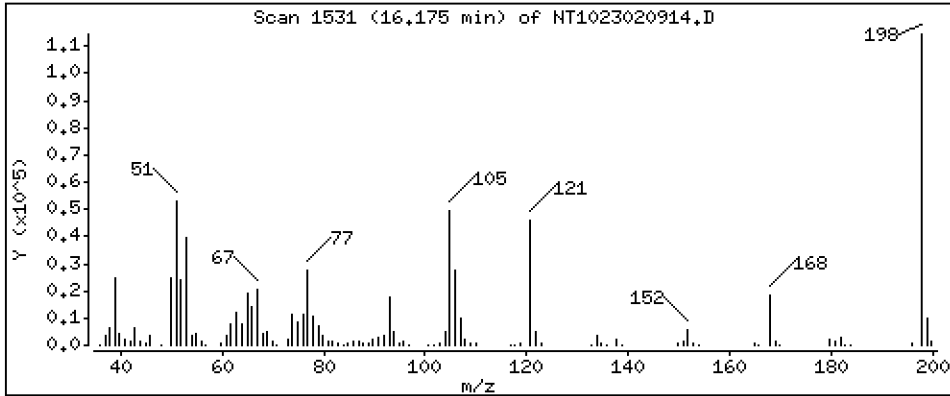
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 29,77 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

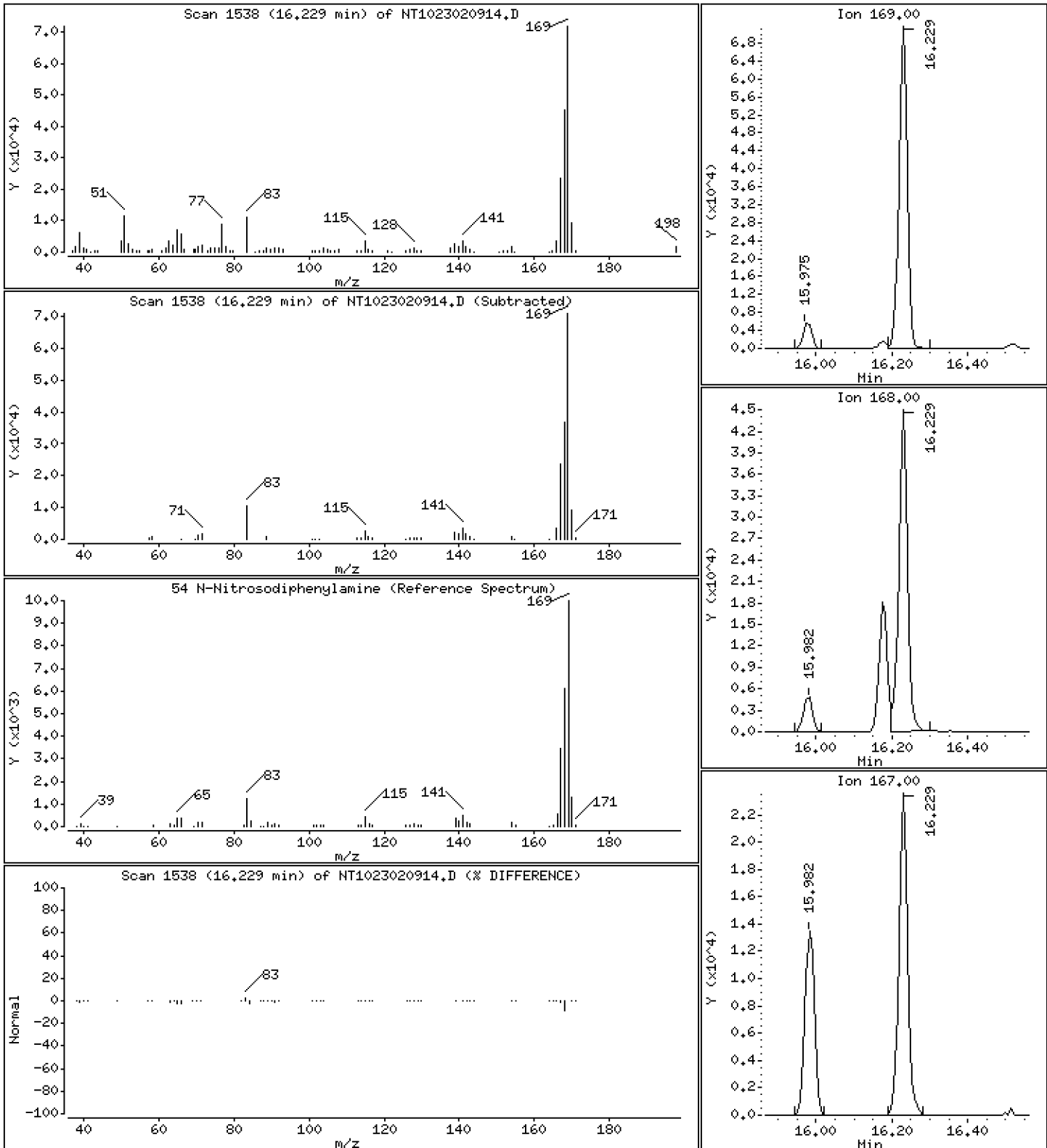
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 3,736 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

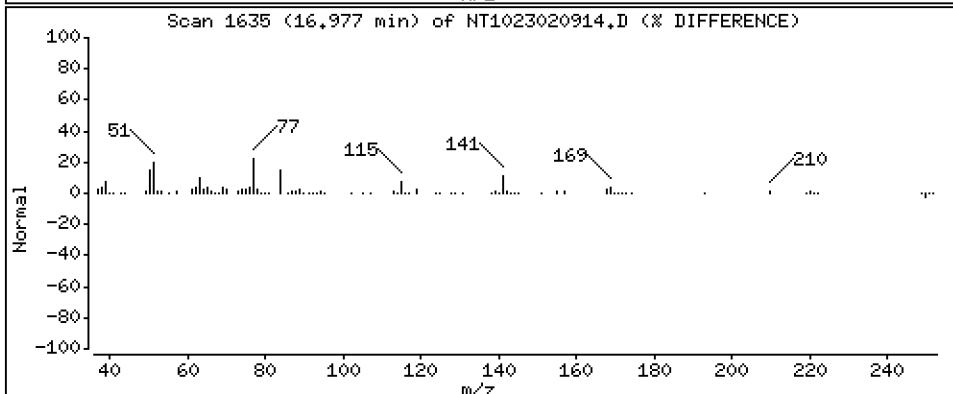
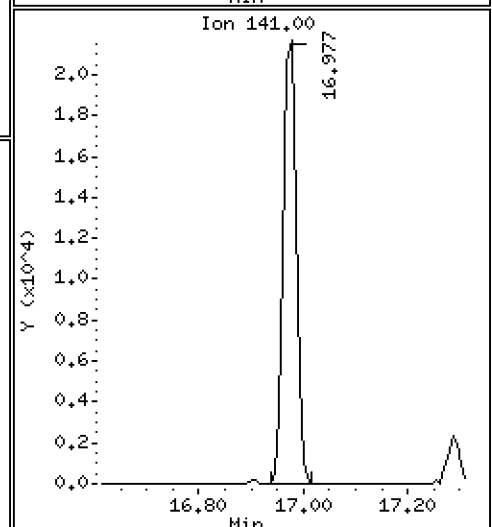
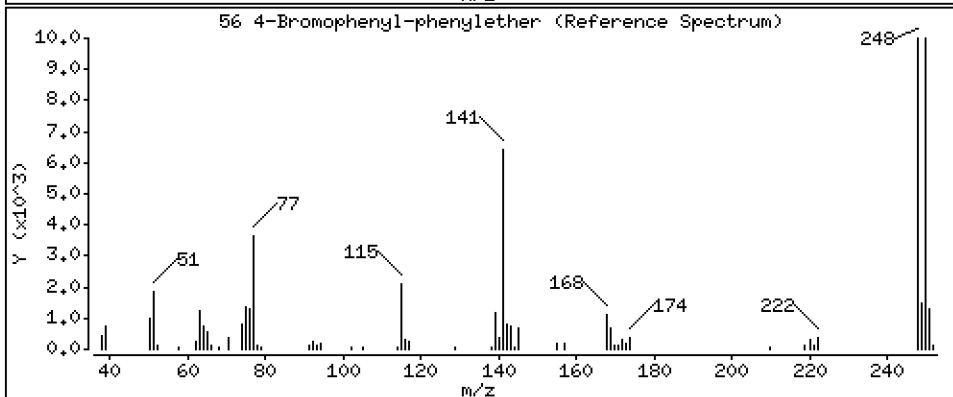
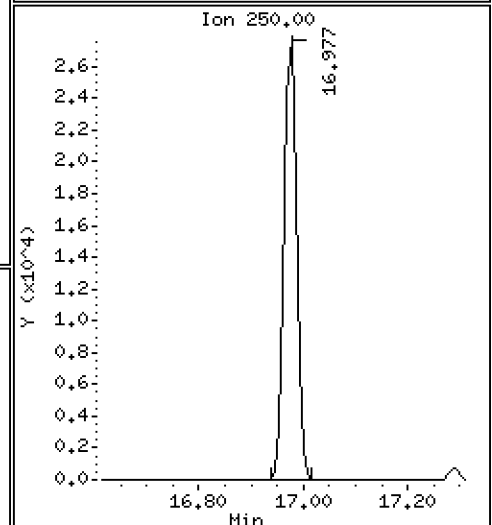
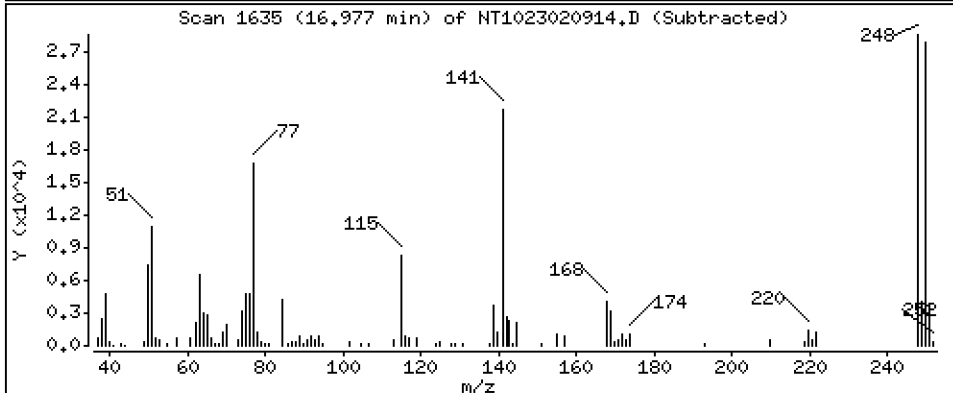
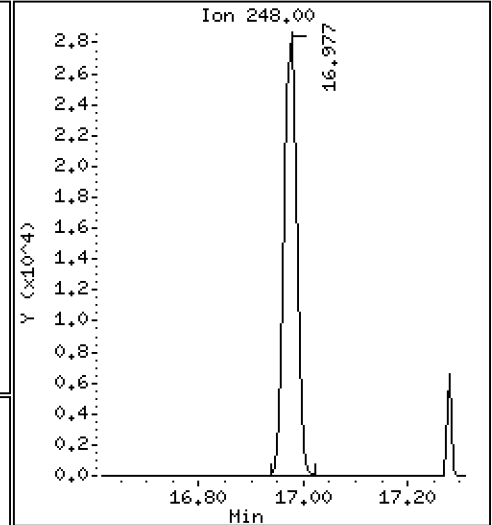
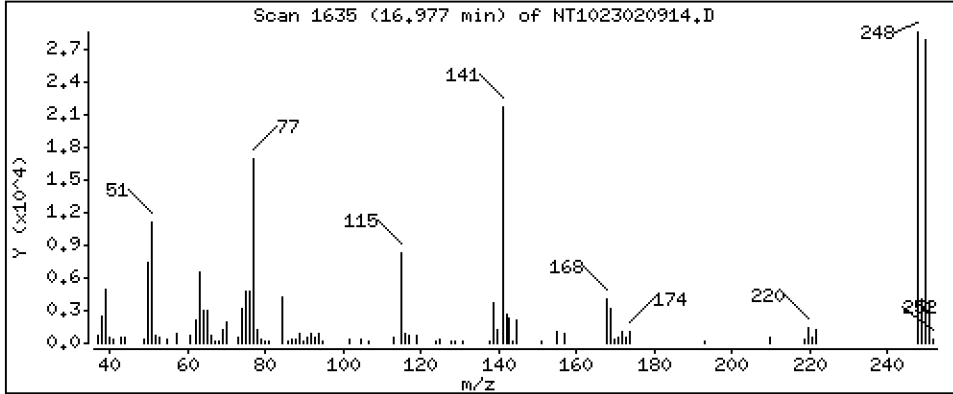
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,161 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

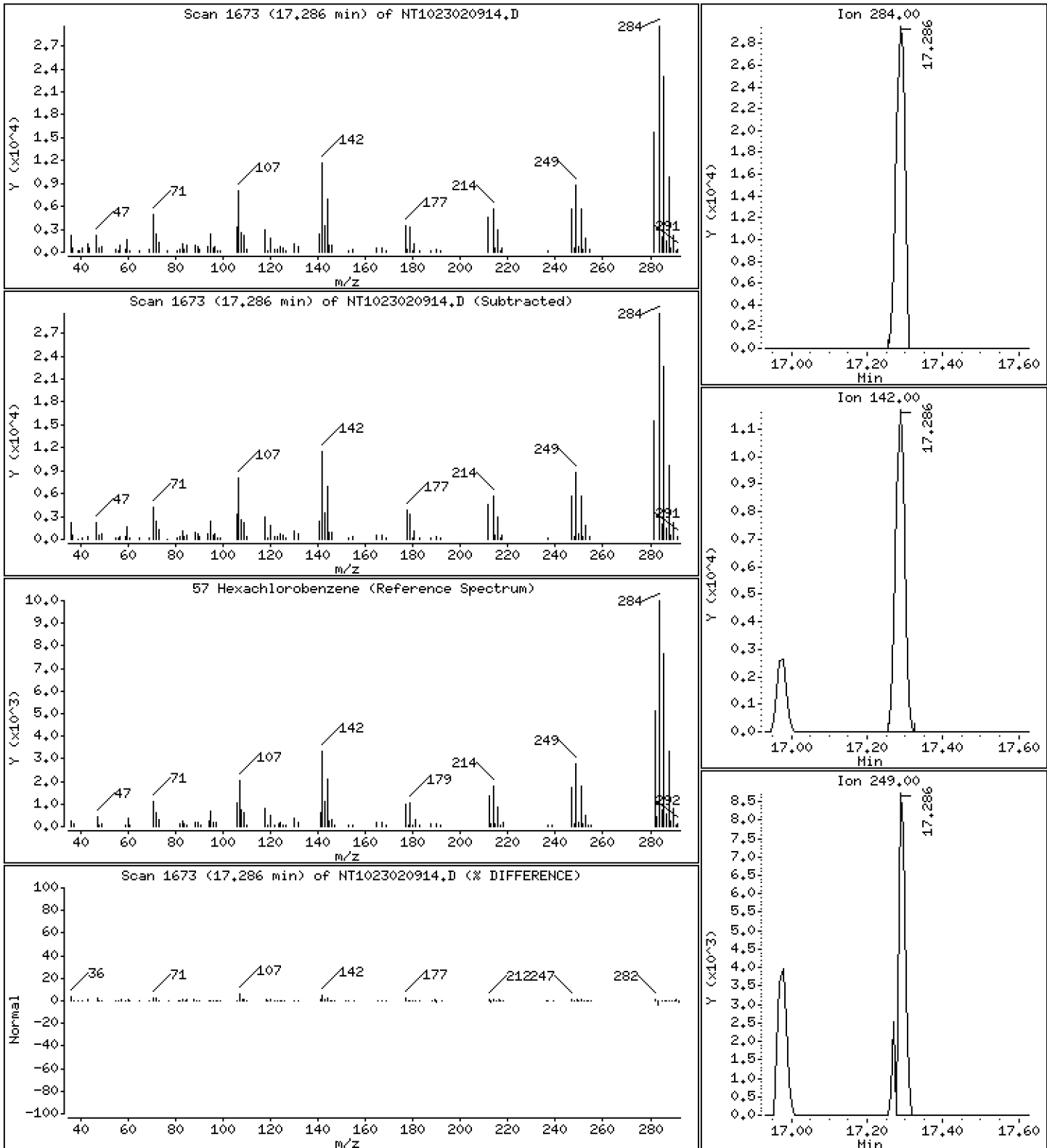
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 3,894 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

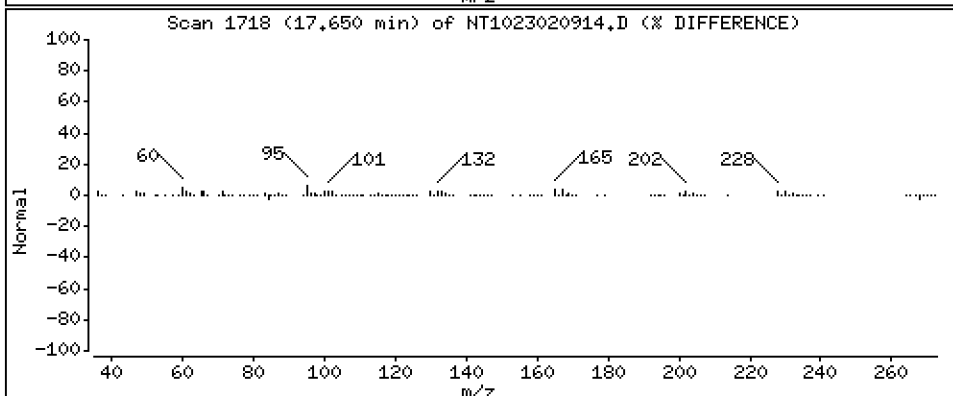
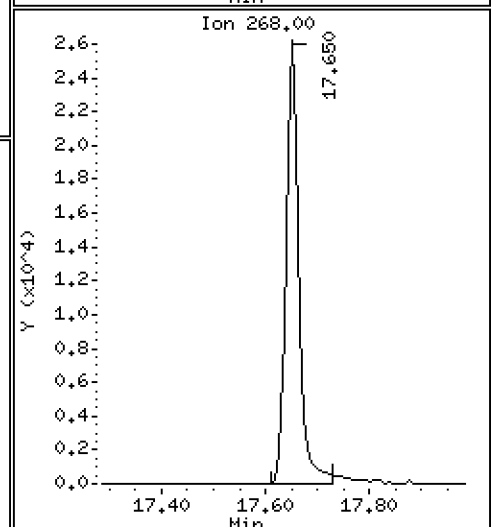
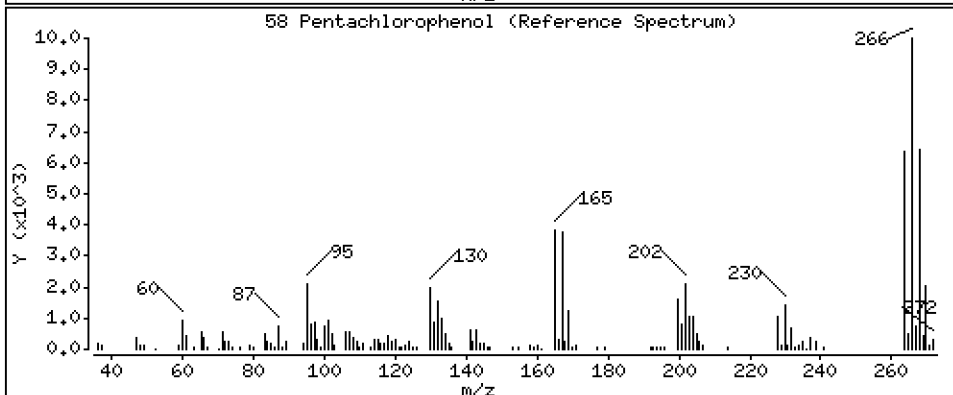
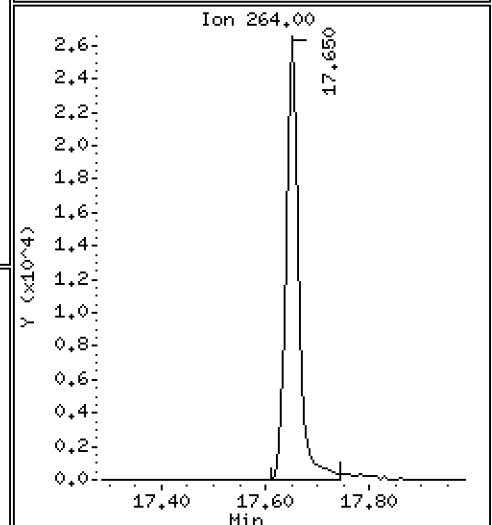
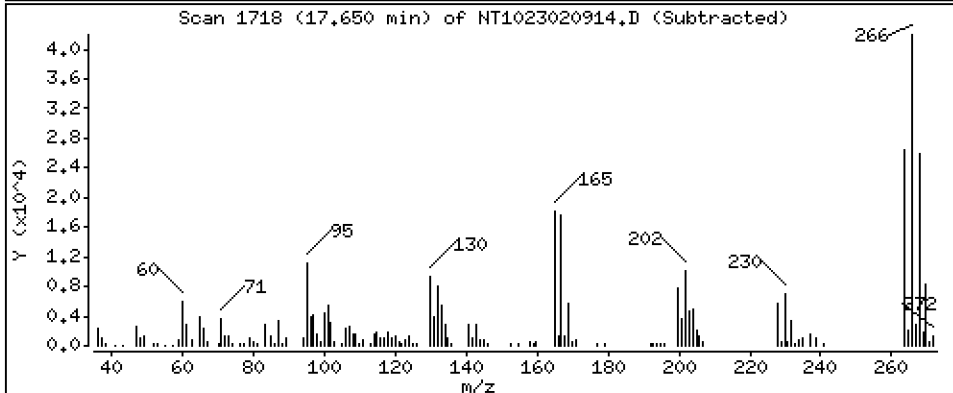
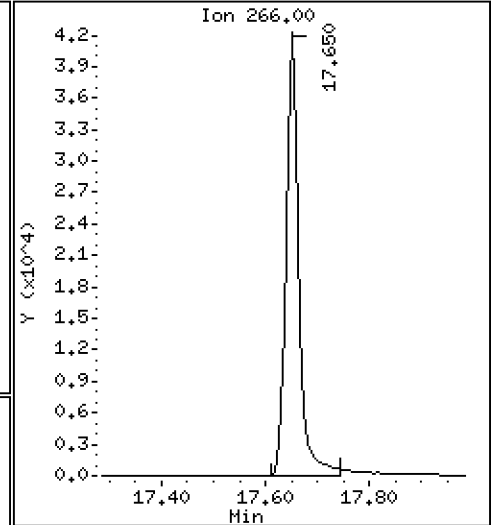
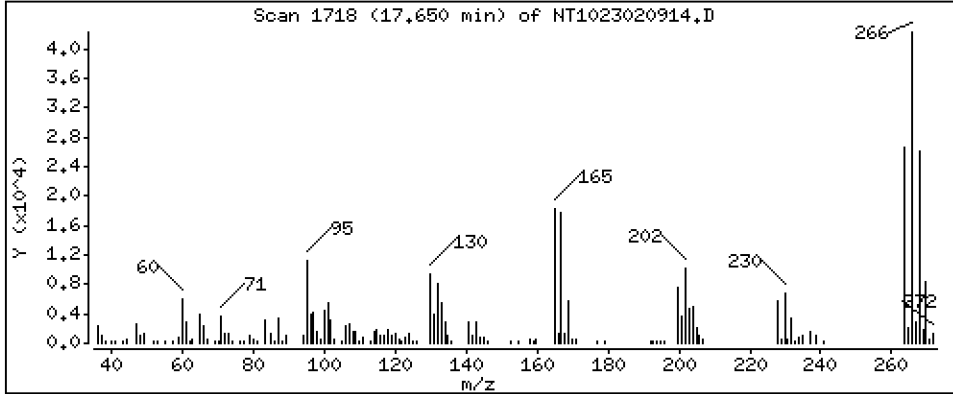
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 15,41 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

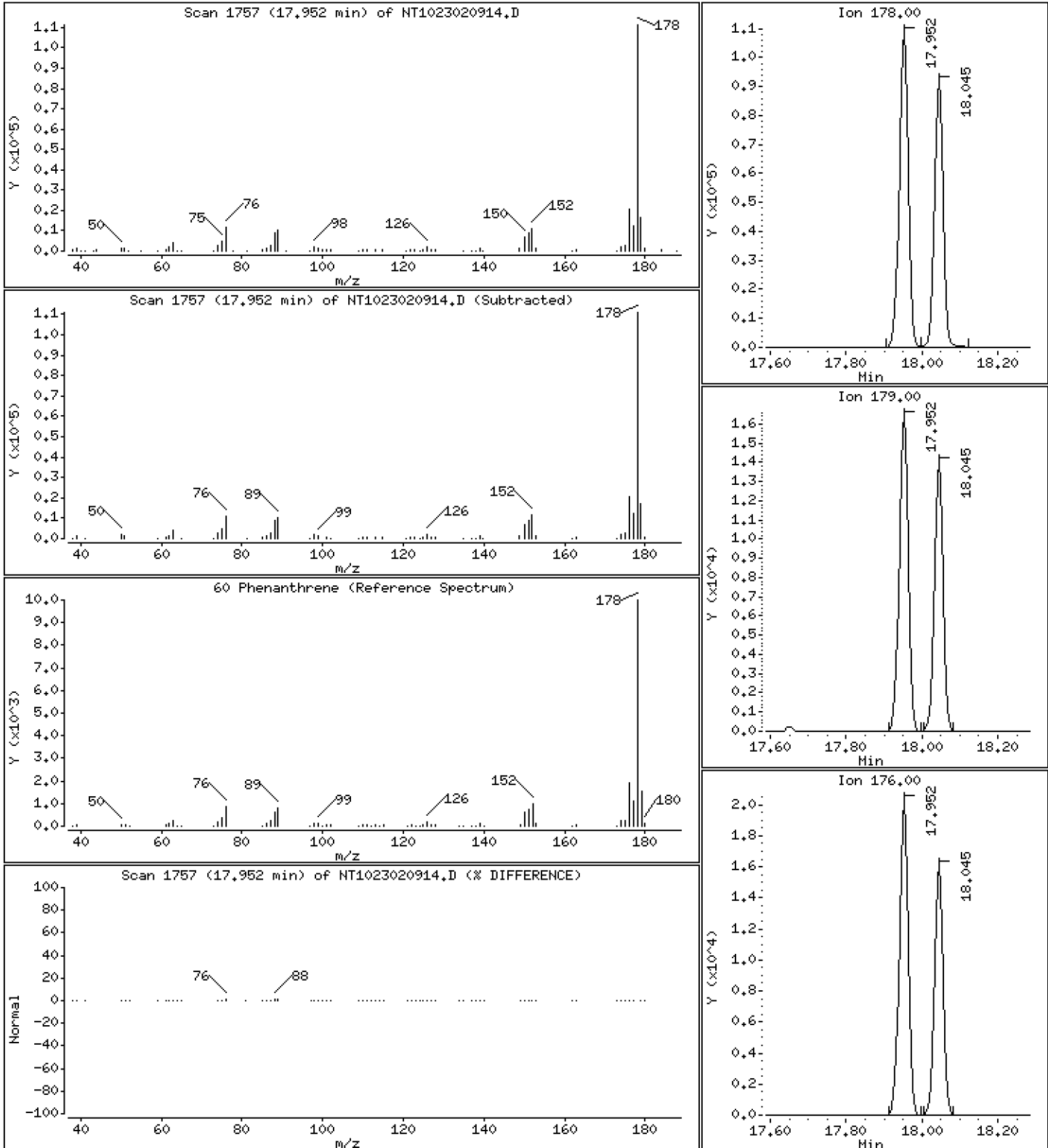
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 3,899 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

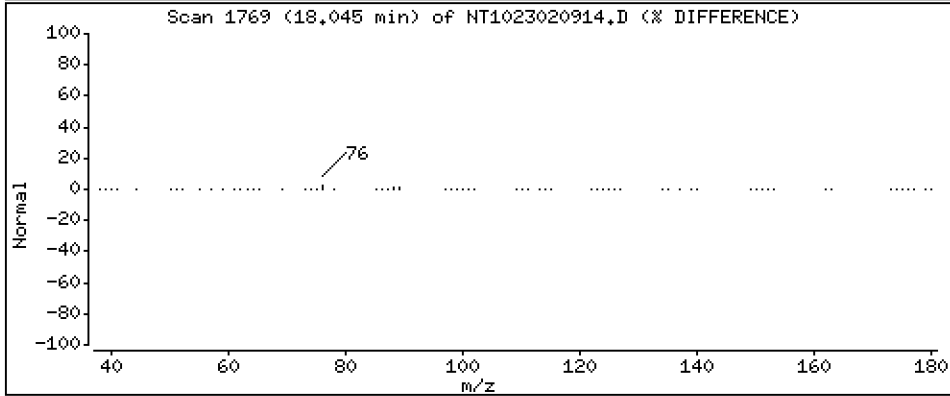
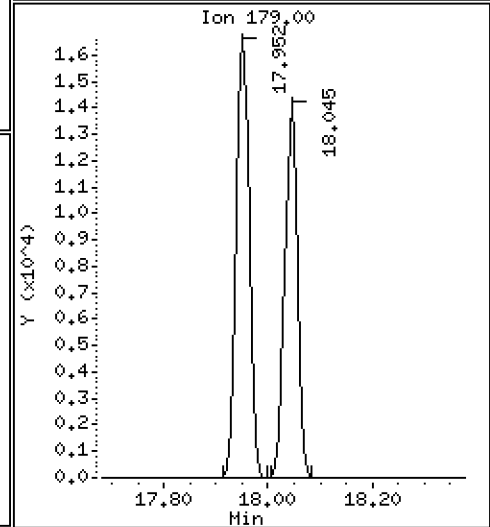
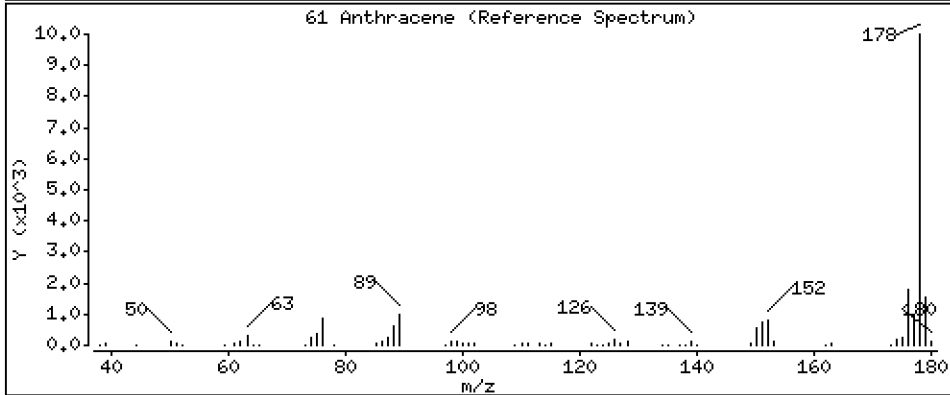
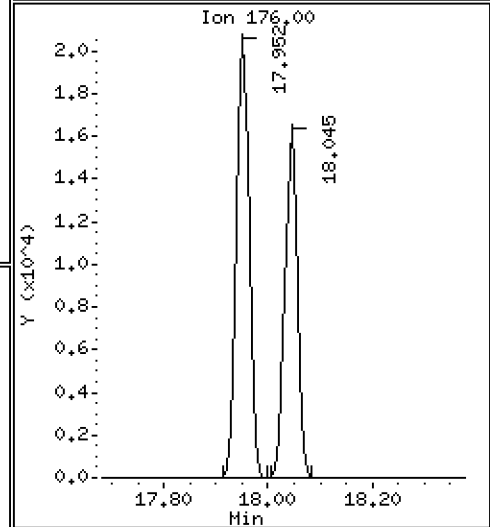
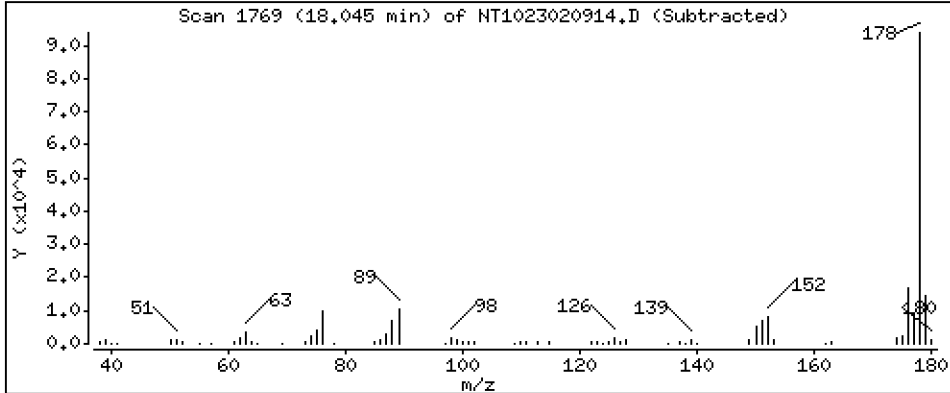
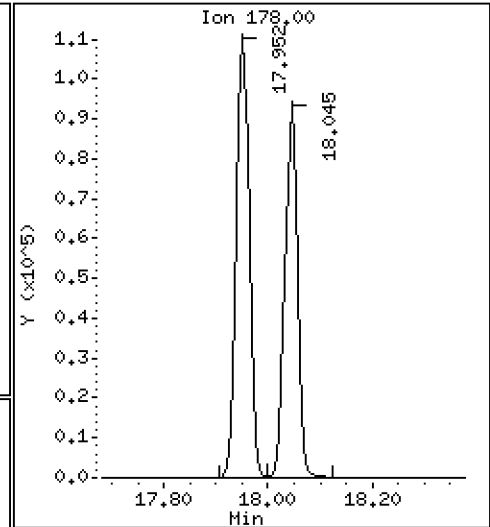
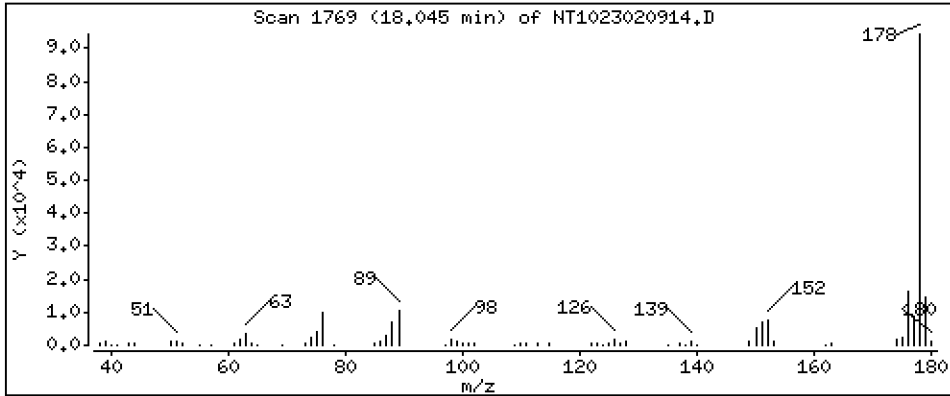
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 3,297 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

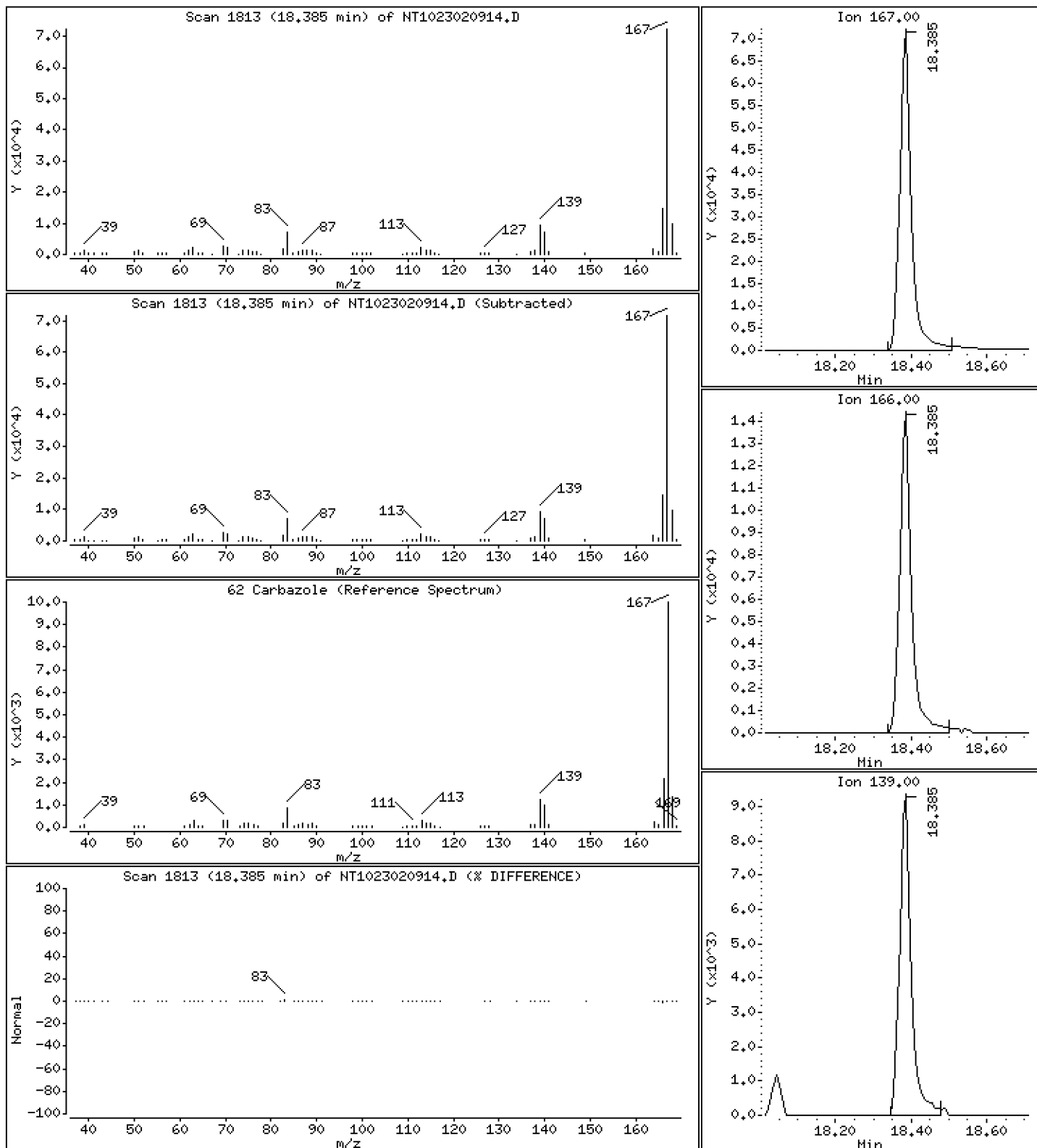
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 3,389 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

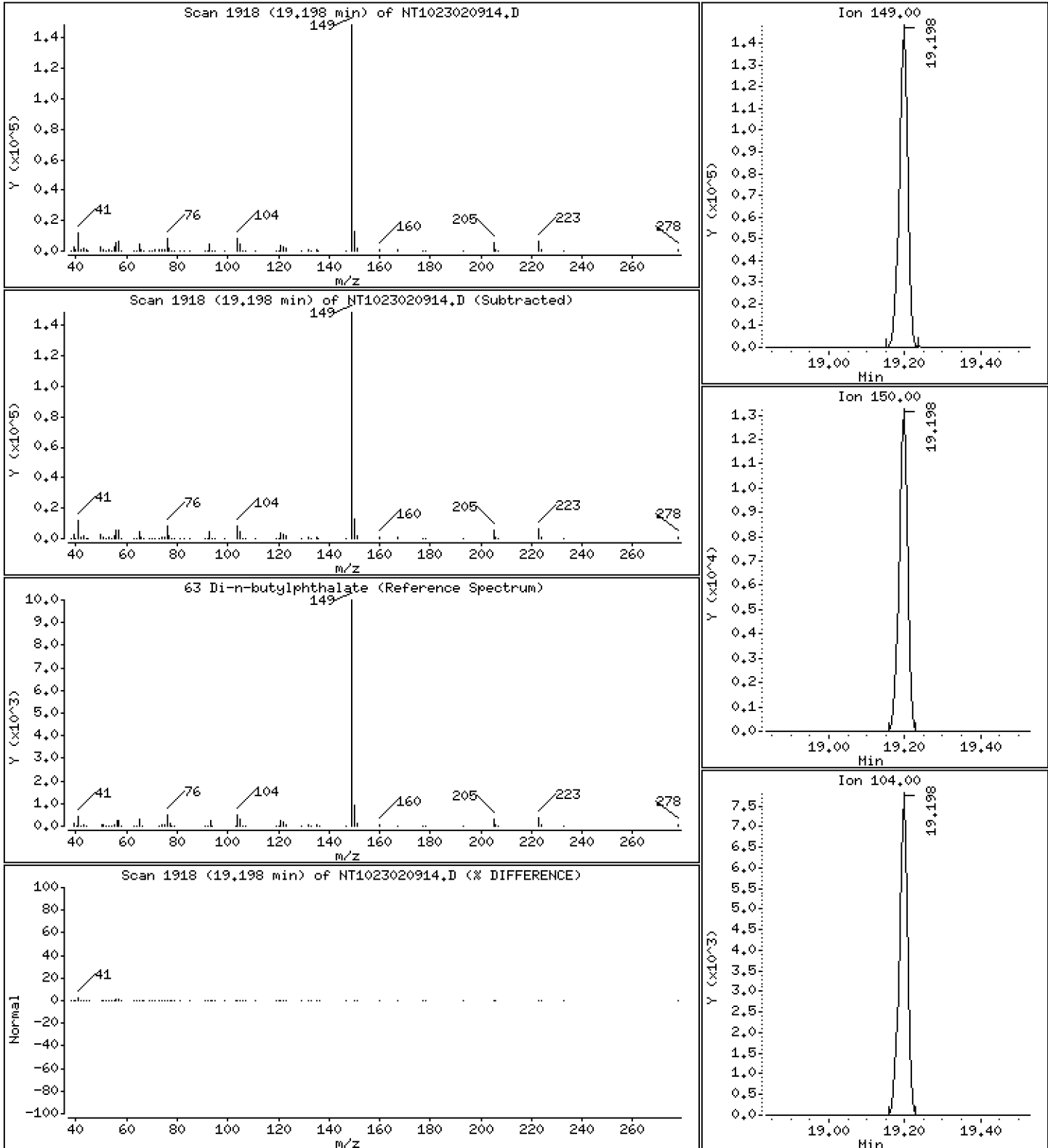
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,331 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

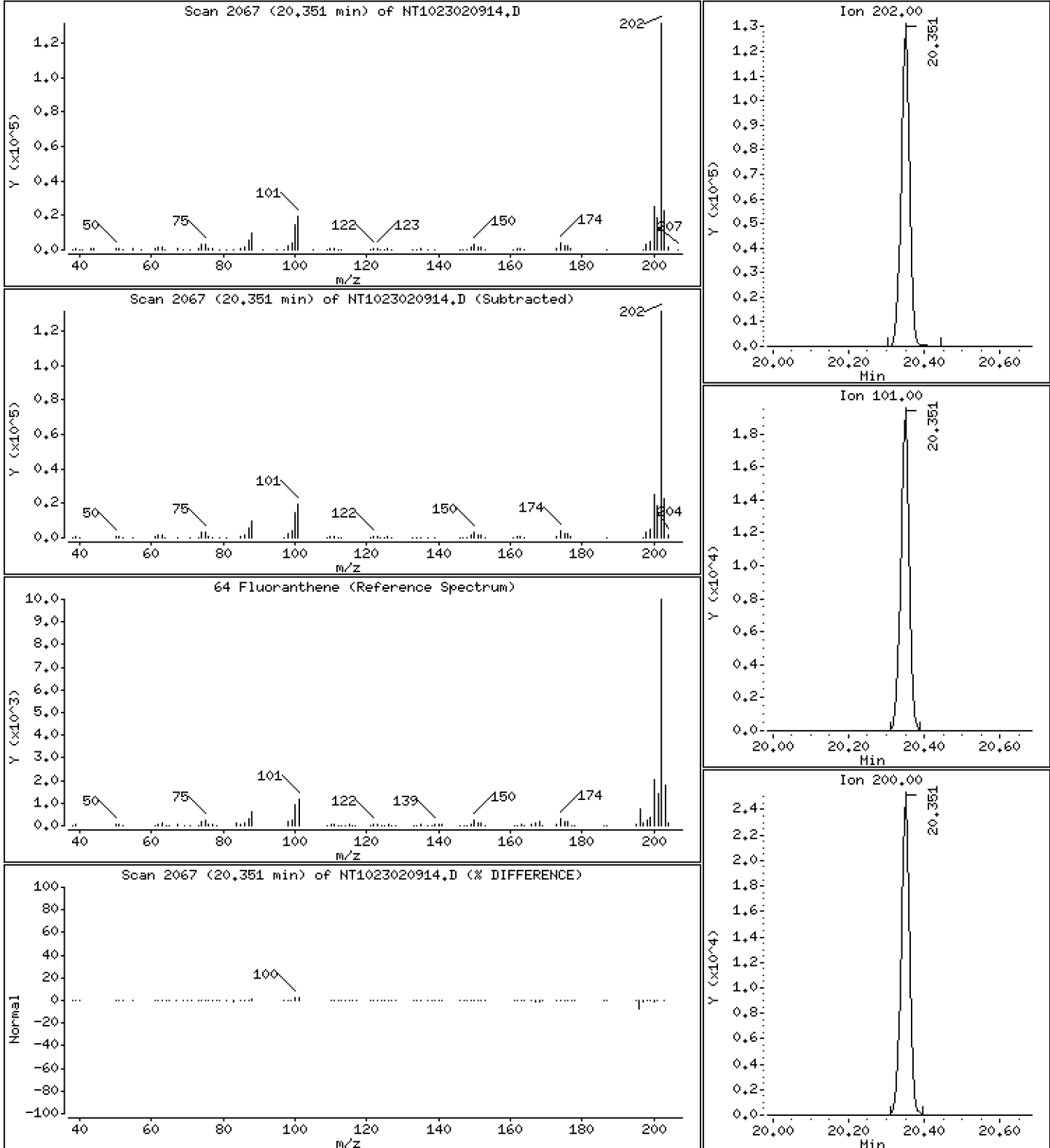
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 3,654 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

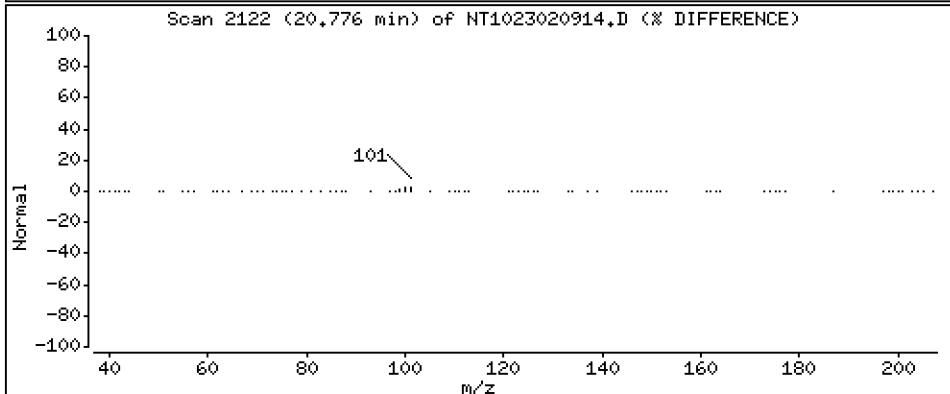
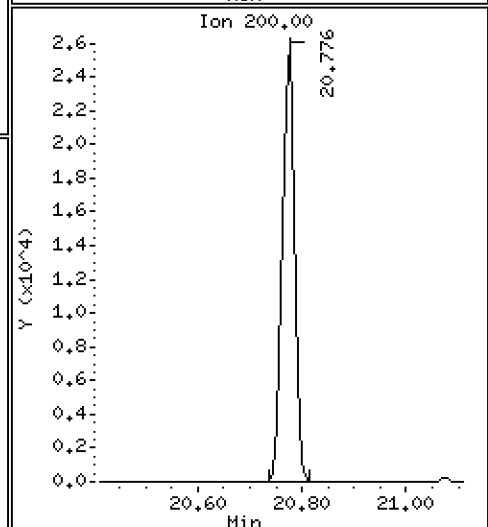
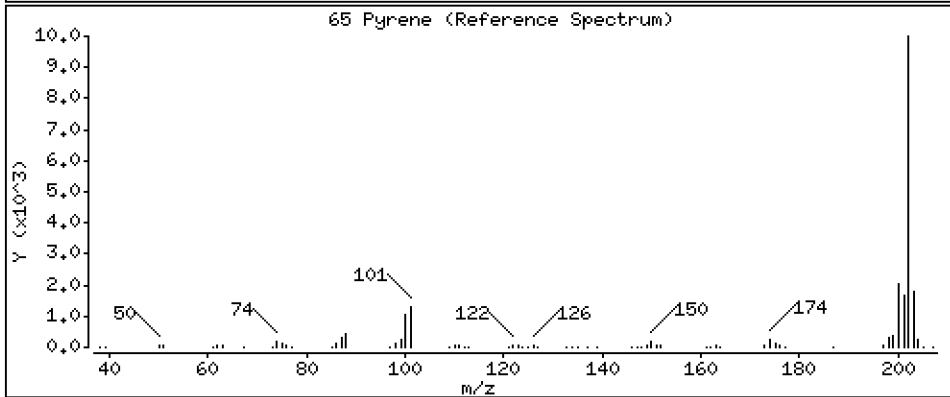
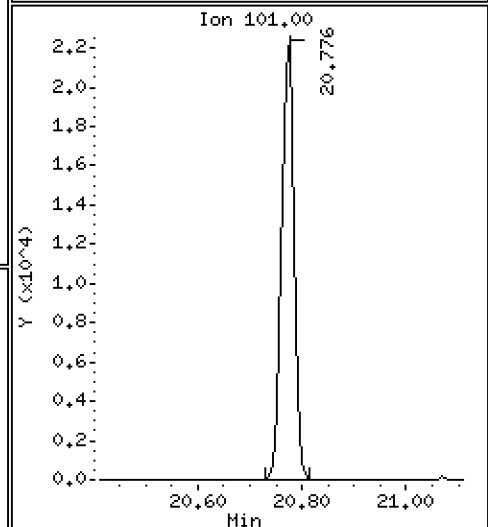
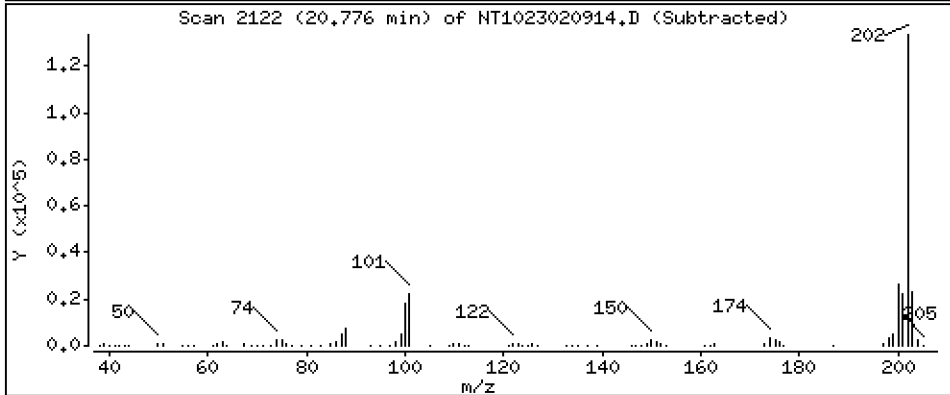
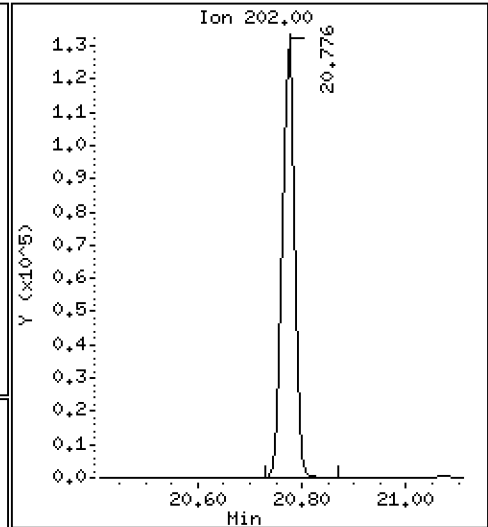
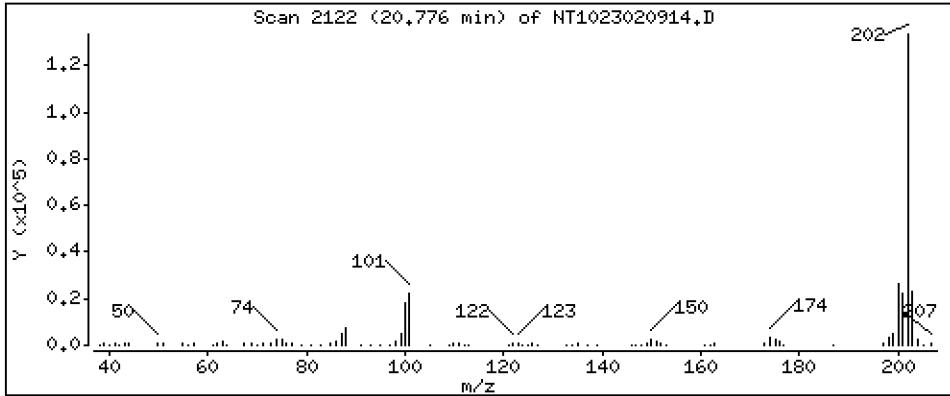
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 3,619 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

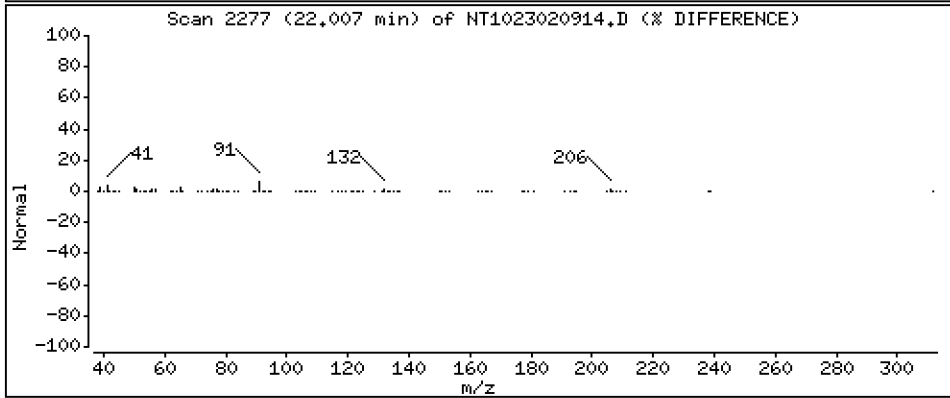
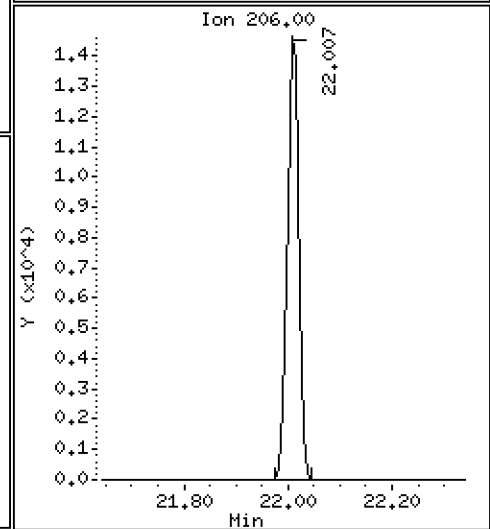
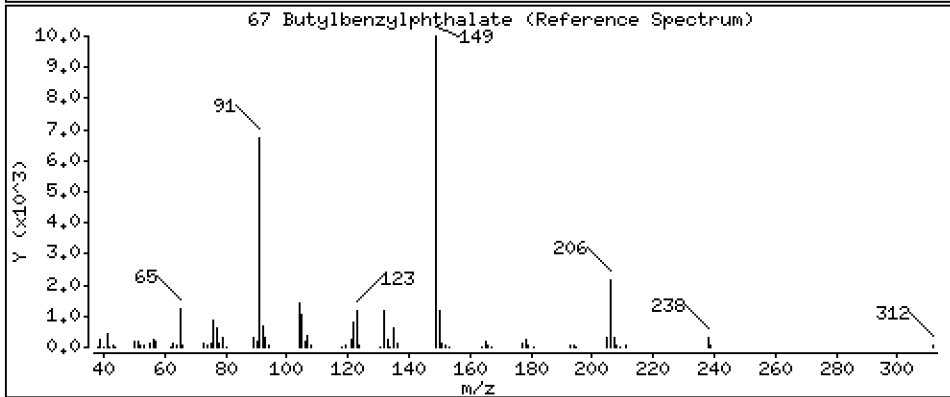
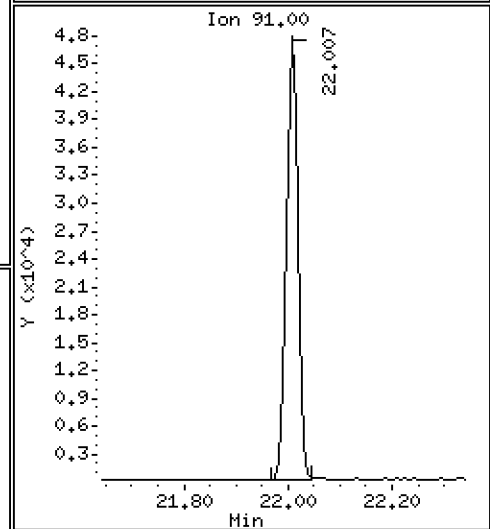
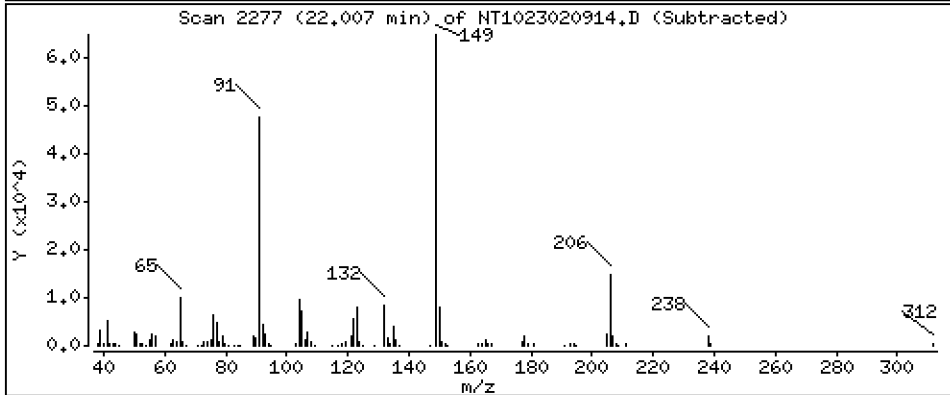
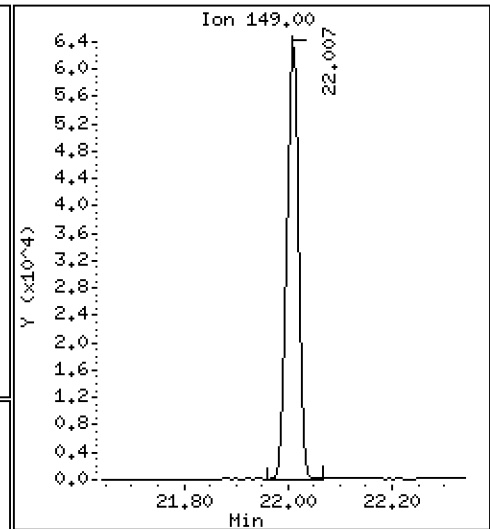
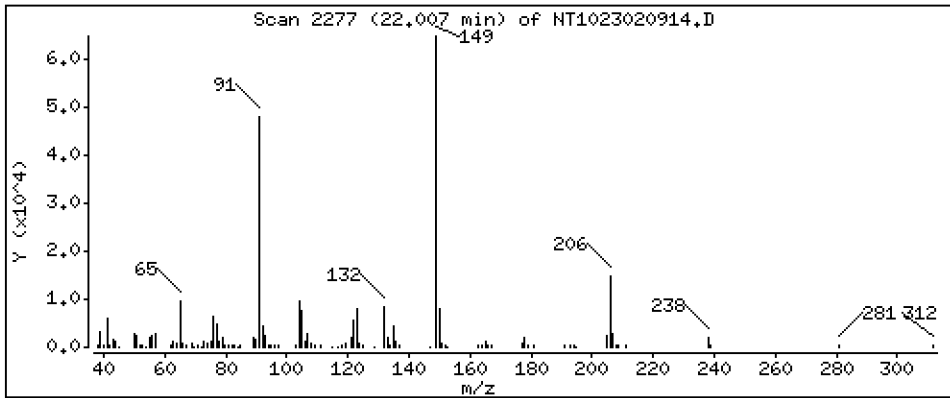
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,024 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

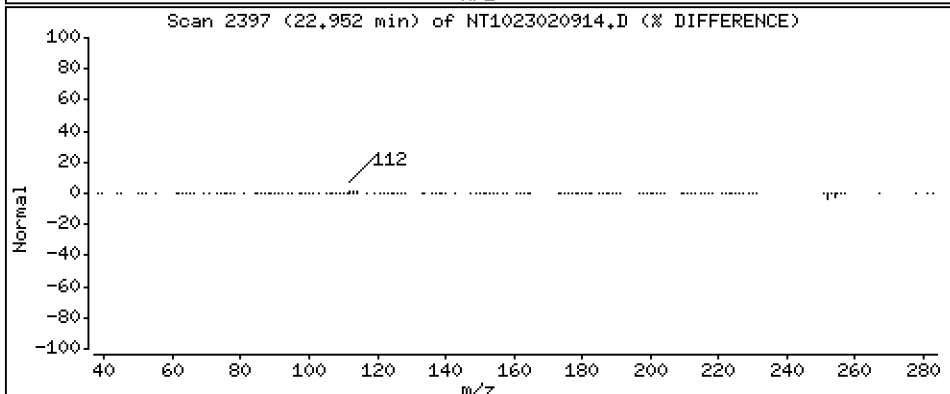
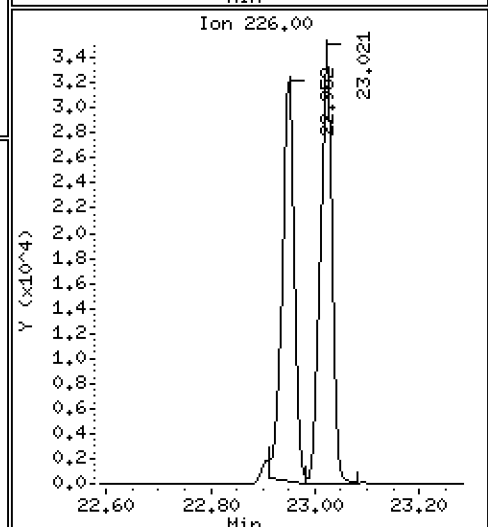
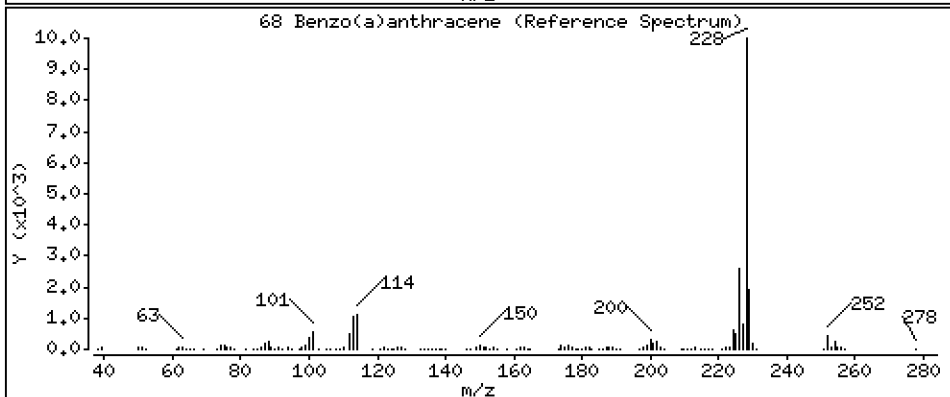
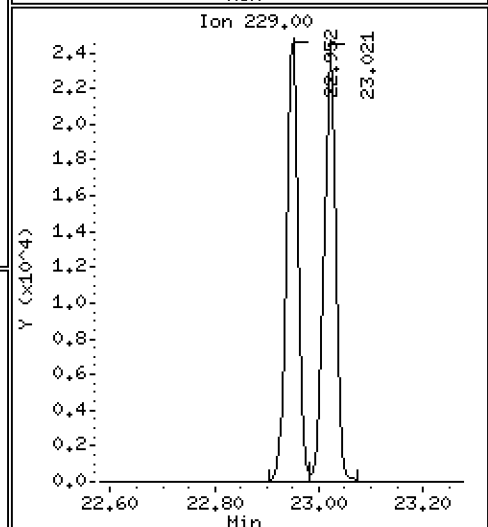
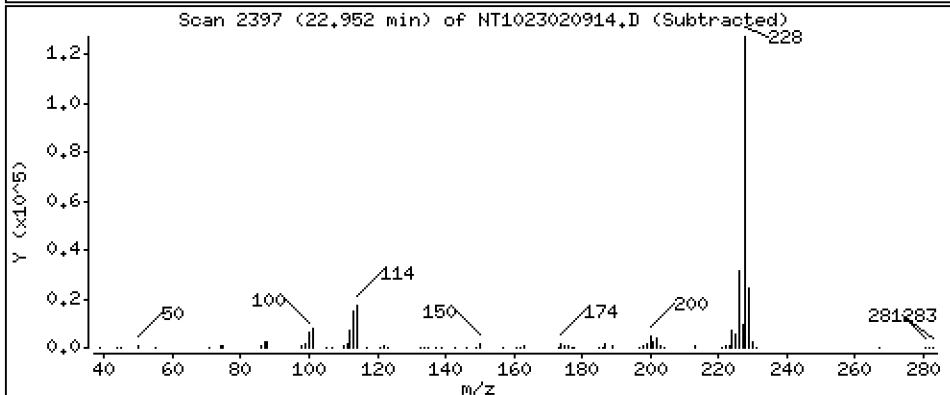
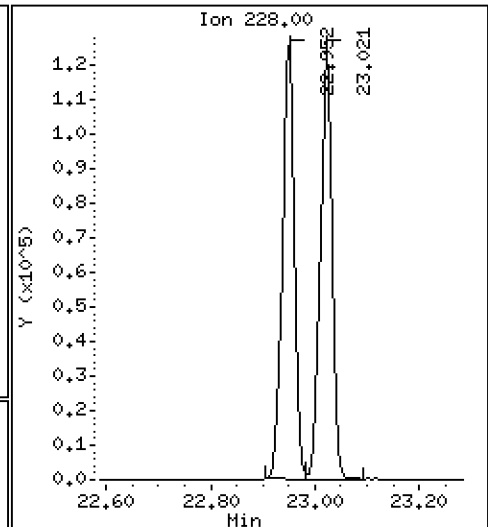
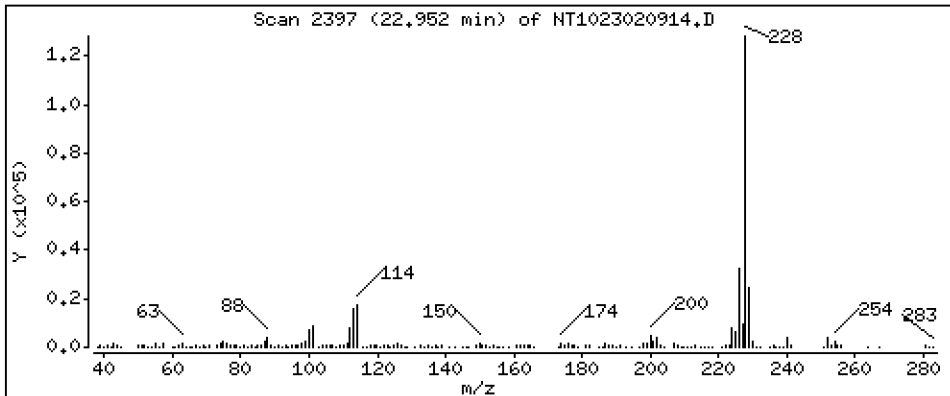
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 3,988 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

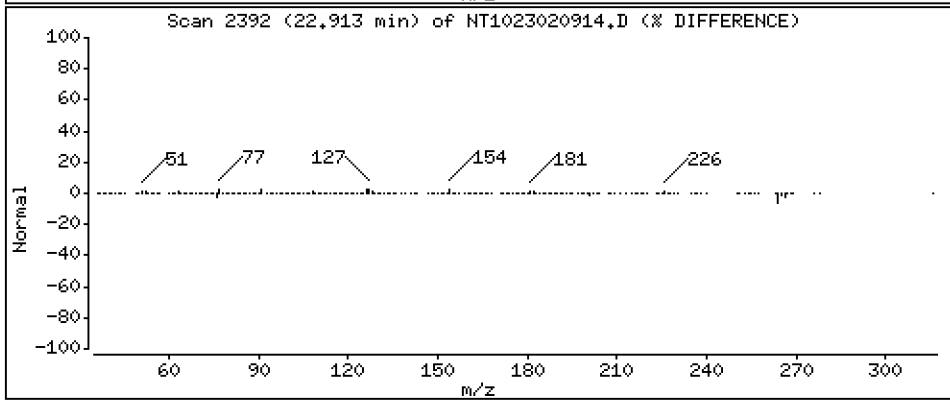
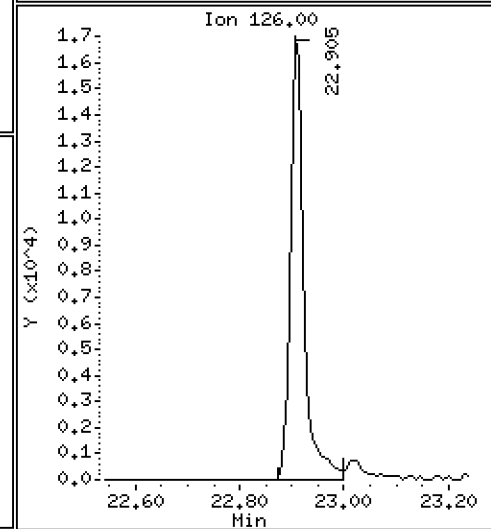
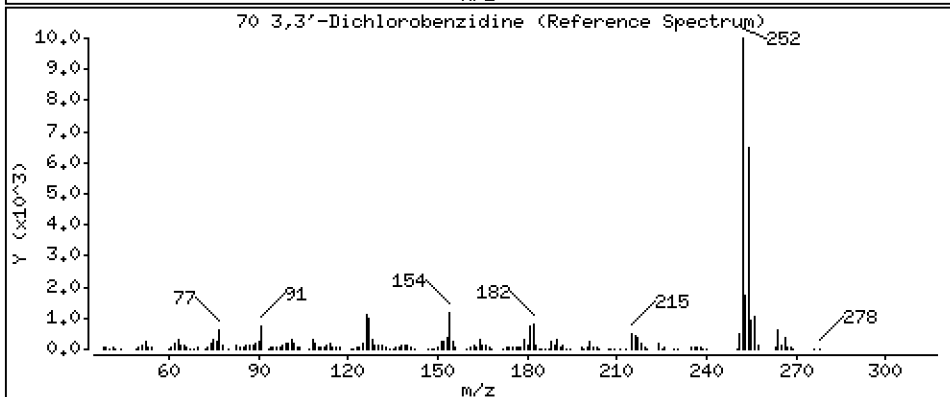
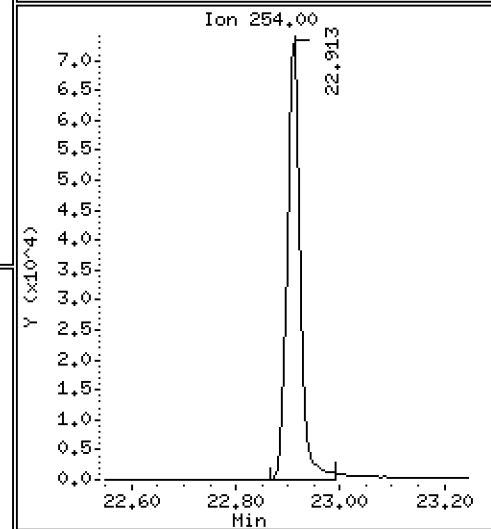
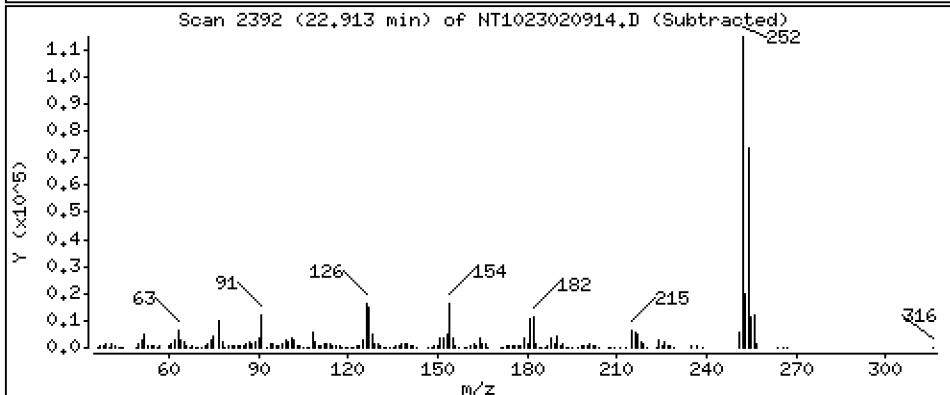
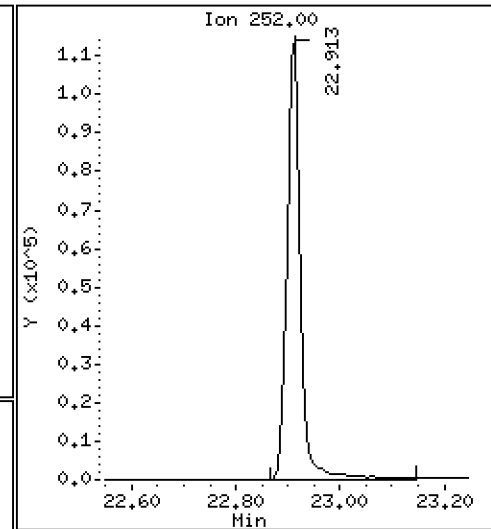
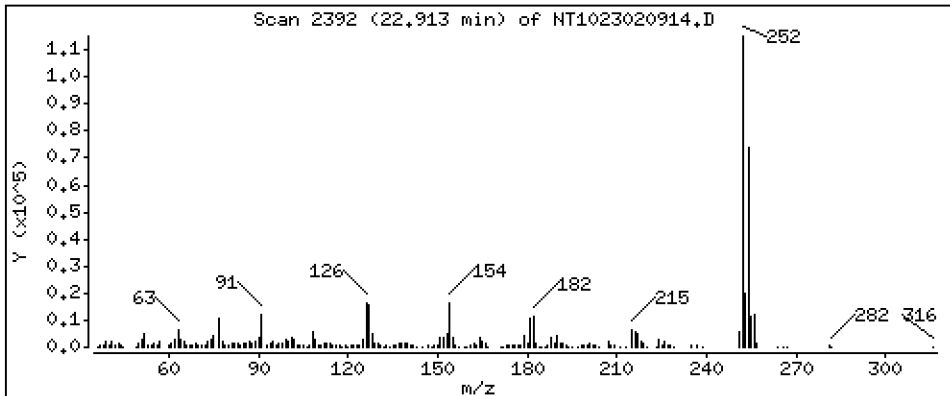
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 12,13 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

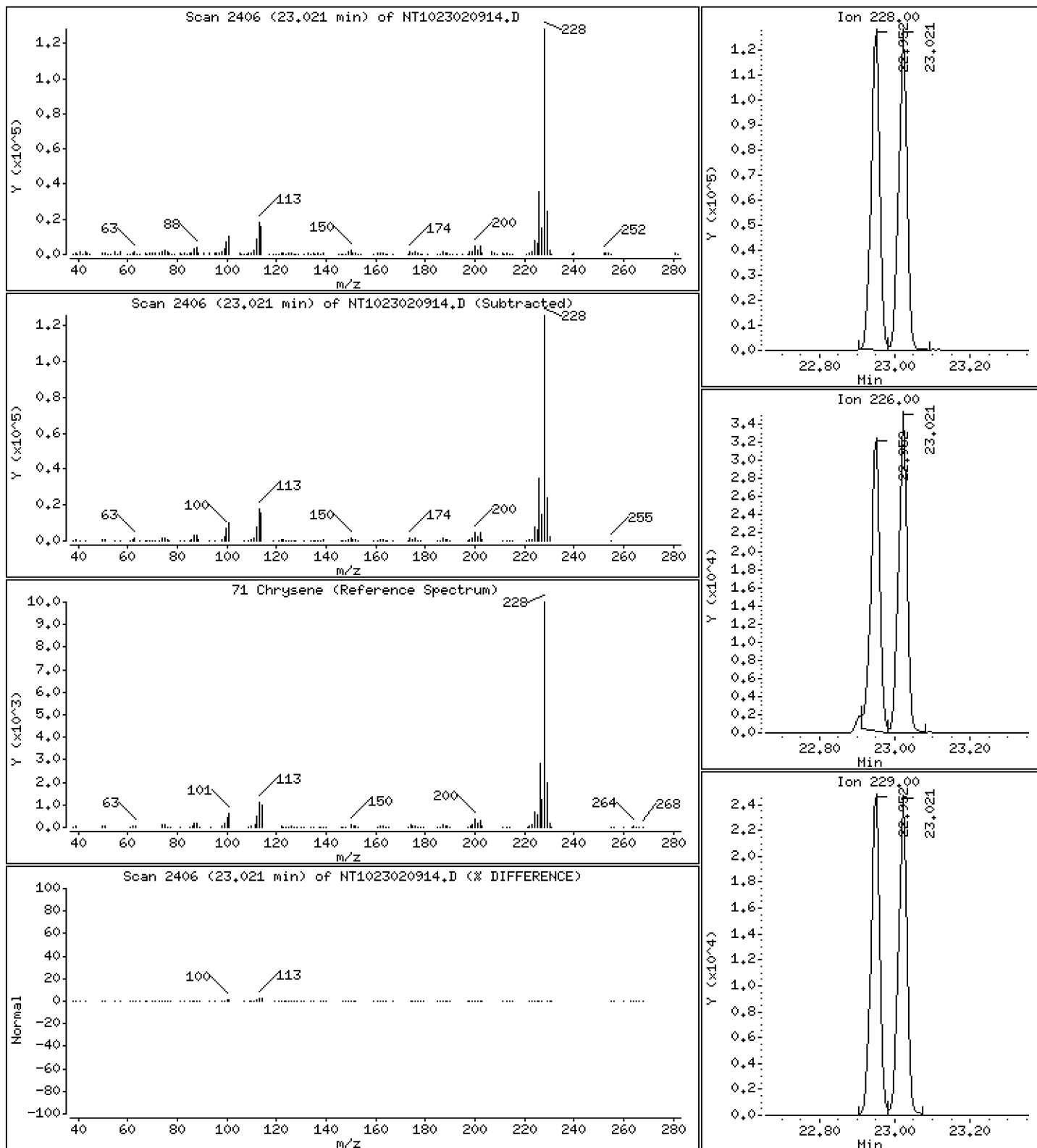
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 3,928 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

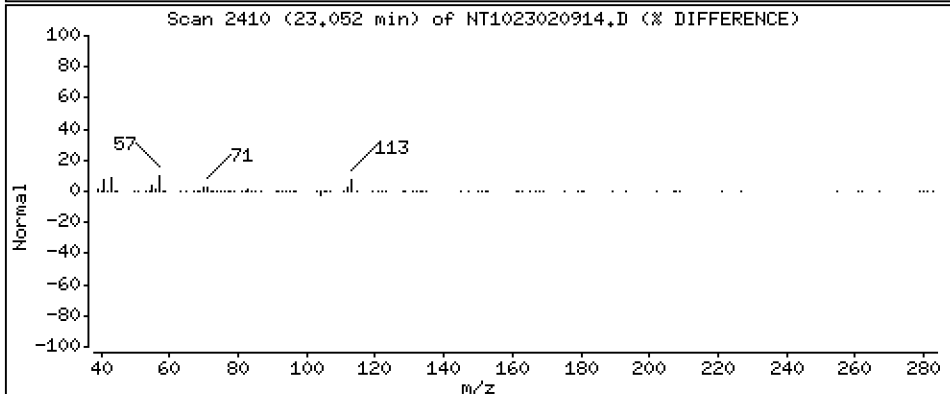
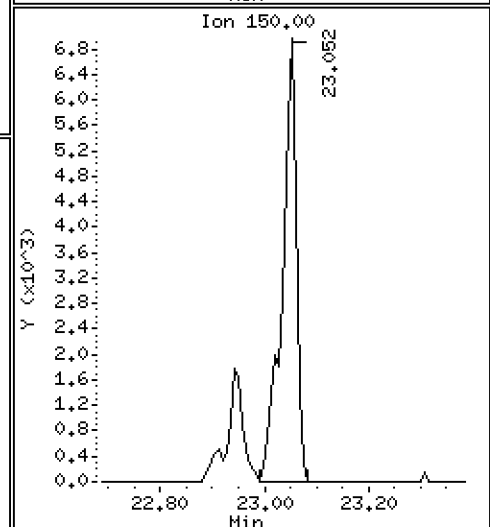
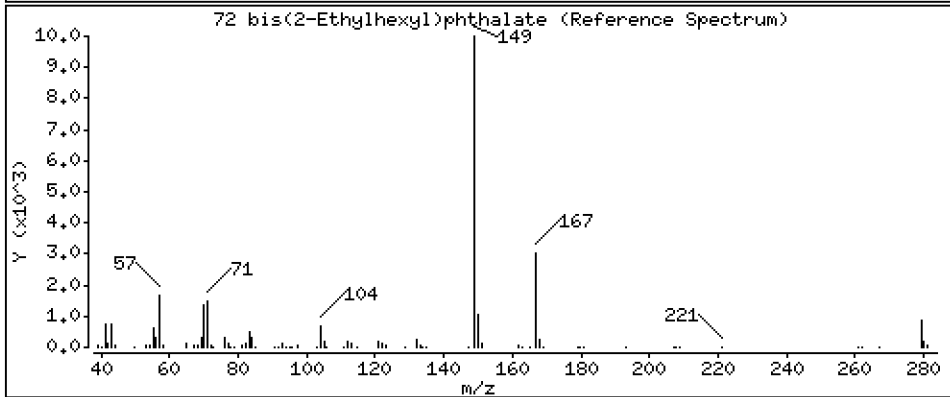
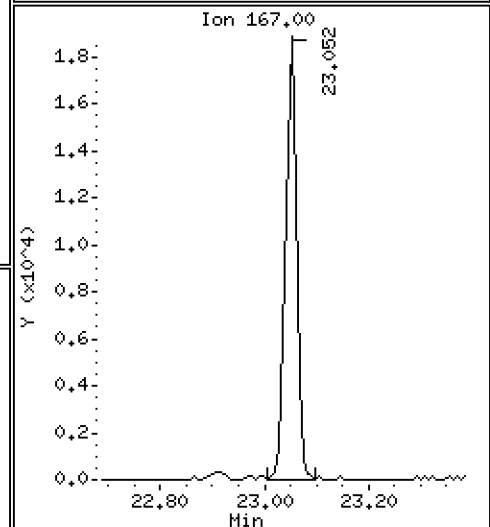
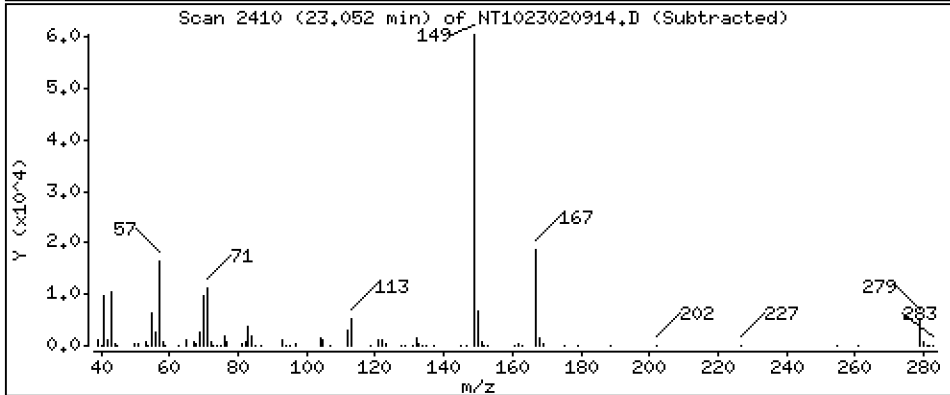
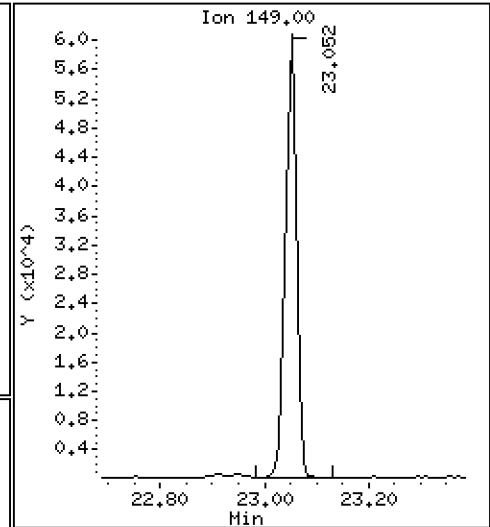
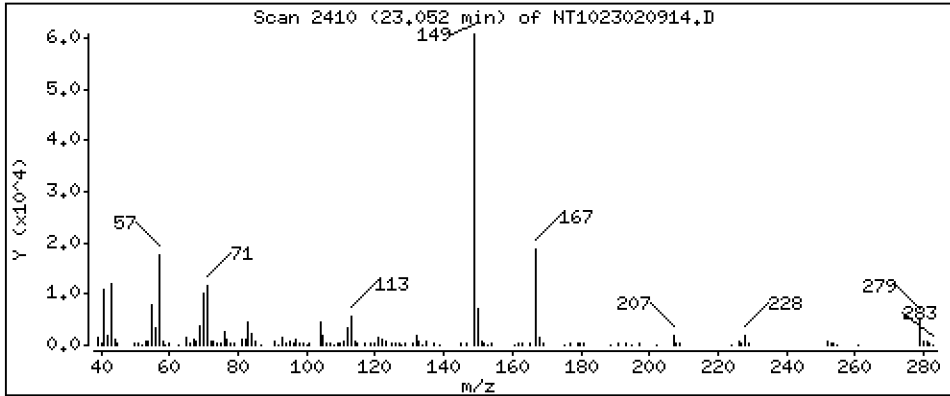
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 2,615 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

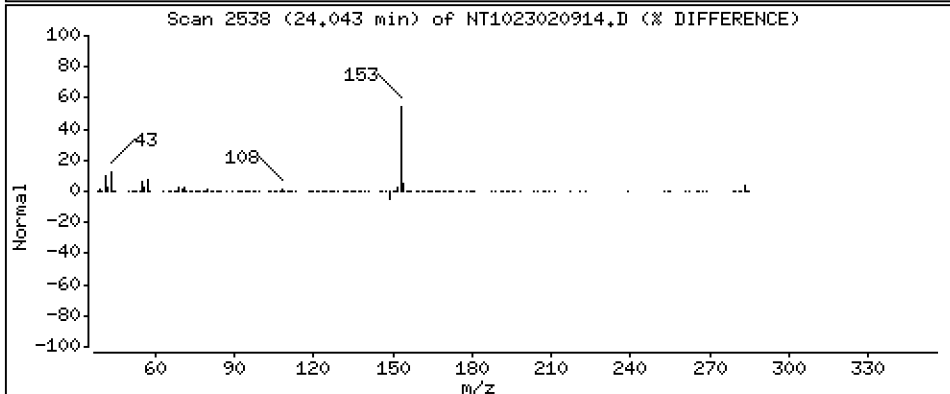
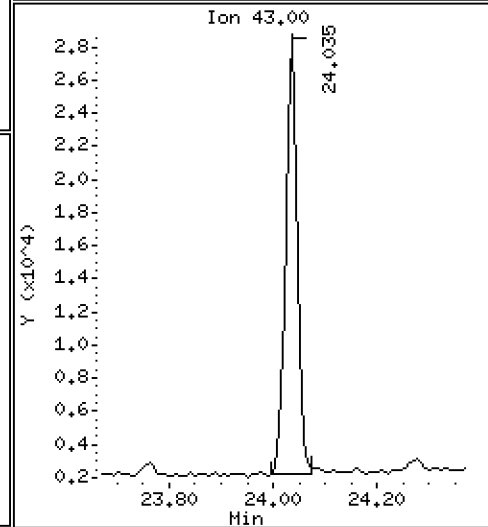
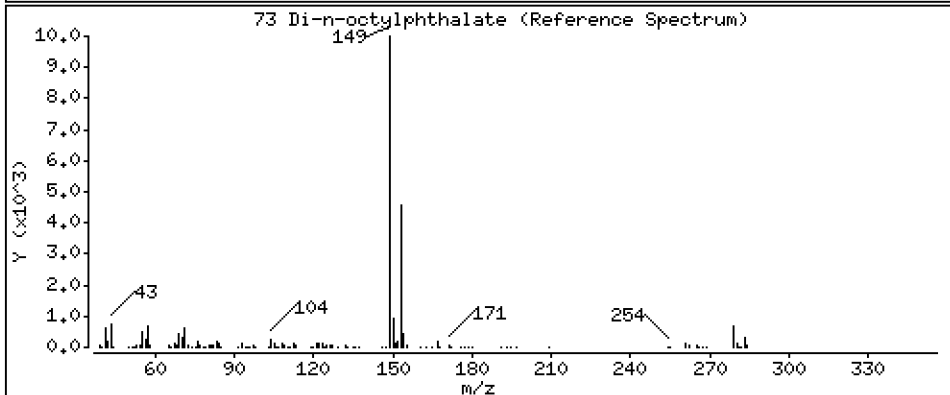
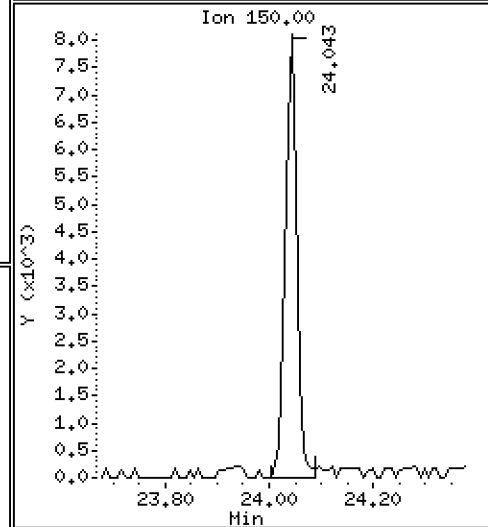
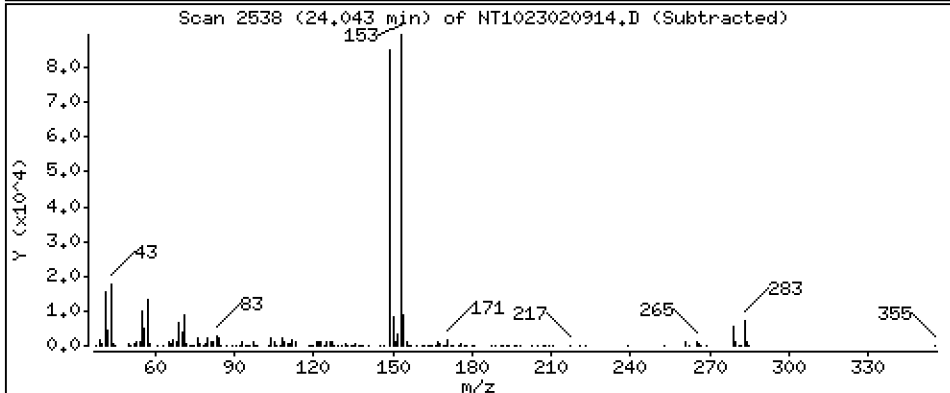
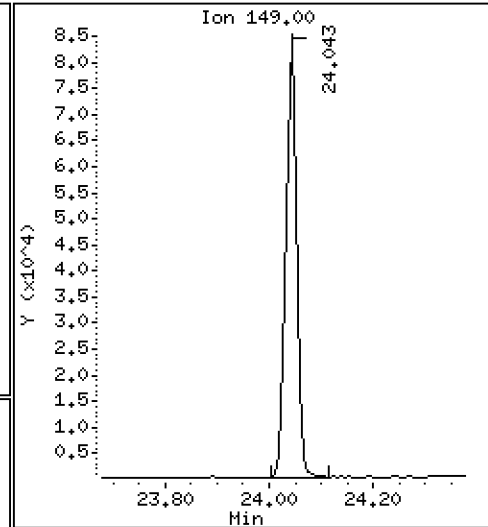
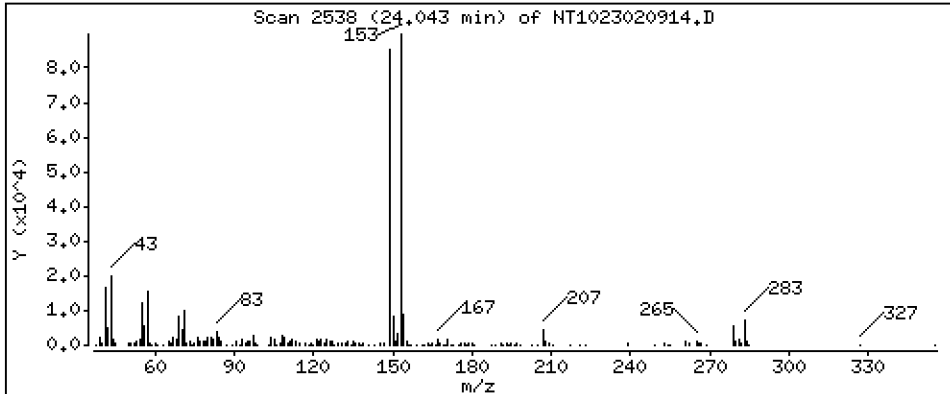
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 1,886 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

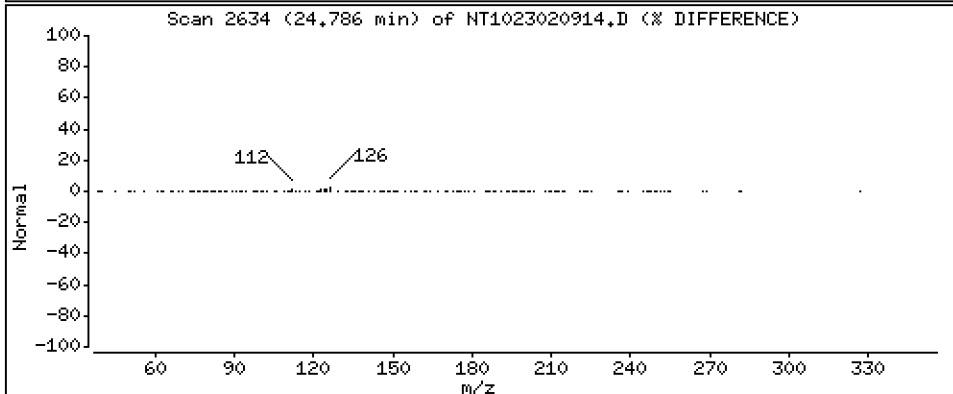
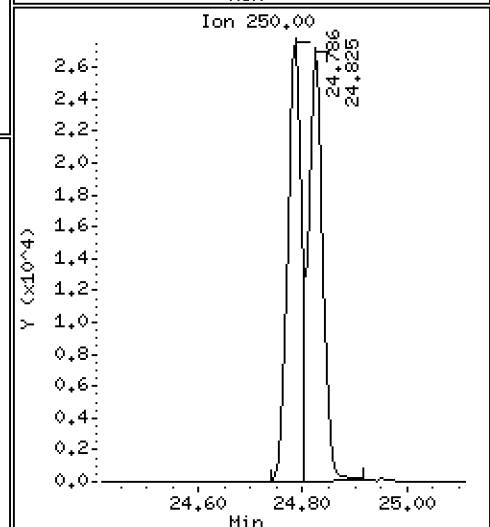
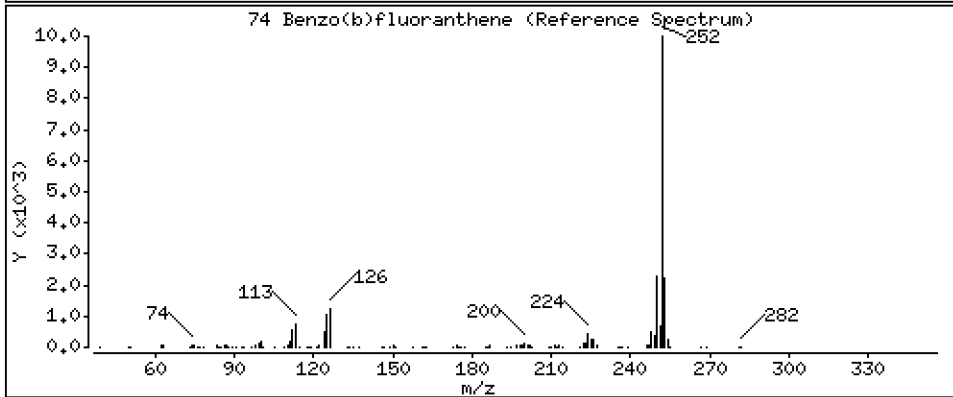
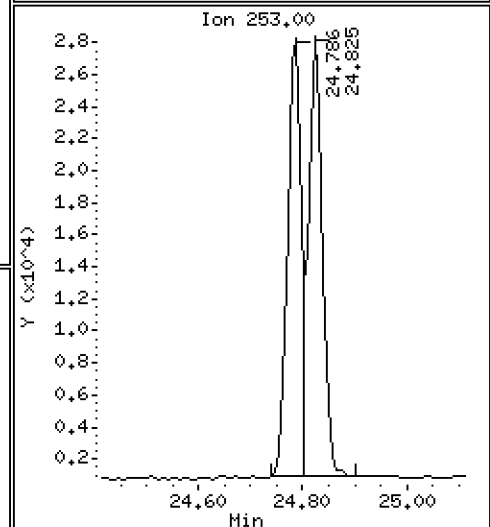
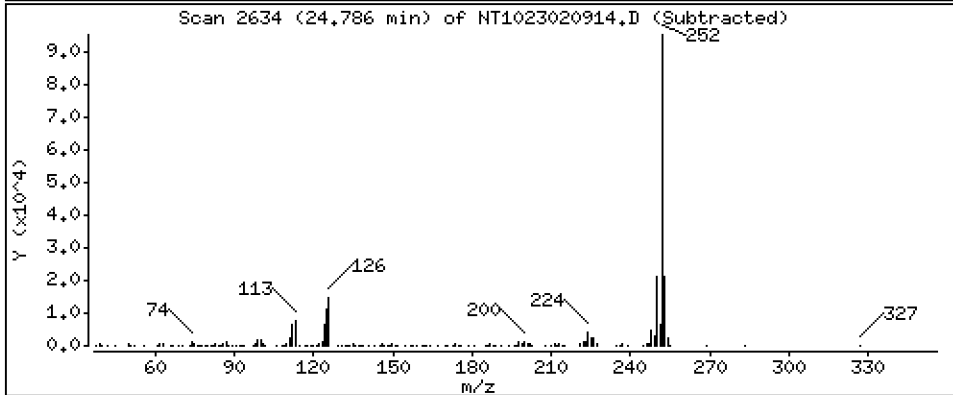
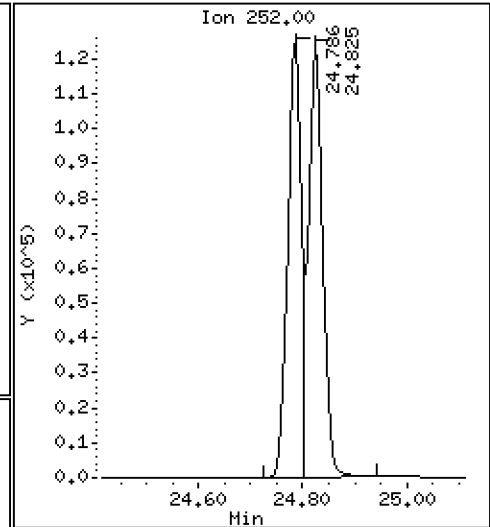
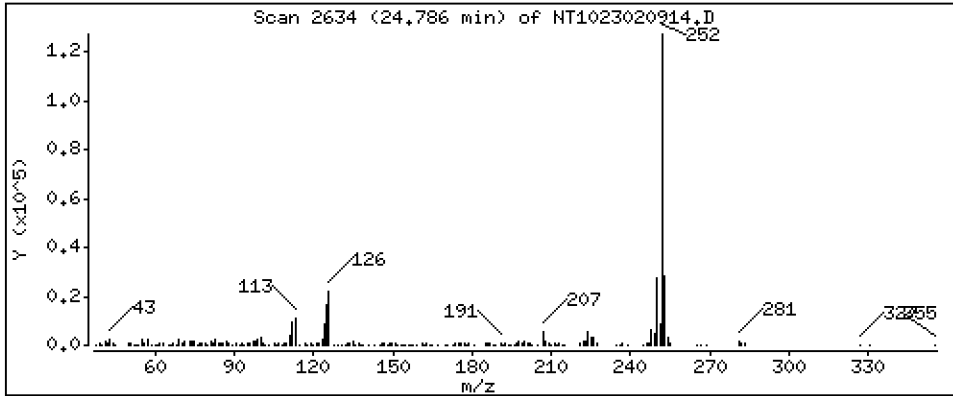
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 3,995 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

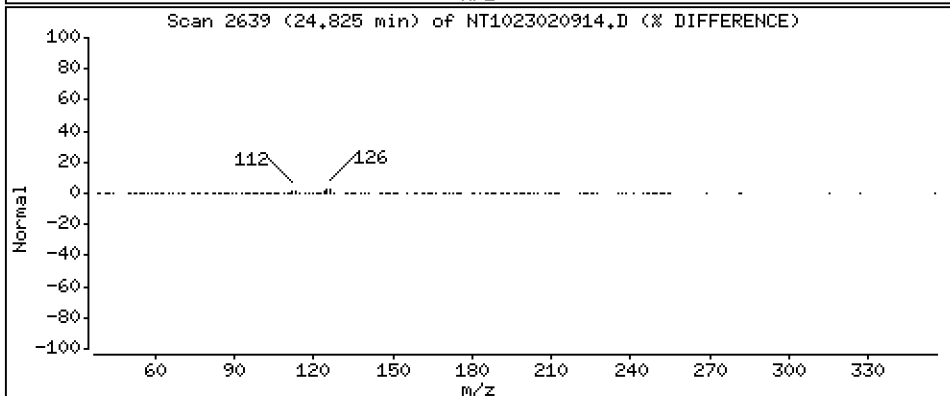
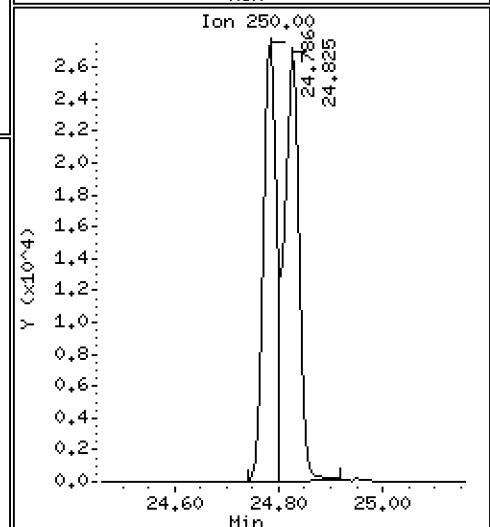
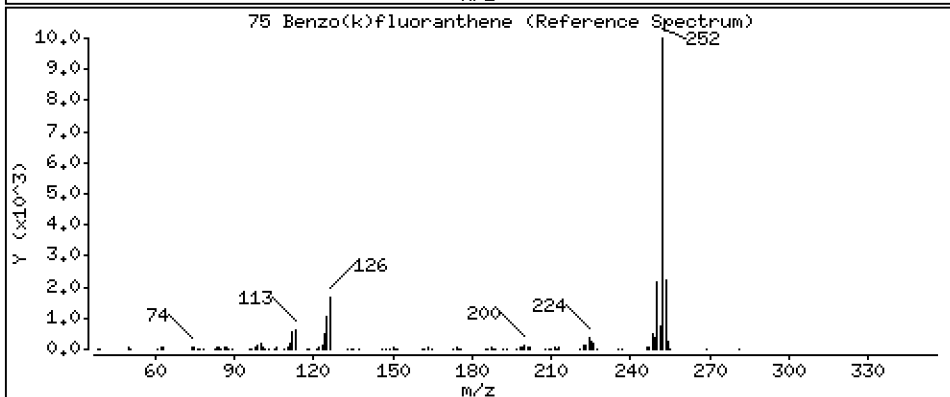
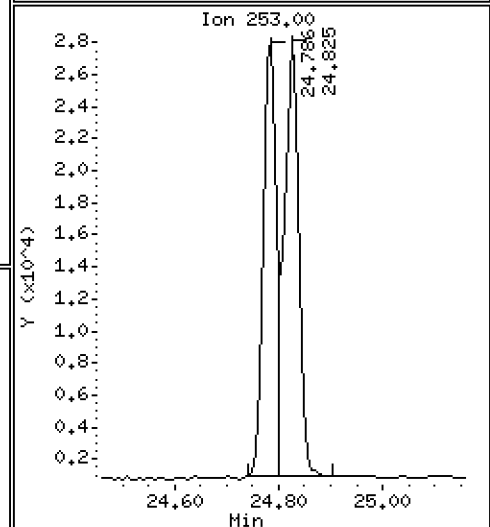
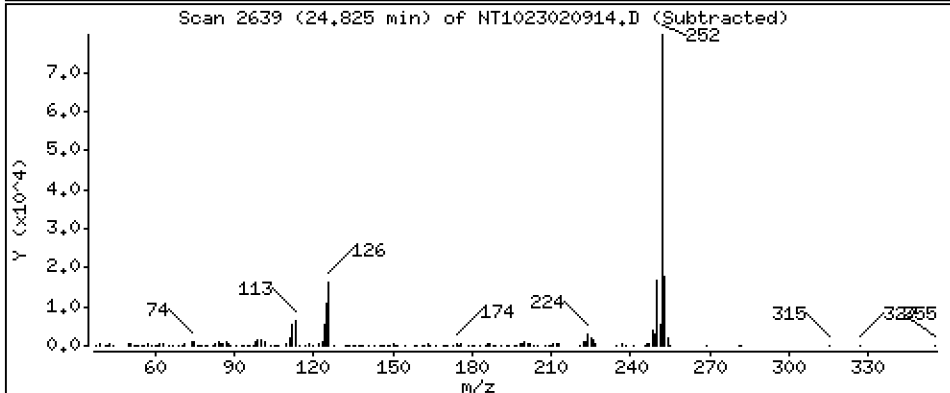
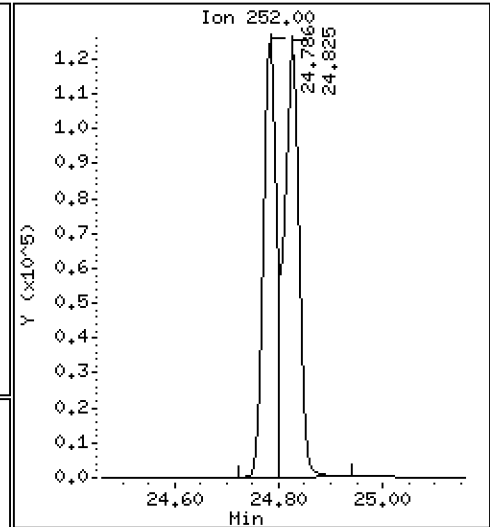
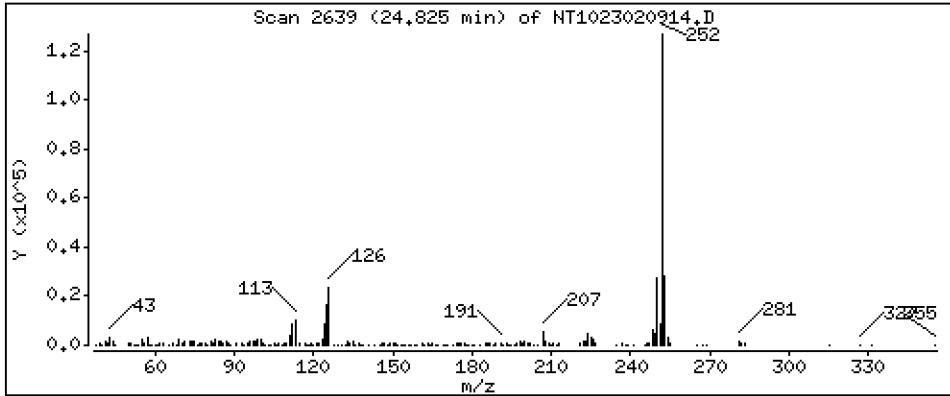
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,166 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

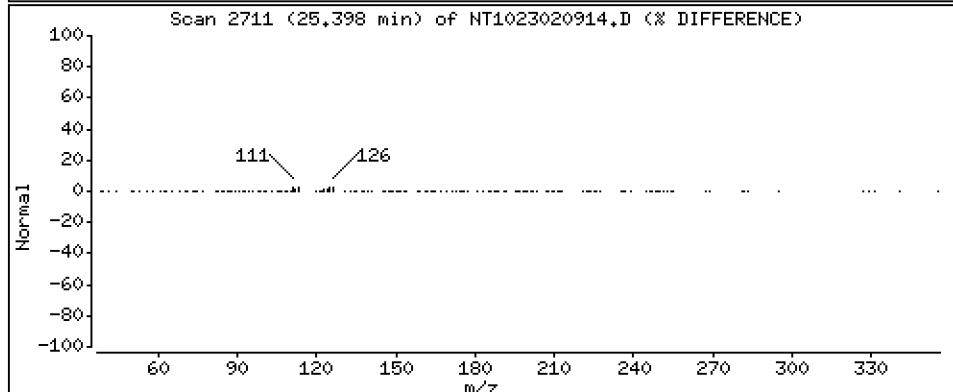
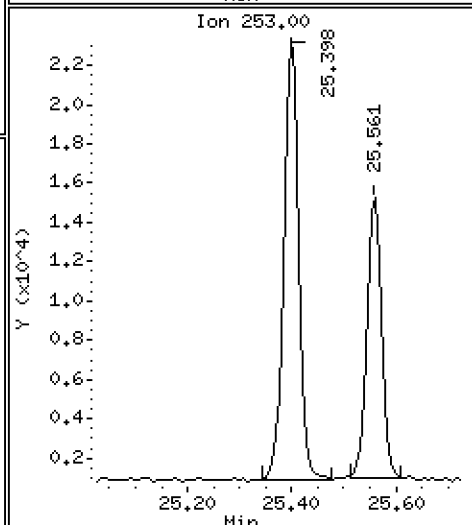
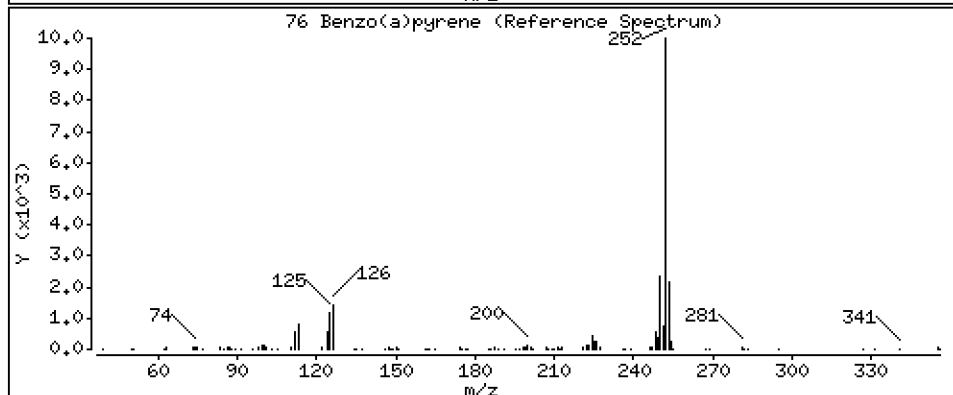
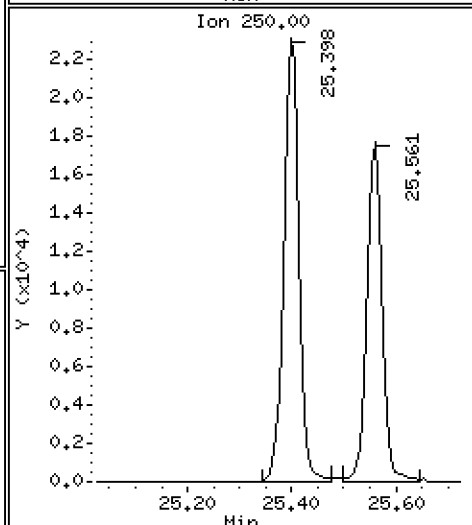
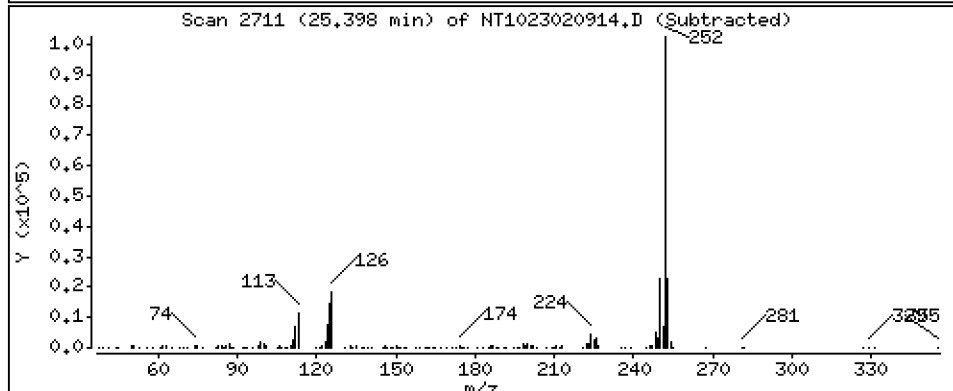
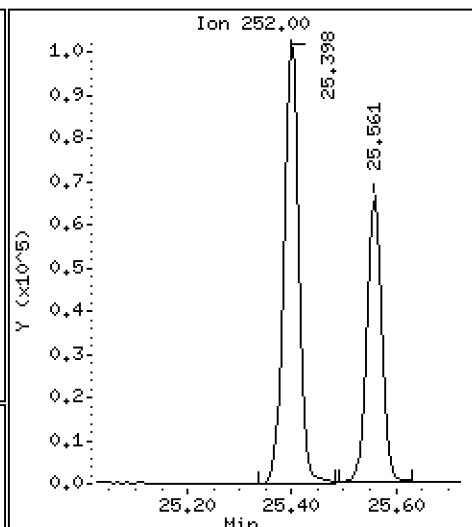
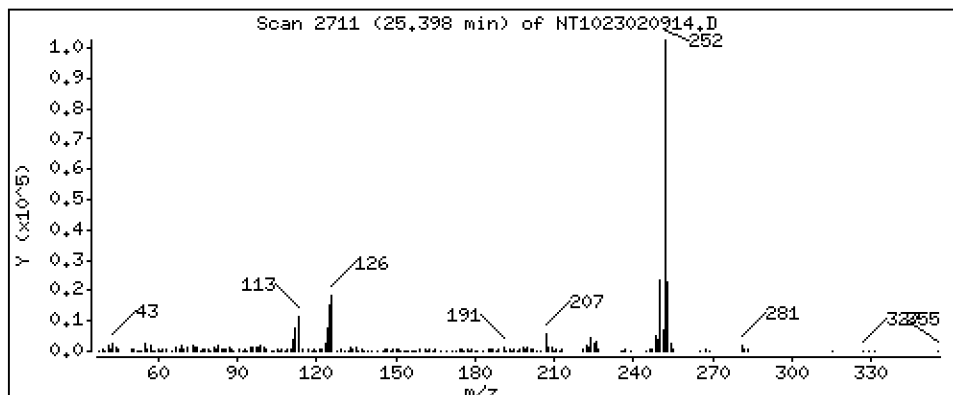
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,038 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

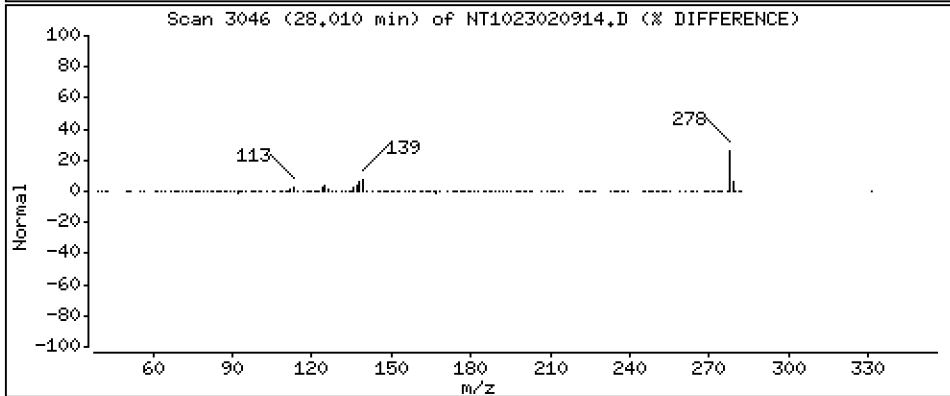
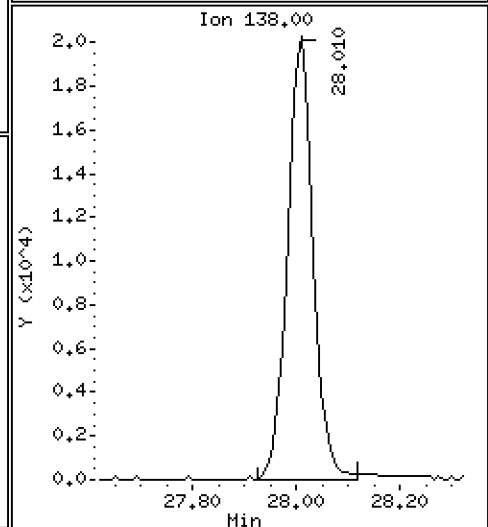
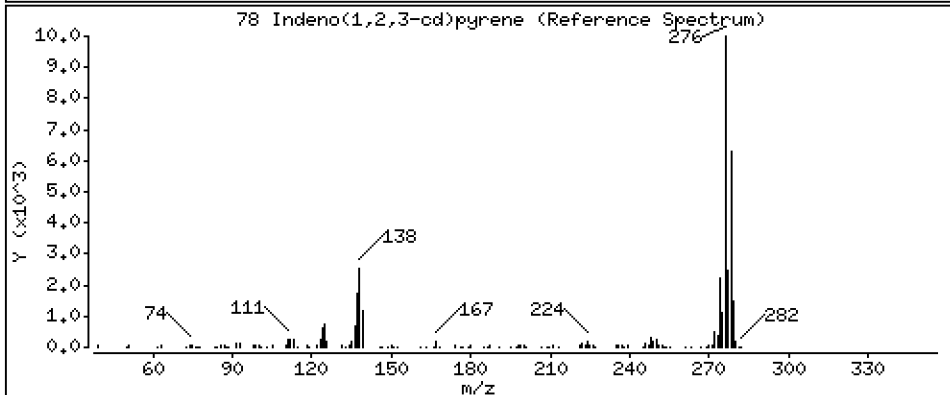
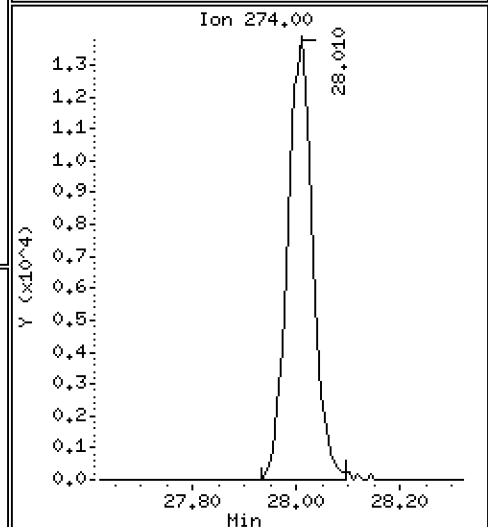
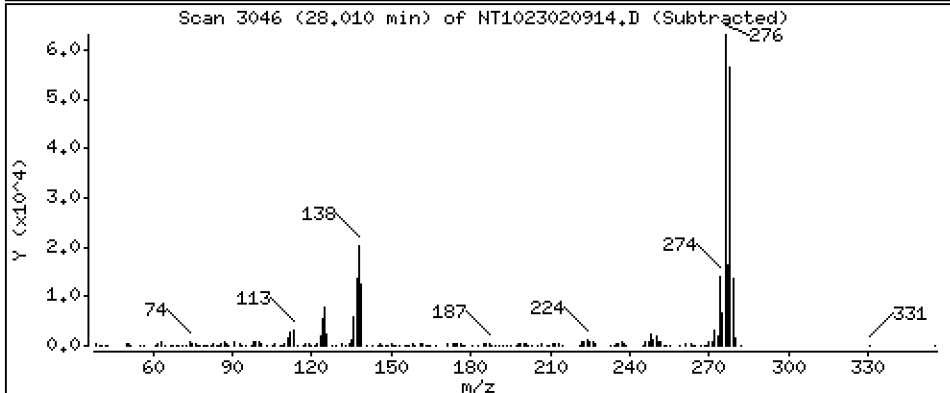
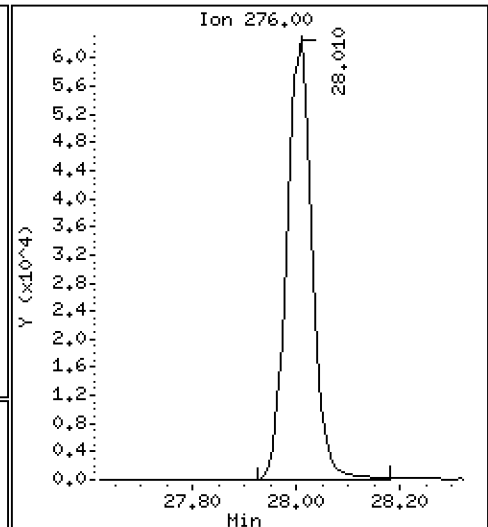
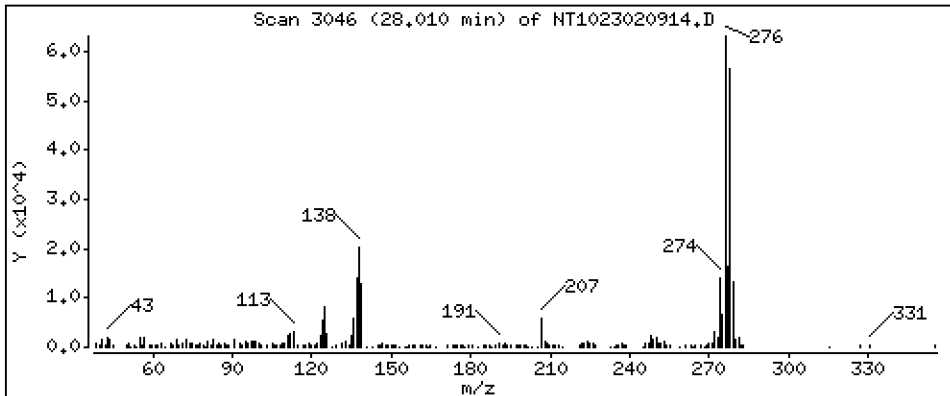
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 3,516 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

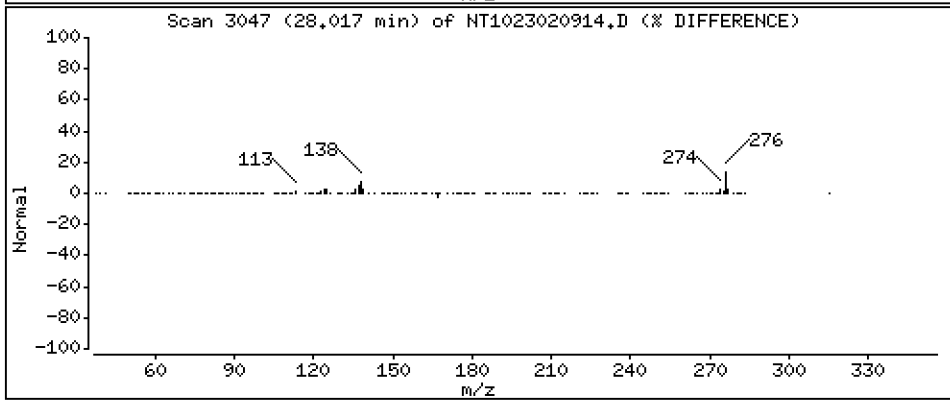
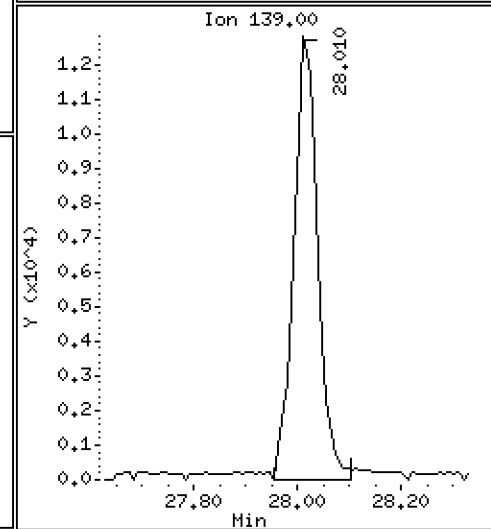
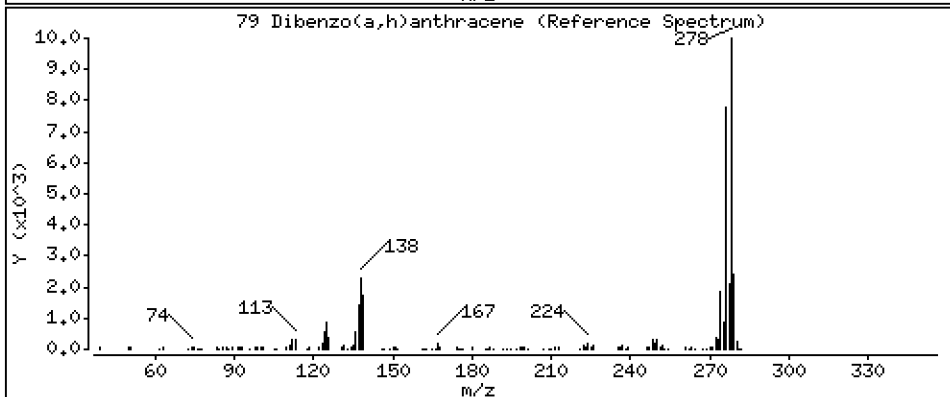
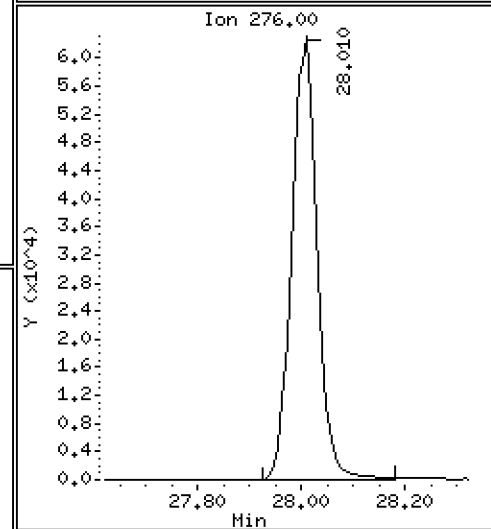
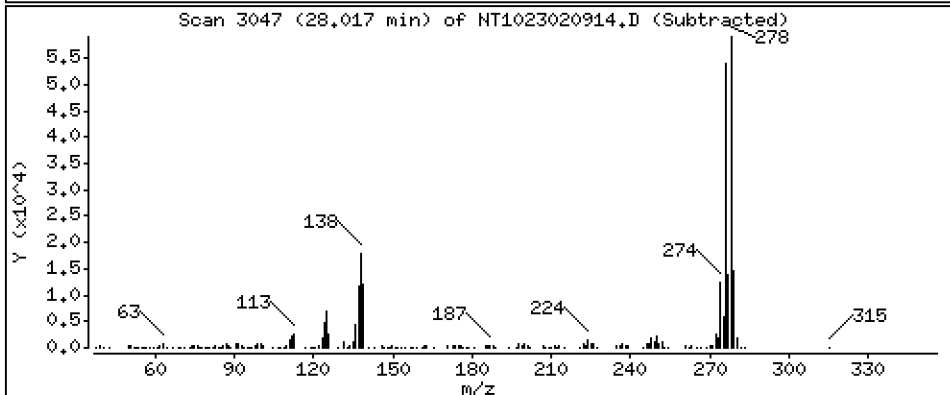
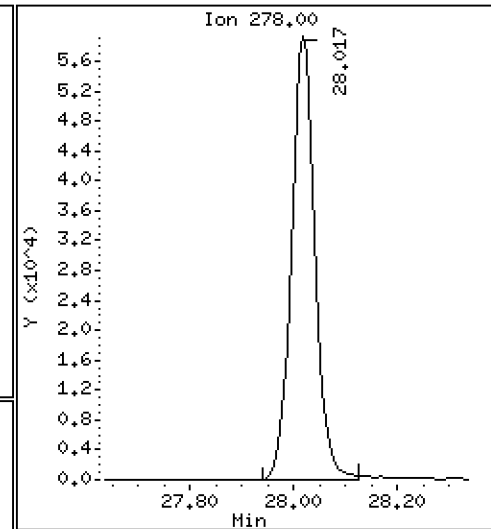
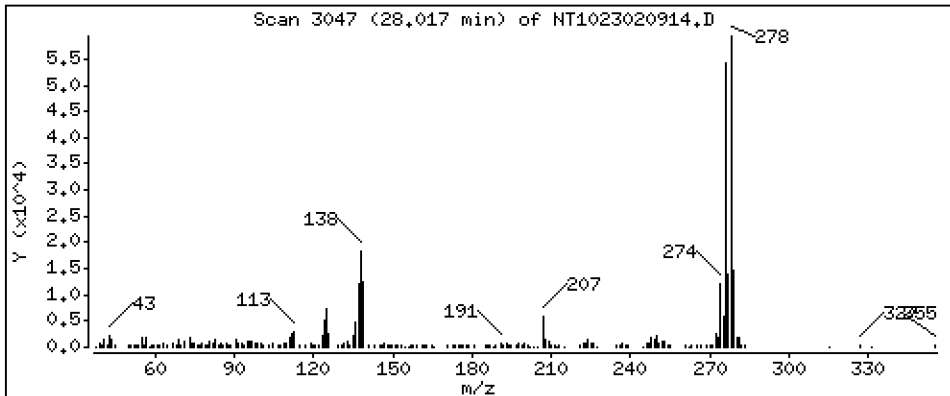
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 3,689 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

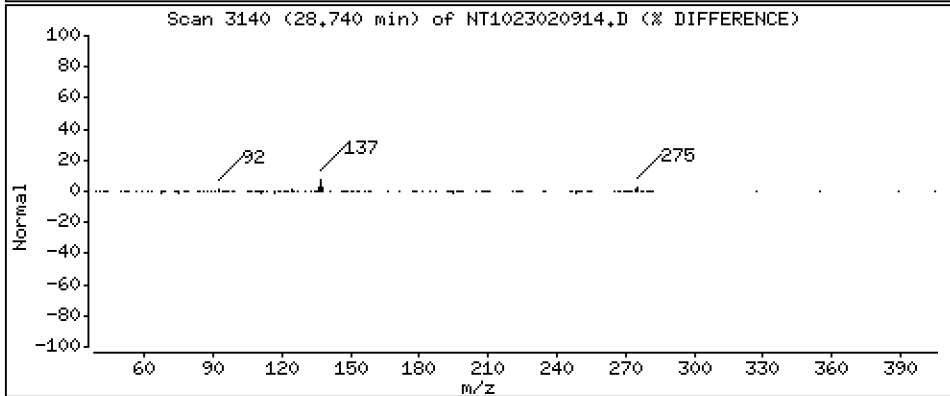
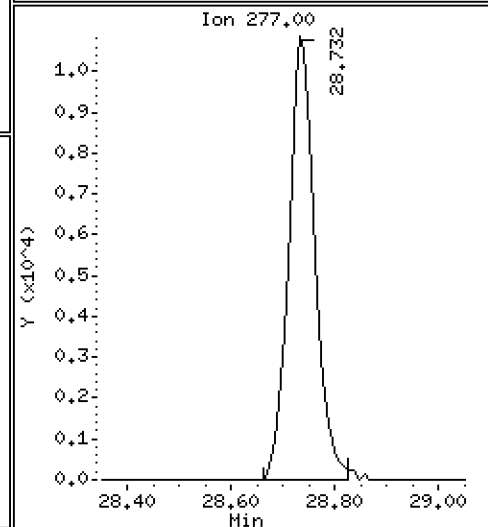
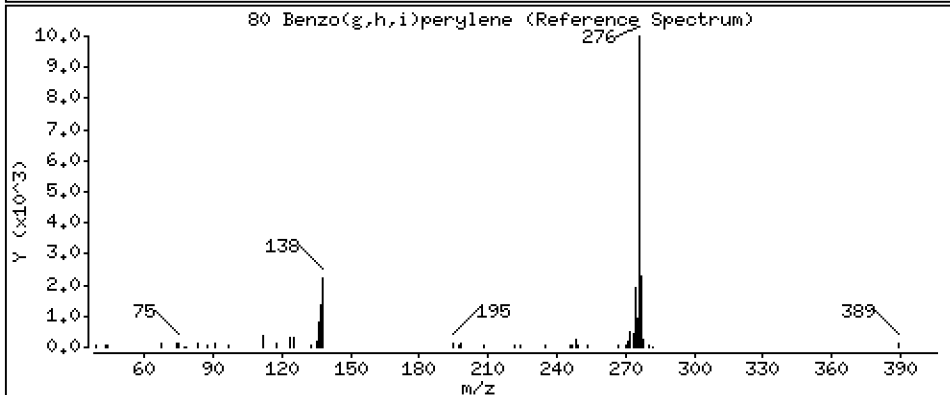
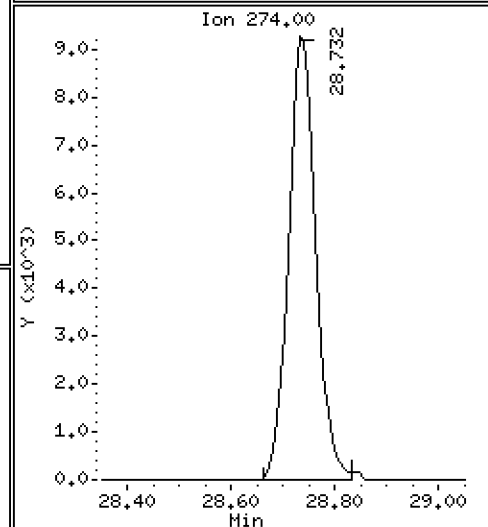
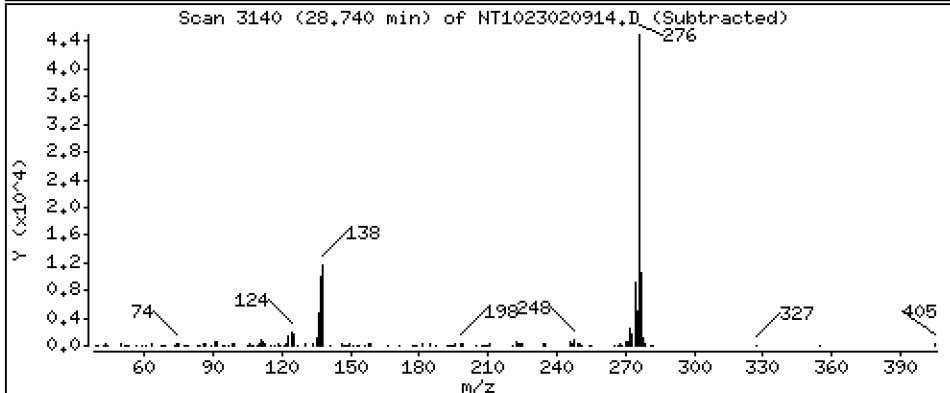
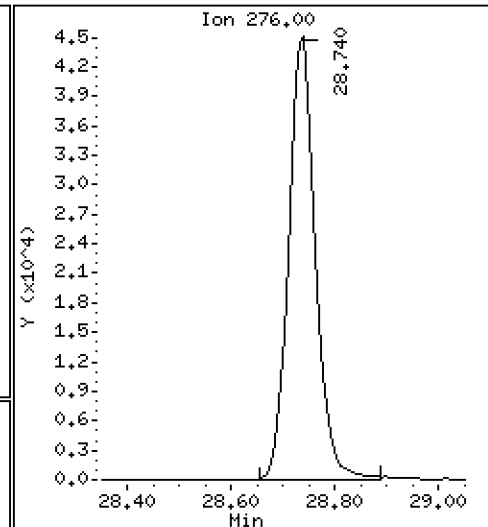
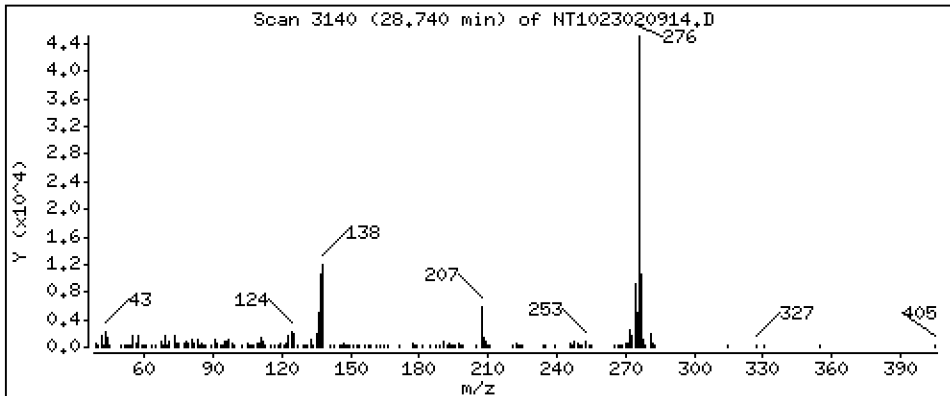
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 3,082 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

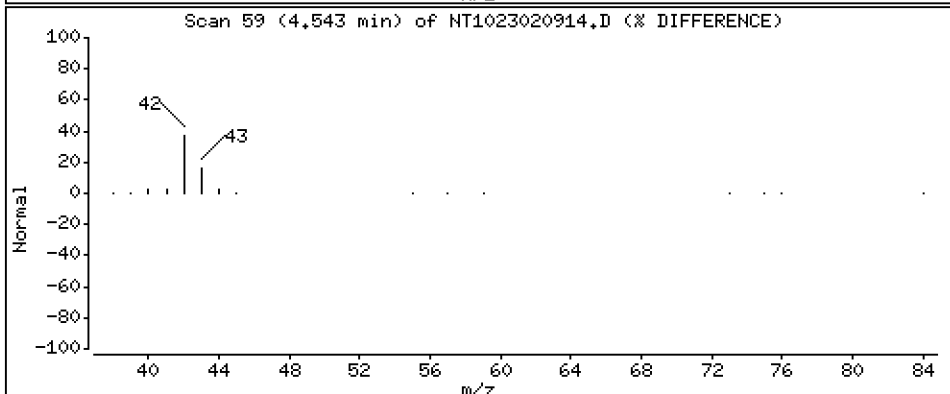
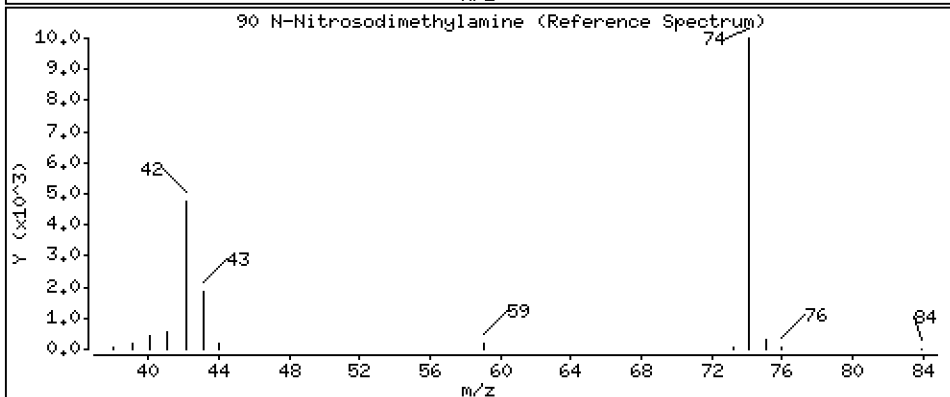
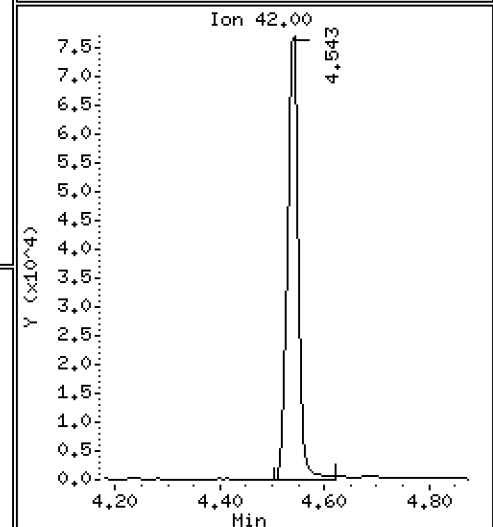
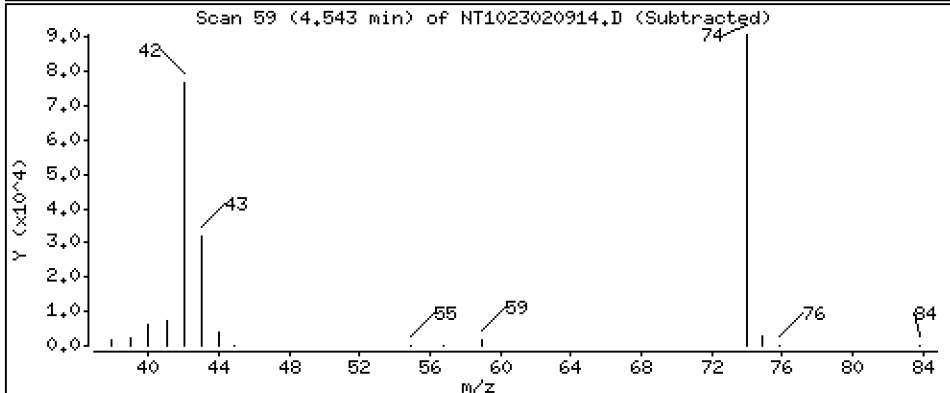
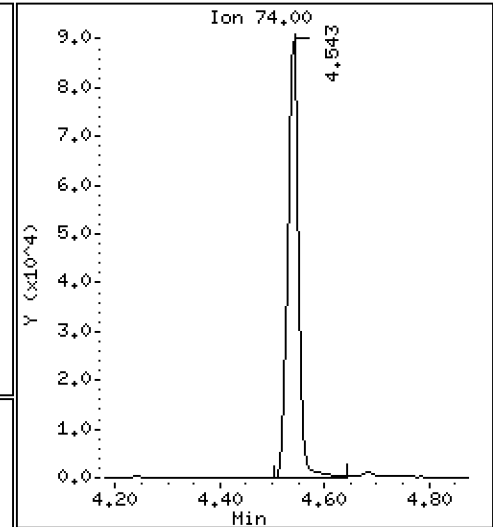
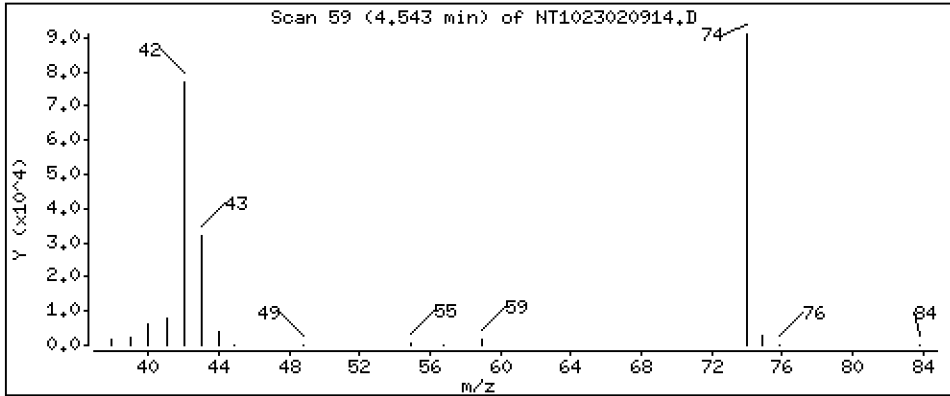
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 10,18 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

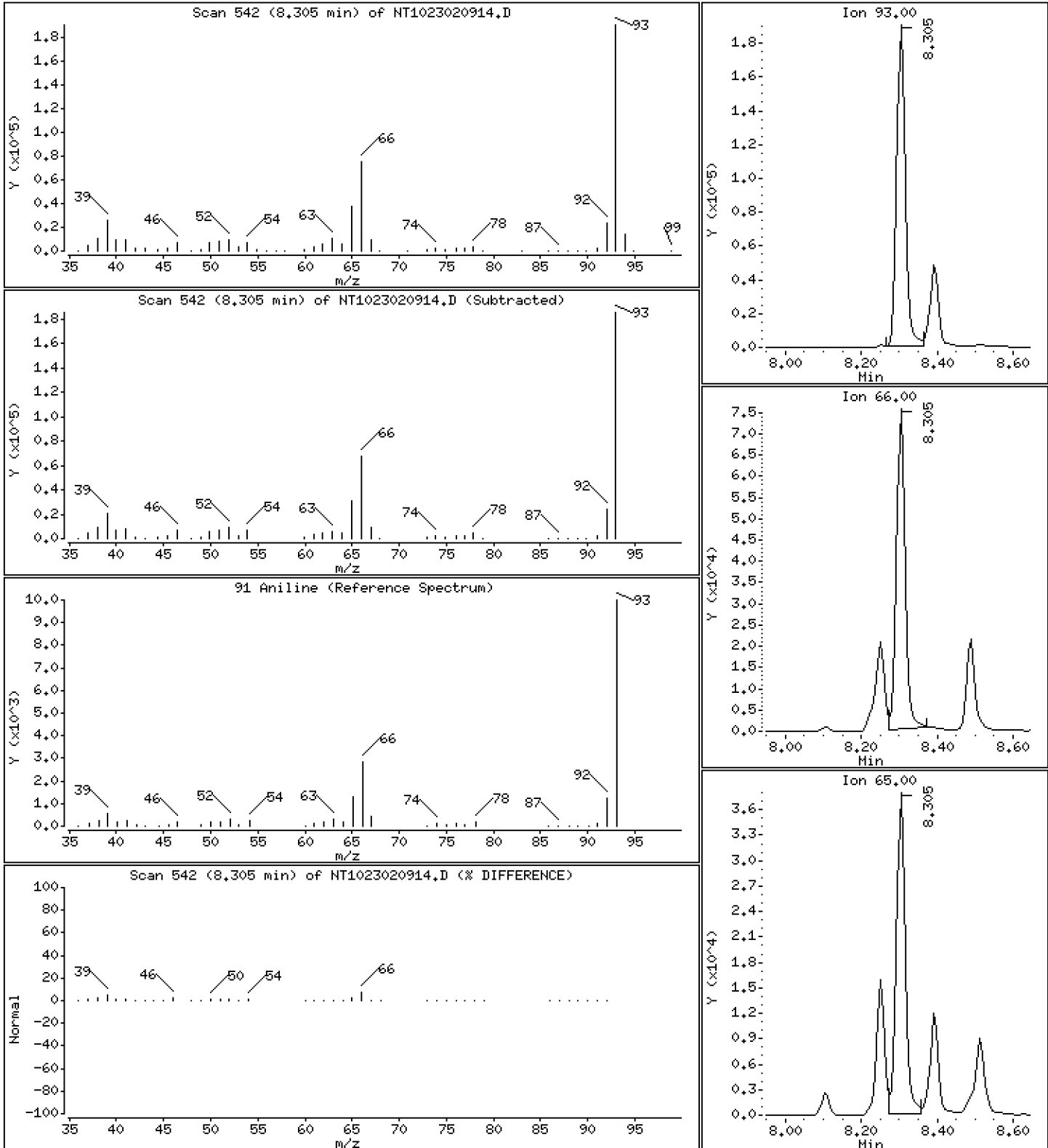
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 10,96 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

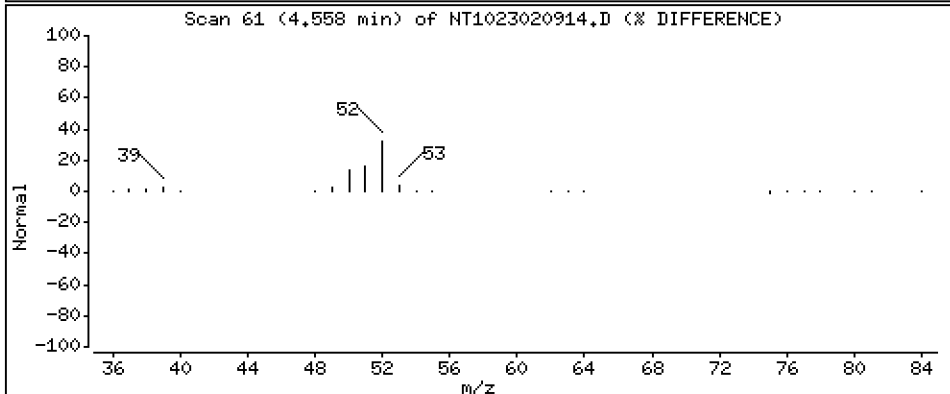
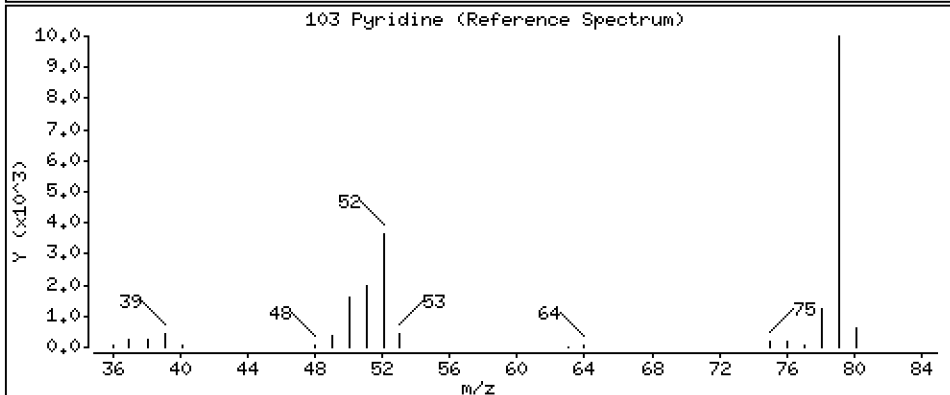
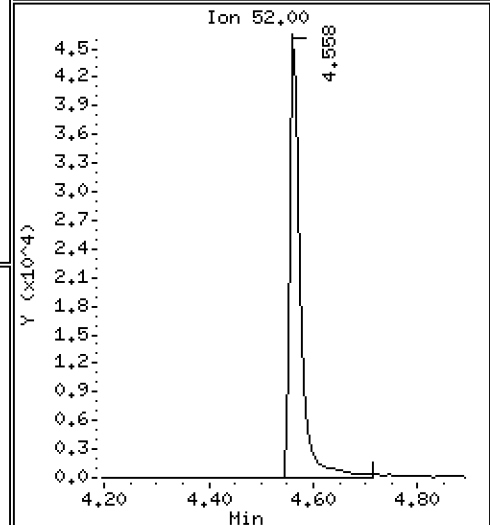
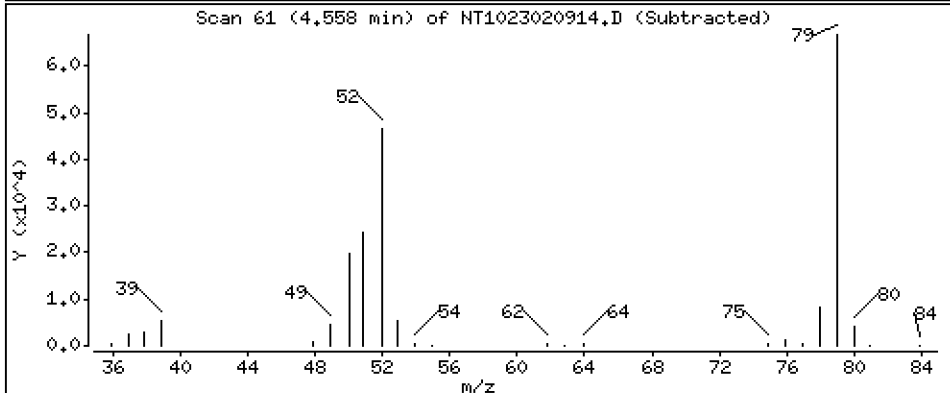
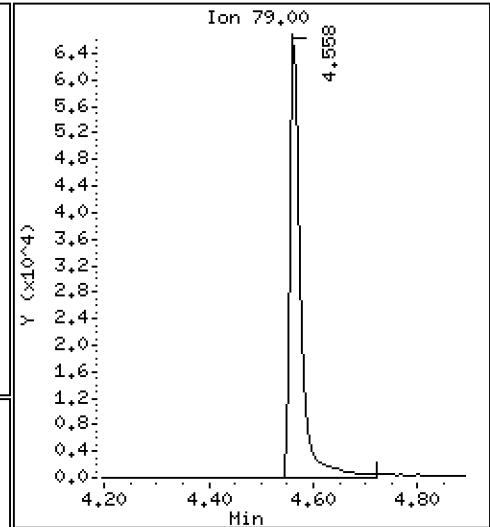
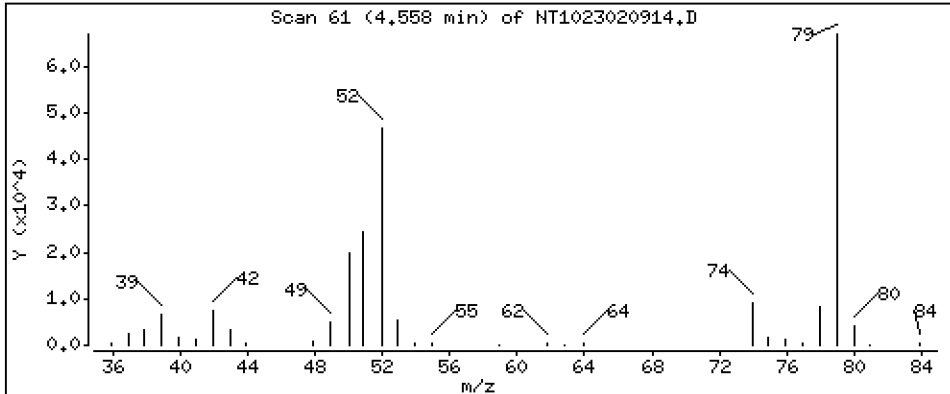
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 5,093 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

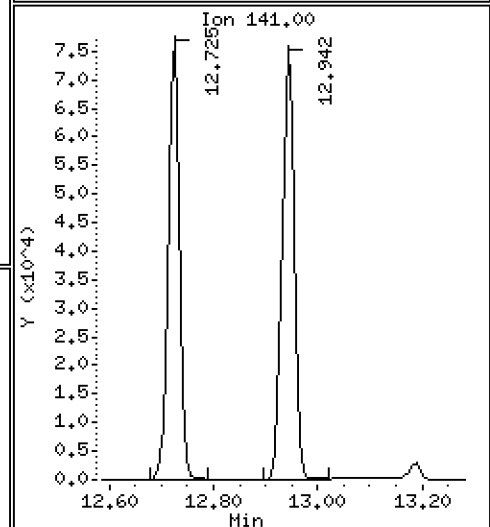
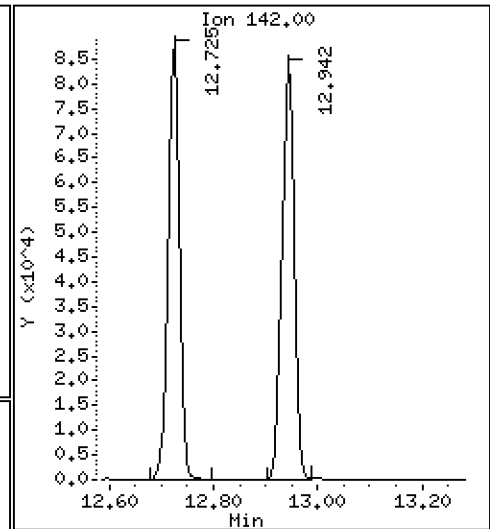
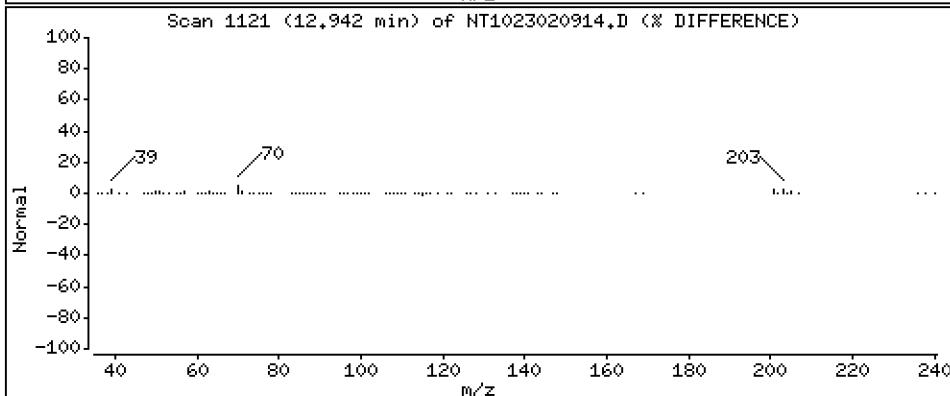
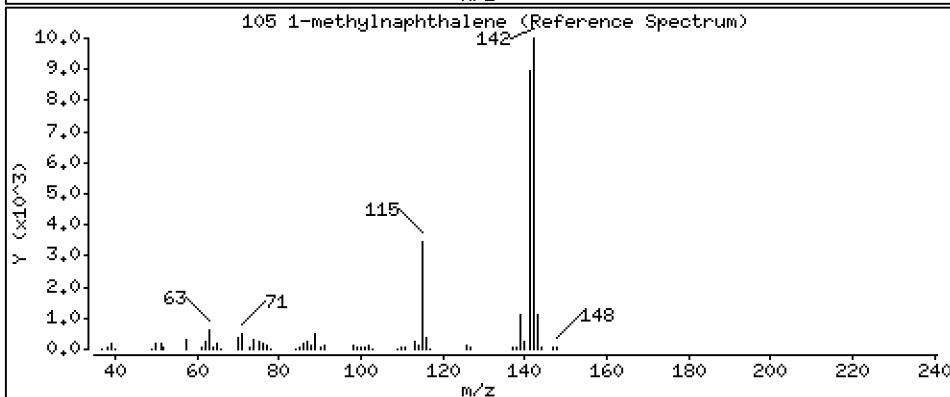
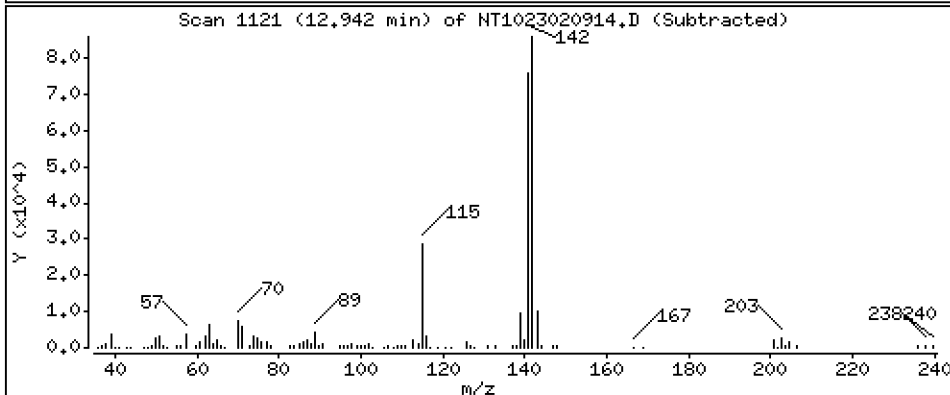
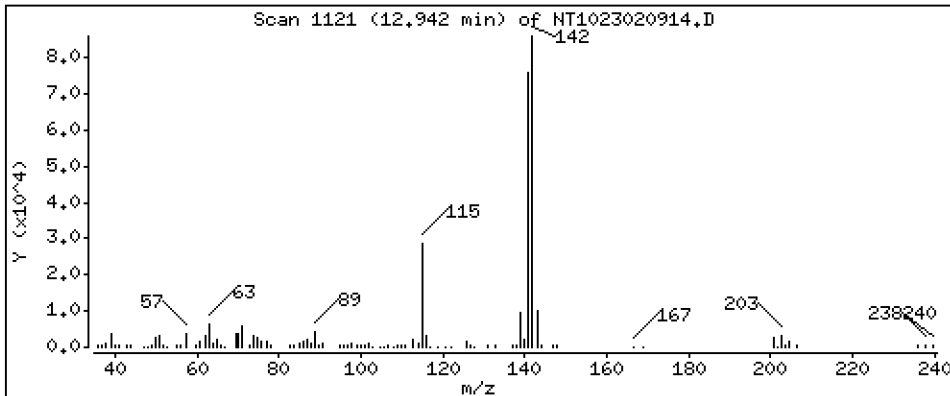
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 3,550 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

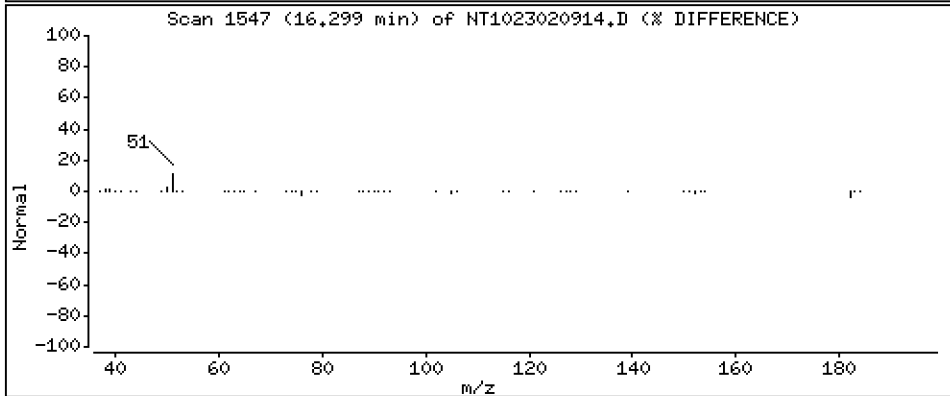
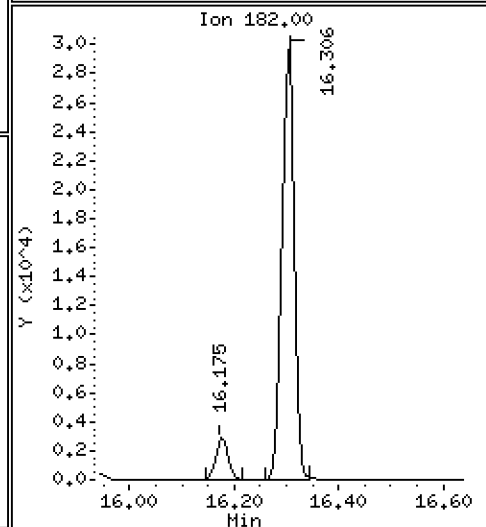
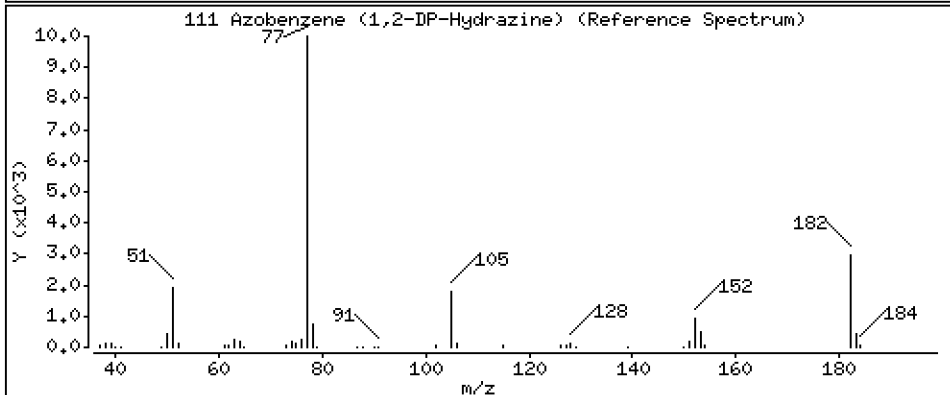
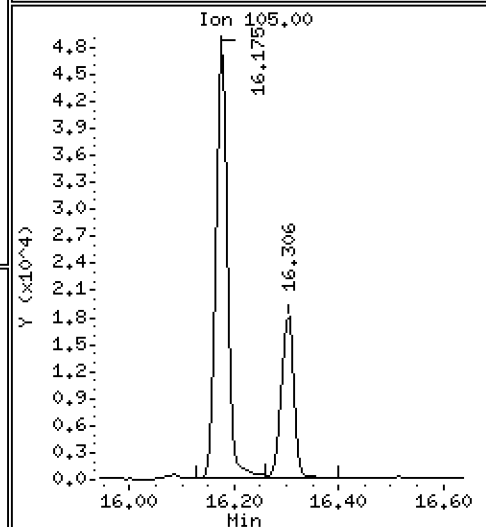
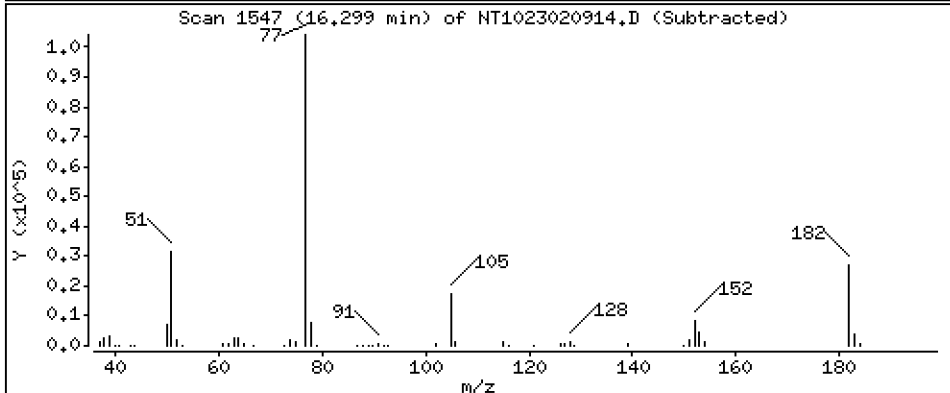
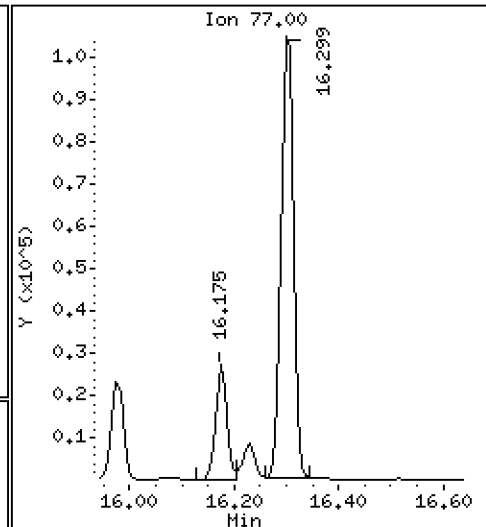
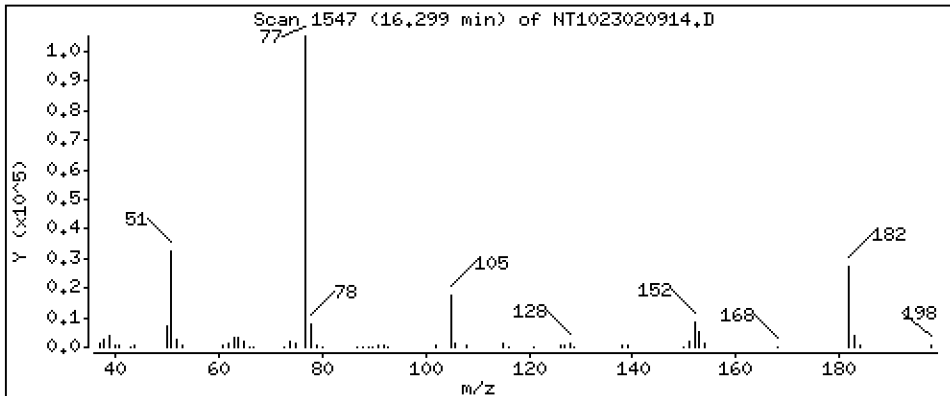
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 3,619 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

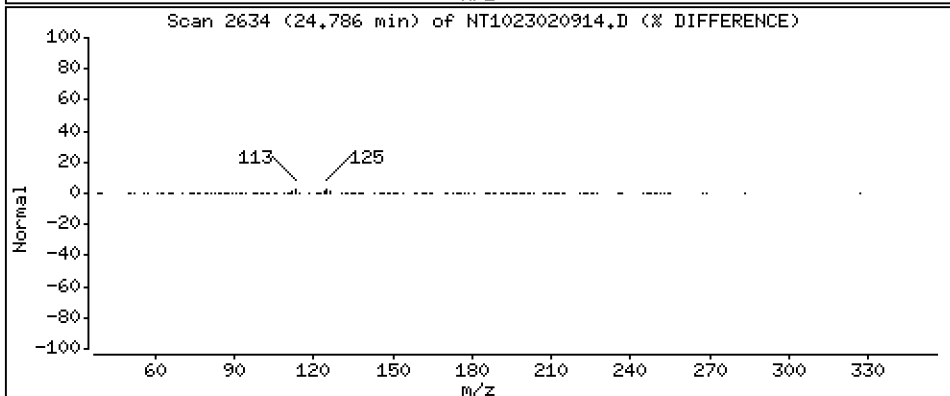
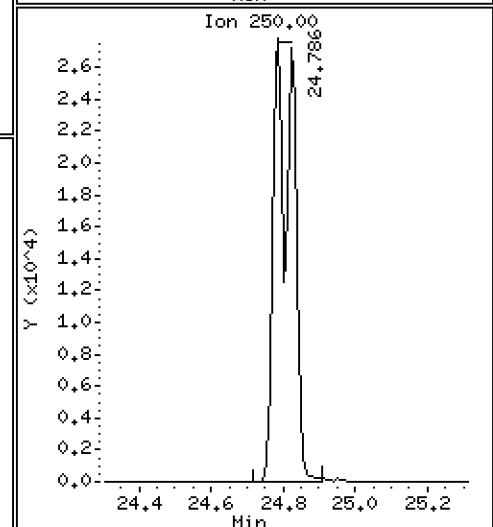
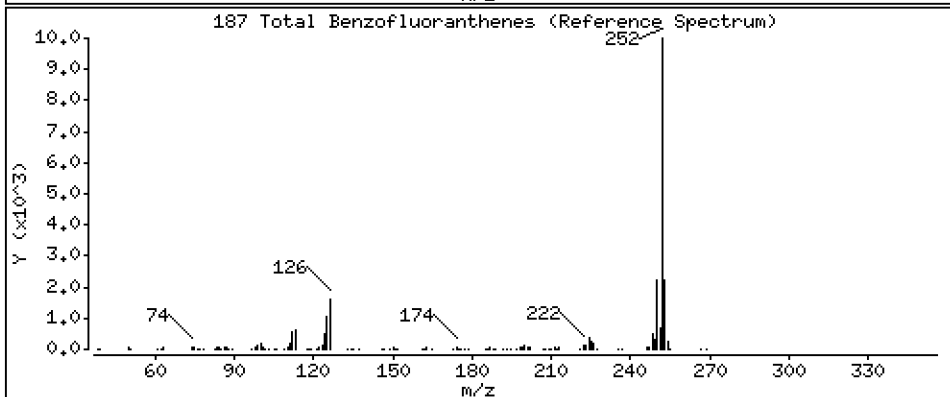
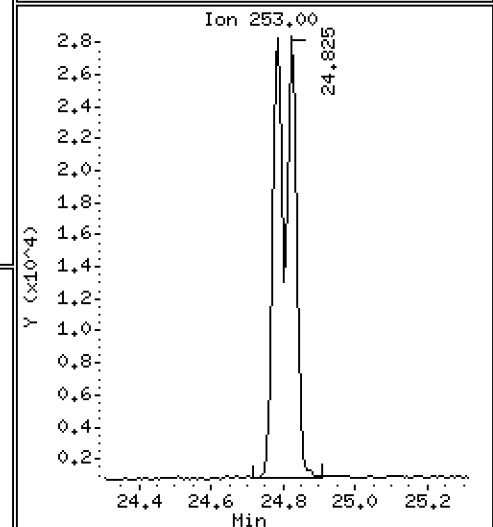
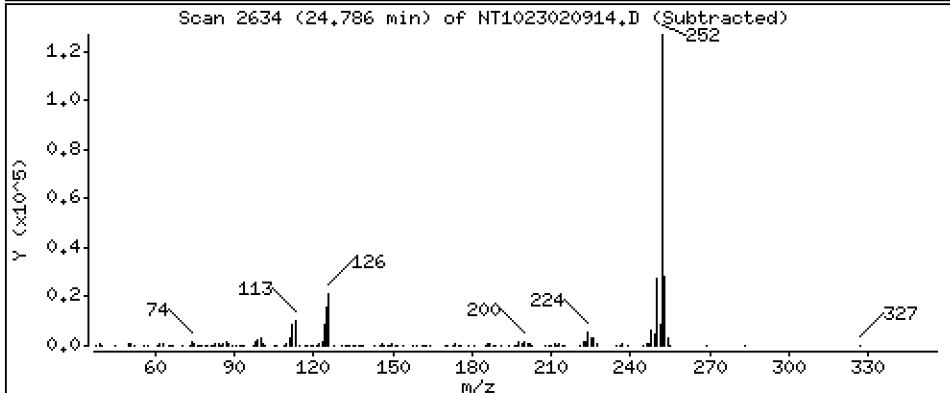
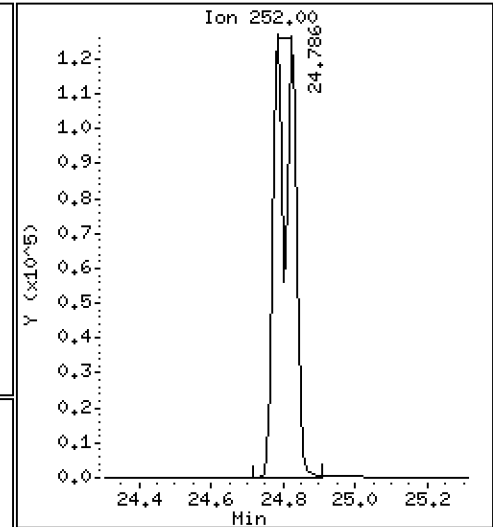
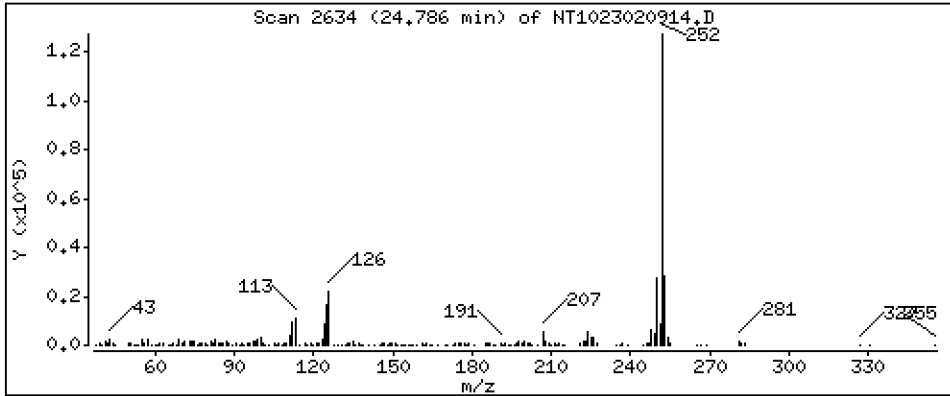
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 8,117 ug/mL



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

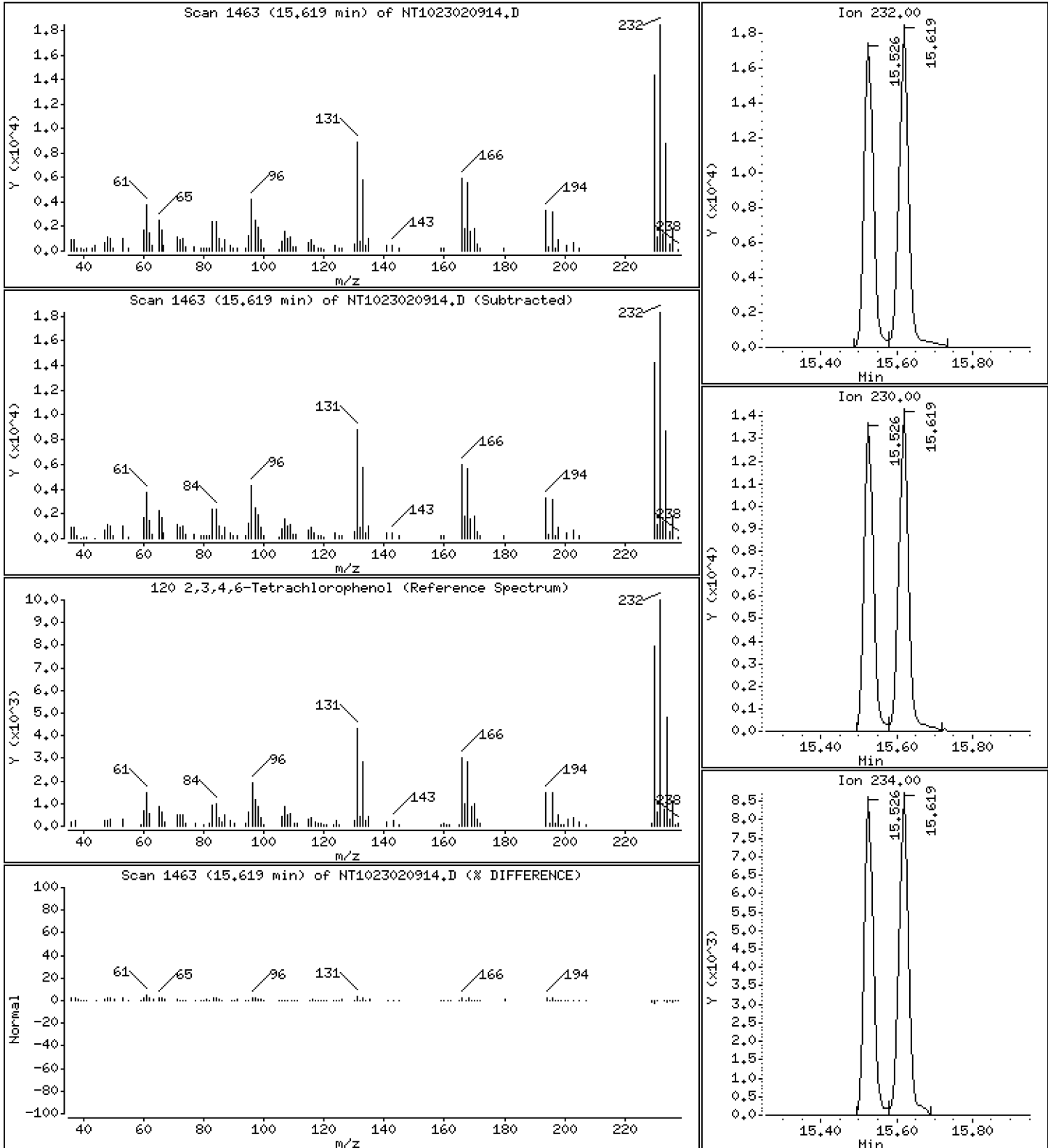
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,524 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230209.b\NT1023020914.D
 Lab Smp Id: BLA0163-BS1
 Inj Date : 09-FEB-2023 21:17
 Operator : VTS
 Smp Info : BLA0163-BS1
 Misc Info :
 Comment : lul Injection
 Method : \\target\share\chem3\nt10.i\20230209.b\ABN.m
 Meth Date : 09-Feb-2023 14:46 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 14
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN	FINAL
								(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112			6.666	6.651	(0.754)	111576	6.05486	6.055
\$ 2 Phenol-d5	99			8.227	8.219	(0.931)	151953	6.11256	6.113
3 Phenol	94			8.250	8.242	(0.933)	84667	3.14854	3.149
\$ 5 2-Chlorophenol-d4	132			8.489	8.482	(0.961)	122354	6.06451	6.065
4 Bis(2-Chloroethyl)ether	93			8.389	8.389	(0.949)	74817	3.82595	3.826
6 2-Chlorophenol	128			8.513	8.505	(0.963)	72162	3.28376	3.284
7 1,3-Dichlorobenzene	146			8.776	8.768	(0.993)	77714	3.36895	3.369
* 8 1,4-Dichlorobenzene-d4	152			8.838	8.838	(1.000)	57963	4.00000	
9 1,4-Dichlorobenzene	146			8.869	8.861	(1.004)	76083	3.34865	3.349
\$ 10 1,2-Dichlorobenzene-d4	152			9.195	9.187	(1.040)	52487	3.80061	3.801
12 1,2-Dichlorobenzene	146			9.218	9.211	(1.043)	74234	3.38902	3.389
11 Benzyl alcohol	108			9.109	9.102	(1.031)	42728	3.58716	3.587
14 2,2'-oxybis(1-Chloropropane)	121			9.404	9.397	(1.064)	24810	3.94208	3.942
13 2-Methylphenol	108			9.342	9.335	(1.057)	64379	3.22816	3.228
17 Hexachloroethane	117			9.800	9.800	(1.109)	28376	3.25777	3.258
16 N-Nitroso-di-n-propylamine	70			9.661	9.653	(1.093)	51441	3.43013	3.430
15 4-Methylphenol	108			9.622	9.606	(1.089)	66923	3.16811	3.168
\$ 18 Nitrobenzene-d5	82			9.917	9.909	(0.878)	90534	4.29062	4.291
19 Nitrobenzene	77			9.955	9.948	(0.882)	78579	3.73453	3.735
20 Isophorone	82			10.398	10.390	(0.921)	155841	5.31873	5.319
21 2-Nitrophenol	139			10.574	10.574	(0.936)	38876	3.58705	3.587
22 2,4-Dimethylphenol	107			10.642	10.633	(0.942)	148983	7.68998	7.690
23 Bis(2-Chloroethoxy)methane	93			10.828	10.820	(0.959)	81212	4.26850	4.268
24 Benzoic acid	105			10.879	10.888	(0.963)	246550	21.4682	21.47
25 2,4-Dichlorophenol	162			11.041	11.024	(0.978)	221594	14.0786	14.08
26 1,2,4-Trichlorobenzene	180			11.217	11.209	(0.993)	59792	3.48662	3.487
* 27 Naphthalene-d8	136			11.294	11.286	(1.000)	213576	4.00000	
28 Naphthalene	128			11.340	11.333	(1.004)	207009	3.62710	3.627
29 4-Chloroaniline	127			11.471	11.464	(1.016)	222831	9.10794	9.108
30 Hexachlorobutadiene	225			11.696	11.688	(1.036)	33918	3.79250	3.792
31 4-Chloro-3-methylphenol	107			12.439	12.423	(1.101)	240243	13.9622	13.96
32 2-Methylnaphthalene	142			12.725	12.710	(1.127)	139540	3.51640	3.516
33 Hexachlorocyclopentadiene	237			13.189	13.174	(0.886)	29410	4.44926	4.449
34 2,4,6-Trichlorophenol	196			13.344	13.336	(0.897)	145927	15.2251	15.23

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)	
35 2,4,5-Trichlorophenol	196	13.421	13.414	(0.902)	155512	15.0500	15.05	
\$ 36 2-Fluorobiphenyl	172	13.499	13.491	(0.907)	167493	4.37758	4.378	
37 2-Chloronaphthalene	162	13.708	13.700	(0.921)	124778	3.75178	3.752	
38 2-Nitroaniline	65	13.971	13.956	(0.939)	178869	17.0803	17.08	
39 Dimethylphthalate	163	14.397	14.389	(0.967)	141404	3.97403	3.974	
40 Acenaphthylene	152	14.575	14.559	(0.979)	194220	3.66618	3.666	
41 2,6-Dinitrotoluene	165	14.536	14.521	(0.977)	126318	14.9888	14.99	
* 42 Acenaphthene-d10	164	14.884	14.869	(1.000)	106174	4.00000		
43 3-Nitroaniline	138	14.822	14.807	(0.996)	117912	12.1346	12.13	
44 Acenaphthene	153	14.946	14.939	(1.004)	125136	3.85441	3.854	
45 2,4-Dinitrophenol	184	15.031	15.016	(1.010)	104832	22.8086	22.81	
46 Dibenzofuran	168	15.278	15.263	(1.026)	170780	3.65672	3.657	
47 4-Nitrophenol	109	15.163	15.147	(1.019)	54752	15.1154	15.12	
48 2,4-Dinitrotoluene	165	15.340	15.325	(1.031)	161577	13.8956	13.90	
50 Diethylphthalate	149	15.851	15.843	(1.065)	153457	4.49101	4.491	
49 Fluorene	166	15.982	15.967	(1.074)	166369	3.16917	3.169	
51 4-Chlorophenyl-phenylether	204	15.974	15.967	(1.073)	78879	3.07643	3.076	
52 4-Nitroaniline	138	16.082	16.067	(1.080)	121001	10.8968	10.90	
53 4,6-Dinitro-2-methylphenol	198	16.175	16.167	(0.903)	187231	29.7695	29.77	
54 N-Nitrosodiphenylamine	169	16.229	16.213	(0.906)	111204	3.73585	3.736	
\$ 55 2,4,6-Tribromophenol	330	16.514	16.506	(1.109)	32981	6.20349	6.203	
56 4-Bromophenyl-phenylether	248	16.977	16.961	(0.948)	45646	4.16148	4.161	
57 Hexachlorobenzene	284	17.286	17.278	(0.965)	46000	3.89404	3.894	
58 Pentachlorophenol	266	17.650	17.635	(0.986)	72534	15.4111	15.41	
* 59 Phenanthrene-d10	188	17.905	17.890	(1.000)	174132	4.00000		
60 Phenanthrene	178	17.952	17.936	(1.003)	182737	3.89929	3.899	
61 Anthracene	178	18.044	18.029	(1.008)	152985	3.29671	3.297	
62 Carbazole	167	18.385	18.362	(1.027)	151701	3.38936	3.389	
63 Di-n-butylphthalate	149	19.197	19.182	(1.072)	231157	4.33100	4.331	
64 Fluoranthene	202	20.350	20.335	(0.886)	202898	3.65360	3.654	
65 Pyrene	202	20.776	20.760	(0.904)	207466	3.61863	3.619	
\$ 66 Terphenyl-d14	244	21.070	21.054	(0.917)	176510	4.08295	4.083	
67 Butylbenzylphthalate	149	22.006	21.991	(0.958)	99708	4.02441	4.024	
68 Benzo(a)anthracene	228	22.951	22.936	(0.999)	201304	3.98781	3.988	
* 69 Chrysene-d12	240	22.974	22.959	(1.000)	151446	4.00000		
70 3,3'-Dichlorobenzidine	252	22.912	22.897	(0.997)	207197	12.1310	12.13	
71 Chrysene	228	23.021	23.006	(1.002)	190144	3.92761	3.928	
72 bis(2-Ethylhexyl)phthalate	149	23.052	23.037	(0.959)	87462	2.61460	2.615	
* 134 Di-n-octylphthalate-d4	153	24.035	24.020	(1.000)	245924	4.00000		
73 Di-n-octylphthalate	149	24.043	24.027	(1.000)	117236	1.88643	1.886	
74 Benzo(b)fluoranthene	252	24.786	24.763	(0.972)	231219	3.99453	3.995	
75 Benzo(k)fluoranthene	252	24.825	24.809	(0.973)	253903	4.16636	4.166	
76 Benzo(a)pyrene	252	25.398	25.375	(0.996)	211353	4.03818	4.038	
* 77 Perylene-d12	264	25.506	25.483	(1.000)	182858	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	28.009	27.971	(1.098)	219030	3.51587	3.516	
79 Dibenzo(a,h)anthracene	278	28.017	27.986	(1.098)	190354	3.68860	3.689	
80 Benzo(g,h,i)perylene	276	28.739	28.701	(1.127)	164806	3.08248	3.082	
90 N-Nitrosodimethylamine	74	4.542	4.527	(0.514)	130510	10.1798	10.18	
91 Aniline	93	8.304	8.297	(0.940)	285168	10.9568	10.96	
93 Benzidine	184	Compound Not Detected.						
103 Pyridine	79	4.558	4.543	(0.516)	101063	5.09300	5.093	
105 1-methylnaphthalene	142	12.942	12.934	(1.146)	135637	3.55025	3.550	
111 Azobenzene (1,2-DP-Hydrazine)	77	16.298	16.291	(1.095)	164751	3.61864	3.619	
187 Total Benzofluoranthenes	252	24.786	24.809	(0.972)	460637	8.11732	8.117	

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS					(ug/mL)	(ug/mL)	
=====	=====		=====	=====	=====	=====	=====	
120 2,3,4,6-Tetrachlorophenol	232		15.619	15.603	(1.049)	35012	3.52401	3.524

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 09-FEB-2023
 Lab File ID: NT1023020914.D Calibration Time: 13:31
 Lab Smp Id: BLA0163-BS1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230209.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	89503	44752	179006	57963	-35.24
27 Naphthalene-d8	348104	174052	696208	213576	-38.65
42 Acenaphthene-d10	183525	91763	367050	106174	-42.15
59 Phenanthrene-d10	295489	147745	590978	174132	-41.07
69 Chrysene-d12	239590	119795	479180	151446	-36.79
134 Di-n-octylphthala	404293	202147	808586	245924	-39.17
77 Perylene-d12	274336	137168	548672	182858	-33.35

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	-0.00
27 Naphthalene-d8	11.29	10.79	11.79	11.29	0.07
42 Acenaphthene-d10	14.87	14.37	15.37	14.88	0.10
59 Phenanthrene-d10	17.89	17.39	18.39	17.91	0.09
69 Chrysene-d12	22.96	22.46	23.46	22.97	0.07
134 Di-n-octylphthala	24.02	23.52	24.52	24.04	0.06
77 Perylene-d12	25.48	24.98	25.98	25.51	0.09

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020914.D

Lab ID: BLA0163-BS1
nt10.i, 20230209.b\ABN.m, 09-FEB-2023 21:17

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1023020902.D

On Column LOD for nt10.i, 20230209.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.1\20230209.1\NT1023020915.D

Date: 09-FEB-2023 21:56

Client ID:

Sample Info: BLR0163-BSM

Page 1

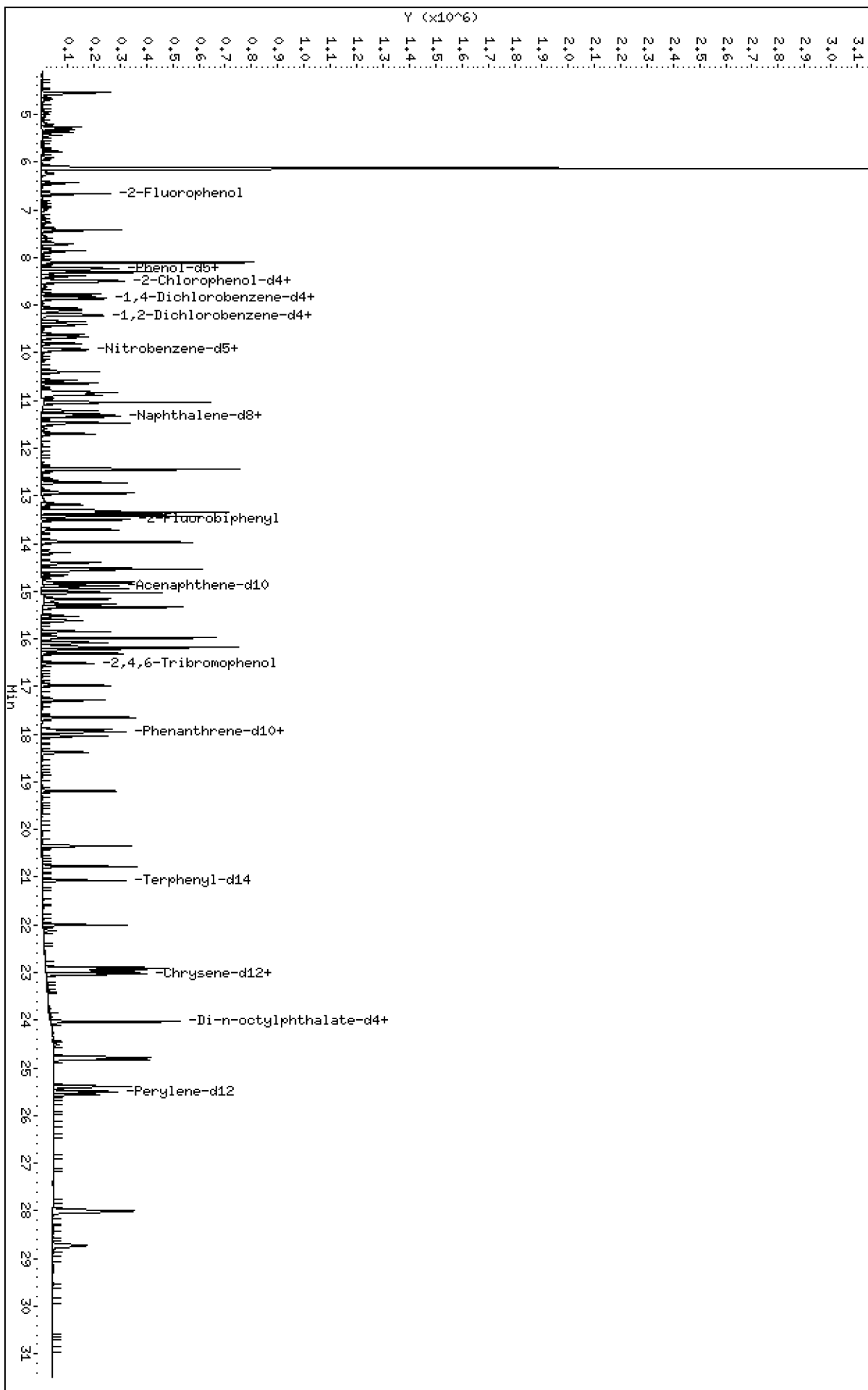
Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Column phase: ZB-5msi

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Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

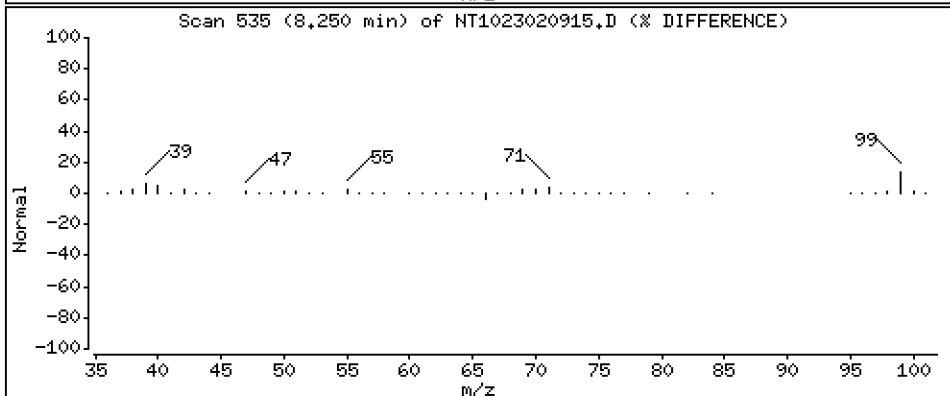
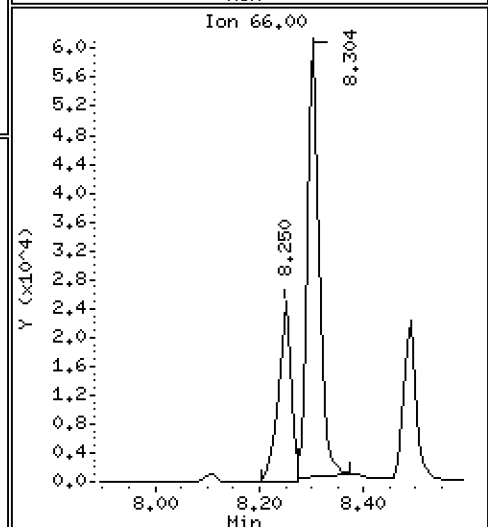
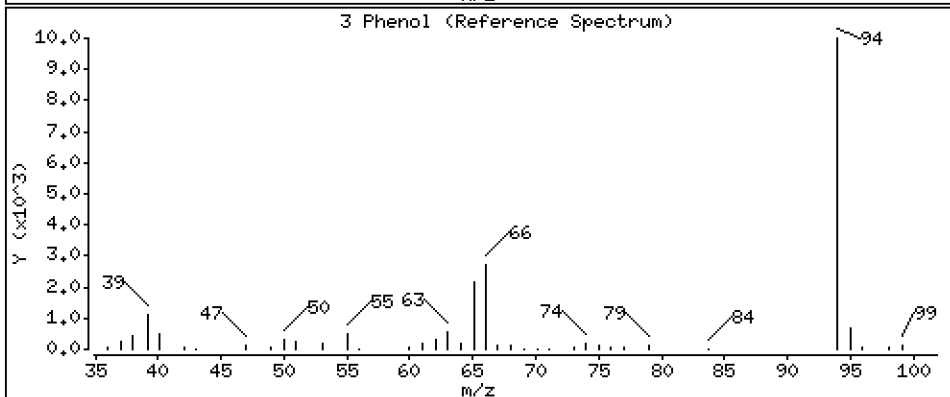
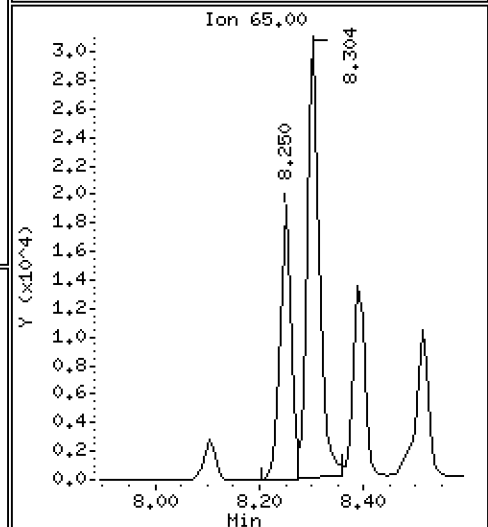
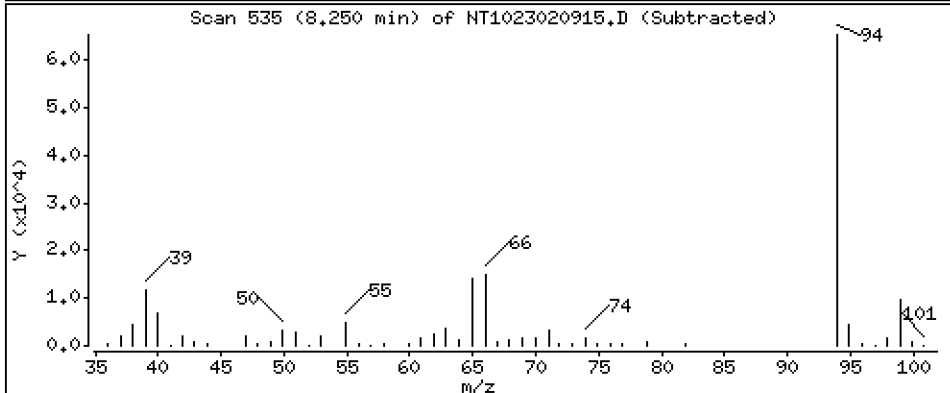
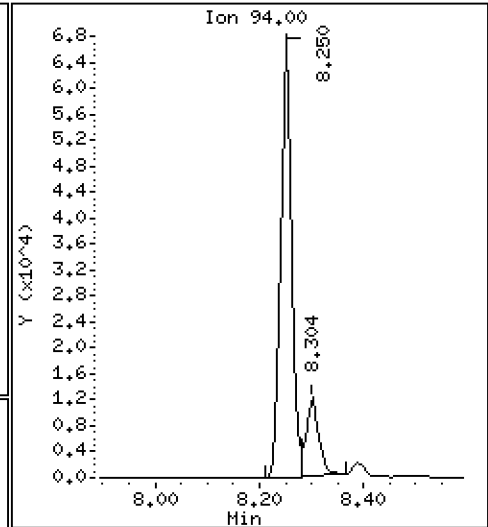
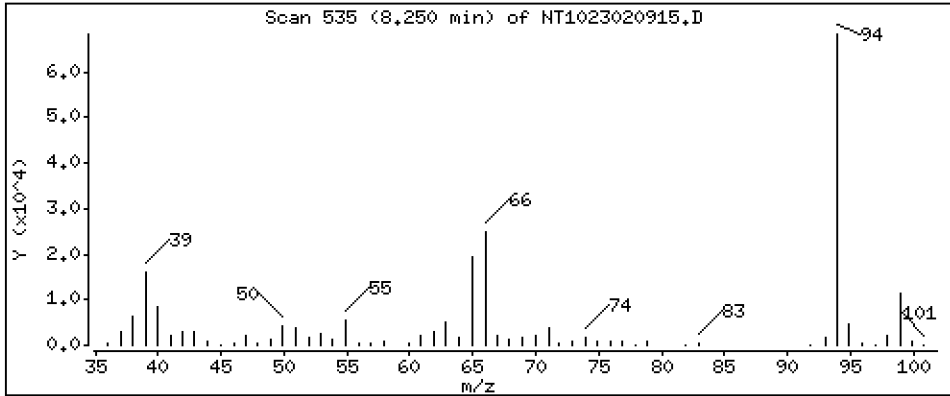
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 3,565 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

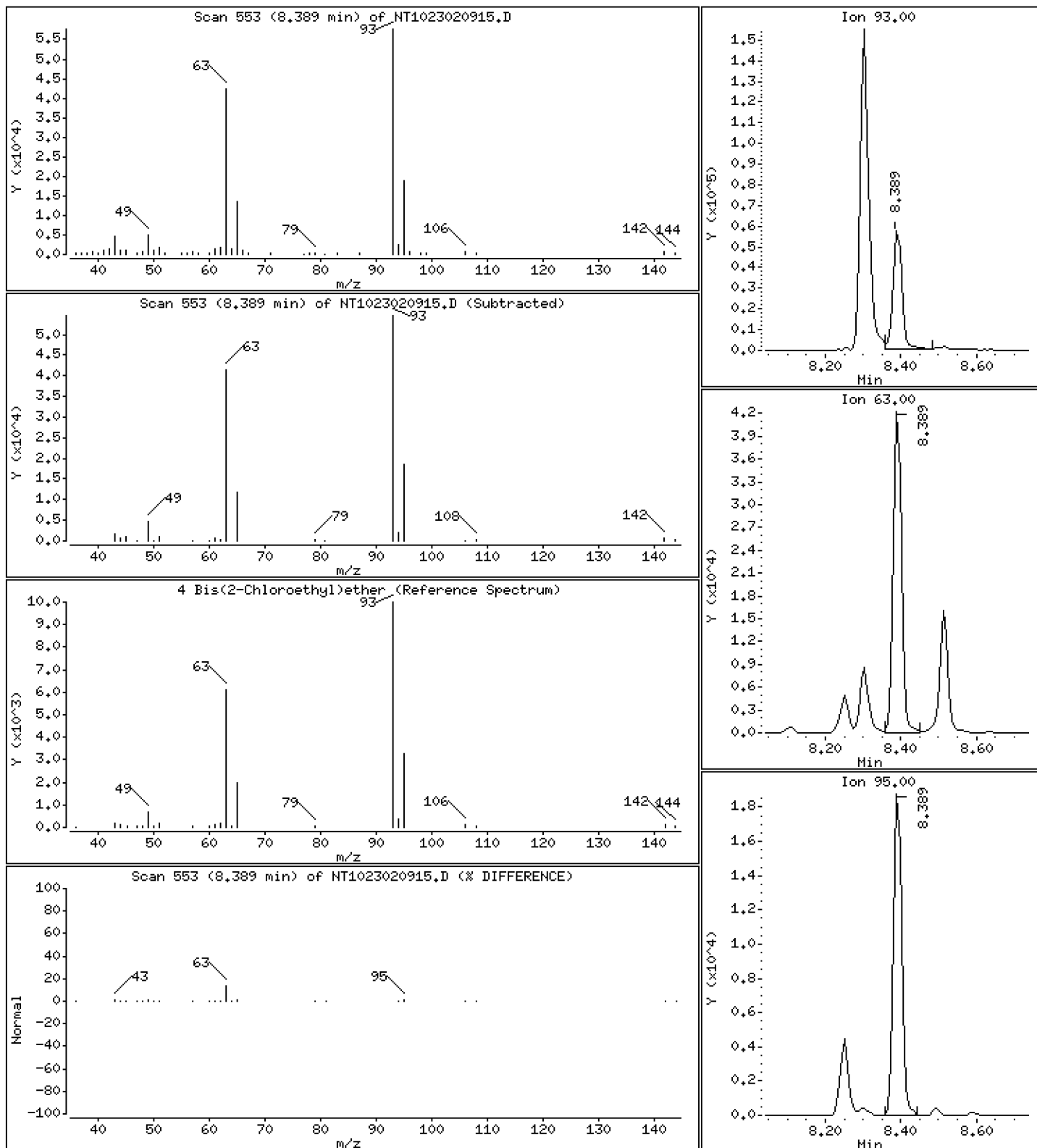
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 4,485 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

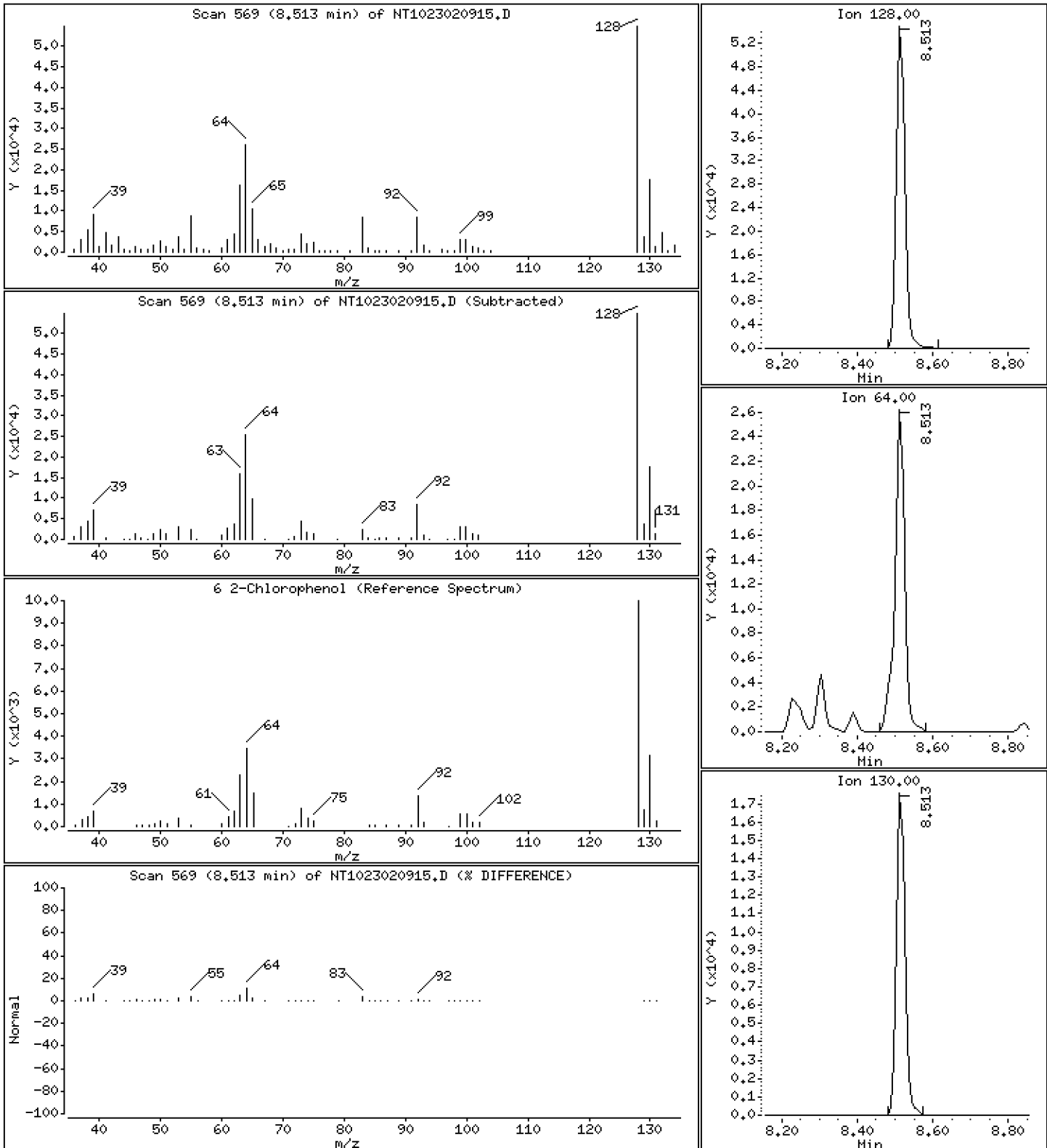
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 4,146 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

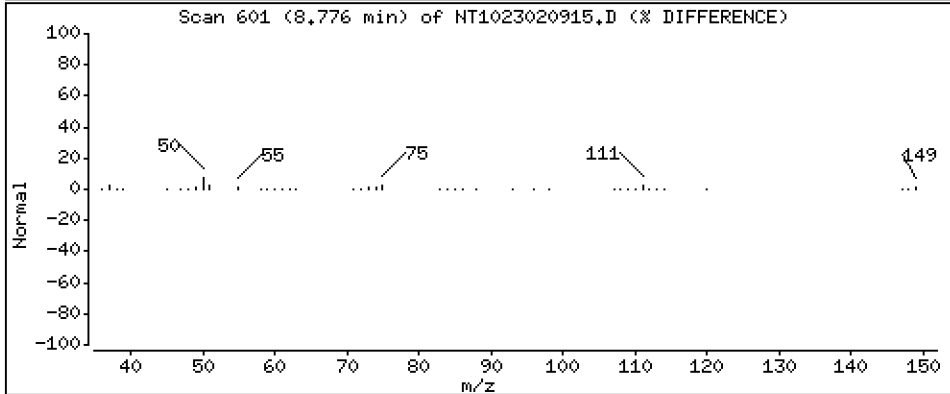
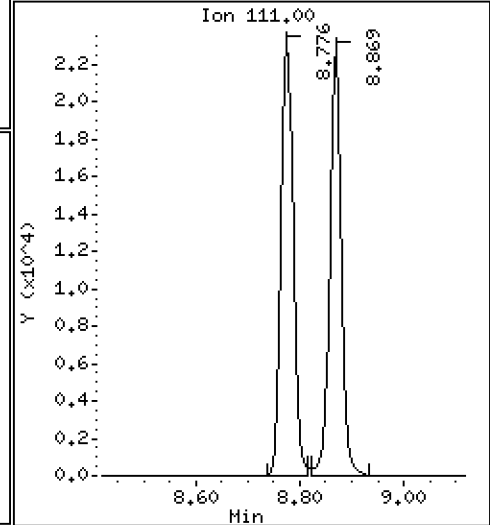
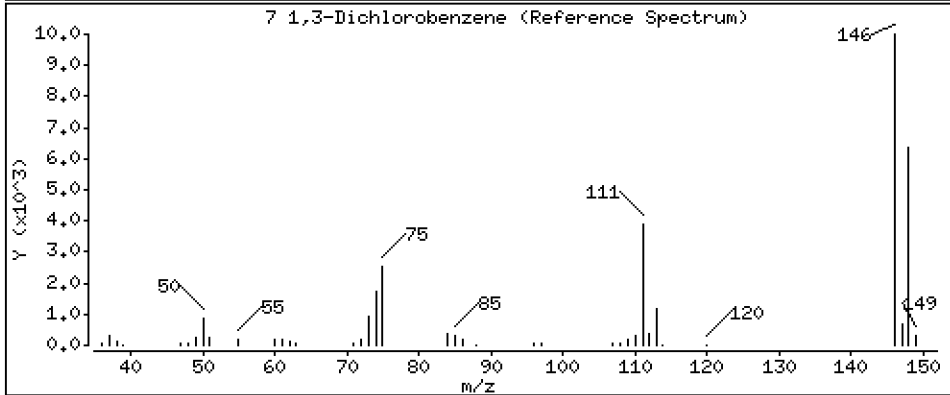
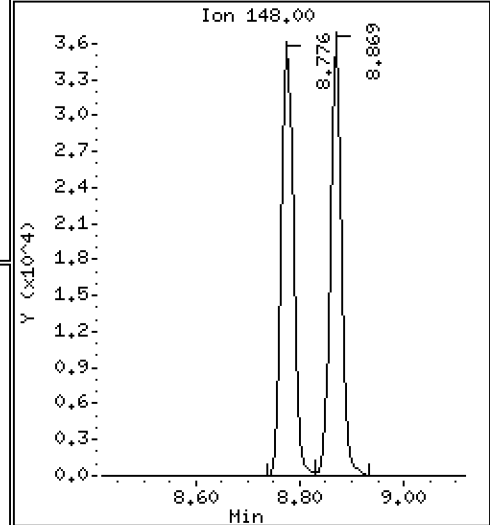
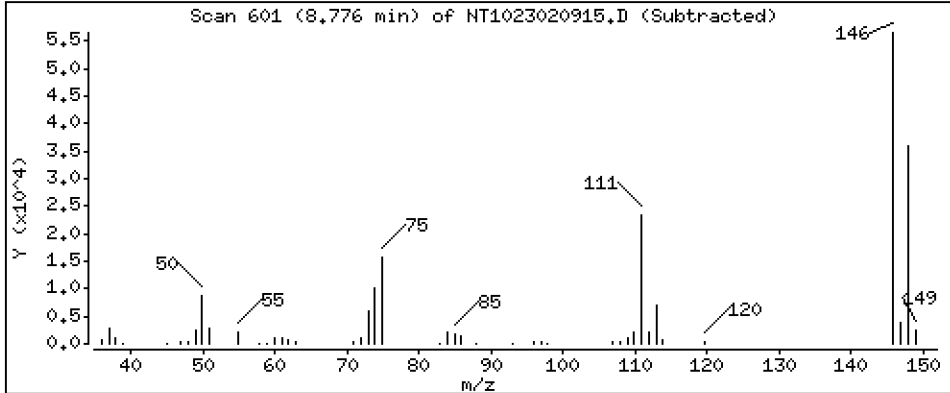
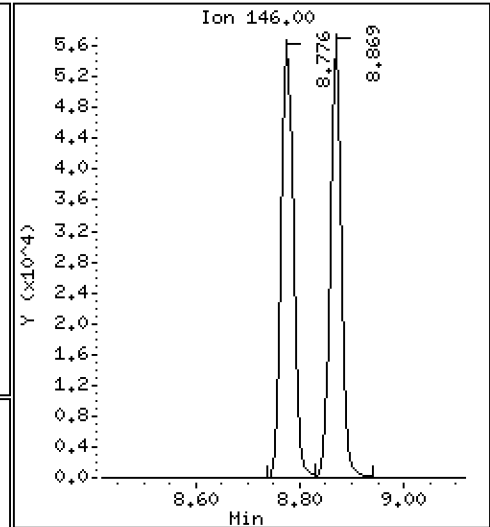
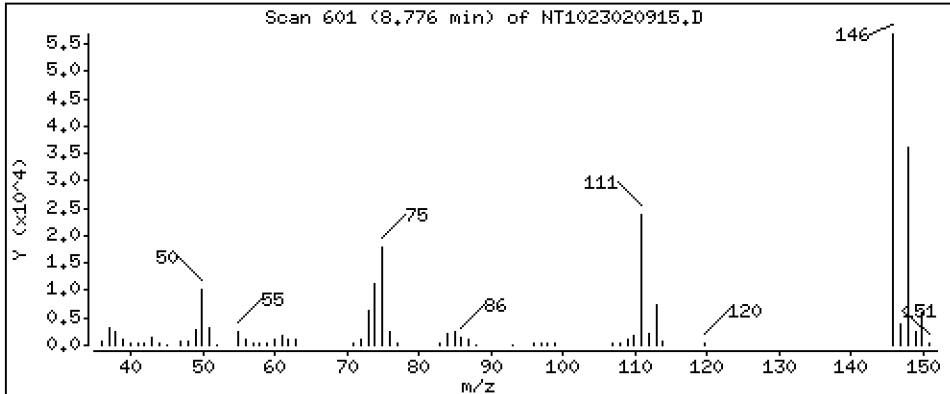
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 3,765 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

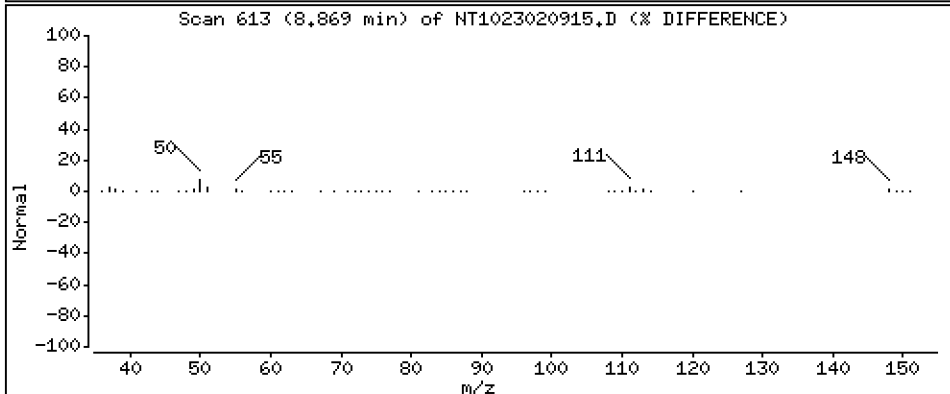
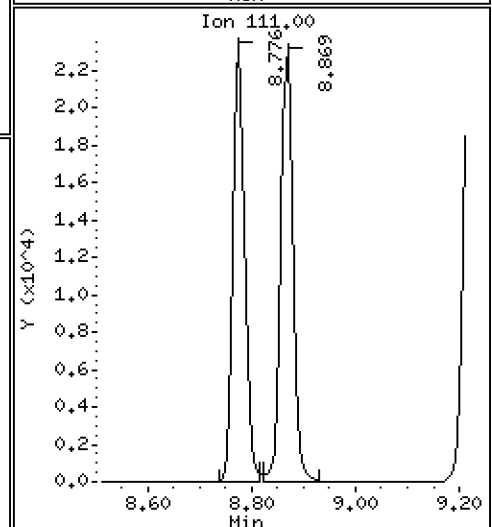
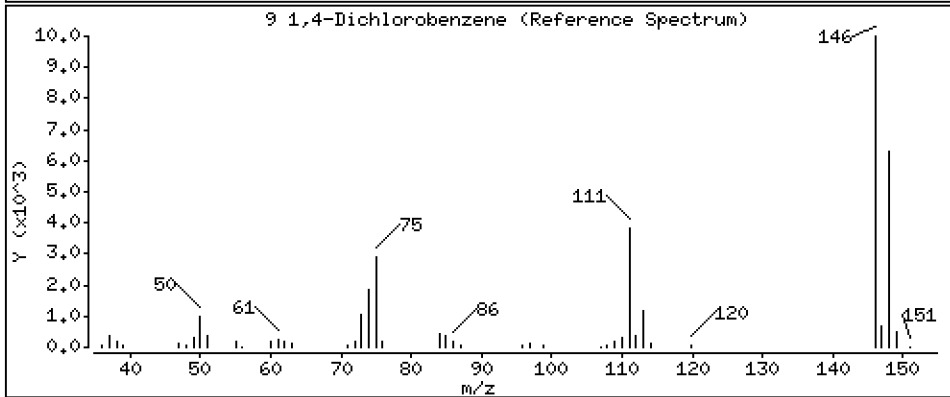
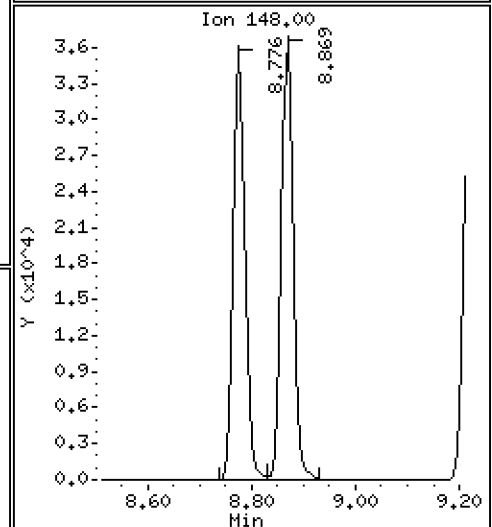
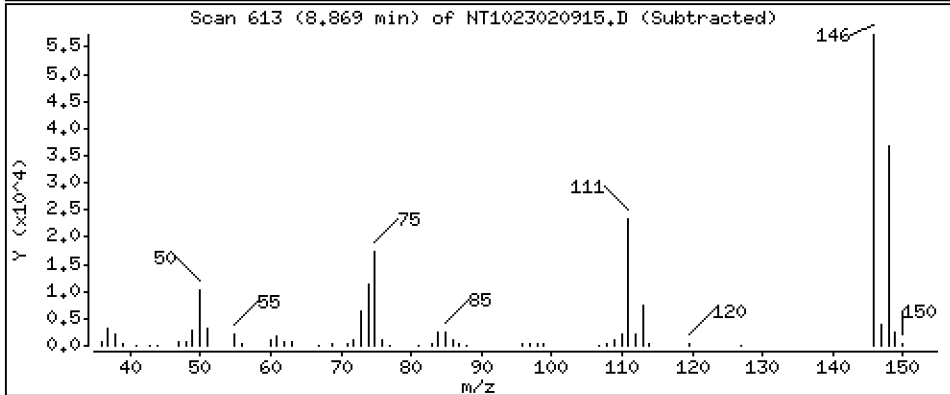
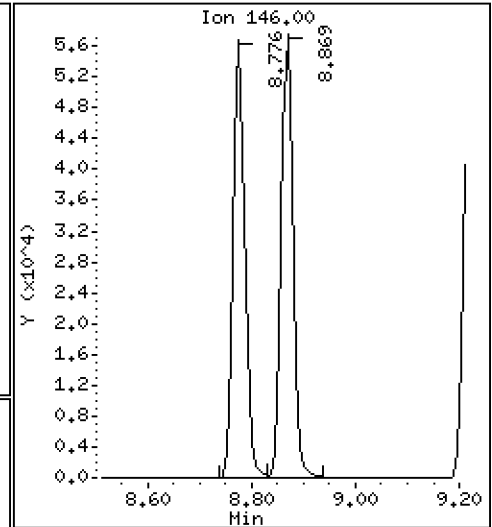
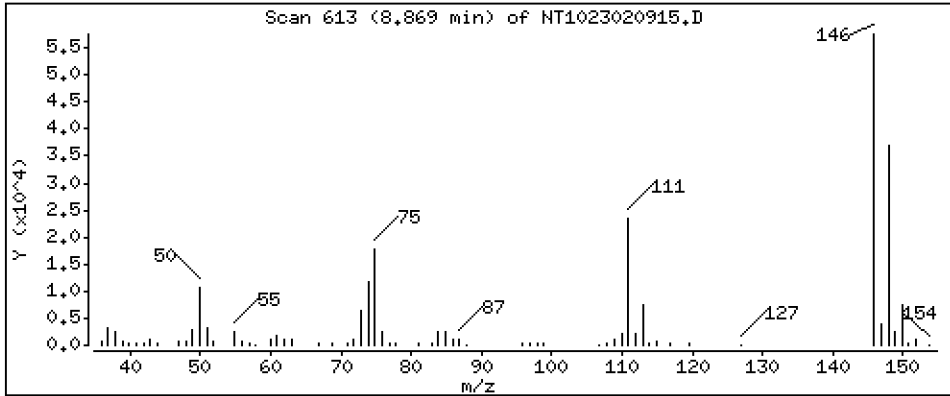
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 3,776 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

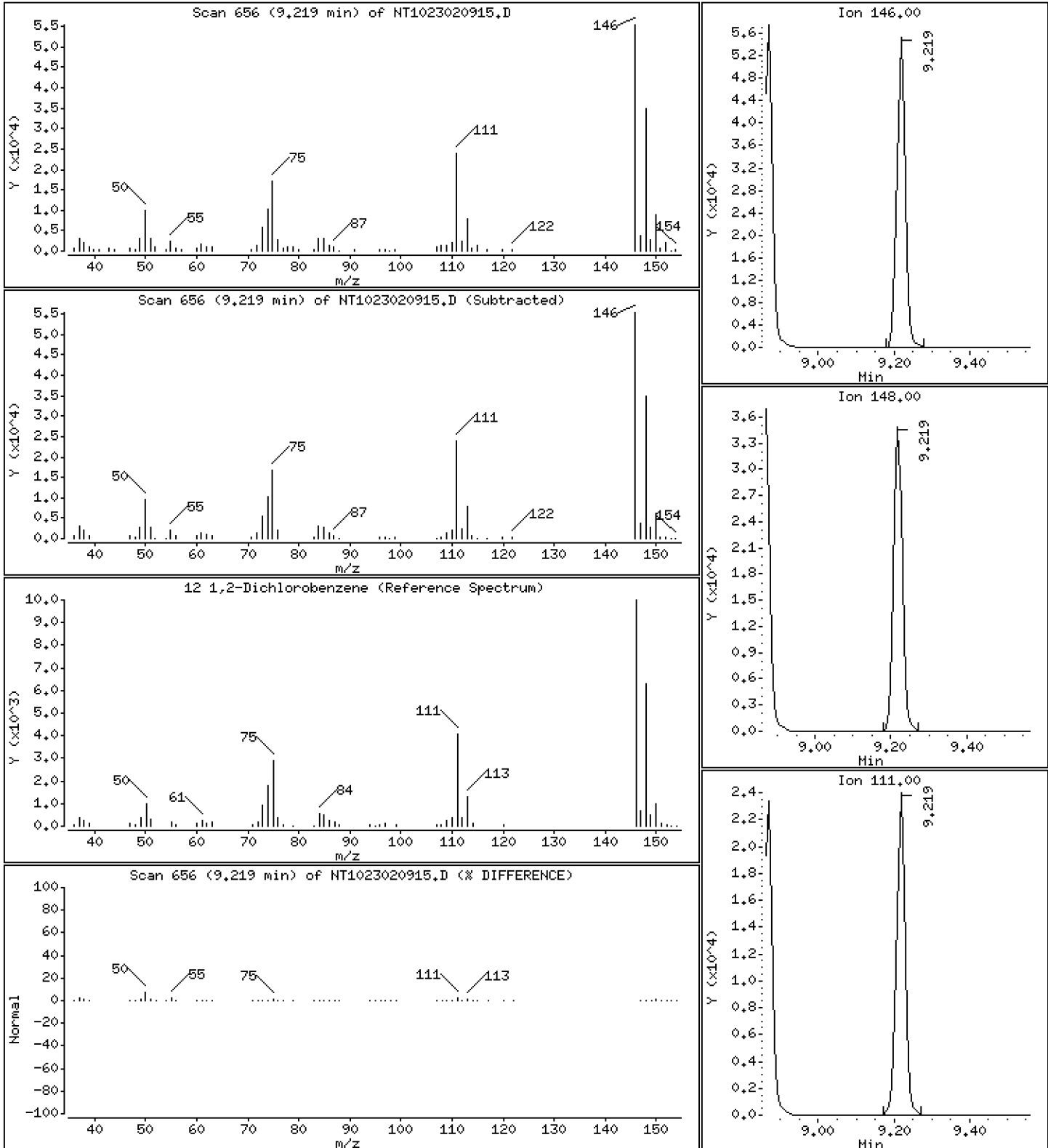
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 3,794 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

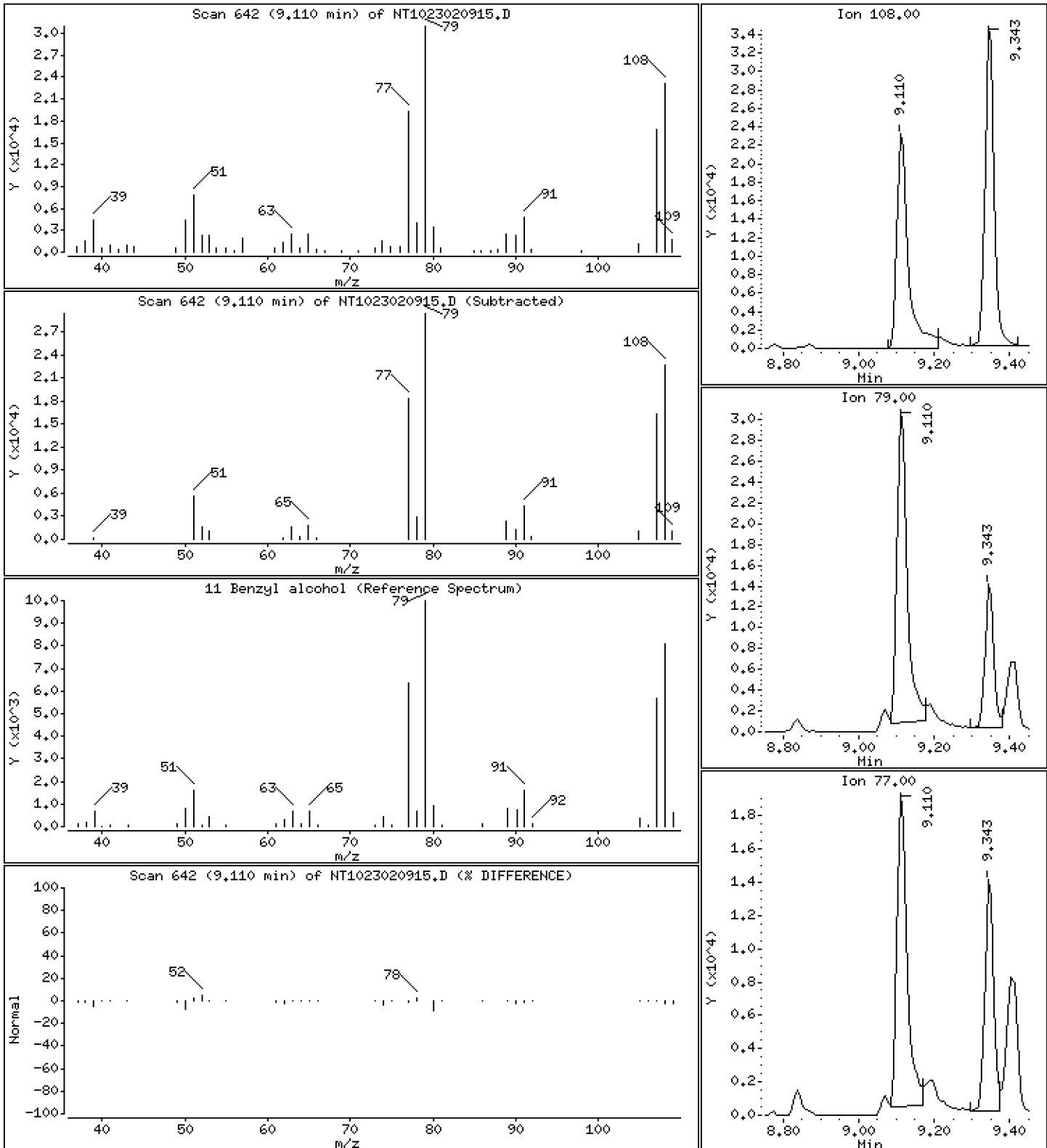
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 4,012 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

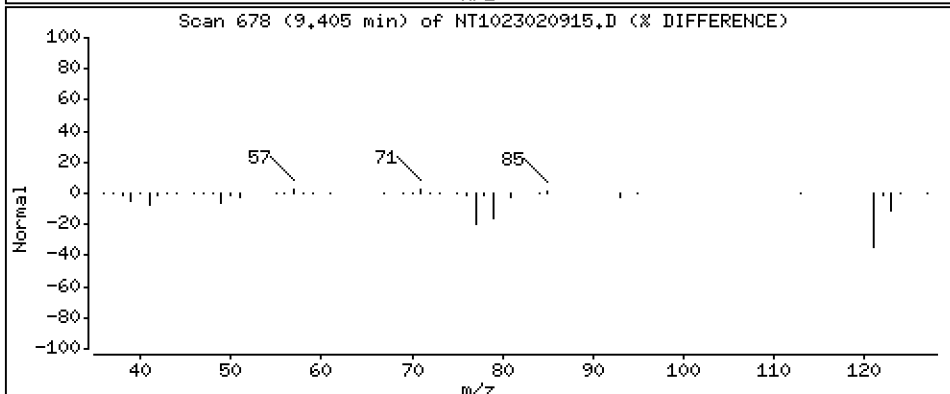
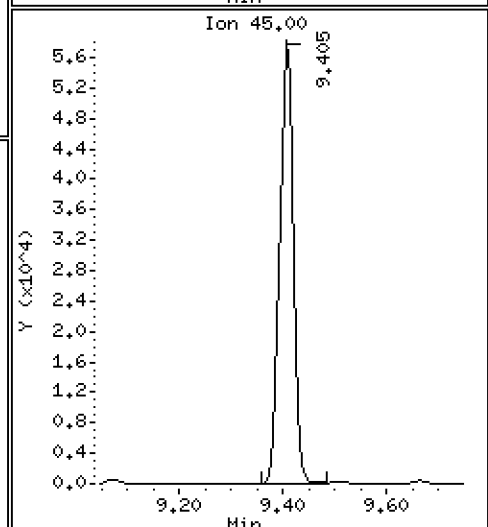
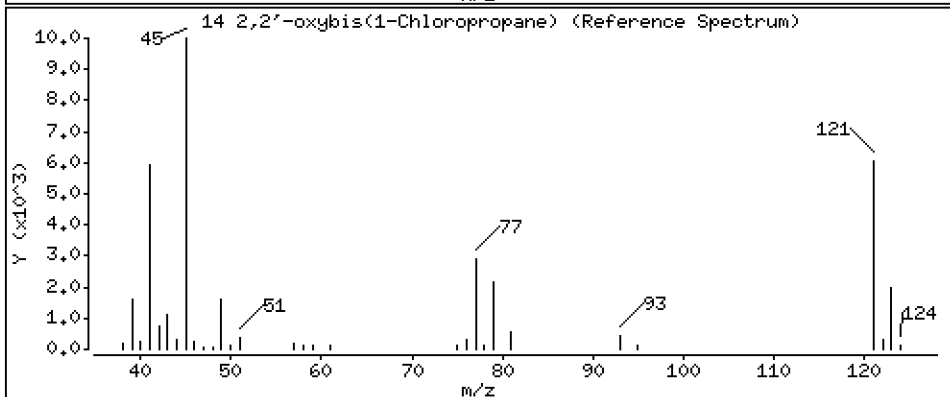
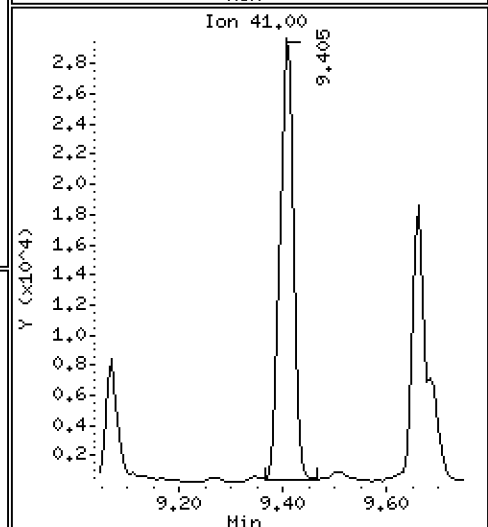
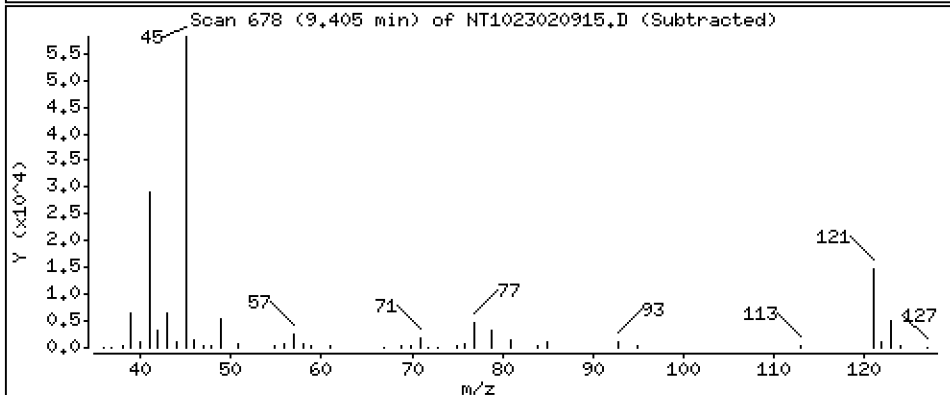
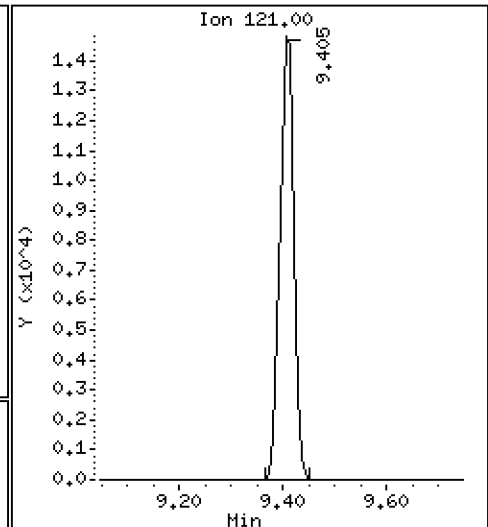
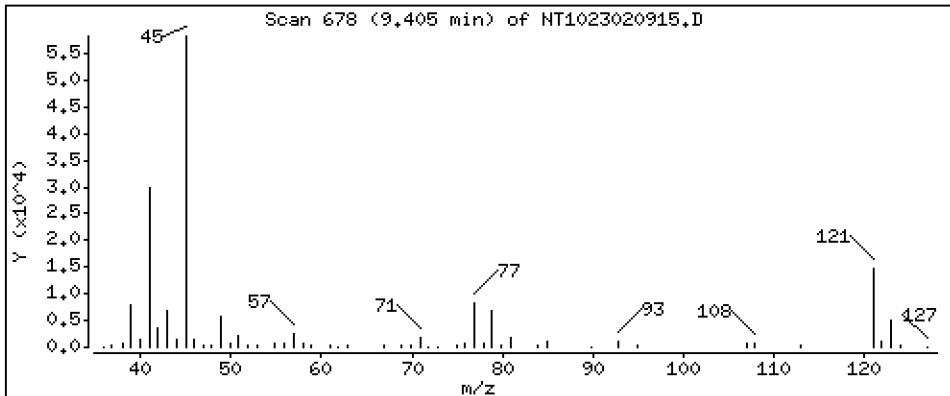
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 4,324 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

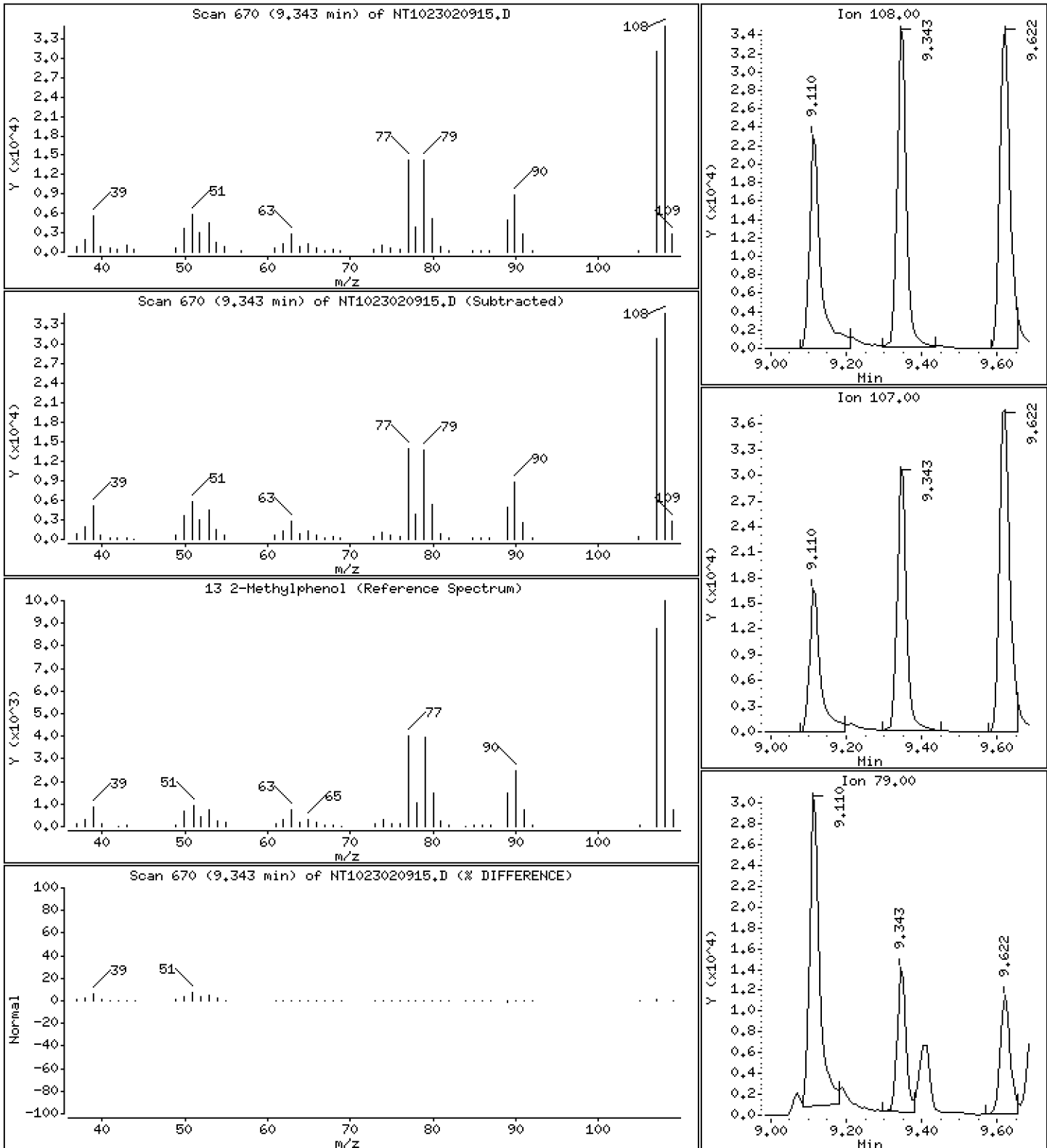
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 3,229 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

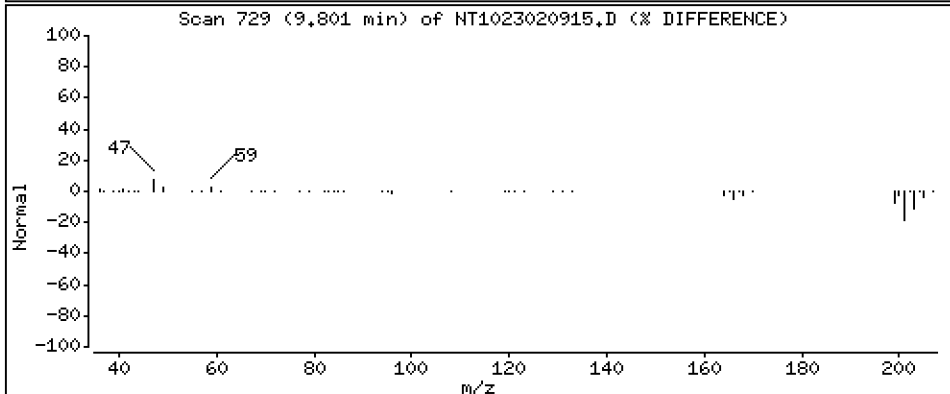
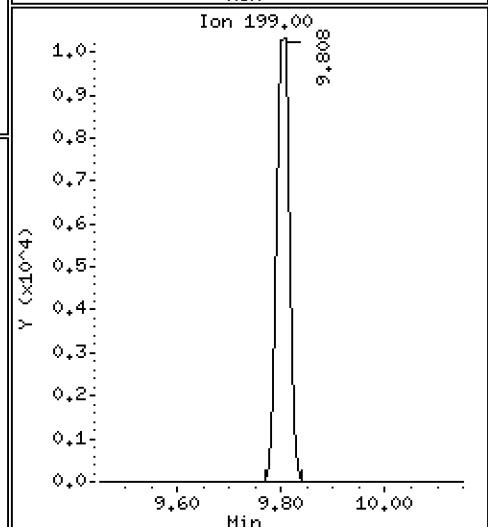
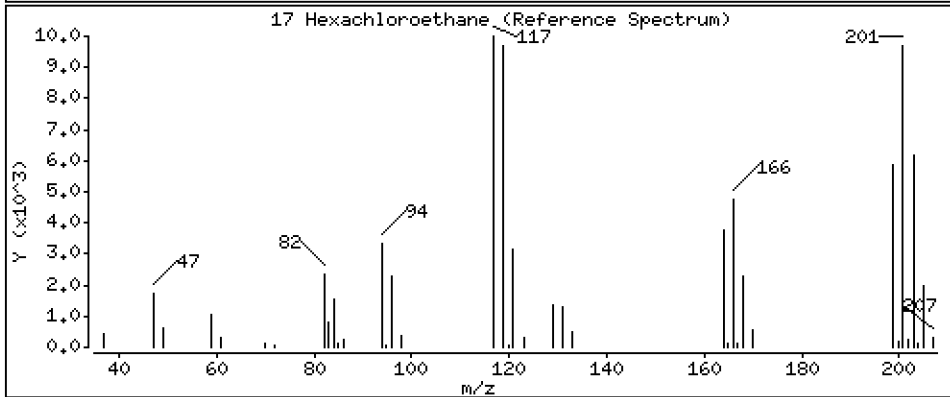
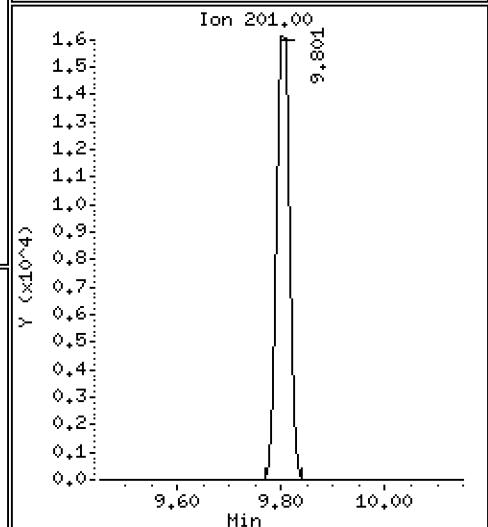
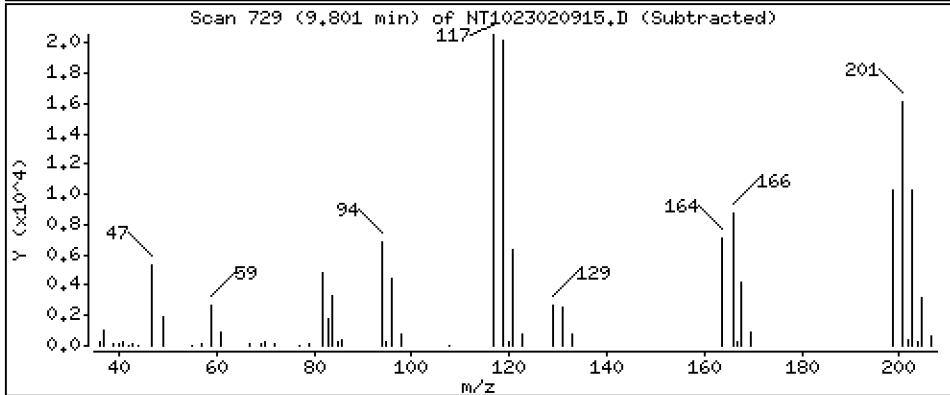
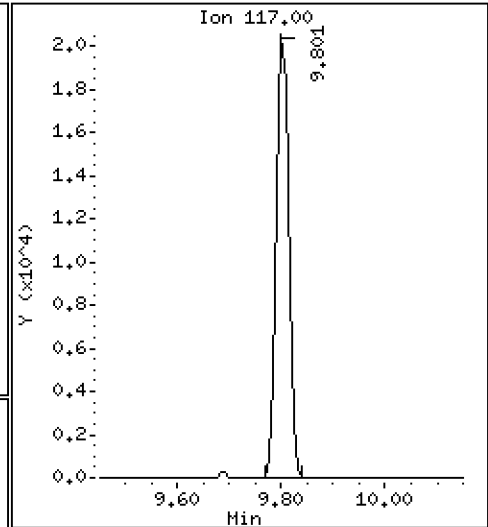
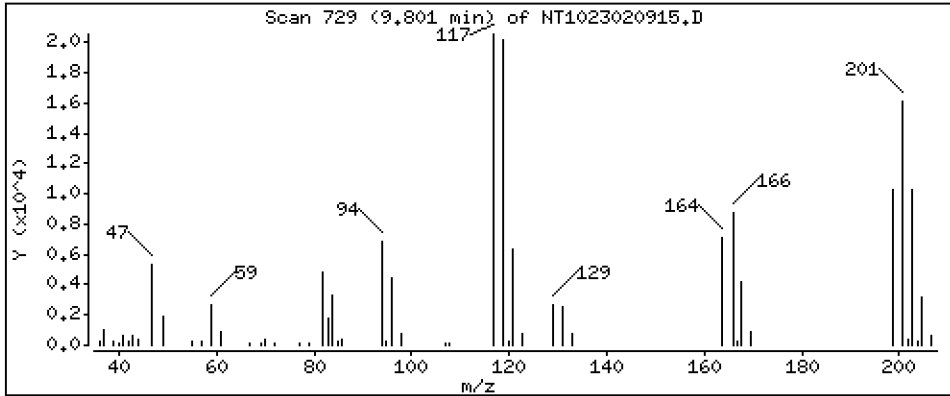
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 3,690 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

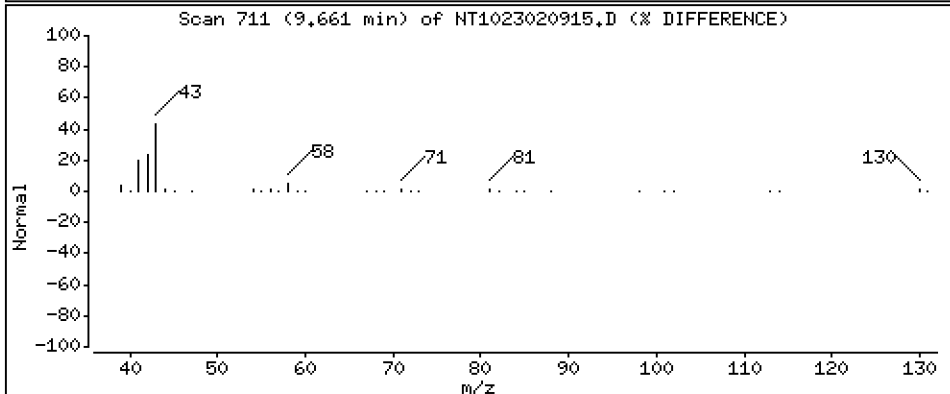
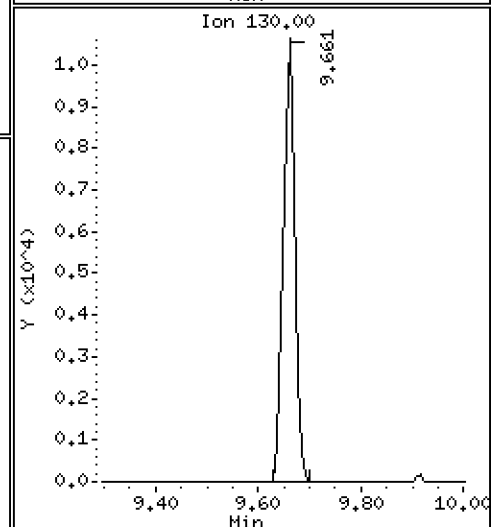
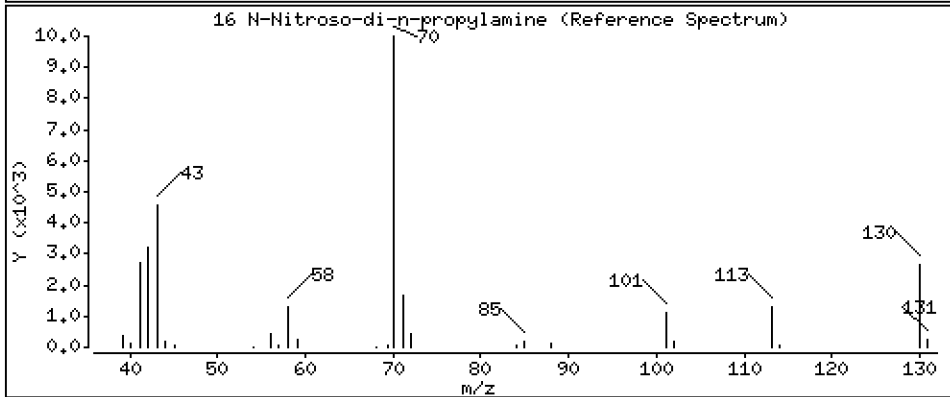
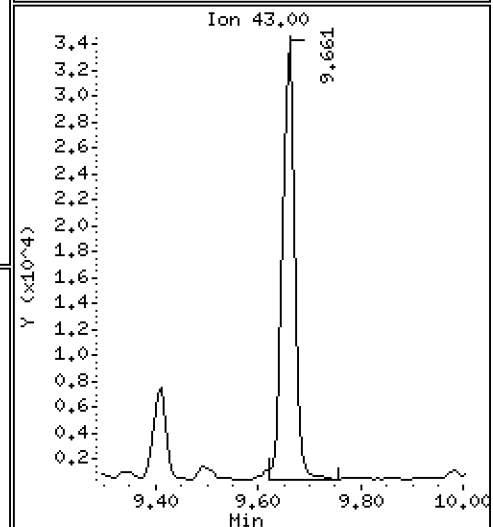
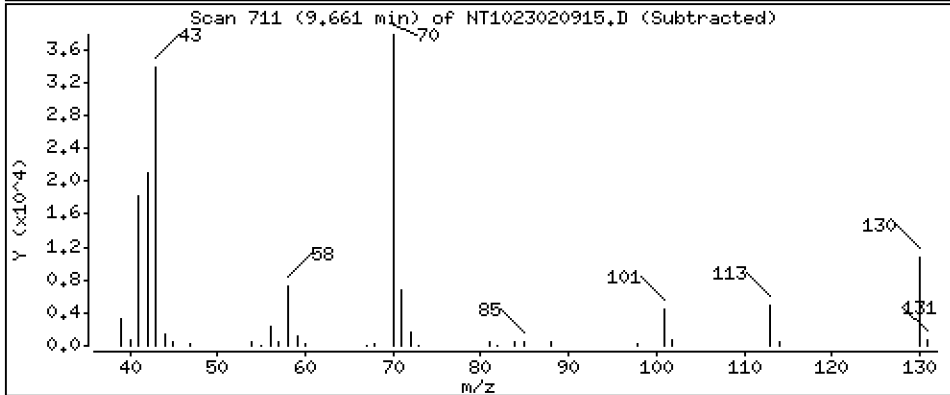
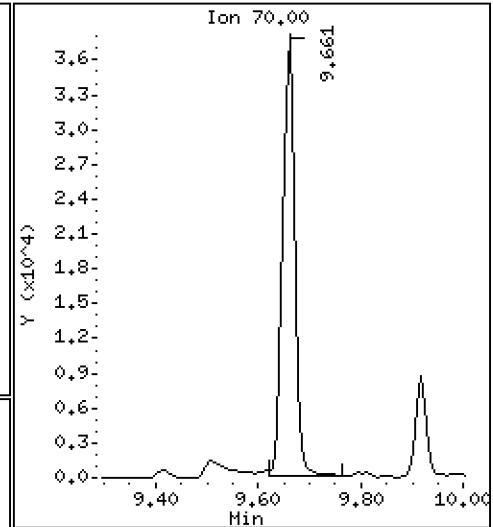
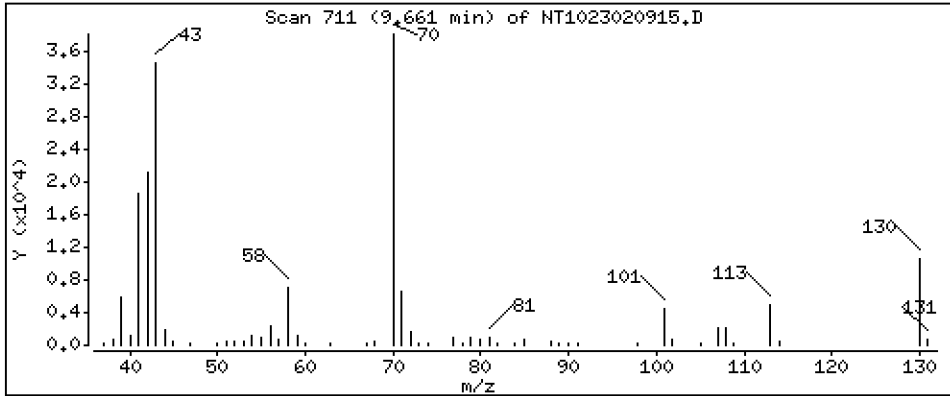
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 3,977 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

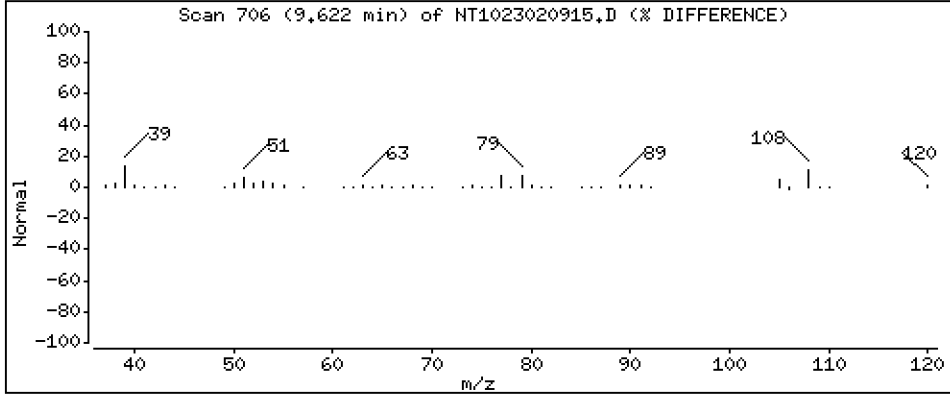
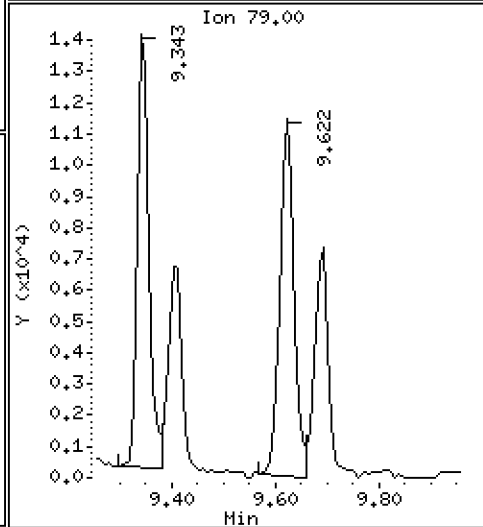
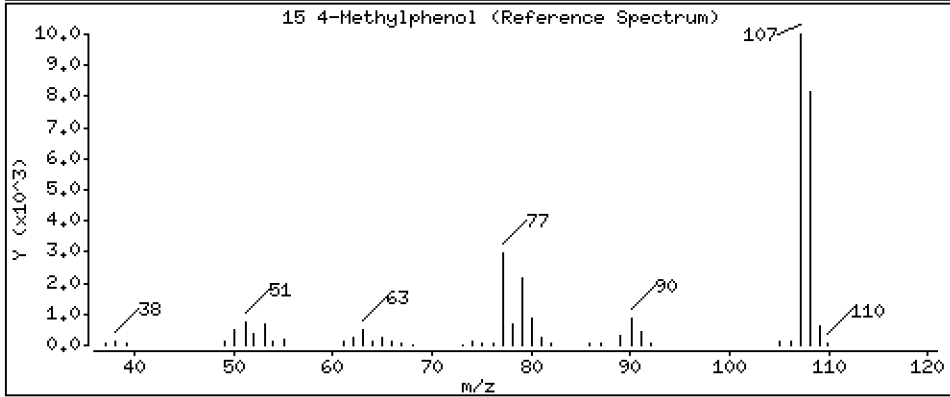
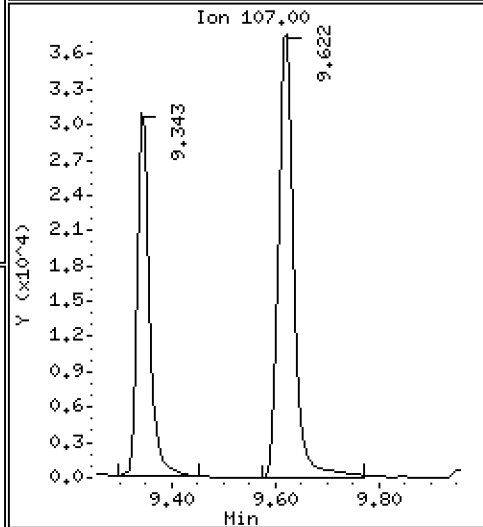
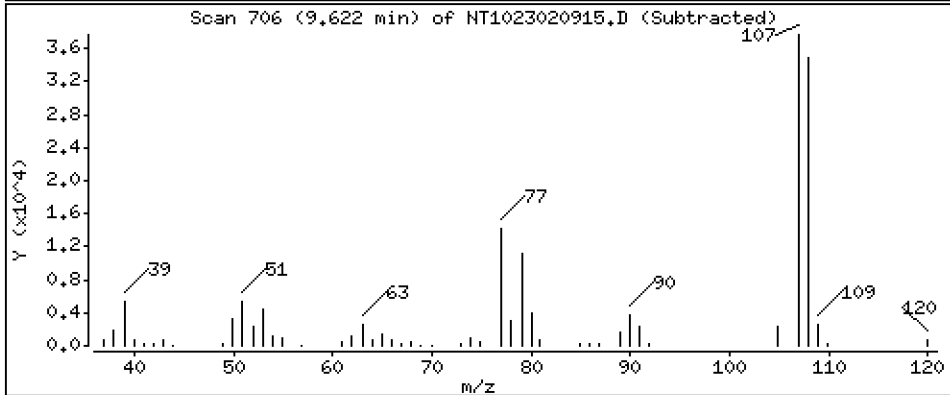
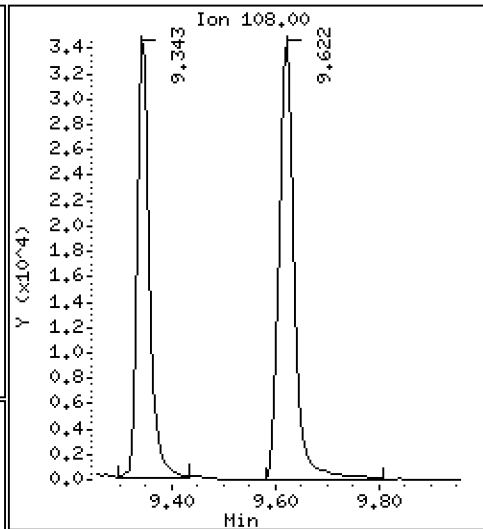
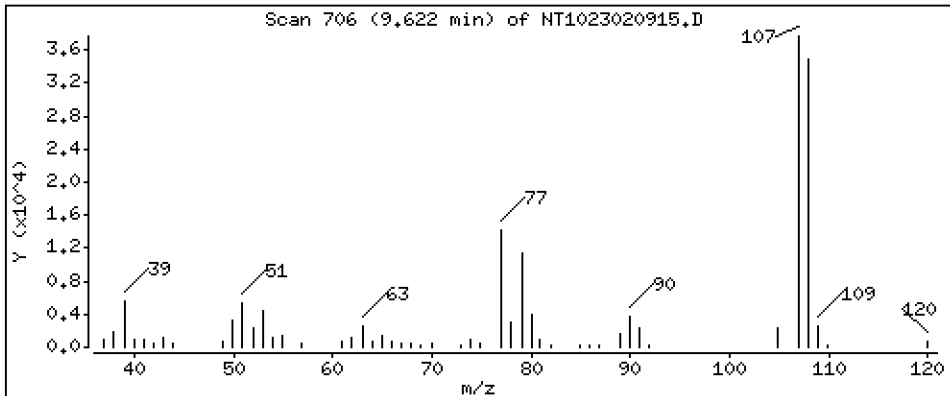
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,388 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

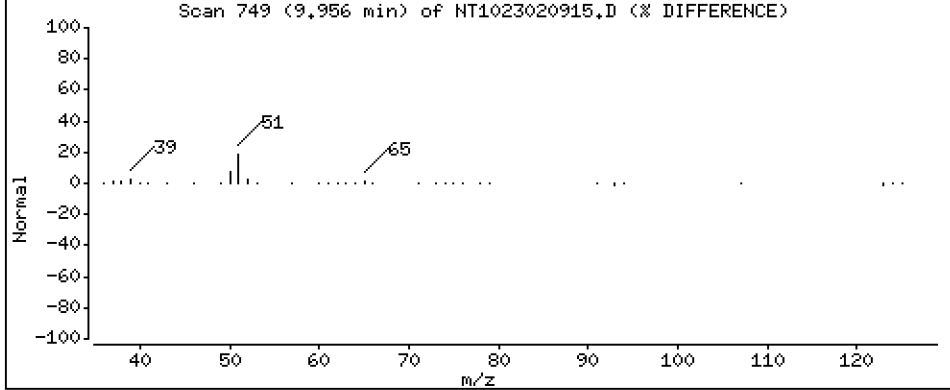
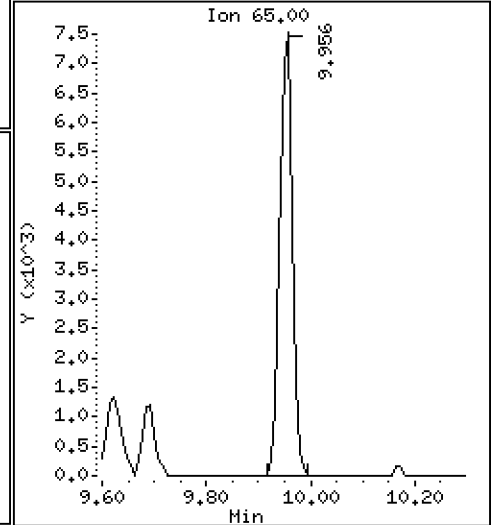
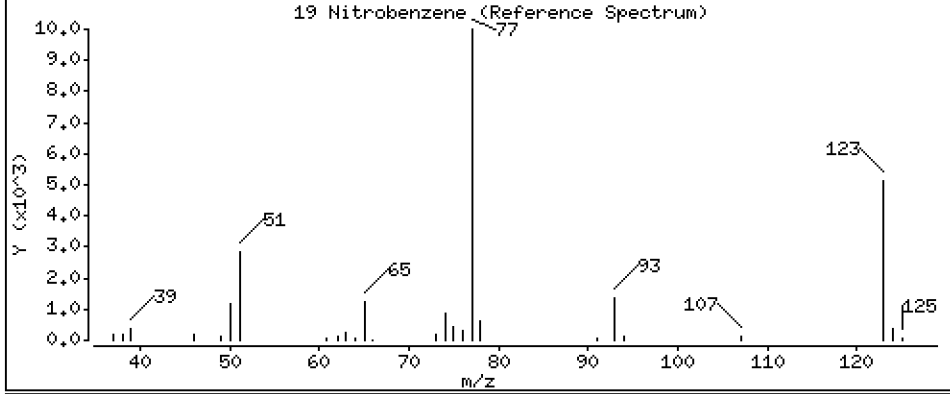
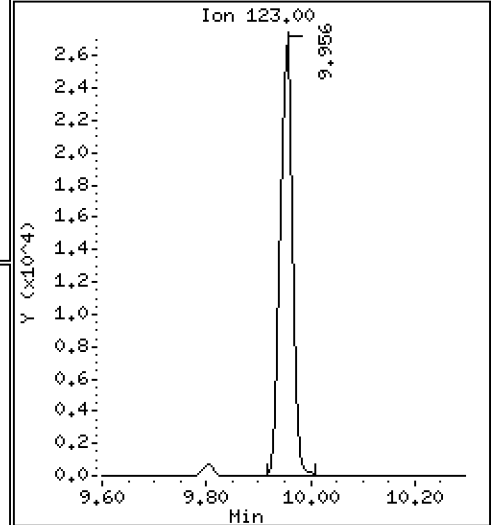
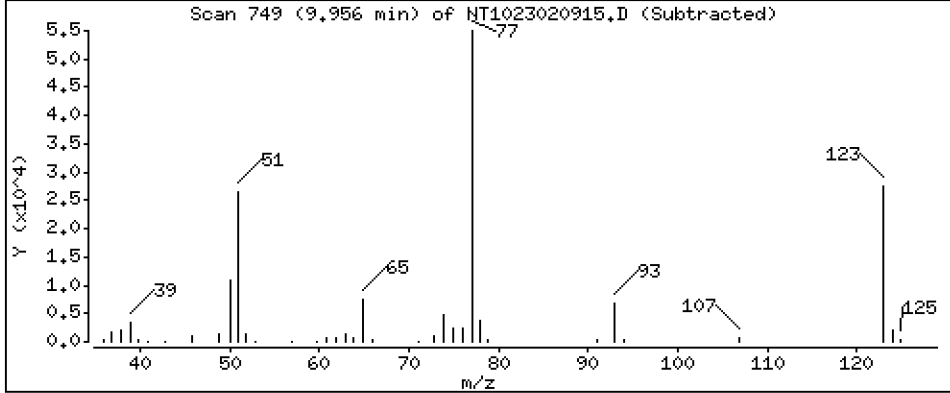
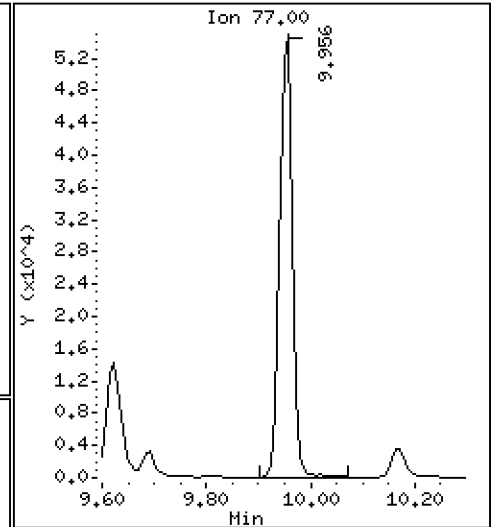
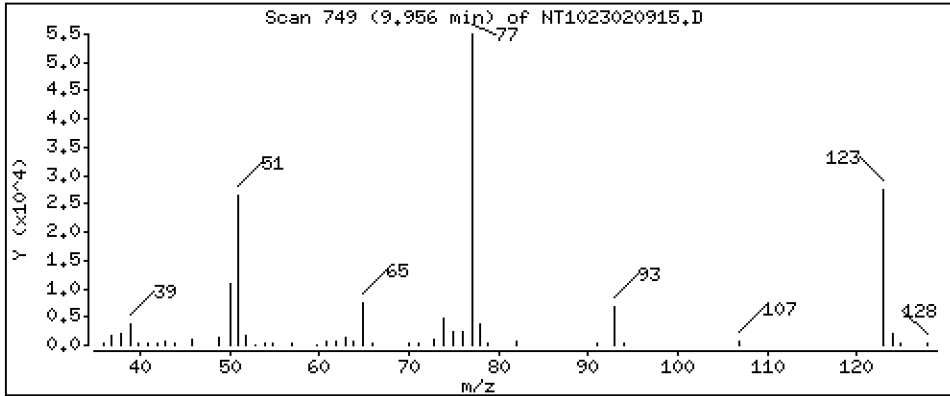
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

Concentration: 4,229 ug/mL

19 Nitrobenzene



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

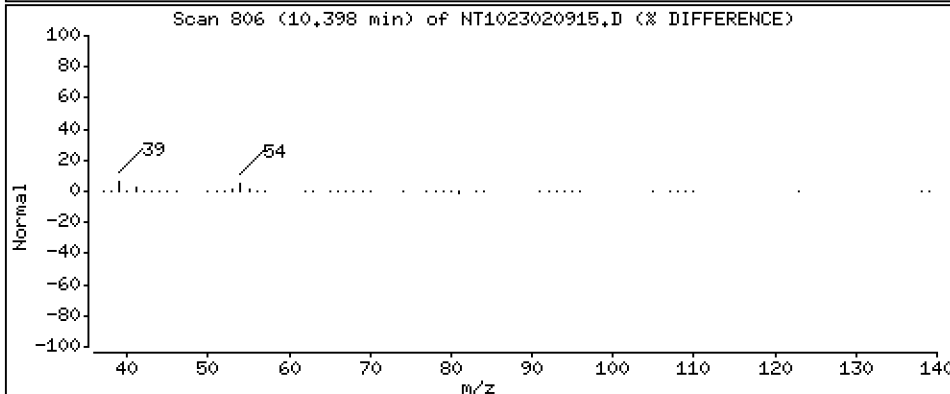
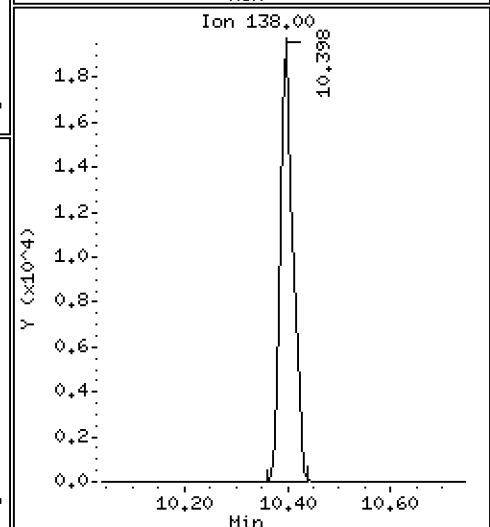
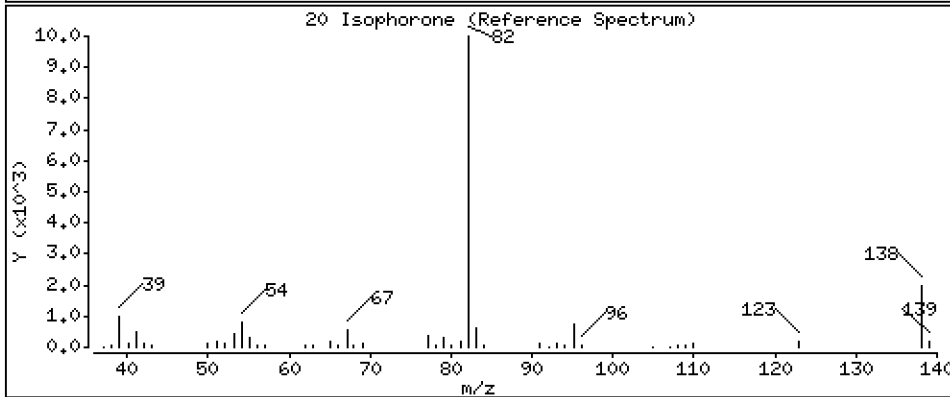
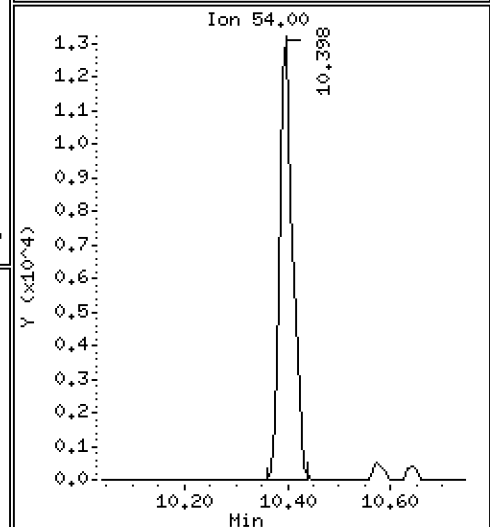
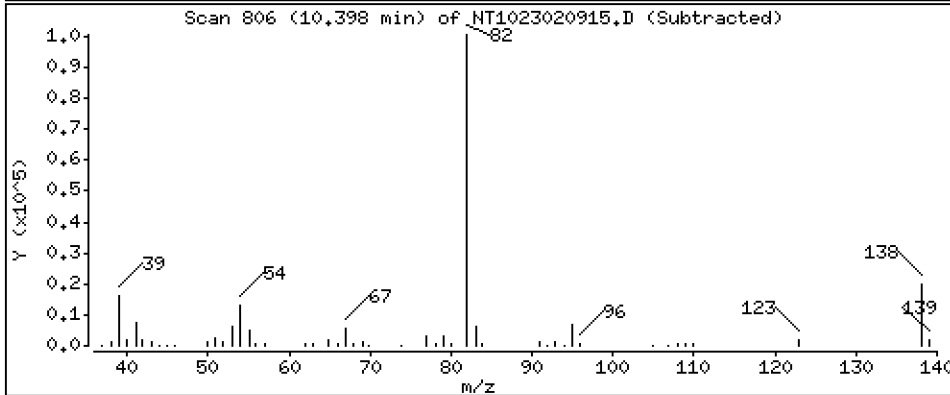
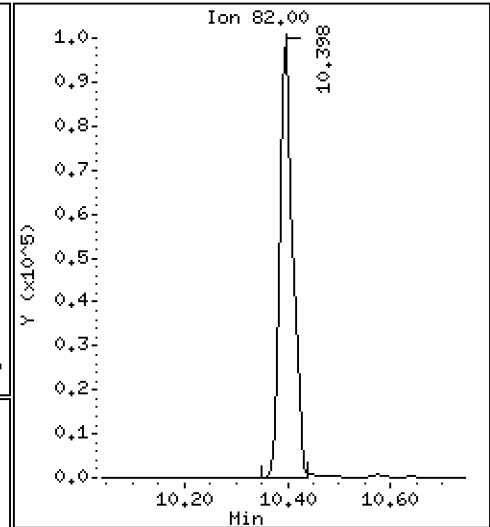
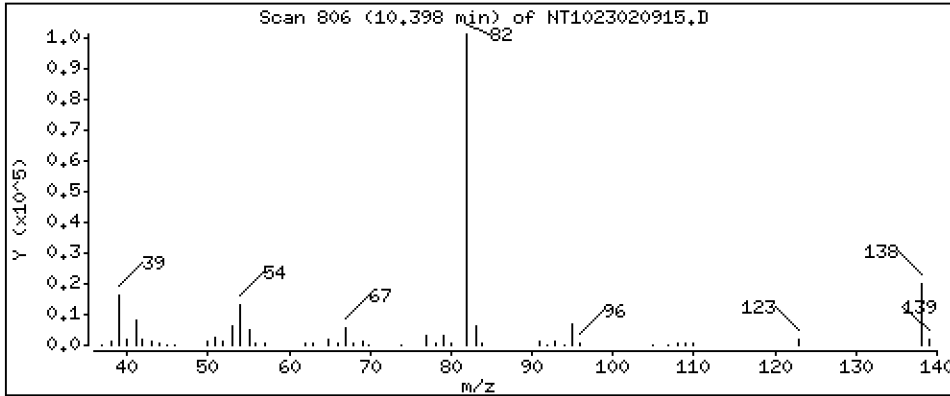
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

20 Isophorone

Concentration: 6.056 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

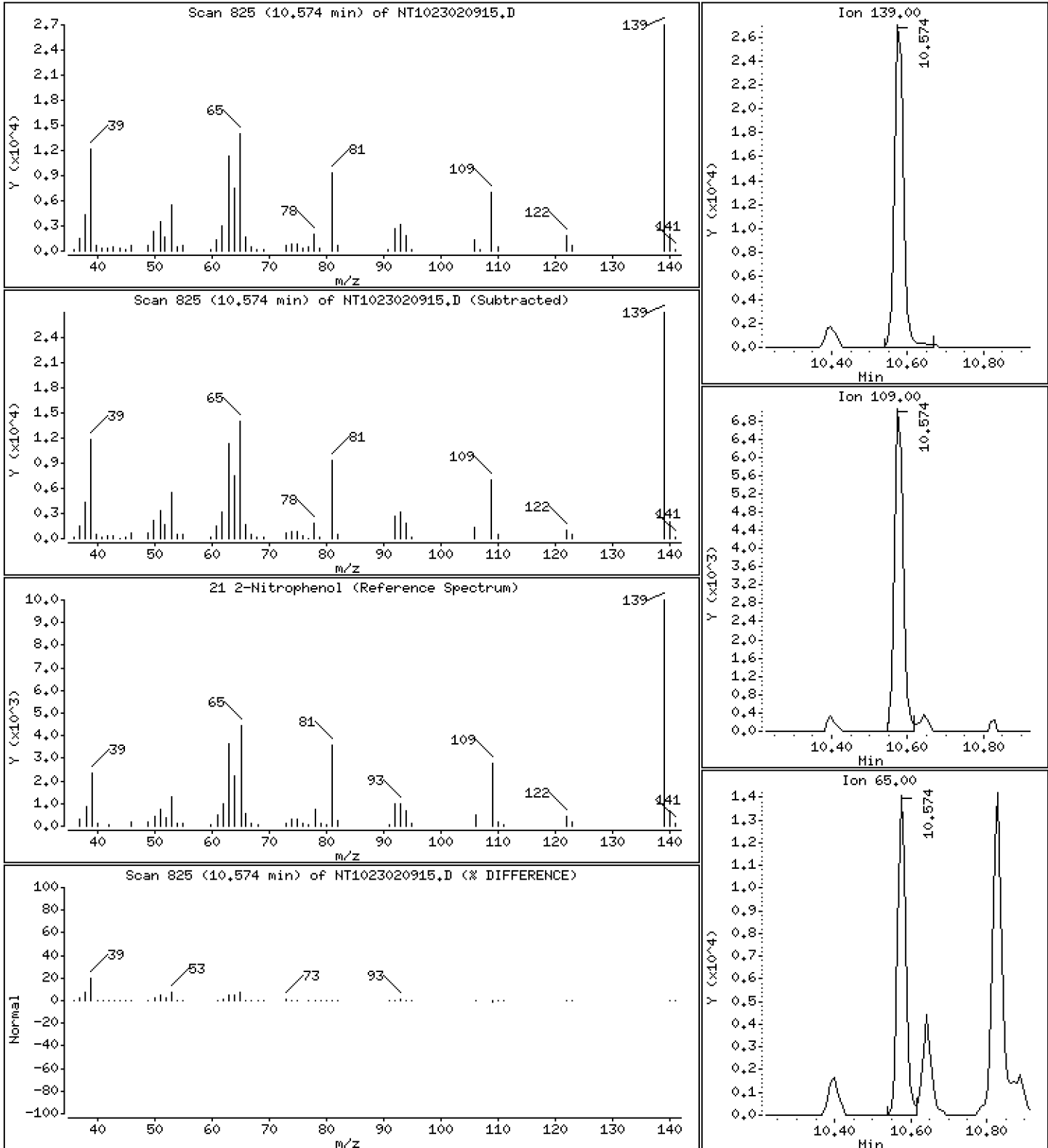
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 4,045 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

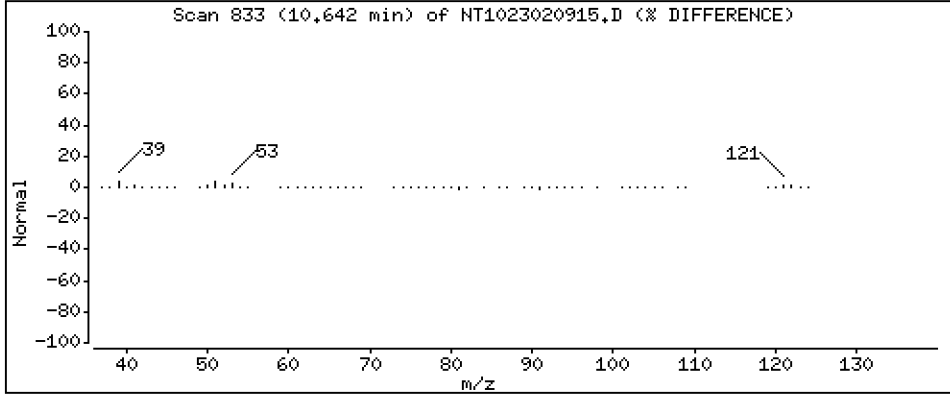
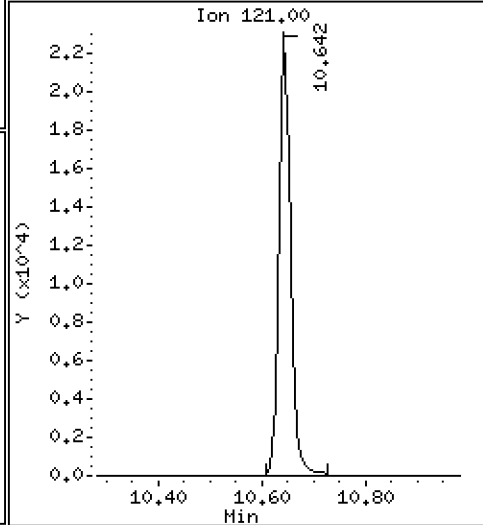
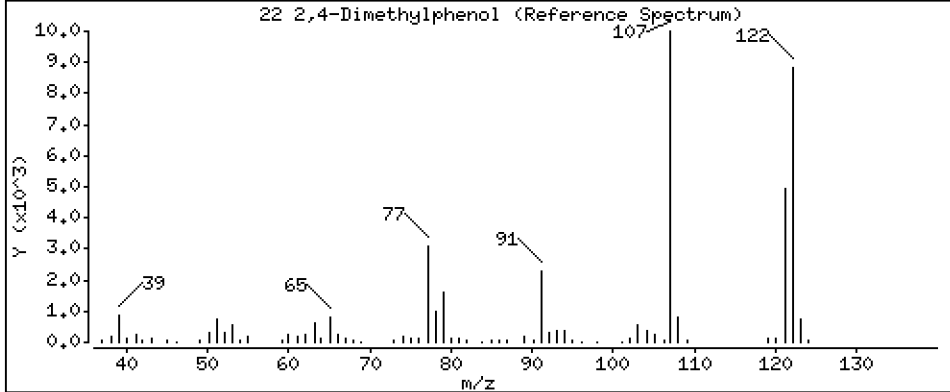
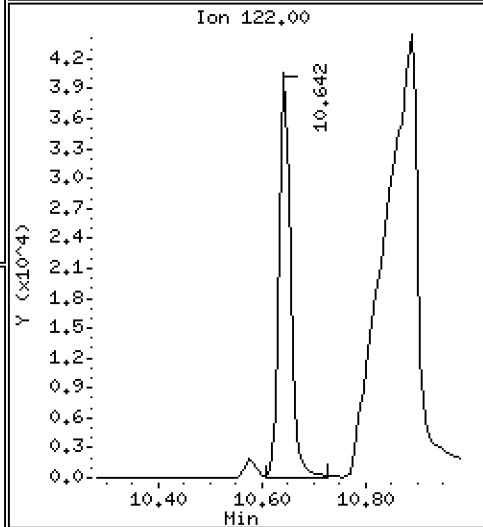
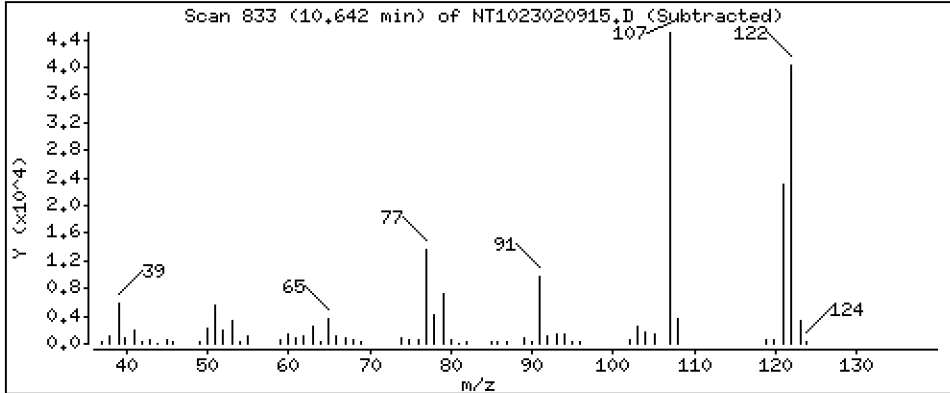
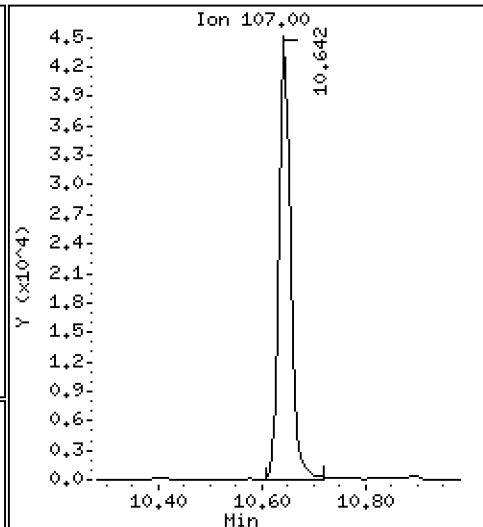
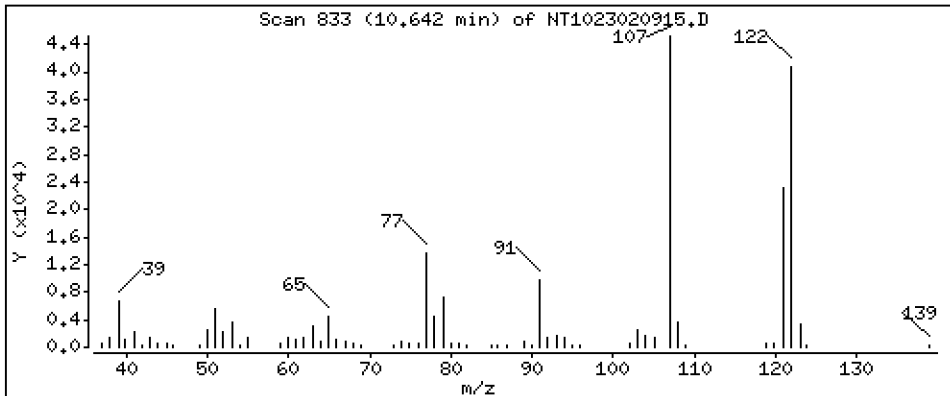
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,548 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

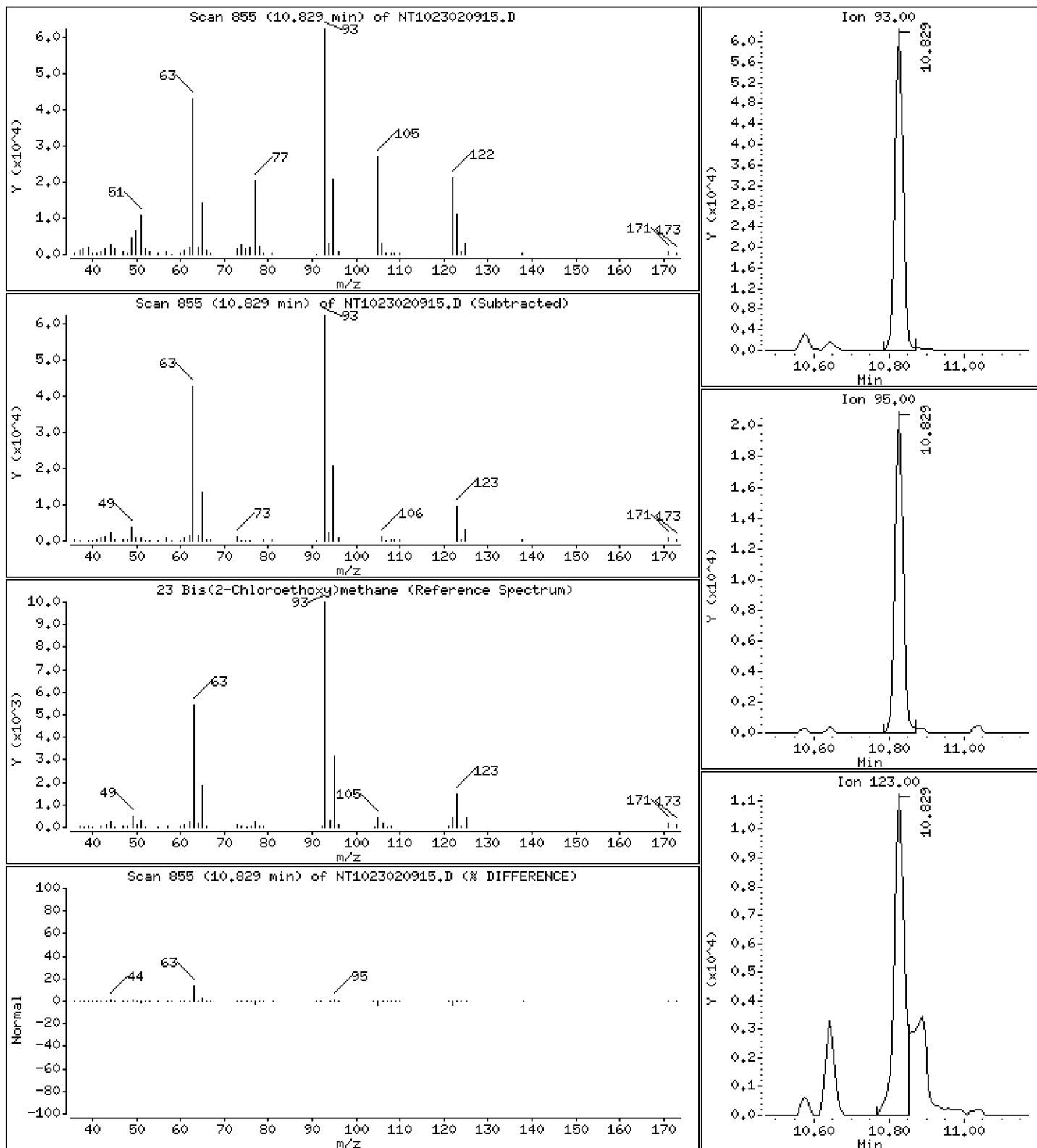
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 4,862 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

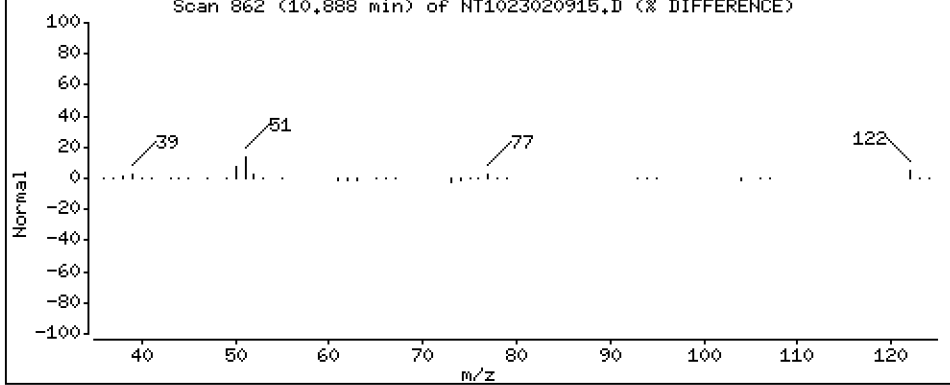
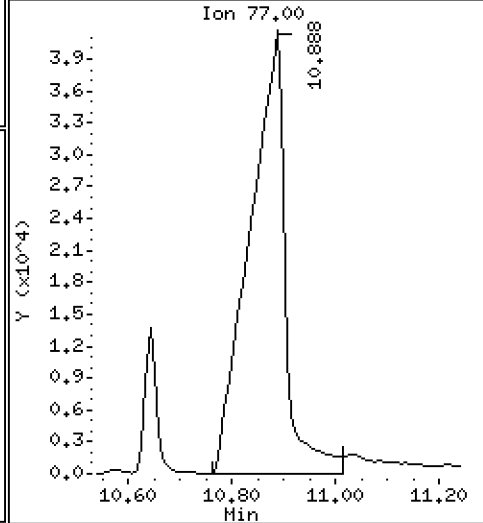
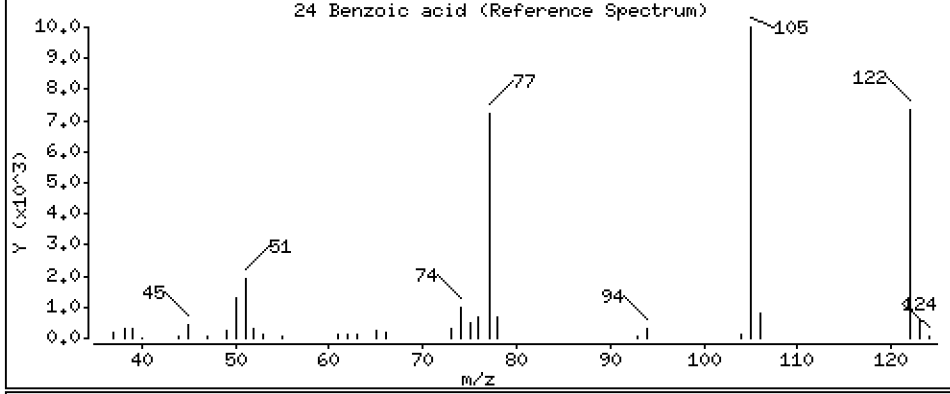
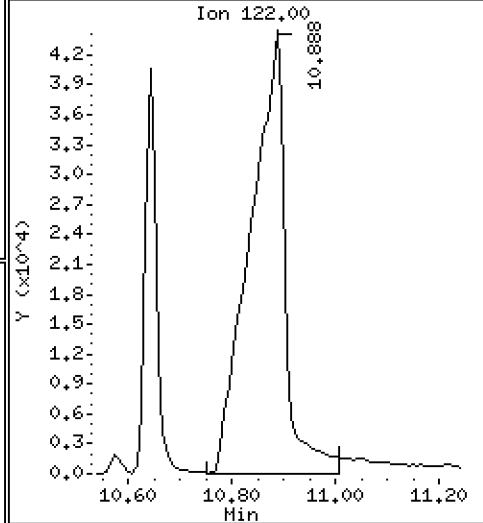
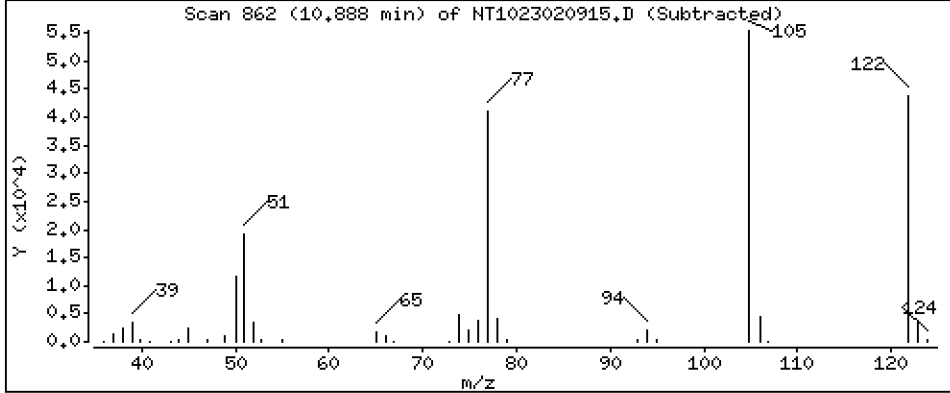
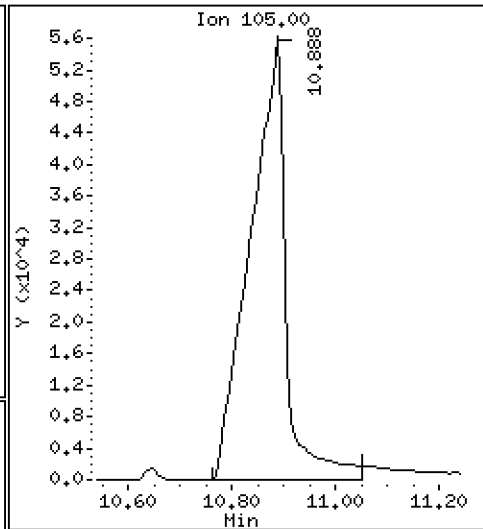
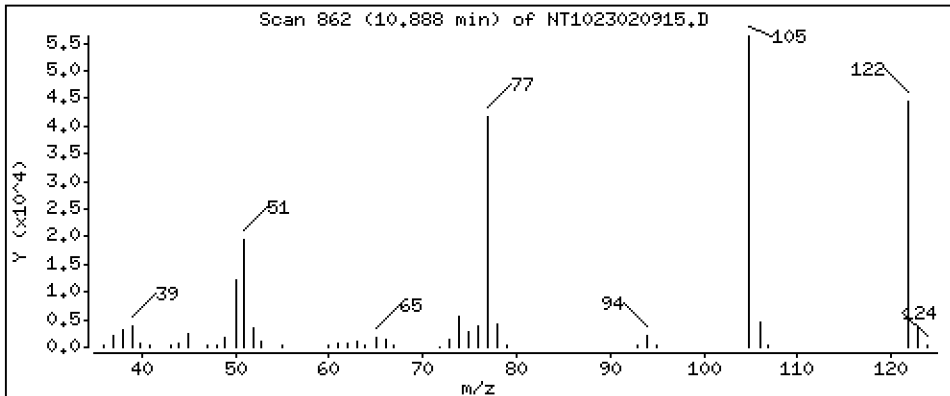
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 22,91 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

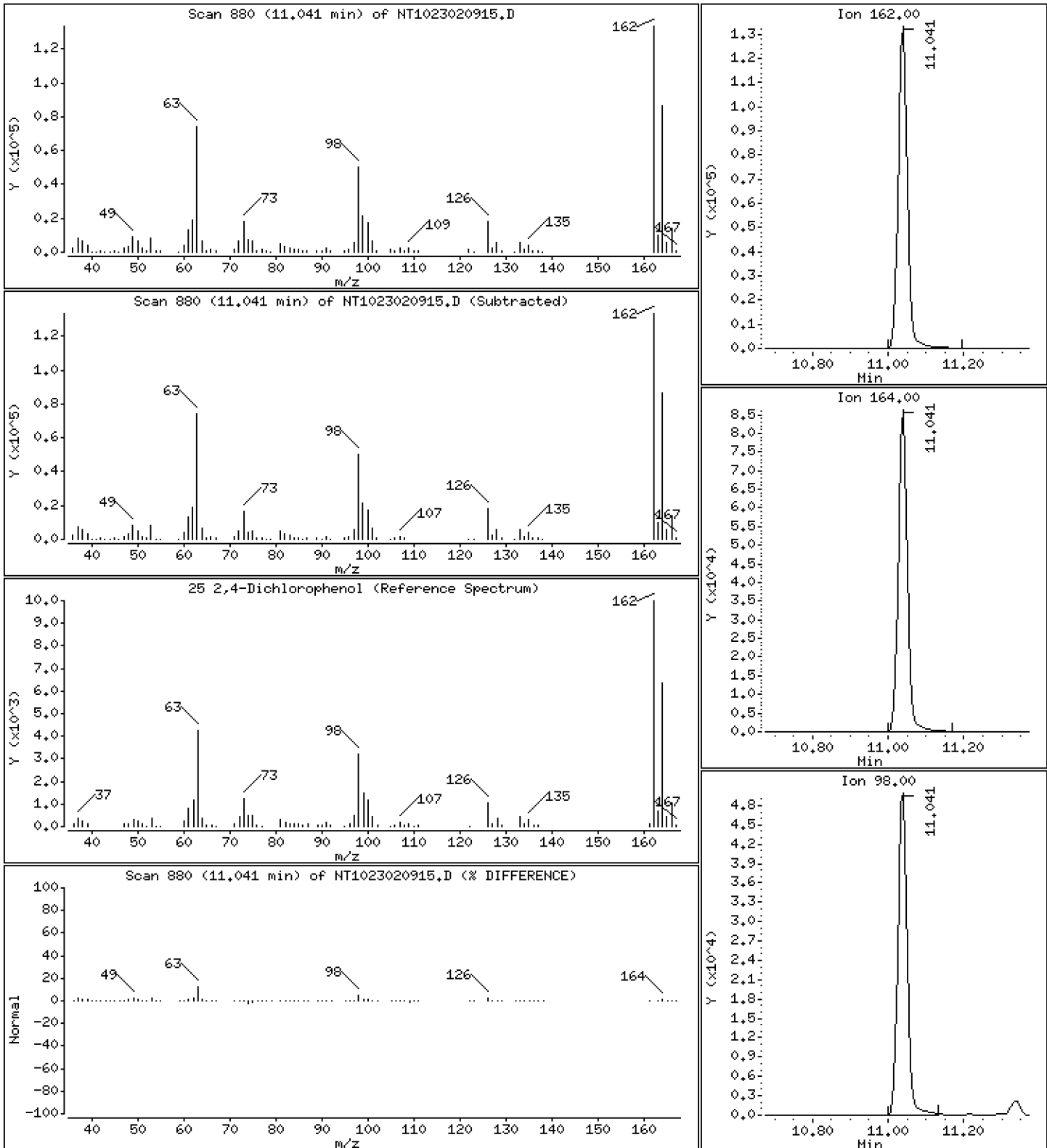
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 14,48 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

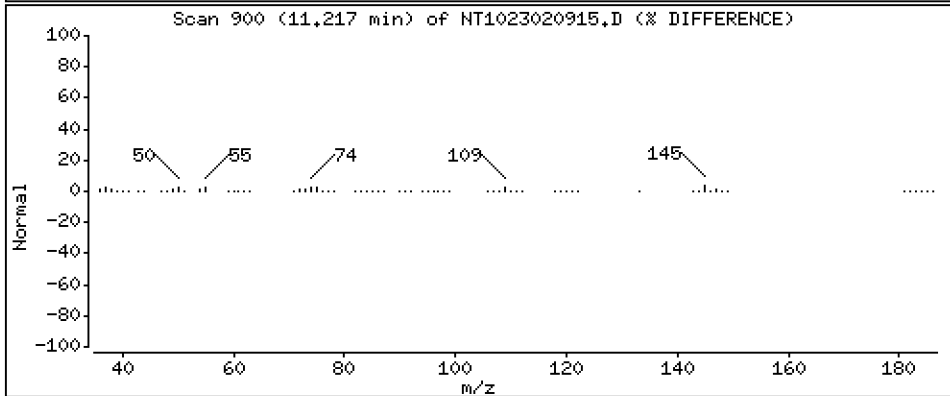
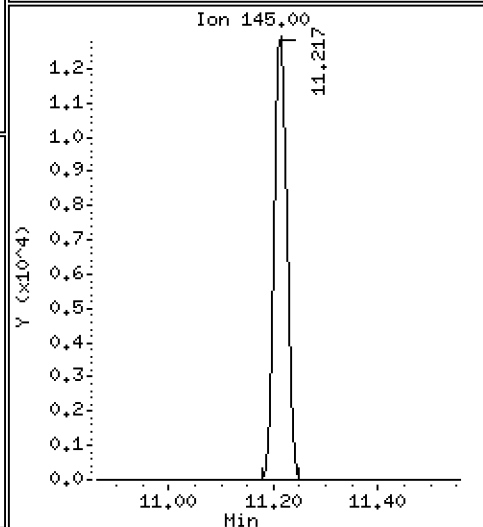
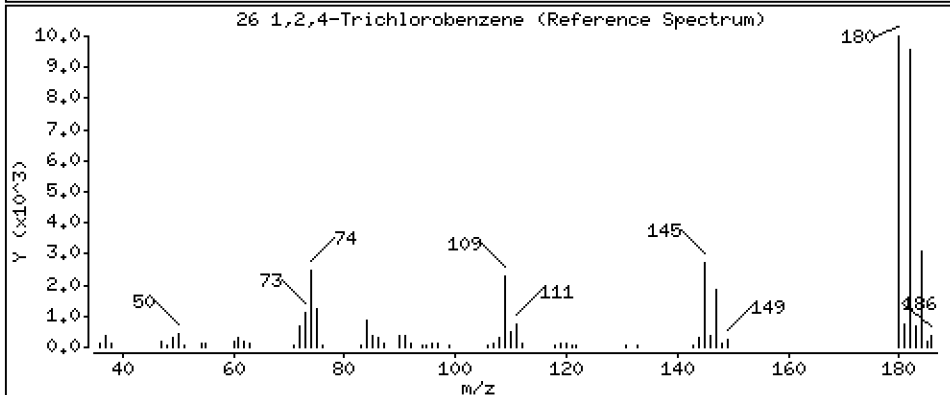
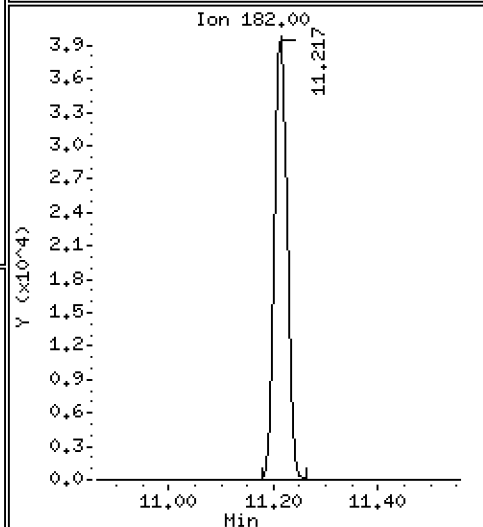
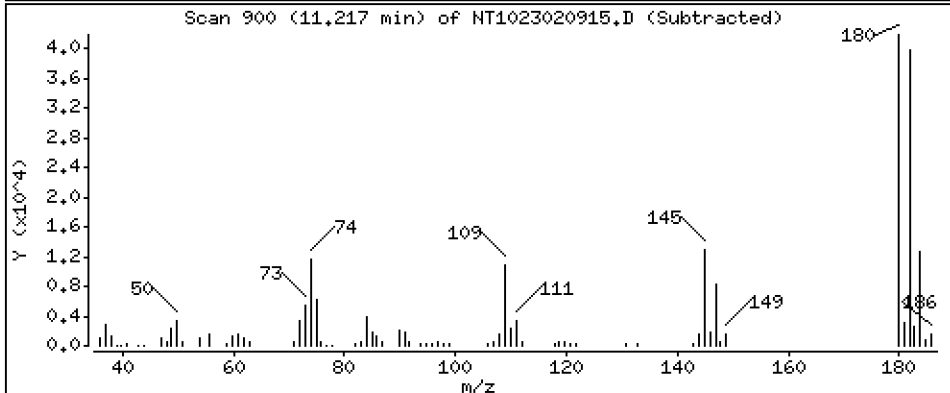
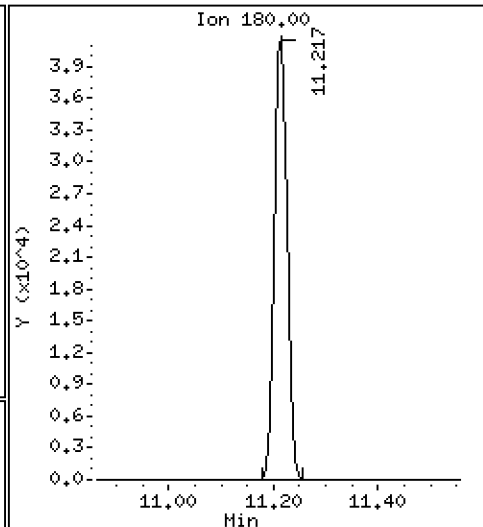
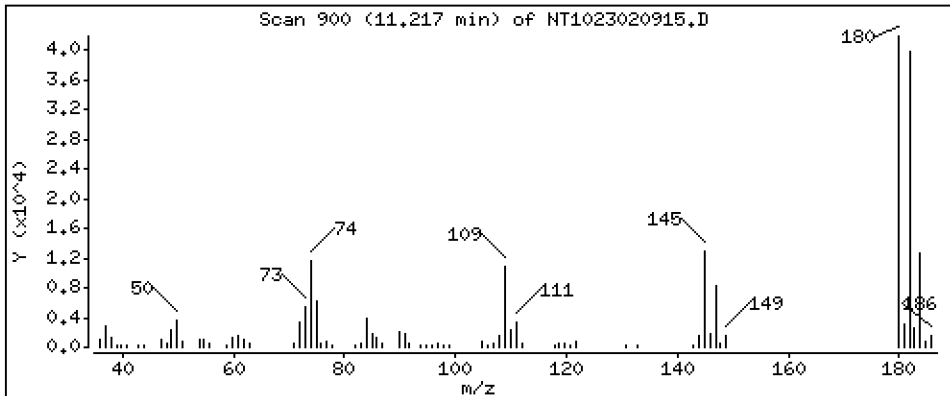
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 3,890 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

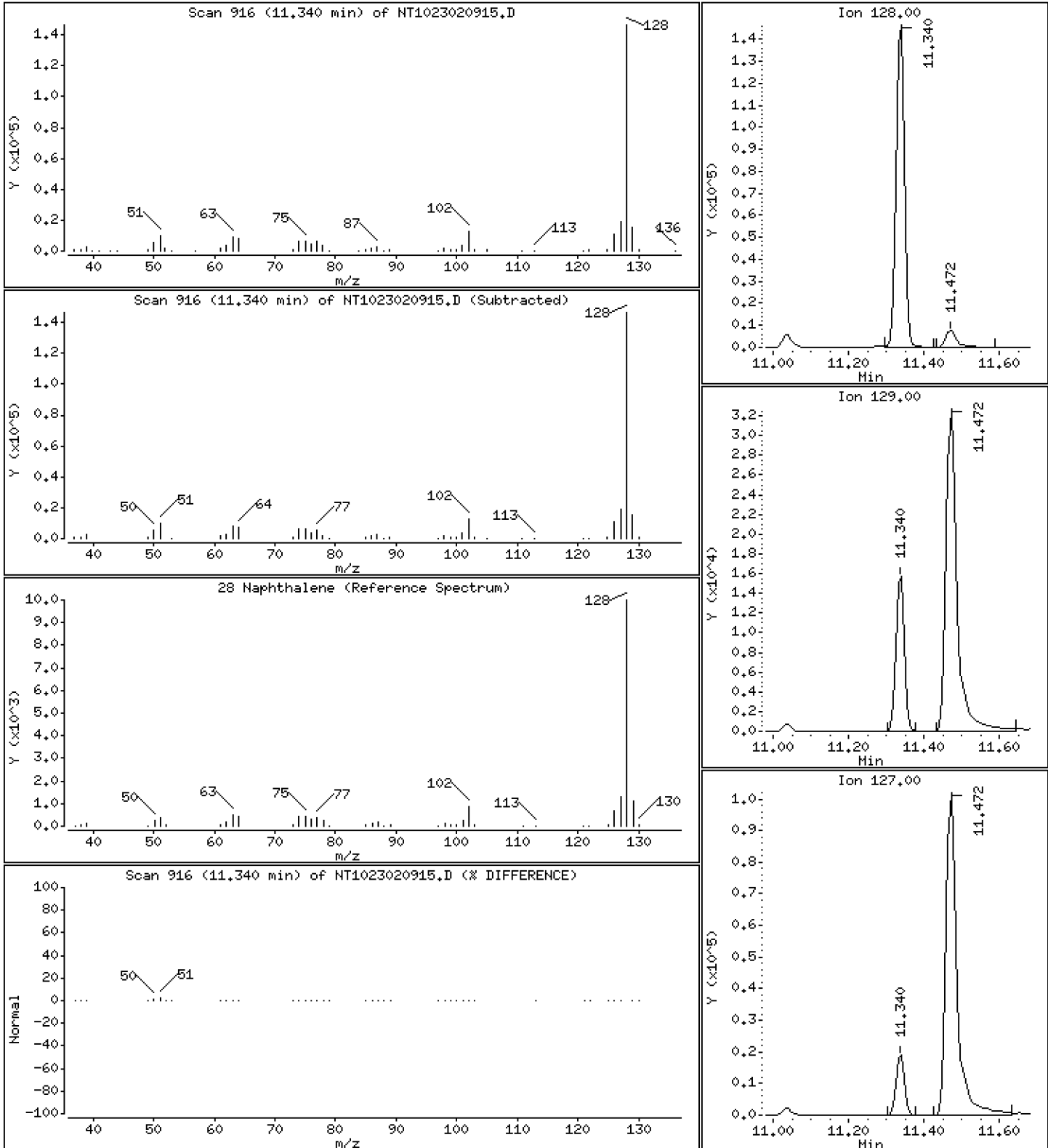
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

28 Naphthalene

Concentration: 4.089 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

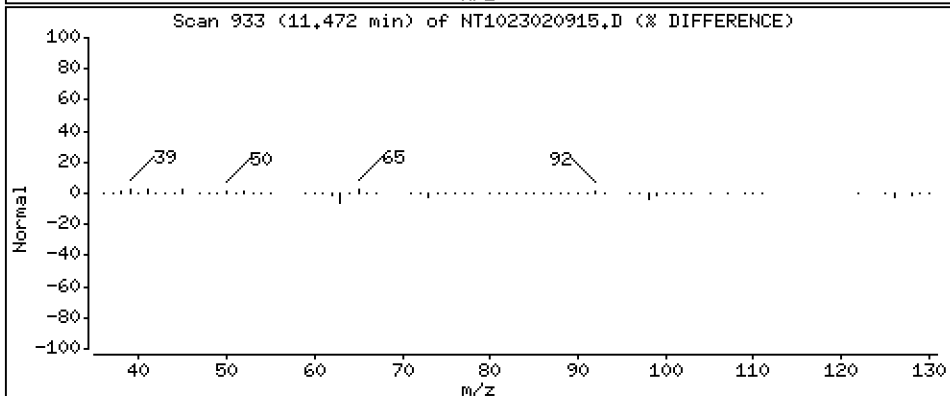
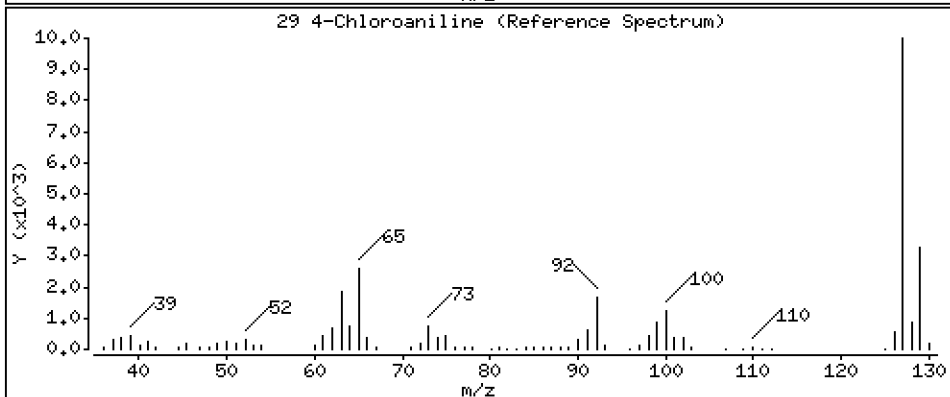
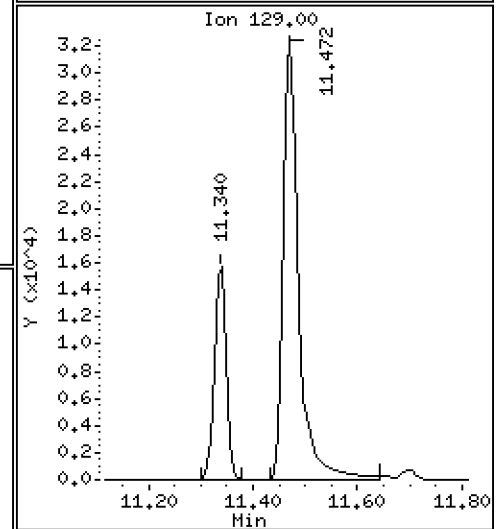
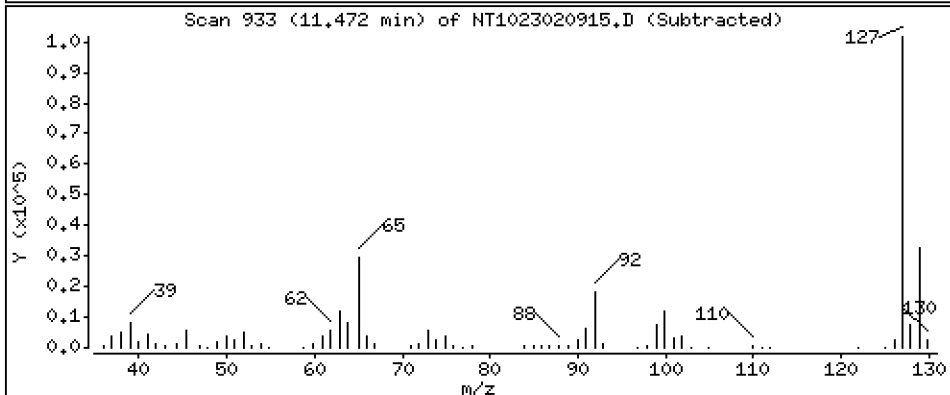
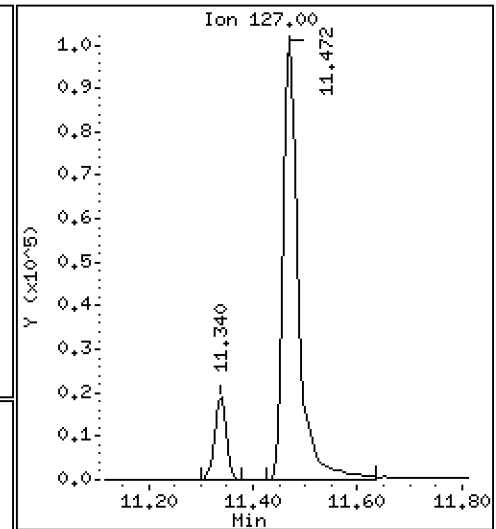
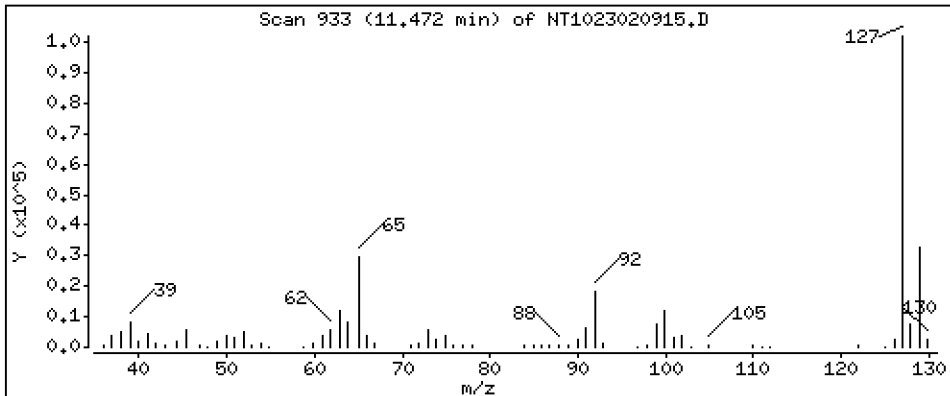
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 8,167 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

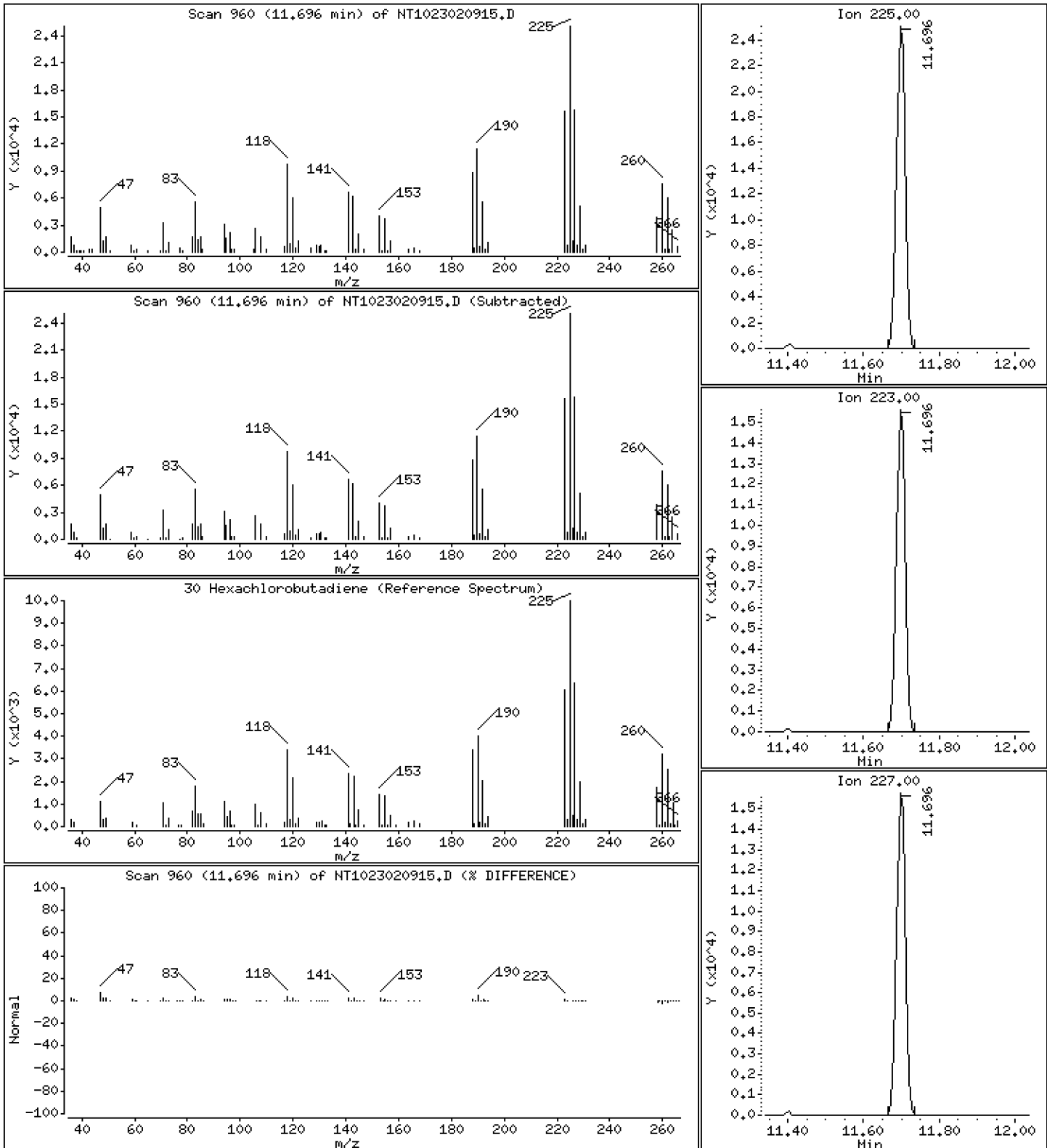
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,228 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

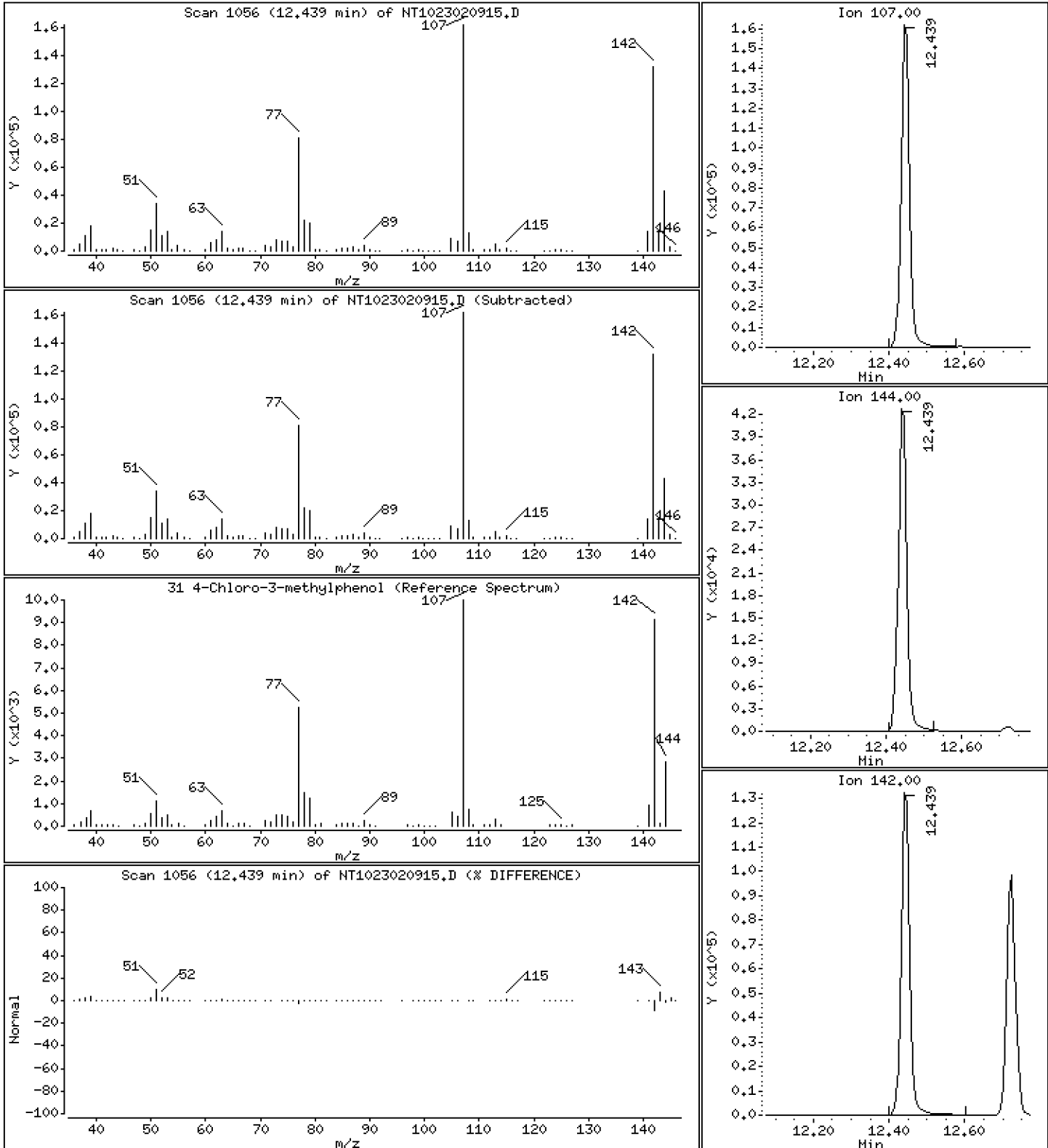
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 14,74 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

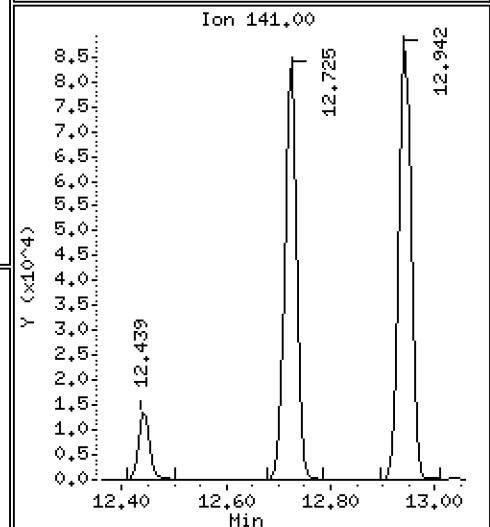
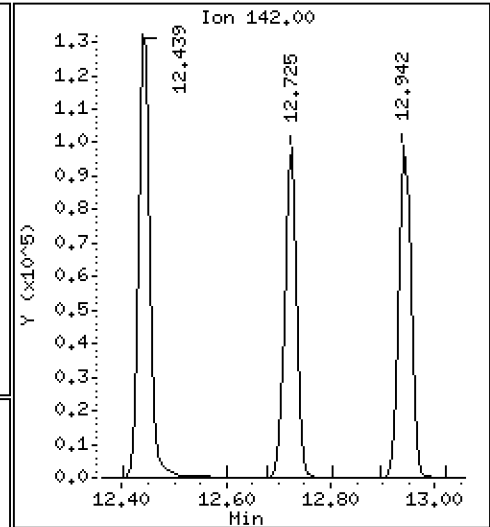
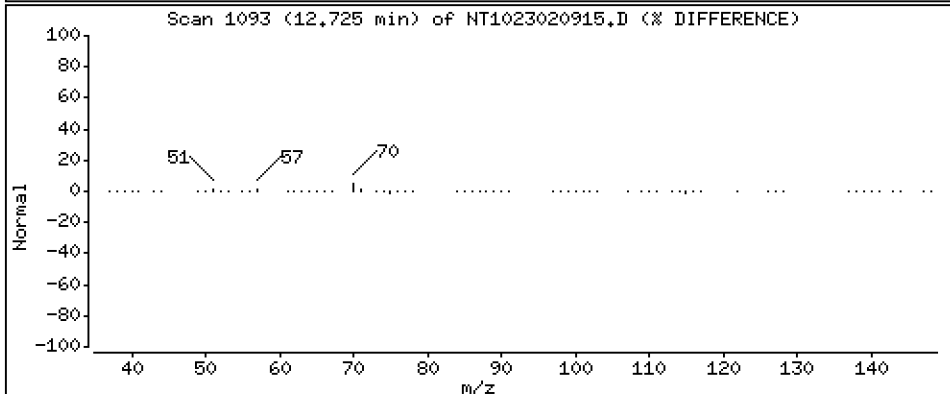
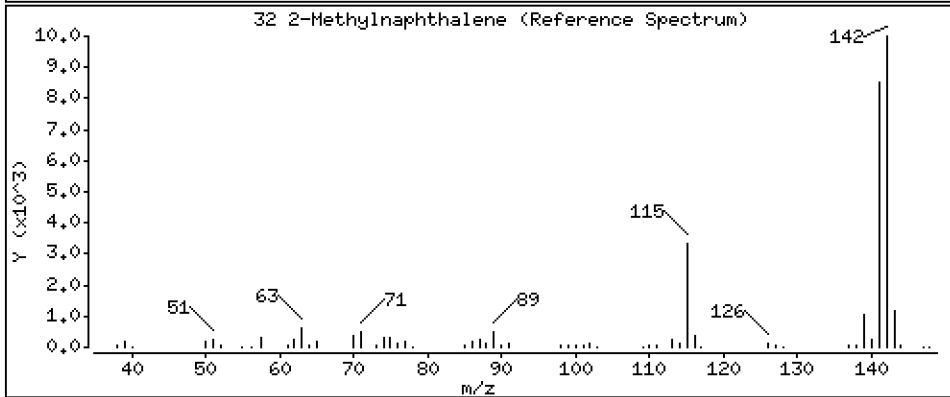
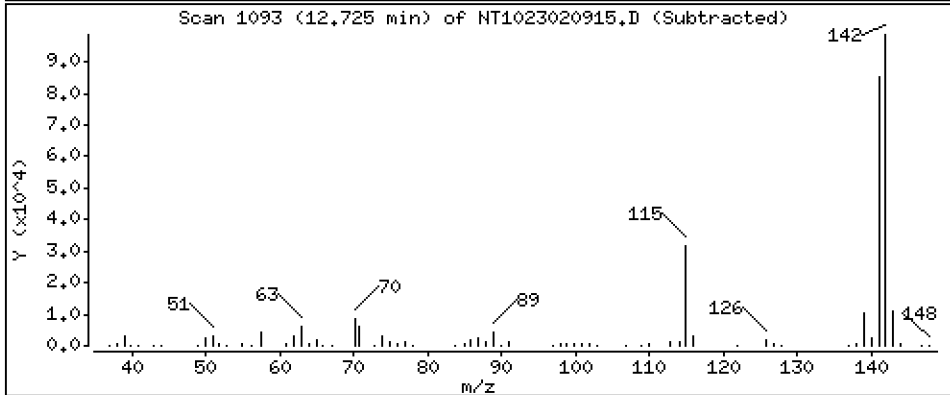
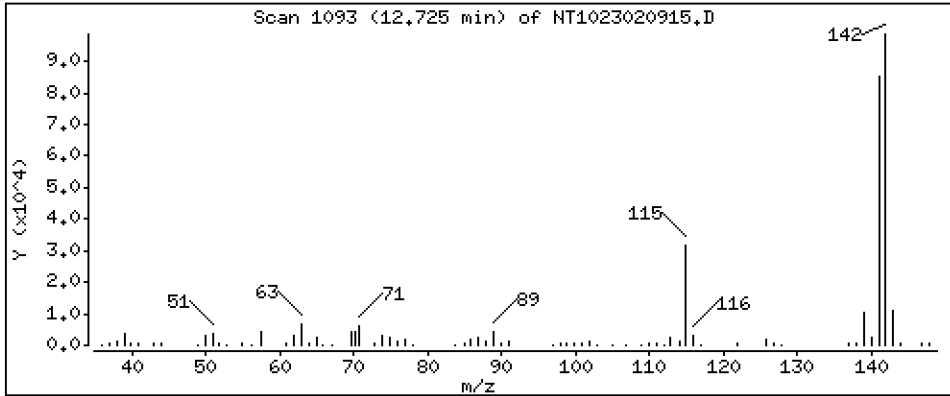
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 3,912 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

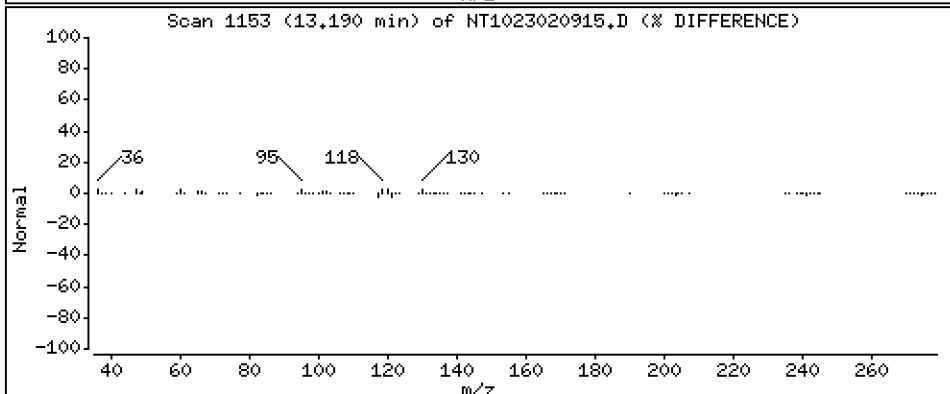
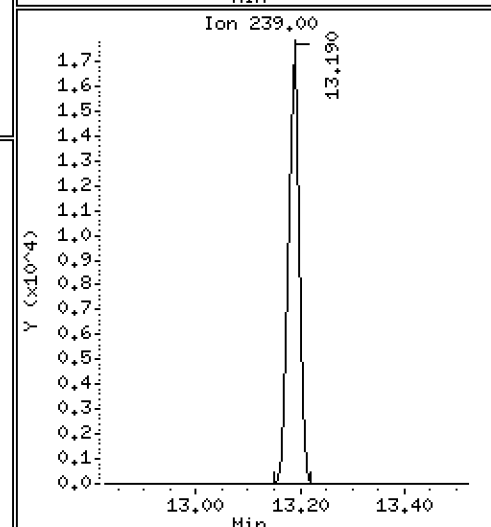
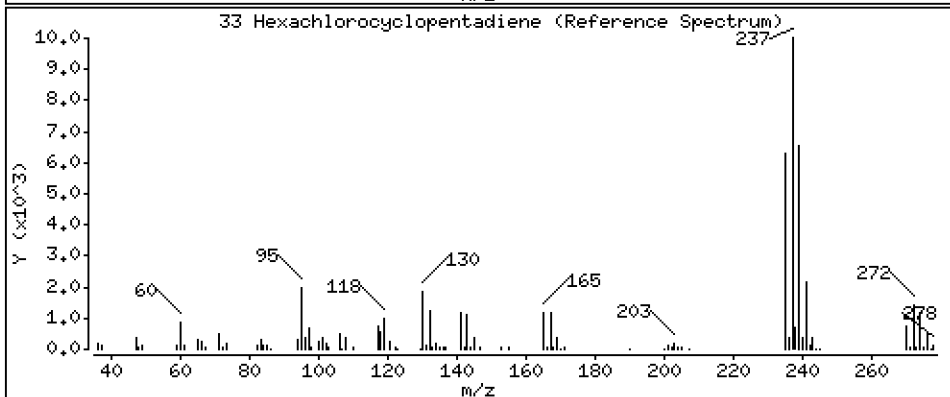
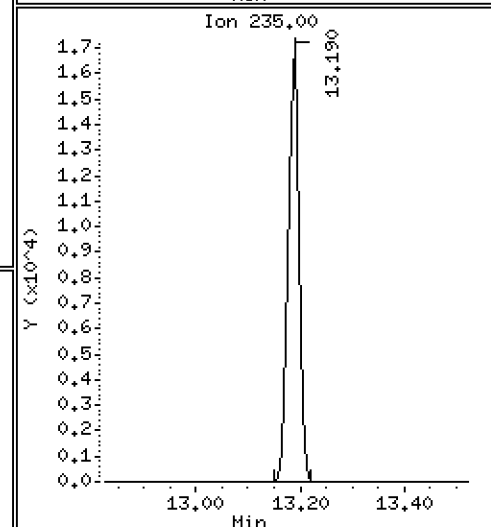
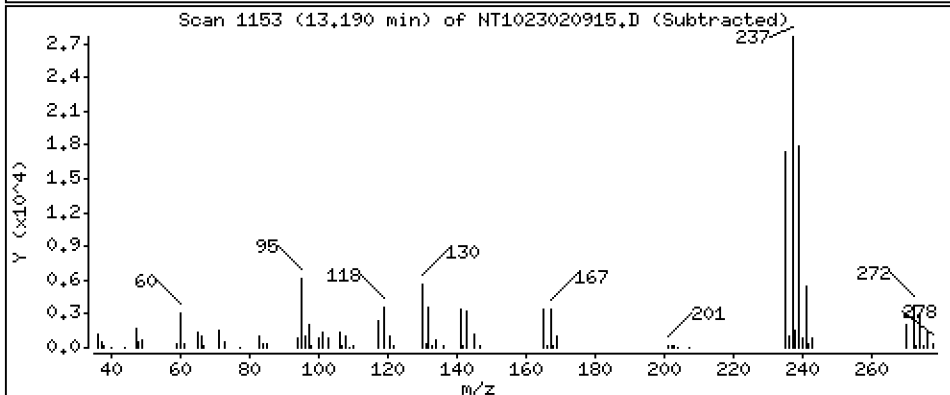
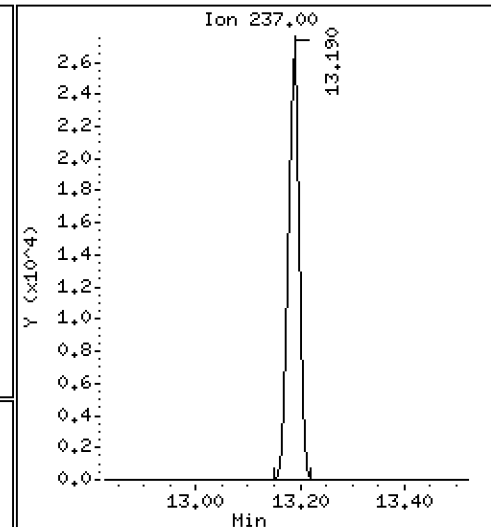
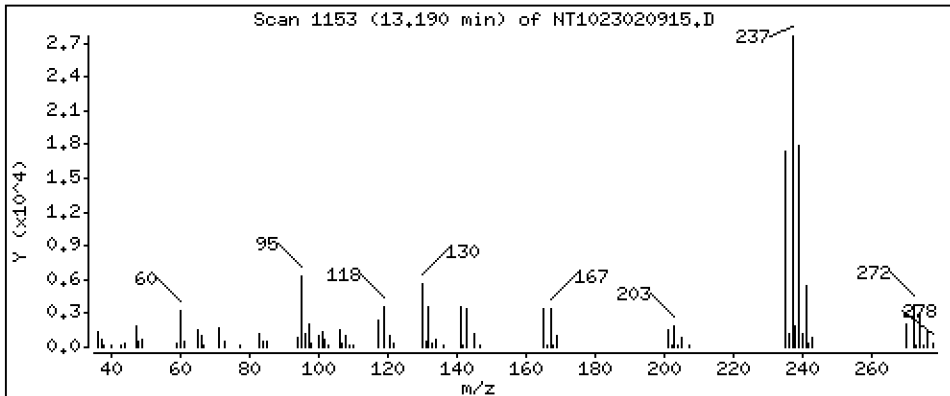
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 5,603 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

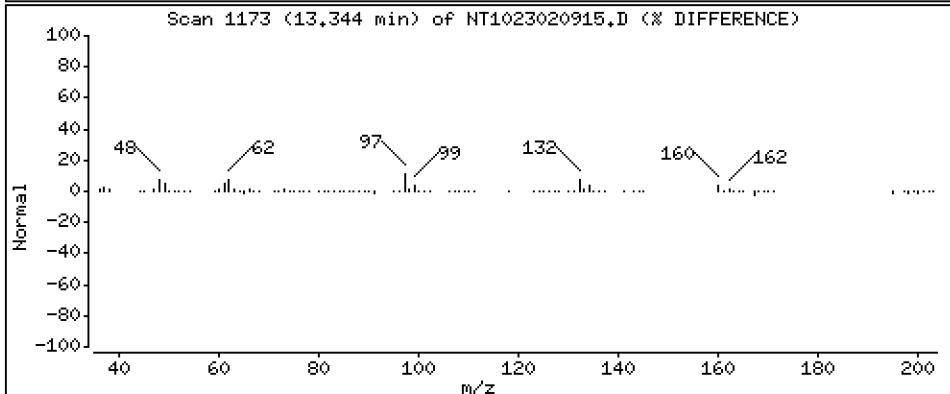
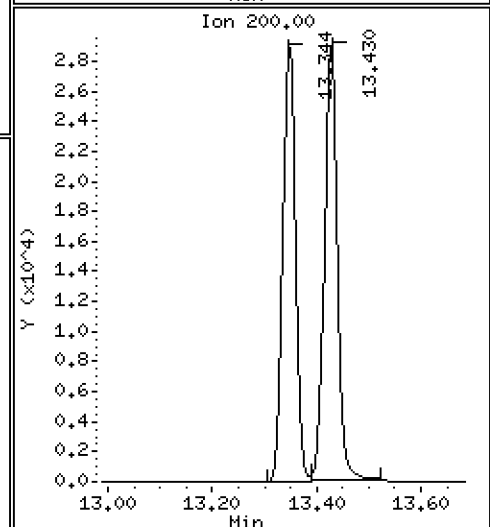
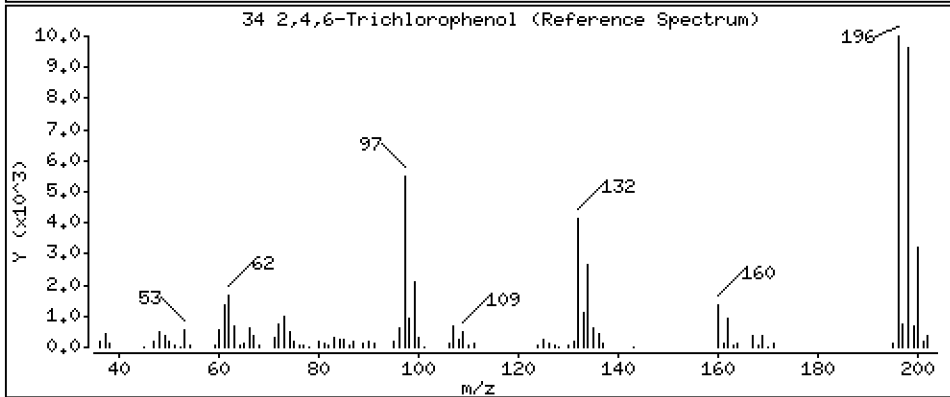
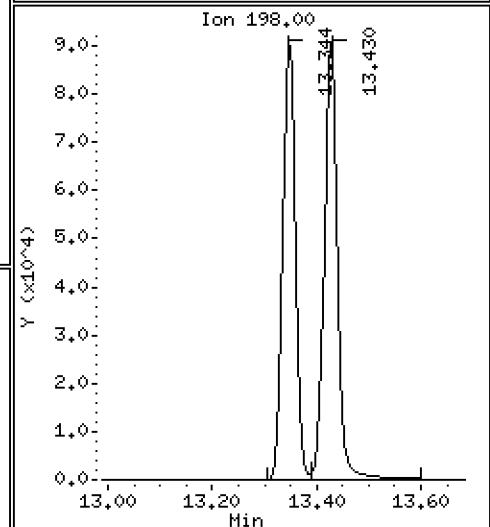
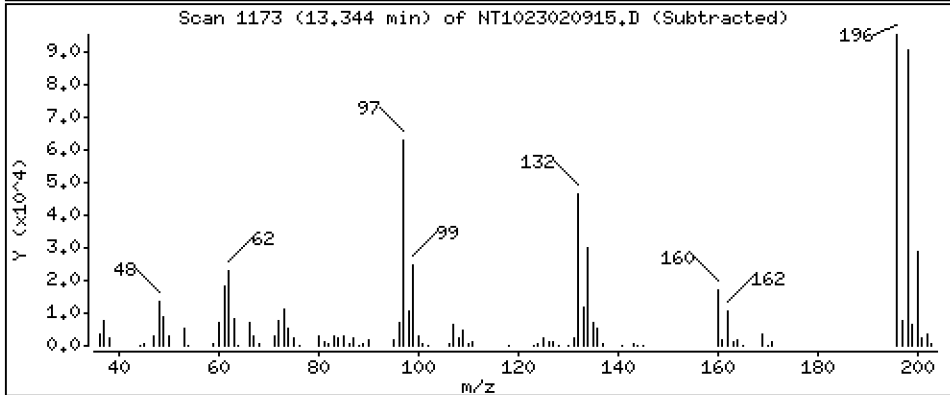
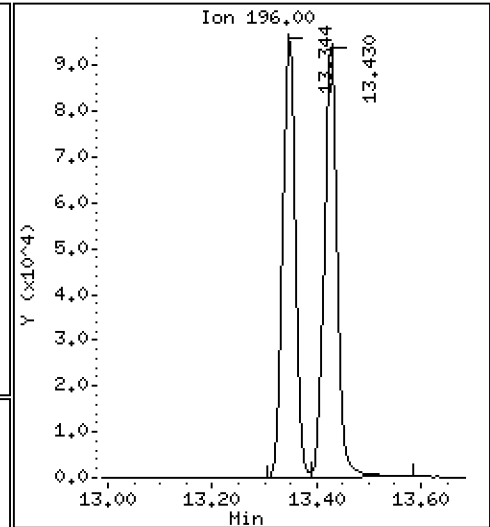
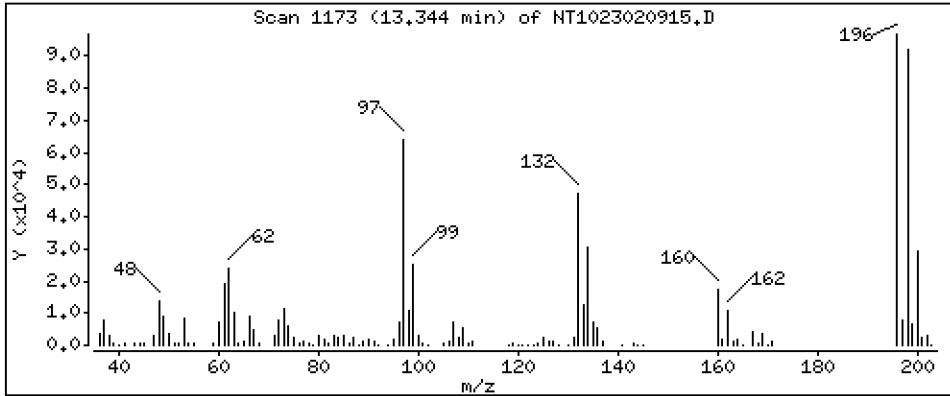
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 15,76 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

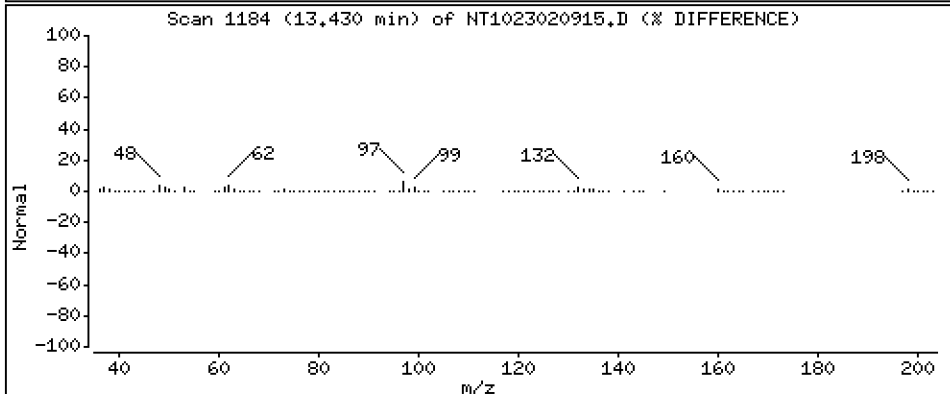
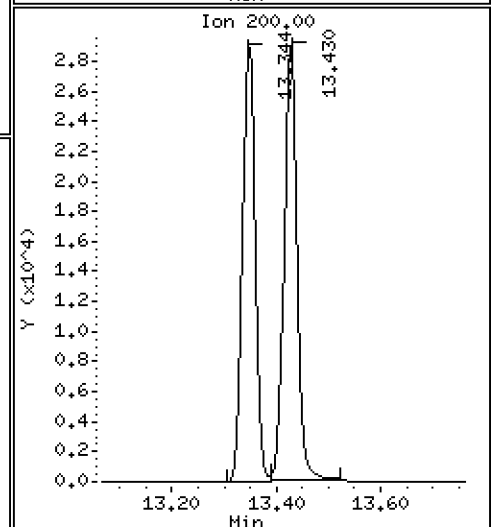
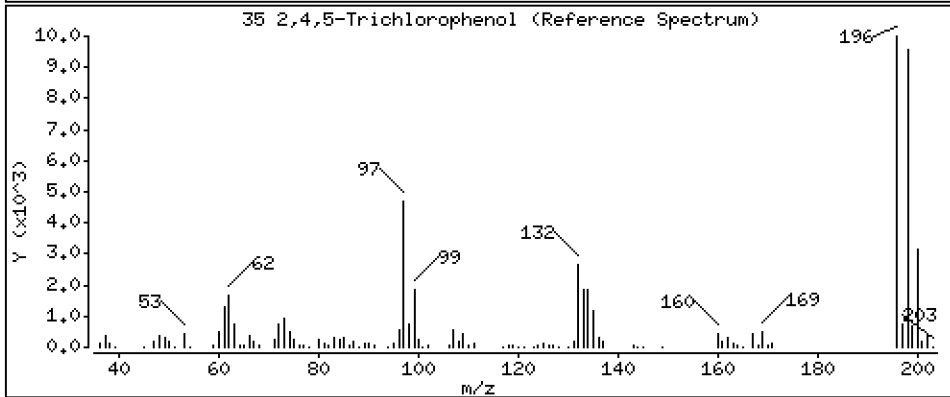
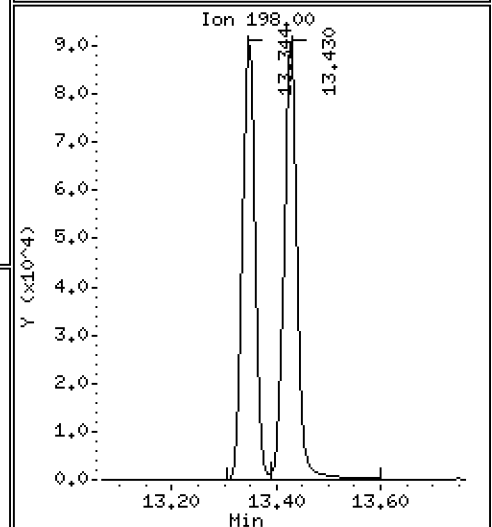
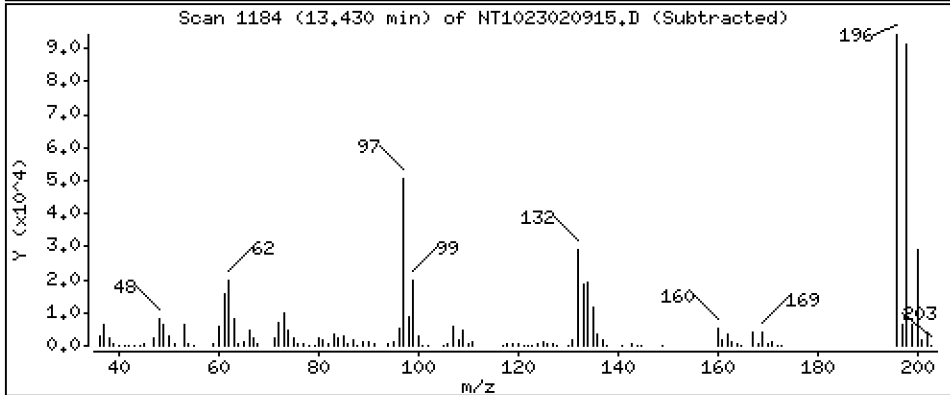
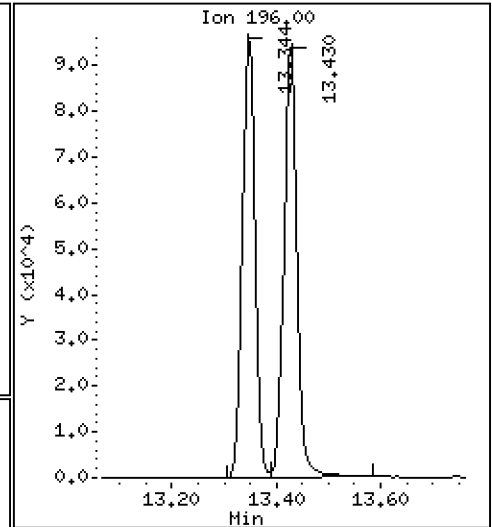
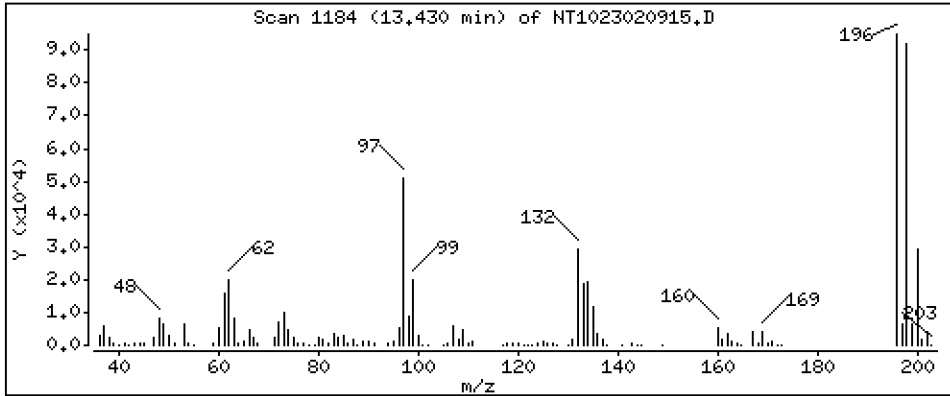
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 15,78 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

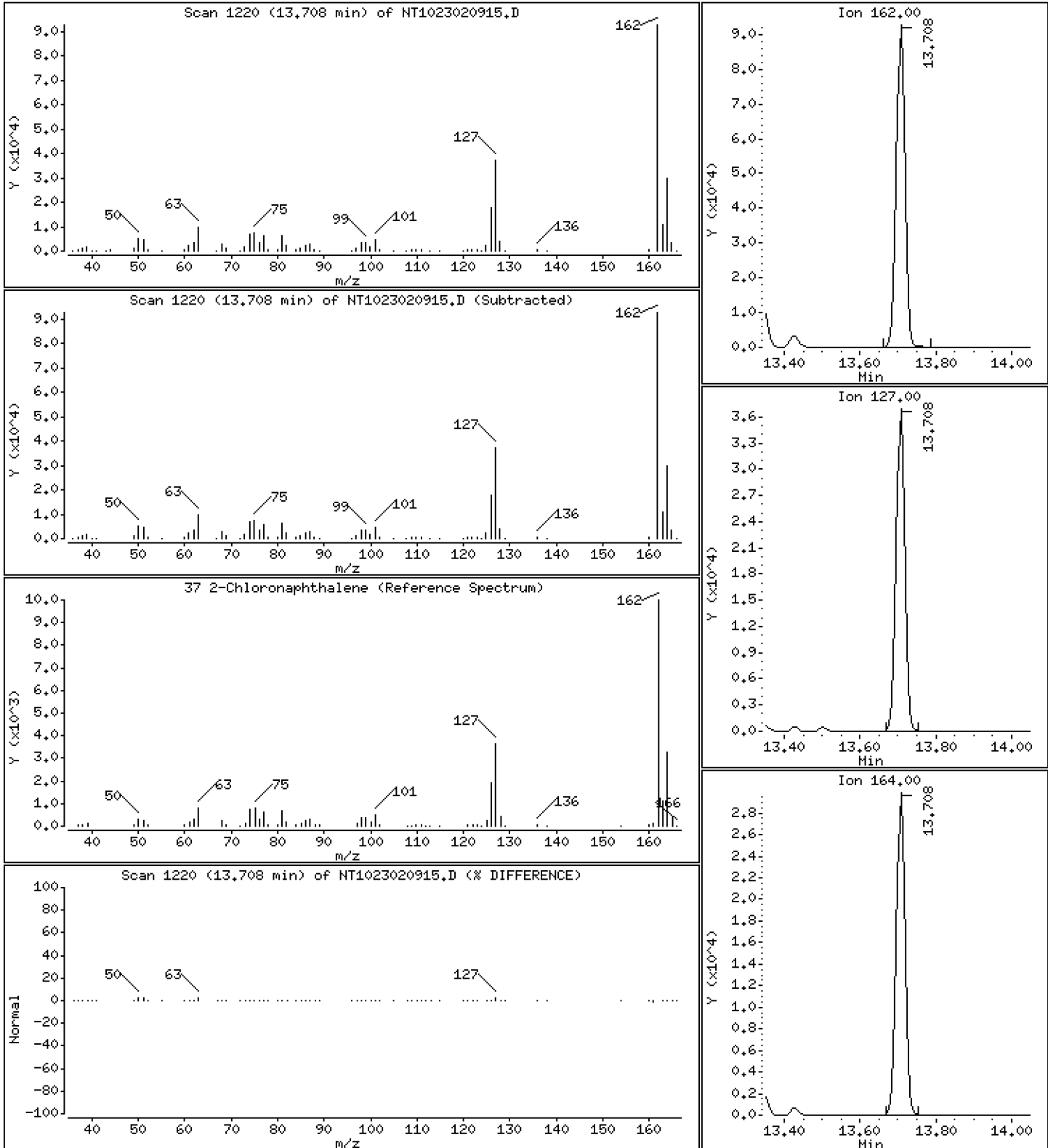
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 4,124 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

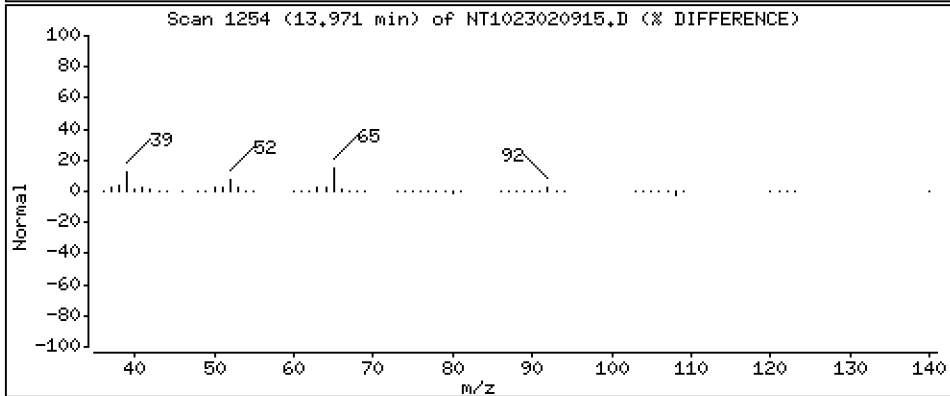
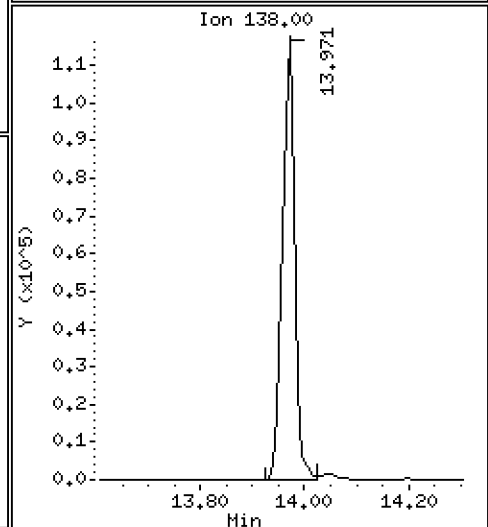
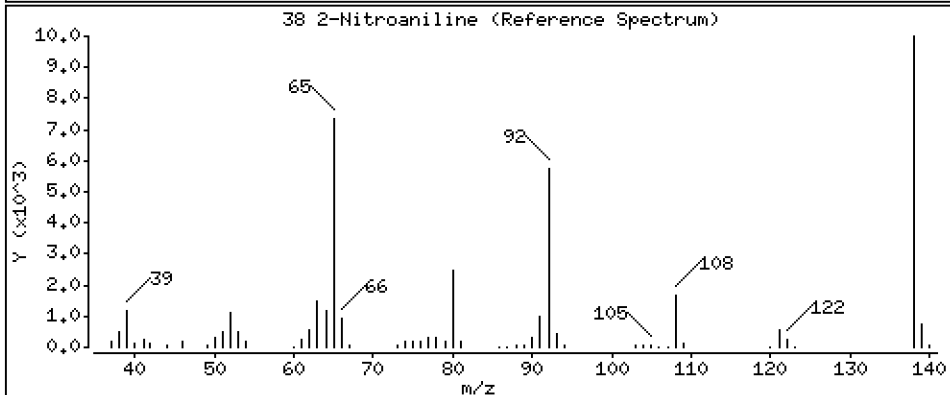
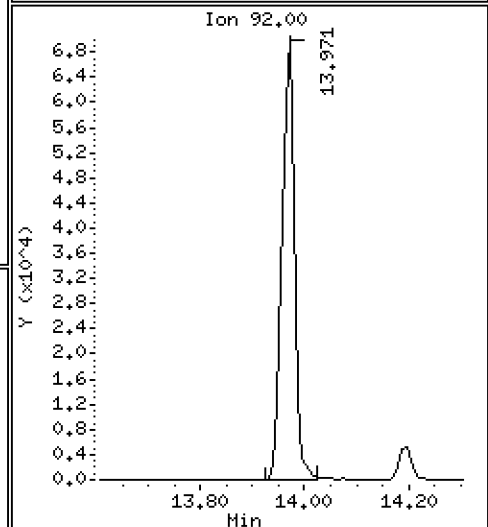
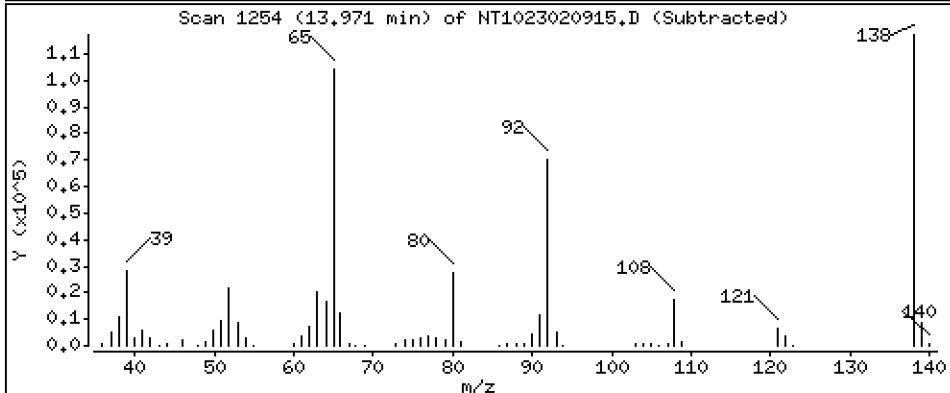
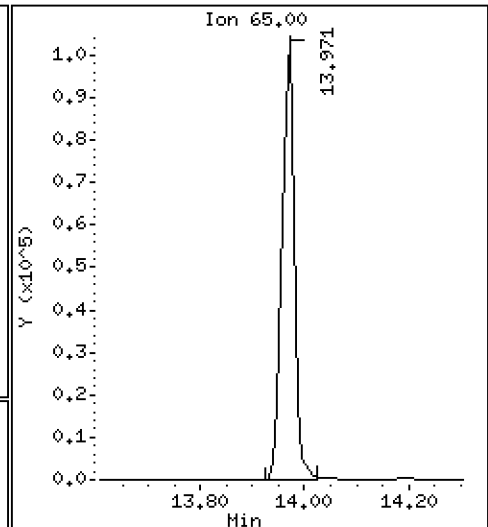
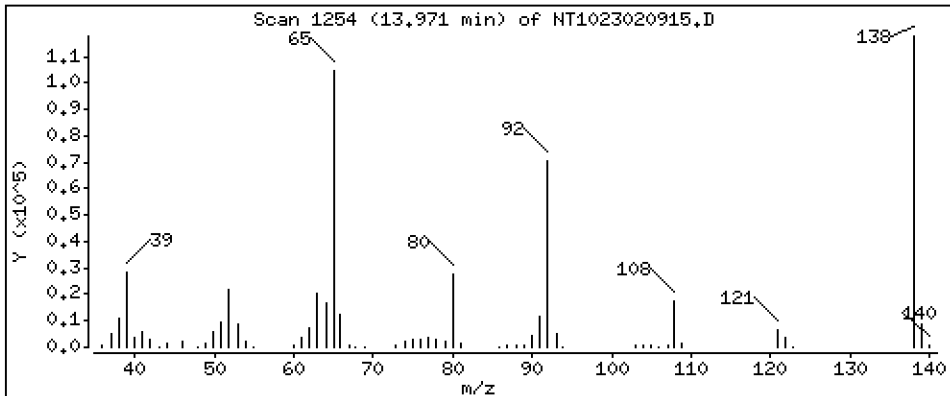
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 17,92 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

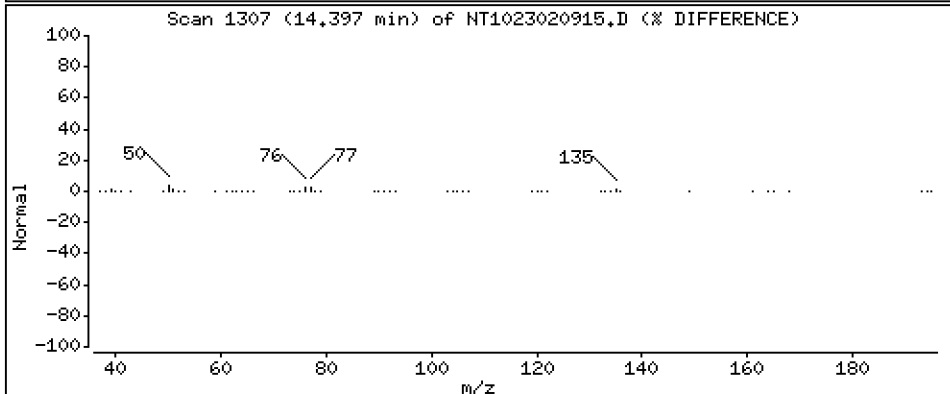
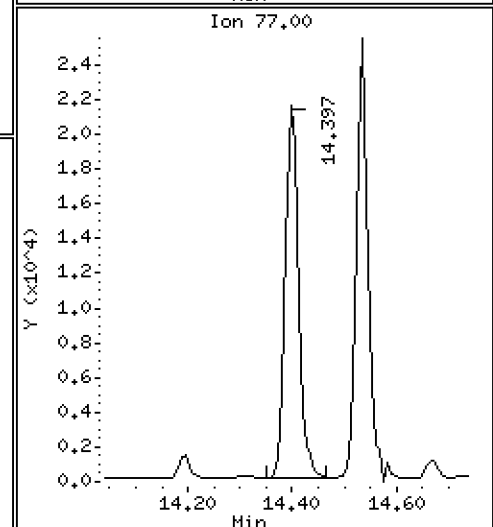
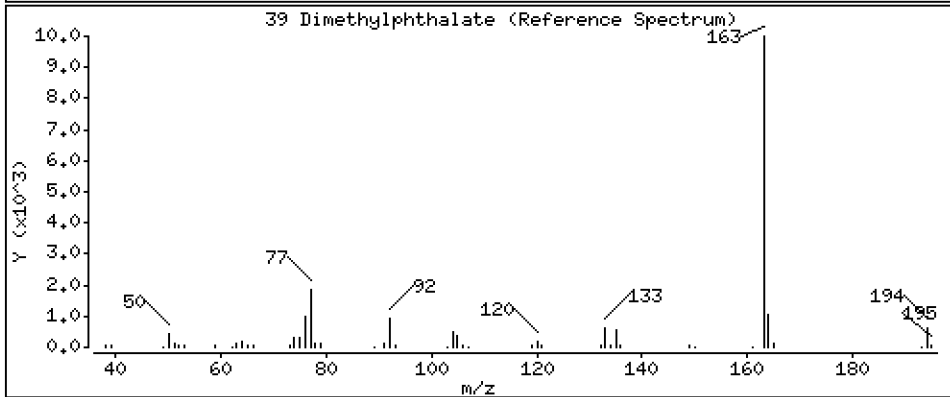
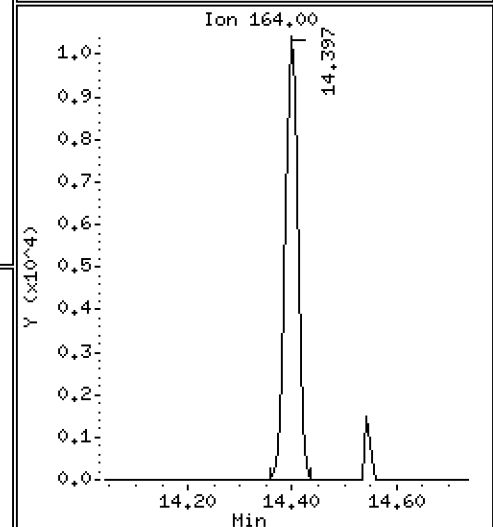
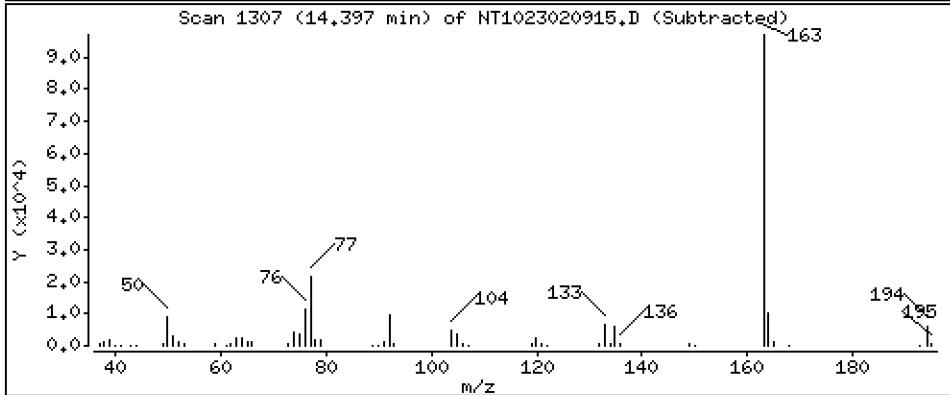
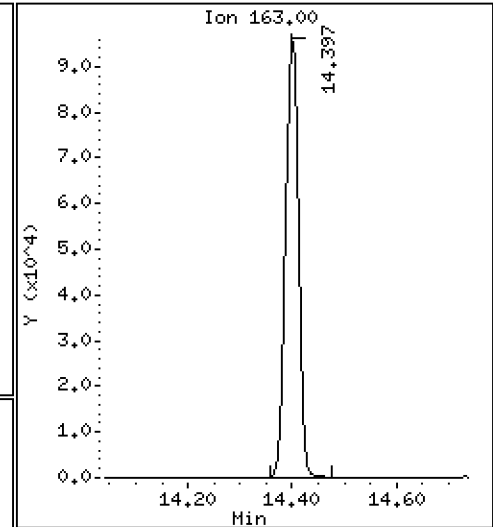
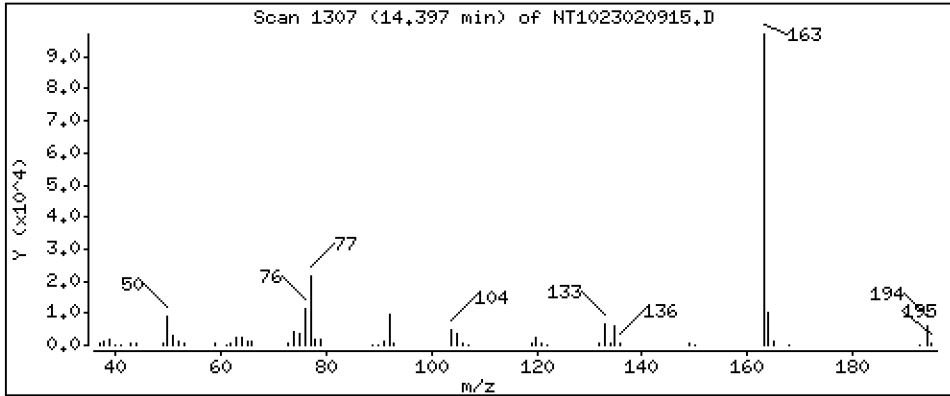
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,375 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

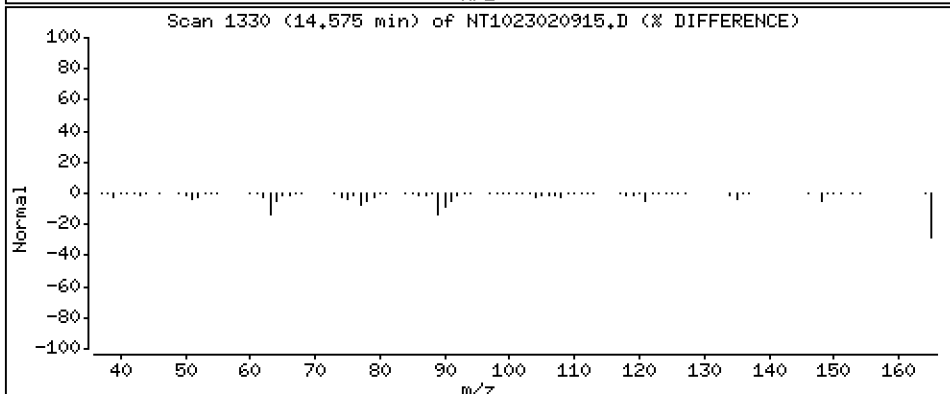
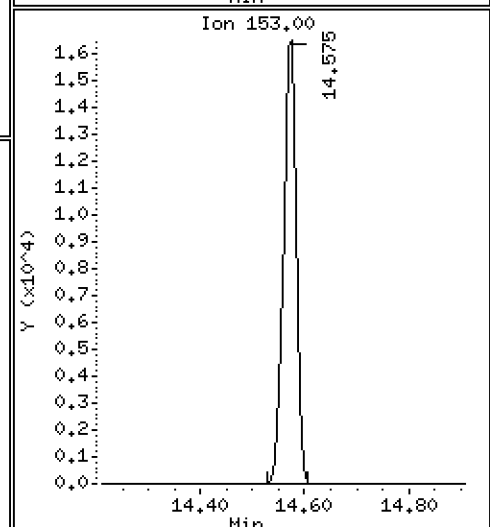
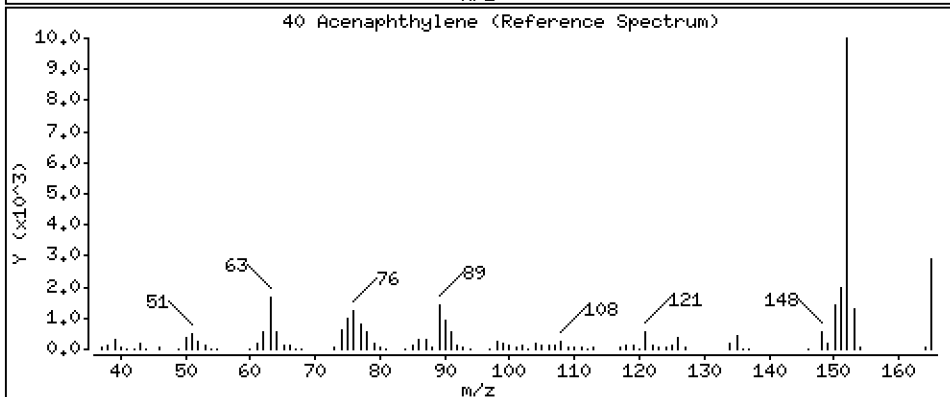
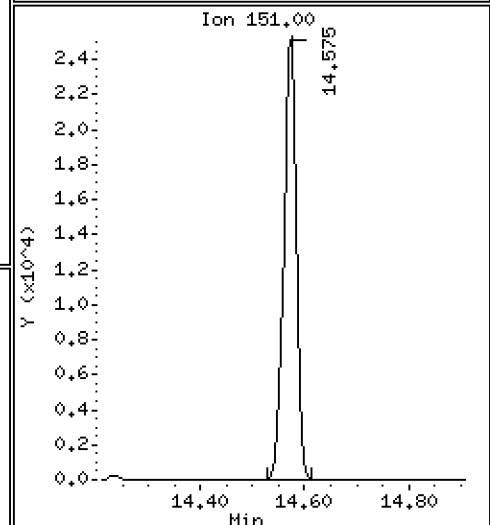
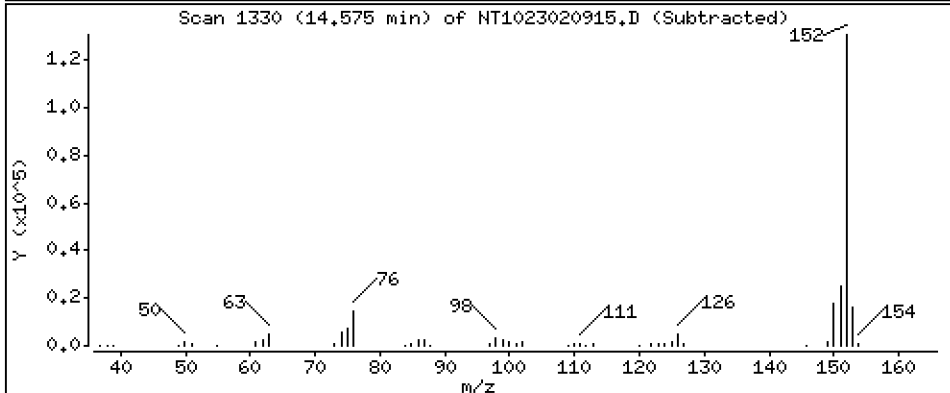
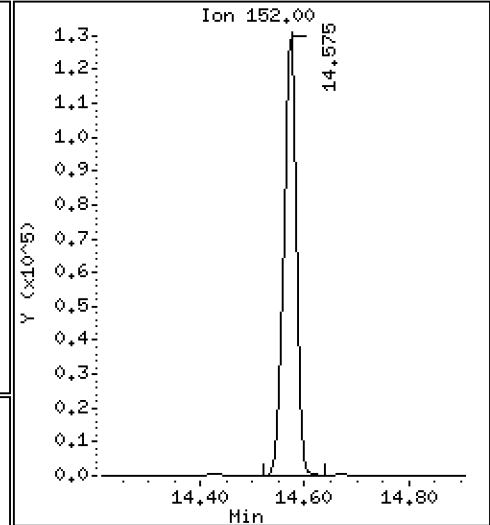
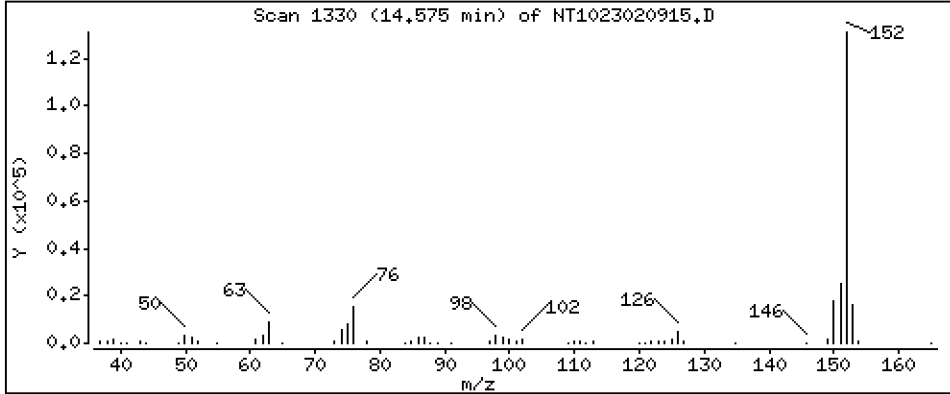
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 4,052 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

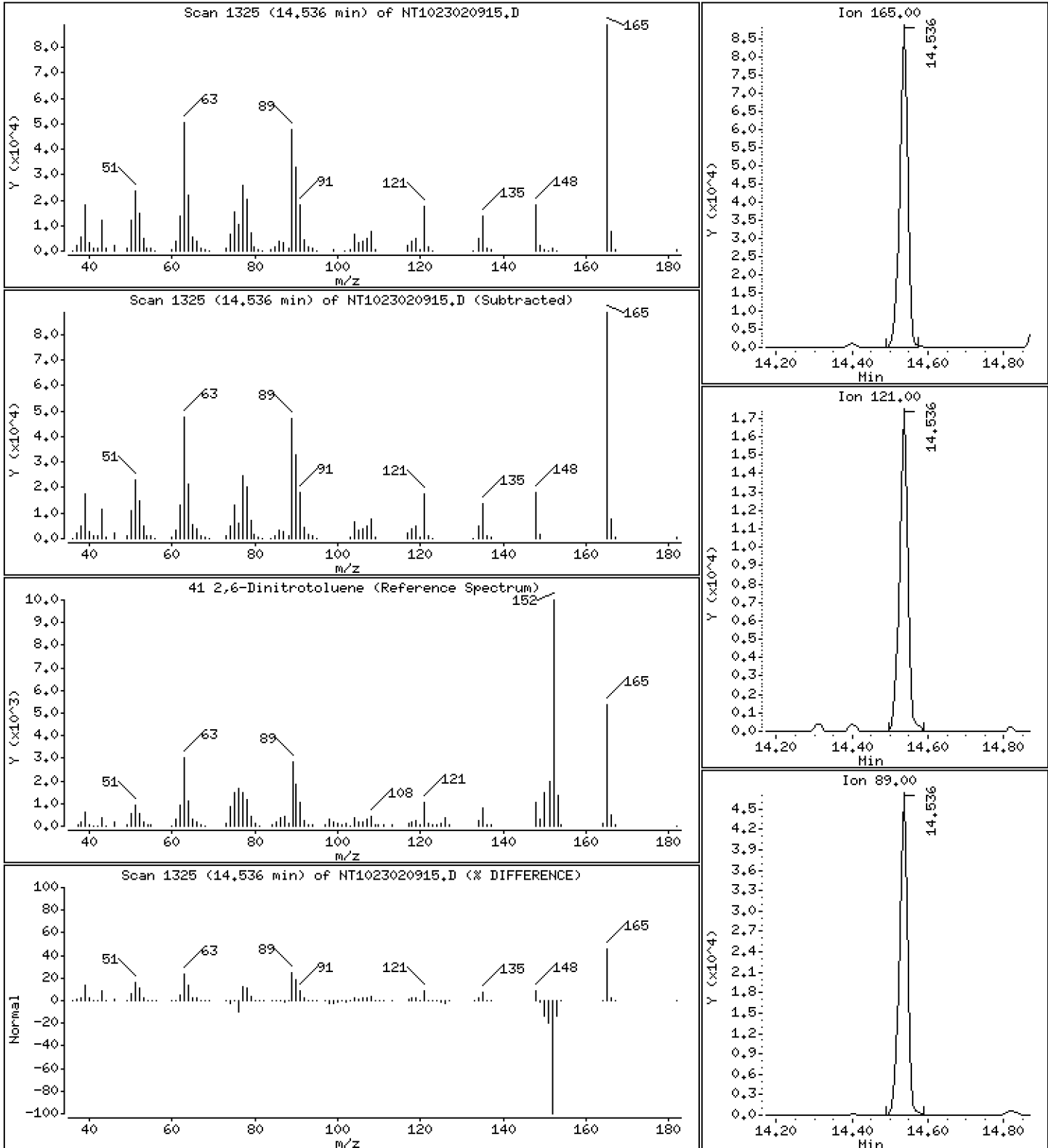
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 15.28 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

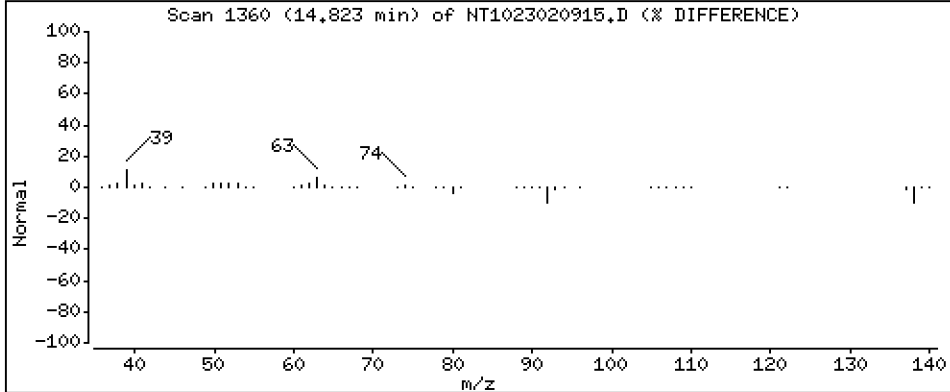
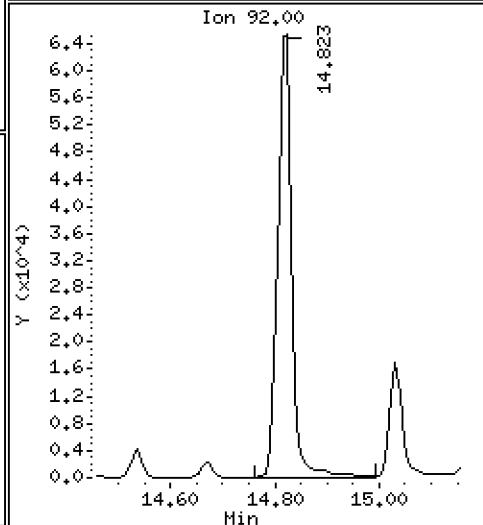
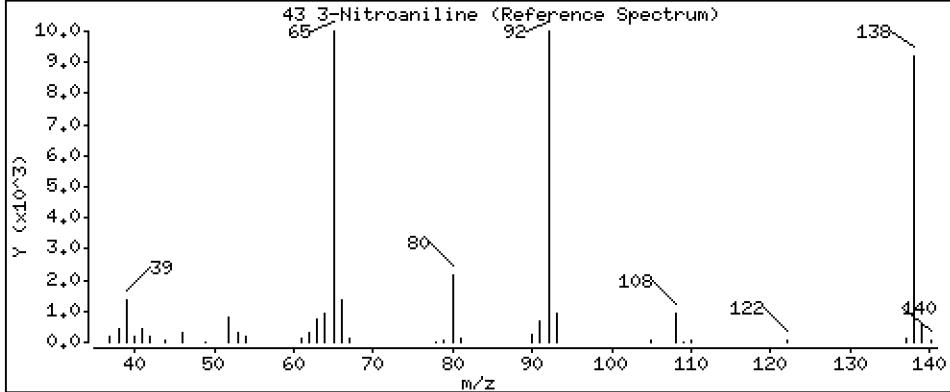
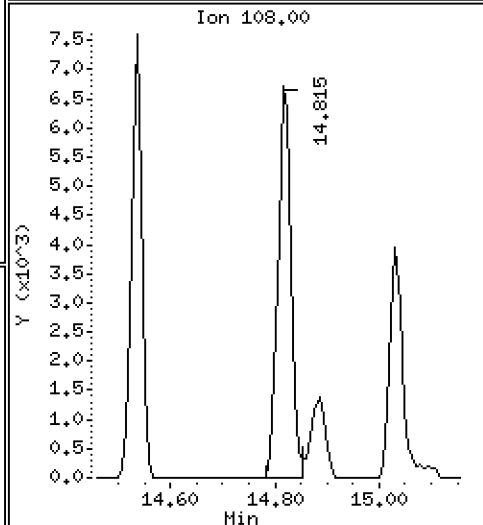
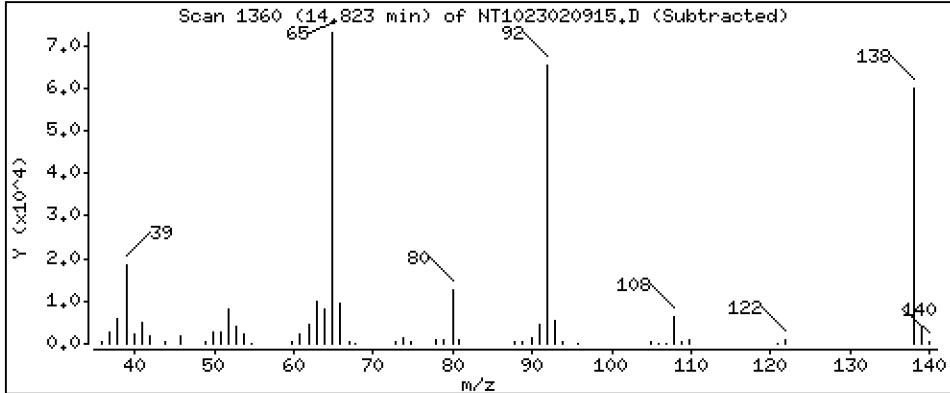
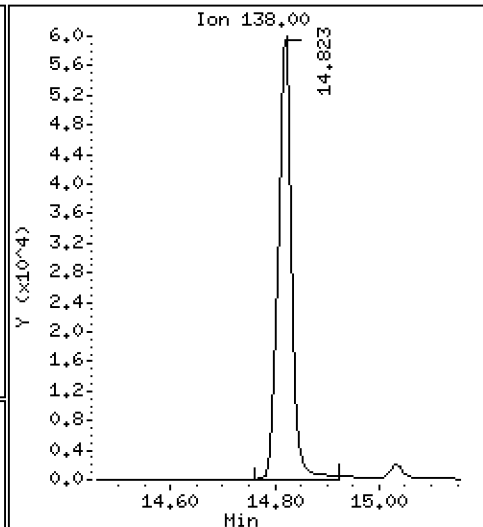
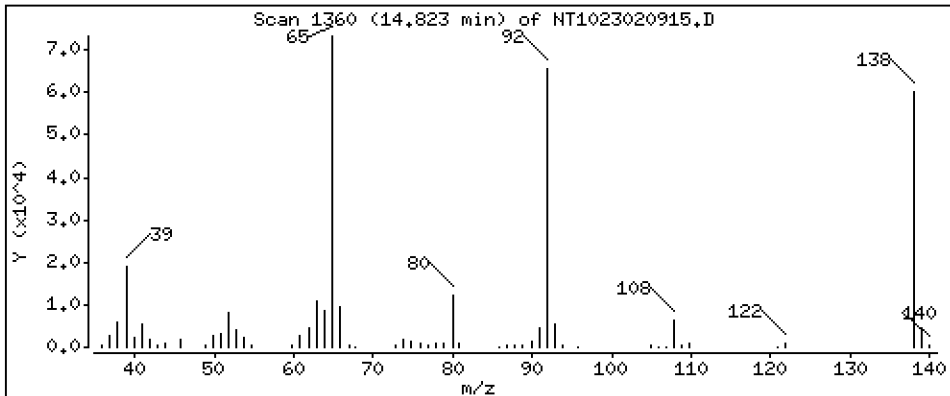
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 11,99 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

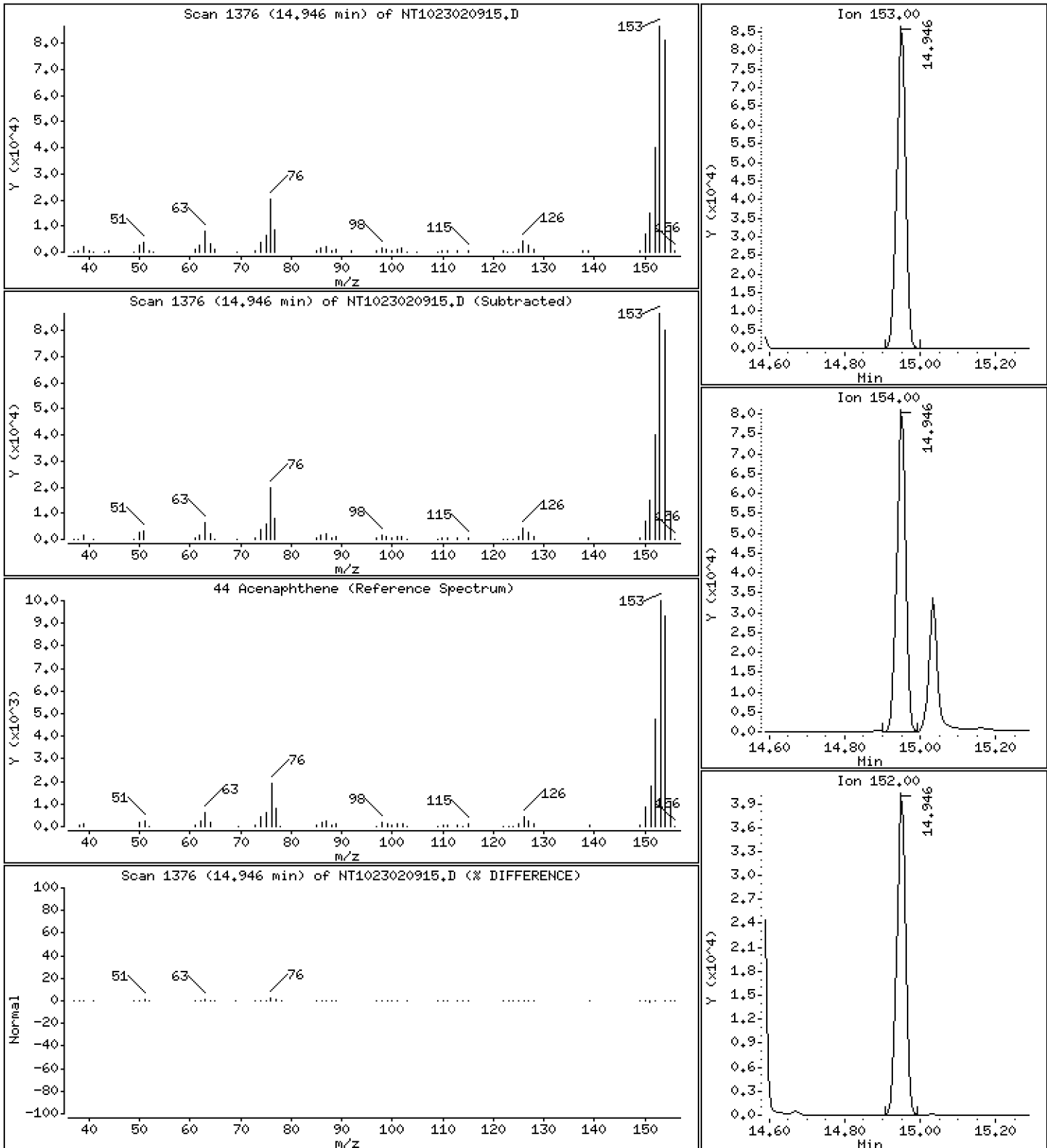
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,264 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

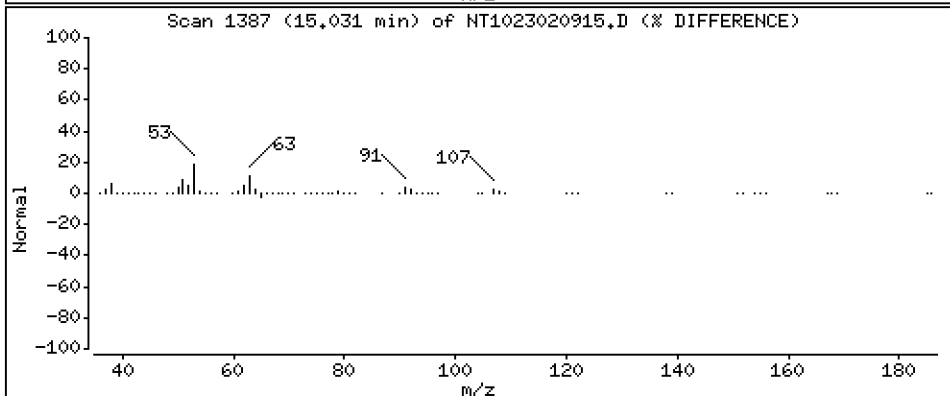
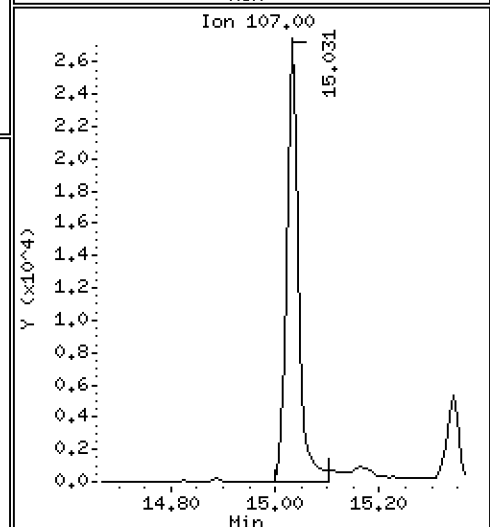
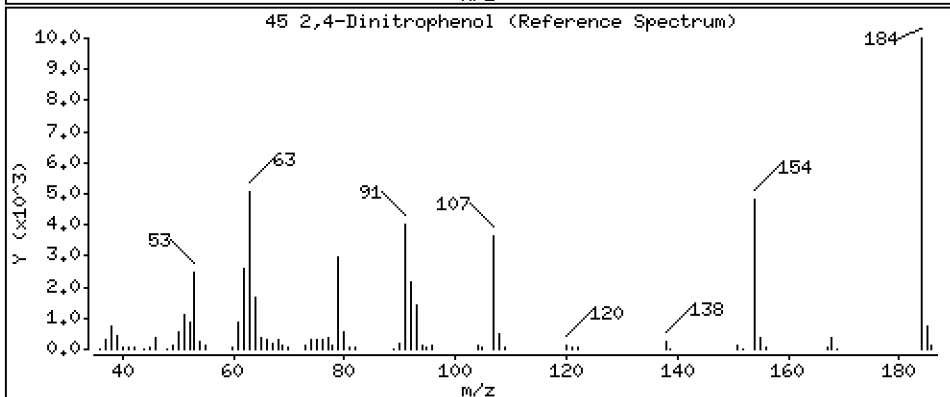
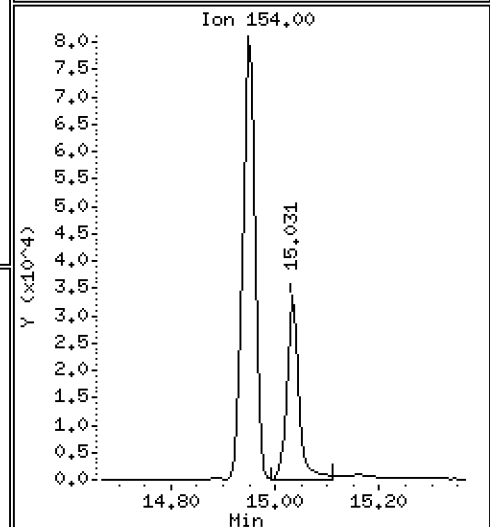
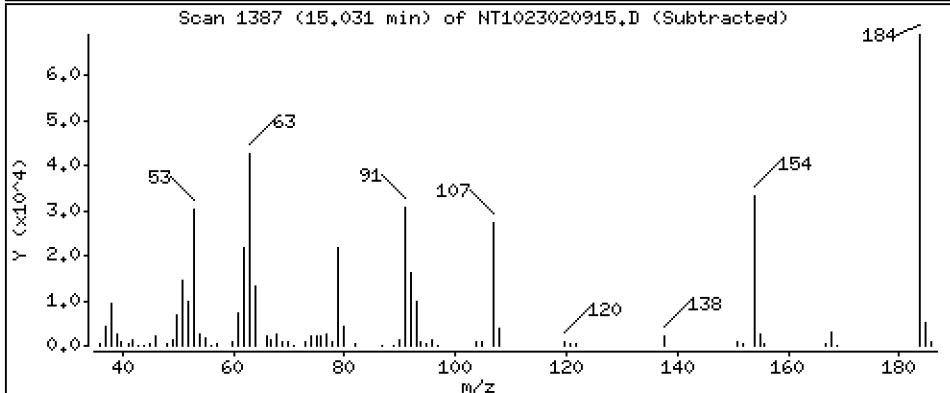
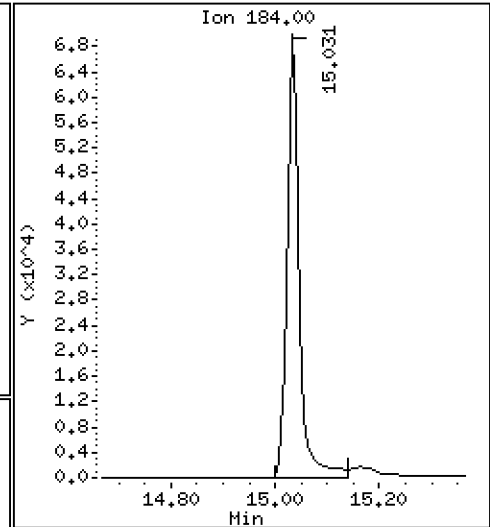
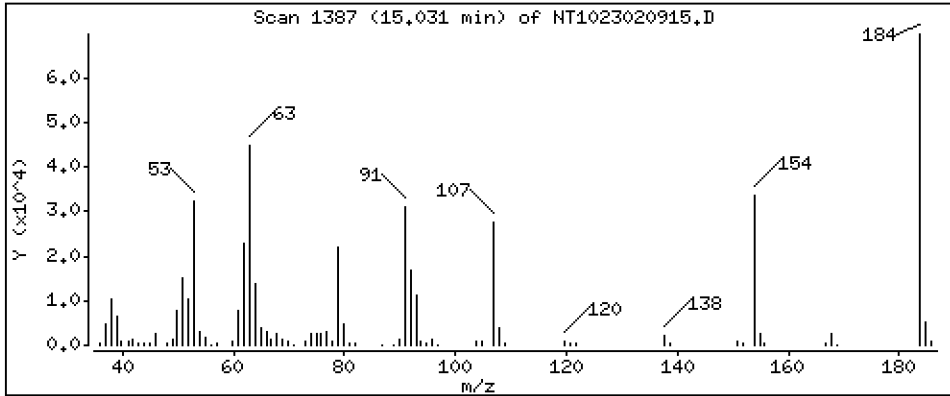
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 24,46 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

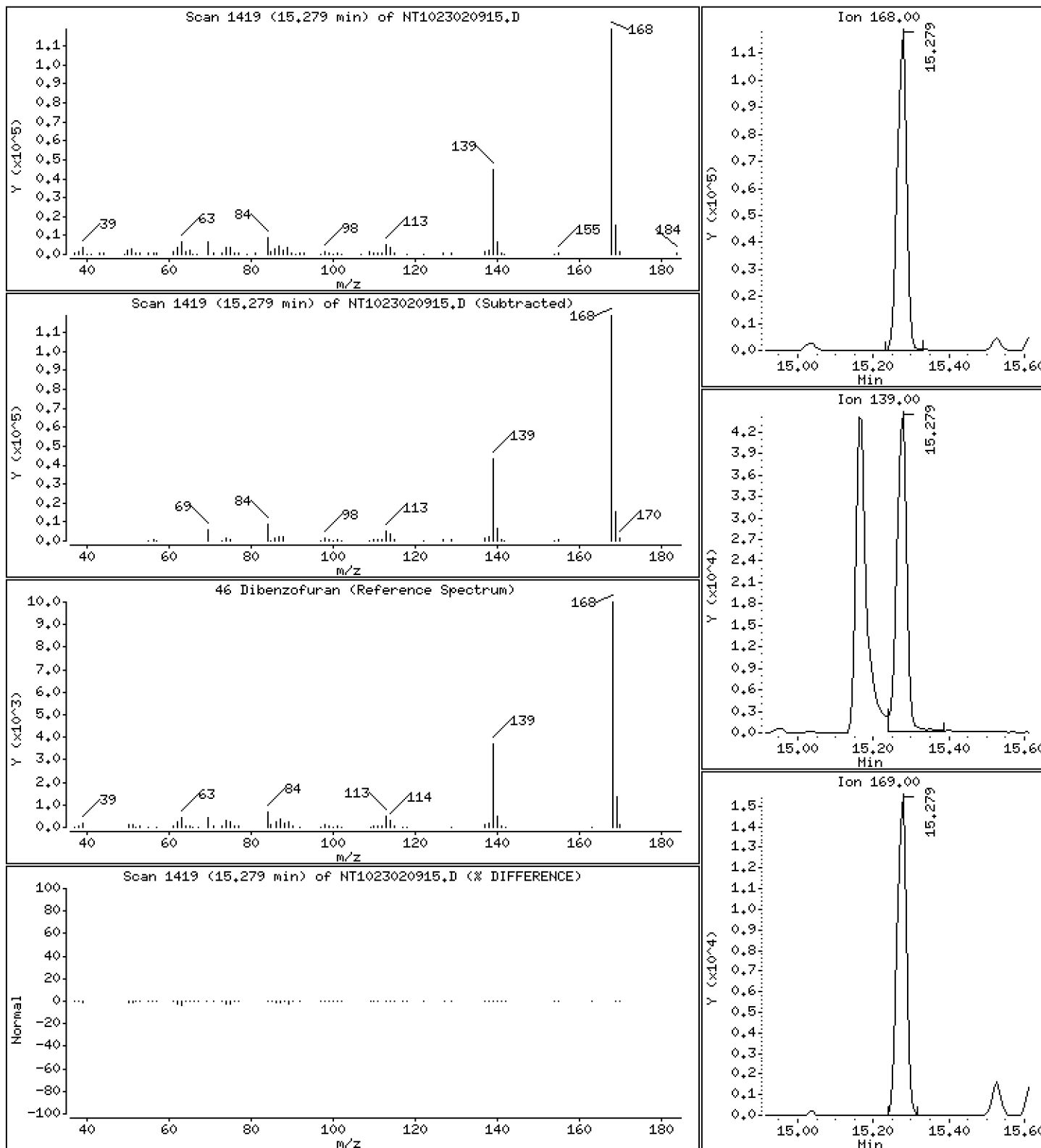
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 4,047 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

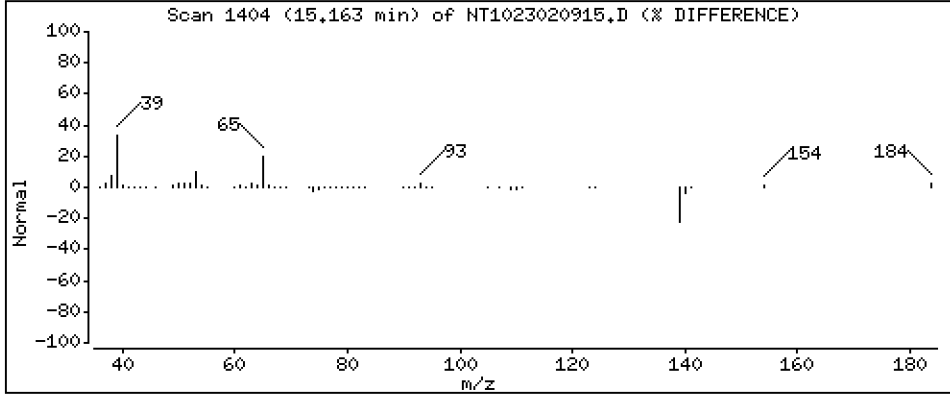
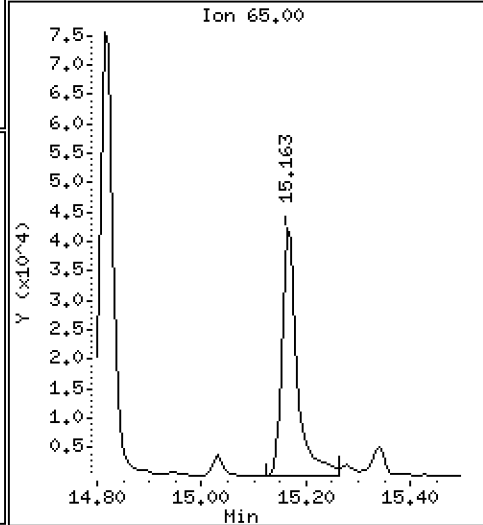
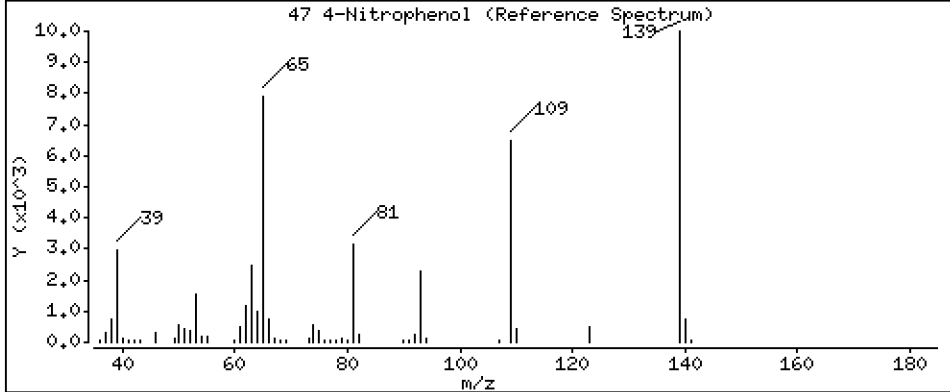
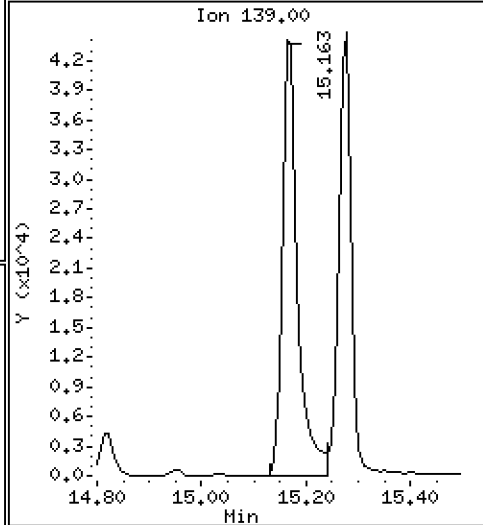
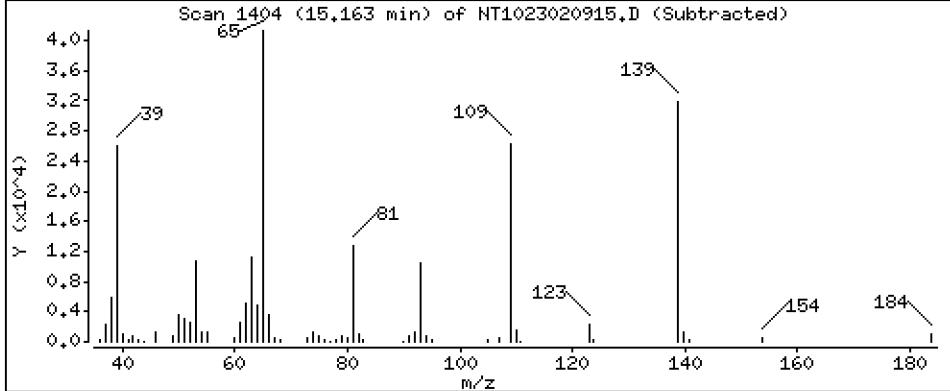
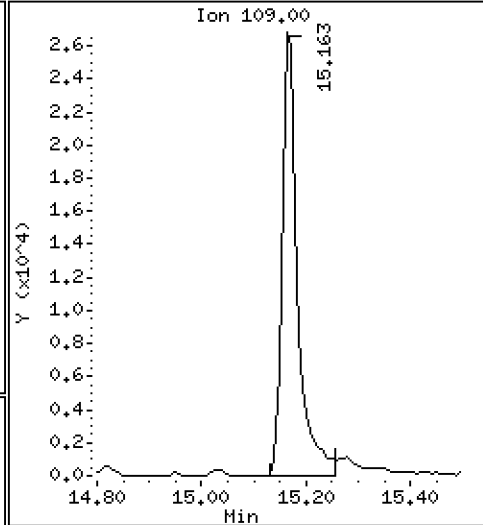
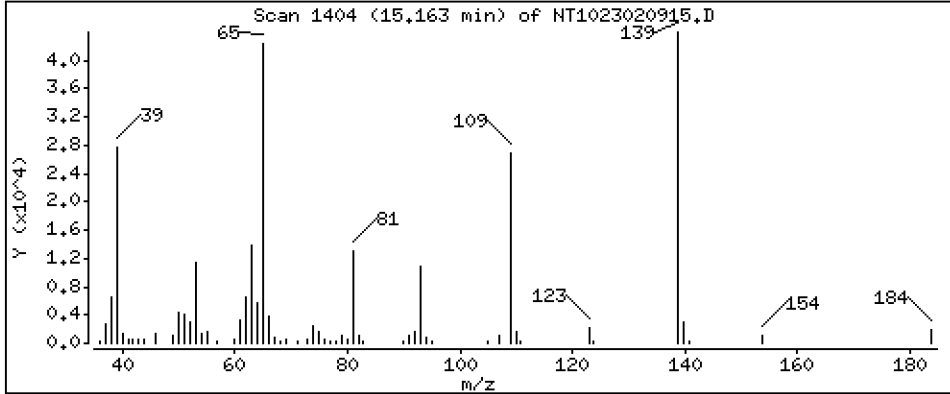
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 15,36 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

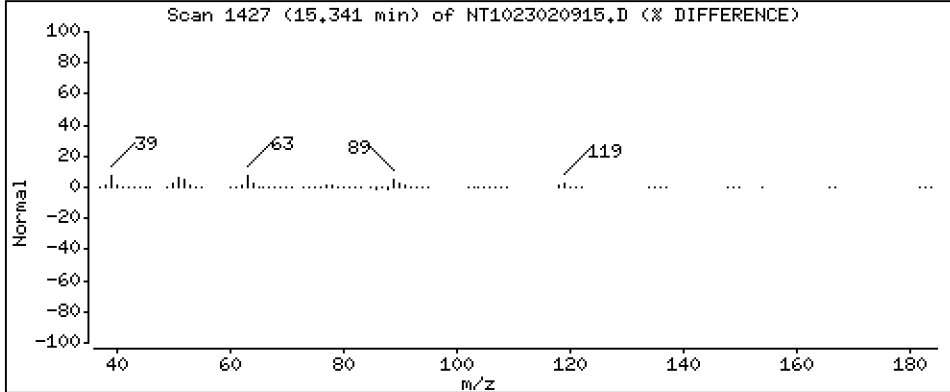
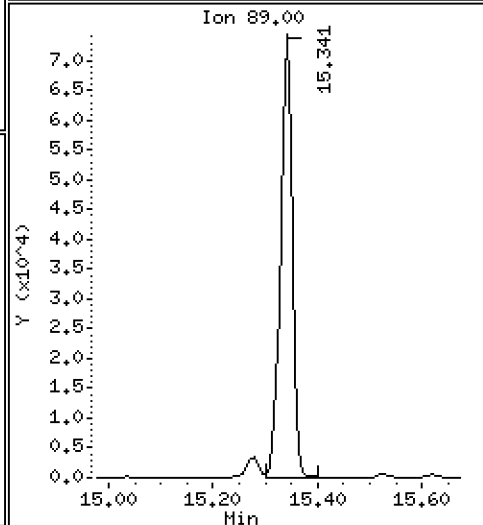
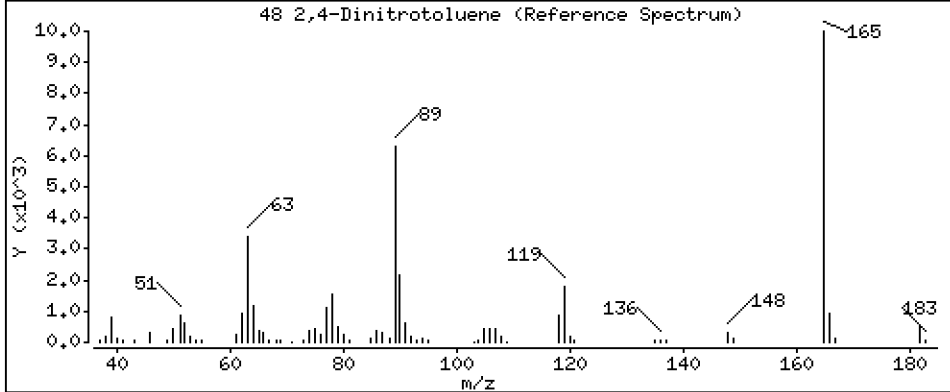
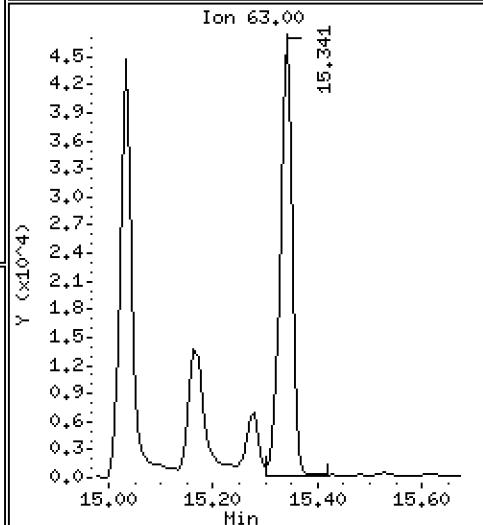
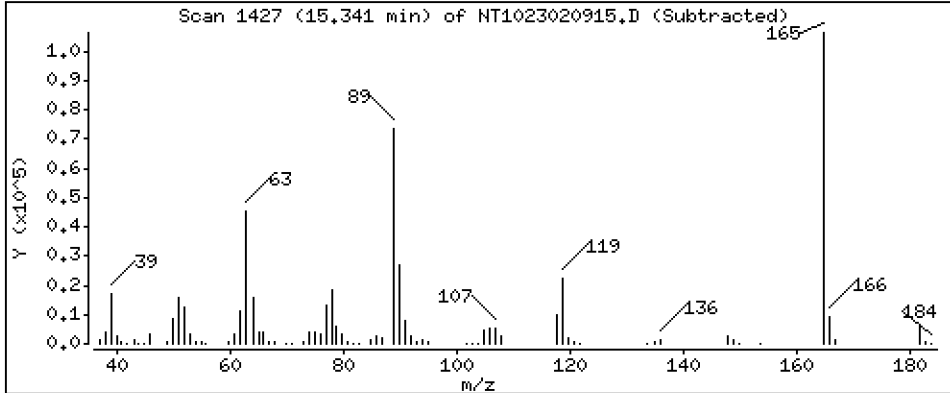
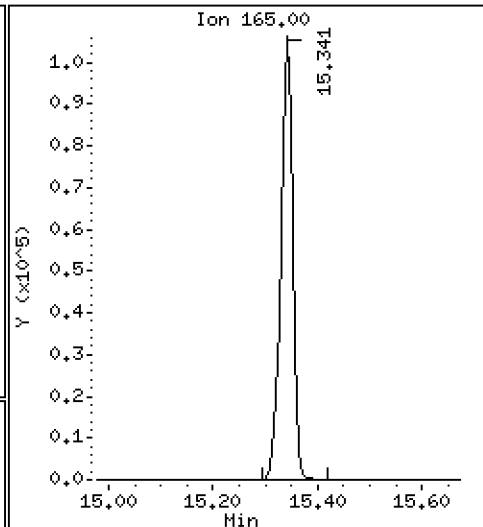
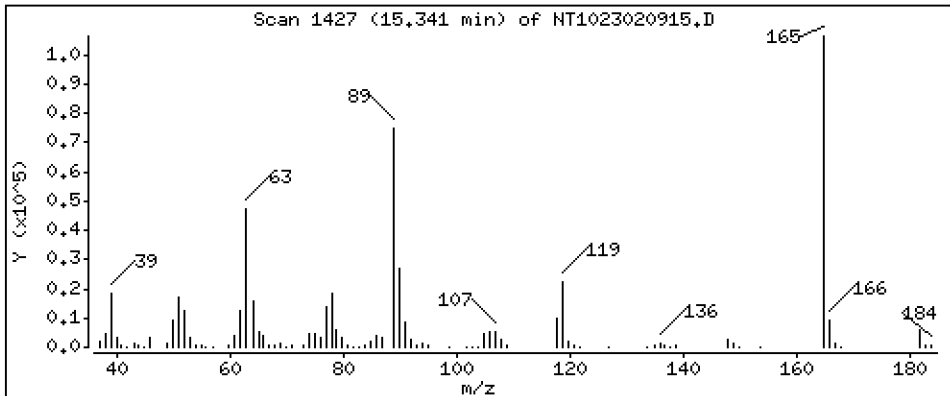
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 14,43 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

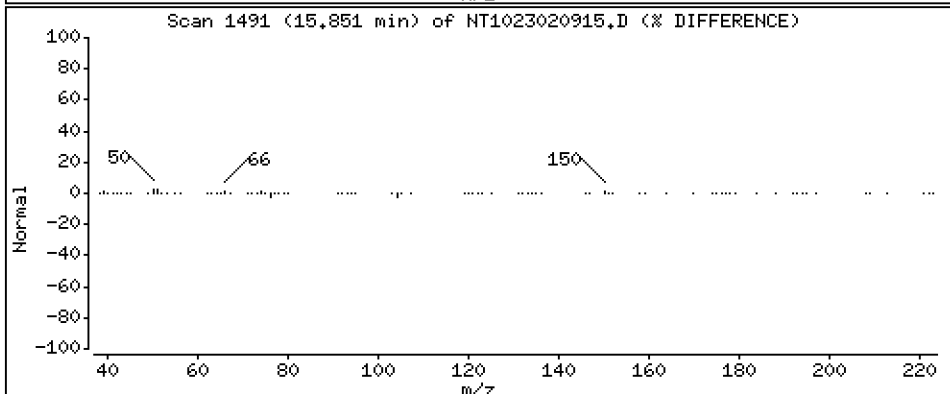
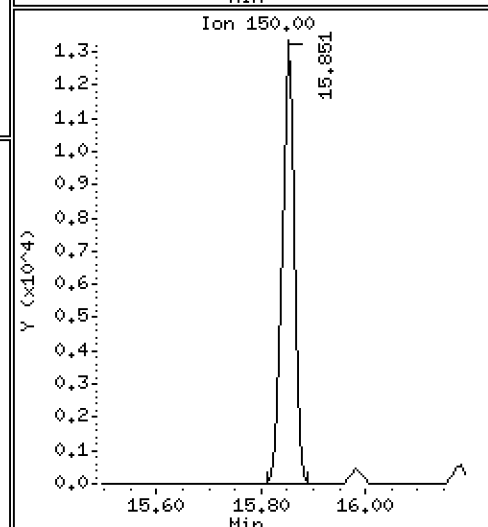
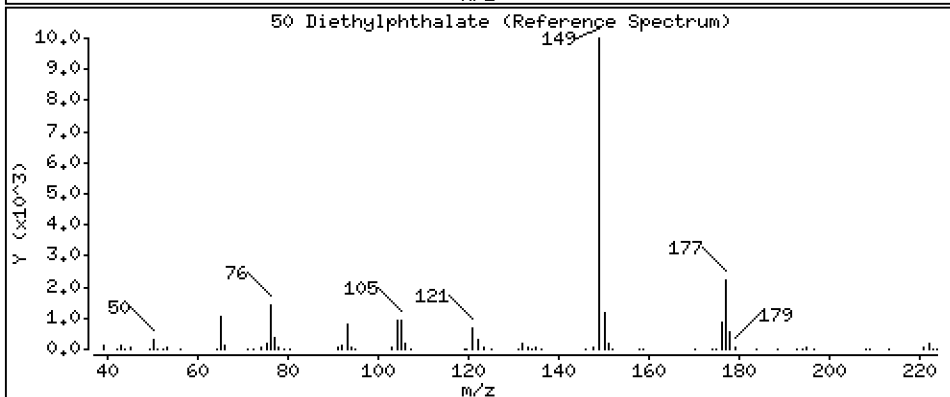
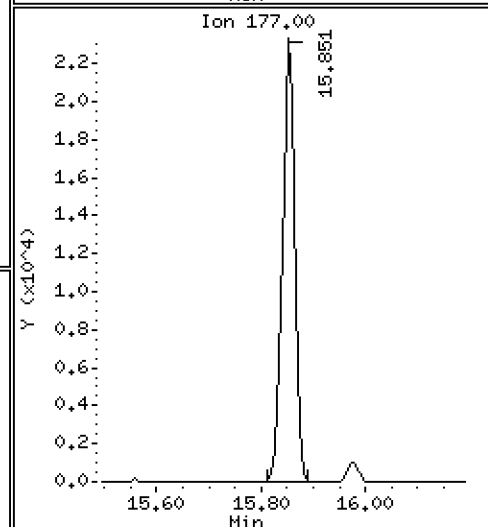
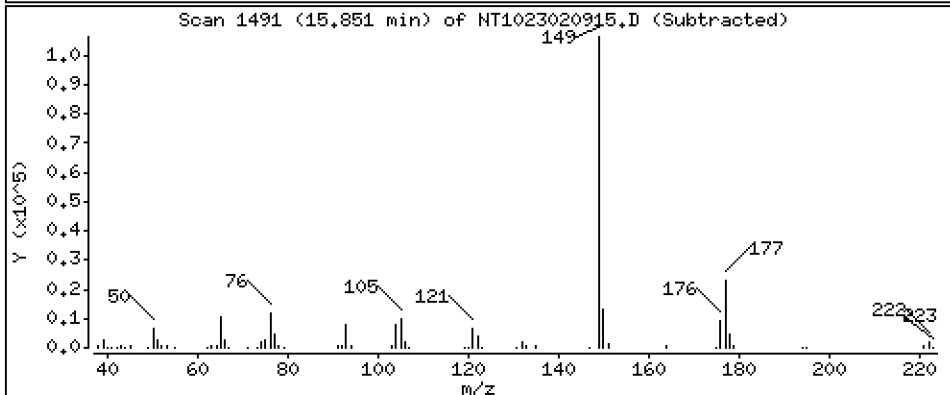
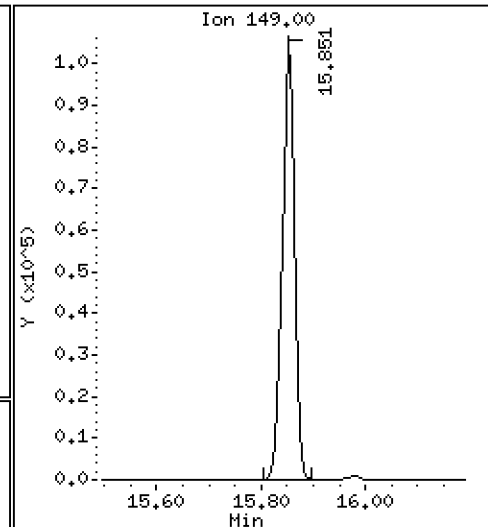
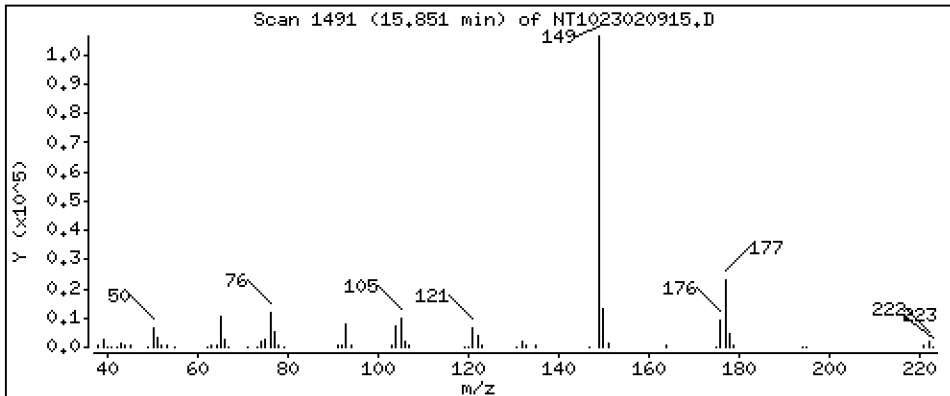
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,837 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

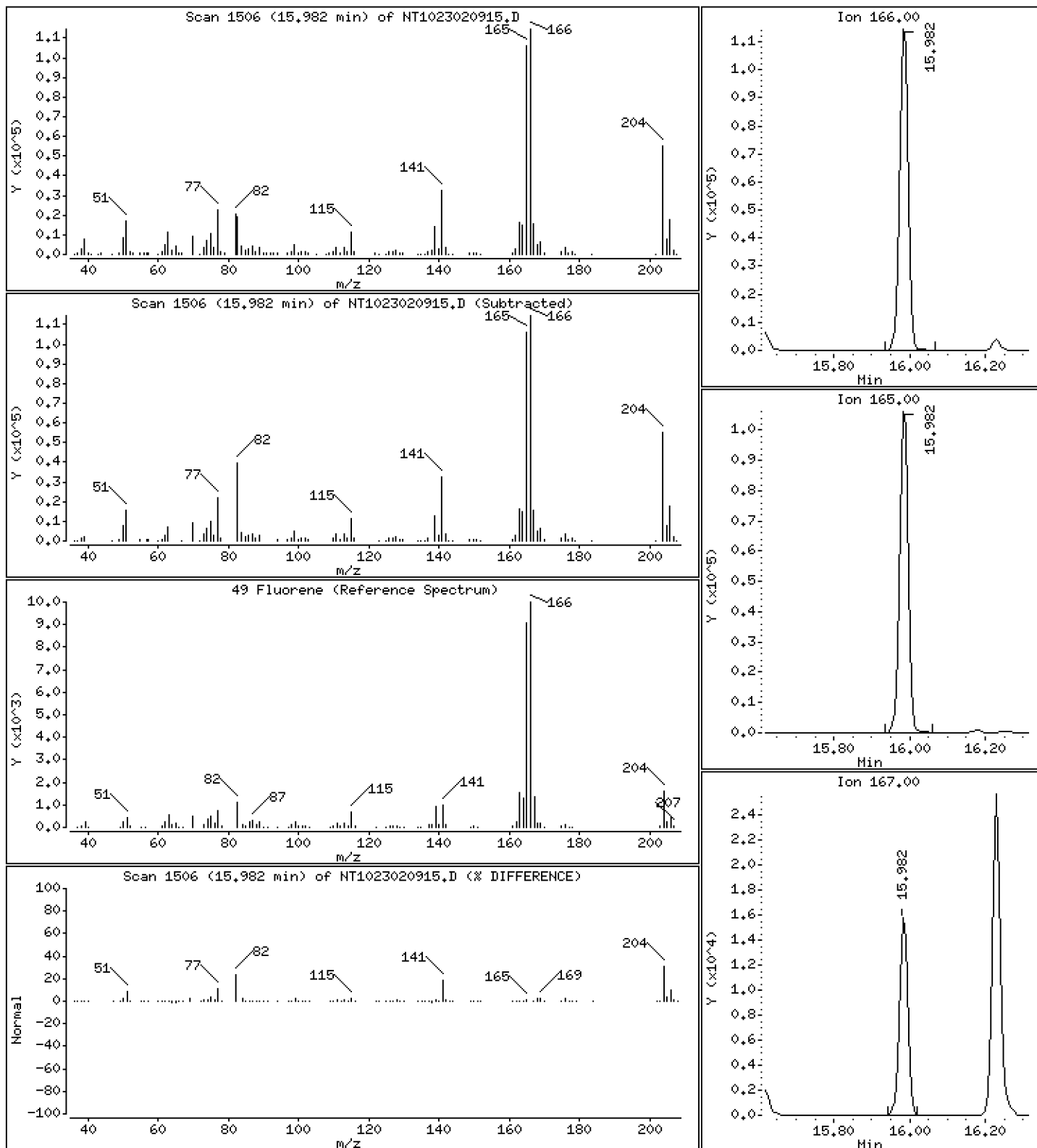
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 3,556 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

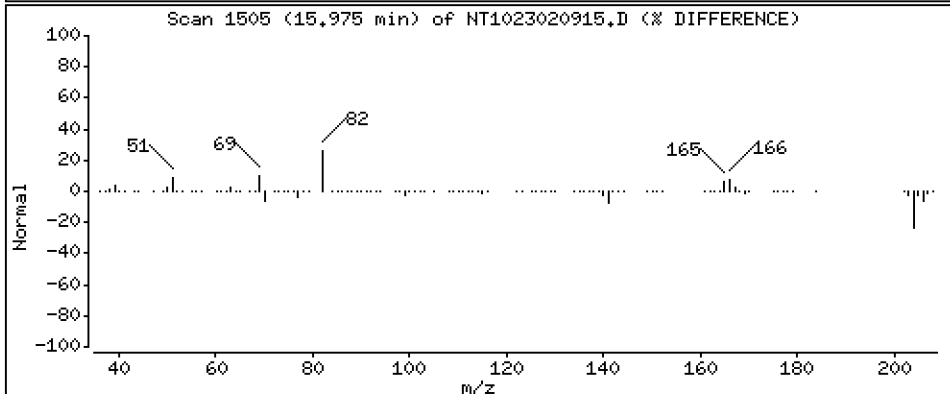
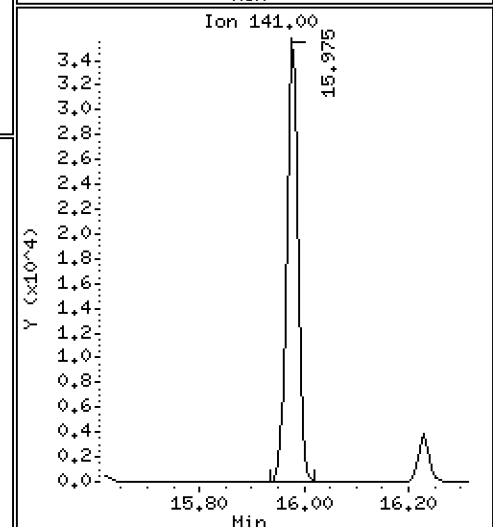
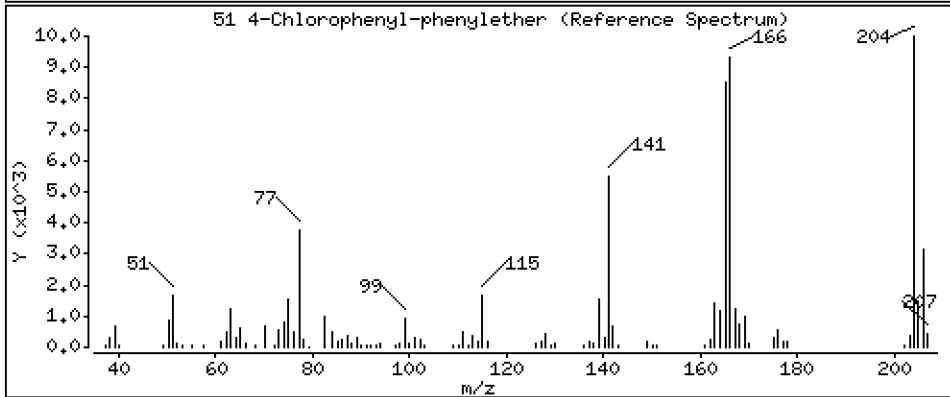
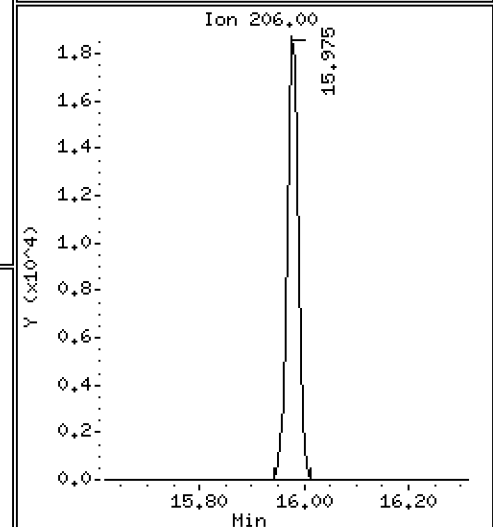
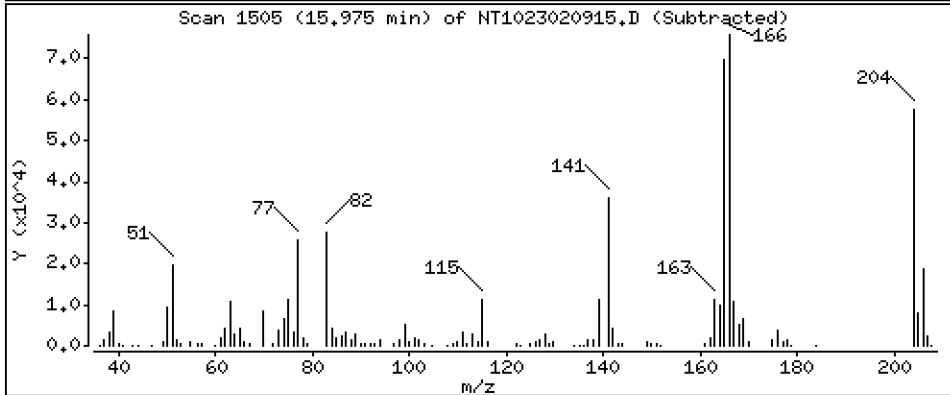
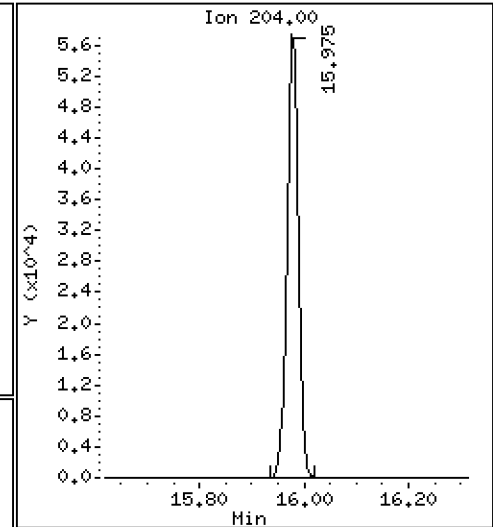
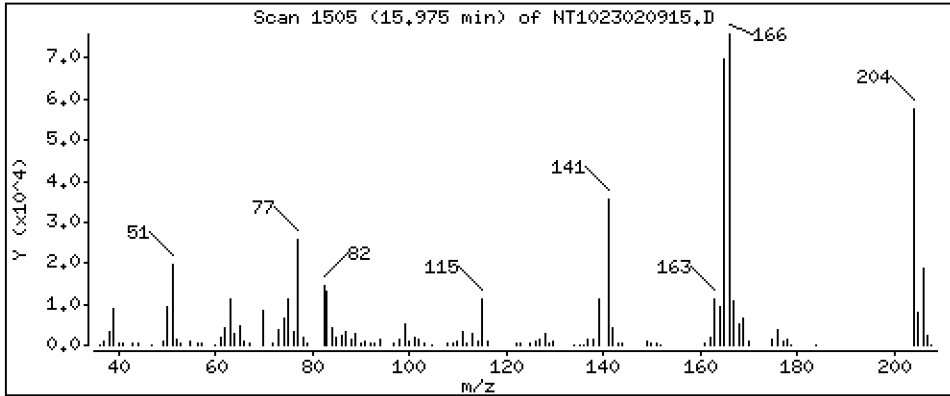
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 3,428 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

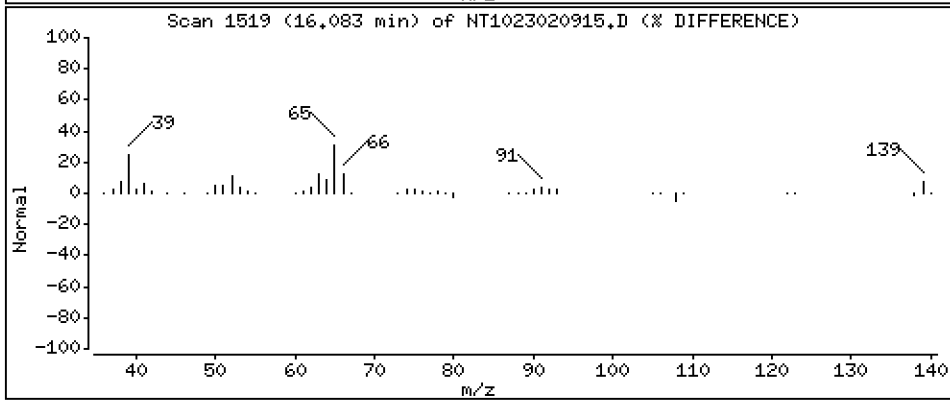
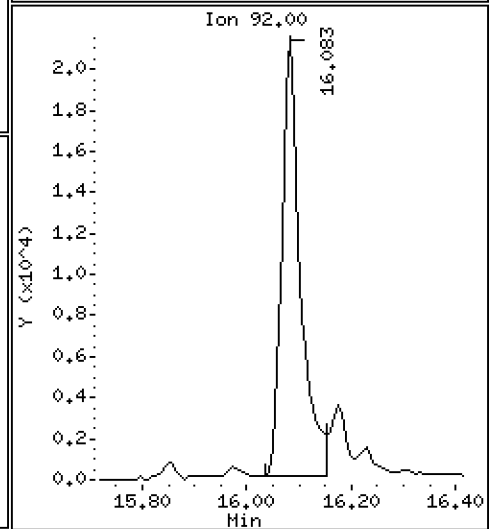
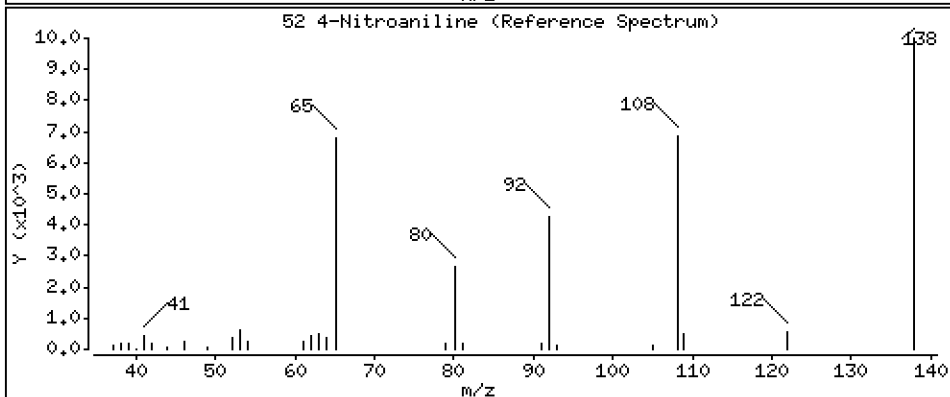
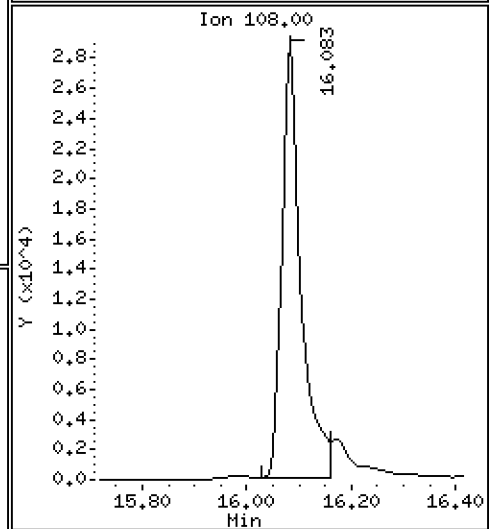
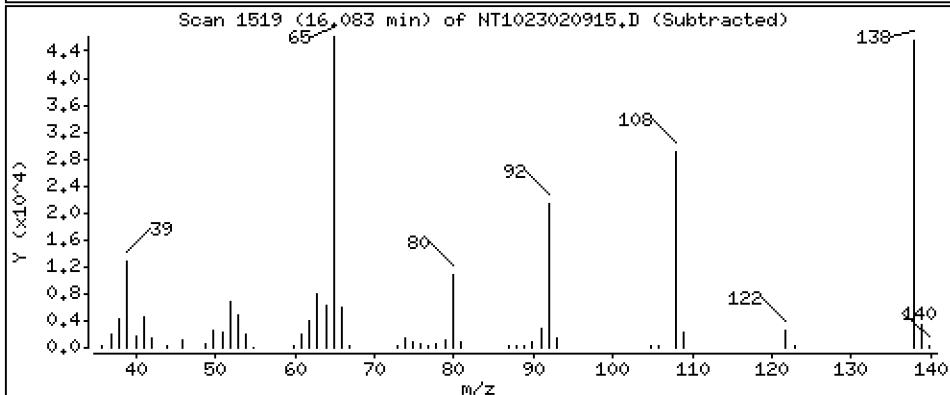
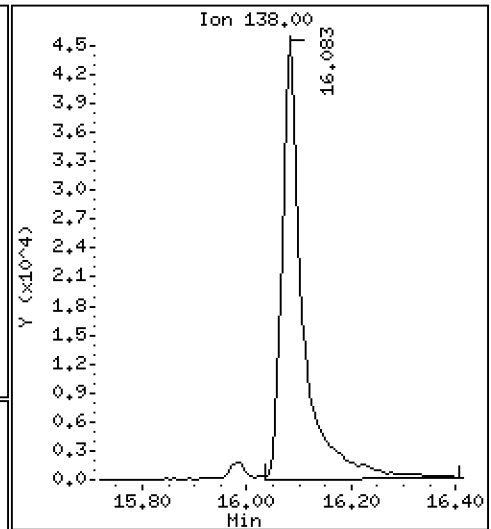
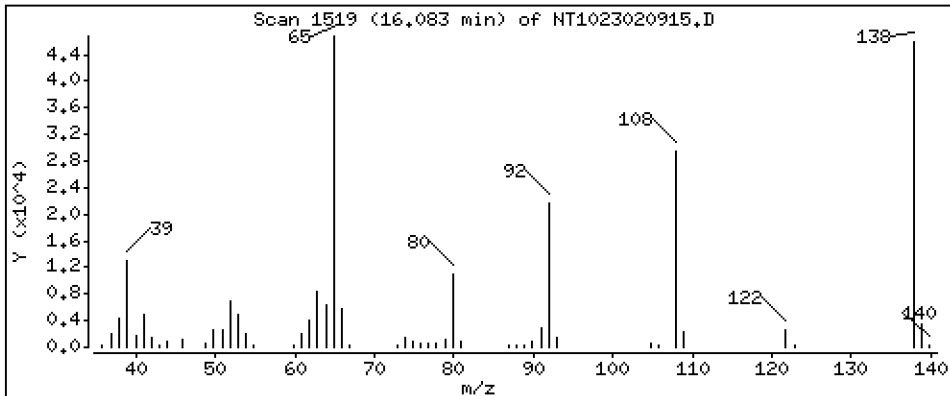
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

52 4-Nitroaniline

Concentration: 11.19 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

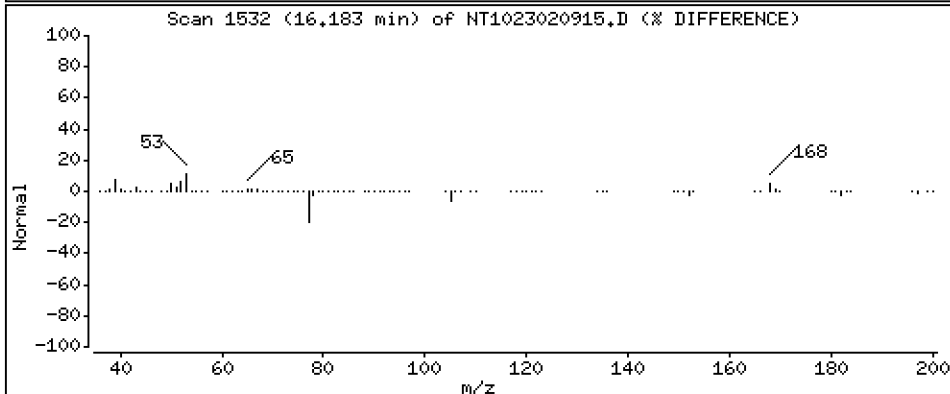
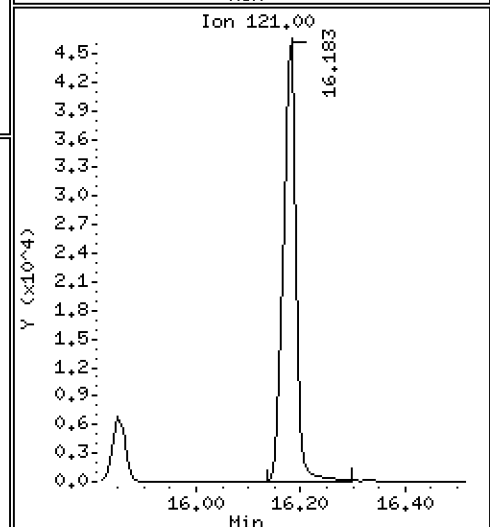
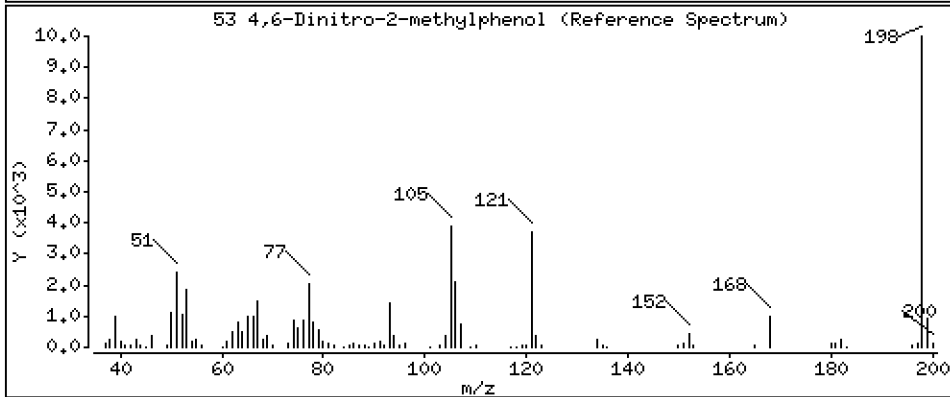
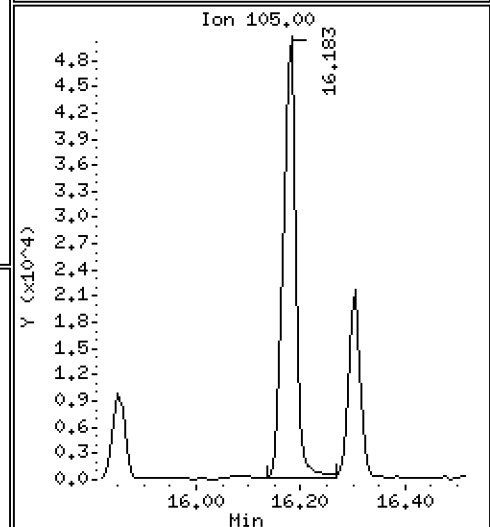
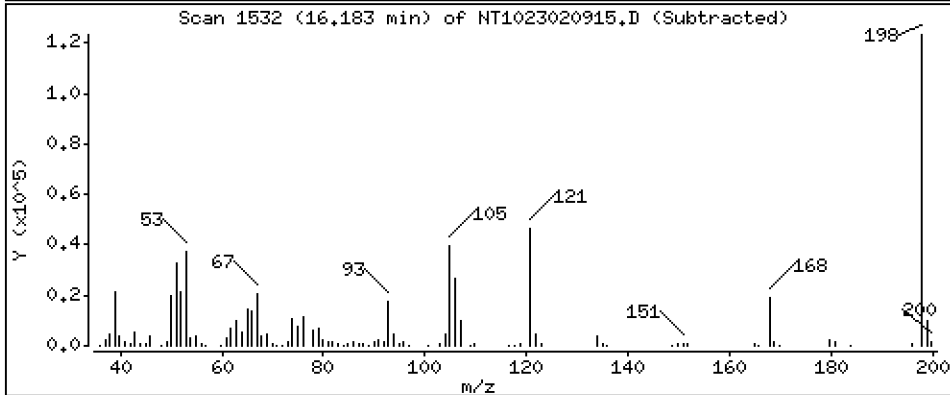
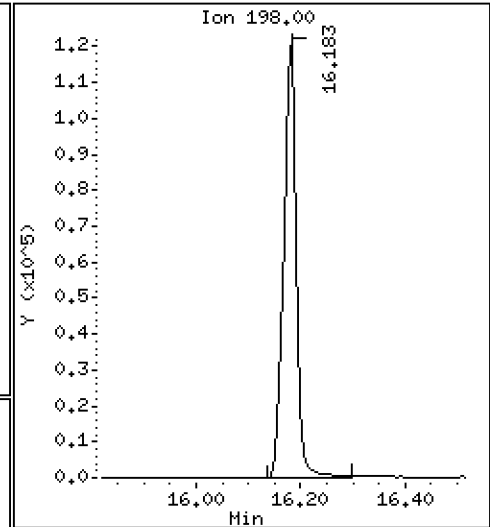
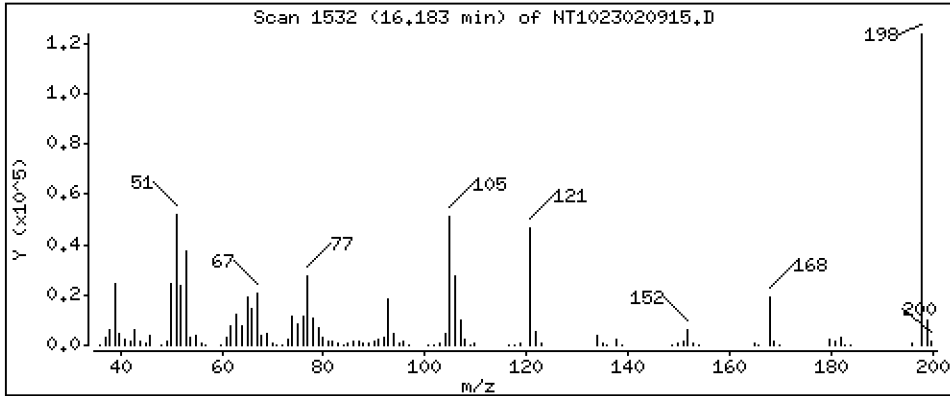
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 31,98 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

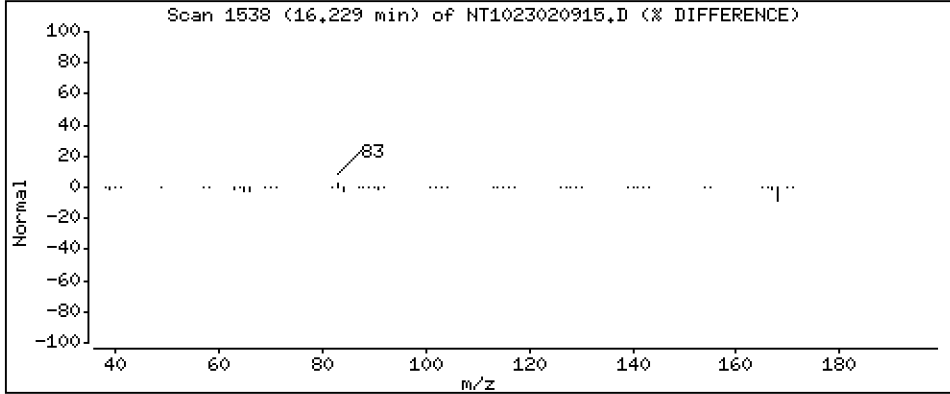
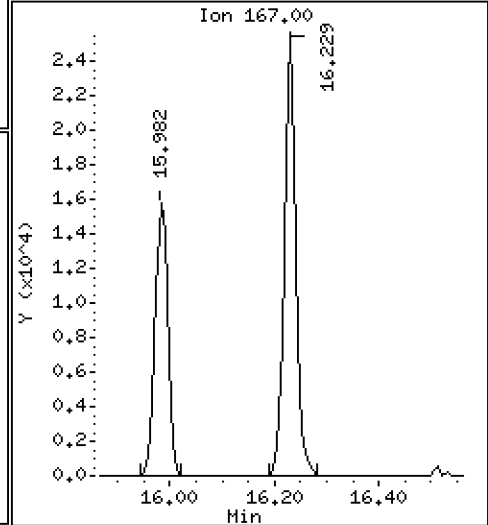
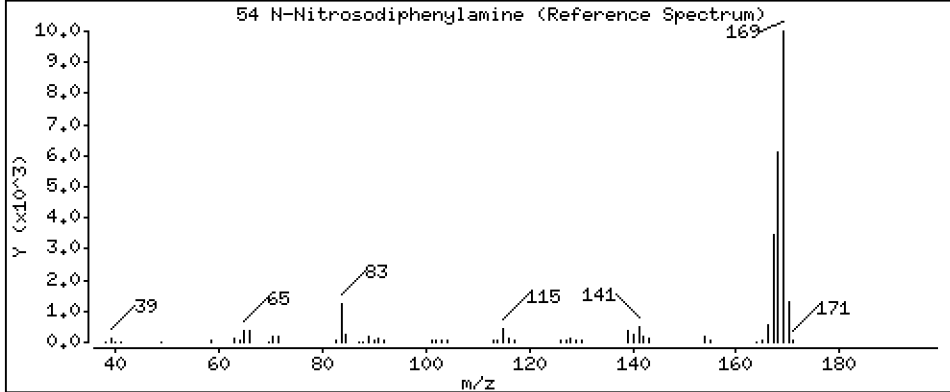
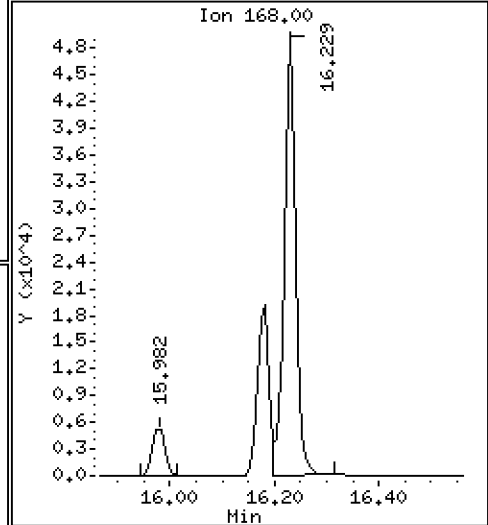
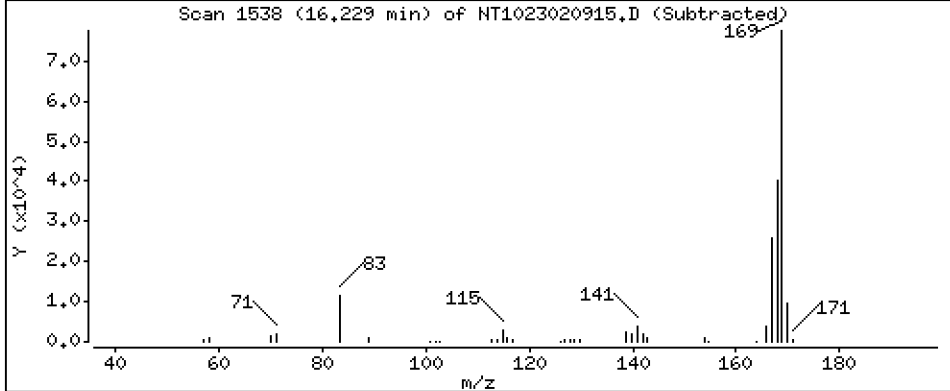
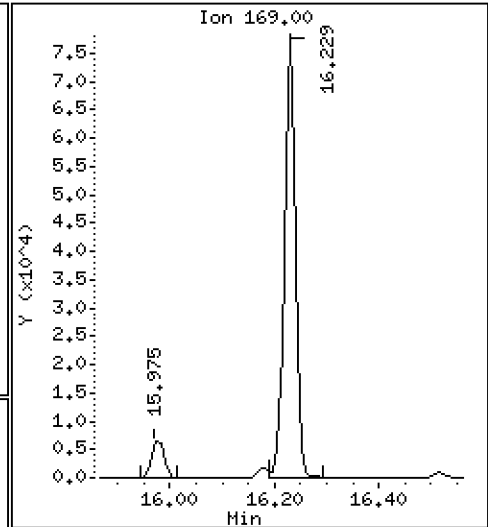
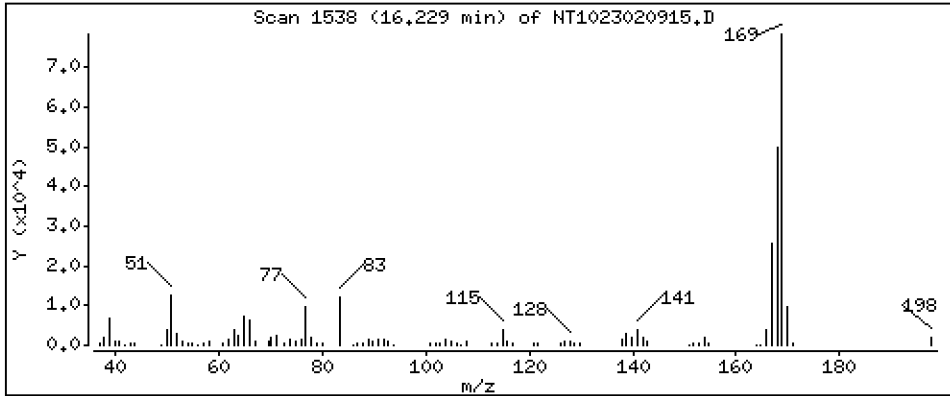
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 3,851 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

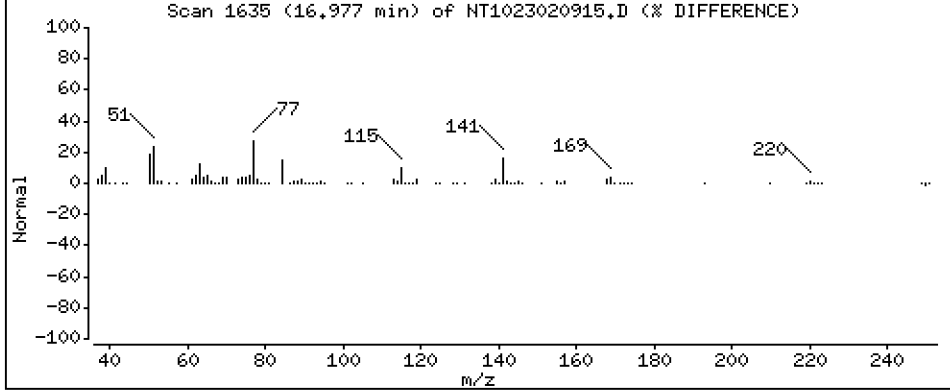
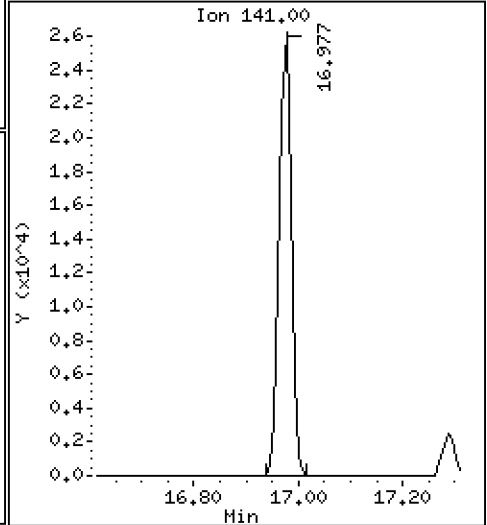
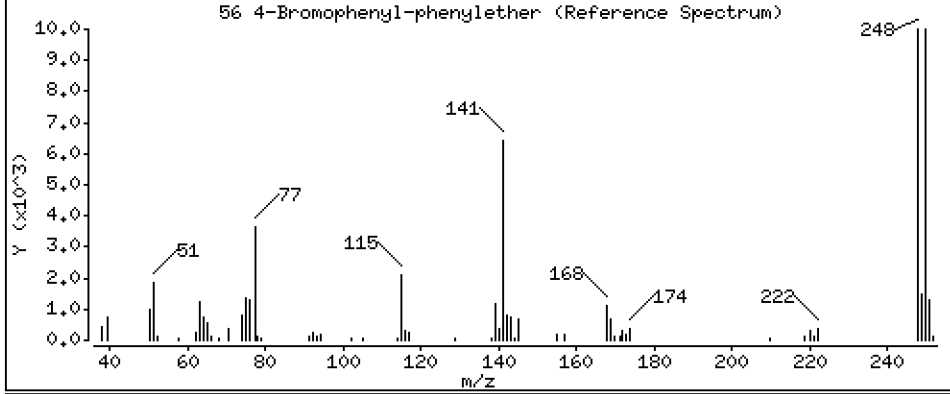
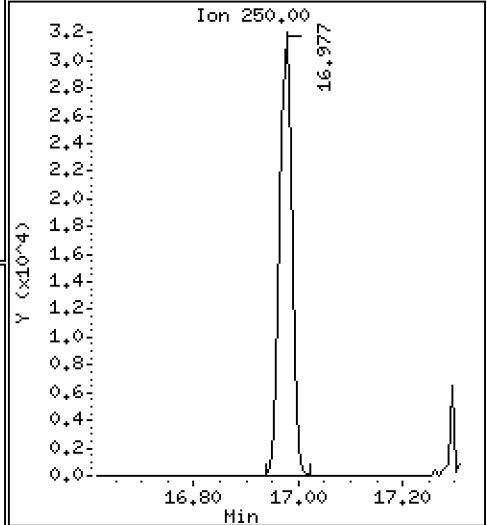
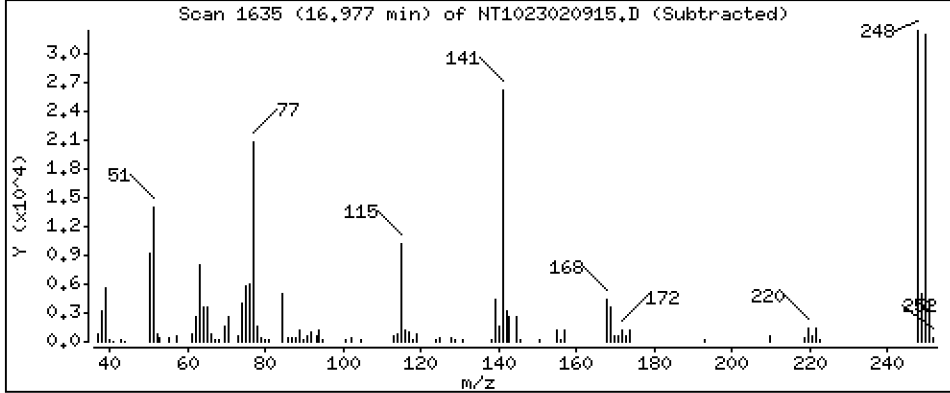
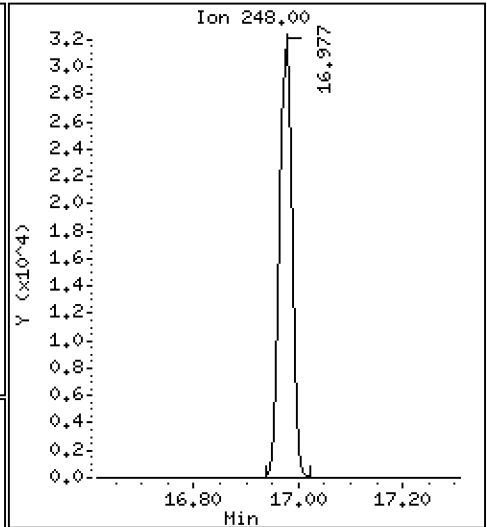
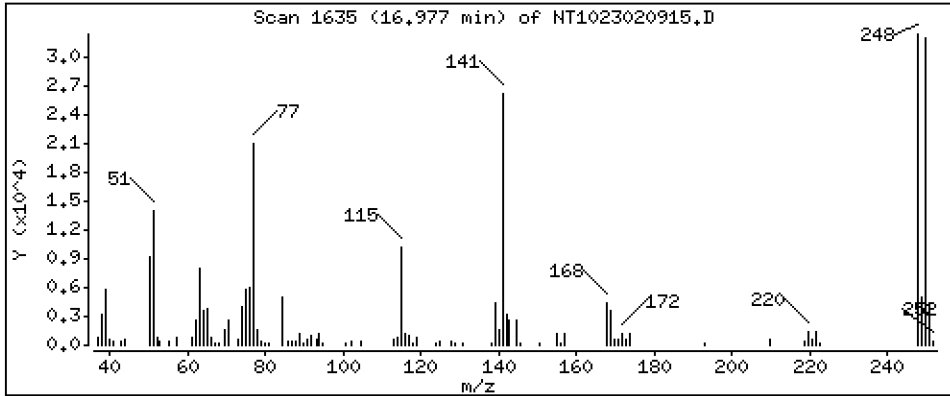
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,556 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

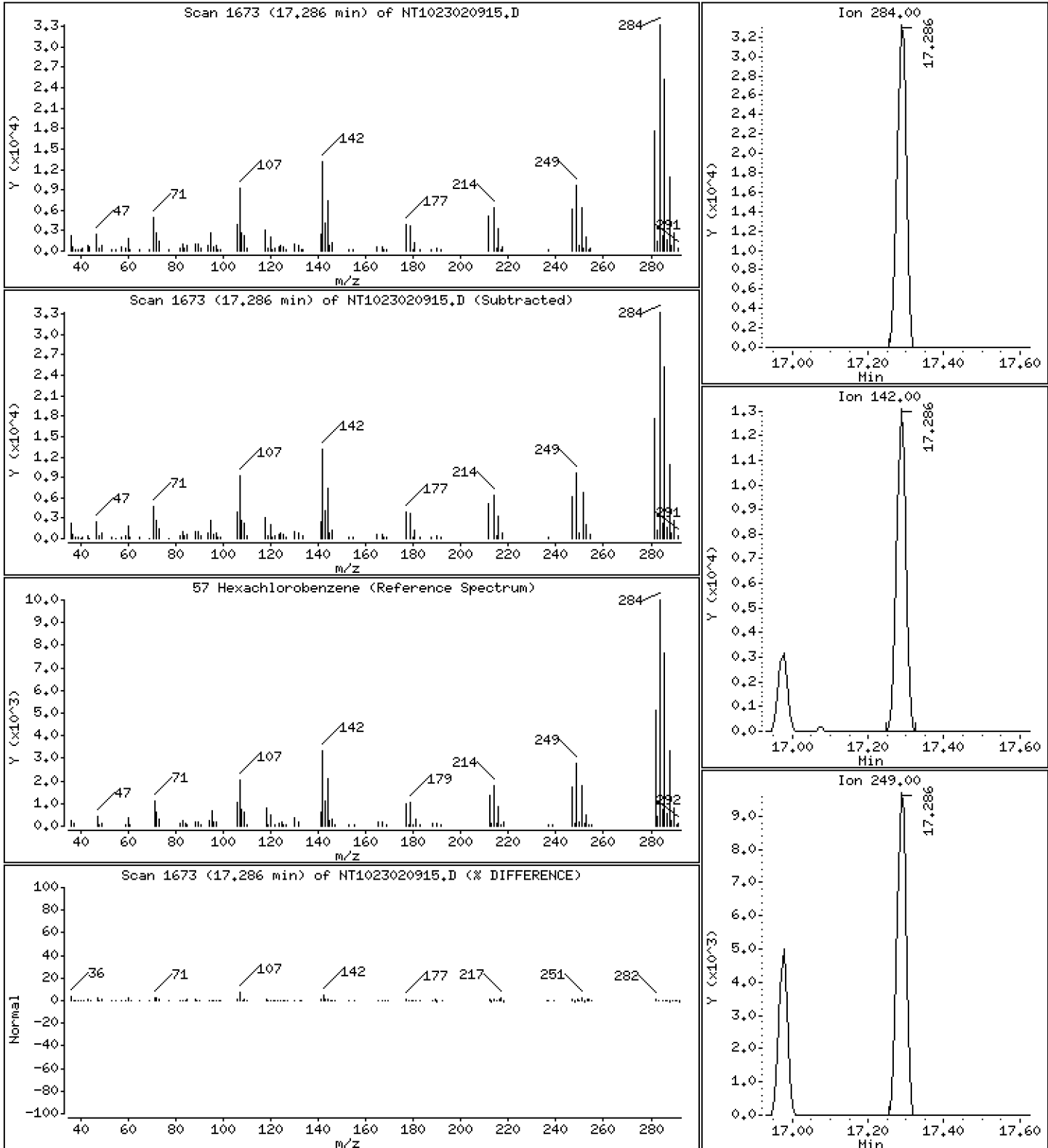
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,540 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

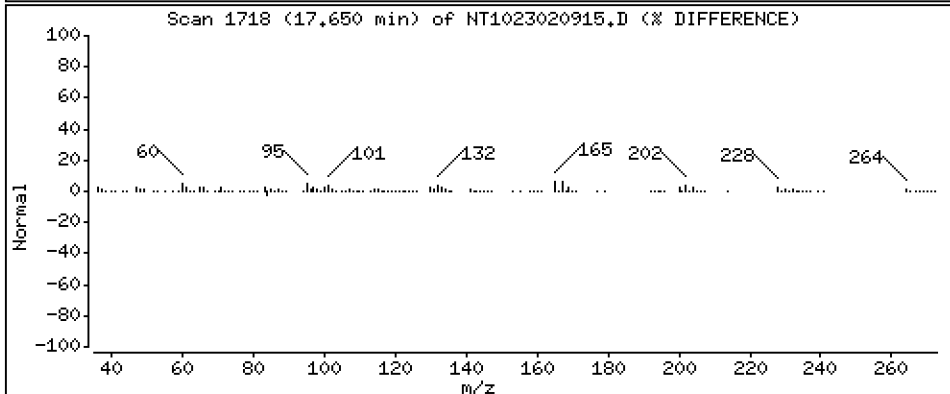
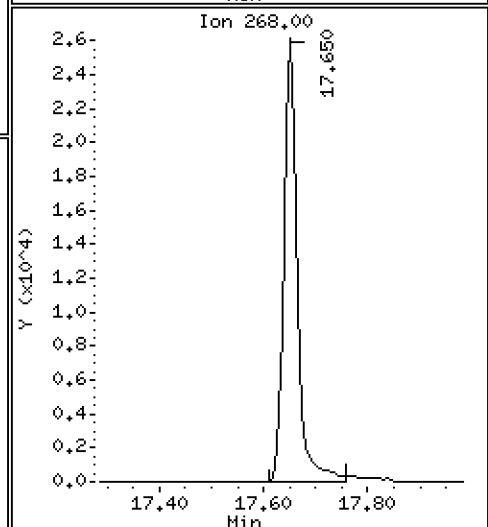
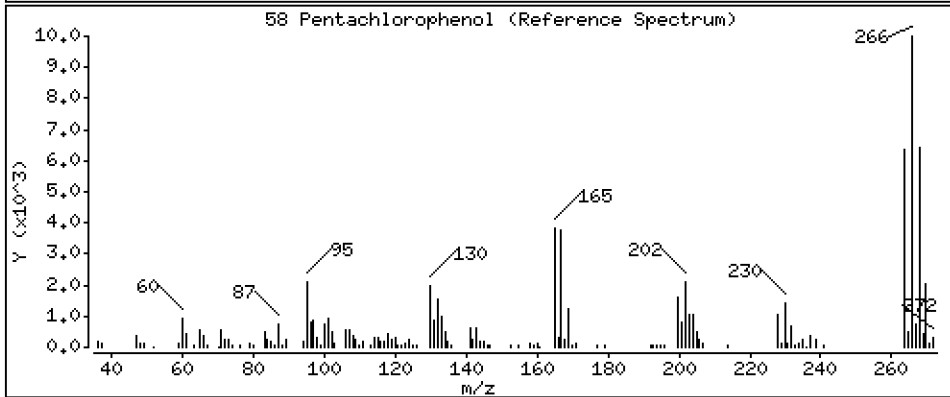
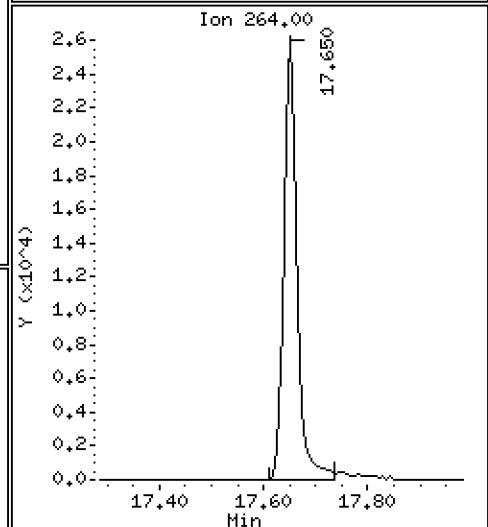
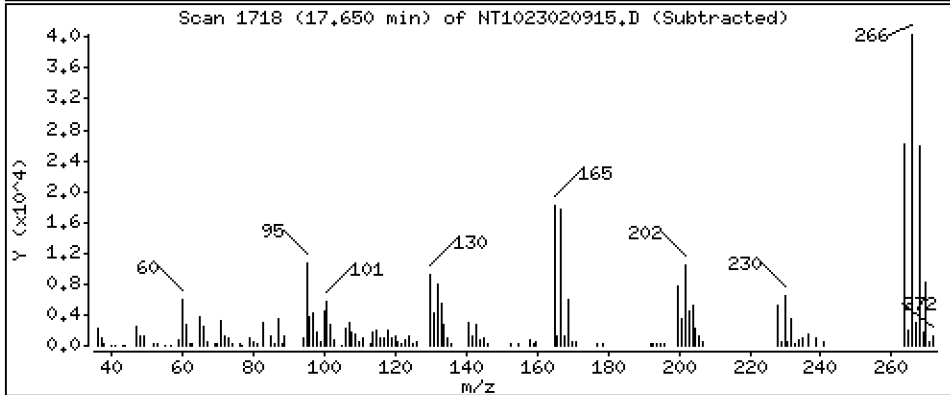
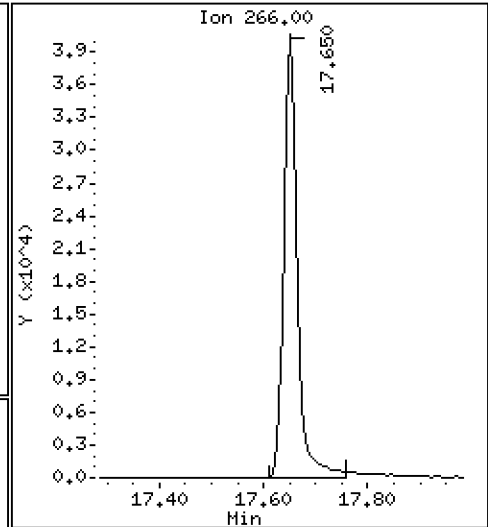
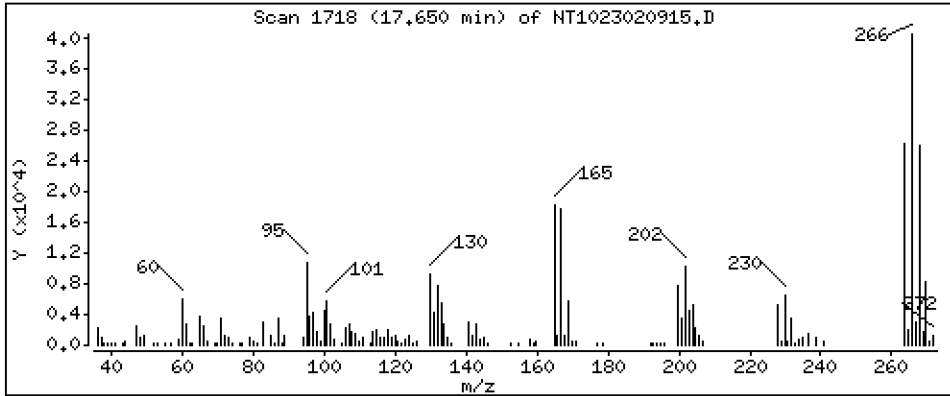
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

58 Pentachlorophenol

Concentration: 15.63 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

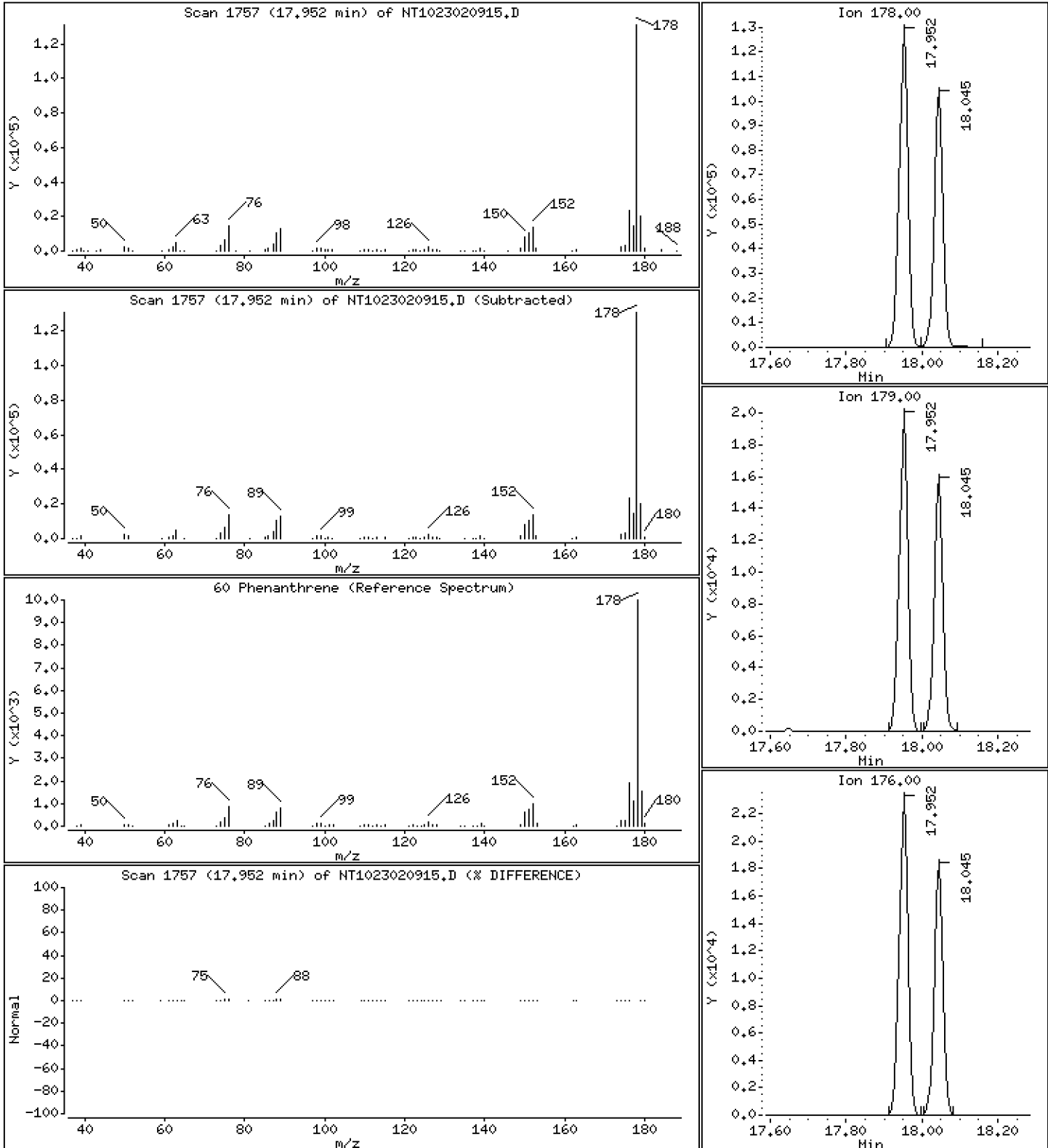
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,291 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

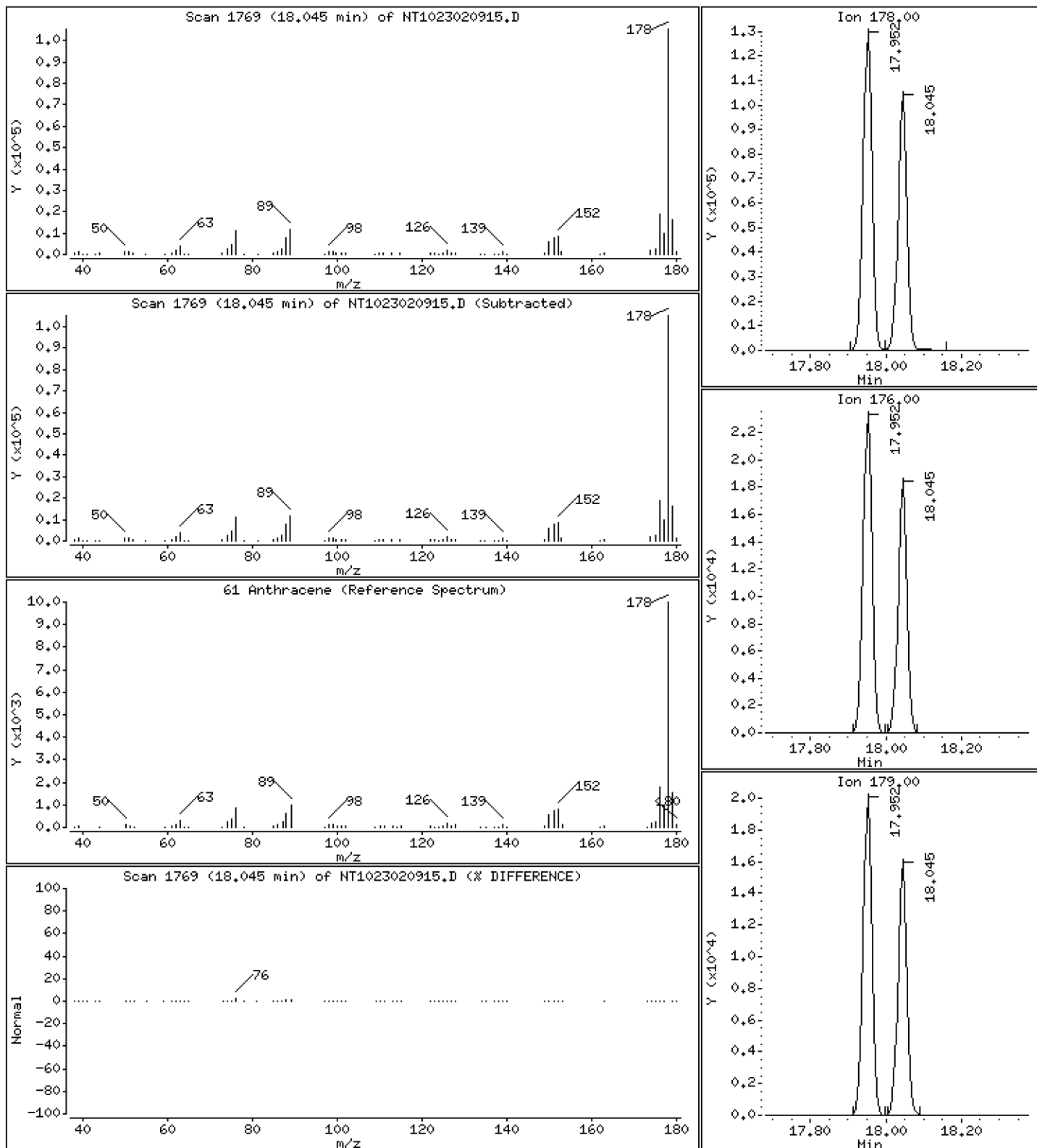
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 3,684 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

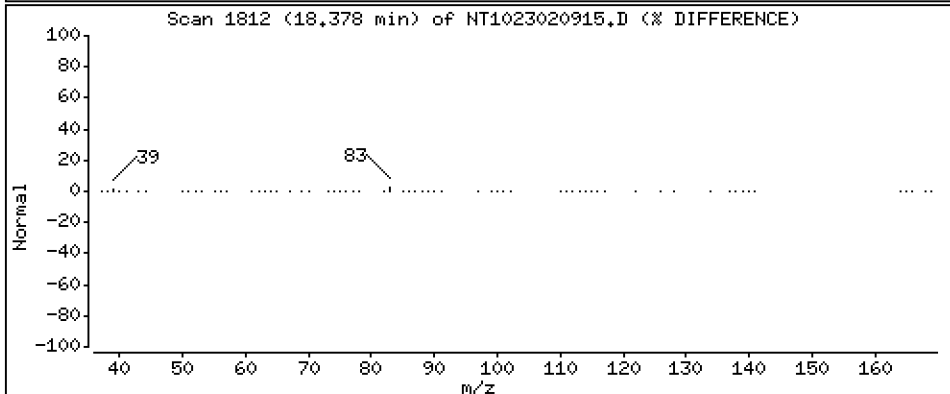
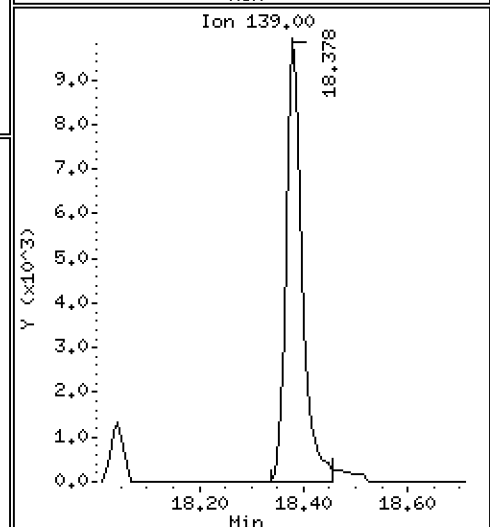
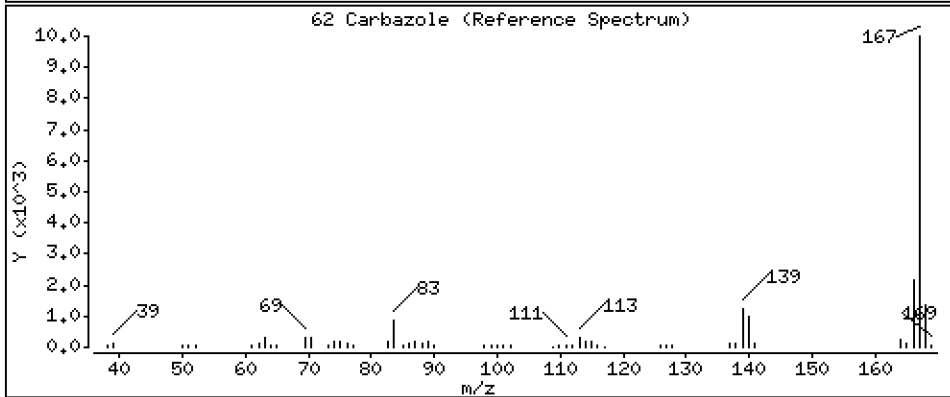
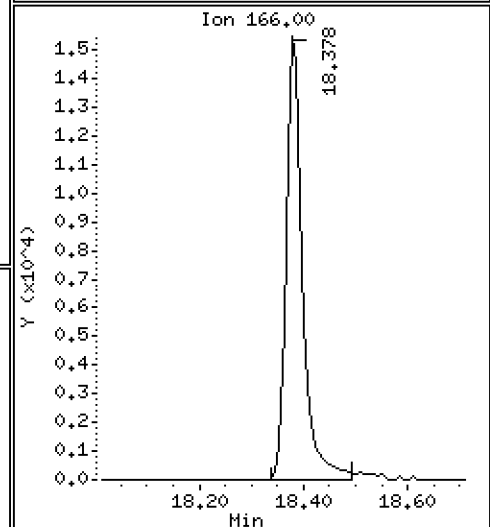
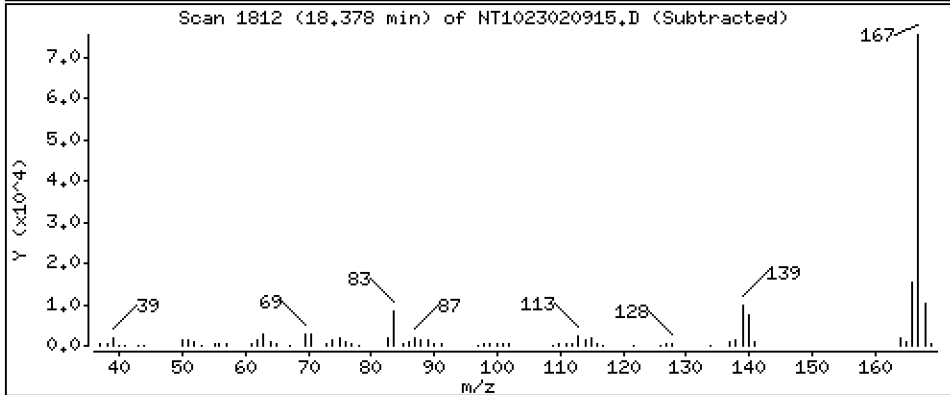
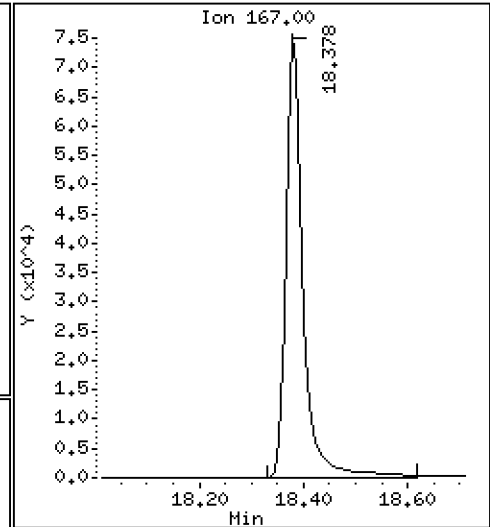
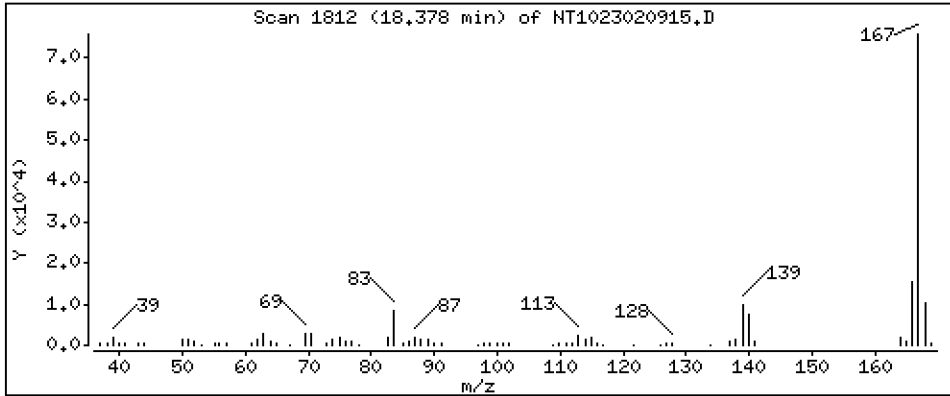
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 3,848 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

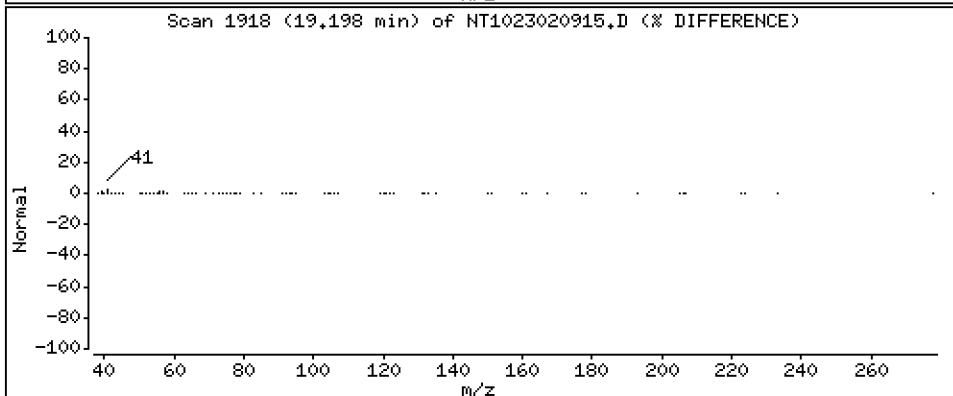
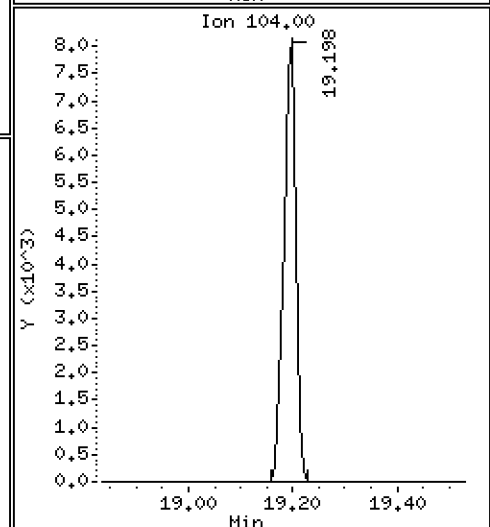
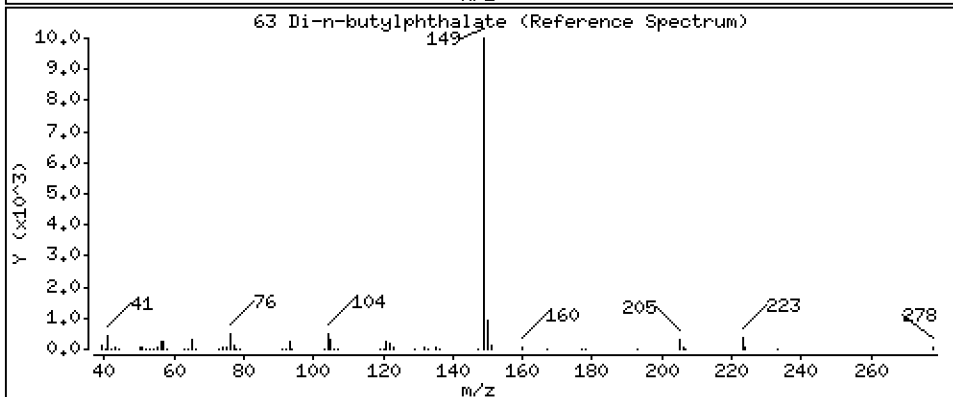
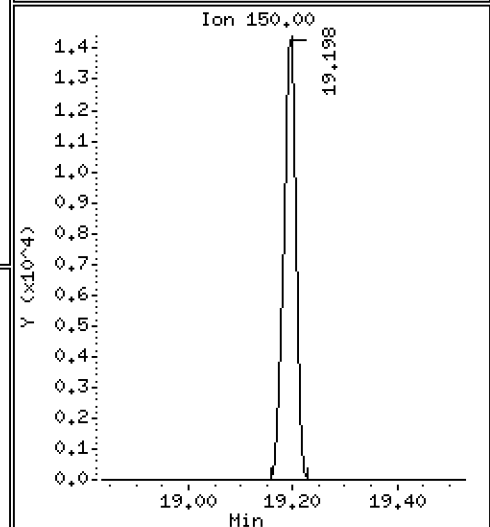
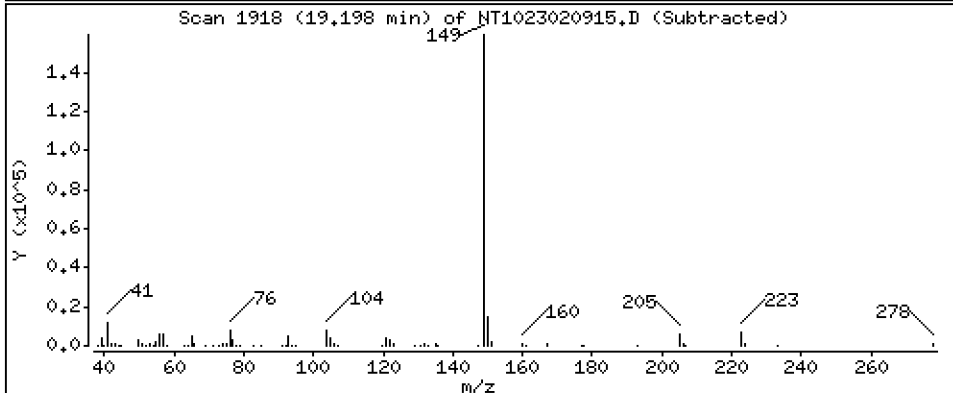
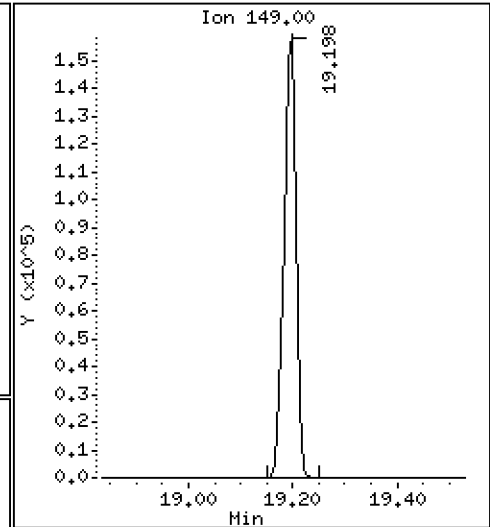
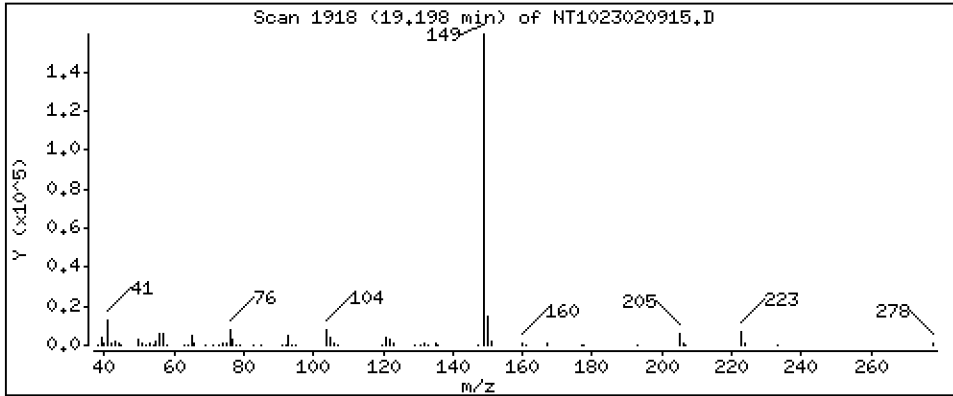
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,765 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

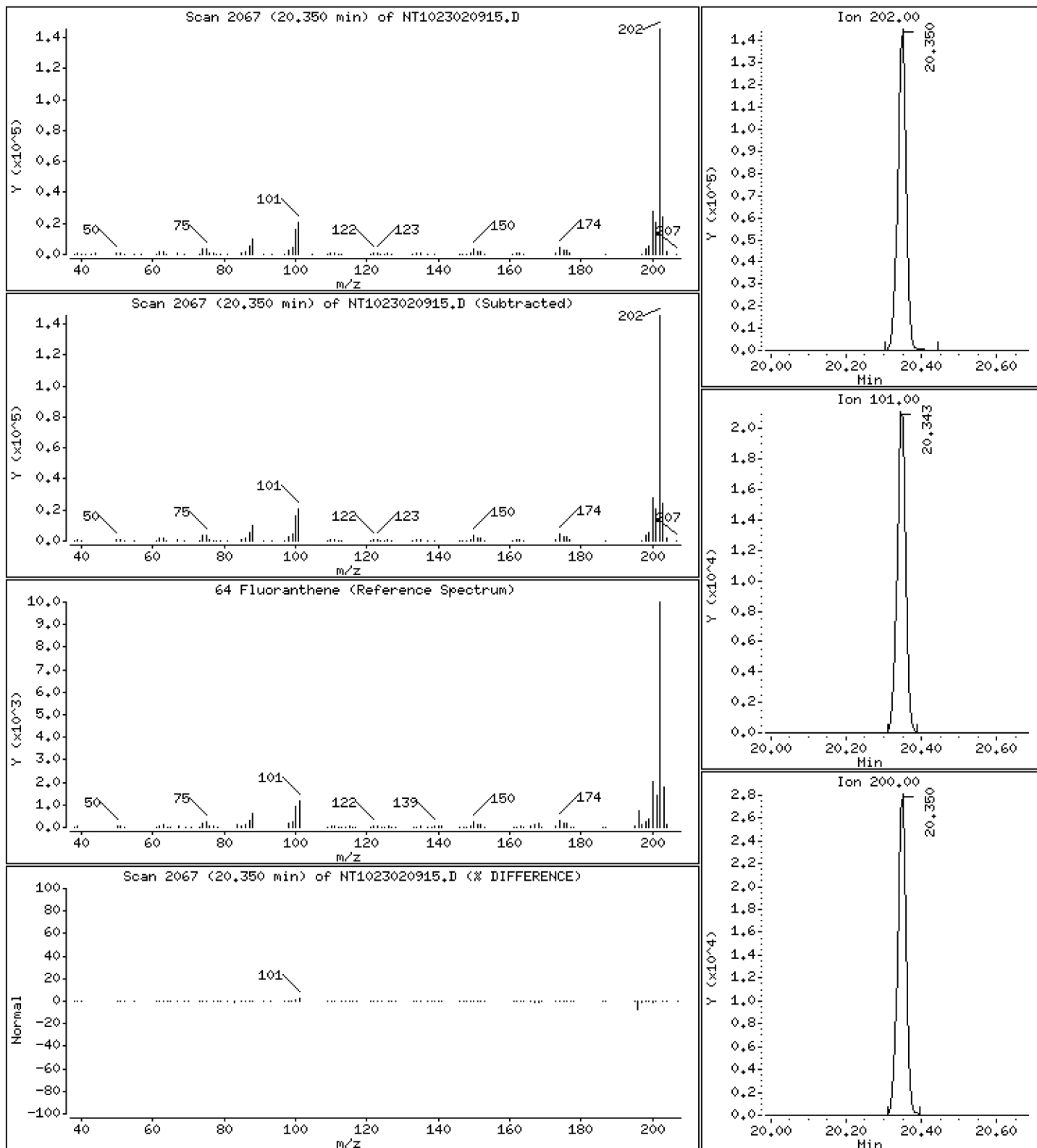
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,057 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

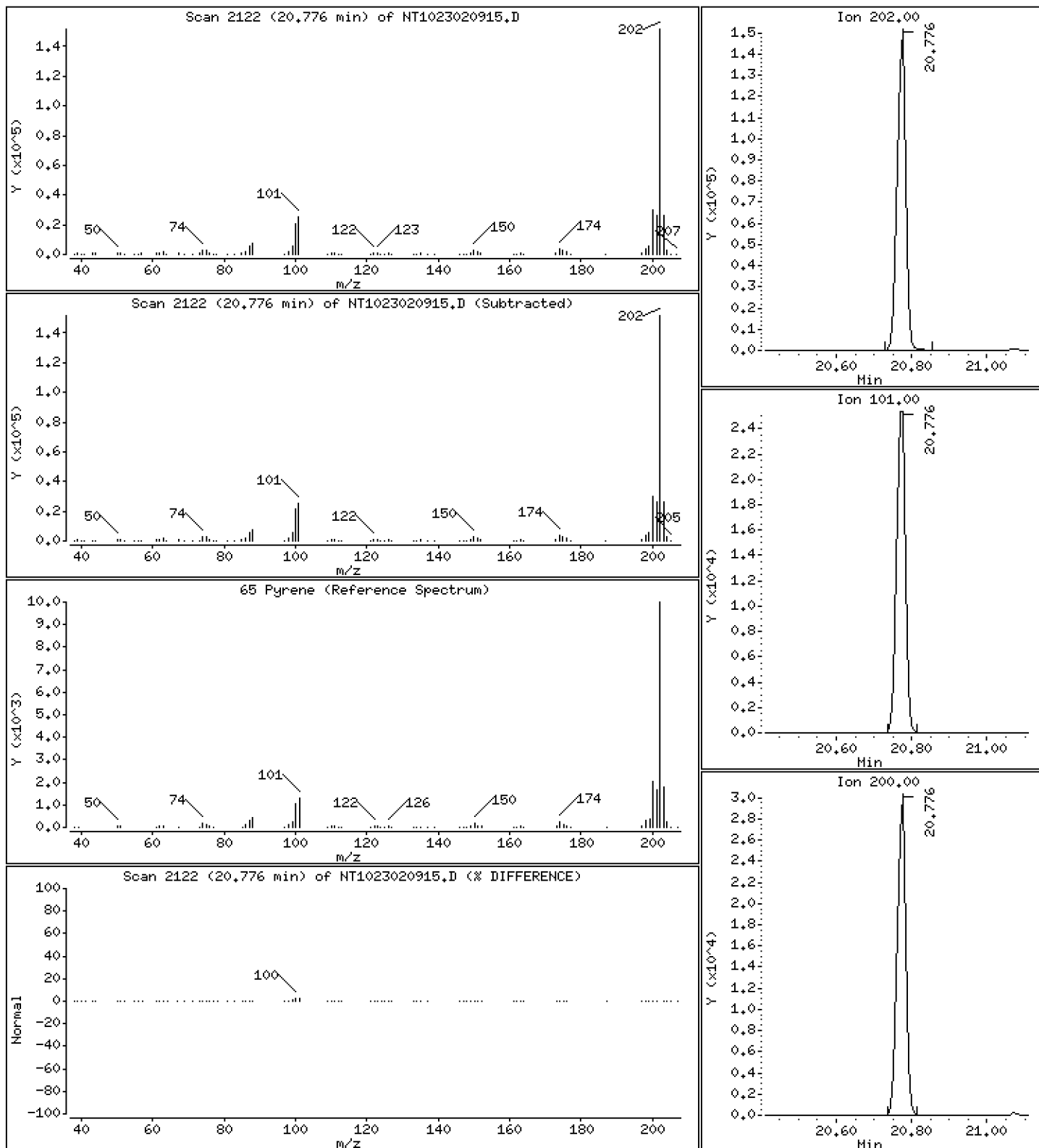
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 3,926 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

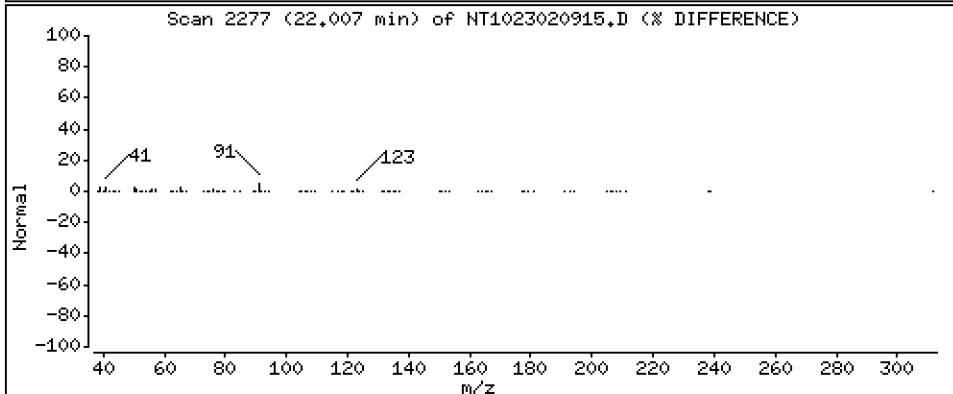
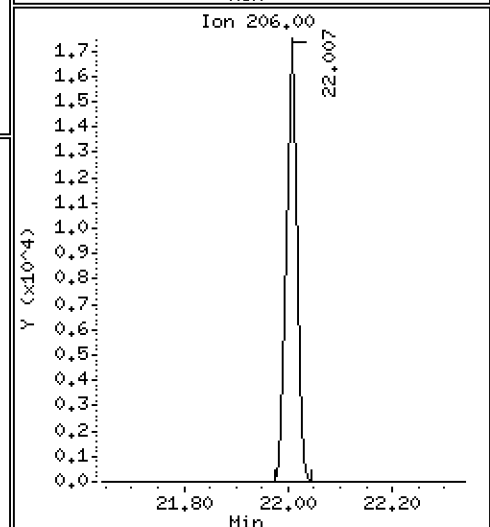
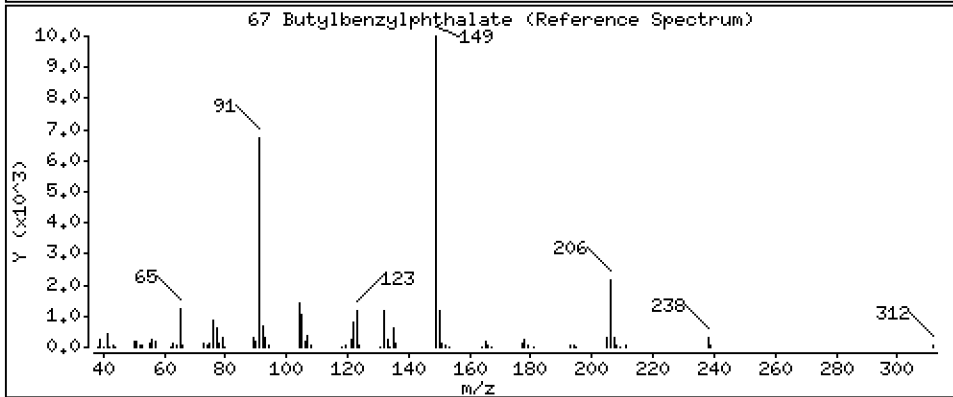
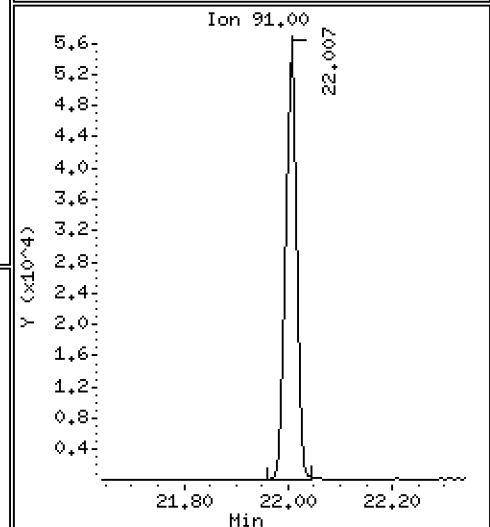
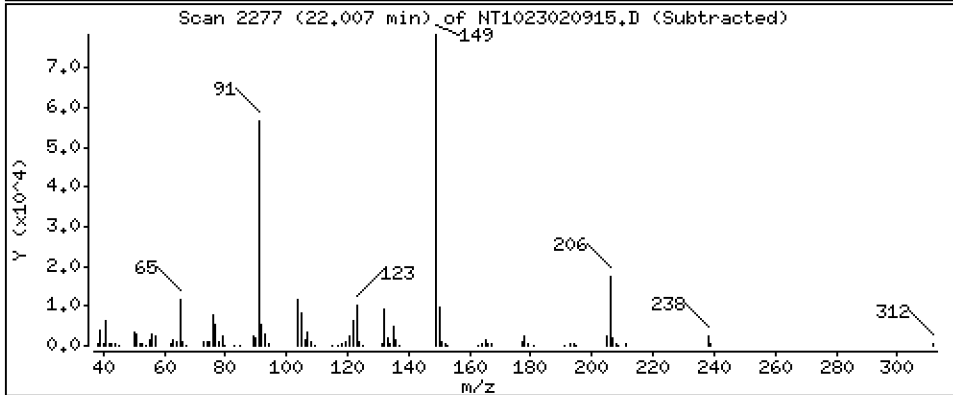
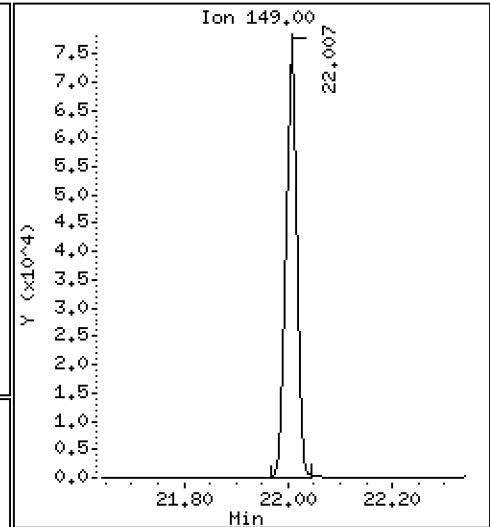
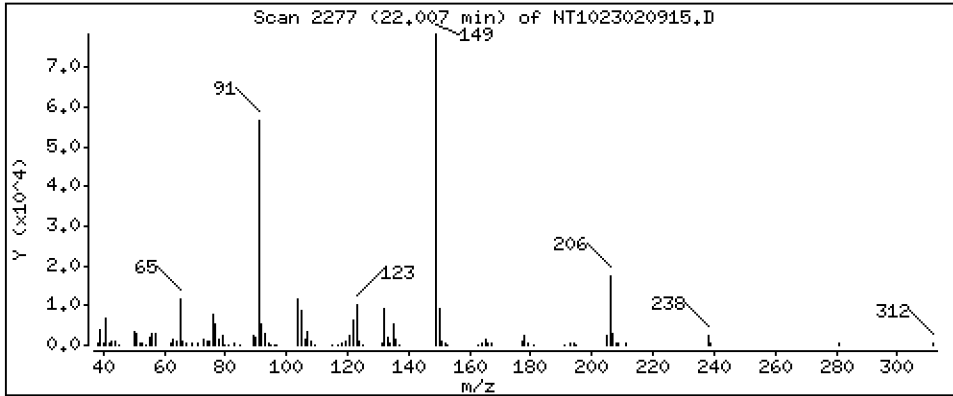
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,331 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

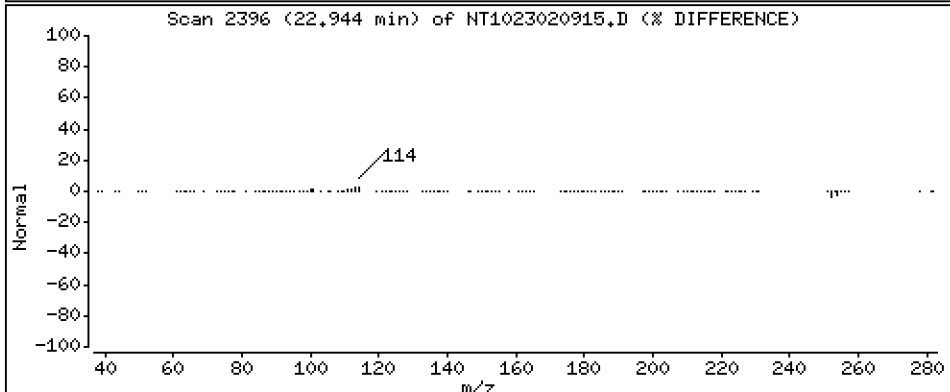
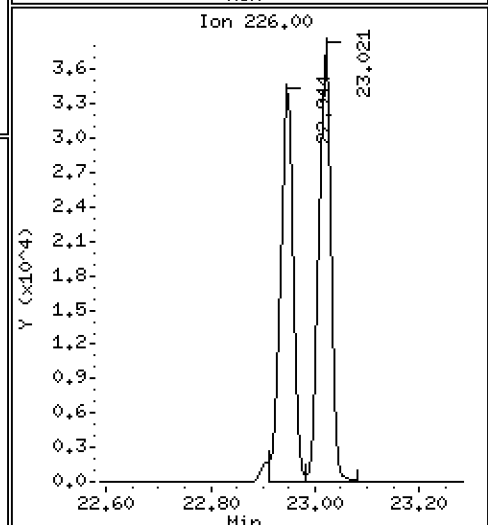
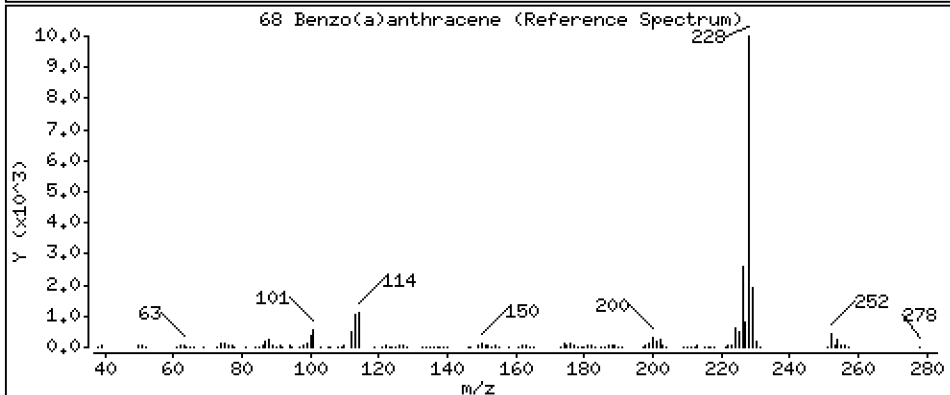
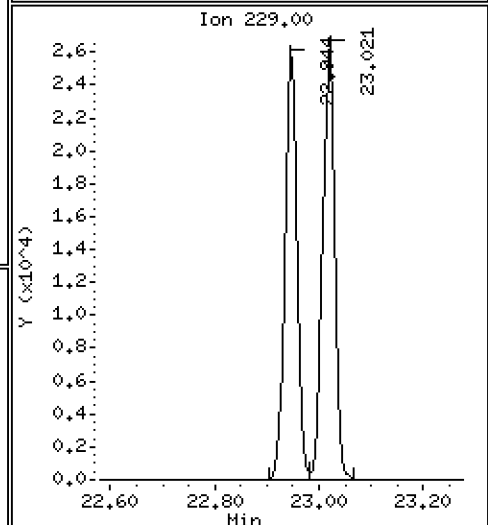
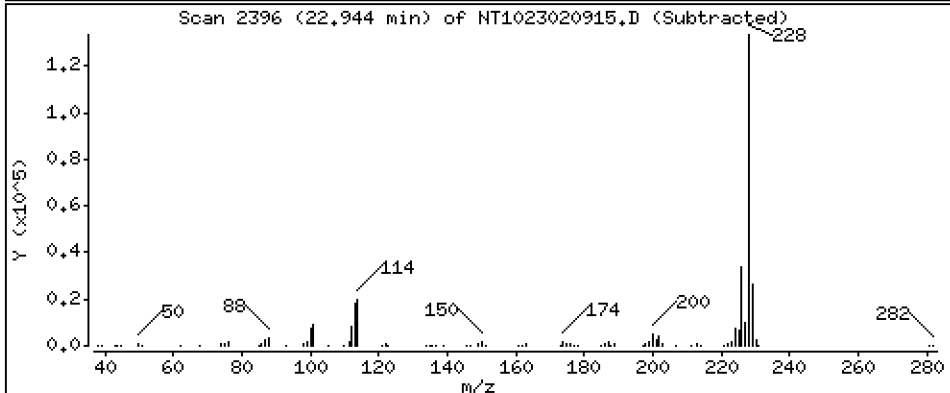
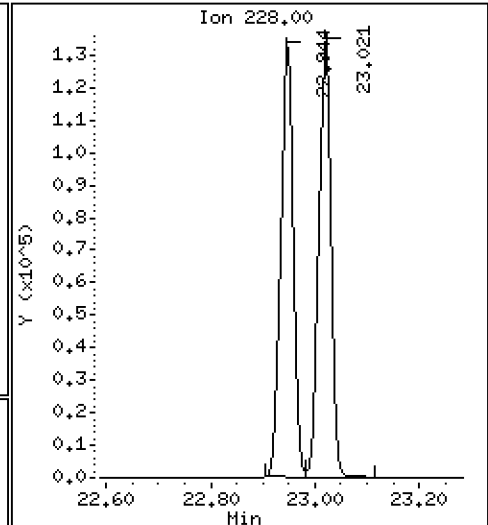
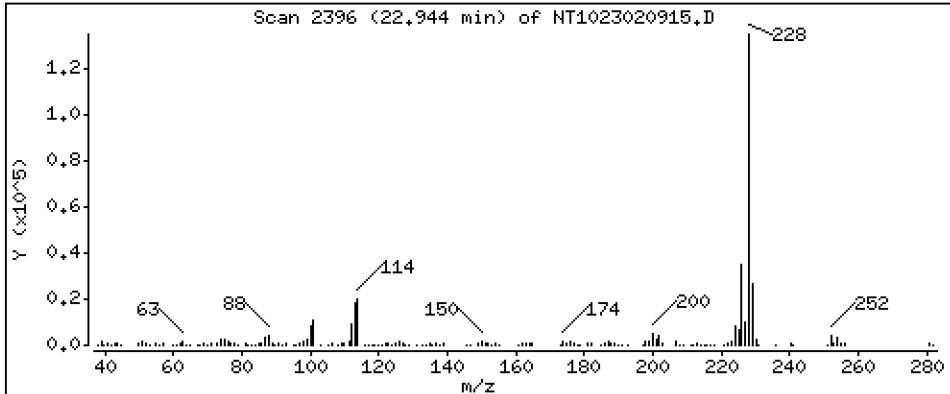
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,331 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

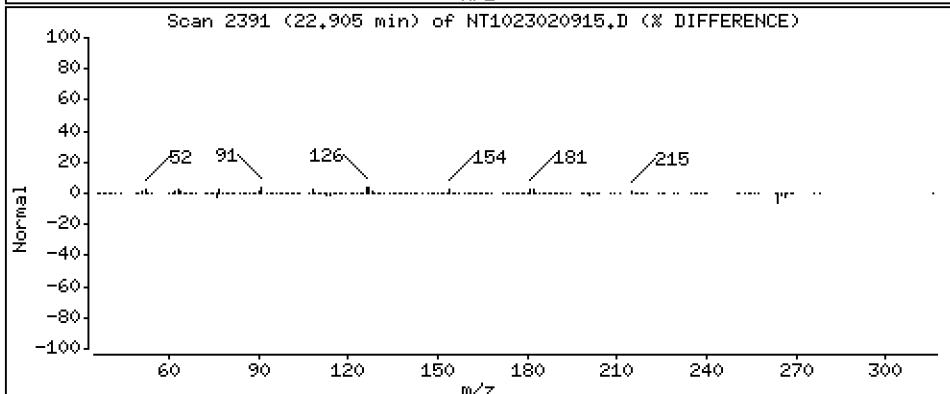
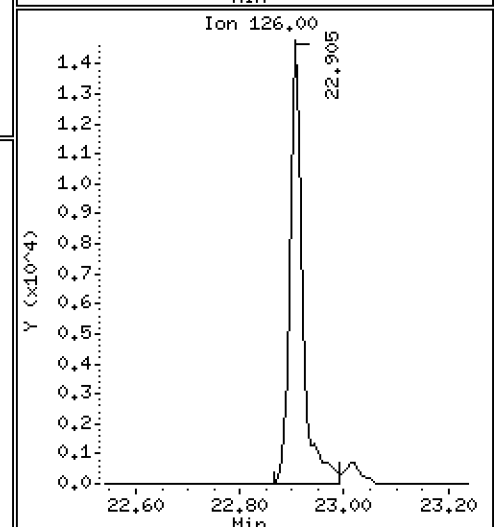
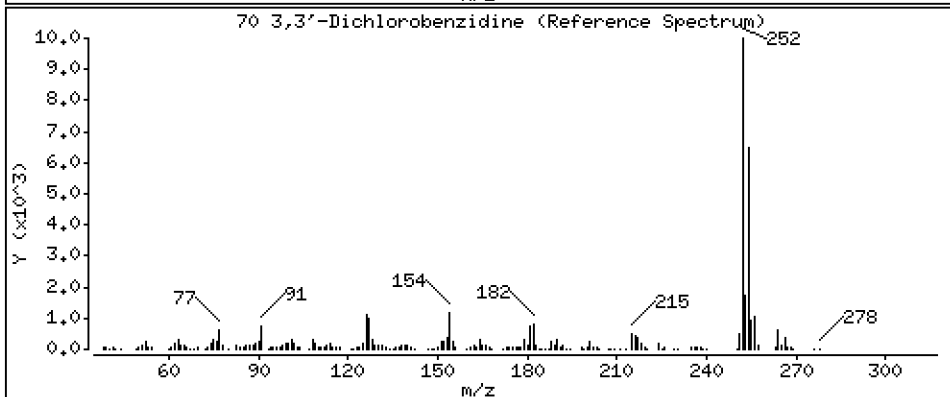
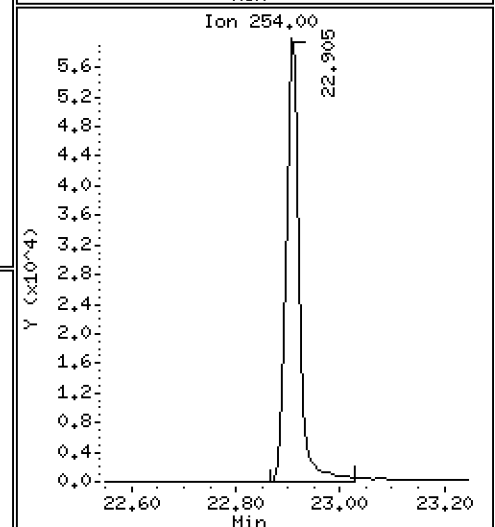
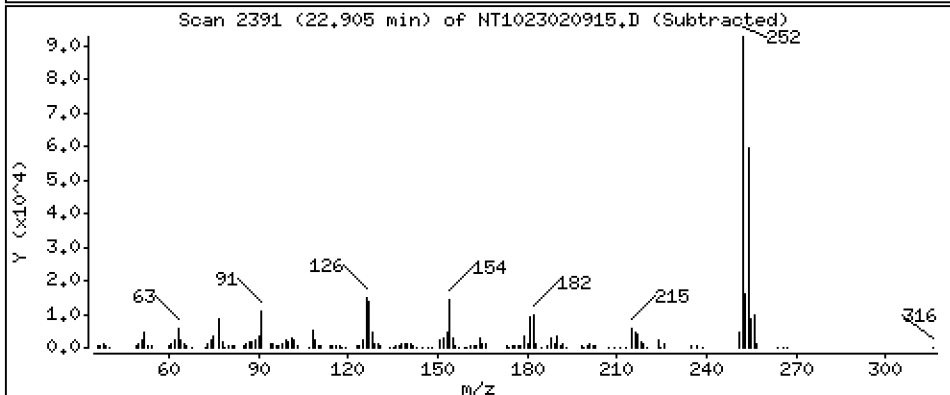
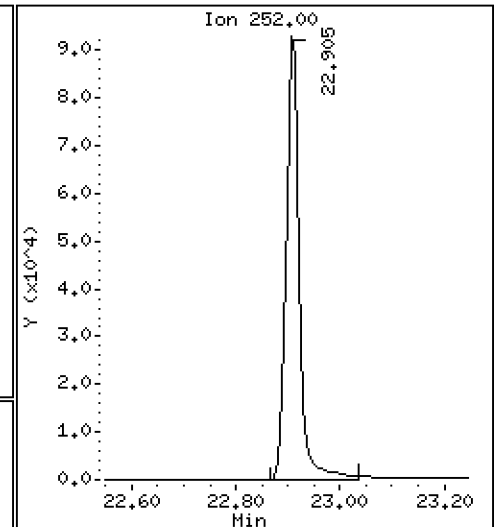
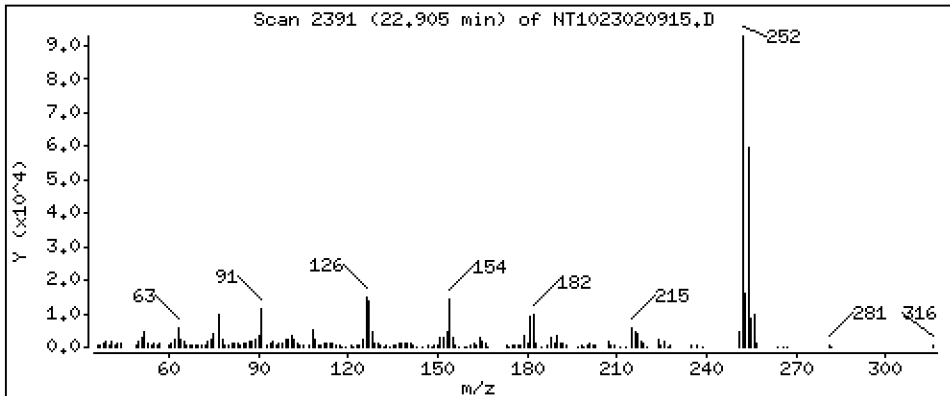
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 9,439 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

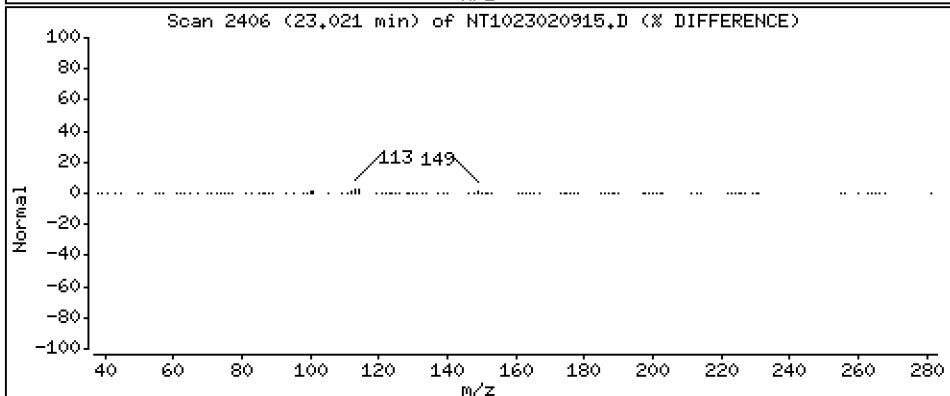
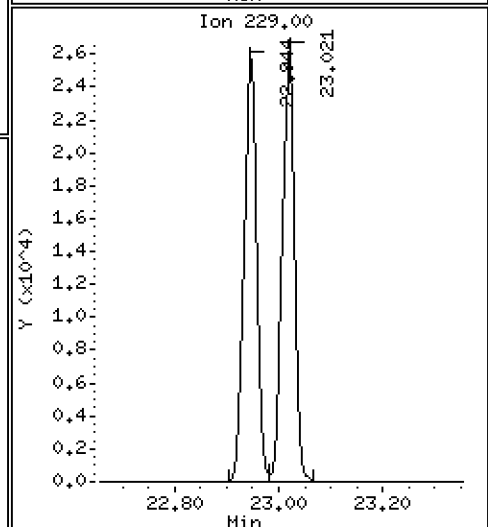
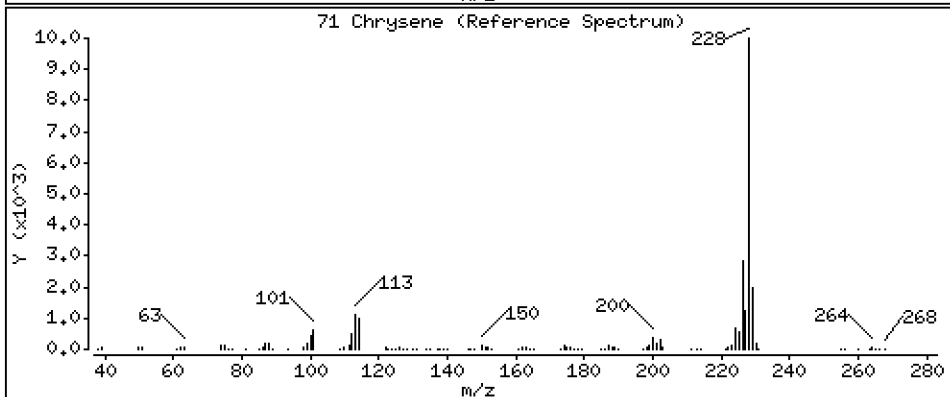
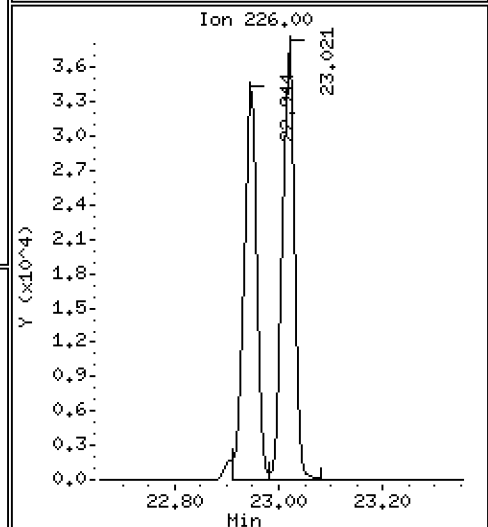
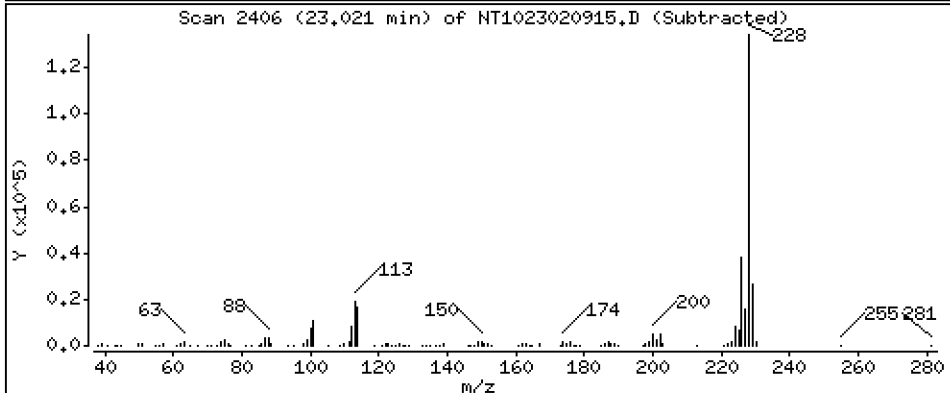
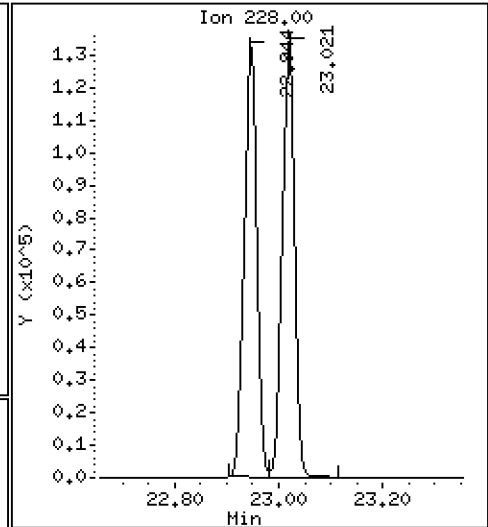
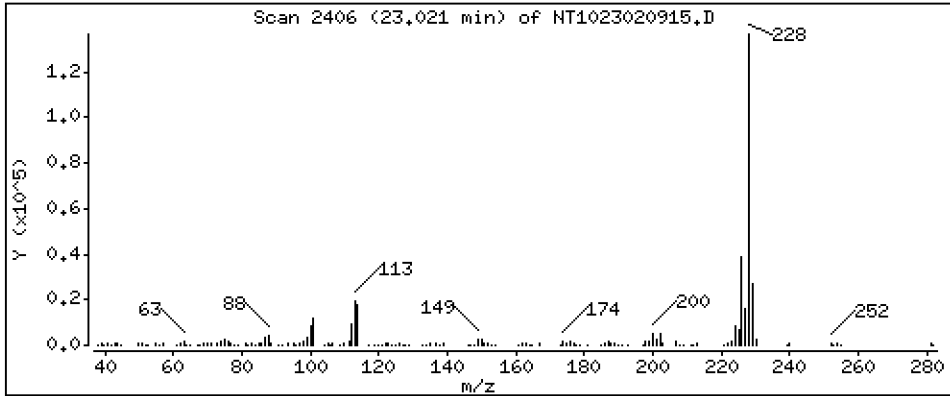
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,320 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

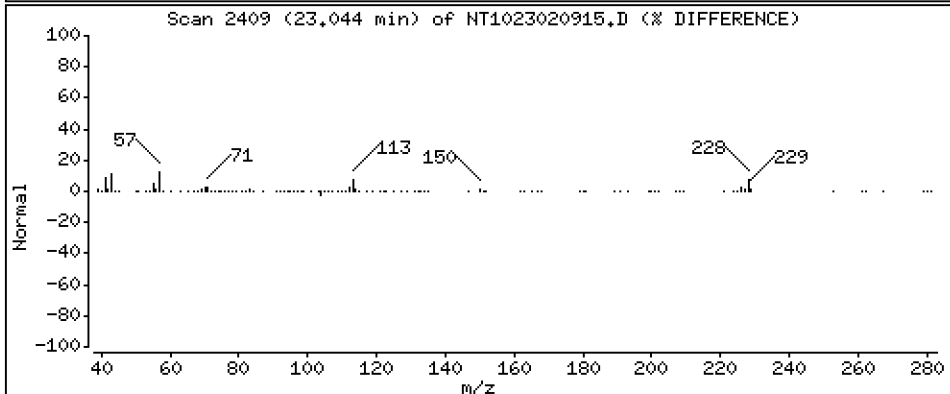
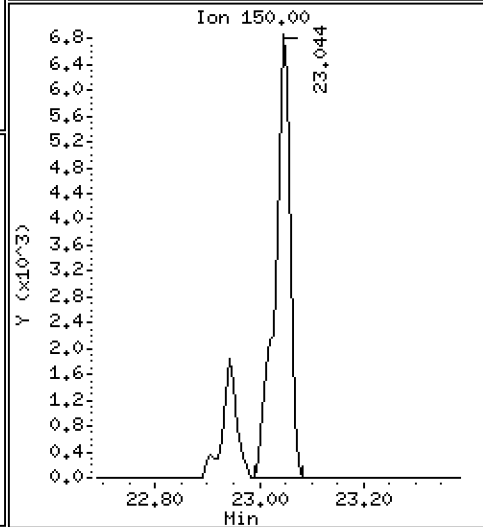
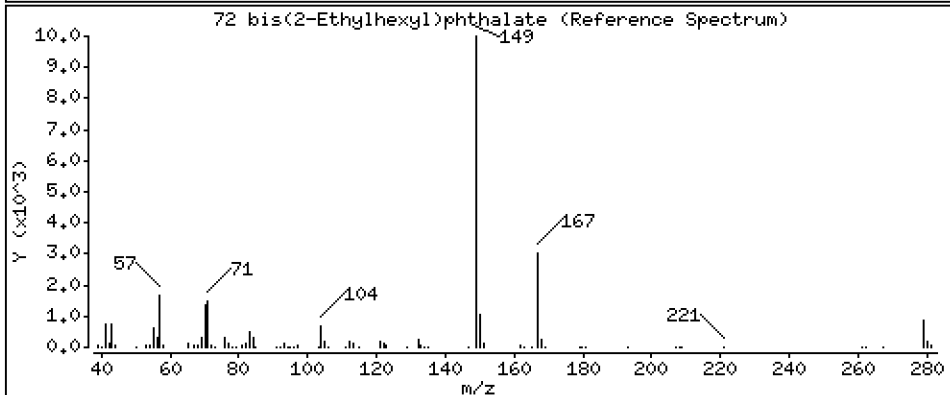
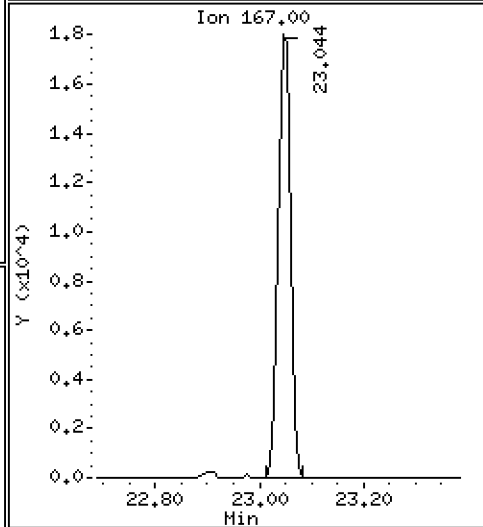
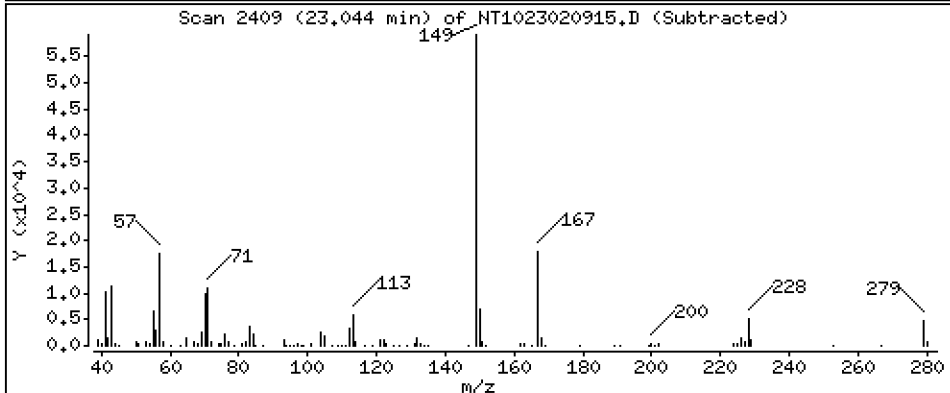
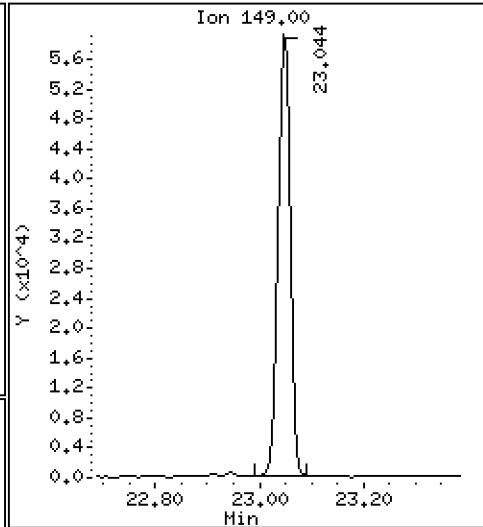
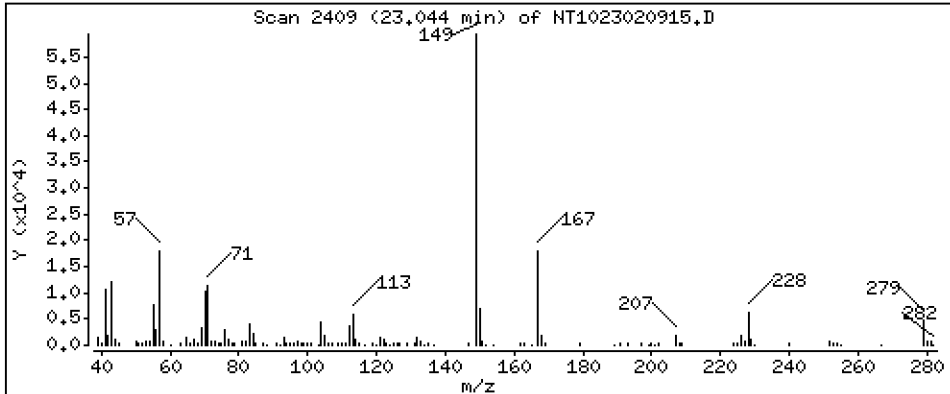
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 2,764 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

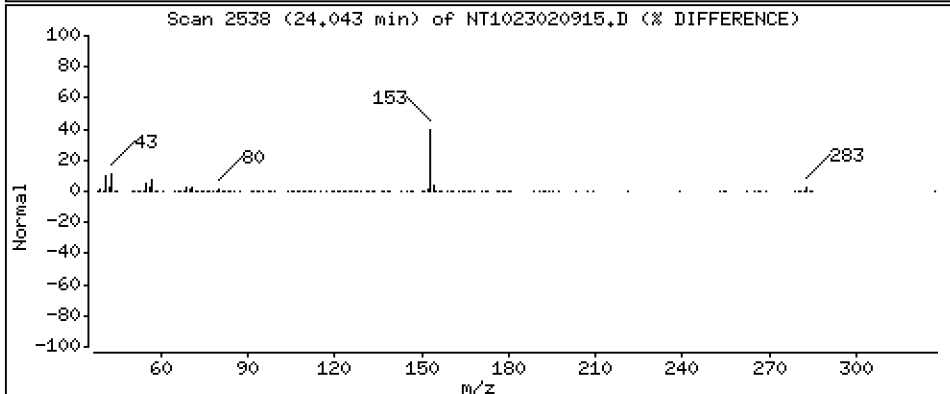
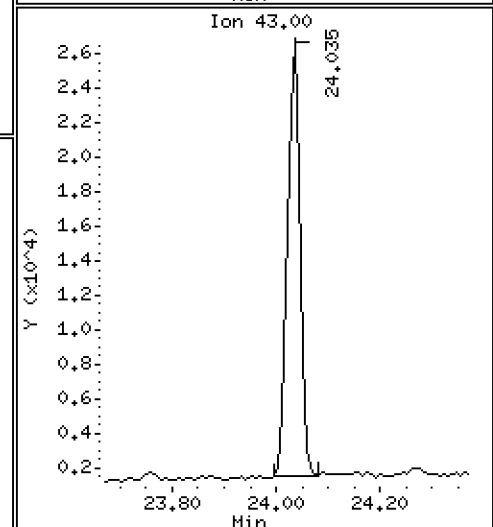
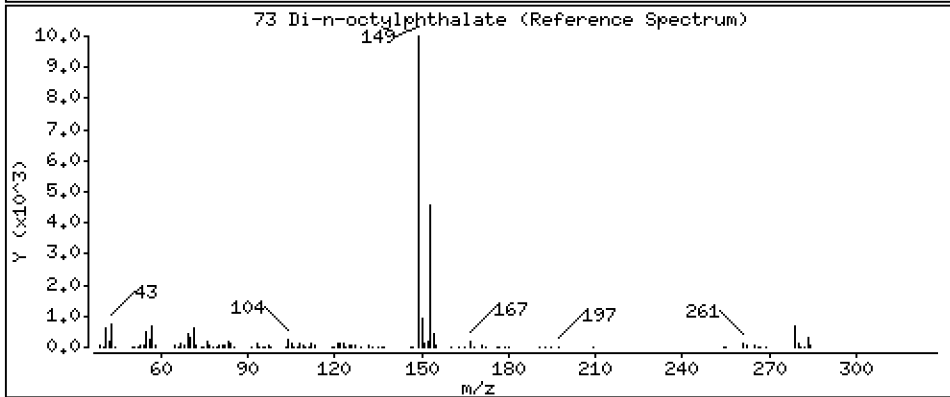
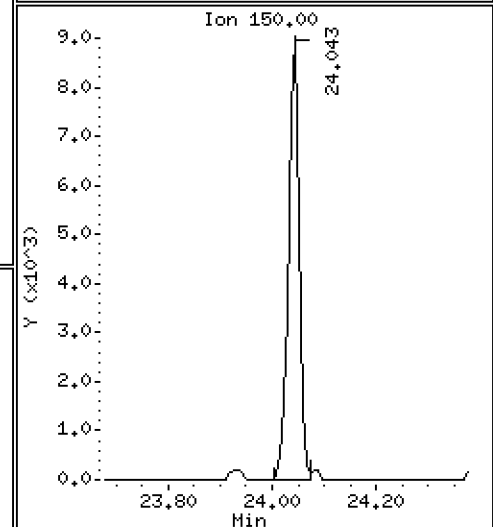
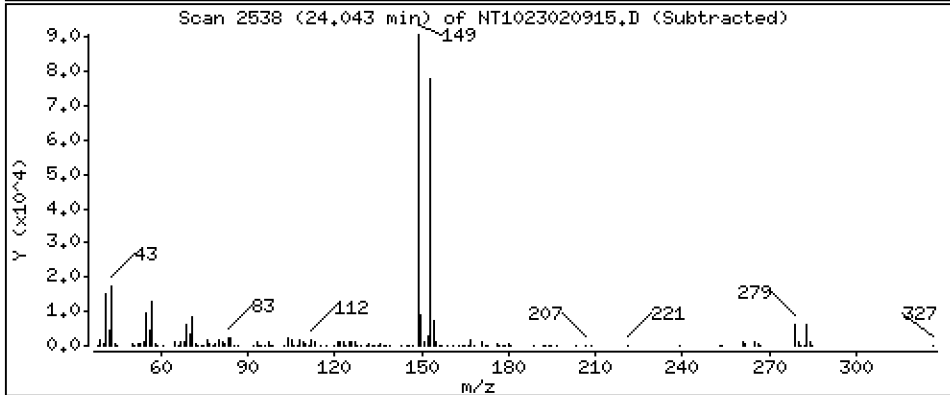
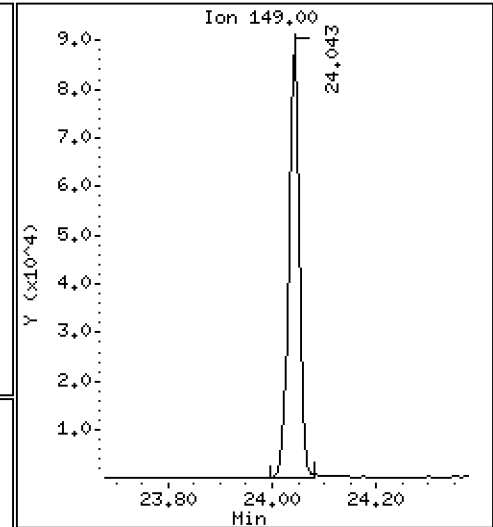
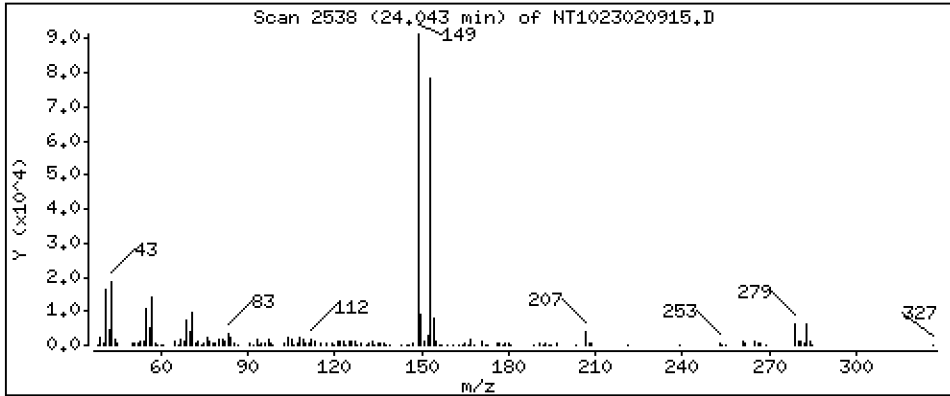
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 2,052 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

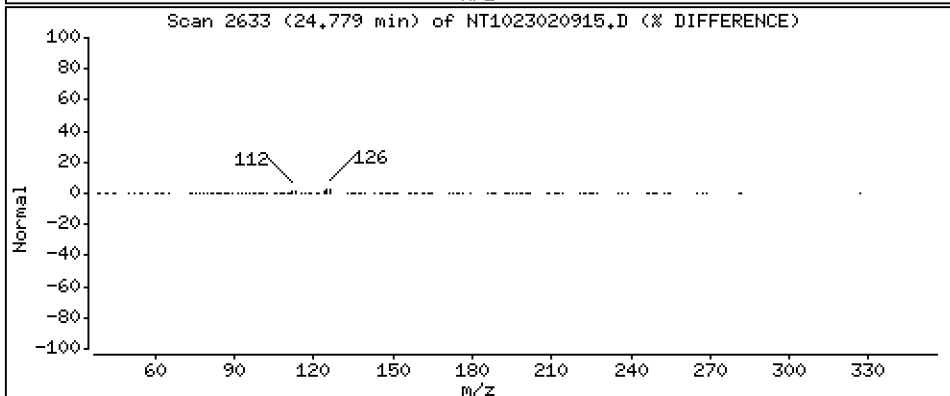
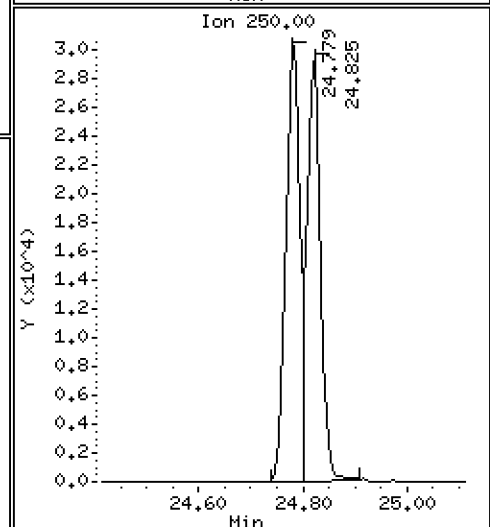
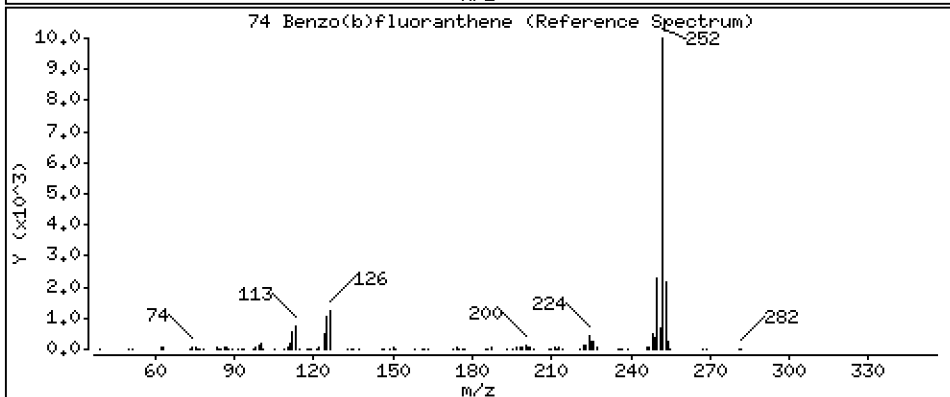
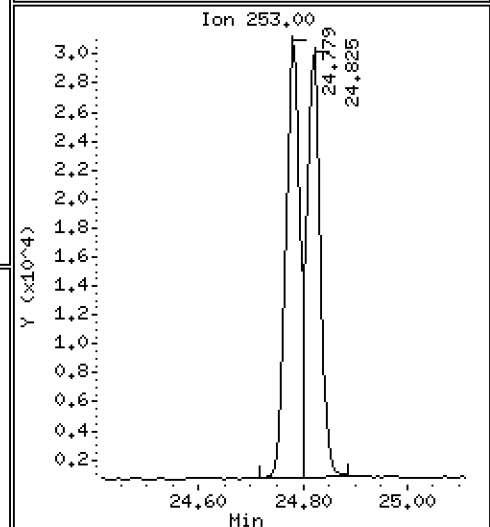
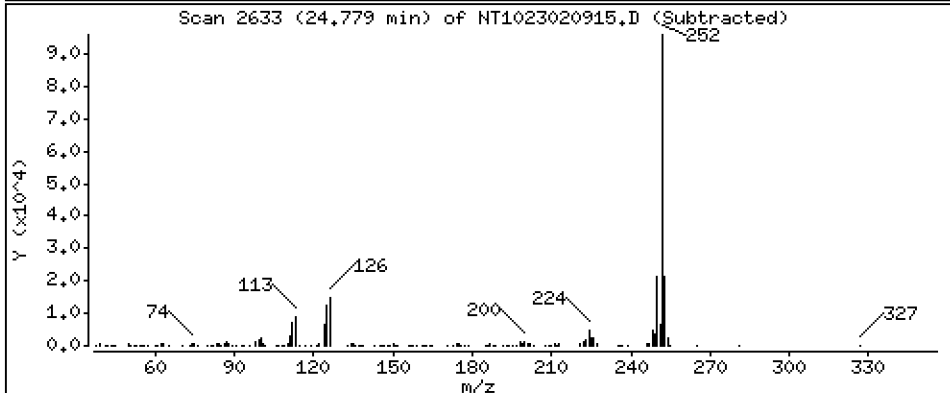
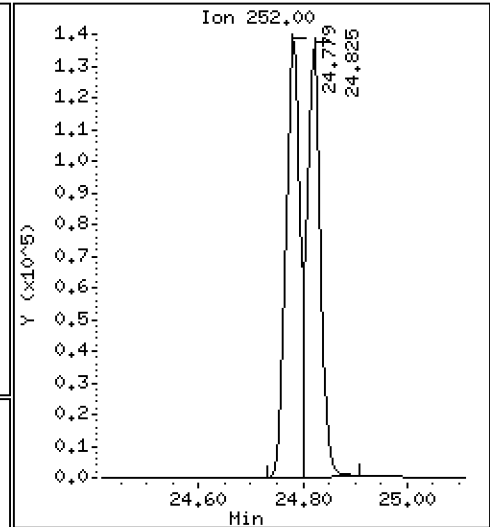
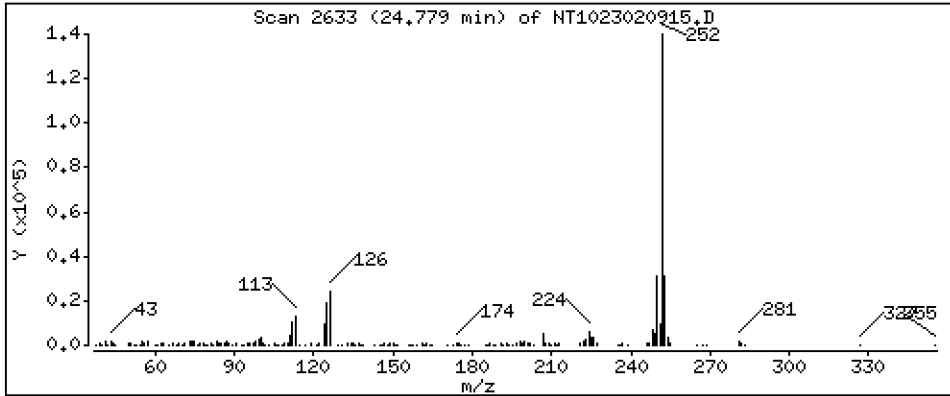
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,663 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

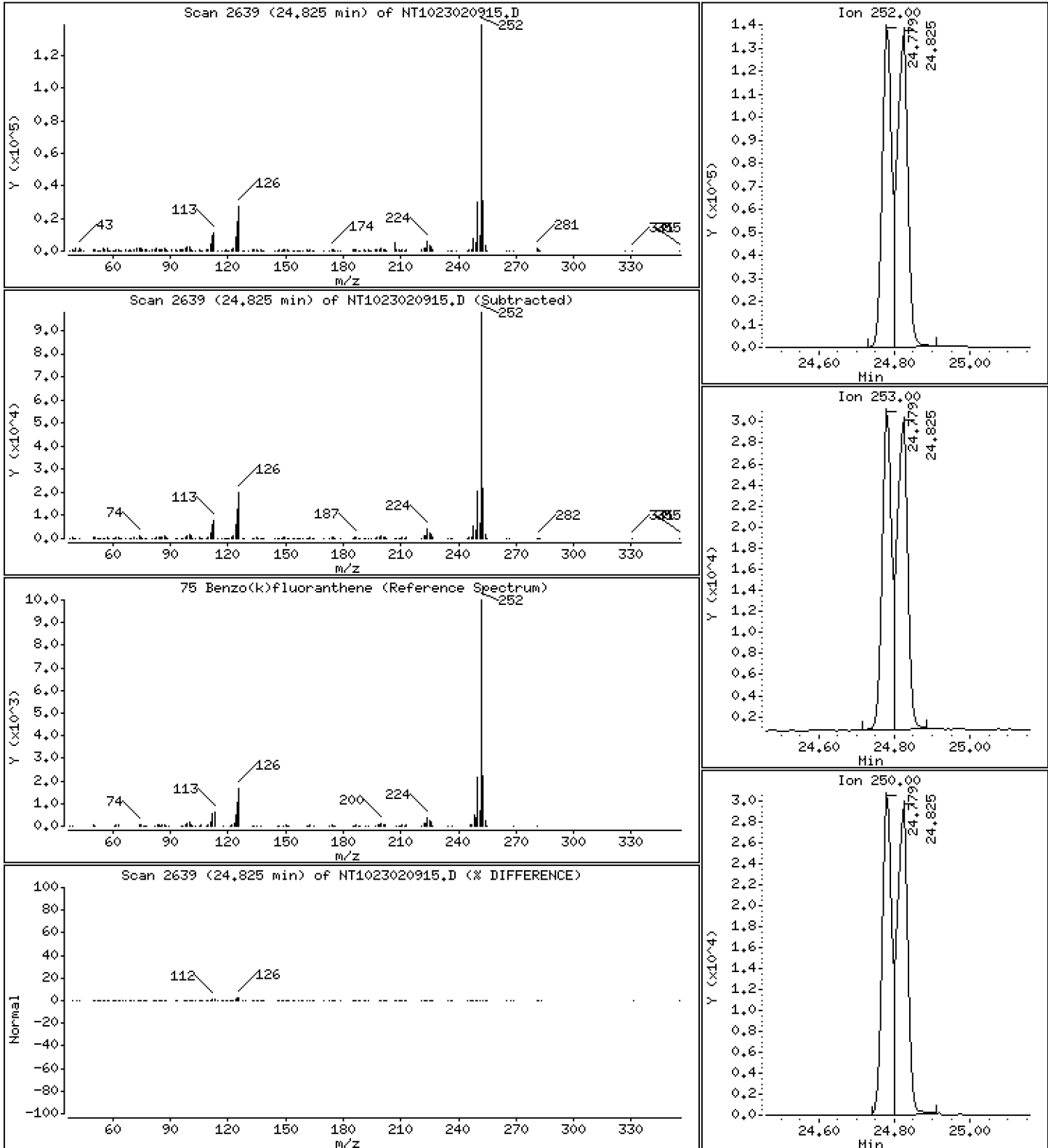
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,344 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

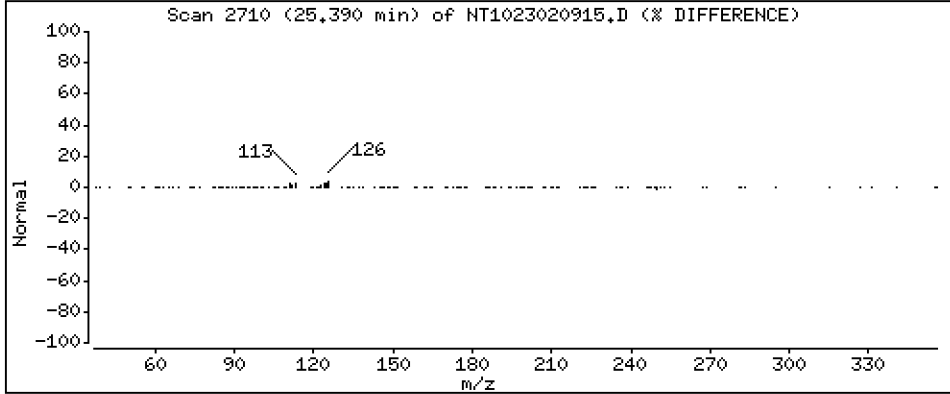
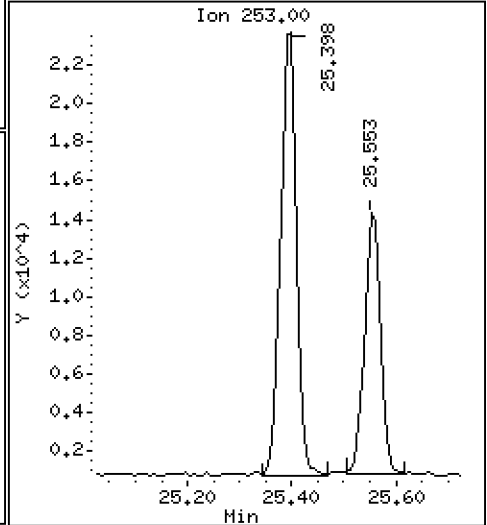
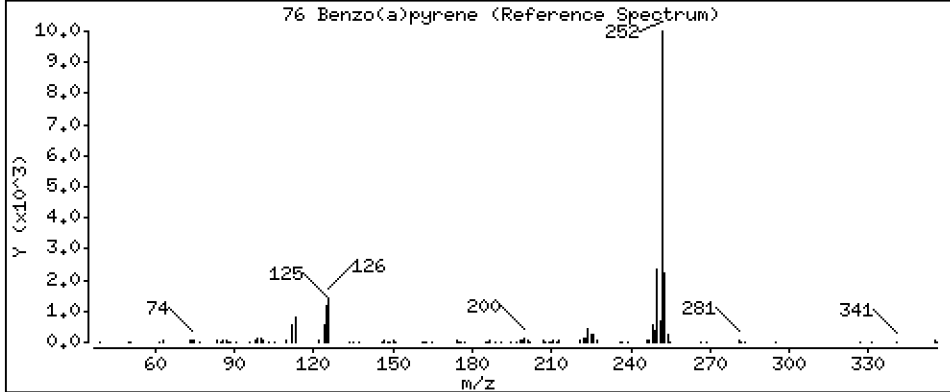
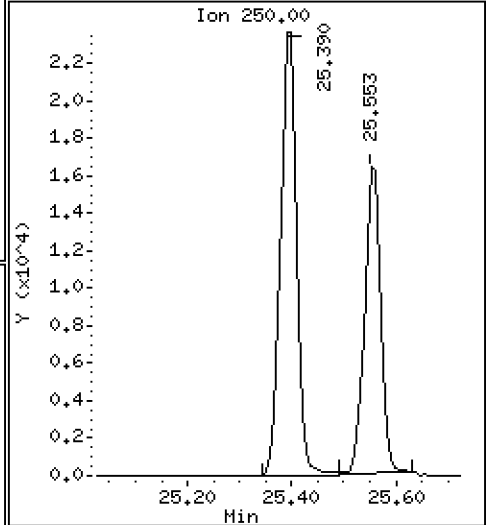
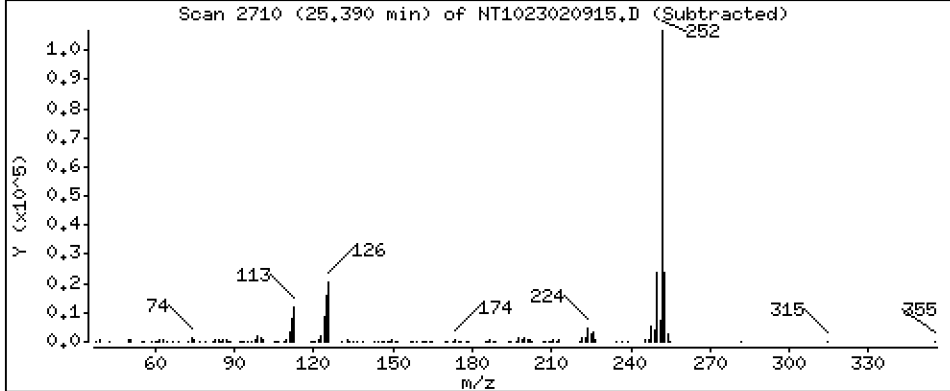
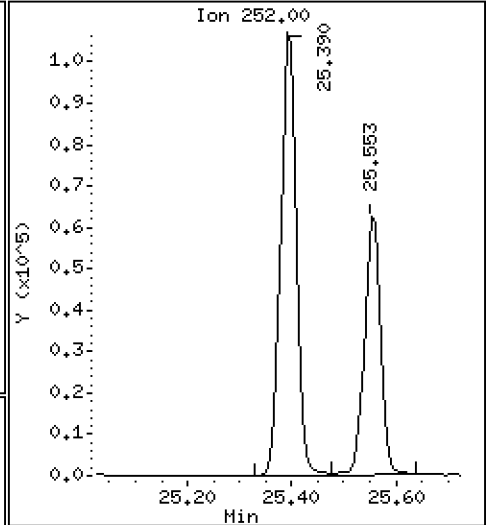
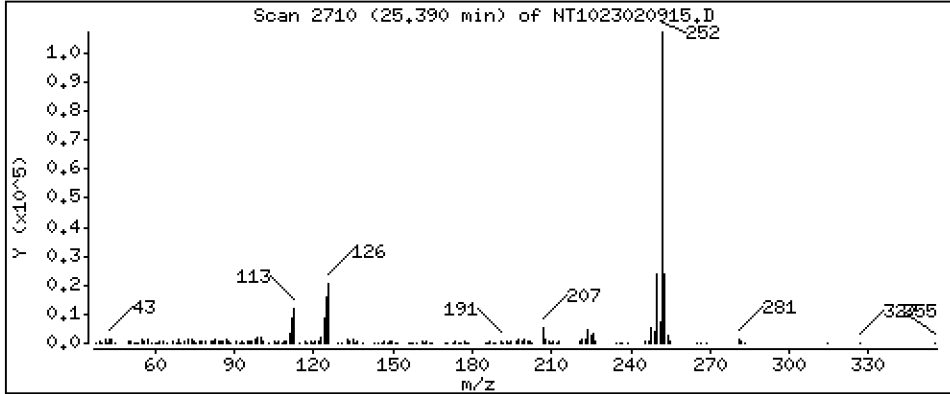
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,334 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

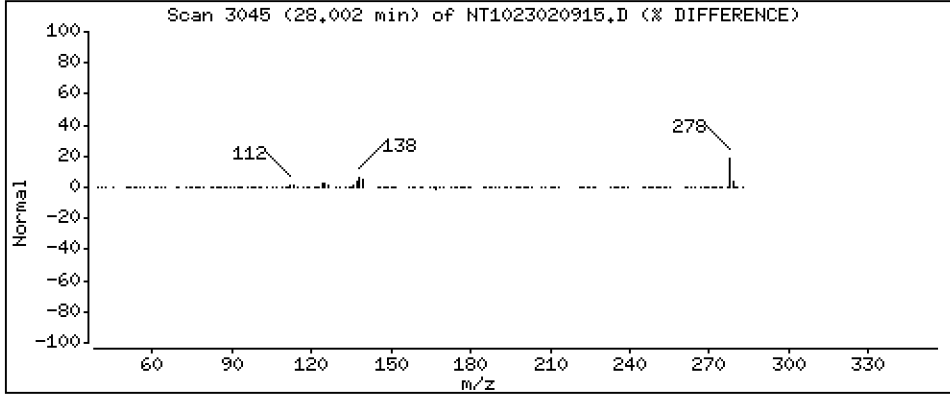
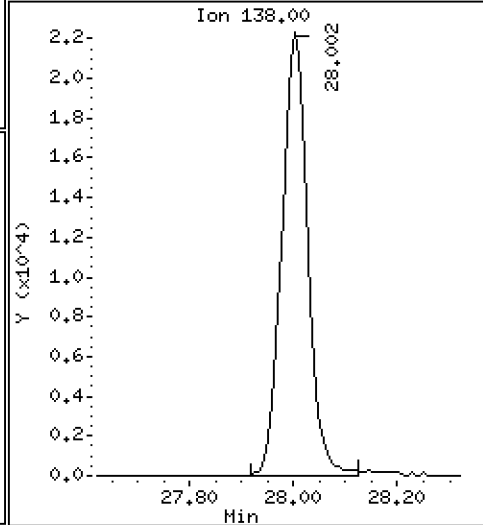
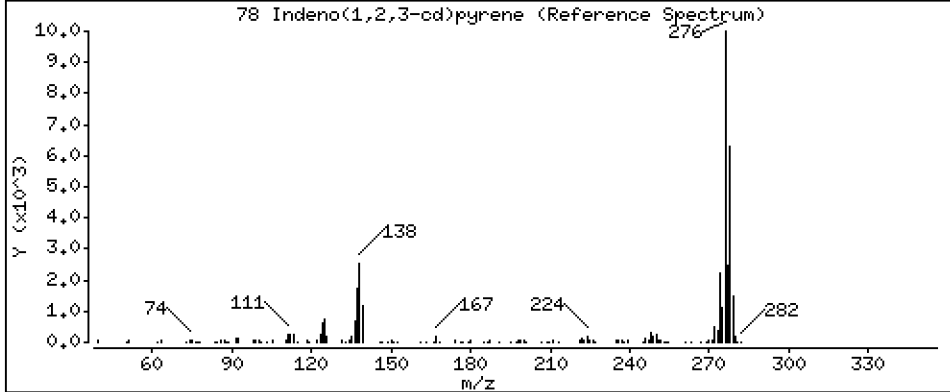
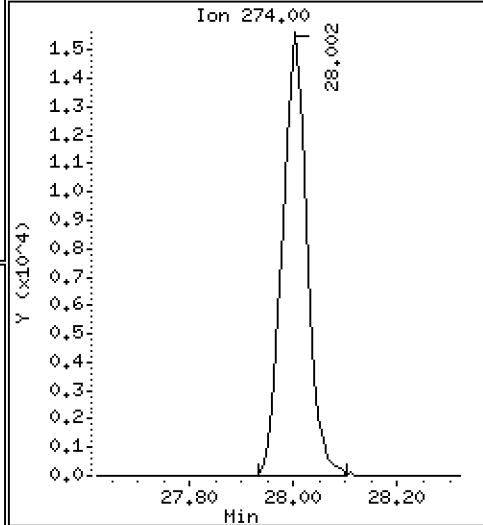
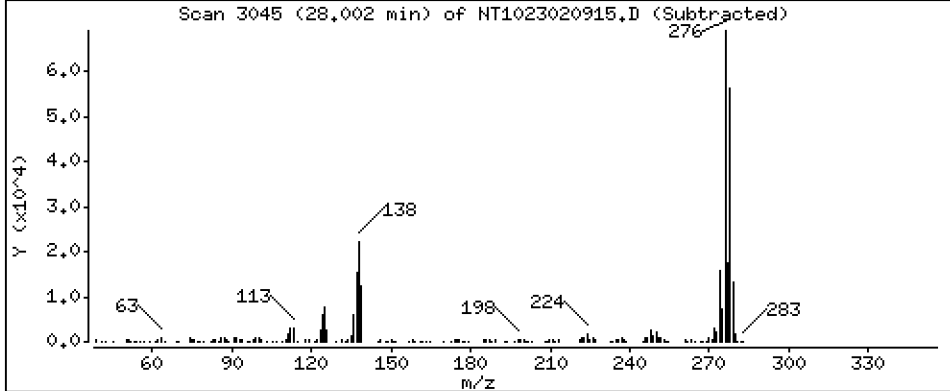
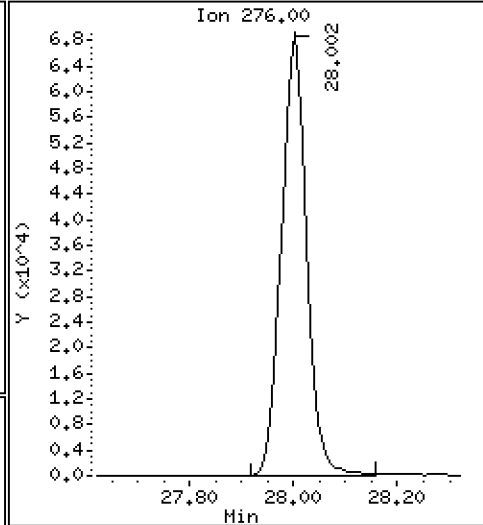
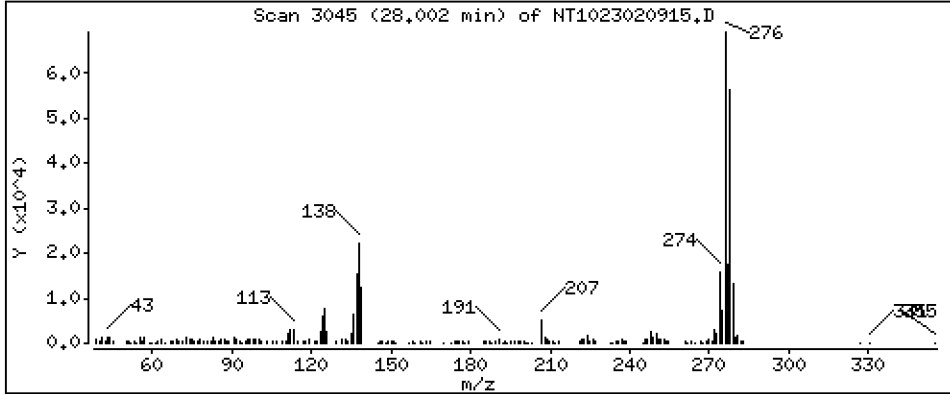
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 3,814 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

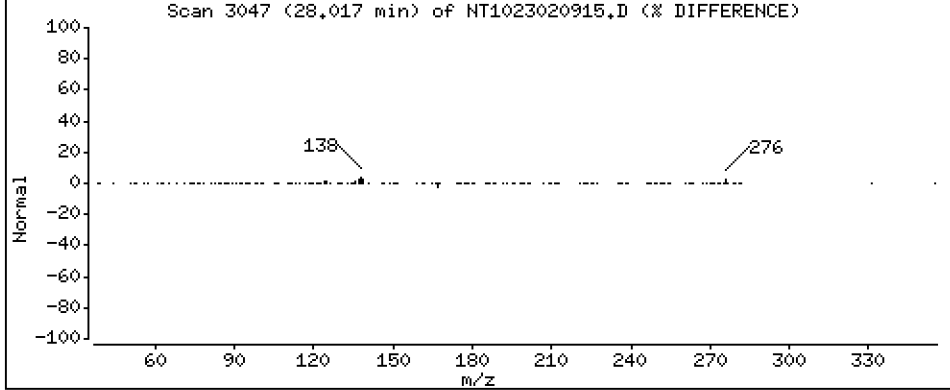
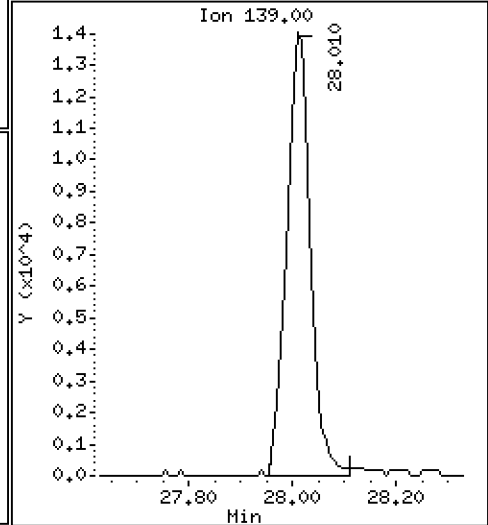
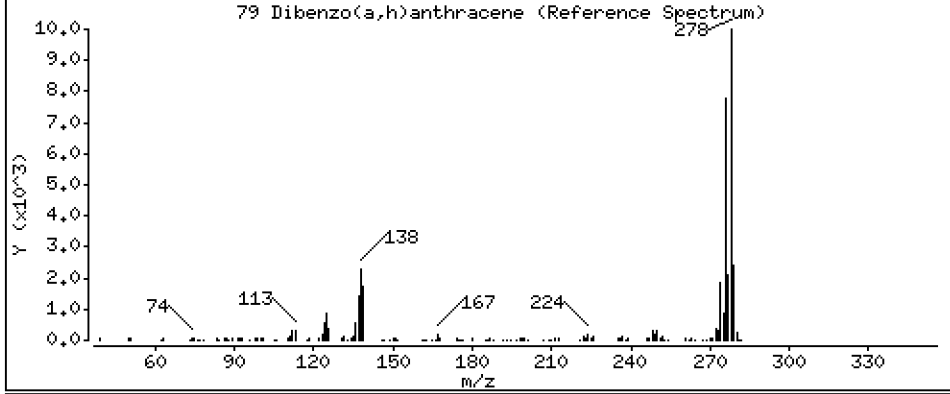
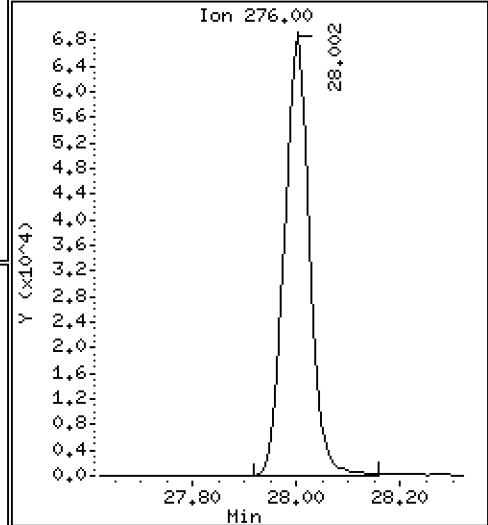
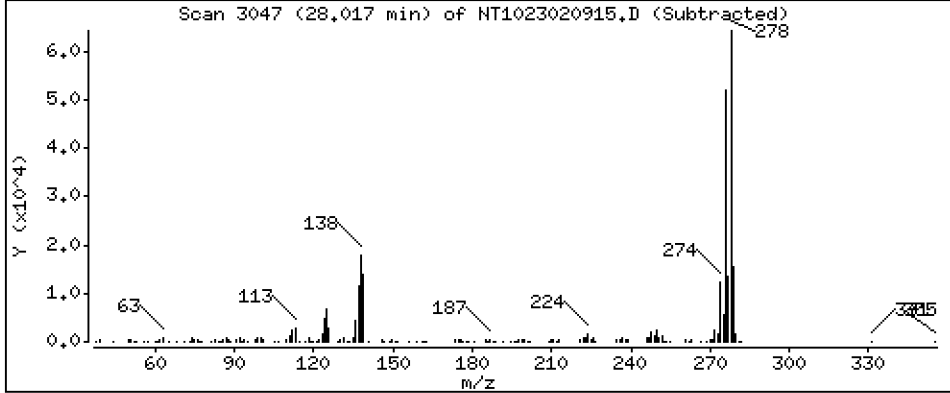
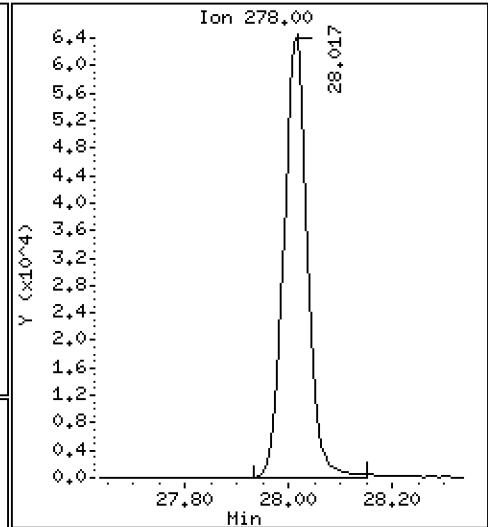
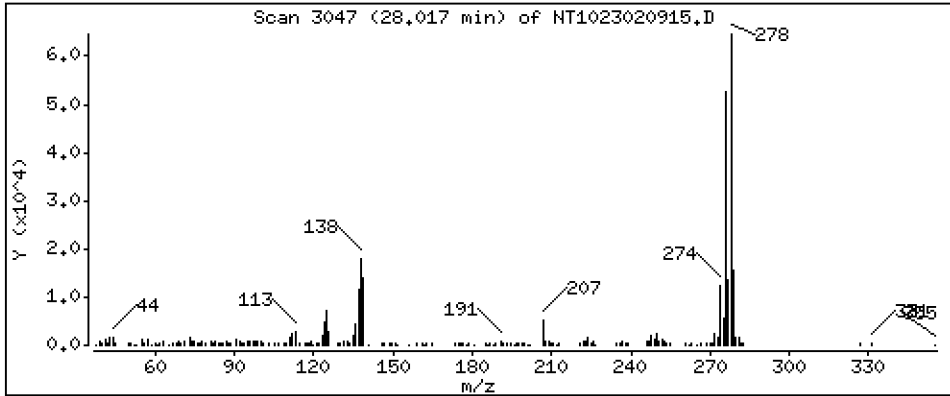
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,018 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

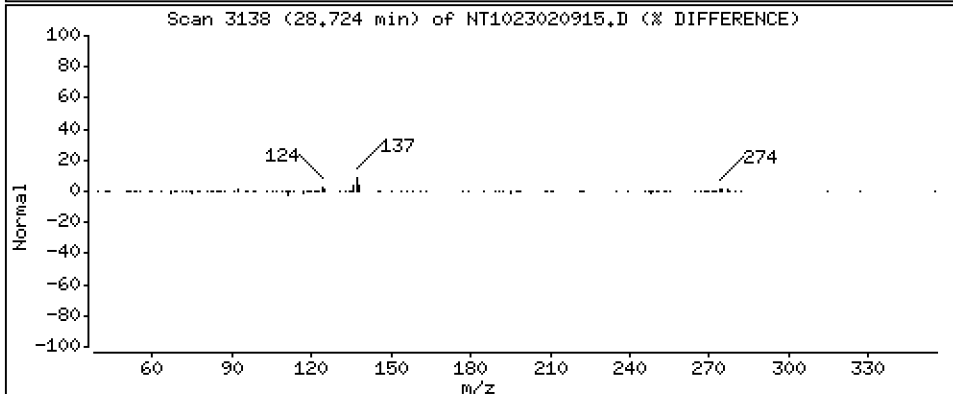
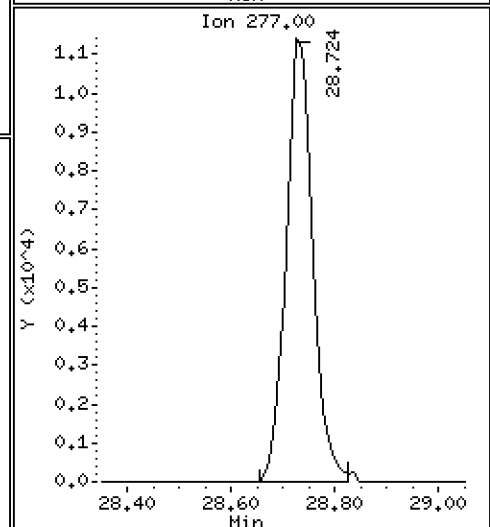
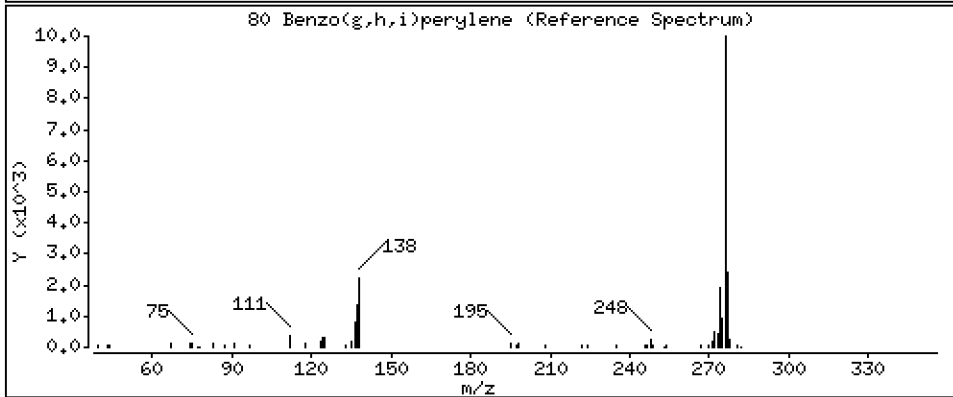
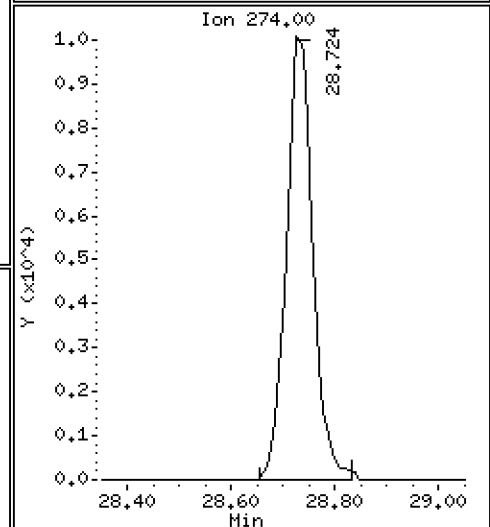
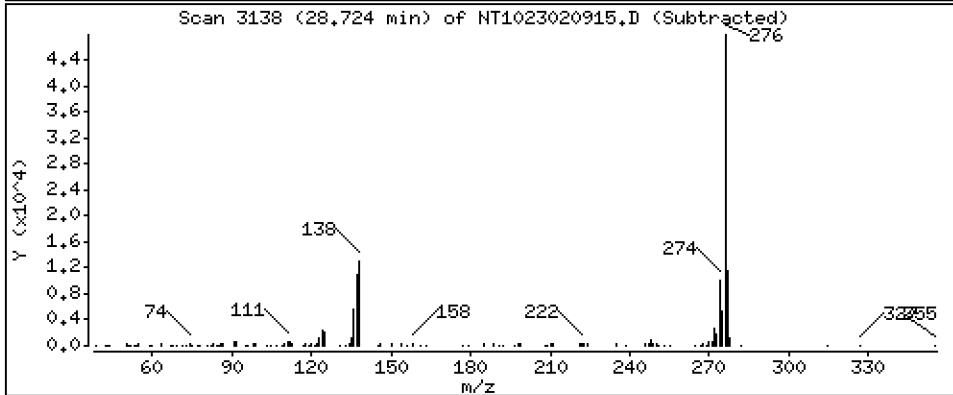
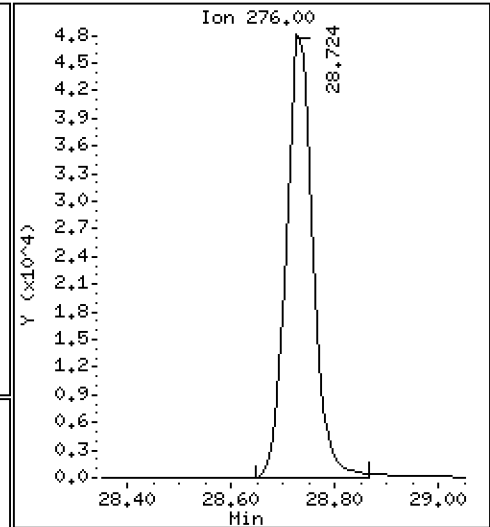
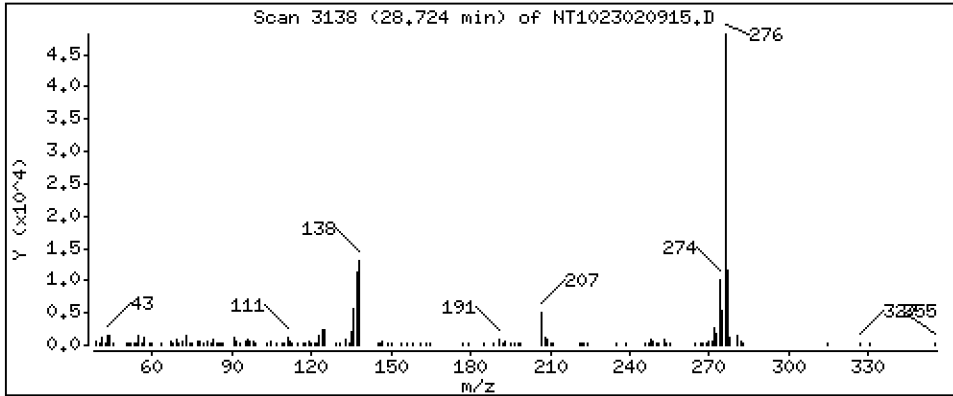
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 3,327 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

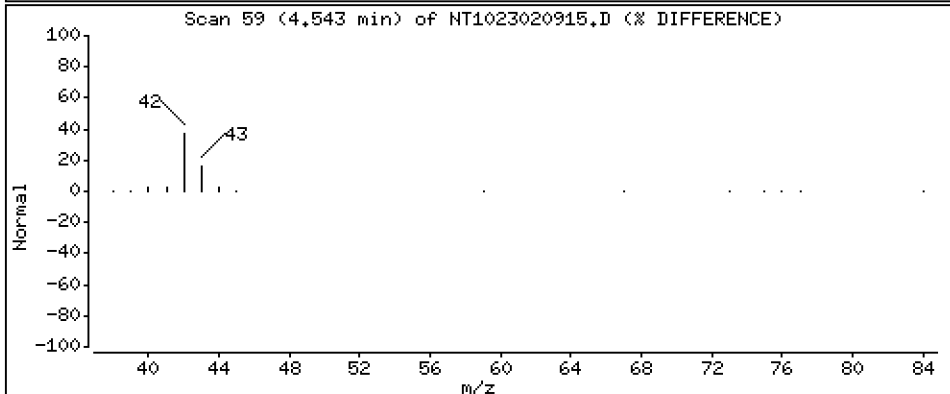
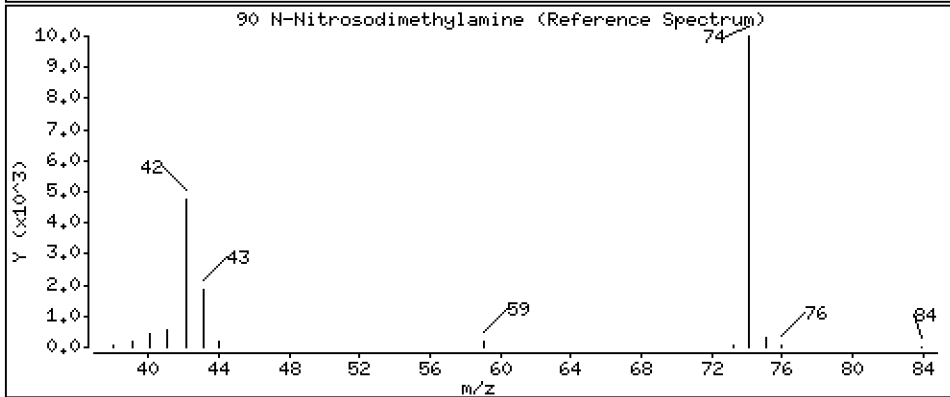
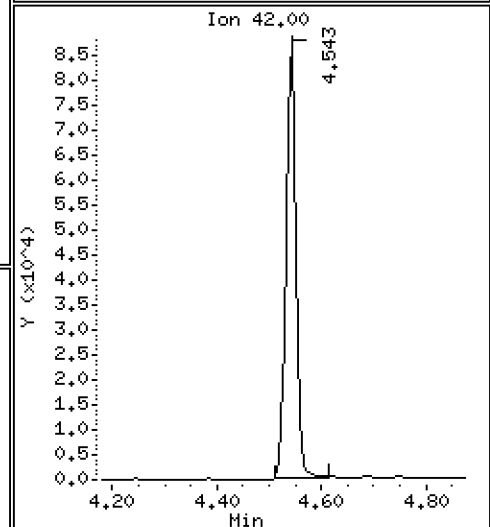
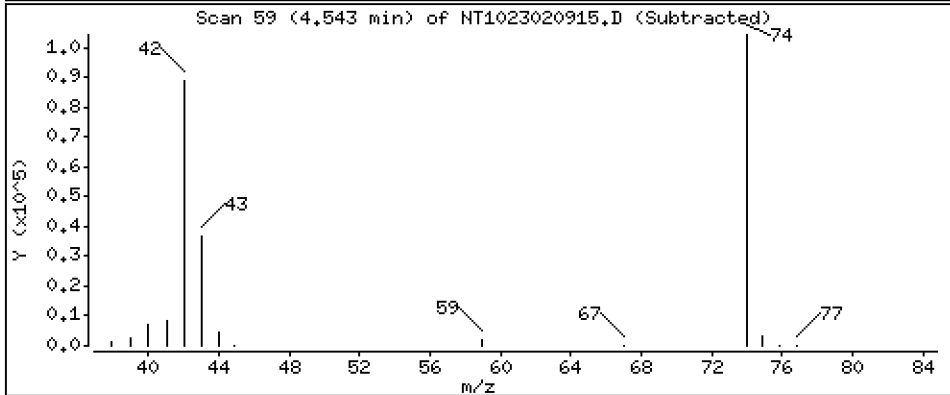
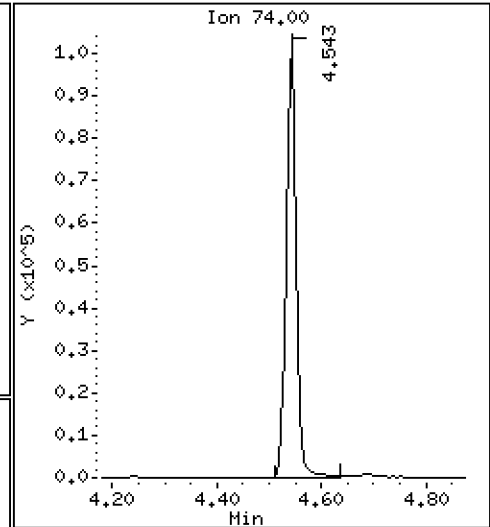
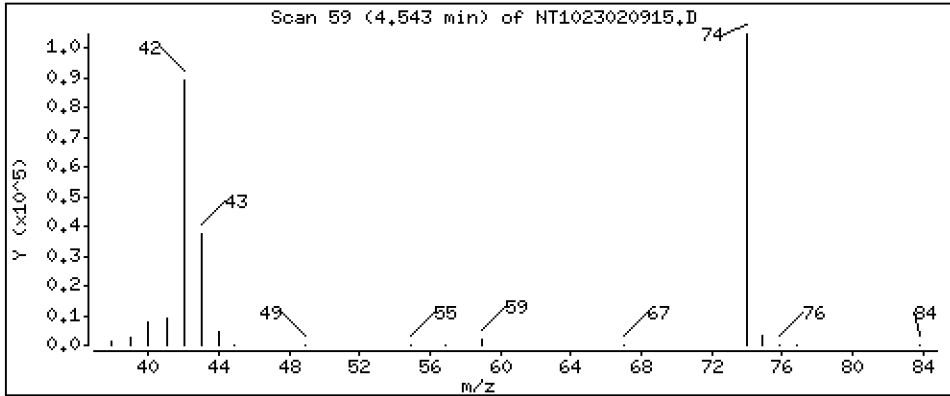
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 10,75 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

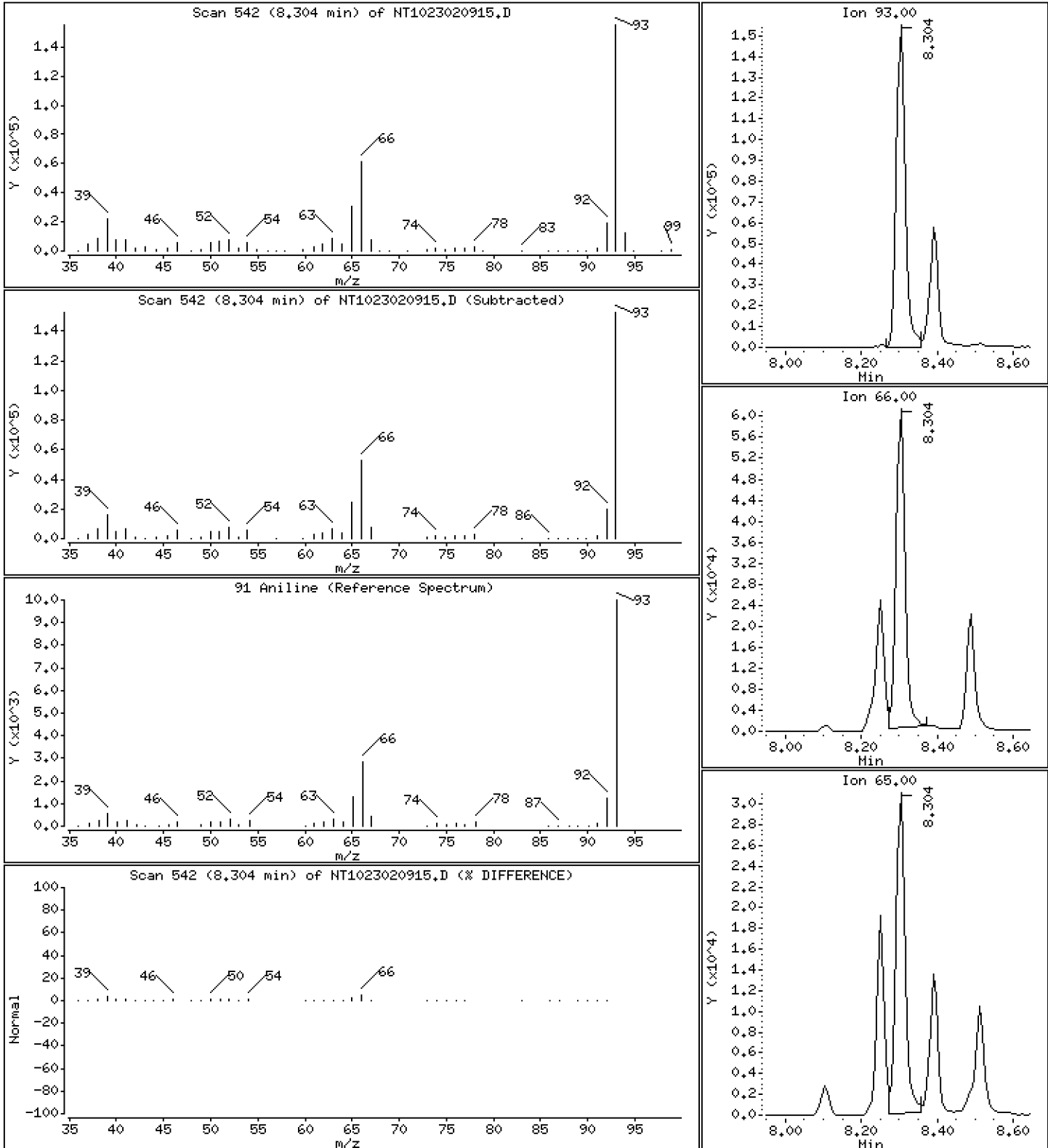
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 9,211 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

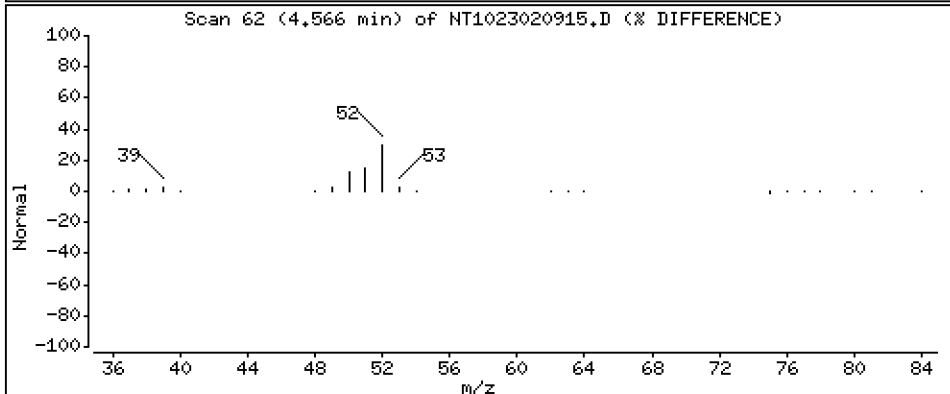
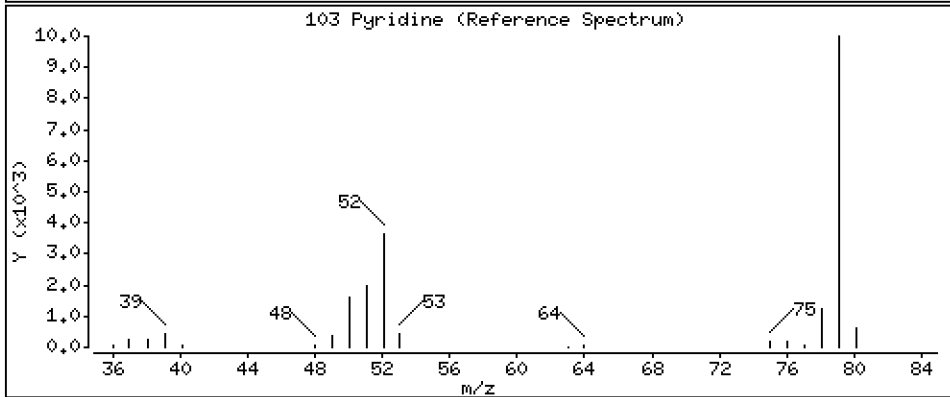
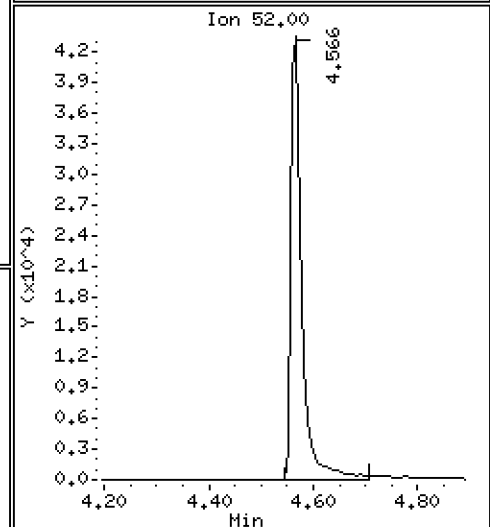
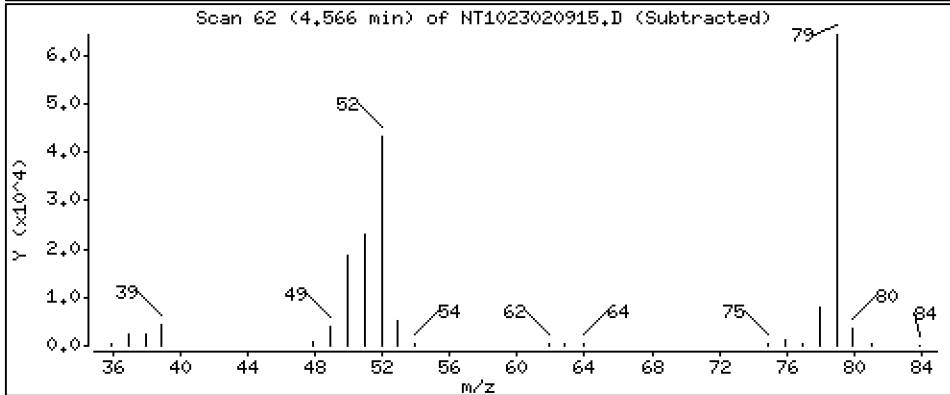
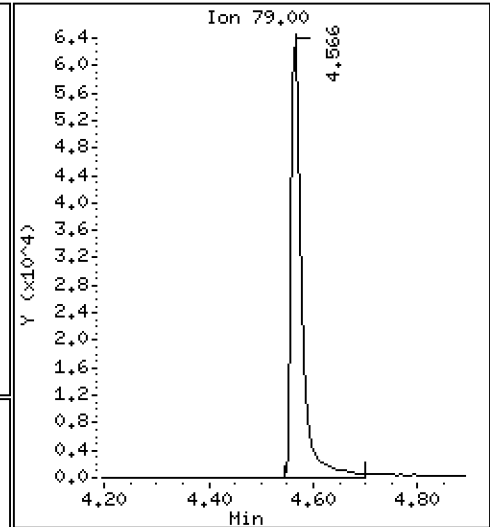
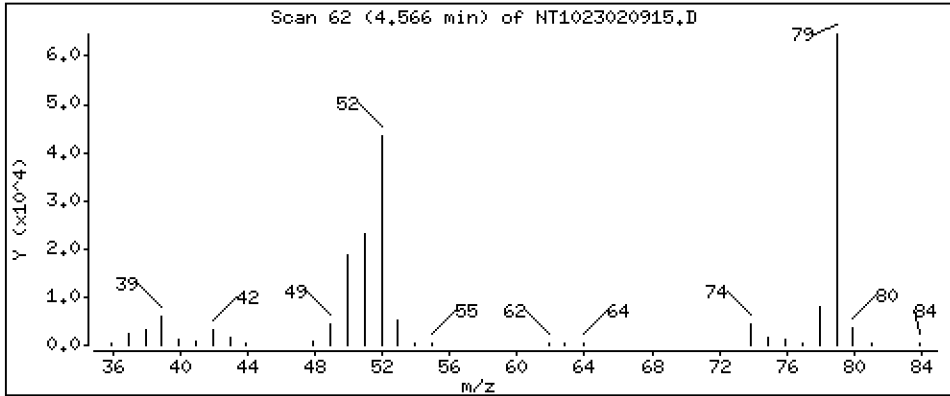
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 4,898 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

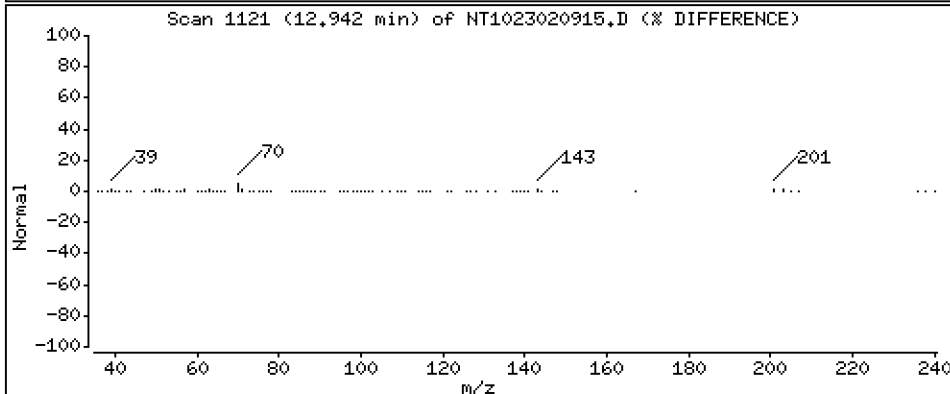
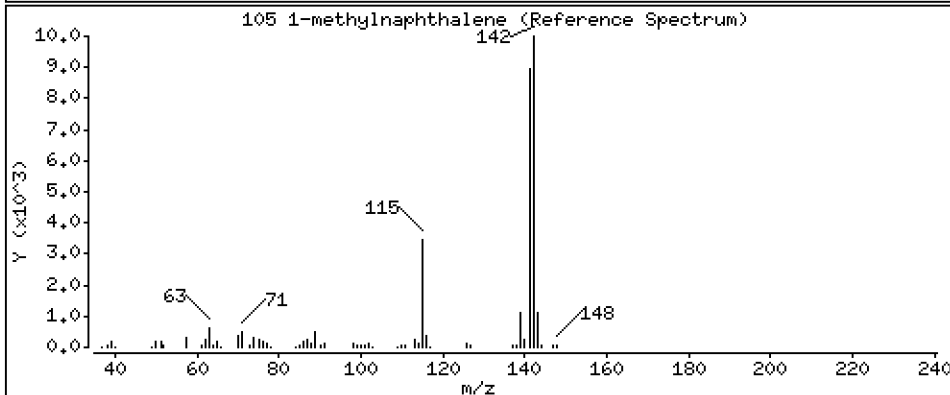
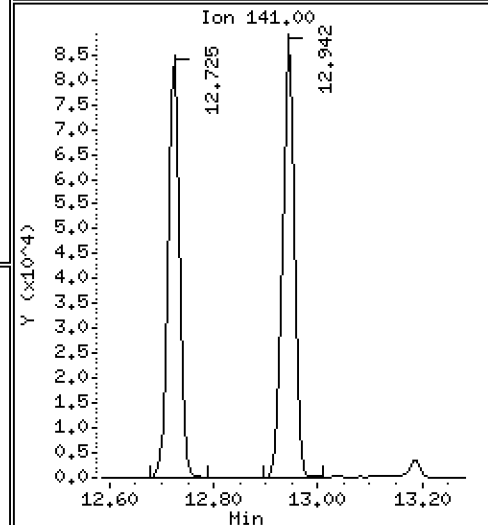
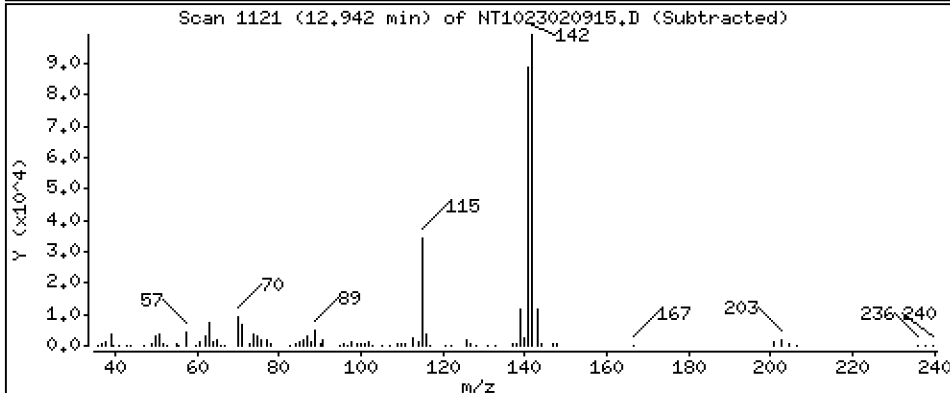
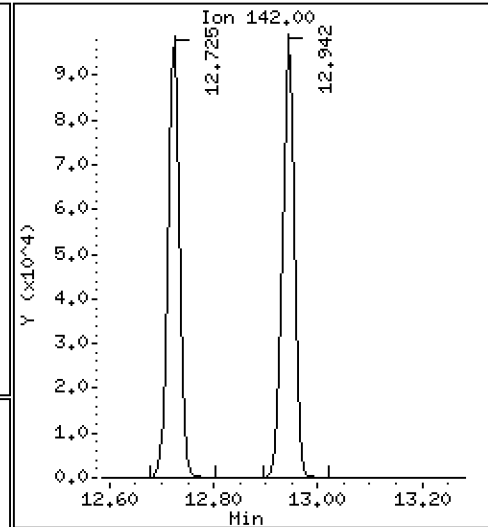
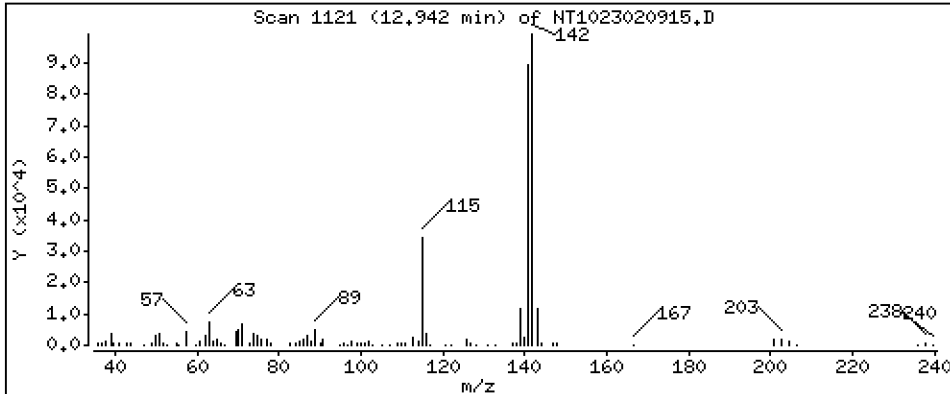
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 3,974 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

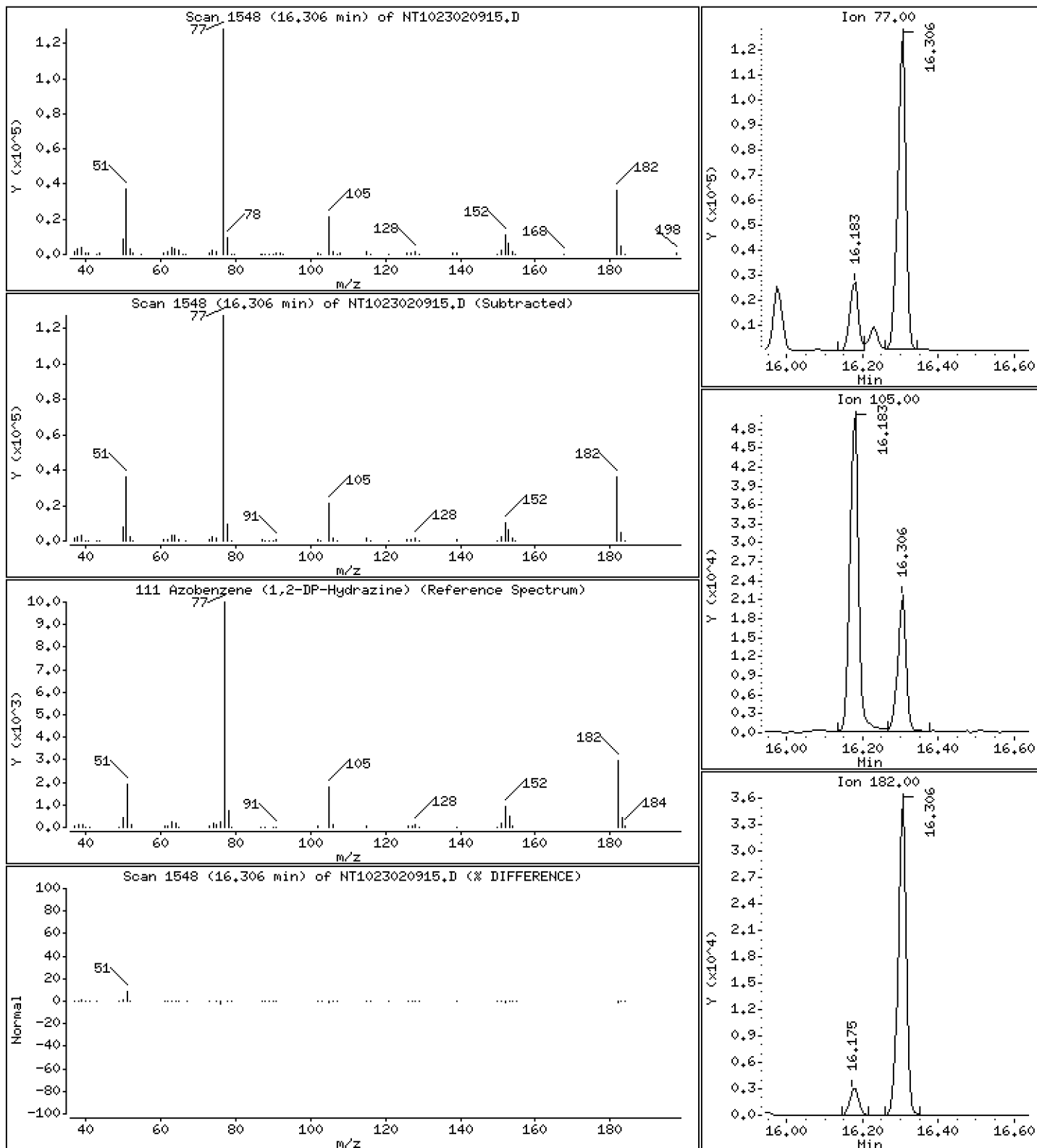
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 4,068 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

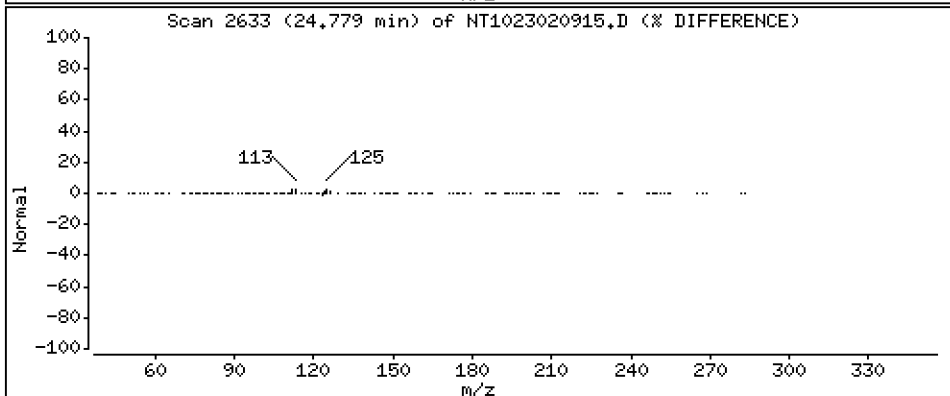
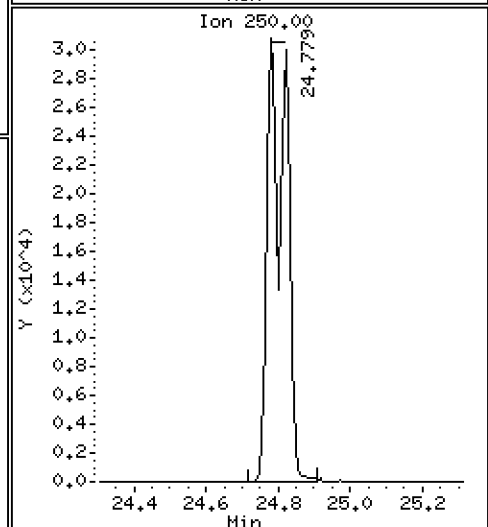
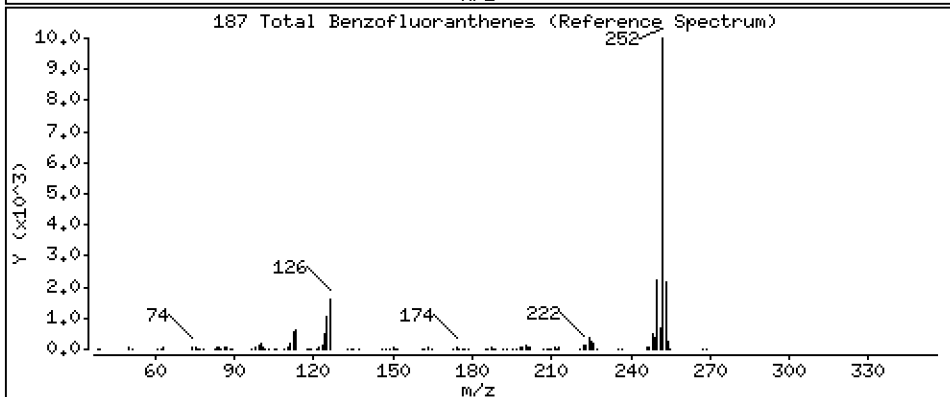
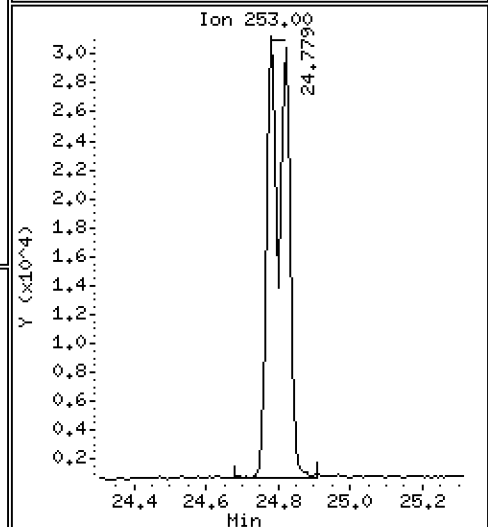
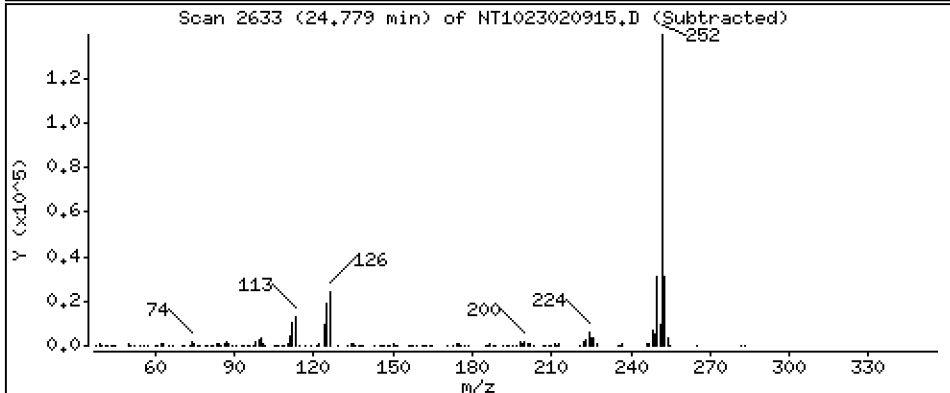
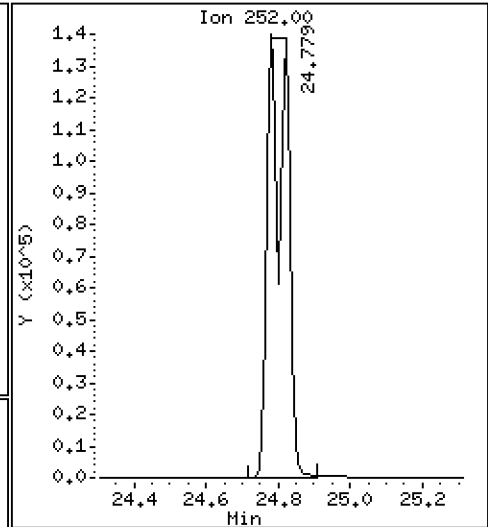
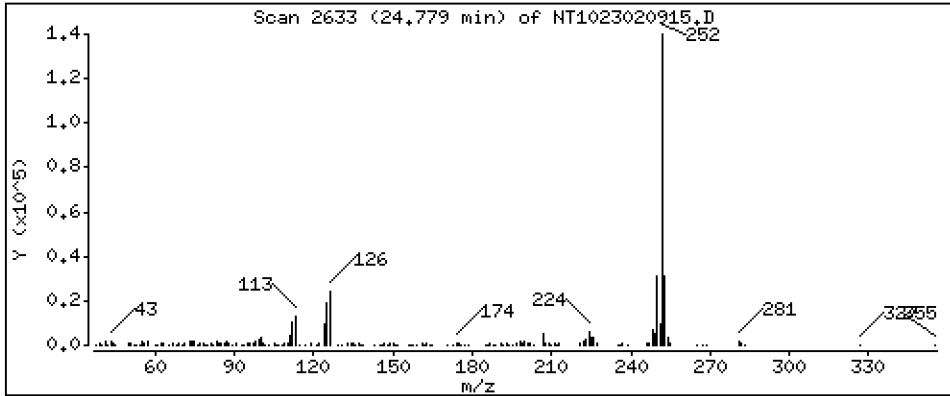
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 8,967 ug/mL



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

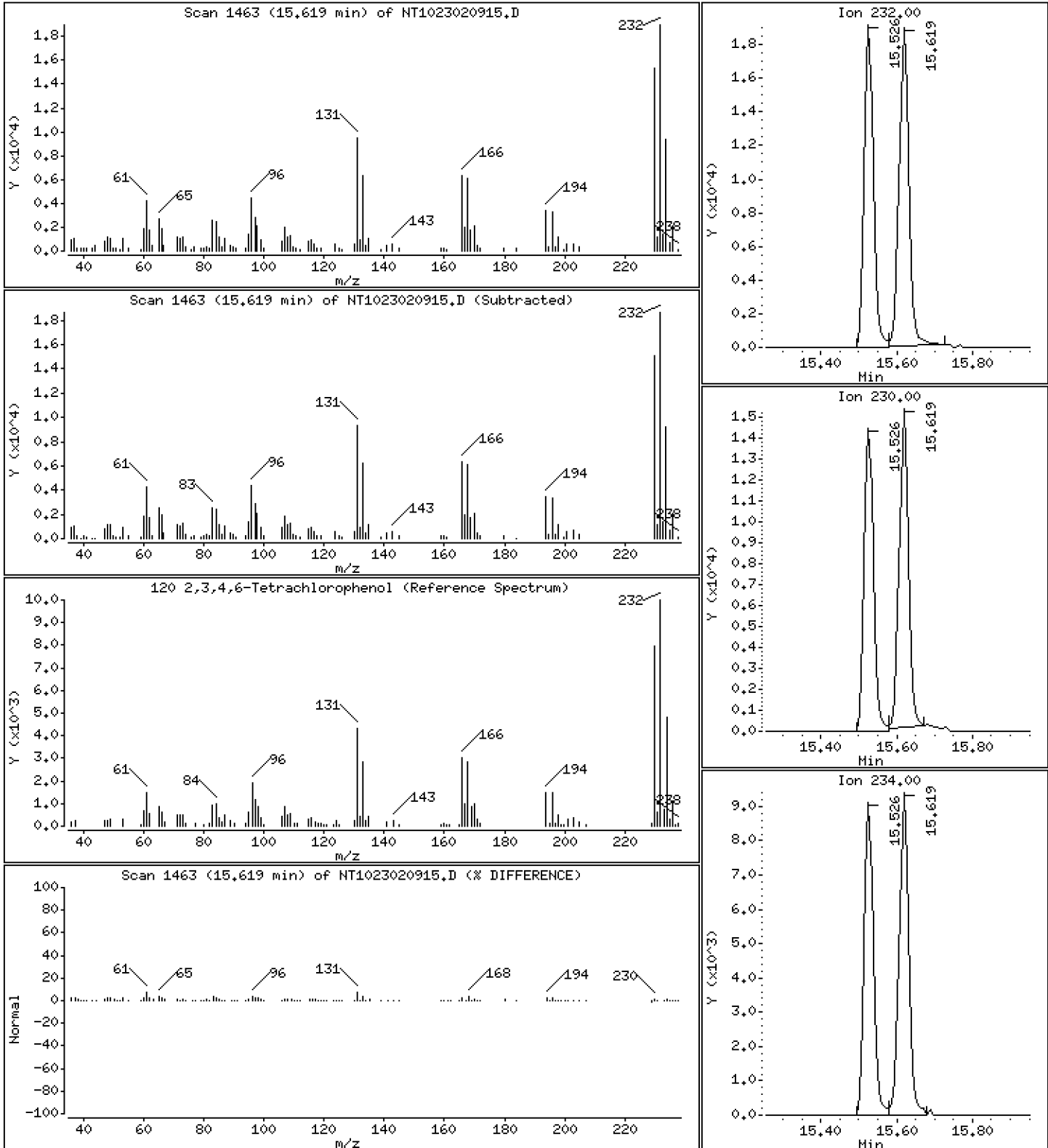
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,659 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230209.b\NT1023020915.D
 Lab Smp Id: BLA0163-BSD1
 Inj Date : 09-FEB-2023 21:56
 Operator : VTS
 Smp Info : BLA0163-BSD1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230209.b\ABN.m
 Meth Date : 09-Feb-2023 14:46 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 15
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN	FINAL
								(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112			6.666	6.651	(0.754)	110654	5.98202	5.982
\$ 2 Phenol-d5	99			8.227	8.219	(0.931)	150099	6.01504	6.015
3 Phenol	94			8.250	8.242	(0.933)	96224	3.56472	3.565
\$ 5 2-Chlorophenol-d4	132			8.489	8.482	(0.961)	122350	6.04127	6.041
4 Bis(2-Chloroethyl)ether	93			8.389	8.389	(0.949)	88045	4.48530	4.485
6 2-Chlorophenol	128			8.512	8.505	(0.963)	91448	4.14557	4.146
7 1,3-Dichlorobenzene	146			8.776	8.768	(0.993)	87180	3.76495	3.765
* 8 1,4-Dichlorobenzene-d4	152			8.838	8.838	(1.000)	58184	4.00000	
9 1,4-Dichlorobenzene	146			8.869	8.861	(1.004)	86122	3.77610	3.776
\$ 10 1,2-Dichlorobenzene-d4	152			9.195	9.187	(1.040)	53354	3.84871	3.849
12 1,2-Dichlorobenzene	146			9.218	9.211	(1.043)	83423	3.79406	3.794
11 Benzyl alcohol	108			9.109	9.102	(1.031)	47972	4.01211	4.012
14 2,2'-oxybis(1-Chloropropane)	121			9.404	9.397	(1.064)	27319	4.32425	4.324
13 2-Methylphenol	108			9.342	9.335	(1.057)	64650	3.22944	3.229
17 Hexachloroethane	117			9.800	9.800	(1.109)	32260	3.68961	3.690
16 N-Nitroso-di-n-propylamine	70			9.660	9.653	(1.093)	59869	3.97695	3.977
15 4-Methylphenol	108			9.622	9.606	(1.089)	71837	3.38782	3.388
\$ 18 Nitrobenzene-d5	82			9.917	9.909	(0.878)	90800	4.24868	4.249
19 Nitrobenzene	77			9.955	9.948	(0.882)	90115	4.22850	4.229
20 Isophorone	82			10.398	10.390	(0.921)	179722	6.05602	6.056
21 2-Nitrophenol	139			10.574	10.574	(0.936)	44405	4.04527	4.045
22 2,4-Dimethylphenol	107			10.642	10.633	(0.942)	69626	3.54829	3.548
23 Bis(2-Chloroethoxy)methane	93			10.828	10.820	(0.959)	93686	4.86171	4.862
24 Benzoic acid	105			10.888	10.888	(0.964)	267389	22.9080	22.91
25 2,4-Dichlorophenol	162			11.040	11.024	(0.978)	230884	14.4829	14.48
26 1,2,4-Trichlorobenzene	180			11.216	11.209	(0.993)	67568	3.89011	3.890
* 27 Naphthalene-d8	136			11.294	11.286	(1.000)	216318	4.00000	
28 Naphthalene	128			11.340	11.333	(1.004)	236391	4.08942	4.089
29 4-Chloroaniline	127			11.471	11.464	(1.016)	202365	8.16657	8.167
30 Hexachlorobutadiene	225			11.695	11.688	(1.036)	38298	4.22796	4.228
31 4-Chloro-3-methylphenol	107			12.438	12.423	(1.101)	256806	14.7357	14.74
32 2-Methylnaphthalene	142			12.725	12.710	(1.127)	157224	3.91181	3.912
33 Hexachlorocyclopentadiene	237			13.189	13.174	(0.886)	37886	5.60326	5.603
34 2,4,6-Trichlorophenol	196			13.344	13.336	(0.897)	153737	15.7648	15.76

Compounds	QUANT SIG							CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)		
35 2,4,5-Trichlorophenol	196	13.429	13.414	(0.902)	165867	15.7768	15.78		
\$ 36 2-Fluorobiphenyl	172	13.499	13.491	(0.907)	168599	4.33091	4.331		
37 2-Chloronaphthalene	162	13.708	13.700	(0.921)	139554	4.12408	4.124		
38 2-Nitroaniline	65	13.971	13.956	(0.939)	190968	17.9228	17.92		
39 Dimethylphthalate	163	14.397	14.389	(0.967)	158376	4.37466	4.375		
40 Acenaphthylene	152	14.575	14.559	(0.979)	218391	4.05173	4.052		
41 2,6-Dinitrotoluene	165	14.536	14.521	(0.977)	131047	15.2832	15.28		
* 42 Acenaphthene-d10	164	14.884	14.869	(1.000)	108027	4.00000			
43 3-Nitroaniline	138	14.822	14.807	(0.996)	118585	11.9945	11.99		
44 Acenaphthene	153	14.946	14.939	(1.004)	140834	4.26353	4.264		
45 2,4-Dinitrophenol	184	15.031	15.016	(1.010)	114903	24.4611	24.46		
46 Dibenzofuran	168	15.278	15.263	(1.026)	192302	4.04692	4.047		
47 4-Nitrophenol	109	15.162	15.147	(1.019)	56599	15.3573	15.36		
48 2,4-Dinitrotoluene	165	15.340	15.325	(1.031)	170688	14.4273	14.43		
50 Diethylphthalate	149	15.851	15.843	(1.065)	168180	4.83747	4.837		
49 Fluorene	166	15.982	15.967	(1.074)	189946	3.55622	3.556		
51 4-Chlorophenyl-phenylether	204	15.974	15.967	(1.073)	89440	3.42849	3.428		
52 4-Nitroaniline	138	16.082	16.067	(1.080)	126474	11.1943	11.19		
53 4,6-Dinitro-2-methylphenol	198	16.182	16.167	(0.904)	203109	31.9807	31.98		
54 N-Nitrosodiphenylamine	169	16.229	16.213	(0.906)	115769	3.85147	3.851		
\$ 55 2,4,6-Tribromophenol	330	16.514	16.506	(1.109)	33770	6.24294	6.243		
56 4-Bromophenyl-phenylether	248	16.977	16.961	(0.948)	50462	4.55591	4.556		
57 Hexachlorobenzene	284	17.286	17.278	(0.965)	54160	4.54032	4.540		
58 Pentachlorophenol	266	17.650	17.635	(0.986)	74362	15.6320	15.63		
* 59 Phenanthrene-d10	188	17.905	17.890	(1.000)	175838	4.00000			
60 Phenanthrene	178	17.951	17.936	(1.003)	203042	4.29053	4.291		
61 Anthracene	178	18.044	18.029	(1.008)	172623	3.68381	3.684		
62 Carbazole	167	18.377	18.362	(1.026)	173928	3.84827	3.848		
63 Di-n-butylphthalate	149	19.197	19.182	(1.072)	256786	4.76451	4.765		
64 Fluoranthene	202	20.350	20.335	(0.886)	227275	4.05725	4.057		
65 Pyrene	202	20.775	20.760	(0.904)	227050	3.92605	3.926		
\$ 66 Terphenyl-d14	244	21.070	21.054	(0.917)	175549	4.02568	4.026		
67 Butylbenzylphthalate	149	22.006	21.991	(0.958)	108238	4.33101	4.331		
68 Benzo(a)anthracene	228	22.943	22.936	(0.999)	220532	4.33103	4.331		
* 69 Chrysene-d12	240	22.974	22.959	(1.000)	152764	4.00000			
70 3,3'-Dichlorobenzidine	252	22.905	22.897	(0.997)	162614	9.43862	9.439		
71 Chrysene	228	23.021	23.006	(1.002)	210963	4.32005	4.320		
72 bis(2-Ethylhexyl)phthalate	149	23.044	23.037	(0.959)	91653	2.76413	2.764		
* 134 Di-n-octylphthalate-d4	153	24.035	24.020	(1.000)	243767	4.00000			
73 Di-n-octylphthalate	149	24.043	24.027	(1.000)	126393	2.05177	2.052		
74 Benzo(b)fluoranthene	252	24.778	24.763	(0.971)	266420	4.66266	4.663		
75 Benzo(k)fluoranthene	252	24.824	24.809	(0.973)	261307	4.34375	4.344		
76 Benzo(a)pyrene	252	25.390	25.375	(0.995)	223892	4.33352	4.334		
* 77 Perylene-d12	264	25.506	25.483	(1.000)	180505	4.00000			
78 Indeno(1,2,3-cd)pyrene	276	28.001	27.971	(1.098)	234525	3.81367	3.814		
79 Dibenzo(a,h)anthracene	278	28.017	27.986	(1.098)	204704	4.01837	4.018		
80 Benzo(g,h,i)perylene	276	28.724	28.701	(1.126)	175583	3.32686	3.327		
90 N-Nitrosodimethylamine	74	4.542	4.527	(0.514)	138402	10.7544	10.75		
91 Aniline	93	8.304	8.297	(0.940)	240650	9.21116	9.211		
93 Benzidine	184	Compound Not Detected.							
103 Pyridine	79	4.565	4.543	(0.517)	97571	4.89835	4.898		
105 1-methylnaphthalene	142	12.941	12.934	(1.146)	153793	3.97445	3.974		
111 Azobenzene (1,2-DP-Hydrazine)	77	16.306	16.291	(1.096)	188426	4.06765	4.068		
187 Total Benzofluoranthenes	252	24.778	24.809	(0.971)	502315	8.96716	8.967		

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====	=====	=====	=====	=====	=====	=====	=====	
120 2,3,4,6-Tetrachlorophenol	232		15.618	15.603	(1.049)	37012	3.65931	3.659	

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 09-FEB-2023
 Lab File ID: NT1023020915.D Calibration Time: 13:31
 Lab Smp Id: BLA0163-BSD1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230209.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	89503	44752	179006	58184	-34.99
27 Naphthalene-d8	348104	174052	696208	216318	-37.86
42 Acenaphthene-d10	183525	91763	367050	108027	-41.14
59 Phenanthrene-d10	295489	147745	590978	175838	-40.49
69 Chrysene-d12	239590	119795	479180	152764	-36.24
134 Di-n-octylphthala	404293	202147	808586	243767	-39.71
77 Perylene-d12	274336	137168	548672	180505	-34.20

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	-0.00
27 Naphthalene-d8	11.29	10.79	11.79	11.29	0.07
42 Acenaphthene-d10	14.87	14.37	15.37	14.88	0.10
59 Phenanthrene-d10	17.89	17.39	18.39	17.91	0.08
69 Chrysene-d12	22.96	22.46	23.46	22.97	0.07
134 Di-n-octylphthala	24.02	23.52	24.52	24.04	0.06
77 Perylene-d12	25.48	24.98	25.98	25.51	0.09

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020915.D

Lab ID: BLA0163-BSD1
nt10.i, 20230209.b\ABN.m, 09-FEB-2023 21:56

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1023020902.D

On Column LOD for nt10.i, 20230209.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *



STANDARD REFERENCE MATERIAL RECOVERY

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLA0163-SRM1

Batch: BLA0163

Initial/Final: 1 g / 1 mL

Preparation: EPA 3546 (Microwave)

Analyzed: 02/09/2023 22:35

Standard ID: K003477

Expires: 01/31/2024

Standard Lot#: CRM 143 (LRAC8918)

Description: CRM 143 BNAs - Sandy Loam

ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Phenol	2660.0	2770	43.9	200		104	26 - 174
4-Methylphenol	6617.0	7080	73.9	200		107	40 - 160
Naphthalene	4458.0	4770	42.4	200		107	25 - 175
Acenaphthylene	1948.0	1920	62.4	200		98.3	37 - 167
Dimethylphthalate	4537.0	5100	43.9	200		112	41 - 159
Acenaphthene	5489.0	6130	52.2	200		112	41 - 159
Dibenzofuran	6130.0	6700	141	200		109	45 - 155
Fluorene	3724.0	3410	146	200		91.5	44 - 156
Phenanthrene	5052.0	5540	87.2	200		110	46 - 154
Anthracene	2866.0	2530	71.9	200		88.4	42 - 158
Fluoranthene	2497.0	2550	60.9	200		102	39 - 161
Pyrene	2964.0	3140	56.8	200		106	38 - 162
Butylbenzylphthalate	3511.0	3760	94.1	200		107	36 - 164
Benzo(a)anthracene	5751.0	6420	59.6	200		112	49 - 151
Chrysene	1477.0	1580	60.6	200		107	45 - 155
Benzo(a)fluoranthene, Total	6534.0	5960	100	400		91.2	40 - 160
Benzo(a)pyrene	5902.0	5530	42.3	200		93.8	43 - 157
Indeno(1,2,3-cd)pyrene	3914.0	3810	147	200		97.4	22 - 178
Dibenzo(a,h)anthracene	3420.0	3550	172	200		104	37 - 163
Benzo(g,h,i)perylene	1380.0	1200	136	200		87.0	35 - 165

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230209.1\NT1023020916.D

Date: 09-FEB-2023 22:35

Client ID:

Sample Info: BLR0163-SRM1

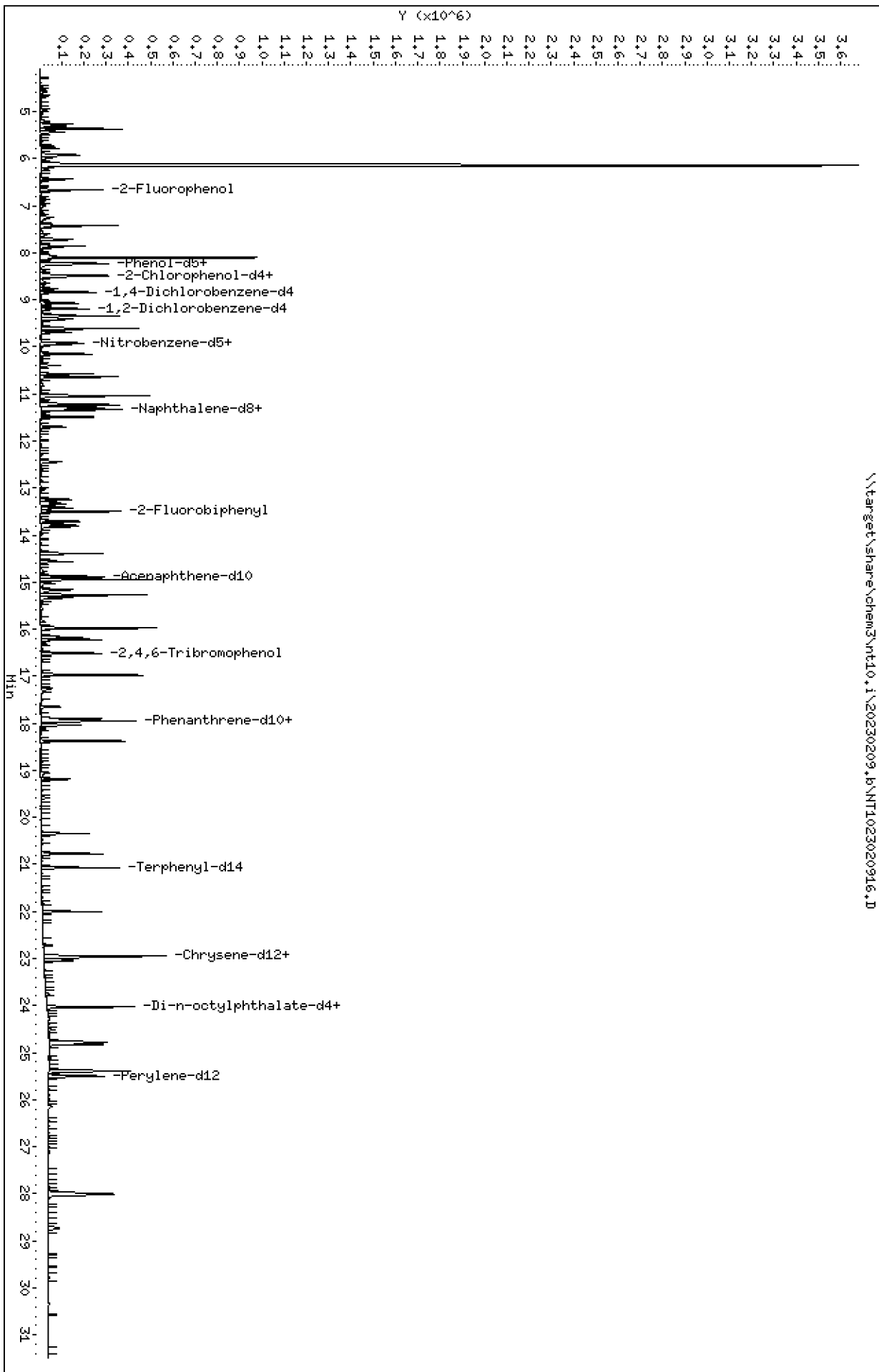
Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Column phase: ZB-5msi

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Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

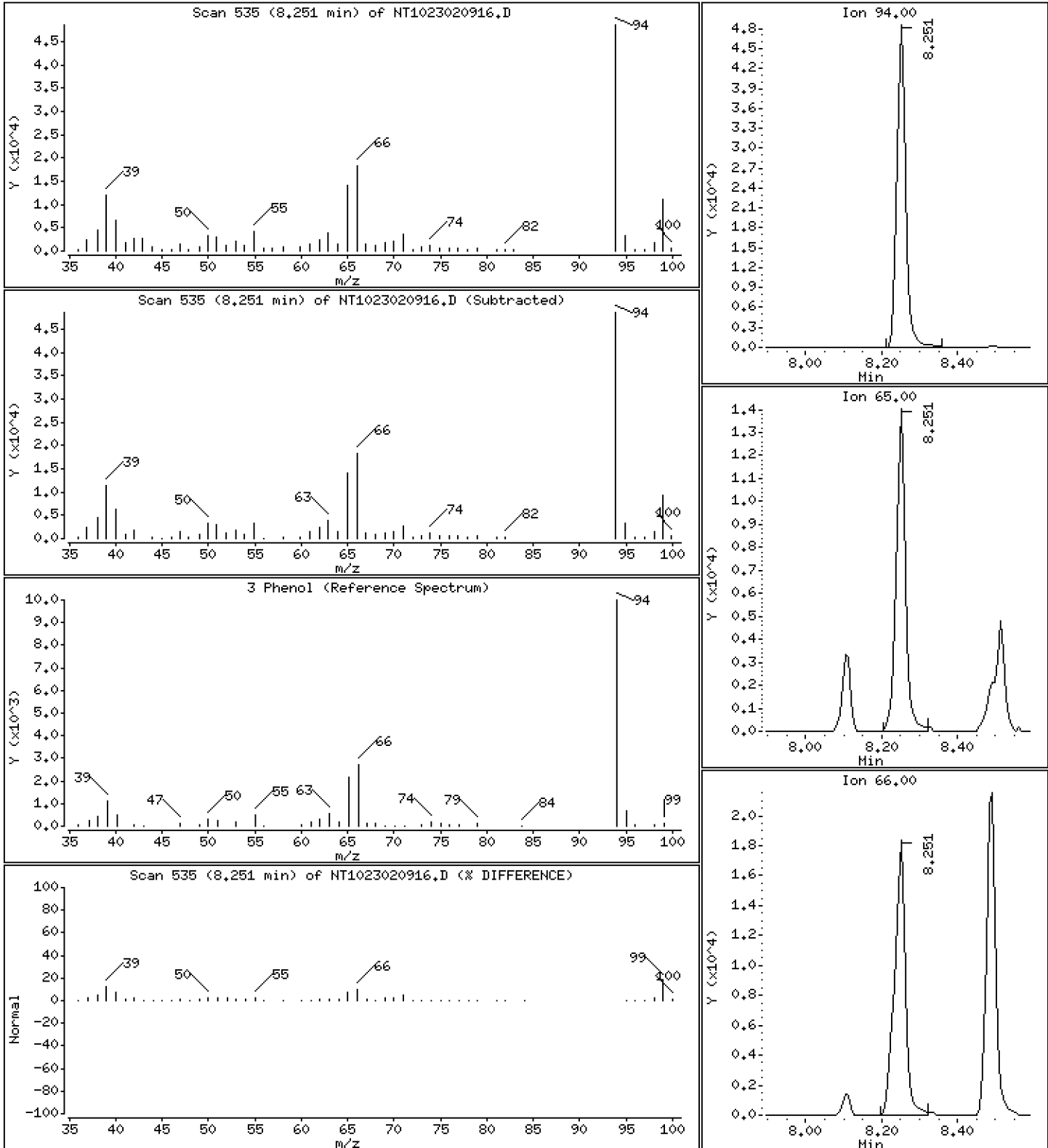
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 2,772 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

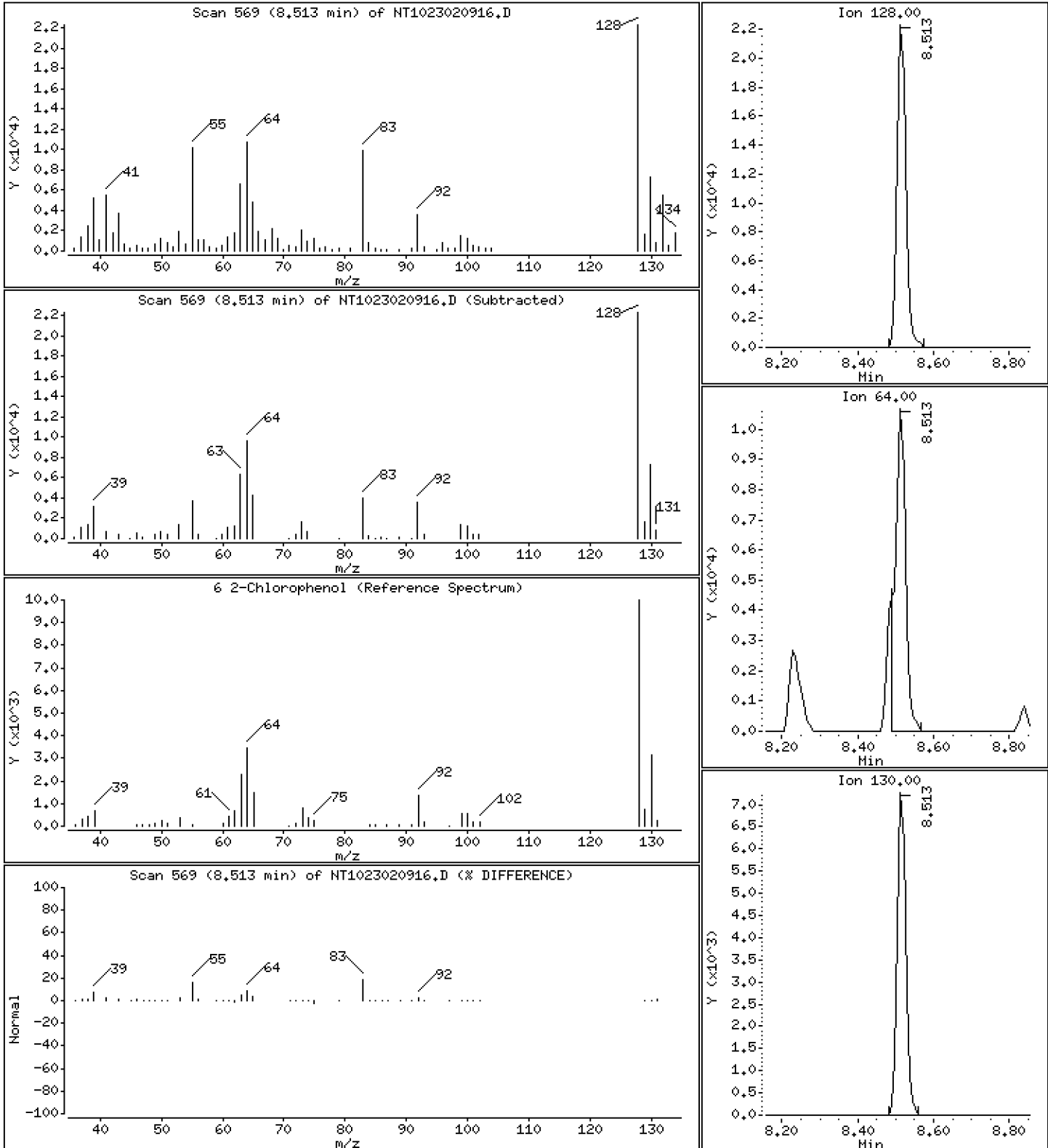
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

6 2-Chlorophenol

Concentration: 1.483 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

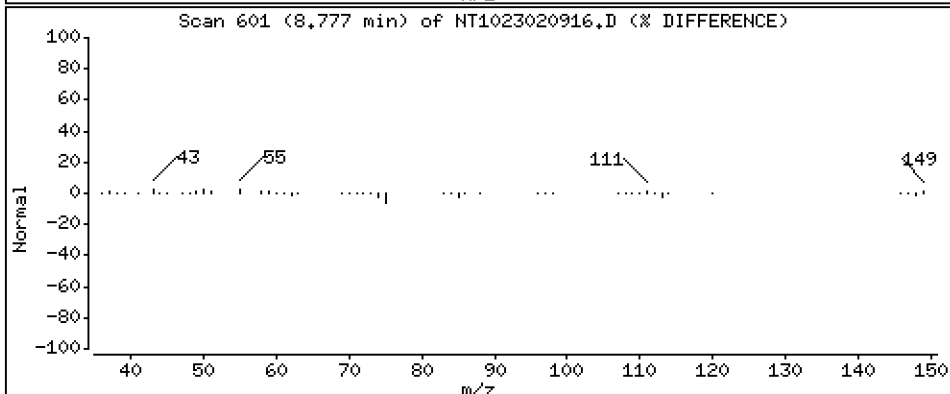
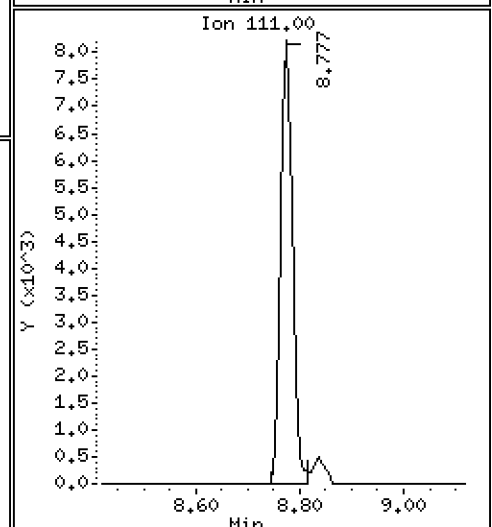
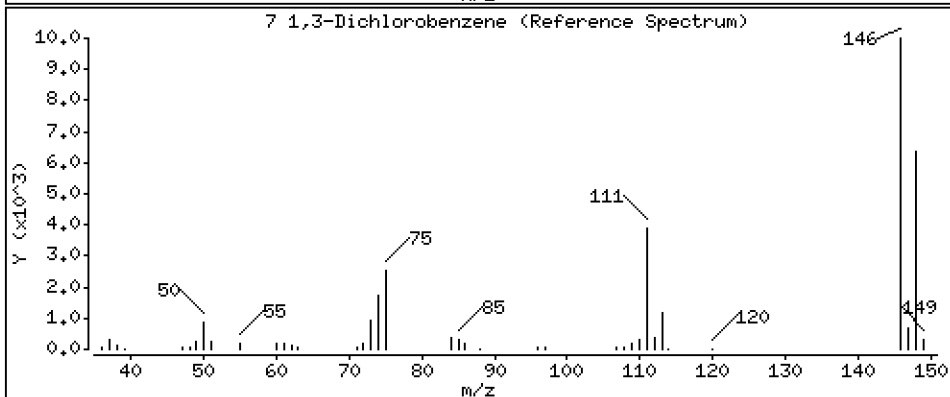
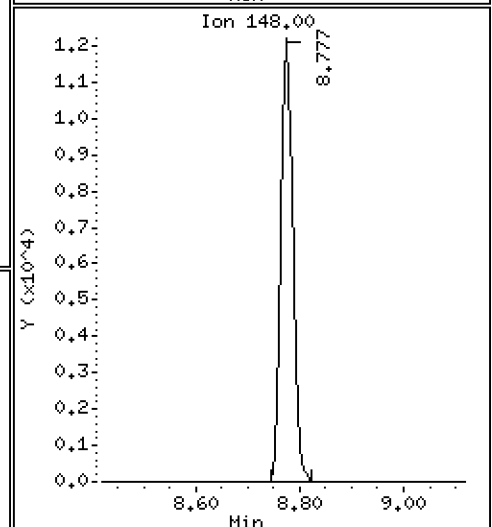
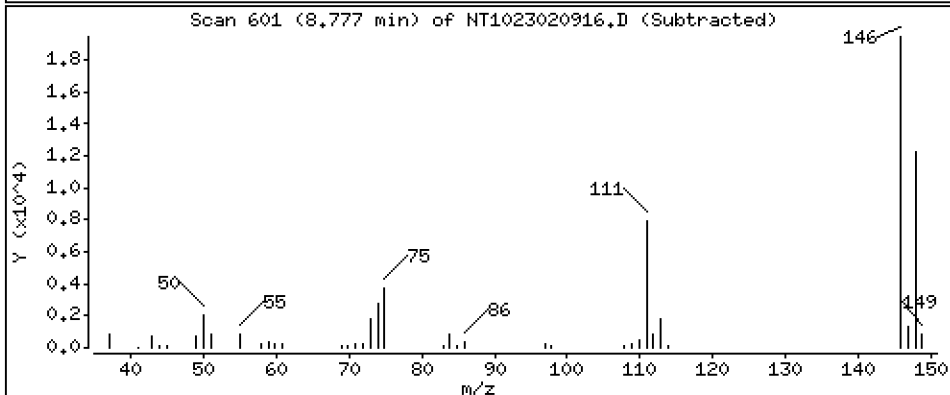
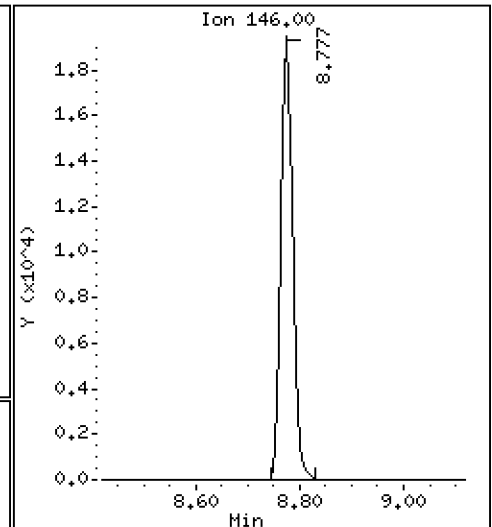
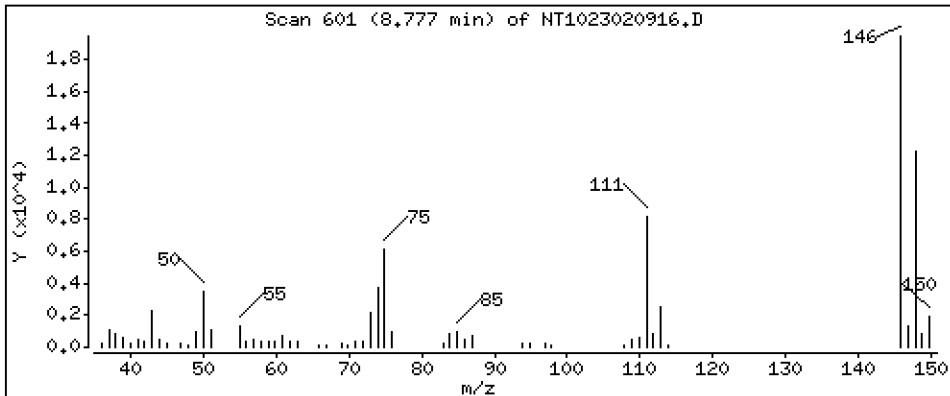
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 1,220 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

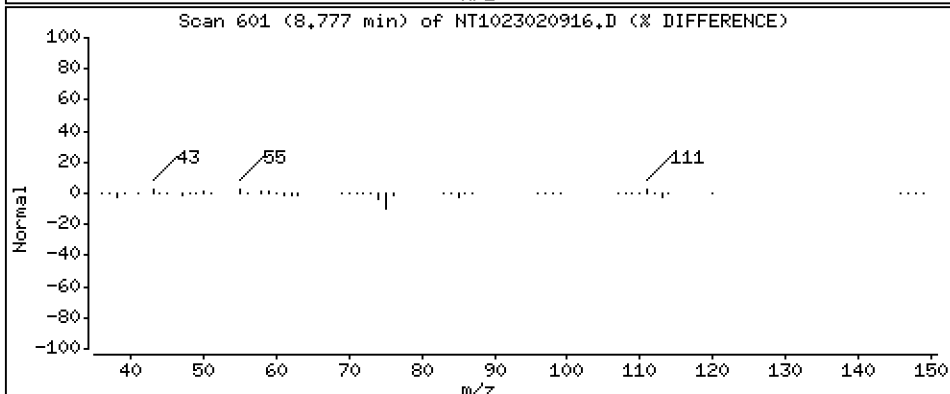
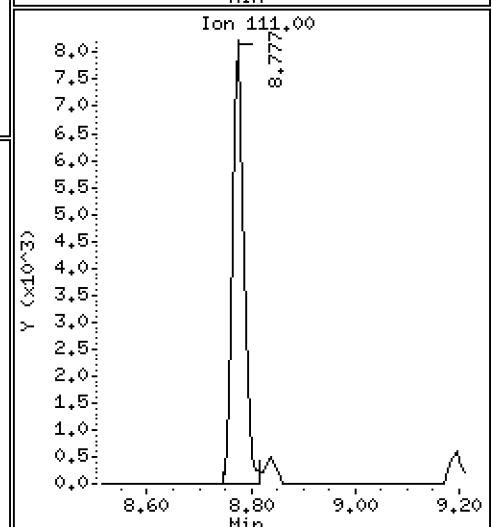
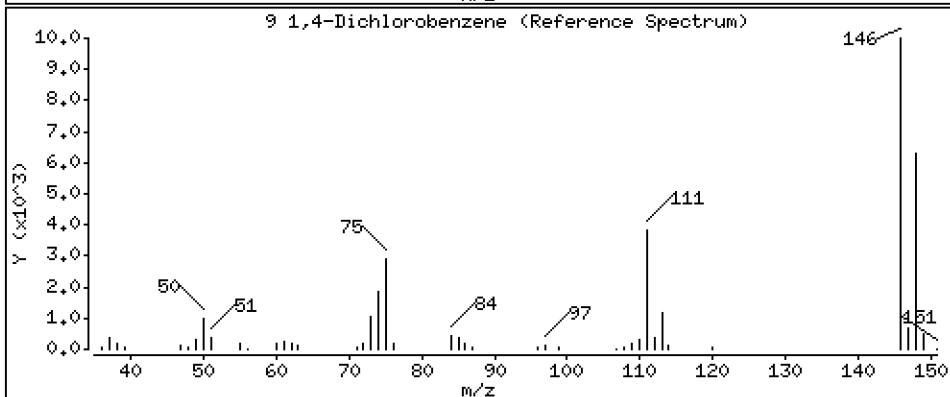
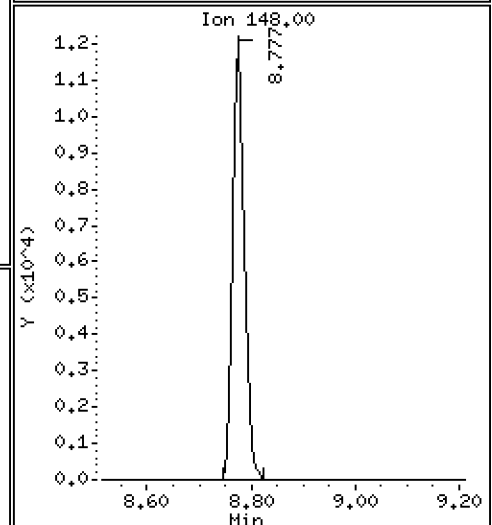
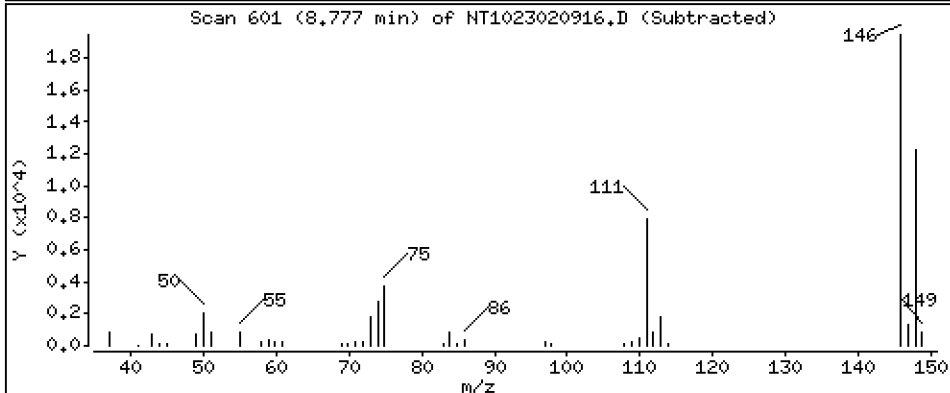
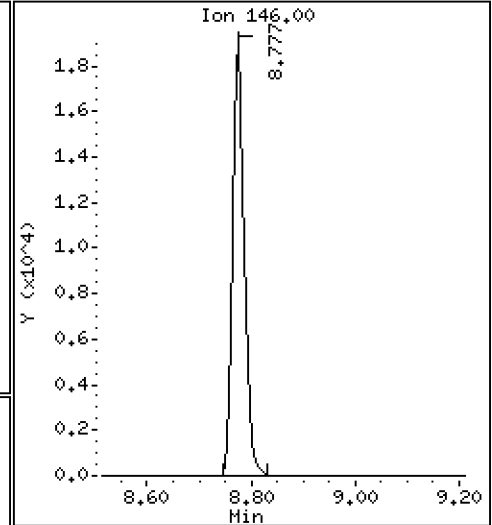
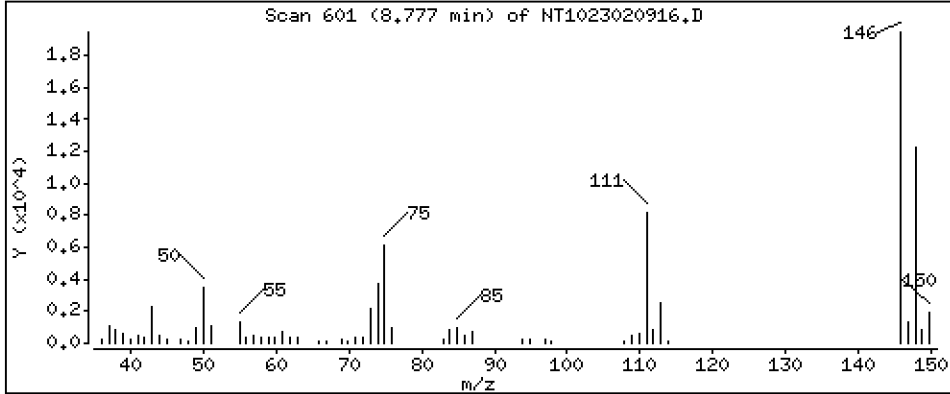
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 1,239 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

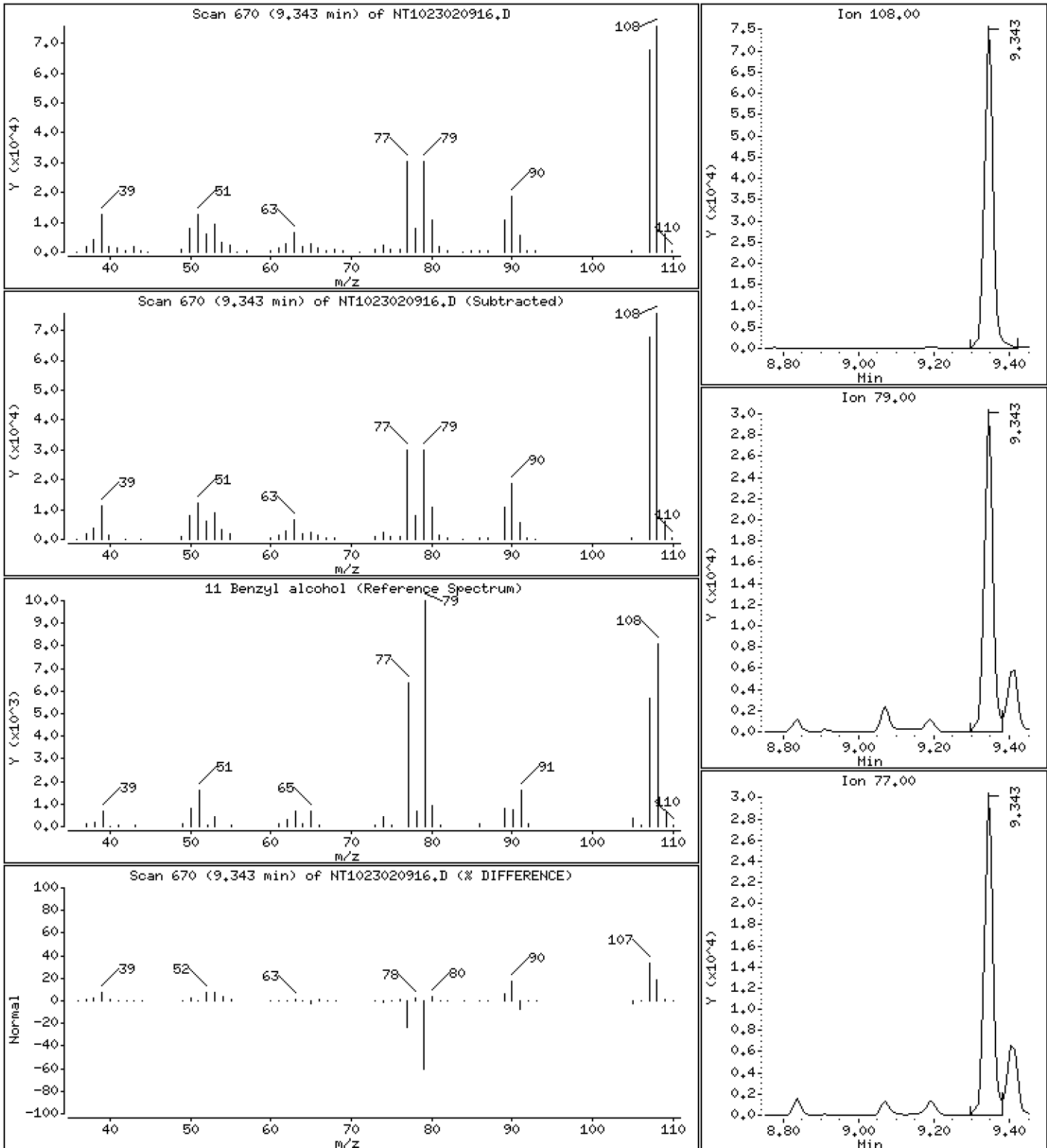
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 10,97 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

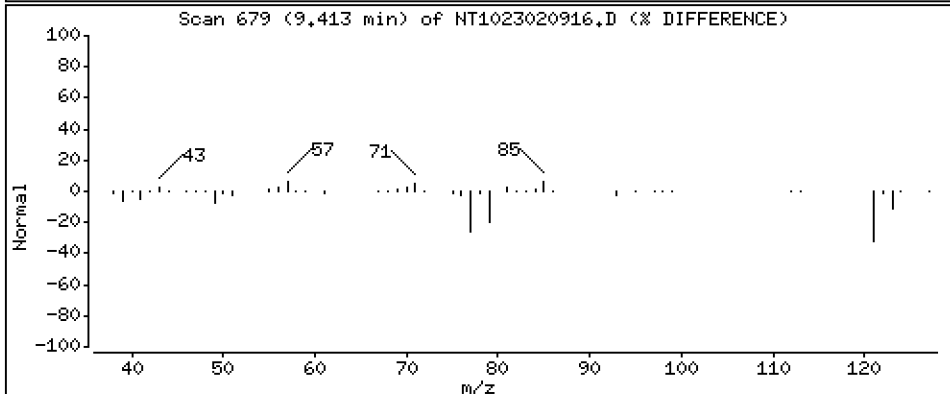
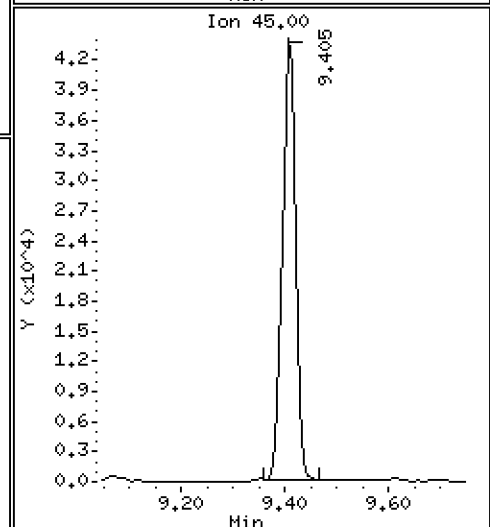
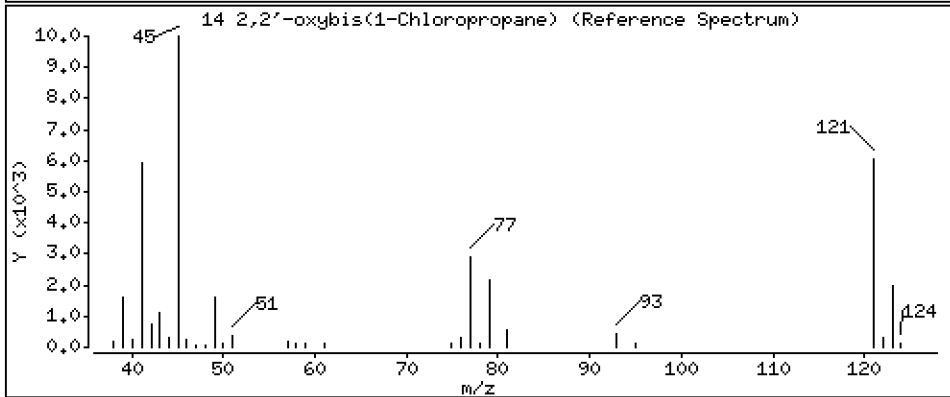
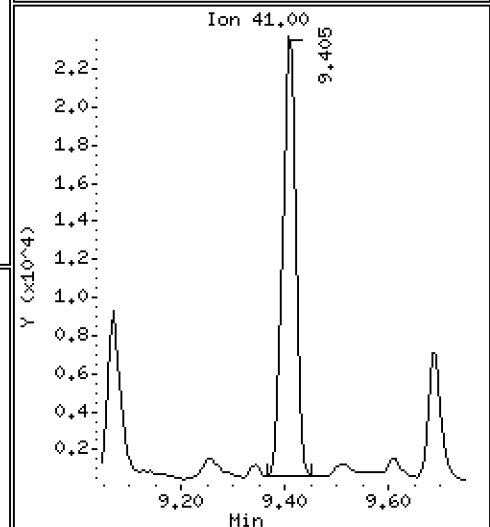
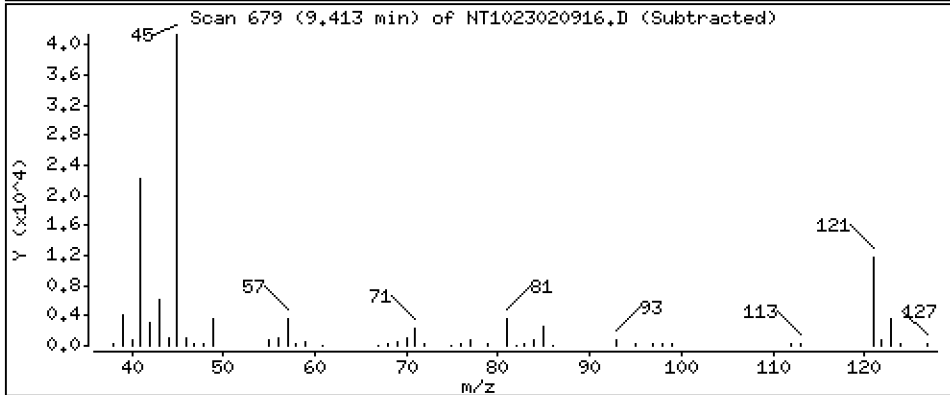
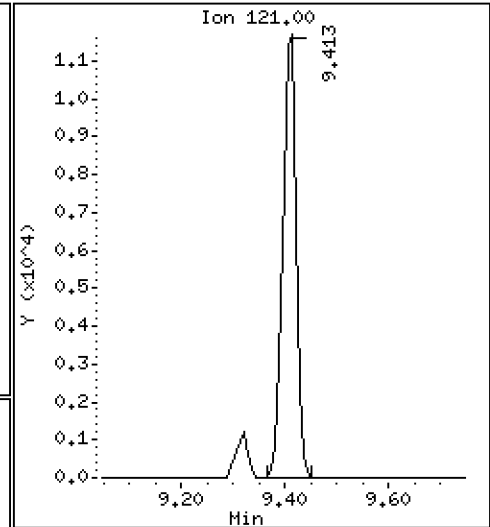
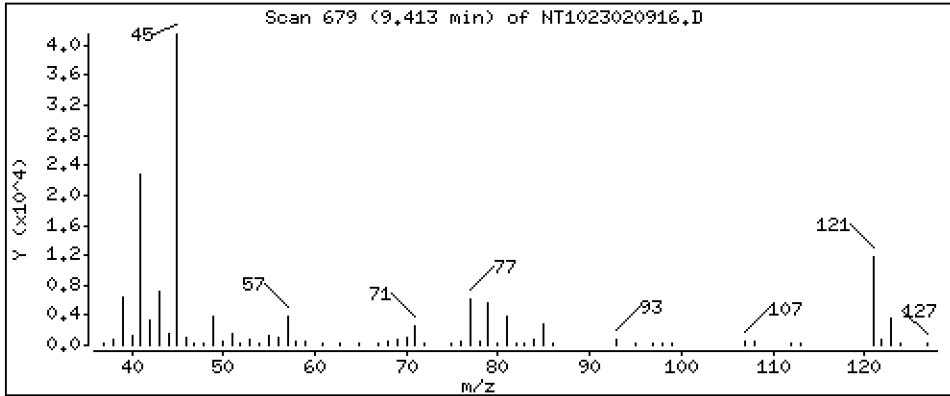
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 3.207 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

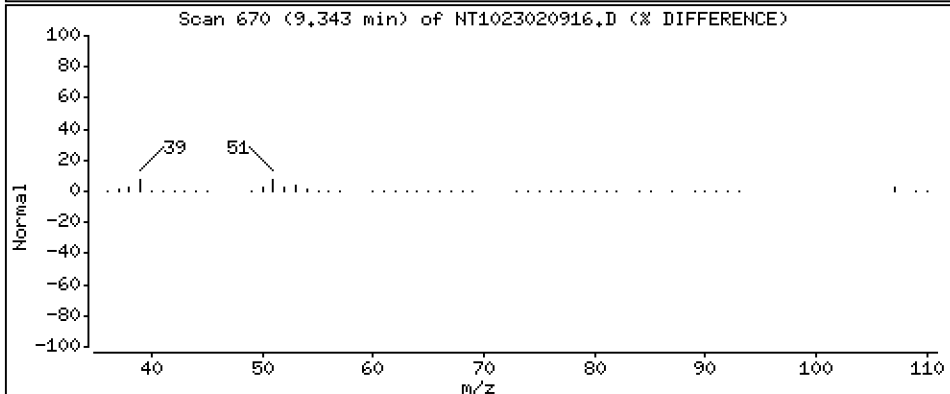
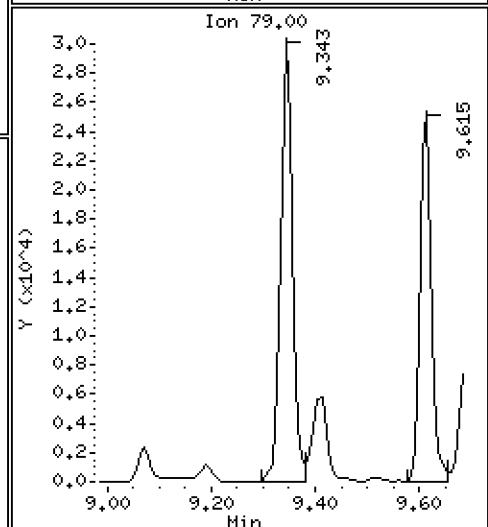
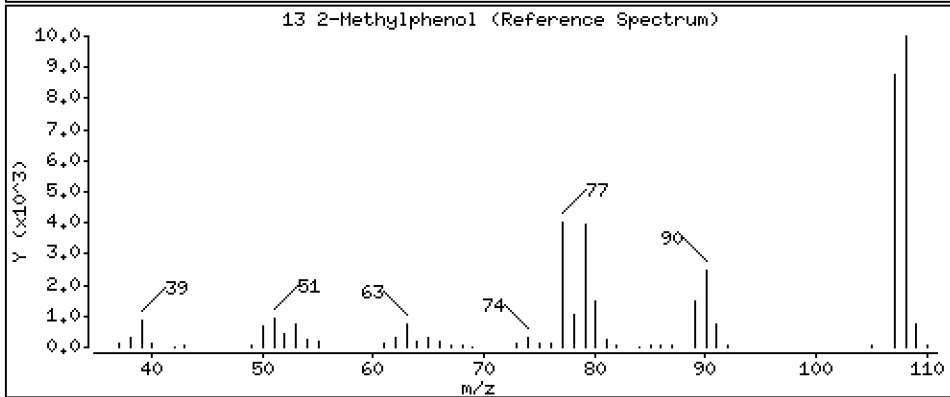
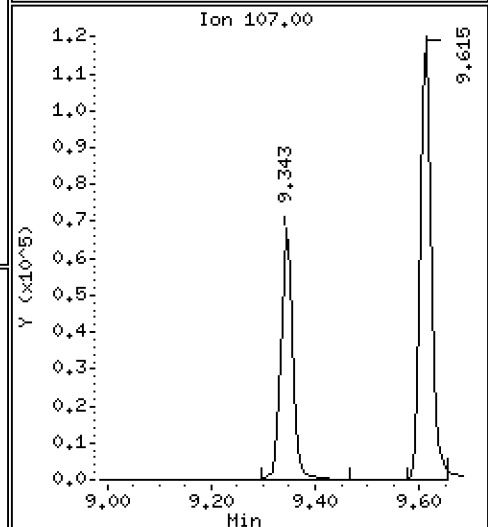
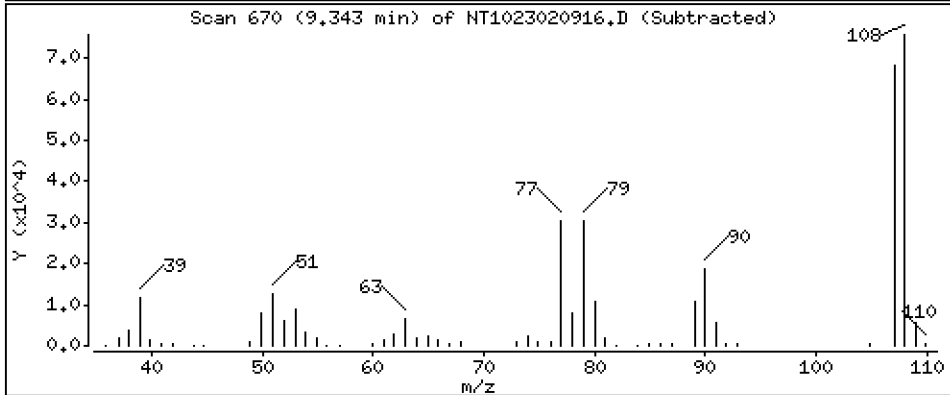
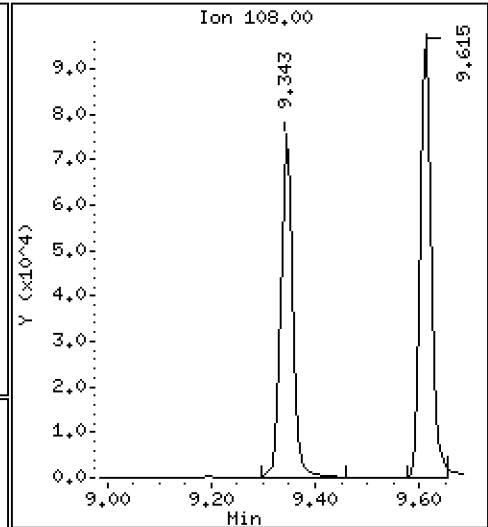
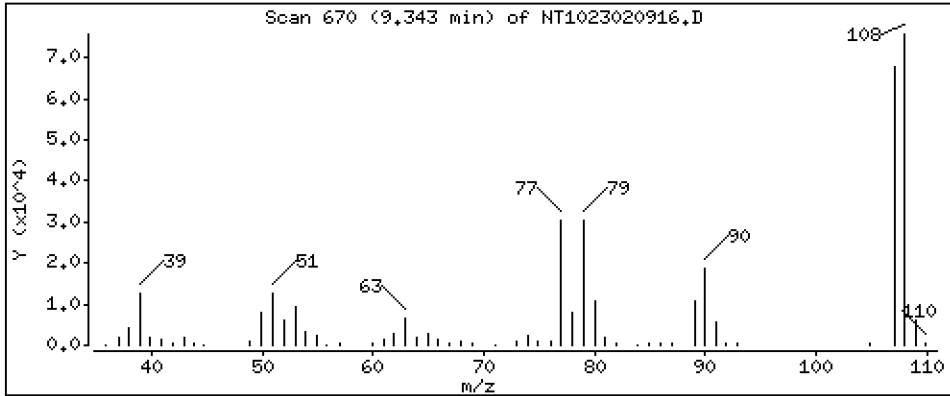
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 6,362 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

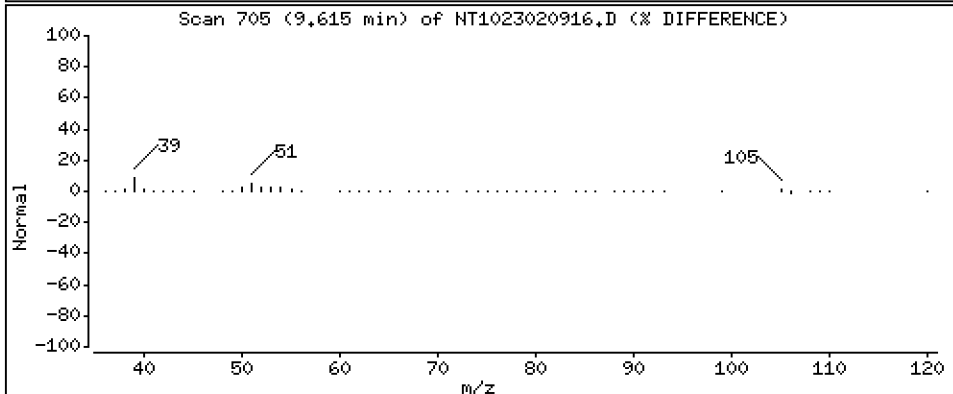
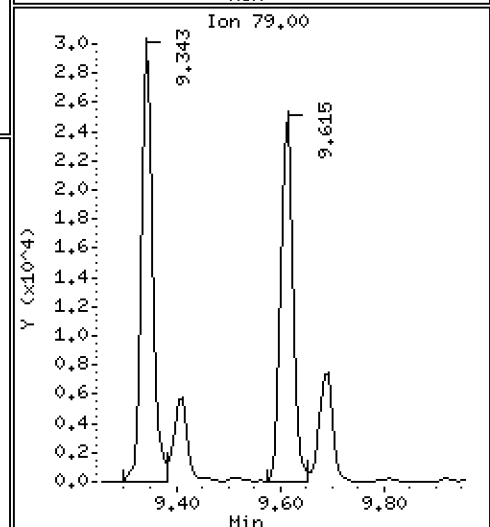
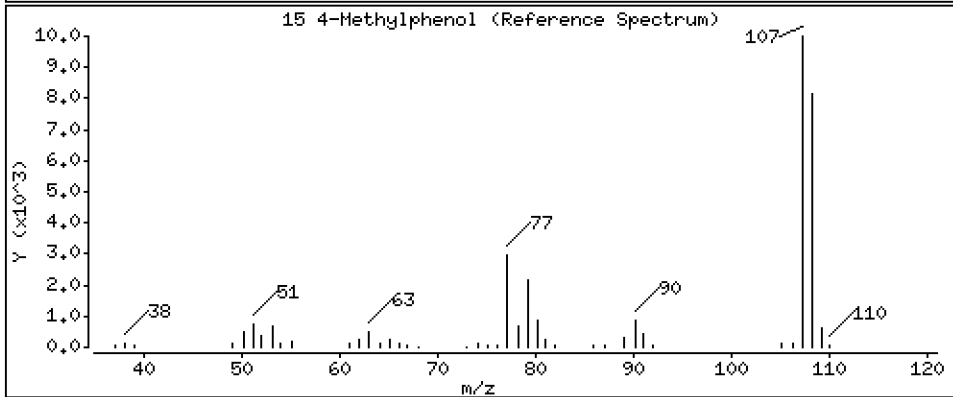
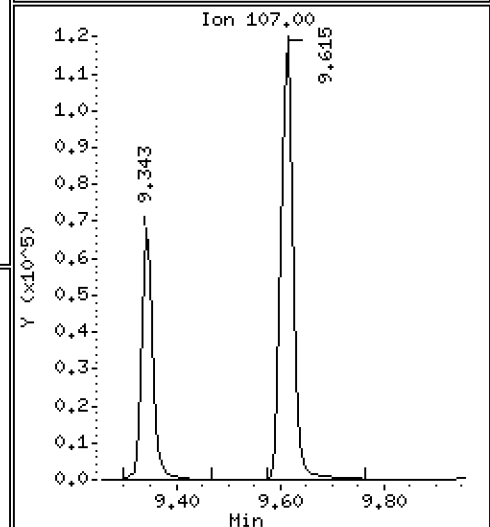
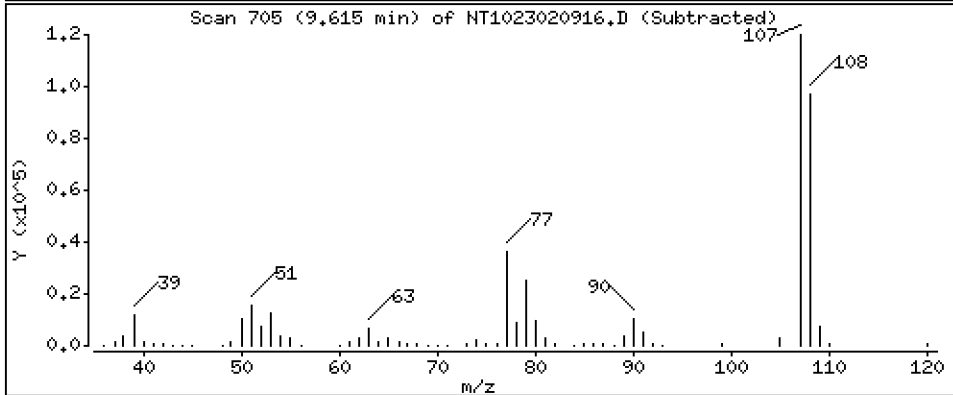
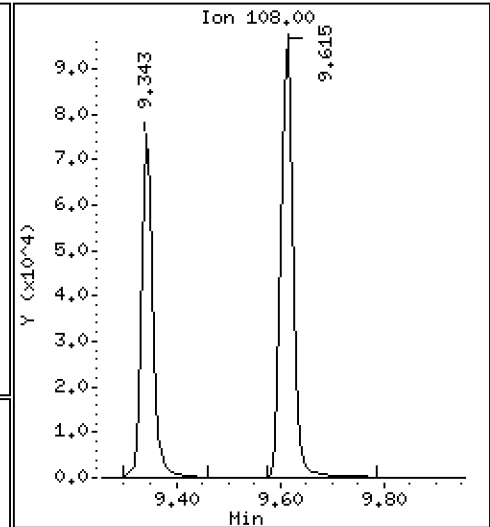
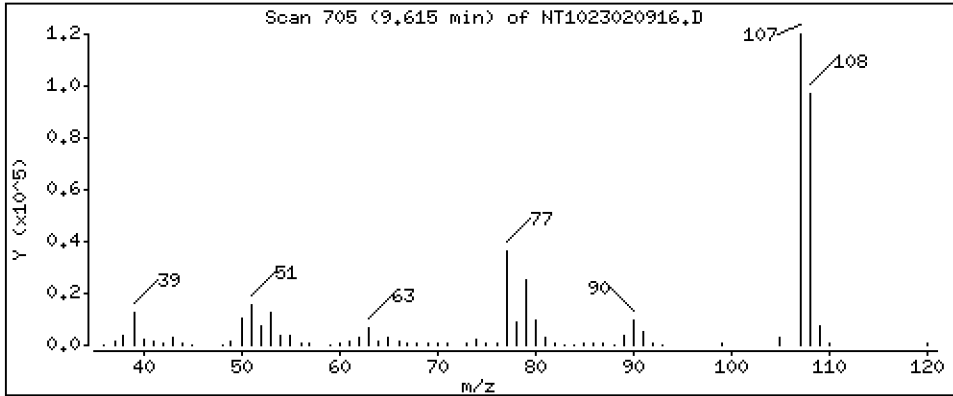
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Concentration: 7.076 ug/mL

15 4-Methylphenol



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

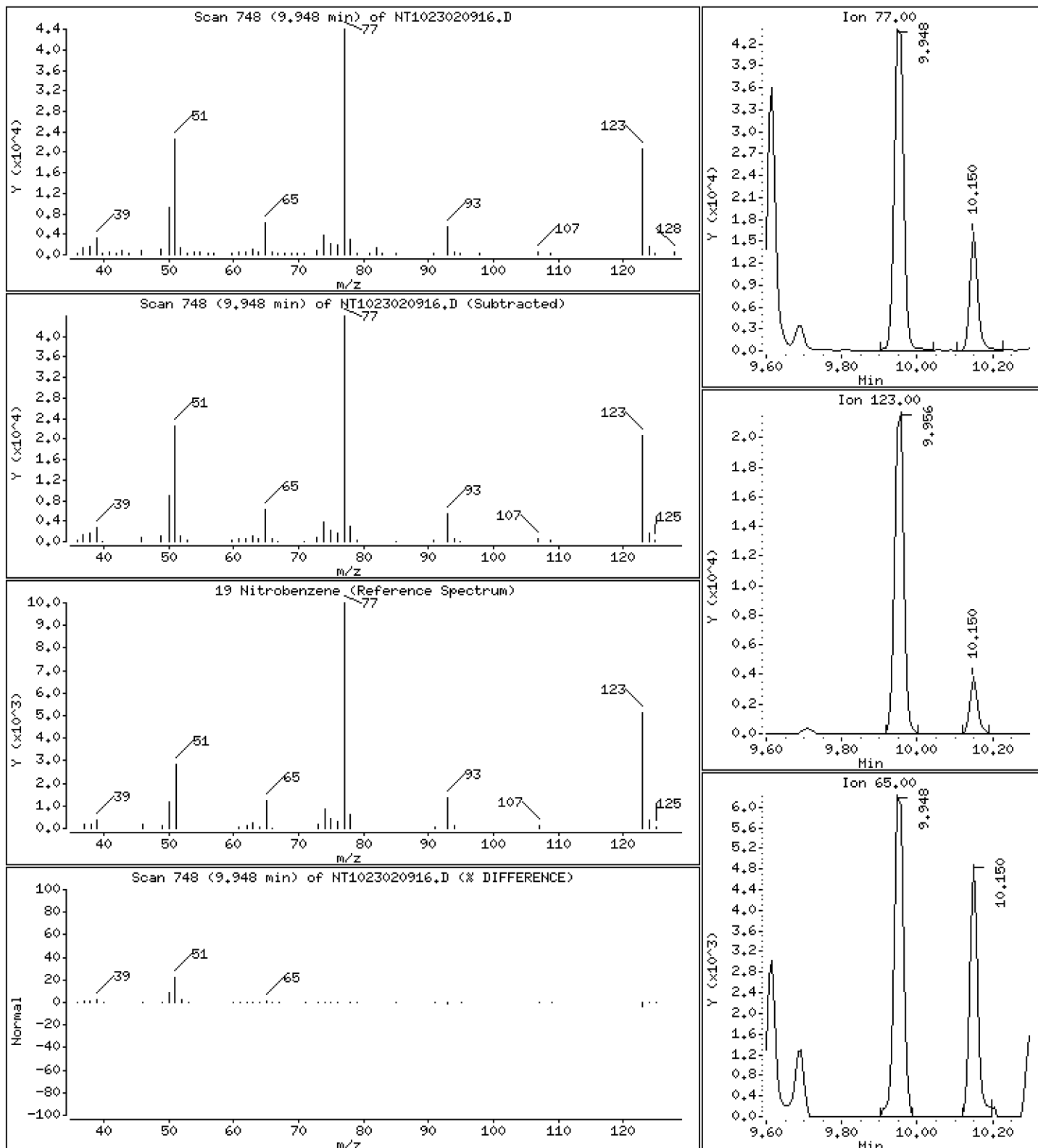
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 3,342 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

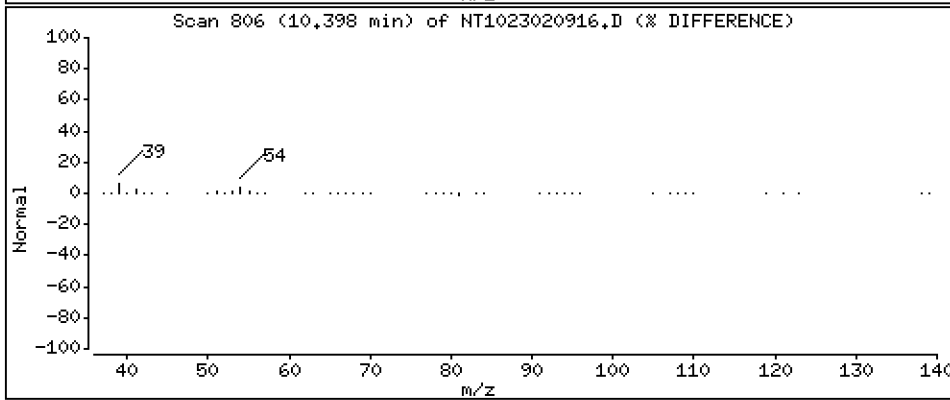
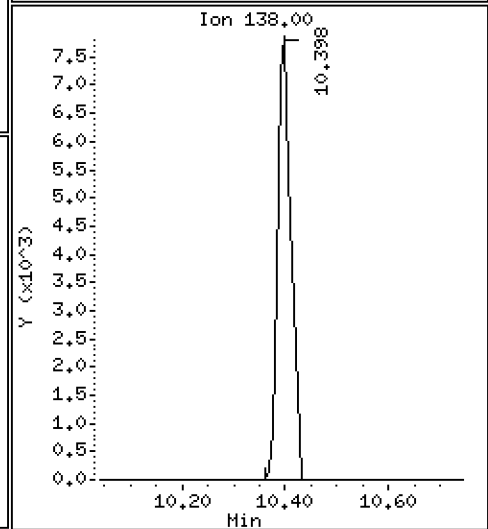
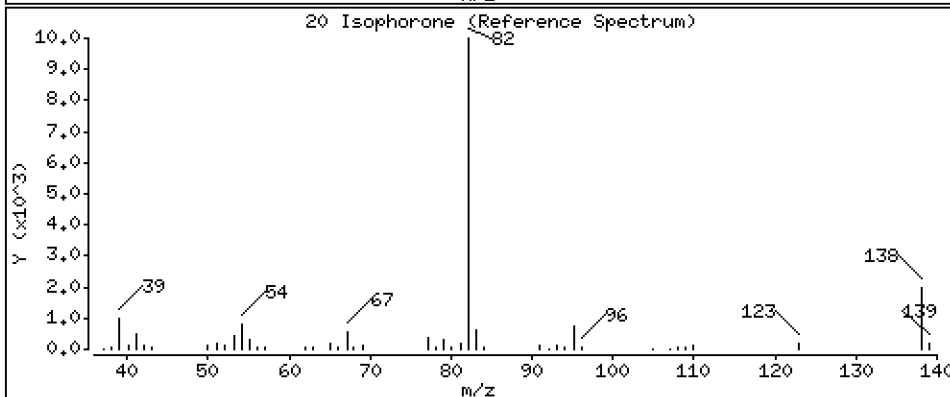
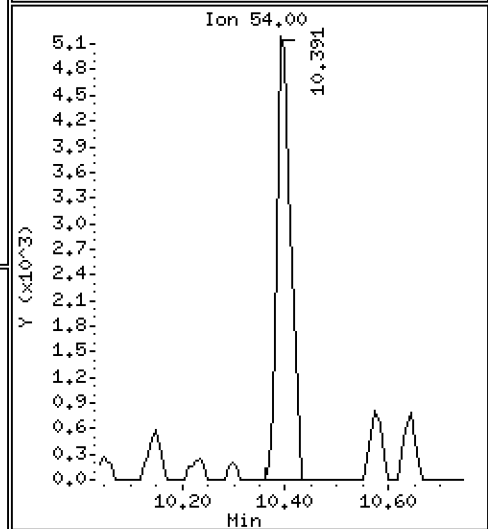
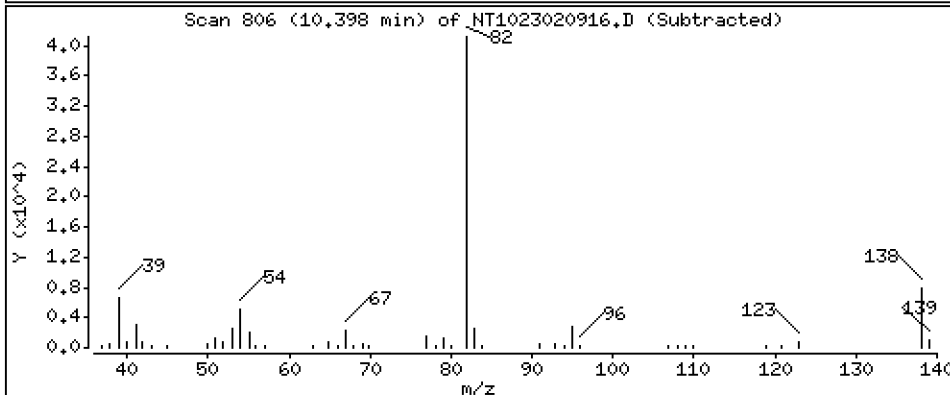
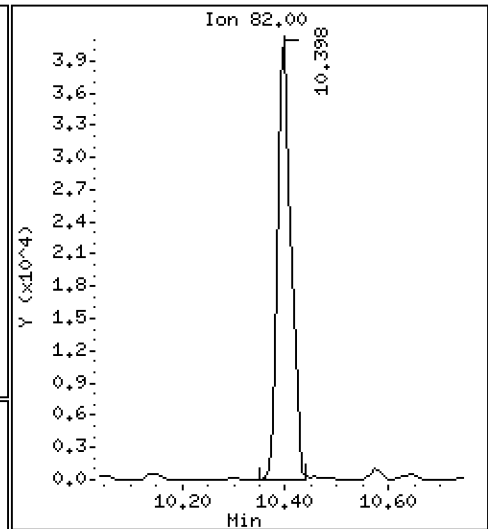
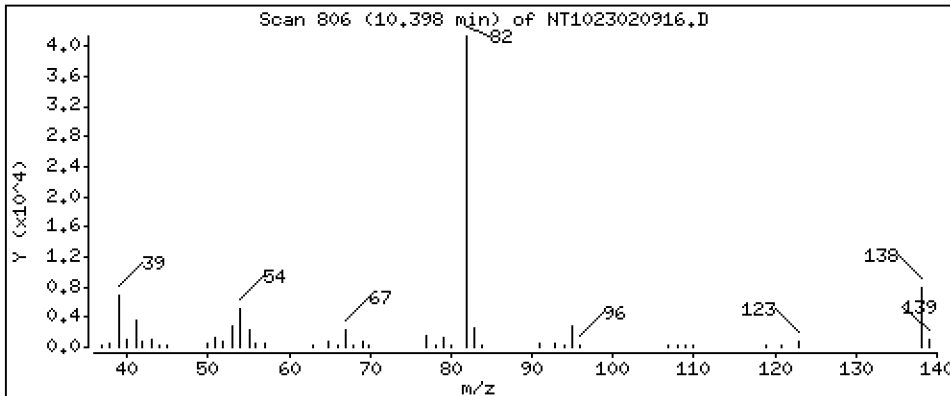
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 2,549 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

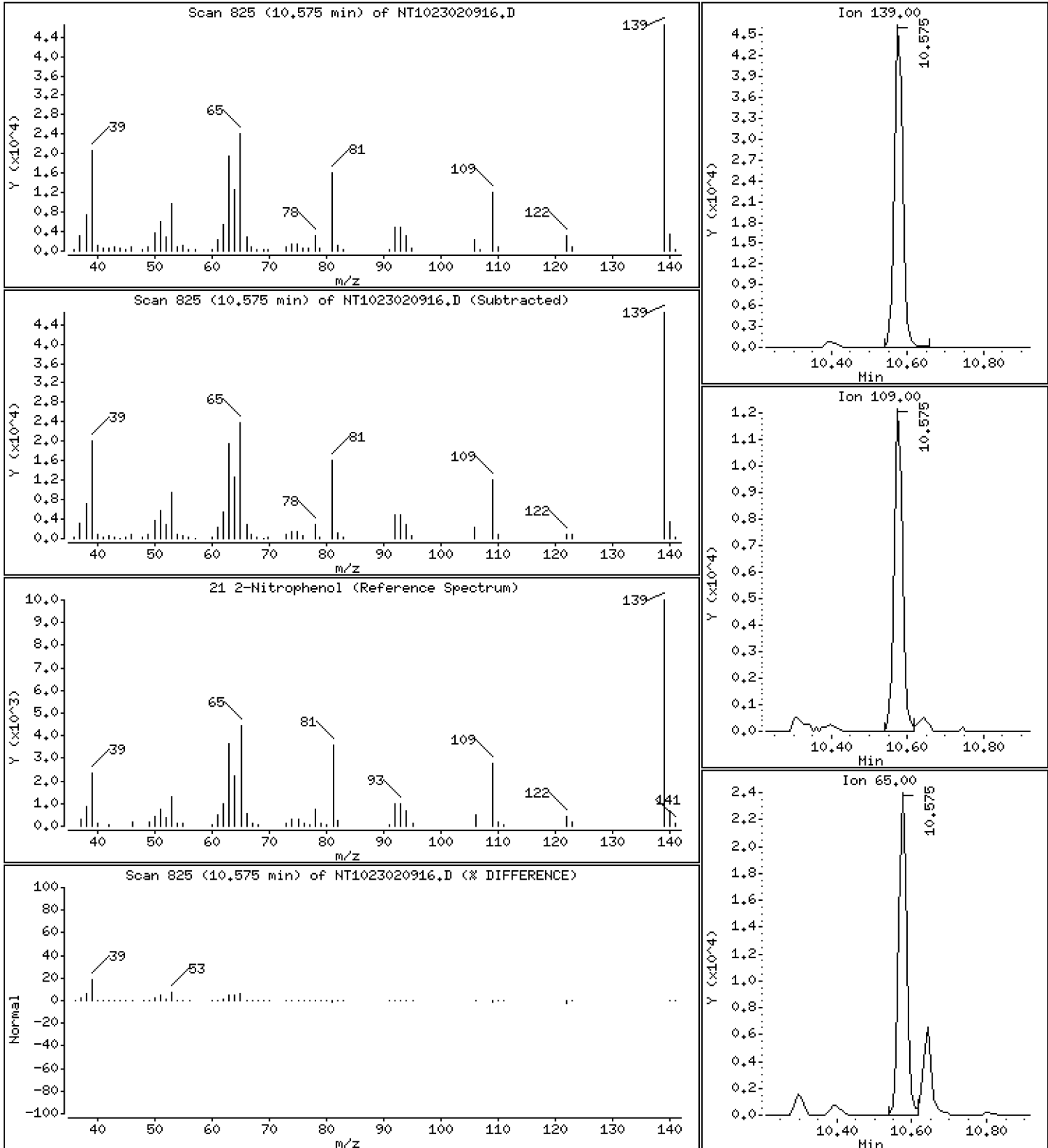
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 6,426 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

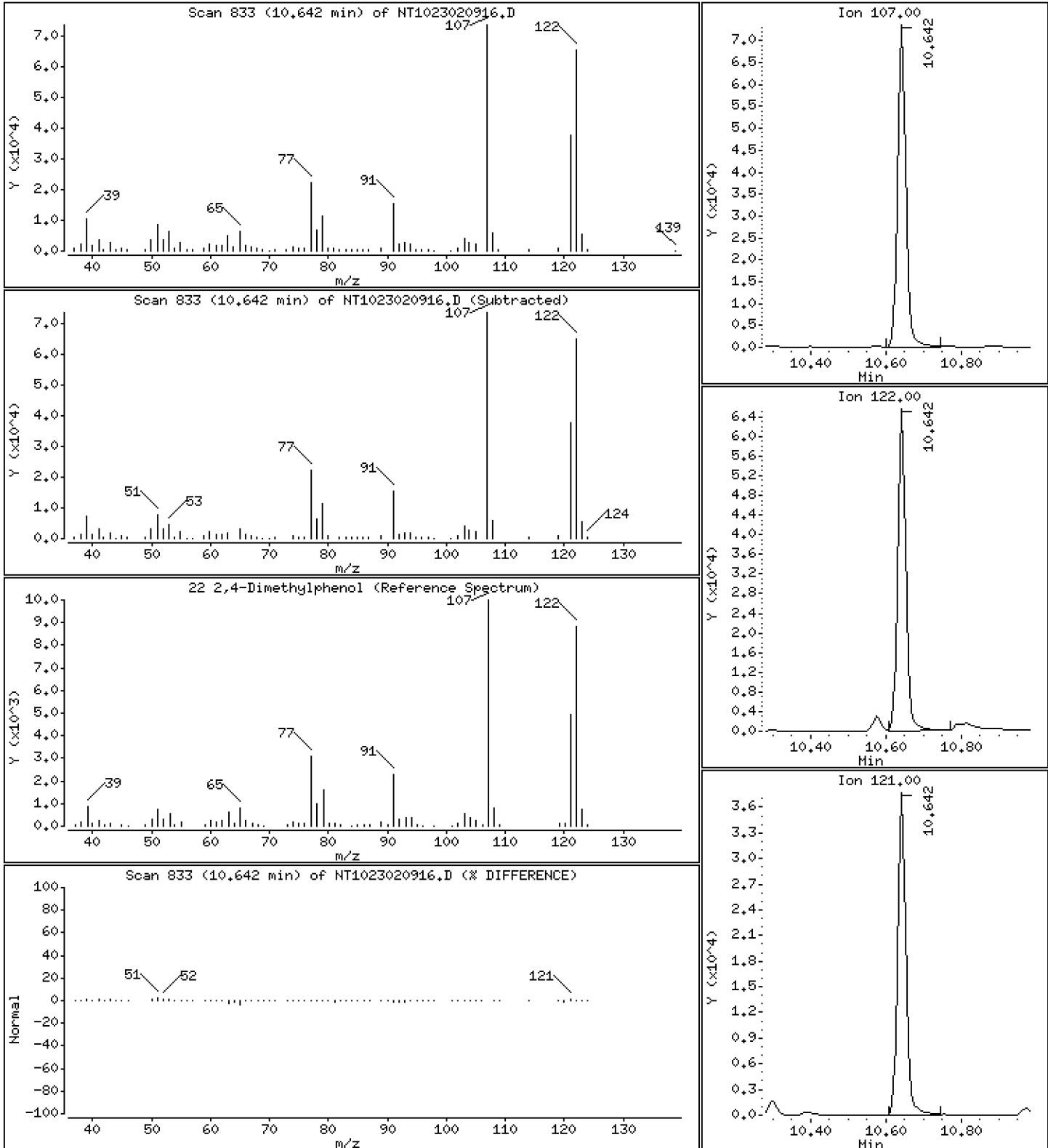
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 5,570 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

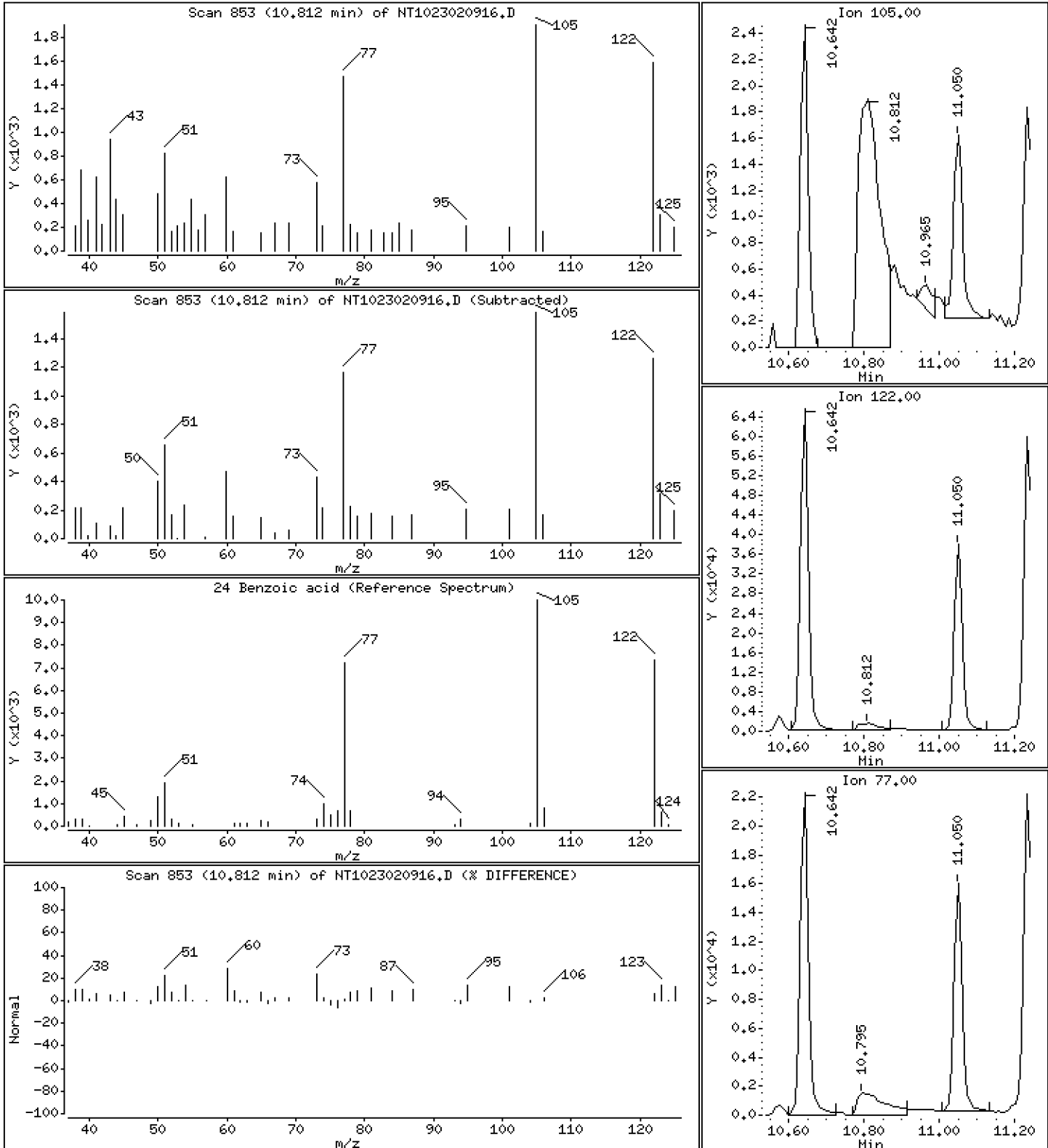
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 0,6828 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

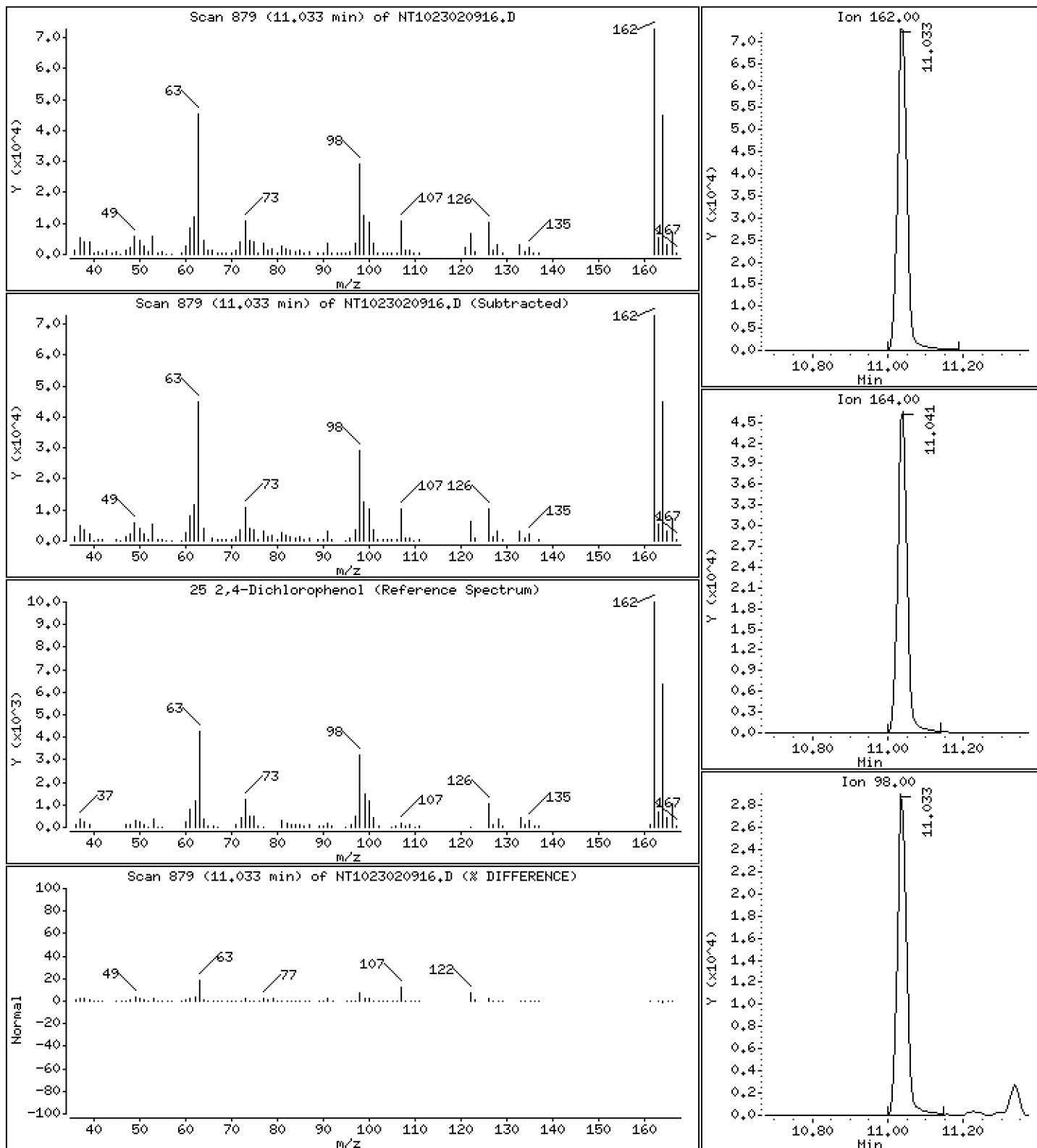
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 8,293 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

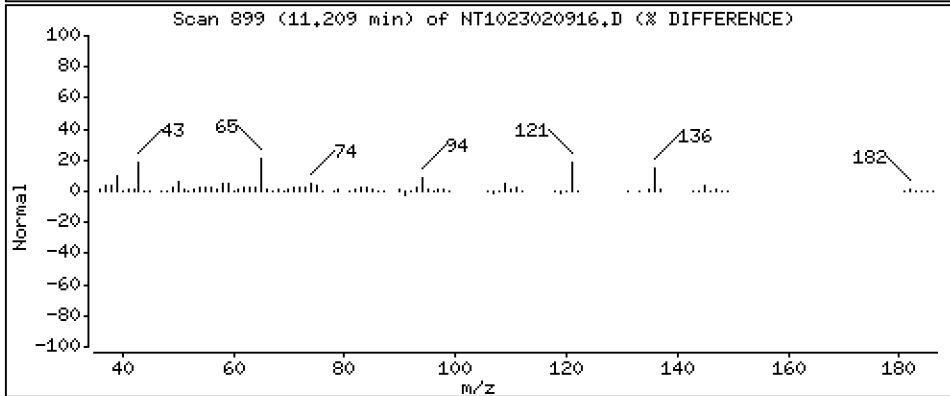
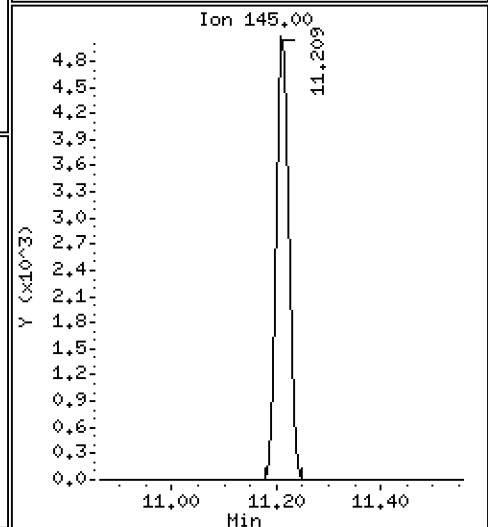
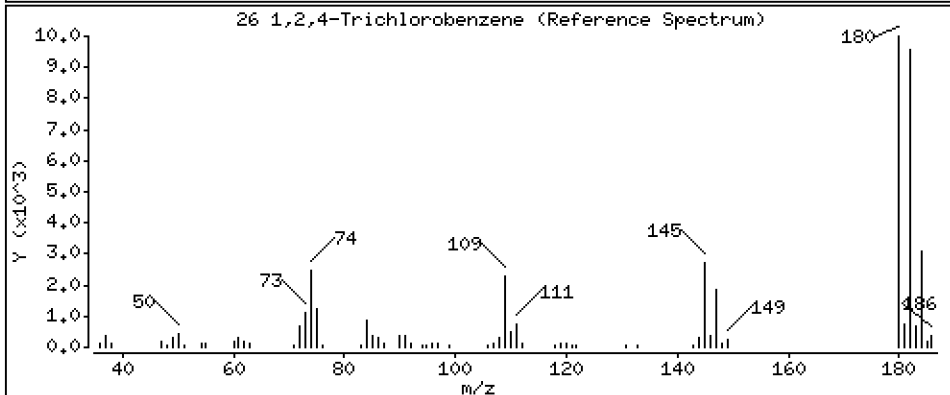
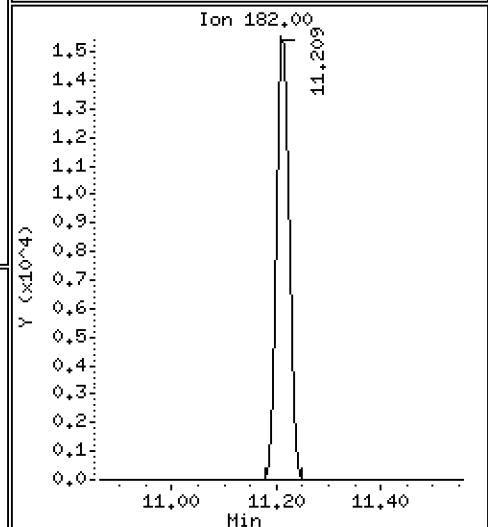
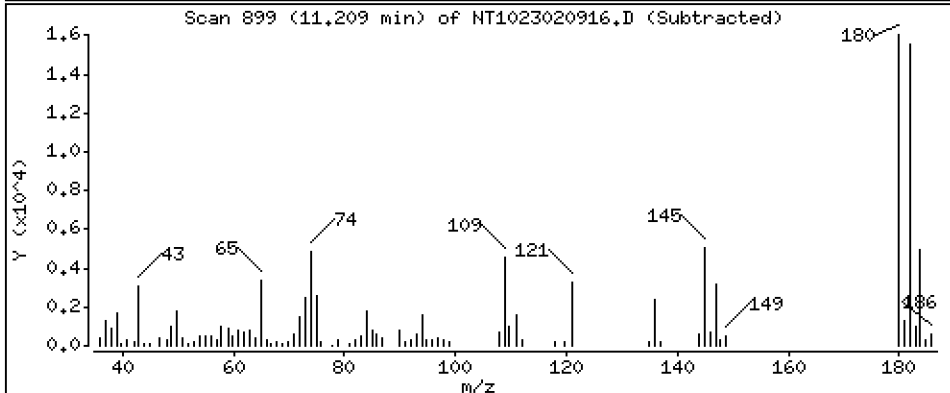
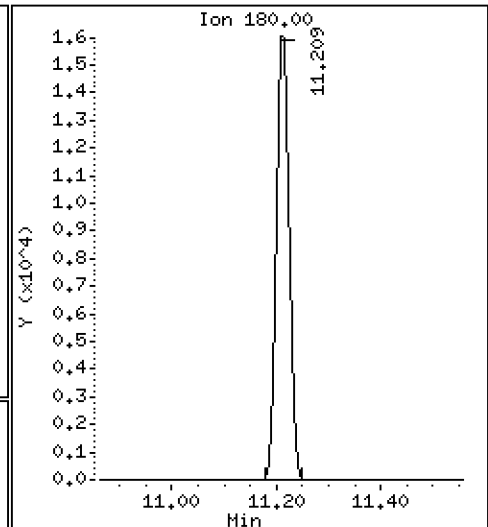
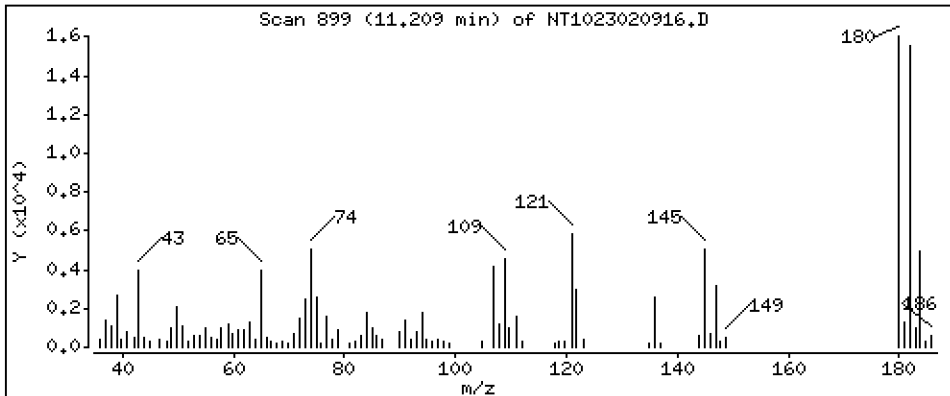
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 1.496 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

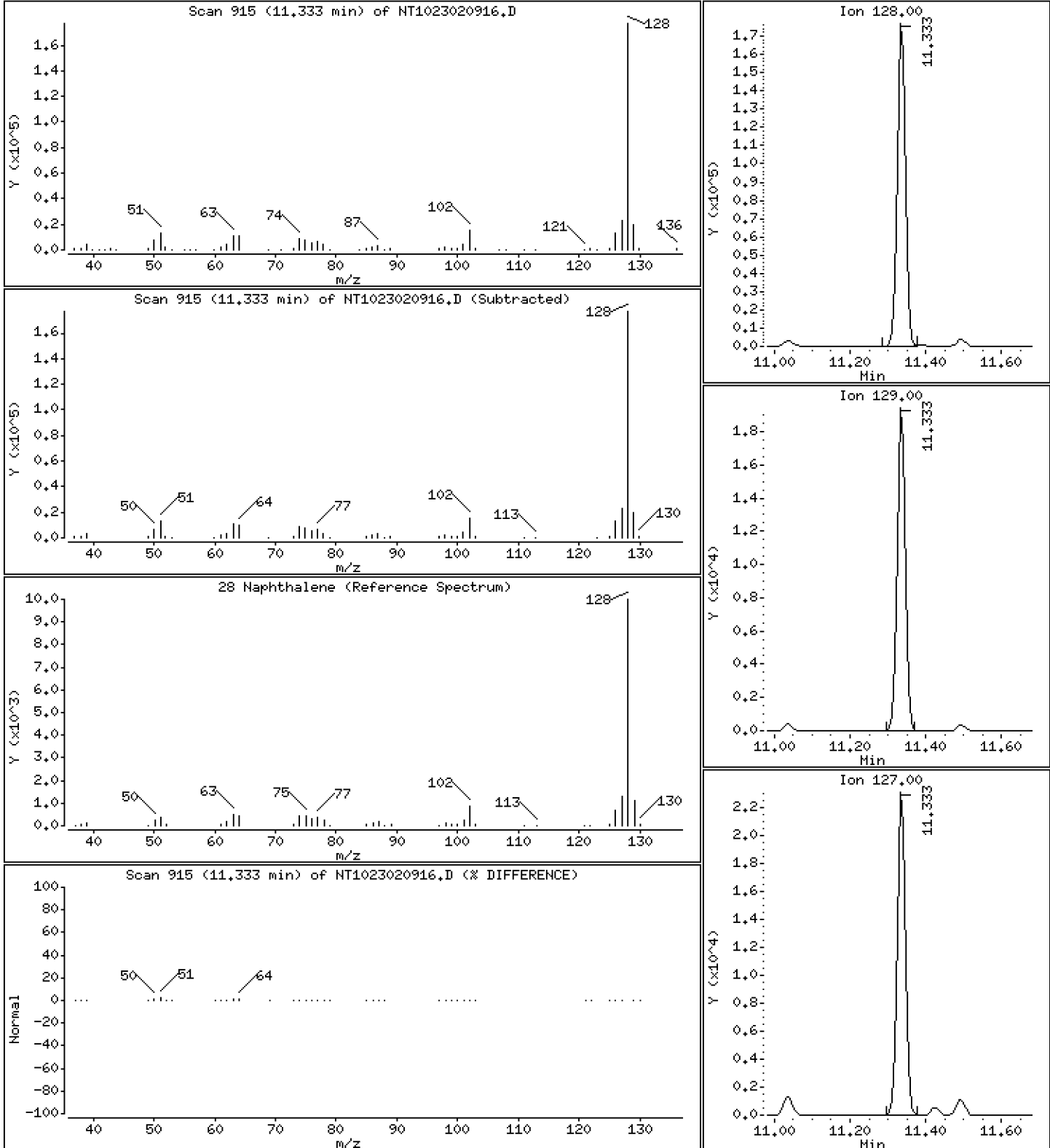
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

28 Naphthalene

Concentration: 4,770 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

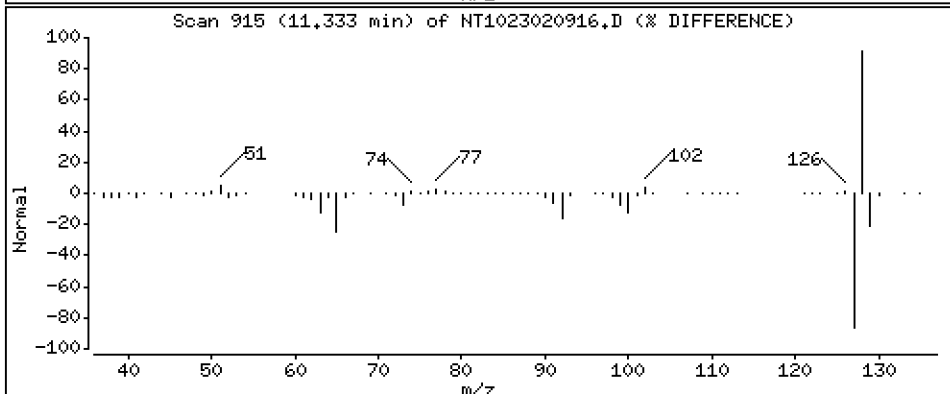
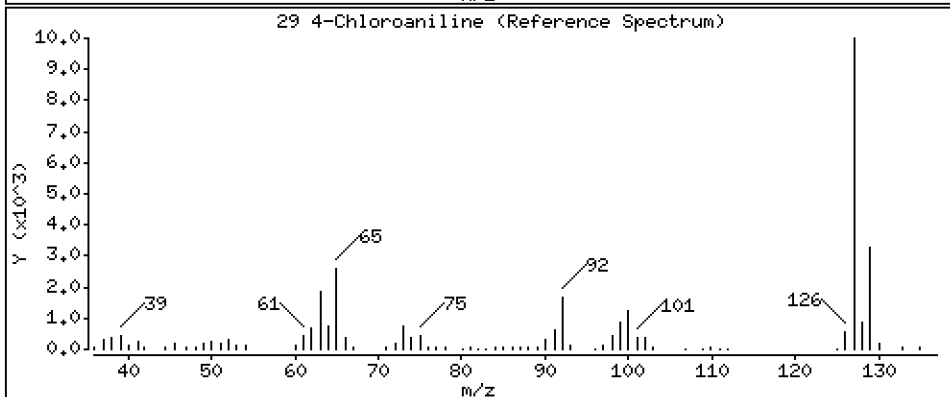
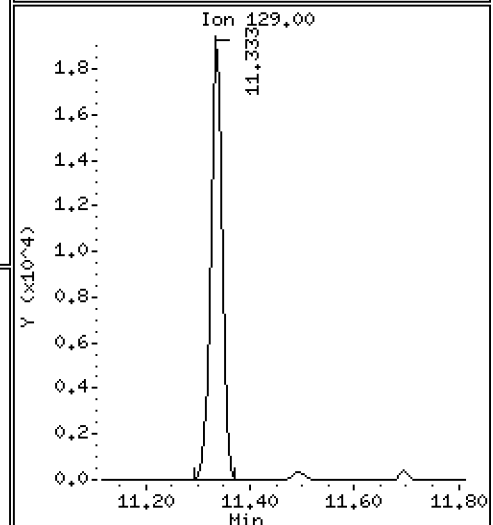
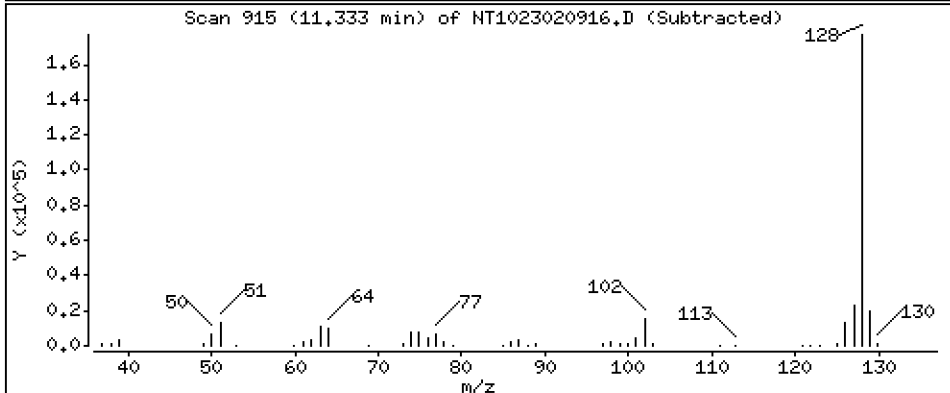
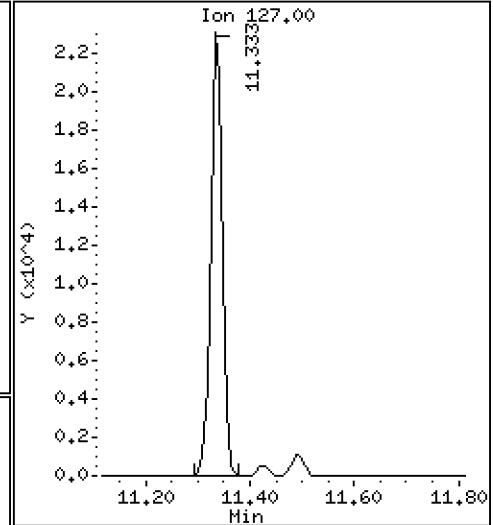
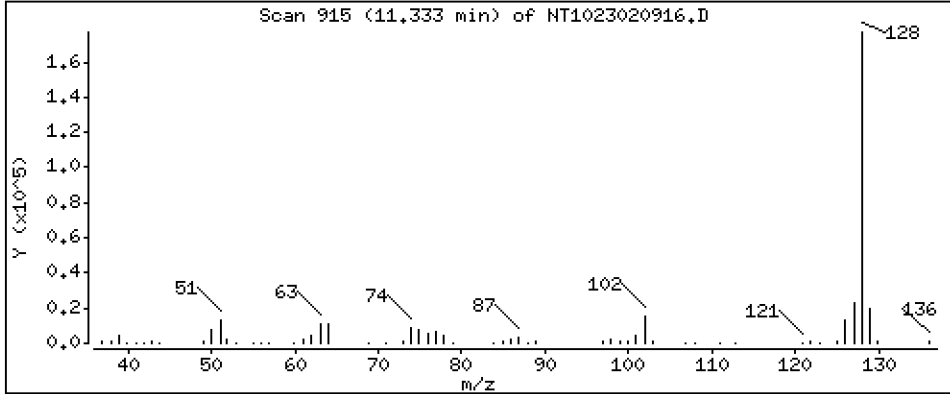
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

29 4-Chloroaniline

Concentration: 1.444 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

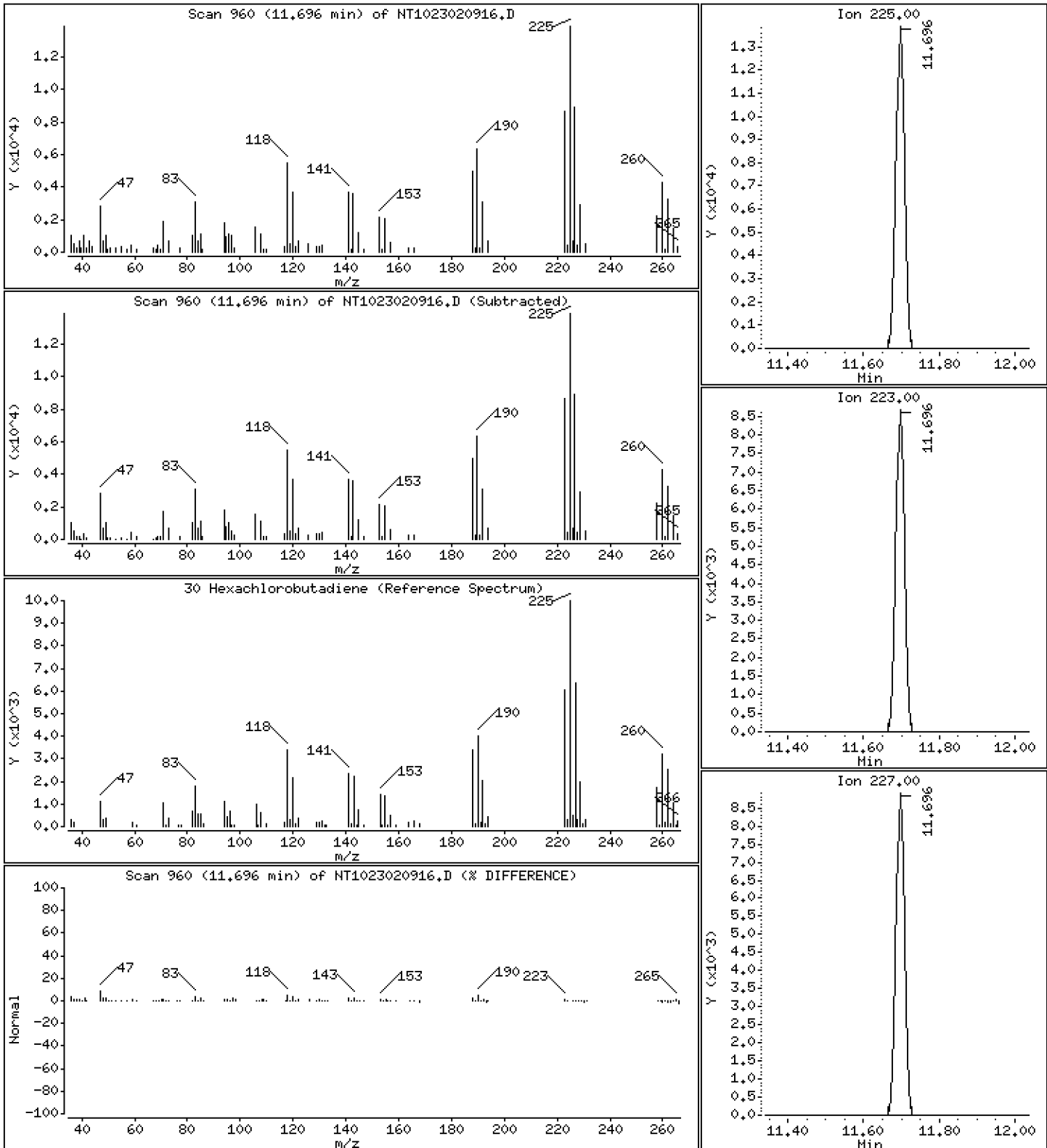
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 2,264 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

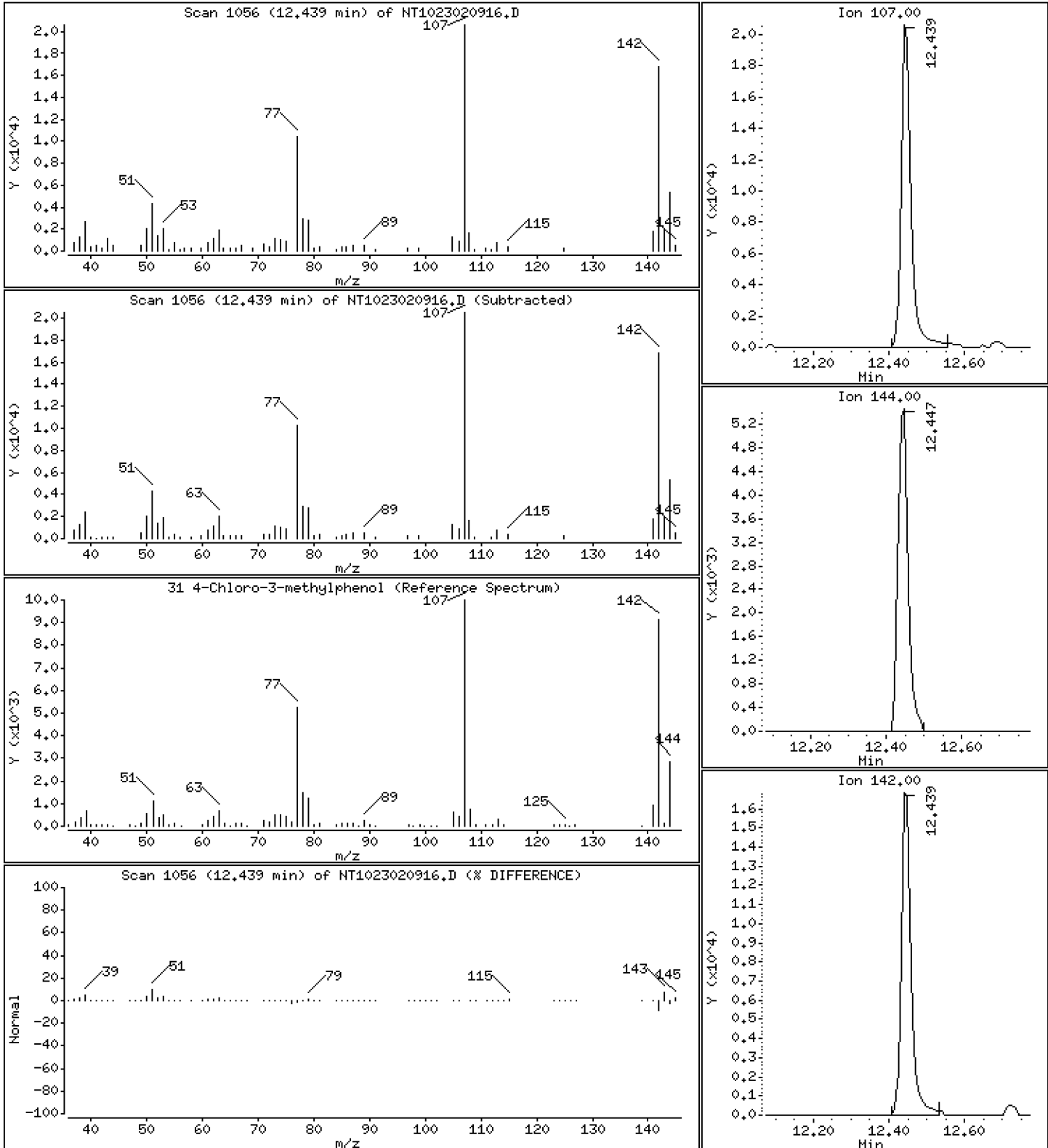
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 2,173 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

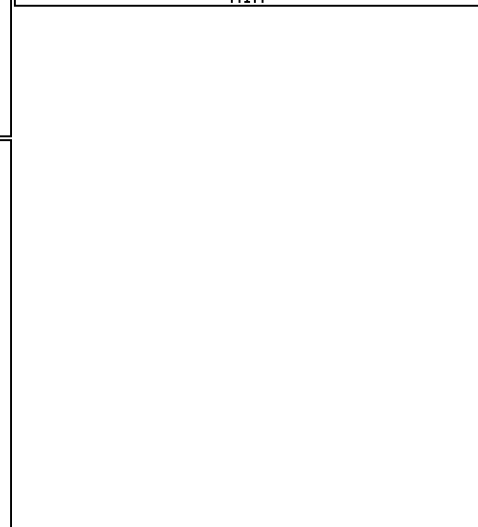
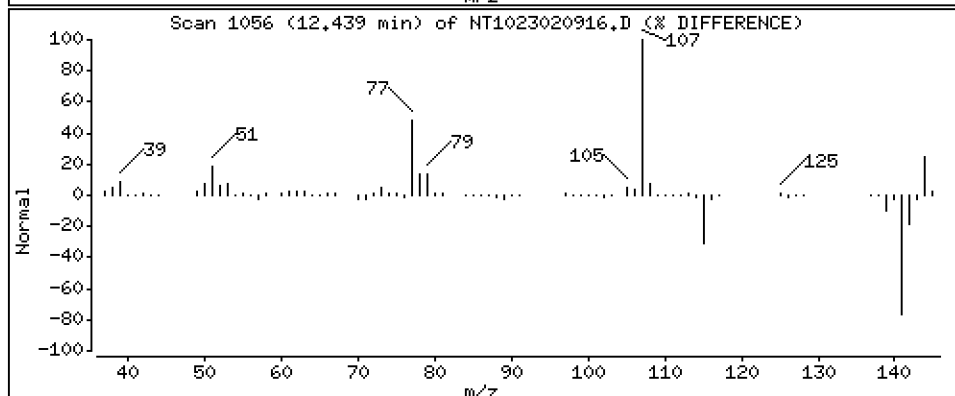
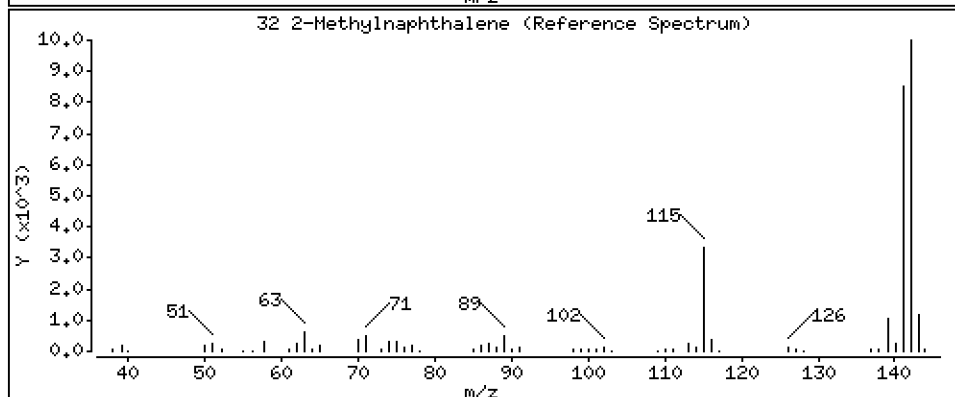
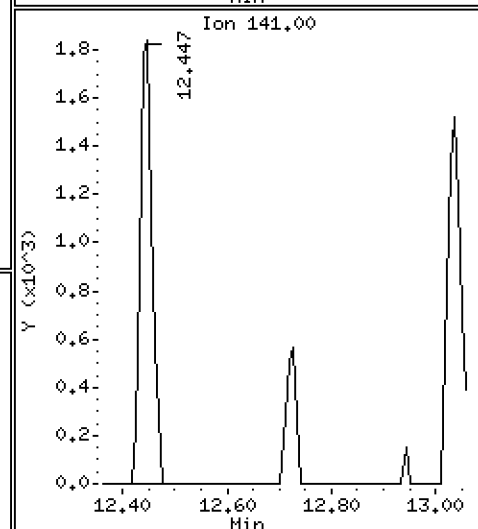
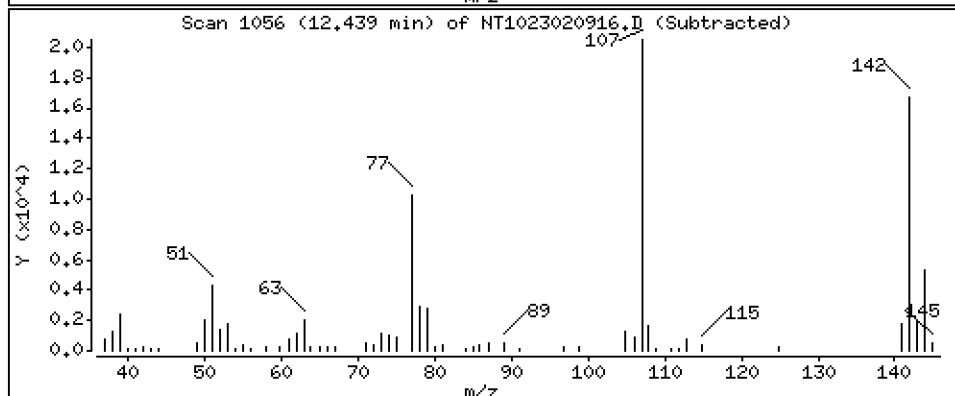
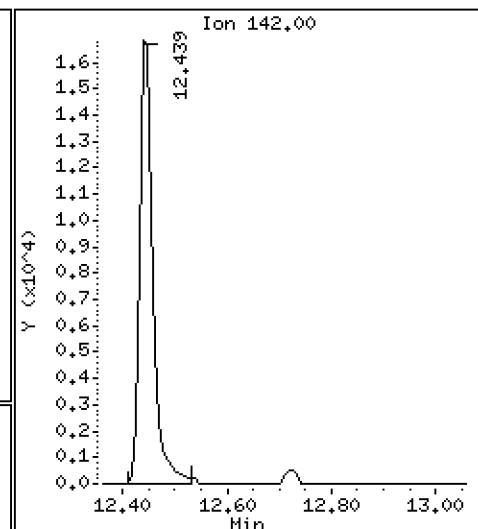
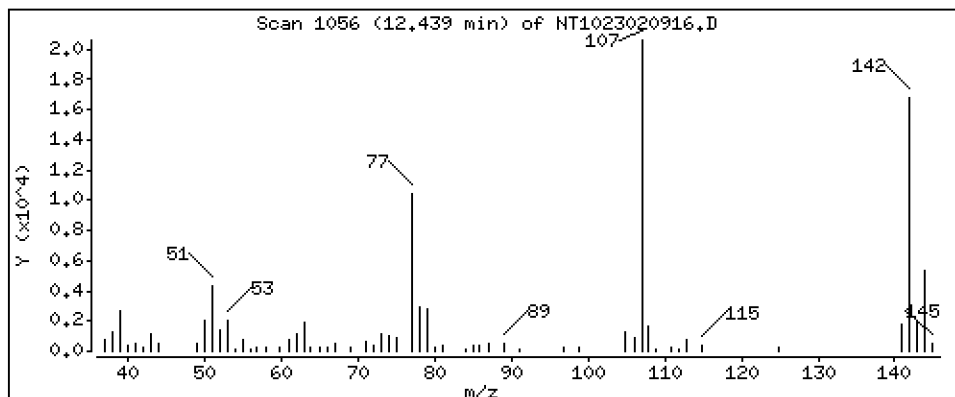
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,7658 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

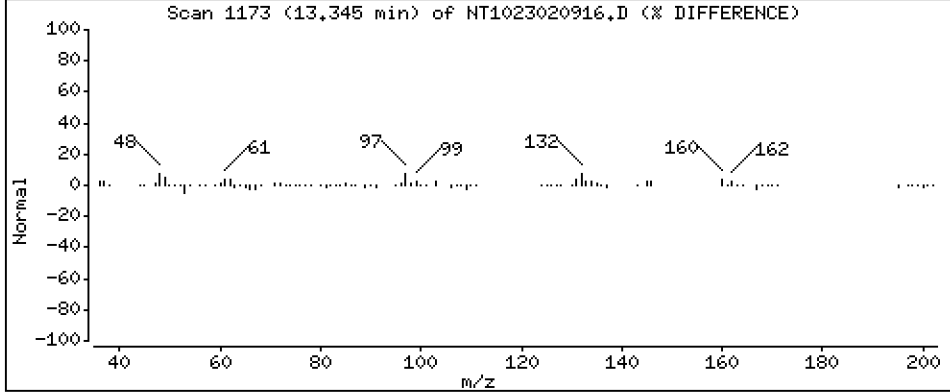
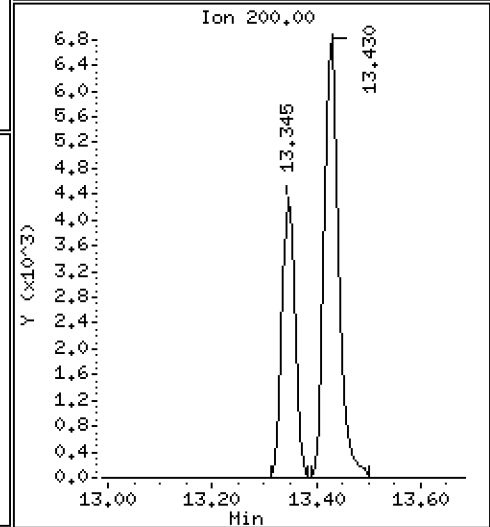
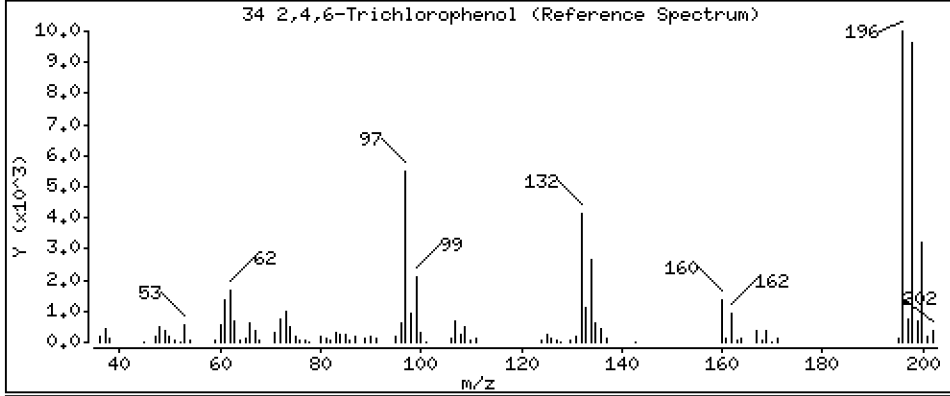
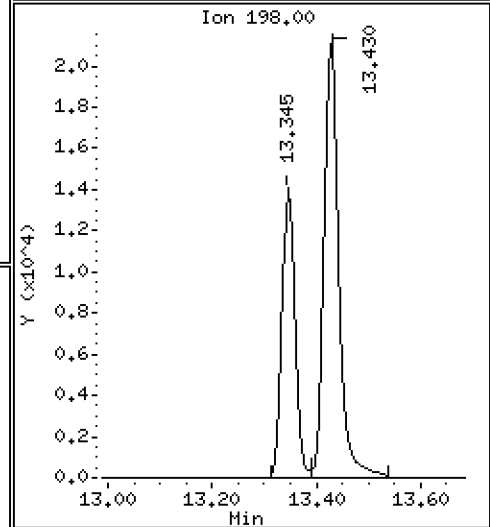
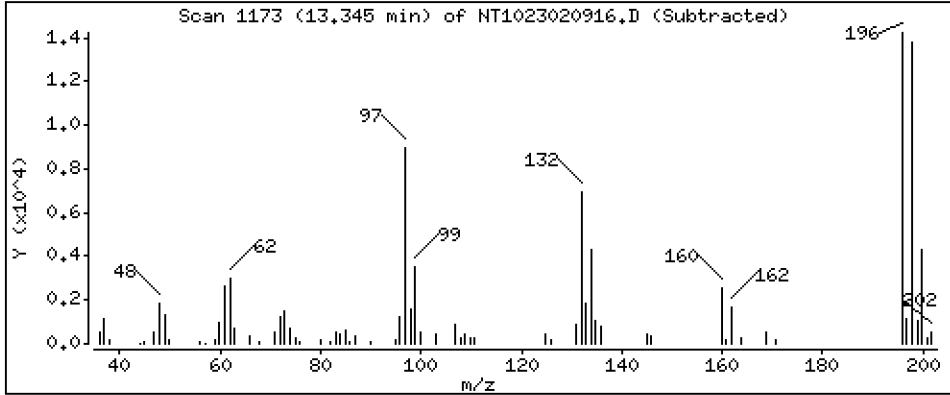
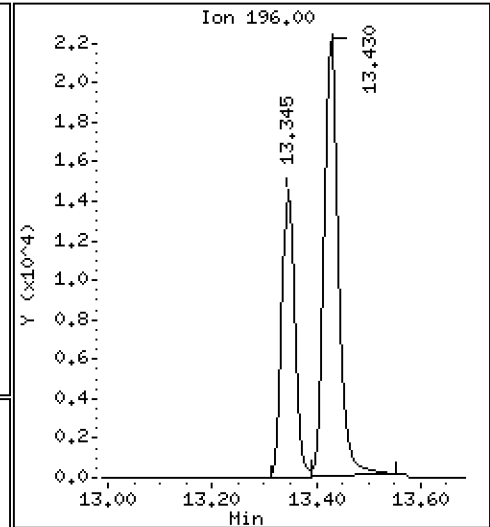
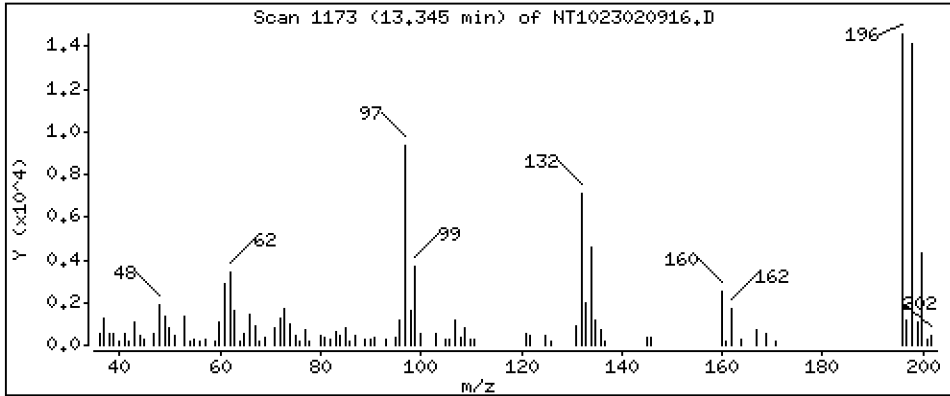
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 2,468 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

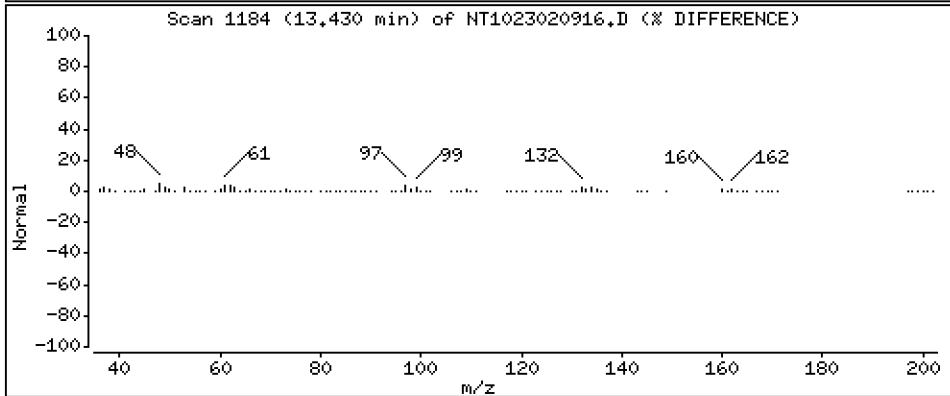
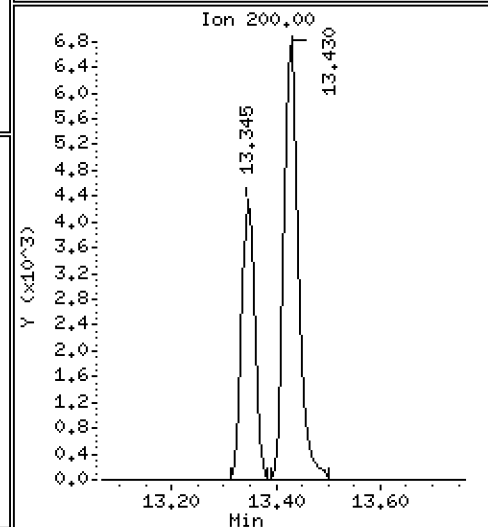
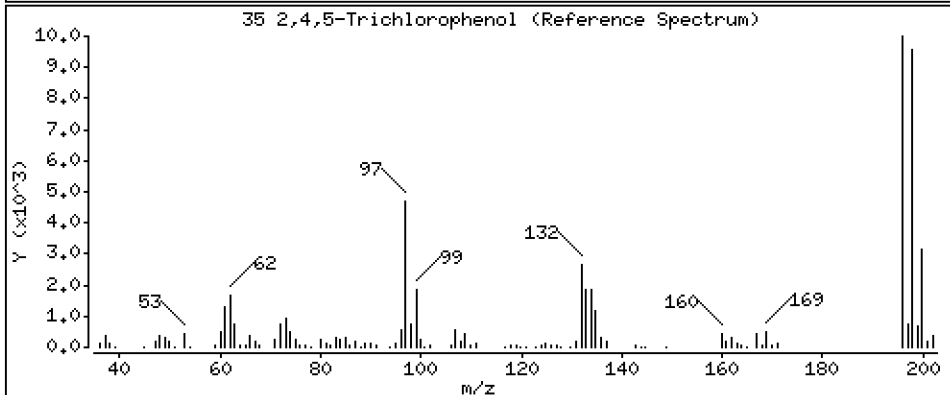
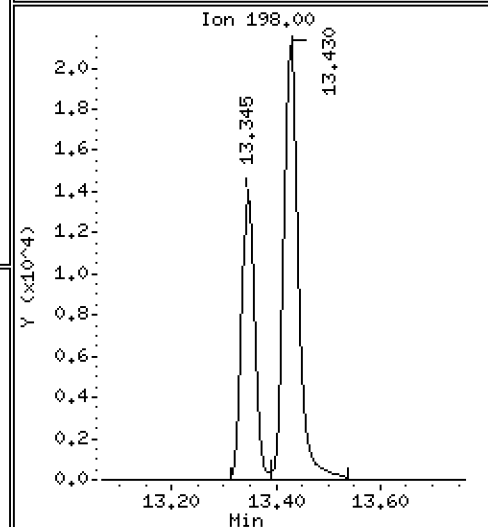
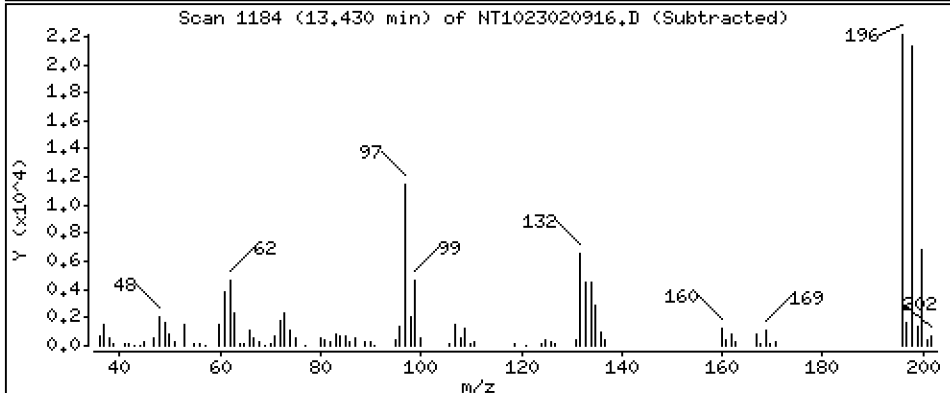
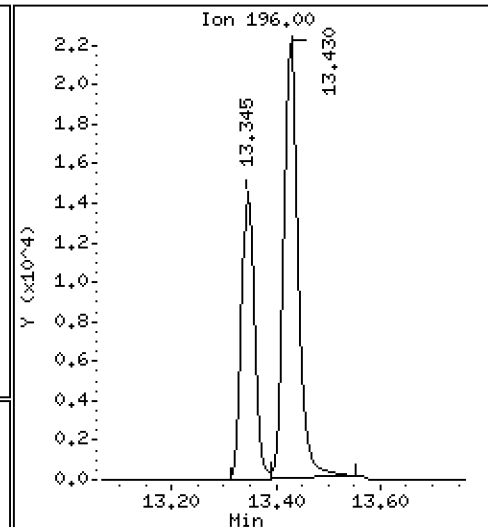
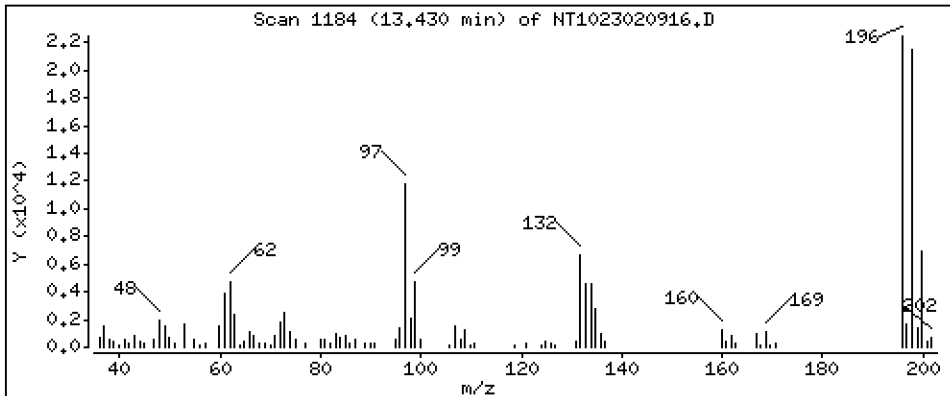
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 3,920 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

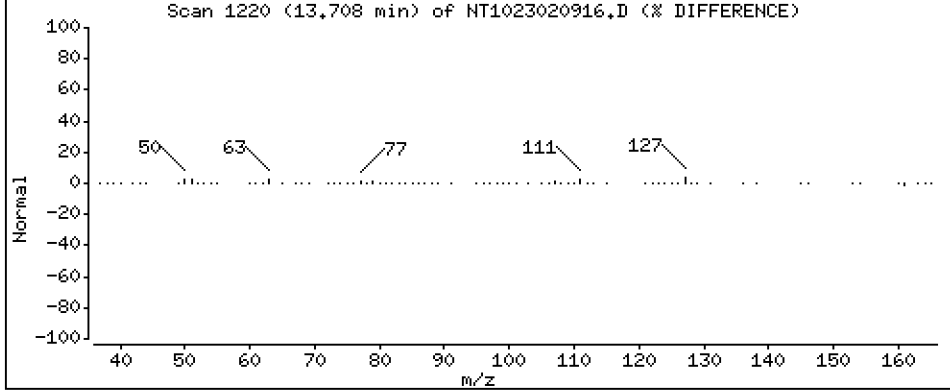
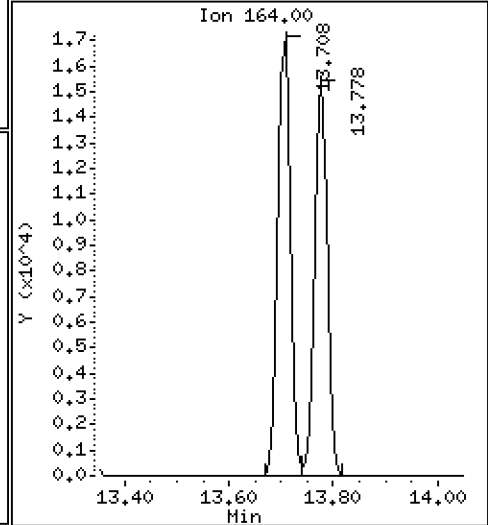
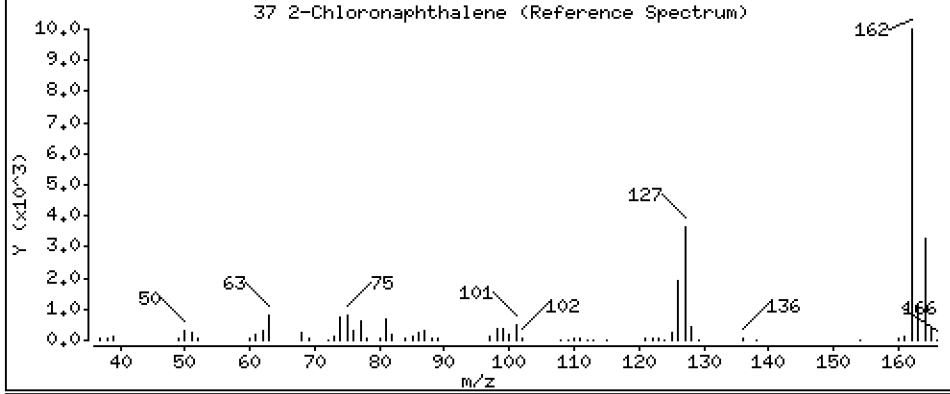
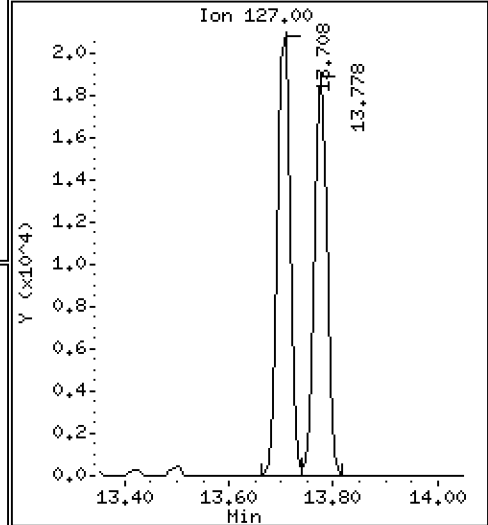
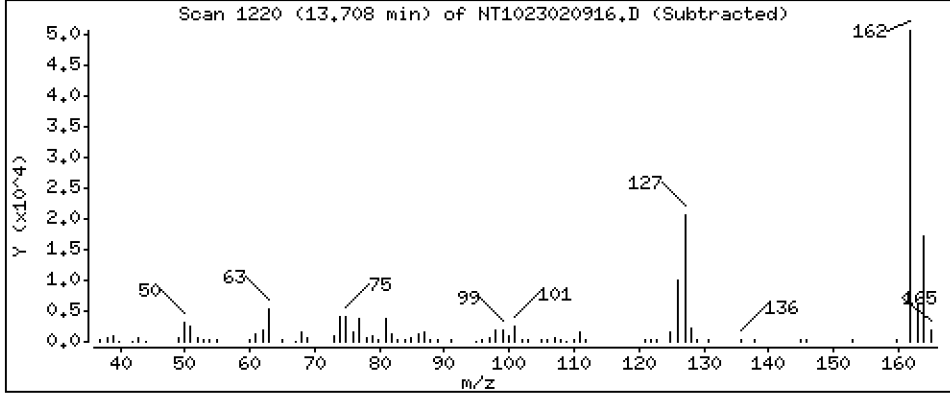
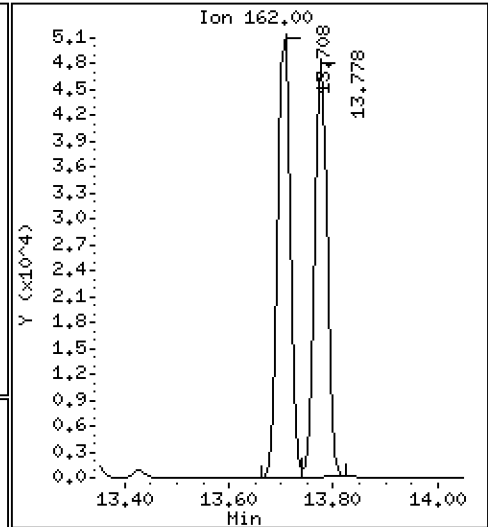
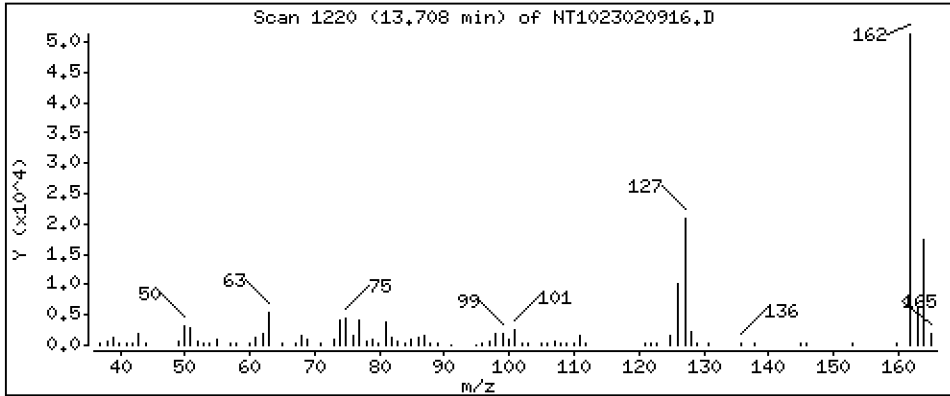
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 2,402 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

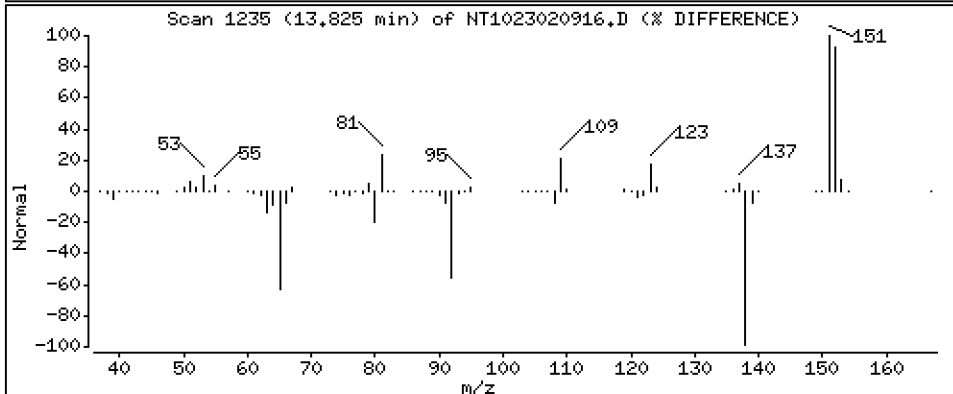
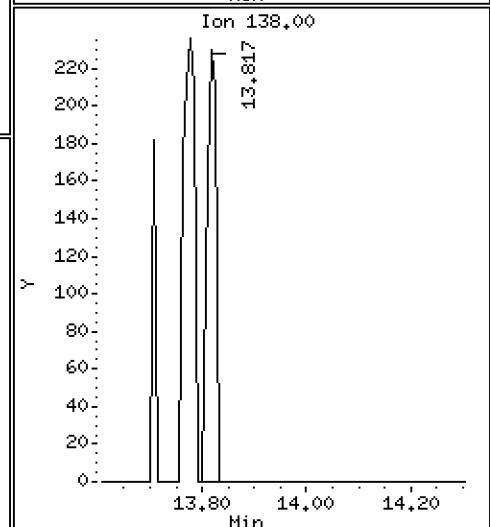
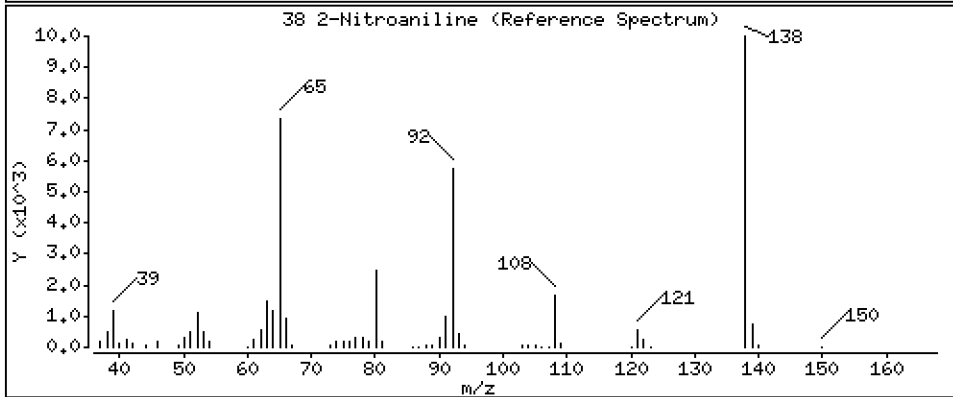
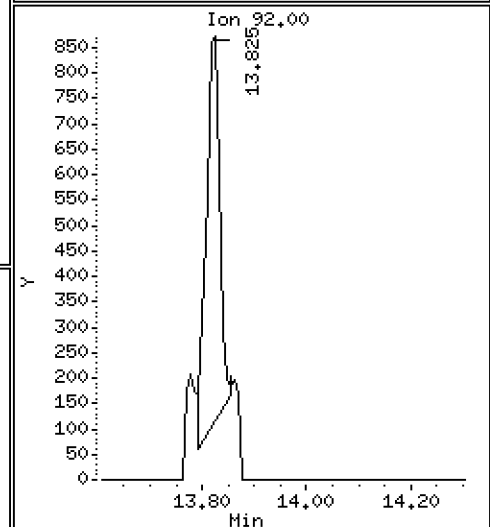
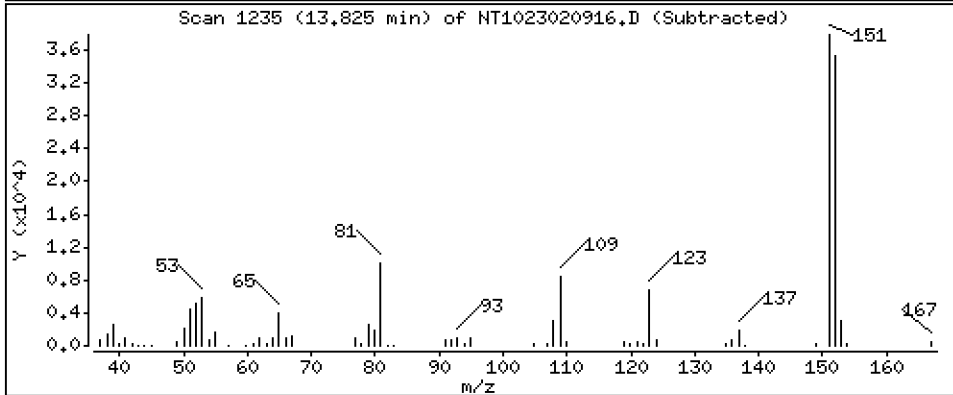
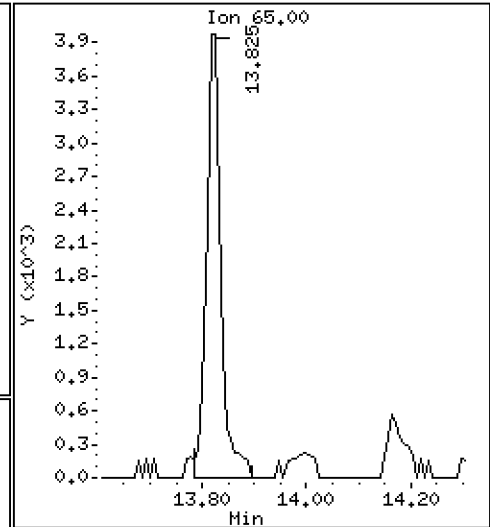
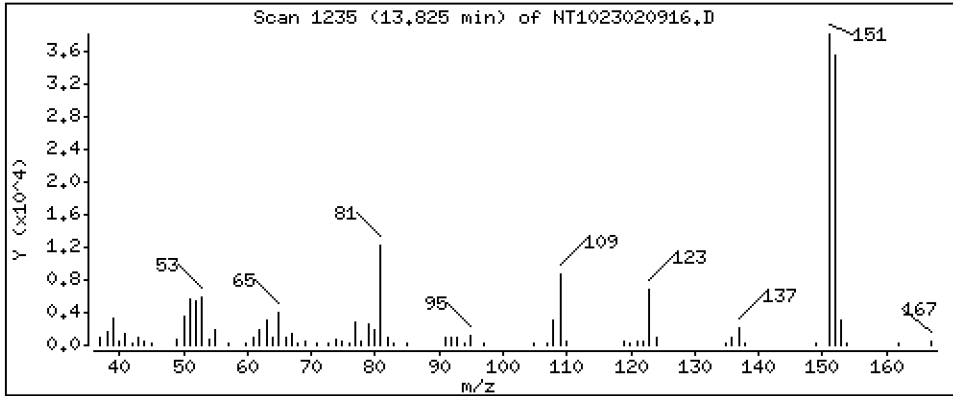
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 0,7140 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

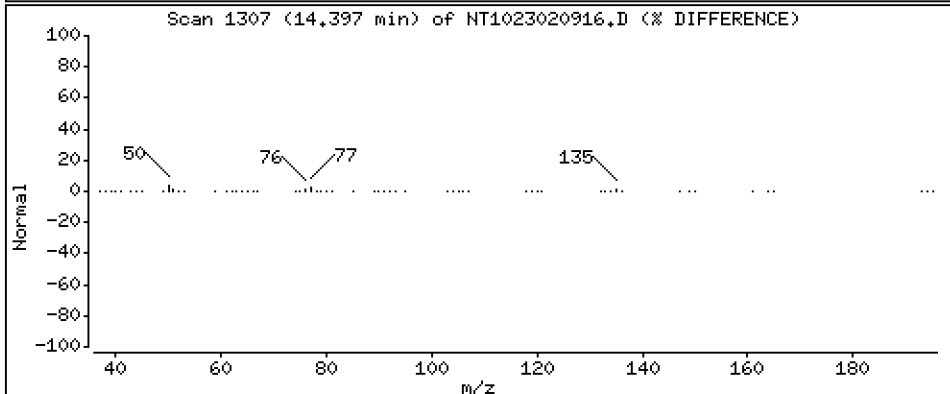
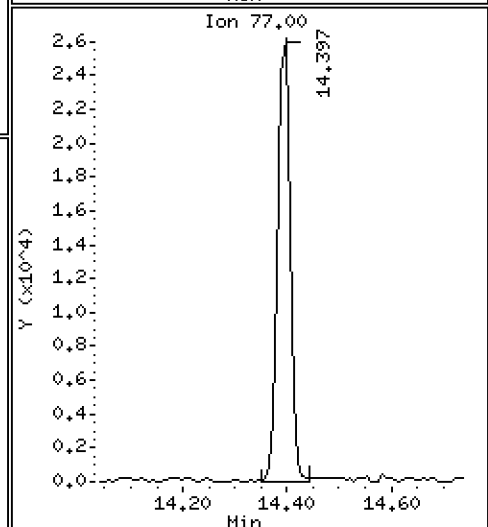
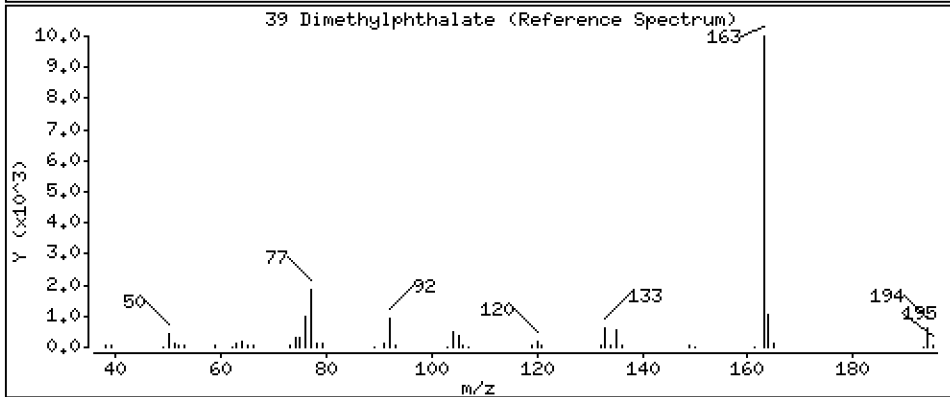
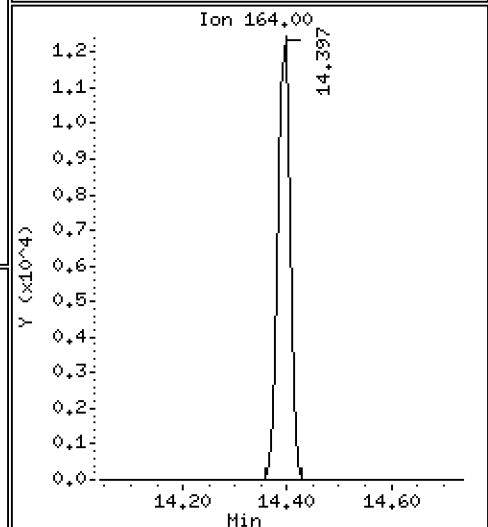
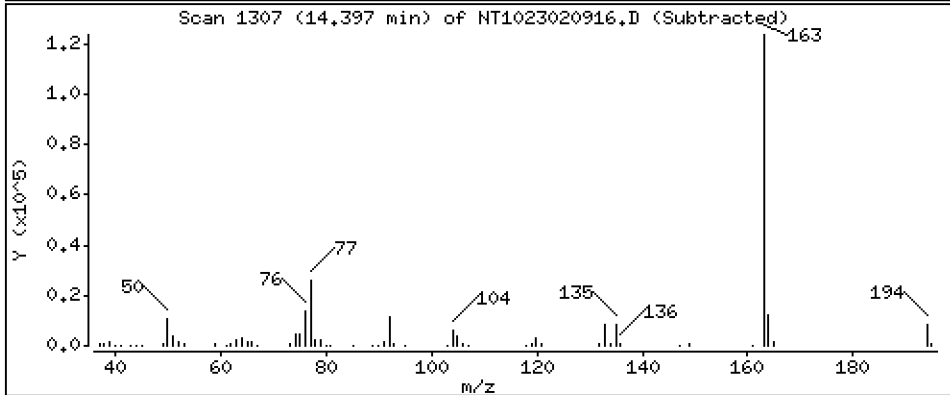
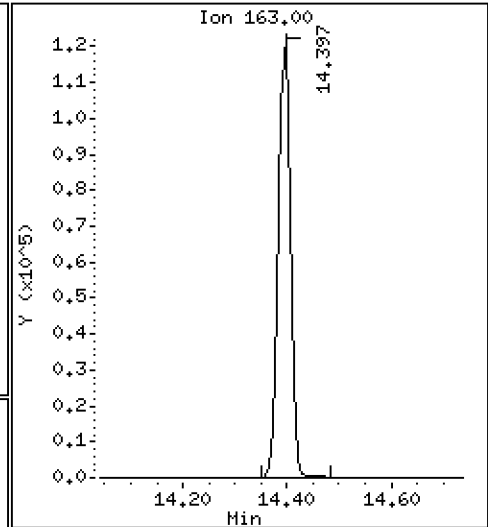
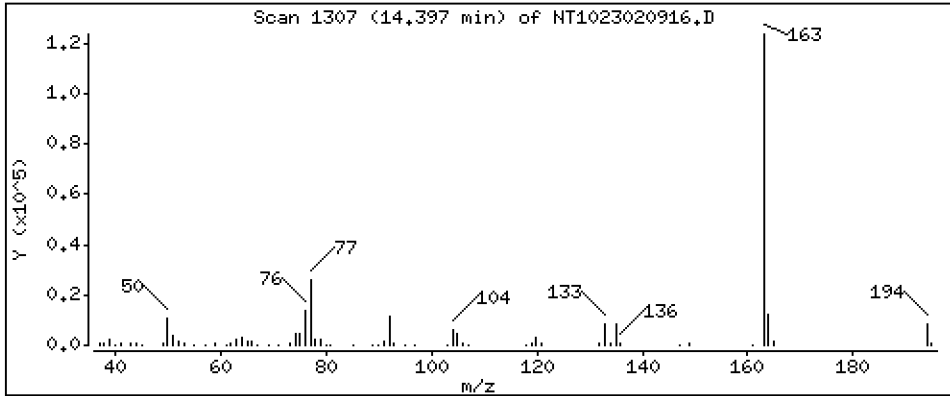
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 5,102 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

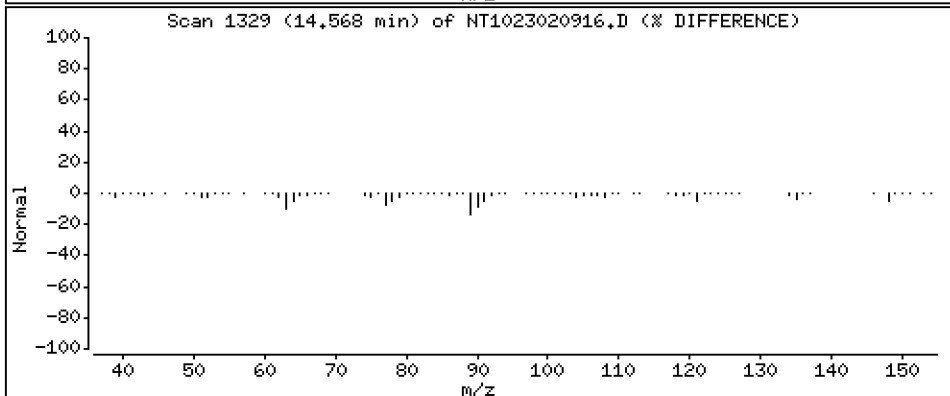
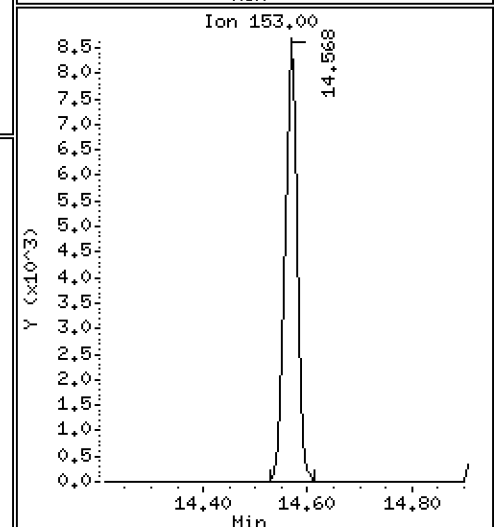
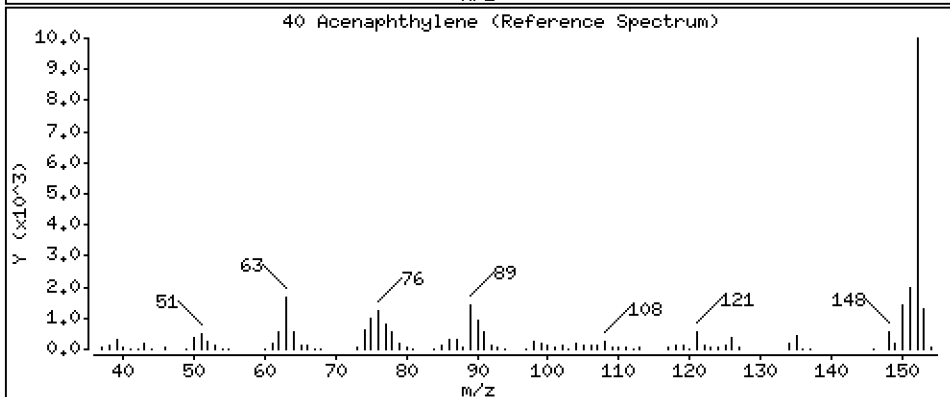
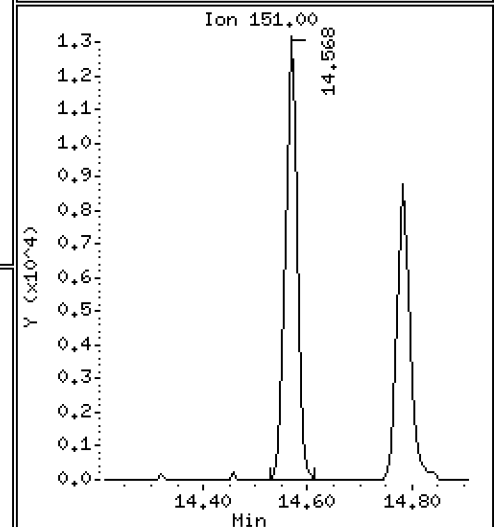
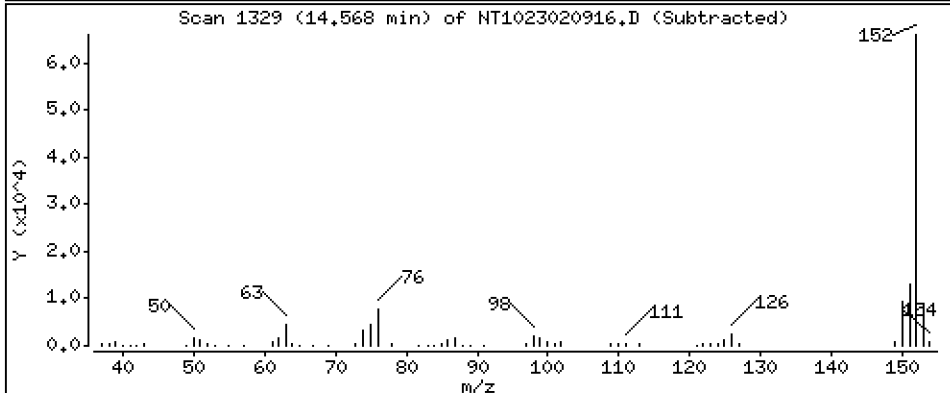
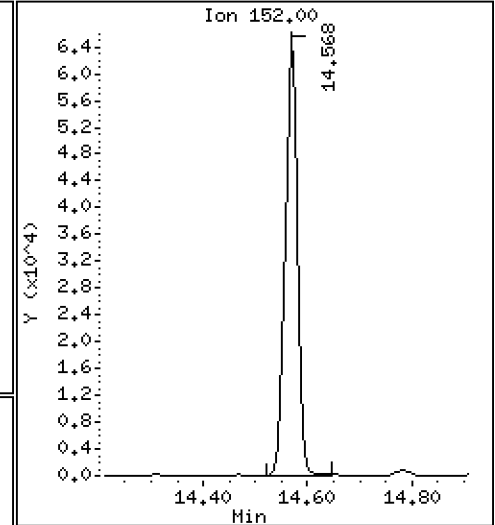
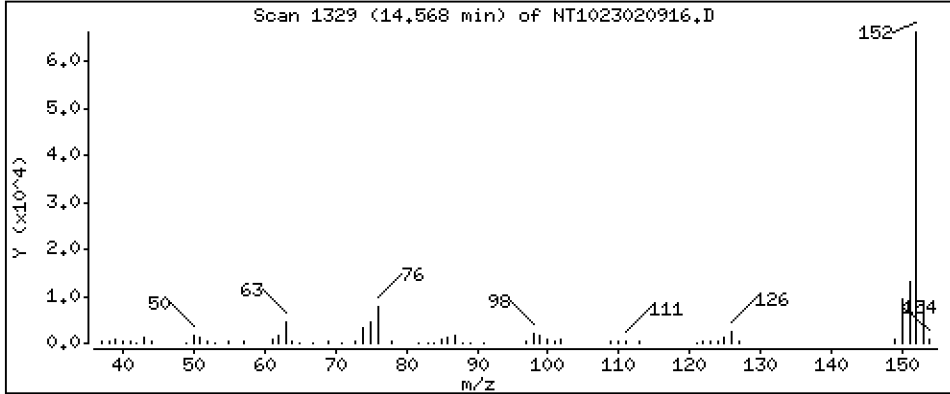
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

40 Acenaphthylene

Concentration: 1.916 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

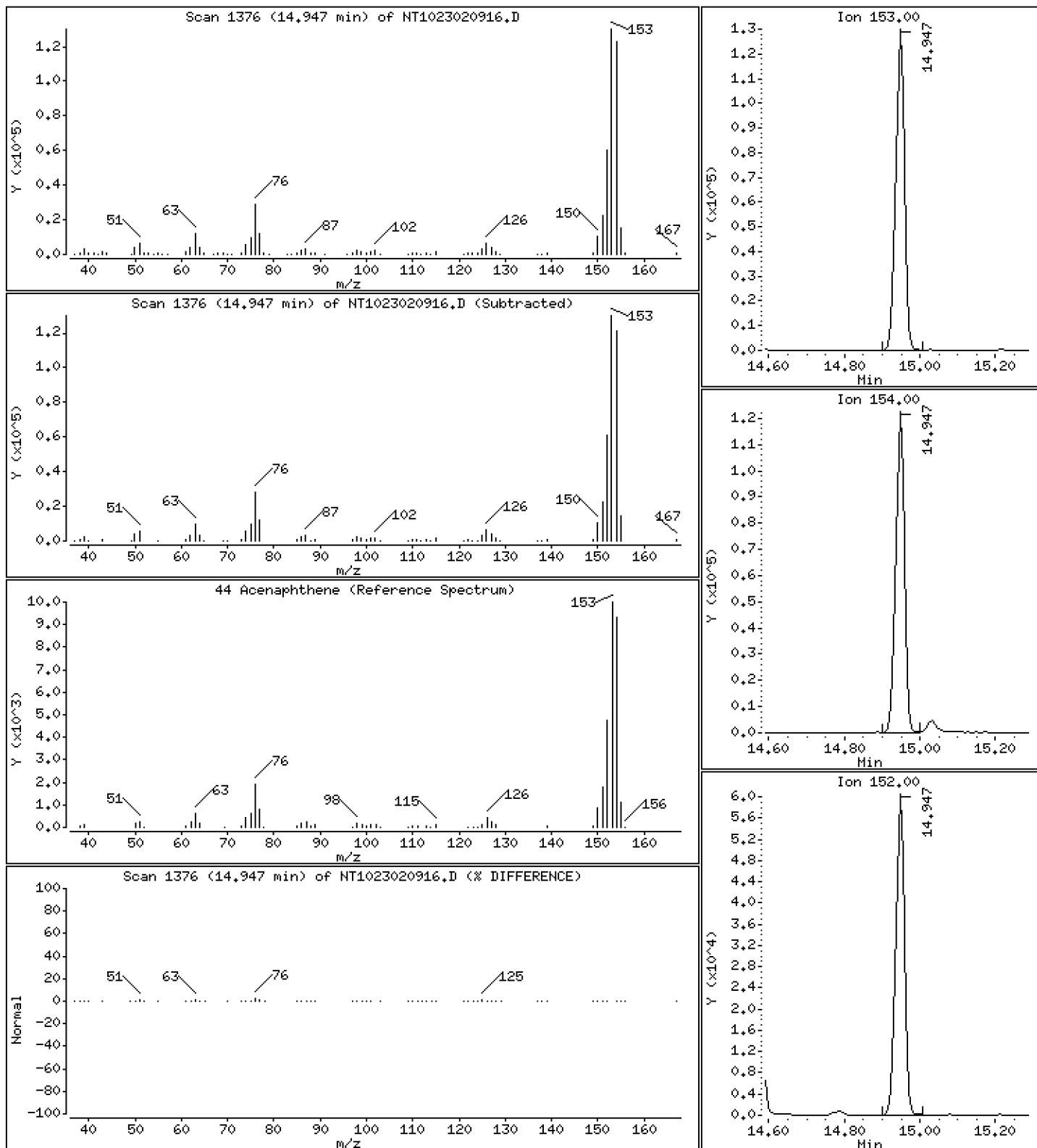
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 6,131 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

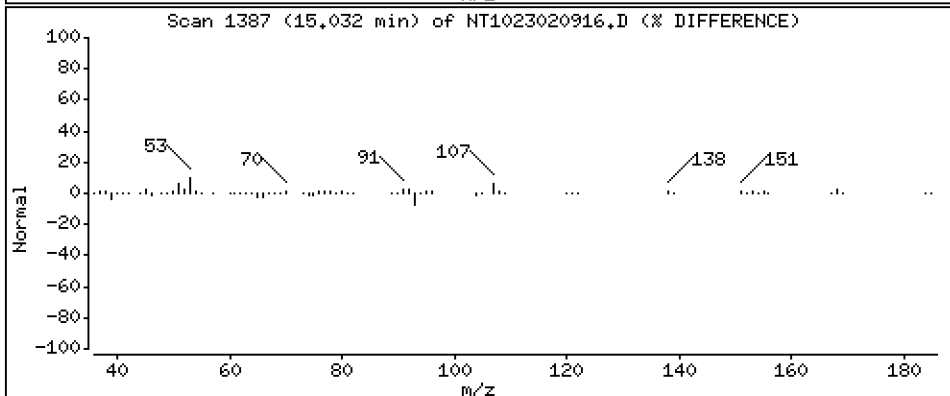
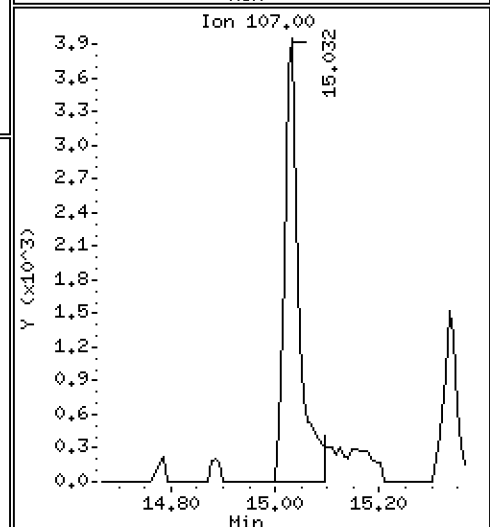
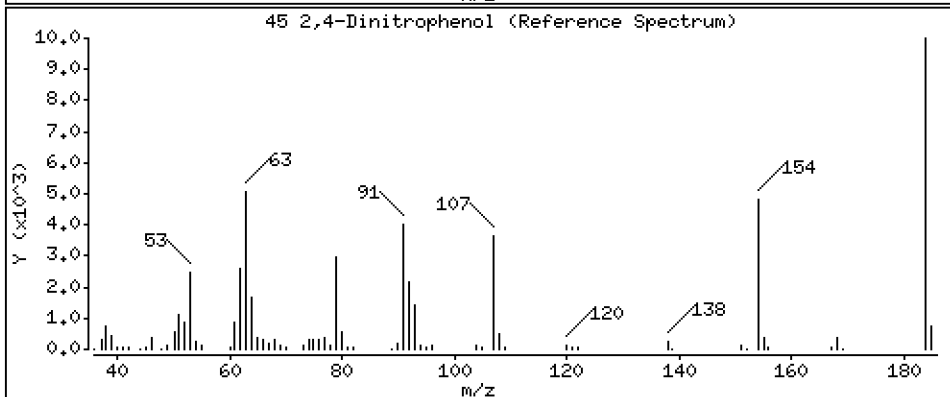
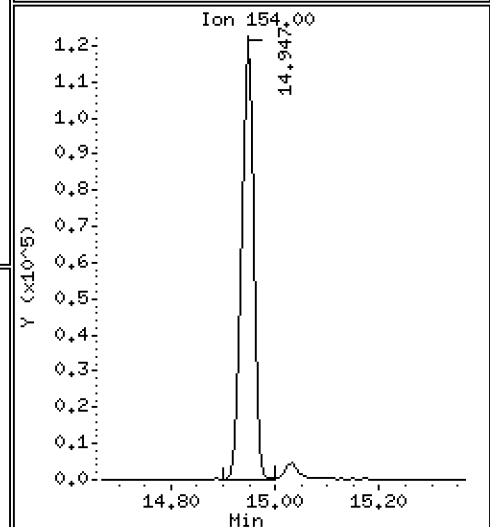
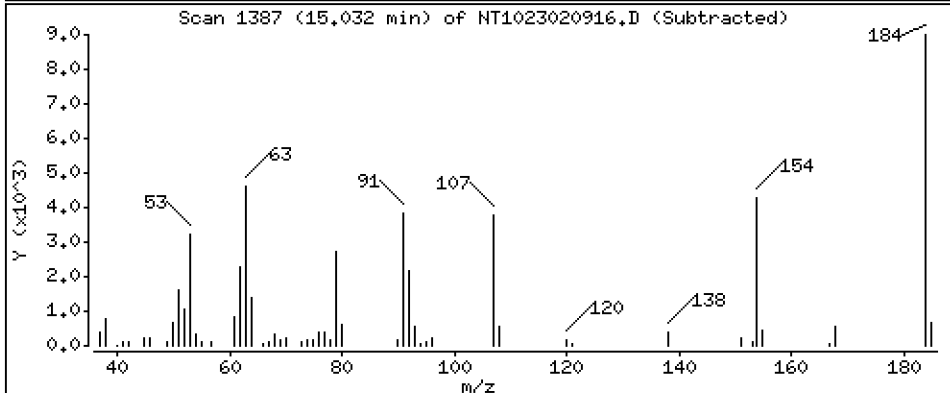
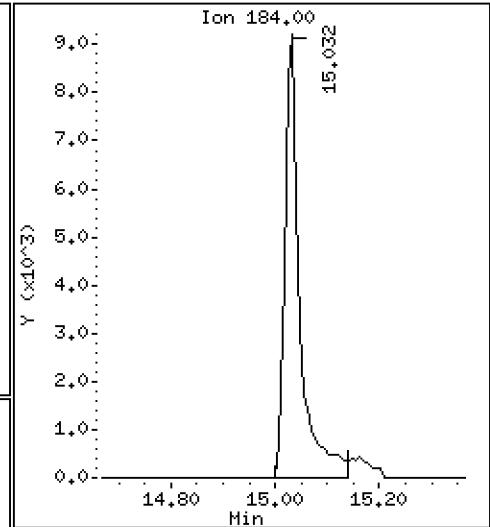
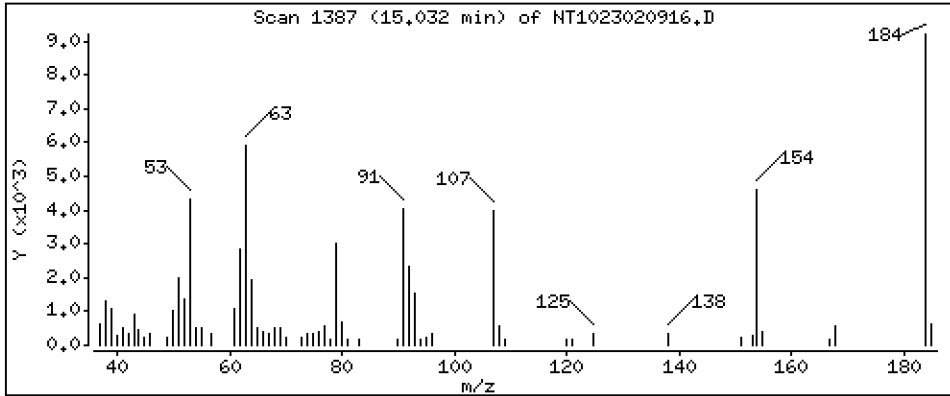
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 4,123 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

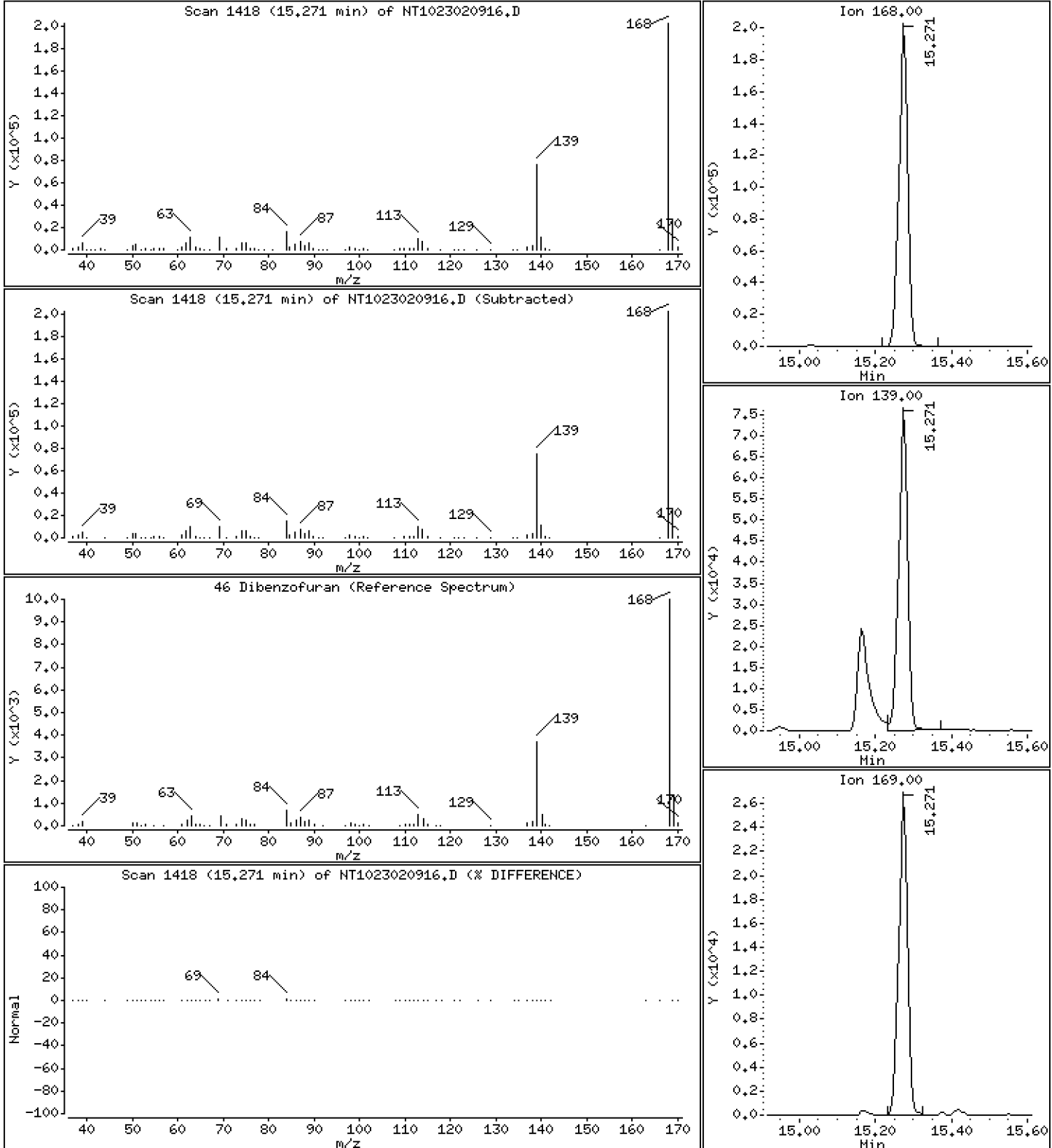
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 6,698 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

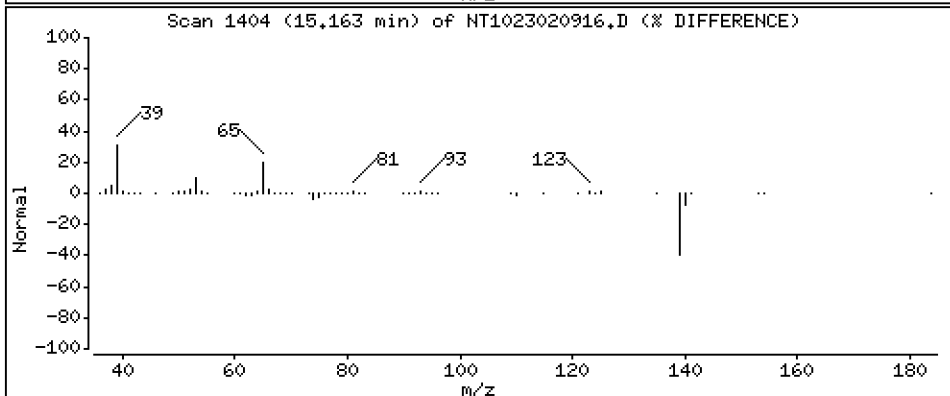
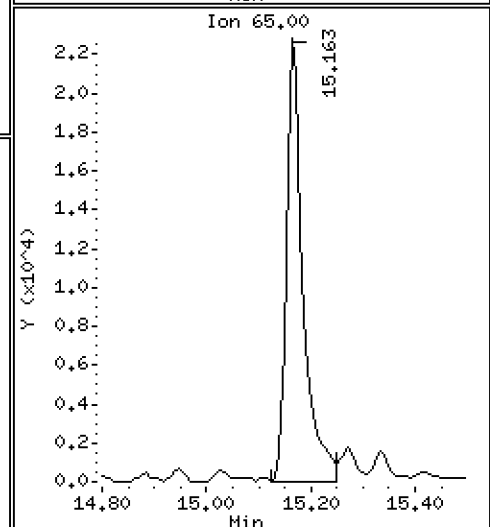
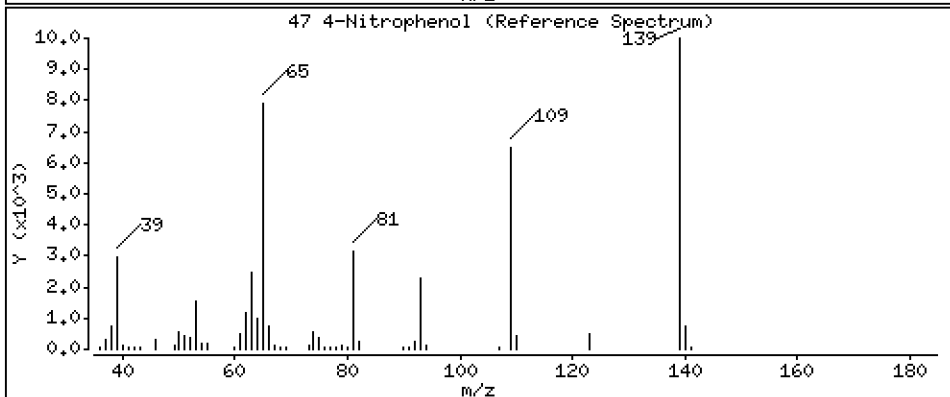
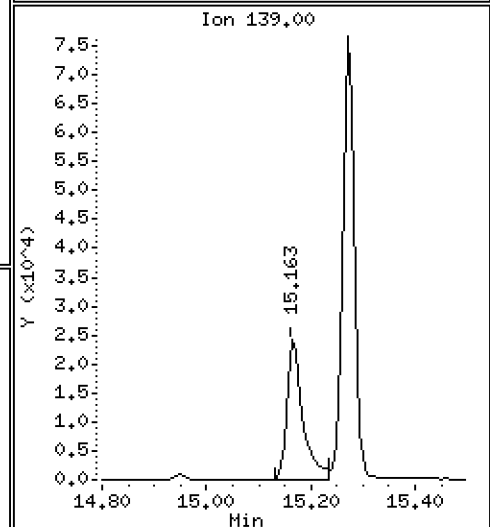
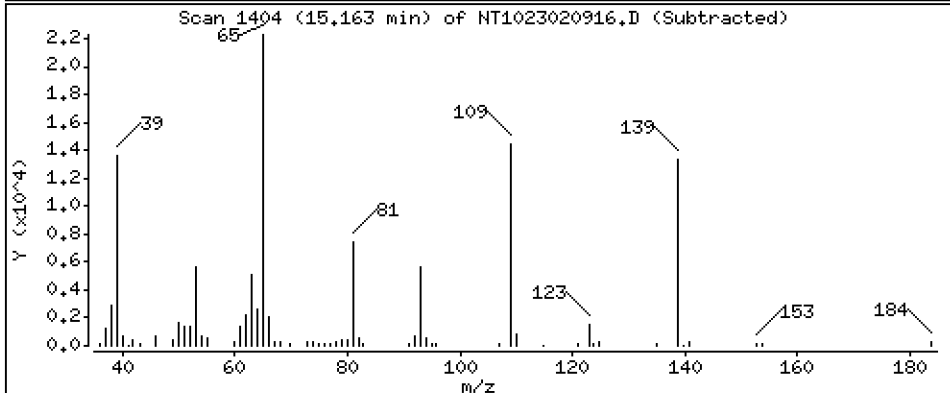
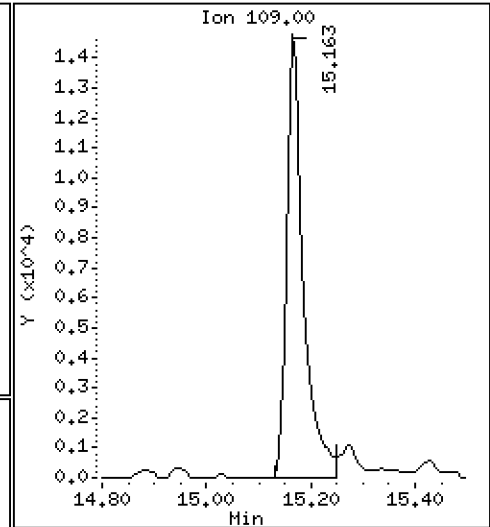
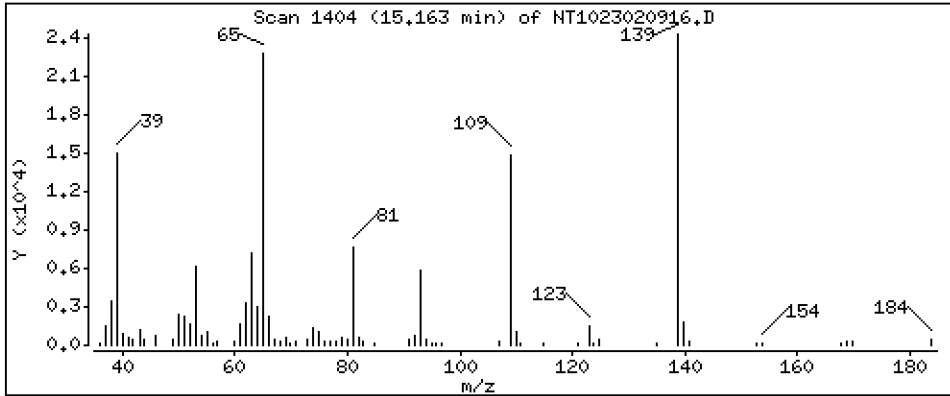
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 9,053 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

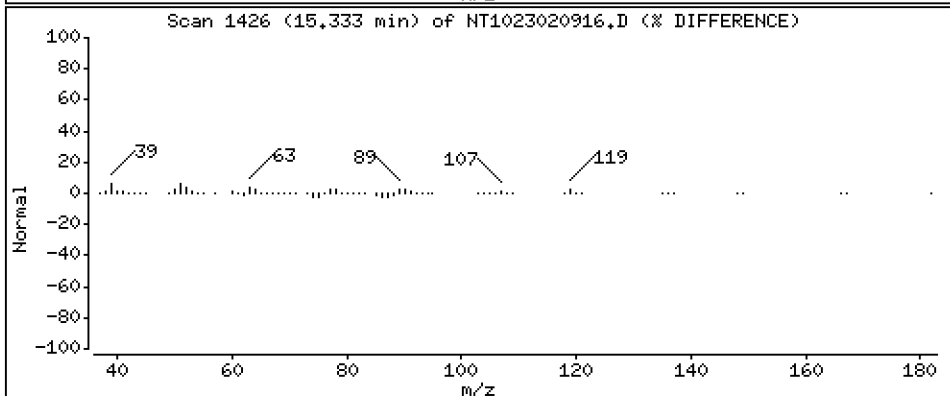
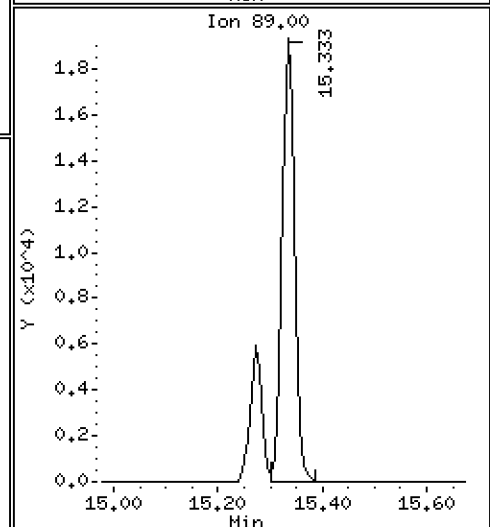
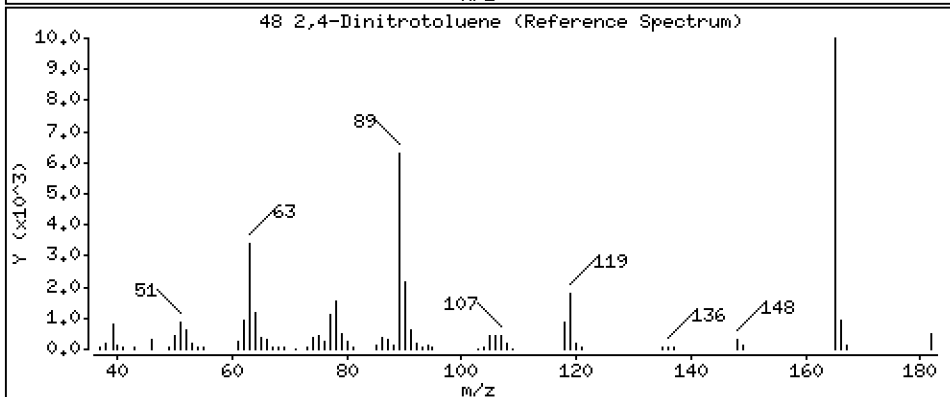
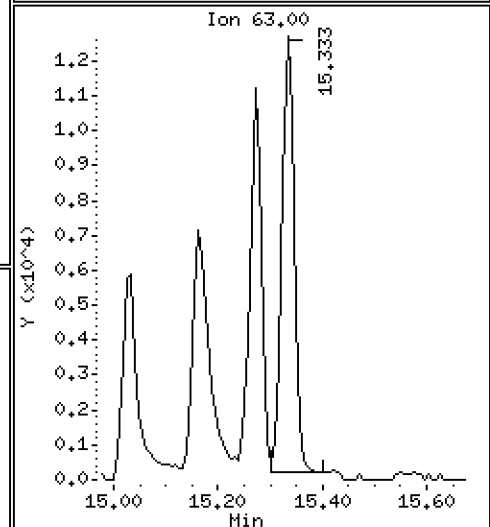
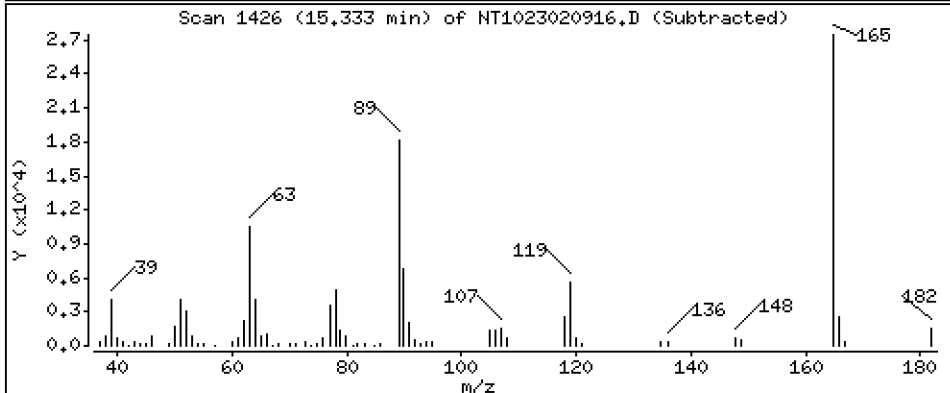
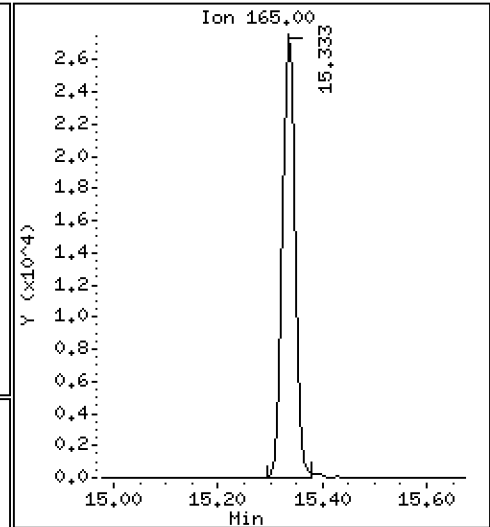
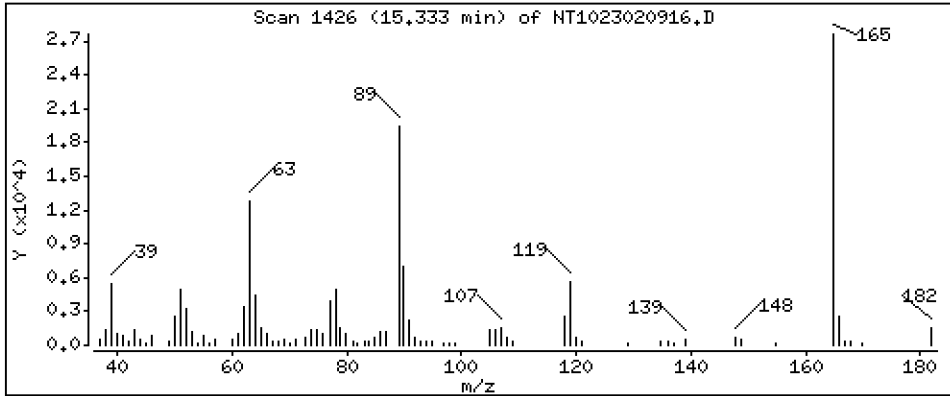
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 3,696 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

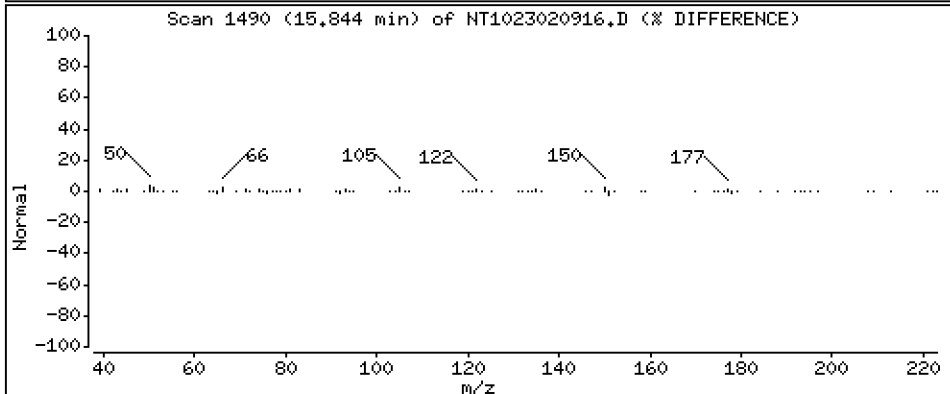
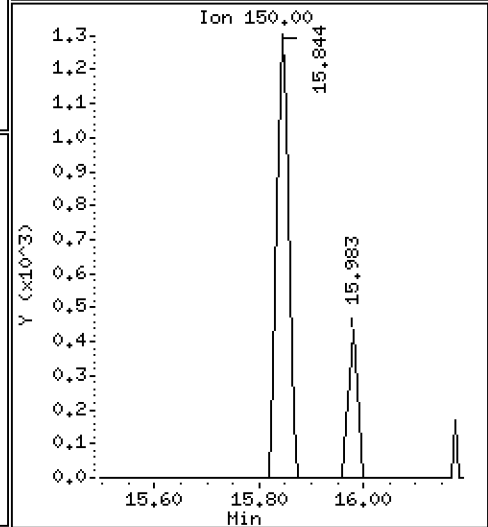
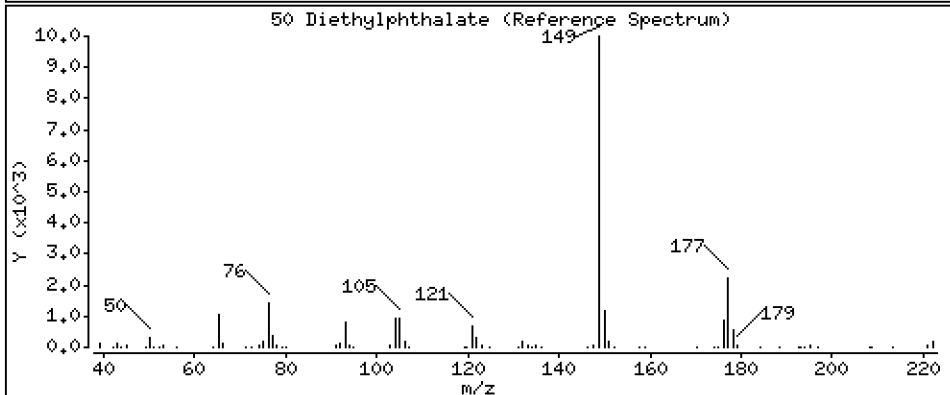
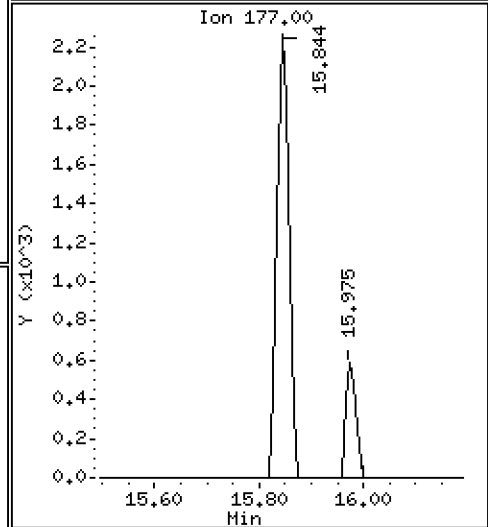
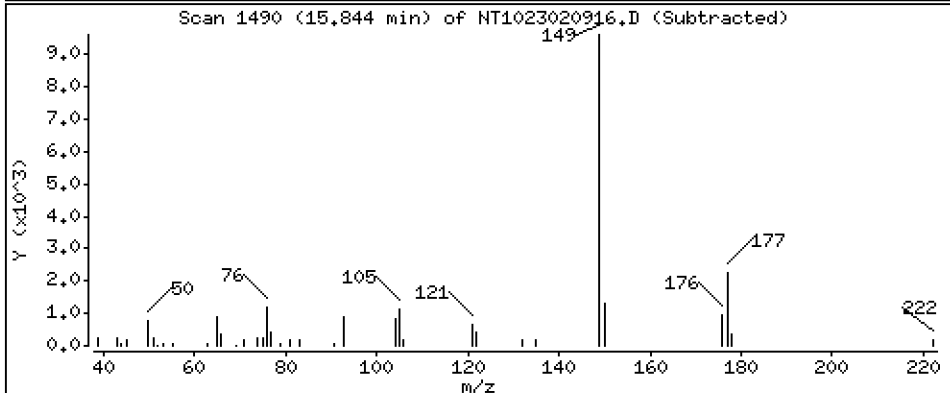
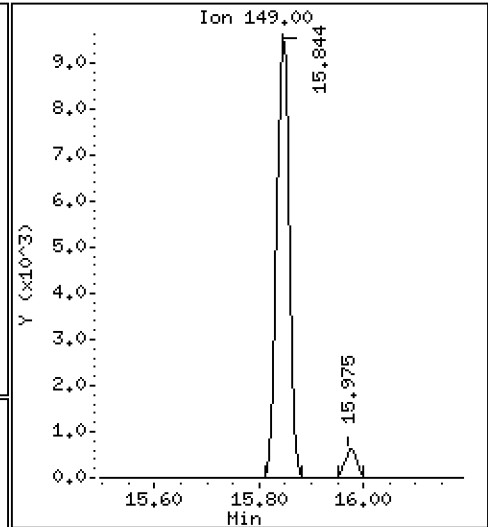
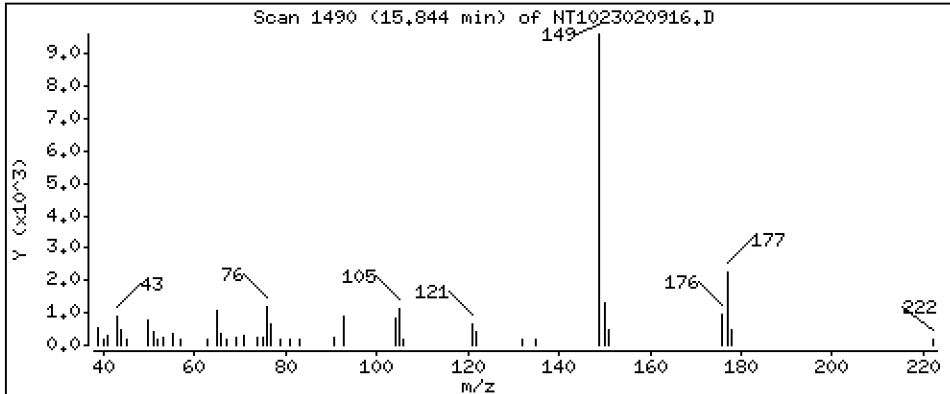
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,4333 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

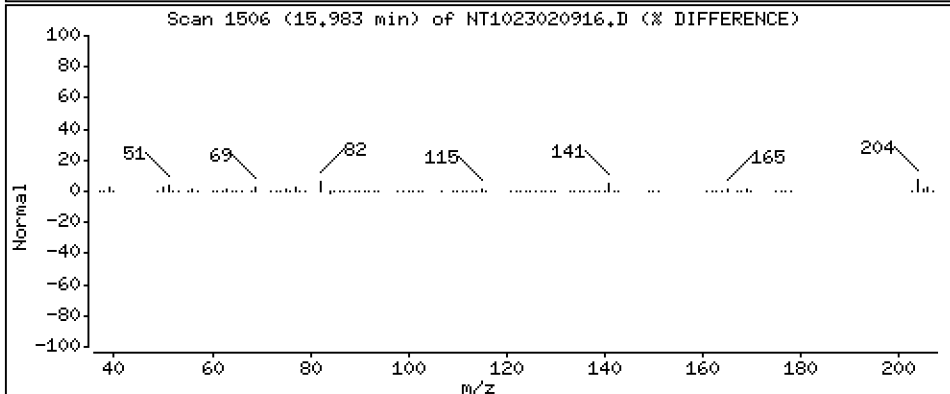
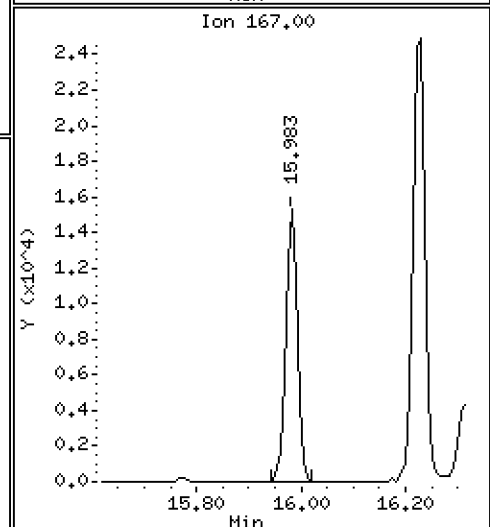
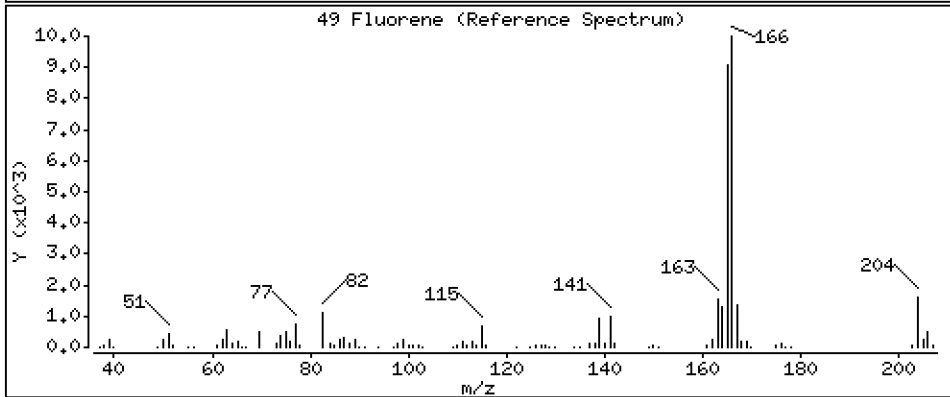
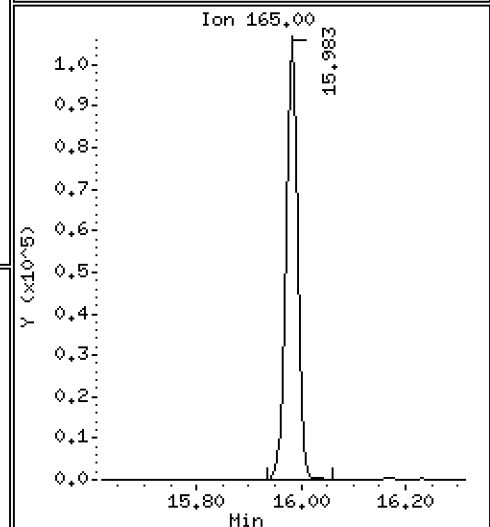
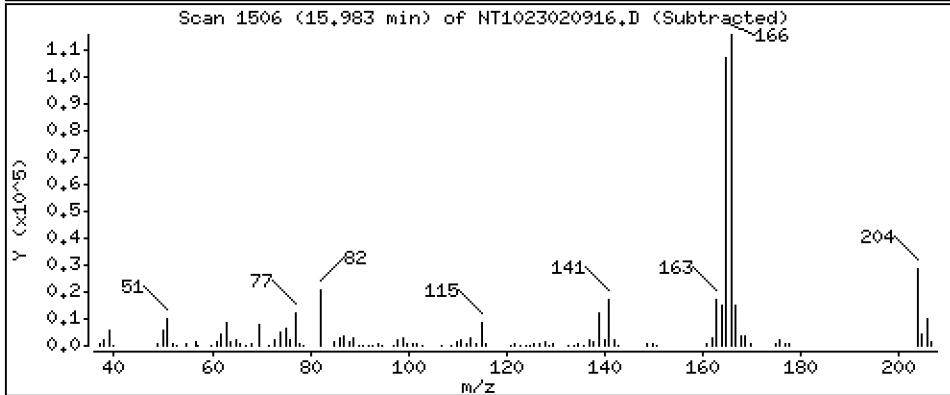
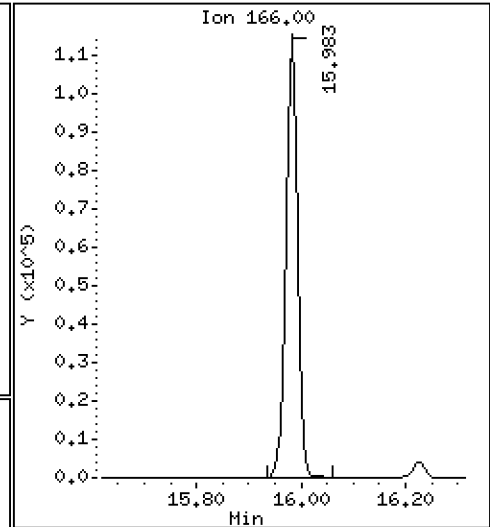
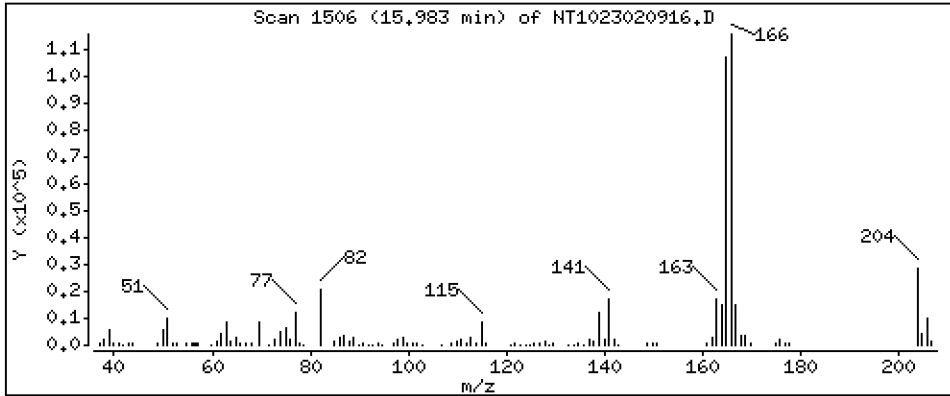
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 3,408 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

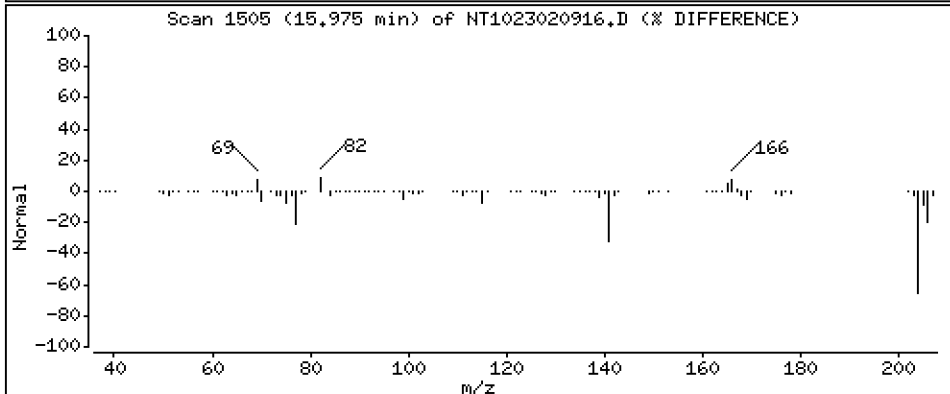
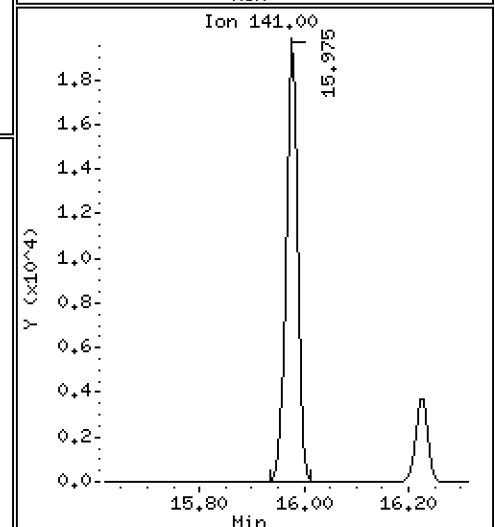
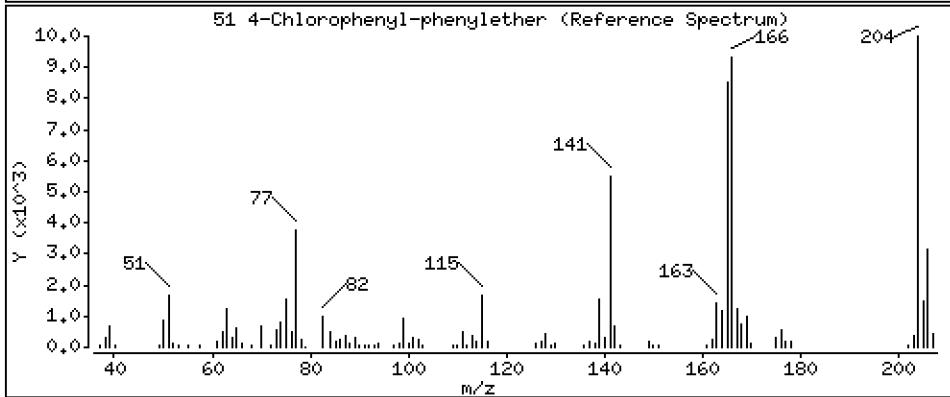
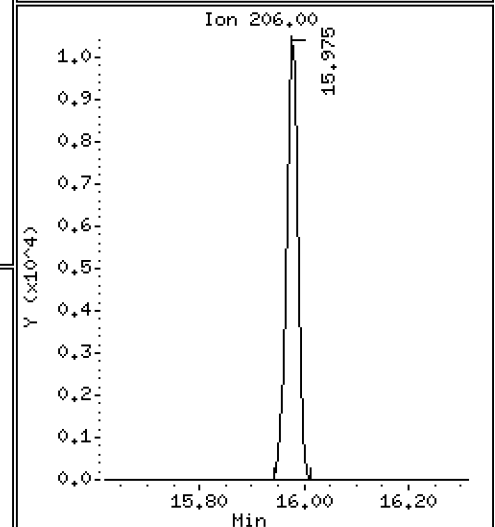
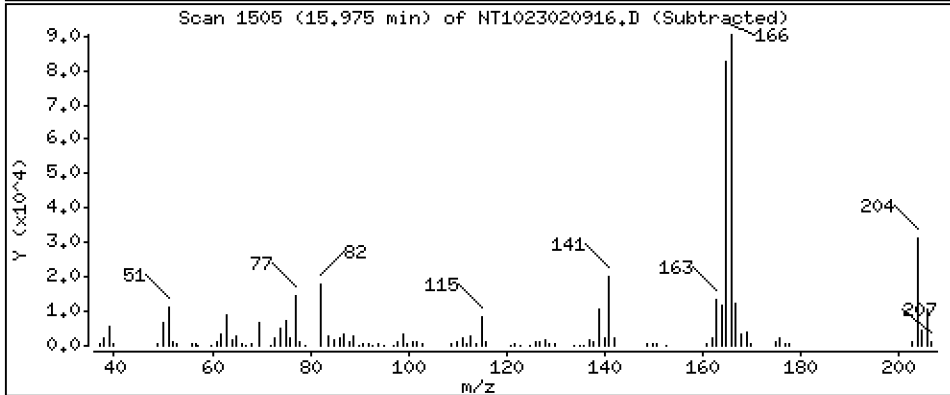
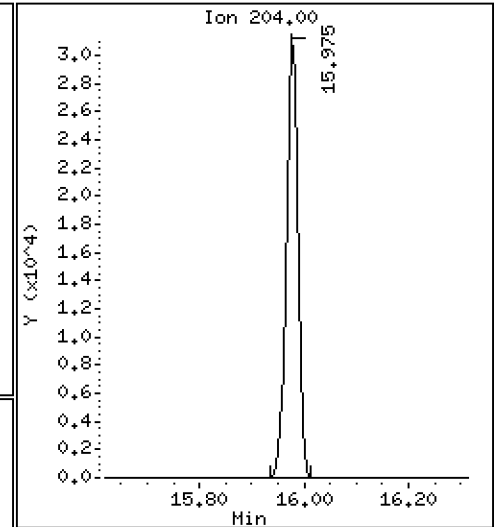
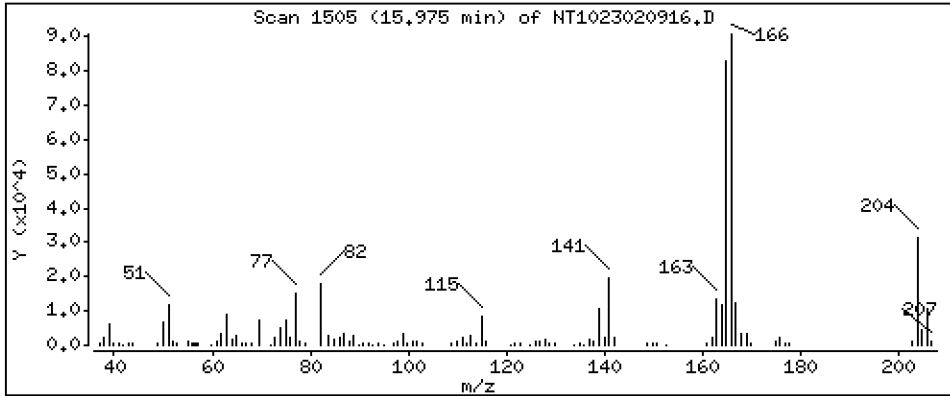
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

51 4-Chlorophenyl-phenylether

Concentration: 1.885 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

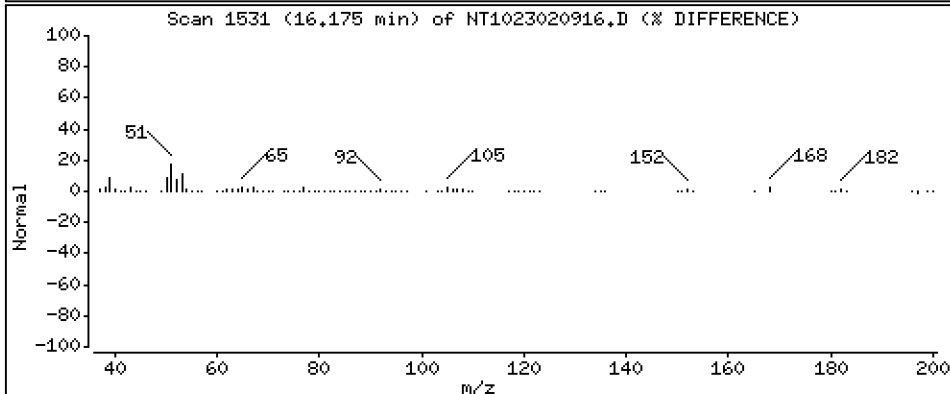
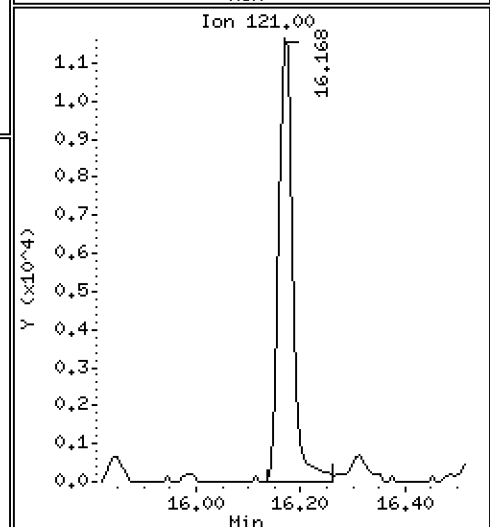
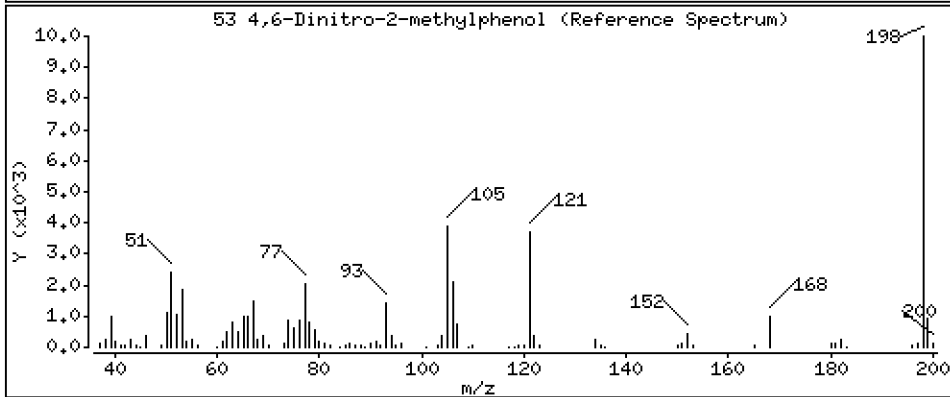
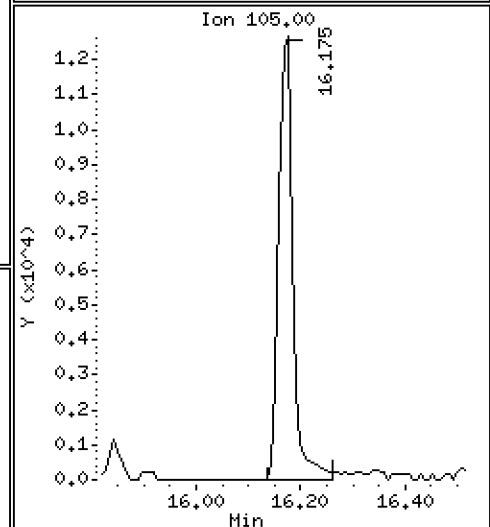
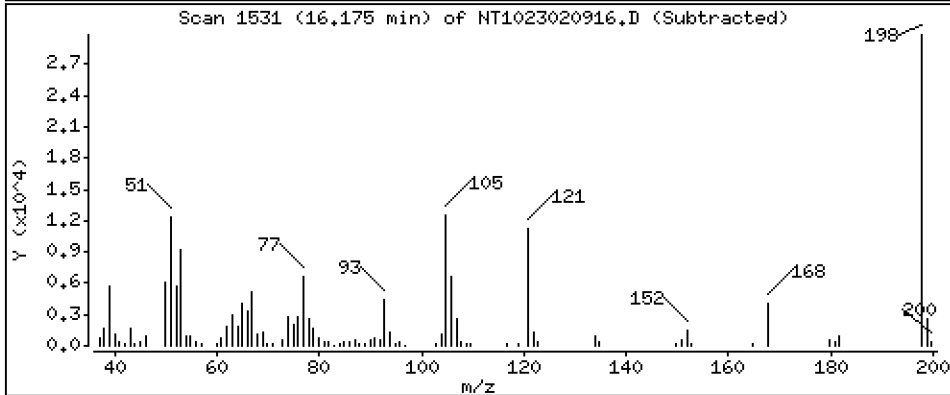
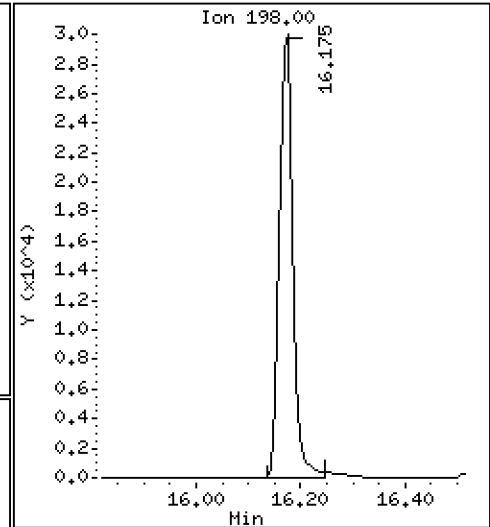
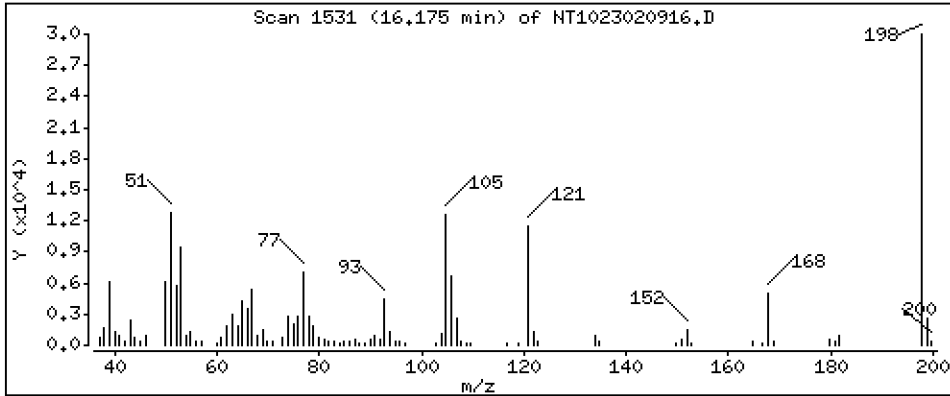
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

53 4,6-Dinitro-2-methylphenol

Concentration: 7.913 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

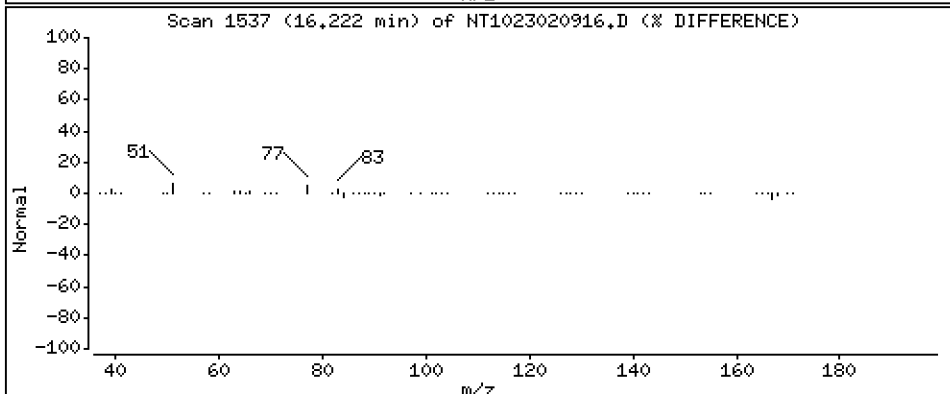
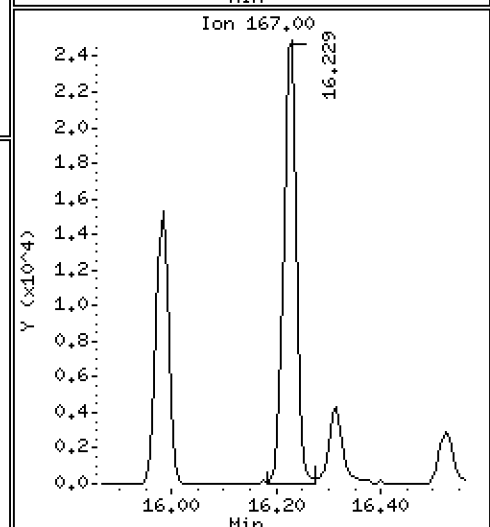
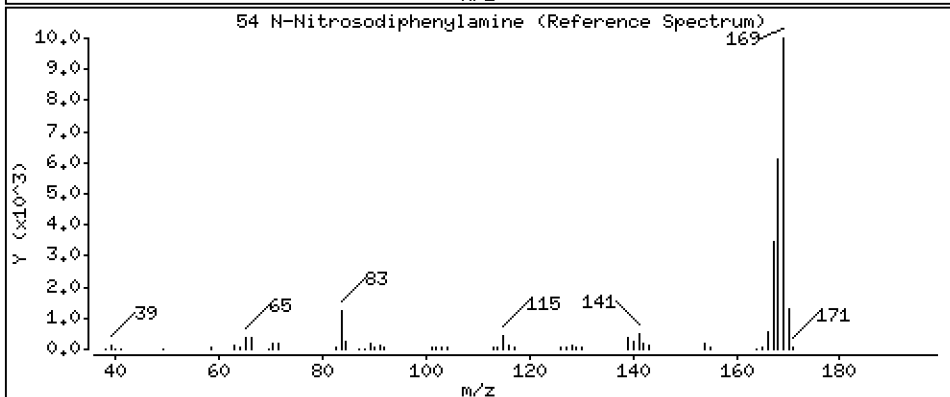
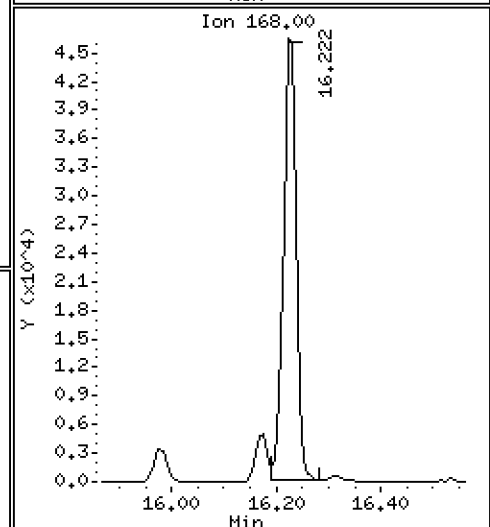
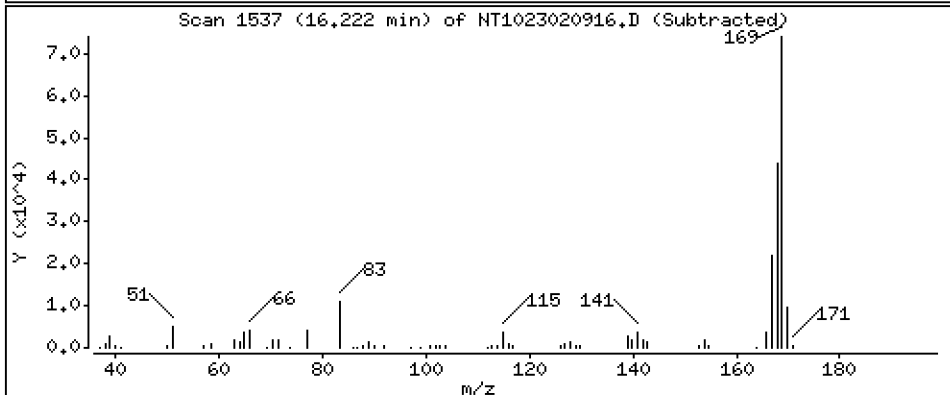
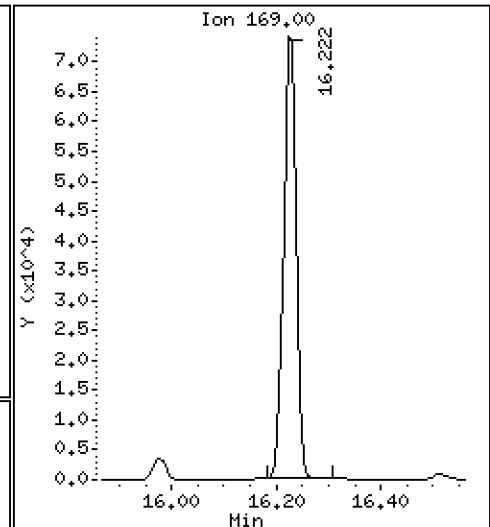
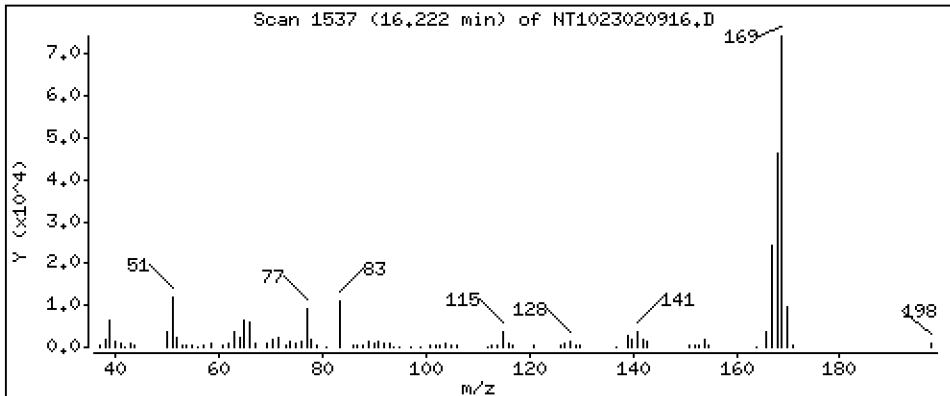
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 4,026 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

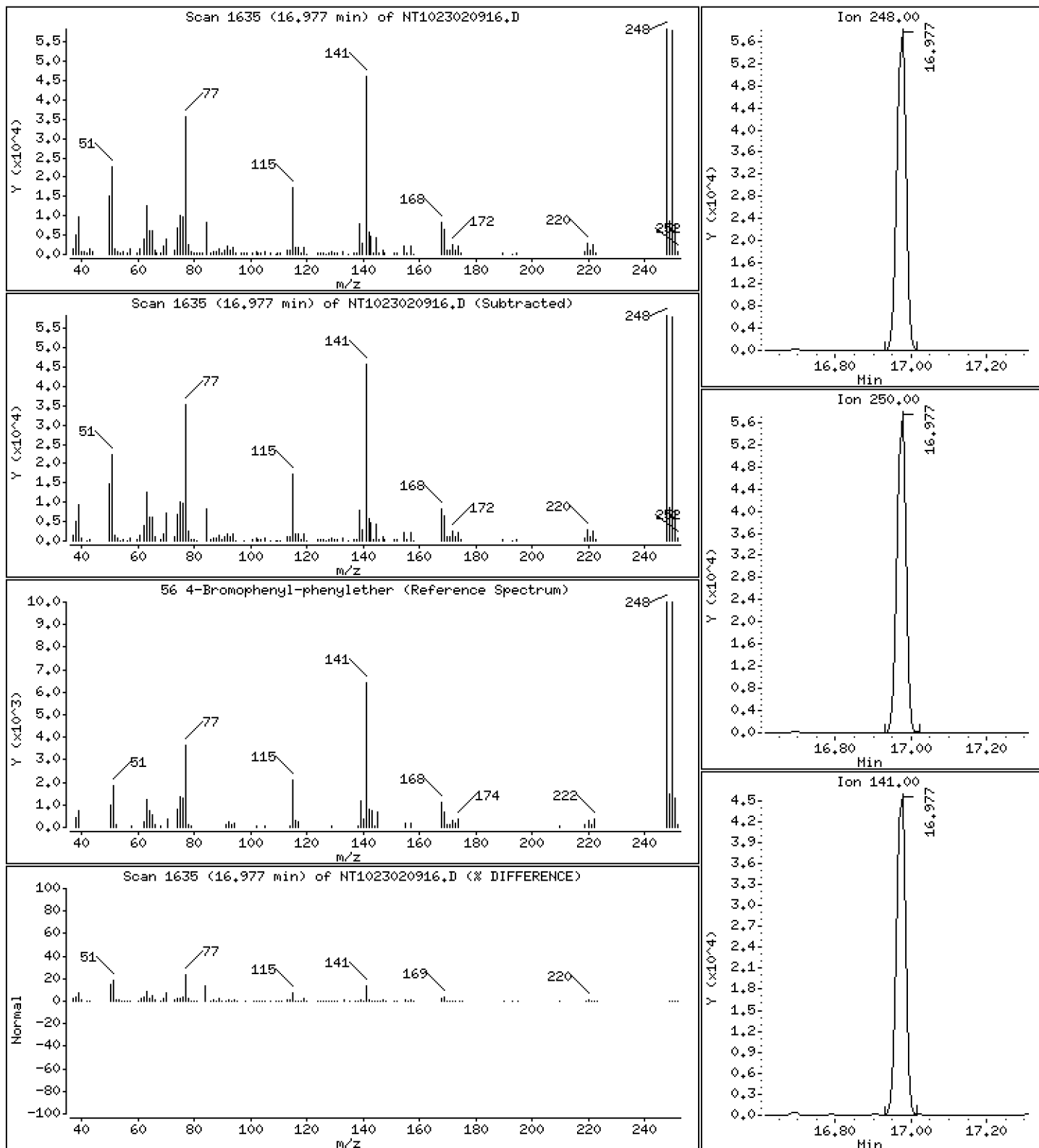
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 8,033 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

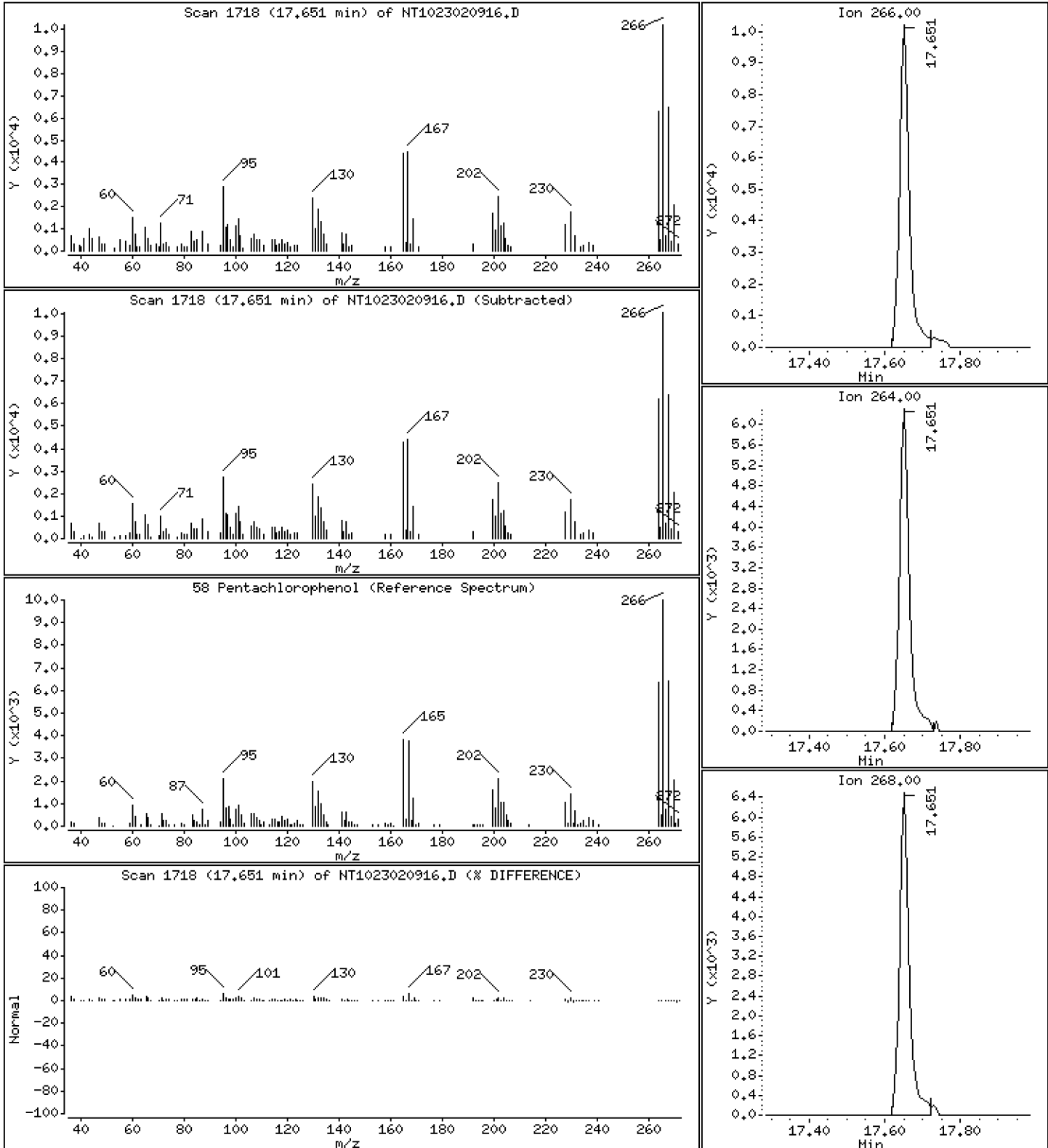
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,986 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

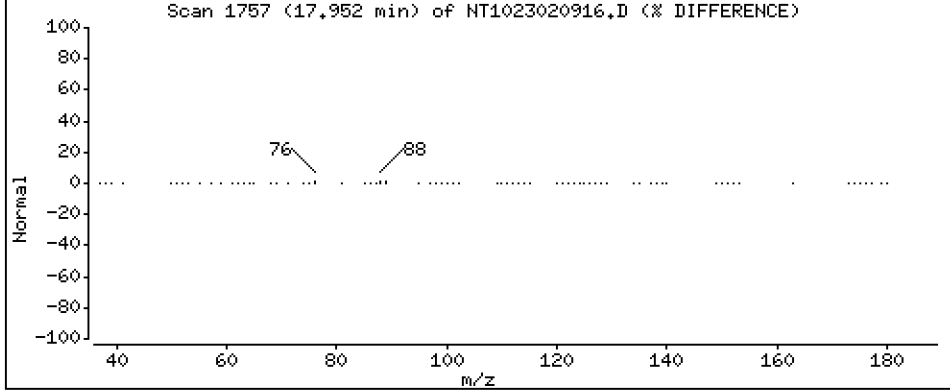
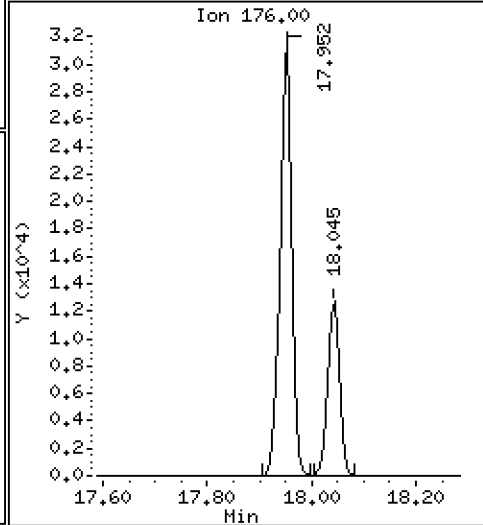
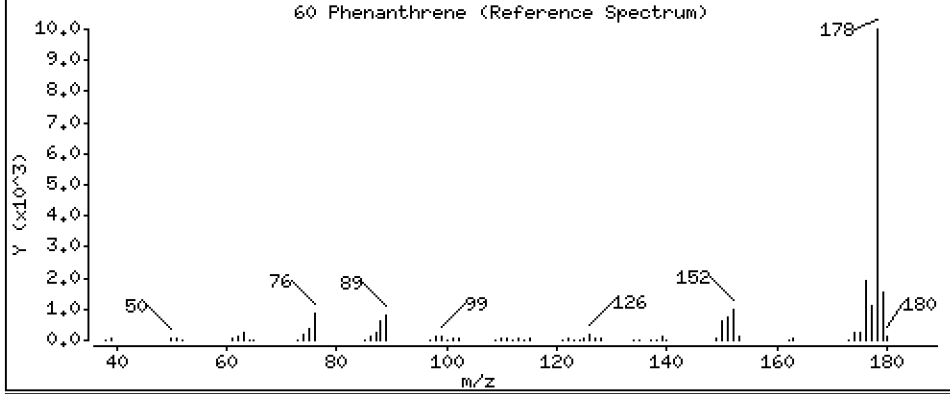
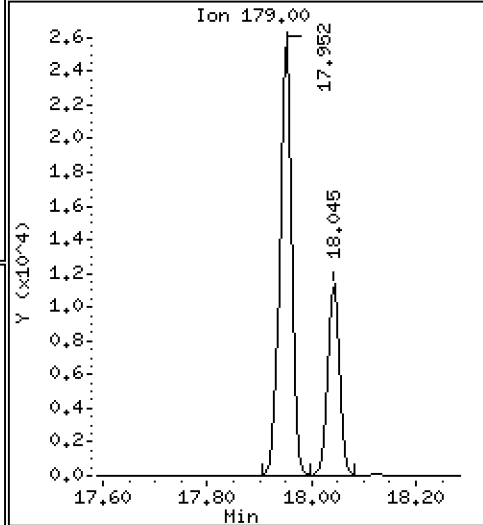
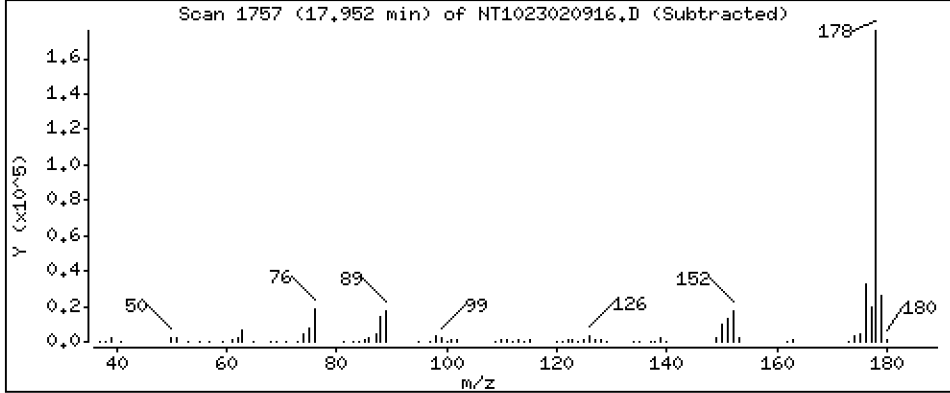
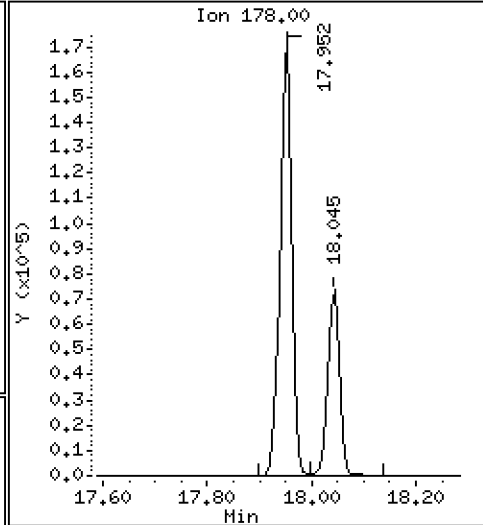
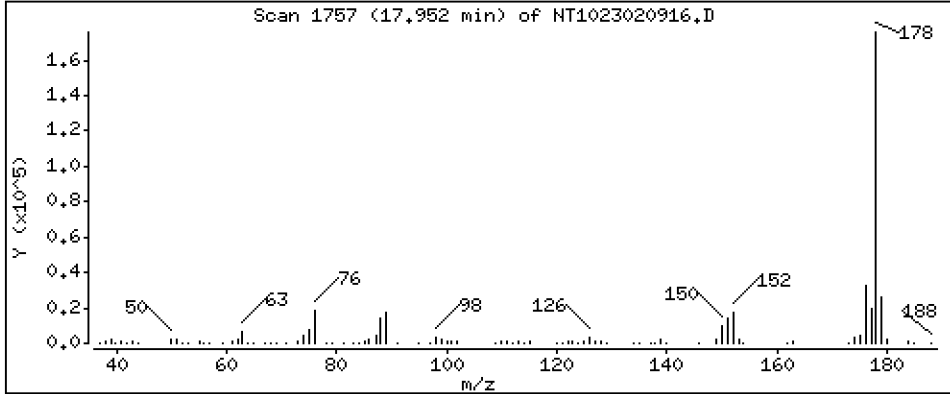
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 5,538 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

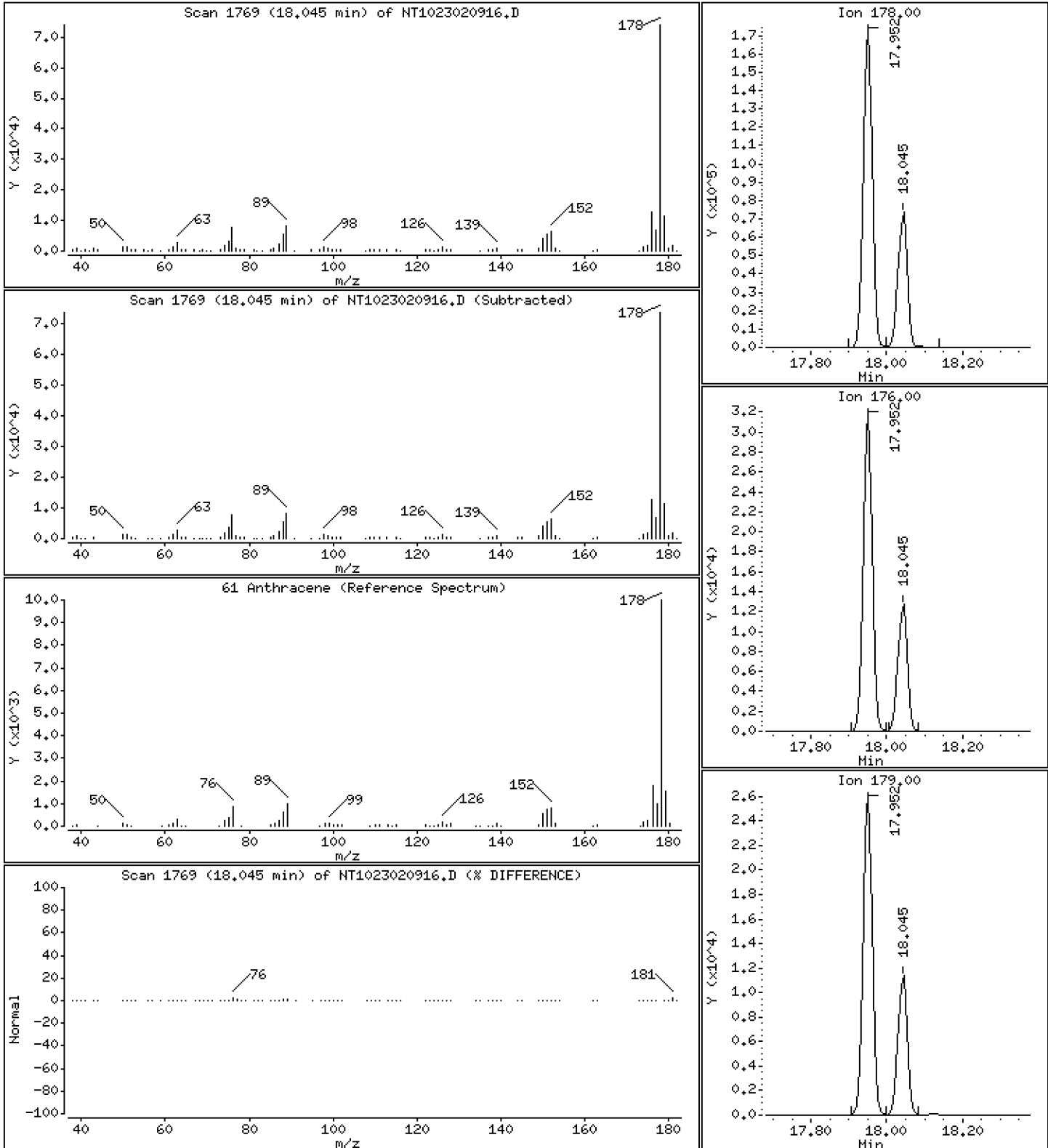
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 2,533 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

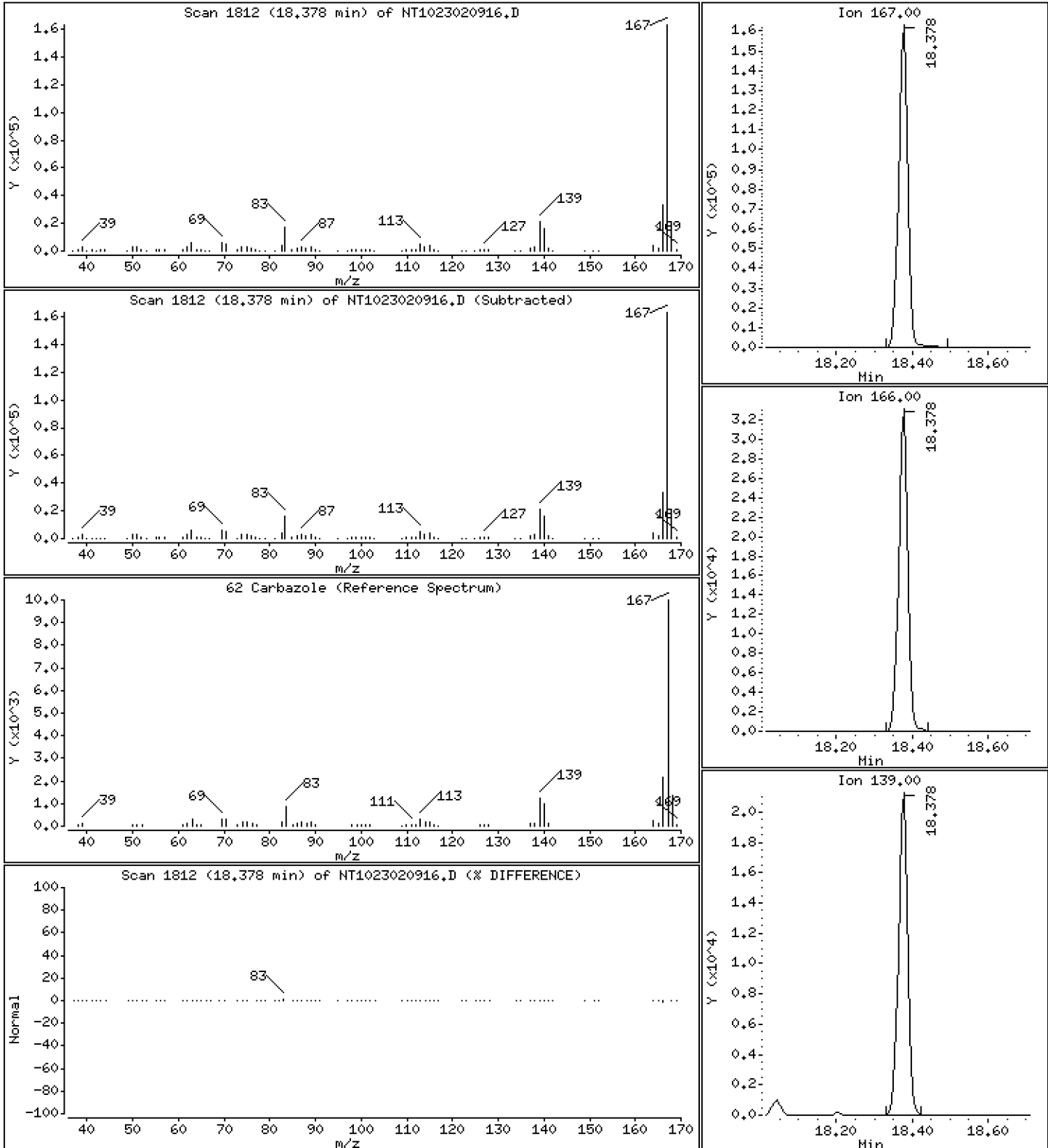
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

62 Carbazole

Concentration: 5.907 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

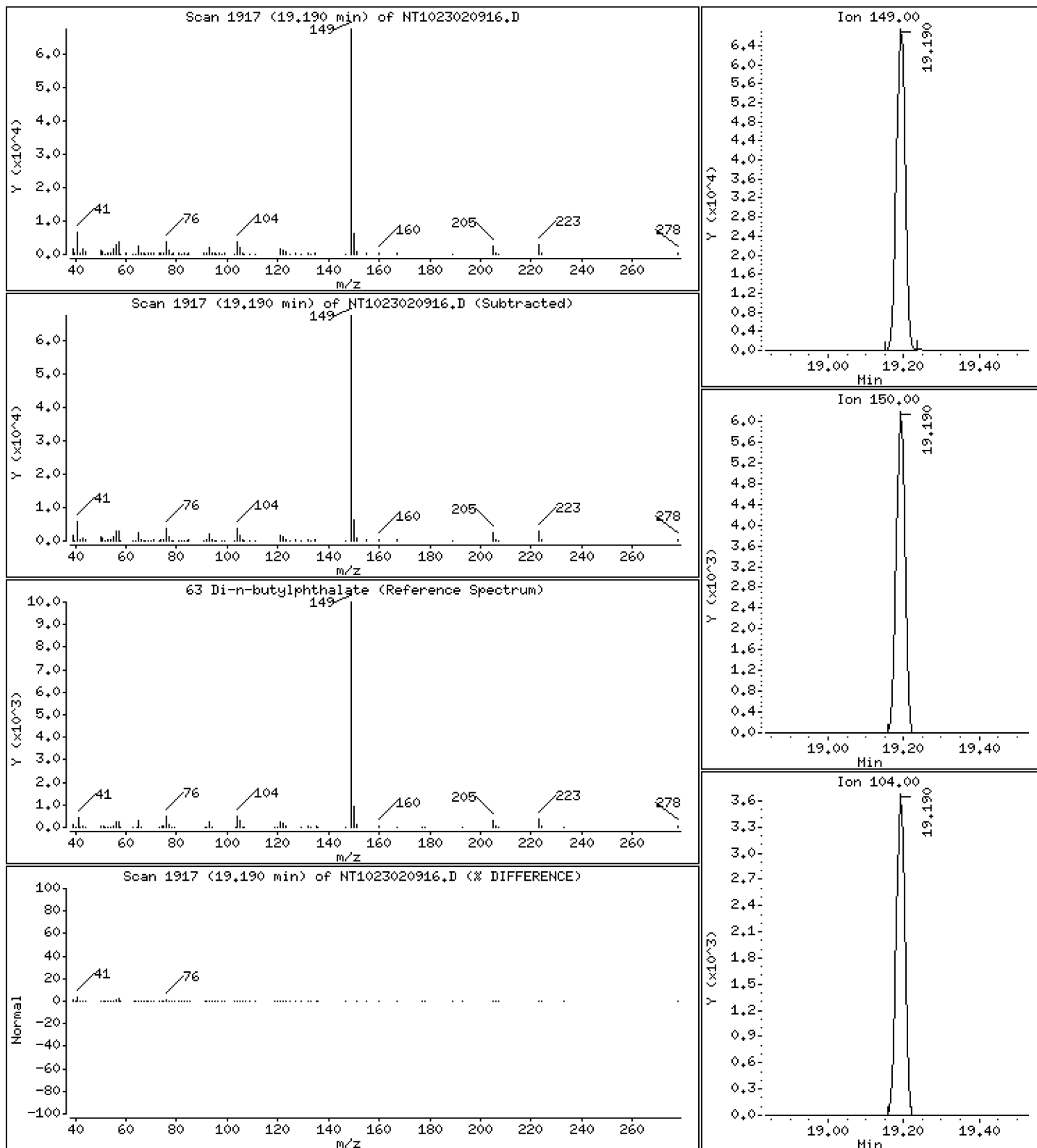
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 1,897 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

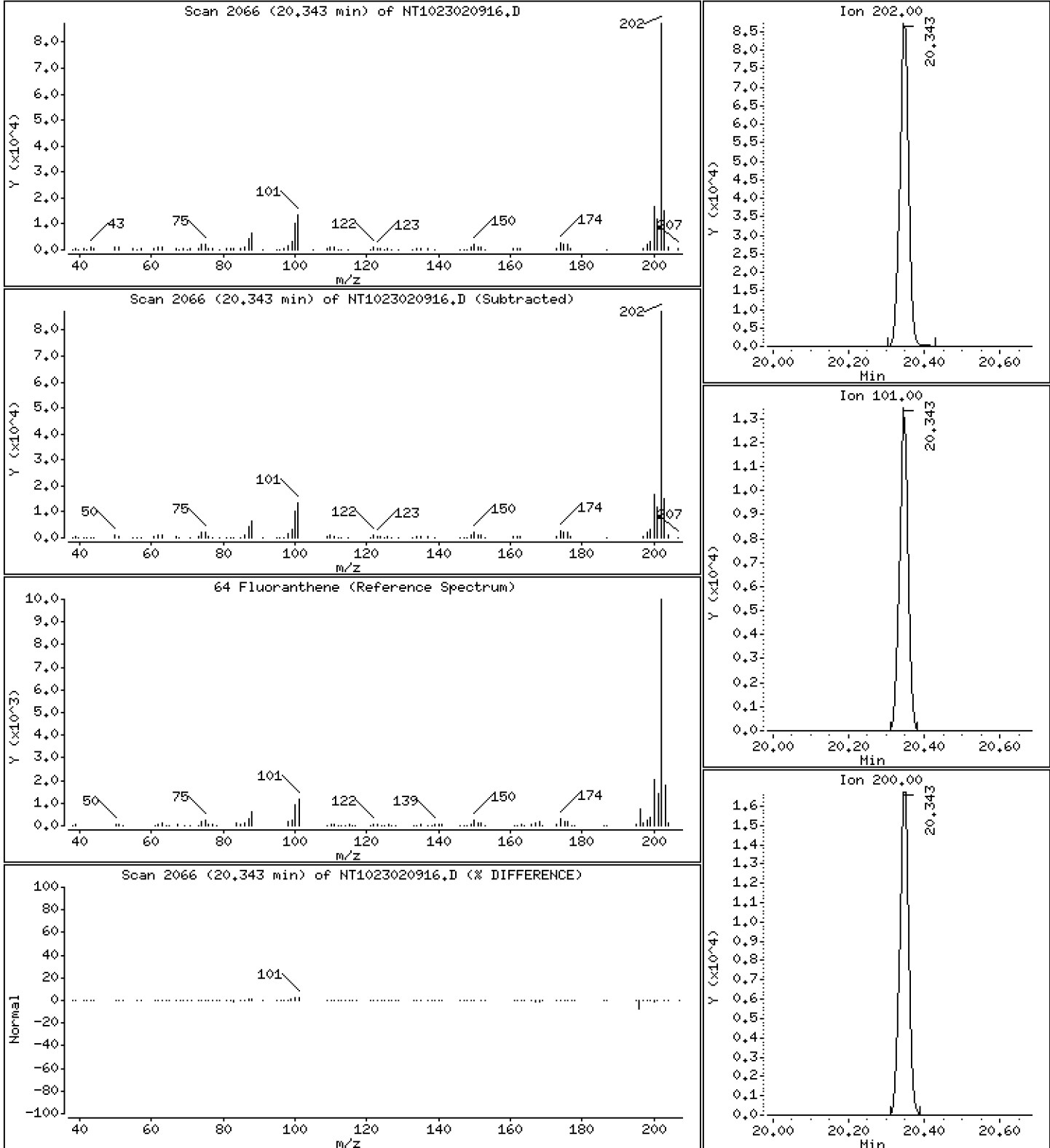
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 2,552 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

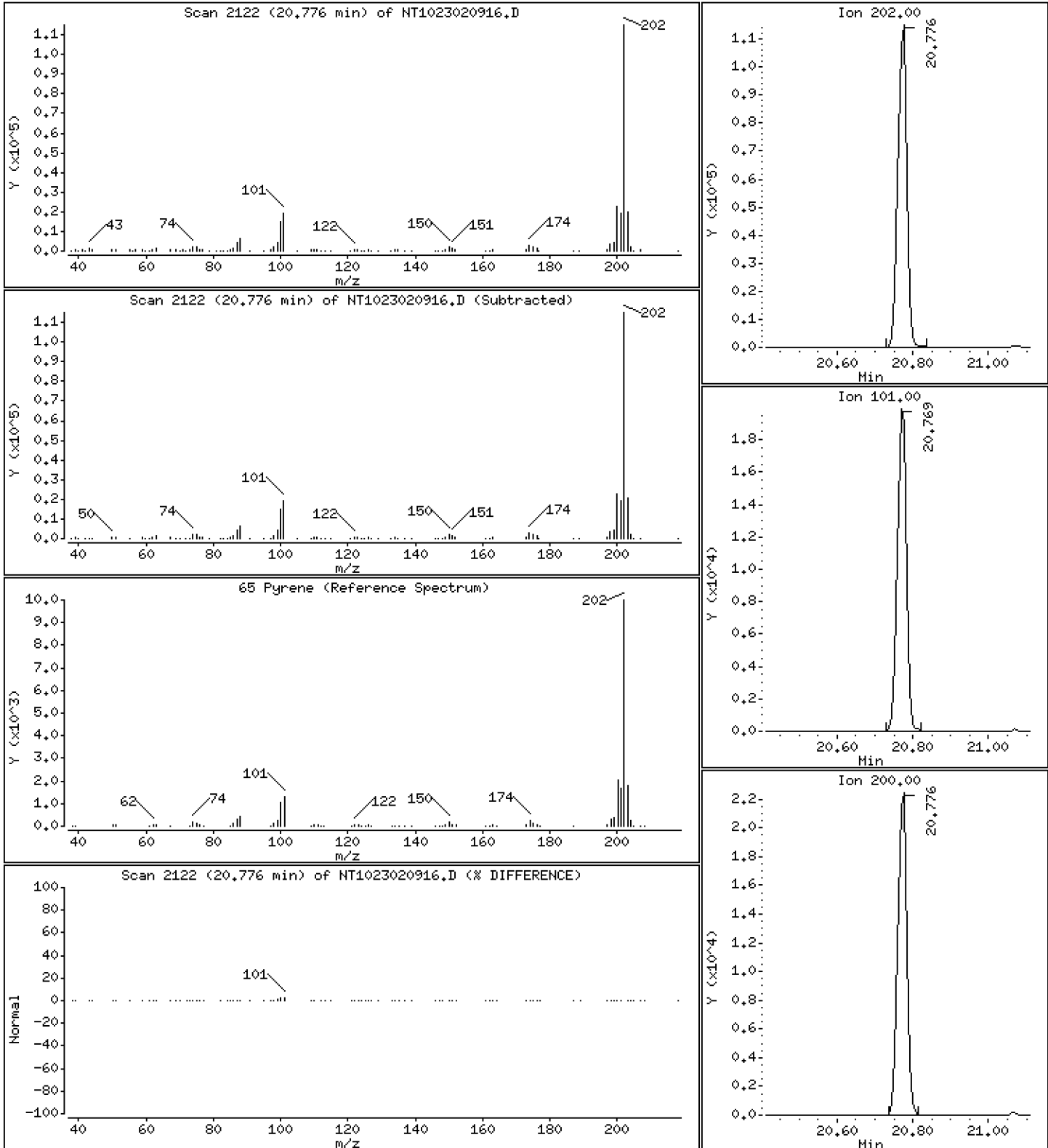
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 3,144 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

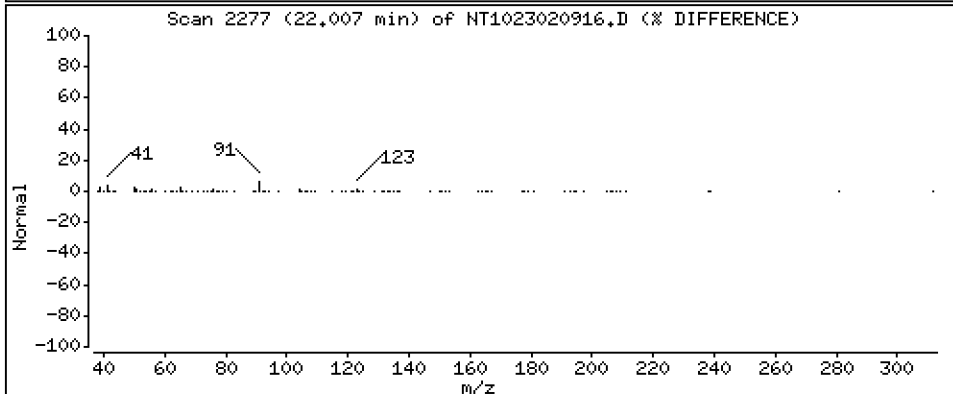
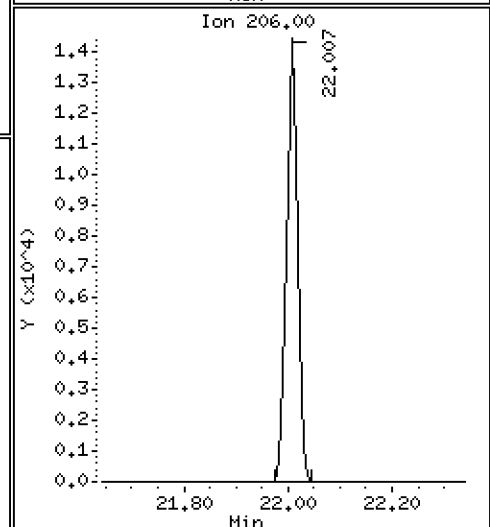
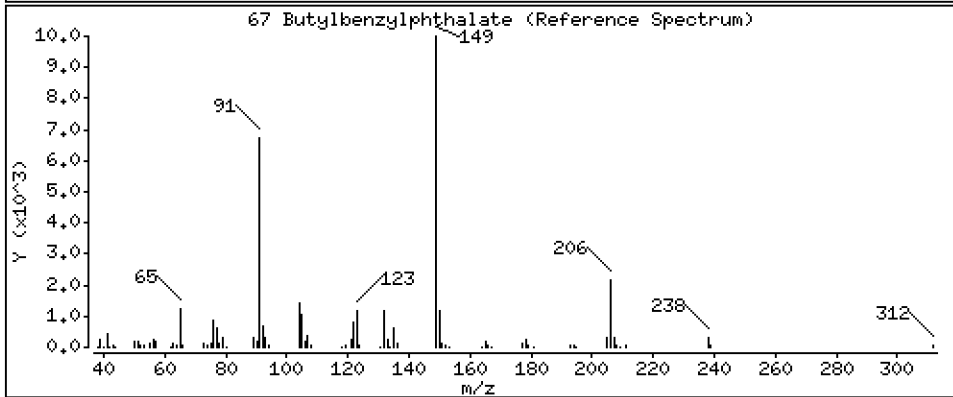
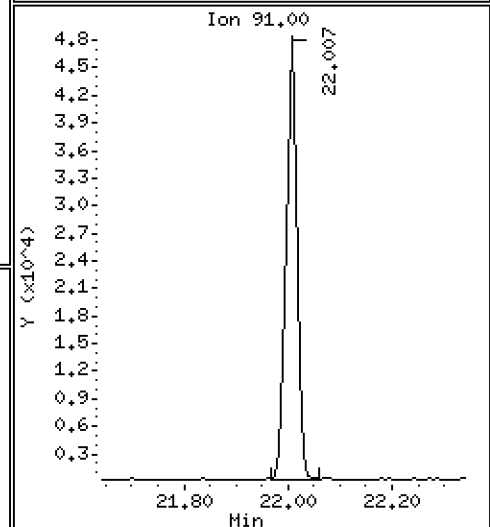
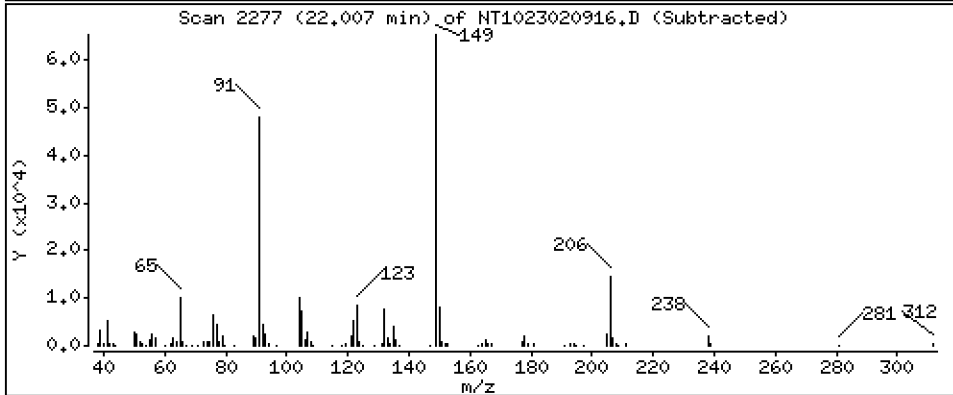
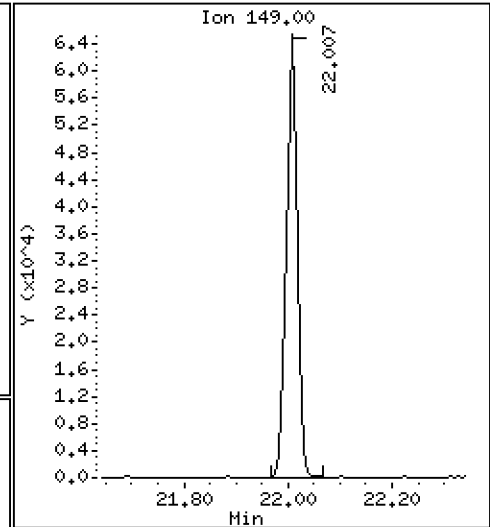
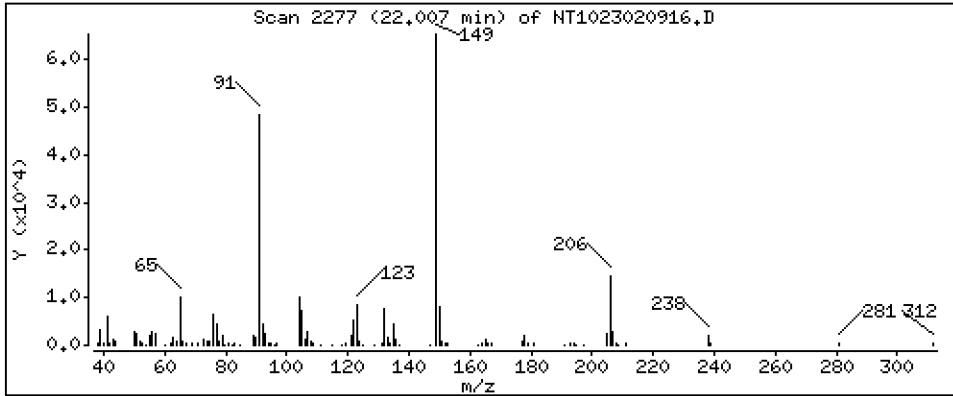
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 3,760 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

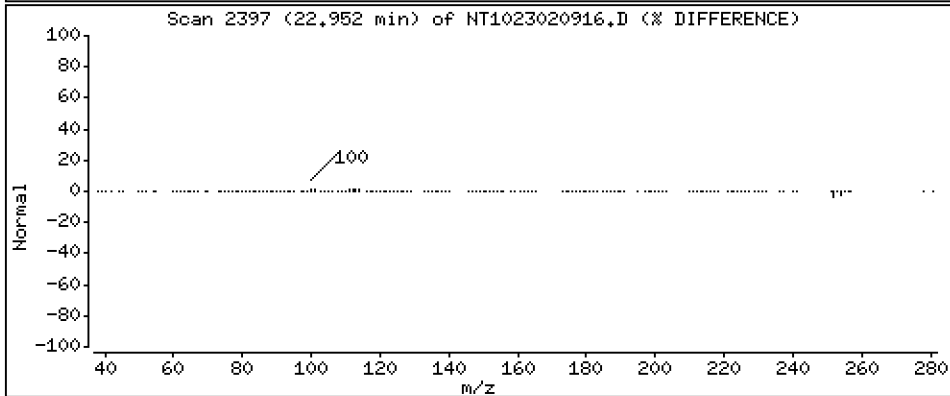
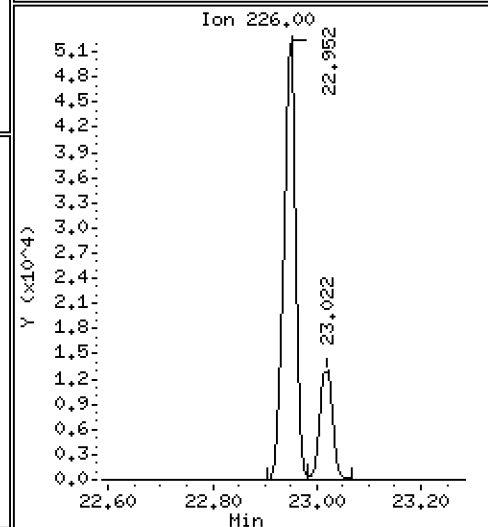
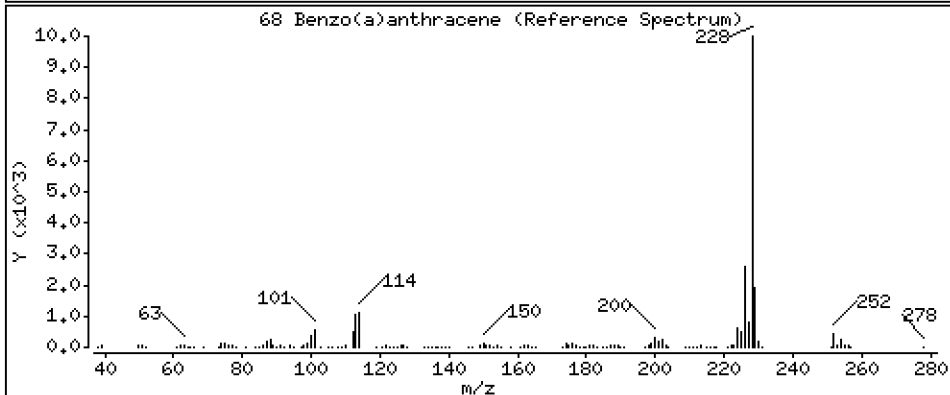
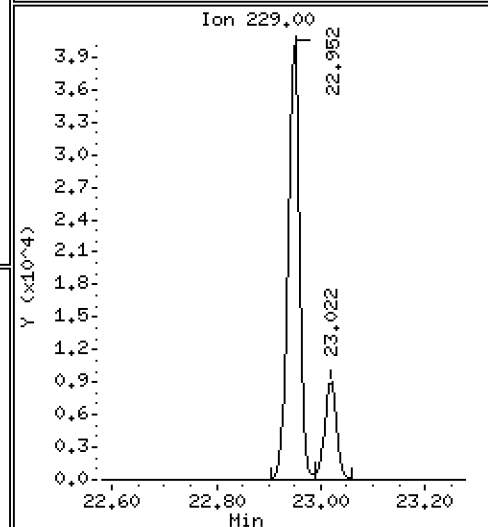
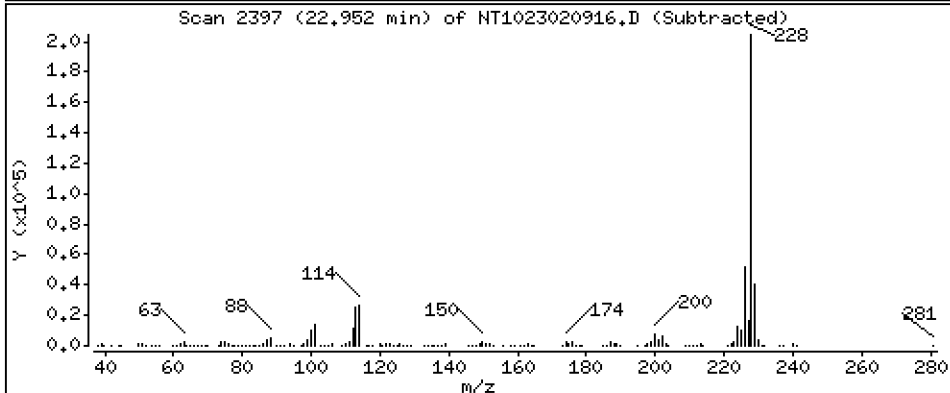
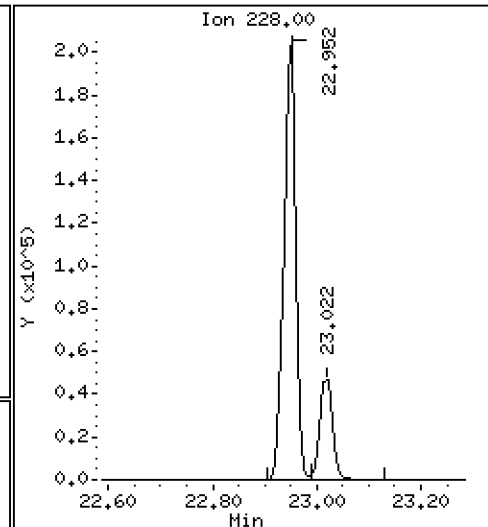
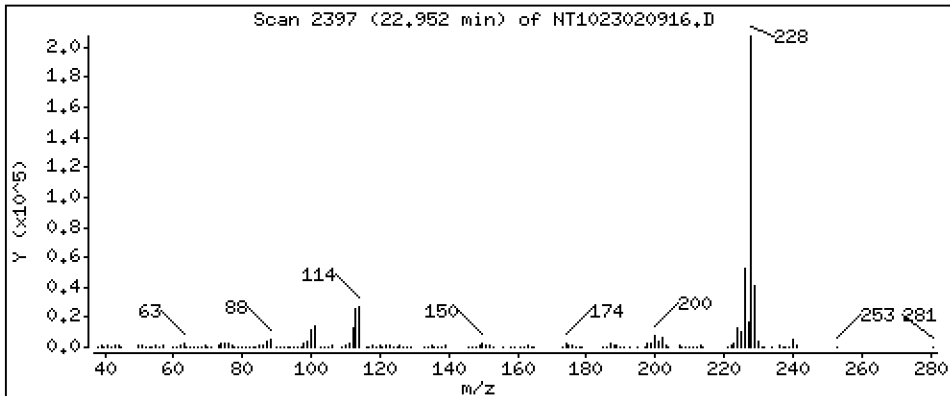
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 6,418 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

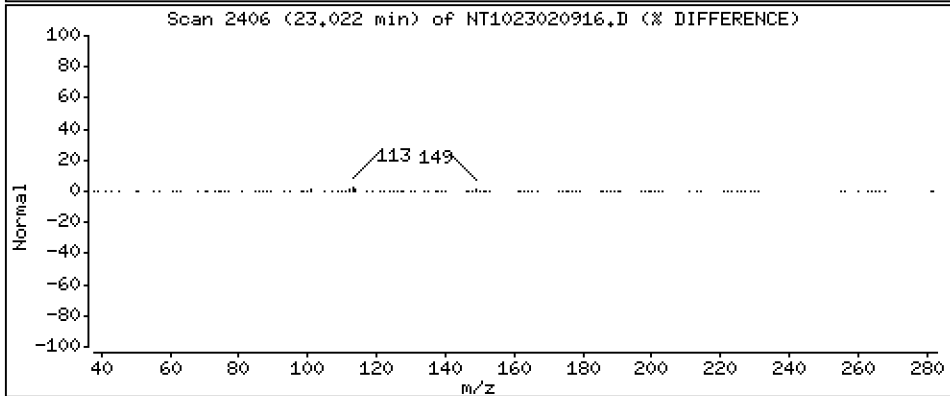
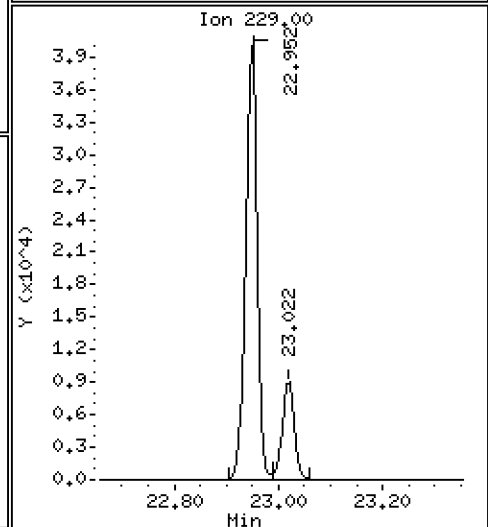
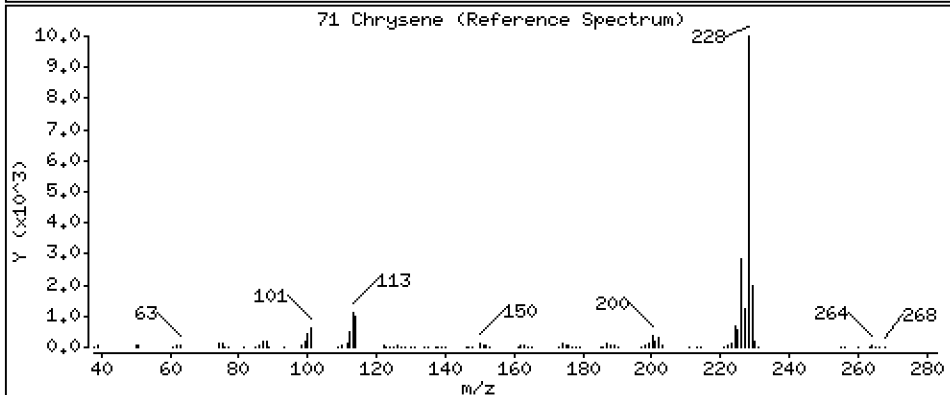
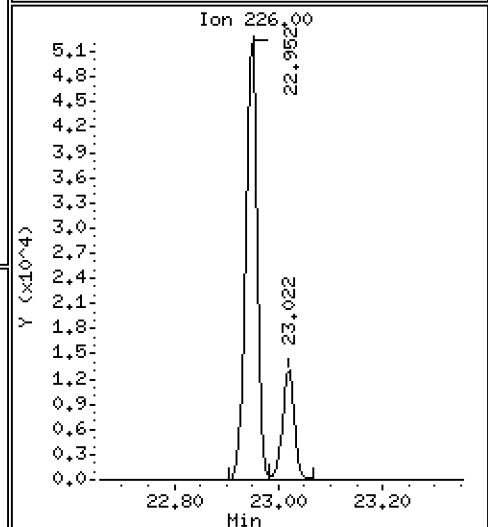
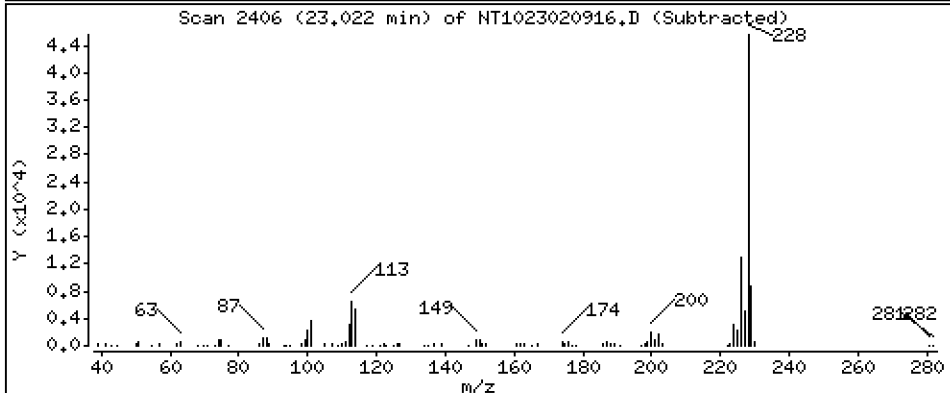
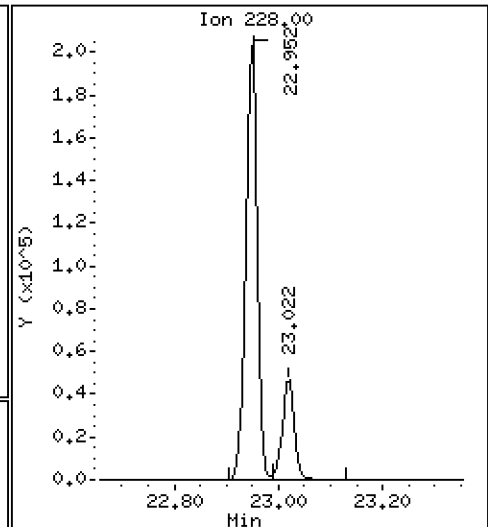
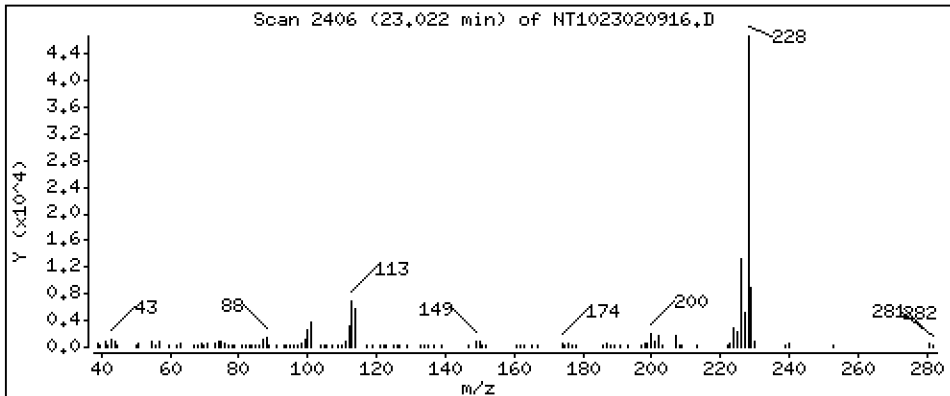
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 1,577 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

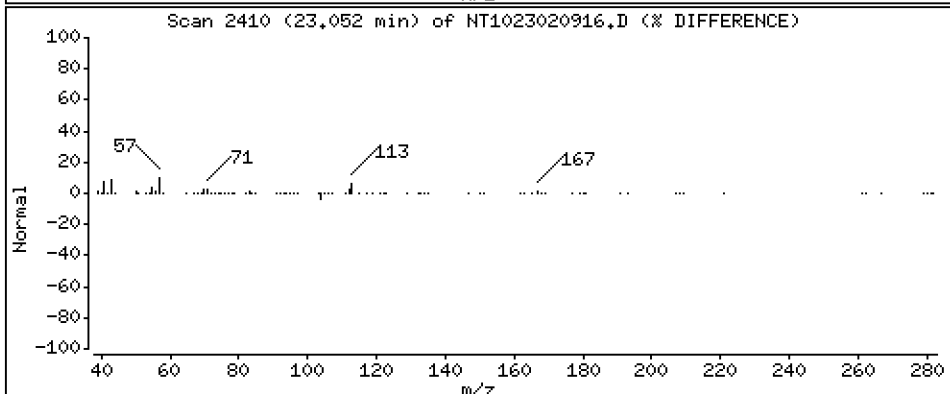
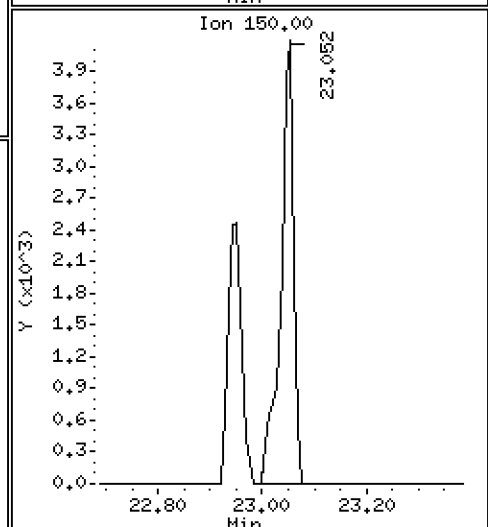
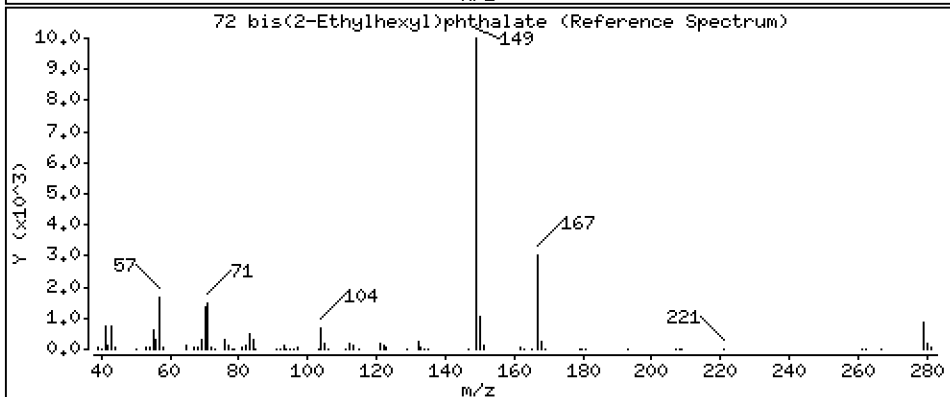
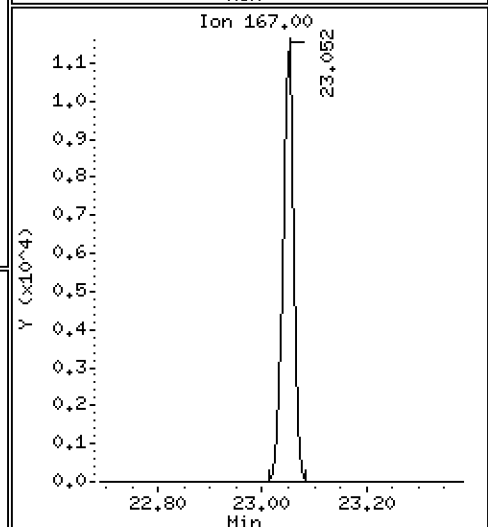
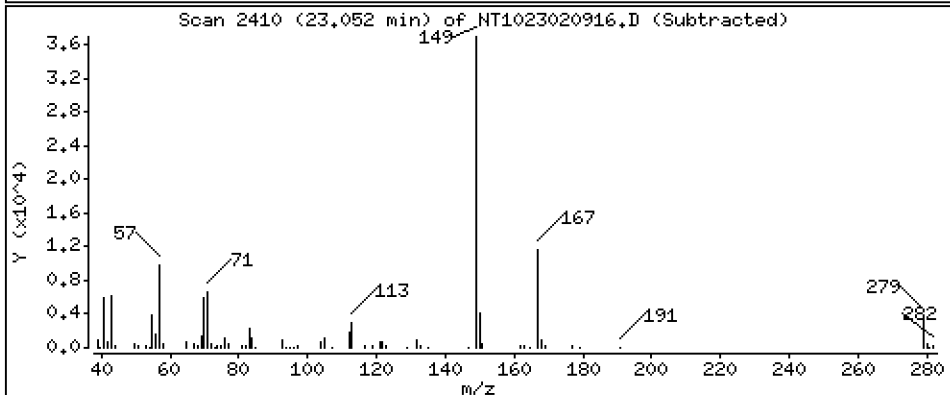
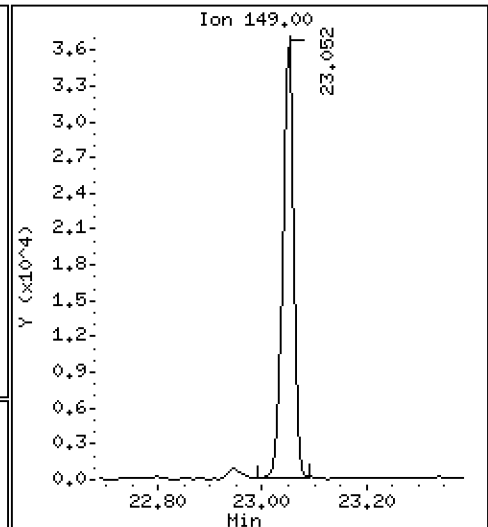
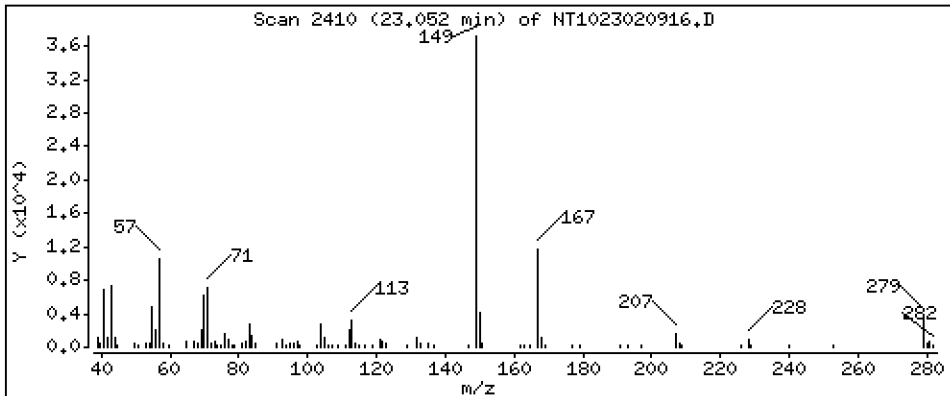
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 1,610 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

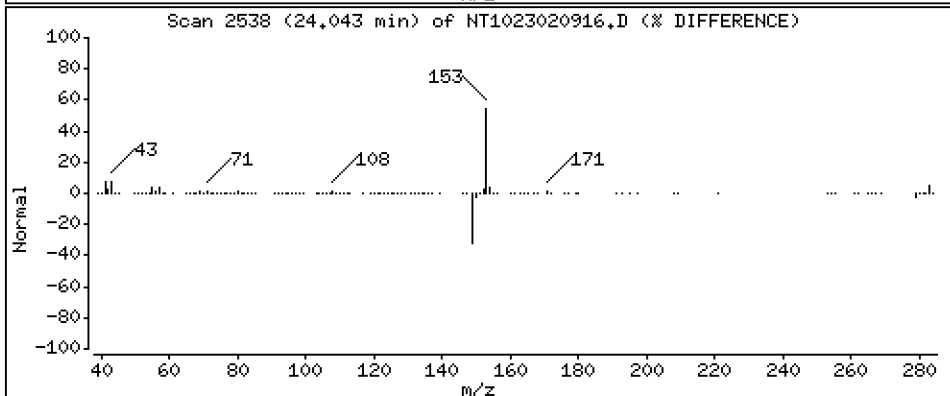
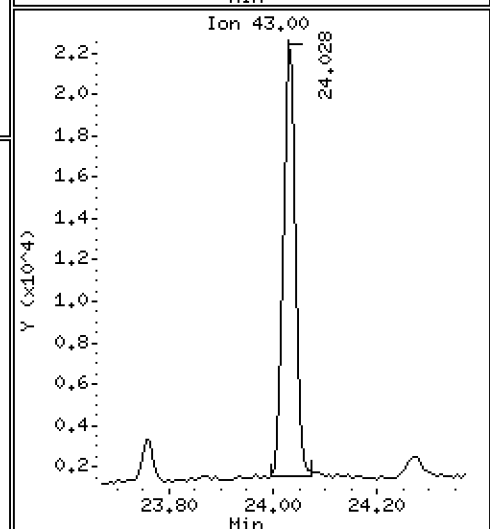
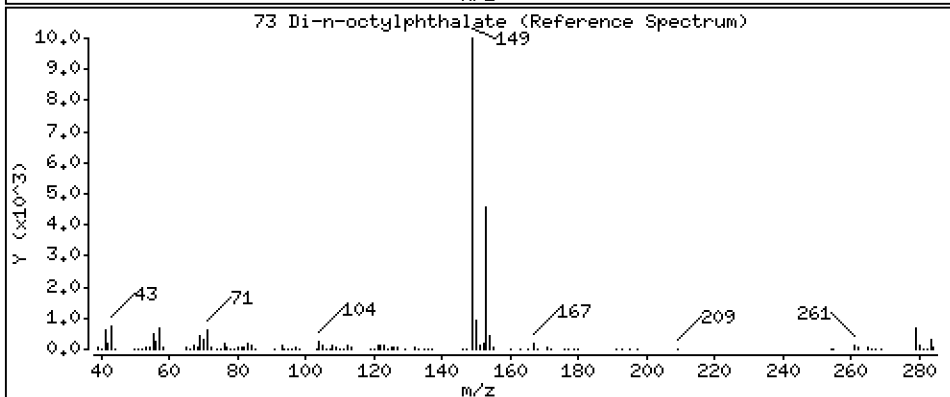
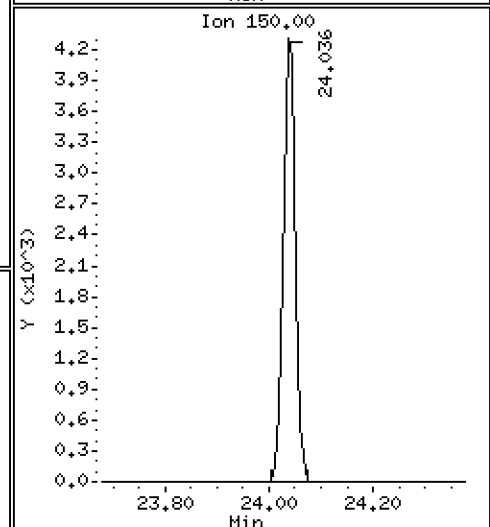
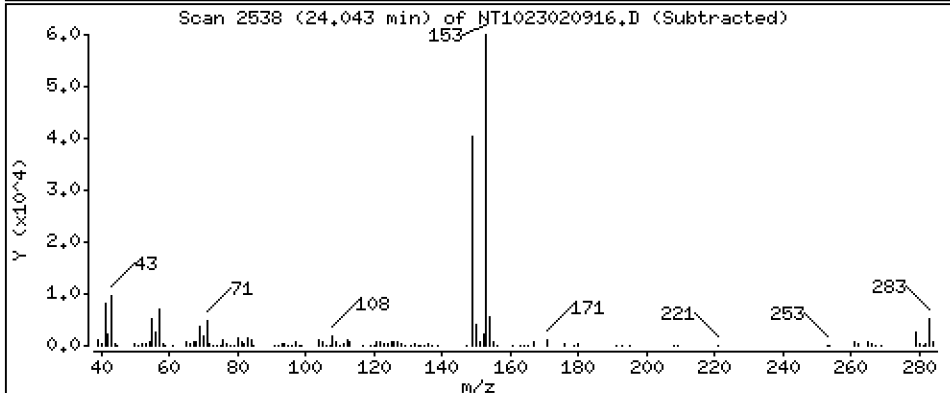
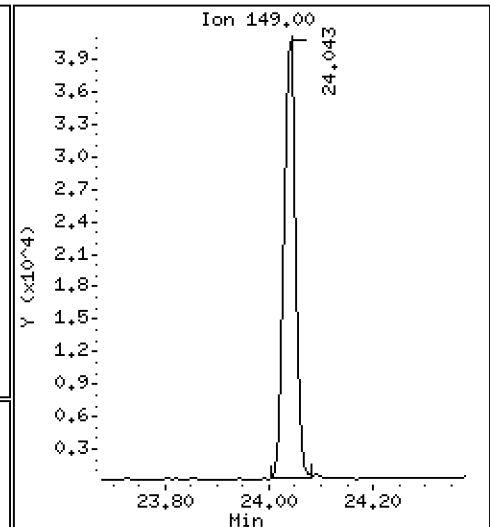
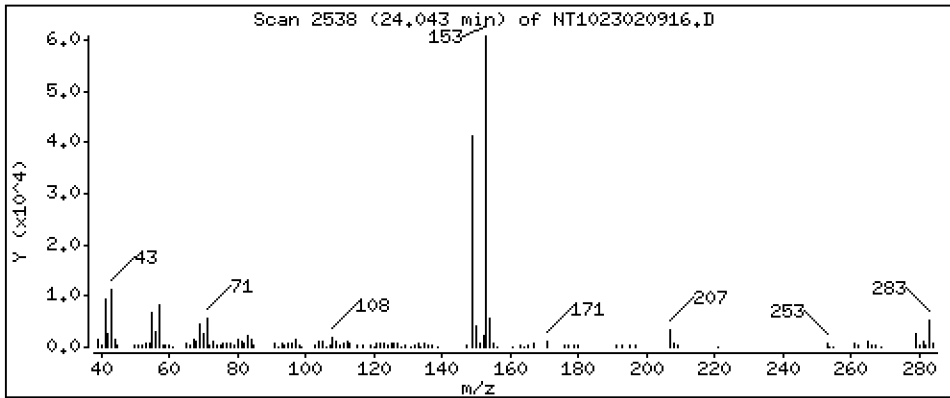
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,9685 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

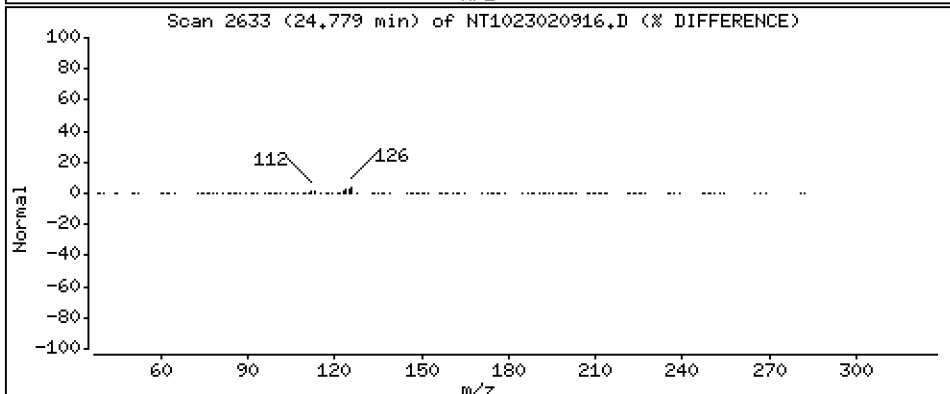
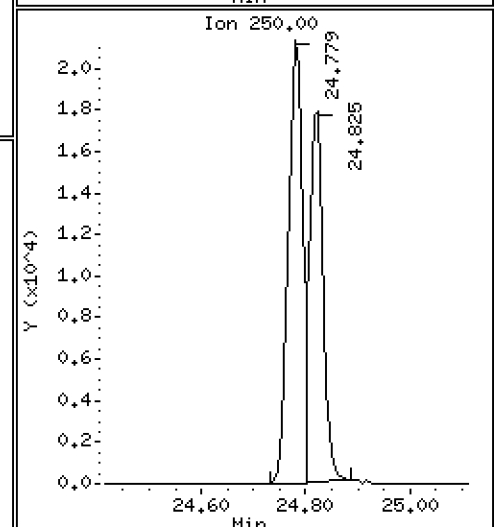
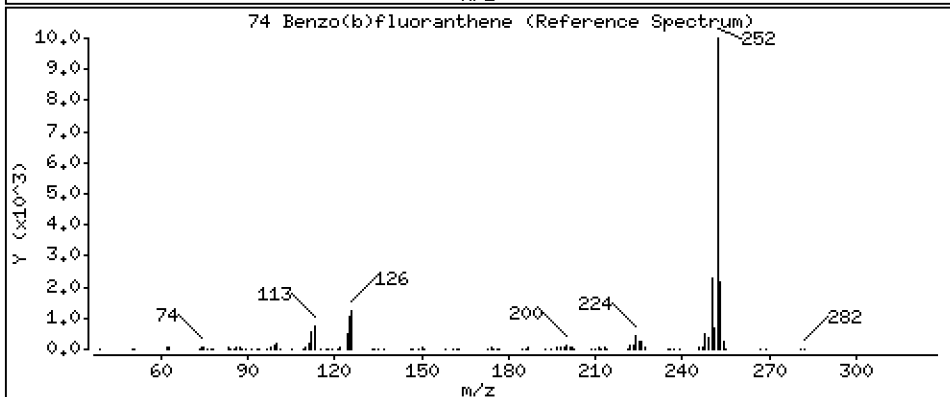
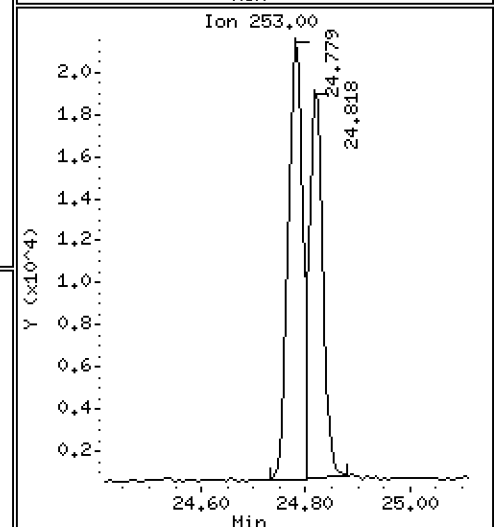
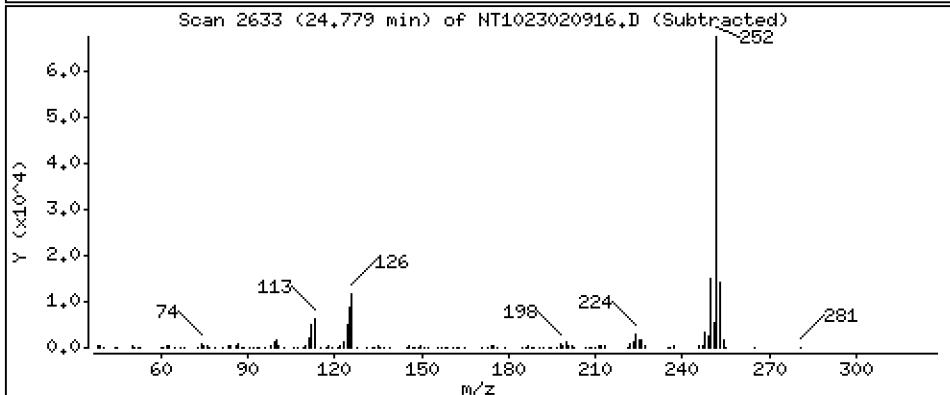
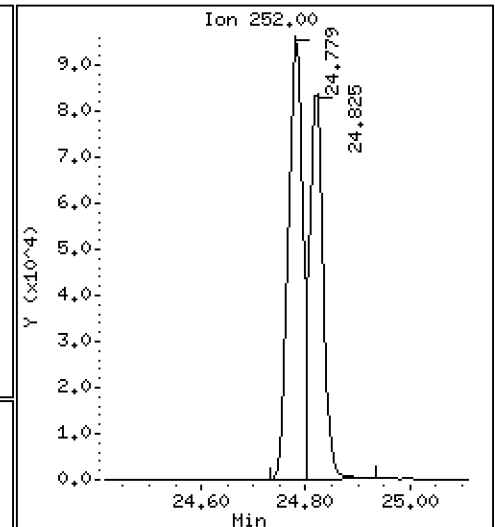
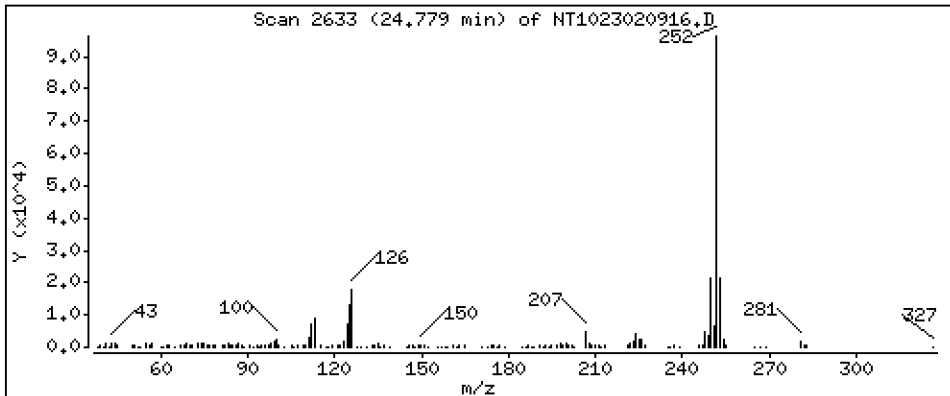
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 3,284 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

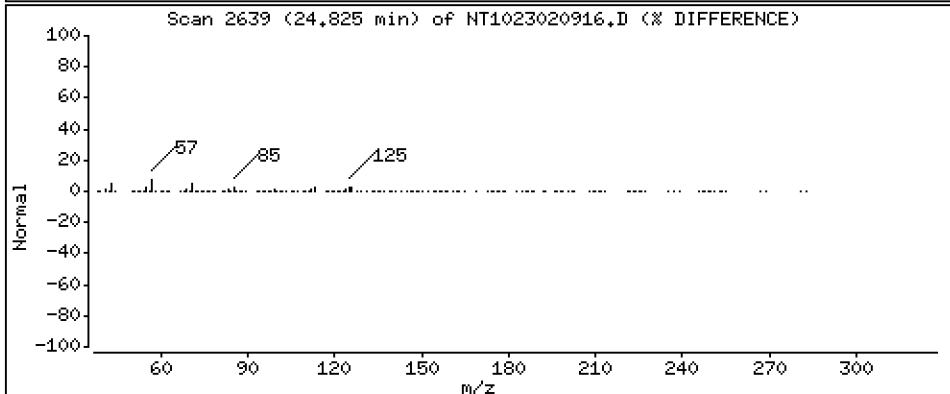
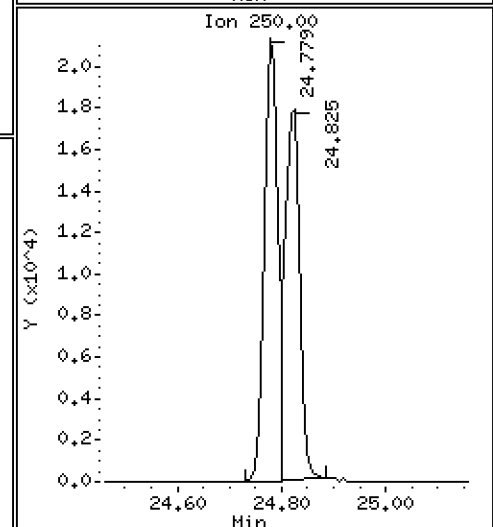
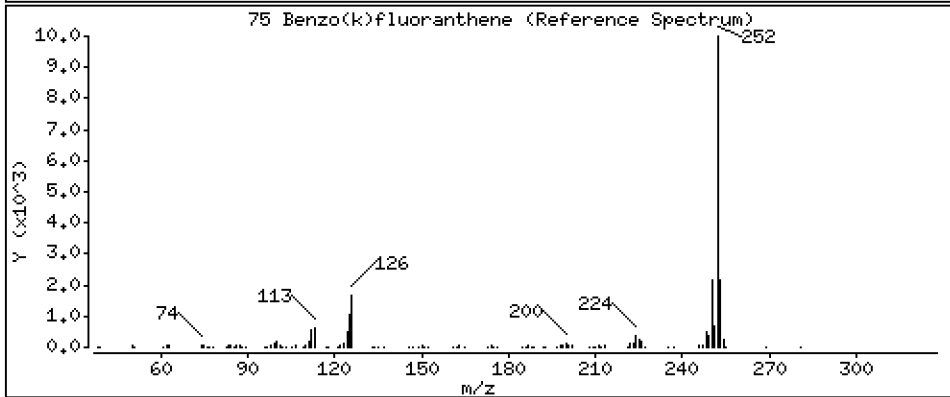
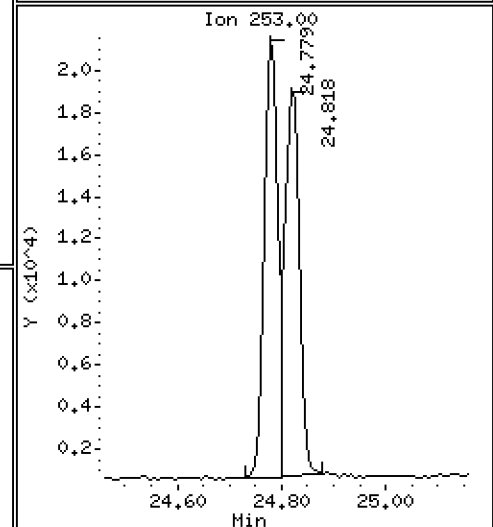
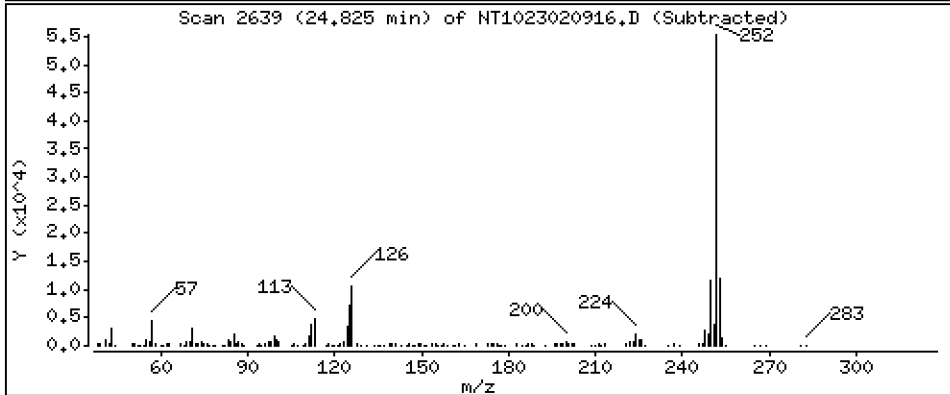
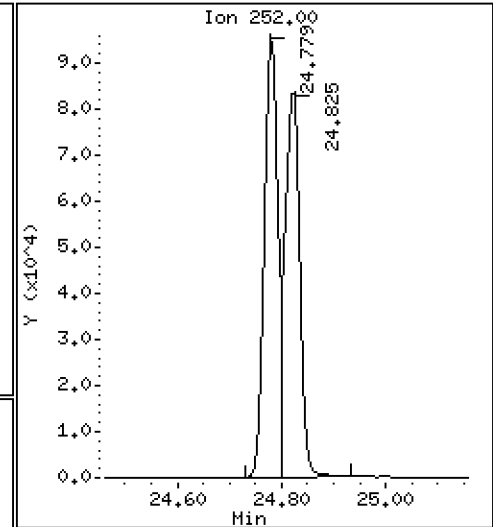
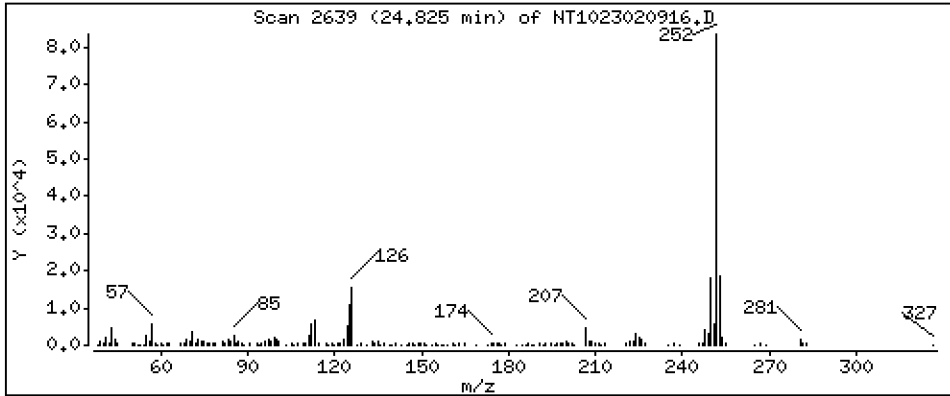
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 2,714 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

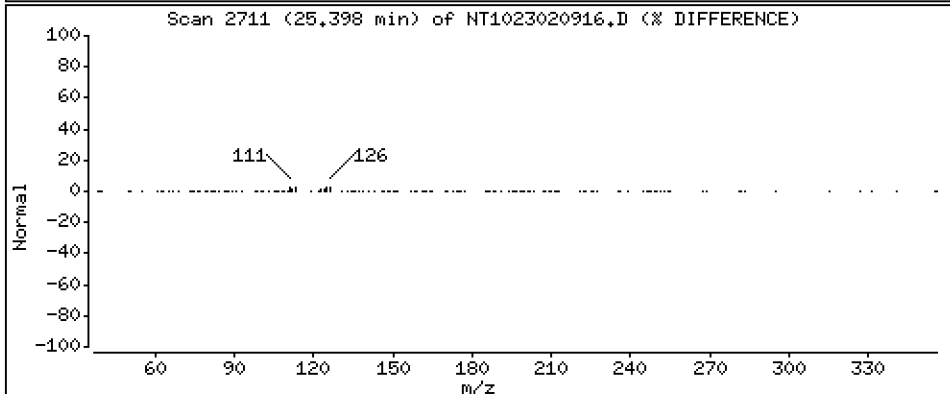
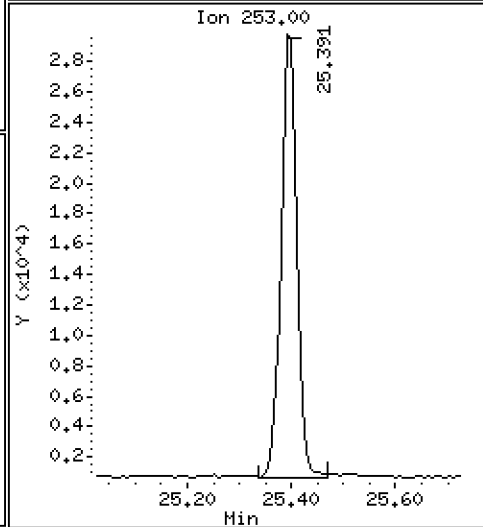
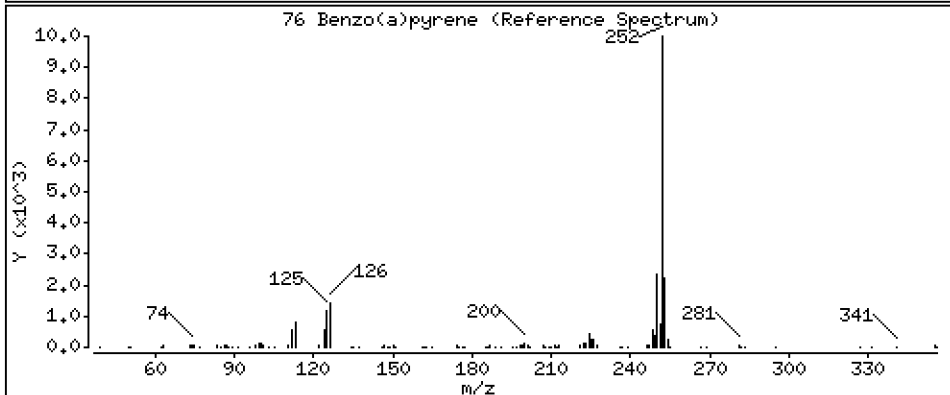
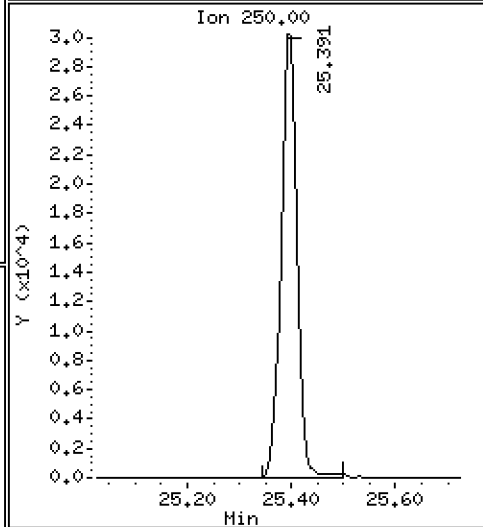
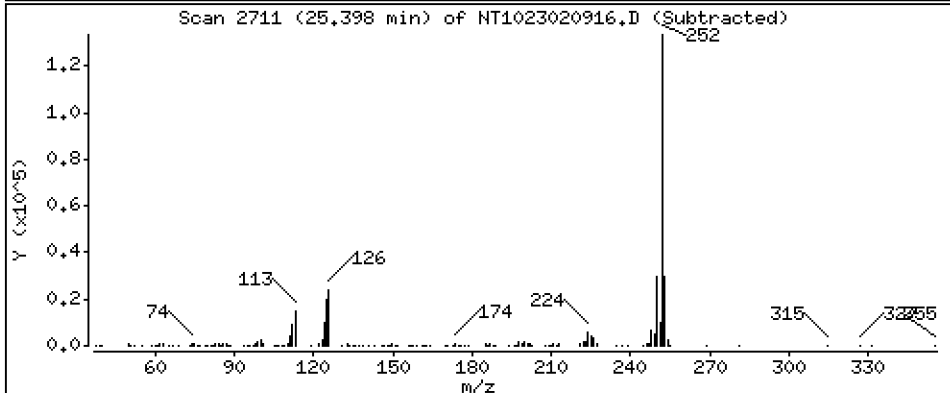
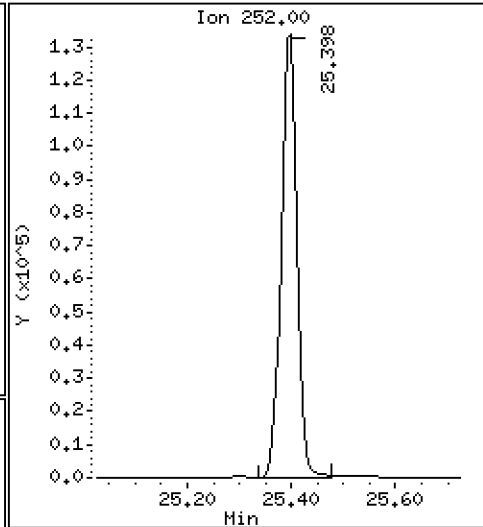
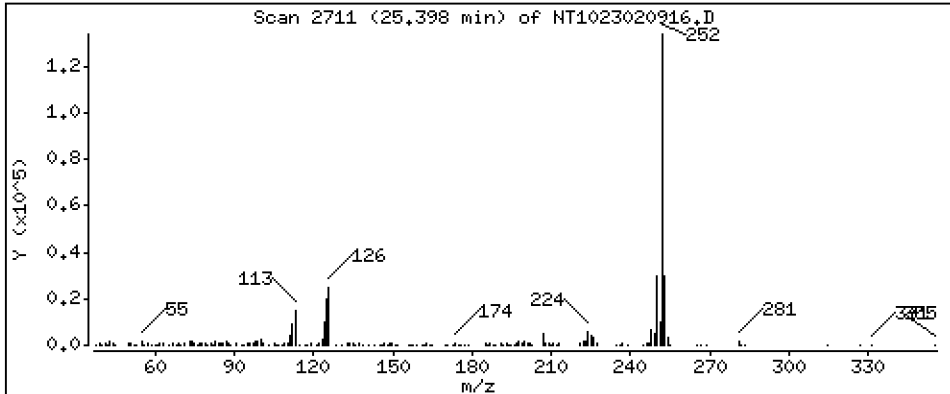
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 5,535 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

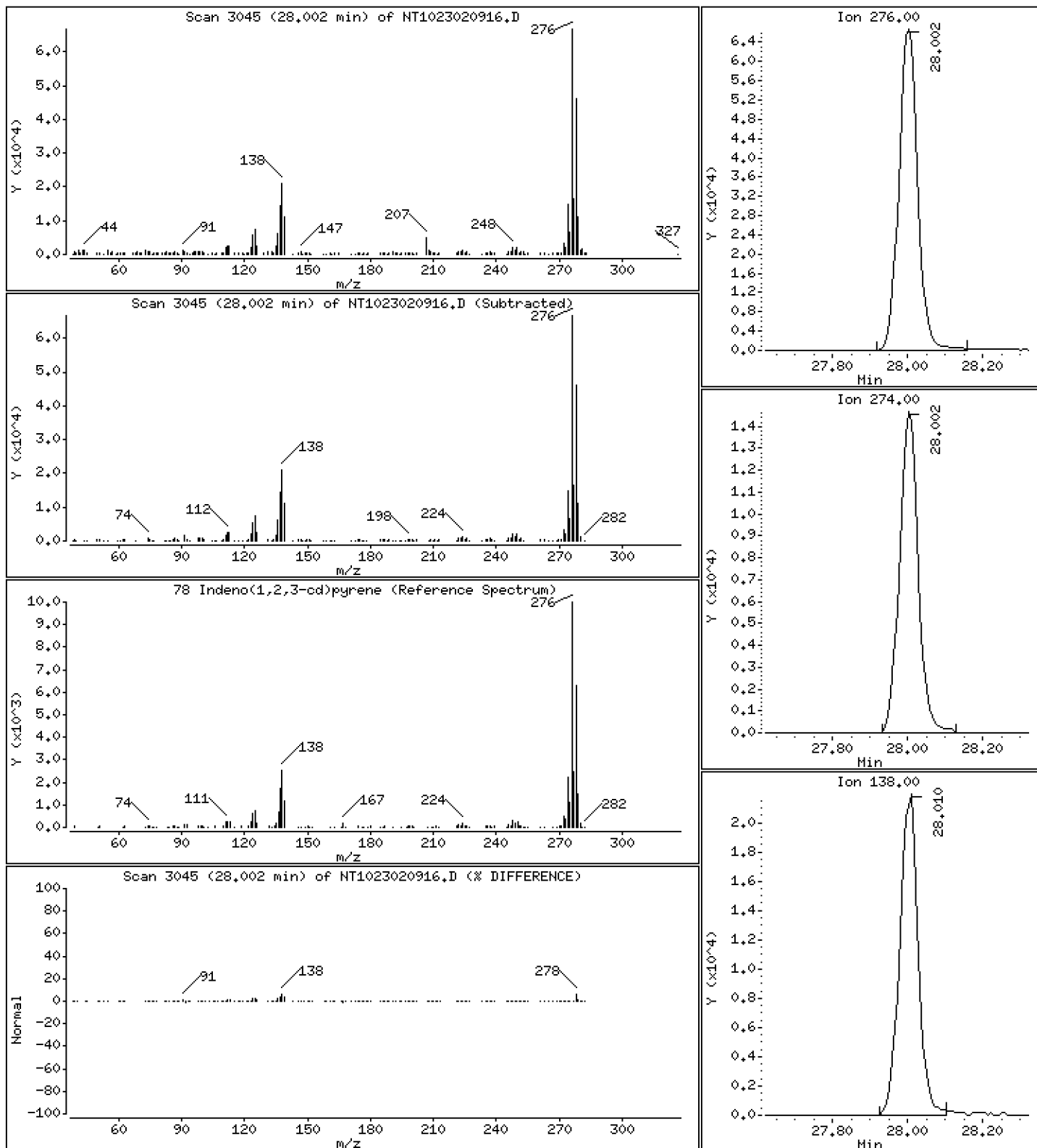
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 3,810 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

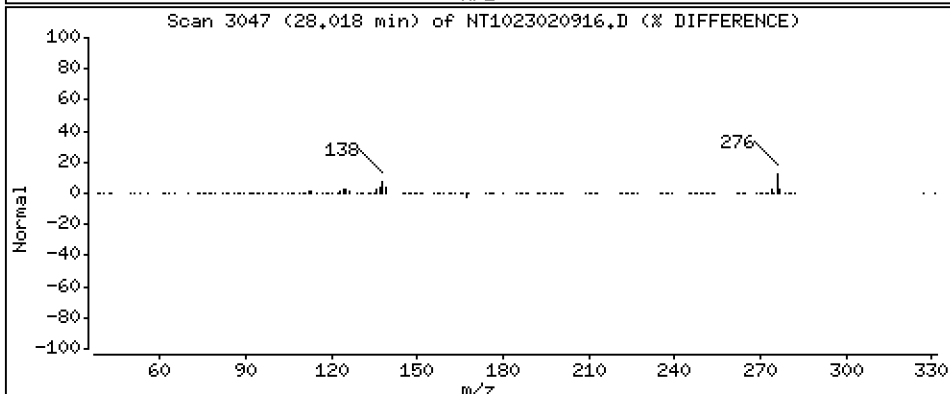
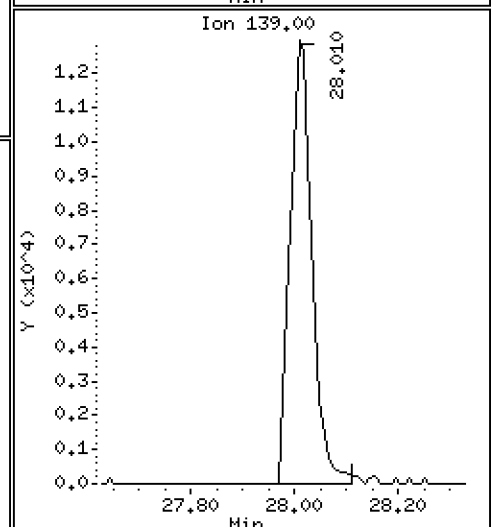
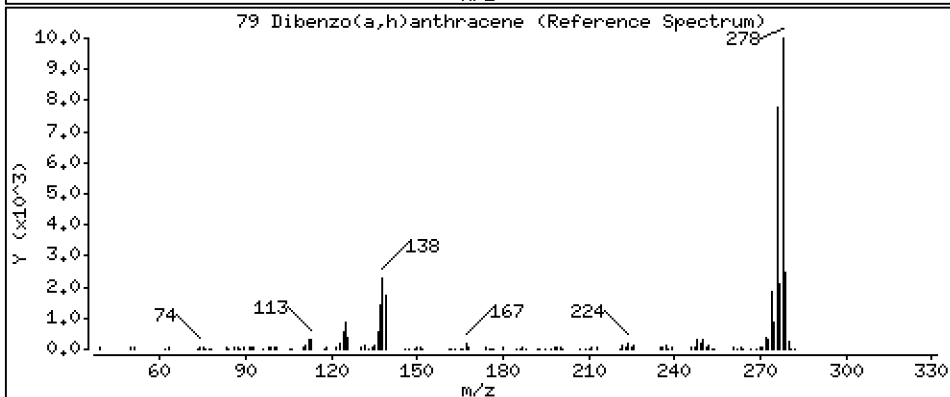
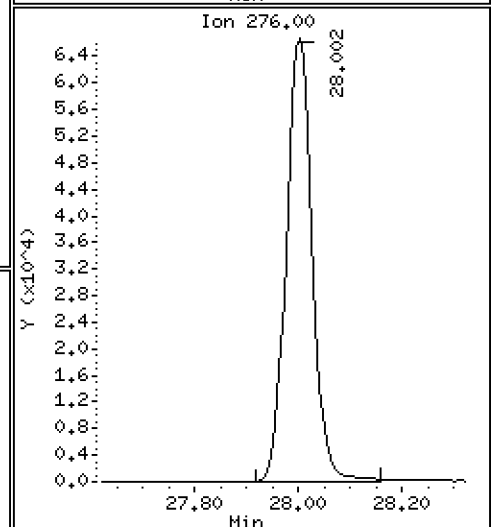
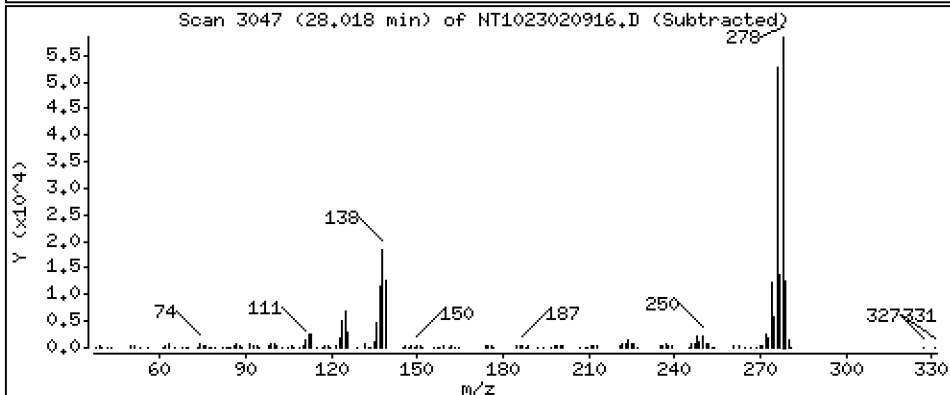
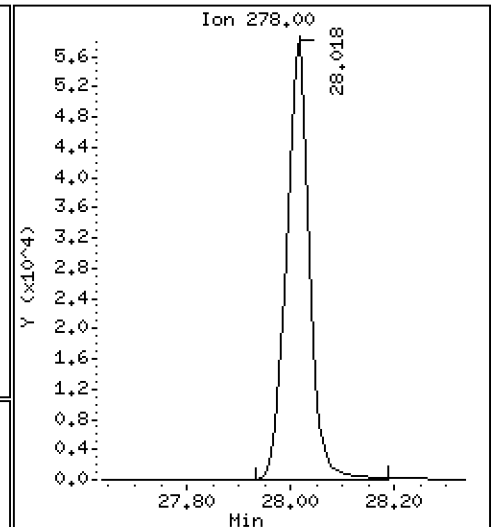
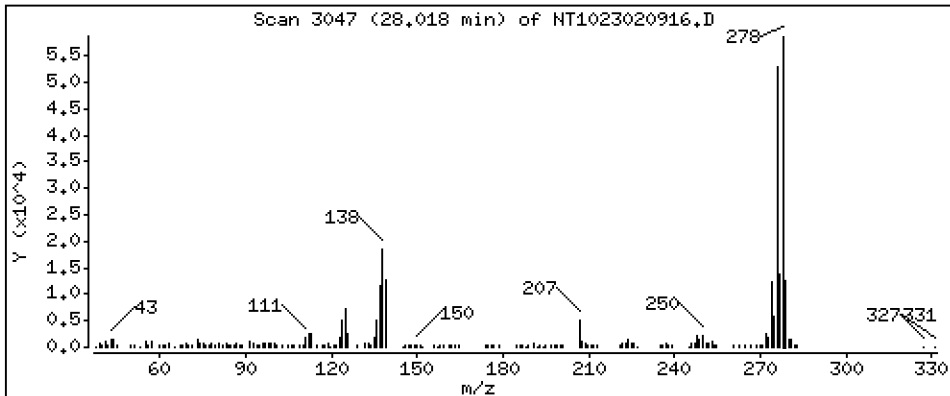
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 3,552 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

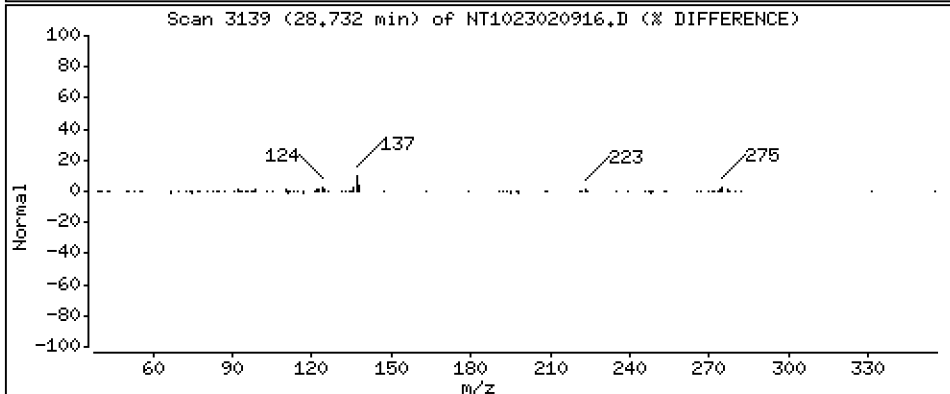
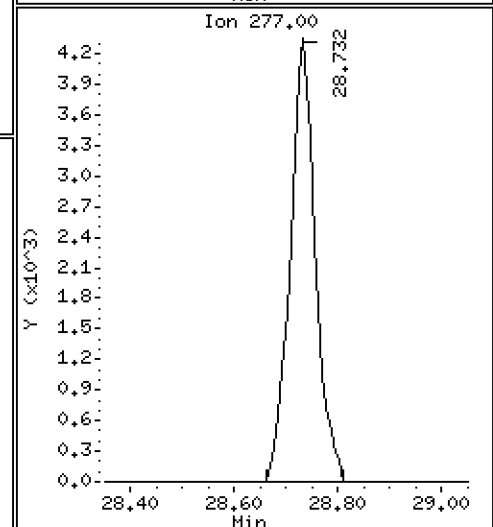
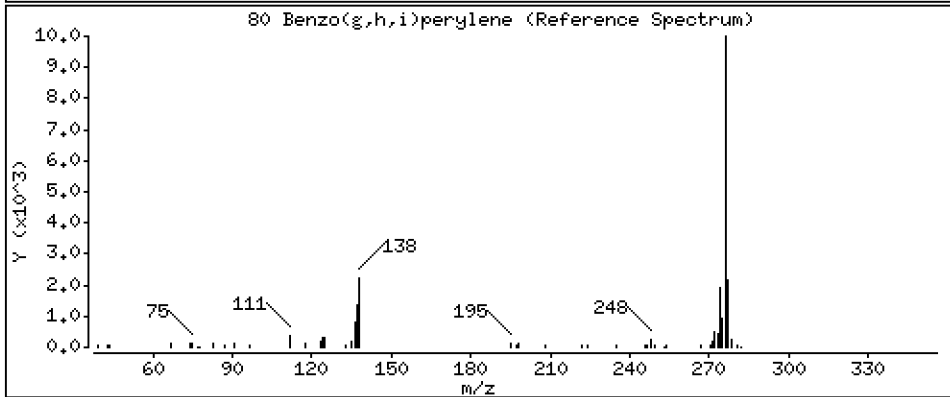
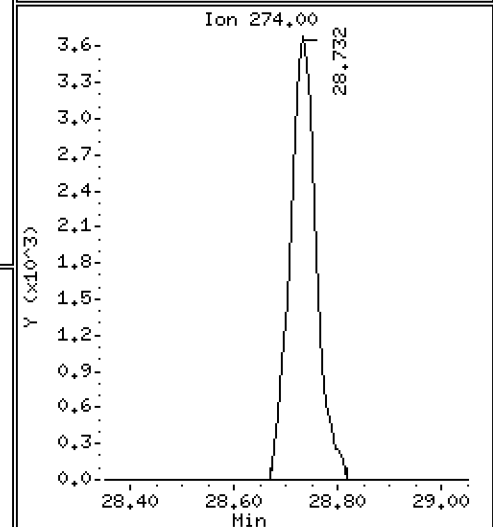
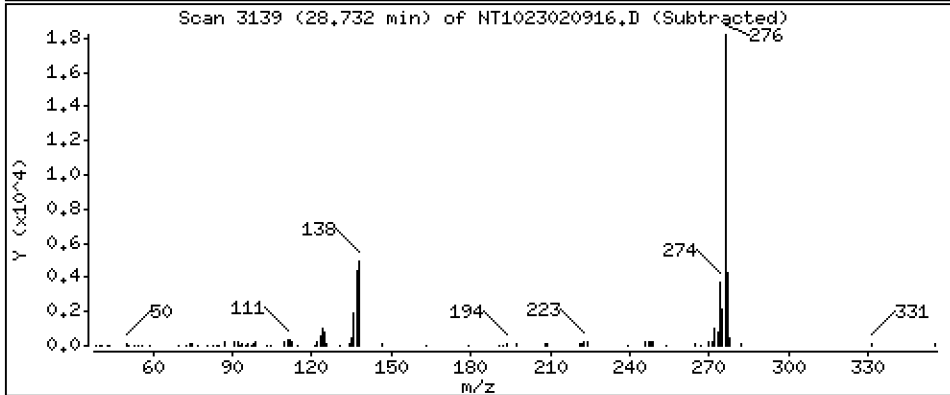
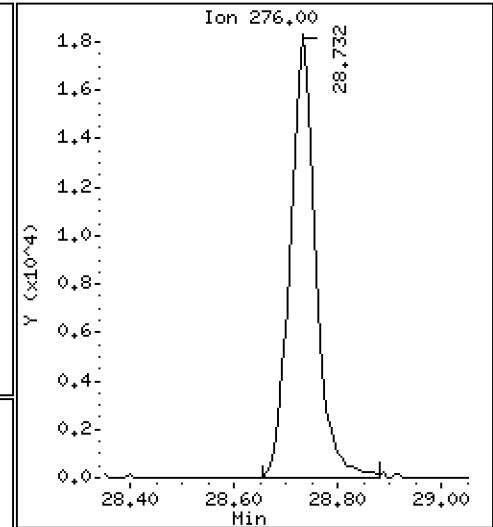
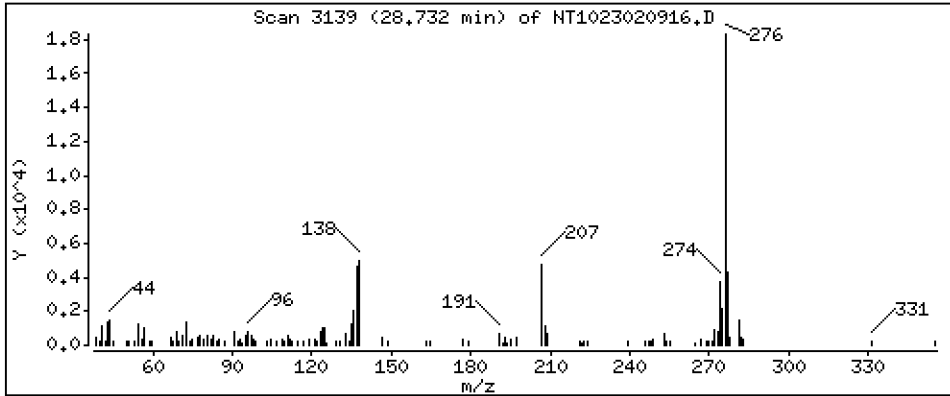
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 1,201 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

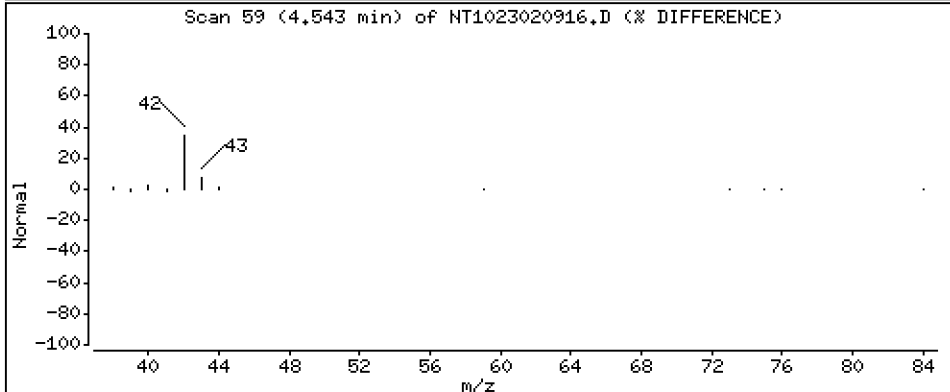
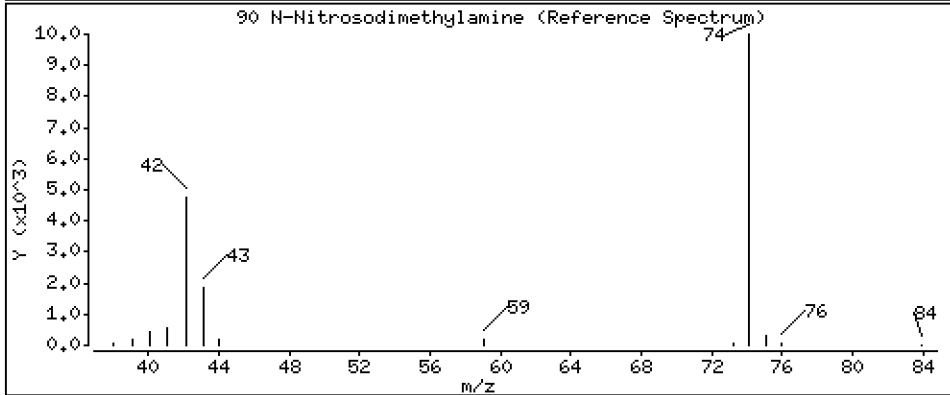
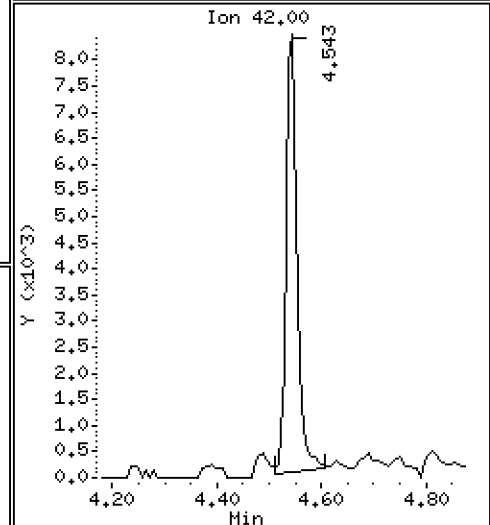
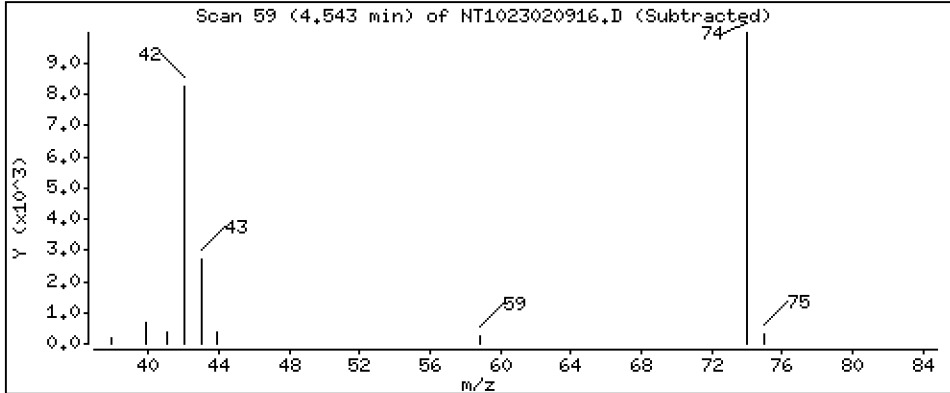
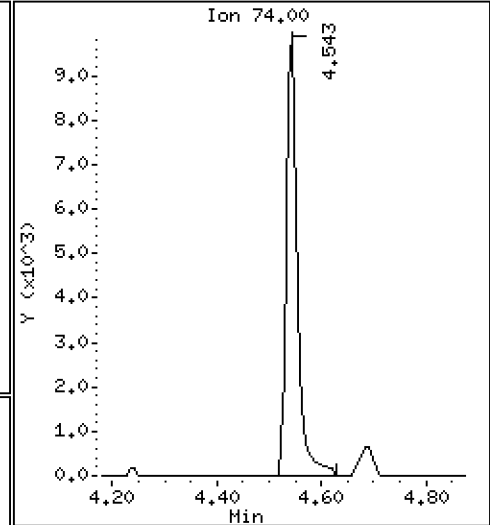
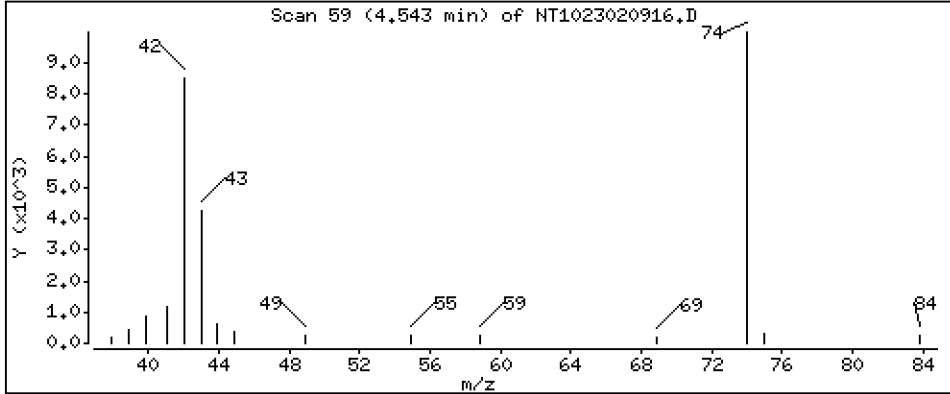
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 1,134 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

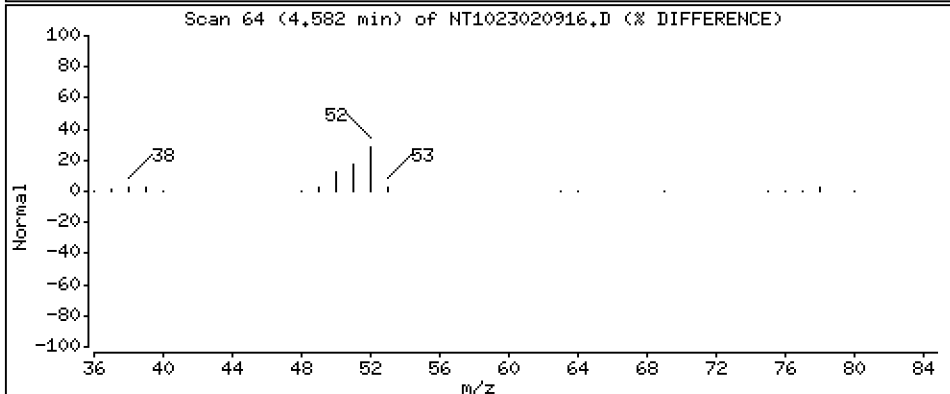
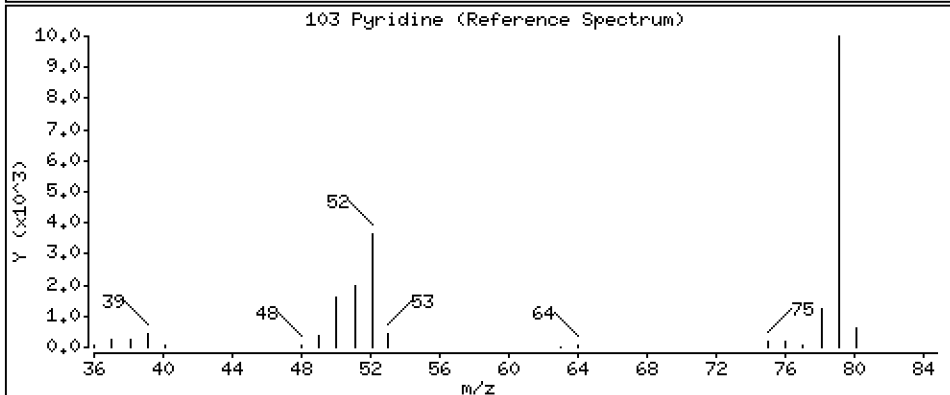
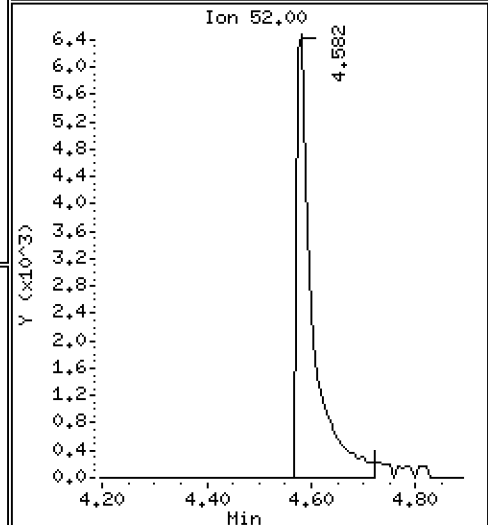
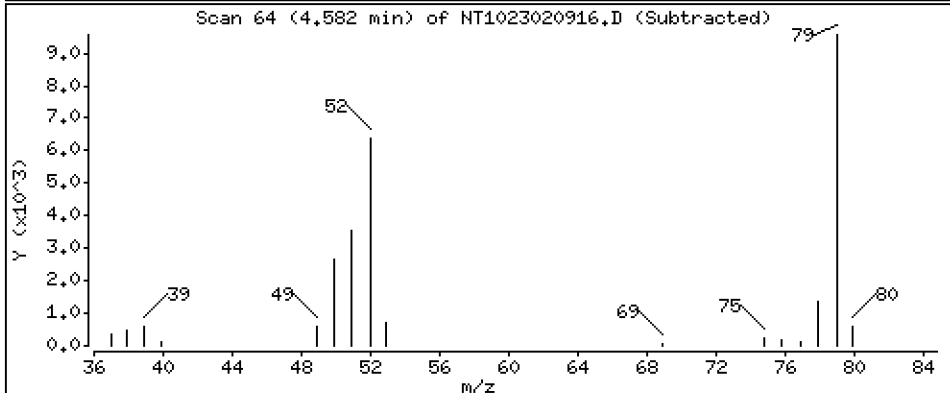
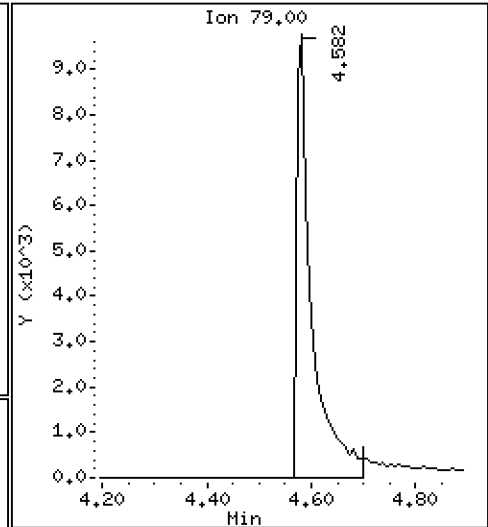
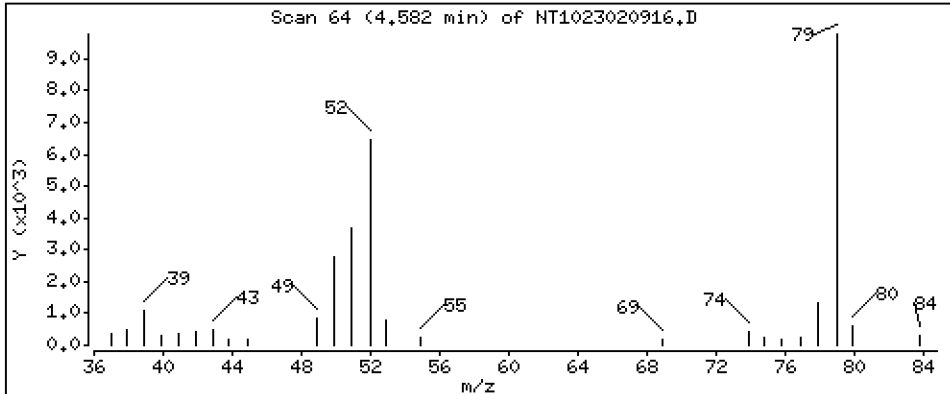
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,9844 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

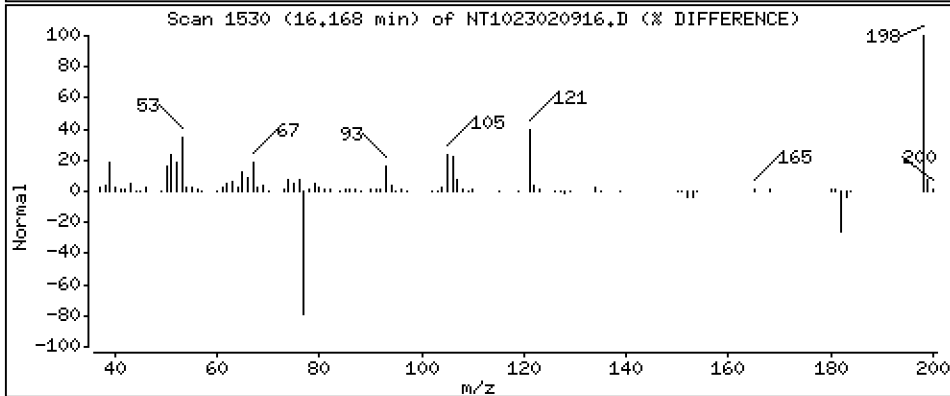
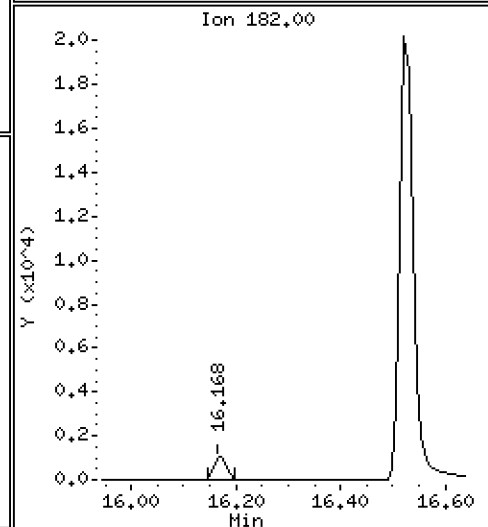
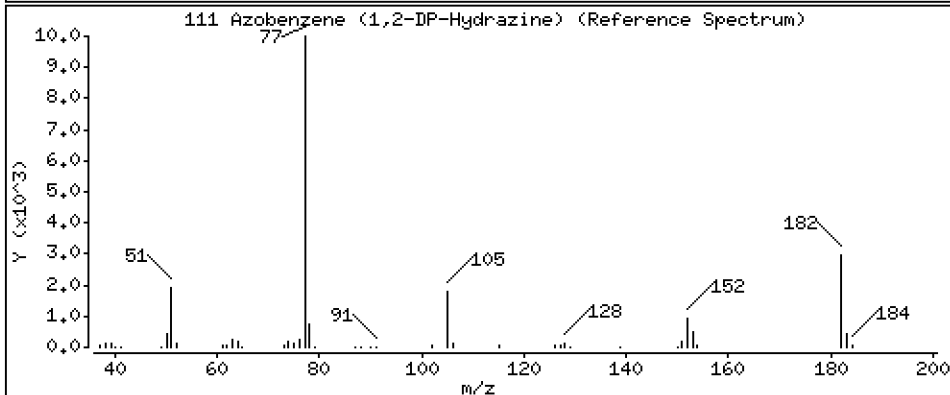
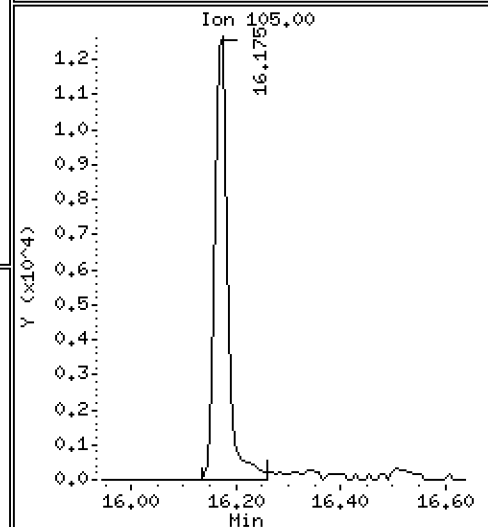
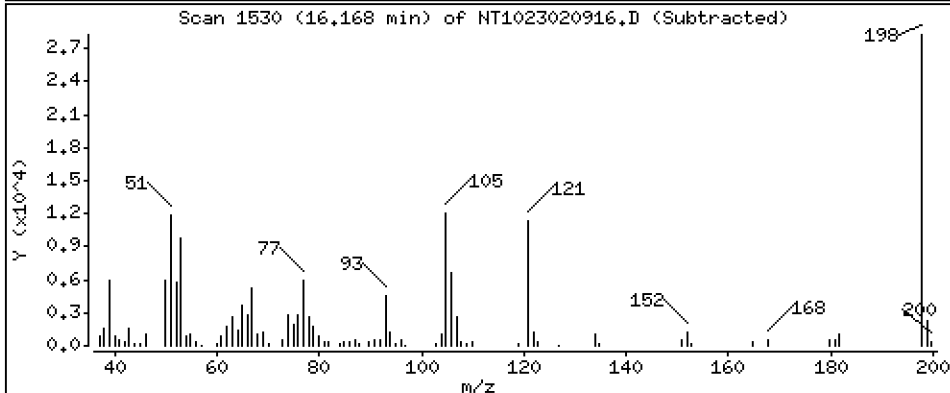
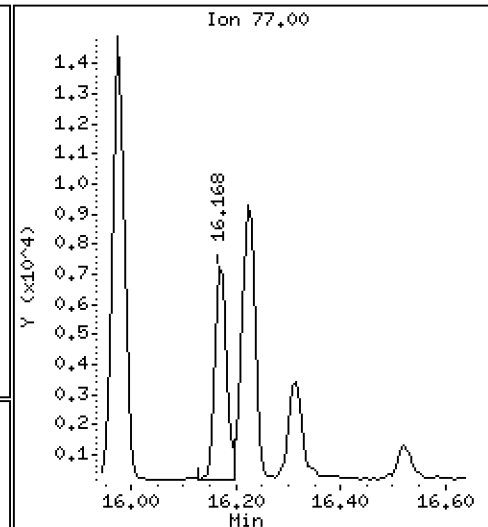
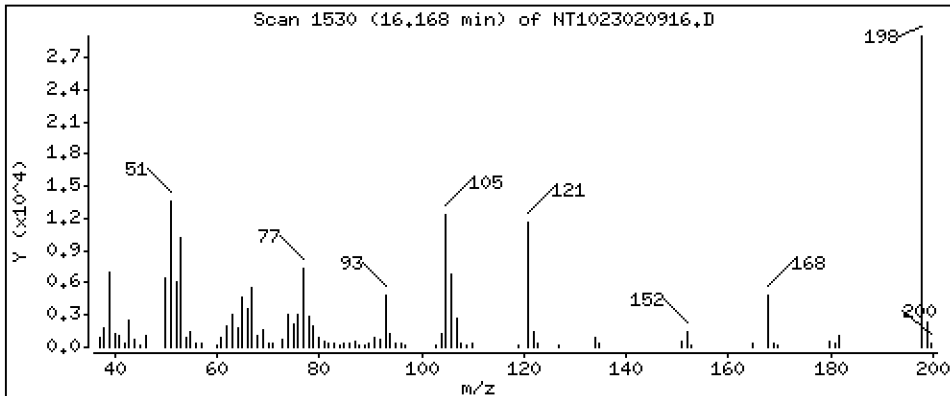
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0,2570 ug/mL



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

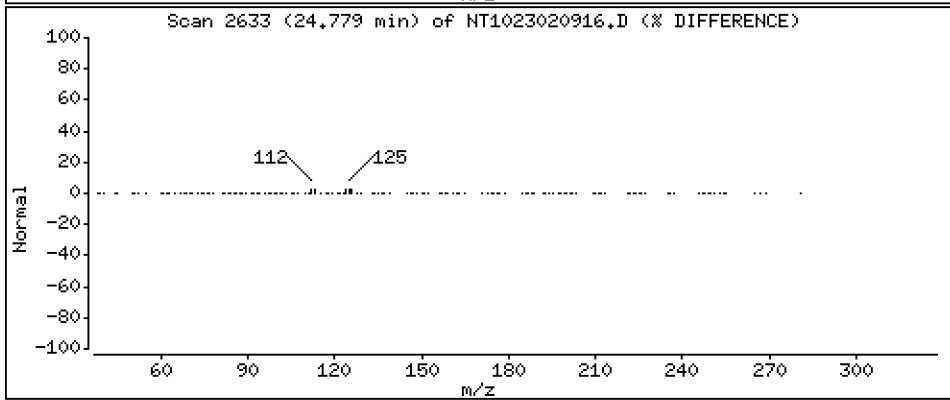
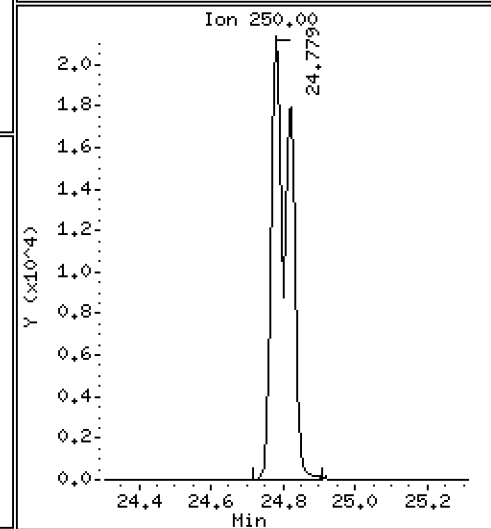
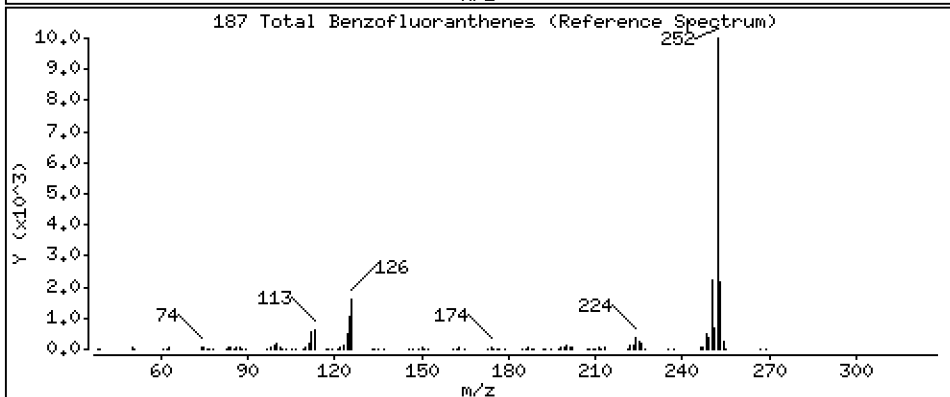
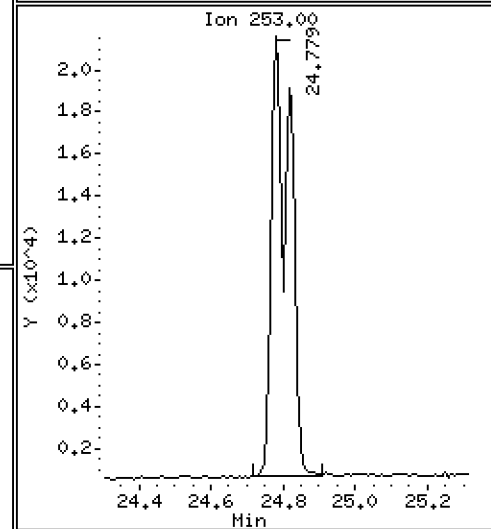
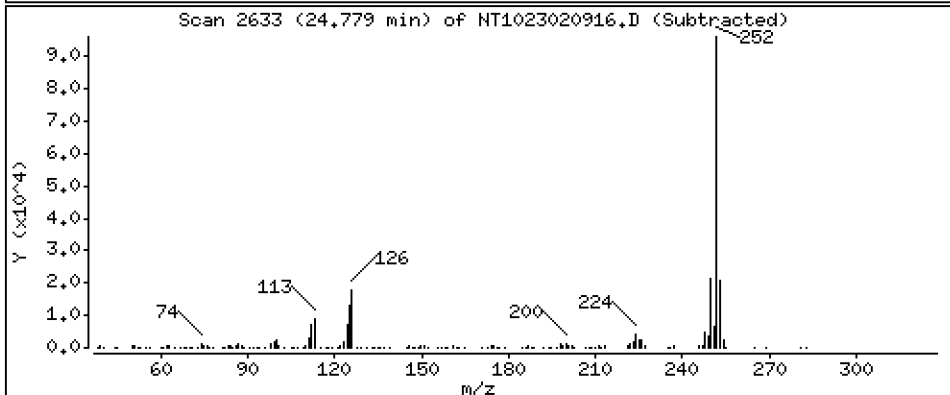
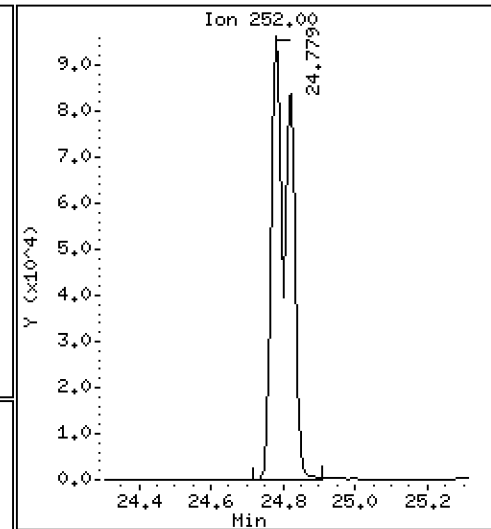
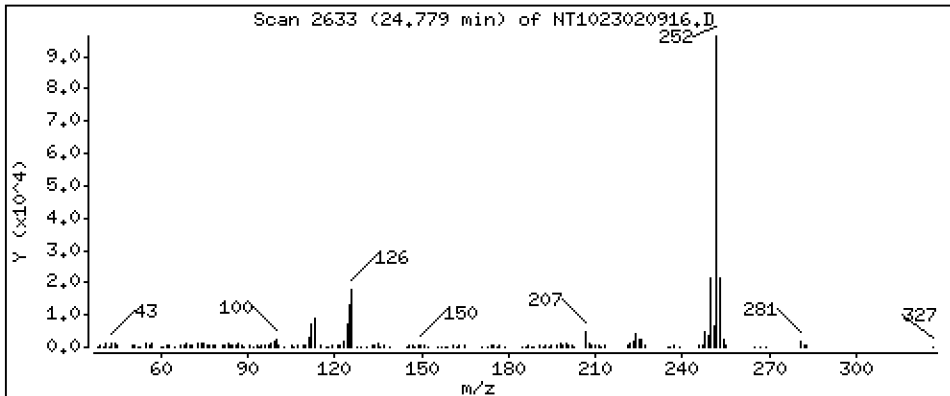
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 5,957 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230209.b\NT1023020916.D
 Lab Smp Id: BLA0163-SRM1
 Inj Date : 09-FEB-2023 22:35
 Operator : VTS
 Smp Info : BLA0163-SRM1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230209.b\ABN.m
 Meth Date : 09-Feb-2023 14:46 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 16
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		6.666	6.651	(0.754)	118853	6.24850	6.248
\$ 2 Phenol-d5	99		8.227	8.219	(0.931)	158066	6.16005	6.160
3 Phenol	94		8.250	8.242	(0.933)	76943	2.77202	2.772
\$ 5 2-Chlorophenol-d4	132		8.490	8.482	(0.961)	131907	6.33398	6.334
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		8.513	8.505	(0.963)	33632	1.48268	1.483
7 1,3-Dichlorobenzene	146		8.776	8.768	(0.993)	29061	1.22050	1.220
* 8 1,4-Dichlorobenzene-d4	152		8.838	8.838	(1.000)	59830	4.00000	
9 1,4-Dichlorobenzene	146		8.776	8.861	(0.993)	29061	1.23915	1.239
\$ 10 1,2-Dichlorobenzene-d4	152		9.195	9.187	(1.040)	56217	3.94367	3.944
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		9.343	9.102	(1.057)	134910	10.9727	10.97
14 2,2'-oxybis(1-Chloropropane)	121		9.412	9.397	(1.065)	20834	3.20703	3.207
13 2-Methylphenol	108		9.343	9.335	(1.057)	130962	6.36192	6.362
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		9.614	9.606	(1.088)	154292	7.07619	7.076
\$ 18 Nitrobenzene-d5	82		9.917	9.909	(0.878)	96277	4.47045	4.470
19 Nitrobenzene	77		9.948	9.948	(0.881)	71773	3.34203	3.342
20 Isophorone	82		10.398	10.390	(0.921)	76228	2.54895	2.549
21 2-Nitrophenol	139		10.574	10.574	(0.936)	71085	6.42619	6.426
22 2,4-Dimethylphenol	107		10.642	10.633	(0.942)	110146	5.57028	5.570
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		10.812	10.888	(0.957)	7641	0.68280	0.6828 (H)
25 2,4-Dichlorophenol	162		11.032	11.024	(0.977)	133222	8.29271	8.293
26 1,2,4-Trichlorobenzene	180		11.209	11.209	(0.992)	26181	1.49578	1.496
* 27 Naphthalene-d8	136		11.294	11.286	(1.000)	217988	4.00000	
28 Naphthalene	128		11.333	11.333	(1.003)	277849	4.76979	4.770
29 4-Chloroaniline	127		11.333	11.464	(1.003)	36070	1.44448	1.444
30 Hexachlorobutadiene	225		11.696	11.688	(1.036)	20667	2.26408	2.264
31 4-Chloro-3-methylphenol	107		12.439	12.423	(1.101)	38166	2.17321	2.173
32 2-Methylnaphthalene	142		12.439	12.710	(1.101)	31015	0.76576	0.7658
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					
34 2,4,6-Trichlorophenol	196		13.344	13.336	(0.897)	24270	2.46805	2.468

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
35 2,4,5-Trichlorophenol	196		13.429	13.414	(0.902)	41563	3.92047	3.920	
\$ 36 2-Fluorobiphenyl	172		13.499	13.491	(0.907)	179441	4.57107	4.571	
37 2-Chloronaphthalene	162		13.708	13.700	(0.921)	81979	2.40248	2.402	
38 2-Nitroaniline	65		13.824	13.956	(0.929)	7672	0.71405	0.7140	
39 Dimethylphthalate	163		14.397	14.389	(0.967)	186273	5.10244	5.102	
40 Acenaphthylene	152		14.567	14.559	(0.979)	104131	1.91584	1.916	
41 2,6-Dinitrotoluene	165		Compound Not Detected.						
* 42 Acenaphthene-d10	164		14.884	14.869	(1.000)	108933	4.00000		
43 3-Nitroaniline	138		Compound Not Detected.						
44 Acenaphthene	153		14.946	14.939	(1.004)	204236	6.13150	6.131	
45 2,4-Dinitrophenol	184		15.031	15.016	(1.010)	18554	4.12307	4.123	
46 Dibenzofuran	168		15.271	15.263	(1.026)	320956	6.69821	6.698	
47 4-Nitrophenol	109		15.163	15.147	(1.019)	33643	9.05262	9.053	
48 2,4-Dinitrotoluene	165		15.333	15.325	(1.030)	44094	3.69603	3.696	
50 Diethylphthalate	149		15.843	15.843	(1.064)	15192	0.43334	0.4333	
49 Fluorene	166		15.982	15.967	(1.074)	183545	3.40780	3.408	
51 4-Chlorophenyl-phenylether	204		15.974	15.967	(1.073)	49594	1.88527	1.885	
52 4-Nitroaniline	138		Compound Not Detected.						
53 4,6-Dinitro-2-methylphenol	198		16.175	16.167	(0.903)	51648	7.91330	7.913	
54 N-Nitrosodiphenylamine	169		16.221	16.213	(0.906)	124371	4.02623	4.026	
\$ 55 2,4,6-Tribromophenol	330		16.514	16.506	(1.109)	37813	6.93221	6.932	
56 4-Bromophenyl-phenylether	248		16.977	16.961	(0.948)	91436	8.03291	8.033	
57 Hexachlorobenzene	284		Compound Not Detected.						
58 Pentachlorophenol	266		17.650	17.635	(0.986)	18634	3.98581	3.986	
* 59 Phenanthrene-d10	188		17.905	17.890	(1.000)	180704	4.00000		
60 Phenanthrene	178		17.952	17.936	(1.003)	269325	5.53792	5.538	
61 Anthracene	178		18.045	18.029	(1.008)	121989	2.53317	2.533	
62 Carbazole	167		18.377	18.362	(1.026)	274384	5.90744	5.907	
63 Di-n-butylphthalate	149		19.190	19.182	(1.072)	105052	1.89669	1.897	
64 Fluoranthene	202		20.343	20.335	(0.885)	141440	2.55176	2.552	
65 Pyrene	202		20.776	20.760	(0.904)	179930	3.14431	3.144	
\$ 66 Terphenyl-d14	244		21.070	21.054	(0.917)	185846	4.30707	4.307	
67 Butylbenzylphthalate	149		22.007	21.991	(0.958)	92971	3.75962	3.760	
68 Benzo(a)anthracene	228		22.951	22.936	(0.999)	323356	6.41781	6.418	
* 69 Chrysene-d12	240		22.975	22.959	(1.000)	151159	4.00000		
70 3,3'-Dichlorobenzidine	252		Compound Not Detected.						
71 Chrysene	228		23.021	23.006	(1.002)	76217	1.57733	1.577	
72 bis(2-Ethylhexyl)phthalate	149		23.052	23.037	(0.959)	53722	1.61034	1.610	
* 134 Di-n-octylphthalate-d4	153		24.027	24.020	(1.000)	245257	4.00000		
73 Di-n-octylphthalate	149		24.043	24.027	(1.001)	60028	0.96853	0.9685	
74 Benzo(b)fluoranthene	252		24.778	24.763	(0.971)	188715	3.28395	3.284	
75 Benzo(k)fluoranthene	252		24.825	24.809	(0.973)	164173	2.71356	2.714	
76 Benzo(a)pyrene	252		25.398	25.375	(0.996)	287576	5.53450	5.535	
* 77 Perylene-d12	264		25.506	25.483	(1.000)	181537	4.00000		
78 Indeno(1,2,3-cd)pyrene	276		28.002	27.971	(1.098)	235659	3.81032	3.810	
79 Dibenzo(a,h)anthracene	278		28.017	27.986	(1.098)	182005	3.55248	3.552	
80 Benzo(g,h,i)perylene	276		28.732	28.701	(1.126)	63753	1.20109	1.201	
90 N-Nitrosodimethylamine	74		4.543	4.527	(0.514)	15004	1.13380	1.134	
91 Aniline	93		Compound Not Detected.						
93 Benzidine	184		Compound Not Detected.						
103 Pyridine	79		4.581	4.543	(0.518)	20163	0.98439	0.9844	
105 1-methylnaphthalene	142		Compound Not Detected.						
111 Azobenzene (1,2-DP-Hydrazine)	77		16.167	16.291	(1.086)	12007	0.25705	0.2570	
187 Total Benzofluoranthenes	252		24.778	24.809	(0.971)	335613	5.95719	5.957	
120 2,3,4,6-Tetrachlorophenol	232		Compound Not Detected.						

Compounds	QUANT SIG						CONCENTRATIONS	
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 09-FEB-2023
 Lab File ID: NT1023020916.D Calibration Time: 13:31
 Lab Smp Id: BLA0163-SRM1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230209.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	89503	44752	179006	59830	-33.15
27 Naphthalene-d8	348104	174052	696208	217988	-37.38
42 Acenaphthene-d10	183525	91763	367050	108933	-40.64
59 Phenanthrene-d10	295489	147745	590978	180704	-38.85
69 Chrysene-d12	239590	119795	479180	151159	-36.91
134 Di-n-octylphthala	404293	202147	808586	245257	-39.34
77 Perylene-d12	274336	137168	548672	181537	-33.83

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	-0.00
27 Naphthalene-d8	11.29	10.79	11.79	11.29	0.07
42 Acenaphthene-d10	14.87	14.37	15.37	14.88	0.10
59 Phenanthrene-d10	17.89	17.39	18.39	17.91	0.09
69 Chrysene-d12	22.96	22.46	23.46	22.98	0.07
134 Di-n-octylphthala	24.02	23.52	24.52	24.03	0.03
77 Perylene-d12	25.48	24.98	25.98	25.51	0.09

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020916.D

Lab ID: BLA0163-SRM1
nt10.i, 20230209.b\ABN.m, 09-FEB-2023 22:35

RT	CO-ELUTION COMPOUNDS
12.439	4-Chloro-3-methylphenol and 2-Methylnaphthalene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.993	1.003	-0.0097	1,4-Dichlorobenzene
1.057	1.030	0.0272	Benzyl alcohol
0.957	0.965	-0.0074	Benzoic acid
1.003	1.016	-0.0123	4-Chloroaniline
1.101	1.126	-0.0248	2-Methylnaphthalene
0.929	0.939	-0.0098	2-Nitroaniline
1.086	1.096	-0.0094	Azobenzene (1,2-DP-Hydrazine)

RRT check based on Ccal File: NT1023020902.D

On Column LOD for nt10.i, 20230209.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *



**MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Lab File ID: NT1023020701.D

Injection Date: 02/07/23

Instrument ID: NT10

Injection Time: 11:54

Sequence: SLB0102

Lab Sample ID: SLB0102-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	60.5	PASS
70	Less than 2% of 69	0.483	PASS
197	Less than 2% of 198	0.49	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.86	PASS
365	1 - 100% of 198	2.39	PASS
441	Less than 150% of 443	74.8	PASS
442	1 - 200% of 198	47.5	PASS
443	15 - 24% of 442	19.4	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Base peak, 100% relative abundance		



**MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Lab File ID:	<u>NT1023020701.D</u>	Injection Date:	<u>02/07/23</u>
Instrument ID:	<u>NT10</u>	Injection Time:	<u>11:54</u>
Sequence:	<u>SLB0102</u>	Lab Sample ID:	<u>SLB0102-TUN1</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	60.5	PASS
70	Less than 2% of 69	0.483	PASS
197	Less than 2% of 198	0.49	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.86	PASS
365	1 - 100% of 198	2.39	PASS
441	Less than 150% of 443	74.8	PASS
442	1 - 200% of 198	47.5	PASS
443	15 - 24% of 442	19.4	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Base peak, 100% relative abundance		

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SLB0102-TUN1	NT1023020701.D	02/07/2023	11:54
Cal Standard	SLB0102-CAL7	NT1023020702.D	02/07/2023	12:18
Cal Standard	SLB0102-CAL6	NT1023020703.D	02/07/2023	12:57
Cal Standard	SLB0102-CAL5	NT1023020704.D	02/07/2023	13:35
Cal Standard	SLB0102-CAL4	NT1023020705.D	02/07/2023	14:14
Cal Standard	SLB0102-CAL3	NT1023020706.D	02/07/2023	14:52
Cal Standard	SLB0102-CAL2	NT1023020707.D	02/07/2023	15:30
Cal Standard	SLB0102-CAL1	NT1023020708.D	02/07/2023	16:09
Secondary Cal Check	SLB0102-SCV1	NT1023020711.D	02/07/2023	18:04
Initial Cal Check	SLB0102-ICV1	NT1023020712.D	02/07/2023	18:42
Low Cal Check	SLB0102-LCV1	NT1023020713.D	02/07/2023	19:20
Blank	BLA0160-BLK1	NT1023020716.D	02/07/2023	21:14
LCS	BLA0160-BS1	NT1023020717.D	02/07/2023	21:52
LCS Dup	BLA0160-BSD1	NT1023020718.D	02/07/2023	22:30
Reference	BLA0160-SRM1	NT1023020719.D	02/07/2023	23:09
ZZZZZ	23A0031-01	NT1023020720.D	02/07/2023	23:47
ZZZZZ	23A0031-02	NT1023020721.D	02/08/2023	0:25
ZZZZZ	23A0031-03	NT1023020722.D	02/08/2023	1:03
ZZZZZ	23A0031-04	NT1023020723.D	02/08/2023	1:41
ZZZZZ	23A0031-05	NT1023020724.D	02/08/2023	2:18
ZZZZZ	23A0031-06	NT1023020725.D	02/08/2023	2:57
ZZZZZ	23A0031-07	NT1023020726.D	02/08/2023	3:34
ZZZZZ	23A0031-08	NT1023020727.D	02/08/2023	4:13
ZZZZZ	23A0031-09	NT1023020728.D	02/08/2023	4:51
ZZZZZ	23A0031-10	NT1023020729.D	02/08/2023	5:29
ZZZZZ	23A0031-11	NT1023020730.D	02/08/2023	6:07



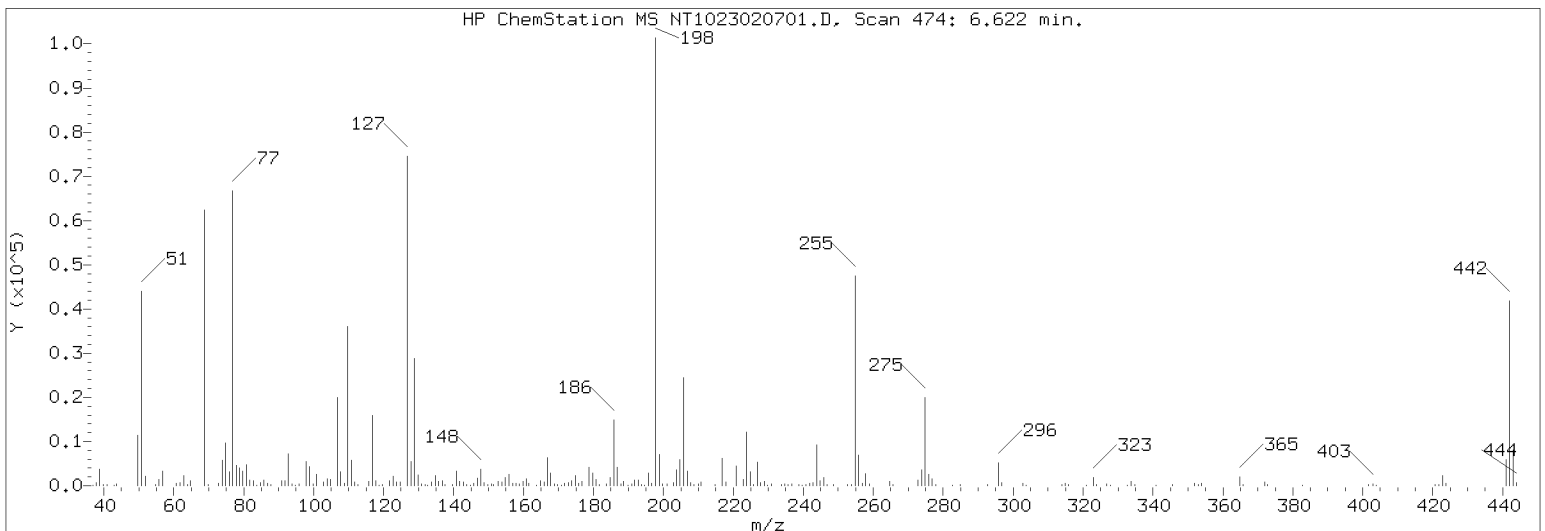
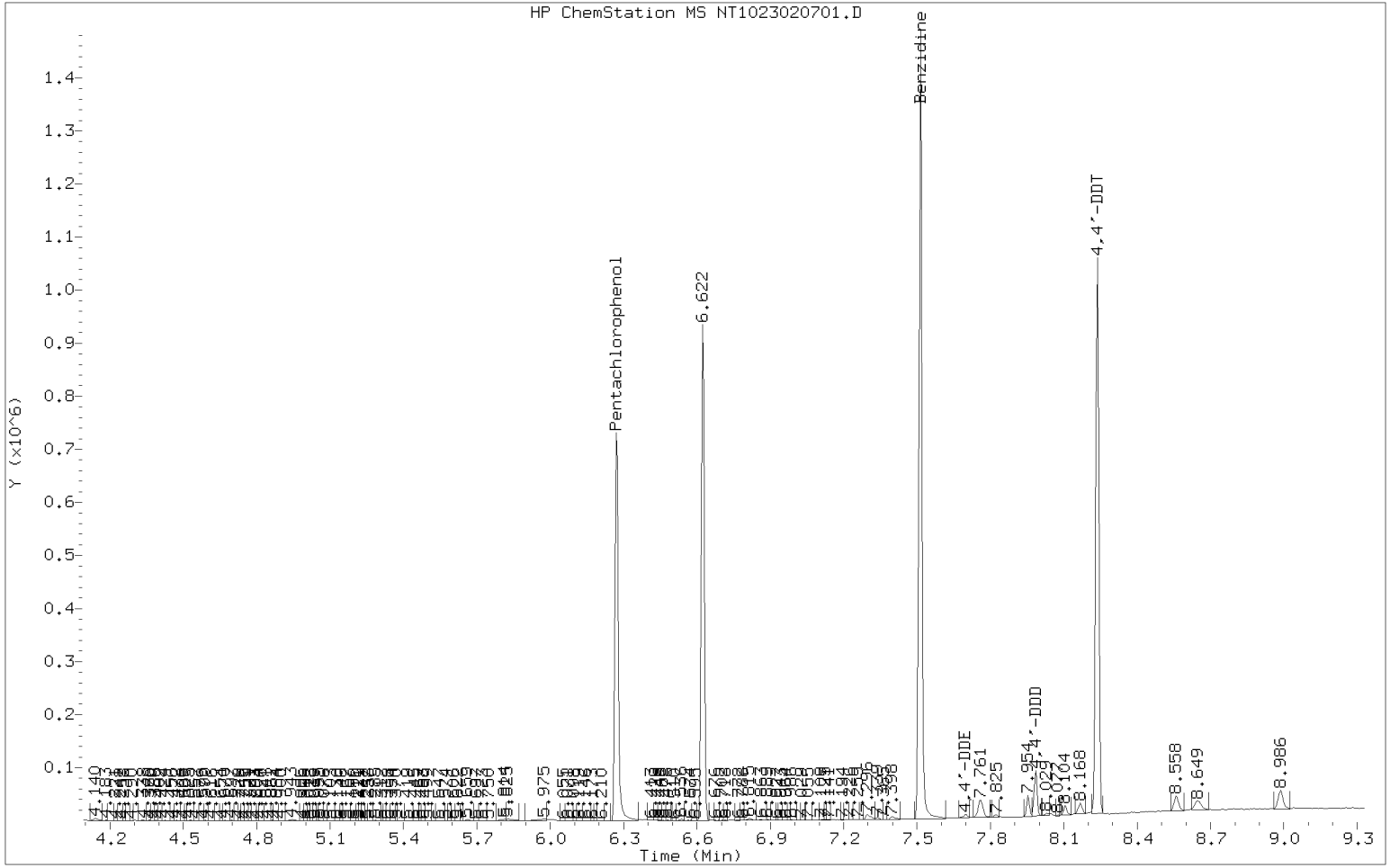
**MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Lab File ID:	<u>NT1023020701.D</u>	Injection Date:	<u>02/07/23</u>
Instrument ID:	<u>NT10</u>	Injection Time:	<u>11:54</u>
Sequence:	<u>SLB0102</u>	Lab Sample ID:	<u>SLB0102-TUN1</u>

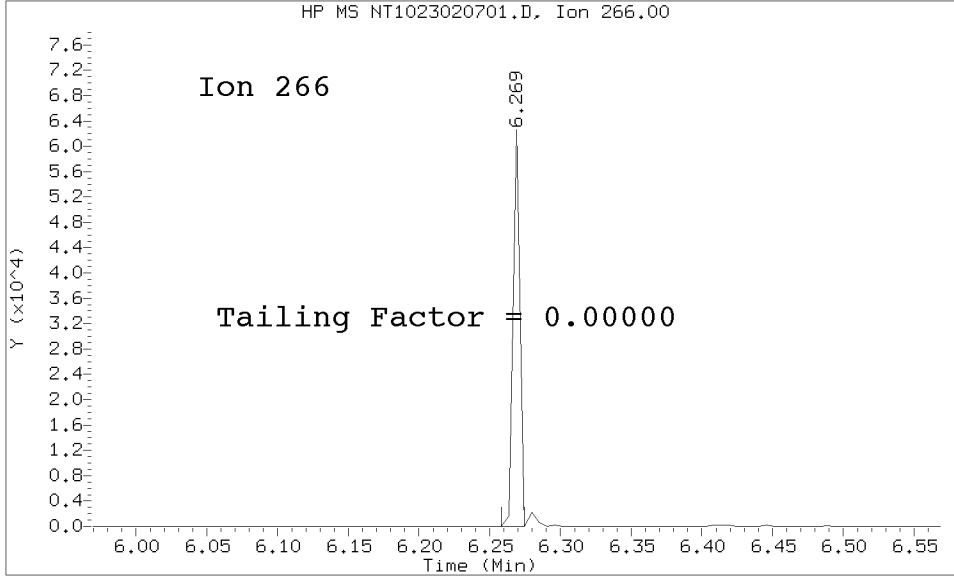
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE			
68	Less than 2% of 69	0	PASS		
69	Less than 100% of 198	60.5	PASS		
70	Less than 2% of 69	0.483	PASS		
197	Less than 2% of 198	0.49	PASS		
198	Base peak, 100% relative abundance	100	PASS		
199	5 - 9% of 198	6.86	PASS		
365	1 - 100% of 198	2.39	PASS		
441	Less than 150% of 443	74.8	PASS		
442	1 - 200% of 198	47.5	PASS		
443	15 - 24% of 442	19.4	PASS		
4,4'-DDD	Less than 20% of 4,4'-DDT				
4,4'-DDE	Less than 20% of 4,4'-DDT				
4,4'-DDT	Base peak, 100% relative abundance				
	Initial Cal Check	SLB0102-ICV2	NT1023020732.D	02/08/2023	7:24
	Low Cal Check	SLB0102-LCV2	NT1023020733.D	02/08/2023	8:02

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230207A.b/NT1023020701.D/NT1023020701.D
Method Used: \20230207A.b\DFTPP8270E.m Inst: nt10
Injection Date: 07-FEB-2023 11:54 Operator: DSD
Sample Info: SLB0121-TUN1 SLB0121-TUN1
Report Date: 02/09/2023 14:02



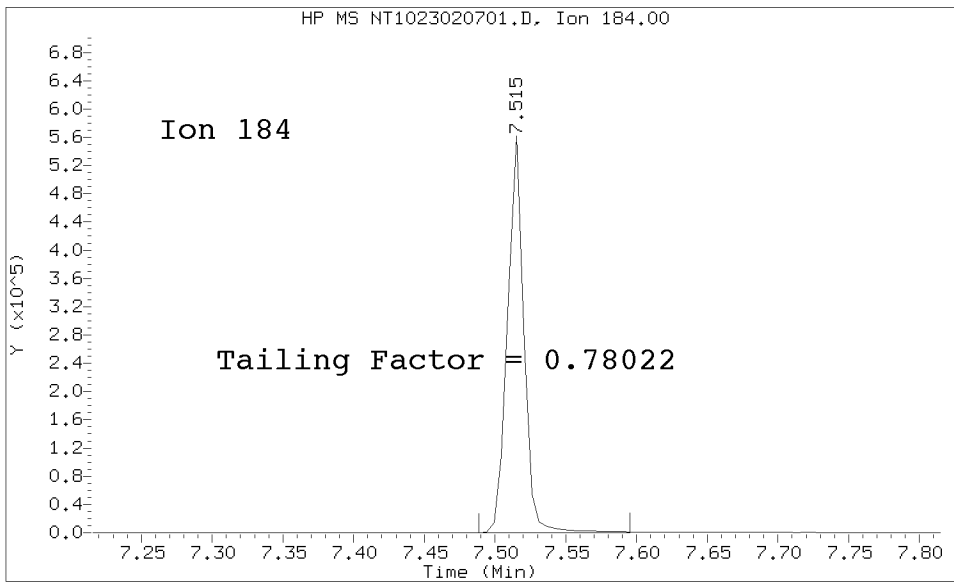
Datafile Analyzed: /20230207A.b/NT1023020701.D/NT1023020701.D
Method Used: \20230207.b\DFTPP8270E.m\sw846ddt.m Inst: nt10
Injection Date: 07-FEB-2023 11:54 Operator: DSD
Sample Info: SEQ-TUN1
Report Date: 02/09/2023 14:02



Pentachlorophenol

=====
Exp. RT = 6.269
Found RT = 6.269

Tail Factor = 0.000 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 7.515
Found RT = 7.515

Tail Factor = 0.780 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.0000000	2.000	PASS
Benzidine	0.7802198	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	149280			N/A
4,4-DDE	735	0.5	20.0	PASS
4,4-DDD	12536	7.7	20.0	PASS
4,4-DDD + DDE	13271	8.2	20.0	PASS

Tuning Sample, nt10.i/20230207A.b/NT1023020701.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	60.47
70	Less than 2.00% of mass 69	0.29 (0.48)
197	Less than 2.00% of mass 198	0.49
199	5.00 - 9.00% of mass 198	6.86
365	1.00 - 100.00% of mass 198	2.39
441	Less than 150.00% of mass 443	6.91 (74.79)
442	Less than 200.00% of mass 198	47.52
443	15.00 - 24.00% of mass 442	9.23 (19.43)

Data File: NT1023020701.D
 Spectrum: Avg. Scans 473-475 (6.62), Background Scan 468
 Location of Maximum: 198.00
 Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	119	116.00	359	180.00	2190	254.00	118
38.00	475	117.00	11928	181.00	1080	255.00	37560
39.00	2852	118.00	862	182.00	148	256.00	5492
40.00	228	119.00	105	184.00	220	257.00	441
41.00	60	120.00	163	185.00	1473	258.00	2142
43.00	52	122.00	932	186.00	11286	259.00	374
44.00	19	123.00	1583	187.00	3200	265.00	861
49.00	199	124.00	690	188.00	636	266.00	153
50.00	8730	125.00	703	189.00	393	273.00	1096
51.00	32904	127.00	55096	190.00	58	274.00	2954
52.00	1756	128.00	4133	191.00	351	275.00	16094
55.00	283	129.00	21552	192.00	960	276.00	2062
56.00	1097	130.00	1846	193.00	1072	277.00	1379
57.00	2521	131.00	354	194.00	250	278.00	185
61.00	464	132.00	220	195.00	53	283.00	130
62.00	564	133.00	55	196.00	2314	284.00	59
63.00	1603	134.00	606	197.00	379	285.00	205
64.00	237	135.00	1785	198.00	77392	293.00	262
65.00	848	136.00	683	199.00	5312	296.00	4424
69.00	46800	137.00	996	200.00	419	297.00	608
70.00	226	138.00	76	201.00	374	302.00	75
73.00	286	140.00	245	203.00	595	303.00	429
74.00	4406	141.00	2462	204.00	2841	304.00	113
75.00	7199	142.00	1192	205.00	4572	314.00	253
76.00	2399	143.00	511	206.00	18736	315.00	423
77.00	49840	144.00	185	207.00	2575	316.00	233
78.00	3477	145.00	68	208.00	609	321.00	120
79.00	2952	146.00	430	209.00	199	323.00	1536
80.00	2464	147.00	1292	210.00	336	324.00	224
81.00	3558	148.00	2914	211.00	768	327.00	262
82.00	946	149.00	591	215.00	254	328.00	111
83.00	770	150.00	144	217.00	4805	333.00	112
84.00	191	151.00	589	218.00	615	334.00	892
85.00	584	153.00	789	221.00	3522	335.00	216
86.00	997	154.00	600	223.00	1075	341.00	125
87.00	447	155.00	1374	224.00	9658	346.00	270
88.00	140	156.00	1954	225.00	2516	352.00	368
91.00	854	157.00	519	226.00	114	353.00	232
92.00	848	158.00	446	227.00	4133	354.00	428
93.00	5377	159.00	293	228.00	597	365.00	1853
94.00	366	160.00	719	229.00	841	366.00	222
95.00	195	161.00	1289	230.00	64	371.00	50
96.00	333	162.00	174	231.00	384	372.00	649
98.00	4109	164.00	57	234.00	215	373.00	150
99.00	3213	165.00	910	235.00	397	383.00	160
100.00	283	166.00	717	236.00	100	402.00	209
101.00	1952	167.00	4756	237.00	321	403.00	396
103.00	639	168.00	2216	239.00	184	404.00	124
104.00	1244	169.00	394	240.00	63	421.00	262

105.00	1190	170.00	79	241.00	196	422.00	242
106.00	77	171.00	147	242.00	509	423.00	1998
107.00	14850	172.00	428	243.00	289	424.00	382
108.00	2302	173.00	510	244.00	7324	441.00	5344
109.00	279	174.00	899	245.00	989	442.00	36776
110.00	26472	175.00	1734	246.00	1436	443.00	7145
111.00	4139	176.00	479	247.00	288	444.00	677
112.00	545	177.00	846	249.00	228		
113.00	159	179.00	3266	253.00	167		



**MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E**

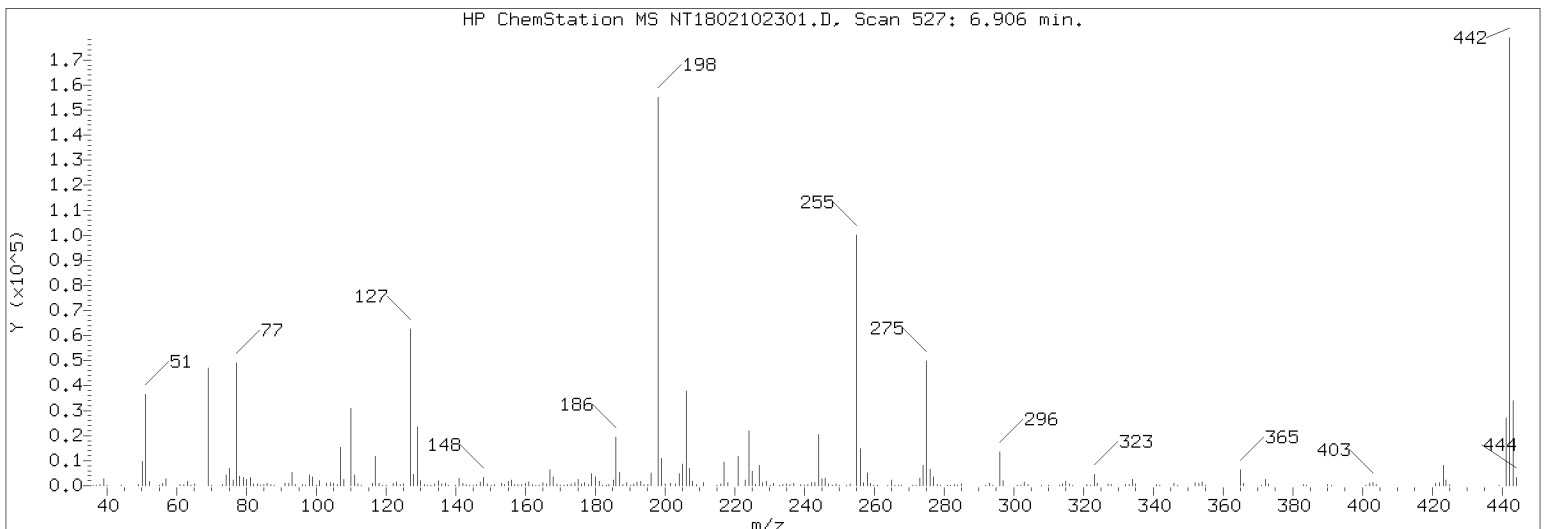
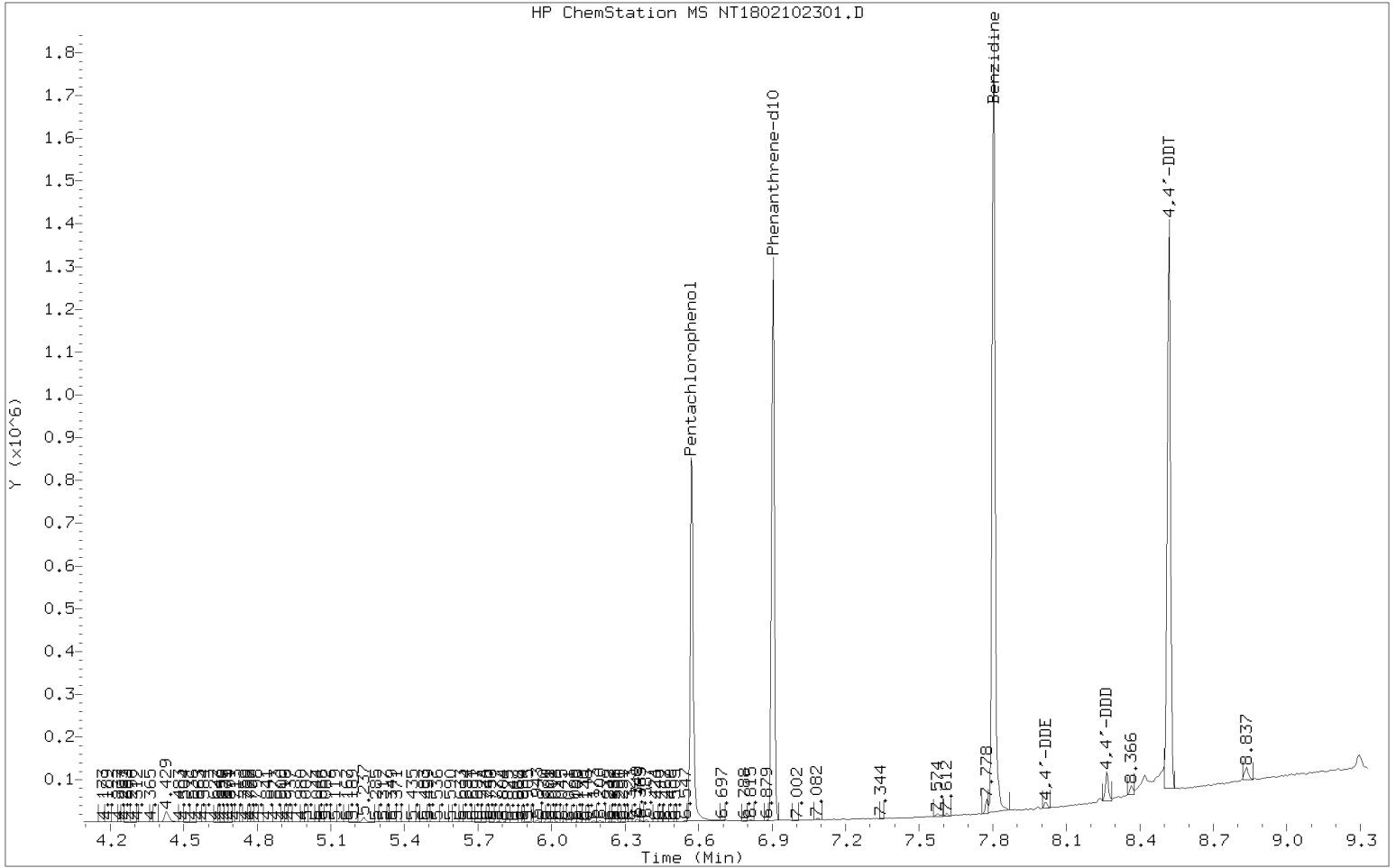
Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Lab File ID:	<u>NT1802102301.D</u>	Injection Date:	<u>02/10/23</u>
Instrument ID:	<u>NT18</u>	Injection Time:	<u>16:46</u>
Sequence:	<u>SLB0195</u>	Lab Sample ID:	<u>SLB0195-TUN1</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	33	PASS
70	Less than 2% of 69	0.409	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.8	PASS
365	1 - 100% of 198	4.1	PASS
441	Less than 150% of 443	79.5	PASS
442	1 - 200% of 198	109	PASS
443	15 - 24% of 442	18.8	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Base peak, 100% relative abundance		

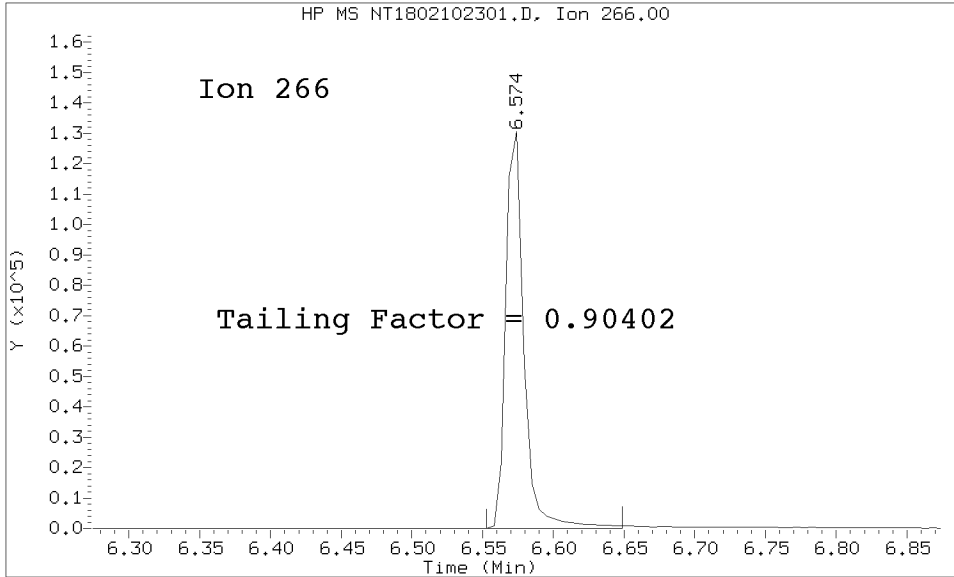
Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SLB0195-TUN1	NT1802102301.D	02/10/2023	16:46
Cal Standard	SLB0195-CAL7	NT1802102302.D	02/10/2023	17:04
Cal Standard	SLB0195-CAL6	NT1802102303.D	02/10/2023	17:44
Cal Standard	SLB0195-CAL5	NT1802102304.D	02/10/2023	18:25
Cal Standard	SLB0195-CAL4	NT1802102305.D	02/10/2023	19:05
Cal Standard	SLB0195-CAL3	NT1802102306.D	02/10/2023	19:45
Cal Standard	SLB0195-CAL2	NT1802102307.D	02/10/2023	20:25
Cal Standard	SLB0195-CAL1	NT1802102308.D	02/10/2023	21:05
Secondary Cal Check	SLB0195-SCV1	NT1802102311.D	02/10/2023	23:06
Initial Cal Blank	SLB0195-ICB1	NT1802102312.D	02/10/2023	23:46

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230210.b/NT1802102301.D/NT1802102301.D
Method Used: \20230210.b\DFTPP8270E.m Inst: nt18
Injection Date: 10-FEB-2023 16:46 Operator: VTS
Sample Info: t
Report Date: 02/15/2023 08:44



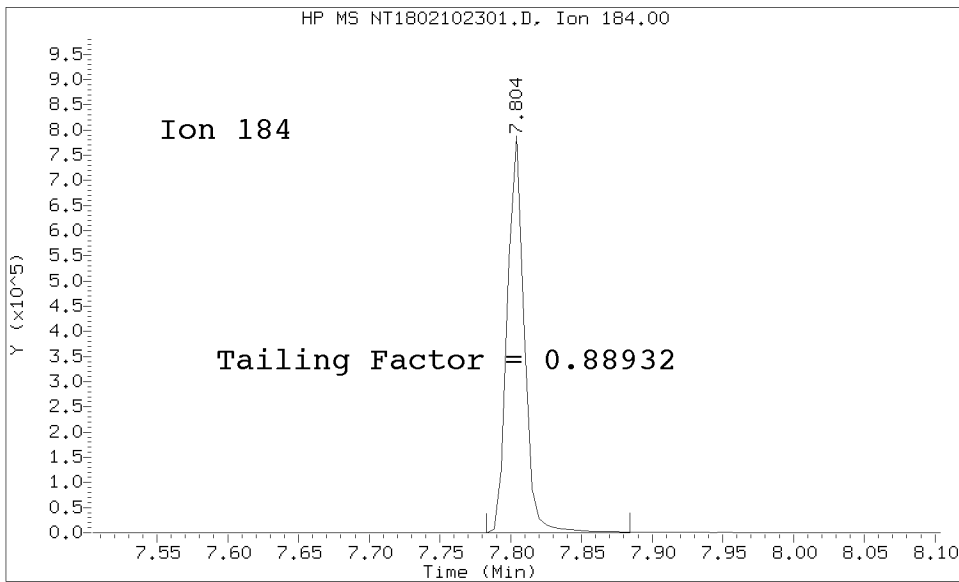
Datafile Analyzed: /20230210.b/NT1802102301.D/NT1802102301.D
Method Used: \20230210.b\DFTPP8270E.m\sw846ddt.m Inst: nt18
Injection Date: 10-FEB-2023 16:46 Operator: JGR
Sample Info: SEQ-TUN1
Report Date: 02/15/2023 08:44



Pentachlorophenol

=====
Exp. RT = 6.574
Found RT = 6.574

Tail Factor = 0.904 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 7.804
Found RT = 7.804

Tail Factor = 0.889 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.9040208	2.000	PASS
Benzidine	0.8893229	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	247519			N/A
4,4-DDE	693	0.3	20.0	PASS
4,4-DDD	11858	4.6	20.0	PASS
4,4-DDD + DDE	12551	4.8	20.0	PASS

Tuning Sample, nt18.i/20230210.b/NT1802102301.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	33.01
70	Less than 2.00% of mass 69	0.13 (0.41)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.80
365	1.00 - 100.00% of mass 198	4.10
441	Less than 150.00% of mass 443	16.19 (79.48)
442	Less than 200.00% of mass 198	108.53
443	15.00 - 24.00% of mass 442	20.37 (18.76)

Data File: NT1802102301.D
 Spectrum: Avg. Scans 526-528 (6.91), Background Scan 520
 Location of Maximum: 442.00
 Number of points: 268

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	53	127.00	48672	196.00	3996	279.00	59
37.00	152	128.00	3702	198.00	115608	281.00	95
38.00	481	129.00	18800	199.00	7864	282.00	54
39.00	2342	130.00	1568	200.00	596	283.00	292
40.00	149	131.00	307	201.00	766	284.00	257
44.00	2	132.00	156	203.00	697	285.00	541
45.00	51	133.00	18	204.00	3859	292.00	113
49.00	380	134.00	497	205.00	6620	293.00	667
50.00	7967	135.00	1470	206.00	28104	294.00	169
51.00	29952	136.00	601	207.00	3735	296.00	9607
52.00	1569	137.00	888	208.00	841	297.00	1400
55.00	150	138.00	150	209.00	296	301.00	78
56.00	933	140.00	222	210.00	290	302.00	156
57.00	2203	141.00	2340	211.00	1147	303.00	1152
61.00	452	142.00	812	215.00	241	304.00	304
62.00	445	143.00	512	216.00	620	308.00	122
63.00	1296	144.00	132	217.00	6977	310.00	59
64.00	199	145.00	117	218.00	998	313.00	84
65.00	709	146.00	432	221.00	8350	314.00	551
69.00	38160	147.00	1209	223.00	1803	315.00	1249
70.00	156	148.00	2651	224.00	16528	316.00	657
73.00	392	149.00	641	225.00	4305	317.00	55
74.00	3532	150.00	178	226.00	516	321.00	345
75.00	5624	151.00	349	227.00	6263	322.00	164
76.00	1947	152.00	94	228.00	950	323.00	3391
77.00	39536	153.00	709	229.00	1336	324.00	605
78.00	2896	154.00	495	230.00	192	327.00	697
79.00	2604	155.00	1336	231.00	668	328.00	328
80.00	2024	156.00	1901	233.00	61	332.00	285
81.00	2752	157.00	472	234.00	464	333.00	319
82.00	668	158.00	415	235.00	509	334.00	2049
83.00	615	159.00	293	236.00	297	335.00	577
84.00	161	160.00	734	237.00	738	341.00	342
85.00	534	161.00	1064	239.00	388	342.00	53
86.00	807	162.00	314	240.00	251	346.00	751
87.00	347	163.00	102	241.00	456	347.00	134
88.00	181	164.00	160	242.00	934	352.00	963
89.00	63	165.00	1059	243.00	954	353.00	748
91.00	685	166.00	711	244.00	14786	354.00	1081
92.00	848	167.00	4956	245.00	2009	355.00	153
93.00	4470	168.00	2908	246.00	2498	365.00	4738
94.00	327	169.00	520	247.00	480	366.00	705
96.00	222	170.00	132	248.00	119	371.00	264
97.00	59	171.00	153	249.00	504	372.00	1739
98.00	3265	172.00	441	250.00	50	373.00	453
99.00	2919	173.00	549	251.00	54	383.00	478
100.00	300	174.00	1070	252.00	122	384.00	59
101.00	1507	175.00	1902	253.00	396	390.00	222
103.00	657	176.00	692	255.00	73808	391.00	168

104.00	1059	177.00	1017	256.00	10505	401.00	50
105.00	941	178.00	362	257.00	946	402.00	693
106.00	320	179.00	3707	258.00	3868	403.00	861
107.00	12009	180.00	2727	259.00	675	404.00	349
108.00	1967	181.00	1310	260.00	53	421.00	748
110.00	24264	182.00	174	261.00	62	422.00	850
111.00	3648	183.00	133	264.00	215	423.00	5972
112.00	490	184.00	298	265.00	1556	424.00	1872
113.00	129	185.00	1869	266.00	141	425.00	227
115.00	53	186.00	14564	267.00	109	439.00	57
116.00	753	187.00	4127	268.00	160	440.00	58
117.00	9345	188.00	486	271.00	71	441.00	18712
118.00	809	189.00	855	272.00	154	442.00	125472
119.00	128	190.00	133	273.00	2284	443.00	23544
120.00	128	191.00	404	274.00	6034	444.00	2243
122.00	908	192.00	1251	275.00	35560		
123.00	1254	193.00	1317	276.00	4814		
124.00	517	194.00	355	277.00	2690		
125.00	612	195.00	342	278.00	436		

INITIAL CALIBRATION DATA EPA 8270E

Laboratory: Analytical Resources, LLC SDG: 23A0032
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Calibration: GB00018 Instrument: NT10
Calibration Date: 02/07/2023 Column (1): ZB-5MSi

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Phenol	0.2	1.880037	0.5	1.997899	1	2.047865	2.5	1.747692	5	1.796382	10	1.767317
4-Methylphenol	0.2	1.431442	0.5	1.556626	1	1.605015	2.5	1.373669	5	1.424953	10	1.390228
Naphthalene	0.2	1.174869	0.5	1.132729	1	1.153016	2.5	0.9771824	5	0.9938624	10	1.022735
2-Methylnaphthalene	0.2	0.8024135	0.5	0.7580759	1	0.7876164	2.5	0.6984347	5	0.7034163	10	0.7215194
Acenaphthylene	0.2	2.157931	0.5	2.107931	1	2.190607	2.5	1.829105	5	1.841047	10	1.920925
Dimethylphthalate	0.2	1.385413	0.5	1.450008	1	1.490346	2.5	1.241838	5	1.24689	10	1.29204
Acenaphthene	0.2	1.323501	0.5	1.300979	1	1.30809	2.5	1.094724	5	1.125519	10	1.198688
Dibenzofuran	0.2	1.929052	0.5	1.846199	1	1.868319	2.5	1.610433	5	1.616524	10	1.726674
Fluorene	0.2	2.222494	0.5	2.190176	1	2.189413	2.5	1.825107	5	1.757855	10	1.8084
Phenanthrene	0.2	1.166206	0.5	1.131149	1	1.13708	2.5	0.9841641	5	1.024444	10	1.046188
Anthracene	0.2	1.061991	0.5	1.105044	1	1.12971	2.5	1.006724	5	1.038577	10	1.063091
Fluoranthene	0.2	1.519714	0.5	1.551879	1	1.608249	2.5	1.30409	5	1.332231	10	1.47403
Pyrene	0.2	1.572656	0.5	1.612084	1	1.663589	2.5	1.350734	5	1.372899	10	1.504613
Butylbenzylphthalate	0.2	0.6454165	0.5	0.6784253	1	0.721779	2.5	0.5960635	5	0.6127479	10	0.6602354
Benzo(a)anthracene	0.2	1.499861	0.5	1.451689	1	1.475977	2.5	1.18966	5	1.184579	10	1.279246
Chrysene	0.2	1.44981	0.5	1.375761	1	1.400982	2.5	1.136992	5	1.147998	10	1.223623
bis(2-Ethylhexyl)phthalate	0.2	0.5553308	0.5	0.5627811	1	0.5788793	2.5	0.5143085	5	0.5170784	10	0.5464021
Benzo(a)pyrene, Total	0.4	1.341094	1	1.335628	2	1.359857	5	1.147933	10	1.151815	20	1.191185
Benzo(a)pyrene	0.2	1.199354	0.5	1.203118	1	1.236427	2.5	1.059778	5	1.078319	10	1.116351
Indeno(1,2,3-cd)pyrene	0.2	1.401137	0.5	1.400937	1	1.461375	2.5	1.256187	5	1.289868	10	1.353114
Dibenzo(a,h)anthracene	0.2	1.139489	0.5	1.168773	1	1.221977	2.5	1.045472	5	1.072745	10	1.120144
Benzo(g,h,i)perylene	0.2	1.199211	0.5	1.188695	1	1.234848	2.5	1.051533	5	1.108123	10	1.181612
2-Fluorophenol	0.3	1.241314	0.75	1.320774	1.5	1.383218	3.75	1.261468	7.5	1.28084	15	1.218884
Phenol-d5	0.3	1.749856	0.75	1.770783	1.5	1.90274	3.75	1.628677	7.5	1.700471	15	1.624738
2-Chlorophenol-d4	0.3	1.431442	0.75	1.475667	1.5	1.515281	3.75	1.331713	7.5	1.347315	15	1.314608
1,2-Dichlorobenzene-d4	0.2	1.062621	0.5	1.009786	1	1.0415	2.5	0.8910537	5	0.9085341	10	0.8745069
Nitrobenzene-d5	0.2	0.4200622	0.5	0.4262752	1	0.4271627	2.5	0.3684415	5	0.3760708	10	0.3731346
2-Fluorobiphenyl	0.2	1.661414	0.5	1.559052	1	1.569148	2.5	1.295504	5	1.316724	10	1.343778



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00018	Instrument:	NT10
Calibration Date:	02/07/2023	Column (1):	ZB-5MSi

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
2,4,6-Tribromophenol			0.75	0.1984856	1.5	0.2163146	3.75	0.1890641	7.5	0.2002644	15	0.1998007
p-Terphenyl-d14	0.2	1.330539	0.5	1.237892	1	1.295865	2.5	1.023794	5	1.024175	10	1.048463



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Calibration: GB00018
Calibration Date: 02/07/2023

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: NT10
Column (1): ZB-5MSi

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Phenol	20	1.752892										
4-Methylphenol	20	1.422358										
Naphthalene	20	1.027903										
2-Methylnaphthalene	20	0.7309528										
Acenaphthylene	20	1.923215										
Dimethylphthalate	20	1.277082										
Acenaphthene	20	1.210283										
Dibenzofuran	20	1.719233										
Fluorene	20	1.850724										
Phenanthrene	20	1.046409										
Anthracene	20	1.056721										
Fluoranthene	20	1.477116										
Pyrene	20	1.523341										
Butylbenzylphthalate	20	0.6659887										
Benzo(a)anthracene	20	1.251914										
Chrysene	20	1.215482										
bis(2-Ethylhexyl)phthalate	20	0.5338703										
Benzo(a)pyrene	20	1.120979										
Indeno(1,2,3-cd)pyrene	20	1.376649										
Dibenzo(a,h)anthracene	20	1.13354										
Benzo(g,h,i)perylene	20	1.222816										
2-Fluorophenol	30	1.195217										
Phenol-d5	30	1.631365										
2-Chlorophenol-d4	30	1.33005										
1,2-Dichlorobenzene-d4	20	0.8832271										
Nitrobenzene-d5	20	0.3751388										
2-Fluorobiphenyl	20	1.34463										



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00018	Instrument:	NT10
Calibration Date:	02/07/2023	Column (1):	ZB-5MSi

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Phenol	1.855726	6.6			RSD (15)	
4-Methylphenol	1.457756	6.0			RSD (15)	
Naphthalene	1.0689	7.7			RSD (15)	
2-Methylnaphthalene	0.7432041	5.5			RSD (15)	
Acenaphthylene	1.995823	7.6			RSD (15)	
Dimethylphthalate	1.340517	7.5			RSD (15)	
Acenaphthene	1.223112	7.5			RSD (15)	
Dibenzofuran	1.759491	7.1			RSD (15)	
Fluorene	1.977738	10.7			RSD (15)	
Phenanthrene	1.07652	6.3			RSD (15)	
Anthracene	1.06598	3.8			RSD (15)	
Fluoranthene	1.466758	7.6			RSD (15)	
Pyrene	1.514274	7.7			RSD (15)	
Butylbenzylphthalate	0.6543795	6.4			RSD (15)	
Benzo(a)anthracene	1.333275	10.4			RSD (15)	
Chrysene	1.278664	10.0			RSD (15)	
bis(2-Ethylhexyl)phthalate	0.5440929	4.4			RSD (15)	
Benzo(a)fluoranthene, Total	1.241343	8.0			RSD (15)	
Benzo(a)pyrene	1.144904	5.9			RSD (15)	
Indeno(1,2,3-cd)pyrene	1.362752	5.2			RSD (15)	
Dibenzo(a,h)anthracene	1.128877	5.2			RSD (15)	
Benzo(g,h,i)perylene	1.169548	5.6			RSD (15)	
2-Fluorophenol	1.271674	5.0			RSD (15)	
Phenol-d5	1.715519	5.9			RSD (15)	
2-Chlorophenol-d4	1.392297	5.8			RSD (15)	
1,2-Dichlorobenzene-d4	0.9530327	8.6			RSD (15)	
Nitrobenzene-d5	0.3951837	7.0			RSD (15)	
2-Fluorobiphenyl	1.441464	10.4			RSD (15)	
2,4,6-Tribromophenol	0.2002949	4.4			RSD (15)	
p-Terphenyl-d14	1.14182	12.2			RSD (15)	



ANALYSIS SEQUENCE

SLB0102

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GB00018 GCMS Column ID: ZB-5MSi
MS EM Level: EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLB0102-TUN1	MS Tune	QC		1	K008469		02/07/2023 11:54	NT1023020701.D	DSD	
SLB0102-CAL7	Cal Standard	QC		2	K011111	K010831	02/07/2023 12:18	NT1023020702.D	VTS	
SLB0102-CAL6	Cal Standard	QC		3	K011110	K010831	02/07/2023 12:57	NT1023020703.D	VTS	
SLB0102-CAL5	Cal Standard	QC		4	K011109	K010831	02/07/2023 13:35	NT1023020704.D	VTS	
SLB0102-CAL4	Cal Standard	QC		5	K011108	K010831	02/07/2023 14:14	NT1023020705.D	VTS	
SLB0102-CAL3	Cal Standard	QC		6	K011107	K010831	02/07/2023 14:52	NT1023020706.D	VTS	
SLB0102-CAL2	Cal Standard	QC		7	K011106	K010831	02/07/2023 15:30	NT1023020707.D	VTS	
SLB0102-CAL1	Cal Standard	QC		8	K011105	K010831	02/07/2023 16:09	NT1023020708.D	VTS	
SLB0102-SCV1	SCV 5.0	QC		9	K010066	K010831	02/07/2023 18:04	NT1023020711.D	VTS	
SLB0102-ICV1	Initial Cal Check	QC		10	K011109	K010831	02/07/2023 18:42	NT1023020712.D	VTS	
SLB0102-LCV1	ABN 0.2	QC		11	K011106	K010831	02/07/2023 19:20	NT1023020713.D	VTS	
BLA0160-BLK1	Blank	QC		12		K010831	02/07/2023 21:14	NT1023020716.D	VTS	
BLA0160-BS1	LCS	QC		13		K010831	02/07/2023 21:52	NT1023020717.D	VTS	
BLA0160-BSD1	LCS Dup	QC		14		K010831	02/07/2023 22:30	NT1023020718.D	VTS	
BLA0160-SRM1	Reference	QC		15		K010831	02/07/2023 23:09	NT1023020719.D	VTS	
23A0031-01	LDW23-SS1002	20ug/kg solid or 0.2ug/L l	A 01	16		K010831	02/07/2023 23:47	NT1023020720.D	VTS	
23A0031-02	LDW23-SS1001	20ug/kg solid or 0.2ug/L l	A 01	17		K010831	02/08/2023 00:25	NT1023020721.D	VTS	
23A0031-03	LDW23-SS1199	20ug/kg solid or 0.2ug/L l	A 01	18		K010831	02/08/2023 01:03	NT1023020722.D	VTS	
23A0031-04	LDW23-SS1199-FD	20ug/kg solid or 0.2ug/L l	A 01	19		K010831	02/08/2023 01:41	NT1023020723.D	VTS	
23A0031-05	LDW23-SS1191	20ug/kg solid or 0.2ug/L l	A 01	20		K010831	02/08/2023 02:18	NT1023020724.D	VTS	
23A0031-06	LDW23-SS1191-FD	20ug/kg solid or 0.2ug/L l	A 01	21		K010831	02/08/2023 02:57	NT1023020725.D	VTS	
23A0031-07	LDW23-SS1177	20ug/kg solid or 0.2ug/L l	A 01	22		K010831	02/08/2023 03:34	NT1023020726.D	VTS	



ANALYSIS SEQUENCE

SLB0102

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GB00018 GCMS Column ID: ZB-5MSi
MS EM Level: EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
23A0031-08	LDW23-SS1177-FD	20ug/kg solid or 0.2ug/L l	A 01	23		K010831	02/08/2023 04:13	NT1023020727.D	VTS	
23A0031-09	LDW23-SS1156	20ug/kg solid or 0.2ug/L l	A 01	24		K010831	02/08/2023 04:51	NT1023020728.D	VTS	
23A0031-10	LDW23-SS1156-FD	20ug/kg solid or 0.2ug/L l	A 01	25		K010831	02/08/2023 05:29	NT1023020729.D	VTS	
23A0031-11	LDW23-SS1143	20ug/kg solid or 0.2ug/L l	A 01	26		K010831	02/08/2023 06:07	NT1023020730.D	VTS	
SLB0102-ICV2	SSTD005	QC		27	K011109	K010831	02/08/2023 07:24	NT1023020732.D	VTS	
SLB0102-LCV2	ABN 0.5	QC		28	K011106	K010831	02/08/2023 08:02	NT1023020733.D	VTS	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b

Time	Filename	LabID	ClientId	DF																														
1	1154	NT1023020701.D	SLB0102-TUN1		1	|	NO ISTDs FOUND	|	|	|	|	|	|	|																				
2	1218	NT1023020702.D	SLB0102-CAL7		1	|	8.97	|	110959	|	11.43	|	441660	|	15.01	|	227315	|	18.03	|	397284	|	23.07	|	287319	|	25.63	|	326201	|	24.11	|	528280	|
3	1257	NT1023020703.D	SLB0102-CAL6		1	|	8.96	|	116961	|	11.42	|	456974	|	15.00	|	240178	|	18.02	|	424108	|	23.07	|	320333	|	25.62	|	344073	|	24.11	|	555443	|
4	1335	NT1023020704.D	SLB0102-CAL5		1	|	8.96	|	105928	|	11.42	|	423616	|	15.00	|	230743	|	18.02	|	394375	|	23.06	|	320650	|	25.61	|	332844	|	24.11	|	529382	|
5	1414	NT1023020705.D	SLB0102-CAL4		1	|	8.96	|	108648	|	11.42	|	427713	|	15.00	|	232494	|	18.02	|	403045	|	23.06	|	328824	|	25.62	|	336318	|	24.11	|	528993	|
6	1452	NT1023020706.D	SLB0102-CAL3		1	|	8.96	|	114531	|	11.42	|	440001	|	15.00	|	234461	|	18.02	|	425518	|	23.06	|	322154	|	25.62	|	344648	|	24.10	|	539698	|
7	1530	NT1023020707.D	SLB0102-CAL2		1	|	8.96	|	119962	|	11.42	|	456081	|	15.01	|	242691	|	18.02	|	438853	|	23.06	|	336320	|	25.62	|	354991	|	24.11	|	553821	|
8	1609	NT1023020708.D	SLB0102-CAL1		1	|	8.96	|	98530	|	11.42	|	373897	|	15.00	|	196086	|	18.02	|	354843	|	23.06	|	262931	|	25.61	|	280301	|	24.11	|	422631	|
9	1804	NT1023020711.D	SLB0102-SCV1		1	|	8.96	|	108369	|	11.42	|	428903	|	15.00	|	234560	|	18.02	|	404758	|	23.06	|	321783	|	25.62	|	325220	|	24.11	|	505567	|
10	1842	NT1023020712.D	SLB0102-ICV1		1	|	8.96	|	100731	|	11.42	|	402059	|	15.00	|	222764	|	18.02	|	378593	|	23.06	|	296375	|	25.62	|	302737	|	24.11	|	473500	|
11	1920	NT1023020713.D	SLB0102-LCV1		1	|	8.96	|	111648	|	11.42	|	430160	|	15.00	|	227740	|	18.02	|	408782	|	23.06	|	305959	|	25.61	|	318801	|	24.11	|	480597	|
12	2114	NT1023020716.D	BLA0160-BLK1		1	|	8.96	|	101648	|	11.42	|	381984	|	15.00	|	198098	|	18.02	|	359424	|	23.06	|	266277	|	25.61	|	252903	|	24.11	|	420656	|
13	2152	NT1023020717.D	BLA0160-BS1		1	|	8.96	|	100952	|	11.42	|	381819	|	15.00	|	203815	|	18.02	|	363002	|	23.06	|	280537	|	25.62	|	282480	|	24.11	|	461409	|
14	2230	NT1023020718.D	BLA0160-BSD1		1	|	8.97	|	104802	|	11.42	|	393288	|	15.00	|	208952	|	18.02	|	372320	|	23.06	|	281164	|	25.62	|	277402	|	24.11	|	459342	|
15	2309	NT1023020719.D	BLA0160-SRM1		1	|	8.97	|	104440	|	11.42	|	389649	|	15.00	|	207931	|	18.02	|	376355	|	23.06	|	273207	|	25.62	|	270403	|	24.11	|	453728	|
16	2347	NT1023020720.D	23A0031-01		1	|	8.96	|	100680	|	11.42	|	380246	|	15.00	|	197196	|	18.02	|	343957	|	23.06	|	257612	|	25.63	|	317582	|	24.11	|	473741	|
17	0025	NT1023020721.D	23A0031-02		1	|	8.96	|	106060	|	11.42	|	401524	|	15.00	|	209589	|	18.02	|	377087	|	23.07	|	279455	|	25.63	|	333910	|	24.11	|	513668	|
18	0103	NT1023020722.D	23A0031-03		1	|	8.97	|	94987	|	11.42	|	359501	|	15.00	|	187516	|	18.02	|	320619	|	23.07	|	239395	|	25.63	|	296460	|	24.11	|	441780	|
19	0141	NT1023020723.D	23A0031-04		1	|	8.97	|	105312	|	11.42	|	402157	|	15.00	|	210524	|	18.03	|	364201	|	23.07	|	278201	|	25.63	|	321281	|	24.11	|	506465	|
20	0218	NT1023020724.D	23A0031-05		1	|	8.97	|	97473	|	11.42	|	375178	|	15.01	|	194851	|	18.02	|	336686	|	23.07	|	252528	|	25.63	|	309558	|	24.11	|	461033	|

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b

Time	Filename	LabID	ClientId	DF										
21	0257	NT1023020725.D	23A0031-06	1	|	8.97	99673||11.42	378945||15.00	197614||18.02	351141||23.07	265906||25.63	308179||24.11	478667|	
22	0334	NT1023020726.D	23A0031-07	1	|	8.97	95757||11.42	364411||15.00	187486||18.03	330595||23.07	254972||25.63	294677||24.12	462625|	
23	0413	NT1023020727.D	23A0031-08	1	|	8.97	101213||11.42	388831||15.00	198168||18.03	350218||23.08	275281||25.64	306401||24.12	507974|	
24	0451	NT1023020728.D	23A0031-09	1	|	8.97	100941||11.42	383073||15.00	201508||18.03	350047||23.08	273815||25.64	298008||24.12	513850|	
25	0529	NT1023020729.D	23A0031-10	1	|	8.97	104396||11.42	393527||15.01	204153||18.03	353825||23.08	281571||25.64	293143||24.12	537611|	
26	0607	NT1023020730.D	23A0031-11	1	|	8.97	90470||11.42	343922||15.00	179603||18.03	302833||23.07	247164||25.63	276074||24.11	433238|	
27	0645	NT1023020731.D	23A0031-12	1	|	8.97	86937||11.42	331584||15.01	170658||18.02	292161||23.07	238956||25.63	258742||24.11	427528|	
28	0724	NT1023020732.D	SLB0102-ICV2	1	|	8.97	110702||11.43	429852||15.01	233715||18.03	388662||23.07	345176||25.63	378227||24.11	579750|	
29	0802	NT1023020733.D	SLB0102-LCV2	1	|	8.97	112491||11.42	422326||15.01	217652||18.02	376550||23.07	309079||25.63	363898||24.11	519094|	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b

ARI Job No.: SLB0 Method: DFTPP8270E.m Instrument: nt10.i Date: 07-FEB-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1154	NT1023020701.D	SLB0102-TUN1		1	NO MANUAL INTEGRATION
1218	NT1023020702.D	SLB0102-CAL7		1	2,2'-oxybis(1-Chloropropane),
1257	NT1023020703.D	SLB0102-CAL6		1	2,2'-oxybis(1-Chloropropane),
1335	NT1023020704.D	SLB0102-CAL5		1	2,2'-oxybis(1-Chloropropane),
1414	NT1023020705.D	SLB0102-CAL4		1	2,2'-oxybis(1-Chloropropane),
1452	NT1023020706.D	SLB0102-CAL3		1	2,2'-oxybis(1-Chloropropane),
1530	NT1023020707.D	SLB0102-CAL2		1	2,2'-oxybis(1-Chloropropane), Benzoic acid, 2,4-Dinitrophenol,
1609	NT1023020708.D	SLB0102-CAL1		1	2,2'-oxybis(1-Chloropropane),
1647	NT1023020709.D	SIM 0.1		1	NO MANUAL INTEGRATION
1725	NT1023020710.D	SIM 0.05		1	NO MANUAL INTEGRATION
1804	NT1023020711.D	SLB0102-SCV1		1	Aniline,
1842	NT1023020712.D	SLB0102-ICV1		1	2,2'-oxybis(1-Chloropropane),
1920	NT1023020713.D	SLB0102-LCV1		1	2,2'-oxybis(1-Chloropropane), Benzoic acid,
1958	NT1023020714.D	SIM-ICV1		1	NO MANUAL INTEGRATION
2036	NT1023020715.D	SIM-LCV1		1	Benzyl alcohol, 4-Methylphenol,
2114	NT1023020716.D	BLA0160-BLK1		1	NO MANUAL INTEGRATION
2152	NT1023020717.D	BLA0160-BS1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2230	NT1023020718.D	BLA0160-BSD1		1	NO MANUAL INTEGRATION
2309	NT1023020719.D	BLA0160-SRM1		1	NO MANUAL INTEGRATION
2347	NT1023020720.D	23A0031-01		1	Phenol, 4-Methylphenol,
0025	NT1023020721.D	23A0031-02		1	4-Methylphenol,
0103	NT1023020722.D	23A0031-03		1	4-Methylphenol, Dibenzo(a,h)anthracene,
0141	NT1023020723.D	23A0031-04		1	Dibenzo(a,h)anthracene,
0218	NT1023020724.D	23A0031-05		1	NO MANUAL INTEGRATION
0257	NT1023020725.D	23A0031-06		1	NO MANUAL INTEGRATION
0334	NT1023020726.D	23A0031-07		1	Dibenzo(a,h)anthracene,
0413	NT1023020727.D	23A0031-08		1	NO MANUAL INTEGRATION
0451	NT1023020728.D	23A0031-09		1	Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,
0529	NT1023020729.D	23A0031-10		1	Phenol, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,
0607	NT1023020730.D	23A0031-11		1	Phenol, Dibenzo(a,h)anthracene,
0645	NT1023020731.D	23A0031-12		1	Dibenzo(a,h)anthracene,
0724	NT1023020732.D	SLB0102-ICV2		1	2,2'-oxybis(1-Chloropropane),
0802	NT1023020733.D	SLB0102-LCV2		1	2,2'-oxybis(1-Chloropropane), 4-Nitrophenol,
0840	NT1023020734.D	SIM-ICV2		1	NO MANUAL INTEGRATION
0918	NT1023020735.D	SIM-LCV2		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0956	NT1023020736.D	BLA0064-BLK1		1	NO MANUAL INTEGRATION
1035	NT1023020737.D	BLA0064-BS1		1	NO MANUAL INTEGRATION
1113	NT1023020738.D	BLA0064-BSD1		1	NO MANUAL INTEGRATION
1151	NT1023020739.D	22L0459-01		1	NO MANUAL INTEGRATION
1229	NT1023020740.D	BLA0064-MS1		1	NO MANUAL INTEGRATION
1308	NT1023020741.D	BLA0064-MSD1		1	NO MANUAL INTEGRATION
1346	NT1023020742.D	22L0459-02		1	NO MANUAL INTEGRATION
1425	NT1023020743.D	22L0459-03		1	NO MANUAL INTEGRATION
1503	NT1023020744.D	22L0459-04		1	NO MANUAL INTEGRATION
1541	NT1023020745.D	22L0459-05		1	NO MANUAL INTEGRATION
1620	NT1023020746.D	22L0459-06		1	NO MANUAL INTEGRATION
1658	NT1023020747.D	22L0459-07		1	NO MANUAL INTEGRATION
1736	NT1023020748.D	SEQ-ICV3		1	NO MANUAL INTEGRATION
1814	NT1023020749.D	SEQ-LCV3		1	NO MANUAL INTEGRATION
1852	NT1023020750.D	SIM-ICV1		1	NO MANUAL INTEGRATION
1931	NT1023020751.D	SIM-LCV1		1	NO MANUAL INTEGRATION
2008	NT1023020752.D	BLA0160-BLK2		1	NO MANUAL INTEGRATION
2047	NT1023020753.D	23A0031-12		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2125	NT1023020754.D	23A0031-13		1	NO MANUAL INTEGRATION
2203	NT1023020755.D	23A0031-14		1	NO MANUAL INTEGRATION
2241	NT1023020756.D	BLA0160-MS1		1	NO MANUAL INTEGRATION
2319	NT1023020757.D	BLA0160-MSD1		1	NO MANUAL INTEGRATION
2357	NT1023020758.D	SEQ-CCV1		1	NO MANUAL INTEGRATION
0035	NT1023020759.D	SEQ-LCV1		1	NO MANUAL INTEGRATION
0113	NT1023020760.D	SIM-CCV1		1	NO MANUAL INTEGRATION
0151	NT1023020761.D	SIM-LCV1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 09-Feb-2023 11:54

NT1023020701.D	Data	Locked	deenayd, 09-
NT1023020702.D	Data	Locked	deenayd, 09-
NT1023020703.D	Data	Locked	deenayd, 09-
NT1023020704.D	Data	Locked	deenayd, 09-
NT1023020705.D	Data	Locked	deenayd, 09-
NT1023020706.D	Data	Locked	deenayd, 09-
NT1023020707.D	Data	Locked	deenayd, 09-
NT1023020708.D	Data	Locked	deenayd, 09-
NT1023020709.D	Data	Locked	deenayd, 09-
NT1023020710.D	Data	Locked	deenayd, 09-
NT1023020711.D	Data	Locked	deenayd, 09-
NT1023020712.D	Data	Locked	deenayd, 09-
NT1023020713.D	Data	Locked	deenayd, 09-
NT1023020714.D	Data	Locked	deenayd, 09-
NT1023020715.D	Data	Locked	deenayd, 09-
NT1023020716.D	Data	Locked	deenayd, 09-
NT1023020717.D	Data	Locked	deenayd, 09-
NT1023020718.D	Data	Locked	deenayd, 09-
NT1023020719.D	Data	Locked	deenayd, 09-
NT1023020720.D	Data	Locked	deenayd, 09-
NT1023020721.D	Data	Locked	deenayd, 09-
NT1023020722.D	Data	Locked	deenayd, 09-
NT1023020723.D	Data	Locked	deenayd, 09-
NT1023020724.D	Data	Locked	deenayd, 09-
NT1023020725.D	Data	Locked	deenayd, 09-
NT1023020726.D	Data	Locked	deenayd, 09-
NT1023020727.D	Data	Locked	deenayd, 09-
NT1023020728.D	Data	Locked	deenayd, 09-
NT1023020729.D	Data	Locked	deenayd, 09-
NT1023020730.D	Data	Locked	deenayd, 09-
NT1023020731.D	Data	Locked	deenayd, 09-
NT1023020732.D	Data	Locked	deenayd, 09-
NT1023020733.D	Data	Locked	deenayd, 09-
NT1023020734.D	Data	Locked	deenayd, 09-
NT1023020735.D	Data	Locked	deenayd, 09-
NT1023020736.D	Data	Locked	deenayd, 09-
NT1023020737.D	Data	Locked	deenayd, 09-
NT1023020738.D	Data	Locked	deenayd, 09-
NT1023020739.D	Data	Locked	deenayd, 09-
NT1023020740.D	Data	Locked	deenayd, 09-
NT1023020741.D	Data	Locked	deenayd, 09-
NT1023020742.D	Data	Locked	deenayd, 09-
NT1023020743.D	Data	Locked	deenayd, 09-
NT1023020744.D	Data	Locked	deenayd, 09-
NT1023020745.D	Data	Locked	deenayd, 09-
NT1023020746.D	Data	Locked	deenayd, 09-
NT1023020747.D	Data	Locked	deenayd, 09-
NT1023020748.D	Data	Locked	deenayd, 09-
NT1023020749.D	Data	Locked	deenayd, 09-
NT1023020750.D	Data	Locked	deenayd, 09-
NT1023020751.D	Data	Locked	deenayd, 09-
NT1023020752.D	Data	Locked	deenayd, 09-
NT1023020753.D	Data	Locked	deenayd, 09-
NT1023020754.D	Data	Locked	deenayd, 09-
NT1023020755.D	Data	Locked	deenayd, 09-
NT1023020756.D	Data	Locked	deenayd, 09-
NT1023020757.D	Data	Locked	deenayd, 09-
NT1023020758.D	Data	Locked	deenayd, 09-
NT1023020759.D	Data	Locked	deenayd, 09-
NT1023020760.D	Data	Locked	deenayd, 09-
NT1023020761.D	Data	Locked	deenayd, 09-



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 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Last Edit : 08-Feb-2023 07:58 deenayd

Calibration File Names:

Level 1: \\target\share\chem3\nt10.i\20230207.b\NT1023020708.D
 Level 2: \\target\share\chem3\nt10.i\20230207.b\NT1023020707.D
 Level 3: \\target\share\chem3\nt10.i\20230207.b\NT1023020706.D
 Level 4: \\target\share\chem3\nt10.i\20230207.b\NT1023020705.D
 Level 5: \\target\share\chem3\nt10.i\20230207.b\NT1023020704.D
 Level 6: \\target\share\chem3\nt10.i\20230207.b\NT1023020703.D
 Level 7: \\target\share\chem3\nt10.i\20230207.b\NT1023020702.D

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	Coefficients			%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	or R ²
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	AVRG	|0.000e+000|	|	|	|0.000e+000|<-
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG	|0.000e+000|	|	|	|0.000e+000|<-
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG	0.000e+000			0.000e+000 <-
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	AVRG	0.000e+000			0.000e+000

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
170 N,N-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
171 2,3-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
172 2,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
173 2,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
174 2,6-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
175 3,4-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
176 3,5-Dimethylaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
177 p-Benzoquinone	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
168 Pentachlorobenzene	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
145 4,4'-DDE	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|
146 4,4'-DDD	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|
147 4,4'-DDT	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
148 Dieldrin	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
149 TCMX	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
150 DCBP	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
138 Chlorobenzilate	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
139 Isodrin	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
140 Diallate A	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
141 Diallate B	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
142 1,2-Dibromo-3-Chloropropane	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
135 2,3,5,6-Tetrachlorophenol	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000 <-

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
136 2,3,4,5-tetrachlorophenol	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|
133 Butylatedhydroxytoluene	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
132 3,6-Dimethylphenanthrene	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|
131 1-Methylphenanthrene	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|
130 Dibenzothiophene	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|
129 1-Methylfluorene	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
128 N-Hexadecane	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
127 2-Isopropyl-naphthalene	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
126 N-Tetradecane	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
144 alpha-Terpineol	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000 <-
125 Safrole	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
124 3,4-Dimethylphenol	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
123 Acetophenone	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000 <-
122 Furfuraldehyde	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|
120 2,3,4,6-Tetrachlorophenol	1963	8993	20068	44032	104788	238564					
	458756						|QUAD|	|0.000e+000|	2.71100	-0.11936	0.99918
178 2-Benzyl-4-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
117 Butyl Diphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
116 Dibutyl Phenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
111 Azobenzene (1,2-DP-Hydrazine)	1.79431|	1.83994|	1.89841|	1.57393|	1.58880|	1.64449|					
	1.66679						AVRG		1.71524		7.47613
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
181 3,4,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
108 4,5,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-

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 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Last Edit : 08-Feb-2023 07:58 deenayd

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
105 1-methylnaphthalene	0.77305|	0.73752|	0.74786|	0.66616|	0.68746|	0.69813|					
	0.69853|						|AVRG|		|0.71553|		|5.30784|
151 1,2,4,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000

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INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2022 08:06
 End Cal Date : 07-FEB-2023 16:09
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 Target Version : 4.14
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 Method file : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Last Edit : 08-Feb-2023 07:58 deenayd

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
161 1,2,3-Trichloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
162 1,2,3,4-Tetrachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
163 1,2,3,5,8-Pentachloronaphthal	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
164 1,2,3,4,6,7-Hexachloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
165 1,2,3,4,5,6,7-Heptachloronaph	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
167 2,2',4,4',5-Pentabromobipheny	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|
3 Phenol	1.88004|	1.99790|	2.04786|	1.74769|	1.79638|	1.76732|					
	1.75289|						|AVRG|		1.85573|		6.64751|
4 Bis(2-Chloroethyl)ether	1.60175	1.43292	1.42365	1.24000	1.25090	1.23680					
	1.26042						AVRG		1.34949		10.41099

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
6 2-Chlorophenol	1.57252| 1.45310|	1.62438|	1.67748|	1.40408|	1.45438|	1.42966|	|	|	|	|	|
							|AVRG|	|	1.51651|	|	7.05856|
7 1,3-Dichlorobenzene	1.74343| 1.49490|	1.70234|	1.71248|	1.47886|	1.52231|	1.48894|	|	|	|	|	|
							|AVRG|	|	1.59189|	|	7.57856|
9 1,4-Dichlorobenzene	1.68010| 1.62233|	1.62258|	1.66488|	1.45546|	1.47759|	1.45259|	|	|	|	|	|
							|AVRG|	|	1.56793|	|	6.48538|
11 Benzyl alcohol	0.60834| 0.92152|	0.71256|	0.91940|	0.81057|	0.88632|	0.89527|	|	|	|	|	|
							|AVRG|	|	0.82200|	|	14.62012|
12 1,2-Dichlorobenzene	1.64214| 1.43458|	1.59064|	1.64406|	1.40972|	1.43041|	1.42969|	|	|	|	|	|
							|AVRG|	|	1.51161|	|	7.16828|
13 2-Methylphenol	1.39085| 1.31137|	1.53042|	1.47977|	1.27973|	1.34399|	1.29764|	|	|	|	|	|
							|AVRG|	|	1.37625|	|	6.98481|
14 2,2'-oxybis(1-Chloropropane)	0.43459 0.45057	0.45401	0.45790	0.39652	0.40372	0.44293					
							AVRG		0.43432		5.67670

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
15 4-Methylphenol	1.43144	1.55663	1.60502	1.37367	1.42495	1.39023					
	1.42236						AVRG		1.45776		6.01382
16 N-Nitroso-di-n-propylamine	1.01289	1.07801	1.13094	0.99116	1.00962	0.99893					
	1.02291						AVRG		1.03492		4.92006
17 Hexachloroethane	0.65056	0.62340	0.63497	0.55080	0.57249	0.58016					
	0.59525						AVRG		0.60109		6.04138
19 Nitrobenzene	0.42867	0.41524	0.43227	0.36386	0.36838	0.37481					
	0.37528						AVRG		0.39407		7.61398
20 Isophorone	0.48382	0.60582	0.55231	0.47989	0.55863	0.57624					
	0.58460						AVRG		0.54876		8.91655
21 2-Nitrophenol	0.18074	0.20279	0.22393	0.19226	0.20121	0.20864					
	0.21128						AVRG		0.20298		6.82688
22 2,4-Dimethylphenol	0.39300	0.41639	0.40897	0.34695	0.34565	0.31772					
	0.31123						AVRG		0.36284		11.88237

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
23 Bis(2-Chloroethoxy)methane	0.36828| 0.34377|	0.38600|	0.38937|	0.33184|	0.33471|	0.34033|	|	|	|	|	|
							|AVRG|	|	0.35633|	|	6.87013|
24 Benzoic acid	++++| 2277722|	11729|	47129|	153137|	412459|	1090966|	|	|	|	|	|
							|QUAD|	0.000e+000|	4.87679|	-0.19710|	0.99768|
25 2,4-Dichlorophenol	0.26852| 0.26711|	0.29612|	0.34843|	0.28862|	0.29299|	0.30171|	|	|	|	|	|
							|AVRG|	|	0.29479|	|	9.21148|
26 1,2,4-Trichlorobenzene	0.35946| 0.29635|	0.34857|	0.34916|	0.29526|	0.29689|	0.30256|	|	|	|	|	|
							|AVRG|	|	0.32118|	|	9.18674|
28 Naphthalene	1.17487| 1.02790|	1.13273|	1.15302|	0.97718|	0.99386|	1.02273|	|	|	|	|	|
							|AVRG|	|	1.06890|	|	7.66095|
29 4-Chloroaniline	++++| 0.43325|	0.48225|	0.49054|	0.43161|	0.44310|	0.46850|	|	|	|	|	|
							|AVRG|	|	0.45821|	|	5.59598|
30 Hexachlorobutadiene	0.17935 0.15724	0.18370	0.17894	0.15580	0.15779	0.15967					
							AVRG		0.16750		7.43948

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
31 4-Chloro-3-methylphenol	++++ 0.31451	0.34190	0.35606	0.29962	0.30693	0.31453					
							AVRG		0.32226		6.79277
32 2-Methylnaphthalene	0.80241 0.73095	0.75808	0.78762	0.69843	0.70342	0.72152					
							AVRG		0.74320		5.46750
33 Hexachlorocyclopentadiene	++++ 708812	5937	18318	52673	131340	343995					
							QUAD	0.000e+000	4.09590	-0.28987	0.99764
34 2,4,6-Trichlorophenol	++++ 0.37430	0.36642	0.39099	0.32357	0.34499	0.36627					
							AVRG		0.36109		6.54263
35 2,4,5-Trichlorophenol	++++ 0.40763	0.38170	0.41830	0.35699	0.36672	0.40438					
							AVRG		0.38929		6.30828
37 2-Chloronaphthalene	1.36563 1.23671	1.33170	1.36154	1.12269	1.14452	1.20805					
							AVRG		1.25298		8.09297
38 2-Nitroaniline	++++ 0.39518	0.40270	0.42248	0.37074	0.37860	0.39749					
							AVRG		0.39453		4.64141

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
39 Dimethylphthalate	1.38541 1.27708	1.45001	1.49035	1.24184	1.24689	1.29204					
							AVRG		1.34052		7.54205
40 Acenaphthylene	2.15793 1.92321	2.10793	2.19061	1.82911	1.84105	1.92093					
							AVRG		1.99582		7.63774
41 2,6-Dinitrotoluene	++++ 0.31697	0.32695	0.34088	0.29599	0.30417	0.32003					
							AVRG		0.31750		5.04491
43 3-Nitroaniline	++++ 0.37692	0.36669	0.38996	0.33766	0.34912	0.37613					
							AVRG		0.36608		5.30319
44 Acenaphthene	1.32350 1.21028	1.30098	1.30809	1.09472	1.12552	1.19869					
							AVRG		1.22311		7.47332
45 2,4-Dinitrophenol	++++ 969809	5201	17671	63678	175697	465727					
							QUAD	0.000e+000	6.10944	-0.33857	0.99712
46 Dibenzofuran	1.92905 1.71923	1.84620	1.86832	1.61043	1.61652	1.72667					
							AVRG		1.75949		7.09365

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
47 4-Nitrophenol	++++ 0.15264	0.11277	0.13804	0.12463	0.13941	0.15131					
							AVRG		0.13646		11.32741
48 2,4-Dinitrotoluene	++++ 0.44020	0.44099	0.47614	0.41003	0.41989	0.44119					
							AVRG		0.43807		5.19425
49 Fluorene	2.22249 1.85072	2.19018	2.18941	1.82511	1.75786	1.80840					
							AVRG		1.97774		10.65213
50 Diethylphthalate	1.34278 1.23587	1.36865	1.41567	1.19283	1.20262	1.25277					
							AVRG		1.28731		6.80981
51 4-Chlorophenyl-phenylether	1.13073 0.88348	1.07600	1.05858	0.88032	0.86466	0.86790					
							AVRG		0.96595		12.09148
52 4-Nitroaniline	++++ 0.43396	0.43974	0.46539	0.34662	0.38733	0.43702					
							AVRG		0.41834		10.34743
53 4,6-Dinitro-2-methylphenol	++++ 0.16412	0.11027	0.13824	0.13814	0.15164	0.16443					
							AVRG		0.14447		14.13076

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
54 N-Nitrosodiphenylamine	0.73317|	0.73770|	0.74831|	0.63686|	0.64378|	0.63964|					
	0.64696|						|AVRG|		0.68377|		7.69656|
56 4-Bromophenyl-phenylether	0.26648|	0.26354|	0.26561|	0.24122|	0.23947|	0.24468|					
	0.24275|						|AVRG|		0.25196|		4.96940|
57 Hexachlorobenzene	0.26699|	0.29614|	0.29958|	0.26278|	0.26391|	0.25983|					
	0.25026|						|AVRG|		0.27136|		6.95389|
58 Pentachlorophenol	++++|	5504|	15963|	41243|	100289|	242122|					
	483475|						|QUAD|	0.000e+000|	9.79928|	-1.32027|	0.99902|
60 Phenanthrene	1.16621|	1.13115|	1.13708|	0.98416|	1.02444|	1.04619|					
	1.04641|						|AVRG|		1.07652|		6.31888|
61 Anthracene	1.06199|	1.10504|	1.12971|	1.00672|	1.03858|	1.06309|					
	1.05672|						|AVRG|		1.06598|		3.82207|
62 Carbazole	1.03601	1.08723	1.11460	0.96928	0.97188	1.00497					
	1.01300						AVRG		1.02814		5.39006

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
63 Di-n-butylphthalate	1.12410 1.26768	1.23134	1.29170	1.17371	1.23487	1.25881					
							AVRG		1.22603		4.75063
64 Fluoranthene	1.51971 1.47712	1.55188	1.60825	1.30409	1.33223	1.47403					
							AVRG		1.46676		7.61172
65 Pyrene	1.57266 1.52334	1.61208	1.66359	1.35073	1.37290	1.50461					
							AVRG		1.51427		7.72856
67 Butylbenzylphthalate	0.64542 0.66599	0.67843	0.72178	0.59606	0.61275	0.66024					
							AVRG		0.65438		6.39407
68 Benzo(a)anthracene	1.49986 1.25191	1.45169	1.47598	1.18966	1.18458	1.27925					
							AVRG		1.33328		10.35711
70 3,3'-Dichlorobenzidine	++++ 0.44987	0.48782	0.51195	0.41376	0.39616	0.44714					
							AVRG		0.45112		9.65285
71 Chrysene	1.44981 1.21548	1.37576	1.40098	1.13699	1.14800	1.22362					
							AVRG		1.27866		9.98713

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
72 bis(2-Ethylhexyl)phthalate	0.55533	0.56278	0.57888	0.51431	0.51708	0.54640					
	0.53387						AVRG		0.54409		4.38307
73 Di-n-octylphthalate	1.14724	1.07454	1.08647	0.92017	0.92698	0.96219					
	0.95822						AVRG		1.01083		8.91946
74 Benzo(b)fluoranthene	1.37809	1.36912	1.42826	1.13622	1.14506	1.22224					
	1.18446						AVRG		1.26621		9.64898
75 Benzo(k)fluoranthene	1.38458	1.42775	1.42955	1.27316	1.28107	1.27650					
	1.25896						AVRG		1.33308		5.80349
187 Total Benzofluoranthenes	1.34109	1.33563	1.35986	1.14793	1.15182	1.19119					
	1.16189						AVRG		1.24134		7.95136
76 Benzo(a)pyrene	1.19935	1.20312	1.23643	1.05978	1.07832	1.11635					
	1.12098						AVRG		1.14490		5.94510
78 Indeno(1,2,3-cd)pyrene	1.40114	1.40094	1.46138	1.25619	1.28987	1.35311					
	1.37665						AVRG		1.36275		5.15516

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
79 Dibenzo(a,h)anthracene	1.13949 1.13354	1.16877	1.22198	1.04547	1.07275	1.12014					
							AVRG		1.12888		5.18764
80 Benzo(g,h,i)perylene	1.19921 1.22282	1.18869	1.23485	1.05153	1.10812	1.18161					
							AVRG		1.16955		5.64948
90 N-Nitrosodimethylamine	0.89110 0.83999	0.93063	0.98427	0.83875	0.86456	0.84384					
							AVRG		0.88473		6.23395
91 Aniline	1.82361 1.76101	1.83782	1.89942	1.70636	1.77716	1.76726					
							AVRG		1.79609		3.49521
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
93 Benzidine	+++++ 1173828	54932	98639	228216	422705	647321					
							QUAD	0.000e+000	2.02047	0.10889	0.99465
96 p-Cymene	+++++ +++++	+++++	+++++	+++++	+++++	+++++					
							AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2022 08:06
 End Cal Date : 07-FEB-2023 16:09
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Last Edit : 08-Feb-2023 07:58 deenayd

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
97 Caffeine	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|	|0.000e+000|		|0.000e+000|	
98 Retene	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|	|0.000e+000|		|0.000e+000|	<-
99 Perylene	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|	|0.000e+000|		|0.000e+000|	<-
100 3-beta-Coprostanol	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|	|0.000e+000|		|0.000e+000|	<-
101 Cholesterol	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|	|0.000e+000|		|0.000e+000|	<-
102 beta-Sitosterol	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|	|0.000e+000|		|0.000e+000|	
103 Pyridine	2.38973	2.82149	3.04473	2.68259	2.77239	2.73414					
	2.72642						AVRG	2.73878		7.09800	

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
188 2,6-Dichlorophenol	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
189 N-Nitrosomethylethylamine	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
\$ 1 2-Fluorophenol	1.24131	1.32077	1.38322	1.26147	1.28084	1.21888					
	1.19522						AVRG		1.27167		5.03470
\$ 137 d8-1,4-Dioxane	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
\$ 2 Phenol-d5	1.74986	1.77078	1.90274	1.62868	1.70047	1.62474					
	1.63137						AVRG		1.71552		5.94342
\$ 5 2-Chlorophenol-d4	1.43144	1.47567	1.51528	1.33171	1.34732	1.31461					
	1.33005						AVRG		1.39230		5.80633
\$ 10 1,2-Dichlorobenzene-d4	1.06262	1.00979	1.04150	0.89105	0.90853	0.87451					
	0.88323						AVRG		0.95303		8.55852

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Last Edit : 08-Feb-2023 07:58 deenayd

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
\$ 18 Nitrobenzene-d5	0.42006	0.42628	0.42716	0.36844	0.37607	0.37313					
	0.37514						AVRG		0.39518		6.98877
\$ 36 2-Fluorobiphenyl	1.66141	1.55905	1.56915	1.29550	1.31672	1.34378					
	1.34463						AVRG		1.44146		10.37876
\$ 55 2,4,6-Tribromophenol	++++	0.19849	0.21631	0.18906	0.20026	0.19980					
	0.19784						AVRG		0.20029		4.42240
\$ 66 Terphenyl-d14	1.33054	1.23789	1.29586	1.02379	1.02417	1.04846					
	1.03201						AVRG		1.14182		12.23599
\$ 85 p-Cresol-d4	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
\$ 86 Anthracene-d10	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000
\$ 87 Fluoranthene-d10	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2022 08:06
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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
\$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
\$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000
\$ 95 D10-1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-DEC-2022 08:06
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Quant Method : ISTD
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Last Edit : 08-Feb-2023 07:58 deenayd

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230207.b
Inst ID: nt10.i

ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07
FILENAME: NT1023020702 NT1023020703 NT1023020704 NT1023020705 NT1023020706 NT1023020707 NT1023020708
INJ. DATE: 07-FEB-2023 07-FEB-2023 07-FEB-2023 07-FEB-2023 07-FEB-2023 07-FEB-2023 07-FEB-2023
INJ. TIME: 12:18 12:57 13:35 14:14 14:52 15:30 16:09

Table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPECT RT, RT WINDOW, AVG RT, STD DEV. Rows include various chemical compounds like 2-Fluorophenol, Carbaryl, n-Decane, etc.

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230207.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
148 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.281	44.281-50.281	+++++	+++++
149 TCMX	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.387	40.387-46.387	+++++	+++++
150 DCBP	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.989	47.989-53.989	+++++	+++++
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	67.733	64.733-70.733	+++++	+++++
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.067	62.067-68.067	+++++	+++++
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.487	62.487-68.487	+++++	+++++
142 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.917	46.917-52.917	+++++	+++++
135 2,3,5,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.383	13.383-19.383	+++++	+++++
136 2,3,4,5-tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.317	36.317-42.317	+++++	+++++
137 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.445	0.000-5.445	+++++	+++++
* 134 Di-n-octylphthalate-d4	24.109	24.109	24.109	24.109	24.102	24.109	24.109	24.109	21.109-27.109	24.108	0.003
133 Butylatedhydroxytoluen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.571	12.571-18.571	+++++	+++++
132 3,6-Dimethylphenanthre	+++++	+++++	+++++	+++++	+++++	+++++	+++++	65.450	62.450-68.450	+++++	+++++
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	64.400	61.400-67.400	+++++	+++++
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	62.100	59.100-65.100	+++++	+++++
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.912	51.912-57.912	+++++	+++++
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.212	51.212-57.212	+++++	+++++
127 2-Isopropyl-naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	57.650	54.650-60.650	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.750	53.750-59.750	+++++	+++++
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.447	8.447-14.447	+++++	+++++
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.166	49.166-55.166	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230207.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.617	47.617-53.617	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.252	7.252-13.252	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.467	40.467-46.467	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.697	0.000-5.697	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.500	51.500-57.500	+++++	+++++
120 2,3,4,6-Tetrachlorophe	15.739	15.731	15.731	15.731	15.731	15.732	15.739	15.739	12.739-18.739	15.734	0.004
178 2-Benzyl-4-Chloropheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.963	15.963-21.963	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.069	44.069-50.069	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.215	18.215-24.215	+++++	+++++
117 Butyl Diphenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.761	13.761-19.761	+++++	+++++
116 Dibutyl Phenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.747	15.747-21.747	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.923	13.923-19.923	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.950	45.950-51.950	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.341	11.341-17.341	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.085	11.085-17.085	+++++	+++++
111 Azobenzene (1,2-DP-Hyd	16.434	16.419	16.411	16.411	16.411	16.411	16.411	16.426	13.426-19.426	16.415	0.009
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.140	14.140-20.140	+++++	+++++
109 3,4,5-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.070	12.070-18.070	+++++	+++++
181 3,4,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.232	12.232-18.232	+++++	+++++
108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.374	13.374-19.374	+++++	+++++
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.120	10.120-16.120	+++++	+++++
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.096	11.096-17.096	+++++	+++++
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.096	11.096-17.096	+++++	+++++
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.735	8.735-14.735	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230207.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.243	6.243-12.243	+++++	+++++
105 1-methylnaphthalene	13.078	13.070	13.070	13.062	13.062	13.063	13.062	13.070	10.070-16.070	13.067	0.006
151 1,2,4,5-Tetrachloroben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.499	8.499-14.499	+++++	+++++
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.943	27.943-33.943	+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.642	24.642-30.642	+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.953	22.953-28.953	+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.750	24.750-30.750	+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.464	23.464-29.464	+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.099	24.099-30.099	+++++	+++++
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.513	21.513-27.513	+++++	+++++
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.132	22.132-28.132	+++++	+++++
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.528	16.528-22.528	+++++	+++++
161 1,2,3-Trichloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.246	33.246-39.246	+++++	+++++
162 1,2,3,4-Tetrachloronap	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.506	34.506-40.506	+++++	+++++
163 1,2,3,5,8-Pentachloron	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.893	35.893-41.893	+++++	+++++
164 1,2,3,4,6,7-Hexachloro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.681	36.681-42.681	+++++	+++++
165 1,2,3,4,5,6,7-Heptachl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	41.123	38.123-44.123	+++++	+++++
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.253	39.253-45.253	+++++	+++++
167 2,2',4,4',5-Pentabromo	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.033	39.033-45.033	+++++	+++++
\$ 2 Phenol-d5	8.349	8.341	8.333	8.333	8.334	8.334	8.333	8.341	5.341-11.341	8.337	0.006
3 Phenol	8.372	8.365	8.357	8.357	8.349	8.357	8.357	8.364	5.364-11.364	8.359	0.007
4 Bis(2-Chloroethyl)ethe	8.527	8.519	8.511	8.511	8.511	8.511	8.511	8.519	5.519-11.519	8.515	0.006
\$ 5 2-Chlorophenol-d4	8.619	8.604	8.604	8.604	8.604	8.604	8.604	8.611	5.611-11.611	8.606	0.006

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m

Batch File: \\target\share\chem3\nt10.i\20230207.b

Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
6 2-Chlorophenol	8.642	8.635	8.635	8.635	8.635	8.635	8.635	8.642	5.642-11.642	8.636	0.003
7 1,3-Dichlorobenzene	8.905	8.898	8.898	8.898	8.898	8.898	8.898	8.905	5.905-11.905	8.899	0.003
* 8 1,4-Dichlorobenzene-d4	8.968	8.960	8.960	8.960	8.960	8.960	8.960	8.967	5.967-11.967	8.961	0.003
9 1,4-Dichlorobenzene	8.999	8.991	8.991	8.991	8.991	8.991	8.991	8.998	5.998-11.998	8.992	0.003
\$ 10 1,2-Dichlorobenzene-d4	9.325	9.325	9.317	9.317	9.317	9.317	9.317	9.324	6.324-12.324	9.319	0.004
11 Benzyl alcohol	9.239	9.231	9.231	9.231	9.232	9.232	9.239	9.239	6.239-12.239	9.234	0.004
12 1,2-Dichlorobenzene	9.356	9.348	9.340	9.340	9.340	9.340	9.340	9.348	6.348-12.348	9.343	0.006
13 2-Methylphenol	9.464	9.457	9.456	9.456	9.457	9.457	9.457	9.464	6.464-12.464	9.458	0.003
14 2,2'-oxybis(1-Chloropr	9.534	9.527	9.526	9.526	9.527	9.527	9.526	9.534	6.534-12.534	9.528	0.003
15 4-Methylphenol	9.736	9.728	9.720	9.720	9.721	9.721	9.728	9.728	6.728-12.728	9.725	0.006
16 N-Nitroso-di-n-propyla	9.798	9.790	9.782	9.783	9.775	9.775	9.783	9.782	6.782-12.782	9.784	0.008
17 Hexachloroethane	9.938	9.930	9.930	9.930	9.930	9.930	9.930	9.930	6.930-12.930	9.931	0.003
\$ 18 Nitrobenzene-d5	10.054	10.047	10.039	10.039	10.039	10.039	10.039	10.046	7.046-13.046	10.042	0.006
19 Nitrobenzene	10.093	10.078	10.077	10.077	10.078	10.078	10.077	10.085	7.085-13.085	10.080	0.006
20 Isophorone	10.551	10.528	10.520	10.520	10.520	10.520	10.520	10.527	7.527-13.527	10.525	0.012
21 2-Nitrophenol	10.707	10.699	10.698	10.698	10.699	10.699	10.698	10.707	7.707-13.707	10.700	0.003
22 2,4-Dimethylphenol	10.775	10.758	10.758	10.758	10.758	10.758	10.758	10.766	7.766-13.766	10.760	0.006
23 Bis(2-Chloroethoxy)met	10.962	10.953	10.944	10.945	10.945	10.945	10.945	10.953	7.953-13.953	10.948	0.007
24 Benzoic acid	11.140	11.064	10.987	10.945	10.911	10.911	+++++	11.004	8.004-14.004	10.993	0.092
25 2,4-Dichlorophenol	11.165	11.157	11.157	11.157	11.157	11.157	11.157	11.165	8.165-14.165	11.158	0.003
26 1,2,4-Trichlorobenzene	11.345	11.337	11.337	11.337	11.338	11.338	11.337	11.345	8.345-14.345	11.338	0.003
* 27 Naphthalene-d8	11.430	11.422	11.422	11.422	11.422	11.423	11.422	11.430	8.430-14.430	11.423	0.003
28 Naphthalene	11.476	11.469	11.461	11.461	11.461	11.461	11.461	11.468	8.468-14.468	11.464	0.006
29 4-Chloroaniline	11.608	11.592	11.592	11.592	11.592	11.592	11.592	11.600	8.600-14.600	11.594	0.006

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230207.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
30 Hexachlorobutadiene	11.832	11.824	11.824	11.824	11.824	11.824	11.824	11.824	8.824-14.824	11.825	0.003
31 4-Chloro-3-methylpheno	12.559	12.552	12.551	12.544	12.552	12.552	12.551	12.559	9.559-15.559	12.551	0.004
32 2-Methylnaphthalene	12.853	12.846	12.845	12.845	12.846	12.846	12.845	12.853	9.853-15.853	12.847	0.003
33 Hexachlorocyclopentadi	13.318	13.310	13.310	13.310	13.310	13.310	13.310	13.310	10.310-16.310	13.311	0.003
34 2,4,6-Trichlorophenol	13.472	13.465	13.464	13.465	13.465	13.457	13.465	13.472	10.472-16.472	13.465	0.004
35 2,4,5-Trichlorophenol	13.550	13.542	13.534	13.534	13.542	13.542	13.550	13.550	10.550-16.550	13.542	0.006
36 2-Fluorobiphenyl	13.627	13.627	13.619	13.619	13.620	13.620	13.619	13.627	10.627-16.627	13.622	0.004
37 2-Chloronaphthalene	13.844	13.836	13.828	13.828	13.829	13.829	13.828	13.836	10.836-16.836	13.832	0.006
38 2-Nitroaniline	14.107	14.092	14.084	14.084	14.076	14.084	14.084	14.091	11.091-17.091	14.087	0.010
39 Dimethylphthalate	14.533	14.525	14.517	14.509	14.510	14.510	14.509	14.517	11.517-17.517	14.516	0.009
40 Acenaphthylene	14.703	14.695	14.687	14.687	14.688	14.688	14.695	14.695	11.695-17.695	14.692	0.006
41 2,6-Dinitrotoluene	14.672	14.657	14.649	14.649	14.649	14.649	14.649	14.656	11.656-17.656	14.653	0.009
42 Acenaphthene-d10	15.012	15.005	15.005	15.005	15.005	15.005	15.005	15.012	12.012-18.012	15.006	0.003
43 3-Nitroaniline	14.958	14.943	14.927	14.927	14.928	14.928	14.935	14.943	11.943-17.943	14.935	0.012
44 Acenaphthene	15.082	15.074	15.066	15.066	15.067	15.067	15.066	15.074	12.074-18.074	15.070	0.006
45 2,4-Dinitrophenol	15.175	15.152	15.144	15.144	15.144	15.144	+++++	15.151	12.151-18.151	15.150	0.012
46 Dibenzofuran	15.407	15.399	15.391	15.391	15.391	15.391	15.391	15.399	12.399-18.399	15.395	0.006
47 4-Nitrophenol	15.291	15.268	15.260	15.260	15.260	15.276	15.314	15.275	12.275-18.275	15.275	0.020
48 2,4-Dinitrotoluene	15.476	15.461	15.453	15.445	15.445	15.446	15.453	15.461	12.461-18.461	15.454	0.011
49 Fluorene	16.118	16.103	16.102	16.095	16.095	16.095	16.095	16.110	13.110-19.110	16.100	0.009
50 Diethylphthalate	15.987	15.971	15.963	15.956	15.956	15.956	15.956	15.971	12.971-18.971	15.963	0.012
51 4-Chlorophenyl-phenyle	16.102	16.095	16.087	16.095	16.095	16.095	16.087	16.095	13.095-19.095	16.094	0.005
52 4-Nitroaniline	16.241	16.211	16.195	16.180	16.180	16.180	16.187	16.203	13.203-19.203	16.196	0.023
53 4,6-Dinitro-2-methylph	16.318	16.303	16.287	16.280	16.280	16.280	16.287	16.295	13.295-19.295	16.291	0.015

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230207.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
54 N-Nitrosodiphenylamine	16.365	16.349	16.341	16.341	16.334	16.334	16.341	16.349	13.349-19.349	16.344	0.011
\$ 55 2,4,6-Tribromophenol	16.650	16.635	16.627	16.627	16.627	16.627	16.619	16.642	13.642-19.642	16.630	0.010
56 4-Bromophenyl-phenylet	17.097	17.090	17.089	17.089	17.090	17.090	17.089	17.097	14.097-20.097	17.091	0.003
57 Hexachlorobenzene	17.414	17.407	17.399	17.399	17.399	17.399	17.399	17.406	14.406-20.406	17.402	0.006
58 Pentachlorophenol	17.770	17.763	17.755	17.763	17.763	17.763	17.770	17.770	14.770-20.770	17.764	0.005
* 59 Phenanthrene-d10	18.026	18.018	18.018	18.018	18.018	18.018	18.018	18.026	15.026-21.026	18.019	0.003
60 Phenanthrene	18.080	18.072	18.064	18.064	18.065	18.065	18.064	18.072	15.072-21.072	18.068	0.006
61 Anthracene	18.173	18.165	18.157	18.157	18.150	18.158	18.157	18.165	15.165-21.165	18.160	0.007
62 Carbazole	18.498	18.490	18.482	18.482	18.482	18.483	18.490	18.490	15.490-21.490	18.487	0.006
63 Di-n-butylphthalate	19.302	19.295	19.295	19.295	19.295	19.295	19.295	19.294	16.294-22.294	19.296	0.003
64 Fluoranthene	20.463	20.455	20.447	20.447	20.448	20.448	20.447	20.455	17.455-23.455	20.451	0.006
65 Pyrene	20.881	20.873	20.873	20.873	20.873	20.873	20.873	20.881	17.881-23.881	20.874	0.003
\$ 66 Terphenyl-d14	21.175	21.167	21.159	21.167	21.160	21.160	21.167	21.167	18.167-24.167	21.165	0.006
67 Butylbenzylphthalate	22.104	22.096	22.096	22.096	22.089	22.096	22.088	22.096	19.096-25.096	22.095	0.005
68 Benzo(a)anthracene	23.049	23.041	23.033	23.033	23.033	23.033	23.033	23.041	20.041-26.041	23.036	0.006
* 69 Chrysene-d12	23.072	23.072	23.064	23.064	23.064	23.064	23.064	23.072	20.072-26.072	23.066	0.004
70 3,3'-Dichlorobenzidine	23.010	23.002	22.994	22.994	22.987	22.995	22.994	23.002	20.002-26.002	22.997	0.007
71 Chrysene	23.118	23.118	23.110	23.110	23.103	23.103	23.103	23.118	20.118-26.118	23.109	0.007
72 bis(2-Ethylhexyl)phtha	23.134	23.126	23.126	23.126	23.126	23.126	23.126	23.134	20.134-26.134	23.127	0.003
73 Di-n-octylphthalate	24.125	24.117	24.117	24.117	24.117	24.117	24.117	24.124	21.124-27.124	24.118	0.003
74 Benzo(b)fluoranthene	24.899	24.891	24.883	24.876	24.876	24.876	24.876	24.891	21.891-27.891	24.882	0.009
75 Benzo(k)fluoranthene	24.938	24.930	24.922	24.922	24.922	24.915	24.922	24.930	21.930-27.930	24.924	0.007
187 Total Benzofluoranthen	24.938	24.930	24.922	24.922	24.922	24.876	24.922	24.930	21.930-27.930	24.919	0.020
76 Benzo(a)pyrene	25.526	25.511	25.503	25.503	25.503	25.503	25.503	25.518	22.518-28.518	25.507	0.009

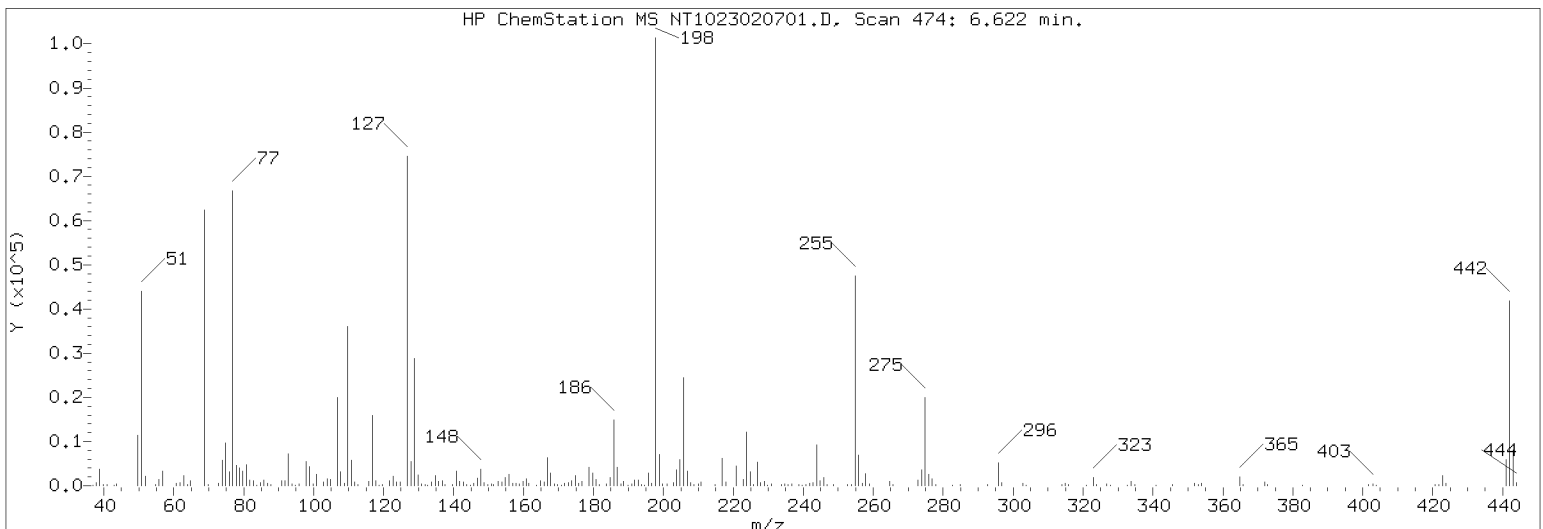
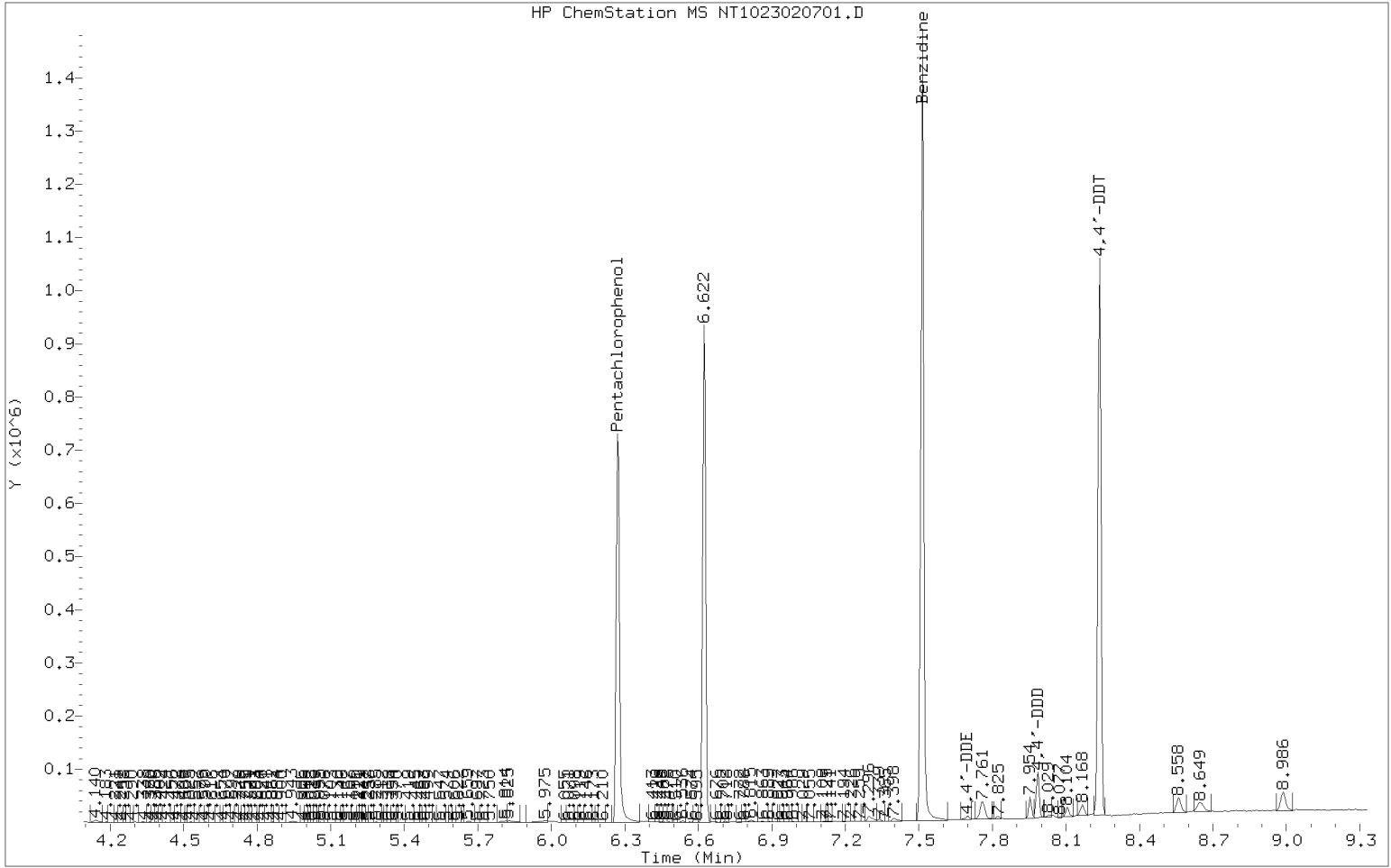
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
Batch File: \\target\share\chem3\nt10.i\20230207.b
Inst ID: nt10.i

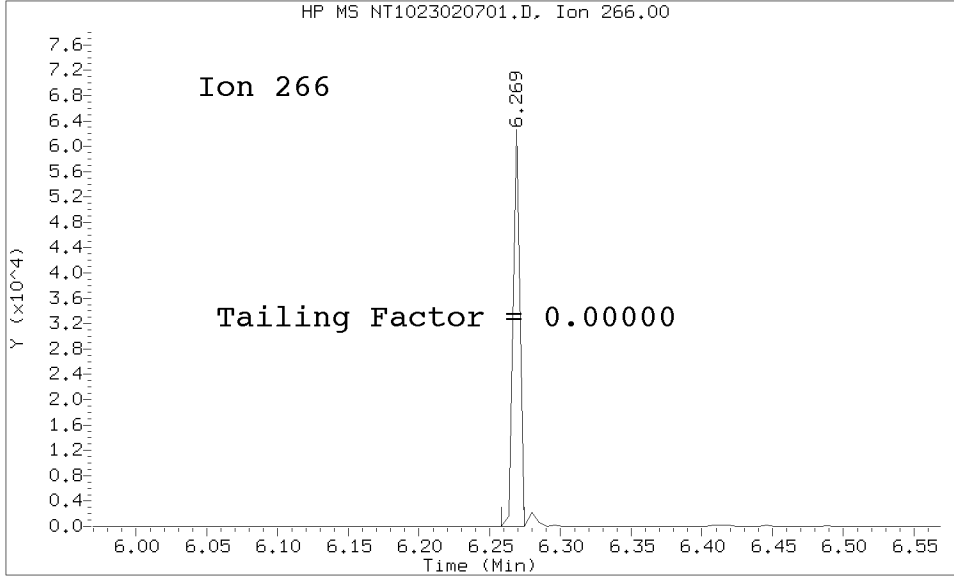
Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 77 Perylene-d12	25.627	25.619	25.611	25.619	25.619	25.619	25.611	25.626	22.626-28.626	25.618	0.005
78 Indeno(1,2,3-cd)pyrene	28.199	28.176	28.152	28.160	28.145	28.153	28.160	28.175	25.175-31.175	28.163	0.018
79 Dibenzo(a,h)anthracene	28.207	28.191	28.175	28.168	28.168	28.168	28.175	28.191	25.191-31.191	28.179	0.015
80 Benzo(g,h,i)perylene	28.944	28.929	28.906	28.898	28.898	28.898	28.906	28.929	25.929-31.929	28.911	0.018
\$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	51.633	48.633-54.633	+++++	+++++
\$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	63.533	60.533-66.533	+++++	+++++
\$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	60.273	57.273-63.273	+++++	+++++
\$ 88 Dibenzo(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	78.600	75.600-81.600	+++++	+++++
\$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.841	47.841-53.841	+++++	+++++
90 N-Nitrosodimethylamine	4.657	4.641	4.633	4.634	4.634	4.634	4.626	4.641	1.641-7.641	4.637	0.010
91 Aniline	8.442	8.426	8.426	8.418	8.419	8.427	8.426	8.426	5.426-11.426	8.426	0.008
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.160	53.160-59.160	+++++	+++++
93 Benzidine	20.695	20.687	20.679	20.680	20.680	20.688	20.687	20.687	17.687-23.687	20.685	0.006
\$ 95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.075	49.075-55.075	+++++	+++++
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.250	46.250-52.250	+++++	+++++
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	61.202	58.202-64.202	+++++	+++++
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.787	15.787-21.787	+++++	+++++
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.361	21.361-27.361	+++++	+++++
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.411	22.411-28.411	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.023	23.023-29.023	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	79.550	76.550-82.550	+++++	+++++
103 Pyridine	4.657	4.657	4.649	4.657	4.665	4.665	4.680	4.664	1.664-7.664	4.661	0.010
188 2,6-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.874	8.874-14.874	+++++	+++++
189 N-Nitrosomethylethylam	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.818	2.818-8.818	+++++	+++++

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230207A.b/NT1023020701.D/NT1023020701.D
Method Used: \20230207A.b\DFTPP8270E.m Inst: nt10
Injection Date: 07-FEB-2023 11:54 Operator: DSD
Sample Info: SLB0121-TUN1 SLB0121-TUN1
Report Date: 02/09/2023 14:02



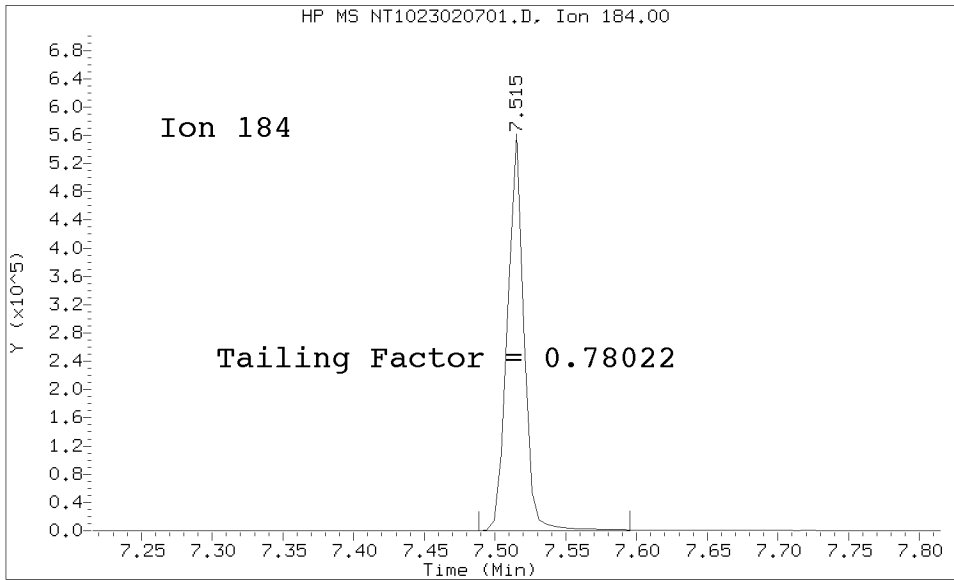
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Injection Date: 07-FEB-2023 11:54 Operator: DSD
Sample Info: SEQ-TUN1
Report Date: 02/09/2023 14:02



Pentachlorophenol

=====
Exp. RT = 6.269
Found RT = 6.269

Tail Factor = 0.000 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 7.515
Found RT = 7.515

Tail Factor = 0.780 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.0000000	2.000	PASS
Benzidine	0.7802198	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	149280			N/A
4,4-DDE	735	0.5	20.0	PASS
4,4-DDD	12536	7.7	20.0	PASS
4,4-DDD + DDE	13271	8.2	20.0	PASS

Tuning Sample, nt10.i/20230207A.b/NT1023020701.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	60.47
70	Less than 2.00% of mass 69	0.29 (0.48)
197	Less than 2.00% of mass 198	0.49
199	5.00 - 9.00% of mass 198	6.86
365	1.00 - 100.00% of mass 198	2.39
441	Less than 150.00% of mass 443	6.91 (74.79)
442	Less than 200.00% of mass 198	47.52
443	15.00 - 24.00% of mass 442	9.23 (19.43)

Data File: NT1023020701.D
 Spectrum: Avg. Scans 473-475 (6.62), Background Scan 468
 Location of Maximum: 198.00
 Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	119	116.00	359	180.00	2190	254.00	118
38.00	475	117.00	11928	181.00	1080	255.00	37560
39.00	2852	118.00	862	182.00	148	256.00	5492
40.00	228	119.00	105	184.00	220	257.00	441
41.00	60	120.00	163	185.00	1473	258.00	2142
43.00	52	122.00	932	186.00	11286	259.00	374
44.00	19	123.00	1583	187.00	3200	265.00	861
49.00	199	124.00	690	188.00	636	266.00	153
50.00	8730	125.00	703	189.00	393	273.00	1096
51.00	32904	127.00	55096	190.00	58	274.00	2954
52.00	1756	128.00	4133	191.00	351	275.00	16094
55.00	283	129.00	21552	192.00	960	276.00	2062
56.00	1097	130.00	1846	193.00	1072	277.00	1379
57.00	2521	131.00	354	194.00	250	278.00	185
61.00	464	132.00	220	195.00	53	283.00	130
62.00	564	133.00	55	196.00	2314	284.00	59
63.00	1603	134.00	606	197.00	379	285.00	205
64.00	237	135.00	1785	198.00	77392	293.00	262
65.00	848	136.00	683	199.00	5312	296.00	4424
69.00	46800	137.00	996	200.00	419	297.00	608
70.00	226	138.00	76	201.00	374	302.00	75
73.00	286	140.00	245	203.00	595	303.00	429
74.00	4406	141.00	2462	204.00	2841	304.00	113
75.00	7199	142.00	1192	205.00	4572	314.00	253
76.00	2399	143.00	511	206.00	18736	315.00	423
77.00	49840	144.00	185	207.00	2575	316.00	233
78.00	3477	145.00	68	208.00	609	321.00	120
79.00	2952	146.00	430	209.00	199	323.00	1536
80.00	2464	147.00	1292	210.00	336	324.00	224
81.00	3558	148.00	2914	211.00	768	327.00	262
82.00	946	149.00	591	215.00	254	328.00	111
83.00	770	150.00	144	217.00	4805	333.00	112
84.00	191	151.00	589	218.00	615	334.00	892
85.00	584	153.00	789	221.00	3522	335.00	216
86.00	997	154.00	600	223.00	1075	341.00	125
87.00	447	155.00	1374	224.00	9658	346.00	270
88.00	140	156.00	1954	225.00	2516	352.00	368
91.00	854	157.00	519	226.00	114	353.00	232
92.00	848	158.00	446	227.00	4133	354.00	428
93.00	5377	159.00	293	228.00	597	365.00	1853
94.00	366	160.00	719	229.00	841	366.00	222
95.00	195	161.00	1289	230.00	64	371.00	50
96.00	333	162.00	174	231.00	384	372.00	649
98.00	4109	164.00	57	234.00	215	373.00	150
99.00	3213	165.00	910	235.00	397	383.00	160
100.00	283	166.00	717	236.00	100	402.00	209
101.00	1952	167.00	4756	237.00	321	403.00	396
103.00	639	168.00	2216	239.00	184	404.00	124
104.00	1244	169.00	394	240.00	63	421.00	262

105.00	1190	170.00	79	241.00	196	422.00	242
106.00	77	171.00	147	242.00	509	423.00	1998
107.00	14850	172.00	428	243.00	289	424.00	382
108.00	2302	173.00	510	244.00	7324	441.00	5344
109.00	279	174.00	899	245.00	989	442.00	36776
110.00	26472	175.00	1734	246.00	1436	443.00	7145
111.00	4139	176.00	479	247.00	288	444.00	677
112.00	545	177.00	846	249.00	228		
113.00	159	179.00	3266	253.00	167		

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Date: 07-FEB-2023 12:18

Client ID:

Sample Info: SLB0102-CAL7

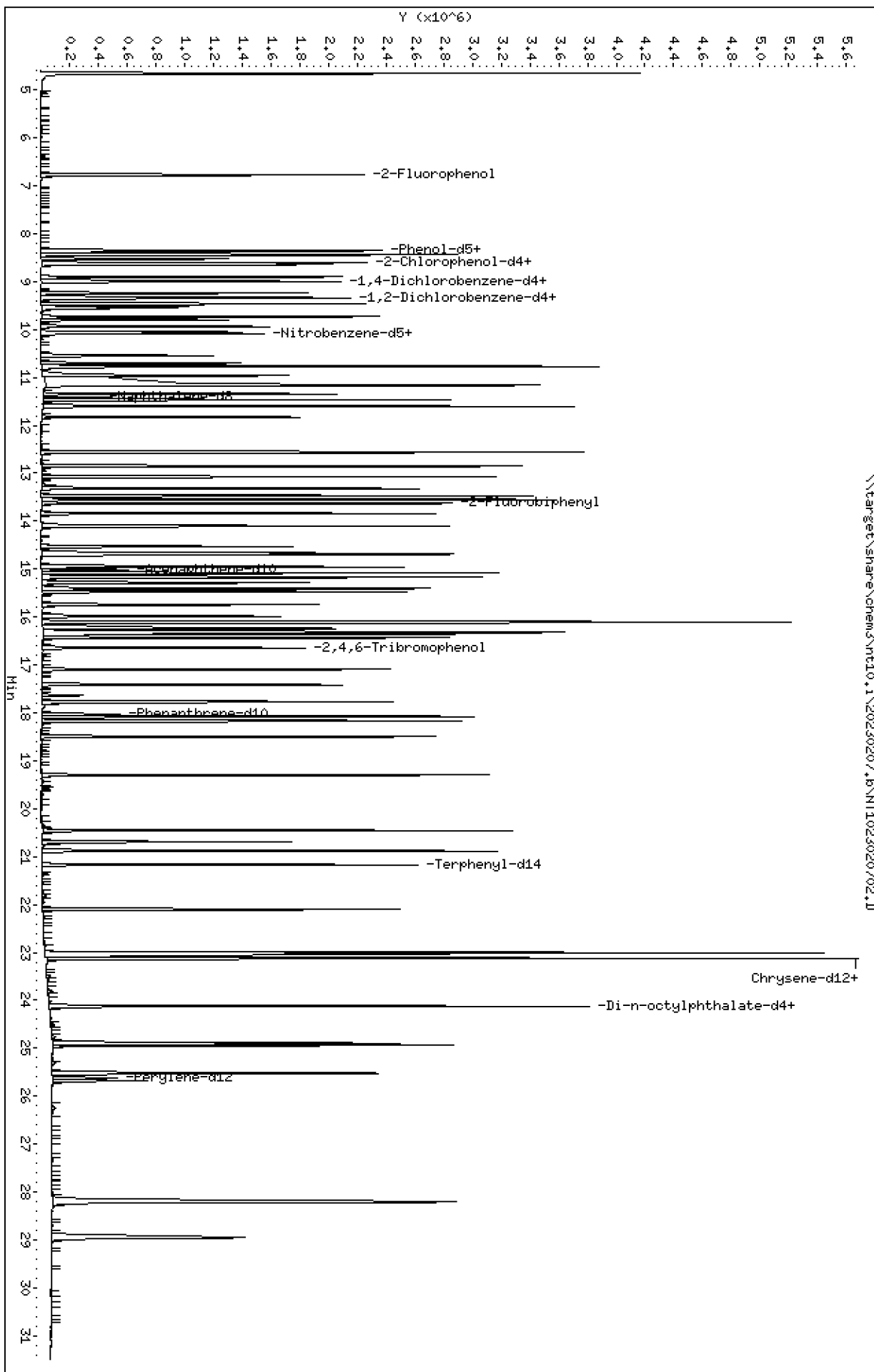
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020702.D
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 Inj Date : 07-FEB-2023 12:18
 Operator : VTS
 Smp Info : SLB0102-CAL7
 Misc Info :
 Comment : lul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 08-Feb-2023 10:39 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 12:18 Cal File: NT1023020702.D
 Als bottle: 2 Calibration Sample, Level: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		6.772	6.772	(0.755)	994651	30.0000	28.20
\$ 2 Phenol-d5	99		8.348	8.333	(0.931)	1357610	30.0000	28.53
3 Phenol	94		8.372	8.356	(0.934)	972496	20.0000	18.89
\$ 5 2-Chlorophenol-d4	132		8.619	8.603	(0.961)	1106858	30.0000	28.66
4 Bis(2-Chloroethyl)ether	93		8.526	8.511	(0.951)	699274	20.0000	18.68
6 2-Chlorophenol	128		8.642	8.634	(0.964)	806171	20.0000	19.16
7 1,3-Dichlorobenzene	146		8.905	8.897	(0.993)	829364	20.0000	18.78
* 8 1,4-Dichlorobenzene-d4	152		8.967	8.959	(1.000)	110959	4.00000	
9 1,4-Dichlorobenzene	146		8.998	8.990	(1.003)	900060	20.0000	20.69
\$ 10 1,2-Dichlorobenzene-d4	152		9.324	9.316	(1.040)	490010	20.0000	18.54
12 1,2-Dichlorobenzene	146		9.355	9.340	(1.043)	795900	20.0000	18.98
11 Benzyl alcohol	108		9.239	9.239	(1.030)	511256	20.0000	22.42
14 2,2'-oxybis(1-Chloropropane)	121		9.534	9.526	(1.063)	249974	20.0000	20.75 (M)
13 2-Methylphenol	108		9.464	9.456	(1.055)	727540	20.0000	19.06
17 Hexachloroethane	117		9.937	9.929	(1.108)	330242	20.0000	19.81
16 N-Nitroso-di-n-propylamine	70		9.798	9.782	(1.093)	567504	20.0000	19.77
15 4-Methylphenol	108		9.736	9.728	(1.086)	789117	20.0000	19.51
\$ 18 Nitrobenzene-d5	82		10.054	10.038	(0.880)	828419	20.0000	18.99
19 Nitrobenzene	77		10.092	10.077	(0.883)	828720	20.0000	19.05
20 Isophorone	82		10.550	10.519	(0.923)	1290962	20.0000	21.31
21 2-Nitrophenol	139		10.706	10.698	(0.937)	466565	20.0000	20.82
22 2,4-Dimethylphenol	107		10.774	10.757	(0.943)	1374565	40.0000	34.31
23 Bis(2-Chloroethoxy)methane	93		10.961	10.944	(0.959)	759140	20.0000	19.29
24 Benzoic acid	105		11.139	11.003	(0.975)	2277722	80.0000	79.63
25 2,4-Dichlorophenol	162		11.165	11.156	(0.977)	1179717	40.0000	36.24
26 1,2,4-Trichlorobenzene	180		11.345	11.337	(0.993)	654432	20.0000	18.45
* 27 Naphthalene-d8	136		11.429	11.422	(1.000)	441660	4.00000	
28 Naphthalene	128		11.476	11.460	(1.004)	2269919	20.0000	19.23
29 4-Chloroaniline	127		11.607	11.592	(1.016)	1913510	40.0000	37.82
30 Hexachlorobutadiene	225		11.831	11.823	(1.035)	347237	20.0000	18.78
31 4-Chloro-3-methylphenol	107		12.559	12.551	(1.099)	1389048	40.0000	39.04
32 2-Methylnaphthalene	142		12.853	12.845	(1.125)	1614163	20.0000	19.67
33 Hexachlorocyclopentadiene	237		13.317	13.309	(0.887)	708812	40.0000	39.81
34 2,4,6-Trichlorophenol	196		13.472	13.464	(0.897)	850837	40.0000	41.46

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	13.549	13.549	(0.903)	926600	40.0000	41.88
\$ 36 2-Fluorobiphenyl	172	13.627	13.619	(0.908)	1528273	20.0000	18.66
37 2-Chloronaphthalene	162	13.843	13.828	(0.922)	1405617	20.0000	19.74
38 2-Nitroaniline	65	14.106	14.083	(0.940)	898306	40.0000	40.07
39 Dimethylphthalate	163	14.532	14.509	(0.968)	1451499	20.0000	19.05
40 Acenaphthylene	152	14.702	14.695	(0.979)	2185878	20.0000	19.27
41 2,6-Dinitrotoluene	165	14.671	14.648	(0.977)	720526	40.0000	39.93
* 42 Acenaphthene-d10	164	15.012	15.004	(1.000)	227315	4.00000	
43 3-Nitroaniline	138	14.958	14.935	(0.996)	856796	40.0000	41.18
44 Acenaphthene	153	15.081	15.066	(1.005)	1375577	20.0000	19.79
45 2,4-Dinitrophenol	184	15.174	15.151	(1.011)	969809	80.0000	79.61
46 Dibenzofuran	168	15.406	15.391	(1.026)	1954037	20.0000	19.54
47 4-Nitrophenol	109	15.290	15.313	(1.019)	346972	40.0000	44.74
48 2,4-Dinitrotoluene	165	15.476	15.452	(1.031)	1000630	40.0000	40.19
50 Diethylphthalate	149	15.986	15.955	(1.065)	1404659	20.0000	19.20
49 Fluorene	166	16.117	16.094	(1.074)	2103487	20.0000	18.72
51 4-Chlorophenyl-phenylether	204	16.102	16.087	(1.073)	1004139	20.0000	18.29
52 4-Nitroaniline	138	16.241	16.187	(1.082)	986447	40.0000	41.49
53 4,6-Dinitro-2-methylphenol	198	16.318	16.287	(0.905)	1304041	80.0000	90.88
54 N-Nitrosodiphenylamine	169	16.364	16.341	(0.908)	1285130	20.0000	18.92
\$ 55 2,4,6-Tribromophenol	330	16.649	16.619	(1.109)	337290	30.0000	29.63
56 4-Bromophenyl-phenylether	248	17.097	17.089	(0.948)	482202	20.0000	19.27
57 Hexachlorobenzene	284	17.414	17.398	(0.966)	497116	20.0000	18.44
58 Pentachlorophenol	266	17.770	17.770	(0.986)	483475	40.0000	39.88
* 59 Phenanthrene-d10	188	18.025	18.018	(1.000)	397284	4.00000	
60 Phenanthrene	178	18.079	18.064	(1.003)	2078607	20.0000	19.44
61 Anthracene	178	18.172	18.157	(1.008)	2099091	20.0000	19.83
62 Carbazole	167	18.497	18.489	(1.026)	2012235	20.0000	19.71
63 Di-n-butylphthalate	149	19.302	19.294	(1.071)	2518149	20.0000	20.68
64 Fluoranthene	202	20.462	20.447	(0.887)	2122017	20.0000	20.14
65 Pyrene	202	20.880	20.872	(0.905)	2188424	20.0000	20.12
\$ 66 Terphenyl-d14	244	21.174	21.167	(0.918)	1482585	20.0000	18.08
67 Butylbenzylphthalate	149	22.103	22.088	(0.958)	956756	20.0000	20.35
68 Benzo(a)anthracene	228	23.048	23.033	(0.999)	1798494	20.0000	18.78
* 69 Chrysene-d12	240	23.071	23.064	(1.000)	287319	4.00000	
70 3,3'-Dichlorobenzidine	252	23.009	22.994	(0.997)	1938822	60.0000	59.83
71 Chrysene	228	23.118	23.102	(1.002)	1746155	20.0000	19.01
72 bis(2-Ethylhexyl)phthalate	149	23.133	23.125	(0.960)	1410165	20.0000	19.62
* 134 Di-n-octylphthalate-d4	153	24.109	24.109	(1.000)	528280	4.00000	
73 Di-n-octylphthalate	149	24.124	24.116	(1.001)	2531051	20.0000	18.96
74 Benzo(b)fluoranthene	252	24.898	24.875	(0.972)	1931853	20.0000	18.71
75 Benzo(k)fluoranthene	252	24.937	24.922	(0.973)	2053377	20.0000	18.89 (H)
76 Benzo(a)pyrene	252	25.525	25.502	(0.996)	1828323	20.0000	19.58
* 77 Perylene-d12	264	25.626	25.611	(1.000)	326201	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.198	28.159	(1.100)	2245321	20.0000	20.20
79 Dibenzo(a,h)anthracene	278	28.206	28.175	(1.101)	1848810	20.0000	20.08
80 Benzo(g,h,i)perylene	276	28.944	28.905	(1.129)	1994419	20.0000	20.91
90 N-Nitrosodimethylamine	74	4.656	4.625	(0.519)	932043	40.0000	37.98
91 Aniline	93	8.441	8.426	(0.941)	1953998	40.0000	39.22
93 Benzidine	184	20.695	20.687	(0.897)	1173828	40.0000	40.29
103 Pyridine	79	4.656	4.679	(0.519)	1512604	40.0000	39.82
105 1-methylnaphthalene	142	13.077	13.062	(1.144)	1542564	20.0000	19.52
111 Azobenzene (1,2-DP-Hydrazine)	77	16.434	16.410	(1.095)	1894427	20.0000	19.44
187 Total Benzofluoranthenes	252	24.937	24.922	(0.973)	3790104	40.0000	37.44

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		15.739	15.738	(1.048)	458756	20.0000	19.94

QC Flag Legend

- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 08-FEB-2023
 Lab File ID: NT1023020702.D Calibration Time: 07:24
 Lab Smp Id: SLB0102-CAL7
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	110702	55351	221404	110959	0.23
27 Naphthalene-d8	429852	214926	859704	441660	2.75
42 Acenaphthene-d10	233715	116858	467430	227315	-2.74
59 Phenanthrene-d10	388662	194331	777324	397284	2.22
69 Chrysene-d12	345176	172588	690352	287319	-16.76
134 Di-n-octylphthala	579750	289875	1159500	528280	-8.88
77 Perylene-d12	378227	189114	756454	326201	-13.76

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.97	0.00
27 Naphthalene-d8	11.43	10.93	11.93	11.43	0.00
42 Acenaphthene-d10	15.01	14.51	15.51	15.01	0.00
59 Phenanthrene-d10	18.03	17.53	18.53	18.03	0.00
69 Chrysene-d12	23.07	22.57	23.57	23.07	0.00
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	0.00
77 Perylene-d12	25.63	25.13	26.13	25.63	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020702.D

Lab ID: SLB0102-CAL7
nt10.i, 20230207.b\ABN.m, 07-FEB-2023 12:18

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.975	0.000	0.9746	Benzoic acid
1.011	0.000	1.0108	2,4-Dinitrophenol

RRT check based on Ccal File: NT1023020708.D

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

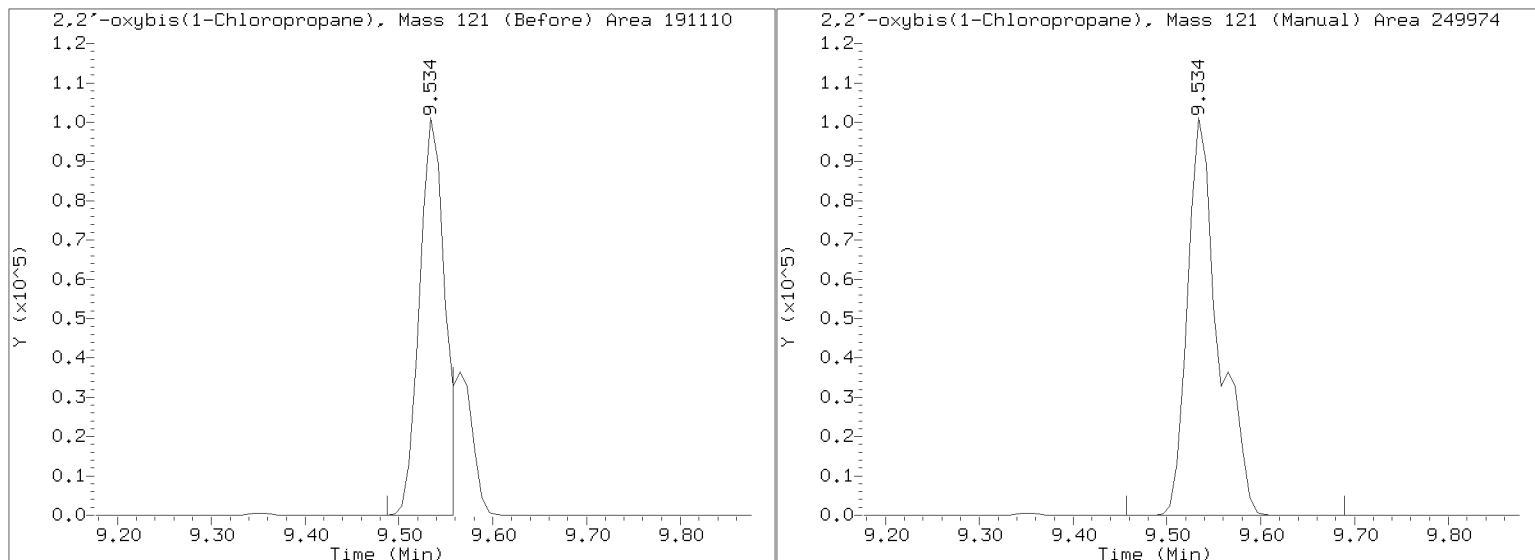
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020702.D

Injection Date: 07-FEB-2023 12:18

Lab ID:SLB0102-CAL7 Client ID:

Report Date: 02/09/2023 11:22



APPROVED

By Deenay Dunmore at 11:29 am, Feb 09, 2023

Data File: \\target\share\chem3\nt10.1\20230207.16\NT1023020703.D

Date: 07-FEB-2023 12:57

Client ID:

Sample Info: SLB0102-CAL6

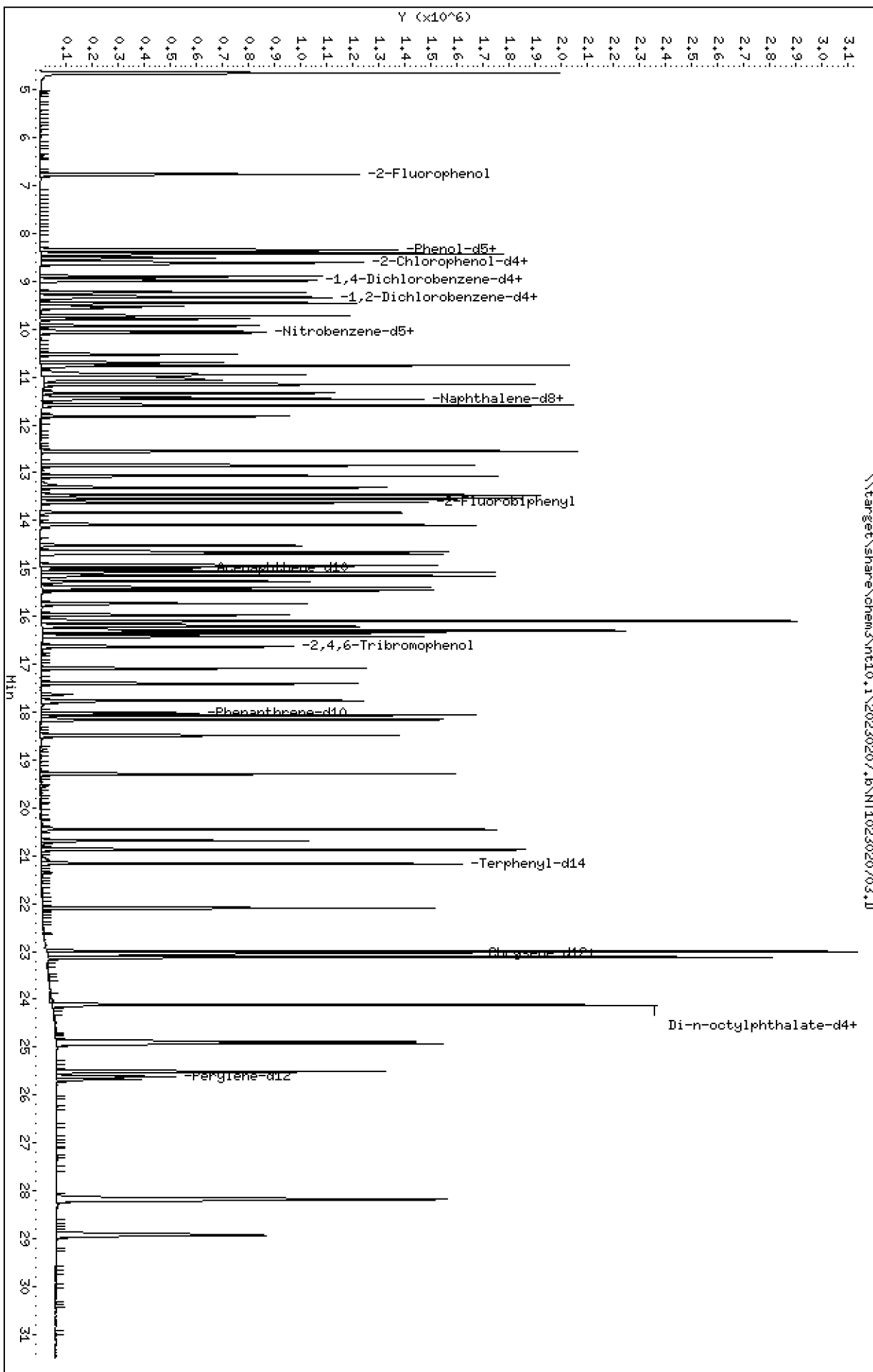
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230207.16\NT1023020703.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020703.D
 Lab Smp Id: SLB0102-CAL6
 Inj Date : 07-FEB-2023 12:57
 Operator : VTS
 Smp Info : SLB0102-CAL6
 Misc Info :
 Comment : lul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 08-Feb-2023 10:39 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 12:57 Cal File: NT1023020703.D
 Als bottle: 3 Calibration Sample, Level: 6
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	AMOUNTS					
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		6.772	6.772	(0.756)	534607	15.0000	14.38
\$ 2 Phenol-d5	99		8.341	8.333	(0.931)	712616	15.0000	14.21
3 Phenol	94		8.364	8.356	(0.934)	516768	10.0000	9.524
\$ 5 2-Chlorophenol-d4	132		8.603	8.603	(0.960)	576592	15.0000	14.16
4 Bis(2-Chloroethyl)ether	93		8.518	8.511	(0.951)	361644	10.0000	9.165
6 2-Chlorophenol	128		8.634	8.634	(0.964)	418037	10.0000	9.427
7 1,3-Dichlorobenzene	146		8.897	8.897	(0.993)	435369	10.0000	9.353
* 8 1,4-Dichlorobenzene-d4	152		8.959	8.959	(1.000)	116961	4.00000	
9 1,4-Dichlorobenzene	146		8.990	8.990	(1.003)	424740	10.0000	9.264
\$ 10 1,2-Dichlorobenzene-d4	152		9.324	9.316	(1.041)	255708	10.0000	9.176
12 1,2-Dichlorobenzene	146		9.347	9.340	(1.043)	418045	10.0000	9.458
11 Benzyl alcohol	108		9.231	9.239	(1.030)	261780	10.0000	10.89
14 2,2'-oxybis(1-Chloropropane)	121		9.526	9.526	(1.063)	129514	10.0000	10.20 (M)
13 2-Methylphenol	108		9.456	9.456	(1.055)	379433	10.0000	9.429
17 Hexachloroethane	117		9.930	9.929	(1.108)	169640	10.0000	9.652
16 N-Nitroso-di-n-propylamine	70		9.790	9.782	(1.093)	292090	10.0000	9.652
15 4-Methylphenol	108		9.728	9.728	(1.086)	406506	10.0000	9.537
\$ 18 Nitrobenzene-d5	82		10.046	10.038	(0.880)	426282	10.0000	9.442
19 Nitrobenzene	77		10.077	10.077	(0.882)	428199	10.0000	9.511
20 Isophorone	82		10.527	10.519	(0.922)	658318	10.0000	10.50
21 2-Nitrophenol	139		10.698	10.698	(0.937)	238363	10.0000	10.28
22 2,4-Dimethylphenol	107		10.758	10.757	(0.942)	725945	20.0000	17.51
23 Bis(2-Chloroethoxy)methane	93		10.953	10.944	(0.959)	388808	10.0000	9.551
24 Benzoic acid	105		11.063	11.003	(0.969)	1090966	40.0000	42.08
25 2,4-Dichlorophenol	162		11.156	11.156	(0.977)	689377	20.0000	20.47
26 1,2,4-Trichlorobenzene	180		11.337	11.337	(0.993)	345655	10.0000	9.420
* 27 Naphthalene-d8	136		11.422	11.422	(1.000)	456974	4.00000	
28 Naphthalene	128		11.468	11.460	(1.004)	1168408	10.0000	9.568
29 4-Chloroaniline	127		11.592	11.592	(1.015)	1070471	20.0000	20.45
30 Hexachlorobutadiene	225		11.824	11.823	(1.035)	182416	10.0000	9.533
31 4-Chloro-3-methylphenol	107		12.551	12.551	(1.099)	718671	20.0000	19.52
32 2-Methylnaphthalene	142		12.845	12.845	(1.125)	824289	10.0000	9.708
33 Hexachlorocyclopentadiene	237		13.309	13.309	(0.887)	343995	20.0000	21.09
34 2,4,6-Trichlorophenol	196		13.464	13.464	(0.897)	439853	20.0000	20.29

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	13.542	13.549	(0.903)	485615	20.0000	20.78
\$ 36 2-Fluorobiphenyl	172	13.627	13.619	(0.908)	806865	10.0000	9.322
37 2-Chloronaphthalene	162	13.836	13.828	(0.922)	725367	10.0000	9.641
38 2-Nitroaniline	65	14.091	14.083	(0.939)	477341	20.0000	20.15
39 Dimethylphthalate	163	14.525	14.509	(0.968)	775799	10.0000	9.638
40 Acenaphthylene	152	14.695	14.695	(0.979)	1153410	10.0000	9.625
41 2,6-Dinitrotoluene	165	14.656	14.648	(0.977)	384321	20.0000	20.16
* 42 Acenaphthene-d10	164	15.004	15.004	(1.000)	240178	4.00000	
43 3-Nitroaniline	138	14.942	14.935	(0.996)	451688	20.0000	20.55
44 Acenaphthene	153	15.074	15.066	(1.005)	719746	10.0000	9.800
45 2,4-Dinitrophenol	184	15.151	15.151	(1.010)	465727	40.0000	42.29
46 Dibenzofuran	168	15.399	15.391	(1.026)	1036773	10.0000	9.813
47 4-Nitrophenol	109	15.267	15.313	(1.018)	181707	20.0000	22.18
48 2,4-Dinitrotoluene	165	15.460	15.452	(1.030)	529818	20.0000	20.14
50 Diethylphthalate	149	15.971	15.955	(1.064)	752219	10.0000	9.732
49 Fluorene	166	16.102	16.094	(1.073)	1085845	10.0000	9.144
51 4-Chlorophenyl-phenylether	204	16.094	16.087	(1.073)	521129	10.0000	8.985
52 4-Nitroaniline	138	16.210	16.187	(1.080)	524810	20.0000	20.89
53 4,6-Dinitro-2-methylphenol	198	16.303	16.287	(0.905)	697341	40.0000	45.52
54 N-Nitrosodiphenylamine	169	16.349	16.341	(0.907)	678187	10.0000	9.354
\$ 55 2,4,6-Tribromophenol	330	16.634	16.619	(1.109)	179954	15.0000	14.96
56 4-Bromophenyl-phenylether	248	17.089	17.089	(0.948)	259424	10.0000	9.711
57 Hexachlorobenzene	284	17.406	17.398	(0.966)	275494	10.0000	9.575
58 Pentachlorophenol	266	17.762	17.770	(0.986)	242122	20.0000	20.66
* 59 Phenanthrene-d10	188	18.018	18.018	(1.000)	424108	4.00000	
60 Phenanthrene	178	18.072	18.064	(1.003)	1109242	10.0000	9.718
61 Anthracene	178	18.165	18.157	(1.008)	1127163	10.0000	9.973
62 Carbazole	167	18.490	18.489	(1.026)	1065542	10.0000	9.775
63 Di-n-butylphthalate	149	19.294	19.294	(1.071)	1334677	10.0000	10.27
64 Fluoranthene	202	20.455	20.447	(0.887)	1180451	10.0000	10.05
65 Pyrene	202	20.873	20.872	(0.905)	1204943	10.0000	9.936
\$ 66 Terphenyl-d14	244	21.167	21.167	(0.917)	839643	10.0000	9.182
67 Butylbenzylphthalate	149	22.096	22.088	(0.958)	528738	10.0000	10.09
68 Benzo(a)anthracene	228	23.040	23.033	(0.999)	1024462	10.0000	9.595
* 69 Chrysene-d12	240	23.071	23.064	(1.000)	320333	4.00000	
70 3,3'-Dichlorobenzidine	252	23.002	22.994	(0.997)	1074258	30.0000	29.74
71 Chrysene	228	23.118	23.102	(1.002)	979917	10.0000	9.570
72 bis(2-Ethylhexyl)phthalate	149	23.126	23.125	(0.959)	758738	10.0000	10.04
* 134 Di-n-octylphthalate-d4	153	24.109	24.109	(1.000)	555443	4.00000	
73 Di-n-octylphthalate	149	24.117	24.116	(1.000)	1336106	10.0000	9.519
74 Benzo(b)fluoranthene	252	24.891	24.875	(0.972)	1051349	10.0000	9.653
75 Benzo(k)fluoranthene	252	24.929	24.922	(0.973)	1098023	10.0000	9.576 (H)
76 Benzo(a)pyrene	252	25.510	25.502	(0.996)	960266	10.0000	9.751
* 77 Perylene-d12	264	25.618	25.611	(1.000)	344073	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.175	28.159	(1.100)	1163925	10.0000	9.929
79 Dibenzo(a,h)anthracene	278	28.191	28.175	(1.100)	963528	10.0000	9.923
80 Benzo(g,h,i)perylene	276	28.929	28.905	(1.129)	1016402	10.0000	10.10
90 N-Nitrosodimethylamine	74	4.641	4.625	(0.518)	493480	20.0000	19.08
91 Aniline	93	8.426	8.426	(0.940)	1033501	20.0000	19.68
93 Benzidine	184	20.687	20.687	(0.897)	647321	20.0000	18.11
103 Pyridine	79	4.656	4.679	(0.520)	799469	20.0000	19.97
105 1-methylnaphthalene	142	13.070	13.062	(1.144)	797565	10.0000	9.757
111 Azobenzene (1,2-DP-Hydrazine)	77	16.418	16.410	(1.094)	987425	10.0000	9.588
187 Total Benzofluoranthenes	252	24.929	24.922	(0.973)	2049273	20.0000	19.19

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	====		====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		15.731	15.738	(1.048)	238564	10.0000	10.30

QC Flag Legend

- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 08-FEB-2023
 Lab File ID: NT1023020703.D Calibration Time: 07:24
 Lab Smp Id: SLB0102-CAL6
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	110702	55351	221404	116961	5.65
27 Naphthalene-d8	429852	214926	859704	456974	6.31
42 Acenaphthene-d10	233715	116858	467430	240178	2.77
59 Phenanthrene-d10	388662	194331	777324	424108	9.12
69 Chrysene-d12	345176	172588	690352	320333	-7.20
134 Di-n-octylphthala	579750	289875	1159500	555443	-4.19
77 Perylene-d12	378227	189114	756454	344073	-9.03

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.96	-0.08
27 Naphthalene-d8	11.43	10.93	11.93	11.42	-0.07
42 Acenaphthene-d10	15.01	14.51	15.51	15.00	-0.05
59 Phenanthrene-d10	18.03	17.53	18.53	18.02	-0.04
69 Chrysene-d12	23.07	22.57	23.57	23.07	0.00
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	0.00
77 Perylene-d12	25.63	25.13	26.13	25.62	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020703.D

Lab ID: SLB0102-CAL6
nt10.i, 20230207.b\ABN.m, 07-FEB-2023 12:57

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.969	0.000	0.9686	Benzoic acid
1.010	0.000	1.0098	2,4-Dinitrophenol

RRT check based on Ccal File: NT1023020708.D

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

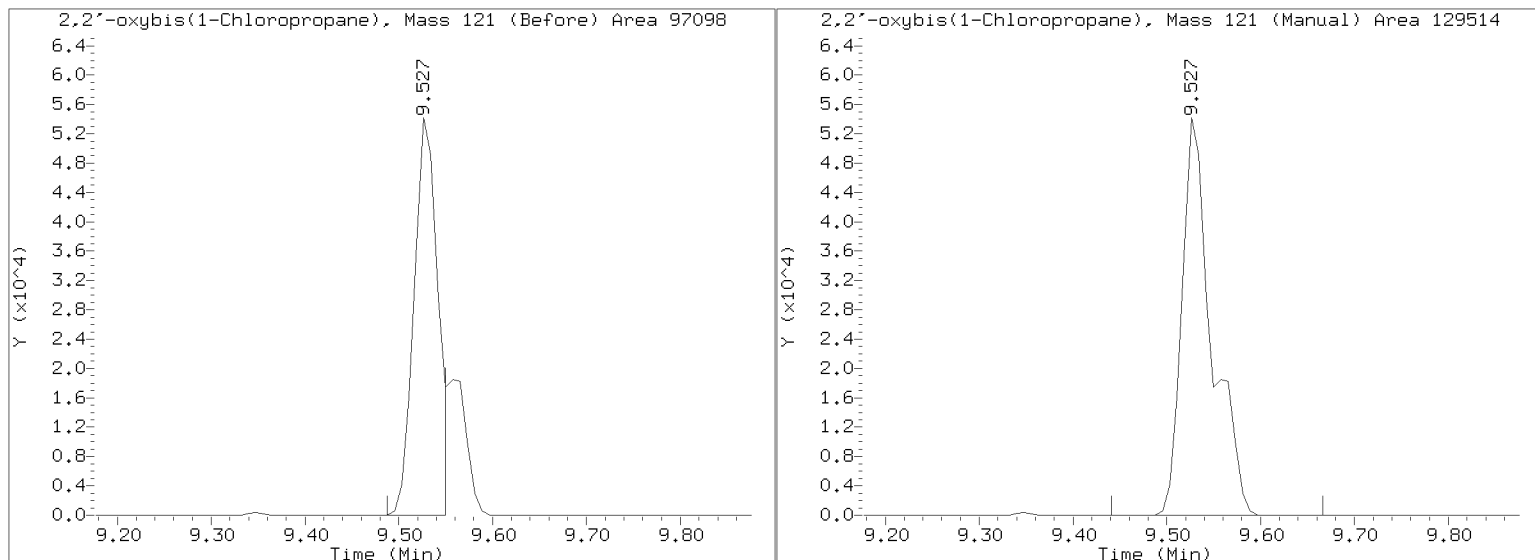
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020703.D

Injection Date: 07-FEB-2023 12:57

Lab ID:SLB0102-CAL6 Client ID:

Report Date: 02/09/2023 11:23



APPROVED

By Deenay Dunmore at 11:29 am, Feb 09, 2023

Data File: \\target\share\chem3\nt10.1\20230207.16\NT1023020704.D

Date: 07-FEB-2023 13:35

Client ID:

Sample Info: SLB0102-CALS

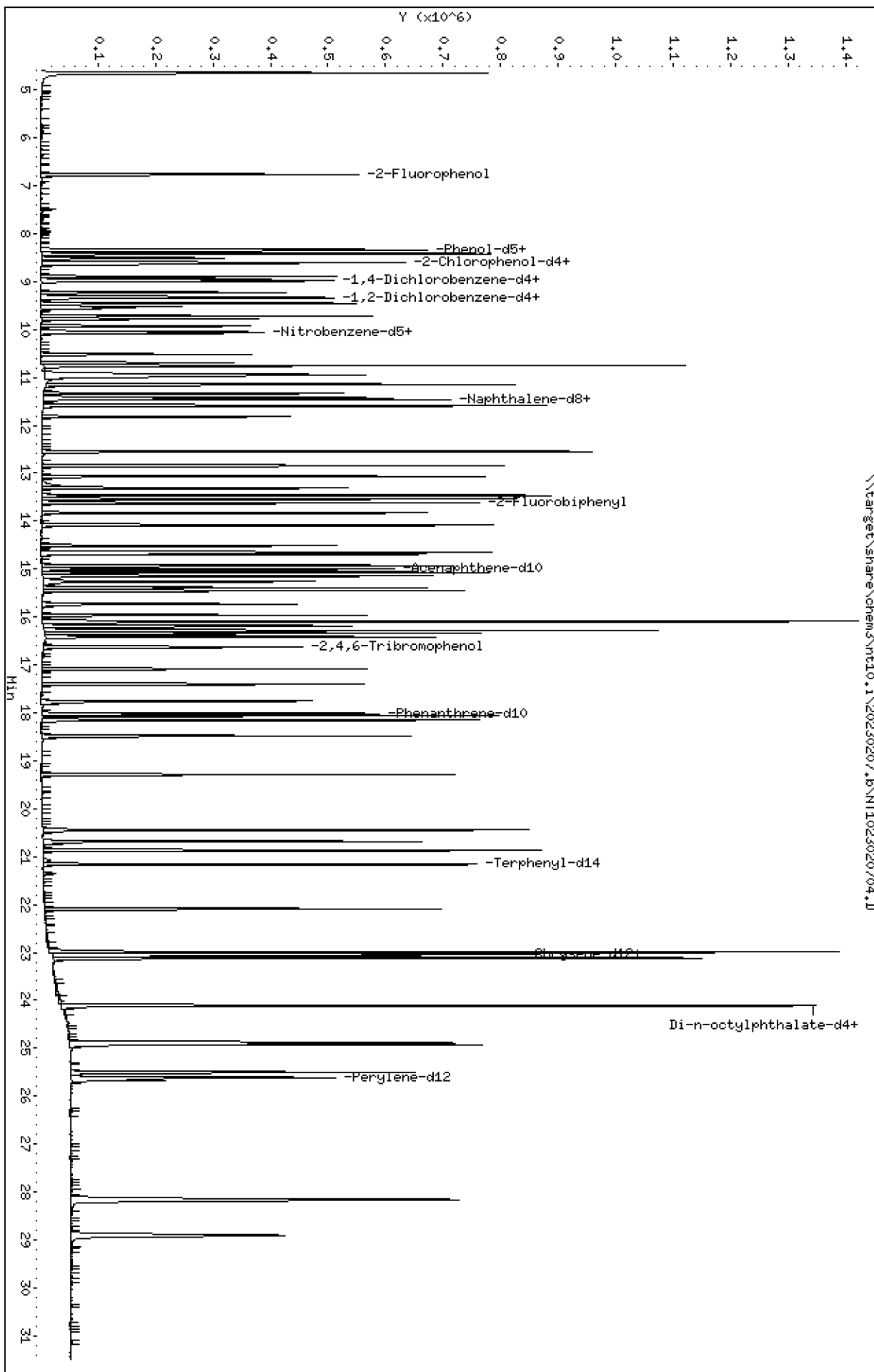
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020704.D
 Lab Smp Id: SLB0102-CAL5
 Inj Date : 07-FEB-2023 13:35
 Operator : VTS
 Smp Info : SLB0102-CAL5
 Misc Info :
 Comment : lul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 08-Feb-2023 10:39 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 13:35 Cal File: NT1023020704.D
 Als bottle: 4 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Inst ID: nt10.i
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		6.772	6.772	(0.756)	254394	7.50000	7.554
\$ 2 Phenol-d5	99		8.333	8.333	(0.930)	337739	7.50000	7.434
3 Phenol	94		8.356	8.356	(0.933)	237859	5.00000	4.840
\$ 5 2-Chlorophenol-d4	132		8.603	8.603	(0.960)	267597	7.50000	7.258
4 Bis(2-Chloroethyl)ether	93		8.511	8.511	(0.950)	165632	5.00000	4.635
6 2-Chlorophenol	128		8.634	8.634	(0.964)	192574	5.00000	4.795
7 1,3-Dichlorobenzene	146		8.897	8.897	(0.993)	201569	5.00000	4.781
* 8 1,4-Dichlorobenzene-d4	152		8.959	8.959	(1.000)	105928	4.00000	
9 1,4-Dichlorobenzene	146		8.990	8.990	(1.003)	195648	5.00000	4.712
\$ 10 1,2-Dichlorobenzene-d4	152		9.316	9.316	(1.040)	120299	5.00000	4.767
12 1,2-Dichlorobenzene	146		9.339	9.340	(1.042)	189400	5.00000	4.731
11 Benzyl alcohol	108		9.231	9.239	(1.030)	117358	5.00000	5.391
14 2,2'-oxybis(1-Chloropropane)	121		9.526	9.526	(1.063)	53456	5.00000	4.648 (M)
13 2-Methylphenol	108		9.456	9.456	(1.055)	177958	5.00000	4.883
17 Hexachloroethane	117		9.929	9.929	(1.108)	75804	5.00000	4.762
16 N-Nitroso-di-n-propylamine	70		9.782	9.782	(1.092)	133684	5.00000	4.878
15 4-Methylphenol	108		9.720	9.728	(1.085)	188678	5.00000	4.887
\$ 18 Nitrobenzene-d5	82		10.038	10.038	(0.879)	199137	5.00000	4.758
19 Nitrobenzene	77		10.077	10.077	(0.882)	195064	5.00000	4.674
20 Isophorone	82		10.519	10.519	(0.921)	295805	5.00000	5.090
21 2-Nitrophenol	139		10.698	10.698	(0.937)	106544	5.00000	4.956
22 2,4-Dimethylphenol	107		10.757	10.757	(0.942)	366060	10.00000	9.526
23 Bis(2-Chloroethoxy)methane	93		10.944	10.944	(0.958)	177238	5.00000	4.697
24 Benzoic acid	105		10.986	11.003	(0.962)	412459	20.00000	18.25
25 2,4-Dichlorophenol	162		11.156	11.156	(0.977)	310288	10.00000	9.939
26 1,2,4-Trichlorobenzene	180		11.337	11.337	(0.993)	157210	5.00000	4.622
* 27 Naphthalene-d8	136		11.422	11.422	(1.000)	423616	4.00000	
28 Naphthalene	128		11.460	11.460	(1.003)	526270	5.00000	4.649
29 4-Chloroaniline	127		11.591	11.592	(1.015)	469259	10.00000	9.670
30 Hexachlorobutadiene	225		11.823	11.823	(1.035)	83551	5.00000	4.710
31 4-Chloro-3-methylphenol	107		12.551	12.551	(1.099)	325047	10.00000	9.524
32 2-Methylnaphthalene	142		12.845	12.845	(1.125)	372473	5.00000	4.732
33 Hexachlorocyclopentadiene	237		13.309	13.309	(0.887)	131340	10.00000	8.950
34 2,4,6-Trichlorophenol	196		13.464	13.464	(0.897)	199008	10.00000	9.554

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	13.534	13.549	(0.902)	211547	10.0000	9.420
\$ 36 2-Fluorobiphenyl	172	13.619	13.619	(0.908)	379781	5.00000	4.567
37 2-Chloronaphthalene	162	13.828	13.828	(0.922)	330112	5.00000	4.567
38 2-Nitroaniline	65	14.083	14.083	(0.939)	218400	10.0000	9.596
39 Dimethylphthalate	163	14.517	14.509	(0.968)	359639	5.00000	4.651
40 Acenaphthylene	152	14.687	14.695	(0.979)	531011	5.00000	4.612
41 2,6-Dinitrotoluene	165	14.648	14.648	(0.976)	175465	10.0000	9.580
* 42 Acenaphthene-d10	164	15.004	15.004	(1.000)	230743	4.00000	
43 3-Nitroaniline	138	14.927	14.935	(0.995)	201393	10.0000	9.537
44 Acenaphthene	153	15.066	15.066	(1.004)	324632	5.00000	4.601
45 2,4-Dinitrophenol	184	15.143	15.151	(1.009)	175697	20.0000	17.82
46 Dibenzofuran	168	15.391	15.391	(1.026)	466252	5.00000	4.594
47 4-Nitrophenol	109	15.259	15.313	(1.017)	80418	10.0000	10.22
48 2,4-Dinitrotoluene	165	15.452	15.452	(1.030)	242215	10.0000	9.585
50 Diethylphthalate	149	15.963	15.955	(1.064)	346870	5.00000	4.671
49 Fluorene	166	16.102	16.094	(1.073)	507016	5.00000	4.444
51 4-Chlorophenyl-phenylether	204	16.086	16.087	(1.072)	249393	5.00000	4.476
52 4-Nitroaniline	138	16.194	16.187	(1.079)	223434	10.0000	9.259
53 4,6-Dinitro-2-methylphenol	198	16.287	16.287	(0.904)	299011	20.0000	20.99
54 N-Nitrosodiphenylamine	169	16.341	16.341	(0.907)	317365	5.00000	4.708
\$ 55 2,4,6-Tribromophenol	330	16.626	16.619	(1.108)	86643	7.50000	7.499
56 4-Bromophenyl-phenylether	248	17.089	17.089	(0.948)	118050	5.00000	4.752
57 Hexachlorobenzene	284	17.398	17.398	(0.966)	130100	5.00000	4.863
58 Pentachlorophenol	266	17.754	17.770	(0.985)	100289	10.0000	9.626
* 59 Phenanthrene-d10	188	18.017	18.018	(1.000)	394375	4.00000	
60 Phenanthrene	178	18.064	18.064	(1.003)	505019	5.00000	4.758
61 Anthracene	178	18.157	18.157	(1.008)	511986	5.00000	4.871
62 Carbazole	167	18.482	18.489	(1.026)	479105	5.00000	4.726
63 Di-n-butylphthalate	149	19.294	19.294	(1.071)	608751	5.00000	5.036
64 Fluoranthene	202	20.447	20.447	(0.887)	533975	5.00000	4.541
65 Pyrene	202	20.872	20.872	(0.905)	550275	5.00000	4.533
\$ 66 Terphenyl-d14	244	21.159	21.167	(0.917)	410502	5.00000	4.485
67 Butylbenzylphthalate	149	22.095	22.088	(0.958)	245597	5.00000	4.682
68 Benzo(a)anthracene	228	23.032	23.033	(0.999)	474794	5.00000	4.442
* 69 Chrysene-d12	240	23.063	23.064	(1.000)	320650	4.00000	
70 3,3'-Dichlorobenzidine	252	22.994	22.994	(0.997)	476359	15.0000	13.17
71 Chrysene	228	23.110	23.102	(1.002)	460132	5.00000	4.489
72 bis(2-Ethylhexyl)phthalate	149	23.125	23.125	(0.959)	342165	5.00000	4.752
* 134 Di-n-octylphthalate-d4	153	24.109	24.109	(1.000)	529382	4.00000	
73 Di-n-octylphthalate	149	24.116	24.116	(1.000)	613405	5.00000	4.585
74 Benzo(b)fluoranthene	252	24.883	24.875	(0.972)	476407	5.00000	4.522
75 Benzo(k)fluoranthene	252	24.921	24.922	(0.973)	532995	5.00000	4.805(H)
76 Benzo(a)pyrene	252	25.502	25.502	(0.996)	448640	5.00000	4.709
* 77 Perylene-d12	264	25.610	25.611	(1.000)	332844	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.152	28.159	(1.099)	536656	5.00000	4.733
79 Dibenzo(a,h)anthracene	278	28.175	28.175	(1.100)	446321	5.00000	4.751
80 Benzo(g,h,i)perylene	276	28.905	28.905	(1.129)	461040	5.00000	4.737
90 N-Nitrosodimethylamine	74	4.633	4.625	(0.517)	228954	10.0000	9.772
91 Aniline	93	8.426	8.426	(0.940)	470628	10.0000	9.895
93 Benzidine	184	20.679	20.687	(0.897)	422705	10.0000	11.41
103 Pyridine	79	4.648	4.679	(0.519)	367092	10.0000	10.12
105 1-methylnaphthalene	142	13.069	13.062	(1.144)	364026	5.00000	4.804
111 Azobenzene (1,2-DP-Hydrazine)	77	16.410	16.410	(1.094)	458256	5.00000	4.631
187 Total Benzofluoranthenes	252	24.921	24.922	(0.973)	958437	10.0000	9.279

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		15.731	15.738	(1.048)	104788	5.00000	4.826

QC Flag Legend

- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 08-FEB-2023
 Lab File ID: NT1023020704.D Calibration Time: 07:24
 Lab Smp Id: SLB0102-CAL5
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	110702	55351	221404	105928	-4.31
27 Naphthalene-d8	429852	214926	859704	423616	-1.45
42 Acenaphthene-d10	233715	116858	467430	230743	-1.27
59 Phenanthrene-d10	388662	194331	777324	394375	1.47
69 Chrysene-d12	345176	172588	690352	320650	-7.11
134 Di-n-octylphthala	579750	289875	1159500	529382	-8.69
77 Perylene-d12	378227	189114	756454	332844	-12.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.96	-0.09
27 Naphthalene-d8	11.43	10.93	11.93	11.42	-0.07
42 Acenaphthene-d10	15.01	14.51	15.51	15.00	-0.05
59 Phenanthrene-d10	18.03	17.53	18.53	18.02	-0.04
69 Chrysene-d12	23.07	22.57	23.57	23.06	-0.03
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	0.00
77 Perylene-d12	25.63	25.13	26.13	25.61	-0.06

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020704.D

Lab ID: SLB0102-CAL5
nt10.i, 20230207.b\ABN.m, 07-FEB-2023 13:35

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.962	0.000	0.9619	Benzoic acid
1.009	0.000	1.0093	2,4-Dinitrophenol

RRT check based on Ccal File: NT1023020708.D

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

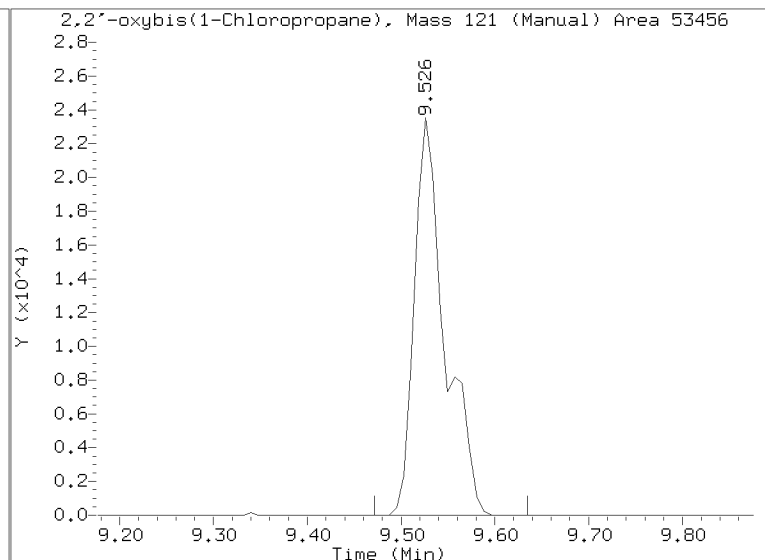
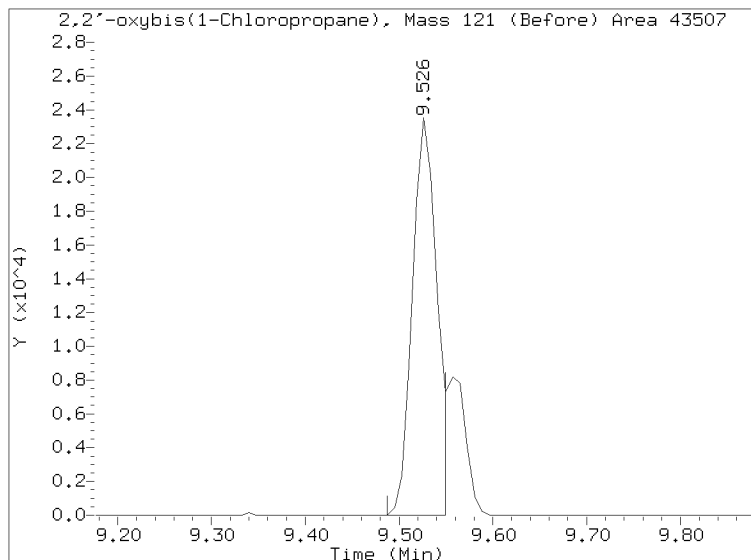
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020704.D

Injection Date: 07-FEB-2023 13:35

Lab ID:SLB0102-CAL5 Client ID:

Report Date: 02/09/2023 11:23



APPROVED

By Deenay Dunmore at 11:29 am, Feb 09, 2023

Data File: \\target\share\chem3\nt10.1\20230207.16\NT1023020705.D

Date: 07-FEB-2023 14:14

Client ID:

Sample Info: SLB0102-CAL4

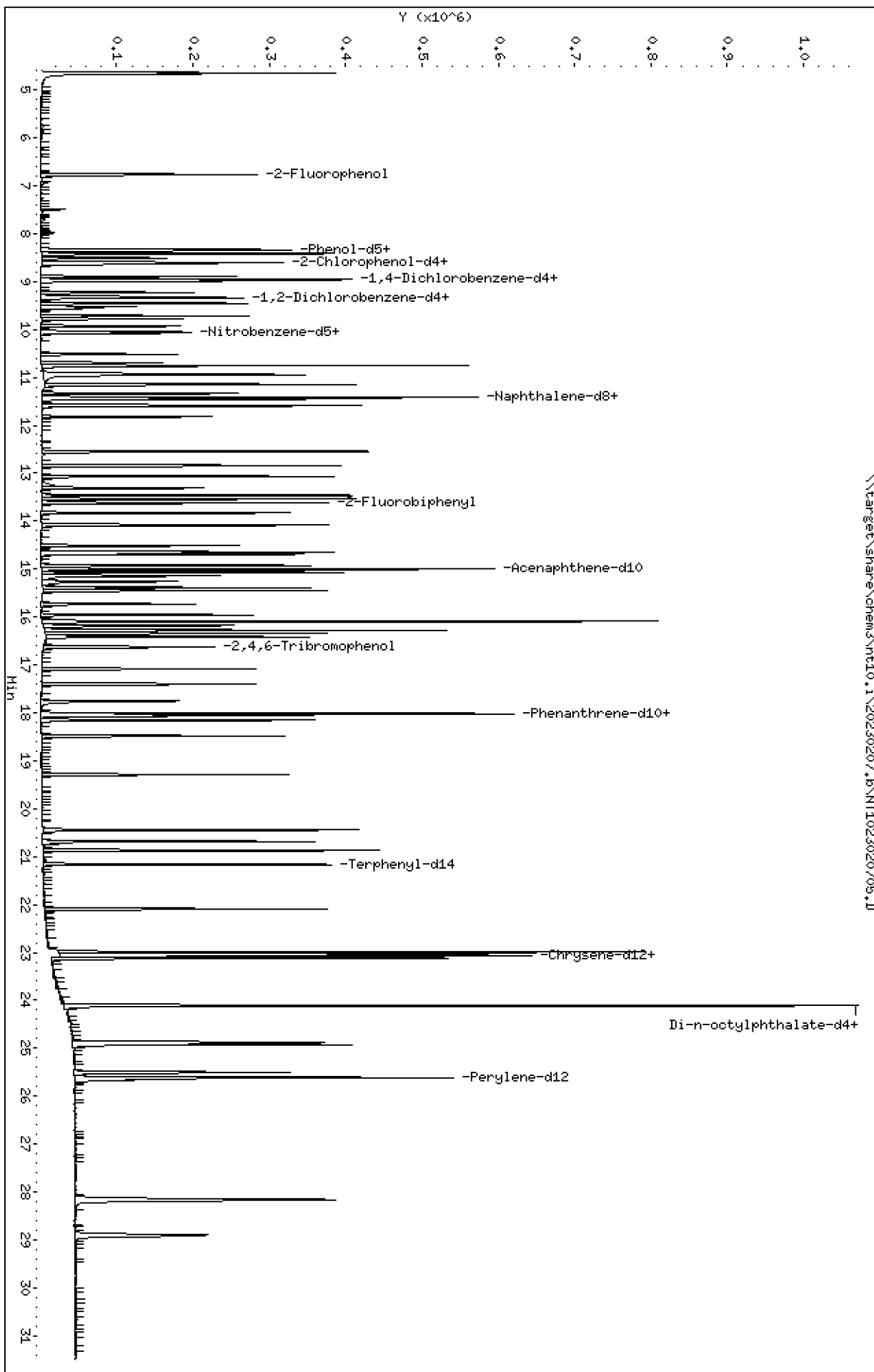
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230207.16\NT1023020705.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020705.D
 Lab Smp Id: SLB0102-CAL4
 Inj Date : 07-FEB-2023 14:14
 Operator : VTS
 Smp Info : SLB0102-CAL4
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 08-Feb-2023 10:39 deenayd
 Cal Date : 07-FEB-2023 14:14
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i
 Quant Type: ISTD
 Cal File: NT1023020705.D
 Calibration Sample, Level: 4
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		6.772	6.772	(0.756)	128490	3.75000	3.720
\$ 2 Phenol-d5	99		8.333	8.333	(0.930)	165893	3.75000	3.560
3 Phenol	94		8.356	8.356	(0.933)	118677	2.50000	2.354
\$ 5 2-Chlorophenol-d4	132		8.603	8.603	(0.960)	135645	3.75000	3.587
4 Bis(2-Chloroethyl)ether	93		8.511	8.511	(0.950)	84202	2.50000	2.297
6 2-Chlorophenol	128		8.634	8.634	(0.964)	95344	2.50000	2.315
7 1,3-Dichlorobenzene	146		8.897	8.897	(0.993)	100422	2.50000	2.322
* 8 1,4-Dichlorobenzene-d4	152		8.959	8.959	(1.000)	108648	4.00000	
9 1,4-Dichlorobenzene	146		8.990	8.990	(1.003)	98833	2.50000	2.321
\$ 10 1,2-Dichlorobenzene-d4	152		9.316	9.316	(1.040)	60507	2.50000	2.337
12 1,2-Dichlorobenzene	146		9.340	9.340	(1.042)	95727	2.50000	2.331
11 Benzyl alcohol	108		9.231	9.239	(1.030)	55042	2.50000	2.465
14 2,2'-oxybis(1-Chloropropane)	121		9.526	9.526	(1.063)	26926	2.50000	2.282 (M)
13 2-Methylphenol	108		9.456	9.456	(1.055)	86900	2.50000	2.325
17 Hexachloroethane	117		9.929	9.929	(1.108)	37402	2.50000	2.291
16 N-Nitroso-di-n-propylamine	70		9.782	9.782	(1.092)	67305	2.50000	2.394
15 4-Methylphenol	108		9.720	9.728	(1.085)	93279	2.50000	2.356
\$ 18 Nitrobenzene-d5	82		10.038	10.038	(0.879)	98492	2.50000	2.331
19 Nitrobenzene	77		10.077	10.077	(0.882)	97268	2.50000	2.308
20 Isophorone	82		10.519	10.519	(0.921)	128285	2.50000	2.186
21 2-Nitrophenol	139		10.698	10.698	(0.937)	51396	2.50000	2.368
22 2,4-Dimethylphenol	107		10.757	10.757	(0.942)	185492	5.00000	4.781
23 Bis(2-Chloroethoxy)methane	93		10.944	10.944	(0.958)	88708	2.50000	2.328
24 Benzoic acid	105		10.944	11.003	(0.958)	153137	10.0000	6.883
25 2,4-Dichlorophenol	162		11.156	11.156	(0.977)	154306	5.00000	4.895
26 1,2,4-Trichlorobenzene	180		11.337	11.337	(0.993)	78928	2.50000	2.298
* 27 Naphthalene-d8	136		11.422	11.422	(1.000)	427713	4.00000	
28 Naphthalene	128		11.460	11.460	(1.003)	261221	2.50000	2.285
29 4-Chloroaniline	127		11.592	11.592	(1.015)	230757	5.00000	4.710
30 Hexachlorobutadiene	225		11.823	11.823	(1.035)	41648	2.50000	2.325
31 4-Chloro-3-methylphenol	107		12.543	12.551	(1.098)	160187	5.00000	4.649
32 2-Methylnaphthalene	142		12.845	12.845	(1.125)	186706	2.50000	2.349
33 Hexachlorocyclopentadiene	237		13.309	13.309	(0.887)	52673	5.00000	3.652
34 2,4,6-Trichlorophenol	196		13.464	13.464	(0.897)	94036	5.00000	4.480

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	13.534	13.549	(0.902)	103748	5.00000	4.585
\$ 36 2-Fluorobiphenyl	172	13.619	13.619	(0.908)	188248	2.50000	2.247
37 2-Chloronaphthalene	162	13.828	13.828	(0.922)	163136	2.50000	2.240
38 2-Nitroaniline	65	14.083	14.083	(0.939)	107743	5.00000	4.698
39 Dimethylphthalate	163	14.509	14.509	(0.967)	180450	2.50000	2.316
40 Acenaphthylene	152	14.687	14.695	(0.979)	265785	2.50000	2.291
41 2,6-Dinitrotoluene	165	14.648	14.648	(0.976)	86019	5.00000	4.661
* 42 Acenaphthene-d10	164	15.004	15.004	(1.000)	232494	4.00000	
43 3-Nitroaniline	138	14.927	14.935	(0.995)	98129	5.00000	4.612
44 Acenaphthene	153	15.066	15.066	(1.004)	159073	2.50000	2.238
45 2,4-Dinitrophenol	184	15.143	15.151	(1.009)	63678	10.0000	6.592
46 Dibenzofuran	168	15.391	15.391	(1.026)	234010	2.50000	2.288
47 4-Nitrophenol	109	15.259	15.313	(1.017)	36219	5.00000	4.566
48 2,4-Dinitrotoluene	165	15.445	15.452	(1.029)	119162	5.00000	4.680
50 Diethylphthalate	149	15.955	15.955	(1.063)	173328	2.50000	2.317
49 Fluorene	166	16.094	16.094	(1.073)	265204	2.50000	2.307
51 4-Chlorophenyl-phenylether	204	16.094	16.087	(1.073)	127918	2.50000	2.278
52 4-Nitroaniline	138	16.179	16.187	(1.078)	100735	5.00000	4.143
53 4,6-Dinitro-2-methylphenol	198	16.279	16.287	(0.904)	139195	10.0000	9.562
54 N-Nitrosodiphenylamine	169	16.341	16.341	(0.907)	160426	2.50000	2.328
\$ 55 2,4,6-Tribromophenol	330	16.626	16.619	(1.108)	41209	3.75000	3.540
56 4-Bromophenyl-phenylether	248	17.089	17.089	(0.948)	60763	2.50000	2.393
57 Hexachlorobenzene	284	17.398	17.398	(0.966)	66196	2.50000	2.421
58 Pentachlorophenol	266	17.762	17.770	(0.986)	41243	5.00000	3.956
* 59 Phenanthrene-d10	188	18.018	18.018	(1.000)	403045	4.00000	
60 Phenanthrene	178	18.064	18.064	(1.003)	247914	2.50000	2.286
61 Anthracene	178	18.157	18.157	(1.008)	253597	2.50000	2.361
62 Carbazole	167	18.482	18.489	(1.026)	244164	2.50000	2.357
63 Di-n-butylphthalate	149	19.294	19.294	(1.071)	295661	2.50000	2.393
64 Fluoranthene	202	20.447	20.447	(0.887)	268010	2.50000	2.223
65 Pyrene	202	20.872	20.872	(0.905)	277596	2.50000	2.230
\$ 66 Terphenyl-d14	244	21.167	21.167	(0.918)	210405	2.50000	2.242
67 Butylbenzylphthalate	149	22.096	22.088	(0.958)	122500	2.50000	2.277
68 Benzo(a)anthracene	228	23.033	23.033	(0.999)	244493	2.50000	2.231
* 69 Chrysene-d12	240	23.063	23.064	(1.000)	328824	4.00000	
70 3,3'-Dichlorobenzidine	252	22.994	22.994	(0.997)	255100	7.50000	6.879
71 Chrysene	228	23.110	23.102	(1.002)	233669	2.50000	2.223
72 bis(2-Ethylhexyl)phthalate	149	23.125	23.125	(0.959)	170041	2.50000	2.363
* 134 Di-n-octylphthalate-d4	153	24.109	24.109	(1.000)	528993	4.00000	
73 Di-n-octylphthalate	149	24.116	24.116	(1.000)	304227	2.50000	2.276
74 Benzo(b)fluoranthene	252	24.875	24.875	(0.971)	238831	2.50000	2.243
75 Benzo(k)fluoranthene	252	24.921	24.922	(0.973)	267617	2.50000	2.388
76 Benzo(a)pyrene	252	25.502	25.502	(0.995)	222764	2.50000	2.314
* 77 Perylene-d12	264	25.618	25.611	(1.000)	336318	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.159	28.159	(1.099)	264049	2.50000	2.305
79 Dibenzo(a,h)anthracene	278	28.167	28.175	(1.099)	219757	2.50000	2.315
80 Benzo(g,h,i)perylene	276	28.897	28.905	(1.128)	221031	2.50000	2.248
90 N-Nitrosodimethylamine	74	4.633	4.625	(0.517)	113910	5.00000	4.740
91 Aniline	93	8.418	8.426	(0.940)	231741	5.00000	4.750
93 Benzidine	184	20.679	20.687	(0.897)	228216	5.00000	5.819
103 Pyridine	79	4.656	4.679	(0.520)	182161	5.00000	4.897
105 1-methylnaphthalene	142	13.062	13.062	(1.144)	178077	2.50000	2.327
111 Azobenzene (1,2-DP-Hydrazine)	77	16.410	16.410	(1.094)	228706	2.50000	2.294
187 Total Benzofluoranthenes	252	24.921	24.922	(0.973)	482588	5.00000	4.624

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		15.731	15.738	(1.048)	44032	2.50000	2.037

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 08-FEB-2023
 Lab File ID: NT1023020705.D Calibration Time: 07:24
 Lab Smp Id: SLB0102-CAL4
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	110702	55351	221404	108648	-1.86
27 Naphthalene-d8	429852	214926	859704	427713	-0.50
42 Acenaphthene-d10	233715	116858	467430	232494	-0.52
59 Phenanthrene-d10	388662	194331	777324	403045	3.70
69 Chrysene-d12	345176	172588	690352	328824	-4.74
134 Di-n-octylphthala	579750	289875	1159500	528993	-8.75
77 Perylene-d12	378227	189114	756454	336318	-11.08

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.96	-0.09
27 Naphthalene-d8	11.43	10.93	11.93	11.42	-0.07
42 Acenaphthene-d10	15.01	14.51	15.51	15.00	-0.05
59 Phenanthrene-d10	18.03	17.53	18.53	18.02	-0.04
69 Chrysene-d12	23.07	22.57	23.57	23.06	-0.03
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	0.00
77 Perylene-d12	25.63	25.13	26.13	25.62	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020705.D

Lab ID: SLB0102-CAL4
nt10.i, 20230207.b\ABN.m, 07-FEB-2023 14:14

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.958	0.000	0.9582	Benzoic acid
1.009	0.000	1.0093	2,4-Dinitrophenol

RRT check based on Ccal File: NT1023020708.D

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

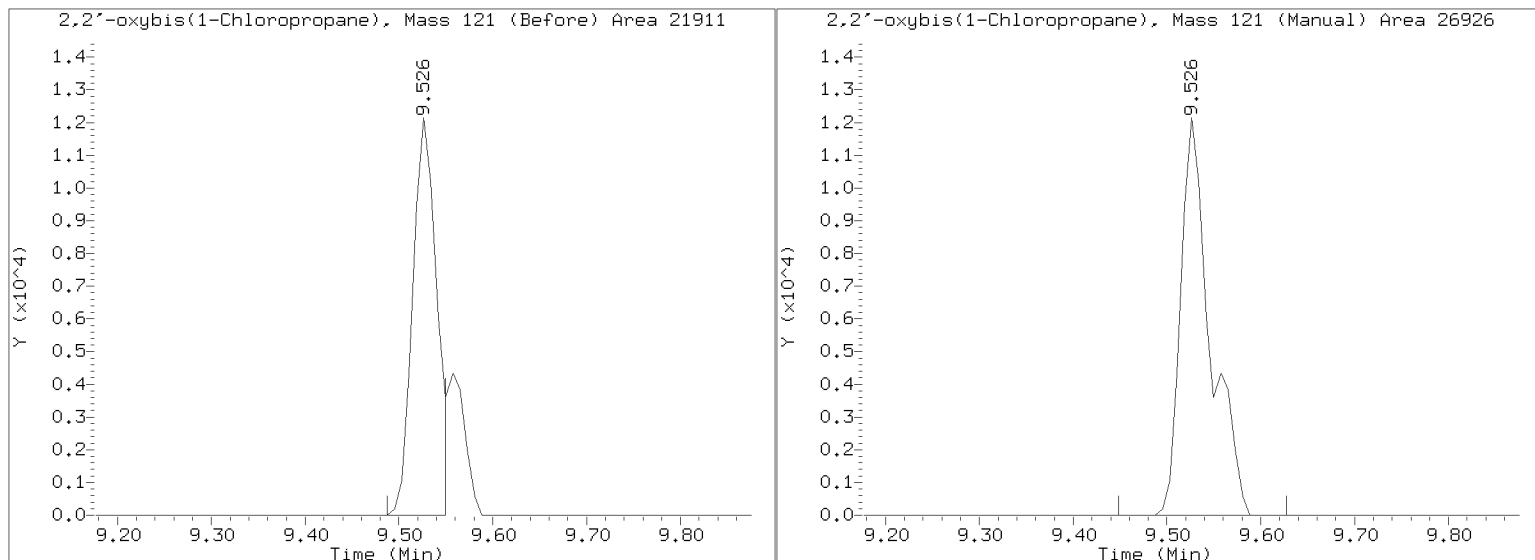
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020705.D

Injection Date: 07-FEB-2023 14:14

Lab ID:SLB0102-CAL4 Client ID:

Report Date: 02/09/2023 11:23



APPROVED

By Deenay Dunmore at 11:28 am, Feb 09, 2023

Data File: \\target\share\chem3\nt10.1\20230207.16\NT1023020706.D

Date: 07-FEB-2023 14:52

Client ID:

Sample Info: SLB0102-CAL3

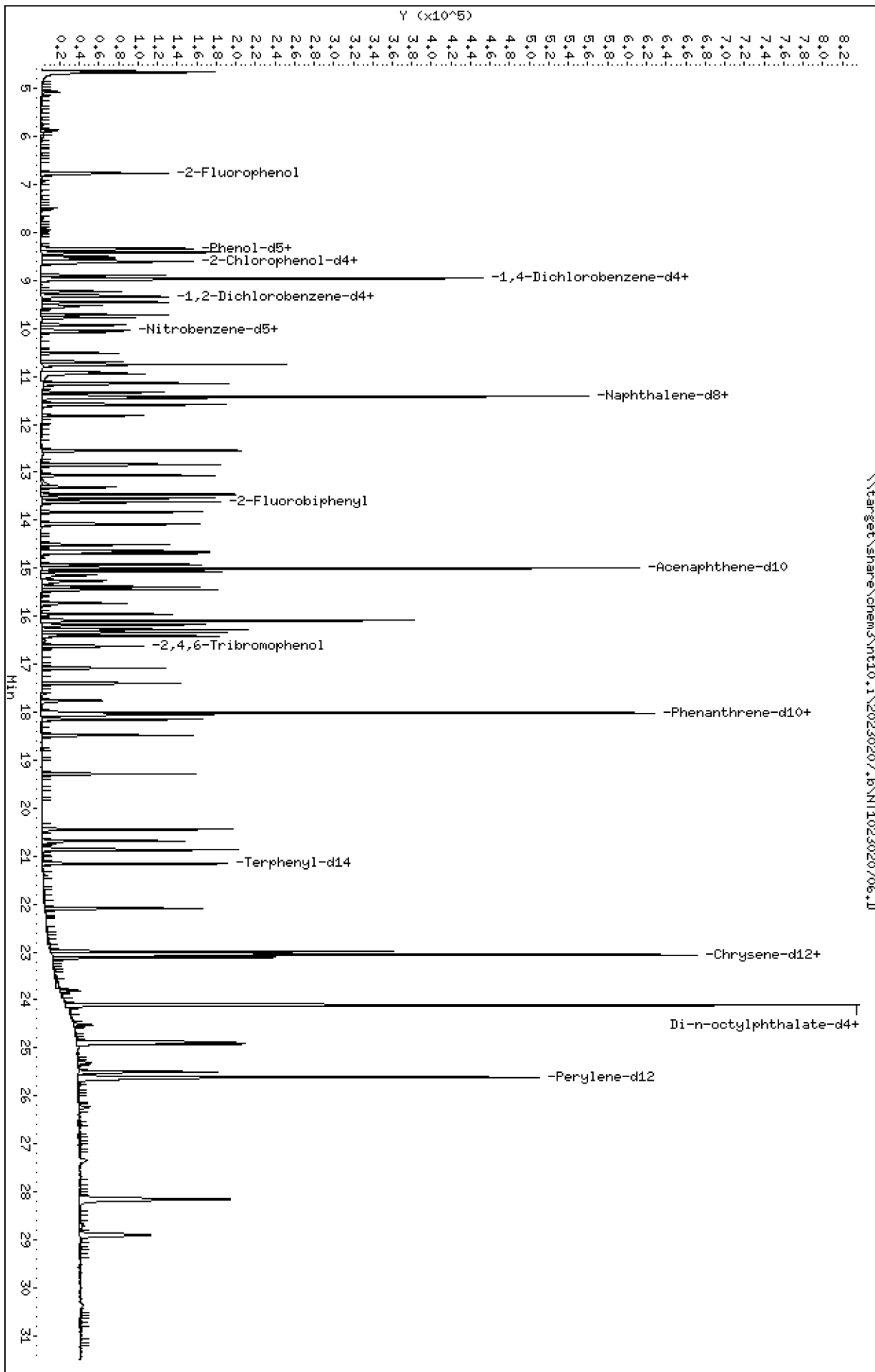
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230207.16\NT1023020706.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020706.D
 Lab Smp Id: SLB0102-CAL3
 Inj Date : 07-FEB-2023 14:52
 Operator : VTS
 Smp Info : SLB0102-CAL3
 Misc Info :
 Comment : lul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 08-Feb-2023 10:39 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 14:52 Cal File: NT1023020706.D
 Als bottle: 6 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	AMOUNTS					ON-COL
			MASS	RT	EXP RT	REL RT	RESPONSE		CAL-AMT (ug/mL)
\$ 1 2-Fluorophenol	112		6.772	6.772	(0.756)	59408	1.50000	1.632
\$ 2 Phenol-d5	99		8.333	8.333	(0.930)	81721	1.50000	1.664
3 Phenol	94		8.349	8.356	(0.932)	58636	1.00000	1.104
\$ 5 2-Chlorophenol-d4	132		8.604	8.603	(0.960)	65080	1.50000	1.632
4 Bis(2-Chloroethyl)ether	93		8.511	8.511	(0.950)	40763	1.00000	1.055
6 2-Chlorophenol	128		8.634	8.634	(0.964)	48031	1.00000	1.106
7 1,3-Dichlorobenzene	146		8.897	8.897	(0.993)	49033	1.00000	1.076
* 8 1,4-Dichlorobenzene-d4	152		8.959	8.959	(1.000)	114531	4.00000	
9 1,4-Dichlorobenzene	146		8.990	8.990	(1.003)	47670	1.00000	1.062
\$ 10 1,2-Dichlorobenzene-d4	152		9.316	9.316	(1.040)	29821	1.00000	1.093
12 1,2-Dichlorobenzene	146		9.340	9.340	(1.042)	47074	1.00000	1.088
11 Benzyl alcohol	108		9.231	9.239	(1.030)	26325	1.00000	1.118
14 2,2'-oxybis(1-Chloropropane)	121		9.526	9.526	(1.063)	13111	1.00000	1.054 (M)
13 2-Methylphenol	108		9.456	9.456	(1.055)	42370	1.00000	1.075
17 Hexachloroethane	117		9.930	9.929	(1.108)	18181	1.00000	1.056
16 N-Nitroso-di-n-propylamine	70		9.775	9.782	(1.091)	32382	1.00000	1.093
15 4-Methylphenol	108		9.720	9.728	(1.085)	45956	1.00000	1.101
\$ 18 Nitrobenzene-d5	82		10.038	10.038	(0.879)	46988	1.00000	1.081
19 Nitrobenzene	77		10.077	10.077	(0.882)	47550	1.00000	1.097
20 Isophorone	82		10.519	10.519	(0.921)	60754	1.00000	1.006
21 2-Nitrophenol	139		10.698	10.698	(0.937)	24632	1.00000	1.103
22 2,4-Dimethylphenol	107		10.758	10.757	(0.942)	89974	2.00000	2.254
23 Bis(2-Chloroethoxy)methane	93		10.944	10.944	(0.958)	42831	1.00000	1.093
24 Benzoic acid	105		10.910	11.003	(0.955)	47129	4.00000	2.080
25 2,4-Dichlorophenol	162		11.156	11.156	(0.977)	76654	2.00000	2.364
26 1,2,4-Trichlorobenzene	180		11.337	11.337	(0.993)	38408	1.00000	1.087
* 27 Naphthalene-d8	136		11.422	11.422	(1.000)	440001	4.00000	
28 Naphthalene	128		11.461	11.460	(1.003)	126832	1.00000	1.079
29 4-Chloroaniline	127		11.592	11.592	(1.015)	107918	2.00000	2.141
30 Hexachlorobutadiene	225		11.824	11.823	(1.035)	19683	1.00000	1.068
31 4-Chloro-3-methylphenol	107		12.551	12.551	(1.099)	78333	2.00000	2.210
32 2-Methylnaphthalene	142		12.845	12.845	(1.125)	86638	1.00000	1.060
33 Hexachlorocyclopentadiene	237		13.310	13.309	(0.887)	18318	2.00000	1.273
34 2,4,6-Trichlorophenol	196		13.464	13.464	(0.897)	45836	2.00000	2.166

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	13.542	13.549	(0.903)	49037	2.00000	2.149
\$ 36 2-Fluorobiphenyl	172	13.619	13.619	(0.908)	91976	1.00000	1.089
37 2-Chloronaphthalene	162	13.828	13.828	(0.922)	79807	1.00000	1.087
38 2-Nitroaniline	65	14.076	14.083	(0.938)	49527	2.00000	2.142
39 Dimethylphthalate	163	14.509	14.509	(0.967)	87357	1.00000	1.112
40 Acenaphthylene	152	14.687	14.695	(0.979)	128403	1.00000	1.098
41 2,6-Dinitrotoluene	165	14.648	14.648	(0.976)	39961	2.00000	2.147
* 42 Acenaphthene-d10	164	15.004	15.004	(1.000)	234461	4.00000	
43 3-Nitroaniline	138	14.927	14.935	(0.995)	45715	2.00000	2.130
44 Acenaphthene	153	15.066	15.066	(1.004)	76674	1.00000	1.069
45 2,4-Dinitrophenol	184	15.144	15.151	(1.009)	17671	4.00000	1.834
46 Dibenzofuran	168	15.391	15.391	(1.026)	109512	1.00000	1.062
47 4-Nitrophenol	109	15.259	15.313	(1.017)	16182	2.00000	2.023
48 2,4-Dinitrotoluene	165	15.445	15.452	(1.029)	55818	2.00000	2.174
50 Diethylphthalate	149	15.955	15.955	(1.063)	82980	1.00000	1.100
49 Fluorene	166	16.094	16.094	(1.073)	128333	1.00000	1.107
51 4-Chlorophenyl-phenylether	204	16.094	16.087	(1.073)	62049	1.00000	1.096
52 4-Nitroaniline	138	16.179	16.187	(1.078)	54558	2.00000	2.225
53 4,6-Dinitro-2-methylphenol	198	16.280	16.287	(0.904)	58824	4.00000	3.827
54 N-Nitrosodiphenylamine	169	16.333	16.341	(0.907)	79605	1.00000	1.094
\$ 55 2,4,6-Tribromophenol	330	16.626	16.619	(1.108)	19019	1.50000	1.620
56 4-Bromophenyl-phenylether	248	17.089	17.089	(0.948)	28255	1.00000	1.054
57 Hexachlorobenzene	284	17.399	17.398	(0.966)	31869	1.00000	1.104
58 Pentachlorophenol	266	17.762	17.770	(0.986)	15963	2.00000	1.463
* 59 Phenanthrene-d10	188	18.018	18.018	(1.000)	425518	4.00000	
60 Phenanthrene	178	18.064	18.064	(1.003)	120962	1.00000	1.056
61 Anthracene	178	18.149	18.157	(1.007)	120178	1.00000	1.060
62 Carbazole	167	18.482	18.489	(1.026)	118571	1.00000	1.084
63 Di-n-butylphthalate	149	19.294	19.294	(1.071)	137410	1.00000	1.054
64 Fluoranthene	202	20.447	20.447	(0.887)	129526	1.00000	1.096
65 Pyrene	202	20.873	20.872	(0.905)	133983	1.00000	1.099
\$ 66 Terphenyl-d14	244	21.159	21.167	(0.917)	104367	1.00000	1.135
67 Butylbenzylphthalate	149	22.088	22.088	(0.958)	58131	1.00000	1.103
68 Benzo(a)anthracene	228	23.033	23.033	(0.999)	118873	1.00000	1.107
* 69 Chrysene-d12	240	23.064	23.064	(1.000)	322154	4.00000	
70 3,3'-Dichlorobenzidine	252	22.986	22.994	(0.997)	123695	3.00000	3.405
71 Chrysene	228	23.102	23.102	(1.002)	112833	1.00000	1.096
72 bis(2-Ethylhexyl)phthalate	149	23.126	23.125	(0.960)	78105	1.00000	1.064
* 134 Di-n-octylphthalate-d4	153	24.101	24.109	(1.000)	539698	4.00000	
73 Di-n-octylphthalate	149	24.117	24.116	(1.001)	146592	1.00000	1.075
74 Benzo(b)fluoranthene	252	24.875	24.875	(0.971)	123062	1.00000	1.128
75 Benzo(k)fluoranthene	252	24.922	24.922	(0.973)	123173	1.00000	1.072
76 Benzo(a)pyrene	252	25.502	25.502	(0.995)	106533	1.00000	1.080
* 77 Perylene-d12	264	25.619	25.611	(1.000)	344648	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.144	28.159	(1.099)	125915	1.00000	1.072
79 Dibenzo(a,h)anthracene	278	28.167	28.175	(1.099)	105288	1.00000	1.082
80 Benzo(g,h,i)perylene	276	28.898	28.905	(1.128)	106397	1.00000	1.056
90 N-Nitrosodimethylamine	74	4.633	4.625	(0.517)	56365	2.00000	2.225
91 Aniline	93	8.418	8.426	(0.940)	108771	2.00000	2.115
93 Benzidine	184	20.679	20.687	(0.897)	98639	2.00000	2.515
103 Pyridine	79	4.664	4.679	(0.521)	87179	2.00000	2.223
105 1-methylnaphthalene	142	13.062	13.062	(1.144)	82265	1.00000	1.045
111 Azobenzene (1,2-DP-Hydrazine)	77	16.411	16.410	(1.094)	111276	1.00000	1.107
187 Total Benzofluoranthenes	252	24.922	24.922	(0.973)	234336	2.00000	2.191

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		15.731	15.738	(1.048)	20068	1.00000	0.9247

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 08-FEB-2023
 Lab File ID: NT1023020706.D Calibration Time: 07:24
 Lab Smp Id: SLB0102-CAL3
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	110702	55351	221404	114531	3.46
27 Naphthalene-d8	429852	214926	859704	440001	2.36
42 Acenaphthene-d10	233715	116858	467430	234461	0.32
59 Phenanthrene-d10	388662	194331	777324	425518	9.48
69 Chrysene-d12	345176	172588	690352	322154	-6.67
134 Di-n-octylphthala	579750	289875	1159500	539698	-6.91
77 Perylene-d12	378227	189114	756454	344648	-8.88

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.96	-0.08
27 Naphthalene-d8	11.43	10.93	11.93	11.42	-0.06
42 Acenaphthene-d10	15.01	14.51	15.51	15.00	-0.05
59 Phenanthrene-d10	18.03	17.53	18.53	18.02	-0.04
69 Chrysene-d12	23.07	22.57	23.57	23.06	-0.03
134 Di-n-octylphthala	24.11	23.61	24.61	24.10	-0.03
77 Perylene-d12	25.63	25.13	26.13	25.62	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020706.D

Lab ID: SLB0102-CAL3
nt10.i, 20230207.b\ABN.m, 07-FEB-2023 14:52

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.955	0.000	0.9552	Benzoic acid
1.009	0.000	1.0093	2,4-Dinitrophenol

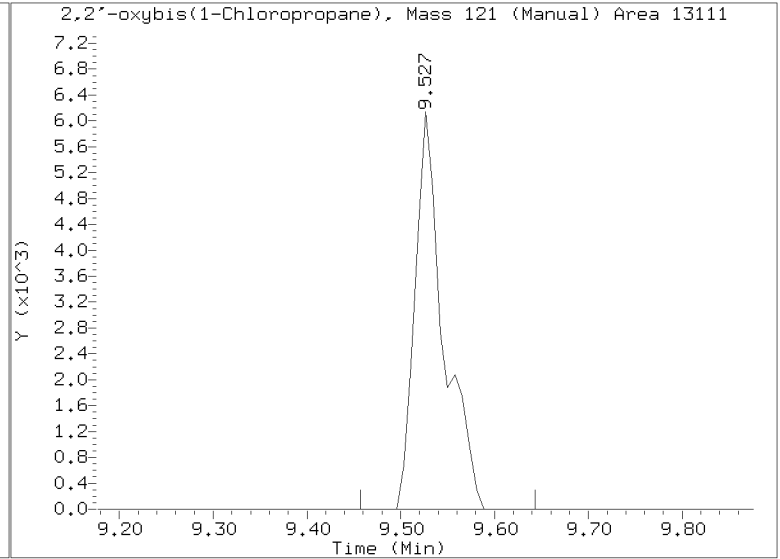
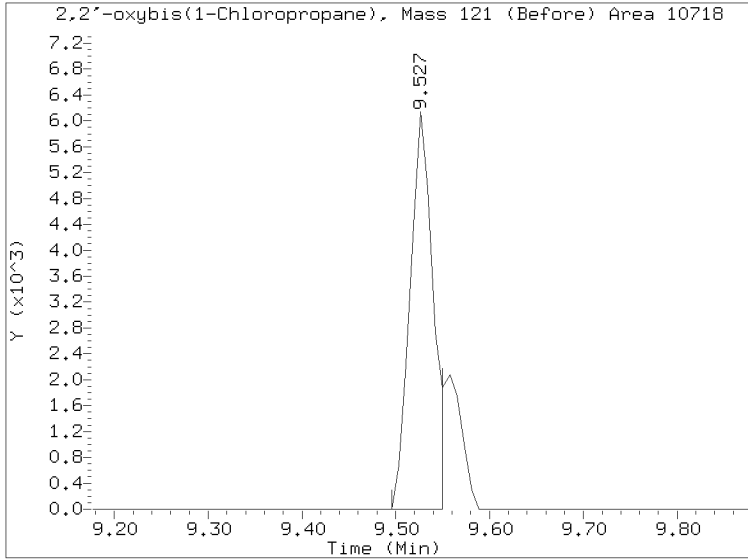
RRT check based on Ccal File: NT1023020708.D

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020706.D
Injection Date: 07-FEB-2023 14:52
Lab ID:SLB0102-CAL3 Client ID:
Report Date: 02/09/2023 11:23



APPROVED
By Deenay Dunmore at 11:30 am, Feb 09, 2023

Data File: \\target\share\chem3\nt10.1\20230207.16\NT1023020707.D

Date: 07-FEB-2023 15:30

Client ID:

Sample Info: SLB0102-CAL2

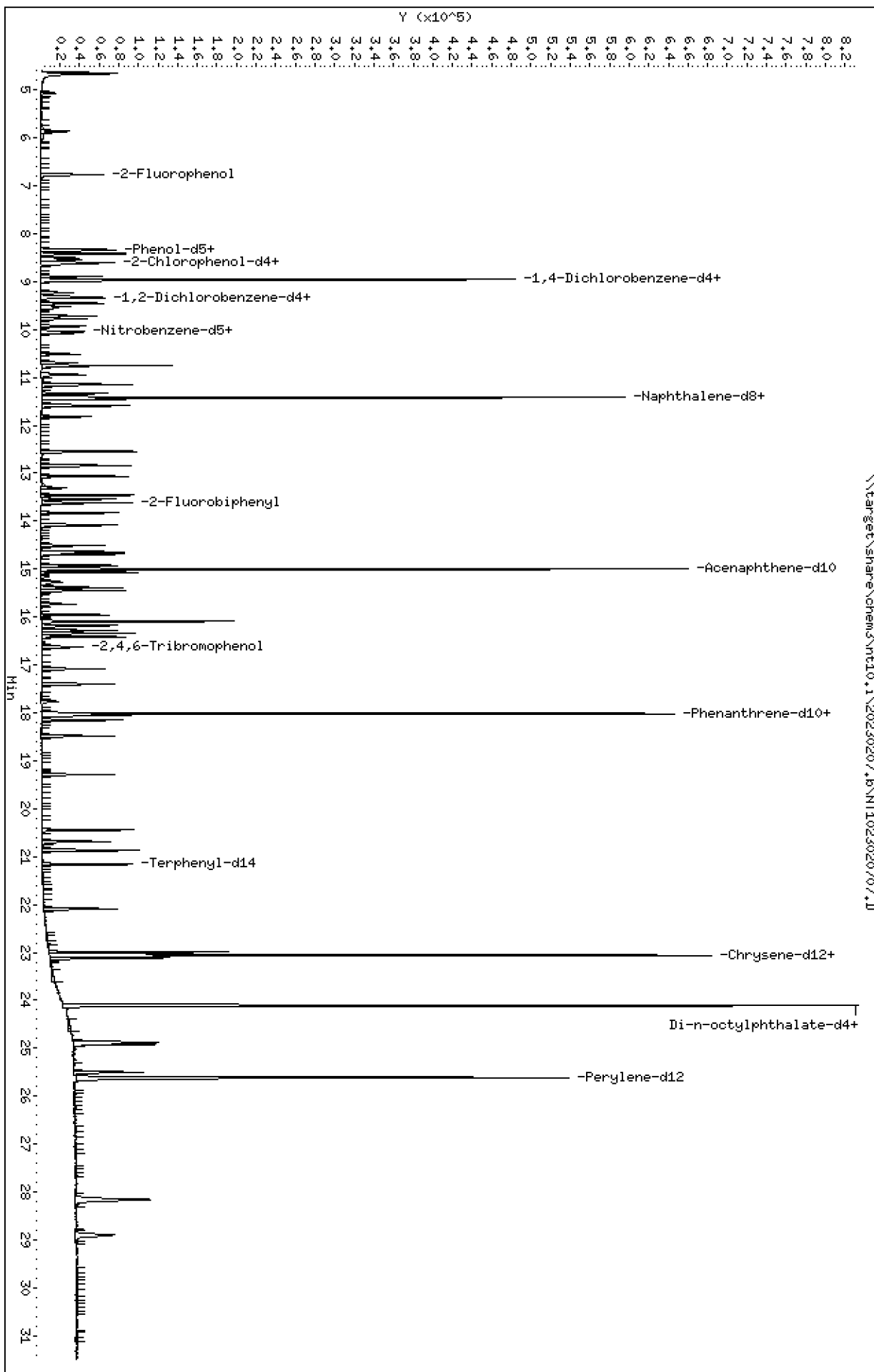
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230207.16\NT1023020707.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020707.D
 Lab Smp Id: SLB0102-CAL2
 Inj Date : 07-FEB-2023 15:30
 Operator : VTS
 Smp Info : SLB0102-CAL2
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 08-Feb-2023 10:39 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 15:30 Cal File: NT1023020707.D
 Als bottle: 7 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		6.772	6.772	(0.756)	29708	0.75000	0.7790
\$ 2 Phenol-d5	99		8.333	8.333	(0.930)	39830	0.75000	0.7742
3 Phenol	94		8.357	8.356	(0.933)	29959	0.50000	0.5383
\$ 5 2-Chlorophenol-d4	132		8.604	8.603	(0.960)	33192	0.75000	0.7949
4 Bis(2-Chloroethyl)ether	93		8.511	8.511	(0.950)	21487	0.50000	0.5309
6 2-Chlorophenol	128		8.635	8.634	(0.964)	24358	0.50000	0.5356
7 1,3-Dichlorobenzene	146		8.898	8.897	(0.993)	25527	0.50000	0.5347
* 8 1,4-Dichlorobenzene-d4	152		8.960	8.959	(1.000)	119962	4.00000	
9 1,4-Dichlorobenzene	146		8.991	8.990	(1.003)	24331	0.50000	0.5174
\$ 10 1,2-Dichlorobenzene-d4	152		9.317	9.316	(1.040)	15142	0.50000	0.5298
12 1,2-Dichlorobenzene	146		9.340	9.340	(1.042)	23852	0.50000	0.5261
11 Benzyl alcohol	108		9.231	9.239	(1.030)	10685	0.50000	0.4334
14 2,2'-oxybis(1-Chloropropane)	121		9.526	9.526	(1.063)	6808	0.50000	0.5227 (M)
13 2-Methylphenol	108		9.456	9.456	(1.055)	22949	0.50000	0.5560
17 Hexachloroethane	117		9.930	9.929	(1.108)	9348	0.50000	0.5186
16 N-Nitroso-di-n-propylamine	70		9.775	9.782	(1.091)	16165	0.50000	0.5208
15 4-Methylphenol	108		9.720	9.728	(1.085)	23342	0.50000	0.5339
\$ 18 Nitrobenzene-d5	82		10.038	10.038	(0.879)	24302	0.50000	0.5393
19 Nitrobenzene	77		10.077	10.077	(0.882)	23673	0.50000	0.5269
20 Isophorone	82		10.520	10.519	(0.921)	34538	0.50000	0.5520
21 2-Nitrophenol	139		10.698	10.698	(0.937)	11561	0.50000	0.4995
22 2,4-Dimethylphenol	107		10.758	10.757	(0.942)	47477	1.00000	1.148
23 Bis(2-Chloroethoxy)methane	93		10.944	10.944	(0.958)	22006	0.50000	0.5416
24 Benzoic acid	105		10.910	11.003	(0.955)	11729	2.00000	0.5011 (M)
25 2,4-Dichlorophenol	162		11.157	11.156	(0.977)	33764	1.00000	1.005
26 1,2,4-Trichlorobenzene	180		11.337	11.337	(0.993)	19872	0.50000	0.5426
* 27 Naphthalene-d8	136		11.422	11.422	(1.000)	456081	4.00000	
28 Naphthalene	128		11.461	11.460	(1.003)	64577	0.50000	0.5299
29 4-Chloroaniline	127		11.592	11.592	(1.015)	54986	1.00000	1.052
30 Hexachlorobutadiene	225		11.824	11.823	(1.035)	10473	0.50000	0.5484
31 4-Chloro-3-methylphenol	107		12.551	12.551	(1.099)	38984	1.00000	1.061
32 2-Methylnaphthalene	142		12.845	12.845	(1.125)	43218	0.50000	0.5100
33 Hexachlorocyclopentadiene	237		13.310	13.309	(0.887)	5937	1.00000	0.4001
34 2,4,6-Trichlorophenol	196		13.457	13.464	(0.897)	22232	1.00000	1.015

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	13.542	13.549	(0.903)	23159	1.00000	0.9805
\$ 36 2-Fluorobiphenyl	172	13.619	13.619	(0.908)	47296	0.50000	0.5408
37 2-Chloronaphthalene	162	13.828	13.828	(0.922)	40399	0.50000	0.5314
38 2-Nitroaniline	65	14.084	14.083	(0.939)	24433	1.00000	1.021
39 Dimethylphthalate	163	14.509	14.509	(0.967)	43988	0.50000	0.5408
40 Acenaphthylene	152	14.687	14.695	(0.979)	63947	0.50000	0.5281
41 2,6-Dinitrotoluene	165	14.649	14.648	(0.976)	19837	1.00000	1.030
* 42 Acenaphthene-d10	164	15.005	15.004	(1.000)	242691	4.00000	
43 3-Nitroaniline	138	14.927	14.935	(0.995)	22248	1.00000	1.002
44 Acenaphthene	153	15.066	15.066	(1.004)	39467	0.50000	0.5318
45 2,4-Dinitrophenol	184	15.144	15.151	(1.009)	5201	2.00000	0.5231 (M)
46 Dibenzofuran	168	15.391	15.391	(1.026)	56007	0.50000	0.5246
47 4-Nitrophenol	109	15.275	15.313	(1.018)	6842	1.00000	0.8264
48 2,4-Dinitrotoluene	165	15.445	15.452	(1.029)	26756	1.00000	1.007
50 Diethylphthalate	149	15.955	15.955	(1.063)	41520	0.50000	0.5316
49 Fluorene	166	16.095	16.094	(1.073)	66442	0.50000	0.5537
51 4-Chlorophenyl-phenylether	204	16.095	16.087	(1.073)	32642	0.50000	0.5570
52 4-Nitroaniline	138	16.179	16.187	(1.078)	26680	1.00000	1.051
53 4,6-Dinitro-2-methylphenol	198	16.280	16.287	(0.904)	24197	2.00000	1.527
54 N-Nitrosodiphenylamine	169	16.334	16.341	(0.907)	40468	0.50000	0.5394
\$ 55 2,4,6-Tribromophenol	330	16.627	16.619	(1.108)	9032	0.75000	0.7432
56 4-Bromophenyl-phenylether	248	17.089	17.089	(0.948)	14457	0.50000	0.5230
57 Hexachlorobenzene	284	17.399	17.398	(0.966)	16245	0.50000	0.5457
58 Pentachlorophenol	266	17.763	17.770	(0.986)	5504	1.00000	0.4908
* 59 Phenanthrene-d10	188	18.018	18.018	(1.000)	438853	4.00000	
60 Phenanthrene	178	18.064	18.064	(1.003)	62051	0.50000	0.5254
61 Anthracene	178	18.157	18.157	(1.008)	60619	0.50000	0.5183
62 Carbazole	167	18.482	18.489	(1.026)	59642	0.50000	0.5287
63 Di-n-butylphthalate	149	19.294	19.294	(1.071)	67547	0.50000	0.5022
64 Fluoranthene	202	20.447	20.447	(0.887)	65241	0.50000	0.5290
65 Pyrene	202	20.873	20.872	(0.905)	67772	0.50000	0.5323
\$ 66 Terphenyl-d14	244	21.159	21.167	(0.917)	52041	0.50000	0.5421
67 Butylbenzylphthalate	149	22.096	22.088	(0.958)	28521	0.50000	0.5184
68 Benzo(a)anthracene	228	23.033	23.033	(0.999)	61029	0.50000	0.5444
* 69 Chrysene-d12	240	23.064	23.064	(1.000)	336320	4.00000	
70 3,3'-Dichlorobenzidine	252	22.994	22.994	(0.997)	61524	1.50000	1.622
71 Chrysene	228	23.103	23.102	(1.002)	57837	0.50000	0.5380
72 bis(2-Ethylhexyl)phthalate	149	23.126	23.125	(0.959)	38960	0.50000	0.5172
* 134 Di-n-octylphthalate-d4	153	24.109	24.109	(1.000)	553821	4.00000	
73 Di-n-octylphthalate	149	24.117	24.116	(1.000)	74388	0.50000	0.5315
74 Benzo(b)fluoranthene	252	24.875	24.875	(0.971)	60753	0.50000	0.5406
75 Benzo(k)fluoranthene	252	24.914	24.922	(0.972)	63355	0.50000	0.5355
76 Benzo(a)pyrene	252	25.503	25.502	(0.995)	53387	0.50000	0.5254
* 77 Perylene-d12	264	25.619	25.611	(1.000)	354991	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.152	28.159	(1.099)	62165	0.50000	0.5140
79 Dibenzo(a,h)anthracene	278	28.168	28.175	(1.099)	51863	0.50000	0.5177
80 Benzo(g,h,i)perylene	276	28.898	28.905	(1.128)	52747	0.50000	0.5082
90 N-Nitrosodimethylamine	74	4.633	4.625	(0.517)	27910	1.00000	1.052
91 Aniline	93	8.426	8.426	(0.940)	55117	1.00000	1.023
93 Benzidine	184	20.687	20.687	(0.897)	54932	1.00000	1.332
103 Pyridine	79	4.664	4.679	(0.521)	42309	1.00000	1.030
105 1-methylnaphthalene	142	13.062	13.062	(1.144)	42046	0.50000	0.5154
111 Azobenzene (1,2-DP-Hydrazine)	77	16.411	16.410	(1.094)	55817	0.50000	0.5363
187 Total Benzofluoranthenes	252	24.875	24.922	(0.971)	118534	1.00000	1.076

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		15.731	15.738	(1.048)	8993	0.50000	0.4012

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 08-FEB-2023
 Lab File ID: NT1023020707.D Calibration Time: 07:24
 Lab Smp Id: SLB0102-CAL2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	110702	55351	221404	119962	8.36
27 Naphthalene-d8	429852	214926	859704	456081	6.10
42 Acenaphthene-d10	233715	116858	467430	242691	3.84
59 Phenanthrene-d10	388662	194331	777324	438853	12.91
69 Chrysene-d12	345176	172588	690352	336320	-2.57
134 Di-n-octylphthala	579750	289875	1159500	553821	-4.47
77 Perylene-d12	378227	189114	756454	354991	-6.14

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.96	-0.08
27 Naphthalene-d8	11.43	10.93	11.93	11.42	-0.06
42 Acenaphthene-d10	15.01	14.51	15.51	15.01	-0.05
59 Phenanthrene-d10	18.03	17.53	18.53	18.02	-0.04
69 Chrysene-d12	23.07	22.57	23.57	23.06	-0.03
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	0.00
77 Perylene-d12	25.63	25.13	26.13	25.62	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020707.D

Lab ID: SLB0102-CAL2
nt10.i, 20230207.b\ABN.m, 07-FEB-2023 15:30

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.955	0.000	0.9552	Benzoic acid
1.009	0.000	1.0093	2,4-Dinitrophenol

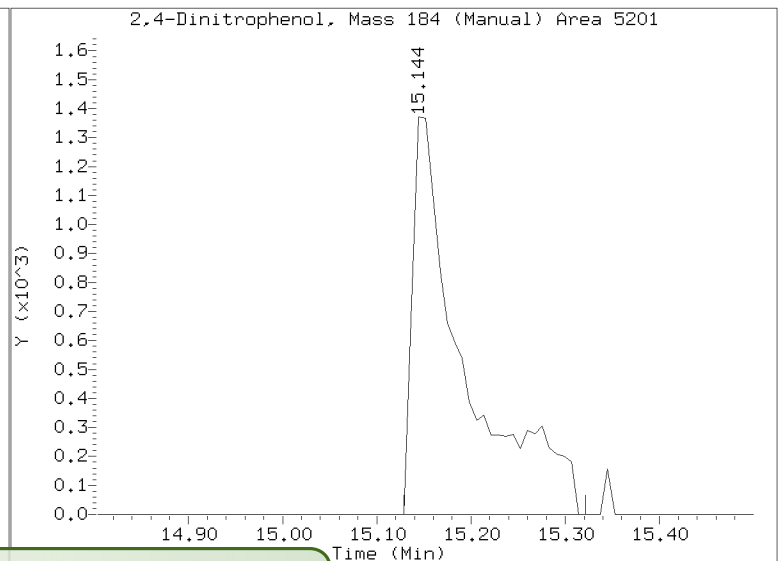
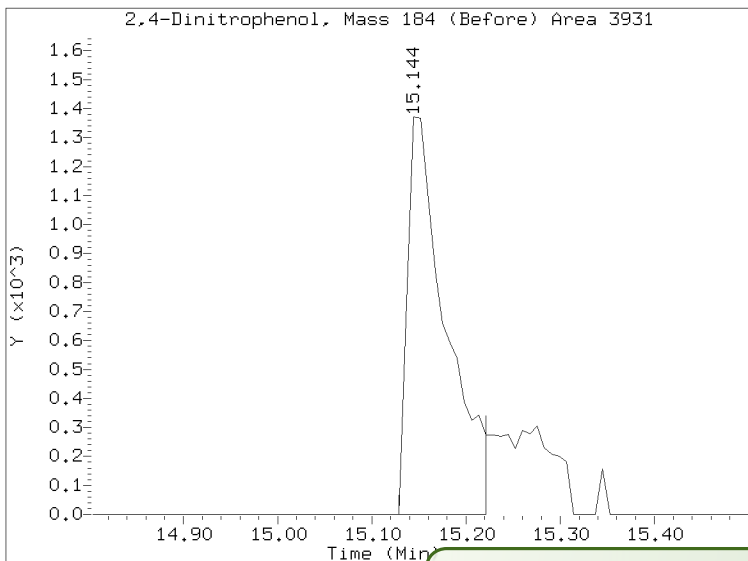
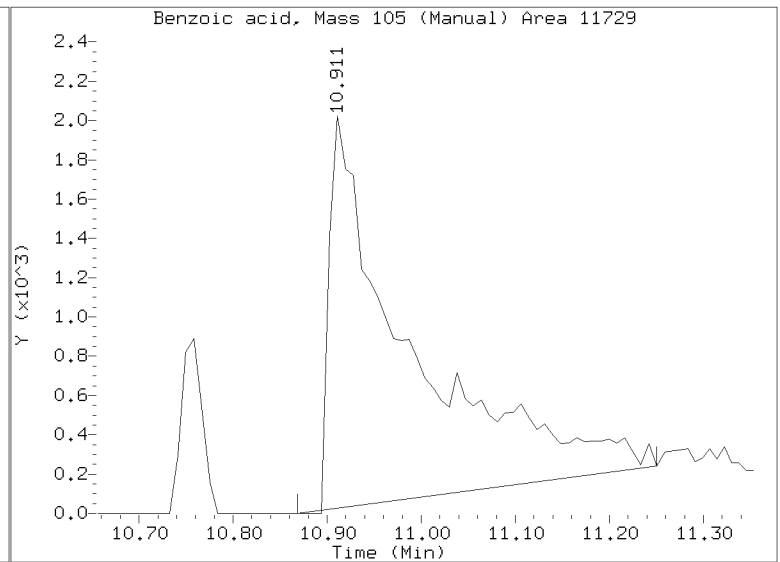
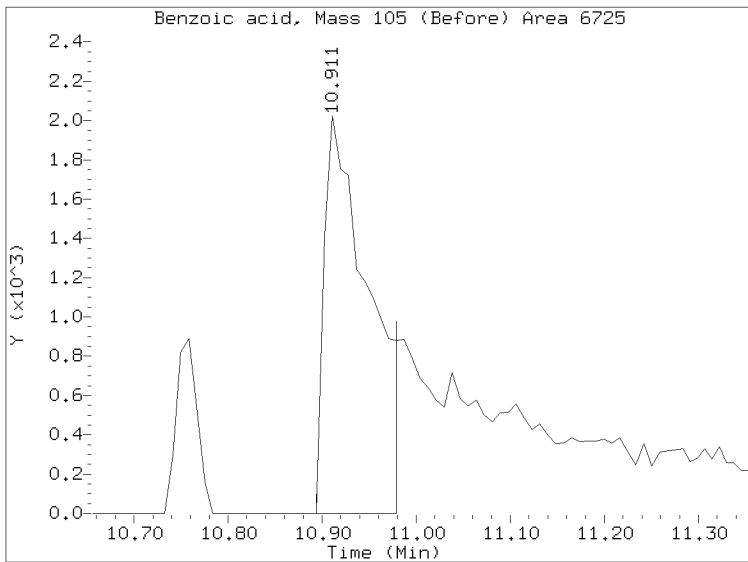
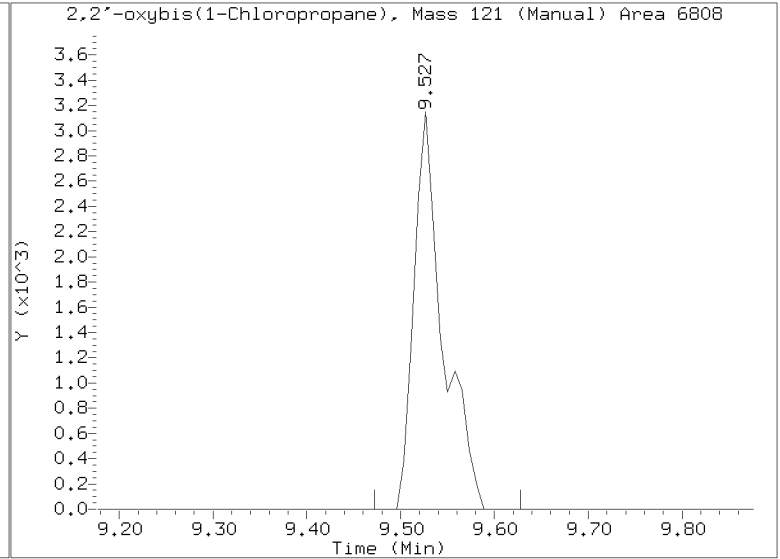
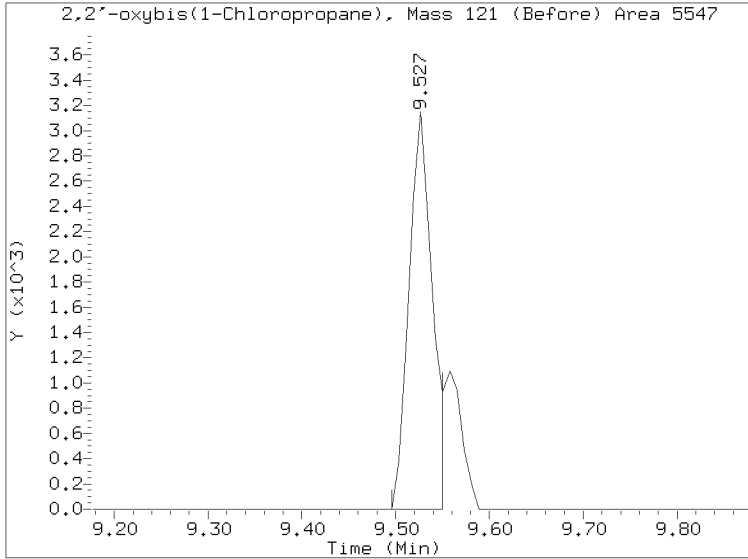
RRT check based on Ccal File: NT1023020708.D

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020707.D
Injection Date: 07-FEB-2023 15:30
Lab ID:SLB0102-CAL2 Client ID:
Report Date: 02/09/2023 11:23



APPROVED

By Deenay Dunmore at 11:30 am, Feb 09, 2023

Data File: \\target\share\chem3\nt10.1\20230207.1\NT1023020708.D

Date: 07-FEB-2023 16:09

Client ID:

Sample Info: SLB0102-CAL1

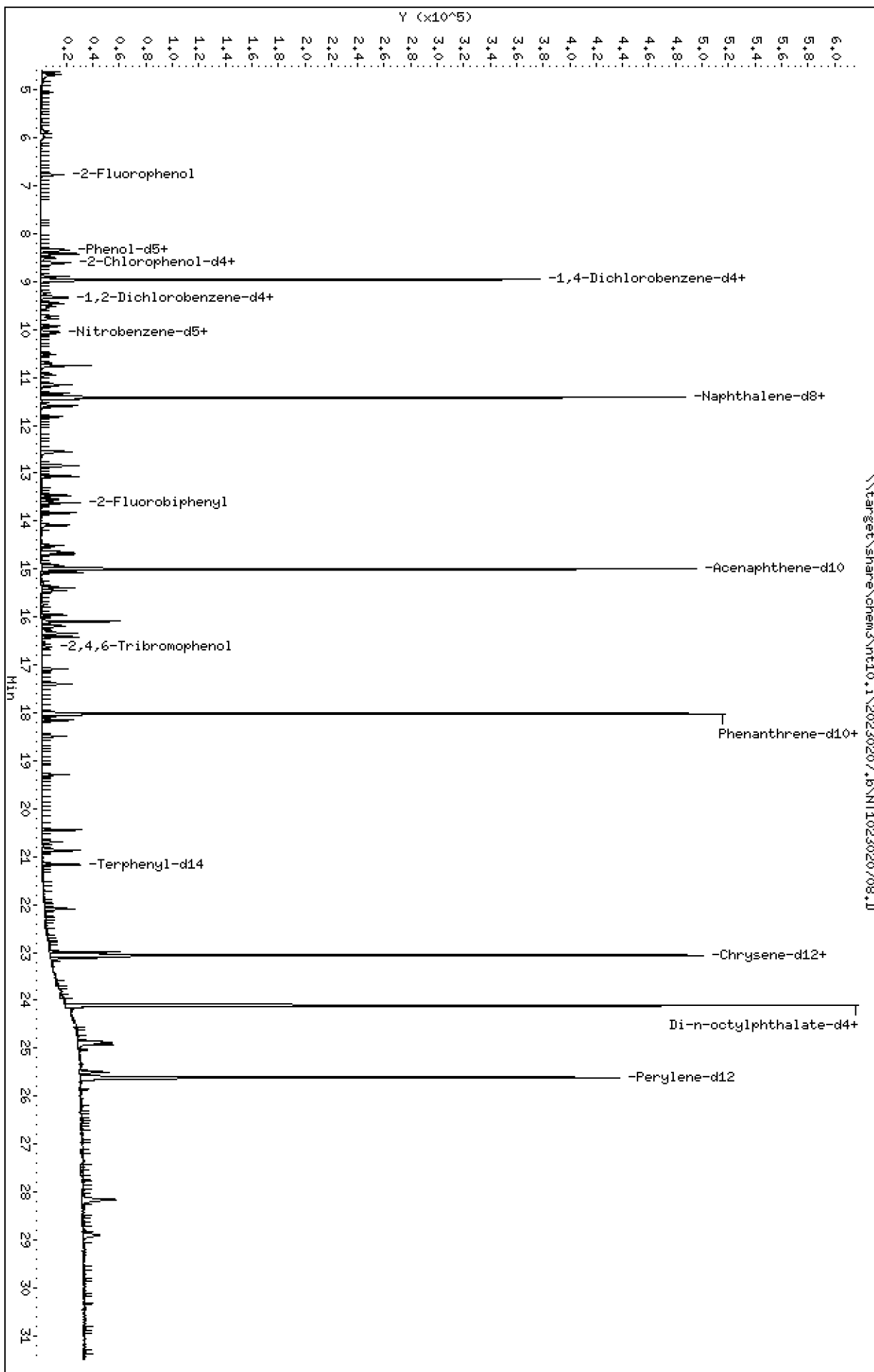
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230207.1\NT1023020708.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020708.D
 Lab Smp Id: SLB0102-CAL1
 Inj Date : 07-FEB-2023 16:09
 Operator : VTS
 Smp Info : SLB0102-CAL1
 Misc Info :
 Comment : lul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 08-Feb-2023 10:39 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 8 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS		
							CAL-AMT (ug/mL)	ON-COL (ug/mL)	
\$ 1 2-Fluorophenol	112		6.772	6.772	(0.756)	9173	0.30000	0.2928	
\$ 2 Phenol-d5	99		8.333	8.333	(0.930)	12931	0.30000	0.3060	
3 Phenol	94		8.356	8.356	(0.933)	9262	0.20000	0.2026	
\$ 5 2-Chlorophenol-d4	132		8.603	8.603	(0.960)	10578	0.30000	0.3084	
4 Bis(2-Chloroethyl)ether	93		8.511	8.511	(0.950)	7891	0.20000	0.2374	
6 2-Chlorophenol	128		8.634	8.634	(0.964)	7747	0.20000	0.2074	
7 1,3-Dichlorobenzene	146		8.897	8.897	(0.993)	8589	0.20000	0.2190	
* 8 1,4-Dichlorobenzene-d4	152		8.959	8.959	(1.000)	98530	4.00000		
9 1,4-Dichlorobenzene	146		8.990	8.990	(1.003)	8277	0.20000	0.2143	
\$ 10 1,2-Dichlorobenzene-d4	152		9.316	9.316	(1.040)	5235	0.20000	0.2230	
12 1,2-Dichlorobenzene	146		9.340	9.340	(1.042)	8090	0.20000	0.2173	
11 Benzyl alcohol	108		9.239	9.239	(1.031)	2997	0.20000	0.1480	
14 2,2'-oxybis(1-Chloropropane)	121		9.526	9.526	(1.063)	2141	0.20000	0.2001 (M)	
13 2-Methylphenol	108		9.456	9.456	(1.055)	6852	0.20000	0.2021	
17 Hexachloroethane	117		9.929	9.929	(1.108)	3205	0.20000	0.2165	
16 N-Nitroso-di-n-propylamine	70		9.782	9.782	(1.092)	4990	0.20000	0.1957	
15 4-Methylphenol	108		9.728	9.728	(1.086)	7052	0.20000	0.1964	
\$ 18 Nitrobenzene-d5	82		10.038	10.038	(0.879)	7853	0.20000	0.2126	
19 Nitrobenzene	77		10.077	10.077	(0.882)	8014	0.20000	0.2176	
20 Isophorone	82		10.519	10.519	(0.921)	9045	0.20000	0.1763	
21 2-Nitrophenol	139		10.698	10.698	(0.937)	3379	0.20000	0.1781	
22 2,4-Dimethylphenol	107		10.757	10.757	(0.942)	14694	0.40000	0.4332	
23 Bis(2-Chloroethoxy)methane	93		10.944	10.944	(0.958)	6885	0.20000	0.2067	
24 Benzoic acid	105		Compound Not Detected.						
25 2,4-Dichlorophenol	162		11.156	11.156	(0.977)	10040	0.40000	0.3644	
26 1,2,4-Trichlorobenzene	180		11.337	11.337	(0.993)	6720	0.20000	0.2238	
* 27 Naphthalene-d8	136		11.422	11.422	(1.000)	373897	4.00000		
28 Naphthalene	128		11.460	11.460	(1.003)	21964	0.20000	0.2198	
29 4-Chloroaniline	127		11.592	11.592	(1.015)	17633	0.40000	0.4117	
30 Hexachlorobutadiene	225		11.823	11.823	(1.035)	3353	0.20000	0.2142	
31 4-Chloro-3-methylphenol	107		12.551	12.551	(1.099)	11195	0.40000	0.3716	
32 2-Methylnaphthalene	142		12.845	12.845	(1.125)	15001	0.20000	0.2159	
33 Hexachlorocyclopentadiene	237		13.309	13.309	(0.887)	652	0.40000	0.05446	
34 2,4,6-Trichlorophenol	196		13.464	13.464	(0.897)	6241	0.40000	0.3526	

Compounds	QUANT SIG		AMOUNTS					
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	
35 2,4,5-Trichlorophenol	196	13.549	13.549	(0.903)	5826	0.40000	0.3053	
\$ 36 2-Fluorobiphenyl	172	13.619	13.619	(0.908)	16289	0.20000	0.2305	
37 2-Chloronaphthalene	162	13.828	13.828	(0.922)	13389	0.20000	0.2180	
38 2-Nitroaniline	65	14.083	14.083	(0.939)	7532	0.40000	0.3894	
39 Dimethylphthalate	163	14.509	14.509	(0.967)	13583	0.20000	0.2067	
40 Acenaphthylene	152	14.695	14.695	(0.979)	21157	0.20000	0.2162	
41 2,6-Dinitrotoluene	165	14.648	14.648	(0.976)	5498	0.40000	0.3532	
* 42 Acenaphthene-d10	164	15.004	15.004	(1.000)	196086	4.00000		
43 3-Nitroaniline	138	14.935	14.935	(0.995)	6597	0.40000	0.3676	
44 Acenaphthene	153	15.066	15.066	(1.004)	12976	0.20000	0.2164	
45 2,4-Dinitrophenol	184	Compound Not Detected.						
46 Dibenzofuran	168	15.391	15.391	(1.026)	18913	0.20000	0.2193	
47 4-Nitrophenol	109	15.313	15.313	(1.021)	922	0.40000	0.1378	
48 2,4-Dinitrotoluene	165	15.452	15.452	(1.030)	7374	0.40000	0.3434	
50 Diethylphthalate	149	15.955	15.955	(1.063)	13165	0.20000	0.2086	
49 Fluorene	166	16.094	16.094	(1.073)	21790	0.20000	0.2248	
51 4-Chlorophenyl-phenylether	204	16.087	16.087	(1.072)	11086	0.20000	0.2341	
52 4-Nitroaniline	138	16.187	16.187	(1.079)	7551	0.40000	0.3682	
53 4,6-Dinitro-2-methylphenol	198	16.287	16.287	(0.904)	3431	0.80000	0.2677	
54 N-Nitrosodiphenylamine	169	16.341	16.341	(0.907)	13008	0.20000	0.2144	
\$ 55 2,4,6-Tribromophenol	330	16.619	16.619	(1.108)	357	0.30000	0.03636	
56 4-Bromophenyl-phenylether	248	17.089	17.089	(0.948)	4728	0.20000	0.2115	
57 Hexachlorobenzene	284	17.398	17.398	(0.966)	4737	0.20000	0.1968	
58 Pentachlorophenol	266	17.770	17.770	(0.986)	286	0.40000	0.03159	
* 59 Phenanthrene-d10	188	18.018	18.018	(1.000)	354843	4.00000		
60 Phenanthrene	178	18.064	18.064	(1.003)	20691	0.20000	0.2167	
61 Anthracene	178	18.157	18.157	(1.008)	18842	0.20000	0.1993	
62 Carbazole	167	18.489	18.489	(1.026)	18381	0.20000	0.2015	
63 Di-n-butylphthalate	149	19.294	19.294	(1.071)	19944	0.20000	0.1834	
64 Fluoranthene	202	20.447	20.447	(0.887)	19979	0.20000	0.2072	
65 Pyrene	202	20.872	20.872	(0.905)	20675	0.20000	0.2077	
\$ 66 Terphenyl-d14	244	21.167	21.167	(0.918)	17492	0.20000	0.2331	
67 Butylbenzylphthalate	149	22.088	22.088	(0.958)	8485	0.20000	0.1973	
68 Benzo(a)anthracene	228	23.033	23.033	(0.999)	19718	0.20000	0.2250	
* 69 Chrysene-d12	240	23.064	23.064	(1.000)	262931	4.00000		
70 3,3'-Dichlorobenzidine	252	22.994	22.994	(0.997)	18225	0.60000	0.6146	
71 Chrysene	228	23.102	23.102	(1.002)	19060	0.20000	0.2268	
72 bis(2-Ethylhexyl)phthalate	149	23.125	23.125	(0.959)	11735	0.20000	0.2041	
* 134 Di-n-octylphthalate-d4	153	24.109	24.109	(1.000)	422631	4.00000		
73 Di-n-octylphthalate	149	24.116	24.116	(1.000)	24243	0.20000	0.2270	
74 Benzo(b)fluoranthene	252	24.875	24.875	(0.971)	19314	0.20000	0.2177	
75 Benzo(k)fluoranthene	252	24.922	24.922	(0.973)	19405	0.20000	0.2077 (H)	
76 Benzo(a)pyrene	252	25.502	25.502	(0.996)	16809	0.20000	0.2095	
* 77 Perylene-d12	264	25.611	25.611	(1.000)	280301	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	28.159	28.159	(1.100)	19637	0.20000	0.2056	
79 Dibenzo(a,h)anthracene	278	28.175	28.175	(1.100)	15970	0.20000	0.2019	
80 Benzo(g,h,i)perylene	276	28.905	28.905	(1.129)	16807	0.20000	0.2051	
90 N-Nitrosodimethylamine	74	4.625	4.625	(0.516)	8780	0.40000	0.4029	
91 Aniline	93	8.426	8.426	(0.940)	17968	0.40000	0.4061	
93 Benzidine	184	20.687	20.687	(0.897)	15493	0.40000	0.4777	
103 Pyridine	79	4.679	4.679	(0.522)	11773	0.40000	0.3490	
105 1-methylnaphthalene	142	13.062	13.062	(1.144)	14452	0.20000	0.2161	
111 Azobenzene (1,2-DP-Hydrazine)	77	16.410	16.410	(1.094)	17592	0.20000	0.2092	
187 Total Benzofluoranthenes	252	24.922	24.922	(0.973)	37591	0.40000	0.4321	

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		15.738	15.738	(1.049)	1963	0.20000	0.1085

QC Flag Legend

- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 08-FEB-2023
 Lab File ID: NT1023020708.D Calibration Time: 07:24
 Lab Smp Id: SLB0102-CAL1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	110702	55351	221404	98530	-11.00
27 Naphthalene-d8	429852	214926	859704	373897	-13.02
42 Acenaphthene-d10	233715	116858	467430	196086	-16.10
59 Phenanthrene-d10	388662	194331	777324	354843	-8.70
69 Chrysene-d12	345176	172588	690352	262931	-23.83
134 Di-n-octylphthala	579750	289875	1159500	422631	-27.10
77 Perylene-d12	378227	189114	756454	280301	-25.89

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.96	-0.08
27 Naphthalene-d8	11.43	10.93	11.93	11.42	-0.07
42 Acenaphthene-d10	15.01	14.51	15.51	15.00	-0.05
59 Phenanthrene-d10	18.03	17.53	18.53	18.02	-0.04
69 Chrysene-d12	23.07	22.57	23.57	23.06	-0.03
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	0.00
77 Perylene-d12	25.63	25.13	26.13	25.61	-0.06

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020708.D

Lab ID: SLB0102-CAL1
nt10.i, 20230207.b\ABN.m, 07-FEB-2023 16:09

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1023020708.D

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

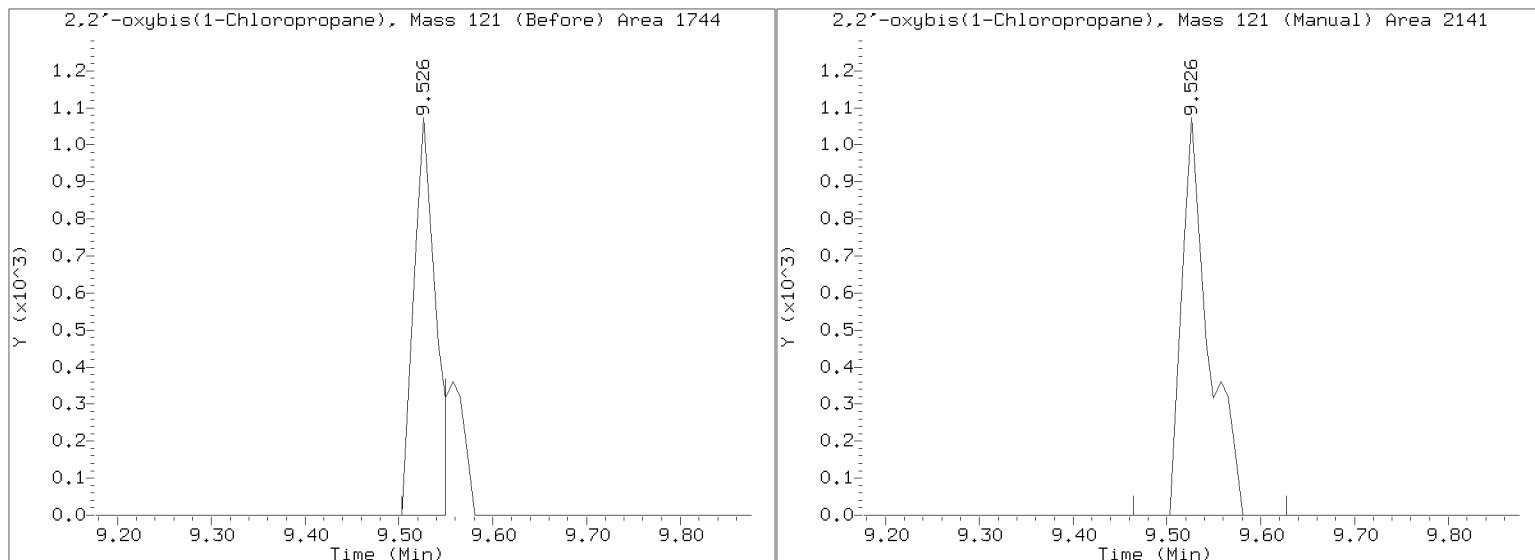
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020708.D

Injection Date: 07-FEB-2023 16:09

Lab ID:SLB0102-CAL1 Client ID:

Report Date: 02/09/2023 11:23



APPROVED

By Deenay Dunmore at 11:29 am, Feb 09, 2023

Data File: \\target\share\chem3\nt10.1\20230207.1\NT1023020711.D

Date: 07-FEB-2023 18:04

Client ID:

Sample Info: SLB0102-SCW1

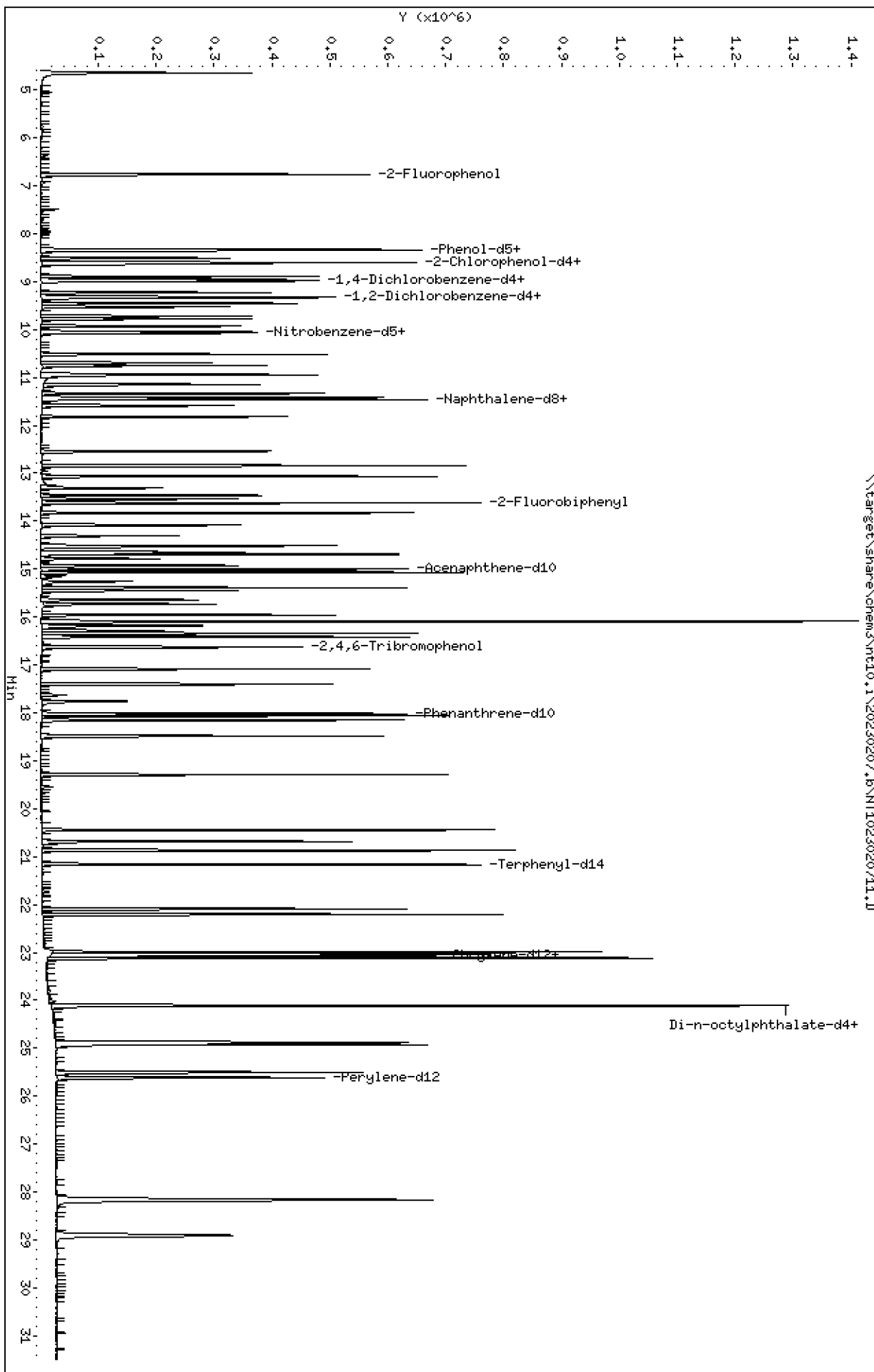
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

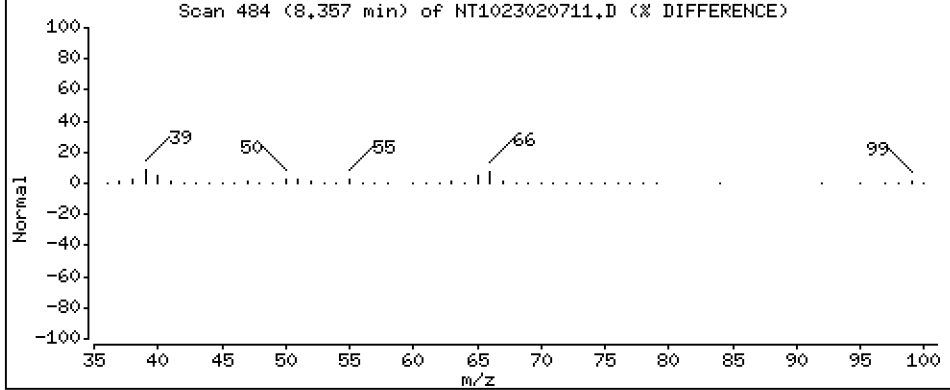
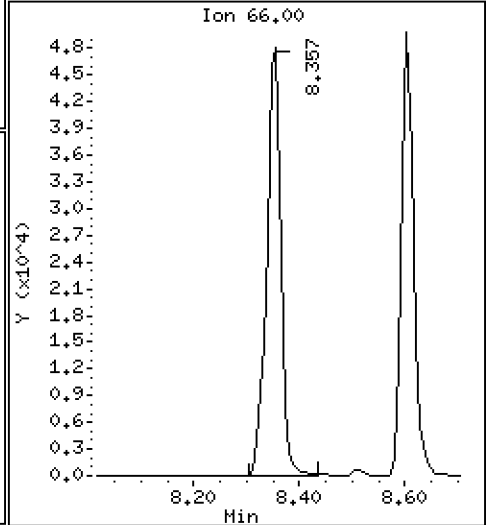
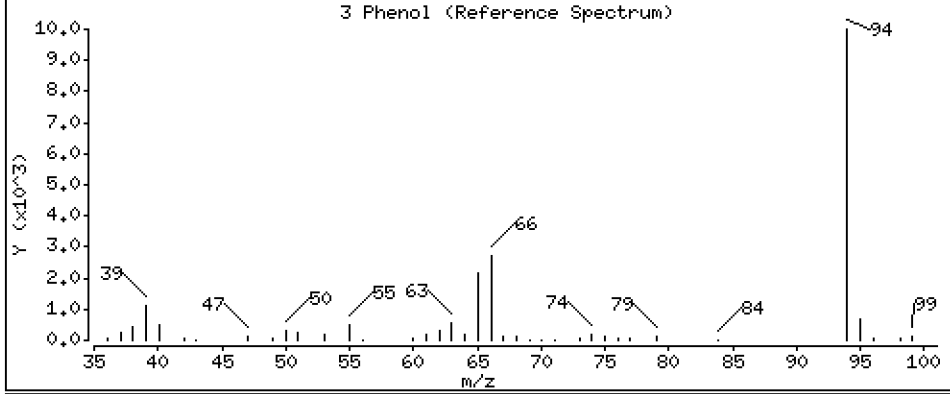
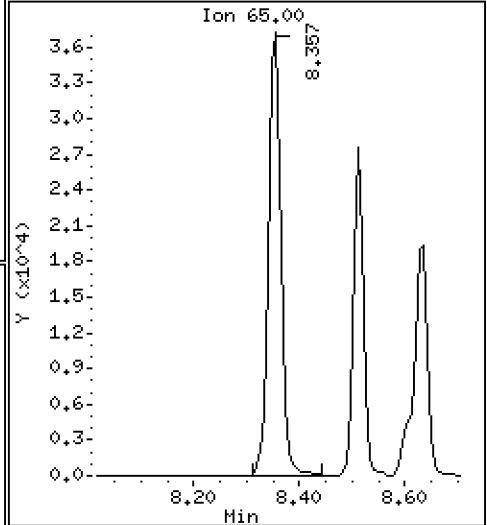
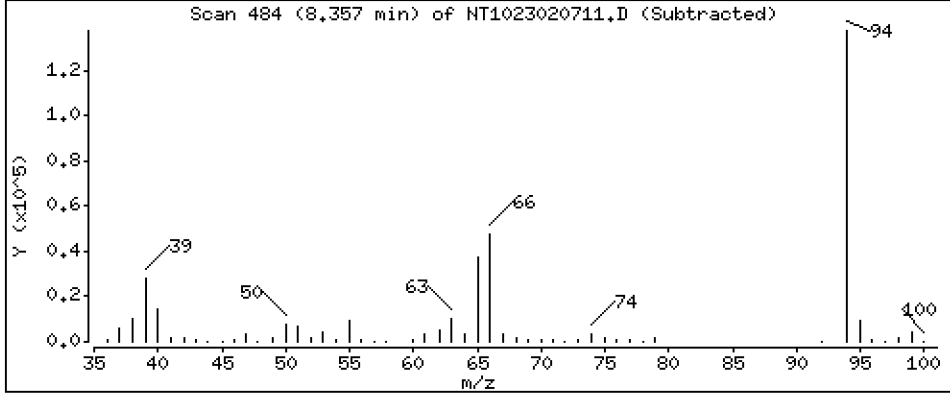
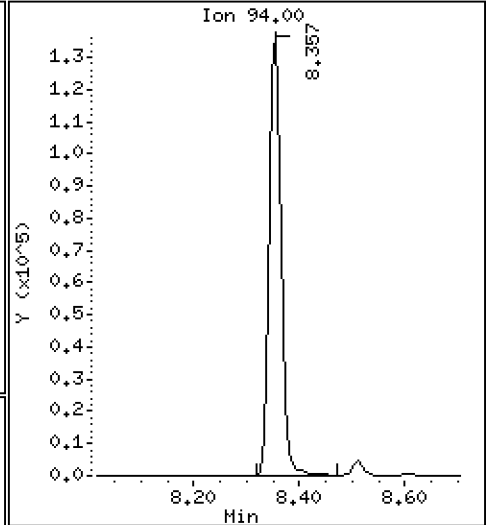
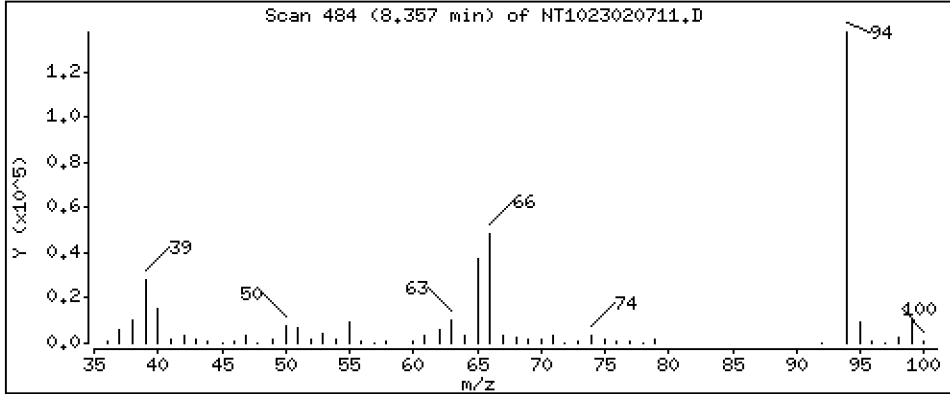
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,107 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

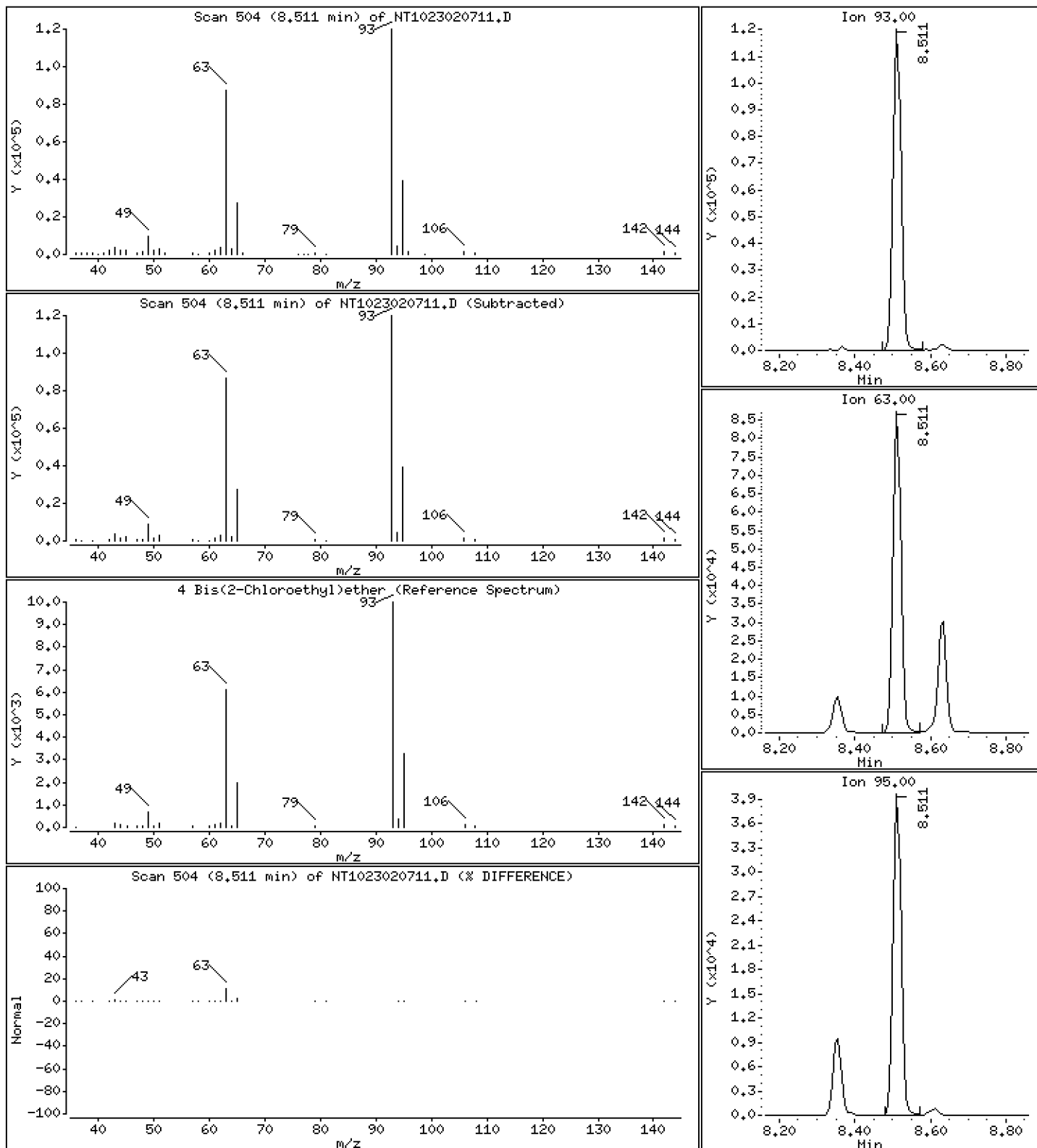
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 4,555 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

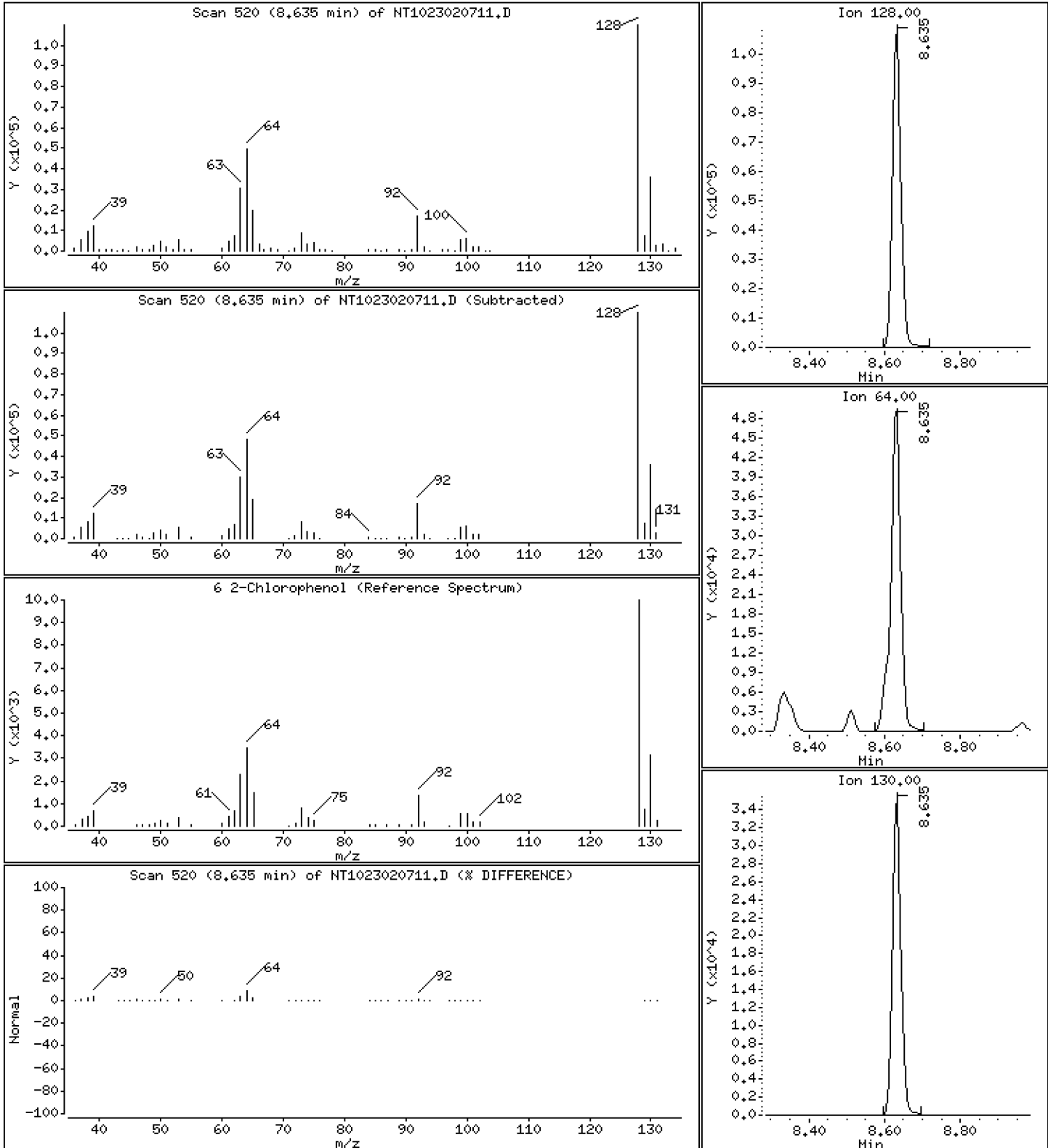
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

6 2-Chlorophenol

Concentration: 4.054 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

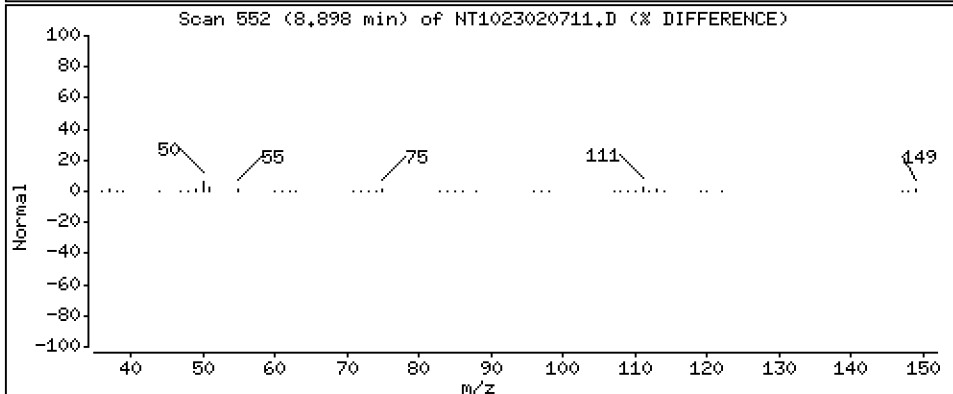
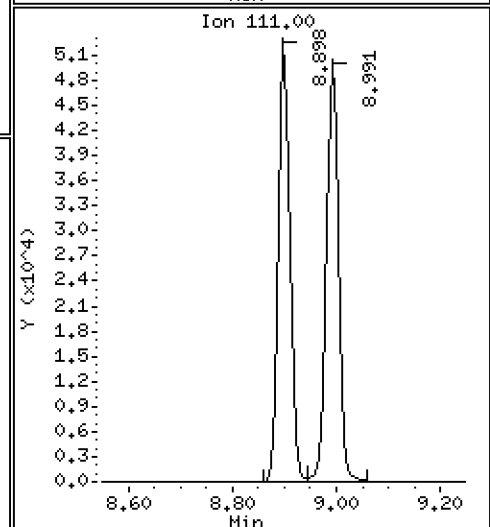
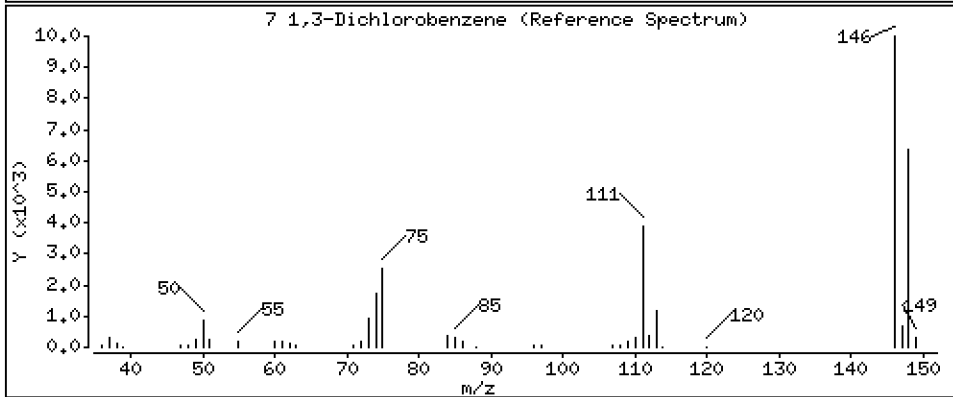
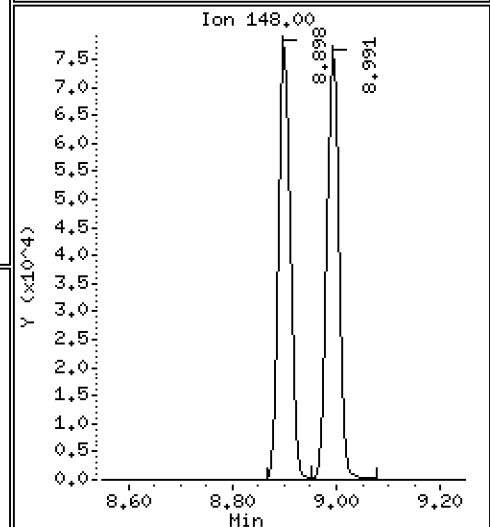
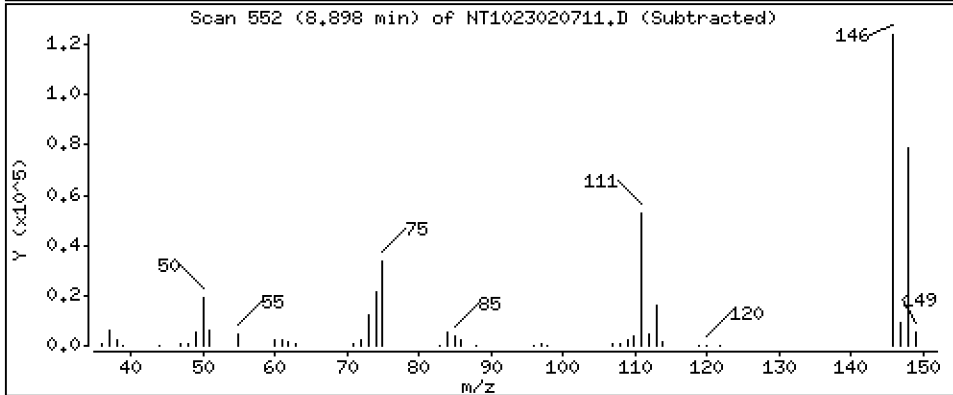
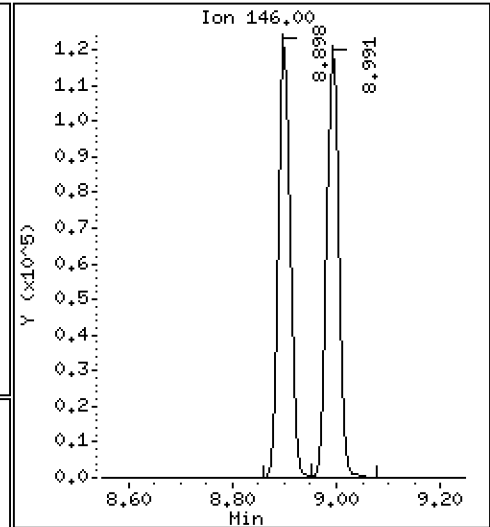
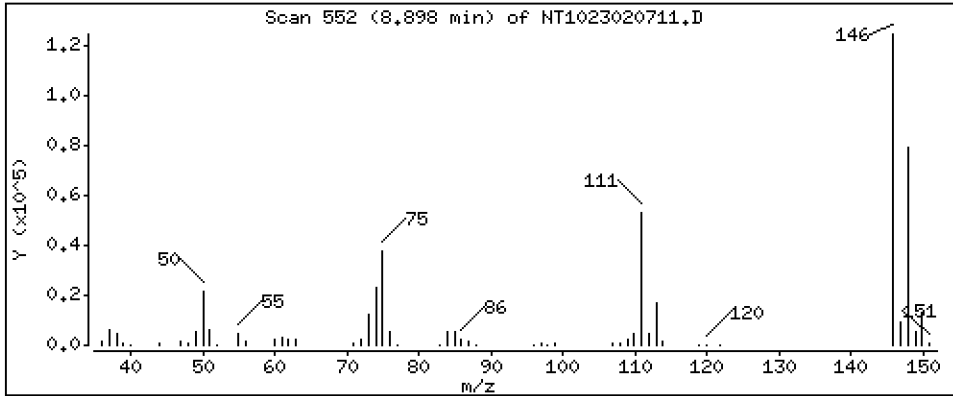
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 4,338 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

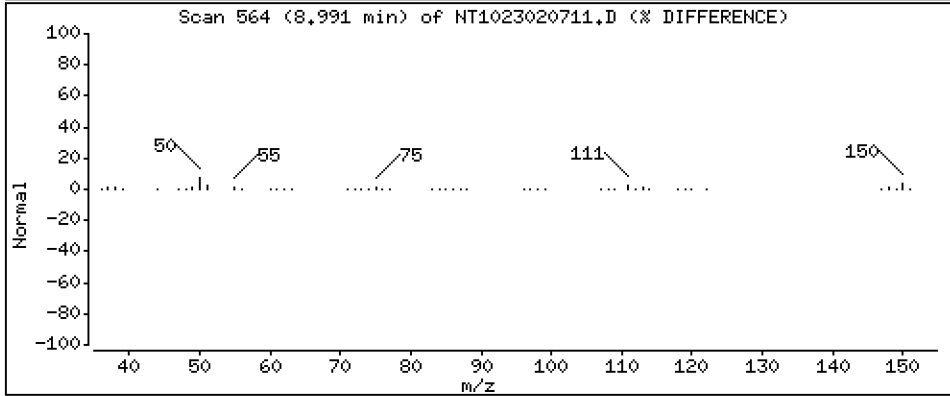
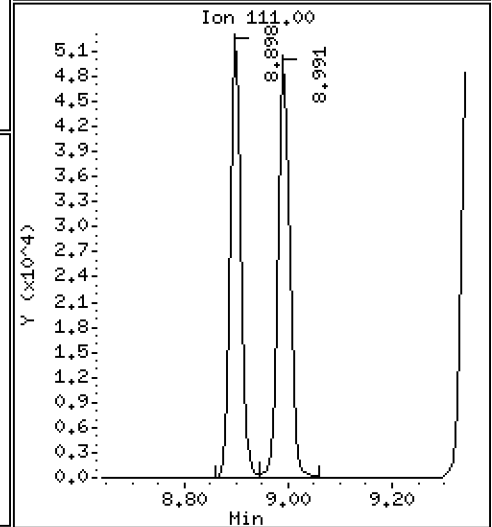
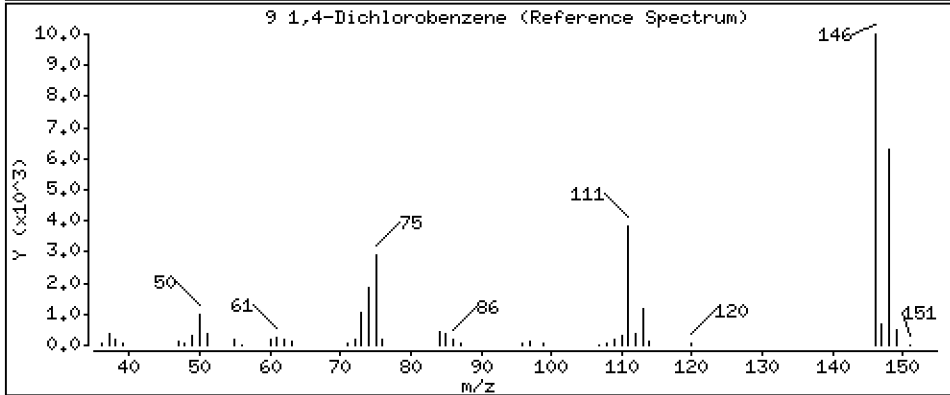
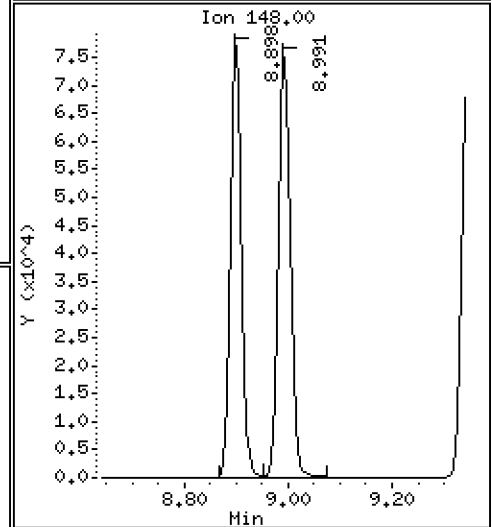
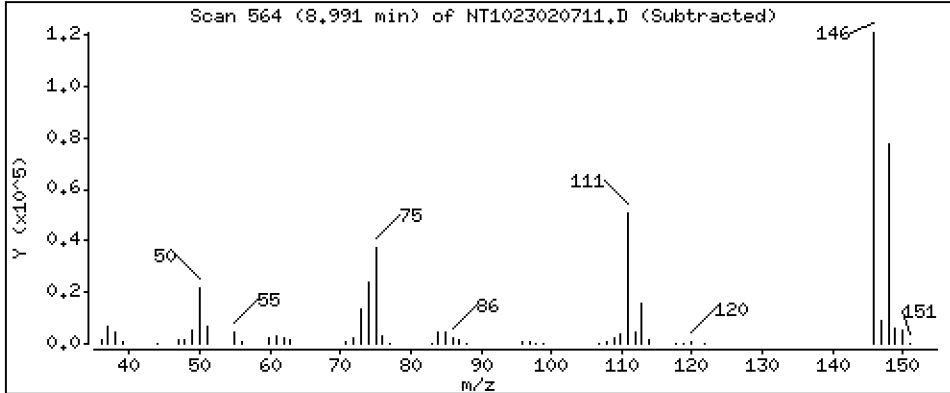
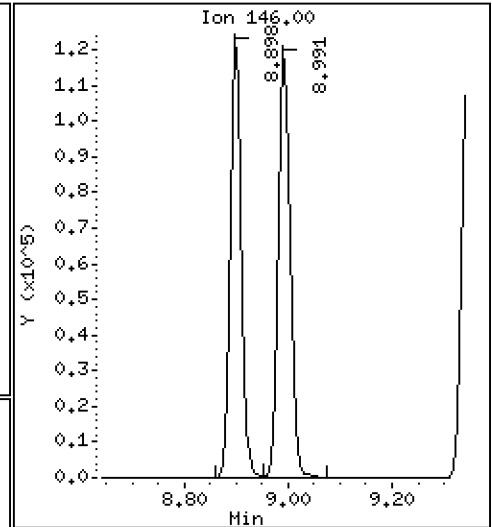
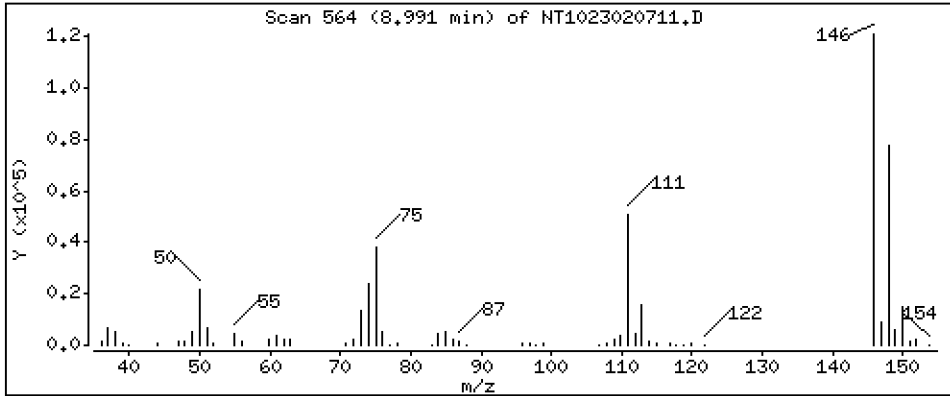
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 4,349 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

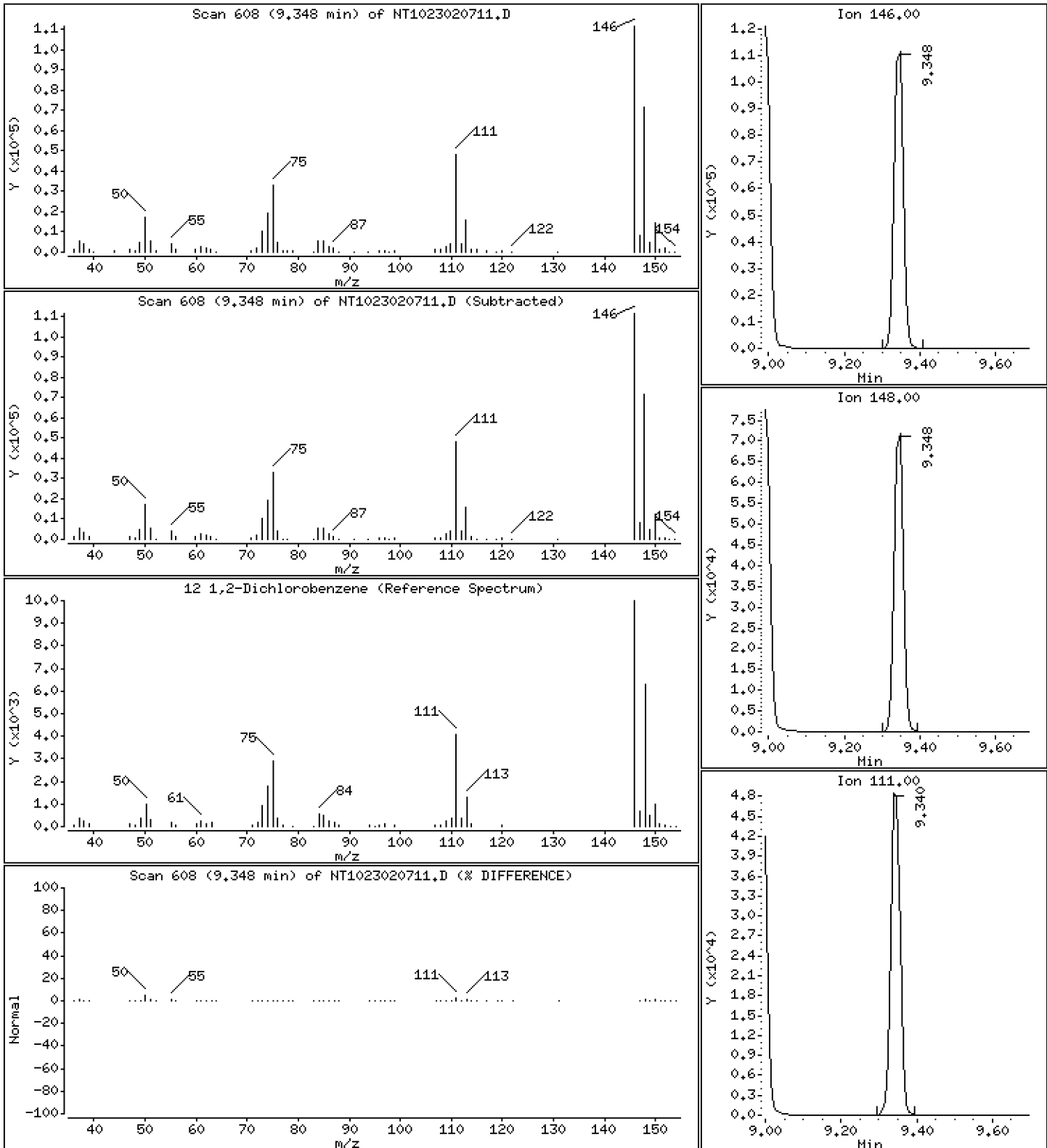
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 4,379 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

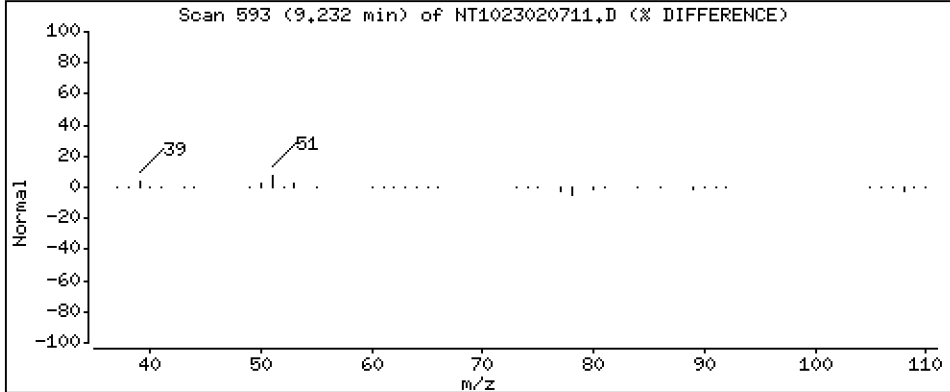
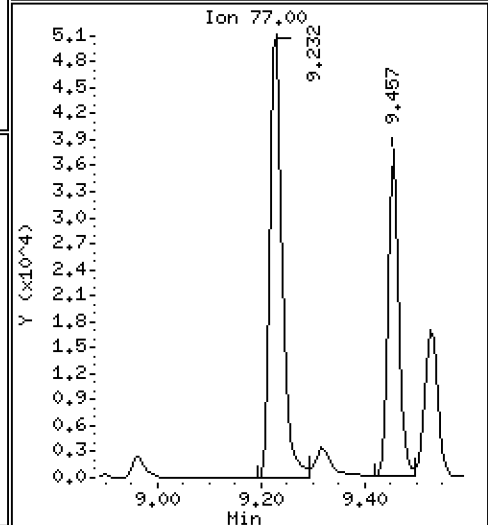
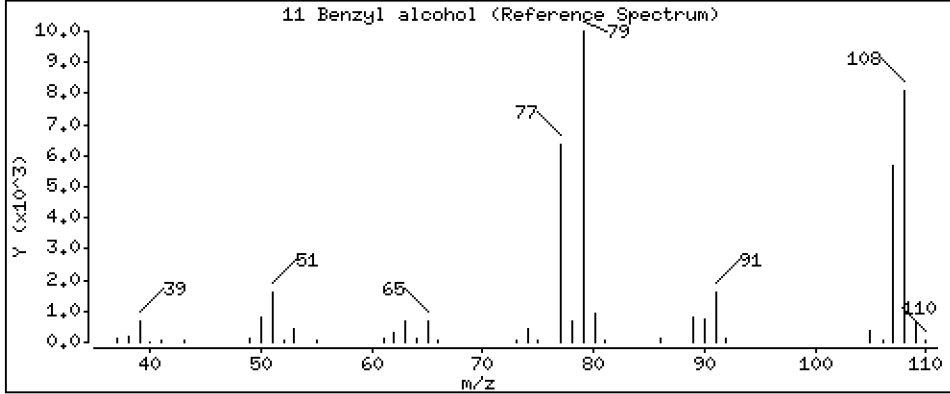
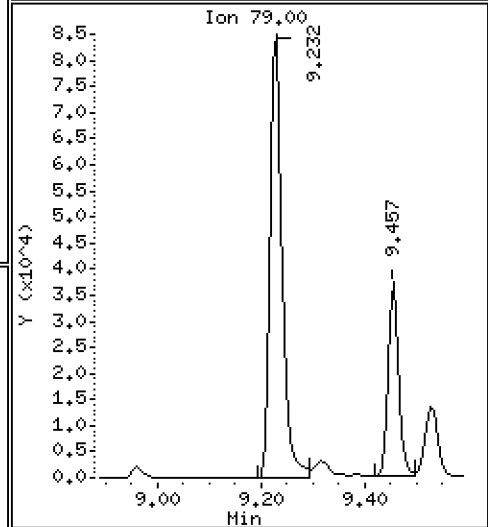
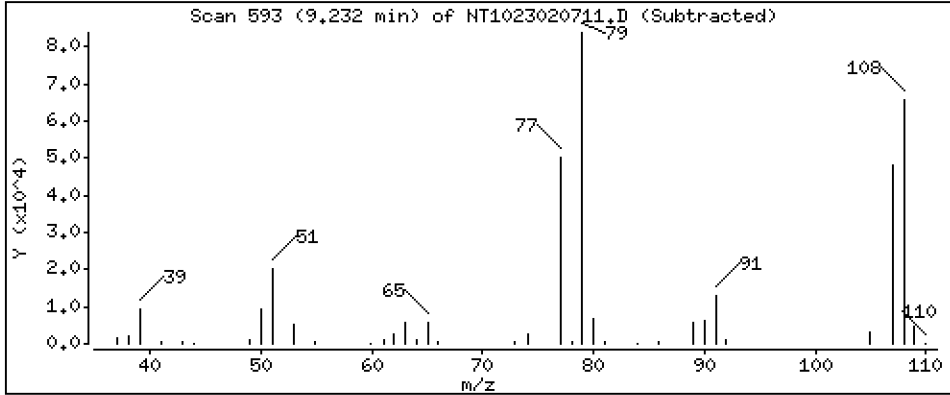
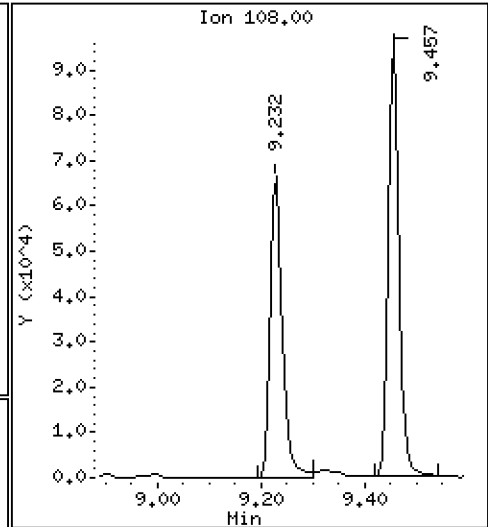
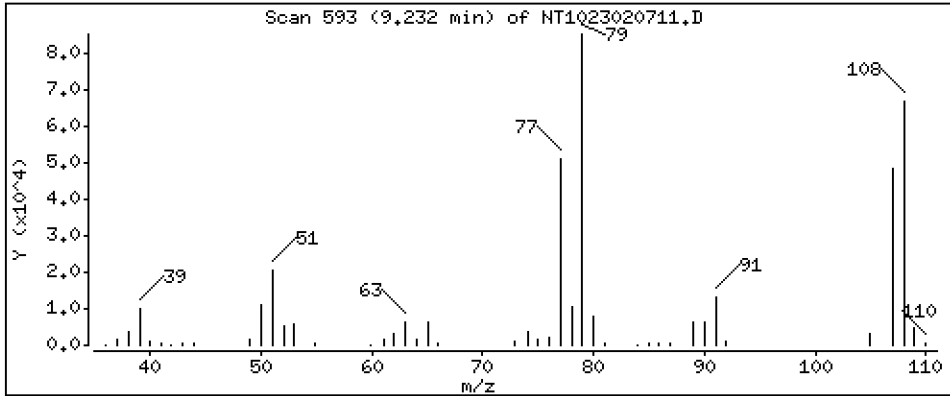
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 4.837 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

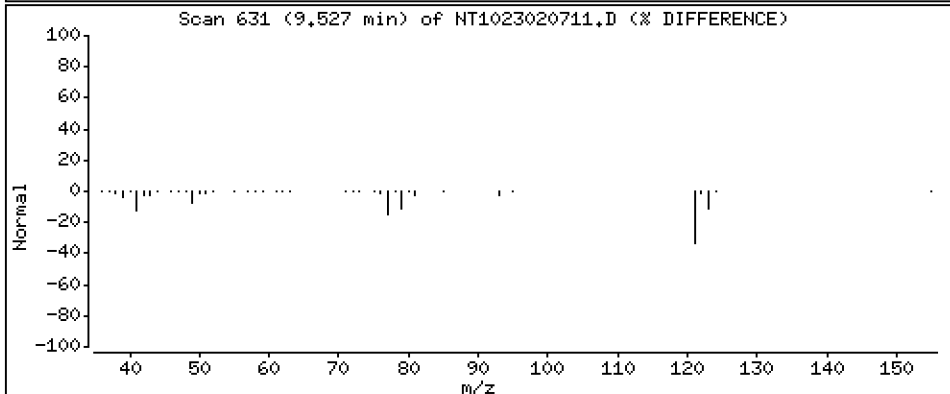
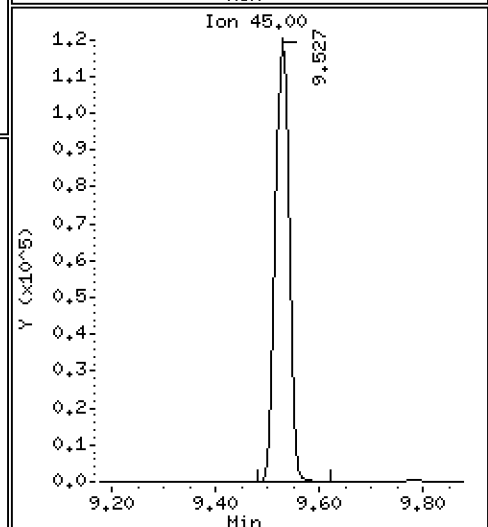
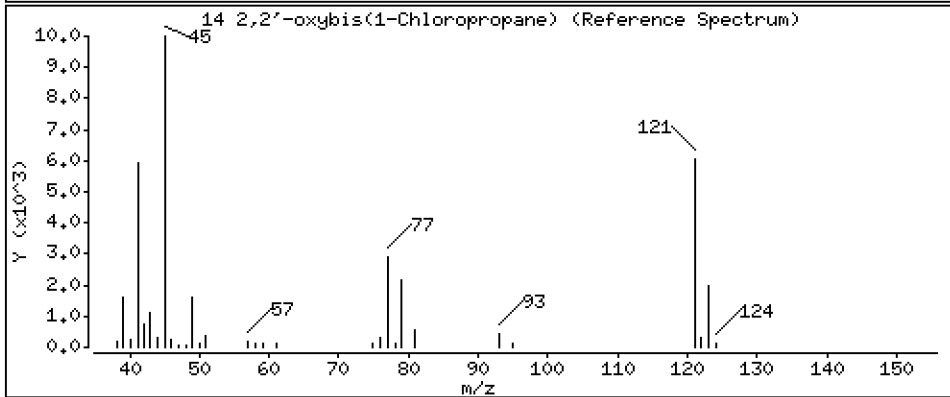
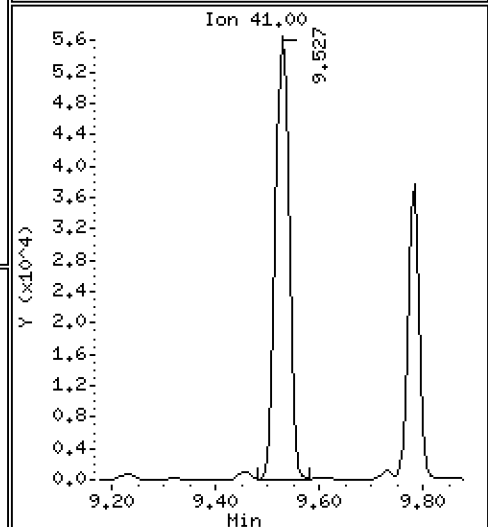
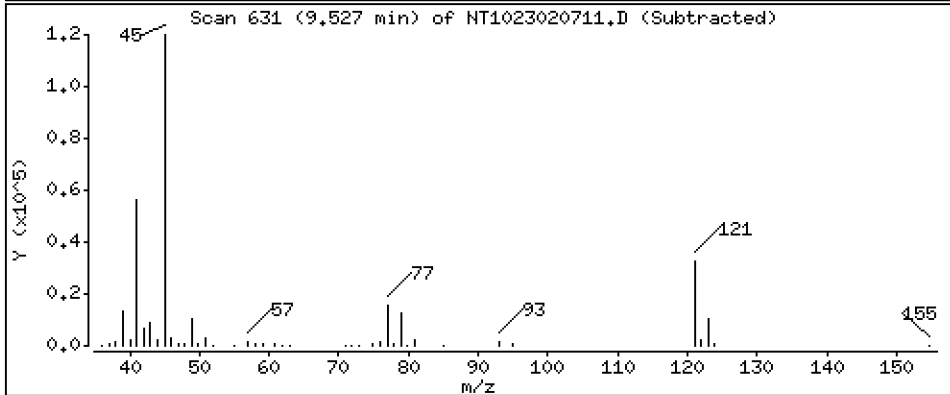
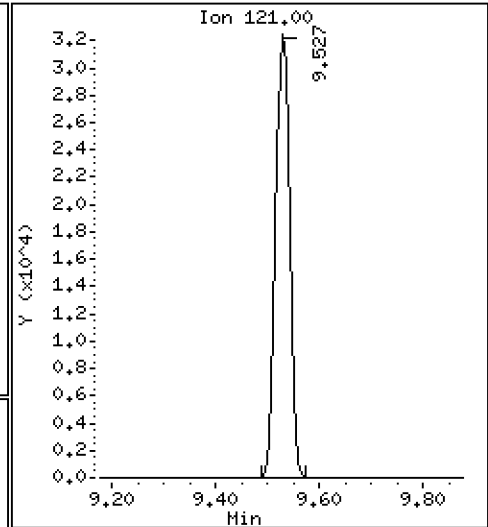
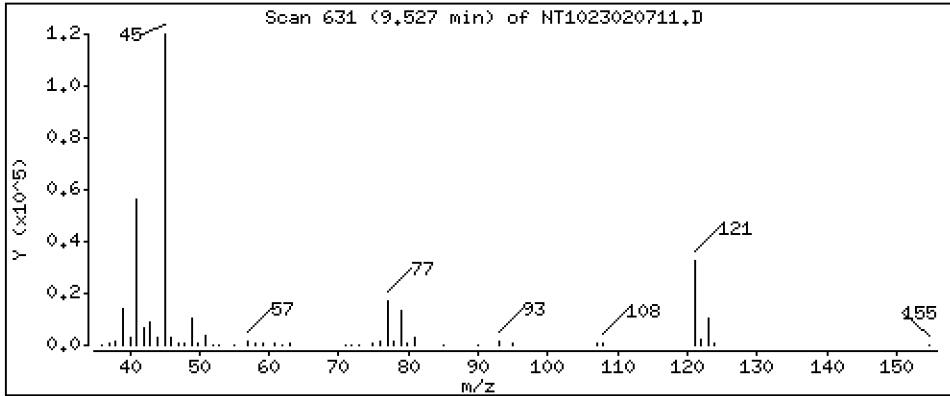
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 5.002 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

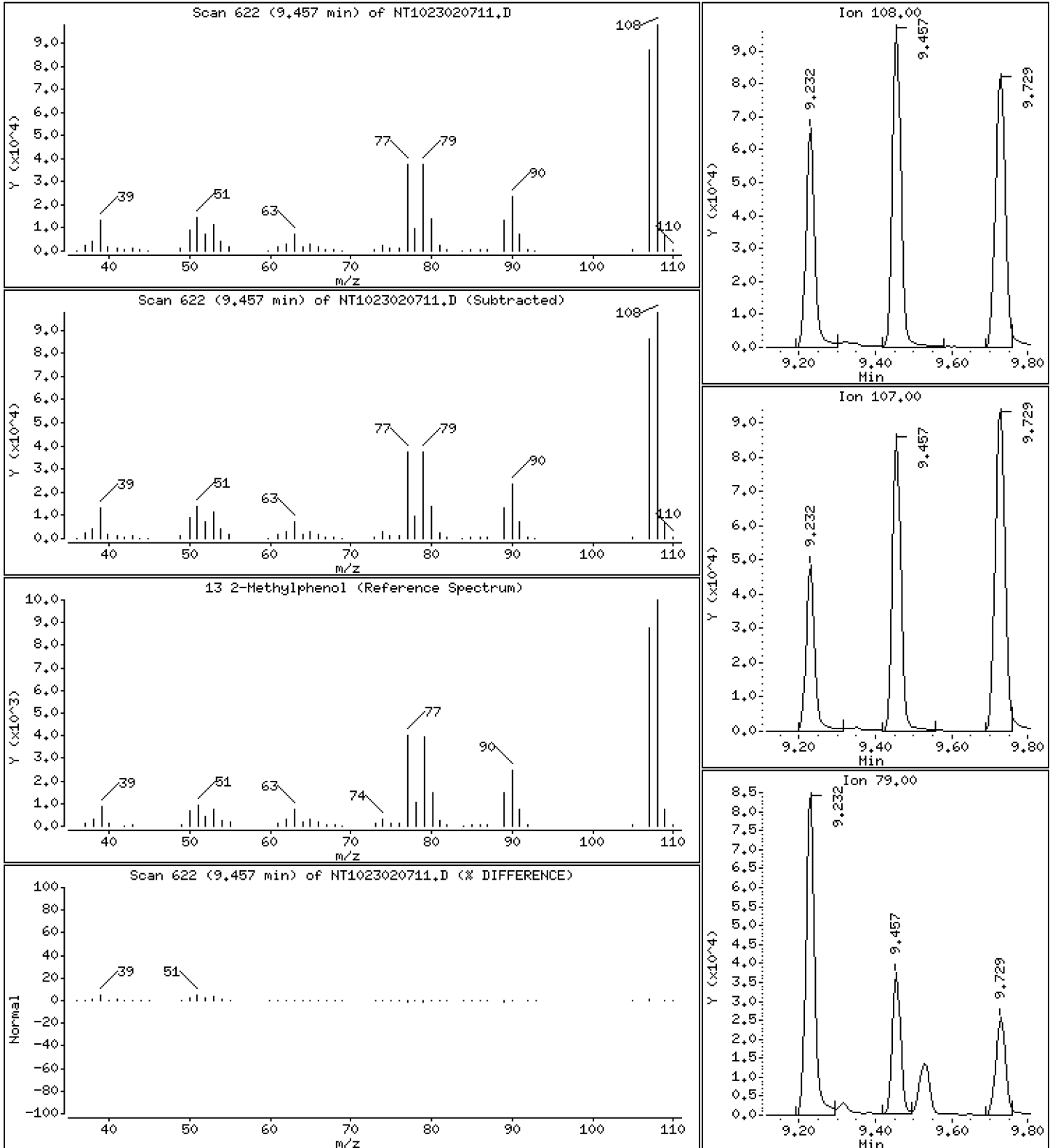
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 3.829 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

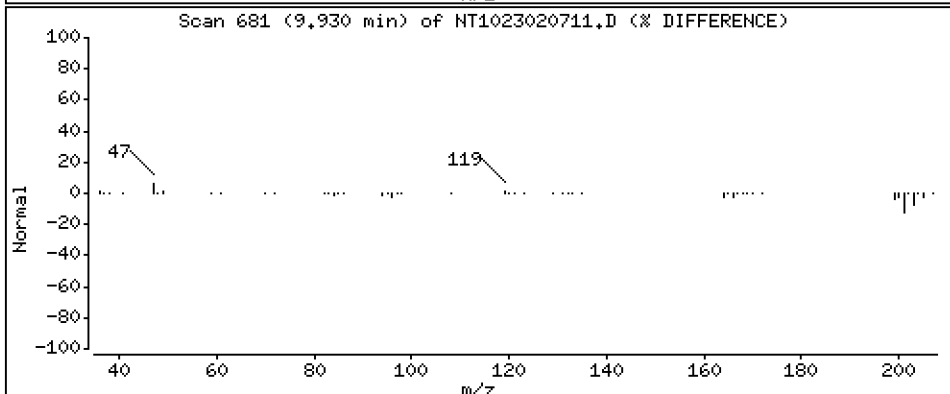
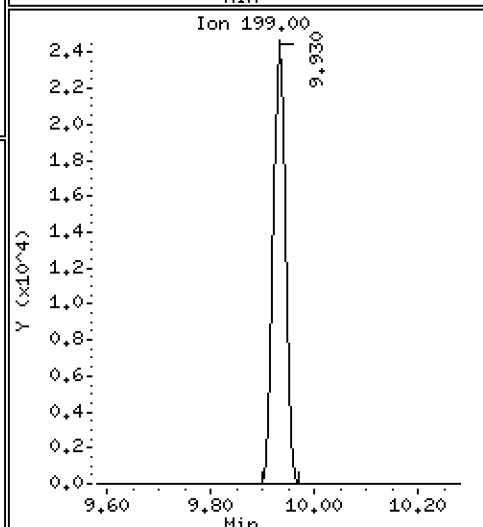
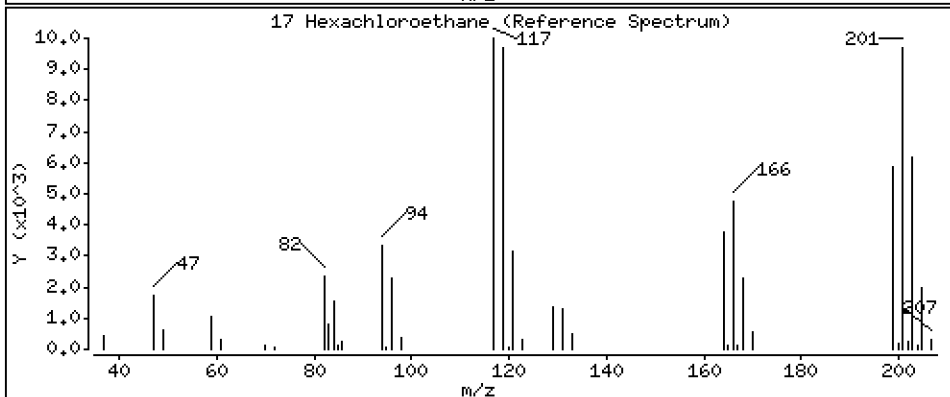
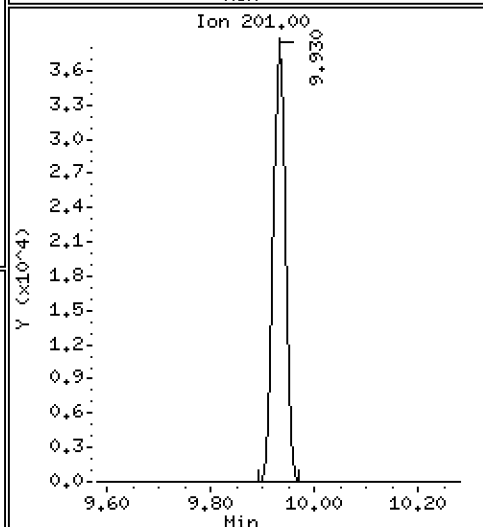
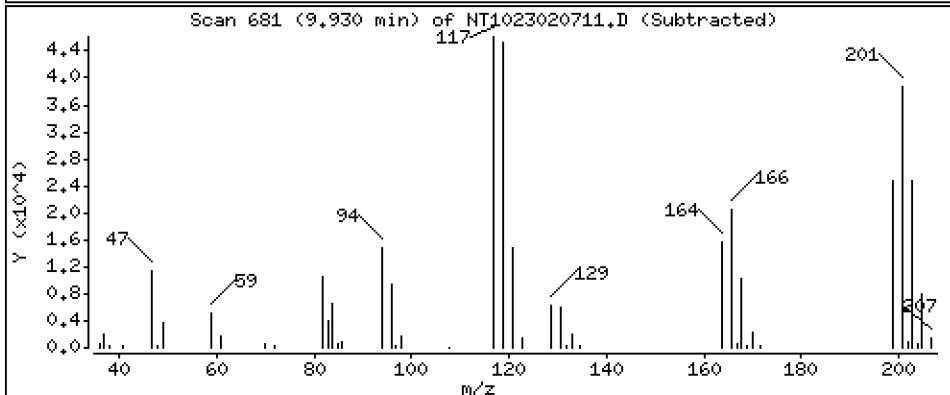
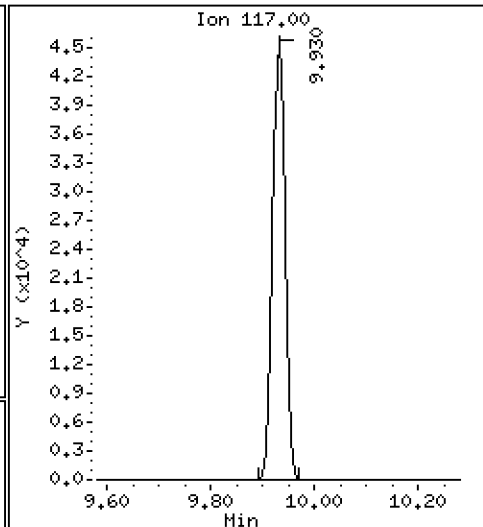
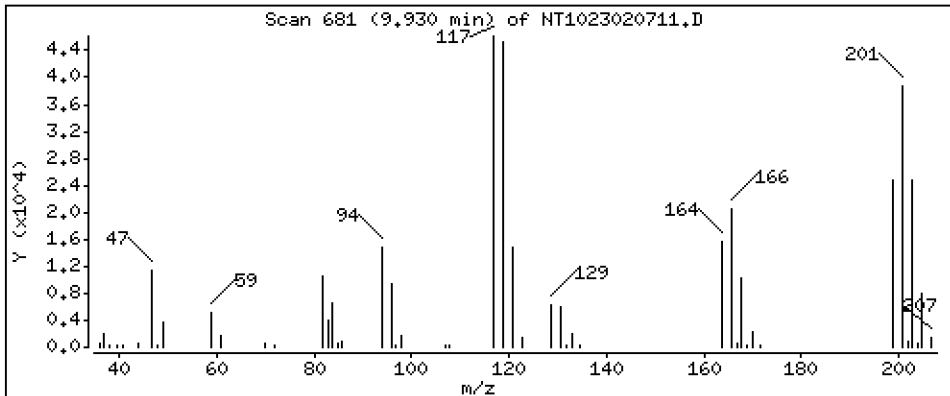
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

17 Hexachloroethane

Concentration: 4.438 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

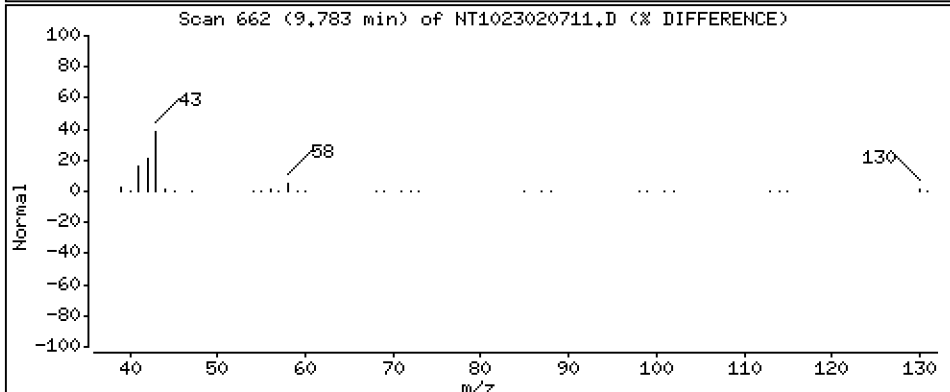
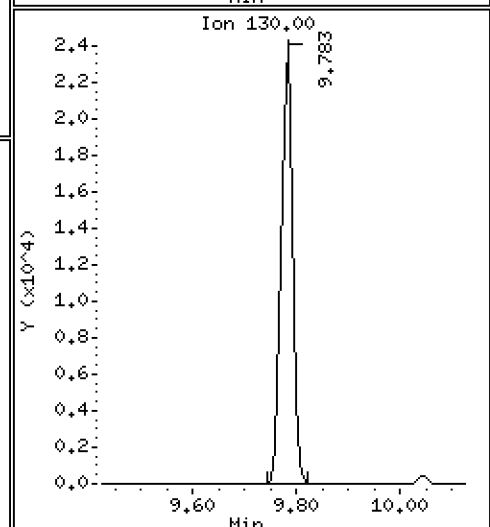
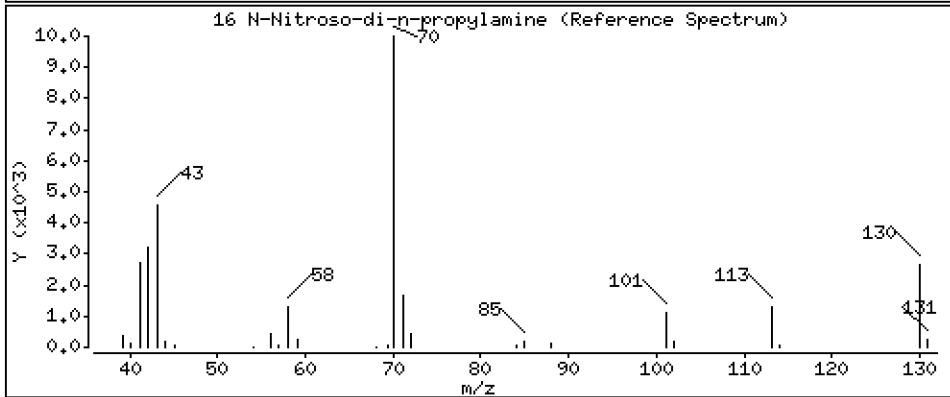
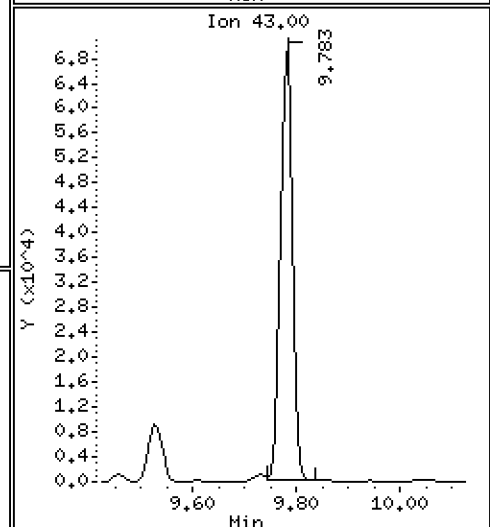
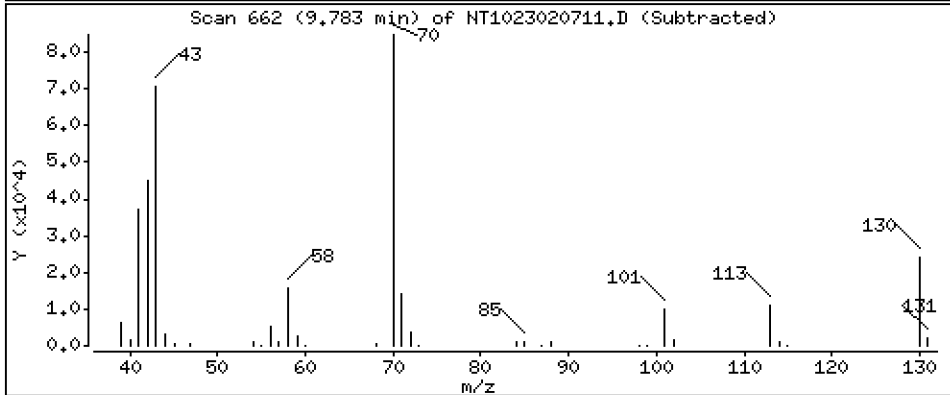
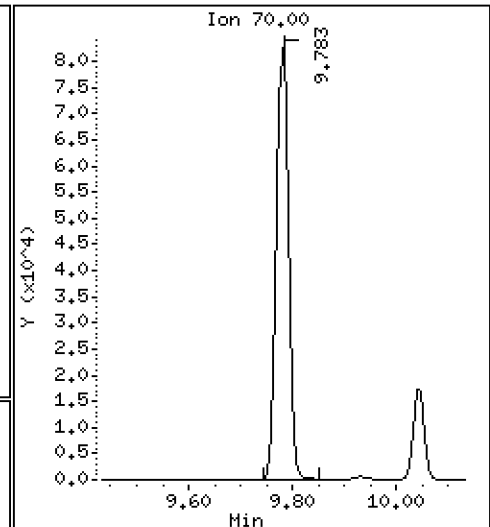
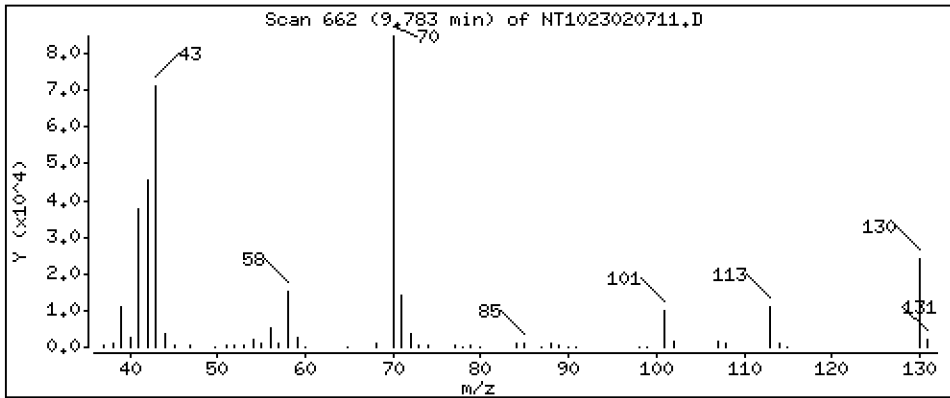
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 4.562 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

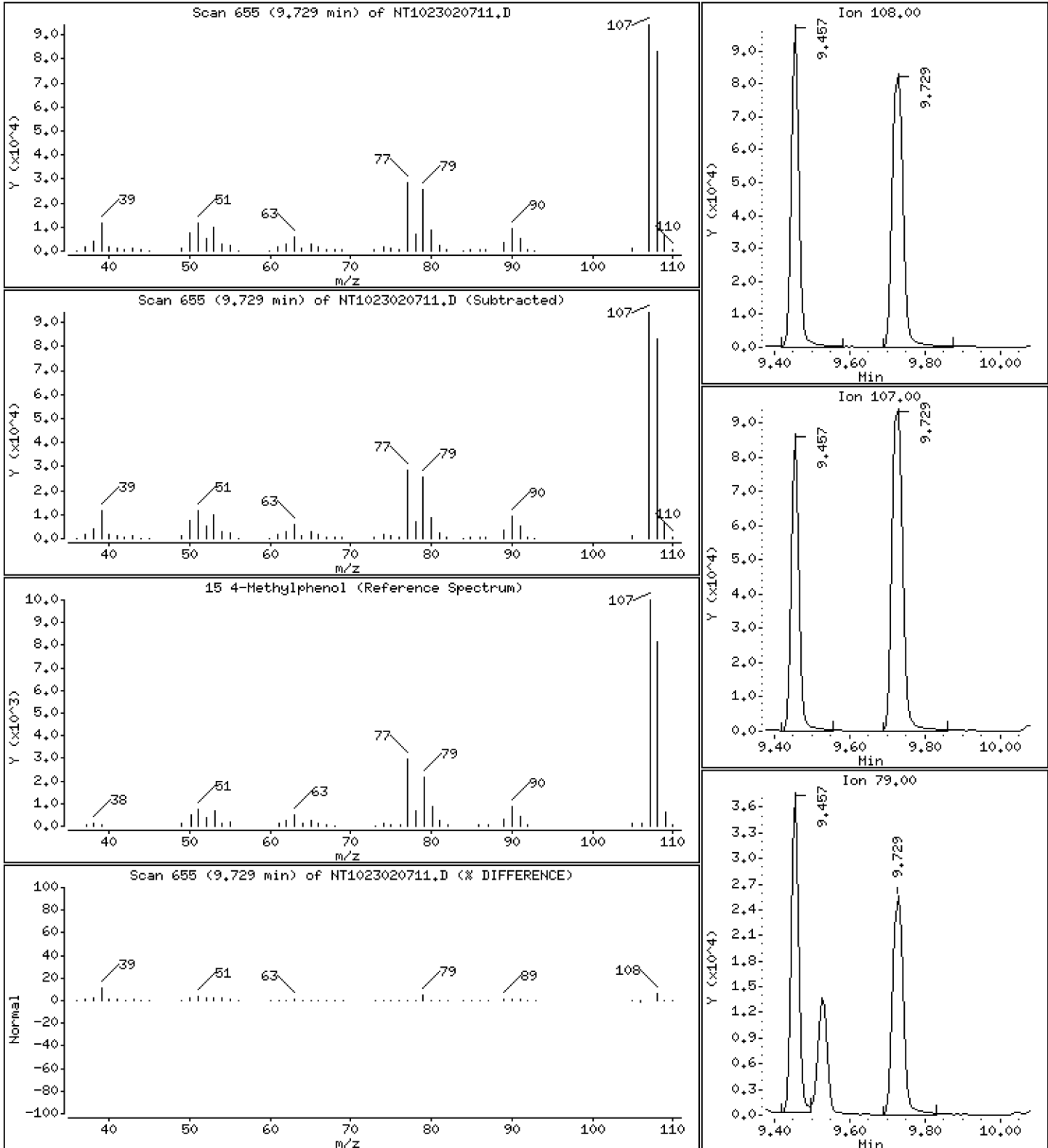
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,948 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

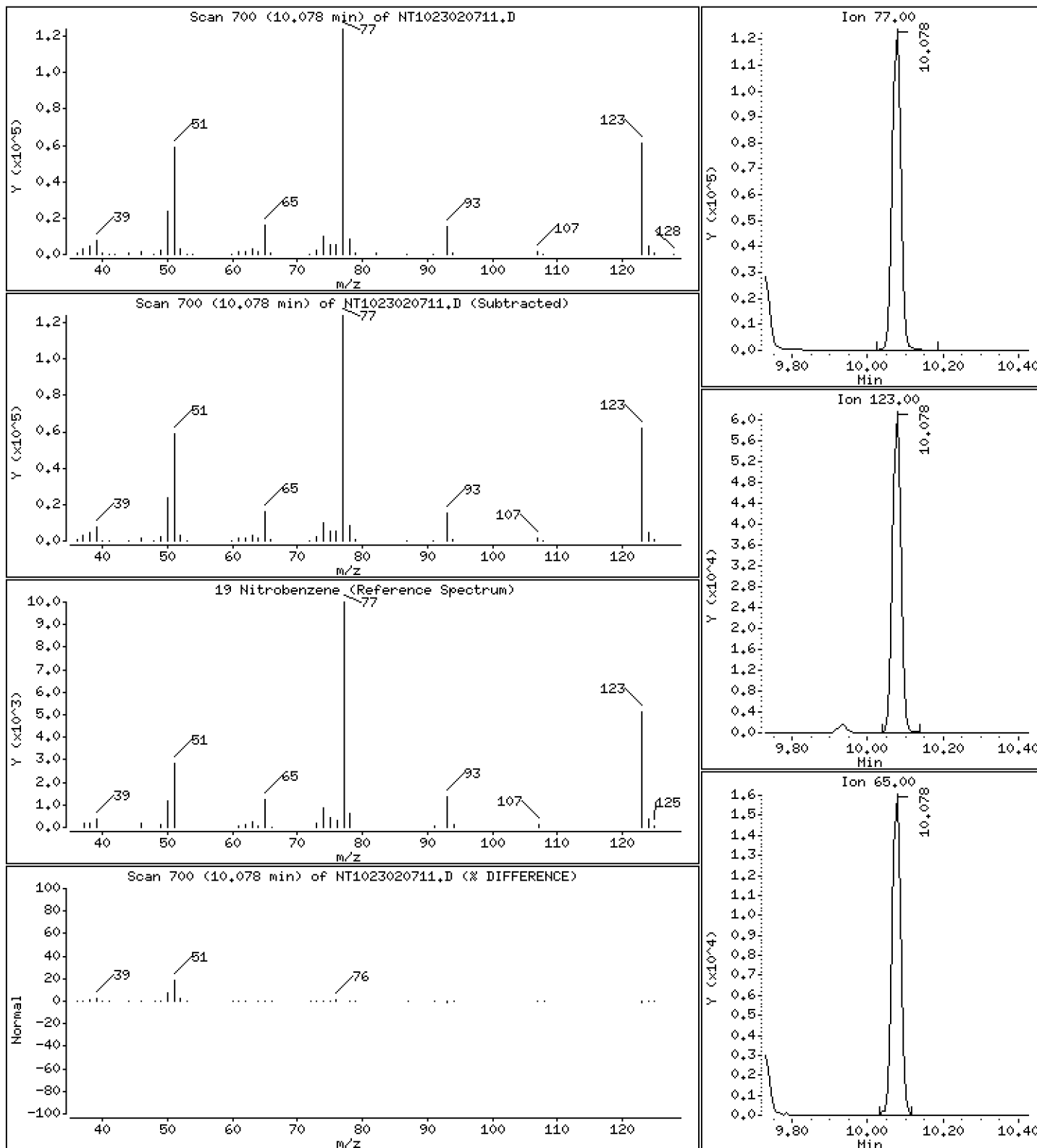
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 4,399 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

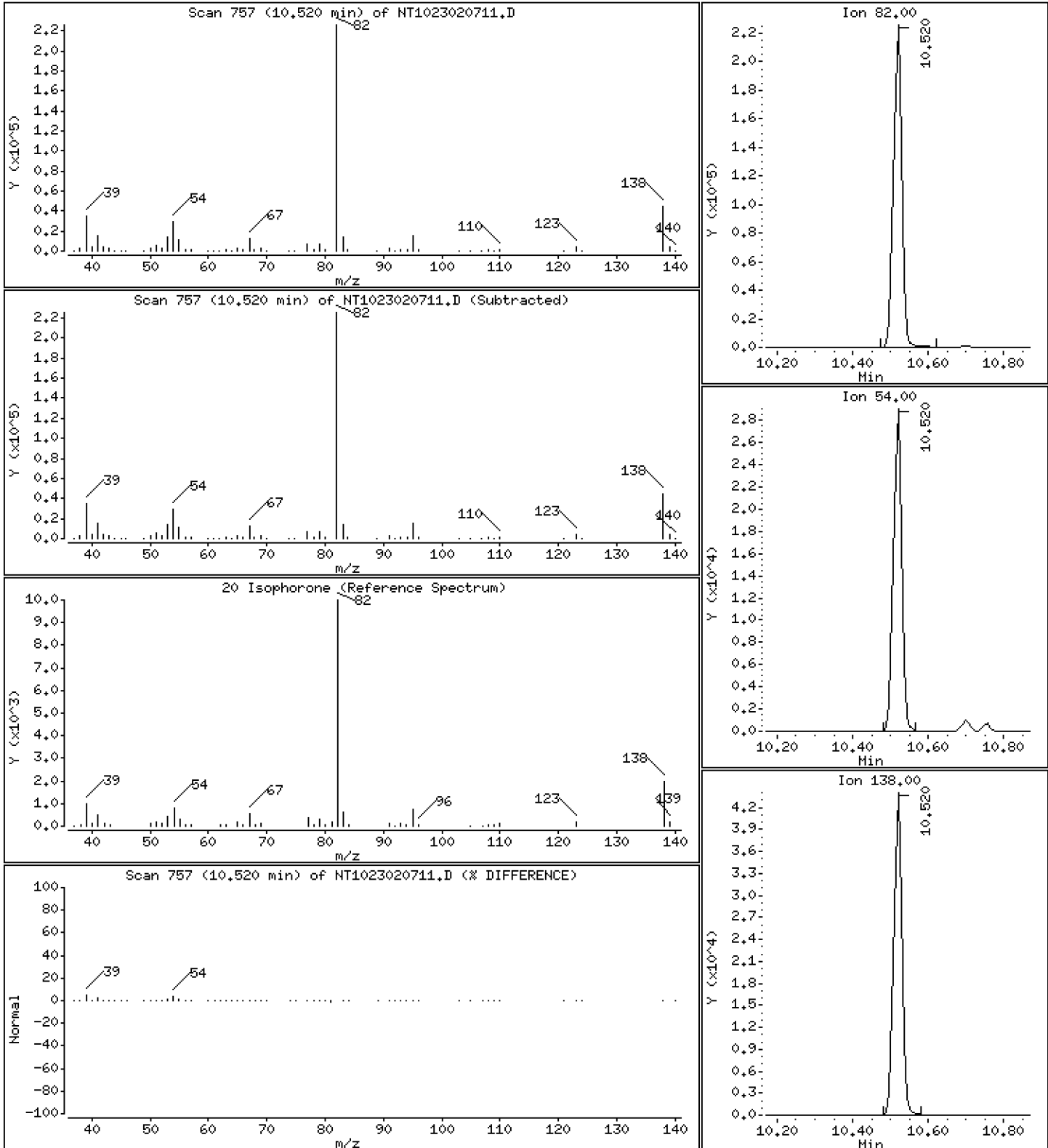
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

20 Isophorone

Concentration: 6.405 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

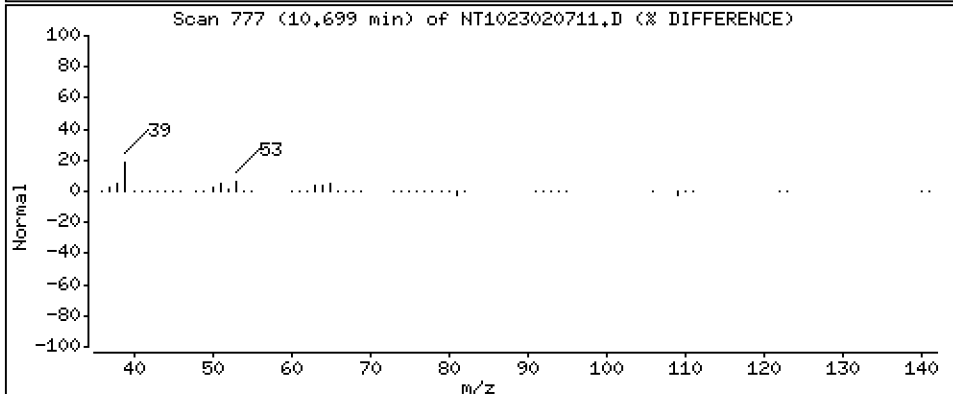
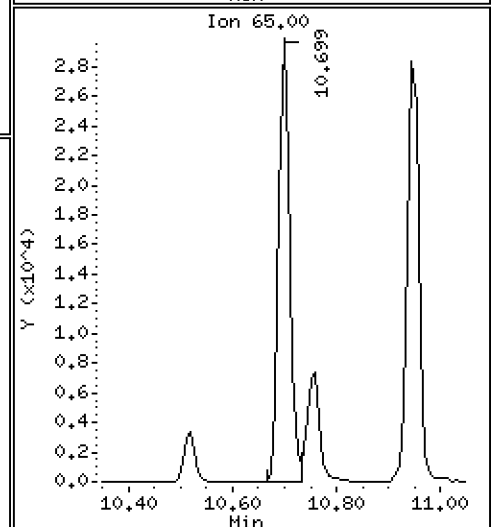
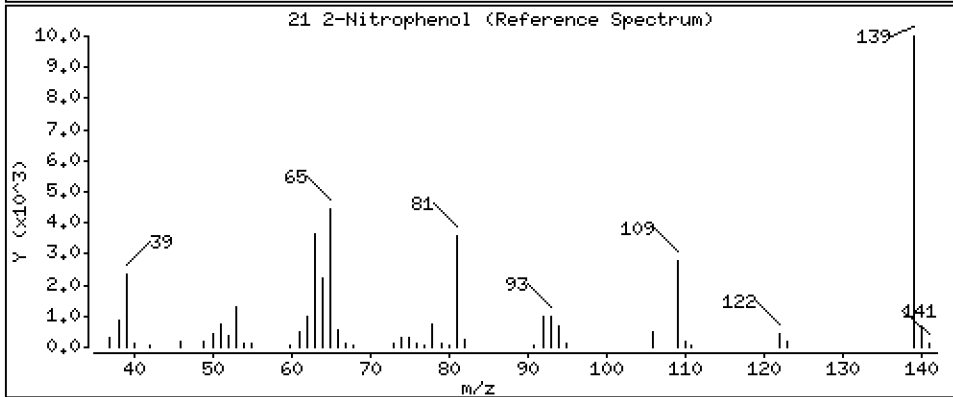
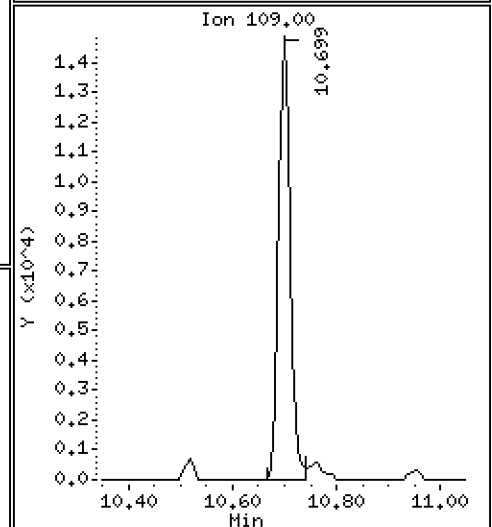
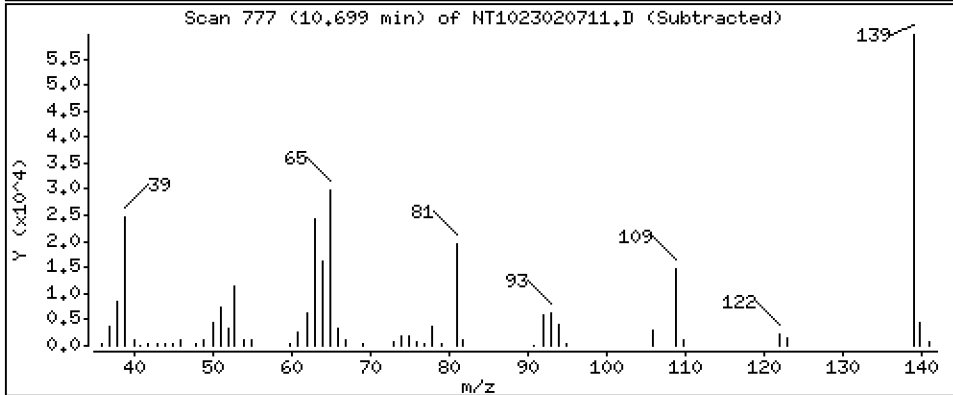
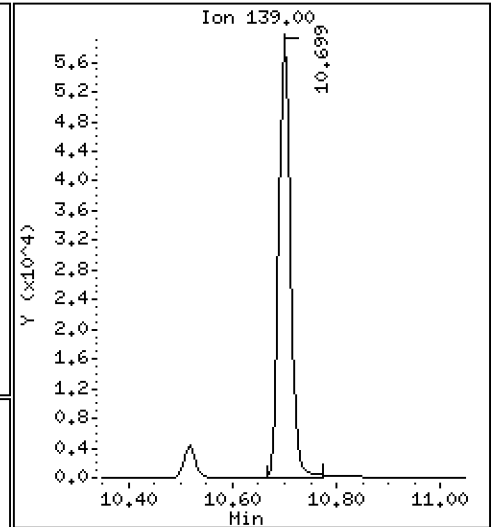
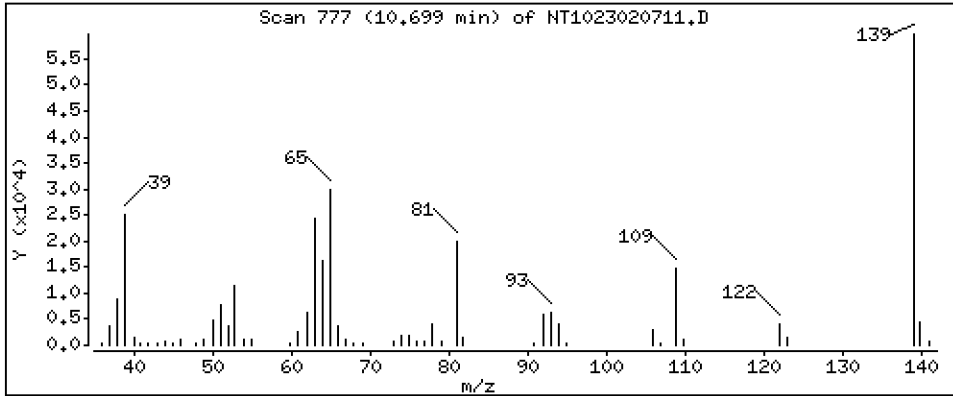
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 4,242 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

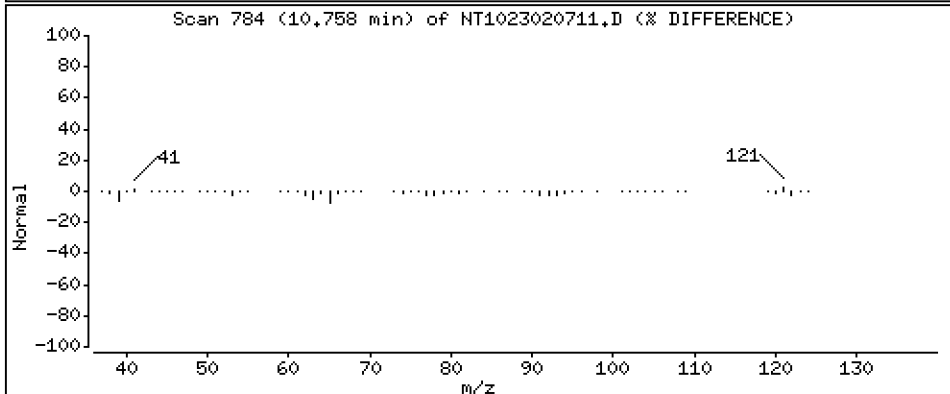
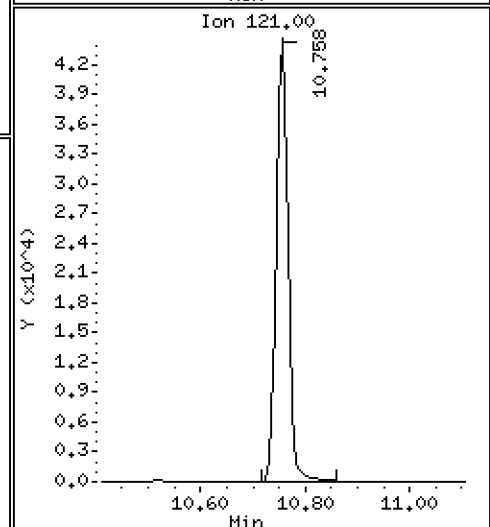
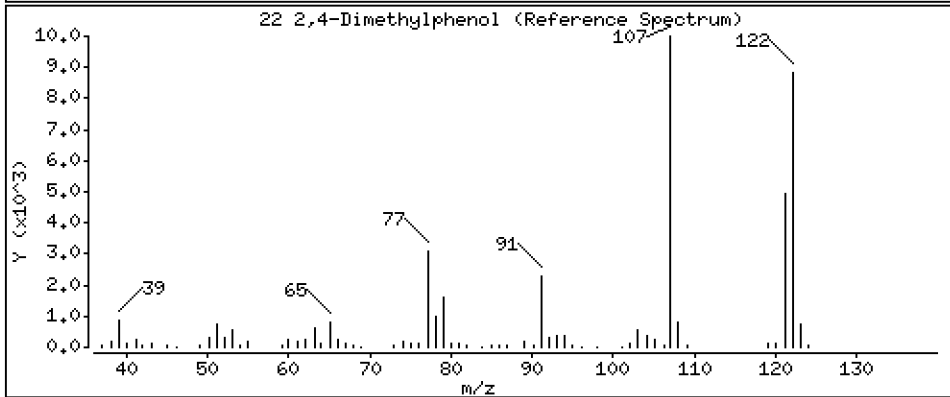
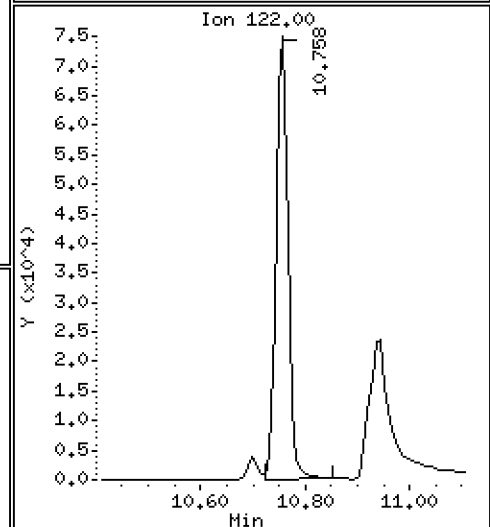
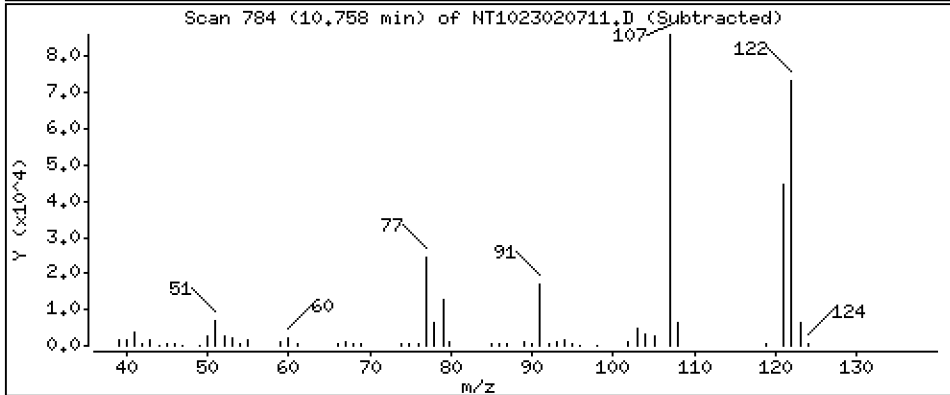
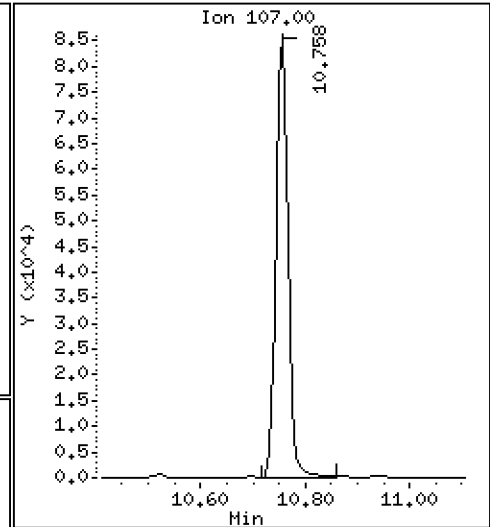
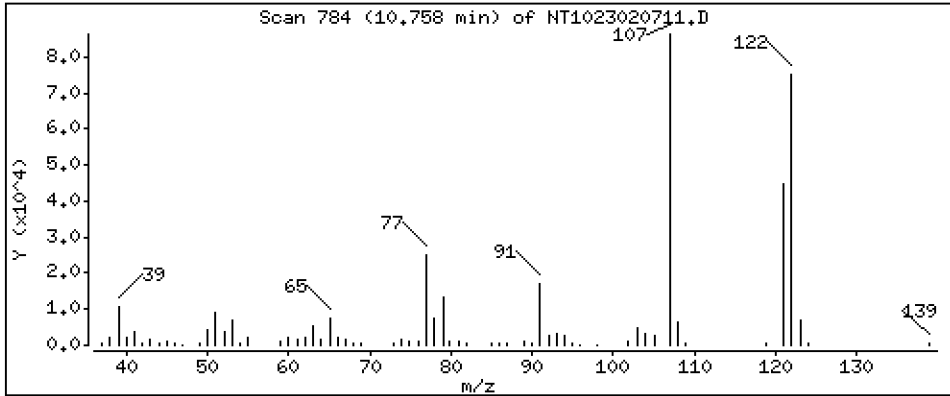
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,536 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

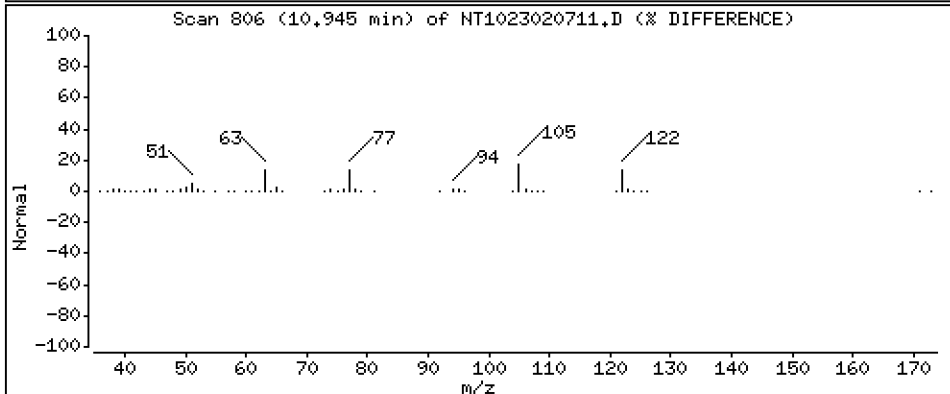
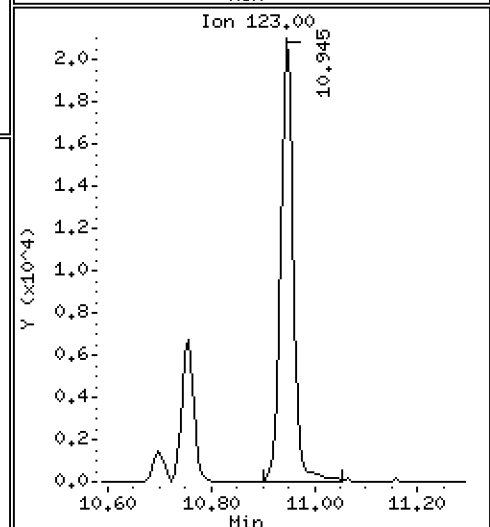
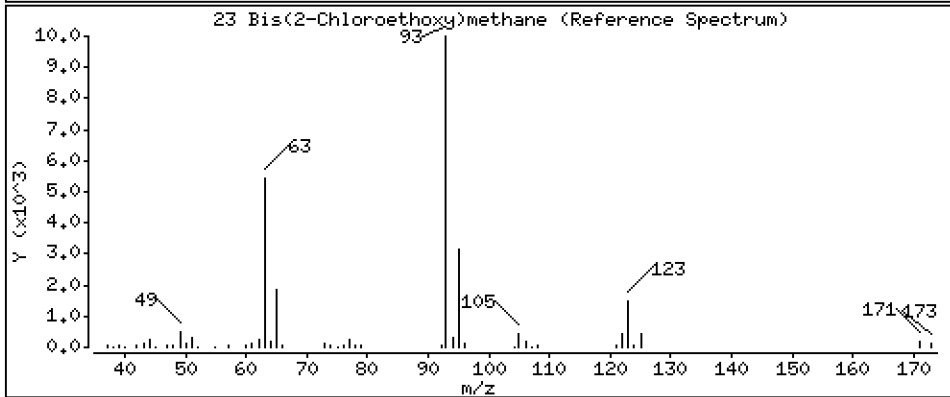
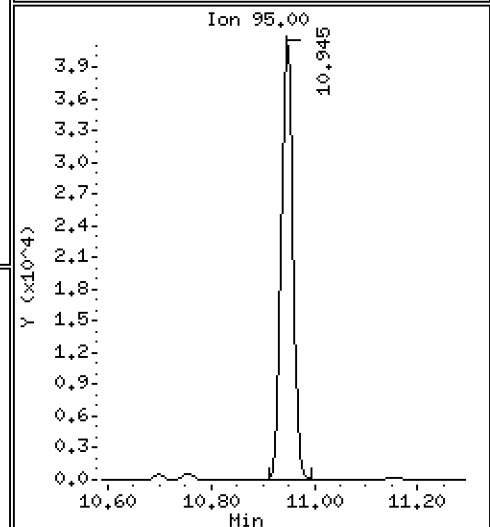
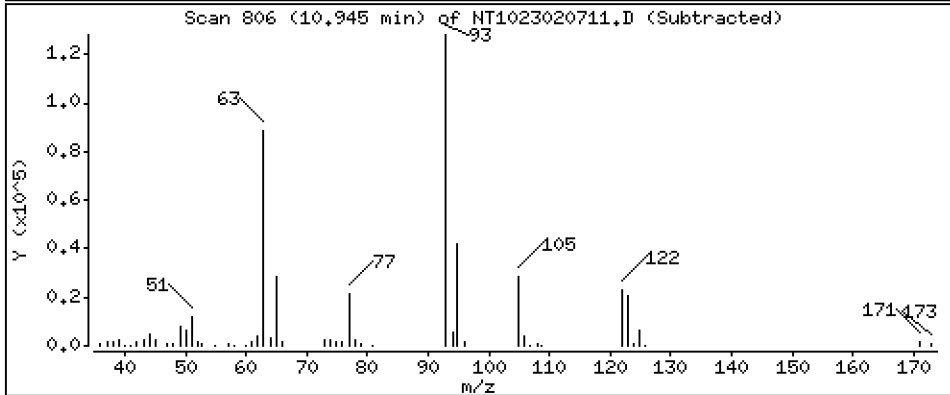
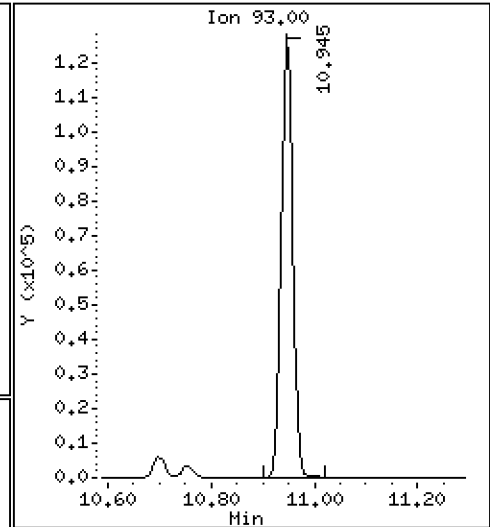
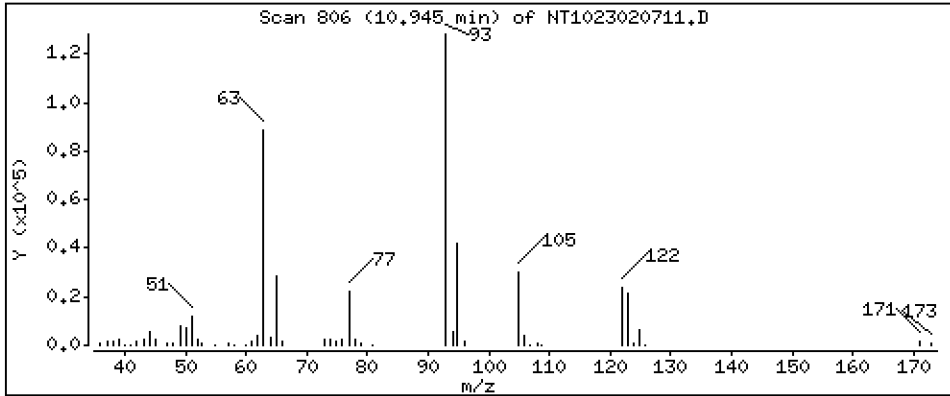
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 5,106 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

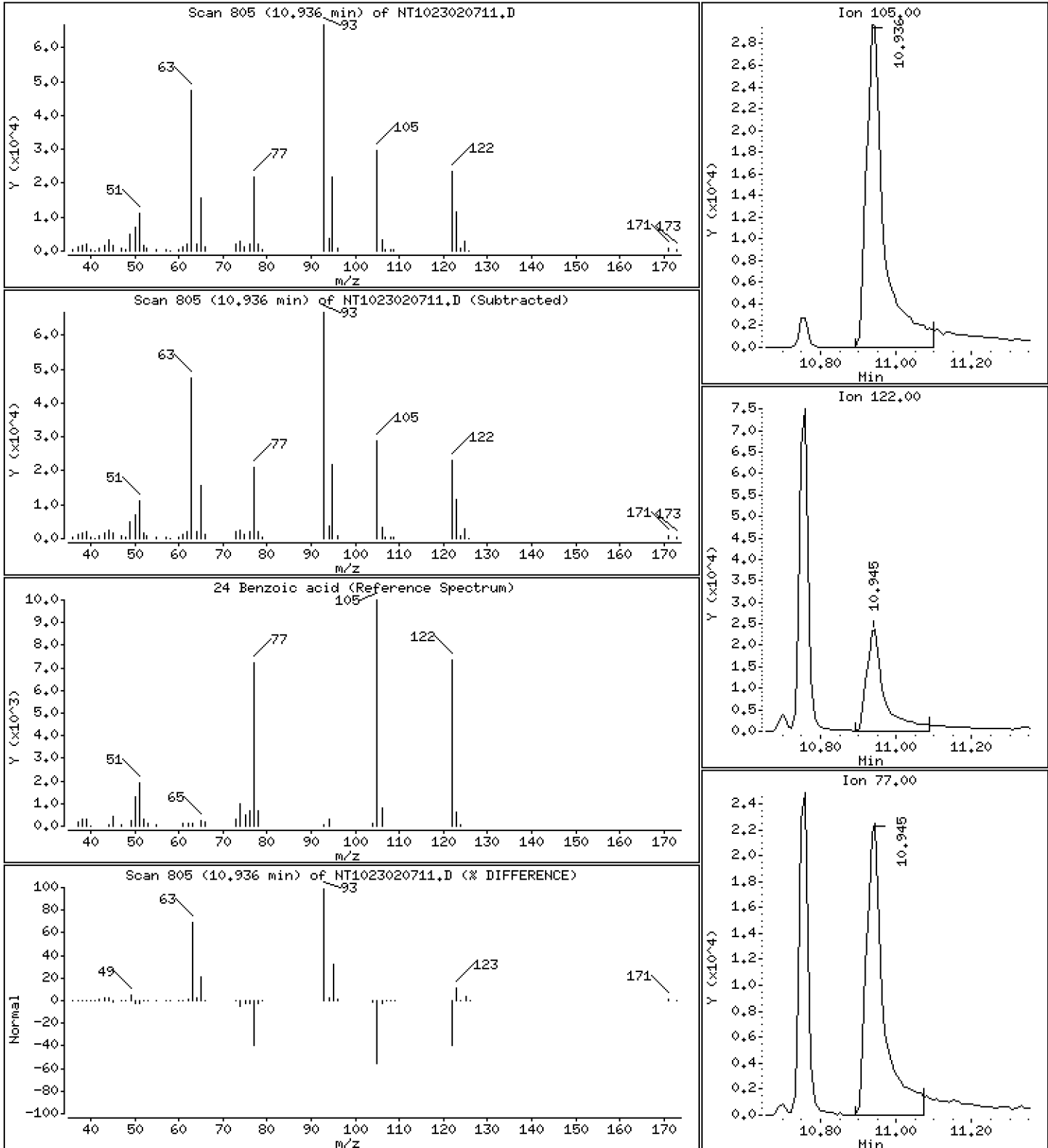
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 4.410 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

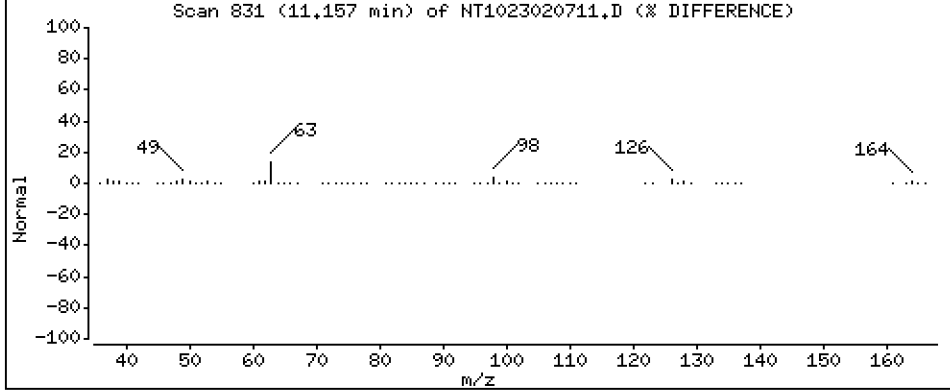
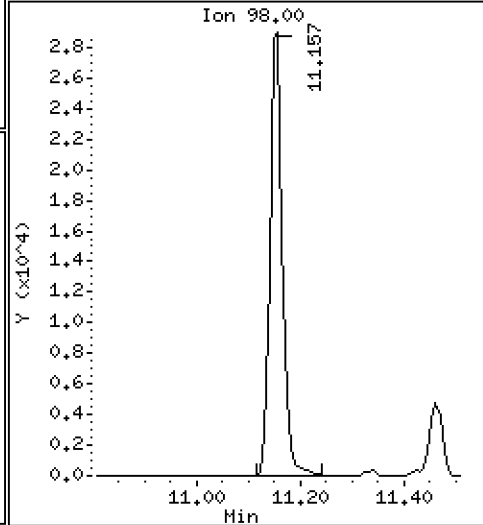
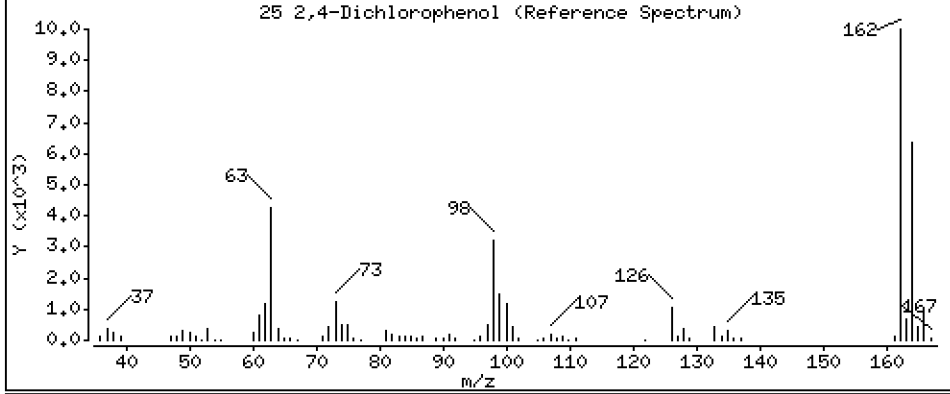
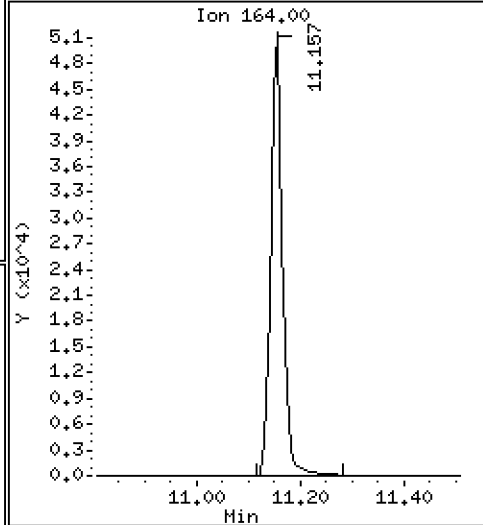
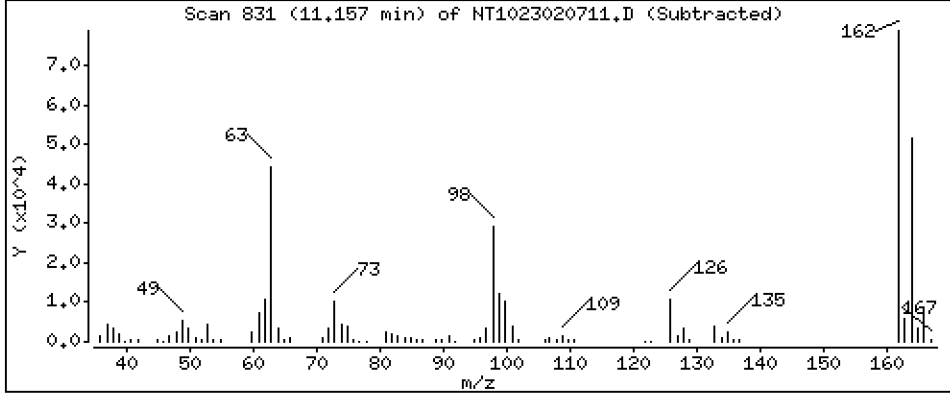
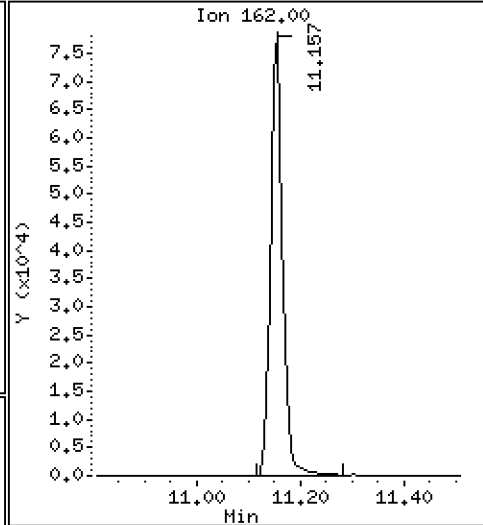
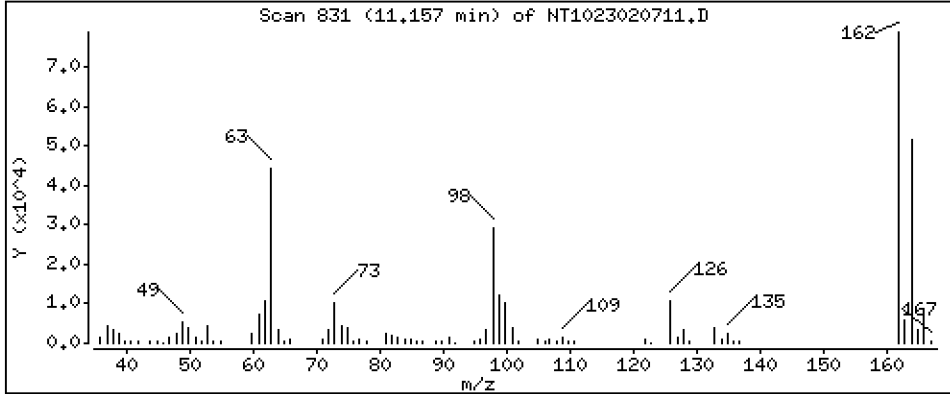
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,574 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

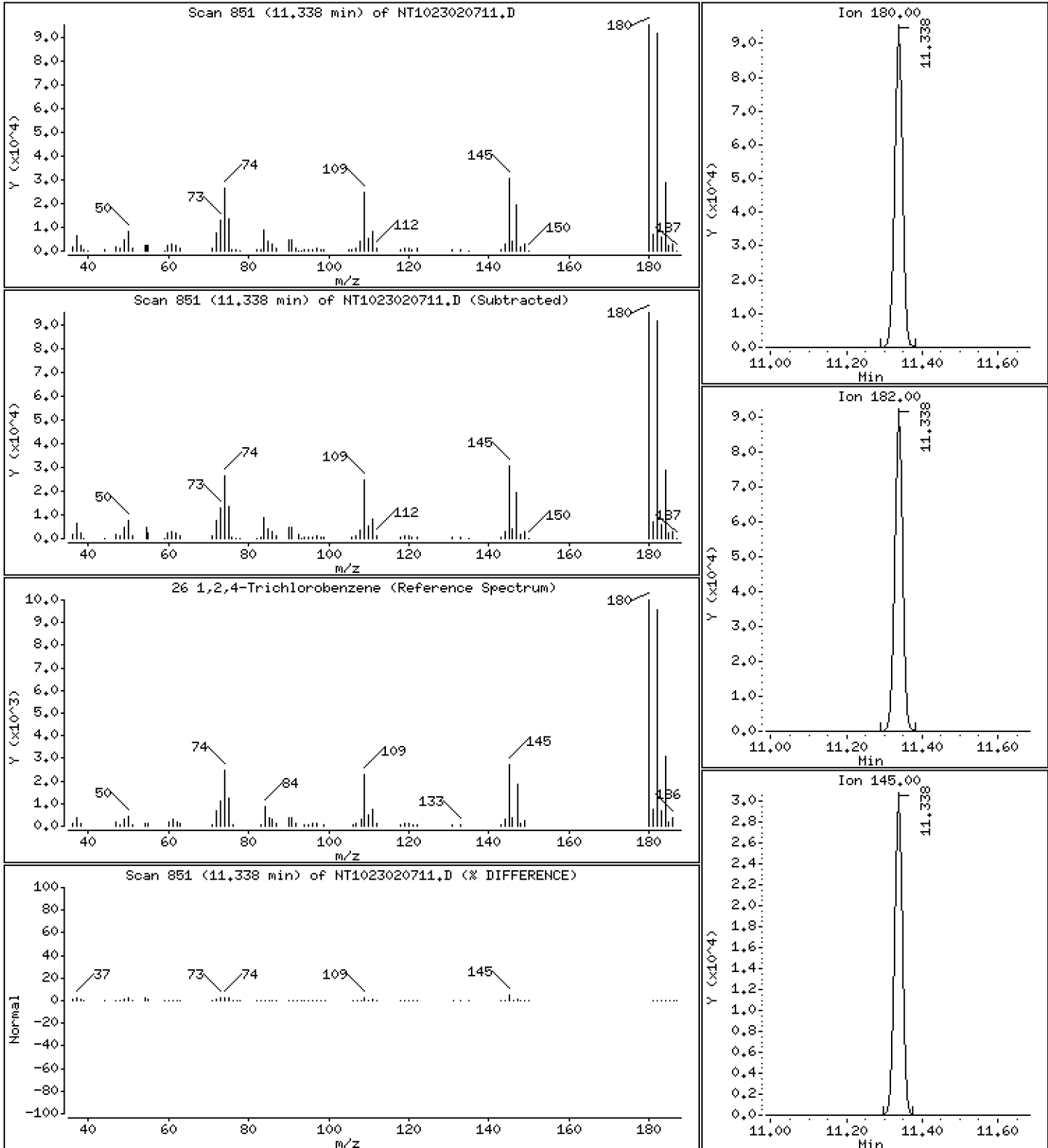
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,191 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

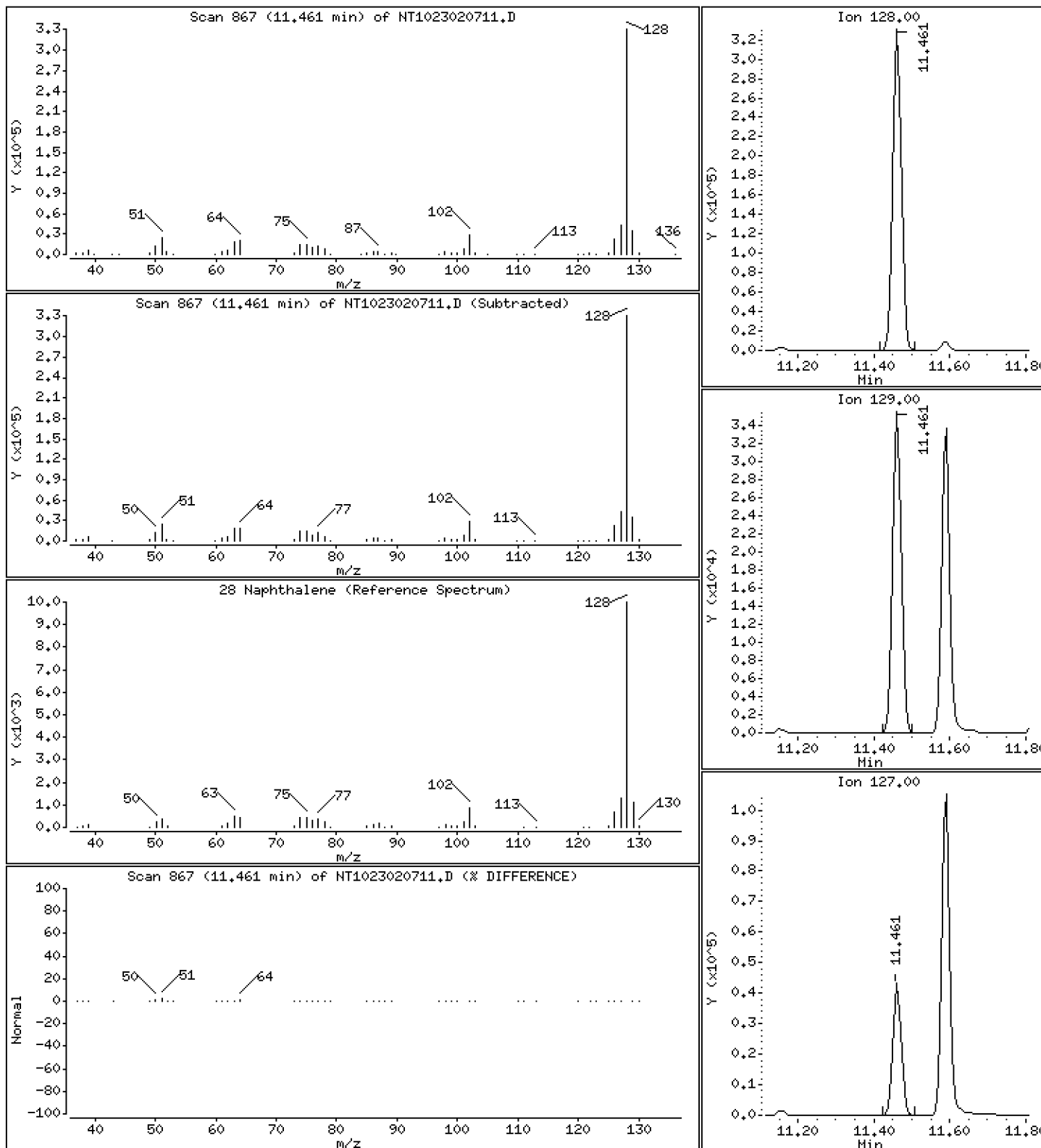
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 4,437 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

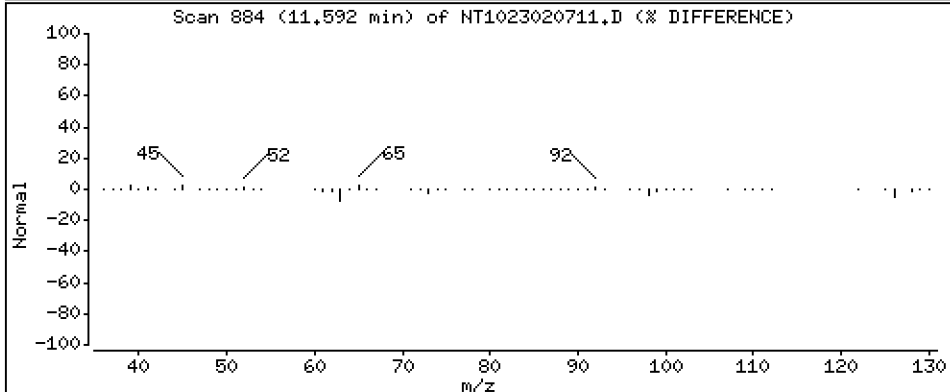
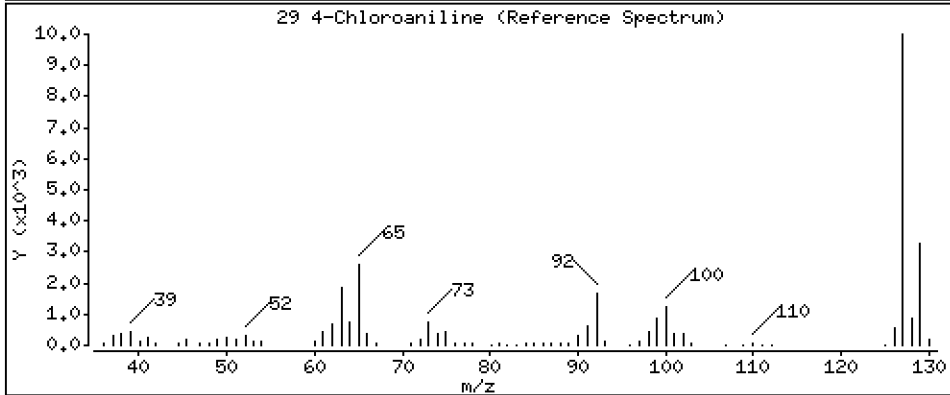
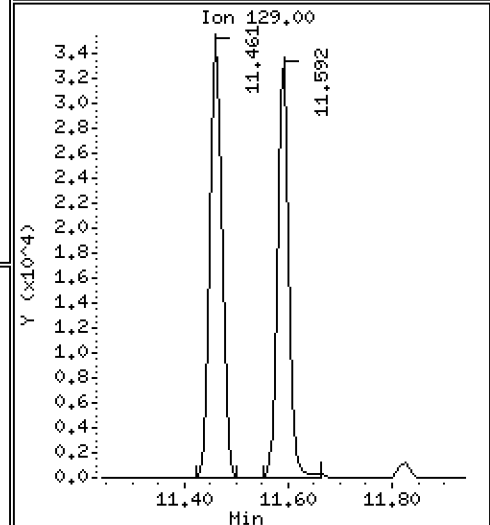
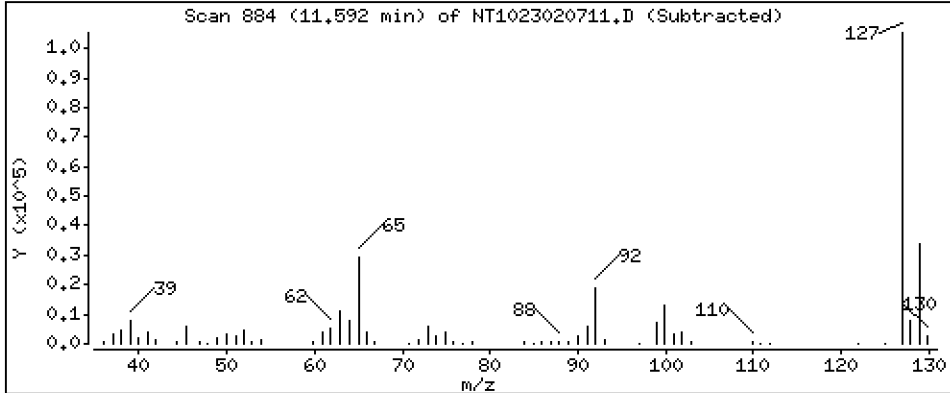
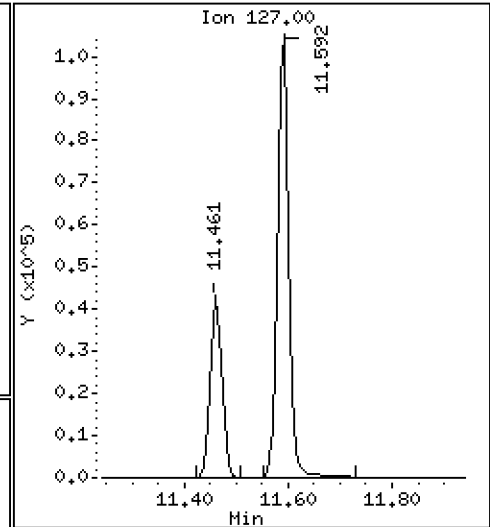
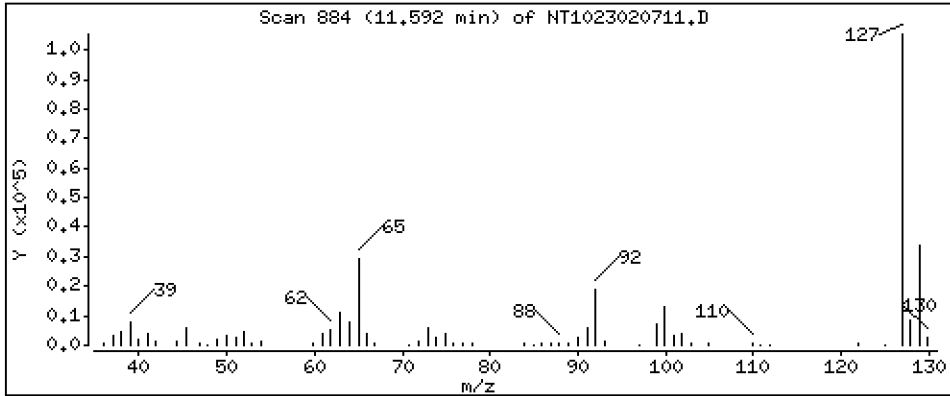
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 3,623 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

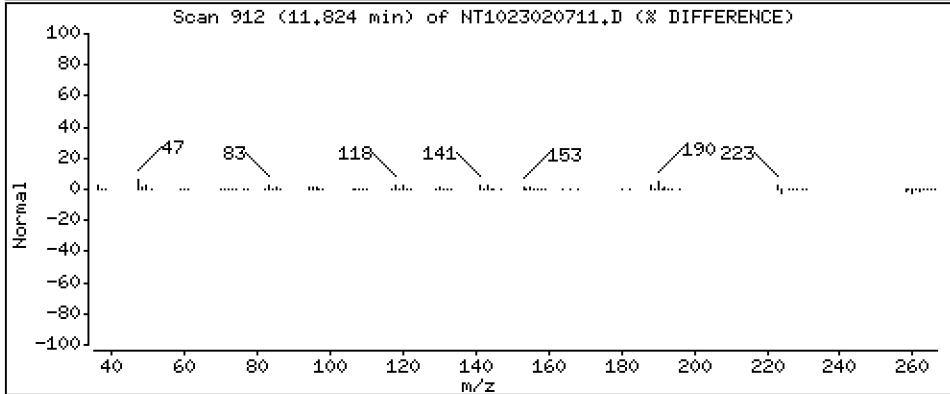
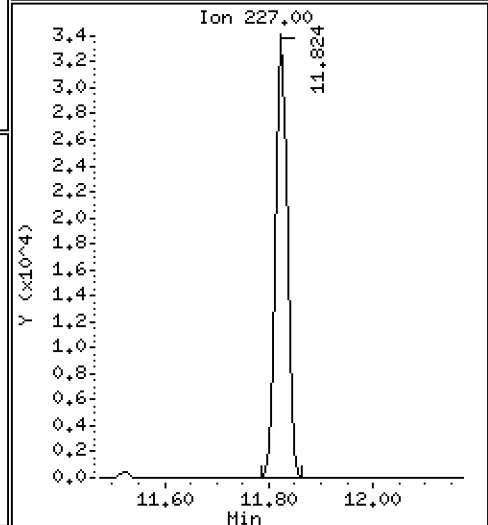
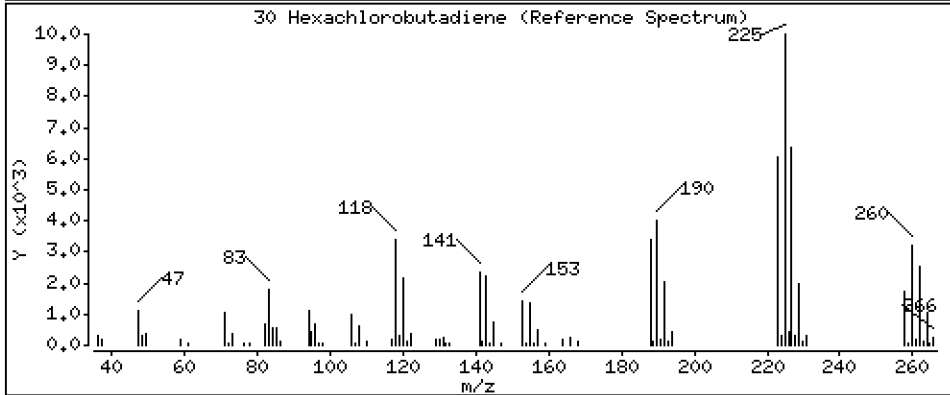
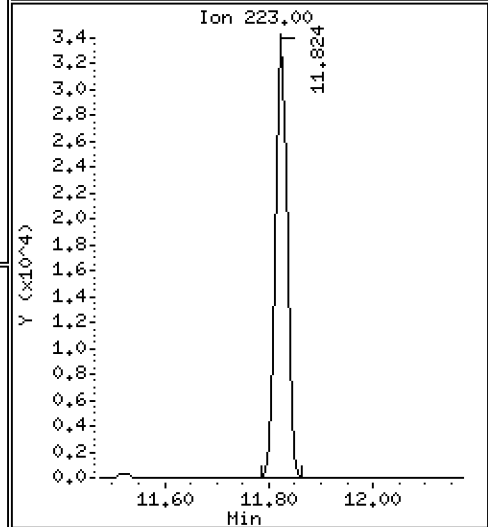
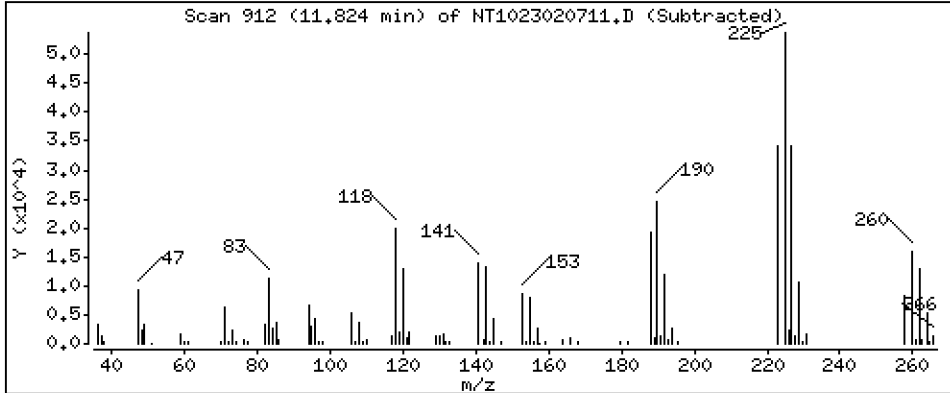
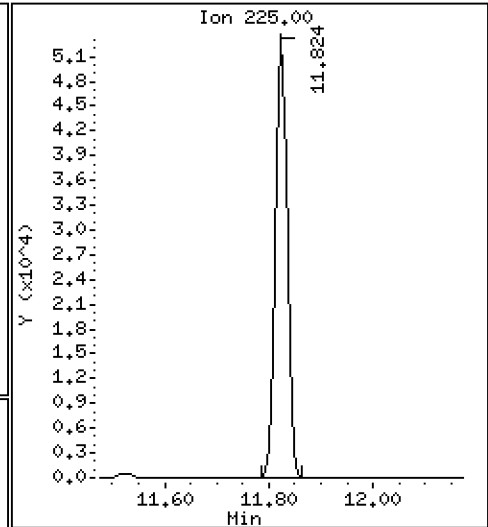
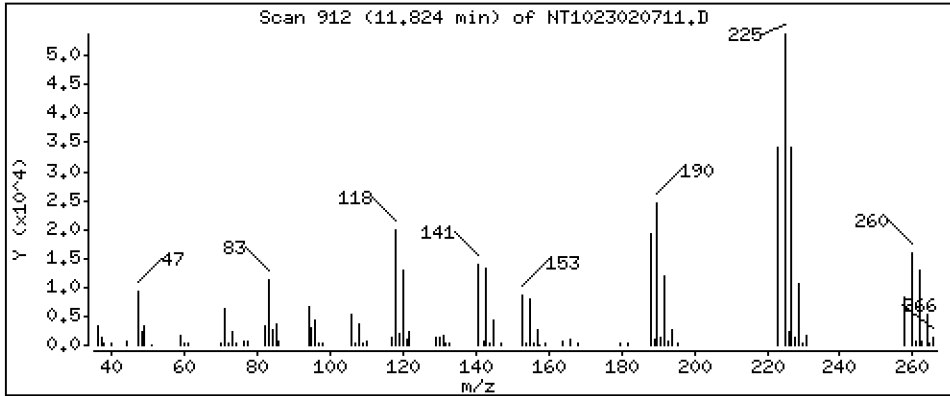
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,364 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

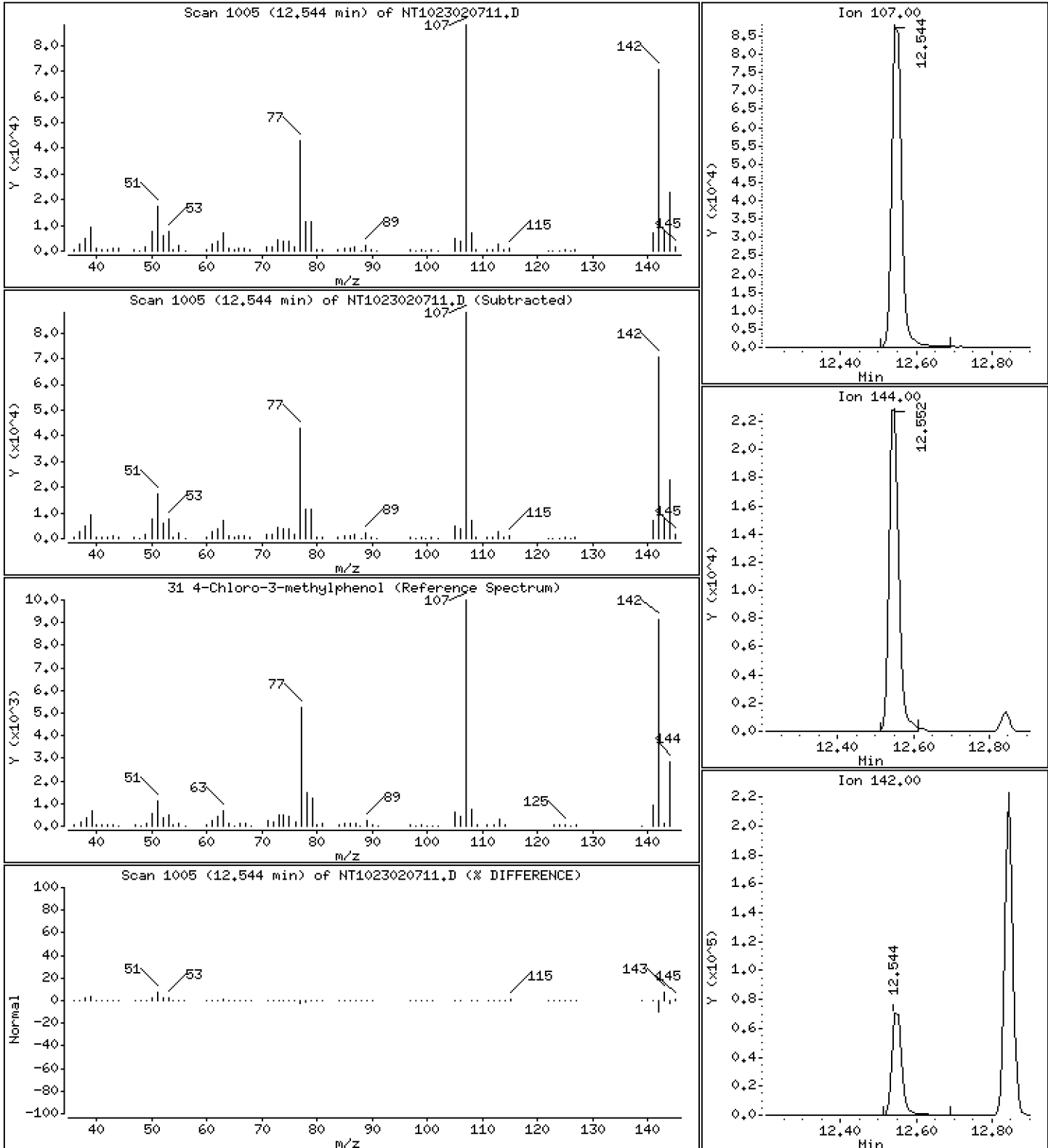
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

31 4-Chloro-3-methylphenol

Concentration: 4.308 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

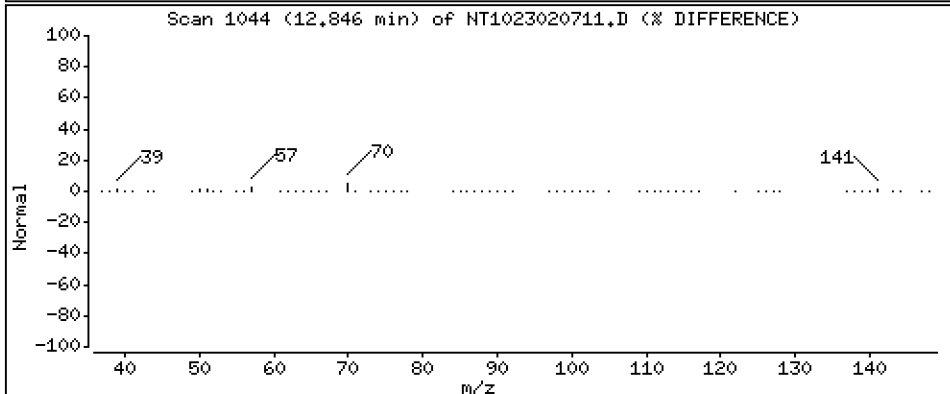
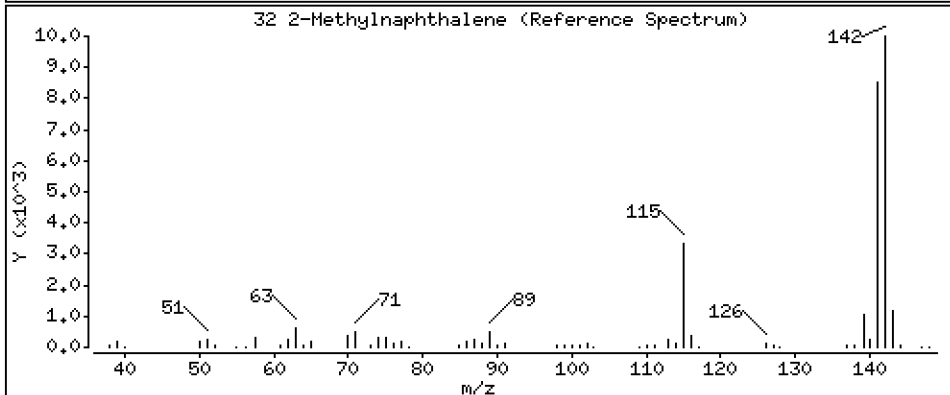
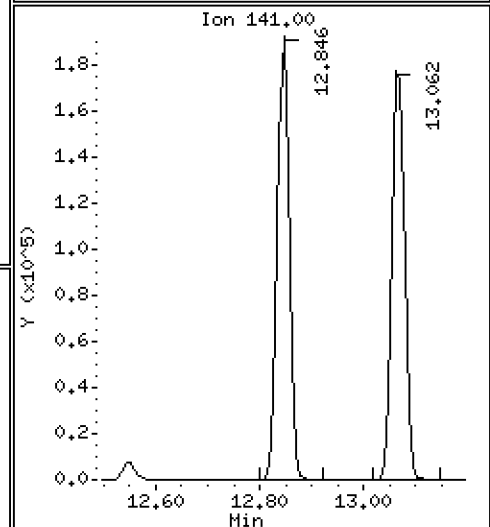
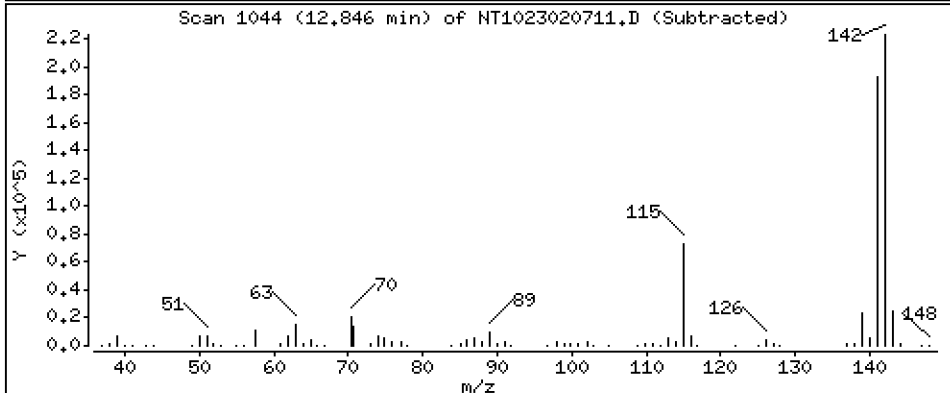
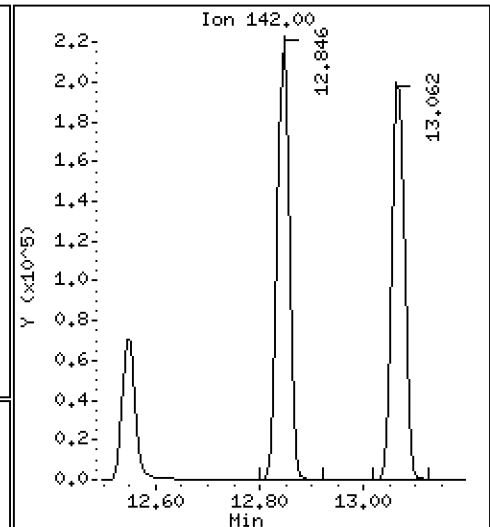
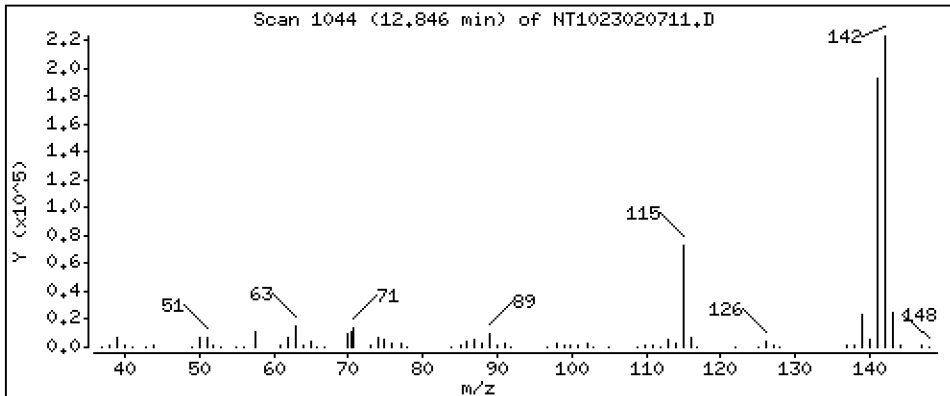
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 4,226 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

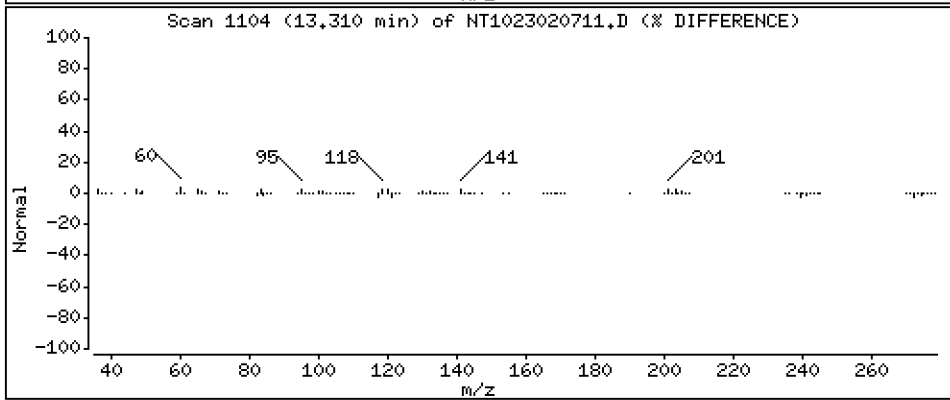
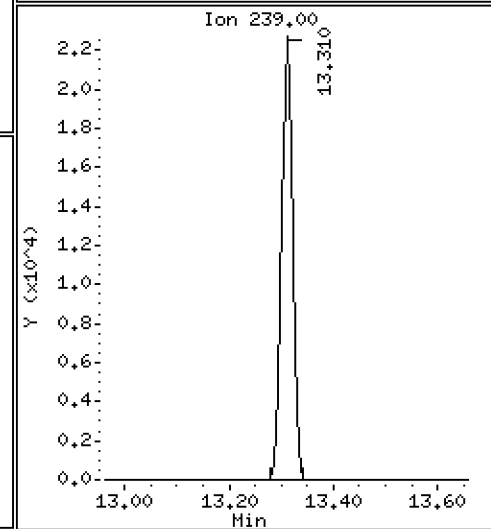
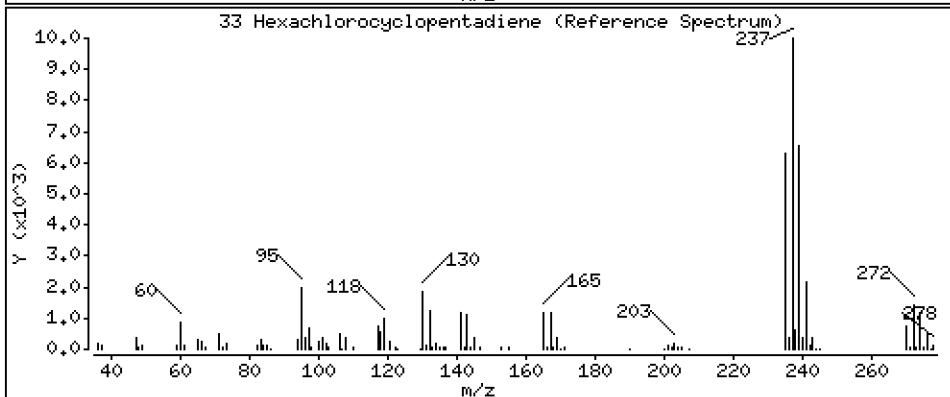
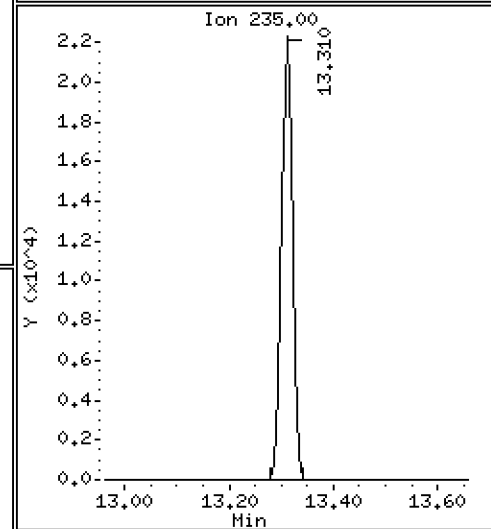
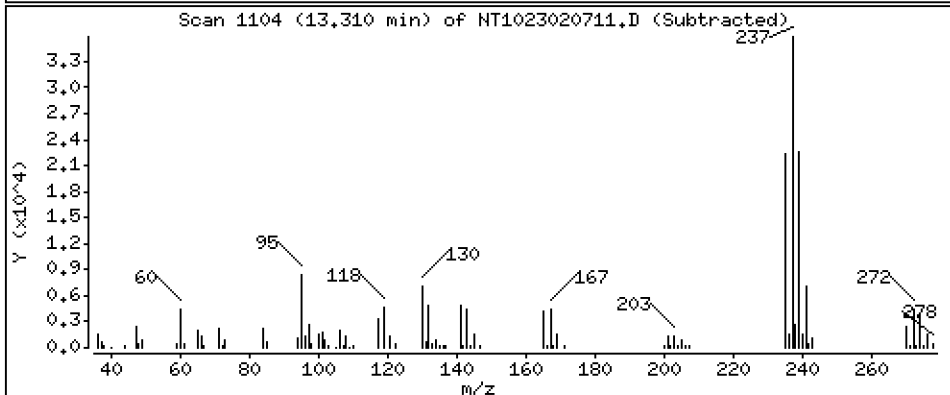
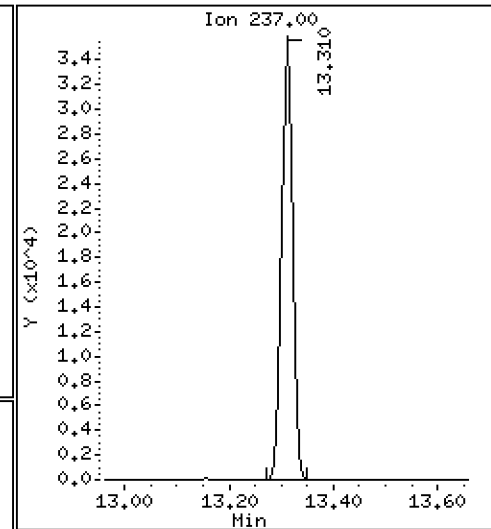
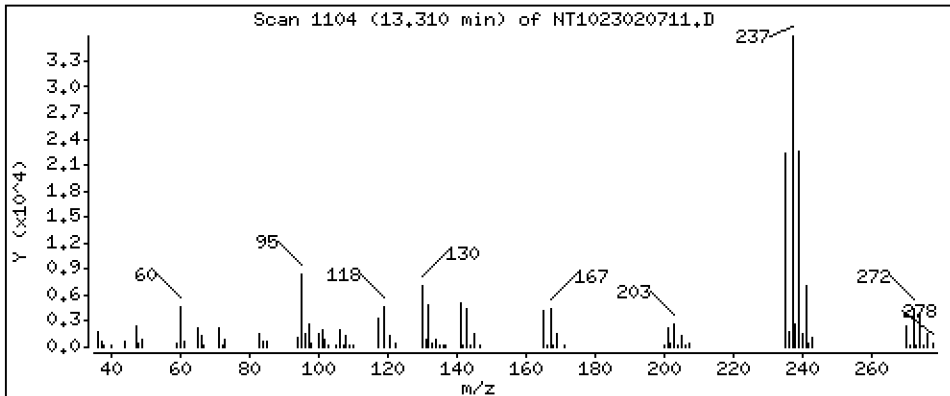
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

33 Hexachlorocyclopentadiene

Concentration: 3.355 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

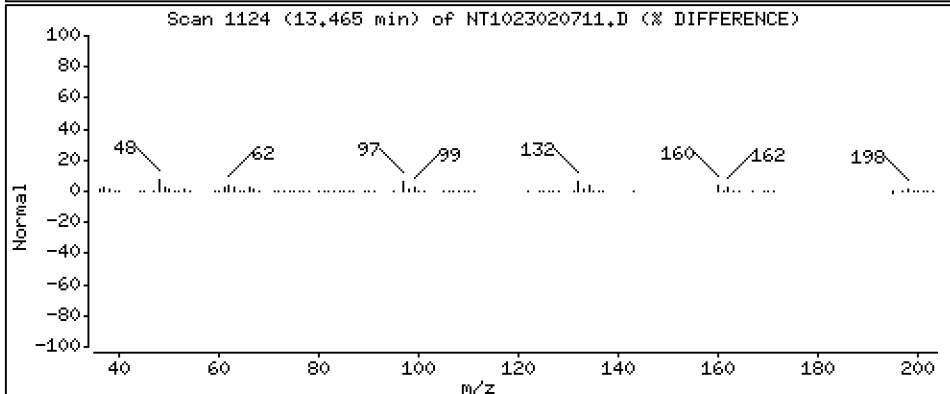
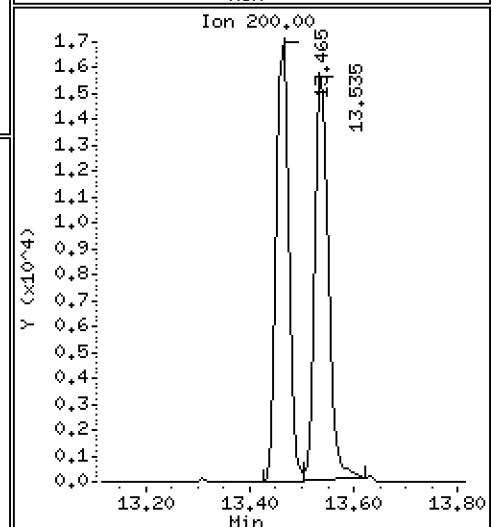
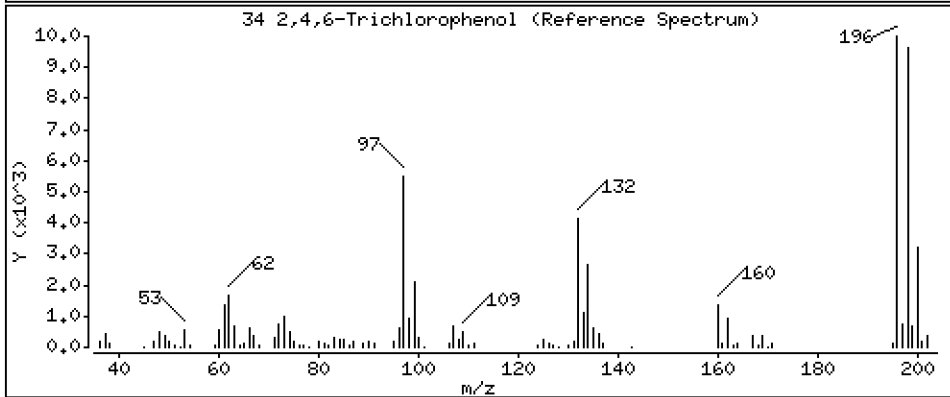
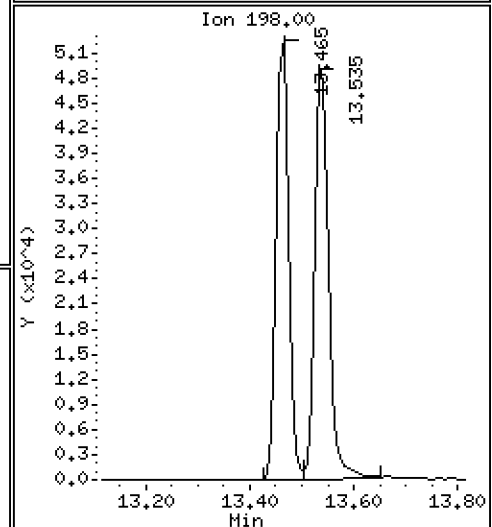
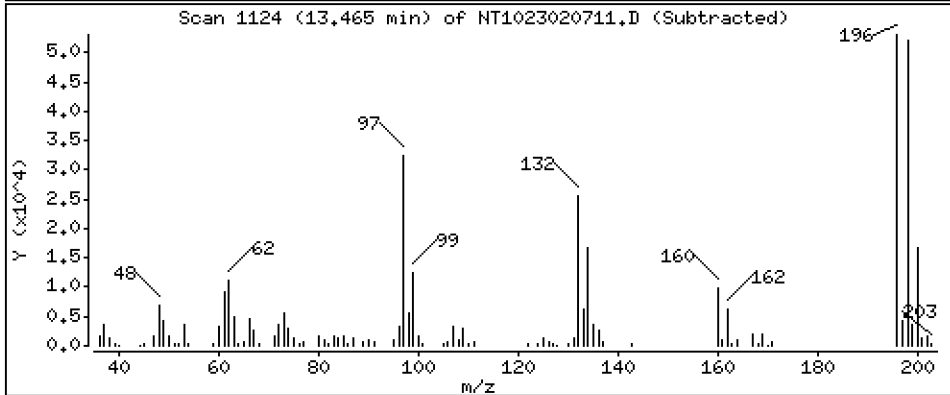
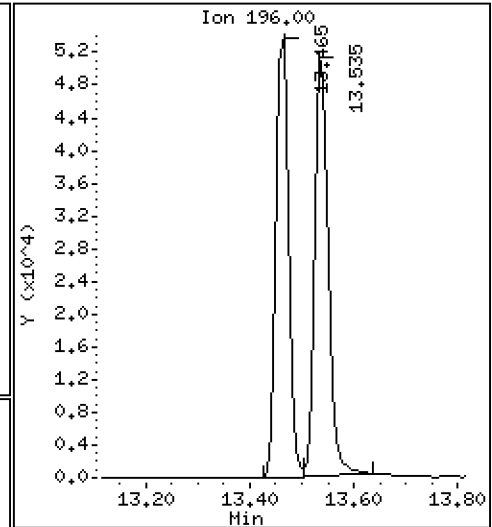
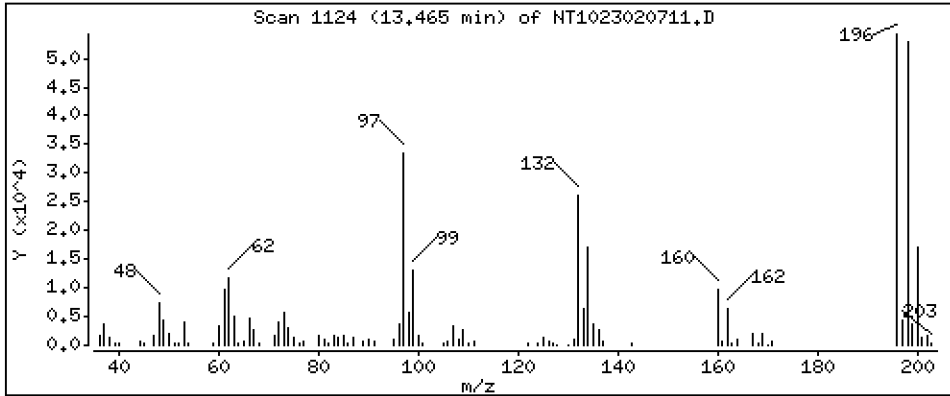
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 4,079 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

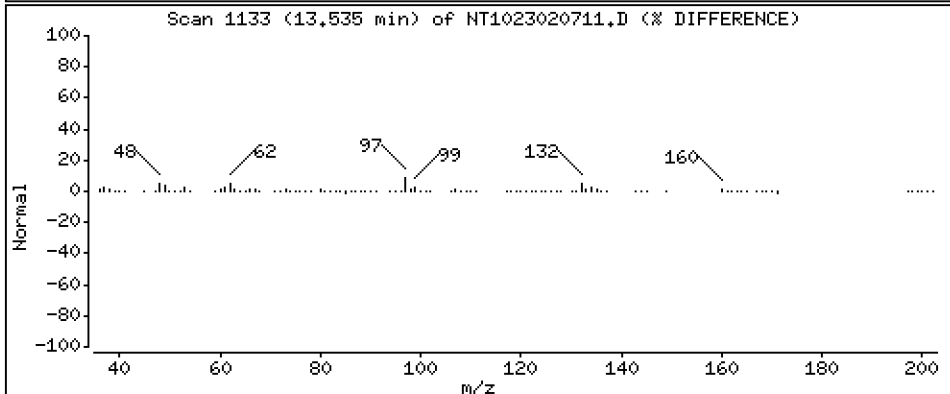
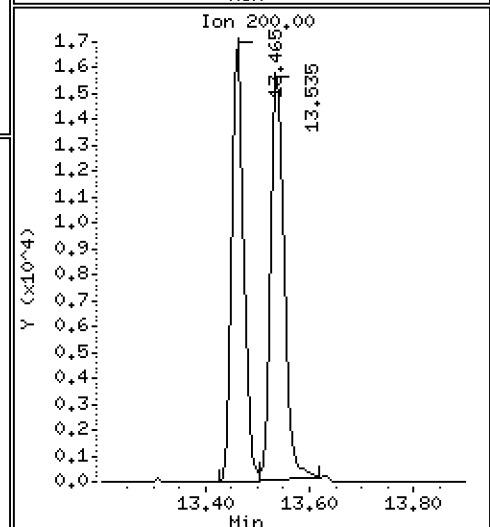
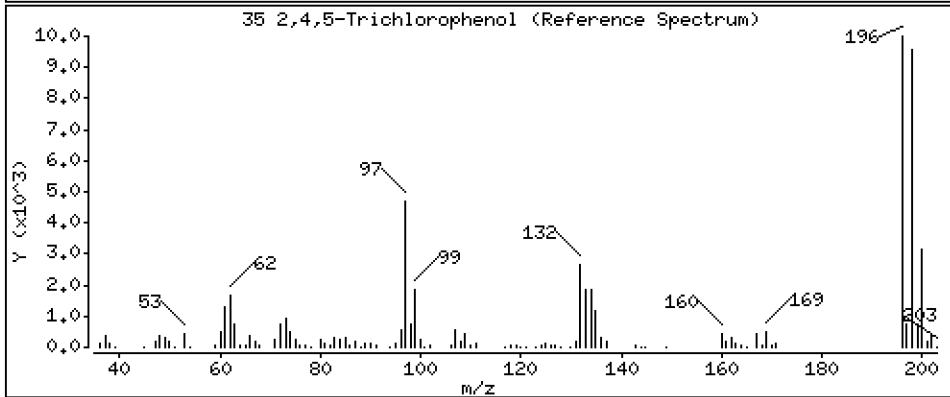
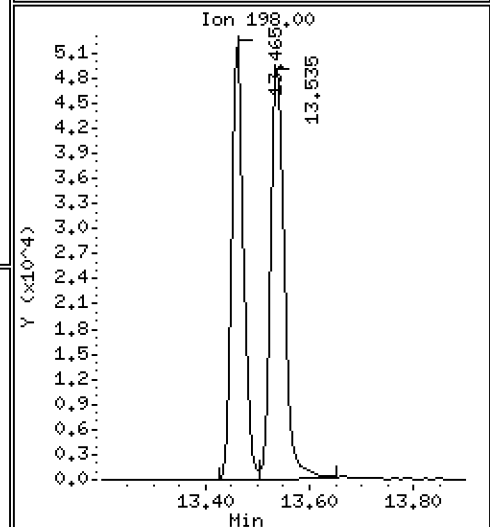
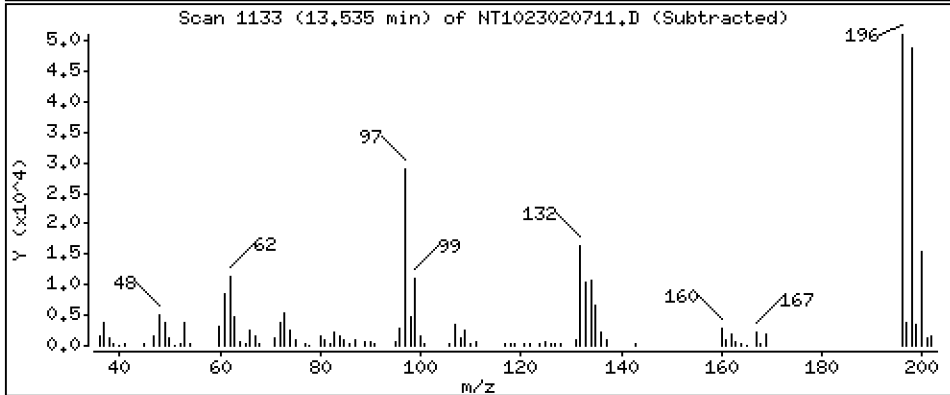
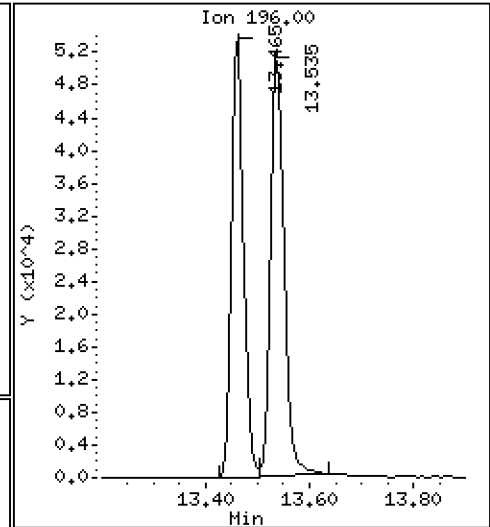
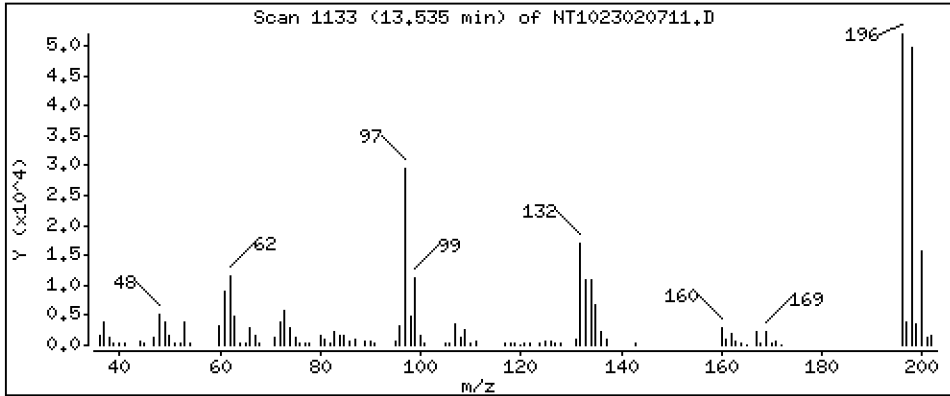
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 3,913 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

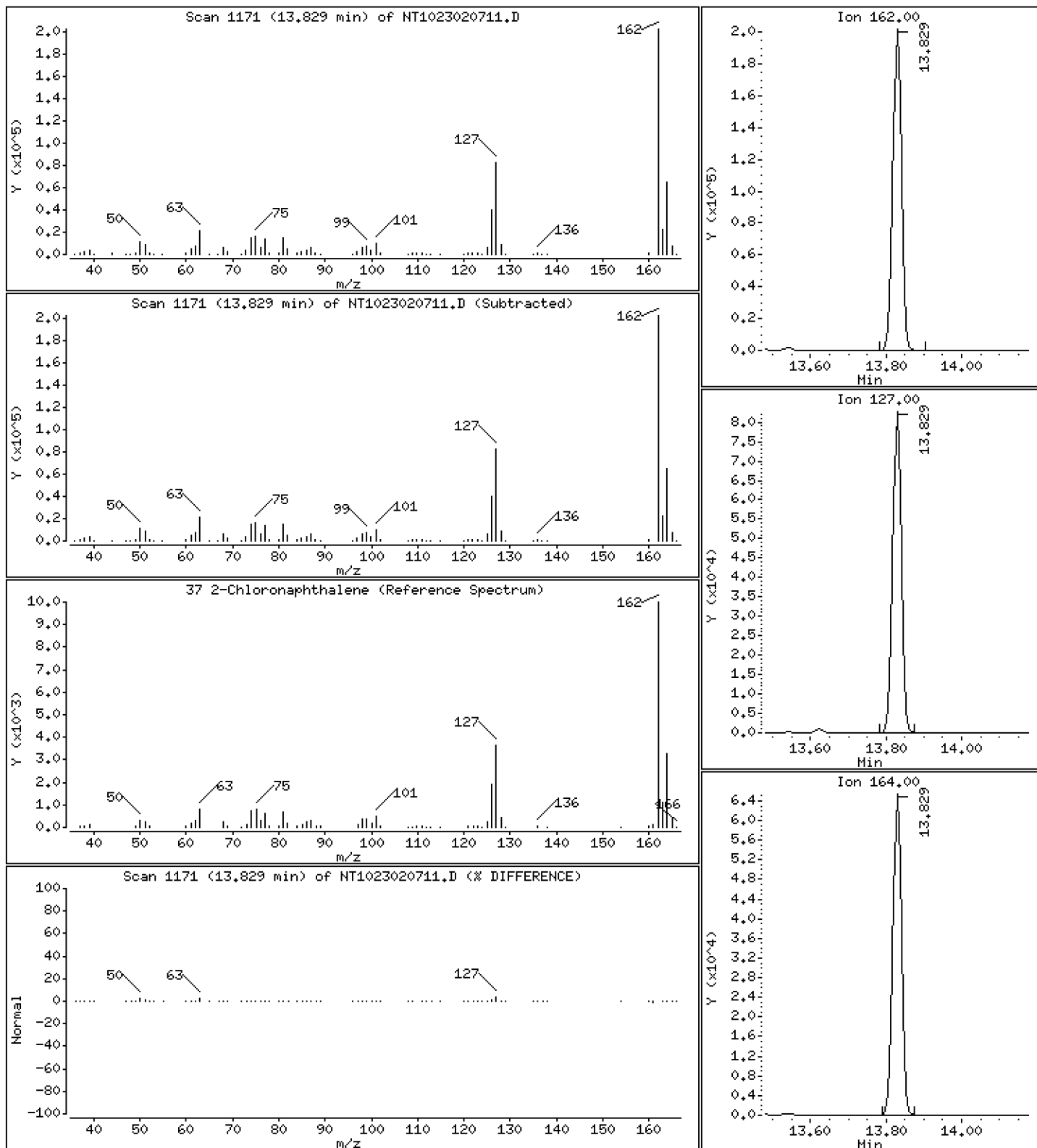
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 4,155 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

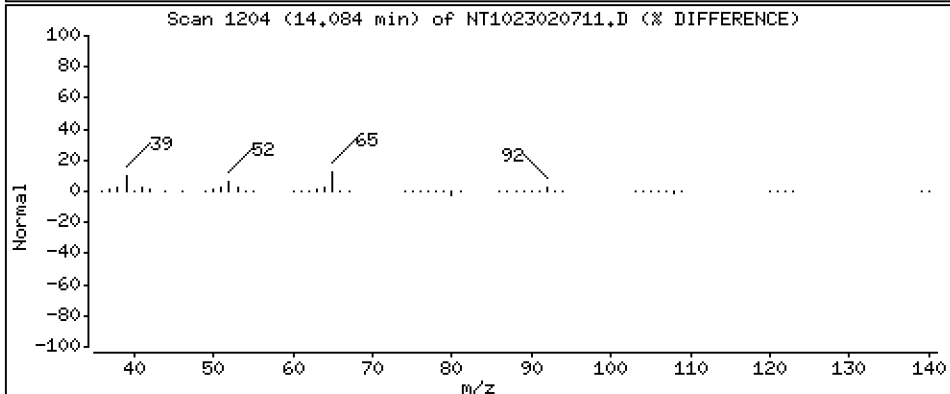
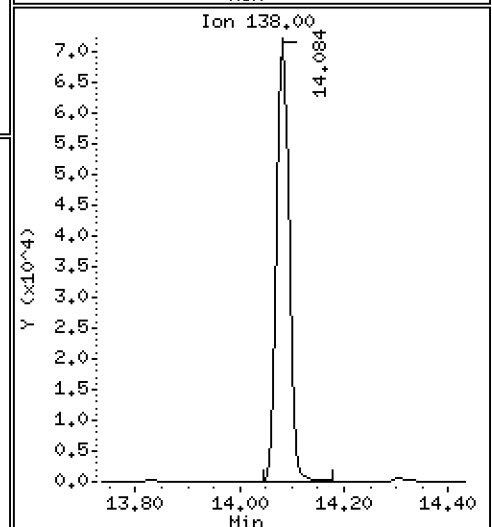
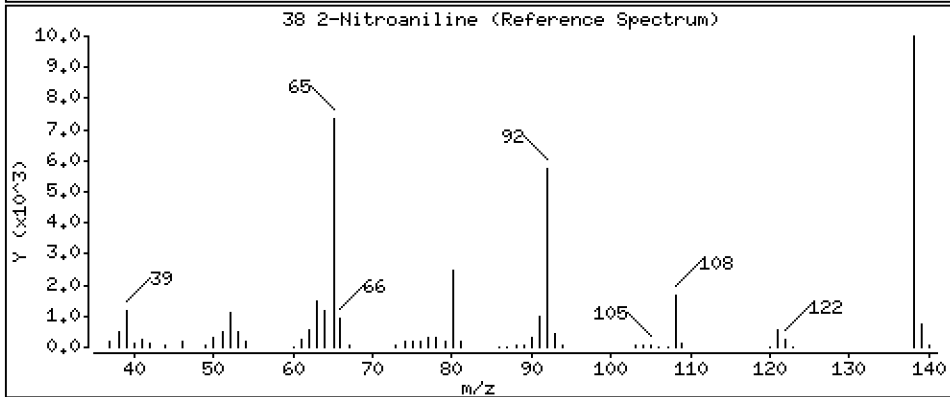
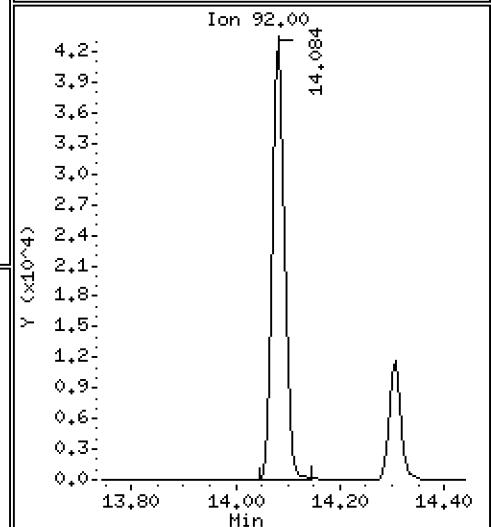
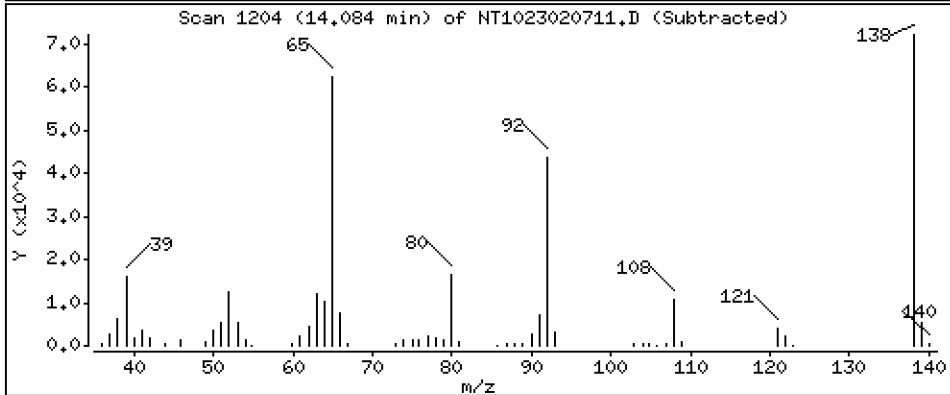
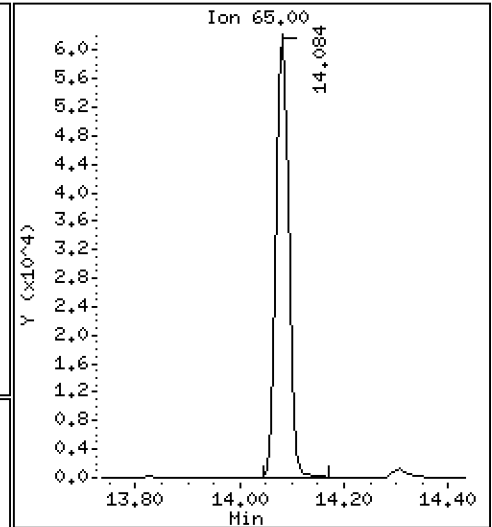
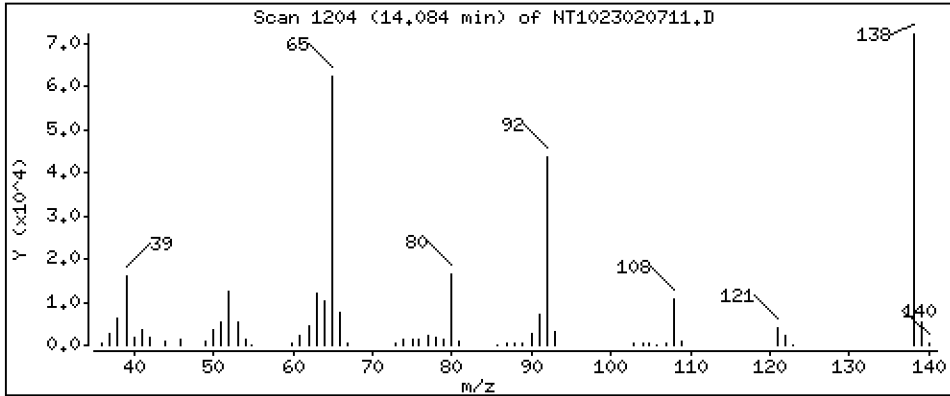
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 4,336 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

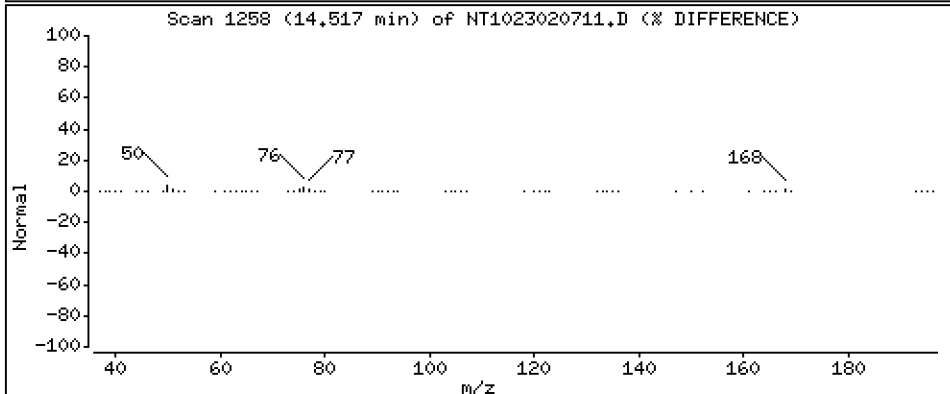
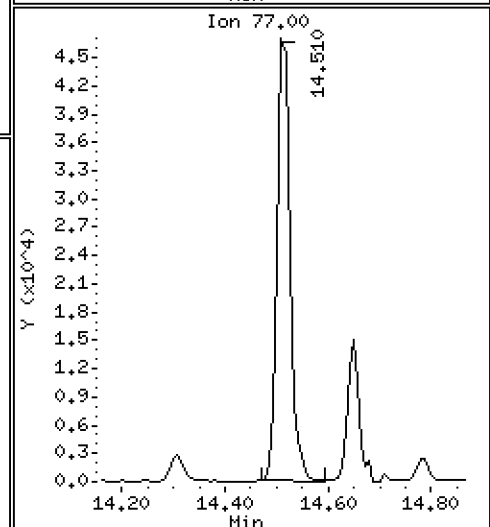
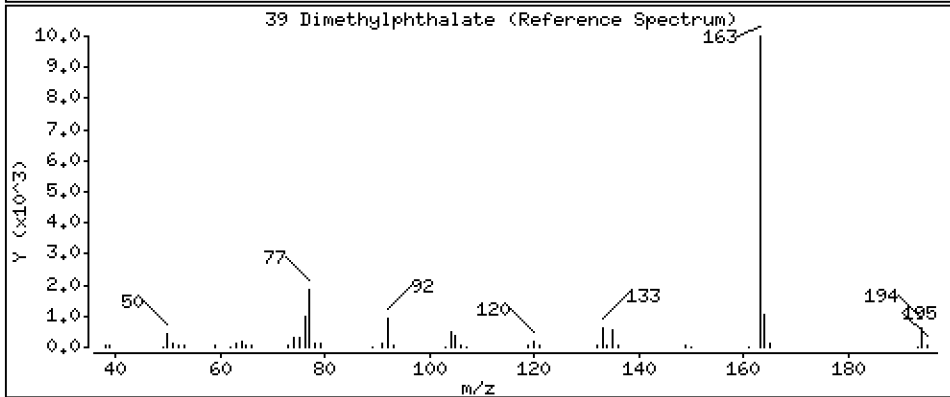
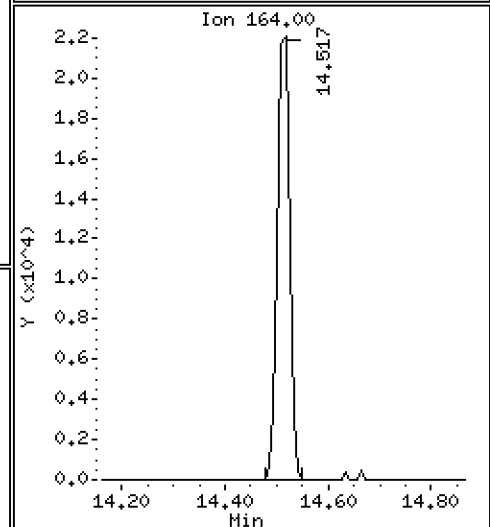
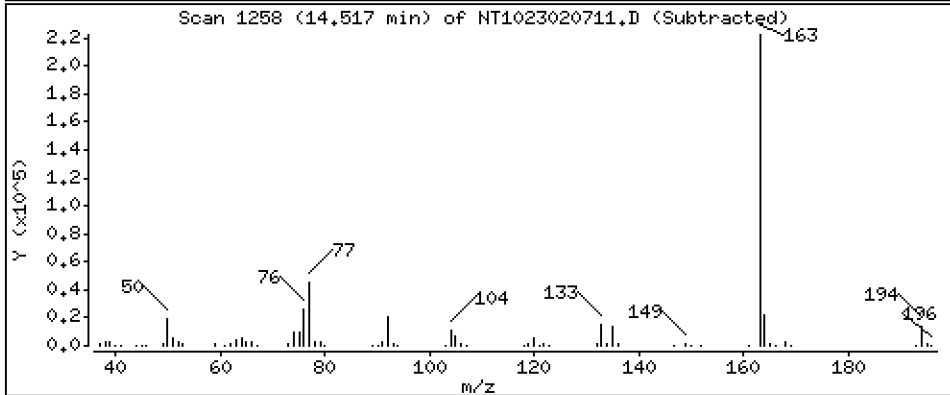
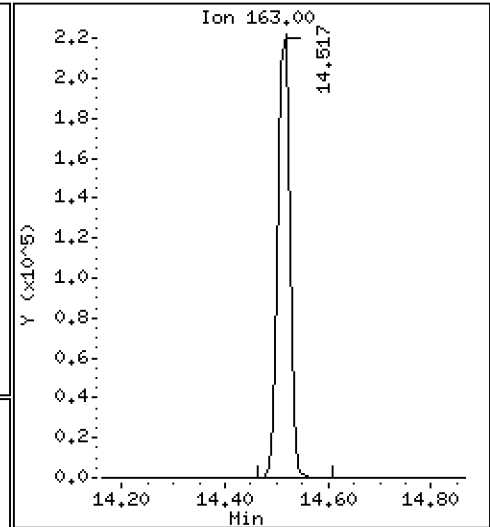
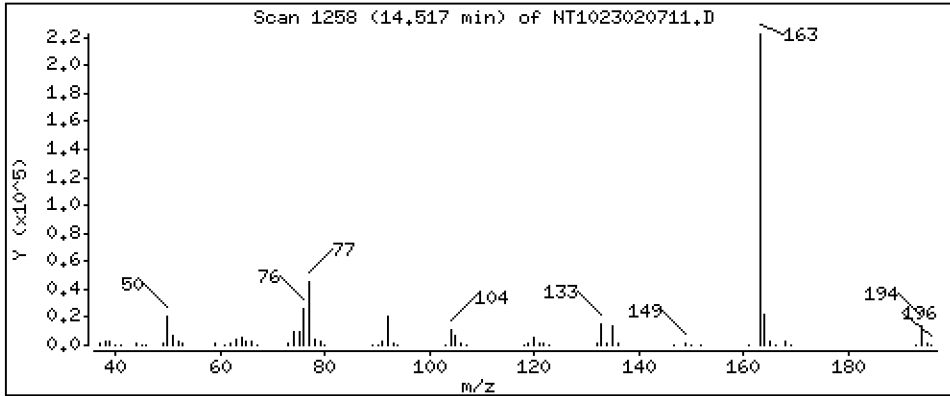
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,280 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

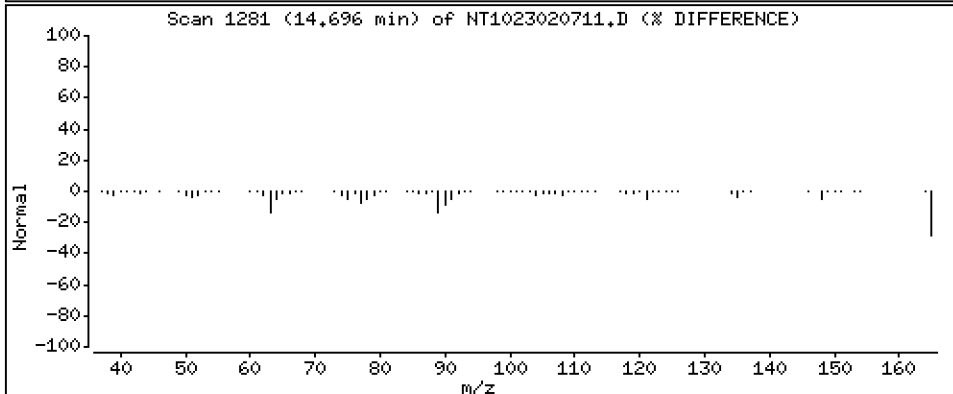
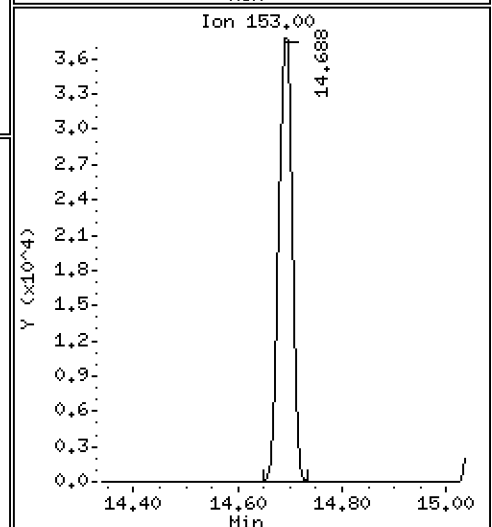
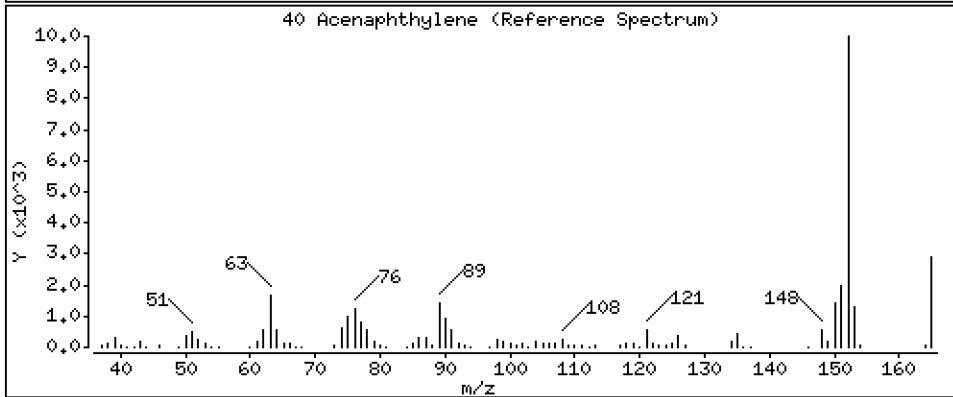
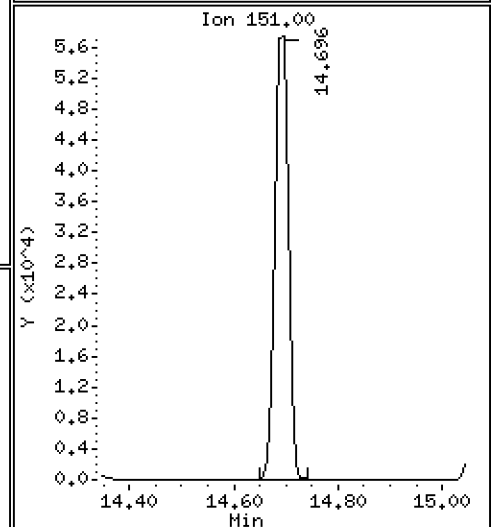
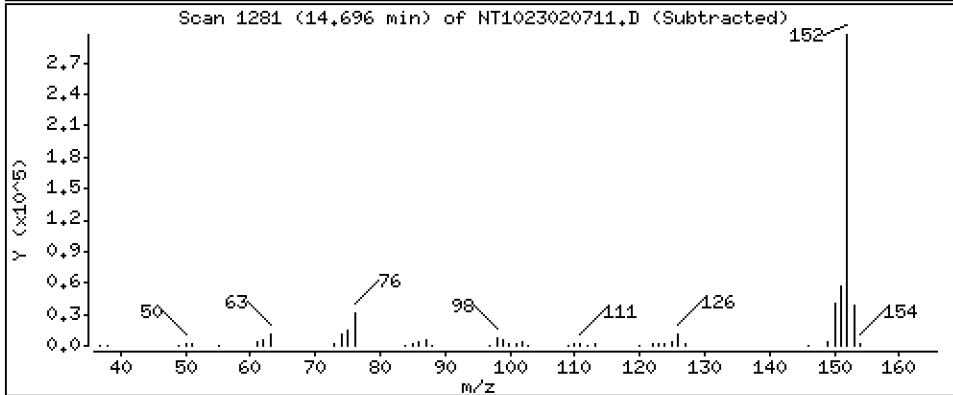
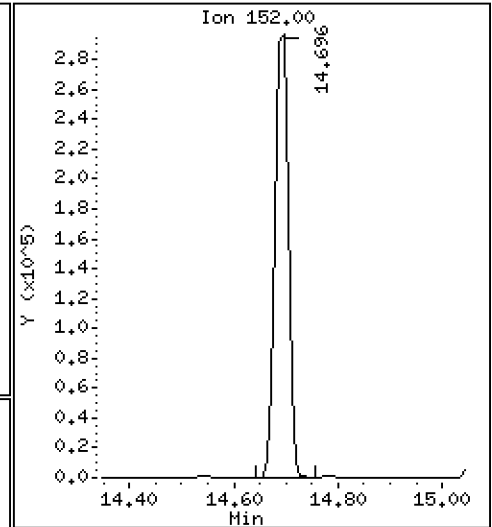
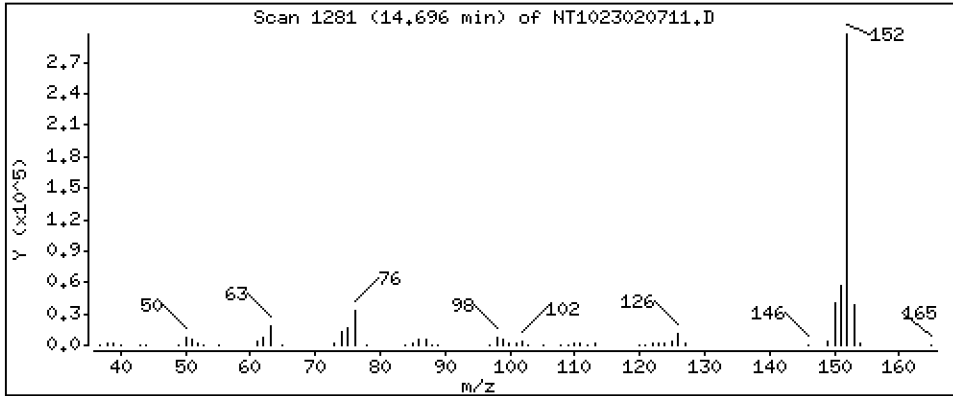
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 4,322 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

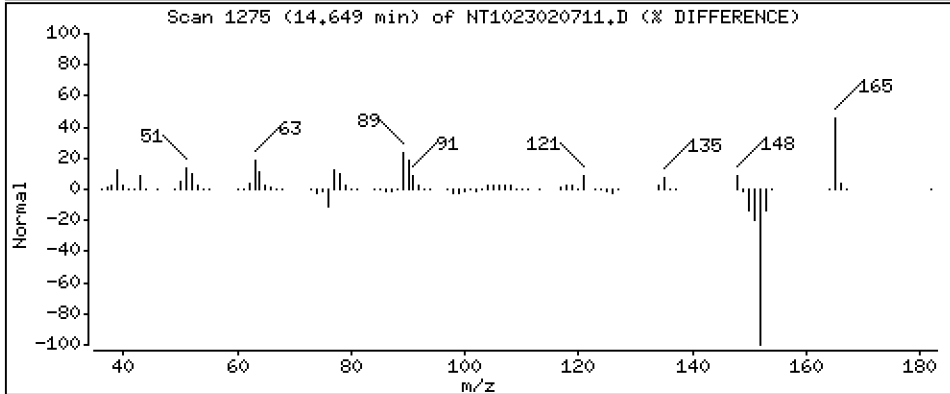
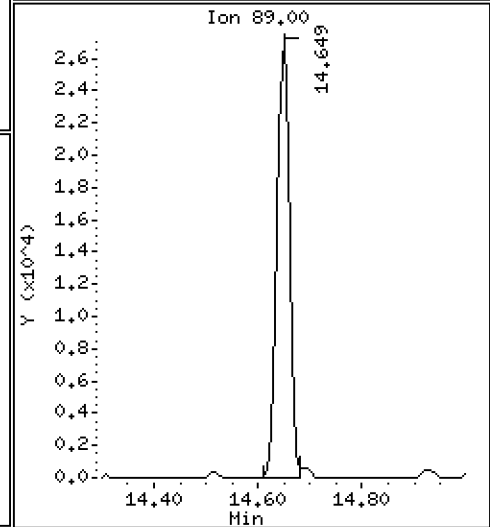
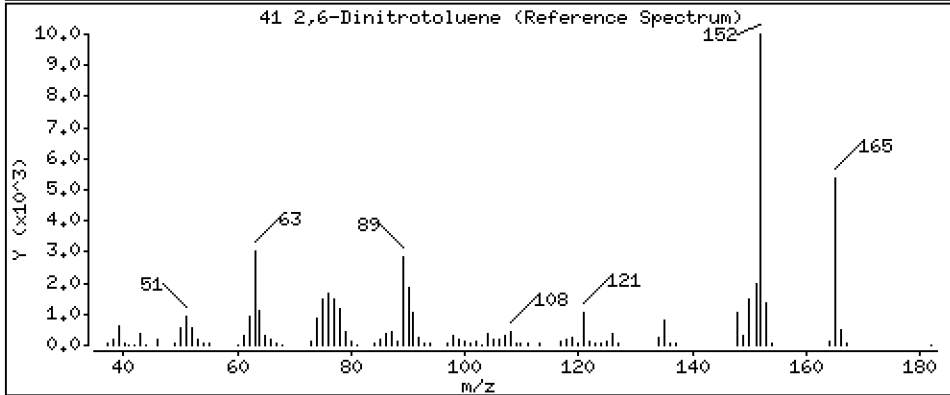
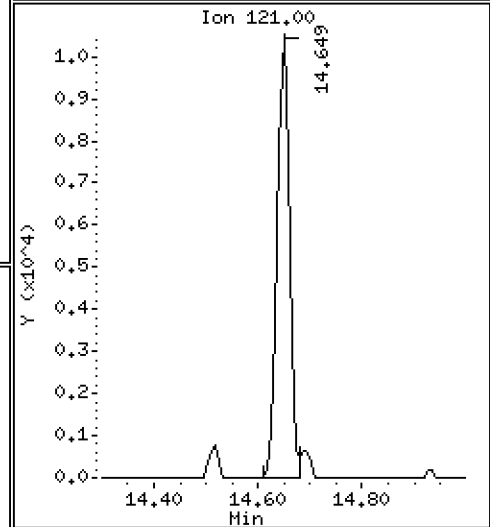
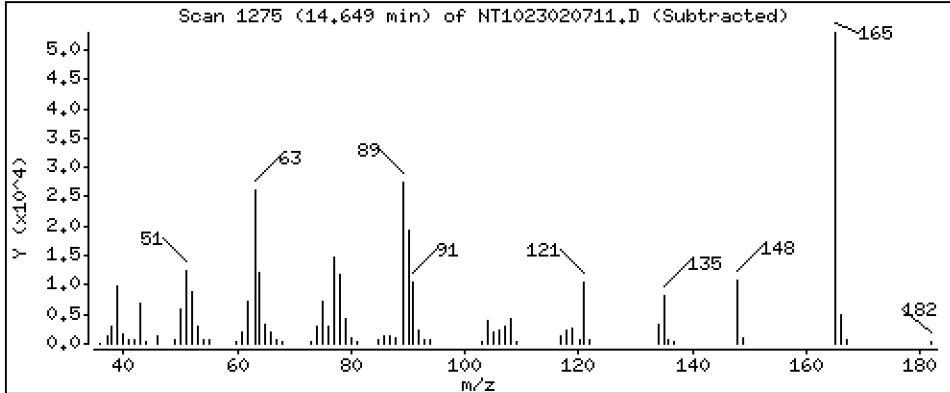
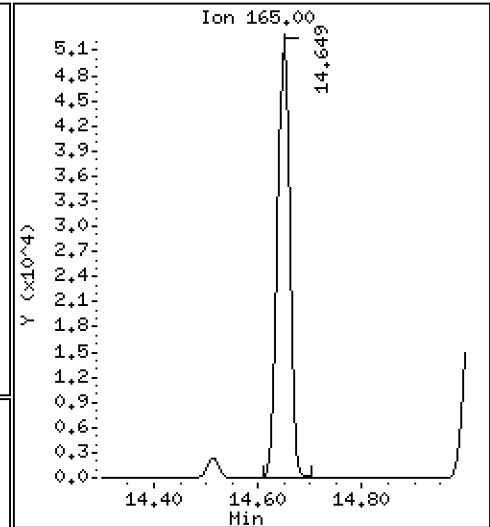
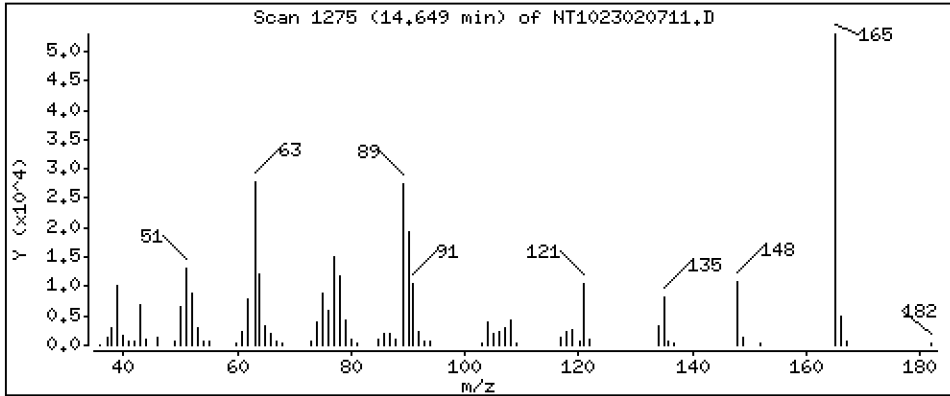
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 4.377 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

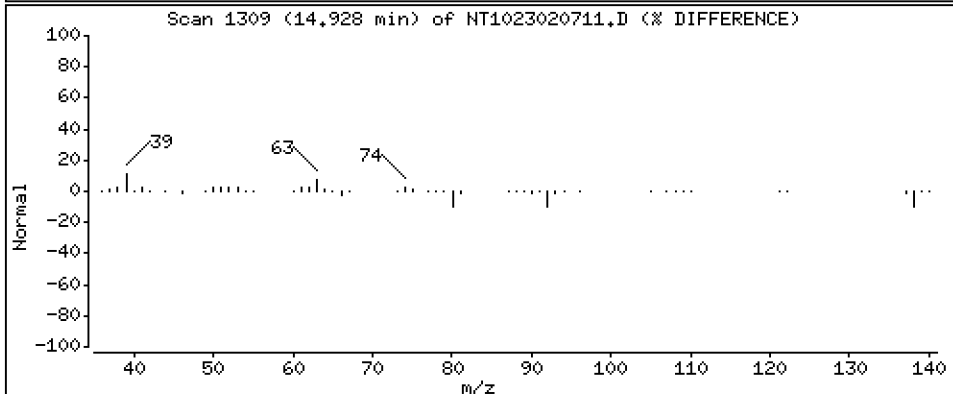
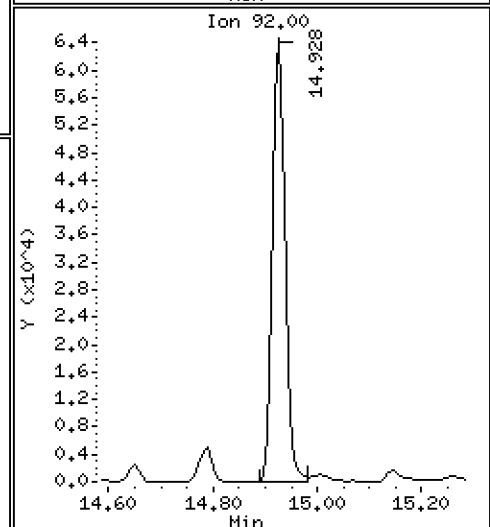
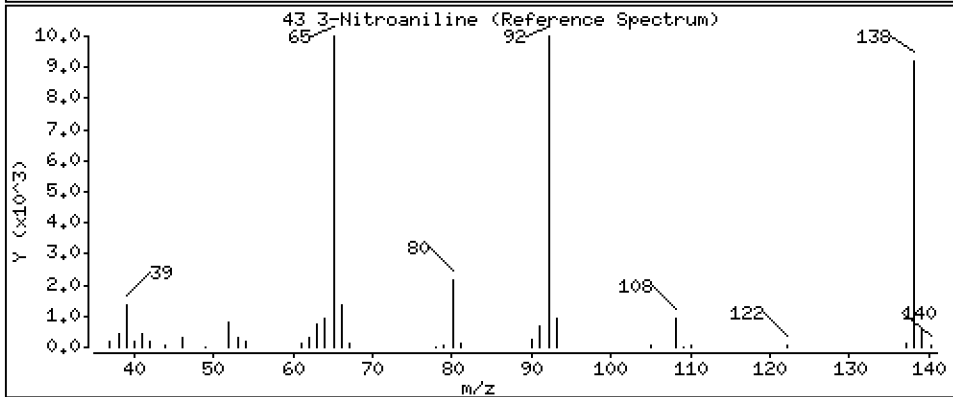
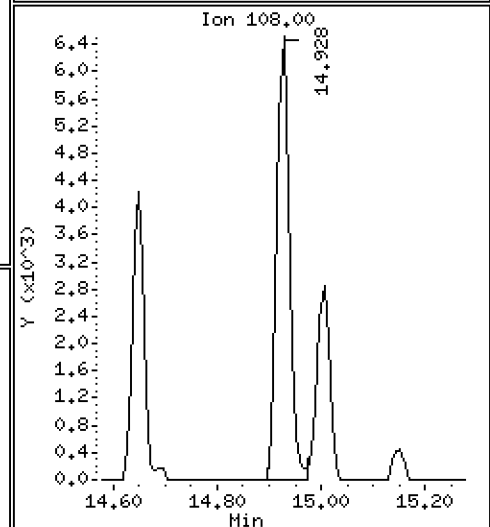
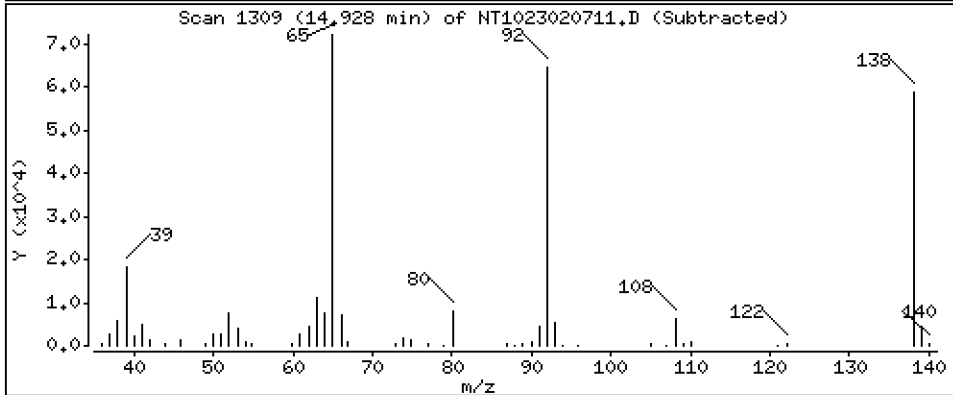
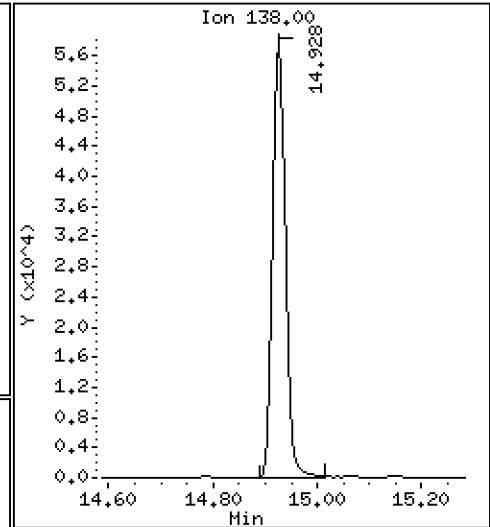
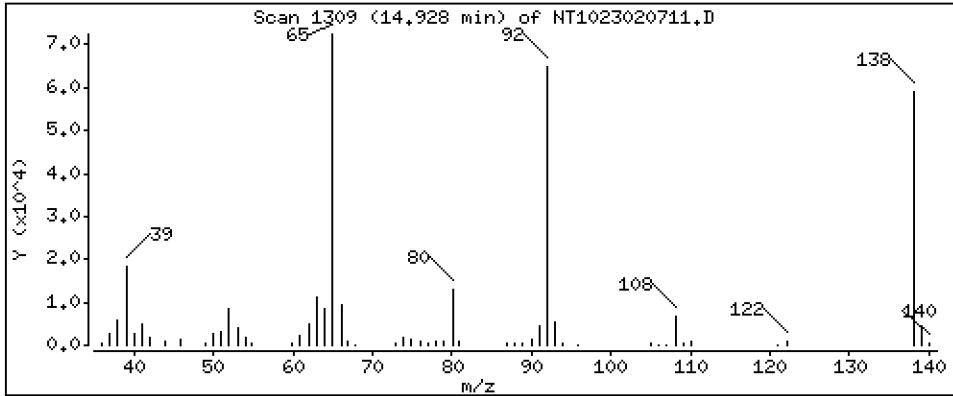
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 4,362 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

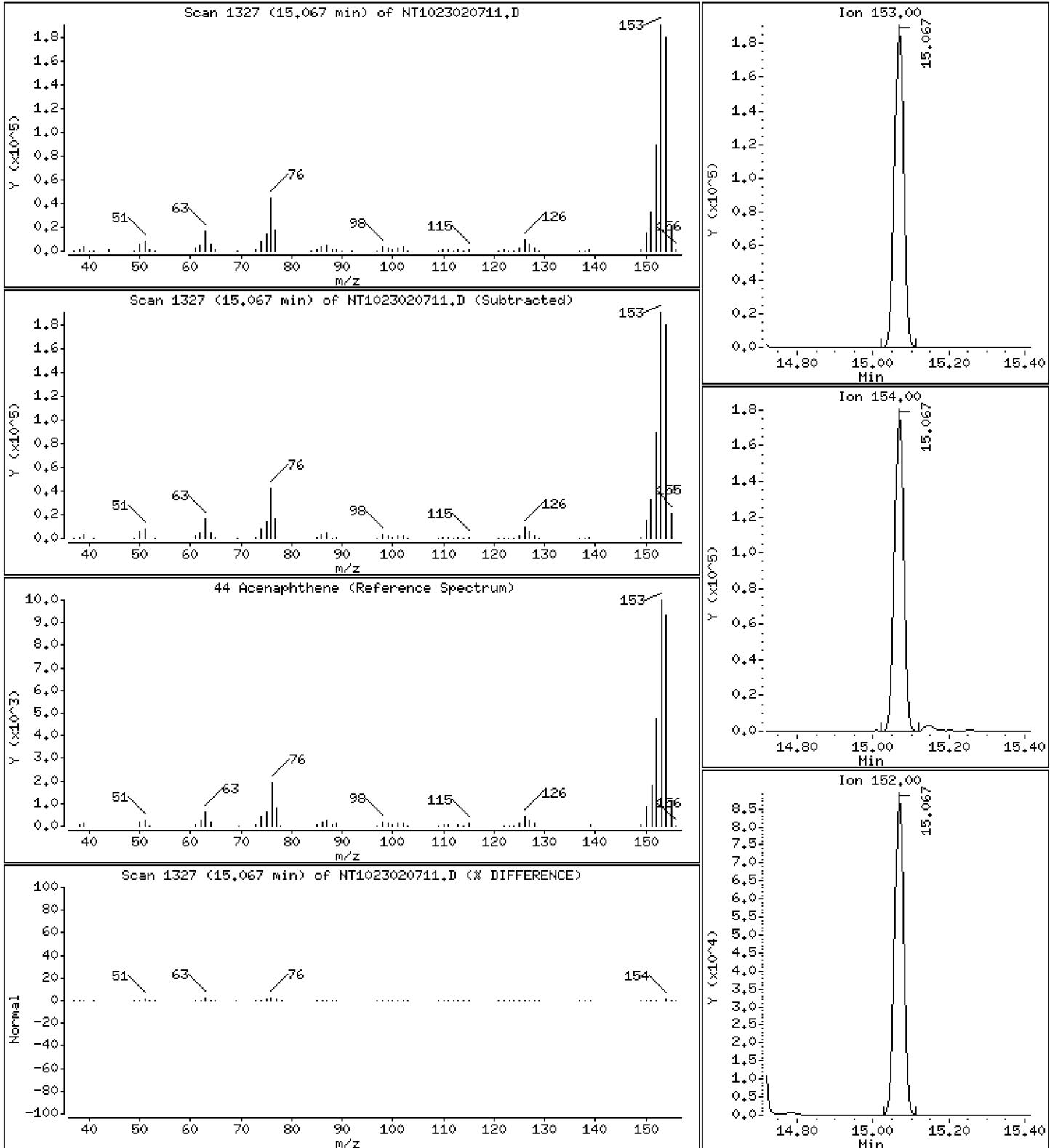
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,233 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

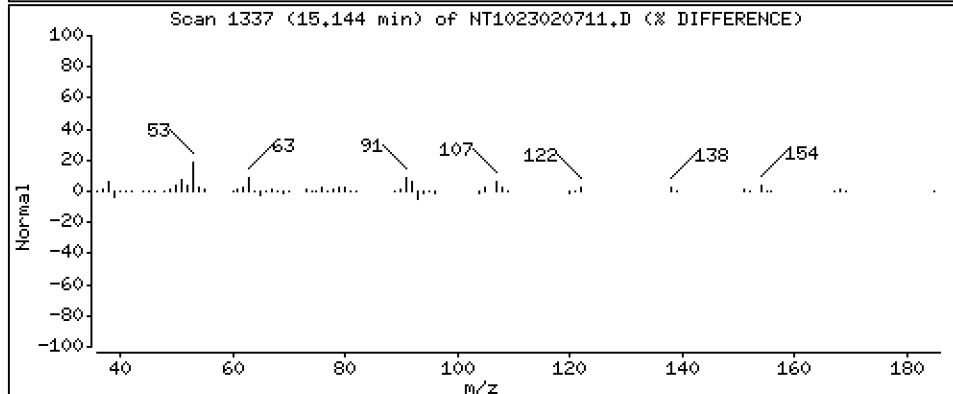
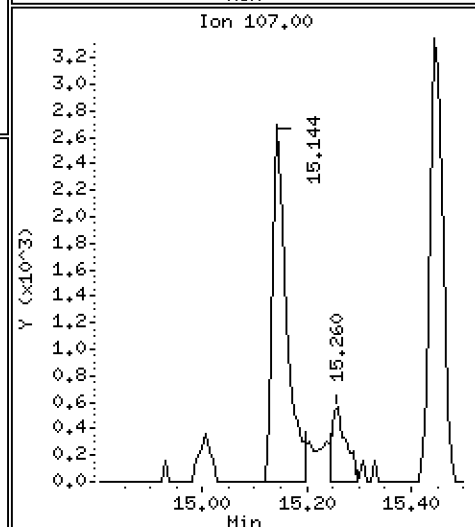
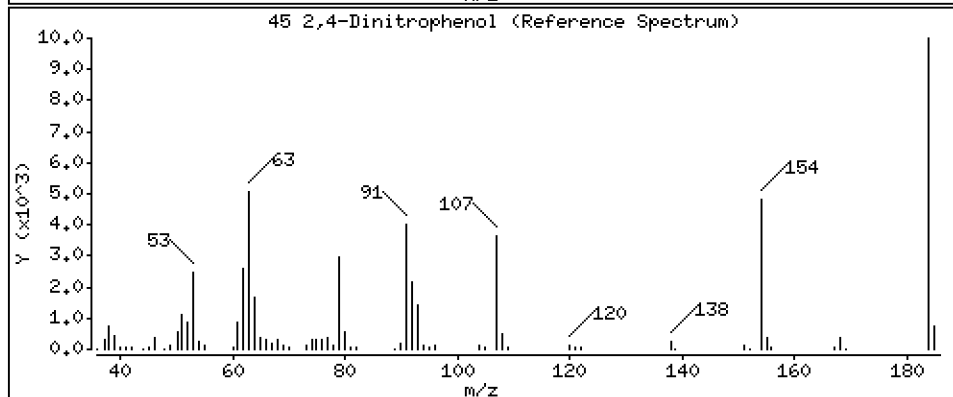
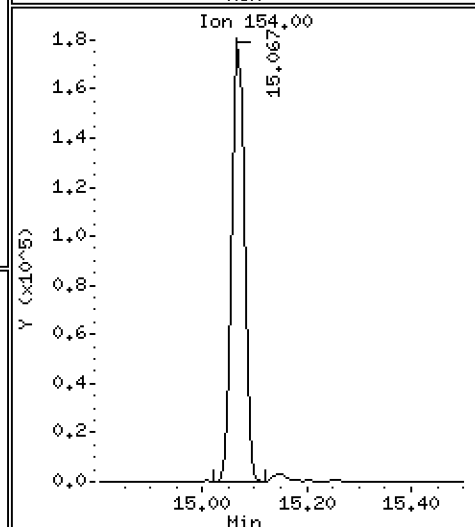
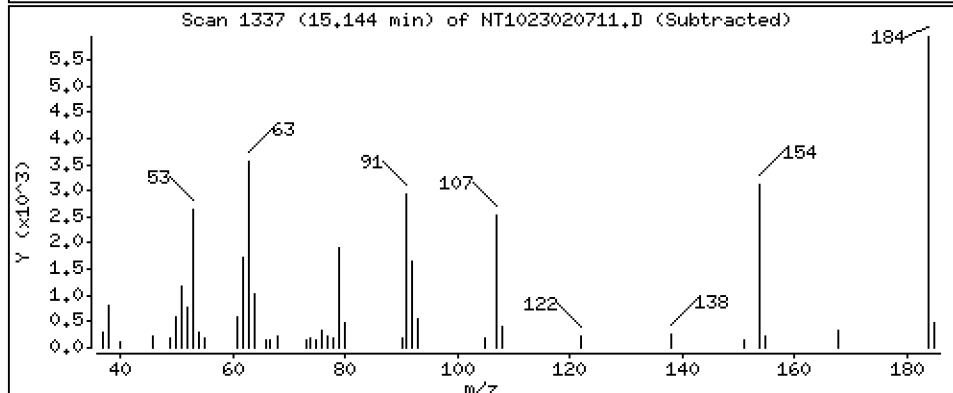
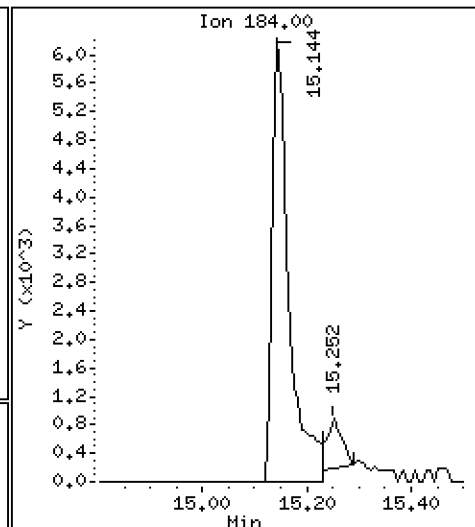
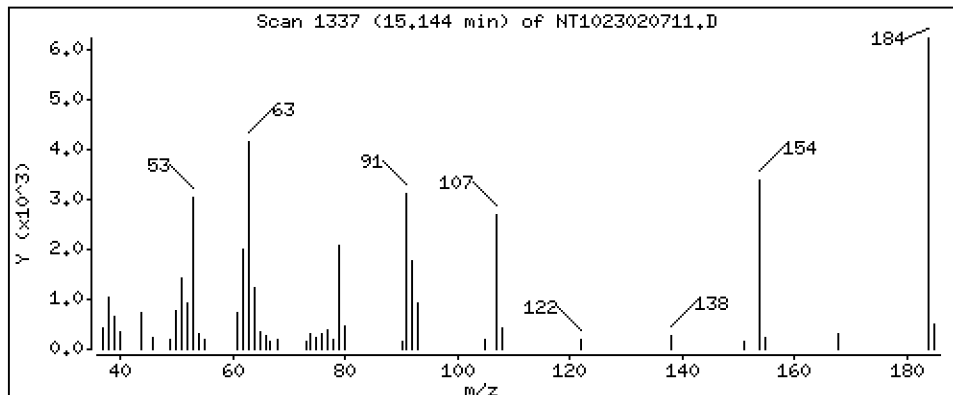
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 1,385 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

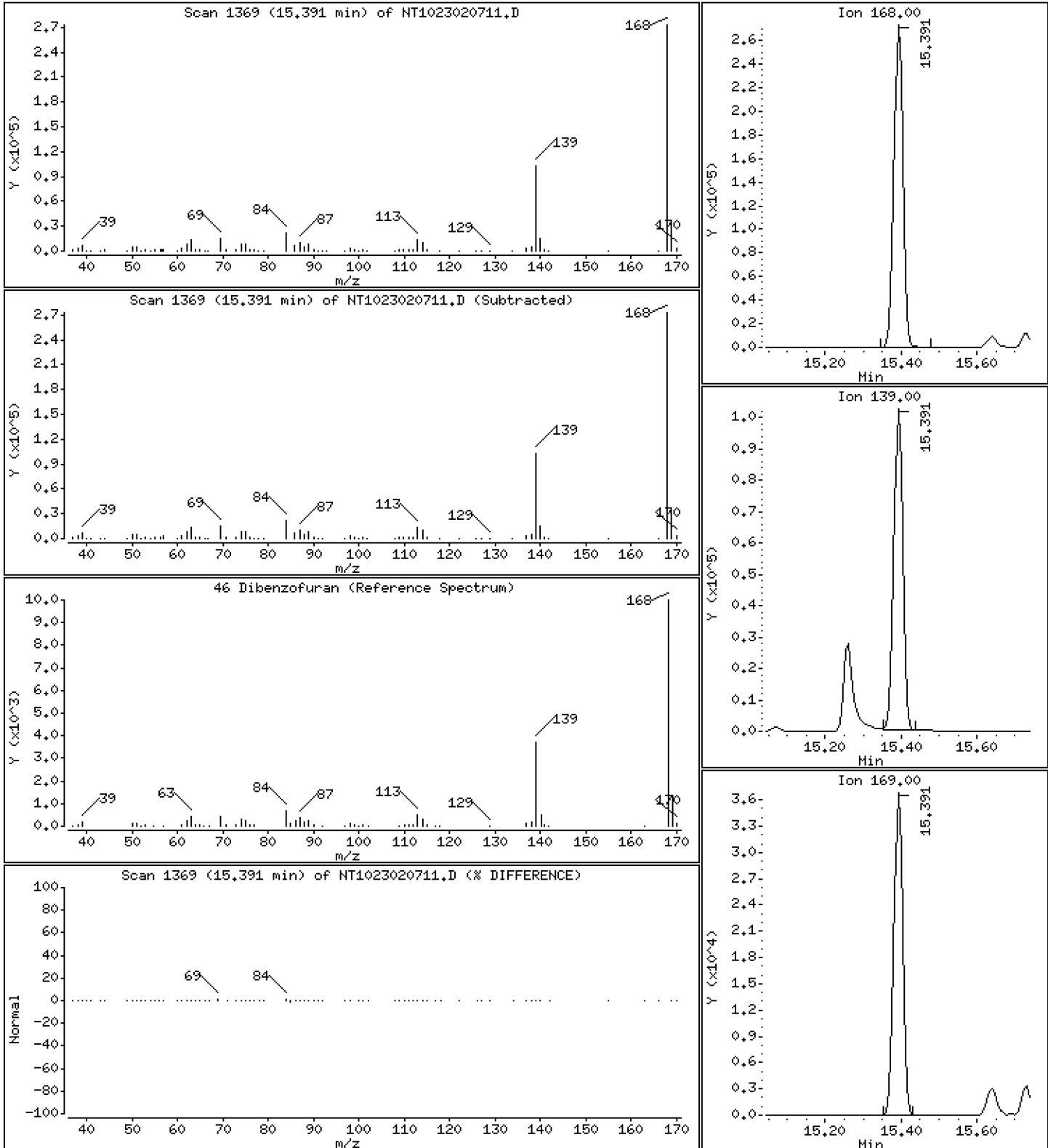
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 4,183 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

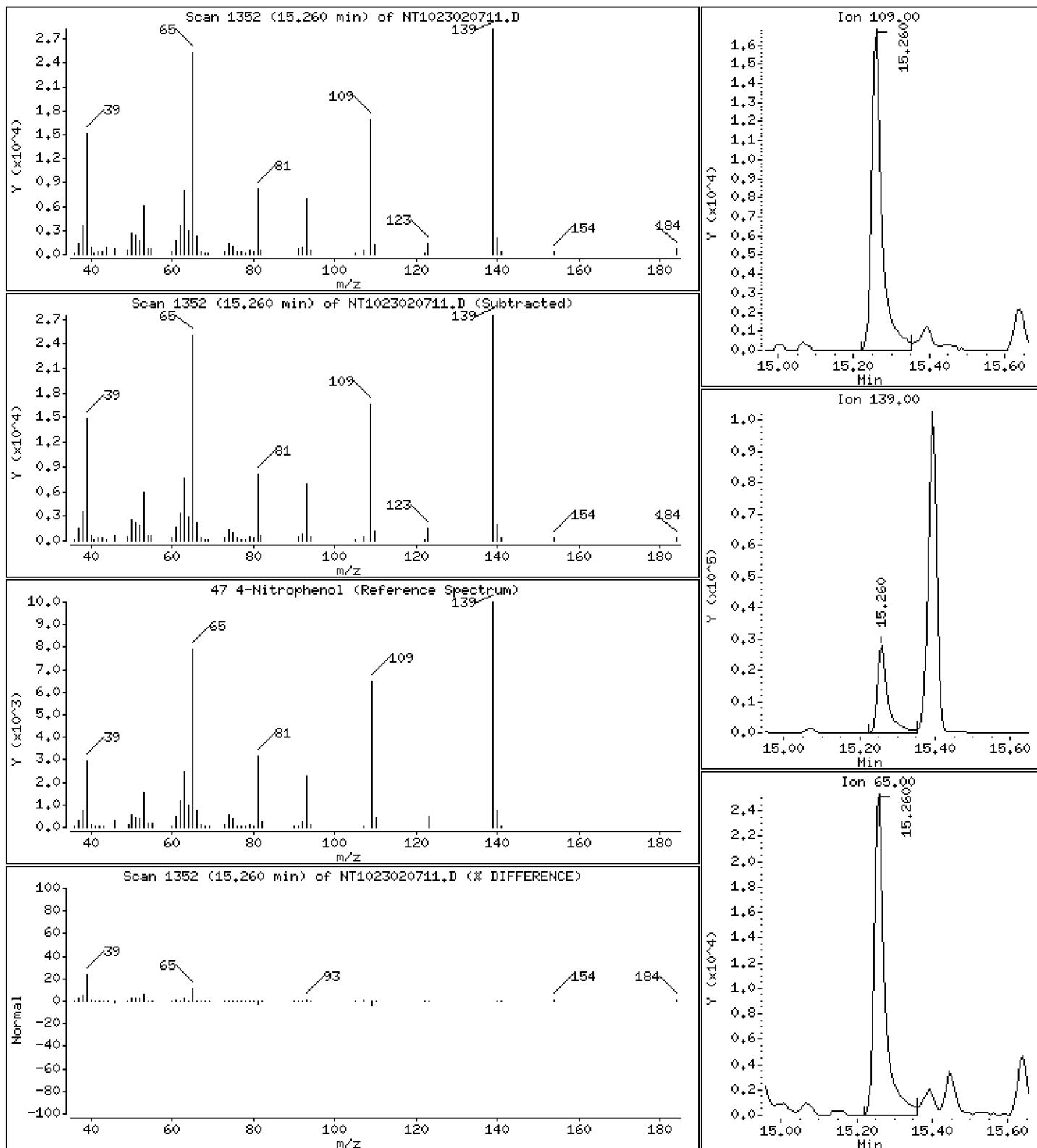
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 4,116 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

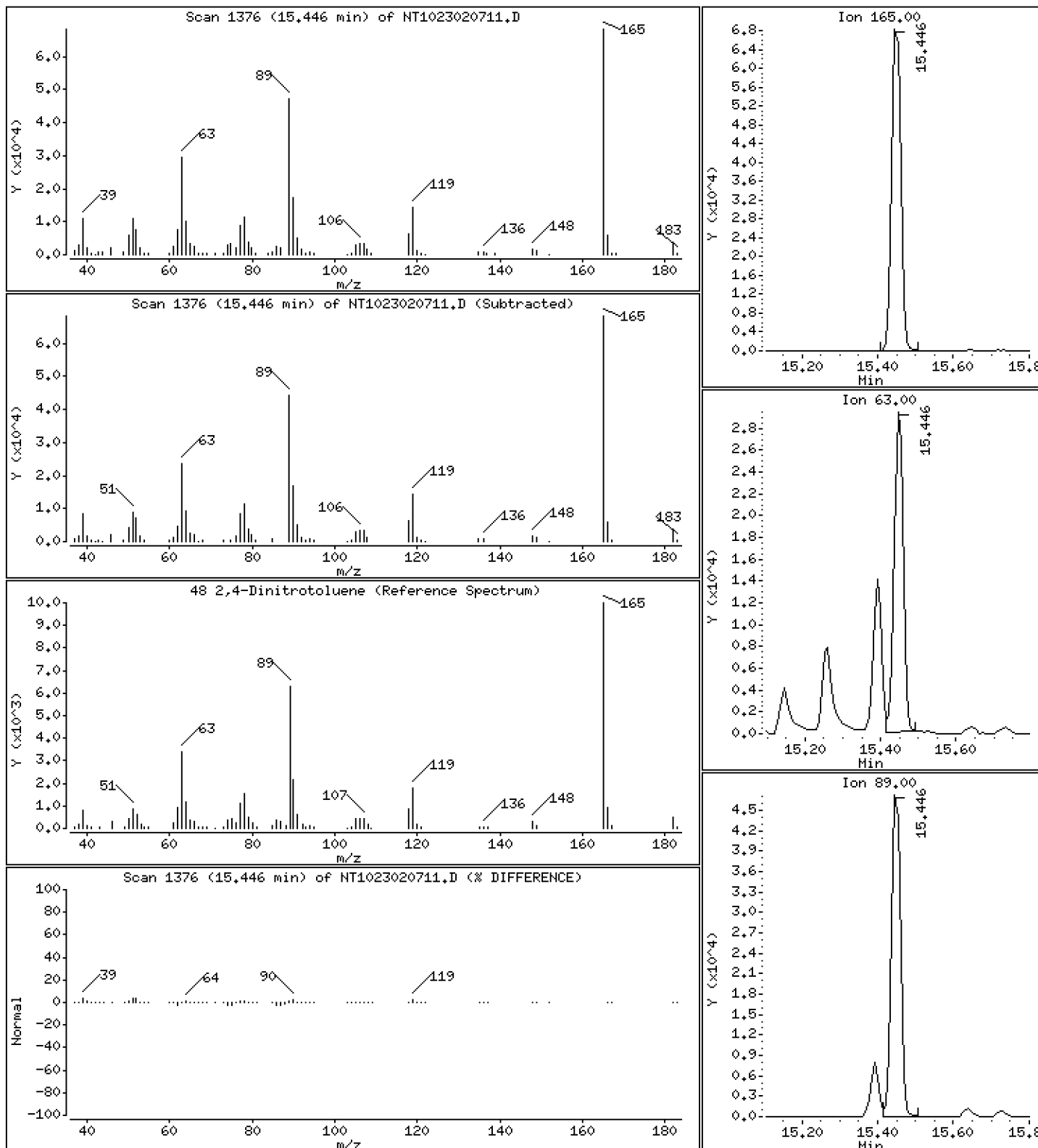
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

48 2,4-Dinitrotoluene

Concentration: 4.265 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

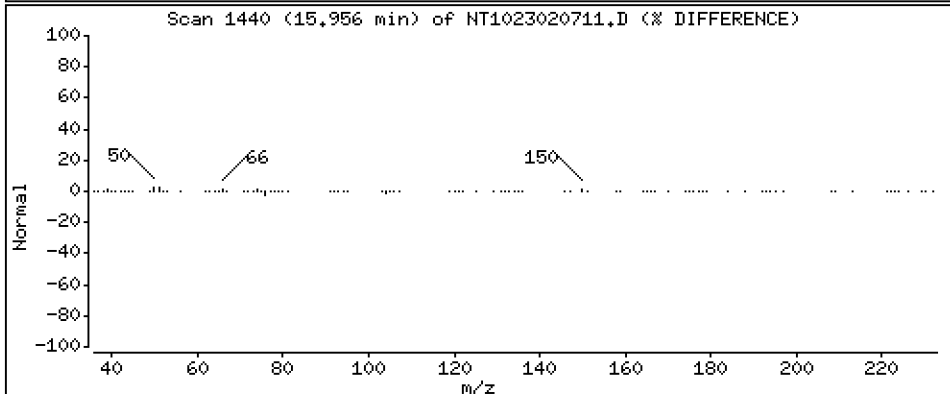
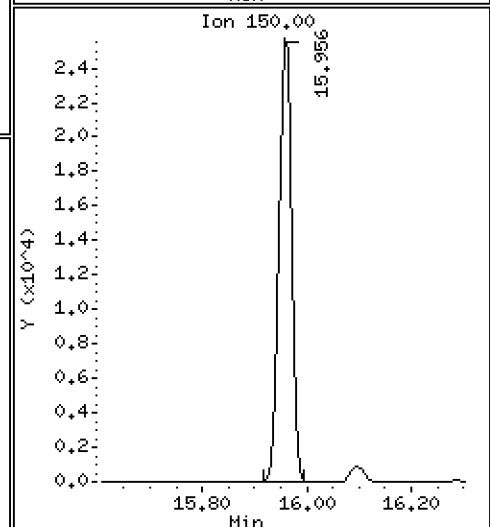
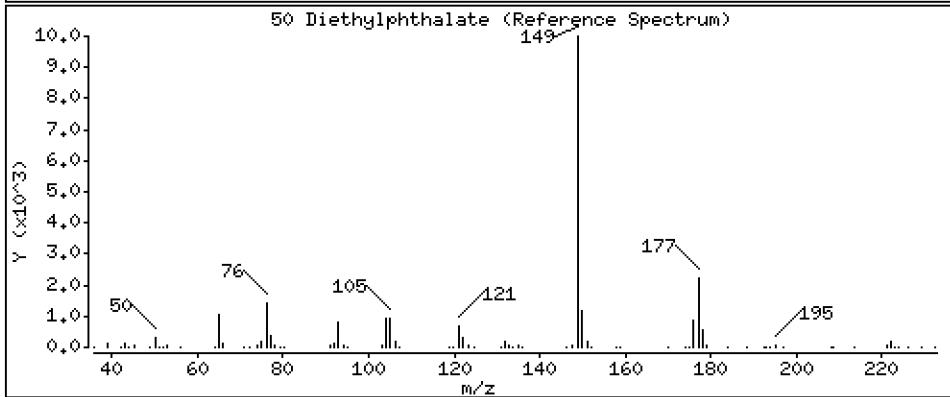
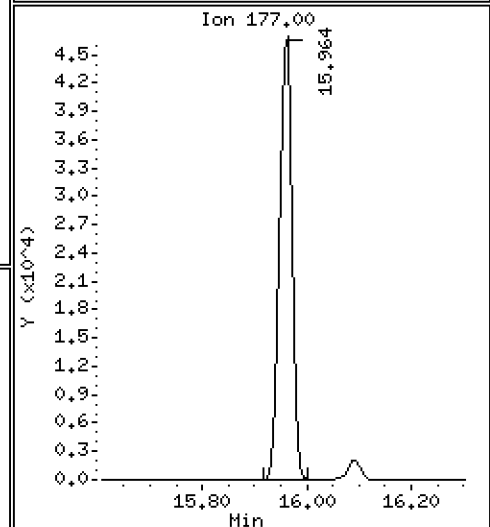
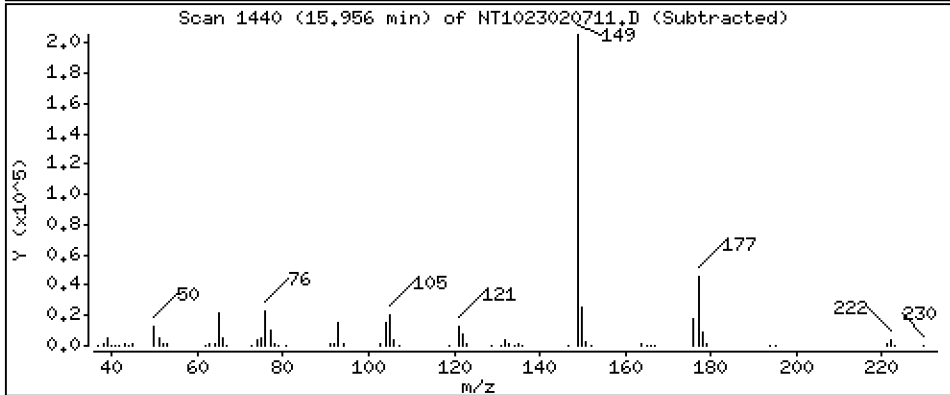
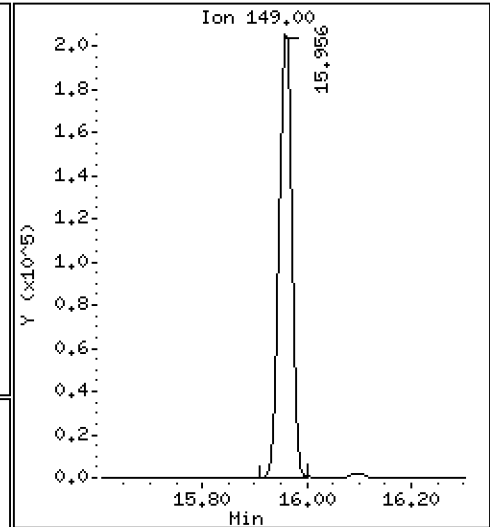
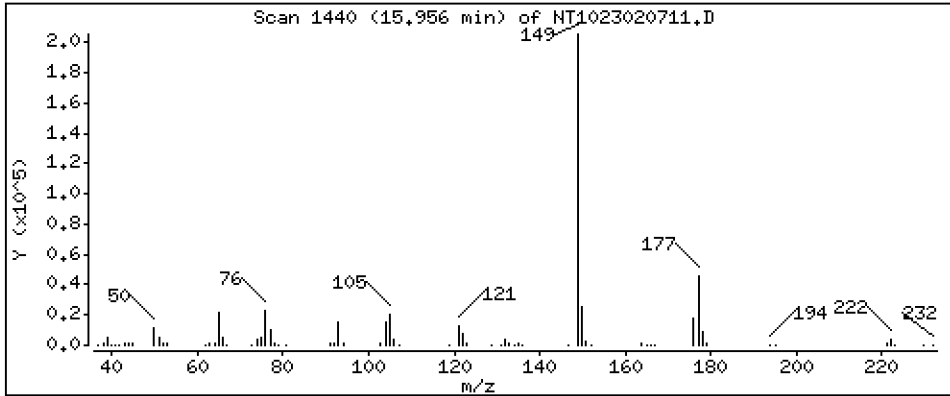
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 4.422 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

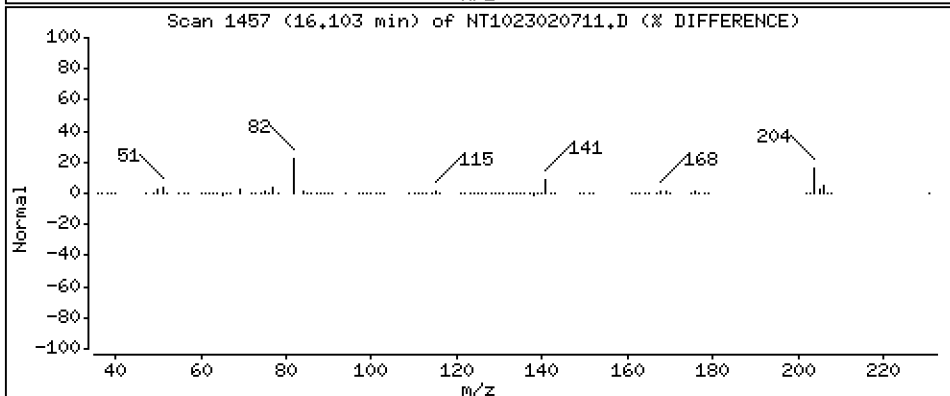
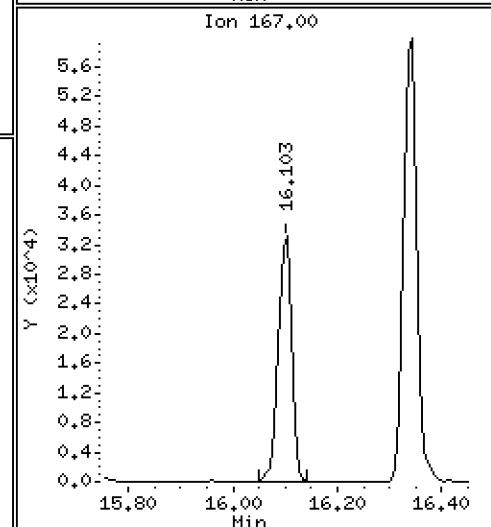
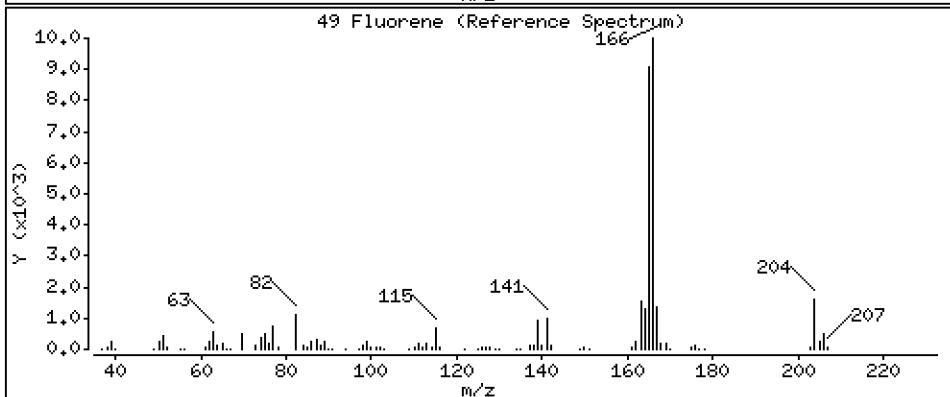
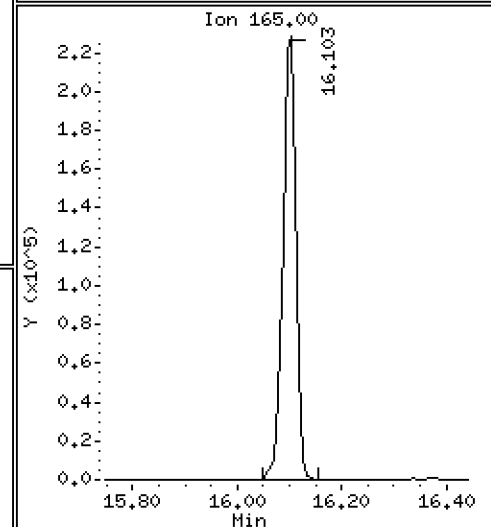
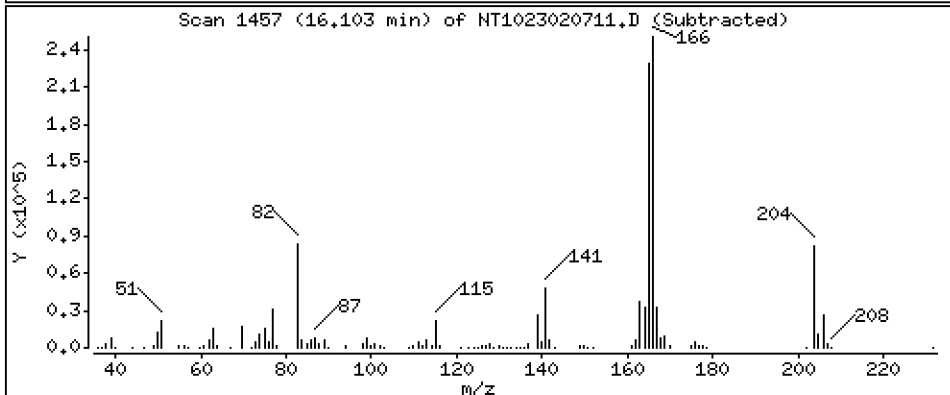
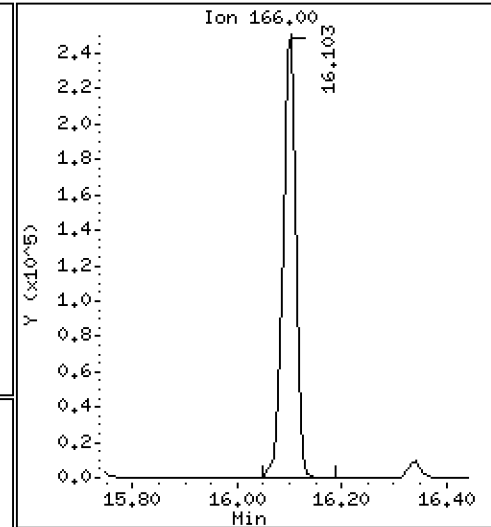
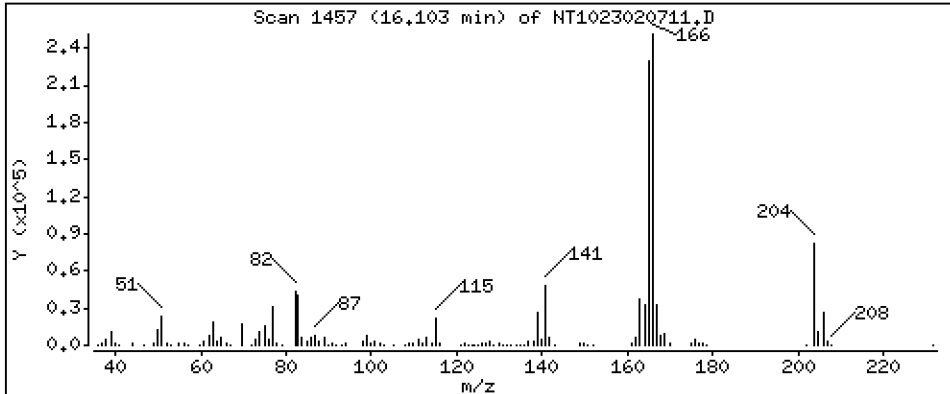
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 4,139 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

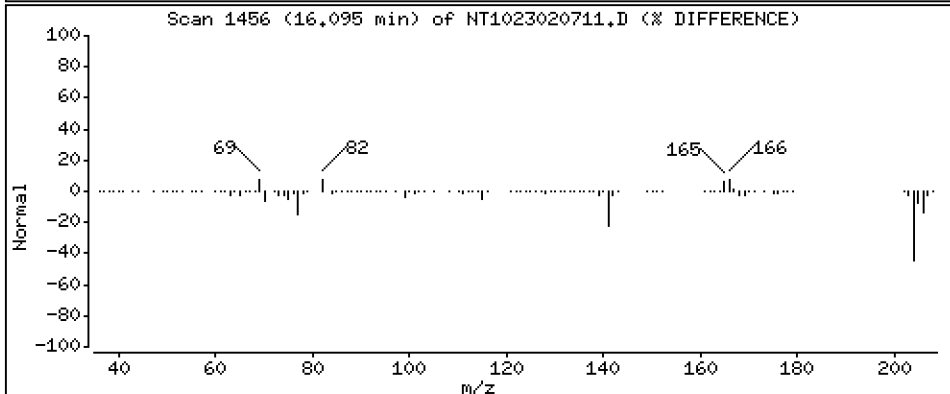
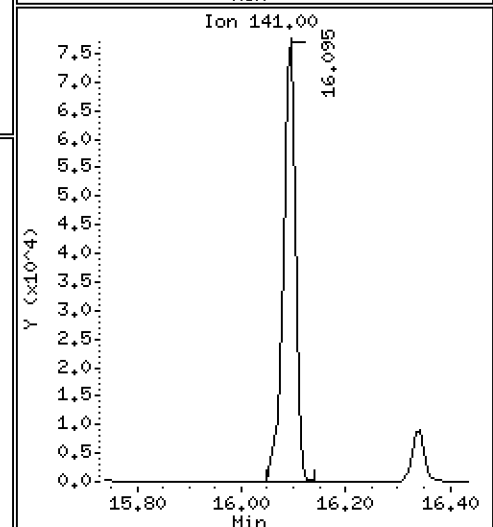
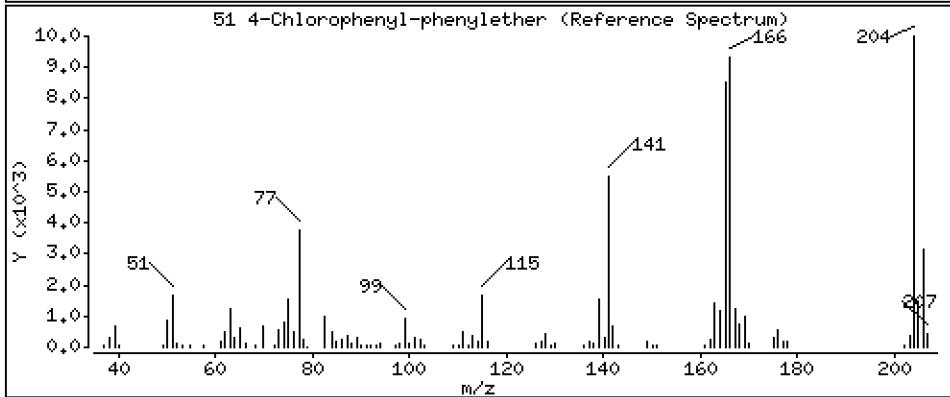
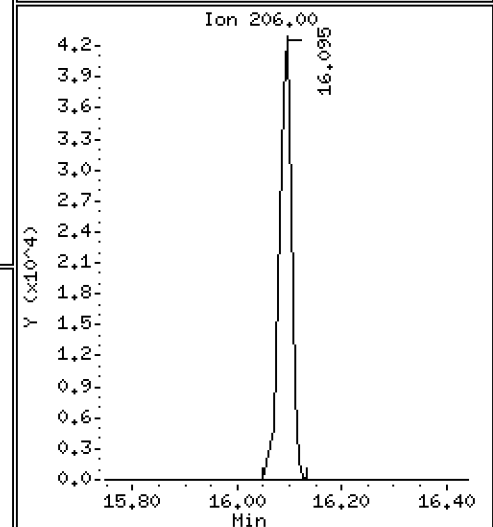
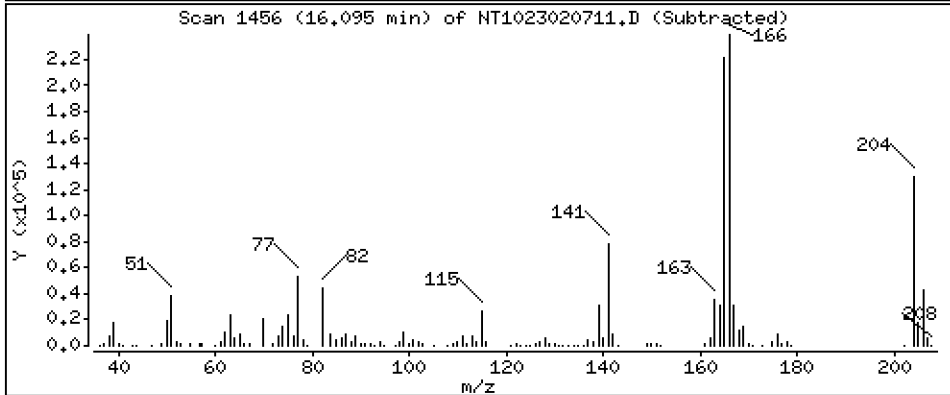
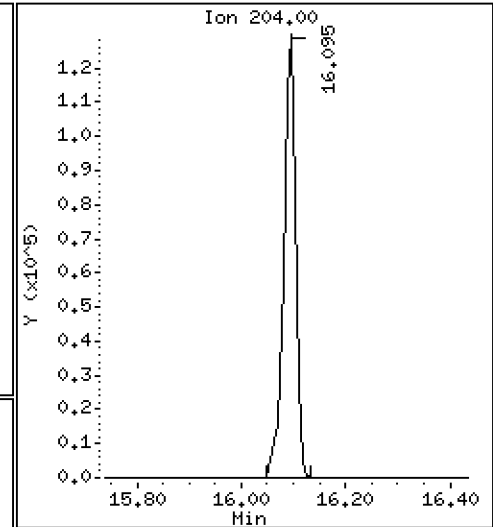
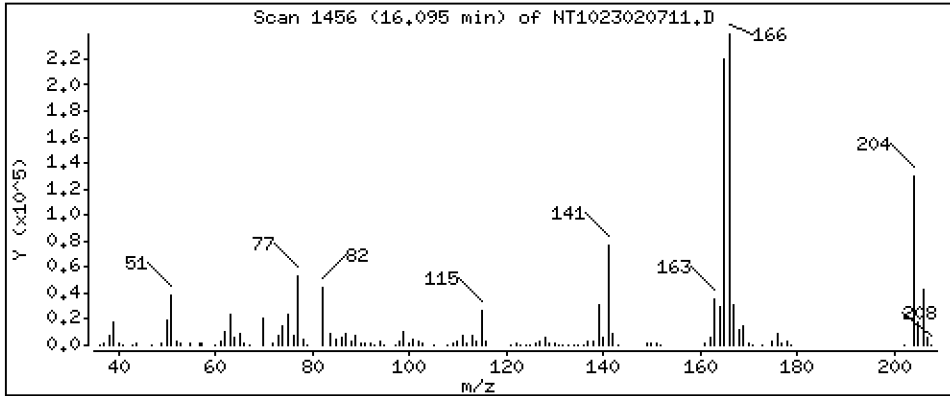
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,315 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

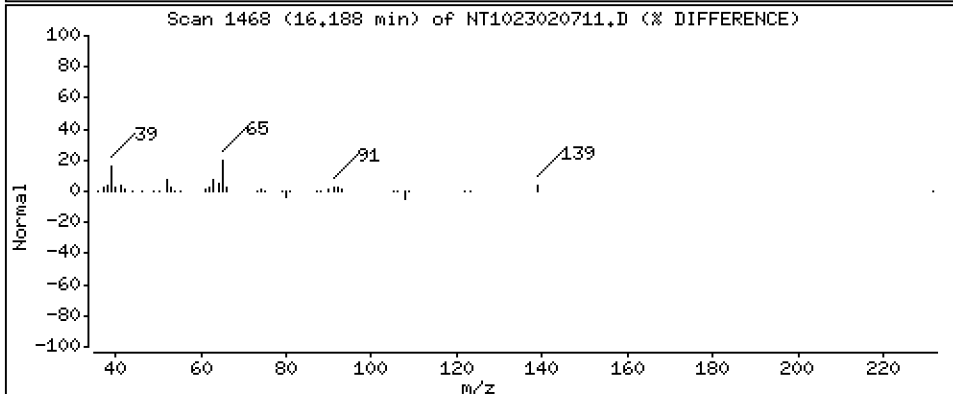
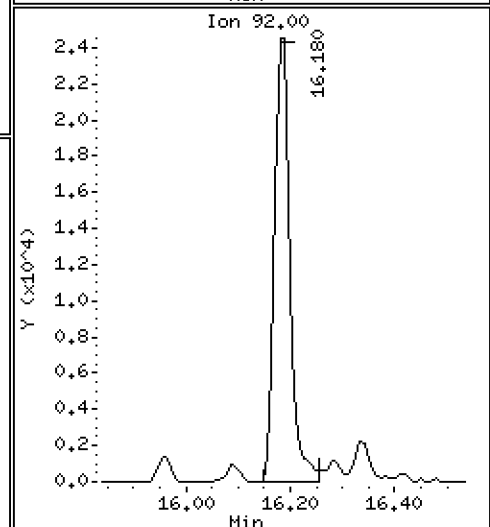
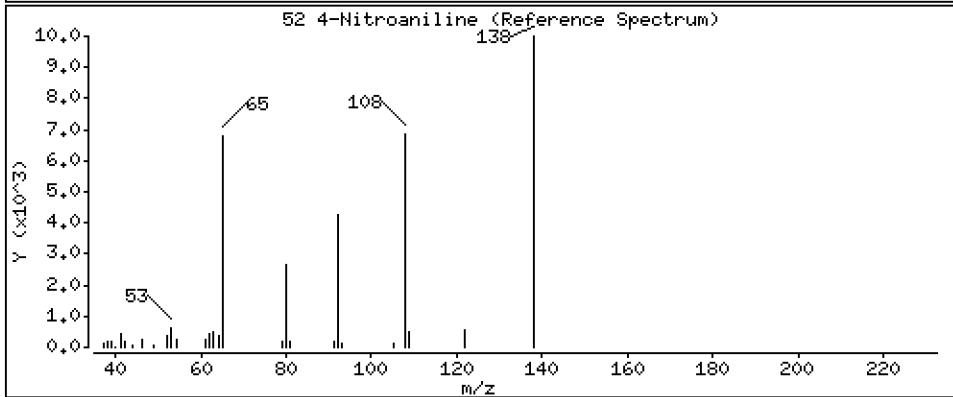
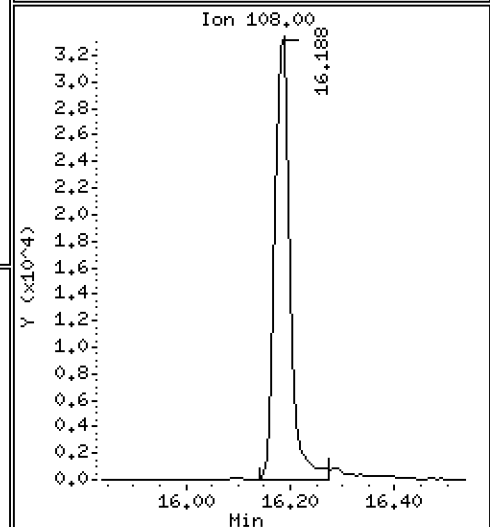
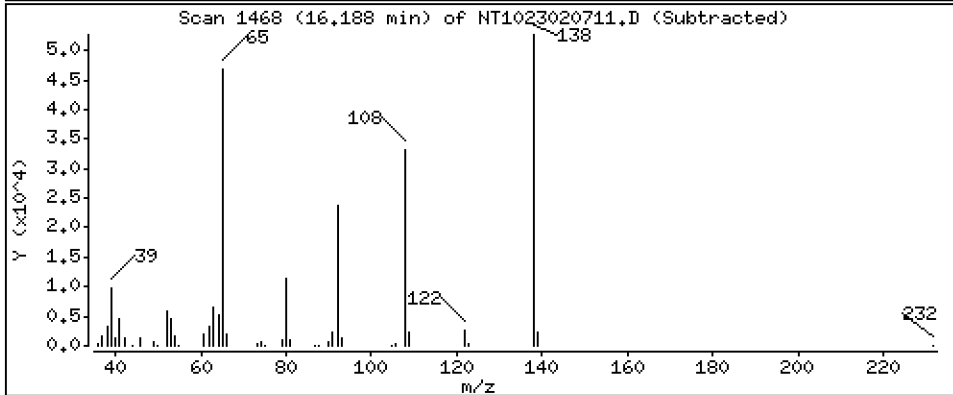
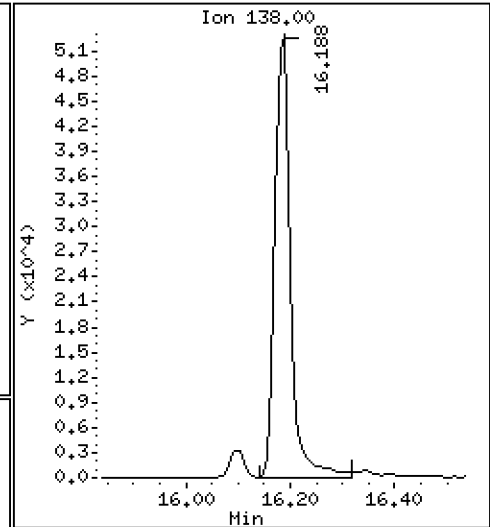
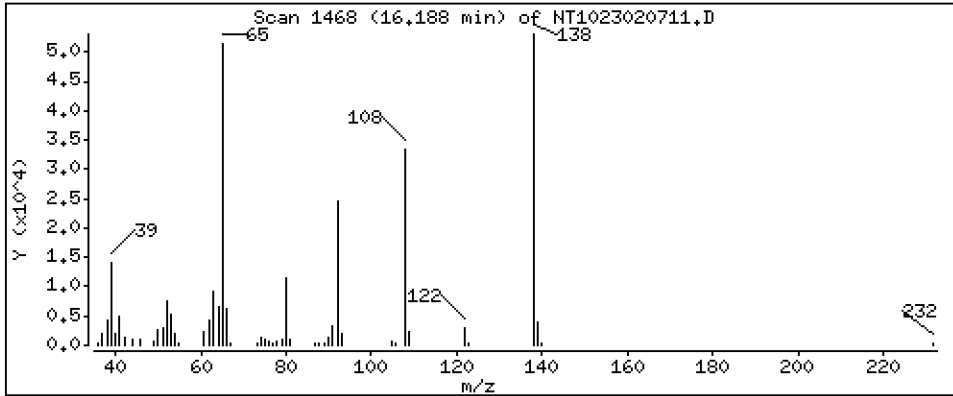
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

52 4-Nitroaniline

Concentration: 4,340 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

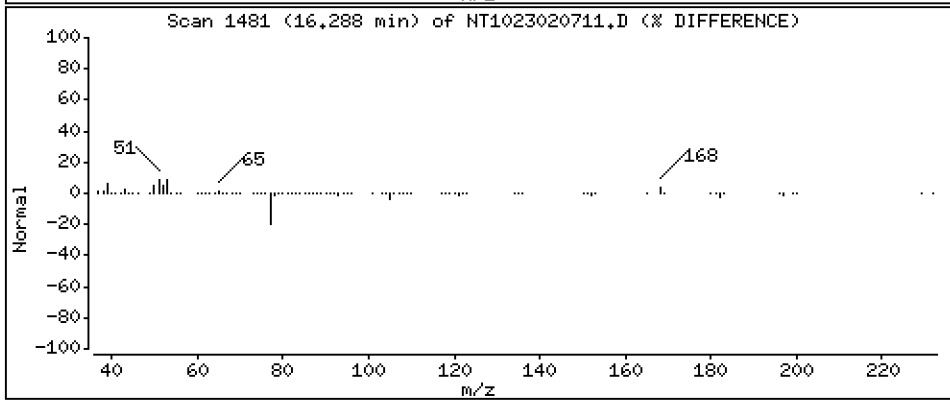
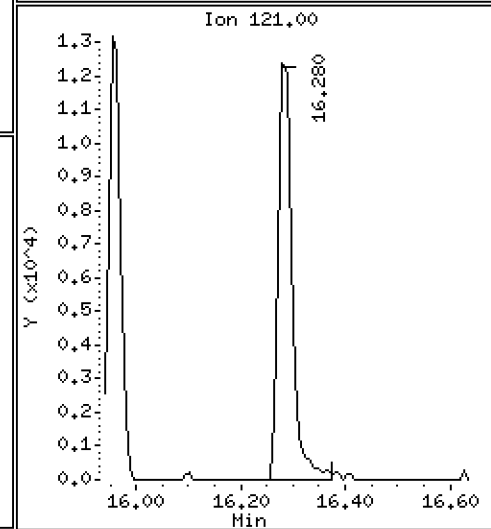
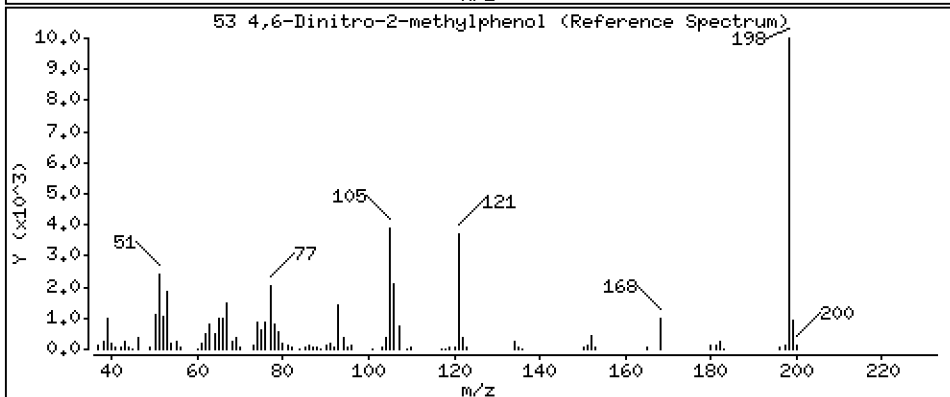
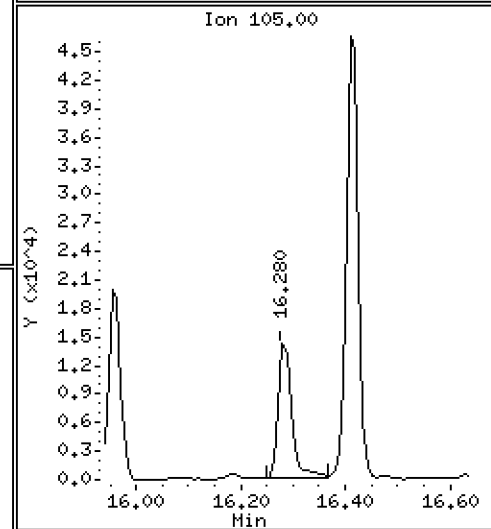
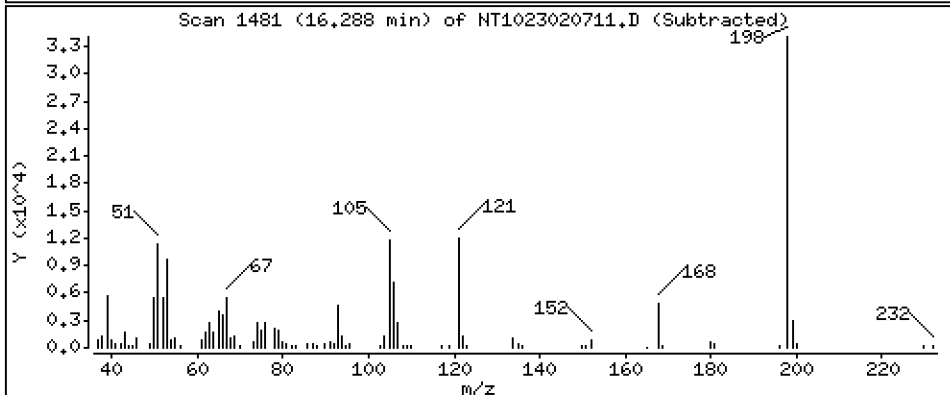
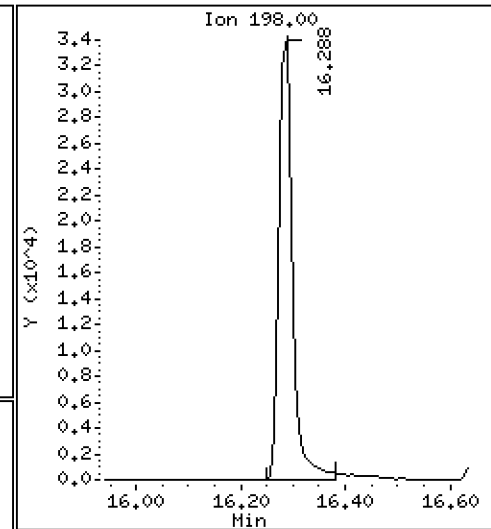
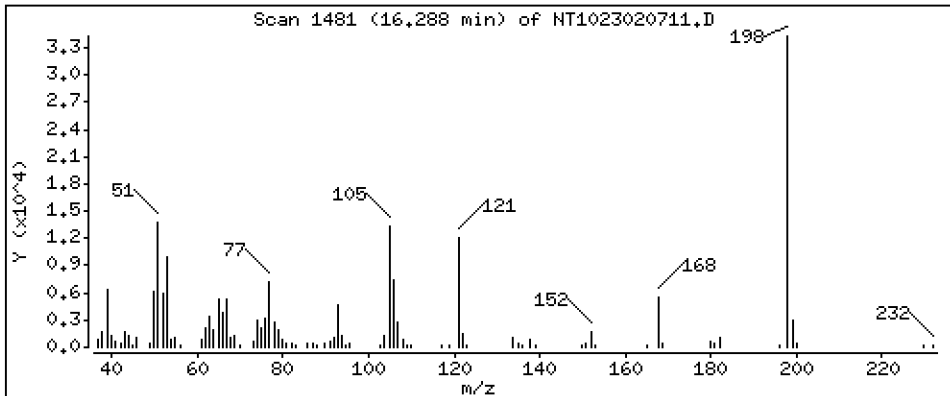
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,995 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

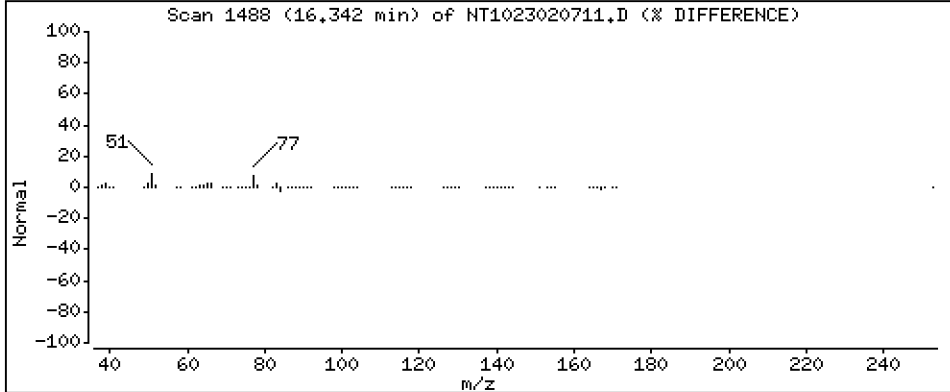
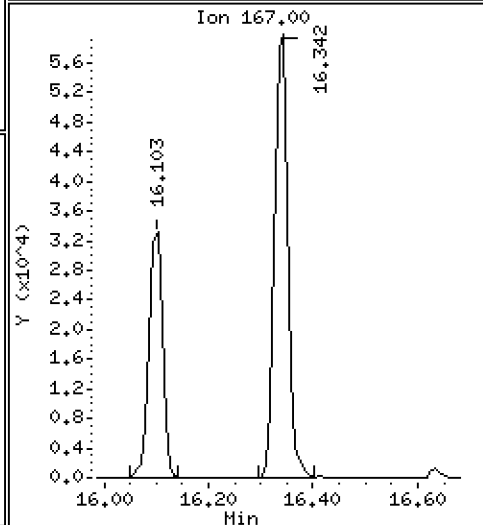
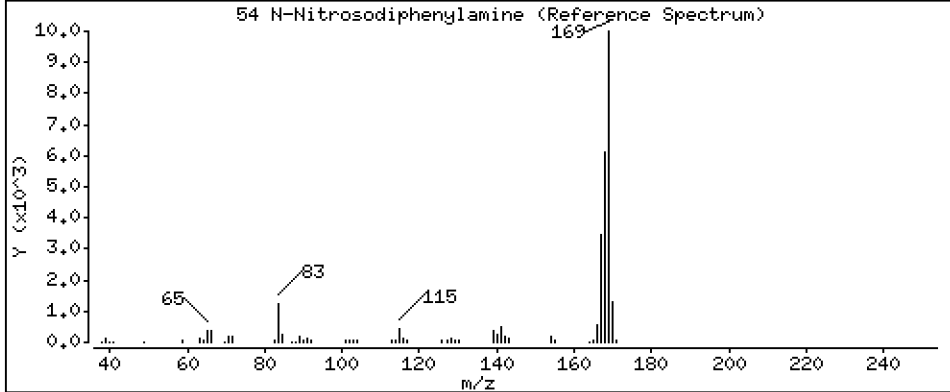
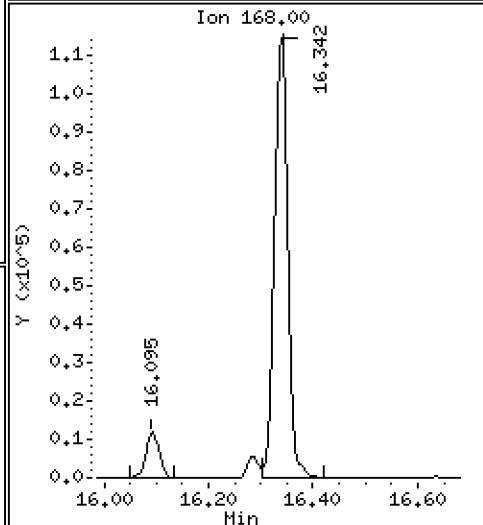
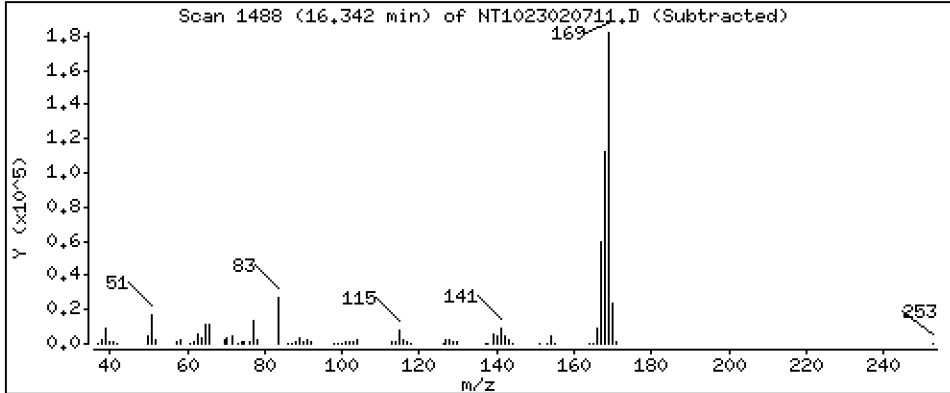
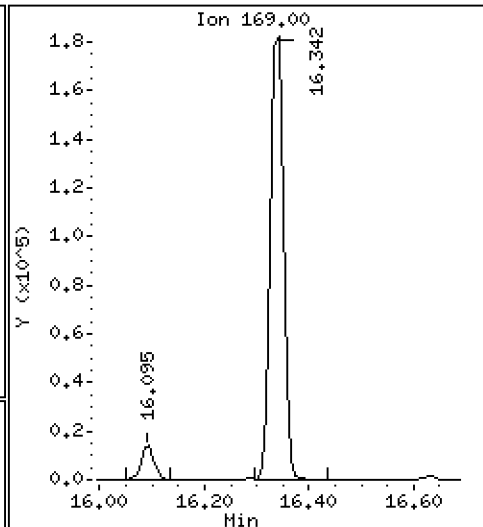
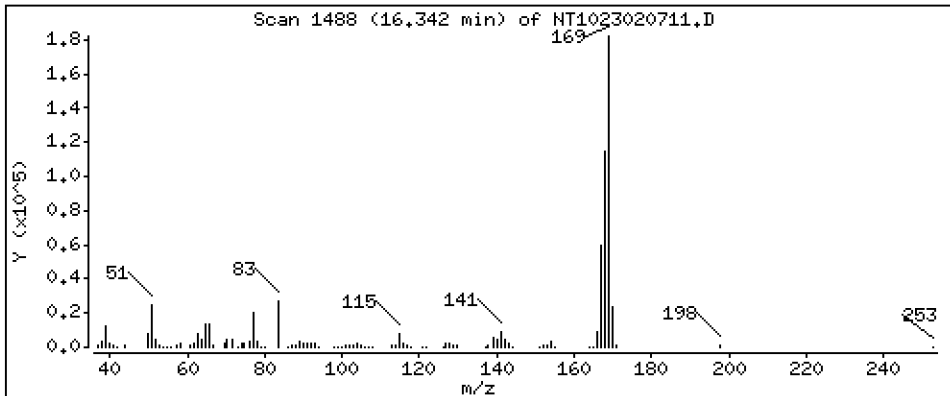
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 4,384 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

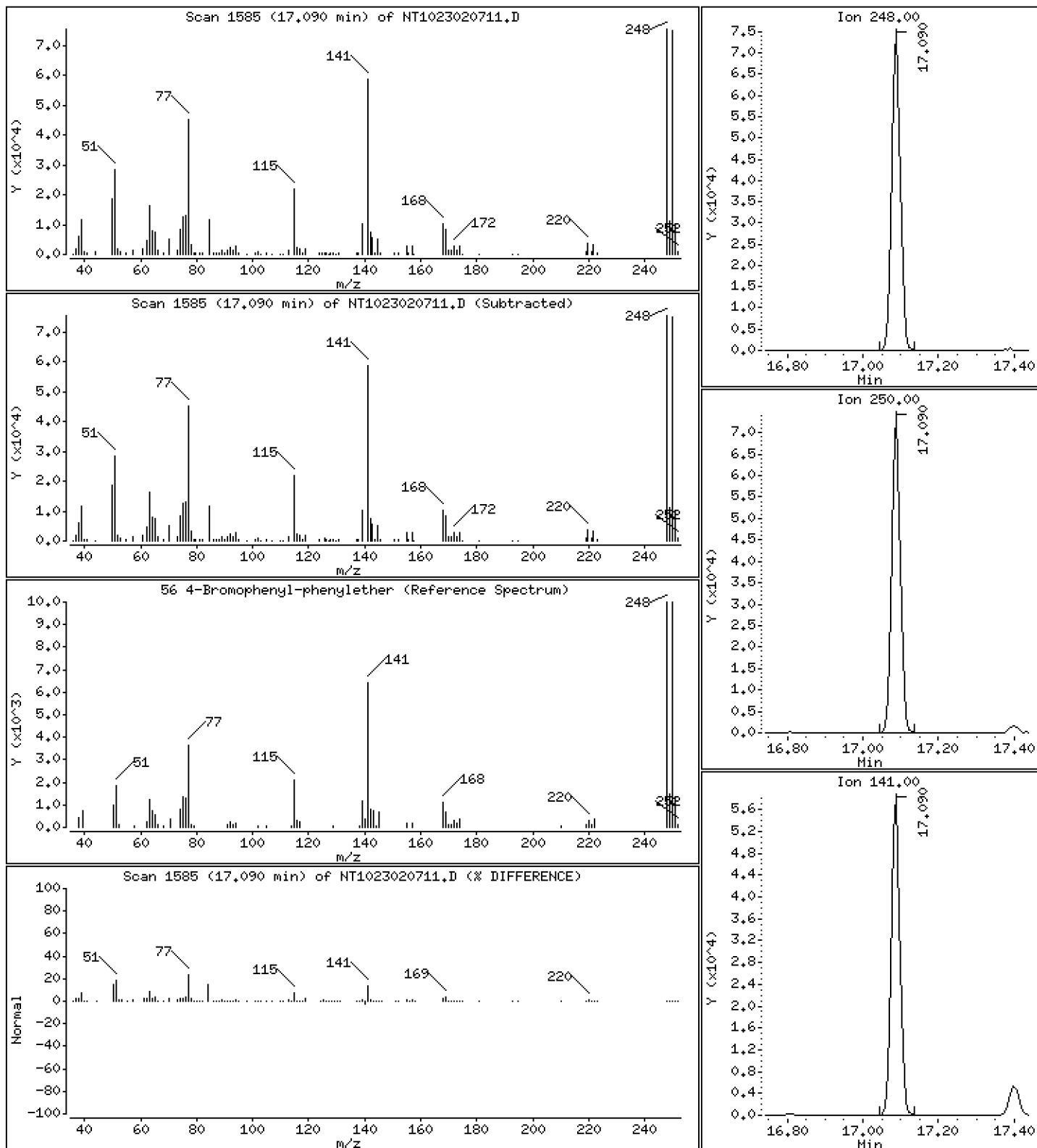
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,550 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

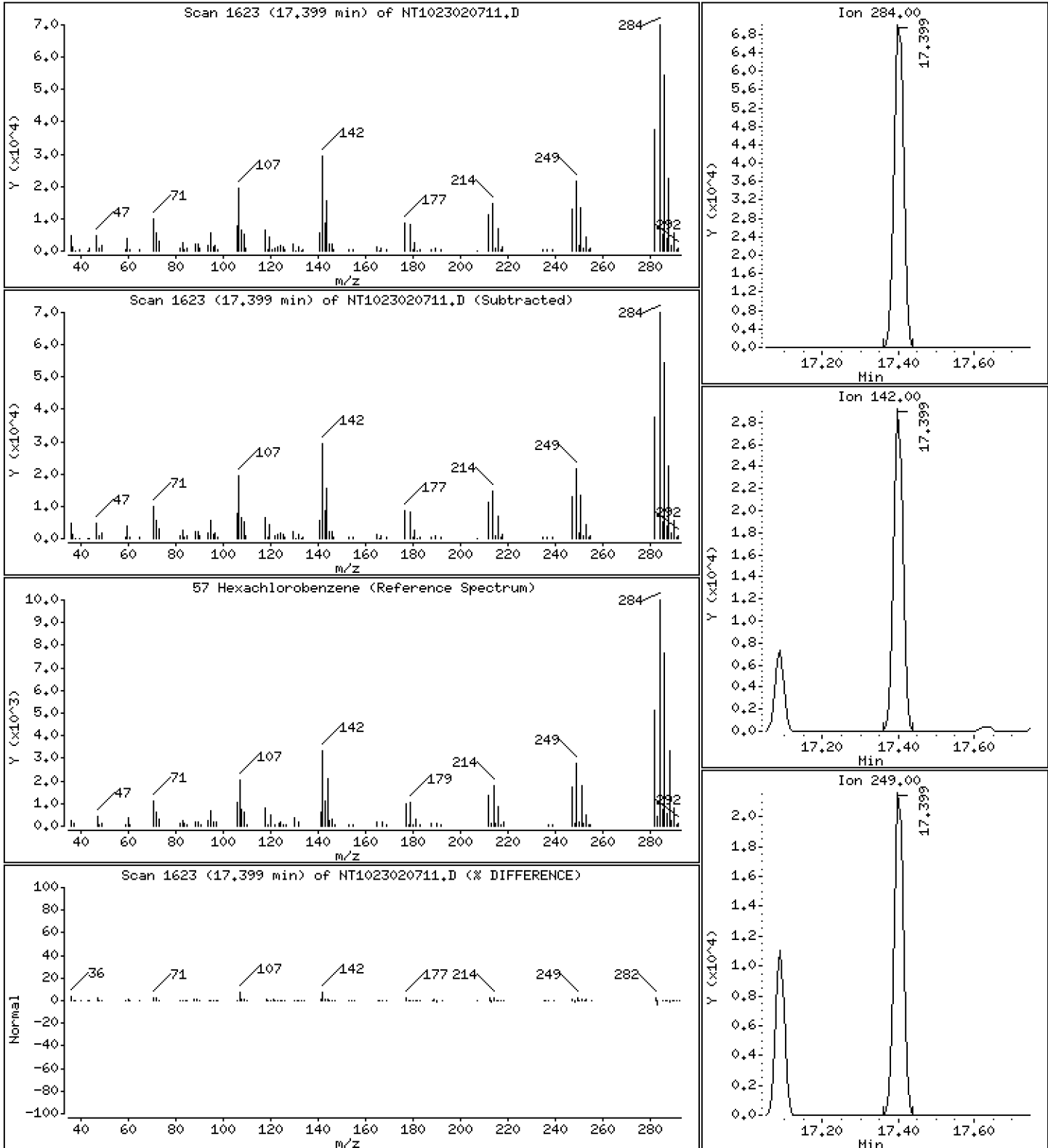
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 4.289 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

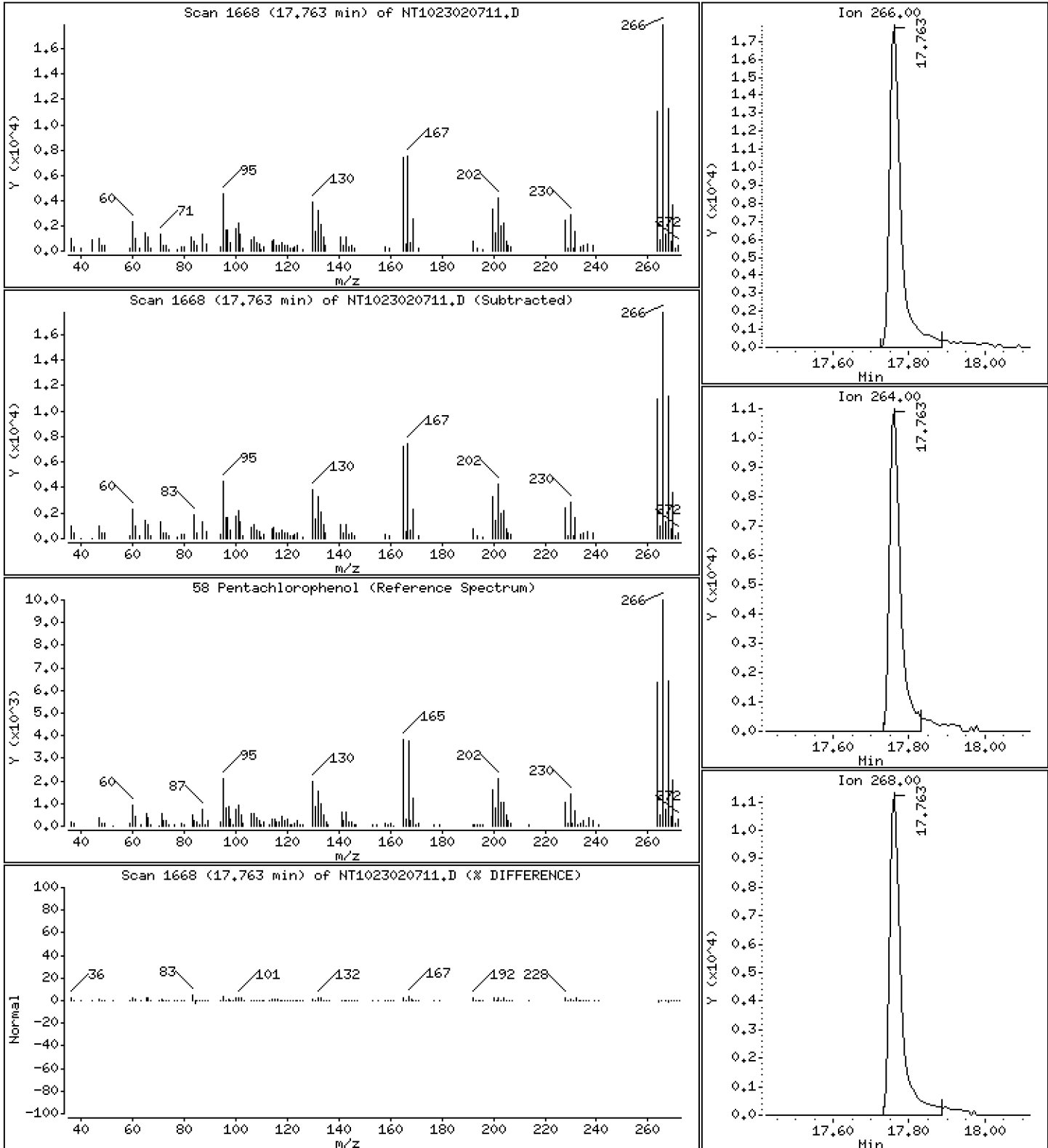
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,453 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

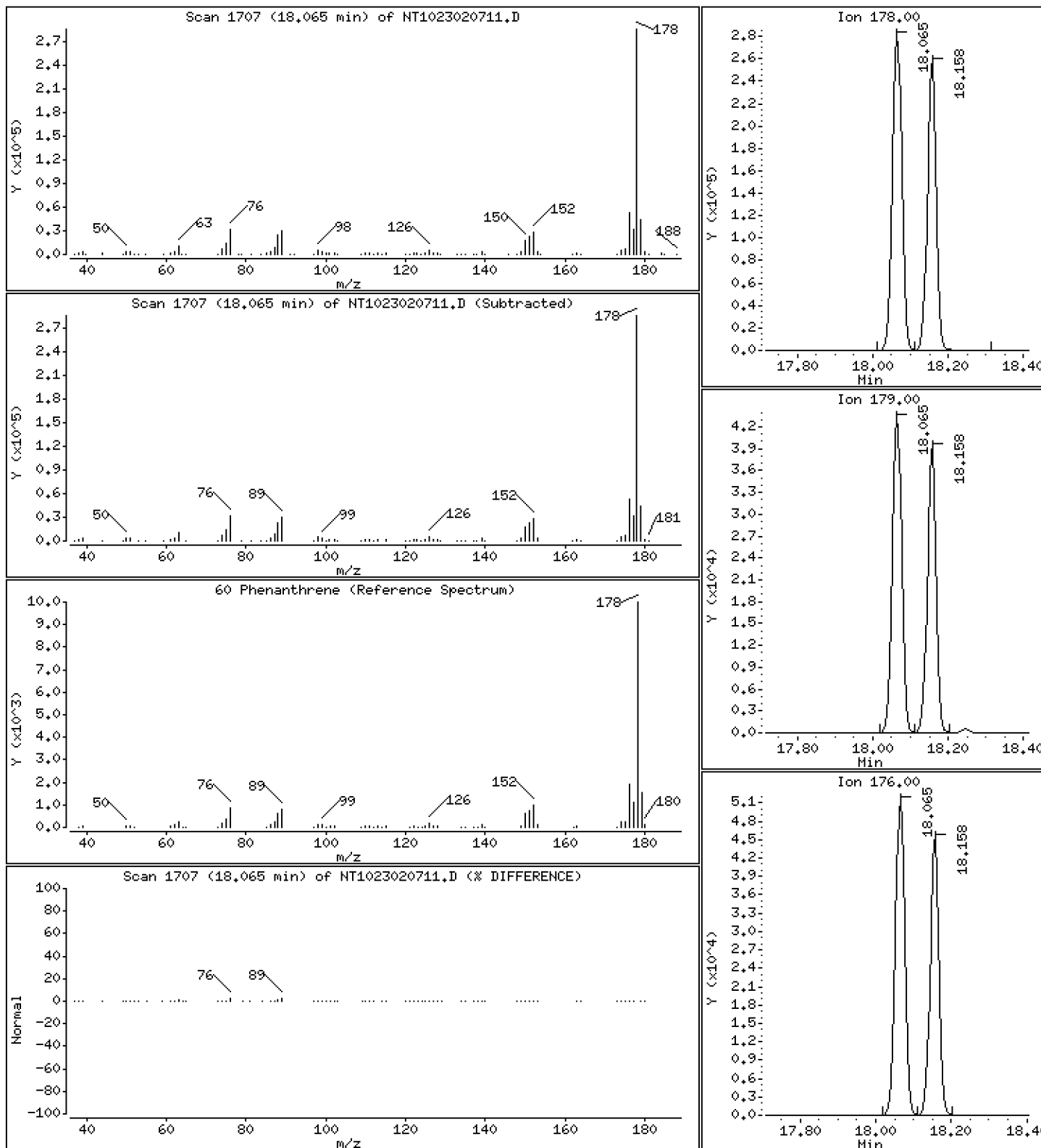
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,304 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

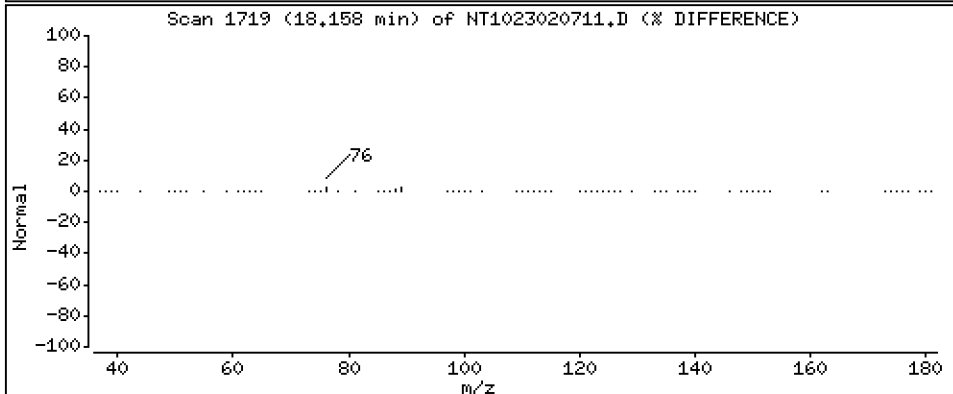
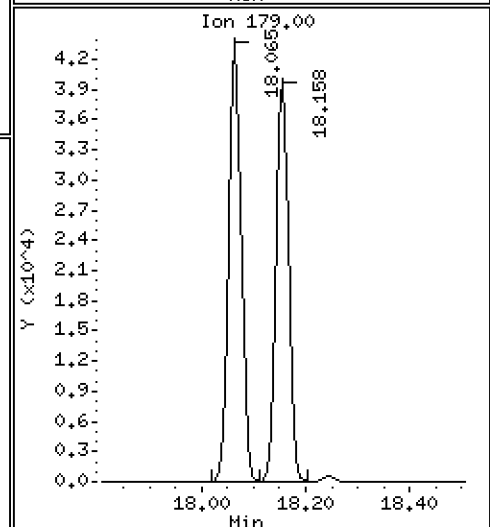
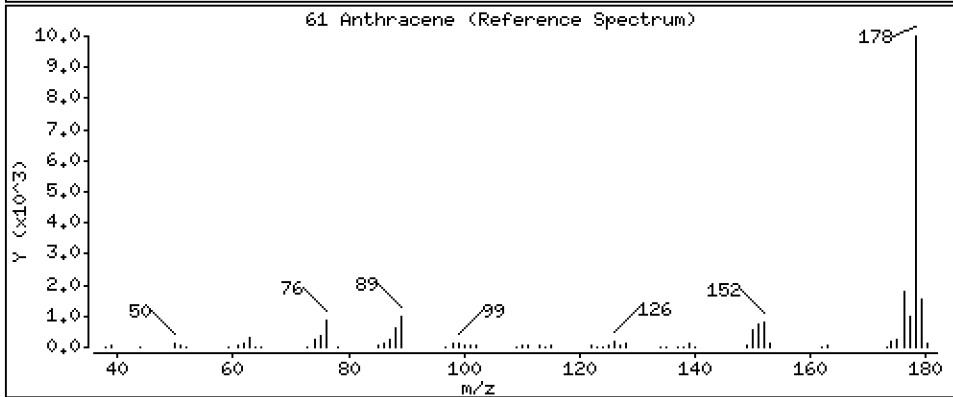
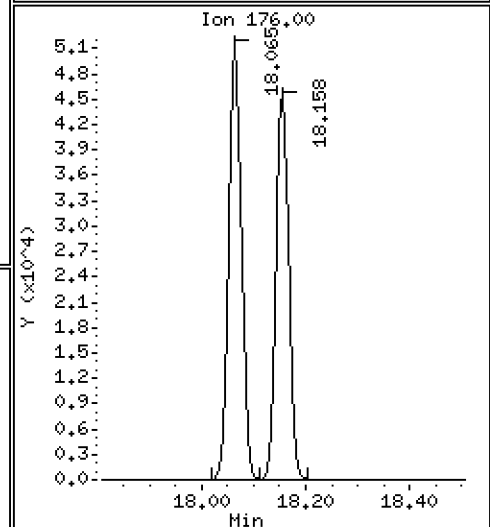
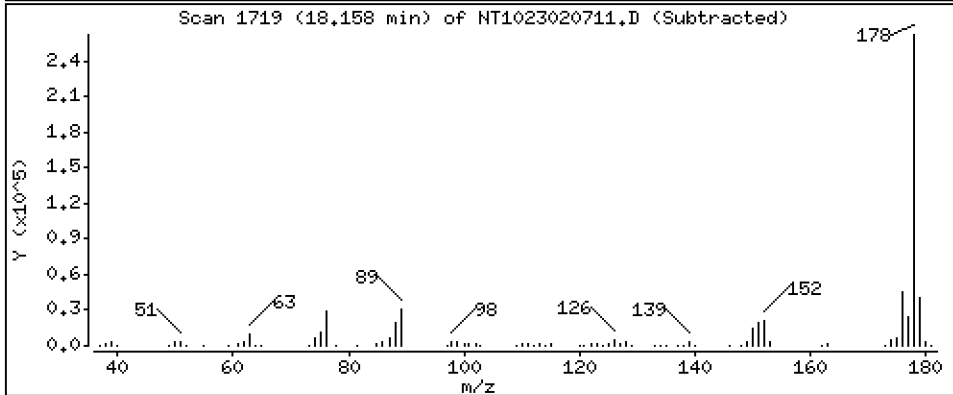
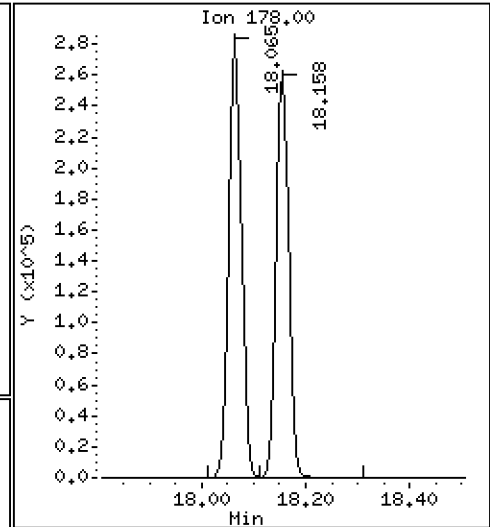
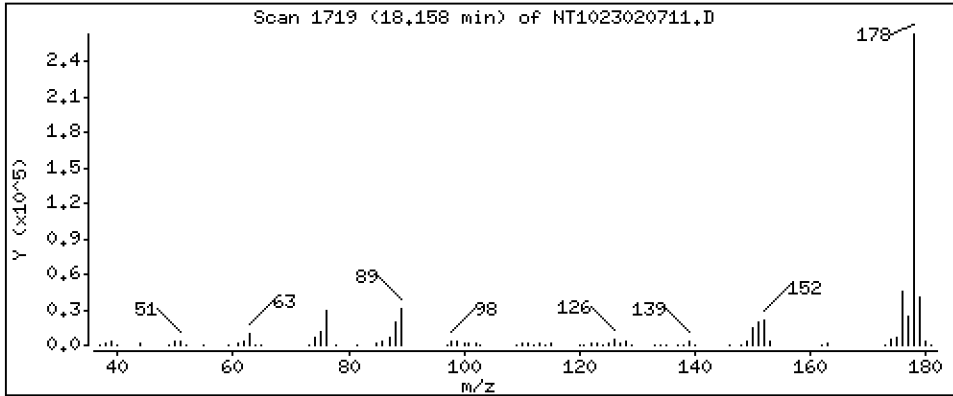
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 3,900 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

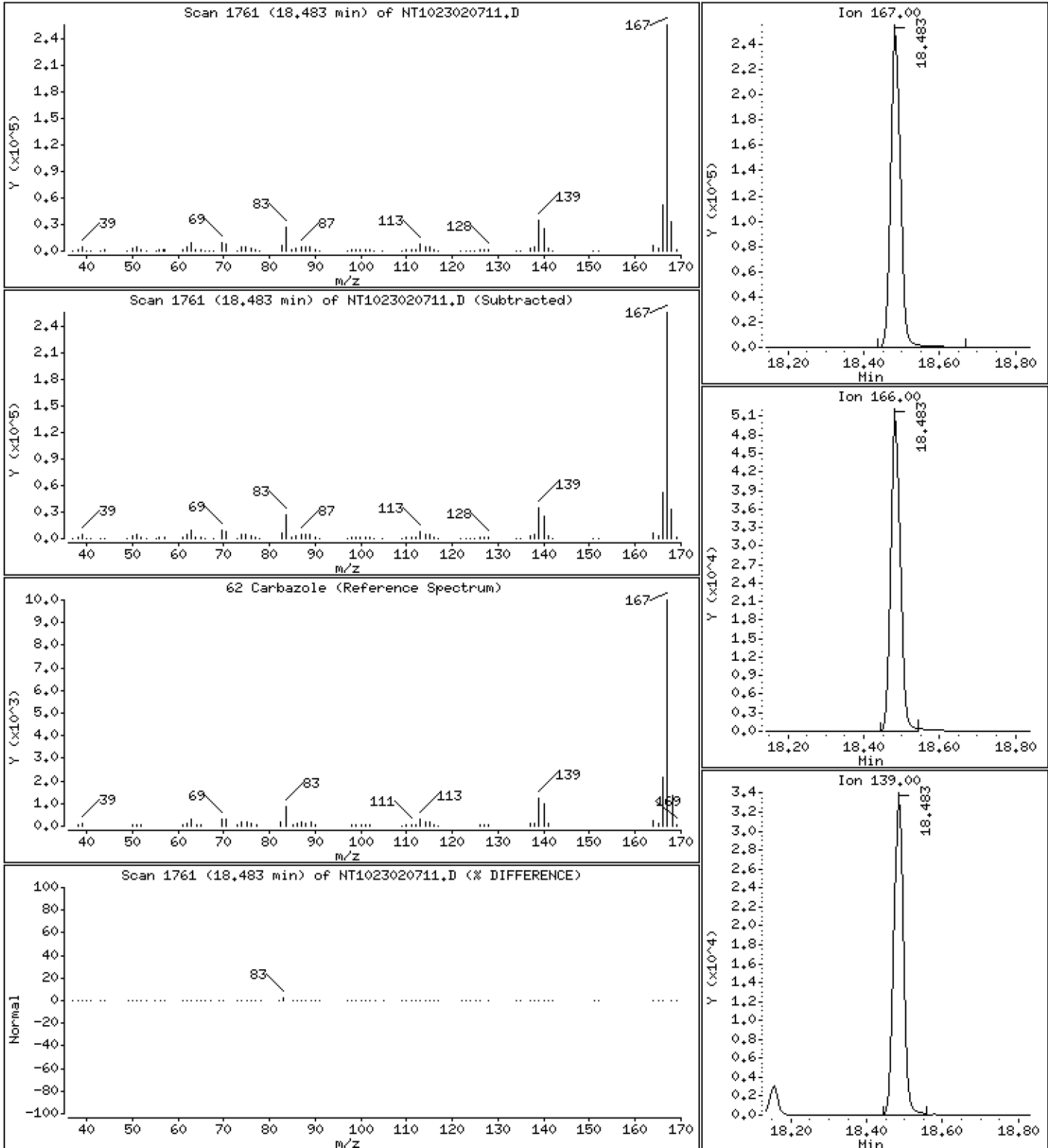
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 4,166 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

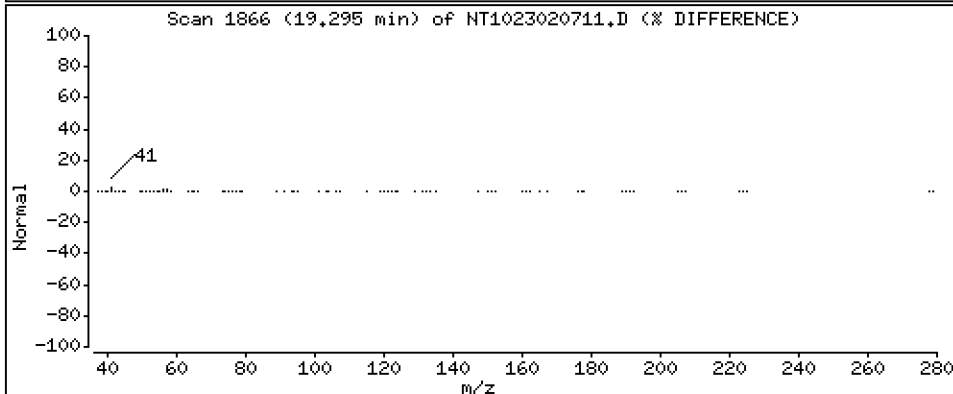
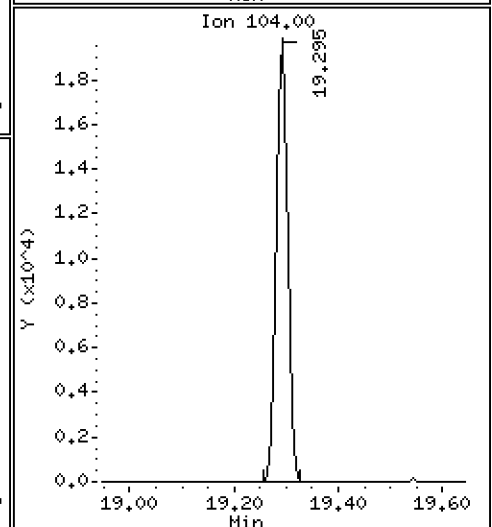
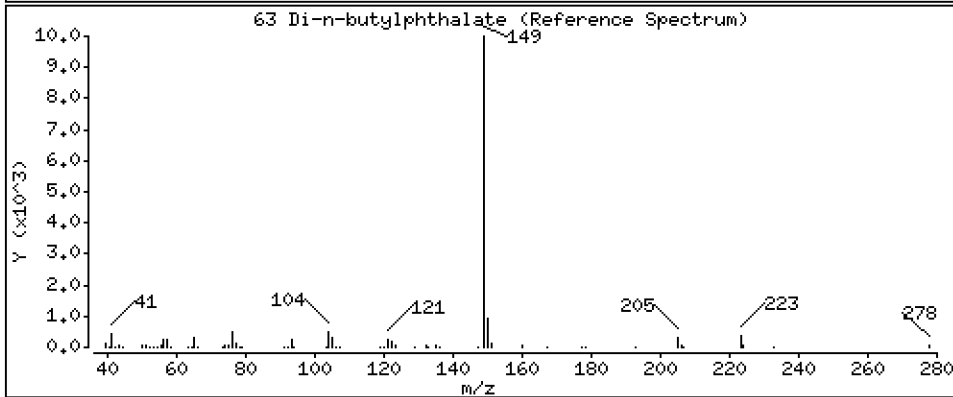
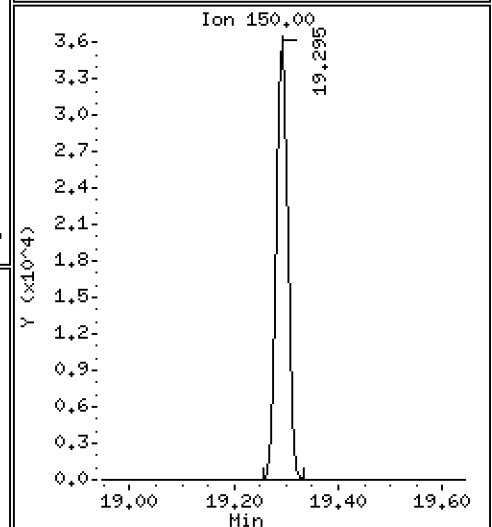
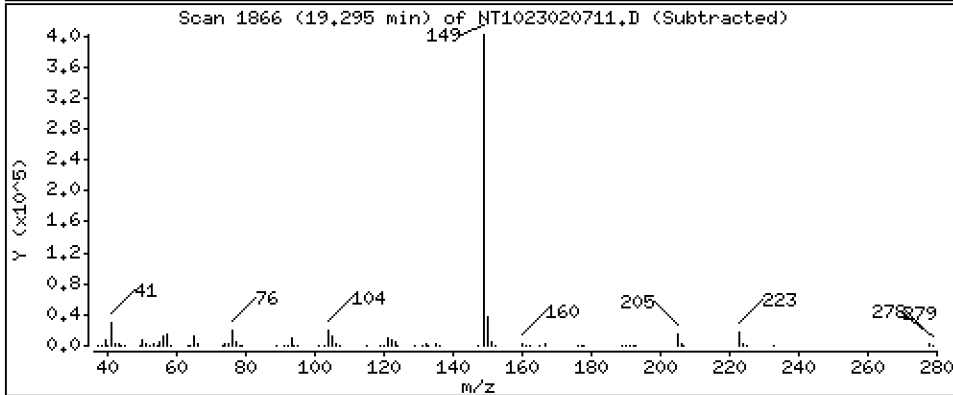
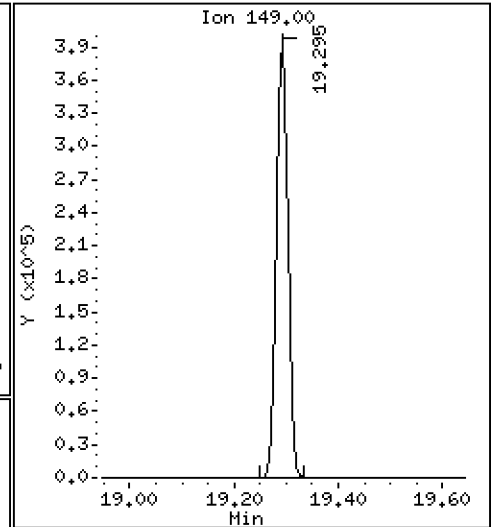
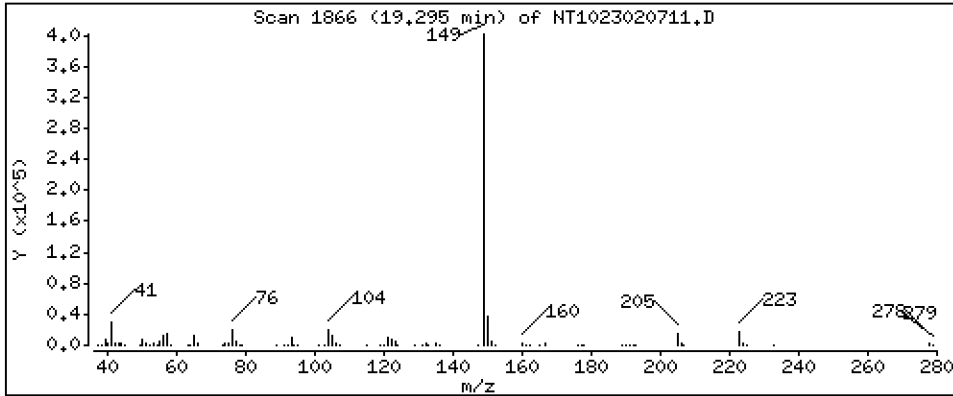
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

63 Di-n-butylphthalate

Concentration: 4.611 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

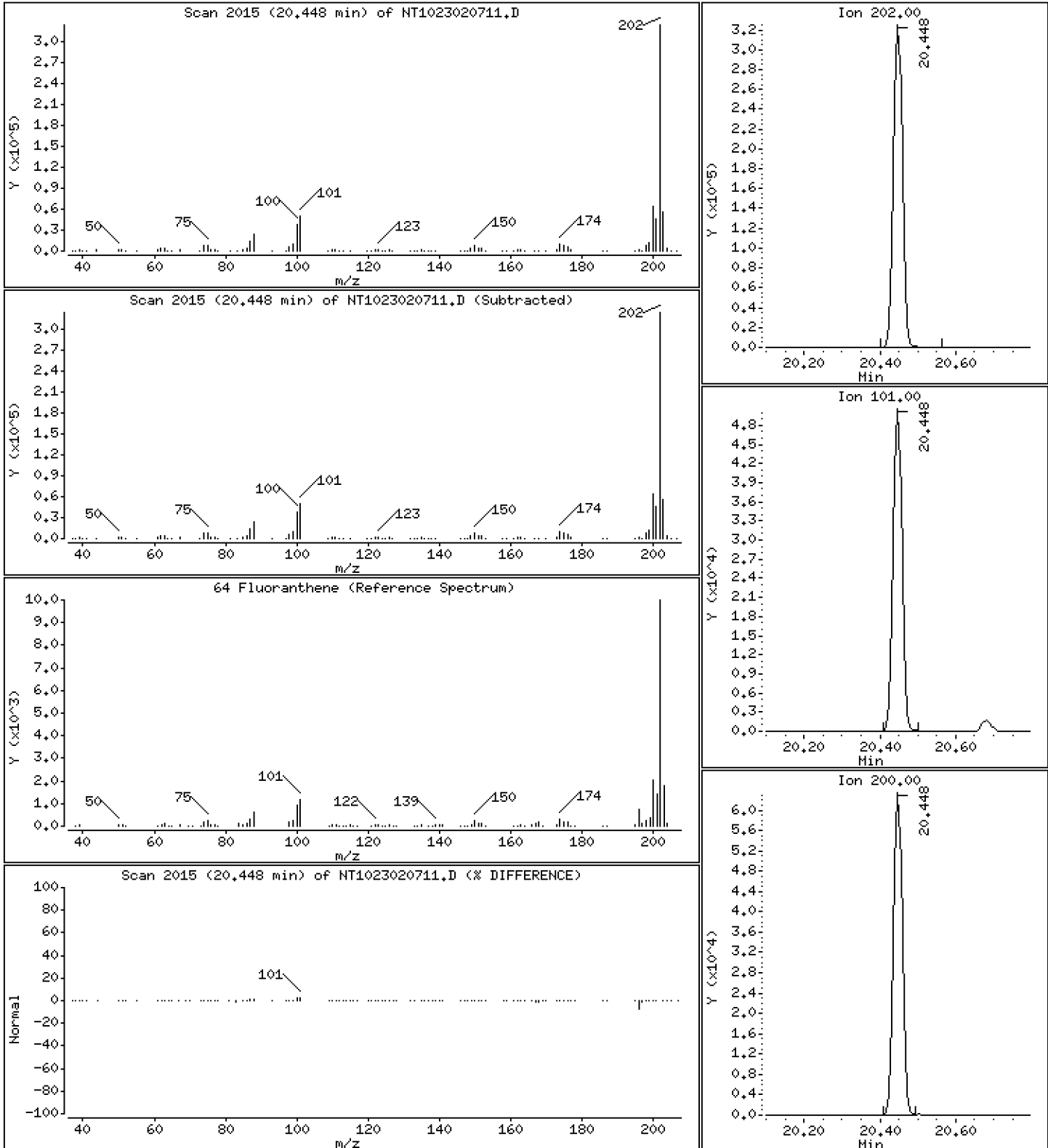
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,340 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

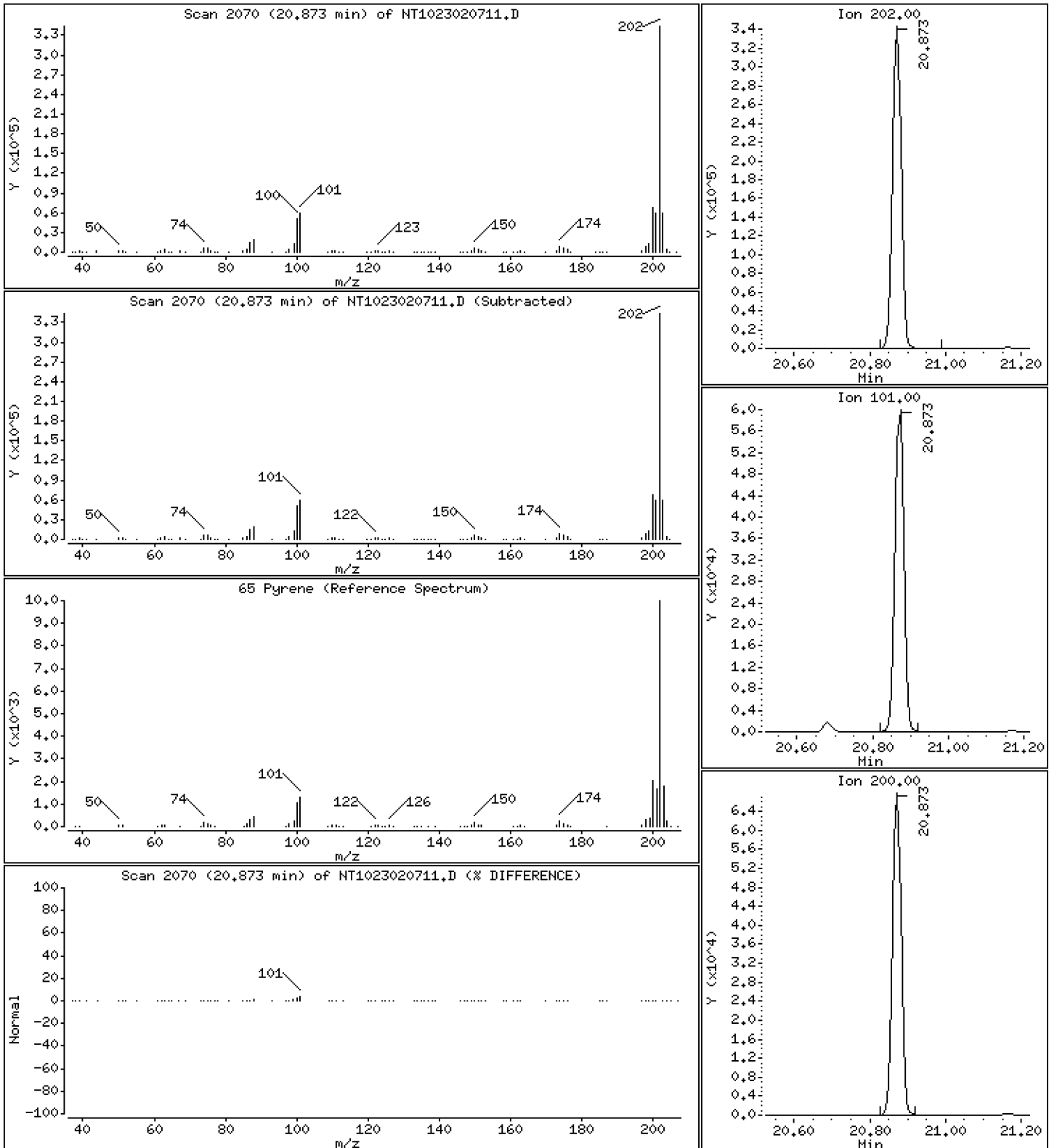
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 4,276 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

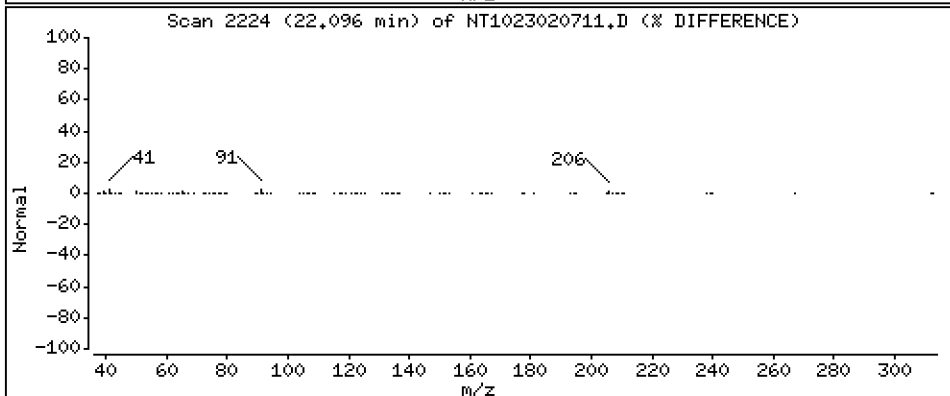
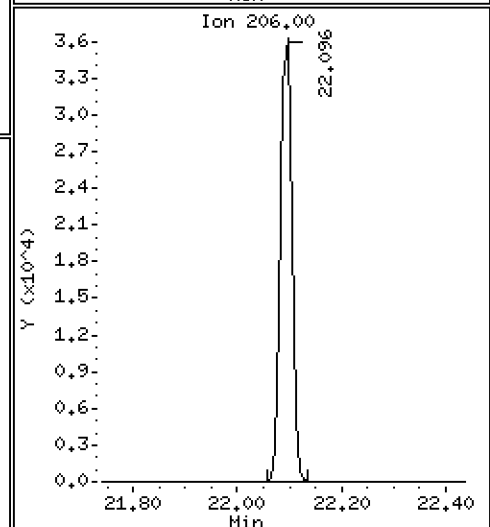
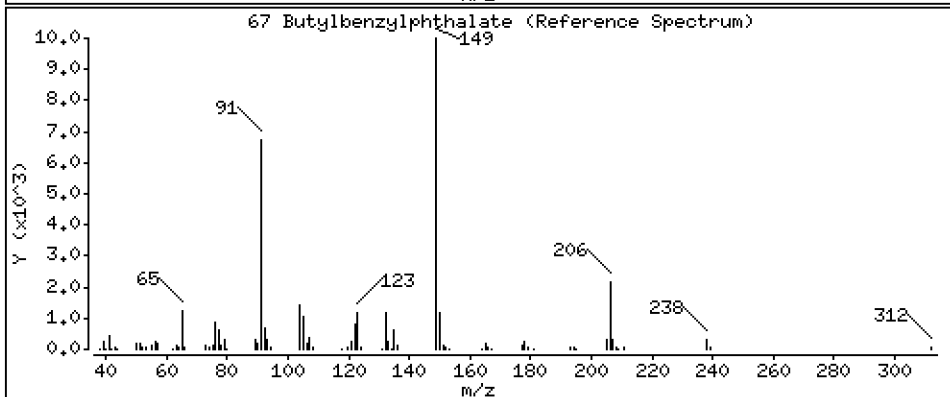
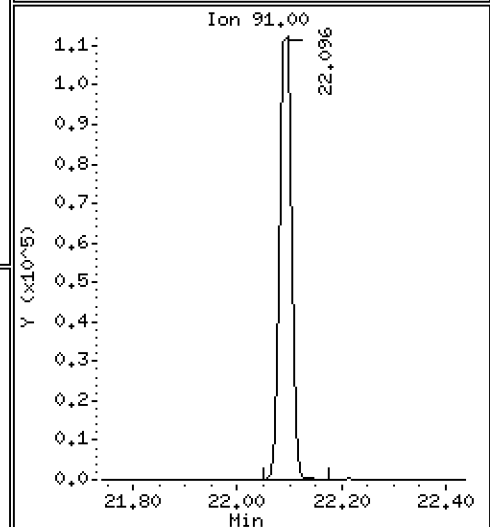
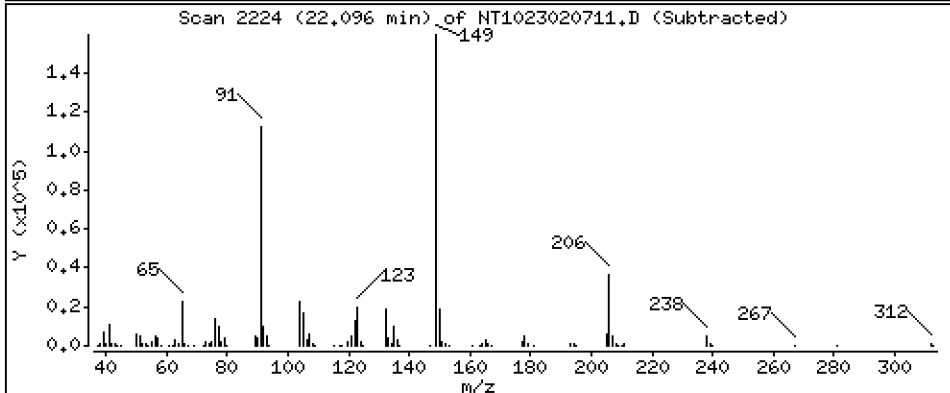
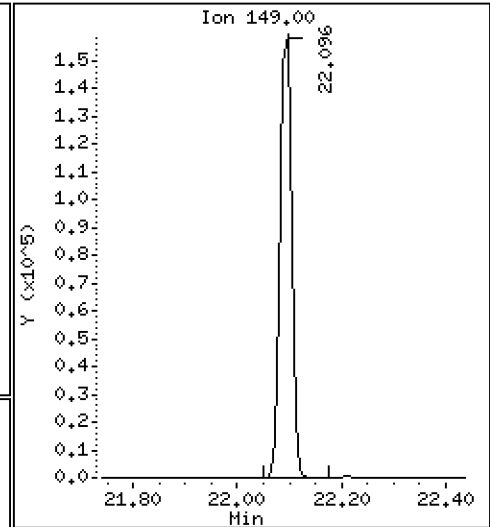
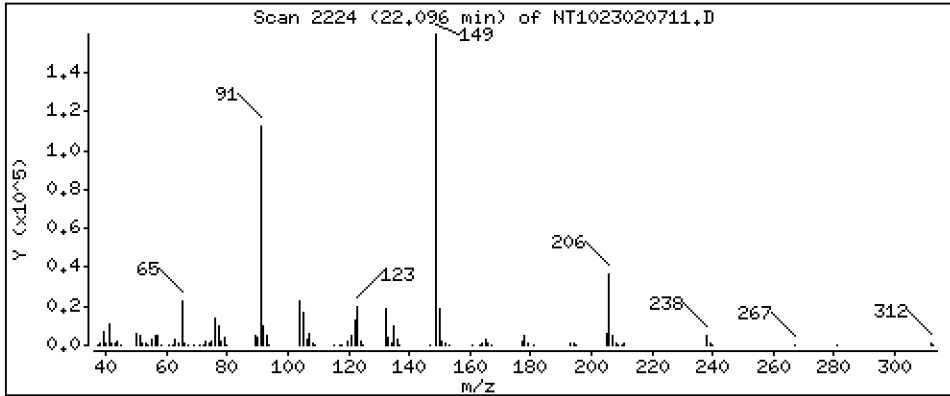
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,385 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

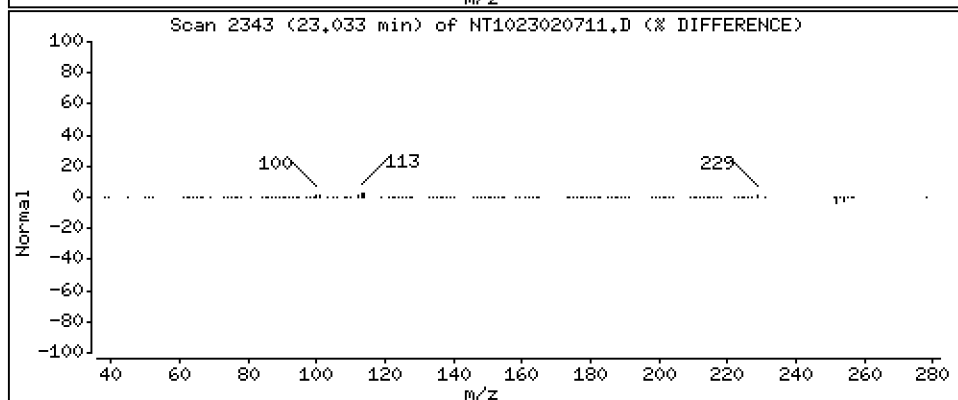
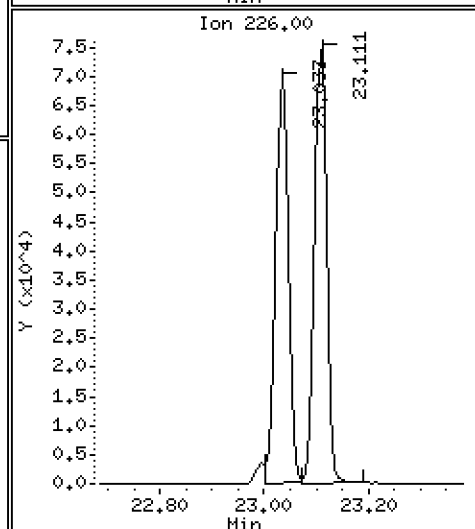
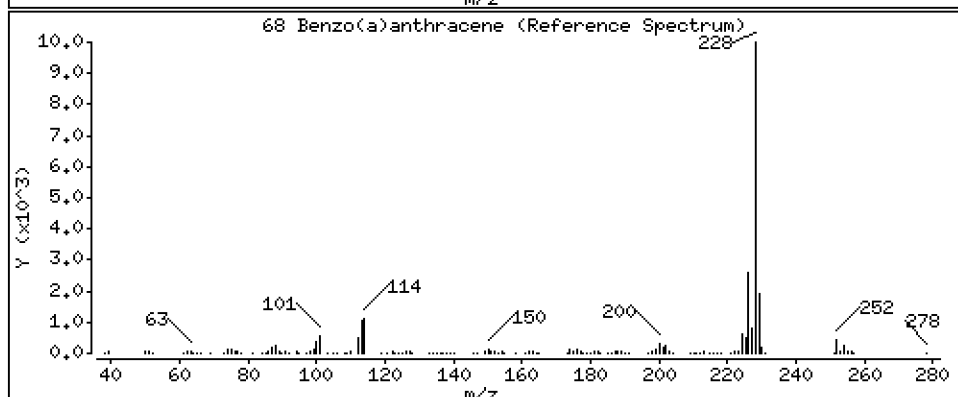
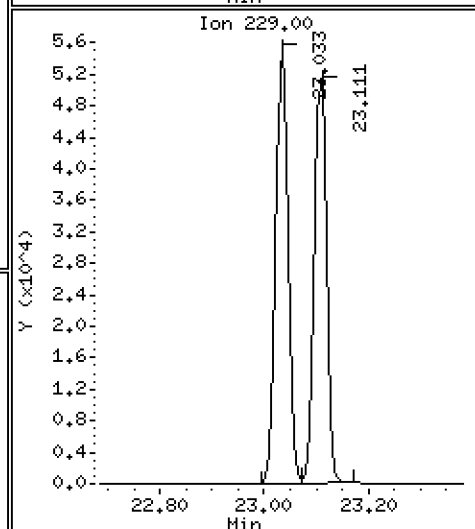
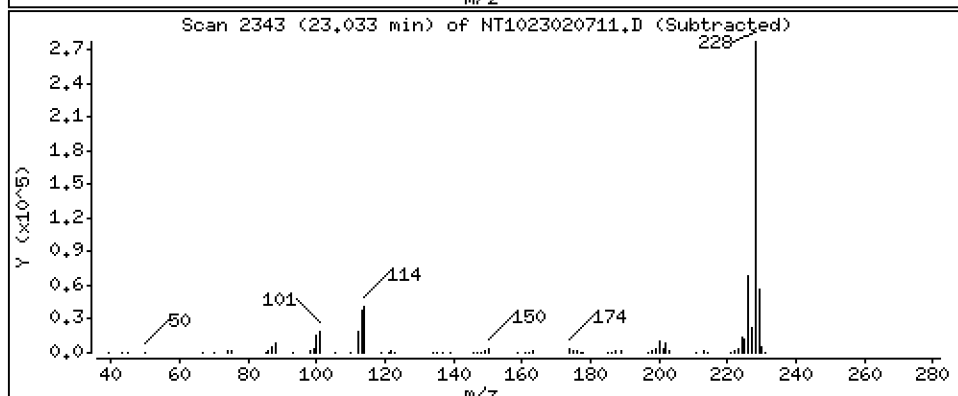
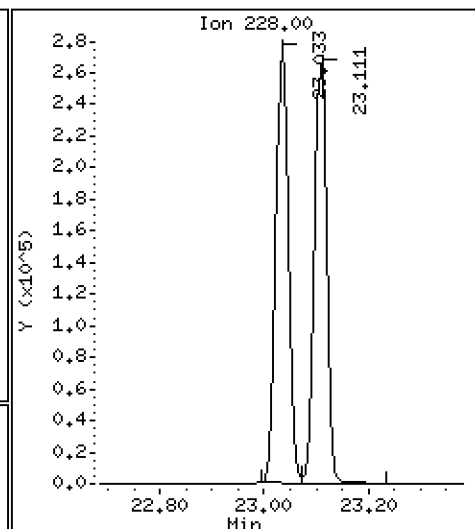
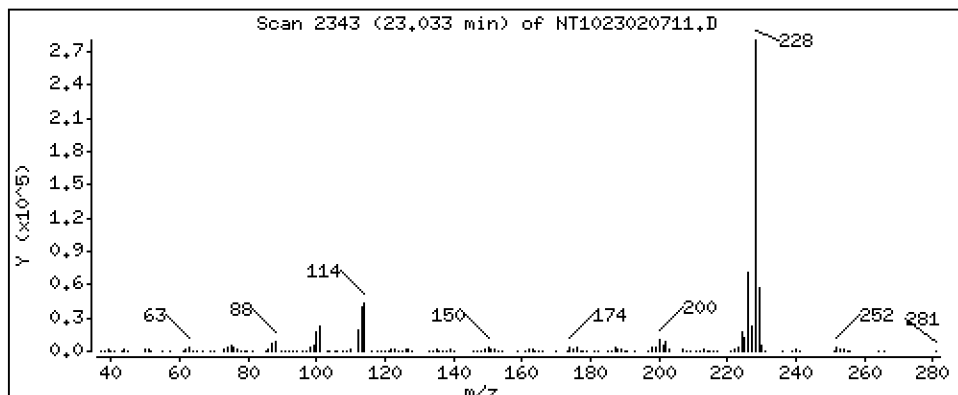
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,097 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

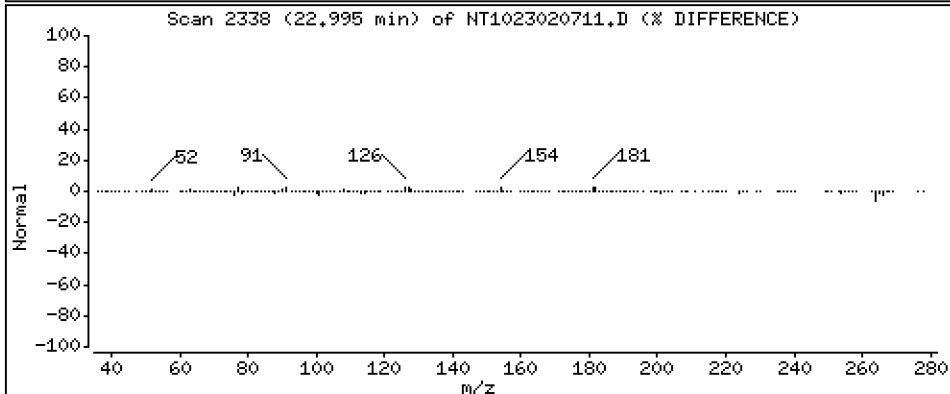
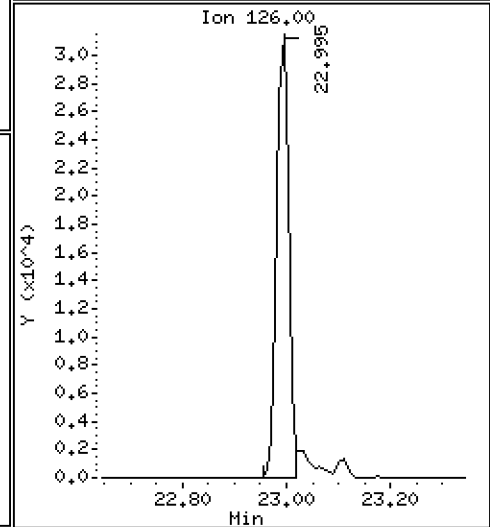
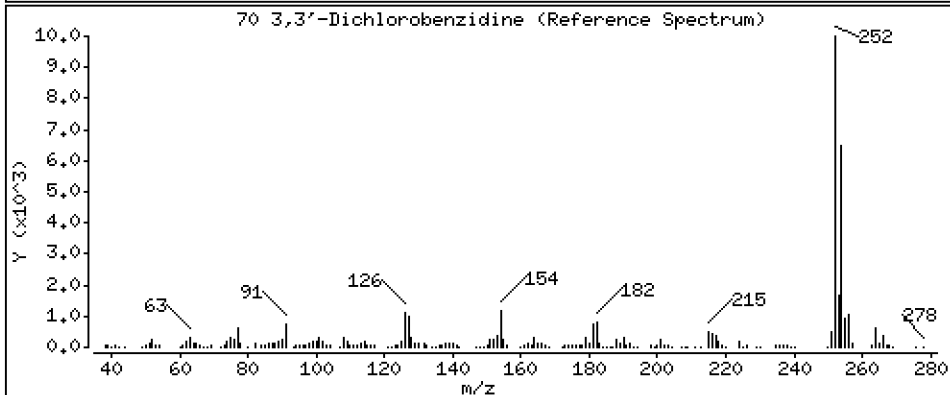
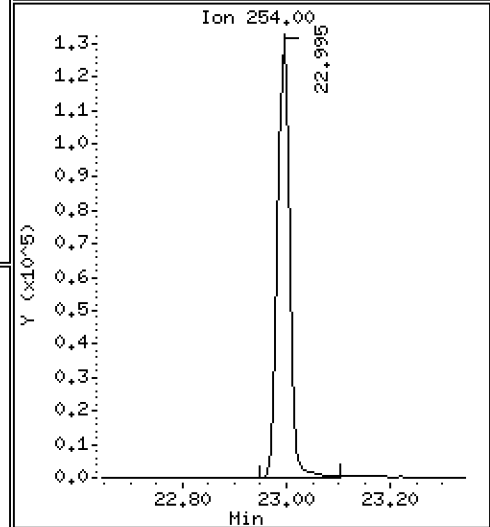
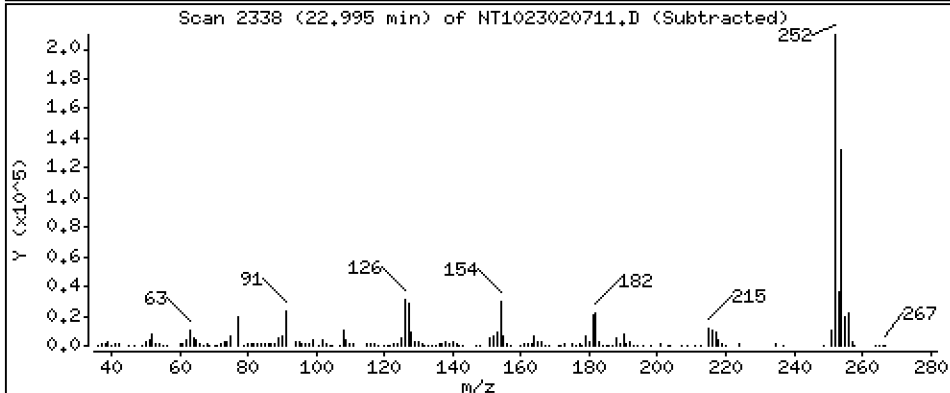
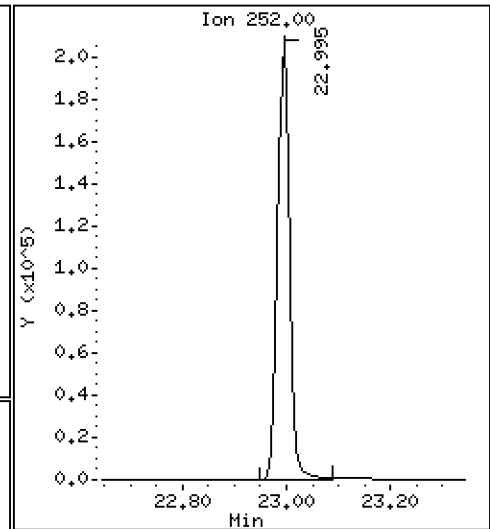
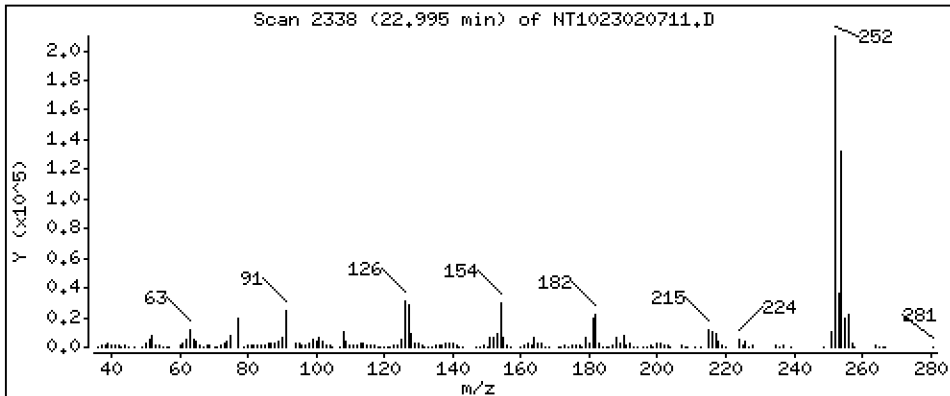
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 8,645 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

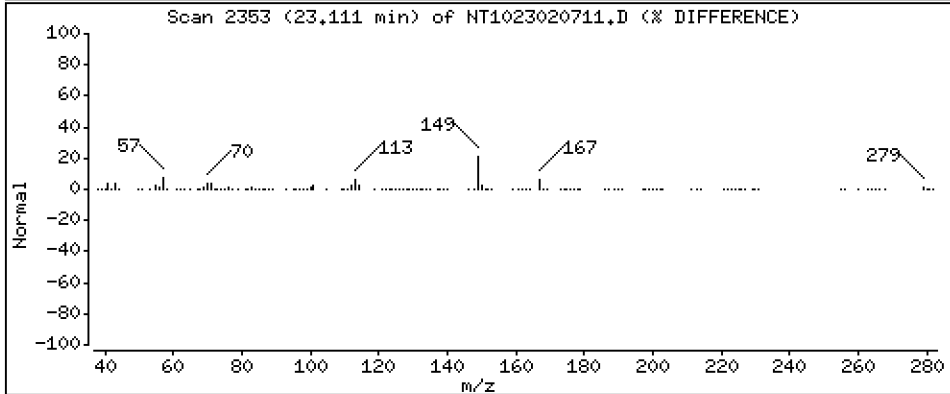
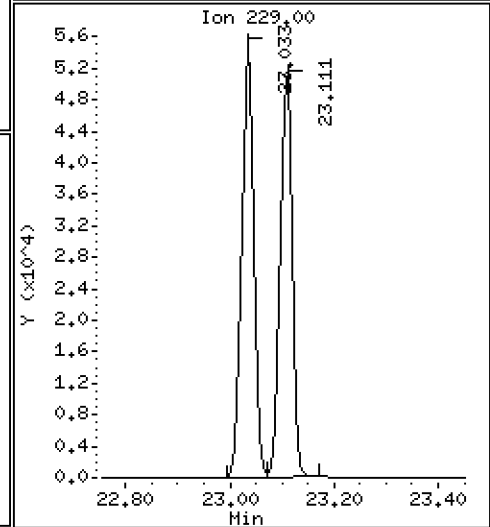
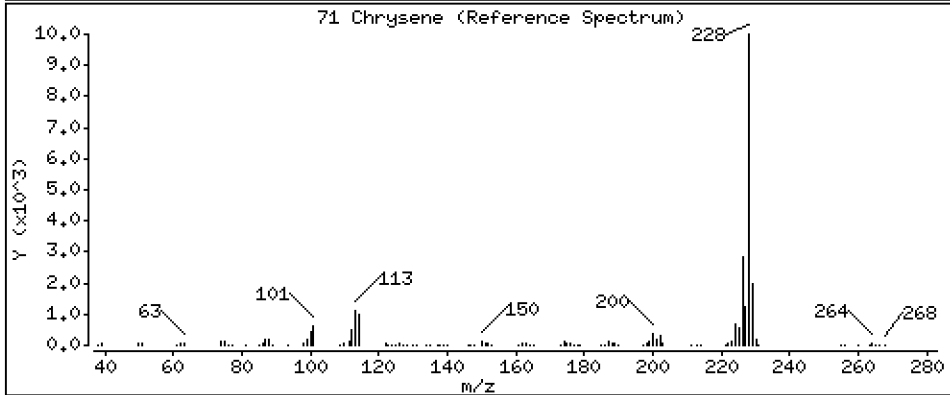
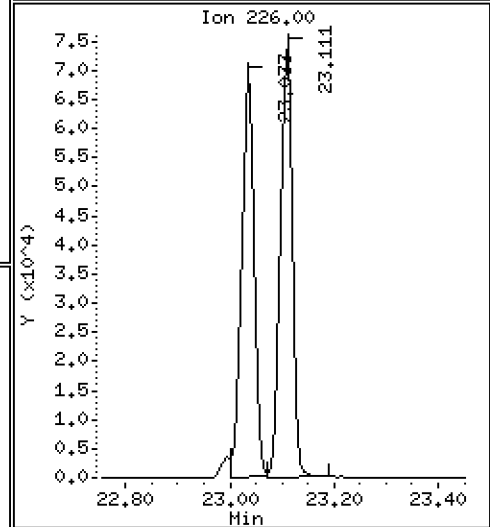
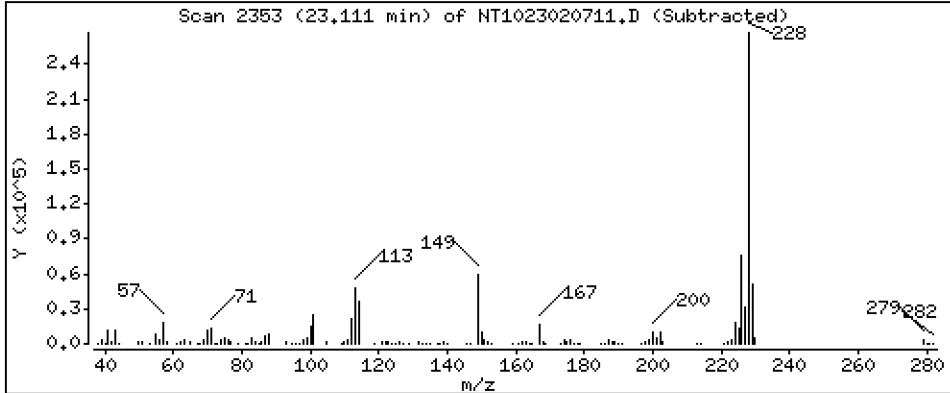
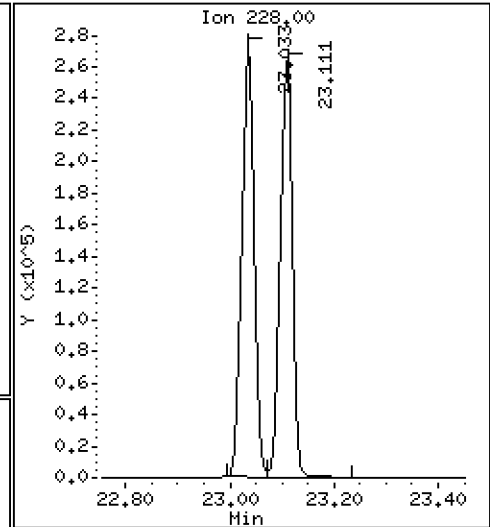
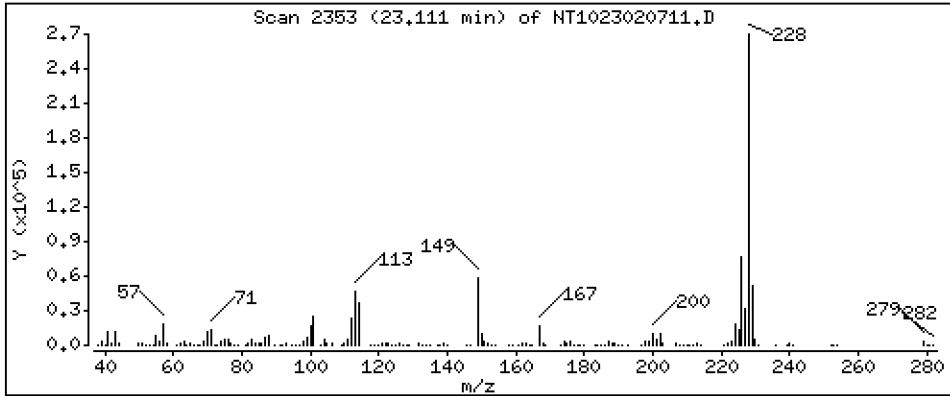
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,018 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

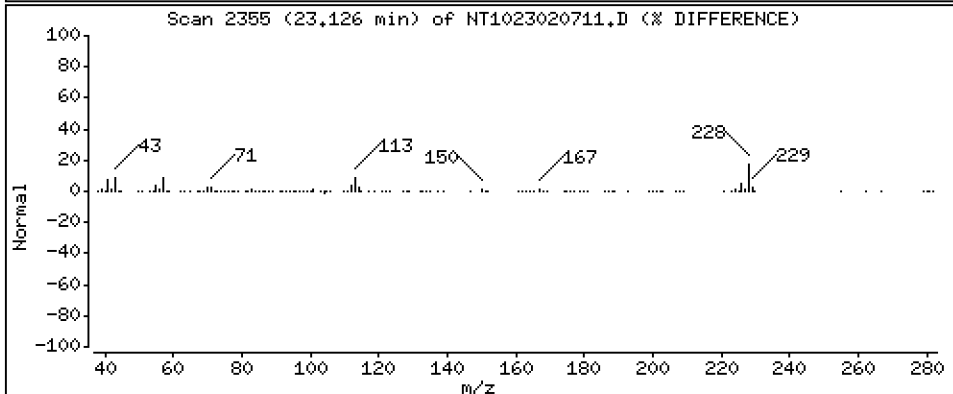
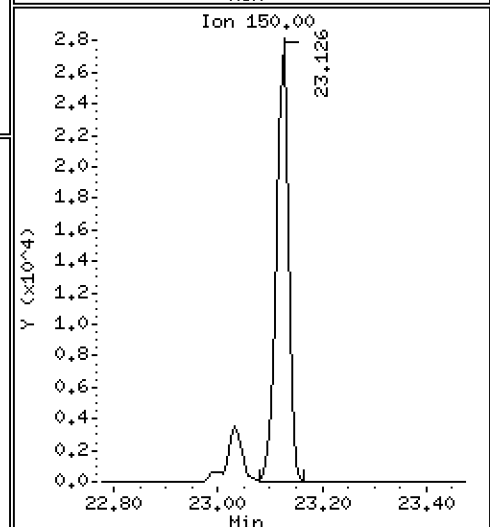
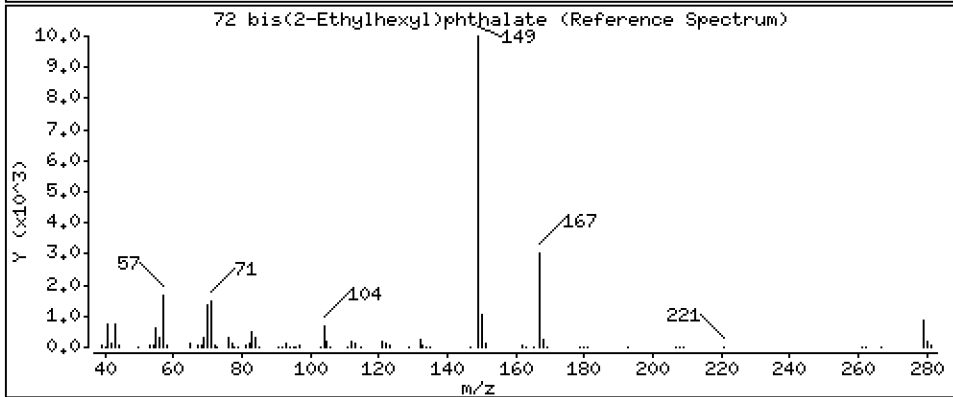
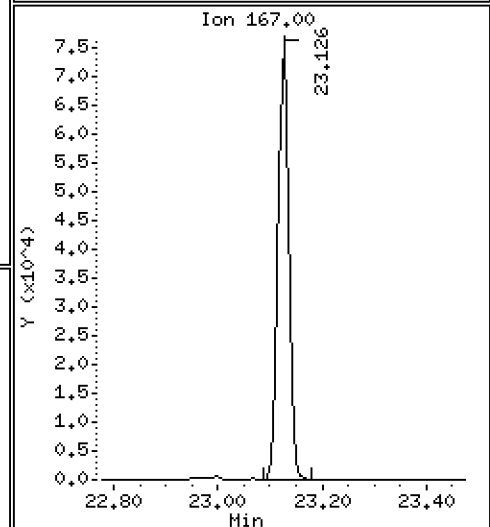
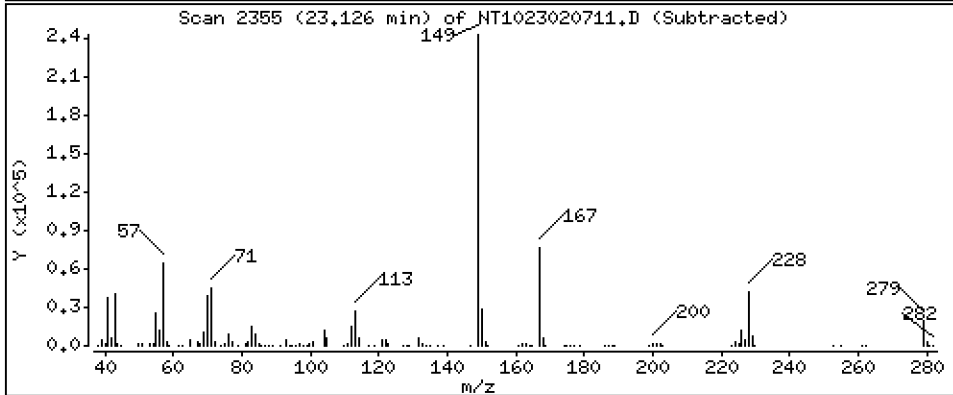
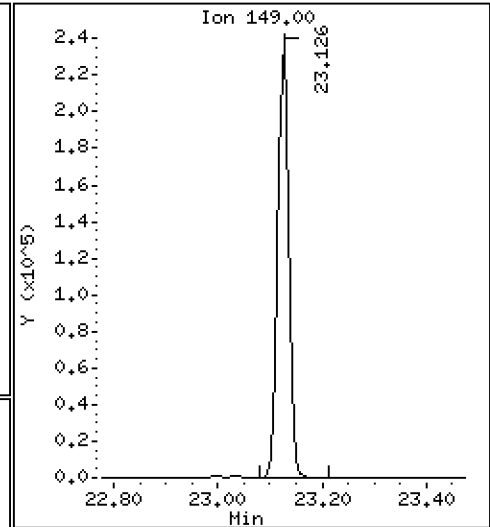
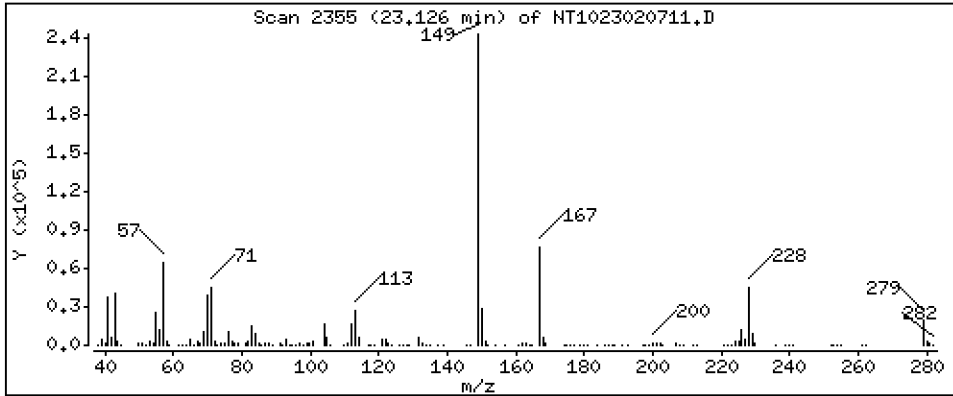
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 4,692 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

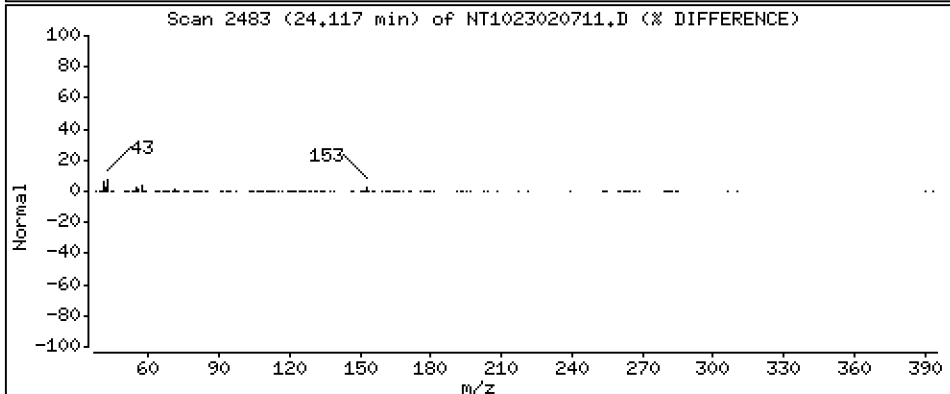
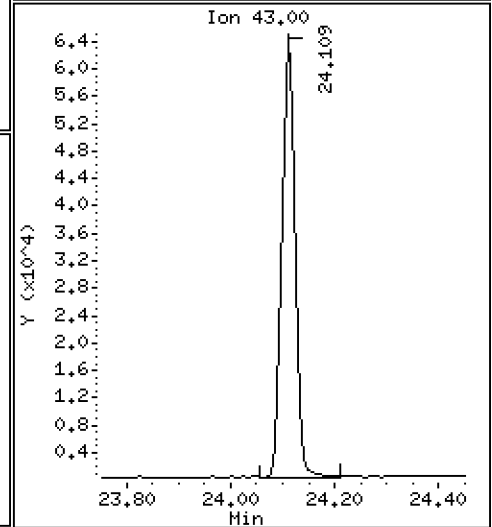
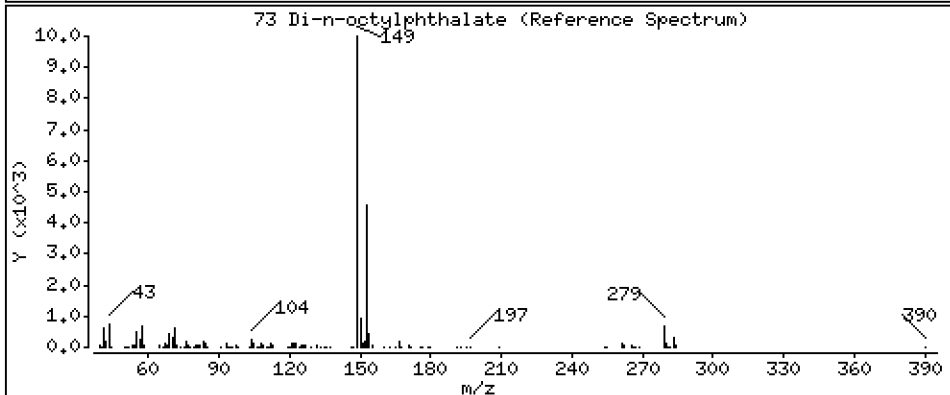
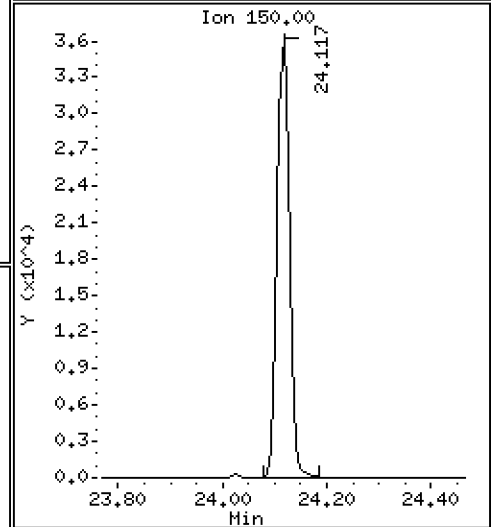
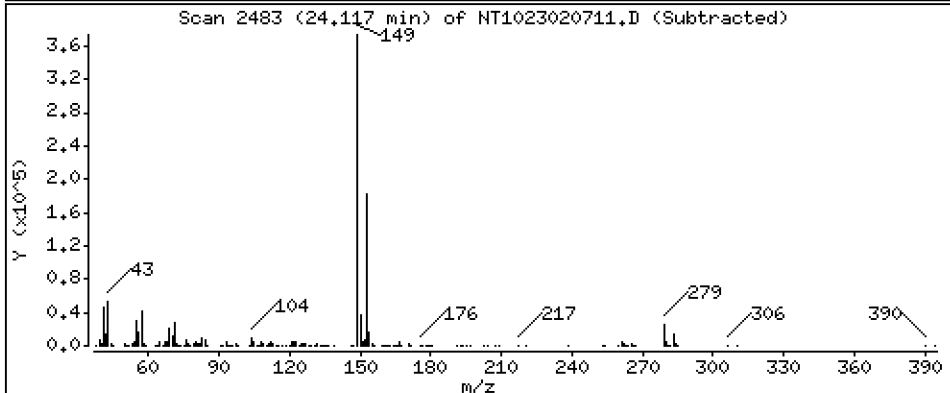
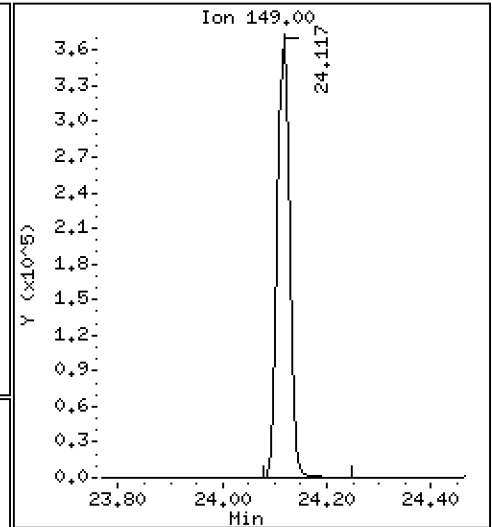
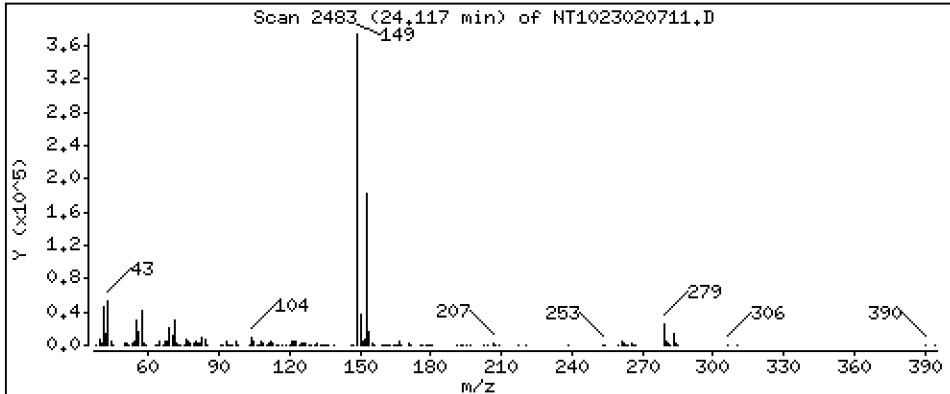
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 4,483 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

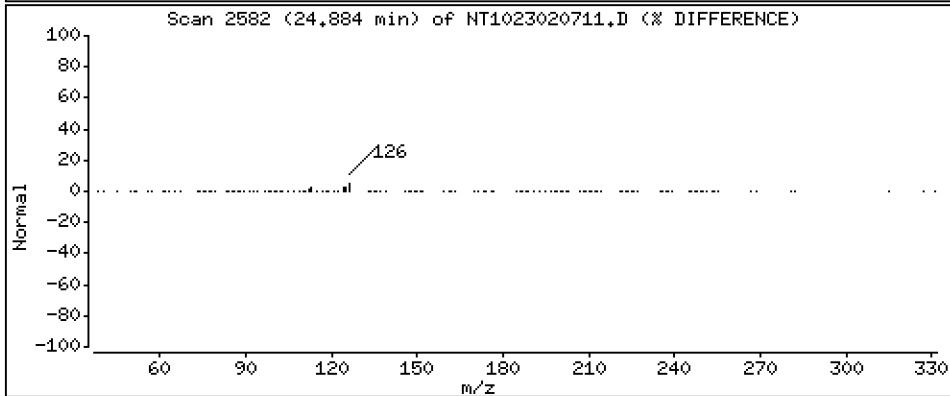
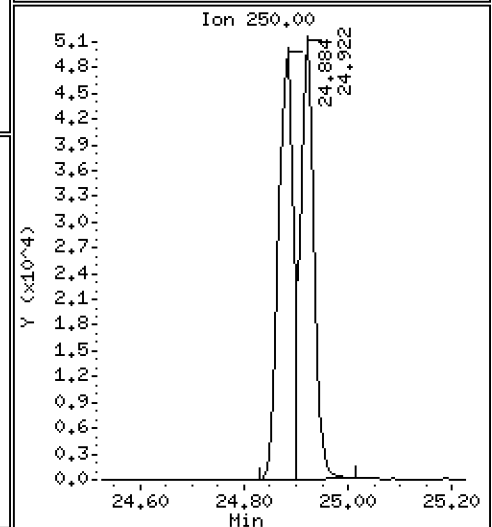
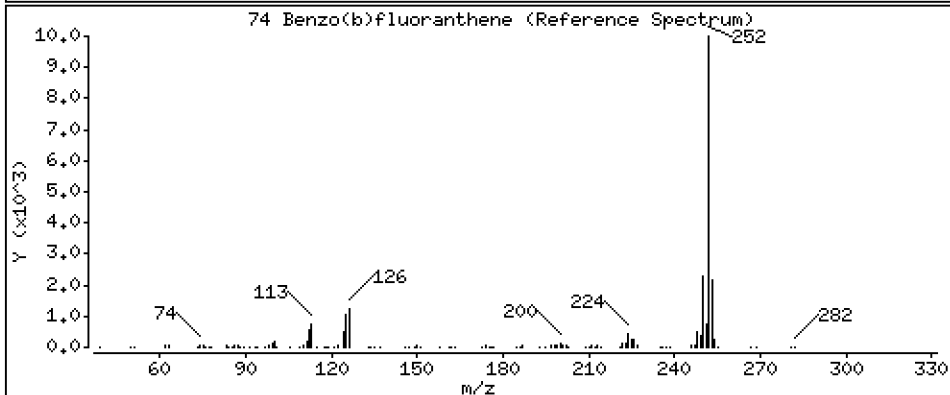
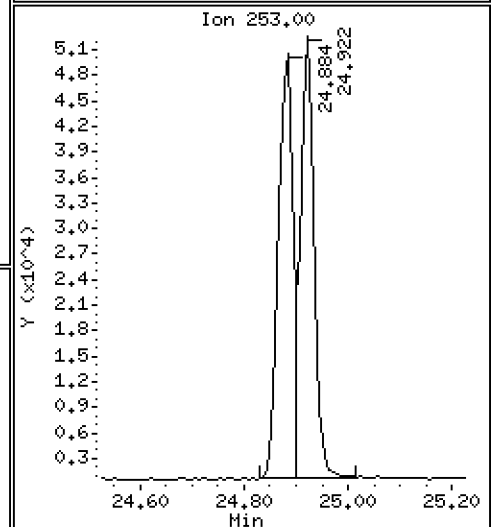
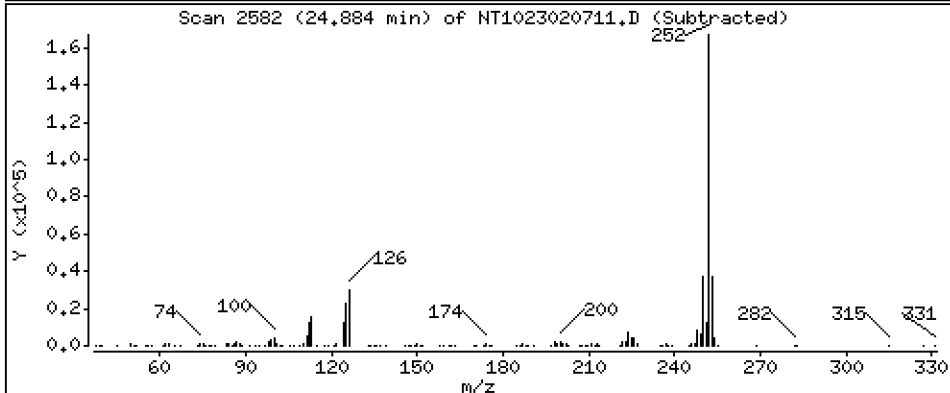
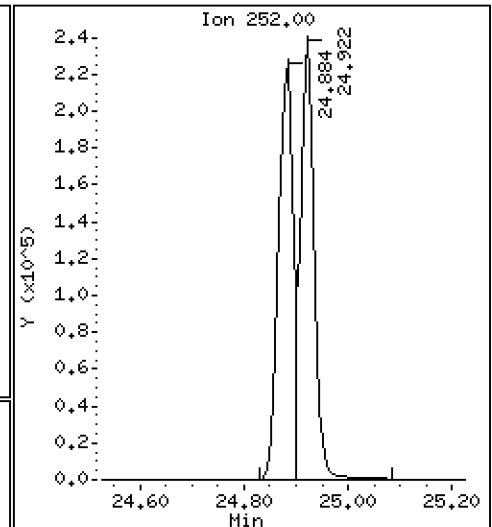
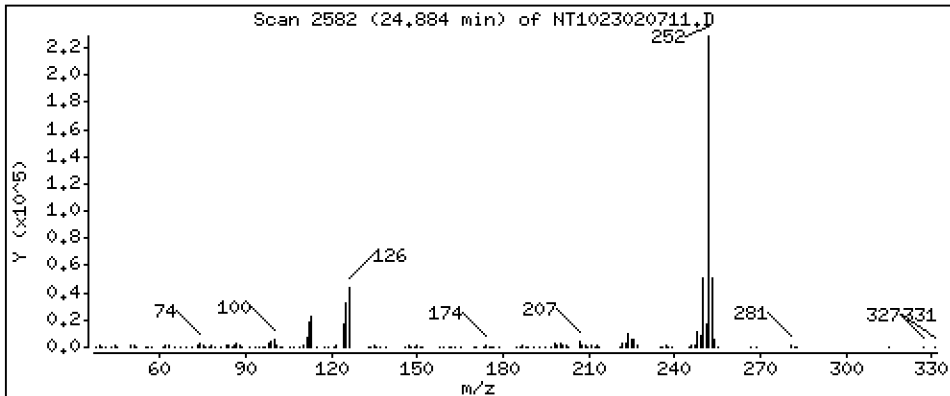
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,235 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

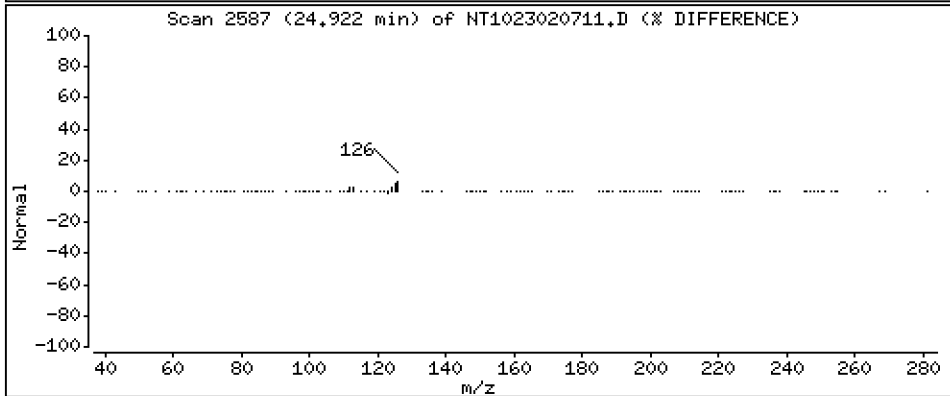
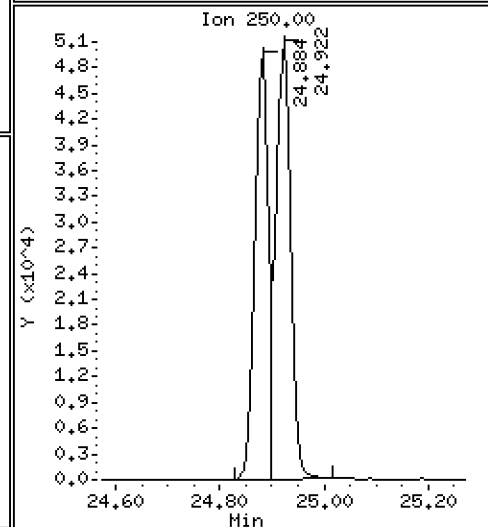
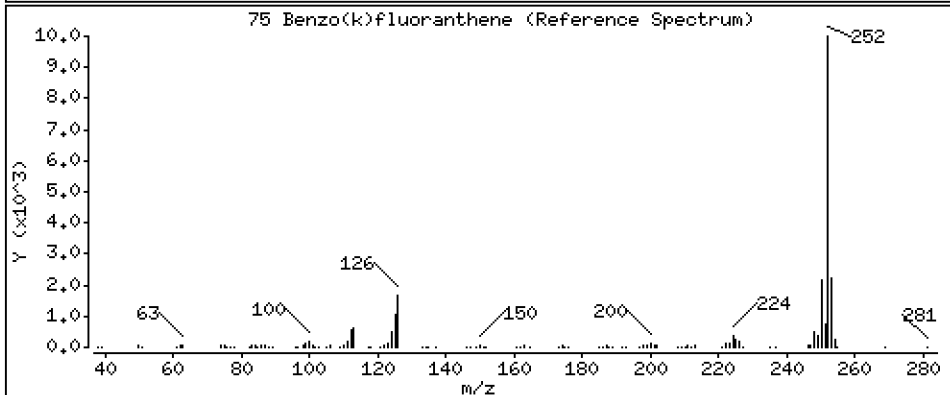
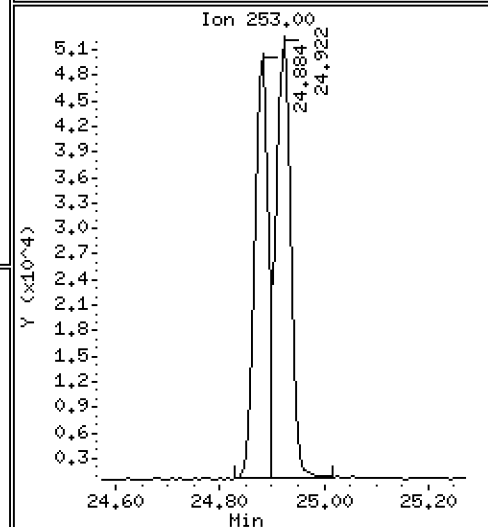
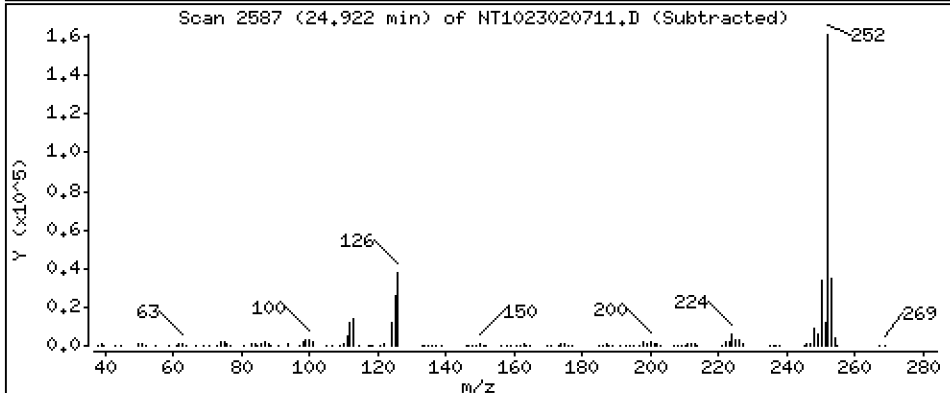
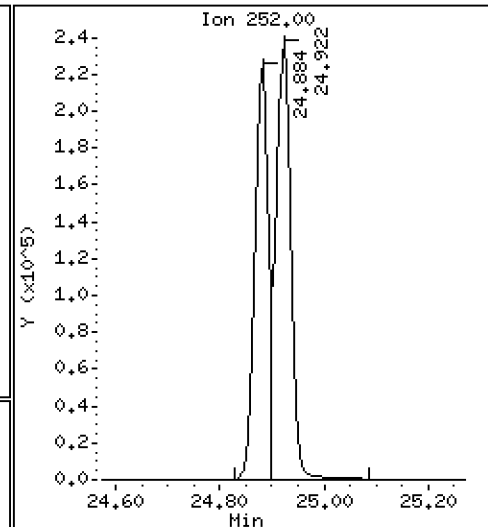
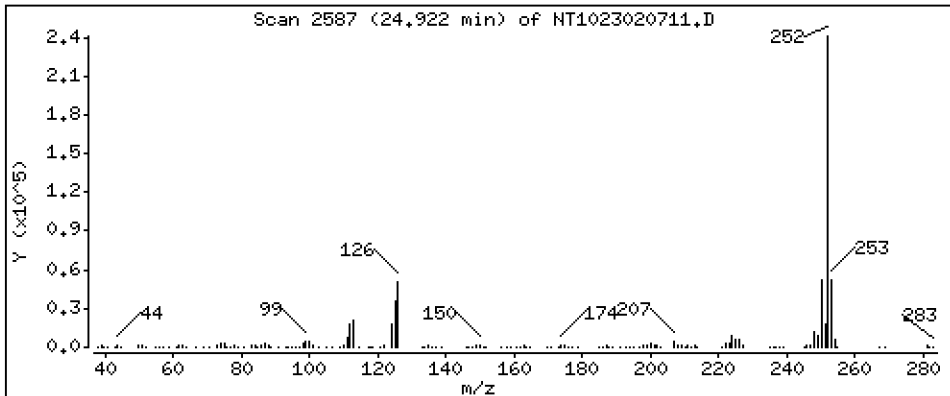
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,389 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

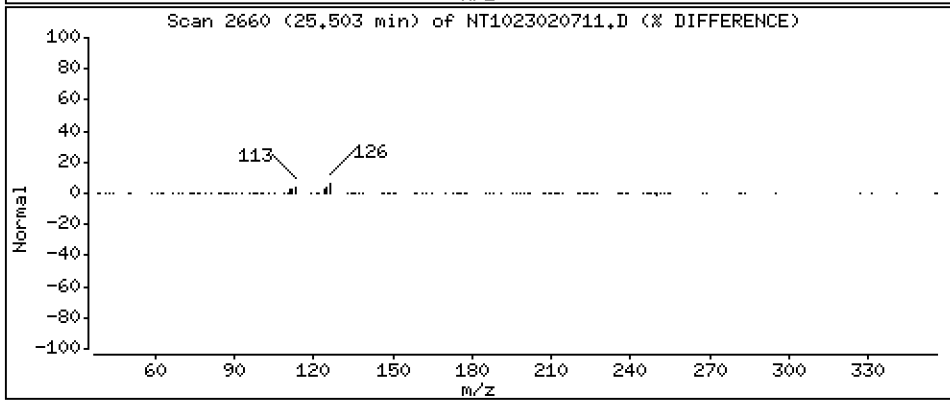
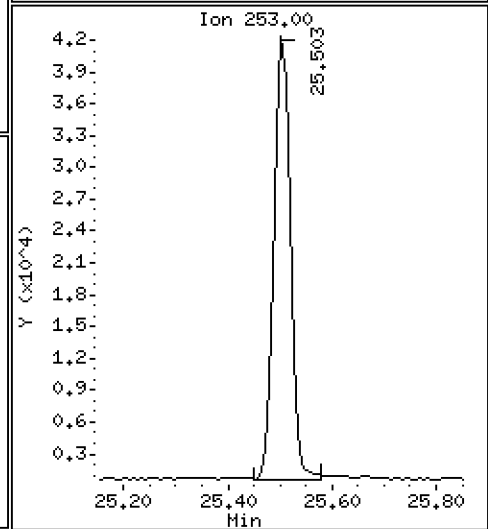
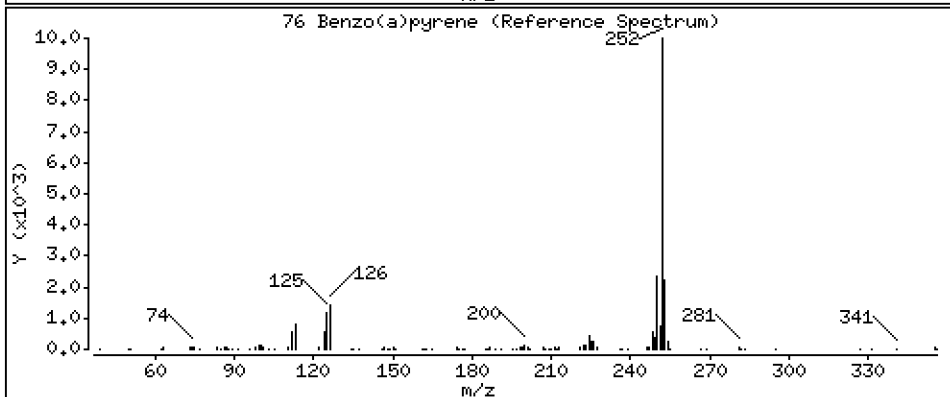
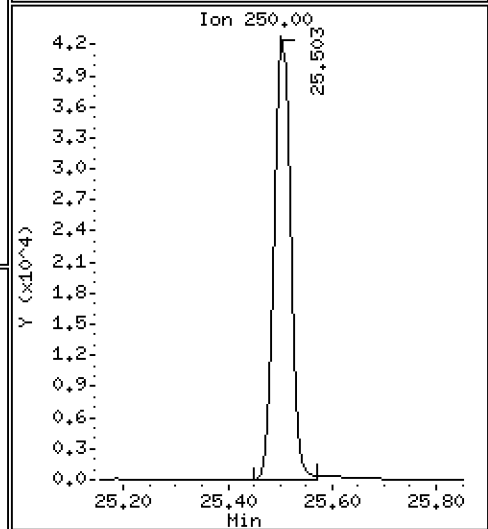
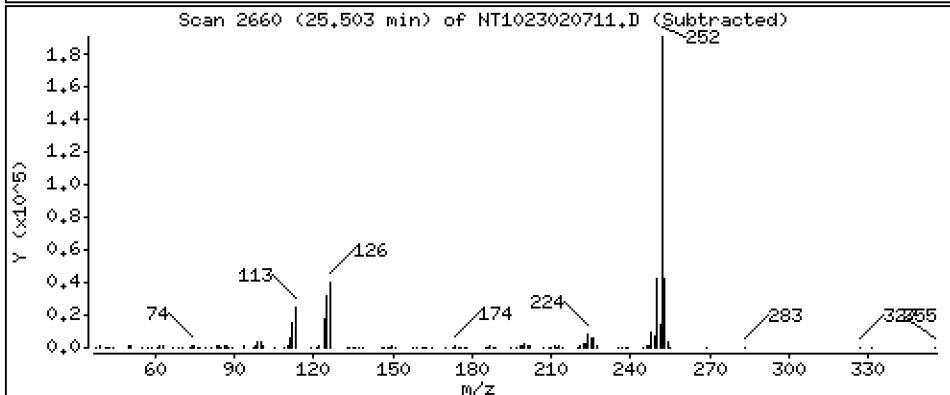
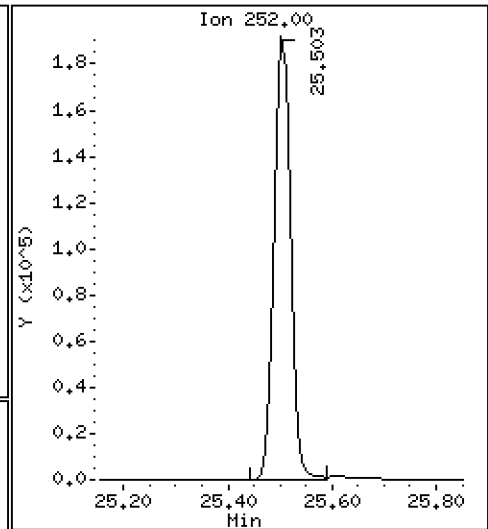
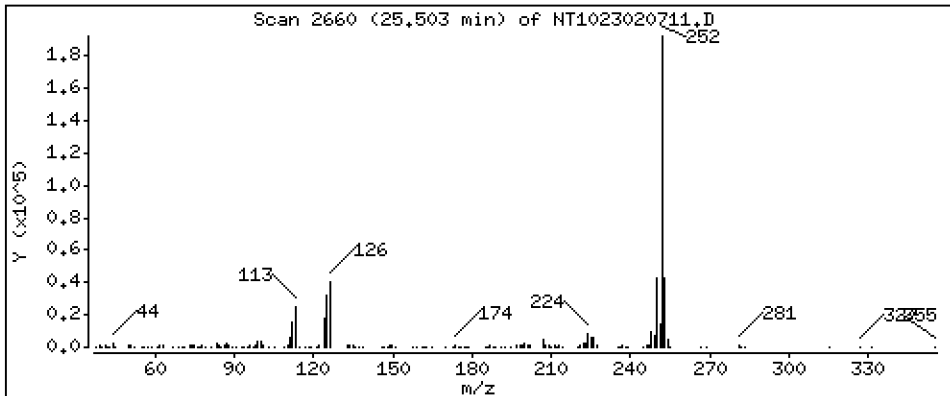
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,376 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

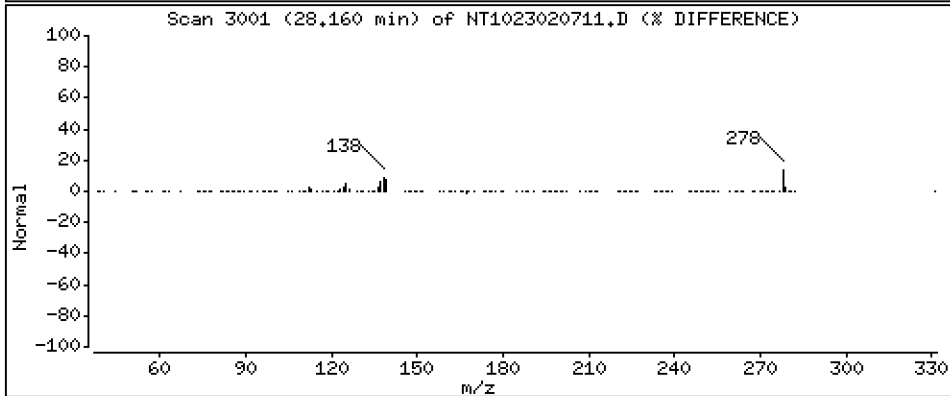
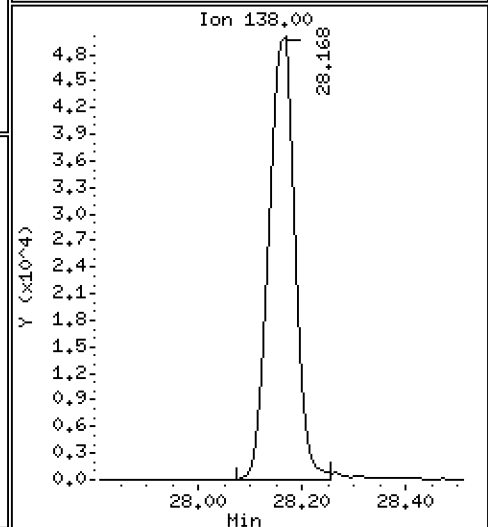
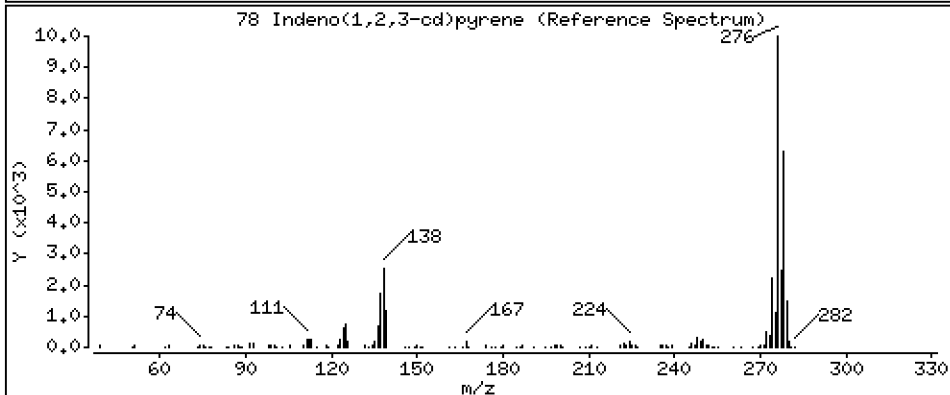
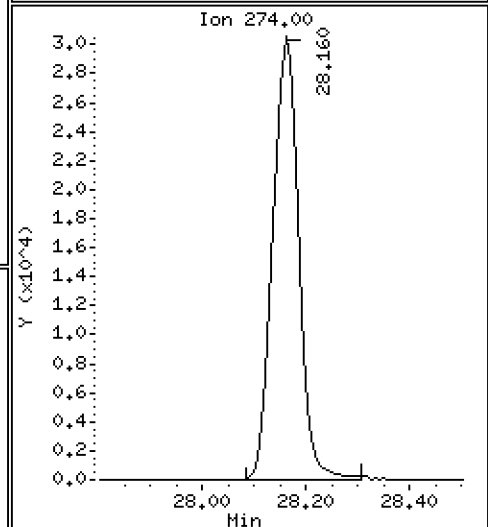
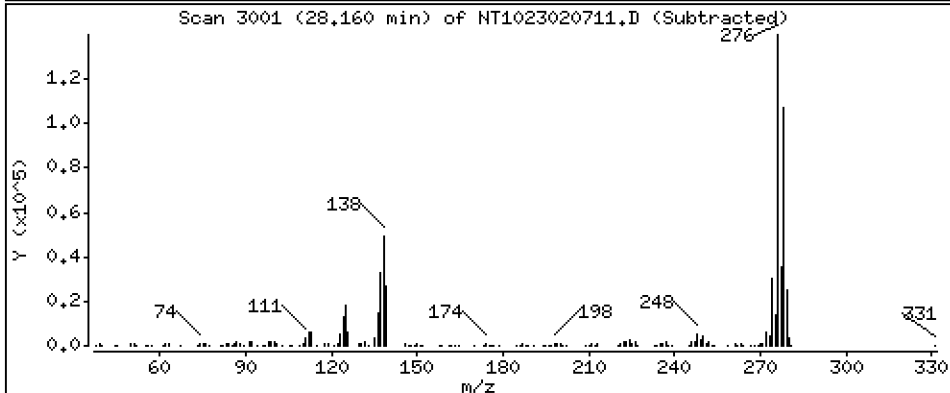
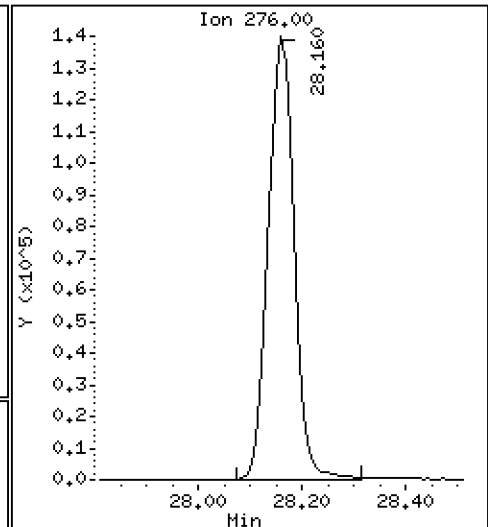
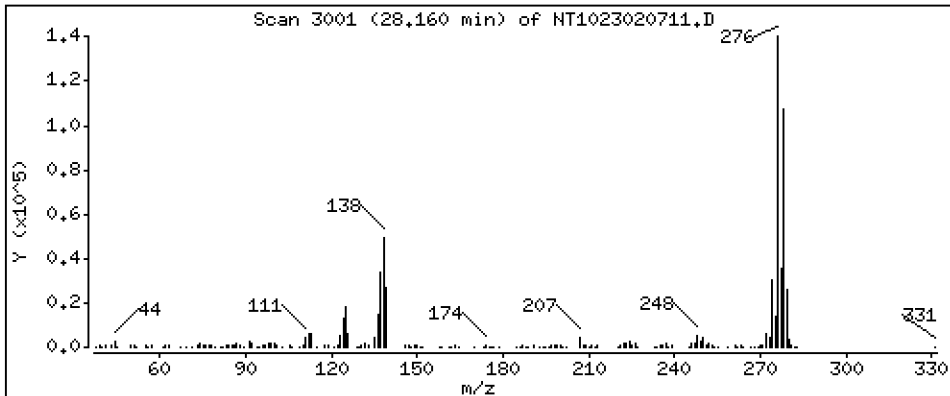
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 4,357 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

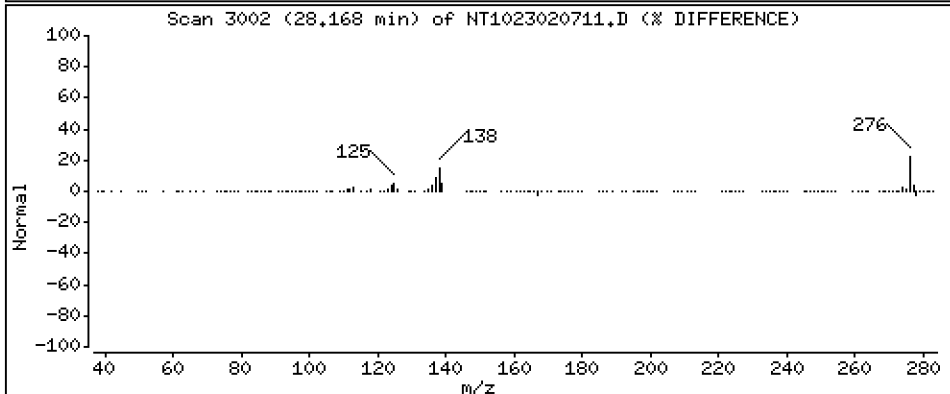
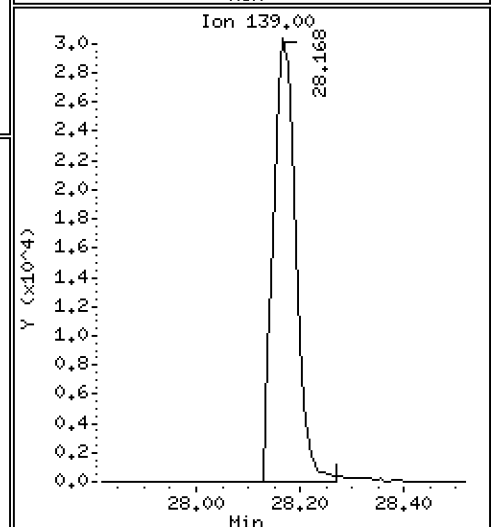
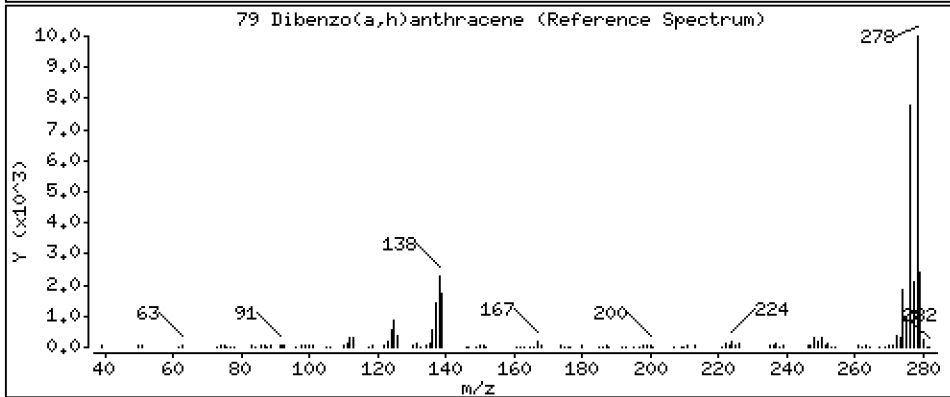
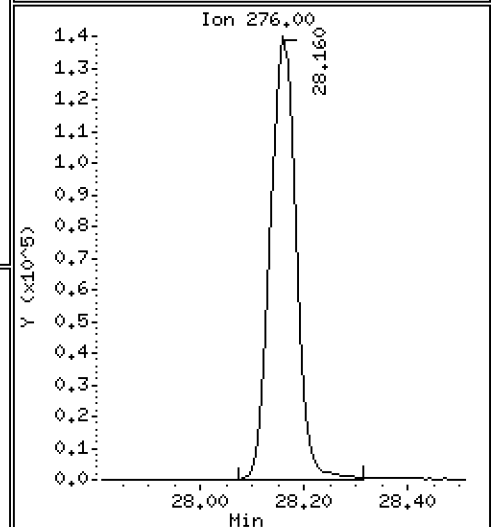
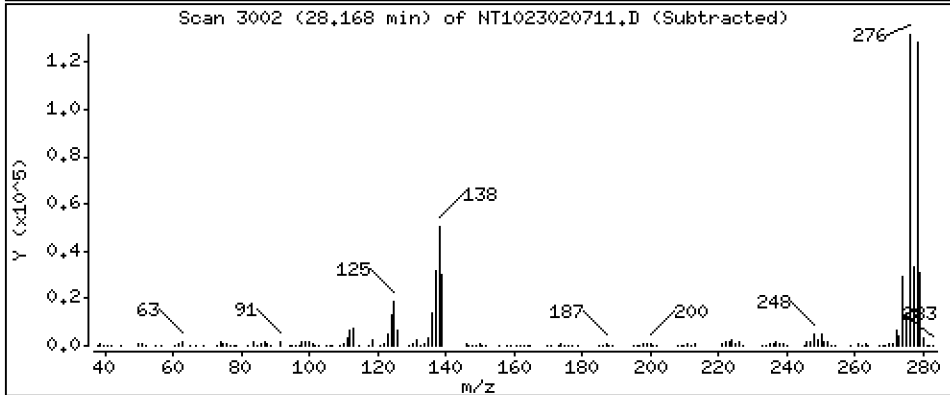
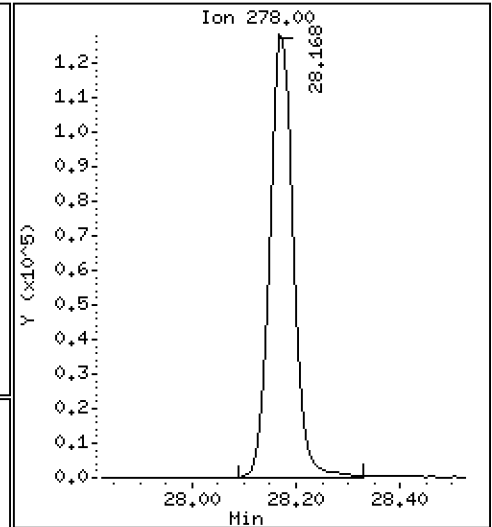
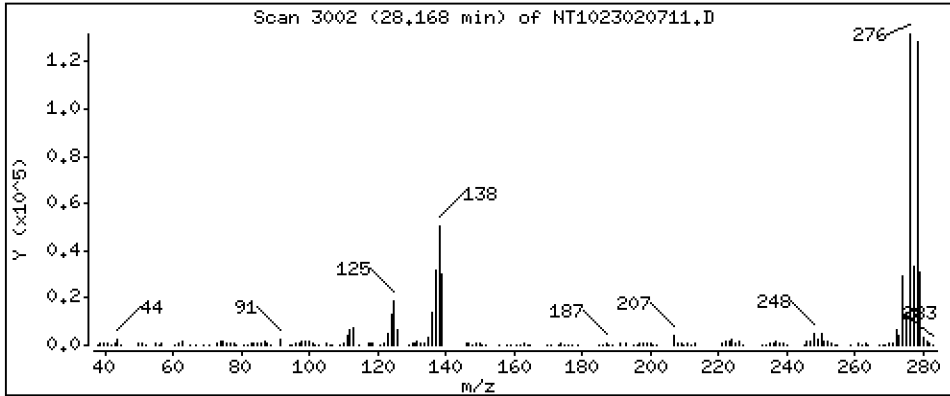
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,352 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

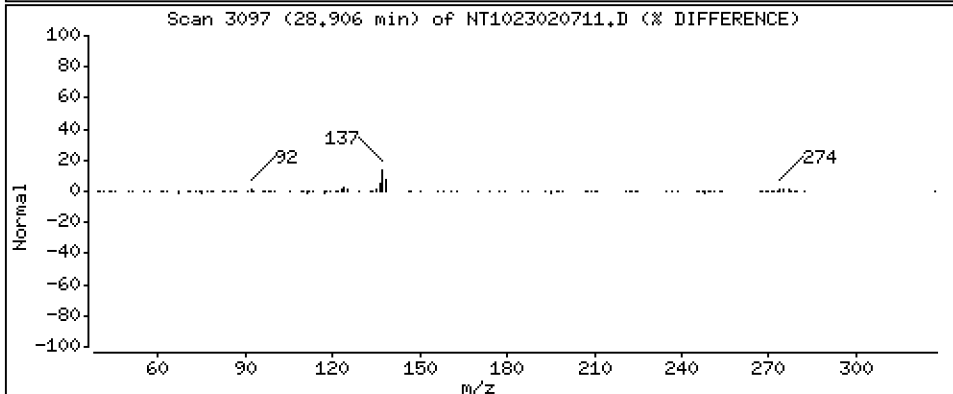
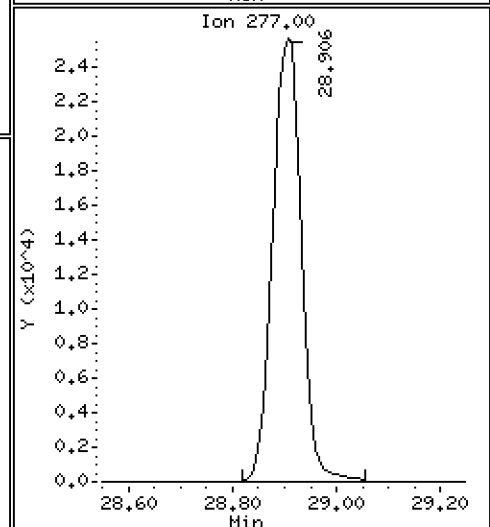
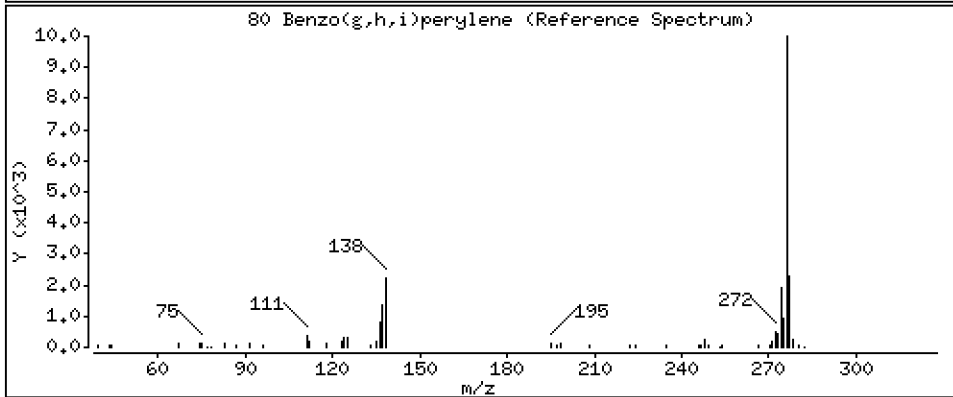
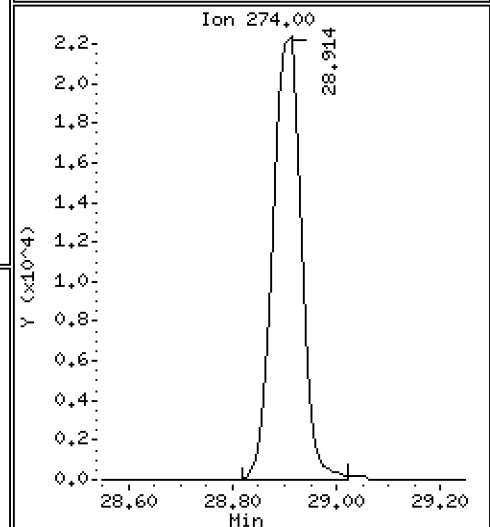
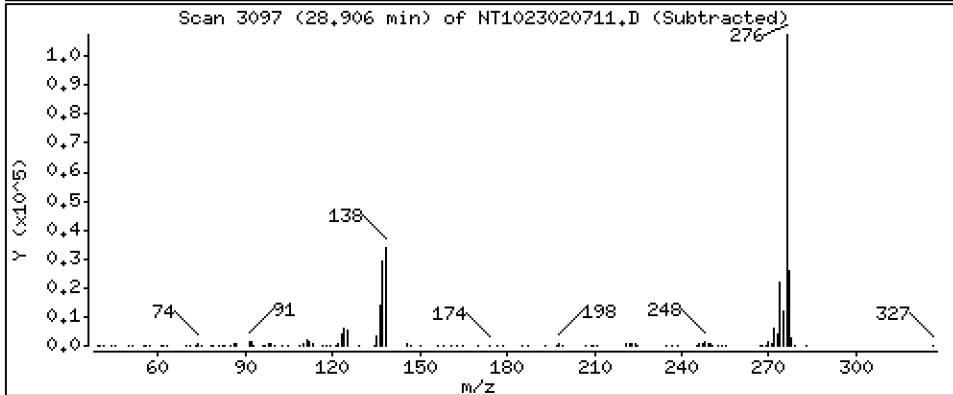
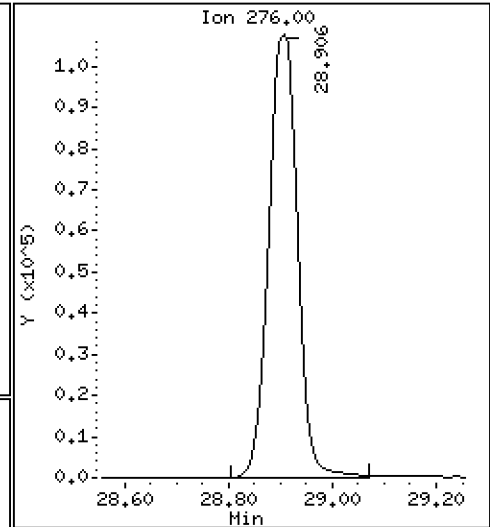
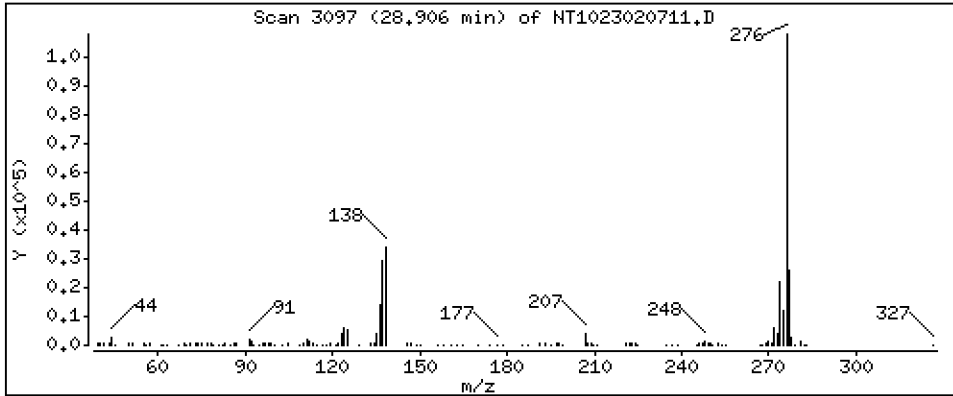
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 4,345 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

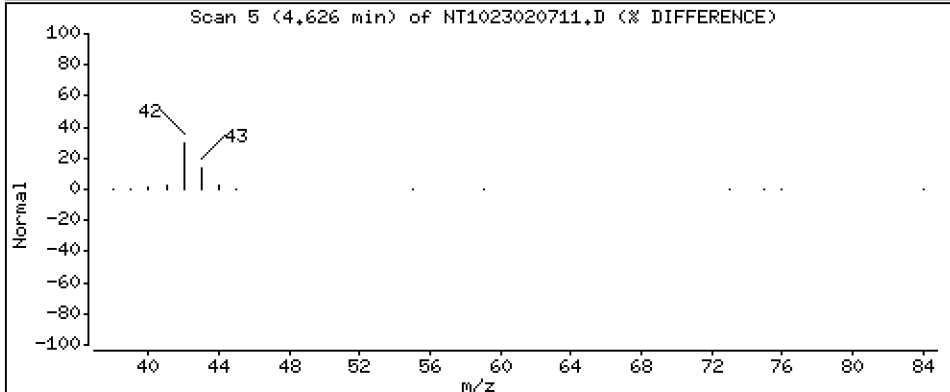
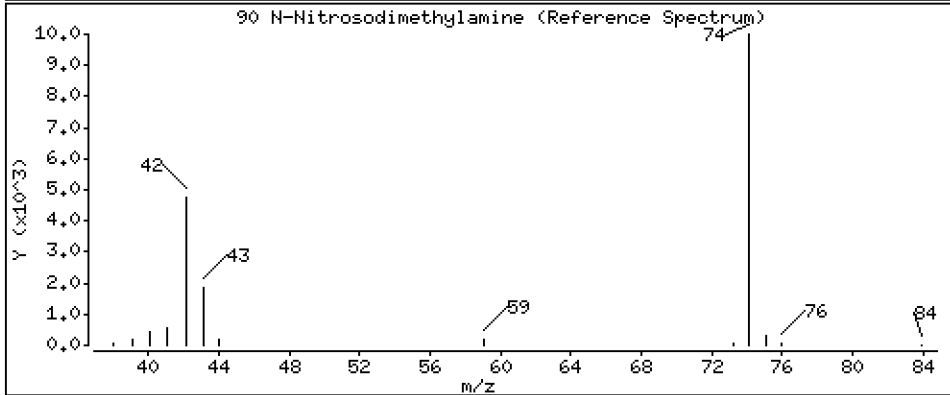
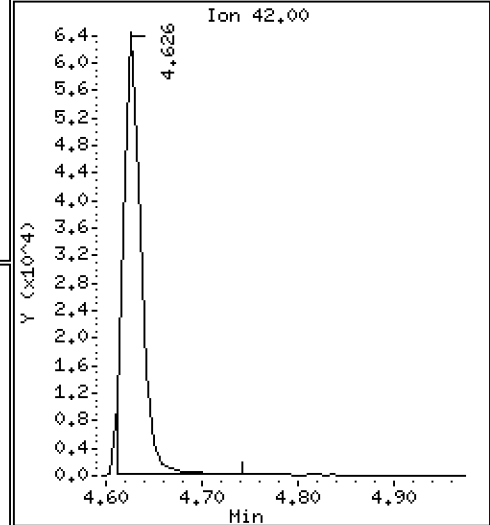
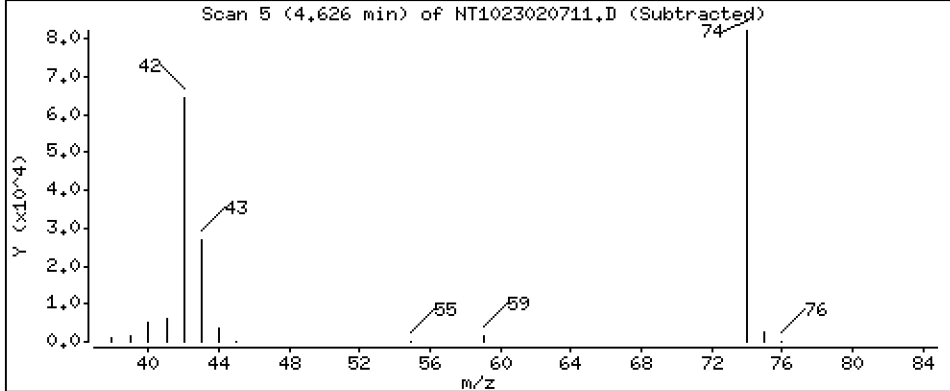
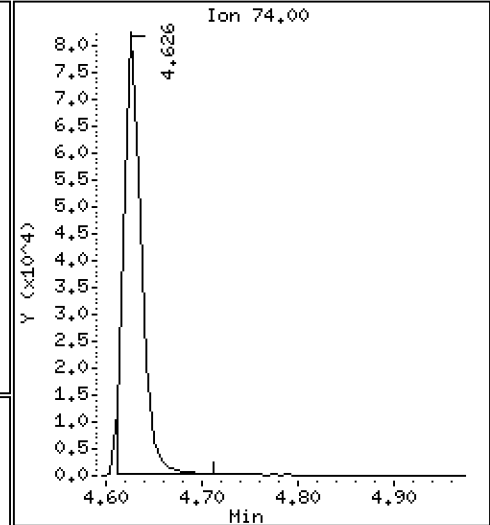
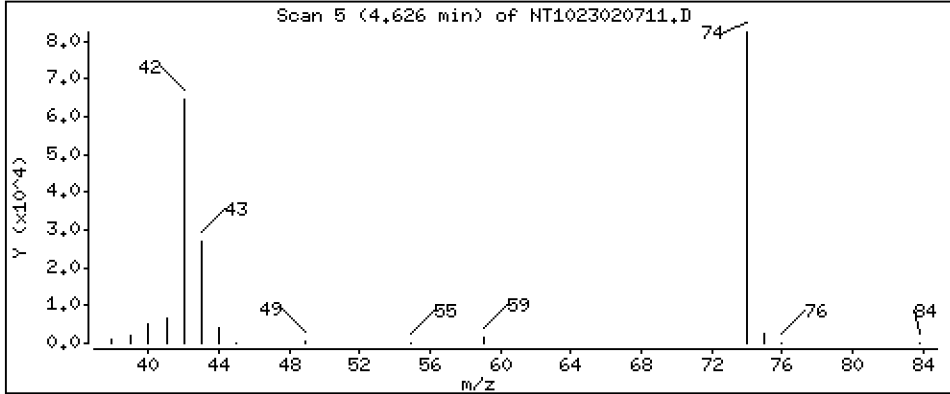
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 4,555 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

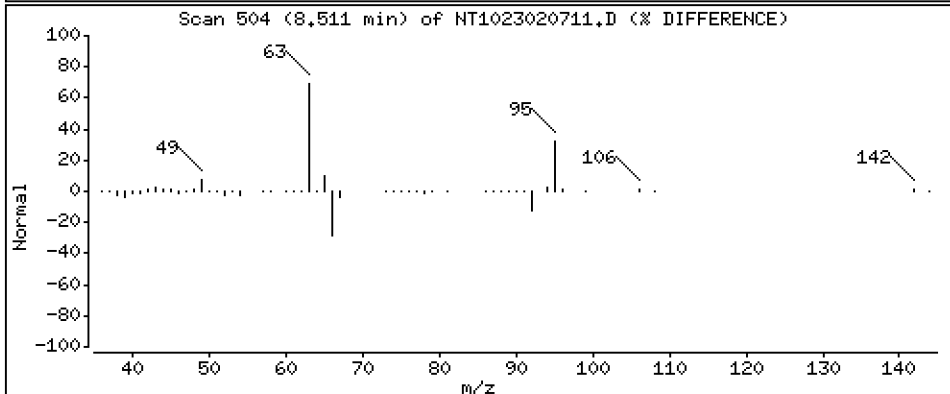
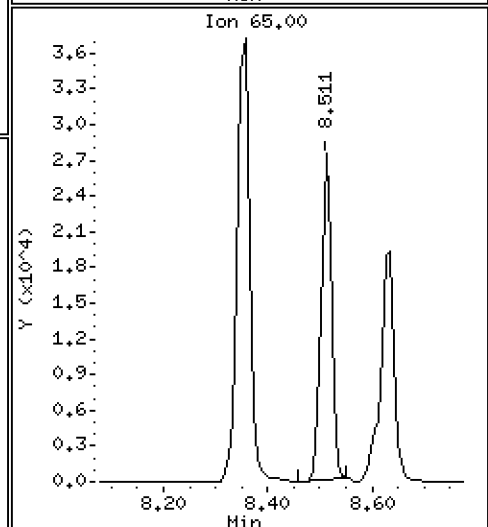
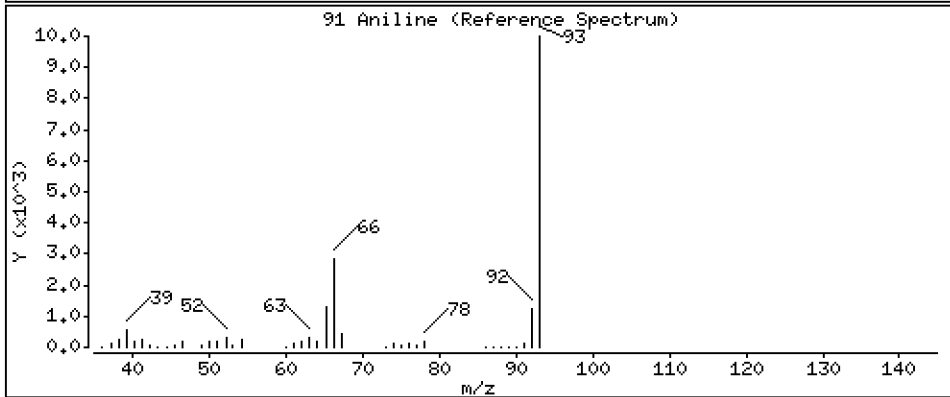
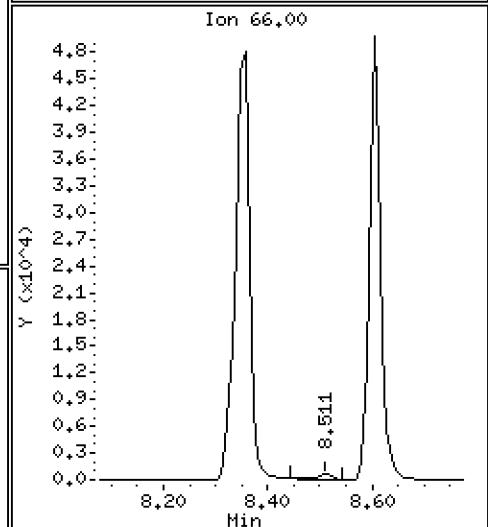
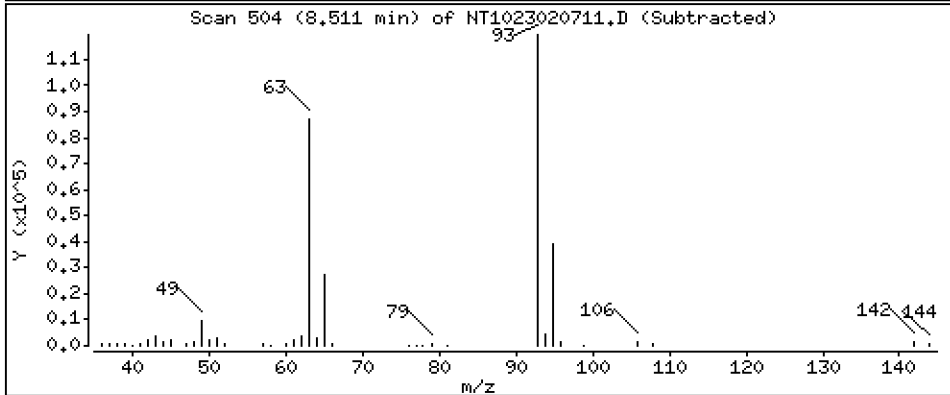
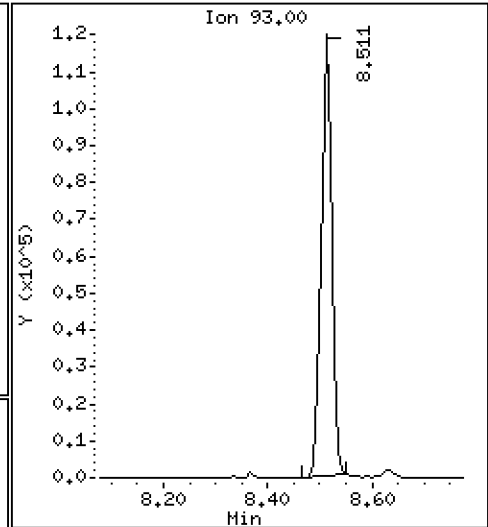
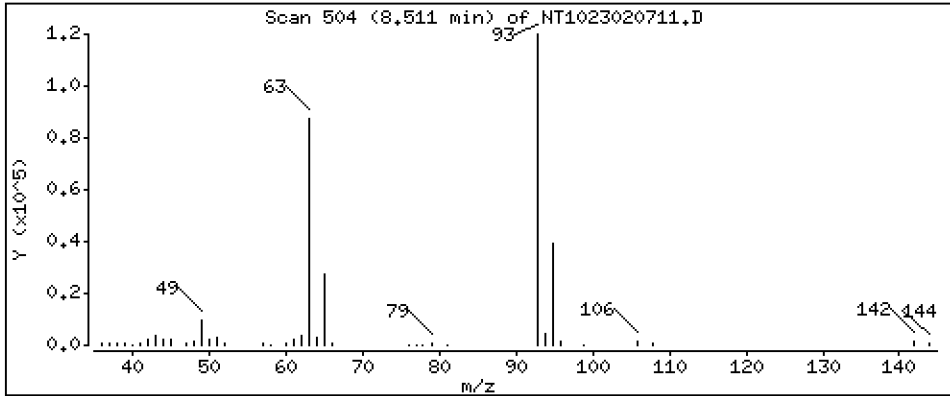
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

91 Aniline

Concentration: 3,348 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

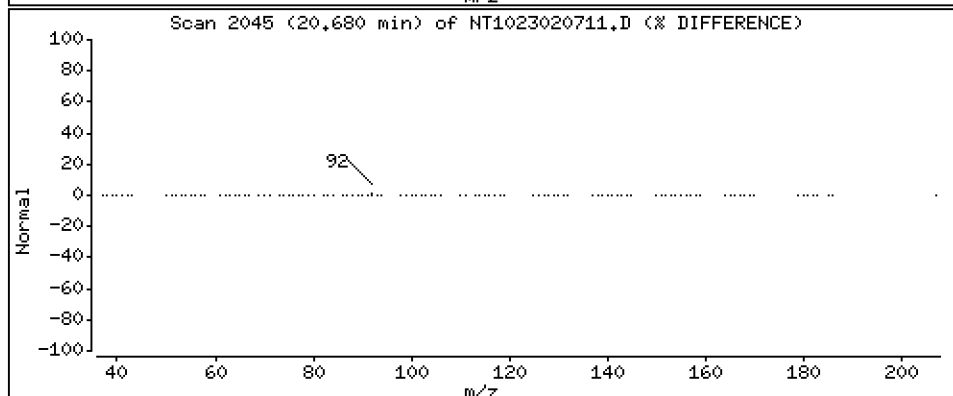
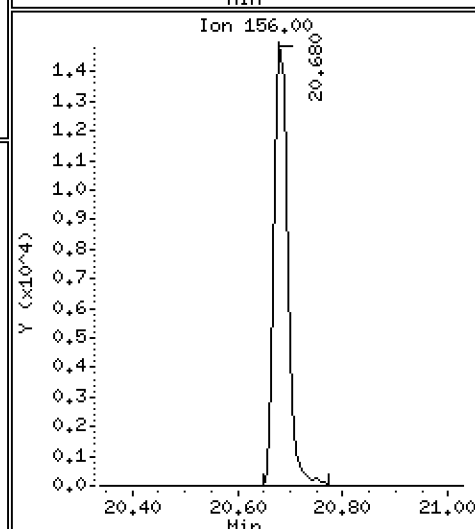
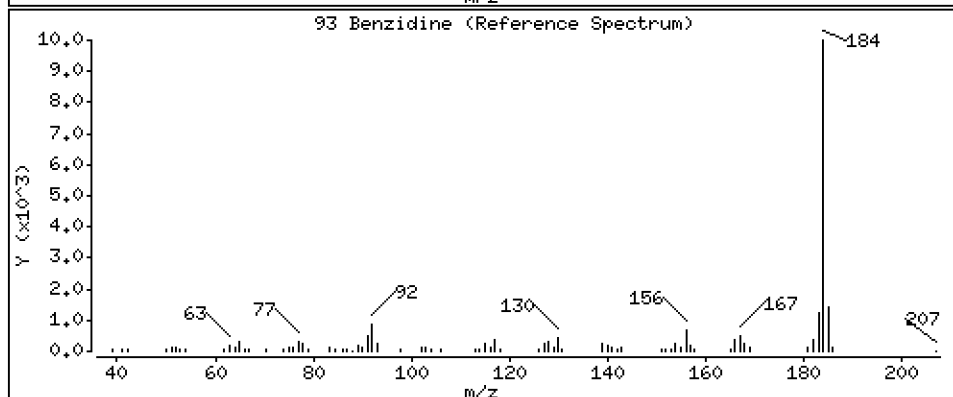
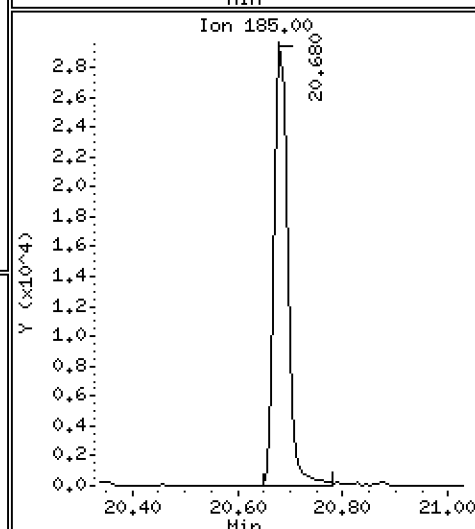
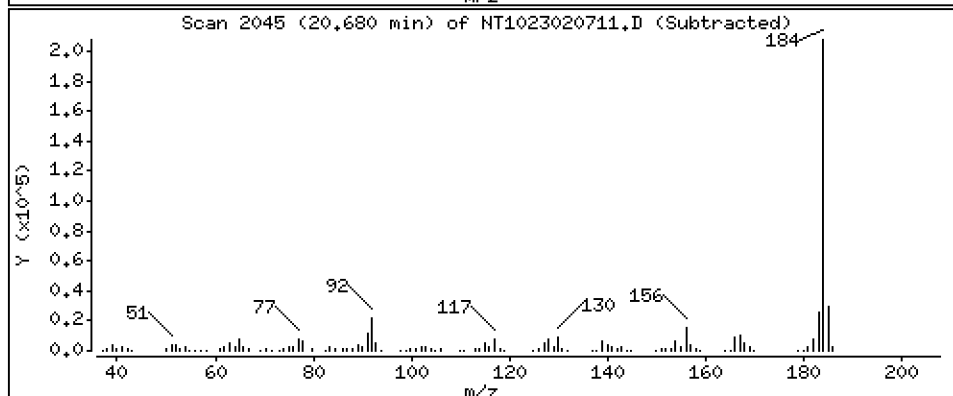
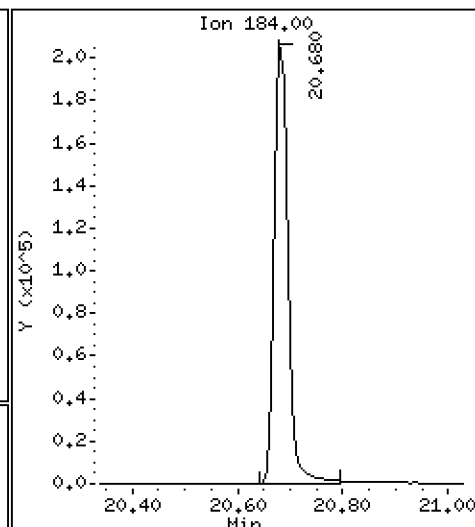
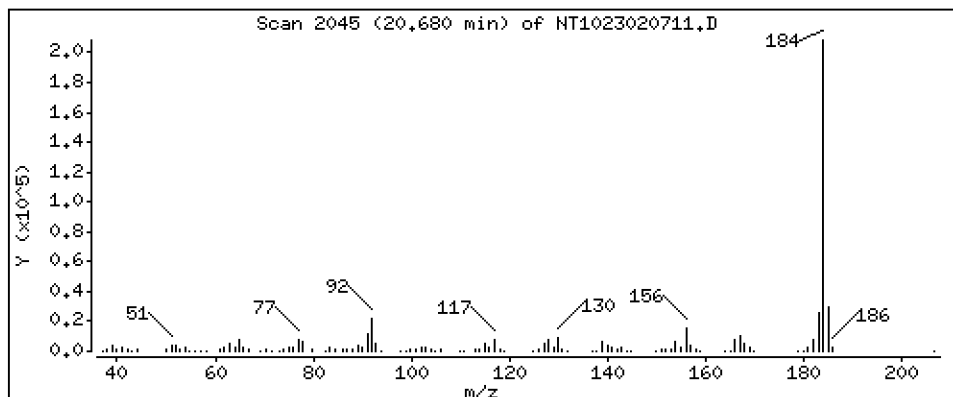
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 9,500 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

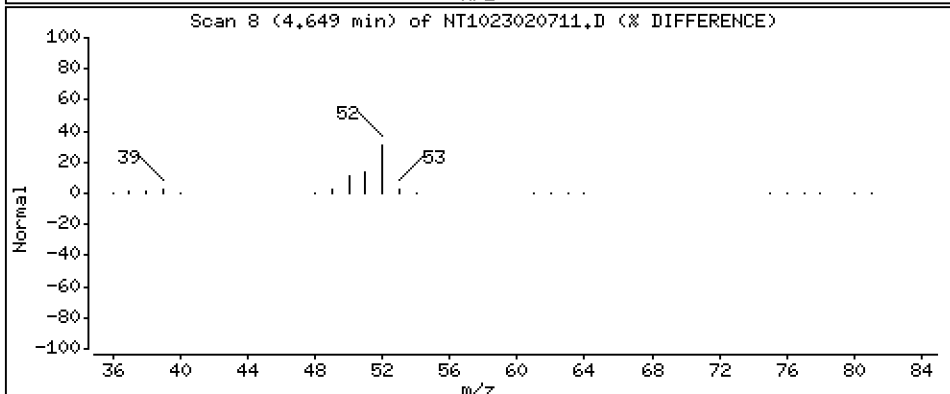
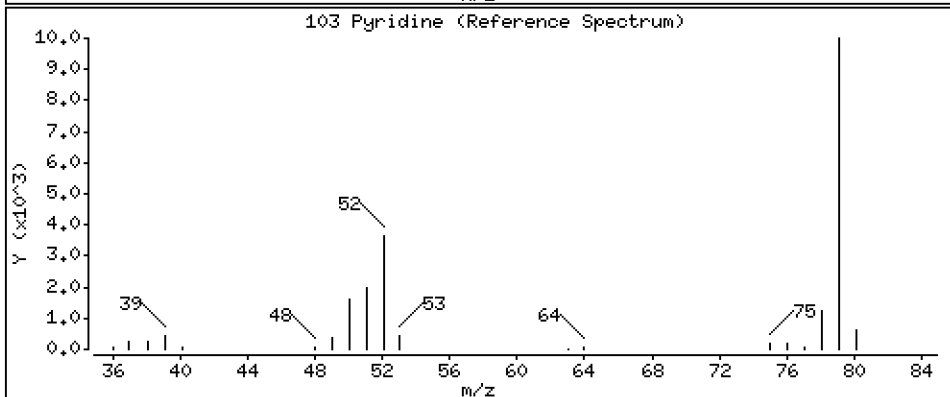
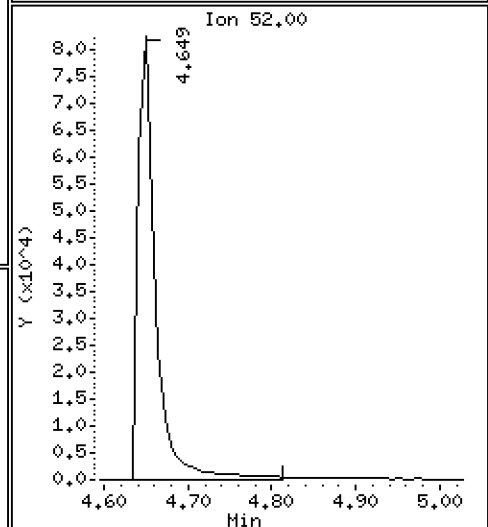
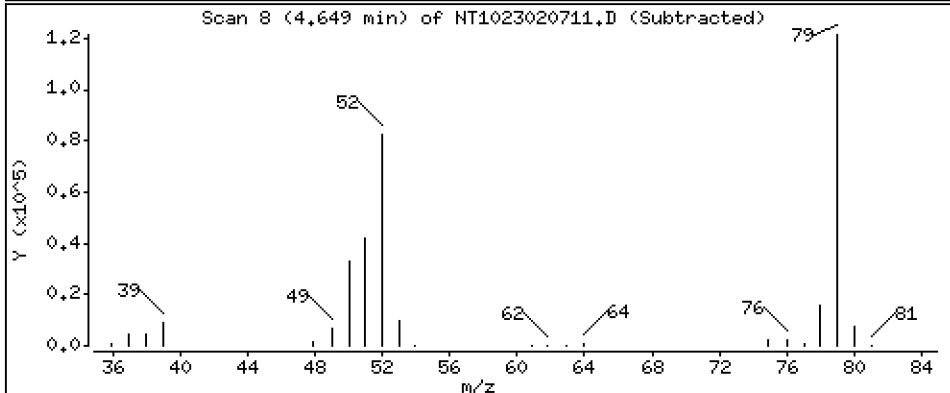
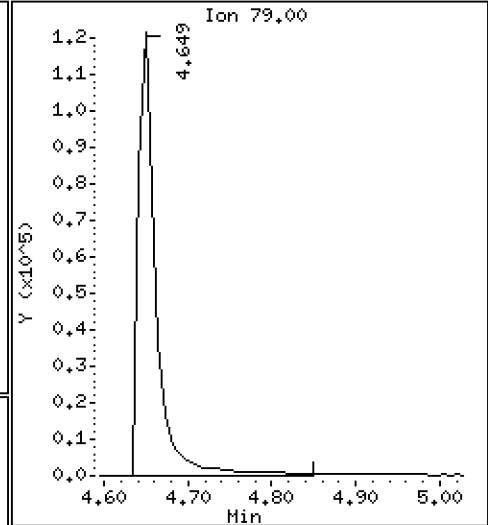
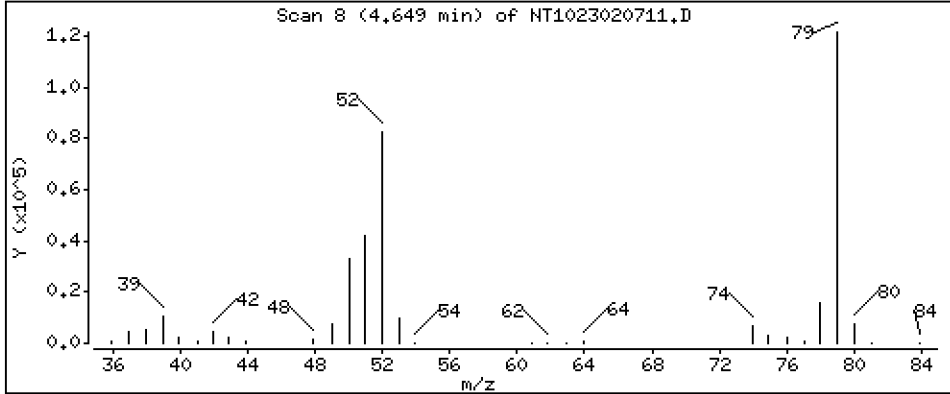
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 4,802 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

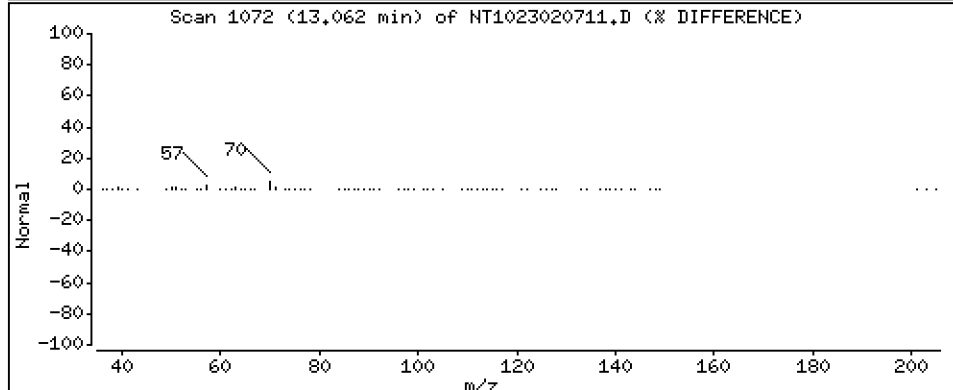
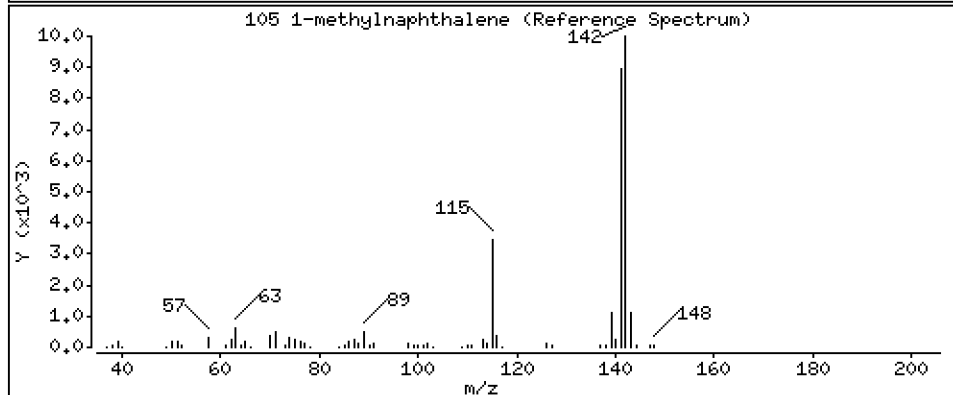
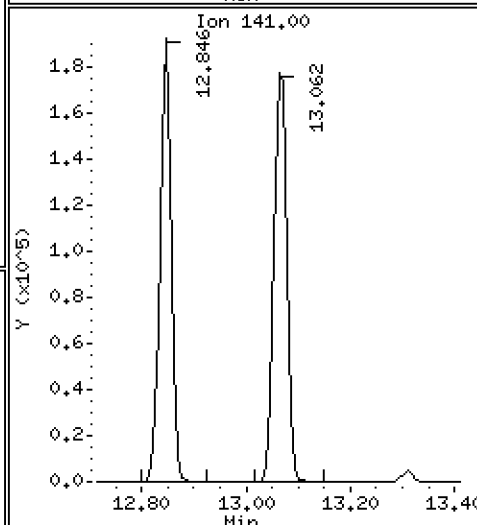
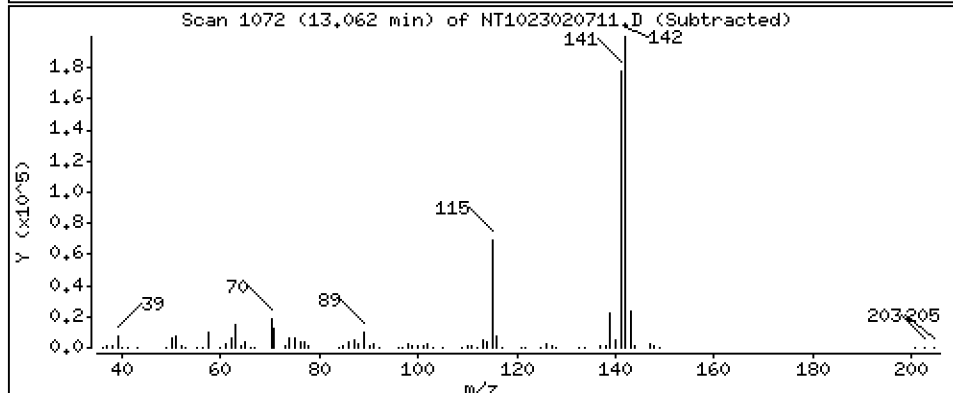
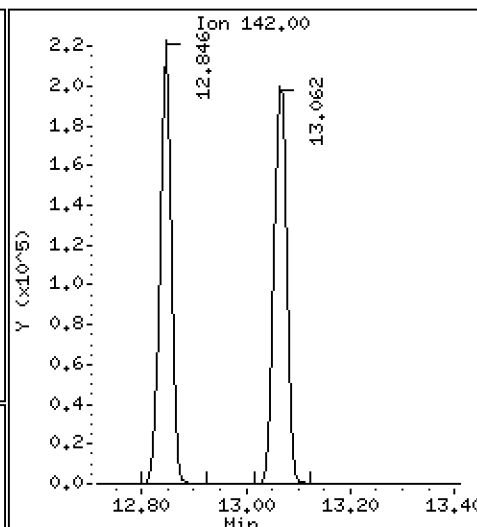
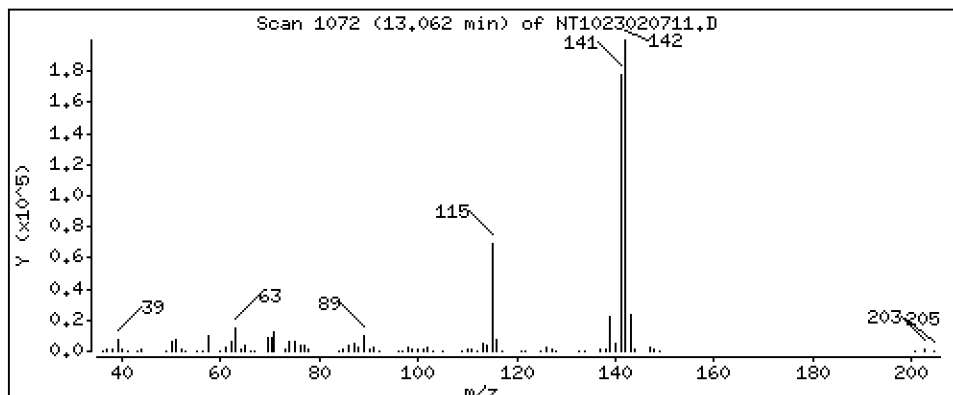
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 4,286 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

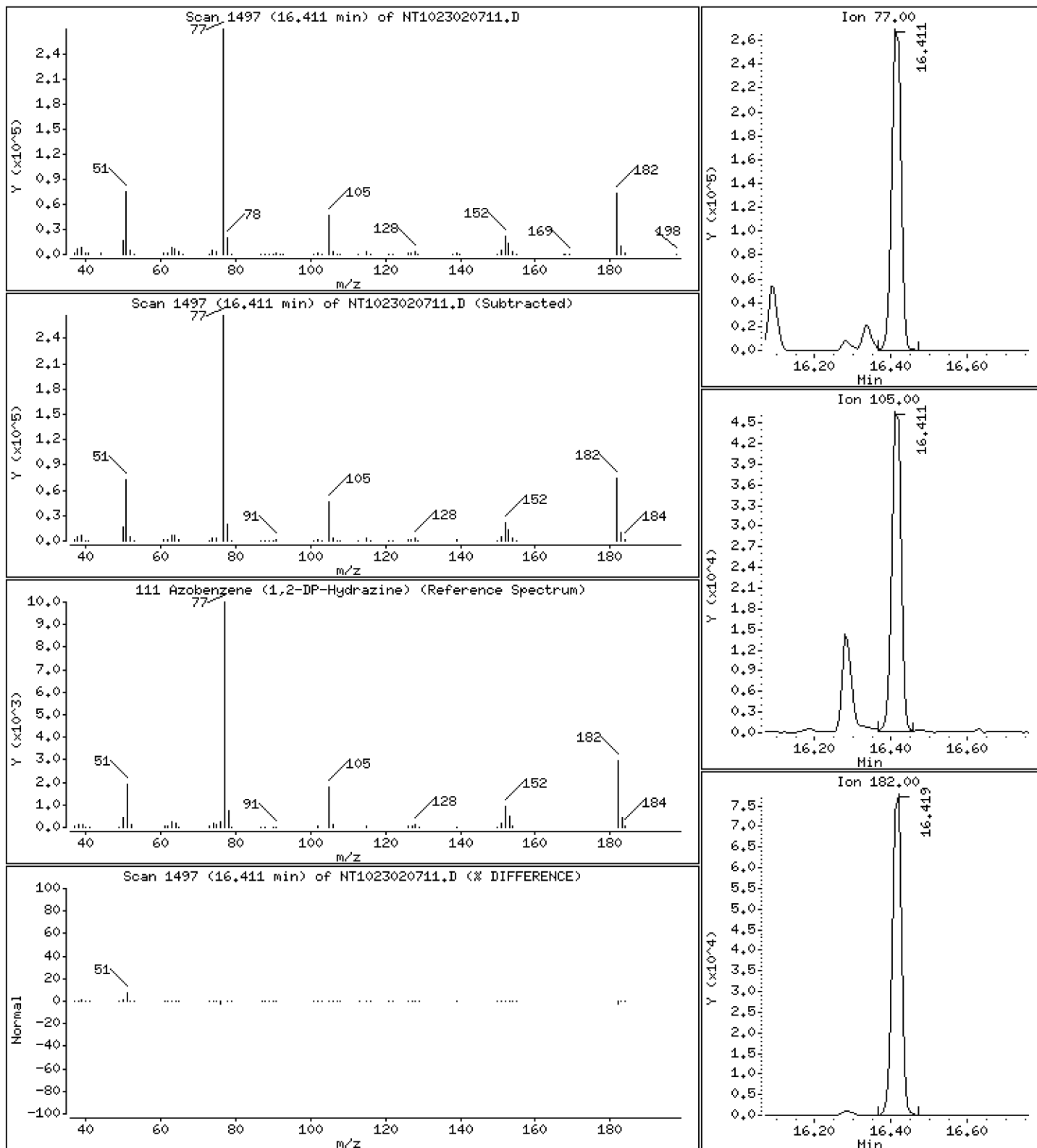
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 4.292 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

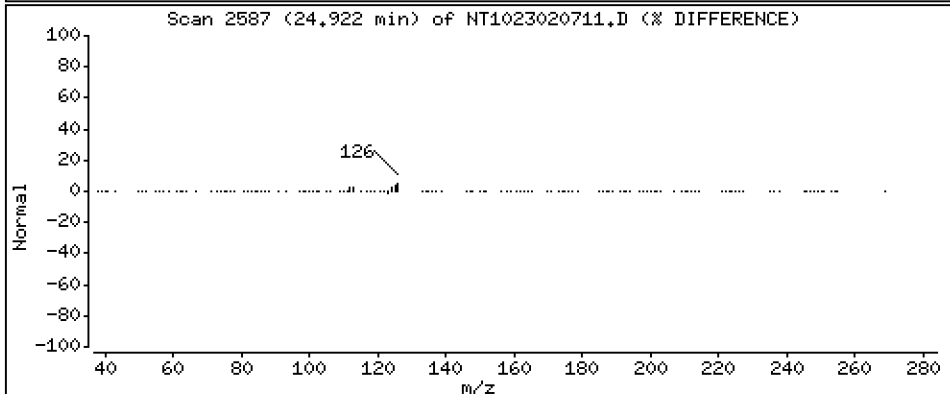
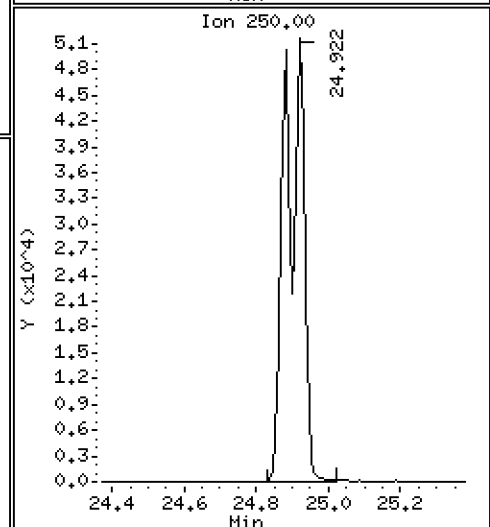
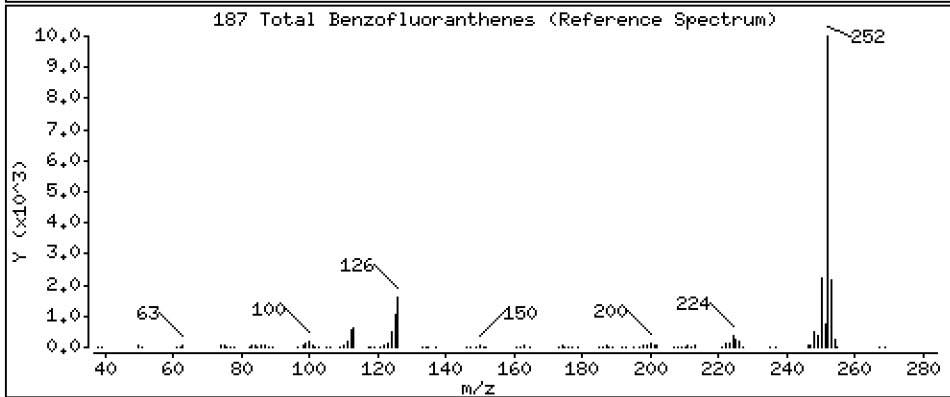
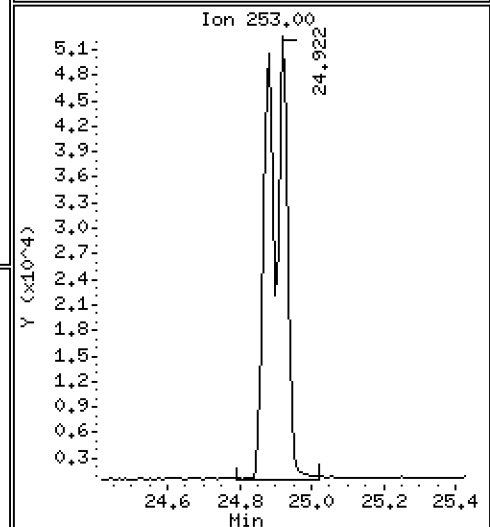
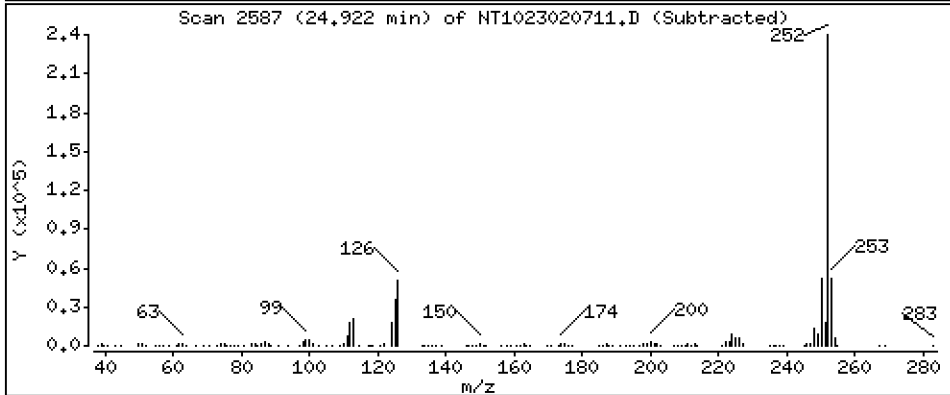
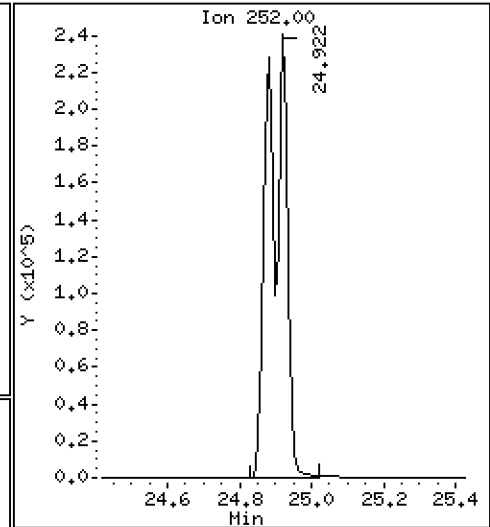
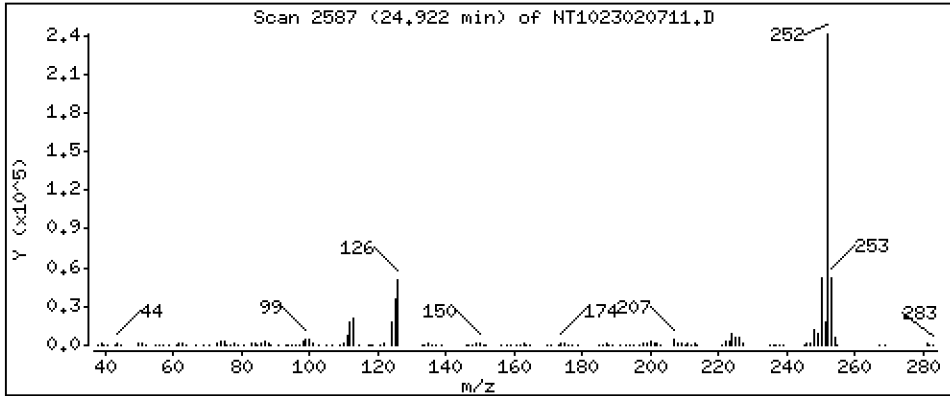
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 8,587 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

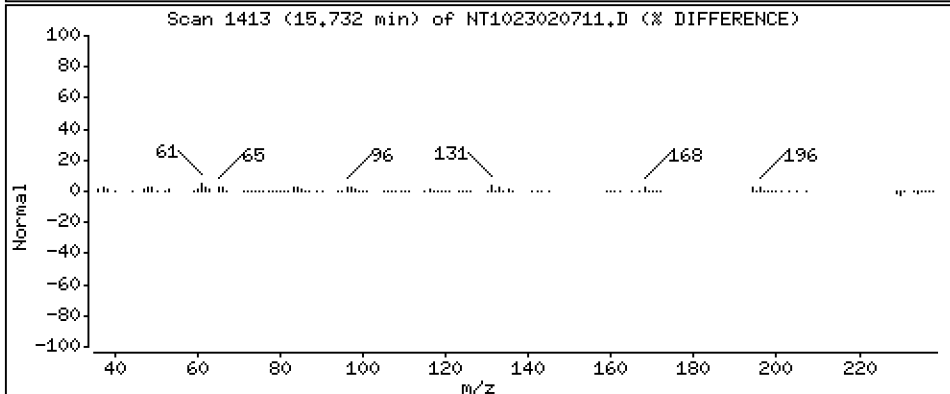
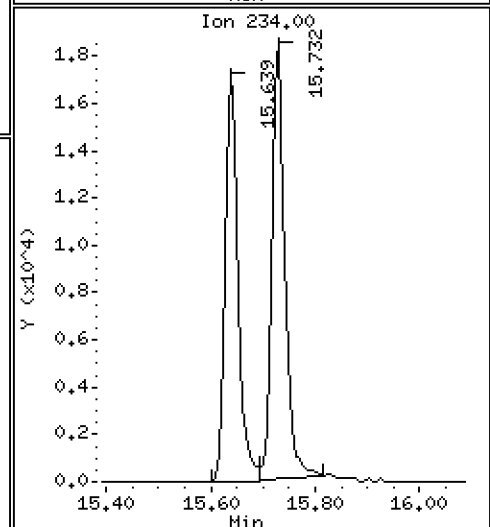
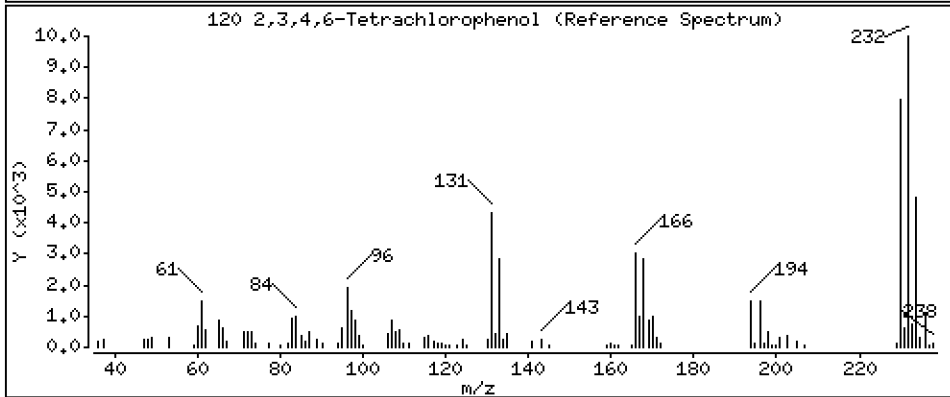
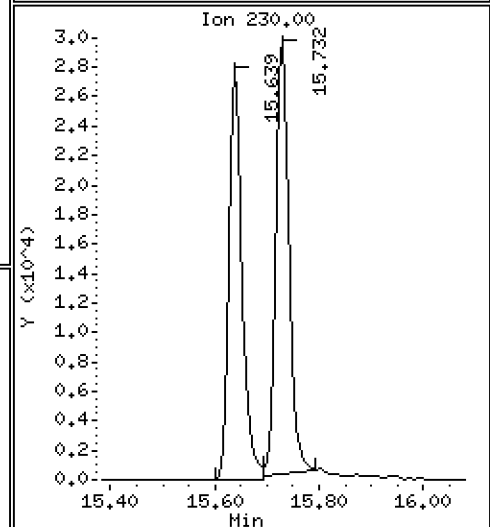
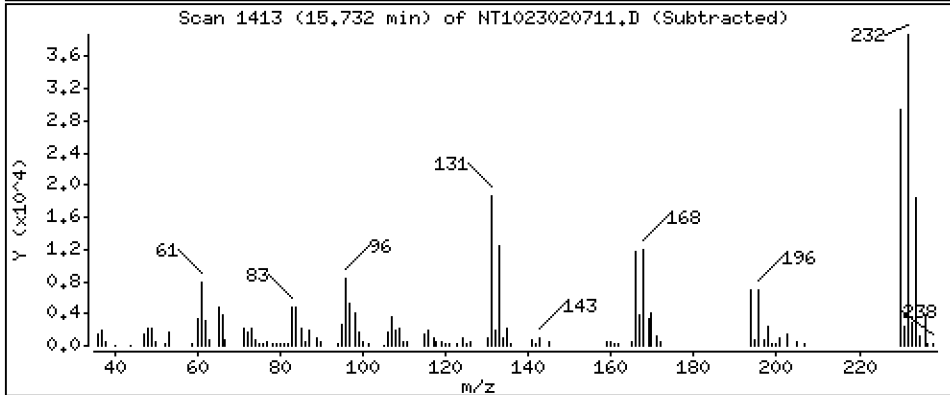
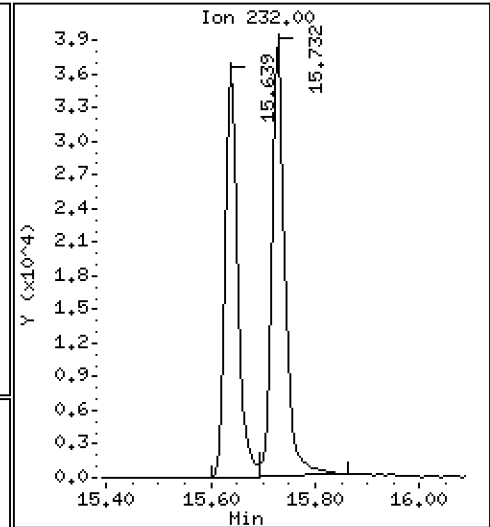
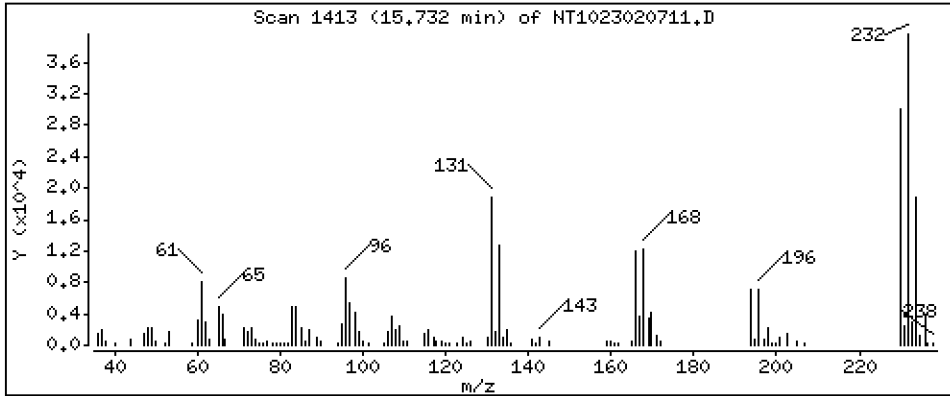
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,363 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020711.D
 Lab Smp Id: SLB0102-SCV1
 Inj Date : 07-FEB-2023 18:04
 Operator : VTS
 Smp Info : SLB0102-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 08-Feb-2023 10:39 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		6.765	6.772	(0.755)	255658	7.42059	7.421
\$ 2 Phenol-d5	99		8.333	8.333	(0.930)	336503	7.24016	7.240
3 Phenol	94		8.356	8.356	(0.933)	206466	4.10667	4.107
\$ 5 2-Chlorophenol-d4	132		8.604	8.603	(0.960)	272440	7.22261	7.223
4 Bis(2-Chloroethyl)ether	93		8.511	8.511	(0.950)	166519	4.55458	4.555
6 2-Chlorophenol	128		8.635	8.634	(0.964)	166557	4.05388	4.054
7 1,3-Dichlorobenzene	146		8.898	8.897	(0.993)	187090	4.33802	4.338
* 8 1,4-Dichlorobenzene-d4	152		8.960	8.959	(1.000)	108369	4.00000	
9 1,4-Dichlorobenzene	146		8.991	8.990	(1.003)	184757	4.34939	4.349
\$ 10 1,2-Dichlorobenzene-d4	152		9.317	9.316	(1.040)	120754	4.67680	4.677
12 1,2-Dichlorobenzene	146		9.348	9.340	(1.043)	179325	4.37882	4.379
11 Benzyl alcohol	108		9.231	9.239	(1.030)	107713	4.83673	4.837
14 2,2'-oxybis(1-Chloropropane)	121		9.526	9.526	(1.063)	58854	5.00174	5.002
13 2-Methylphenol	108		9.456	9.456	(1.055)	142781	3.82937	3.829
17 Hexachloroethane	117		9.930	9.929	(1.108)	72276	4.43822	4.438
16 N-Nitroso-di-n-propylamine	70		9.782	9.782	(1.092)	127909	4.56192	4.562
15 4-Methylphenol	108		9.728	9.728	(1.086)	155931	3.94823	3.948
\$ 18 Nitrobenzene-d5	82		10.038	10.038	(0.879)	201210	4.74845	4.748
19 Nitrobenzene	77		10.077	10.077	(0.882)	185871	4.39881	4.399
20 Isophorone	82		10.520	10.519	(0.921)	376895	6.40531	6.405
21 2-Nitrophenol	139		10.698	10.698	(0.937)	92330	4.24221	4.242
22 2,4-Dimethylphenol	107		10.758	10.757	(0.942)	137587	3.53638	3.536
23 Bis(2-Chloroethoxy)methane	93		10.944	10.944	(0.958)	195103	5.10637	5.106
24 Benzoic acid	105		10.936	11.003	(0.957)	97860	4.40978	4.410
25 2,4-Dichlorophenol	162		11.157	11.156	(0.977)	144593	4.57448	4.574
26 1,2,4-Trichlorobenzene	180		11.337	11.337	(0.993)	144321	4.19068	4.191
* 27 Naphthalene-d8	136		11.422	11.422	(1.000)	428903	4.00000	
28 Naphthalene	128		11.461	11.460	(1.003)	508486	4.43653	4.437
29 4-Chloroaniline	127		11.592	11.592	(1.015)	178023	3.62338	3.623
30 Hexachlorobutadiene	225		11.824	11.823	(1.035)	78384	4.36431	4.364
31 4-Chloro-3-methylphenol	107		12.543	12.551	(1.098)	148870	4.30829	4.308
32 2-Methylnaphthalene	142		12.845	12.845	(1.125)	336792	4.22624	4.226
33 Hexachlorocyclopentadiene	237		13.310	13.309	(0.887)	48748	3.35488	3.355
34 2,4,6-Trichlorophenol	196		13.464	13.464	(0.897)	86379	4.07941	4.079

Compounds	QUANT		SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)	
35 2,4,5-Trichlorophenol	196	13.534	13.549	(0.902)	89332	3.91330	3.913	
\$ 36 2-Fluorobiphenyl	172	13.619	13.619	(0.908)	380733	4.50425	4.504	
37 2-Chloronaphthalene	162	13.828	13.828	(0.922)	305322	4.15548	4.155	
38 2-Nitroaniline	65	14.084	14.083	(0.939)	100324	4.33640	4.336	
39 Dimethylphthalate	163	14.517	14.509	(0.968)	336465	4.28029	4.280	
40 Acenaphthylene	152	14.695	14.695	(0.979)	505791	4.32170	4.322	
41 2,6-Dinitrotoluene	165	14.649	14.648	(0.976)	81495	4.37719	4.377	
* 42 Acenaphthene-d10	164	15.004	15.004	(1.000)	234560	4.00000		
43 3-Nitroaniline	138	14.927	14.935	(0.995)	93629	4.36156	4.362	
44 Acenaphthene	153	15.066	15.066	(1.004)	303572	4.23254	4.233	
45 2,4-Dinitrophenol	184	15.144	15.151	(1.009)	13332	1.38463	1.385	
46 Dibenzofuran	168	15.391	15.391	(1.026)	431624	4.18335	4.183	
47 4-Nitrophenol	109	15.260	15.313	(1.017)	32938	4.11607	4.116	
48 2,4-Dinitrotoluene	165	15.445	15.452	(1.029)	109550	4.26455	4.265	
50 Diethylphthalate	149	15.955	15.955	(1.063)	333844	4.42248	4.422	
49 Fluorene	166	16.102	16.094	(1.073)	479965	4.13854	4.139	
51 4-Chlorophenyl-phenylether	204	16.095	16.087	(1.073)	244410	4.31488	4.315	
52 4-Nitroaniline	138	16.187	16.187	(1.079)	106457	4.33959	4.340	
53 4,6-Dinitro-2-methylphenol	198	16.287	16.287	(0.904)	58398	3.99461	3.995	
54 N-Nitrosodiphenylamine	169	16.341	16.341	(0.907)	303362	4.38443	4.384	
\$ 55 2,4,6-Tribromophenol	330	16.627	16.619	(1.108)	83549	7.11340	7.113	
56 4-Bromophenyl-phenylether	248	17.089	17.089	(0.948)	116005	4.54993	4.550	
57 Hexachlorobenzene	284	17.399	17.398	(0.966)	117771	4.28908	4.289	
58 Pentachlorophenol	266	17.763	17.770	(0.986)	36088	3.45281	3.453	
* 59 Phenanthrene-d10	188	18.018	18.018	(1.000)	404758	4.00000		
60 Phenanthrene	178	18.064	18.064	(1.003)	468874	4.30426	4.304	
61 Anthracene	178	18.157	18.157	(1.008)	420633	3.89959	3.900	
62 Carbazole	167	18.482	18.489	(1.026)	433438	4.16620	4.166	
63 Di-n-butylphthalate	149	19.294	19.294	(1.071)	572045	4.61099	4.611	
64 Fluoranthene	202	20.447	20.447	(0.887)	512115	4.34016	4.340	
65 Pyrene	202	20.873	20.872	(0.905)	520882	4.27594	4.276	
\$ 66 Terphenyl-d14	244	21.167	21.167	(0.918)	415185	4.52003	4.520	
67 Butylbenzylphthalate	149	22.096	22.088	(0.958)	230821	4.38473	4.385	
68 Benzo(a)anthracene	228	23.033	23.033	(0.999)	439471	4.09739	4.097	
* 69 Chrysene-d12	240	23.064	23.064	(1.000)	321783	4.00000		
70 3,3'-Dichlorobenzidine	252	22.994	22.994	(0.997)	313735	8.64513	8.645	
71 Chrysene	228	23.110	23.102	(1.002)	413343	4.01838	4.018	
72 bis(2-Ethylhexyl)phthalate	149	23.126	23.125	(0.959)	322683	4.69228	4.692	
* 134 Di-n-octylphthalate-d4	153	24.109	24.109	(1.000)	505567	4.00000		
73 Di-n-octylphthalate	149	24.117	24.116	(1.000)	572730	4.48283	4.483	
74 Benzo(b)fluoranthene	252	24.883	24.875	(0.971)	435974	4.23486	4.235	
75 Benzo(k)fluoranthene	252	24.922	24.922	(0.973)	475700	4.38893	4.389	
76 Benzo(a)pyrene	252	25.502	25.502	(0.995)	407352	4.37606	4.376	
* 77 Perylene-d12	264	25.619	25.611	(1.000)	325220	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	28.160	28.159	(1.099)	482778	4.35726	4.357	
79 Dibenzo(a,h)anthracene	278	28.168	28.175	(1.099)	399451	4.35211	4.352	
80 Benzo(g,h,i)perylene	276	28.905	28.905	(1.128)	413155	4.34488	4.345	
90 N-Nitrosodimethylamine	74	4.626	4.625	(0.516)	109183	4.55509	4.555	
91 Aniline	93	8.511	8.426	(0.950)	162935	3.34843	3.348 (M)	
93 Benzidine	184	20.679	20.687	(0.897)	356906	9.49988	9.500	
103 Pyridine	79	4.649	4.679	(0.519)	178138	4.80158	4.802	
105 1-methylnaphthalene	142	13.062	13.062	(1.144)	328833	4.28597	4.286	
111 Azobenzene (1,2-DP-Hydrazine)	77	16.411	16.410	(1.094)	431713	4.29217	4.292	
187 Total Benzofluoranthenes	252	24.922	24.922	(0.973)	866639	8.58675	8.587	

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS					(ug/mL)	(ug/mL)	
=====	=====		=====	=====	=====	=====	=====	
120 2,3,4,6-Tetrachlorophenol	232		15.731	15.738	(1.048)	73774	3.36344	3.363

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 08-FEB-2023
 Lab File ID: NT1023020711.D Calibration Time: 07:24
 Lab Smp Id: SLB0102-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	110702	55351	221404	108369	-2.11
27 Naphthalene-d8	429852	214926	859704	428903	-0.22
42 Acenaphthene-d10	233715	116858	467430	234560	0.36
59 Phenanthrene-d10	388662	194331	777324	404758	4.14
69 Chrysene-d12	345176	172588	690352	321783	-6.78
134 Di-n-octylphthala	579750	289875	1159500	505567	-12.80
77 Perylene-d12	378227	189114	756454	325220	-14.01

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.96	-0.08
27 Naphthalene-d8	11.43	10.93	11.93	11.42	-0.06
42 Acenaphthene-d10	15.01	14.51	15.51	15.00	-0.05
59 Phenanthrene-d10	18.03	17.53	18.53	18.02	-0.04
69 Chrysene-d12	23.07	22.57	23.57	23.06	-0.03
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	0.00
77 Perylene-d12	25.63	25.13	26.13	25.62	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020711.D

Lab ID: SLB0102-SCV1
nt10.i, 20230207.b\ABN.m, 07-FEB-2023 18:04

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.957	0.000	0.9574	Benzoic acid
1.009	0.000	1.0093	2,4-Dinitrophenol
0.950	0.940	0.0095	Aniline

RRT check based on Ccal File: NT1023020708.D

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

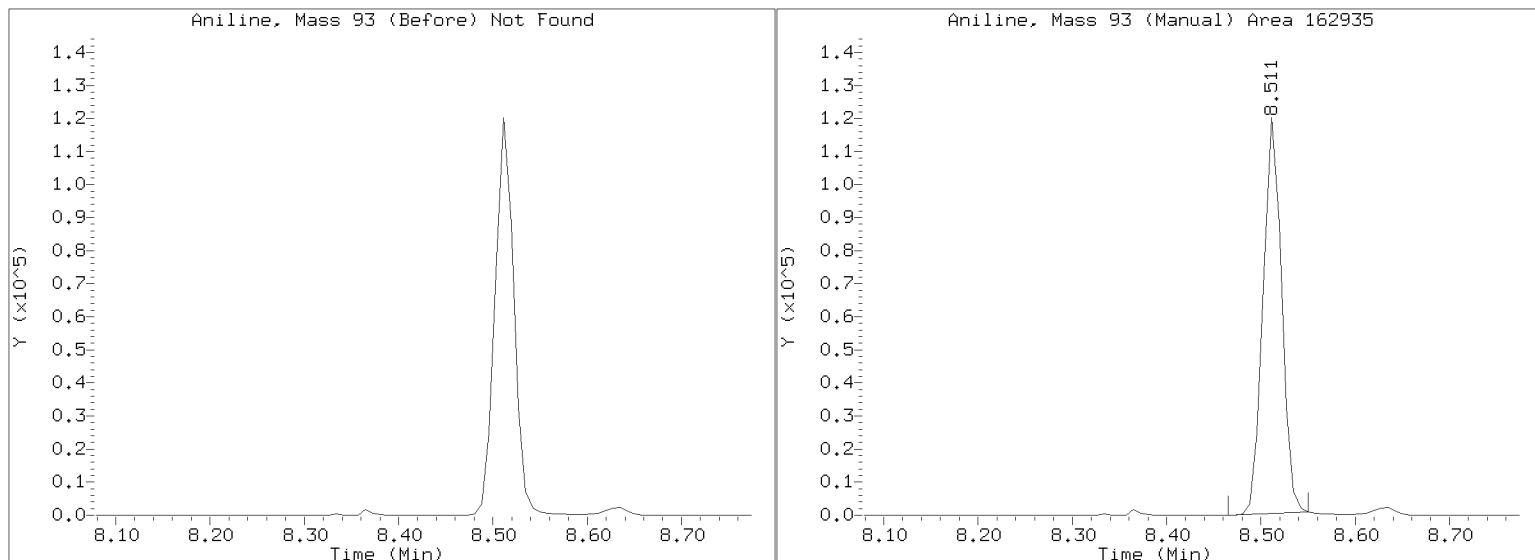
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020711.D

Injection Date: 07-FEB-2023 18:04

Lab ID:SLB0102-SCV1 Client ID:

Report Date: 02/09/2023 11:24



APPROVED

By Deenay Dunmore at 11:30 am, Feb 09, 2023



INITIAL CALIBRATION DATA

EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00036	Instrument:	NT18
Calibration Date:	02/15/2023	Column (1):	ZB-5MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Phenol	0.2	1.447326	0.5	1.684745	1	1.804457	2.5	1.741137	5	1.798619	10	1.840106
bis(2-chloroethyl) ether	0.2	1.211802	0.5	1.329482	1	1.38943	2.5	1.292801	5	1.324635	10	1.320608
2-Chlorophenol	0.2	1.24899	0.5	1.459985	1	1.521349	2.5	1.459285	5	1.512879	10	1.568074
1,3-Dichlorobenzene	0.2	1.60021	0.5	1.655979	1	1.701445	2.5	1.582034	5	1.605705	10	1.621099
1,4-Dichlorobenzene	0.2	1.675338	0.5	1.628651	1	1.891104	2.5	1.729886	5	1.783151	10	1.745963
1,2-Dichlorobenzene	0.2	1.611479	0.5	1.672472	1	1.684859	2.5	1.539075	5	1.564432	10	1.601814
Benzyl Alcohol	0.2	0.5255151	0.5	0.6533782	1	0.8025817	2.5	0.8436609	5	0.897323	10	0.9468138
2,2'-Oxybis(1-chloropropane)	0.2	0.3703773	0.5	0.3984131	1	0.4569527	2.5	0.4245001	5	0.3451598	10	0.426337
2-Methylphenol	0.2	0.87974	0.5	1.207033	1	1.360377	2.5	1.289709	5	1.323139	10	1.357244
Hexachloroethane	0.2	0.5591345	0.5	0.5987223	1	0.6477511	2.5	0.6060765	5	0.6129862	10	0.6309379
N-Nitroso-di-n-Propylamine	0.2	0.6981199	0.5	0.8416057	1	1.025486	2.5	0.9950404	5	1.012669	10	1.035057
4-Methylphenol	0.2	0.8220799	0.5	1.246443	1	1.400353	2.5	1.376486	5	1.418495	10	1.44435
Nitrobenzene	0.2	0.3191531	0.5	0.3569256	1	0.4015773	2.5	0.3857729	5	0.395075	10	0.4001637
Isophorone	0.2	0.3397537	0.5	0.3860478	1	0.5367031	2.5	0.5513842	5	0.5730594	10	0.5789981
2-Nitrophenol			0.5	0.1226886	1	0.1682856	2.5	0.1885436	5	0.2002006	10	0.211815
2,4-Dimethylphenol			1	0.3227769	2	0.3483424	5	0.3323323	10	0.3328997	20	0.3415309
Bis(2-Chloroethoxy)methane	0.2	0.3318464	0.5	0.344427	1	0.3752484	2.5	0.3560263	5	0.3697657	10	0.3671171
2,4-Dichlorophenol			1	0.2963471	2	0.3353046	5	0.3234601	10	0.3372726	20	0.3532363
1,2,4-Trichlorobenzene	0.2	0.3859489	0.5	0.3803913	1	0.3824546	2.5	0.3529404	5	0.3540518	10	0.3612031
Naphthalene	0.2	1.218608	0.5	1.162787	1	1.202874	2.5	1.120108	5	1.127361	10	1.139151
Benzoic acid			2	4.754892E-04	4	4.694123E-02	10	0.1172361	20	0.1748677	40	0.23633
4-Chloroaniline			1	0.4616197	2	0.5119646	5	0.495536	10	0.489649	20	0.517976
Hexachlorobutadiene	0.2	0.2167744	0.5	0.2146988	1	0.2139719	2.5	0.2024706	5	0.2054468	10	0.2141235
4-Chloro-3-Methylphenol			1	0.2482547	2	0.296102	5	0.2992689	10	0.3107153	20	0.3203781
2-Methylnaphthalene	0.2	0.7848513	0.5	0.7811855	1	0.8242384	2.5	0.77504	5	0.7862626	10	0.7864687
Hexachlorocyclopentadiene			1	0.2588224	2	0.3436476	5	0.3721365	10	0.4099866	20	0.4498499
2,4,6-Trichlorophenol			1	0.3170969	2	0.3762486	5	0.3882453	10	0.4119631	20	0.4472226
2,4,5-Trichlorophenol			1	0.3536868	2	0.4175057	5	0.4361472	10	0.4643932	20	0.494071



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00036

Instrument: NT18

Calibration Date: 02/15/2023

Column (1): ZB-5MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
2-Chloronaphthalene	0.2	1.341801	0.5	1.304188	1	1.383194	2.5	1.295084	5	1.321243	10	1.361109
2-Nitroaniline			1	0.2614692	2	0.3483451	5	0.3671231	10	0.3814981	20	0.3957478
Acenaphthylene	0.2	1.761436	0.5	1.905414	1	2.1248	2.5	2.051535	5	2.09803	10	2.17096
Dimethylphthalate	0.2	1.287393	0.5	1.327777	1	1.453199	2.5	1.402593	5	1.42844	10	1.479353
2,6-Dinitrotoluene			1	0.2465175	2	0.3100526	5	0.3192718	10	0.3423462	20	0.3665646
Acenaphthene	0.2	1.458432	0.5	1.371053	1	1.397796	2.5	1.308462	5	1.330449	10	1.340482
3-Nitroaniline			1	0.2568026	2	0.3454597	5	0.3591664	10	0.3776589	20	0.4046172
2,4-Dinitrophenol			2	2.126672E-02	4	7.936927E-02	10	0.1465259	20	0.1957192	40	0.2560491
Dibenzofuran	0.2	2.056426	0.5	1.958488	1	2.014172	2.5	1.864506	5	1.89568	10	1.940969
4-Nitrophenol			1	8.392923E-02	2	0.1487454	5	0.1689142	10	0.18833	20	0.1990764
2,4-Dinitrotoluene			1	0.341614	2	0.4315102	5	0.4405673	10	0.4691657	20	0.4871922
Fluorene	0.2	1.487417	0.5	1.49466	1	1.568578	2.5	1.475505	5	1.527138	10	1.614856
4-Chlorophenylphenyl ether	0.2	0.7439063	0.5	0.7374164	1	0.7708297	2.5	0.7096749	5	0.7394441	10	0.7959004
Diethyl phthalate	0.2	1.265432	0.5	1.301309	1	1.447639	2.5	1.382951	5	1.41286	10	1.607431
4-Nitroaniline			1	0.2342589	2	0.3258868	5	0.3385161	10	0.3565788	20	0.3806538
4,6-Dinitro-2-methylphenol			2	4.126174E-02	4	8.950522E-02	10	0.120593	20	0.1433537	40	0.1677126
N-Nitrosodiphenylamine	0.2	0.5336348	0.5	0.5774702	1	0.5967605	2.5	0.5880433	5	0.5912509	10	0.6286239
4-Bromophenyl phenyl ether	0.2	0.2187892	0.5	0.2281082	1	0.2429101	2.5	0.2415745	5	0.2530182	10	0.2725067
Hexachlorobenzene	0.2	0.2849858	0.5	0.2811988	1	0.2901426	2.5	0.27699	5	0.2834685	10	0.3005742
Pentachlorophenol			1	4.164374E-02	2	8.785523E-02	5	0.1230974	10	0.1484161	20	0.1855918
Phenanthrene	0.2	1.257955	0.5	1.203602	1	1.230672	2.5	1.161829	5	1.189814	10	1.233756
Anthracene	0.2	0.8404666	0.5	0.9426039	1	1.084135	2.5	1.132406	5	1.17132	10	1.212021
Carbazole	0.2	0.9339433	0.5	1.006831	1	1.13843	2.5	1.092739	5	1.121565	10	1.149023
Di-n-Butylphthalate	0.2	0.7590657	0.5	0.9184153	1	1.163875	2.5	1.261641	5	1.364675	10	1.421522
Fluoranthene	0.2	1.208354	0.5	1.266104	1	1.351795	2.5	1.297849	5	1.348357	10	1.257911
Pyrene	0.2	1.302231	0.5	1.341106	1	1.438124	2.5	1.366751	5	1.394493	10	1.40796
Butylbenzylphthalate	0.2	0.2960066	0.5	0.3818502	1	0.5021657	2.5	0.5467961	5	0.5907554	10	0.576216
Benzo(a)anthracene	0.2	1.341225	0.5	1.331985	1	1.443879	2.5	1.347386	5	1.378461	10	1.267226



INITIAL CALIBRATION DATA EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00036

Instrument: NT18

Calibration Date: 02/15/2023

Column (1): ZB-5MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
3,3'-Dichlorobenzidine	0.6	0.3517624	1.5	0.3979889	3	0.4913144	7.5	0.4997136	15	0.5462783	30	0.5376107
Chrysene	0.2	1.56454	0.5	1.474563	1	1.497788	2.5	1.366134	5	1.391785	10	1.317033
bis(2-Ethylhexyl)phthalate	0.2	0.4347646	0.5	0.536808	1	0.6456016	2.5	0.6521046	5	0.6822078	10	0.6812911
Di-n-Octylphthalate	0.2	1.369937	0.5	1.226456	1	1.23346	2.5	1.135099	5	1.146092	10	1.101878
Benzo(a)anthracene, Total	0.4	1.43468	1	1.389591	2	1.423179	5	1.382169	10	1.404543	20	1.419964
Benzo(a)pyrene	0.2	0.916631	0.5	1.065511	1	1.134772	2.5	1.162481	5	1.221277	10	1.269373
Indeno(1,2,3-cd)pyrene	0.2	0.5321561	0.5	0.626072	1	0.7354997	2.5	0.8791525	5	1.010189	10	1.230522
Dibenzo(a,h)anthracene	0.2	0.4401466	0.5	0.5028136	1	0.6044481	2.5	0.7114454	5	0.8300836	10	1.025811
Benzo(g,h,i)perylene	0.2	0.4980855	0.5	0.5285125	1	0.5762968	2.5	0.6862558	5	0.7773773	10	0.903862
1-Methylnaphthalene	0.2	0.8024866	0.5	0.7594488	1	0.8028825	2.5	0.7457585	5	0.755391	10	0.7619704
2-Fluorophenol	0.3	0.8536959	0.75	1.058727	1.5	1.302858	3.75	1.310004	7.5	1.332704	15	1.380165
Phenol-d5	0.3	1.489398	0.75	1.654573	1.5	1.848773	3.75	1.796023	7.5	1.861184	15	1.891766
2-Chlorophenol-d4	0.3	1.294067	0.75	1.462606	1.5	1.605065	3.75	1.537086	7.5	1.60479	15	1.633646
1,2-Dichlorobenzene-d4	0.2	1.11301	0.5	1.127063	1	1.15575	2.5	1.066331	5	1.083302	10	1.095853
Nitrobenzene-d5	0.2	0.3017778	0.5	0.3571973	1	0.4100972	2.5	0.4094829	5	0.4272767	10	0.4364146
2-Fluorobiphenyl	0.2	1.8474	0.5	1.777814	1	1.800567	2.5	1.70755	5	1.742011	10	1.792286
2,4,6-Tribromophenol			0.75	0.1589277	1.5	0.2084611	3.75	0.2201932	7.5	0.2431004	15	0.2814462
p-Terphenyl-d14	0.2	1.295363	0.5	1.265687	1	1.314406	2.5	1.218292	5	1.272365	10	1.207217



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00036	Instrument:	NT18
Calibration Date:	02/15/2023	Column (1):	ZB-5MS

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Phenol	20	1.74253										
bis(2-chloroethyl) ether	20	1.257771										
2-Chlorophenol	20	1.597379										
1,3-Dichlorobenzene	20	1.532162										
1,4-Dichlorobenzene	20	1.665487										
1,2-Dichlorobenzene	20	1.537238										
Benzyl Alcohol	20	0.9103985										
2,2'-Oxybis(1-chloropropane)	20	0.4166833										
2-Methylphenol	20	1.322104										
Hexachloroethane	20	0.6090056										
N-Nitroso-di-n-Propylamine	20	0.9960397										
4-Methylphenol	20	1.389992										
Nitrobenzene	20	0.3770291										
Isophorone	20	0.5459091										
2-Nitrophenol	20	0.201582										
2,4-Dimethylphenol	40	0.320909										
Bis(2-Chloroethoxy)methane	20	0.3467219										
2,4-Dichlorophenol	40	0.3233914										
1,2,4-Trichlorobenzene	20	0.3451984										
Naphthalene	20	1.078236										
Benzoic acid	80	0.2305381										
4-Chloroaniline	40	0.4847213										
Hexachlorobutadiene	20	0.2057509										
4-Chloro-3-Methylphenol	40	0.3063585										
2-Methylnaphthalene	20	0.7404374										
Hexachlorocyclopentadiene	40	0.4475795										
2,4,6-Trichlorophenol	40	0.4387651										
2,4,5-Trichlorophenol	40	0.4841001										



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00036	Instrument:	NT18
Calibration Date:	02/15/2023	Column (1):	ZB-5MS

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
2-Chloronaphthalene	20	1.295694										
2-Nitroaniline	40	0.3981761										
Acenaphthylene	20	2.079433										
Dimethylphthalate	20	1.413554										
2,6-Dinitrotoluene	40	0.3558722										
Acenaphthene	20	1.256788										
3-Nitroaniline	40	0.3860477										
2,4-Dinitrophenol	80	0.2553996										
Dibenzofuran	20	1.82786										
4-Nitrophenol	40	0.1880902										
2,4-Dinitrotoluene	40	0.4650477										
Fluorene	20	1.556057										
4-Chlorophenylphenyl ether	20	0.9090699										
Diethyl phthalate	20	1.523135										
4-Nitroaniline	40	0.3650815										
4,6-Dinitro-2-methylphenol	80	0.1684172										
N-Nitrosodiphenylamine	20	0.6255045										
4-Bromophenyl phenyl ether	20	0.2707719										
Hexachlorobenzene	20	0.2987266										
Pentachlorophenol	40	0.197641										
Phenanthrene	20	1.181733										
Anthracene	20	1.183337										
Carbazole	20	1.121603										
Di-n-Butylphthalate	20	1.371742										
Fluoranthene	20	1.103552										
Pyrene	20	1.140057										
Butylbenzylphthalate	20	0.5150464										
Benzo(a)anthracene	20	1.142654										



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Calibration: GB00036
Calibration Date: 02/15/2023

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: NT18
Column (1): ZB-5MS

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
3,3'-Dichlorobenzidine	60	0.4481259										
Chrysene	20	1.140566										
bis(2-Ethylhexyl)phthalate	20	0.6273813										
Di-n-Octylphthalate	20	1.013397										
Benzo(a)fluoranthenes, Total	40	1.337901										
Benzo(a)pyrene	20	1.21258										
Indeno(1,2,3-cd)pyrene	20	1.265551										
Dibenzo(a,h)anthracene	20	1.079738										
Benzo(g,h,i)perylene	20	0.9137885										
1-Methylnaphthalene	20	0.7154511										
2-Fluorophenol	30	1.293577										
Phenol-d5	30	1.763605										
2-Chlorophenol-d4	30	1.560949										
1,2-Dichlorobenzene-d4	20	1.058829										
Nitrobenzene-d5	20	0.4134919										
2-Fluorobiphenyl	20	1.711306										
2,4,6-Tribromophenol	30	0.2892104										
p-Terphenyl-d14	20	1.086661										



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00036	Instrument:	NT18
Calibration Date:	02/15/2023	Column (1):	ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Phenol	1.722703	7.7			RSD (15)	
bis(2-chloroethyl) ether	1.30379	4.4			RSD (15)	
2-Chlorophenol	1.481134	7.7			RSD (15)	
1,3-Dichlorobenzene	1.614091	3.3			RSD (15)	
1,4-Dichlorobenzene	1.731369	5.1			RSD (15)	
1,2-Dichlorobenzene	1.601624	3.7			RSD (15)	
Benzyl Alcohol	0.7970959	19.3		0.9993	QCOD (0.99)	
2,2'-Oxybis(1-chloropropane)	0.405489	9.3			RSD (15)	
2-Methylphenol	1.248478	13.7			RSD (15)	
Hexachloroethane	0.6092306	4.5			RSD (15)	
N-Nitroso-di-n-Propylamine	0.9434311	13.4			RSD (15)	
4-Methylphenol	1.299743	16.9		0.9998	QCOD (0.99)	
Nitrobenzene	0.3765281	7.9			RSD (15)	
Isophorone	0.5016936	19.3		0.9996	QCOD (0.99)	
2-Nitrophenol	0.1821859	18.0		0.9990	QCOD (0.99)	
2,4-Dimethylphenol	0.3331319	3.2			RSD (15)	
Bis(2-Chloroethoxy)methane	0.355879	4.4			RSD (15)	
2,4-Dichlorophenol	0.3281687	5.8			RSD (15)	
1,2,4-Trichlorobenzene	0.3660269	4.5			RSD (15)	
Naphthalene	1.149875	4.3			RSD (15)	
Benzoic acid	0.1343981	72.3		0.9877	QCOD (0.99)	*
4-Chloroaniline	0.4935778	4.1			RSD (15)	
Hexachlorobutadiene	0.2104624	2.7			RSD (15)	
4-Chloro-3-Methylphenol	0.2968462	8.5			RSD (15)	
2-Methylnaphthalene	0.7826405	3.1			RSD (15)	
Hexachlorocyclopentadiene	0.3803371	19.1		0.9988	QCOD (0.99)	
2,4,6-Trichlorophenol	0.3965903	12.0			RSD (15)	
2,4,5-Trichlorophenol	0.4416507	11.7			RSD (15)	
2-Chloronaphthalene	1.328902	2.6			RSD (15)	
2-Nitroaniline	0.3587266	14.3			RSD (15)	
Acenaphthylene	2.027373	7.1			RSD (15)	



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00036	Instrument:	NT18
Calibration Date:	02/15/2023	Column (1):	ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Dimethylphthalate	1.398901	4.9			RSD (15)	
2,6-Dinitrotoluene	0.3234375	13.4			RSD (15)	
Acenaphthene	1.351923	4.8			RSD (15)	
3-Nitroaniline	0.3549587	14.7			RSD (15)	
2,4-Dinitrophenol	0.159055	60.0		0.9913	QCOD (0.99)	
Dibenzofuran	1.936872	4.2			RSD (15)	
4-Nitrophenol	0.1628476	26.1		0.9985	QCOD (0.99)	
2,4-Dinitrotoluene	0.4391829	11.8			RSD (15)	
Fluorene	1.53203	3.3			RSD (15)	
4-Chlorophenylphenyl ether	0.7723202	8.6			RSD (15)	
Diethyl phthalate	1.420108	8.4			RSD (15)	
4-Nitroaniline	0.333496	15.7		0.9992	QCOD (0.99)	
4,6-Dinitro-2-methylphenol	0.1218072	40.7		0.9965	QCOD (0.99)	
N-Nitrosodiphenylamine	0.5916126	5.4			RSD (15)	
4-Bromophenyl phenyl ether	0.2468113	8.2			RSD (15)	
Hexachlorobenzene	0.2880124	3.1			RSD (15)	
Pentachlorophenol	0.1307075	45.4		0.9954	QCOD (0.99)	
Phenanthrene	1.20848	2.8			RSD (15)	
Anthracene	1.080898	12.8			RSD (15)	
Carbazole	1.080591	7.4			RSD (15)	
Di-n-Butylphthalate	1.180134	21.4		0.9994	QCOD (0.99)	
Fluoranthene	1.261989	6.8			RSD (15)	
Pyrene	1.341532	7.4			RSD (15)	
Butylbenzylphthalate	0.4869766	22.3		0.9993	QCOD (0.99)	
Benzo(a)anthracene	1.321831	7.2			RSD (15)	
3,3'-Dichlorobenzidine	0.467542	15.5		0.9981	QCOD (0.99)	
Chrysene	1.393201	10.0			RSD (15)	
bis(2-Ethylhexyl)phthalate	0.6085941	15.0			RSD (15)	
Di-n-Octylphthalate	1.175188	9.7			RSD (15)	
Benzo(a)fluoranthene, Total	1.398861	2.3			RSD (15)	
Benzo(a)pyrene	1.140375	10.4			RSD (15)	



INITIAL CALIBRATION DATA
EPA 8270E

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00036	Instrument:	NT18
Calibration Date:	02/15/2023	Column (1):	ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Indeno(1,2,3-cd)pyrene	0.8970203	31.9		0.9970	QCOD (0.99)	
Dibenzo(a,h)anthracene	0.7420695	33.5		0.9968	QCOD (0.99)	
Benzo(g,h,i)perylene	0.6977398	24.7		0.9979	QCOD (0.99)	
1-Methylnaphthalene	0.7633413	4.1			RSD (15)	
2-Fluorophenol	1.218819	15.7		0.9996	QCOD (0.99)	
Phenol-d5	1.757903	8.1			RSD (15)	
2-Chlorophenol-d4	1.528316	7.7			RSD (15)	
1,2-Dichlorobenzene-d4	1.10002	3.1			RSD (15)	
Nitrobenzene-d5	0.3936769	12.1			RSD (15)	
2-Fluorobiphenyl	1.768419	2.9			RSD (15)	
2,4,6-Tribromophenol	0.2335565	20.9		0.9983	QCOD (0.99)	
p-Terphenyl-d14	1.237142	6.2			RSD (15)	



ANALYSIS SEQUENCE

SLB0195

Instrument ID: NT18 GCMS Description: Agilent 6890N/5975
Calibration ID: GB00036 GCMS Column ID: L001046
MS EM Level: 1047 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLB0195-TUN1	MS Tune	QC		1	K004775		02/10/2023 16:46	NT1802102301.D	VTS	
SLB0195-CAL7	ABN 20	QC		2	K011111	K010831	02/10/2023 17:04	NT1802102302.D	VTS	
SLB0195-CAL6	ABN 10	QC		3	K011110	K010831	02/10/2023 17:44	NT1802102303.D	VTS	
SLB0195-CAL5	ABN 5	QC		4	K011109	K010831	02/10/2023 18:25	NT1802102304.D	VTS	
SLB0195-CAL4	ABN 2.5	QC		5	K011108	K010831	02/10/2023 19:05	NT1802102305.D	VTS	
SLB0195-CAL3	ABN 1.0	QC		6	K011107	K010831	02/10/2023 19:45	NT1802102306.D	VTS	
SLB0195-CAL2	ABN 0.5	QC		7	K011106	K010831	02/10/2023 20:25	NT1802102307.D	VTS	
SLB0195-CAL1	ABN 0.2	QC		8	K011105	K010831	02/10/2023 21:05	NT1802102308.D	VTS	
SLB0195-SCV1	SCV 5.0	QC		9	K010066	K010831	02/10/2023 23:06	NT1802102311.D	VTS	
SLB0195-ICB1	Initial Cal Blank	QC		10	K005156	K010831	02/10/2023 23:46	NT1802102312.D	VTS	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt18.i\20230210.b

Time	Filename	LabID	ClientId	DF																
1	1646	NT1802102301.D			1	|	NO ISTDs FOUND|													
2	1704	NT1802102302.D	SLB0195-CAL7		1	|	9.48	109487|	11.96	426922|	15.56	222329|	18.59	382827|	23.57	456277|	26.30	383529|	24.58	582435|
3	1744	NT1802102303.D	SLB0195-CAL6		1	|	9.48	131192|	11.95	503545|	15.56	263535|	18.59	459378|	23.56	502236|	26.30	460430|	24.58	675744|
4	1825	NT1802102304.D	SLB0195-CAL5		1	|	9.48	102093|	11.95	389769|	15.55	207438|	18.58	358643|	23.55	349501|	26.30	343443|	24.57	468622|
5	1905	NT1802102305.D	SLB0195-CAL4		1	|	9.48	117469|	11.95	450578|	15.55	237285|	18.58	411752|	23.55	401542|	26.29	390891|	24.57	525604|
6	1945	NT1802102306.D	SLB0195-CAL3		1	|	9.47	108764|	11.95	426299|	15.55	227355|	18.58	406669|	23.55	387171|	26.30	377958|	24.57	477632|
7	2025	NT1802102307.D	SLB0195-CAL2		1	|	9.47	83431|	11.95	323877|	15.55	172288|	18.58	308906|	23.55	287673|	26.29	265848|	24.57	327402|
8	2105	NT1802102308.D	SLB0195-CAL1		1	|	9.47	106486|	11.95	384455|	15.55	202176|	18.58	364369|	23.55	343641|	26.29	317576|	24.57	387244|
9	2146	NT1802102309.D	SIM CAL		1	|	9.47	86886|	11.95	349395|	15.55	181603|	18.58	329403|	23.55	297110|	26.29	271976|	24.57	307252|
10	2226	NT1802102310.D	SIM CAL		1	|	9.47	113514|	11.95	429697|	15.55	226337|	18.58	414261|	23.55	379818|	26.29	354720|	24.57	407787|
11	2306	NT1802102311.D	SLB0195-SCV1		1	|	9.47	145438|	11.95	551199|	15.56	292562|	18.58	526860|	23.56	535596|	26.30	523305|	24.57	714503|
12	2346	NT1802102312.D	SLB0195-ICB1		1	|	9.47	122636|	11.95	450392|	15.55	236606|	18.58	430289|	23.55	396088|	26.29	360657|	24.57	416002|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt18.i\20230210.b

Instrument: nt18.i Date: 10-FEB-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
1646	NT1802102301.D		1	NO MANUAL INTEGRATION
1704	NT1802102302.D	SLB0195-CAL7	1	2,2'-oxybis(1-Chloropropane), 1,2-Dichlorobenzene-d4,
1744	NT1802102303.D	SLB0195-CAL6	1	2,2'-oxybis(1-Chloropropane), 1,2-Dichlorobenzene-d4,
1825	NT1802102304.D	SLB0195-CAL5	1	1,2-Dichlorobenzene-d4,
1905	NT1802102305.D	SLB0195-CAL4	1	2,2'-oxybis(1-Chloropropane), 1,2-Dichlorobenzene-d4,
1945	NT1802102306.D	SLB0195-CAL3	1	2,2'-oxybis(1-Chloropropane), Benzoic acid, 1,2-Dichlorobenzene-d4,
2025	NT1802102307.D	SLB0195-CAL2	1	2,2'-oxybis(1-Chloropropane), 2,4-Dinitrophenol, 4-Nitrophenol, 1,2-Dichlorobenzene-d4,
2105	NT1802102308.D	SLB0195-CAL1	1	2,2'-oxybis(1-Chloropropane), 2,4,5-Trichlorophenol, 3-Nitroaniline, 4-Nitrophenol, Pentachlorophenol, N-Nitrosodimethylamine, 1,2-Dichlorobenzene-d4, Benzo(k
2146	NT1802102309.D	SIM CAL	1	NO MANUAL INTEGRATION
2226	NT1802102310.D	SIM CAL	1	NO MANUAL INTEGRATION
2306	NT1802102311.D	SLB0195-SCV1	1	NO MANUAL INTEGRATION
2346	NT1802102312.D	SLB0195-ICB1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 15-Feb-2023 08:50

NT1802102301.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102302.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102303.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102304.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102305.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102306.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102307.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102308.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102309.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102310.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102311.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102312.D	Data Locked	van, 15-Feb-2023 08:50

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2023 17:04
 End Cal Date : 10-FEB-2023 21:05
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Last Edit : 14-Feb-2023 12:03 jrains

Calibration File Names:

Level 1: \\target\share\chem3\nt18.i\20230210.b\NT1802102308.D
 Level 2: \\target\share\chem3\nt18.i\20230210.b\NT1802102307.D
 Level 3: \\target\share\chem3\nt18.i\20230210.b\NT1802102306.D
 Level 4: \\target\share\chem3\nt18.i\20230210.b\NT1802102305.D
 Level 5: \\target\share\chem3\nt18.i\20230210.b\NT1802102304.D
 Level 6: \\target\share\chem3\nt18.i\20230210.b\NT1802102303.D
 Level 7: \\target\share\chem3\nt18.i\20230210.b\NT1802102302.D

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	Coefficients			%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
186 Carbaryl	+++++	+++++	+++++	+++++	+++++	+++++	|AVRG|	|0.000e+000|	|	|	|0.000e+000|<-
179 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	|AVRG|	|0.000e+000|	|	|	|0.000e+000|<-
180 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG	0.000e+000			0.000e+000 <-
169 4-tert-Butylphenol	+++++	+++++	+++++	+++++	+++++	+++++	AVRG	0.000e+000			0.000e+000 <-

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
170 N,N-Dimethylaniline	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
171 2,3-Dimethylaniline	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
172 2,4-Dimethylaniline	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
173 2,5-Dimethylaniline	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
174 2,6-Dimethylaniline	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
175 3,4-Dimethylaniline	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000 <-
176 3,5-Dimethylaniline	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000 <-

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
177 p-Benzoquinone	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
168 Pentachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
145 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
146 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
147 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
148 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-
149 TCMX	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
150 DCBP	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
141 Diallate B	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
142 1,2-Dibromo-3-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-
135 2,3,5,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
136 2,3,4,5-tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
133 Butylatedhydroxytoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
132 3,6-Dimethylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-

ARI Labs, Inc.

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 Method file : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Last Edit : 14-Feb-2023 12:03 jrains

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
127 2-Isopropyl-naphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
120 2,3,4,6-Tetrachlorophenol	1908	5473	20360	55728	117541	305470					
	553584						|QUAD|	|0.000e+000|	2.32212	-0.12693	0.99963
178 2-Benzyl-4-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
117 Butyl Diphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2023 17:04
 End Cal Date : 10-FEB-2023 21:05
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Last Edit : 14-Feb-2023 12:03 jrains

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
116 Dibutyl Phenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
111 Azobenzene (1,2-DP-Hydrazine)	1.26652|	1.42301|	1.58805|	1.51409|	1.56708|	1.60777|					
	1.51658|						|AVRG|		|1.49759|		|7.93556|
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2023 17:04
 End Cal Date : 10-FEB-2023 21:05
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Last Edit : 14-Feb-2023 12:03 jrains

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
181 3,4,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
108 4,5,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-

ARI Labs, Inc.

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 Integrator : HP RTE
 Method file : \\target\share\chem3\nt18.i\20230210.b\ABN.m
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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
105 1-methylnaphthalene	0.80249|	0.75945|	0.80288|	0.74576|	0.75539|	0.76197|					
	0.71545|						|AVRG|		|0.76334|		|4.06557|
151 1,2,4,5-Tetrachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-

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 Integrator : HP RTE
 Method file : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Last Edit : 14-Feb-2023 12:03 jrains

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
161 1,2,3-Trichloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-
162 1,2,3,4-Tetrachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|	|0.000e+000|			|0.000e+000|<-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2023 17:04
 End Cal Date : 10-FEB-2023 21:05
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Last Edit : 14-Feb-2023 12:03 jrains

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
163 1,2,3,5,8-Pentachloronaphthal	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|	|0.000e+000|		|0.000e+000|<-	
164 1,2,3,4,6,7-Hexachloronaphtha	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|	|0.000e+000|		|0.000e+000|<-	
165 1,2,3,4,5,6,7-Heptachloronaph	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|	|0.000e+000|		|0.000e+000|<-	
166 Octachloronaphthalene	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|	|0.000e+000|		|0.000e+000|<-	
167 2,2',4,4',5-Pentabromobipheny	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|	|0.000e+000|		|0.000e+000|<-	
3 Phenol	1.44733|	1.68475|	1.80446|	1.74114|	1.79862|	1.84011|					
	1.74253|						|AVRG|	|1.72270|		|7.65110|	
4 Bis(2-Chloroethyl)ether	1.21180	1.32948	1.38943	1.29280	1.32464	1.32061					
	1.25777						AVRG	1.30379		4.36265	

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
6 2-Chlorophenol	1.24899| 1.59738|	1.45998|	1.52135|	1.45929|	1.51288|	1.56807|	|	|	|	|	|
							|AVRG|	|	1.48113|	|	7.72320|
7 1,3-Dichlorobenzene	1.60021| 1.53216|	1.65598|	1.70145|	1.58203|	1.60570|	1.62110|	|	|	|	|	|
							|AVRG|	|	1.61409|	|	3.33994|
9 1,4-Dichlorobenzene	1.67534| 1.66549|	1.62865|	1.89110|	1.72989|	1.78315|	1.74596|	|	|	|	|	|
							|AVRG|	|	1.73137|	|	5.08151|
11 Benzyl alcohol	2798| 498384|	6814|	21823|	61940|	114513|	310536|	|	|	|	|	|
							|QUAD|	0.000e+000|	1.07067|	0.00542|	0.99960|
12 1,2-Dichlorobenzene	1.67534| 1.66549|	1.62865|	1.89110|	1.72989|	1.78315|	1.74596|	|	|	|	|	|
							|AVRG|	|	1.73137|	|	5.08151|
13 2-Methylphenol	0.87974| 1.32210|	1.20703|	1.36038|	1.28971|	1.32314|	1.35724|	|	|	|	|	|
							|AVRG|	|	1.24848|	|	13.66877|
14 2,2'-oxybis(1-Chloropropane)	0.37038 0.41668	0.39841	0.45695	0.42450	0.34516	0.42634					
							AVRG		0.40549		9.27813

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	Coefficients			%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	20.0000										
	Level 7										
15 4-Methylphenol	4377	12999	38077	101059	181023	473718					
	760930						QUAD	0.000e+000	0.68415	0.00492	0.99988
16 N-Nitroso-di-n-propylamine	0.69812	0.84161	1.02549	0.99504	1.01267	1.03506					
	0.99604						AVRG		0.94343		13.40054
17 Hexachloroethane	0.55913	0.59872	0.64775	0.60608	0.61299	0.63094					
	0.60901						AVRG		0.60923		4.54446
19 Nitrobenzene	0.31915	0.35693	0.40158	0.38577	0.39508	0.40016					
	0.37703						AVRG		0.37653		7.88742
20 Isophorone	6531	15629	57199	155276	279201	728879					
	1165303						QUAD	0.000e+000	1.67563	0.05590	0.99981
21 2-Nitrophenol	1526	4967	17935	53096	97540	266646					
	430299						QUAD	0.000e+000	4.76097	0.18237	0.99952<-
22 2,4-Dimethylphenol	++++	0.32278	0.34834	0.33233	0.33290	0.34153					
	0.32091						AVRG		0.33313		3.17462

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
23 Bis(2-Chloroethoxy)methane	0.33185| 0.34672|	0.34443|	0.37525|	0.35603|	0.36977|	0.36712|	|	|	|	|	|
							|AVRG|	|	0.35588|	|	4.42346|
24 Benzoic acid	++++| 1968436|	77.00000|	20011|	132060|	340790|	1190028|	|	|	|	|	|
							|QUAD|	0.000e+000|	4.86160|	-0.12198|	0.99452|<-
25 2,4-Dichlorophenol	++++| 0.32339|	0.29635|	0.33530|	0.32346|	0.33727|	0.35324|	|	|	|	|	|
							|AVRG|	|	0.32817|	|	5.81339|
26 1,2,4-Trichlorobenzene	0.38595| 0.34520|	0.38039|	0.38245|	0.35294|	0.35405|	0.36120|	|	|	|	|	|
							|AVRG|	|	0.36603|	|	4.52349|
28 Naphthalene	1.21861| 1.07824|	1.16279|	1.20287|	1.12011|	1.12736|	1.13915|	|	|	|	|	|
							|AVRG|	|	1.14988|	|	4.25155|
29 4-Chloroaniline	++++| 0.48472|	0.46162|	0.51196|	0.49554|	0.48965|	0.51798|	|	|	|	|	|
							|AVRG|	|	0.49358|	|	4.10476|
30 Hexachlorobutadiene	0.21677 0.20575	0.21470	0.21397	0.20247	0.20545	0.21412					
							AVRG		0.21046		2.70687

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
31 4-Chloro-3-methylphenol	++++ 0.30636	0.24825	0.29610	0.29927	0.31072	0.32038					
							AVRG		0.29685		8.52784
32 2-Methylnaphthalene	0.78485 0.74044	0.78119	0.82424	0.77504	0.78626	0.78647					
							AVRG		0.78264		3.13153
33 Hexachlorocyclopentadiene	++++ 995099	11148	39065	110378	212617	592756					
							QUAD	0.000e+000	2.36004	-0.02971	0.99932
34 2,4,6-Trichlorophenol	++++ 0.43877	0.31710	0.37625	0.38825	0.41196	0.44722					
							AVRG		0.39659		12.03008
35 2,4,5-Trichlorophenol	++++ 0.48410	0.35369	0.41751	0.43615	0.46439	0.49407					
							AVRG		0.44165		11.72950
37 2-Chloronaphthalene	1.34180 1.29569	1.30419	1.38319	1.29508	1.32124	1.36111					
							AVRG		1.32890		2.58258
38 2-Nitroaniline	++++ 0.39818	0.26147	0.34835	0.36712	0.38150	0.39575					
							AVRG		0.35873		14.25934

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
39 Dimethylphthalate	1.28739| 1.41355|	1.32778|	1.45320|	1.40259|	1.42844|	1.47935|	|	|	|	|	|
							|AVRG|	|	1.39890|	|	4.88458|
40 Acenaphthylene	1.76144| 2.07943|	1.90541|	2.12480|	2.05153|	2.09803|	2.17096|	|	|	|	|	|
							|AVRG|	|	2.02737|	|	7.09069|
41 2,6-Dinitrotoluene	++++| 0.35587|	0.24652|	0.31005|	0.31927|	0.34235|	0.36656|	|	|	|	|	|
							|AVRG|	|	0.32344|	|	13.39333|
43 3-Nitroaniline	++++| 0.38605|	0.25680|	0.34546|	0.35917|	0.37766|	0.40462|	|	|	|	|	|
							|AVRG|	|	0.35496|	|	14.74159|
44 Acenaphthene	1.45843| 1.25679|	1.37105|	1.39780|	1.30846|	1.33045|	1.34048|	|	|	|	|	|
							|AVRG|	|	1.35192|	|	4.80760|
45 2,4-Dinitrophenol	++++| 1135655|	1832|	18045|	86921|	202998|	674779|	|	|	|	|	|
							|QUAD|	0.000e+000|	4.48966|	-0.11817|	0.99593|<-
46 Dibenzofuran	2.05643 1.82786	1.95849	2.01417	1.86451	1.89568	1.94097					
							AVRG		1.93687		4.19282

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	Coefficients			%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	20.0000										
	Level 7										
47 4-Nitrophenol	++++ 418179	3615	16909	50101	97667	262318	QUAD	0.000e+000	5.06218	0.12467	0.99926
48 2,4-Dinitrotoluene	++++ 0.46505	0.34161	0.43151	0.44057	0.46917	0.48719	AVRG		0.43918		11.81094
49 Fluorene	1.48742 1.55606	1.49466	1.56858	1.47550	1.52714	1.61486	AVRG		1.53203		3.30463
50 Diethylphthalate	1.26543 1.52313	1.30131	1.44764	1.38295	1.41286	1.60743	AVRG		1.42011		8.42721
51 4-Chlorophenyl-phenylether	0.74391 0.90907	0.73742	0.77083	0.70967	0.73944	0.79590	AVRG		0.77232		8.57076
52 4-Nitroaniline	++++ 811682	10090	37046	100406	184920	501578	QUAD	0.000e+000	2.67127	0.01627	0.99947
53 4,6-Dinitro-2-methylphenol	++++ 1289493	6373	36399	124136	257064	770435	QUAD	0.000e+000	6.58720	-0.20143	0.99835

ARI Labs, Inc.

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 Last Edit : 14-Feb-2023 12:03 jrains

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
54 N-Nitrosodiphenylamine	0.53363	0.57747	0.59676	0.58804	0.59125	0.62862					
	0.62550						AVRG		0.59161		5.39806
56 4-Bromophenyl-phenylether	0.21879	0.22811	0.24291	0.24157	0.25302	0.27251					
	0.27077						AVRG		0.24681		8.18830
57 Hexachlorobenzene	0.28499	0.28120	0.29014	0.27699	0.28347	0.30057					
	0.29873						AVRG		0.28801		3.08883
58 Pentachlorophenol	++++	3216	17864	63357	133071	426284					
	756623						QUAD	0.000e+000	6.25447	-0.61702	0.99780
60 Phenanthrene	1.25796	1.20360	1.23067	1.16183	1.18981	1.23376					
	1.18173						AVRG		1.20848		2.79454
61 Anthracene	0.84047	0.94260	1.08413	1.13241	1.17132	1.21202					
	1.18334						AVRG		1.08090		12.83376
62 Carbazole	0.93394	1.00683	1.13843	1.09274	1.12157	1.14902					
	1.12160						AVRG		1.08059		7.41134

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	Coefficients			%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	20.0000										
	Level 7										
63 Di-n-butylphthalate	13829 2625700	35463	118328	324677	611789	1632540	QUAD	0.000e+000	0.71172	0.00225	0.99966
64 Fluoranthene	1.20835 1.10355	1.26610	1.35180	1.29785	1.34836	1.25791	AVRG		1.26199		6.84887
65 Pyrene	1.30223 1.14006	1.34111	1.43812	1.36675	1.39449	1.40796	AVRG		1.34153		7.41184
67 Butylbenzylphthalate	5086 1175019	13731	48606	137226	258087	723491	QUAD	0.000e+000	1.57175	0.14127	0.99960
68 Benzo(a)anthracene	1.34123 1.14265	1.33198	1.44388	1.34739	1.37846	1.26723	AVRG		1.32183		7.19835
70 3,3'-Dichlorobenzidine	18132 3067043	42934	142667	376230	715968	2025056	QUAD	0.000e+000	1.54990	0.09903	0.99863
71 Chrysene	1.56454 1.14057	1.47456	1.49779	1.36613	1.39179	1.31703	AVRG		1.39320		10.03493

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
72 bis(2-Ethylhexyl)phthalate	0.43476 0.62738	0.53681	0.64560	0.65210	0.68221	0.68129					
							AVRG		0.60859		14.95301
73 Di-n-octylphthalate	1.36994 1.01340	1.22646	1.23346	1.13510	1.14609	1.10188					
							AVRG		1.17519		9.69931
74 Benzo(b)fluoranthene	1.37277 1.41984	1.37847	1.38020	1.43364	1.40612	1.38278					
							AVRG		1.39626		1.69439
75 Benzo(k)fluoranthene	1.68029 1.37951	1.52279	1.57674	1.43633	1.51991	1.57610					
							AVRG		1.52738		6.46058
187 Total Benzofluoranthenes	1.43468 1.33790	1.38959	1.42318	1.38217	1.40454	1.41996					
							AVRG		1.39886		2.34071
76 Benzo(a)pyrene	0.91663 1.21258	1.06551	1.13477	1.16248	1.22128	1.26937					
							AVRG		1.14038		10.41177
78 Indeno(1,2,3-cd)pyrene	8450 2426877	20805	69497	214783	433678	1416423					
							QUAD	0.000e+000	0.92002	-0.02114	0.99811

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	Coefficients			%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	20.0000										
	Level 7										
79 Dibenzo(a,h)anthracene	6989 2070555	16709	57114	173811	356358	1180785	QUAD	0.000e+000	1.12058	-0.03684	0.99800
80 Benzo(g,h,i)perylene	7909 1752322	17563	54454	167657	333731	1040413	QUAD	0.000e+000	1.21931	-0.02839	0.99868<-
90 N-Nitrosodimethylamine	0.59097 0.82029	0.63550	0.78256	0.77855	0.82032	0.87111	AVRG		0.75704		13.69390
91 Aniline	++++ 1.83287	1.76663	1.89094	1.83663	1.93390	1.97228	AVRG		1.87221		4.00637
92 1,2-Diphenylhydrazine	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+000		0.000e+000<-
93 Benzidine	++++ 1365046	26301	101296	243458	391034	992101	QUAD	0.000e+000	1.42741	0.62933	0.99833
96 p-Cymene	++++ ++++	++++	++++	++++	++++	++++	AVRG		0.000e+000		0.000e+000<-

ARI Labs, Inc.

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Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
97 Caffeine	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
98 Retene	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
99 Perylene	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
100 3-beta-Coprostanol	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
101 Cholesterol	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
102 beta-Sitosterol	++++	++++	++++	++++	++++	++++					
	++++						|AVRG|		|0.000e+000|		|0.000e+000|<-
103 Pyridine	0.74169	1.01300	1.09628	1.20296	1.21863	1.32640					
	1.19157						AVRG		1.11293		17.17067 <-

ARI Labs, Inc.

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 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Last Edit : 14-Feb-2023 12:03 jrains

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
188 2,6-Dichlorophenol	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000			0.000e+000<-
189 N-Nitrosomethylethylamine	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000			0.000e+000<-
\$ 1 2-Fluorophenol	6818	16562	53139	144267	255112	679000					
	1062224						QUAD	0.000e+000	0.70741	0.00656	0.99970
\$ 137 d8-1,4-Dioxane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000			0.000e+000<-
\$ 2 Phenol-d5	1.48940	1.65457	1.84877	1.79602	1.86118	1.89177					
	1.76361						AVRG	1.75790			8.08173
\$ 5 2-Chlorophenol-d4	1.29407	1.46261	1.60507	1.53709	1.60479	1.63365					
	1.56095						AVRG	1.52832			7.70341
\$ 10 1,2-Dichlorobenzene-d4	1.11301	1.12706	1.15575	1.06633	1.08330	1.09585					
	1.05883						AVRG	1.10002			3.13475

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2023 17:04
 End Cal Date : 10-FEB-2023 21:05
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Last Edit : 14-Feb-2023 12:03 jrains

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										
\$ 18 Nitrobenzene-d5	0.30178| 0.41349|	0.35720|	0.41010|	0.40948|	0.42728|	0.43641|	|	|	|	|	|
							|AVRG|	|	0.39368|	|	12.11299|
\$ 36 2-Fluorobiphenyl	1.84740| 1.71131|	1.77781|	1.80057|	1.70755|	1.74201|	1.79229|	|	|	|	|	|
							|AVRG|	|	1.76842|	|	2.88280|
\$ 55 2,4,6-Tribromophenol	1788| 482249|	5134|	17773|	48983|	94553|	278141|	|	|	|	|	|
							|QUAD|	0.000e+000|	3.92848|	-0.22297|	0.99899|
\$ 66 Terphenyl-d14	1.29536| 1.08666|	1.26569|	1.31441|	1.21829|	1.27236|	1.20722|	|	|	|	|	|
							|AVRG|	|	1.23714|	|	6.20092|
\$ 85 p-Cresol-d4	++++| ++++|	++++|	++++|	++++|	++++|	++++|	|	|	|	|	|
							|AVRG|	|	0.000e+000|	|	0.000e+000|<-
\$ 86 Anthracene-d10	++++| ++++|	++++|	++++|	++++|	++++|	++++|	|	|	|	|	|
							|AVRG|	|	0.000e+000|	|	0.000e+000|<-
\$ 87 Fluoranthene-d10	++++| ++++|	++++|	++++|	++++|	++++|	++++|	|	|	|	|	|
							|AVRG|	|	0.000e+000|	|	0.000e+000|<-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2023 17:04
 End Cal Date : 10-FEB-2023 21:05
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Last Edit : 14-Feb-2023 12:03 j rains

Compound	0.2000000	0.5000000	1.0000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	20.0000										
	Level 7										

\$ 88 Dibenz(a,h)anthracene-d14	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-

\$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-

\$ 95 D10-1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						|AVRG|		|0.000e+000|		|0.000e+000|<-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 10-FEB-2023 17:04
End Cal Date : 10-FEB-2023 21:05
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt18.i\20230210.b\ABN.m
Last Edit : 14-Feb-2023 12:03 jrains

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
Batch File: \\target\share\chem3\nt18.i\20230210.b
Inst ID: nt18.i

ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07
FILENAME: NT1802102302 NT1802102303 NT1802102304 NT1802102305 NT1802102306 NT1802102307 NT1802102308
INJ. DATE: 10-FEB-2023 10-FEB-2023 10-FEB-2023 10-FEB-2023 10-FEB-2023 10-FEB-2023 10-FEB-2023
INJ. TIME: 17:04 17:44 18:25 19:05 19:45 20:25 21:05

Table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include various chemical compounds like 2-Fluorophenol, Carbaryl, n-Decane, etc.

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
Batch File: \\target\share\chem3\nt18.i\20230210.b
Inst ID: nt18.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
| 148 Dieldrin	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 47.281|	| 44.281-50.281 |	| +++++|	| +++++|
| 149 TCMX	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 43.387|	| 40.387-46.387 |	| +++++|	| +++++|
| 150 DCBP	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 50.989|	| 47.989-53.989 |	| +++++|	| +++++|
| 138 Chlorobenzilate	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 67.733|	| 64.733-70.733 |	| +++++|	| +++++|
| 139 Isodrin	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 65.067|	| 62.067-68.067 |	| +++++|	| +++++|
| 140 Diallate A	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 65.487|	| 62.487-68.487 |	| +++++|	| +++++|
| 141 Diallate B	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 65.487|	| 62.487-68.487 |	| +++++|	| +++++|
| 142 1,2-Dibromo-3-Chloropr	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 49.917|	| 46.917-52.917 |	| +++++|	| +++++|
| 135 2,3,5,6-Tetrachlorophe	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 16.672|	| 13.672-19.672 |	| +++++|	| +++++|
| 136 2,3,4,5-tetrachlorophe	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 39.317|	| 36.317-42.317 |	| +++++|	| +++++|
| \$ 137 d8-1,4-Dioxane	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 2.445|	| 0.000-5.445 |	| +++++|	| +++++|
| * 134 Di-n-octylphthalate-d4	| 24.576|	| 24.576|	| 24.568|	| 24.568|	| 24.569|	| 24.569|	| 24.569|	| 24.569|	| 21.569-27.569 |	| 24.571|	| 0.004|
| 133 Butylatedhydroxytoluen	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 16.539|	| 13.539-19.539 |	| +++++|	| +++++|
| 132 3,6-Dimethylphenanthre	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 65.450|	| 62.450-68.450 |	| +++++|	| +++++|
| 131 1-Methylphenanthrene	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 64.400|	| 61.400-67.400 |	| +++++|	| +++++|
| 130 Dibenzothiophene	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 62.100|	| 59.100-65.100 |	| +++++|	| +++++|
| 129 1-Methylfluorene	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 54.912|	| 51.912-57.912 |	| +++++|	| +++++|
| 128 N-Hexadecane	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 54.212|	| 51.212-57.212 |	| +++++|	| +++++|
| 127 2-Isopropylaphthalene	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 57.650|	| 54.650-60.650 |	| +++++|	| +++++|
| 126 N-Tetradecane	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 56.750|	| 53.750-59.750 |	| +++++|	| +++++|
| 144 alpha-Terpineol	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 12.260|	| 9.260-15.260 |	| +++++|	| +++++|
| 125 Safrole	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| +++++|	| 52.166|	| 49.166-55.166 |	| +++++|	| +++++|

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
Batch File: \\target\share\chem3\nt18.i\20230210.b
Inst ID: nt18.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.617	47.617-53.617	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.381	8.381-14.381	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.467	40.467-46.467	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.697	0.000-5.697	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	54.500	51.500-57.500	+++++	+++++
120 2,3,4,6-Tetrachlorophe	16.276	16.276	16.268	16.268	16.269	16.268	16.276	16.276	13.276-19.276	16.272	0.004
178 2-Benzyl-4-Chloropheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.963	15.963-21.963	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	47.069	44.069-50.069	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.215	18.215-24.215	+++++	+++++
117 Butyl Diphenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.541	14.541-20.541	+++++	+++++
116 Dibutyl Phenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.747	15.747-21.747	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.049	14.049-20.049	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	48.950	45.950-51.950	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.341	11.341-17.341	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.526	12.526-18.526	+++++	+++++
111 Azobenzene (1,2-DP-Hyd	16.971	16.971	16.956	16.956	16.956	16.956	16.956	16.956	13.956-19.956	16.960	0.008
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.874	14.874-20.874	+++++	+++++
109 3,4,5-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.070	12.070-18.070	+++++	+++++
181 3,4,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.232	12.232-18.232	+++++	+++++
108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.374	13.374-19.374	+++++	+++++
184 3,4-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.739	10.739-16.739	+++++	+++++
107 4,5-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.160	11.160-17.160	+++++	+++++
182 4,6-Dichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.160	11.160-17.160	+++++	+++++
185 4-Chloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.737	8.737-14.737	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
Batch File: \\target\share\chem3\nt18.i\20230210.b
Inst ID: nt18.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	6.750-12.750	+++++	+++++
105 1-methylnaphthalene	13.607	13.607	13.599	13.599	13.599	13.599	13.599	13.599	10.599-16.599	13.602	0.004
151 1,2,4,5-Tetrachloroben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.499	8.499-14.499	+++++	+++++
152 Benzo(e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.943	27.943-33.943	+++++	+++++
153 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	28.456	25.456-31.456	+++++	+++++
154 Diazinon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.930	23.930-29.930	+++++	+++++
155 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.054	26.054-32.054	+++++	+++++
156 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.586	23.586-29.586	+++++	+++++
157 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.276	24.276-30.276	+++++	+++++
158 Ethion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.808	21.808-27.808	+++++	+++++
159 4-Nonylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.109	23.109-29.109	+++++	+++++
160 Tetraethyl Tin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.115	18.115-24.115	+++++	+++++
161 1,2,3-Trichloronaphtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.246	33.246-39.246	+++++	+++++
162 1,2,3,4-Tetrachloronap	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.506	34.506-40.506	+++++	+++++
163 1,2,3,5,8-Pentachloron	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.893	35.893-41.893	+++++	+++++
164 1,2,3,4,6,7-Hexachloro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	39.681	36.681-42.681	+++++	+++++
165 1,2,3,4,5,6,7-Heptachl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	41.123	38.123-44.123	+++++	+++++
166 Octachloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.253	39.253-45.253	+++++	+++++
167 2,2',4,4',5-Pentabromo	+++++	+++++	+++++	+++++	+++++	+++++	+++++	42.033	39.033-45.033	+++++	+++++
\$ 2 Phenol-d5	8.820	8.819	8.804	8.804	8.804	8.804	8.812	8.812	5.812-11.812	8.810	0.007
3 Phenol	8.843	8.835	8.827	8.827	8.827	8.827	8.827	8.827	5.827-11.827	8.831	0.006
4 Bis(2-Chloroethyl)ethe	9.020	9.020	9.013	9.012	9.013	9.013	9.013	9.013	6.013-12.013	9.015	0.004
\$ 5 2-Chlorophenol-d4	9.121	9.113	9.105	9.105	9.105	9.105	9.113	9.113	6.113-12.113	9.110	0.006

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
Batch File: \\target\share\chem3\nt18.i\20230210.b
Inst ID: nt18.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
6 2-Chlorophenol	9.144	9.144	9.136	9.136	9.136	9.136	9.136	9.136	6.136-12.136	9.138	0.004
7 1,3-Dichlorobenzene	9.415	9.415	9.407	9.407	9.407	9.415	9.407	9.407	6.407-12.407	9.410	0.004
* 8 1,4-Dichlorobenzene-d4	9.477	9.477	9.477	9.477	9.469	9.469	9.469	9.469	6.469-12.469	9.473	0.004
9 1,4-Dichlorobenzene	9.508	9.508	9.500	9.500	9.500	9.500	9.500	9.500	6.500-12.500	9.502	0.004
\$ 10 1,2-Dichlorobenzene-d4	9.842	9.834	9.834	9.834	9.834	9.834	9.834	9.834	6.834-12.834	9.835	0.003
11 Benzyl alcohol	9.741	9.733	9.733	9.733	9.733	9.733	9.741	9.741	6.741-12.741	9.735	0.004
12 1,2-Dichlorobenzene	9.508	9.508	9.500	9.500	9.500	9.500	9.500	9.500	6.500-12.500	9.502	0.004
13 2-Methylphenol	9.950	9.942	9.942	9.942	9.943	9.943	9.950	9.950	6.950-12.950	9.945	0.004
14 2,2'-oxybis(1-Chloropr	10.036	10.036	10.028	10.028	10.028	10.028	10.028	10.028	7.028-13.028	10.030	0.004
15 4-Methylphenol	10.222	10.214	10.206	10.206	10.207	10.206	10.214	10.214	7.214-13.214	10.211	0.006
16 N-Nitroso-di-n-propyla	10.307	10.299	10.292	10.284	10.284	10.284	10.292	10.292	7.292-13.292	10.292	0.009
17 Hexachloroethane	10.455	10.455	10.447	10.447	10.447	10.447	10.447	10.447	7.447-13.447	10.449	0.004
\$ 18 Nitrobenzene-d5	10.571	10.571	10.563	10.563	10.563	10.563	10.563	10.563	7.563-13.563	10.566	0.004
19 Nitrobenzene	10.610	10.602	10.594	10.594	10.595	10.594	10.602	10.602	7.602-13.602	10.599	0.006
20 Isophorone	11.060	11.052	11.037	11.037	11.037	11.037	11.037	11.037	8.037-14.037	11.042	0.010
21 2-Nitrophenol	11.232	11.224	11.224	11.224	11.224	11.224	11.232	11.232	8.232-14.232	11.226	0.004
22 2,4-Dimethylphenol	11.266	11.258	11.258	11.249	11.249	11.249	11.258	11.258	8.258-14.258	11.255	0.006
23 Bis(2-Chloroethoxy)met	11.470	11.461	11.453	11.453	11.453	11.453	11.462	11.462	8.462-14.462	11.458	0.007
24 Benzoic acid	11.606	11.555	11.462	11.419	11.377	11.462	+++++	11.462	8.462-14.462	11.480	0.085
25 2,4-Dichlorophenol	11.682	11.674	11.665	11.665	11.665	11.665	11.674	11.674	8.674-14.674	11.670	0.007
26 1,2,4-Trichlorobenzene	11.867	11.867	11.859	11.859	11.859	11.859	11.859	11.859	8.859-14.859	11.861	0.004
* 27 Naphthalene-d8	11.959	11.951	11.952	11.951	11.952	11.952	11.952	11.952	8.952-14.952	11.953	0.003
28 Naphthalene	11.998	11.998	11.990	11.990	11.990	11.990	11.990	11.990	8.990-14.990	11.992	0.004
29 4-Chloroaniline	12.121	12.114	12.114	12.106	12.106	12.106	12.114	12.114	9.114-15.114	12.111	0.006

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
Batch File: \\target\share\chem3\nt18.i\20230210.b
Inst ID: nt18.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
30 Hexachlorobutadiene	12.346	12.346	12.346	12.345	12.346	12.346	12.346	12.346	9.346-15.346	12.346	0.000
31 4-Chloro-3-methylpheno	13.065	13.058	13.050	13.050	13.050	13.050	13.050	13.050	10.050-16.050	13.053	0.006
32 2-Methylnaphthalene	13.383	13.383	13.375	13.375	13.375	13.375	13.383	13.383	10.383-16.383	13.378	0.004
33 Hexachlorocyclopentadi	13.847	13.847	13.839	13.839	13.839	13.839	13.839	13.839	10.839-16.839	13.841	0.004
34 2,4,6-Trichlorophenol	14.002	13.994	13.994	13.986	13.986	13.994	13.994	13.994	10.994-16.994	13.993	0.005
35 2,4,5-Trichlorophenol	14.071	14.071	14.064	14.064	14.064	14.064	14.064	14.064	11.064-17.064	14.066	0.004
36 2-Fluorobiphenyl	14.164	14.156	14.149	14.149	14.149	14.149	14.149	14.149	11.149-17.149	14.152	0.006
37 2-Chloronaphthalene	14.381	14.373	14.373	14.373	14.366	14.366	14.373	14.373	11.373-17.373	14.372	0.005
38 2-Nitroaniline	14.636	14.629	14.621	14.621	14.621	14.621	14.621	14.621	11.621-17.621	14.624	0.006
39 Dimethylphthalate	15.062	15.054	15.047	15.039	15.039	15.039	15.039	15.039	12.039-18.039	15.045	0.009
40 Acenaphthylene	15.248	15.248	15.240	15.240	15.240	15.240	15.240	15.240	12.240-18.240	15.242	0.004
41 2,6-Dinitrotoluene	15.202	15.194	15.186	15.186	15.186	15.178	15.178	15.178	12.178-18.178	15.187	0.008
42 Acenaphthene-d10	15.557	15.557	15.550	15.549	15.550	15.550	15.550	15.550	12.550-18.550	15.552	0.004
43 3-Nitroaniline	15.495	15.488	15.472	15.464	15.465	15.465	15.465	15.465	12.465-18.465	15.473	0.013
44 Acenaphthene	15.627	15.627	15.619	15.619	15.611	15.611	15.611	15.611	12.611-18.611	15.618	0.007
45 2,4-Dinitrophenol	15.712	15.696	15.681	15.673	15.673	15.689	+++++	15.689	12.689-18.689	15.687	0.015
46 Dibenzofuran	15.959	15.951	15.944	15.944	15.944	15.936	15.944	15.944	12.944-18.944	15.946	0.007
47 4-Nitrophenol	15.797	15.781	15.766	15.758	15.758	15.766	15.766	15.766	12.766-18.766	15.770	0.014
48 2,4-Dinitrotoluene	16.013	16.006	15.990	15.990	15.983	15.982	15.990	15.990	12.990-18.990	15.993	0.012
49 Fluorene	16.663	16.663	16.655	16.655	16.647	16.647	16.647	16.647	13.647-19.647	16.654	0.007
50 Diethylphthalate	16.516	16.508	16.493	16.493	16.485	16.485	16.485	16.485	13.485-19.485	16.495	0.012
51 4-Chlorophenyl-phenyle	16.640	16.639	16.632	16.632	16.632	16.632	16.632	16.632	13.632-19.632	16.634	0.004
52 4-Nitroaniline	16.786	16.763	16.740	16.732	16.724	16.724	16.724	16.724	13.724-19.724	16.742	0.024
53 4,6-Dinitro-2-methylph	16.863	16.848	16.832	16.824	16.825	16.825	16.825	16.825	13.825-19.825	16.834	0.015

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
Batch File: \\target\share\chem3\nt18.i\20230210.b
Inst ID: nt18.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
54 N-Nitrosodiphenylamine	16.902	16.894	16.879	16.878	16.879	16.879	16.879	16.879	13.879-19.879	16.884	0.010
\$ 55 2,4,6-Tribromophenol	17.195	17.195	17.187	17.179	17.179	17.179	17.179	17.179	14.179-20.179	17.185	0.007
56 4-Bromophenyl-phenylet	17.642	17.642	17.634	17.634	17.634	17.634	17.634	17.634	14.634-20.634	17.636	0.004
57 Hexachlorobenzene	17.967	17.959	17.959	17.959	17.959	17.959	17.959	17.959	14.959-20.959	17.960	0.003
58 Pentachlorophenol	18.315	18.315	18.307	18.307	18.307	18.315	18.315	18.315	15.315-21.315	18.312	0.004
* 59 Phenanthrene-d10	18.586	18.586	18.578	18.578	18.578	18.578	18.578	18.578	15.578-21.578	18.580	0.004
60 Phenanthrene	18.640	18.632	18.624	18.624	18.624	18.624	18.624	18.624	15.624-21.624	18.628	0.006
61 Anthracene	18.733	18.725	18.717	18.717	18.717	18.717	18.717	18.717	15.717-21.717	18.720	0.006
62 Carbazole	19.042	19.042	19.034	19.034	19.034	19.034	19.034	19.034	16.034-22.034	19.037	0.004
63 Di-n-butylphthalate	19.808	19.800	19.800	19.800	19.800	19.800	19.800	19.800	16.800-22.800	19.801	0.003
64 Fluoranthene	20.984	20.976	20.976	20.968	20.969	20.969	20.969	20.969	17.969-23.969	20.973	0.006
65 Pyrene	21.402	21.402	21.394	21.394	21.394	21.394	21.394	21.394	18.394-24.394	21.396	0.004
\$ 66 Terphenyl-d14	21.673	21.665	21.665	21.657	21.657	21.657	21.657	21.657	18.657-24.657	21.662	0.006
67 Butylbenzylphthalate	22.571	22.571	22.563	22.563	22.563	22.563	22.563	22.563	19.563-25.563	22.565	0.004
68 Benzo(a)anthracene	23.539	23.531	23.523	23.523	23.523	23.523	23.523	23.523	20.523-26.523	23.527	0.006
* 69 Chrysene-d12	23.570	23.562	23.554	23.554	23.554	23.554	23.554	23.554	20.554-26.554	23.558	0.006
70 3,3'-Dichlorobenzidine	23.492	23.485	23.477	23.469	23.469	23.469	23.469	23.469	20.469-26.469	23.476	0.009
71 Chrysene	23.616	23.608	23.601	23.601	23.601	23.601	23.601	23.601	20.601-26.601	23.604	0.006
72 bis(2-Ethylhexyl)phtha	23.578	23.570	23.570	23.570	23.570	23.570	23.570	23.570	20.570-26.570	23.571	0.003
73 Di-n-octylphthalate	24.592	24.584	24.576	24.576	24.576	24.576	24.576	24.576	21.576-27.576	24.580	0.006
74 Benzo(b)fluoranthene	25.498	25.482	25.474	25.474	25.467	25.467	25.467	25.467	22.467-28.467	25.475	0.011
75 Benzo(k)fluoranthene	25.544	25.536	25.521	25.521	25.513	25.513	25.513	25.513	22.513-28.513	25.523	0.012
187 Total Benzofluoranthen	25.544	25.536	25.521	25.521	25.513	25.467	25.467	25.467	22.467-28.467	25.510	0.031
76 Benzo(a)pyrene	26.194	26.179	26.171	26.163	26.164	26.163	26.163	26.163	23.163-29.163	26.171	0.012

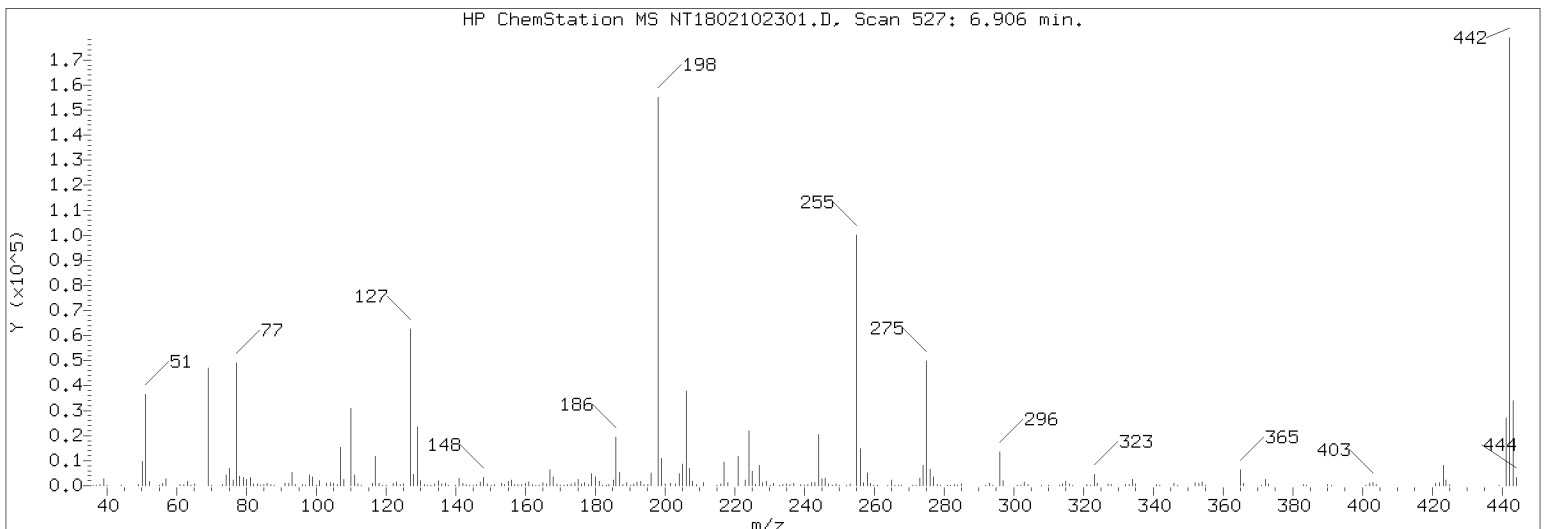
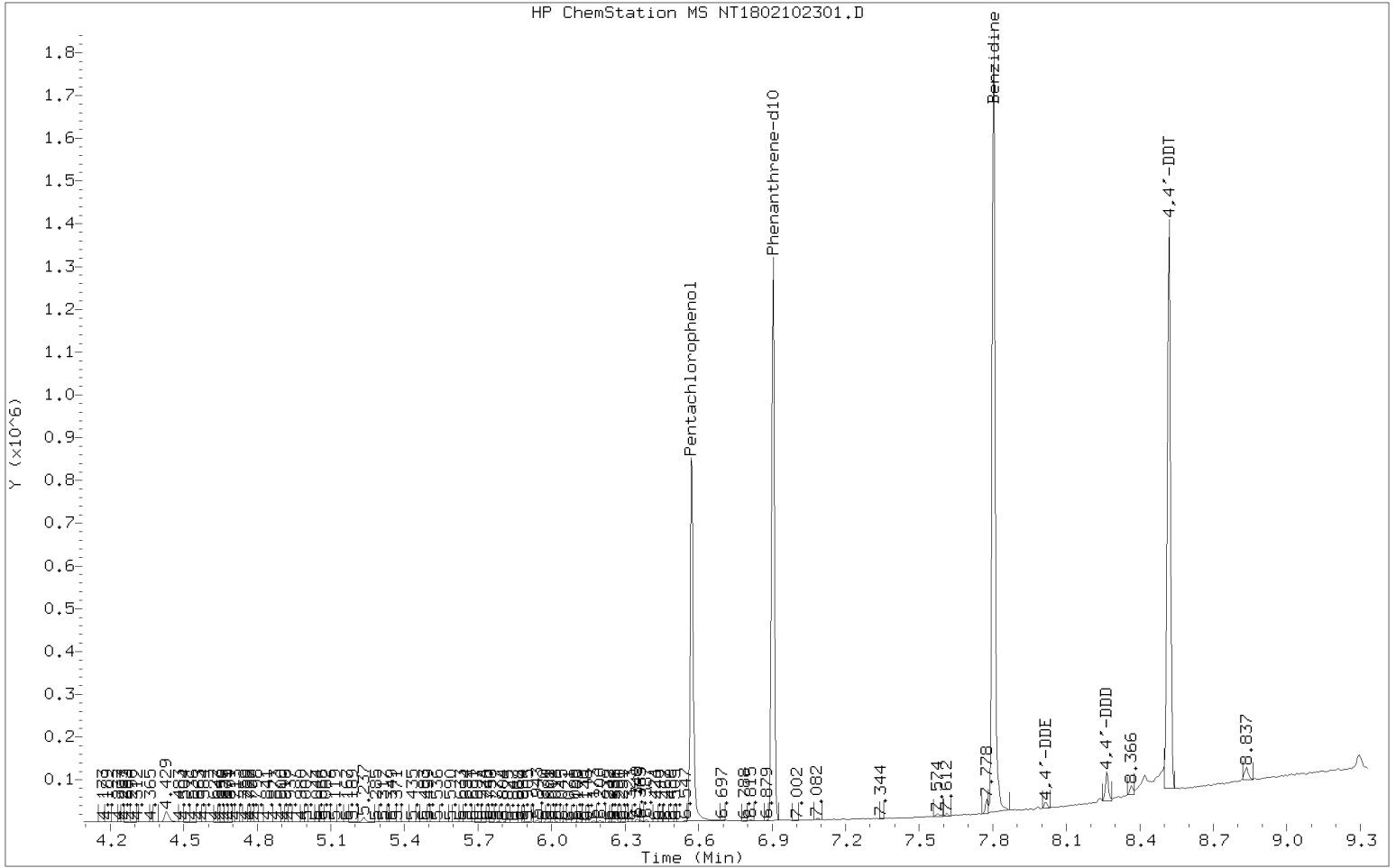
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
Batch File: \\target\share\chem3\nt18.i\20230210.b
Inst ID: nt18.i

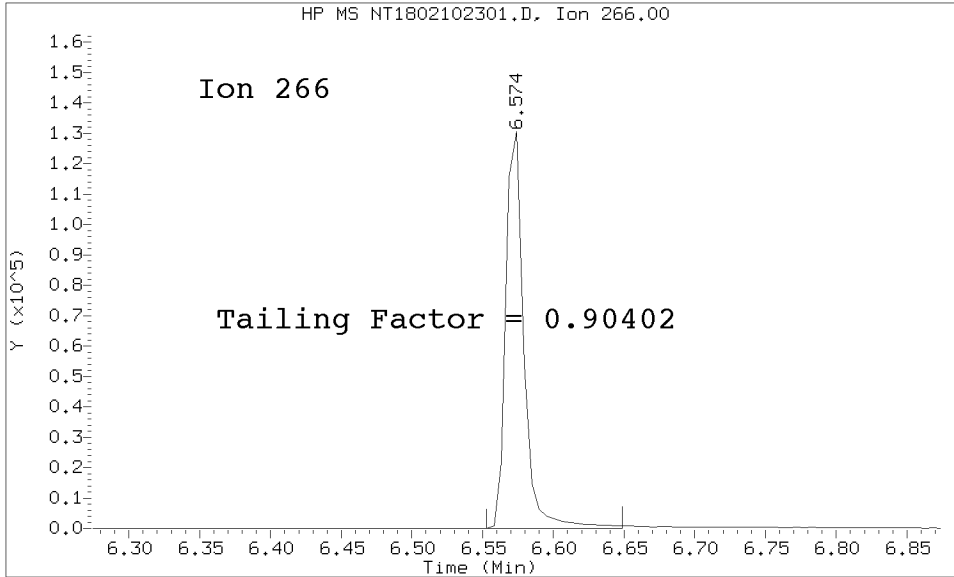
Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 77 Perylene-d12	26.303	26.295	26.295	26.295	26.295	26.287	26.287	26.287	23.287-29.287	26.294	0.005
78 Indeno(1,2,3-cd)pyrene	29.181	29.158	29.134	29.127	29.127	29.127	29.127	29.127	26.127-32.127	29.140	0.021
79 Dibenzo(a,h)anthracene	29.189	29.165	29.150	29.142	29.142	29.142	29.135	29.135	26.135-32.135	29.152	0.019
80 Benzo(g,h,i)perylene	30.020	30.004	29.981	29.973	29.973	29.958	29.966	29.966	26.966-32.966	29.982	0.022
\$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	51.633	48.633-54.633	+++++	+++++
\$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	63.533	60.533-66.533	+++++	+++++
\$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	60.273	57.273-63.273	+++++	+++++
\$ 88 Dibenzo(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	78.600	75.600-81.600	+++++	+++++
\$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	50.841	47.841-53.841	+++++	+++++
90 N-Nitrosodimethylamine	5.181	5.173	5.165	5.165	5.165	5.173	5.181	5.181	2.181-8.181	5.172	0.007
91 Aniline	8.943	8.935	8.928	8.927	8.928	8.928	8.935	8.935	5.935-11.935	8.932	0.006
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	56.160	53.160-59.160	+++++	+++++
93 Benzidine	21.201	21.193	21.193	21.185	21.185	21.193	21.193	21.193	18.193-24.193	21.192	0.005
\$ 95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	52.075	49.075-55.075	+++++	+++++
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	49.250	46.250-52.250	+++++	+++++
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	61.202	58.202-64.202	+++++	+++++
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.248	15.248-21.248	+++++	+++++
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.094	23.094-29.094	+++++	+++++
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.411	22.411-28.411	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.023	23.023-29.023	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	79.550	76.550-82.550	+++++	+++++
103 Pyridine	5.173	5.173	5.173	5.173	5.173	5.181	5.196	5.196	2.196-8.196	5.177	0.009
188 2,6-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.874	8.874-14.874	+++++	+++++
189 N-Nitrosomethylethylam	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.818	2.818-8.818	+++++	+++++

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230210.b/NT1802102301.D/NT1802102301.D
Method Used: \20230210.b\DFTPP8270E.m Inst: nt18
Injection Date: 10-FEB-2023 16:46 Operator: VTS
Sample Info: t
Report Date: 02/15/2023 08:44



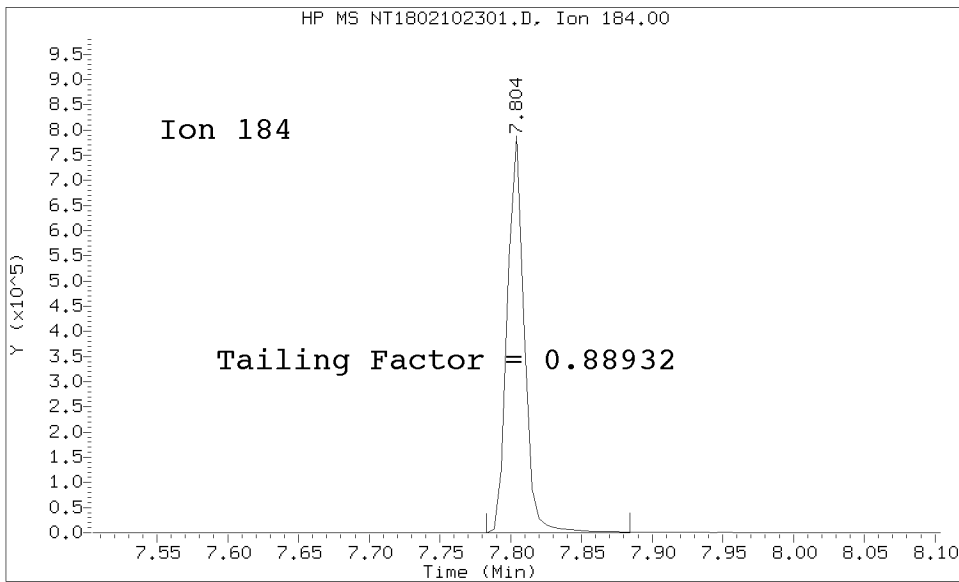
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Injection Date: 10-FEB-2023 16:46 Operator: JGR
Sample Info: SEQ-TUN1
Report Date: 02/15/2023 08:44



Pentachlorophenol

=====
Exp. RT = 6.574
Found RT = 6.574

Tail Factor = 0.904 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 7.804
Found RT = 7.804

Tail Factor = 0.889 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.9040208	2.000	PASS
Benzidine	0.8893229	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	247519			N/A
4,4-DDE	693	0.3	20.0	PASS
4,4-DDD	11858	4.6	20.0	PASS
4,4-DDD + DDE	12551	4.8	20.0	PASS

Tuning Sample, nt18.i/20230210.b/NT1802102301.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	33.01
70	Less than 2.00% of mass 69	0.13 (0.41)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.80
365	1.00 - 100.00% of mass 198	4.10
441	Less than 150.00% of mass 443	16.19 (79.48)
442	Less than 200.00% of mass 198	108.53
443	15.00 - 24.00% of mass 442	20.37 (18.76)

Data File: NT1802102301.D
Spectrum: Avg. Scans 526-528 (6.91), Background Scan 520
Location of Maximum: 442.00
Number of points: 268

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	53	127.00	48672	196.00	3996	279.00	59
37.00	152	128.00	3702	198.00	115608	281.00	95
38.00	481	129.00	18800	199.00	7864	282.00	54
39.00	2342	130.00	1568	200.00	596	283.00	292
40.00	149	131.00	307	201.00	766	284.00	257
44.00	2	132.00	156	203.00	697	285.00	541
45.00	51	133.00	18	204.00	3859	292.00	113
49.00	380	134.00	497	205.00	6620	293.00	667
50.00	7967	135.00	1470	206.00	28104	294.00	169
51.00	29952	136.00	601	207.00	3735	296.00	9607
52.00	1569	137.00	888	208.00	841	297.00	1400
55.00	150	138.00	150	209.00	296	301.00	78
56.00	933	140.00	222	210.00	290	302.00	156
57.00	2203	141.00	2340	211.00	1147	303.00	1152
61.00	452	142.00	812	215.00	241	304.00	304
62.00	445	143.00	512	216.00	620	308.00	122
63.00	1296	144.00	132	217.00	6977	310.00	59
64.00	199	145.00	117	218.00	998	313.00	84
65.00	709	146.00	432	221.00	8350	314.00	551
69.00	38160	147.00	1209	223.00	1803	315.00	1249
70.00	156	148.00	2651	224.00	16528	316.00	657
73.00	392	149.00	641	225.00	4305	317.00	55
74.00	3532	150.00	178	226.00	516	321.00	345
75.00	5624	151.00	349	227.00	6263	322.00	164
76.00	1947	152.00	94	228.00	950	323.00	3391
77.00	39536	153.00	709	229.00	1336	324.00	605
78.00	2896	154.00	495	230.00	192	327.00	697
79.00	2604	155.00	1336	231.00	668	328.00	328
80.00	2024	156.00	1901	233.00	61	332.00	285
81.00	2752	157.00	472	234.00	464	333.00	319
82.00	668	158.00	415	235.00	509	334.00	2049
83.00	615	159.00	293	236.00	297	335.00	577
84.00	161	160.00	734	237.00	738	341.00	342
85.00	534	161.00	1064	239.00	388	342.00	53
86.00	807	162.00	314	240.00	251	346.00	751
87.00	347	163.00	102	241.00	456	347.00	134
88.00	181	164.00	160	242.00	934	352.00	963
89.00	63	165.00	1059	243.00	954	353.00	748
91.00	685	166.00	711	244.00	14786	354.00	1081
92.00	848	167.00	4956	245.00	2009	355.00	153
93.00	4470	168.00	2908	246.00	2498	365.00	4738
94.00	327	169.00	520	247.00	480	366.00	705
96.00	222	170.00	132	248.00	119	371.00	264
97.00	59	171.00	153	249.00	504	372.00	1739
98.00	3265	172.00	441	250.00	50	373.00	453
99.00	2919	173.00	549	251.00	54	383.00	478
100.00	300	174.00	1070	252.00	122	384.00	59
101.00	1507	175.00	1902	253.00	396	390.00	222
103.00	657	176.00	692	255.00	73808	391.00	168

104.00	1059	177.00	1017	256.00	10505	401.00	50
105.00	941	178.00	362	257.00	946	402.00	693
106.00	320	179.00	3707	258.00	3868	403.00	861
107.00	12009	180.00	2727	259.00	675	404.00	349
108.00	1967	181.00	1310	260.00	53	421.00	748
110.00	24264	182.00	174	261.00	62	422.00	850
111.00	3648	183.00	133	264.00	215	423.00	5972
112.00	490	184.00	298	265.00	1556	424.00	1872
113.00	129	185.00	1869	266.00	141	425.00	227
115.00	53	186.00	14564	267.00	109	439.00	57
116.00	753	187.00	4127	268.00	160	440.00	58
117.00	9345	188.00	486	271.00	71	441.00	18712
118.00	809	189.00	855	272.00	154	442.00	125472
119.00	128	190.00	133	273.00	2284	443.00	23544
120.00	128	191.00	404	274.00	6034	444.00	2243
122.00	908	192.00	1251	275.00	35560		
123.00	1254	193.00	1317	276.00	4814		
124.00	517	194.00	355	277.00	2690		
125.00	612	195.00	342	278.00	436		

Data File: \\target\share\chem3\nt18.1\20230210.1\NT1802102302.D

Date: 10-FEB-2023 17:04

Client ID:

Sample Info: SLB0195-CAL7

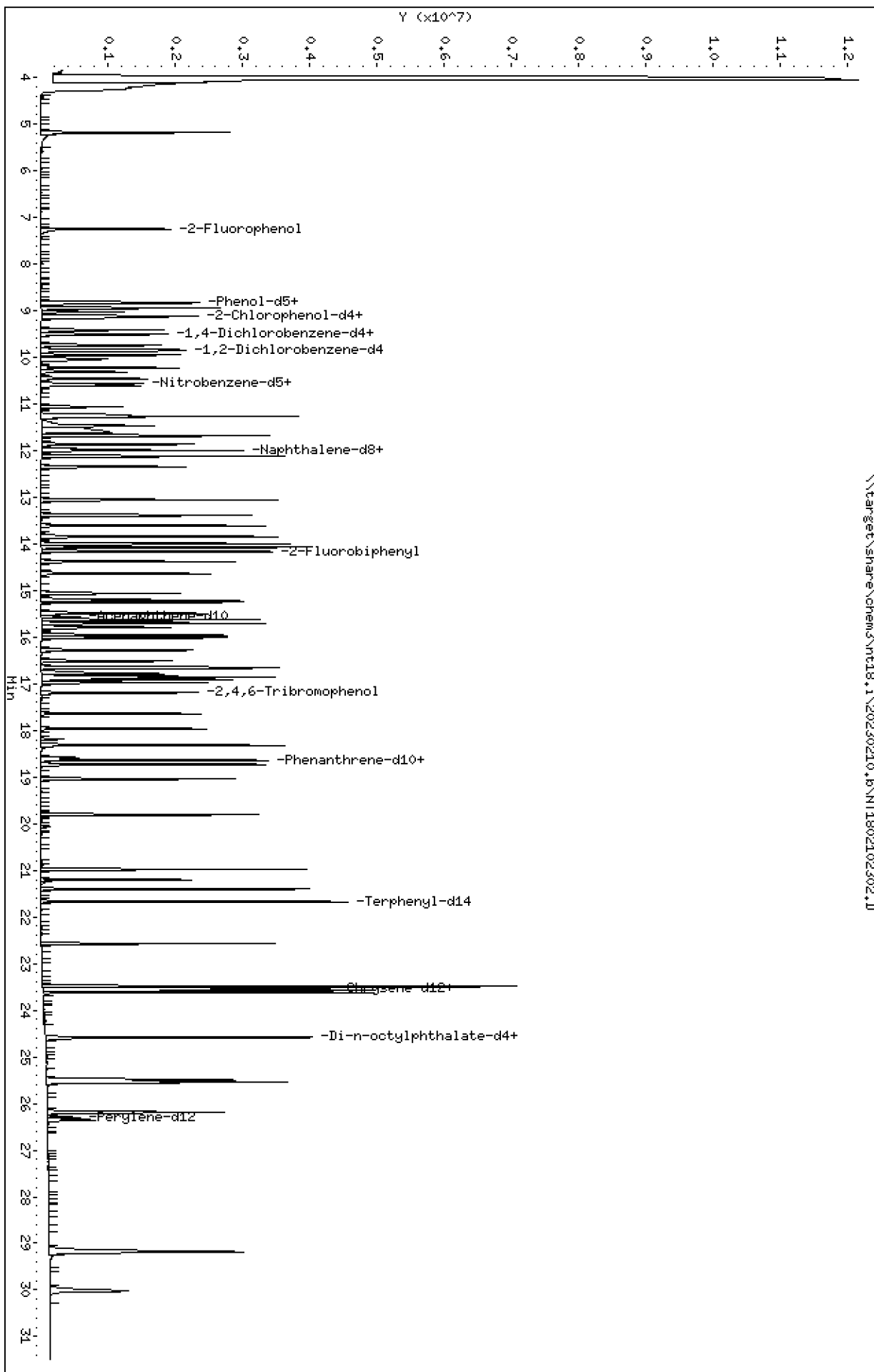
Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230210.b\NT1802102302.D
 Lab Smp Id: SLB0195-CAL7
 Inj Date : 10-FEB-2023 17:04
 Operator : VTS
 Smp Info : SLB0195-CAL7
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Meth Date : 15-Feb-2023 08:10 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i
 Quant Type: ISTD
 Cal File: NT1802102308.D
 Calibration Sample, Level: 7
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.251	7.258	(0.765)	1062224	30.0000	29.92
\$ 2 Phenol-d5	99		8.819	8.811	(0.931)	1448189	30.0000	30.10
3 Phenol	94		8.842	8.827	(0.933)	953922	20.0000	20.23
\$ 5 2-Chlorophenol-d4	132		9.120	9.113	(0.962)	1281777	30.0000	30.64
4 Bis(2-Chloroethyl)ether	93		9.020	9.012	(0.952)	688548	20.0000	19.29
6 2-Chlorophenol	128		9.143	9.136	(0.965)	874461	20.0000	21.57
7 1,3-Dichlorobenzene	146		9.414	9.406	(0.993)	838759	20.0000	18.98
* 8 1,4-Dichlorobenzene-d4	152		9.476	9.469	(1.000)	109487	4.00000	
9 1,4-Dichlorobenzene	146		9.507	9.500	(1.003)	911746	20.0000	19.24
\$ 10 1,2-Dichlorobenzene-d4	152		9.841	9.833	(1.038)	579640	20.0000	19.25 (M)
12 1,2-Dichlorobenzene	146		9.507	9.500	(1.003)	911746	20.0000	19.24
11 Benzyl alcohol	108		9.740	9.740	(1.028)	498384	20.0000	19.94
14 2,2'-oxybis(1-Chloropropane)	121		10.035	10.027	(1.059)	228107	20.0000	20.55 (M)
13 2-Methylphenol	108		9.950	9.950	(1.050)	723766	20.0000	21.18
17 Hexachloroethane	117		10.454	10.447	(1.103)	333391	20.0000	19.99
16 N-Nitroso-di-n-propylamine	70		10.307	10.291	(1.088)	545267	20.0000	21.12
15 4-Methylphenol	108		10.221	10.214	(1.079)	760930	20.0000	19.97
\$ 18 Nitrobenzene-d5	82		10.571	10.563	(0.884)	882644	20.0000	21.01
19 Nitrobenzene	77		10.609	10.602	(0.887)	804810	20.0000	20.03
20 Isophorone	82		11.060	11.036	(0.925)	1165303	20.0000	19.96
21 2-Nitrophenol	139		11.232	11.232	(0.939)	430299	20.0000	19.94
22 2,4-Dimethylphenol	107		11.266	11.257	(0.942)	1370031	40.0000	38.53
23 Bis(2-Chloroethoxy)methane	93		11.470	11.461	(0.959)	740116	20.0000	19.49
24 Benzoic acid	105		11.605	11.461	(0.970)	1968436	80.0000	79.29
25 2,4-Dichlorophenol	162		11.682	11.673	(0.977)	1380629	40.0000	39.42
26 1,2,4-Trichlorobenzene	180		11.866	11.858	(0.992)	736864	20.0000	18.86
* 27 Naphthalene-d8	136		11.959	11.951	(1.000)	426922	4.00000	
28 Naphthalene	128		11.997	11.990	(1.003)	2301614	20.0000	18.75
29 4-Chloroaniline	127		12.121	12.113	(1.014)	2069382	40.0000	39.28
30 Hexachlorobutadiene	225		12.345	12.345	(1.032)	439198	20.0000	19.55
31 4-Chloro-3-methylphenol	107		13.065	13.049	(1.092)	1307912	40.0000	41.28
32 2-Methylnaphthalene	142		13.382	13.382	(1.119)	1580545	20.0000	18.92
33 Hexachlorocyclopentadiene	237		13.847	13.839	(0.890)	995099	40.0000	39.87

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	14.001	13.994	(0.900)	975502	40.0000	44.25
35 2,4,5-Trichlorophenol	196	14.071	14.063	(0.904)	1076295	40.0000	43.84
\$ 36 2-Fluorobiphenyl	172	14.164	14.148	(0.910)	1902365	20.0000	19.35
37 2-Chloronaphthalene	162	14.381	14.373	(0.924)	1440352	20.0000	19.50
38 2-Nitroaniline	65	14.636	14.620	(0.941)	885261	40.0000	44.40
39 Dimethylphthalate	163	15.062	15.038	(0.968)	1571370	20.0000	20.21
40 Acenaphthylene	152	15.247	15.240	(0.980)	2311591	20.0000	20.51
41 2,6-Dinitrotoluene	165	15.201	15.178	(0.977)	791207	40.0000	44.01
* 42 Acenaphthene-d10	164	15.557	15.549	(1.000)	222329	4.00000	
43 3-Nitroaniline	138	15.495	15.464	(0.996)	858296	40.0000	43.50
44 Acenaphthene	153	15.626	15.611	(1.004)	1397102	20.0000	18.59
45 2,4-Dinitrophenol	184	15.711	15.688	(1.010)	1135655	80.0000	79.40
46 Dibenzofuran	168	15.959	15.943	(1.026)	2031931	20.0000	18.87
47 4-Nitrophenol	109	15.796	15.766	(1.015)	418179	40.0000	39.85
48 2,4-Dinitrotoluene	165	16.013	15.990	(1.029)	1033936	40.0000	42.36
50 Diethylphthalate	149	16.515	16.484	(1.062)	1693185	20.0000	21.45
49 Fluorene	166	16.662	16.647	(1.071)	1729783	20.0000	20.31
51 4-Chlorophenyl-phenylether	204	16.639	16.631	(1.070)	1010563	20.0000	23.54
52 4-Nitroaniline	138	16.786	16.724	(1.079)	811682	40.0000	39.88
53 4,6-Dinitro-2-methylphenol	198	16.863	16.824	(0.907)	1289493	80.0000	79.61
54 N-Nitrosodiphenylamine	169	16.901	16.878	(0.909)	1197300	20.0000	21.15
\$ 55 2,4,6-Tribromophenol	330	17.194	17.179	(1.105)	482249	30.0000	29.89
56 4-Bromophenyl-phenylether	248	17.641	17.634	(0.949)	518294	20.0000	21.94
57 Hexachlorobenzene	284	17.966	17.958	(0.967)	571803	20.0000	20.74
58 Pentachlorophenol	266	18.314	18.314	(0.985)	756623	40.0000	39.80
* 59 Phenanthrene-d10	188	18.585	18.577	(1.000)	382827	4.00000	
60 Phenanthrene	178	18.639	18.624	(1.003)	2261997	20.0000	19.56
61 Anthracene	178	18.732	18.717	(1.008)	2265067	20.0000	21.90
62 Carbazole	167	19.042	19.034	(1.025)	2146899	20.0000	20.76
63 Di-n-butylphthalate	149	19.808	19.800	(1.066)	2625700	20.0000	19.95
64 Fluoranthene	202	20.984	20.968	(0.890)	2517628	20.0000	17.49
65 Pyrene	202	21.401	21.394	(0.908)	2600909	20.0000	17.00
\$ 66 Terphenyl-d14	244	21.672	21.657	(0.920)	2479092	20.0000	17.57
67 Butylbenzylphthalate	149	22.571	22.563	(0.958)	1175019	20.0000	19.94
68 Benzo(a)anthracene	228	23.538	23.523	(0.999)	2606833	20.0000	17.29
* 69 Chrysene-d12	240	23.569	23.554	(1.000)	456277	4.00000	
70 3,3'-Dichlorobenzidine	252	23.492	23.469	(0.997)	3067043	60.0000	59.57
71 Chrysene	228	23.616	23.600	(1.002)	2602071	20.0000	16.37
72 bis(2-Ethylhexyl)phthalate	149	23.577	23.569	(0.959)	1827044	20.0000	20.62
* 134 Di-n-octylphthalate-d4	153	24.576	24.568	(1.000)	582435	4.00000	
73 Di-n-octylphthalate	149	24.591	24.576	(1.001)	2951188	20.0000	17.25
74 Benzo(b)fluoranthene	252	25.497	25.466	(0.969)	2722756	20.0000	20.34
75 Benzo(k)fluoranthene	252	25.543	25.513	(0.971)	2645405	20.0000	18.06
76 Benzo(a)pyrene	252	26.194	26.163	(0.996)	2325298	20.0000	21.27
* 77 Perylene-d12	264	26.302	26.287	(1.000)	383529	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.181	29.126	(1.109)	2426877	20.0000	19.90
79 Dibenzo(a,h)anthracene	278	29.188	29.134	(1.110)	2070555	20.0000	19.90
80 Benzo(g,h,i)perylene	276	30.020	29.965	(1.141)	1752322	20.0000	19.91
90 N-Nitrosodimethylamine	74	5.180	5.180	(0.547)	898107	40.0000	43.34
91 Aniline	93	8.943	8.935	(0.944)	2006750	40.0000	39.16
93 Benzidine	184	21.200	21.193	(0.899)	1365046	40.0000	39.61
103 Pyridine	79	5.173	5.196	(0.546)	1304613	40.0000	42.83
105 1-methylnaphthalene	142	13.607	13.599	(1.138)	1527209	20.0000	18.75
111 Azobenzene (1,2-DP-Hydrazine)	77	16.971	16.955	(1.091)	1685904	20.0000	20.25

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
187 Total Benzofluoranthenes	252		25.543	25.466	(0.971)	5131237	40.0000	38.26
120 2,3,4,6-Tetrachlorophenol	232		16.276	16.276	(1.046)	553584	20.0000	19.98

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 10-FEB-2023
 Lab File ID: NT1802102302.D Calibration Time: 18:25
 Lab Smp Id: SLB0195-CAL7
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	102093	51047	204186	109487	7.24
27 Naphthalene-d8	389769	194885	779538	426922	9.53
42 Acenaphthene-d10	207438	103719	414876	222329	7.18
59 Phenanthrene-d10	358643	179322	717286	382827	6.74
69 Chrysene-d12	349501	174751	699002	456277	30.55
134 Di-n-octylphthala	468622	234311	937244	582435	24.29
77 Perylene-d12	343443	171722	686886	383529	11.67

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.48	8.98	9.98	9.48	0.00
27 Naphthalene-d8	11.95	11.45	12.45	11.96	0.07
42 Acenaphthene-d10	15.55	15.05	16.05	15.56	0.05
59 Phenanthrene-d10	18.58	18.08	19.08	18.59	0.04
69 Chrysene-d12	23.55	23.05	24.05	23.57	0.07
134 Di-n-octylphthala	24.57	24.07	25.07	24.58	0.03
77 Perylene-d12	26.30	25.80	26.80	26.30	0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802102302.D

Lab ID: SLB0195-CAL7
nt18.i, ABN.m, 10-FEB-2023 17:04

RT	CO-ELUTION COMPOUNDS
9.508	1,2-Dichlorobenzene and 1,4-Dichlorobenzene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.970	0.000	0.9704	Benzoic acid
1.010	0.000	1.0099	2,4-Dinitrophenol

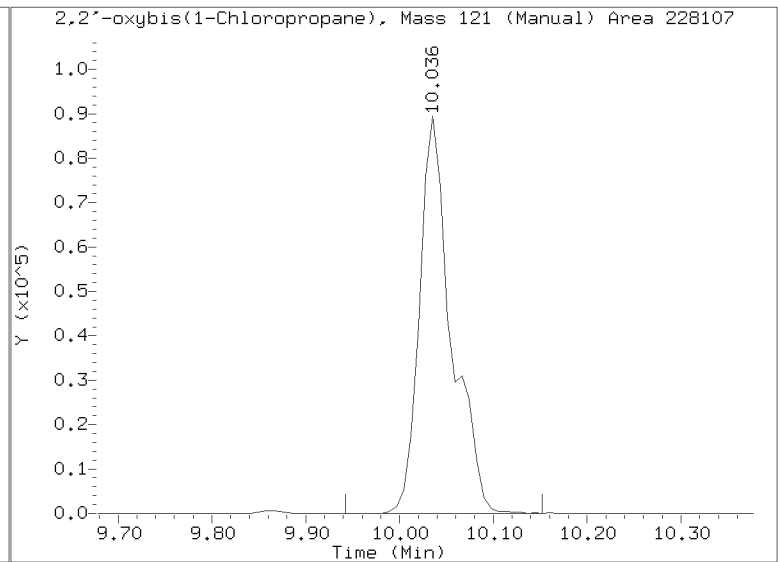
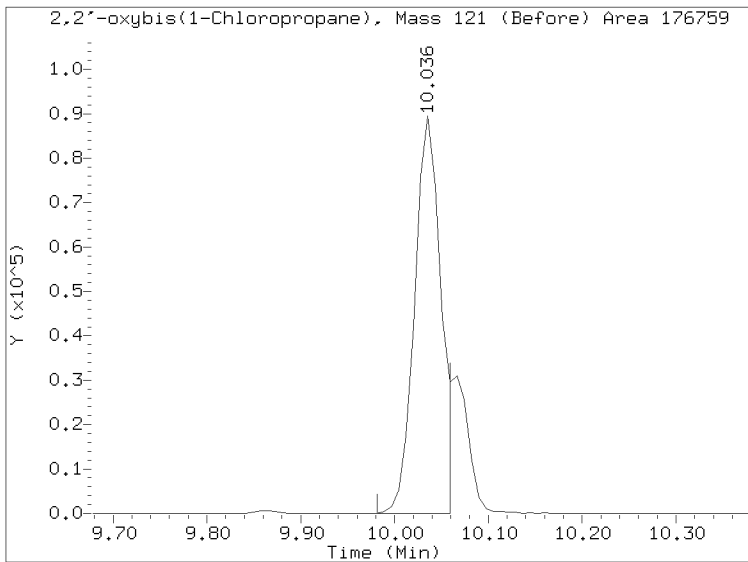
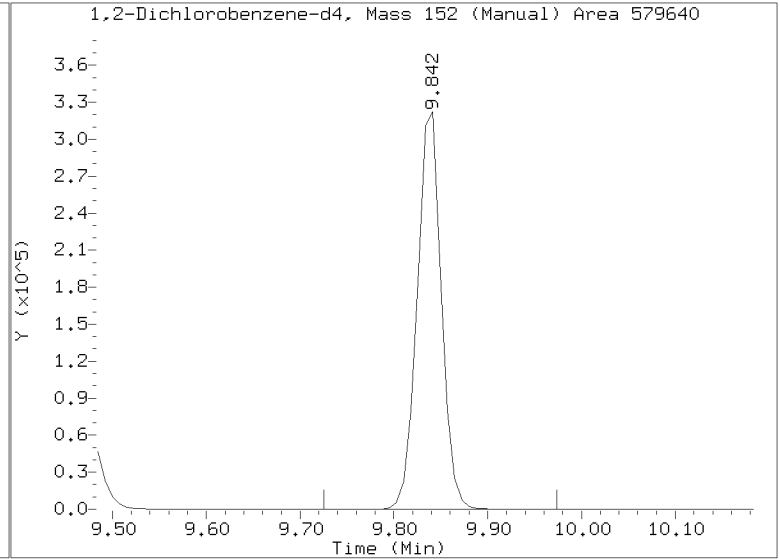
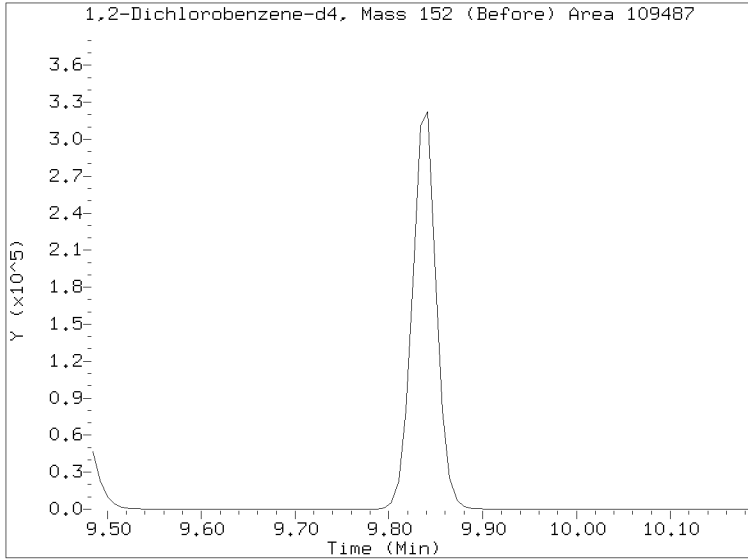
RRT check based on Ccal File: NT1802102308.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt18.i/20230210.b/NT1802102302.D
Injection Date: 10-FEB-2023 17:04
Lab ID:SLB0195-CAL7 Client ID:
Report Date: 02/15/2023 08:43



Data File: \\target\share\chem3\nt18.1\20230210.1\NT1802102303.D

Date: 10-FEB-2023 17:44

Client ID:

Sample Info: SLB0195-CAL6

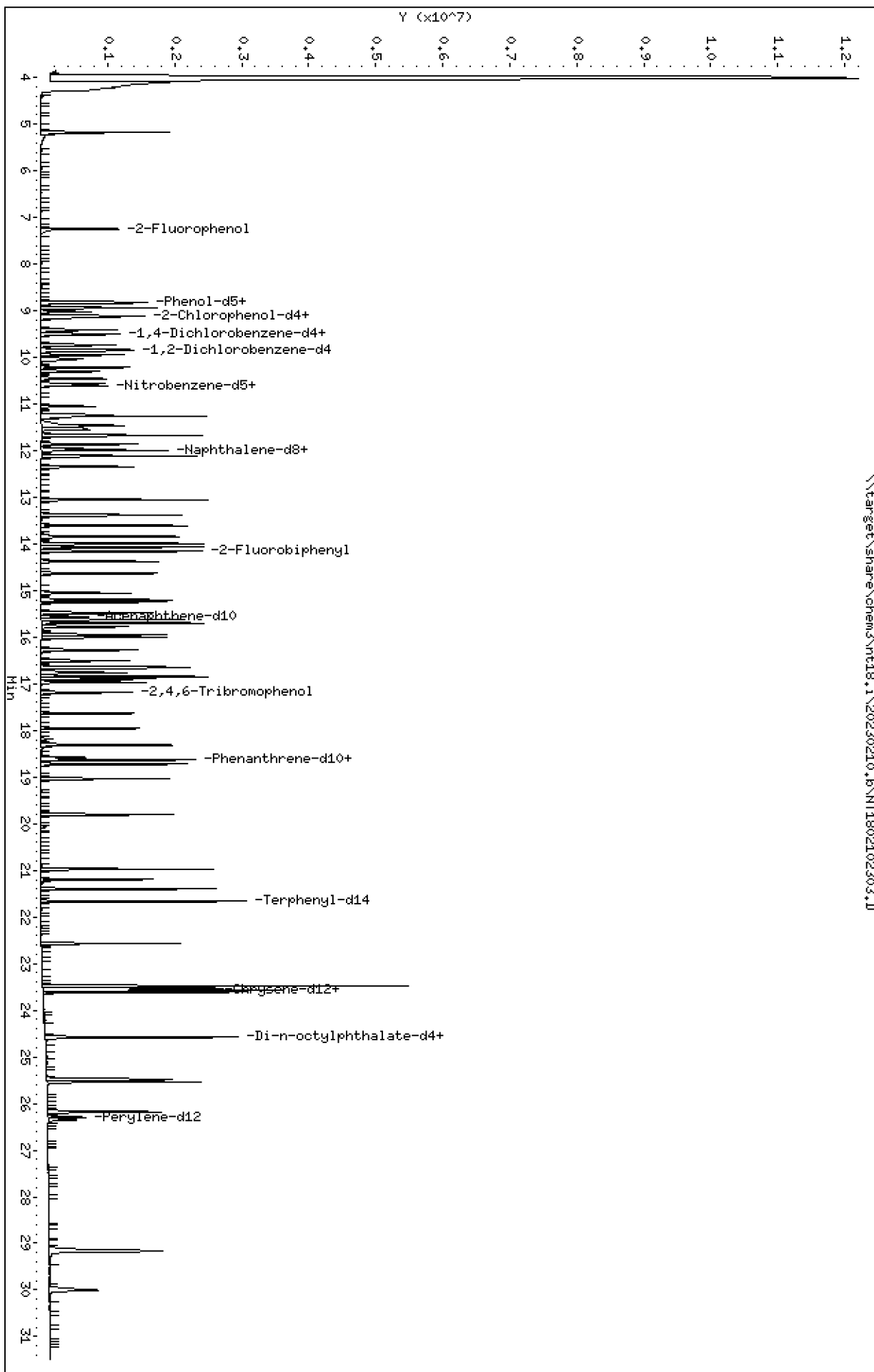
Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt18.1\20230210.1\NT1802102303.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230210.b\NT1802102303.D
 Lab Smp Id: SLB0195-CAL6
 Inj Date : 10-FEB-2023 17:44
 Operator : VTS
 Smp Info : SLB0195-CAL6
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Meth Date : 15-Feb-2023 08:10 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i
 Quant Type: ISTD
 Cal File: NT1802102308.D
 Calibration Sample, Level: 6
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.251	7.258	(0.765)	679000	15.0000	15.35
\$ 2 Phenol-d5	99		8.819	8.811	(0.931)	930692	15.0000	16.14
3 Phenol	94		8.834	8.827	(0.932)	603518	10.0000	10.68
\$ 5 2-Chlorophenol-d4	132		9.112	9.113	(0.962)	803705	15.0000	16.03
4 Bis(2-Chloroethyl)ether	93		9.020	9.012	(0.952)	433133	10.0000	10.13
6 2-Chlorophenol	128		9.143	9.136	(0.965)	514297	10.0000	10.59
7 1,3-Dichlorobenzene	146		9.414	9.406	(0.993)	531688	10.0000	10.04
* 8 1,4-Dichlorobenzene-d4	152		9.476	9.469	(1.000)	131192	4.00000	
9 1,4-Dichlorobenzene	146		9.507	9.500	(1.003)	572641	10.0000	10.08
\$ 10 1,2-Dichlorobenzene-d4	152		9.833	9.833	(1.038)	359418	10.0000	9.962 (M)
12 1,2-Dichlorobenzene	146		9.507	9.500	(1.003)	572641	10.0000	10.08
11 Benzyl alcohol	108		9.732	9.740	(1.027)	310536	10.0000	10.26
14 2,2'-oxybis(1-Chloropropane)	121		10.035	10.027	(1.059)	139830	10.0000	10.51 (M)
13 2-Methylphenol	108		9.942	9.950	(1.049)	445149	10.0000	10.87
17 Hexachloroethane	117		10.454	10.447	(1.103)	206935	10.0000	10.36
16 N-Nitroso-di-n-propylamine	70		10.299	10.291	(1.087)	339478	10.0000	10.97
15 4-Methylphenol	108		10.214	10.214	(1.078)	473718	10.0000	10.14
\$ 18 Nitrobenzene-d5	82		10.571	10.563	(0.884)	549386	10.0000	11.09
19 Nitrobenzene	77		10.602	10.602	(0.887)	503751	10.0000	10.63
20 Isophorone	82		11.052	11.036	(0.925)	728879	10.0000	10.17
21 2-Nitrophenol	139		11.223	11.232	(0.939)	266646	10.0000	10.29
22 2,4-Dimethylphenol	107		11.257	11.257	(0.942)	859881	20.0000	20.50
23 Bis(2-Chloroethoxy)methane	93		11.461	11.461	(0.959)	462150	10.0000	10.32
24 Benzoic acid	105		11.554	11.461	(0.967)	1190028	40.0000	43.23
25 2,4-Dichlorophenol	162		11.673	11.673	(0.977)	889352	20.0000	21.53
26 1,2,4-Trichlorobenzene	180		11.866	11.858	(0.993)	454705	10.0000	9.868
* 27 Naphthalene-d8	136		11.951	11.951	(1.000)	503545	4.00000	
28 Naphthalene	128		11.997	11.990	(1.004)	1434035	10.0000	9.907
29 4-Chloroaniline	127		12.113	12.113	(1.014)	1304121	20.0000	20.99
30 Hexachlorobutadiene	225		12.345	12.345	(1.033)	269552	10.0000	10.17
31 4-Chloro-3-methylphenol	107		13.057	13.049	(1.093)	806624	20.0000	21.59
32 2-Methylnaphthalene	142		13.382	13.382	(1.120)	990056	10.0000	10.05
33 Hexachlorocyclopentadiene	237		13.846	13.839	(0.890)	592756	20.0000	20.63

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.993	13.994	(0.900)	589294	20.0000	22.55
35 2,4,5-Trichlorophenol	196	14.071	14.063	(0.904)	651025	20.0000	22.37
\$ 36 2-Fluorobiphenyl	172	14.156	14.148	(0.910)	1180825	10.0000	10.13
37 2-Chloronaphthalene	162	14.373	14.373	(0.924)	896750	10.0000	10.24
38 2-Nitroaniline	65	14.628	14.620	(0.940)	521467	20.0000	22.06
39 Dimethylphthalate	163	15.054	15.038	(0.968)	974653	10.0000	10.58
40 Acenaphthylene	152	15.247	15.240	(0.980)	1430310	10.0000	10.71
41 2,6-Dinitrotoluene	165	15.193	15.178	(0.977)	483013	20.0000	22.67
* 42 Acenaphthene-d10	164	15.557	15.549	(1.000)	263535	4.00000	
43 3-Nitroaniline	138	15.487	15.464	(0.996)	533154	20.0000	22.80
44 Acenaphthene	153	15.626	15.611	(1.004)	883160	10.0000	9.915
45 2,4-Dinitrophenol	184	15.696	15.688	(1.009)	674779	40.0000	42.88
46 Dibenzofuran	168	15.951	15.943	(1.025)	1278783	10.0000	10.02
47 4-Nitrophenol	109	15.781	15.766	(1.014)	262318	20.0000	20.65
48 2,4-Dinitrotoluene	165	16.005	15.990	(1.029)	641961	20.0000	22.19
50 Diethylphthalate	149	16.508	16.484	(1.061)	1059036	10.0000	11.32
49 Fluorene	166	16.662	16.647	(1.071)	1063928	10.0000	10.54
51 4-Chlorophenyl-phenylether	204	16.639	16.631	(1.070)	524369	10.0000	10.31
52 4-Nitroaniline	138	16.762	16.724	(1.077)	501578	20.0000	20.57
53 4,6-Dinitro-2-methylphenol	198	16.847	16.824	(0.906)	770435	40.0000	41.92
54 N-Nitrosodiphenylamine	169	16.893	16.878	(0.909)	721940	10.0000	10.63
\$ 55 2,4,6-Tribromophenol	330	17.194	17.179	(1.105)	278141	15.0000	15.59
56 4-Bromophenyl-phenylether	248	17.641	17.634	(0.949)	312959	10.0000	11.04
57 Hexachlorobenzene	284	17.958	17.958	(0.966)	345193	10.0000	10.44
58 Pentachlorophenol	266	18.314	18.314	(0.985)	426284	20.0000	21.09
* 59 Phenanthrene-d10	188	18.585	18.577	(1.000)	459378	4.00000	
60 Phenanthrene	178	18.631	18.624	(1.002)	1416901	10.0000	10.21
61 Anthracene	178	18.724	18.717	(1.007)	1391940	10.0000	11.21
62 Carbazole	167	19.042	19.034	(1.025)	1319590	10.0000	10.63
63 Di-n-butylphthalate	149	19.800	19.800	(1.065)	1632540	10.0000	10.23
64 Fluoranthene	202	20.976	20.968	(0.890)	1579420	10.0000	9.968
65 Pyrene	202	21.401	21.394	(0.908)	1767821	10.0000	10.50
\$ 66 Terphenyl-d14	244	21.664	21.657	(0.919)	1515769	10.0000	9.758
67 Butylbenzylphthalate	149	22.570	22.563	(0.958)	723491	10.0000	10.23
68 Benzo(a)anthracene	228	23.531	23.523	(0.999)	1591116	10.0000	9.587
* 69 Chrysene-d12	240	23.561	23.554	(1.000)	502236	4.00000	
70 3,3'-Dichlorobenzidine	252	23.484	23.469	(0.997)	2025056	30.0000	31.44
71 Chrysene	228	23.608	23.600	(1.002)	1653654	10.0000	9.453
72 bis(2-Ethylhexyl)phthalate	149	23.569	23.569	(0.959)	1150946	10.0000	11.19
* 134 Di-n-octylphthalate-d4	153	24.576	24.568	(1.000)	675744	4.00000	
73 Di-n-octylphthalate	149	24.583	24.576	(1.000)	1861469	10.0000	9.376
74 Benzo(b)fluoranthene	252	25.481	25.466	(0.969)	1591679	10.0000	9.903
75 Benzo(k)fluoranthene	252	25.536	25.513	(0.971)	1814204	10.0000	10.32
76 Benzo(a)pyrene	252	26.178	26.163	(0.996)	1461144	10.0000	11.13
* 77 Perylene-d12	264	26.295	26.287	(1.000)	460430	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.157	29.126	(1.109)	1416423	10.0000	10.52
79 Dibenzo(a,h)anthracene	278	29.165	29.134	(1.109)	1180785	10.0000	10.53
80 Benzo(g,h,i)perylene	276	30.004	29.965	(1.141)	1040413	10.0000	10.44
90 N-Nitrosodimethylamine	74	5.172	5.180	(0.546)	571414	20.0000	23.01
91 Aniline	93	8.935	8.935	(0.943)	1293737	20.0000	21.07
93 Benzidine	184	21.192	21.193	(0.899)	992101	20.0000	21.10
103 Pyridine	79	5.172	5.196	(0.546)	870068	20.0000	23.84
105 1-methylnaphthalene	142	13.606	13.599	(1.139)	959216	10.0000	9.982
111 Azobenzene (1,2-DP-Hydrazine)	77	16.970	16.955	(1.091)	1059258	10.0000	10.74

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	
187 Total Benzofluoranthenes	252		25.536	25.466	(0.971)	3268970	20.0000	20.30
120 2,3,4,6-Tetrachlorophenol	232		16.276	16.276	(1.046)	305470	10.0000	10.08

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 10-FEB-2023
 Lab File ID: NT1802102303.D Calibration Time: 18:25
 Lab Smp Id: SLB0195-CAL6
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	102093	51047	204186	131192	28.50
27 Naphthalene-d8	389769	194885	779538	503545	29.19
42 Acenaphthene-d10	207438	103719	414876	263535	27.04
59 Phenanthrene-d10	358643	179322	717286	459378	28.09
69 Chrysene-d12	349501	174751	699002	502236	43.70
134 Di-n-octylphthala	468622	234311	937244	675744	44.20
77 Perylene-d12	343443	171722	686886	460430	34.06

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.48	8.98	9.98	9.48	-0.00
27 Naphthalene-d8	11.95	11.45	12.45	11.95	-0.00
42 Acenaphthene-d10	15.55	15.05	16.05	15.56	0.05
59 Phenanthrene-d10	18.58	18.08	19.08	18.59	0.04
69 Chrysene-d12	23.55	23.05	24.05	23.56	0.03
134 Di-n-octylphthala	24.57	24.07	25.07	24.58	0.03
77 Perylene-d12	26.30	25.80	26.80	26.30	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802102303.D

Lab ID: SLB0195-CAL6
nt18.i, ABN.m, 10-FEB-2023 17:44

RT	CO-ELUTION COMPOUNDS
9.508	1,2-Dichlorobenzene and 1,4-Dichlorobenzene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.967	0.000	0.9668	Benzoic acid
1.009	0.000	1.0089	2,4-Dinitrophenol

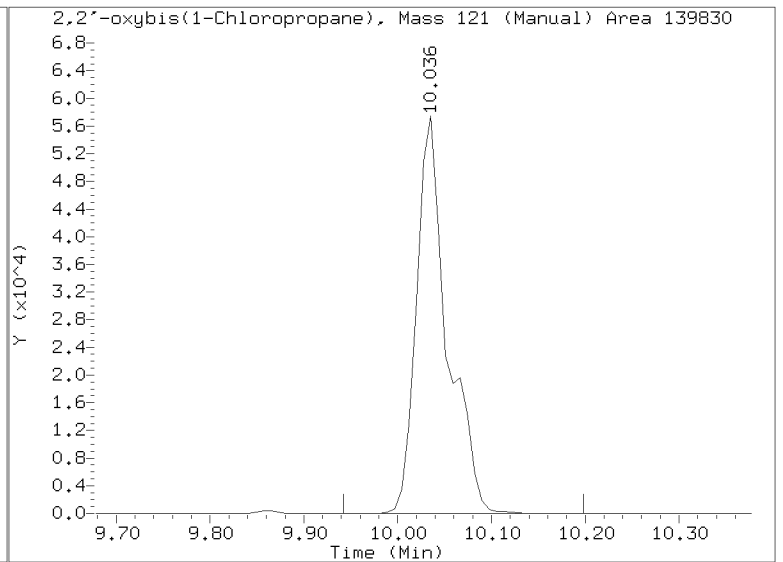
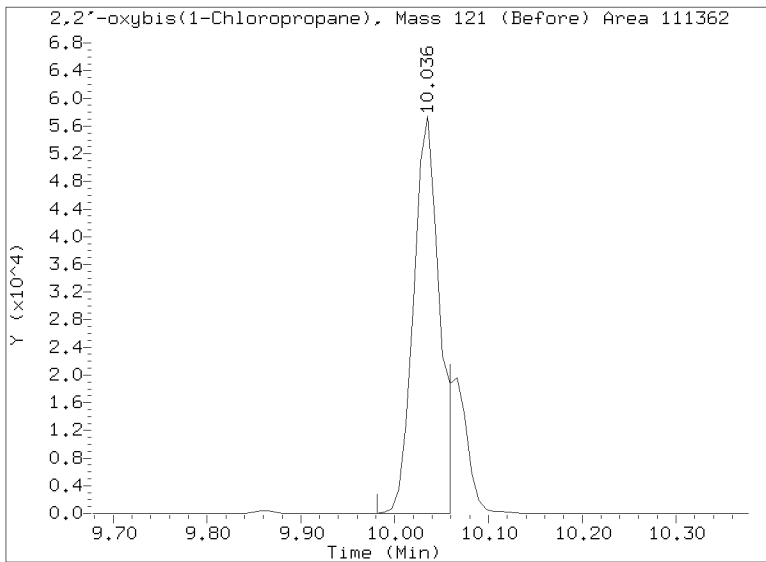
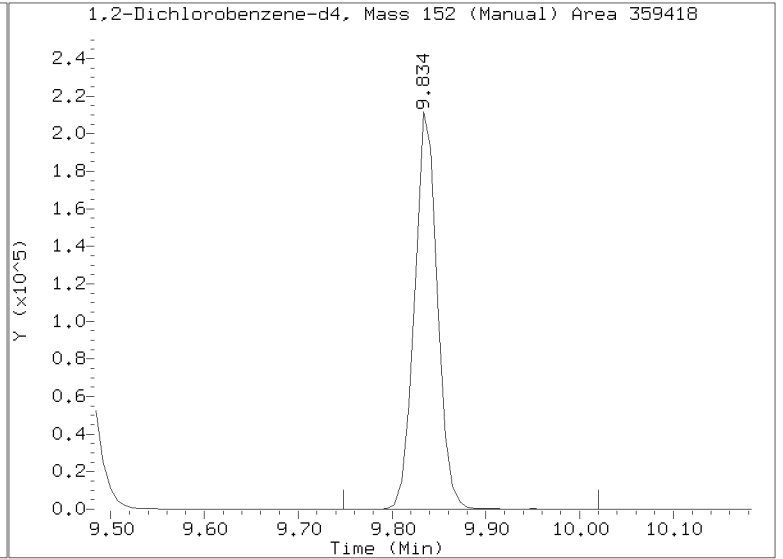
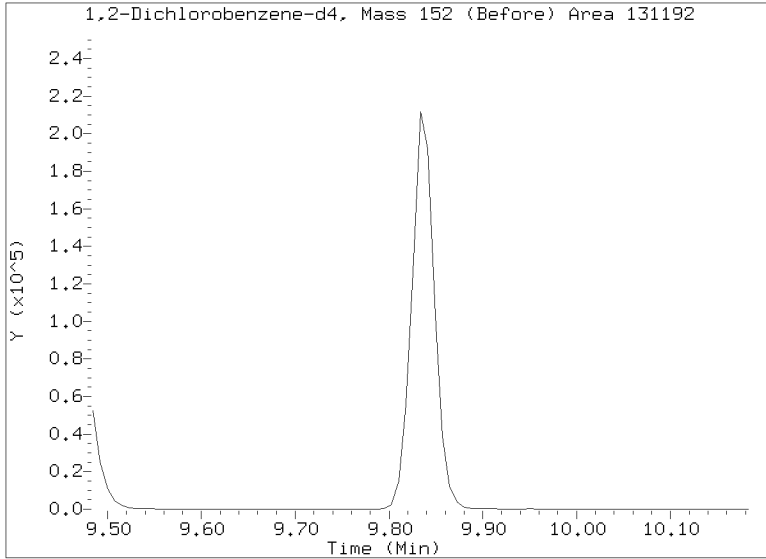
RRT check based on Ccal File: NT1802102308.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt18.i/20230210.b/NT1802102303.D
Injection Date: 10-FEB-2023 17:44
Lab ID:SLB0195-CAL6 Client ID:
Report Date: 02/15/2023 08:43



Data File: \\target\share\chem3\nt18.1\20230210.1\NT1802102304.D

Date: 10-FEB-2023 18:25

Client ID:

Sample Info: SLB0195-CALS

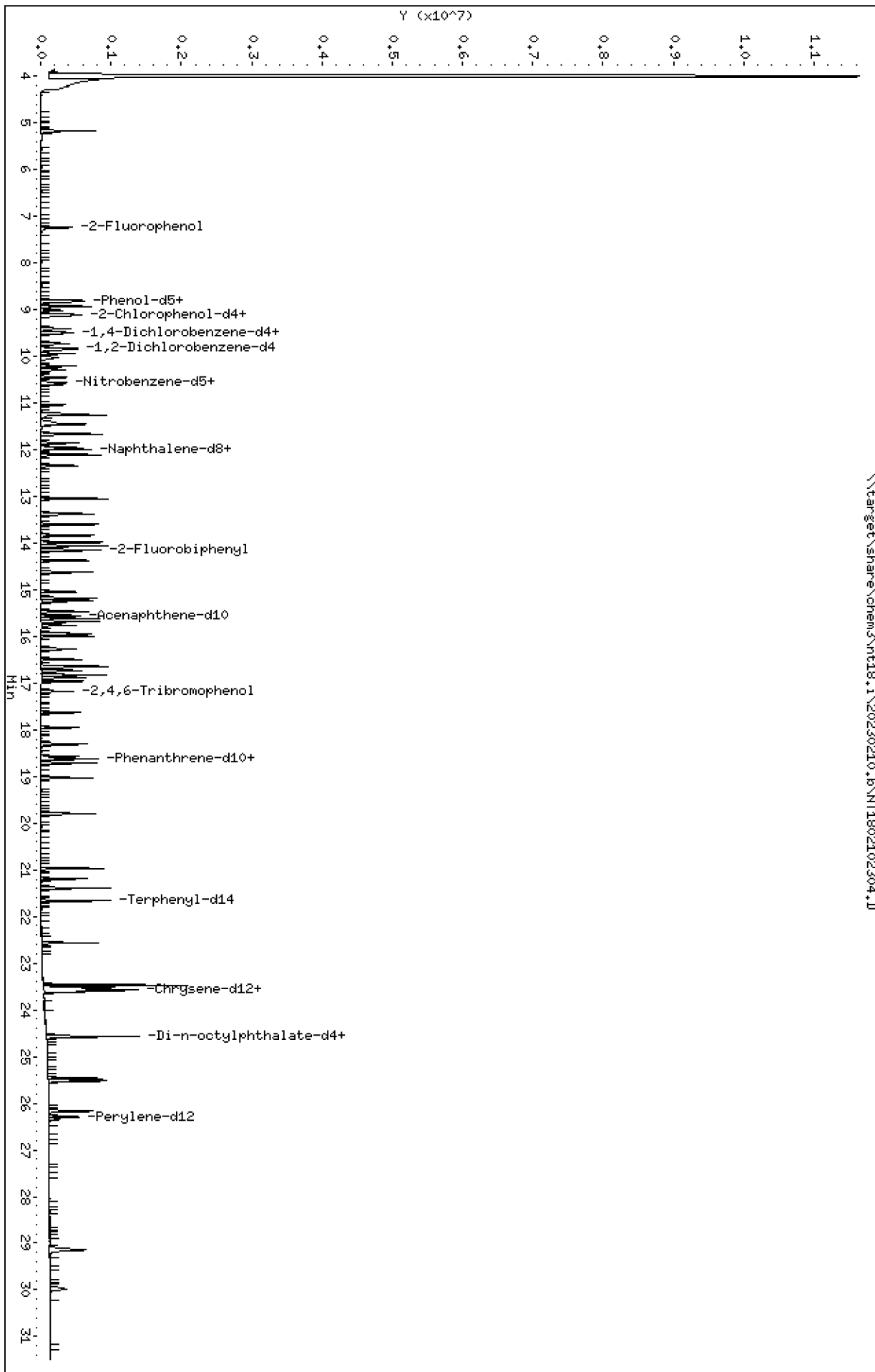
Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt18.1\20230210.1\NT1802102304.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230210.b\NT1802102304.D
 Lab Smp Id: SLB0195-CAL5
 Inj Date : 10-FEB-2023 18:25
 Operator : VTS
 Smp Info : SLB0195-CAL5
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Meth Date : 15-Feb-2023 08:10 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i
 Quant Type: ISTD
 Cal File: NT1802102308.D
 Calibration Sample, Level: 5
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.243	7.258	(0.764)	255112	7.50000	7.235
\$ 2 Phenol-d5	99		8.804	8.811	(0.929)	356276	7.50000	7.941
3 Phenol	94		8.827	8.827	(0.931)	229533	5.00000	5.220
\$ 5 2-Chlorophenol-d4	132		9.105	9.113	(0.961)	307196	7.50000	7.875
4 Bis(2-Chloroethyl)ether	93		9.012	9.012	(0.951)	169045	5.00000	5.080
6 2-Chlorophenol	128		9.136	9.136	(0.964)	193068	5.00000	5.107
7 1,3-Dichlorobenzene	146		9.406	9.406	(0.993)	204914	5.00000	4.974
* 8 1,4-Dichlorobenzene-d4	152		9.476	9.469	(1.000)	102093	4.00000	
9 1,4-Dichlorobenzene	146		9.499	9.500	(1.002)	227559	5.00000	5.150
\$ 10 1,2-Dichlorobenzene-d4	152		9.833	9.833	(1.038)	138247	5.00000	4.924 (M)
12 1,2-Dichlorobenzene	146		9.499	9.500	(1.002)	227559	5.00000	5.150
11 Benzyl alcohol	108		9.732	9.740	(1.027)	114513	5.00000	4.831
14 2,2'-oxybis(1-Chloropropane)	121		10.027	10.027	(1.058)	44048	5.00000	4.256
13 2-Methylphenol	108		9.942	9.950	(1.049)	168854	5.00000	5.299
17 Hexachloroethane	117		10.446	10.447	(1.102)	78227	5.00000	5.031
16 N-Nitroso-di-n-propylamine	70		10.291	10.291	(1.086)	129233	5.00000	5.367
15 4-Methylphenol	108		10.206	10.214	(1.077)	181023	5.00000	4.914
\$ 18 Nitrobenzene-d5	82		10.563	10.563	(0.884)	208174	5.00000	5.427
19 Nitrobenzene	77		10.594	10.602	(0.886)	192485	5.00000	5.246
20 Isophorone	82		11.036	11.036	(0.923)	279201	5.00000	4.916
21 2-Nitrophenol	139		11.223	11.232	(0.939)	97540	5.00000	4.811
22 2,4-Dimethylphenol	107		11.257	11.257	(0.942)	324385	10.0000	9.993
23 Bis(2-Chloroethoxy)methane	93		11.453	11.461	(0.958)	180154	5.00000	5.195
24 Benzoic acid	105		11.461	11.461	(0.959)	340790	20.0000	16.63
25 2,4-Dichlorophenol	162		11.665	11.673	(0.976)	328646	10.0000	10.28
26 1,2,4-Trichlorobenzene	180		11.858	11.858	(0.992)	172498	5.00000	4.836
* 27 Naphthalene-d8	136		11.951	11.951	(1.000)	389769	4.00000	
28 Naphthalene	128		11.990	11.990	(1.003)	549263	5.00000	4.902
29 4-Chloroaniline	127		12.113	12.113	(1.014)	477125	10.0000	9.920
30 Hexachlorobutadiene	225		12.345	12.345	(1.033)	100096	5.00000	4.881
31 4-Chloro-3-methylphenol	107		13.049	13.049	(1.092)	302768	10.0000	10.47
32 2-Methylnaphthalene	142		13.374	13.382	(1.119)	383076	5.00000	5.023
33 Hexachlorocyclopentadiene	237		13.839	13.839	(0.890)	212617	10.0000	9.551

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.993	13.994	(0.900)	213642	10.0000	10.39
35 2,4,5-Trichlorophenol	196	14.063	14.063	(0.904)	240832	10.0000	10.51
§ 36 2-Fluorobiphenyl	172	14.148	14.148	(0.910)	451699	5.00000	4.925
37 2-Chloronaphthalene	162	14.373	14.373	(0.924)	342595	5.00000	4.971
38 2-Nitroaniline	65	14.620	14.620	(0.940)	197843	10.0000	10.63
39 Dimethylphthalate	163	15.046	15.038	(0.968)	370391	5.00000	5.106
40 Acenaphthylene	152	15.240	15.240	(0.980)	544014	5.00000	5.174
41 2,6-Dinitrotoluene	165	15.185	15.178	(0.977)	177539	10.0000	10.58
* 42 Acenaphthene-d10	164	15.549	15.549	(1.000)	207438	4.00000	
43 3-Nitroaniline	138	15.472	15.464	(0.995)	195852	10.0000	10.64
44 Acenaphthene	153	15.619	15.611	(1.004)	344982	5.00000	4.921
45 2,4-Dinitrophenol	184	15.680	15.688	(1.008)	202998	20.0000	17.12
46 Dibenzofuran	168	15.943	15.943	(1.025)	491545	5.00000	4.894
47 4-Nitrophenol	109	15.765	15.766	(1.014)	97667	10.0000	9.644
48 2,4-Dinitrotoluene	165	15.990	15.990	(1.028)	243307	10.0000	10.68
50 Diethylphthalate	149	16.492	16.484	(1.061)	366351	5.00000	4.974
49 Fluorene	166	16.654	16.647	(1.071)	395983	5.00000	4.984
51 4-Chlorophenyl-phenylether	204	16.631	16.631	(1.070)	191736	5.00000	4.787
52 4-Nitroaniline	138	16.739	16.724	(1.077)	184920	10.0000	9.577
53 4,6-Dinitro-2-methylphenol	198	16.832	16.824	(0.906)	257064	20.0000	18.47
54 N-Nitrosodiphenylamine	169	16.878	16.878	(0.909)	265060	5.00000	4.997
§ 55 2,4,6-Tribromophenol	330	17.186	17.179	(1.105)	94553	7.50000	6.977
56 4-Bromophenyl-phenylether	248	17.634	17.634	(0.949)	113429	5.00000	5.126
57 Hexachlorobenzene	284	17.958	17.958	(0.967)	127080	5.00000	4.921
58 Pentachlorophenol	266	18.307	18.314	(0.985)	133071	10.0000	8.943
* 59 Phenanthrene-d10	188	18.577	18.577	(1.000)	358643	4.00000	
60 Phenanthrene	178	18.624	18.624	(1.002)	533398	5.00000	4.923
61 Anthracene	178	18.717	18.717	(1.007)	525107	5.00000	5.418
62 Carbazole	167	19.034	19.034	(1.025)	502802	5.00000	5.190
63 Di-n-butylphthalate	149	19.800	19.800	(1.066)	611789	5.00000	4.883
64 Fluoranthene	202	20.976	20.968	(0.891)	589065	5.00000	5.342
65 Pyrene	202	21.394	21.394	(0.908)	609221	5.00000	5.197
§ 66 Terphenyl-d14	244	21.665	21.657	(0.920)	555866	5.00000	5.142
67 Butylbenzylphthalate	149	22.563	22.563	(0.958)	258087	5.00000	4.951
68 Benzo(a)anthracene	228	23.523	23.523	(0.999)	602217	5.00000	5.214
* 69 Chrysene-d12	240	23.554	23.554	(1.000)	349501	4.00000	
70 3,3'-Dichlorobenzidine	252	23.476	23.469	(0.997)	715968	15.0000	14.36
71 Chrysene	228	23.600	23.600	(1.002)	608038	5.00000	4.995
72 bis(2-Ethylhexyl)phthalate	149	23.569	23.569	(0.959)	399622	5.00000	5.605
* 134 Di-n-octylphthalate-d4	153	24.568	24.568	(1.000)	468622	4.00000	
73 Di-n-octylphthalate	149	24.576	24.576	(1.000)	671355	5.00000	4.876
74 Benzo(b)fluoranthene	252	25.474	25.466	(0.969)	603653	5.00000	5.035
75 Benzo(k)fluoranthene	252	25.520	25.513	(0.971)	652502	5.00000	4.976
76 Benzo(a)pyrene	252	26.171	26.163	(0.995)	524299	5.00000	5.355
* 77 Perylene-d12	264	26.295	26.287	(1.000)	343443	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.134	29.126	(1.108)	433678	5.00000	4.512
79 Dibenzo(a,h)anthracene	278	29.149	29.134	(1.109)	356358	5.00000	4.492
80 Benzo(g,h,i)perylene	276	29.981	29.965	(1.140)	333731	5.00000	4.632
90 N-Nitrosodimethylamine	74	5.165	5.180	(0.545)	209372	10.0000	10.84
91 Aniline	93	8.927	8.935	(0.942)	493594	10.0000	10.33
93 Benzidine	184	21.192	21.193	(0.900)	391034	10.0000	9.539
103 Pyridine	79	5.172	5.196	(0.546)	311034	10.0000	10.95
105 1-methylnaphthalene	142	13.599	13.599	(1.138)	368035	5.00000	4.948
111 Azobenzene (1,2-DP-Hydrazine)	77	16.955	16.955	(1.090)	406341	5.00000	5.232

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
187 Total Benzofluoranthenes	252		25.520	25.466	(0.971)	1205951	10.0000	10.04
120 2,3,4,6-Tetrachlorophenol	232		16.268	16.276	(1.046)	117541	5.00000	5.100

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 10-FEB-2023
 Lab File ID: NT1802102304.D Calibration Time: 18:25
 Lab Smp Id: SLB0195-CAL5
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	102093	51047	204186	102093	0.00
27 Naphthalene-d8	389769	194885	779538	389769	0.00
42 Acenaphthene-d10	207438	103719	414876	207438	0.00
59 Phenanthrene-d10	358643	179322	717286	358643	0.00
69 Chrysene-d12	349501	174751	699002	349501	0.00
134 Di-n-octylphthala	468622	234311	937244	468622	0.00
77 Perylene-d12	343443	171722	686886	343443	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.48	8.98	9.98	9.48	0.00
27 Naphthalene-d8	11.95	11.45	12.45	11.95	0.00
42 Acenaphthene-d10	15.55	15.05	16.05	15.55	0.00
59 Phenanthrene-d10	18.58	18.08	19.08	18.58	0.00
69 Chrysene-d12	23.55	23.05	24.05	23.55	0.00
134 Di-n-octylphthala	24.57	24.07	25.07	24.57	0.00
77 Perylene-d12	26.30	25.80	26.80	26.30	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802102304.D

Lab ID: SLB0195-CAL5
nt18.i, ABN.m, 10-FEB-2023 18:25

RT	CO-ELUTION COMPOUNDS
9.500	1,2-Dichlorobenzene and 1,4-Dichlorobenzene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.959	0.000	0.9590	Benzoic acid
1.008	0.000	1.0085	2,4-Dinitrophenol

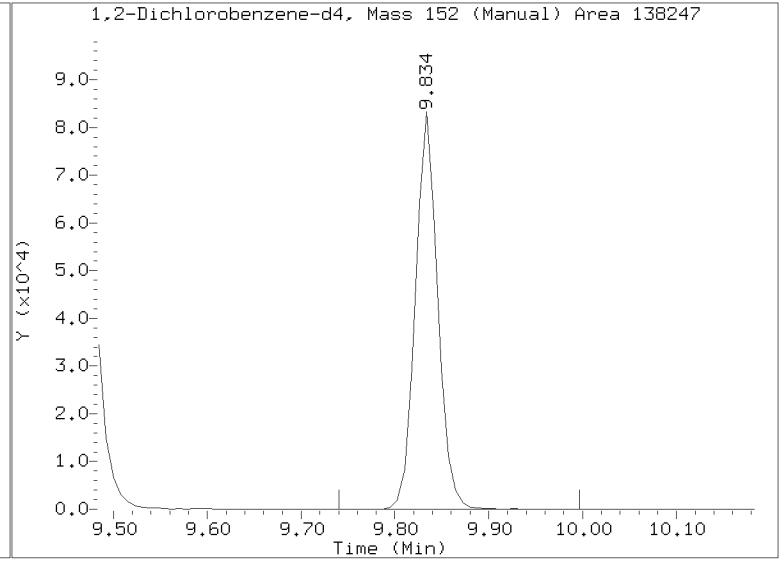
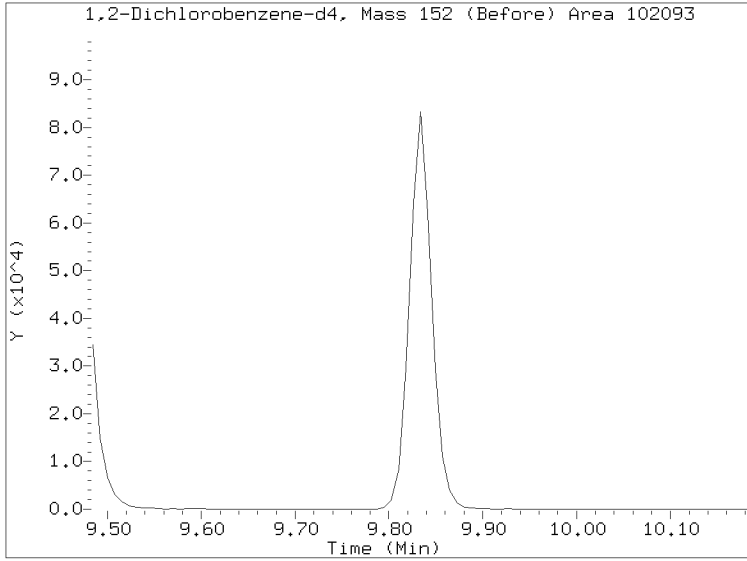
RRT check based on Ccal File: NT1802102308.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt18.i/20230210.b/NT1802102304.D
Injection Date: 10-FEB-2023 18:25
Lab ID:SLB0195-CAL5 Client ID:
Report Date: 02/15/2023 08:43



Data File: \\target\share\chem3\nt18.1\20230210.1\NT1802102305.D

Date: 10-FEB-2023 19:05

Client ID:

Sample Info: SLB0195-CAL4

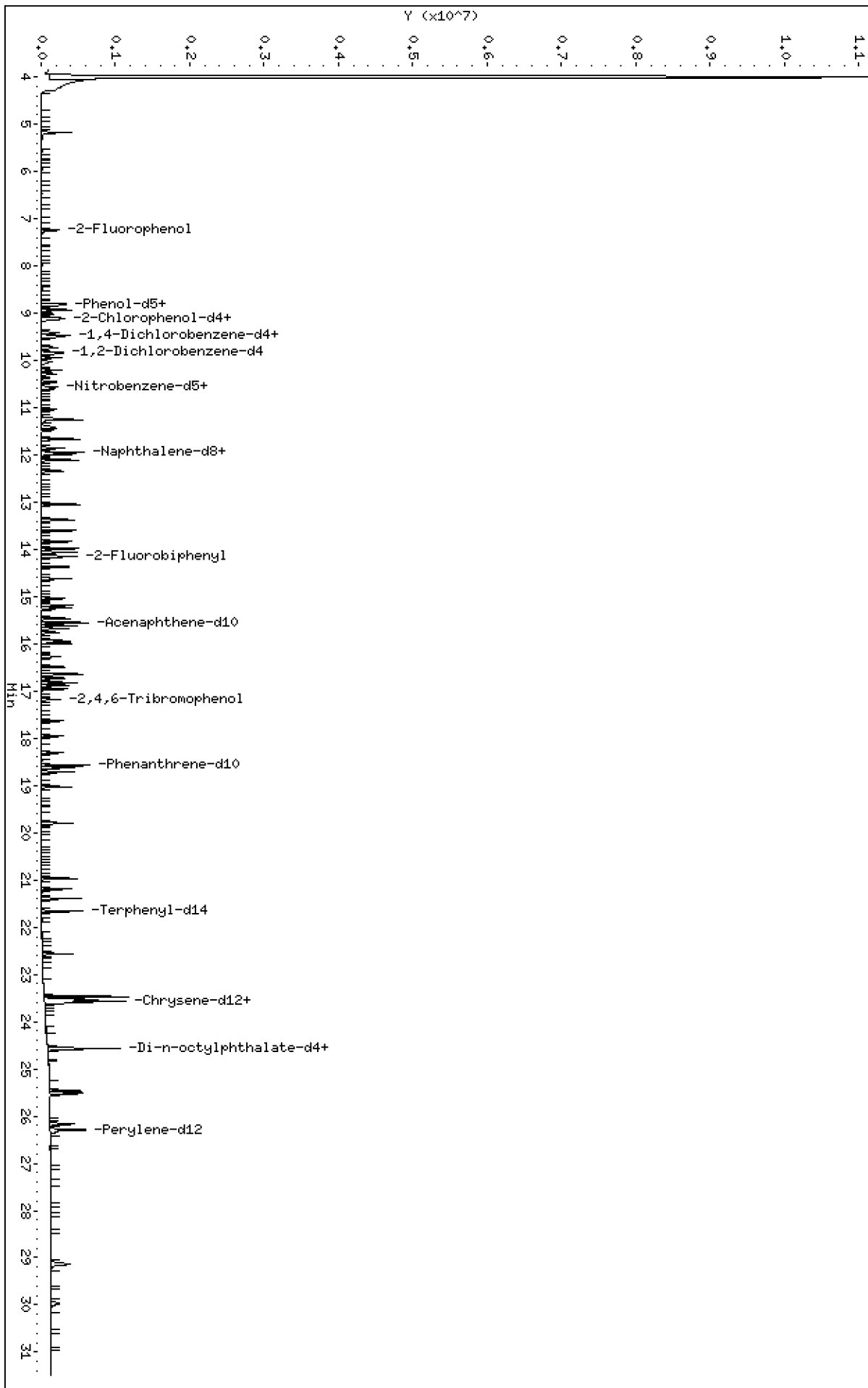
Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt18.1\20230210.1\NT1802102305.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230210.b\NT1802102305.D
 Lab Smp Id: SLB0195-CAL4
 Inj Date : 10-FEB-2023 19:05
 Operator : VTS
 Smp Info : SLB0195-CAL4
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Meth Date : 15-Feb-2023 08:10 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i
 Quant Type: ISTD
 Cal File: NT1802102308.D
 Calibration Sample, Level: 4
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
1 2-Fluorophenol	112		7.243	7.258	(0.764)	144267	3.75000	3.515
2 Phenol-d5	99		8.803	8.811	(0.929)	197791	3.75000	3.831
3 Phenol	94		8.827	8.827	(0.931)	127831	2.50000	2.527
5 2-Chlorophenol-d4	132		9.105	9.113	(0.961)	169275	3.75000	3.772
4 Bis(2-Chloroethyl)ether	93		9.012	9.012	(0.951)	94915	2.50000	2.479
6 2-Chlorophenol	128		9.136	9.136	(0.964)	107138	2.50000	2.463
7 1,3-Dichlorobenzene	146		9.406	9.406	(0.993)	116150	2.50000	2.450
* 8 1,4-Dichlorobenzene-d4	152		9.476	9.469	(1.000)	117469	4.00000	
9 1,4-Dichlorobenzene	146		9.499	9.500	(1.002)	127005	2.50000	2.498
\$ 10 1,2-Dichlorobenzene-d4	152		9.833	9.833	(1.038)	78288	2.50000	2.423 (M)
12 1,2-Dichlorobenzene	146		9.499	9.500	(1.002)	127005	2.50000	2.498
11 Benzyl alcohol	108		9.732	9.740	(1.027)	61940	2.50000	2.264
14 2,2'-oxybis(1-Chloropropane)	121		10.027	10.027	(1.058)	31166	2.50000	2.617 (M)
13 2-Methylphenol	108		9.942	9.950	(1.049)	94688	2.50000	2.583
17 Hexachloroethane	117		10.446	10.447	(1.102)	44497	2.50000	2.487
16 N-Nitroso-di-n-propylamine	70		10.283	10.291	(1.085)	73054	2.50000	2.637
15 4-Methylphenol	108		10.206	10.214	(1.077)	101059	2.50000	2.369
\$ 18 Nitrobenzene-d5	82		10.563	10.563	(0.884)	115315	2.50000	2.600
19 Nitrobenzene	77		10.594	10.602	(0.886)	108638	2.50000	2.561
20 Isophorone	82		11.036	11.036	(0.923)	155276	2.50000	2.336
21 2-Nitrophenol	139		11.223	11.232	(0.939)	53096	2.50000	2.254
22 2,4-Dimethylphenol	107		11.249	11.257	(0.941)	187177	5.00000	4.988
23 Bis(2-Chloroethoxy)methane	93		11.452	11.461	(0.958)	100261	2.50000	2.501
24 Benzoic acid	105		11.418	11.461	(0.955)	132060	10.0000	5.658
25 2,4-Dichlorophenol	162		11.665	11.673	(0.976)	182180	5.00000	4.928
26 1,2,4-Trichlorobenzene	180		11.858	11.858	(0.992)	99392	2.50000	2.411
* 27 Naphthalene-d8	136		11.951	11.951	(1.000)	450578	4.00000	
28 Naphthalene	128		11.990	11.990	(1.003)	315435	2.50000	2.435
29 4-Chloroaniline	127		12.105	12.113	(1.013)	279097	5.00000	5.020
30 Hexachlorobutadiene	225		12.345	12.345	(1.033)	57018	2.50000	2.405
31 4-Chloro-3-methylphenol	107		13.049	13.049	(1.092)	168555	5.00000	5.041
32 2-Methylnaphthalene	142		13.374	13.382	(1.119)	218260	2.50000	2.476
33 Hexachlorocyclopentadiene	237		13.839	13.839	(0.890)	110378	5.00000	4.366

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.986	13.994	(0.899)	115156	5.00000	4.895
35 2,4,5-Trichlorophenol	196	14.063	14.063	(0.904)	129364	5.00000	4.938
\$ 36 2-Fluorobiphenyl	172	14.148	14.148	(0.910)	253235	2.50000	2.414
37 2-Chloronaphthalene	162	14.373	14.373	(0.924)	192065	2.50000	2.436
38 2-Nitroaniline	65	14.620	14.620	(0.940)	108891	5.00000	5.117
39 Dimethylphthalate	163	15.038	15.038	(0.967)	208009	2.50000	2.507
40 Acenaphthylene	152	15.240	15.240	(0.980)	304249	2.50000	2.530
41 2,6-Dinitrotoluene	165	15.185	15.178	(0.977)	94698	5.00000	4.936
* 42 Acenaphthene-d10	164	15.549	15.549	(1.000)	237285	4.00000	
43 3-Nitroaniline	138	15.464	15.464	(0.995)	106531	5.00000	5.059
44 Acenaphthene	153	15.618	15.611	(1.004)	194049	2.50000	2.420
45 2,4-Dinitrophenol	184	15.673	15.688	(1.008)	86921	10.0000	6.515
46 Dibenzofuran	168	15.943	15.943	(1.025)	276512	2.50000	2.407
47 4-Nitrophenol	109	15.758	15.766	(1.013)	50101	5.00000	4.298
48 2,4-Dinitrotoluene	165	15.990	15.990	(1.028)	130675	5.00000	5.016
50 Diethylphthalate	149	16.492	16.484	(1.061)	205096	2.50000	2.435
49 Fluorene	166	16.654	16.647	(1.071)	218822	2.50000	2.408
51 4-Chlorophenyl-phenylether	204	16.631	16.631	(1.070)	105247	2.50000	2.297
52 4-Nitroaniline	138	16.731	16.724	(1.076)	100406	5.00000	4.533
53 4,6-Dinitro-2-methylphenol	198	16.824	16.824	(0.906)	124136	10.0000	7.870
54 N-Nitrosodiphenylamine	169	16.878	16.878	(0.909)	151330	2.50000	2.485
\$ 55 2,4,6-Tribromophenol	330	17.179	17.179	(1.105)	48983	3.75000	3.206
56 4-Bromophenyl-phenylether	248	17.634	17.634	(0.949)	62168	2.50000	2.447
57 Hexachlorobenzene	284	17.958	17.958	(0.967)	71282	2.50000	2.404
58 Pentachlorophenol	266	18.306	18.314	(0.985)	63357	5.00000	3.791
* 59 Phenanthrene-d10	188	18.577	18.577	(1.000)	411752	4.00000	
60 Phenanthrene	178	18.624	18.624	(1.002)	298991	2.50000	2.403
61 Anthracene	178	18.717	18.717	(1.007)	291419	2.50000	2.619
62 Carbazole	167	19.034	19.034	(1.025)	281211	2.50000	2.528
63 Di-n-butylphthalate	149	19.800	19.800	(1.066)	324677	2.50000	2.250
64 Fluoranthene	202	20.968	20.968	(0.890)	325713	2.50000	2.571
65 Pyrene	202	21.393	21.394	(0.908)	343005	2.50000	2.547
\$ 66 Terphenyl-d14	244	21.657	21.657	(0.919)	305747	2.50000	2.462
67 Butylbenzylphthalate	149	22.563	22.563	(0.958)	137226	2.50000	2.215
68 Benzo(a)anthracene	228	23.523	23.523	(0.999)	338145	2.50000	2.548
* 69 Chrysene-d12	240	23.554	23.554	(1.000)	401542	4.00000	
70 3,3'-Dichlorobenzidine	252	23.469	23.469	(0.996)	376230	7.50000	6.157
71 Chrysene	228	23.600	23.600	(1.002)	342850	2.50000	2.451
72 bis(2-Ethylhexyl)phthalate	149	23.569	23.569	(0.959)	214218	2.50000	2.679
* 134 Di-n-octylphthalate-d4	153	24.568	24.568	(1.000)	525604	4.00000	
73 Di-n-octylphthalate	149	24.576	24.576	(1.000)	372883	2.50000	2.415
74 Benzo(b)fluoranthene	252	25.474	25.466	(0.969)	350247	2.50000	2.567
75 Benzo(k)fluoranthene	252	25.520	25.513	(0.971)	350906	2.50000	2.351
76 Benzo(a)pyrene	252	26.163	26.163	(0.995)	284002	2.50000	2.548
* 77 Perylene-d12	264	26.294	26.287	(1.000)	390891	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.126	29.126	(1.108)	214783	2.50000	1.997
79 Dibenzo(a,h)anthracene	278	29.142	29.134	(1.108)	173811	2.50000	1.964
80 Benzo(g,h,i)perylene	276	29.973	29.965	(1.140)	167657	2.50000	2.071
90 N-Nitrosodimethylamine	74	5.165	5.180	(0.545)	114320	5.00000	5.142
91 Aniline	93	8.927	8.935	(0.942)	269684	5.00000	4.905
93 Benzidine	184	21.185	21.193	(0.899)	243458	5.00000	4.387
103 Pyridine	79	5.172	5.196	(0.546)	176638	5.00000	5.404
105 1-methylnaphthalene	142	13.599	13.599	(1.138)	210014	2.50000	2.442
111 Azobenzene (1,2-DP-Hydrazine)	77	16.955	16.955	(1.090)	224545	2.50000	2.528

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
187 Total Benzofluoranthenes	252		25.520	25.466	(0.971)	675347	5.00000	4.940
120 2,3,4,6-Tetrachlorophenol	232		16.268	16.276	(1.046)	55728	2.50000	2.153

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 10-FEB-2023
 Lab File ID: NT1802102305.D Calibration Time: 18:25
 Lab Smp Id: SLB0195-CAL4
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	102093	51047	204186	117469	15.06
27 Naphthalene-d8	389769	194885	779538	450578	15.60
42 Acenaphthene-d10	207438	103719	414876	237285	14.39
59 Phenanthrene-d10	358643	179322	717286	411752	14.81
69 Chrysene-d12	349501	174751	699002	401542	14.89
134 Di-n-octylphthala	468622	234311	937244	525604	12.16
77 Perylene-d12	343443	171722	686886	390891	13.82

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.48	8.98	9.98	9.48	-0.00
27 Naphthalene-d8	11.95	11.45	12.45	11.95	-0.00
42 Acenaphthene-d10	15.55	15.05	16.05	15.55	-0.00
59 Phenanthrene-d10	18.58	18.08	19.08	18.58	-0.00
69 Chrysene-d12	23.55	23.05	24.05	23.55	-0.00
134 Di-n-octylphthala	24.57	24.07	25.07	24.57	-0.00
77 Perylene-d12	26.30	25.80	26.80	26.29	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802102305.D

Lab ID: SLB0195-CAL4
nt18.i, ABN.m, 10-FEB-2023 19:05

RT	CO-ELUTION COMPOUNDS
9.500	1,2-Dichlorobenzene and 1,4-Dichlorobenzene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.955	0.000	0.9555	Benzoic acid
1.008	0.000	1.0079	2,4-Dinitrophenol

RRT check based on Ccal File: NT1802102308.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

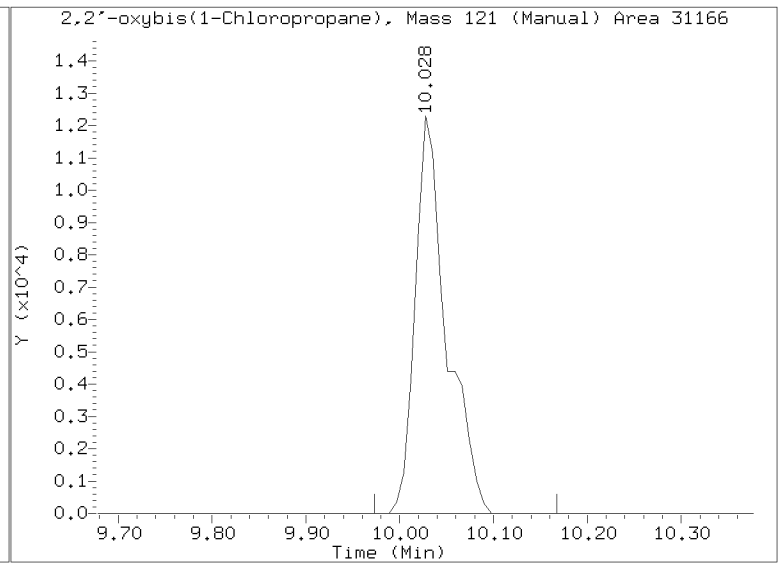
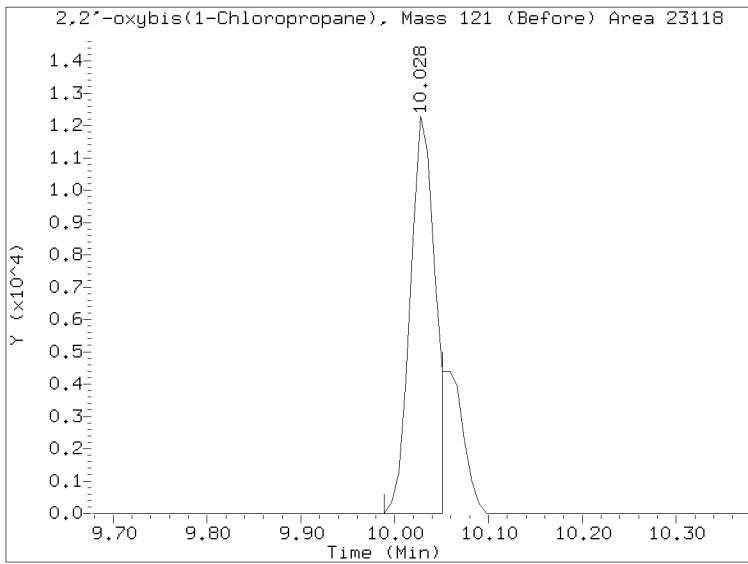
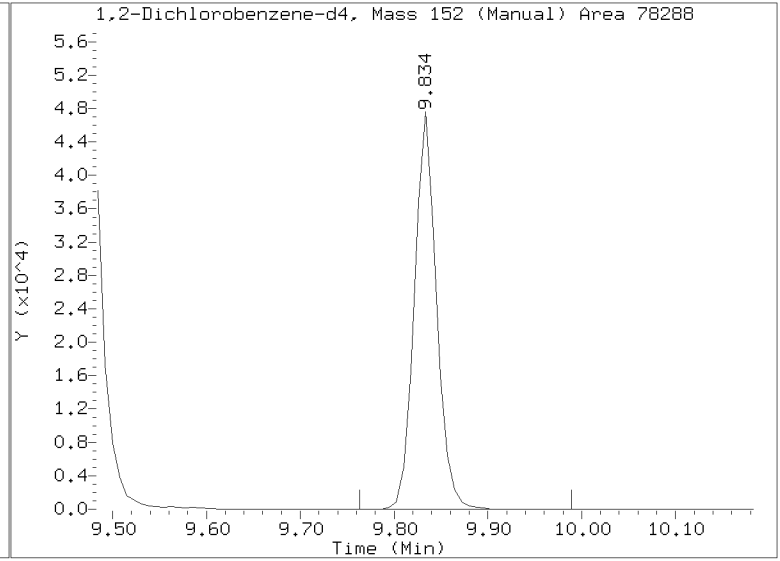
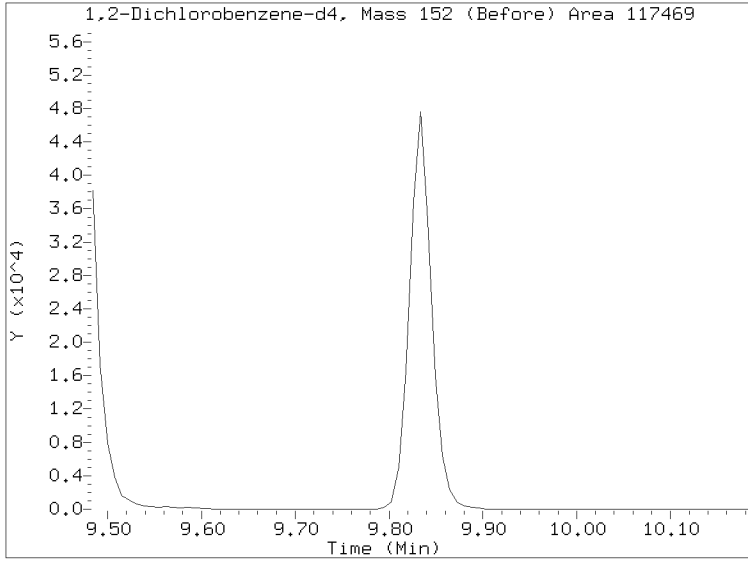
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt18.i/20230210.b/NT1802102305.D

Injection Date: 10-FEB-2023 19:05

Lab ID:SLB0195-CAL4 Client ID:

Report Date: 02/15/2023 08:43



Data File: \\target\share\chem3\nt18.1\20230210.1\NT1802102306.D

Date: 10-FEB-2023 19:45

Client ID:

Sample Info: SLB0195-CAL3

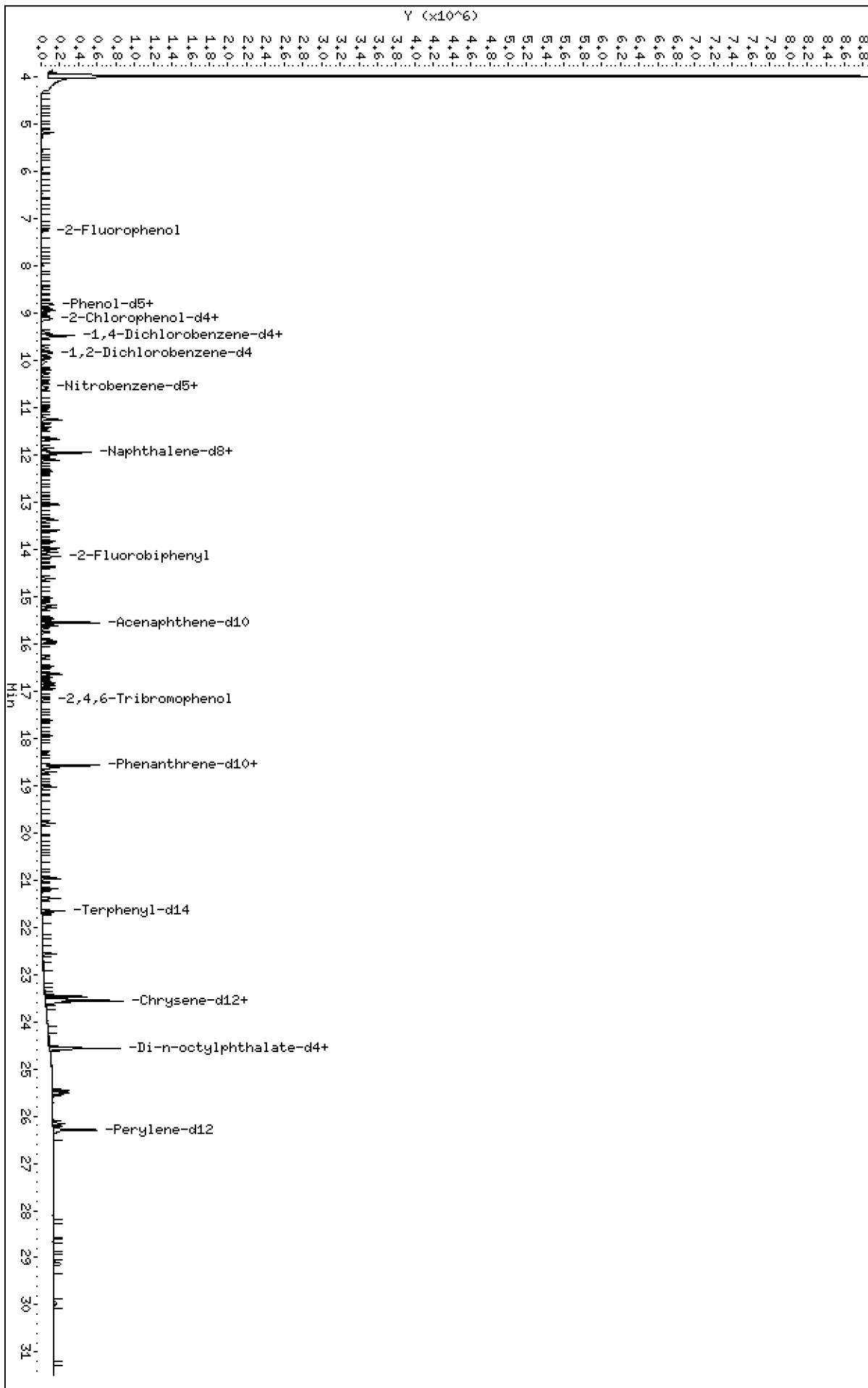
Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230210.b\NT1802102306.D
 Lab Smp Id: SLB0195-CAL3
 Inj Date : 10-FEB-2023 19:45
 Operator : VTS
 Smp Info : SLB0195-CAL3
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Meth Date : 15-Feb-2023 08:10 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i
 Quant Type: ISTD
 Cal File: NT1802102308.D
 Calibration Sample, Level: 3
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.251	7.258	(0.766)	53139	1.50000	1.389
\$ 2 Phenol-d5	99		8.804	8.811	(0.930)	75405	1.50000	1.578
3 Phenol	94		8.827	8.827	(0.932)	49065	1.00000	1.047
\$ 5 2-Chlorophenol-d4	132		9.105	9.113	(0.962)	65465	1.50000	1.575
4 Bis(2-Chloroethyl)ether	93		9.012	9.012	(0.952)	37780	1.00000	1.066
6 2-Chlorophenol	128		9.136	9.136	(0.965)	41367	1.00000	1.027
7 1,3-Dichlorobenzene	146		9.407	9.406	(0.993)	46264	1.00000	1.054
* 8 1,4-Dichlorobenzene-d4	152		9.469	9.469	(1.000)	108764	4.00000	
9 1,4-Dichlorobenzene	146		9.500	9.500	(1.003)	51421	1.00000	1.092
\$ 10 1,2-Dichlorobenzene-d4	152		9.833	9.833	(1.039)	31426	1.00000	1.051 (M)
12 1,2-Dichlorobenzene	146		9.500	9.500	(1.003)	51421	1.00000	1.092
11 Benzyl alcohol	108		9.732	9.740	(1.028)	21823	1.00000	0.8602
14 2,2'-oxybis(1-Chloropropane)	121		10.027	10.027	(1.059)	12425	1.00000	1.127 (M)
13 2-Methylphenol	108		9.942	9.950	(1.050)	36990	1.00000	1.090
17 Hexachloroethane	117		10.447	10.447	(1.103)	17613	1.00000	1.063
16 N-Nitroso-di-n-propylamine	70		10.284	10.291	(1.086)	27884	1.00000	1.087
15 4-Methylphenol	108		10.206	10.214	(1.078)	38077	1.00000	0.9605
\$ 18 Nitrobenzene-d5	82		10.563	10.563	(0.884)	43706	1.00000	1.042
19 Nitrobenzene	77		10.594	10.602	(0.886)	42798	1.00000	1.067
20 Isophorone	82		11.036	11.036	(0.923)	57199	1.00000	0.9033
21 2-Nitrophenol	139		11.224	11.232	(0.939)	17935	1.00000	0.8025
22 2,4-Dimethylphenol	107		11.249	11.257	(0.941)	74249	2.00000	2.091
23 Bis(2-Chloroethoxy)methane	93		11.453	11.461	(0.958)	39992	1.00000	1.054
24 Benzoic acid	105		11.376	11.461	(0.952)	20011	4.00000	0.9118 (M)
25 2,4-Dichlorophenol	162		11.665	11.673	(0.976)	71470	2.00000	2.043
26 1,2,4-Trichlorobenzene	180		11.859	11.858	(0.992)	40760	1.00000	1.045
* 27 Naphthalene-d8	136		11.951	11.951	(1.000)	426299	4.00000	
28 Naphthalene	128		11.990	11.990	(1.003)	128196	1.00000	1.046
29 4-Chloroaniline	127		12.106	12.113	(1.013)	109125	2.00000	2.075
30 Hexachlorobutadiene	225		12.345	12.345	(1.033)	22804	1.00000	1.017
31 4-Chloro-3-methylphenol	107		13.049	13.049	(1.092)	63114	2.00000	1.995
32 2-Methylnaphthalene	142		13.374	13.382	(1.119)	87843	1.00000	1.053
33 Hexachlorocyclopentadiene	237		13.839	13.839	(0.890)	39065	2.00000	1.619

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.986	13.994	(0.899)	42771	2.00000	1.897
35 2,4,5-Trichlorophenol	196	14.063	14.063	(0.904)	47461	2.00000	1.891
§ 36 2-Fluorobiphenyl	172	14.148	14.148	(0.910)	102342	1.00000	1.018
37 2-Chloronaphthalene	162	14.365	14.373	(0.924)	78619	1.00000	1.041
38 2-Nitroaniline	65	14.620	14.620	(0.940)	39599	2.00000	1.942
39 Dimethylphthalate	163	15.038	15.038	(0.967)	82598	1.00000	1.039
40 Acenaphthylene	152	15.240	15.240	(0.980)	120771	1.00000	1.048
41 2,6-Dinitrotoluene	165	15.186	15.178	(0.977)	35246	2.00000	1.917
* 42 Acenaphthene-d10	164	15.549	15.549	(1.000)	227355	4.00000	
43 3-Nitroaniline	138	15.464	15.464	(0.995)	39271	2.00000	1.946
44 Acenaphthene	153	15.611	15.611	(1.004)	79449	1.00000	1.034
45 2,4-Dinitrophenol	184	15.673	15.688	(1.008)	18045	4.00000	1.422
46 Dibenzofuran	168	15.943	15.943	(1.025)	114483	1.00000	1.040
47 4-Nitrophenol	109	15.758	15.766	(1.013)	16909	2.00000	1.509
48 2,4-Dinitrotoluene	165	15.982	15.990	(1.028)	49053	2.00000	1.965
50 Diethylphthalate	149	16.485	16.484	(1.060)	82282	1.00000	1.019
49 Fluorene	166	16.647	16.647	(1.071)	89156	1.00000	1.024
51 4-Chlorophenyl-phenylether	204	16.631	16.631	(1.070)	43813	1.00000	0.9981
52 4-Nitroaniline	138	16.724	16.724	(1.076)	37046	2.00000	1.743
53 4,6-Dinitro-2-methylphenol	198	16.824	16.824	(0.906)	36399	4.00000	2.352
54 N-Nitrosodiphenylamine	169	16.878	16.878	(0.909)	60671	1.00000	1.009
§ 55 2,4,6-Tribromophenol	330	17.179	17.179	(1.105)	17773	1.50000	1.223
56 4-Bromophenyl-phenylether	248	17.634	17.634	(0.949)	24696	1.00000	0.9842
57 Hexachlorobenzene	284	17.958	17.958	(0.967)	29498	1.00000	1.007
58 Pentachlorophenol	266	18.307	18.314	(0.985)	17864	2.00000	1.094
* 59 Phenanthrene-d10	188	18.578	18.577	(1.000)	406669	4.00000	
60 Phenanthrene	178	18.624	18.624	(1.002)	125119	1.00000	1.018
61 Anthracene	178	18.717	18.717	(1.007)	110221	1.00000	1.003
62 Carbazole	167	19.034	19.034	(1.025)	115741	1.00000	1.054
63 Di-n-butylphthalate	149	19.800	19.800	(1.066)	118328	1.00000	0.8291
64 Fluoranthene	202	20.968	20.968	(0.890)	130844	1.00000	1.071
65 Pyrene	202	21.394	21.394	(0.908)	139200	1.00000	1.072
§ 66 Terphenyl-d14	244	21.657	21.657	(0.919)	127225	1.00000	1.062
67 Butylbenzylphthalate	149	22.563	22.563	(0.958)	48606	1.00000	0.7982
68 Benzo(a)anthracene	228	23.523	23.523	(0.999)	139757	1.00000	1.092
* 69 Chrysene-d12	240	23.554	23.554	(1.000)	387171	4.00000	
70 3,3'-Dichlorobenzidine	252	23.469	23.469	(0.996)	142667	3.00000	2.338
71 Chrysene	228	23.600	23.600	(1.002)	144975	1.00000	1.075
72 bis(2-Ethylhexyl)phthalate	149	23.569	23.569	(0.959)	77090	1.00000	1.061
* 134 Di-n-octylphthalate-d4	153	24.568	24.568	(1.000)	477632	4.00000	
73 Di-n-octylphthalate	149	24.576	24.576	(1.000)	147285	1.00000	1.050
74 Benzo(b)fluoranthene	252	25.466	25.466	(0.968)	130414	1.00000	0.9885
75 Benzo(k)fluoranthene	252	25.513	25.513	(0.970)	148985	1.00000	1.032
76 Benzo(a)pyrene	252	26.163	26.163	(0.995)	107224	1.00000	0.9951
* 77 Perylene-d12	264	26.295	26.287	(1.000)	377958	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.126	29.126	(1.108)	69497	1.00000	0.6738
79 Dibenzo(a,h)anthracene	278	29.142	29.134	(1.108)	57114	1.00000	0.6740
80 Benzo(g,h,i)perylene	276	29.973	29.965	(1.140)	54454	1.00000	0.7003
90 N-Nitrosodimethylamine	74	5.165	5.180	(0.545)	42557	2.00000	2.067
91 Aniline	93	8.927	8.935	(0.943)	102833	2.00000	2.020
93 Benzidine	184	21.185	21.193	(0.899)	101296	2.00000	1.666
103 Pyridine	79	5.173	5.196	(0.546)	59618	2.00000	1.970
105 1-methylnaphthalene	142	13.599	13.599	(1.138)	85567	1.00000	1.052
111 Azobenzene (1,2-DP-Hydrazine)	77	16.955	16.955	(1.090)	90263	1.00000	1.060

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
187 Total Benzofluoranthenes	252		25.513	25.466	(0.970)	268951	2.00000	2.035
120 2,3,4,6-Tetrachlorophenol	232		16.268	16.276	(1.046)	20360	1.00000	0.8277

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 10-FEB-2023
 Lab File ID: NT1802102306.D Calibration Time: 18:25
 Lab Smp Id: SLB0195-CAL3
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	102093	51047	204186	108764	6.53
27 Naphthalene-d8	389769	194885	779538	426299	9.37
42 Acenaphthene-d10	207438	103719	414876	227355	9.60
59 Phenanthrene-d10	358643	179322	717286	406669	13.39
69 Chrysene-d12	349501	174751	699002	387171	10.78
134 Di-n-octylphthala	468622	234311	937244	477632	1.92
77 Perylene-d12	343443	171722	686886	377958	10.05

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.48	8.98	9.98	9.47	-0.08
27 Naphthalene-d8	11.95	11.45	12.45	11.95	0.00
42 Acenaphthene-d10	15.55	15.05	16.05	15.55	0.00
59 Phenanthrene-d10	18.58	18.08	19.08	18.58	0.00
69 Chrysene-d12	23.55	23.05	24.05	23.55	0.00
134 Di-n-octylphthala	24.57	24.07	25.07	24.57	0.00
77 Perylene-d12	26.30	25.80	26.80	26.30	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802102306.D

Lab ID: SLB0195-CAL3
nt18.i, ABN.m, 10-FEB-2023 19:45

RT	CO-ELUTION COMPOUNDS
9.500	1,2-Dichlorobenzene and 1,4-Dichlorobenzene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.952	0.000	0.9519	Benzoic acid
1.008	0.000	1.0079	2,4-Dinitrophenol

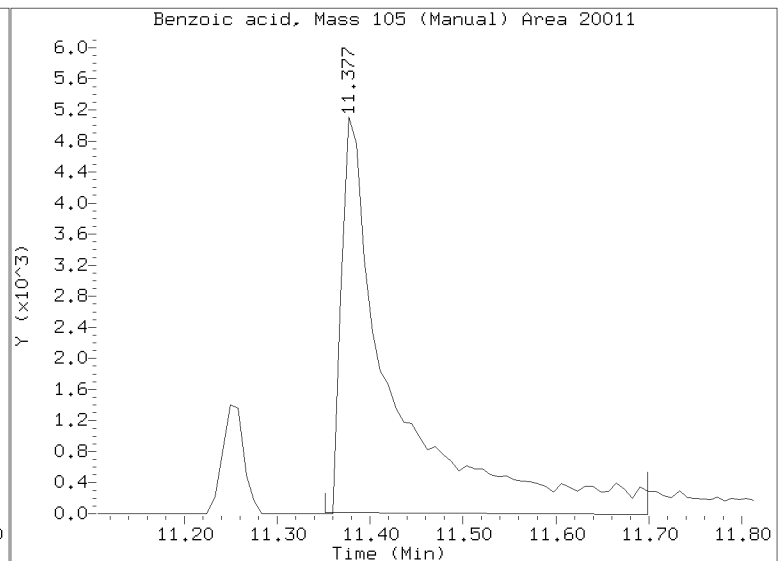
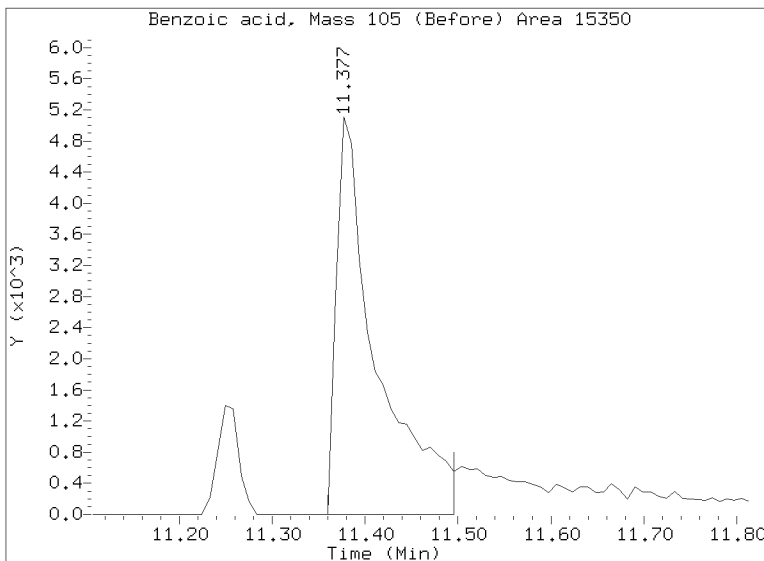
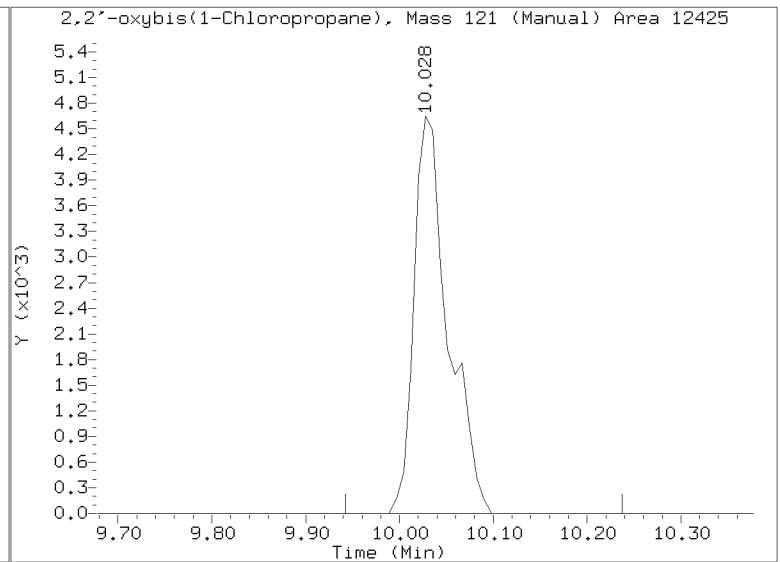
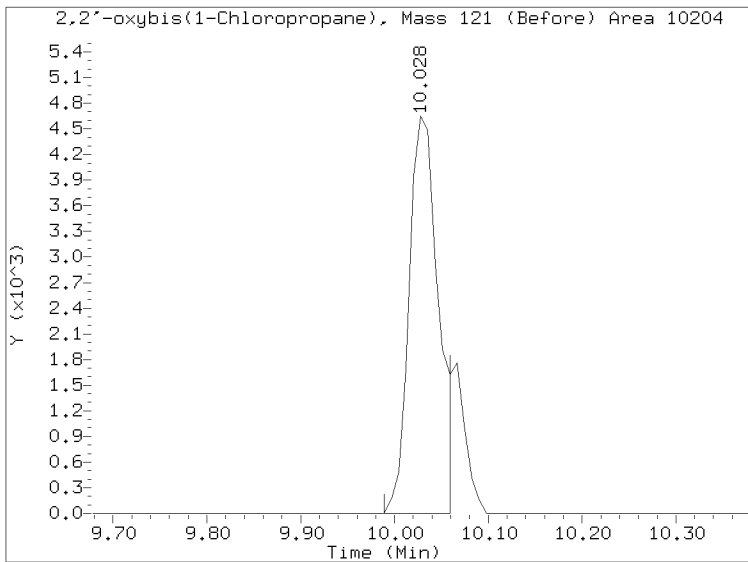
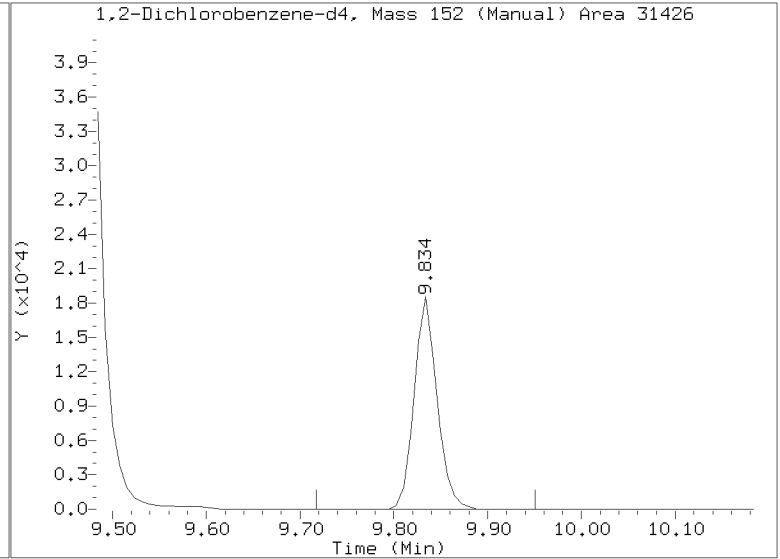
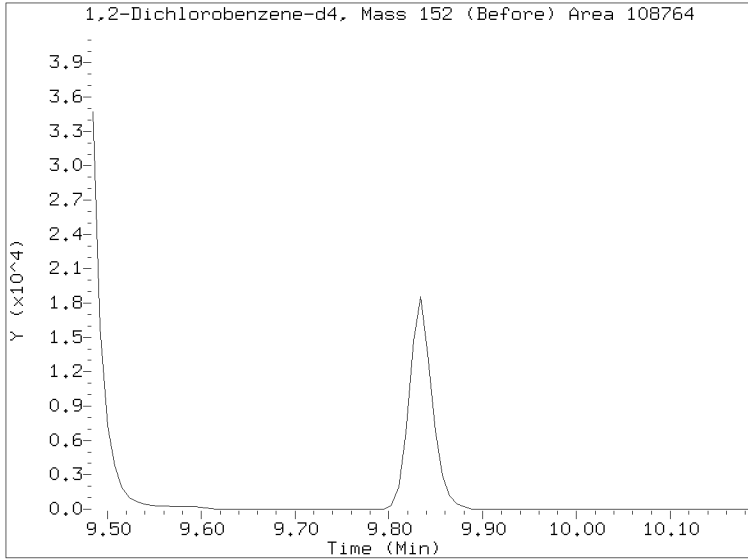
RRT check based on Ccal File: NT1802102308.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt18.i/20230210.b/NT1802102306.D
Injection Date: 10-FEB-2023 19:45
Lab ID:SLB0195-CAL3 Client ID:
Report Date: 02/15/2023 08:43



Data File: \\target\share\chem3\nt18.1\20230210.1\NT1802102307.D

Date: 10-FEB-2023 20:25

Client ID:

Sample Info: SLB0195-CAL2

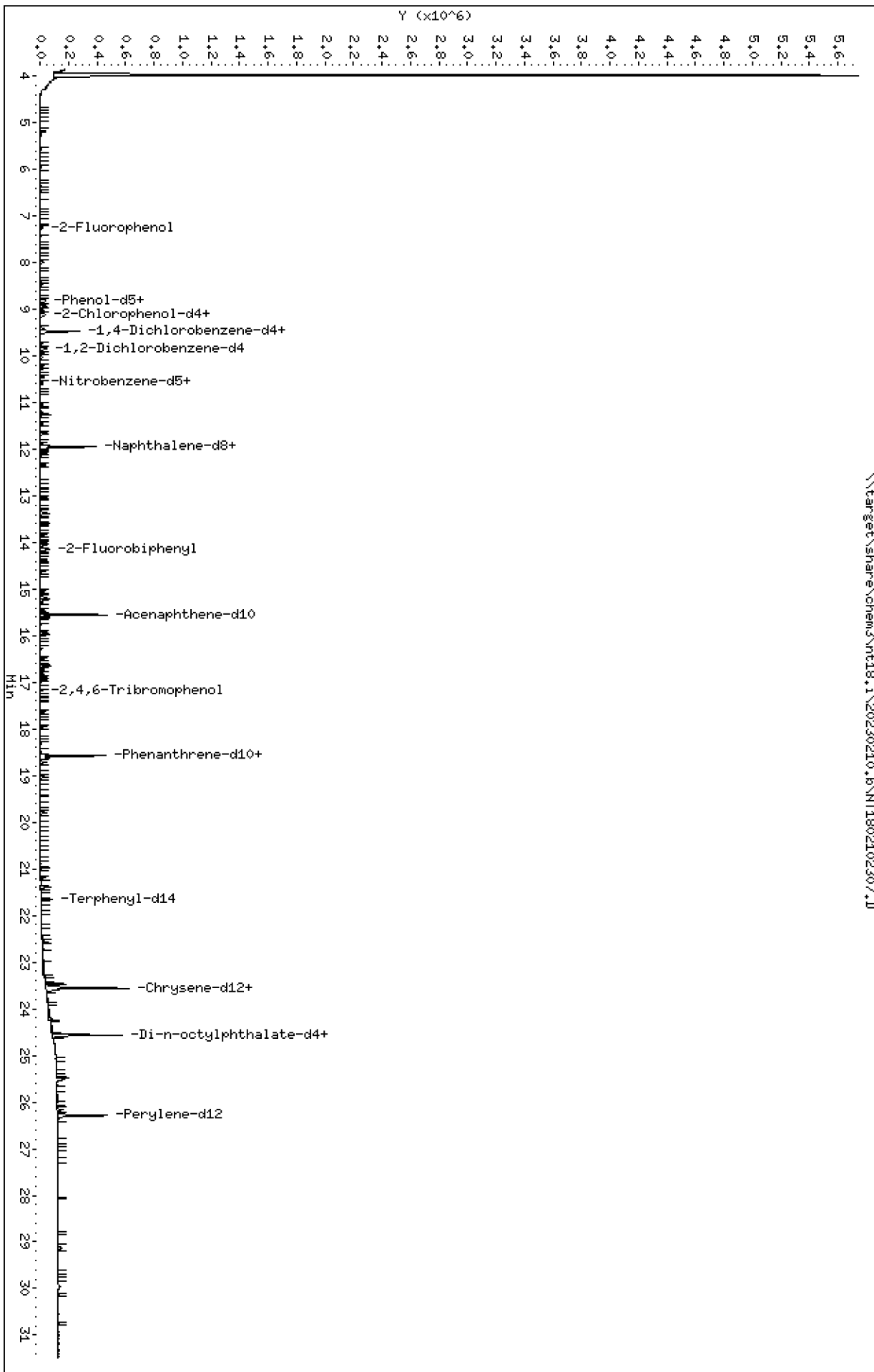
Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230210.b\NT1802102307.D
 Lab Smp Id: SLB0195-CAL2
 Inj Date : 10-FEB-2023 20:25
 Operator : VTS
 Smp Info : SLB0195-CAL2
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Meth Date : 15-Feb-2023 08:10 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i
 Quant Type: ISTD
 Cal File: NT1802102308.D
 Calibration Sample, Level: 2
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
1 2-Fluorophenol	112		7.251	7.258	(0.766)	16562	0.75000	0.5627
2 Phenol-d5	99		8.804	8.811	(0.930)	25883	0.75000	0.7059
3 Phenol	94		8.827	8.827	(0.932)	17570	0.50000	0.4890
5 2-Chlorophenol-d4	132		9.105	9.113	(0.962)	22880	0.75000	0.7178
4 Bis(2-Chloroethyl)ether	93		9.012	9.012	(0.952)	13865	0.50000	0.5099
6 2-Chlorophenol	128		9.136	9.136	(0.965)	15226	0.50000	0.4929
7 1,3-Dichlorobenzene	146		9.414	9.406	(0.994)	17270	0.50000	0.5130
* 8 1,4-Dichlorobenzene-d4	152		9.469	9.469	(1.000)	83431	4.00000	
9 1,4-Dichlorobenzene	146		9.500	9.500	(1.003)	16985	0.50000	0.4703
\$ 10 1,2-Dichlorobenzene-d4	152		9.833	9.833	(1.039)	11754	0.50000	0.5123 (M)
12 1,2-Dichlorobenzene	146		9.500	9.500	(1.003)	16985	0.50000	0.4703
11 Benzyl alcohol	108		9.732	9.740	(1.028)	6814	0.50000	0.3499
14 2,2'-oxybis(1-Chloropropane)	121		10.027	10.027	(1.059)	4155	0.50000	0.4913 (M)
13 2-Methylphenol	108		9.942	9.950	(1.050)	12588	0.50000	0.4834
17 Hexachloroethane	117		10.447	10.447	(1.103)	6244	0.50000	0.4914
16 N-Nitroso-di-n-propylamine	70		10.284	10.291	(1.086)	8777	0.50000	0.4460
15 4-Methylphenol	108		10.206	10.214	(1.078)	12999	0.50000	0.4269
\$ 18 Nitrobenzene-d5	82		10.563	10.563	(0.884)	14461	0.50000	0.4537
19 Nitrobenzene	77		10.594	10.602	(0.886)	14450	0.50000	0.4740
20 Isophorone	82		11.036	11.036	(0.923)	15629	0.50000	0.3240
21 2-Nitrophenol	139		11.224	11.232	(0.939)	4967	0.50000	0.2922
22 2,4-Dimethylphenol	107		11.249	11.257	(0.941)	26135	1.00000	0.9689
23 Bis(2-Chloroethoxy)methane	93		11.453	11.461	(0.958)	13944	0.50000	0.4839
24 Benzoic acid	105		11.461	11.461	(0.959)	77	2.00000	0.004623
25 2,4-Dichlorophenol	162		11.665	11.673	(0.976)	23995	1.00000	0.9030
26 1,2,4-Trichlorobenzene	180		11.858	11.858	(0.992)	15400	0.50000	0.5196
* 27 Naphthalene-d8	136		11.951	11.951	(1.000)	323877	4.00000	
28 Naphthalene	128		11.990	11.990	(1.003)	47075	0.50000	0.5056
29 4-Chloroaniline	127		12.106	12.113	(1.013)	37377	1.00000	0.9353
30 Hexachlorobutadiene	225		12.345	12.345	(1.033)	8692	0.50000	0.5101
31 4-Chloro-3-methylphenol	107		13.049	13.049	(1.092)	20101	1.00000	0.8363
32 2-Methylnaphthalene	142		13.374	13.382	(1.119)	31626	0.50000	0.4991
33 Hexachlorocyclopentadiene	237		13.839	13.839	(0.890)	11148	1.00000	0.6103

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.994	13.994	(0.900)	13658	1.00000	0.7996
35 2,4,5-Trichlorophenol	196	14.063	14.063	(0.904)	15234	1.00000	0.8008
§ 36 2-Fluorobiphenyl	172	14.148	14.148	(0.910)	38287	0.50000	0.5027
37 2-Chloronaphthalene	162	14.365	14.373	(0.924)	28087	0.50000	0.4907
38 2-Nitroaniline	65	14.620	14.620	(0.940)	11262	1.00000	0.7289
39 Dimethylphthalate	163	15.038	15.038	(0.967)	28595	0.50000	0.4746
40 Acenaphthylene	152	15.240	15.240	(0.980)	41035	0.50000	0.4699
41 2,6-Dinitrotoluene	165	15.178	15.178	(0.976)	10618	1.00000	0.7622
* 42 Acenaphthene-d10	164	15.549	15.549	(1.000)	172288	4.00000	
43 3-Nitroaniline	138	15.464	15.464	(0.995)	11061	1.00000	0.7235
44 Acenaphthene	153	15.611	15.611	(1.004)	29527	0.50000	0.5071
45 2,4-Dinitrophenol	184	15.688	15.688	(1.009)	1832	2.00000	0.1909 (M)
46 Dibenzofuran	168	15.936	15.943	(1.025)	42178	0.50000	0.5056
47 4-Nitrophenol	109	15.766	15.766	(1.014)	3615	1.00000	0.4251 (M)
48 2,4-Dinitrotoluene	165	15.982	15.990	(1.028)	14714	1.00000	0.7778
50 Diethylphthalate	149	16.485	16.484	(1.060)	28025	0.50000	0.4582
49 Fluorene	166	16.647	16.647	(1.071)	32189	0.50000	0.4878
51 4-Chlorophenyl-phenylether	204	16.631	16.631	(1.070)	15881	0.50000	0.4774
52 4-Nitroaniline	138	16.724	16.724	(1.076)	10090	1.00000	0.6260
53 4,6-Dinitro-2-methylphenol	198	16.824	16.824	(0.906)	6373	2.00000	0.5433
54 N-Nitrosodiphenylamine	169	16.878	16.878	(0.909)	22298	0.50000	0.4880
§ 55 2,4,6-Tribromophenol	330	17.179	17.179	(1.105)	5134	0.75000	0.4675
56 4-Bromophenyl-phenylether	248	17.634	17.634	(0.949)	8808	0.50000	0.4621
57 Hexachlorobenzene	284	17.958	17.958	(0.967)	10858	0.50000	0.4882
58 Pentachlorophenol	266	18.314	18.314	(0.986)	3216	1.00000	0.2602
* 59 Phenanthrene-d10	188	18.577	18.577	(1.000)	308906	4.00000	
60 Phenanthrene	178	18.624	18.624	(1.002)	46475	0.50000	0.4980
61 Anthracene	178	18.717	18.717	(1.007)	36397	0.50000	0.4360
62 Carbazole	167	19.034	19.034	(1.025)	38877	0.50000	0.4659
63 Di-n-butylphthalate	149	19.800	19.800	(1.066)	35463	0.50000	0.3269
64 Fluoranthene	202	20.968	20.968	(0.890)	45528	0.50000	0.5016
65 Pyrene	202	21.394	21.394	(0.908)	48225	0.50000	0.4998
§ 66 Terphenyl-d14	244	21.657	21.657	(0.919)	45513	0.50000	0.5115
67 Butylbenzylphthalate	149	22.563	22.563	(0.958)	13731	0.50000	0.3014
68 Benzo(a)anthracene	228	23.523	23.523	(0.999)	47897	0.50000	0.5038
* 69 Chrysene-d12	240	23.554	23.554	(1.000)	287673	4.00000	
70 3,3'-Dichlorobenzidine	252	23.469	23.469	(0.996)	42934	1.50000	0.9341
71 Chrysene	228	23.600	23.600	(1.002)	53024	0.50000	0.5292
72 bis(2-Ethylhexyl)phthalate	149	23.569	23.569	(0.959)	21969	0.50000	0.4410
* 134 Di-n-octylphthalate-d4	153	24.568	24.568	(1.000)	327402	4.00000	
73 Di-n-octylphthalate	149	24.576	24.576	(1.000)	50193	0.50000	0.5218
74 Benzo(b)fluoranthene	252	25.466	25.466	(0.969)	45808	0.50000	0.4936
75 Benzo(k)fluoranthene	252	25.513	25.513	(0.971)	50604	0.50000	0.4985
76 Benzo(a)pyrene	252	26.163	26.163	(0.995)	35408	0.50000	0.4672
* 77 Perylene-d12	264	26.287	26.287	(1.000)	265848	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	29.126	29.126	(1.108)	20805	0.50000	0.2875
79 Dibenzo(a,h)anthracene	278	29.142	29.134	(1.109)	16709	0.50000	0.2811
80 Benzo(g,h,i)perylene	276	29.957	29.965	(1.140)	17563	0.50000	0.3217
90 N-Nitrosodimethylamine	74	5.173	5.180	(0.546)	13255	1.00000	0.8394
91 Aniline	93	8.927	8.935	(0.943)	36848	1.00000	0.9436
93 Benzidine	184	21.193	21.193	(0.900)	26301	1.00000	0.5431
103 Pyridine	79	5.180	5.196	(0.547)	21129	1.00000	0.9102
105 1-methylnaphthalene	142	13.599	13.599	(1.138)	30746	0.50000	0.4975
111 Azobenzene (1,2-DP-Hydrazine)	77	16.955	16.955	(1.090)	30646	0.50000	0.4751

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252		25.466	25.466	(0.969)	92355	1.00000	0.9934
120 2,3,4,6-Tetrachlorophenol	232		16.268	16.276	(1.046)	5473	0.50000	0.2946

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 10-FEB-2023
 Lab File ID: NT1802102307.D Calibration Time: 18:25
 Lab Smp Id: SLB0195-CAL2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	102093	51047	204186	83431	-18.28
27 Naphthalene-d8	389769	194885	779538	323877	-16.91
42 Acenaphthene-d10	207438	103719	414876	172288	-16.94
59 Phenanthrene-d10	358643	179322	717286	308906	-13.87
69 Chrysene-d12	349501	174751	699002	287673	-17.69
134 Di-n-octylphthala	468622	234311	937244	327402	-30.14
77 Perylene-d12	343443	171722	686886	265848	-22.59

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.48	8.98	9.98	9.47	-0.08
27 Naphthalene-d8	11.95	11.45	12.45	11.95	0.00
42 Acenaphthene-d10	15.55	15.05	16.05	15.55	0.00
59 Phenanthrene-d10	18.58	18.08	19.08	18.58	0.00
69 Chrysene-d12	23.55	23.05	24.05	23.55	0.00
134 Di-n-octylphthala	24.57	24.07	25.07	24.57	0.00
77 Perylene-d12	26.30	25.80	26.80	26.29	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802102307.D

Lab ID: SLB0195-CAL2
nt18.i, ABN.m, 10-FEB-2023 20:25

RT	CO-ELUTION COMPOUNDS
9.500	1,2-Dichlorobenzene and 1,4-Dichlorobenzene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.959	0.000	0.9590	Benzoic acid
1.009	0.000	1.0089	2,4-Dinitrophenol

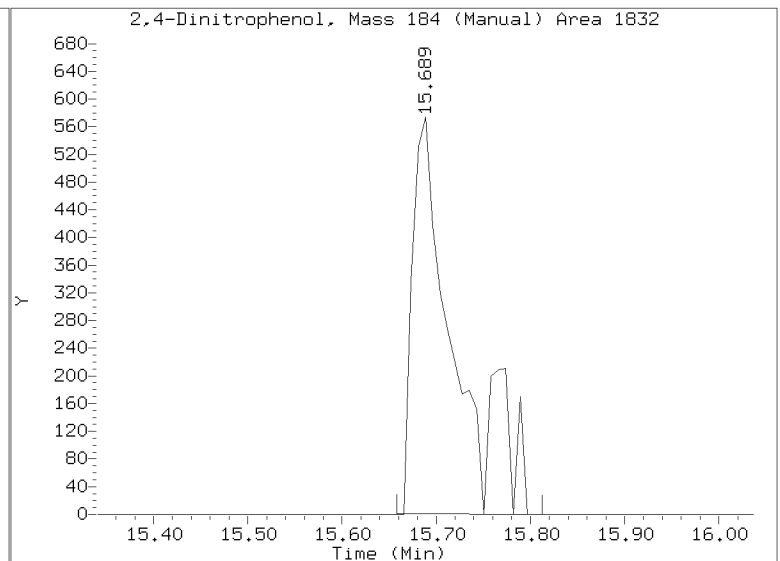
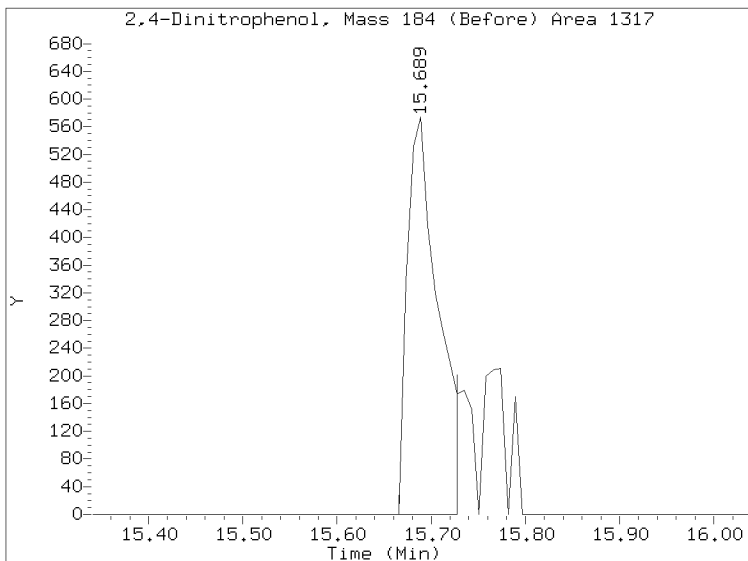
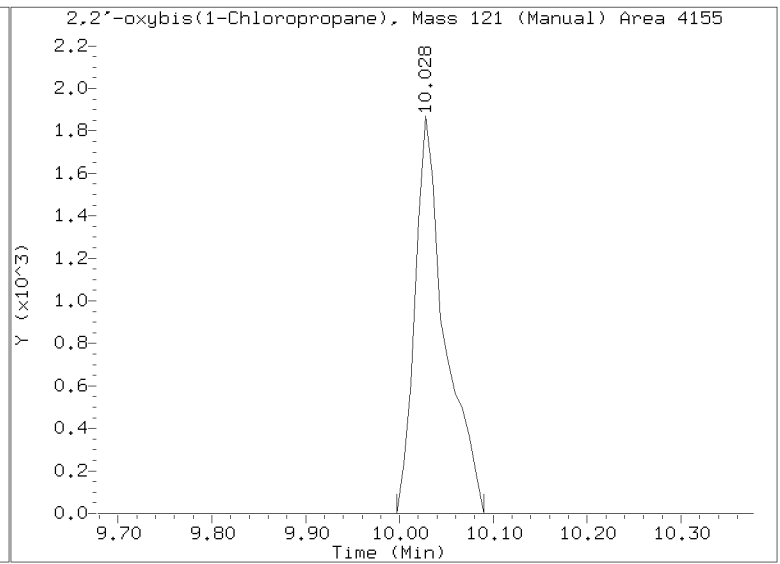
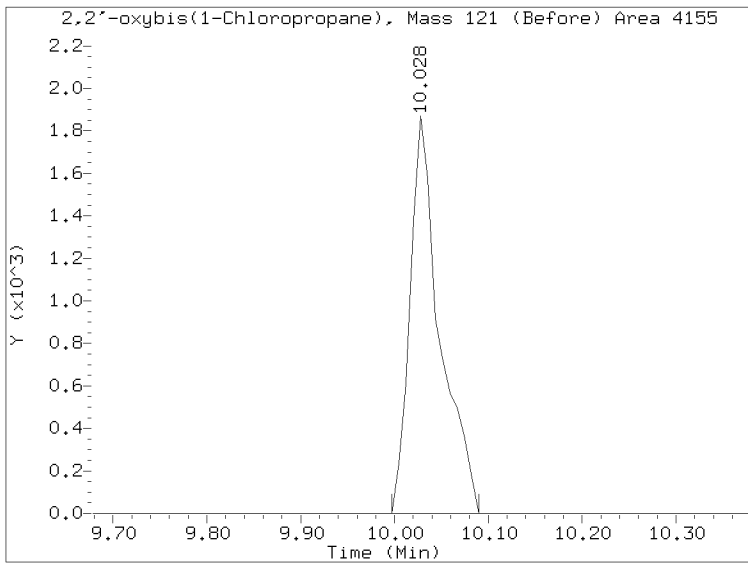
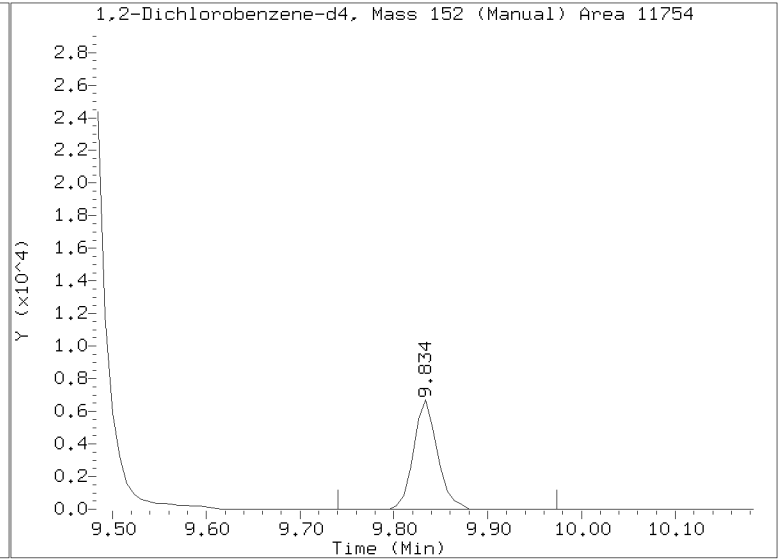
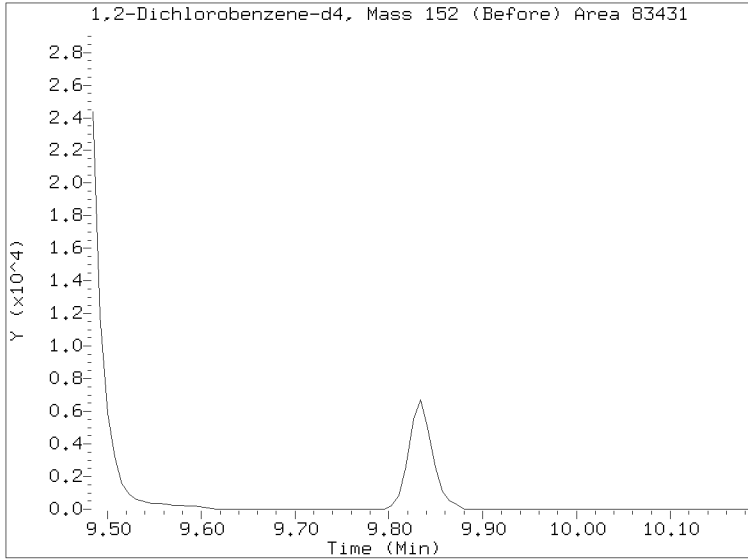
RRT check based on Ccal File: NT1802102308.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt18.i/20230210.b/NT1802102307.D
Injection Date: 10-FEB-2023 20:25
Lab ID:SLB0195-CAL2 Client ID:
Report Date: 02/15/2023 08:43



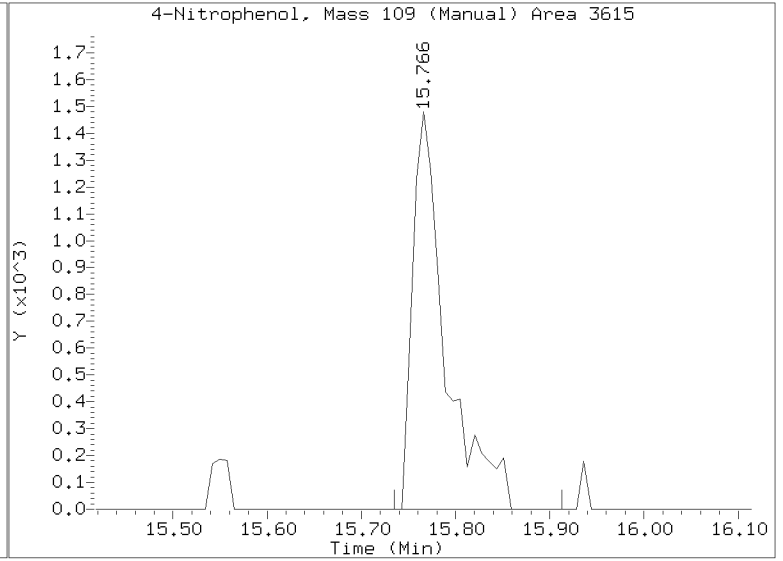
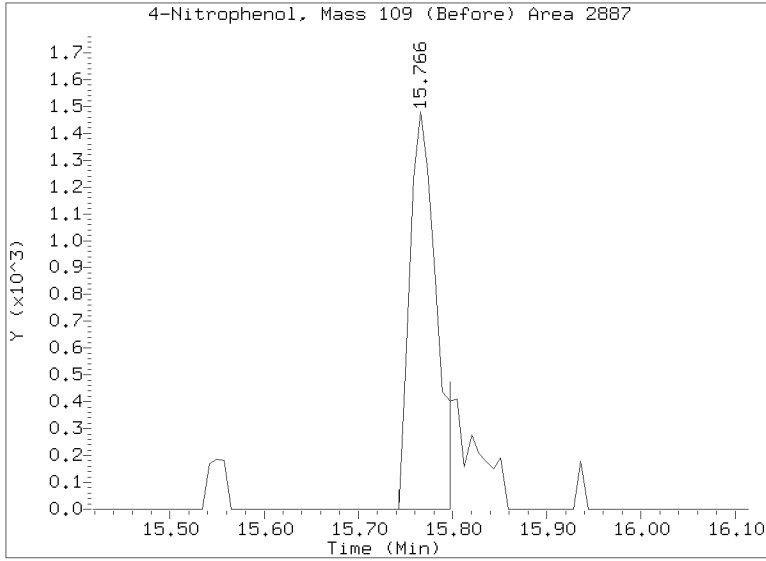
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt18.i/20230210.b/NT1802102307.D

Injection Date: 10-FEB-2023 20:25

Lab ID:SLB0195-CAL2 Client ID:

Report Date: 02/15/2023 08:43



Data File: \\target\share\chem3\nt18.1\20230210.1\NT1802102308.D

Date : 10-FEB-2023 21:05

Client ID:

Sample Info: SLB0195-CAL1

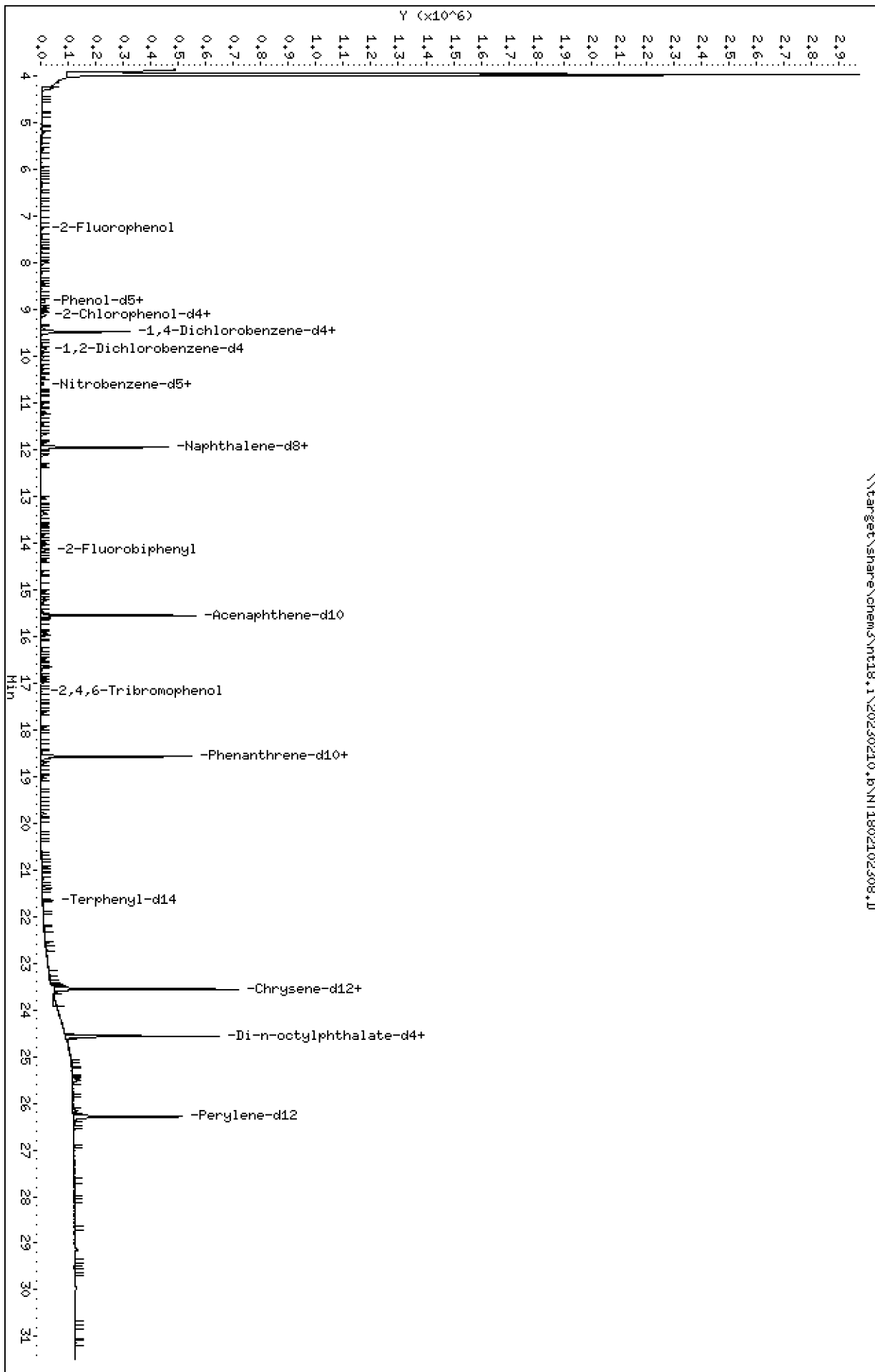
Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt18.1\20230210.1\NT1802102308.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230210.b\NT1802102308.D
 Lab Smp Id: SLB0195-CAL1
 Inj Date : 10-FEB-2023 21:05
 Operator : VTS
 Smp Info : SLB0195-CAL1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Meth Date : 15-Feb-2023 08:10 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i
 Quant Type: ISTD
 Cal File: NT1802102308.D
 Calibration Sample, Level: 1
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.258	7.258	(0.767)	6818	0.30000	0.1813
\$ 2 Phenol-d5	99		8.811	8.811	(0.931)	11895	0.30000	0.2542
3 Phenol	94		8.827	8.827	(0.932)	7706	0.20000	0.1680
\$ 5 2-Chlorophenol-d4	132		9.113	9.113	(0.962)	10335	0.30000	0.2540
4 Bis(2-Chloroethyl)ether	93		9.012	9.012	(0.952)	6452	0.20000	0.1859
6 2-Chlorophenol	128		9.136	9.136	(0.965)	6650	0.20000	0.1687
7 1,3-Dichlorobenzene	146		9.406	9.406	(0.993)	8520	0.20000	0.1983
* 8 1,4-Dichlorobenzene-d4	152		9.469	9.469	(1.000)	106486	4.00000	
9 1,4-Dichlorobenzene	146		9.500	9.500	(1.003)	8920	0.20000	0.1935
\$ 10 1,2-Dichlorobenzene-d4	152		9.833	9.833	(1.039)	5926	0.20000	0.2024 (M)
12 1,2-Dichlorobenzene	146		9.500	9.500	(1.003)	8920	0.20000	0.1935
11 Benzyl alcohol	108		9.740	9.740	(1.029)	2798	0.20000	0.1125
14 2,2'-oxybis(1-Chloropropane)	121		10.027	10.027	(1.059)	1972	0.20000	0.1827 (M)
13 2-Methylphenol	108		9.950	9.950	(1.051)	4684	0.20000	0.1409
17 Hexachloroethane	117		10.447	10.447	(1.103)	2977	0.20000	0.1836
16 N-Nitroso-di-n-propylamine	70		10.291	10.291	(1.087)	3717	0.20000	0.1480
15 4-Methylphenol	108		10.214	10.214	(1.079)	4377	0.20000	0.1125
\$ 18 Nitrobenzene-d5	82		10.563	10.563	(0.884)	5801	0.20000	0.1533
19 Nitrobenzene	77		10.602	10.602	(0.887)	6135	0.20000	0.1695
20 Isophorone	82		11.036	11.036	(0.923)	6531	0.20000	0.1139
21 2-Nitrophenol	139		11.232	11.232	(0.940)	1526	0.20000	0.07560
22 2,4-Dimethylphenol	107		11.257	11.257	(0.942)	4187	0.40000	0.1308
23 Bis(2-Chloroethoxy)methane	93		11.461	11.461	(0.959)	6379	0.20000	0.1865
24 Benzoic acid	105		Compound Not Detected.					
25 2,4-Dichlorophenol	162		11.673	11.673	(0.977)	9750	0.40000	0.3091
26 1,2,4-Trichlorobenzene	180		11.858	11.858	(0.992)	7419	0.20000	0.2109
* 27 Naphthalene-d8	136		11.951	11.951	(1.000)	384455	4.00000	
28 Naphthalene	128		11.990	11.990	(1.003)	23425	0.20000	0.2120
29 4-Chloroaniline	127		12.113	12.113	(1.014)	16673	0.40000	0.3515
30 Hexachlorobutadiene	225		12.345	12.345	(1.033)	4167	0.20000	0.2060
31 4-Chloro-3-methylphenol	107		13.049	13.049	(1.092)	8214	0.40000	0.2879
32 2-Methylnaphthalene	142		13.382	13.382	(1.120)	15087	0.20000	0.2006
33 Hexachlorocyclopentadiene	237		13.839	13.839	(0.890)	4392	0.40000	0.2050

Compounds	QUANT SIG					AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	
34 2,4,6-Trichlorophenol	196	13.994	13.994	(0.900)	5357	0.40000	0.2672	
35 2,4,5-Trichlorophenol	196	14.063	14.063	(0.904)	6225	0.40000	0.2789 (M)	
§ 36 2-Fluorobiphenyl	172	14.148	14.148	(0.910)	18675	0.20000	0.2089	
37 2-Chloronaphthalene	162	14.373	14.373	(0.924)	13564	0.20000	0.2019	
38 2-Nitroaniline	65	14.620	14.620	(0.940)	3869	0.40000	0.2134	
39 Dimethylphthalate	163	15.038	15.038	(0.967)	13014	0.20000	0.1841	
40 Acenaphthylene	152	15.240	15.240	(0.980)	17806	0.20000	0.1738	
41 2,6-Dinitrotoluene	165	15.178	15.178	(0.976)	3684	0.40000	0.2254	
* 42 Acenaphthene-d10	164	15.549	15.549	(1.000)	202176	4.00000		
43 3-Nitroaniline	138	15.464	15.464	(0.995)	3681	0.40000	0.2052 (M)	
44 Acenaphthene	153	15.611	15.611	(1.004)	14743	0.20000	0.2158	
45 2,4-Dinitrophenol	184	Compound Not Detected.						
46 Dibenzofuran	168	15.943	15.943	(1.025)	20788	0.20000	0.2123	
47 4-Nitrophenol	109	15.766	15.766	(1.014)	597	0.40000	0.05980 (M)	
48 2,4-Dinitrotoluene	165	15.990	15.990	(1.028)	4743	0.40000	0.2137	
50 Diethylphthalate	149	16.484	16.484	(1.060)	12792	0.20000	0.1782	
49 Fluorene	166	16.647	16.647	(1.071)	15036	0.20000	0.1942	
51 4-Chlorophenyl-phenylether	204	16.631	16.631	(1.070)	7520	0.20000	0.1926	
52 4-Nitroaniline	138	16.724	16.724	(1.076)	3478	0.40000	0.1838	
53 4,6-Dinitro-2-methylphenol	198	16.824	16.824	(0.906)	1253	0.80000	0.09060	
54 N-Nitrosodiphenylamine	169	16.878	16.878	(0.909)	9722	0.20000	0.1804	
§ 55 2,4,6-Tribromophenol	330	17.179	17.179	(1.105)	1788	0.30000	0.1389	
56 4-Bromophenyl-phenylether	248	17.634	17.634	(0.949)	3986	0.20000	0.1773	
57 Hexachlorobenzene	284	17.958	17.958	(0.967)	5192	0.20000	0.1979	
58 Pentachlorophenol	266	18.314	18.314	(0.986)	455	0.40000	0.03124 (M)	
* 59 Phenanthrene-d10	188	18.577	18.577	(1.000)	364369	4.00000		
60 Phenanthrene	178	18.624	18.624	(1.002)	22918	0.20000	0.2082	
61 Anthracene	178	18.717	18.717	(1.007)	15312	0.20000	0.1555	
62 Carbazole	167	19.034	19.034	(1.025)	17015	0.20000	0.1729	
63 Di-n-butylphthalate	149	19.800	19.800	(1.066)	13829	0.20000	0.1081	
64 Fluoranthene	202	20.968	20.968	(0.890)	20762	0.20000	0.1915	
65 Pyrene	202	21.394	21.394	(0.908)	22375	0.20000	0.1941	
§ 66 Terphenyl-d14	244	21.657	21.657	(0.919)	22257	0.20000	0.2094	
67 Butylbenzylphthalate	149	22.563	22.563	(0.958)	5086	0.20000	0.09317	
68 Benzo(a)anthracene	228	23.523	23.523	(0.999)	23045	0.20000	0.2029	
* 69 Chrysene-d12	240	23.554	23.554	(1.000)	343641	4.00000		
70 3,3'-Dichlorobenzidine	252	23.469	23.469	(0.996)	18132	0.60000	0.3282	
71 Chrysene	228	23.600	23.600	(1.002)	26882	0.20000	0.2246	
72 bis(2-Ethylhexyl)phthalate	149	23.569	23.569	(0.959)	8418	0.20000	0.1429	
* 134 Di-n-octylphthalate-d4	153	24.568	24.568	(1.000)	387244	4.00000		
73 Di-n-octylphthalate	149	24.576	24.576	(1.000)	26525	0.20000	0.2331	
74 Benzo(b)fluoranthene	252	25.466	25.466	(0.969)	21798	0.20000	0.1966	
75 Benzo(k)fluoranthene	252	25.513	25.513	(0.971)	26681	0.20000	0.2200 (M)	
76 Benzo(a)pyrene	252	26.163	26.163	(0.995)	14555	0.20000	0.1608	
* 77 Perylene-d12	264	26.287	26.287	(1.000)	317576	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	29.126	29.126	(1.108)	8450	0.20000	0.09786	
79 Dibenzo(a,h)anthracene	278	29.134	29.134	(1.108)	6989	0.20000	0.09857	
80 Benzo(g,h,i)perylene	276	29.965	29.965	(1.140)	7909	0.20000	0.1214	
90 N-Nitrosodimethylamine	74	5.180	5.180	(0.547)	6293	0.40000	0.3123 (M)	
91 Aniline	93	8.935	8.935	(0.944)	16322	0.40000	0.3275	
93 Benzidine	184	21.193	21.193	(0.900)	7750	0.40000	0.1300	
103 Pyridine	79	5.196	5.196	(0.549)	7898	0.40000	0.2666	
105 1-methylnaphthalene	142	13.599	13.599	(1.138)	15426	0.20000	0.2103	
111 Azobenzene (1,2-DP-Hydrazine)	77	16.955	16.955	(1.090)	12803	0.20000	0.1691	

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252		25.466	25.466	(0.969)	45562	0.40000	0.4102
120 2,3,4,6-Tetrachlorophenol	232		16.276	16.276	(1.047)	1908	0.20000	0.08761

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 10-FEB-2023
 Lab File ID: NT1802102308.D Calibration Time: 18:25
 Lab Smp Id: SLB0195-CAL1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	102093	51047	204186	106486	4.30
27 Naphthalene-d8	389769	194885	779538	384455	-1.36
42 Acenaphthene-d10	207438	103719	414876	202176	-2.54
59 Phenanthrene-d10	358643	179322	717286	364369	1.60
69 Chrysene-d12	349501	174751	699002	343641	-1.68
134 Di-n-octylphthala	468622	234311	937244	387244	-17.37
77 Perylene-d12	343443	171722	686886	317576	-7.53

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.48	8.98	9.98	9.47	-0.08
27 Naphthalene-d8	11.95	11.45	12.45	11.95	0.00
42 Acenaphthene-d10	15.55	15.05	16.05	15.55	0.00
59 Phenanthrene-d10	18.58	18.08	19.08	18.58	0.00
69 Chrysene-d12	23.55	23.05	24.05	23.55	0.00
134 Di-n-octylphthala	24.57	24.07	25.07	24.57	0.00
77 Perylene-d12	26.30	25.80	26.80	26.29	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802102308.D

Lab ID: SLB0195-CAL1
nt18.i, ABN.m, 10-FEB-2023 21:05

RT	CO-ELUTION COMPOUNDS
9.500	1,2-Dichlorobenzene and 1,4-Dichlorobenzene

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

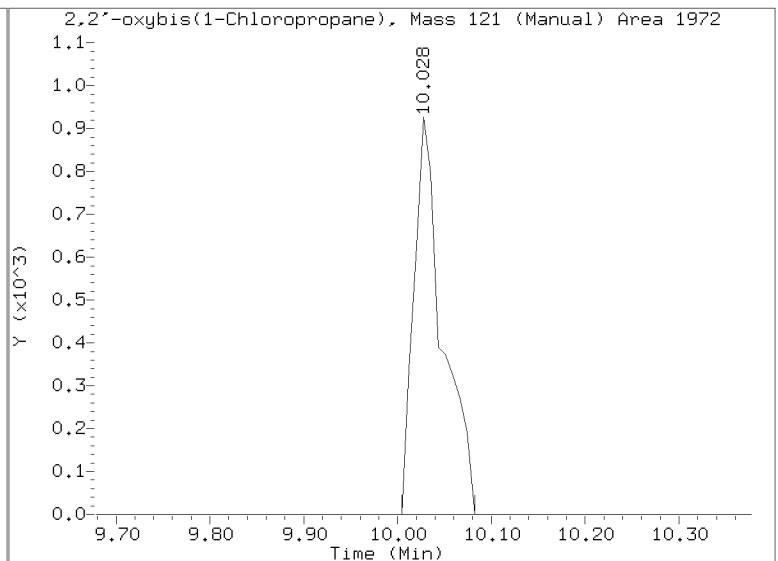
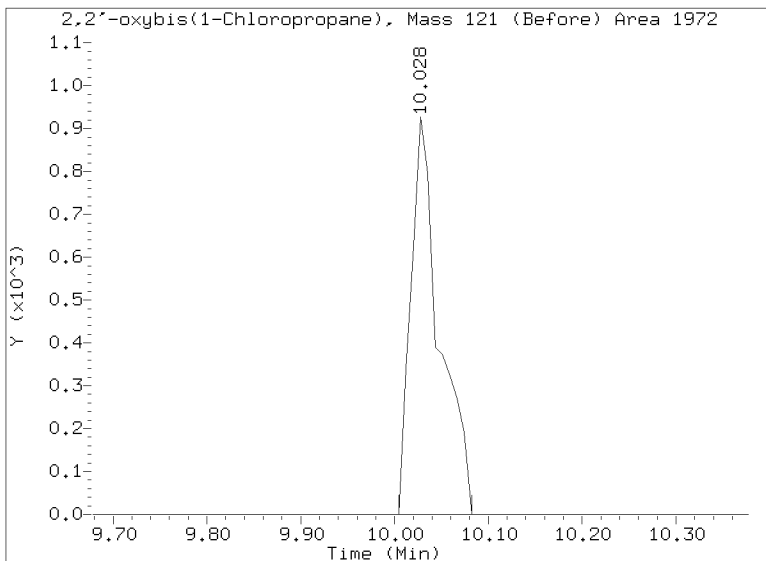
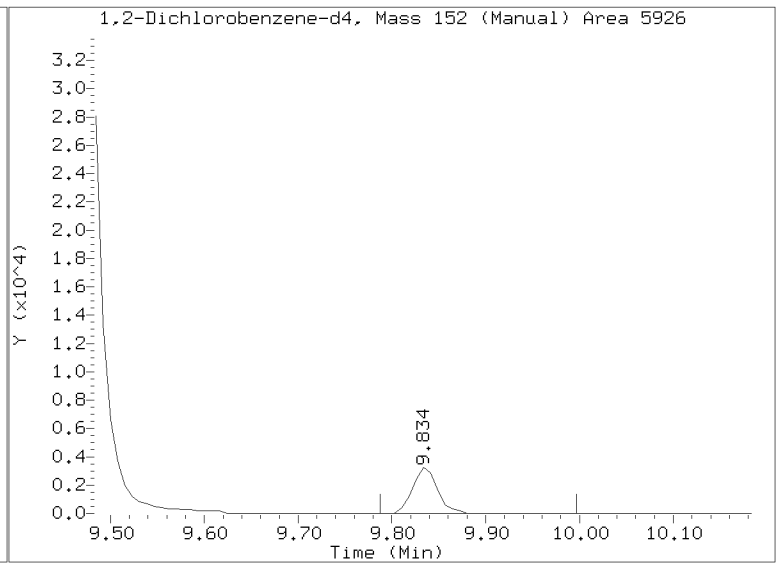
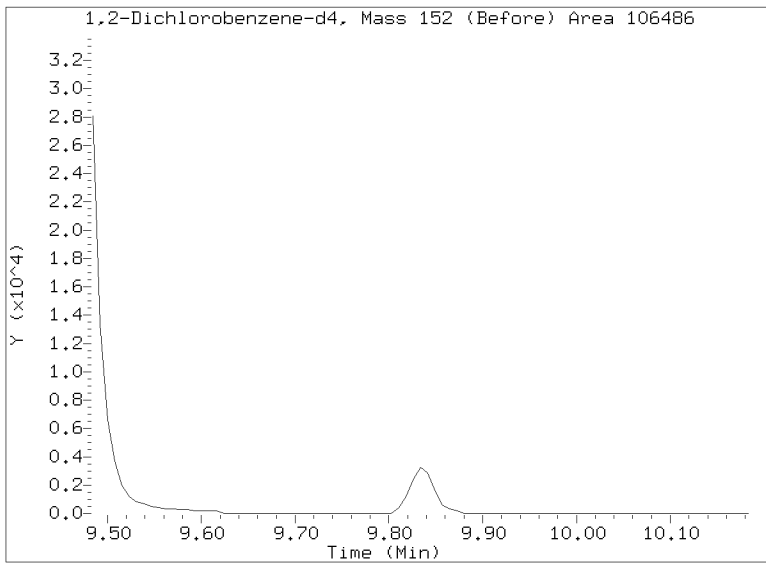
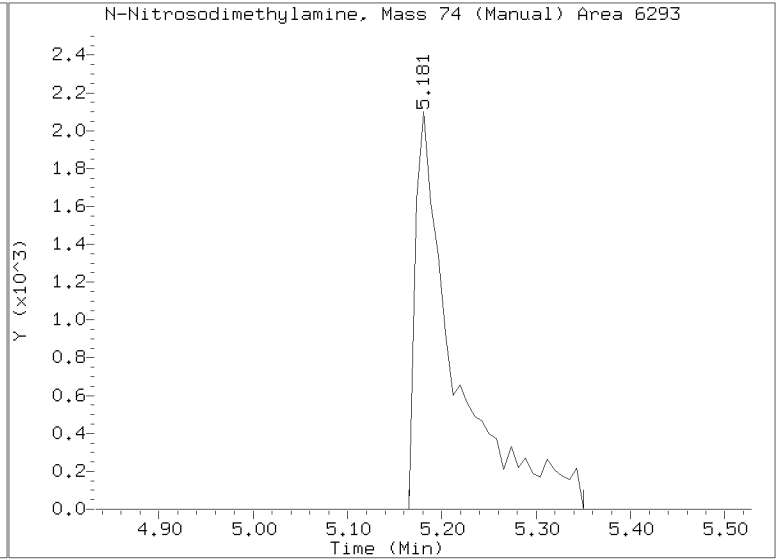
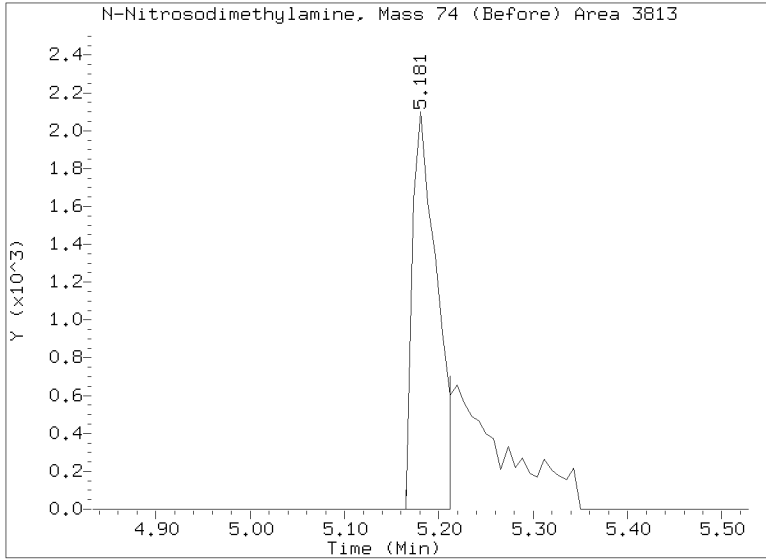
RRT check based on Ccal File: NT1802102308.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

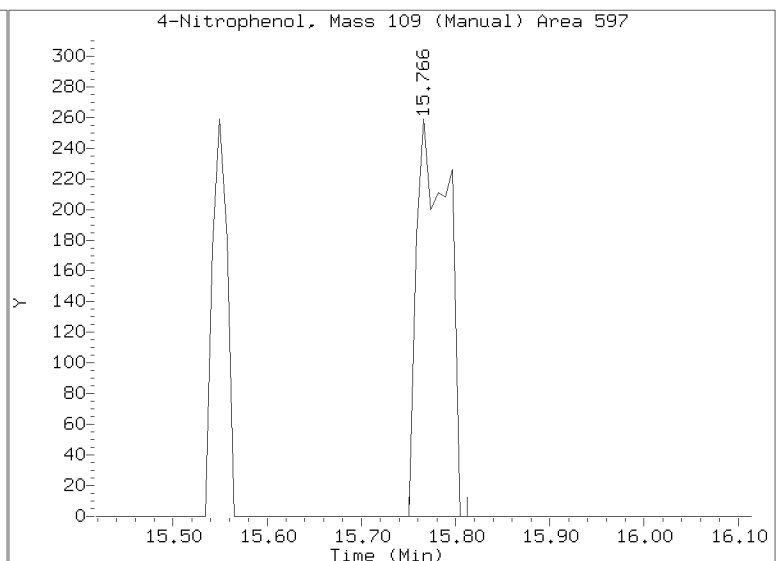
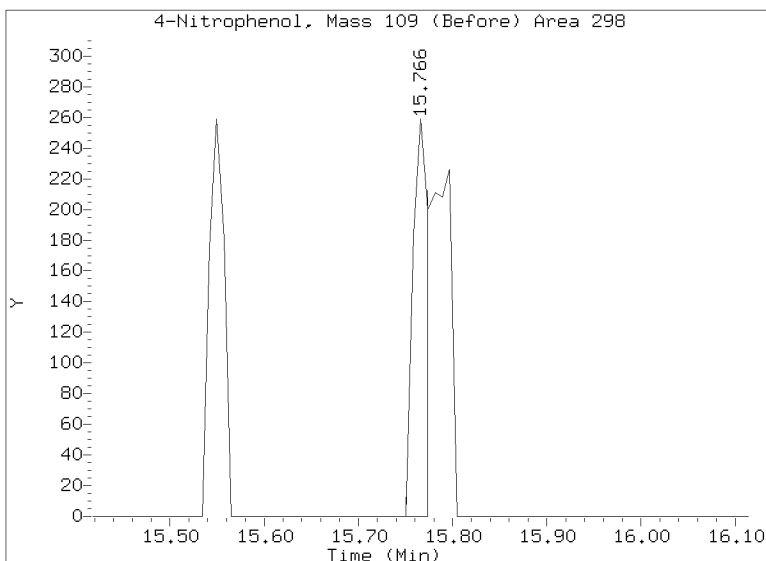
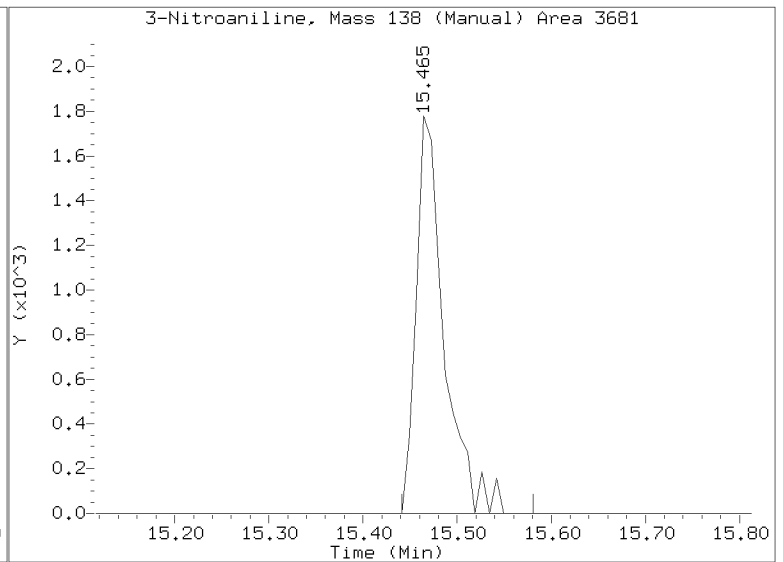
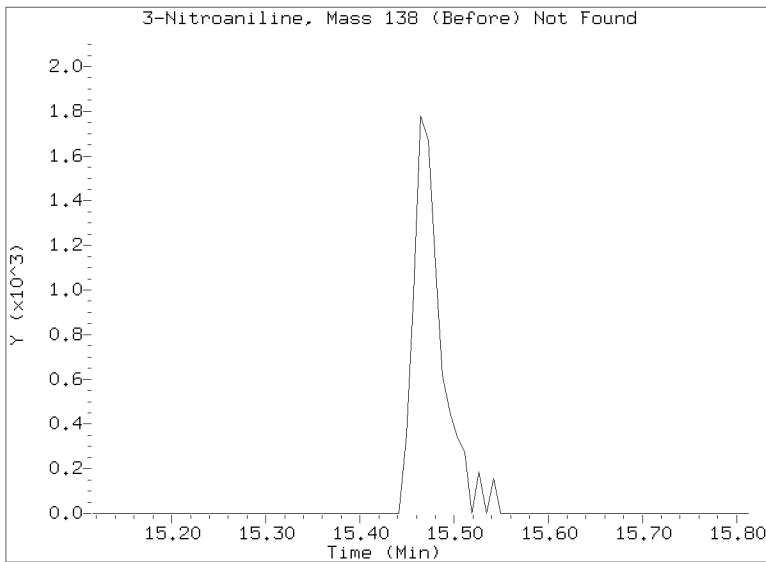
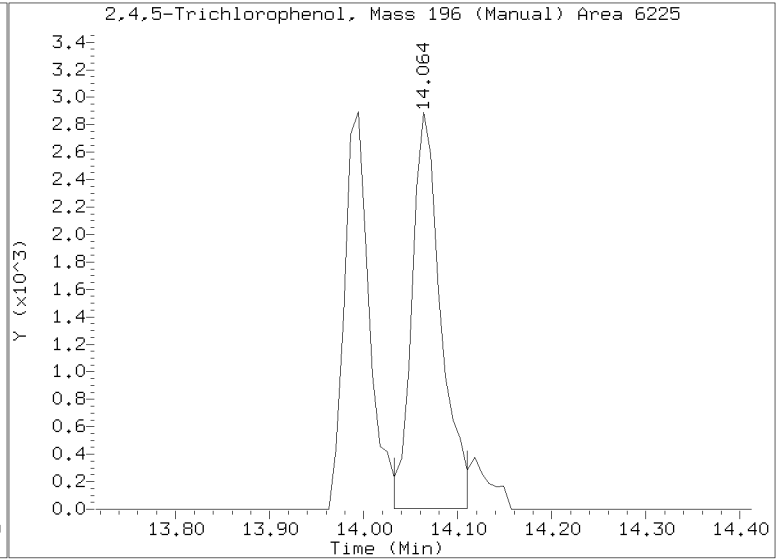
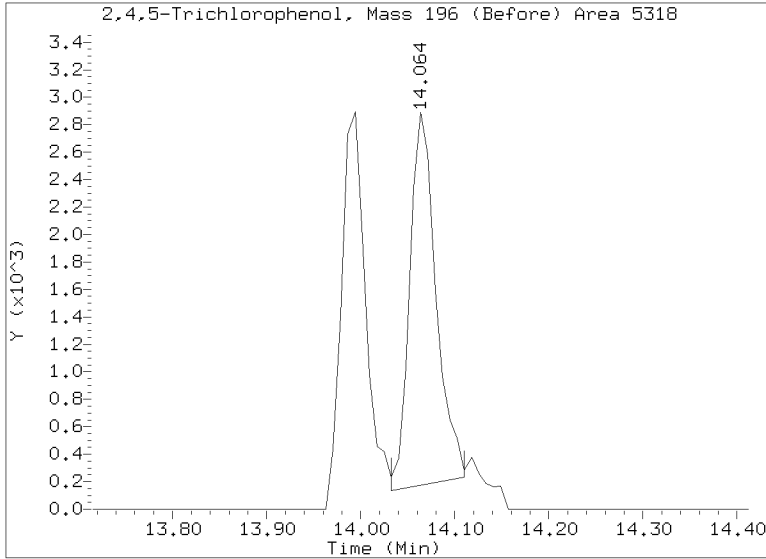
Quant Ion Manual Peak Adjustment Report

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Injection Date: 10-FEB-2023 21:05
Lab ID:SLB0195-CAL1 Client ID:
Report Date: 02/15/2023 08:43



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt18.i/20230210.b/NT1802102308.D
Injection Date: 10-FEB-2023 21:05
Lab ID:SLB0195-CAL1 Client ID:
Report Date: 02/15/2023 08:43



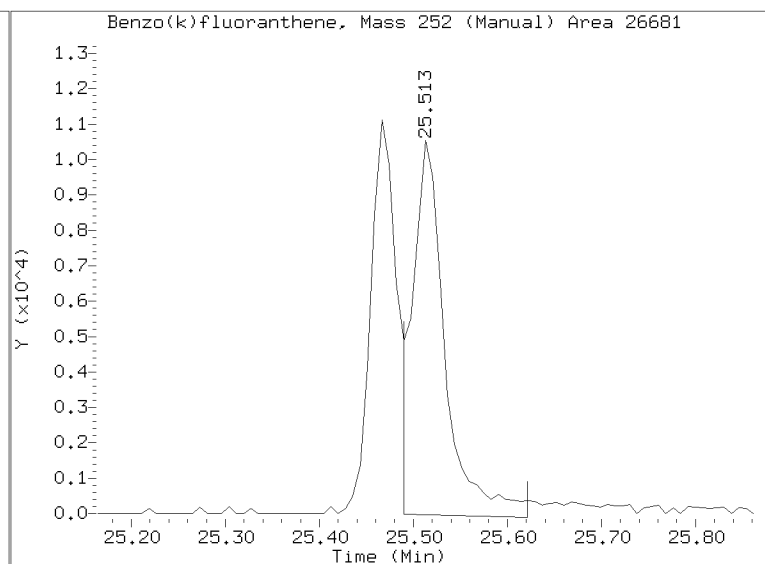
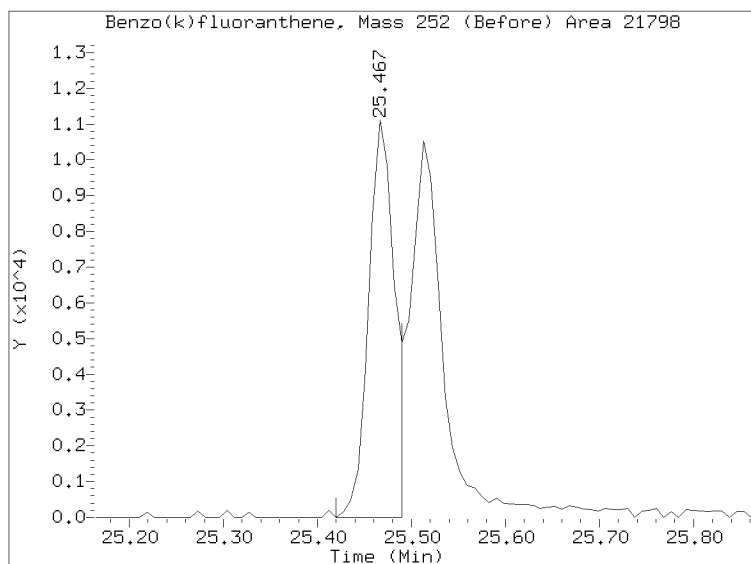
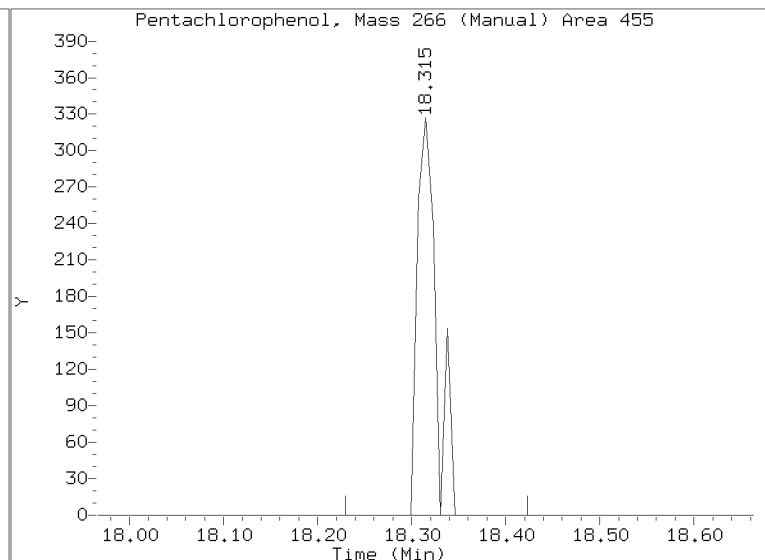
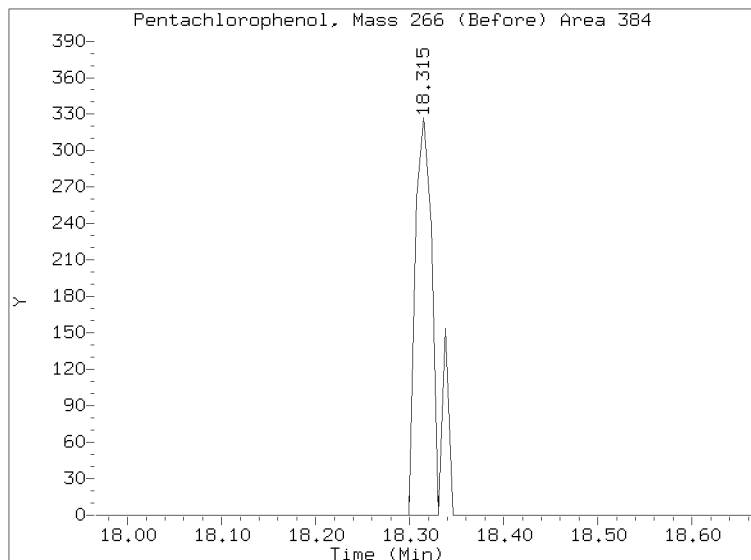
Quant Ion Manual Peak Adjustment Report

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Injection Date: 10-FEB-2023 21:05

Lab ID:SLB0195-CAL1 Client ID:

Report Date: 02/15/2023 08:43



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Date: 10-FEB-2023 23:06

Client ID:

Sample Info: SLB0195-SCV1

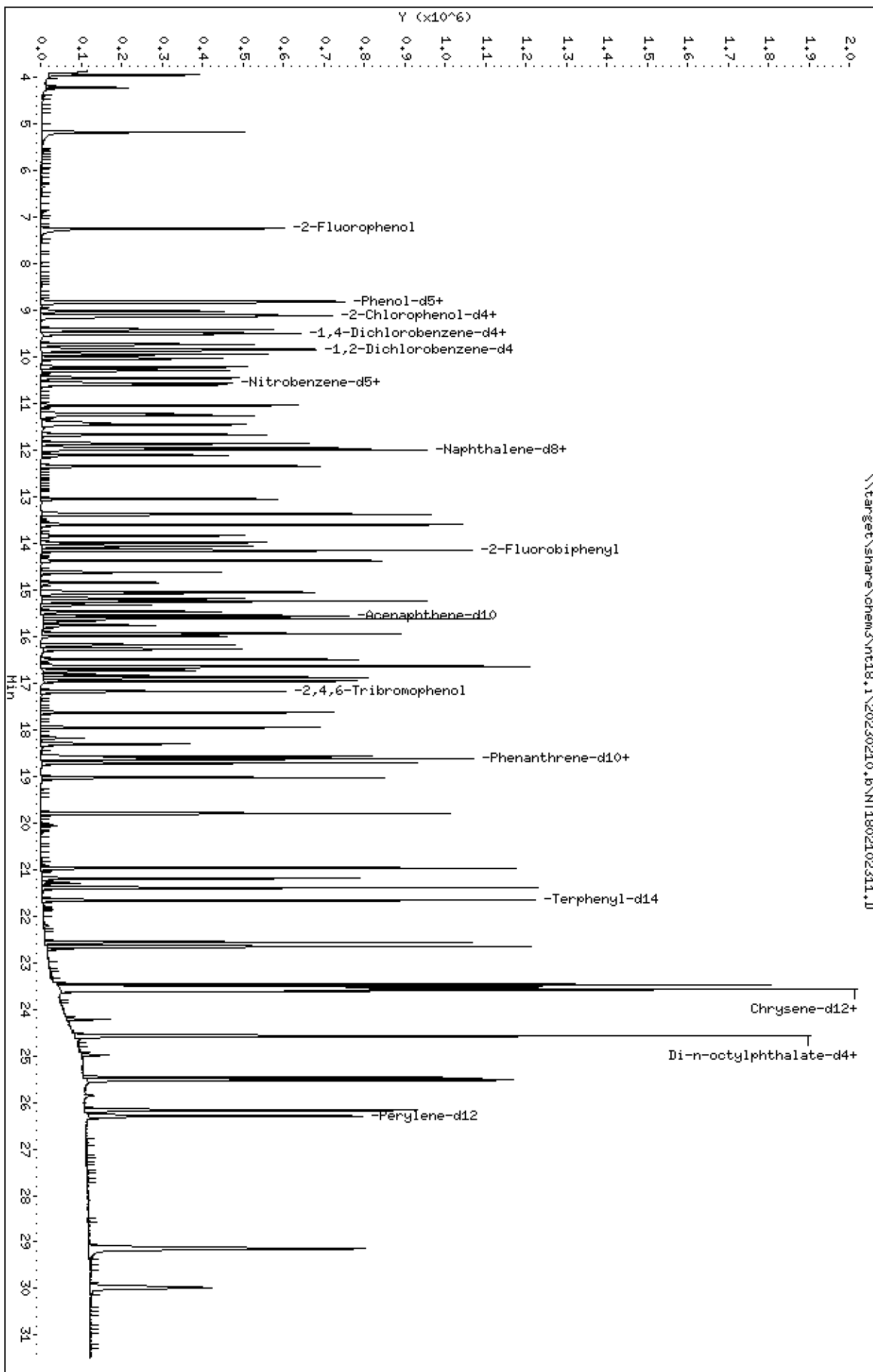
Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

Page 1



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Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

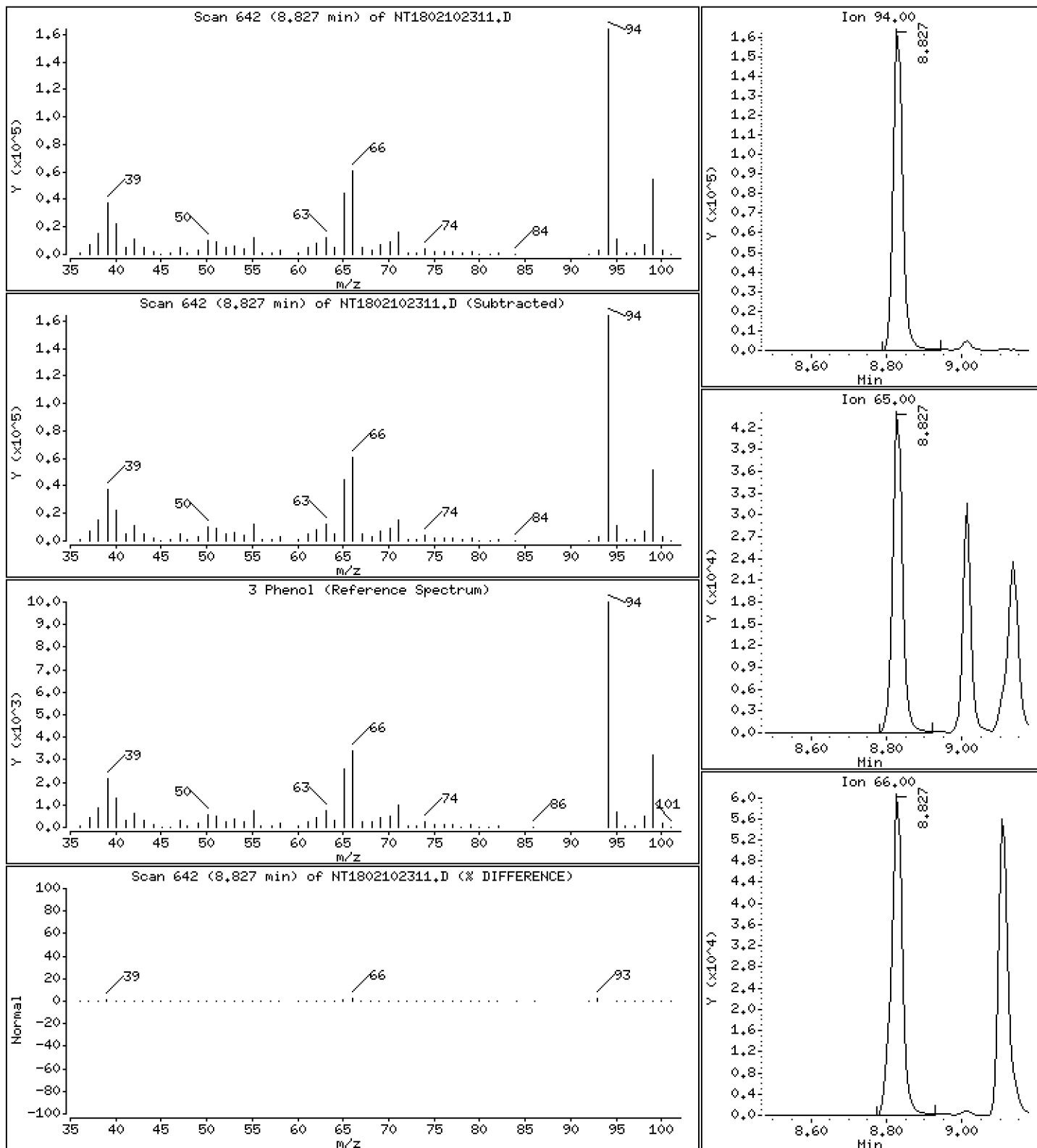
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,286 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

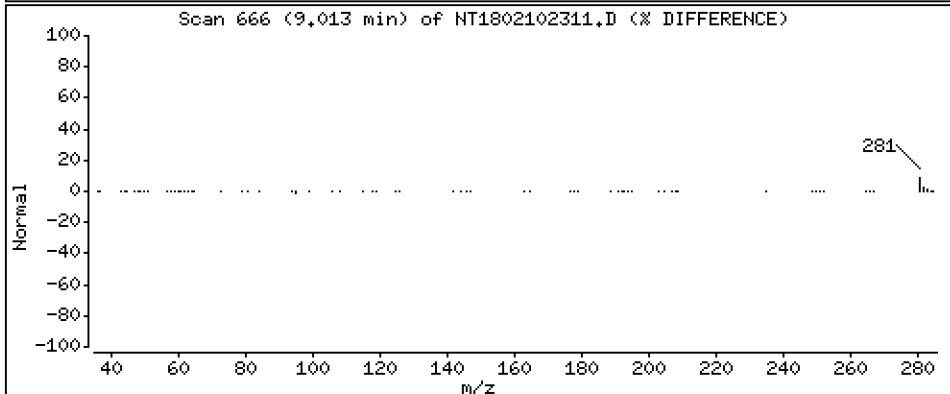
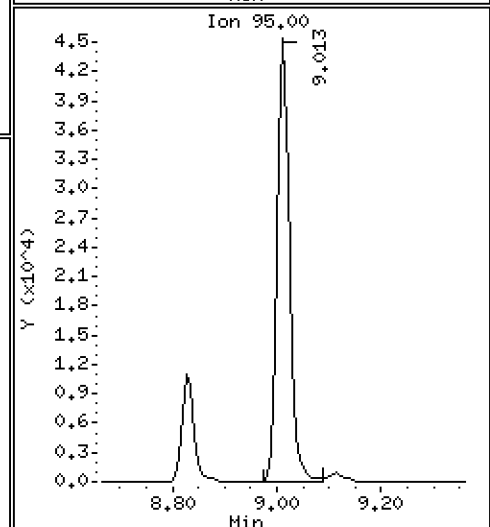
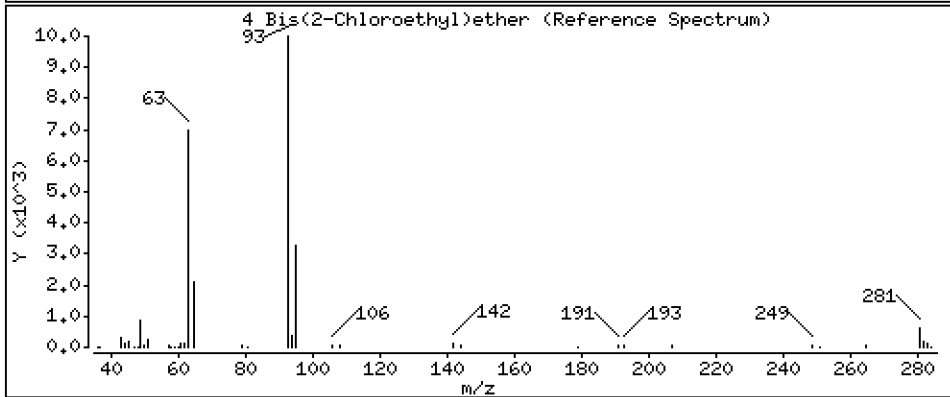
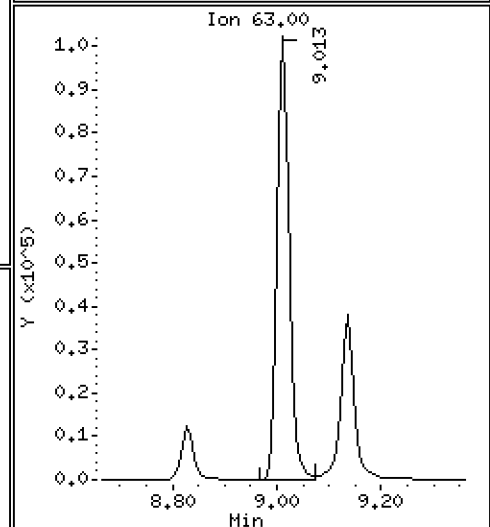
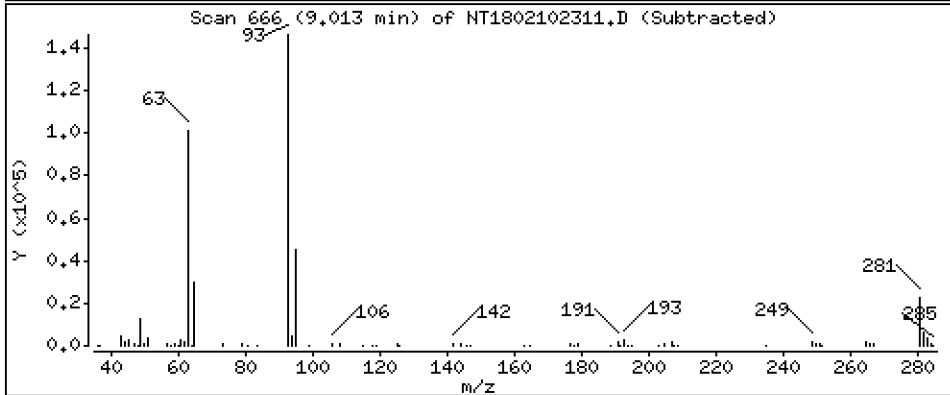
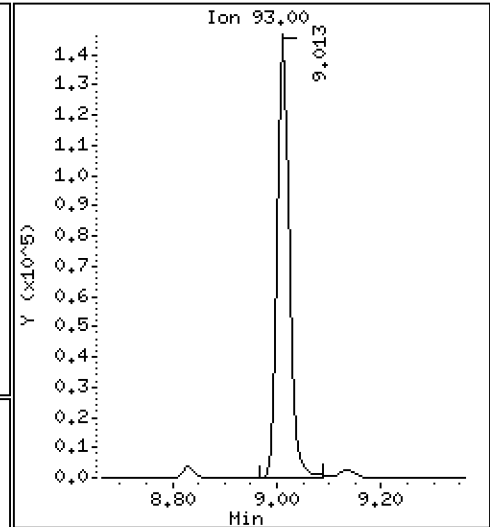
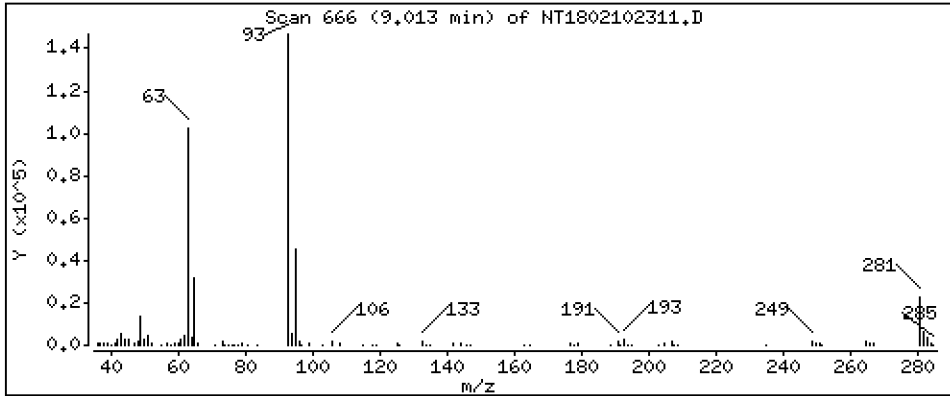
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 4,661 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

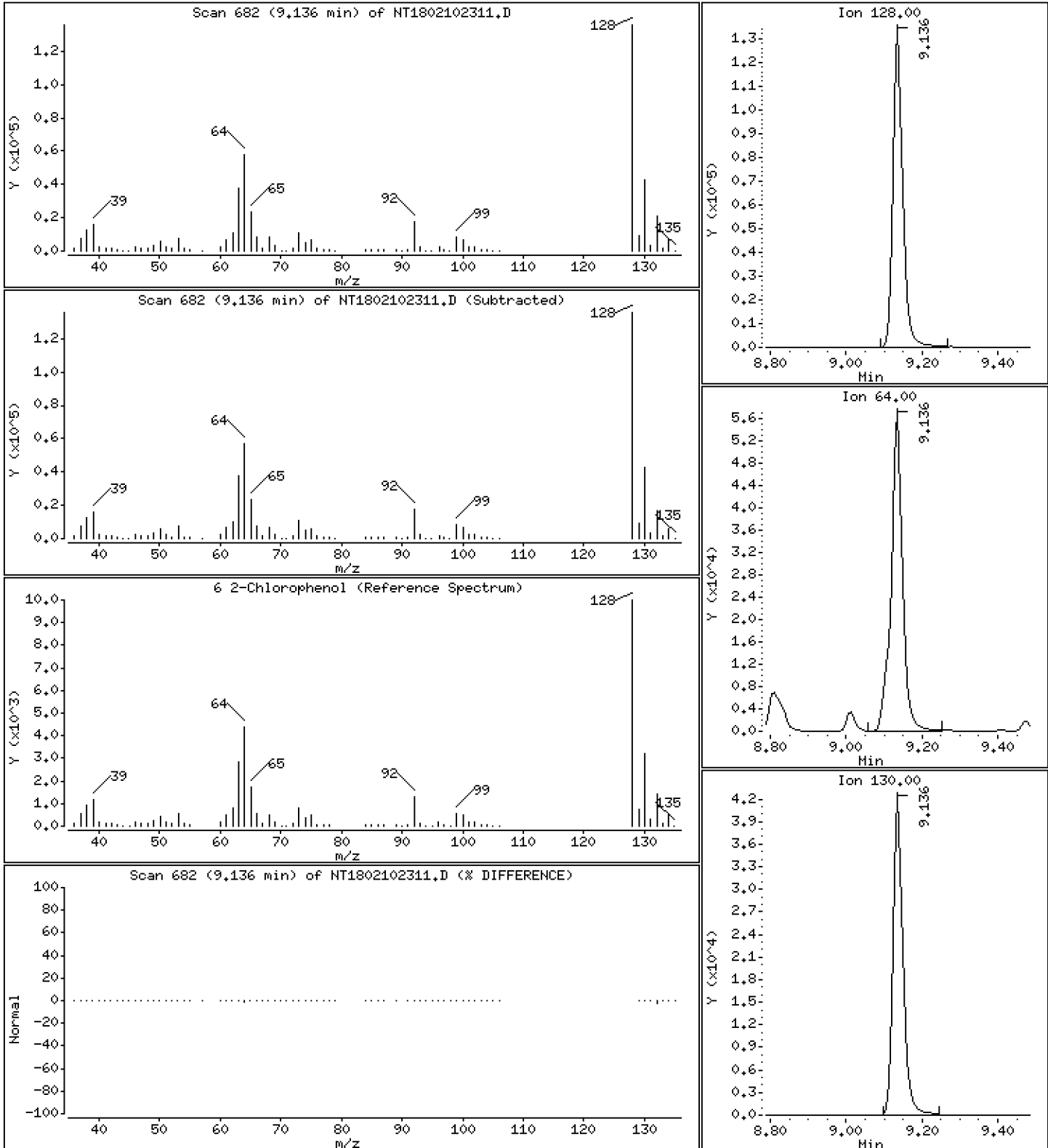
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 4,318 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

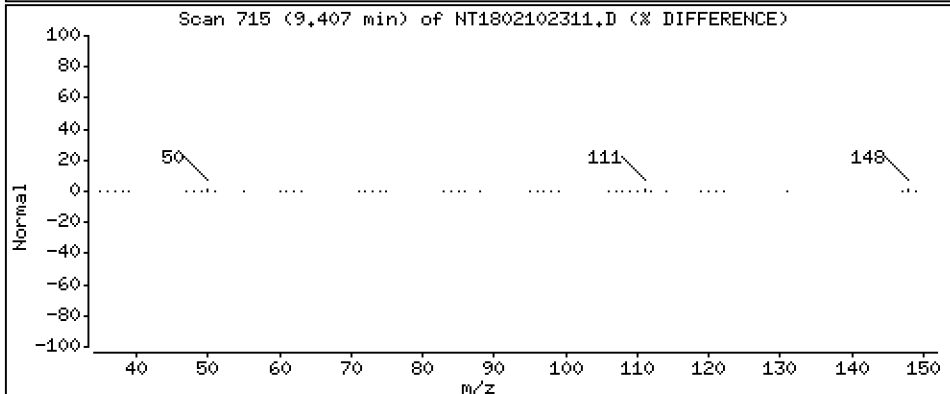
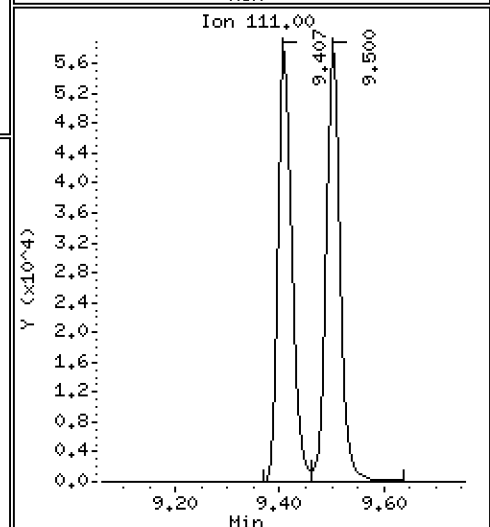
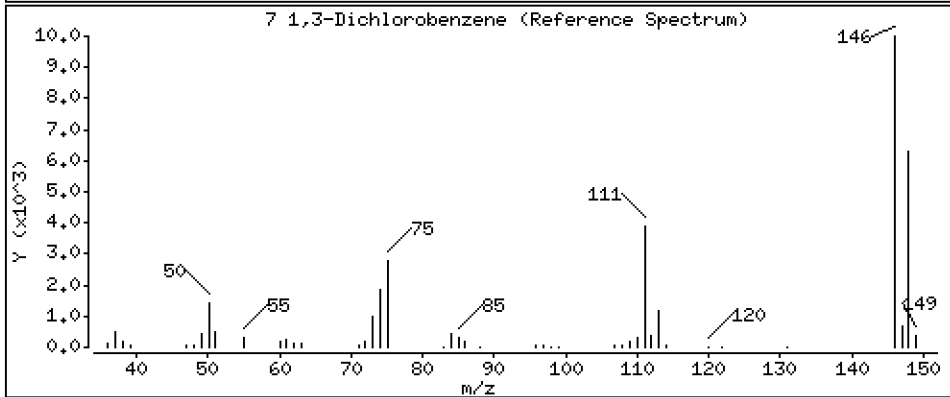
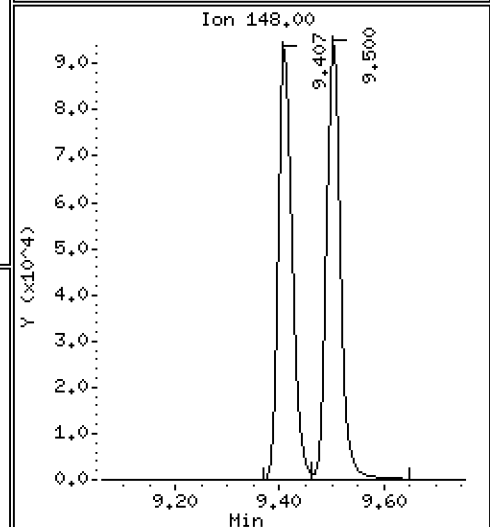
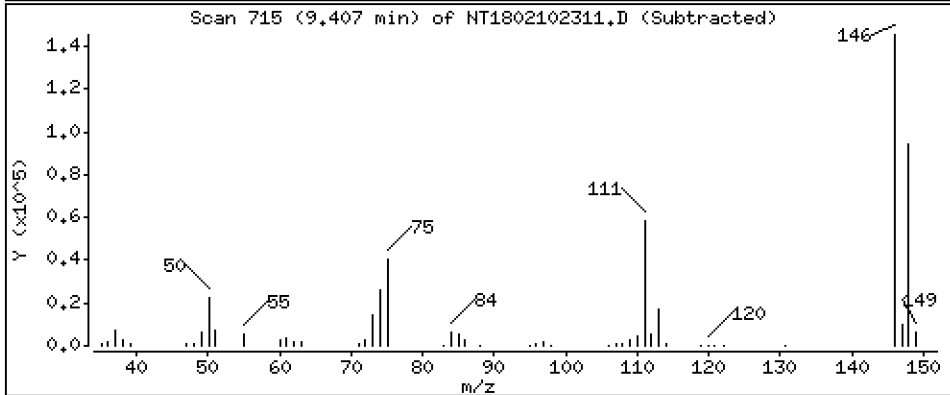
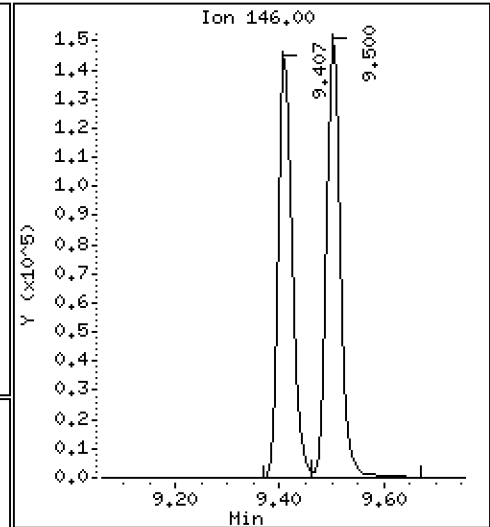
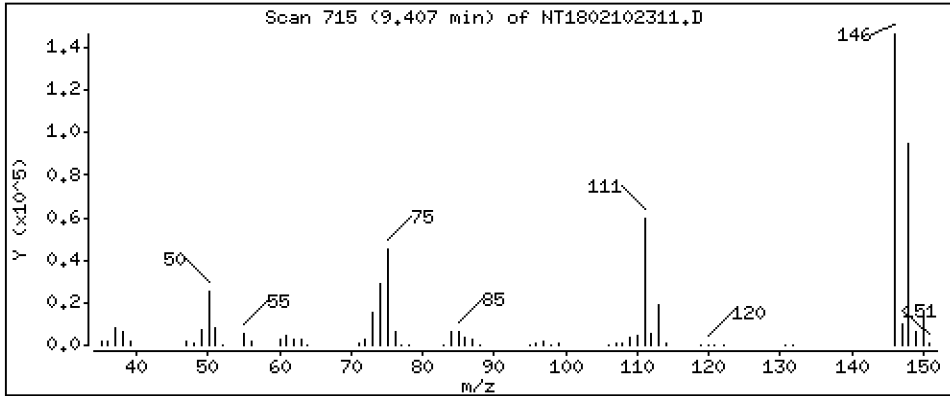
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 4,446 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

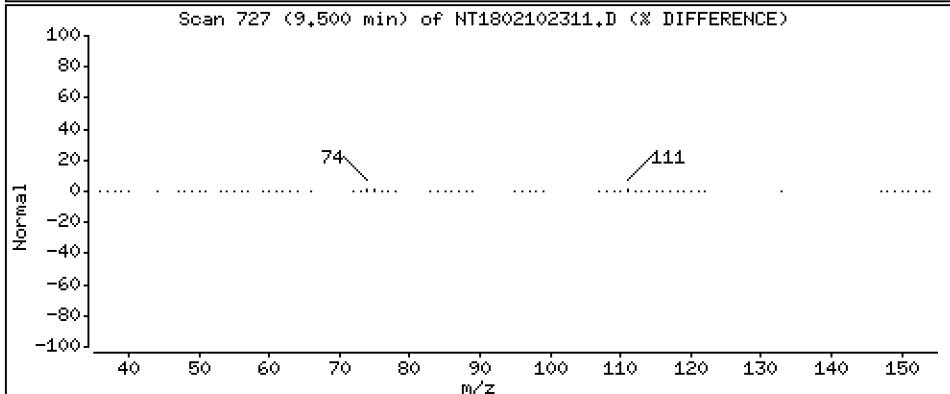
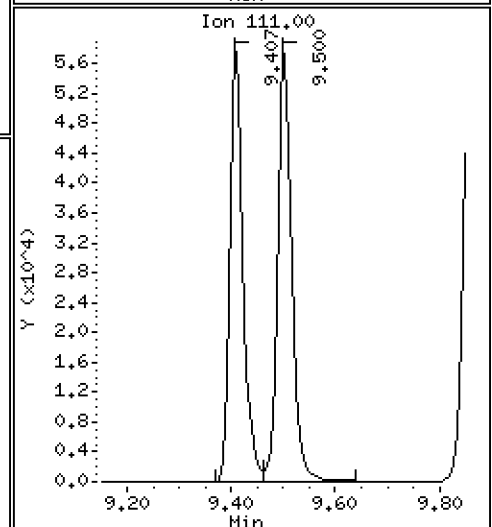
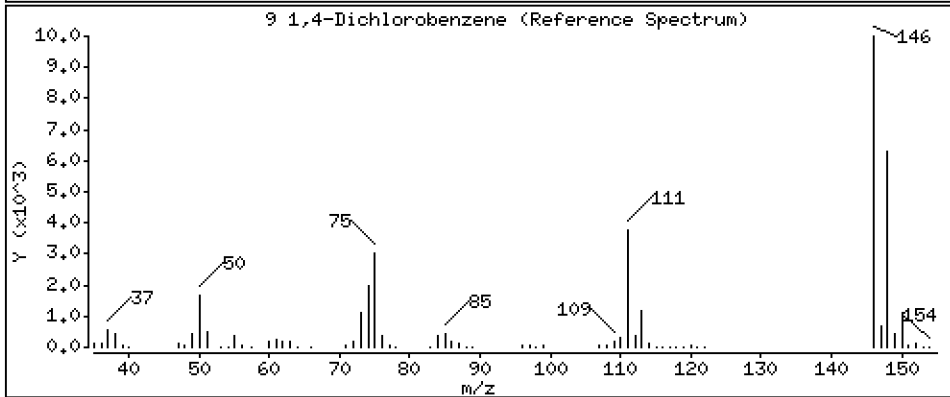
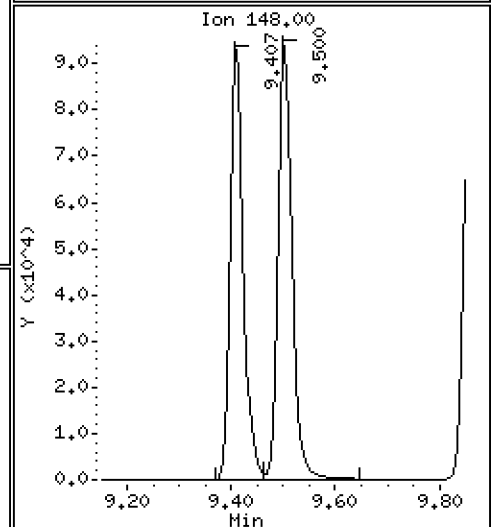
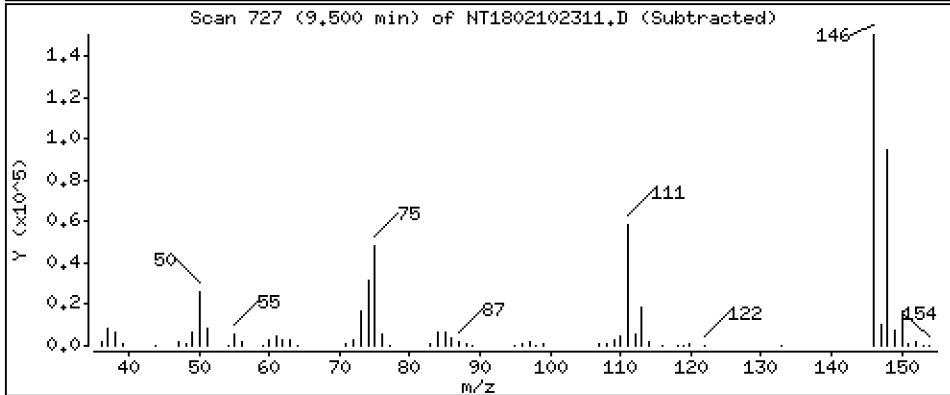
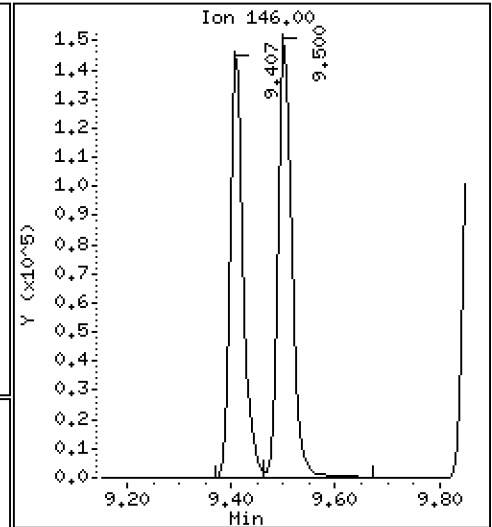
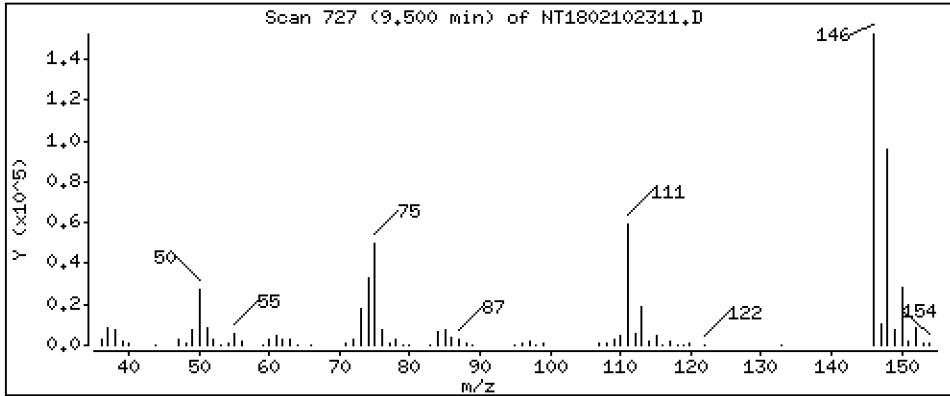
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 4,629 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

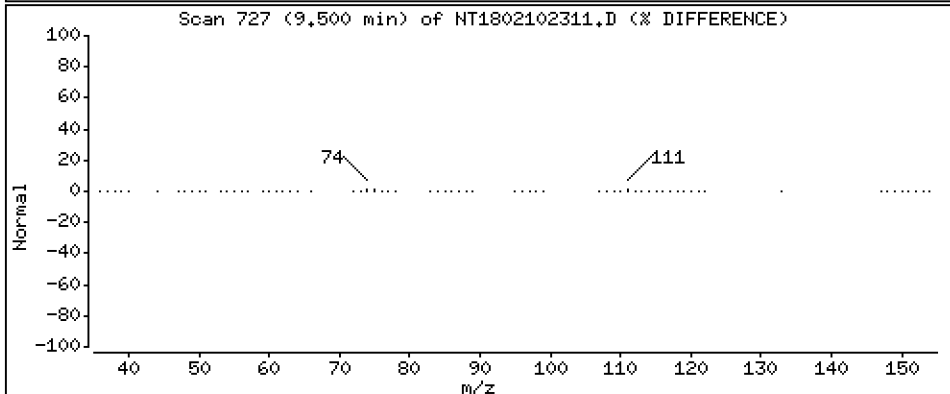
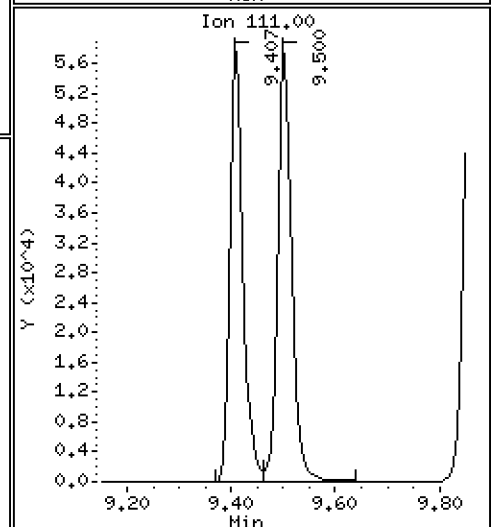
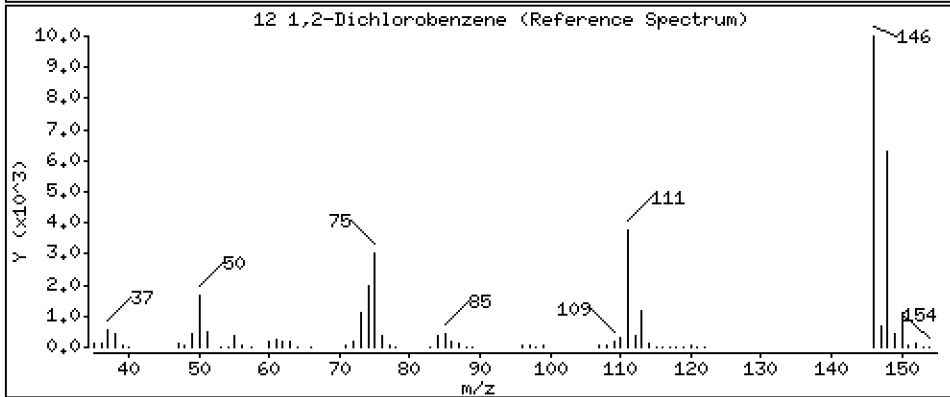
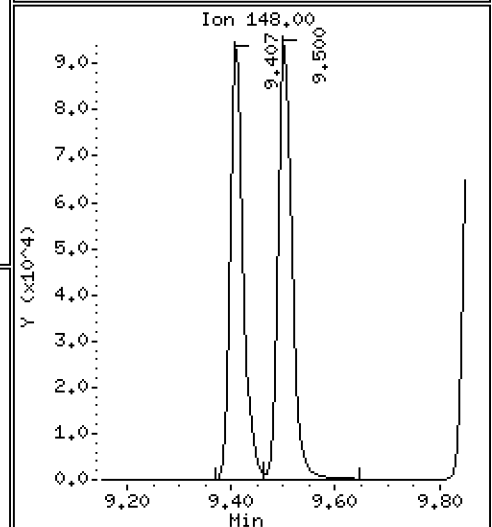
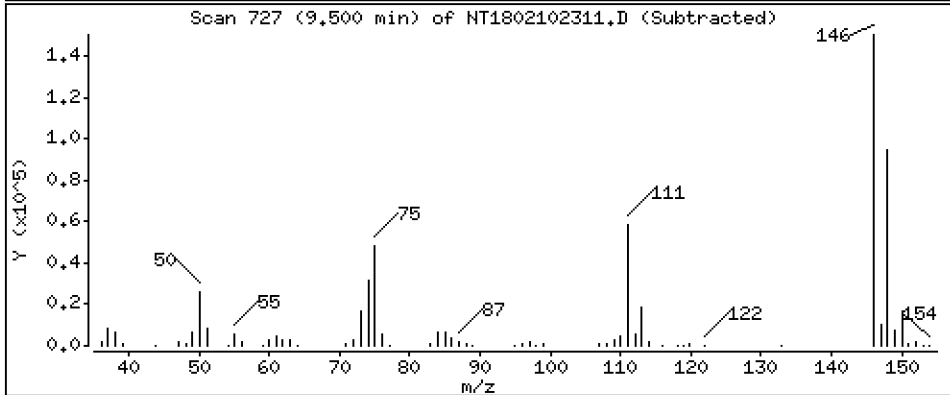
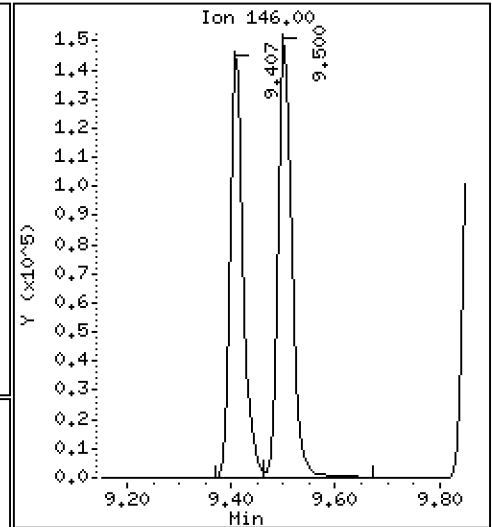
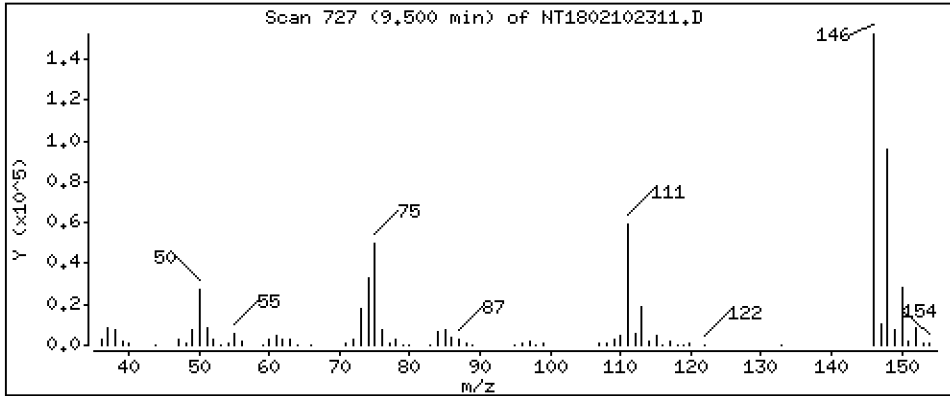
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 4,629 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

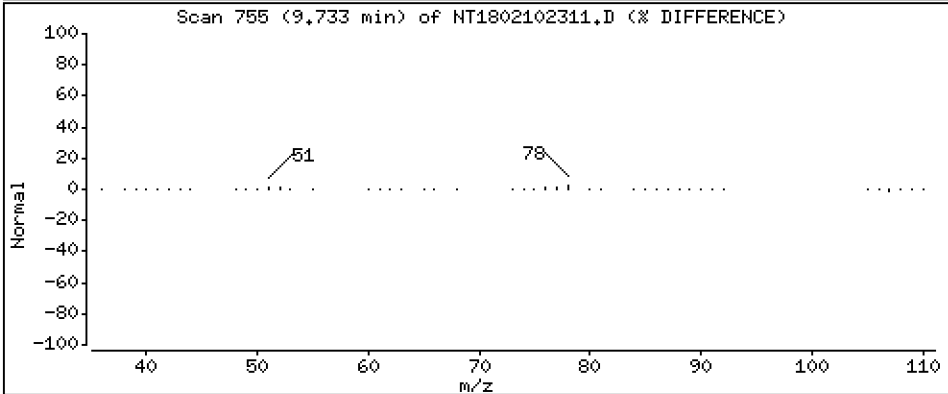
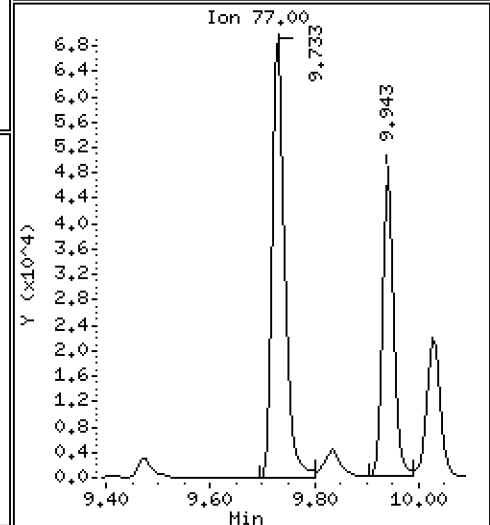
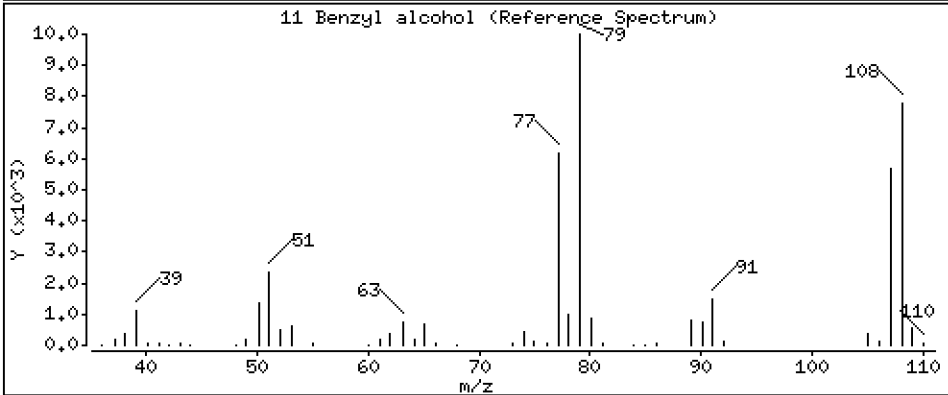
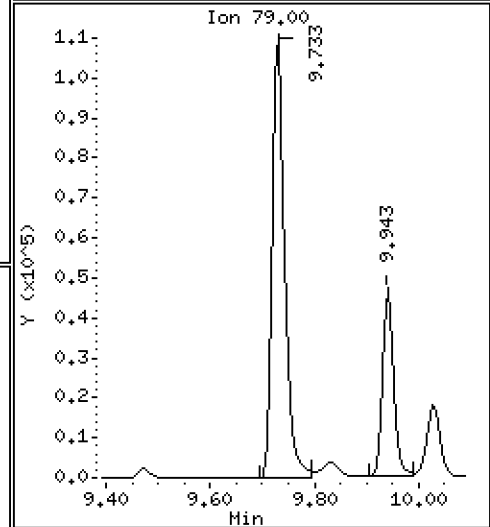
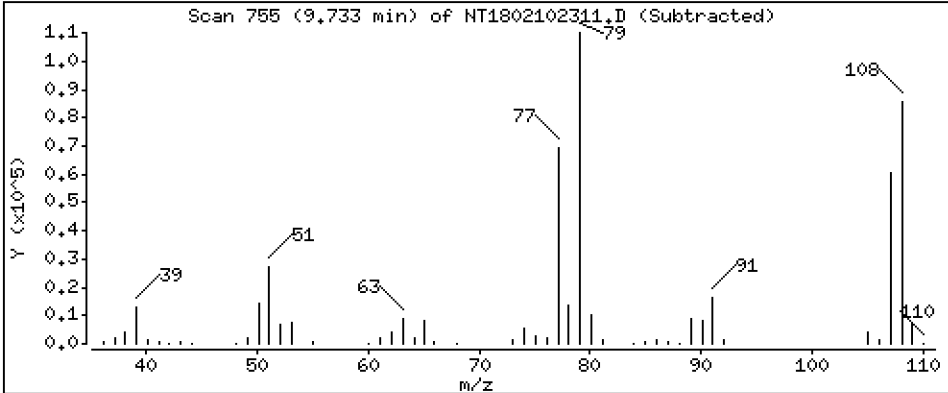
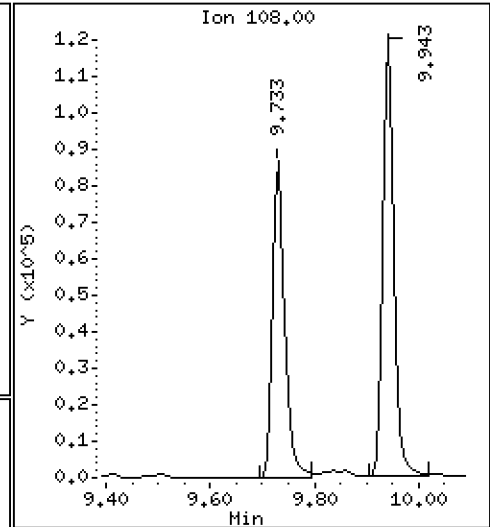
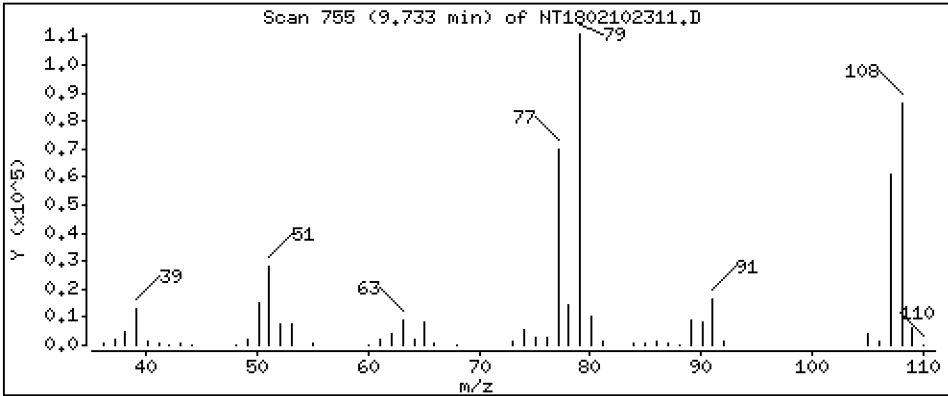
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 4.135 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

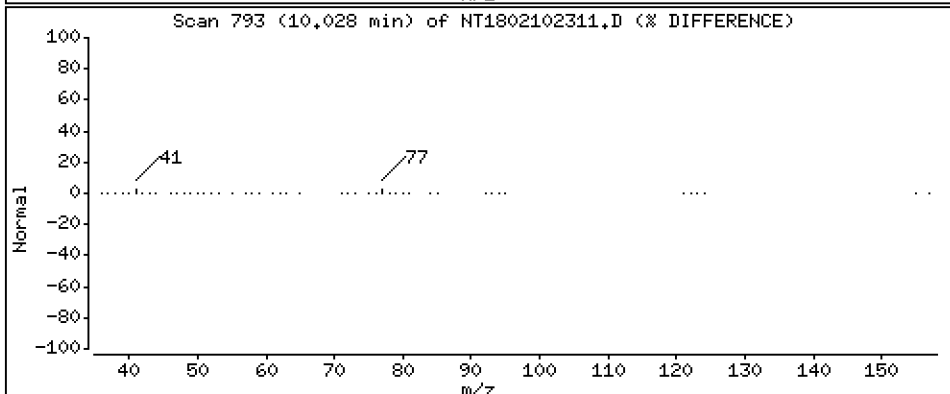
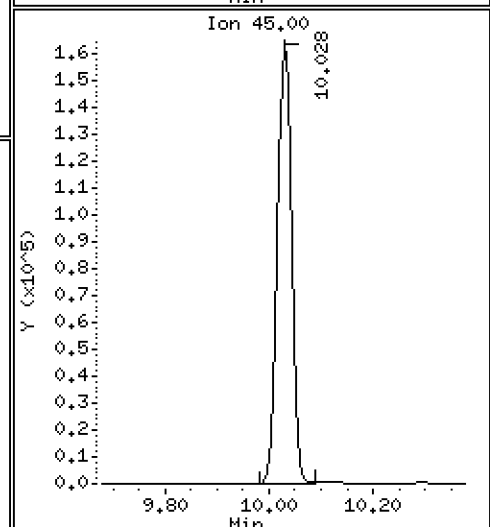
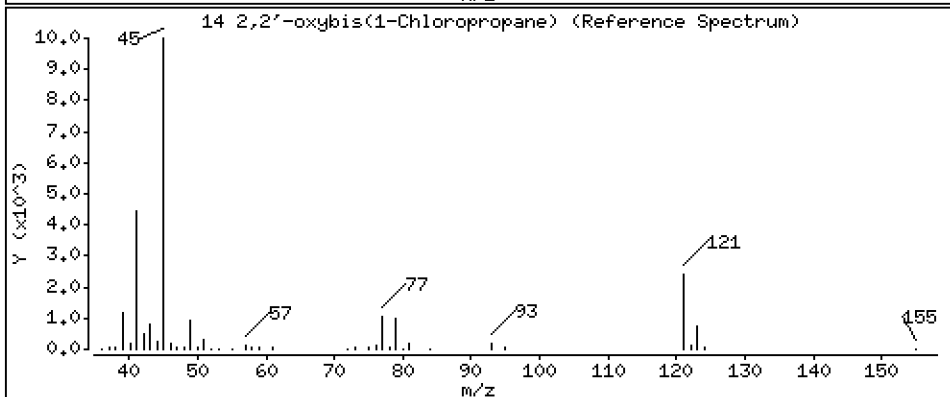
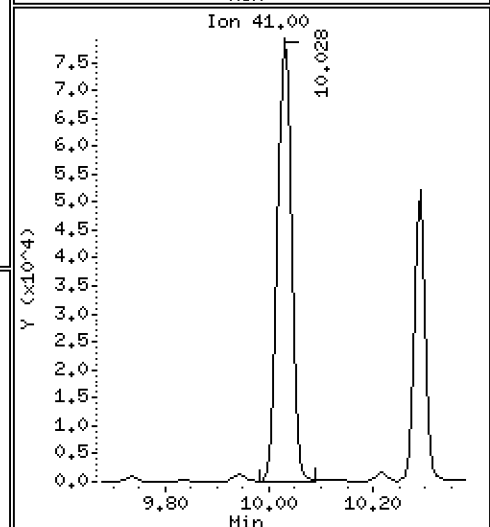
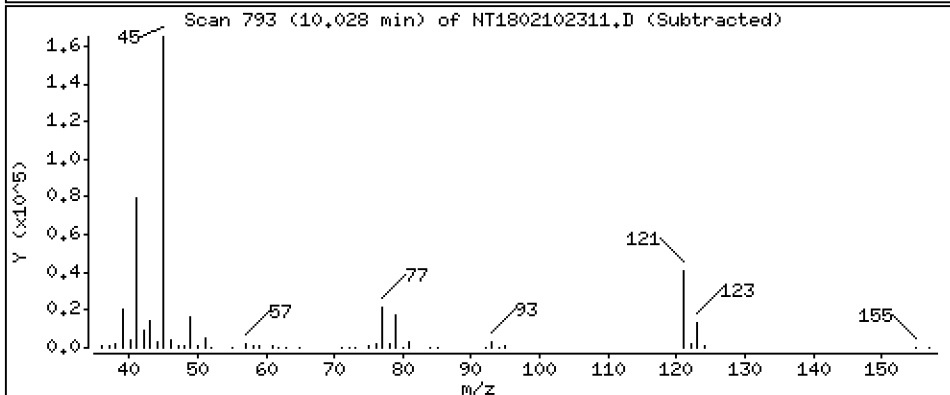
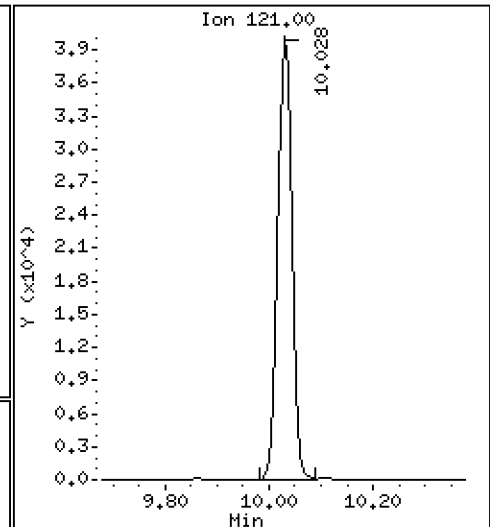
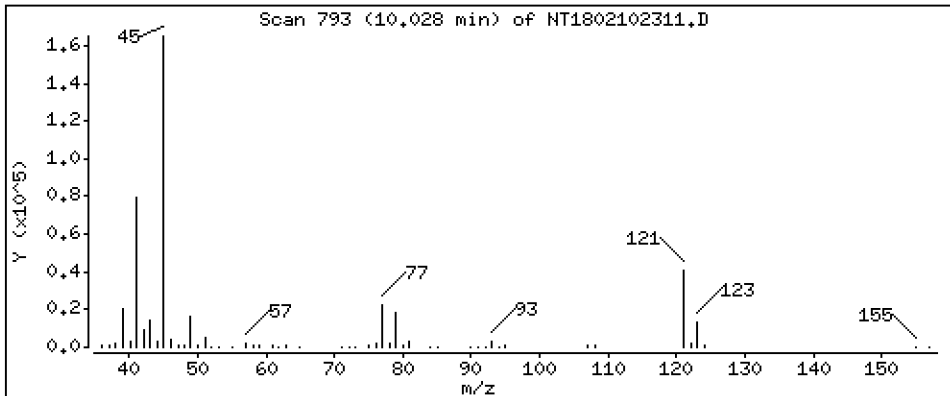
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 4,932 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

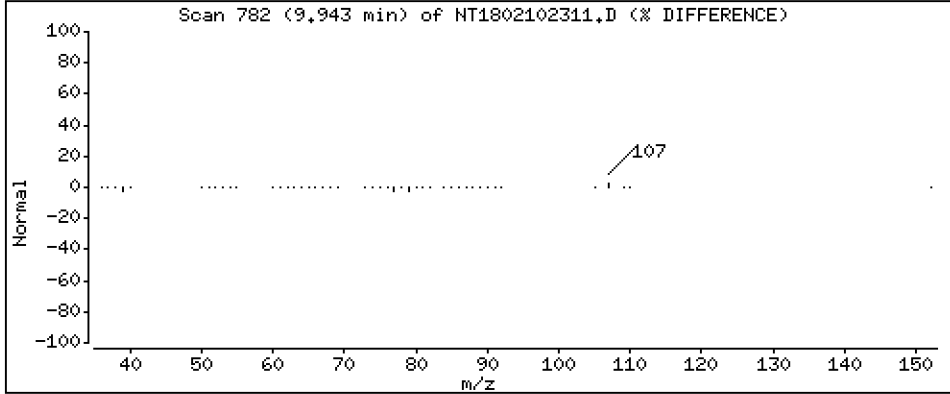
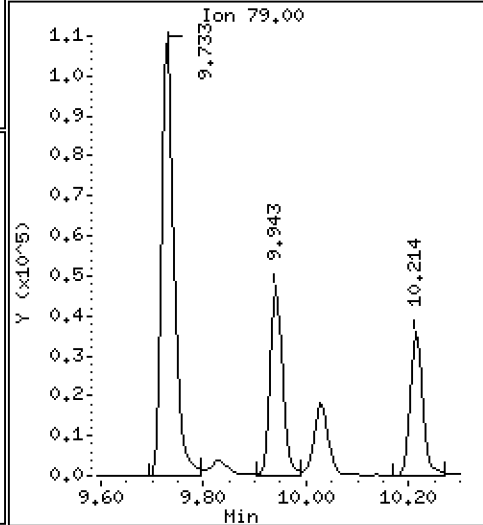
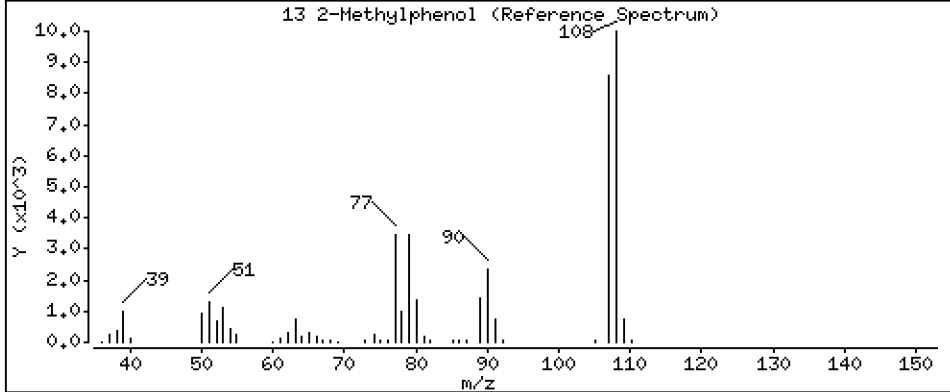
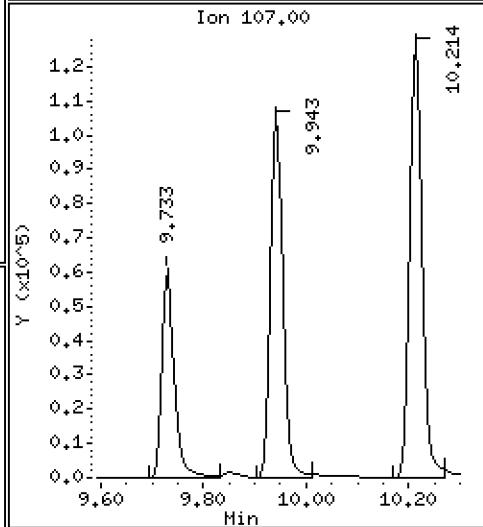
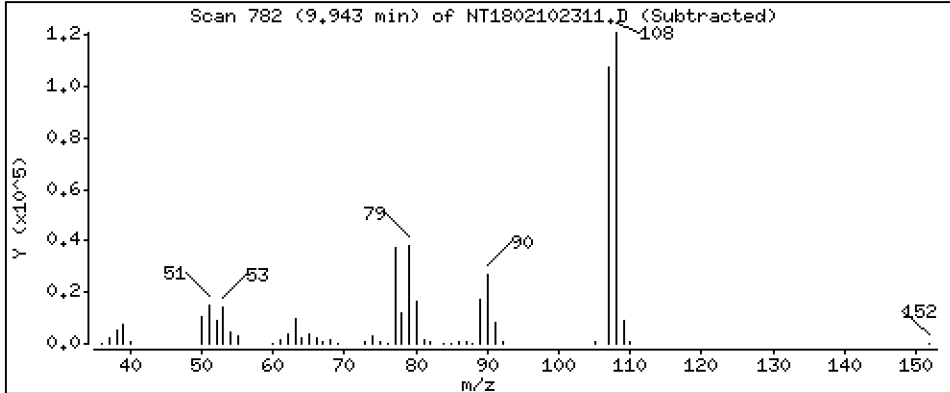
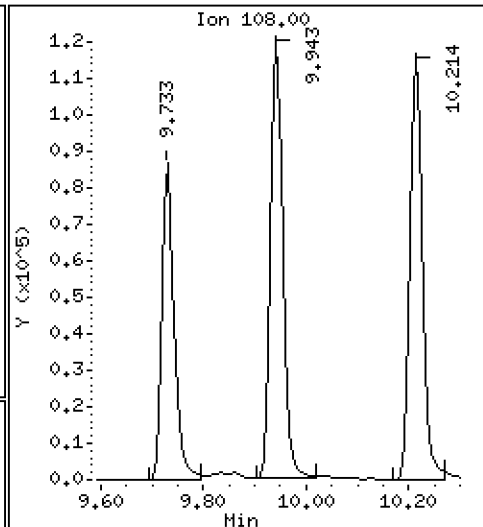
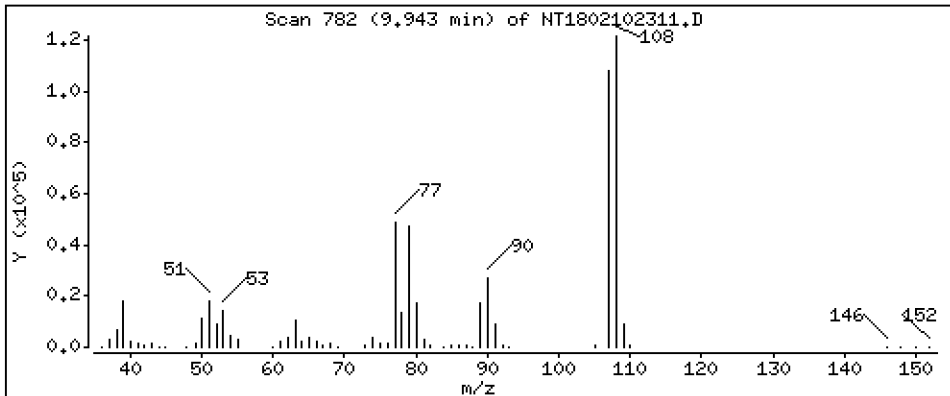
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 4,109 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

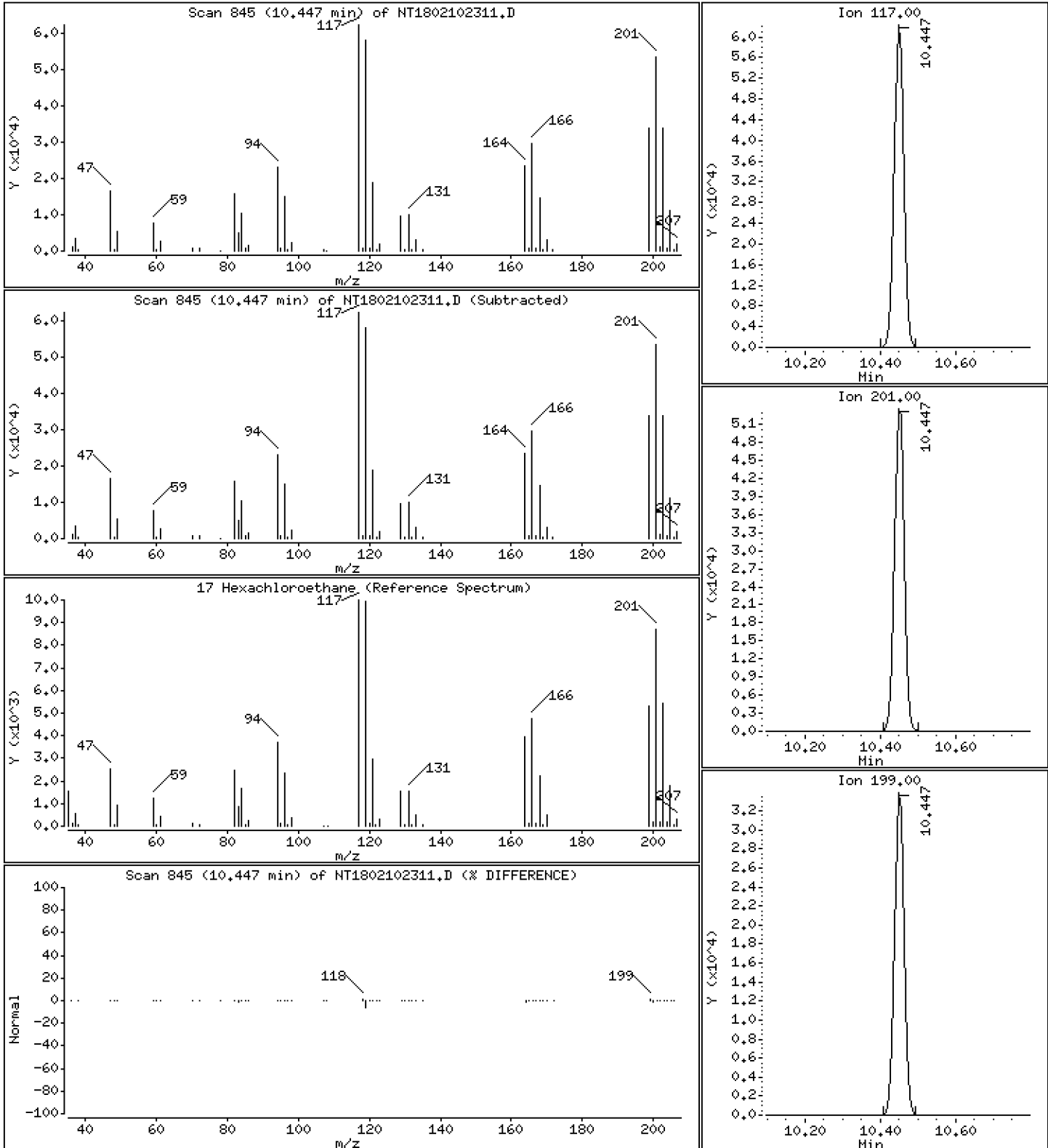
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 4,727 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

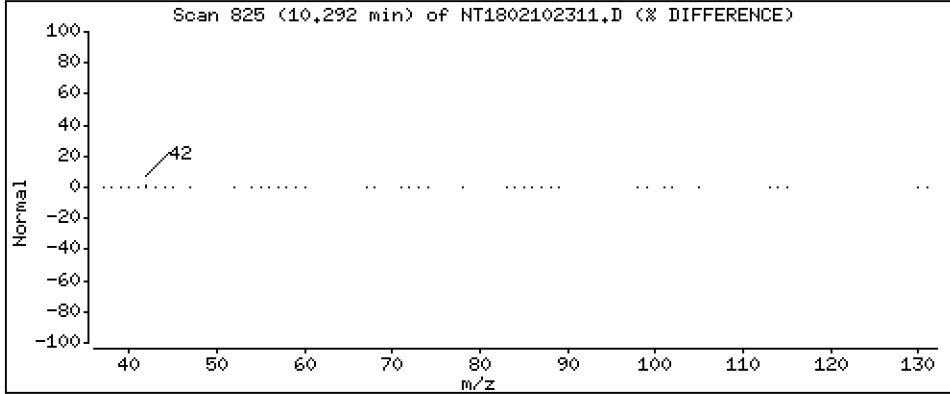
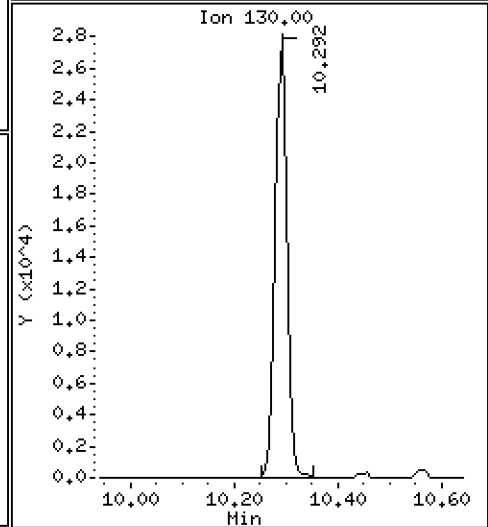
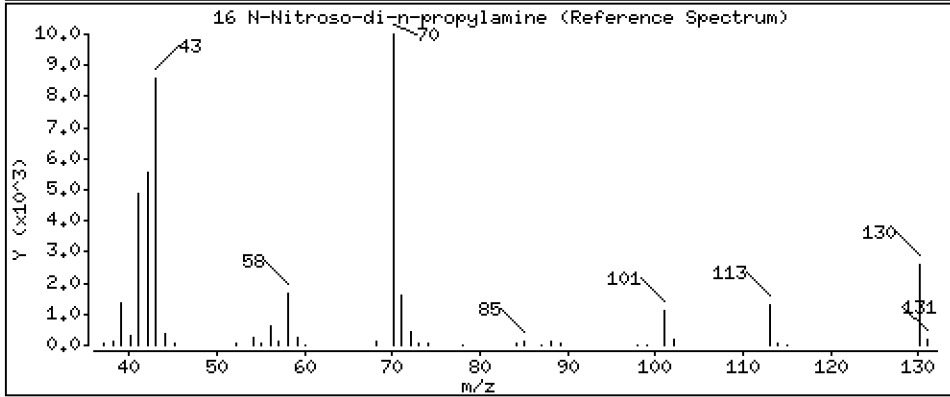
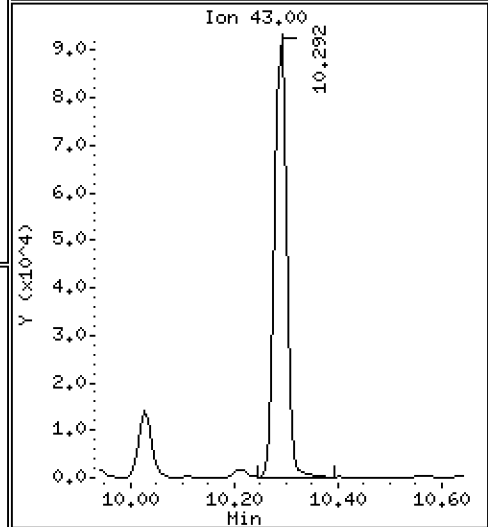
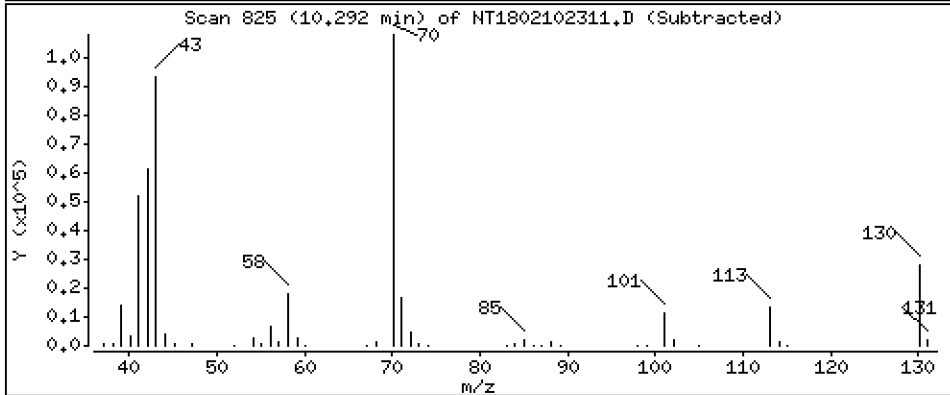
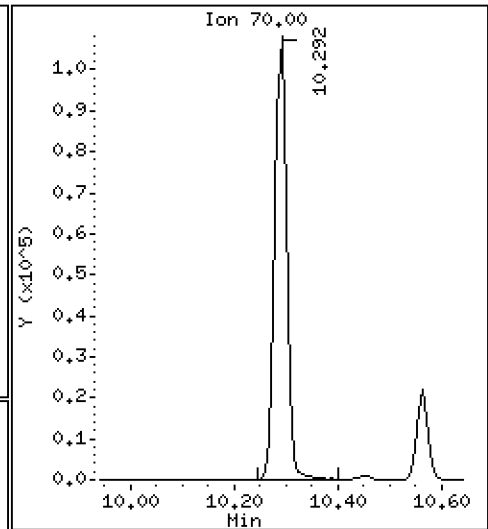
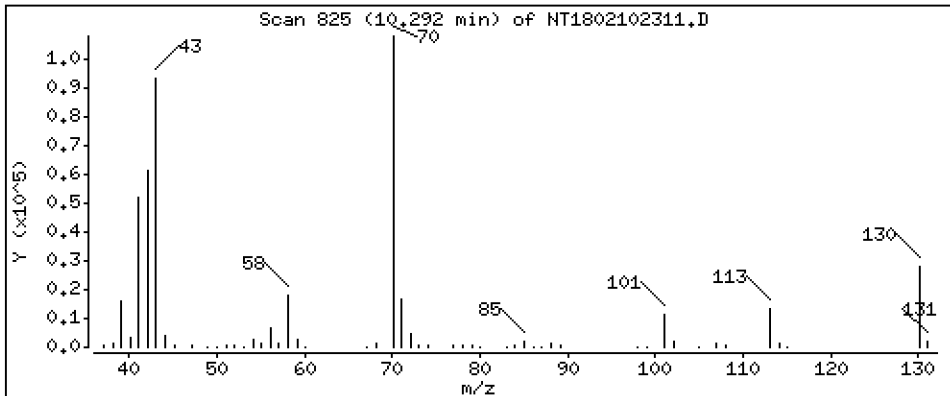
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 4,774 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

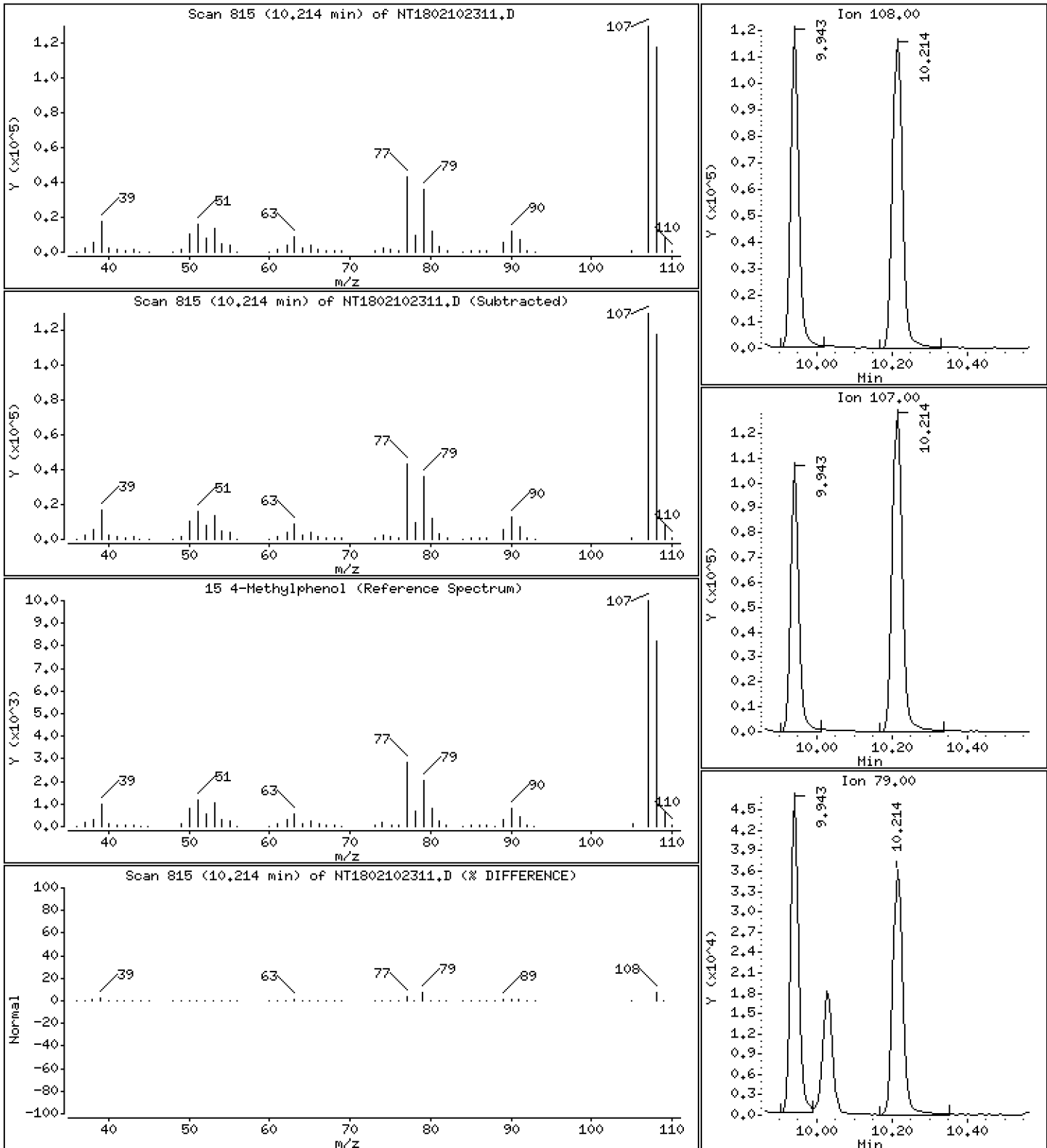
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,945 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

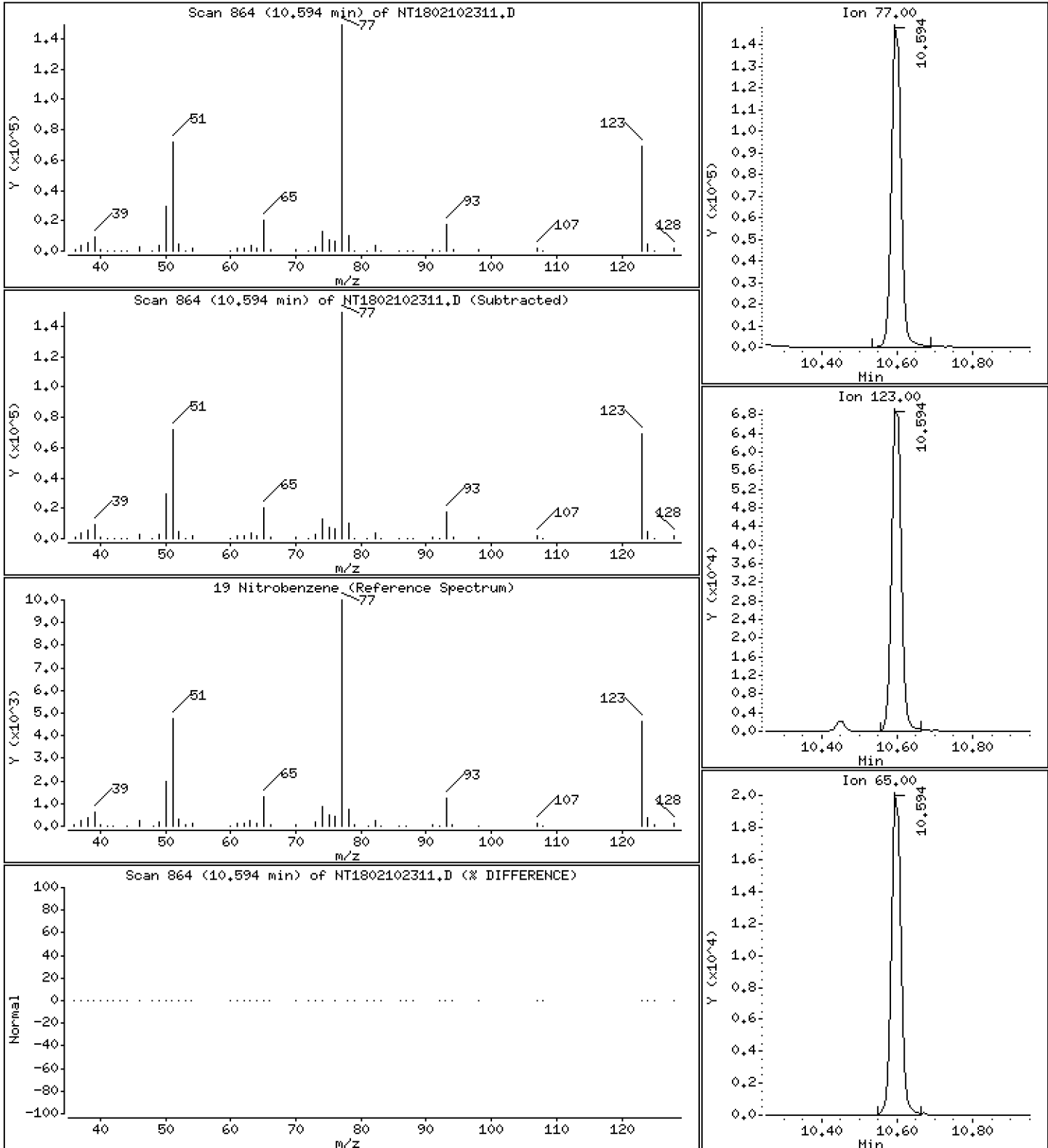
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 4,733 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

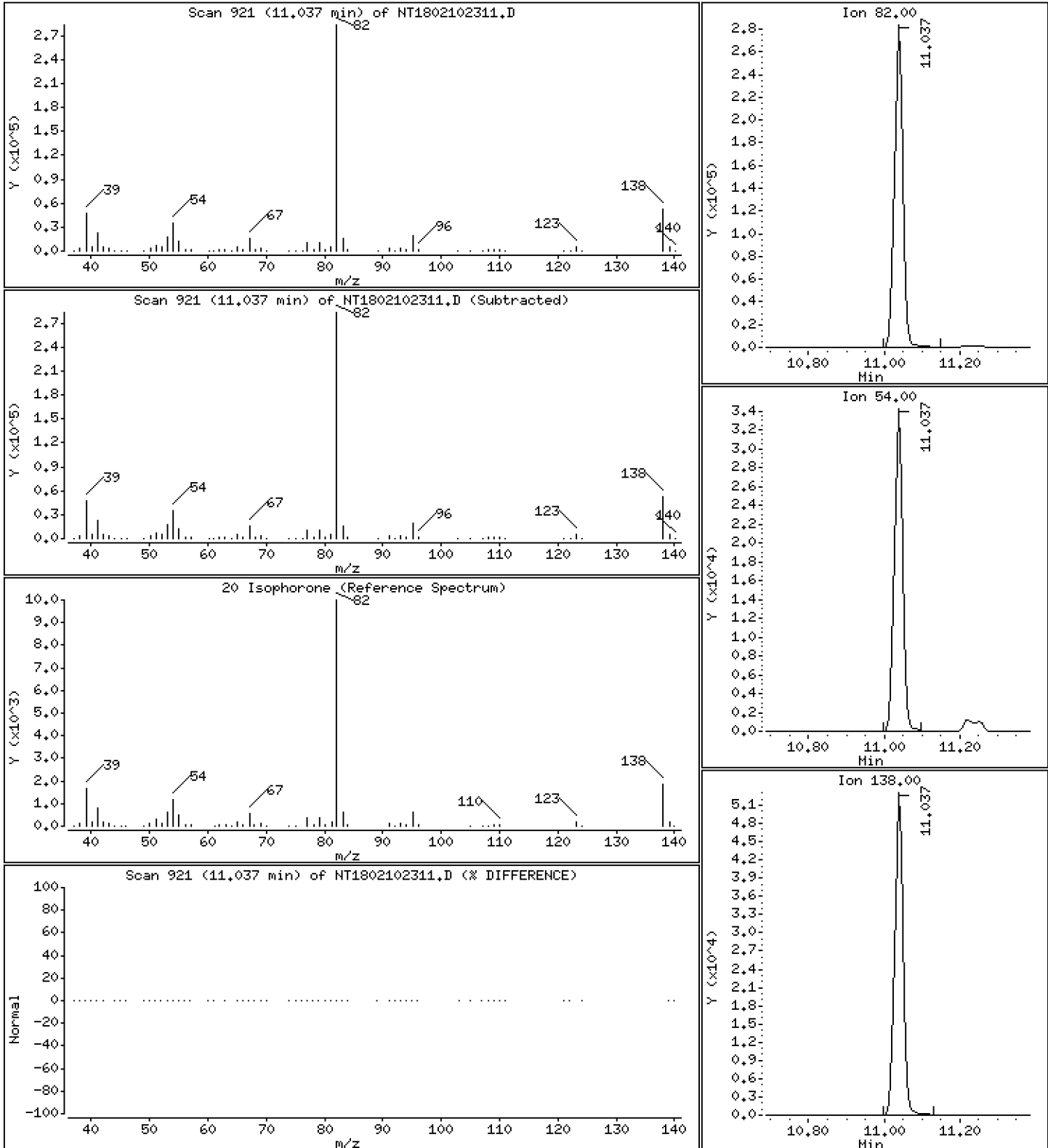
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

20 Isophorone

Concentration: 6.042 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

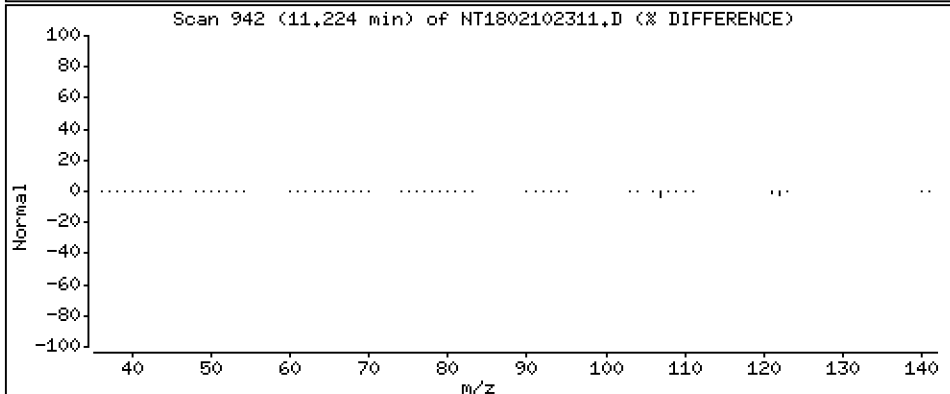
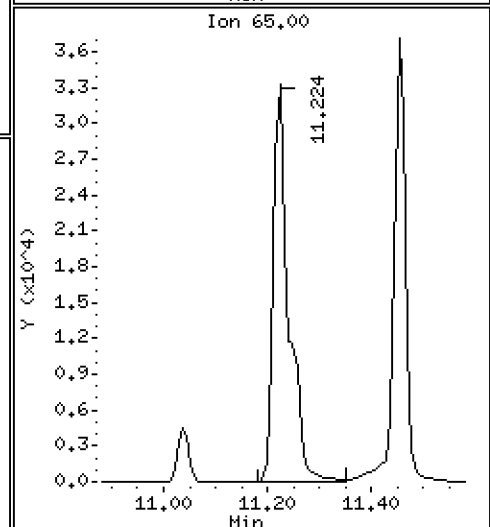
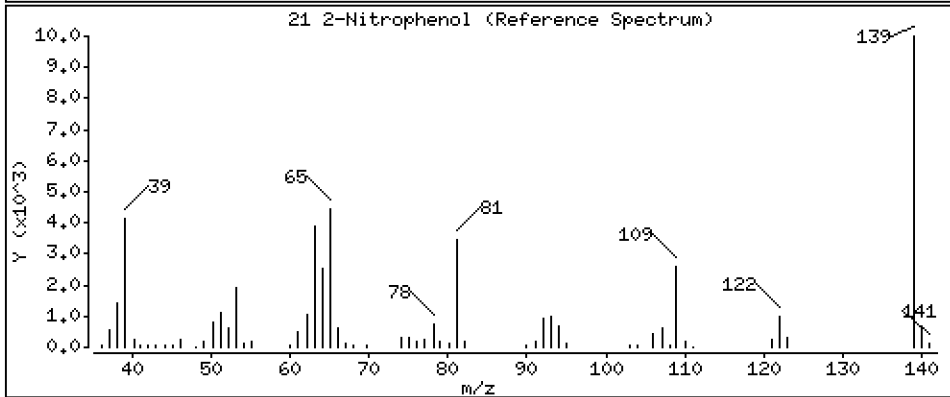
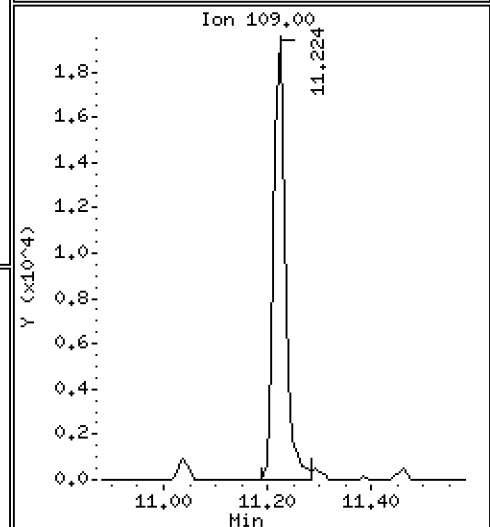
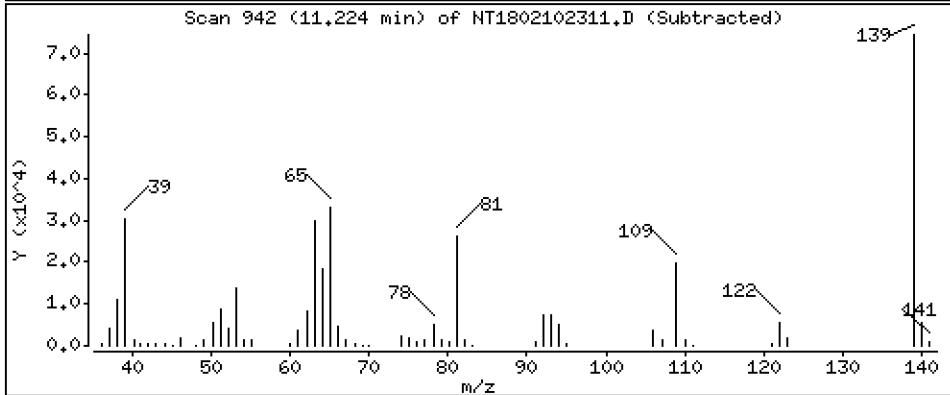
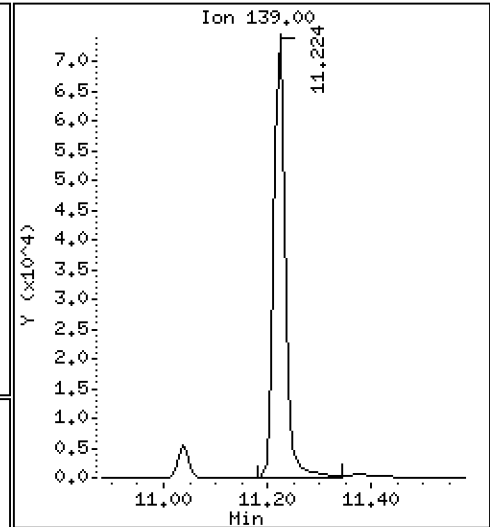
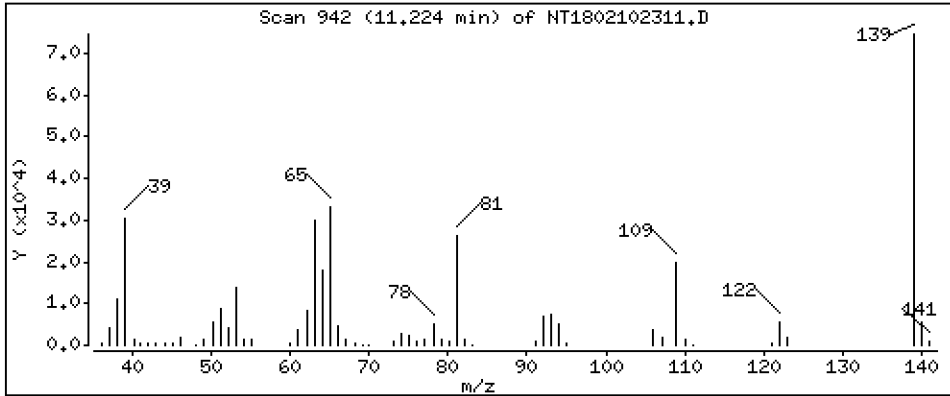
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 4,033 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

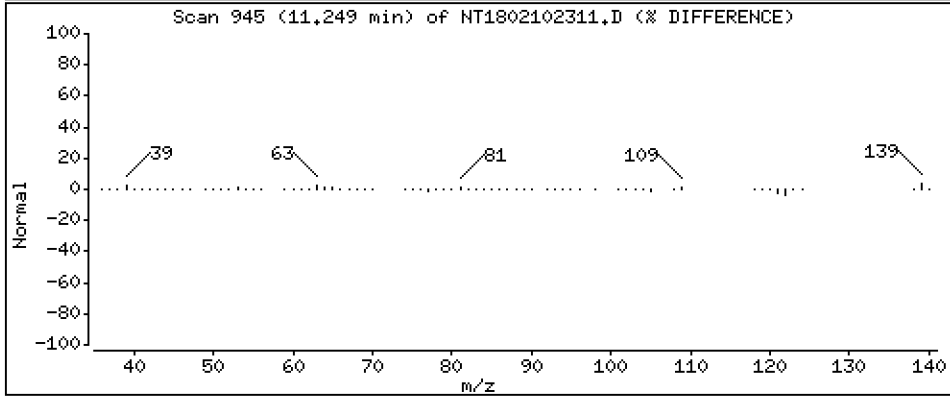
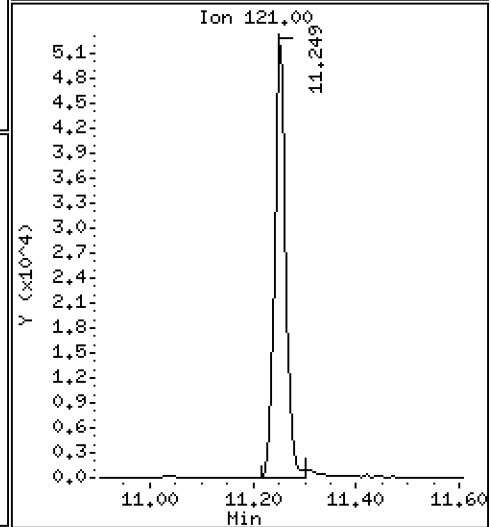
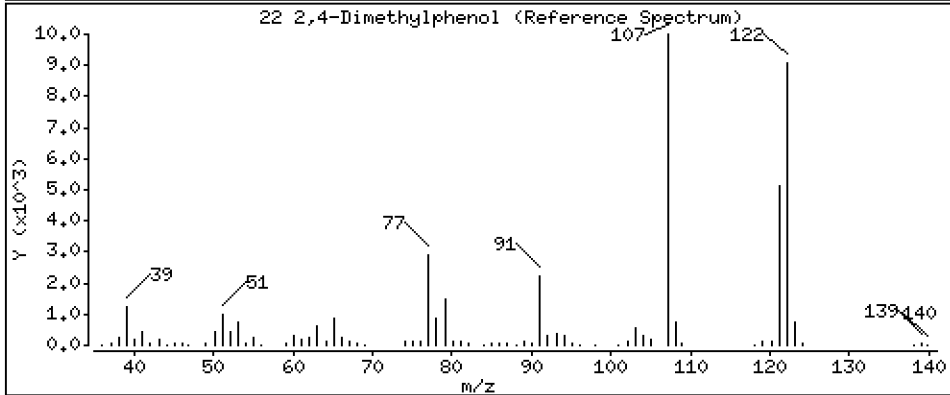
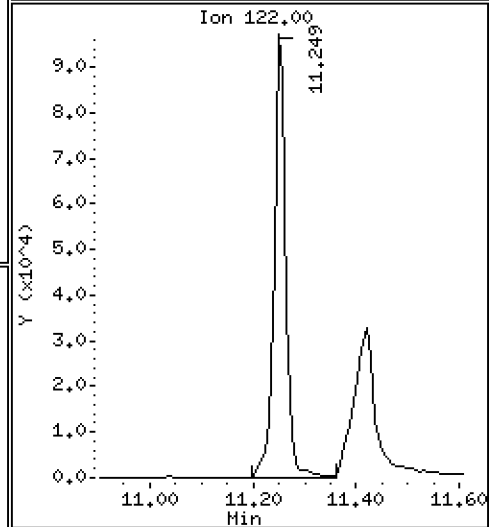
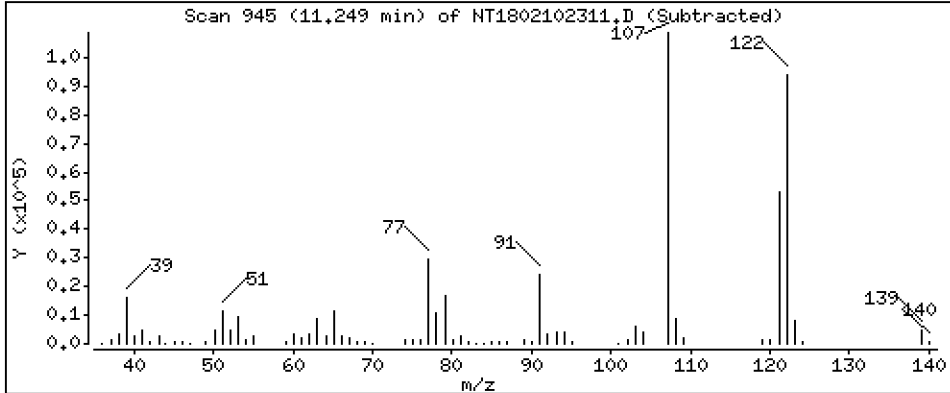
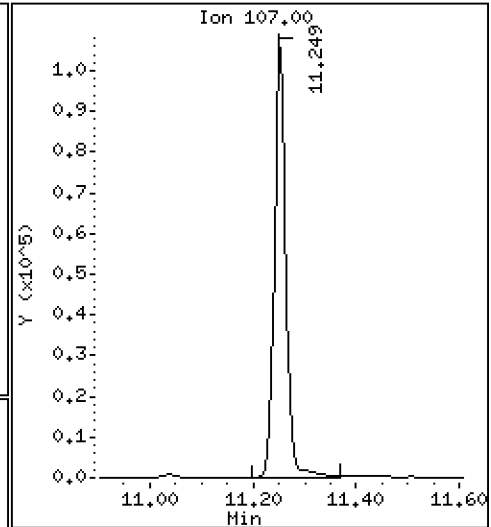
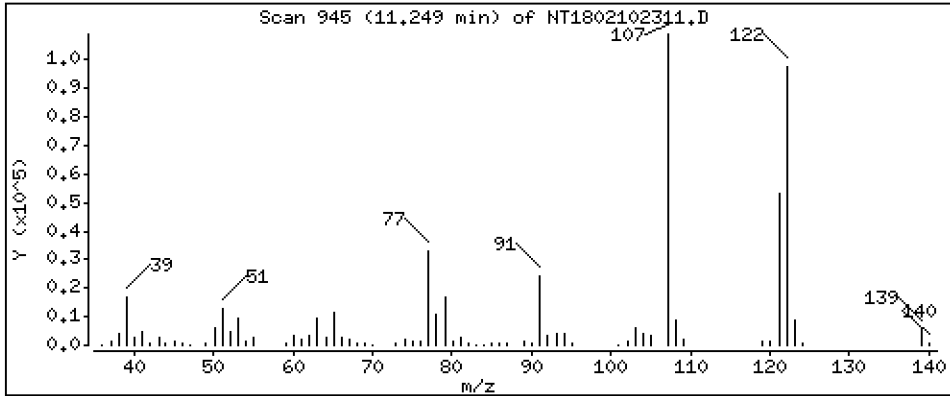
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,734 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

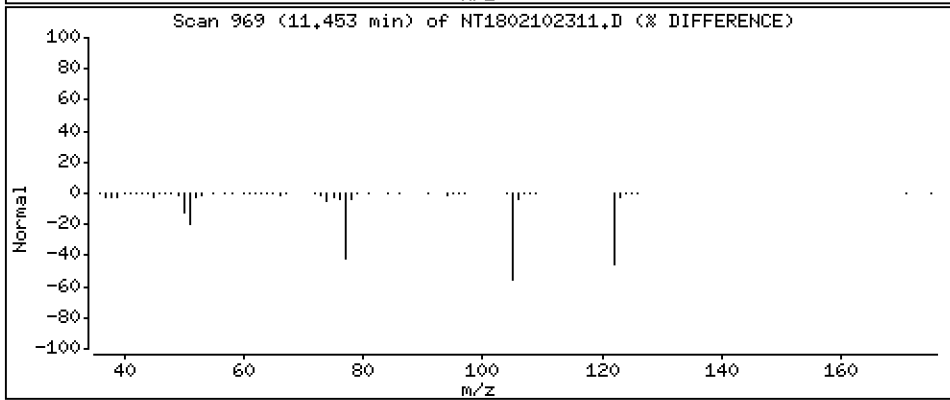
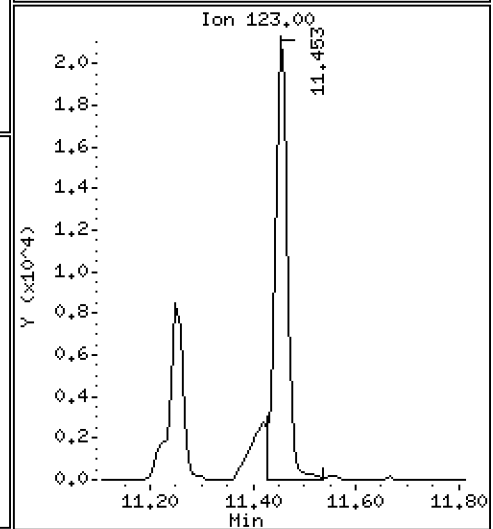
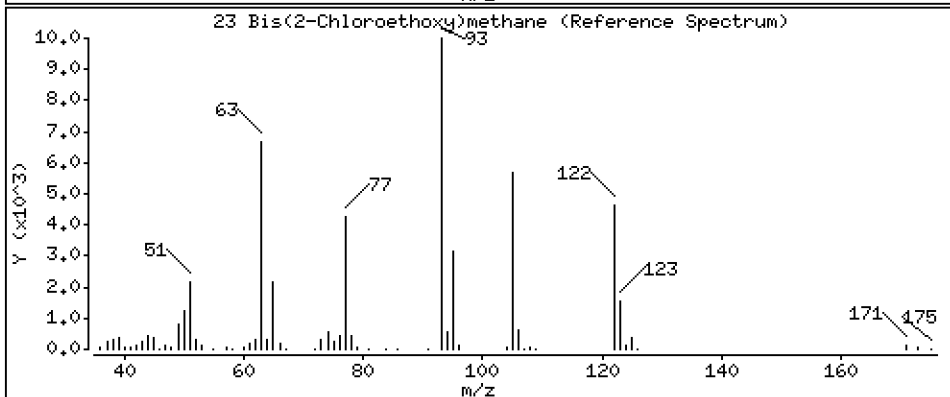
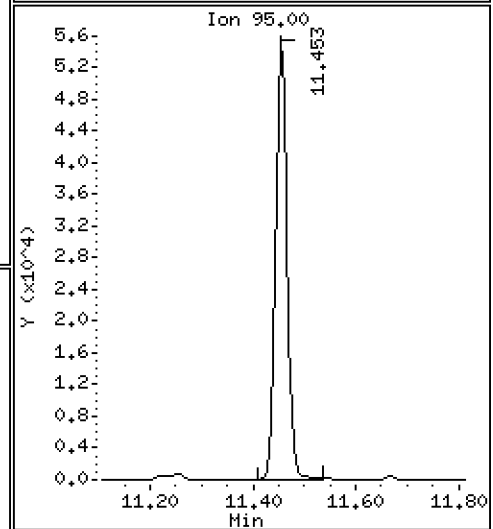
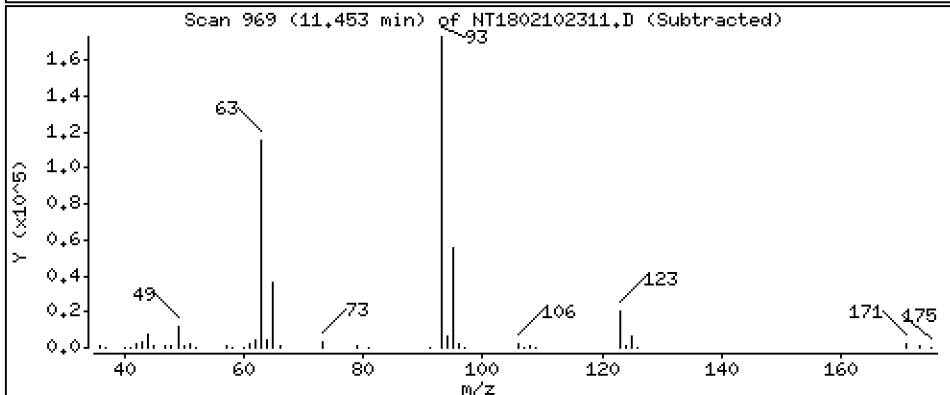
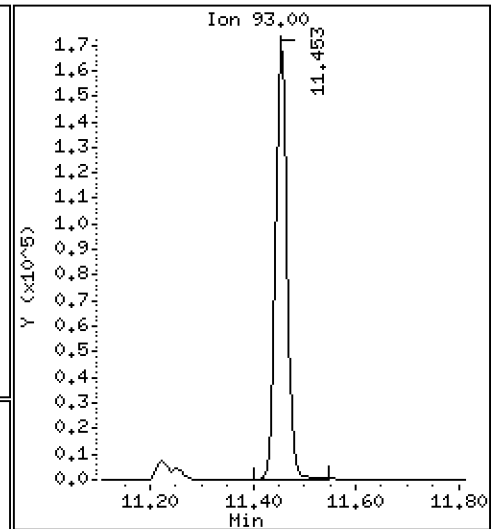
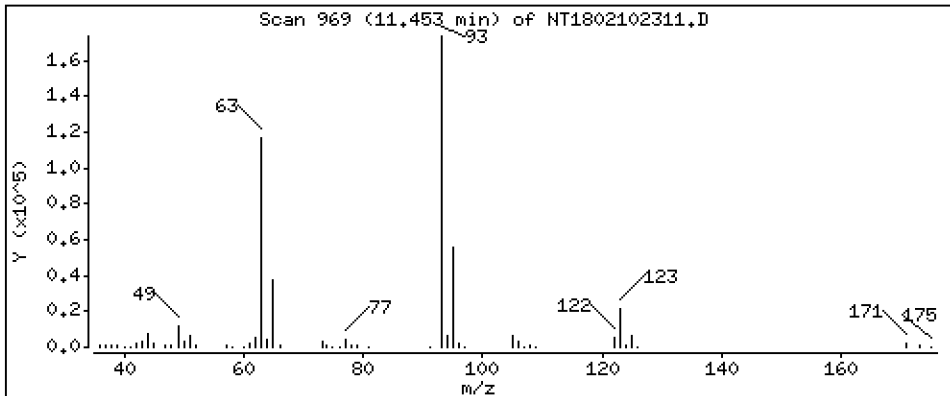
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 5,286 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

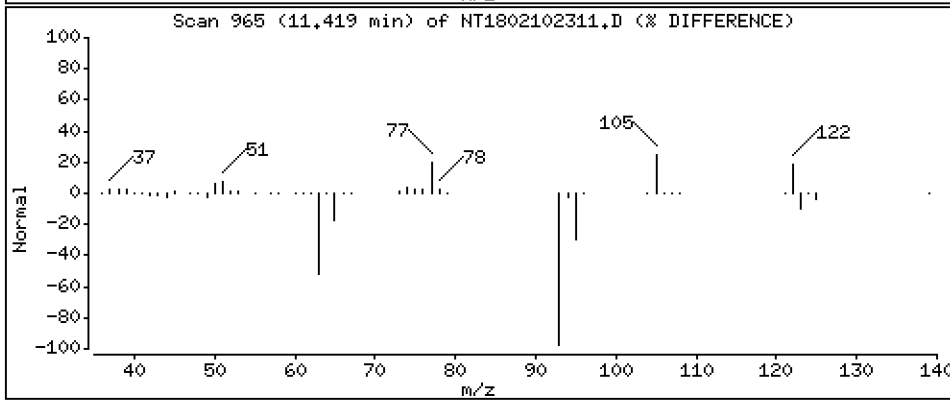
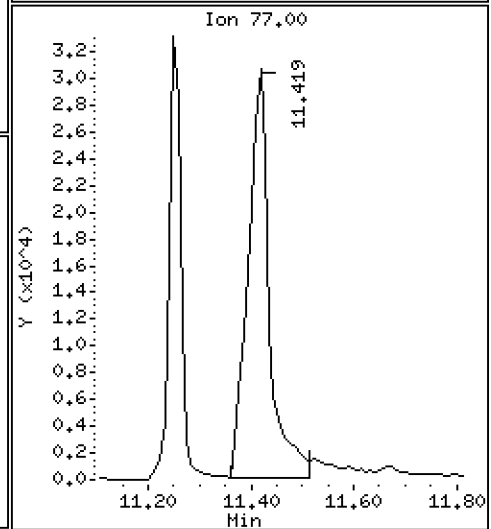
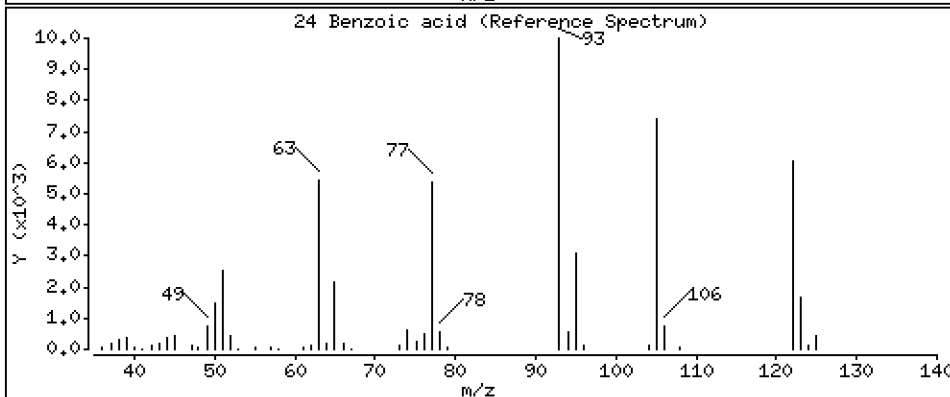
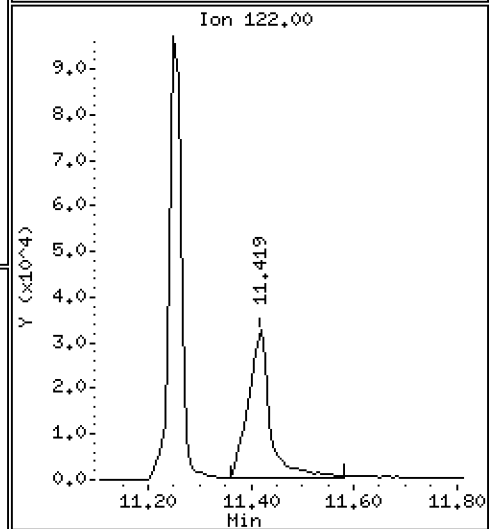
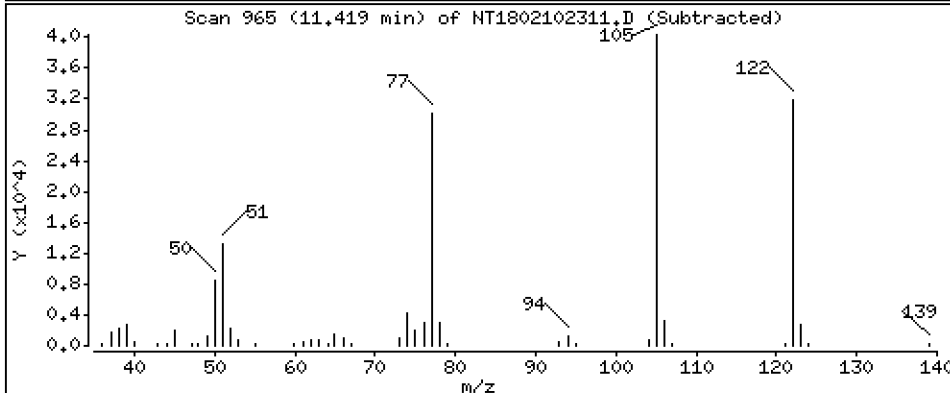
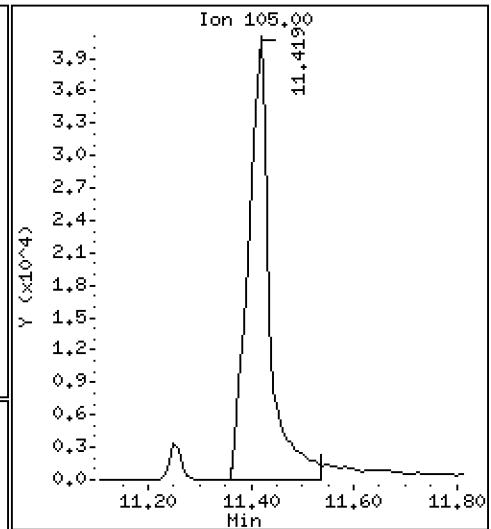
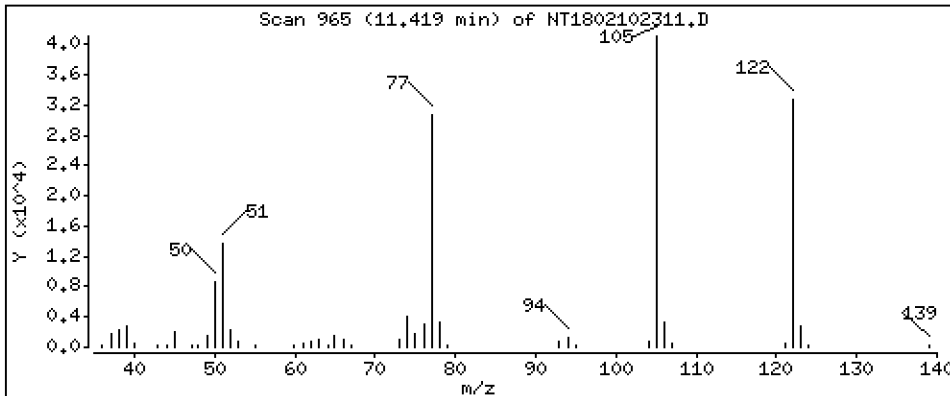
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 4,252 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

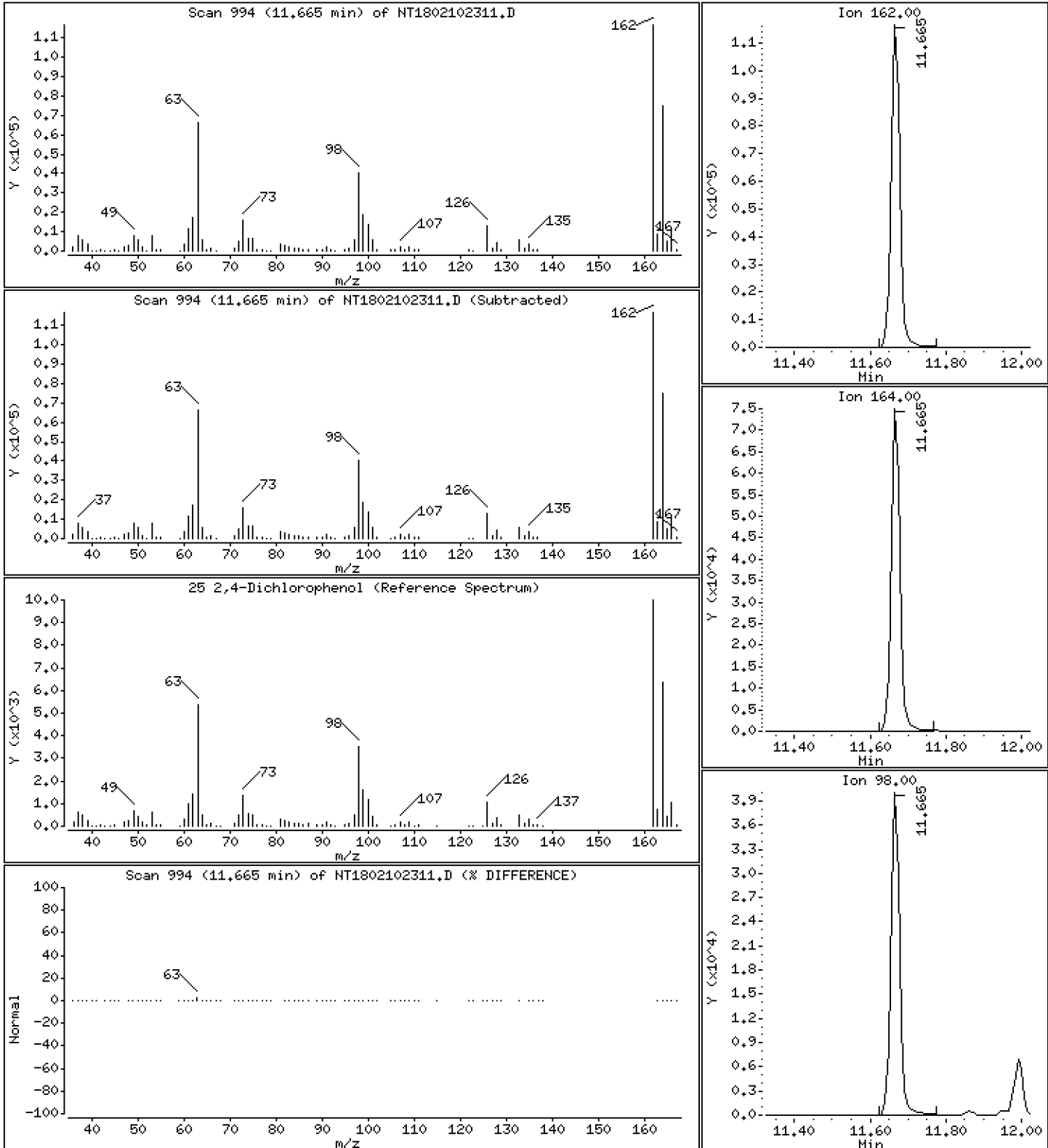
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,529 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

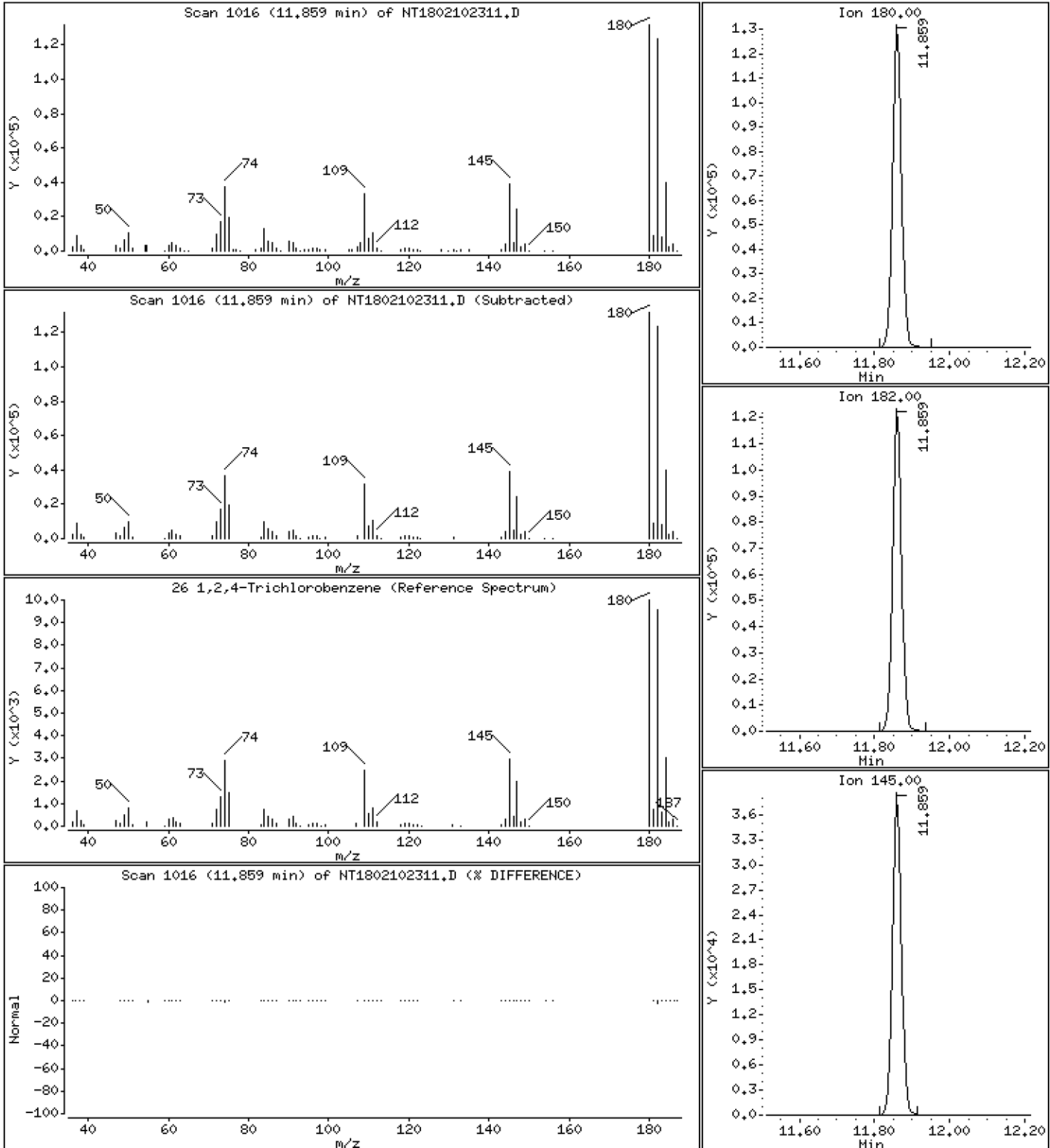
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 4.245 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

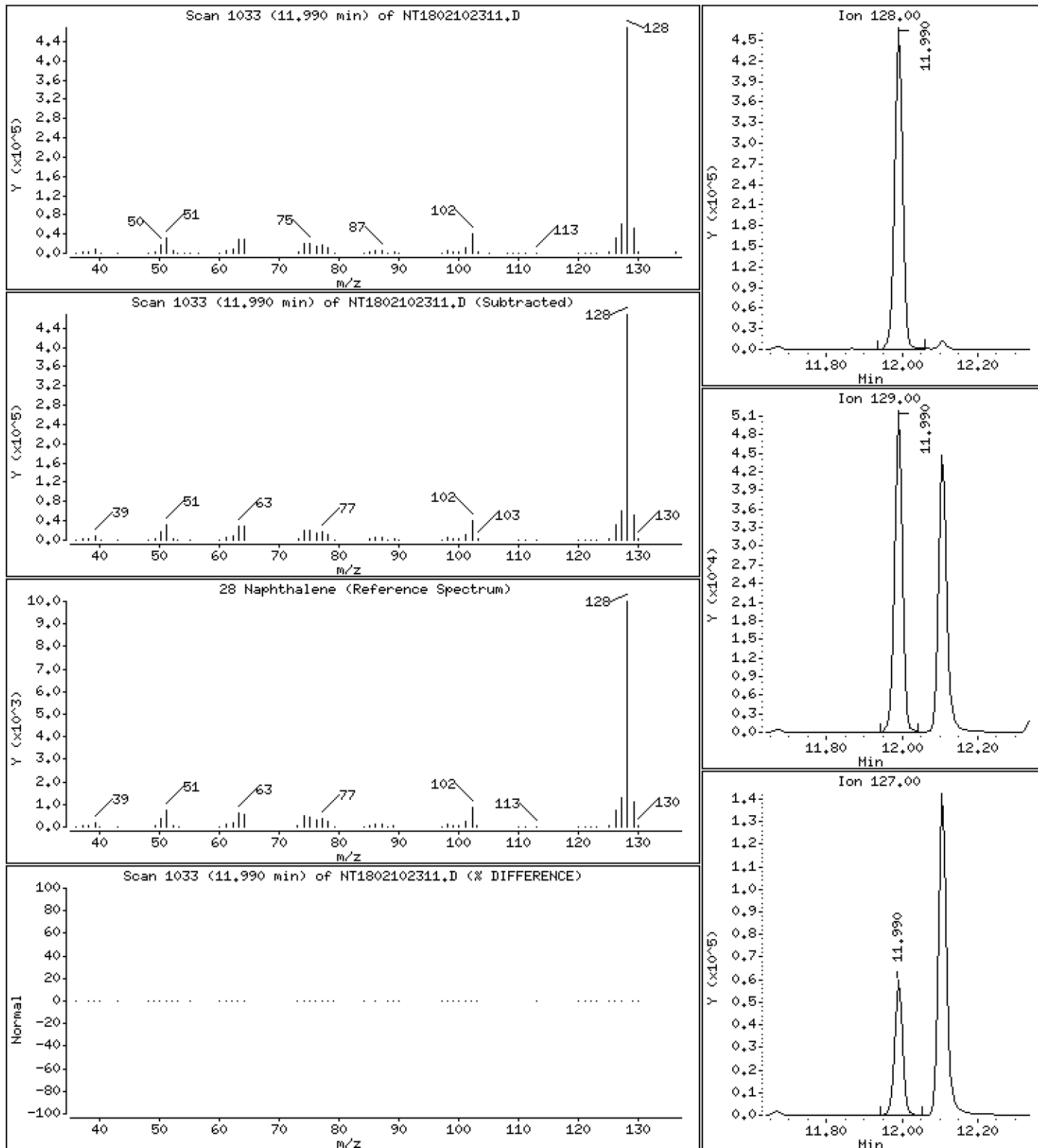
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 4,546 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

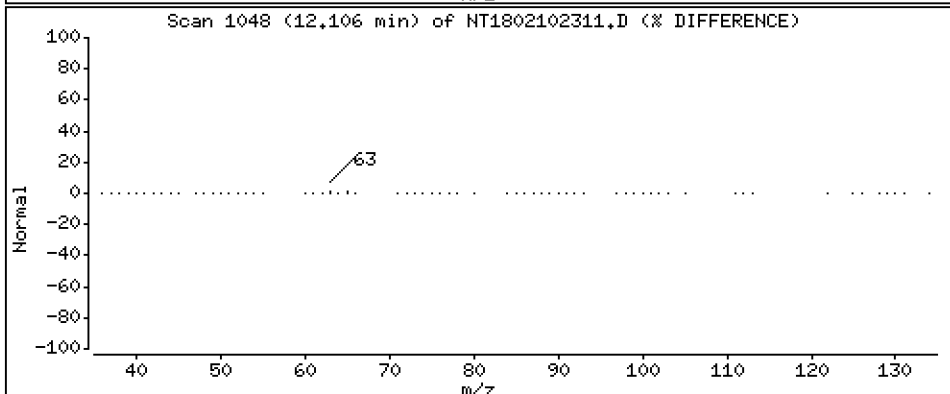
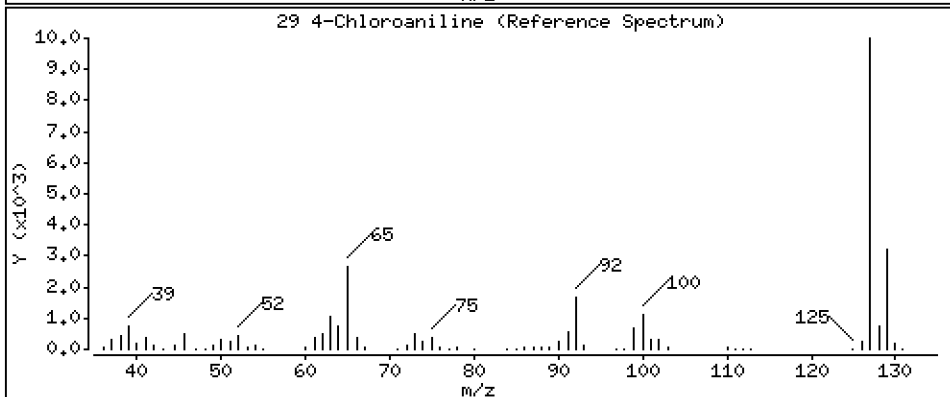
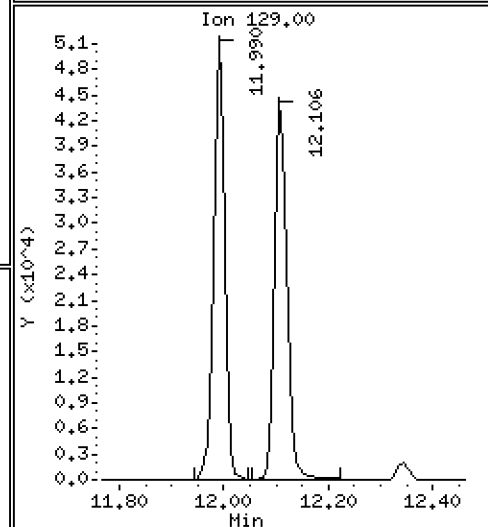
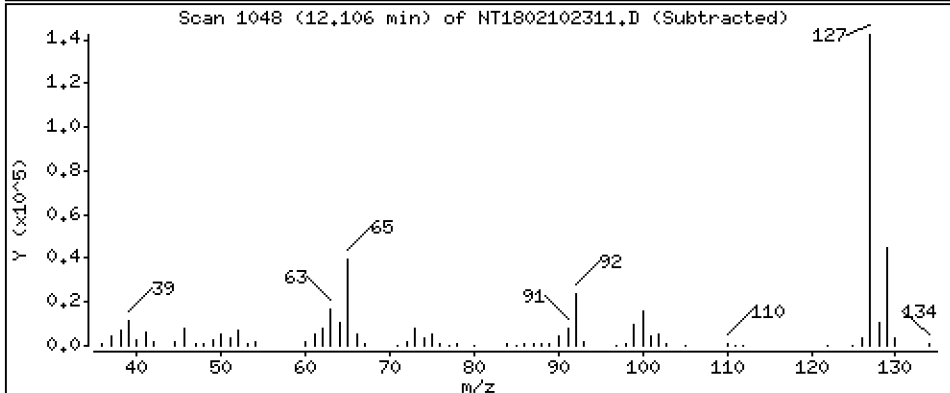
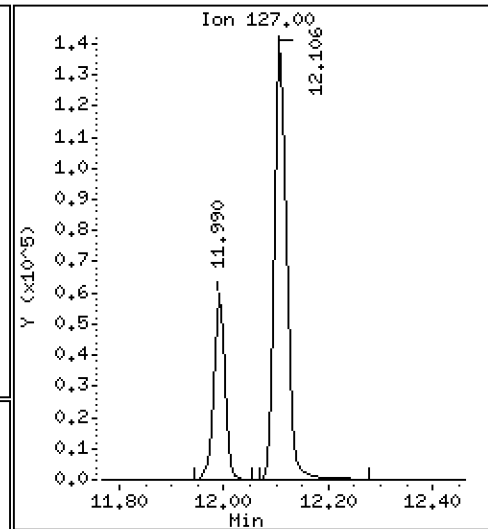
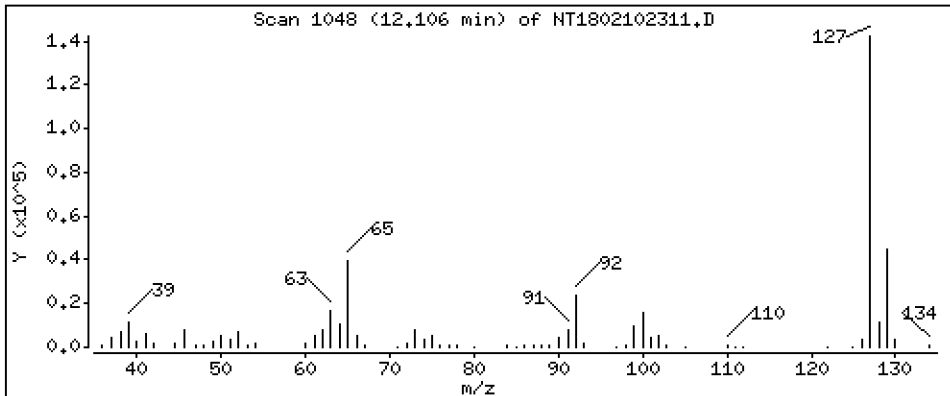
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 3,506 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

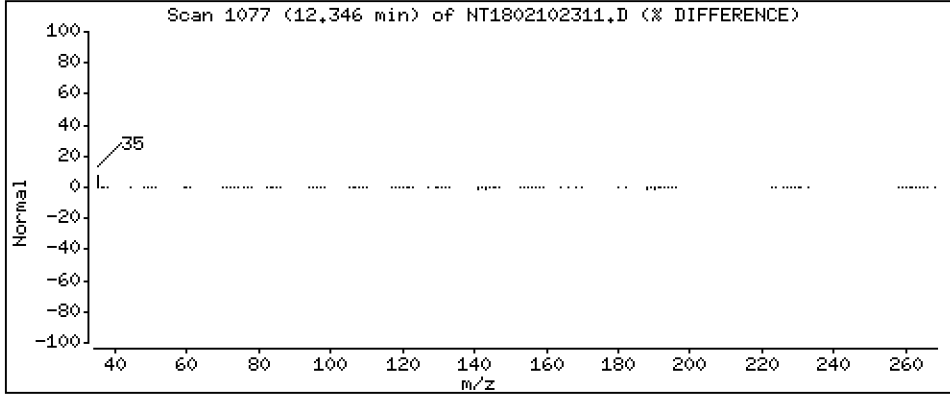
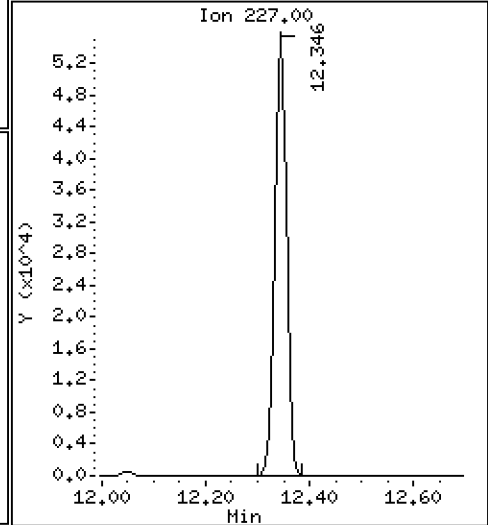
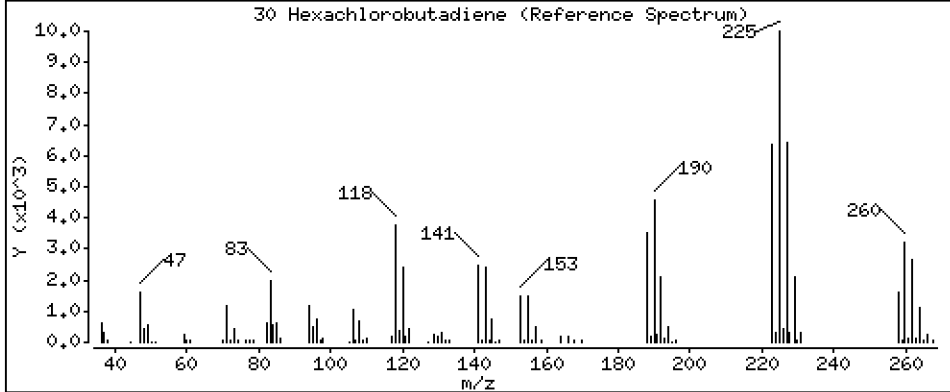
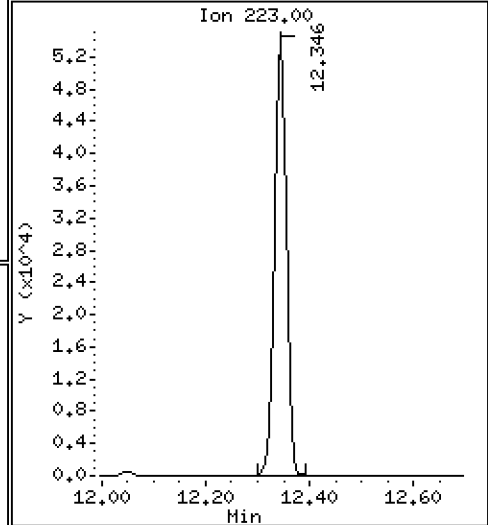
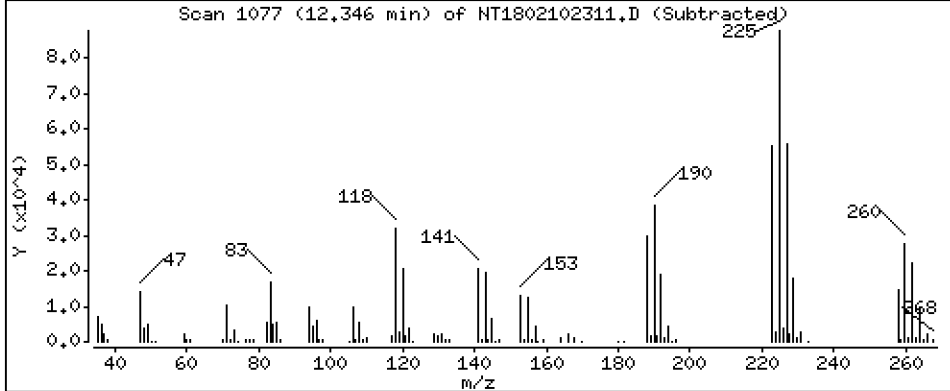
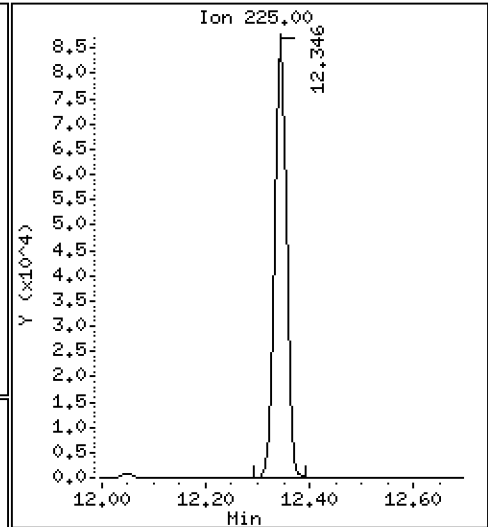
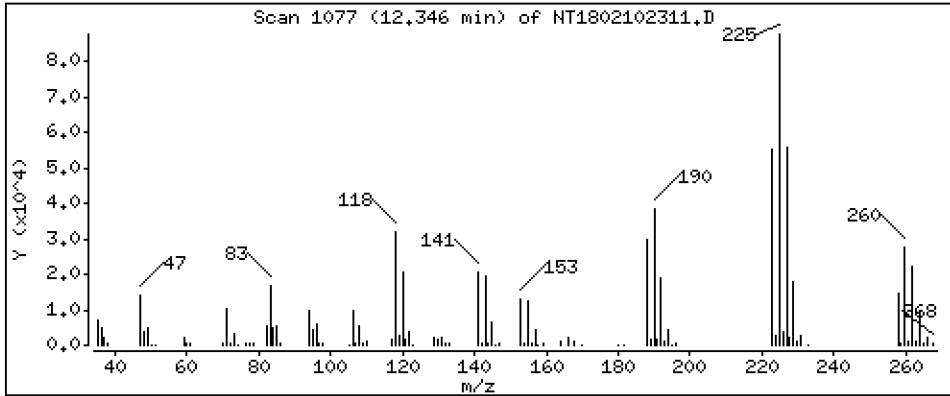
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,414 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

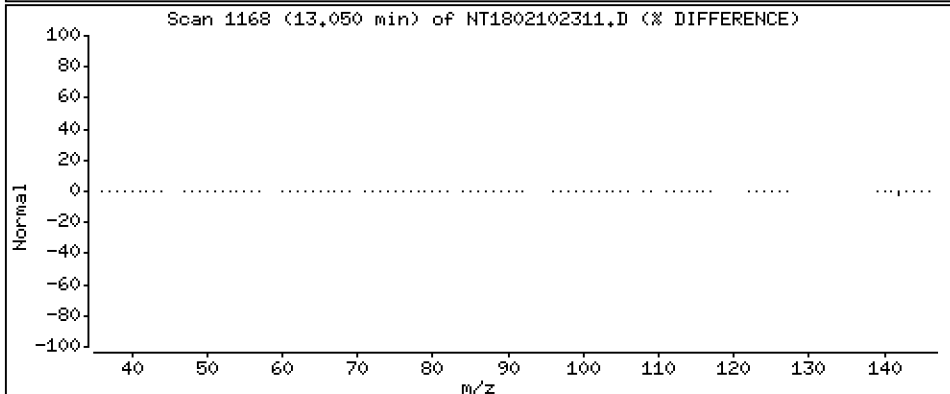
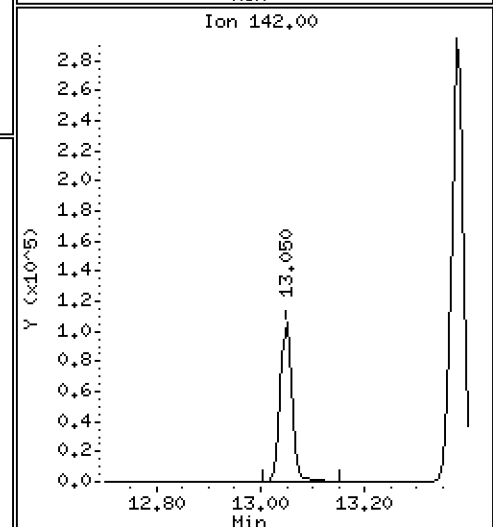
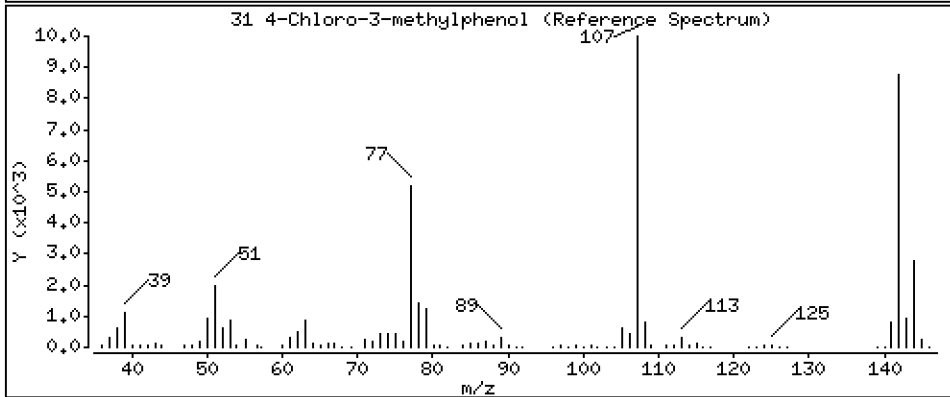
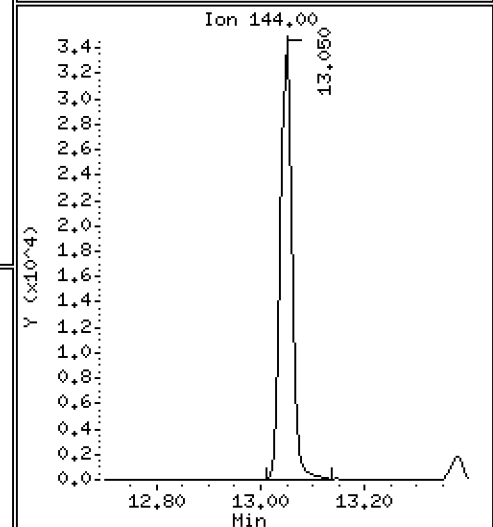
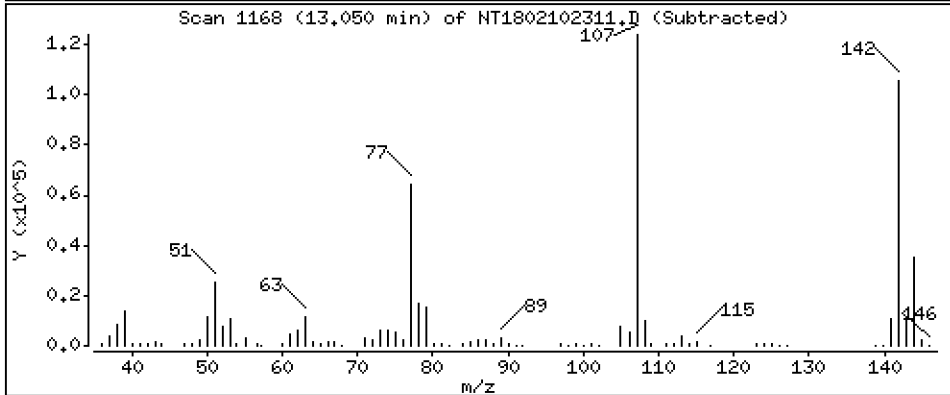
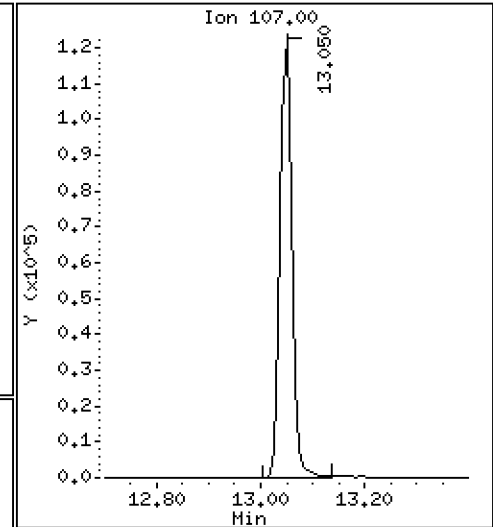
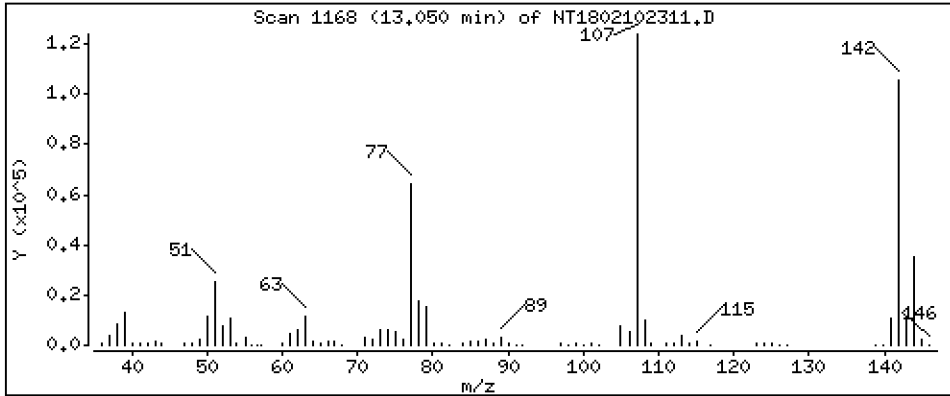
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 4,485 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

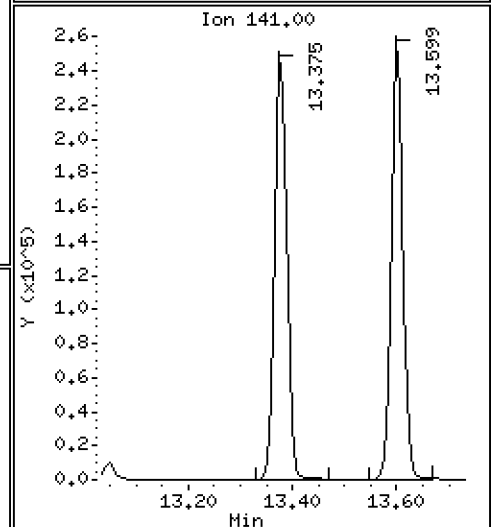
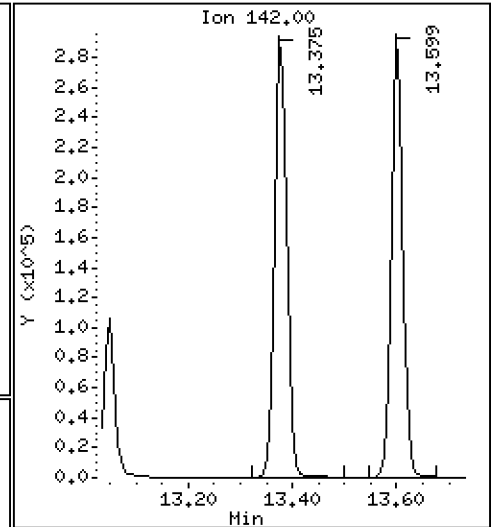
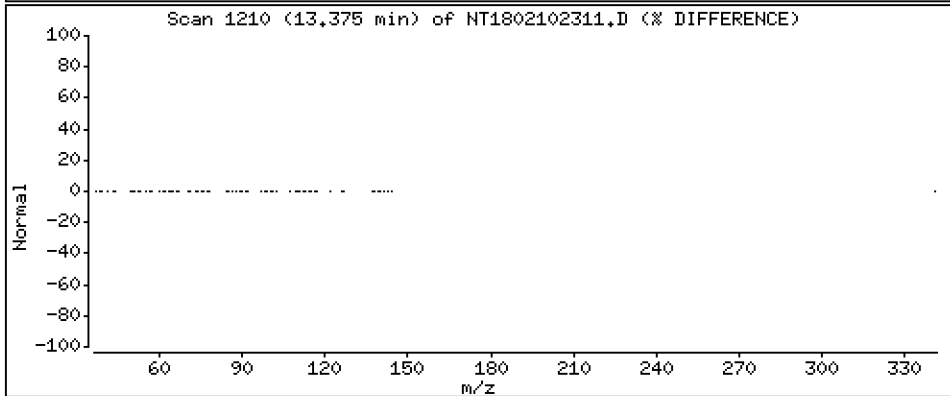
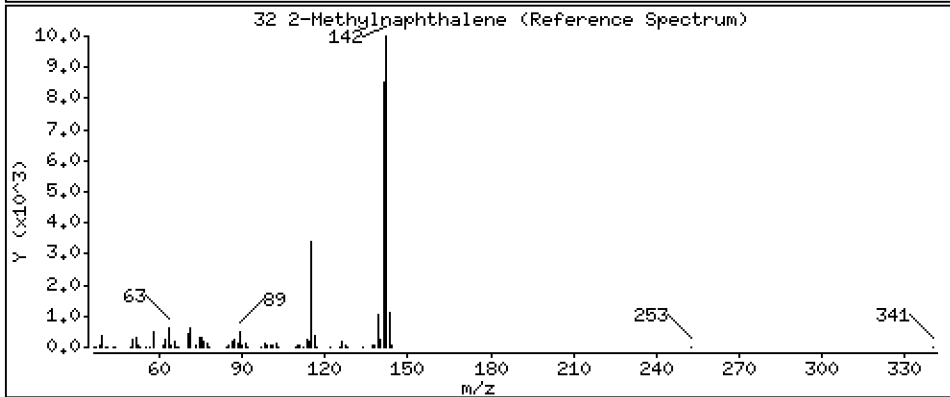
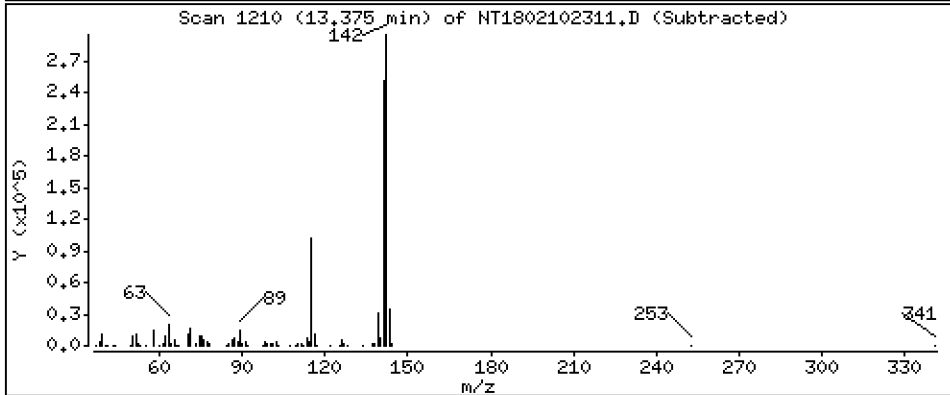
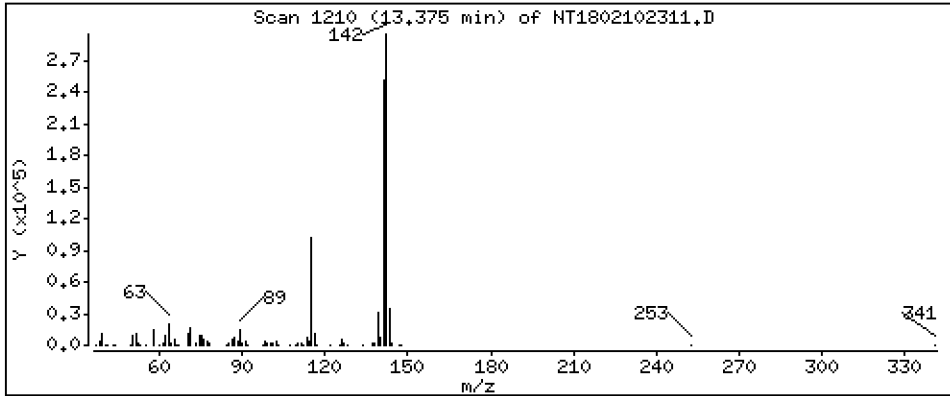
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 4,279 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

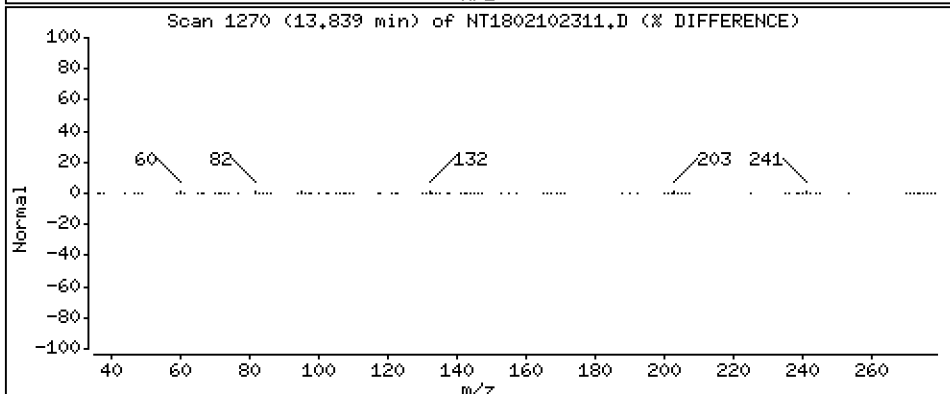
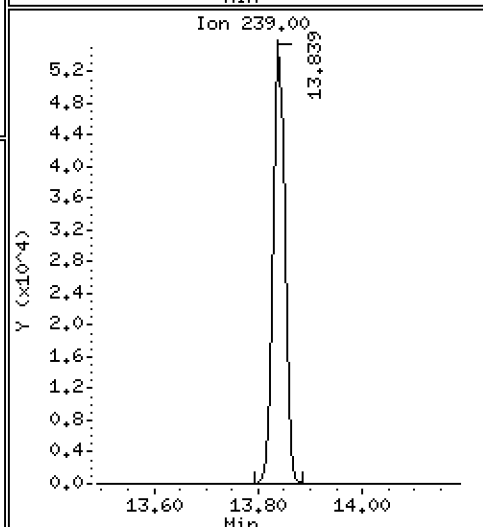
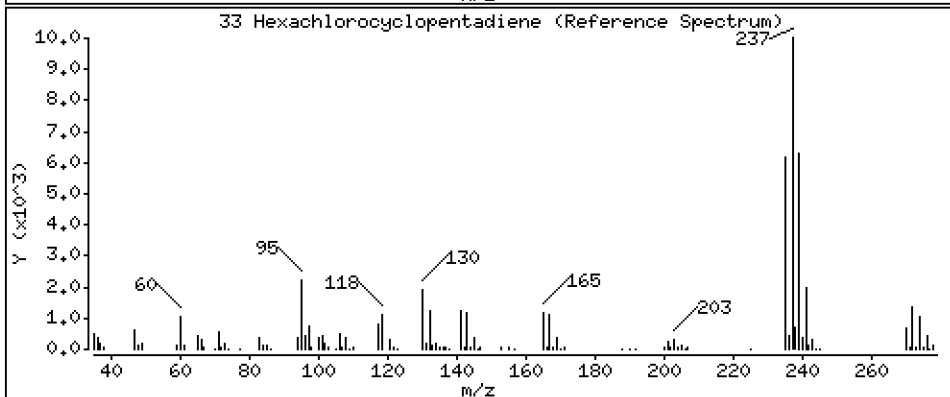
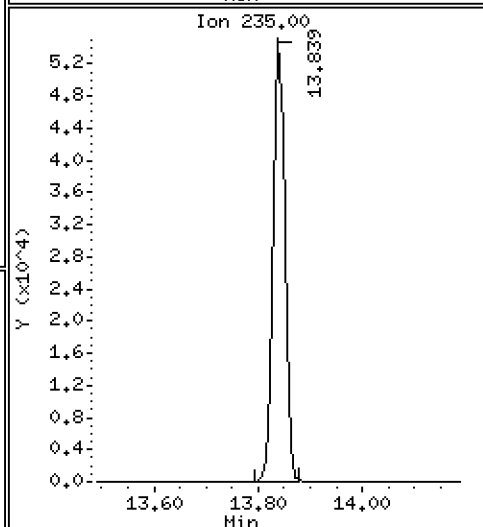
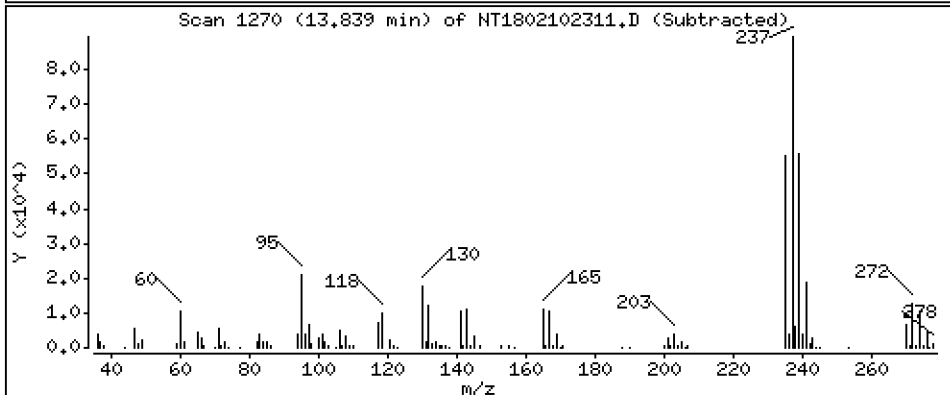
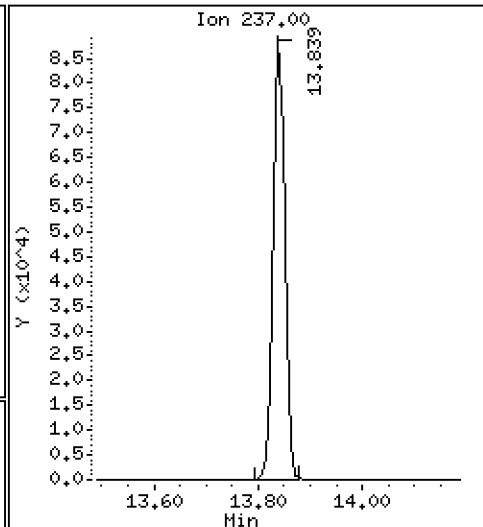
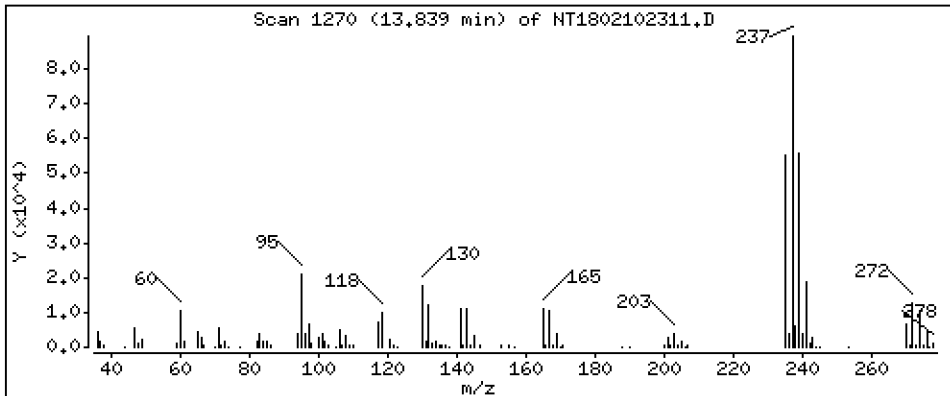
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 4,130 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

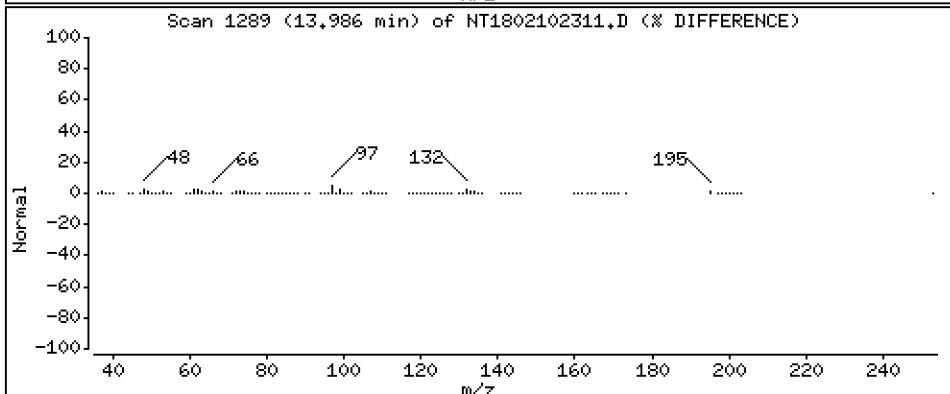
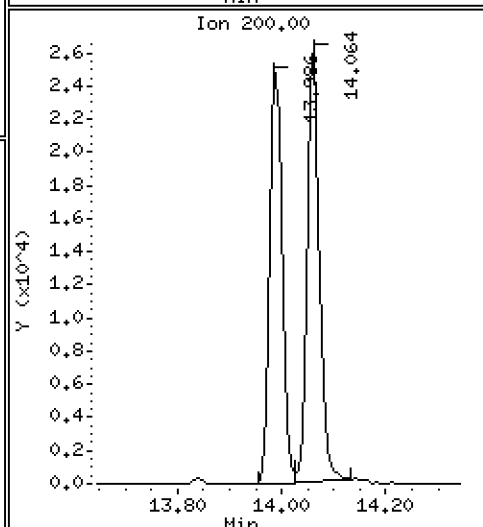
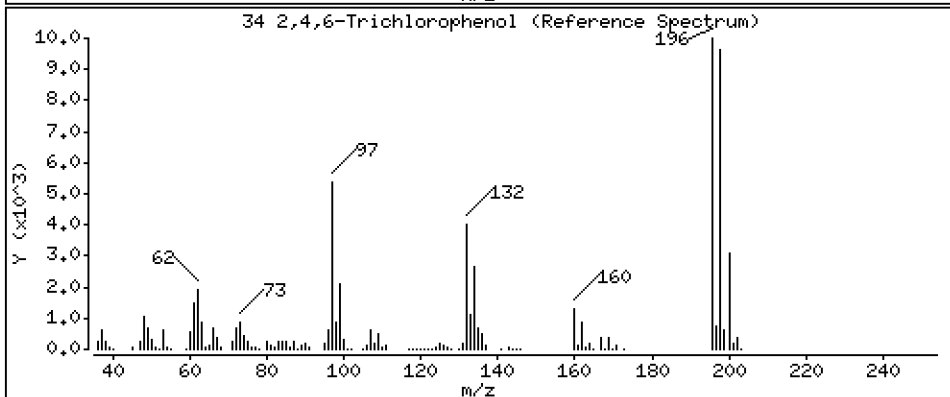
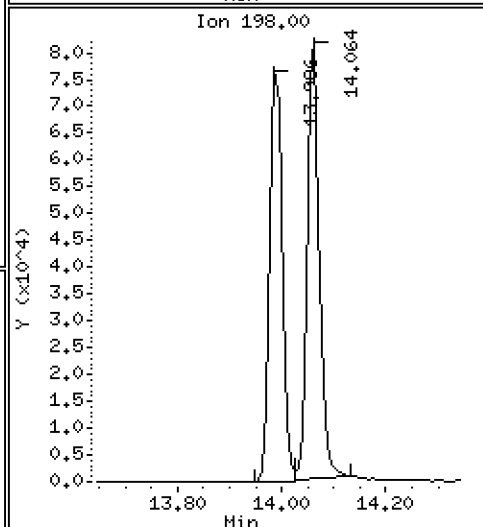
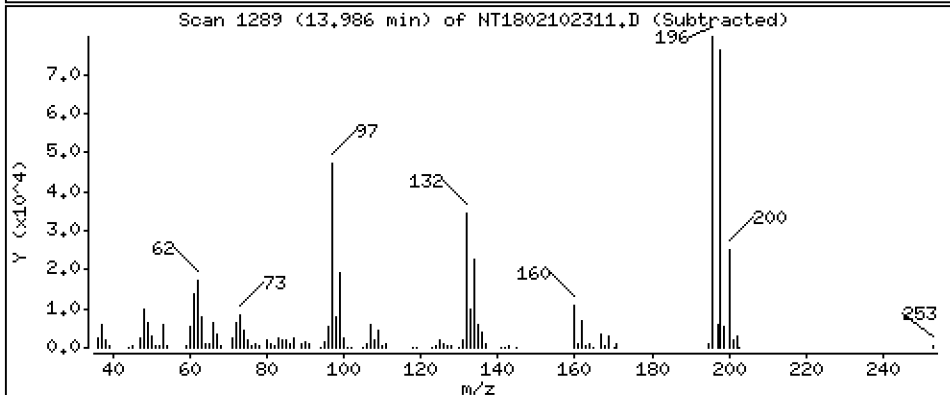
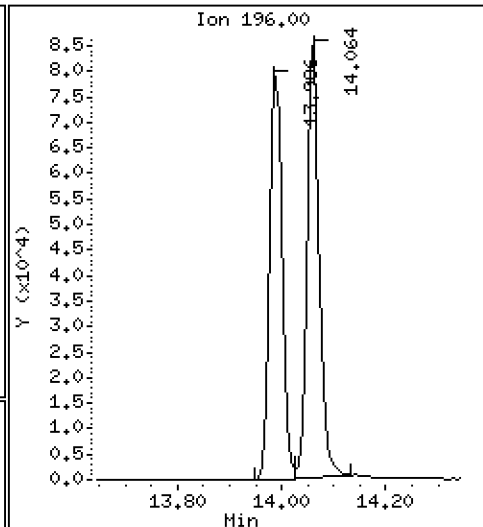
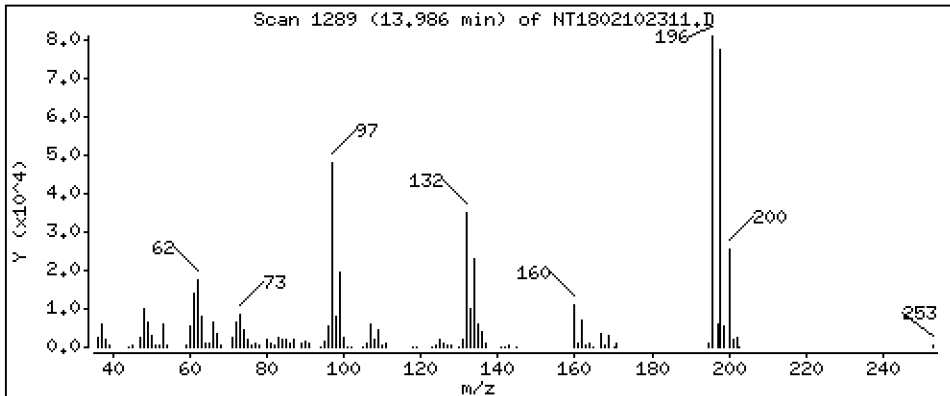
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 4,334 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

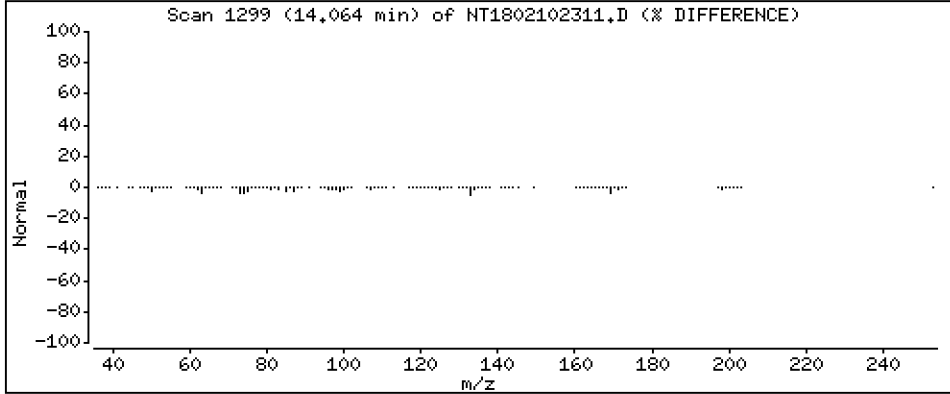
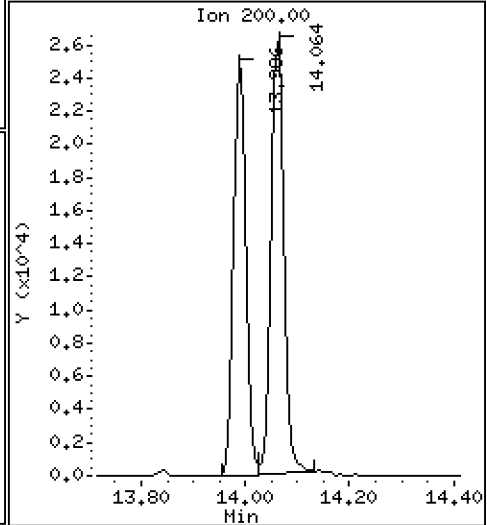
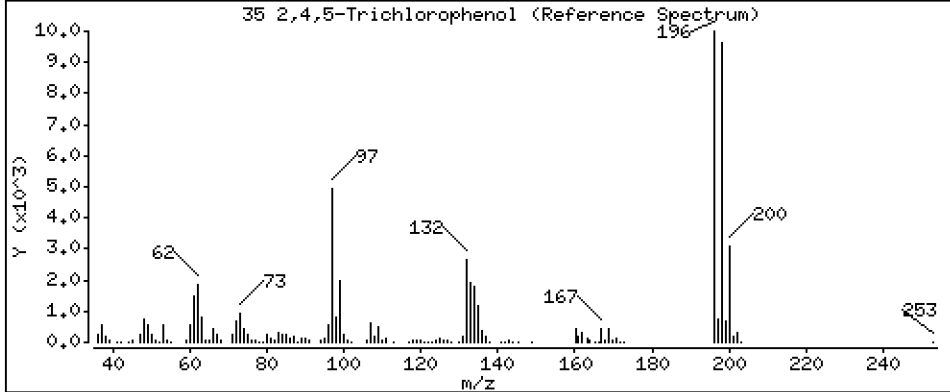
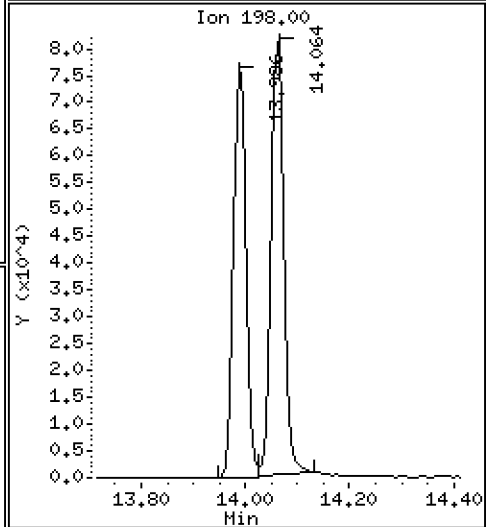
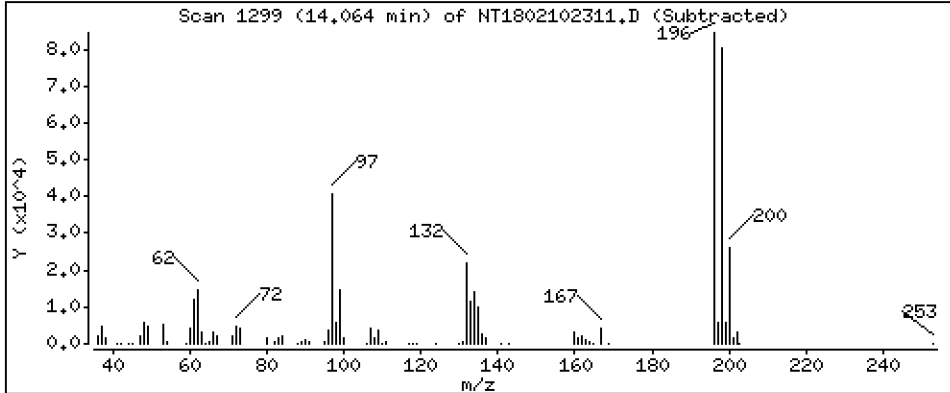
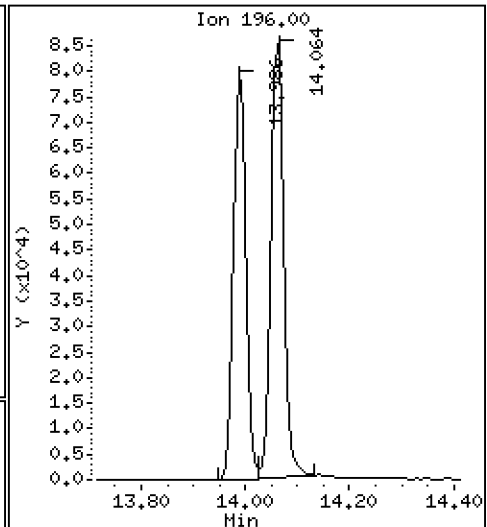
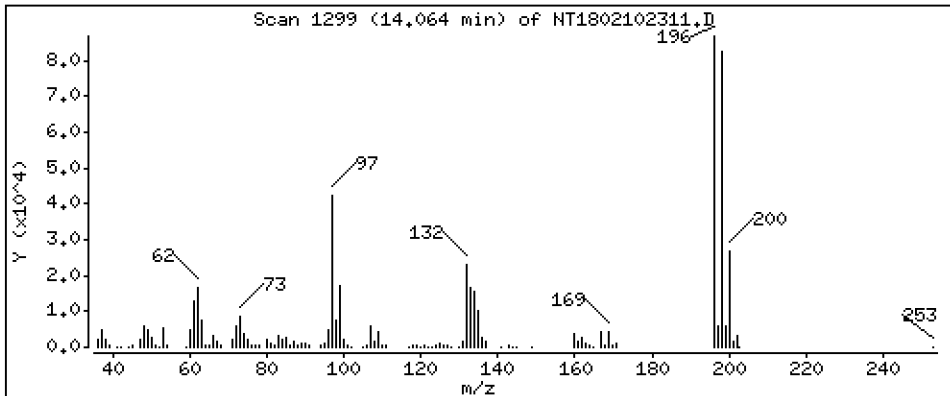
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 4,225 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

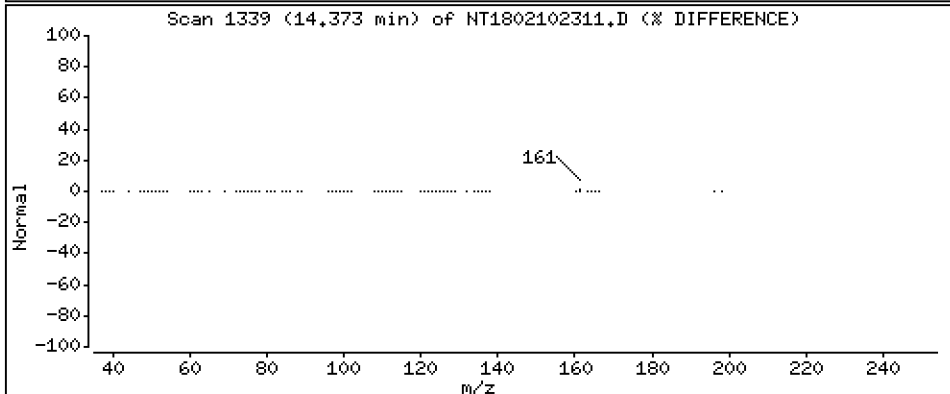
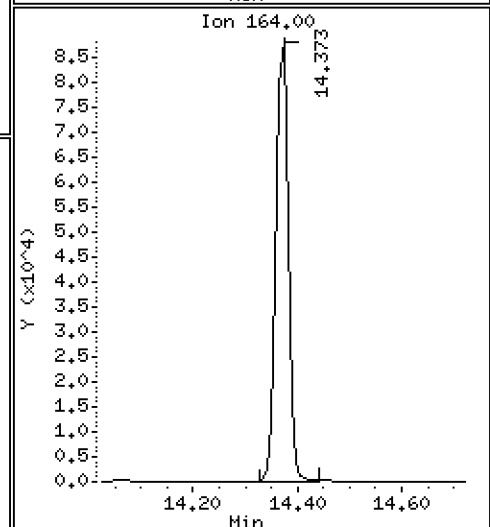
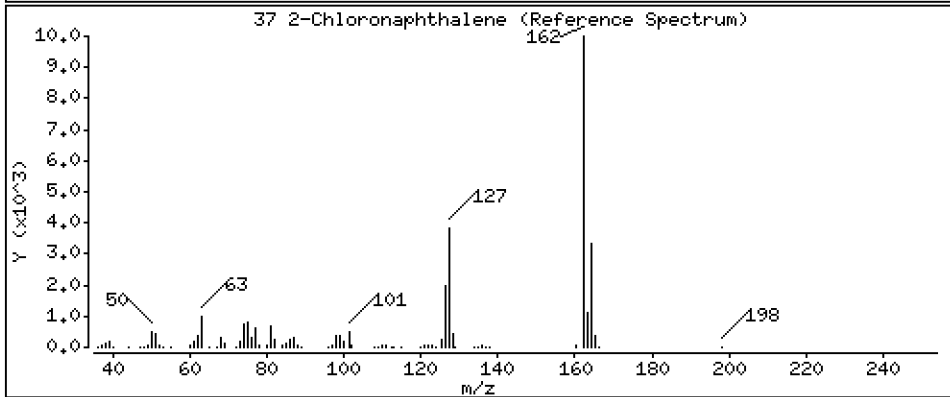
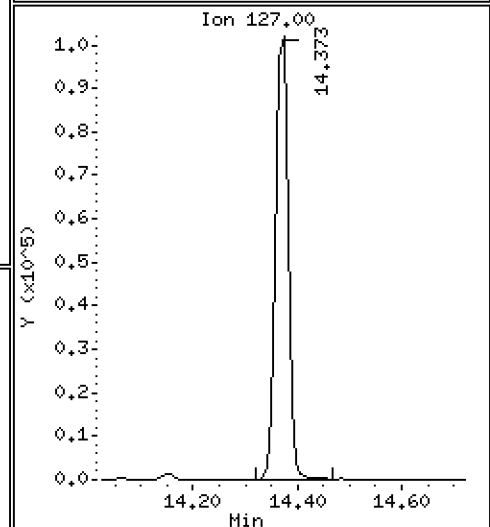
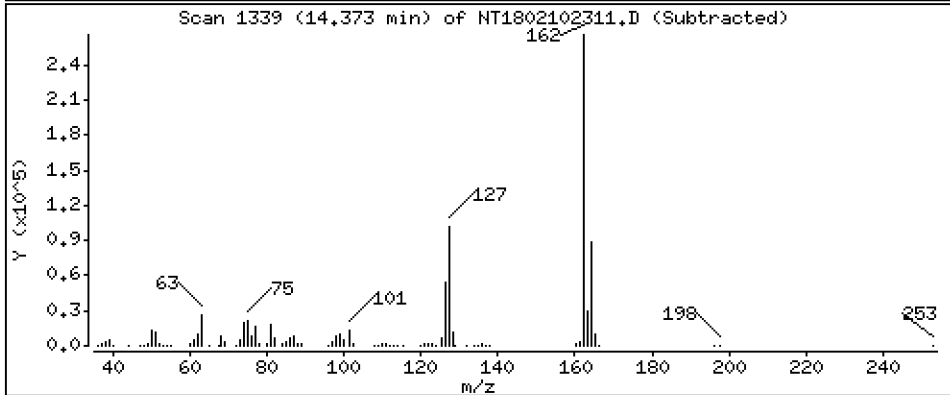
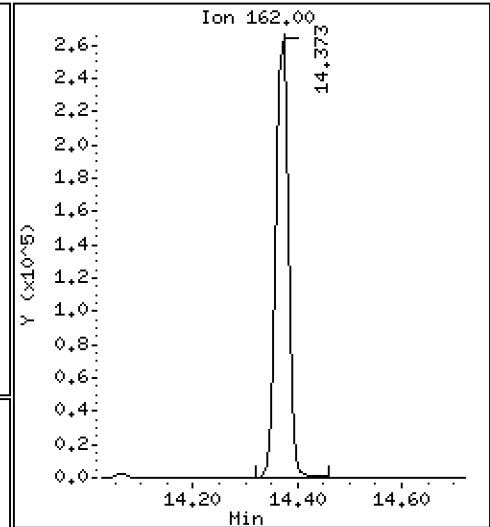
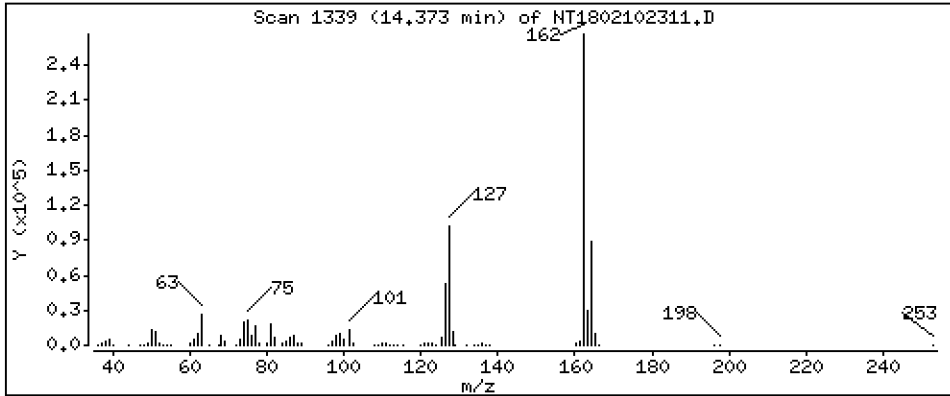
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 4.299 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

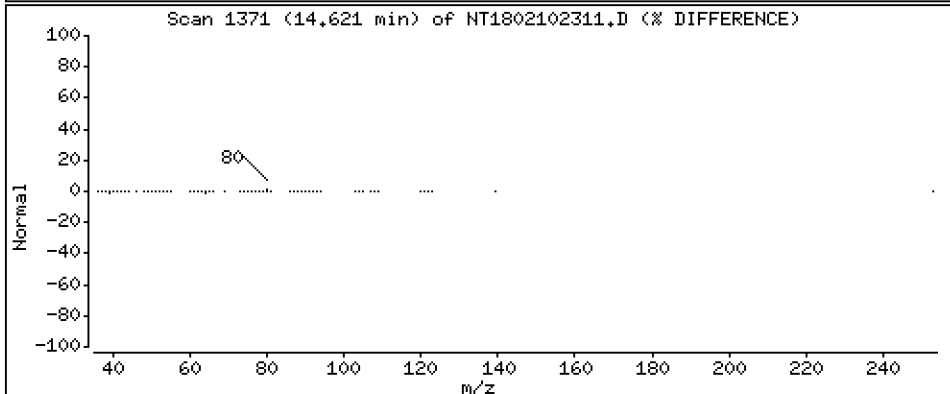
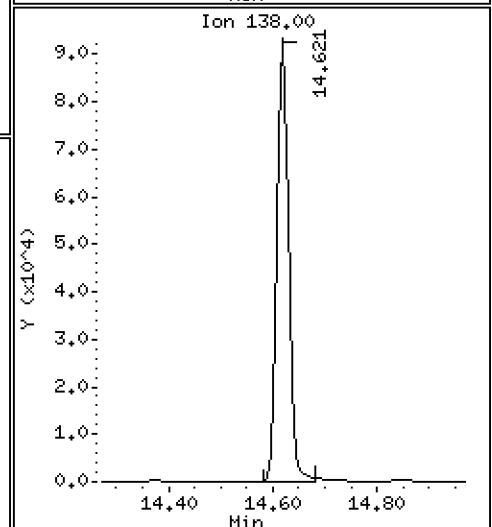
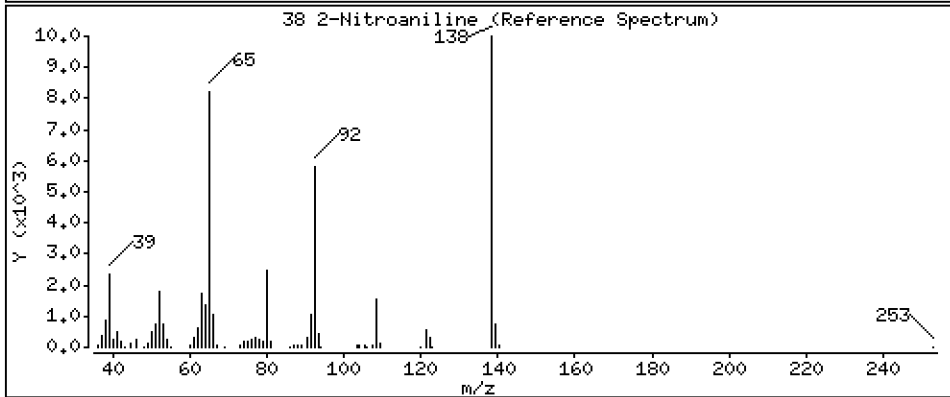
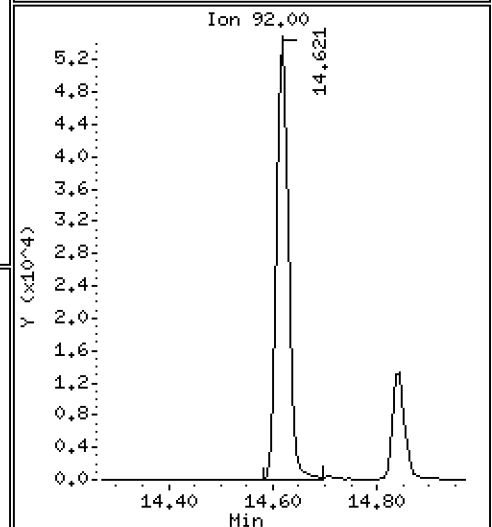
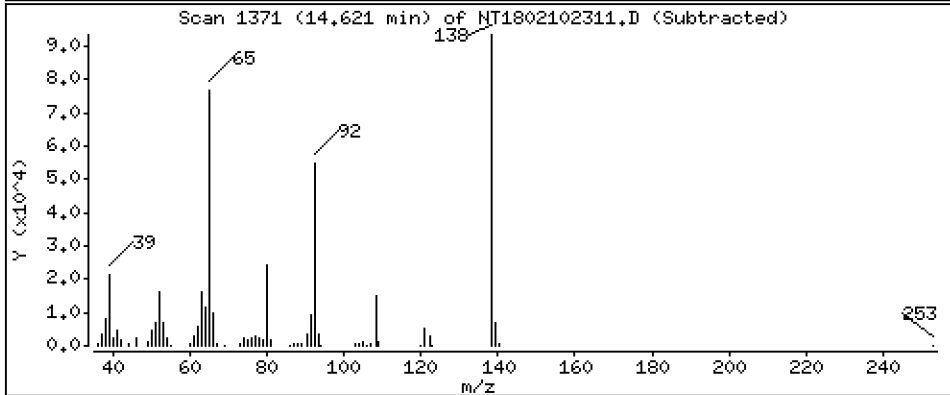
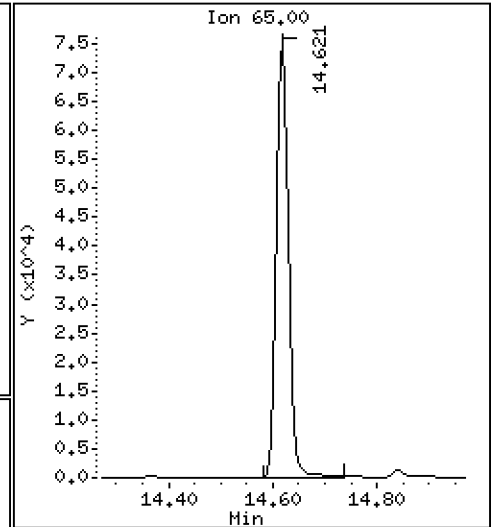
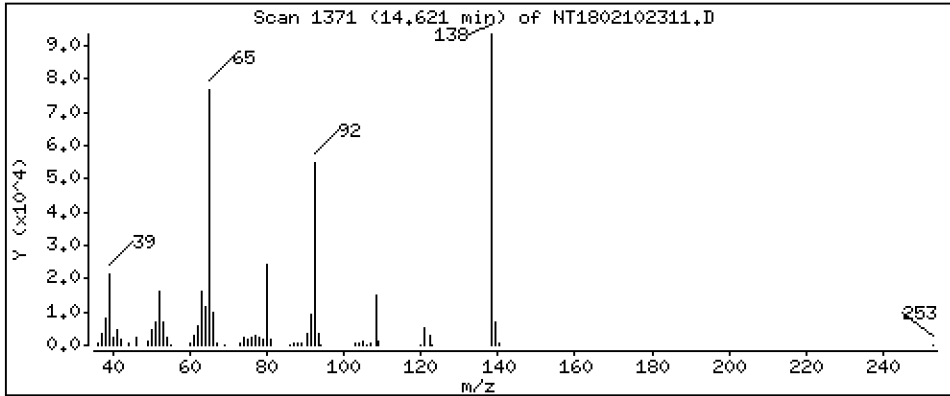
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

38 2-Nitroaniline

Concentration: 4.431 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

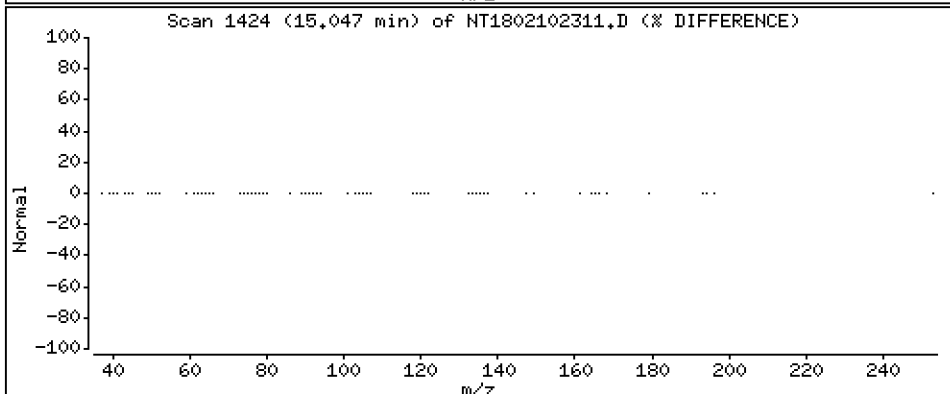
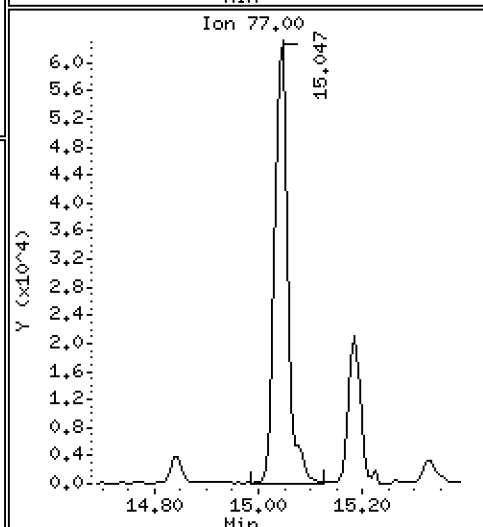
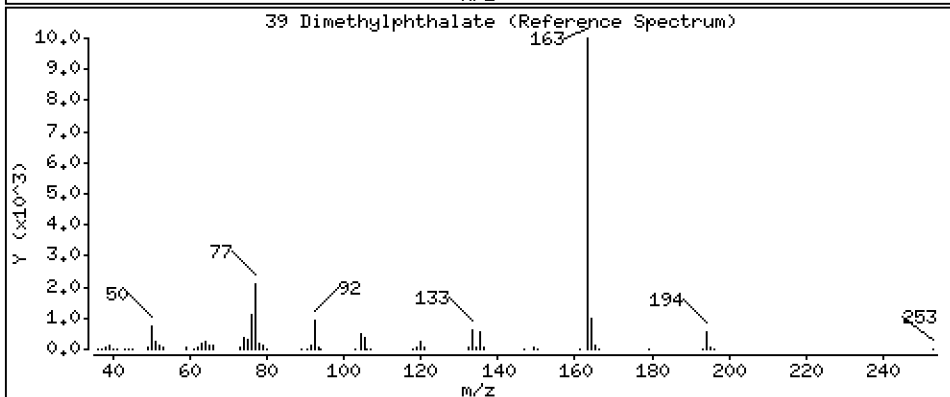
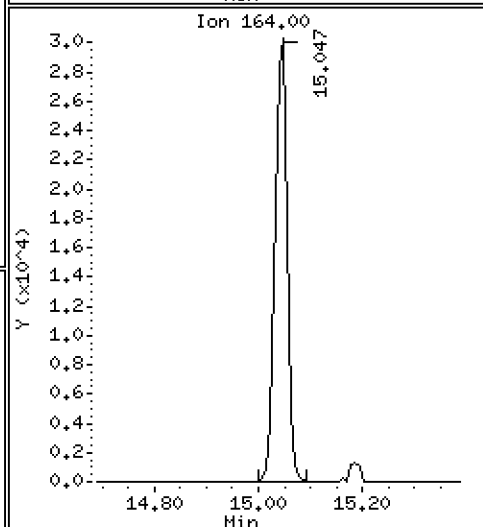
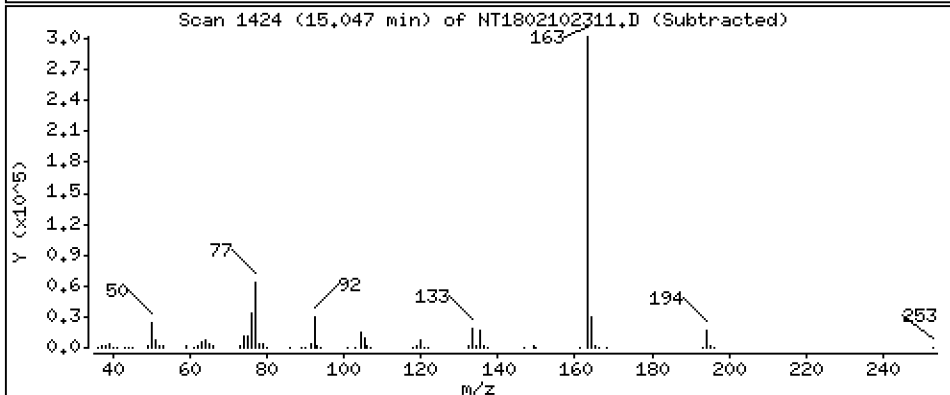
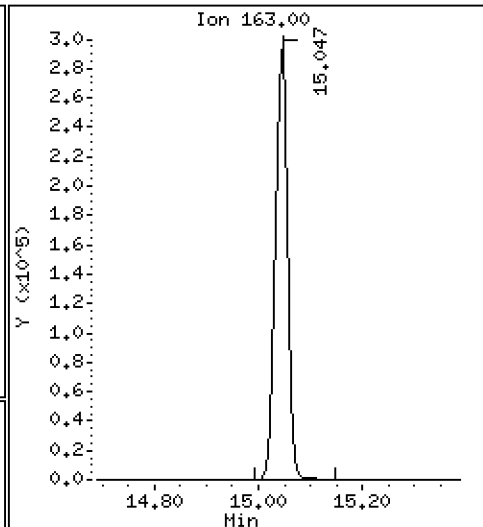
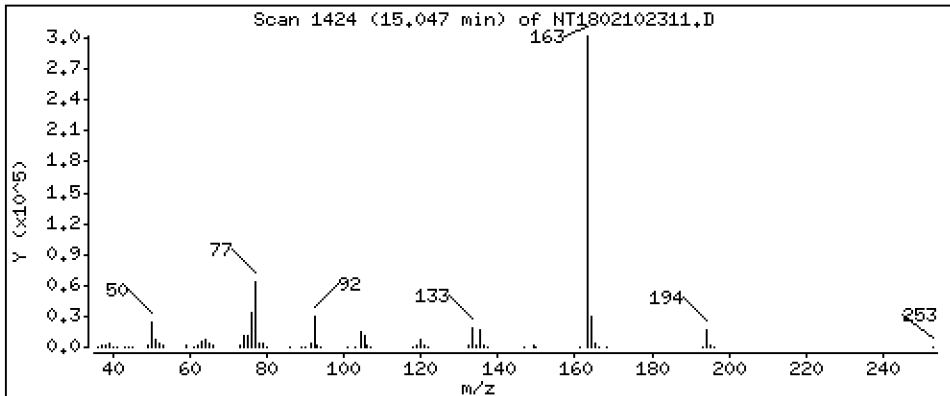
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,546 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

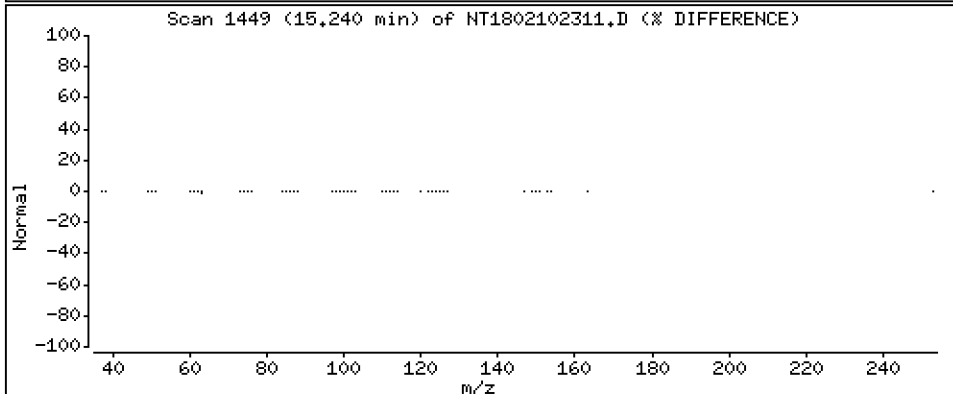
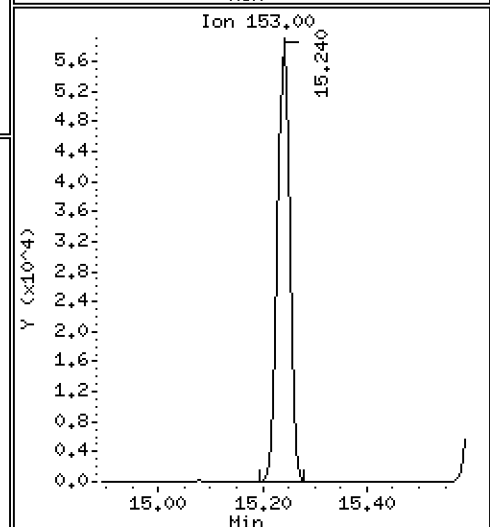
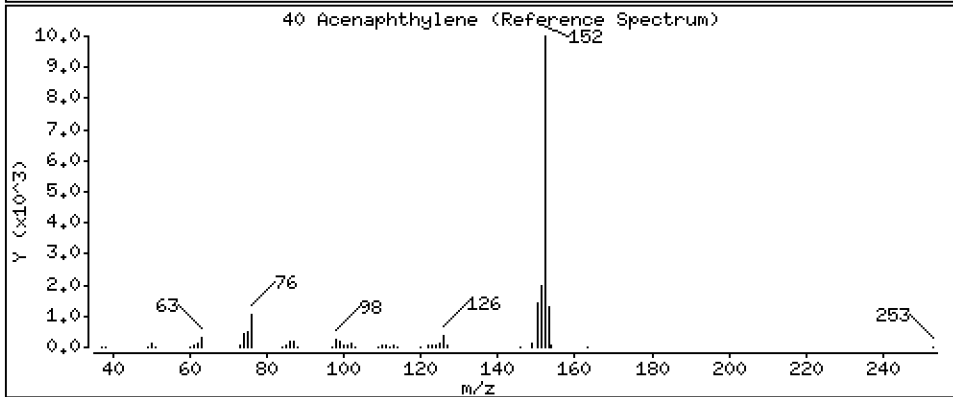
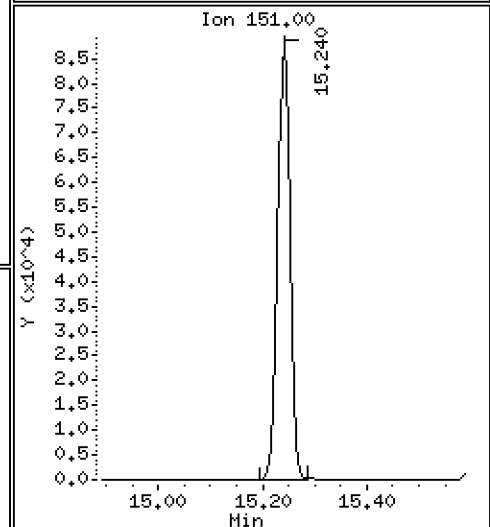
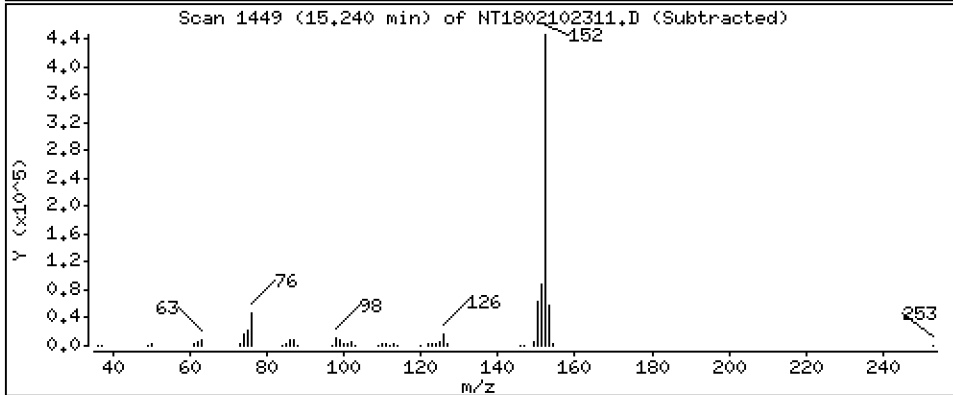
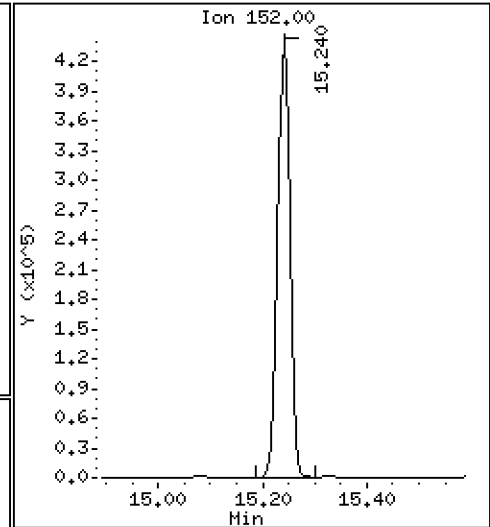
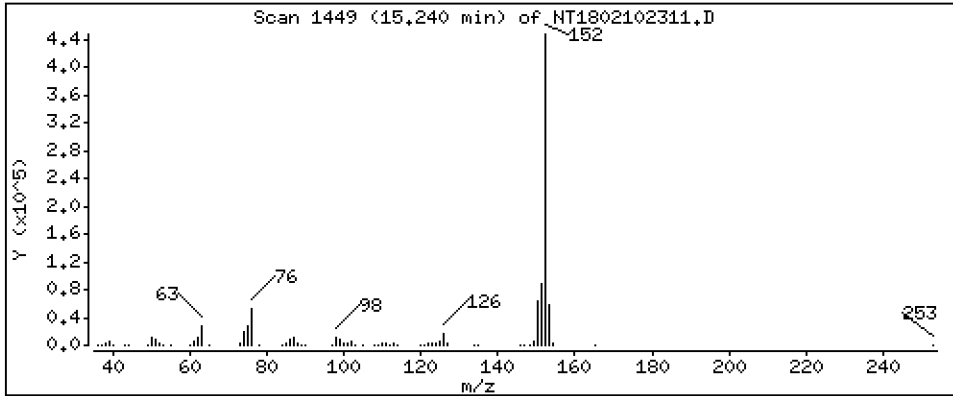
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 4,678 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

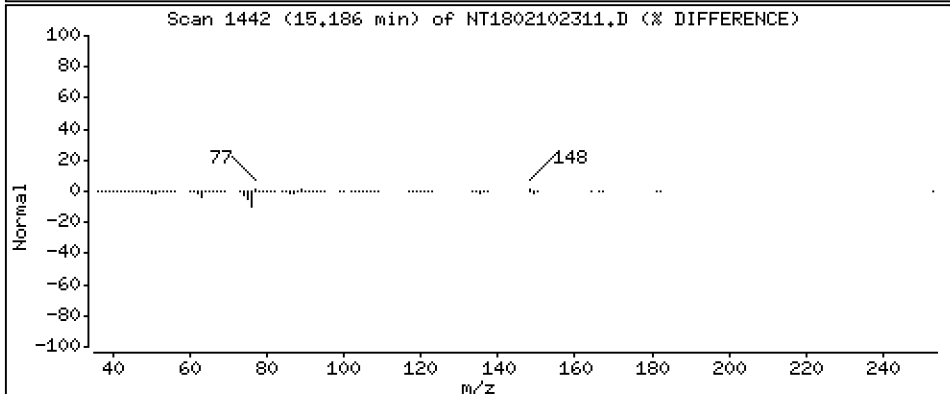
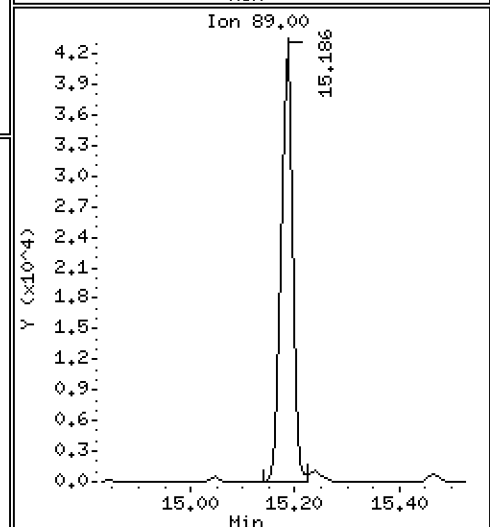
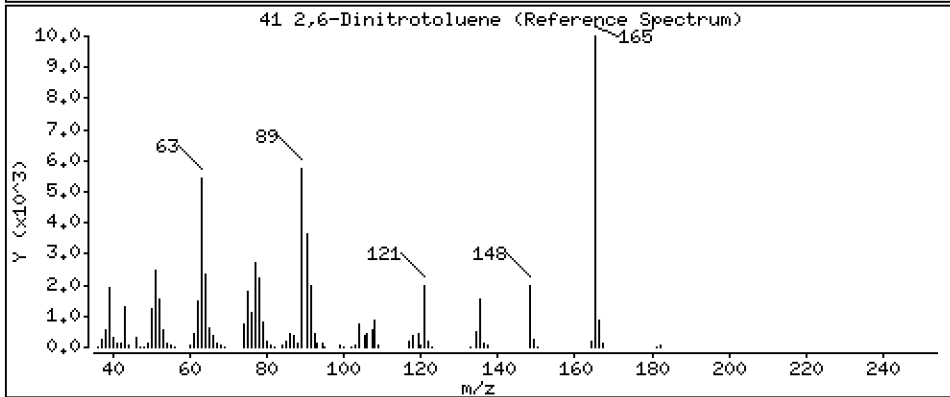
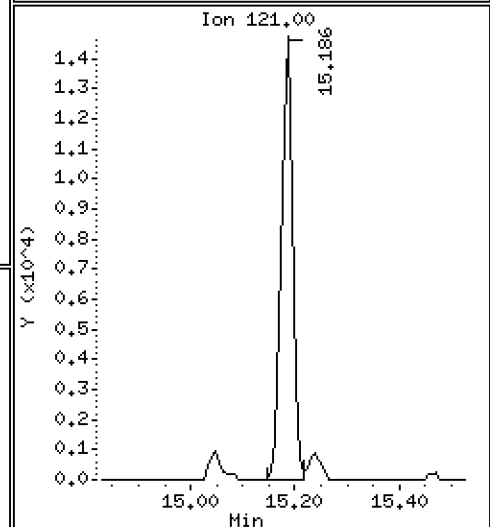
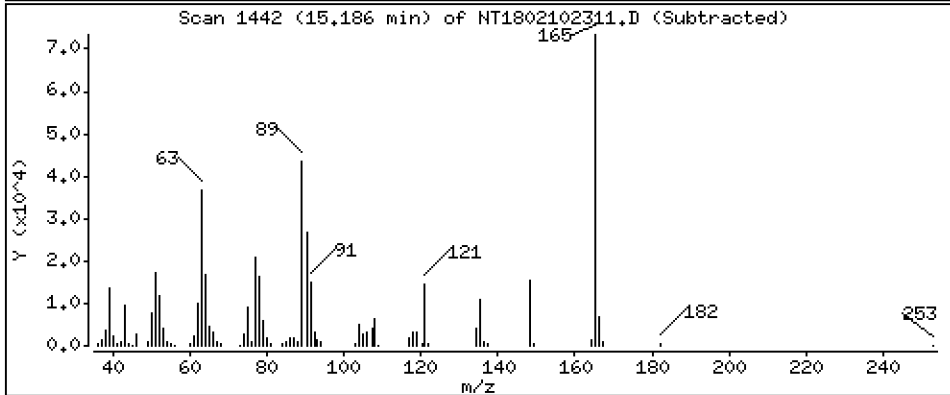
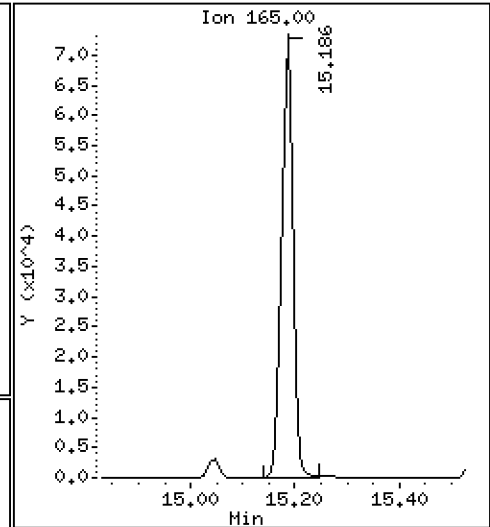
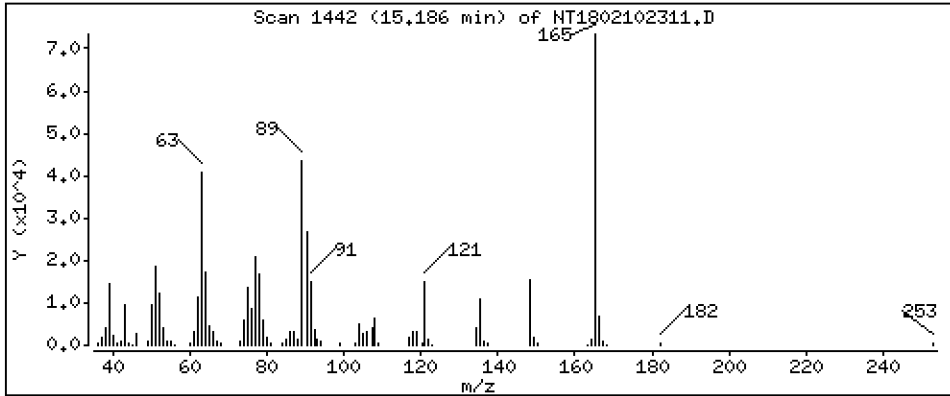
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 4,560 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

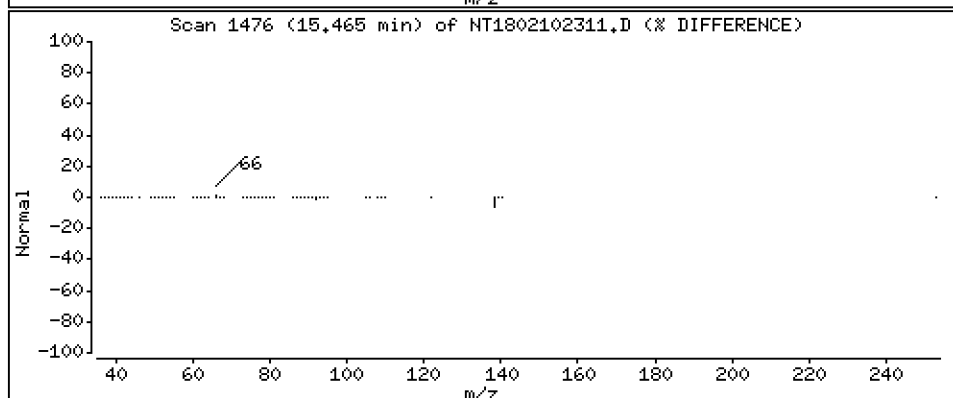
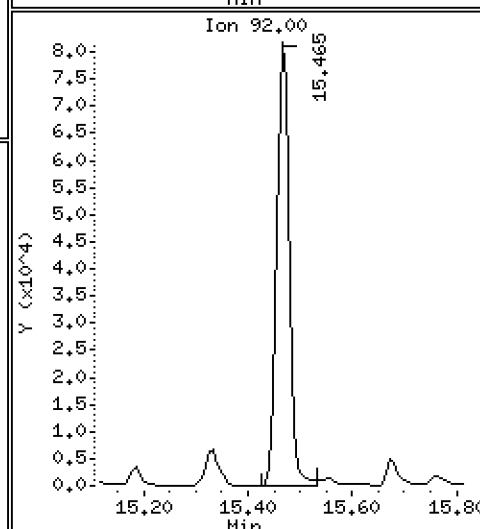
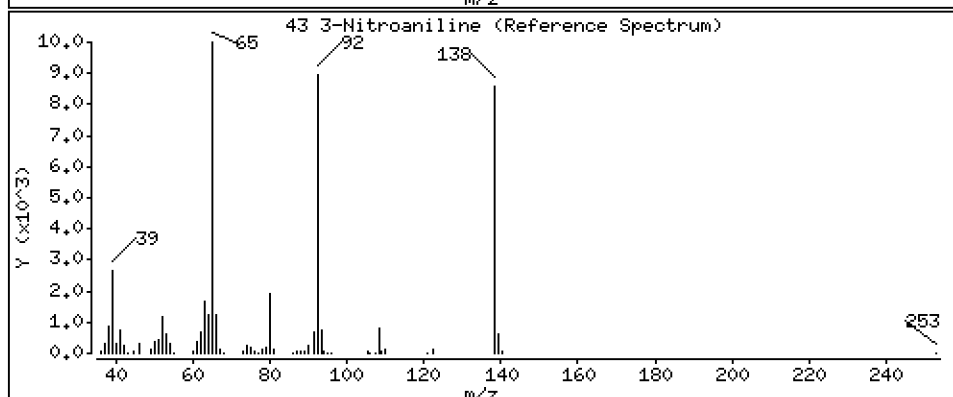
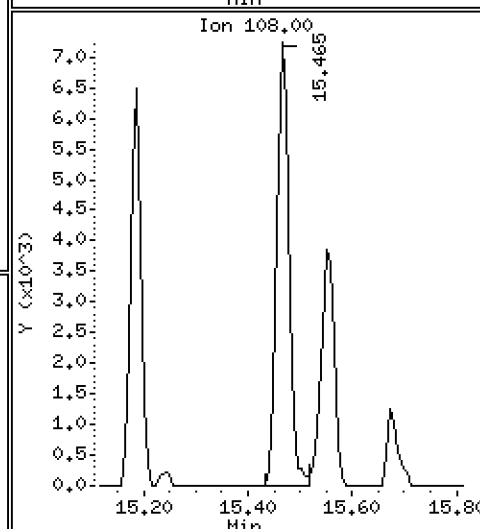
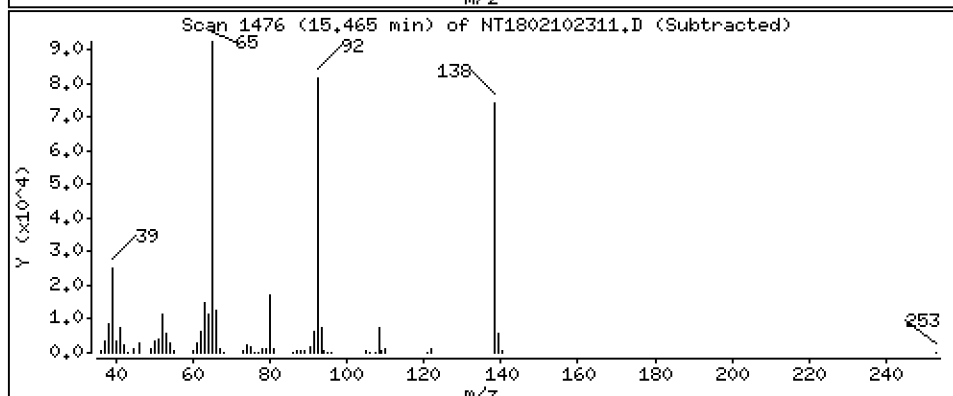
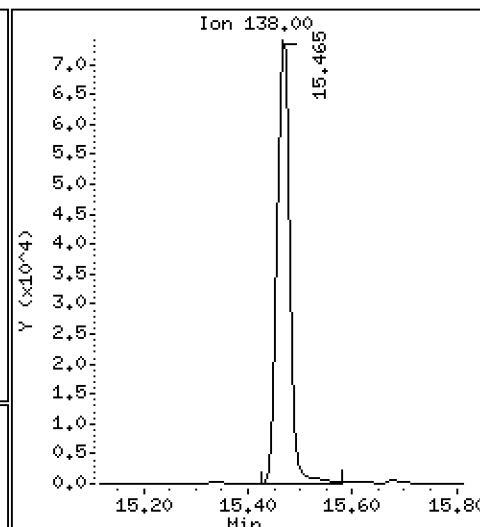
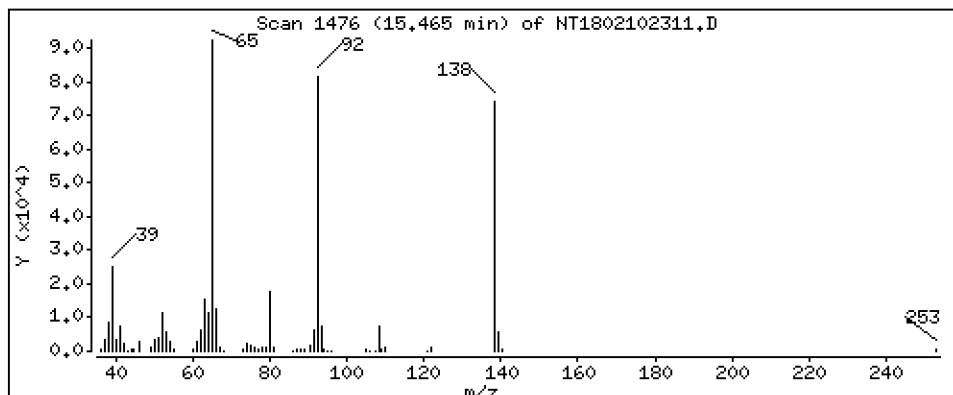
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 4,651 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

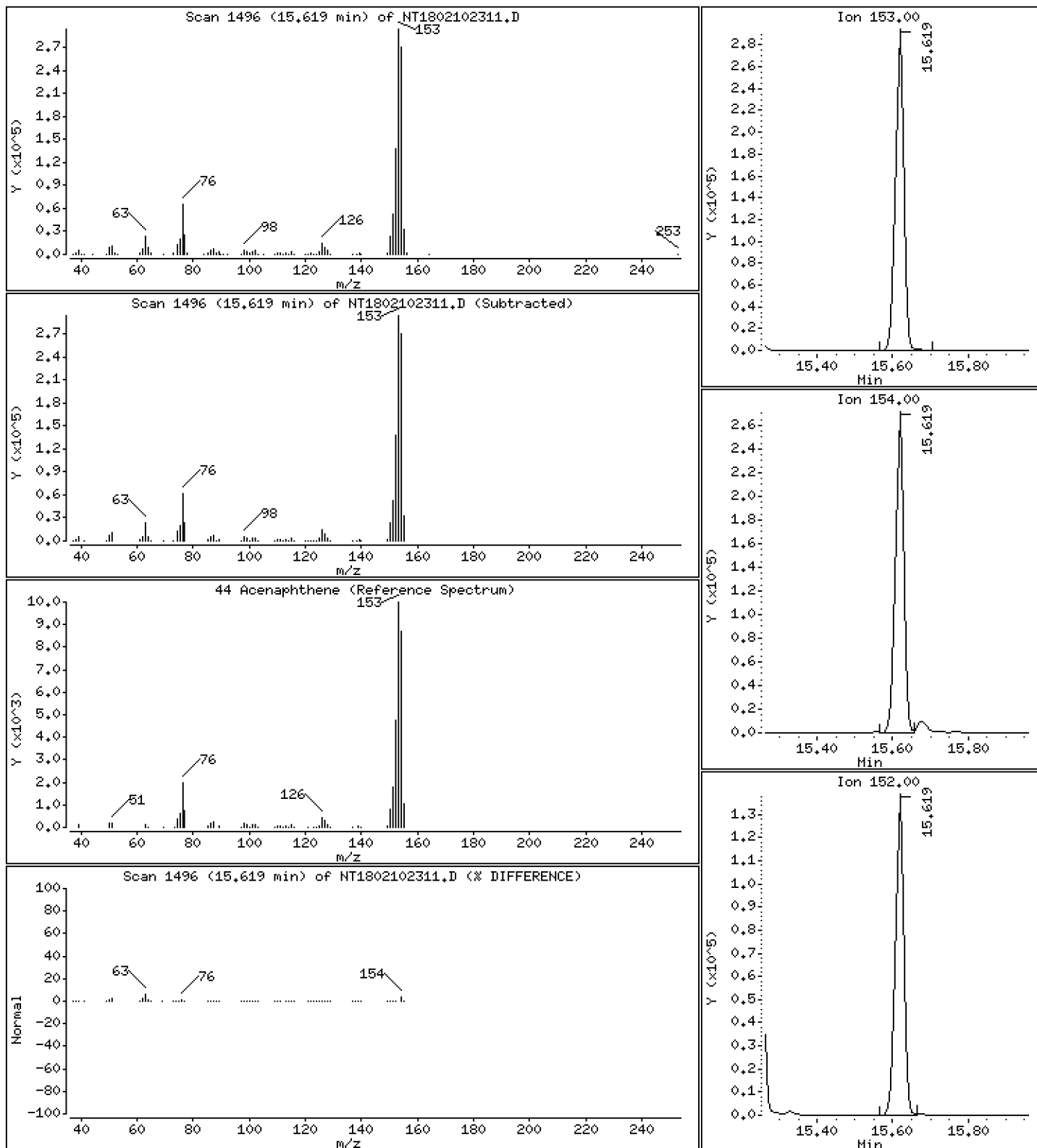
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,402 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

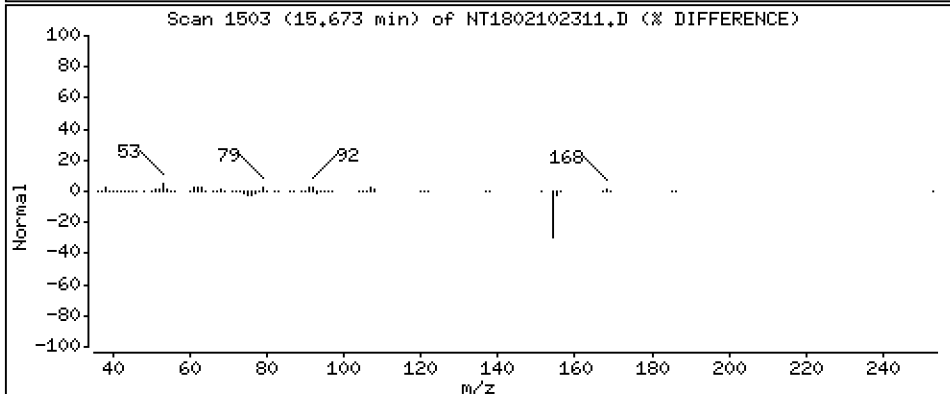
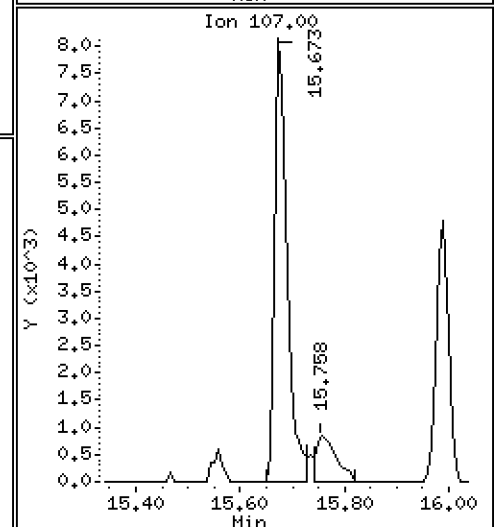
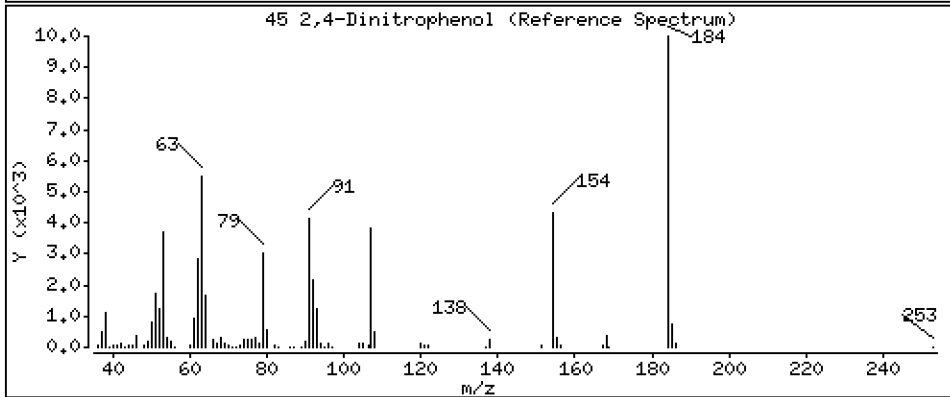
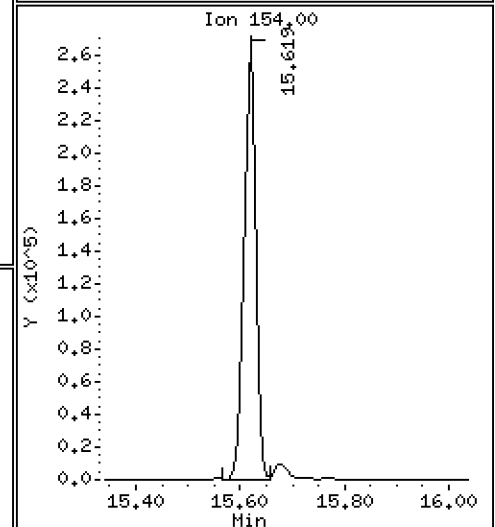
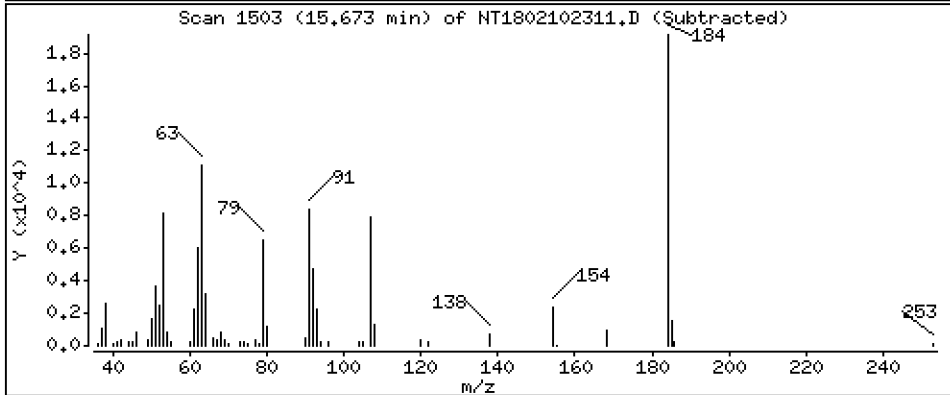
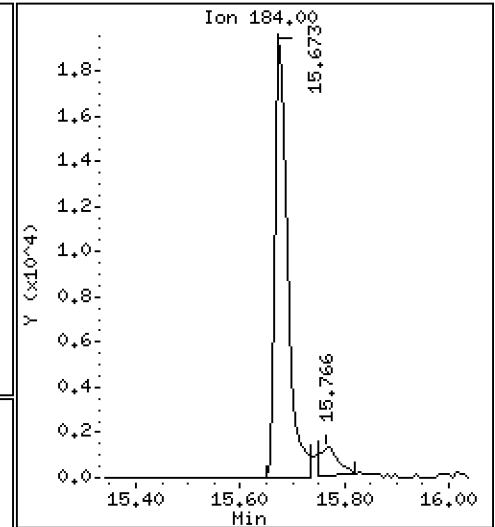
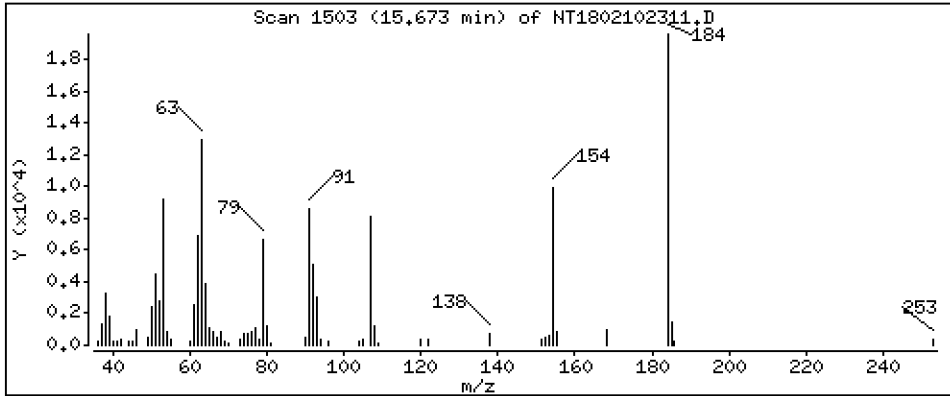
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 1,936 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

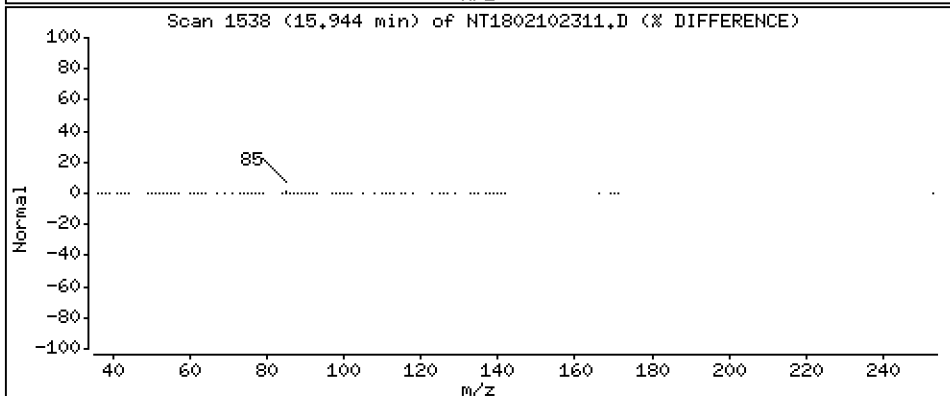
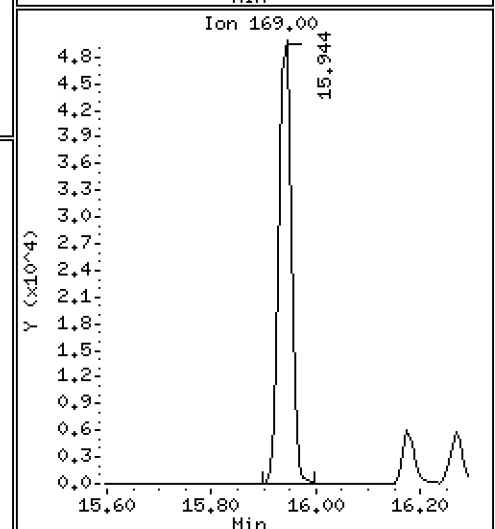
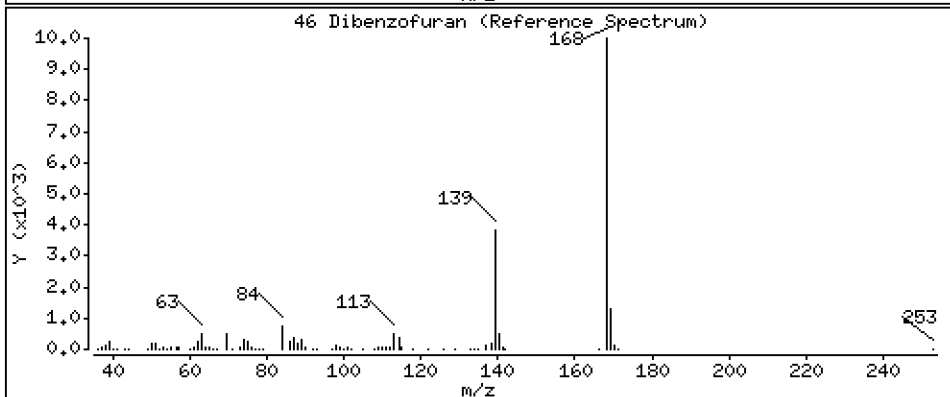
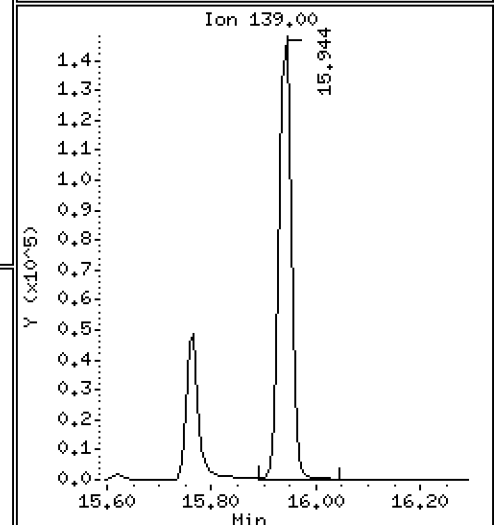
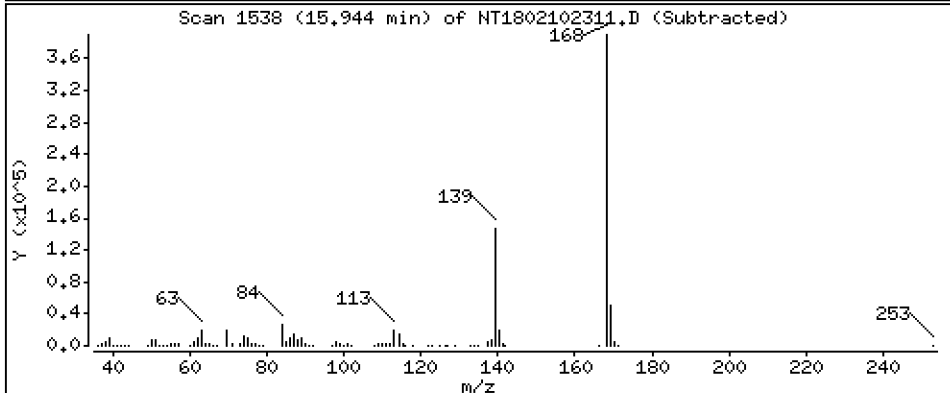
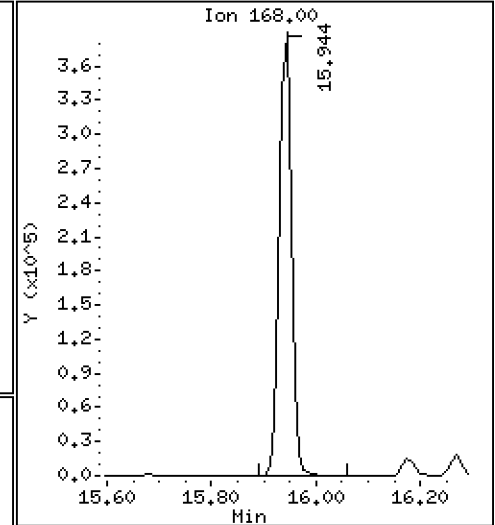
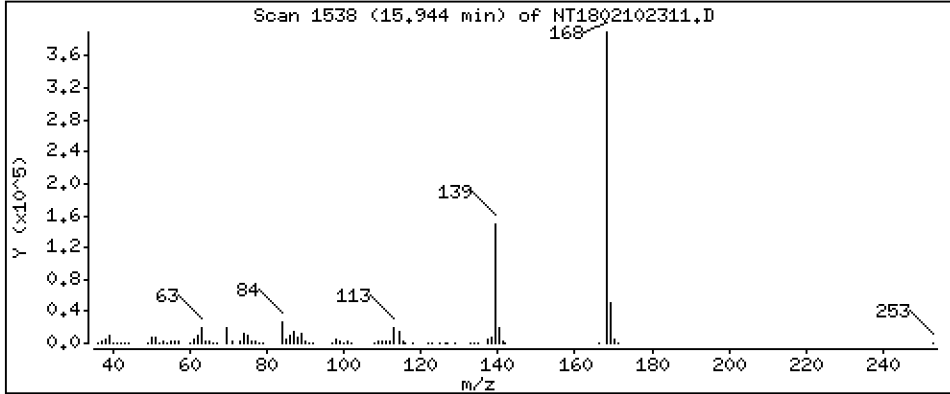
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 4,247 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

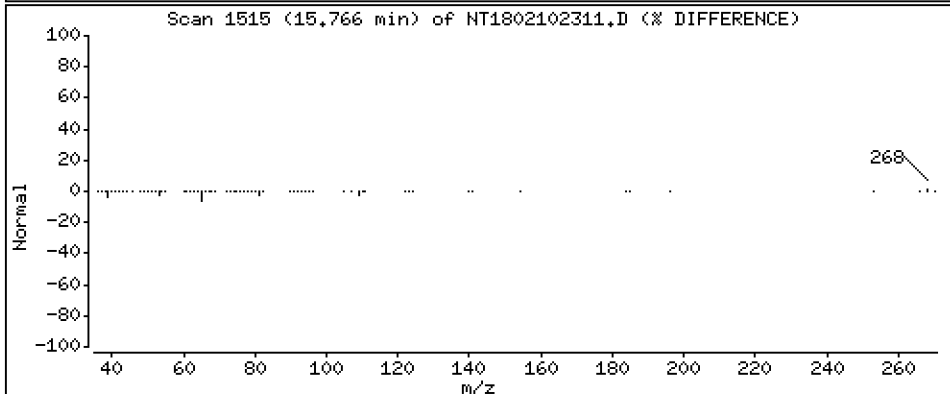
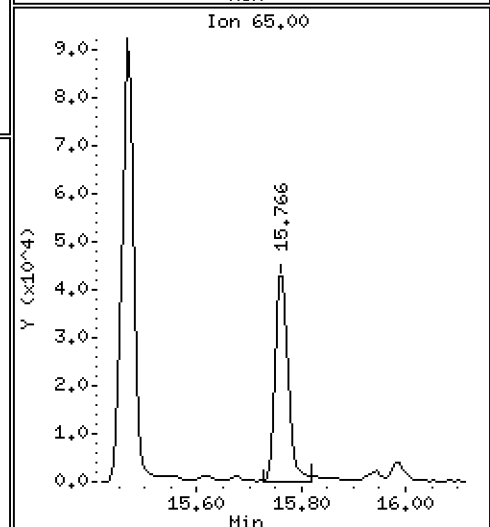
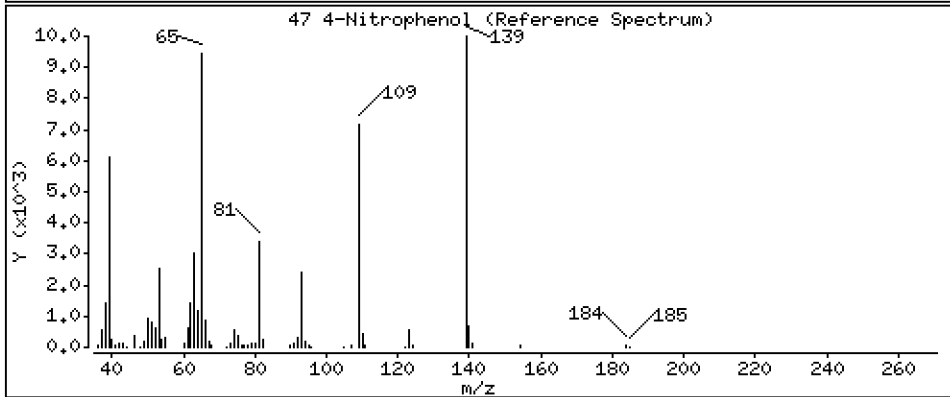
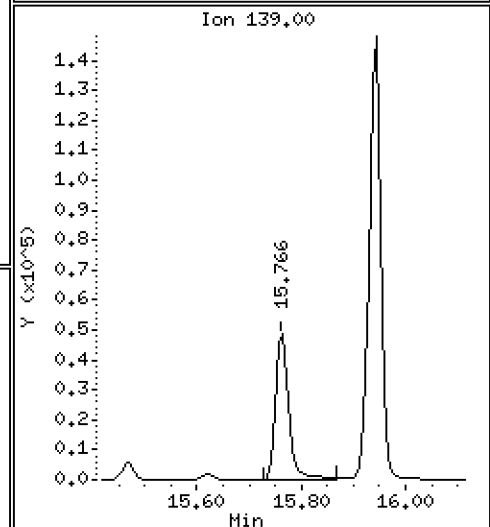
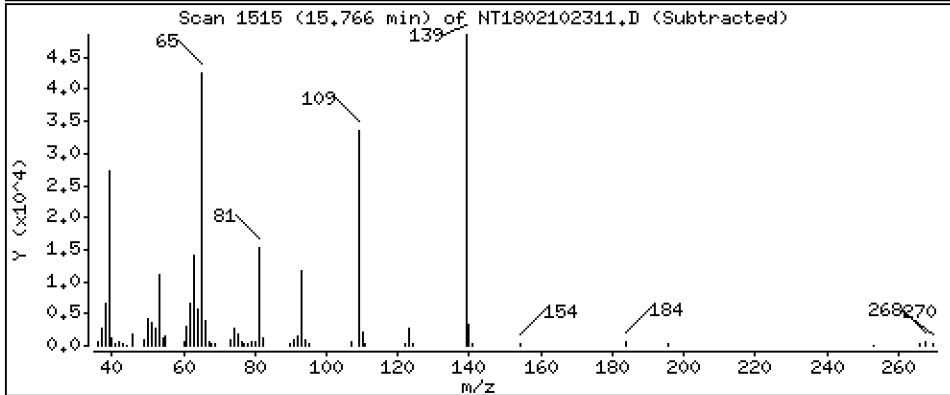
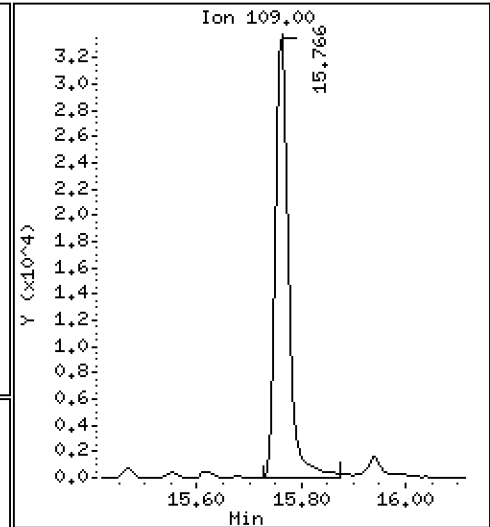
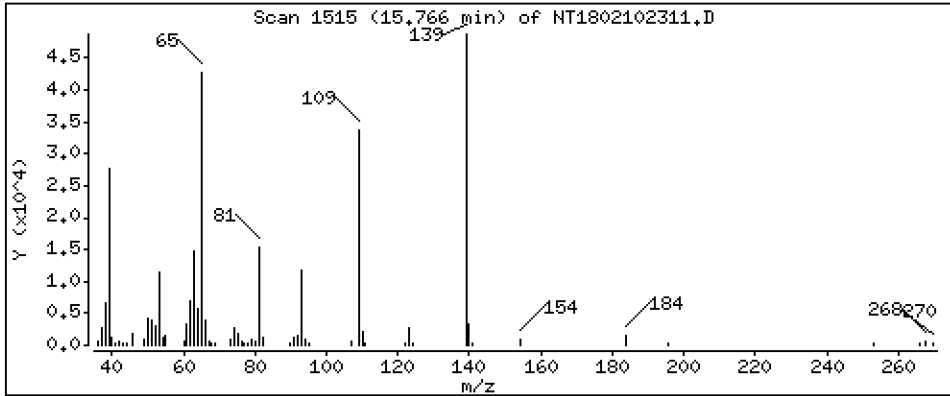
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 3,976 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

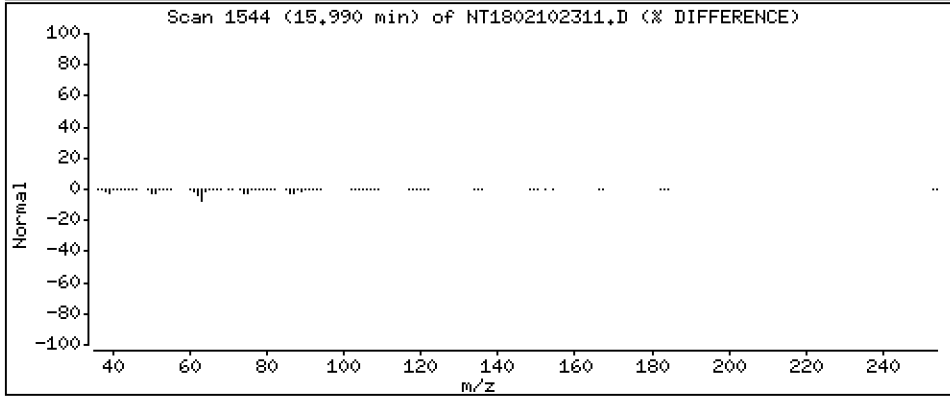
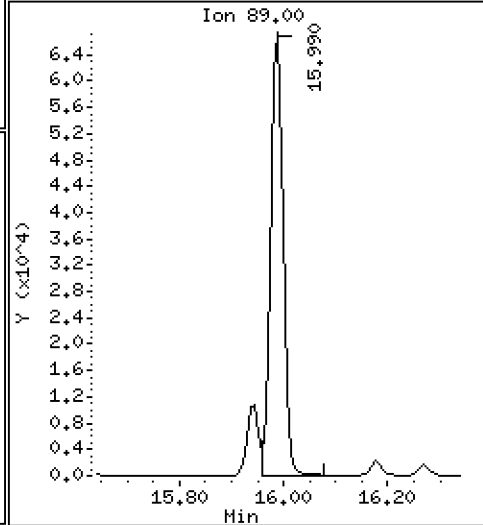
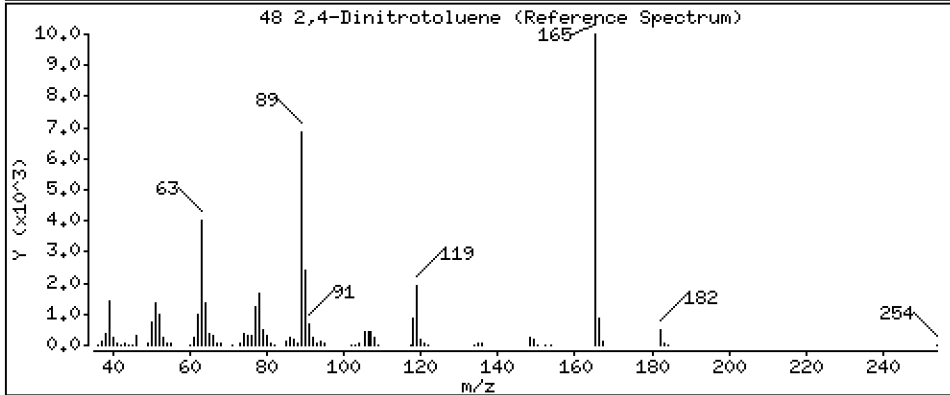
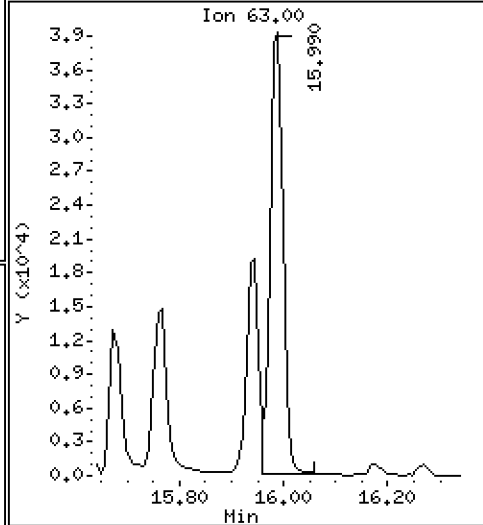
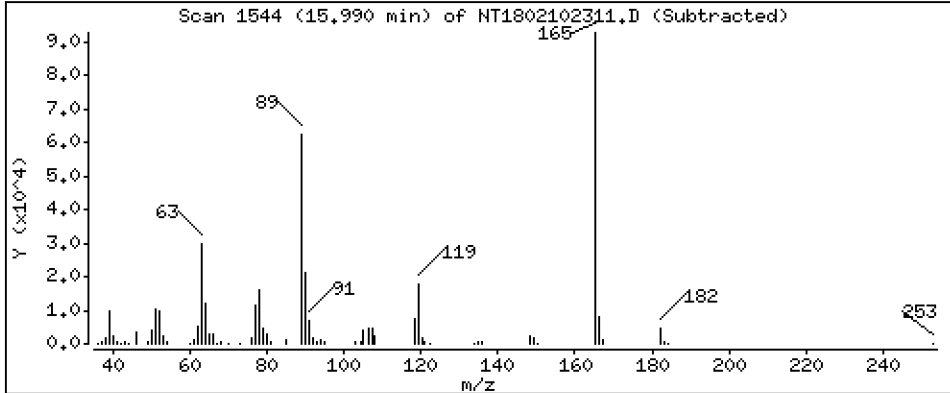
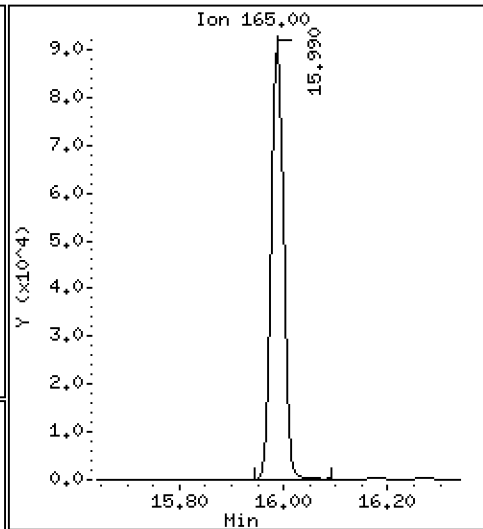
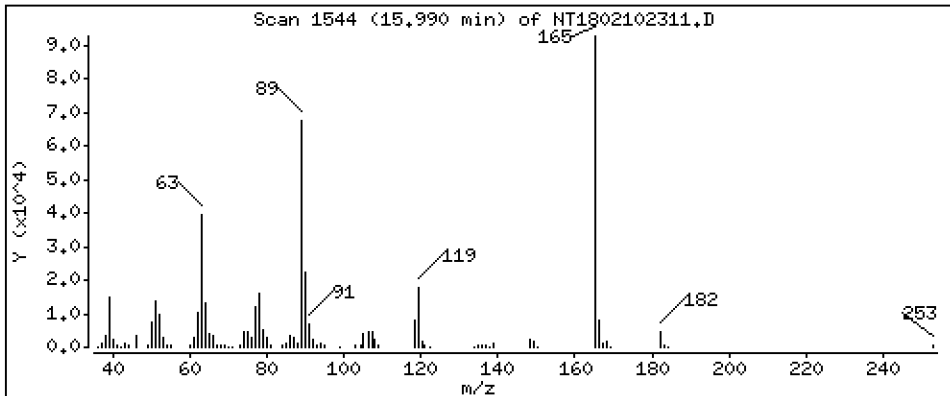
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 4,446 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

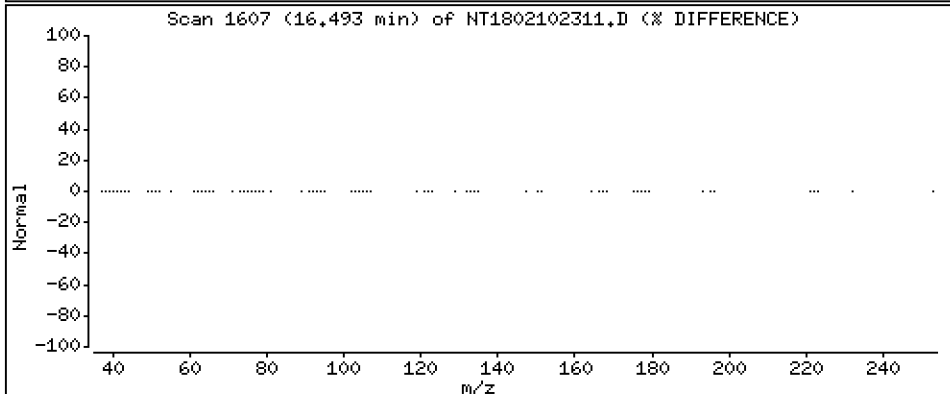
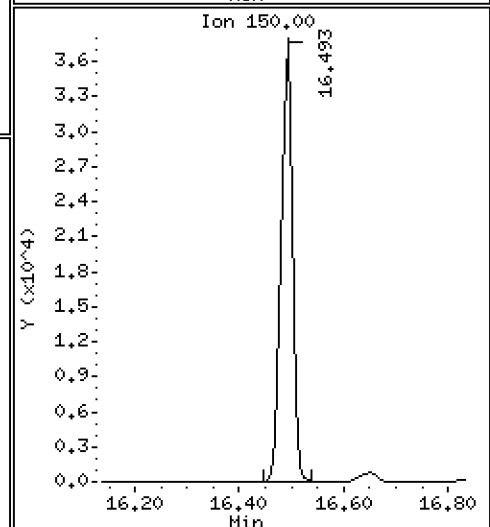
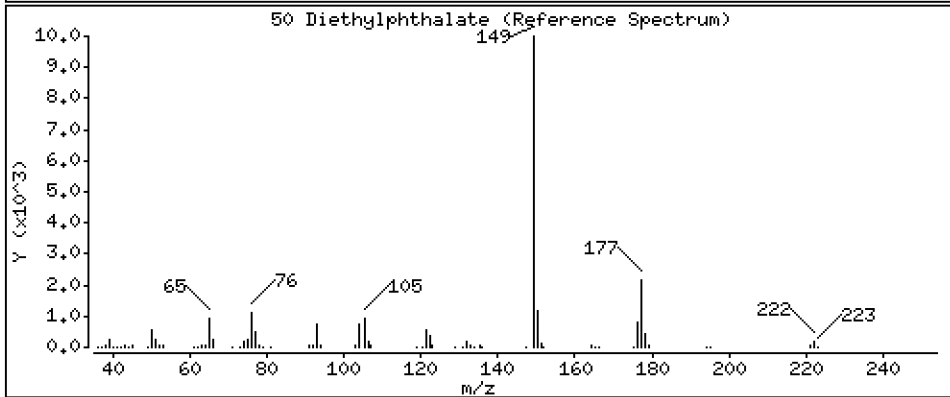
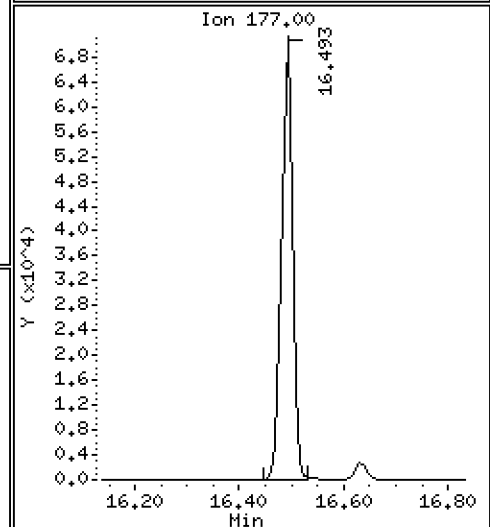
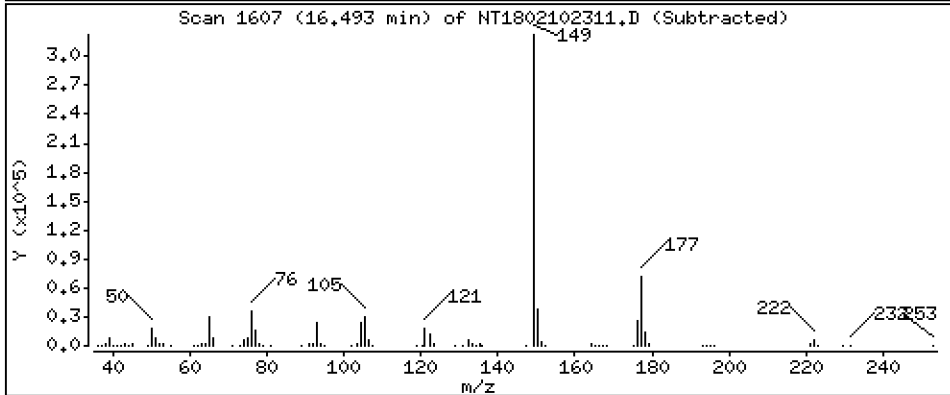
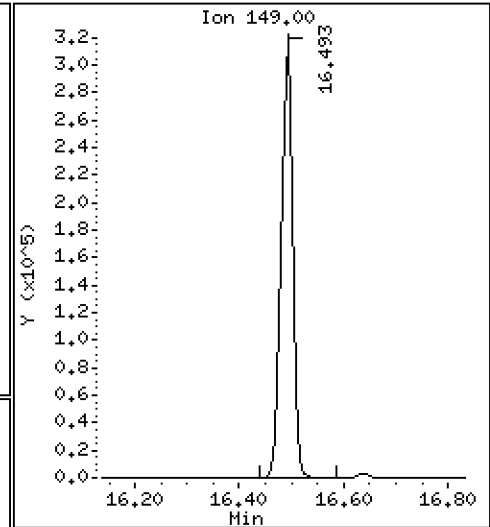
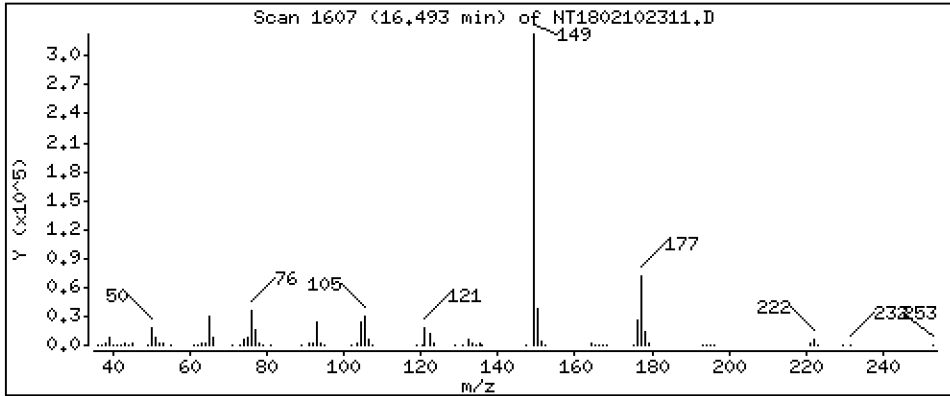
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,062 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

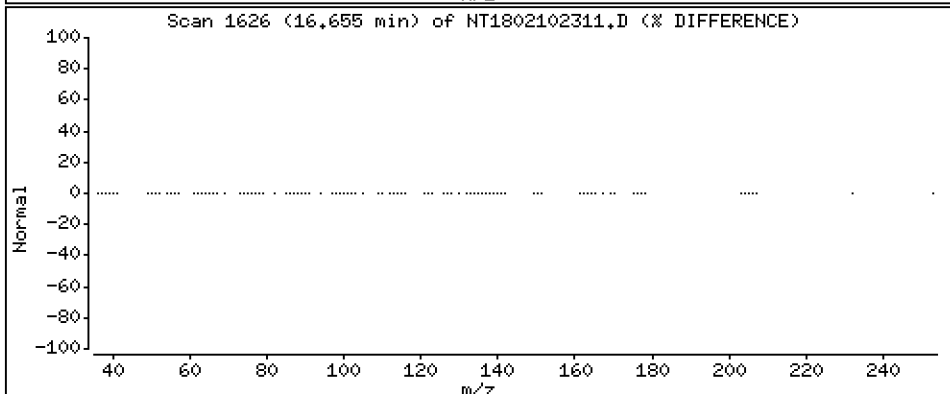
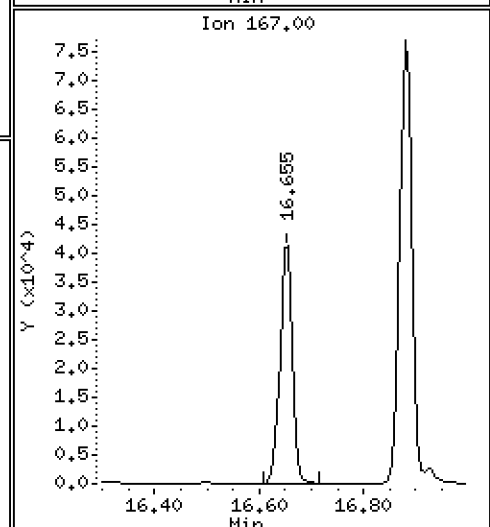
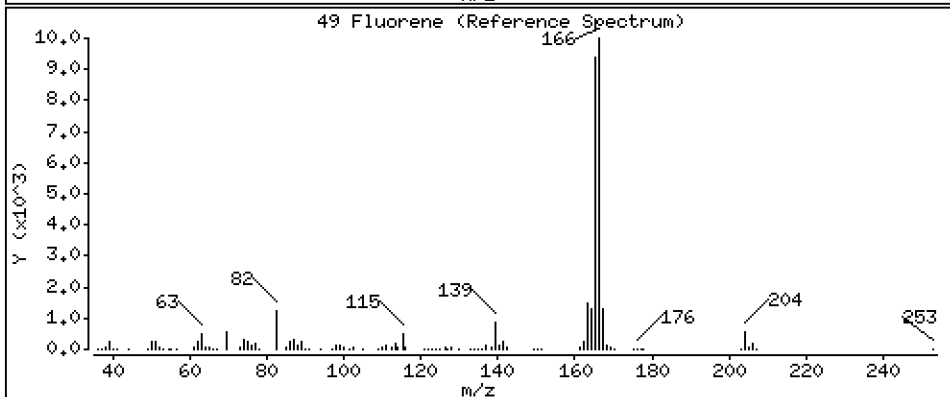
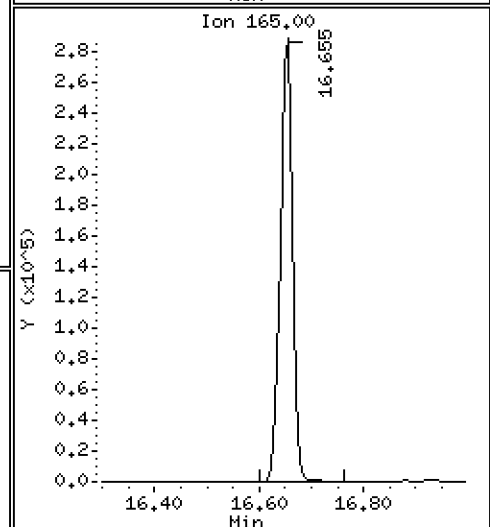
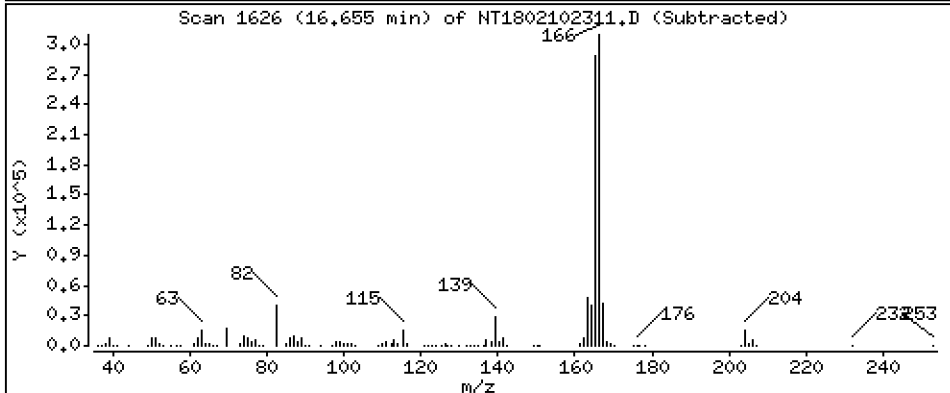
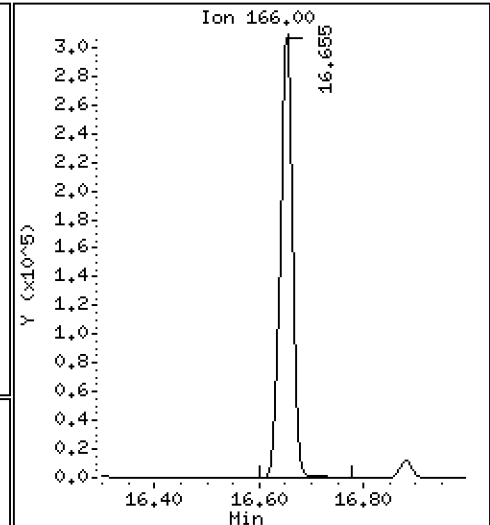
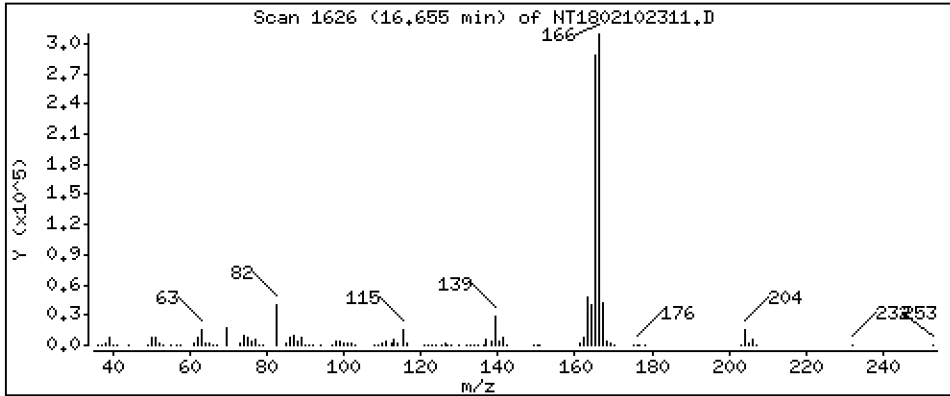
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 4,542 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

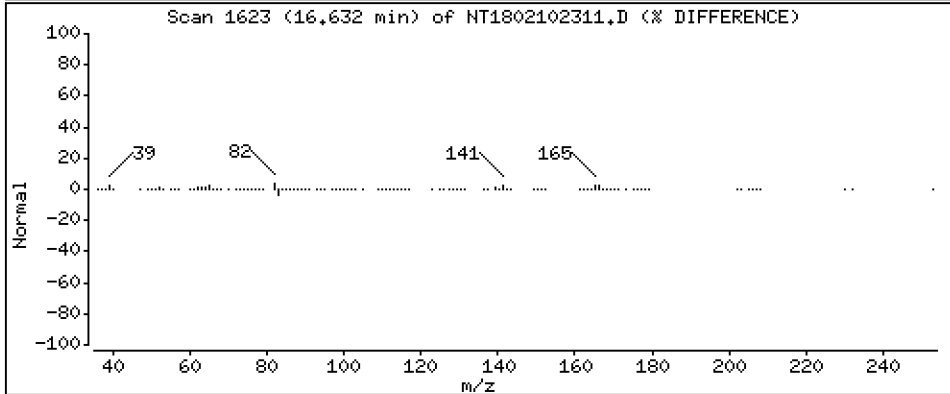
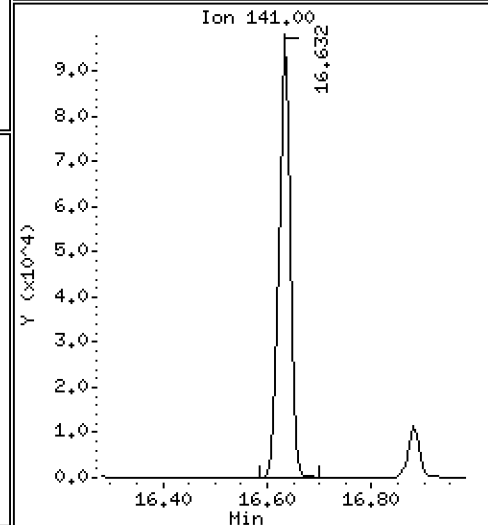
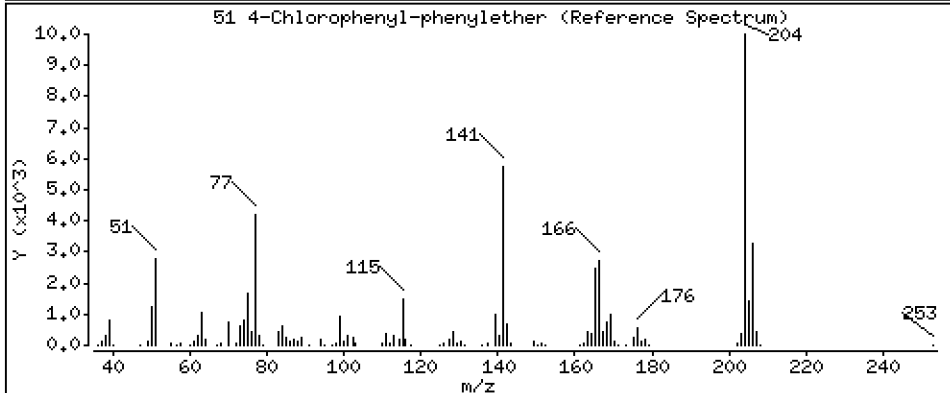
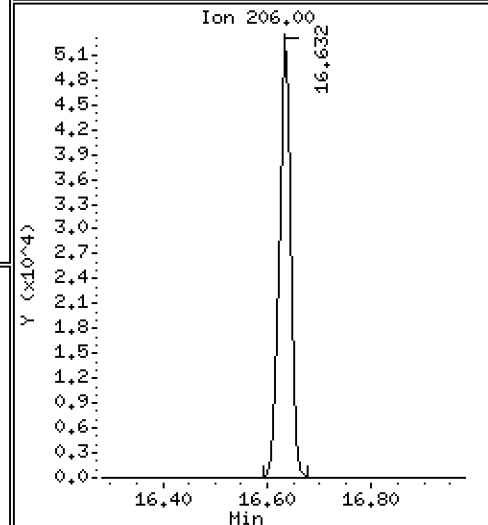
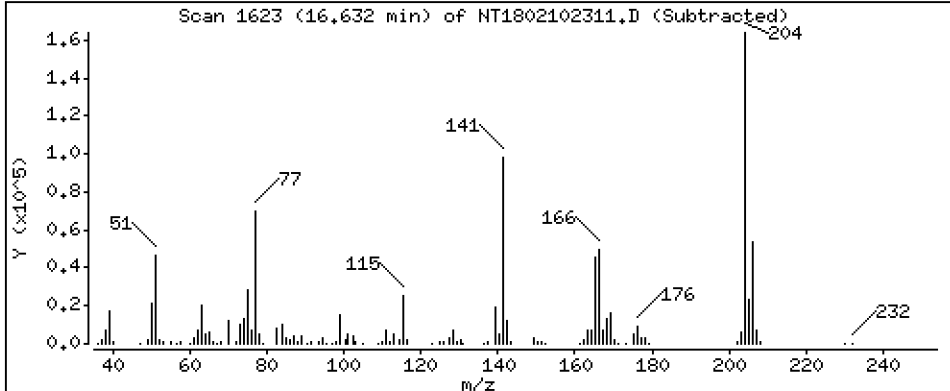
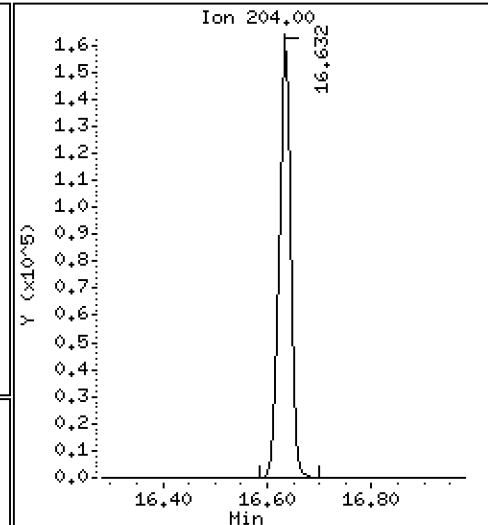
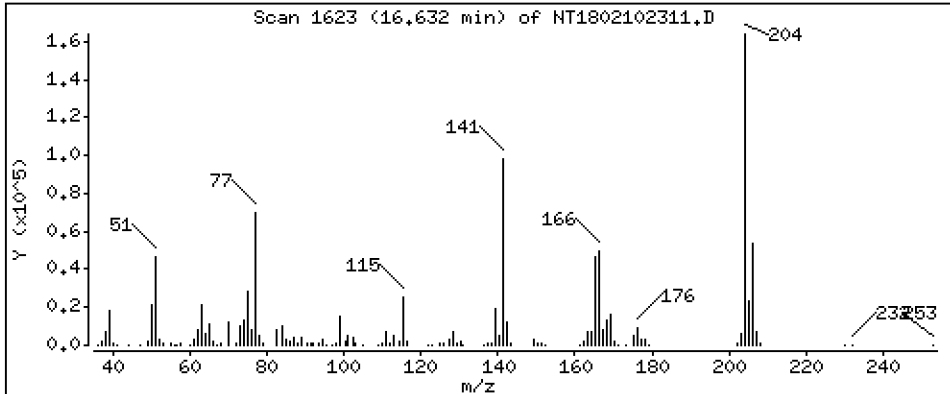
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,339 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

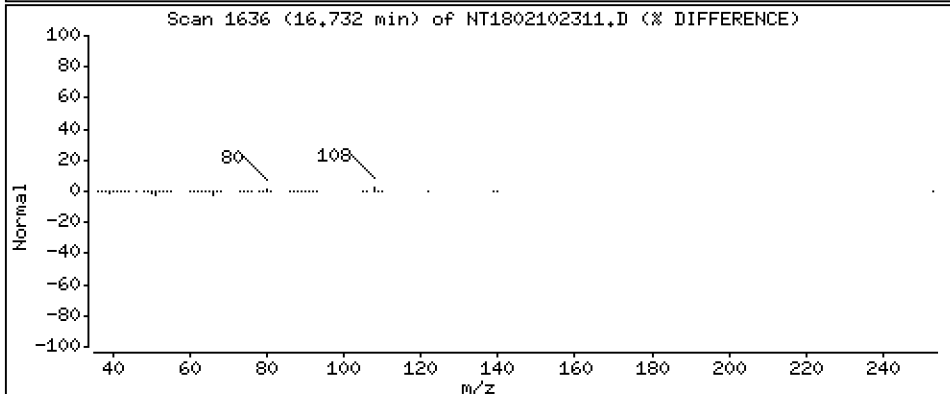
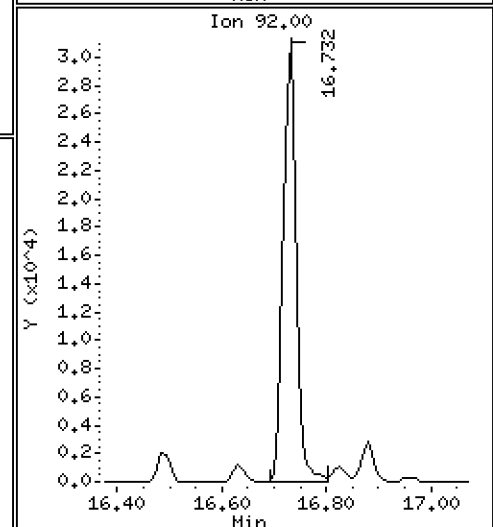
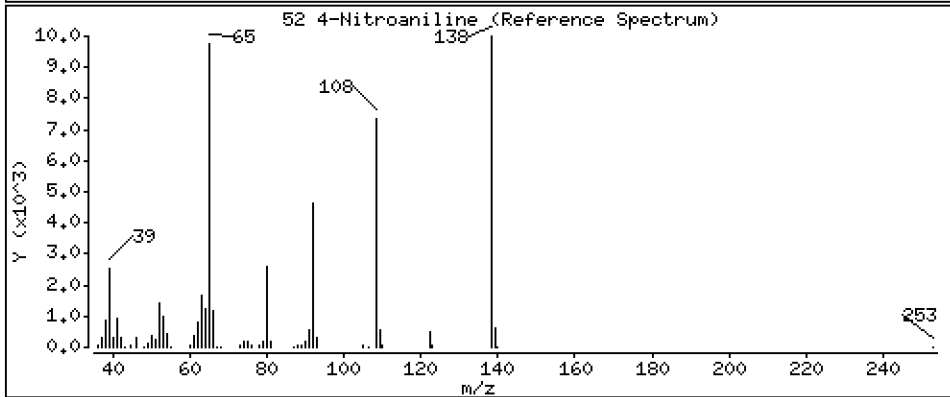
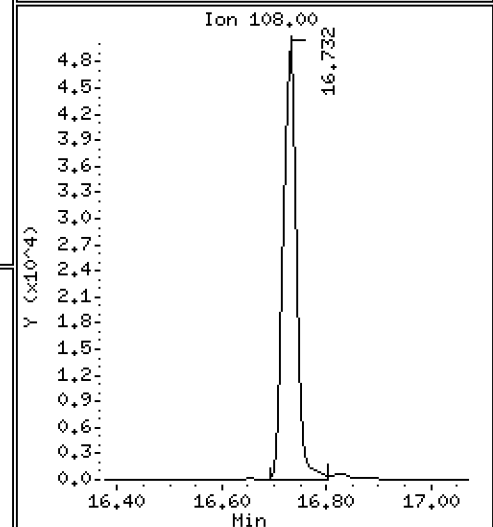
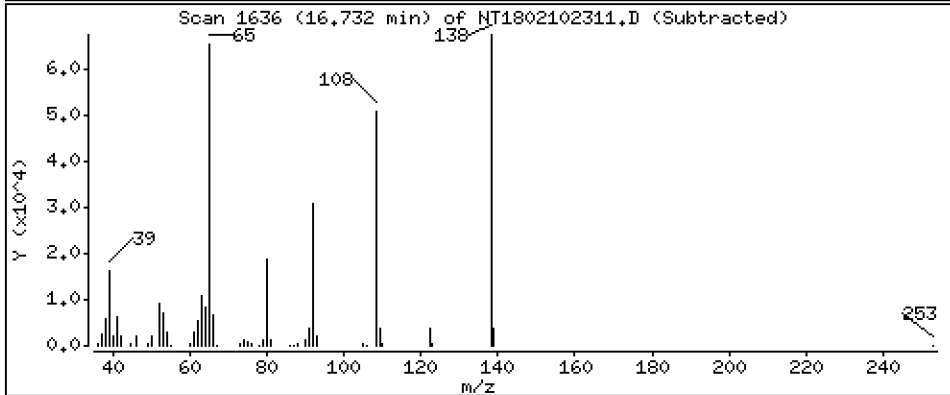
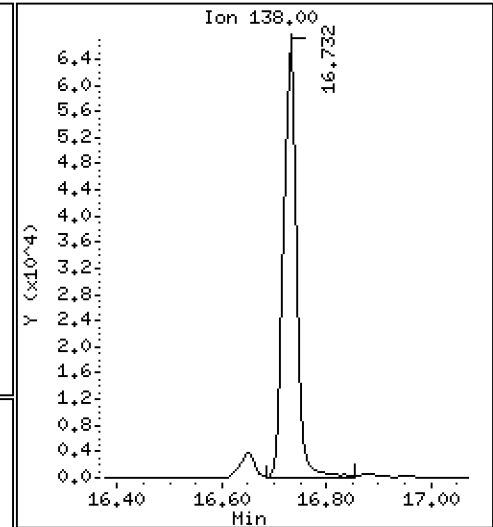
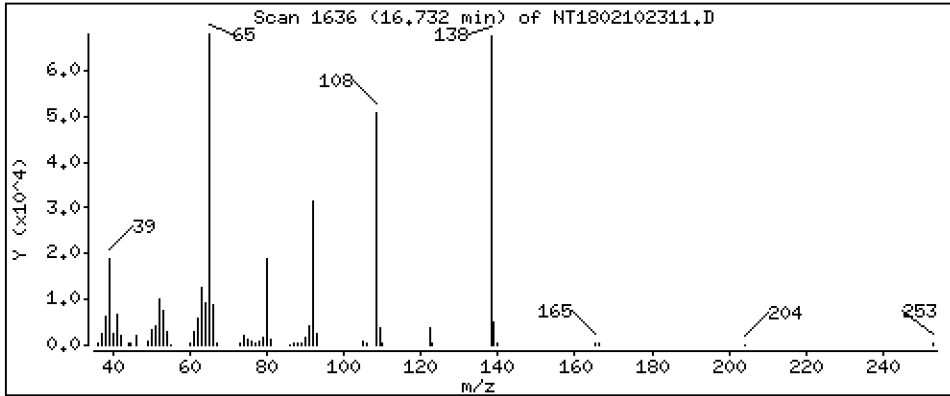
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

52 4-Nitroaniline

Concentration: 4.131 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

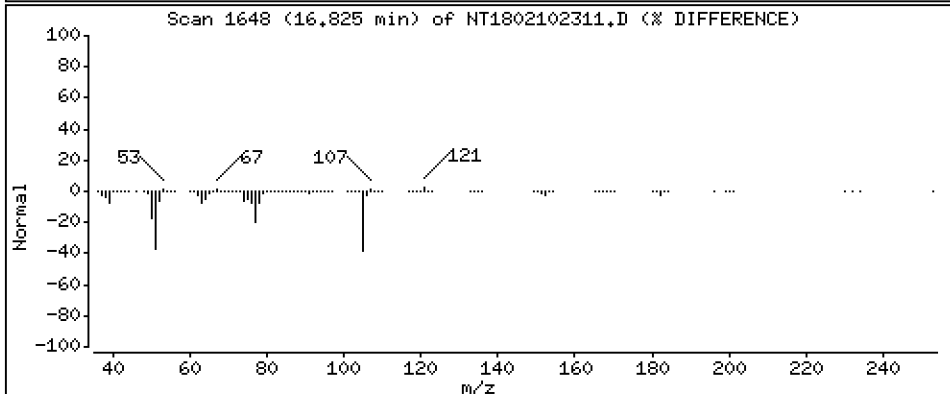
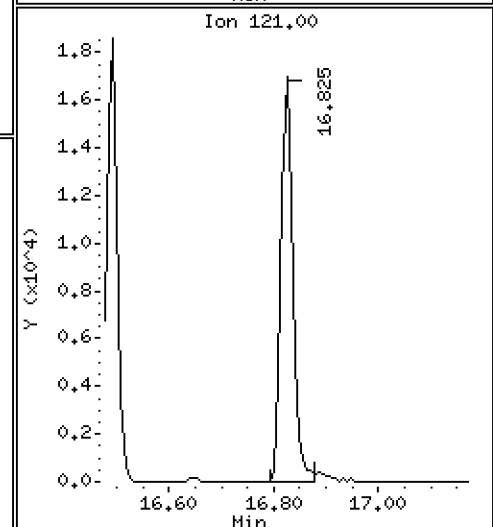
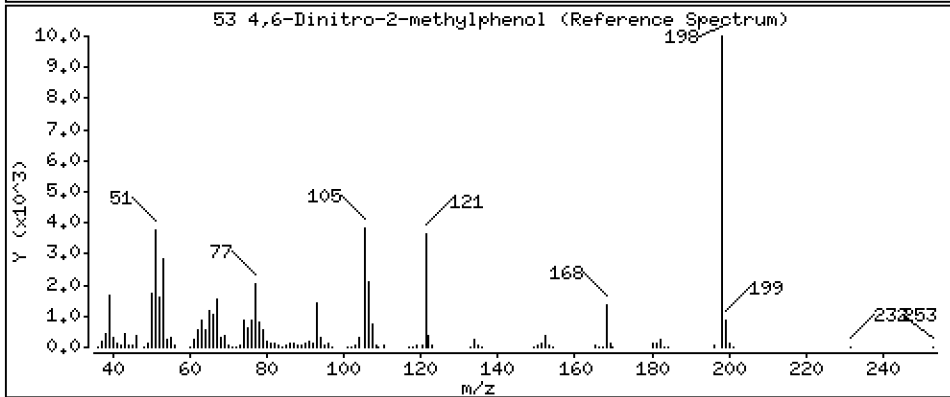
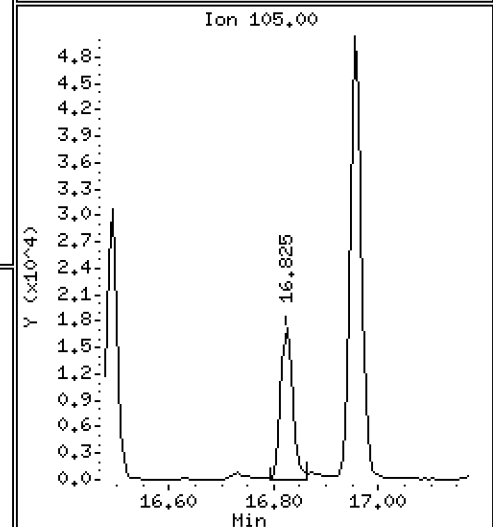
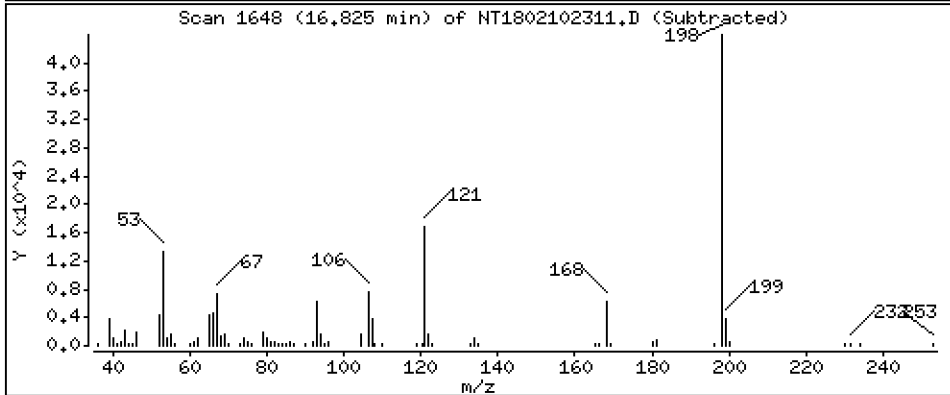
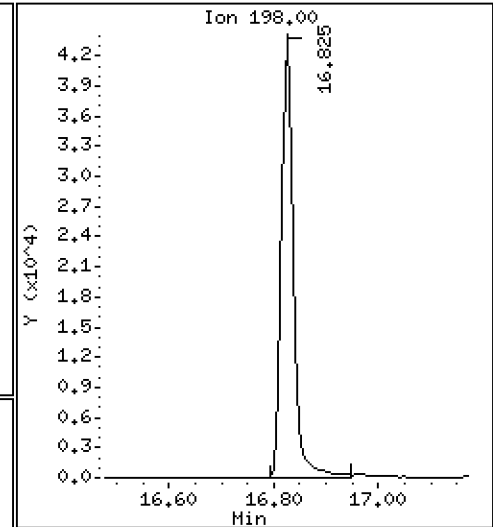
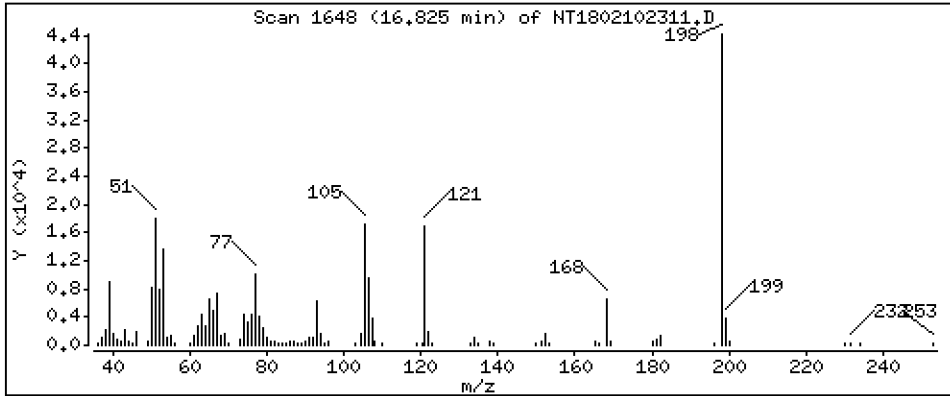
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,301 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

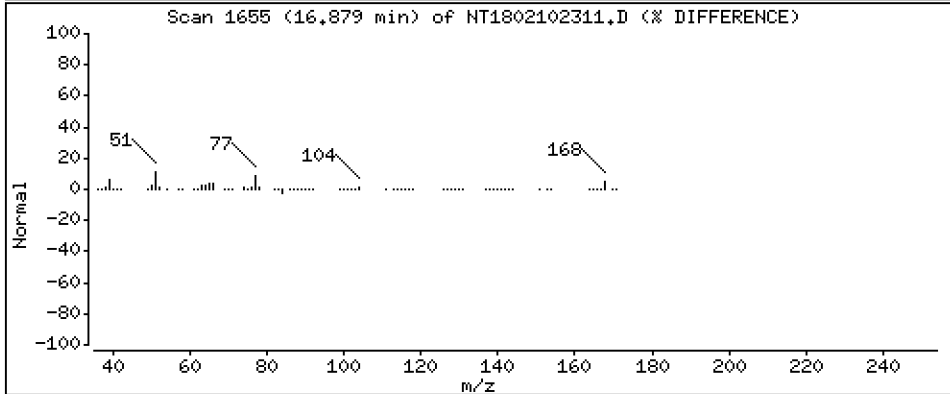
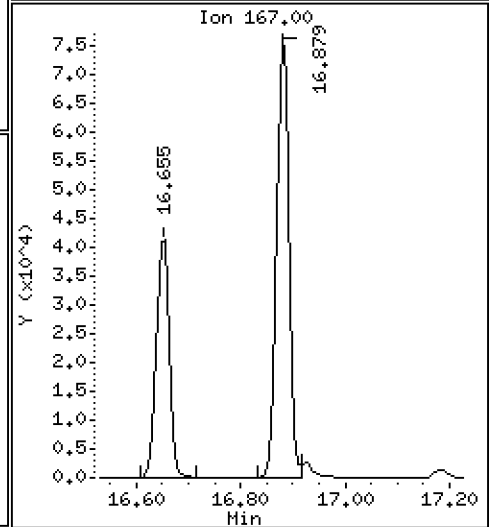
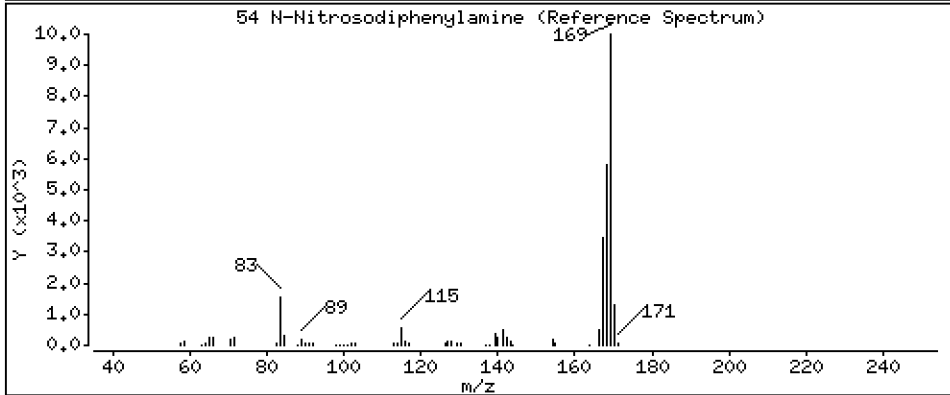
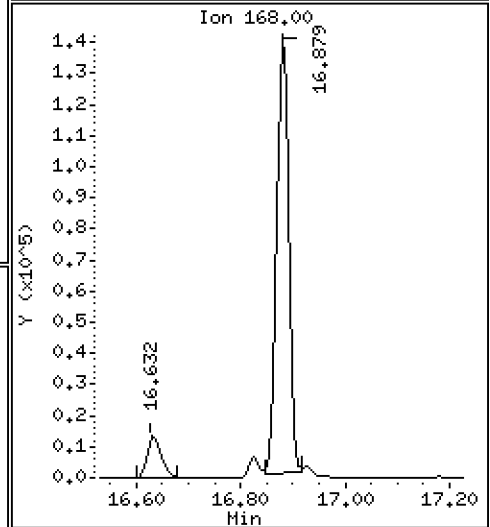
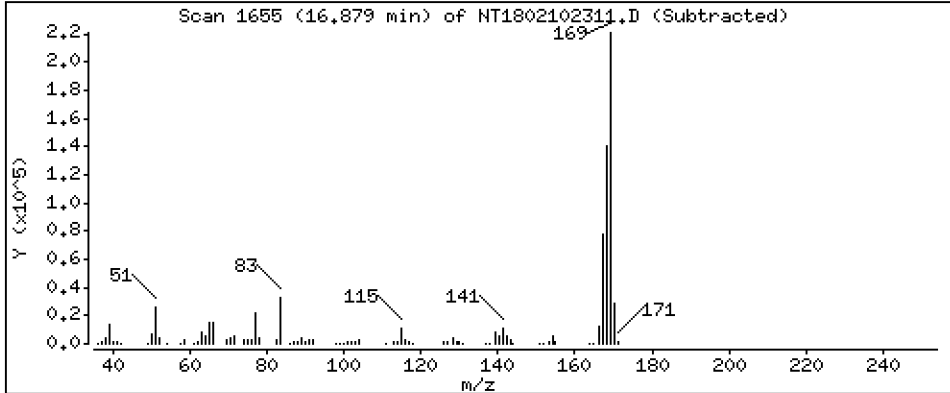
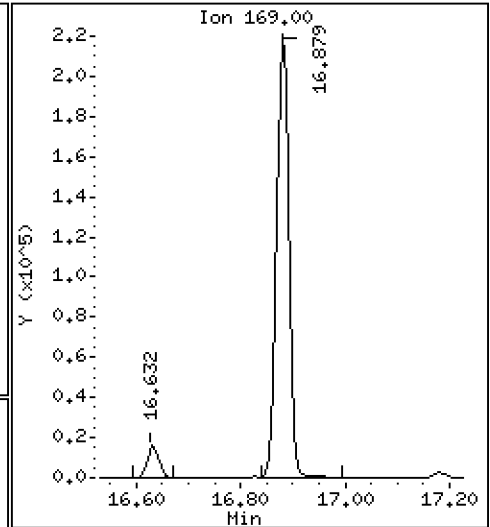
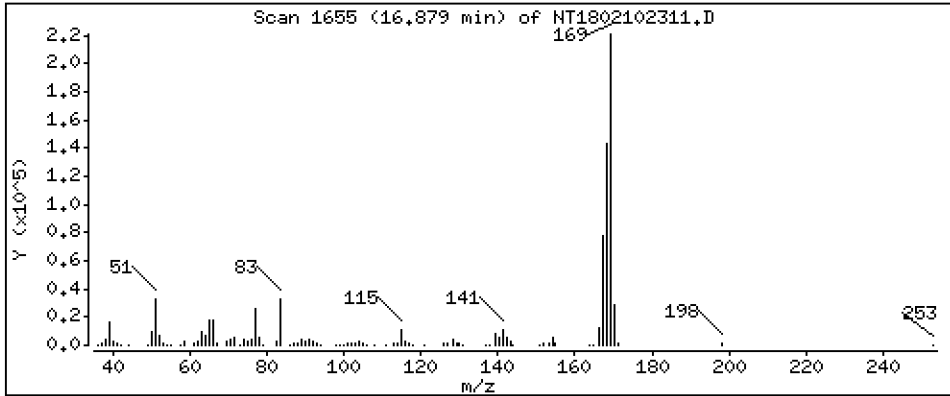
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 4,356 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

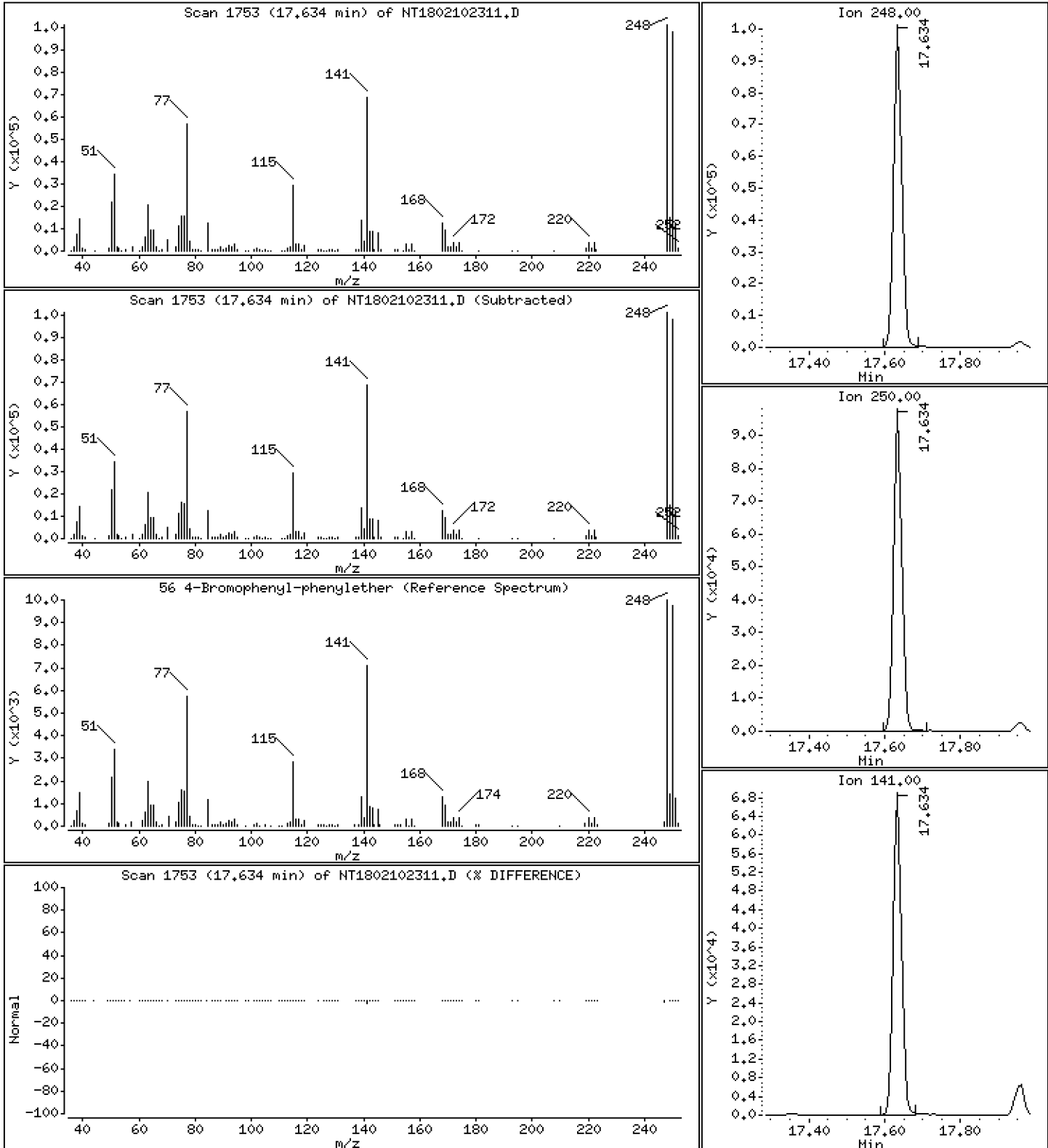
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,464 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

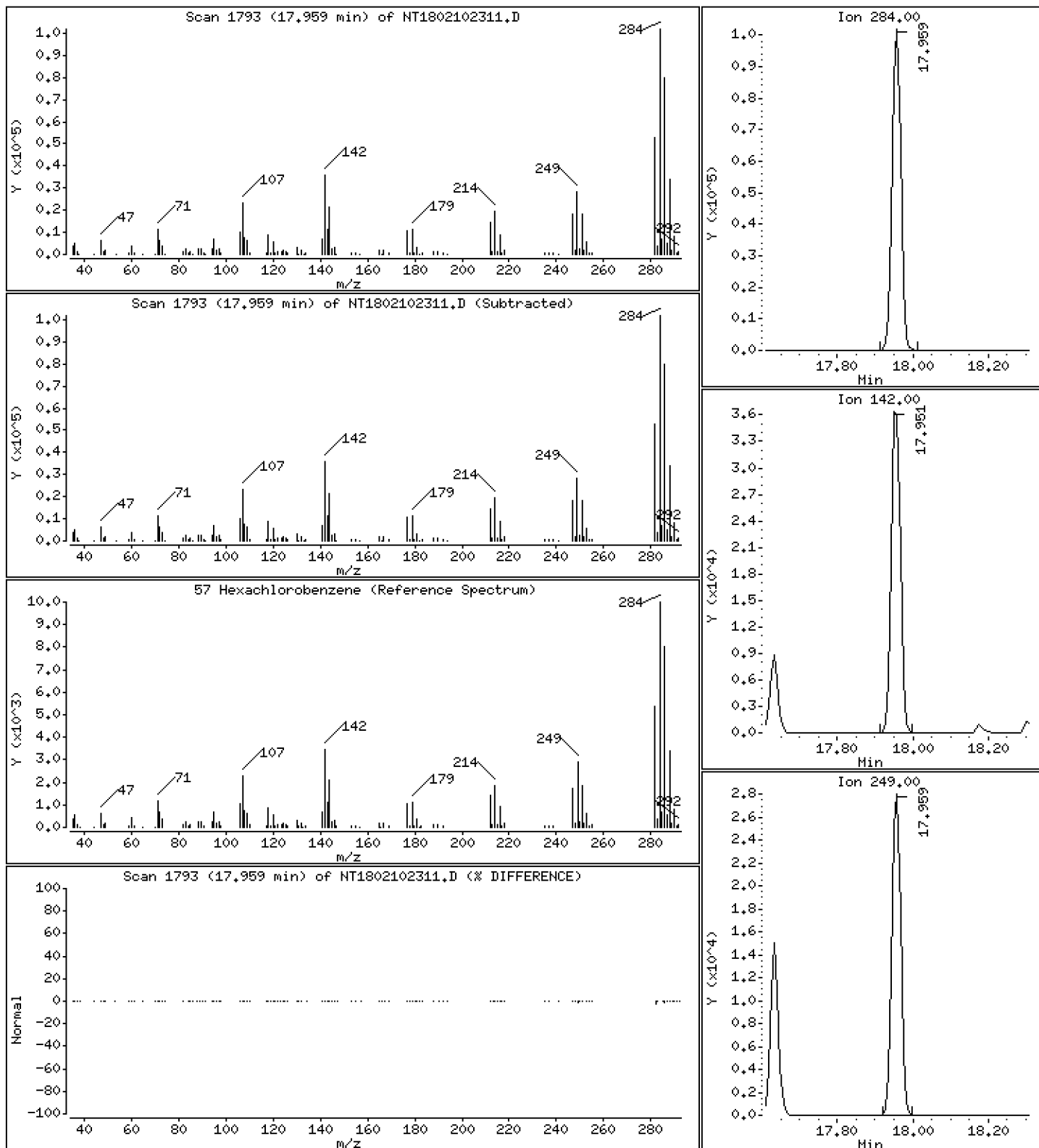
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 4.085 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

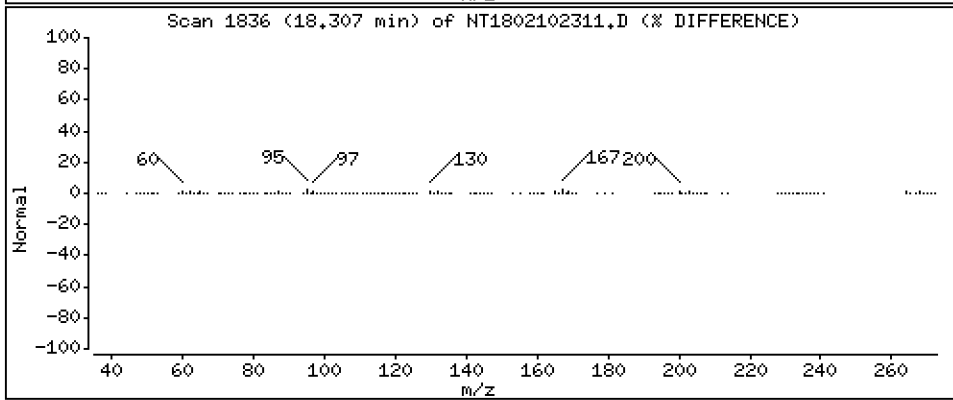
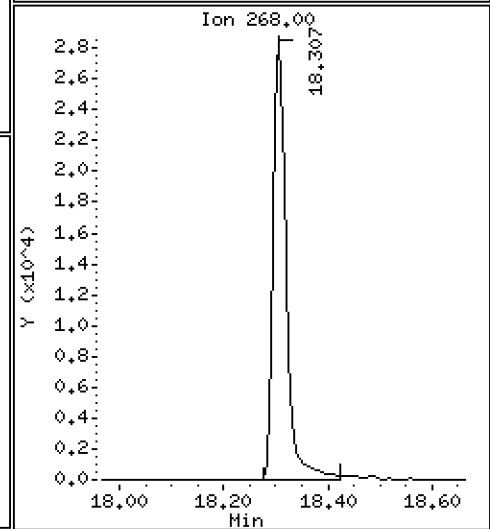
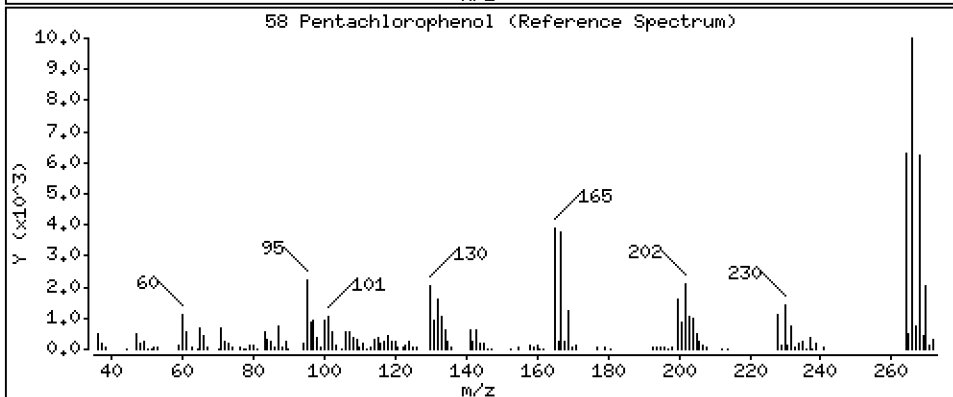
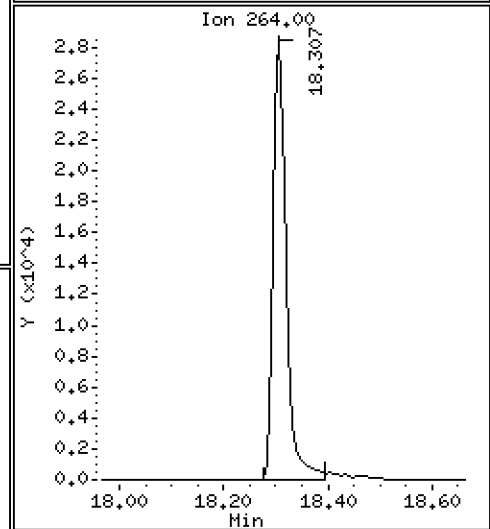
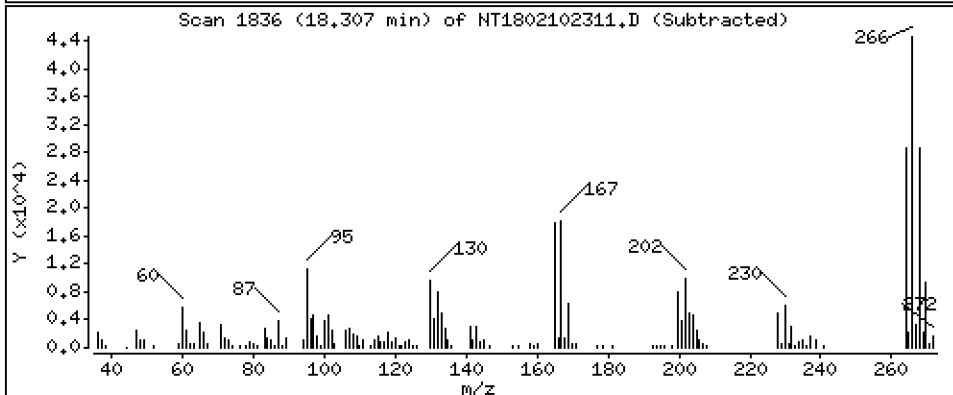
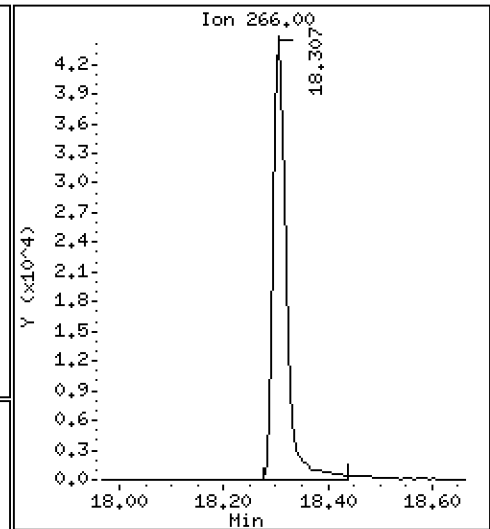
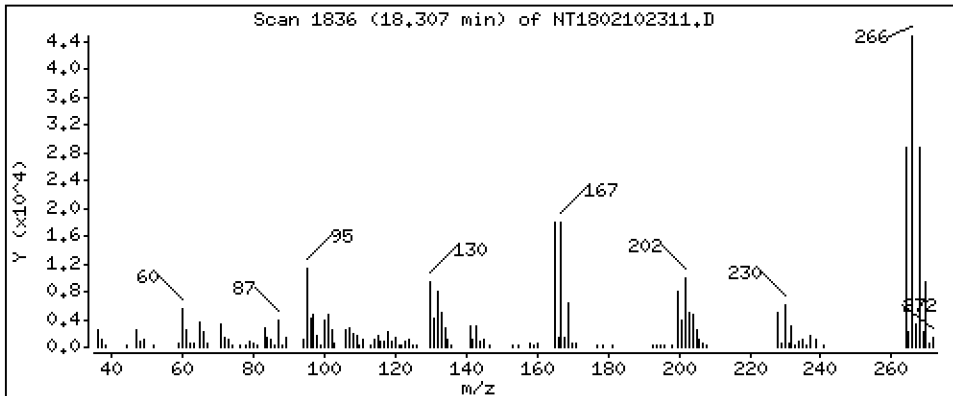
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,507 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

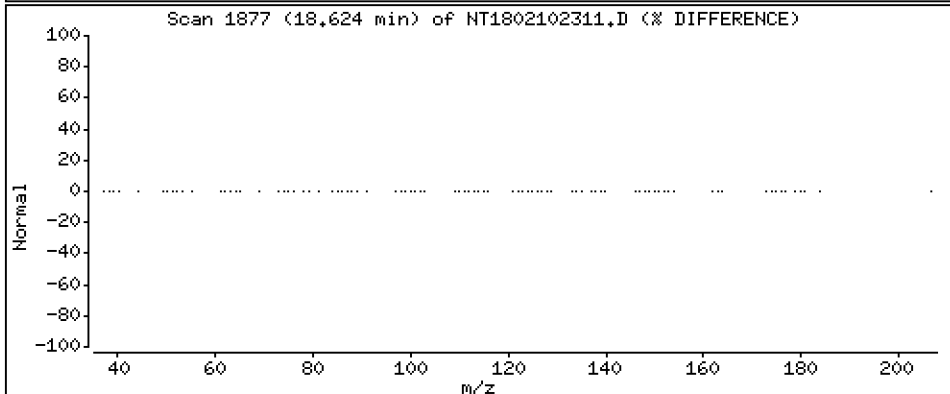
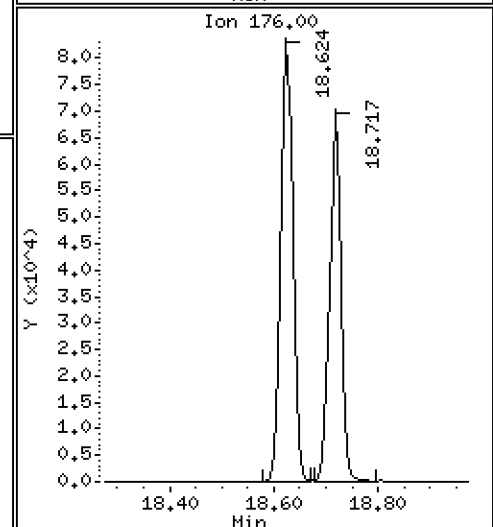
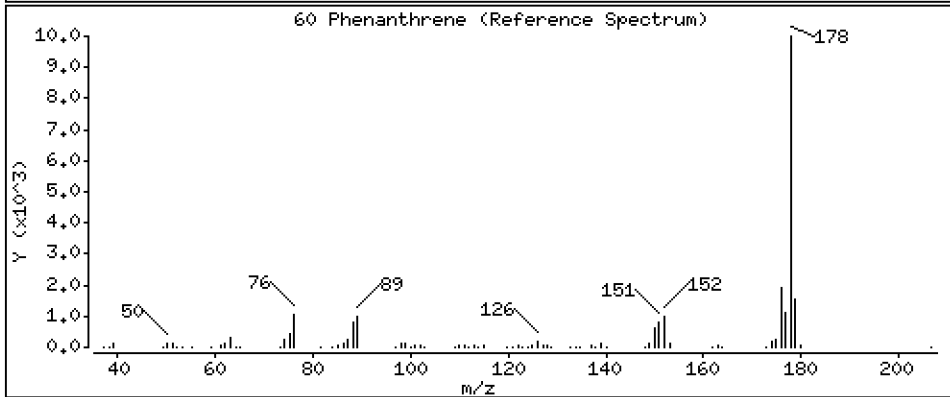
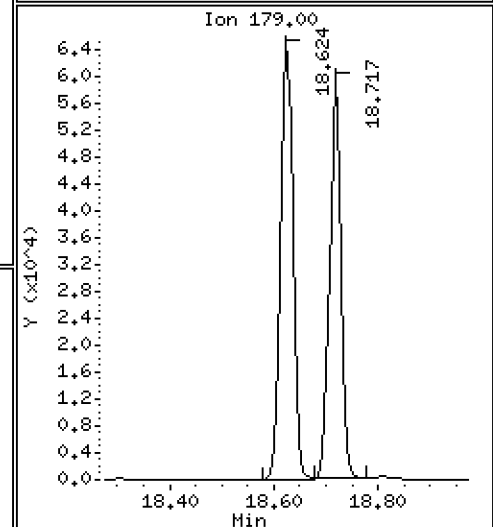
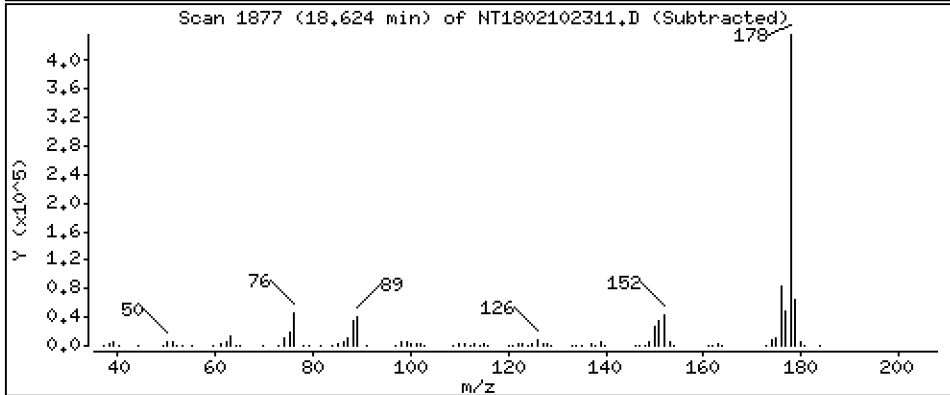
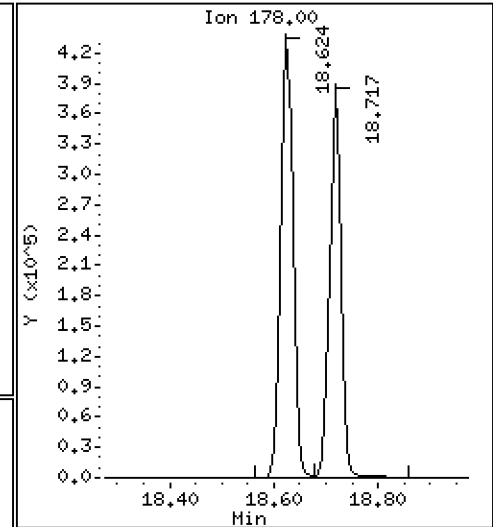
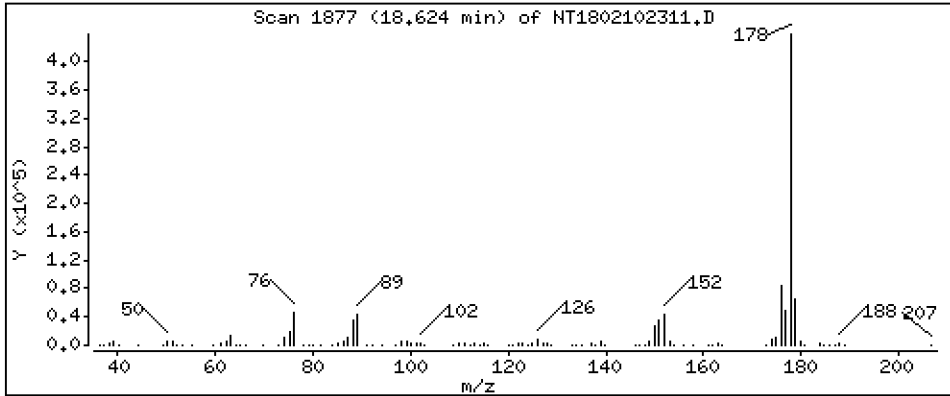
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,228 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

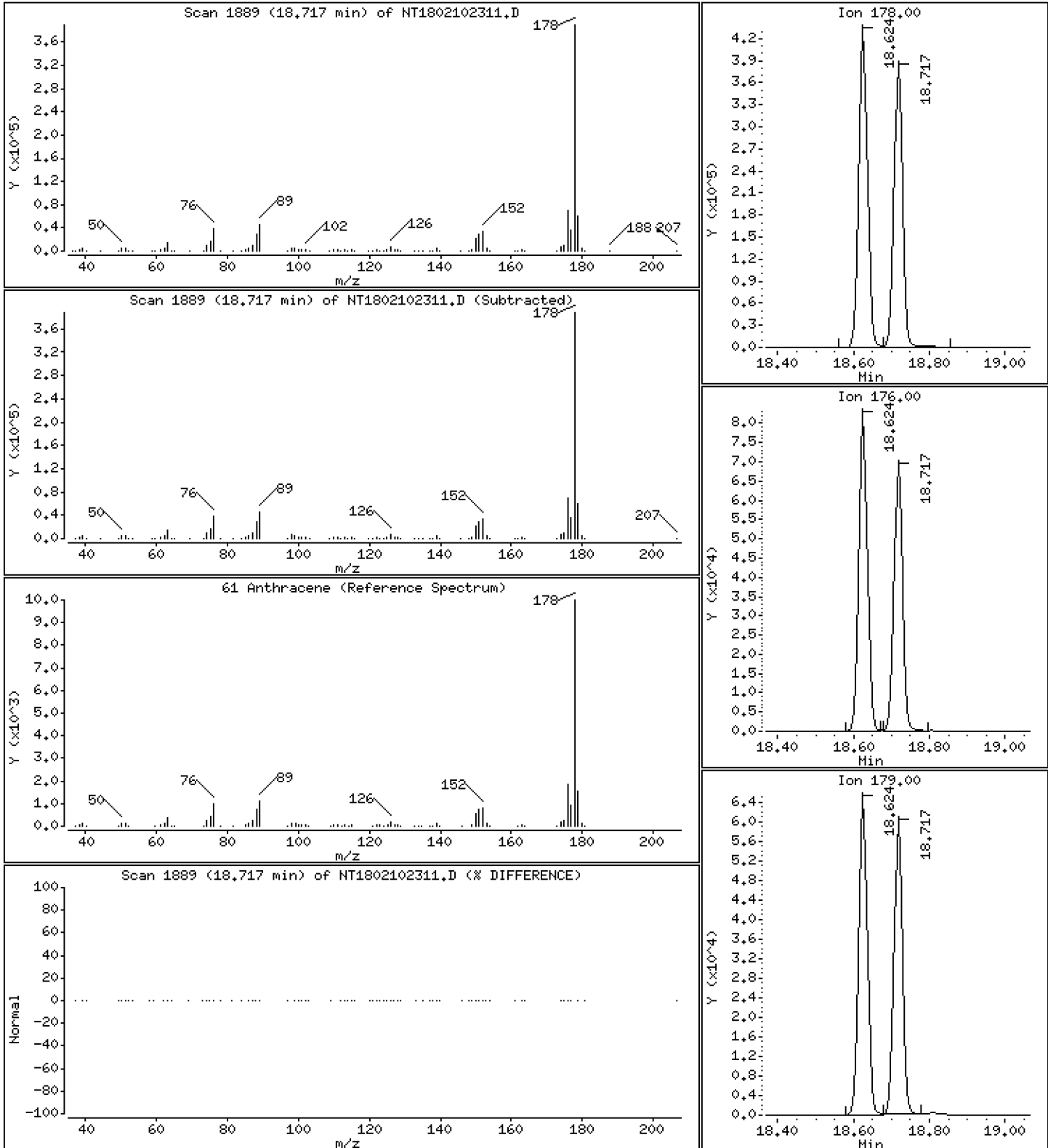
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 4,027 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

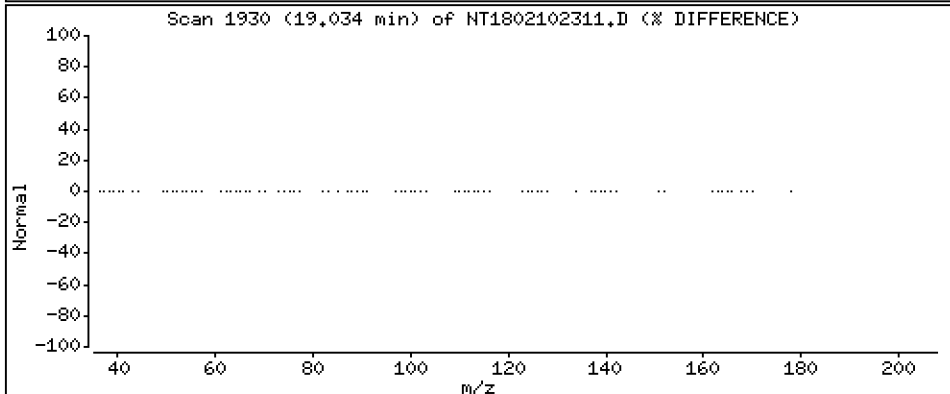
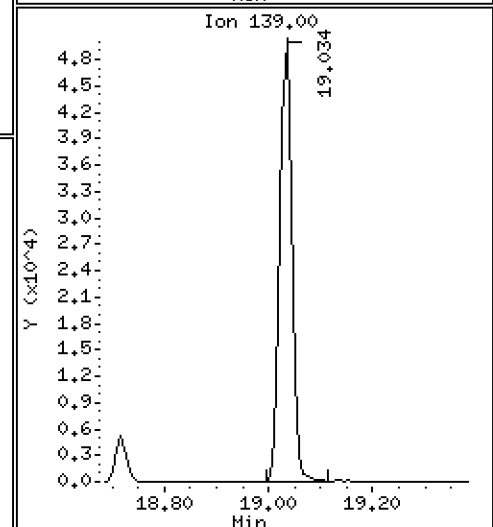
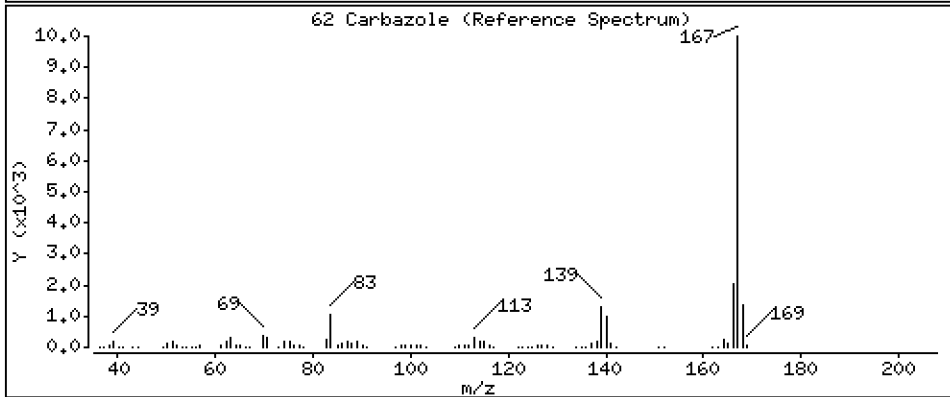
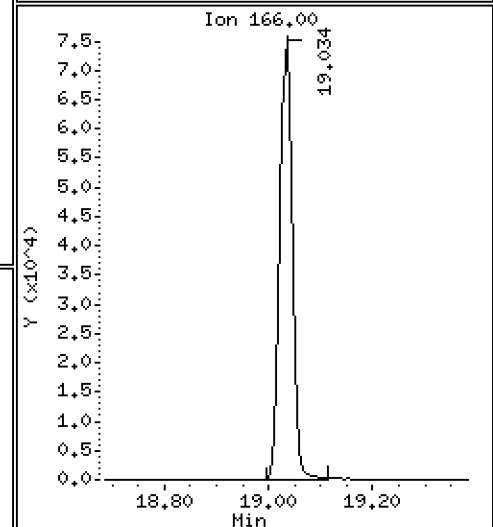
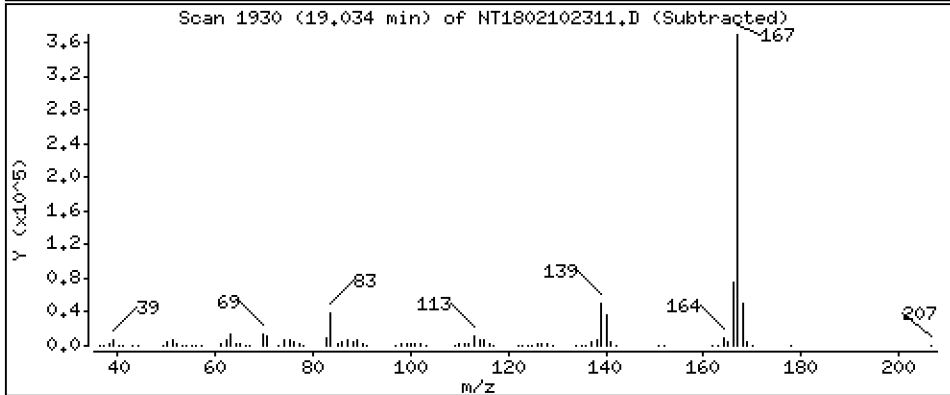
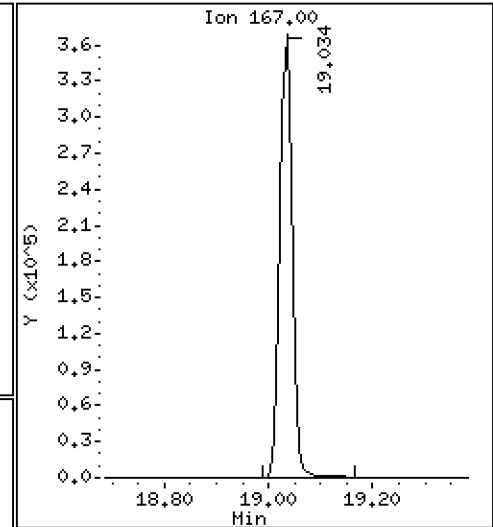
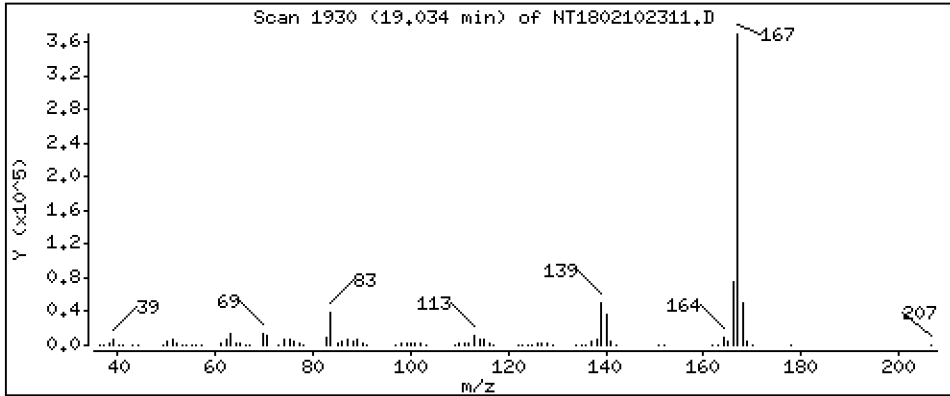
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

62 Carbazole

Concentration: 4.066 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

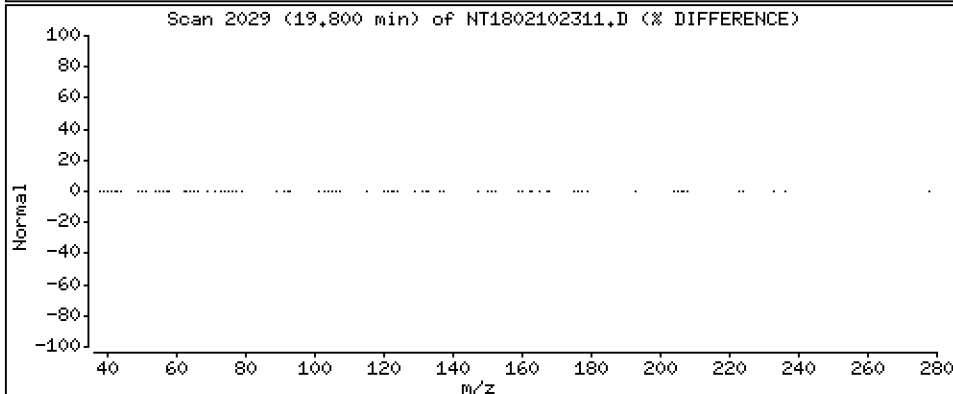
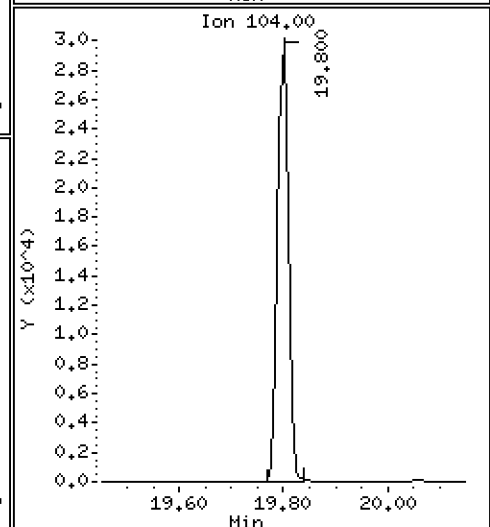
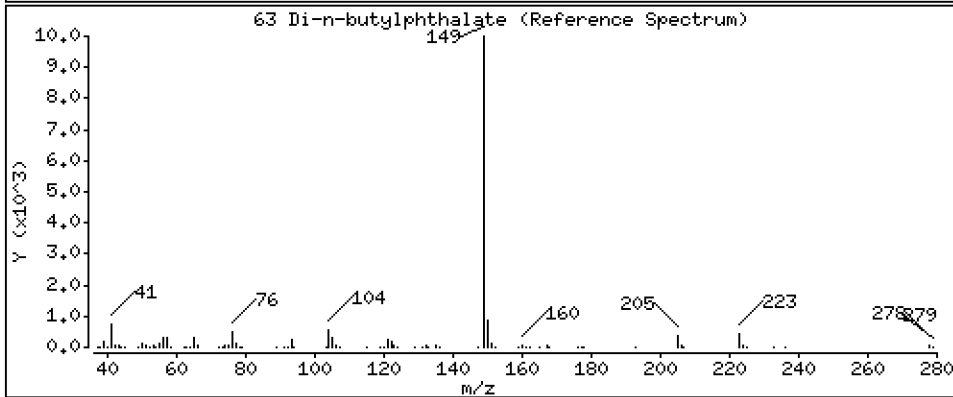
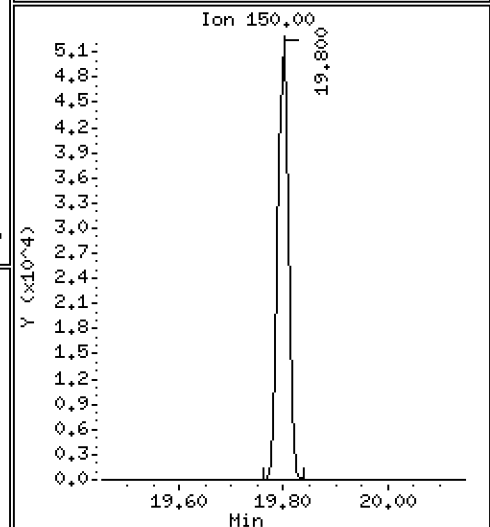
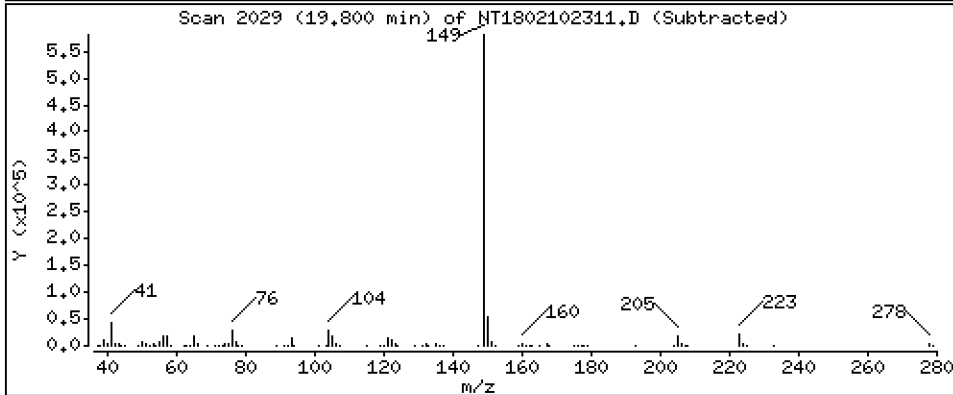
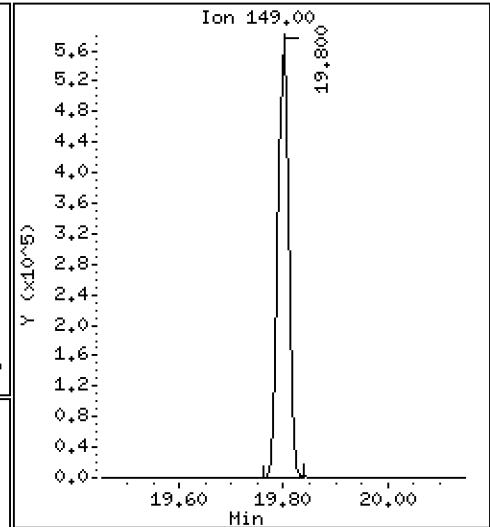
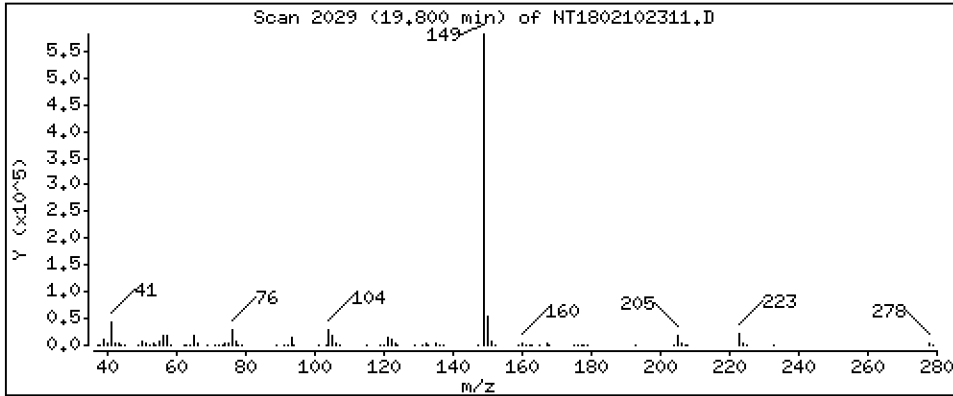
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,139 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

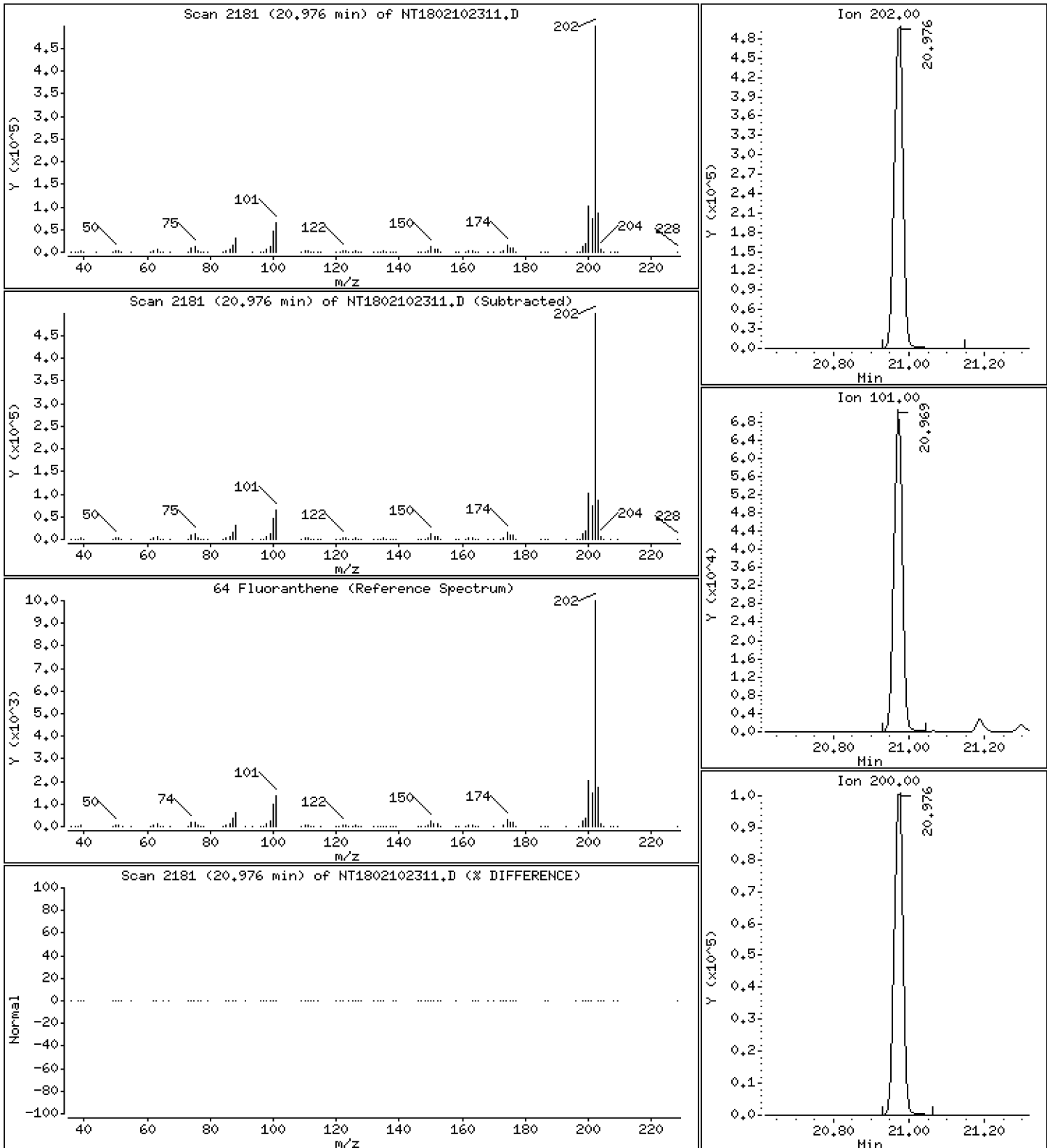
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,555 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

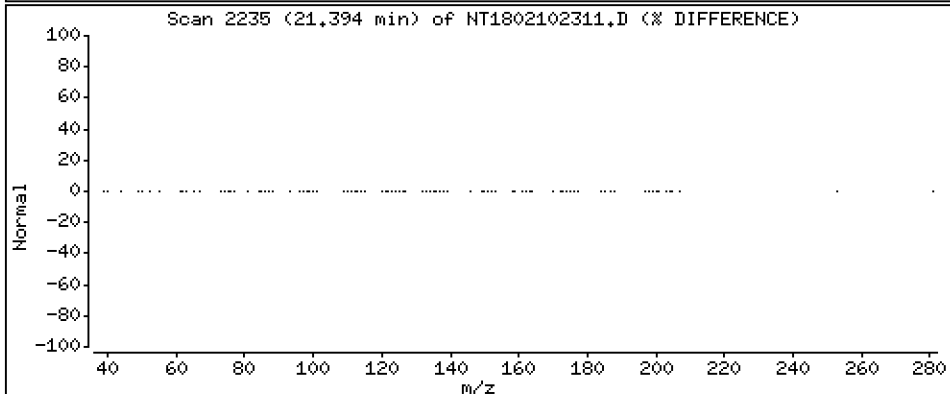
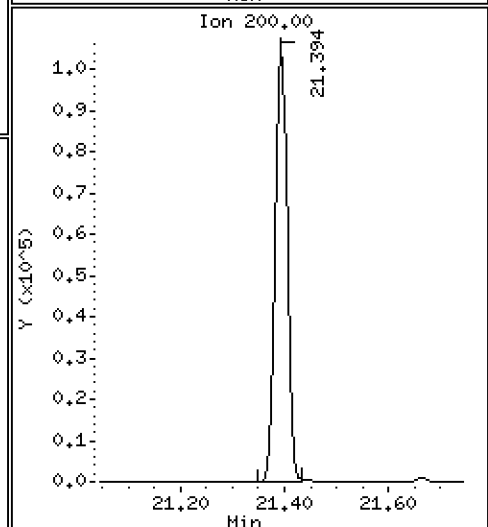
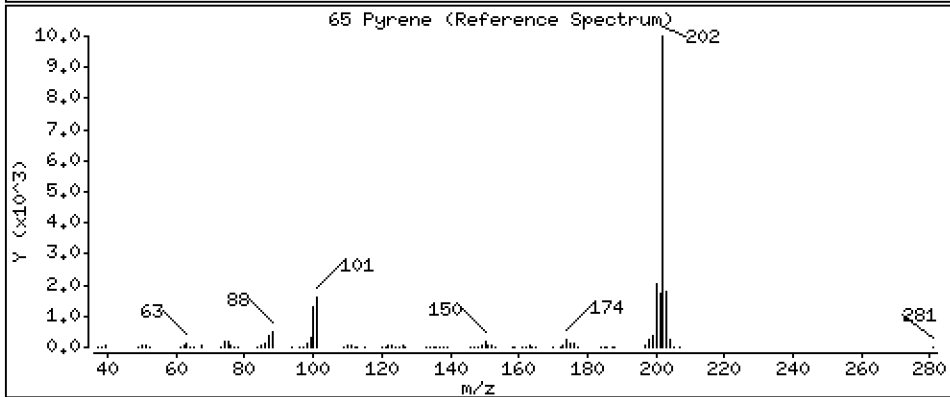
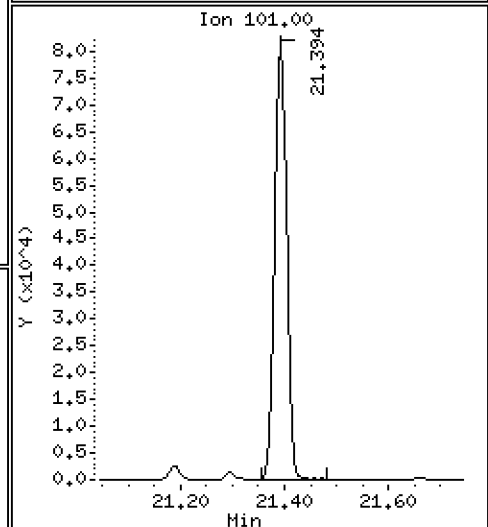
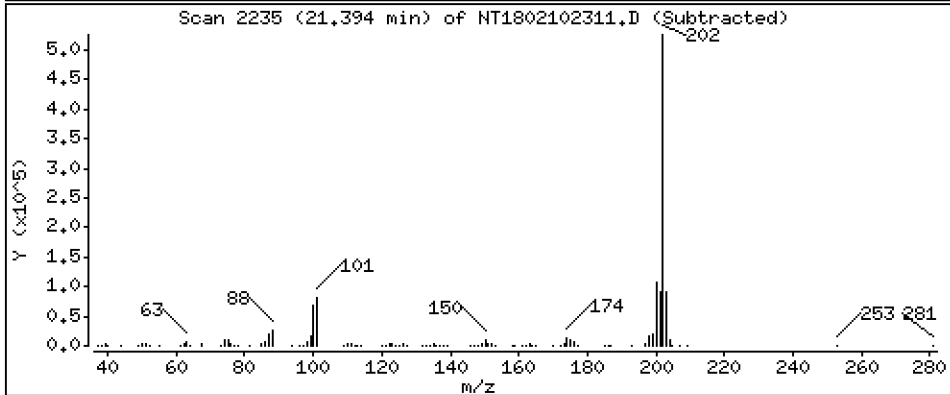
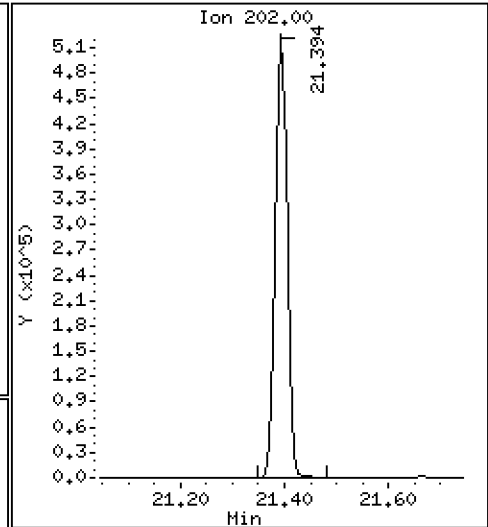
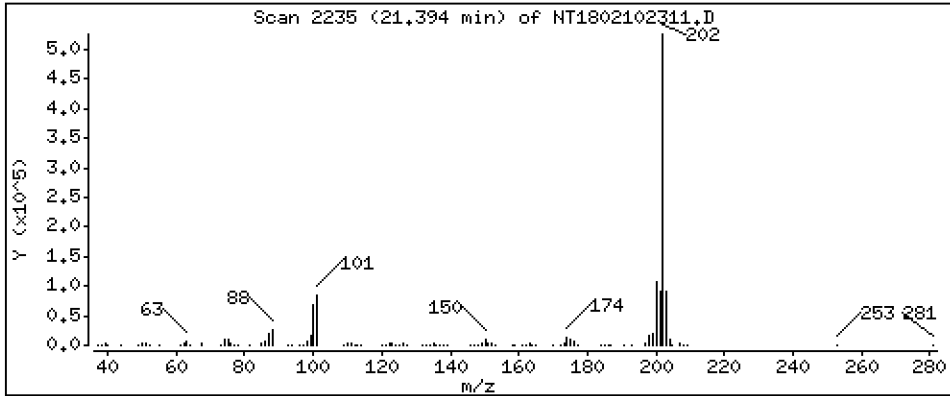
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 4,328 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

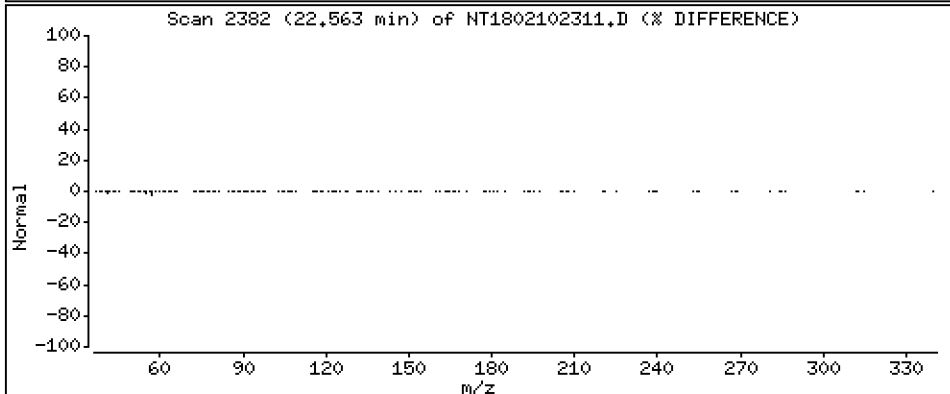
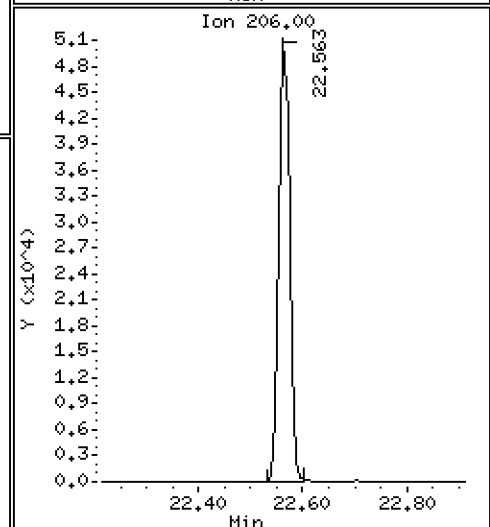
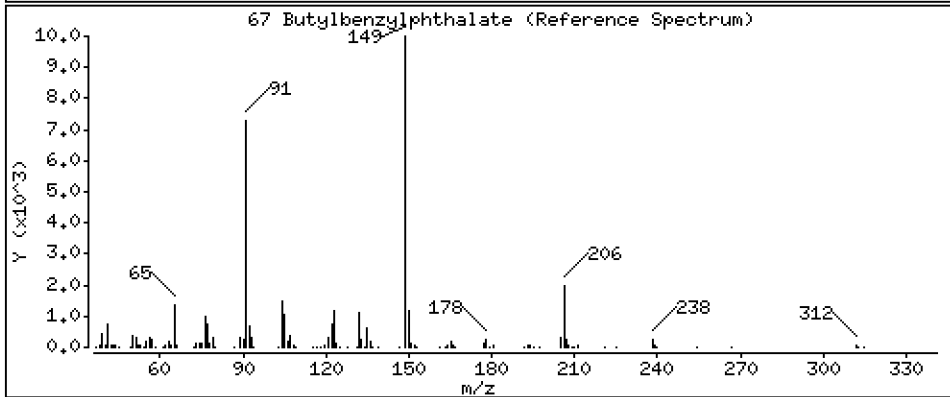
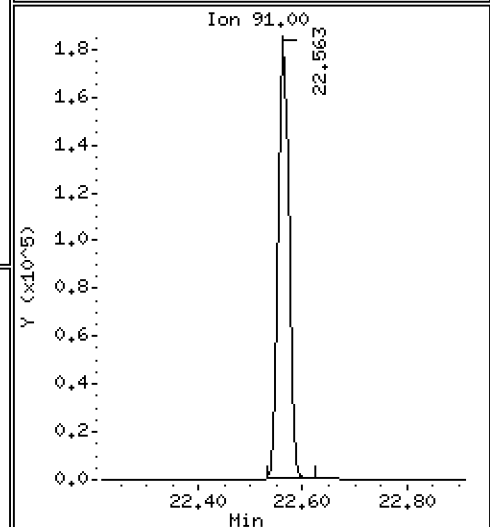
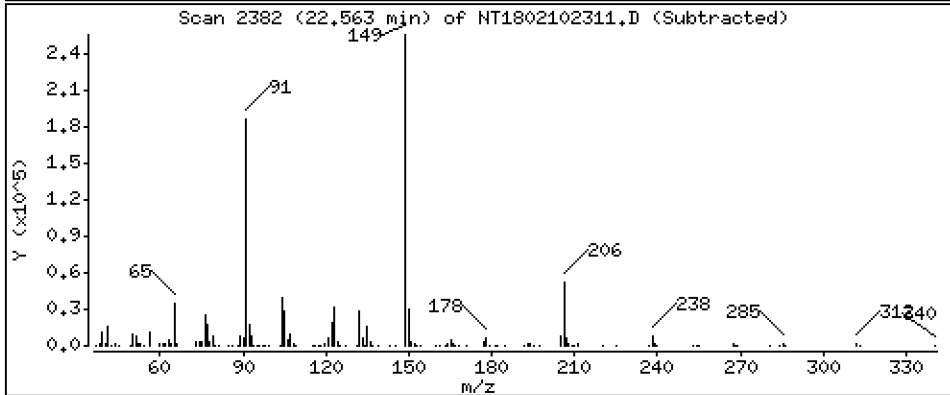
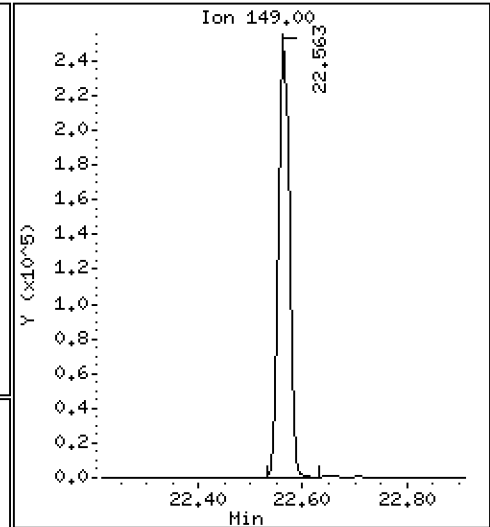
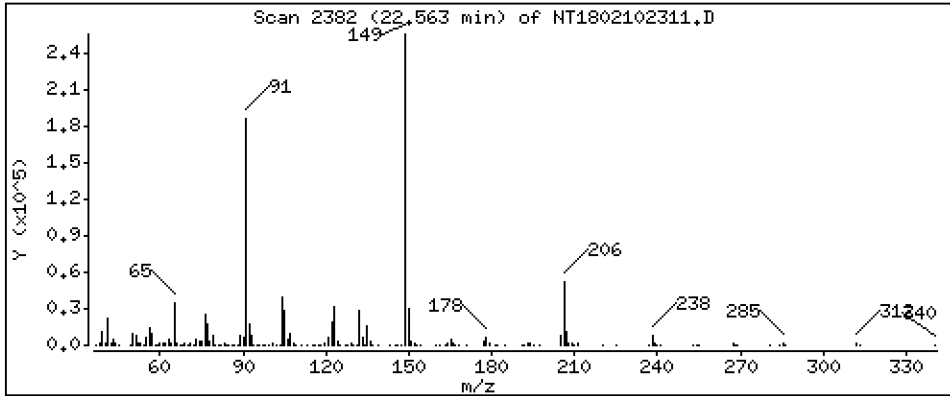
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,203 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

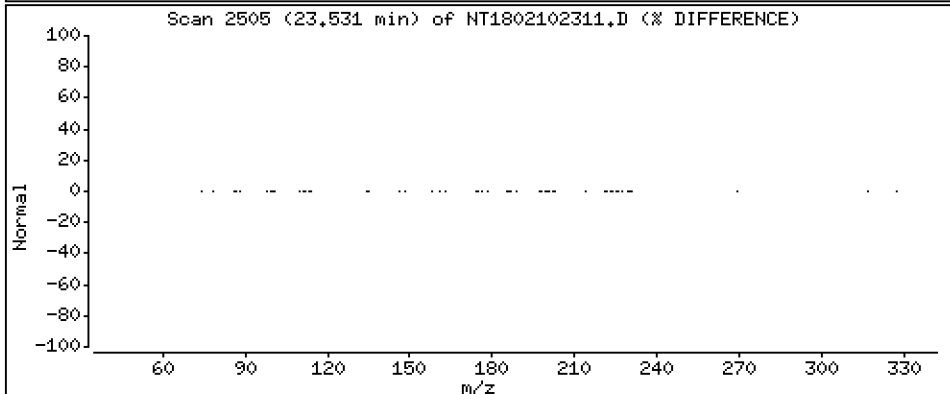
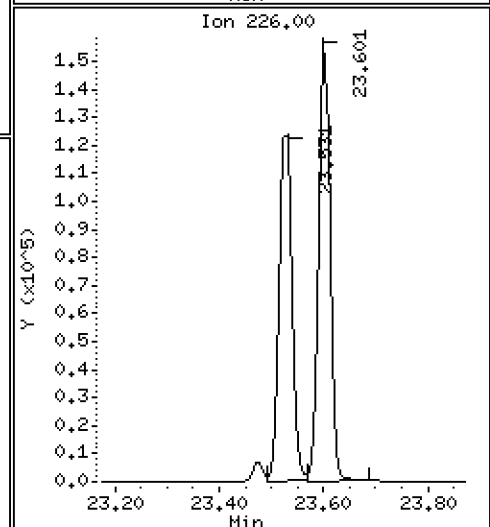
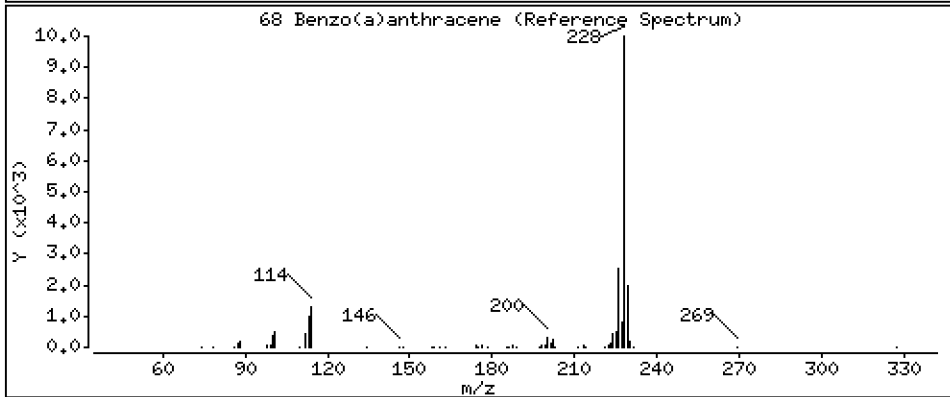
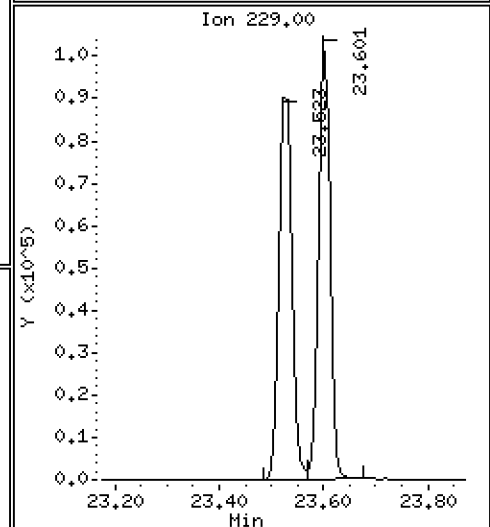
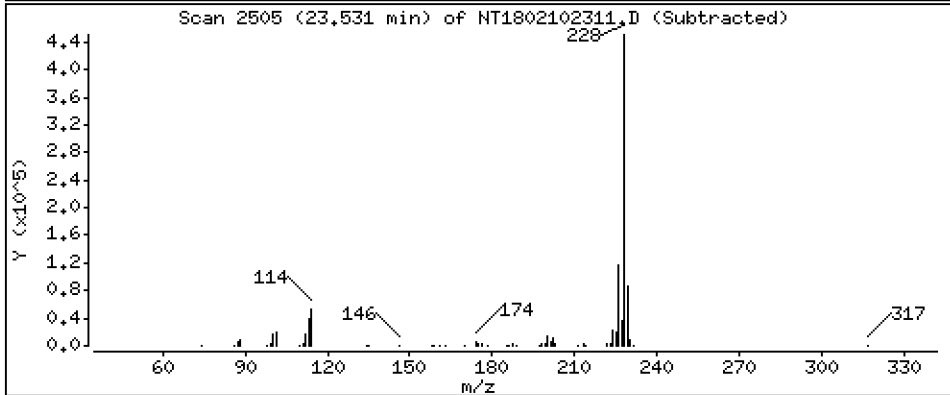
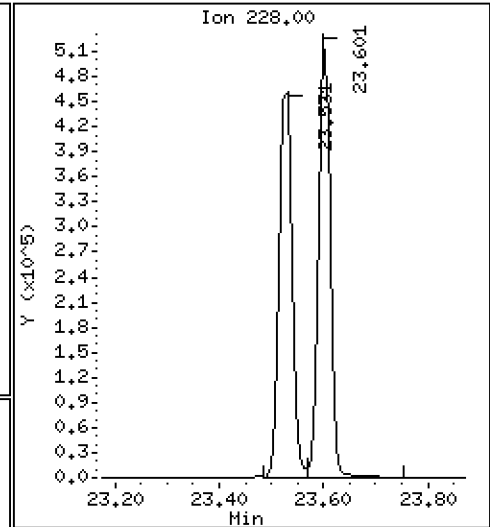
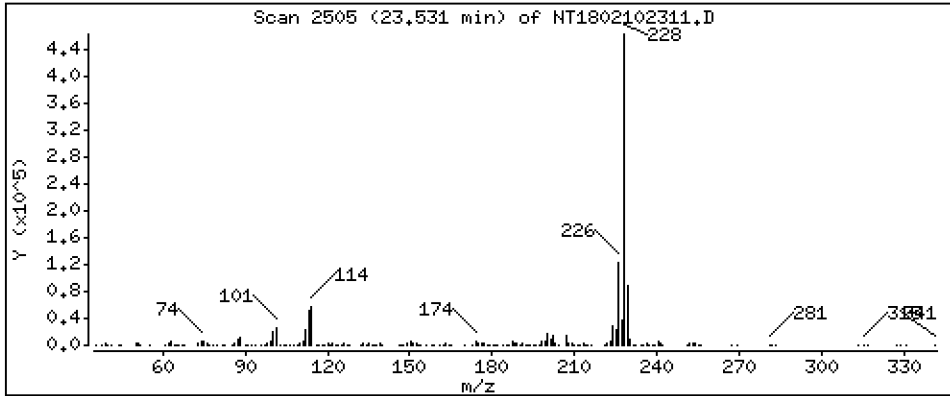
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

68 Benzo(a)anthracene

Concentration: 4.247 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

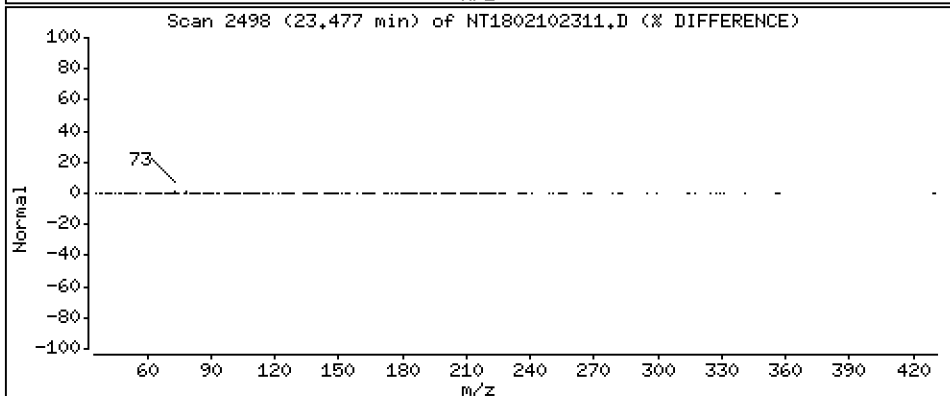
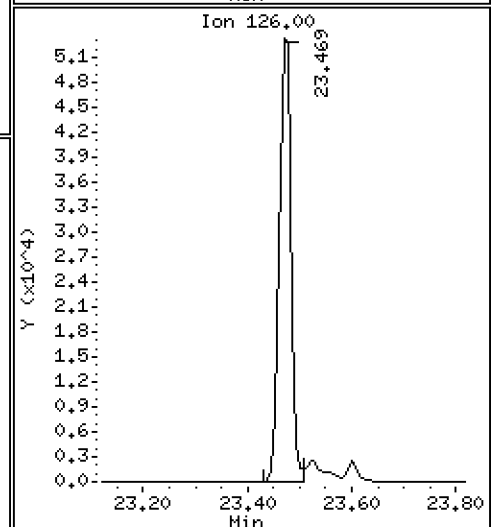
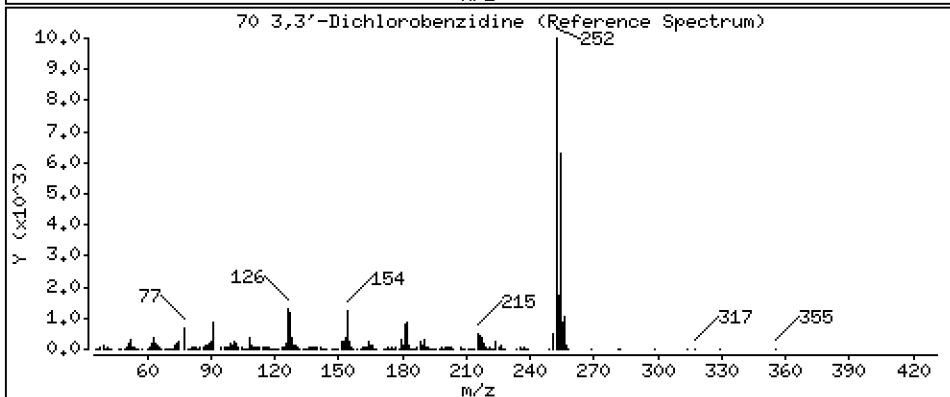
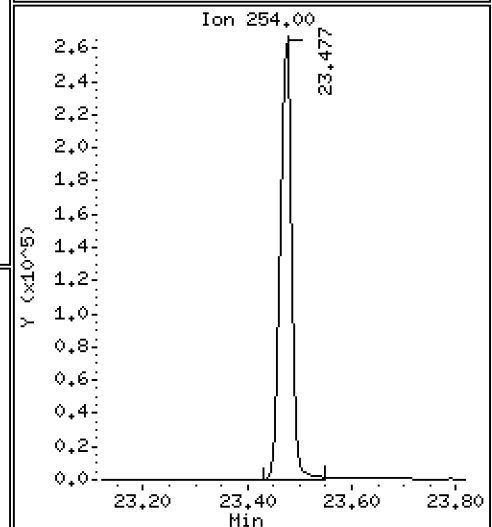
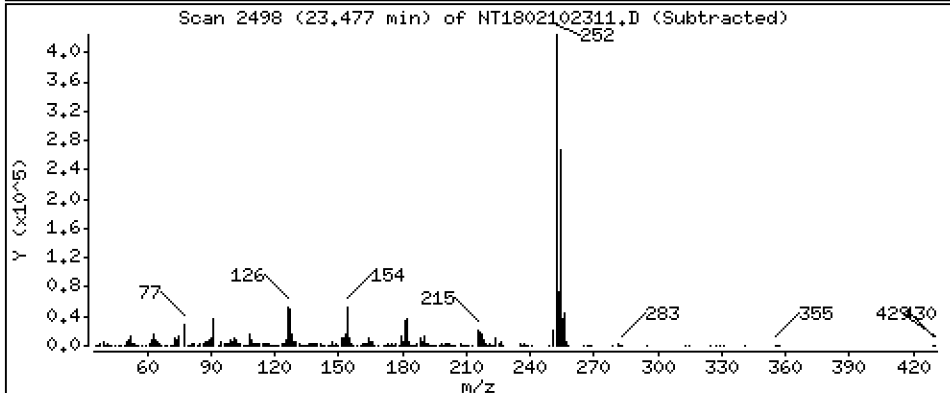
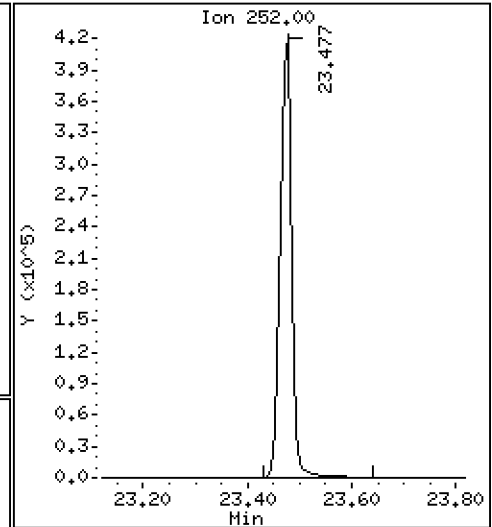
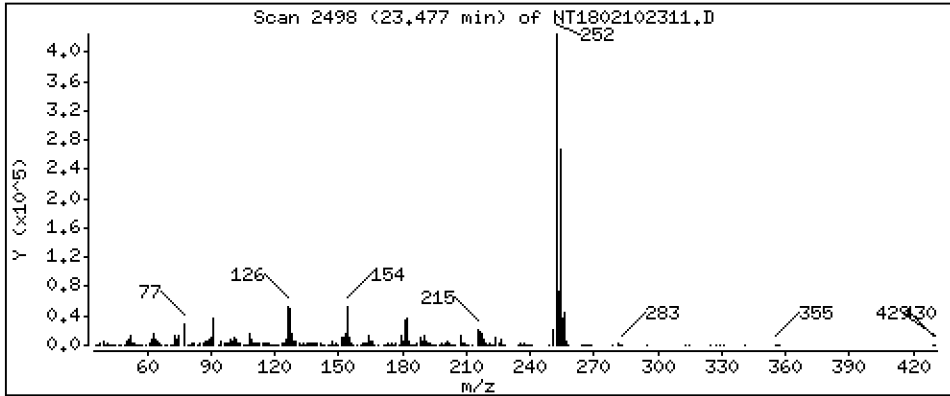
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 7,582 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

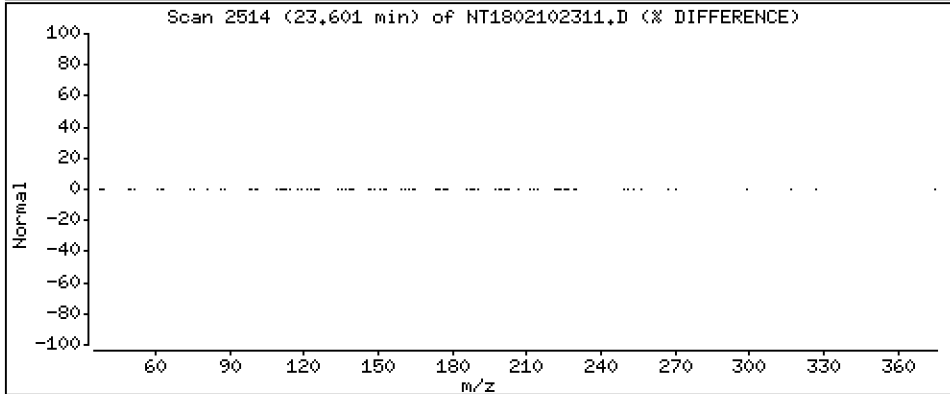
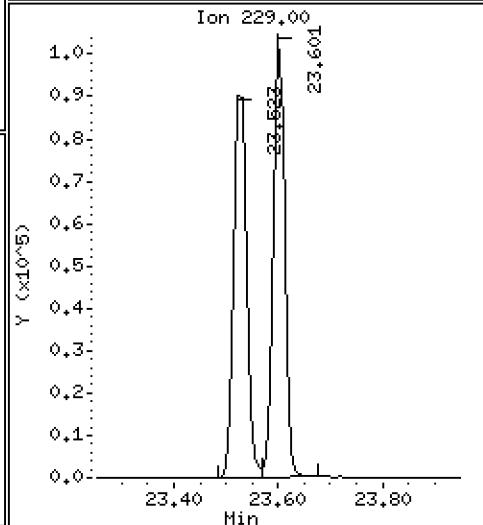
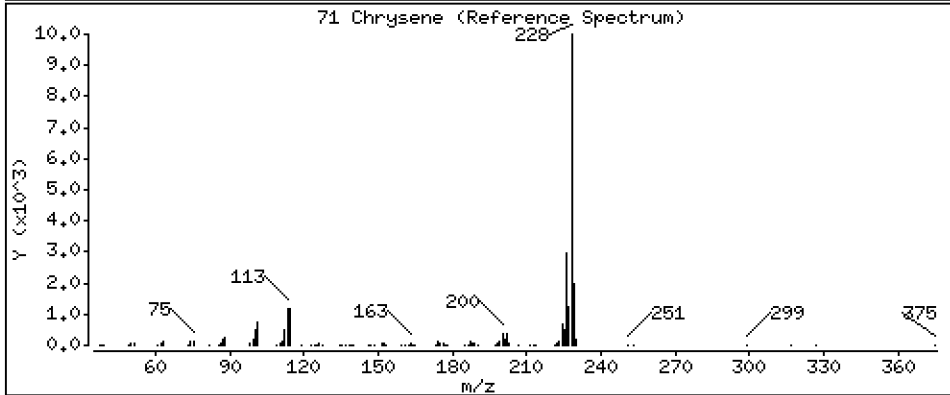
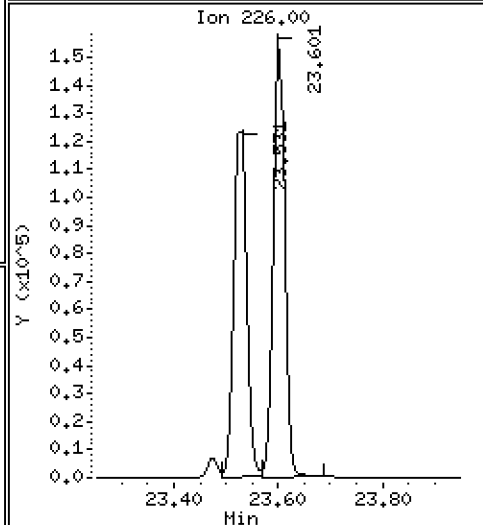
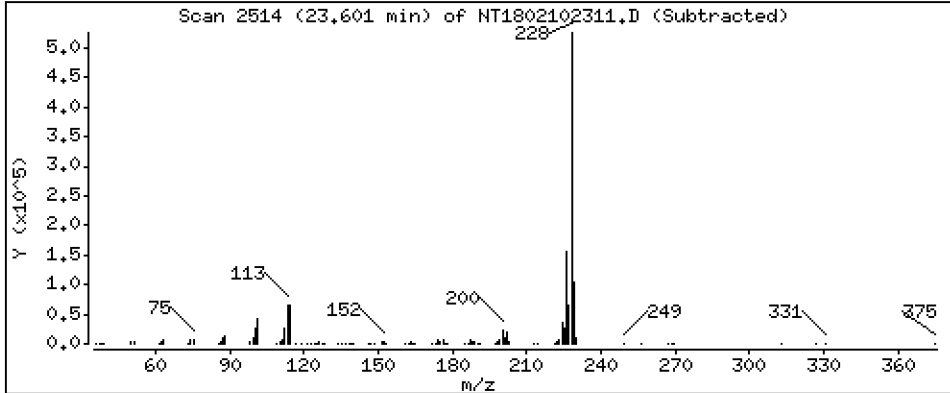
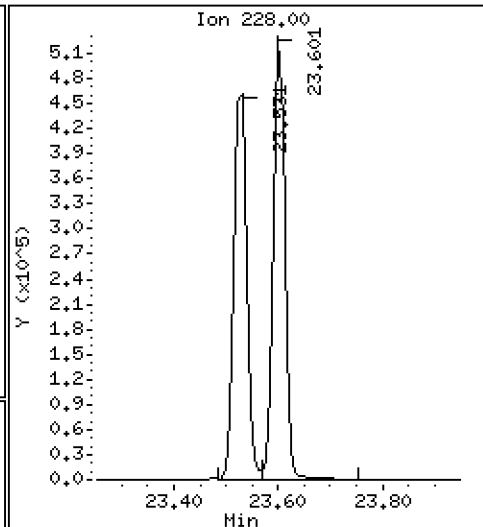
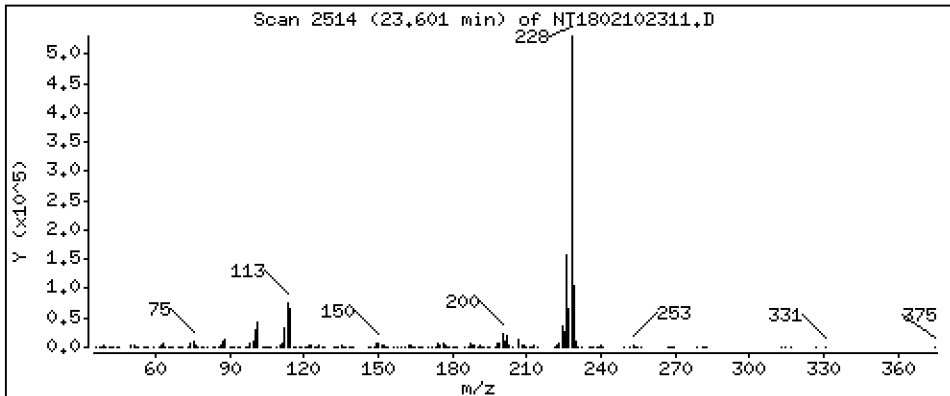
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,062 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

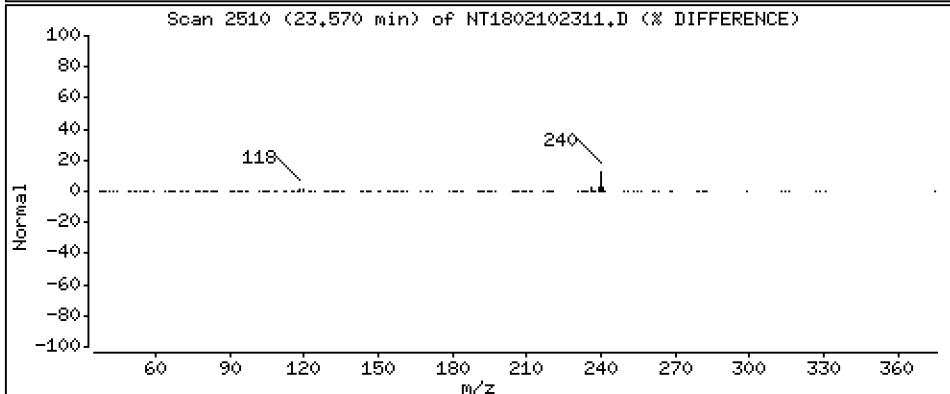
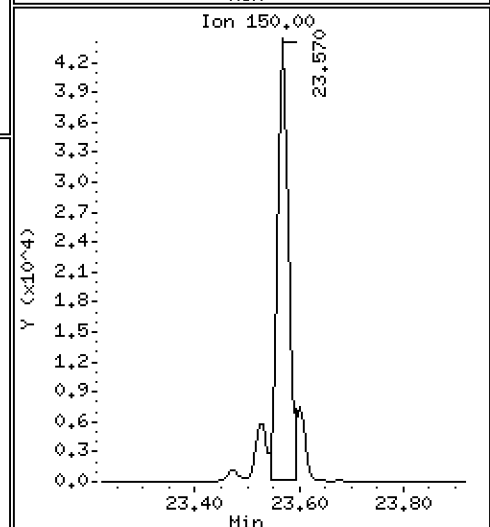
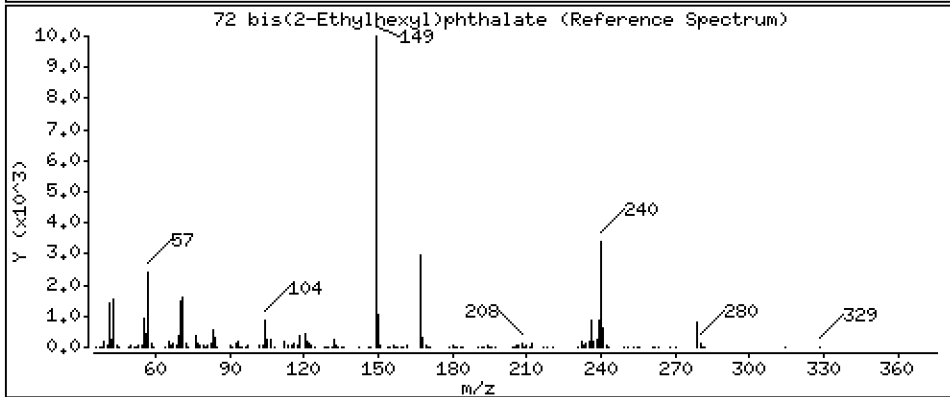
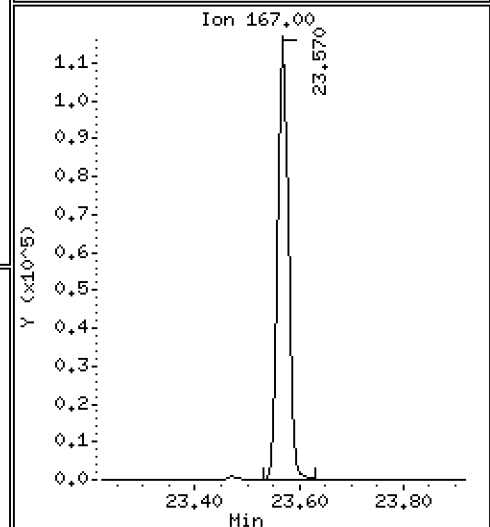
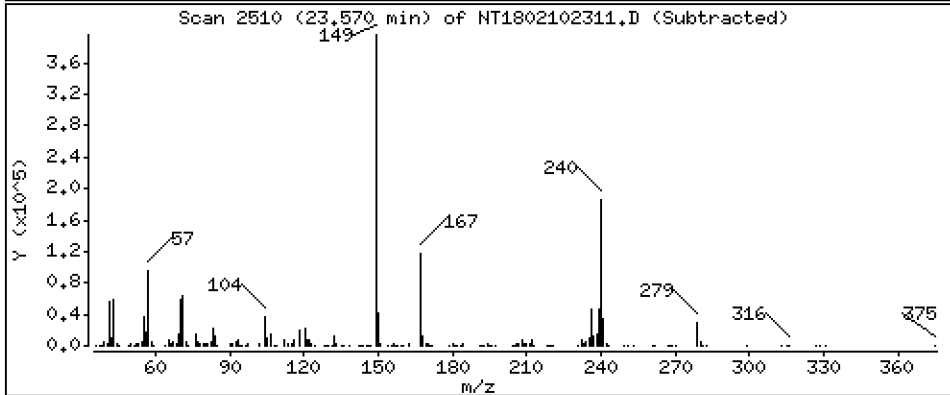
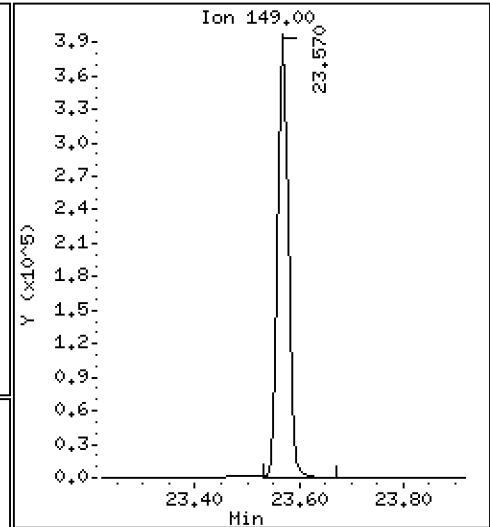
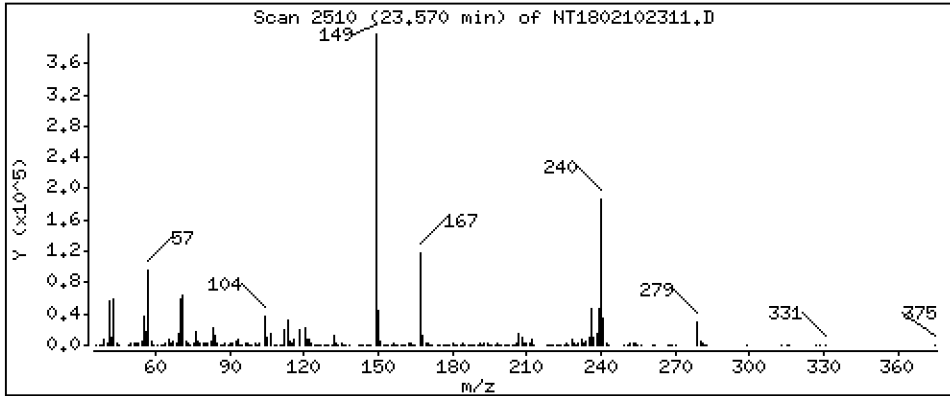
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 4,857 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

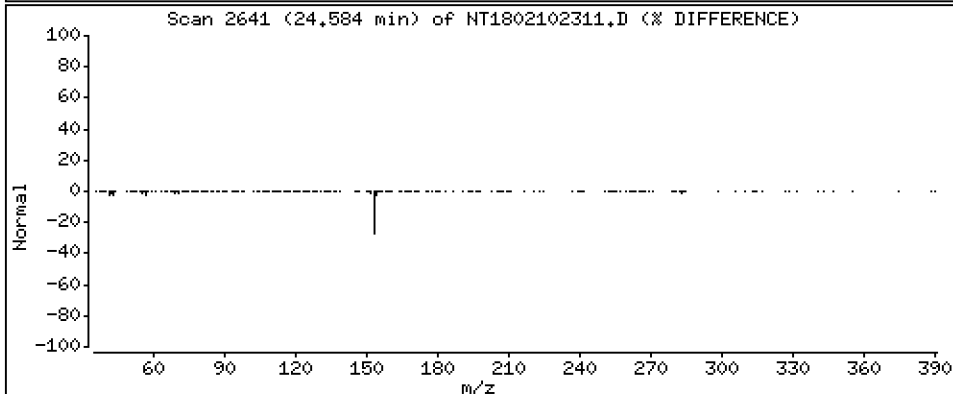
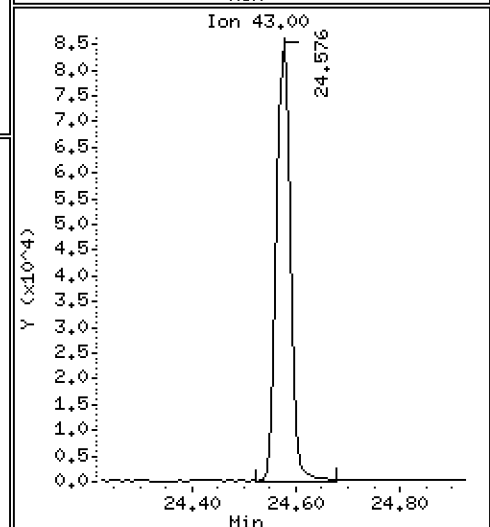
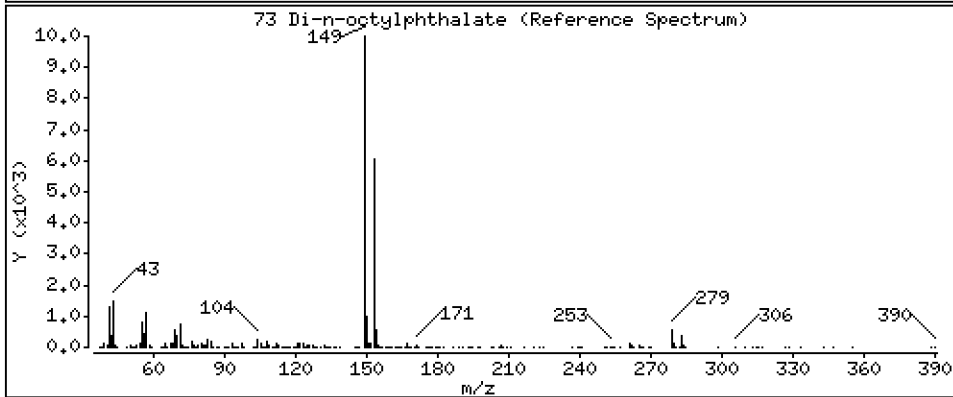
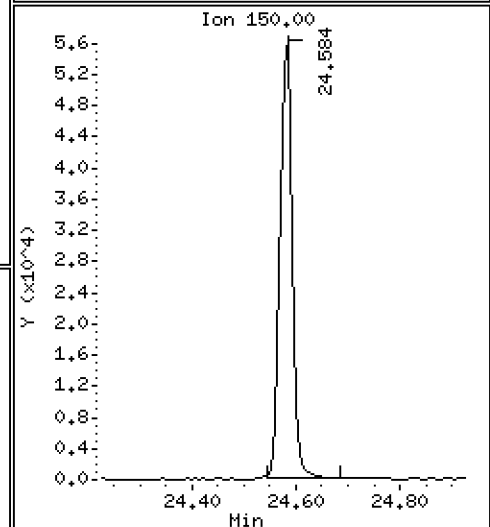
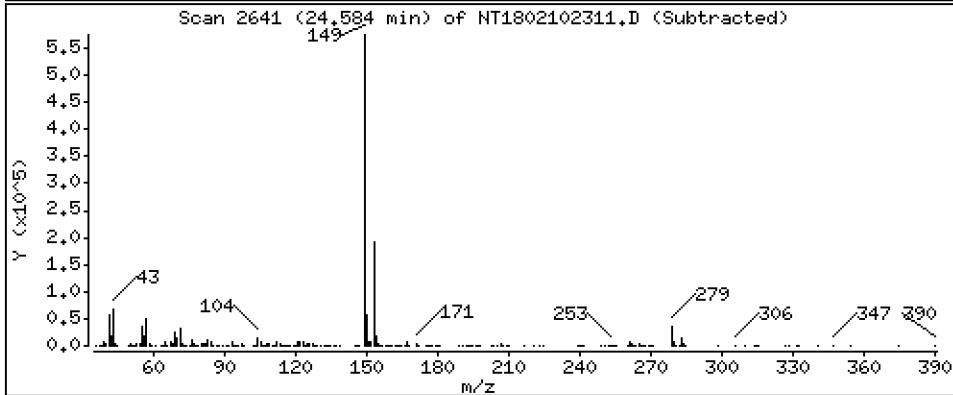
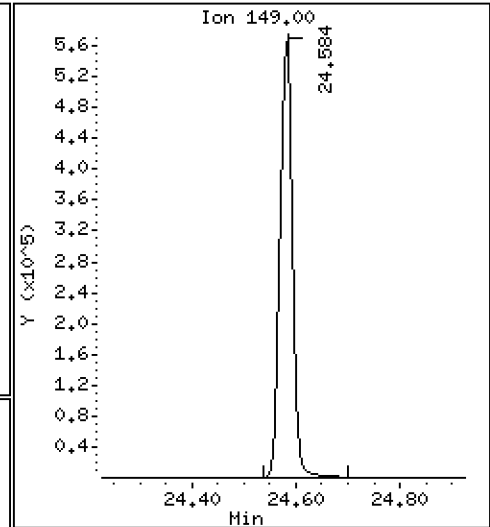
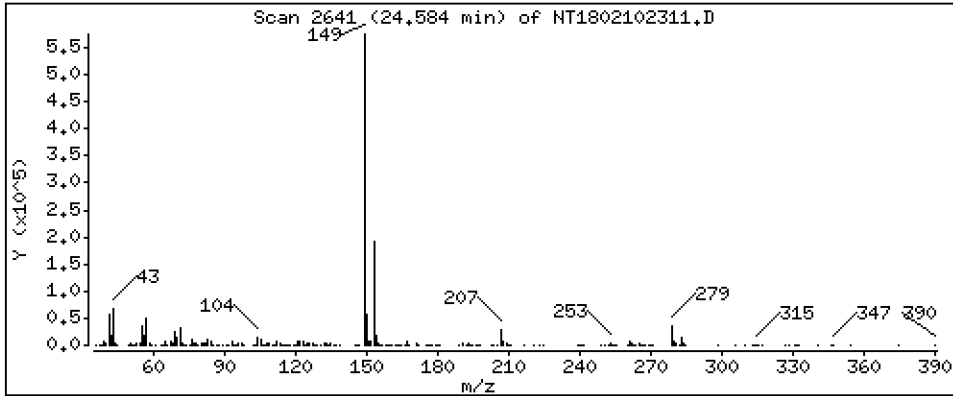
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 4,307 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

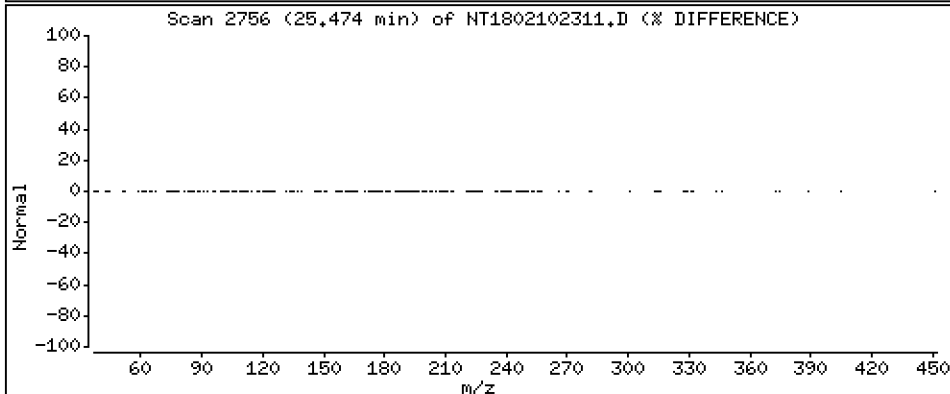
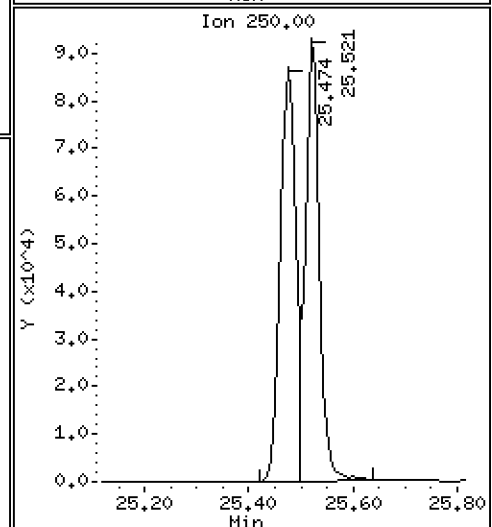
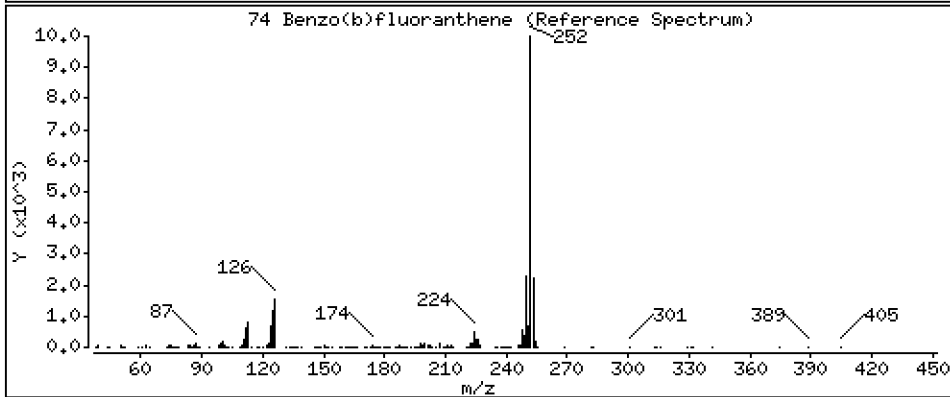
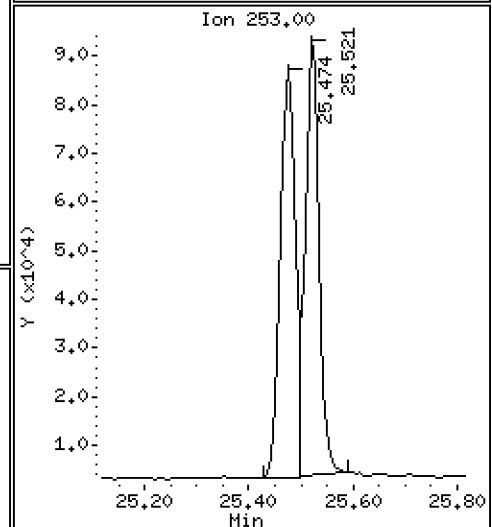
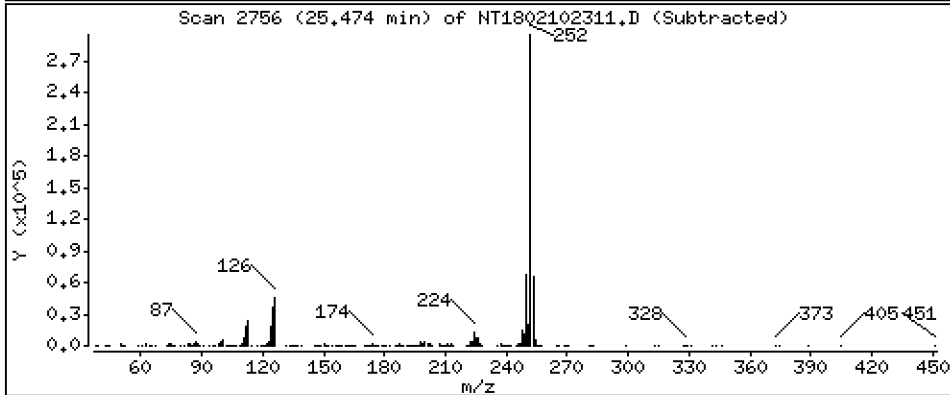
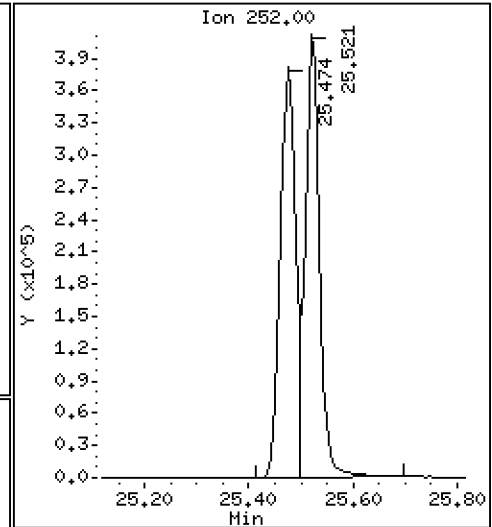
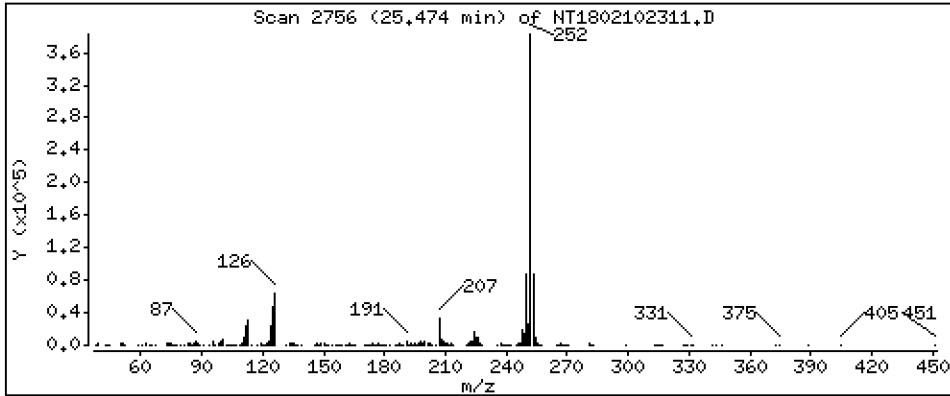
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,173 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

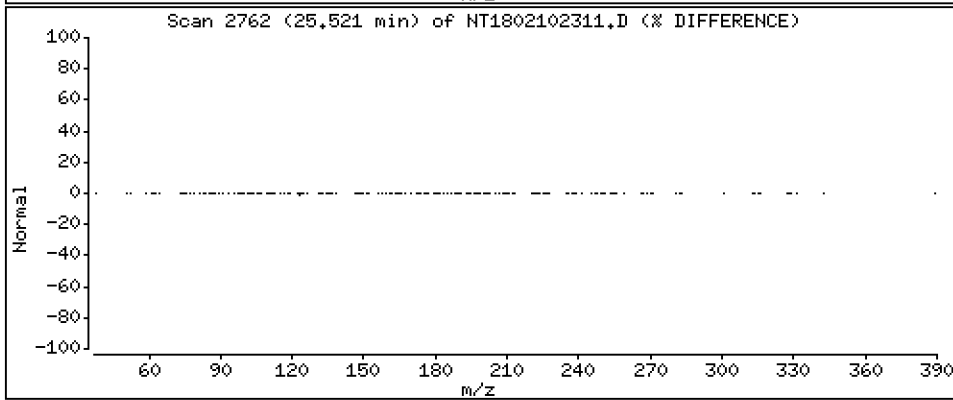
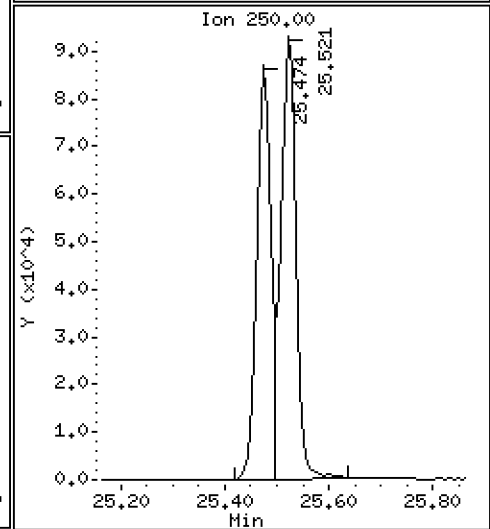
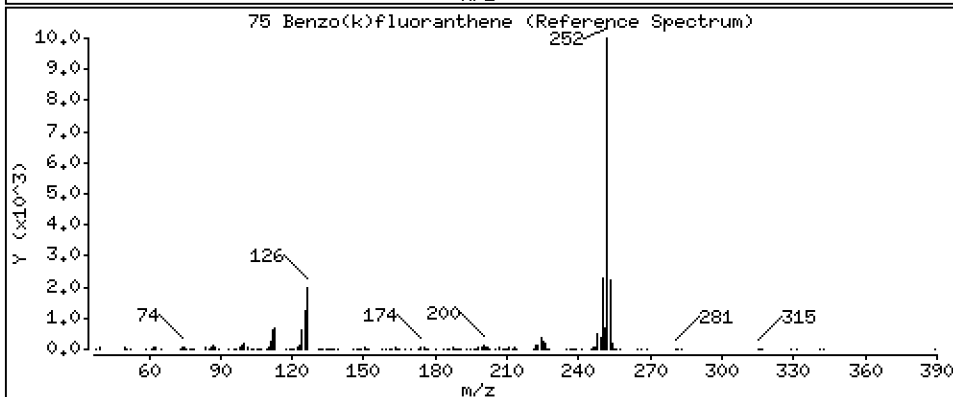
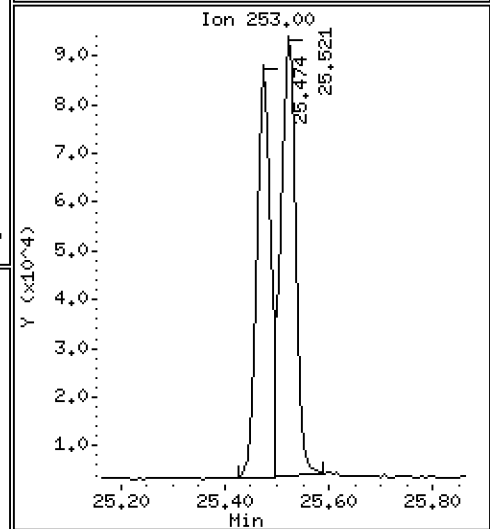
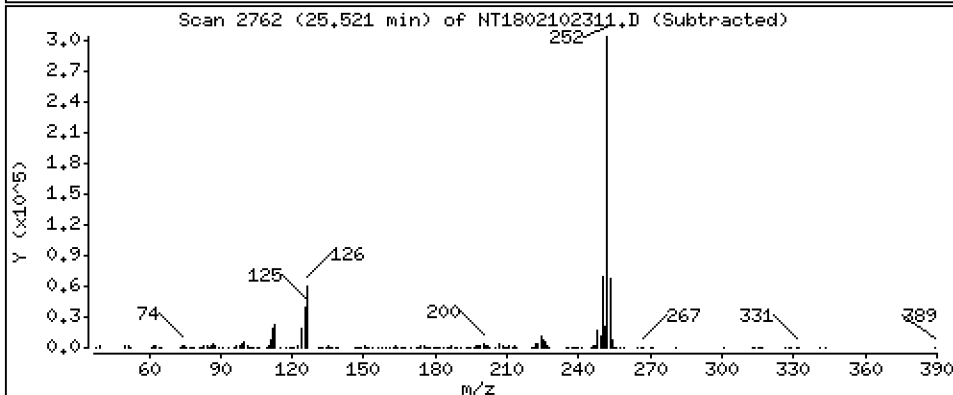
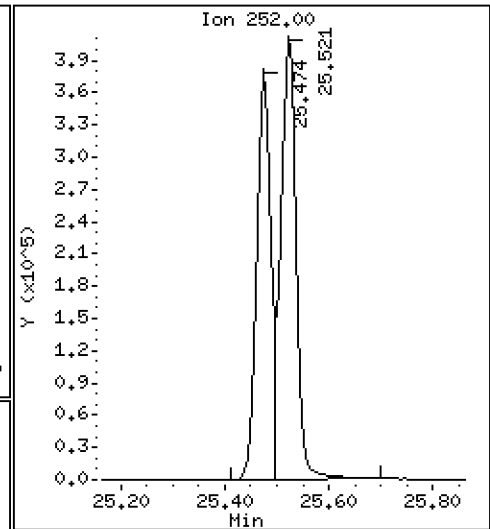
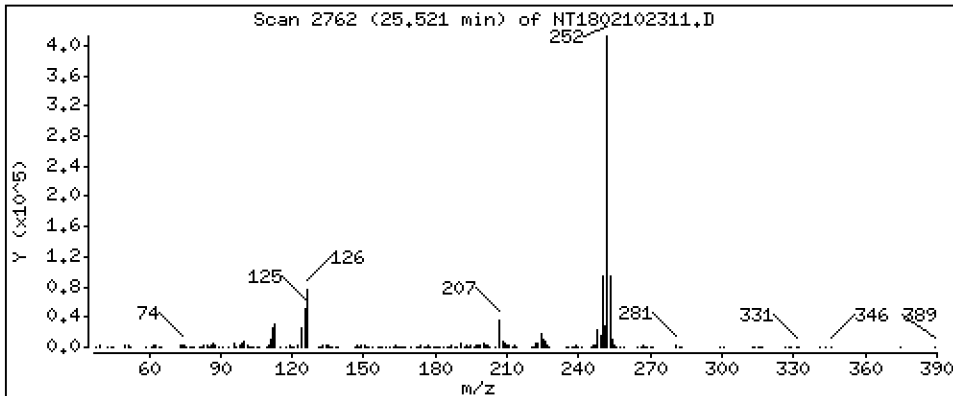
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,199 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

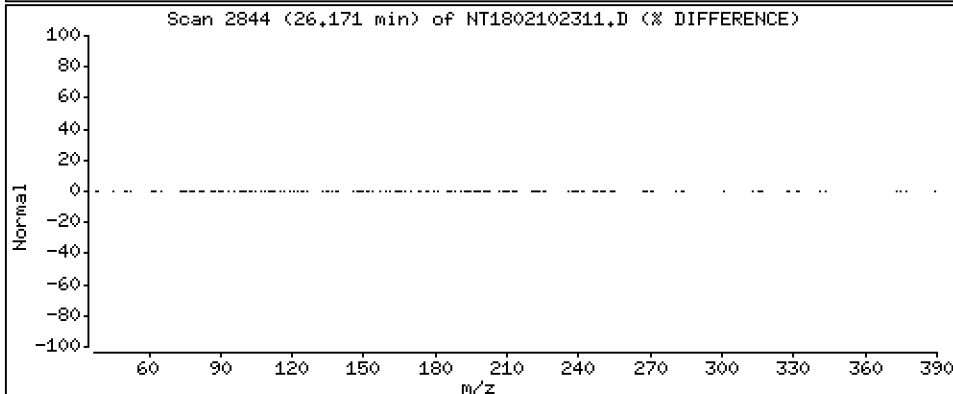
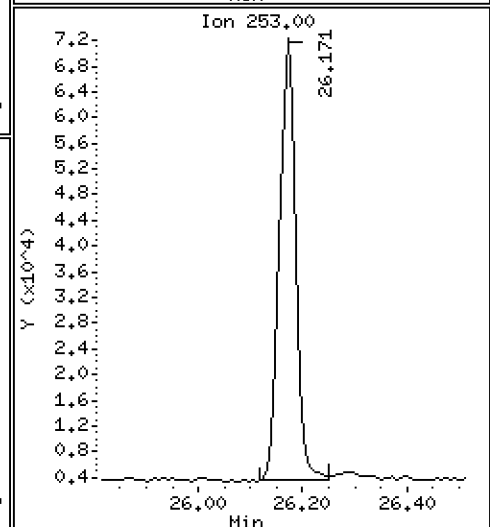
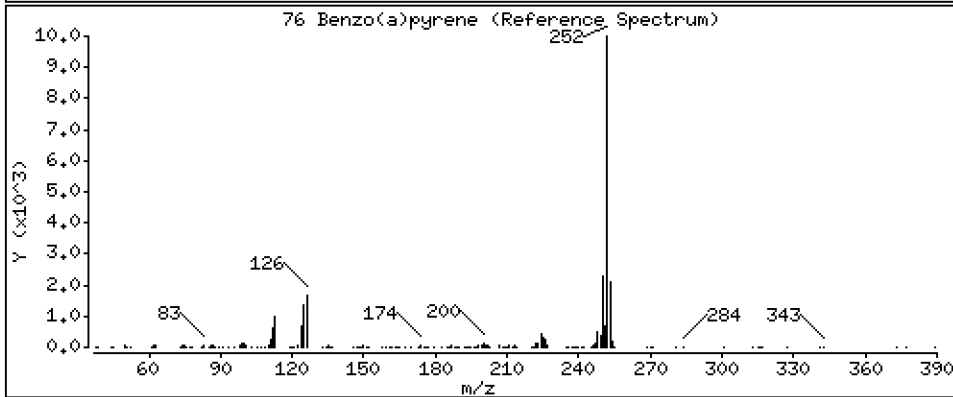
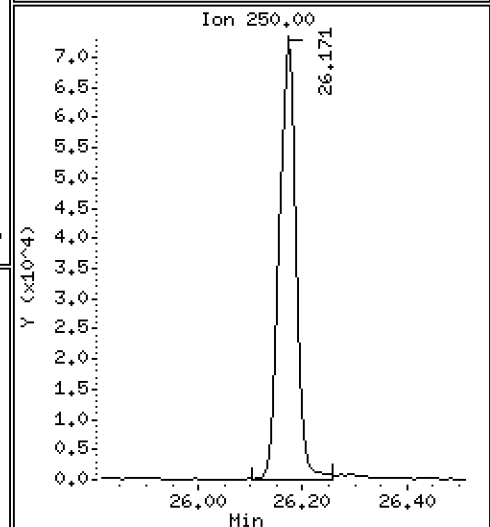
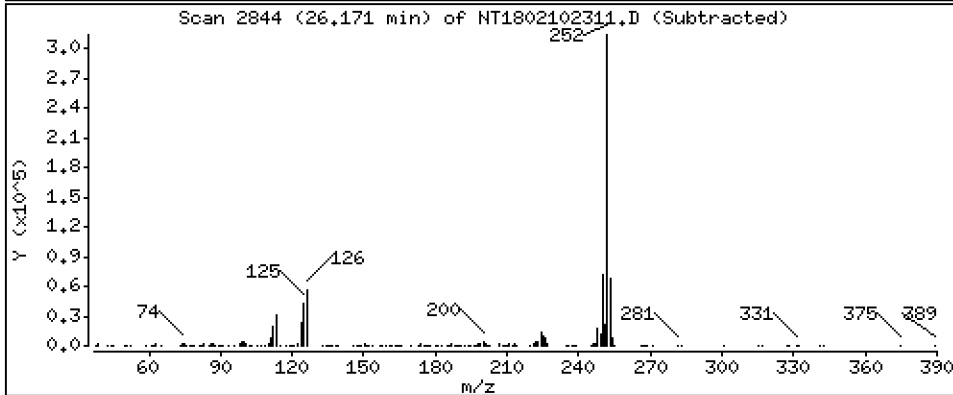
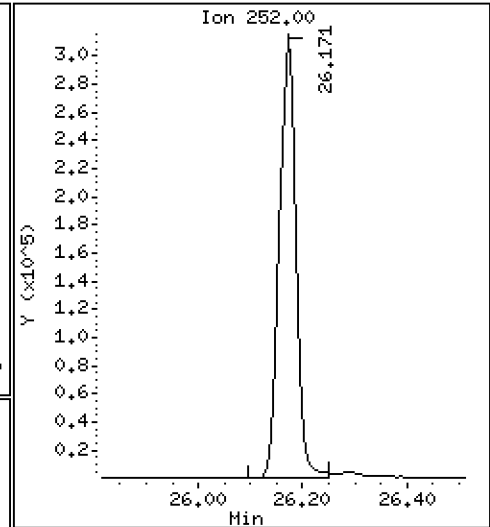
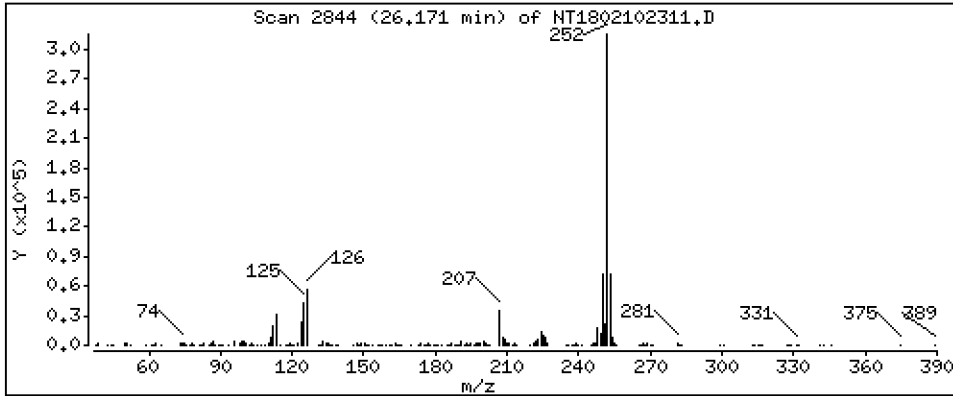
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,560 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

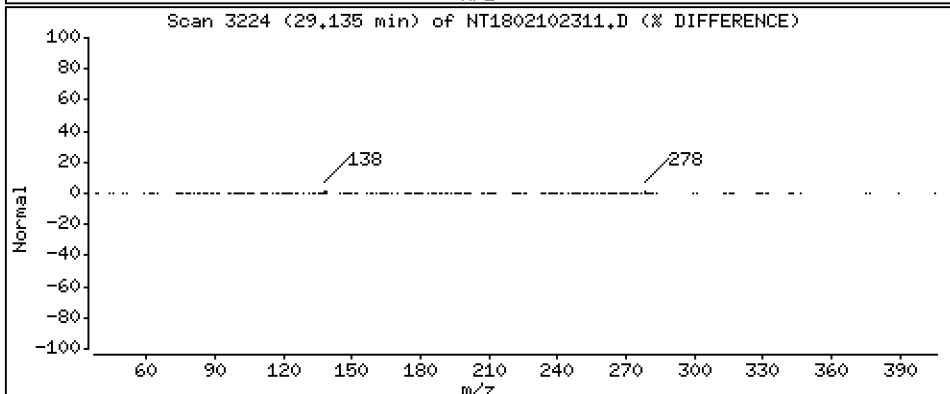
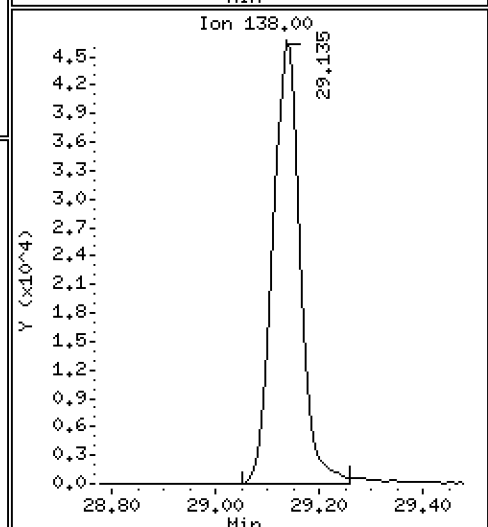
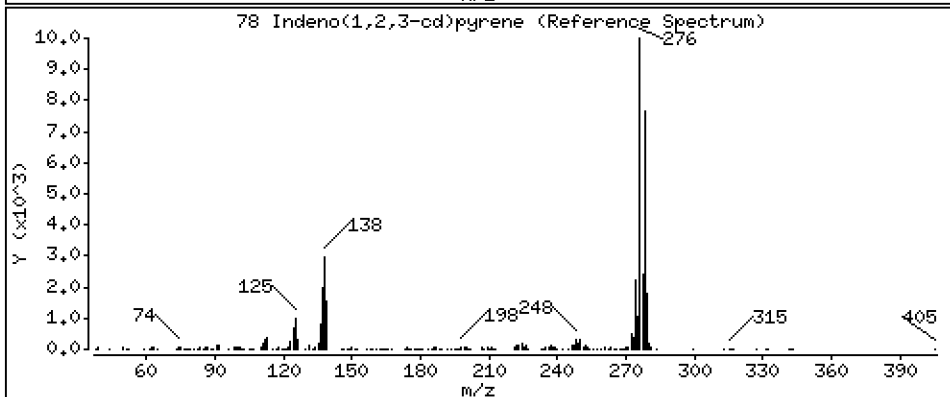
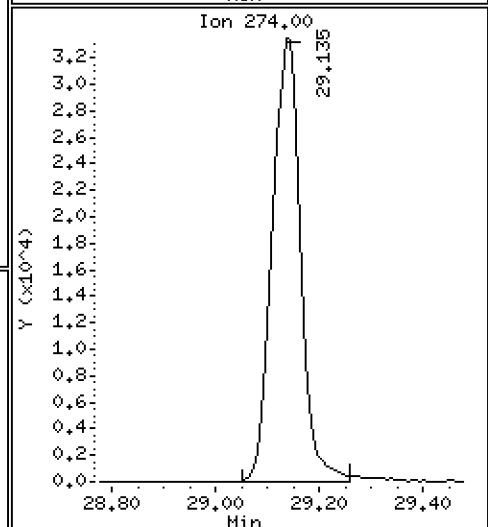
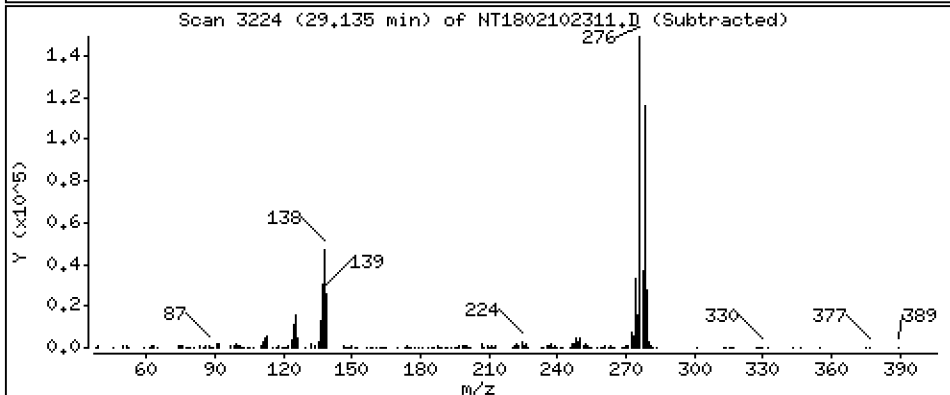
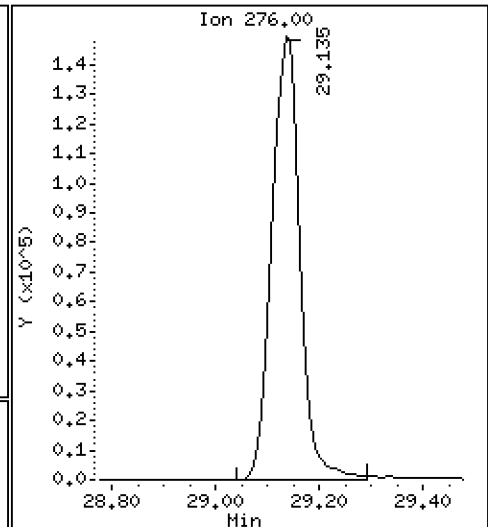
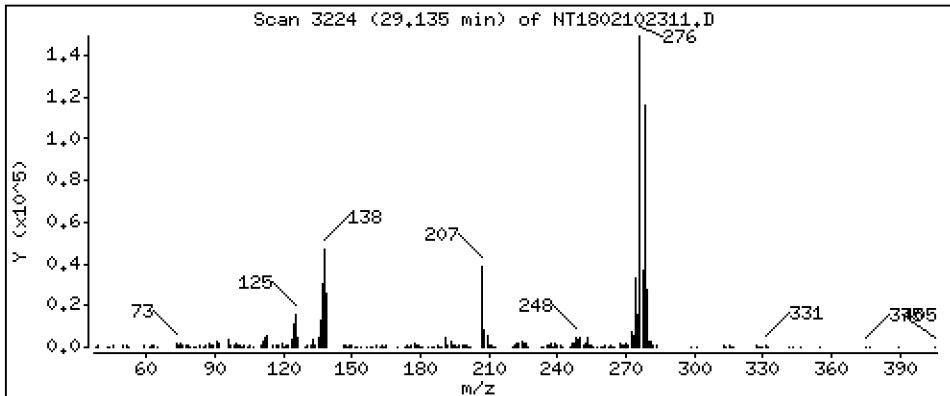
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 3,859 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

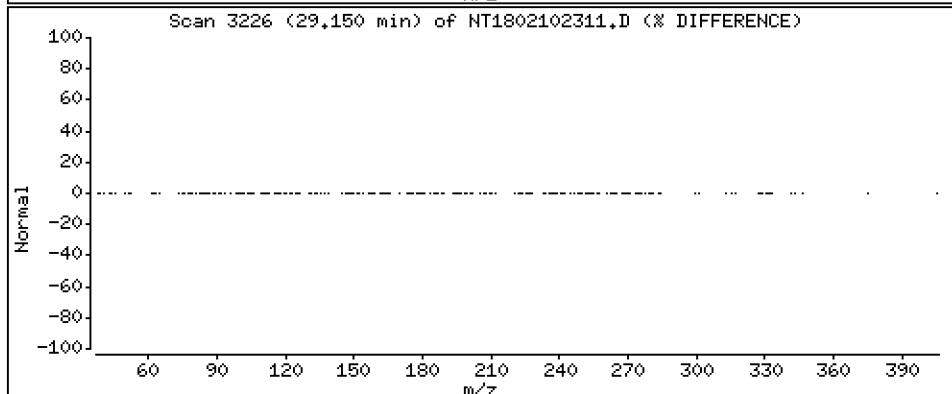
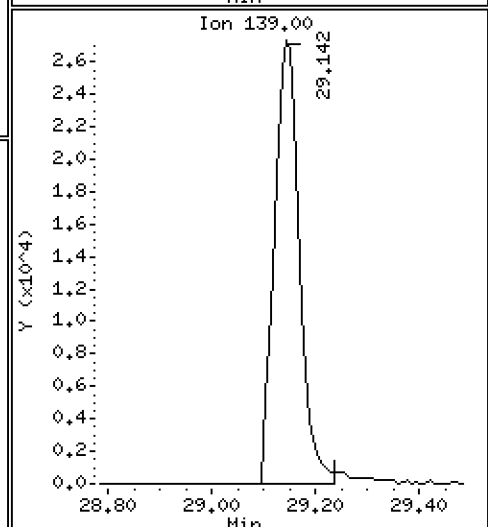
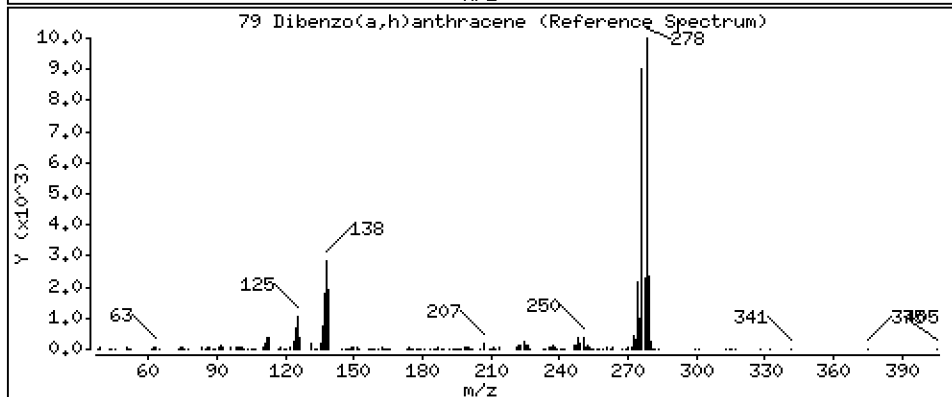
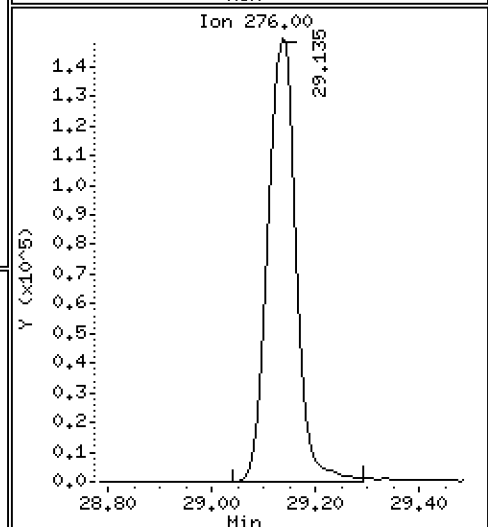
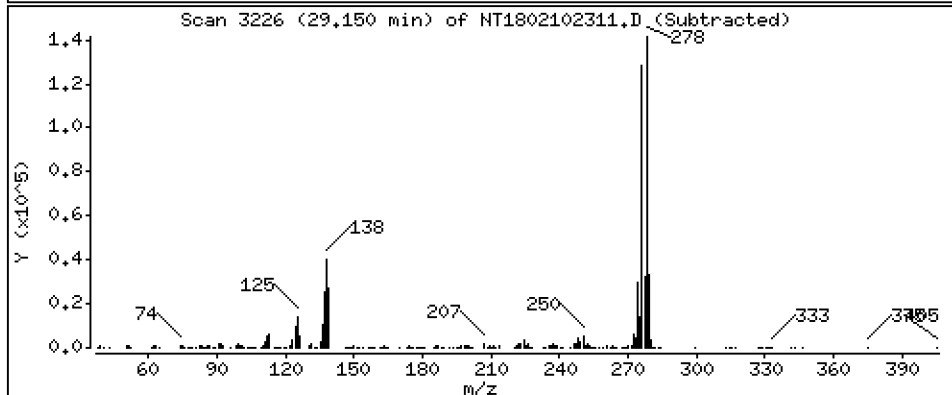
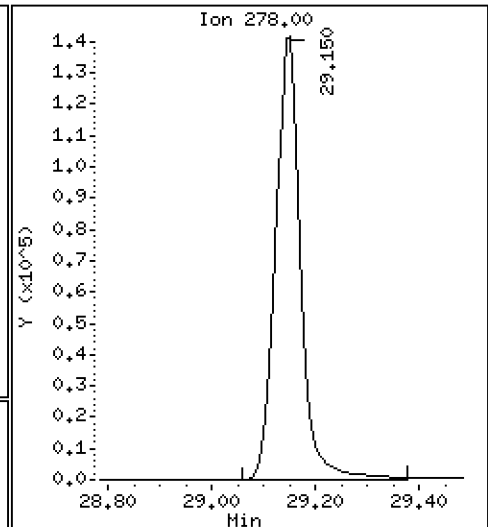
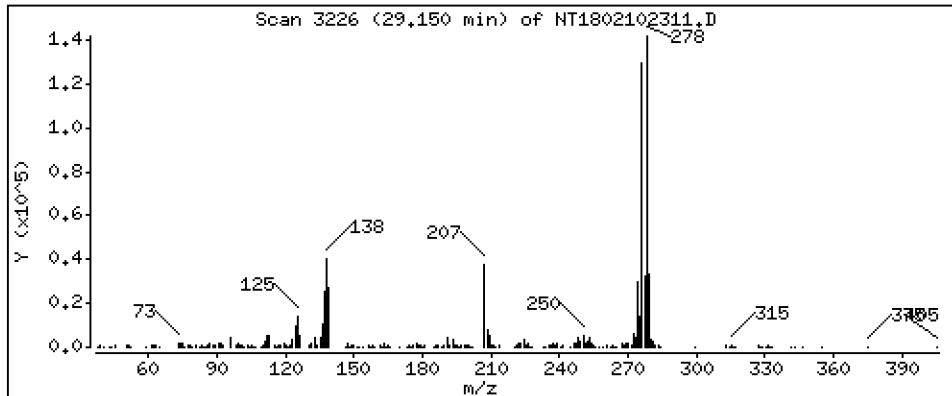
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 3,933 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

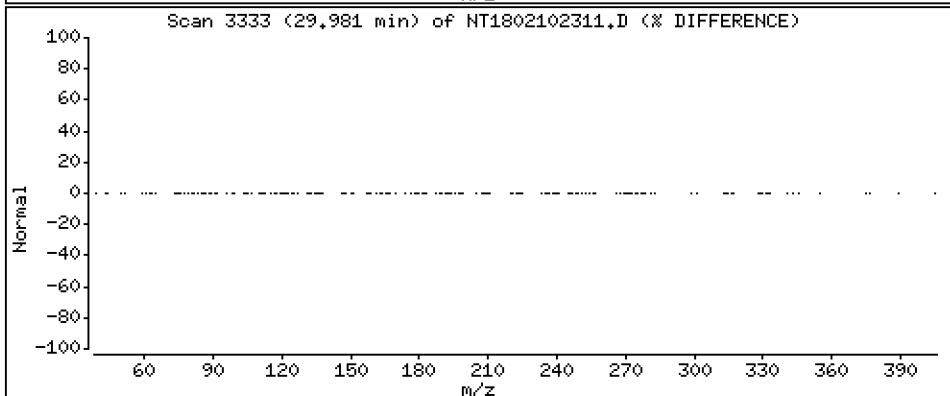
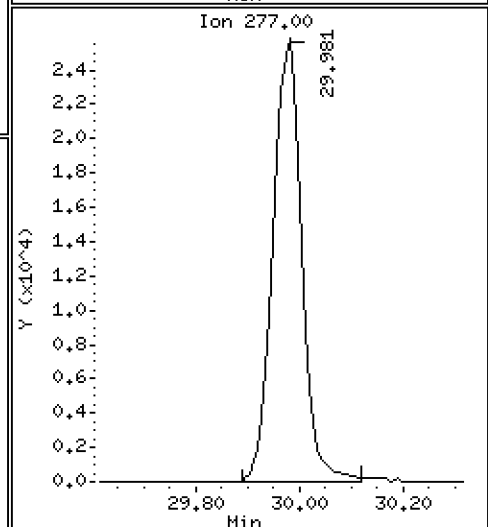
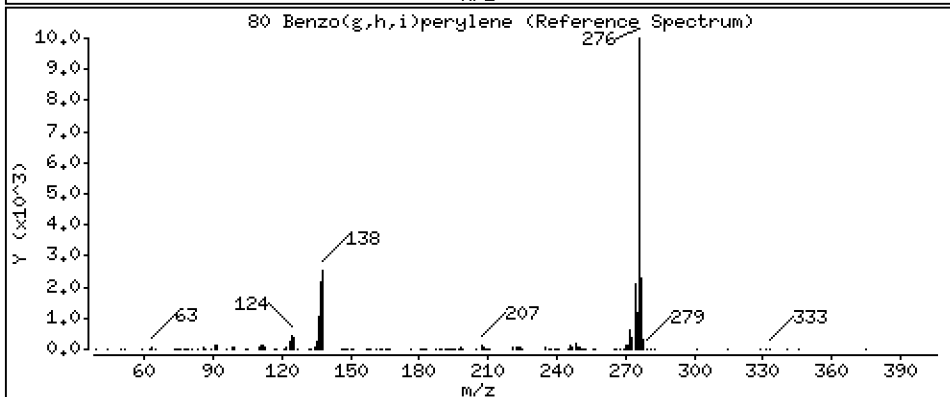
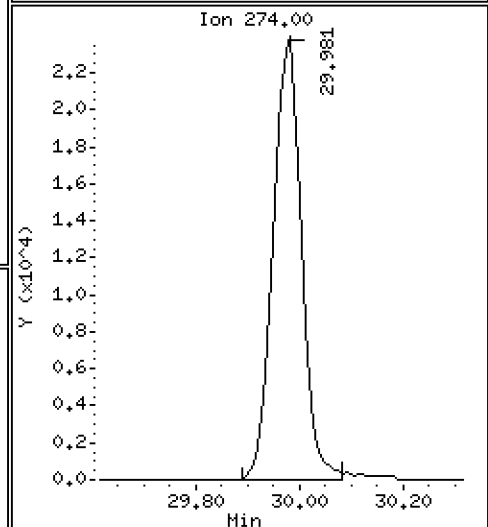
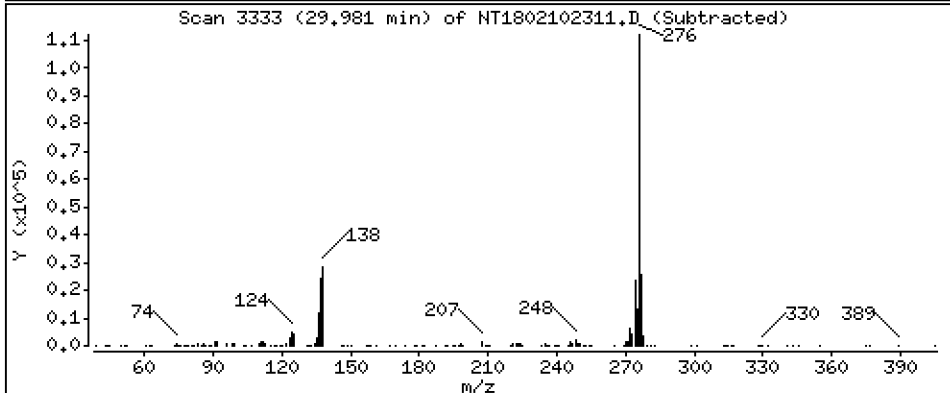
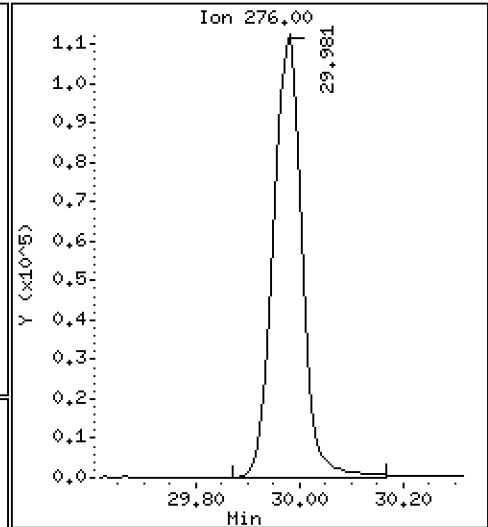
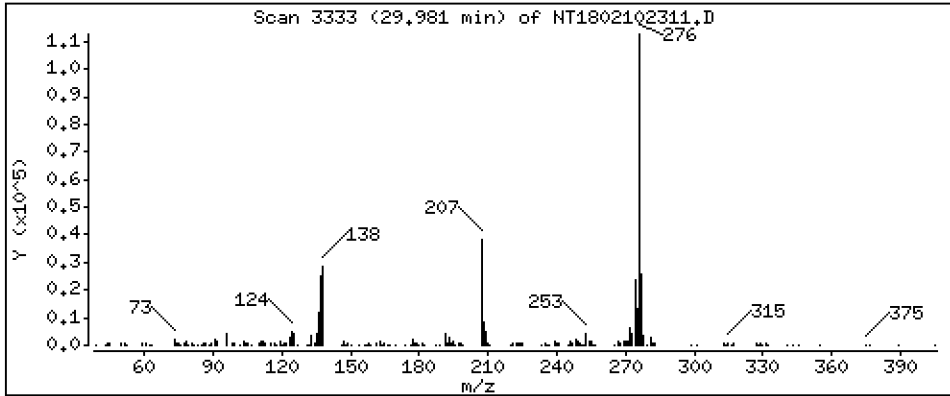
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 3,943 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

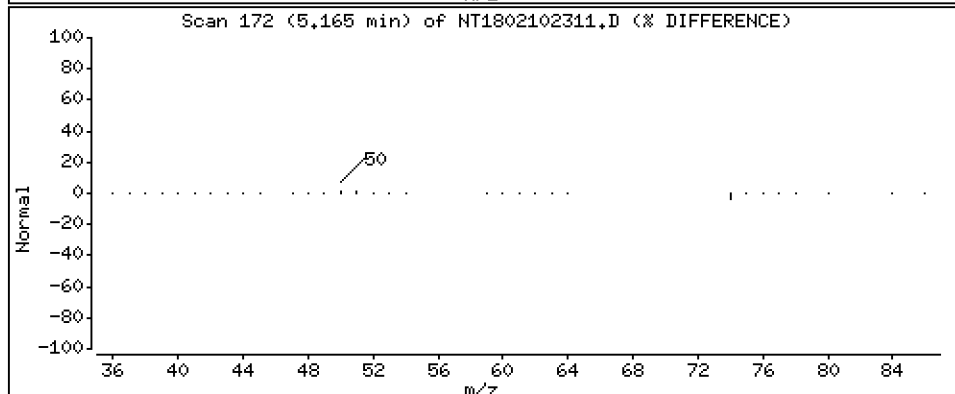
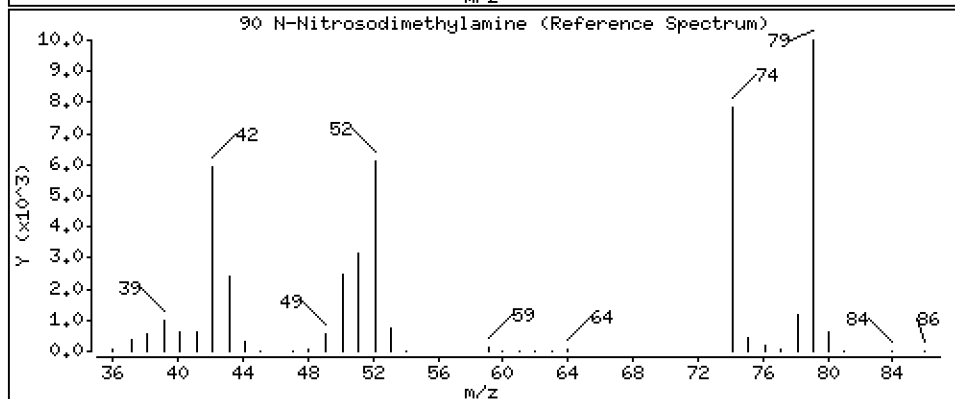
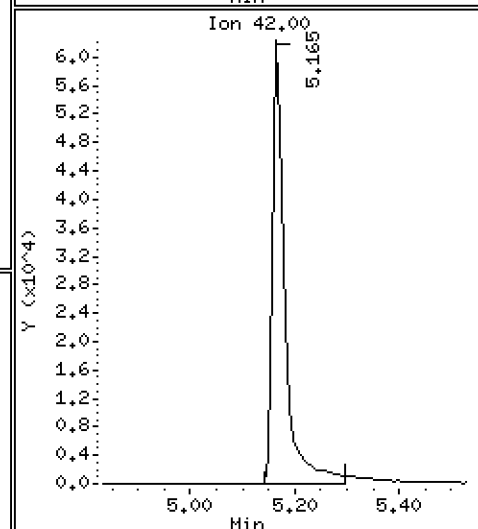
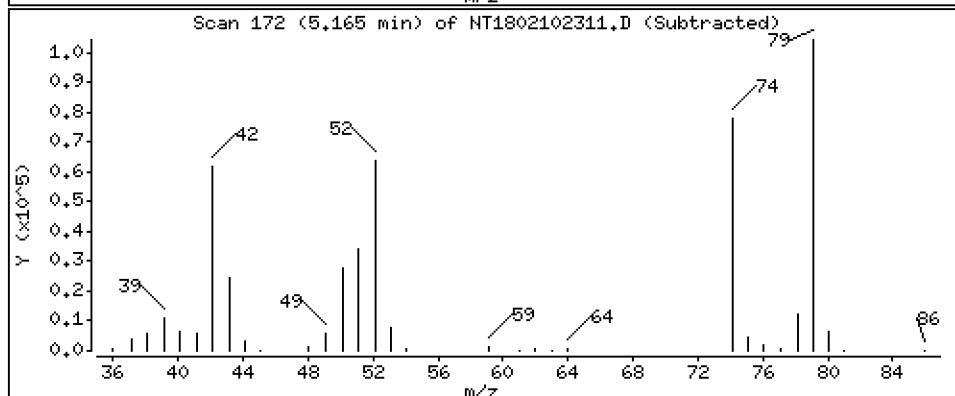
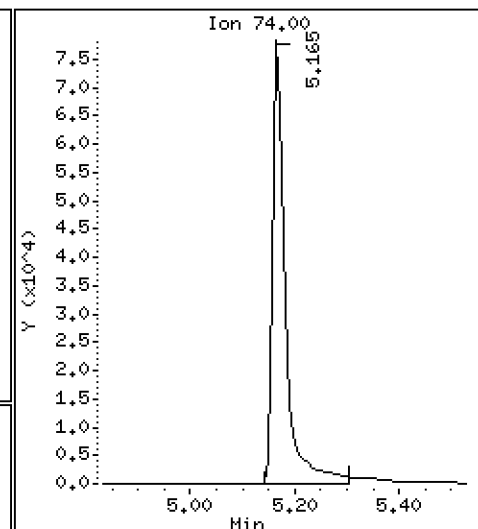
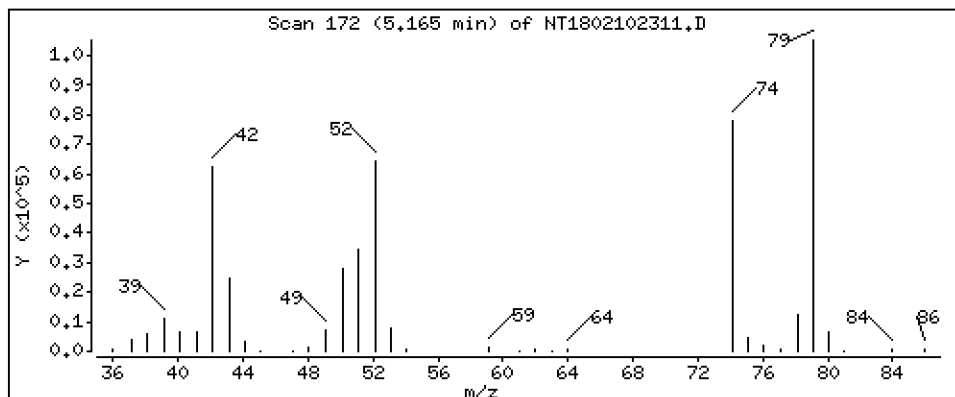
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 4,665 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

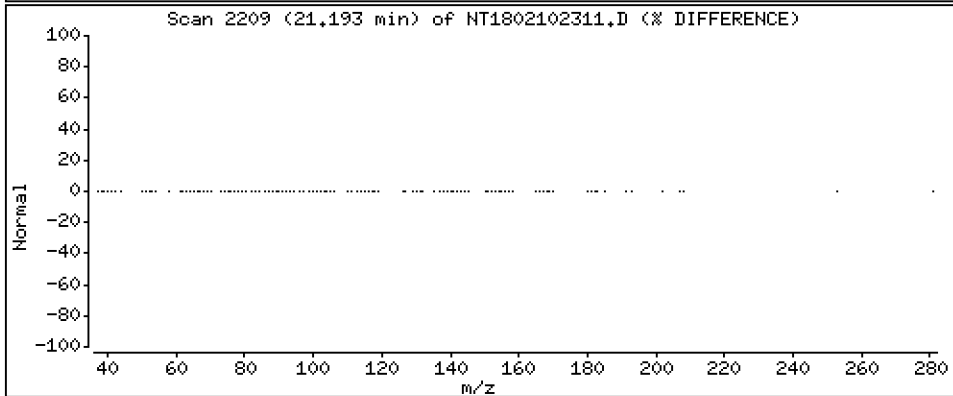
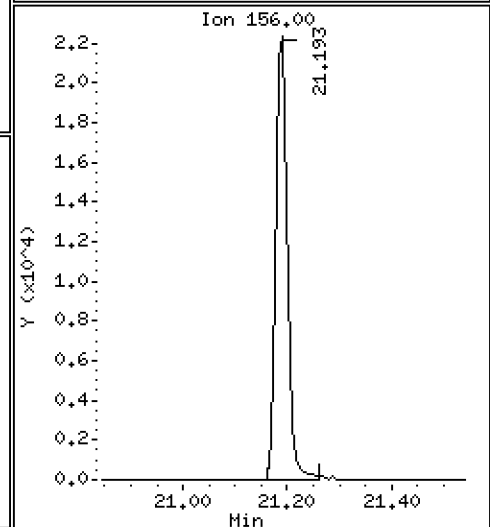
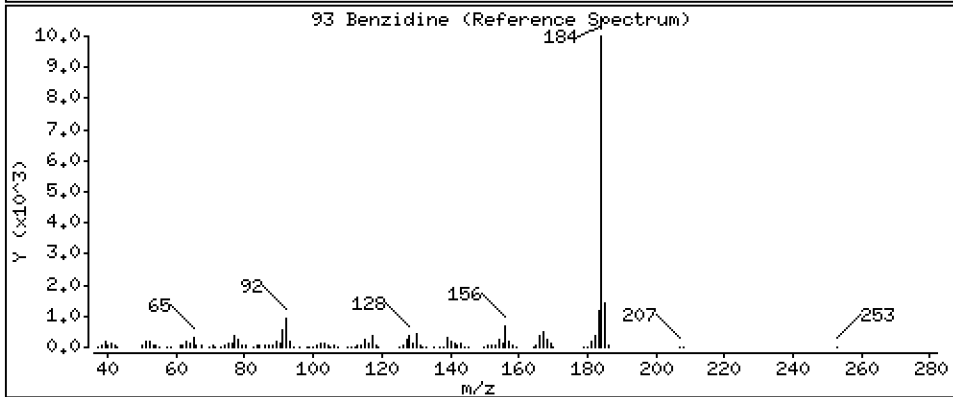
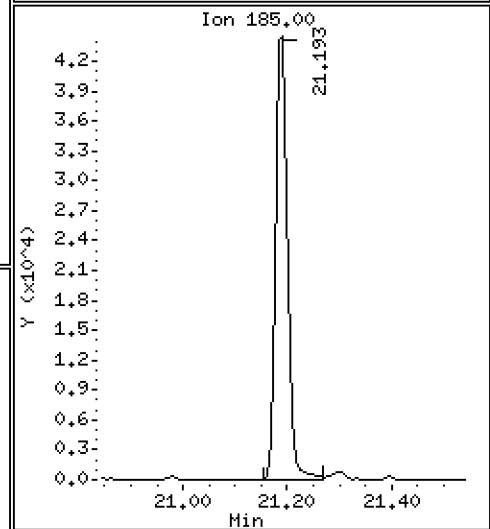
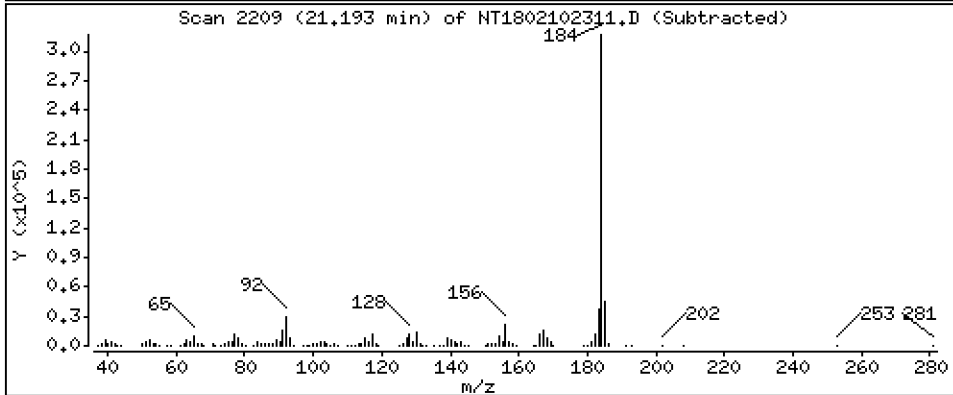
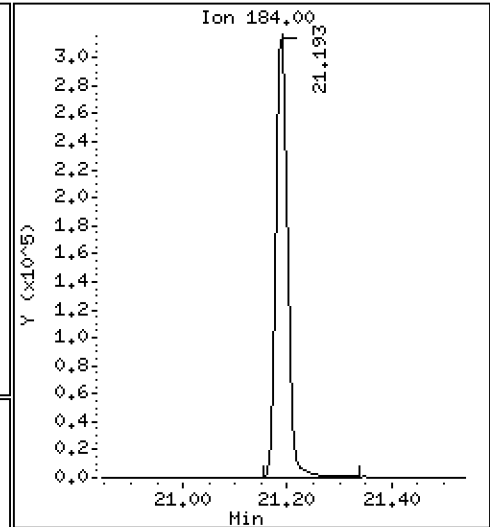
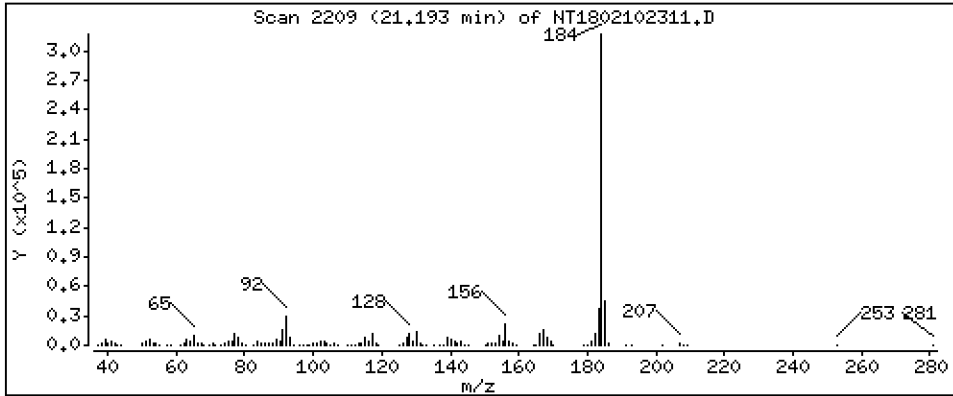
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 6,981 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

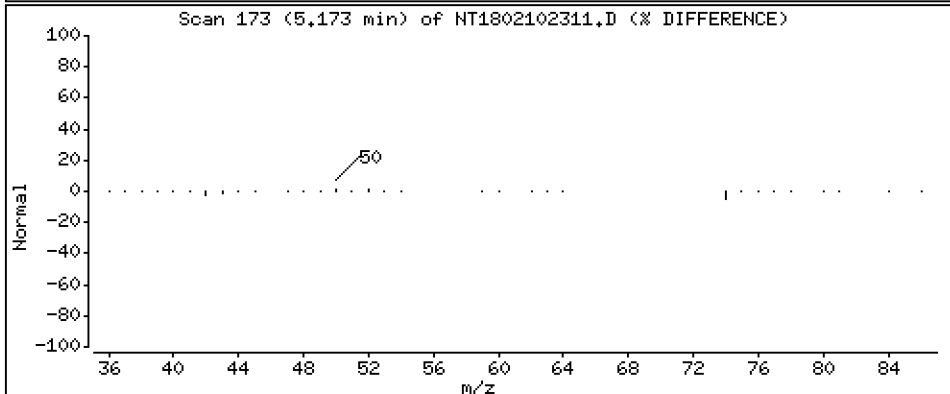
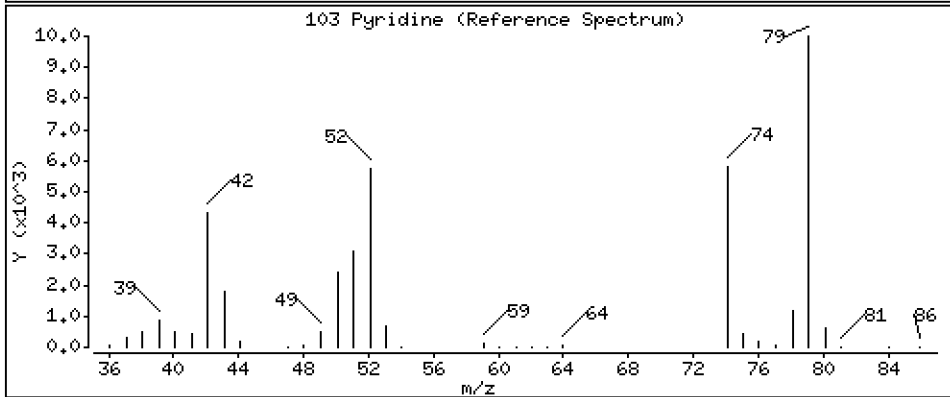
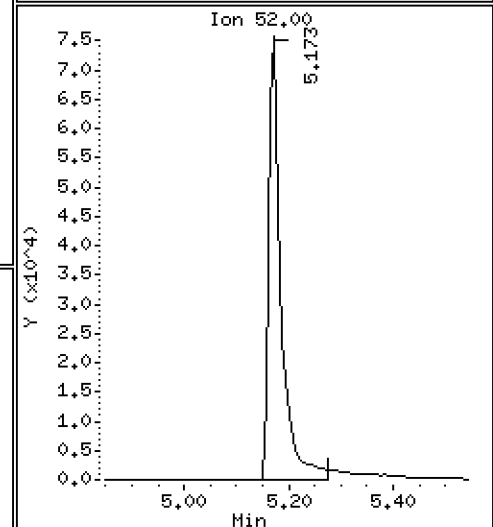
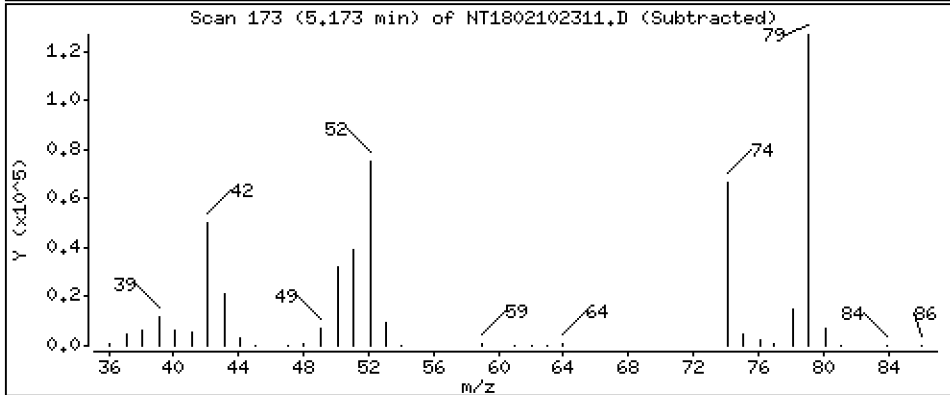
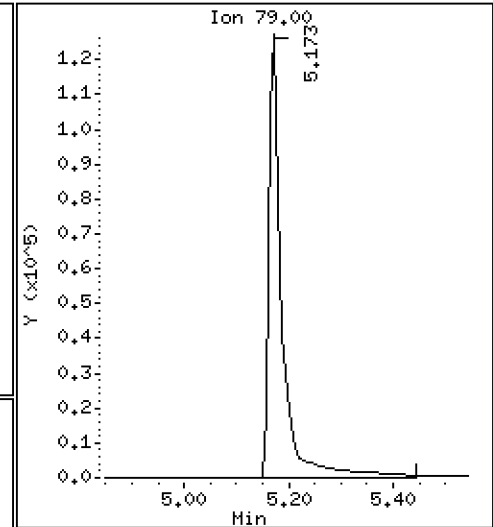
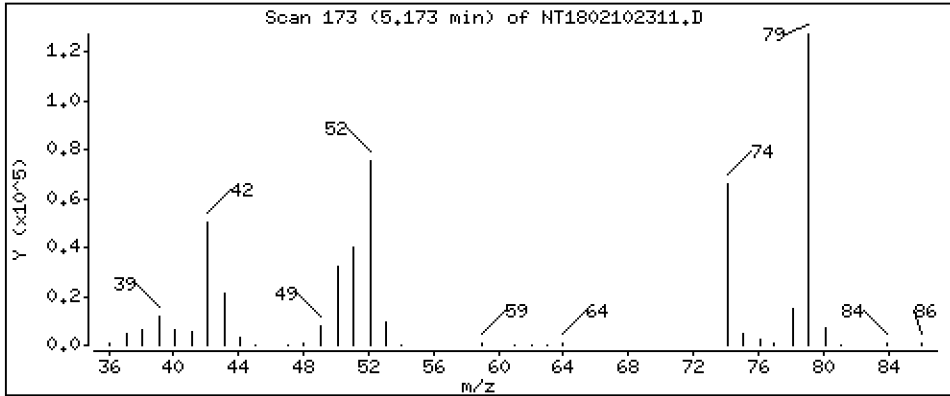
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

103 Pyridine

Concentration: 5,560 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

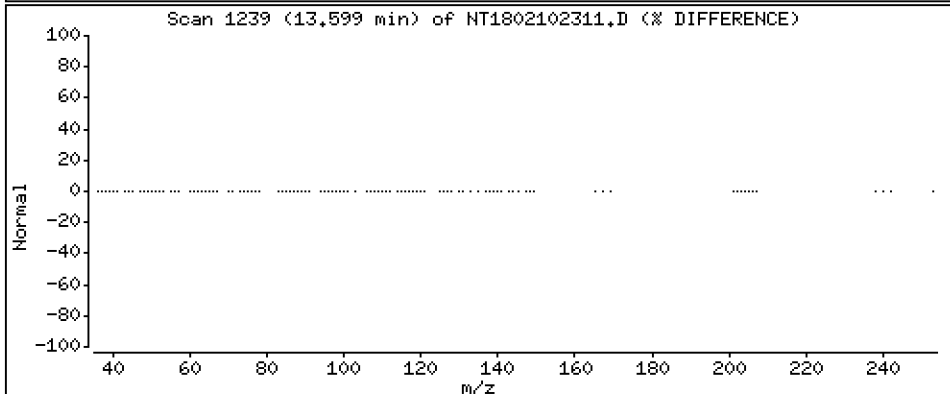
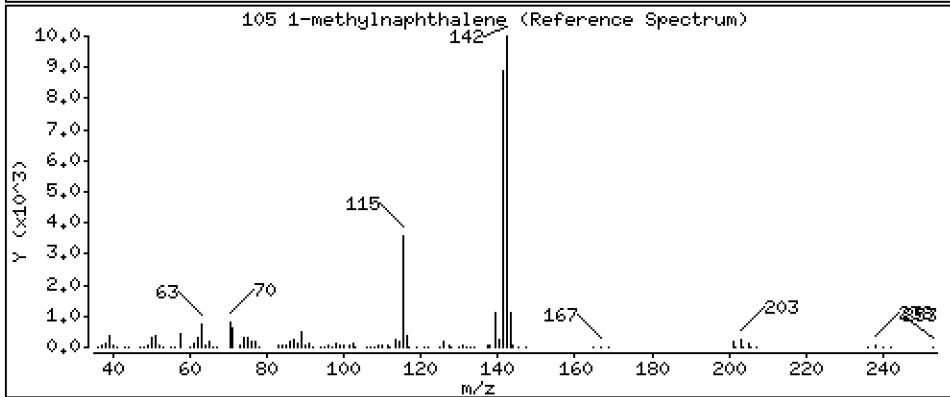
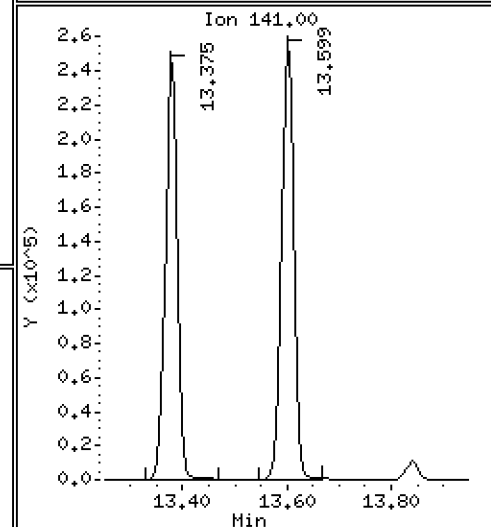
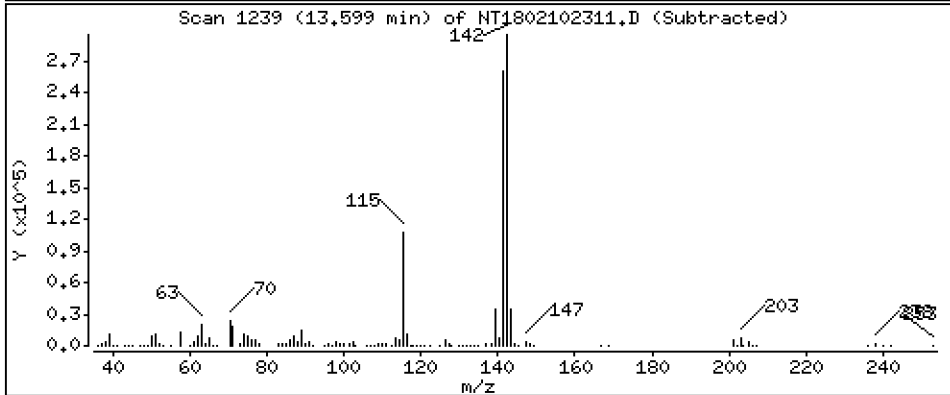
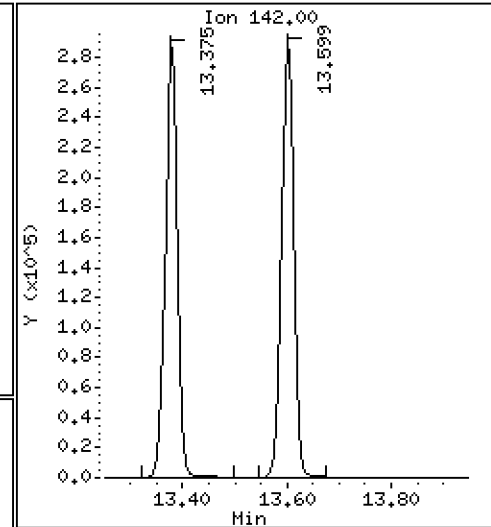
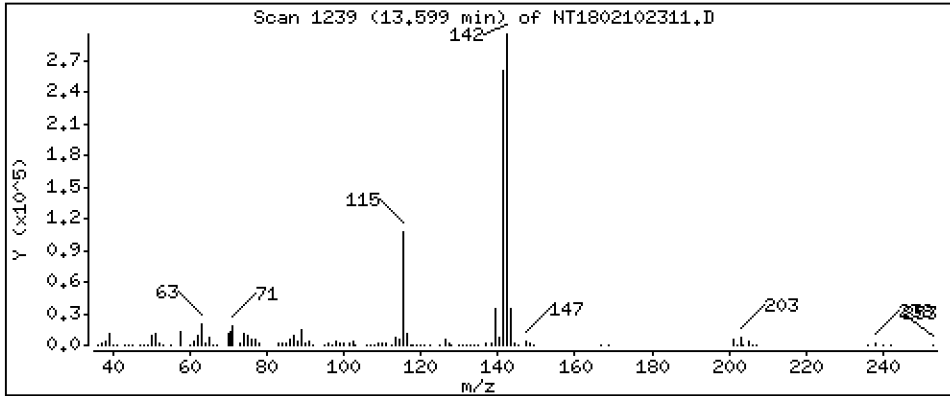
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 4,246 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

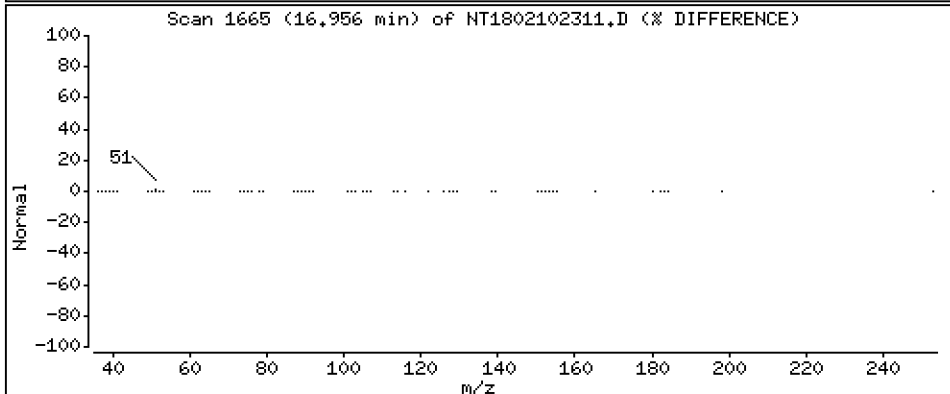
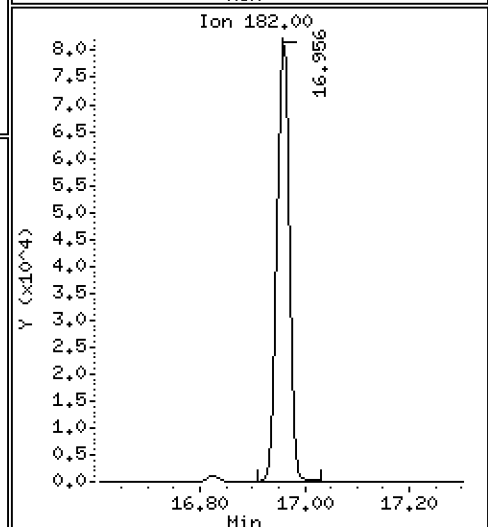
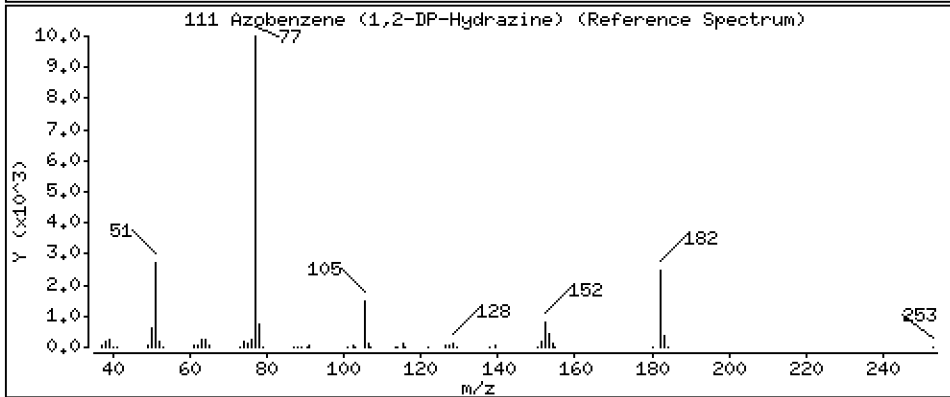
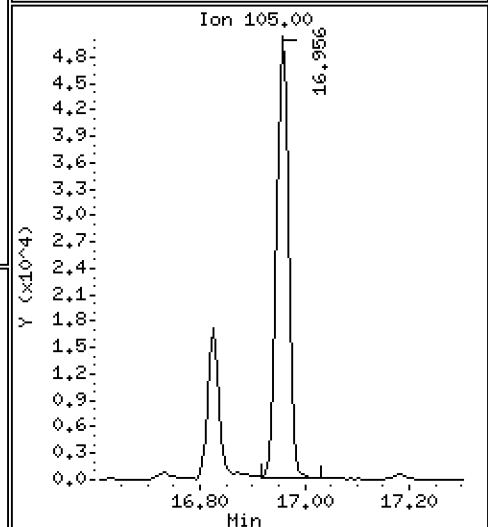
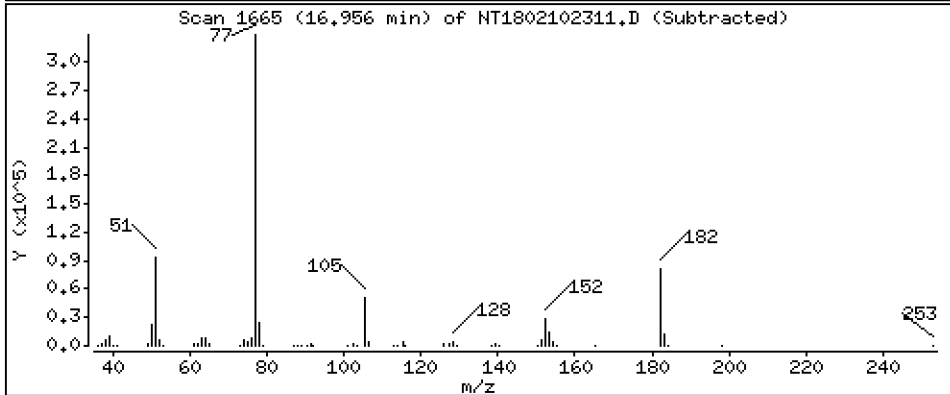
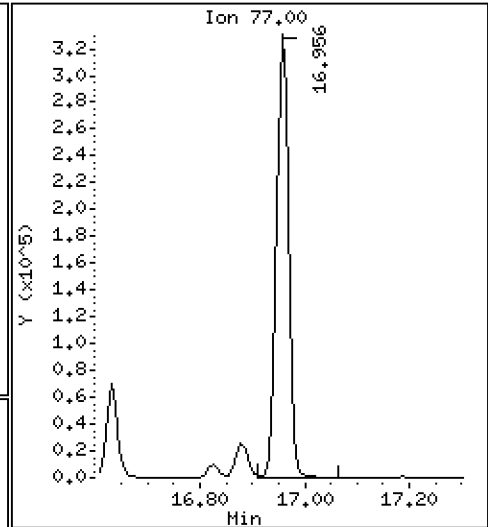
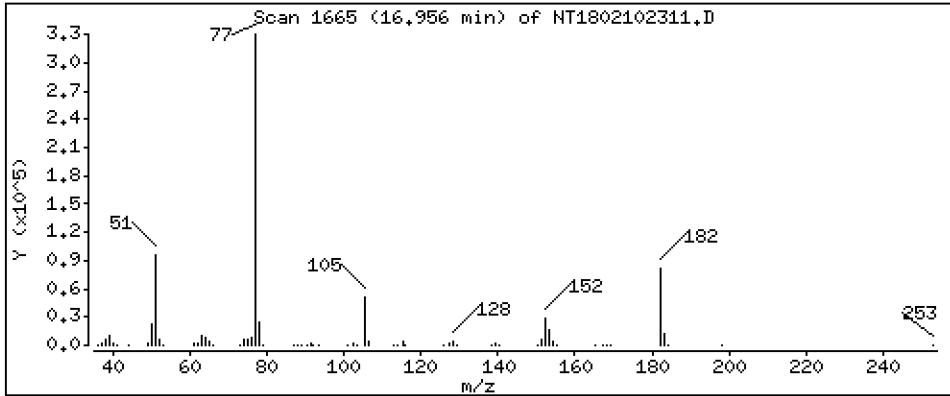
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 4,599 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

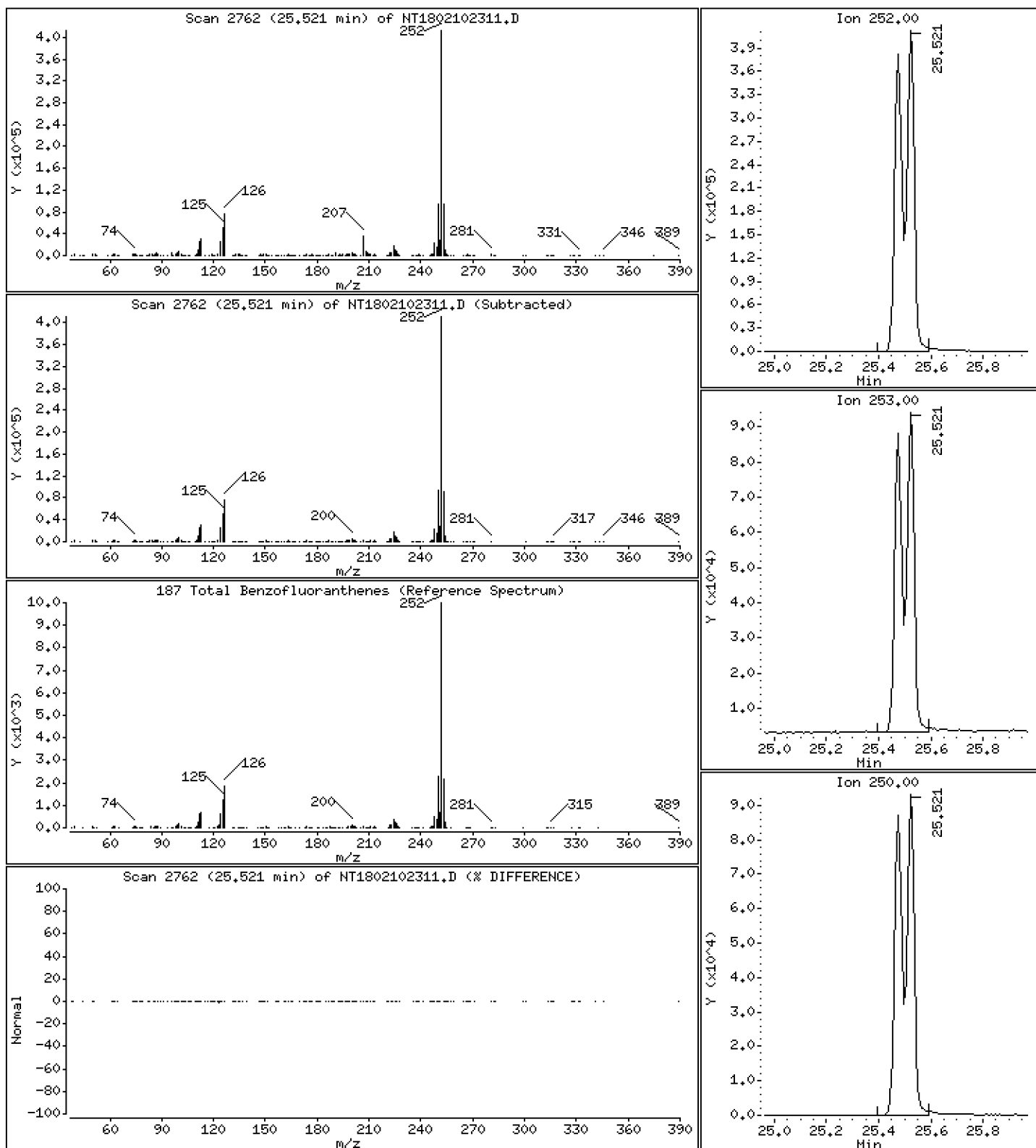
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 8,365 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

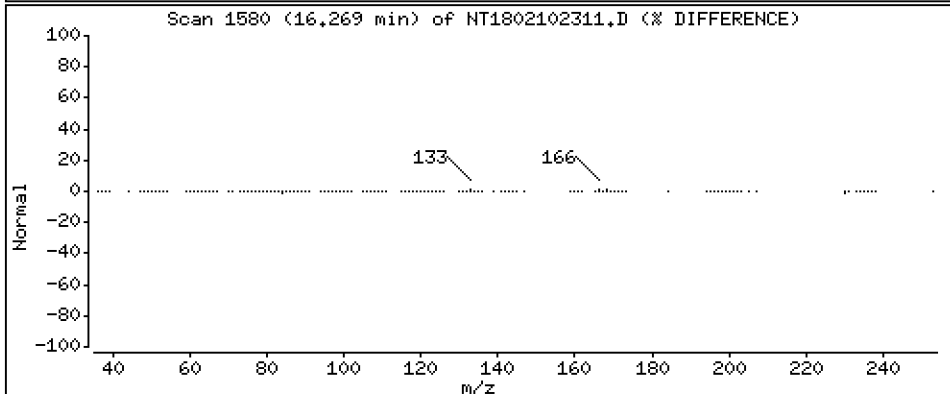
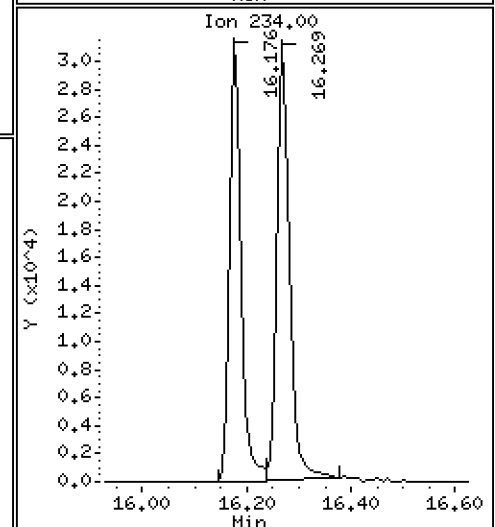
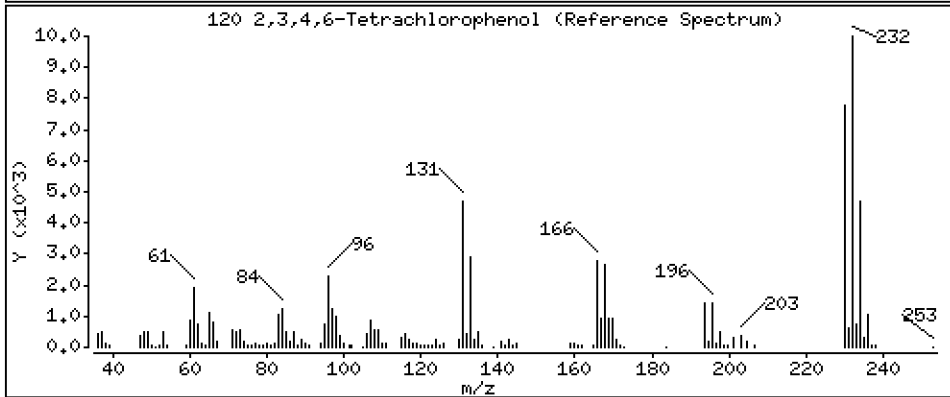
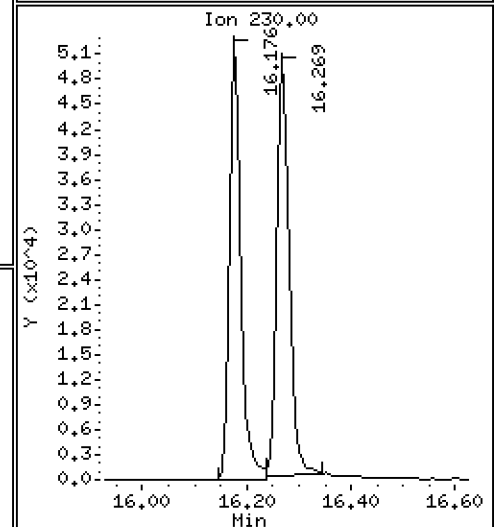
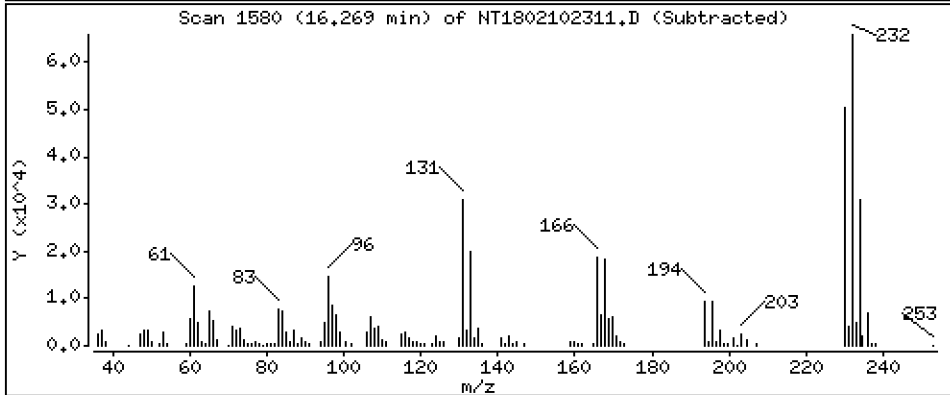
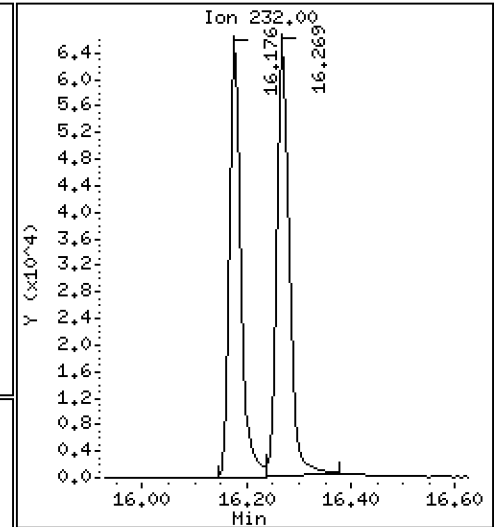
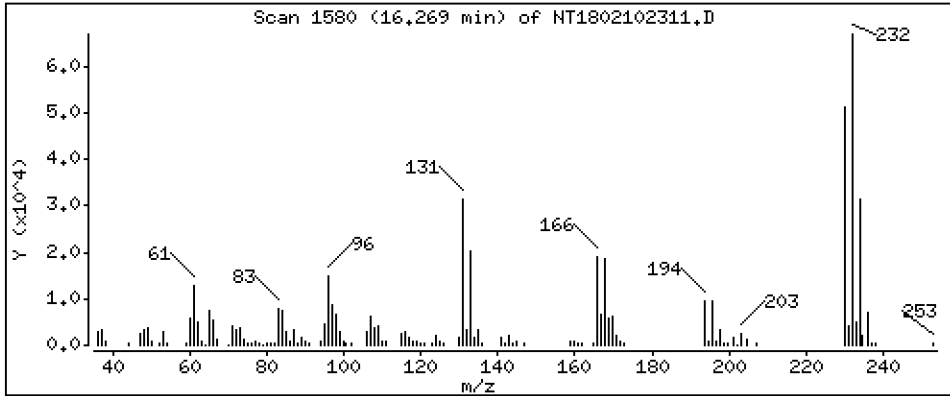
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,293 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230210.b\NT1802102311.D
 Lab Smp Id: SLB0195-SCV1
 Inj Date : 10-FEB-2023 23:06
 Operator : VTS
 Smp Info : SLB0195-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Meth Date : 15-Feb-2023 08:10 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i

Quant Type: ISTD
 Cal File: NT1802102308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.243	7.258	(0.765)	329487	6.54515	6.545
\$ 2 Phenol-d5	99		8.804	8.811	(0.930)	430038	6.72812	6.728
3 Phenol	94		8.827	8.827	(0.932)	268447	4.28578	4.286
\$ 5 2-Chlorophenol-d4	132		9.105	9.113	(0.962)	370890	6.67443	6.674
4 Bis(2-Chloroethyl)ether	93		9.012	9.012	(0.952)	220953	4.66095	4.661
6 2-Chlorophenol	128		9.136	9.136	(0.965)	232546	4.31814	4.318
7 1,3-Dichlorobenzene	146		9.406	9.406	(0.993)	260903	4.44563	4.446
* 8 1,4-Dichlorobenzene-d4	152		9.469	9.469	(1.000)	145438	4.00000	
9 1,4-Dichlorobenzene	146		9.500	9.500	(1.003)	291431	4.62944	4.629
\$ 10 1,2-Dichlorobenzene-d4	152		9.833	9.833	(1.039)	170712	4.26821	4.268
12 1,2-Dichlorobenzene	146		9.500	9.500	(1.003)	291431	4.62944	4.629
11 Benzyl alcohol	108		9.732	9.740	(1.028)	139735	4.13477	4.135
14 2,2'-oxybis(1-Chloropropane)	121		10.027	10.027	(1.059)	72717	4.93218	4.932
13 2-Methylphenol	108		9.942	9.950	(1.050)	186528	4.10909	4.109
17 Hexachloroethane	117		10.447	10.447	(1.103)	104716	4.72730	4.727
16 N-Nitroso-di-n-propylamine	70		10.291	10.291	(1.087)	163774	4.77438	4.774
15 4-Methylphenol	108		10.214	10.214	(1.079)	207510	3.94467	3.945
\$ 18 Nitrobenzene-d5	82		10.563	10.563	(0.884)	253399	4.67107	4.671
19 Nitrobenzene	77		10.594	10.602	(0.886)	245588	4.73327	4.733
20 Isophorone	82		11.036	11.036	(0.923)	482745	6.04164	6.042
21 2-Nitrophenol	139		11.224	11.232	(0.939)	115784	4.03252	4.033
22 2,4-Dimethylphenol	107		11.249	11.257	(0.941)	171402	3.73380	3.734
23 Bis(2-Chloroethoxy)methane	93		11.453	11.461	(0.958)	259246	5.28642	5.286
24 Benzoic acid	105		11.419	11.461	(0.955)	121178	4.25160	4.252
25 2,4-Dichlorophenol	162		11.665	11.673	(0.976)	204801	4.52884	4.529
26 1,2,4-Trichlorobenzene	180		11.859	11.858	(0.992)	214124	4.24526	4.245
* 27 Naphthalene-d8	136		11.951	11.951	(1.000)	551199	4.00000	
28 Naphthalene	128		11.990	11.990	(1.003)	720247	4.54551	4.546
29 4-Chloroaniline	127		12.106	12.113	(1.013)	238457	3.50595	3.506
30 Hexachlorobutadiene	225		12.345	12.345	(1.033)	128017	4.41413	4.414
31 4-Chloro-3-methylphenol	107		13.049	13.049	(1.092)	183451	4.48477	4.485
32 2-Methylnaphthalene	142		13.374	13.382	(1.119)	461441	4.27864	4.279
33 Hexachlorocyclopentadiene	237		13.839	13.839	(0.890)	128716	4.13030	4.130

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196		13.986	13.994	(0.899)	125703	4.33357	4.334	
35 2,4,5-Trichlorophenol	196		14.063	14.063	(0.904)	136483	4.22515	4.225	
§ 36 2-Fluorobiphenyl	172		14.148	14.148	(0.909)	548612	4.24153	4.242	
37 2-Chloronaphthalene	162		14.373	14.373	(0.924)	417815	4.29866	4.299	
38 2-Nitroaniline	65		14.620	14.620	(0.940)	116262	4.43115	4.431	
39 Dimethylphthalate	163		15.046	15.038	(0.967)	465121	4.54591	4.546	
40 Acenaphthylene	152		15.240	15.240	(0.980)	693610	4.67761	4.678	
41 2,6-Dinitrotoluene	165		15.186	15.178	(0.976)	107878	4.56021	4.560	
* 42 Acenaphthene-d10	164		15.557	15.549	(1.000)	292562	4.00000		
43 3-Nitroaniline	138		15.464	15.464	(0.994)	120752	4.65113	4.651	
44 Acenaphthene	153		15.619	15.611	(1.004)	435254	4.40183	4.402	
45 2,4-Dinitrophenol	184		15.673	15.688	(1.007)	31634	1.93630	1.936	
46 Dibenzofuran	168		15.943	15.943	(1.025)	601599	4.24667	4.247	
47 4-Nitrophenol	109		15.766	15.766	(1.013)	57165	3.97553	3.976	
48 2,4-Dinitrotoluene	165		15.990	15.990	(1.028)	142818	4.44610	4.446	
50 Diethylphthalate	149		16.492	16.484	(1.060)	525799	5.06221	5.062	
49 Fluorene	166		16.654	16.647	(1.071)	508979	4.54229	4.542	
51 4-Chlorophenyl-phenylether	204		16.631	16.631	(1.069)	245105	4.33907	4.339	
52 4-Nitroaniline	138		16.732	16.724	(1.076)	112840	4.13087	4.131	
53 4,6-Dinitro-2-methylphenol	198		16.824	16.824	(0.906)	66257	3.30084	3.301	
54 N-Nitrosodiphenylamine	169		16.878	16.878	(0.909)	339419	4.35576	4.356	
§ 55 2,4,6-Tribromophenol	330		17.179	17.179	(1.104)	114426	6.00954	6.010	
56 4-Bromophenyl-phenylether	248		17.634	17.634	(0.949)	145114	4.46384	4.464	
57 Hexachlorobenzene	284		17.958	17.958	(0.967)	154985	4.08548	4.085	
58 Pentachlorophenol	266		18.307	18.314	(0.985)	74910	3.50720	3.507	
* 59 Phenanthrene-d10	188		18.577	18.577	(1.000)	526860	4.00000		
60 Phenanthrene	178		18.624	18.624	(1.002)	673000	4.22805	4.228	
61 Anthracene	178		18.717	18.717	(1.007)	573319	4.02695	4.027	
62 Carbazole	167		19.034	19.034	(1.025)	578774	4.06642	4.066	
63 Di-n-butylphthalate	149		19.800	19.800	(1.066)	762492	4.13897	4.139	
64 Fluoranthene	202		20.976	20.968	(0.890)	769747	4.55528	4.555	
65 Pyrene	202		21.394	21.394	(0.908)	777517	4.32844	4.328	
§ 66 Terphenyl-d14	244		21.665	21.657	(0.919)	687413	4.14974	4.150	
67 Butylbenzylphthalate	149		22.563	22.563	(0.958)	338834	4.20350	4.203	
68 Benzo(a)anthracene	228		23.531	23.523	(0.999)	751678	4.24696	4.247	
* 69 Chrysene-d12	240		23.562	23.554	(1.000)	535596	4.00000		
70 3,3'-Dichlorobenzidine	252		23.476	23.469	(0.996)	610586	7.58242	7.582	
71 Chrysene	228		23.600	23.600	(1.002)	757675	4.06155	4.062	
72 bis(2-Ethylhexyl)phthalate	149		23.569	23.569	(0.959)	527963	4.85659	4.857	
* 134 Di-n-octylphthalate-d4	153		24.568	24.568	(1.000)	714503	4.00000		
73 Di-n-octylphthalate	149		24.584	24.576	(1.001)	904032	4.30658	4.307	
74 Benzo(b)fluoranthene	252		25.474	25.466	(0.969)	762201	4.17262	4.173	
75 Benzo(k)fluoranthene	252		25.520	25.513	(0.971)	838953	4.19851	4.199	
76 Benzo(a)pyrene	252		26.171	26.163	(0.995)	680380	4.56046	4.560	
* 77 Perylene-d12	264		26.295	26.287	(1.000)	523305	4.00000		
78 Indeno(1,2,3-cd)pyrene	276		29.134	29.126	(1.108)	562656	3.85904	3.859	
79 Dibenzo(a,h)anthracene	278		29.150	29.134	(1.109)	473204	3.93269	3.933	
80 Benzo(g,h,i)perylene	276		29.981	29.965	(1.140)	431324	3.94280	3.943	
90 N-Nitrosodimethylamine	74		5.165	5.180	(0.545)	128409	4.66507	4.665	
91 Aniline	93		Compound Not Detected.						
93 Benzidine	184		21.193	21.193	(0.899)	471681	6.98064	6.981	
103 Pyridine	79		5.173	5.196	(0.546)	224983	5.55984	5.560	
105 1-methylnaphthalene	142		13.599	13.599	(1.138)	446626	4.24597	4.246	
111 Azobenzene (1,2-DP-Hydrazine)	77		16.955	16.955	(1.090)	503784	4.59932	4.599	

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)
=====	=====	=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252	25.520	25.466	(0.971)	1530839	8.36489	8.365
120 2,3,4,6-Tetrachlorophenol	232	16.268	16.276	(1.046)	105822	3.29329	3.293

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 10-FEB-2023
 Lab File ID: NT1802102311.D Calibration Time: 18:25
 Lab Smp Id: SLB0195-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	102093	51047	204186	145438	42.46
27 Naphthalene-d8	389769	194885	779538	551199	41.42
42 Acenaphthene-d10	207438	103719	414876	292562	41.04
59 Phenanthrene-d10	358643	179322	717286	526860	46.90
69 Chrysene-d12	349501	174751	699002	535596	53.25
134 Di-n-octylphthala	468622	234311	937244	714503	52.47
77 Perylene-d12	343443	171722	686886	523305	52.37

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.48	8.98	9.98	9.47	-0.08
27 Naphthalene-d8	11.95	11.45	12.45	11.95	0.00
42 Acenaphthene-d10	15.55	15.05	16.05	15.56	0.05
59 Phenanthrene-d10	18.58	18.08	19.08	18.58	0.00
69 Chrysene-d12	23.55	23.05	24.05	23.56	0.03
134 Di-n-octylphthala	24.57	24.07	25.07	24.57	0.00
77 Perylene-d12	26.30	25.80	26.80	26.30	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802102311.D

Lab ID: SLB0195-SCV1
nt18.i, ABN.m, 10-FEB-2023 23:06

RT	CO-ELUTION COMPOUNDS
9.500	1,2-Dichlorobenzene and 1,4-Dichlorobenzene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.955	0.000	0.9555	Benzoic acid
1.007	0.000	1.0075	2,4-Dinitrophenol

RRT check based on Ccal File: NT1802102308.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt18.1\20230210.1\NT1802102312.D

Date: 10-FEB-2023 23:46

Client ID:

Sample Info: SLB0195-ICB1

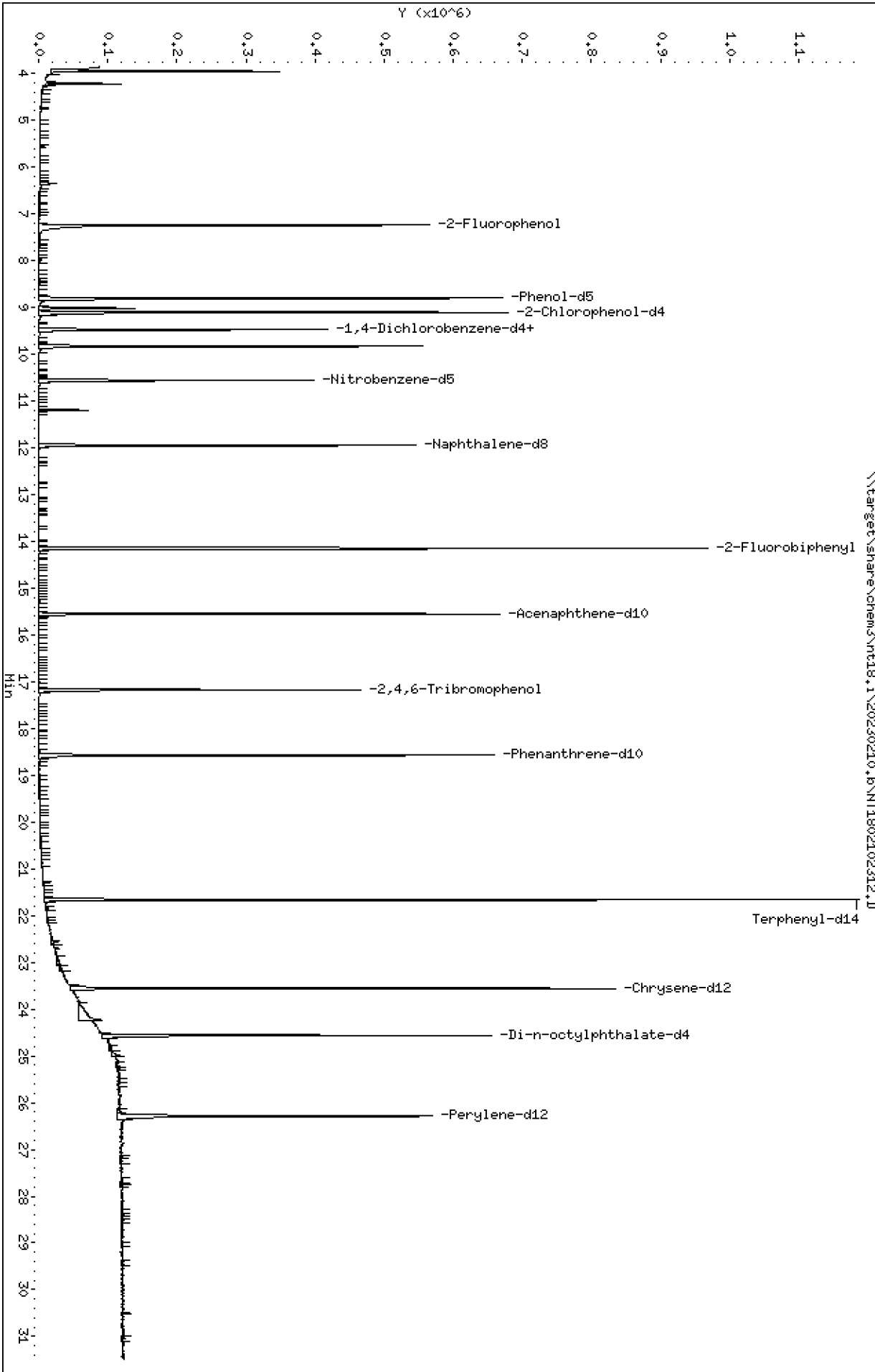
Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt18.1\20230210.1\NT1802102312.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230210.b\NT1802102312.D
 Lab Smp Id: SLB0195-ICB1
 Inj Date : 10-FEB-2023 23:46
 Operator : VTS
 Smp Info : SLB0195-ICB1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Meth Date : 15-Feb-2023 08:10 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 12
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i

Quant Type: ISTD
 Cal File: NT1802102308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.243	7.258	(0.765)	304672	7.19178	7.192
\$ 2 Phenol-d5	99		8.803	8.811	(0.930)	395815	7.34411	7.344
3 Phenol	94		Compound Not Detected.					
\$ 5 2-Chlorophenol-d4	132		9.105	9.113	(0.962)	346082	7.38598	7.386
4 Bis(2-Chloroethyl)ether	93		Compound Not Detected.					
6 2-Chlorophenol	128		Compound Not Detected.					
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		9.468	9.469	(1.000)	122636	4.00000	
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
\$ 10 1,2-Dichlorobenzene-d4	152		9.468	9.833	(1.000)	122636	3.63630	3.636
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	108		Compound Not Detected.					
14 2,2'-oxybis(1-Chloropropane)	121		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
17 Hexachloroethane	117		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
15 4-Methylphenol	108		Compound Not Detected.					
\$ 18 Nitrobenzene-d5	82		10.563	10.563	(0.884)	223277	5.03702	5.037
19 Nitrobenzene	77		Compound Not Detected.					
20 Isophorone	82		Compound Not Detected.					
21 2-Nitrophenol	139		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
23 Bis(2-Chloroethoxy)methane	93		Compound Not Detected.					
24 Benzoic acid	105		Compound Not Detected.					
25 2,4-Dichlorophenol	162		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.951	11.951	(1.000)	450392	4.00000	
28 Naphthalene	128		Compound Not Detected.					
29 4-Chloroaniline	127		Compound Not Detected.					
30 Hexachlorobutadiene	225		Compound Not Detected.					
31 4-Chloro-3-methylphenol	107		Compound Not Detected.					
32 2-Methylnaphthalene	142		Compound Not Detected.					
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196							
35 2,4,5-Trichlorophenol	196							
\$ 36 2-Fluorobiphenyl	172		14.148	14.148	(0.910)	503958	4.81774	4.818
37 2-Chloronaphthalene	162							
38 2-Nitroaniline	65							
39 Dimethylphthalate	163							
40 Acenaphthylene	152							
41 2,6-Dinitrotoluene	165							
* 42 Acenaphthene-d10	164		15.549	15.549	(1.000)	236606	4.00000	
43 3-Nitroaniline	138							
44 Acenaphthene	153							
45 2,4-Dinitrophenol	184							
46 Dibenzofuran	168							
47 4-Nitrophenol	109							
48 2,4-Dinitrotoluene	165							
50 Diethylphthalate	149							
49 Fluorene	166							
51 4-Chlorophenyl-phenylether	204							
52 4-Nitroaniline	138							
53 4,6-Dinitro-2-methylphenol	198							
54 N-Nitrosodiphenylamine	169							
\$ 55 2,4,6-Tribromophenol	330		17.179	17.179	(1.105)	83343	5.42446	5.424
56 4-Bromophenyl-phenylether	248							
57 Hexachlorobenzene	284							
58 Pentachlorophenol	266							
* 59 Phenanthrene-d10	188		18.577	18.577	(1.000)	430289	4.00000	
60 Phenanthrene	178							
61 Anthracene	178							
62 Carbazole	167							
63 Di-n-butylphthalate	149							
64 Fluoranthene	202							
65 Pyrene	202							
\$ 66 Terphenyl-d14	244		21.657	21.657	(0.919)	640686	5.22991	5.230
67 Butylbenzylphthalate	149							
68 Benzo(a)anthracene	228							
* 69 Chrysene-d12	240		23.554	23.554	(1.000)	396088	4.00000	
70 3,3'-Dichlorobenzidine	252							
71 Chrysene	228							
72 bis(2-Ethylhexyl)phthalate	149							
* 134 Di-n-octylphthalate-d4	153		24.568	24.568	(1.000)	416002	4.00000	
73 Di-n-octylphthalate	149							
74 Benzo(b)fluoranthene	252							
75 Benzo(k)fluoranthene	252							
76 Benzo(a)pyrene	252							
* 77 Perylene-d12	264		26.287	26.287	(1.000)	360657	4.00000	
78 Indeno(1,2,3-cd)pyrene	276							
79 Dibenzo(a,h)anthracene	278							
80 Benzo(g,h,i)perylene	276							
90 N-Nitrosodimethylamine	74							
91 Aniline	93							
93 Benzidine	184							
103 Pyridine	79							
105 1-methylnaphthalene	142							
111 Azobenzene (1,2-DP-Hydrazine)	77							

Compounds	QUANT MASS	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====	=====	=====	=====	=====	=====	=====	
187 Total Benzofluoranthenes	252				Compound Not Detected.			
120 2,3,4,6-Tetrachlorophenol	232				Compound Not Detected.			

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 10-FEB-2023
 Lab File ID: NT1802102312.D Calibration Time: 18:25
 Lab Smp Id: SLB0195-ICB1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	102093	51047	204186	122636	20.12
27 Naphthalene-d8	389769	194885	779538	450392	15.55
42 Acenaphthene-d10	207438	103719	414876	236606	14.06
59 Phenanthrene-d10	358643	179322	717286	430289	19.98
69 Chrysene-d12	349501	174751	699002	396088	13.33
134 Di-n-octylphthala	468622	234311	937244	416002	-11.23
77 Perylene-d12	343443	171722	686886	360657	5.01

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.48	8.98	9.98	9.47	-0.08
27 Naphthalene-d8	11.95	11.45	12.45	11.95	-0.00
42 Acenaphthene-d10	15.55	15.05	16.05	15.55	-0.00
59 Phenanthrene-d10	18.58	18.08	19.08	18.58	-0.00
69 Chrysene-d12	23.55	23.05	24.05	23.55	-0.00
134 Di-n-octylphthala	24.57	24.07	25.07	24.57	-0.00
77 Perylene-d12	26.30	25.80	26.80	26.29	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802102312.D

Lab ID: SLB0195-ICB1
nt18.i, ABN.m, 10-FEB-2023 23:46

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.000	1.039	-0.0385	1,2-Dichlorobenzene-d4

RRT check based on Ccal File: NT1802102308.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00018

Laboratory ID: SLB0102-SCV1

Sequence: SLB0102

Sequence Name: SCV 5.0

Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	5.0000	4.1	-17.9	20.00
4-Methylphenol	5.0000	3.9	-21.0 *	20.00
Naphthalene	5.0000	4.4	-11.3	20.00
2-Methylnaphthalene	5.0000	4.2	-15.5	20.00
Acenaphthylene	5.0000	4.3	-13.6	20.00
Dimethylphthalate	5.0000	4.3	-14.4	20.00
Acenaphthene	5.0000	4.2	-15.3	20.00
Dibenzofuran	5.0000	4.2	-16.3	20.00
Fluorene	5.0000	4.1	-17.2	20.00
Phenanthrene	5.0000	4.3	-13.9	20.00
Anthracene	5.0000	3.9	-22.0 *	20.00
Fluoranthene	5.0000	4.3	-13.2	20.00
Pyrene	5.0000	4.3	-14.5	20.00
Butylbenzylphthalate	5.0000	4.4	-12.3	20.00
Benzo(a)anthracene	5.0000	4.1	-18.1	20.00
Chrysene	5.0000	4.0	-19.6	20.00
bis(2-Ethylhexyl)phthalate	5.0000	4.7	-6.2	20.00
Benzo(a)fluoranthene, Total	10.0000	8.6	-14.1	20.00
Benzo(a)pyrene	5.0000	4.4	-12.5	20.00
Indeno(1,2,3-cd)pyrene	5.0000	4.4	-12.9	20.00
Dibenzo(a,h)anthracene	5.0000	4.4	-13.0	20.00
Benzo(g,h,i)perylene	5.0000	4.3	-13.1	20.00
2-Fluorophenol	7.5000	7.42	-1.1	20.00
Phenol-d5	7.5000	7.24	-3.5	20.00
2-Chlorophenol-d4	7.5000	7.22	-3.7	20.00
1,2-Dichlorobenzene-d4	5.0000	4.68	-6.5	20.00
Nitrobenzene-d5	5.0000	4.75	-5.0	20.00
2-Fluorobiphenyl	5.0000	4.50	-9.9	20.00
2,4,6-Tribromophenol	7.5000	7.11	-5.2	20.00
p-Terphenyl-d14	5.0000	4.52	-9.6	20.00

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.16\NT1023020711.D

Date: 07-FEB-2023 18:04

Client ID:

Sample Info: SLB0102-SCW1

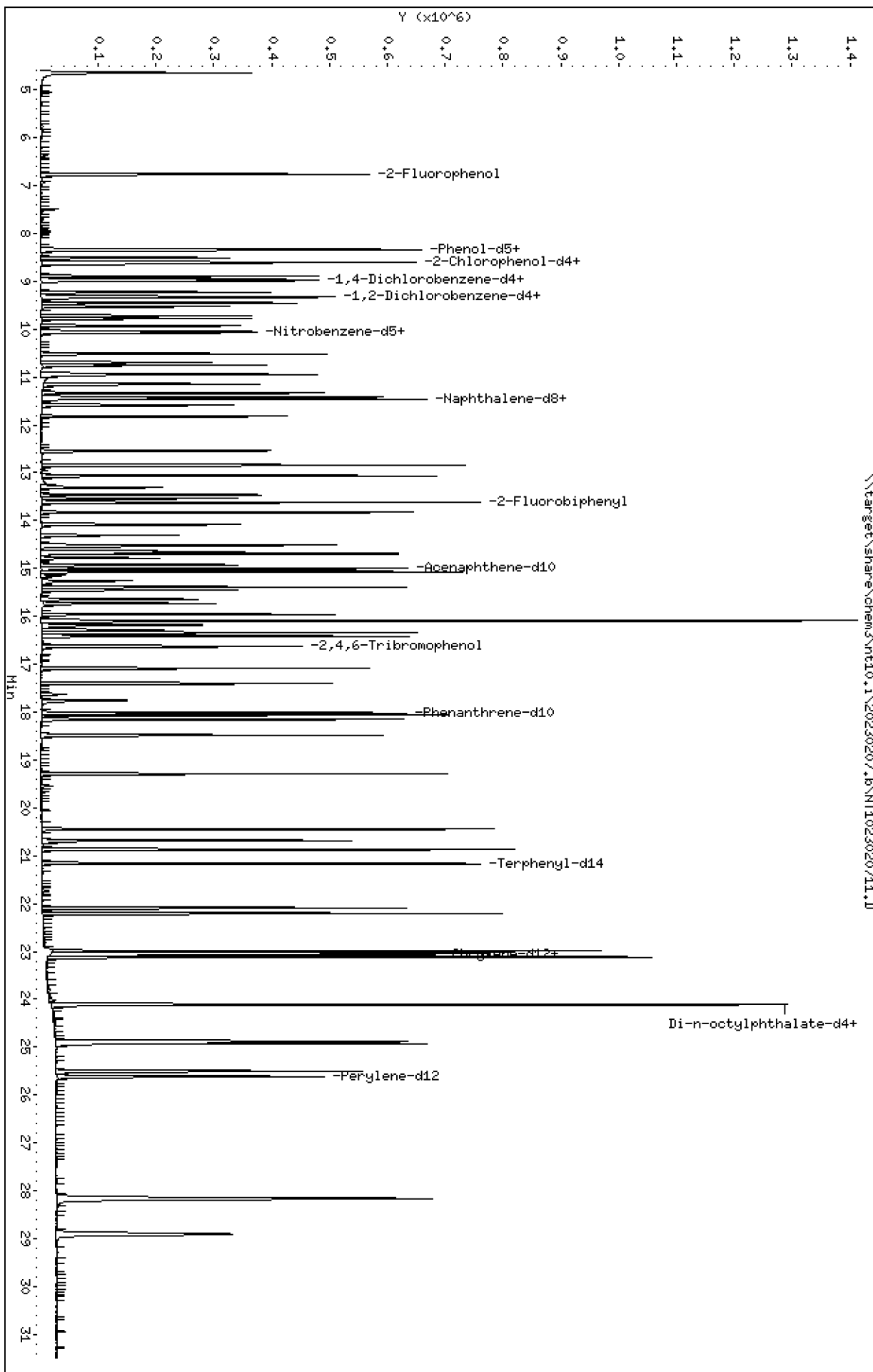
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

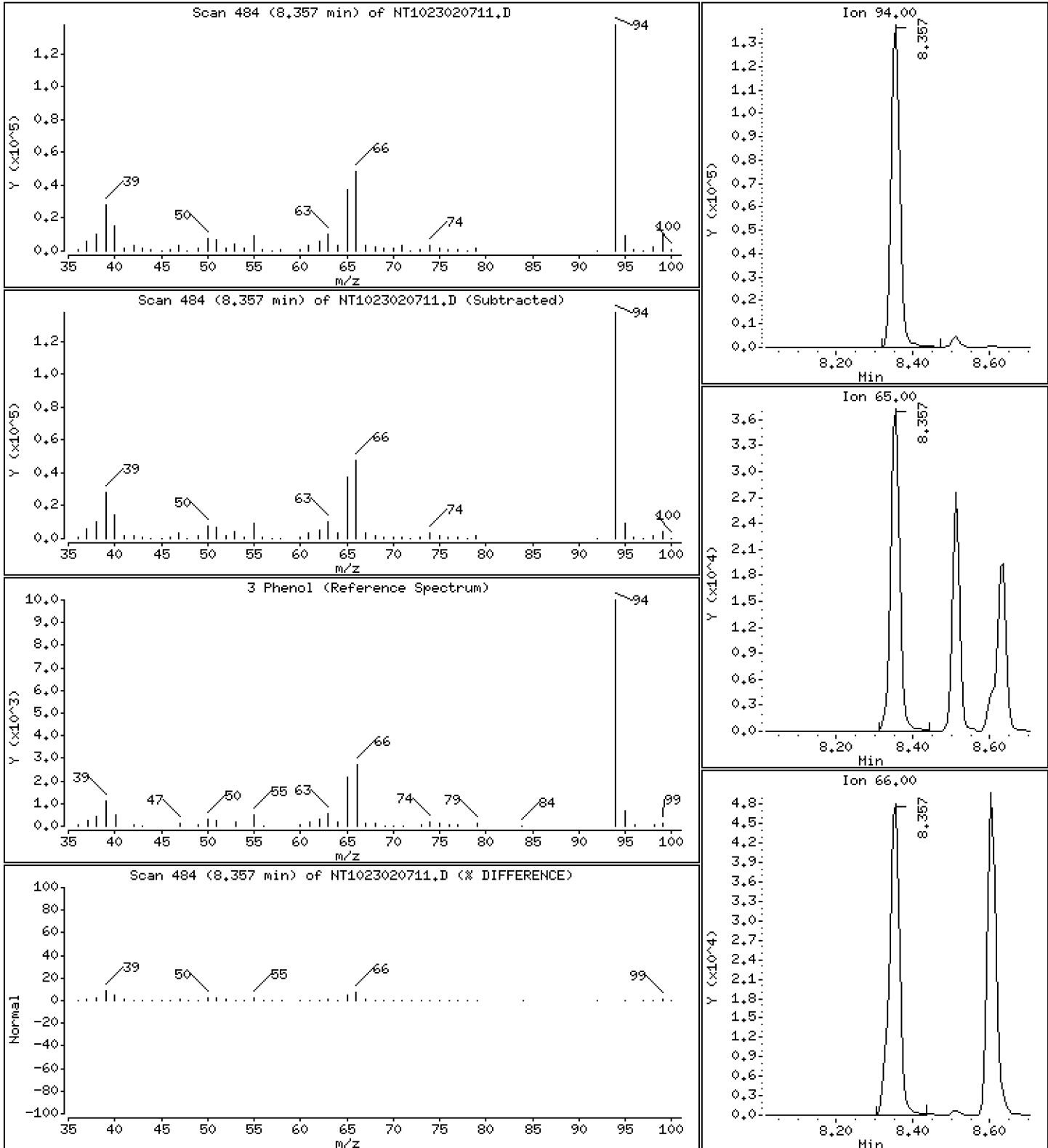
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,107 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

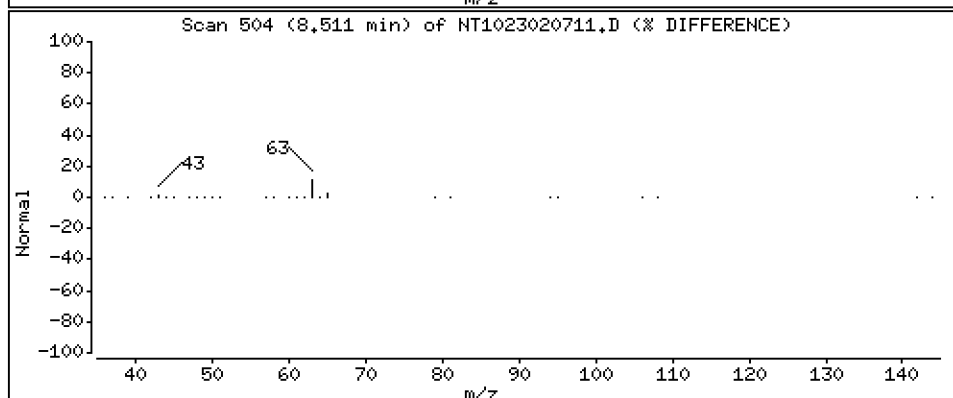
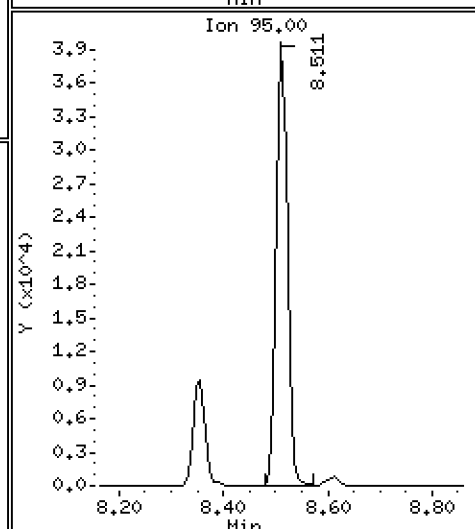
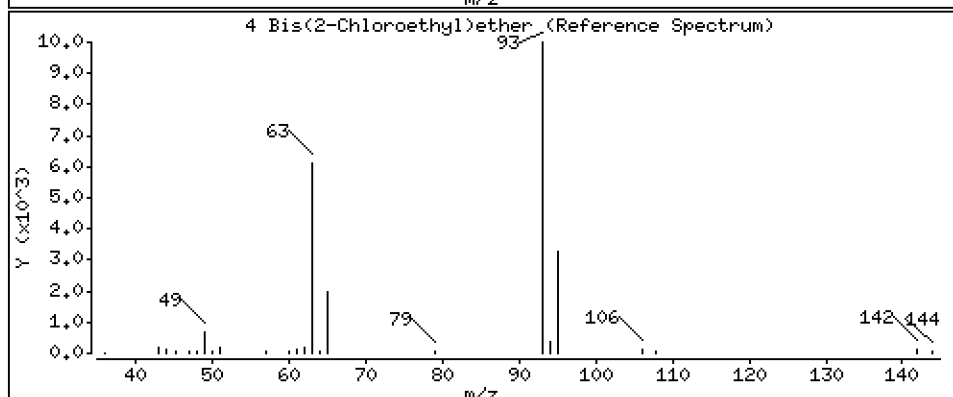
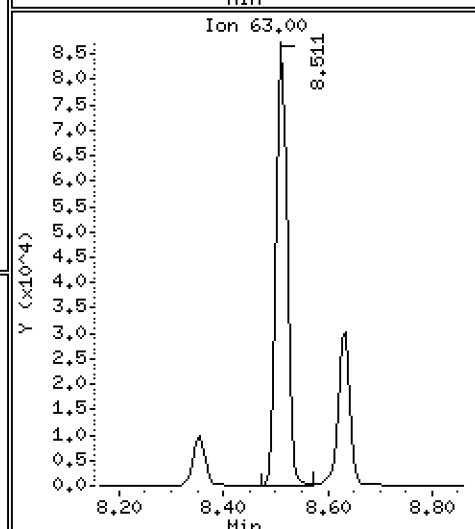
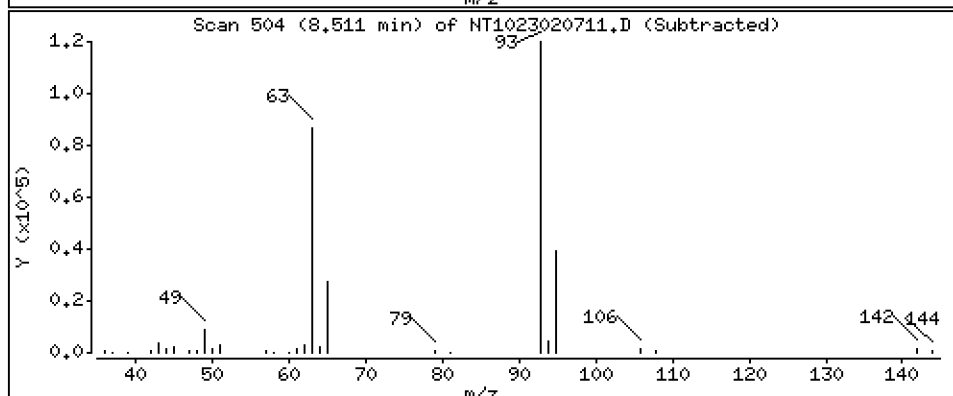
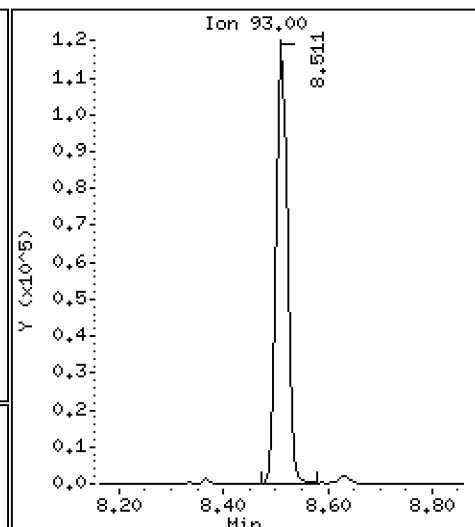
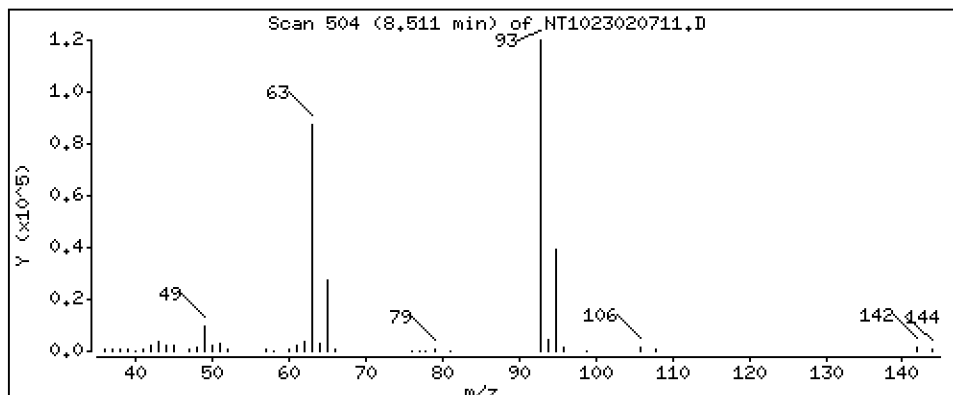
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 4,555 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

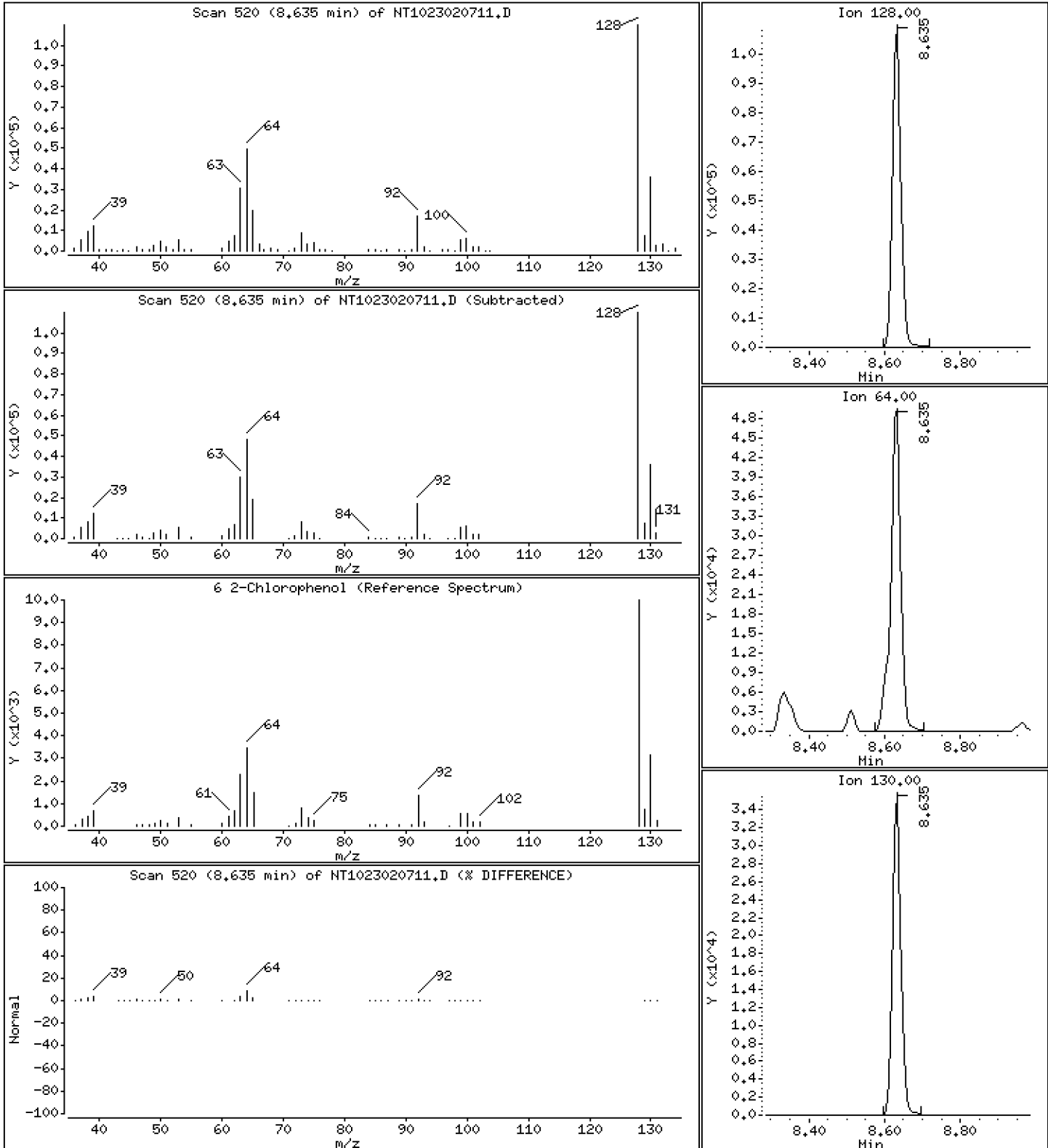
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 4,054 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

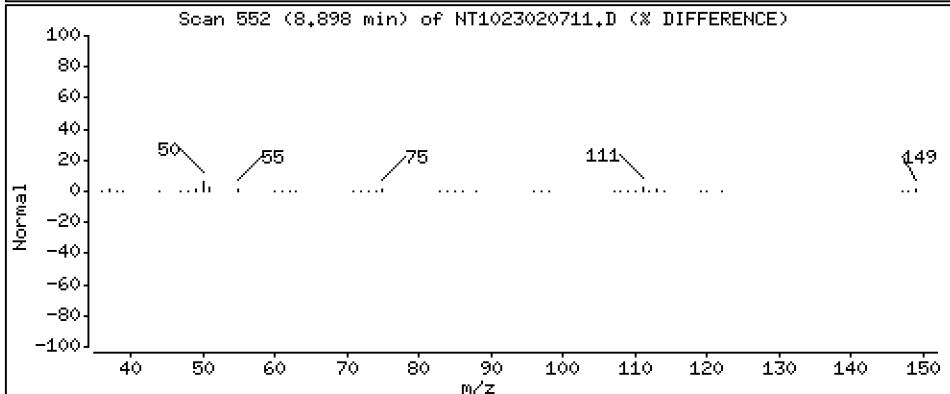
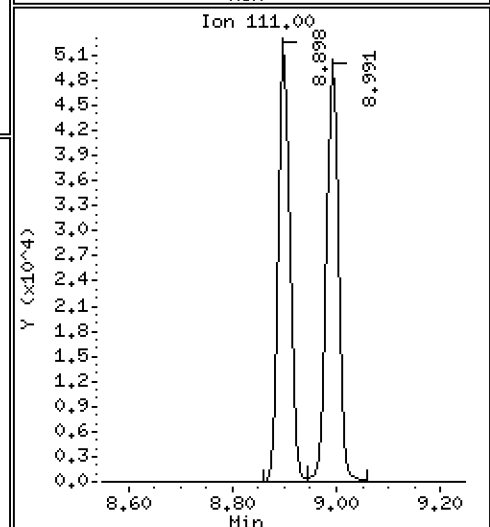
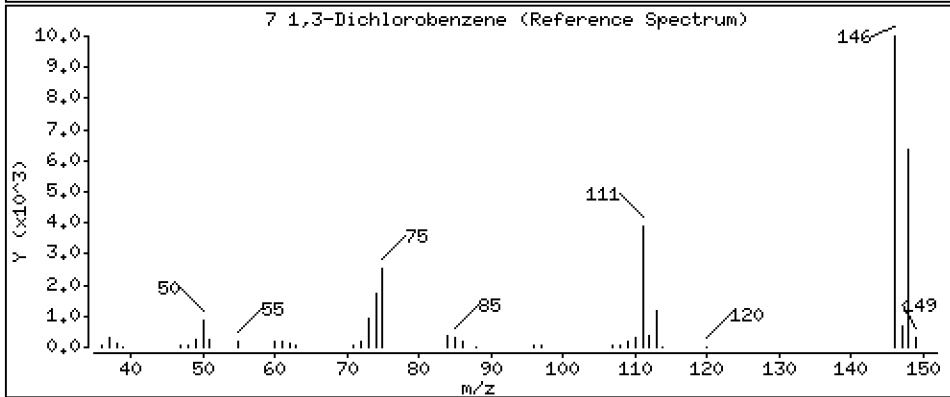
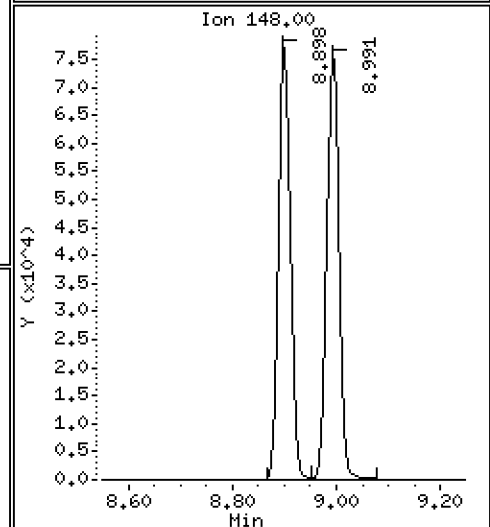
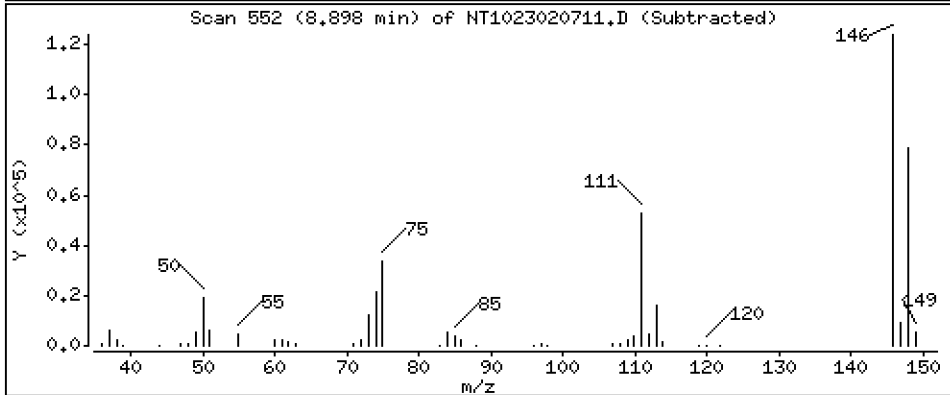
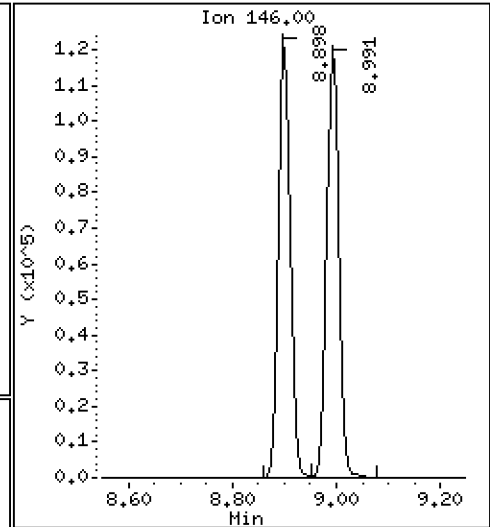
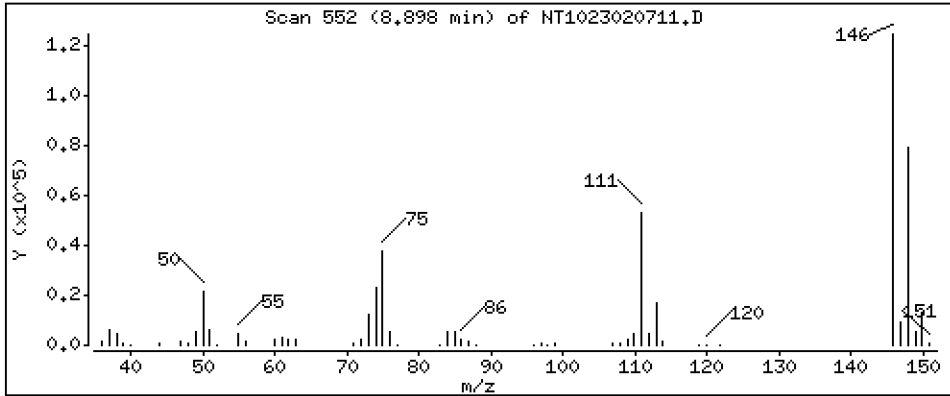
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 4,338 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

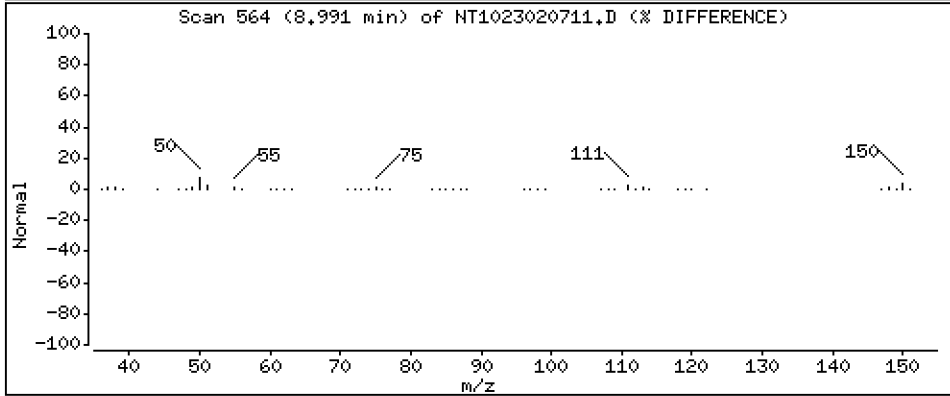
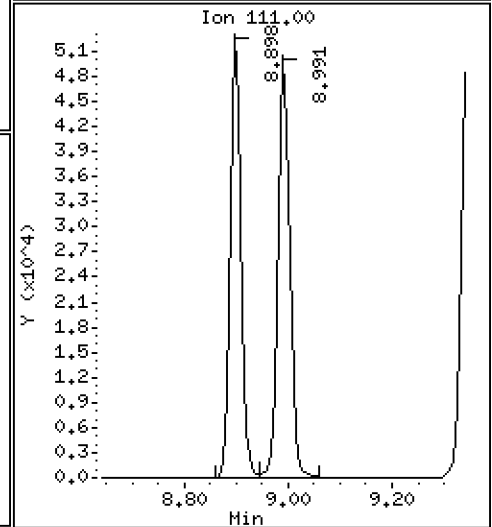
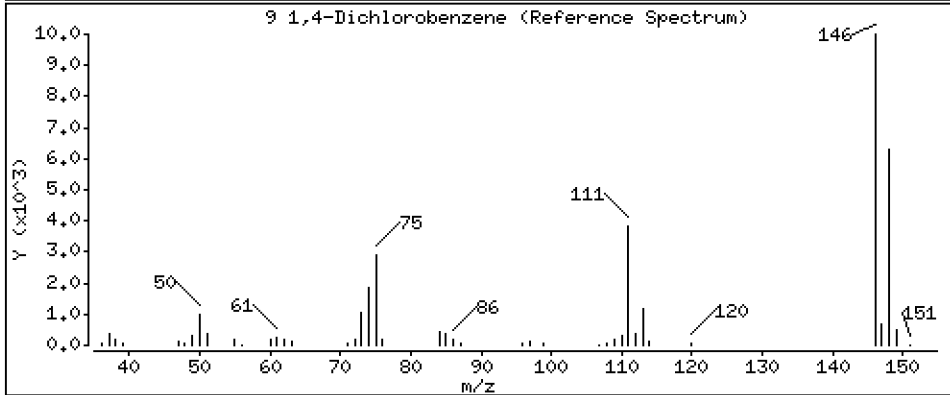
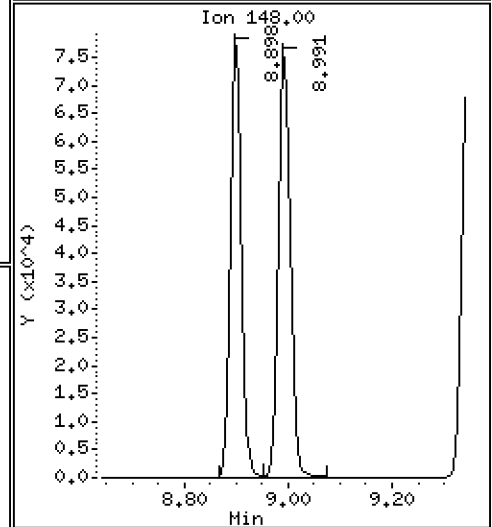
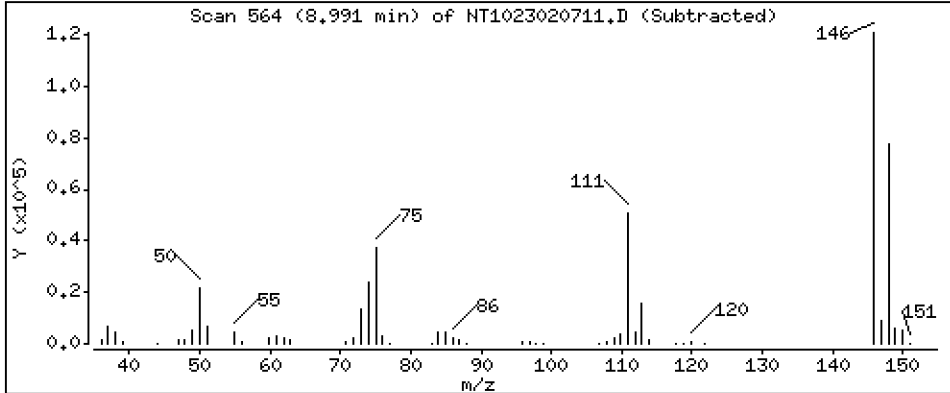
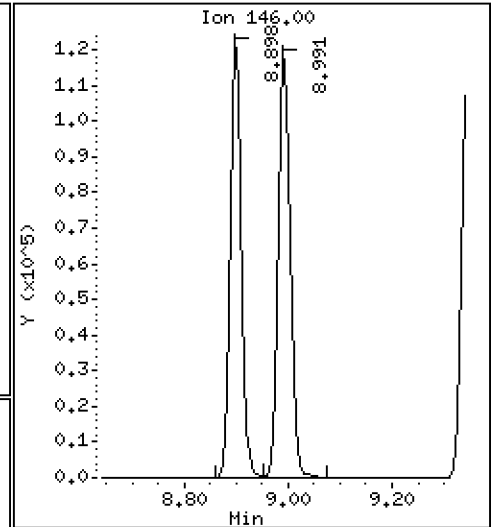
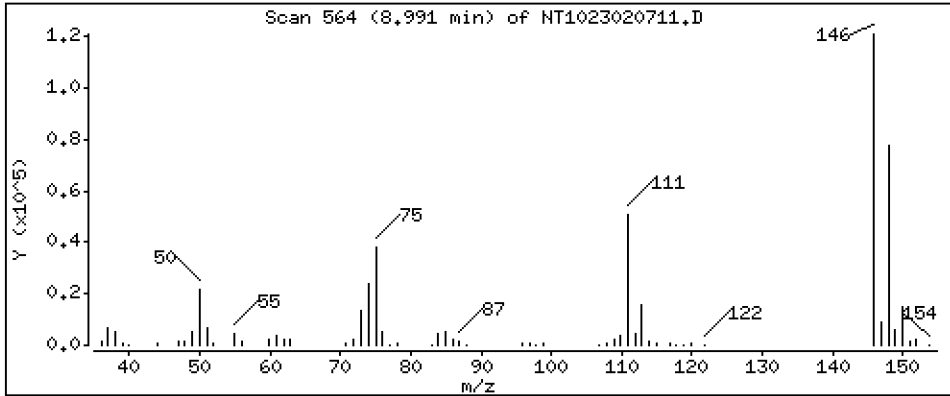
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 4,349 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

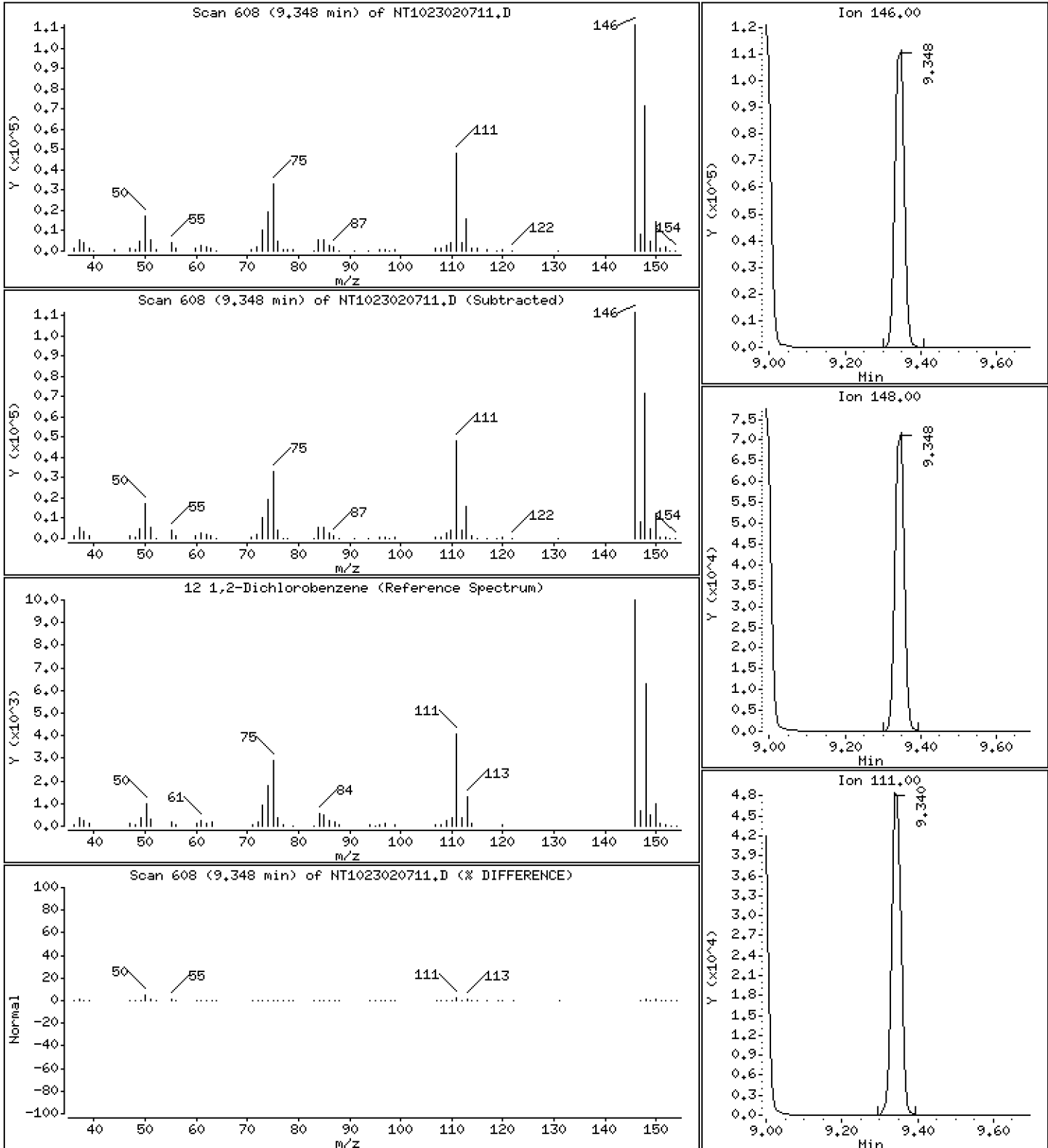
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 4,379 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

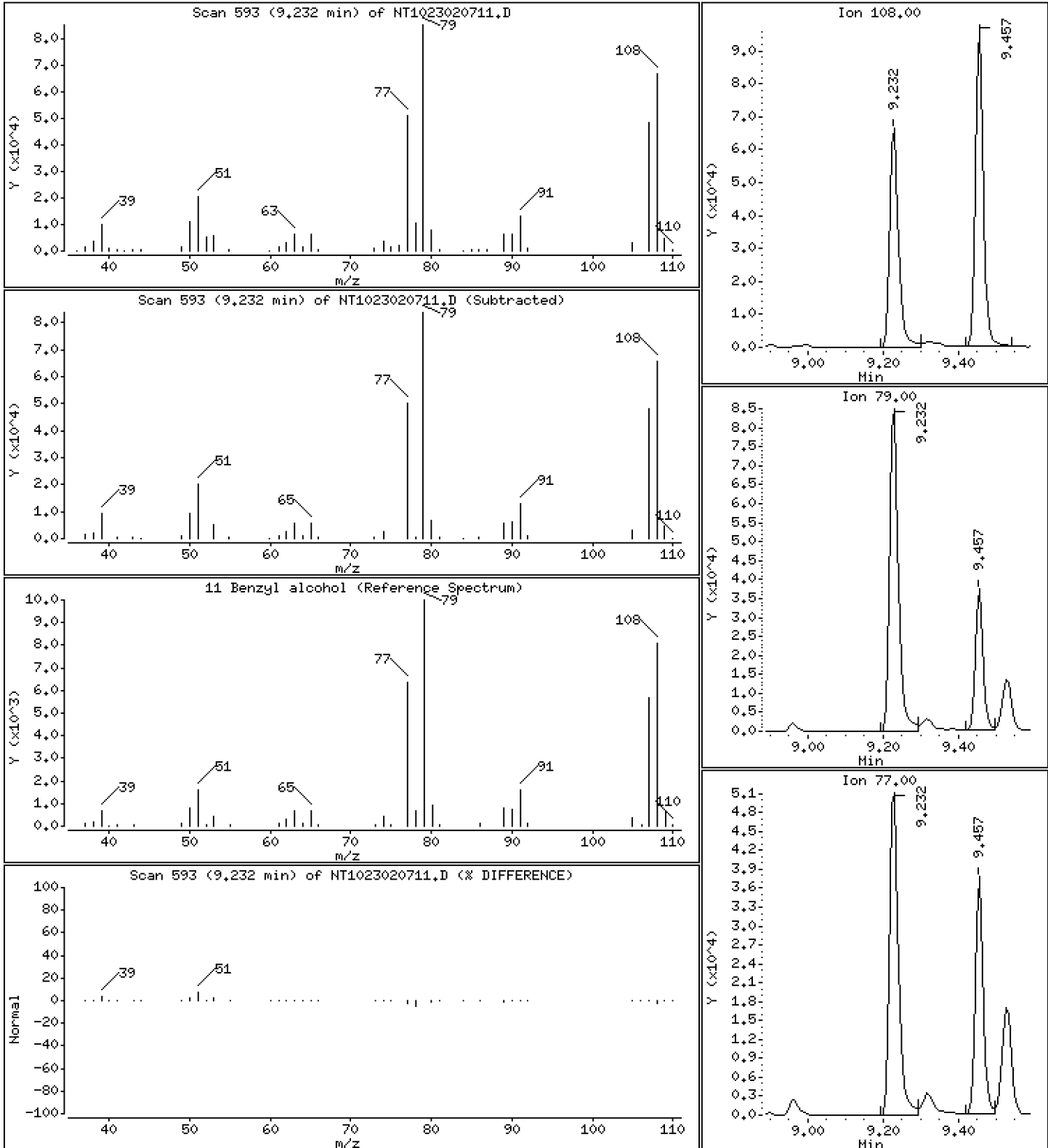
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 4.837 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

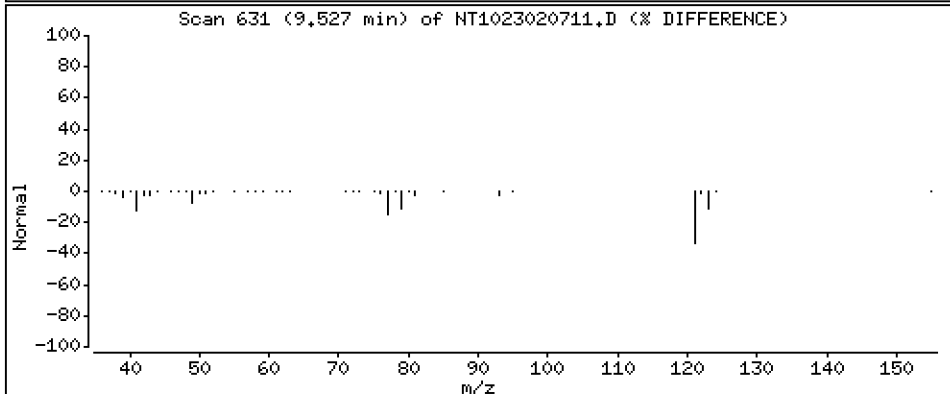
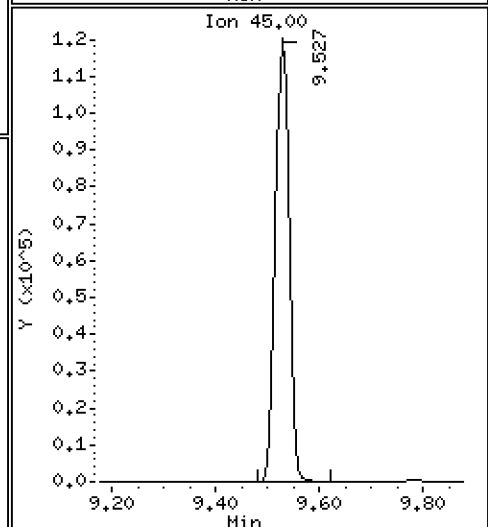
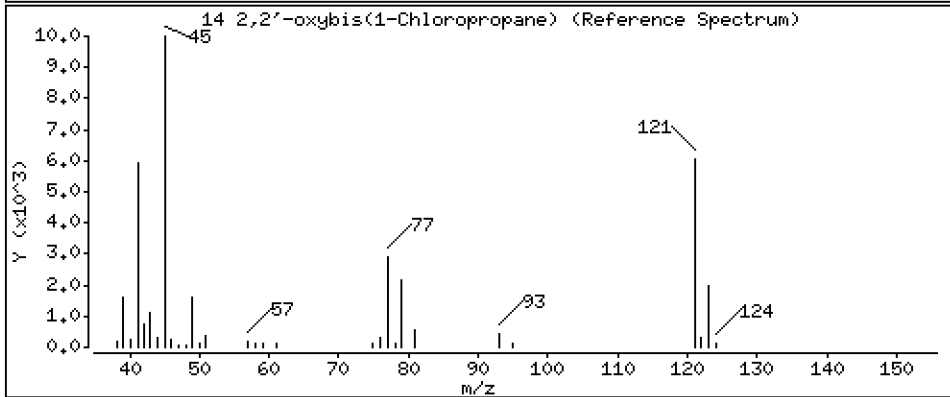
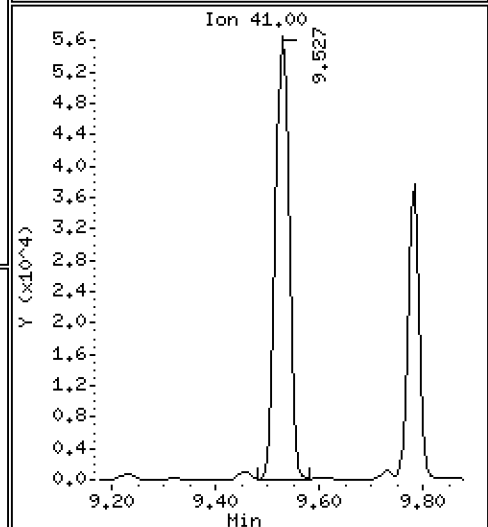
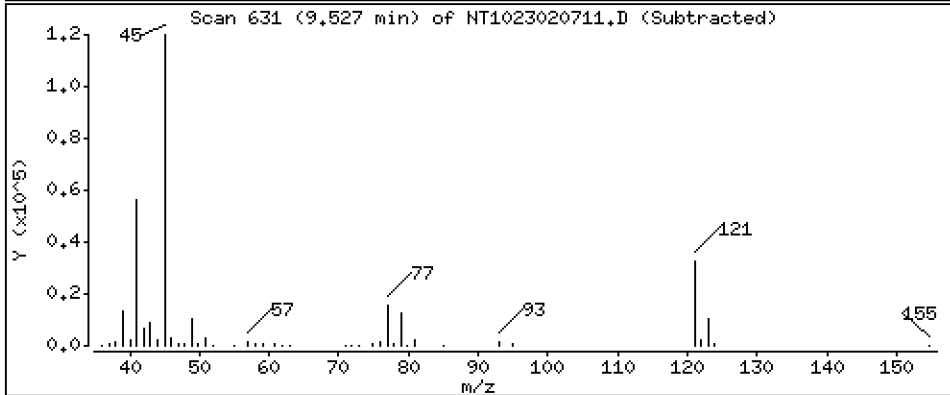
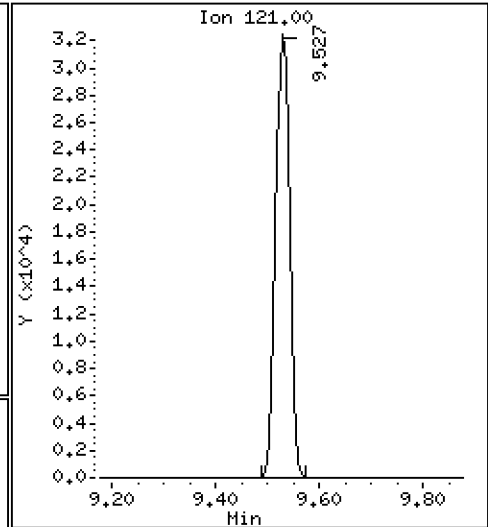
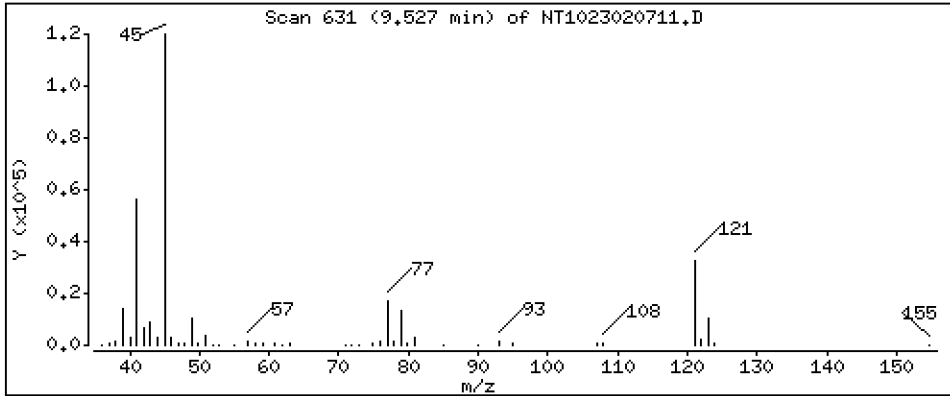
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 5.002 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

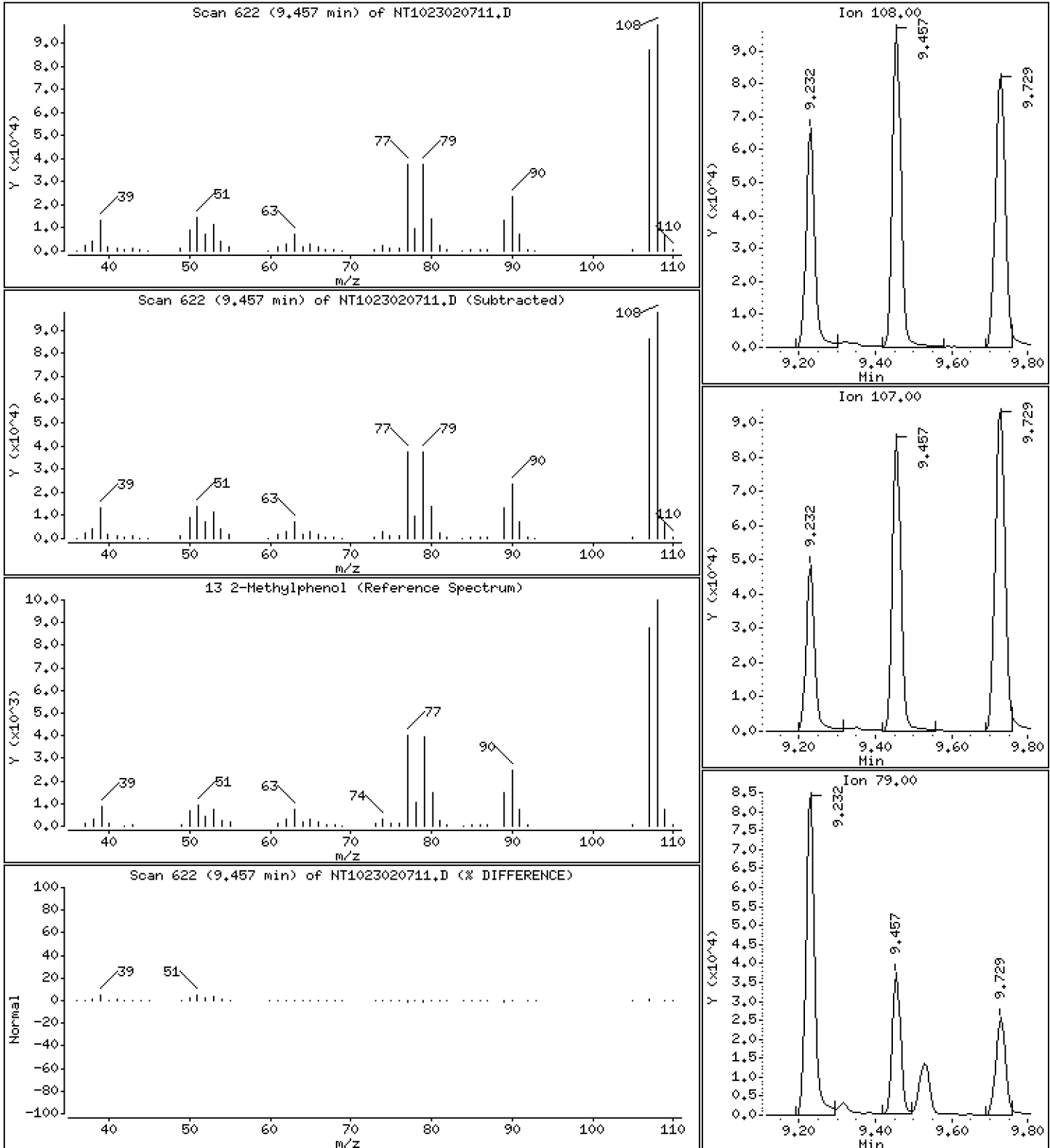
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 3.829 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

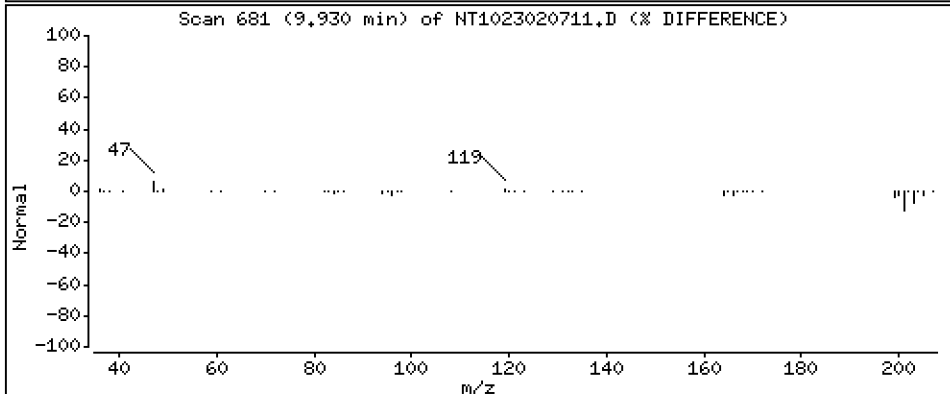
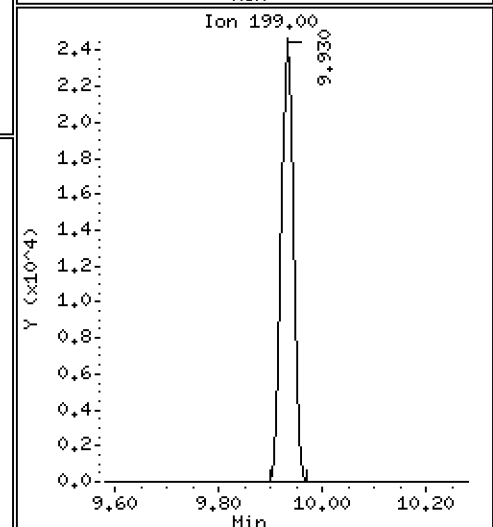
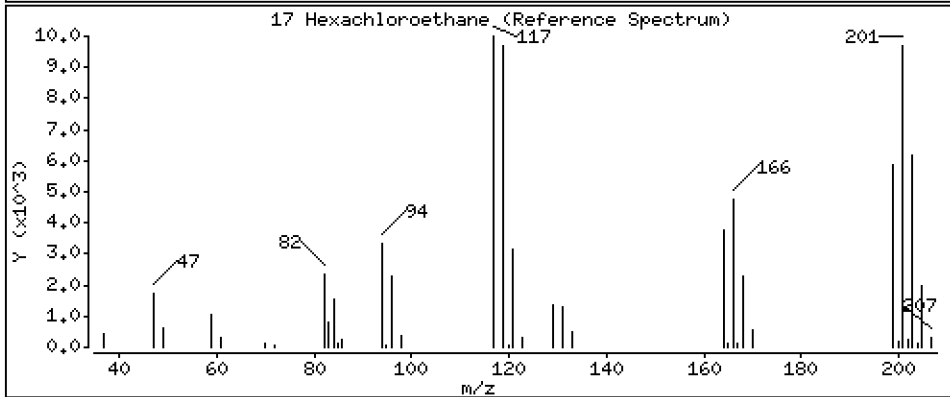
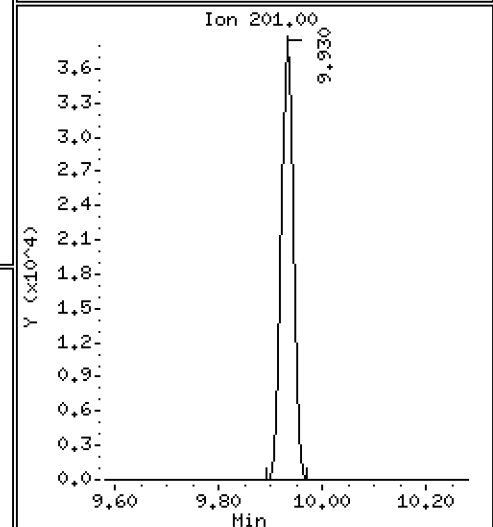
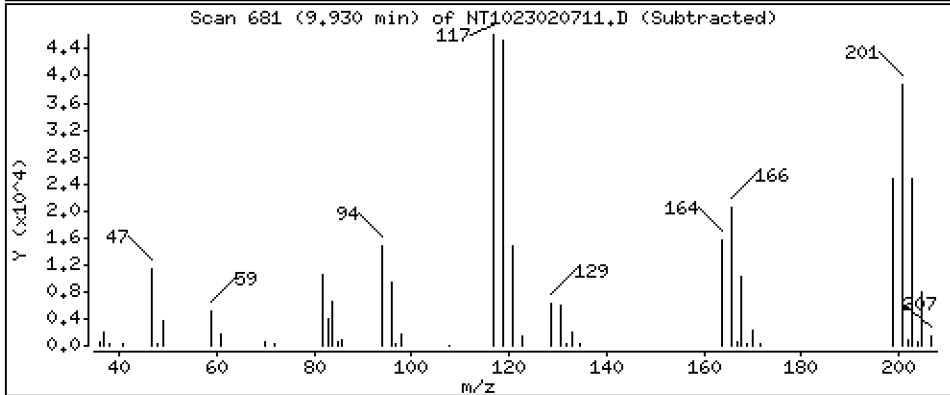
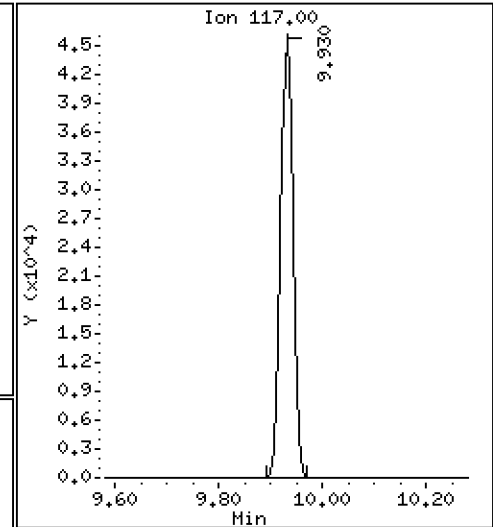
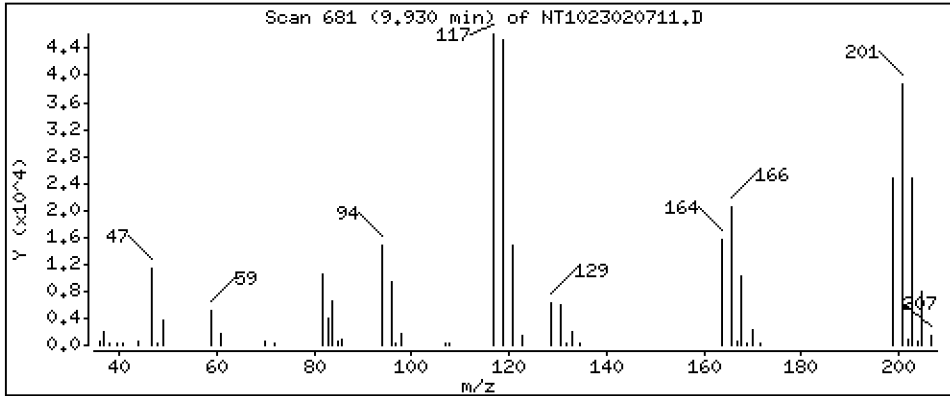
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

17 Hexachloroethane

Concentration: 4.438 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

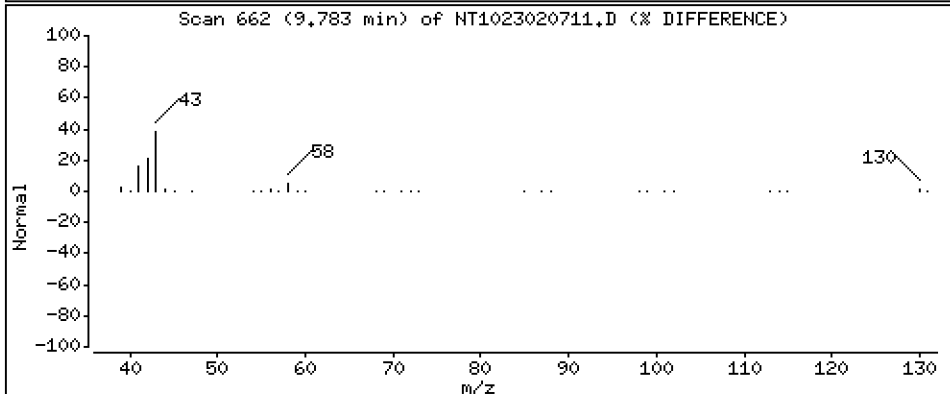
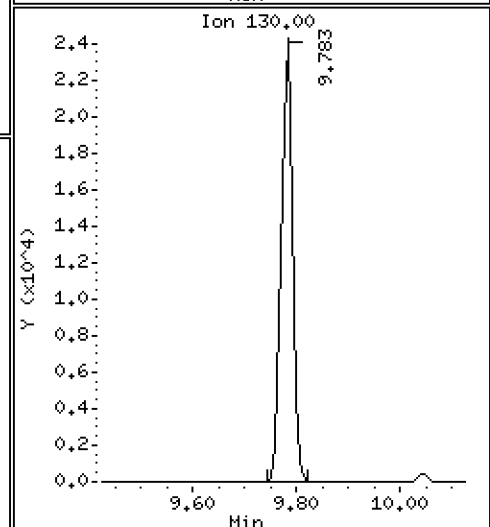
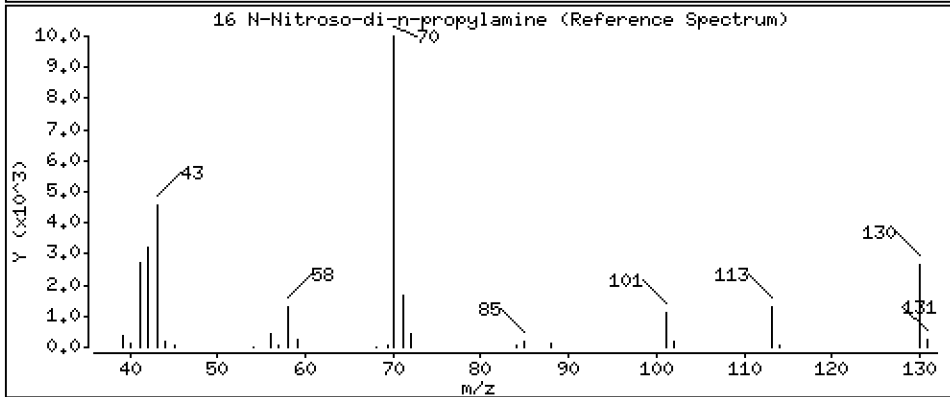
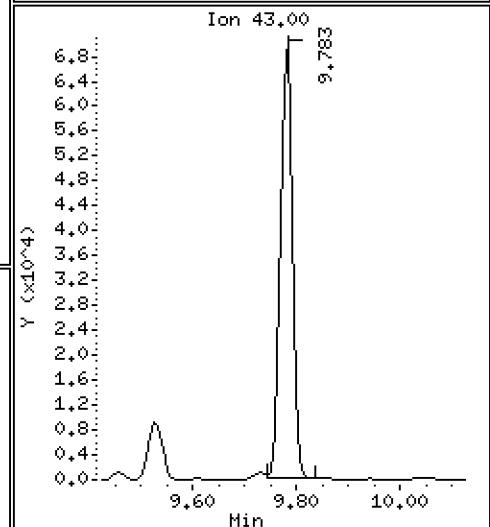
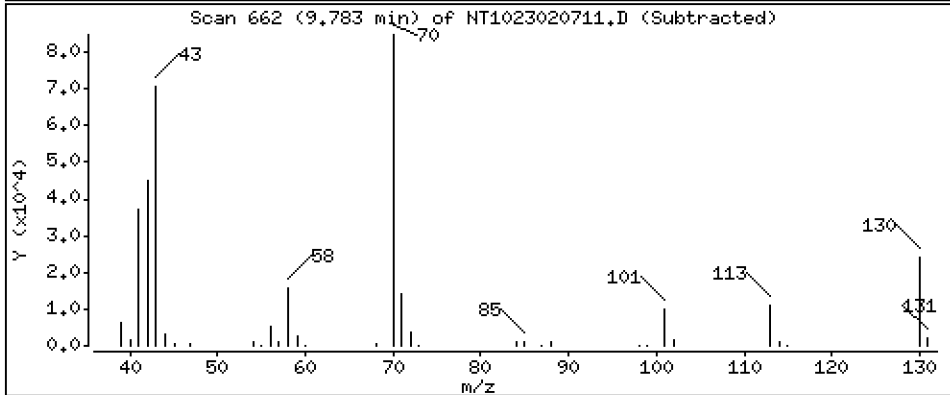
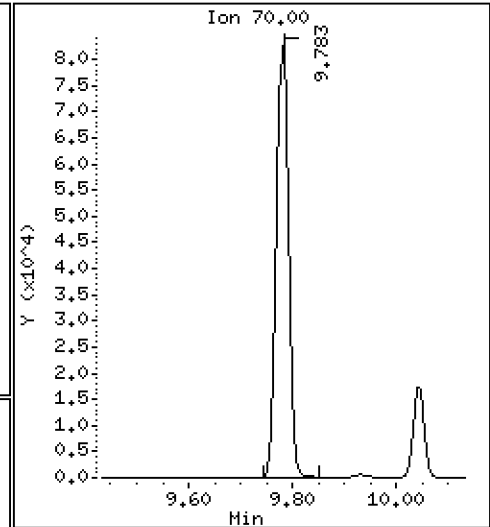
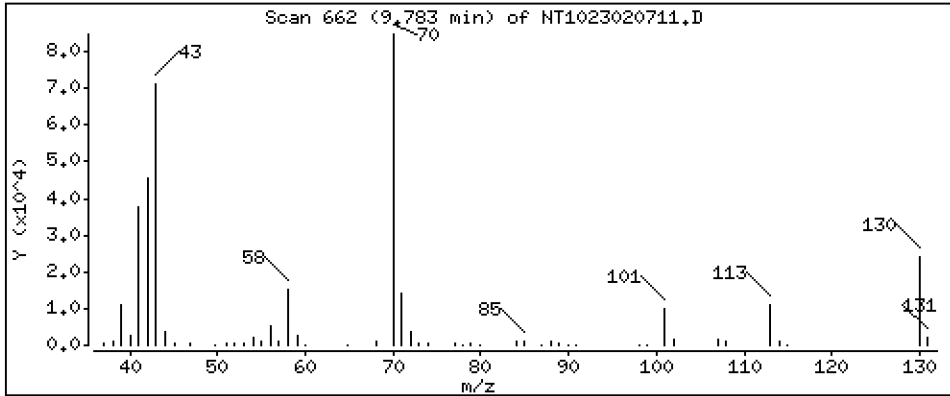
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 4,562 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

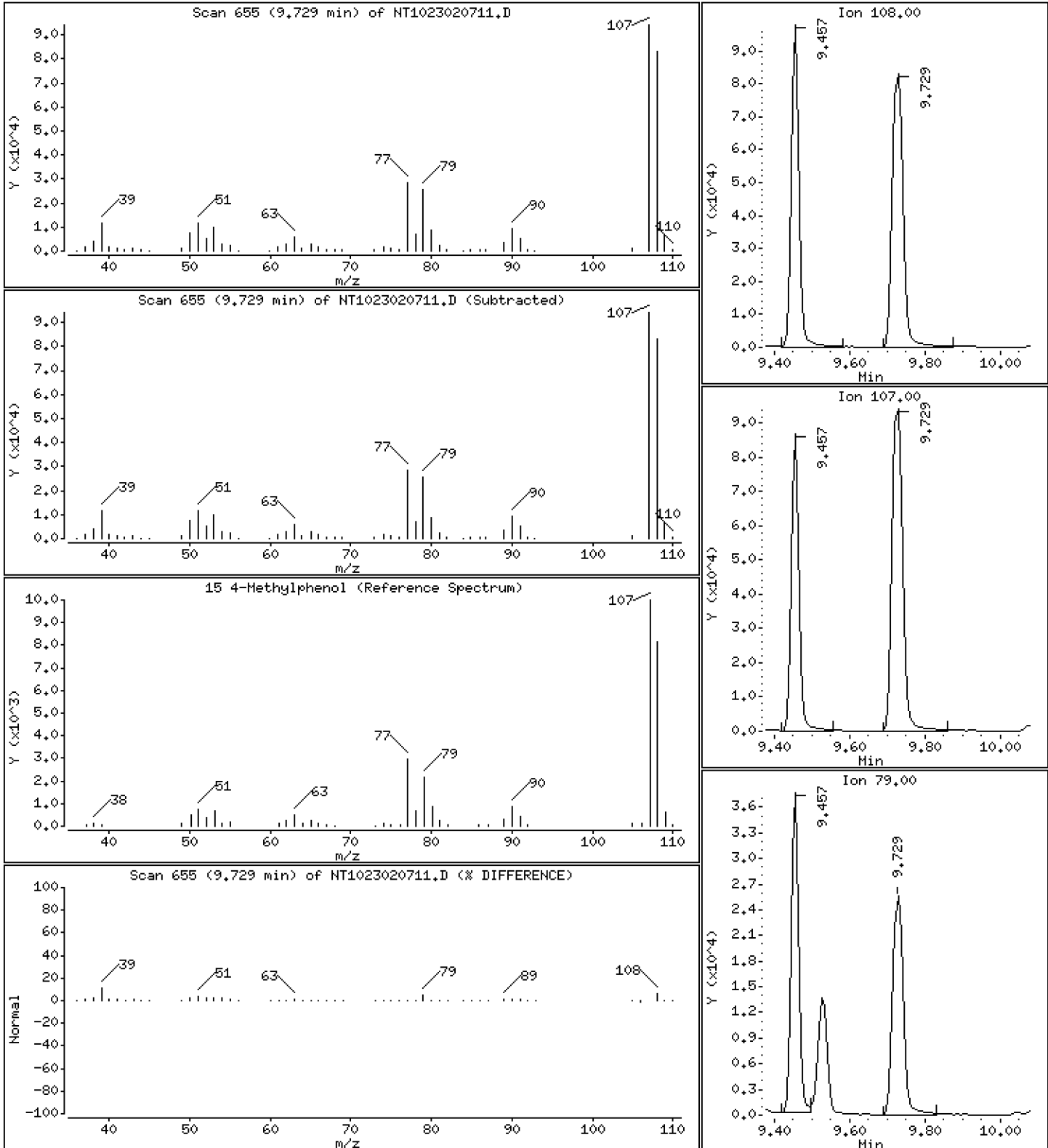
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,948 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

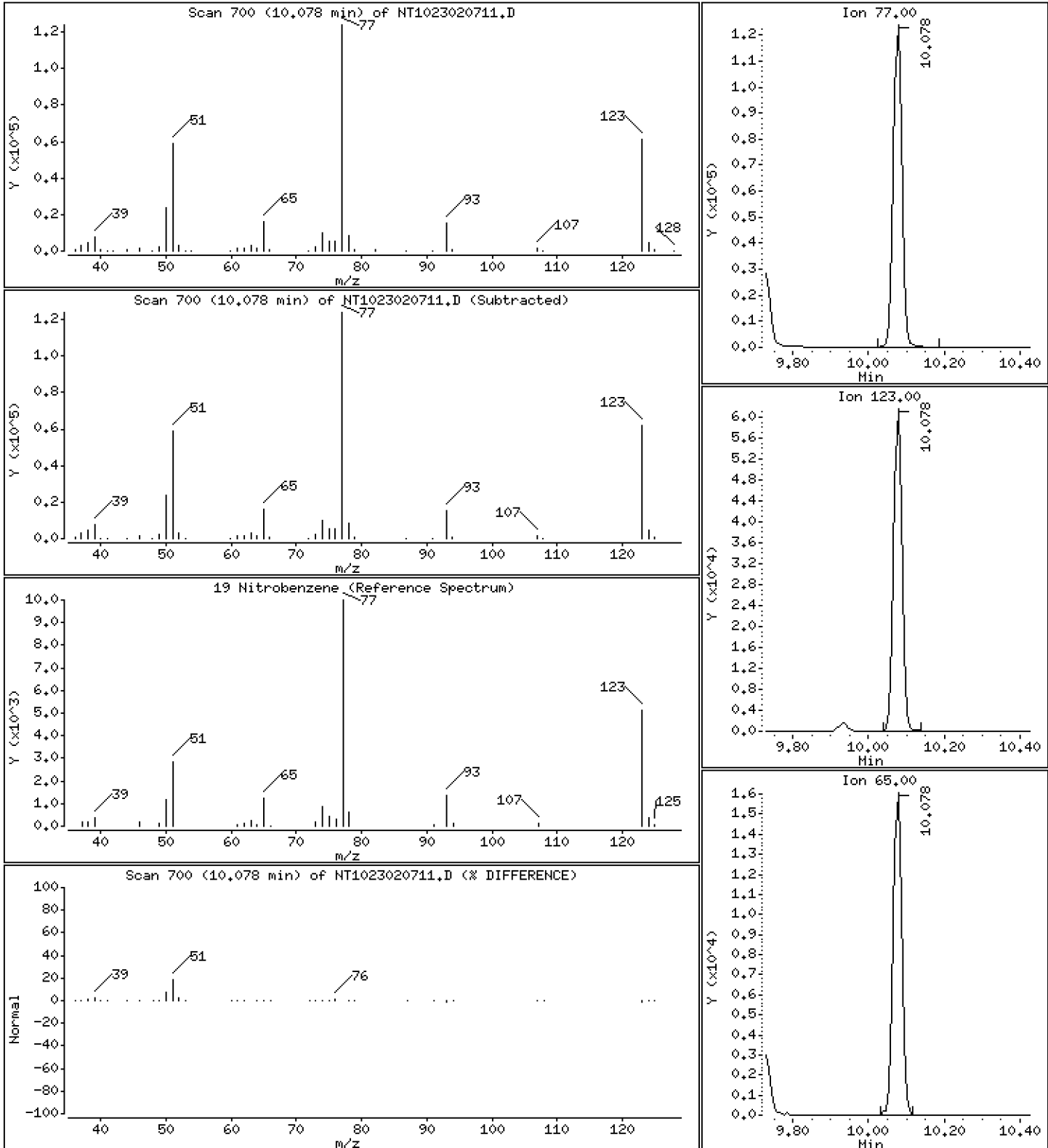
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 4,399 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

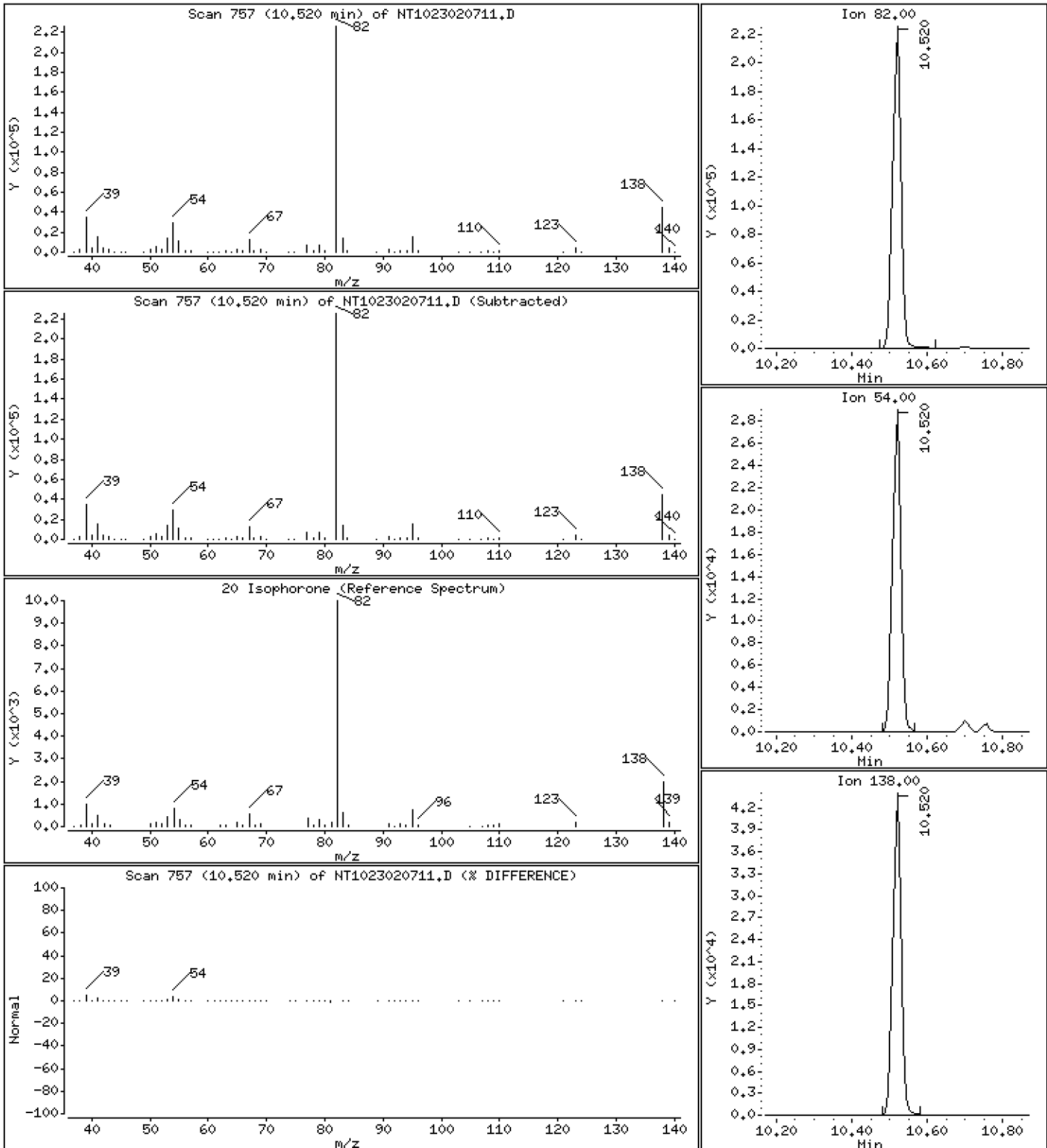
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

20 Isophorone

Concentration: 6.405 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

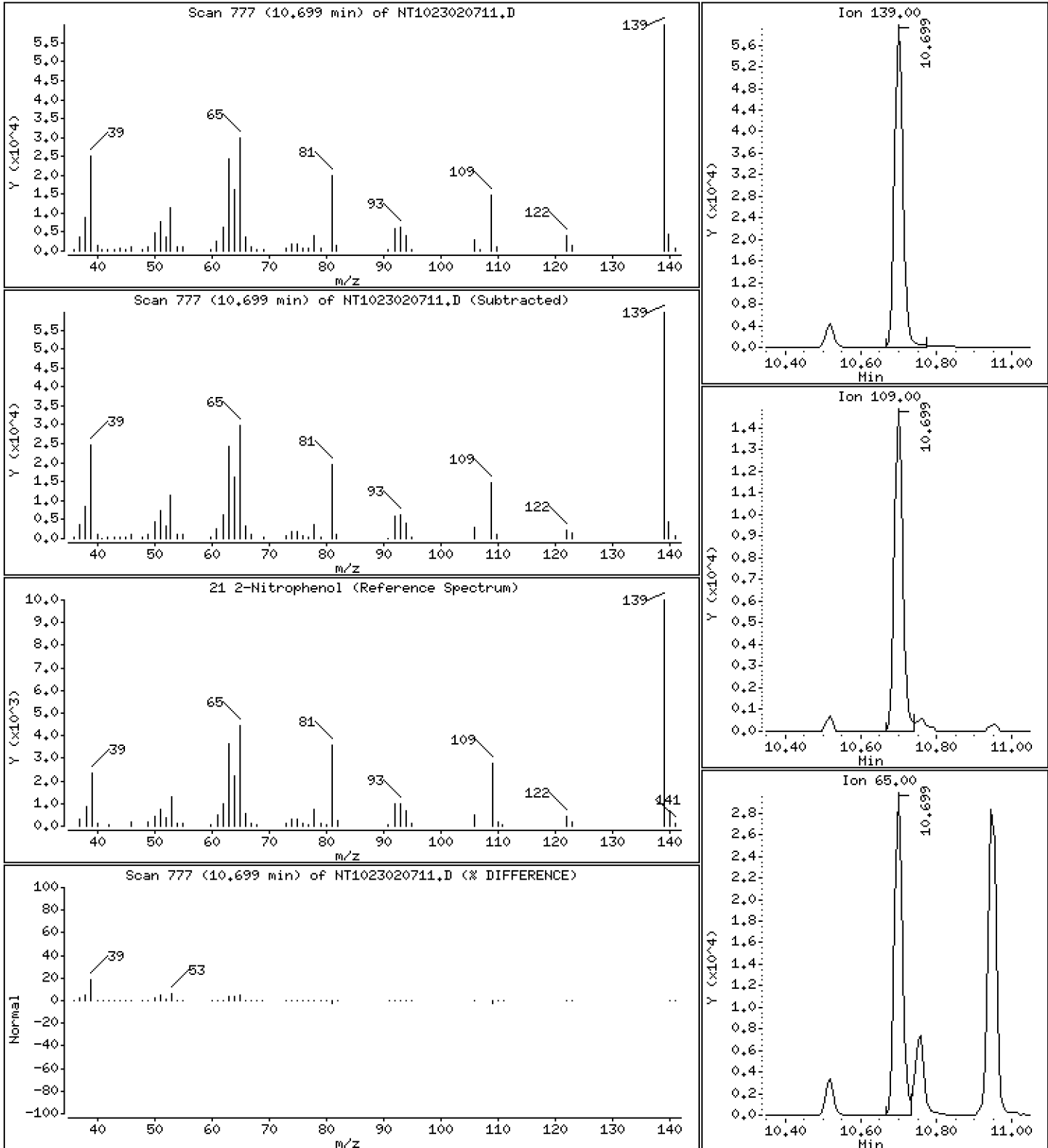
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 4,242 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

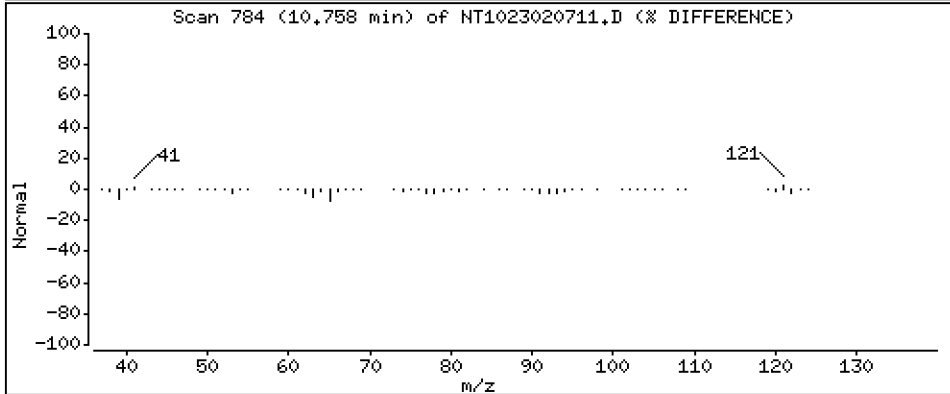
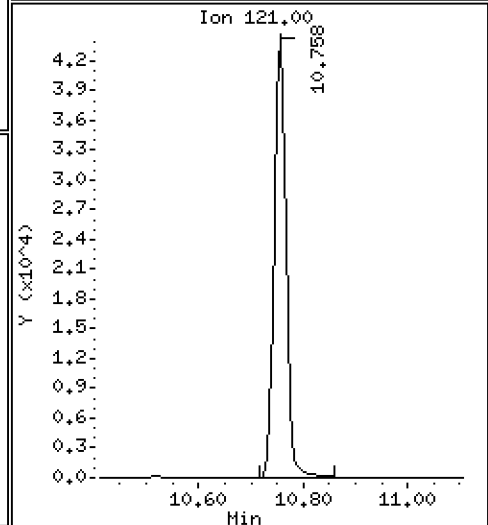
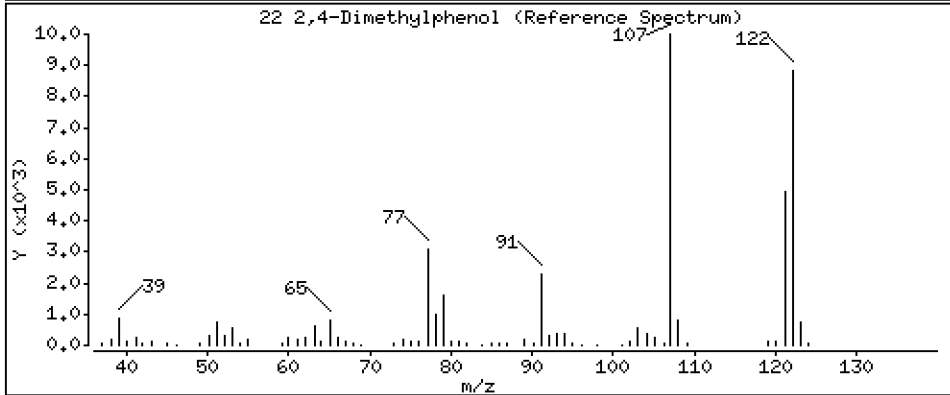
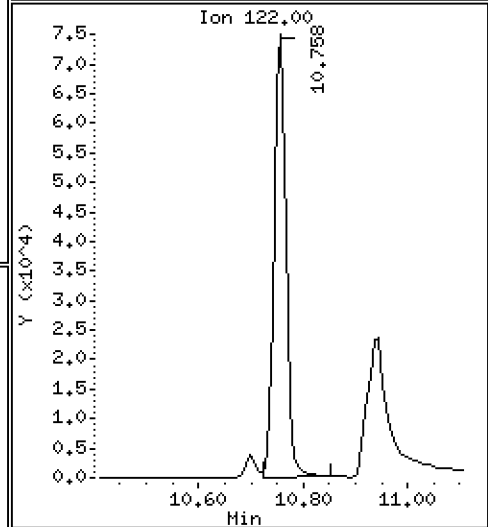
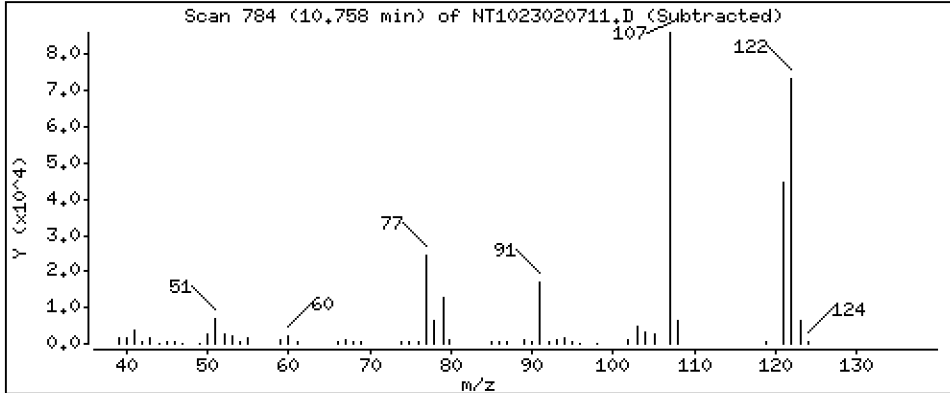
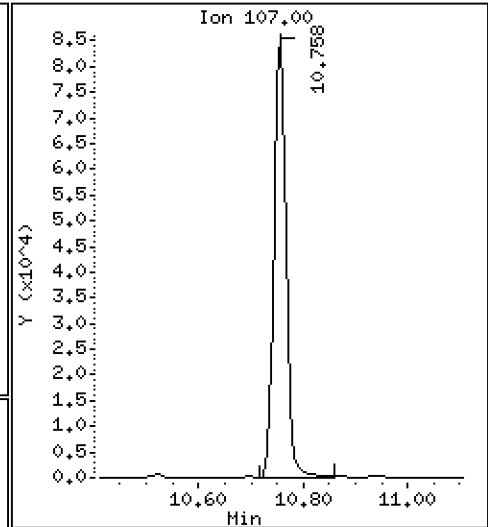
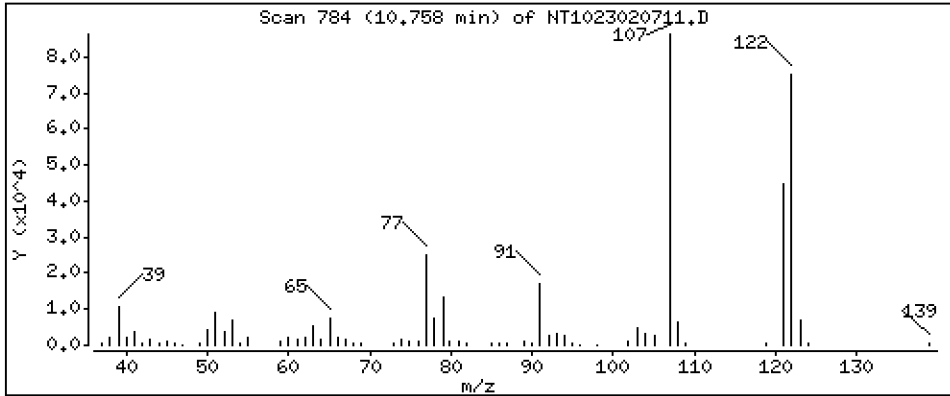
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,536 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

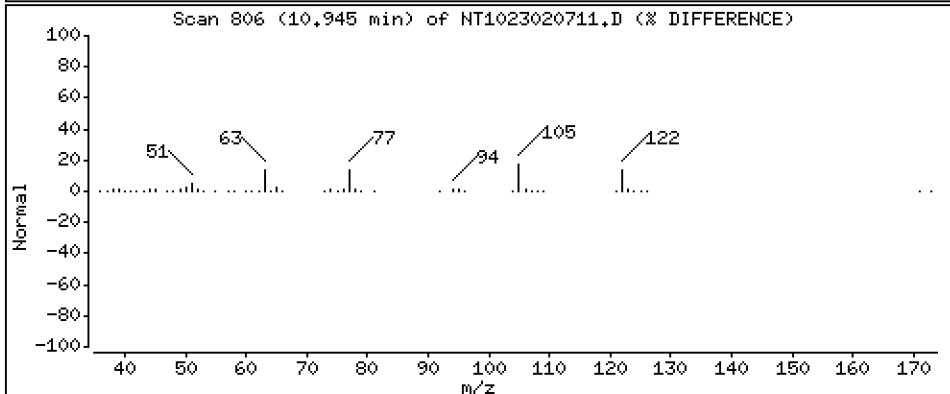
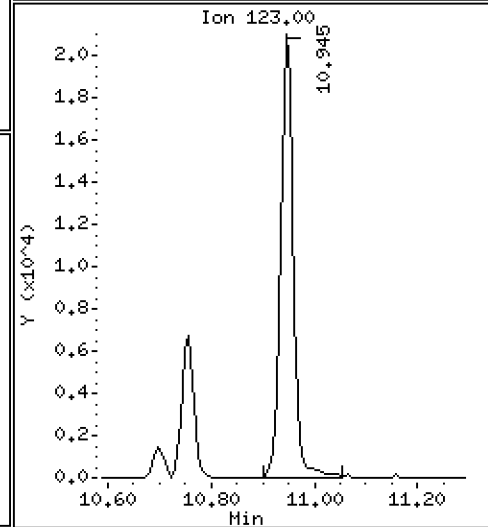
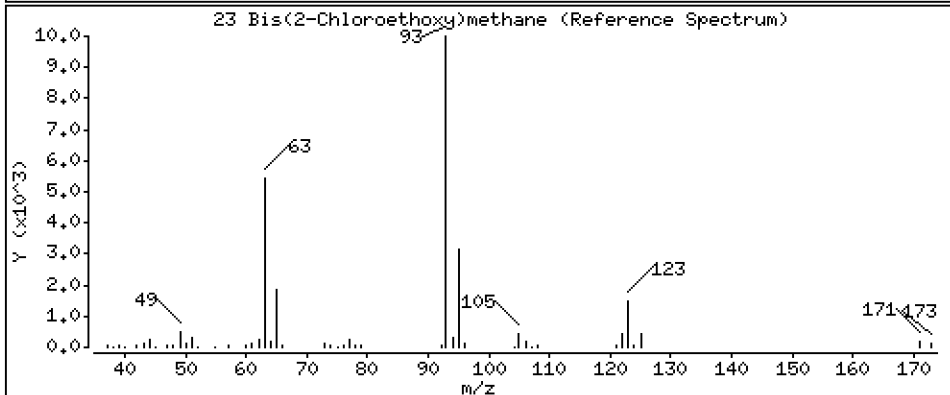
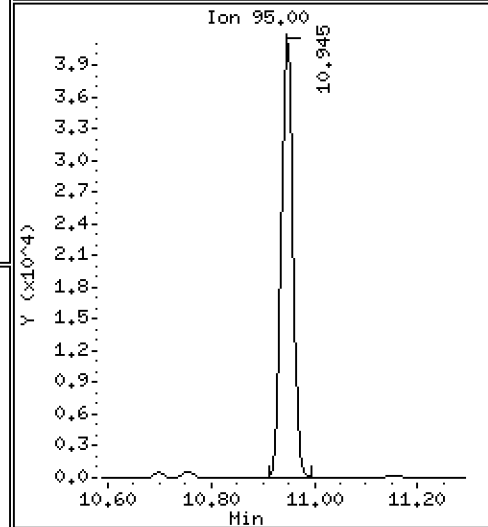
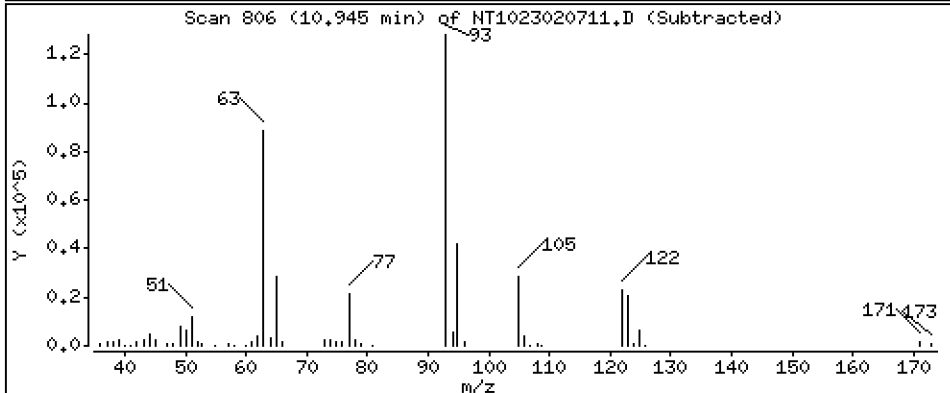
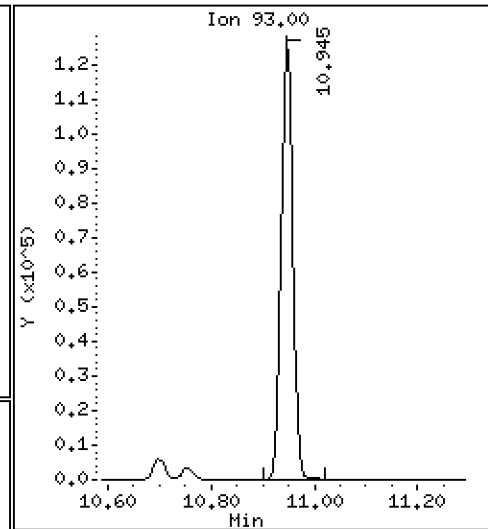
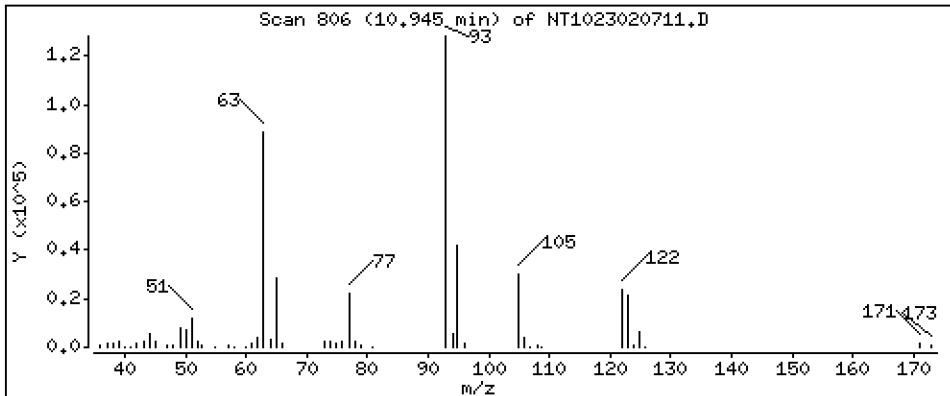
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 5,106 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

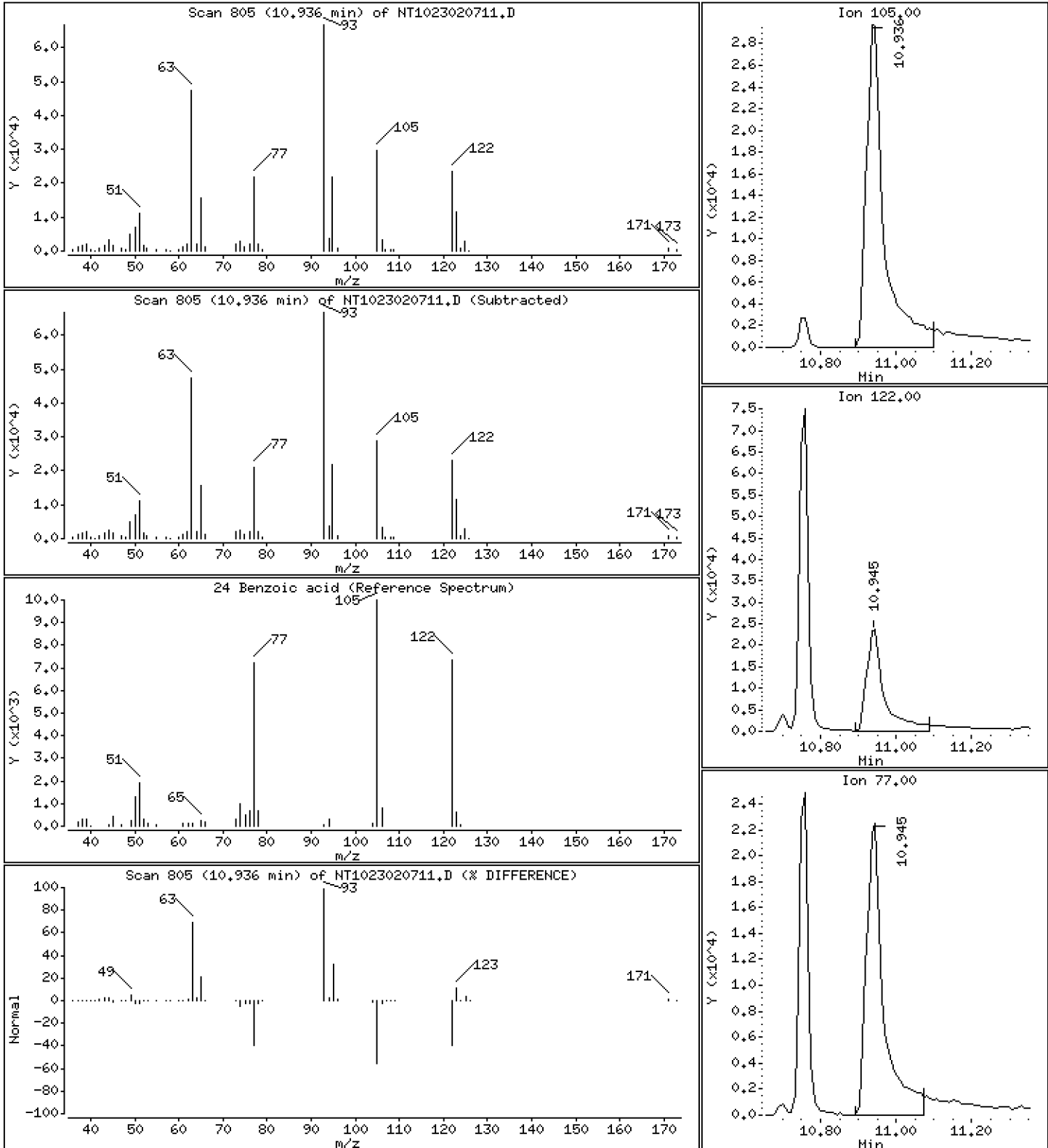
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 4.410 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

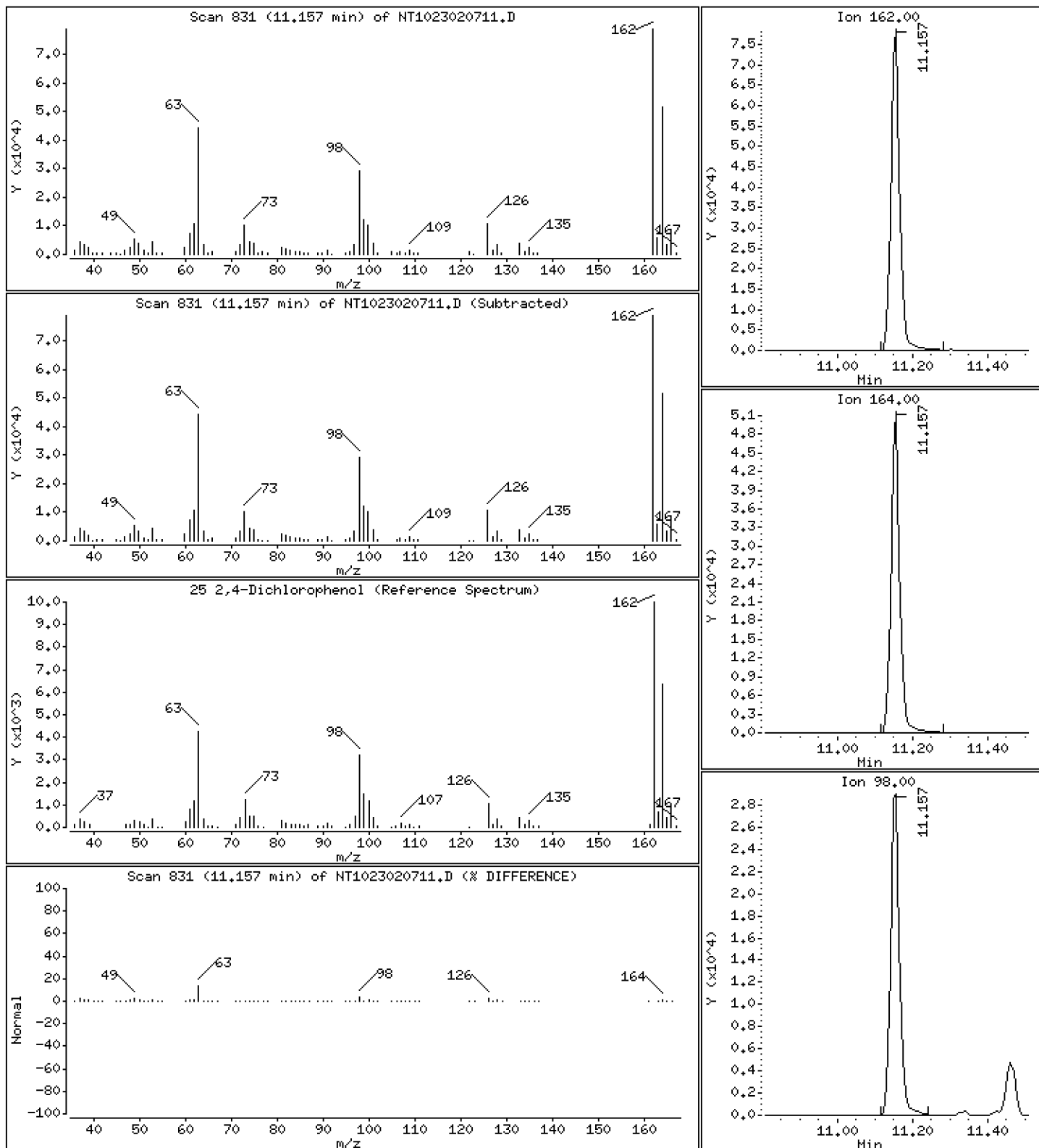
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,574 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

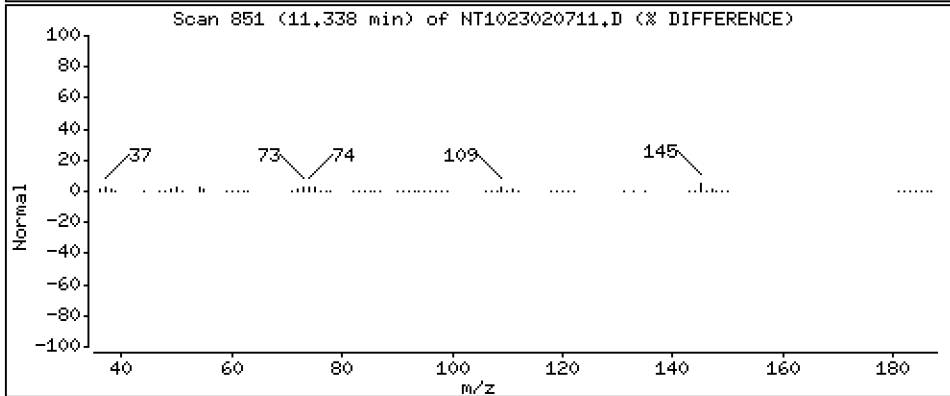
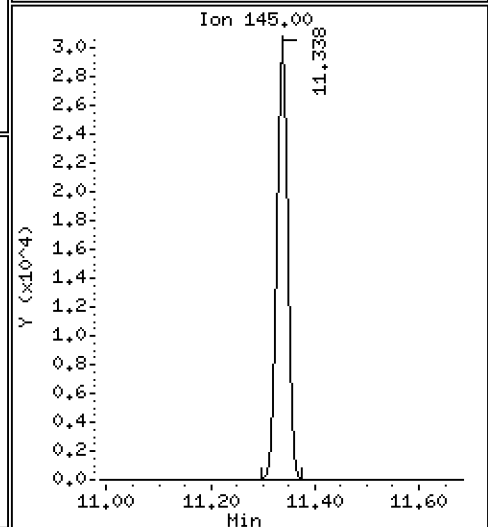
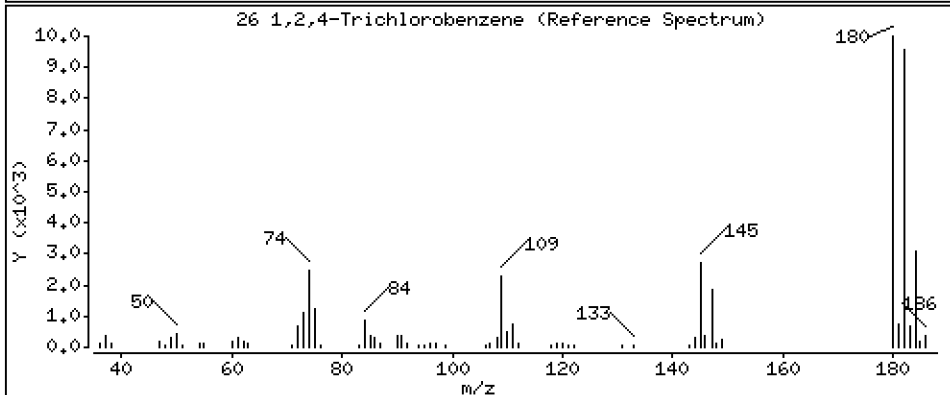
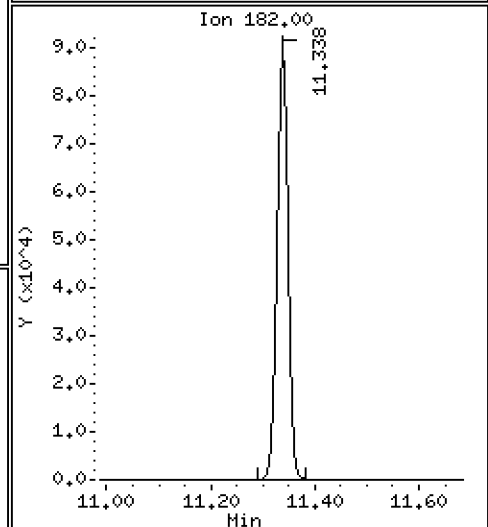
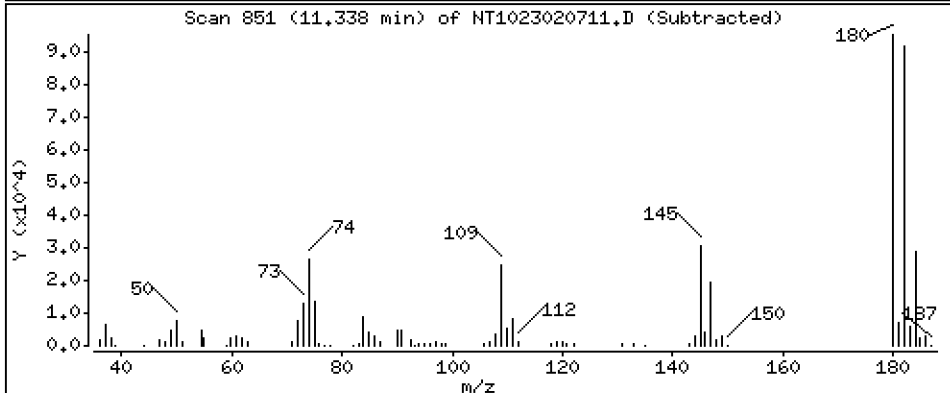
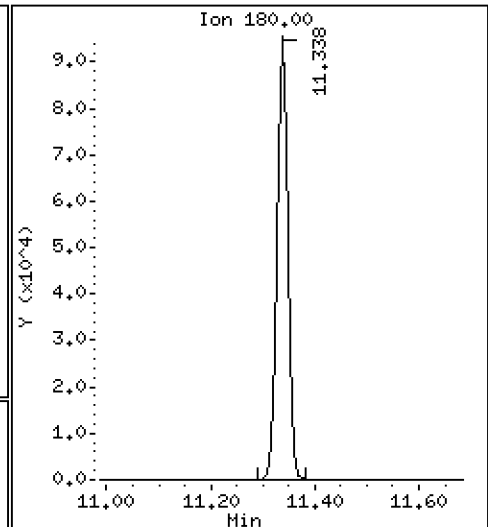
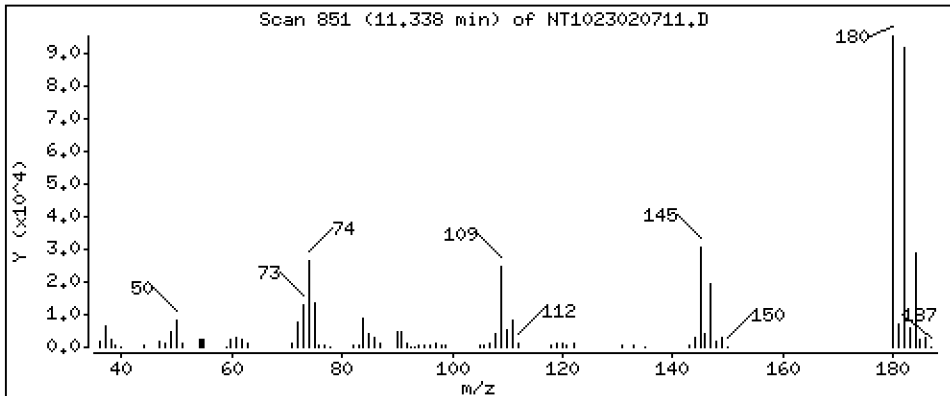
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,191 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

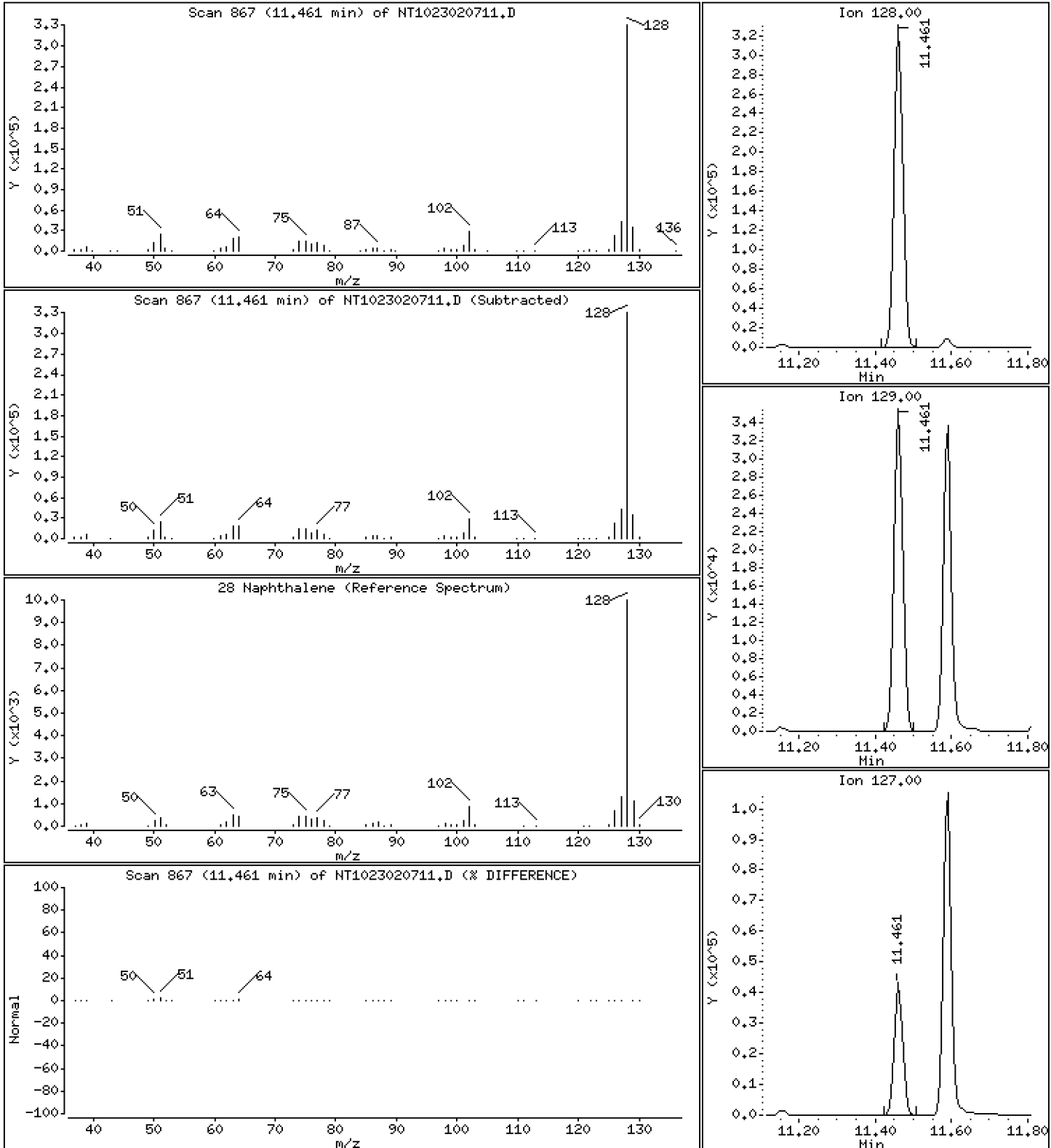
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

28 Naphthalene

Concentration: 4.437 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

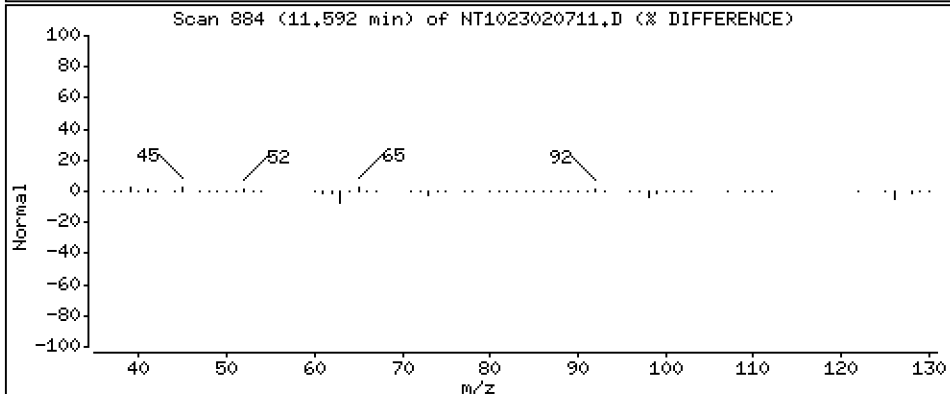
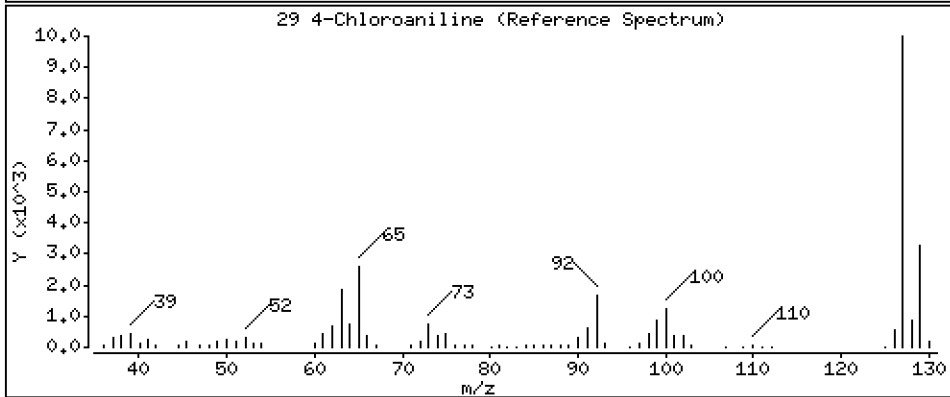
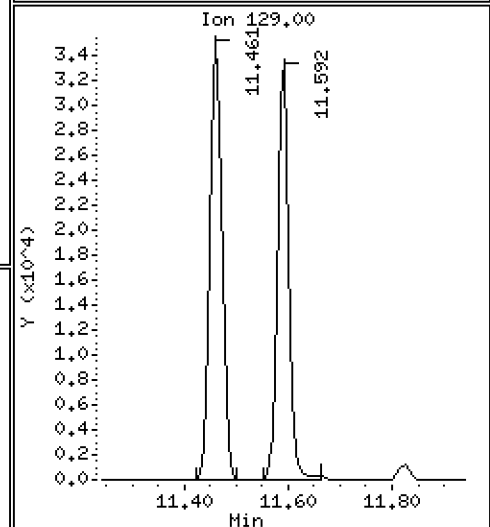
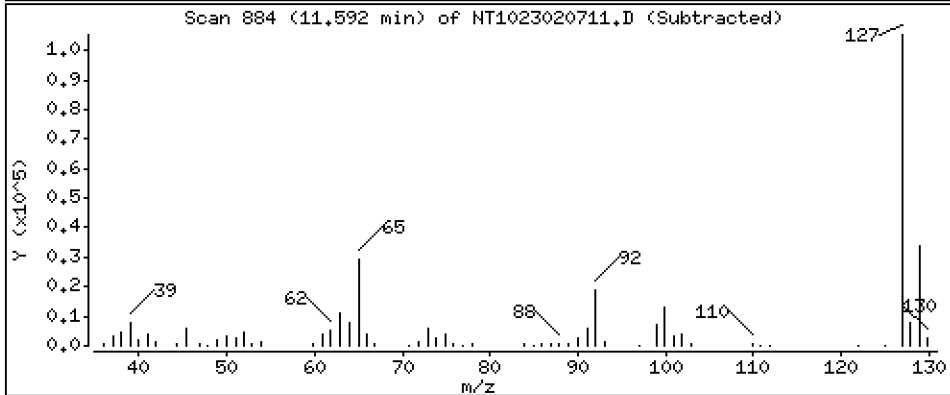
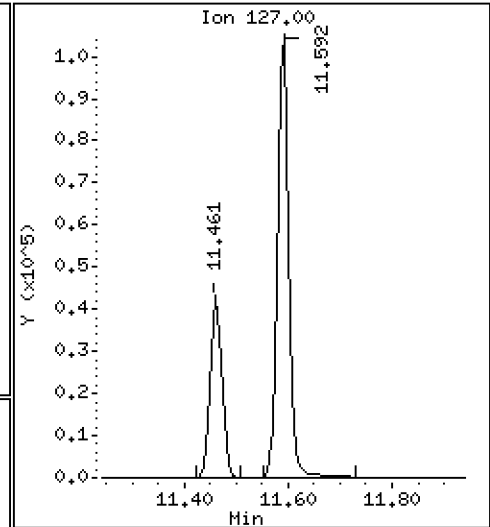
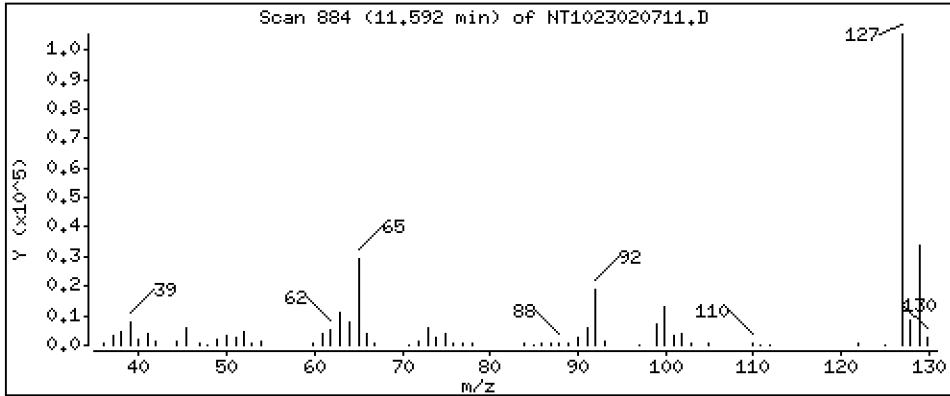
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 3,623 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

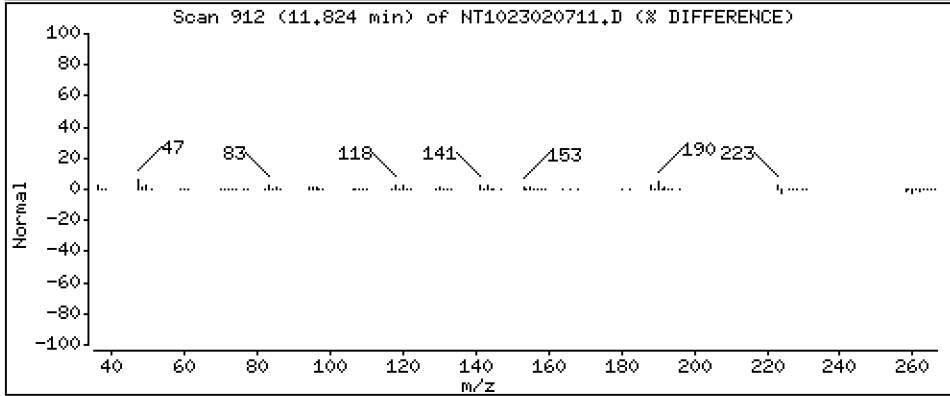
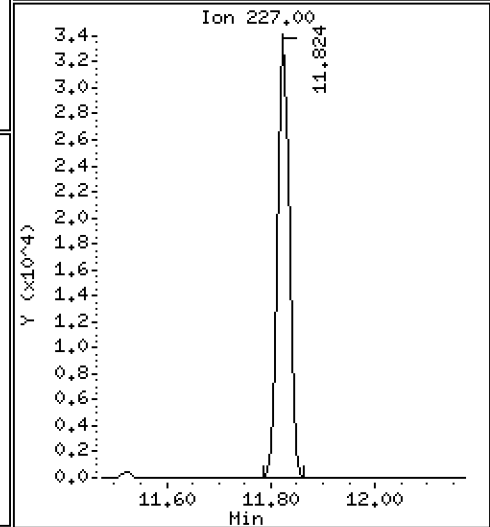
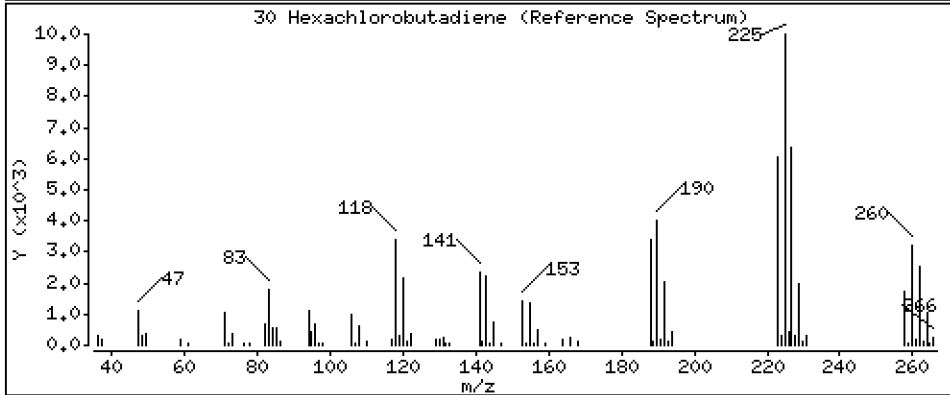
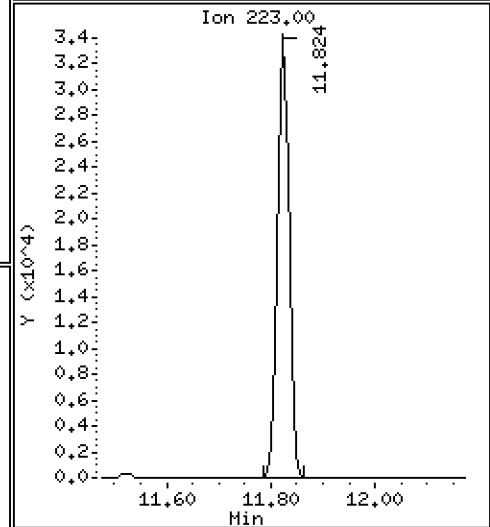
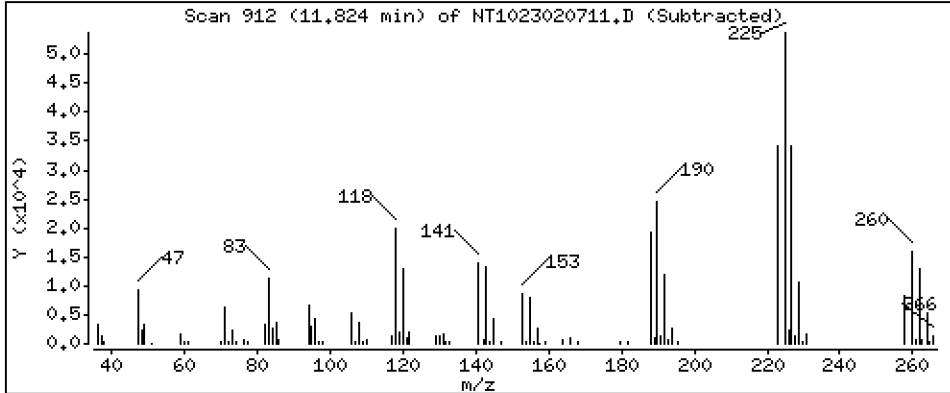
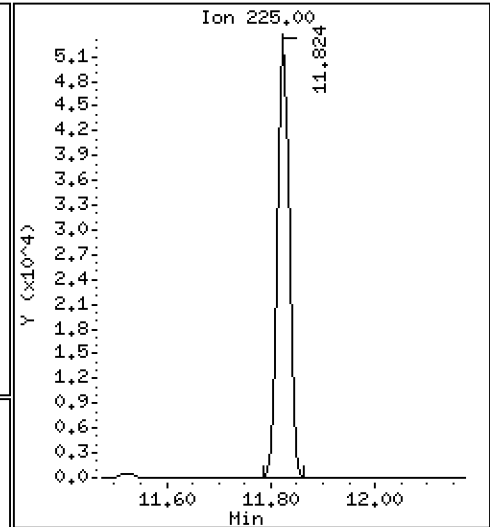
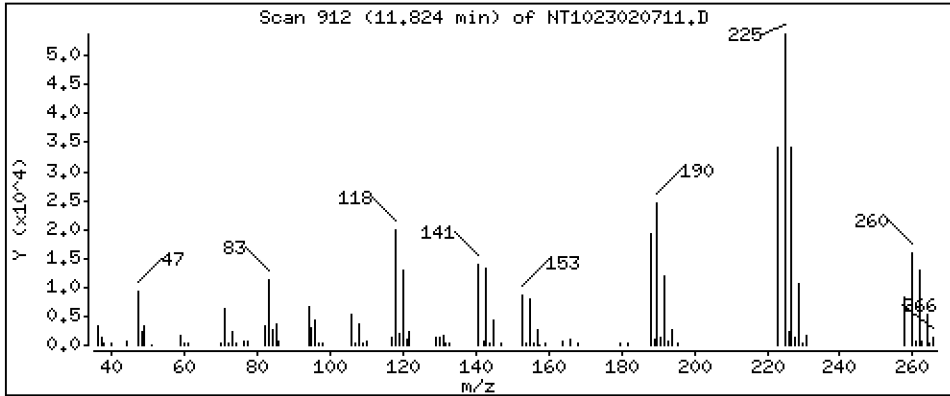
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,364 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

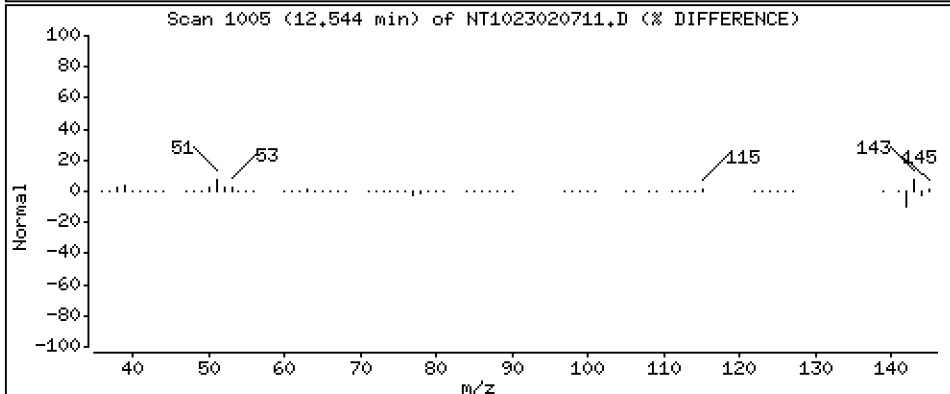
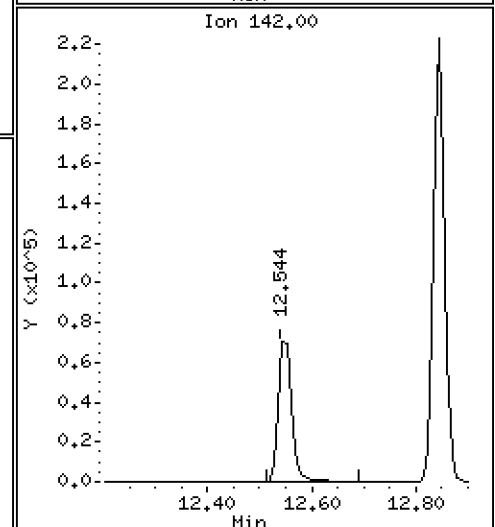
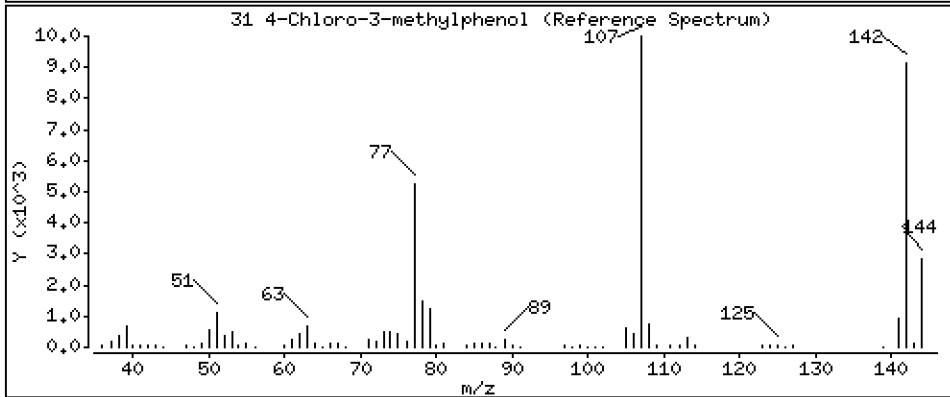
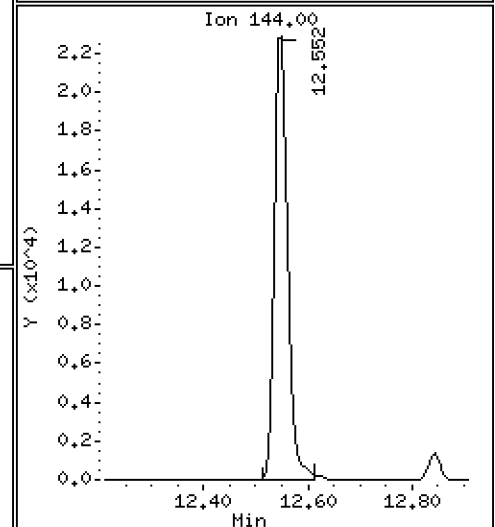
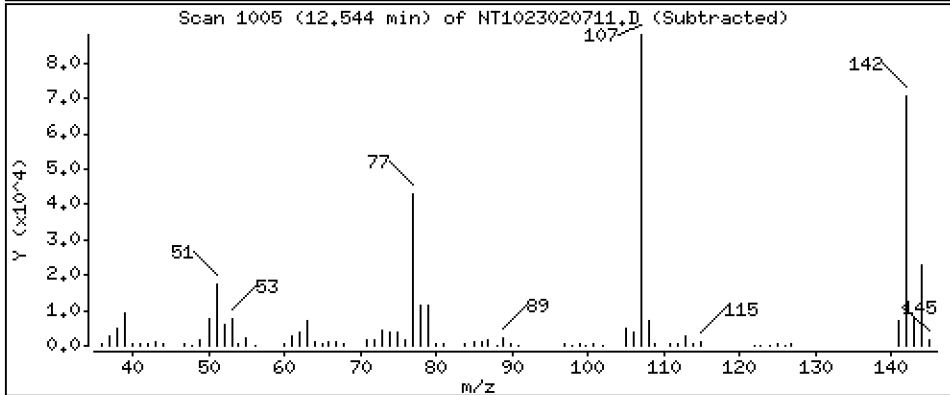
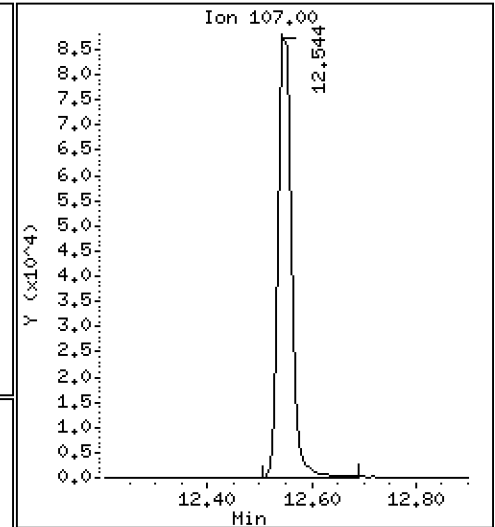
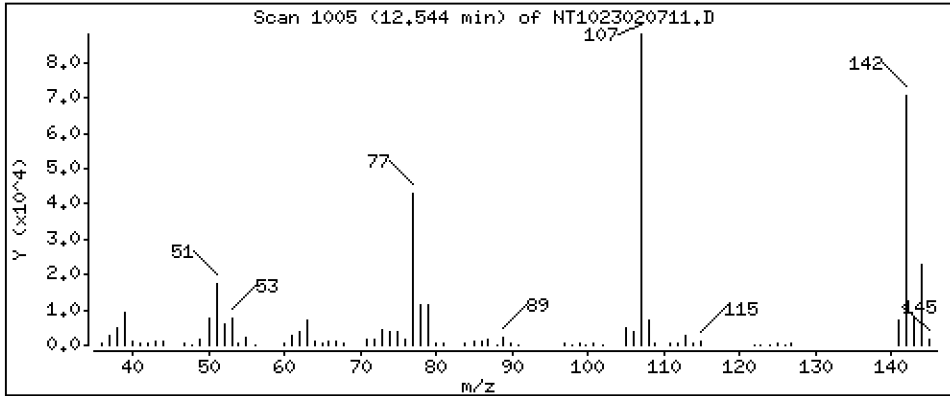
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

31 4-Chloro-3-methylphenol

Concentration: 4.308 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

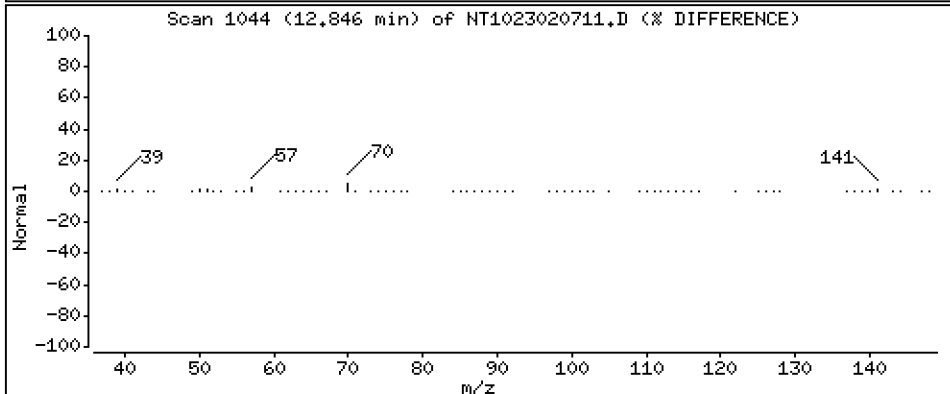
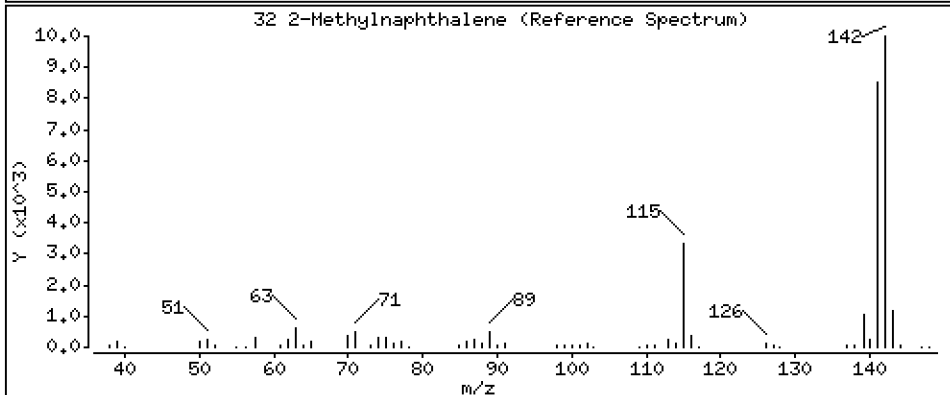
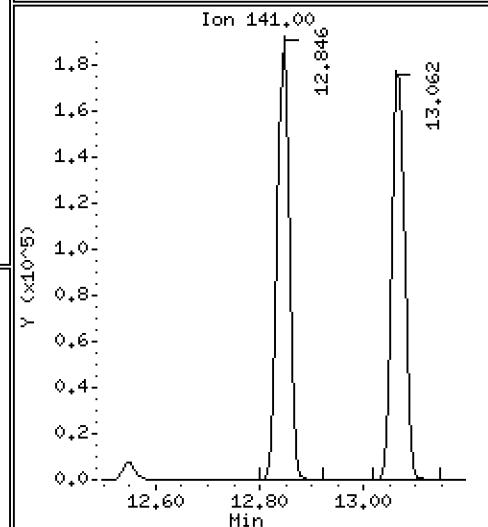
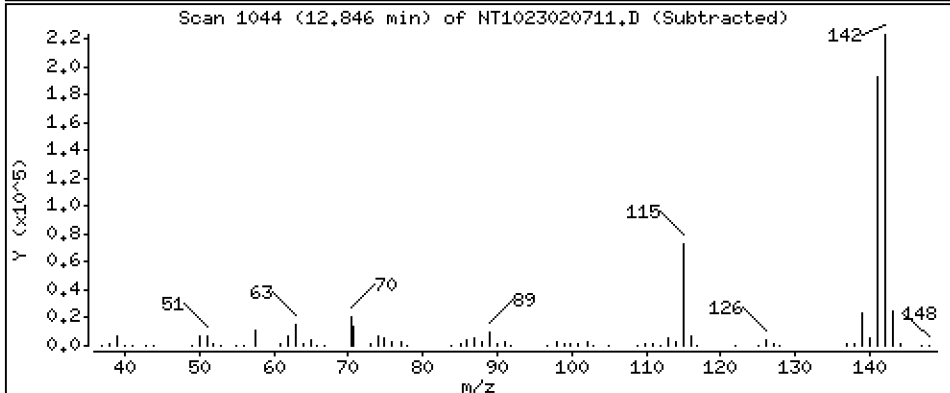
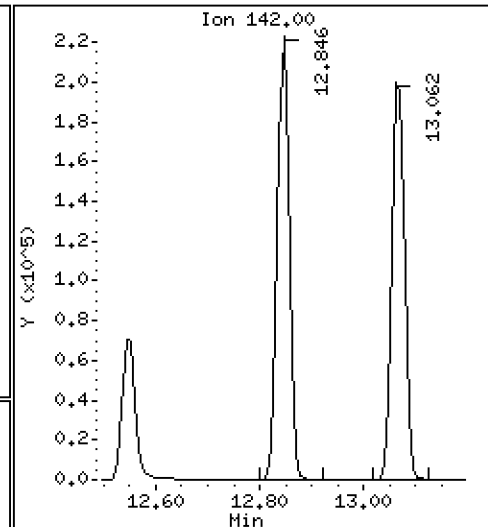
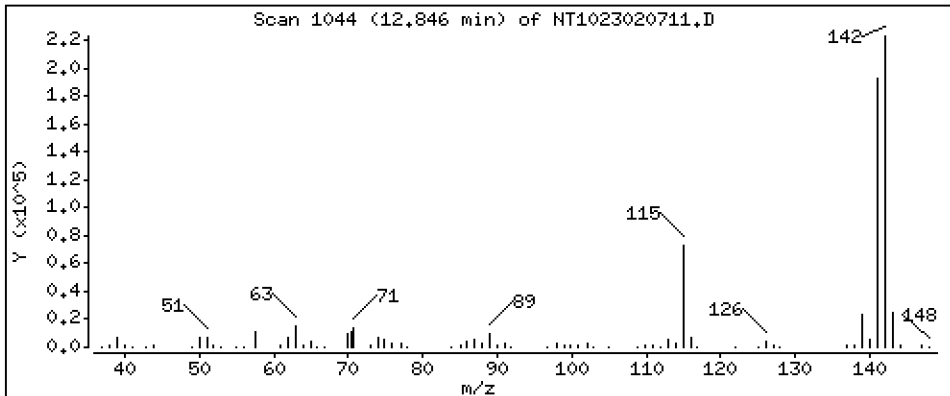
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 4,226 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

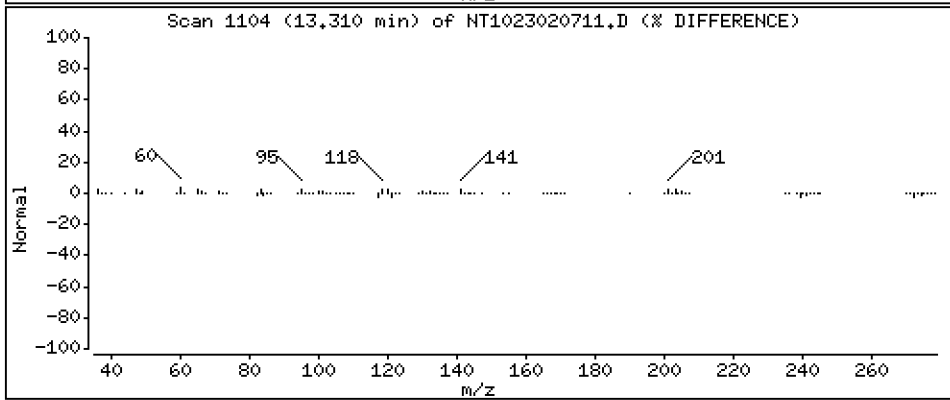
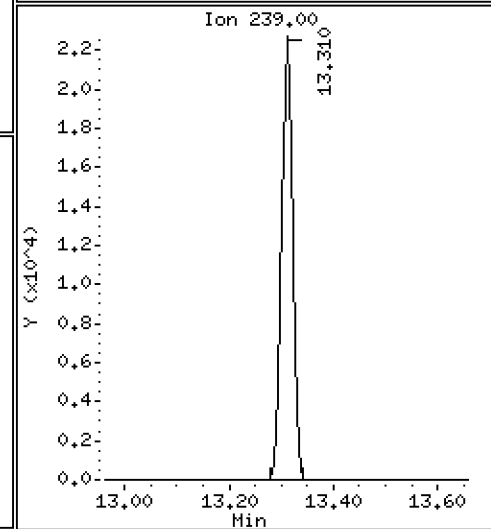
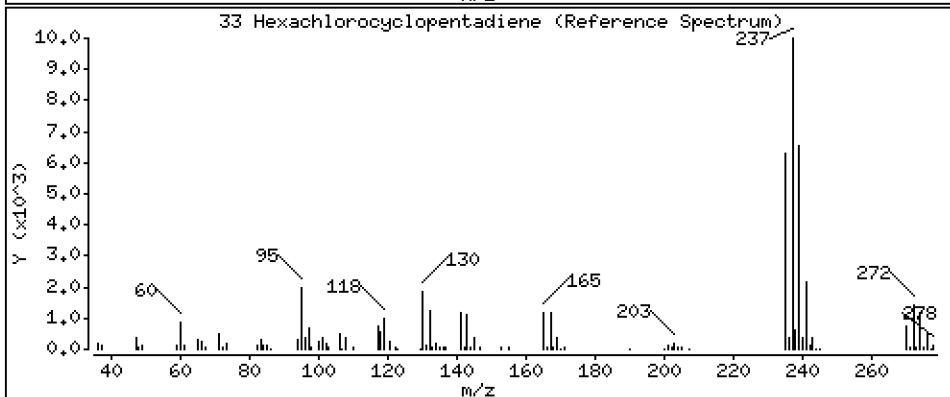
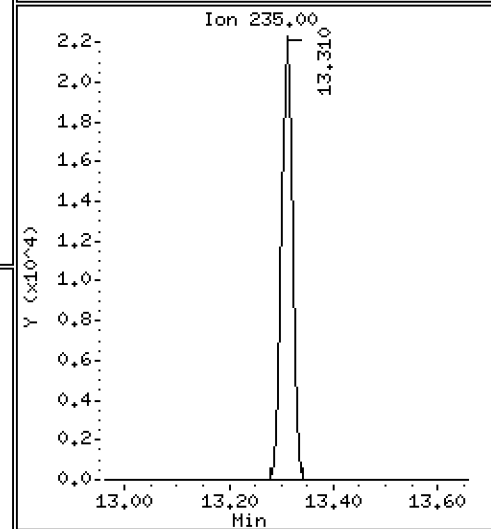
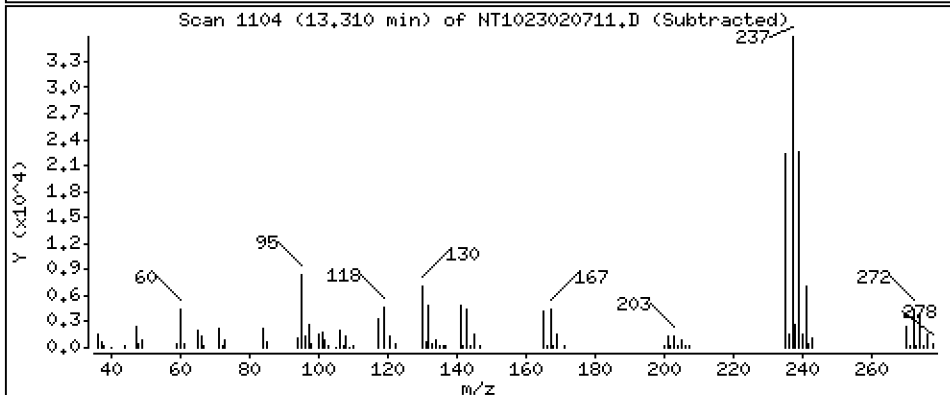
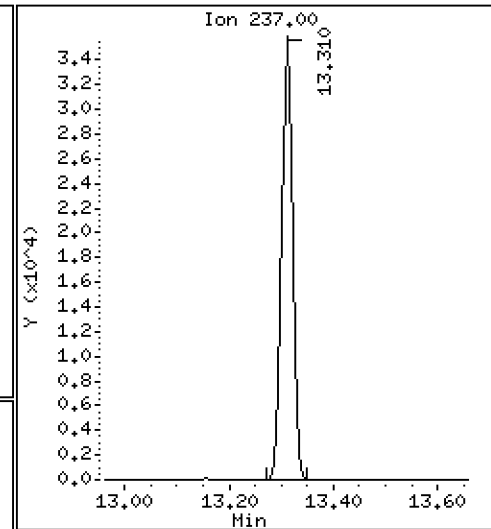
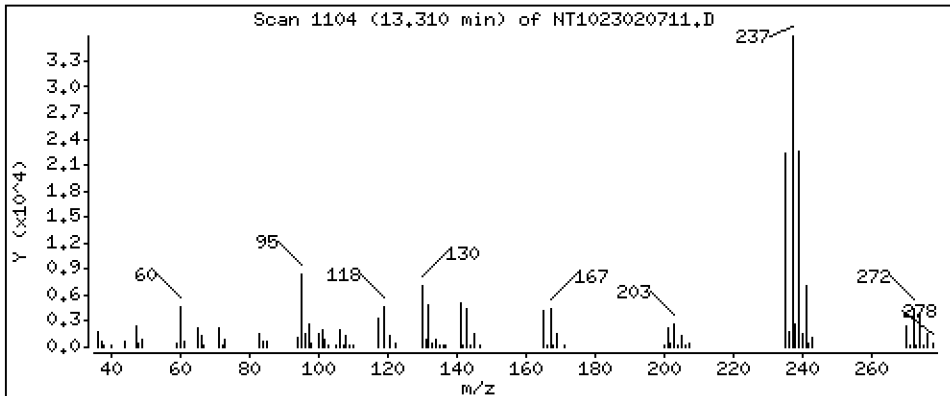
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

33 Hexachlorocyclopentadiene

Concentration: 3.355 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

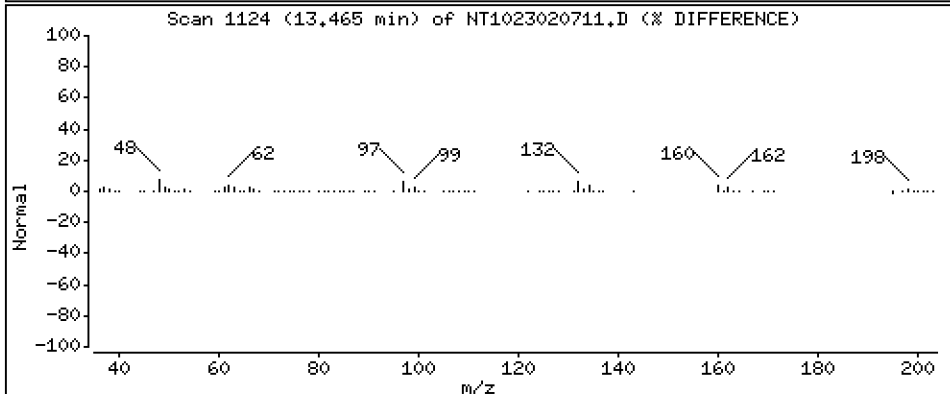
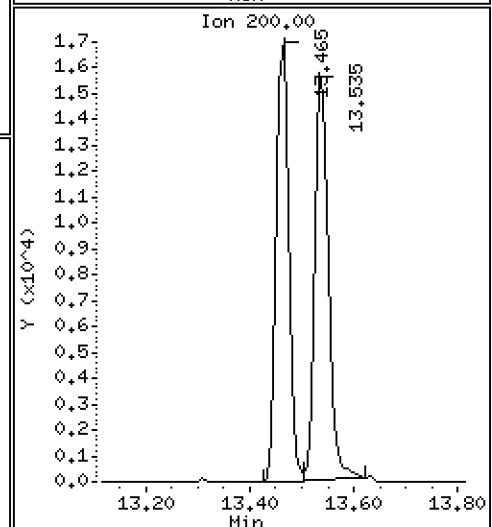
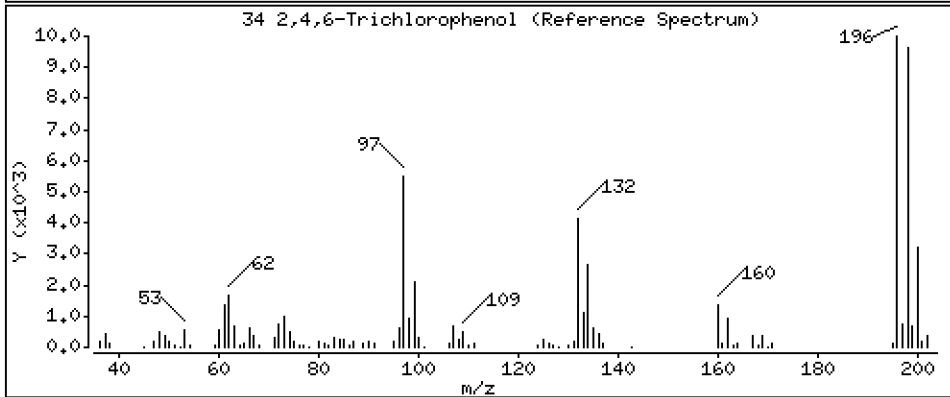
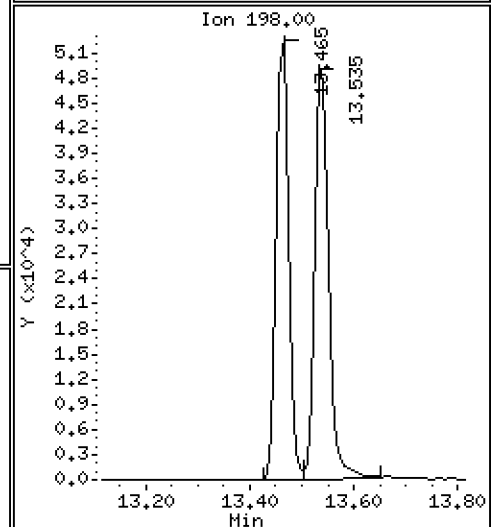
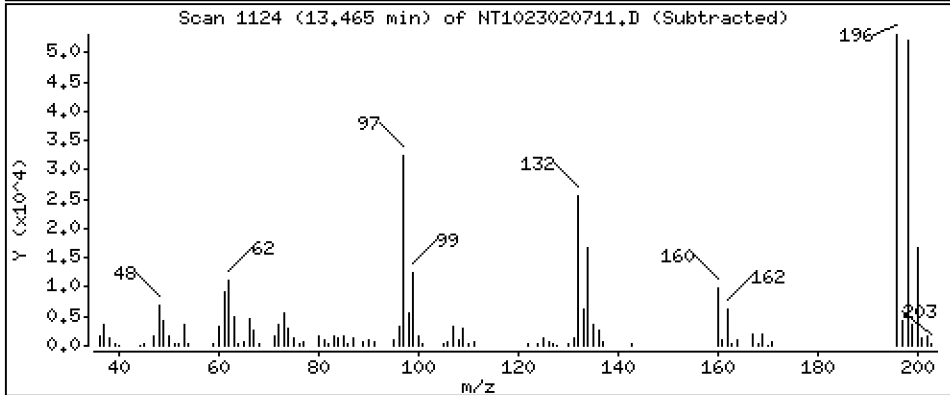
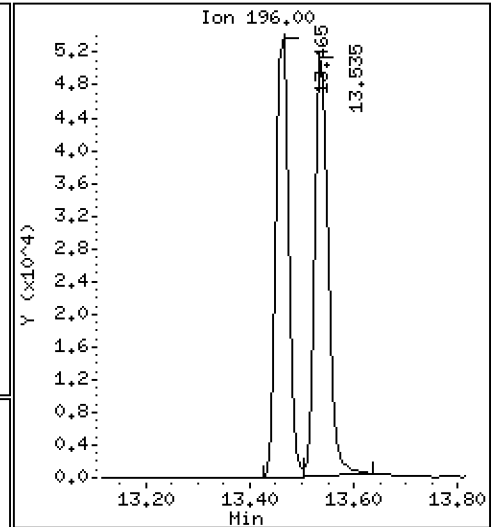
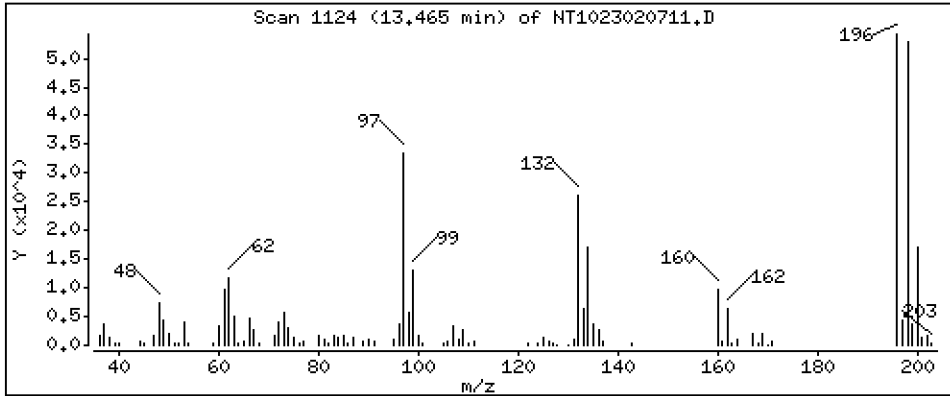
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 4,079 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

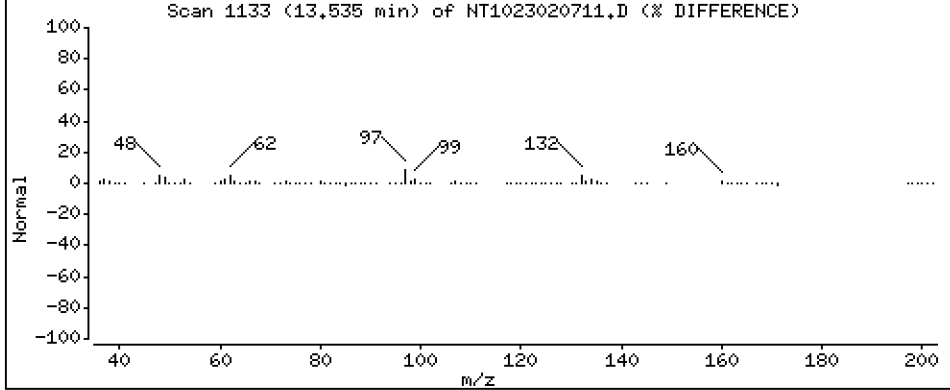
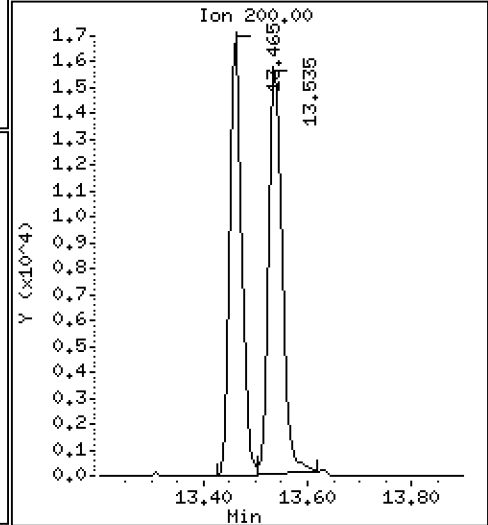
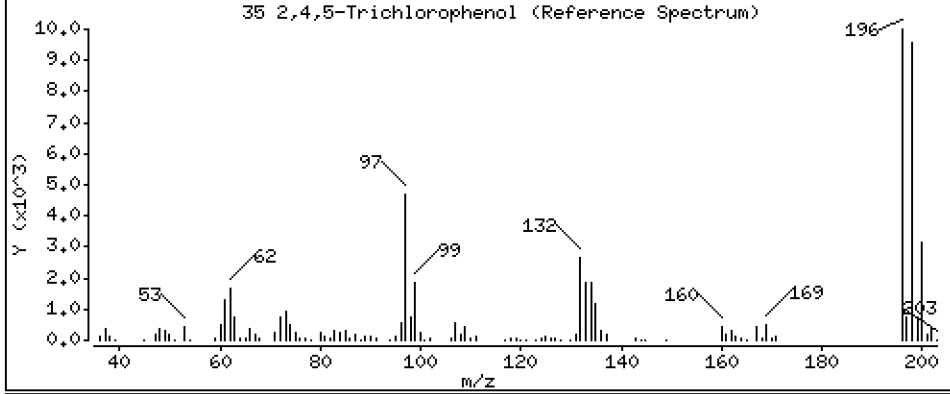
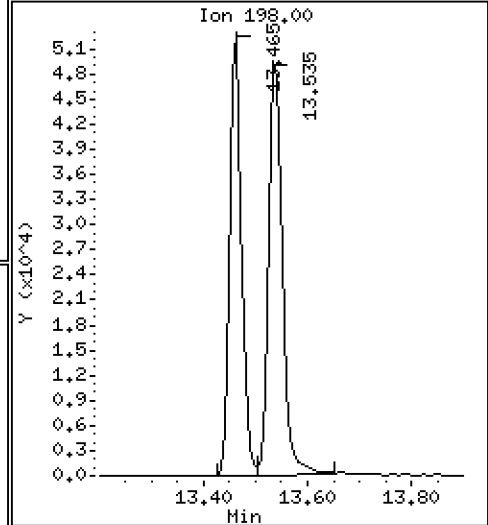
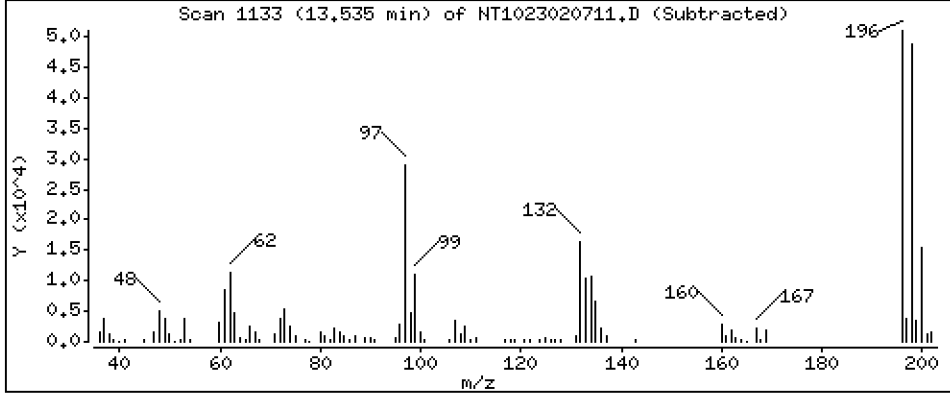
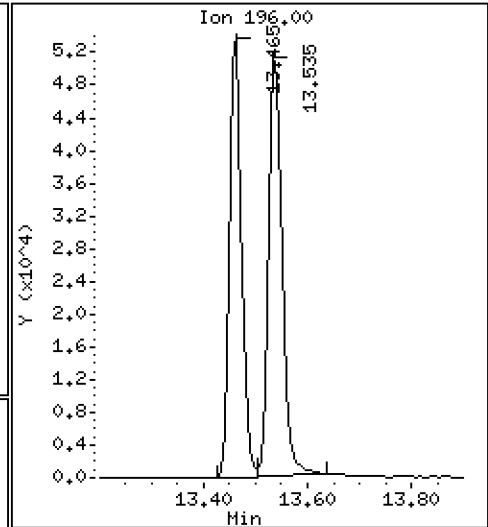
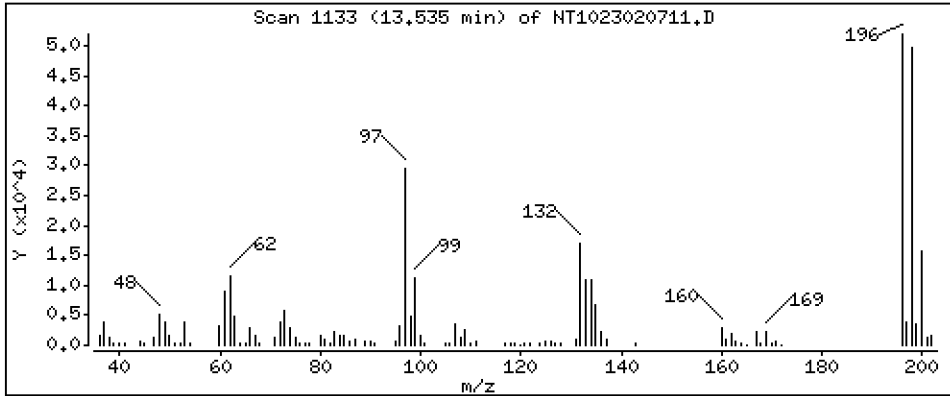
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 3,913 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

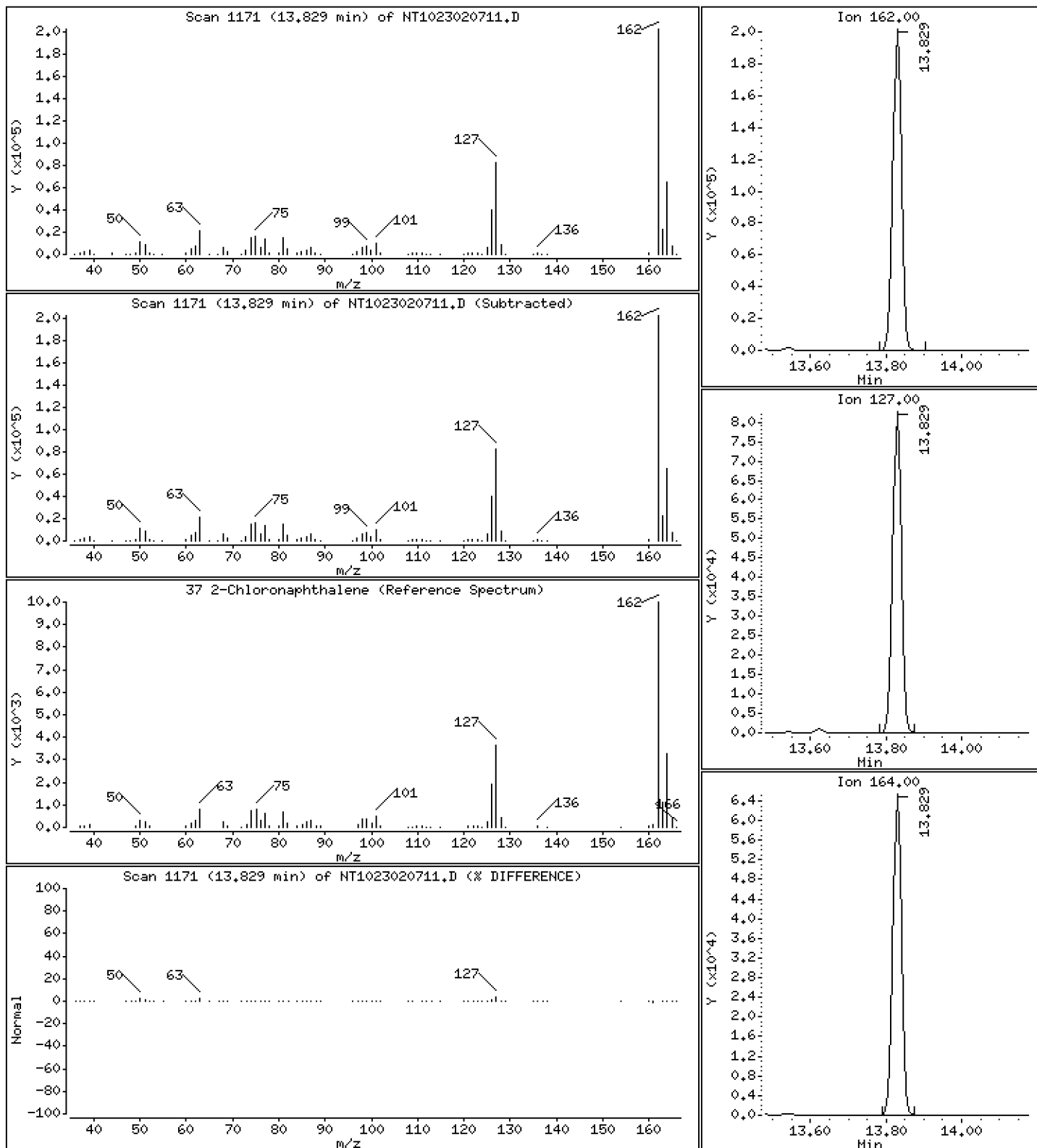
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 4,155 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

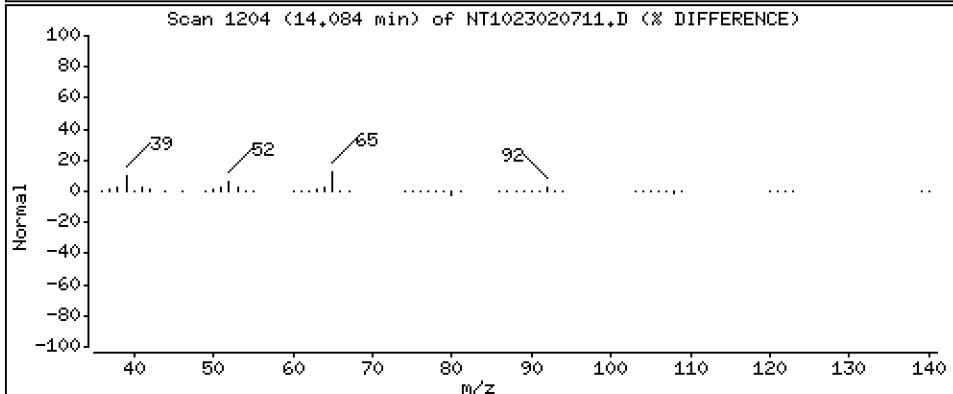
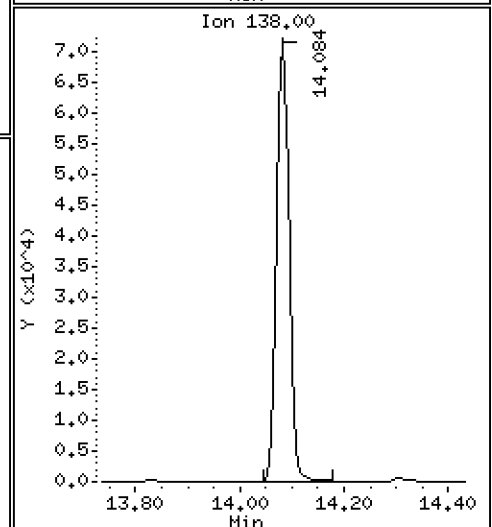
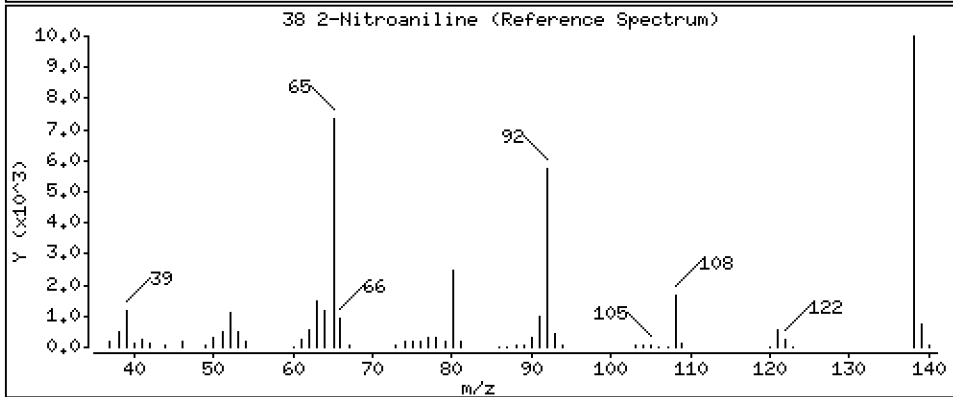
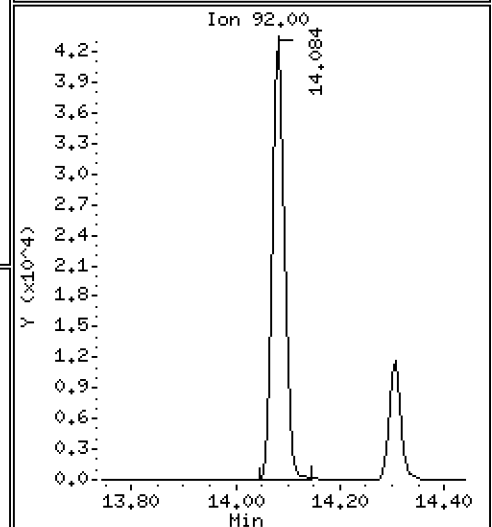
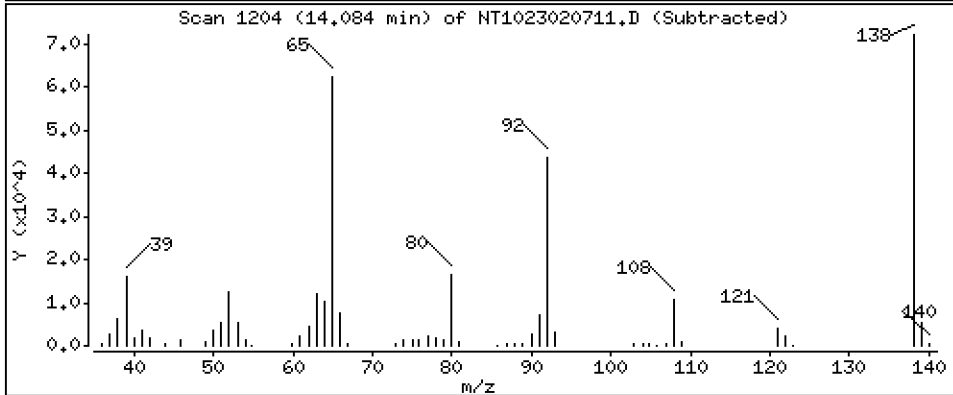
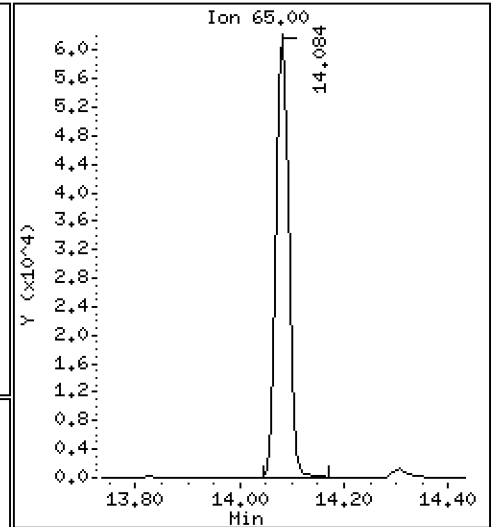
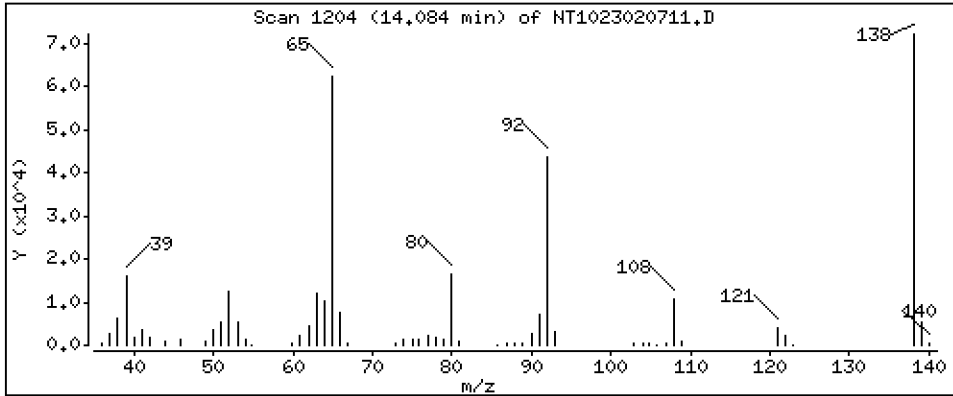
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 4,336 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

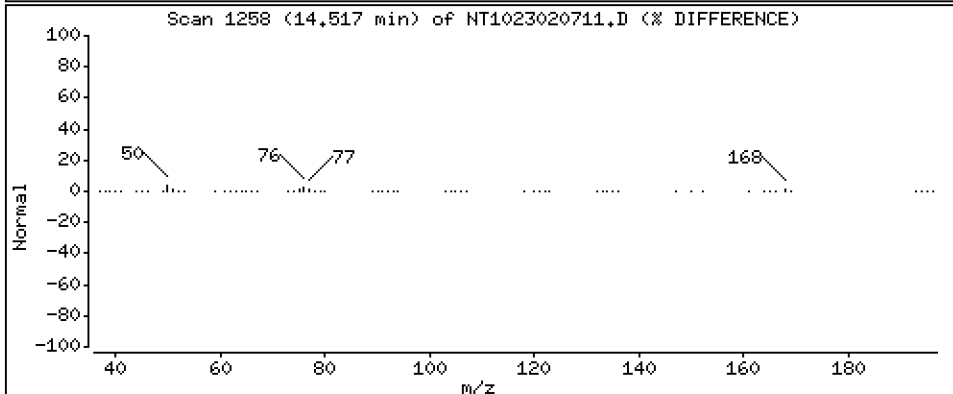
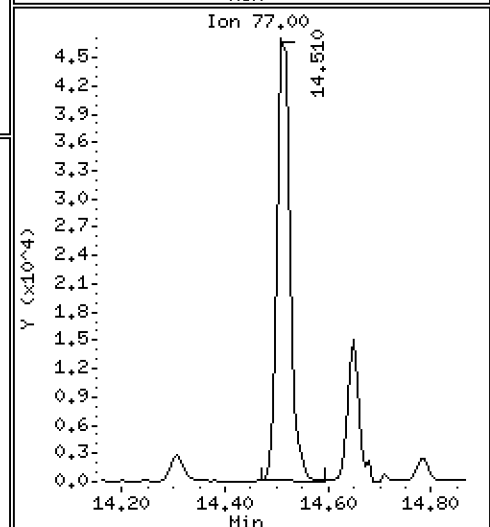
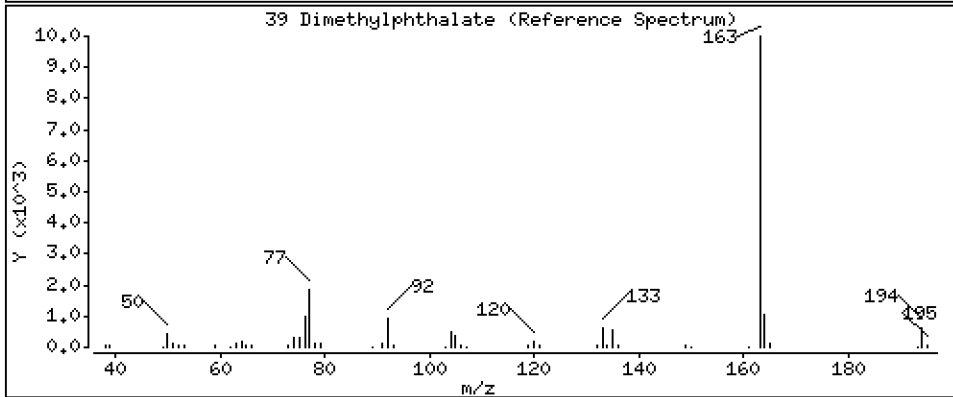
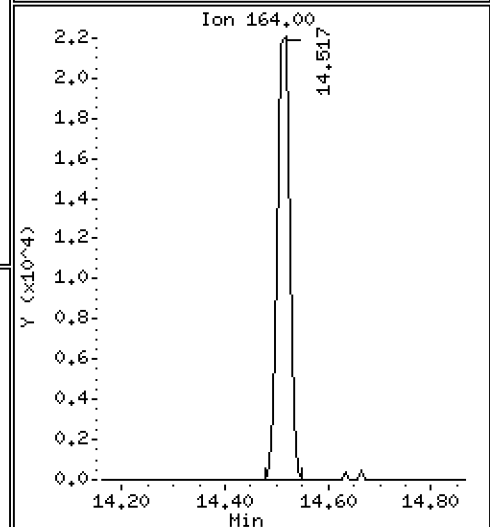
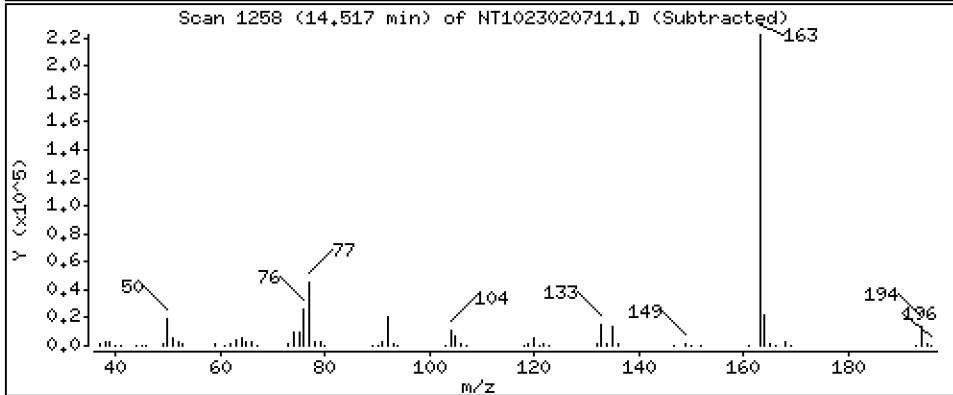
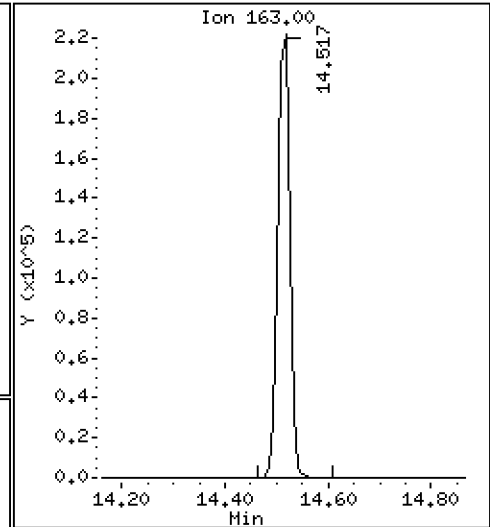
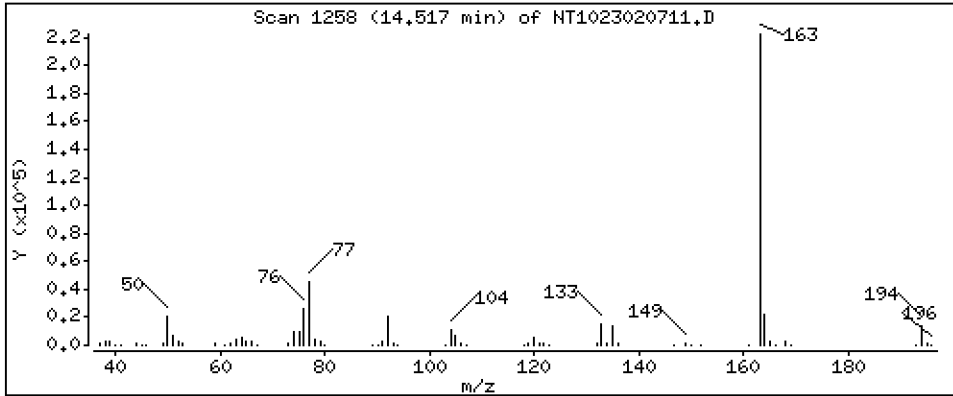
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,280 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

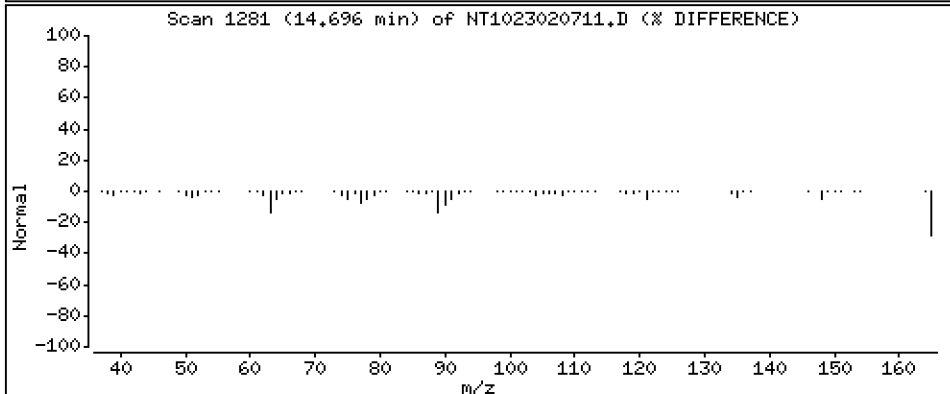
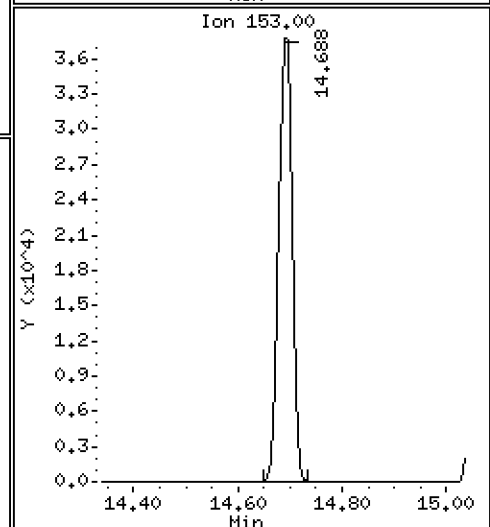
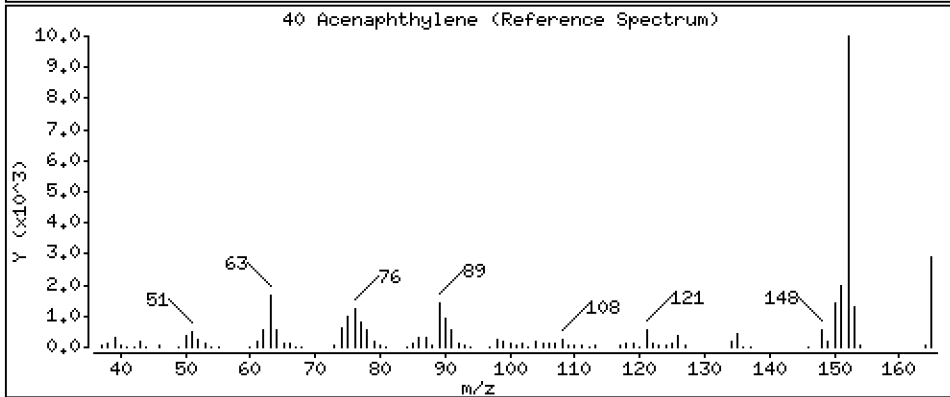
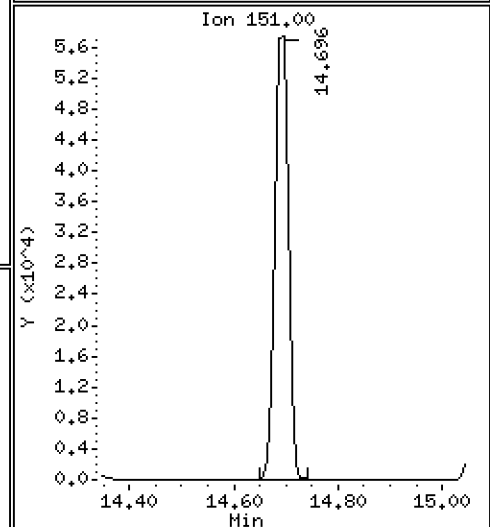
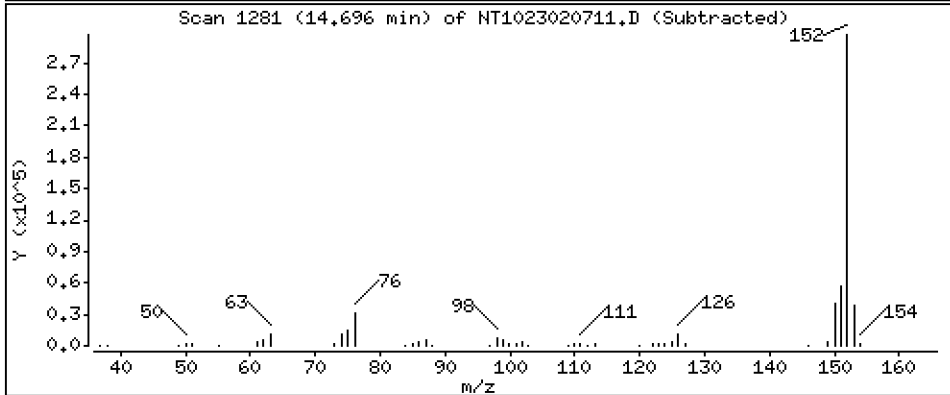
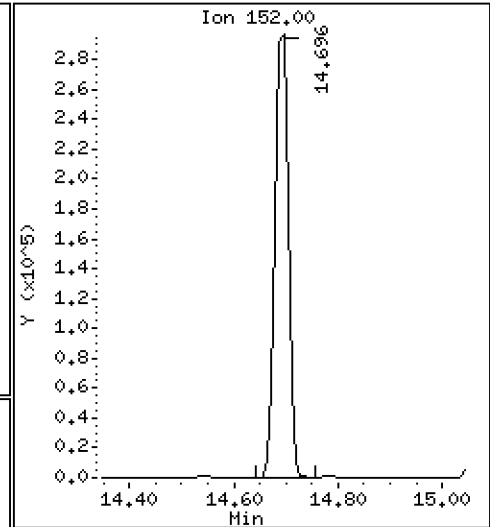
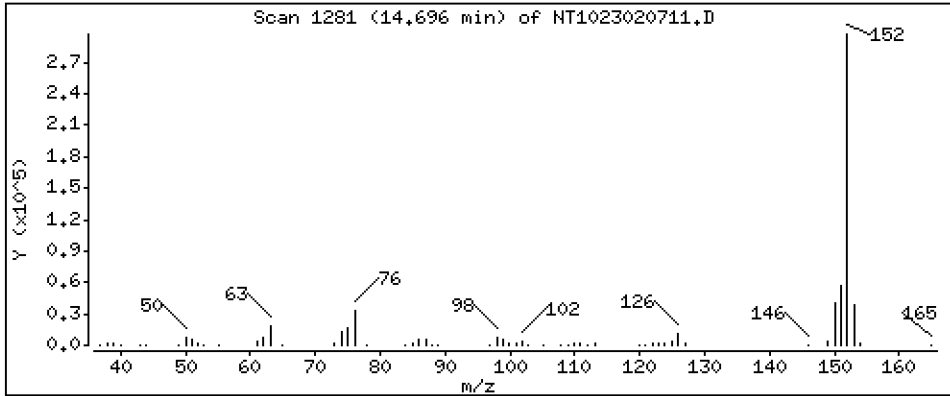
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 4,322 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

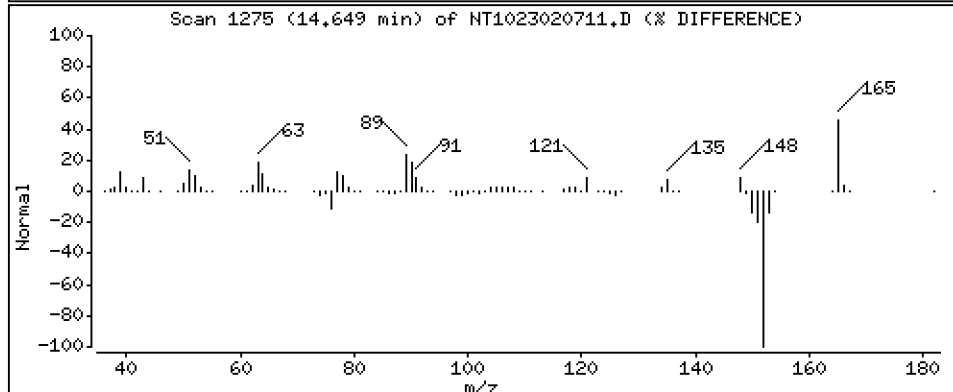
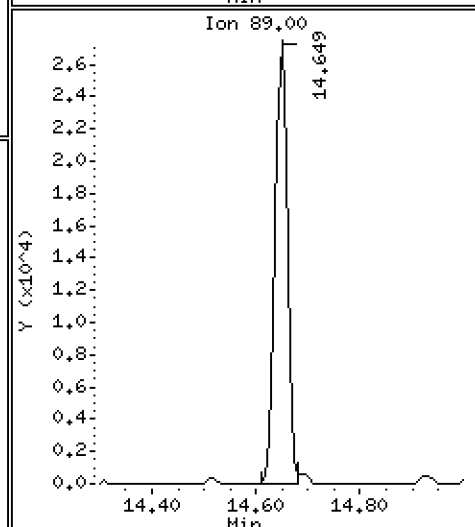
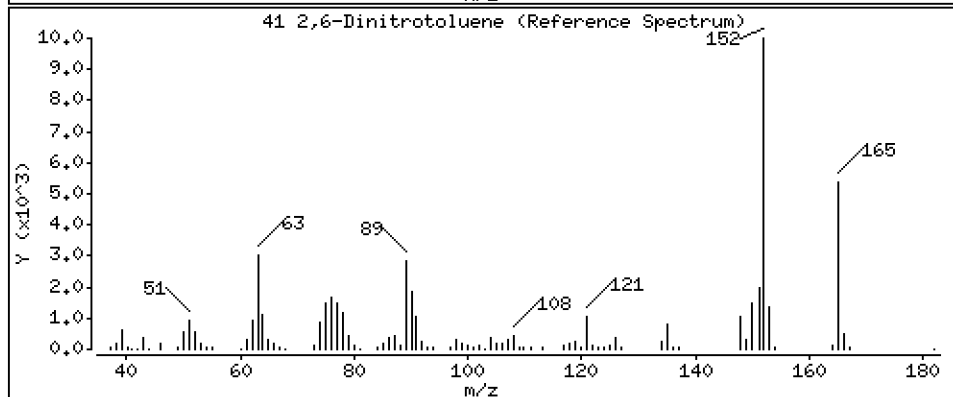
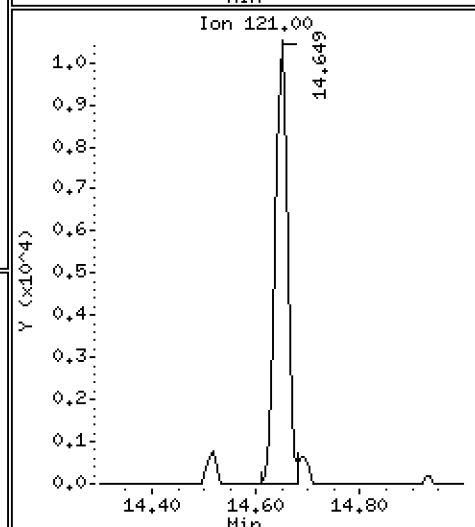
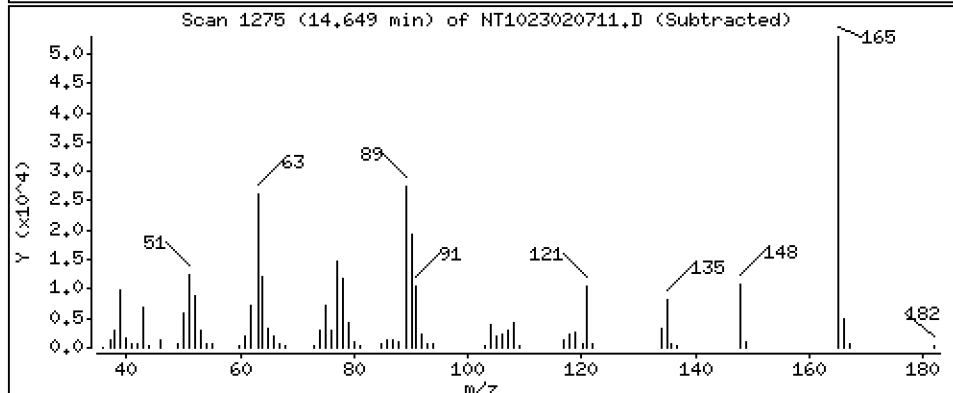
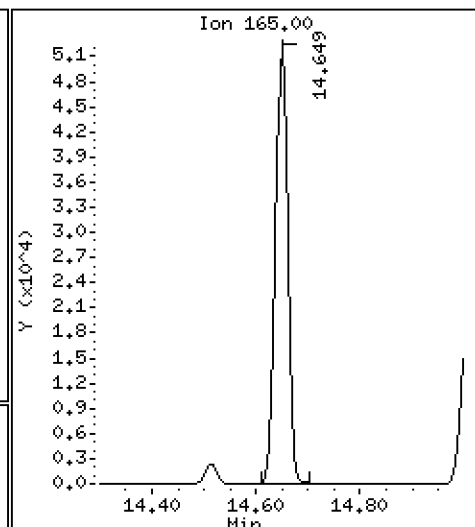
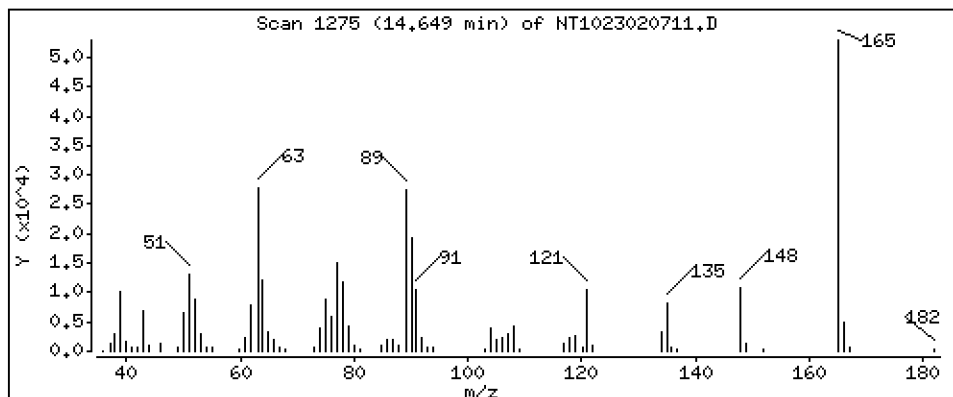
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 4.377 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

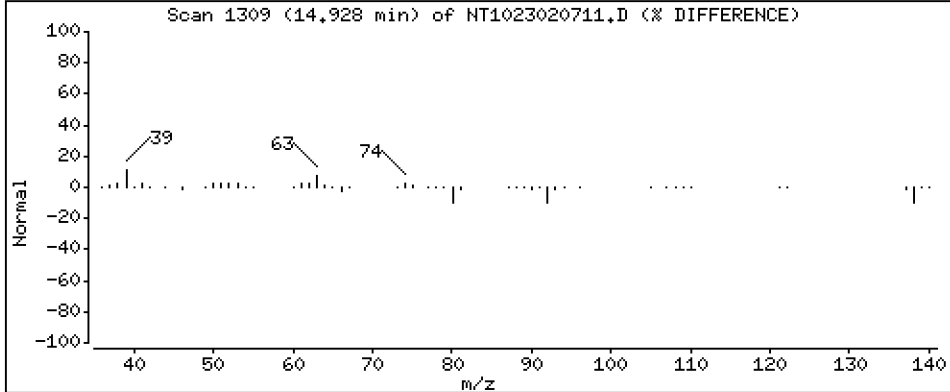
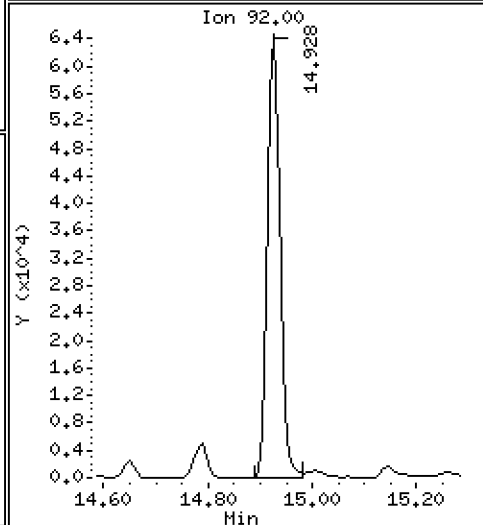
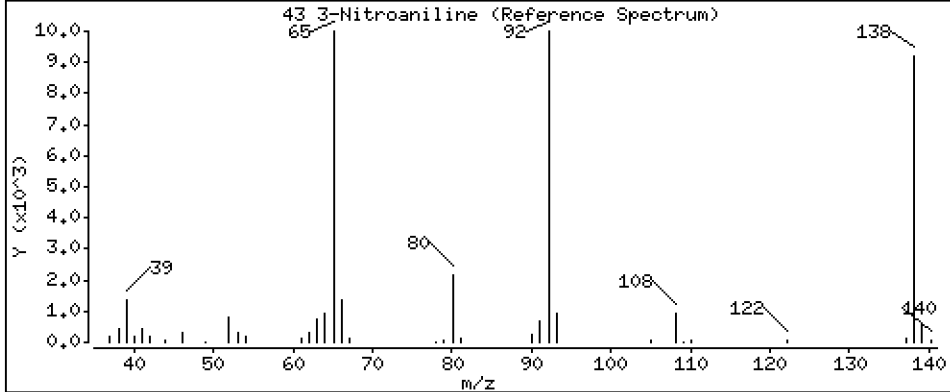
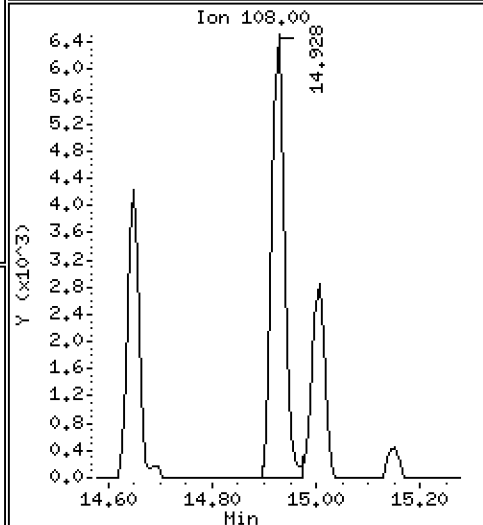
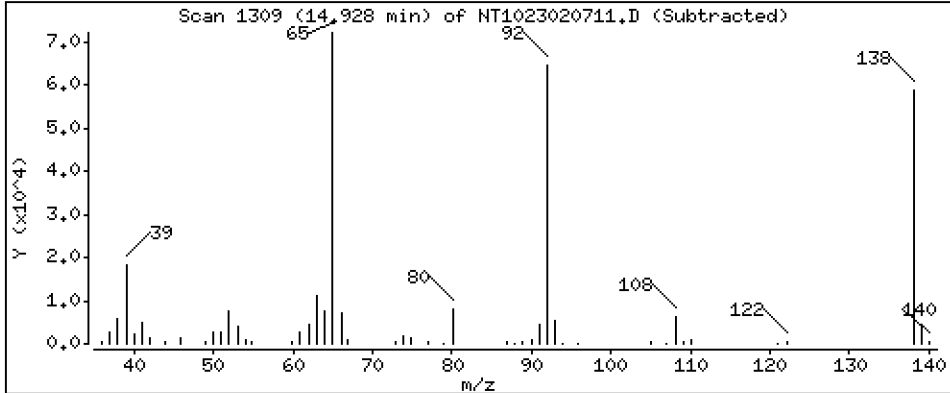
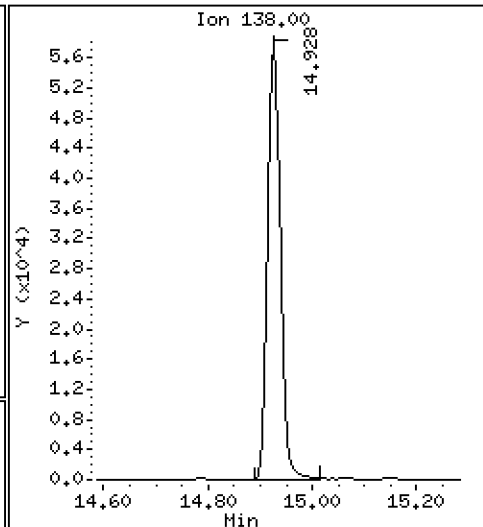
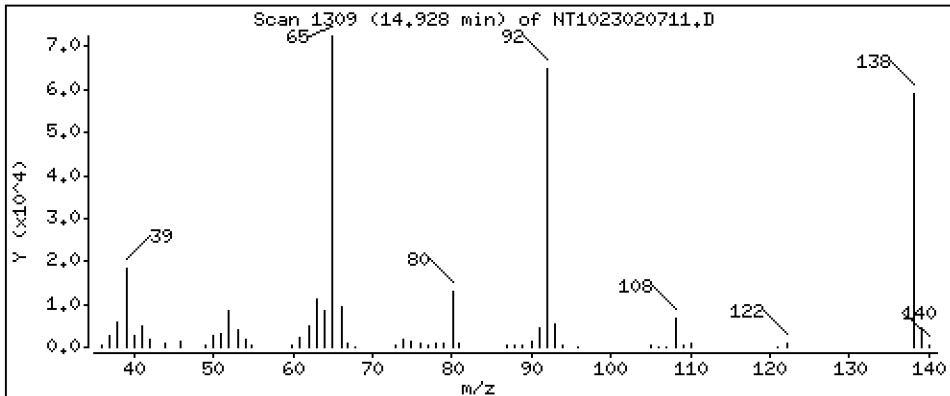
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 4,362 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

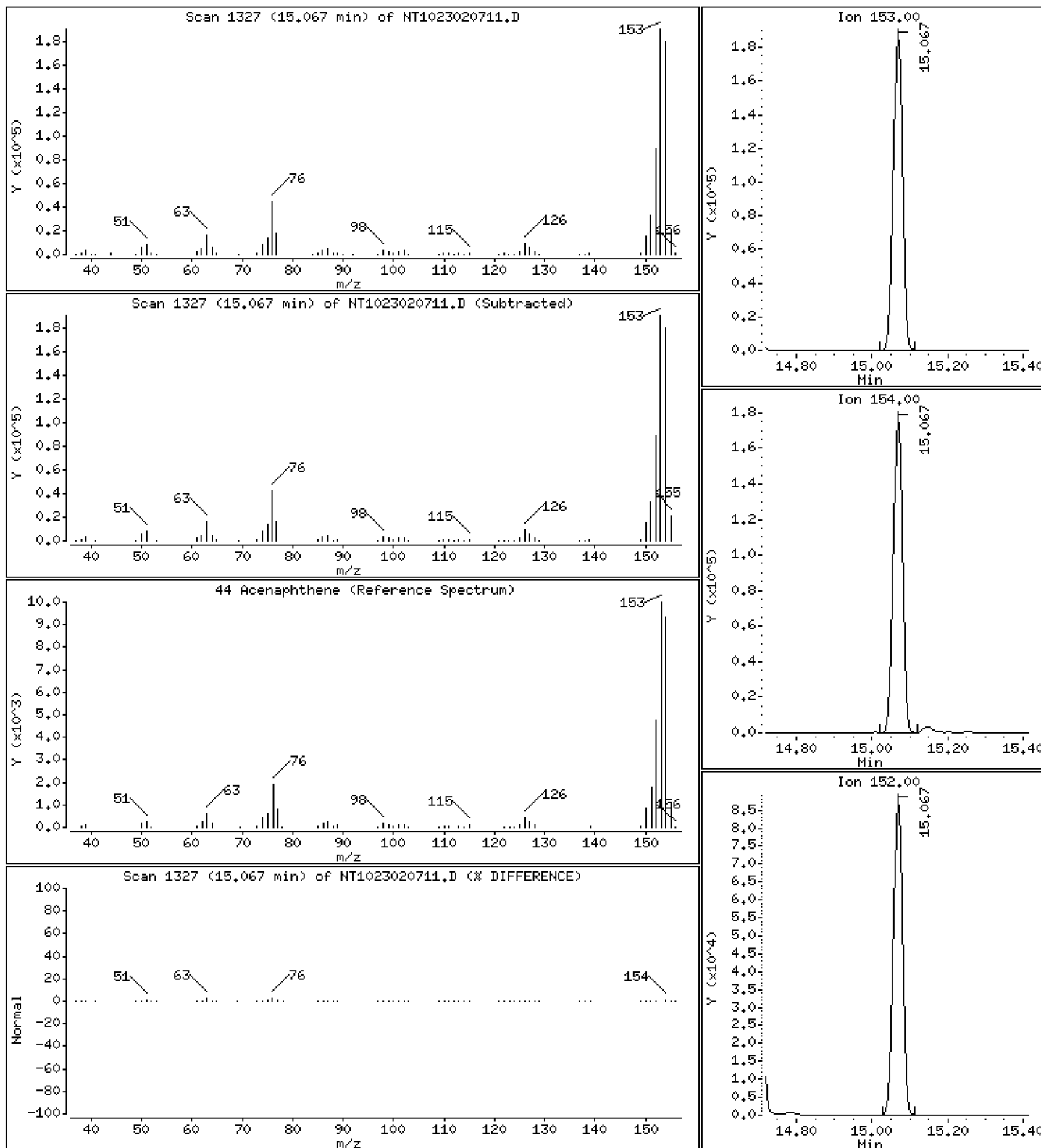
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,233 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

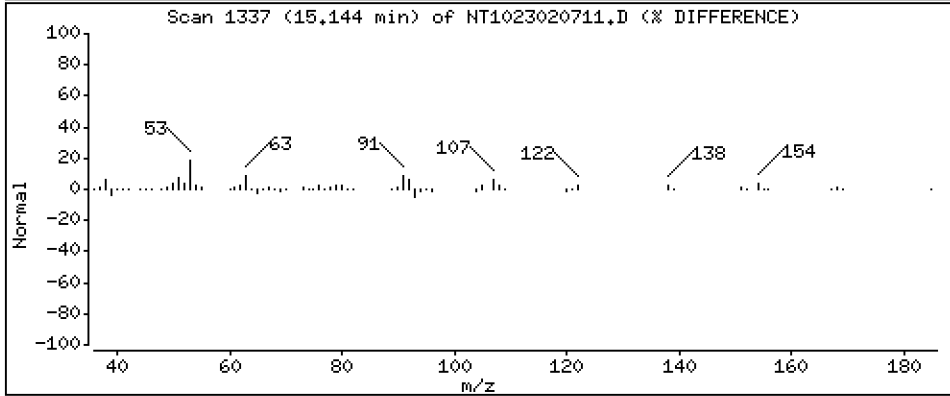
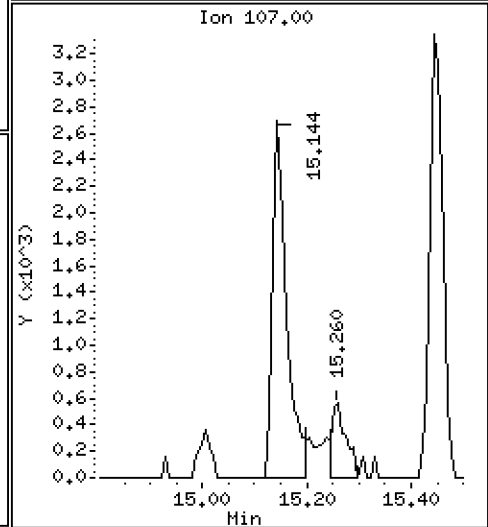
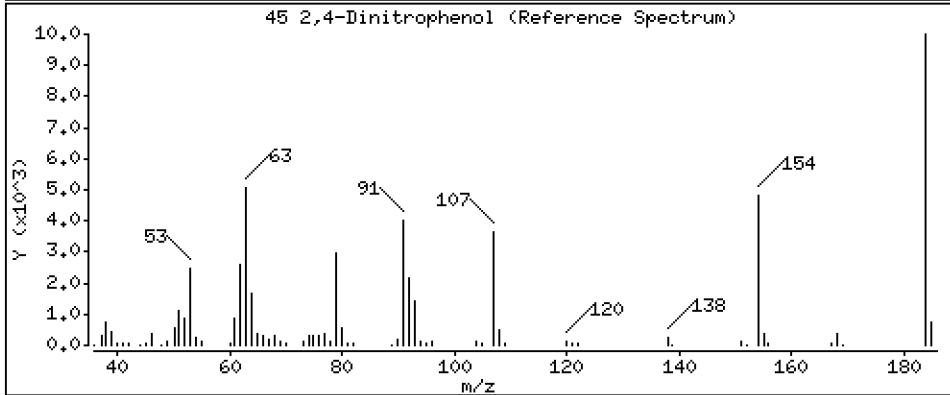
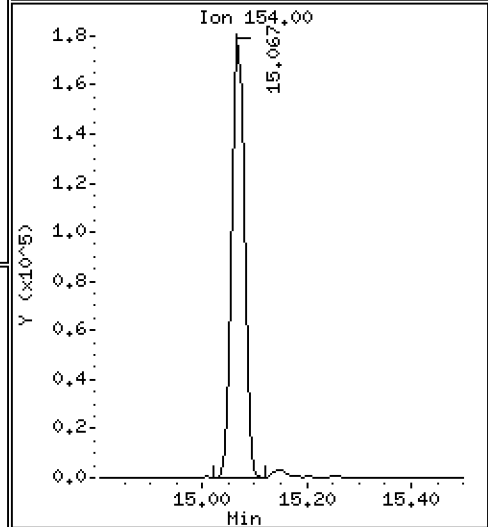
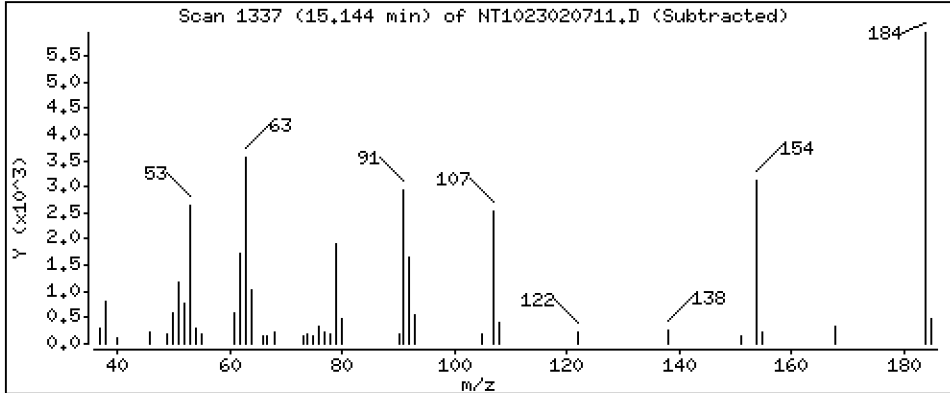
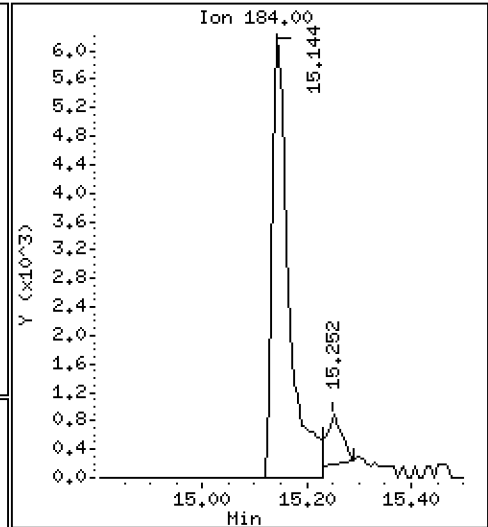
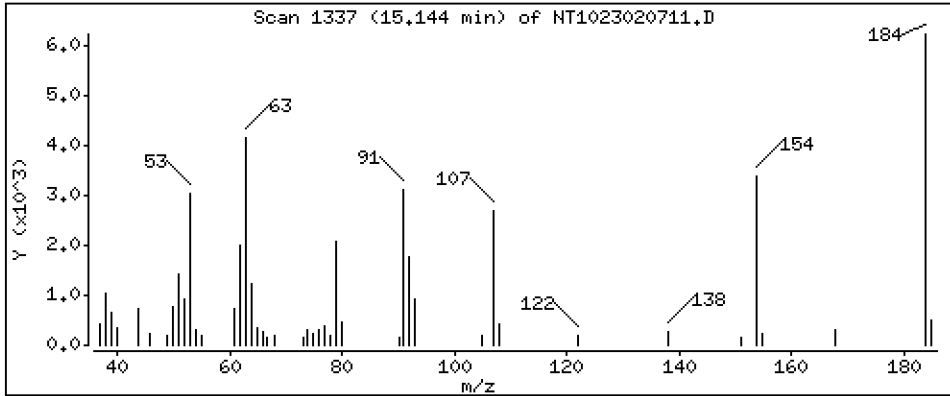
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 1,385 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

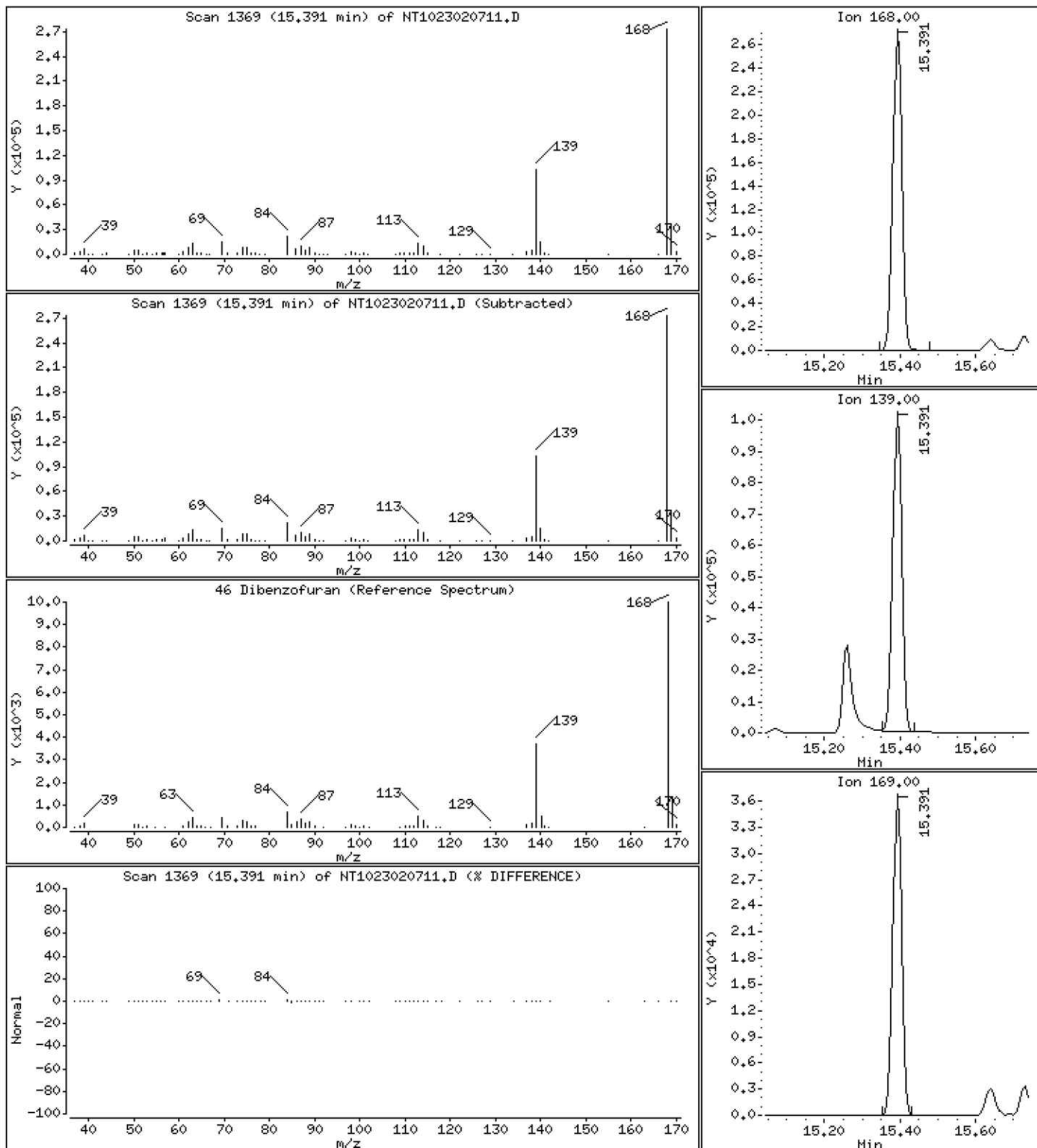
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 4,183 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

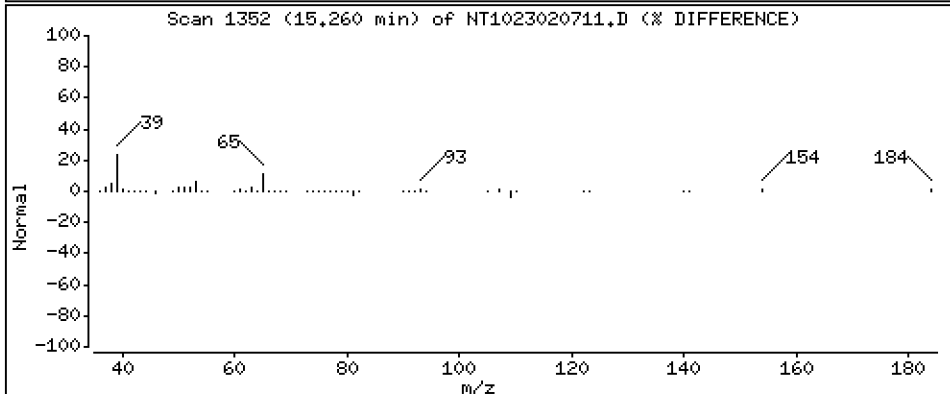
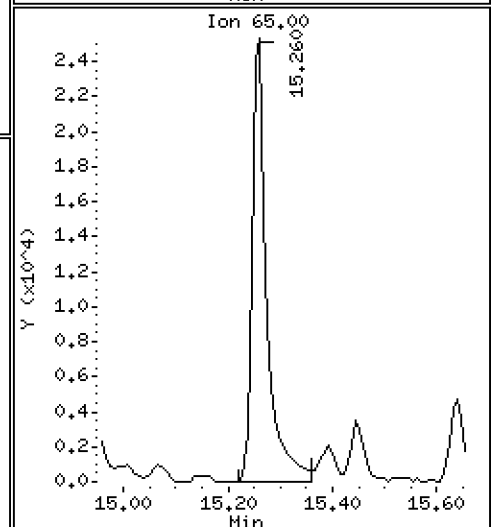
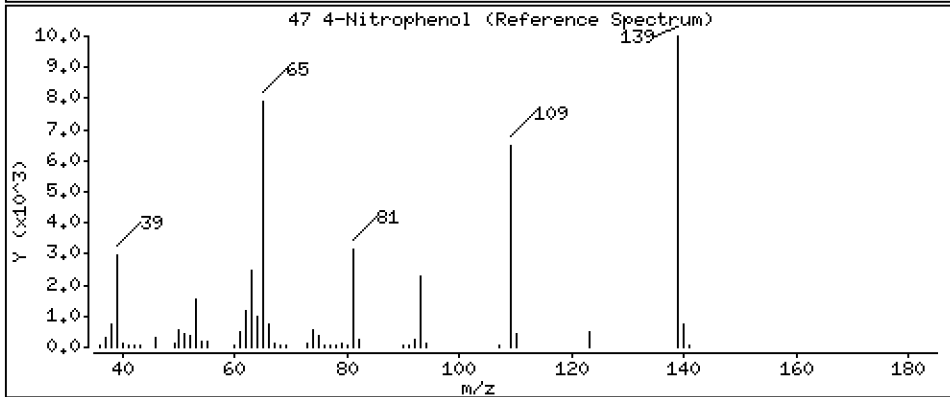
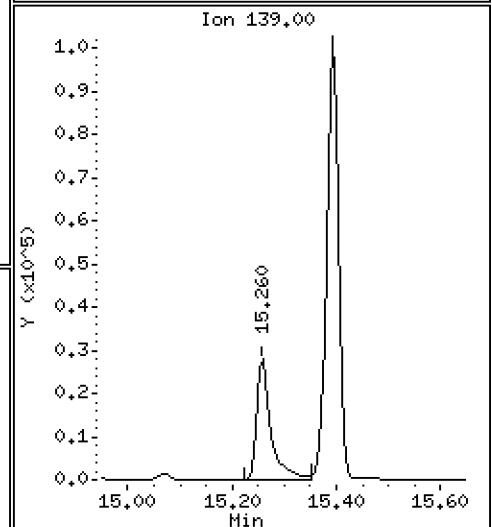
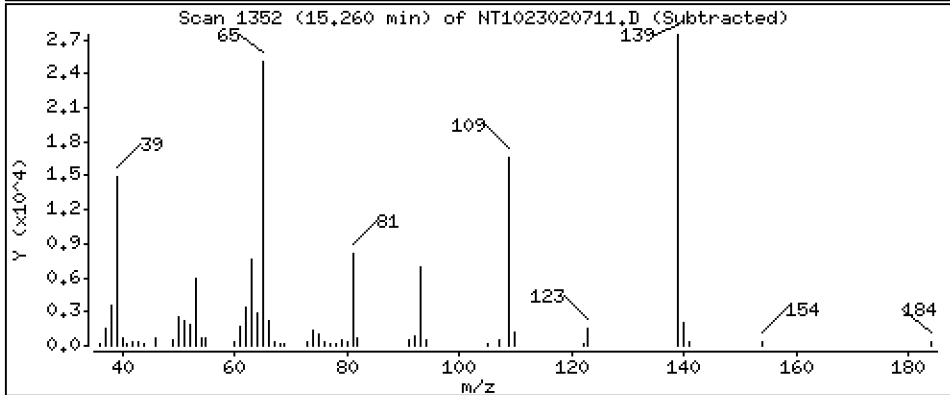
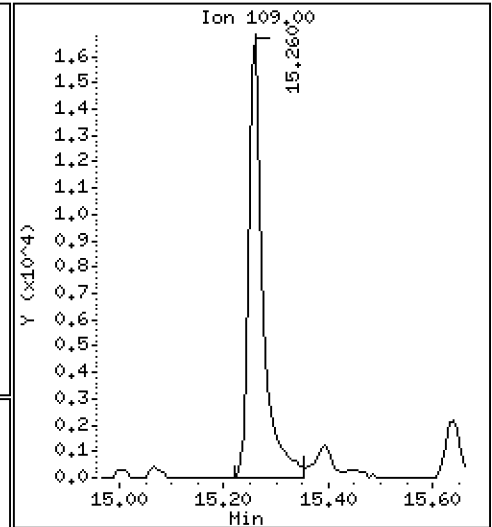
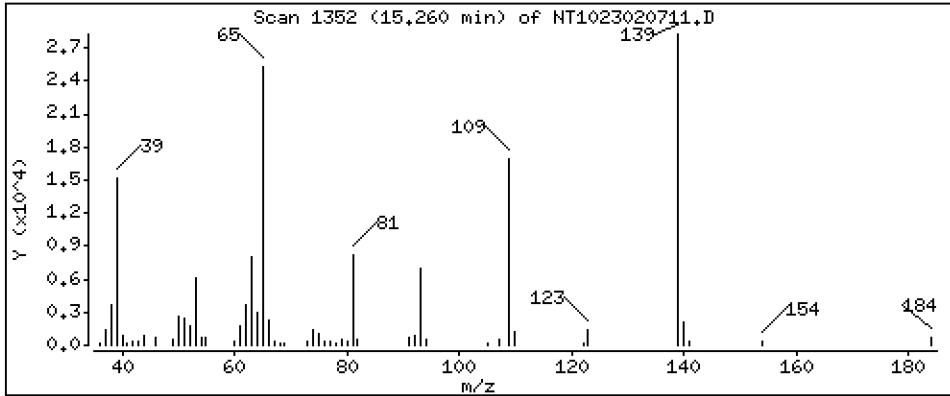
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 4,116 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

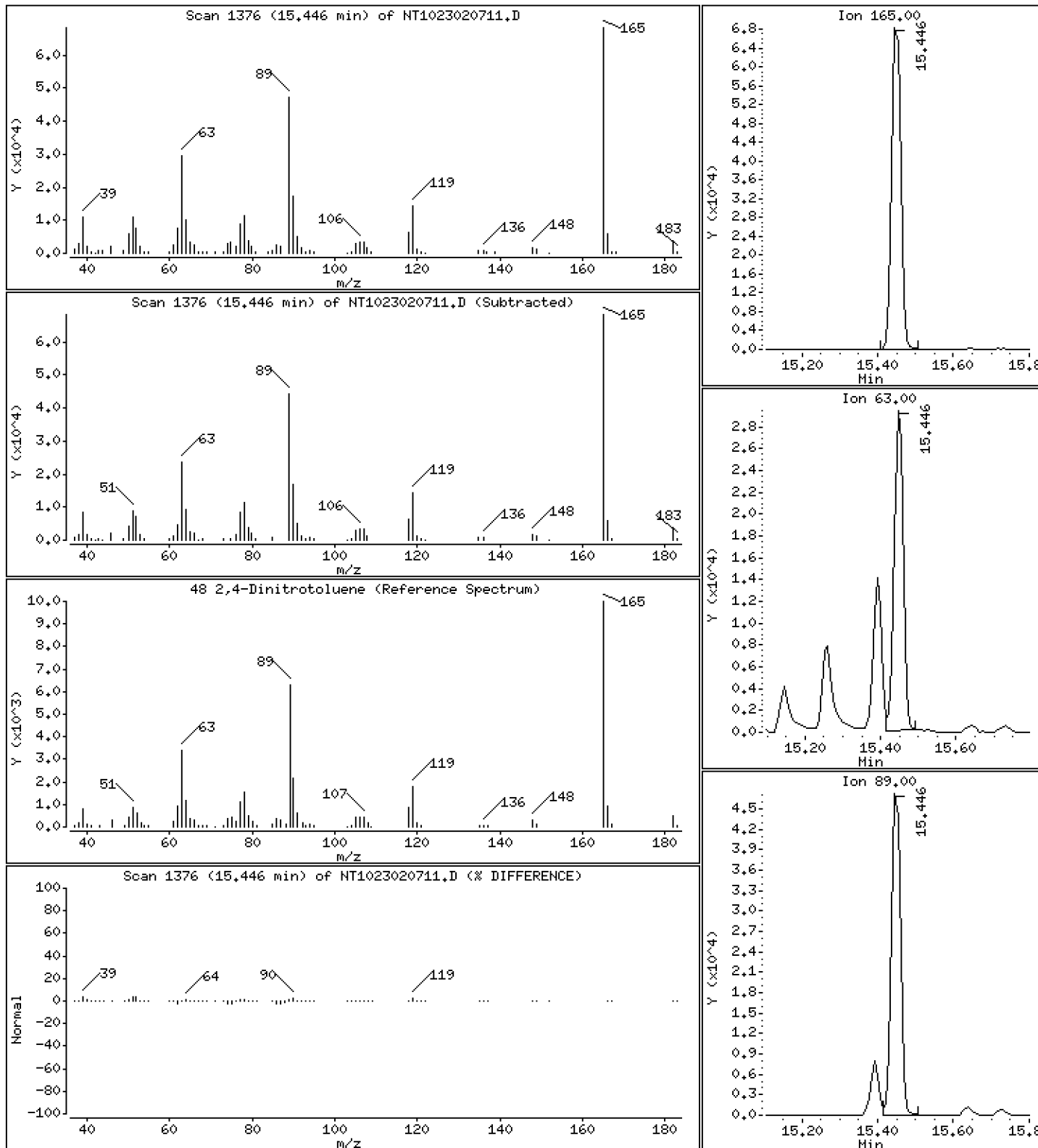
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 4,265 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

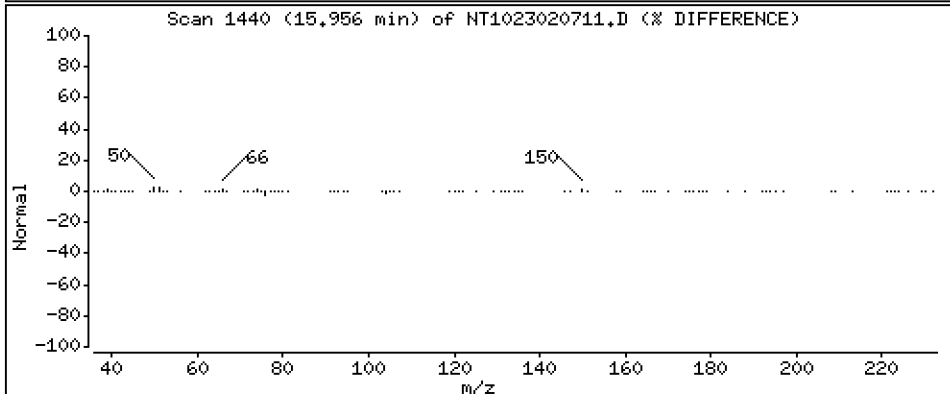
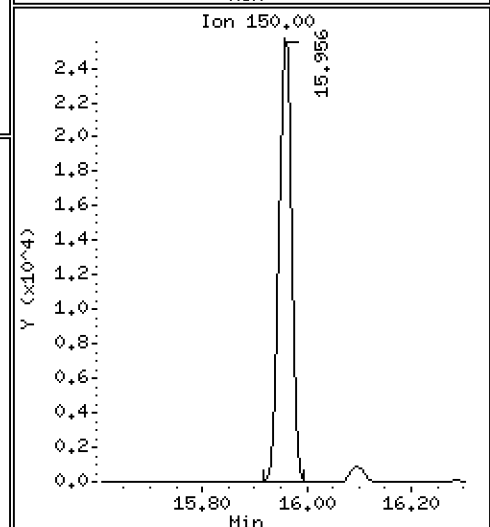
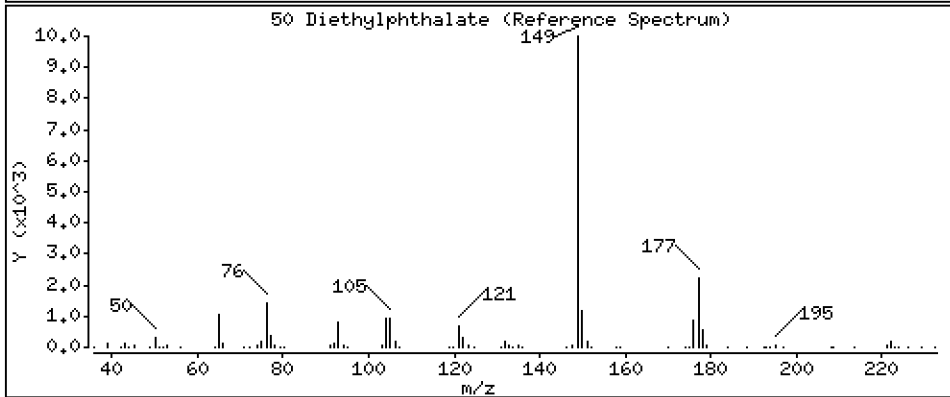
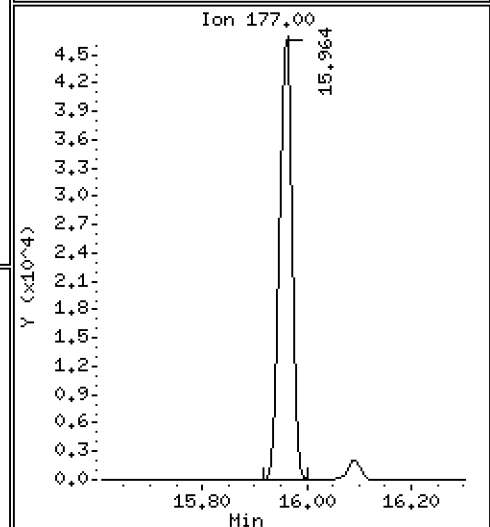
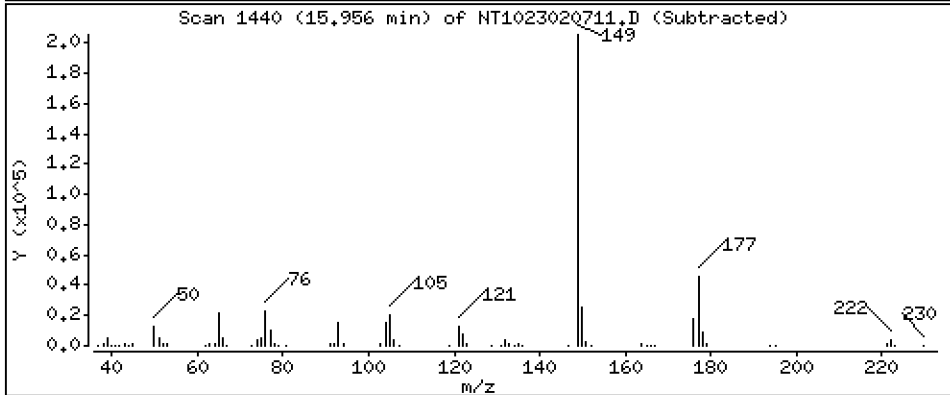
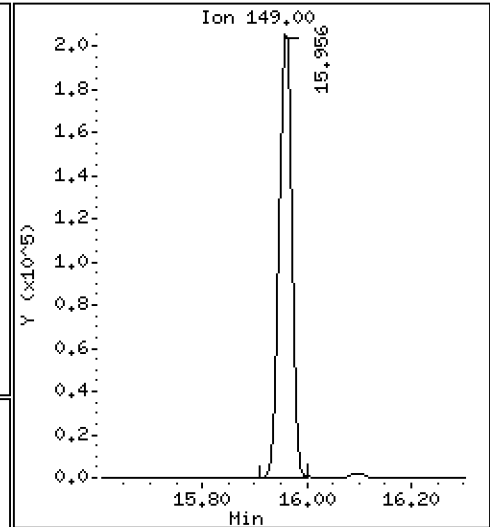
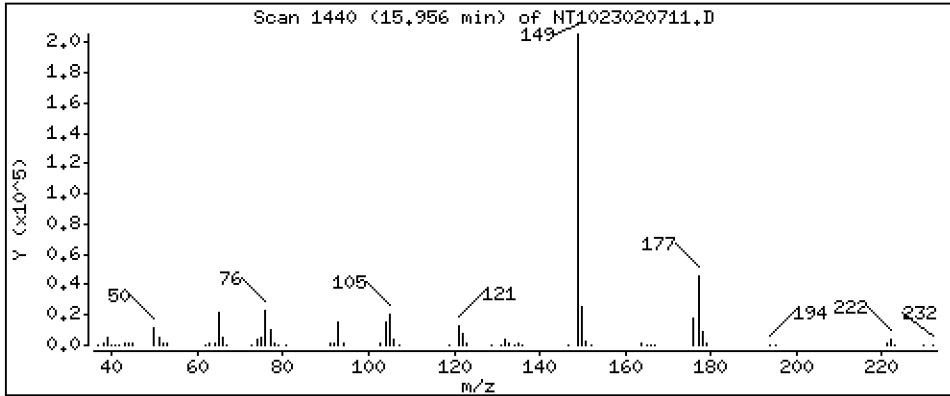
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,422 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

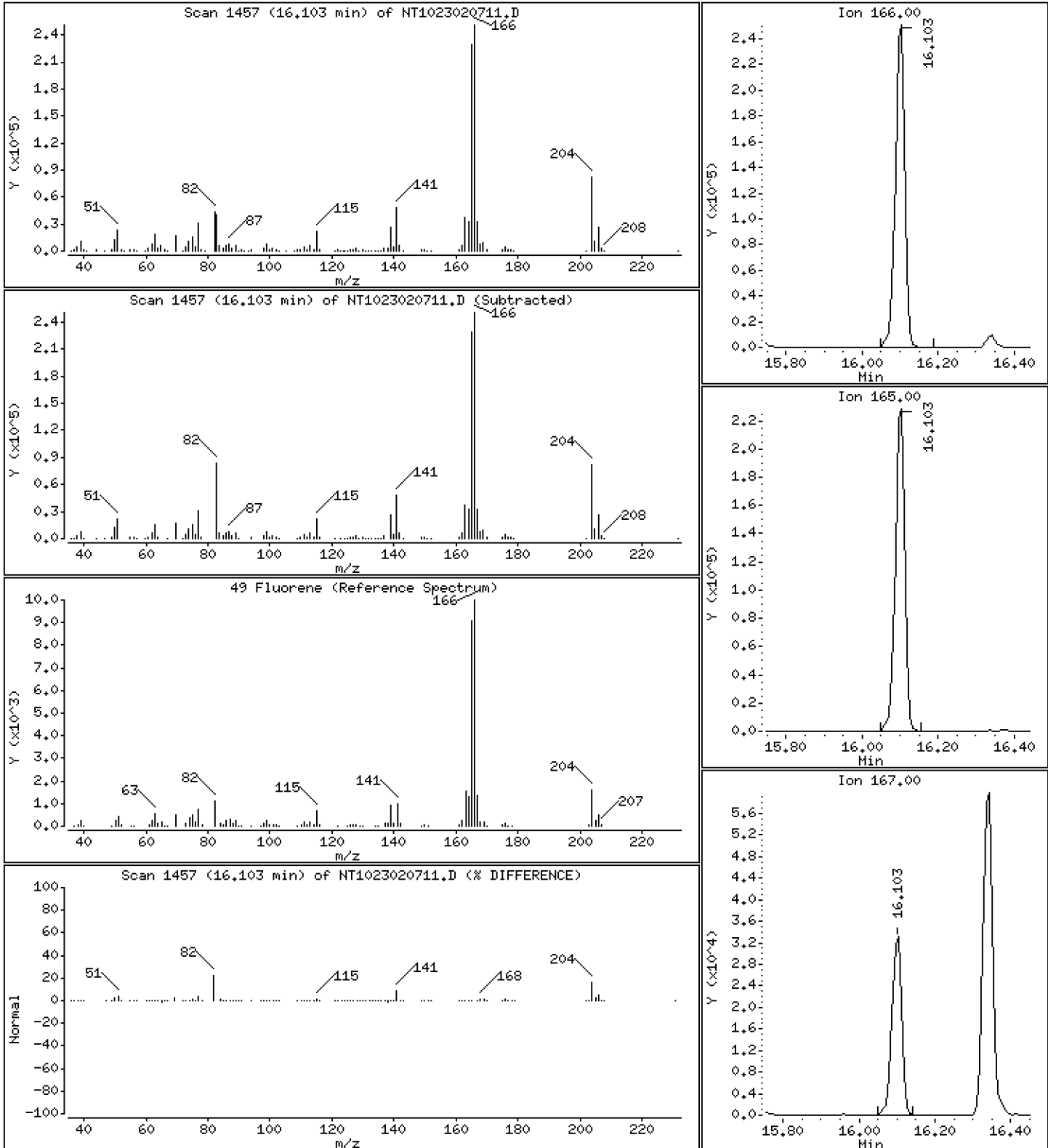
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 4,139 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

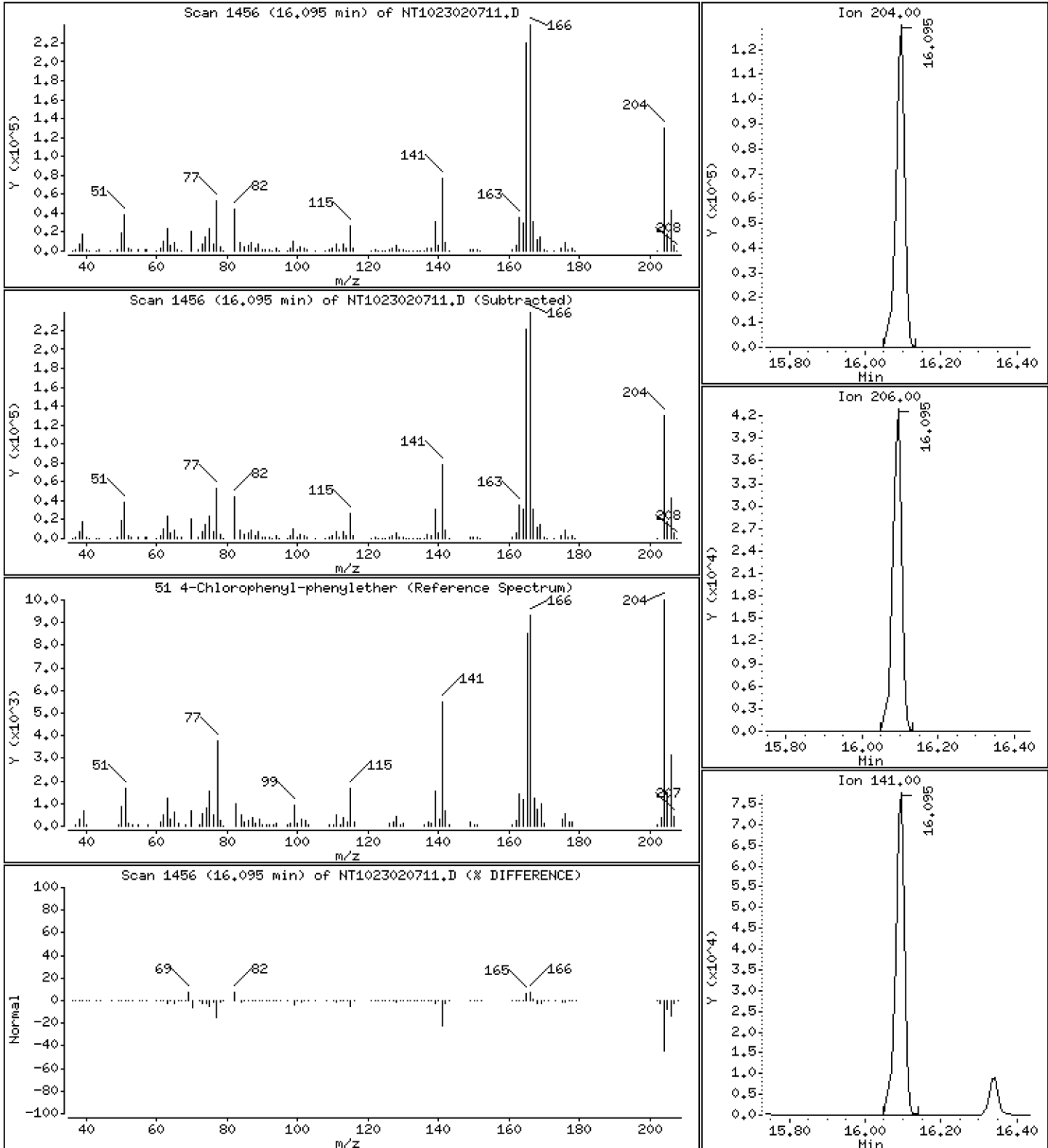
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,315 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

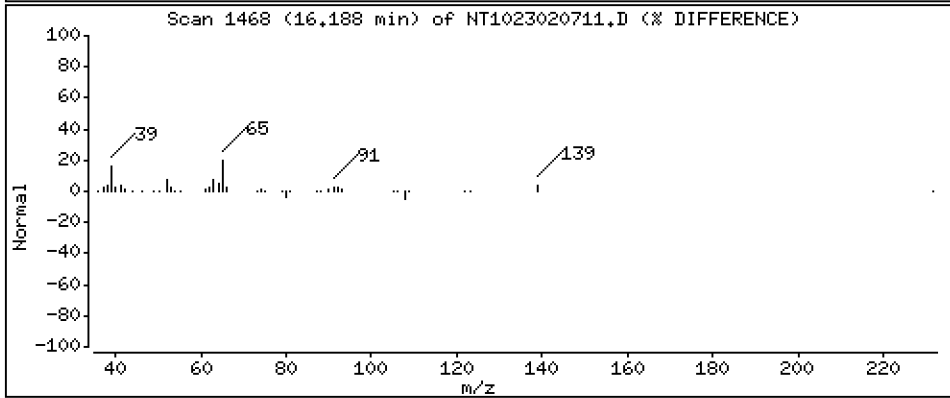
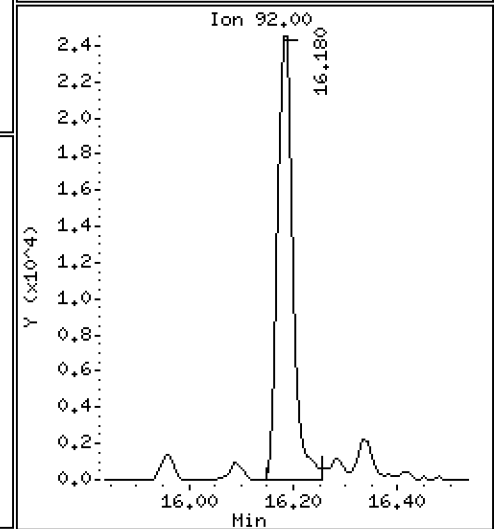
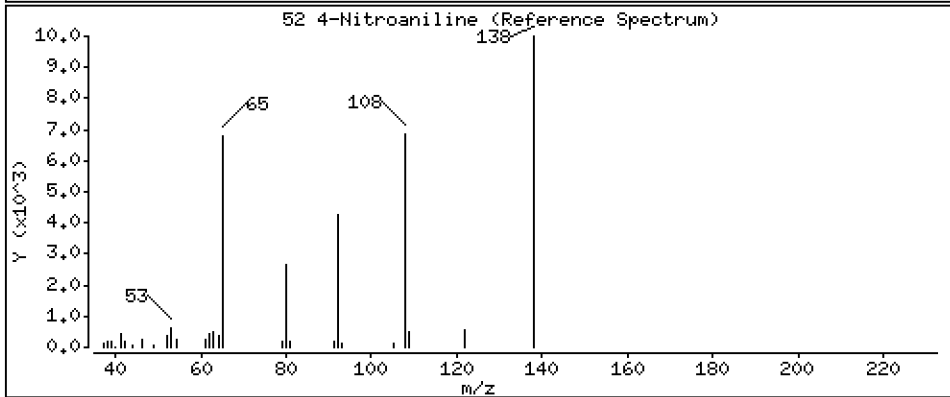
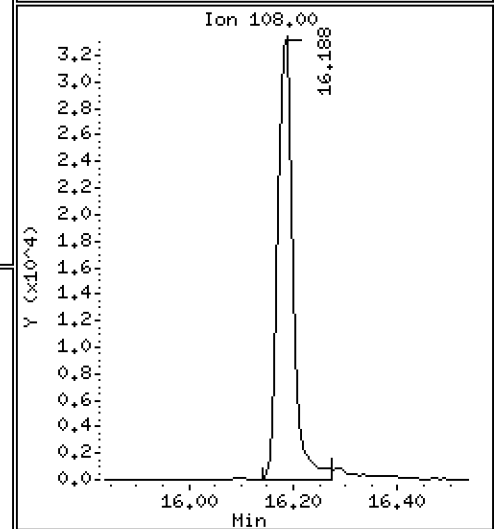
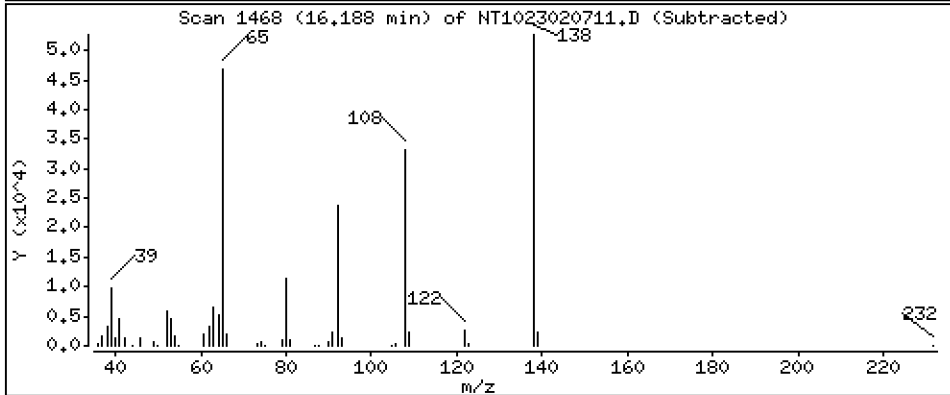
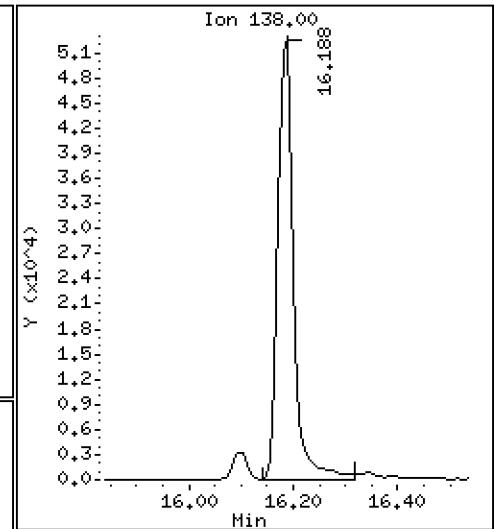
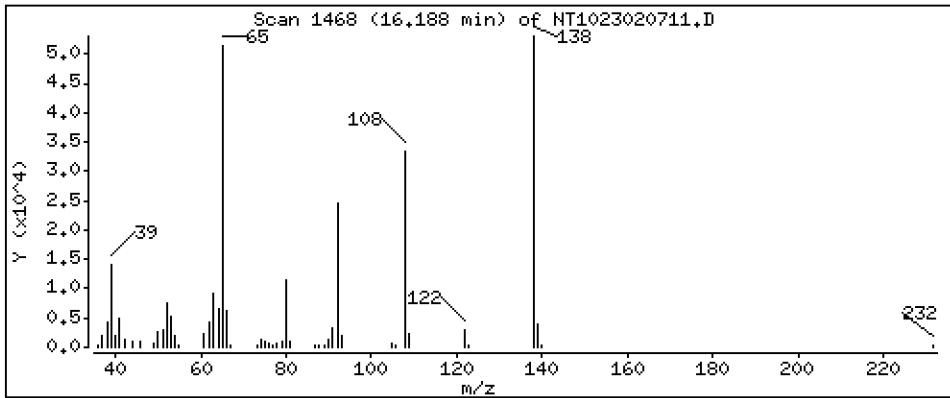
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 4,340 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

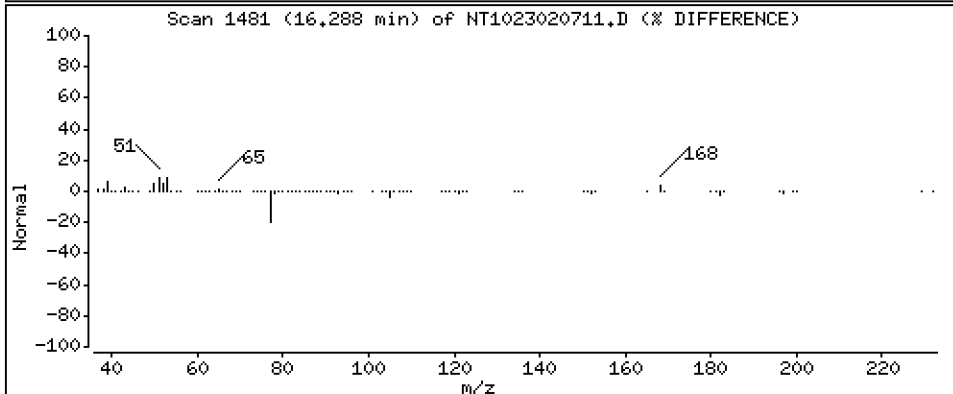
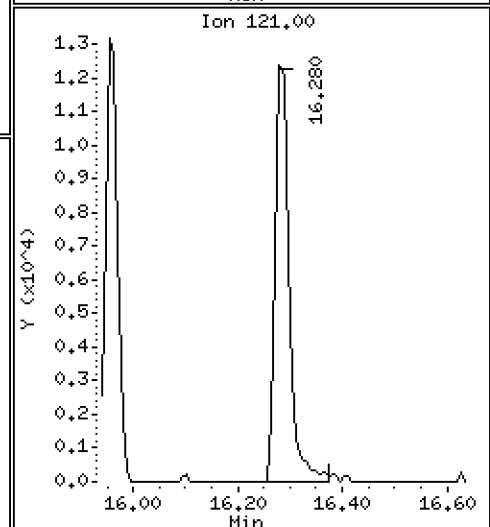
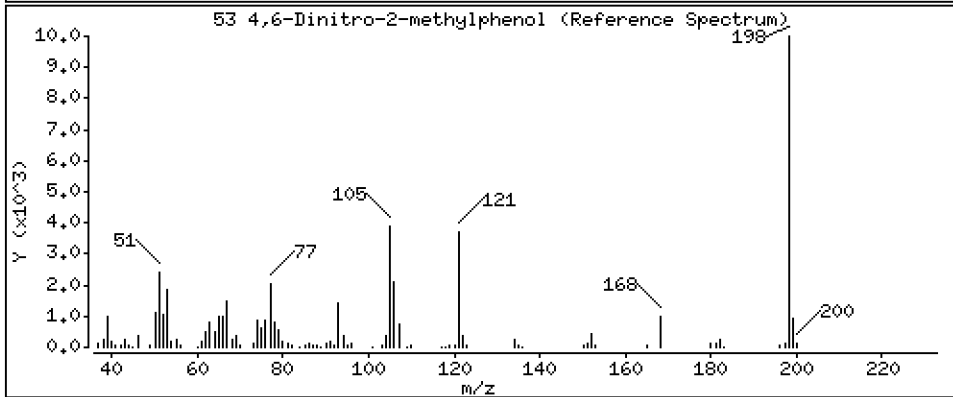
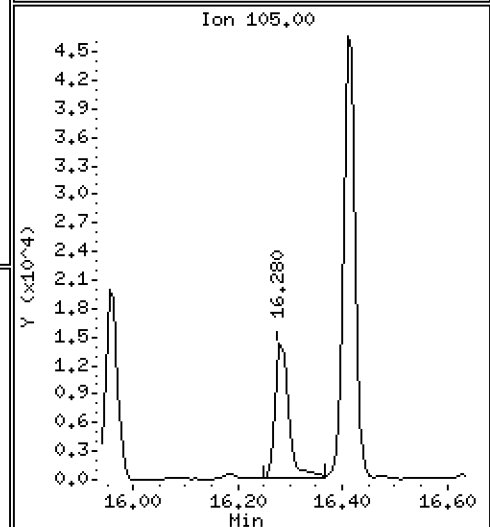
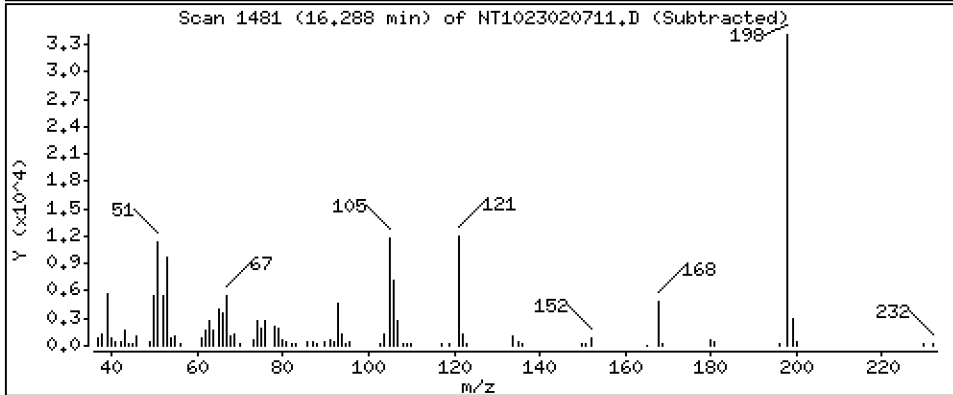
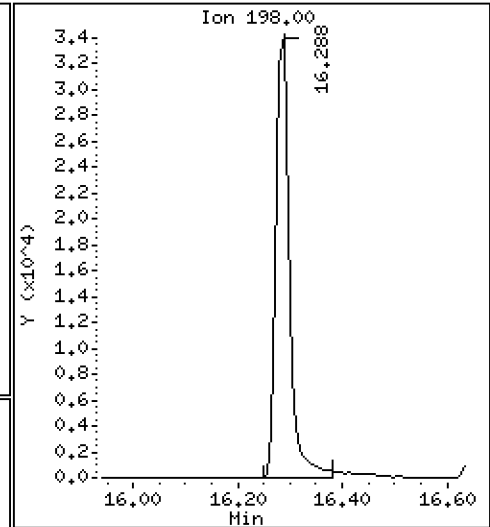
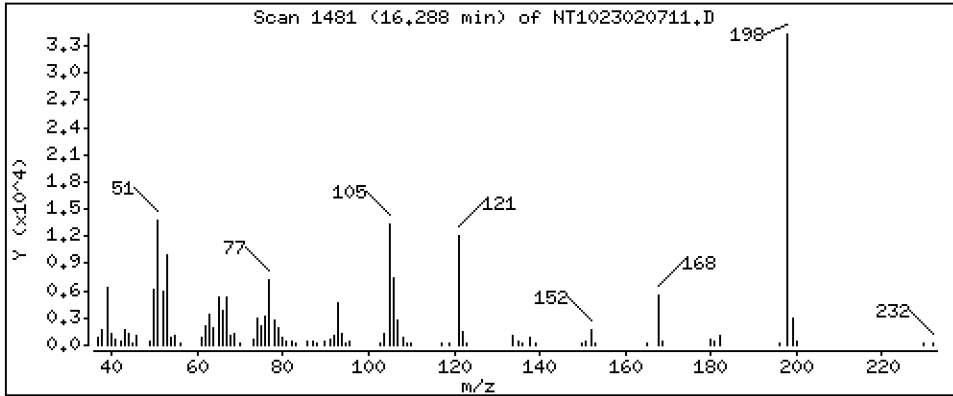
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,995 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

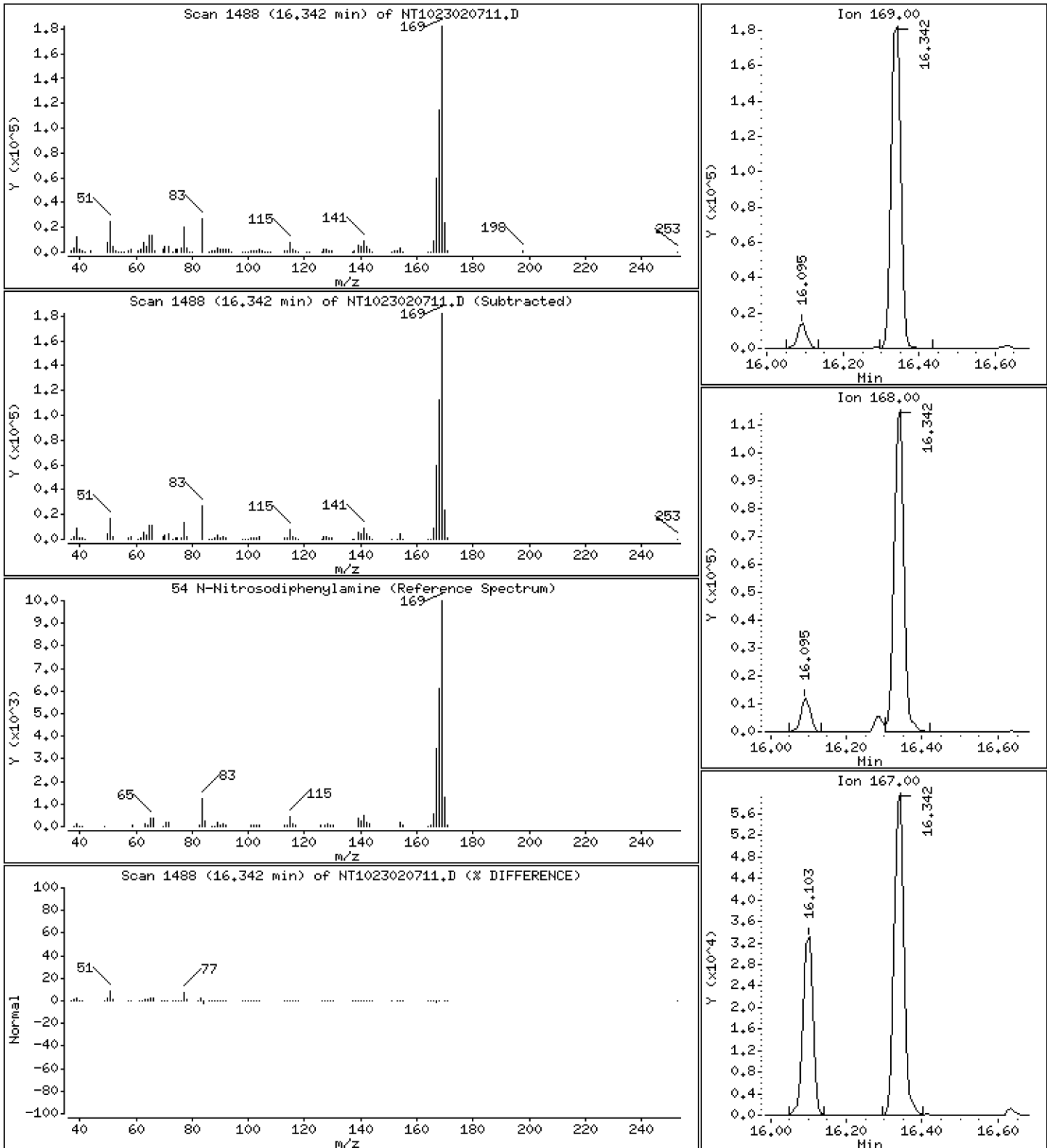
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 4,384 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

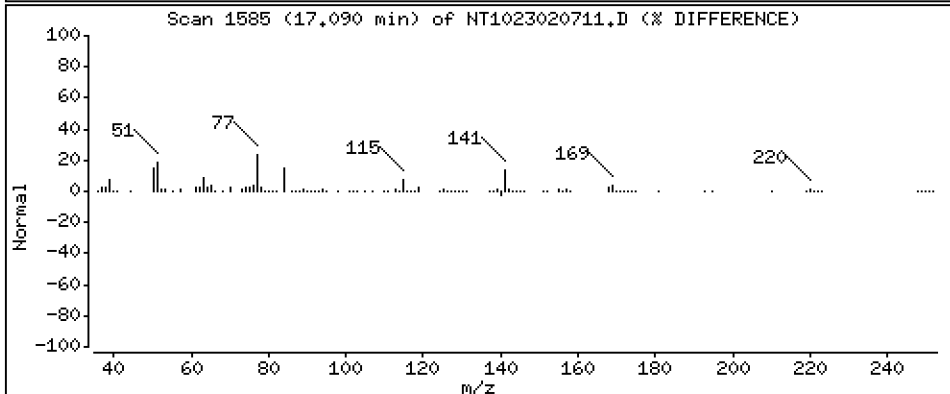
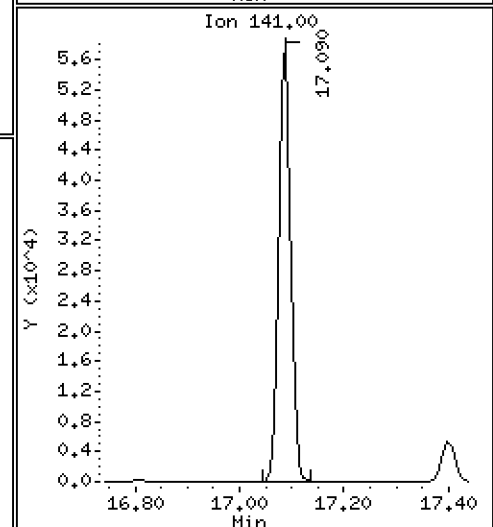
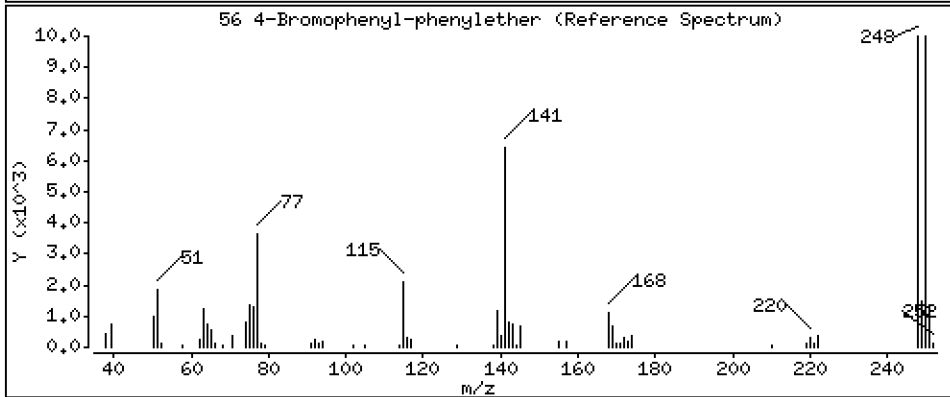
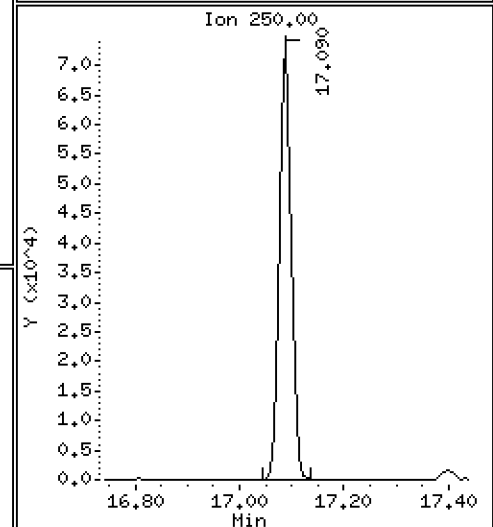
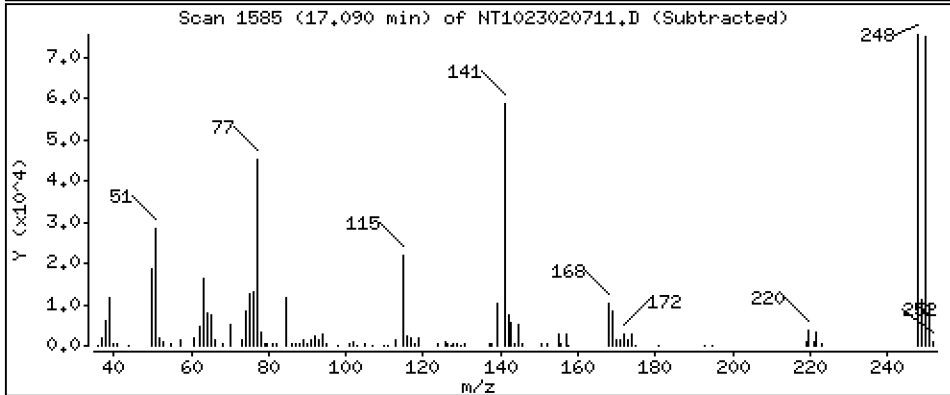
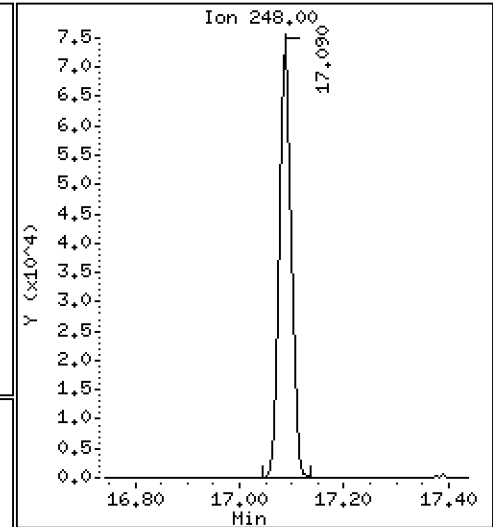
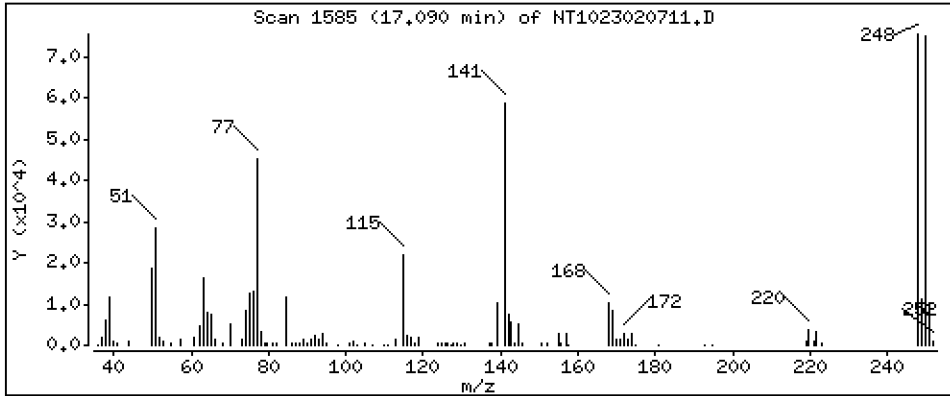
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,550 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

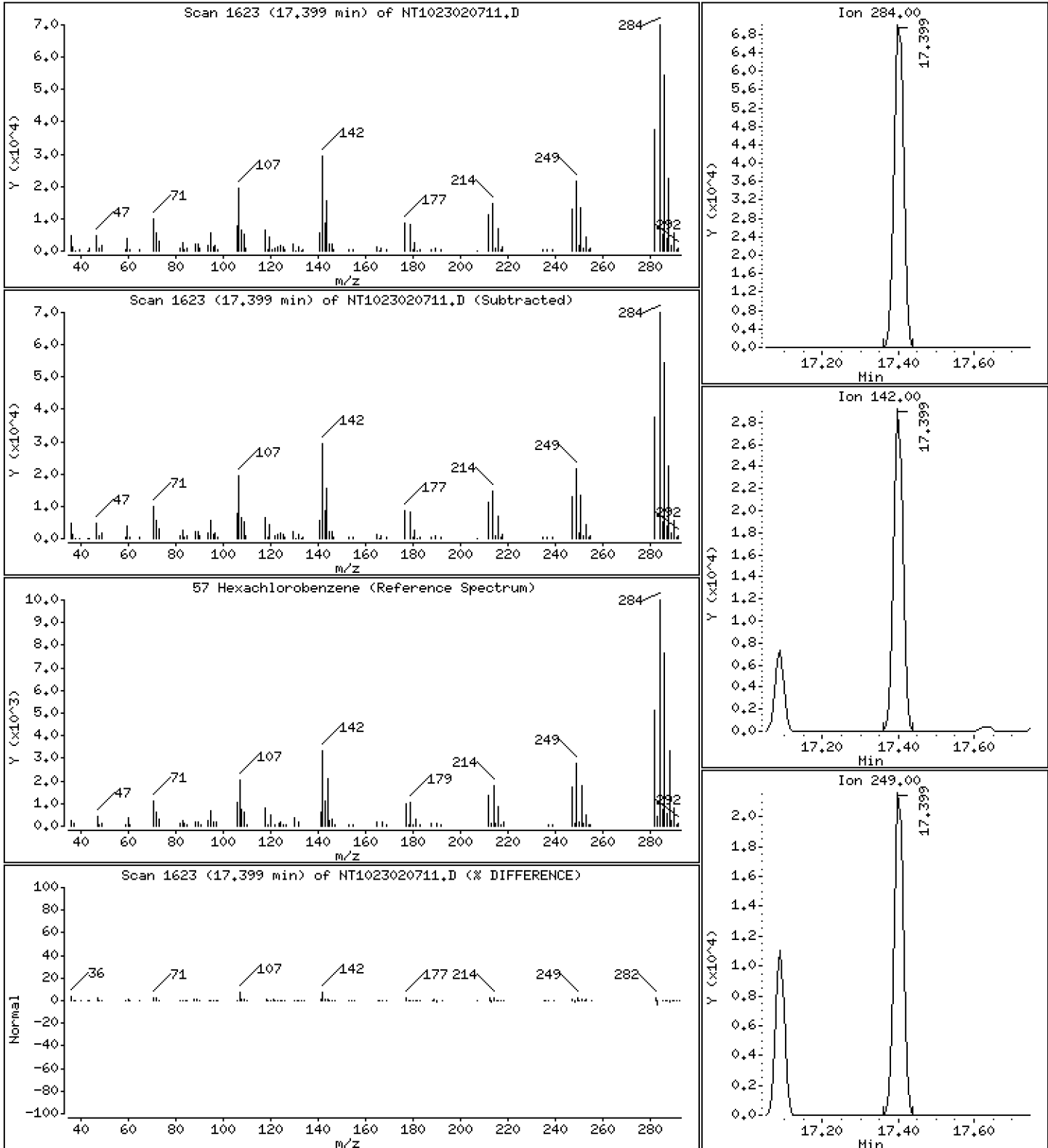
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 4.289 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

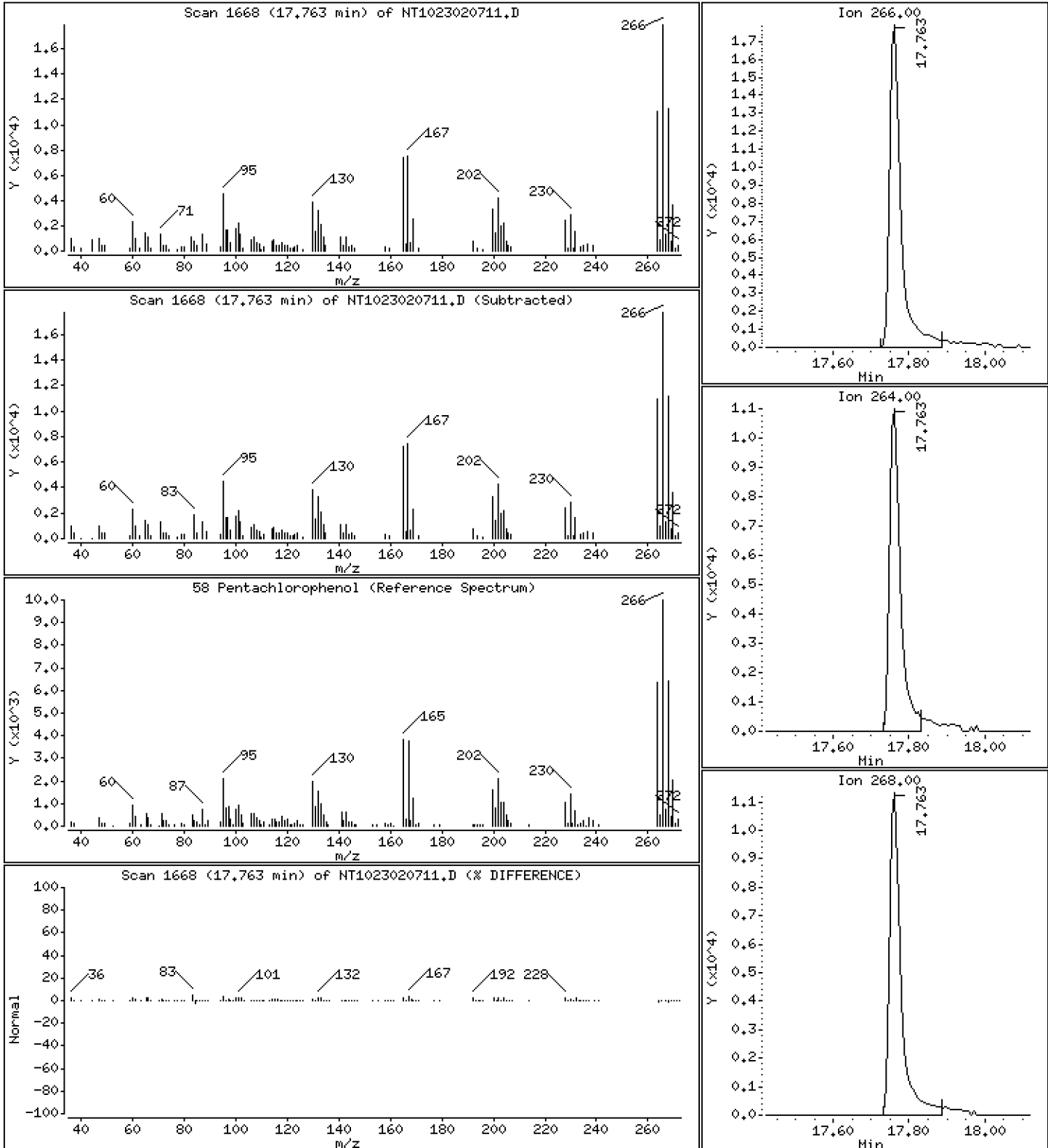
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,453 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

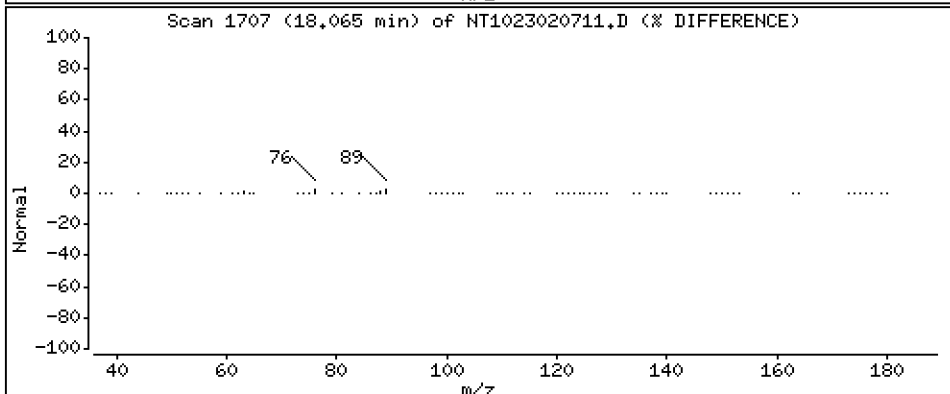
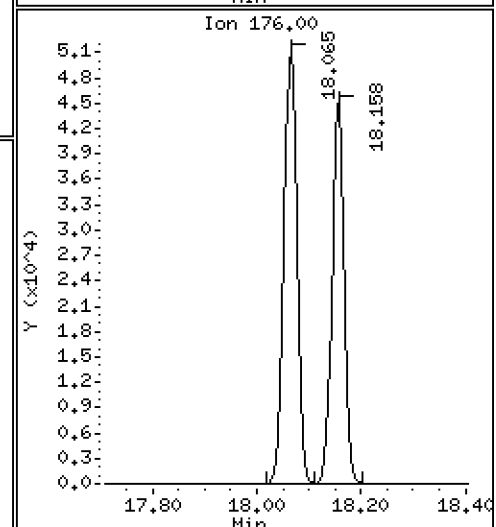
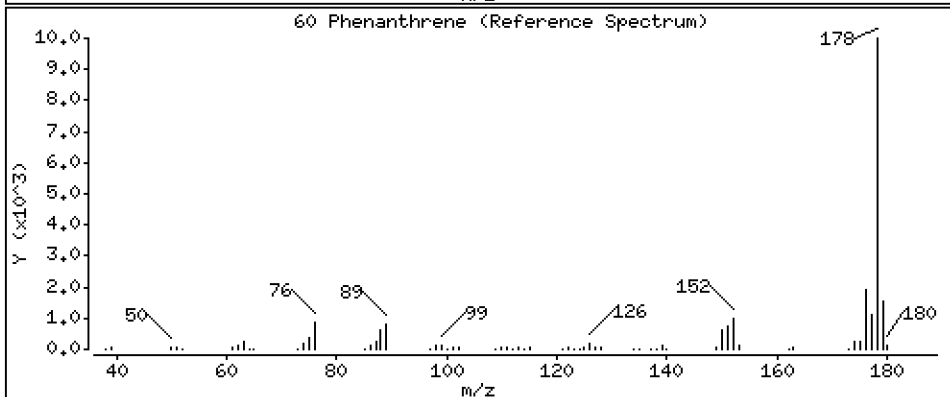
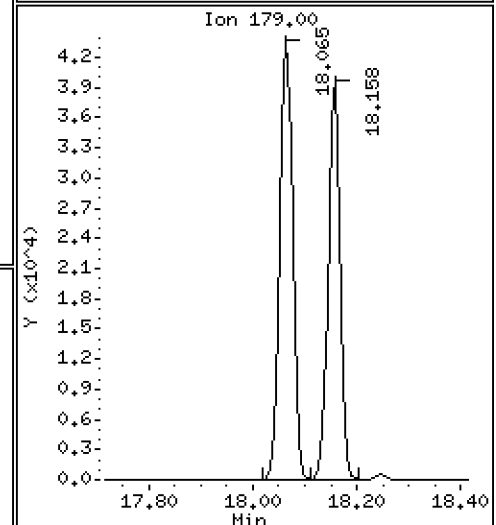
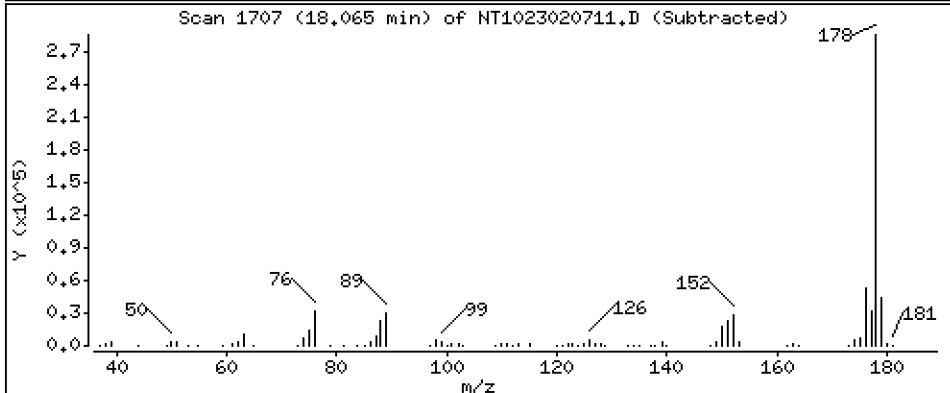
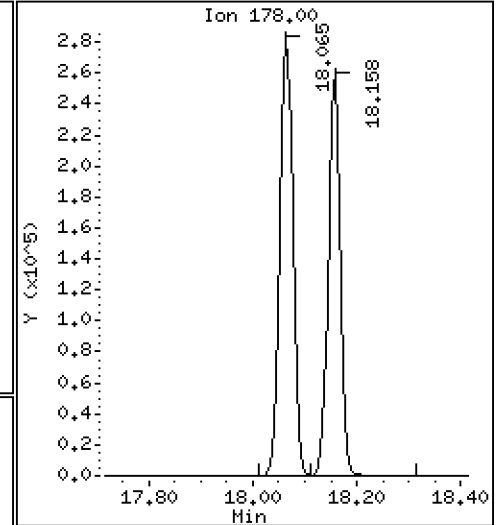
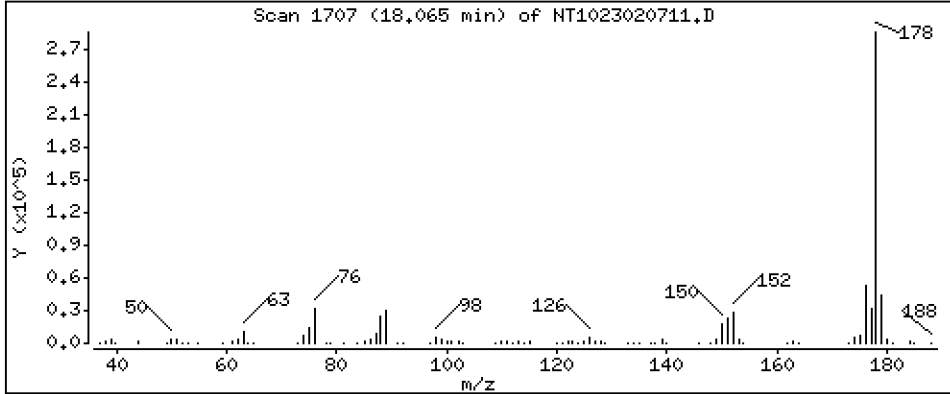
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,304 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

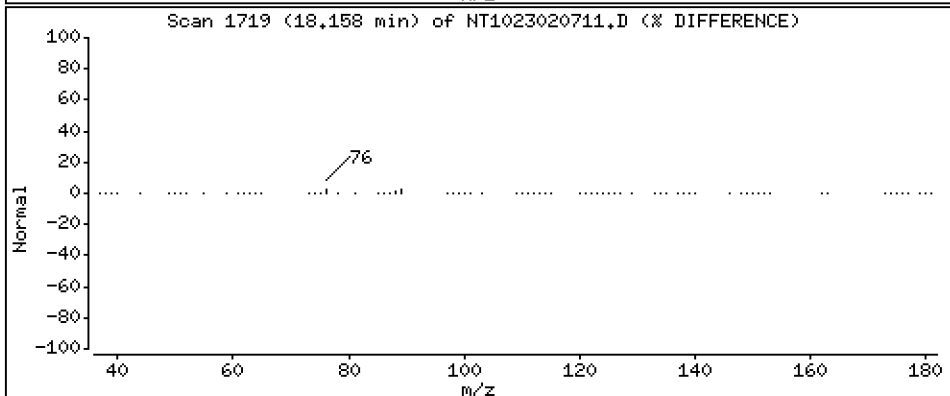
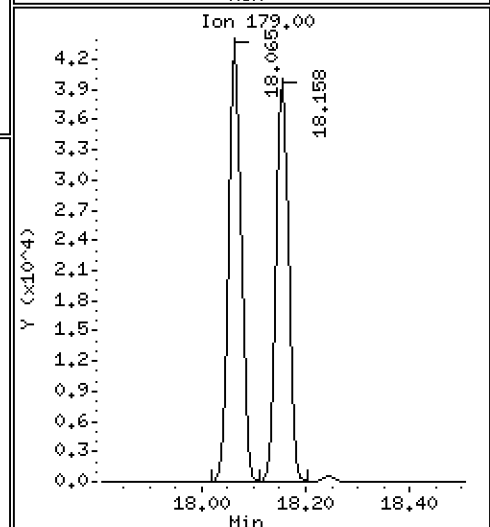
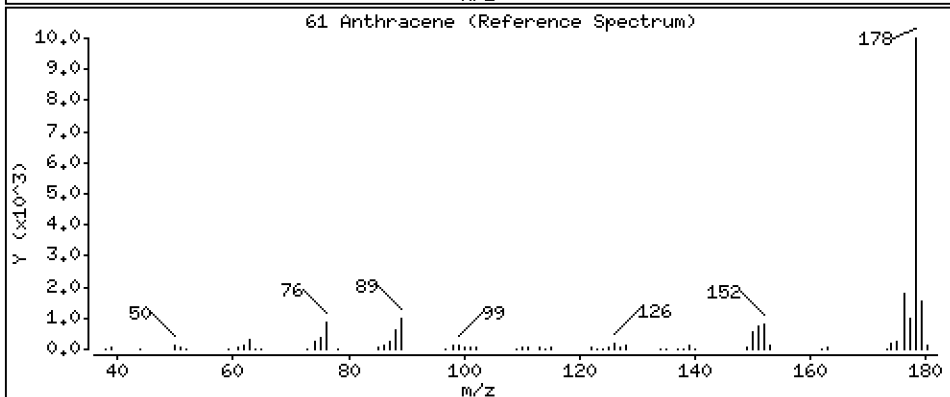
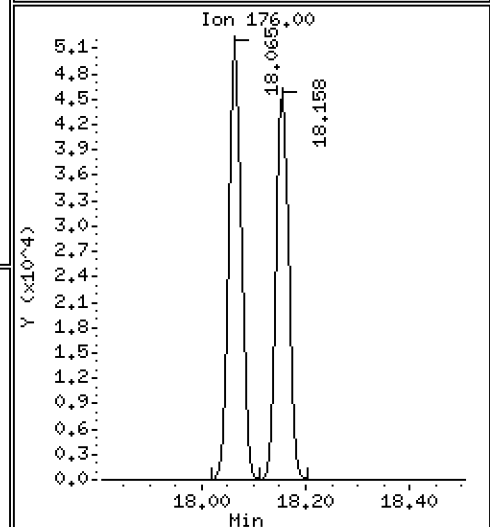
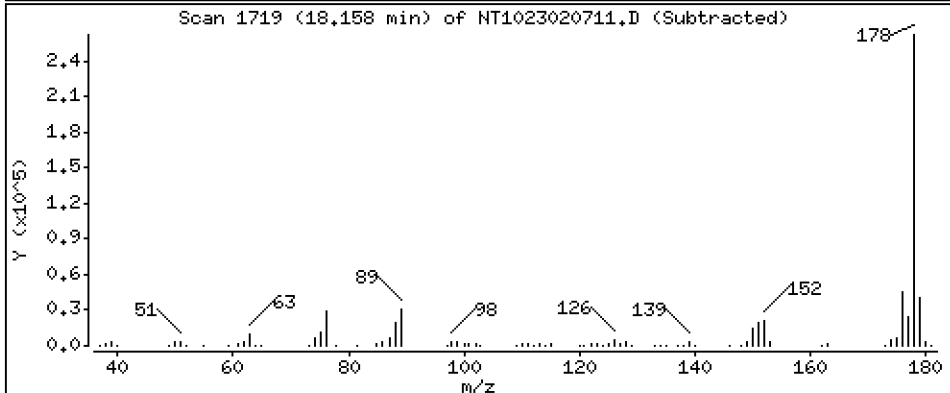
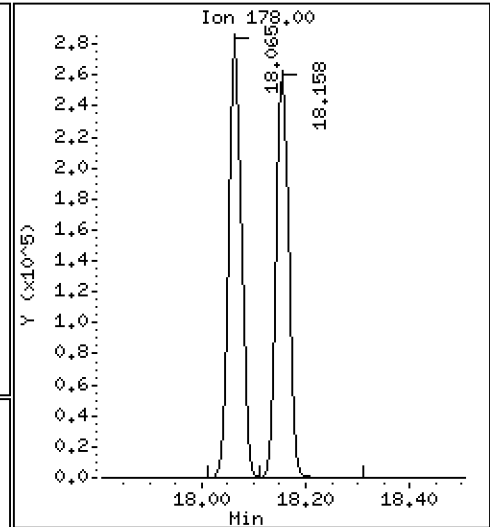
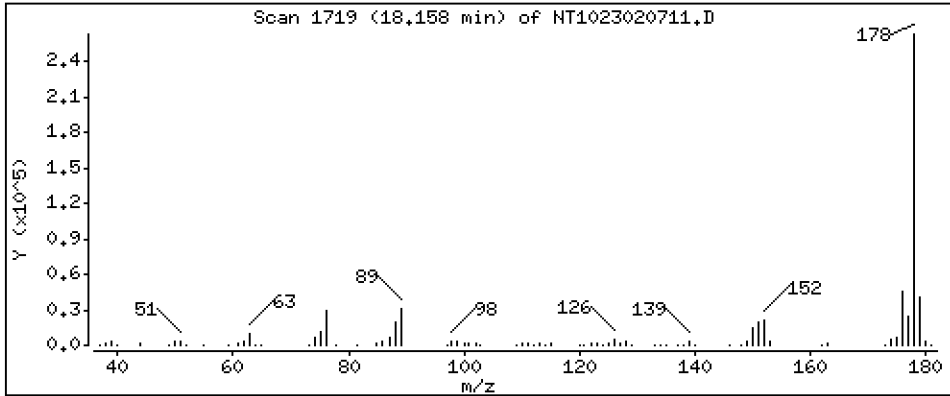
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 3,900 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

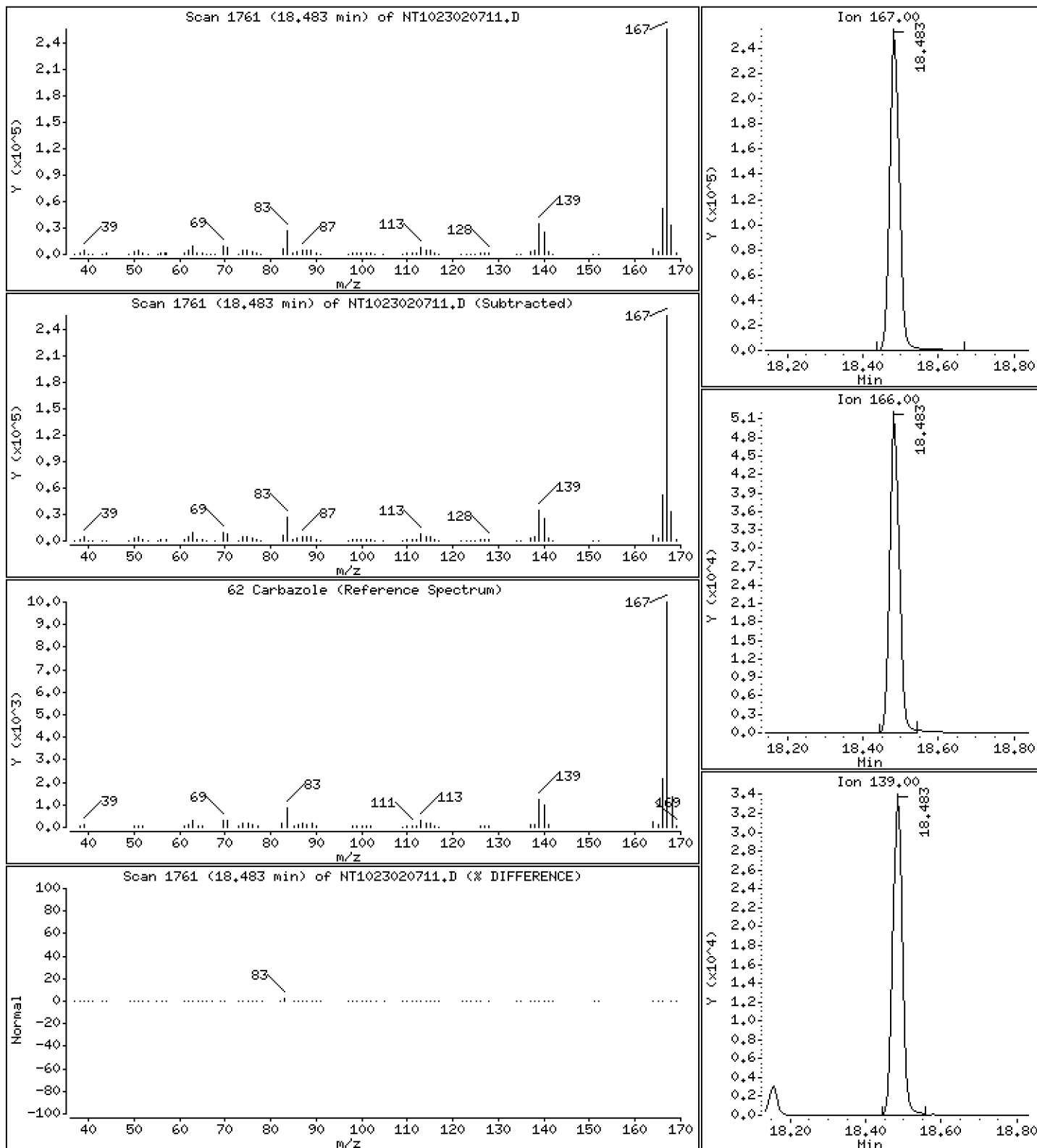
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 4,166 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

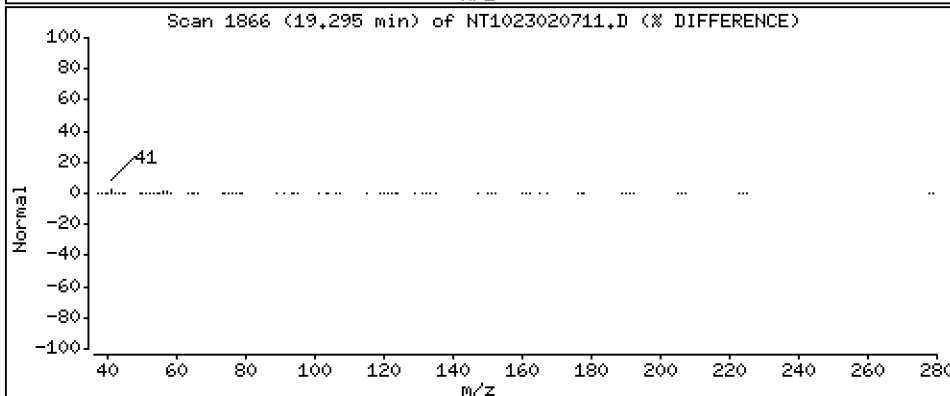
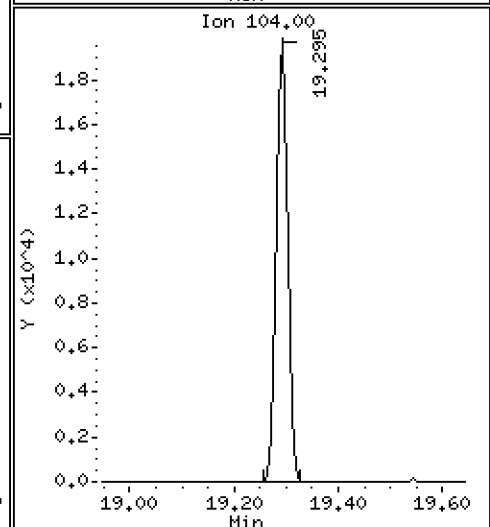
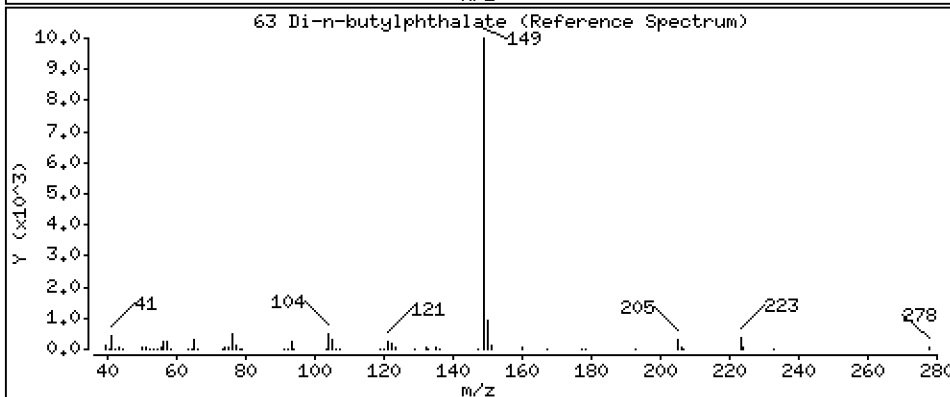
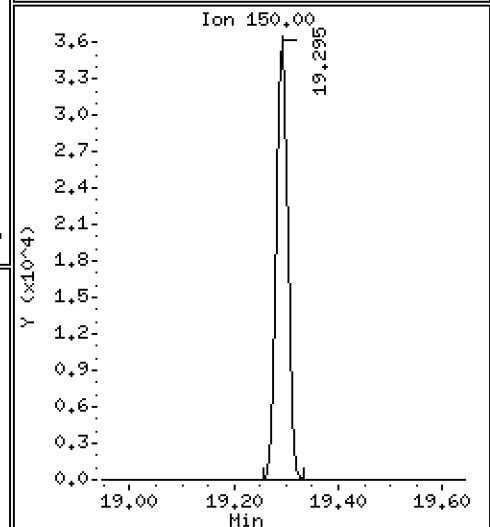
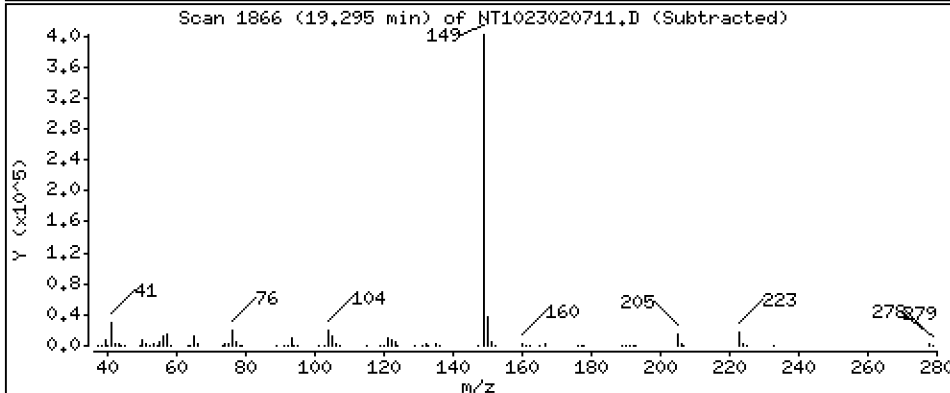
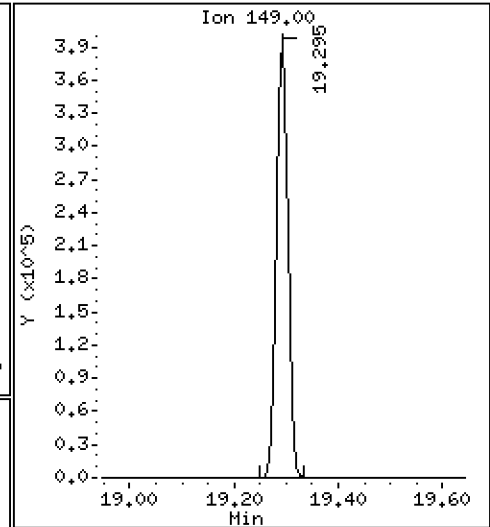
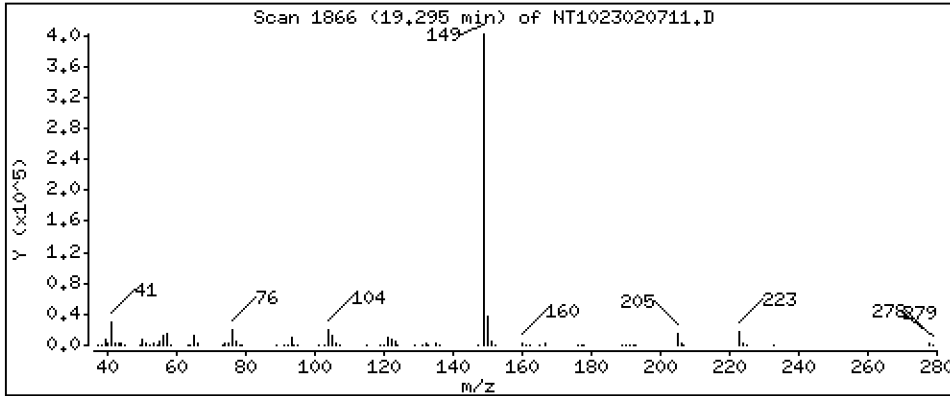
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

63 Di-n-butylphthalate

Concentration: 4.611 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

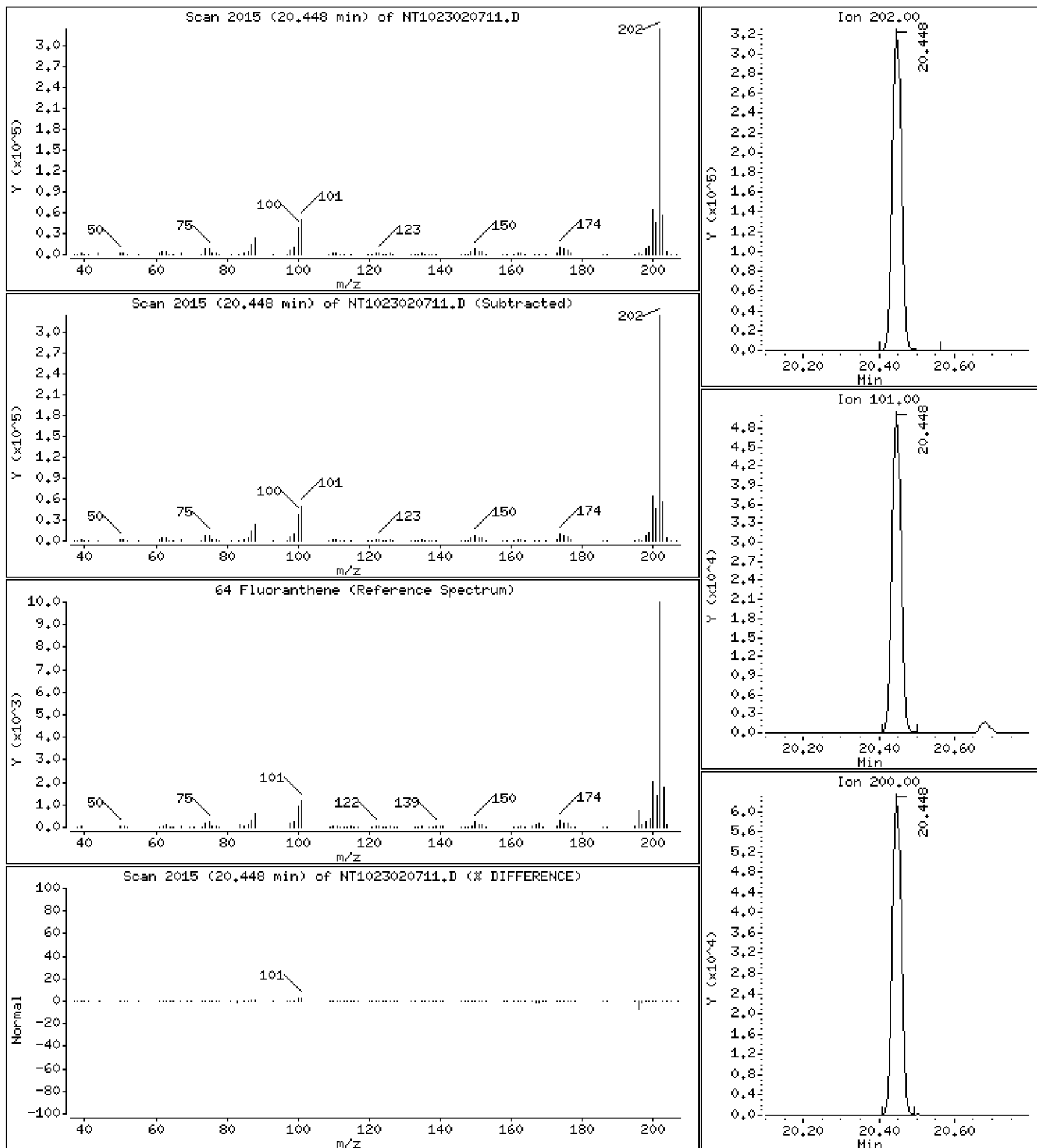
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,340 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

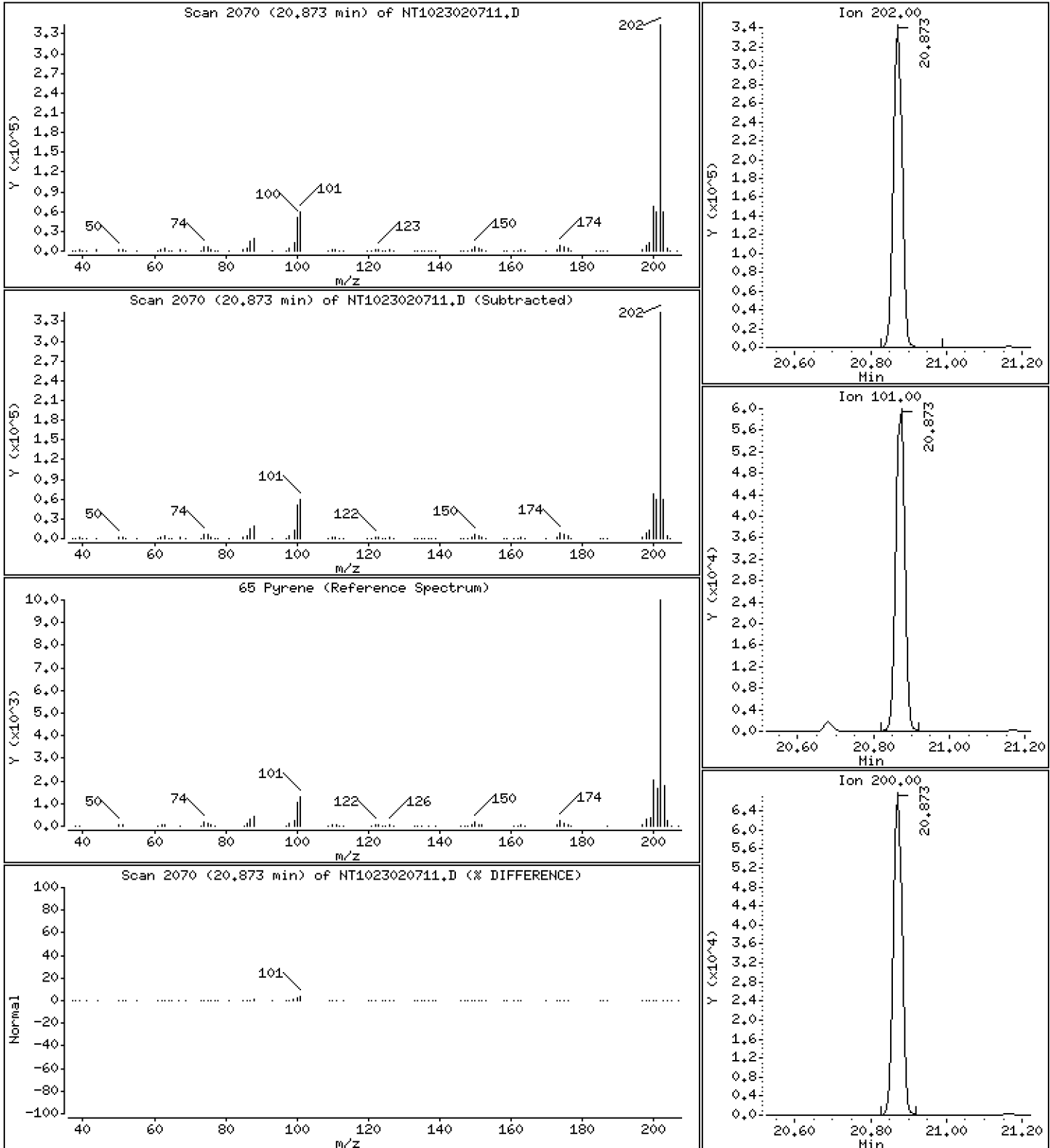
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 4,276 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

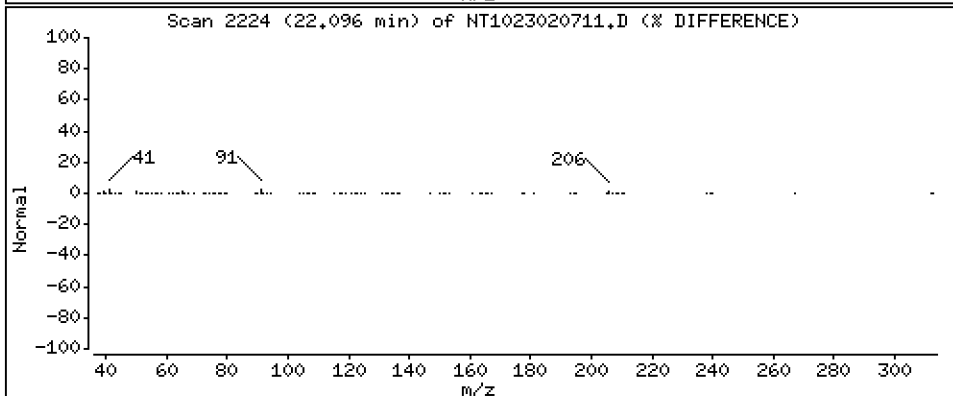
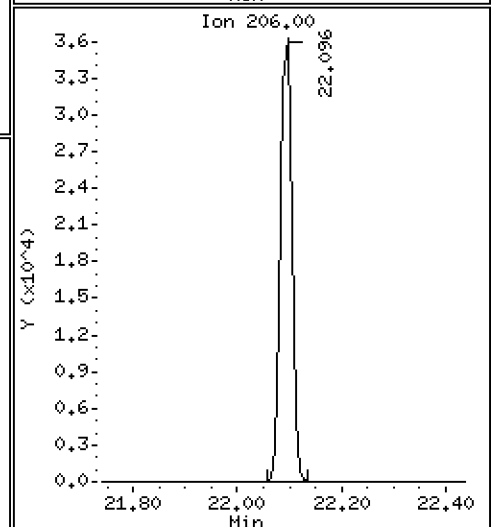
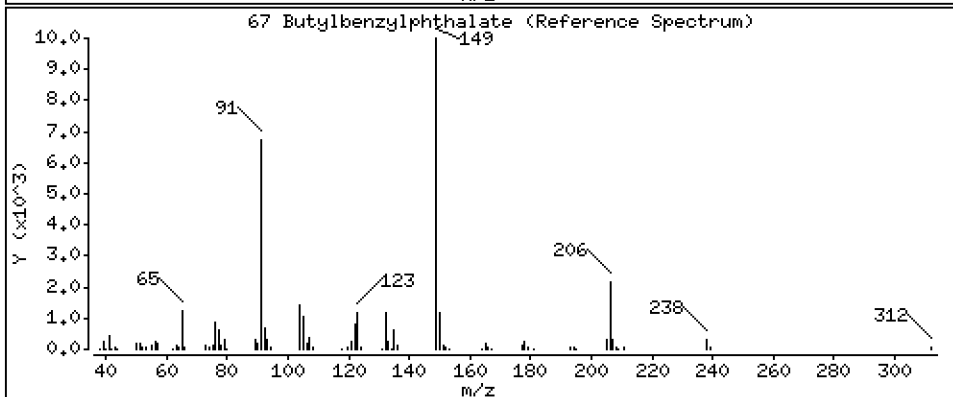
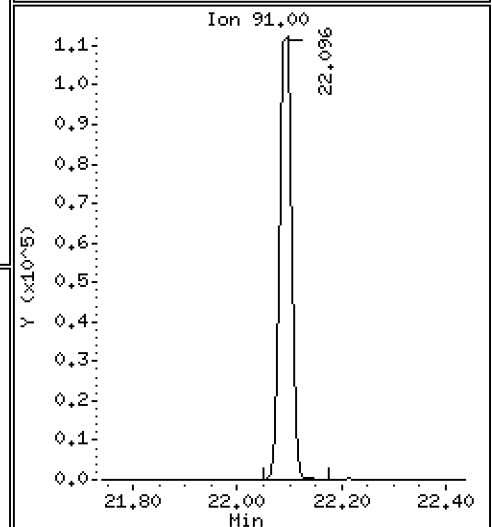
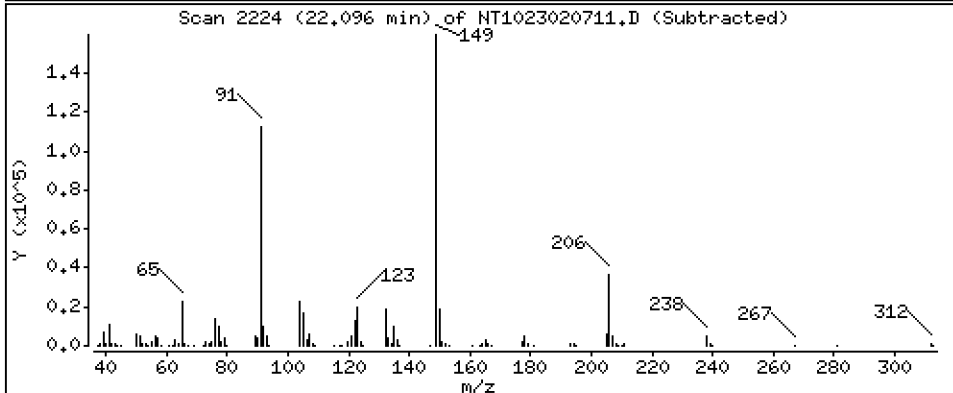
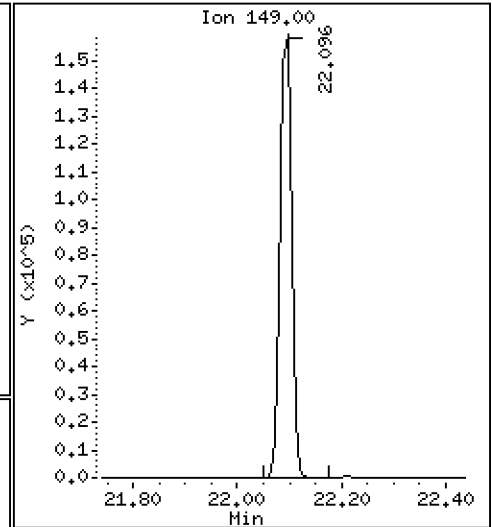
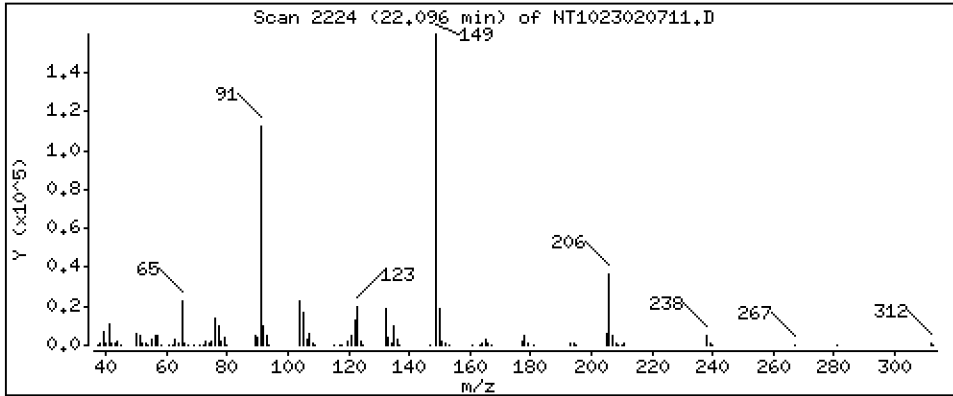
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,385 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

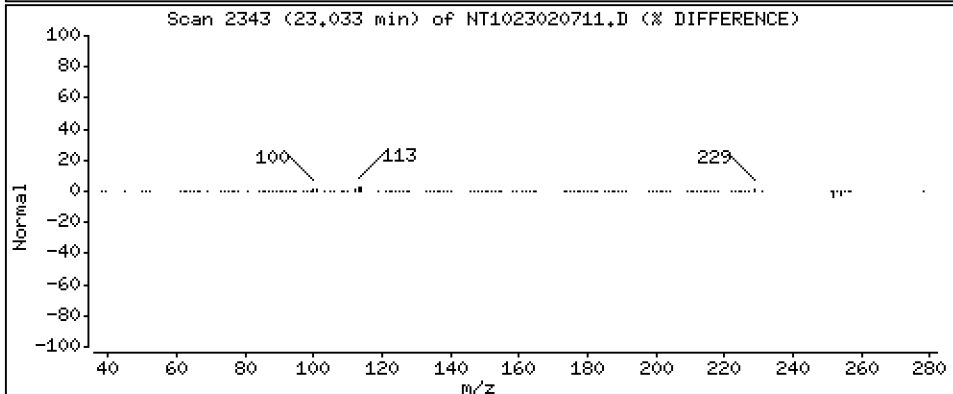
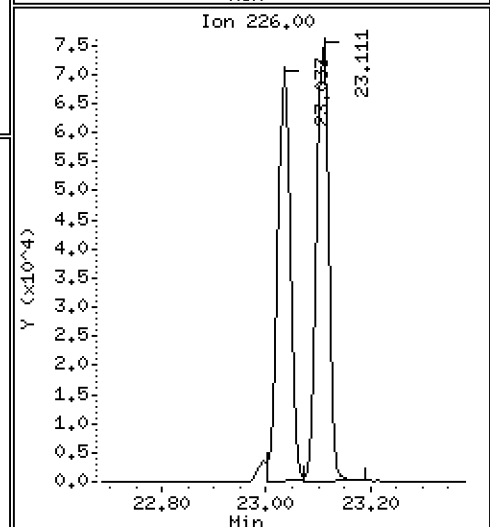
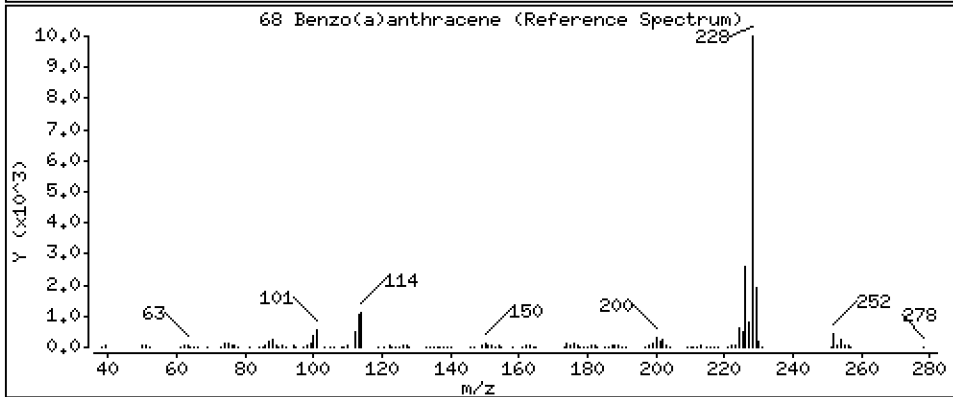
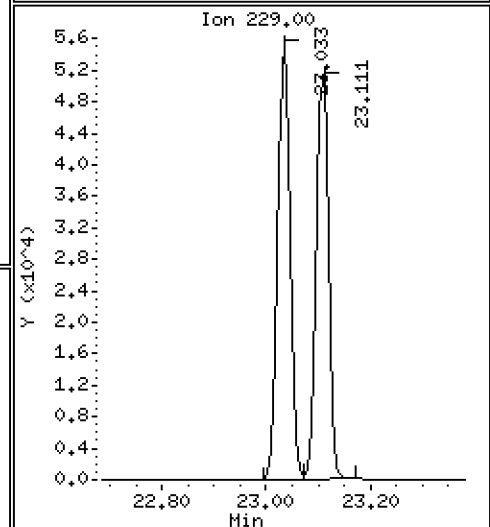
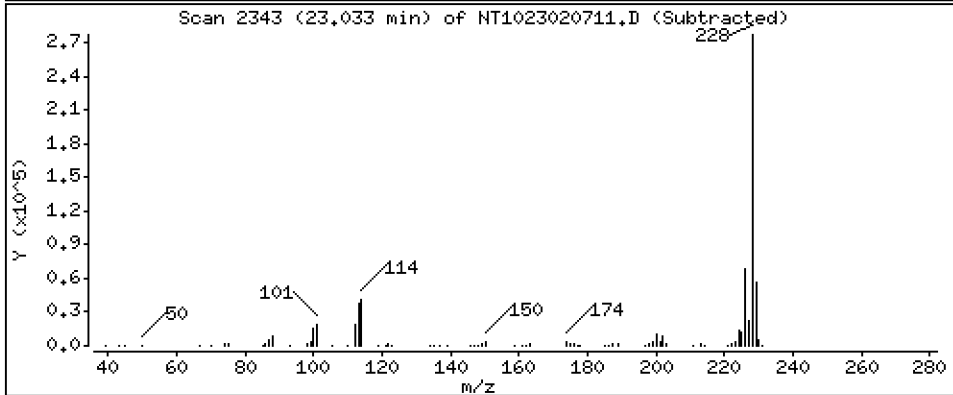
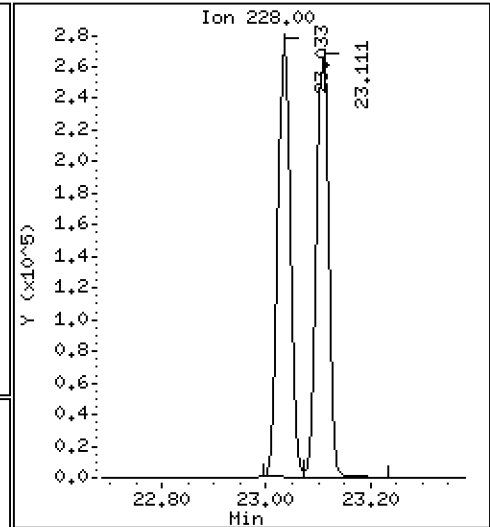
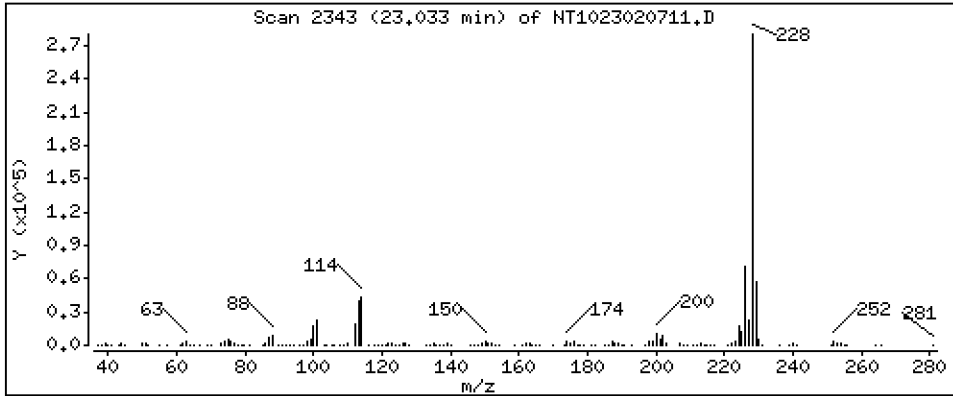
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,097 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

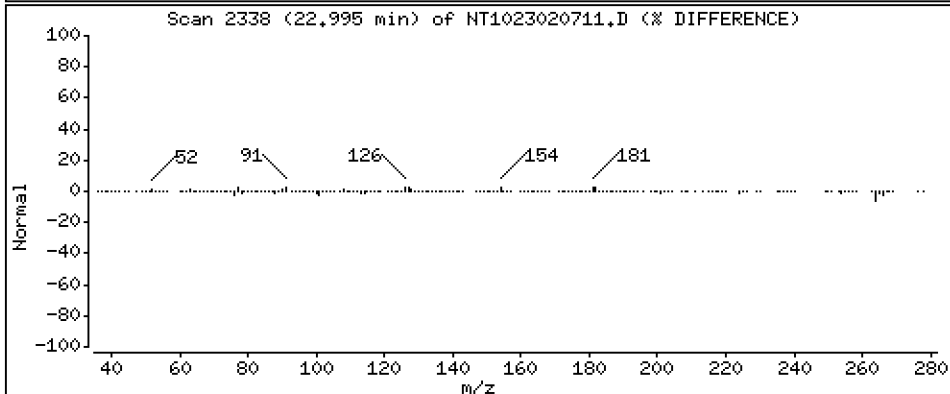
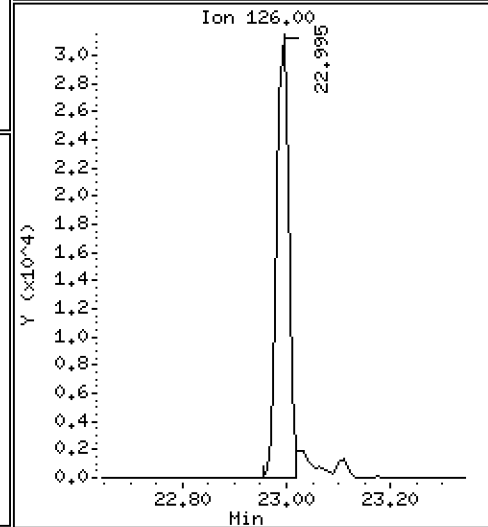
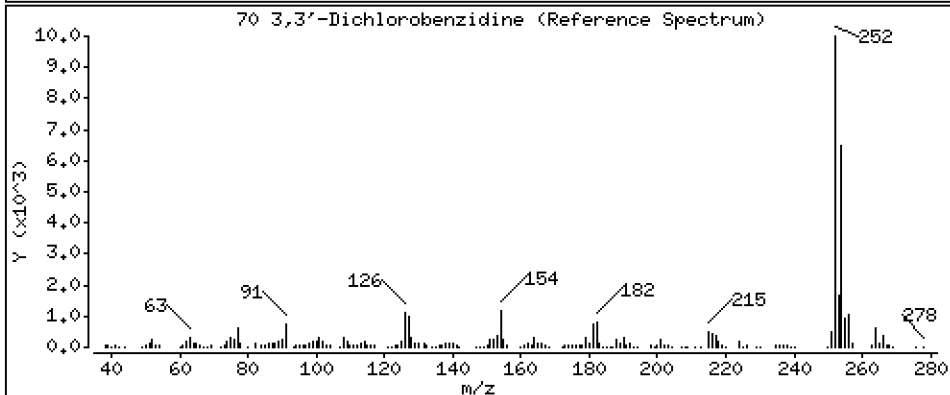
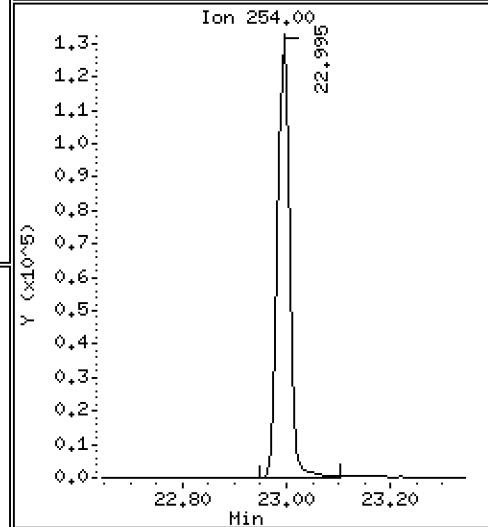
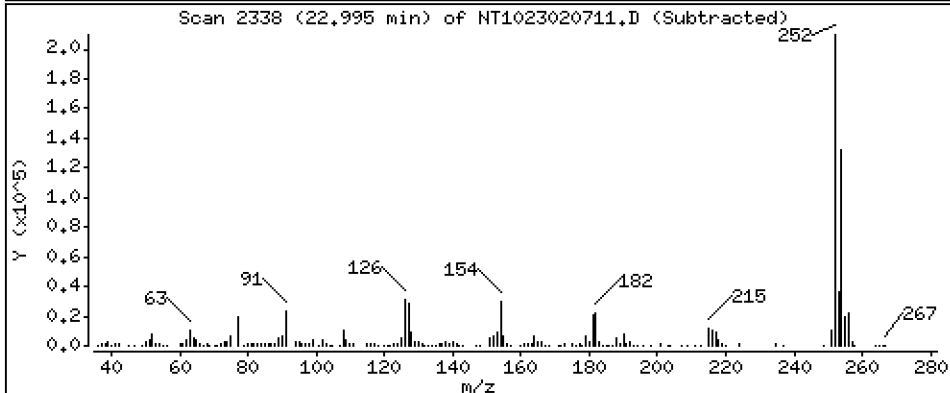
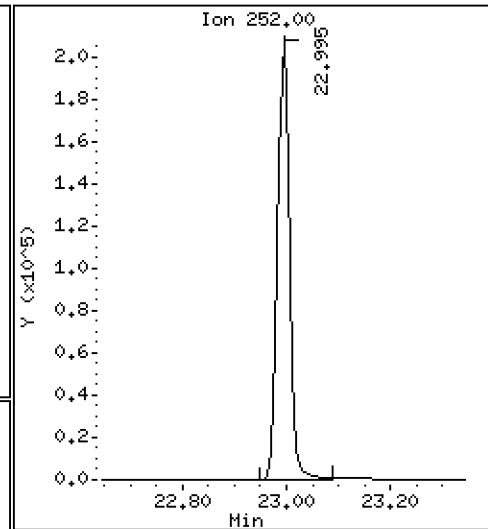
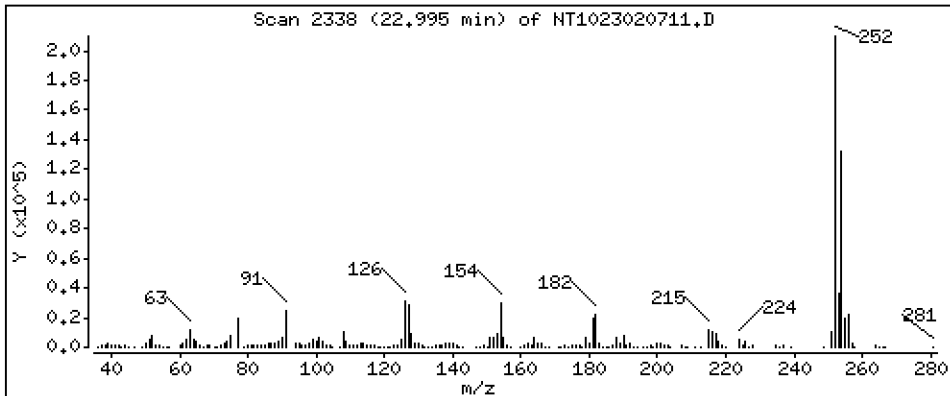
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 8,645 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

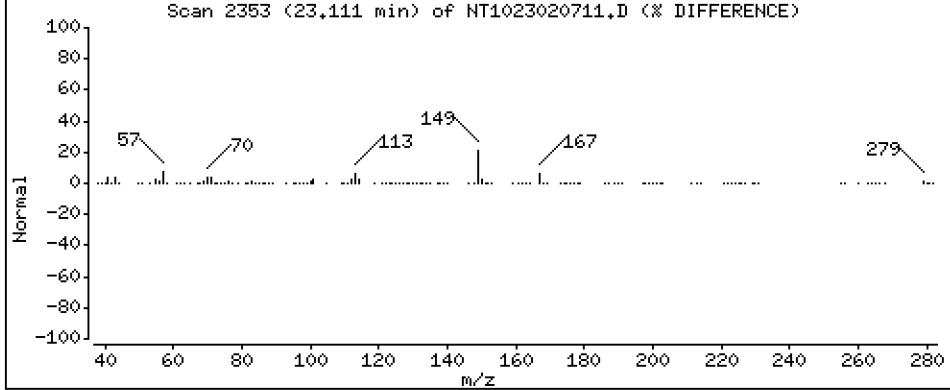
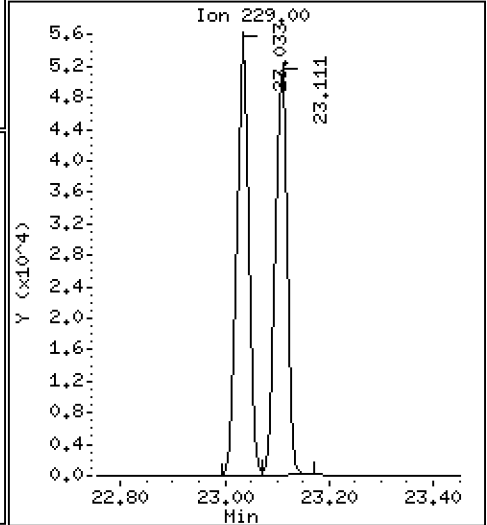
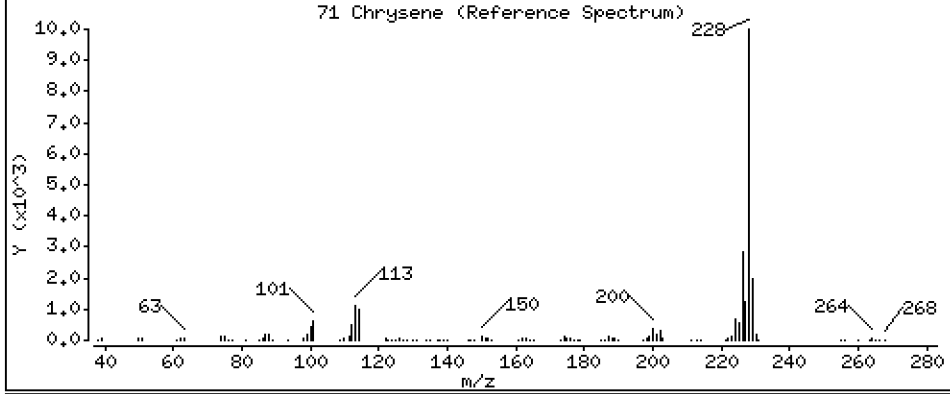
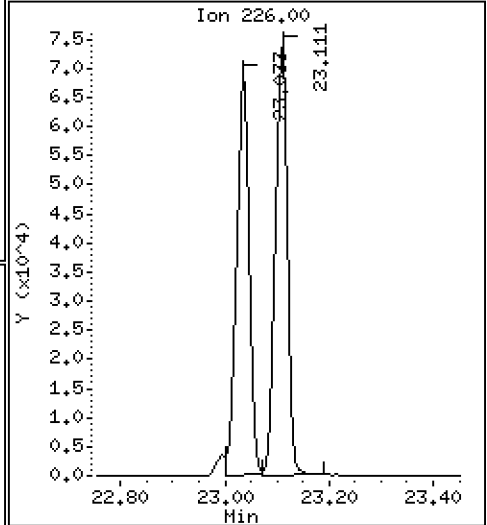
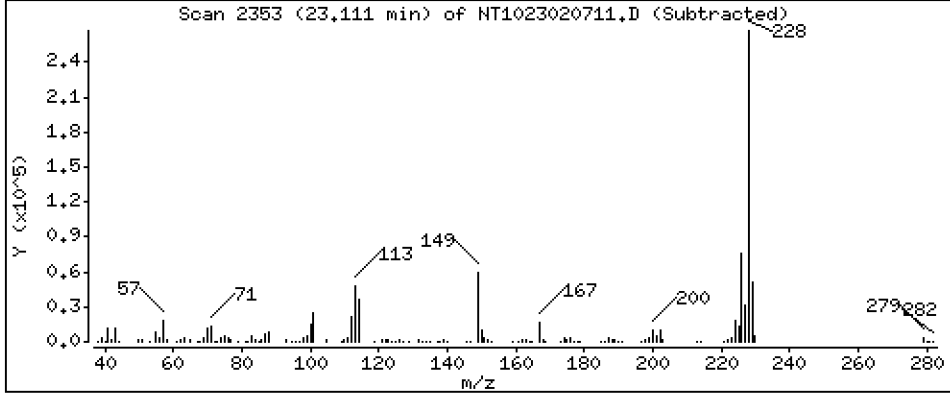
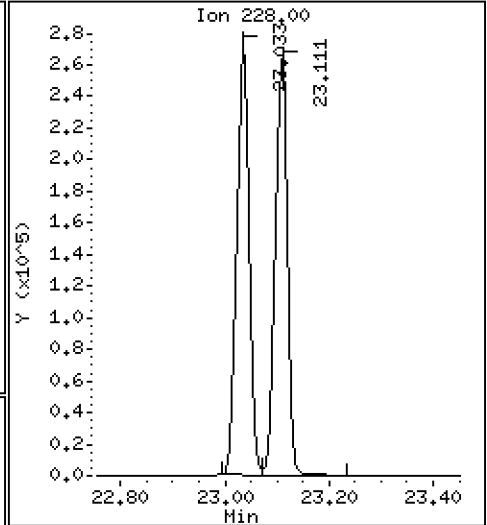
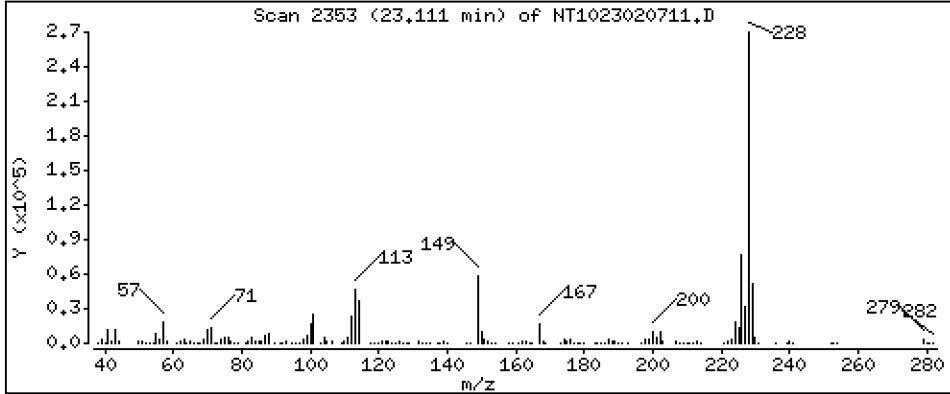
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,018 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

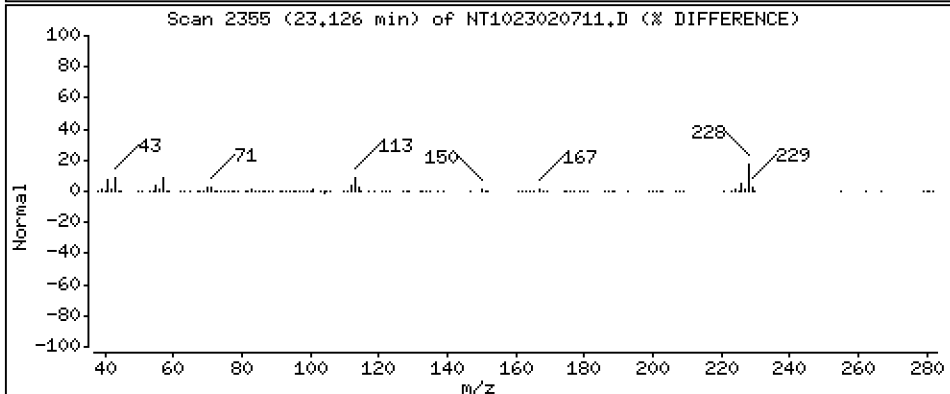
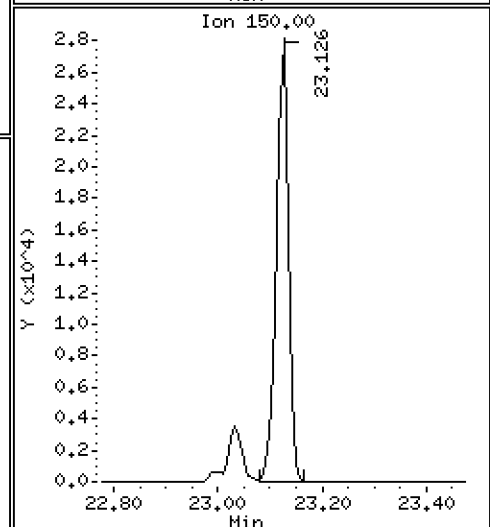
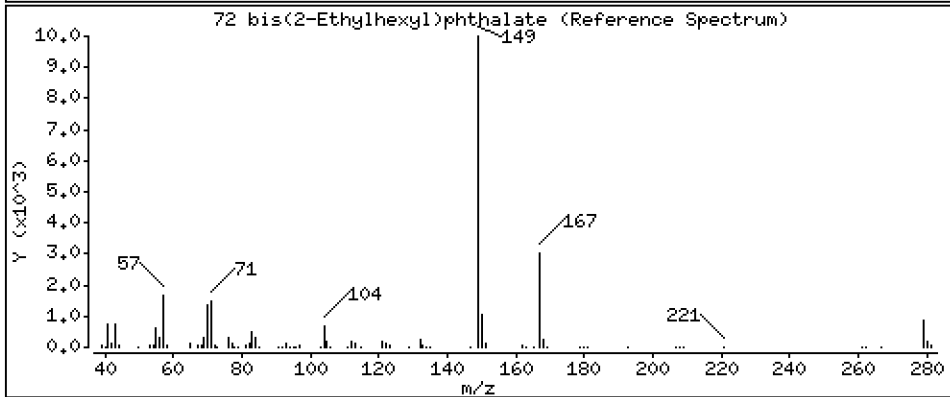
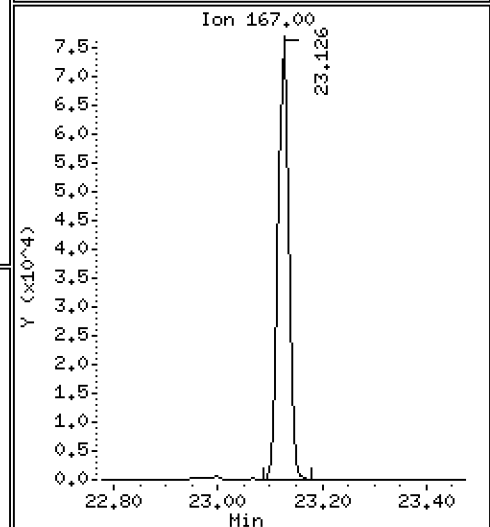
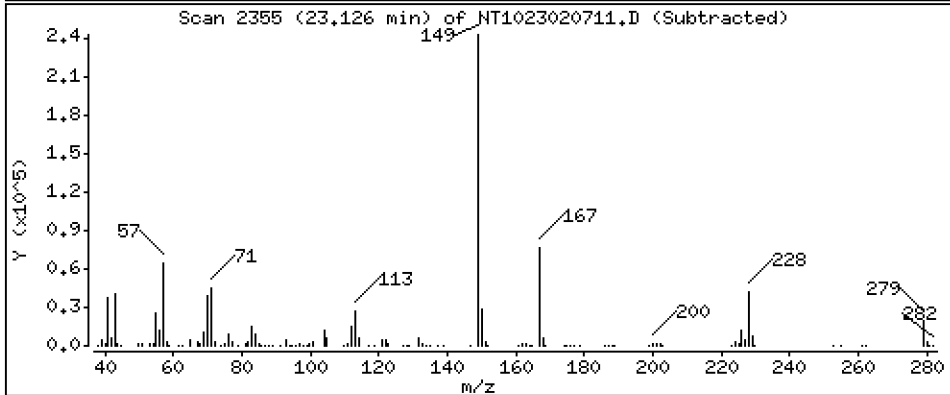
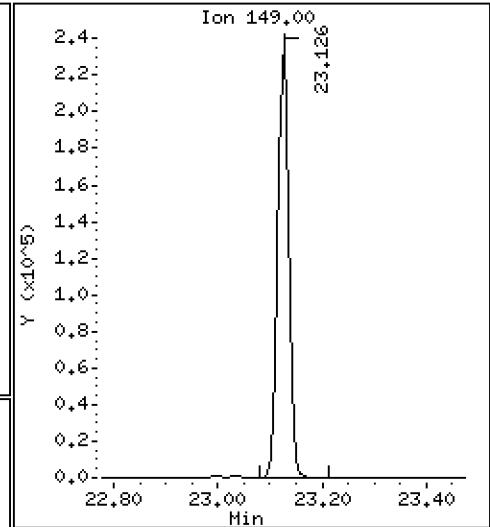
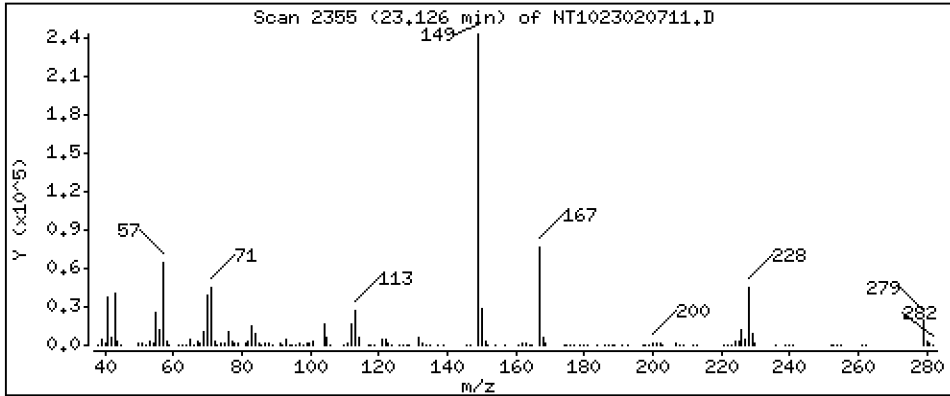
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 4,692 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

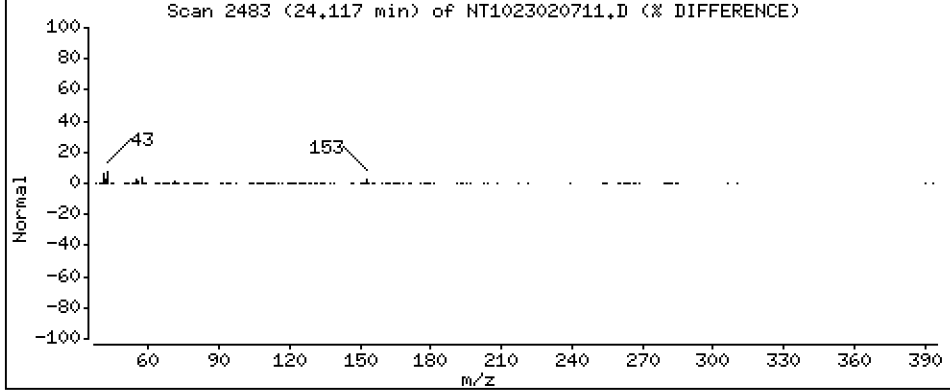
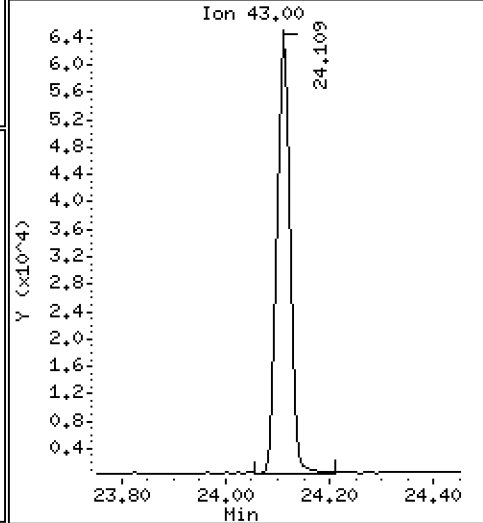
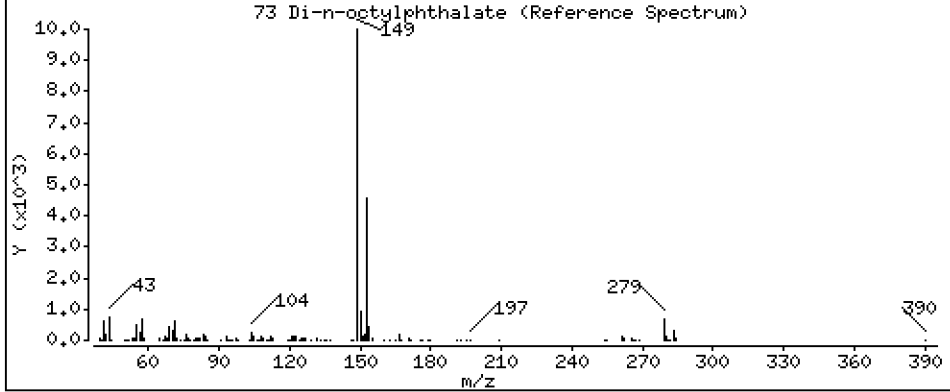
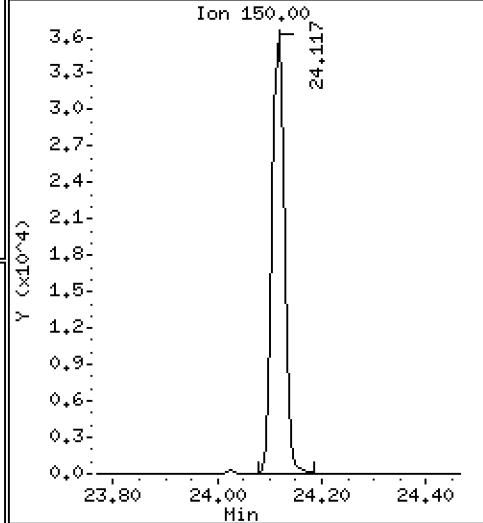
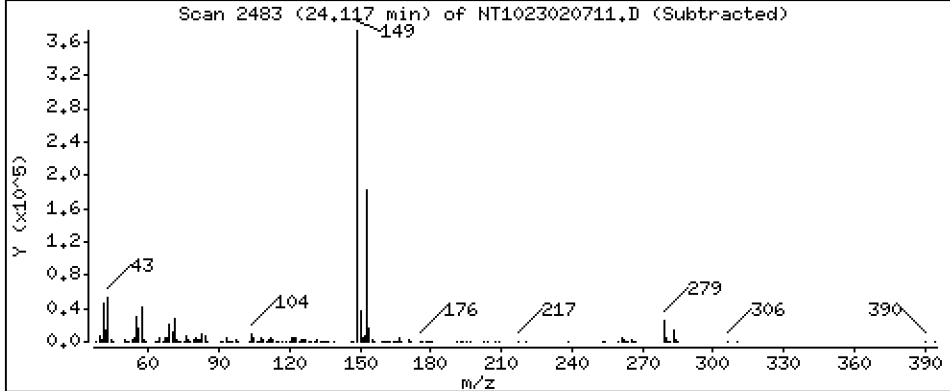
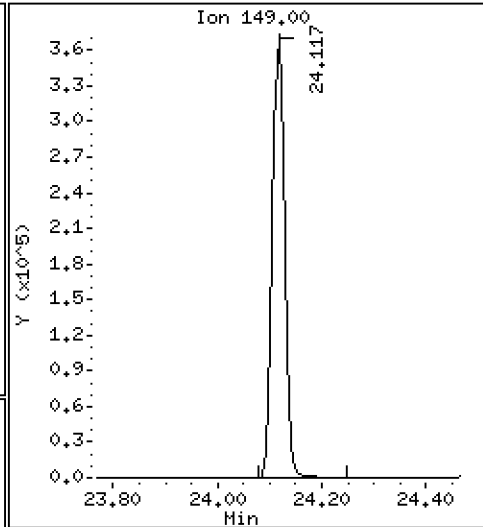
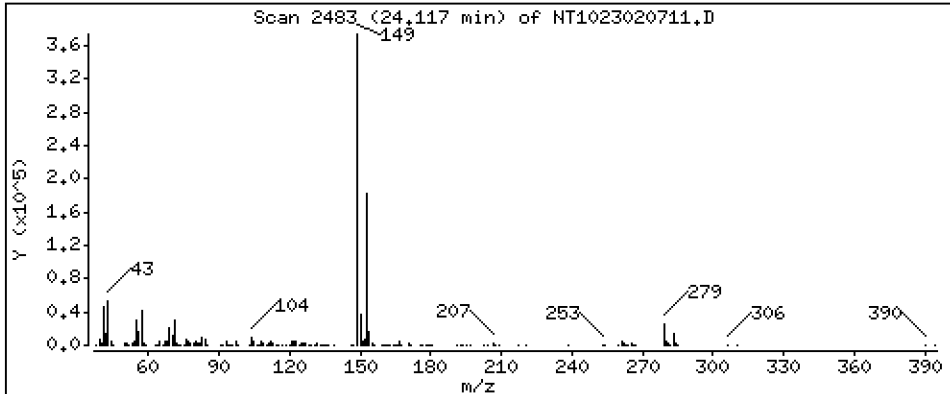
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 4,483 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

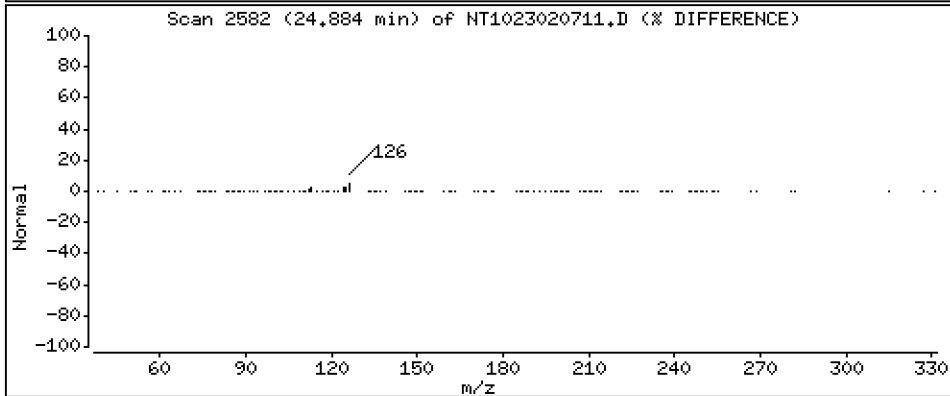
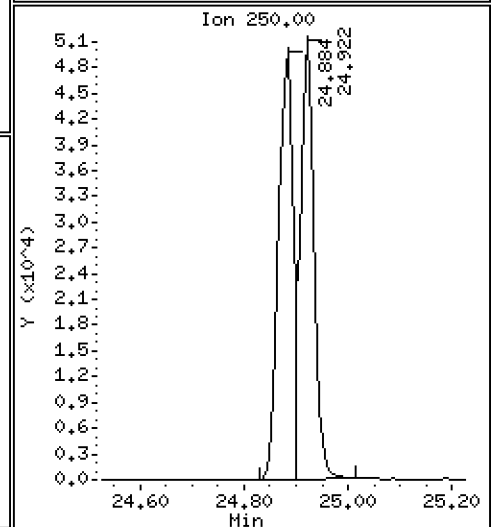
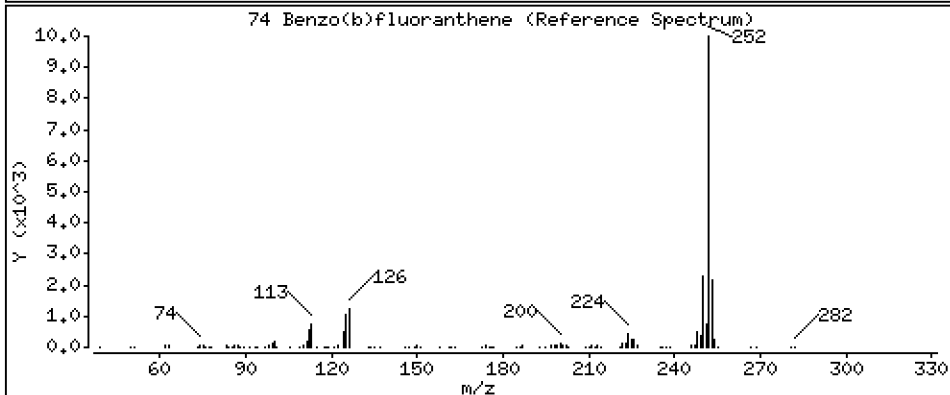
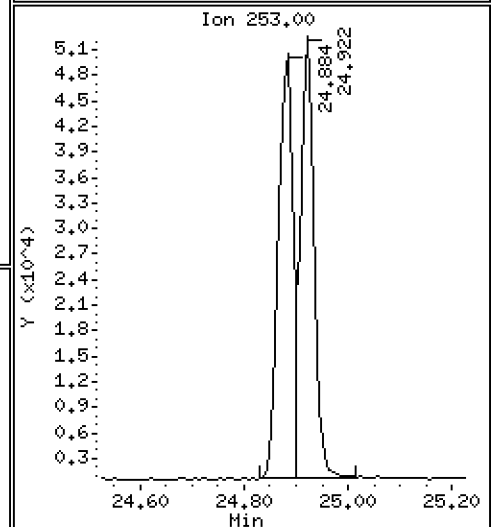
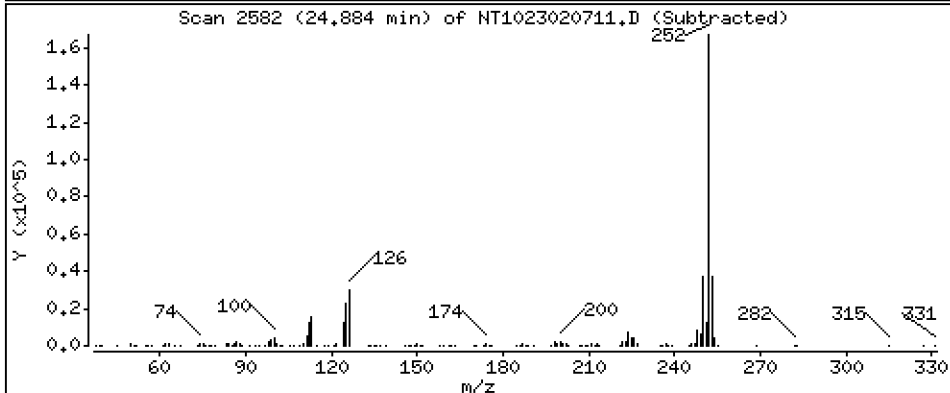
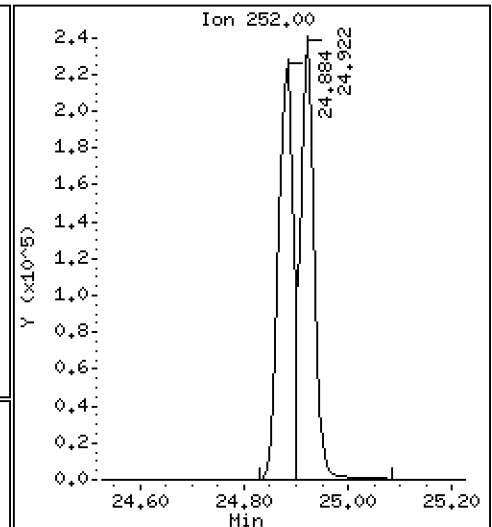
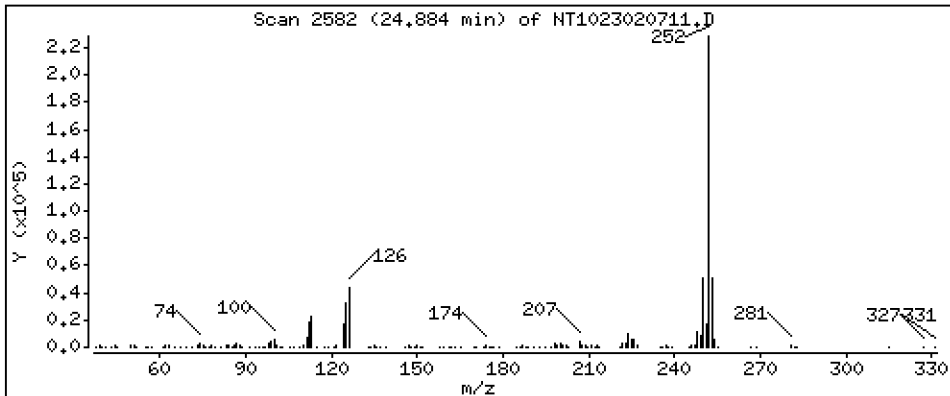
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,235 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

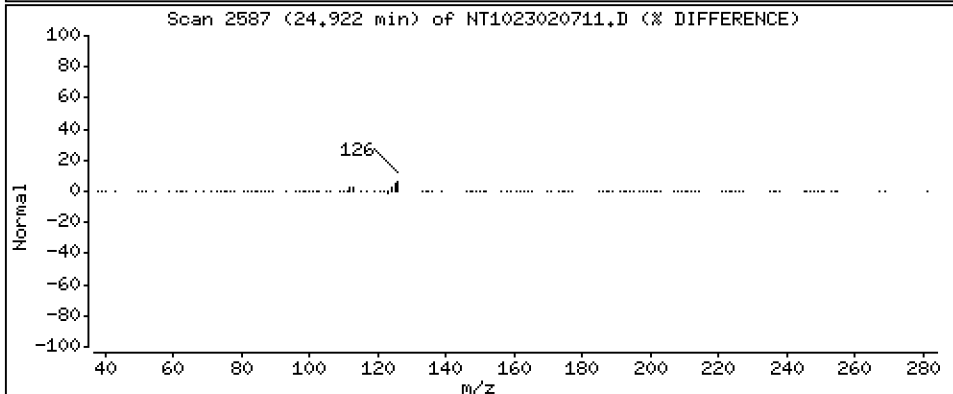
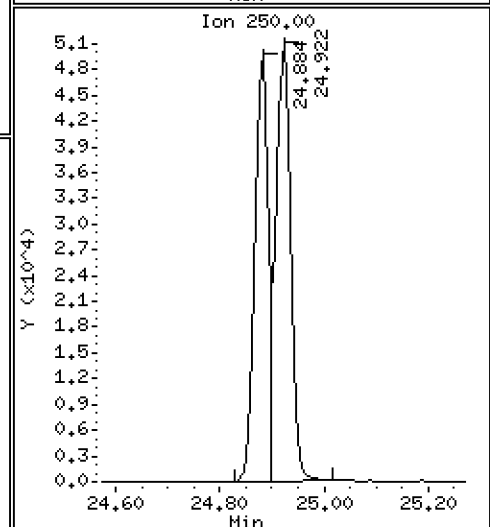
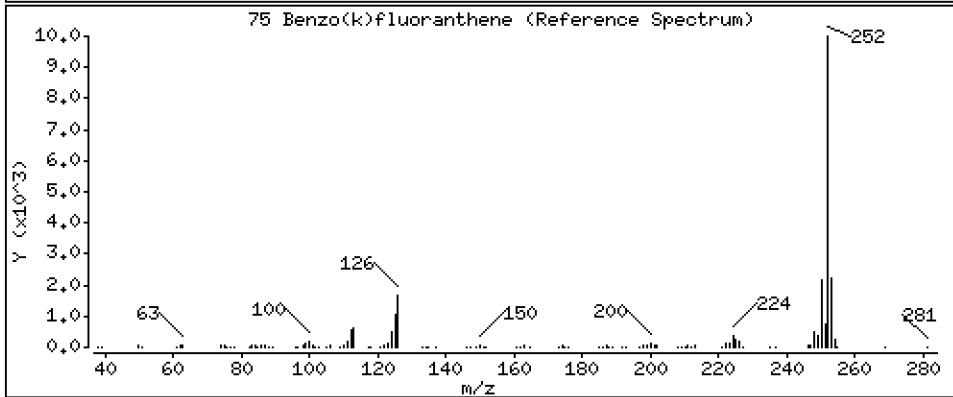
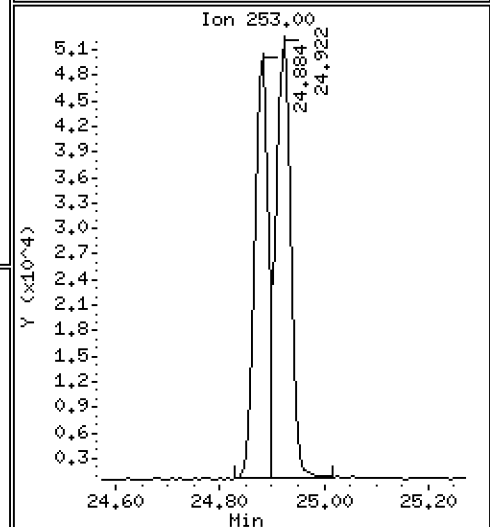
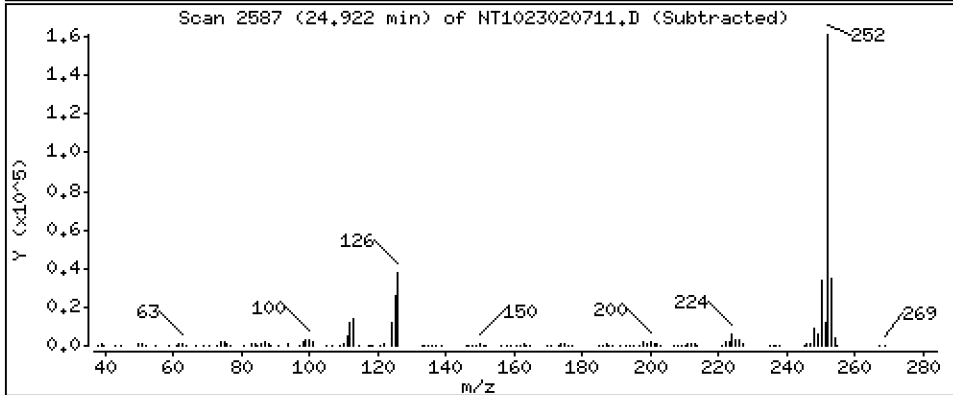
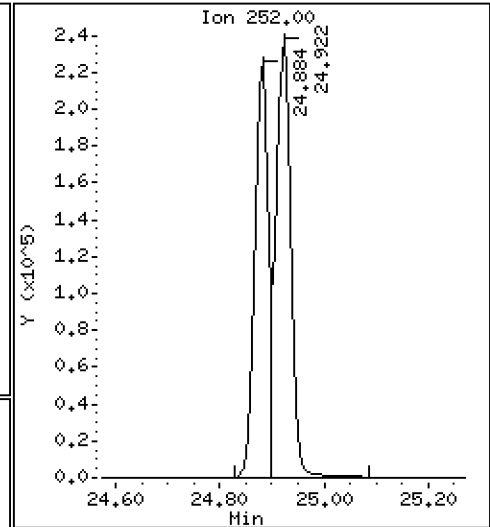
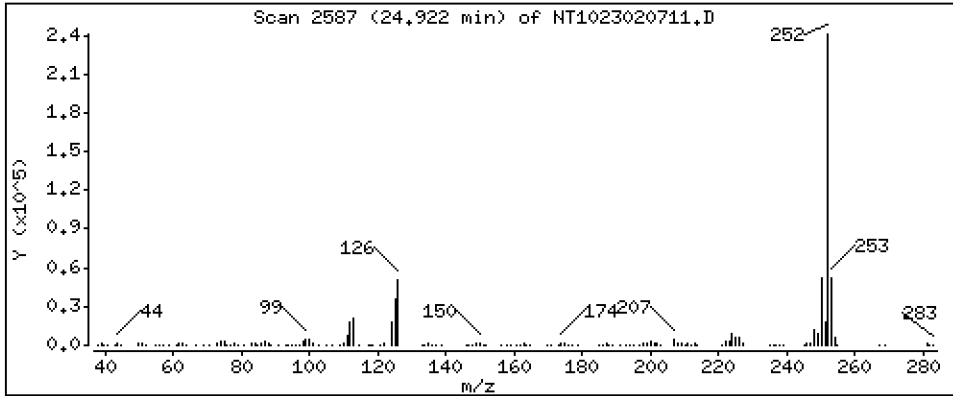
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,389 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

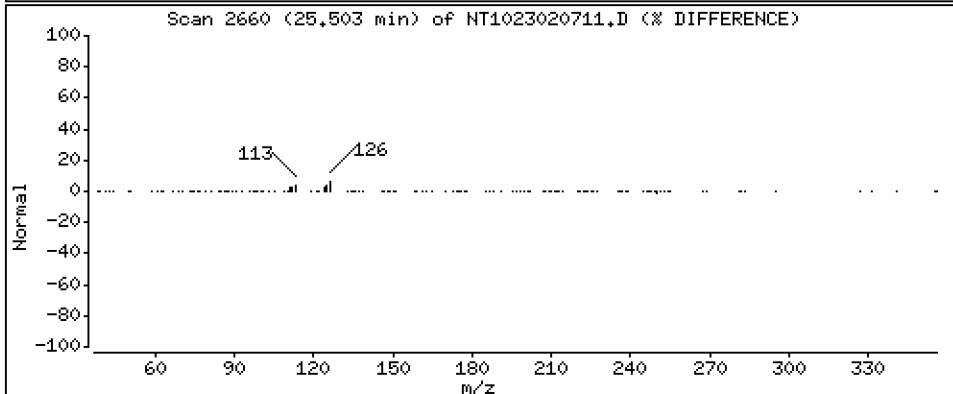
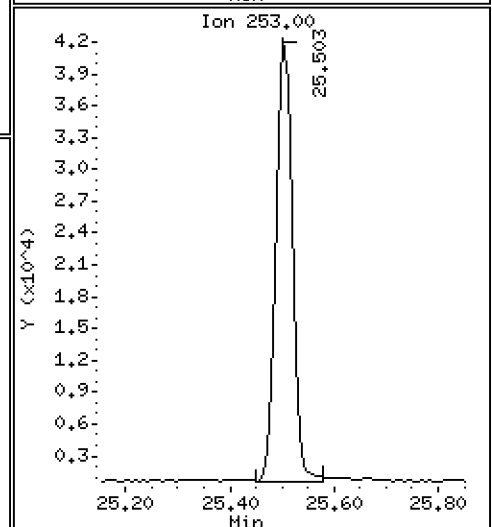
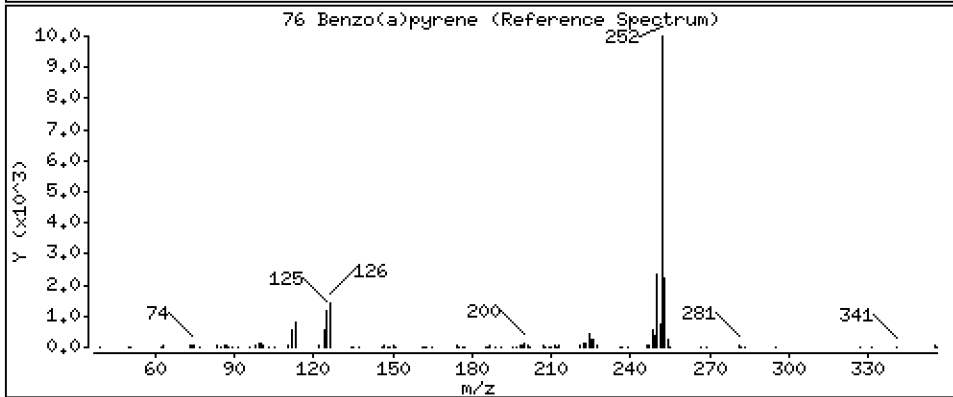
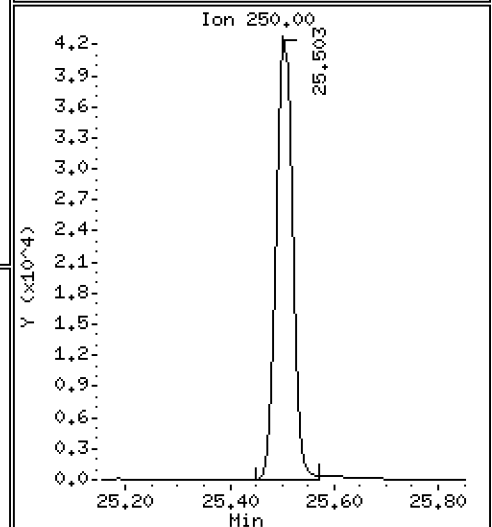
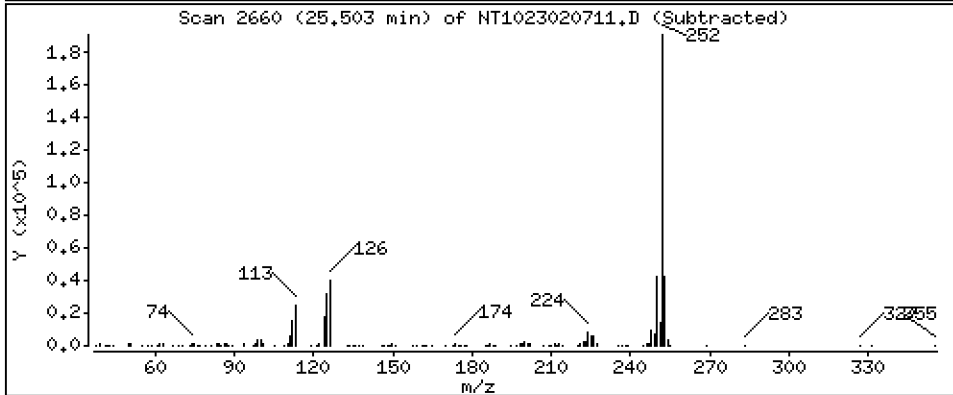
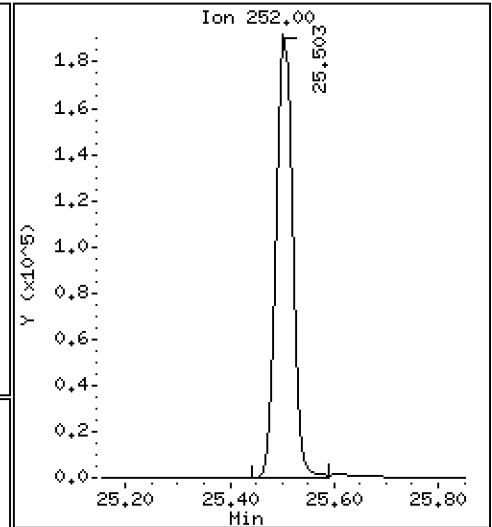
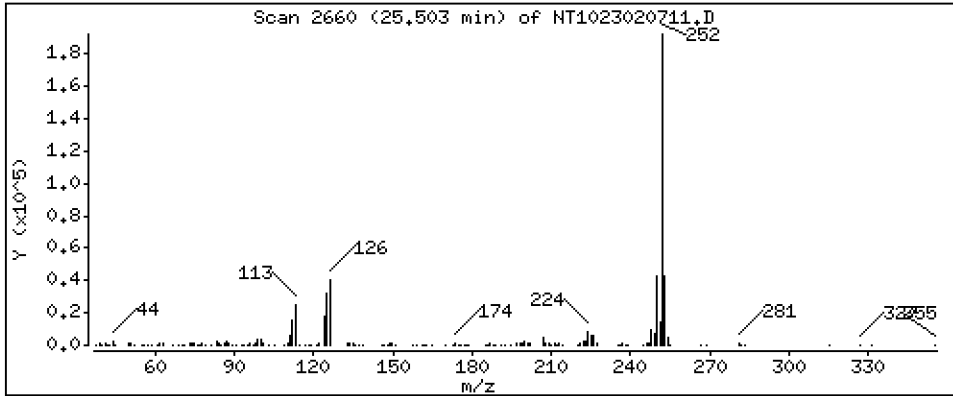
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,376 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

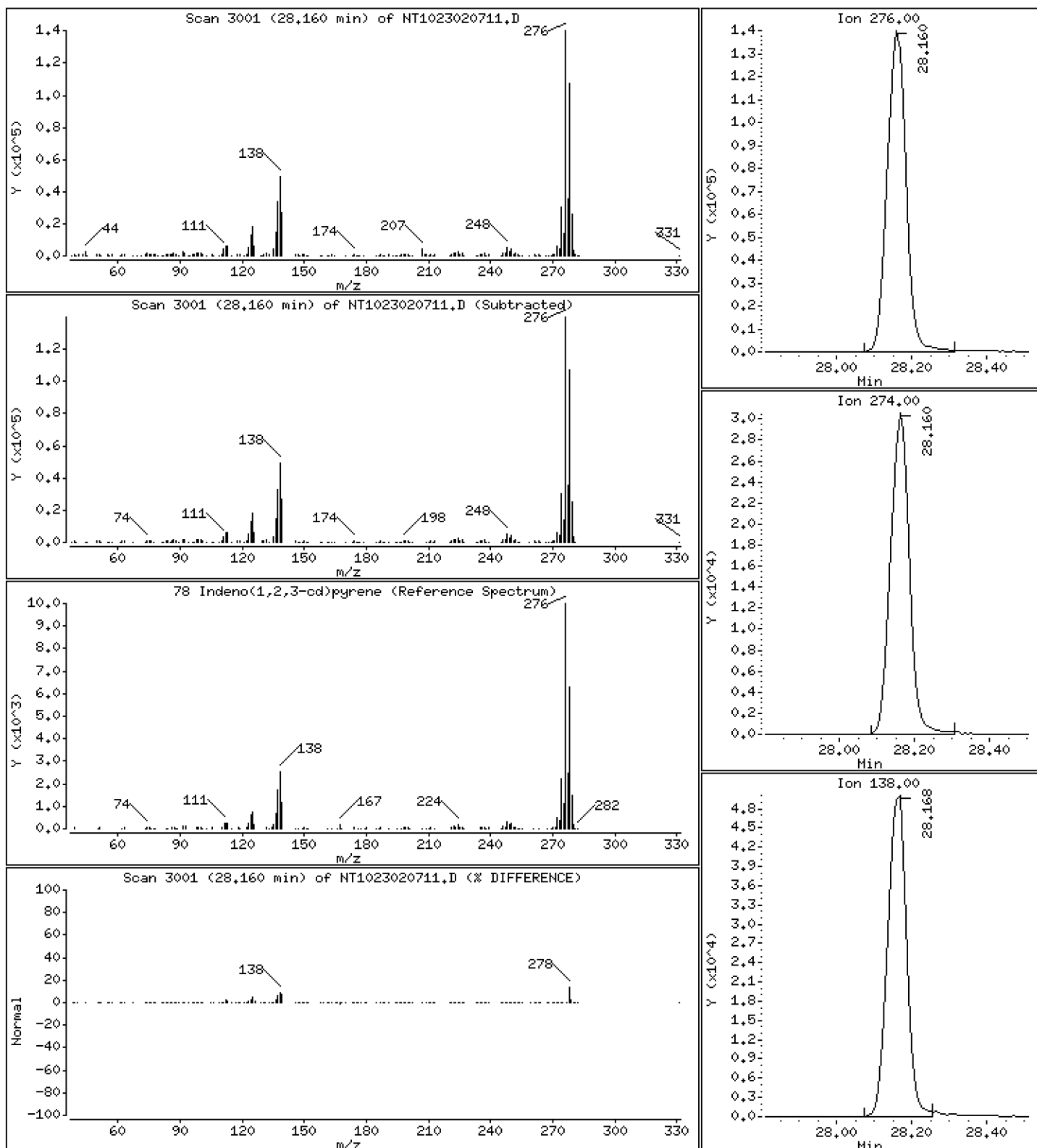
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 4,357 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

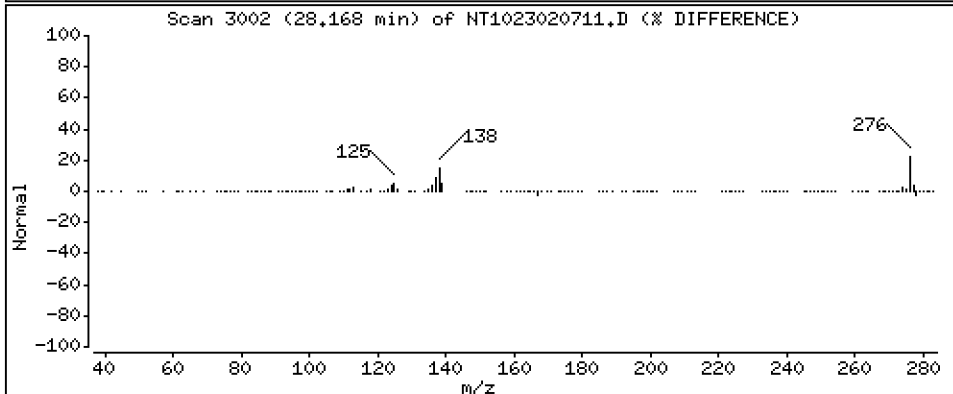
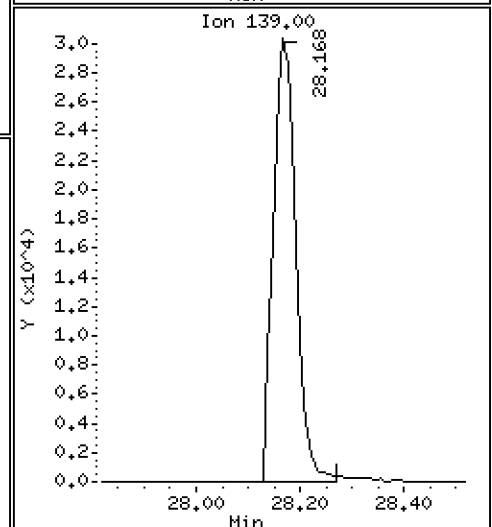
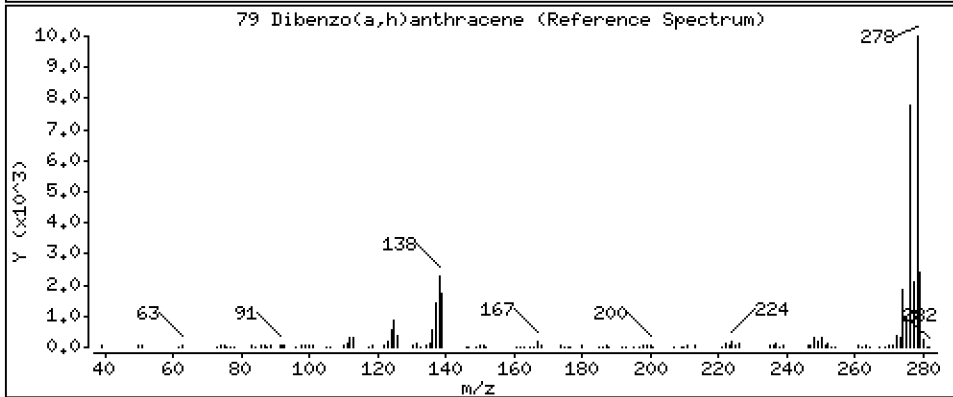
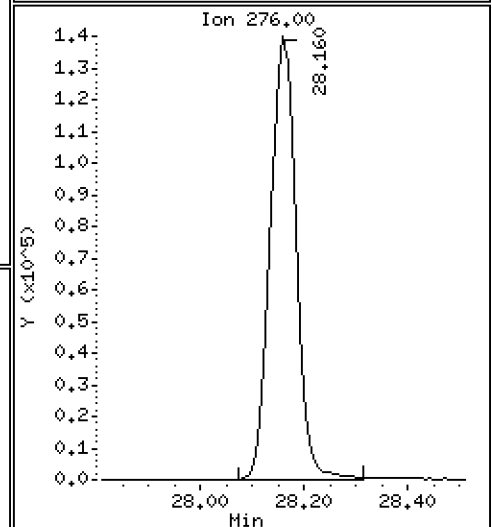
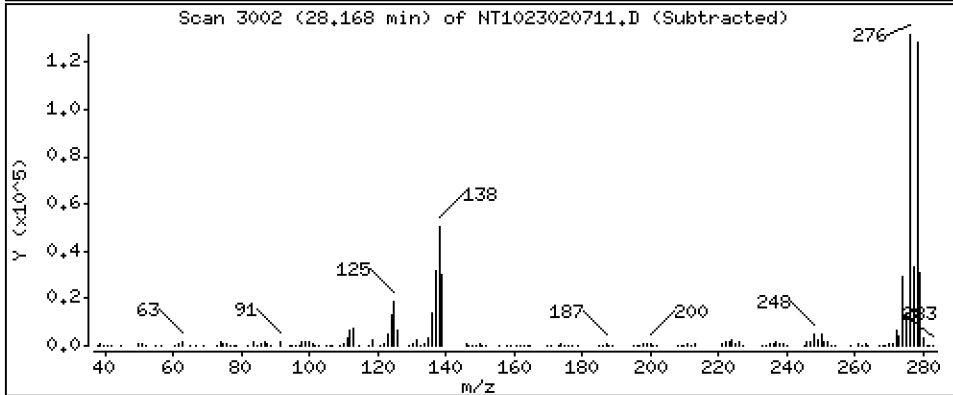
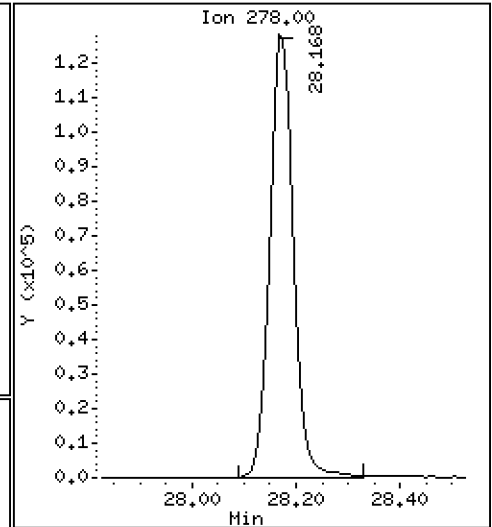
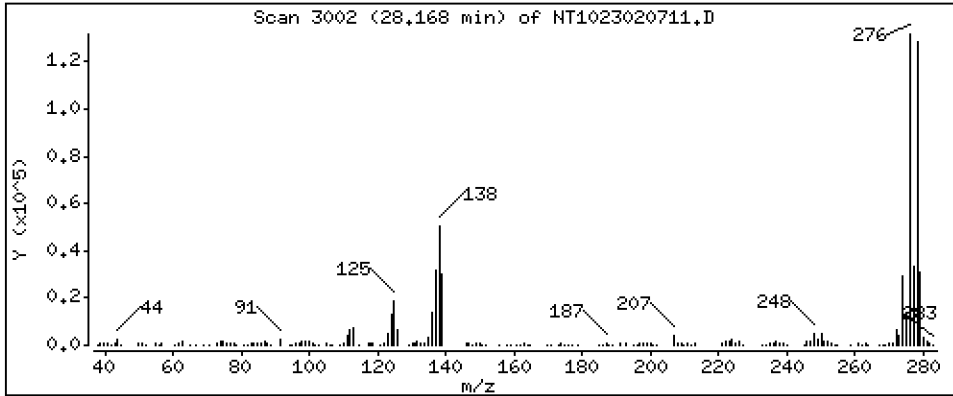
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,352 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

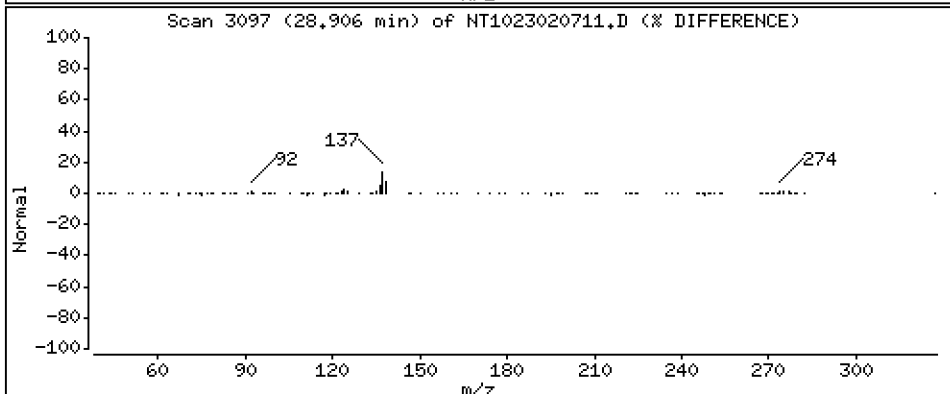
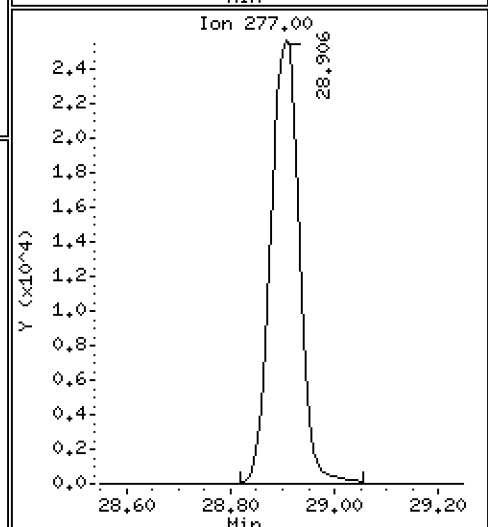
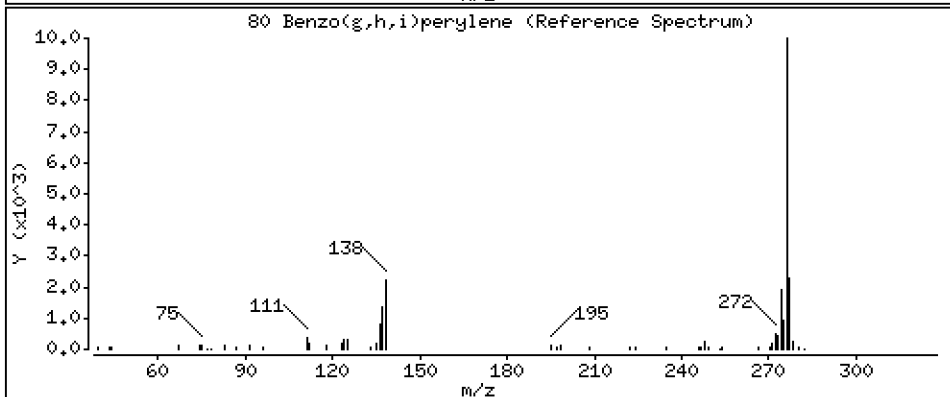
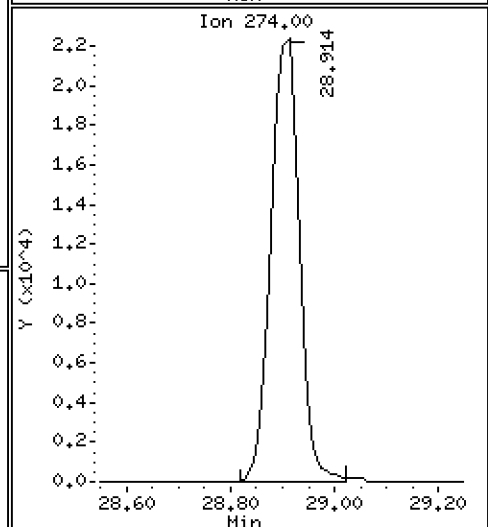
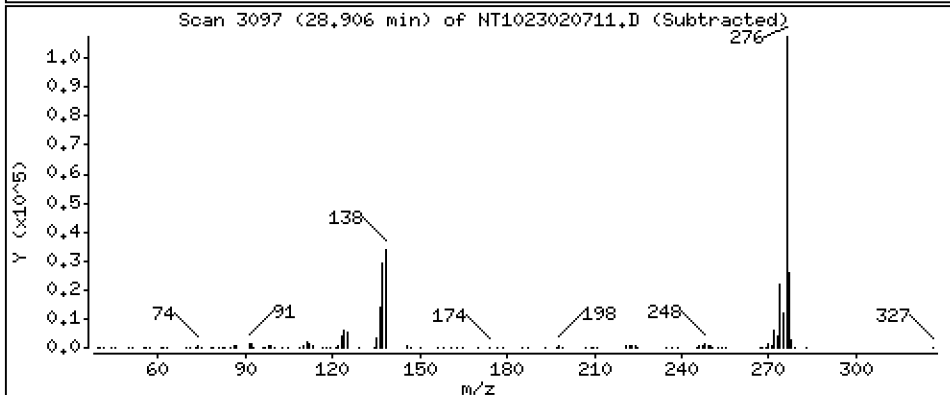
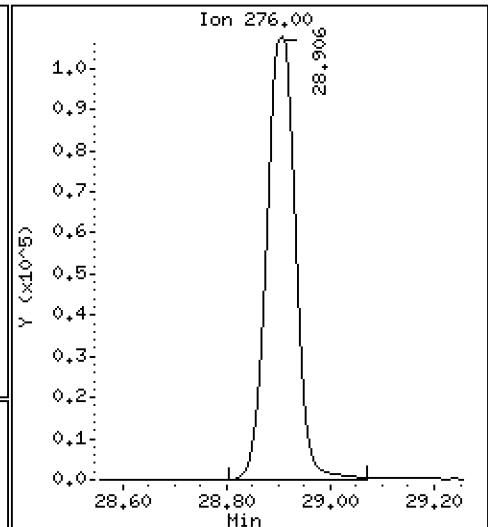
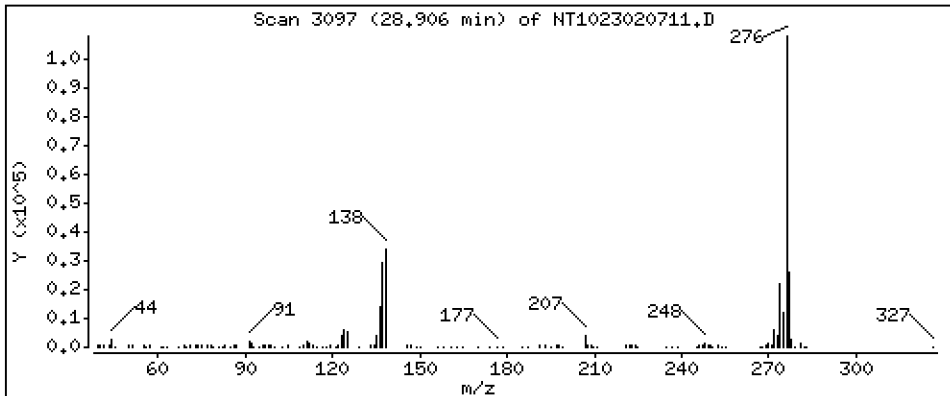
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 4,345 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

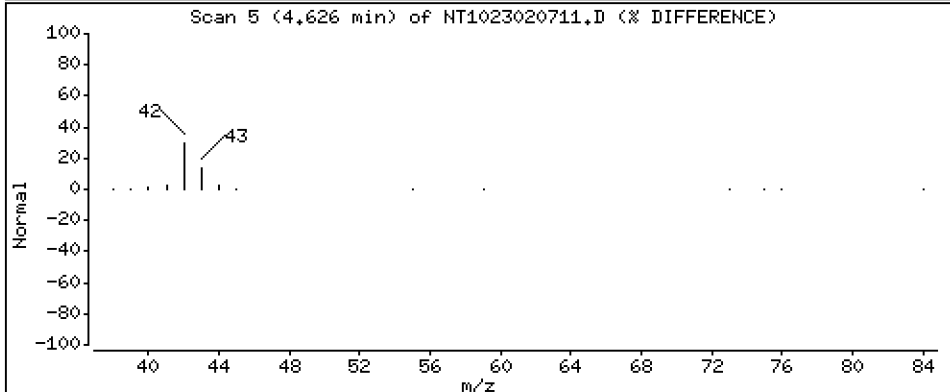
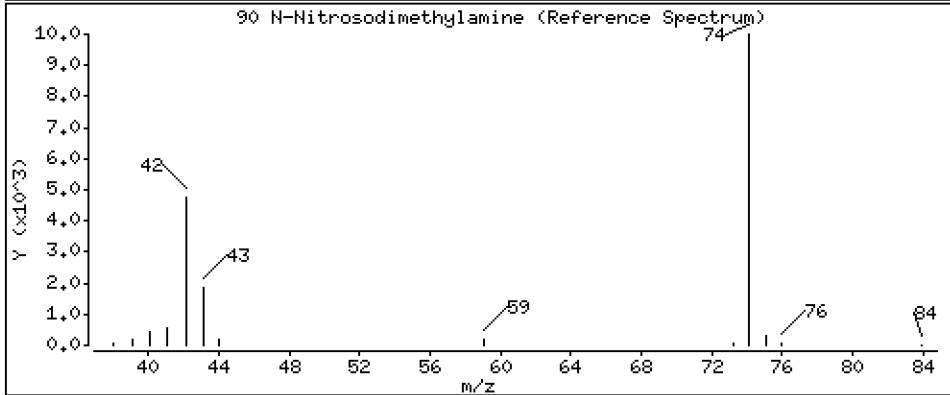
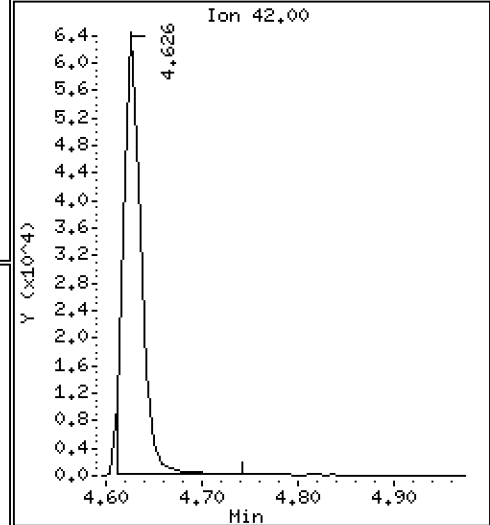
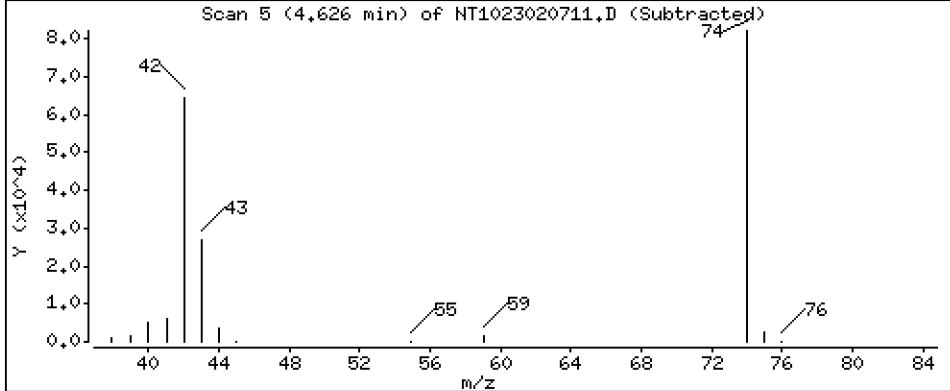
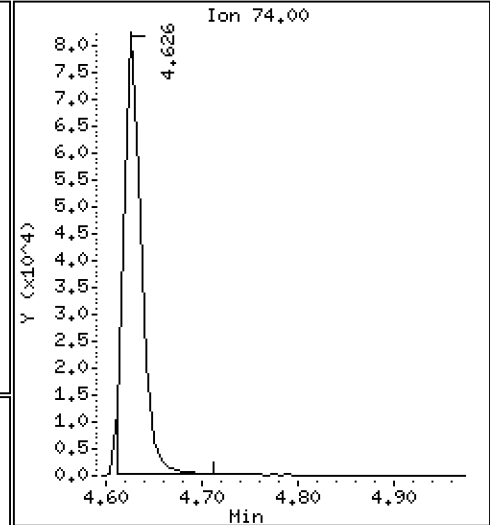
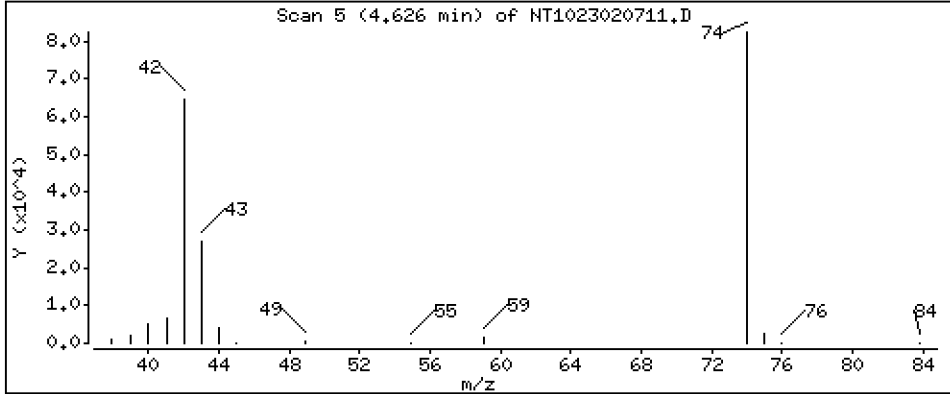
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 4,555 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

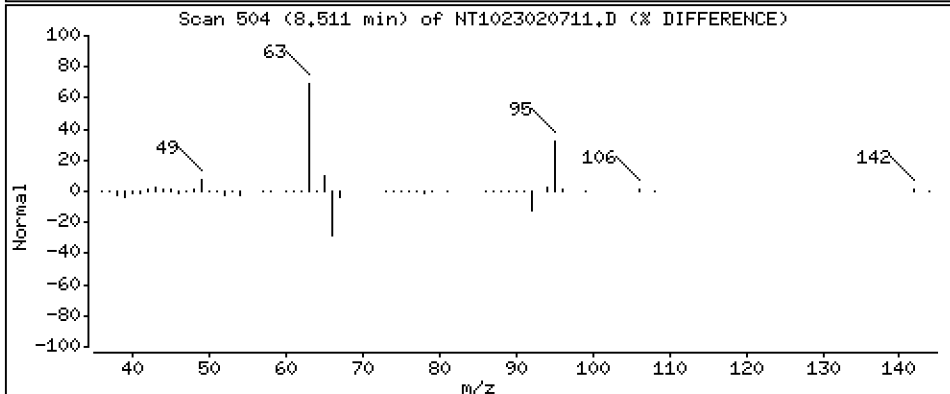
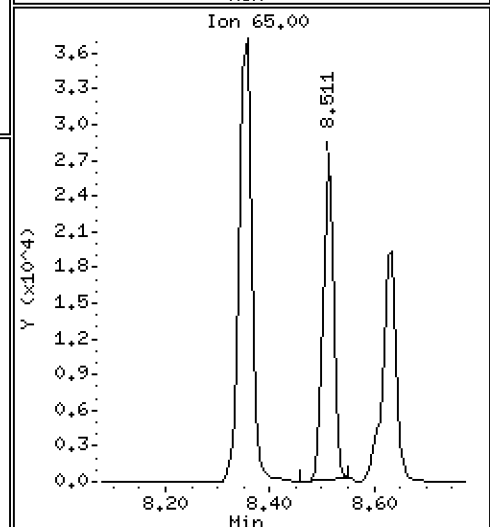
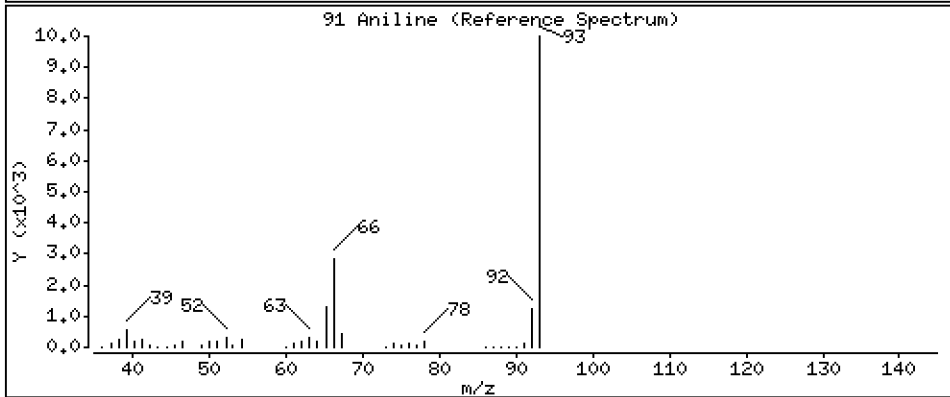
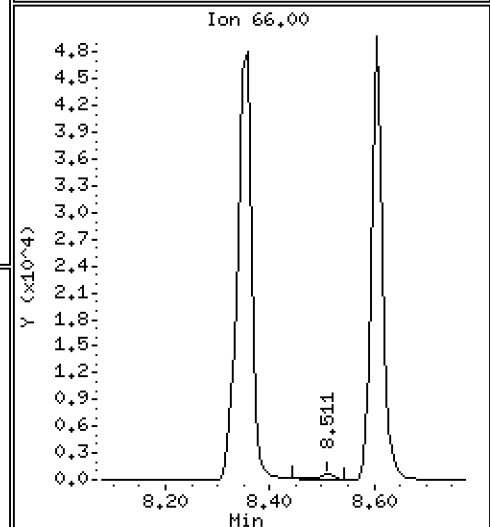
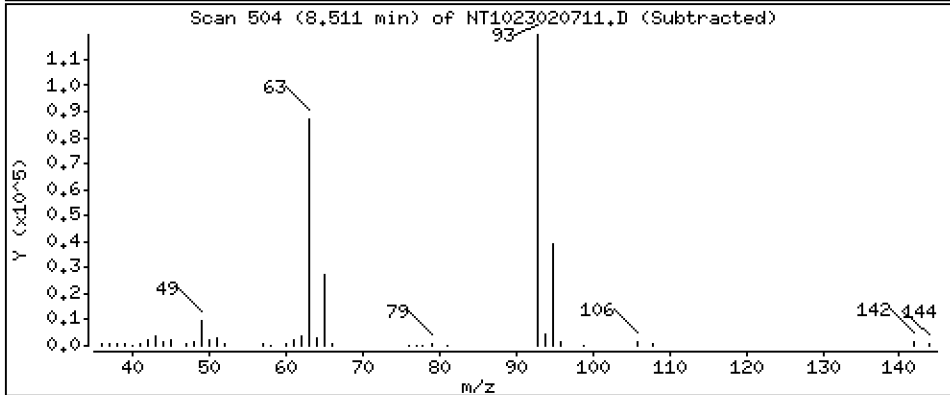
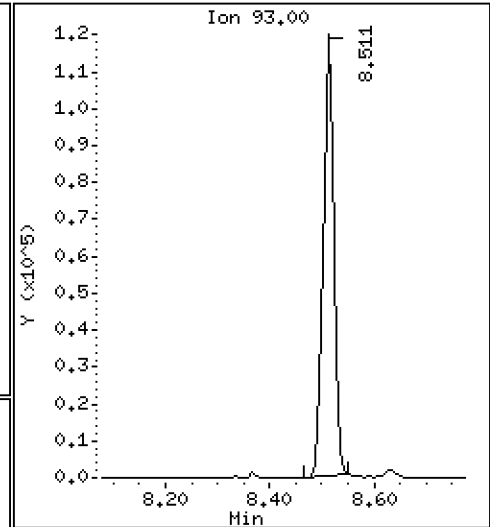
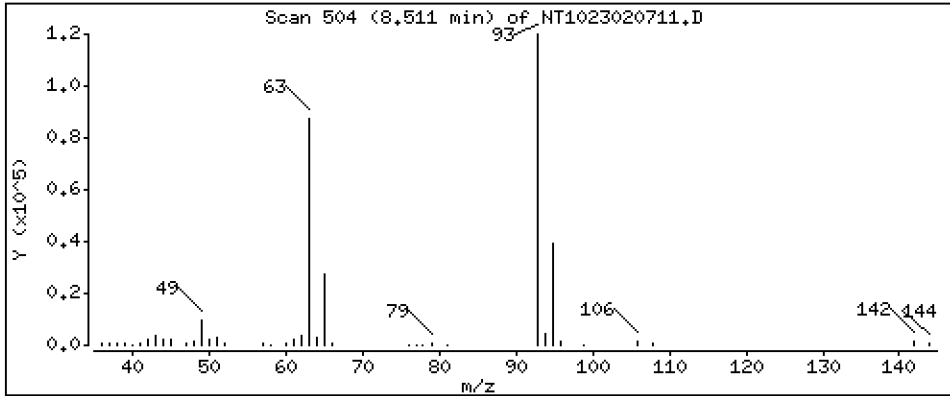
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

91 Aniline

Concentration: 3,348 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

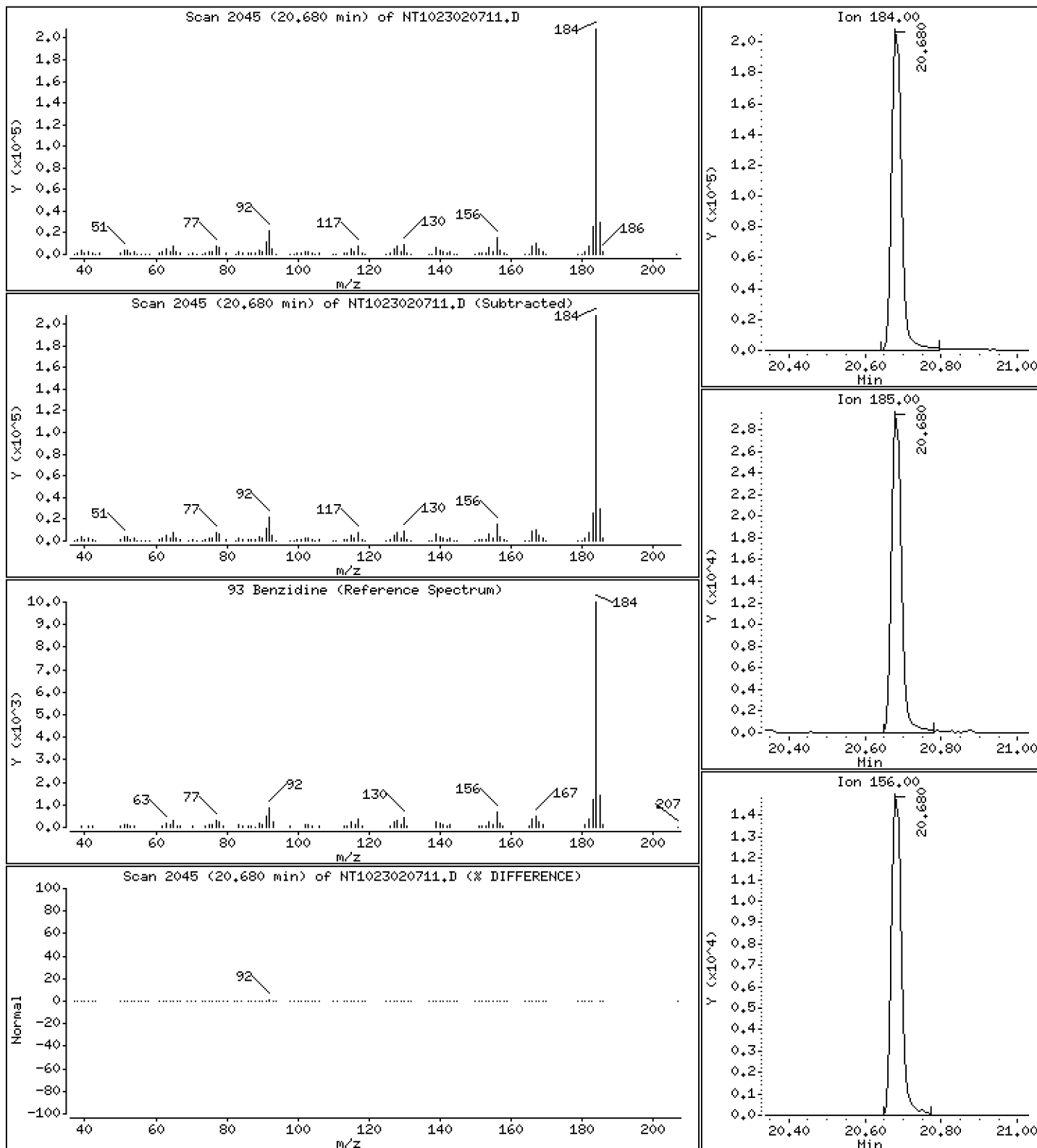
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 9,500 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

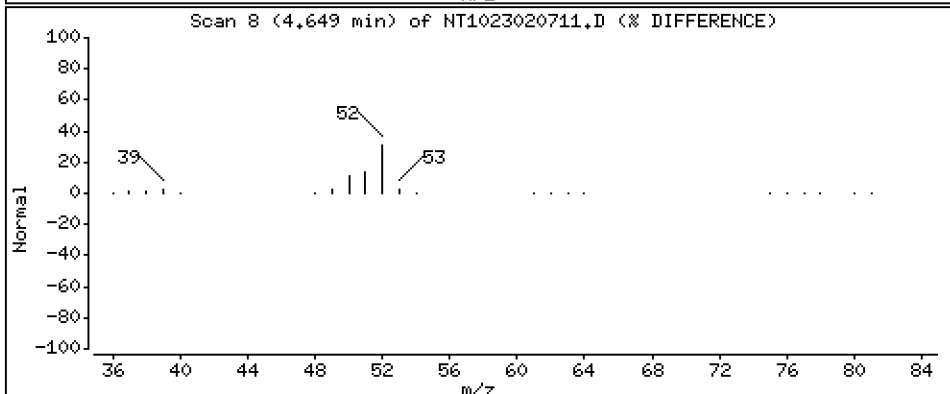
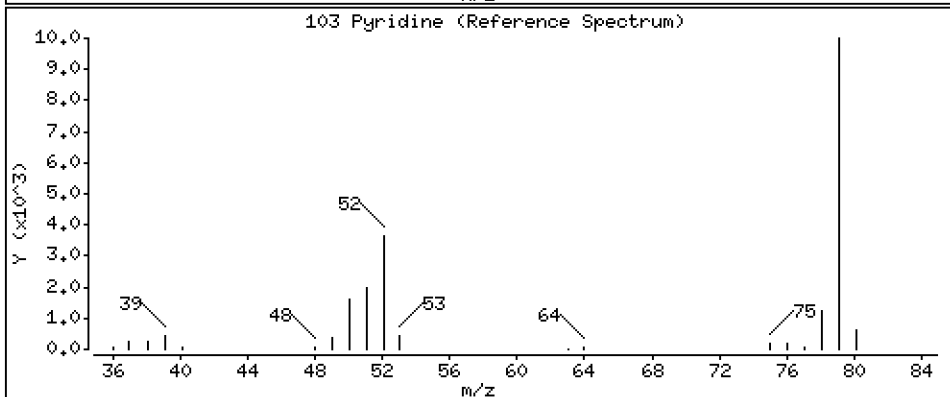
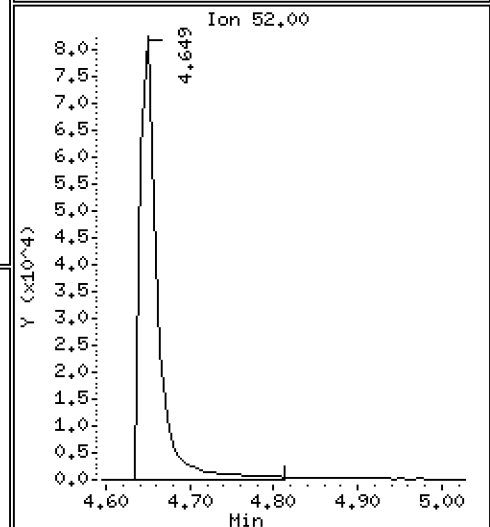
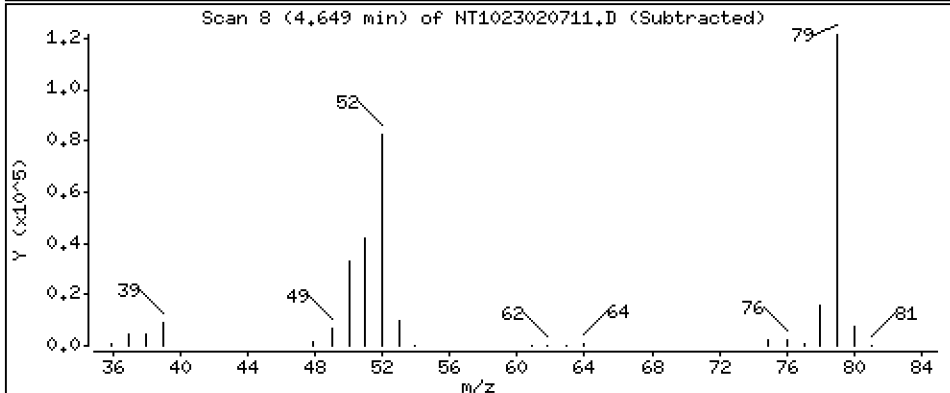
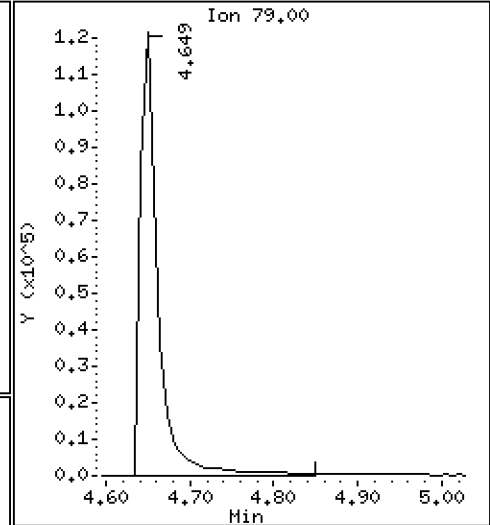
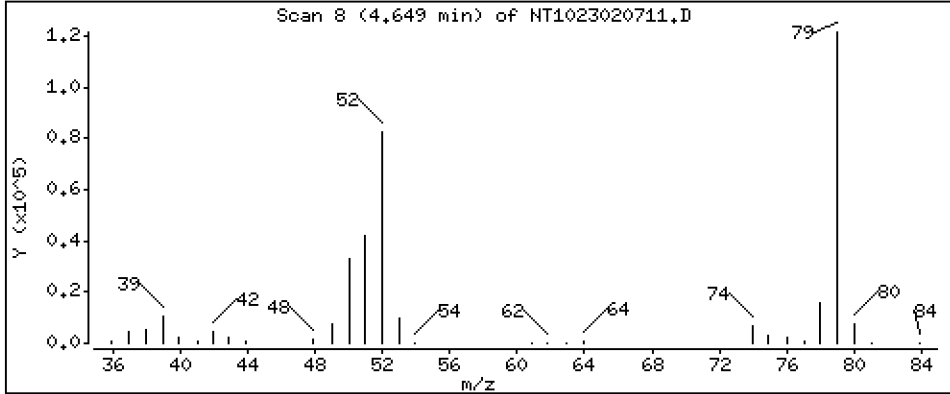
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 4,802 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

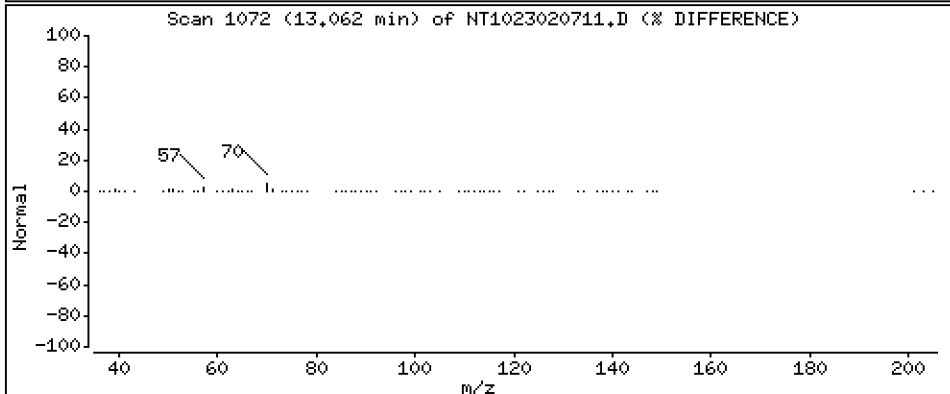
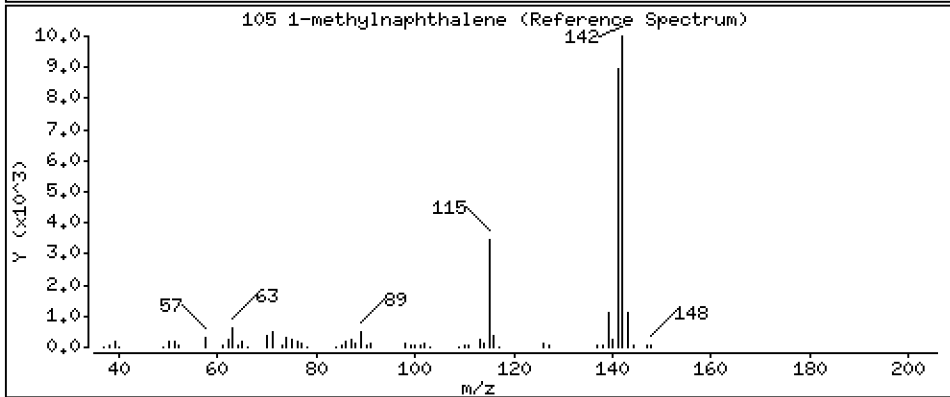
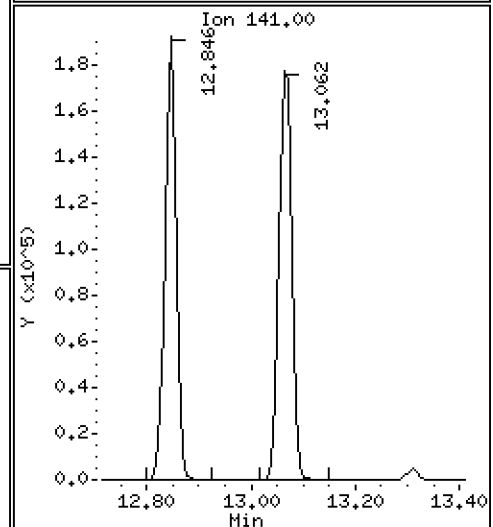
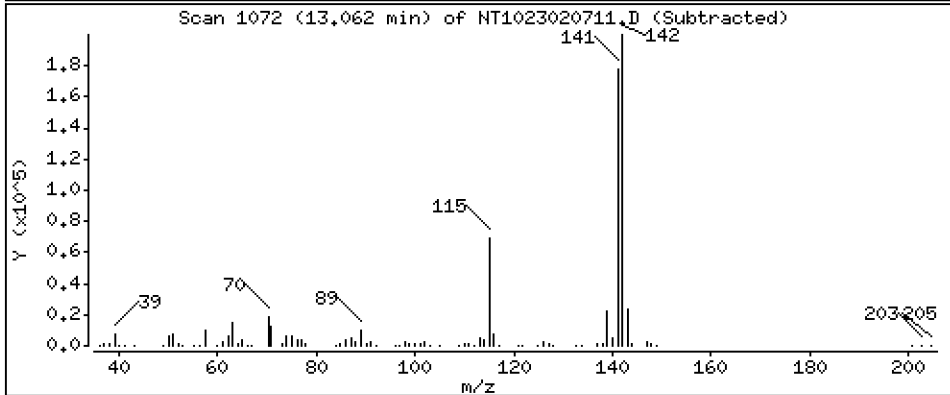
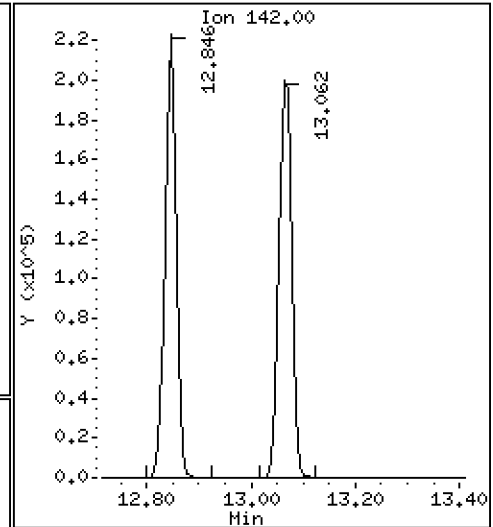
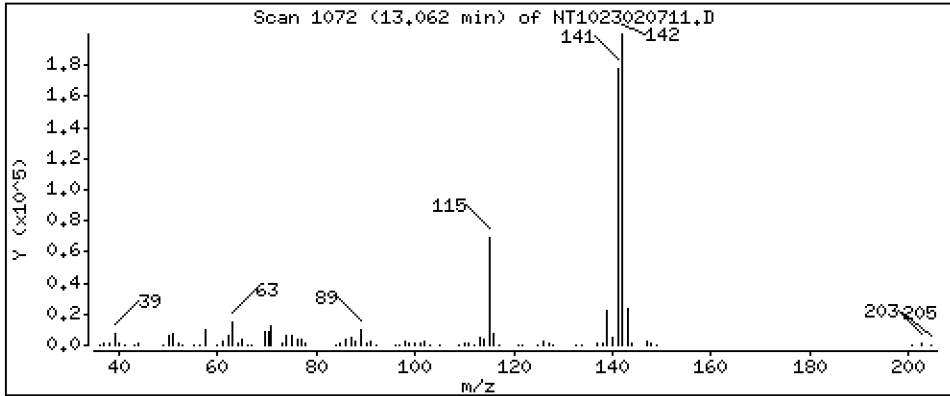
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 4,286 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

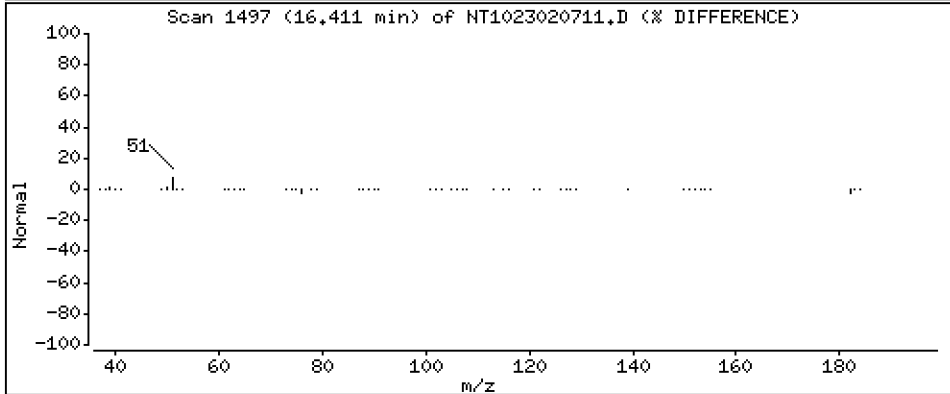
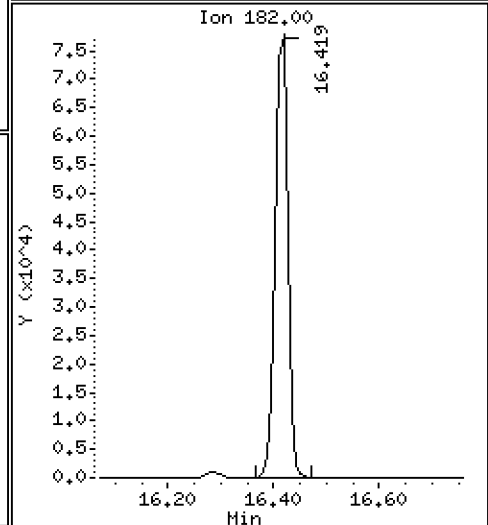
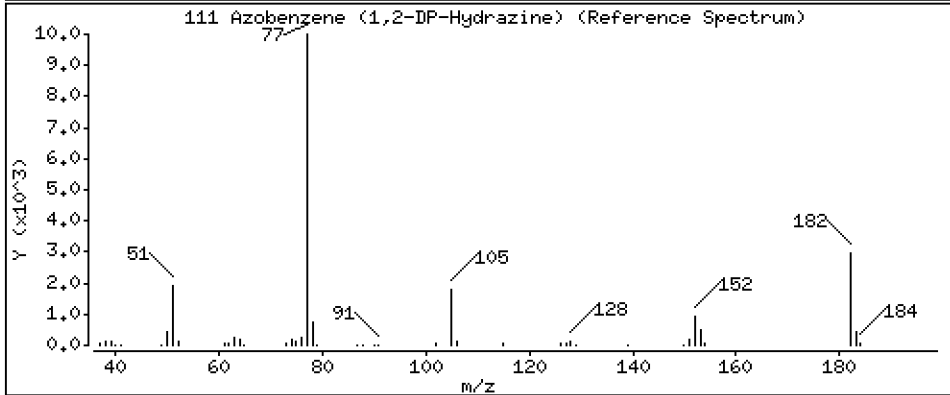
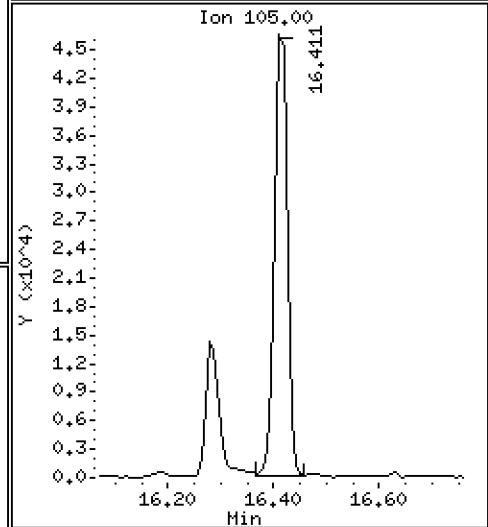
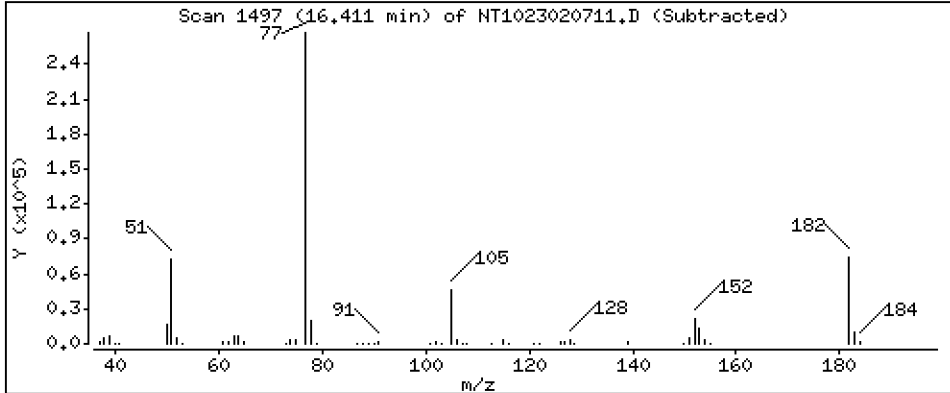
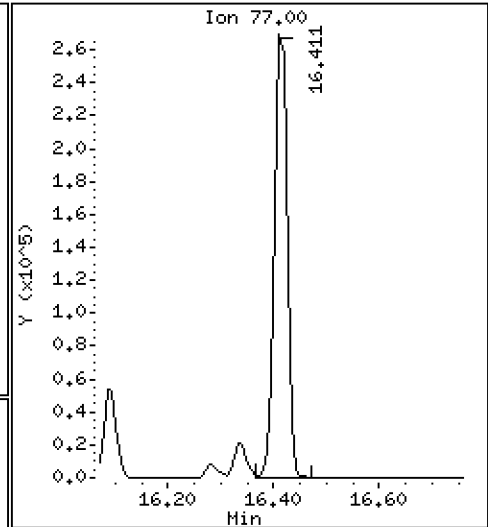
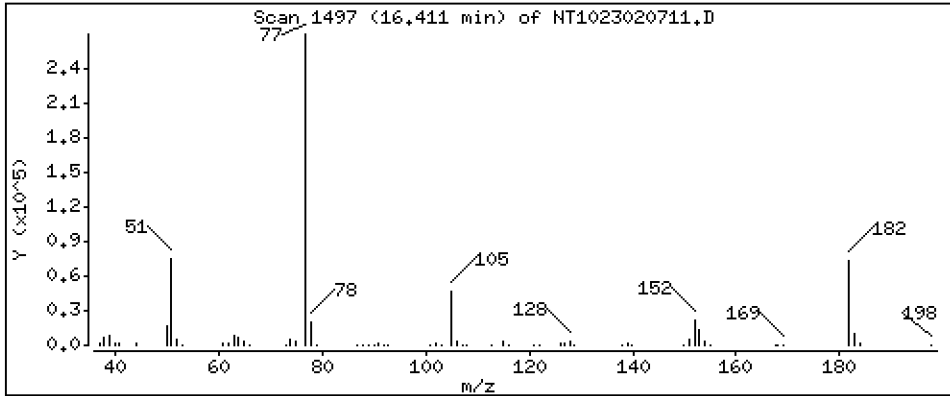
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 4.292 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

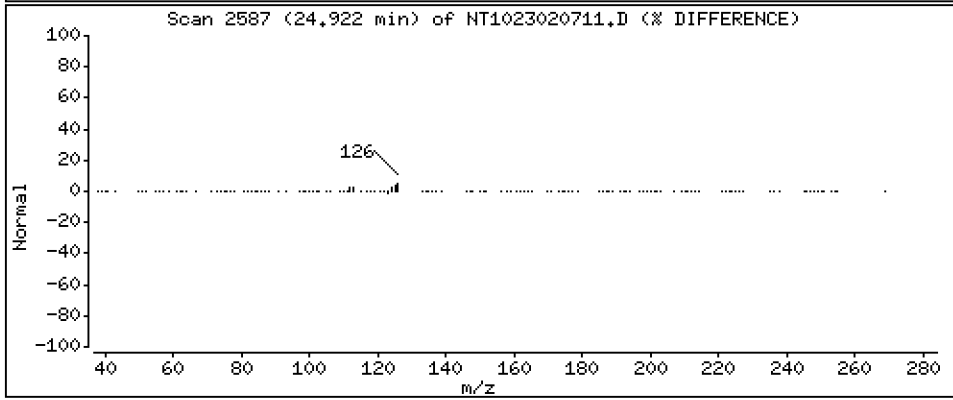
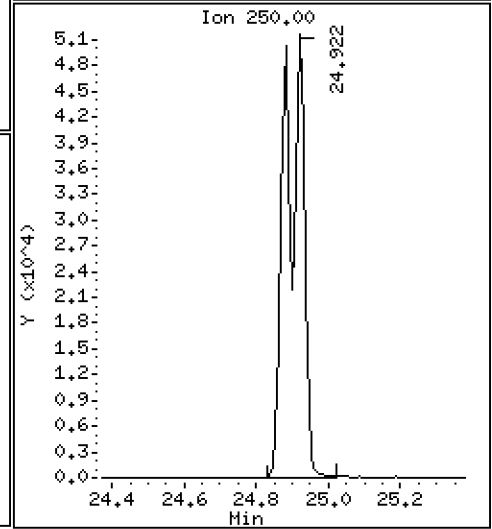
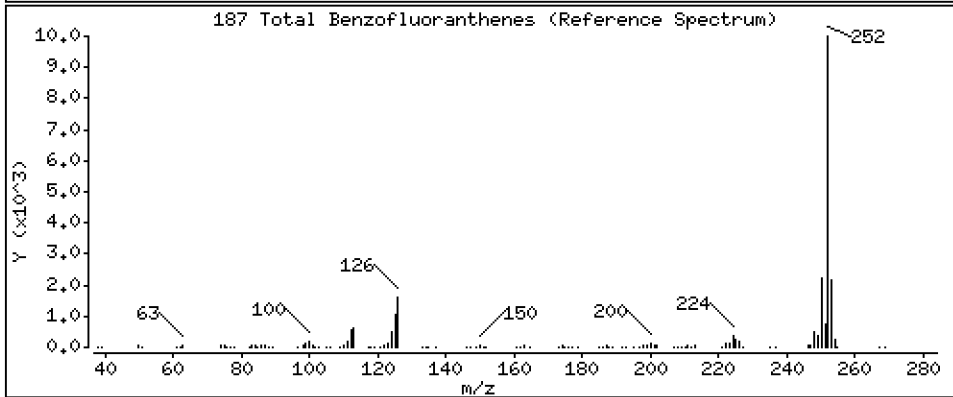
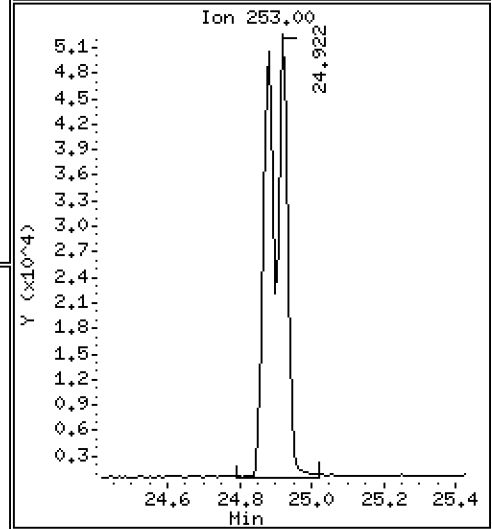
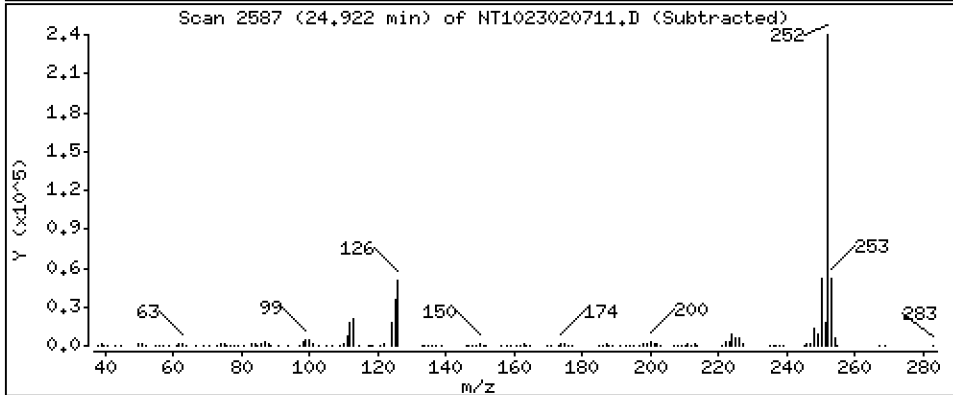
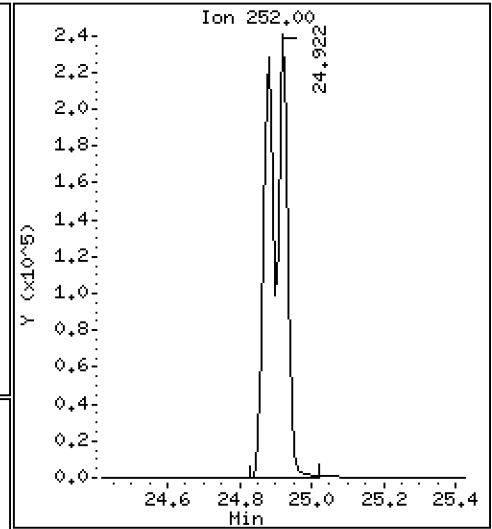
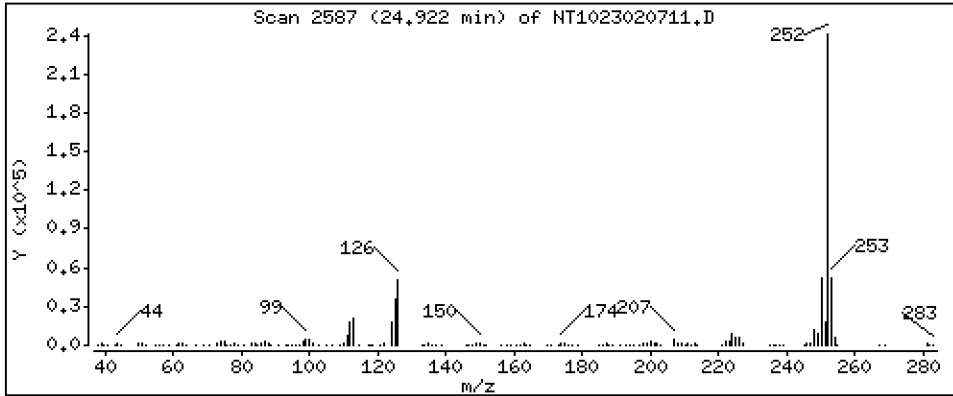
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 8,587 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

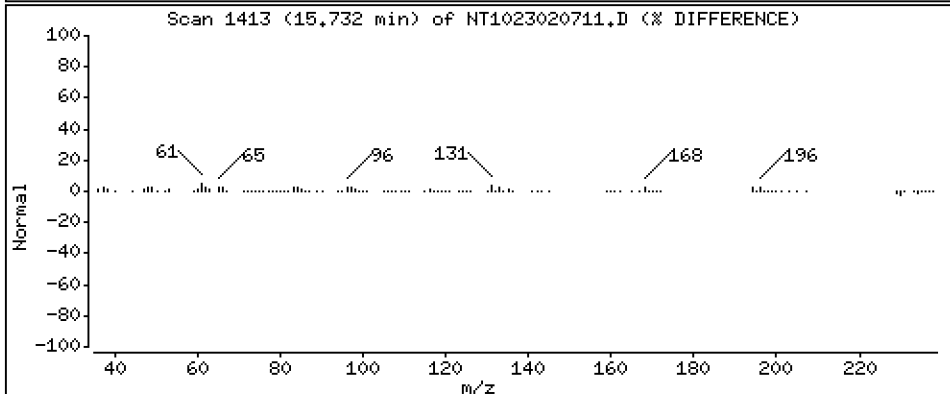
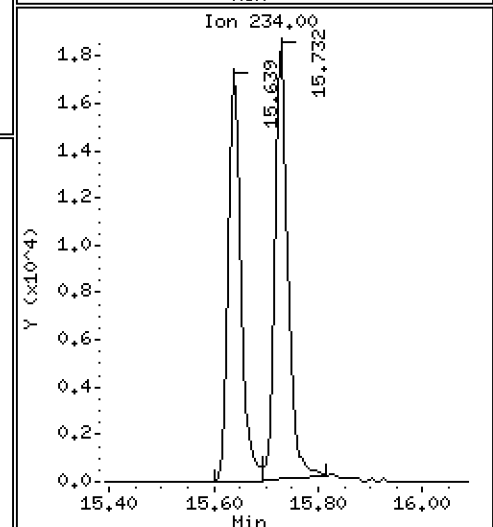
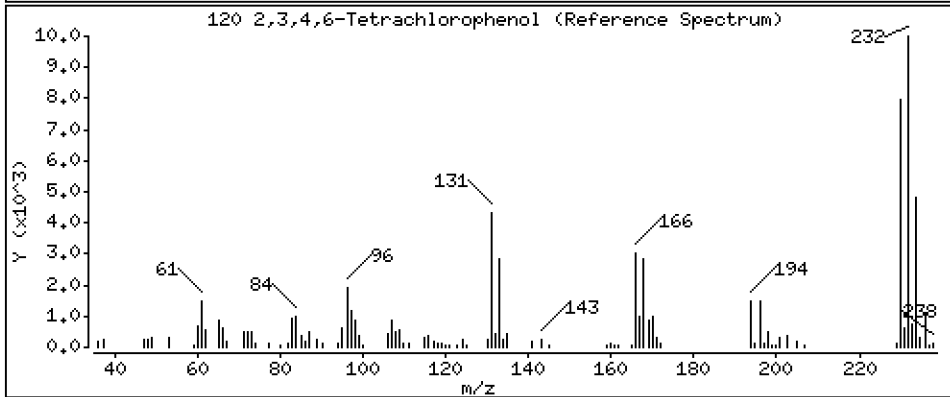
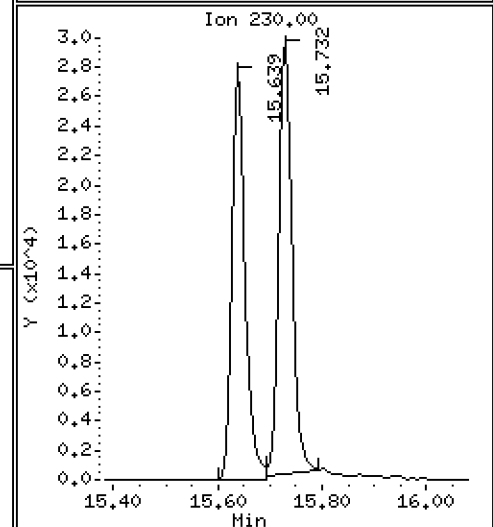
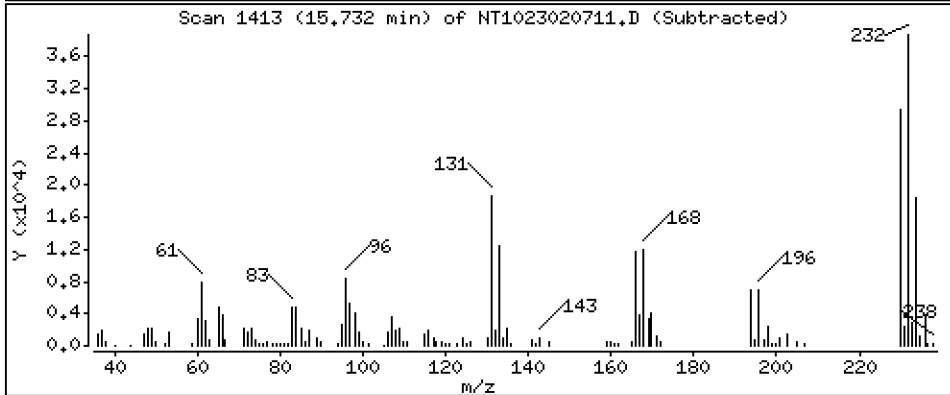
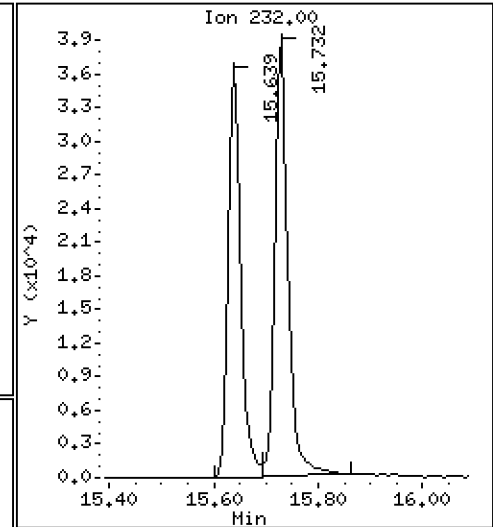
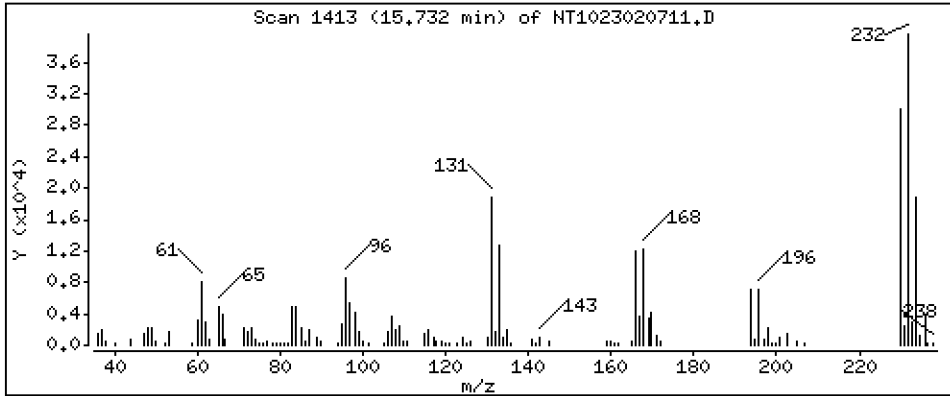
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,363 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020711.D
 Lab Smp Id: SLB0102-SCV1
 Inj Date : 07-FEB-2023 18:04
 Operator : VTS
 Smp Info : SLB0102-SCV1
 Misc Info :
 Comment : lul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 08-Feb-2023 10:39 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		6.765	6.772	(0.755)	255658	7.42059	7.421
\$ 2 Phenol-d5	99		8.333	8.333	(0.930)	336503	7.24016	7.240
3 Phenol	94		8.356	8.356	(0.933)	206466	4.10667	4.107
\$ 5 2-Chlorophenol-d4	132		8.604	8.603	(0.960)	272440	7.22261	7.223
4 Bis(2-Chloroethyl)ether	93		8.511	8.511	(0.950)	166519	4.55458	4.555
6 2-Chlorophenol	128		8.635	8.634	(0.964)	166557	4.05388	4.054
7 1,3-Dichlorobenzene	146		8.898	8.897	(0.993)	187090	4.33802	4.338
* 8 1,4-Dichlorobenzene-d4	152		8.960	8.959	(1.000)	108369	4.00000	
9 1,4-Dichlorobenzene	146		8.991	8.990	(1.003)	184757	4.34939	4.349
\$ 10 1,2-Dichlorobenzene-d4	152		9.317	9.316	(1.040)	120754	4.67680	4.677
12 1,2-Dichlorobenzene	146		9.348	9.340	(1.043)	179325	4.37882	4.379
11 Benzyl alcohol	108		9.231	9.239	(1.030)	107713	4.83673	4.837
14 2,2'-oxybis(1-Chloropropane)	121		9.526	9.526	(1.063)	58854	5.00174	5.002
13 2-Methylphenol	108		9.456	9.456	(1.055)	142781	3.82937	3.829
17 Hexachloroethane	117		9.930	9.929	(1.108)	72276	4.43822	4.438
16 N-Nitroso-di-n-propylamine	70		9.782	9.782	(1.092)	127909	4.56192	4.562
15 4-Methylphenol	108		9.728	9.728	(1.086)	155931	3.94823	3.948
\$ 18 Nitrobenzene-d5	82		10.038	10.038	(0.879)	201210	4.74845	4.748
19 Nitrobenzene	77		10.077	10.077	(0.882)	185871	4.39881	4.399
20 Isophorone	82		10.520	10.519	(0.921)	376895	6.40531	6.405
21 2-Nitrophenol	139		10.698	10.698	(0.937)	92330	4.24221	4.242
22 2,4-Dimethylphenol	107		10.758	10.757	(0.942)	137587	3.53638	3.536
23 Bis(2-Chloroethoxy)methane	93		10.944	10.944	(0.958)	195103	5.10637	5.106
24 Benzoic acid	105		10.936	11.003	(0.957)	97860	4.40978	4.410
25 2,4-Dichlorophenol	162		11.157	11.156	(0.977)	144593	4.57448	4.574
26 1,2,4-Trichlorobenzene	180		11.337	11.337	(0.993)	144321	4.19068	4.191
* 27 Naphthalene-d8	136		11.422	11.422	(1.000)	428903	4.00000	
28 Naphthalene	128		11.461	11.460	(1.003)	508486	4.43653	4.437
29 4-Chloroaniline	127		11.592	11.592	(1.015)	178023	3.62338	3.623
30 Hexachlorobutadiene	225		11.824	11.823	(1.035)	78384	4.36431	4.364
31 4-Chloro-3-methylphenol	107		12.543	12.551	(1.098)	148870	4.30829	4.308
32 2-Methylnaphthalene	142		12.845	12.845	(1.125)	336792	4.22624	4.226
33 Hexachlorocyclopentadiene	237		13.310	13.309	(0.887)	48748	3.35488	3.355
34 2,4,6-Trichlorophenol	196		13.464	13.464	(0.897)	86379	4.07941	4.079

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
35 2,4,5-Trichlorophenol	196	13.534	13.549	(0.902)	89332	3.91330	3.913
\$ 36 2-Fluorobiphenyl	172	13.619	13.619	(0.908)	380733	4.50425	4.504
37 2-Chloronaphthalene	162	13.828	13.828	(0.922)	305322	4.15548	4.155
38 2-Nitroaniline	65	14.084	14.083	(0.939)	100324	4.33640	4.336
39 Dimethylphthalate	163	14.517	14.509	(0.968)	336465	4.28029	4.280
40 Acenaphthylene	152	14.695	14.695	(0.979)	505791	4.32170	4.322
41 2,6-Dinitrotoluene	165	14.649	14.648	(0.976)	81495	4.37719	4.377
* 42 Acenaphthene-d10	164	15.004	15.004	(1.000)	234560	4.00000	
43 3-Nitroaniline	138	14.927	14.935	(0.995)	93629	4.36156	4.362
44 Acenaphthene	153	15.066	15.066	(1.004)	303572	4.23254	4.233
45 2,4-Dinitrophenol	184	15.144	15.151	(1.009)	13332	1.38463	1.385
46 Dibenzofuran	168	15.391	15.391	(1.026)	431624	4.18335	4.183
47 4-Nitrophenol	109	15.260	15.313	(1.017)	32938	4.11607	4.116
48 2,4-Dinitrotoluene	165	15.445	15.452	(1.029)	109550	4.26455	4.265
50 Diethylphthalate	149	15.955	15.955	(1.063)	333844	4.42248	4.422
49 Fluorene	166	16.102	16.094	(1.073)	479965	4.13854	4.139
51 4-Chlorophenyl-phenylether	204	16.095	16.087	(1.073)	244410	4.31488	4.315
52 4-Nitroaniline	138	16.187	16.187	(1.079)	106457	4.33959	4.340
53 4,6-Dinitro-2-methylphenol	198	16.287	16.287	(0.904)	58398	3.99461	3.995
54 N-Nitrosodiphenylamine	169	16.341	16.341	(0.907)	303362	4.38443	4.384
\$ 55 2,4,6-Tribromophenol	330	16.627	16.619	(1.108)	83549	7.11340	7.113
56 4-Bromophenyl-phenylether	248	17.089	17.089	(0.948)	116005	4.54993	4.550
57 Hexachlorobenzene	284	17.399	17.398	(0.966)	117771	4.28908	4.289
58 Pentachlorophenol	266	17.763	17.770	(0.986)	36088	3.45281	3.453
* 59 Phenanthrene-d10	188	18.018	18.018	(1.000)	404758	4.00000	
60 Phenanthrene	178	18.064	18.064	(1.003)	468874	4.30426	4.304
61 Anthracene	178	18.157	18.157	(1.008)	420633	3.89959	3.900
62 Carbazole	167	18.482	18.489	(1.026)	433438	4.16620	4.166
63 Di-n-butylphthalate	149	19.294	19.294	(1.071)	572045	4.61099	4.611
64 Fluoranthene	202	20.447	20.447	(0.887)	512115	4.34016	4.340
65 Pyrene	202	20.873	20.872	(0.905)	520882	4.27594	4.276
\$ 66 Terphenyl-d14	244	21.167	21.167	(0.918)	415185	4.52003	4.520
67 Butylbenzylphthalate	149	22.096	22.088	(0.958)	230821	4.38473	4.385
68 Benzo(a)anthracene	228	23.033	23.033	(0.999)	439471	4.09739	4.097
* 69 Chrysene-d12	240	23.064	23.064	(1.000)	321783	4.00000	
70 3,3'-Dichlorobenzidine	252	22.994	22.994	(0.997)	313735	8.64513	8.645
71 Chrysene	228	23.110	23.102	(1.002)	413343	4.01838	4.018
72 bis(2-Ethylhexyl)phthalate	149	23.126	23.125	(0.959)	322683	4.69228	4.692
* 134 Di-n-octylphthalate-d4	153	24.109	24.109	(1.000)	505567	4.00000	
73 Di-n-octylphthalate	149	24.117	24.116	(1.000)	572730	4.48283	4.483
74 Benzo(b)fluoranthene	252	24.883	24.875	(0.971)	435974	4.23486	4.235
75 Benzo(k)fluoranthene	252	24.922	24.922	(0.973)	475700	4.38893	4.389
76 Benzo(a)pyrene	252	25.502	25.502	(0.995)	407352	4.37606	4.376
* 77 Perylene-d12	264	25.619	25.611	(1.000)	325220	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.160	28.159	(1.099)	482778	4.35726	4.357
79 Dibenzo(a,h)anthracene	278	28.168	28.175	(1.099)	399451	4.35211	4.352
80 Benzo(g,h,i)perylene	276	28.905	28.905	(1.128)	413155	4.34488	4.345
90 N-Nitrosodimethylamine	74	4.626	4.625	(0.516)	109183	4.55509	4.555
91 Aniline	93	8.511	8.426	(0.950)	162935	3.34843	3.348 (M)
93 Benzidine	184	20.679	20.687	(0.897)	356906	9.49988	9.500
103 Pyridine	79	4.649	4.679	(0.519)	178138	4.80158	4.802
105 1-methylnaphthalene	142	13.062	13.062	(1.144)	328833	4.28597	4.286
111 Azobenzene (1,2-DP-Hydrazine)	77	16.411	16.410	(1.094)	431713	4.29217	4.292
187 Total Benzofluoranthenes	252	24.922	24.922	(0.973)	866639	8.58675	8.587

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====	=====	=====	=====	=====	=====	
120 2,3,4,6-Tetrachlorophenol	232	15.731	15.738	(1.048)	73774	3.36344	3.363

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 08-FEB-2023
 Lab File ID: NT1023020711.D Calibration Time: 07:24
 Lab Smp Id: SLB0102-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	110702	55351	221404	108369	-2.11
27 Naphthalene-d8	429852	214926	859704	428903	-0.22
42 Acenaphthene-d10	233715	116858	467430	234560	0.36
59 Phenanthrene-d10	388662	194331	777324	404758	4.14
69 Chrysene-d12	345176	172588	690352	321783	-6.78
134 Di-n-octylphthala	579750	289875	1159500	505567	-12.80
77 Perylene-d12	378227	189114	756454	325220	-14.01

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.96	-0.08
27 Naphthalene-d8	11.43	10.93	11.93	11.42	-0.06
42 Acenaphthene-d10	15.01	14.51	15.51	15.00	-0.05
59 Phenanthrene-d10	18.03	17.53	18.53	18.02	-0.04
69 Chrysene-d12	23.07	22.57	23.57	23.06	-0.03
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	0.00
77 Perylene-d12	25.63	25.13	26.13	25.62	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020711.D

Lab ID: SLB0102-SCV1
nt10.i, 20230207.b\ABN.m, 07-FEB-2023 18:04

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.957	0.000	0.9574	Benzoic acid
1.009	0.000	1.0093	2,4-Dinitrophenol
0.950	0.940	0.0095	Aniline

RRT check based on Ccal File: NT1023020708.D

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

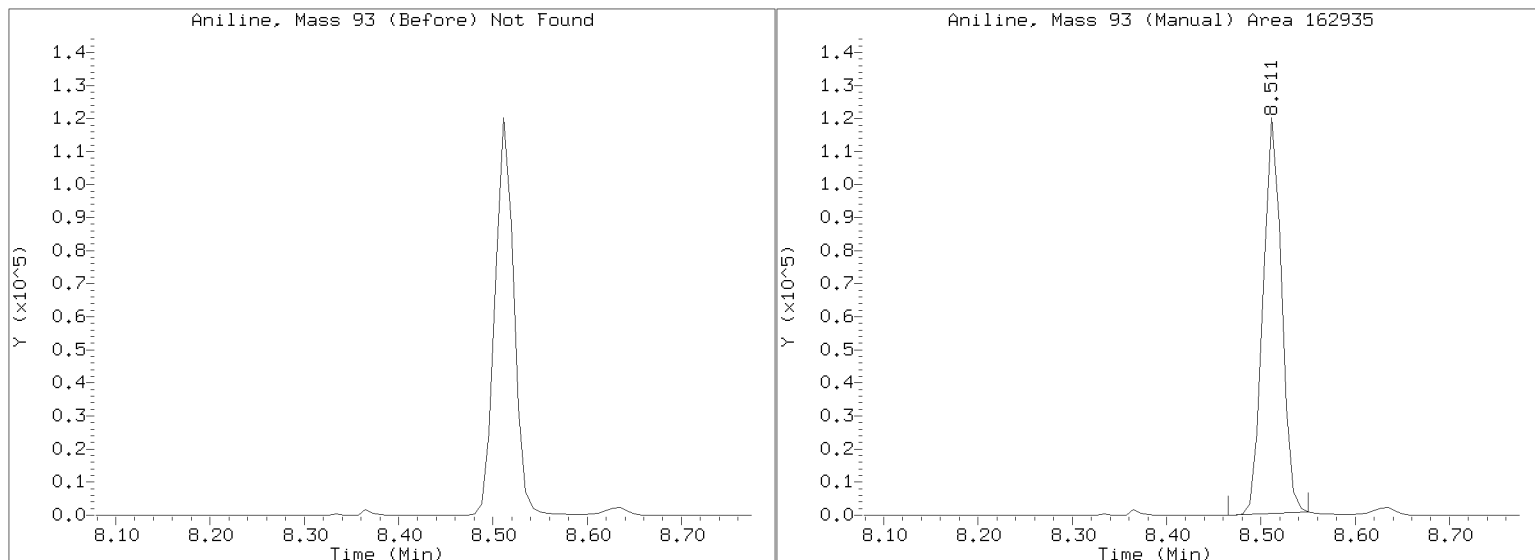
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020711.D

Injection Date: 07-FEB-2023 18:04

Lab ID:SLB0102-SCV1 Client ID:

Report Date: 02/09/2023 11:24



APPROVED

By Deenay Dunmore at 11:30 am, Feb 09, 2023



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00036

Laboratory ID: SLB0195-SCV1

Sequence: SLB0195

Sequence Name: SCV 5.0

Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	5.0000	4.3	-14.3	20.00
bis(2-chloroethyl) ether	5.0000	4.7	-6.8	20.00
2-Chlorophenol	5.0000	4.3	-13.6	20.00
1,3-Dichlorobenzene	5.0000	4.4	-11.1	20.00
1,4-Dichlorobenzene	5.0000	4.6	-7.4	20.00
1,2-Dichlorobenzene	5.0000	4.4	-12.4	20.00
Benzyl Alcohol	5.0000	4.1	-17.3	20.00
2,2'-Oxybis(1-chloropropane)	5.0000	4.9	-1.4	20.00
2-Methylphenol	5.0000	4.1	-17.8	20.00
Hexachloroethane	5.0000	4.7	-5.5	20.00
N-Nitroso-di-n-Propylamine	5.0000	4.8	-4.5	20.00
4-Methylphenol	5.0000	3.9	-21.1 *	20.00
Nitrobenzene	5.0000	4.7	-5.3	20.00
Isophorone	5.0000	6.0	20.8 *	20.00
2-Nitrophenol	5.0000	4.0	-19.3	20.00
2,4-Dimethylphenol	5.0000	3.7	-25.3 *	20.00
Bis(2-Chloroethoxy)methane	5.0000	5.3	5.7	20.00
2,4-Dichlorophenol	5.0000	4.5	-9.4	20.00
1,2,4-Trichlorobenzene	5.0000	4.2	-15.1	20.00
Naphthalene	5.0000	4.5	-9.1	20.00
Benzoic acid	10.0000	4.3	-57.5 *	20.00
4-Chloroaniline	5.0000	3.5	-29.9 *	20.00
Hexachlorobutadiene	5.0000	4.4	-11.7	20.00
4-Chloro-3-Methylphenol	5.0000	4.5	-10.3	20.00
2-Methylnaphthalene	5.0000	4.3	-14.4	20.00
Hexachlorocyclopentadiene	5.0000	4.1	-17.4	20.00
2,4,6-Trichlorophenol	5.0000	4.3	-13.3	20.00
2,4,5-Trichlorophenol	5.0000	4.2	-15.5	20.00
2-Chloronaphthalene	5.0000	4.3	-14.0	20.00
2-Nitroaniline	5.0000	4.4	-11.4	20.00
Acenaphthylene	5.0000	4.7	-6.4	20.00
Dimethylphthalate	5.0000	4.5	-9.1	20.00
2,6-Dinitrotoluene	5.0000	4.6	-8.8	20.00
Acenaphthene	5.0000	4.4	-12.0	20.00



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00036

Laboratory ID: SLB0195-SCV1

Sequence: SLB0195

Sequence Name: SCV 5.0

Standard ID: K010066

3-Nitroaniline	5.0000	4.7	-7.0	20.00
2,4-Dinitrophenol	5.0000	1.9	-61.3 *	20.00
Dibenzofuran	5.0000	4.2	-15.1	20.00
4-Nitrophenol	5.0000	4.0	-20.5 *	20.00
2,4-Dinitrotoluene	5.0000	4.4	-11.1	20.00
Fluorene	5.0000	4.5	-9.2	20.00
4-Chlorophenylphenyl ether	5.0000	4.3	-13.2	20.00
Diethyl phthalate	5.0000	5.1	1.2	20.00
4-Nitroaniline	5.0000	4.1	-17.4	20.00
4,6-Dinitro-2-methylphenol	5.0000	3.3	-34.0 *	20.00
N-Nitrosodiphenylamine	5.0000	4.4	-12.9	20.00
4-Bromophenyl phenyl ether	5.0000	4.5	-10.7	20.00
Hexachlorobenzene	5.0000	4.1	-18.3	20.00
Pentachlorophenol	5.0000	3.5	-29.9 *	20.00
Phenanthrene	5.0000	4.2	-15.4	20.00
Anthracene	5.0000	4.0	-19.5	20.00
Carbazole	5.0000	4.1	-18.7	20.00
Di-n-Butylphthalate	5.0000	4.1	-17.2	20.00
Fluoranthene	5.0000	4.6	-8.9	20.00
Pyrene	5.0000	4.3	-13.4	20.00
Butylbenzylphthalate	5.0000	4.2	-15.9	20.00
Benzo(a)anthracene	5.0000	4.2	-15.1	20.00
3,3'-Dichlorobenzidine	10.000	7.6	-24.2 *	20.00
Chrysene	5.0000	4.1	-18.8	20.00
bis(2-Ethylhexyl)phthalate	5.0000	4.9	-2.9	20.00
Di-n-Octylphthalate	5.0000	4.3	-13.9	20.00
Benzo(a)fluoranthene, Total	10.000	8.4	-16.4	20.00
Benzo(a)pyrene	5.0000	4.6	-8.8	20.00
Indeno(1,2,3-cd)pyrene	5.0000	3.9	-22.8 *	20.00
Dibenzo(a,h)anthracene	5.0000	3.9	-21.3 *	20.00
Benzo(g,h,i)perylene	5.0000	3.9	-21.1 *	20.00
1-Methylnaphthalene	5.0000	4.2	-15.1	20.00
2-Fluorophenol	7.5000	6.55	-12.7	20.00
Phenol-d5	7.5000	6.73	-10.3	20.00
2-Chlorophenol-d4	7.5000	6.67	-11.0	20.00
1,2-Dichlorobenzene-d4	5.0000	4.27	-14.6	20.00
Nitrobenzene-d5	5.0000	4.67	-6.6	20.00



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00036

Laboratory ID: SLB0195-SCV1

Sequence: SLB0195

Sequence Name: SCV 5.0

Standard ID: K010066

2-Fluorobiphenyl	5.0000	4.24	-15.2	20.00
2,4,6-Tribromophenol	7.5000	6.01	-19.9	20.00
p-Terphenyl-d14	5.0000	4.15	-17.0	20.00

* Indicates values outside of QC limits

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Sample Info: SLB0195-SCV1

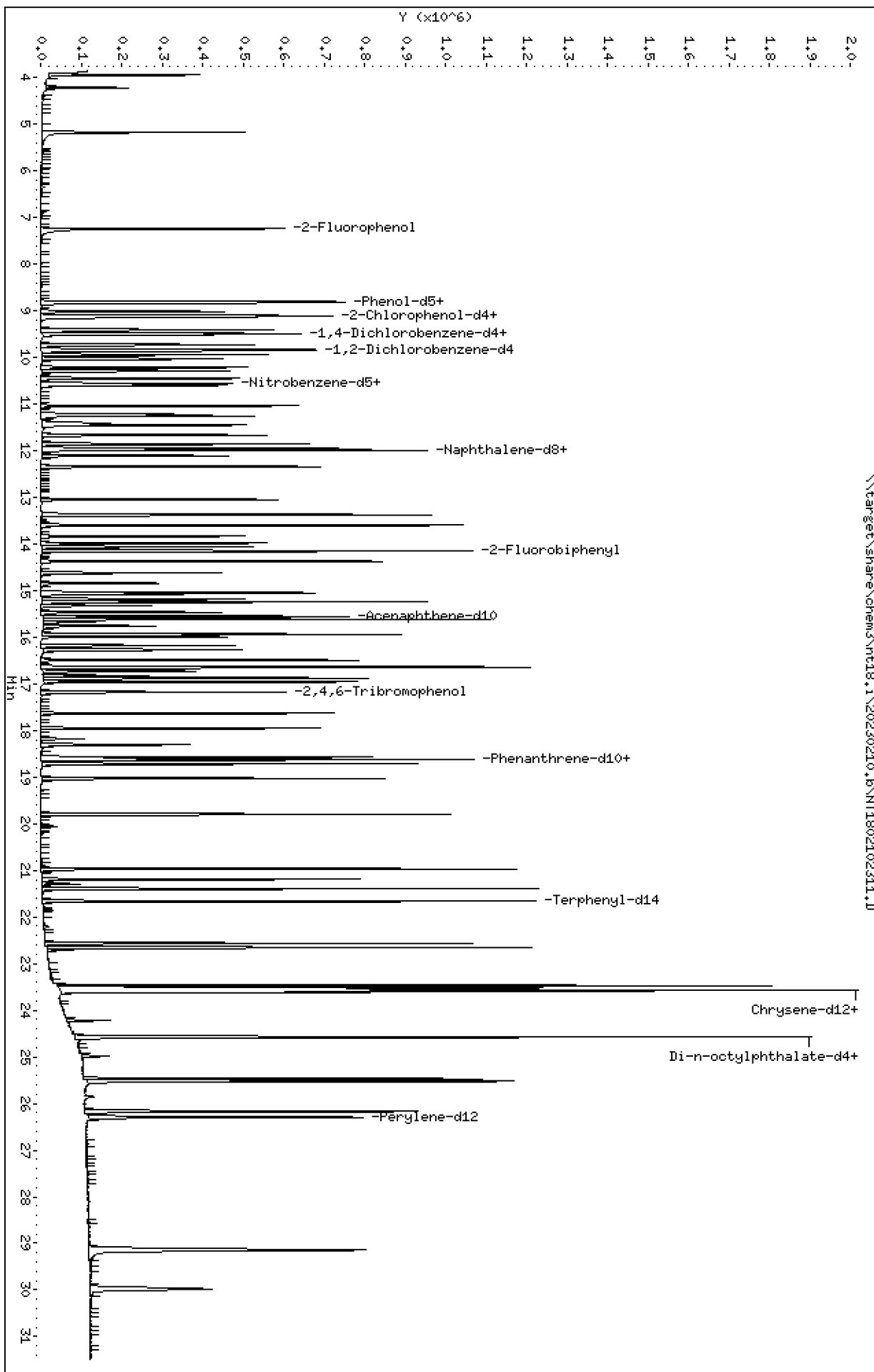
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Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

Page 1



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Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

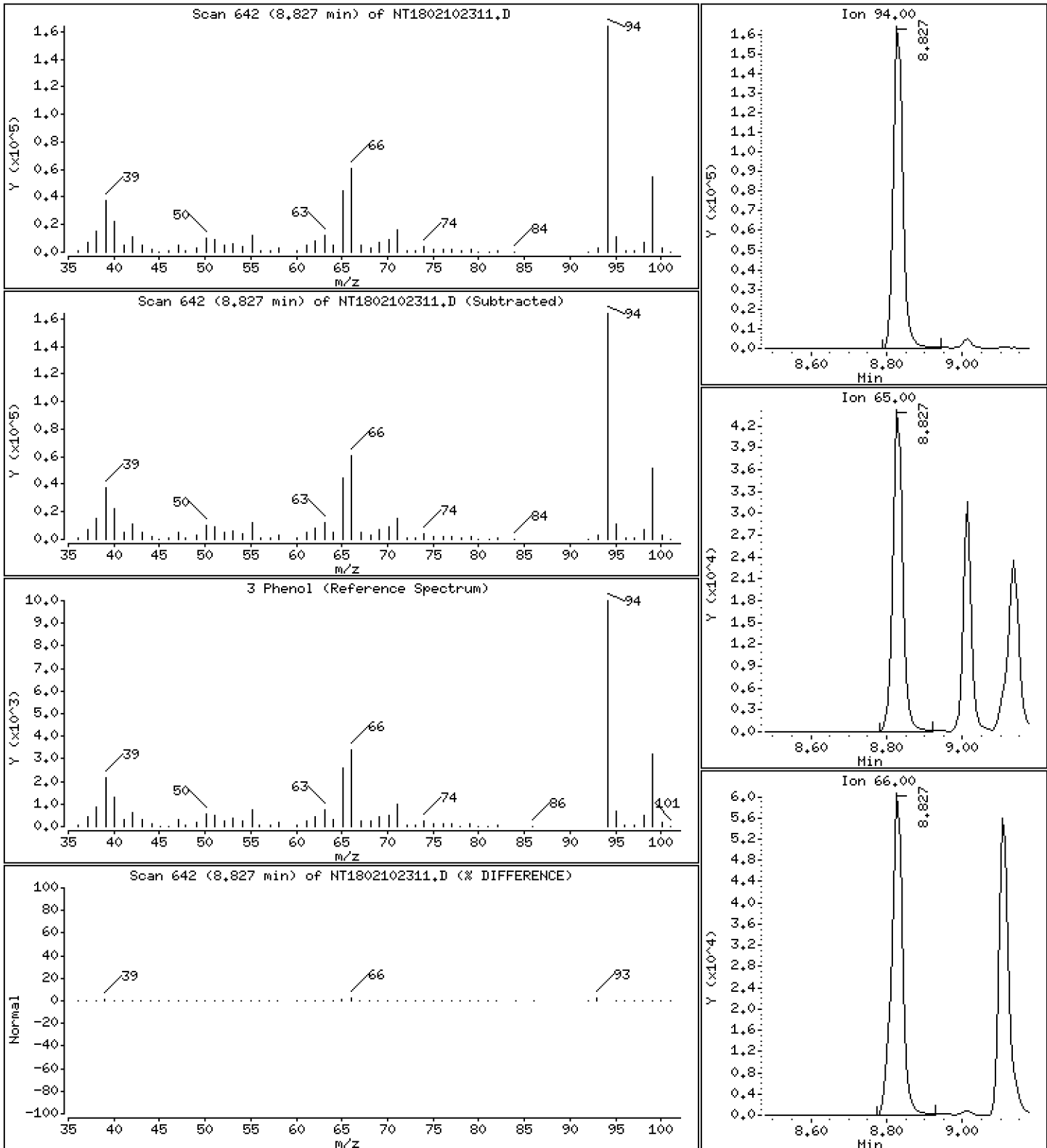
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 4.286 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

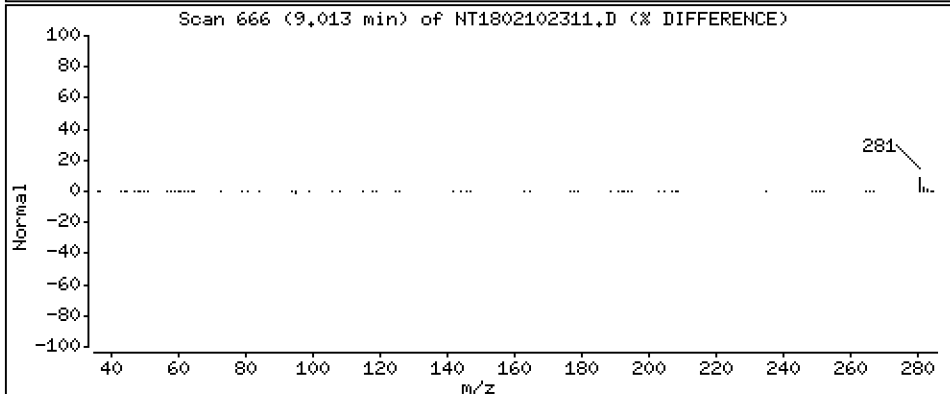
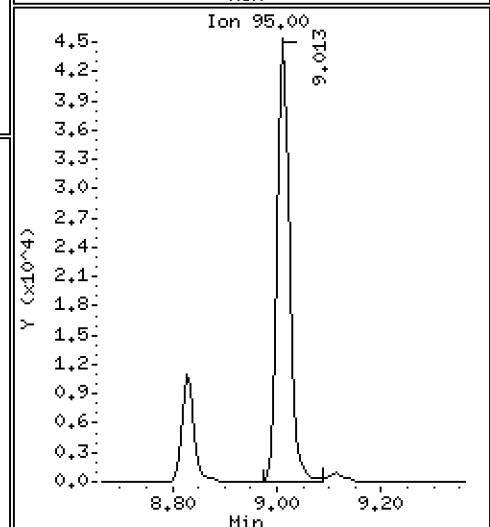
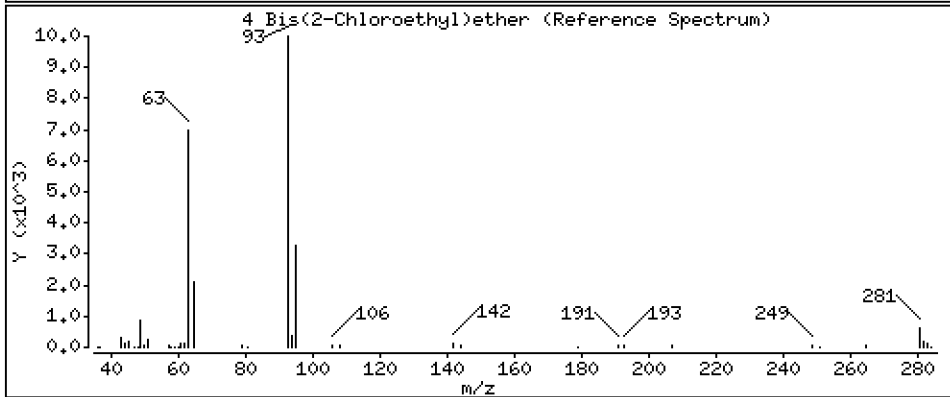
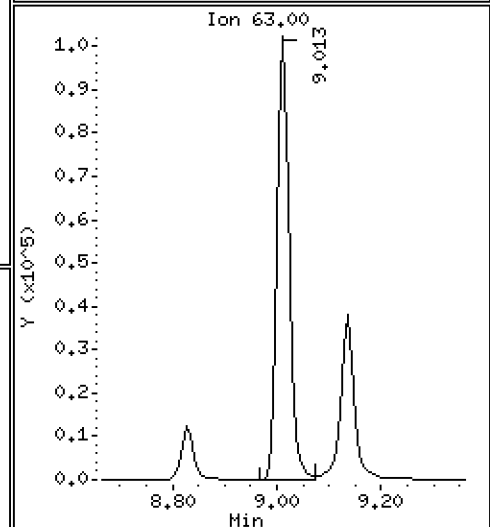
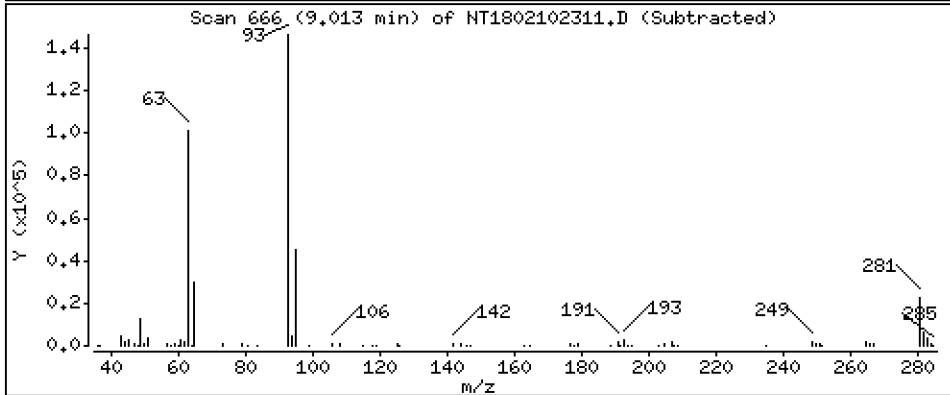
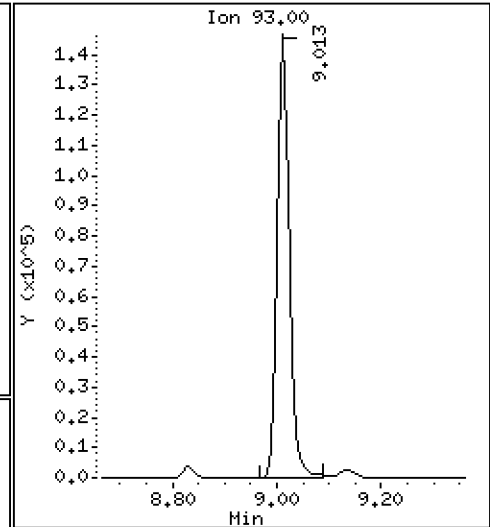
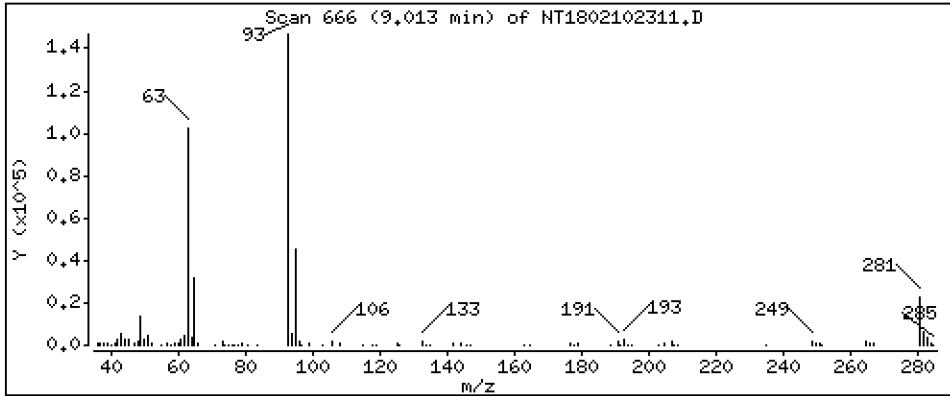
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 4,661 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

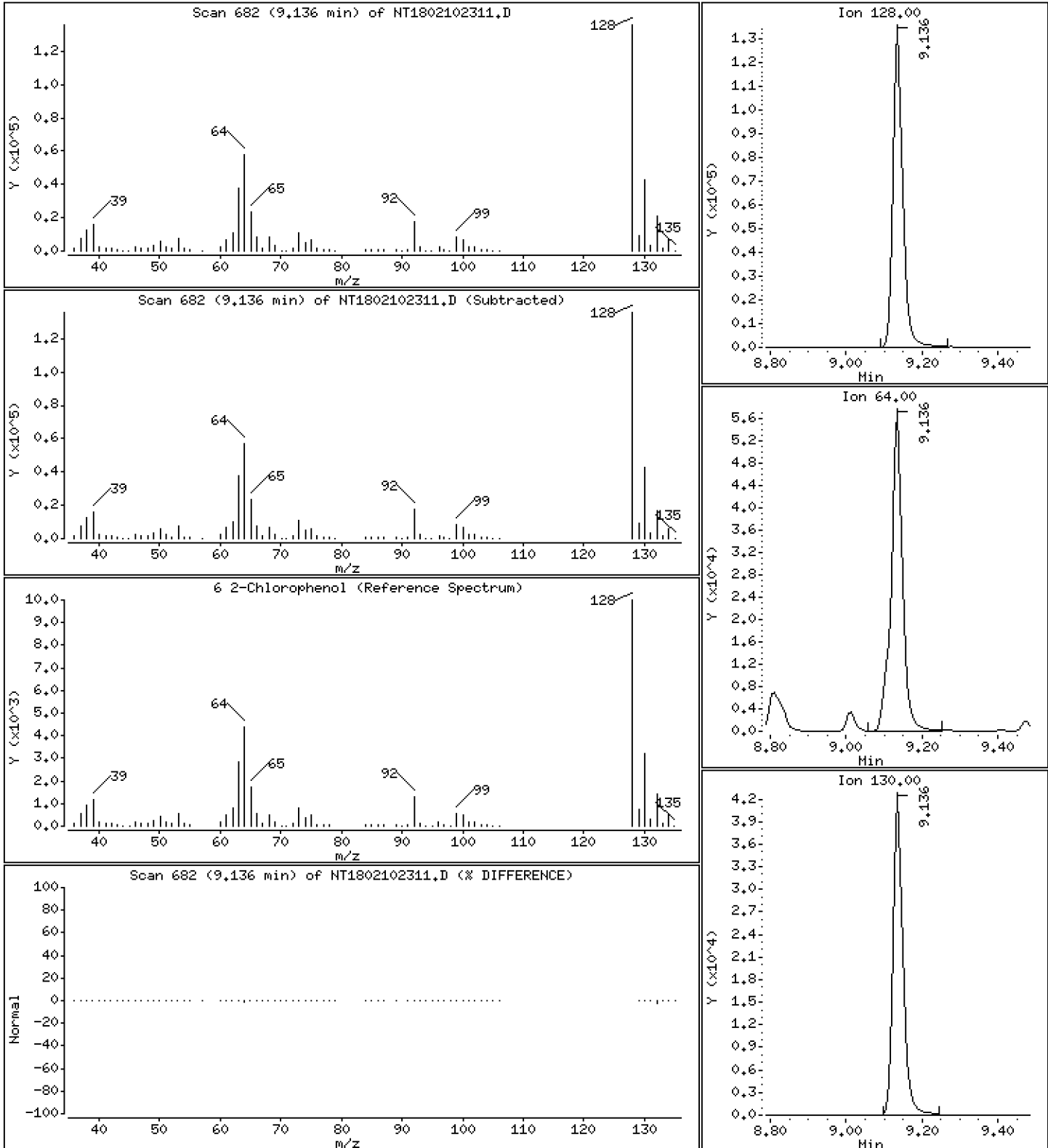
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 4,318 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

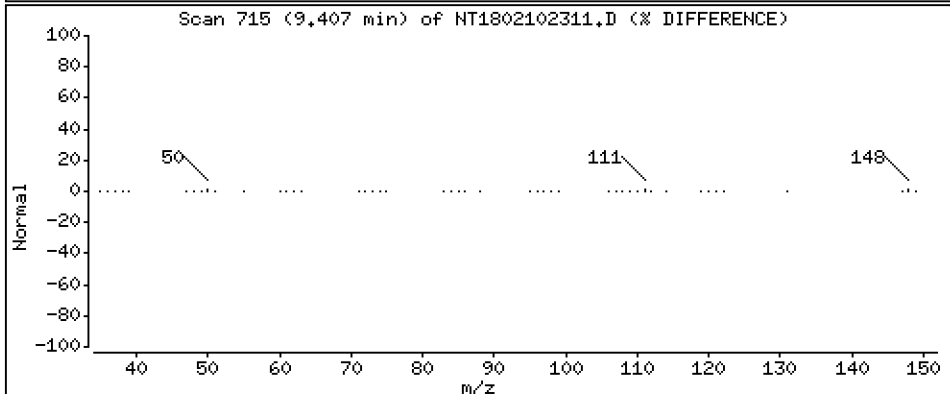
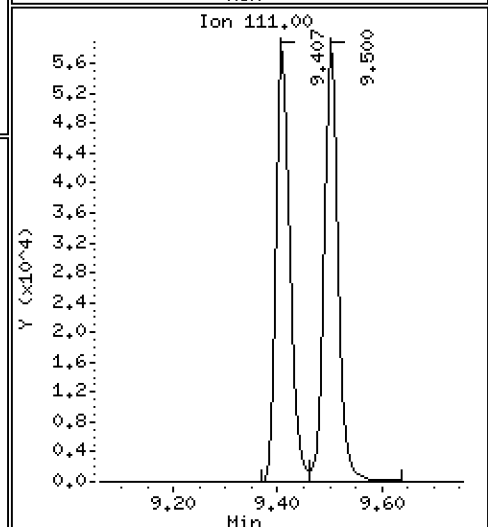
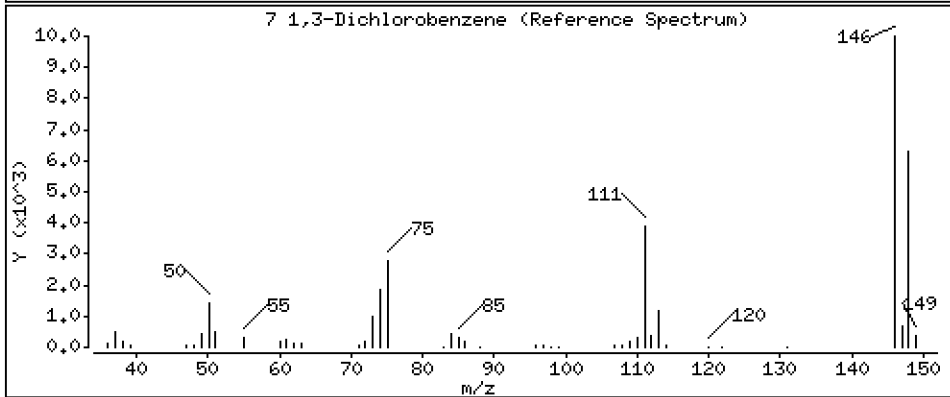
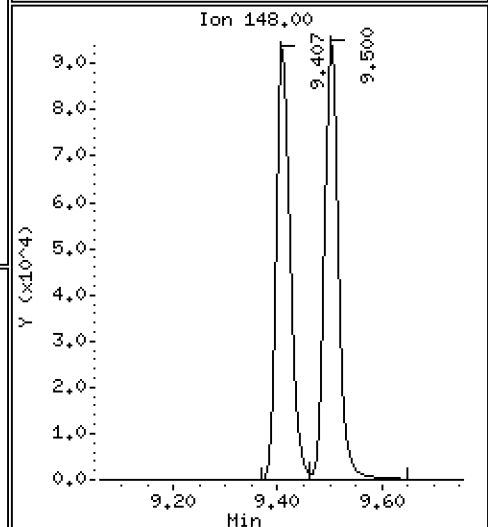
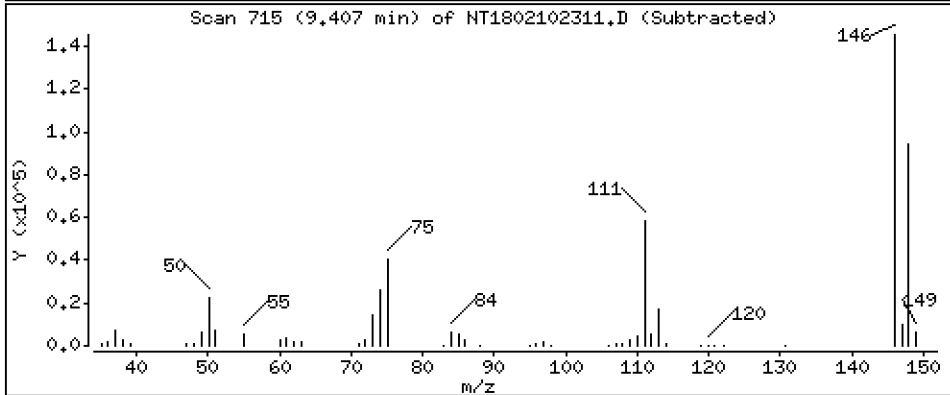
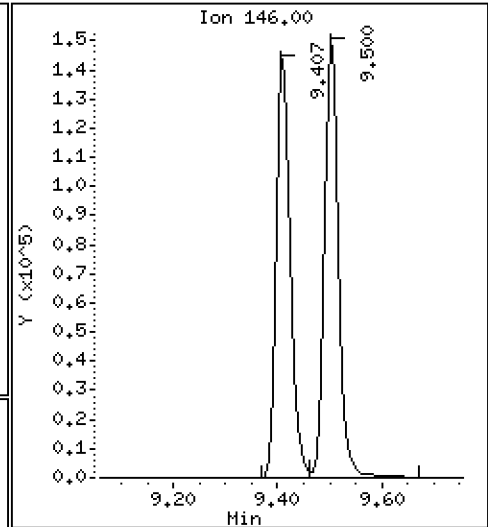
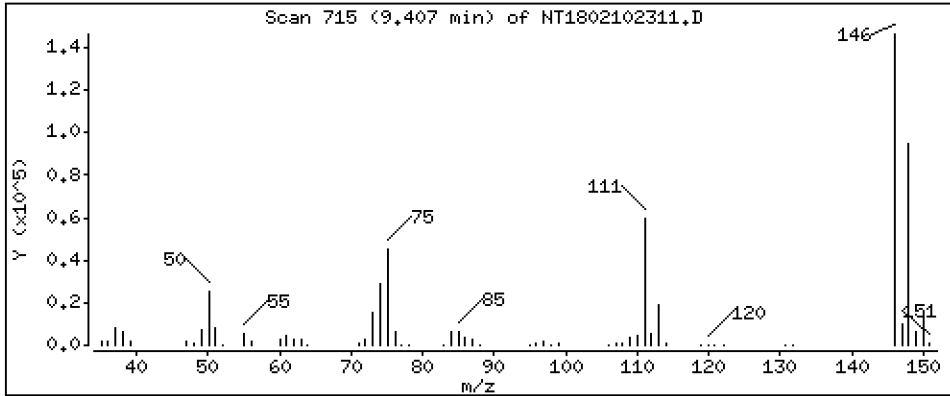
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 4,446 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

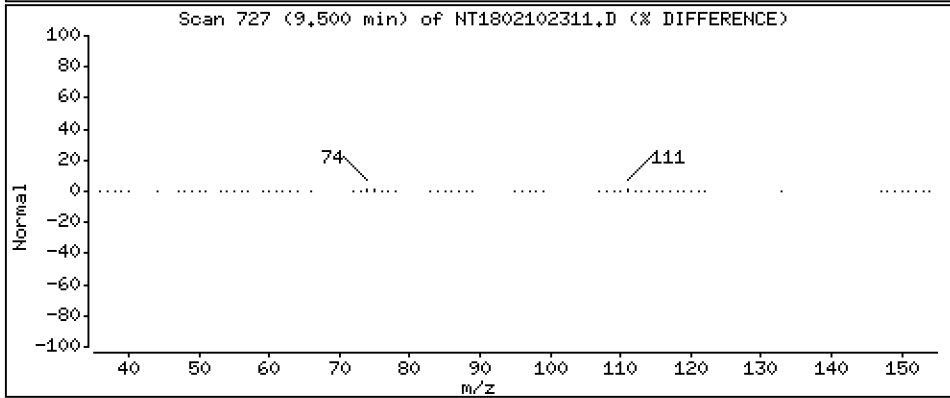
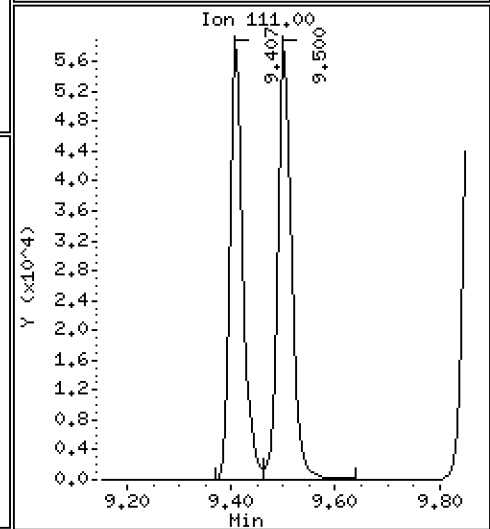
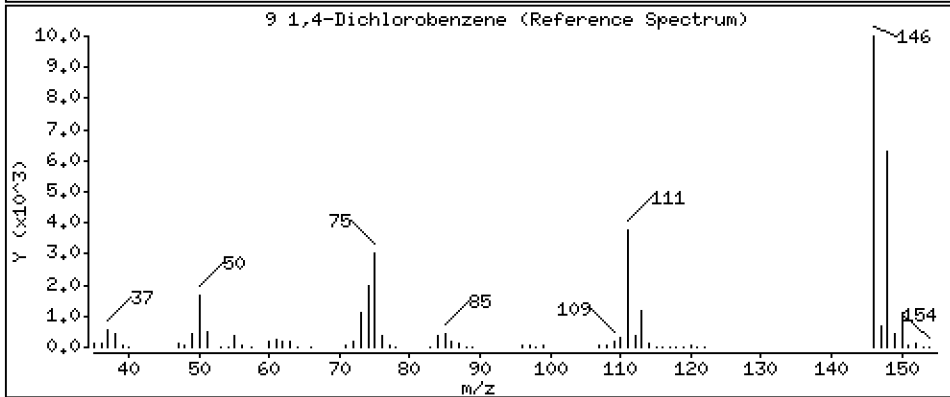
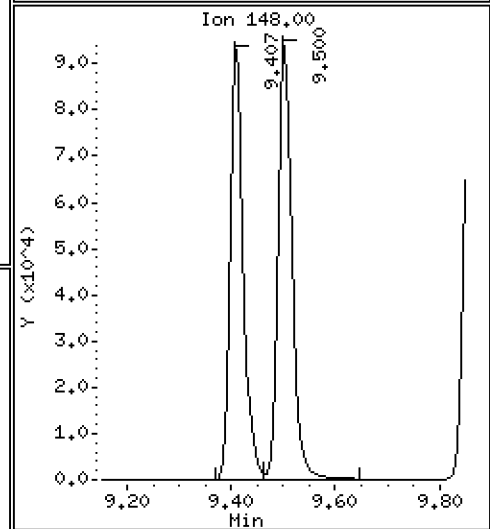
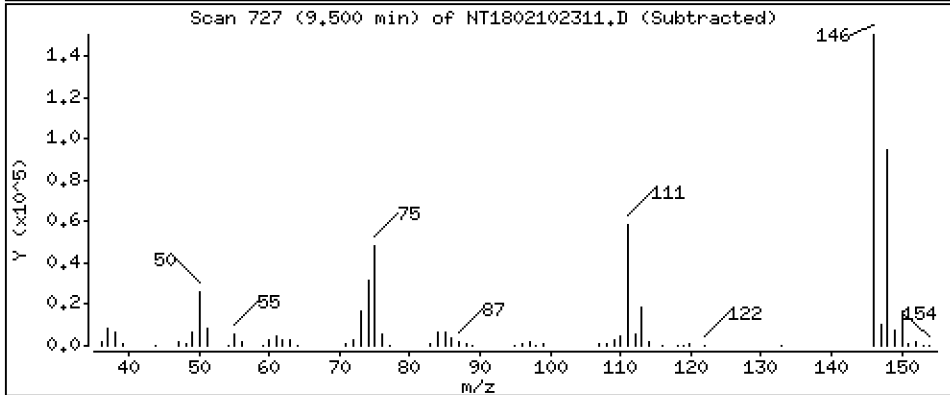
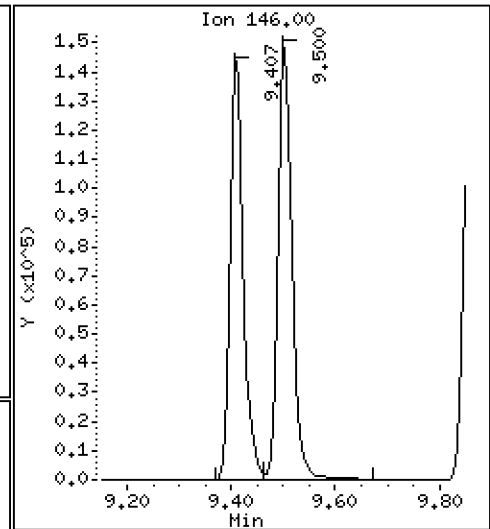
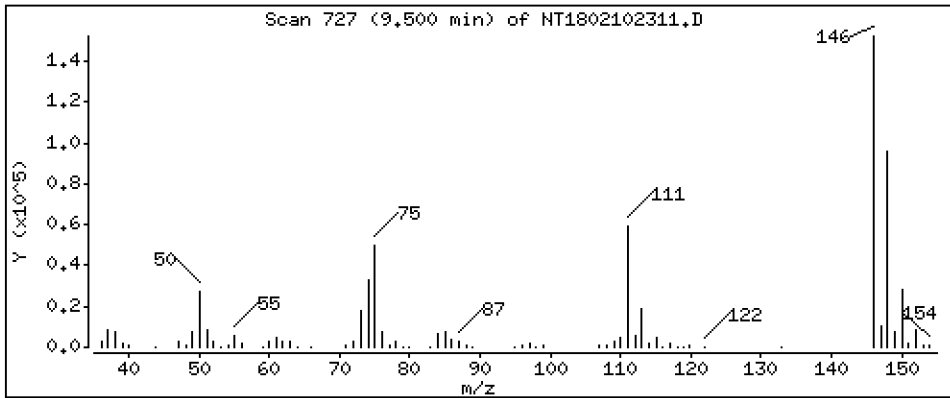
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 4,629 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

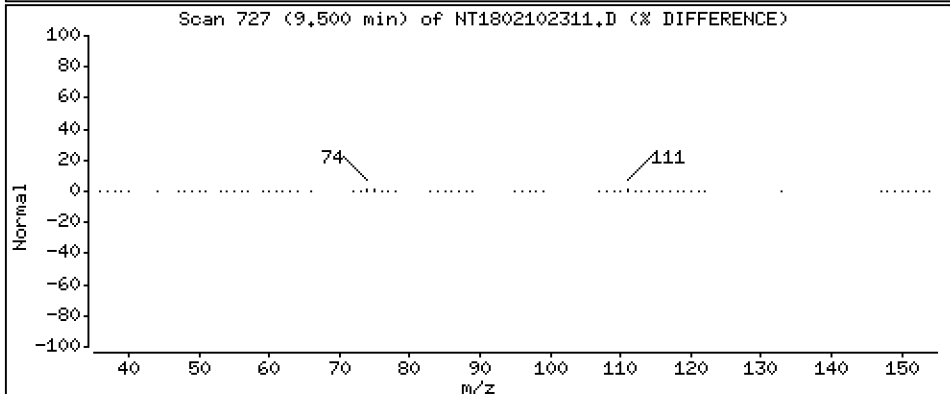
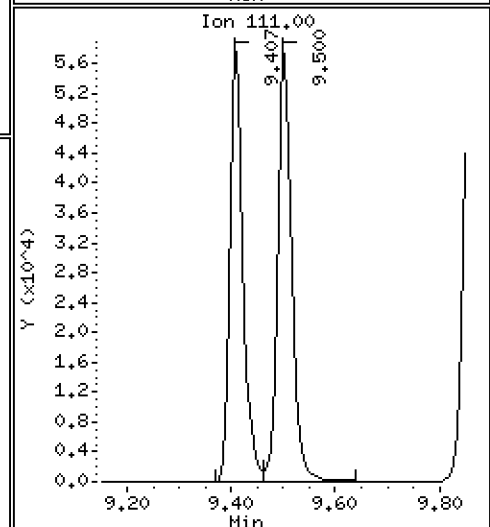
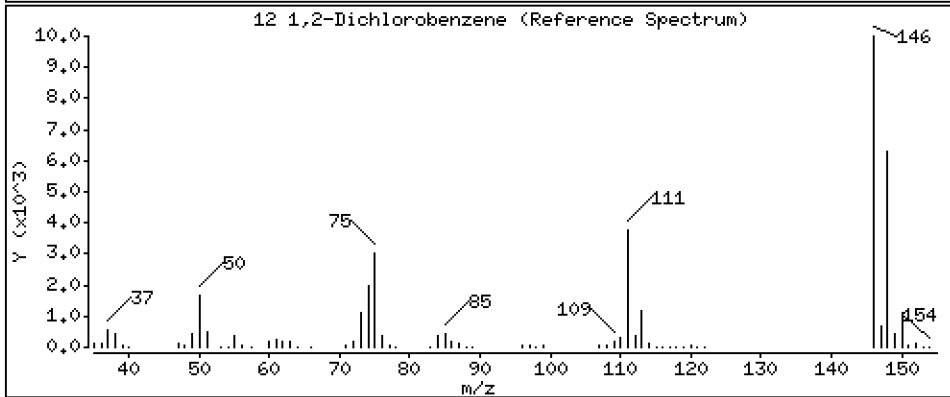
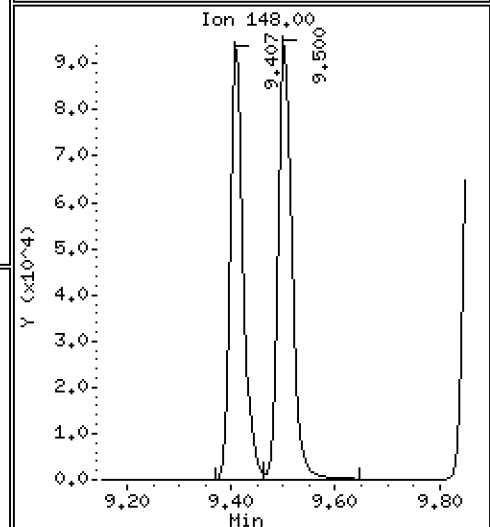
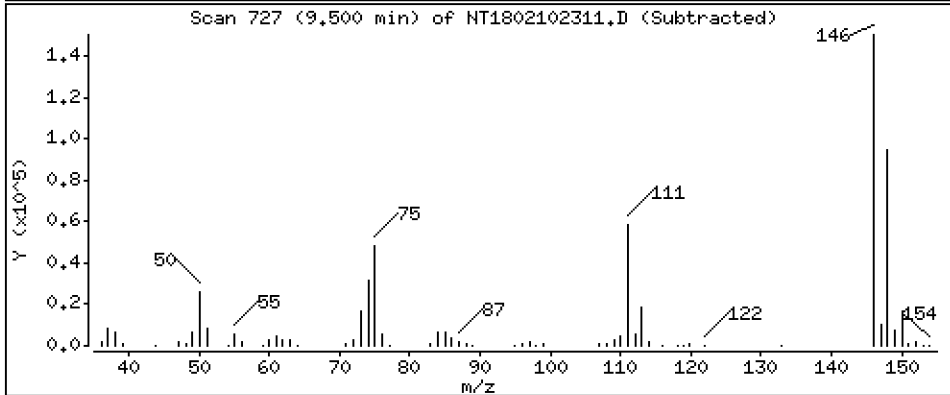
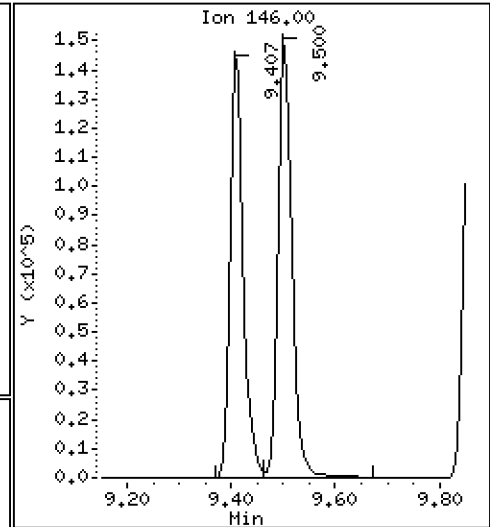
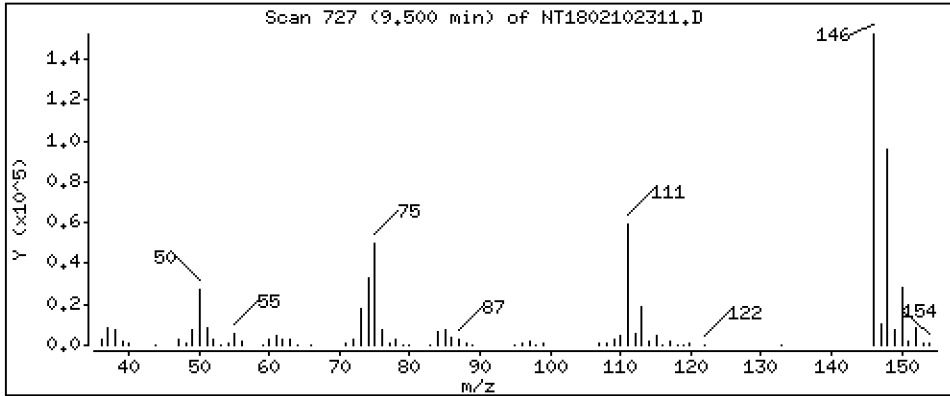
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 4,629 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

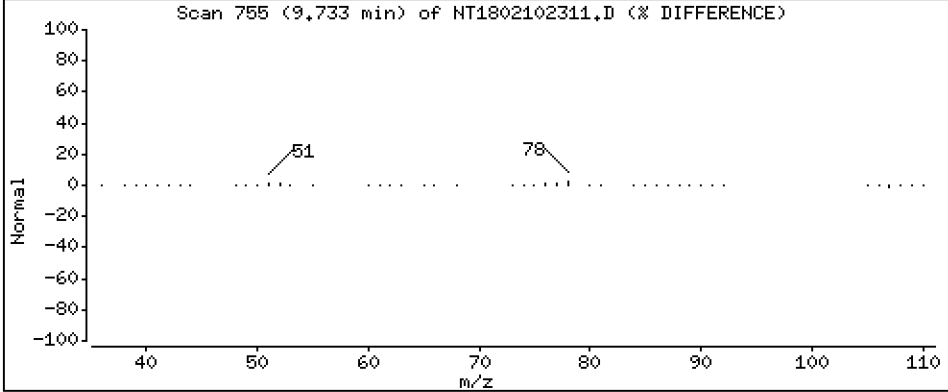
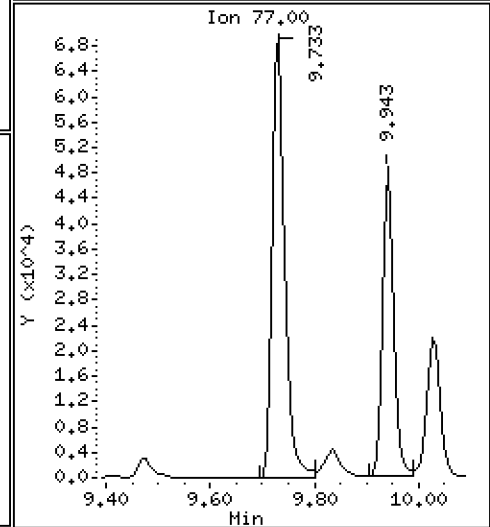
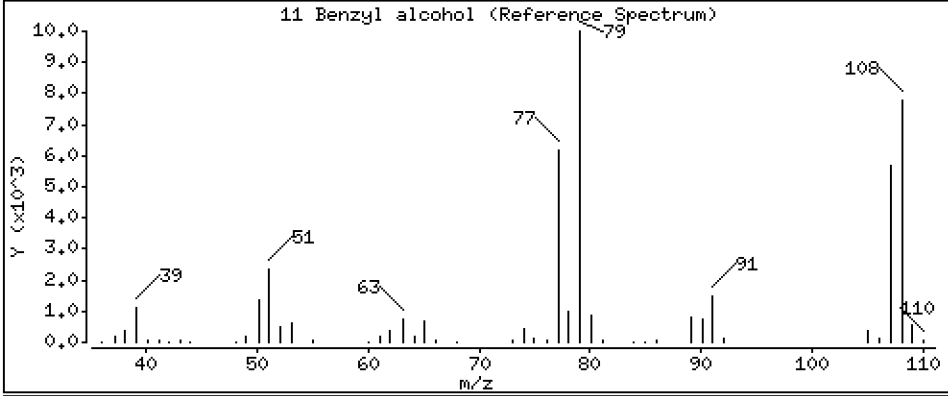
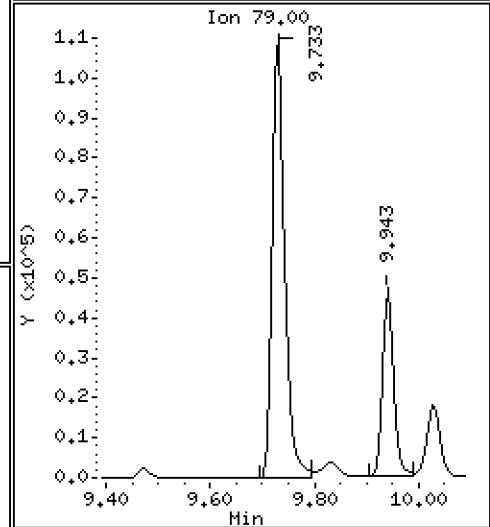
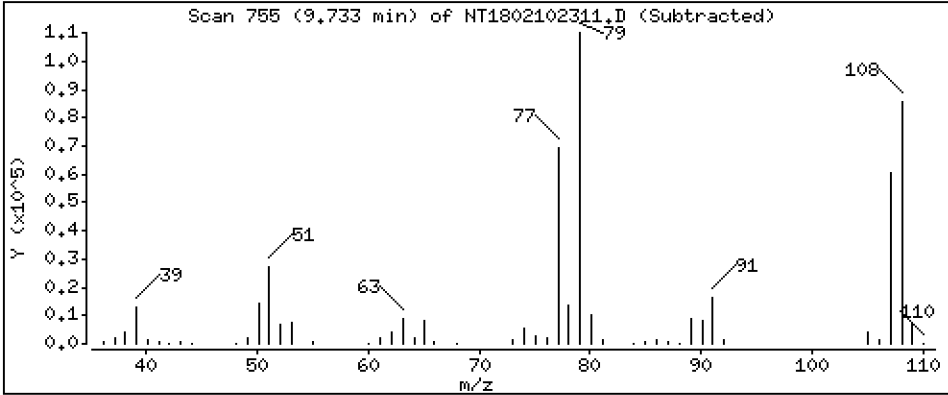
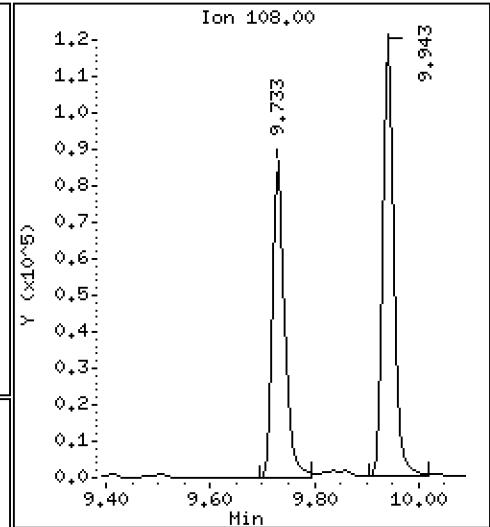
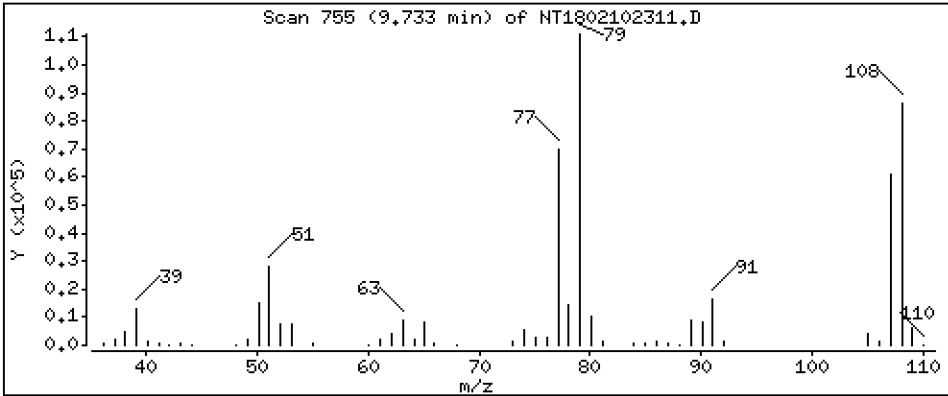
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 4.135 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

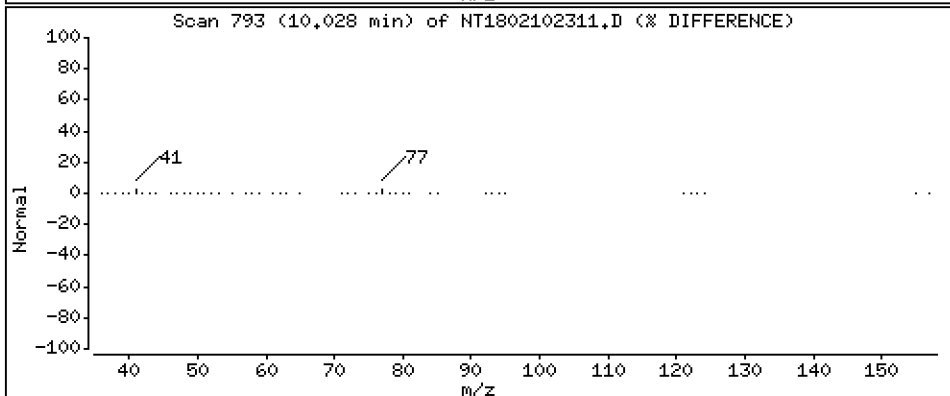
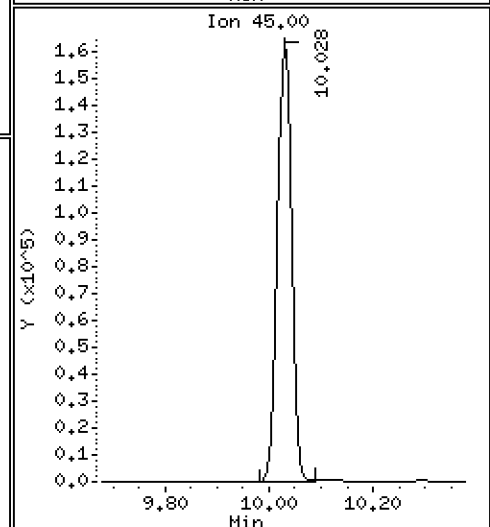
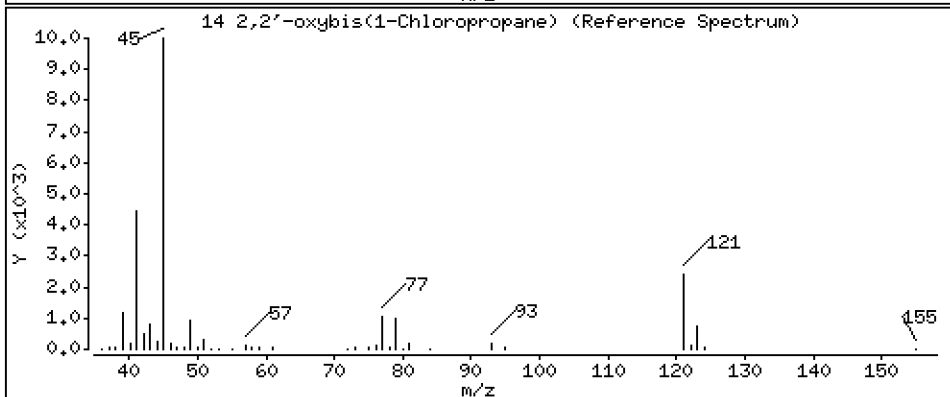
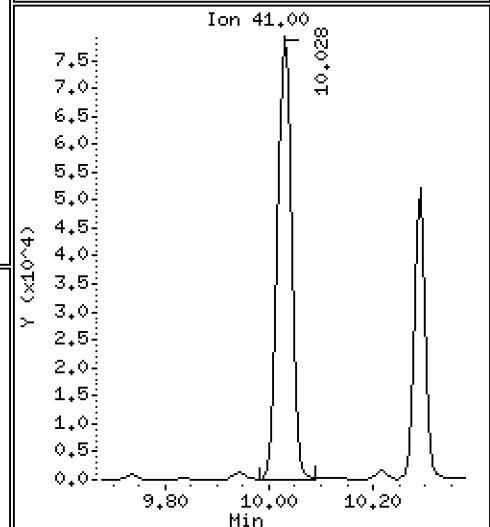
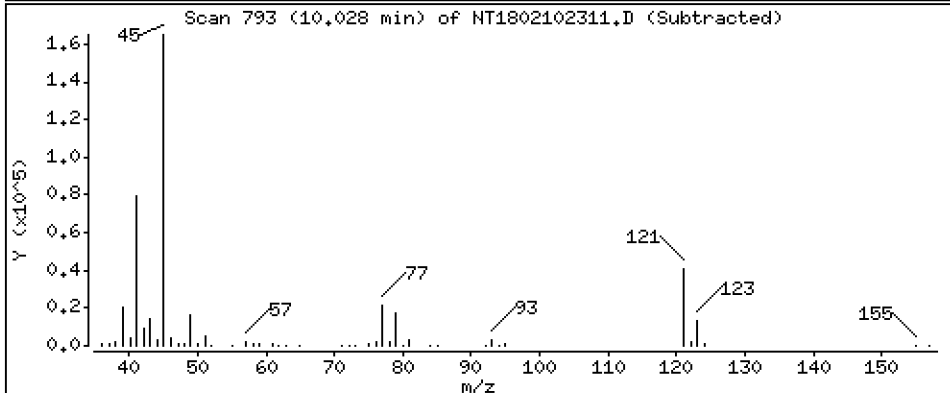
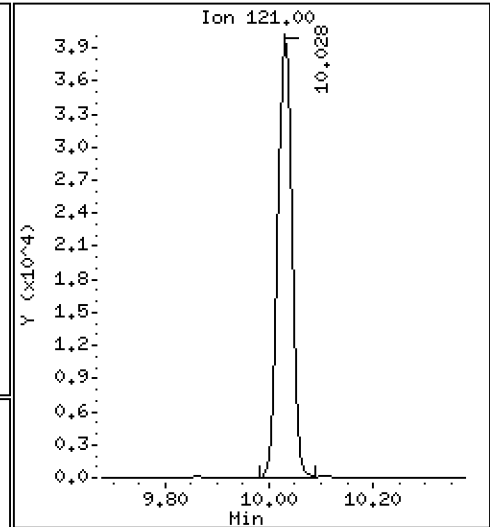
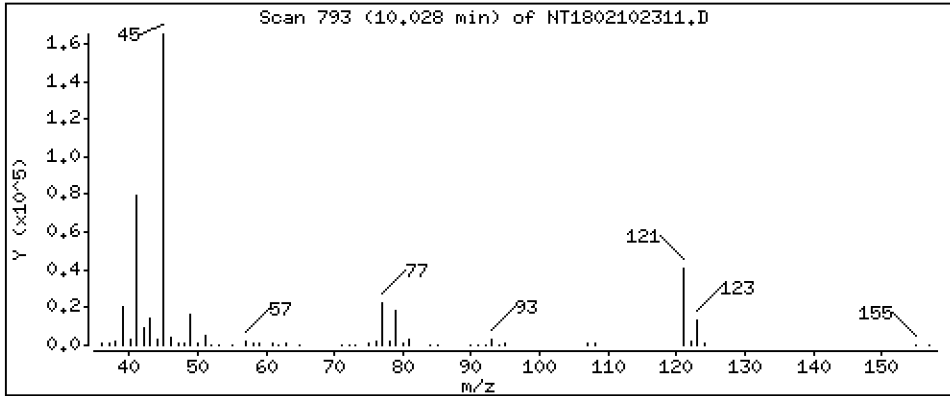
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 4,932 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

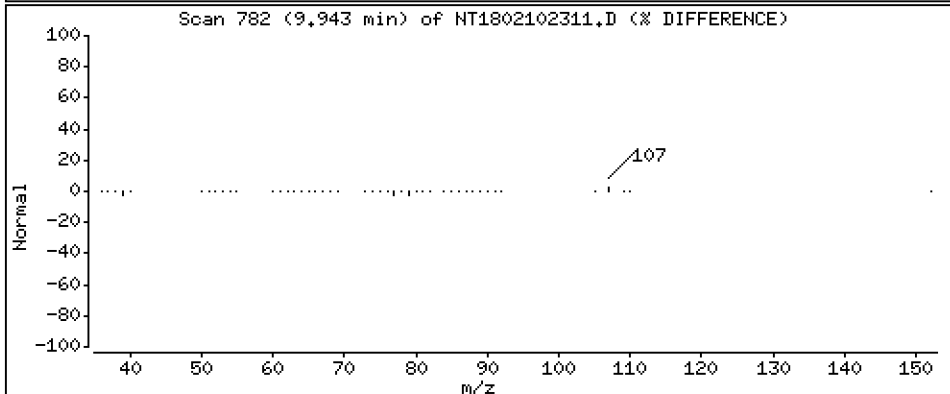
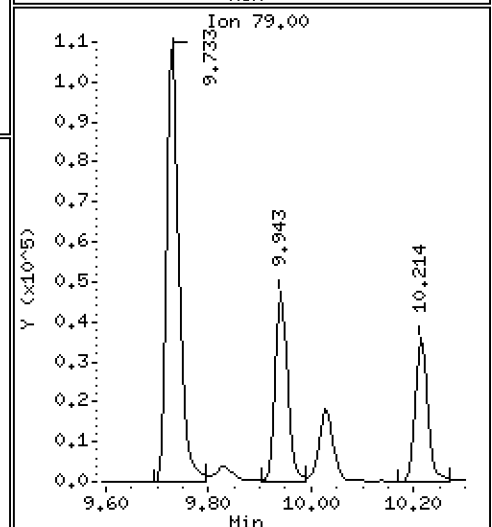
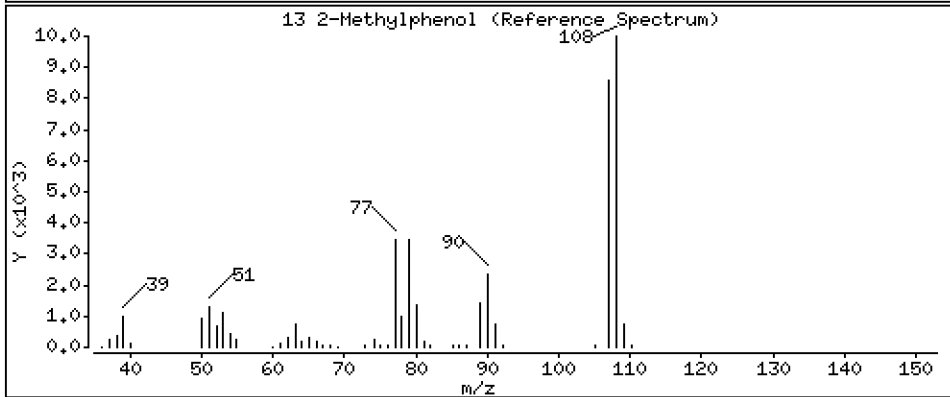
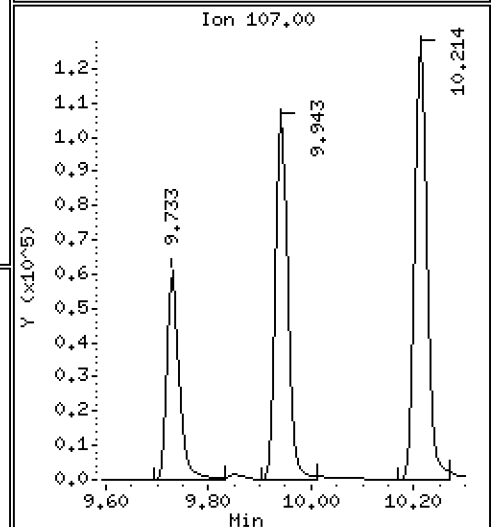
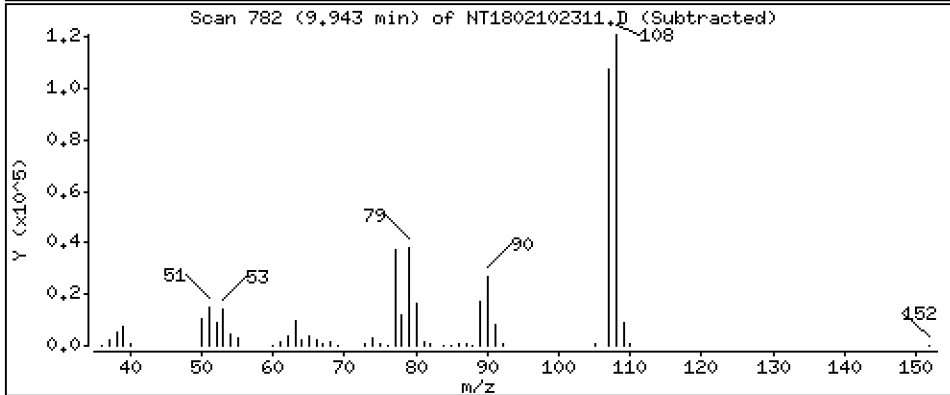
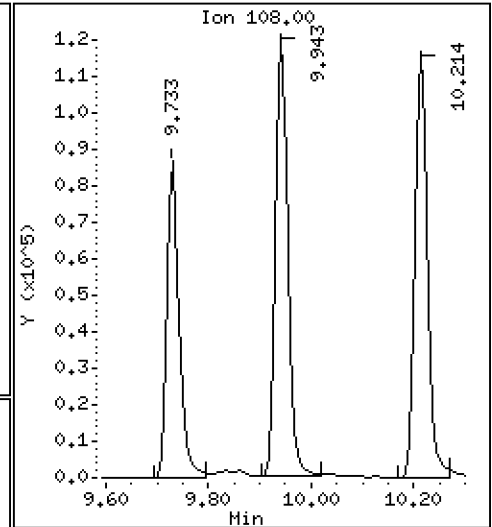
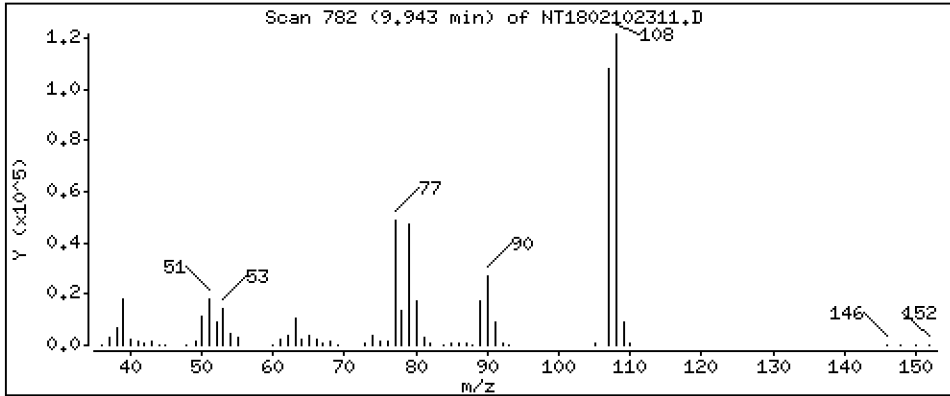
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 4,109 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

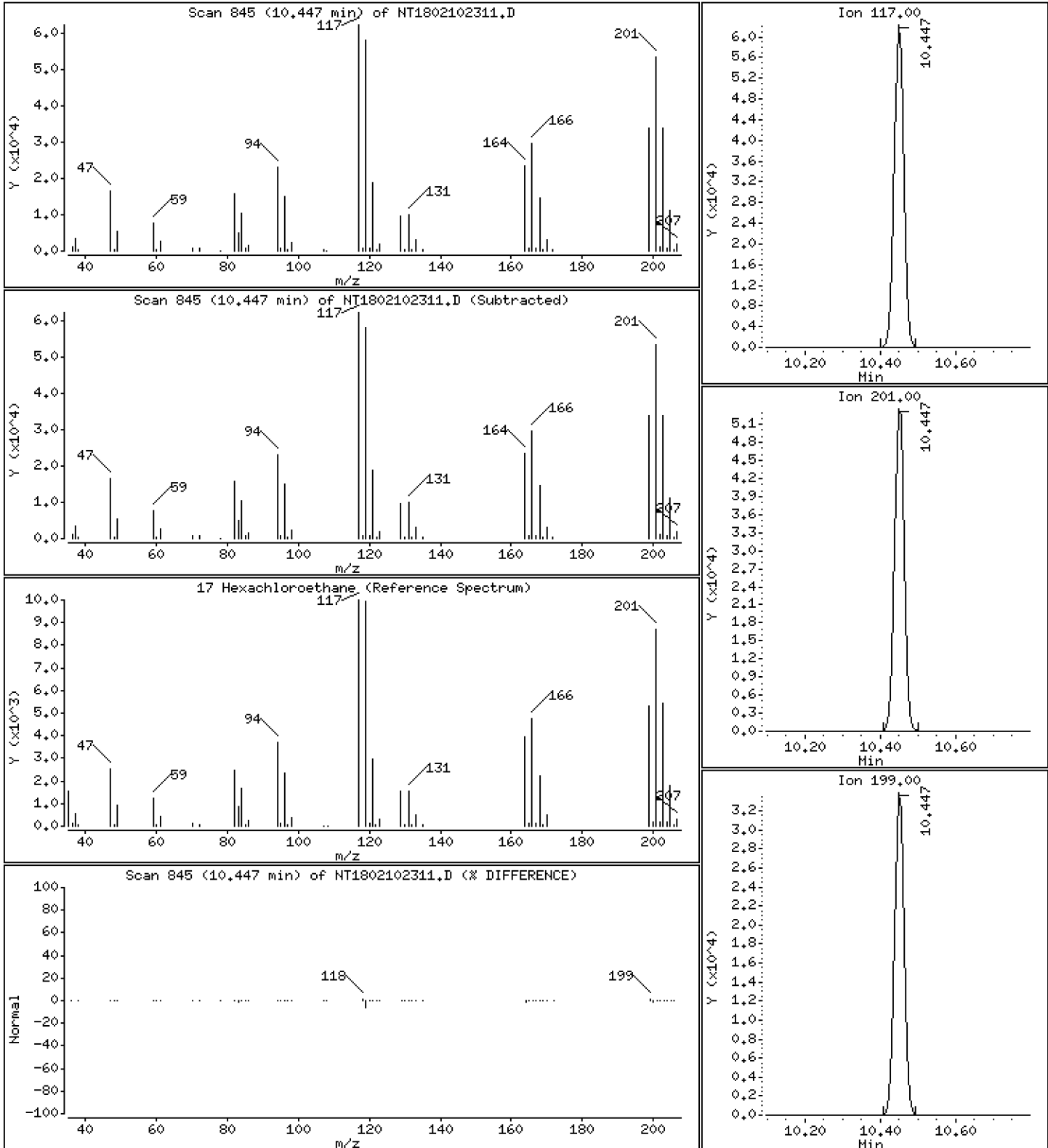
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

17 Hexachloroethane

Concentration: 4.727 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

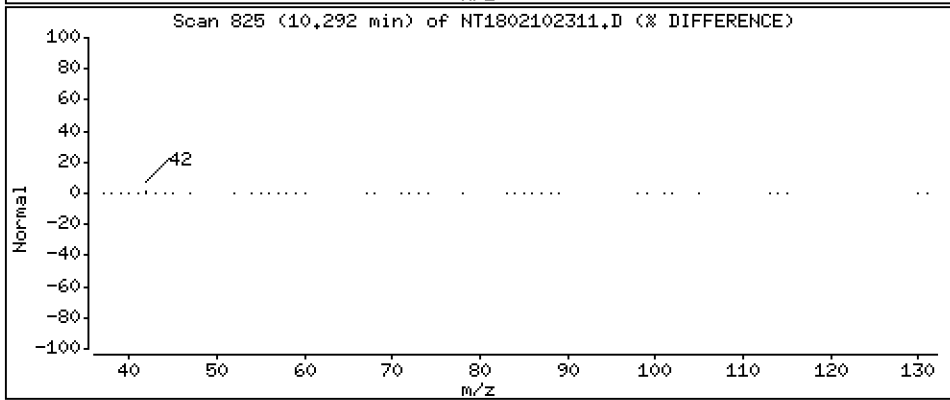
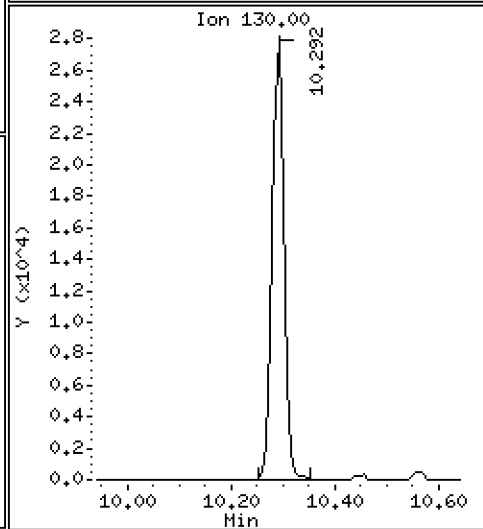
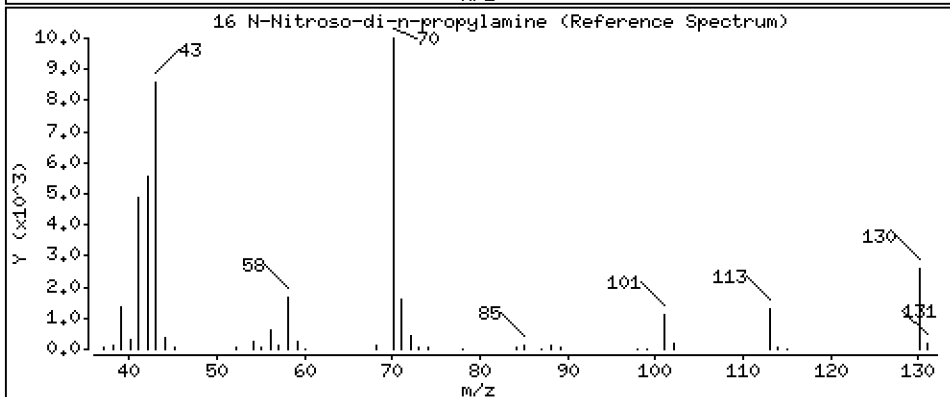
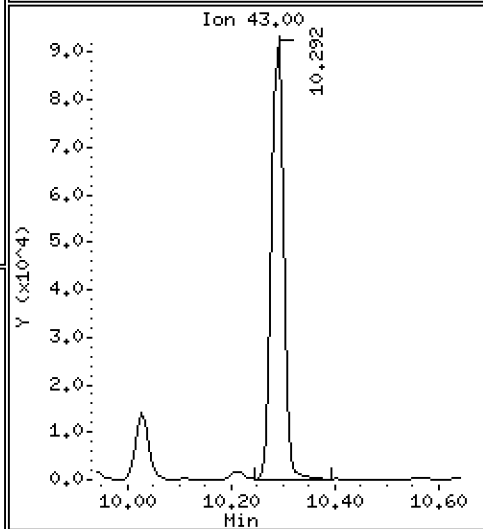
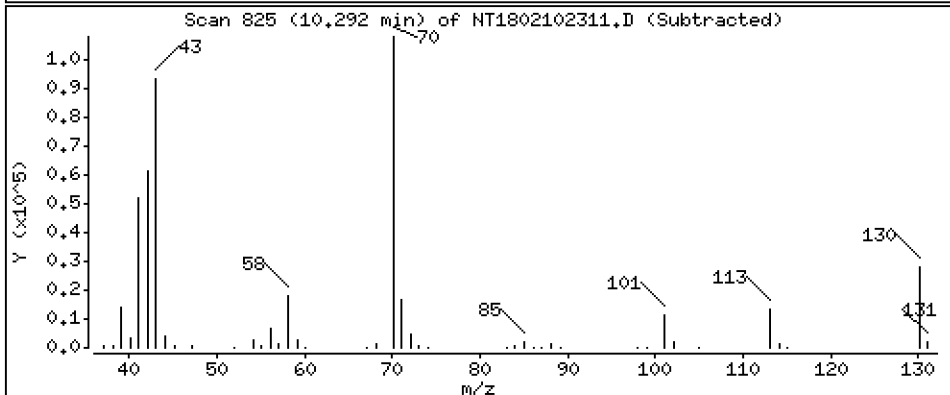
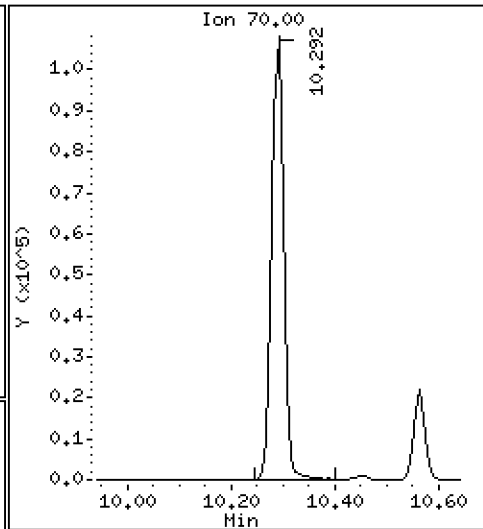
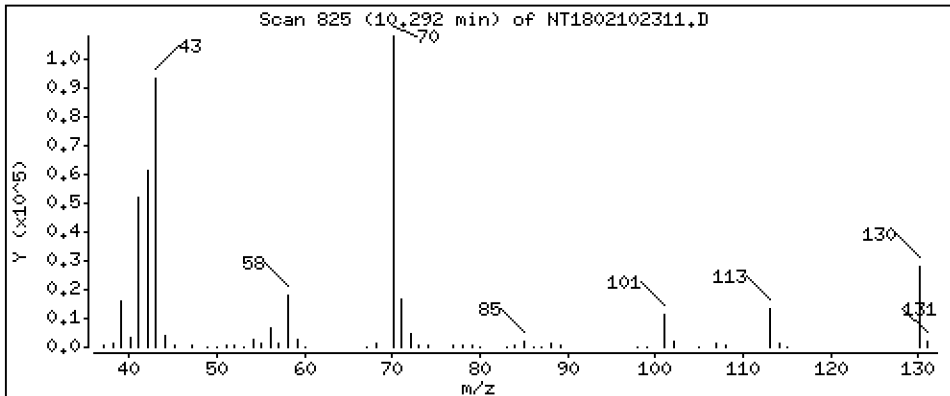
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 4,774 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

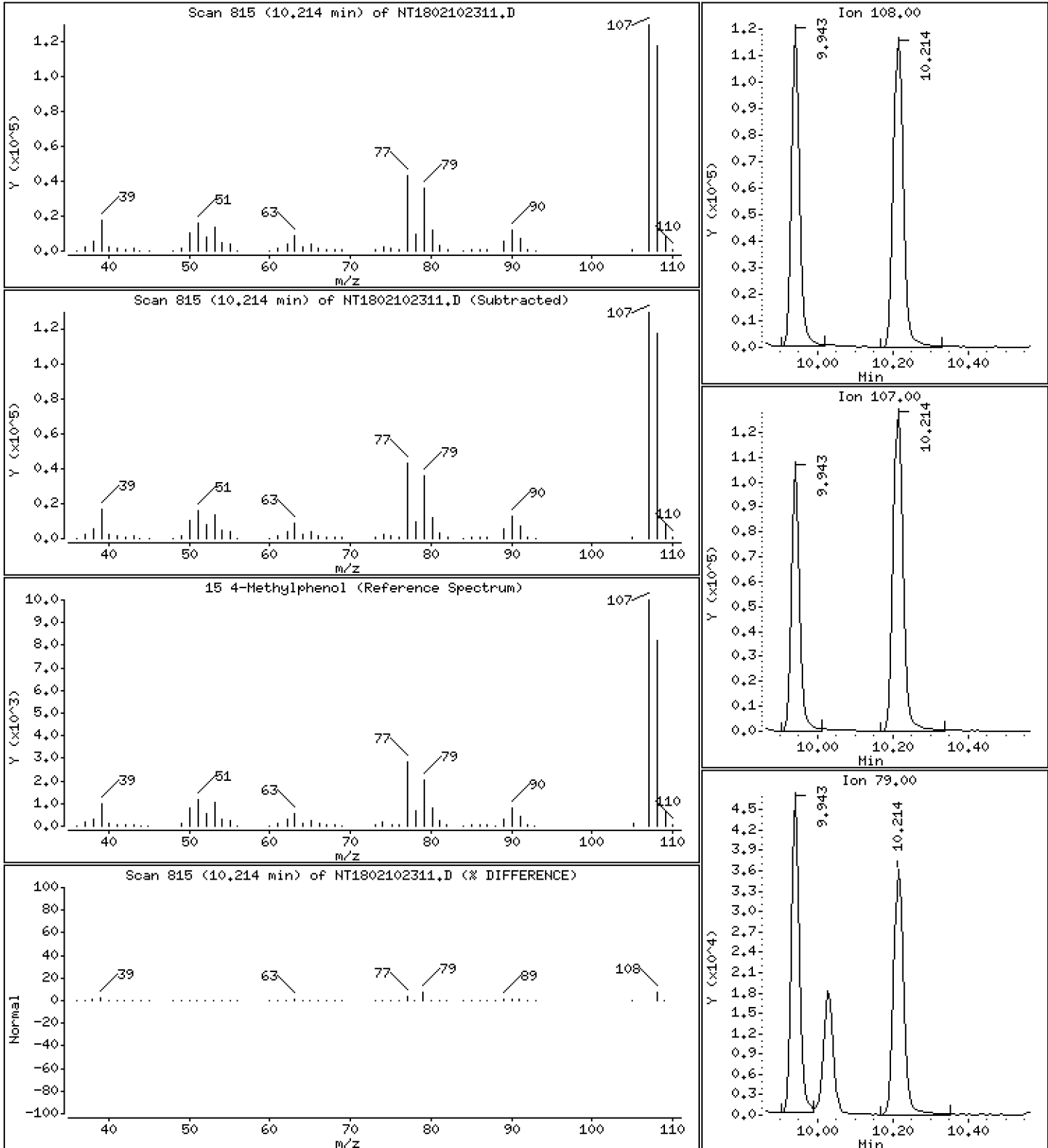
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,945 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

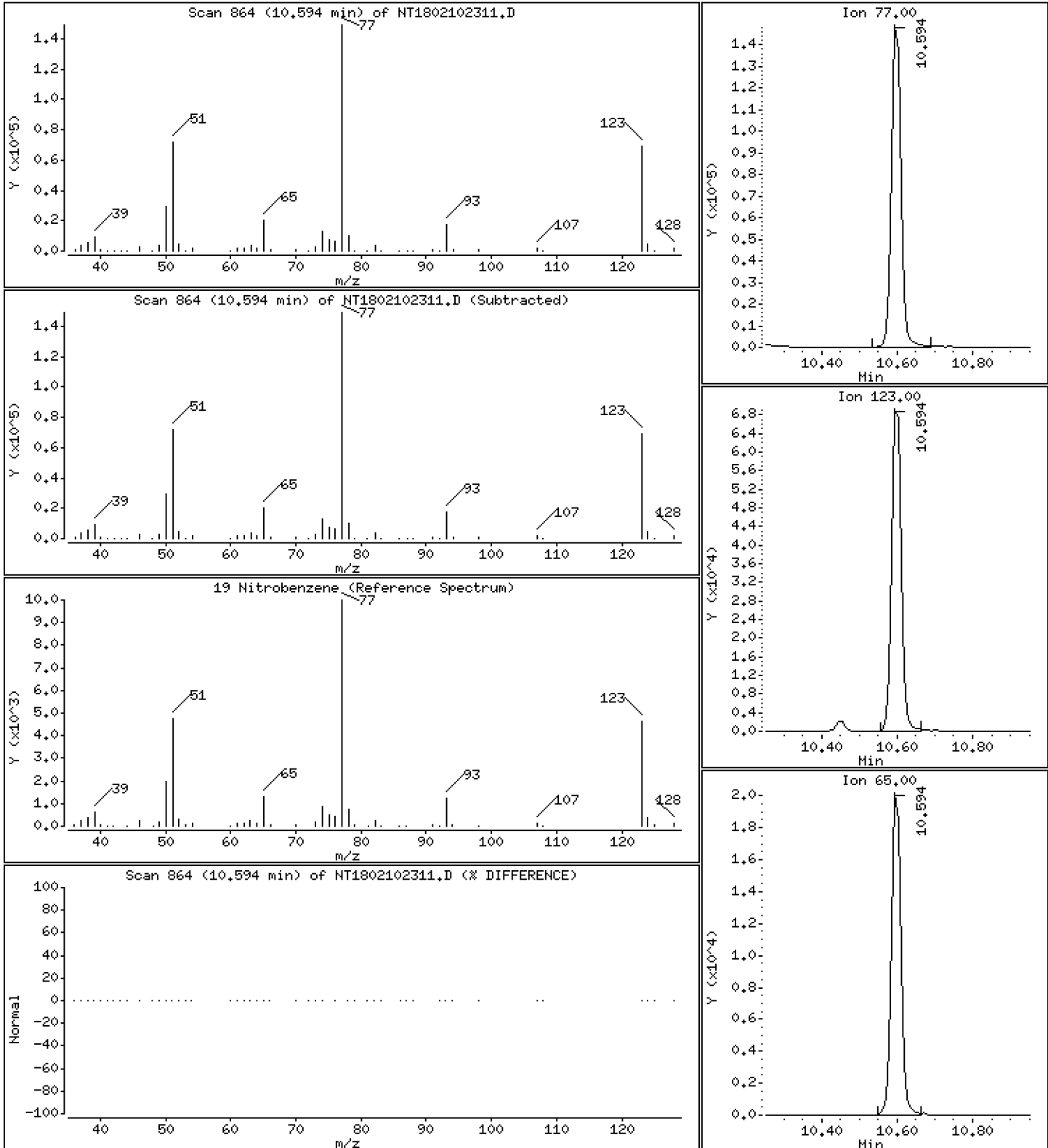
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 4,733 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

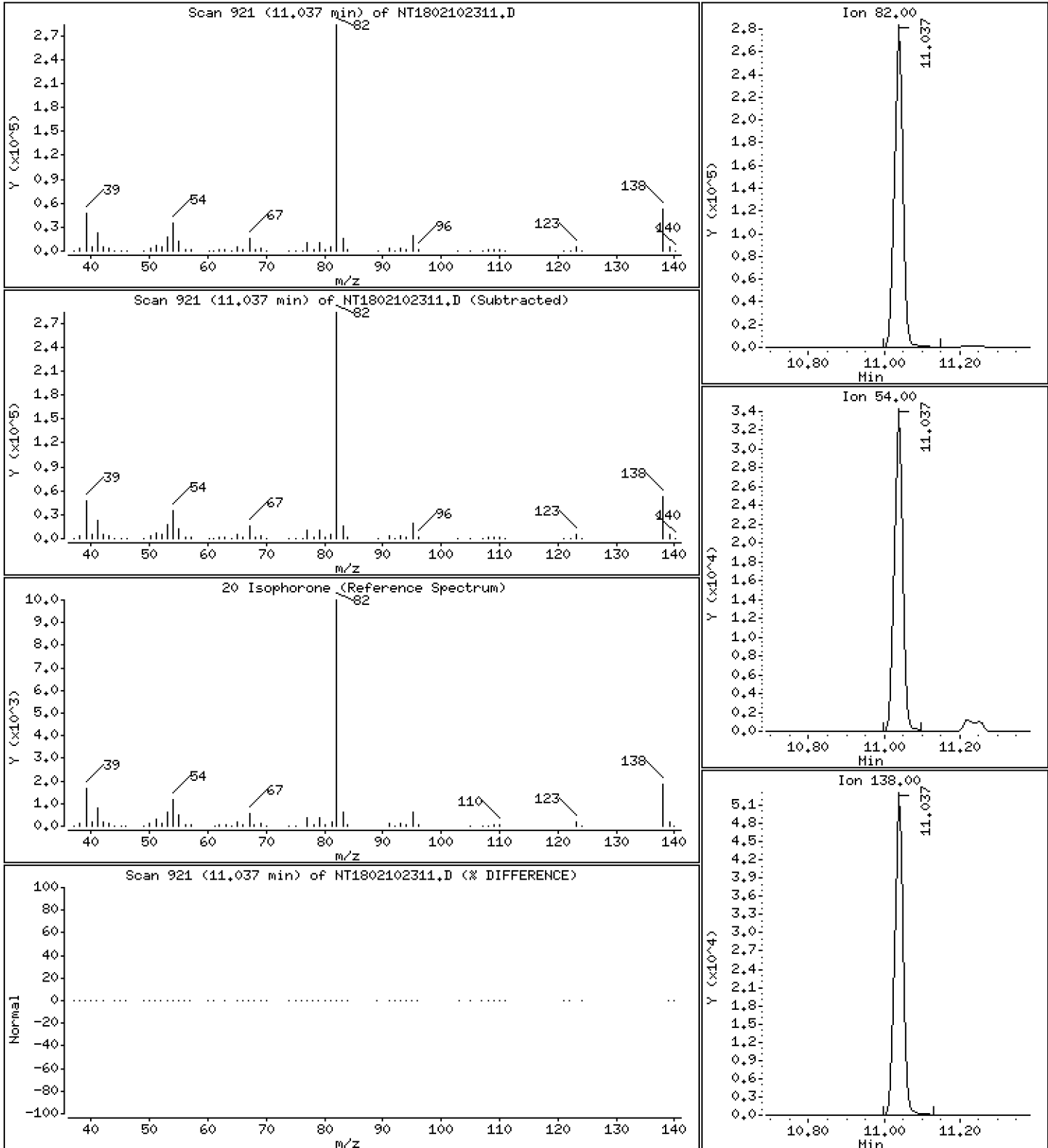
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

20 Isophorone

Concentration: 6.042 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

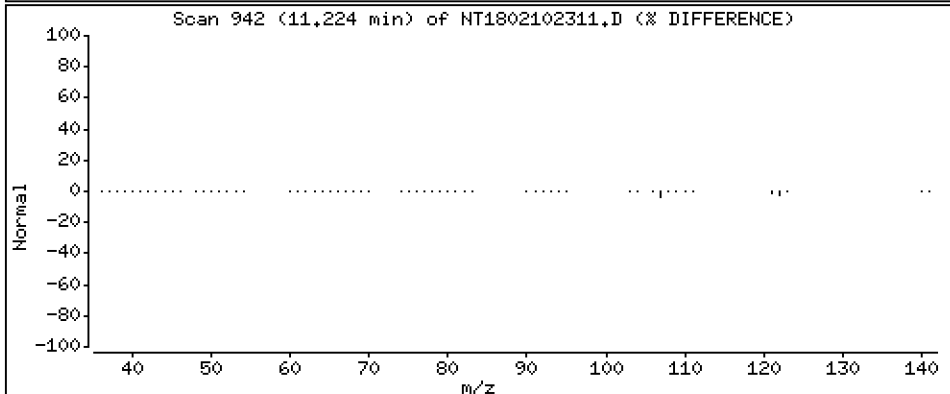
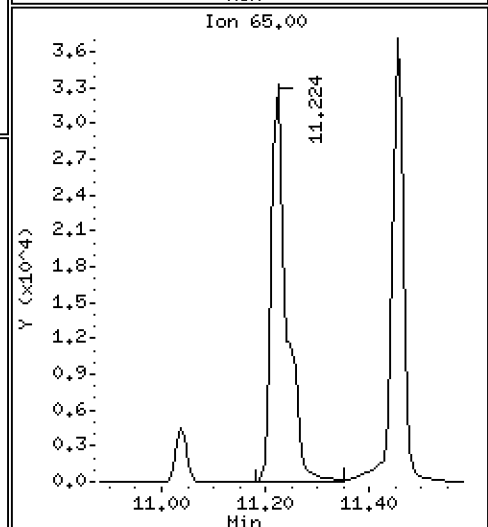
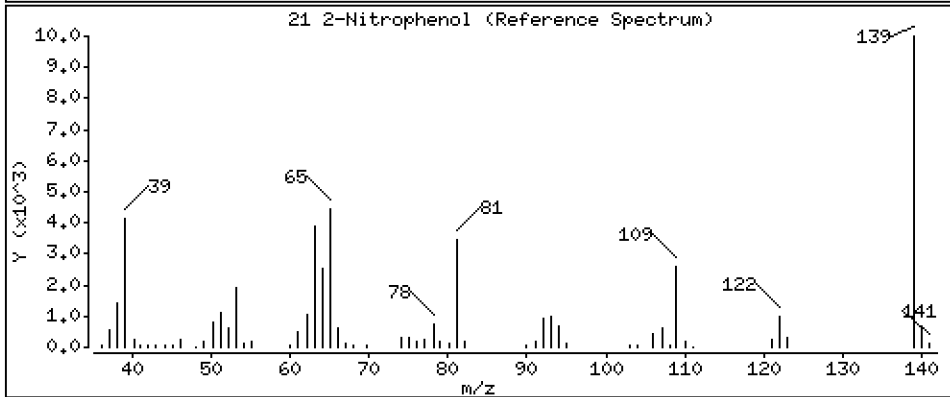
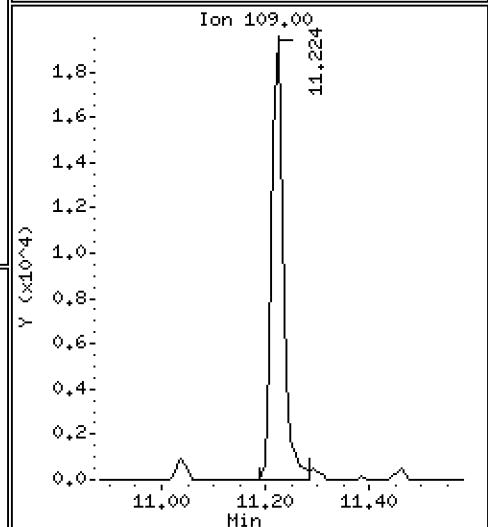
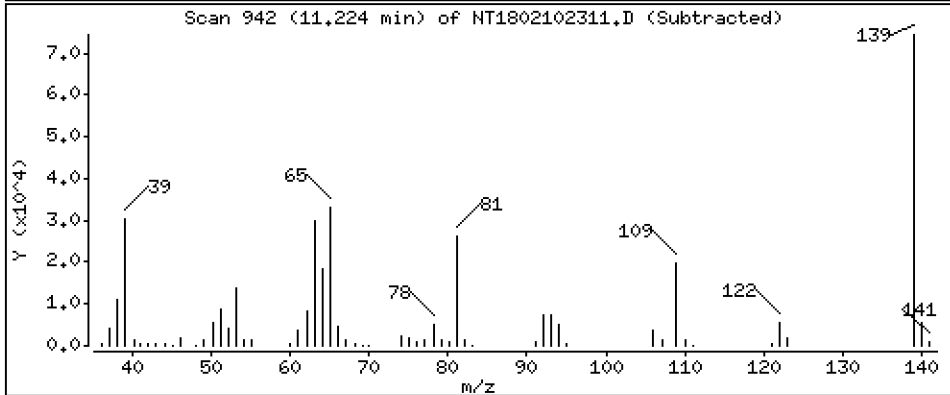
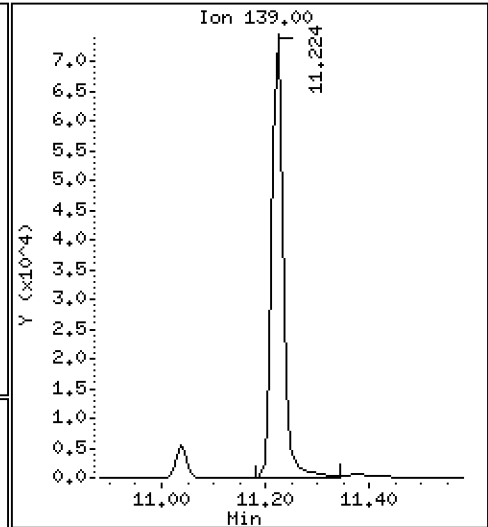
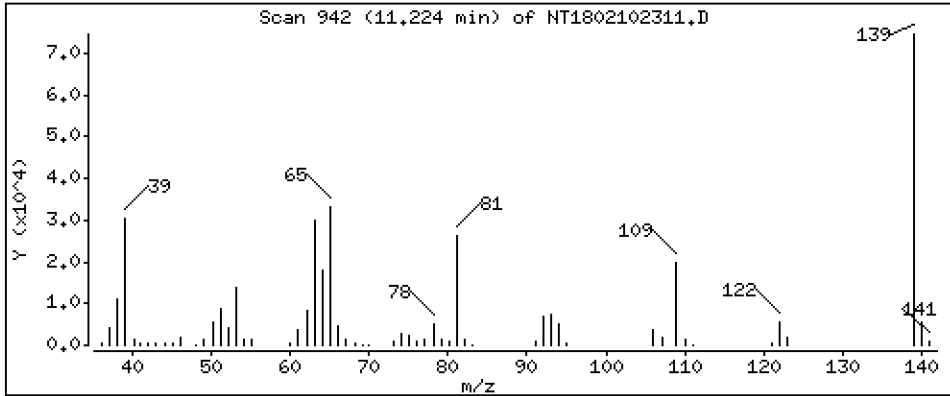
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 4,033 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

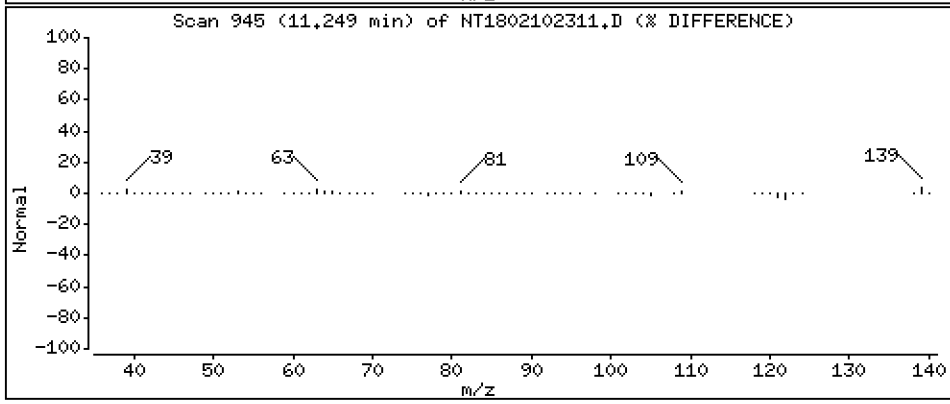
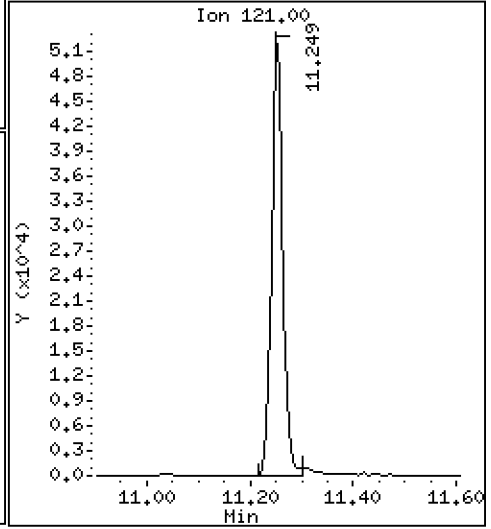
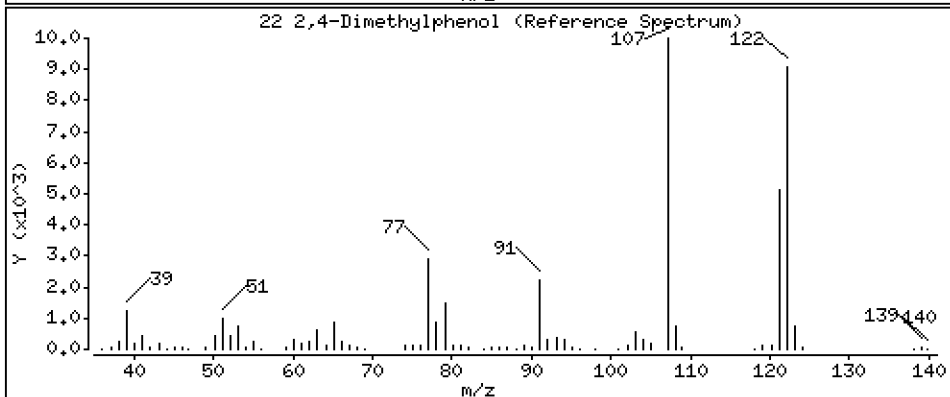
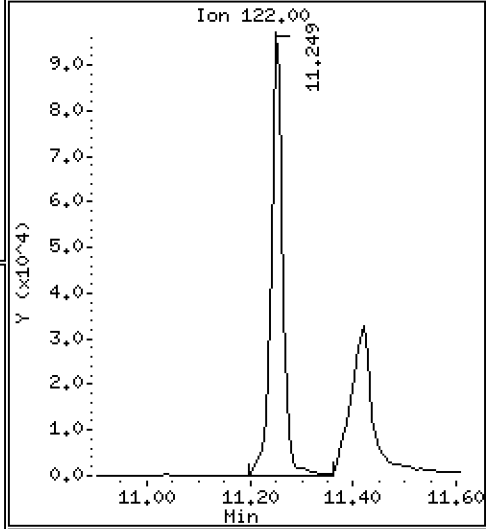
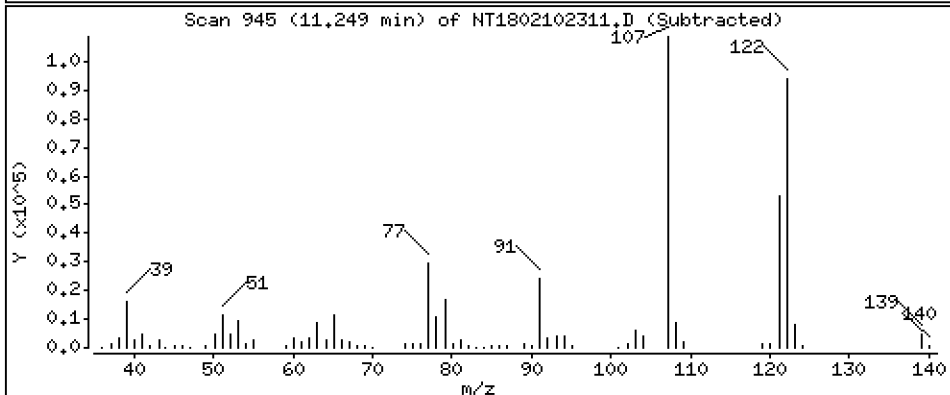
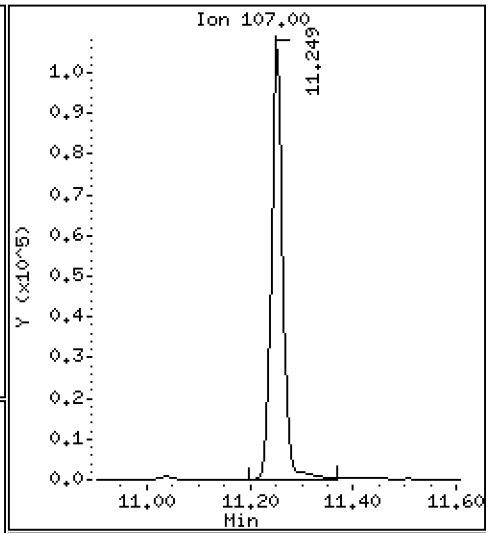
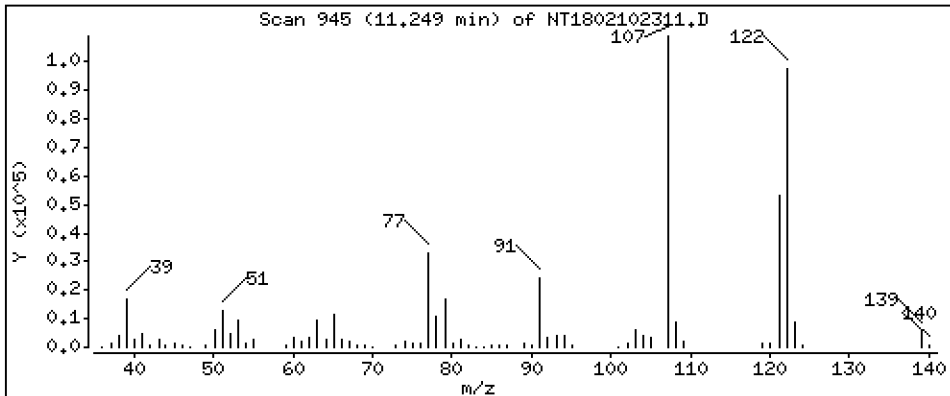
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,734 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

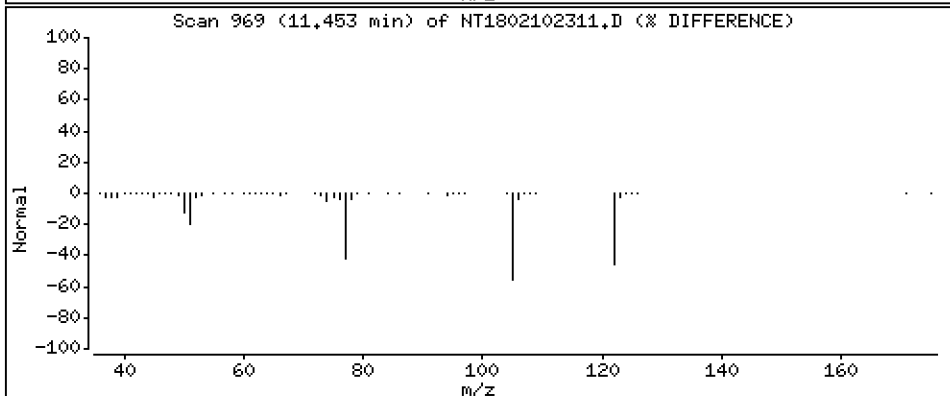
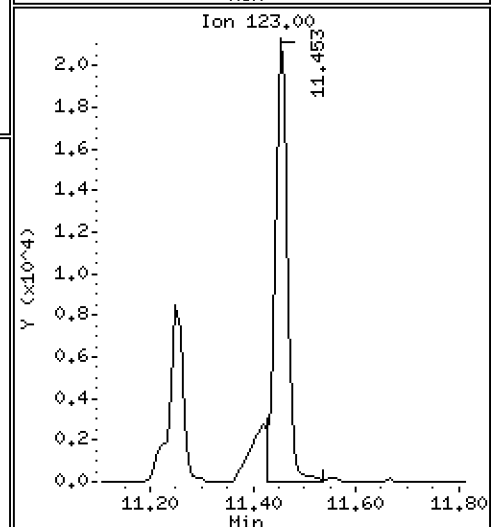
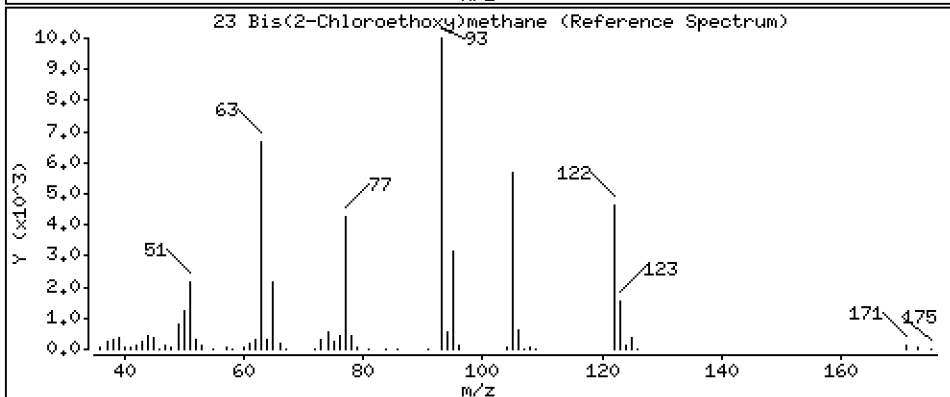
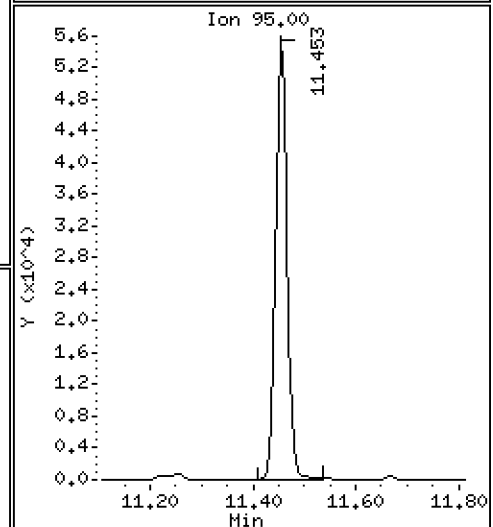
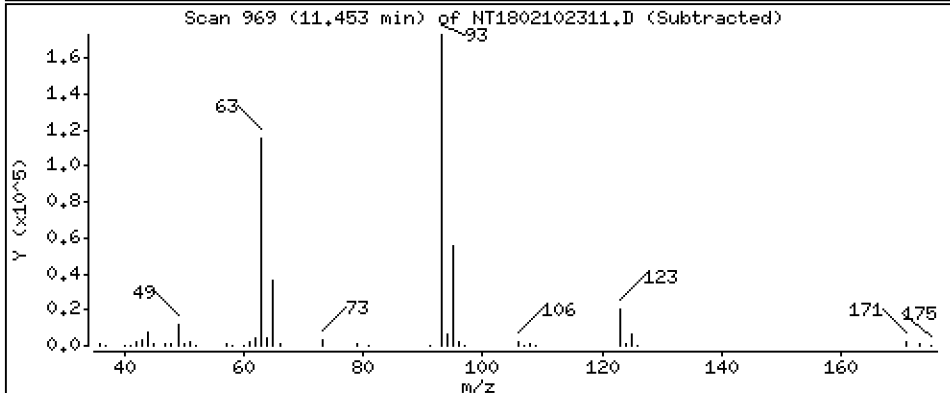
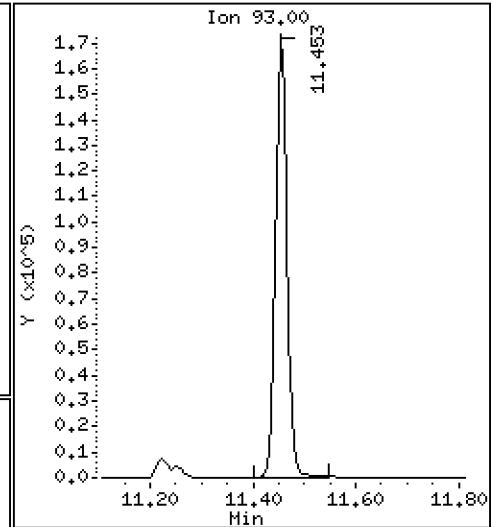
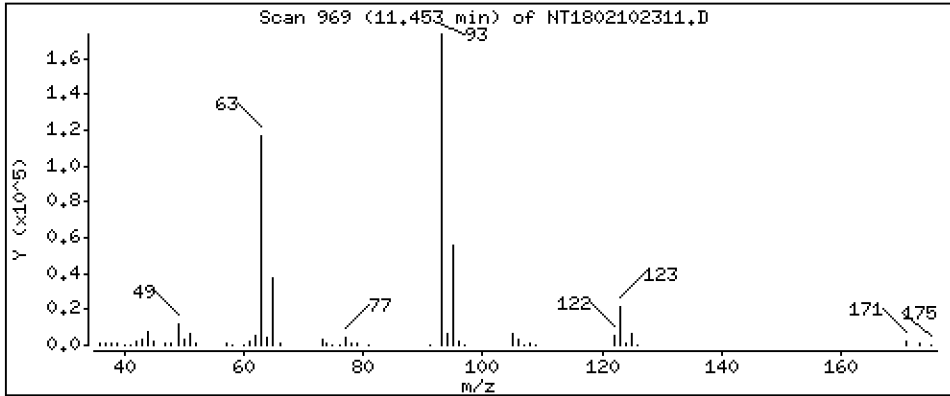
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 5,286 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

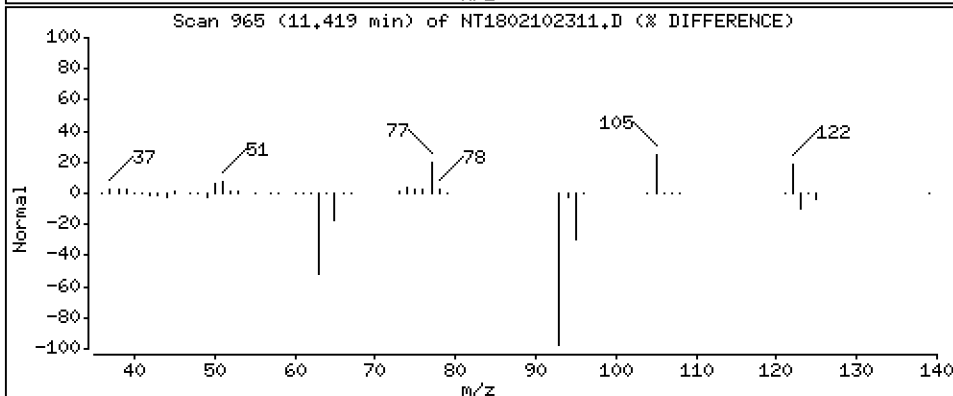
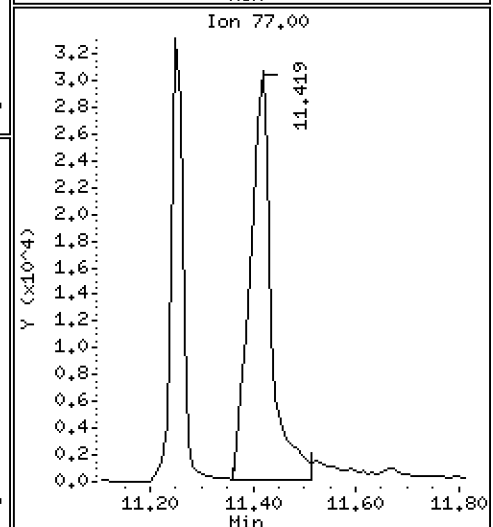
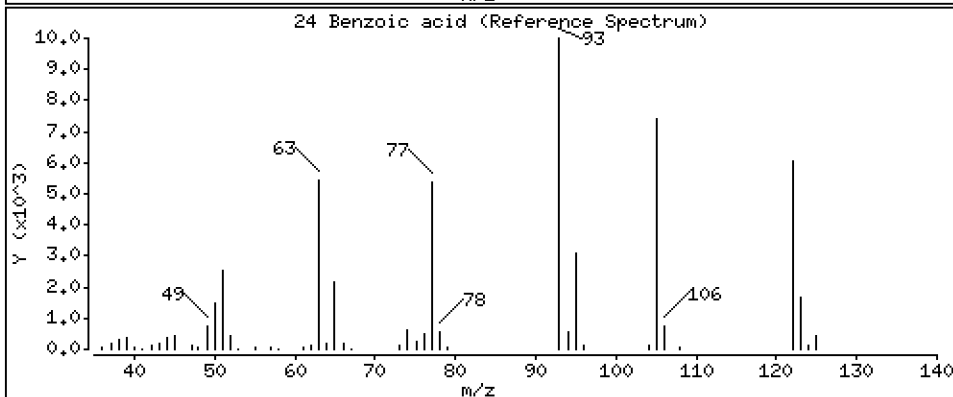
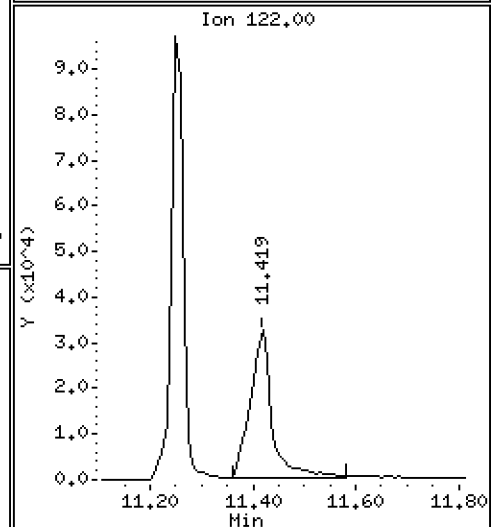
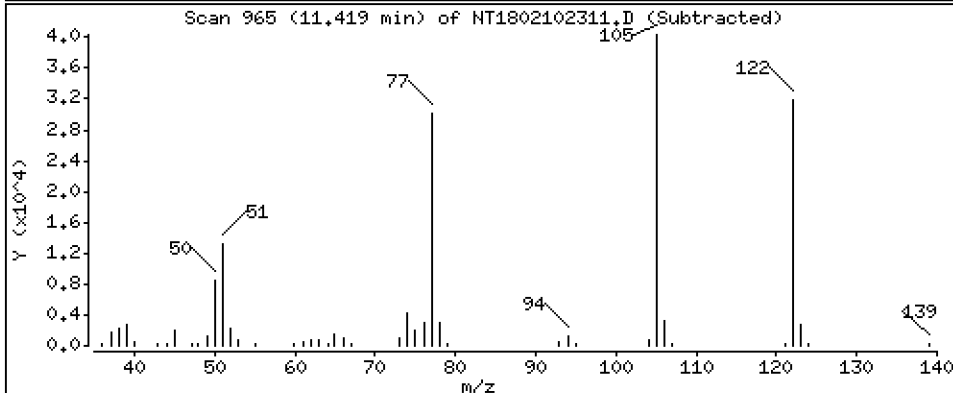
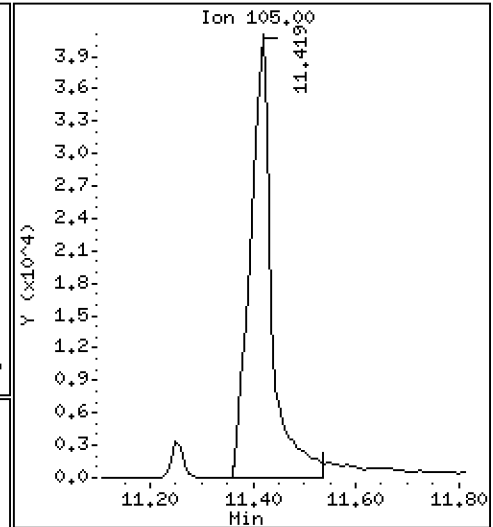
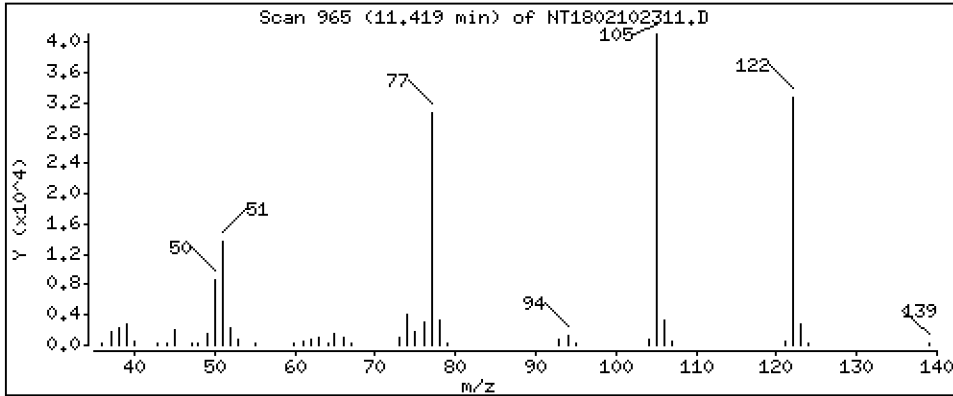
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 4,252 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

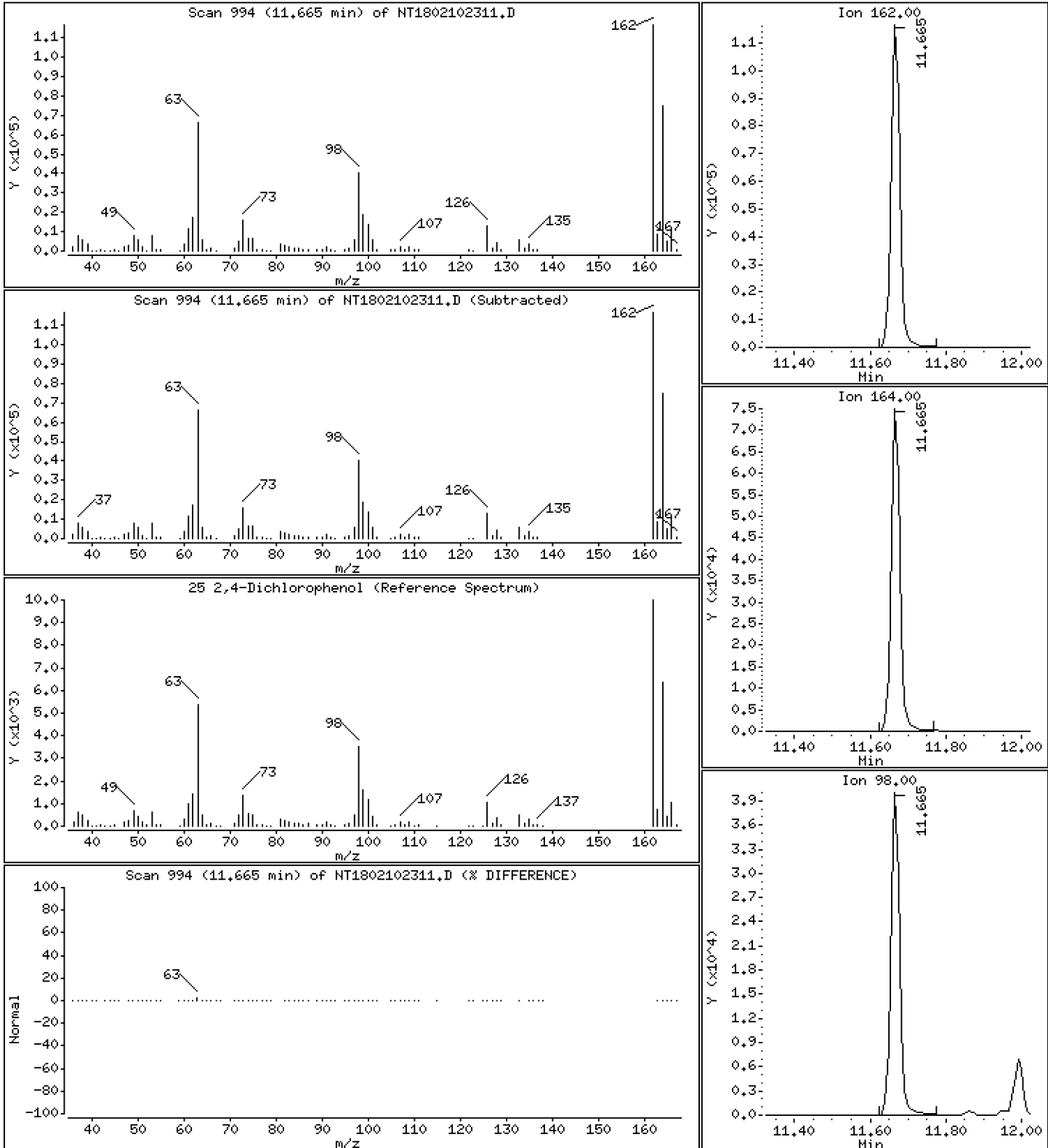
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,529 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

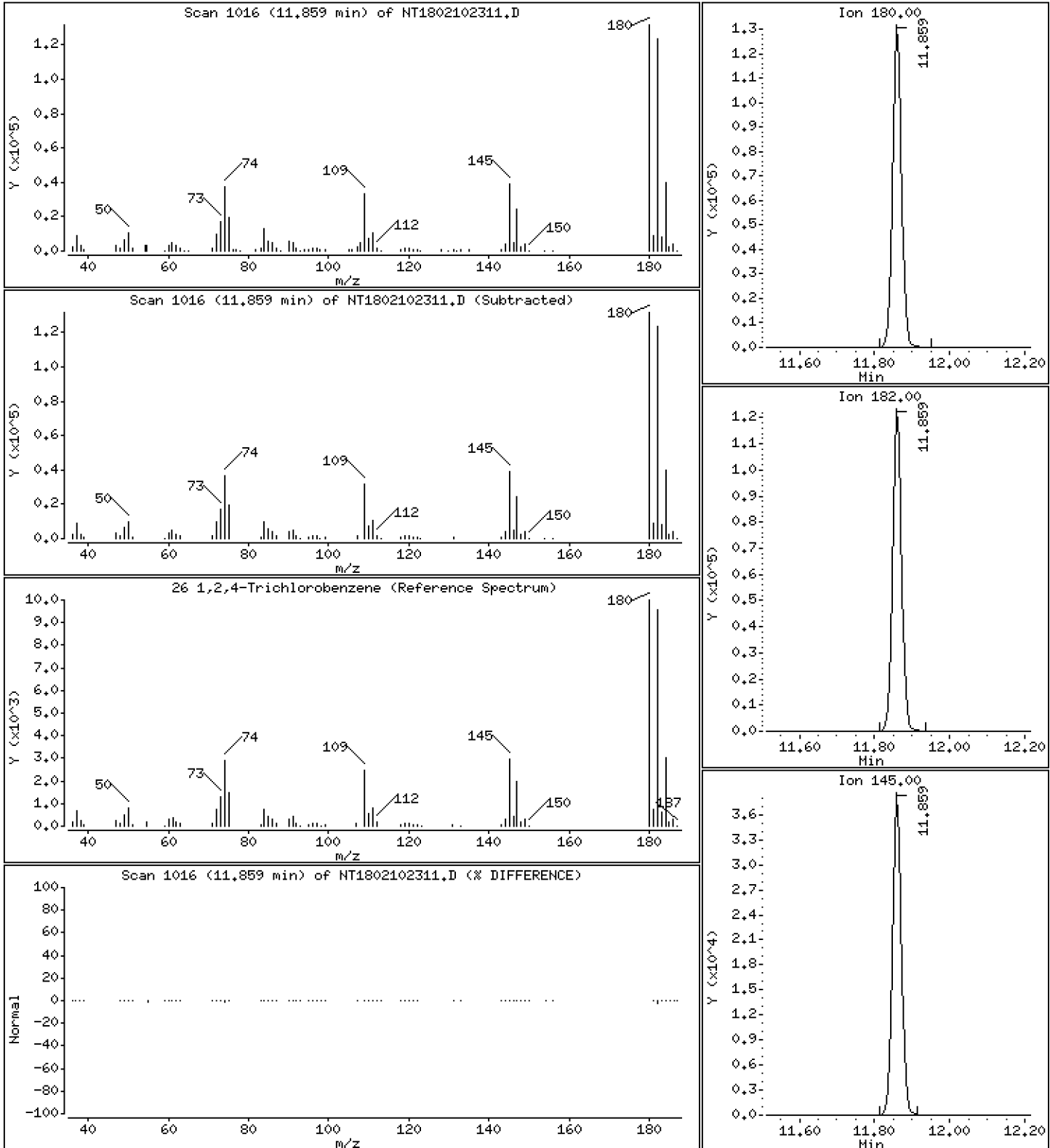
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 4.245 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

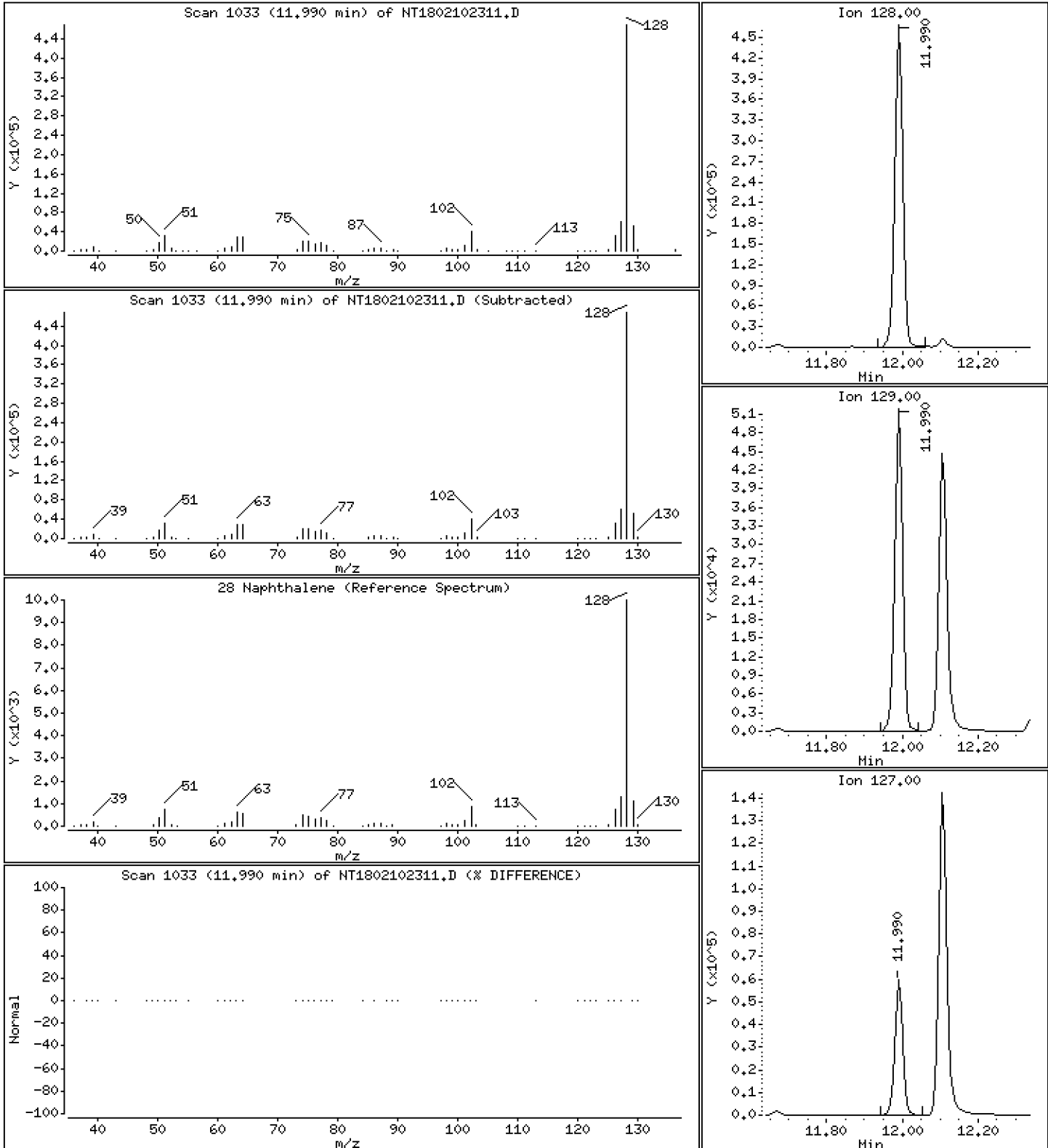
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 4,546 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

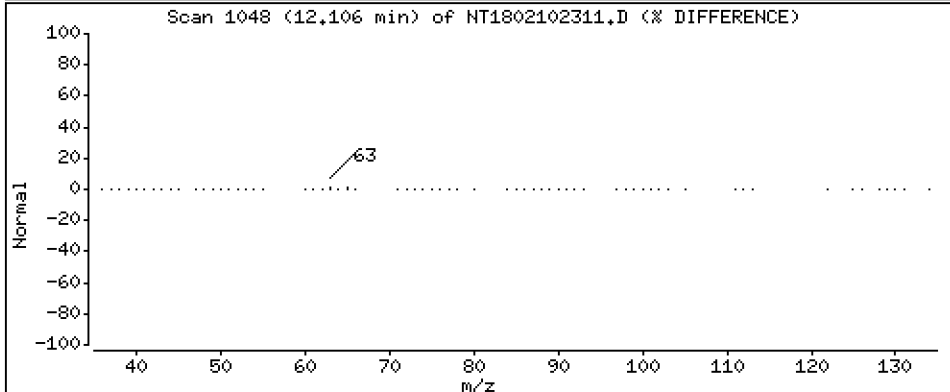
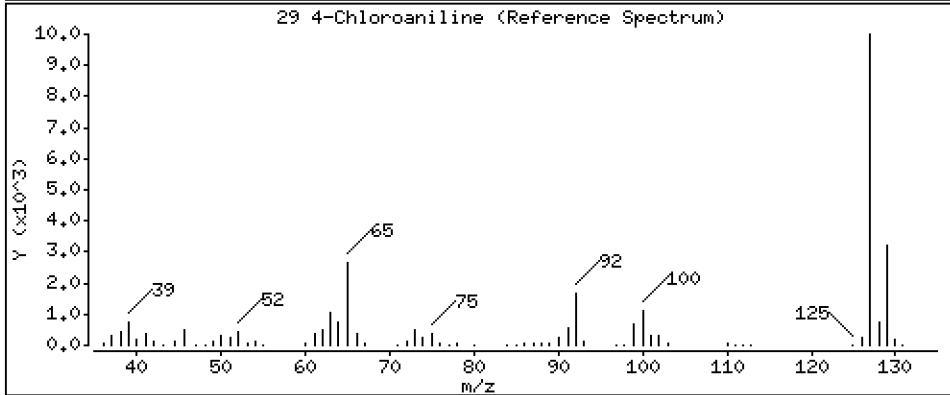
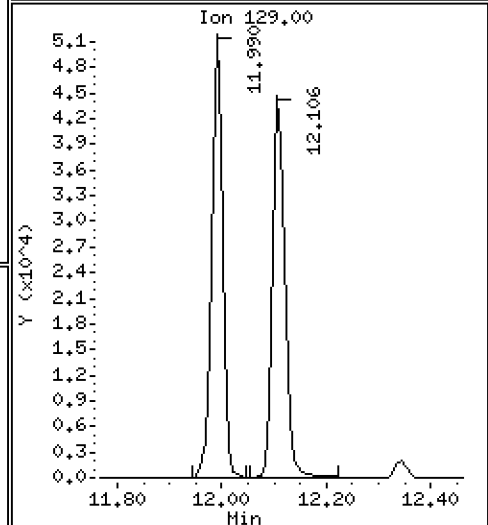
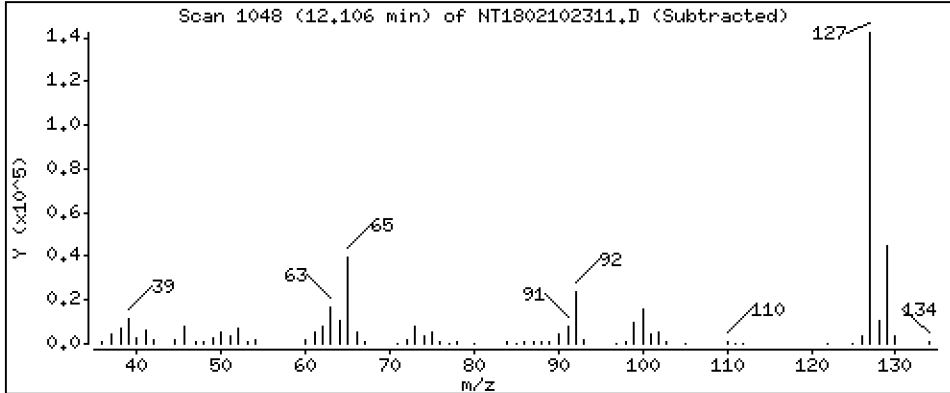
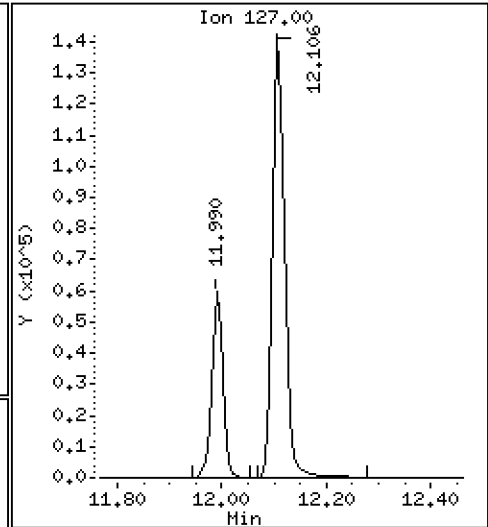
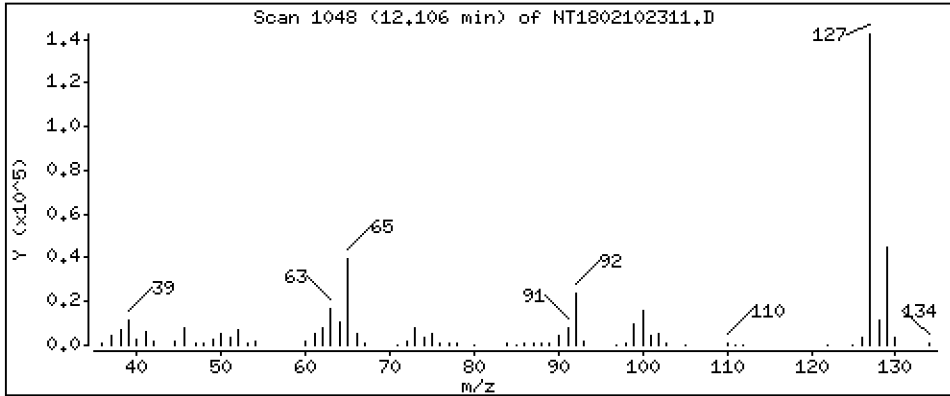
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 3,506 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

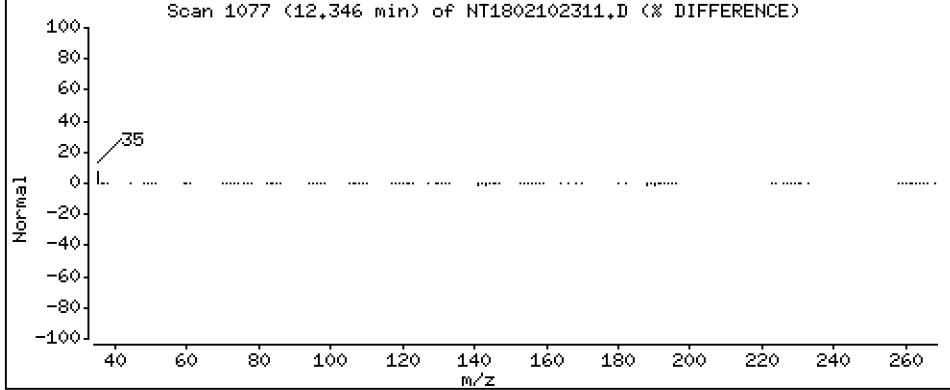
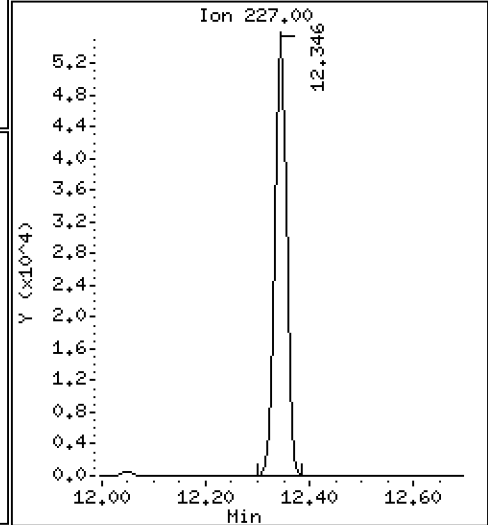
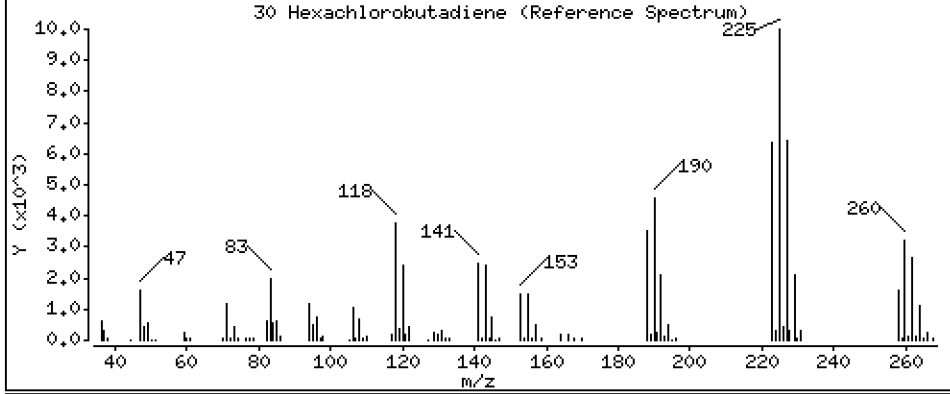
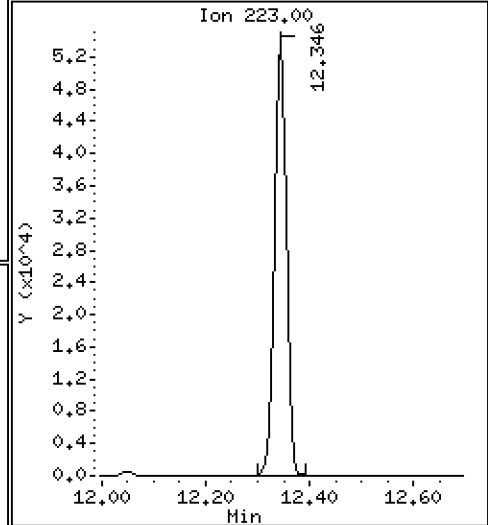
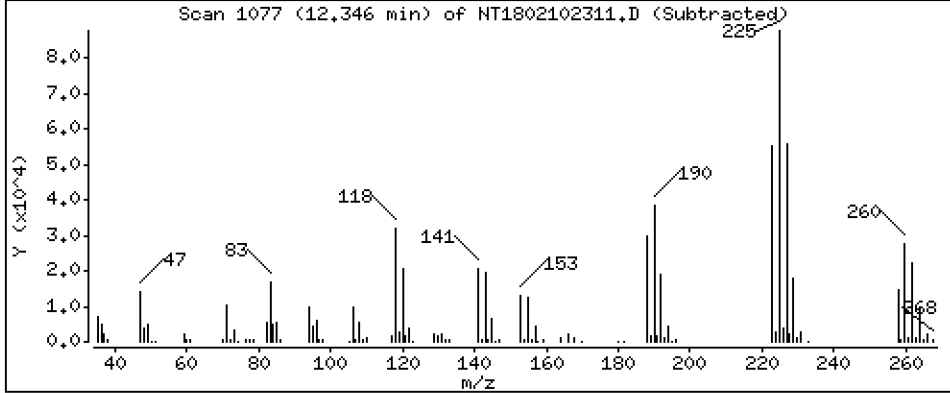
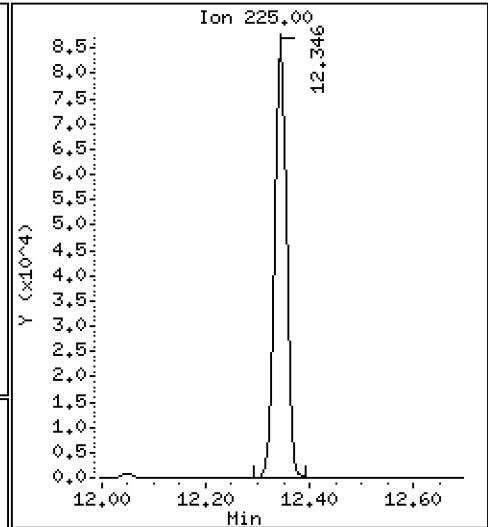
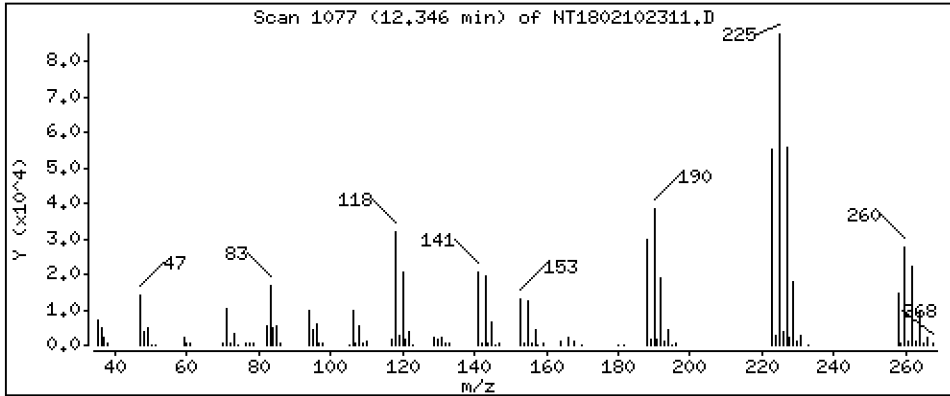
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,414 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

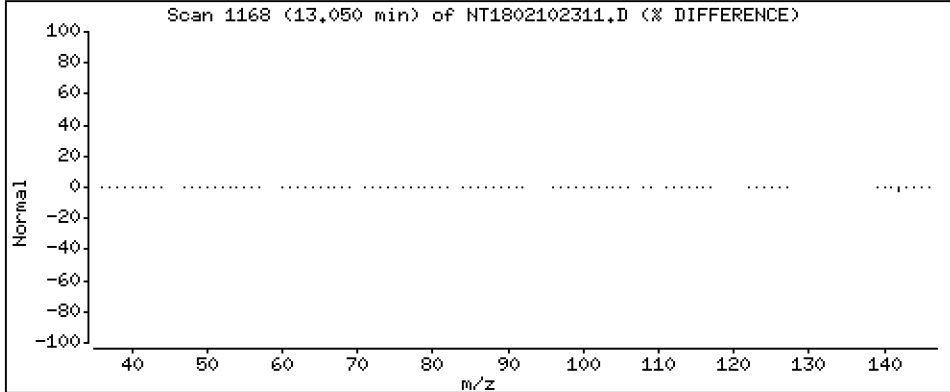
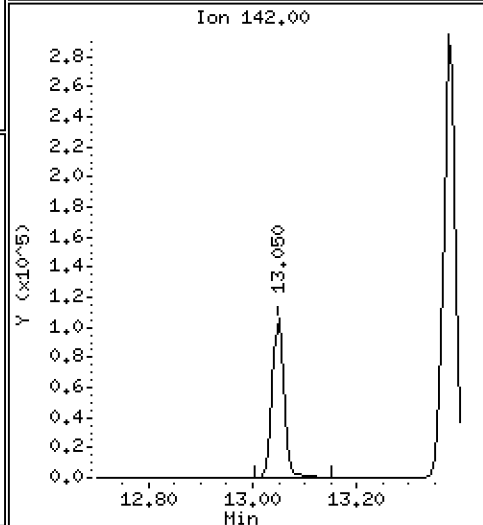
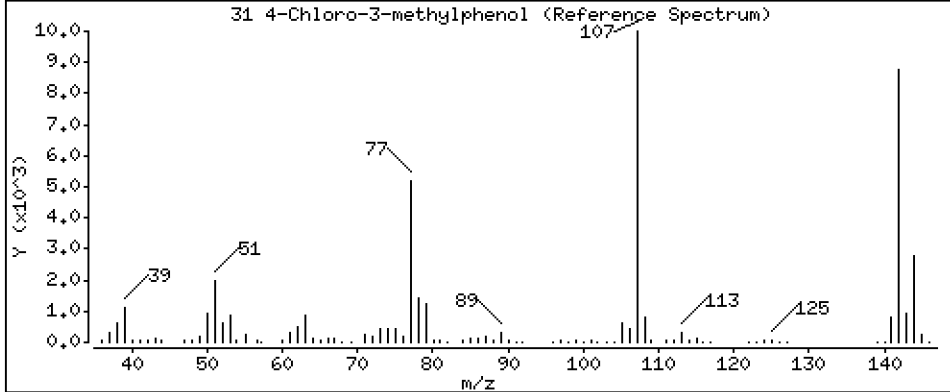
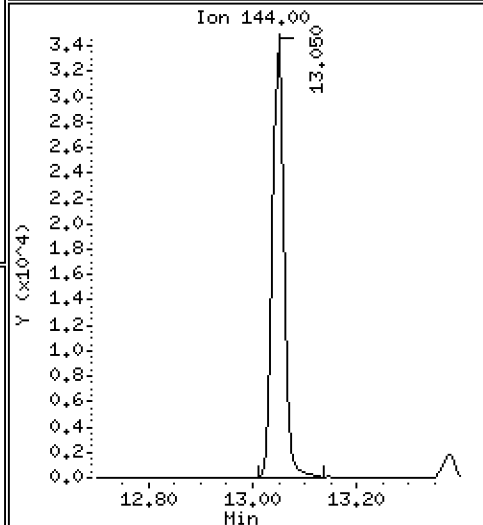
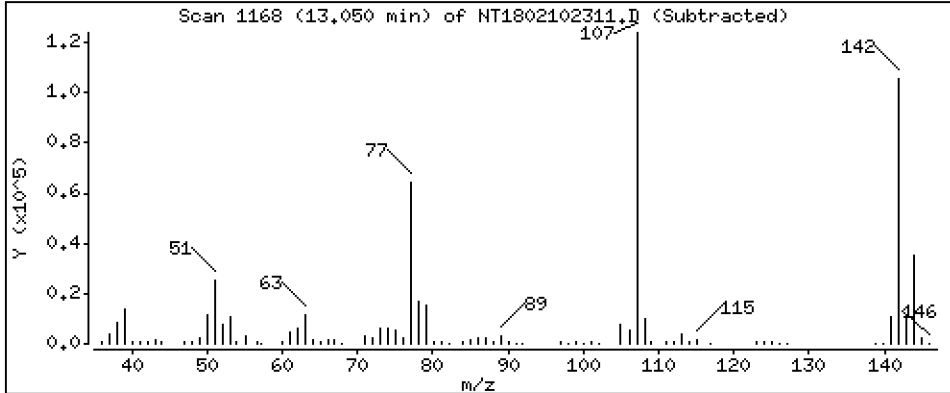
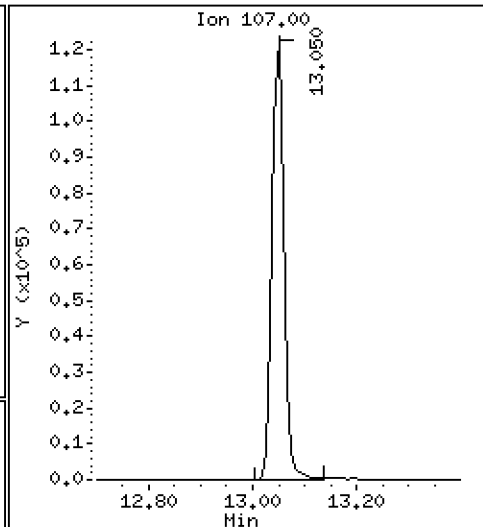
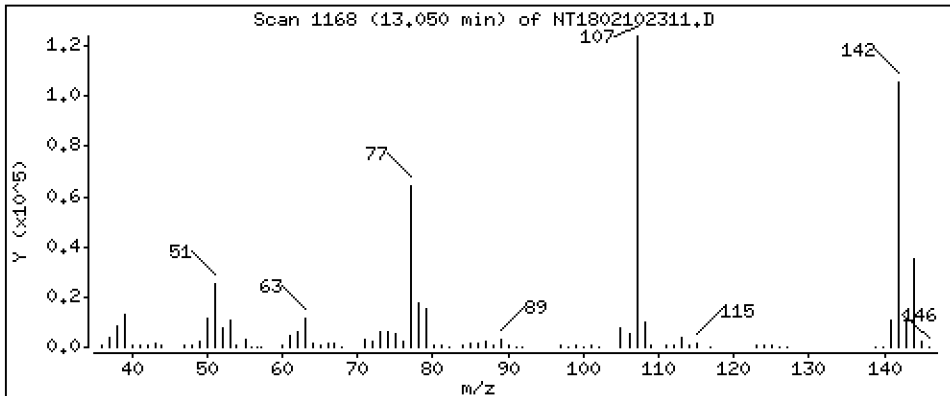
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 4,485 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

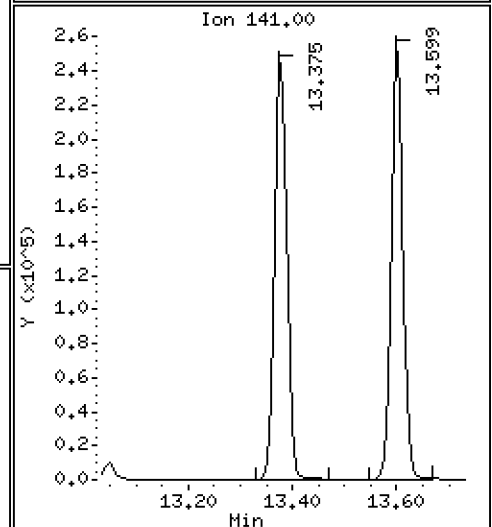
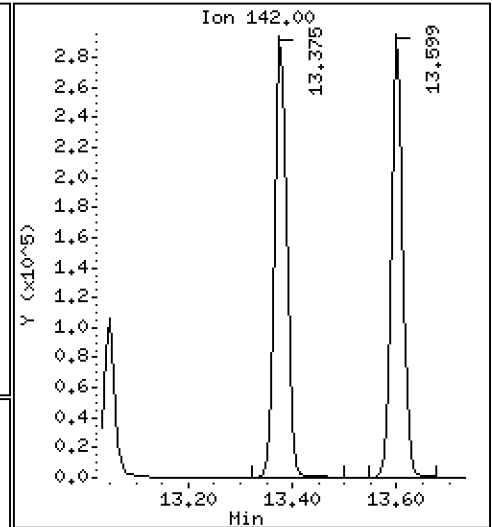
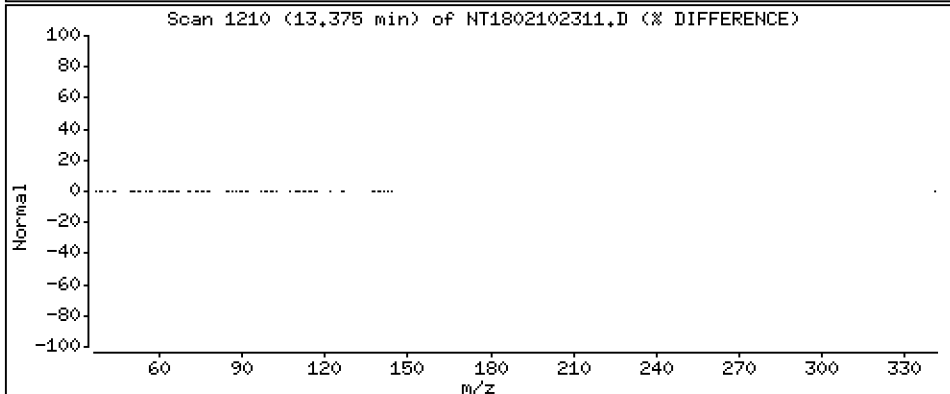
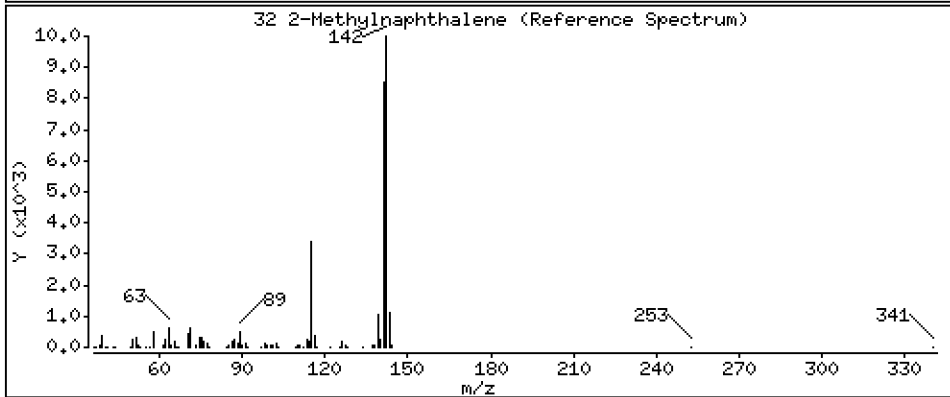
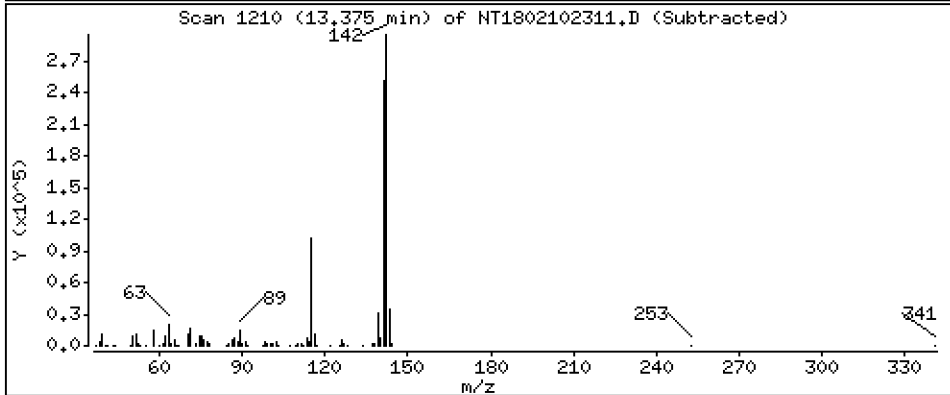
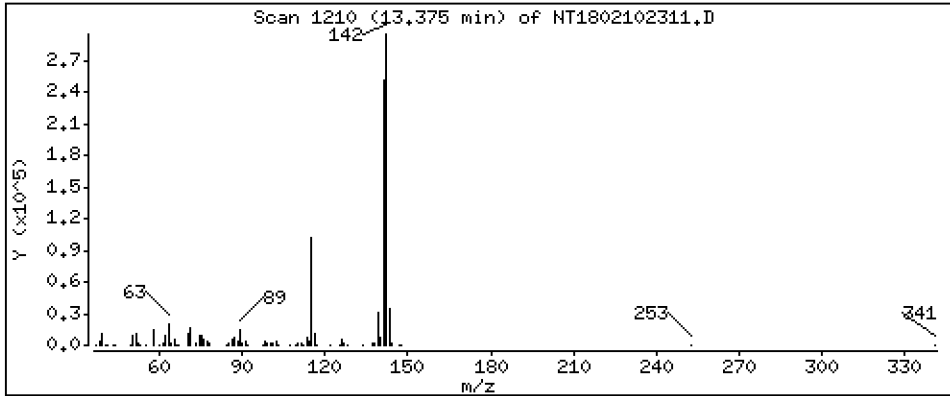
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 4,279 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

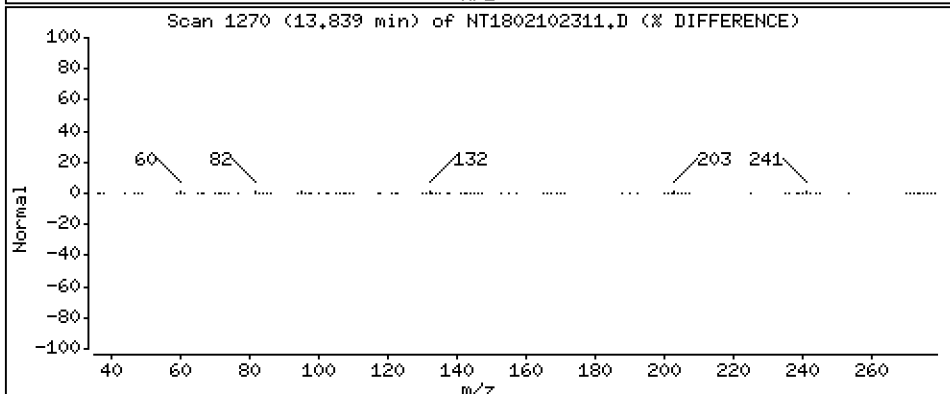
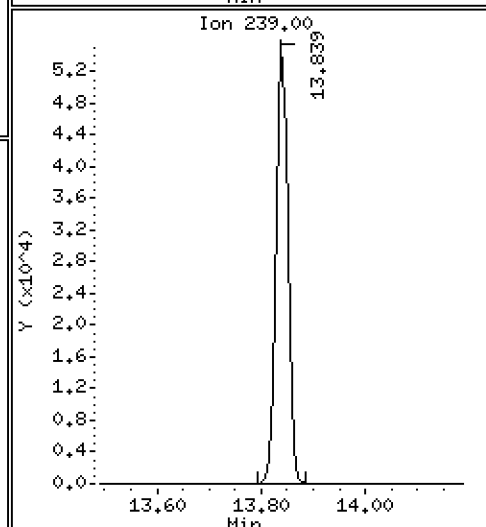
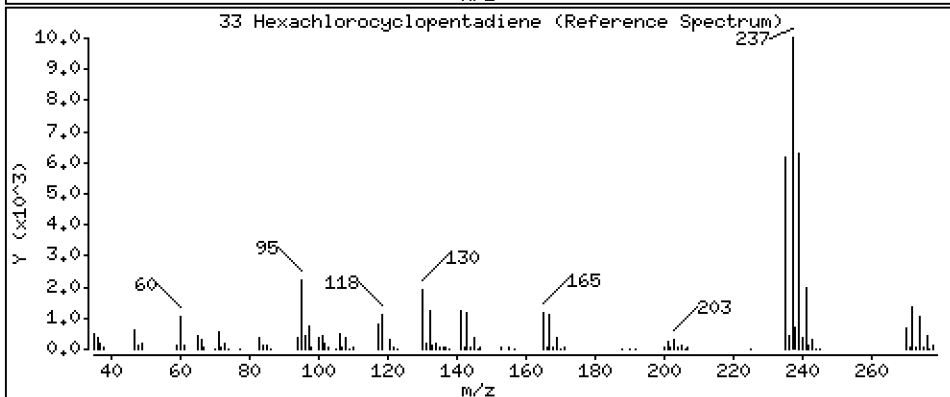
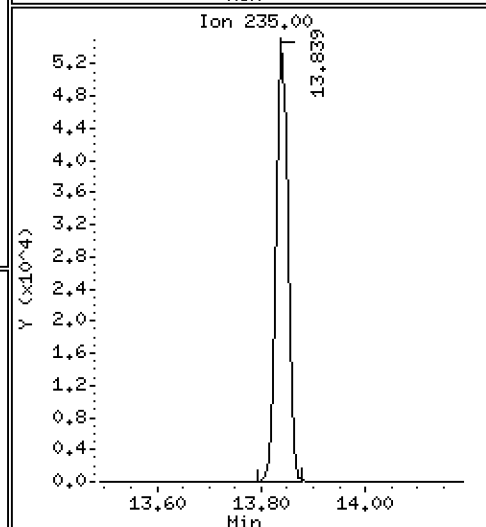
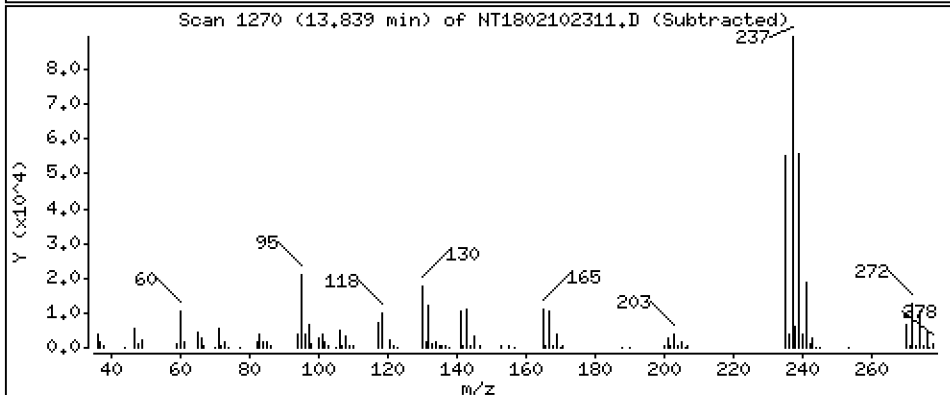
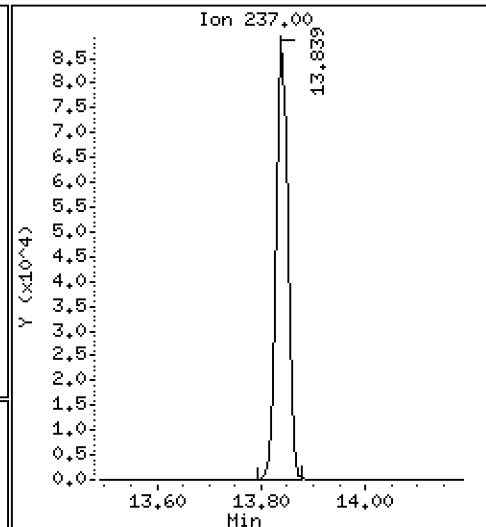
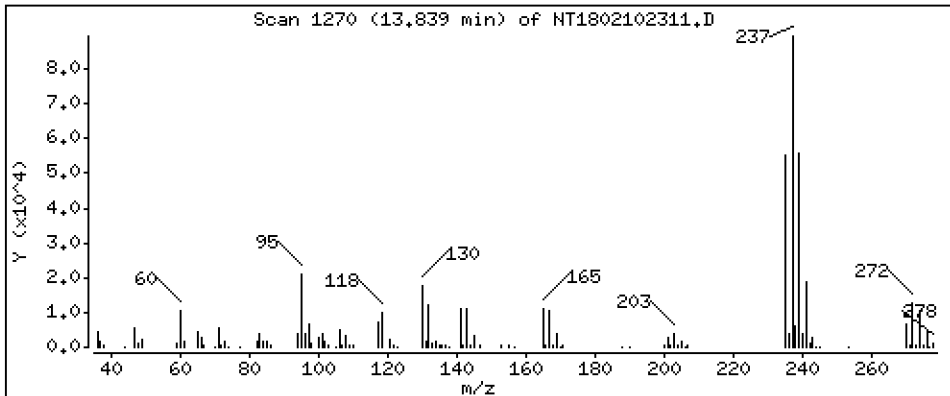
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 4,130 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

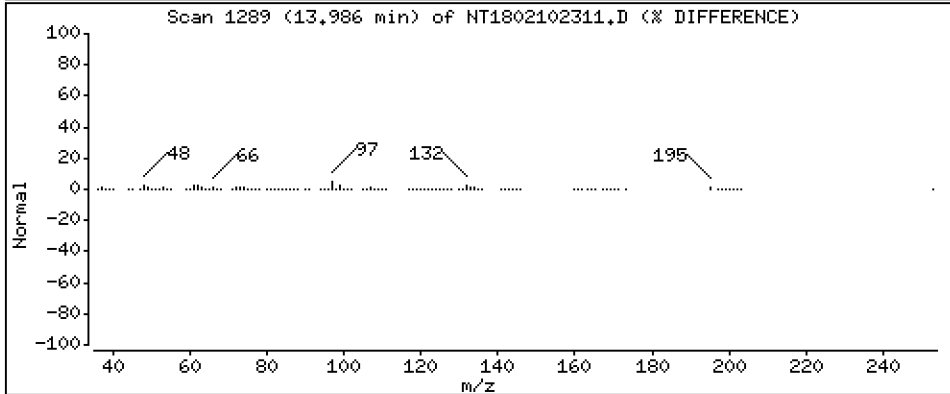
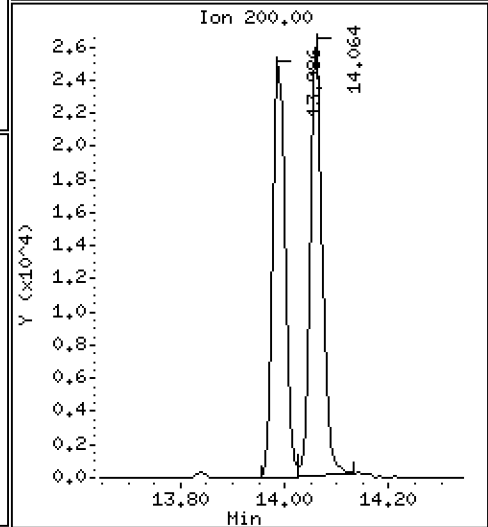
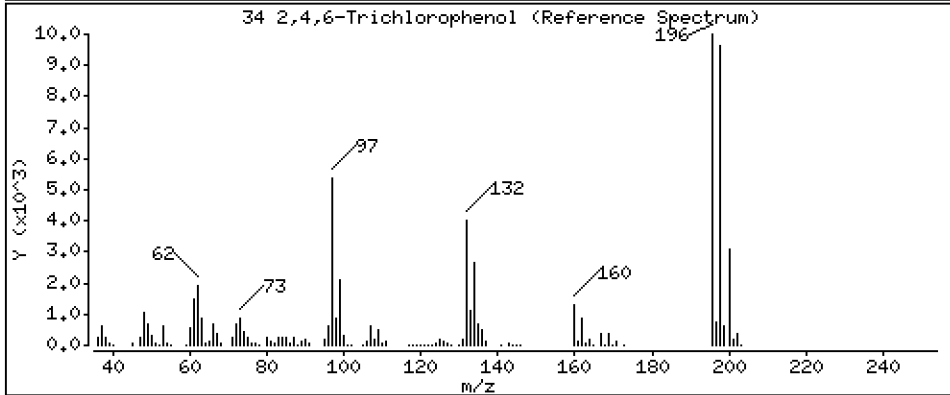
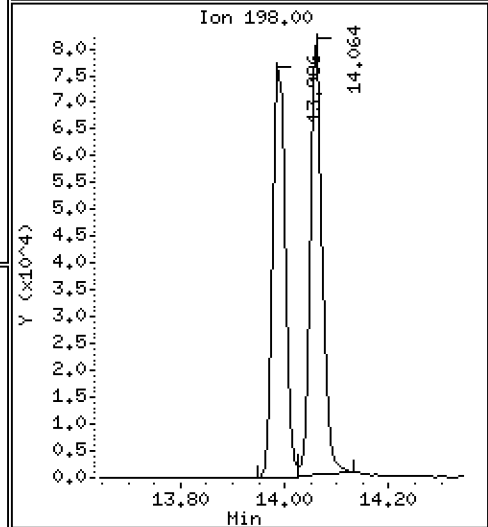
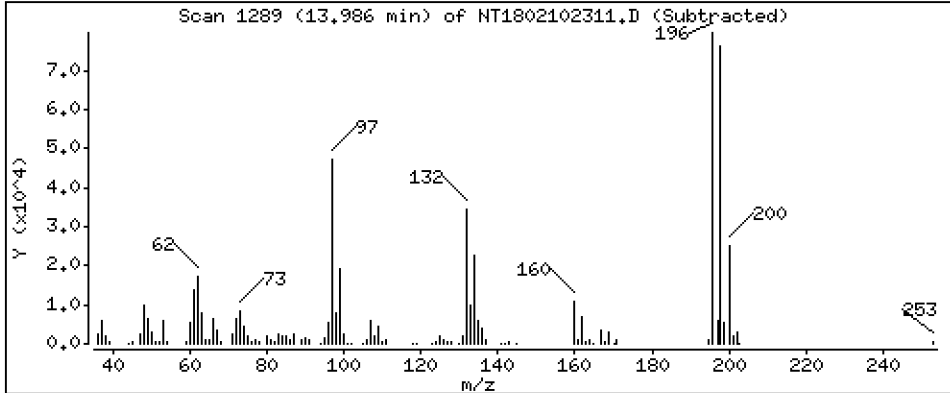
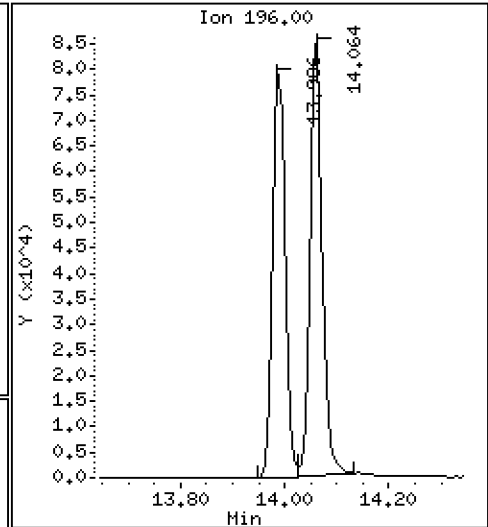
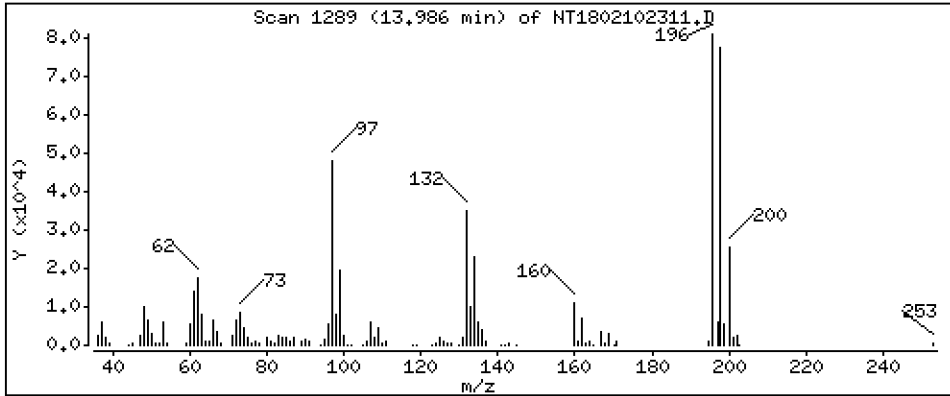
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 4,334 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

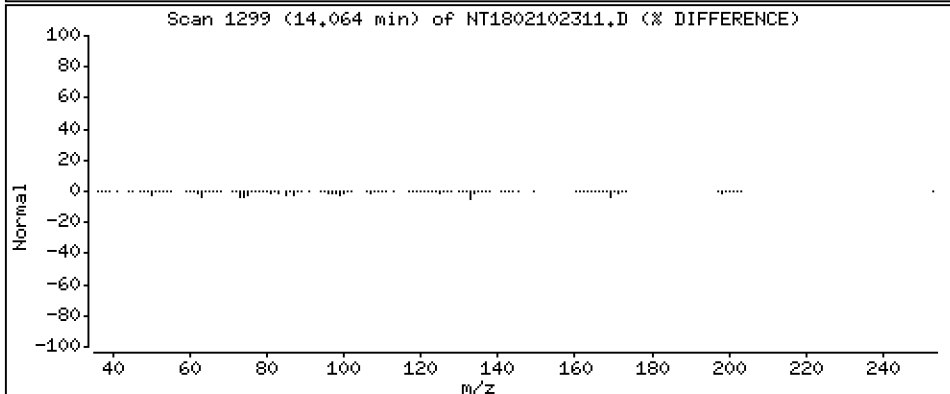
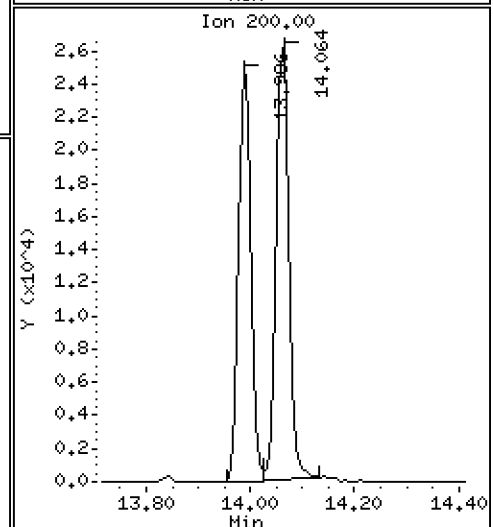
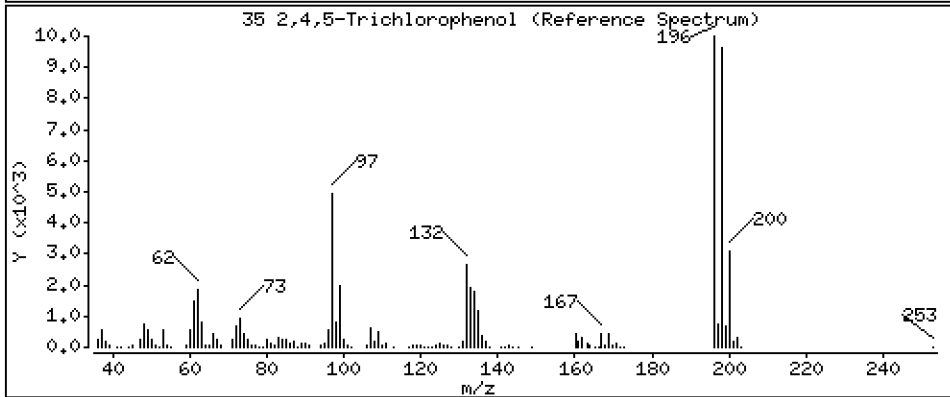
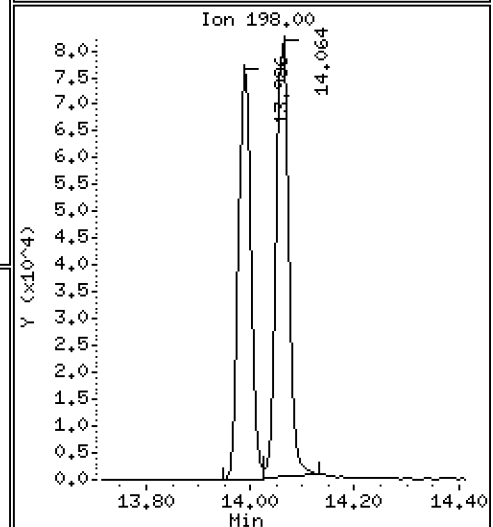
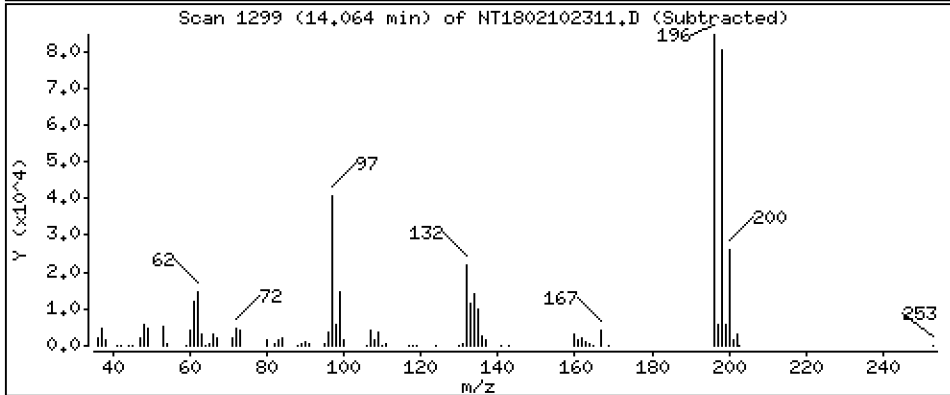
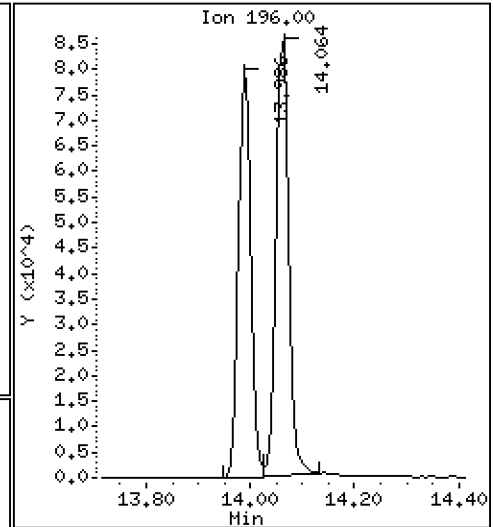
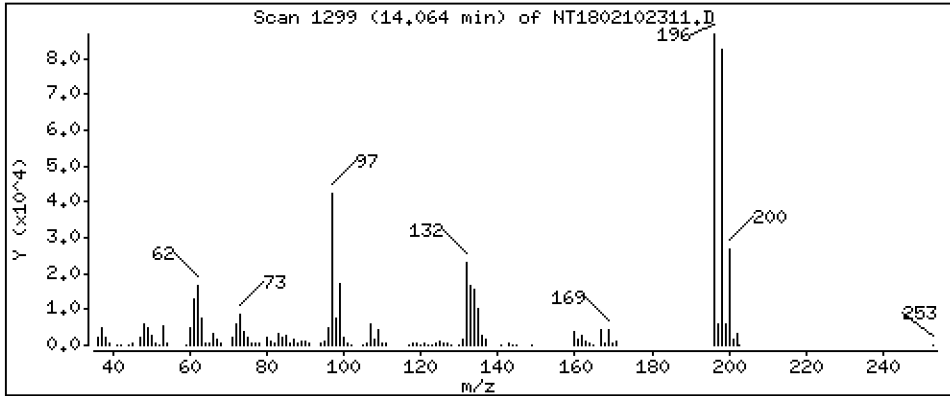
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 4,225 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

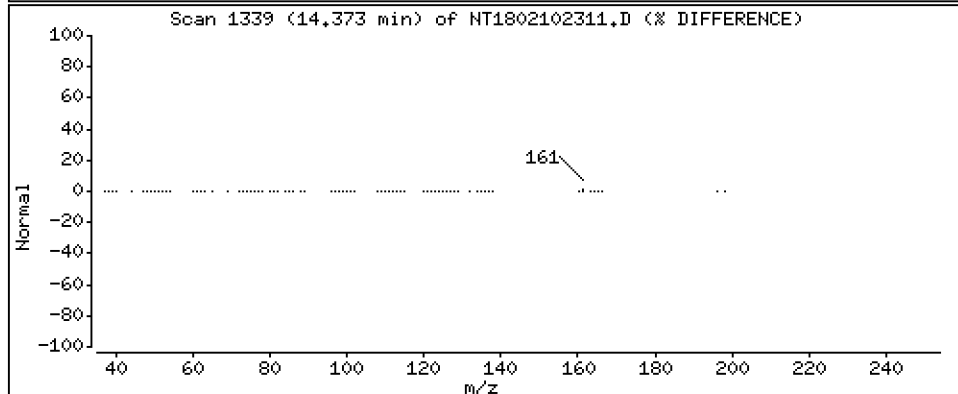
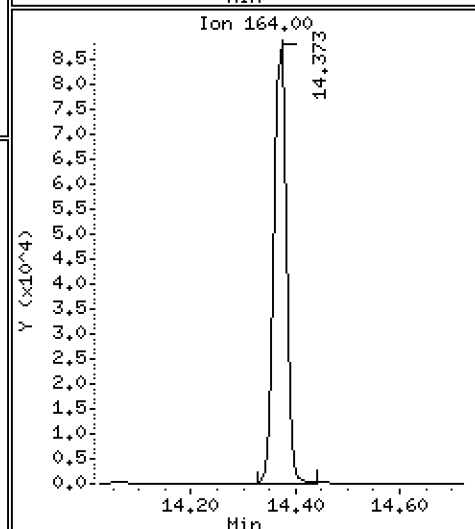
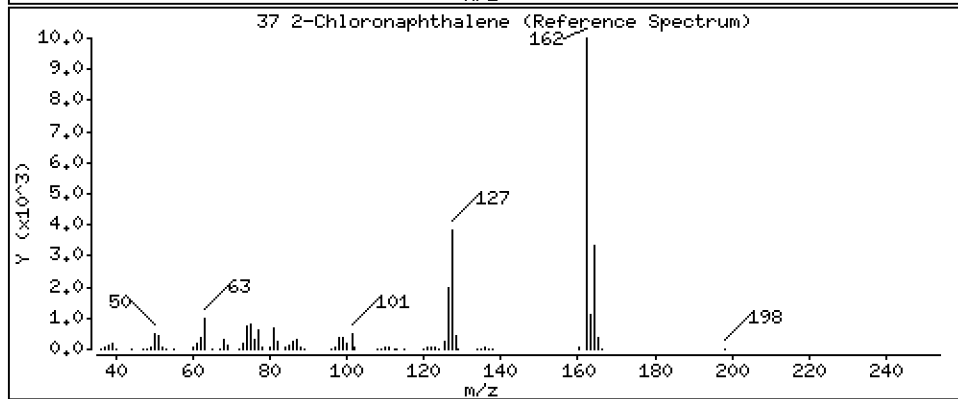
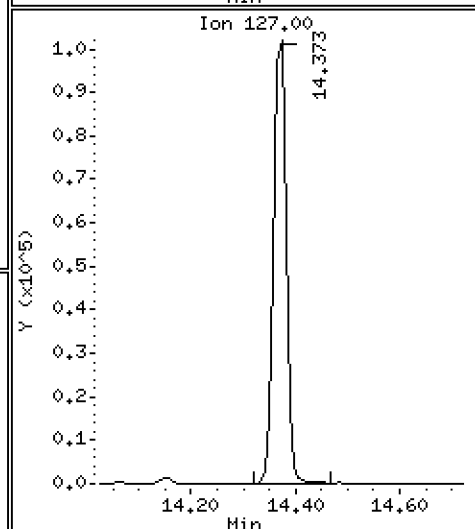
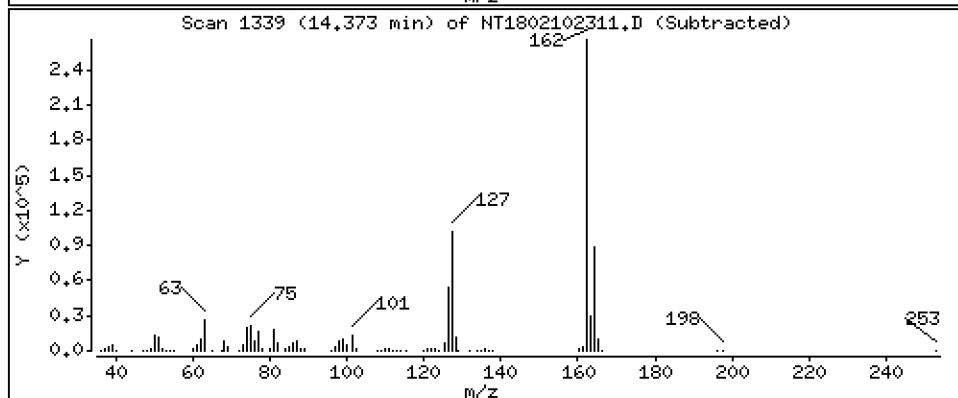
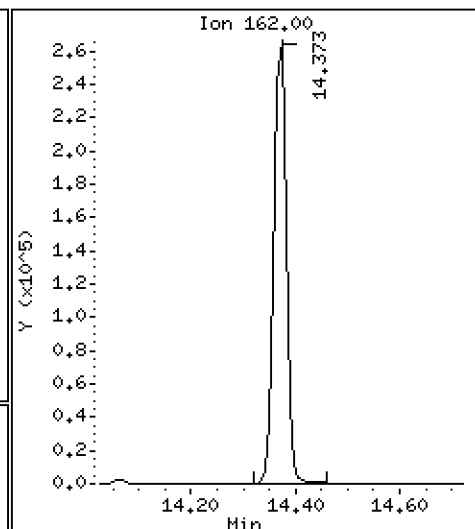
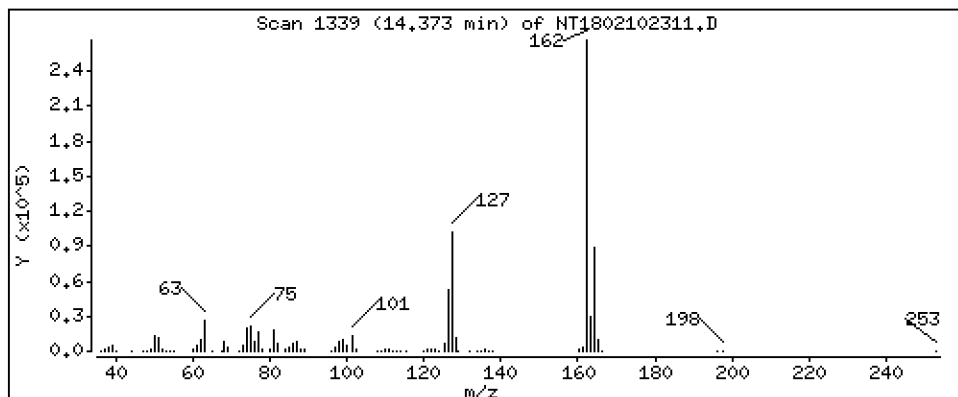
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 4.299 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

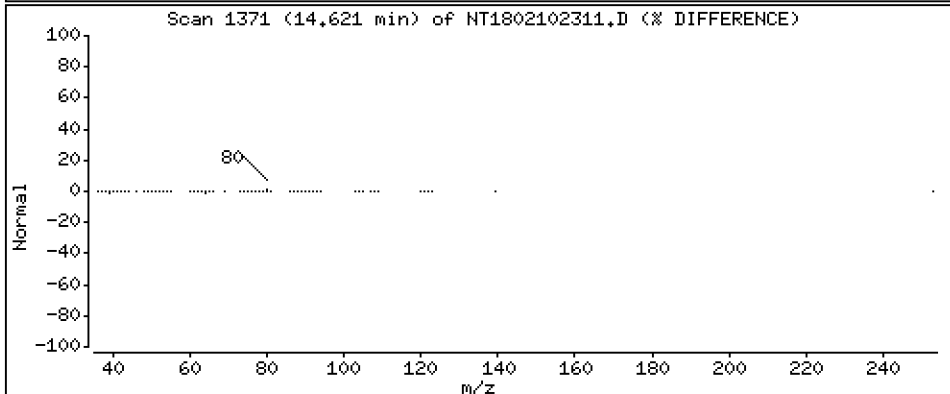
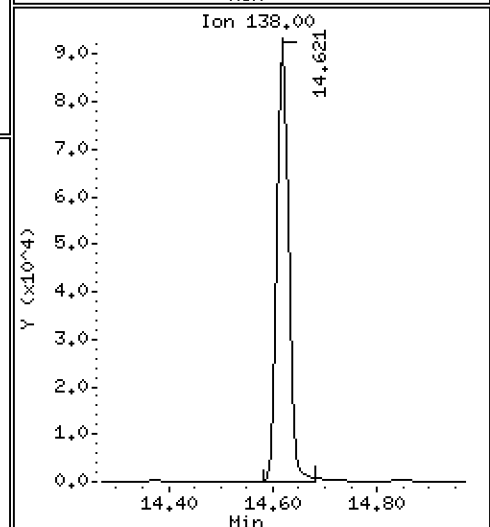
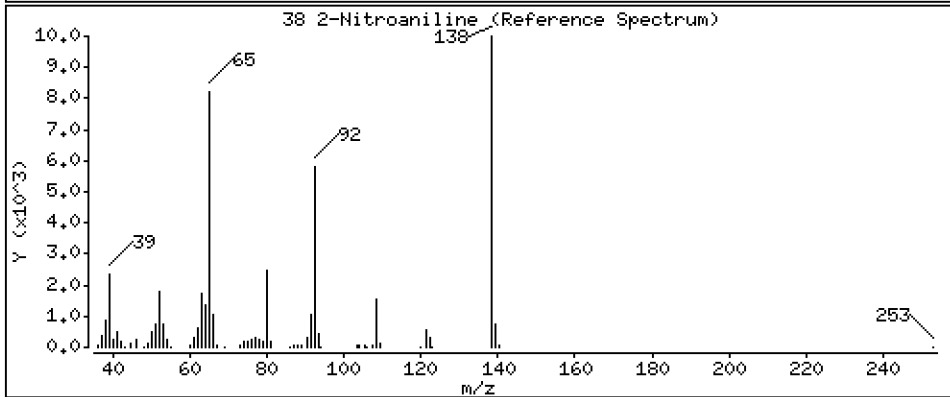
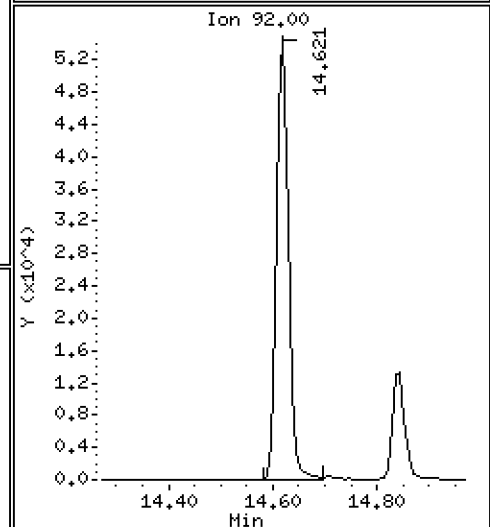
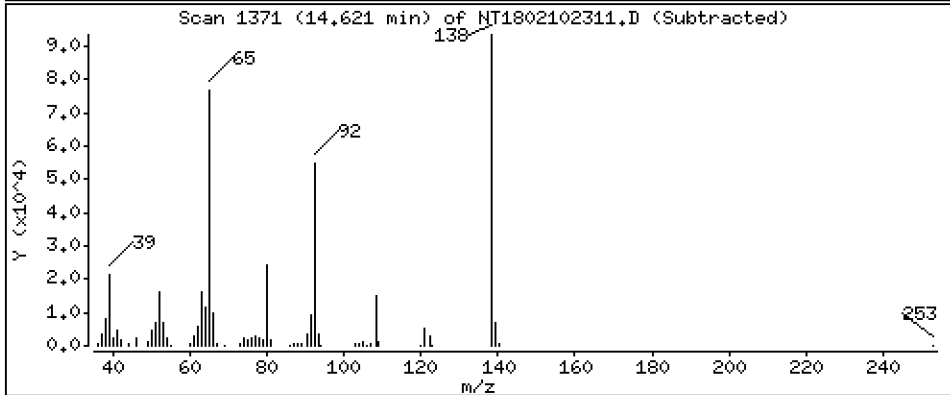
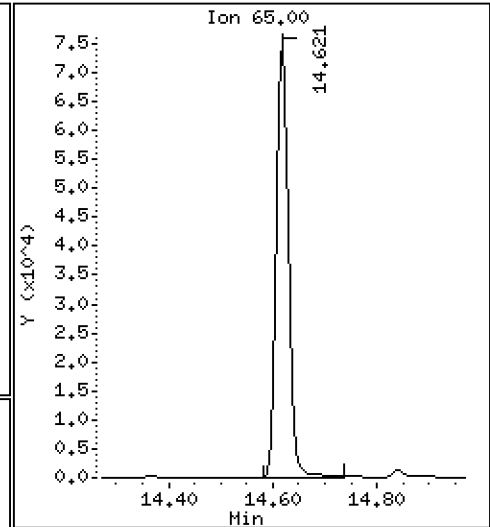
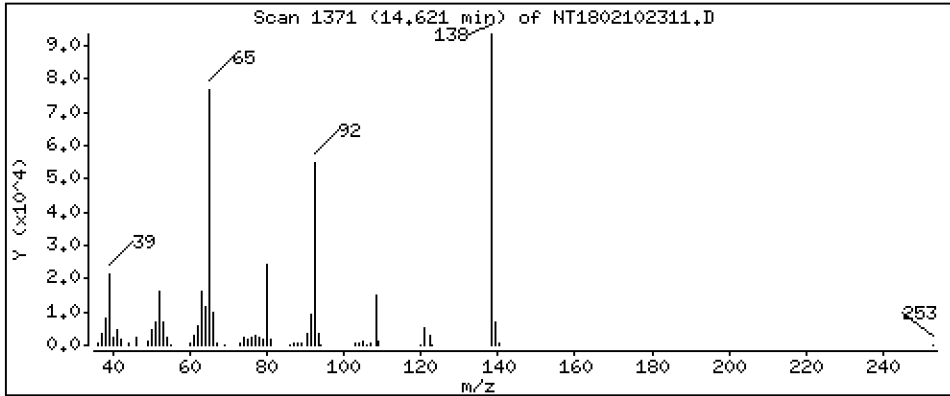
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

38 2-Nitroaniline

Concentration: 4.431 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

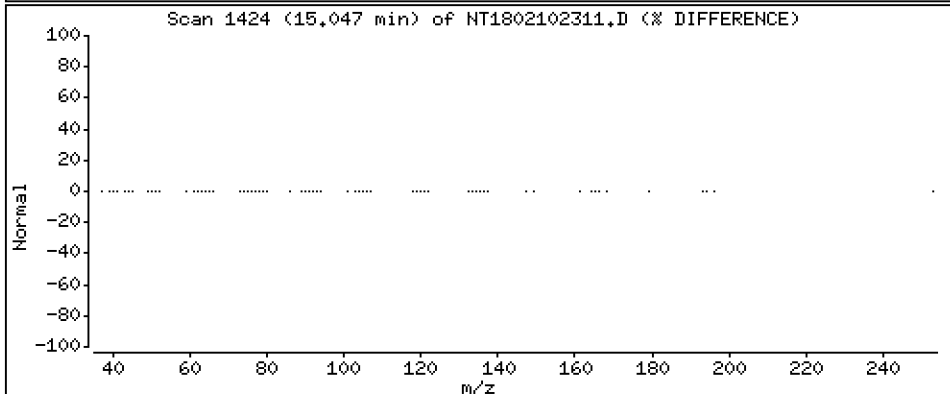
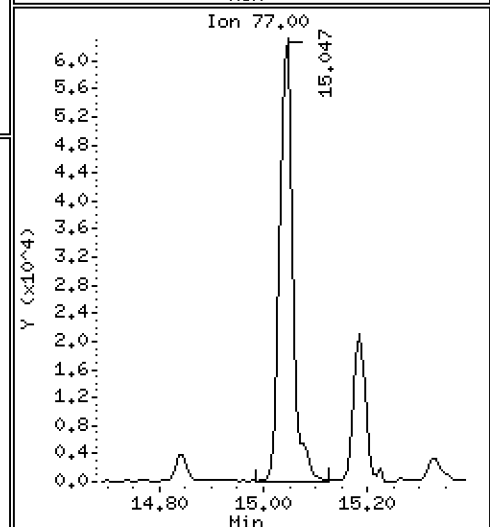
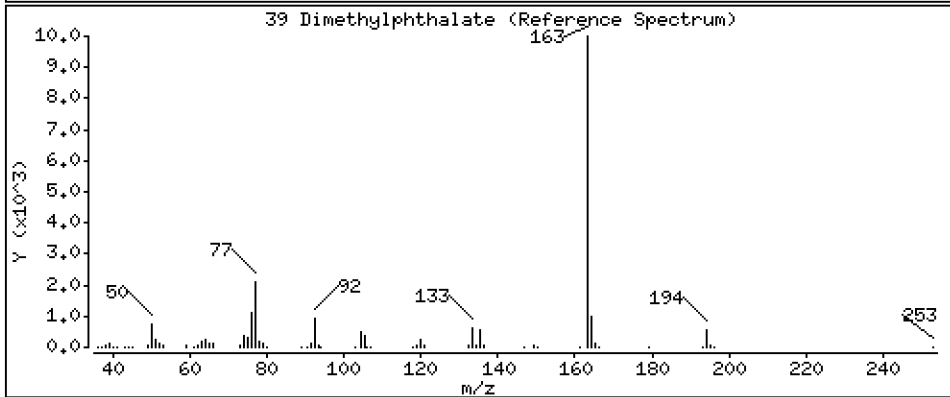
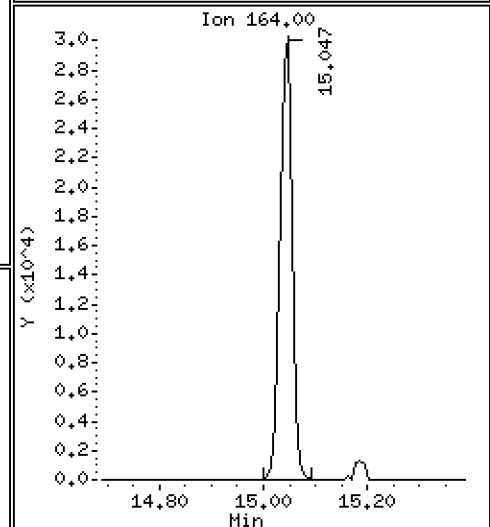
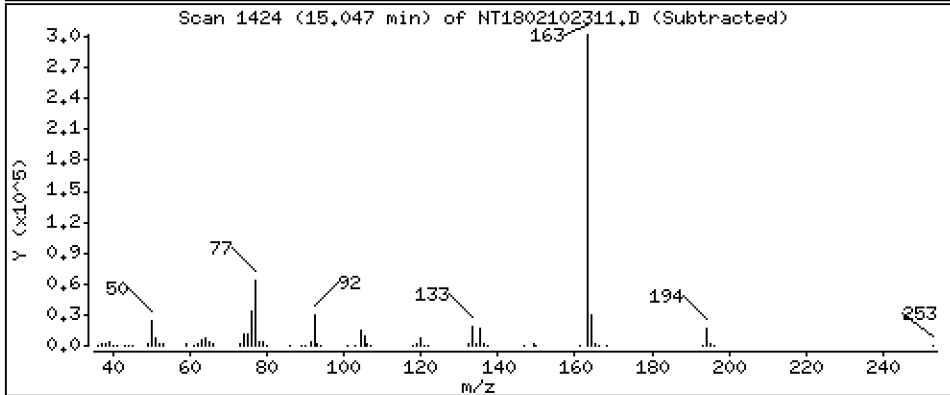
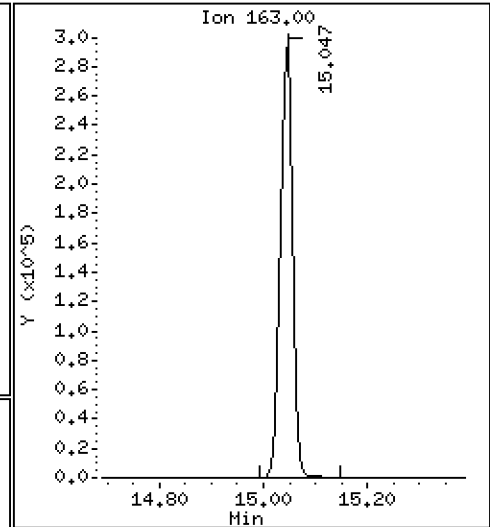
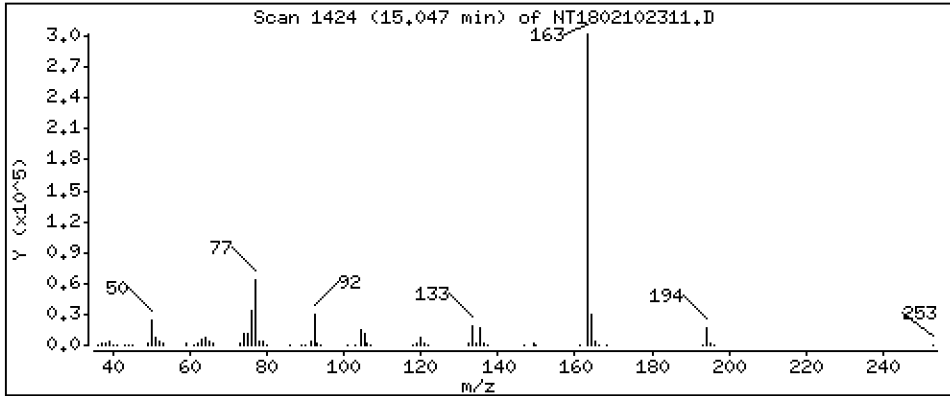
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,546 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

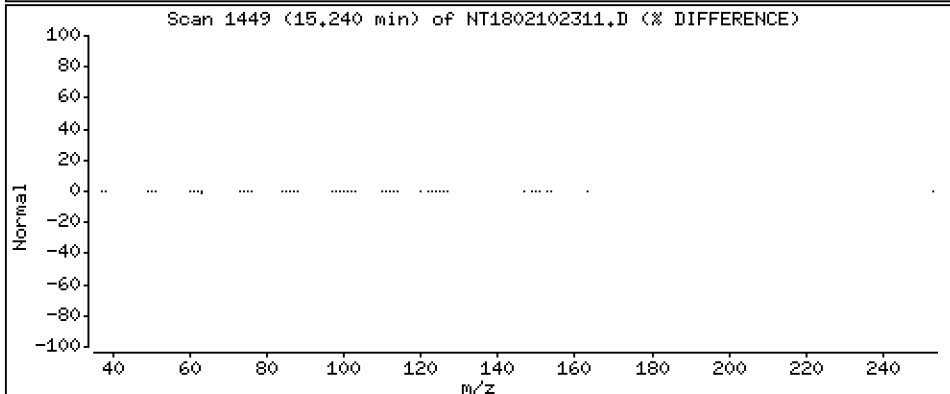
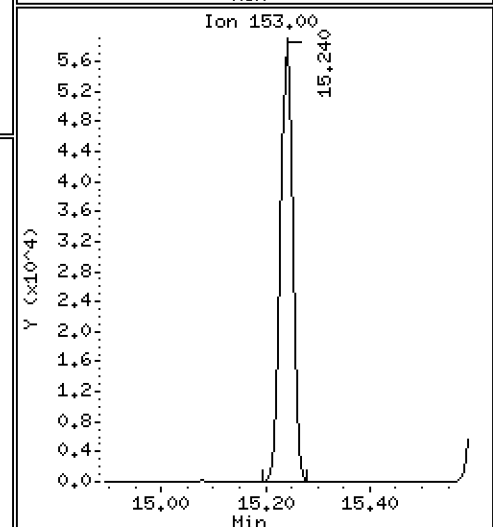
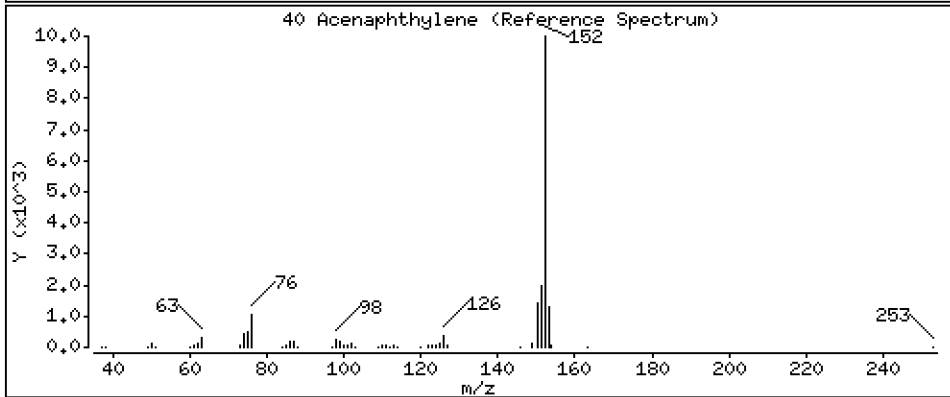
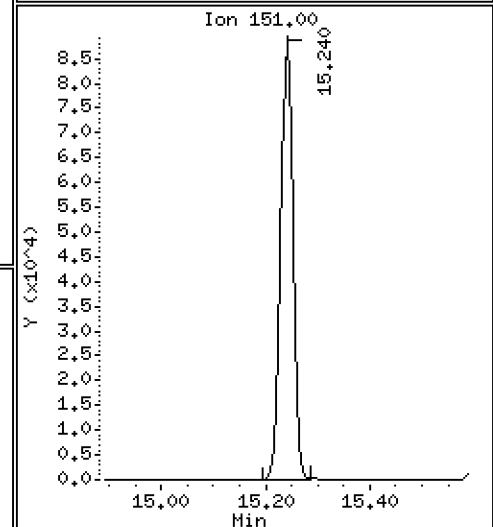
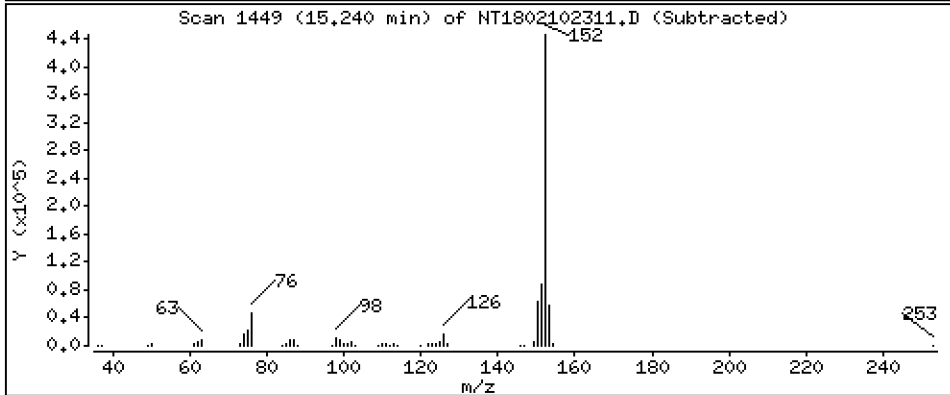
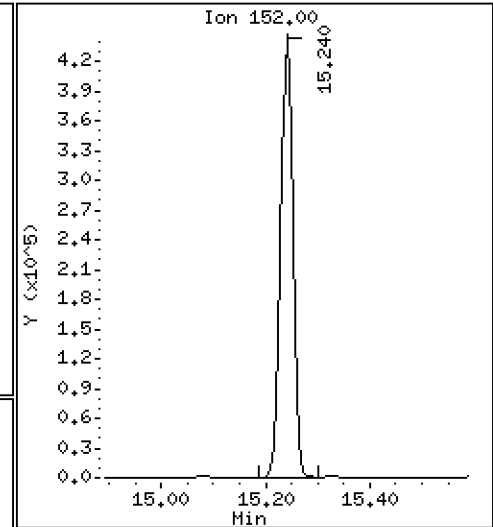
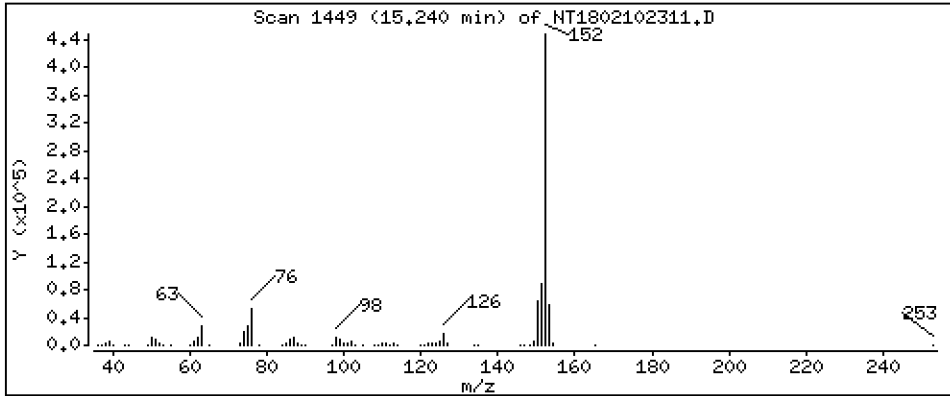
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 4,678 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

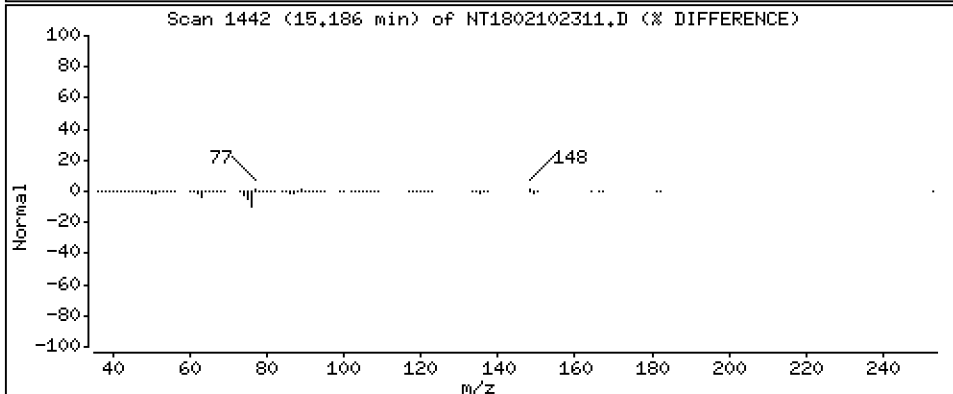
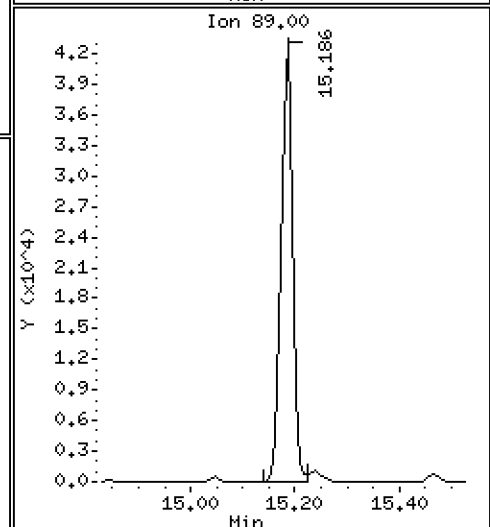
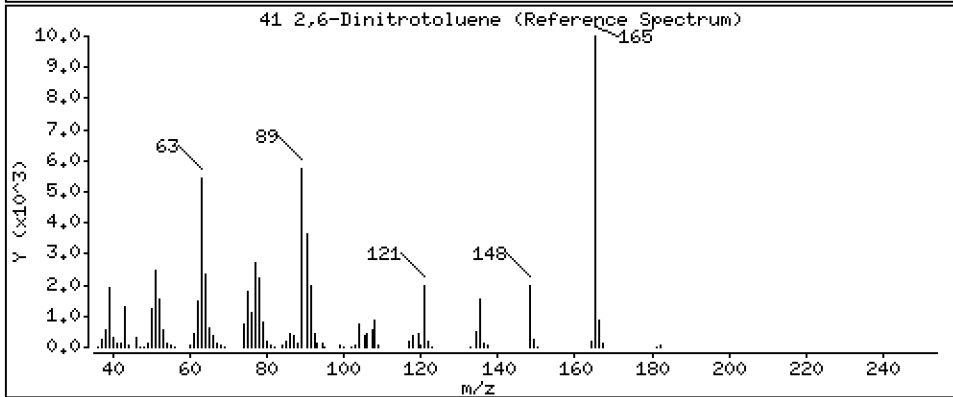
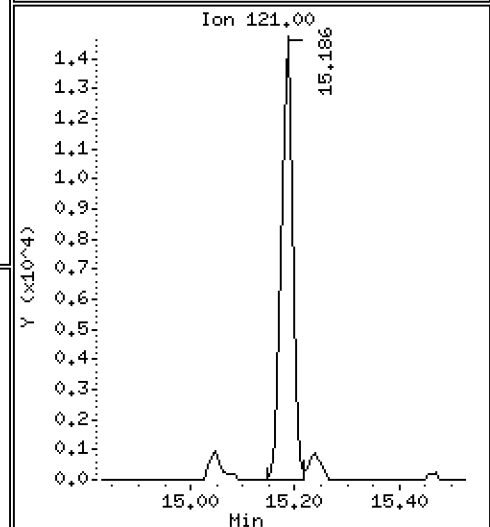
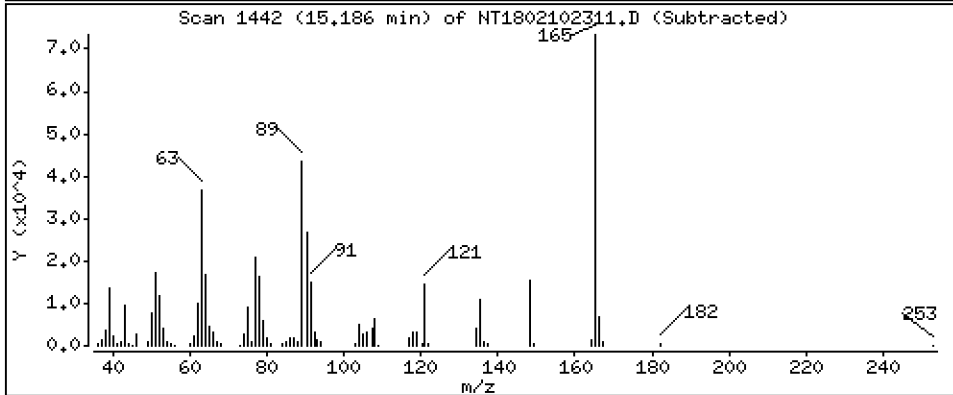
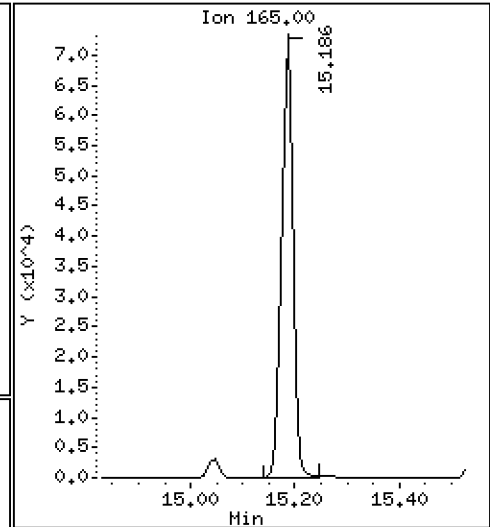
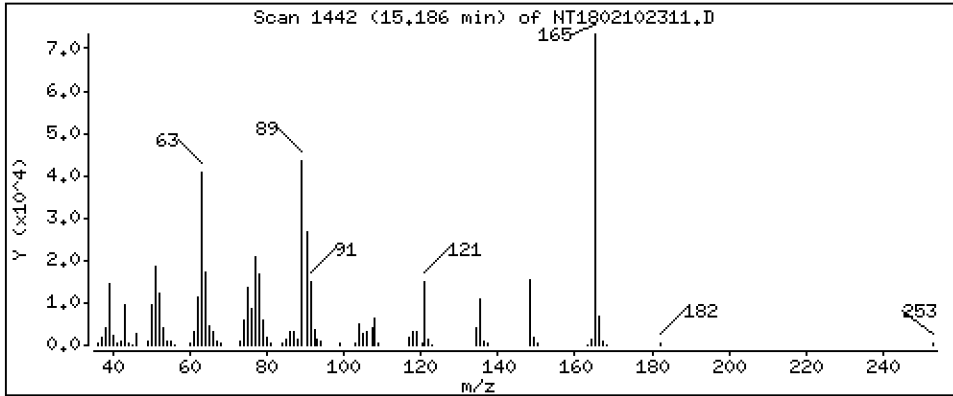
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 4,560 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

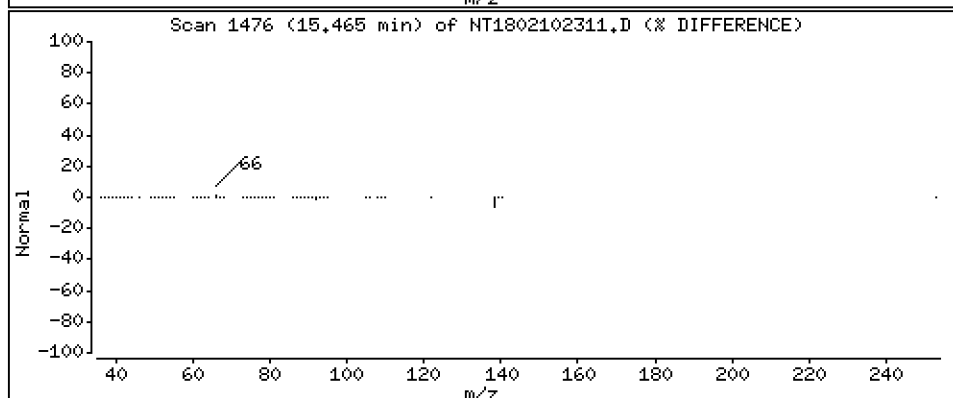
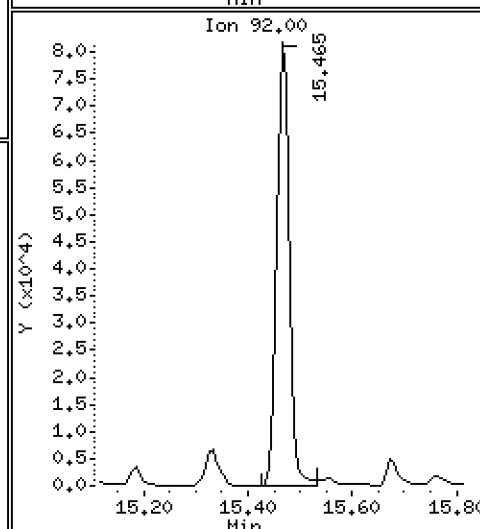
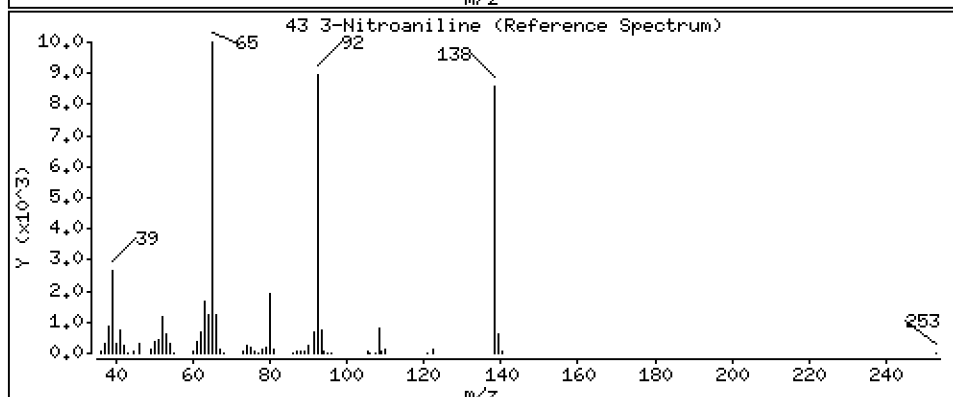
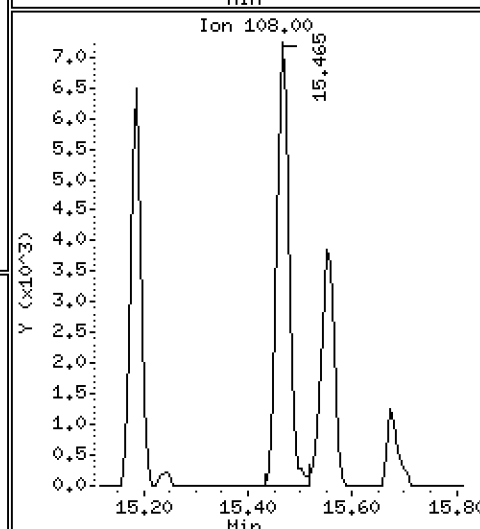
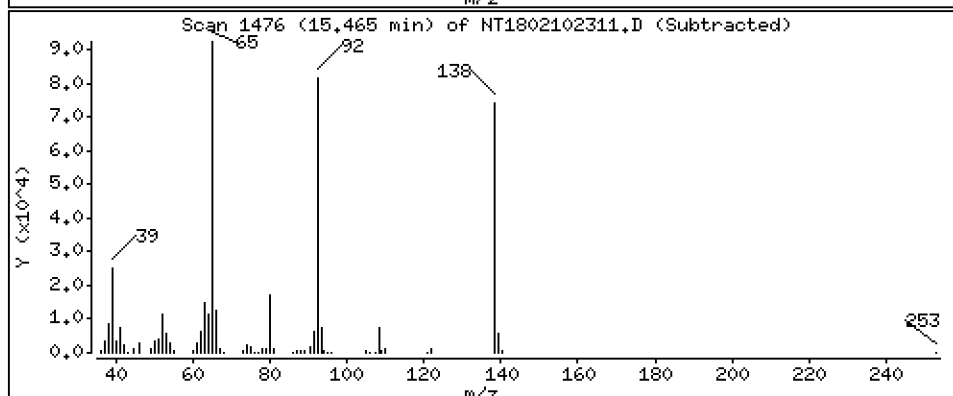
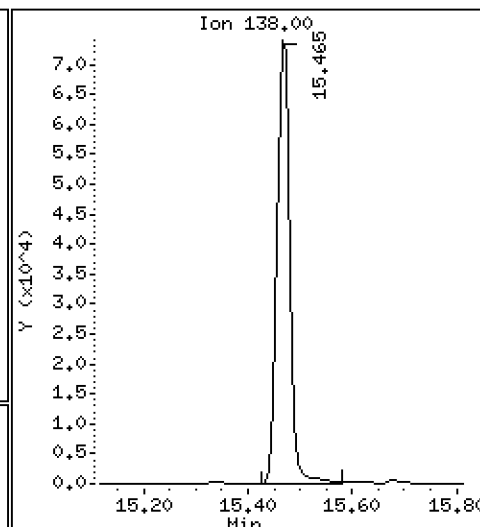
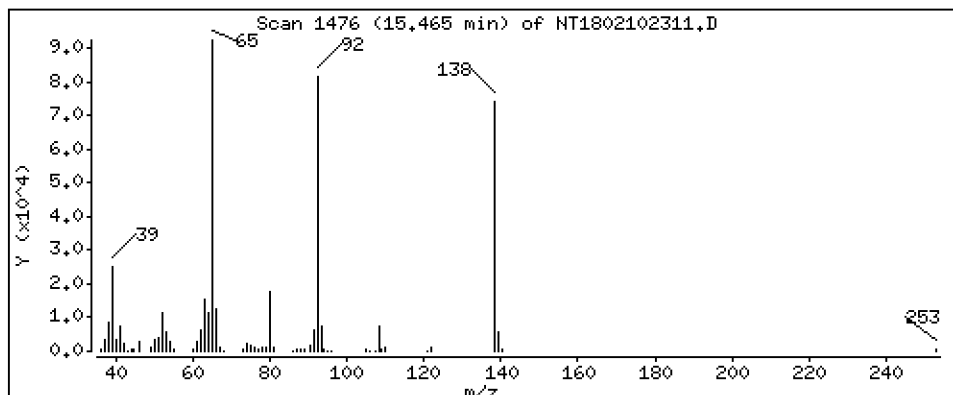
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 4,651 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

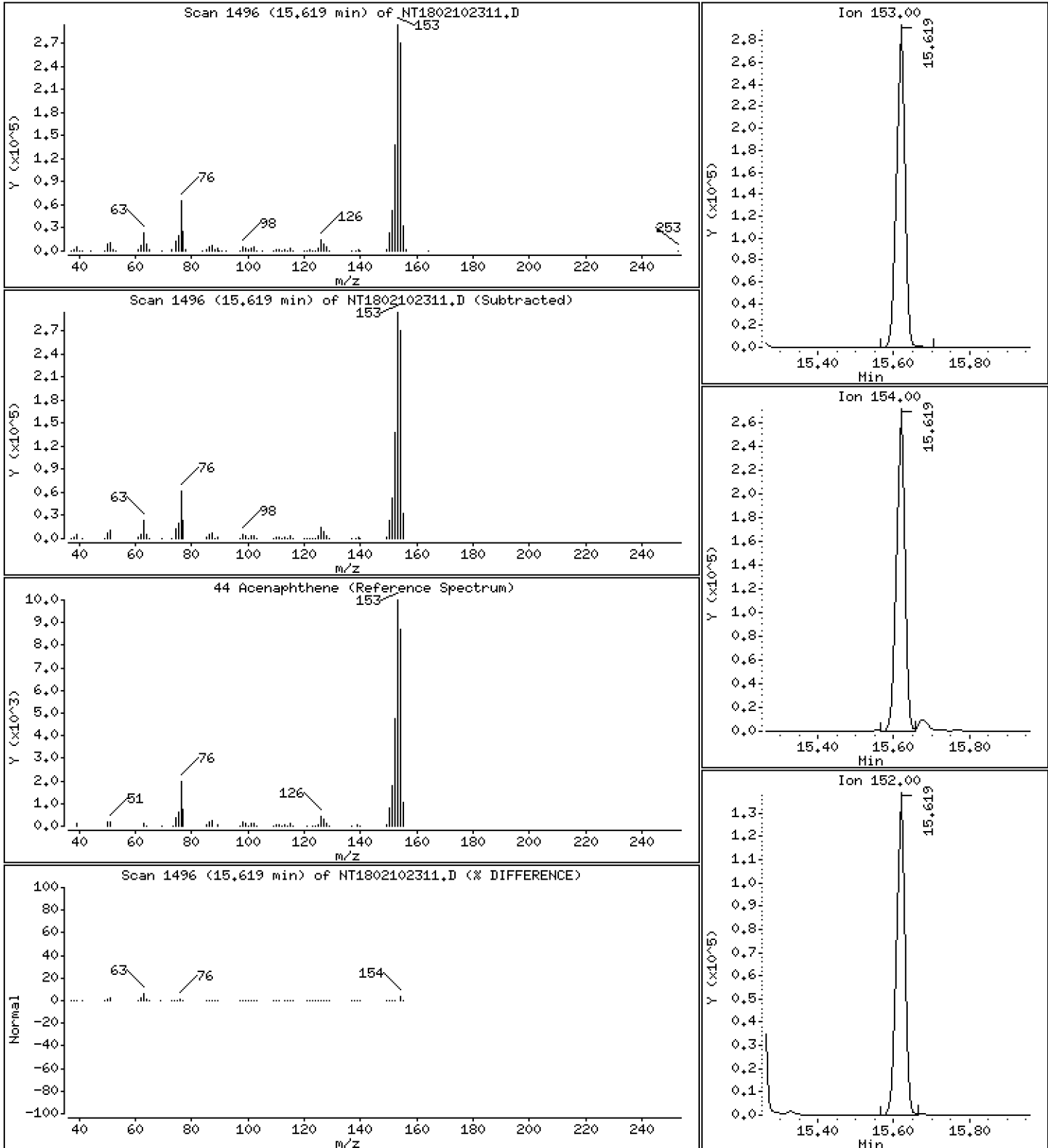
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,402 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

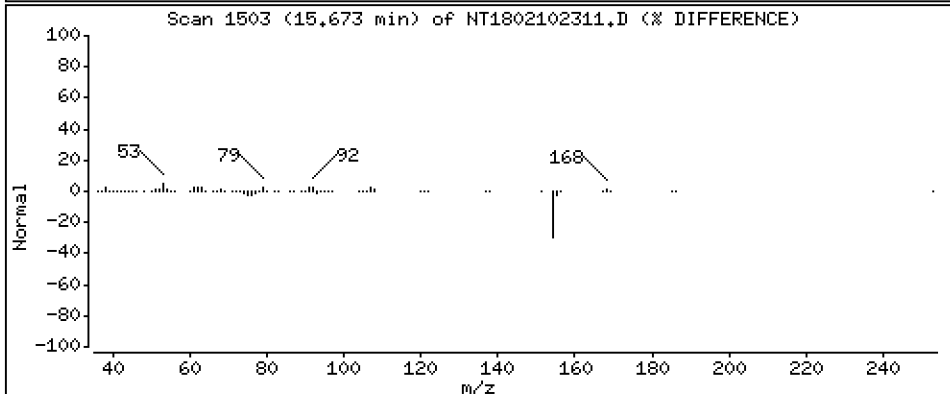
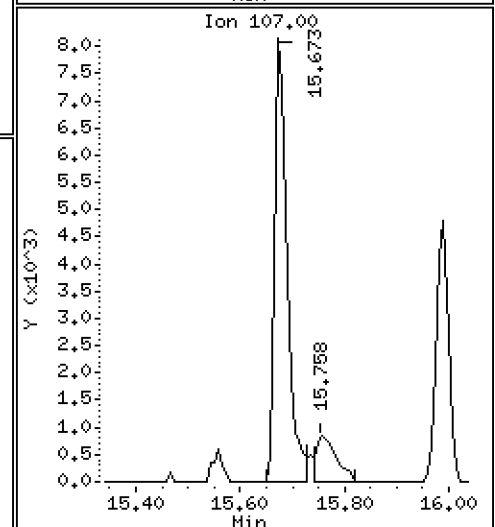
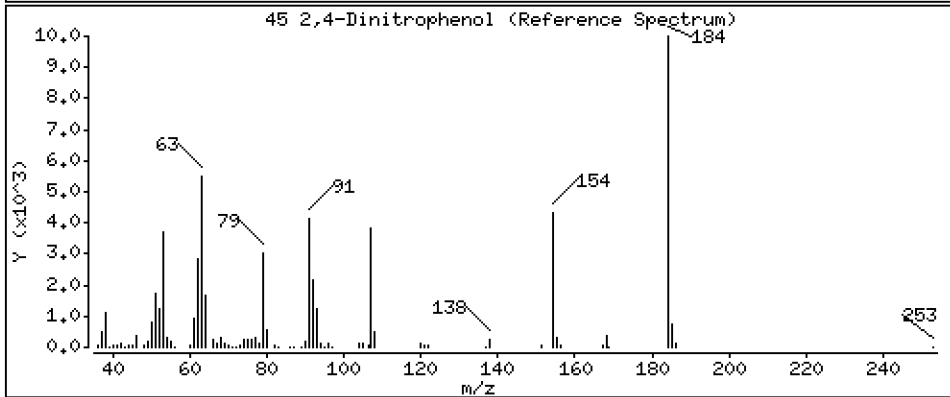
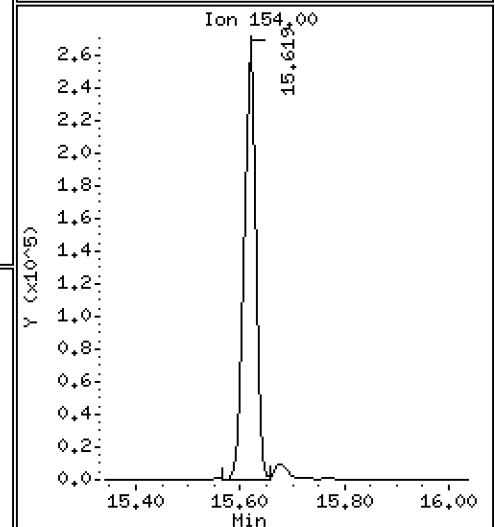
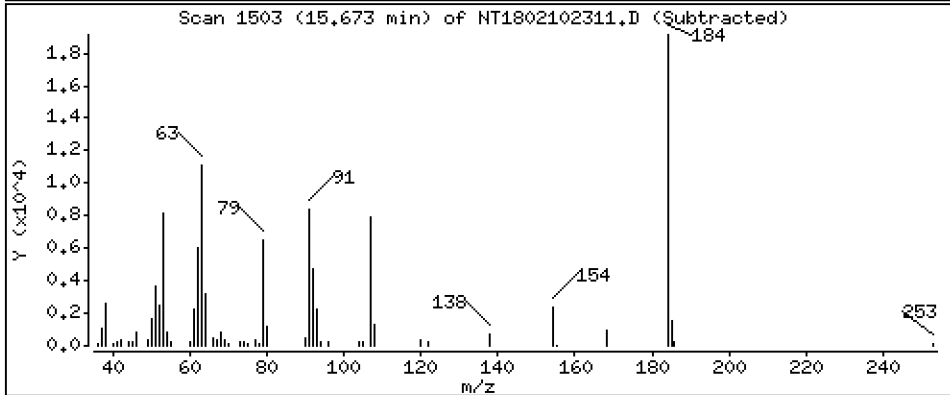
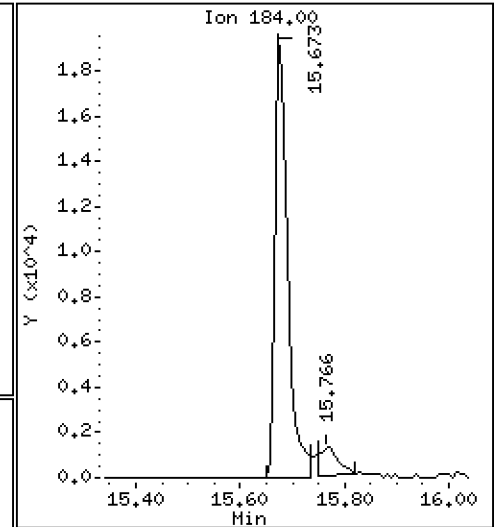
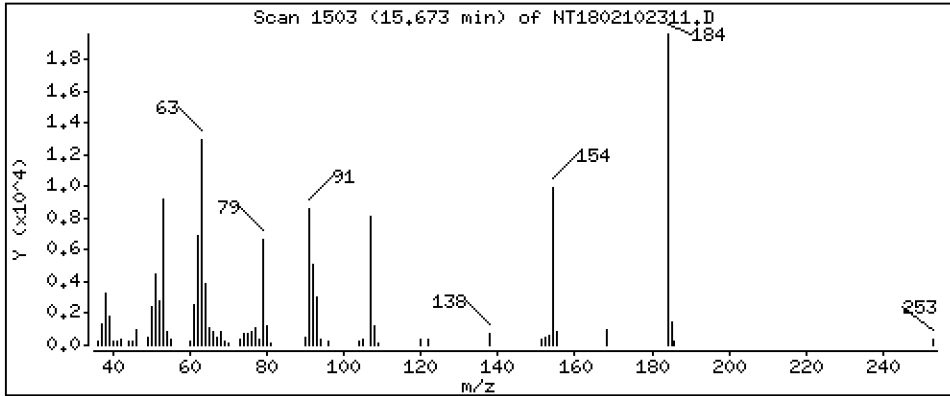
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 1,936 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

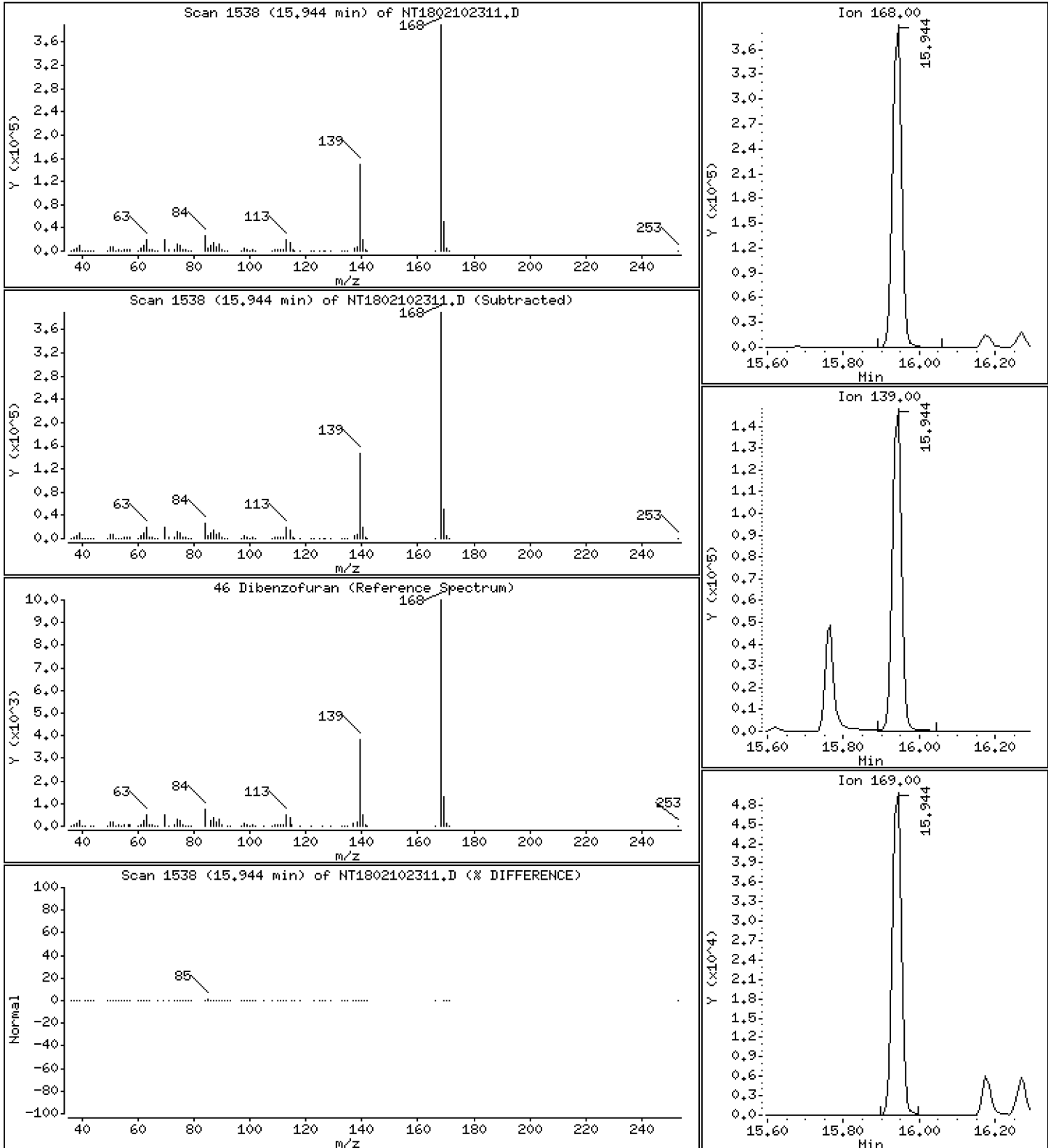
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 4,247 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

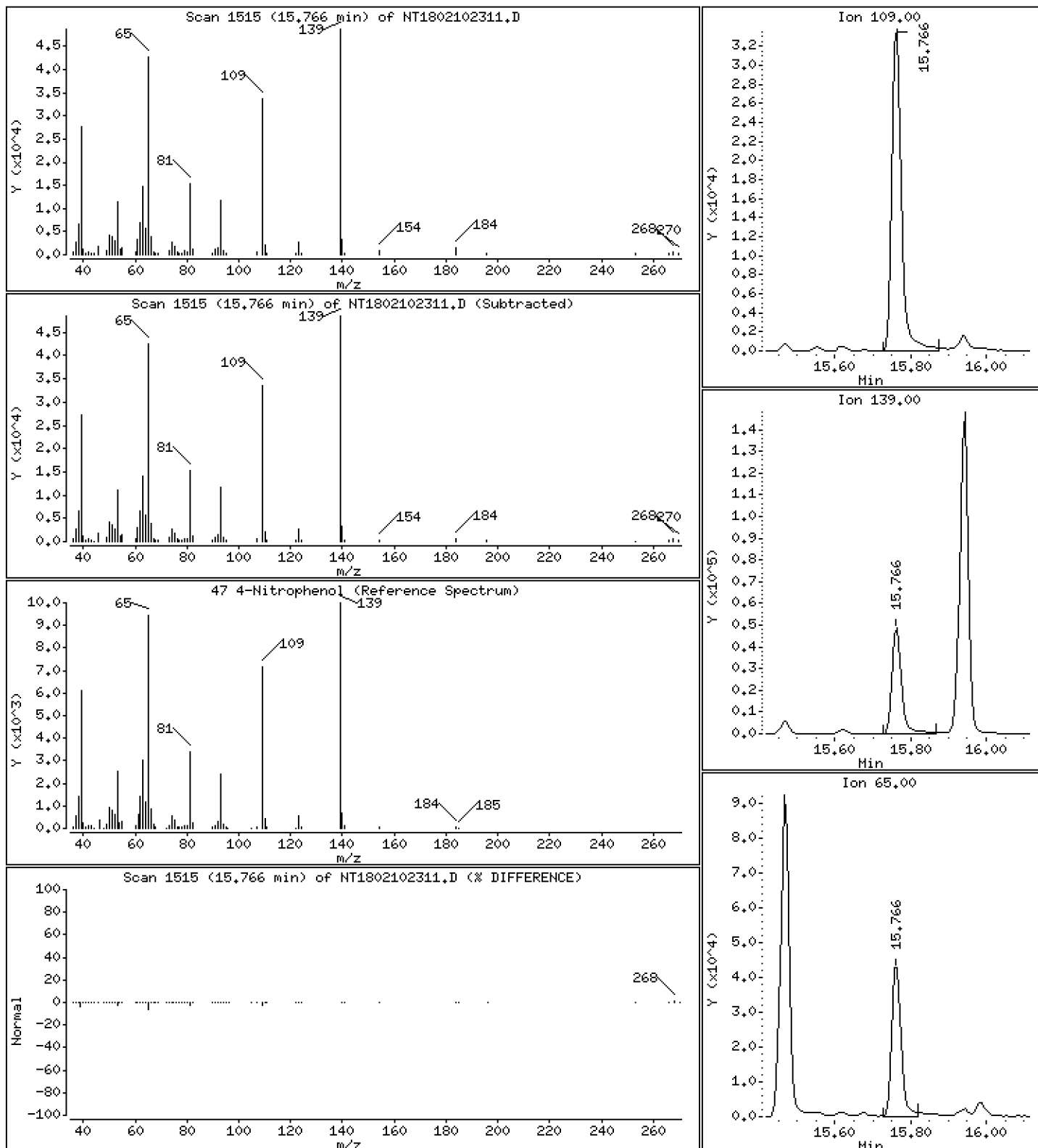
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 3,976 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

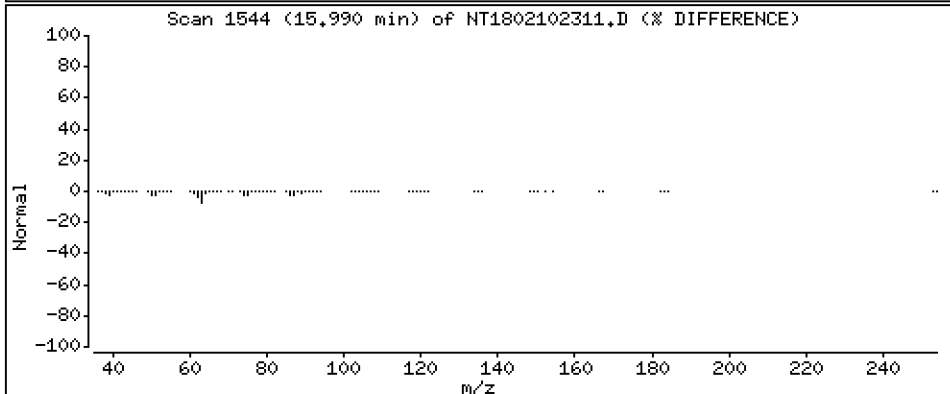
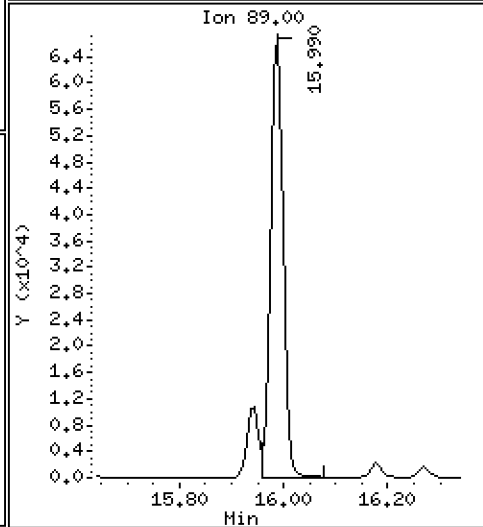
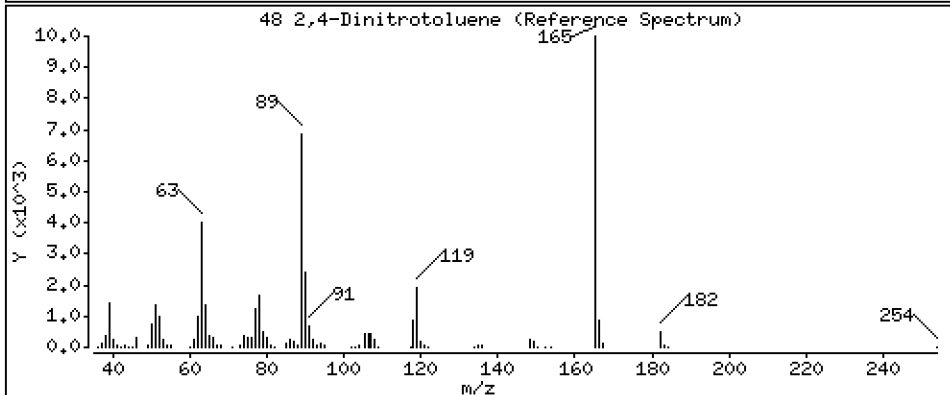
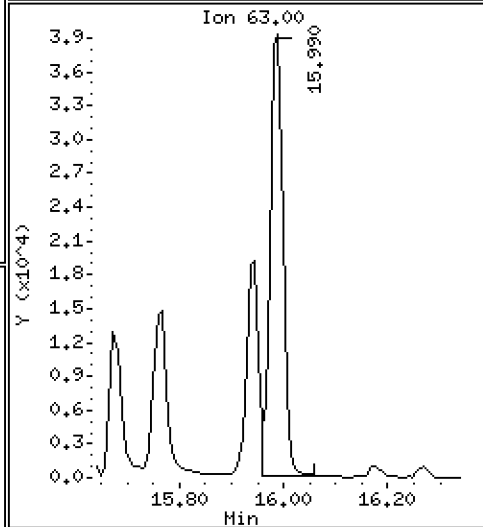
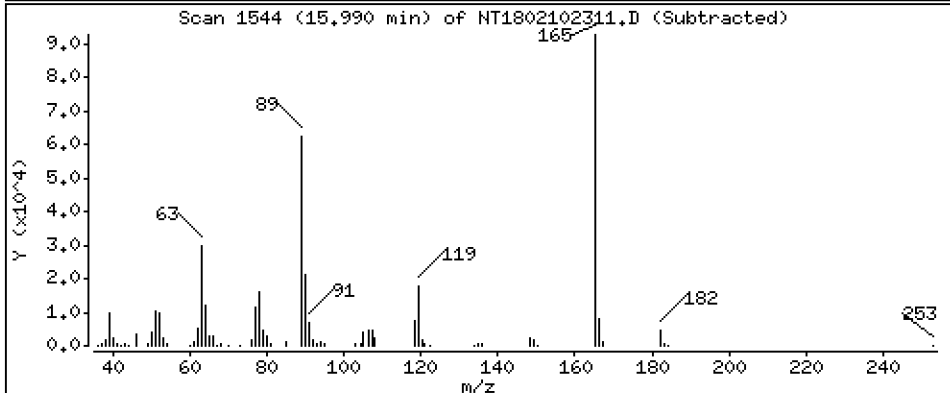
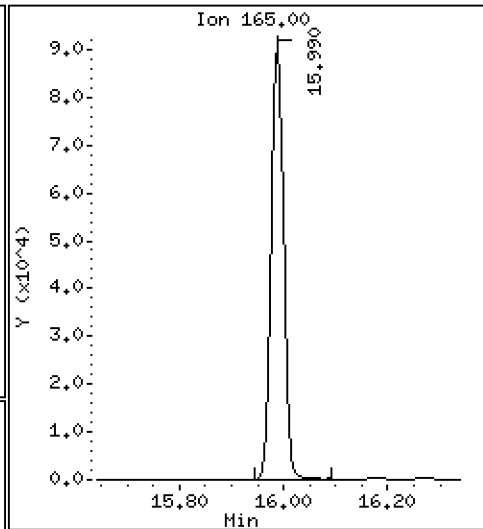
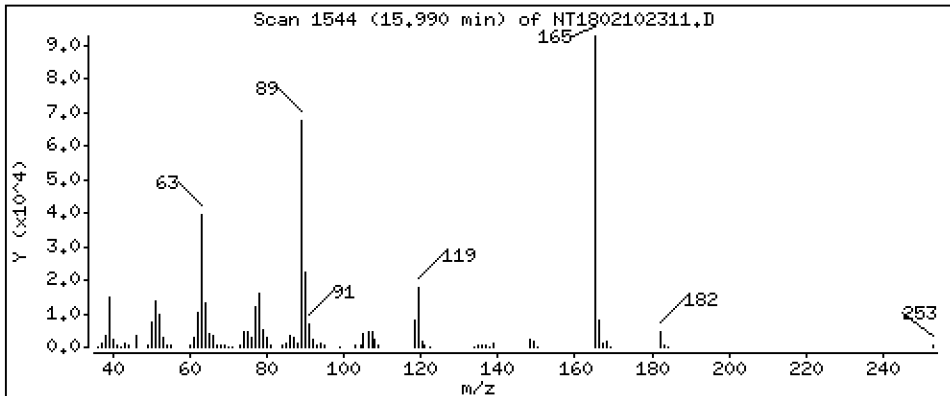
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 4,446 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

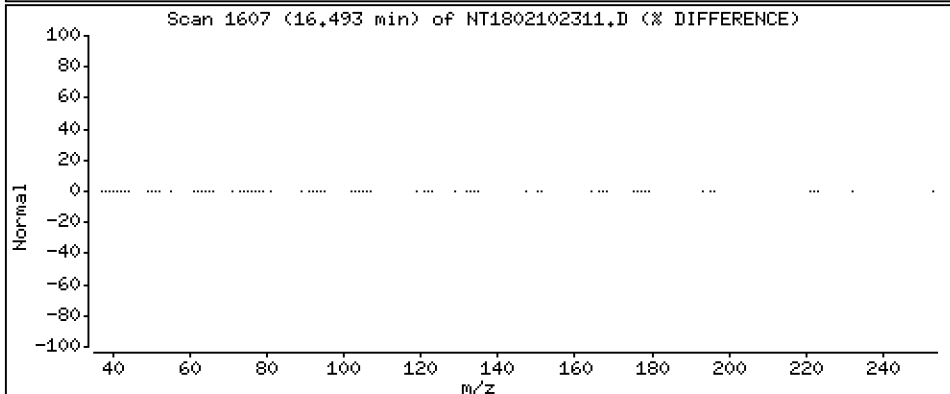
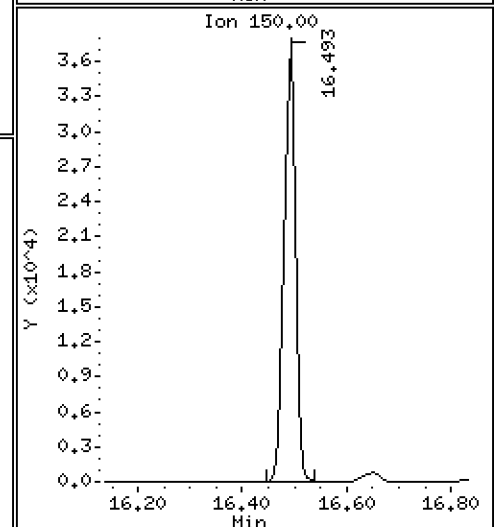
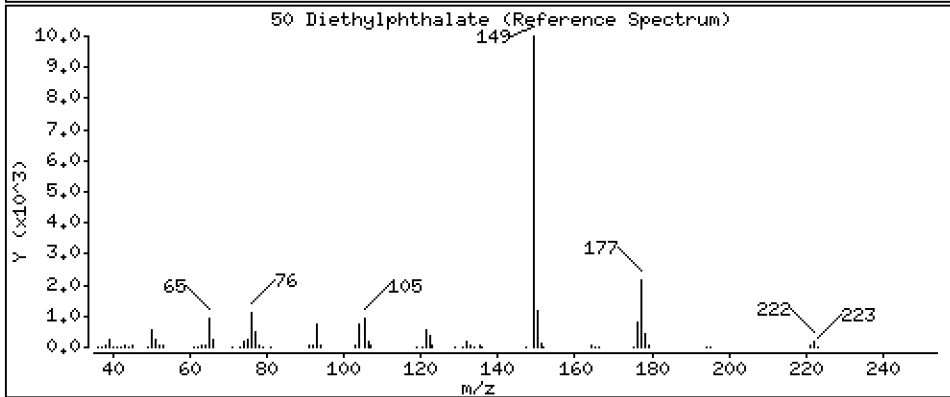
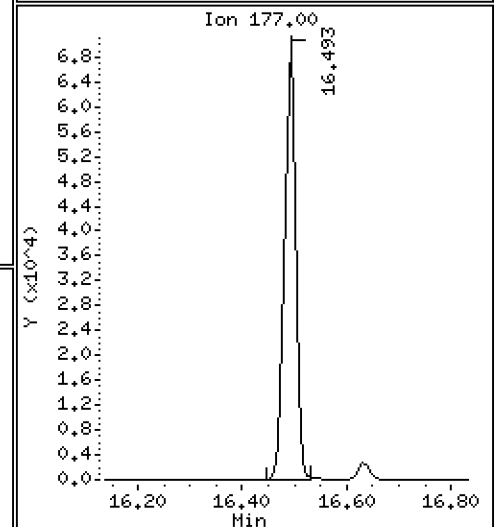
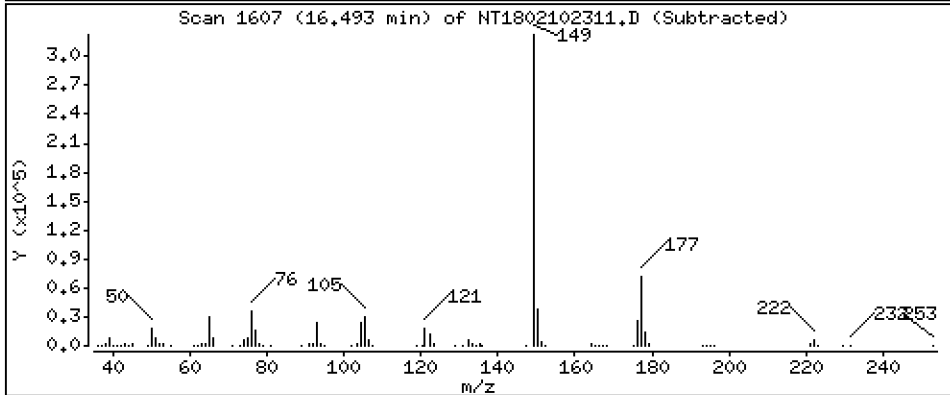
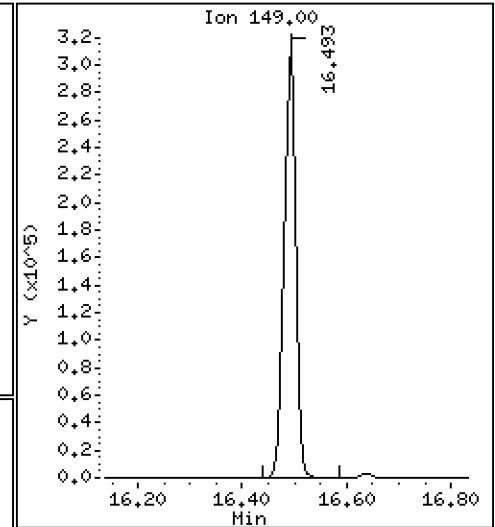
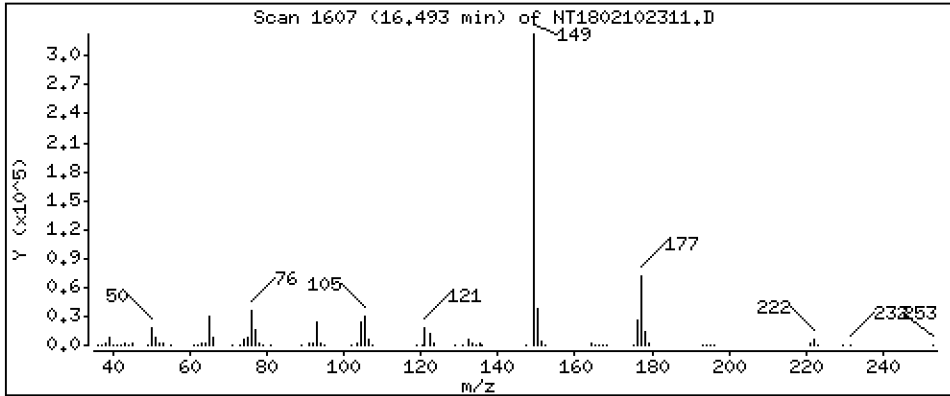
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,062 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

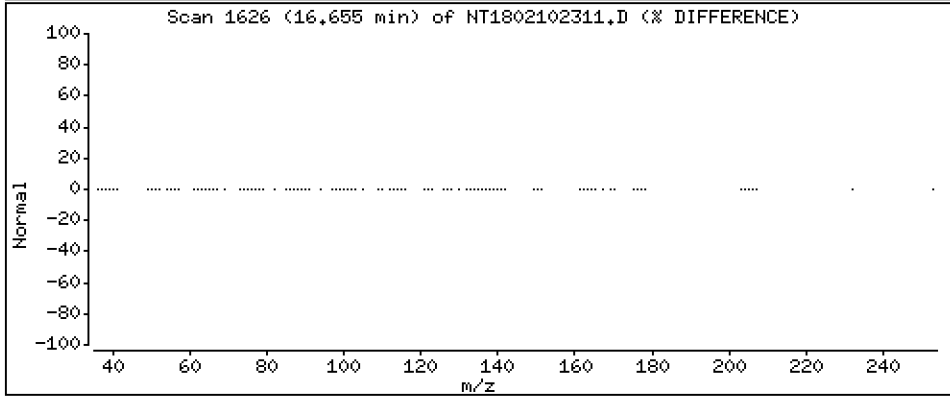
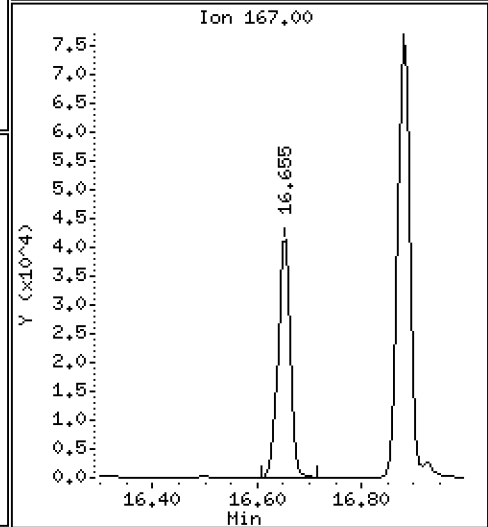
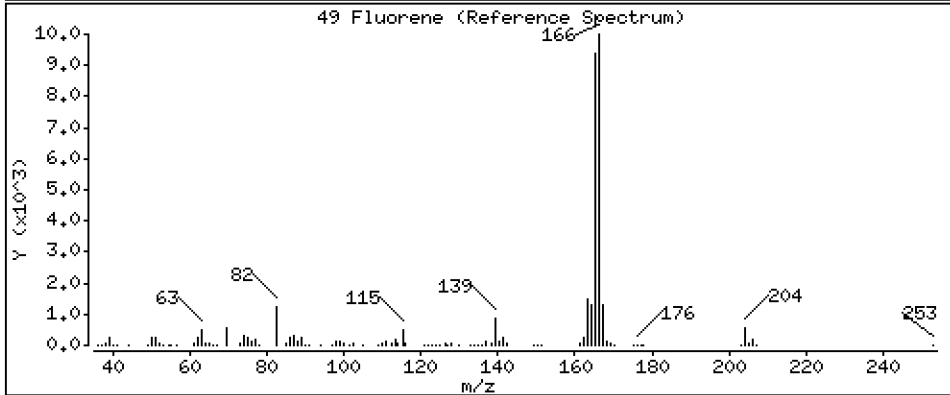
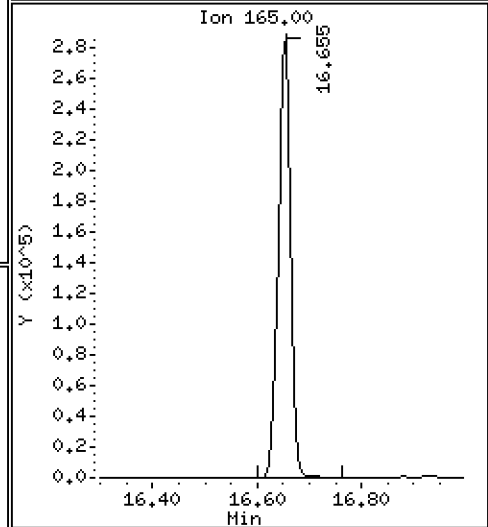
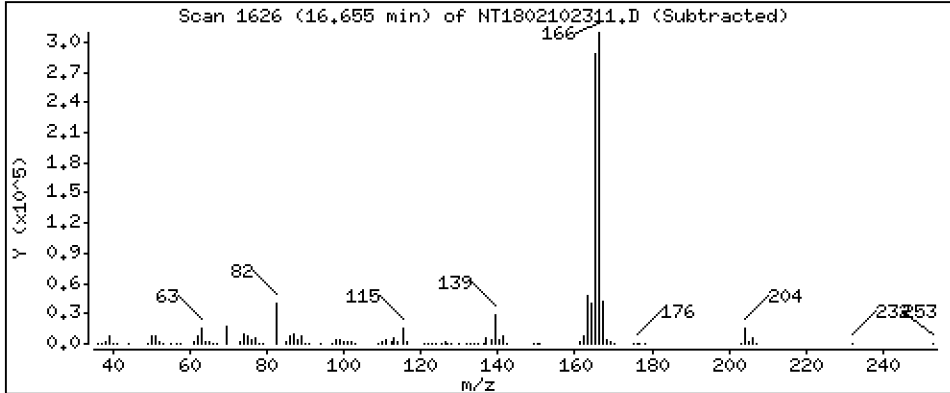
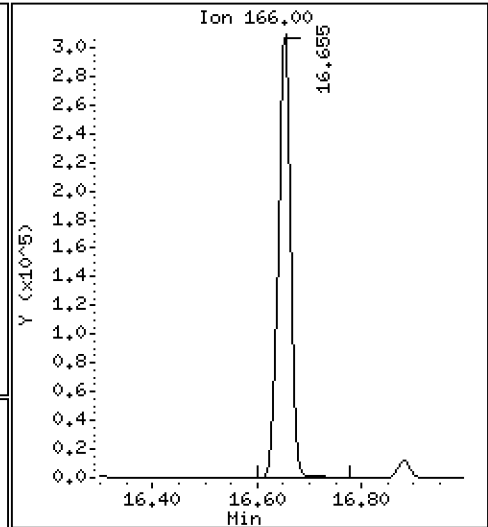
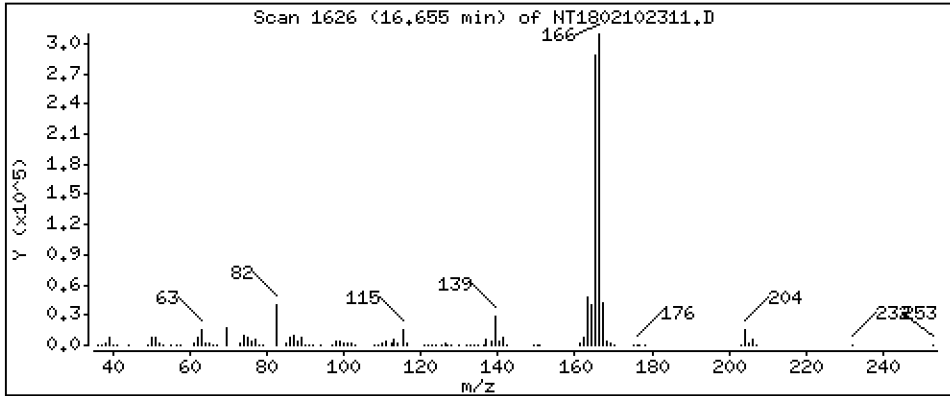
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 4,542 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

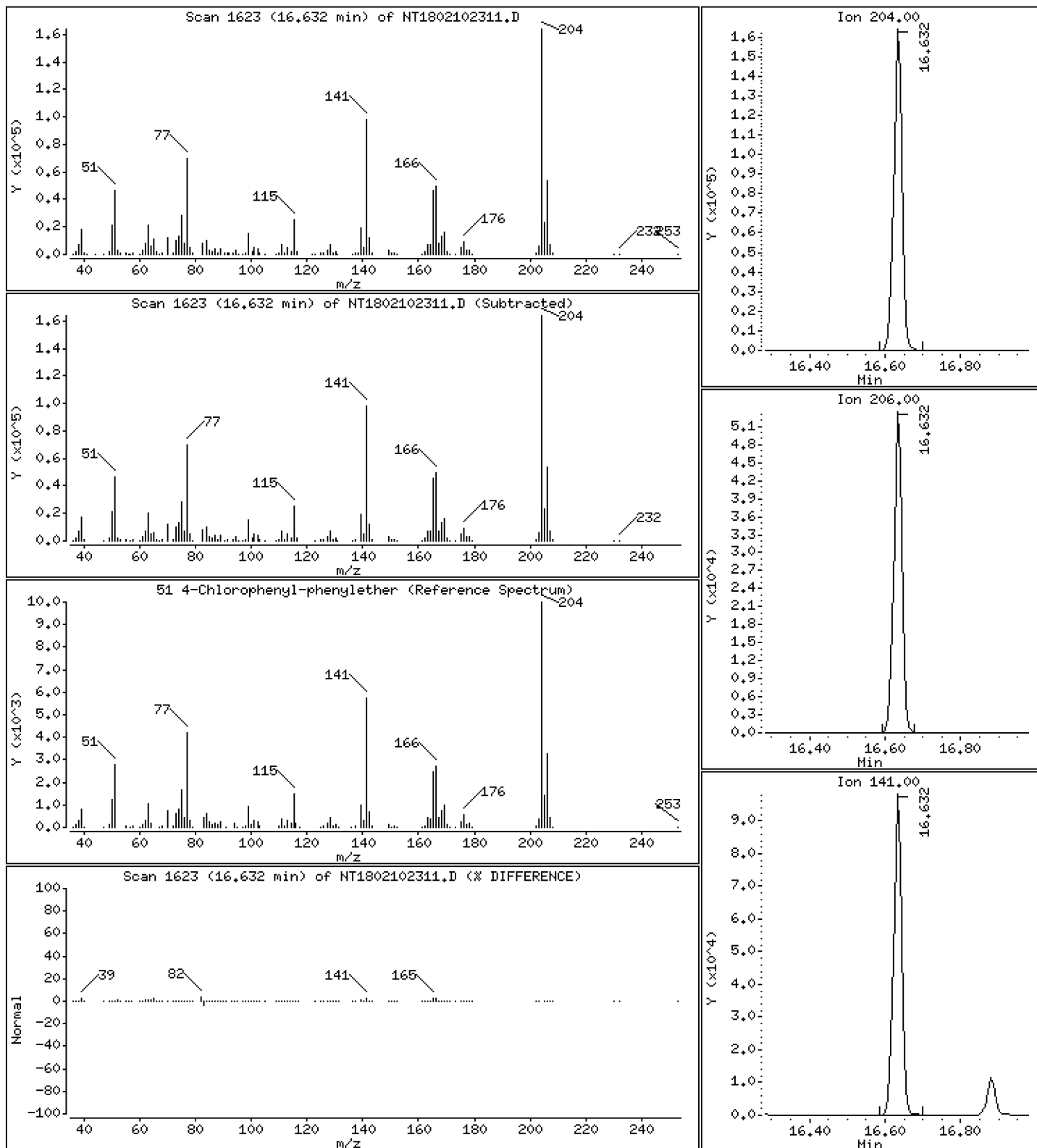
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,339 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

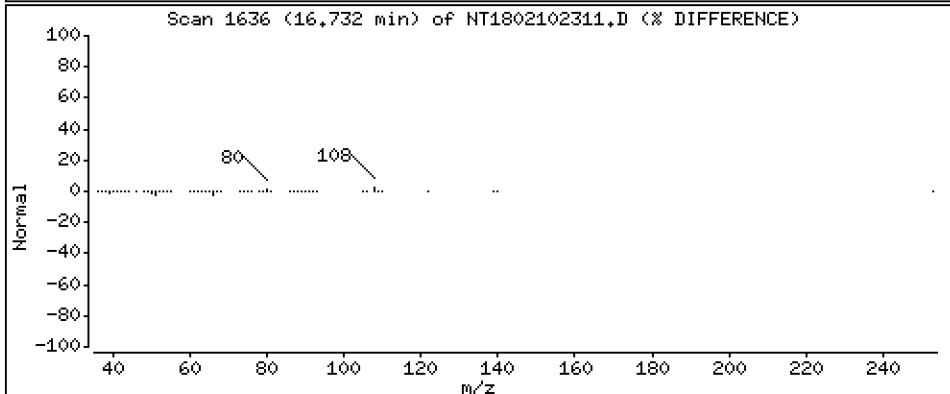
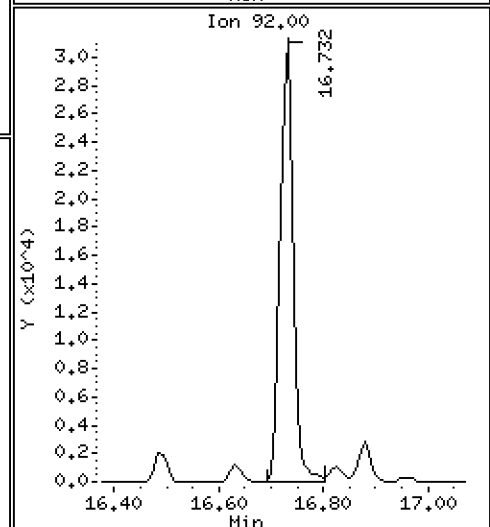
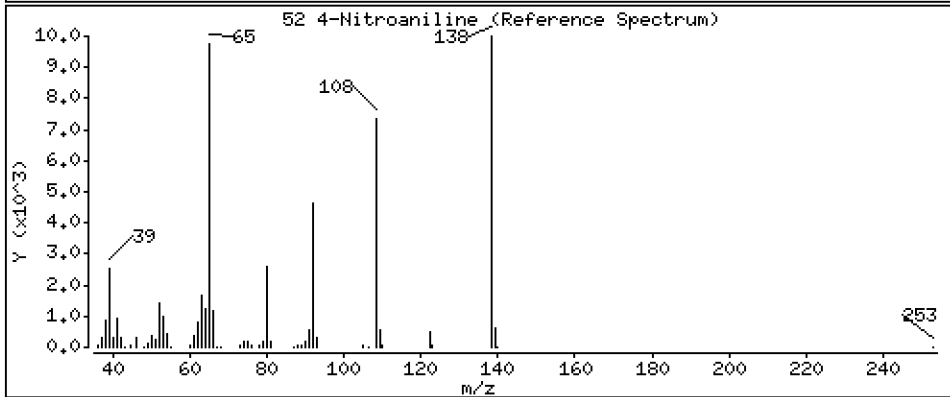
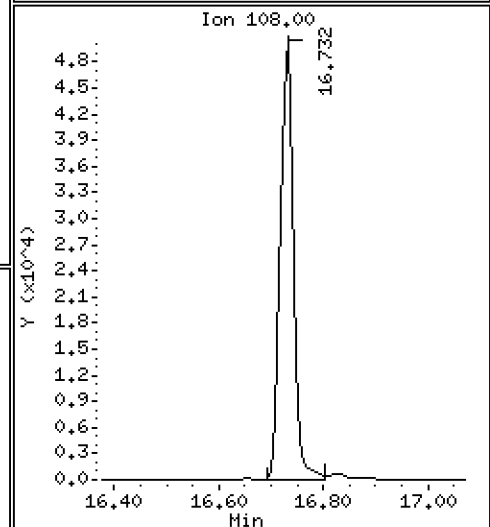
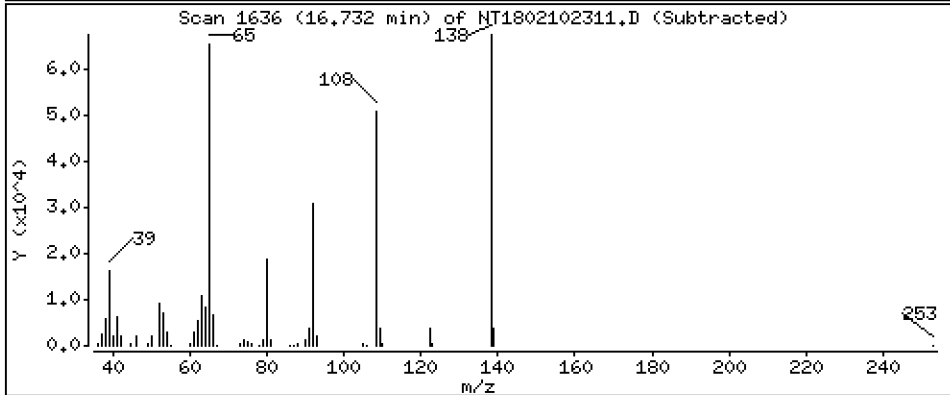
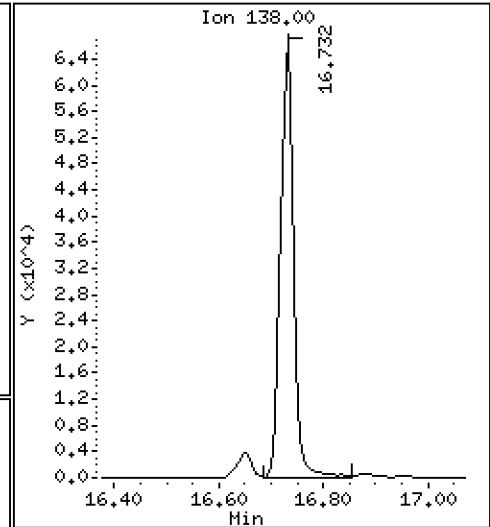
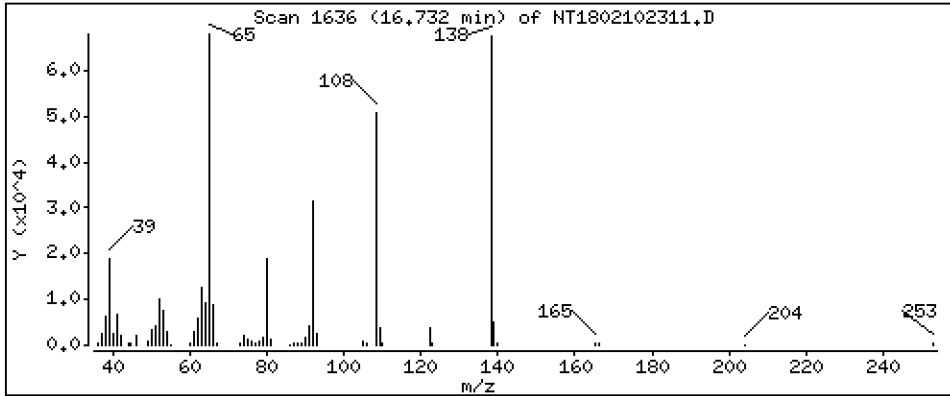
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 4,131 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

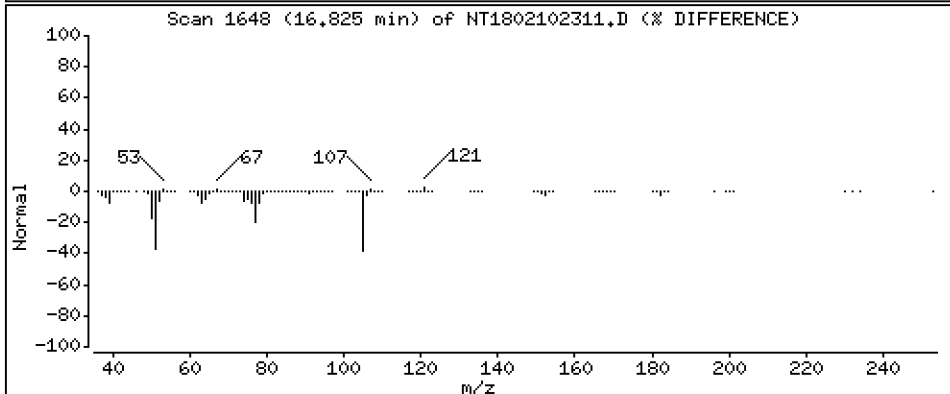
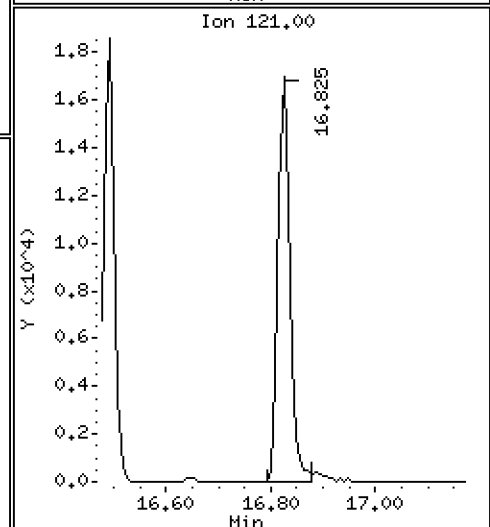
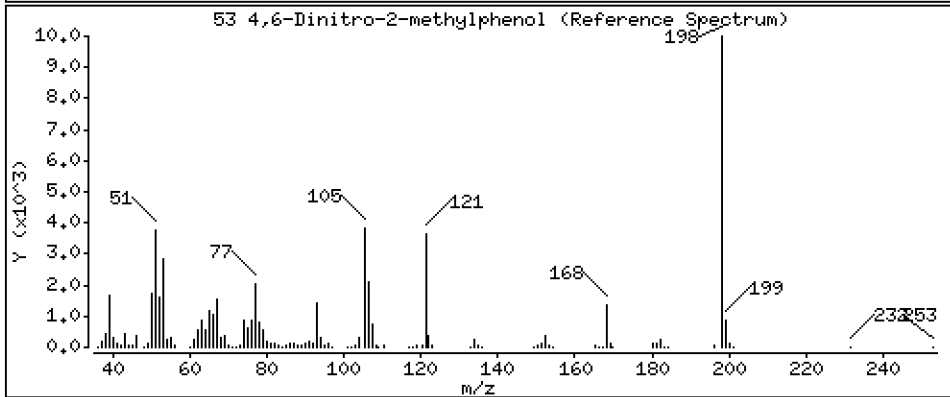
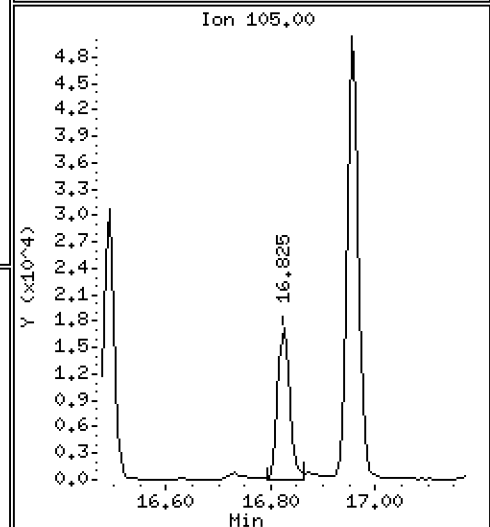
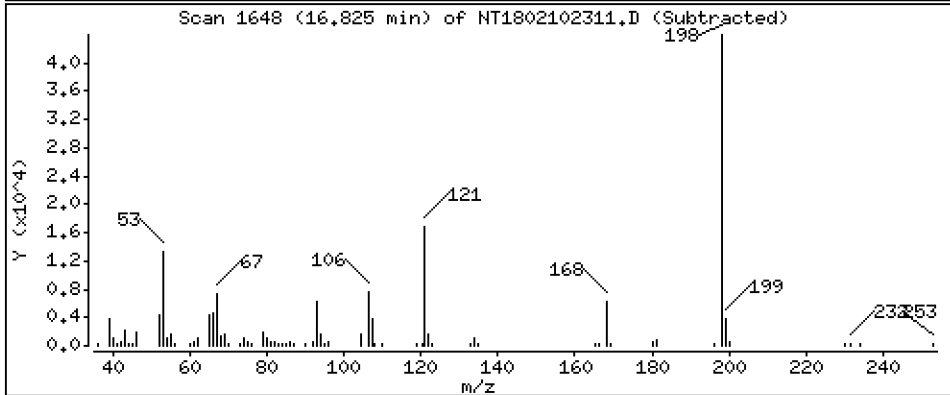
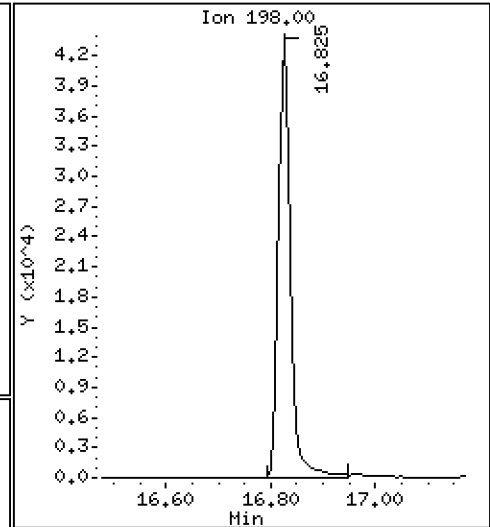
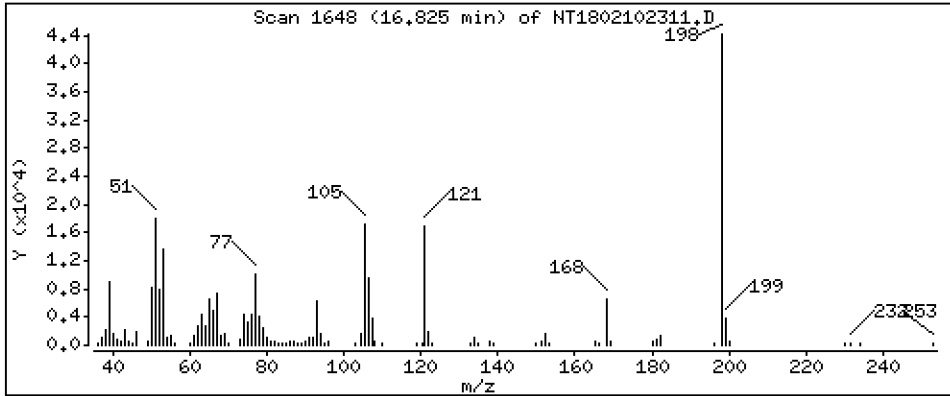
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,301 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

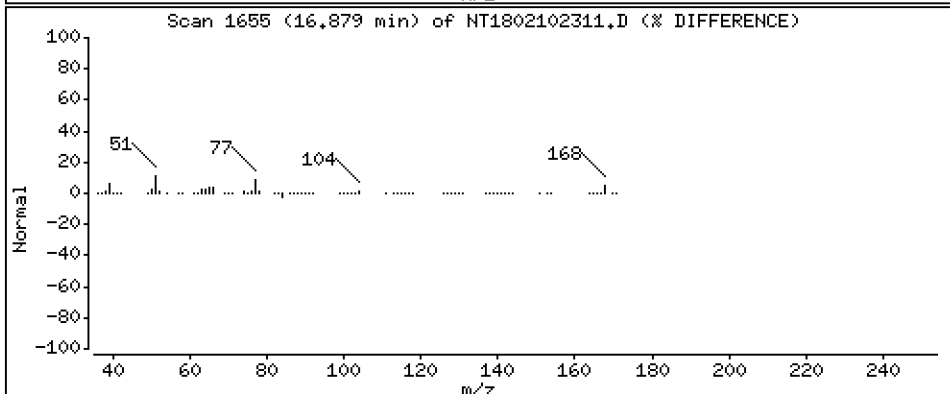
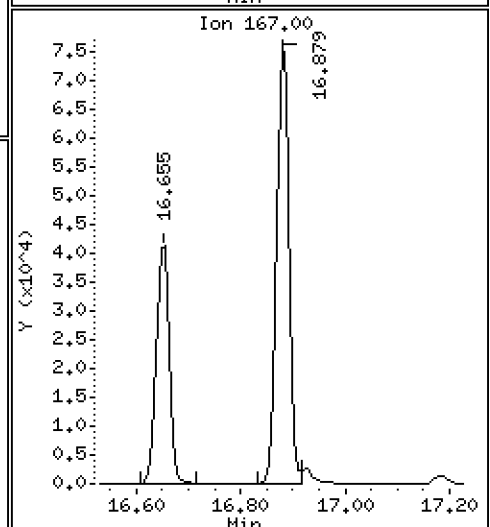
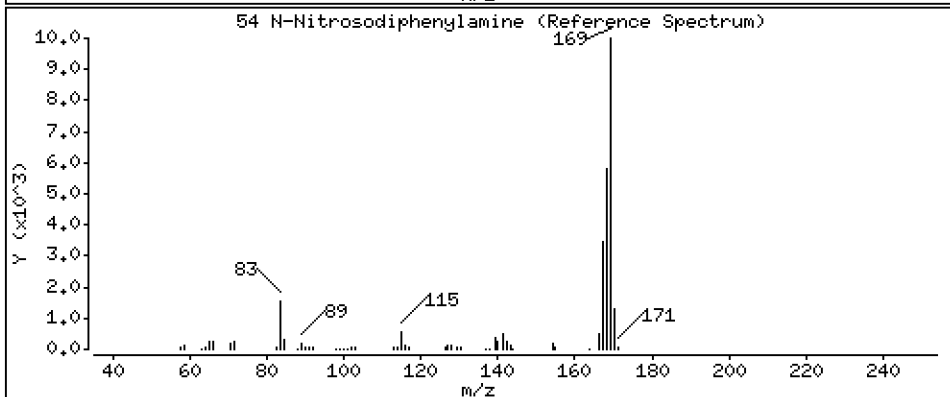
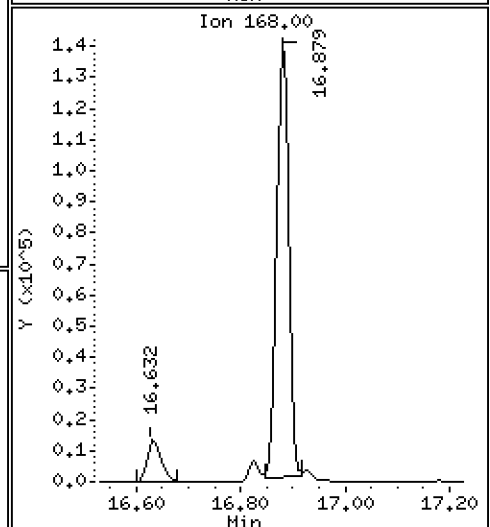
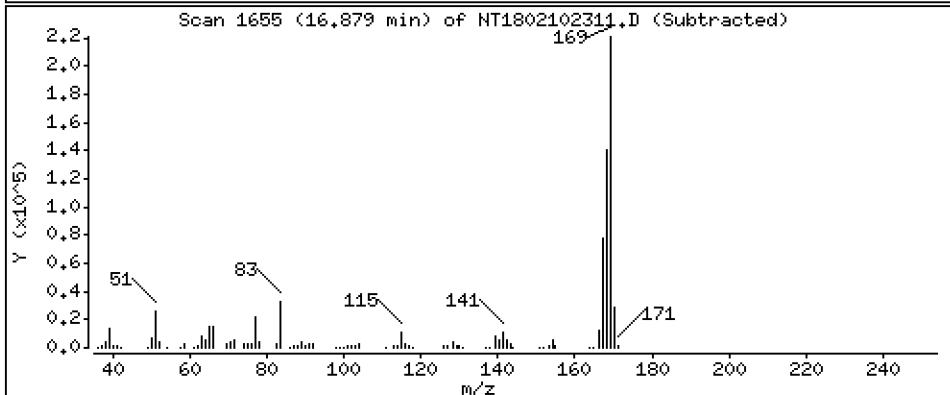
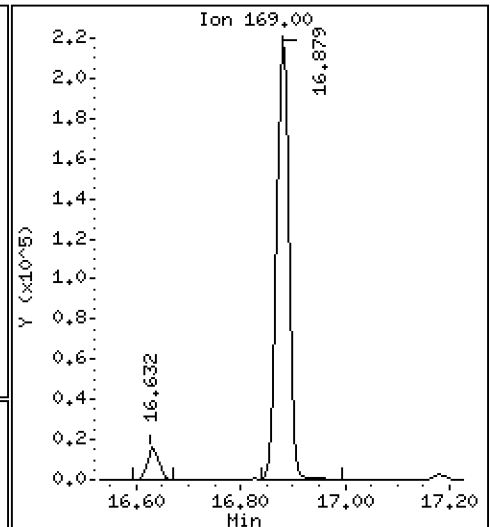
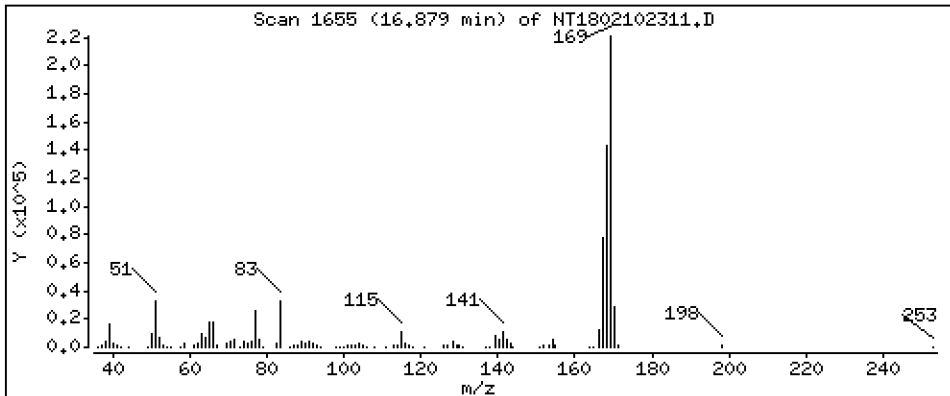
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 4.356 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

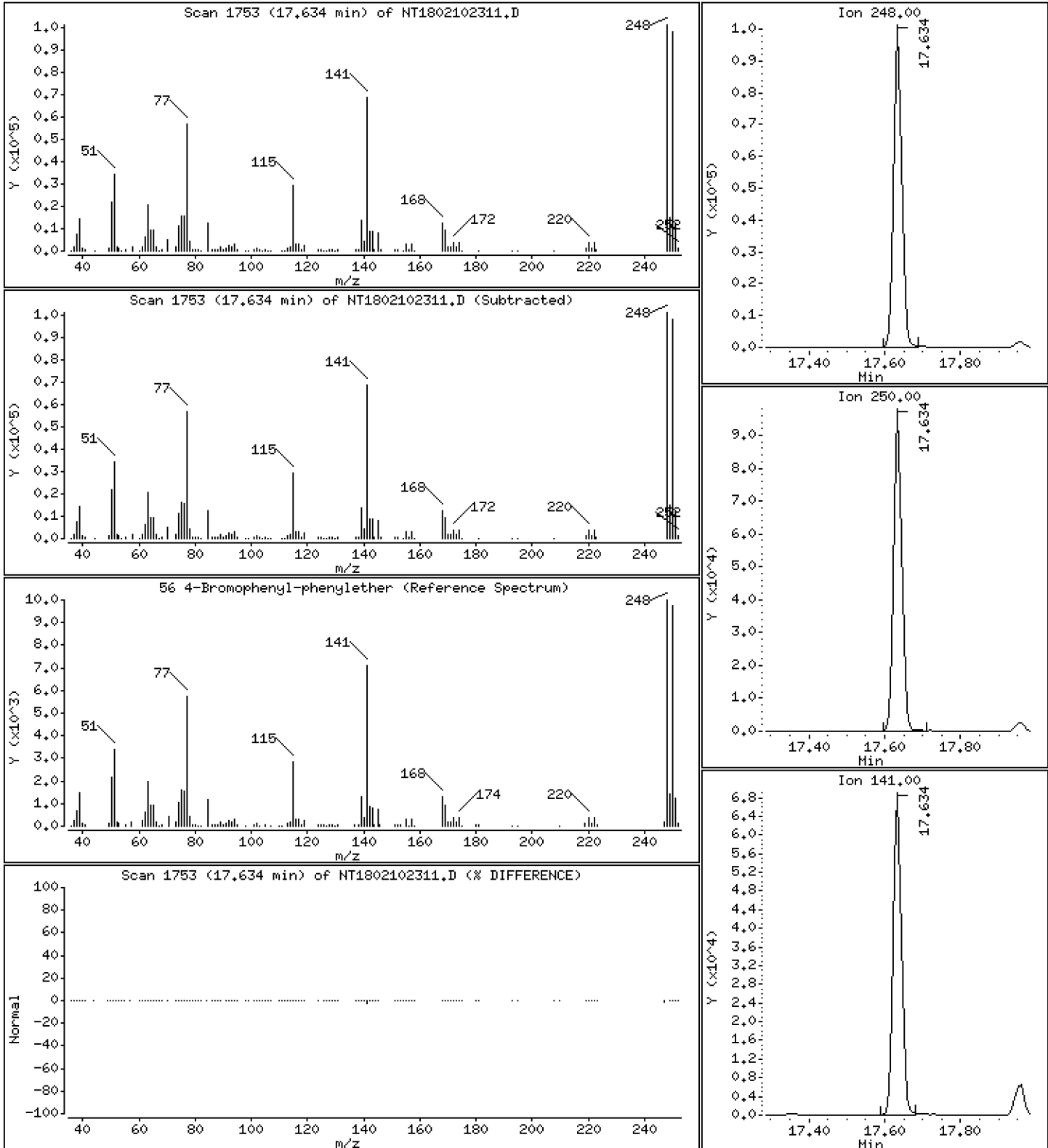
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,464 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

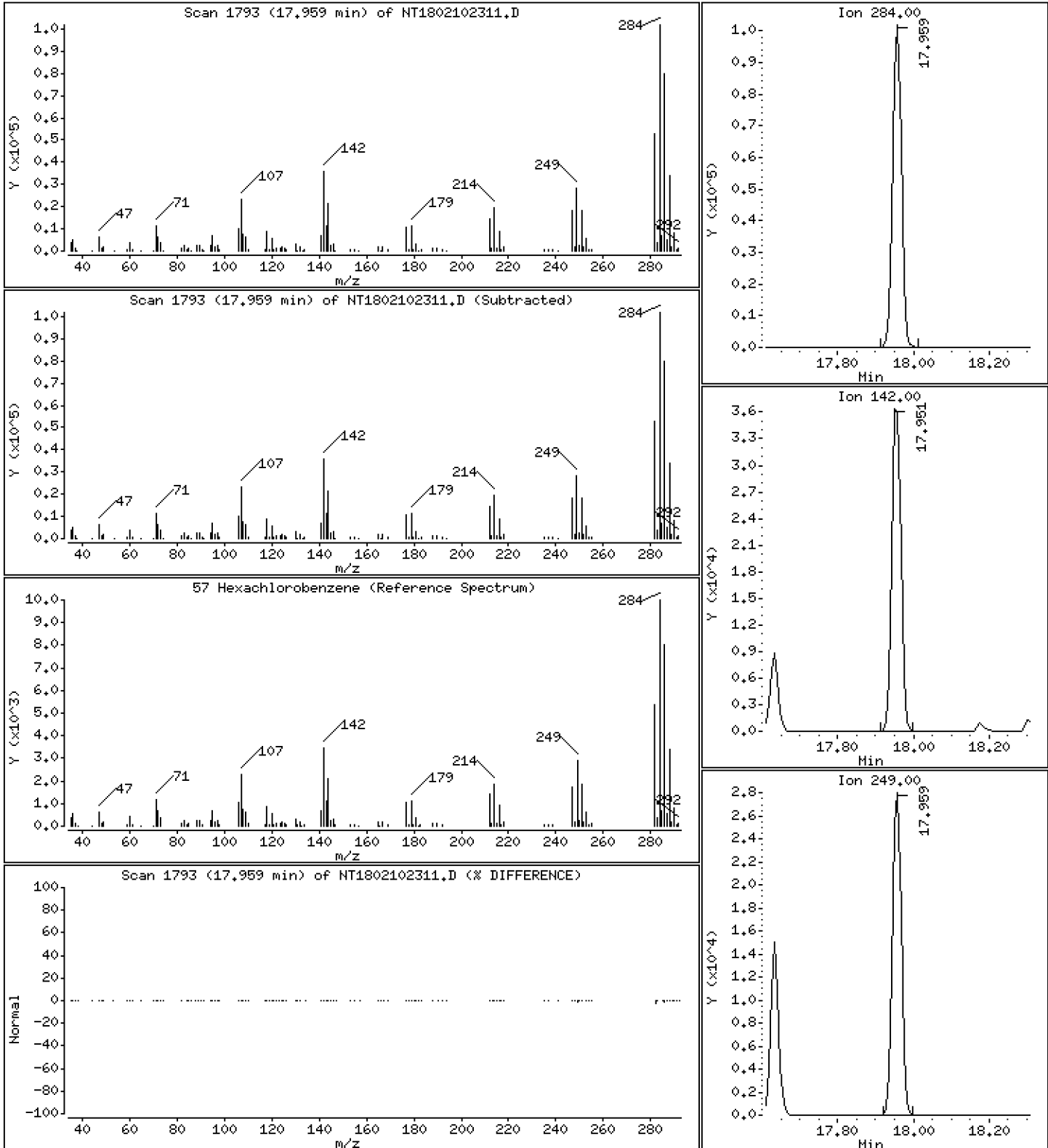
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,085 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

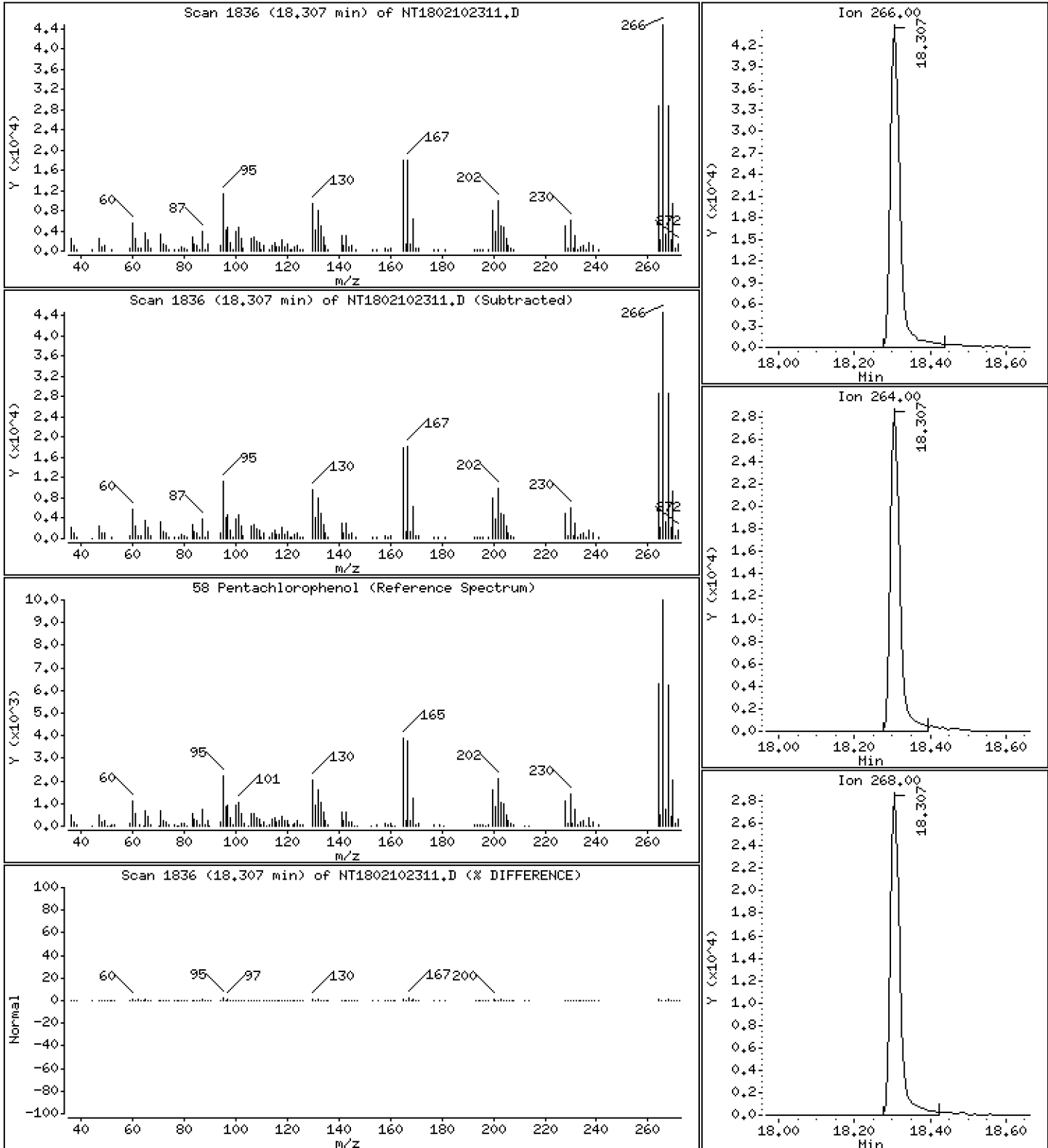
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,507 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

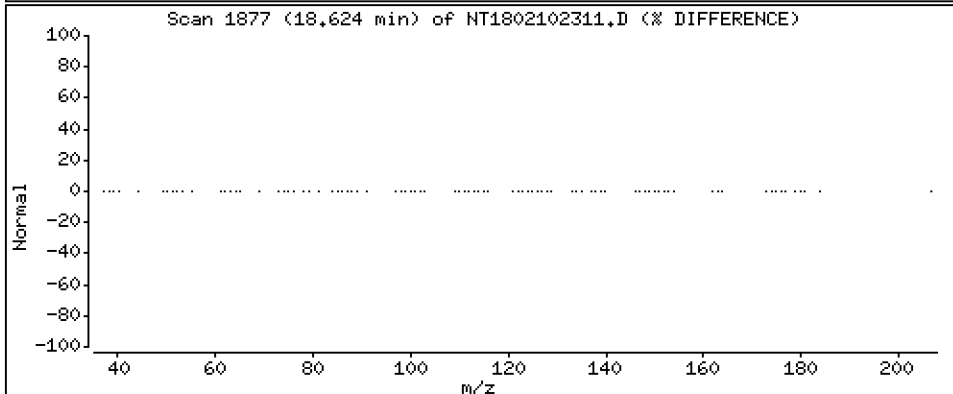
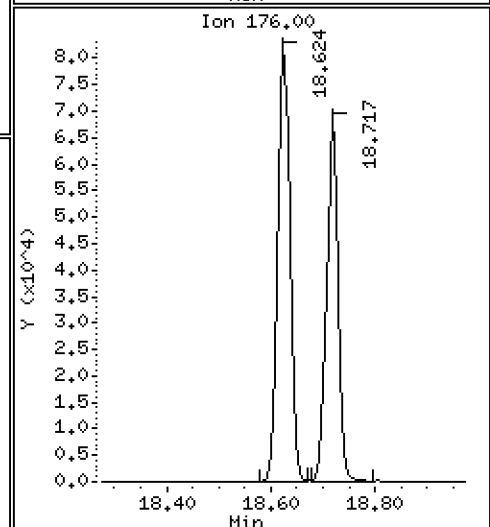
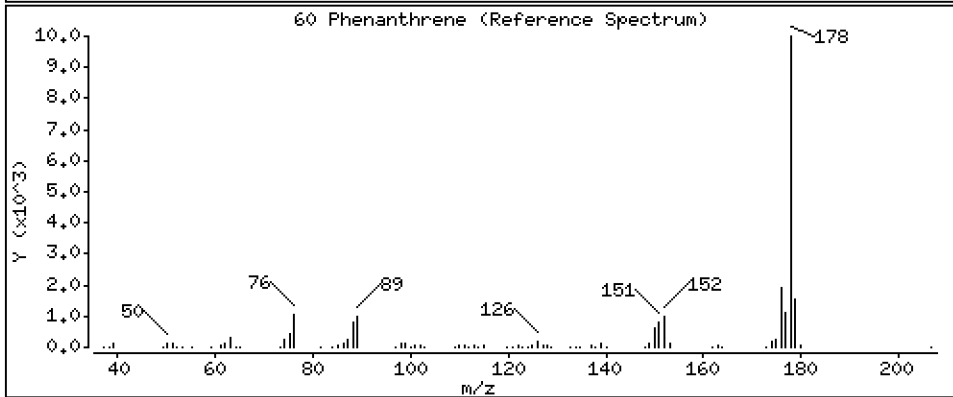
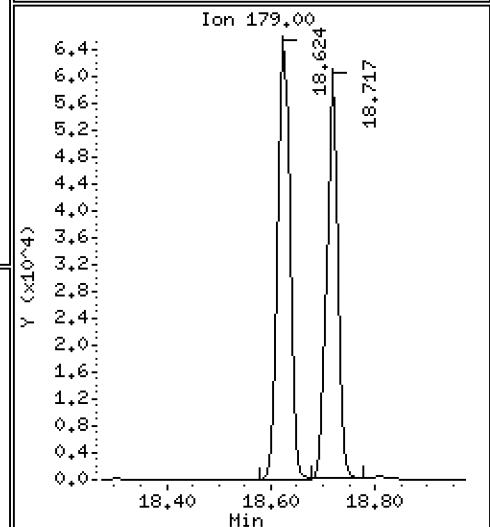
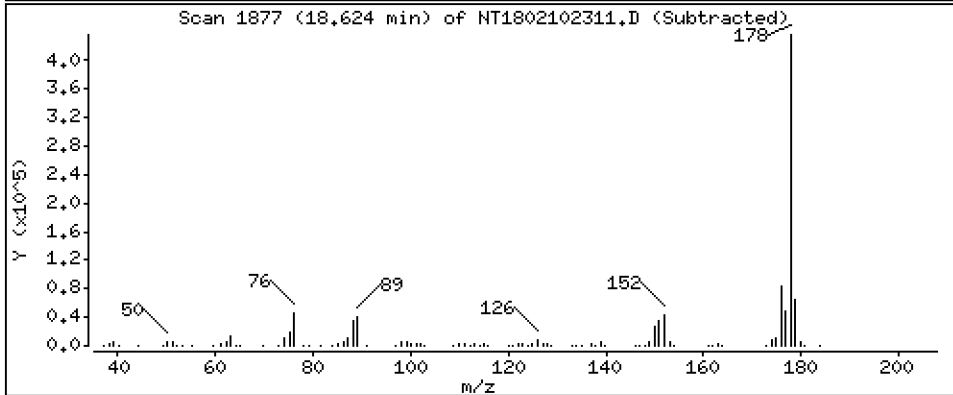
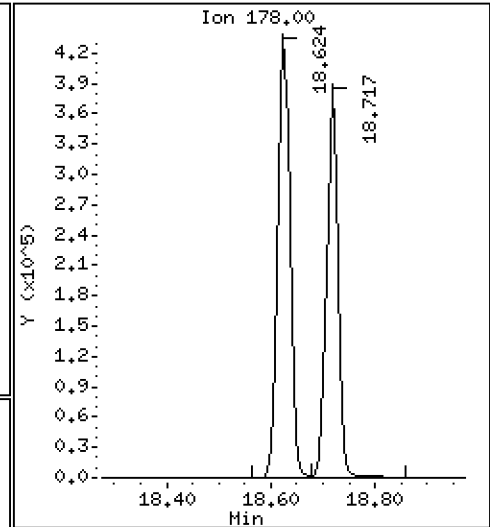
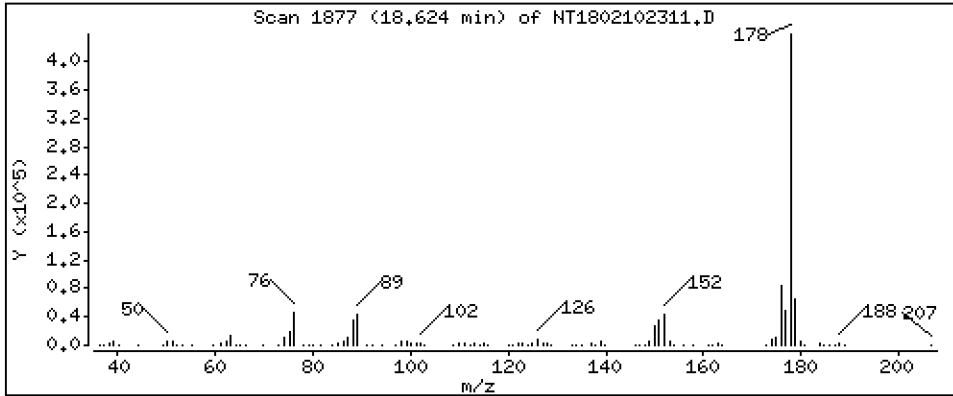
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,228 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

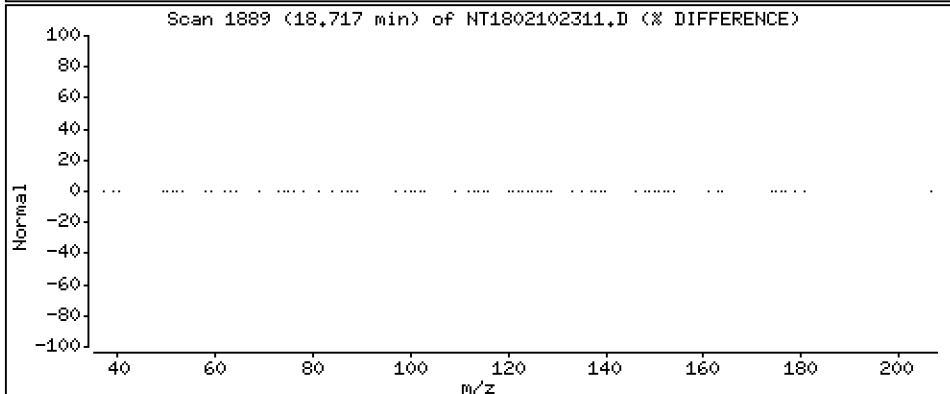
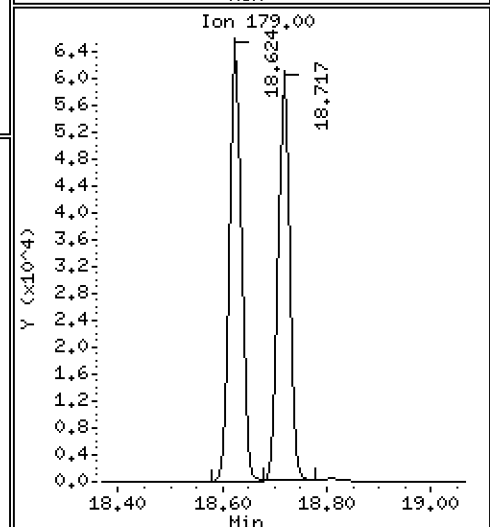
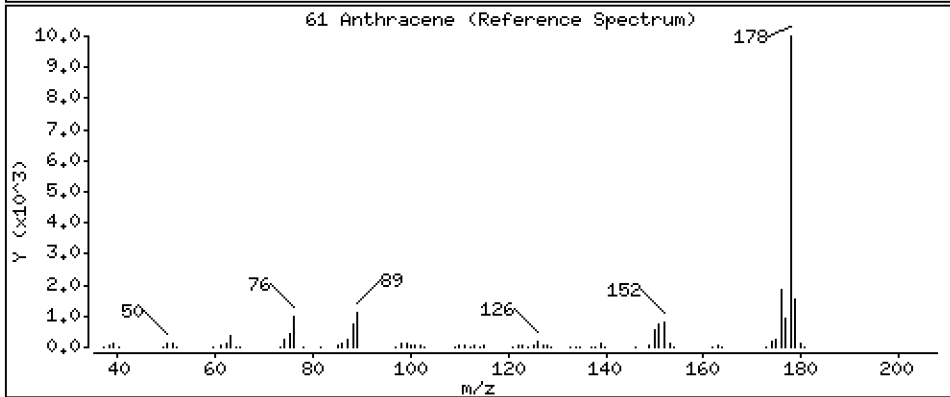
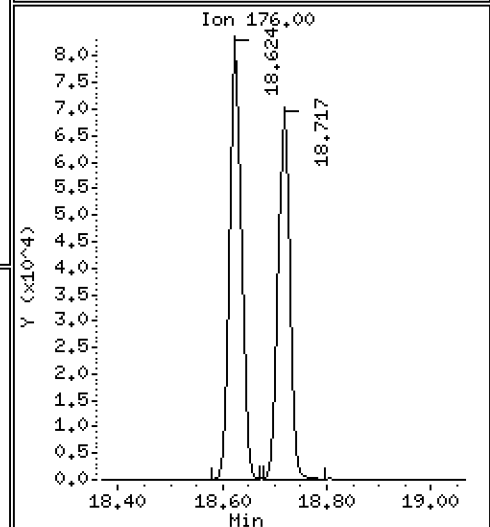
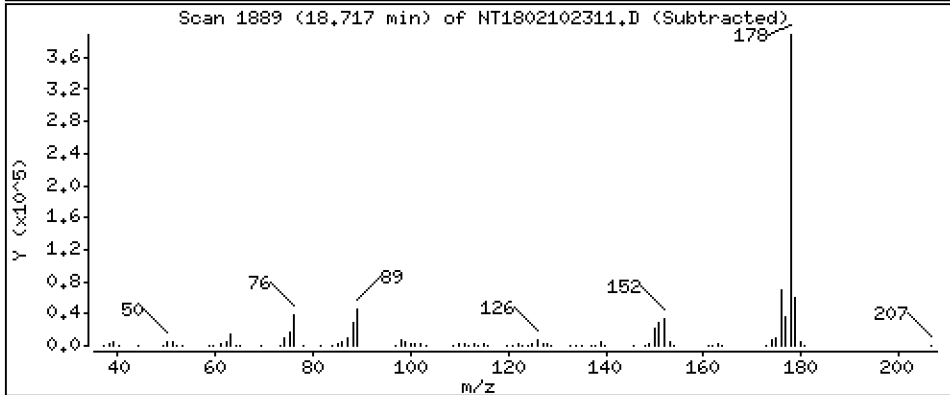
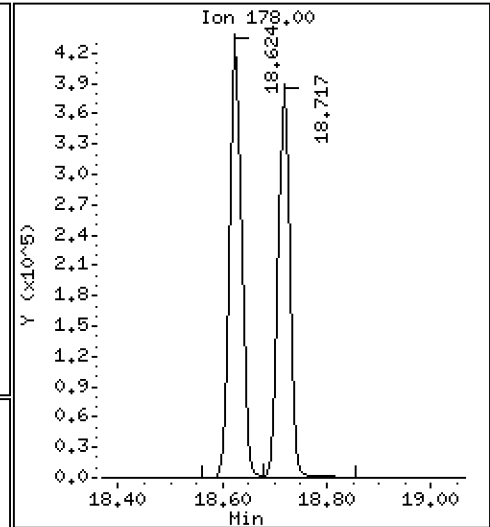
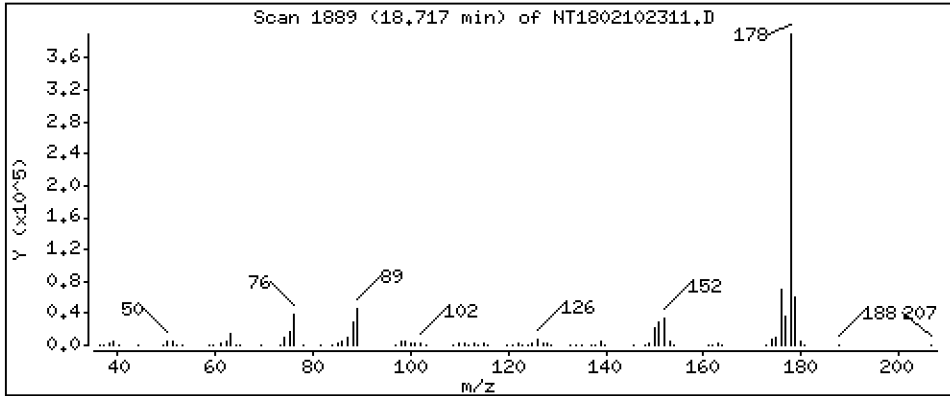
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 4,027 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

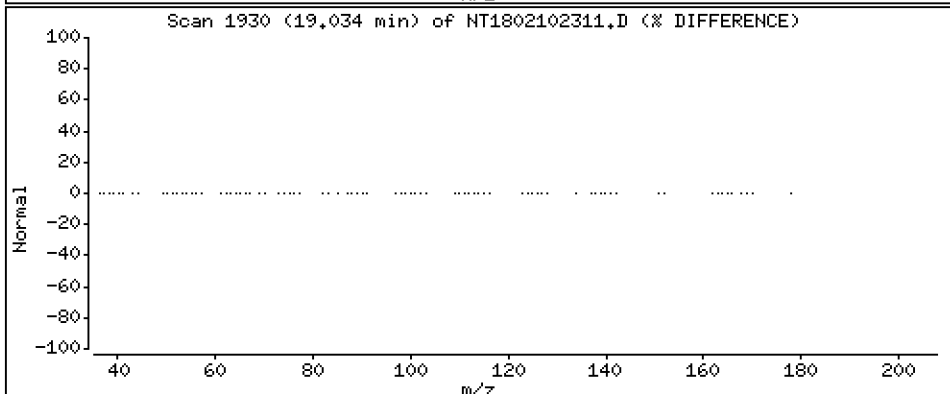
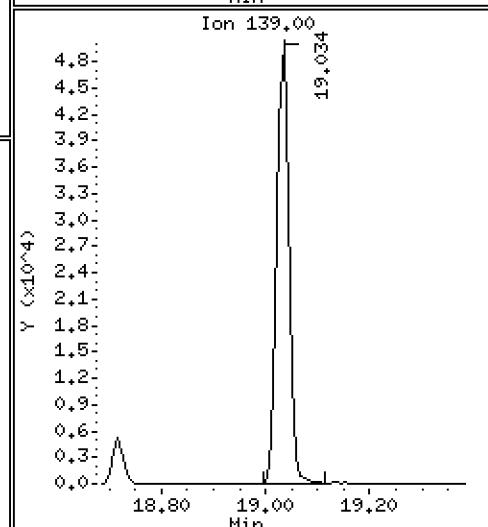
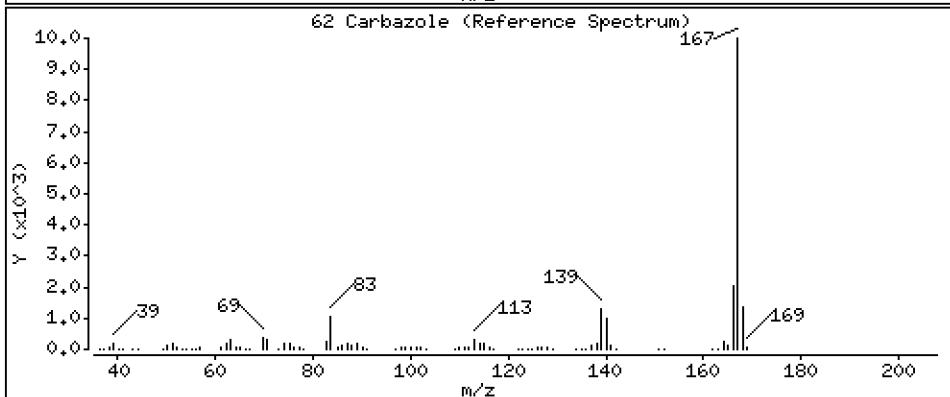
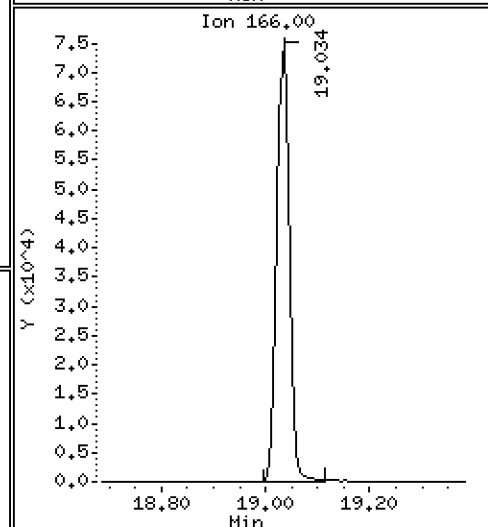
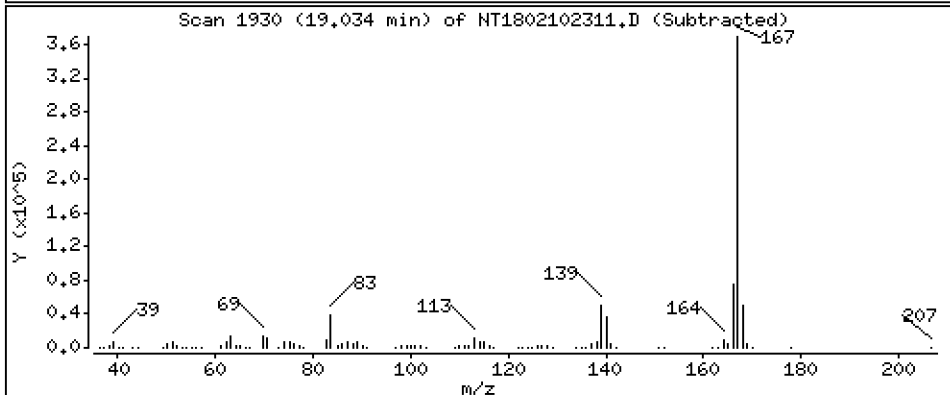
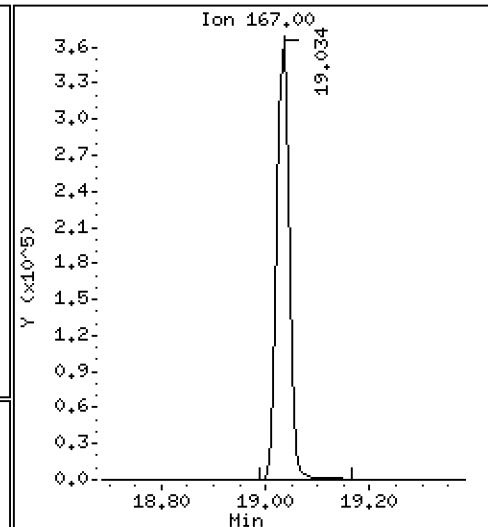
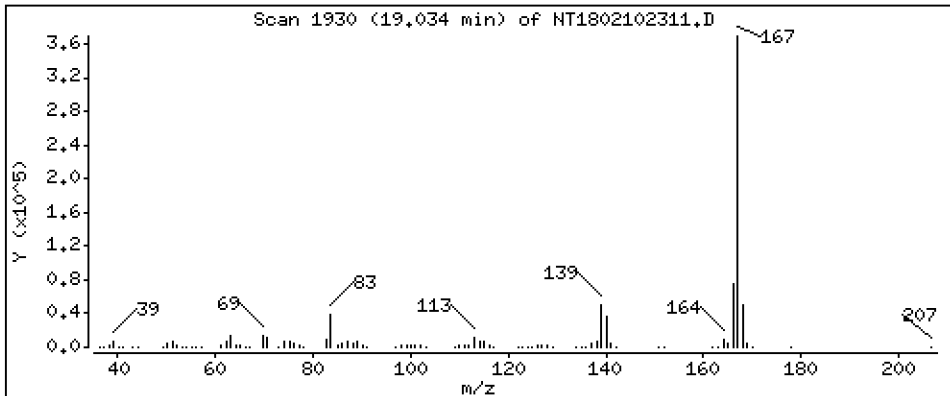
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

62 Carbazole

Concentration: 4.066 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

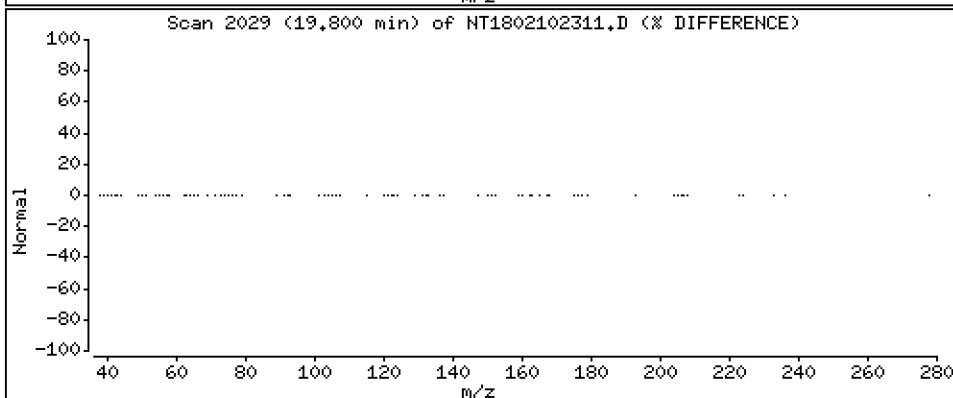
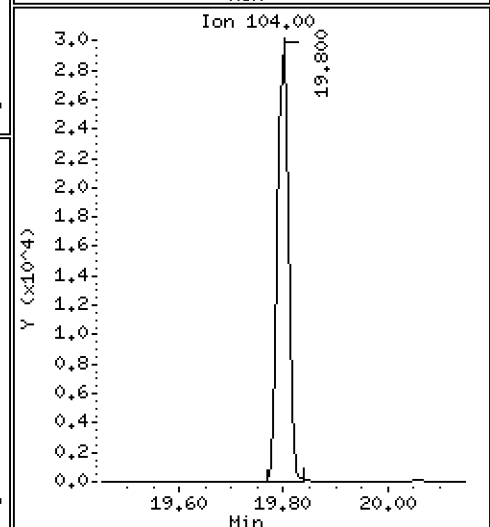
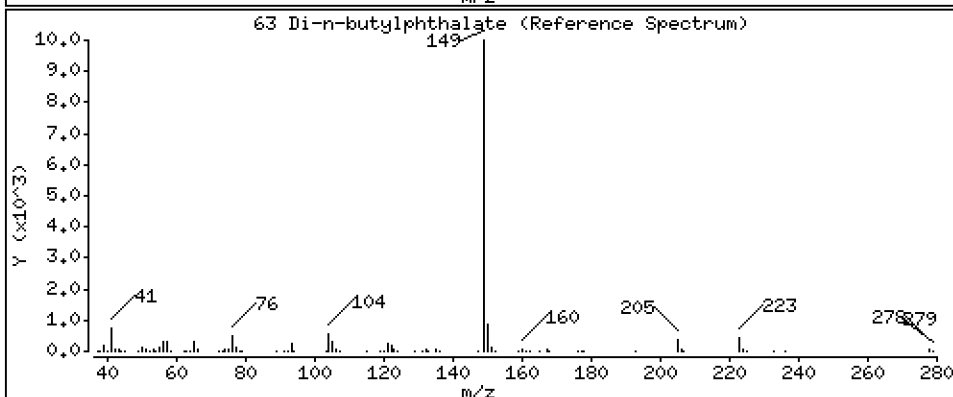
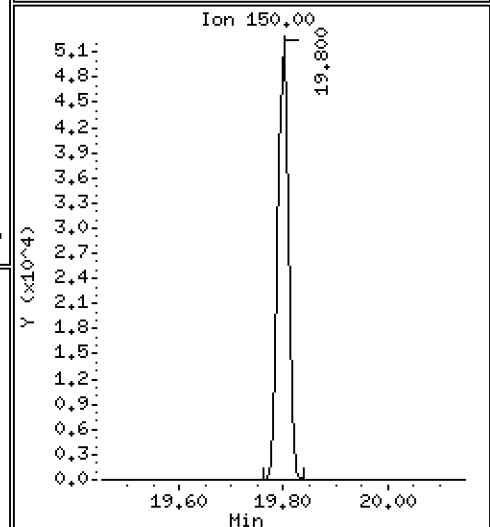
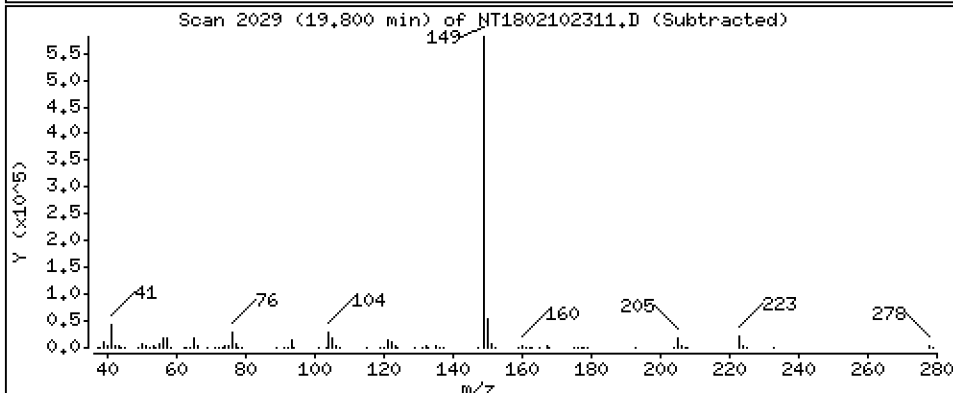
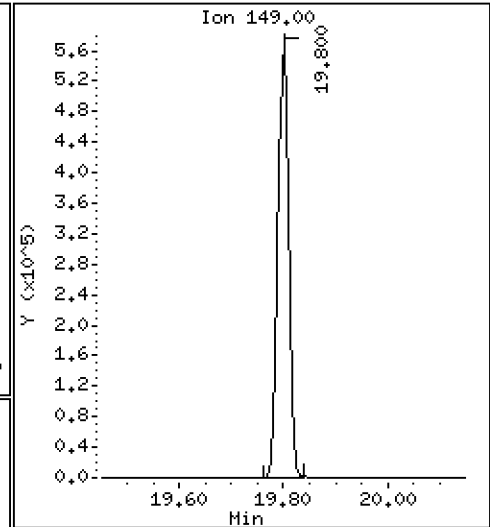
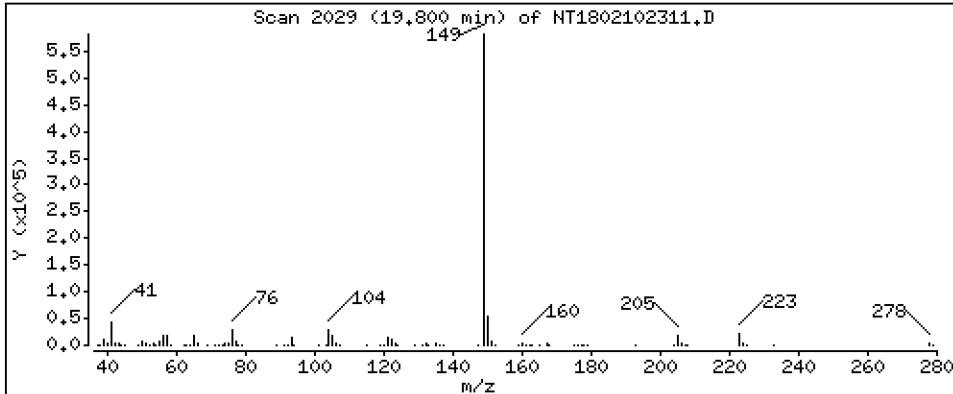
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,139 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

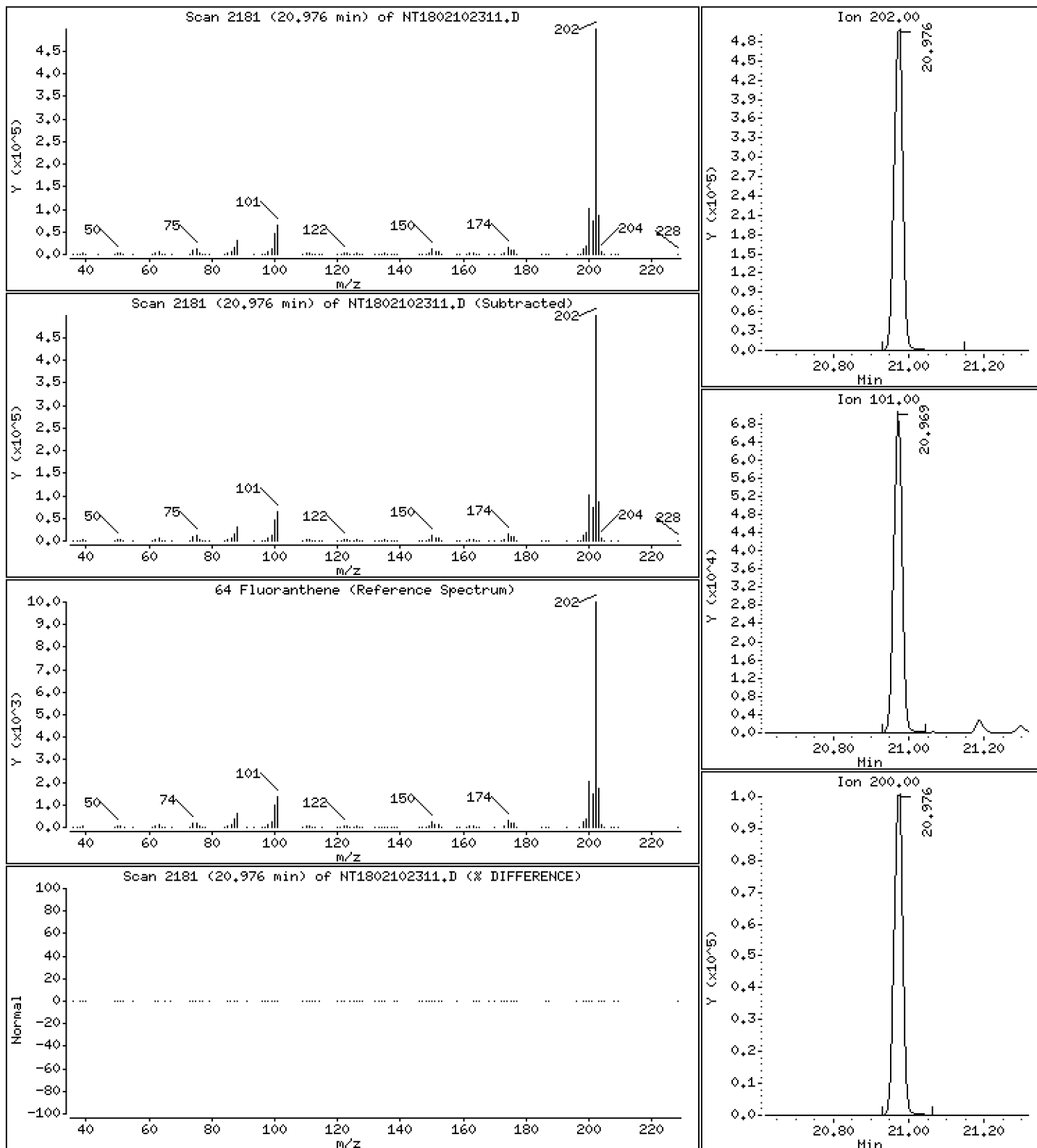
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,555 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

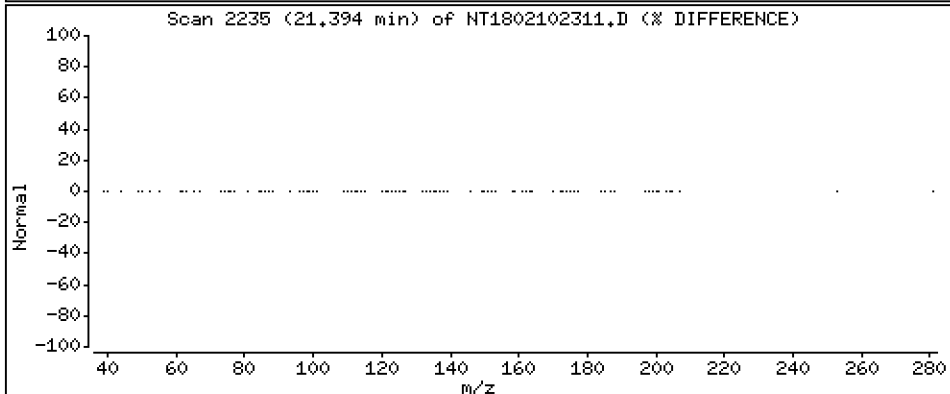
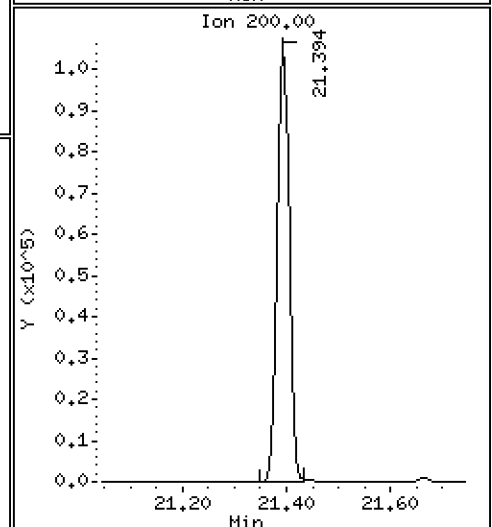
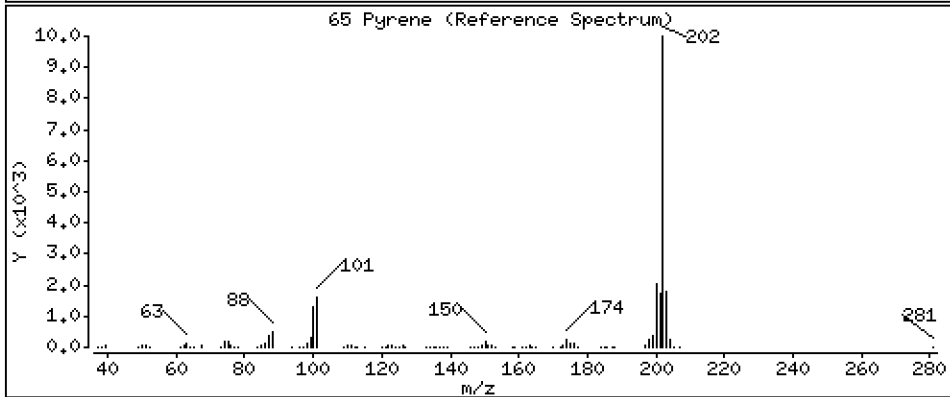
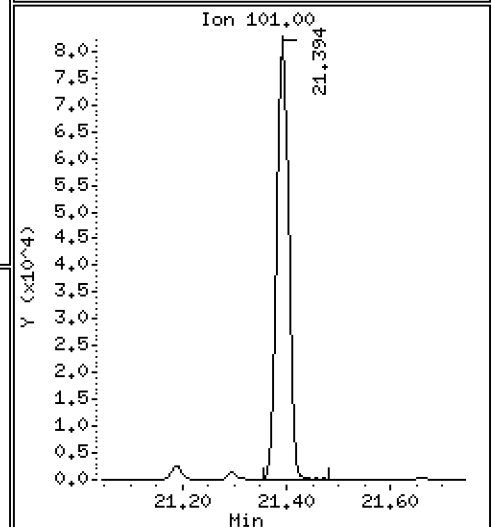
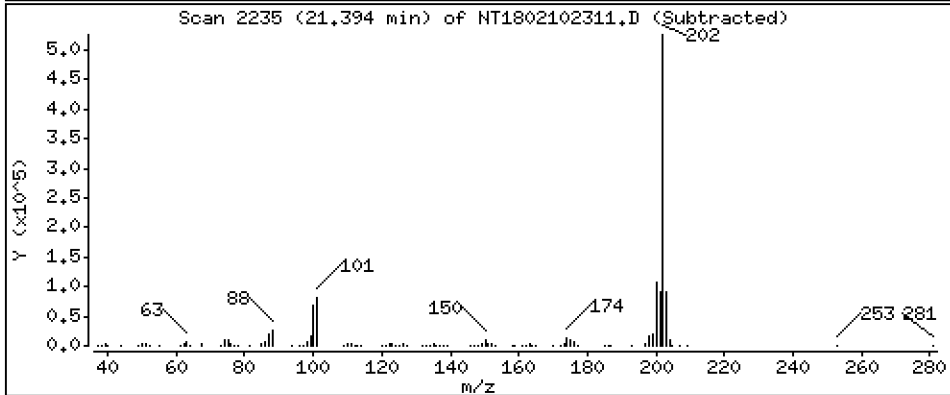
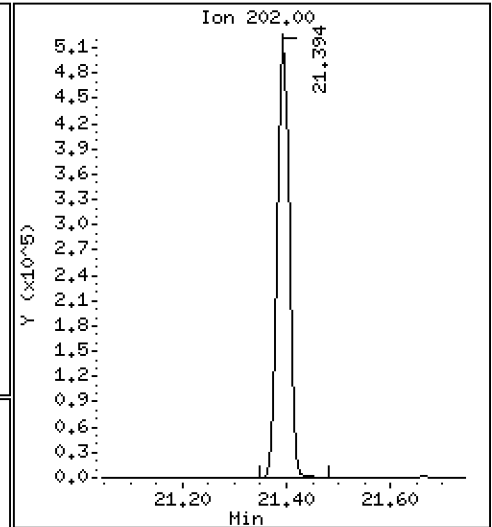
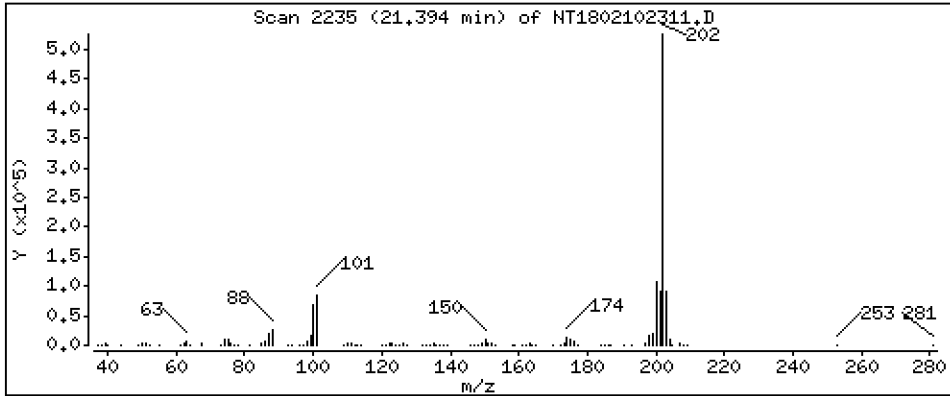
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 4,328 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

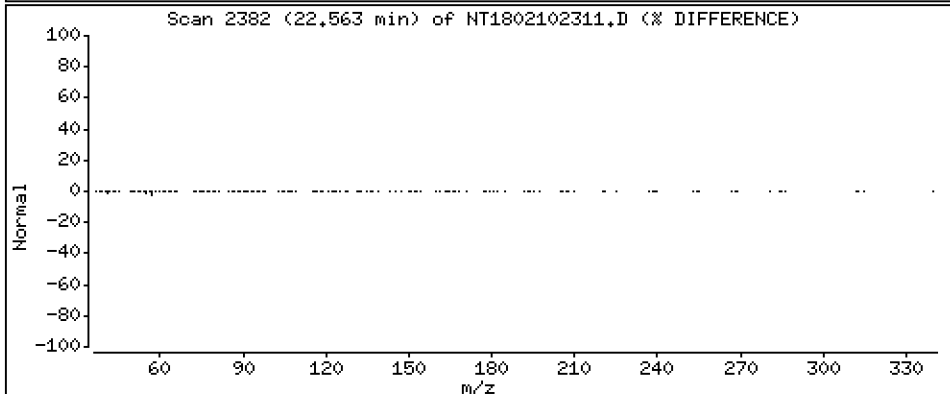
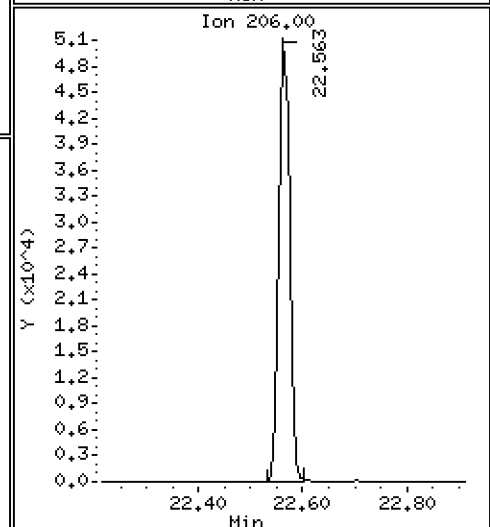
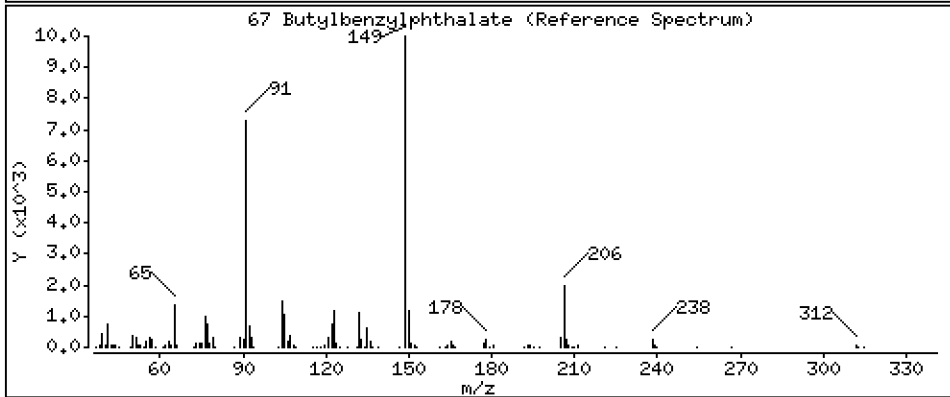
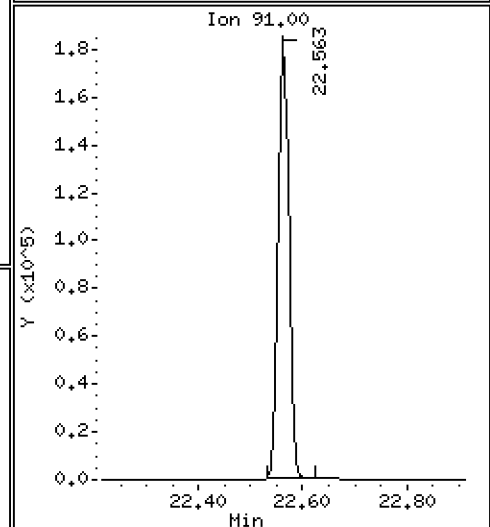
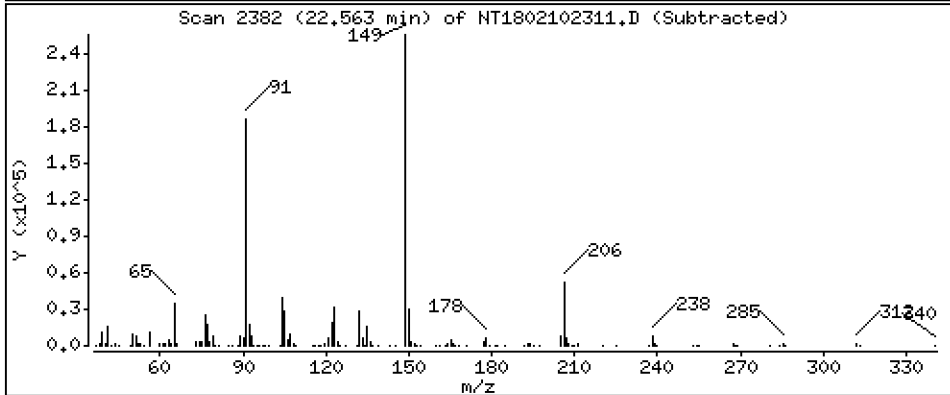
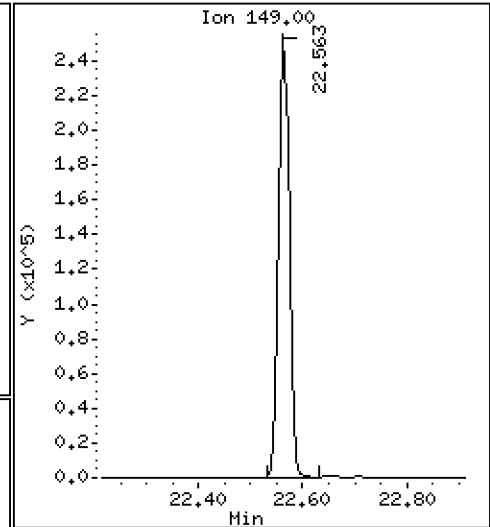
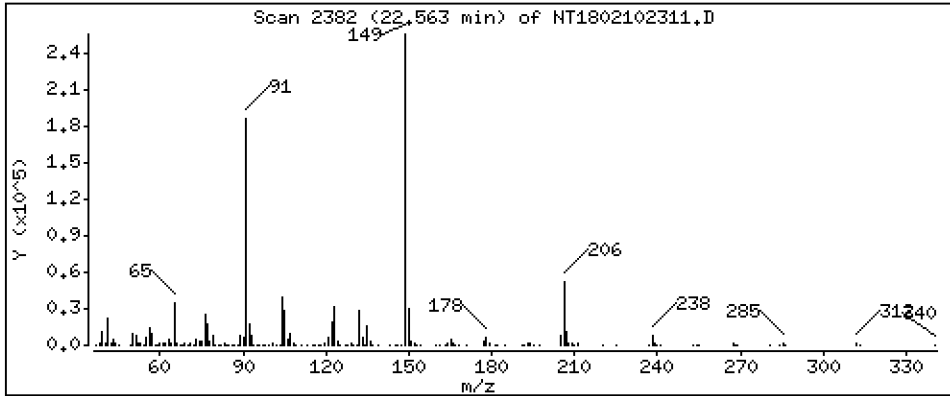
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,203 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

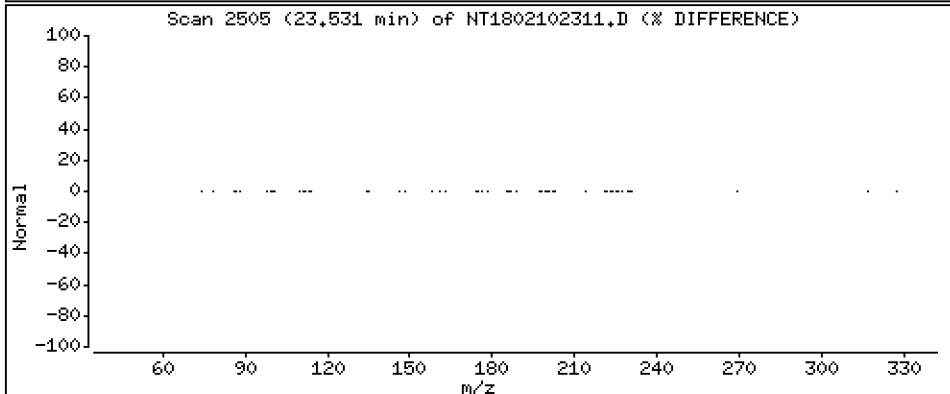
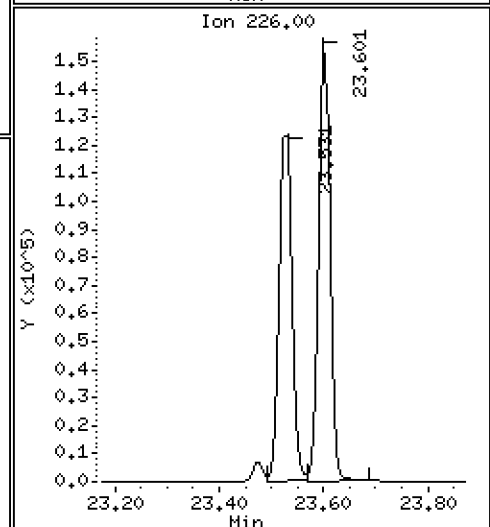
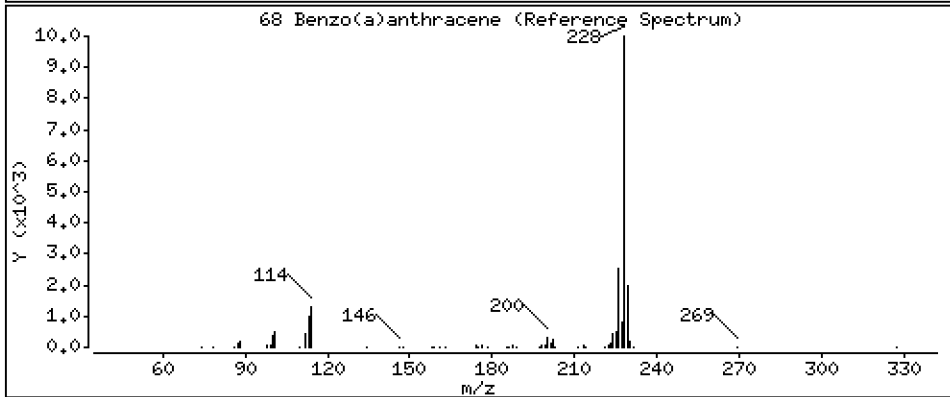
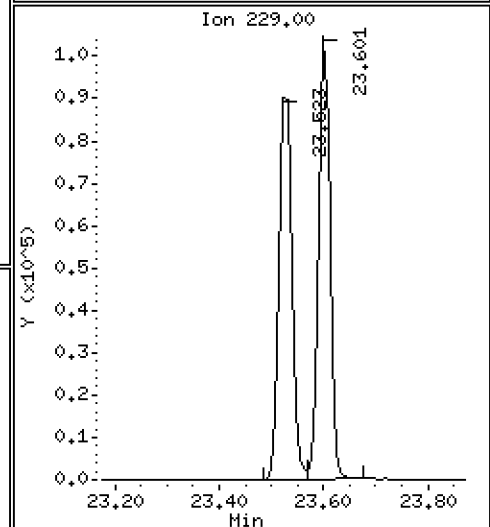
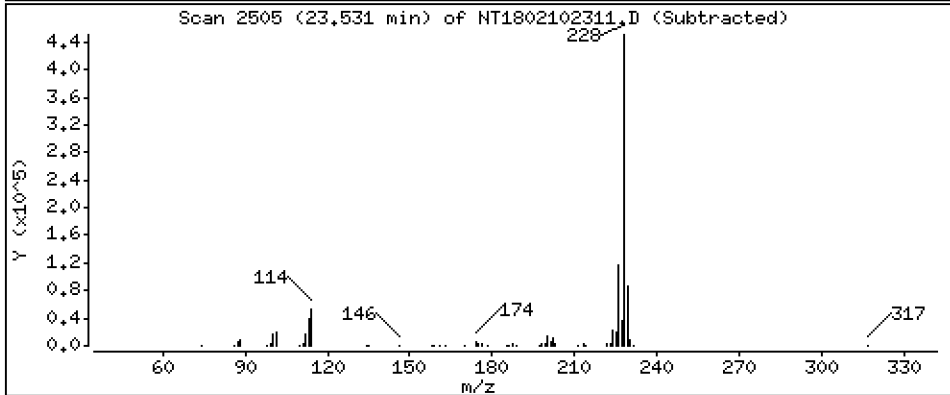
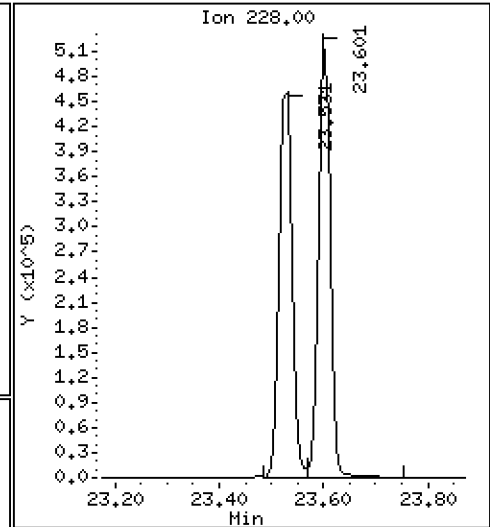
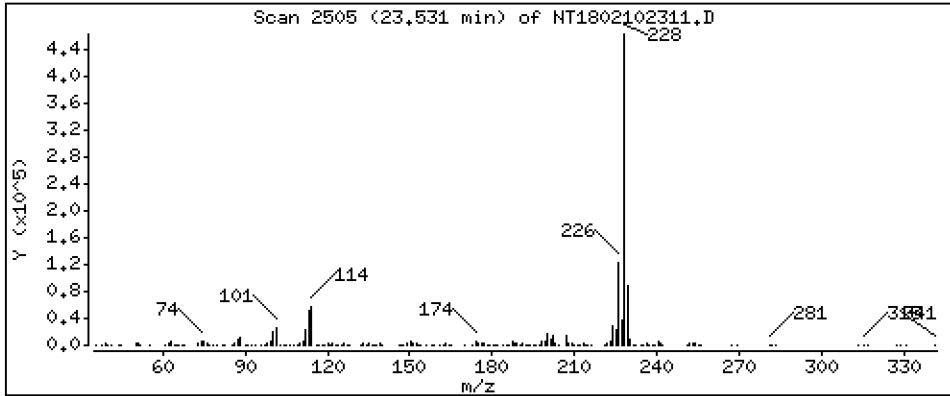
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

68 Benzo(a)anthracene

Concentration: 4.247 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

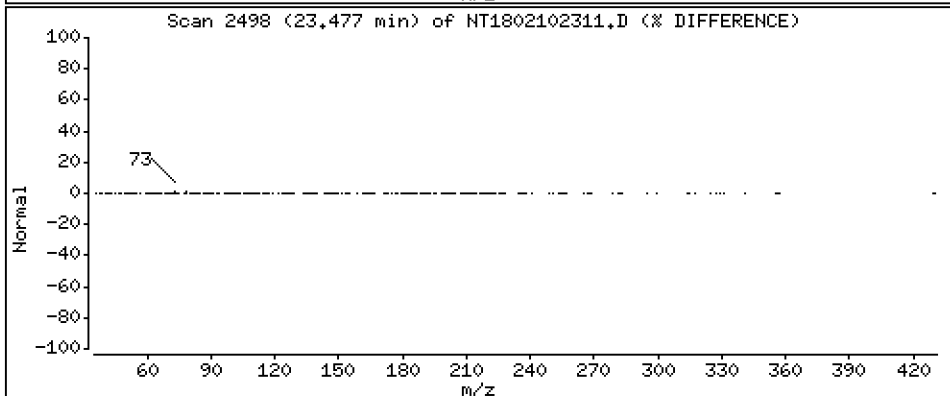
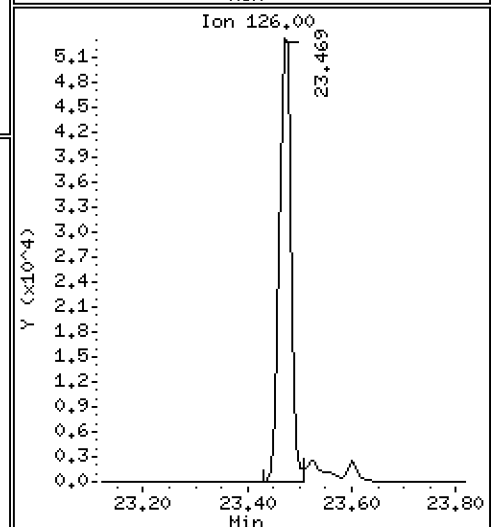
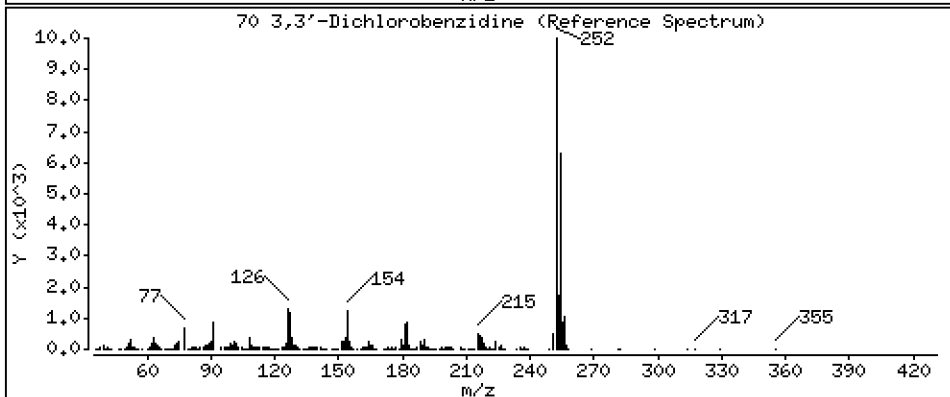
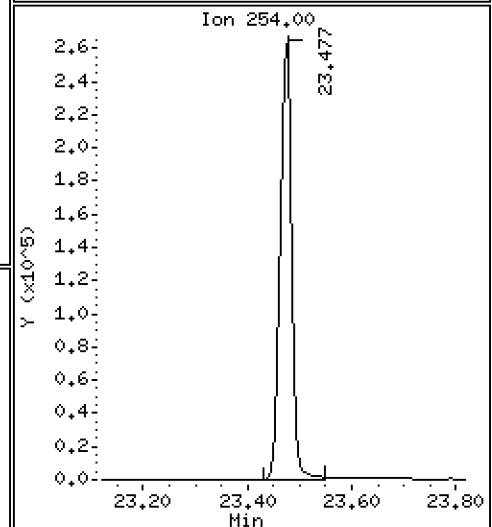
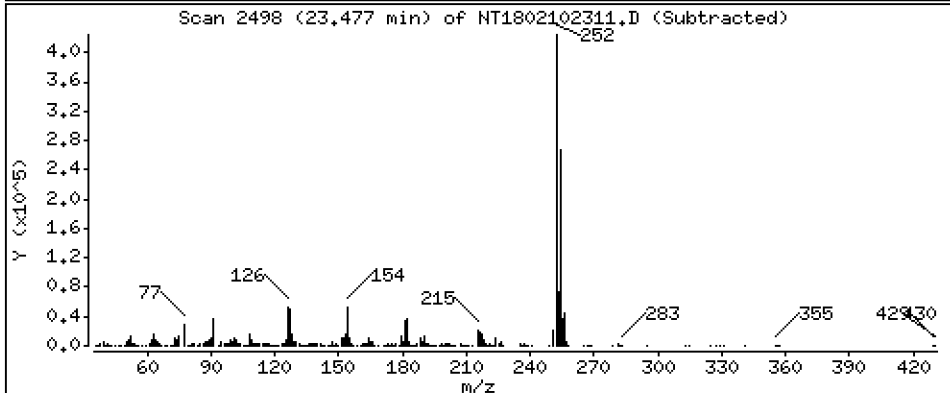
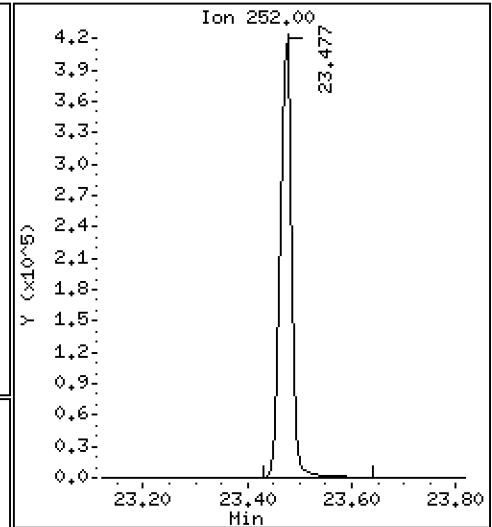
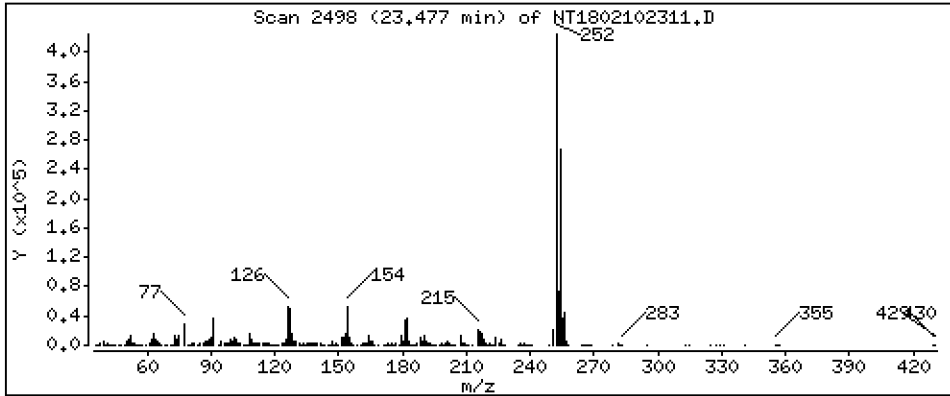
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 7,582 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

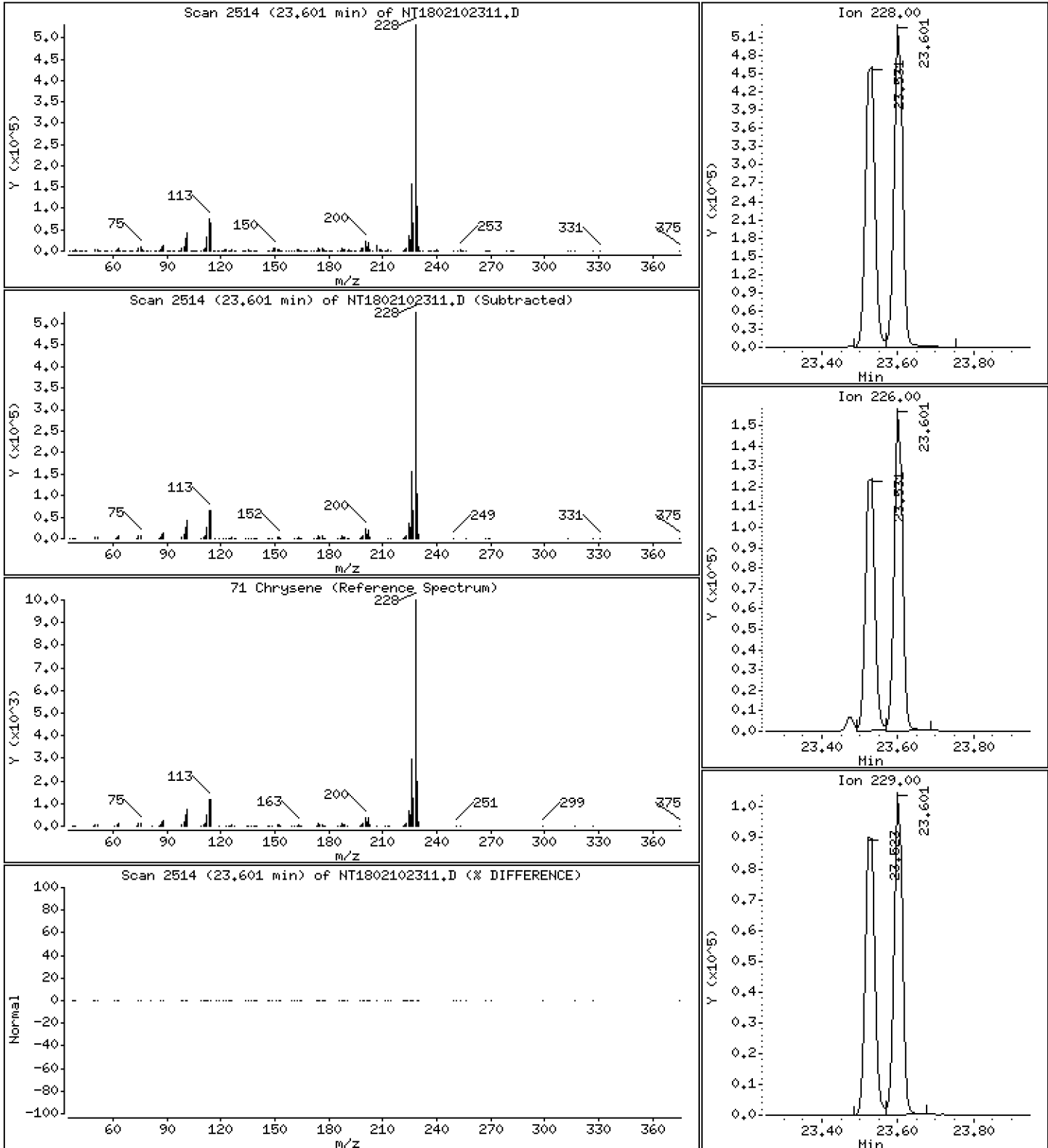
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,062 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

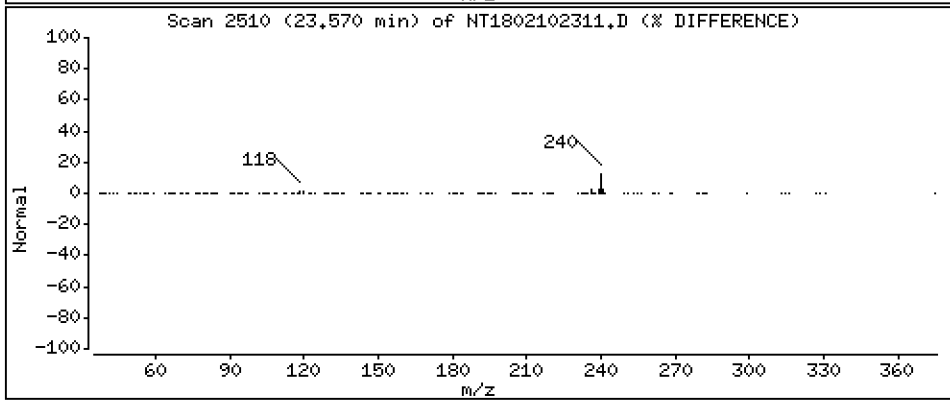
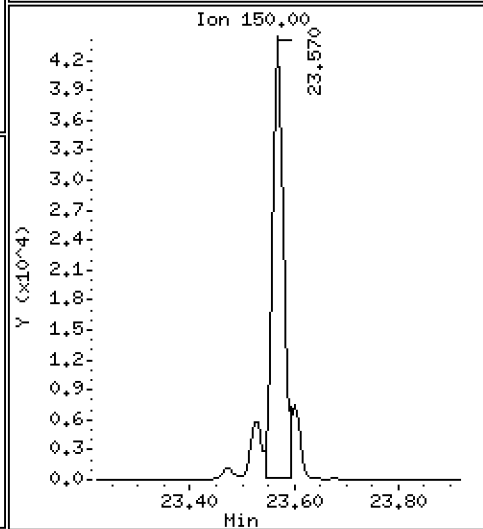
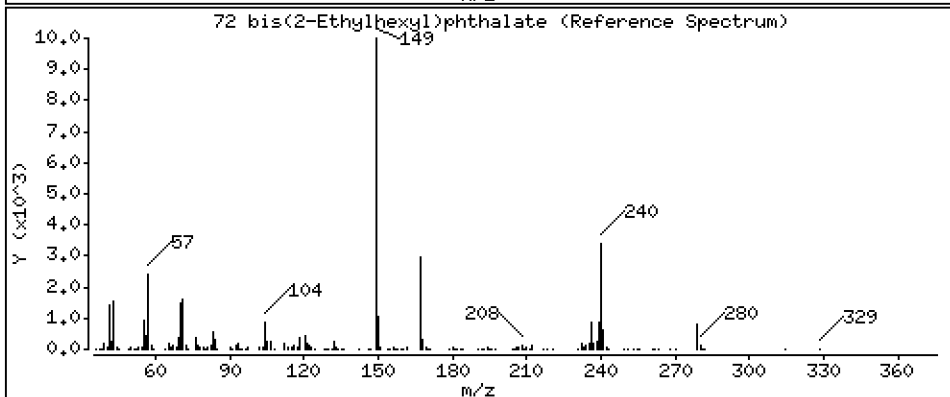
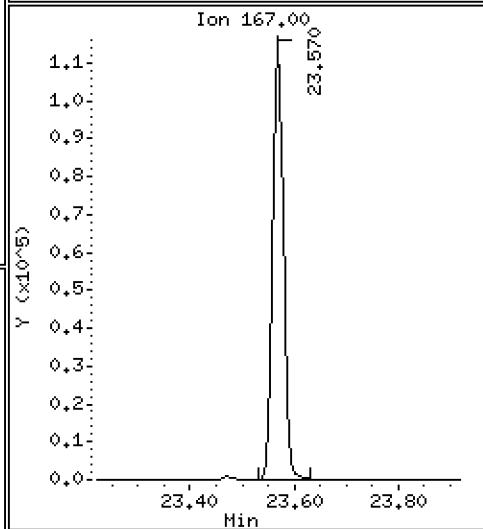
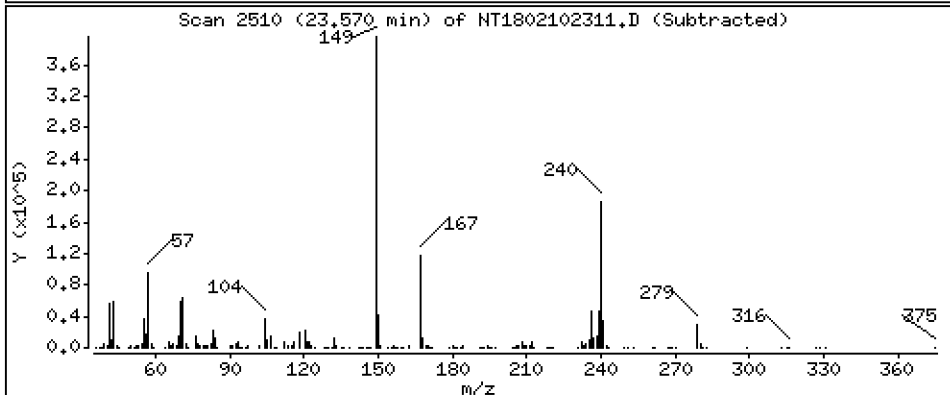
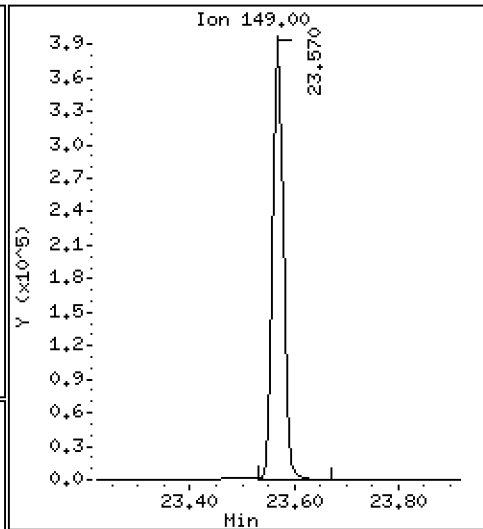
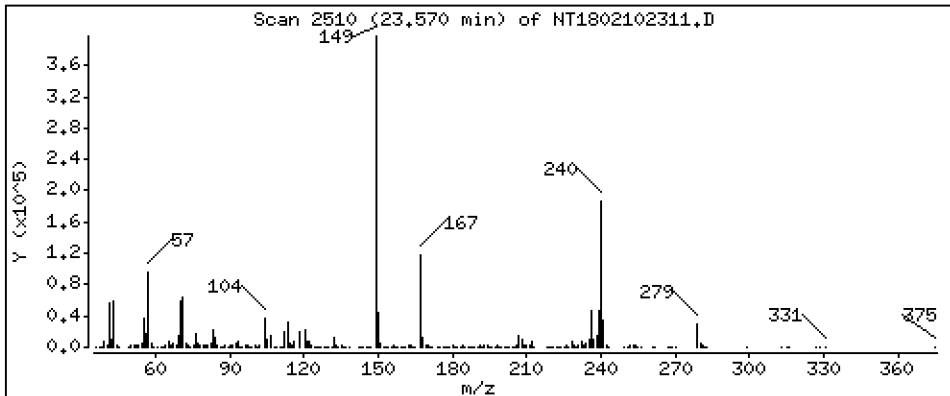
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 4,857 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

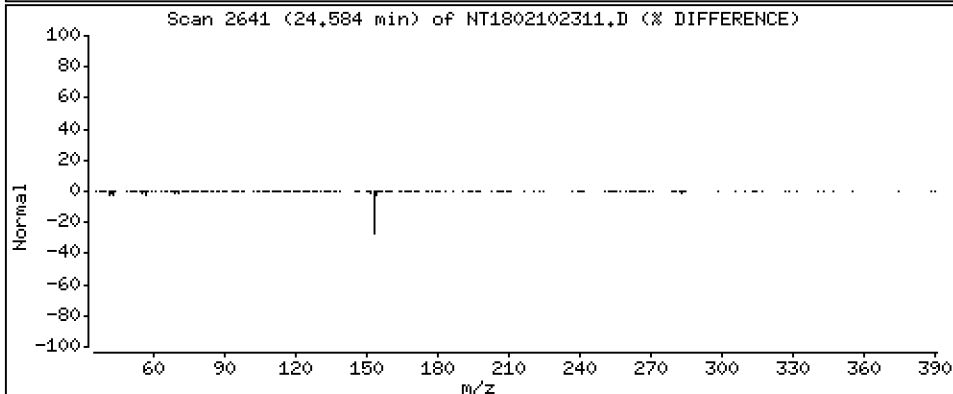
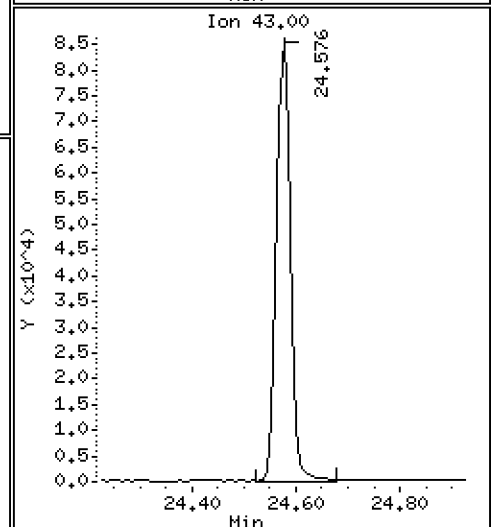
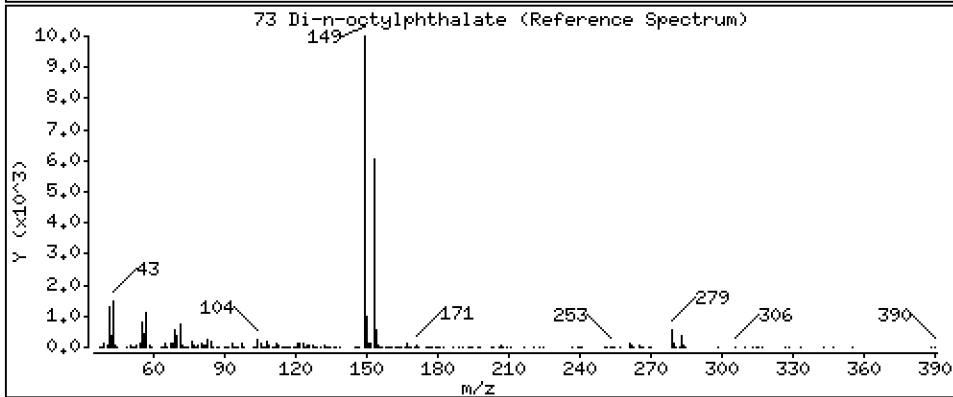
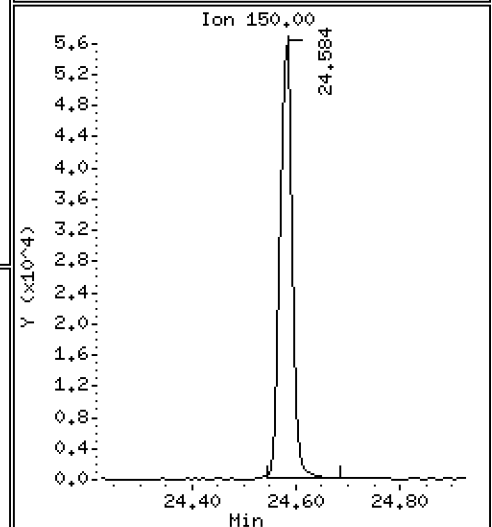
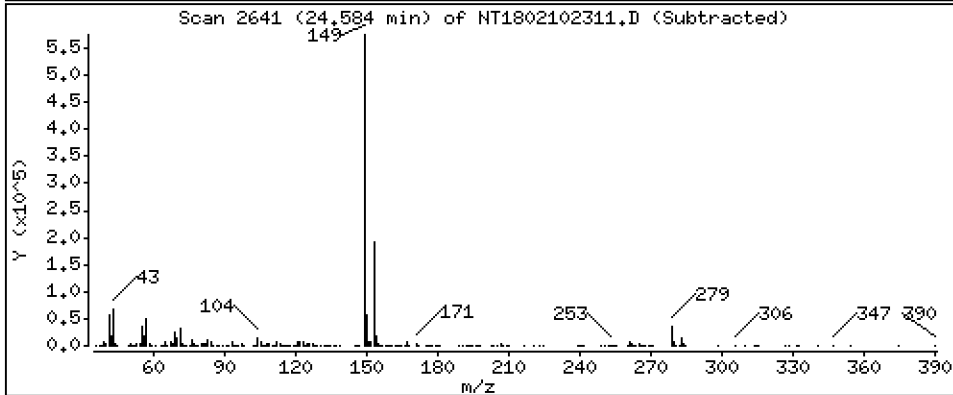
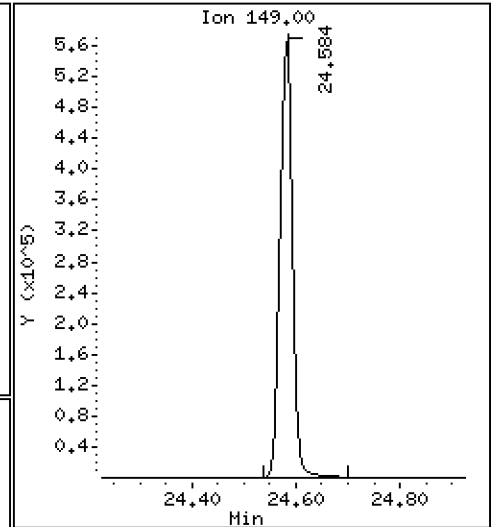
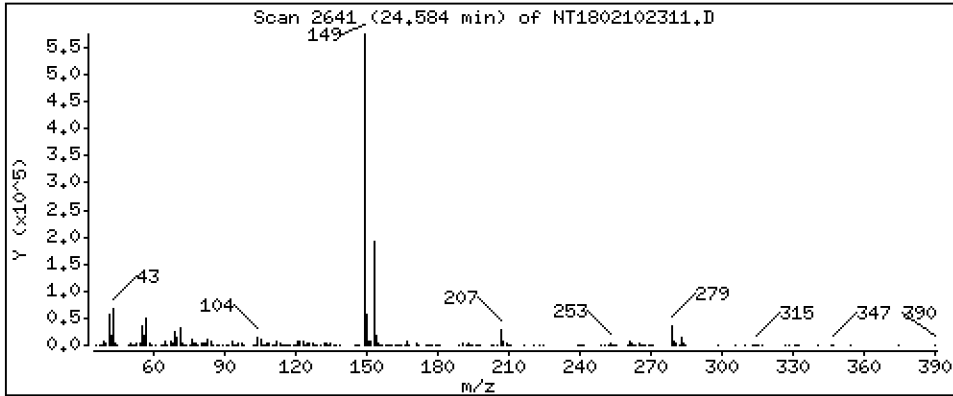
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 4,307 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

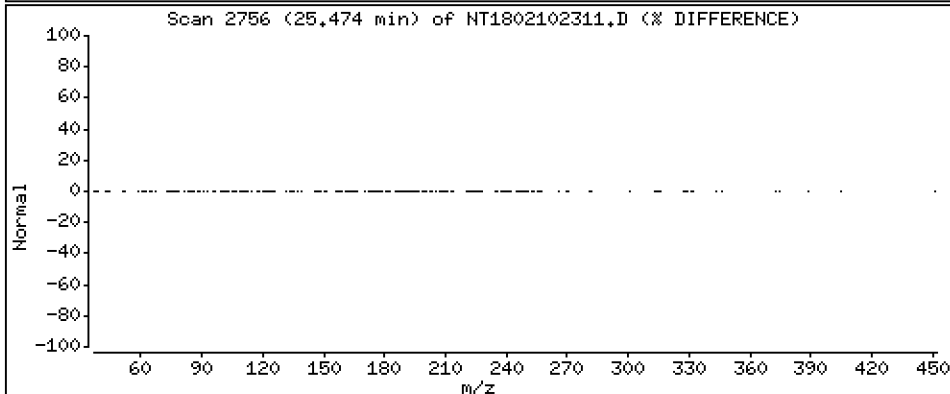
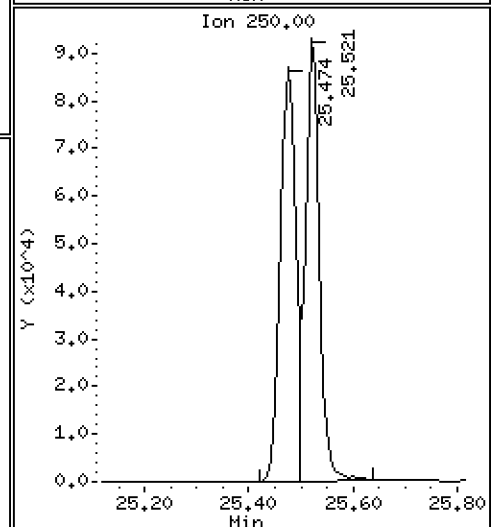
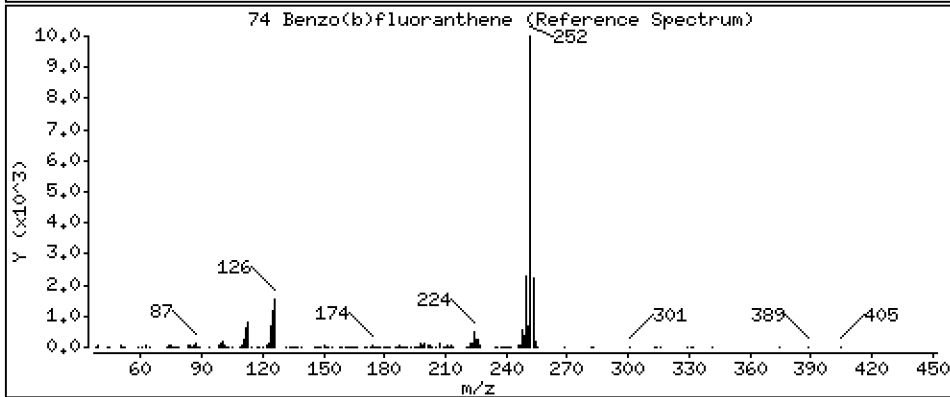
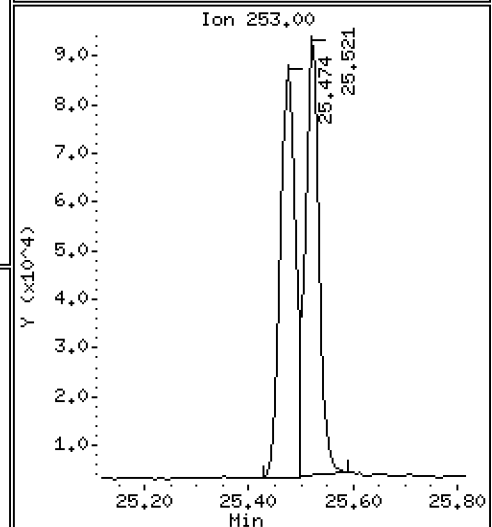
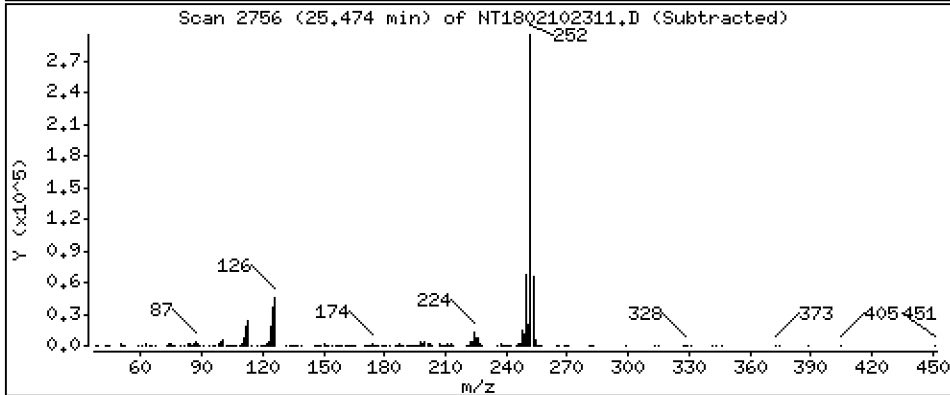
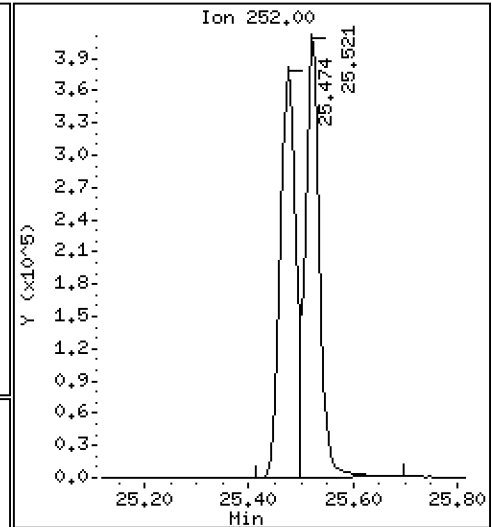
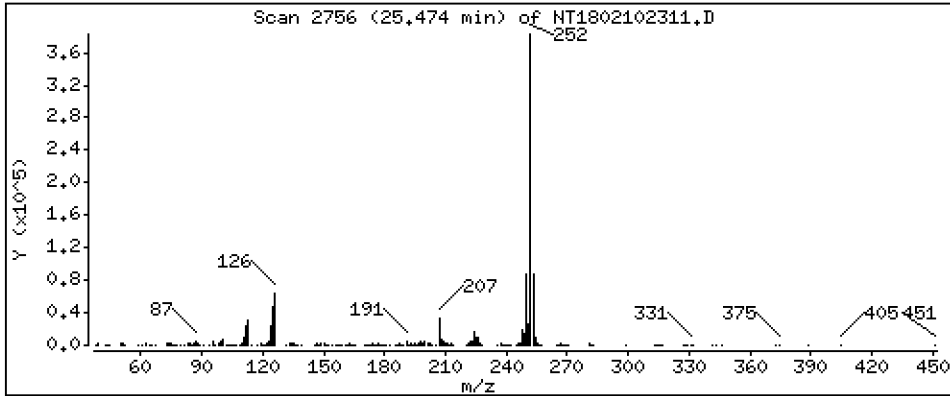
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,173 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

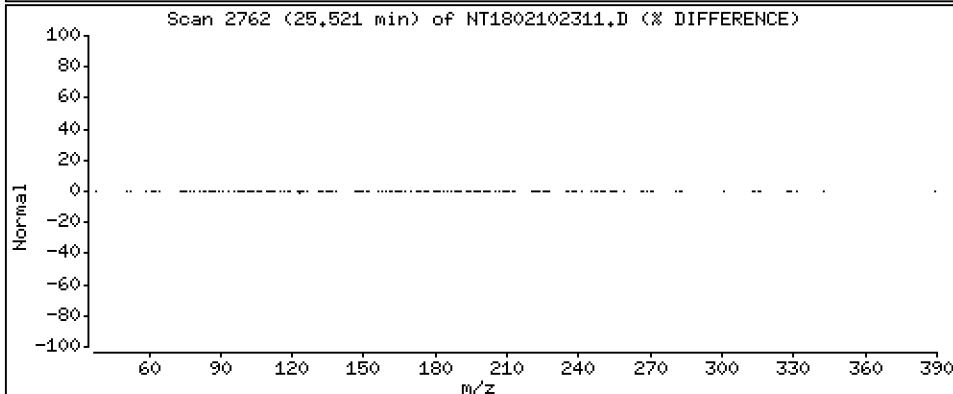
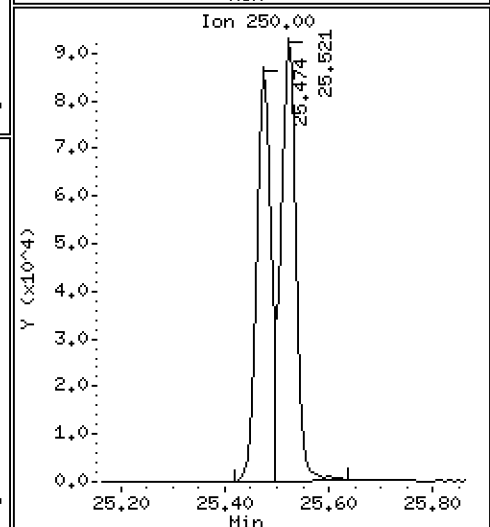
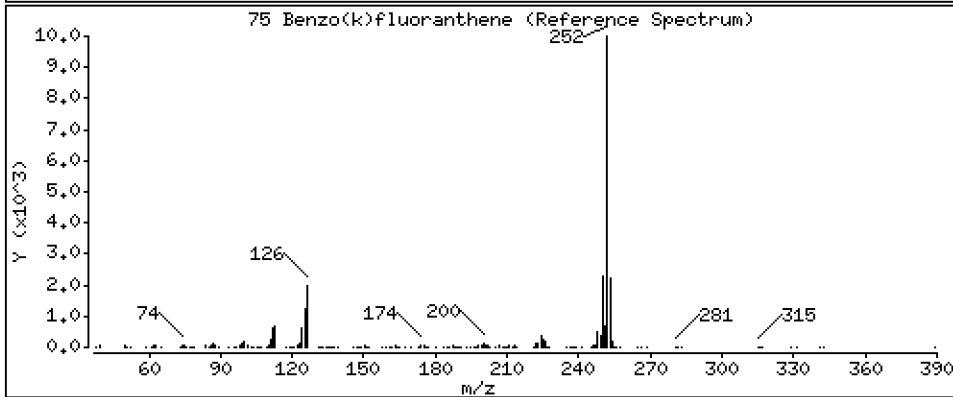
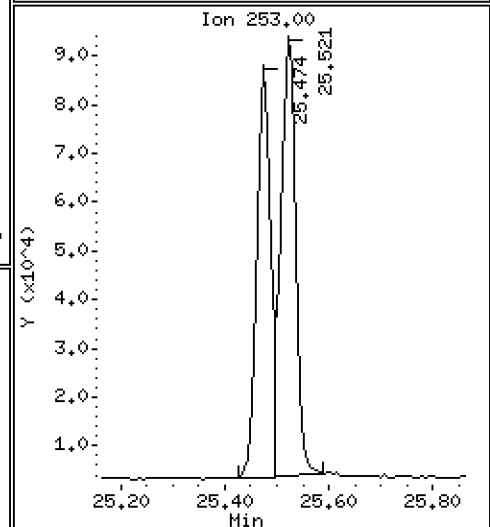
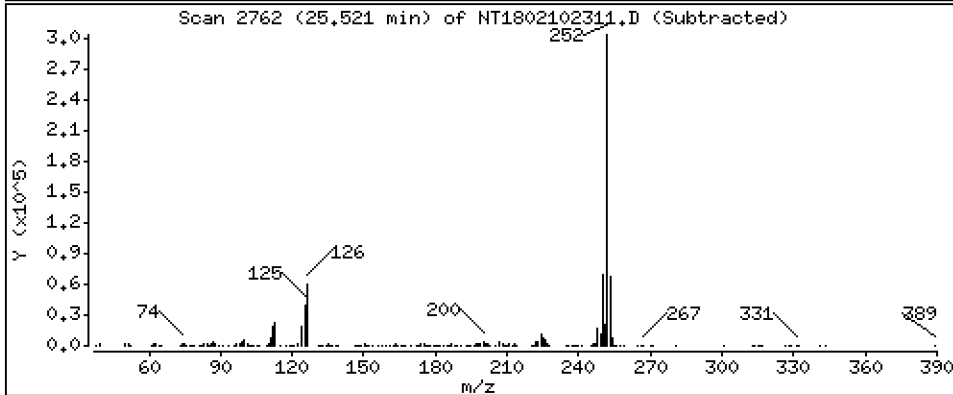
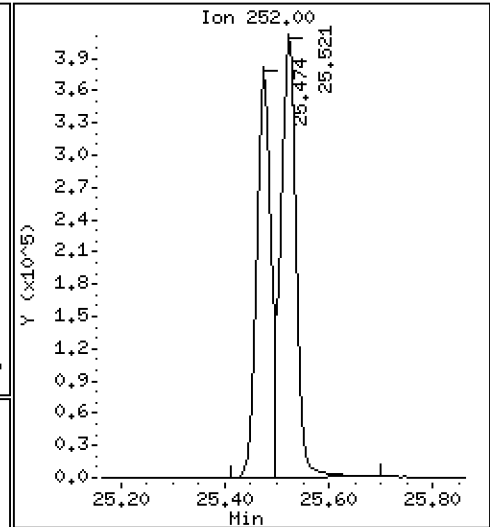
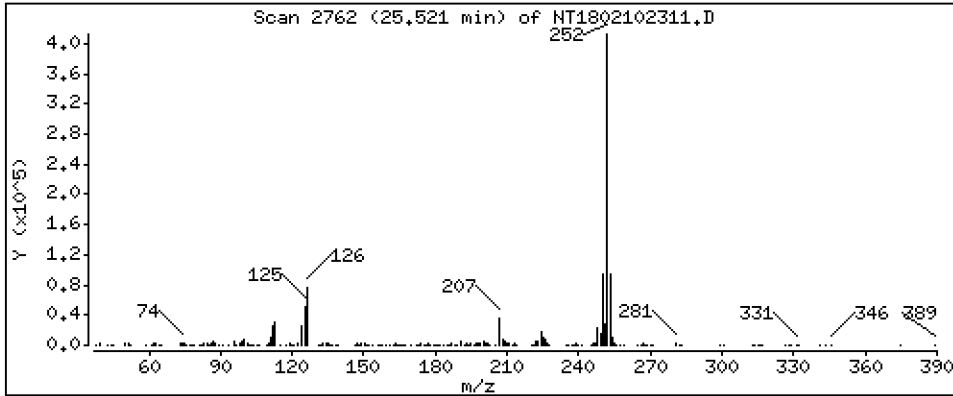
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,199 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

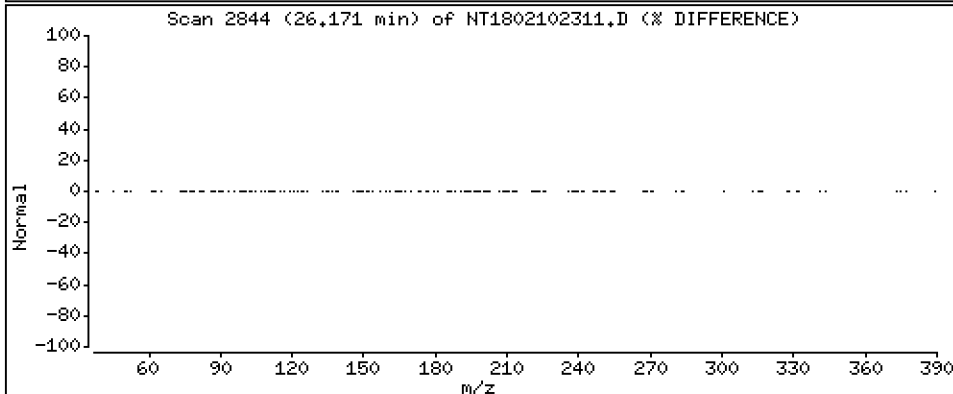
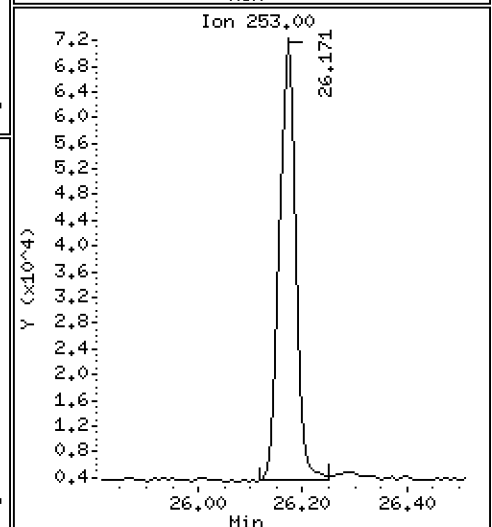
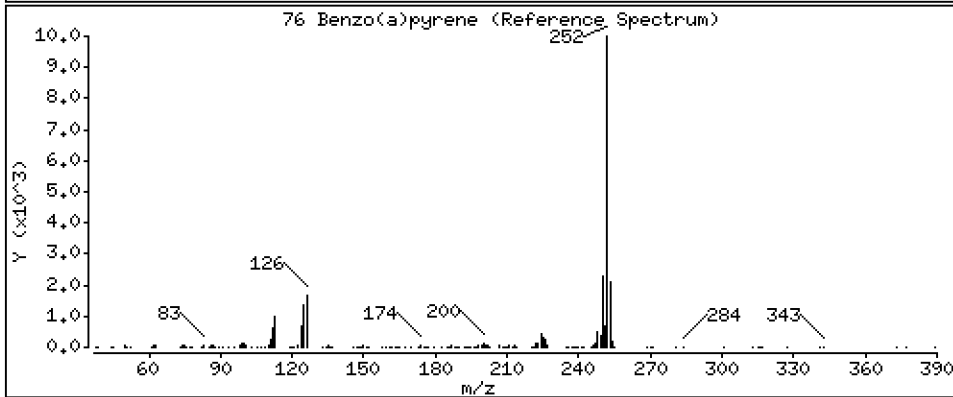
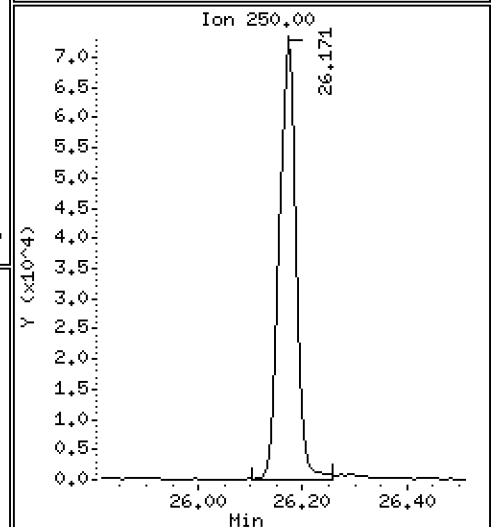
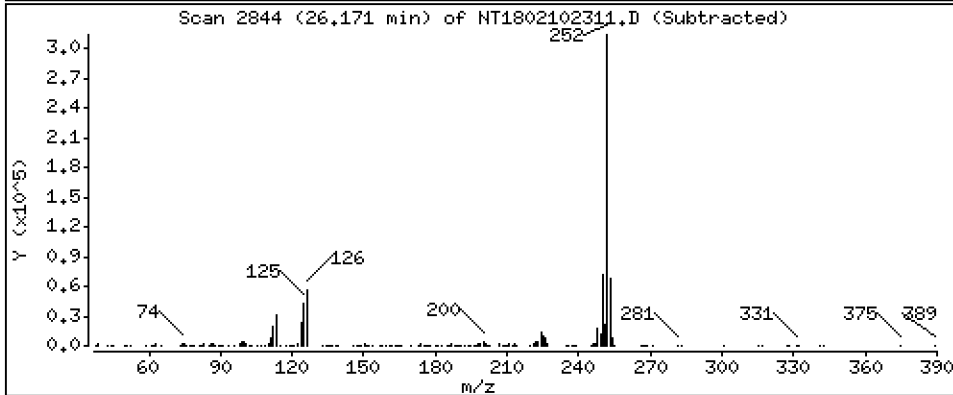
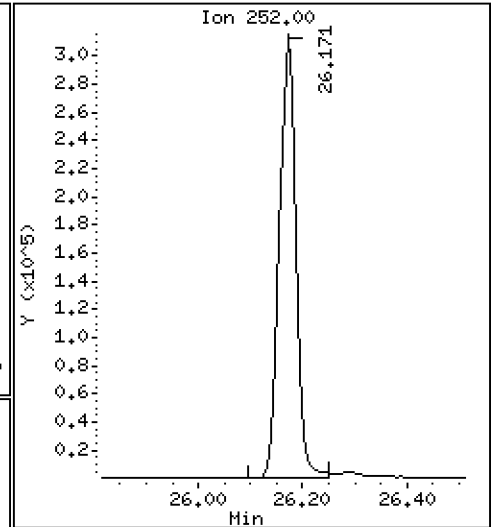
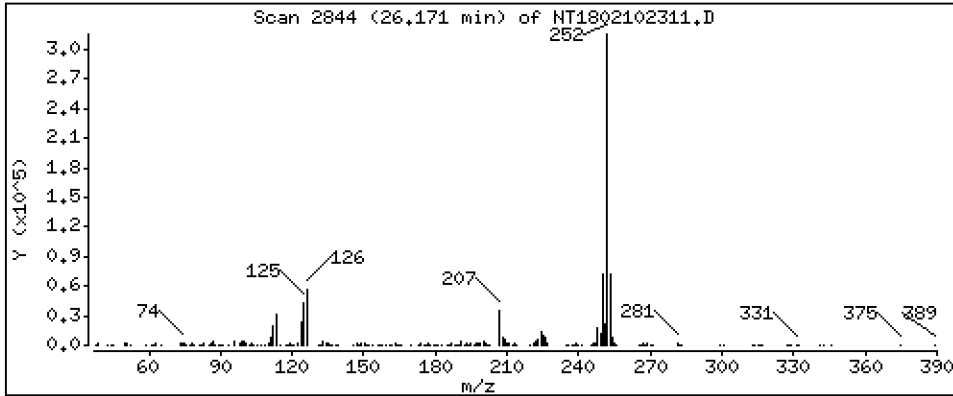
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,560 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

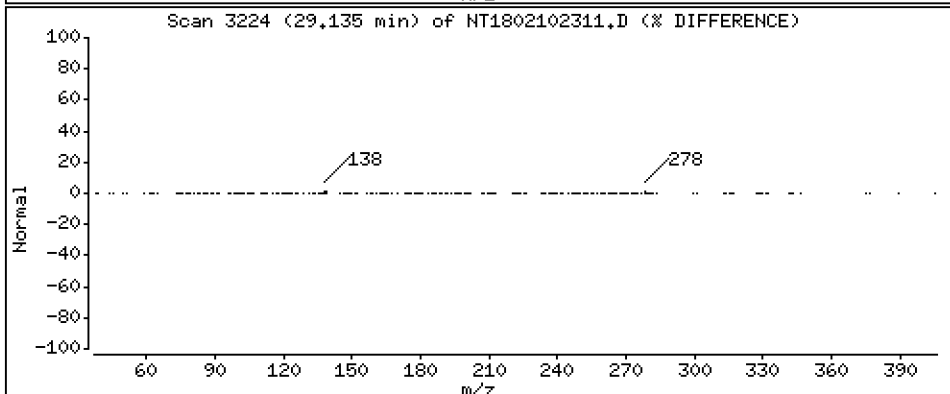
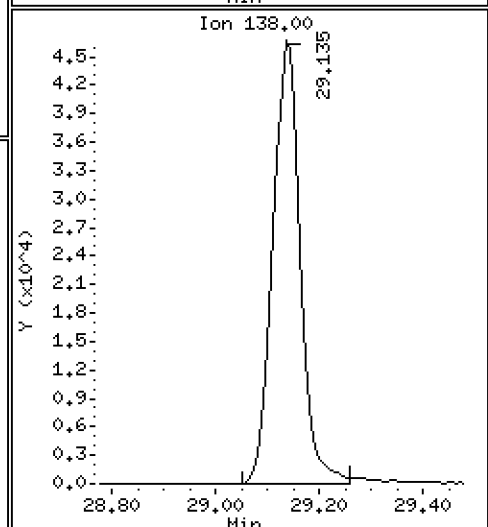
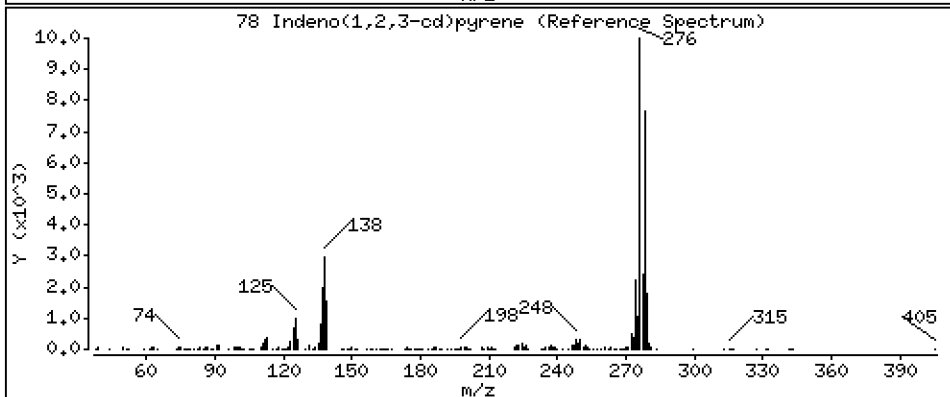
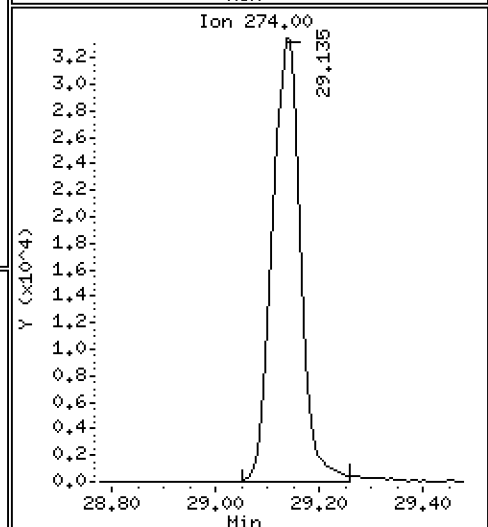
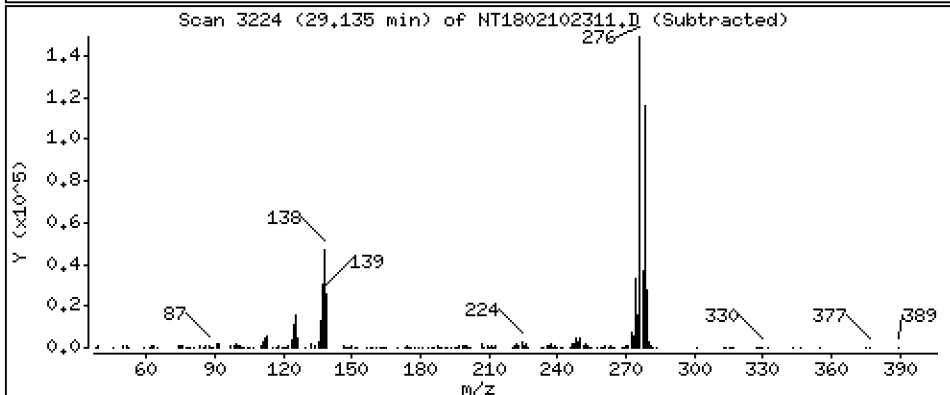
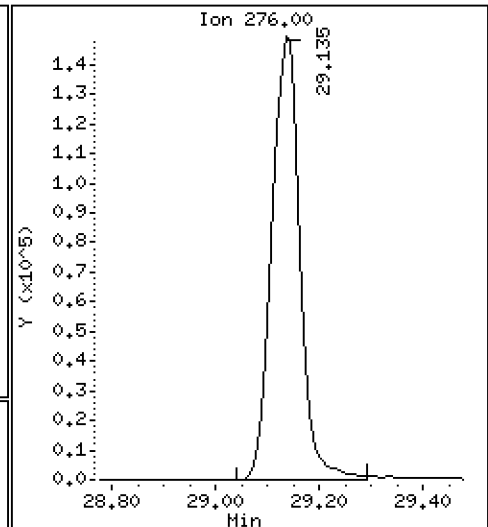
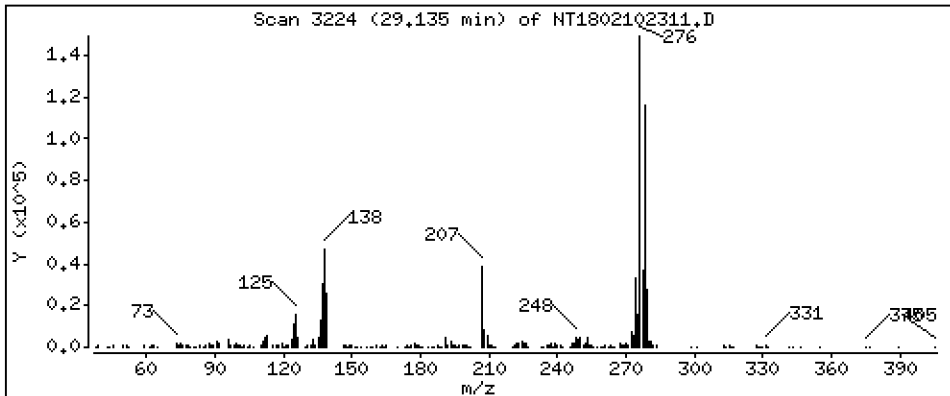
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 3,859 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

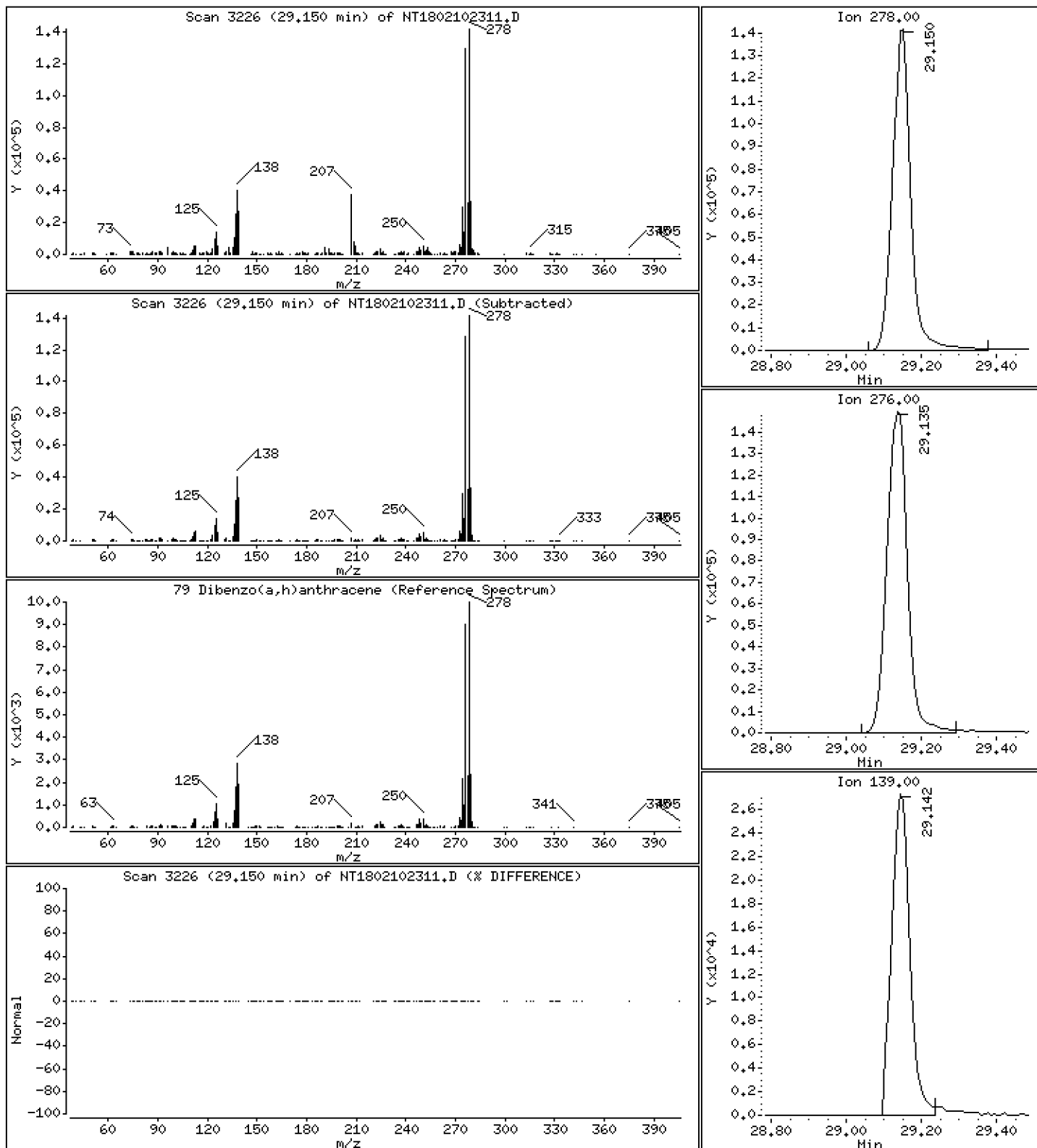
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 3,933 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

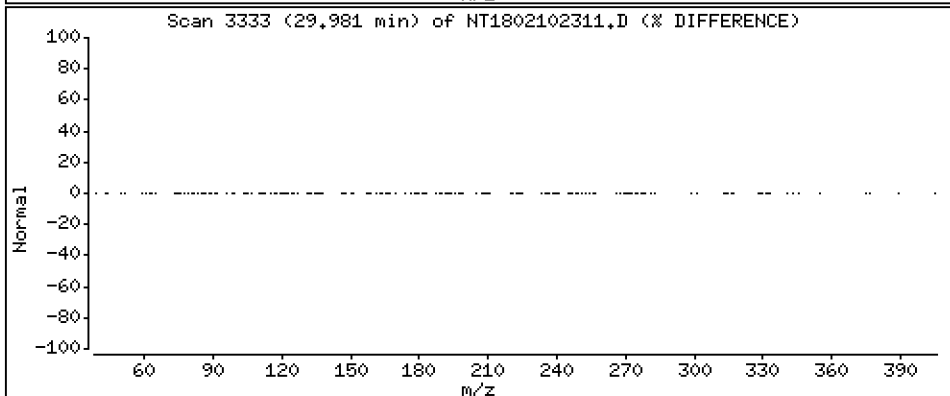
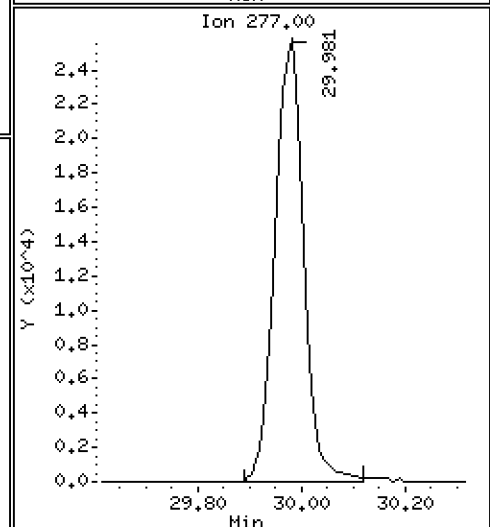
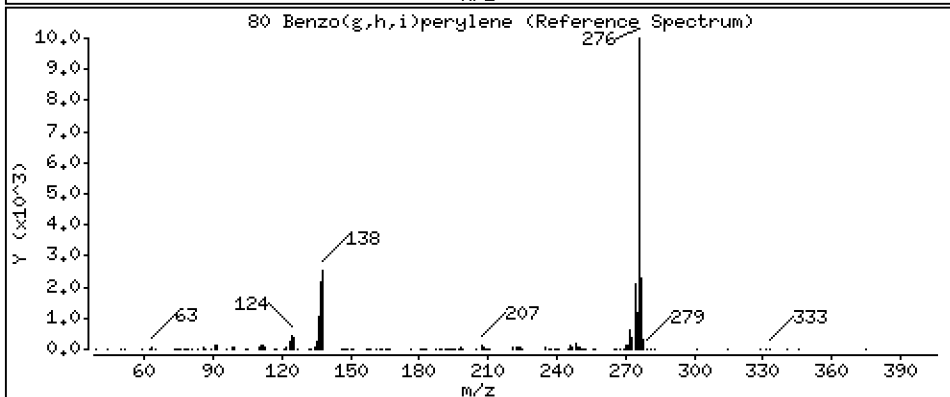
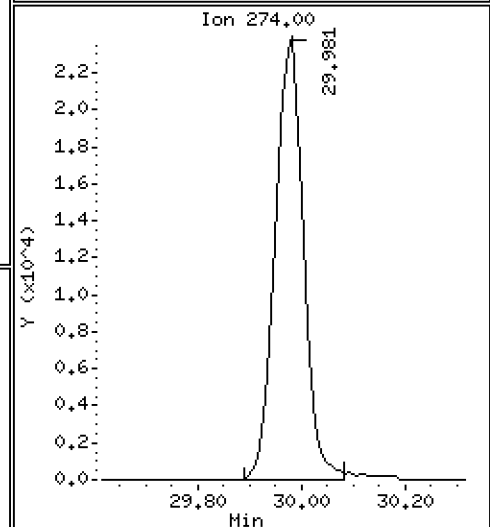
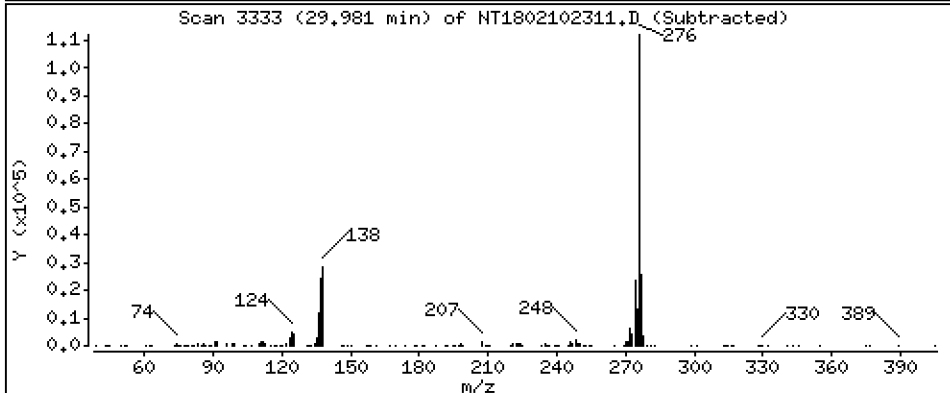
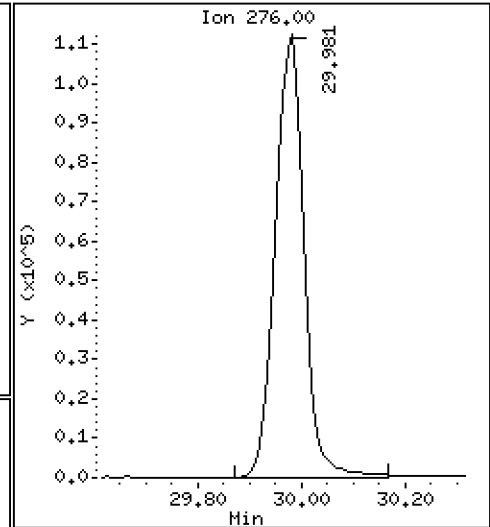
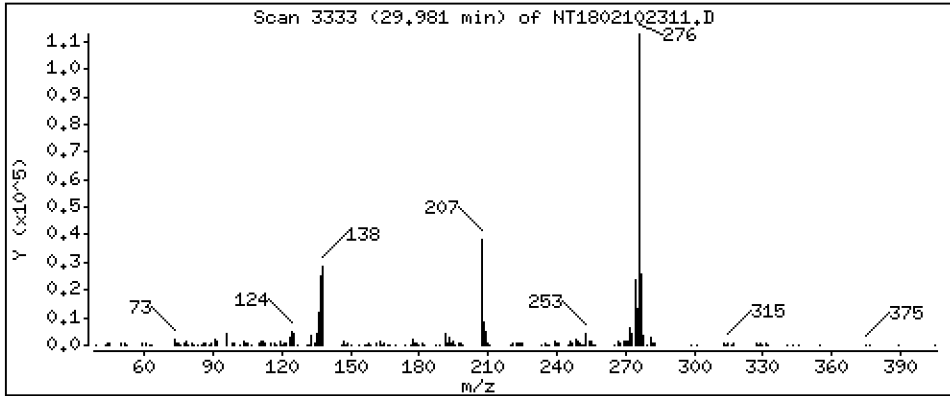
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 3,943 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

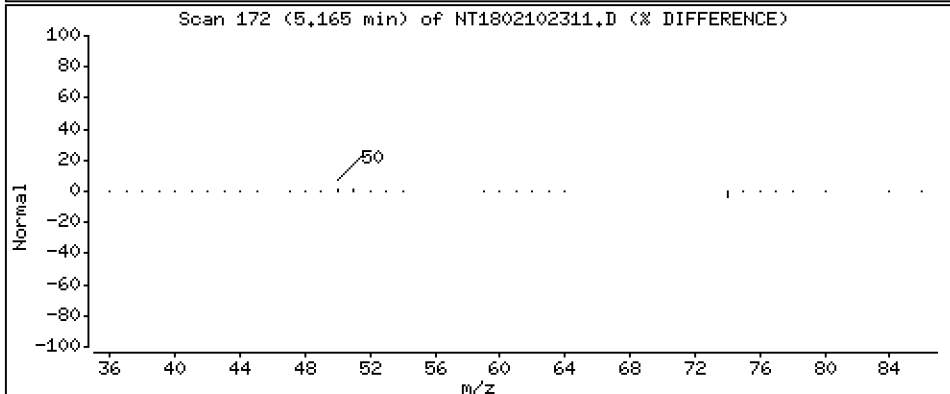
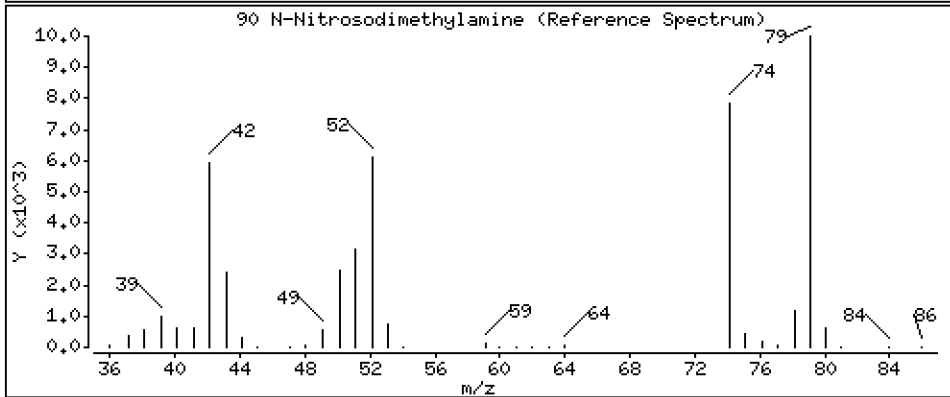
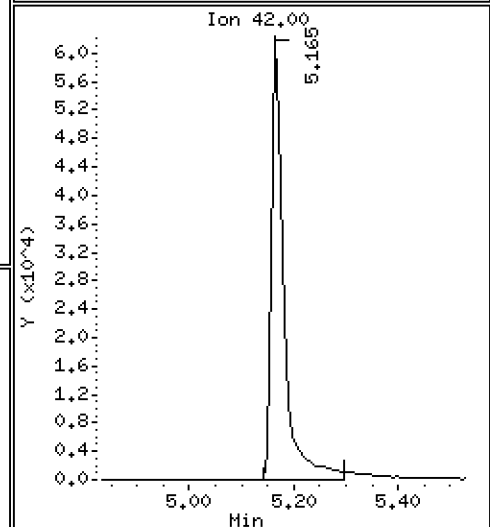
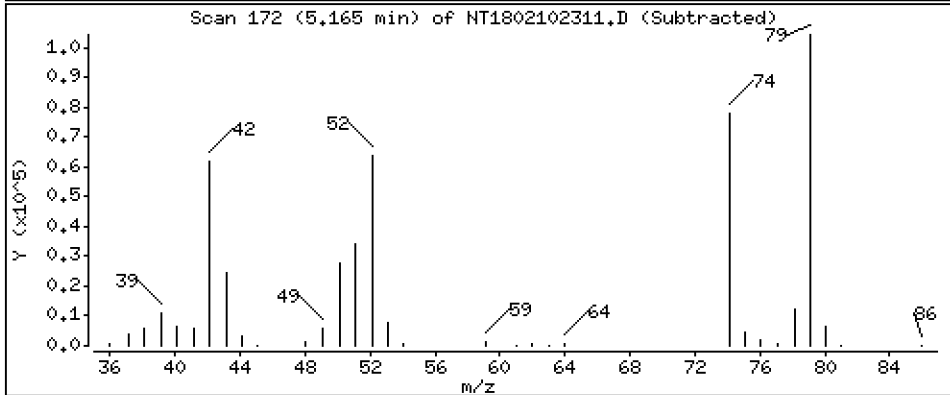
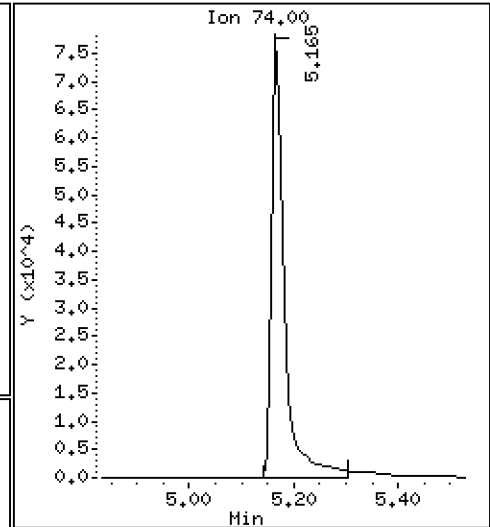
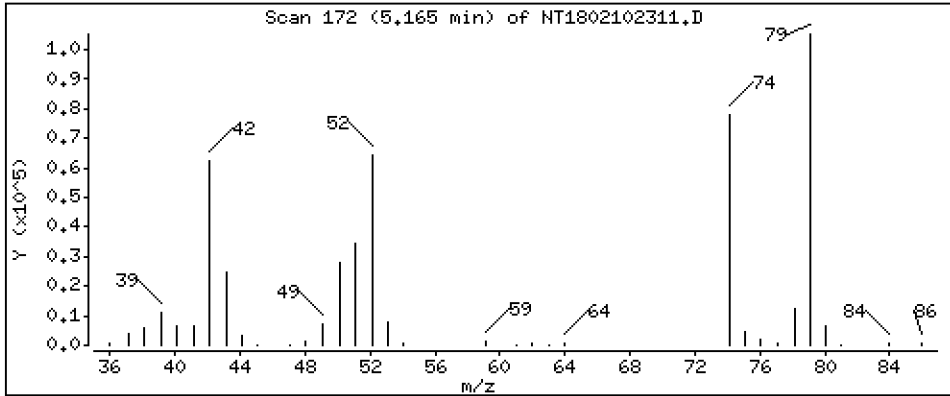
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 4,665 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

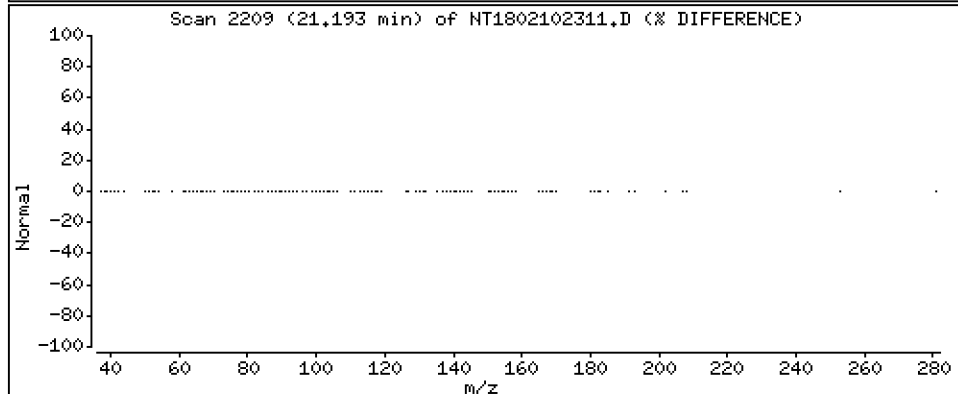
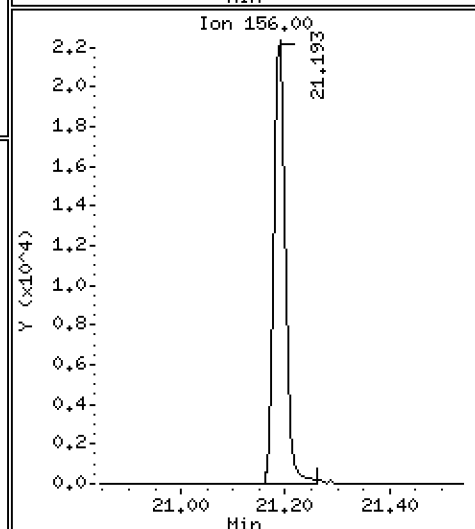
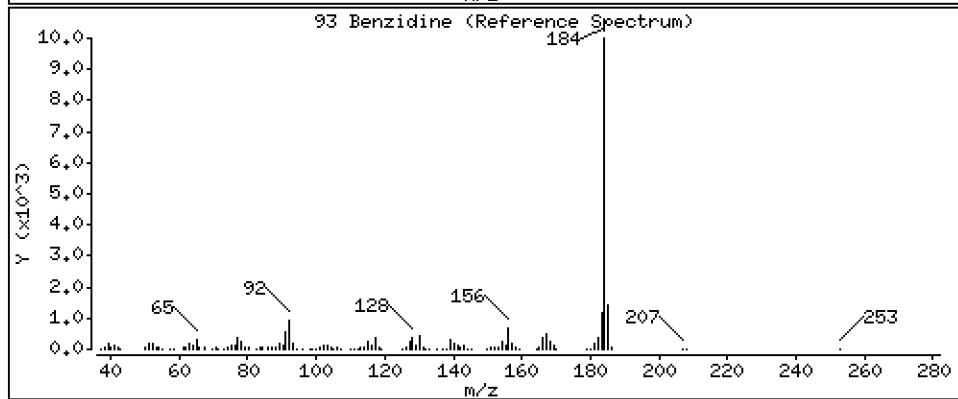
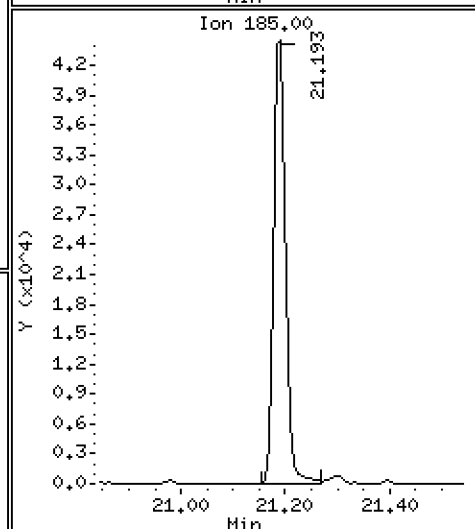
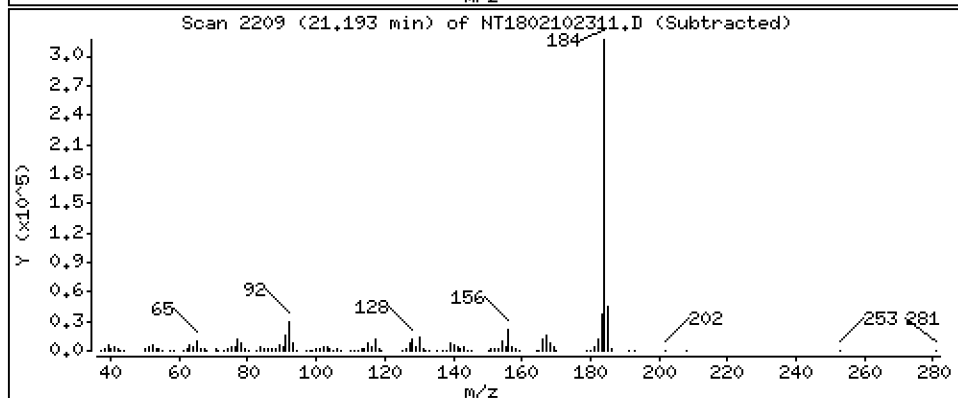
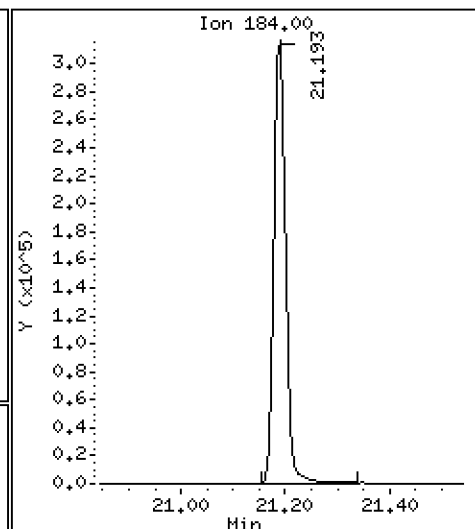
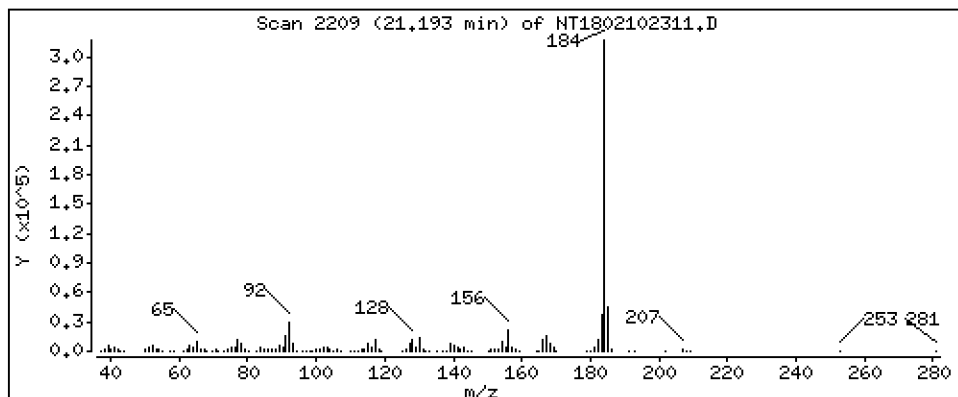
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 6,981 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

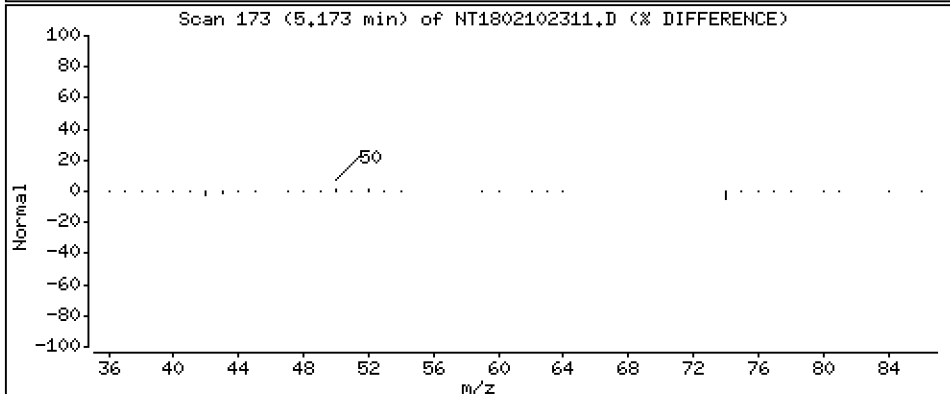
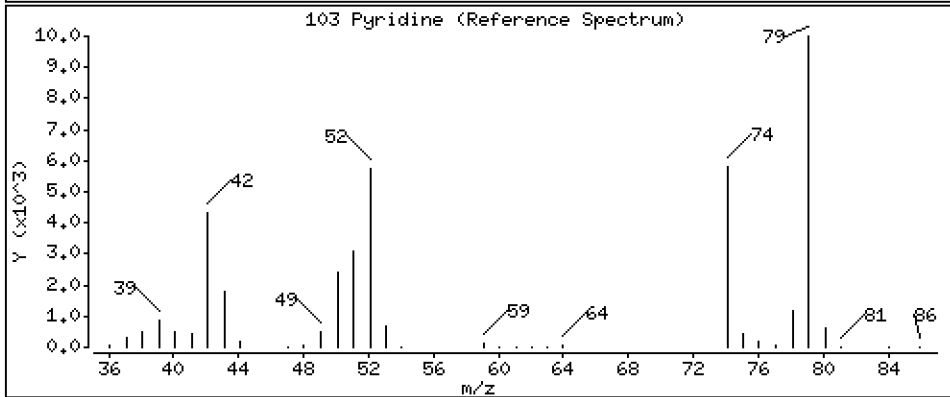
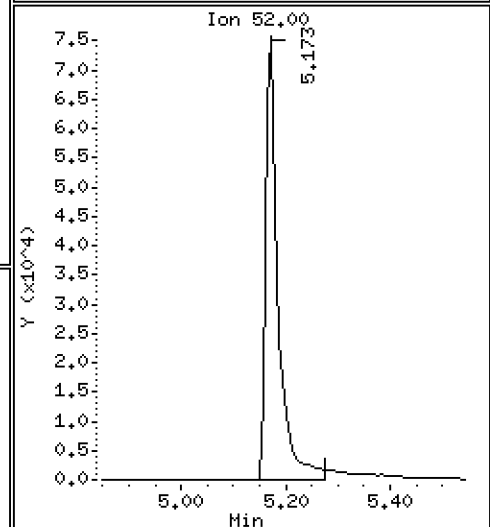
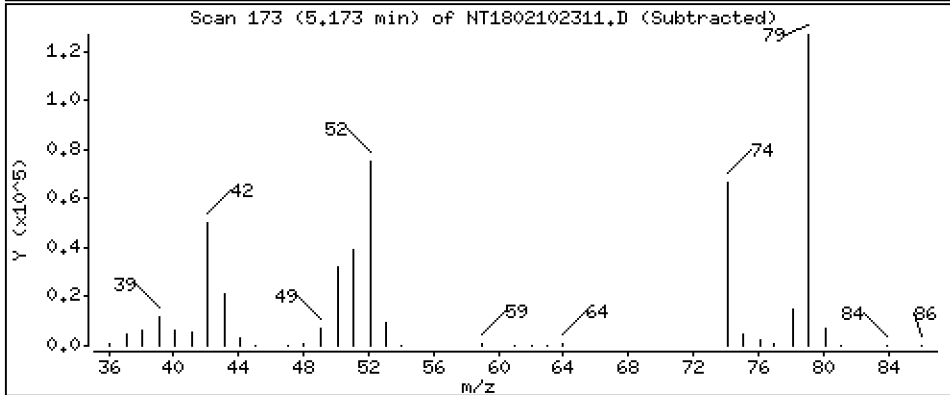
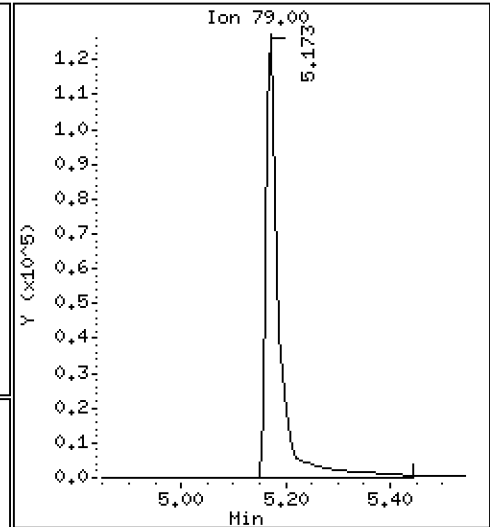
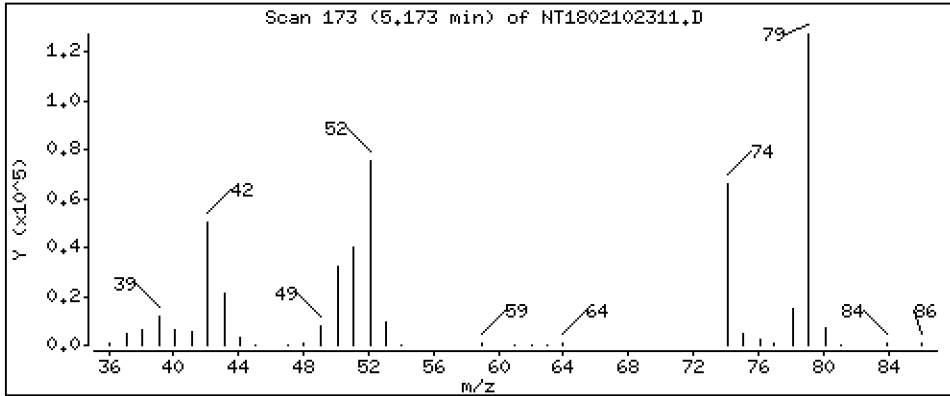
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

103 Pyridine

Concentration: 5,560 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

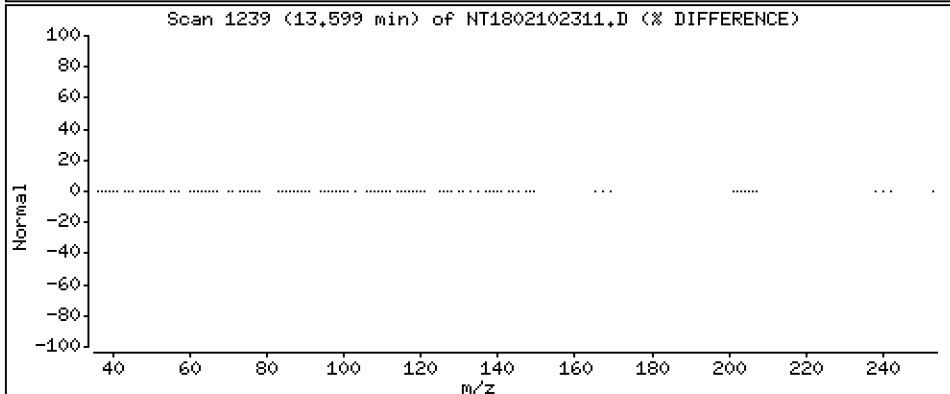
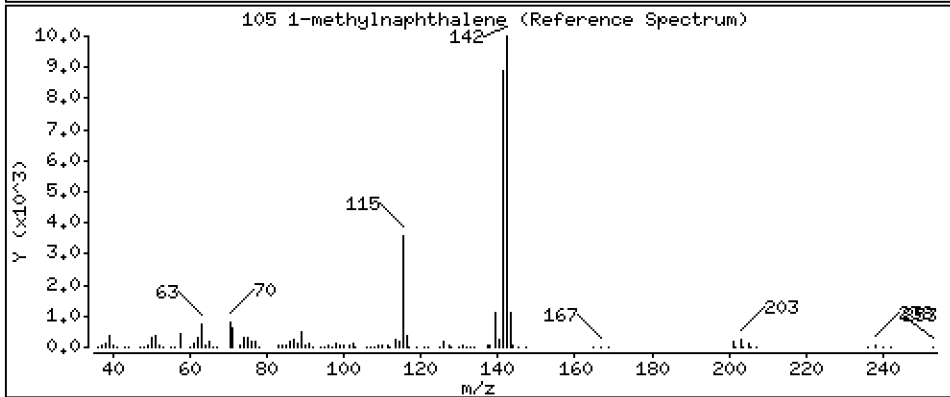
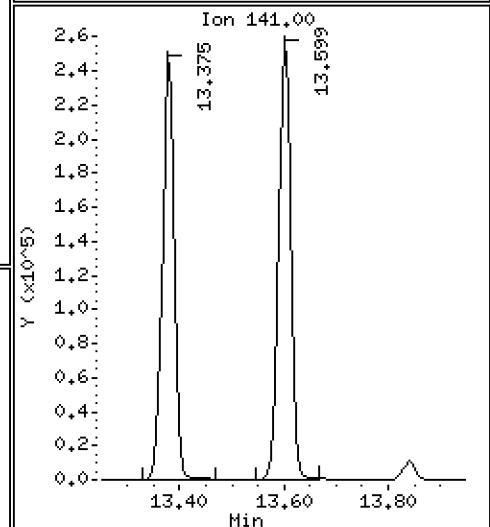
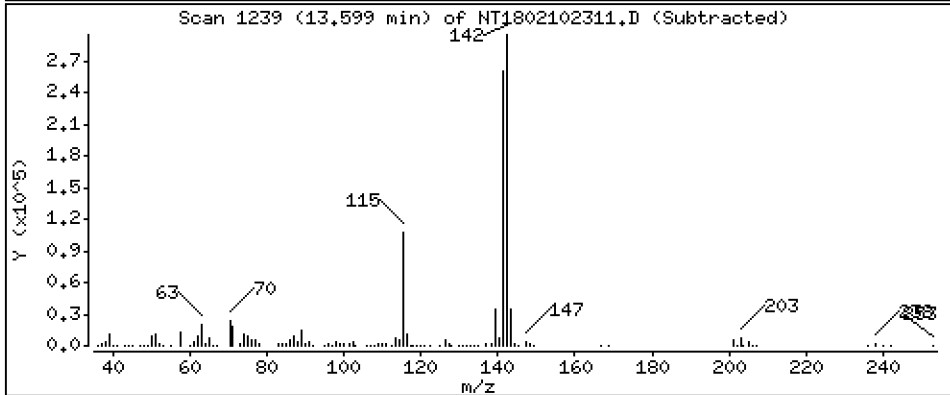
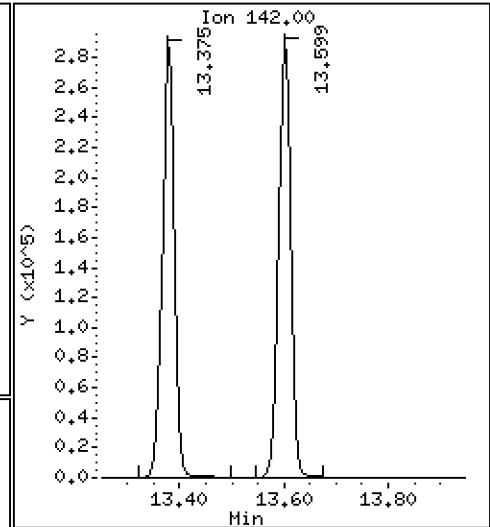
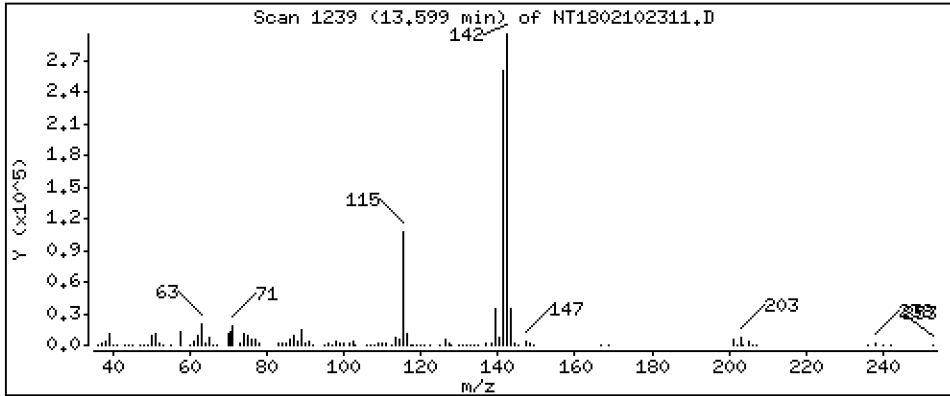
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 4,246 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

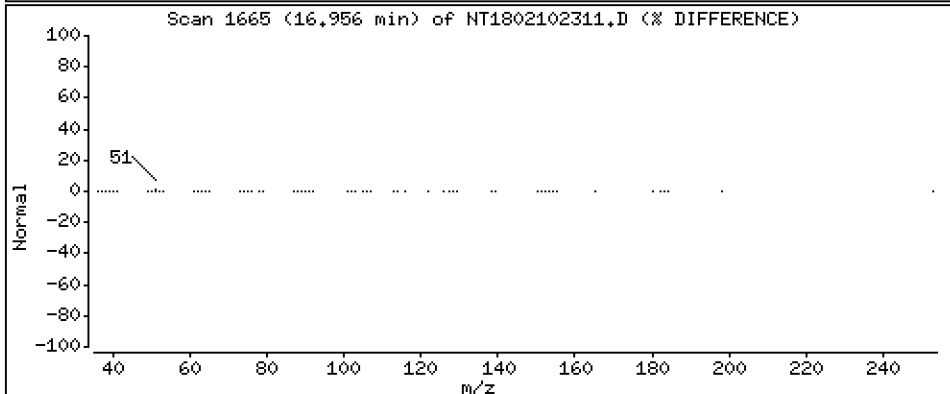
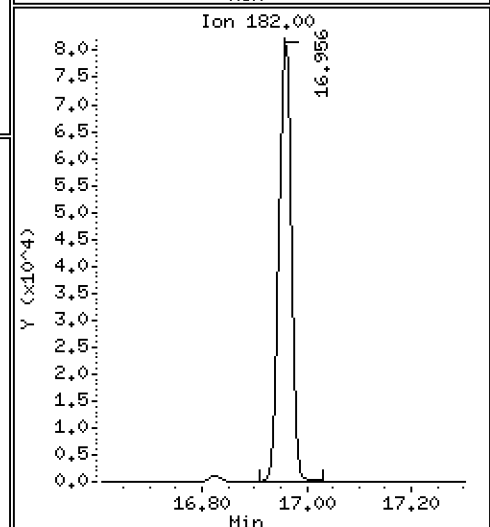
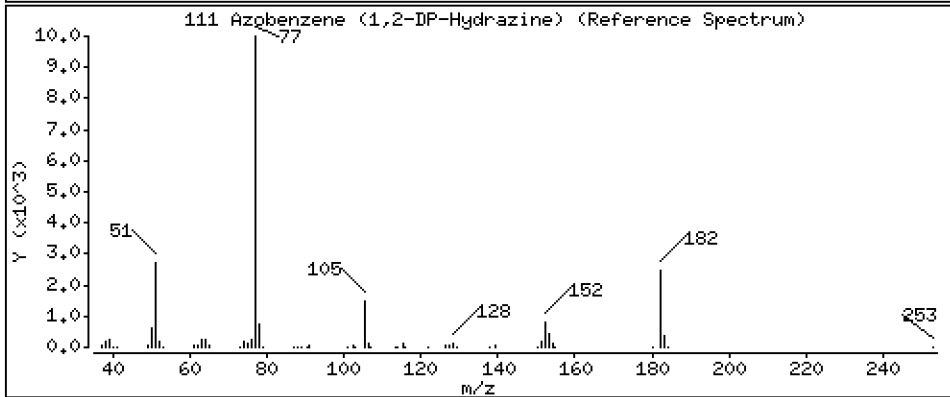
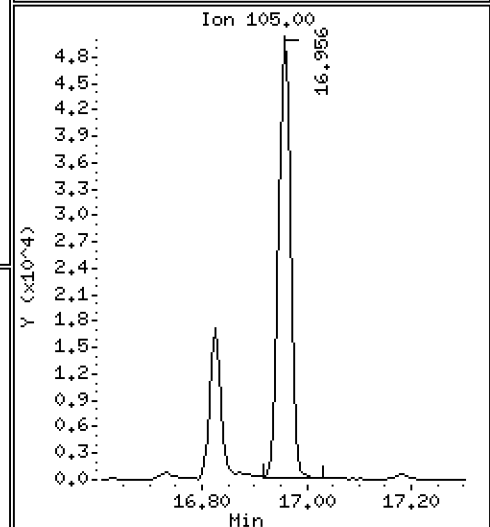
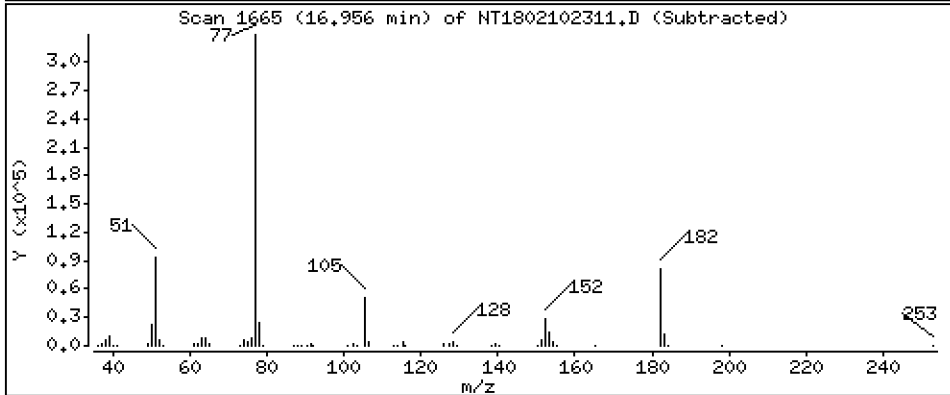
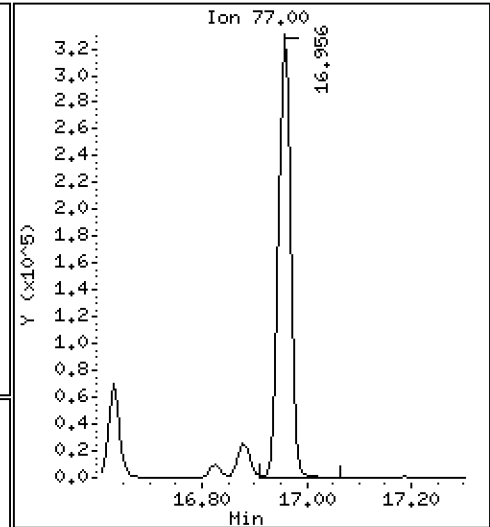
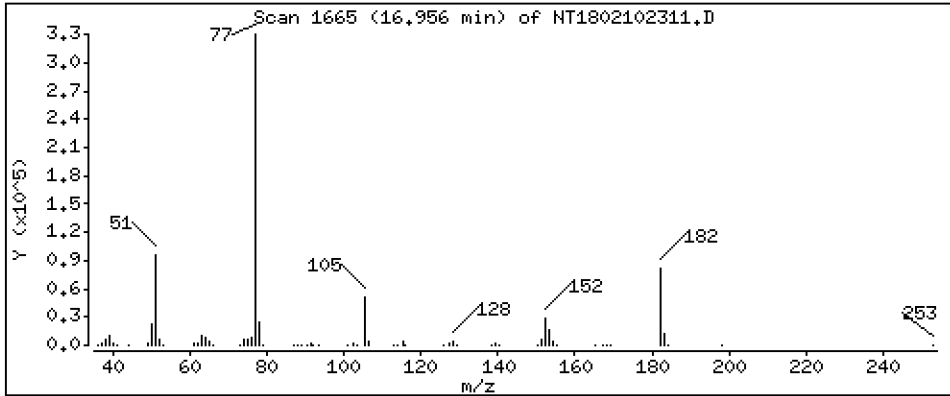
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 4,599 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

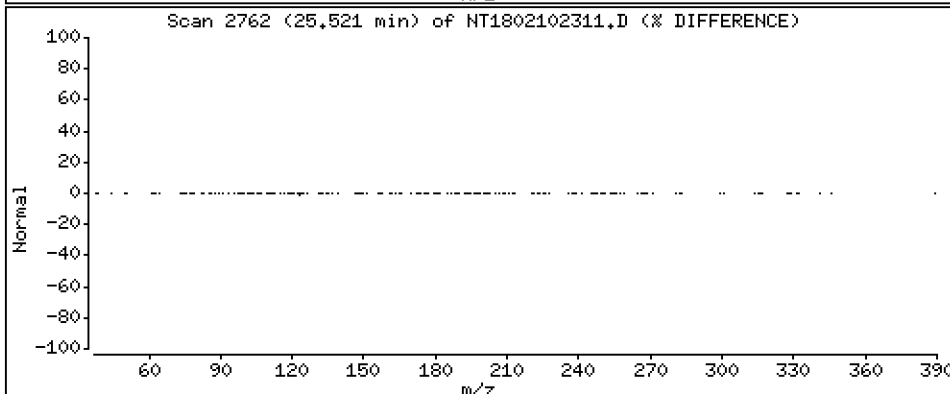
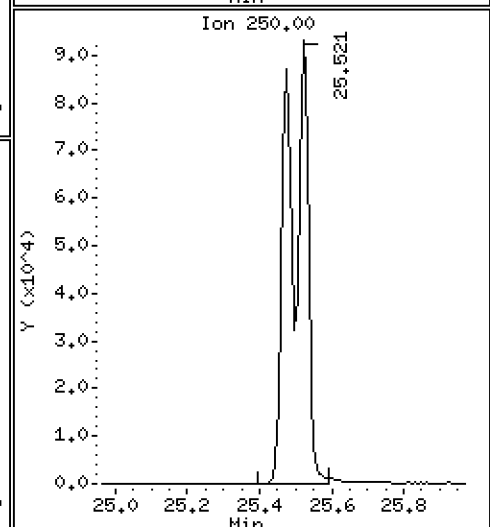
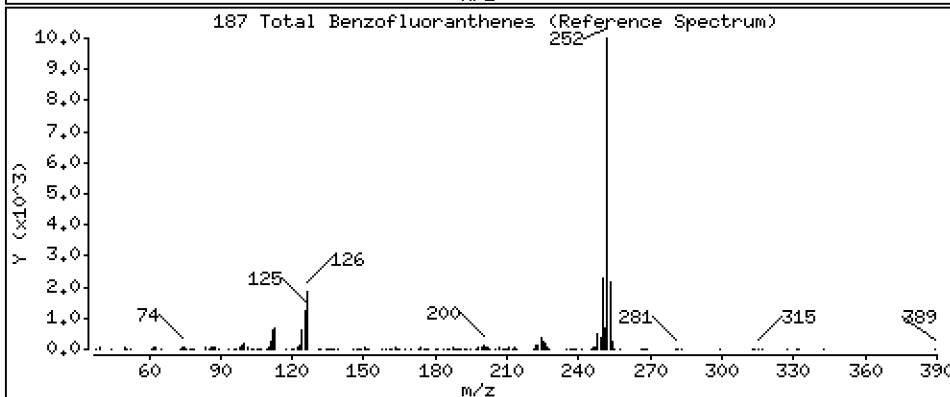
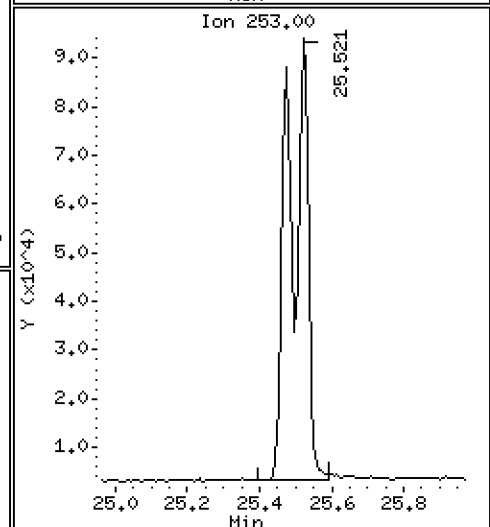
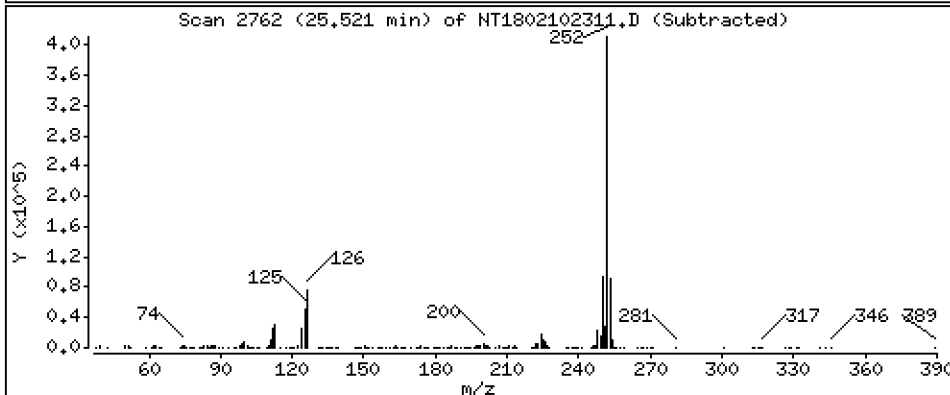
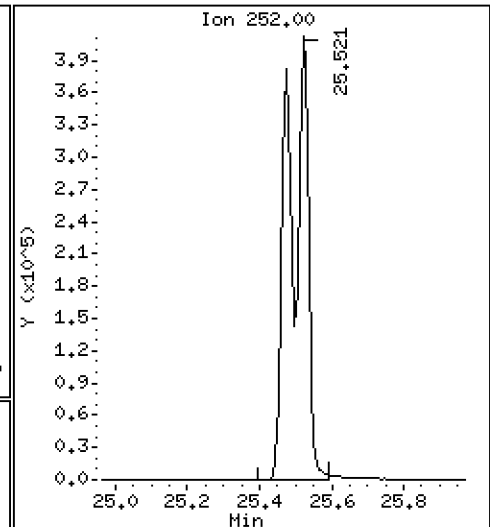
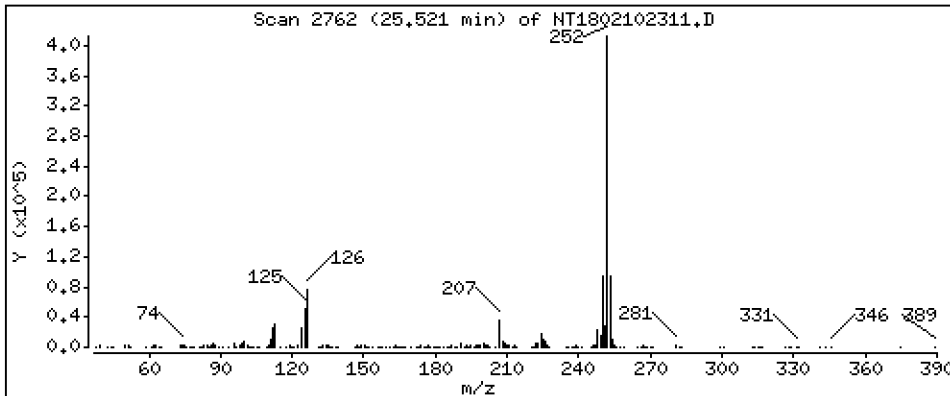
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 8,365 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

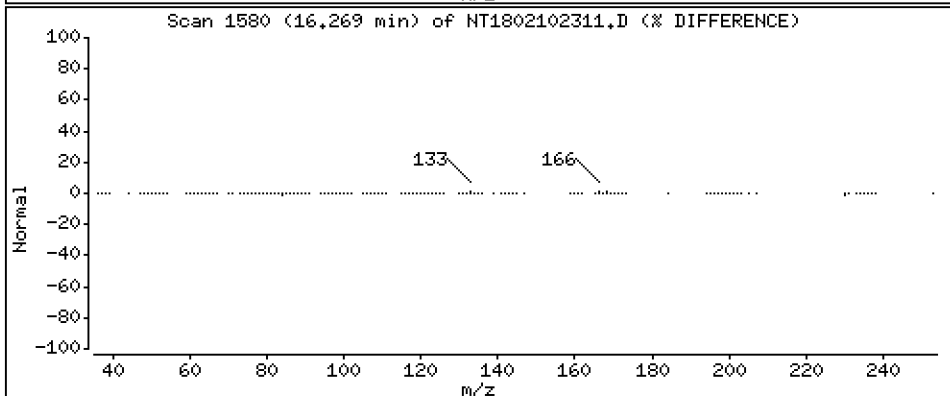
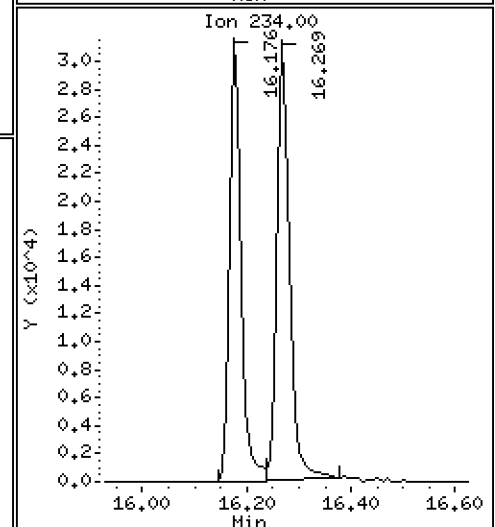
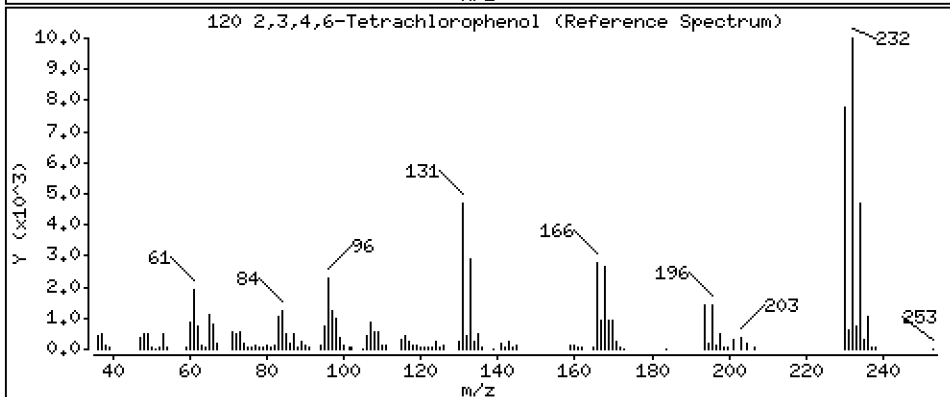
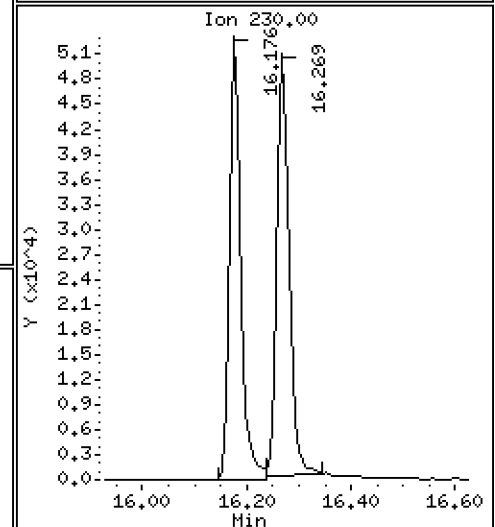
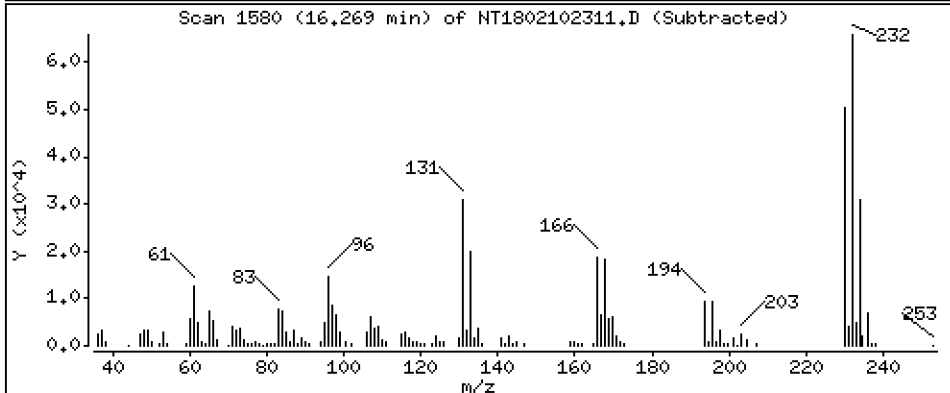
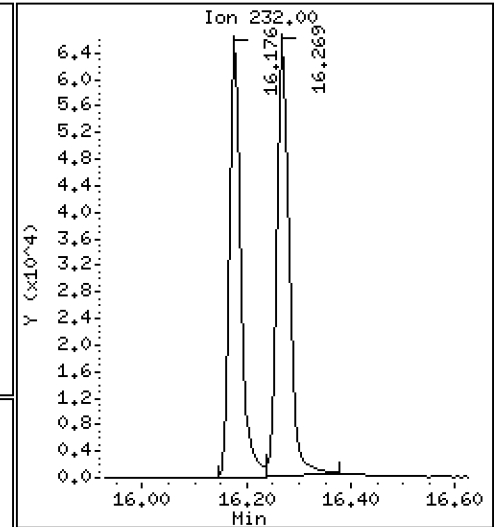
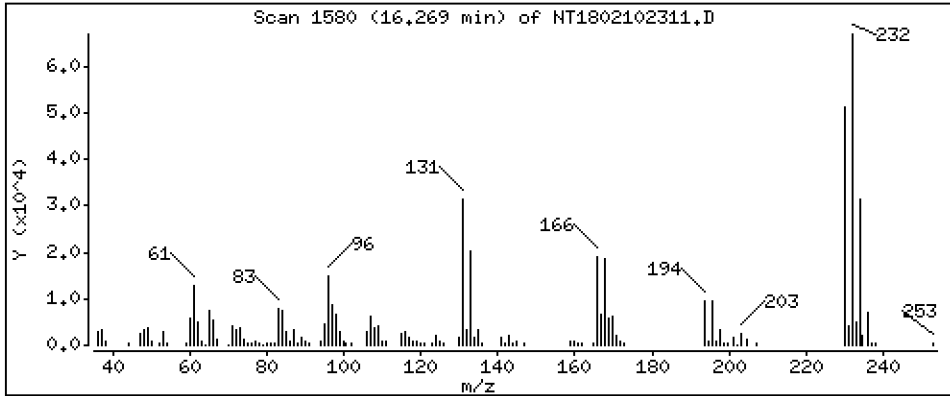
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,293 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230210.b\NT1802102311.D
 Lab Smp Id: SLB0195-SCV1
 Inj Date : 10-FEB-2023 23:06
 Operator : VTS
 Smp Info : SLB0195-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Meth Date : 15-Feb-2023 08:10 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i

Quant Type: ISTD
 Cal File: NT1802102308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.243	7.258	(0.765)	329487	6.54515	6.545
\$ 2 Phenol-d5	99		8.804	8.811	(0.930)	430038	6.72812	6.728
3 Phenol	94		8.827	8.827	(0.932)	268447	4.28578	4.286
\$ 5 2-Chlorophenol-d4	132		9.105	9.113	(0.962)	370890	6.67443	6.674
4 Bis(2-Chloroethyl)ether	93		9.012	9.012	(0.952)	220953	4.66095	4.661
6 2-Chlorophenol	128		9.136	9.136	(0.965)	232546	4.31814	4.318
7 1,3-Dichlorobenzene	146		9.406	9.406	(0.993)	260903	4.44563	4.446
* 8 1,4-Dichlorobenzene-d4	152		9.469	9.469	(1.000)	145438	4.00000	
9 1,4-Dichlorobenzene	146		9.500	9.500	(1.003)	291431	4.62944	4.629
\$ 10 1,2-Dichlorobenzene-d4	152		9.833	9.833	(1.039)	170712	4.26821	4.268
12 1,2-Dichlorobenzene	146		9.500	9.500	(1.003)	291431	4.62944	4.629
11 Benzyl alcohol	108		9.732	9.740	(1.028)	139735	4.13477	4.135
14 2,2'-oxybis(1-Chloropropane)	121		10.027	10.027	(1.059)	72717	4.93218	4.932
13 2-Methylphenol	108		9.942	9.950	(1.050)	186528	4.10909	4.109
17 Hexachloroethane	117		10.447	10.447	(1.103)	104716	4.72730	4.727
16 N-Nitroso-di-n-propylamine	70		10.291	10.291	(1.087)	163774	4.77438	4.774
15 4-Methylphenol	108		10.214	10.214	(1.079)	207510	3.94467	3.945
\$ 18 Nitrobenzene-d5	82		10.563	10.563	(0.884)	253399	4.67107	4.671
19 Nitrobenzene	77		10.594	10.602	(0.886)	245588	4.73327	4.733
20 Isophorone	82		11.036	11.036	(0.923)	482745	6.04164	6.042
21 2-Nitrophenol	139		11.224	11.232	(0.939)	115784	4.03252	4.033
22 2,4-Dimethylphenol	107		11.249	11.257	(0.941)	171402	3.73380	3.734
23 Bis(2-Chloroethoxy)methane	93		11.453	11.461	(0.958)	259246	5.28642	5.286
24 Benzoic acid	105		11.419	11.461	(0.955)	121178	4.25160	4.252
25 2,4-Dichlorophenol	162		11.665	11.673	(0.976)	204801	4.52884	4.529
26 1,2,4-Trichlorobenzene	180		11.859	11.858	(0.992)	214124	4.24526	4.245
* 27 Naphthalene-d8	136		11.951	11.951	(1.000)	551199	4.00000	
28 Naphthalene	128		11.990	11.990	(1.003)	720247	4.54551	4.546
29 4-Chloroaniline	127		12.106	12.113	(1.013)	238457	3.50595	3.506
30 Hexachlorobutadiene	225		12.345	12.345	(1.033)	128017	4.41413	4.414
31 4-Chloro-3-methylphenol	107		13.049	13.049	(1.092)	183451	4.48477	4.485
32 2-Methylnaphthalene	142		13.374	13.382	(1.119)	461441	4.27864	4.279
33 Hexachlorocyclopentadiene	237		13.839	13.839	(0.890)	128716	4.13030	4.130

Compounds	QUANT SIG					CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)	
34 2,4,6-Trichlorophenol	196	13.986	13.994	(0.899)	125703	4.33357	4.334	
35 2,4,5-Trichlorophenol	196	14.063	14.063	(0.904)	136483	4.22515	4.225	
§ 36 2-Fluorobiphenyl	172	14.148	14.148	(0.909)	548612	4.24153	4.242	
37 2-Chloronaphthalene	162	14.373	14.373	(0.924)	417815	4.29866	4.299	
38 2-Nitroaniline	65	14.620	14.620	(0.940)	116262	4.43115	4.431	
39 Dimethylphthalate	163	15.046	15.038	(0.967)	465121	4.54591	4.546	
40 Acenaphthylene	152	15.240	15.240	(0.980)	693610	4.67761	4.678	
41 2,6-Dinitrotoluene	165	15.186	15.178	(0.976)	107878	4.56021	4.560	
* 42 Acenaphthene-d10	164	15.557	15.549	(1.000)	292562	4.00000		
43 3-Nitroaniline	138	15.464	15.464	(0.994)	120752	4.65113	4.651	
44 Acenaphthene	153	15.619	15.611	(1.004)	435254	4.40183	4.402	
45 2,4-Dinitrophenol	184	15.673	15.688	(1.007)	31634	1.93630	1.936	
46 Dibenzofuran	168	15.943	15.943	(1.025)	601599	4.24667	4.247	
47 4-Nitrophenol	109	15.766	15.766	(1.013)	57165	3.97553	3.976	
48 2,4-Dinitrotoluene	165	15.990	15.990	(1.028)	142818	4.44610	4.446	
50 Diethylphthalate	149	16.492	16.484	(1.060)	525799	5.06221	5.062	
49 Fluorene	166	16.654	16.647	(1.071)	508979	4.54229	4.542	
51 4-Chlorophenyl-phenylether	204	16.631	16.631	(1.069)	245105	4.33907	4.339	
52 4-Nitroaniline	138	16.732	16.724	(1.076)	112840	4.13087	4.131	
53 4,6-Dinitro-2-methylphenol	198	16.824	16.824	(0.906)	66257	3.30084	3.301	
54 N-Nitrosodiphenylamine	169	16.878	16.878	(0.909)	339419	4.35576	4.356	
§ 55 2,4,6-Tribromophenol	330	17.179	17.179	(1.104)	114426	6.00954	6.010	
56 4-Bromophenyl-phenylether	248	17.634	17.634	(0.949)	145114	4.46384	4.464	
57 Hexachlorobenzene	284	17.958	17.958	(0.967)	154985	4.08548	4.085	
58 Pentachlorophenol	266	18.307	18.314	(0.985)	74910	3.50720	3.507	
* 59 Phenanthrene-d10	188	18.577	18.577	(1.000)	526860	4.00000		
60 Phenanthrene	178	18.624	18.624	(1.002)	673000	4.22805	4.228	
61 Anthracene	178	18.717	18.717	(1.007)	573319	4.02695	4.027	
62 Carbazole	167	19.034	19.034	(1.025)	578774	4.06642	4.066	
63 Di-n-butylphthalate	149	19.800	19.800	(1.066)	762492	4.13897	4.139	
64 Fluoranthene	202	20.976	20.968	(0.890)	769747	4.55528	4.555	
65 Pyrene	202	21.394	21.394	(0.908)	777517	4.32844	4.328	
§ 66 Terphenyl-d14	244	21.665	21.657	(0.919)	687413	4.14974	4.150	
67 Butylbenzylphthalate	149	22.563	22.563	(0.958)	338834	4.20350	4.203	
68 Benzo(a)anthracene	228	23.531	23.523	(0.999)	751678	4.24696	4.247	
* 69 Chrysene-d12	240	23.562	23.554	(1.000)	535596	4.00000		
70 3,3'-Dichlorobenzidine	252	23.476	23.469	(0.996)	610586	7.58242	7.582	
71 Chrysene	228	23.600	23.600	(1.002)	757675	4.06155	4.062	
72 bis(2-Ethylhexyl)phthalate	149	23.569	23.569	(0.959)	527963	4.85659	4.857	
* 134 Di-n-octylphthalate-d4	153	24.568	24.568	(1.000)	714503	4.00000		
73 Di-n-octylphthalate	149	24.584	24.576	(1.001)	904032	4.30658	4.307	
74 Benzo(b)fluoranthene	252	25.474	25.466	(0.969)	762201	4.17262	4.173	
75 Benzo(k)fluoranthene	252	25.520	25.513	(0.971)	838953	4.19851	4.199	
76 Benzo(a)pyrene	252	26.171	26.163	(0.995)	680380	4.56046	4.560	
* 77 Perylene-d12	264	26.295	26.287	(1.000)	523305	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	29.134	29.126	(1.108)	562656	3.85904	3.859	
79 Dibenzo(a,h)anthracene	278	29.150	29.134	(1.109)	473204	3.93269	3.933	
80 Benzo(g,h,i)perylene	276	29.981	29.965	(1.140)	431324	3.94280	3.943	
90 N-Nitrosodimethylamine	74	5.165	5.180	(0.545)	128409	4.66507	4.665	
91 Aniline	93	Compound Not Detected.						
93 Benzidine	184	21.193	21.193	(0.899)	471681	6.98064	6.981	
103 Pyridine	79	5.173	5.196	(0.546)	224983	5.55984	5.560	
105 1-methylnaphthalene	142	13.599	13.599	(1.138)	446626	4.24597	4.246	
111 Azobenzene (1,2-DP-Hydrazine)	77	16.955	16.955	(1.090)	503784	4.59932	4.599	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.520	25.466	(0.971)	1530839	8.36489	8.365
120 2,3,4,6-Tetrachlorophenol	232	16.268	16.276	(1.046)	105822	3.29329	3.293

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 10-FEB-2023
 Lab File ID: NT1802102311.D Calibration Time: 18:25
 Lab Smp Id: SLB0195-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	102093	51047	204186	145438	42.46
27 Naphthalene-d8	389769	194885	779538	551199	41.42
42 Acenaphthene-d10	207438	103719	414876	292562	41.04
59 Phenanthrene-d10	358643	179322	717286	526860	46.90
69 Chrysene-d12	349501	174751	699002	535596	53.25
134 Di-n-octylphthala	468622	234311	937244	714503	52.47
77 Perylene-d12	343443	171722	686886	523305	52.37

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.48	8.98	9.98	9.47	-0.08
27 Naphthalene-d8	11.95	11.45	12.45	11.95	0.00
42 Acenaphthene-d10	15.55	15.05	16.05	15.56	0.05
59 Phenanthrene-d10	18.58	18.08	19.08	18.58	0.00
69 Chrysene-d12	23.55	23.05	24.05	23.56	0.03
134 Di-n-octylphthala	24.57	24.07	25.07	24.57	0.00
77 Perylene-d12	26.30	25.80	26.80	26.30	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802102311.D

Lab ID: SLB0195-SCV1
nt18.i, ABN.m, 10-FEB-2023 23:06

RT	CO-ELUTION COMPOUNDS
9.500	1,2-Dichlorobenzene and 1,4-Dichlorobenzene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.955	0.000	0.9555	Benzoic acid
1.007	0.000	1.0075	2,4-Dinitrophenol

RRT check based on Ccal File: NT1802102308.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *



**SECOND-SOURCE
CALIBRATION VERIFICATION**

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00018

Laboratory ID: SLB0102-SCV1

Sequence: SLB0102

Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	5.0000	4.1	-17.9	20.00
4-Methylphenol	5.0000	3.9	-21.0 *	20.00
Naphthalene	5.0000	4.4	-11.3	20.00
2-Methylnaphthalene	5.0000	4.2	-15.5	20.00
Acenaphthylene	5.0000	4.3	-13.6	20.00
Dimethylphthalate	5.0000	4.3	-14.4	20.00
Acenaphthene	5.0000	4.2	-15.3	20.00
Dibenzofuran	5.0000	4.2	-16.3	20.00
Fluorene	5.0000	4.1	-17.2	20.00
Phenanthrene	5.0000	4.3	-13.9	20.00
Anthracene	5.0000	3.9	-22.0 *	20.00
Fluoranthene	5.0000	4.3	-13.2	20.00
Pyrene	5.0000	4.3	-14.5	20.00
Butylbenzylphthalate	5.0000	4.4	-12.3	20.00
Benzo(a)anthracene	5.0000	4.1	-18.1	20.00
Chrysene	5.0000	4.0	-19.6	20.00
bis(2-Ethylhexyl)phthalate	5.0000	4.7	-6.2	20.00
Benzofluoranthenes, Total	10.000	8.6	-14.1	20.00
Benzo(a)pyrene	5.0000	4.4	-12.5	20.00
Indeno(1,2,3-cd)pyrene	5.0000	4.4	-12.9	20.00
Dibenzo(a,h)anthracene	5.0000	4.4	-13.0	20.00
Benzo(g,h,i)perylene	5.0000	4.3	-13.1	20.00
2-Fluorophenol	7.5000	7.42	-1.1	20.00
Phenol-d5	7.5000	7.24	-3.5	20.00
2-Chlorophenol-d4	7.5000	7.22	-3.7	20.00
1,2-Dichlorobenzene-d4	5.0000	4.68	-6.5	20.00
Nitrobenzene-d5	5.0000	4.75	-5.0	20.00
2-Fluorobiphenyl	5.0000	4.50	-9.9	20.00
2,4,6-Tribromophenol	7.5000	7.11	-5.2	20.00
p-Terphenyl-d14	5.0000	4.52	-9.6	20.00

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.1\NT1023020711.D

Date: 07-FEB-2023 18:04

Client ID:

Sample Info: SLB0102-SCW1

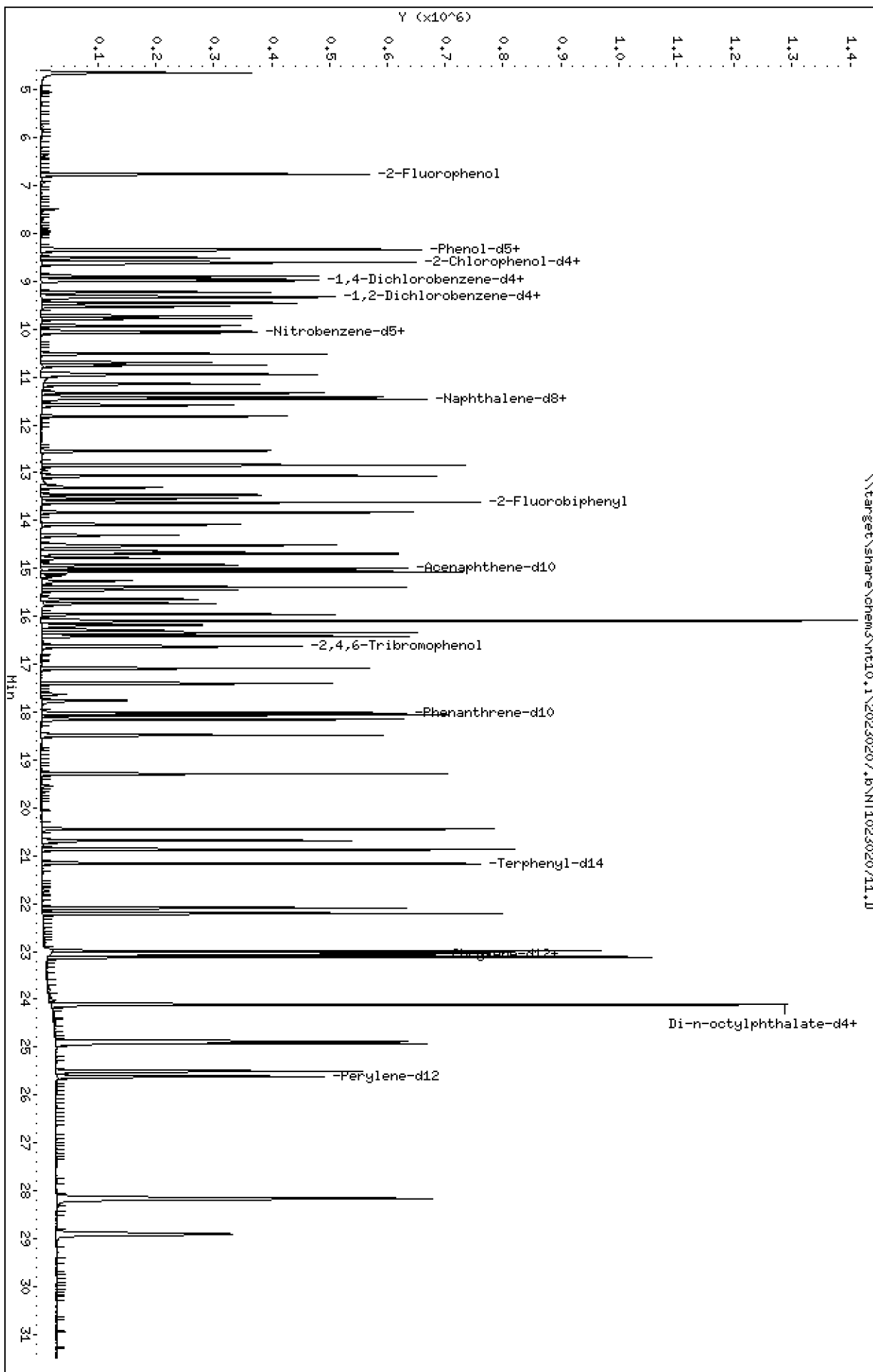
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

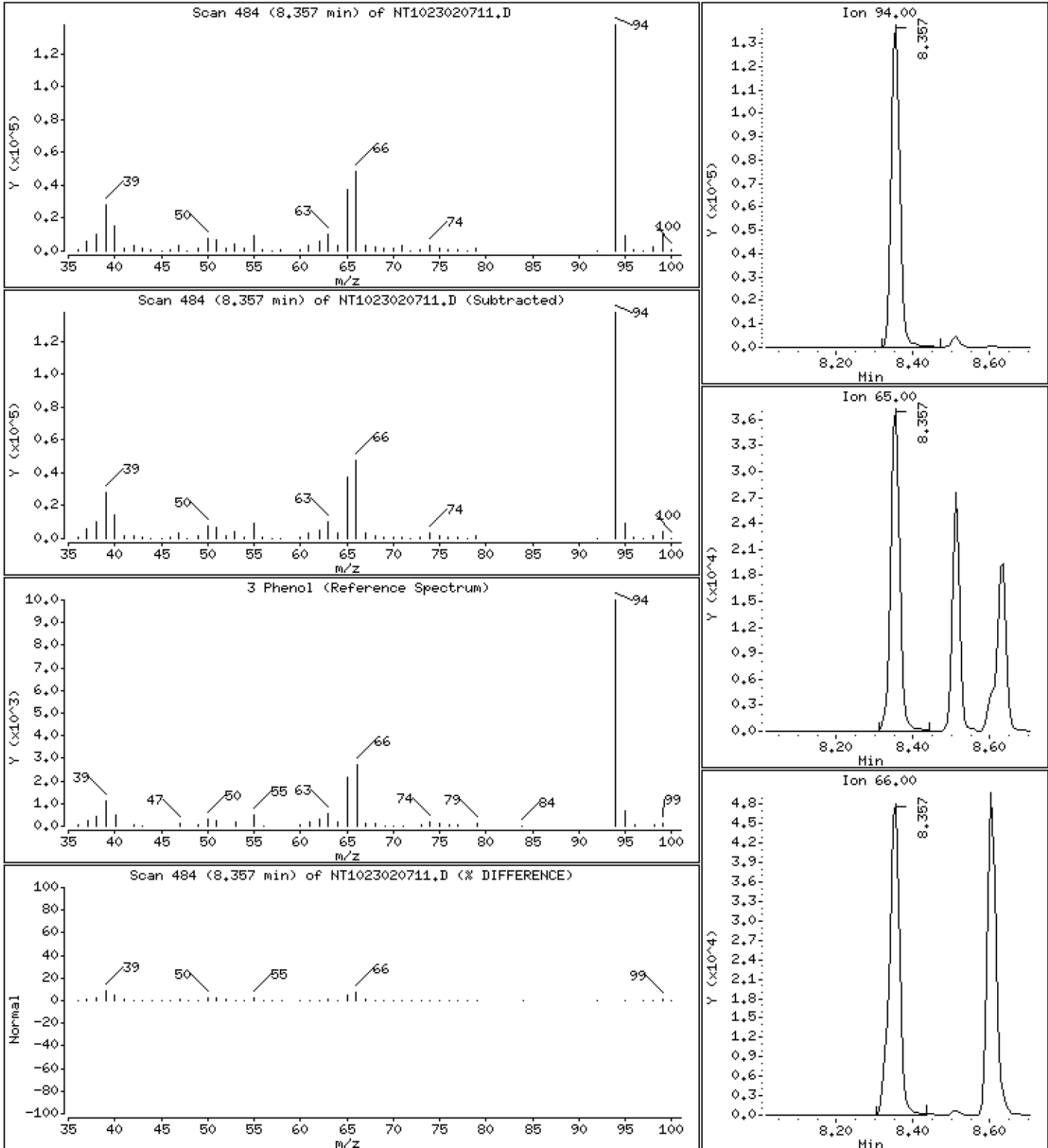
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,107 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

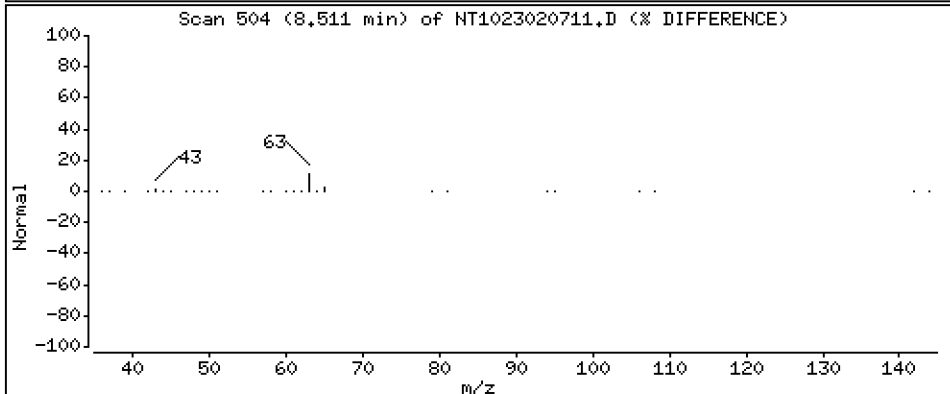
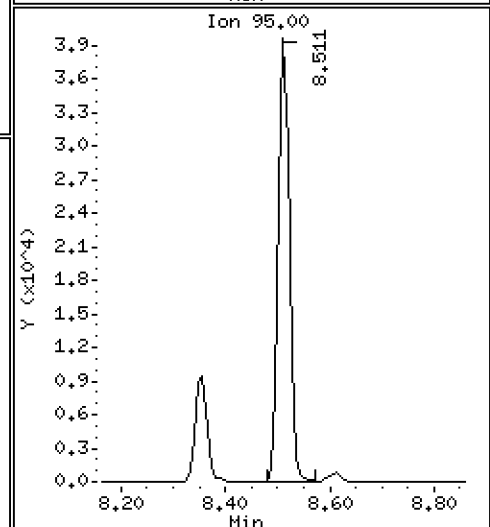
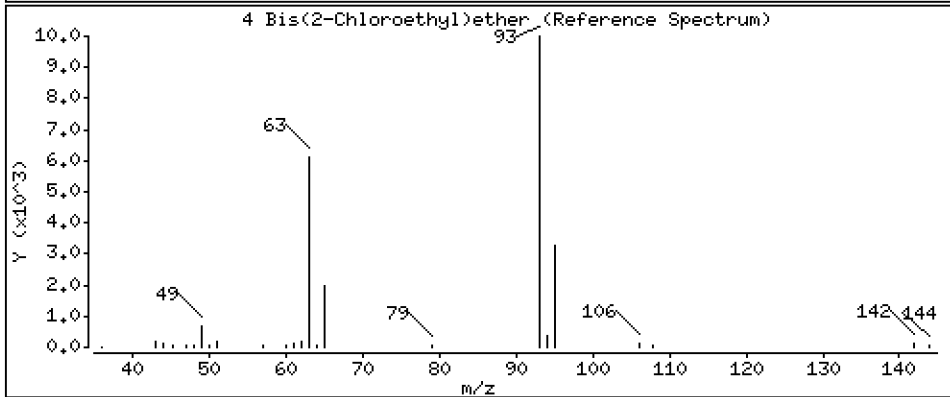
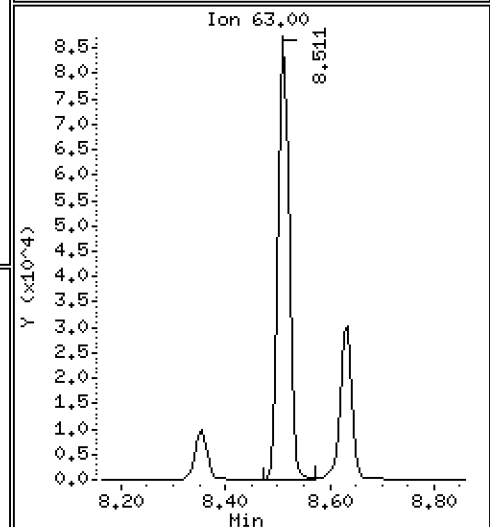
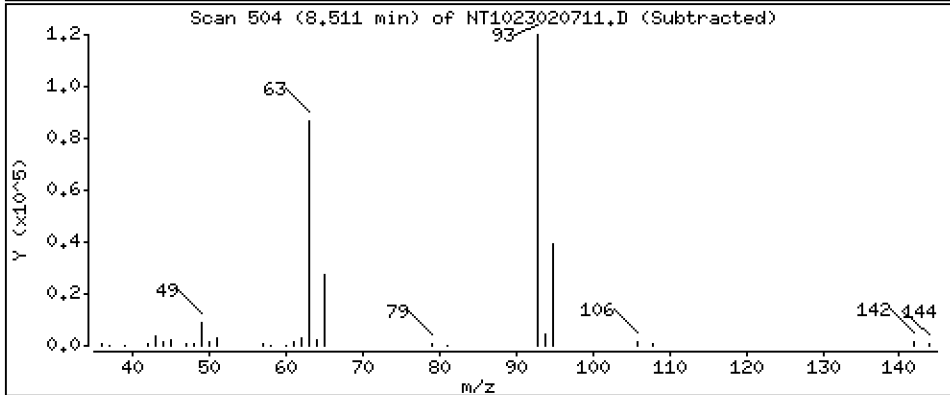
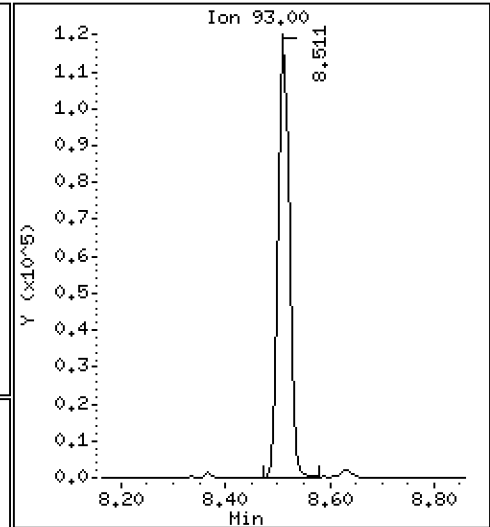
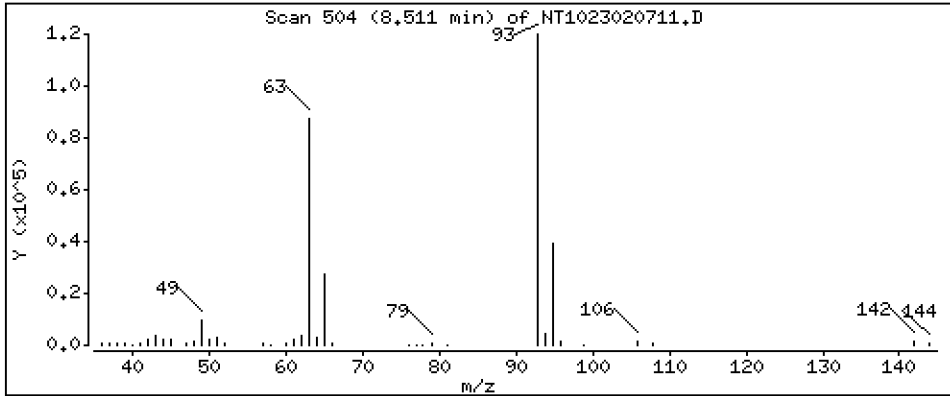
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 4,555 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

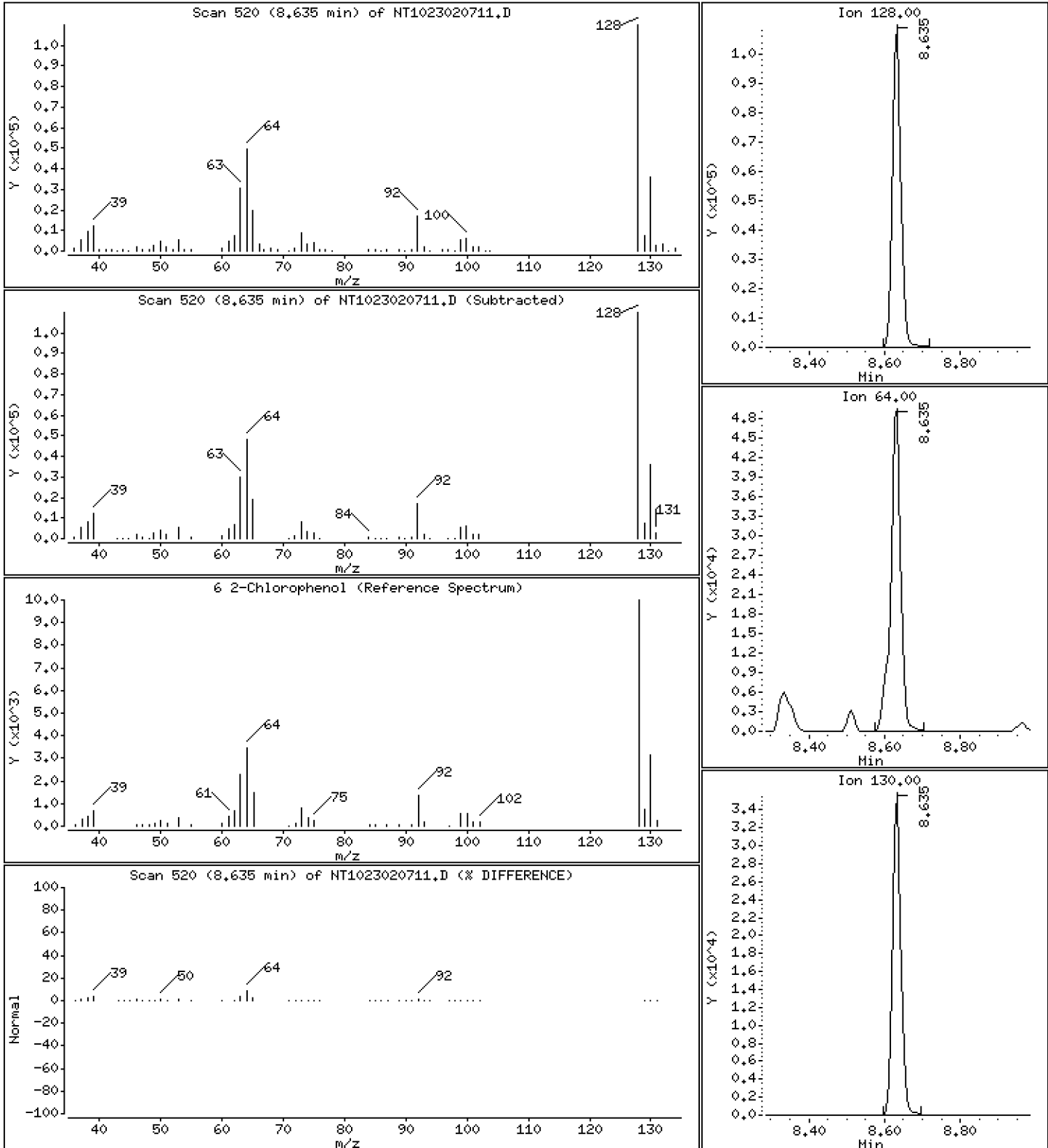
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

6 2-Chlorophenol

Concentration: 4.054 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

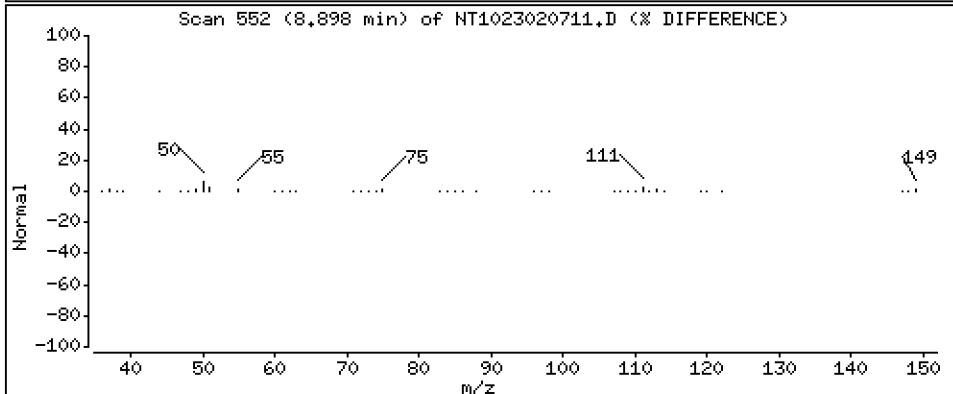
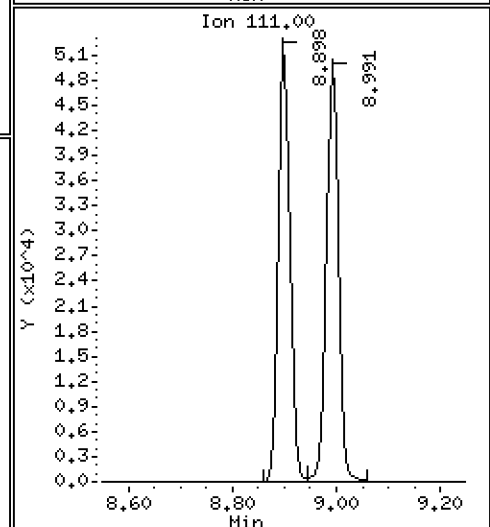
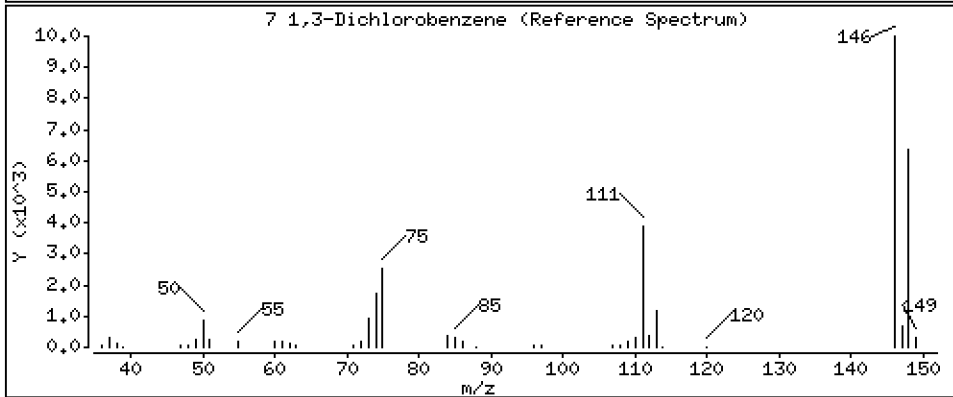
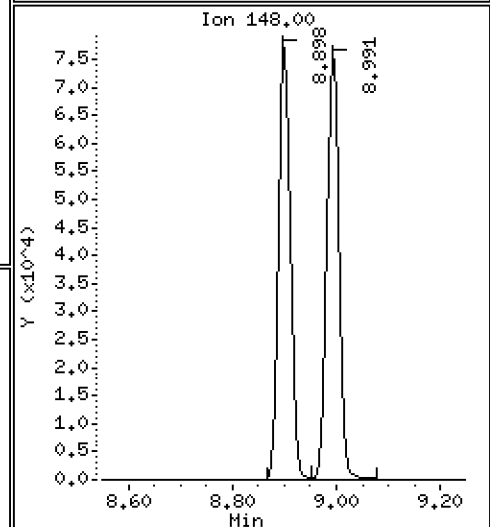
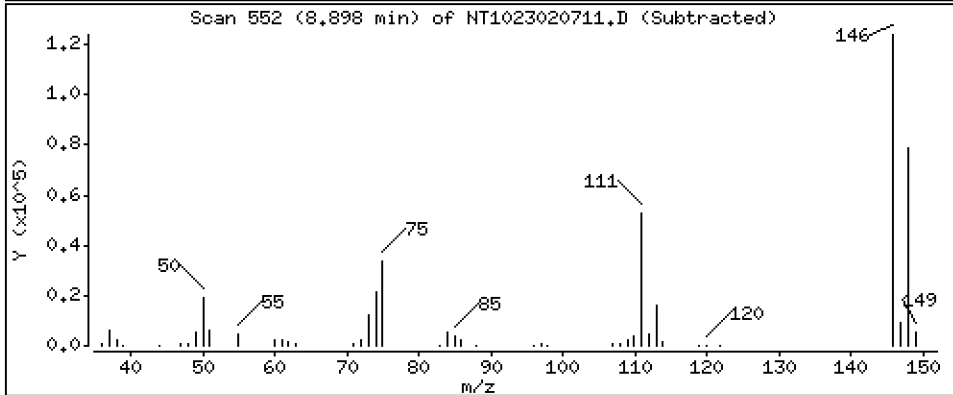
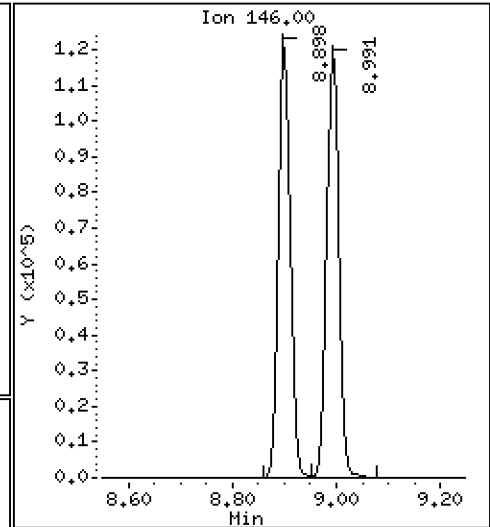
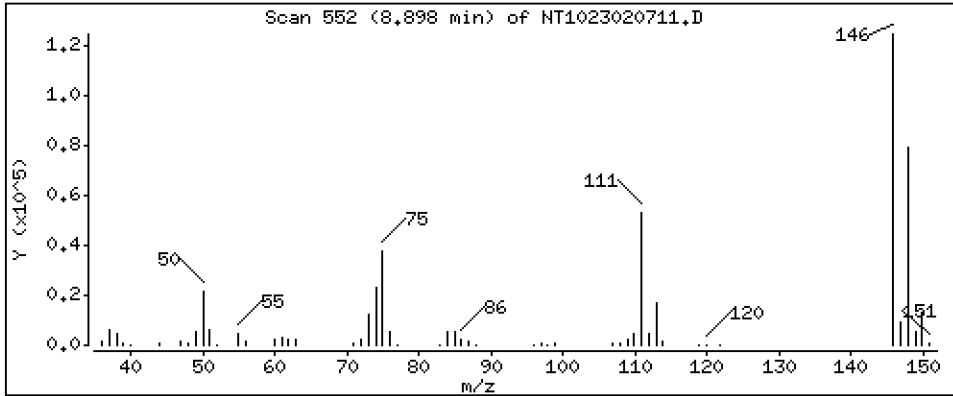
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 4,338 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

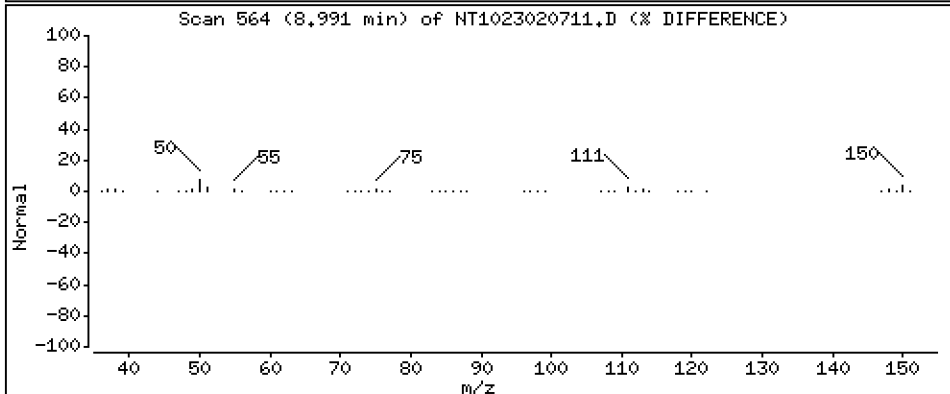
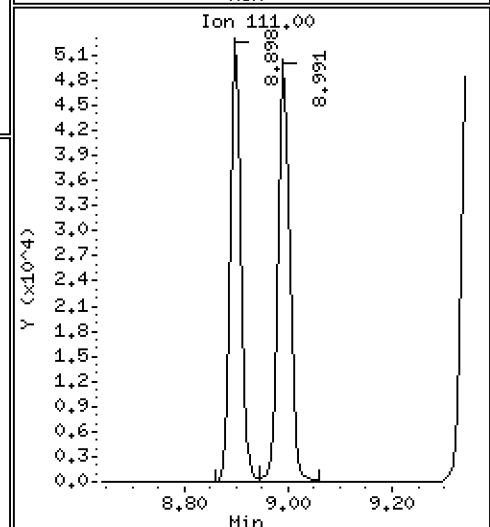
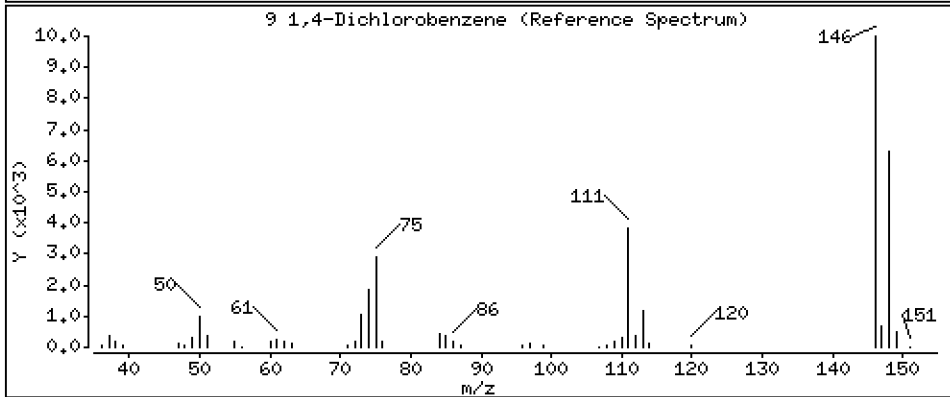
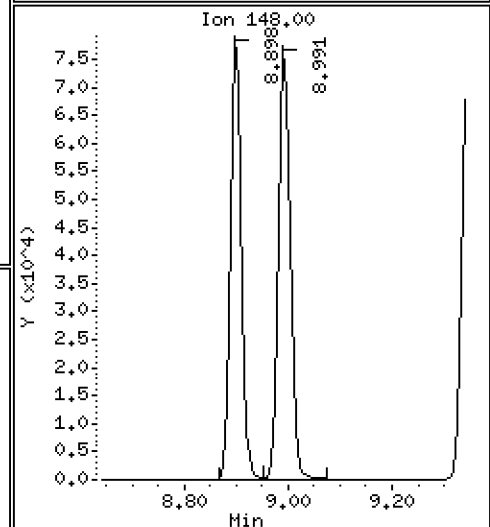
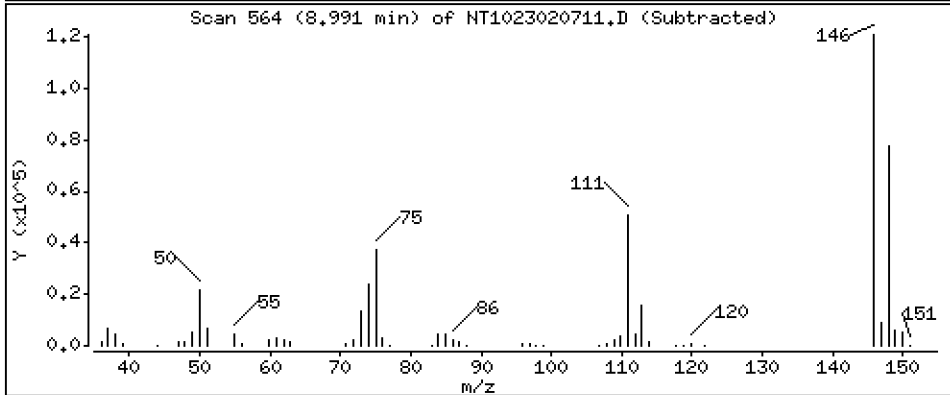
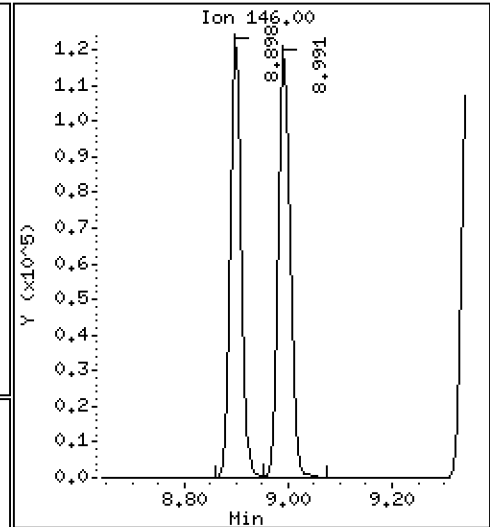
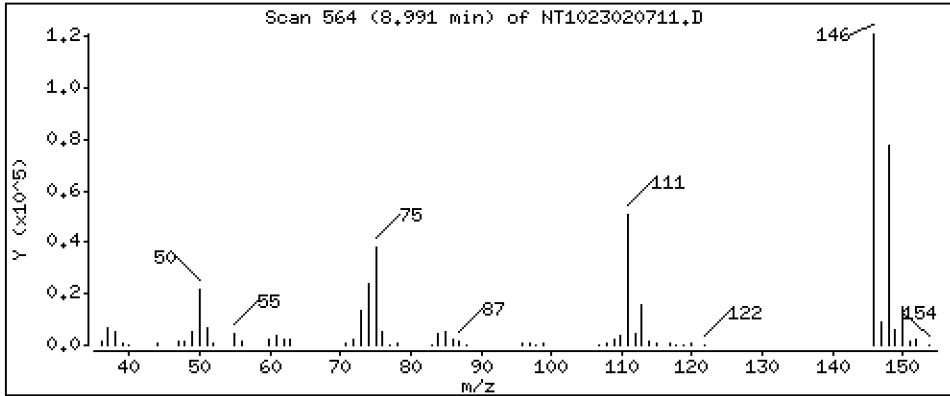
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 4,349 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

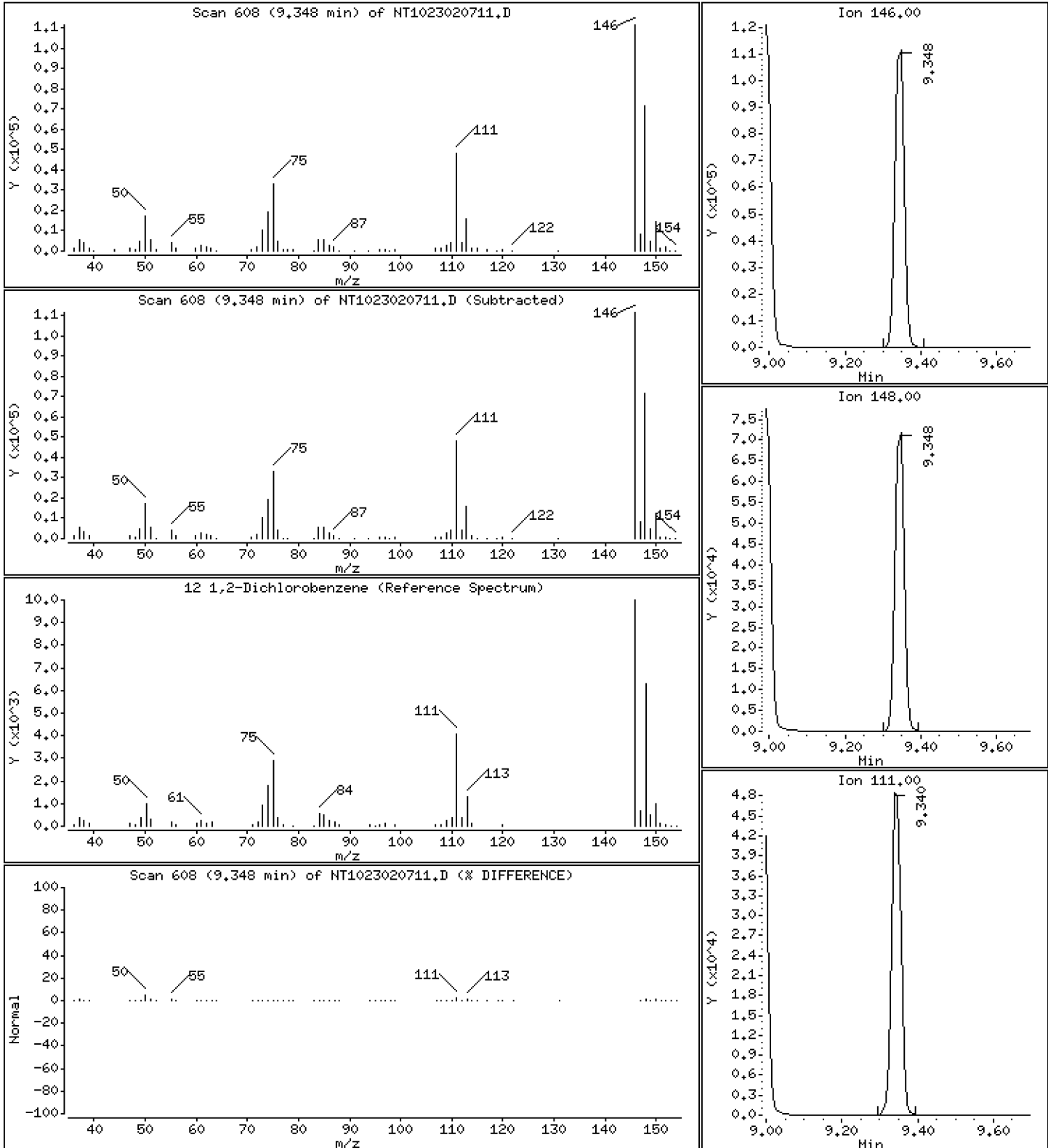
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 4.379 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

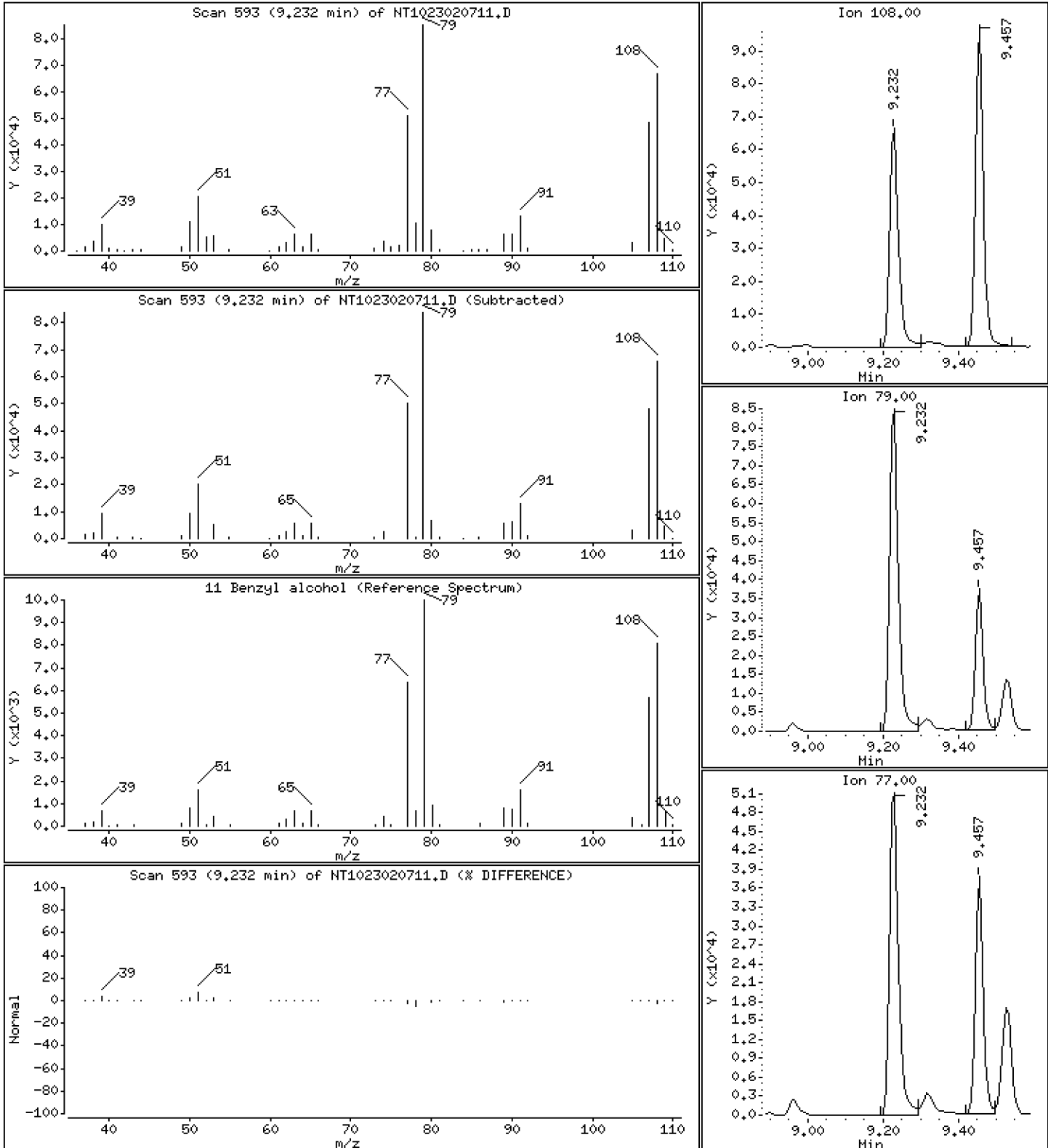
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 4.837 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

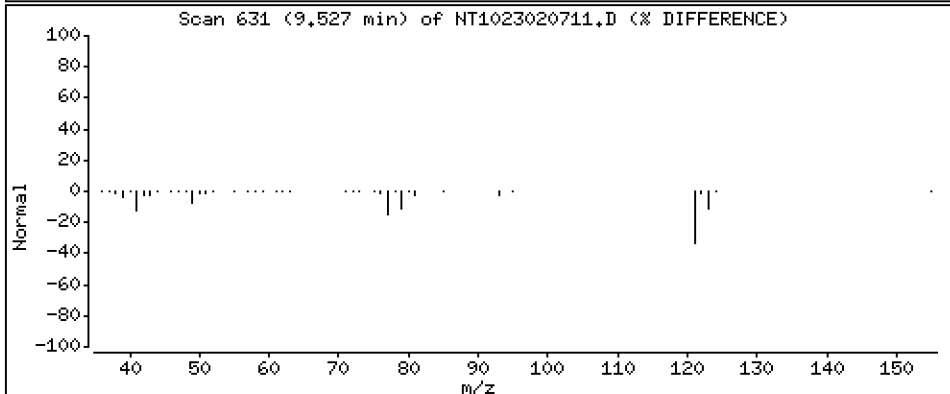
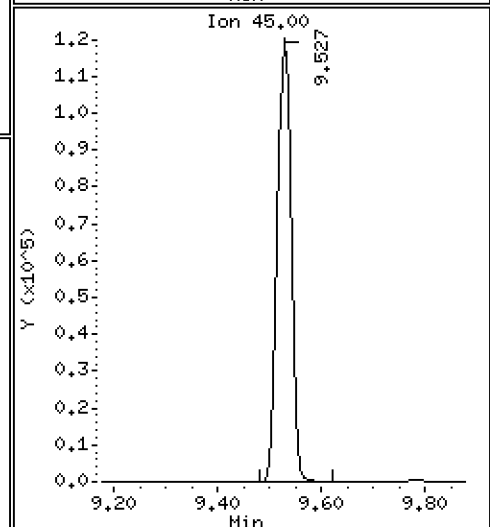
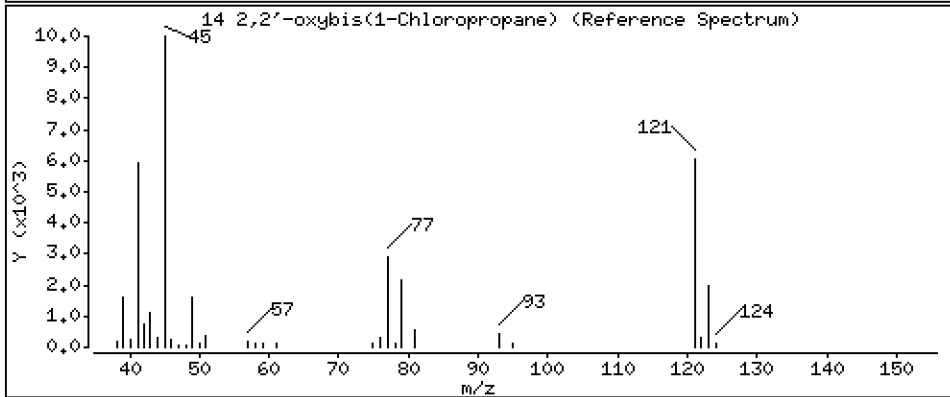
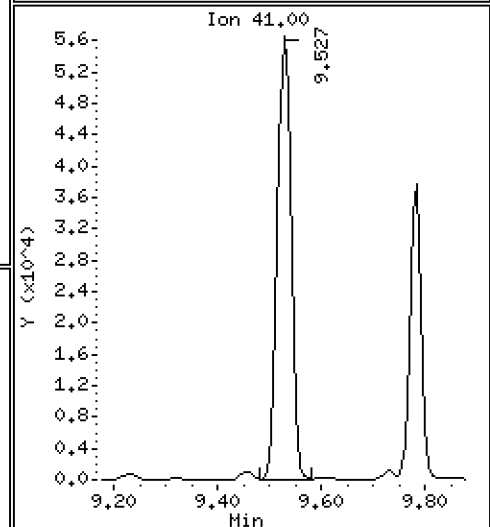
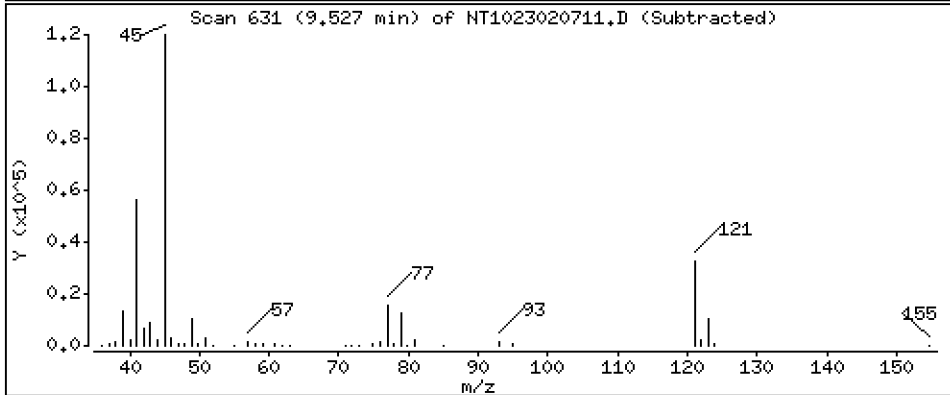
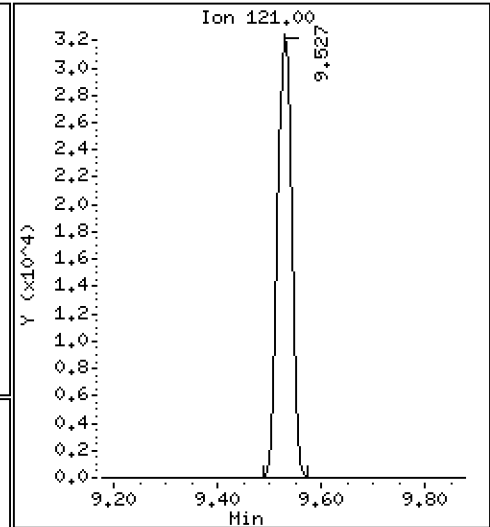
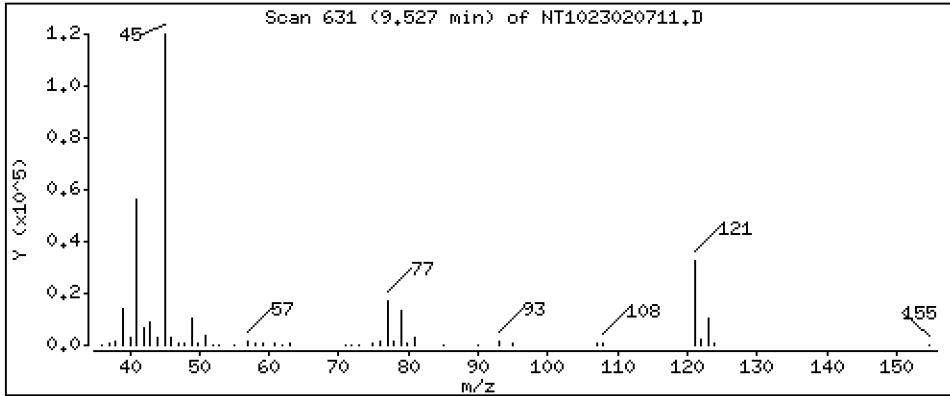
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 5.002 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

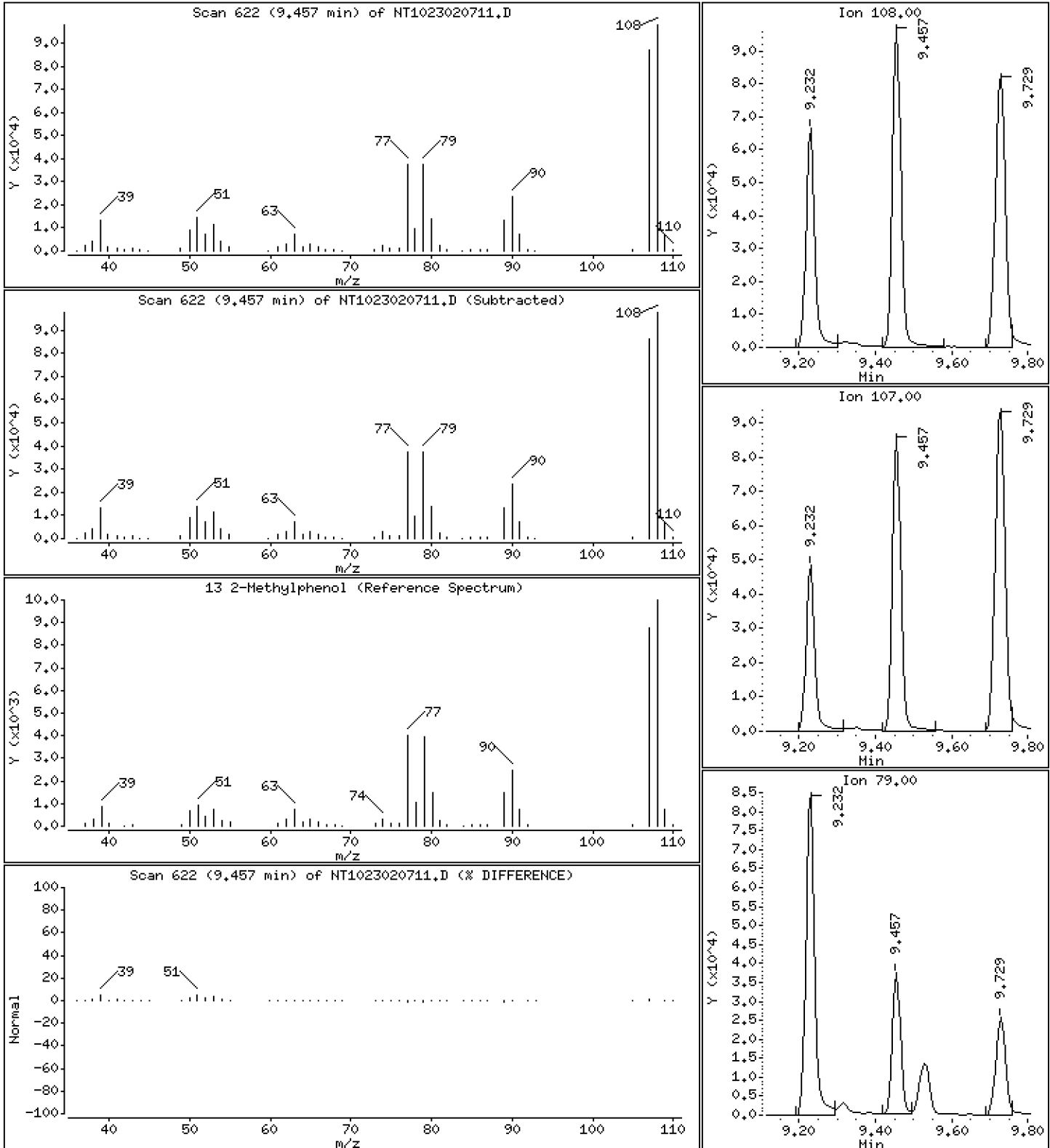
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 3.829 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

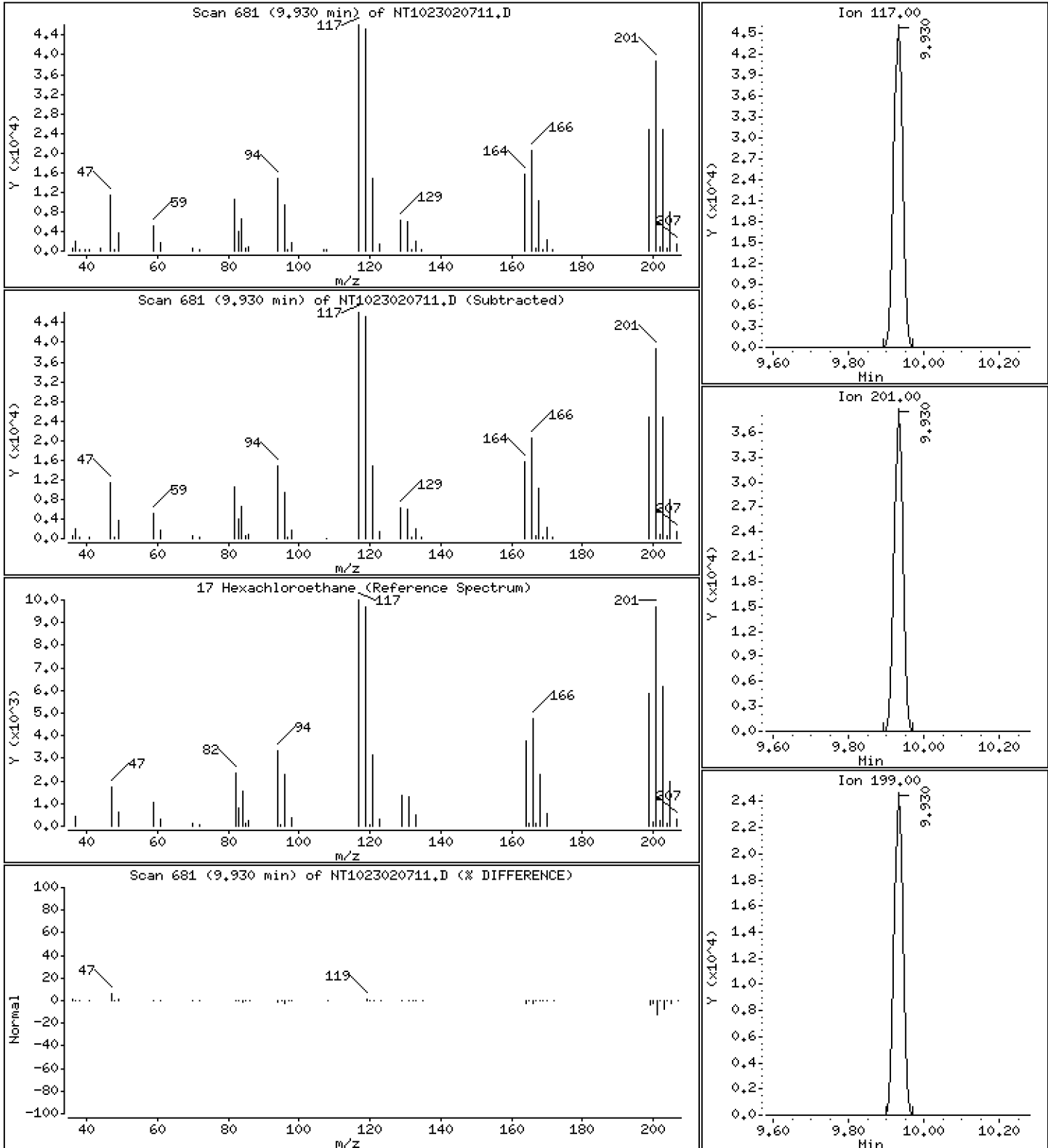
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

17 Hexachloroethane

Concentration: 4.438 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

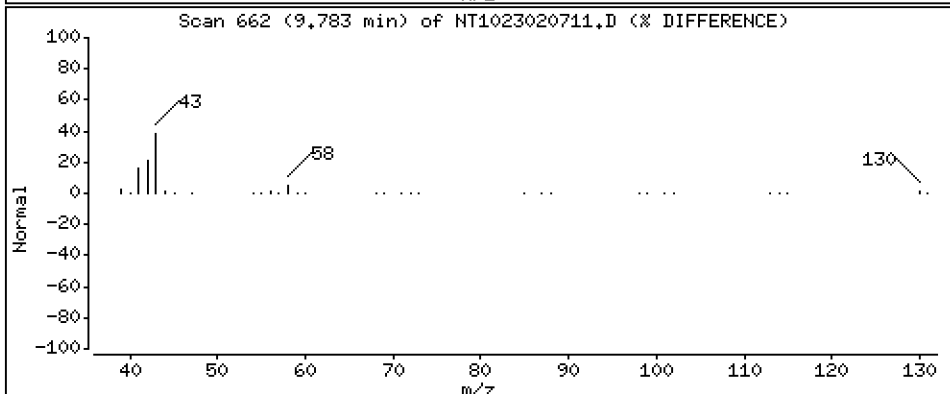
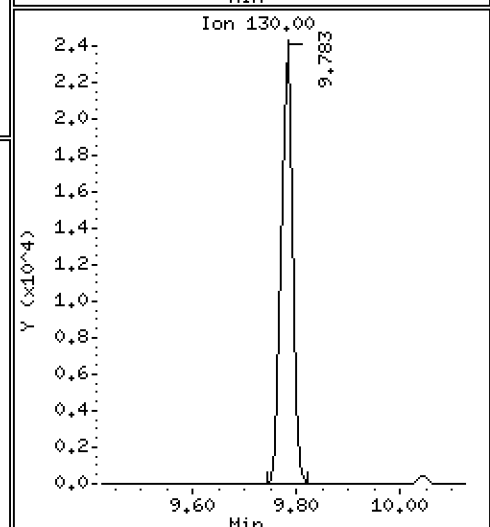
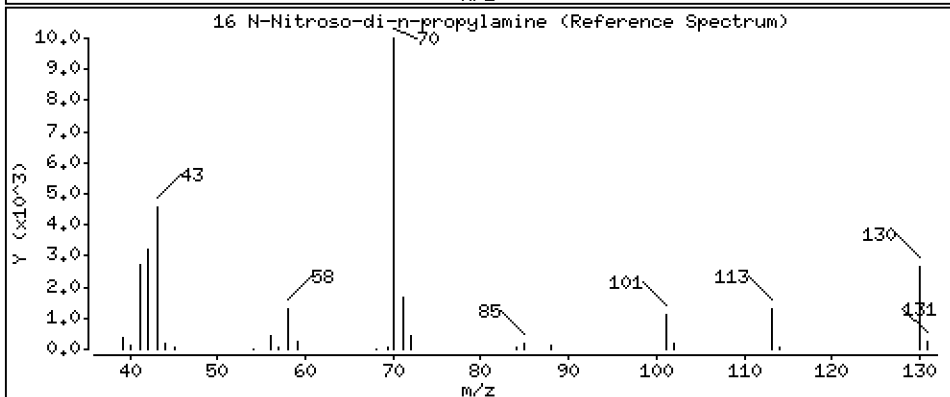
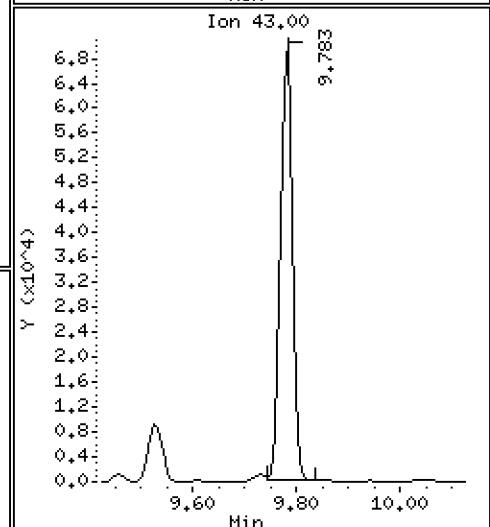
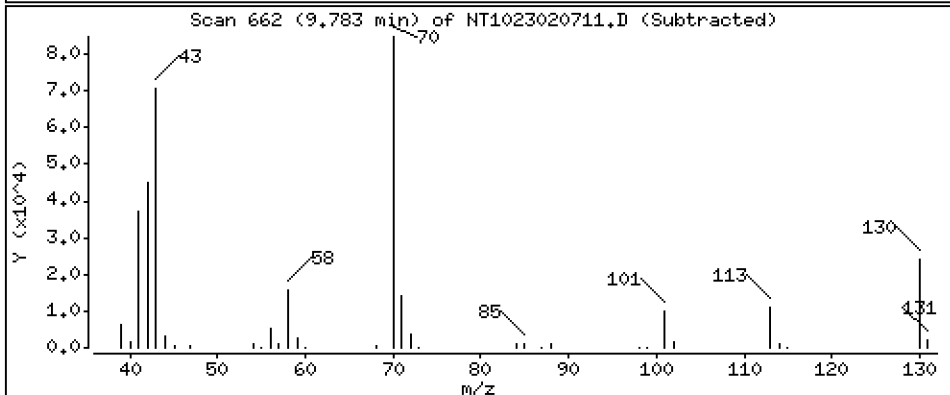
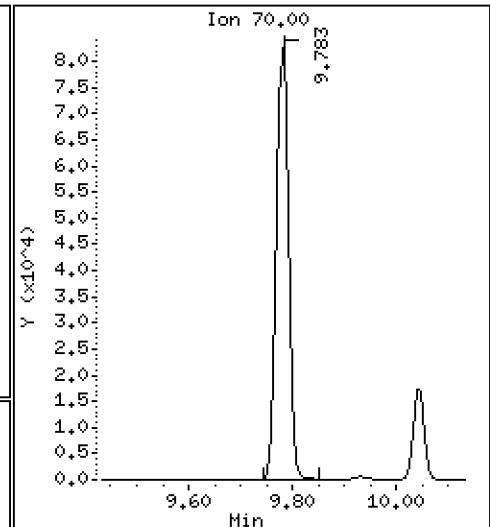
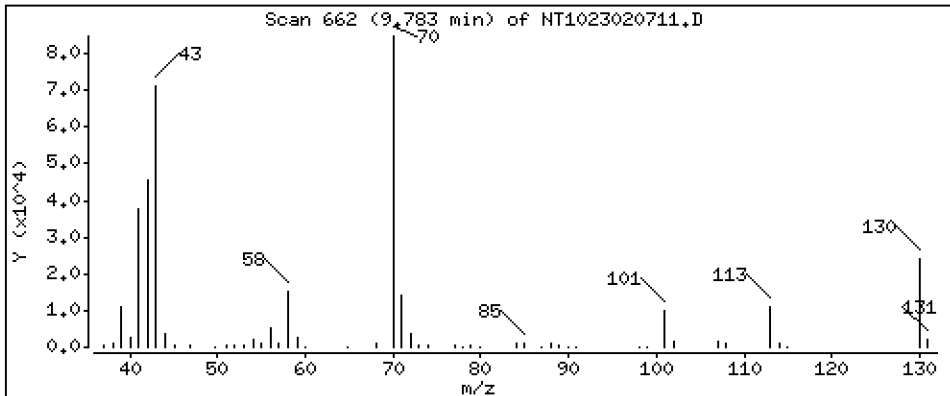
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 4.562 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

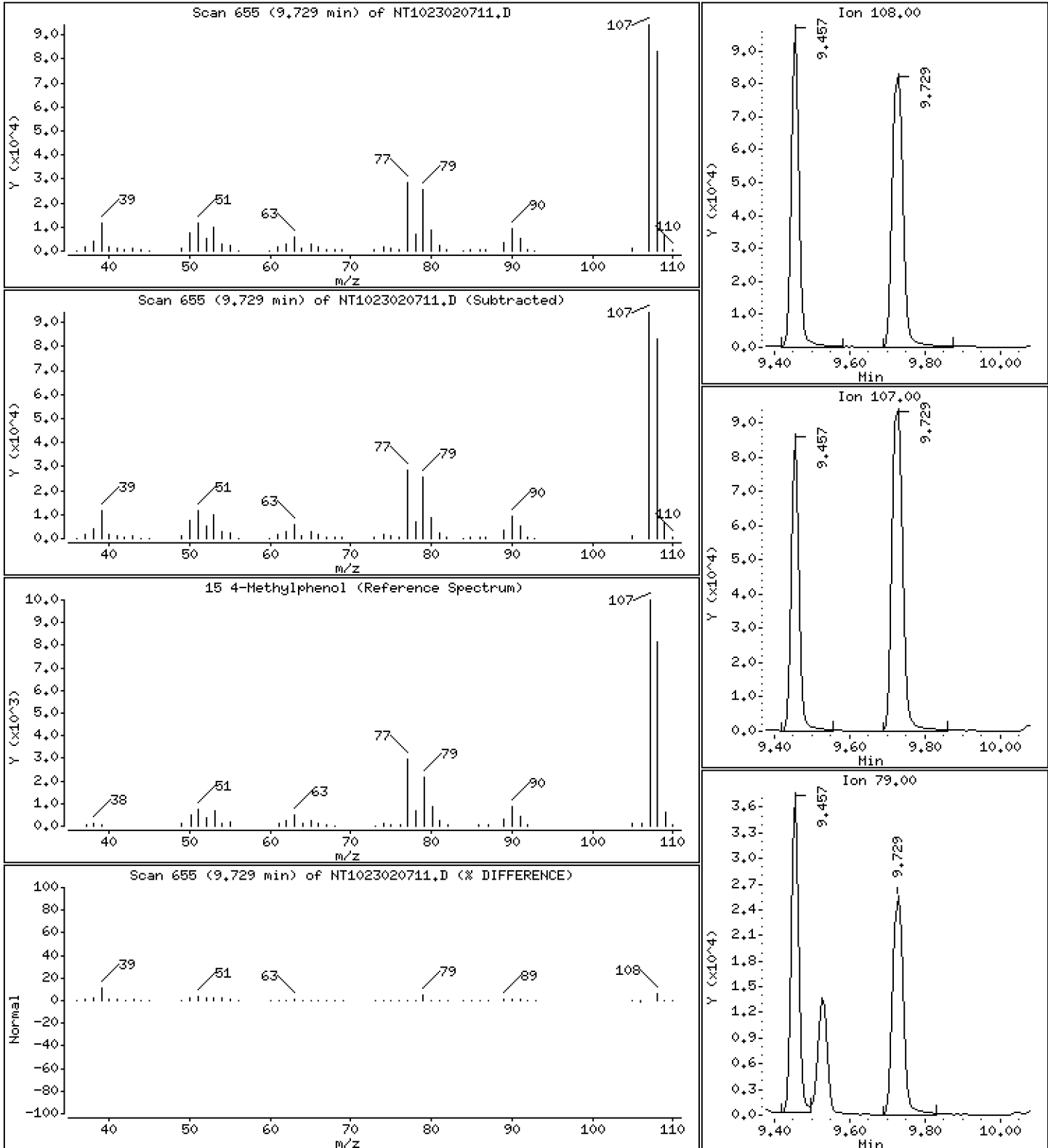
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,948 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

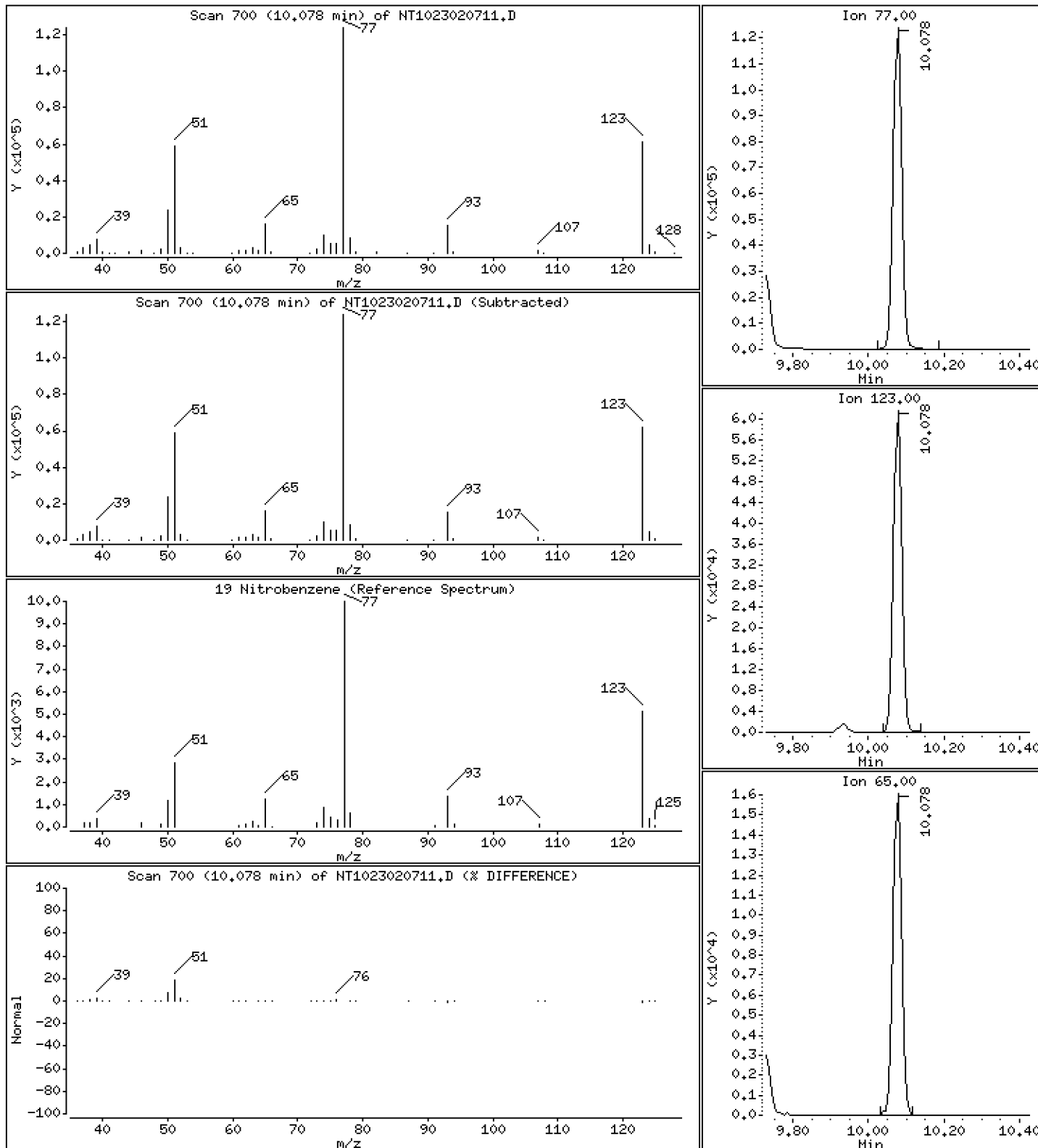
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 4,399 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

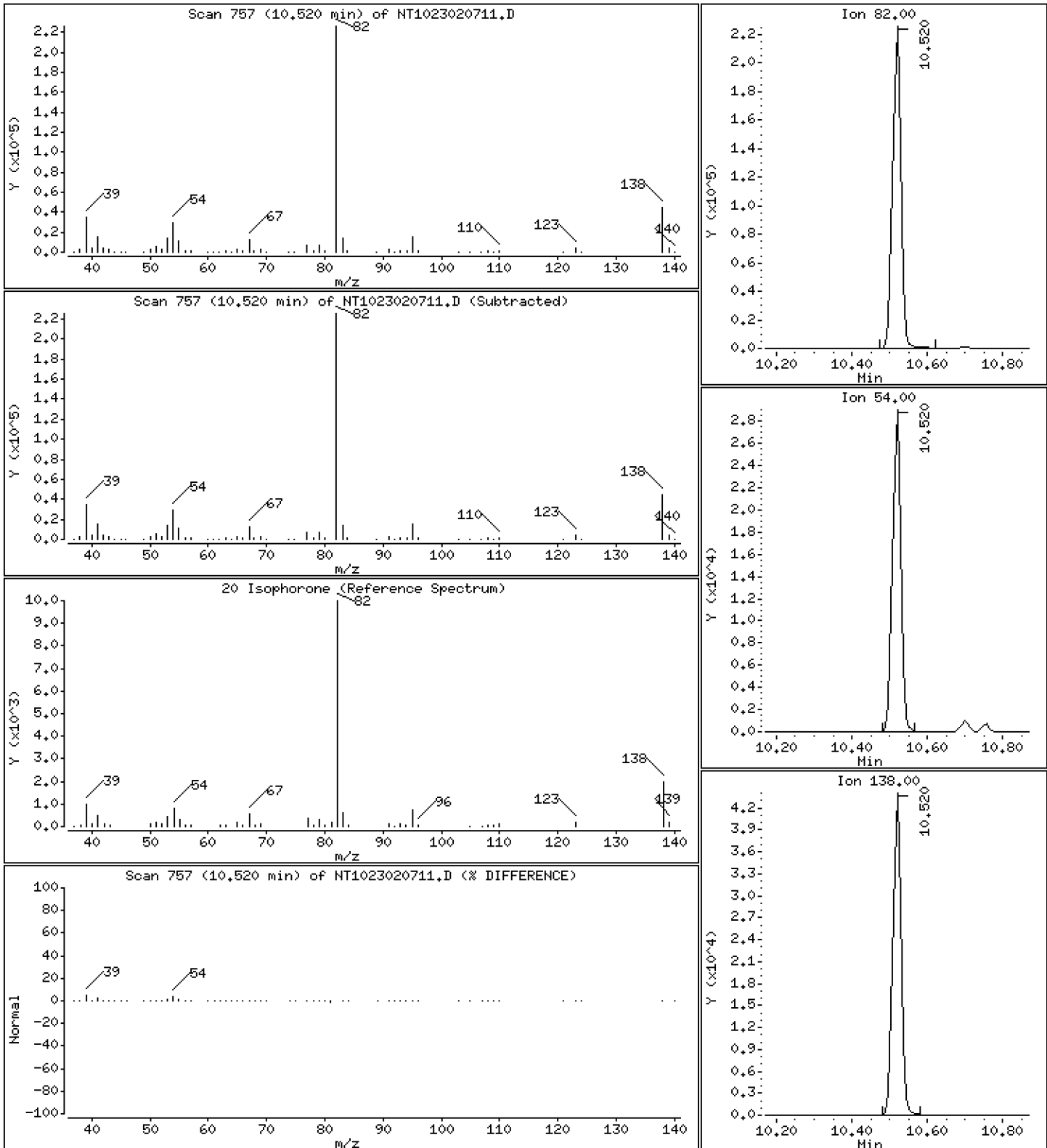
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

20 Isophorone

Concentration: 6.405 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

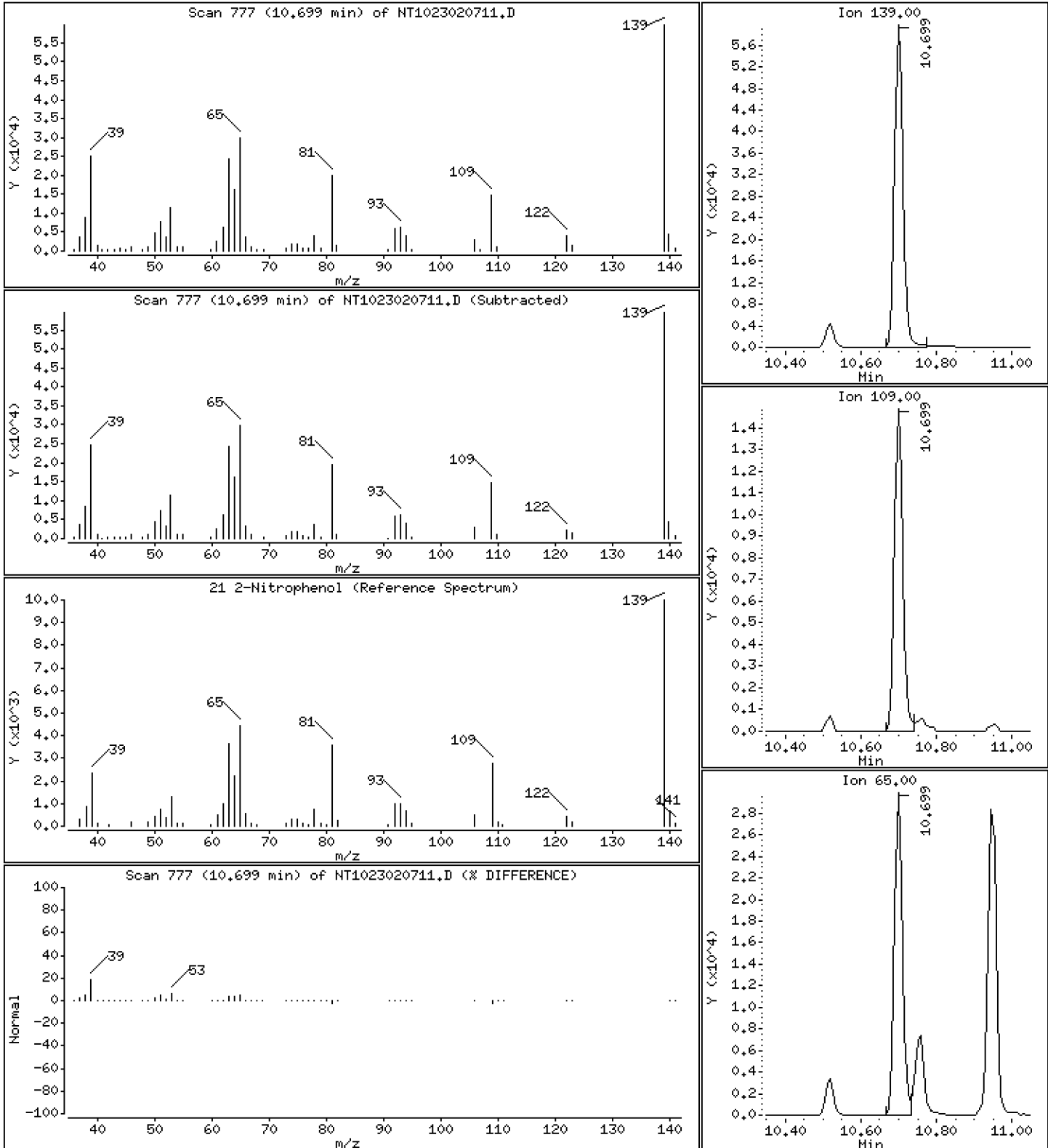
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 4,242 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

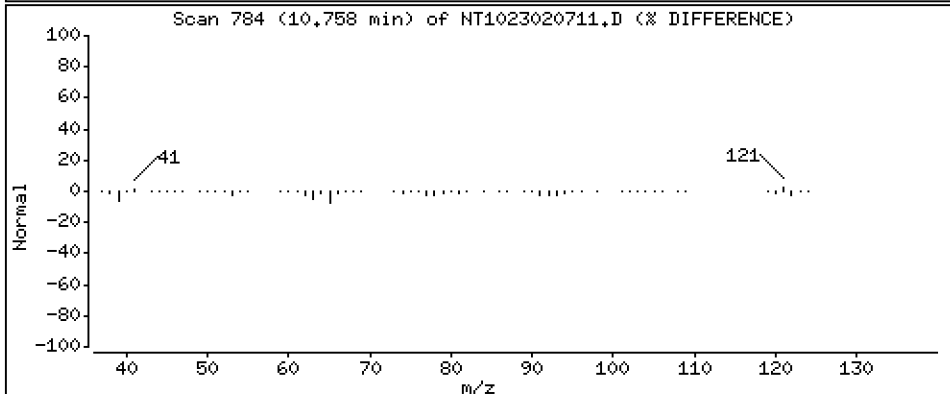
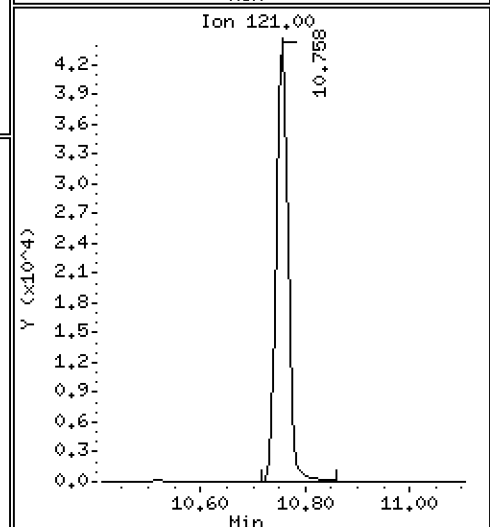
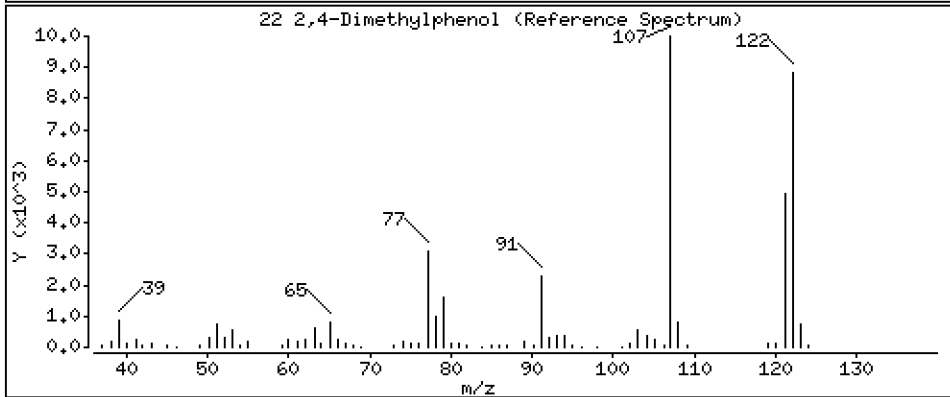
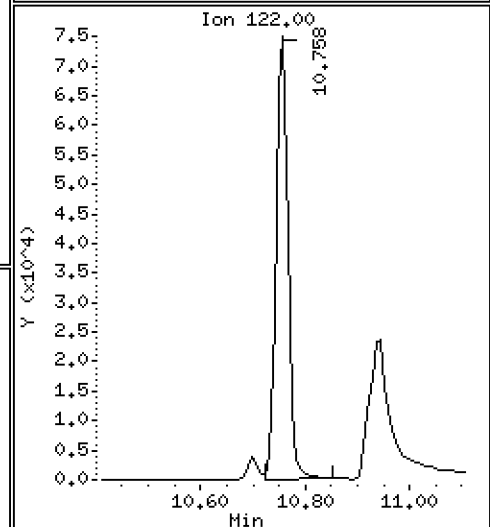
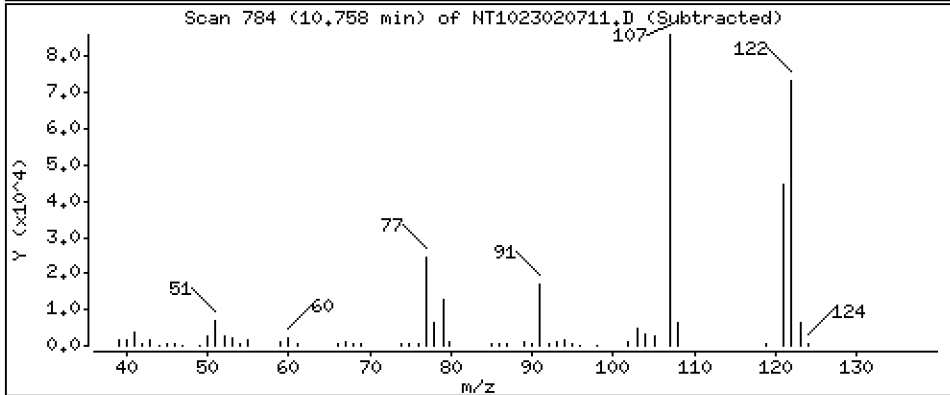
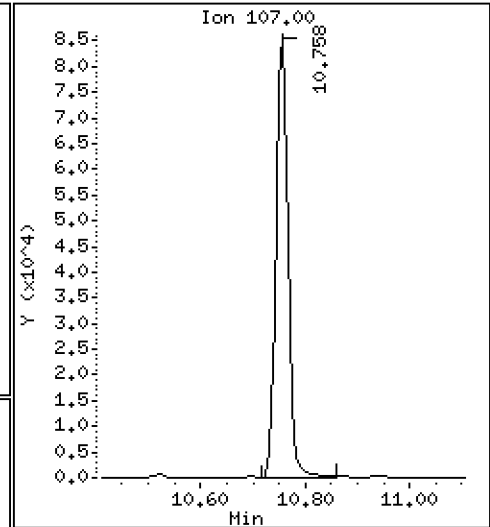
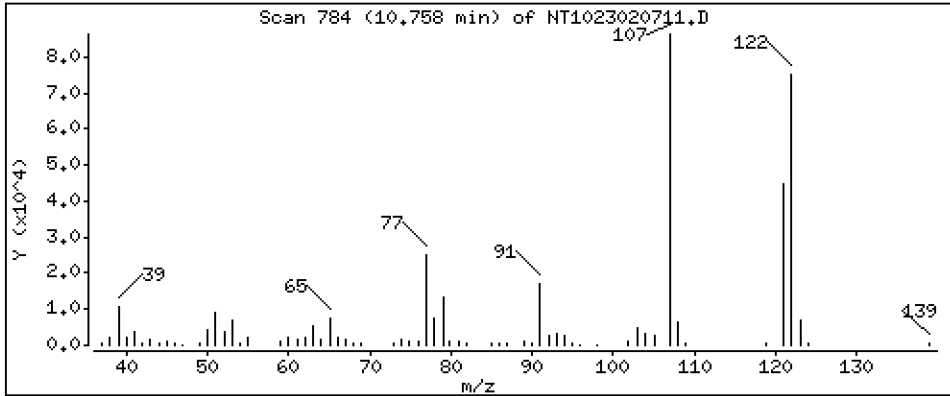
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,536 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

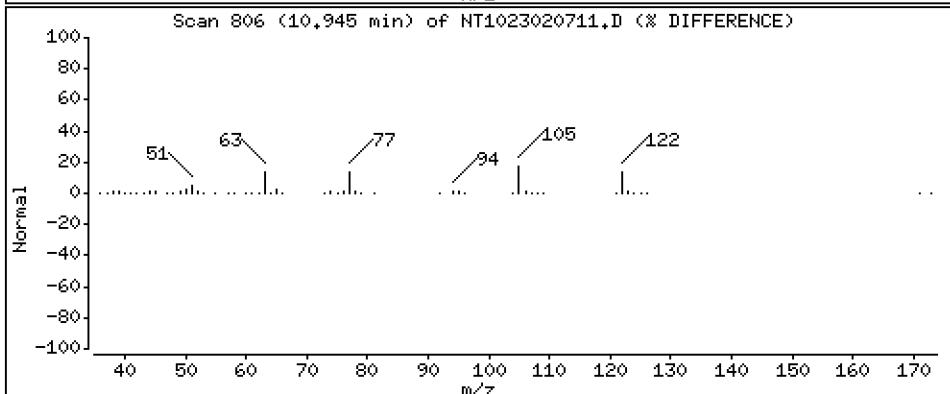
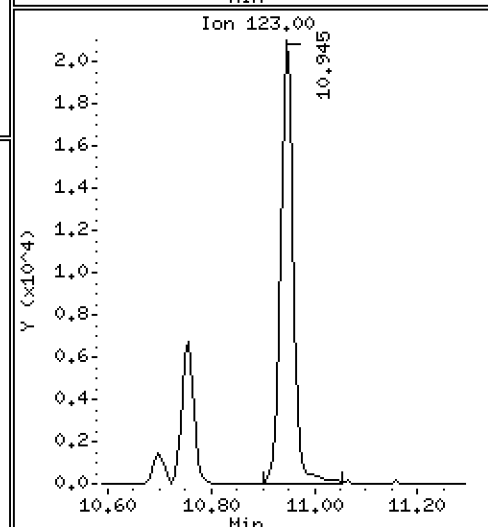
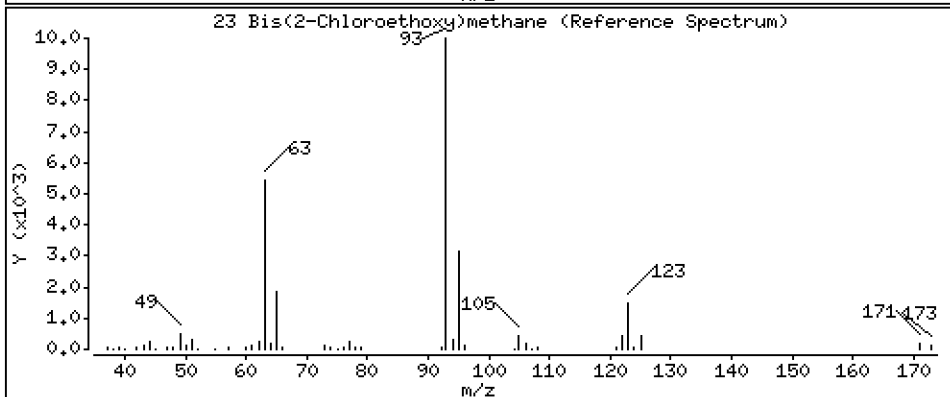
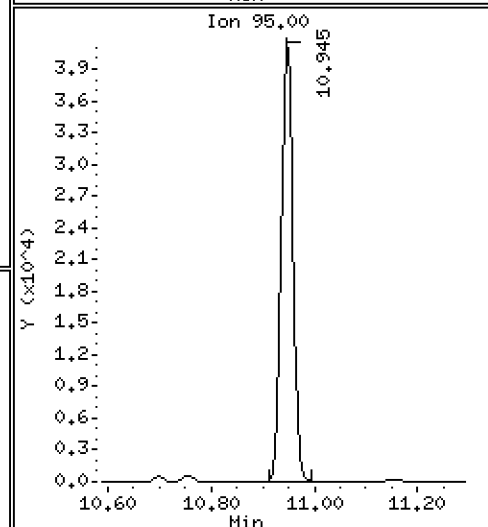
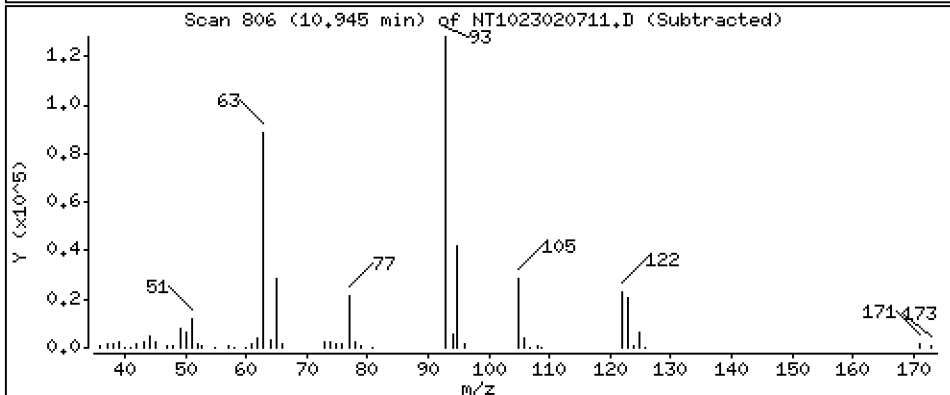
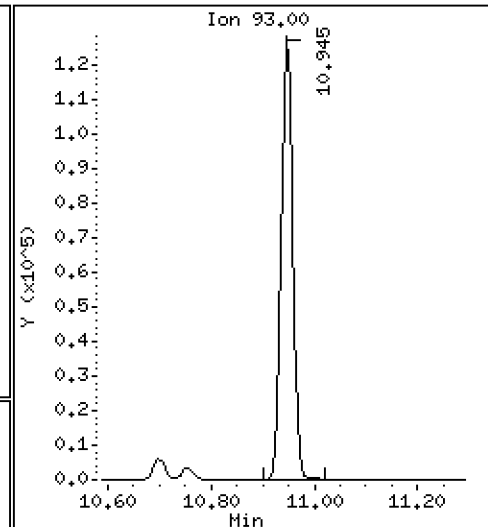
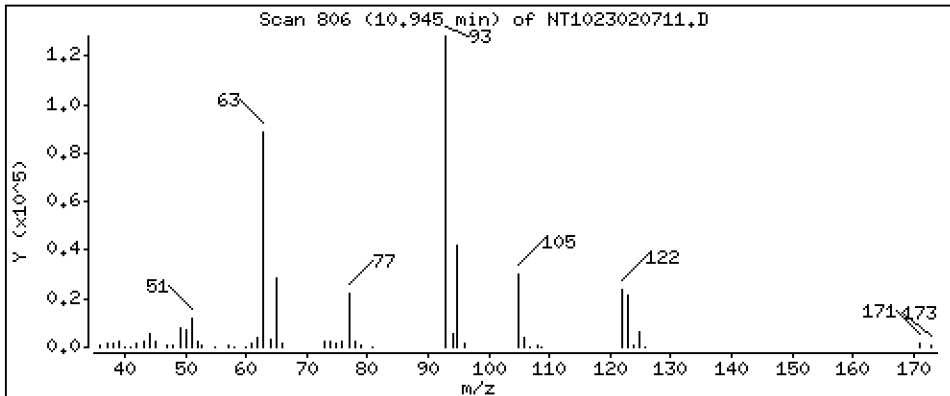
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 5,106 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

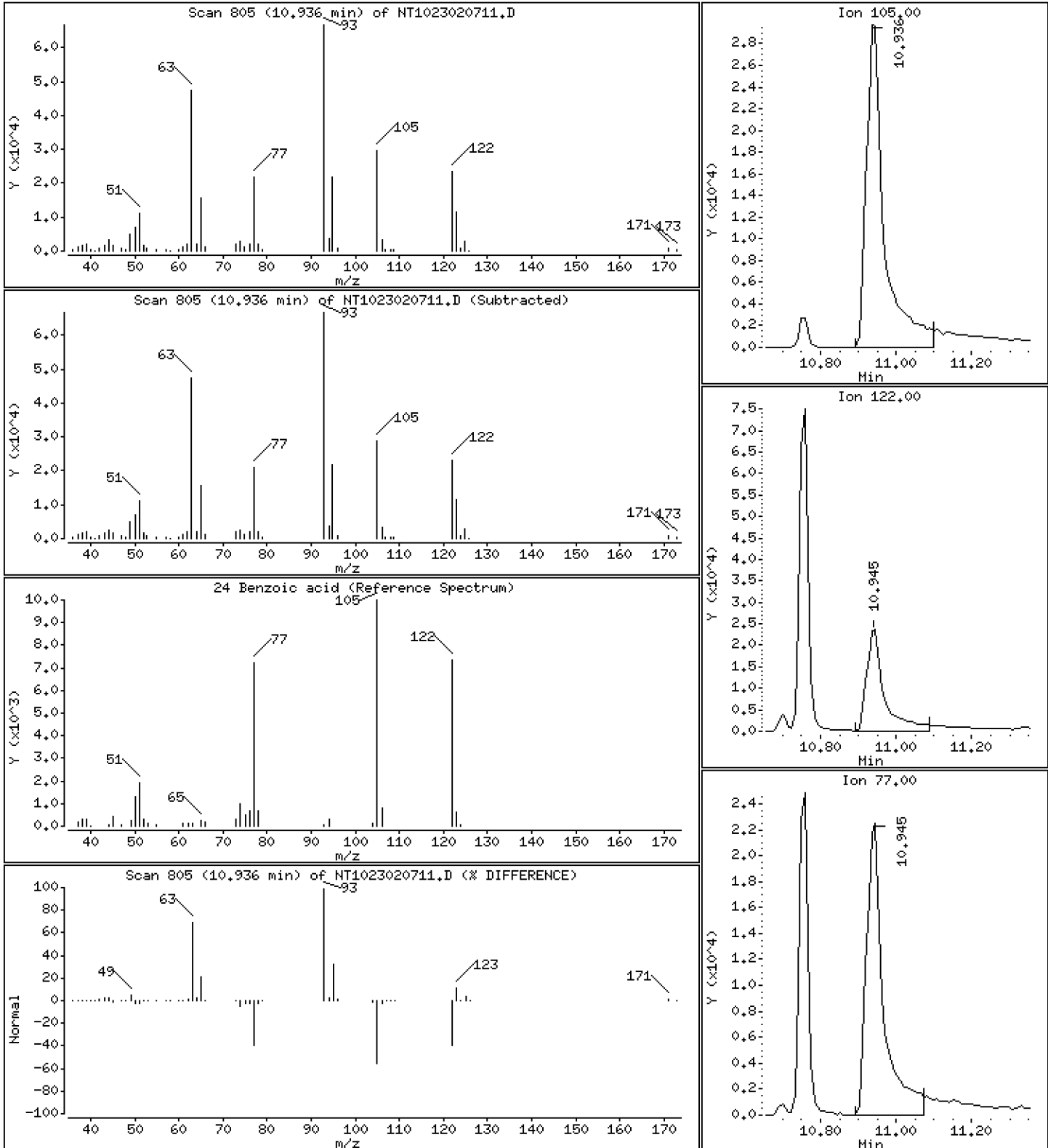
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 4.410 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

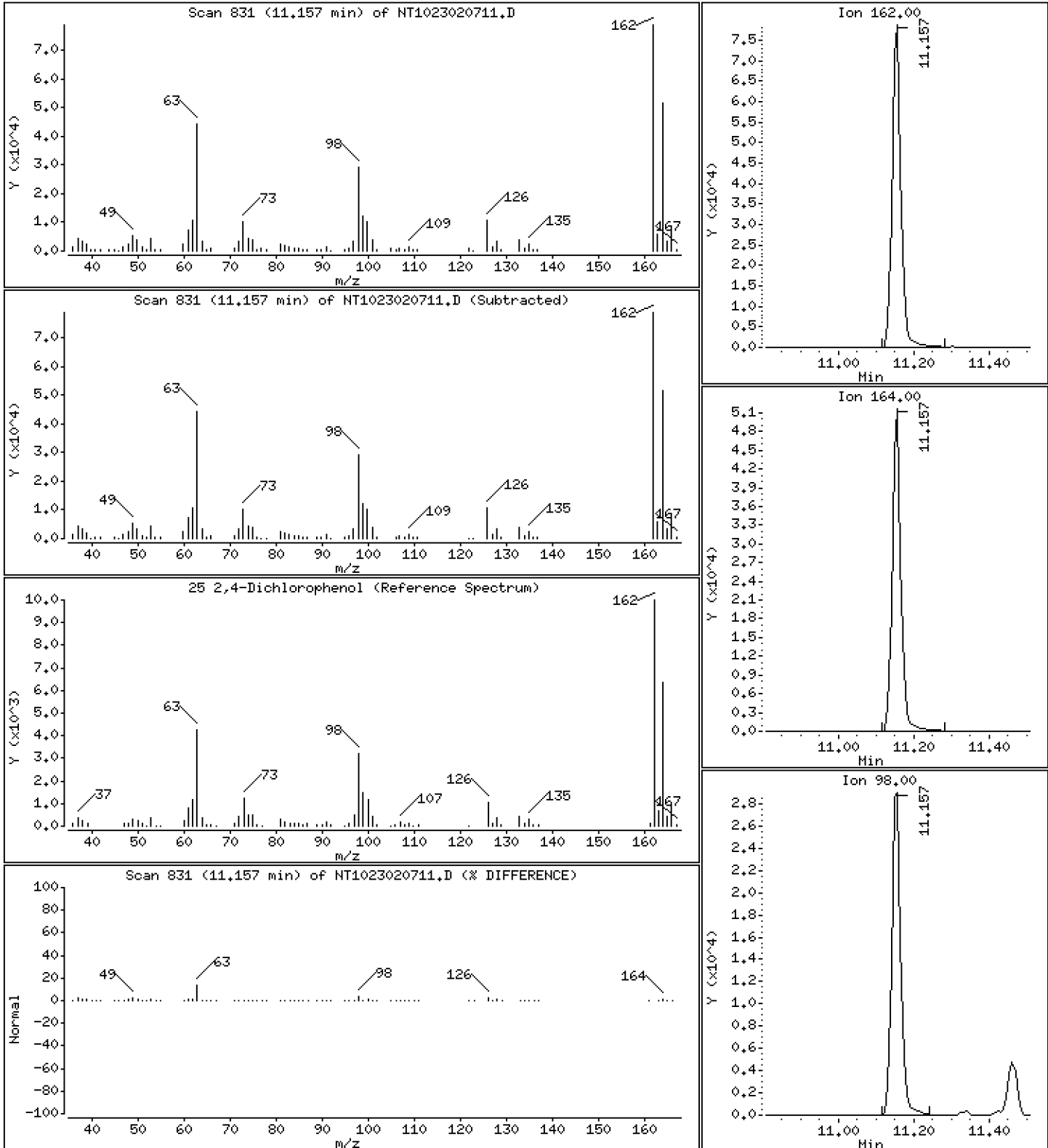
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,574 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

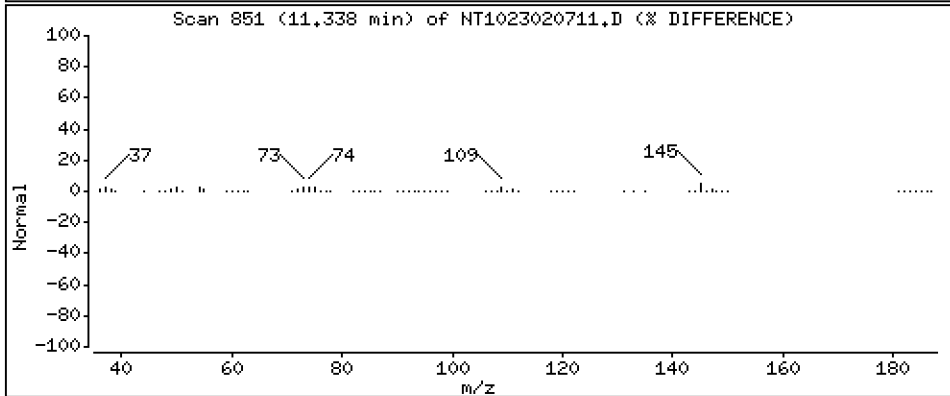
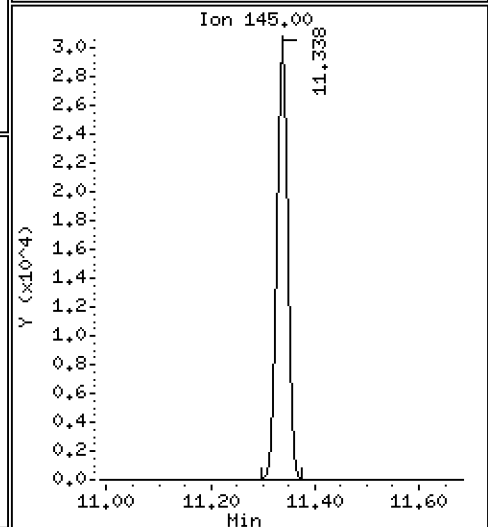
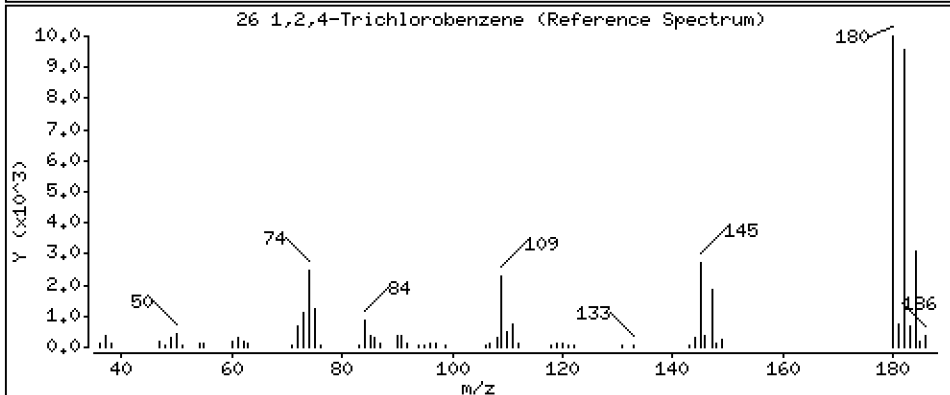
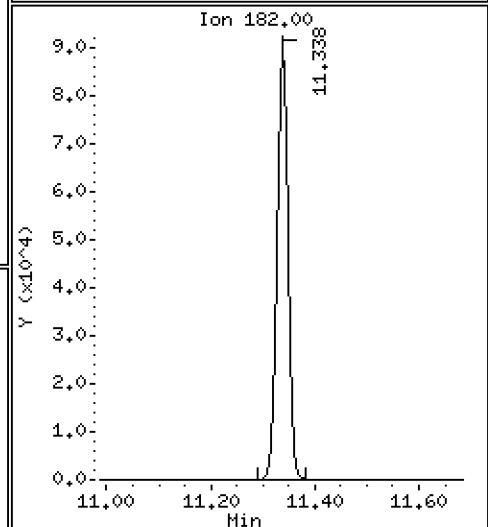
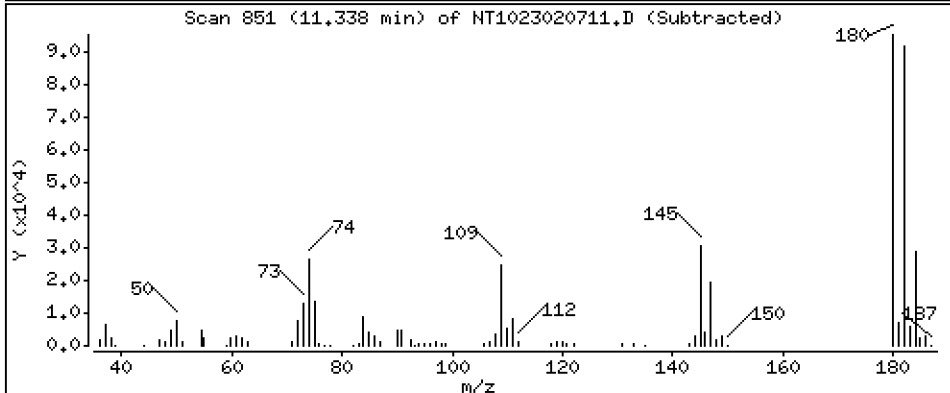
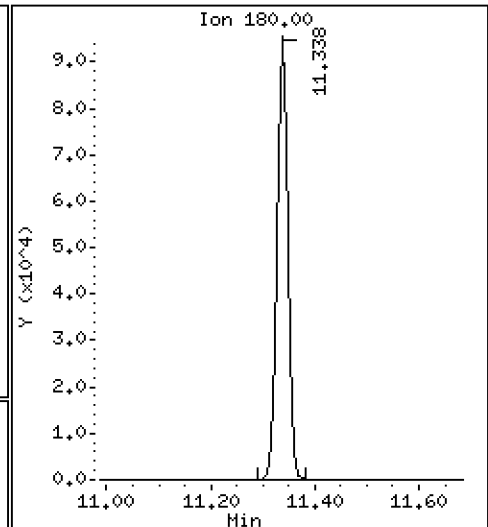
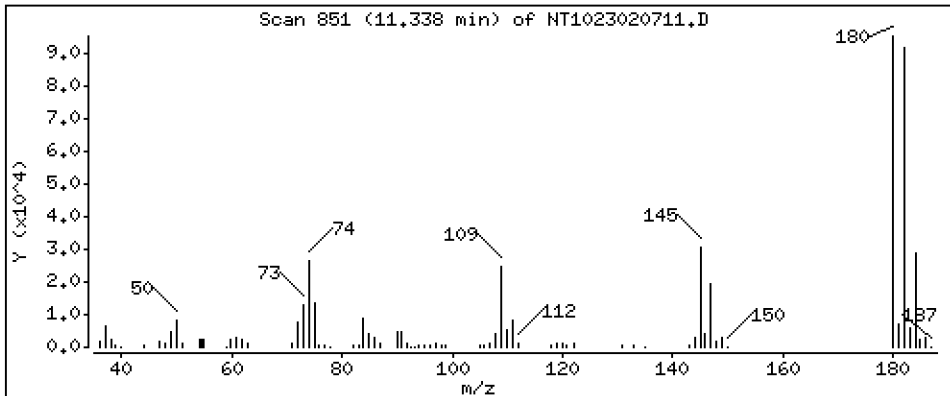
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,191 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

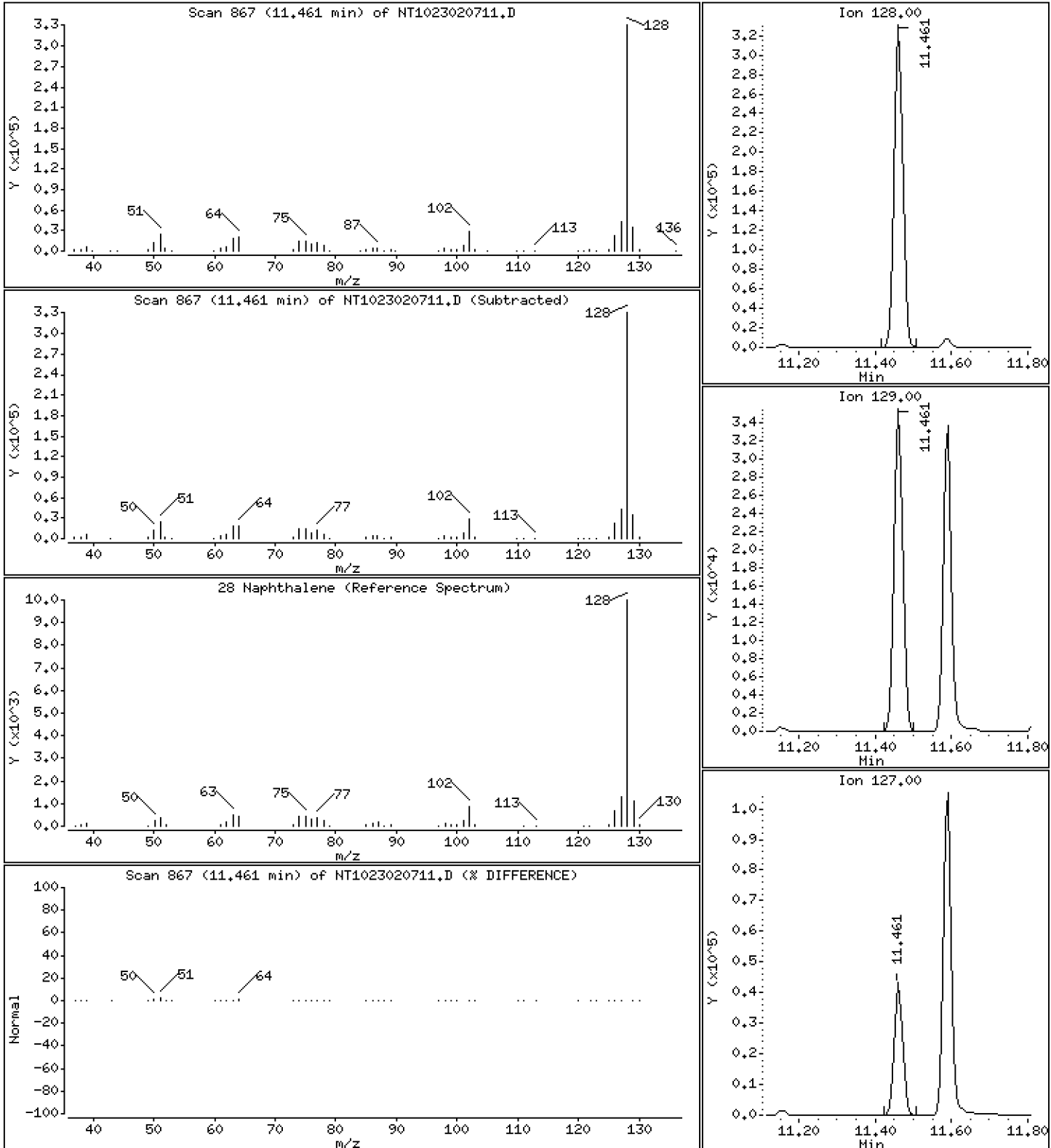
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

28 Naphthalene

Concentration: 4.437 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

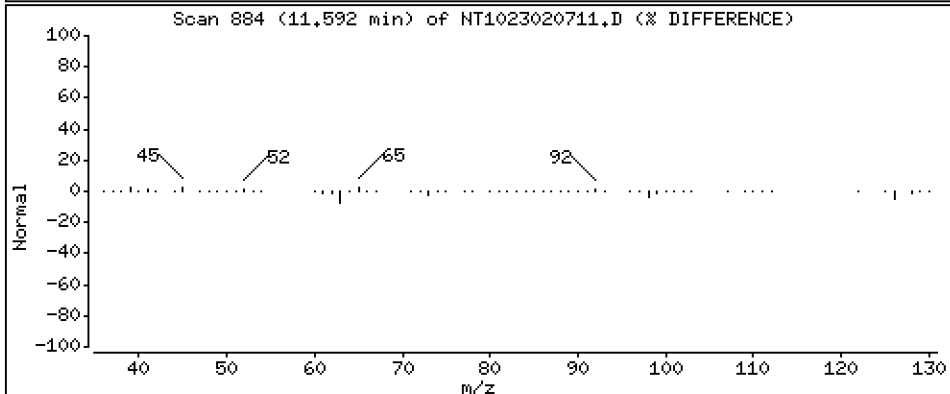
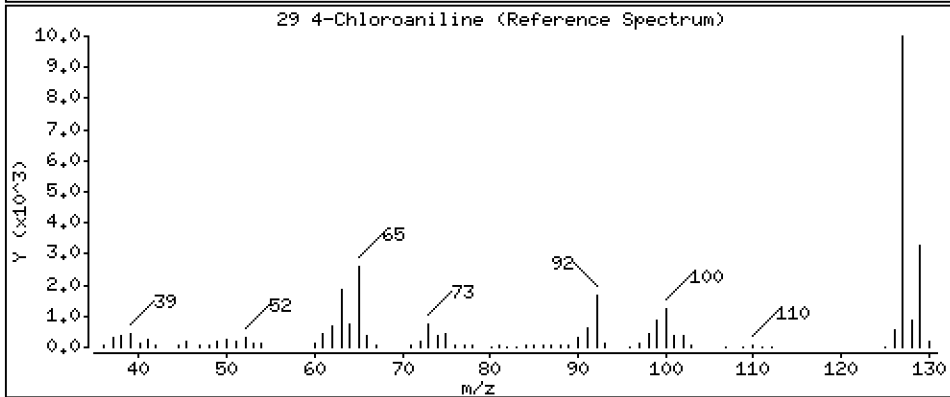
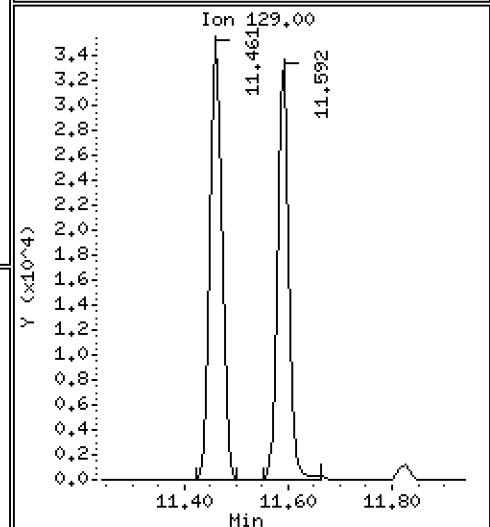
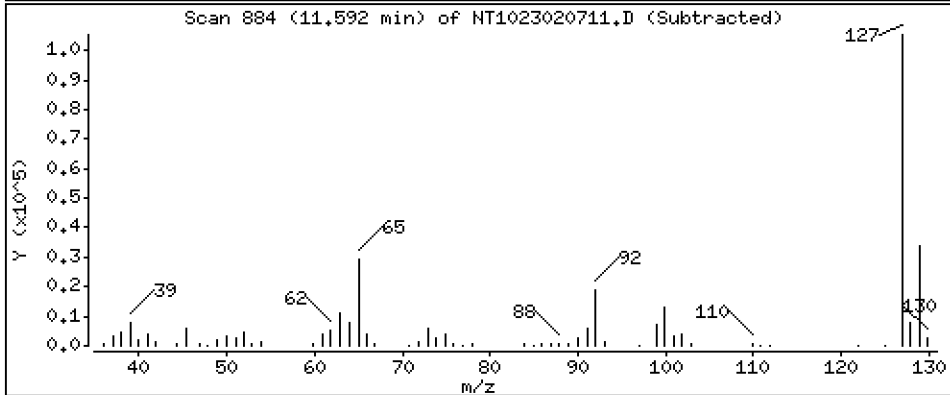
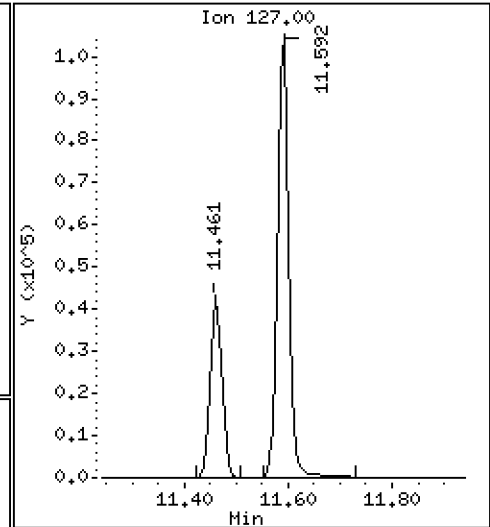
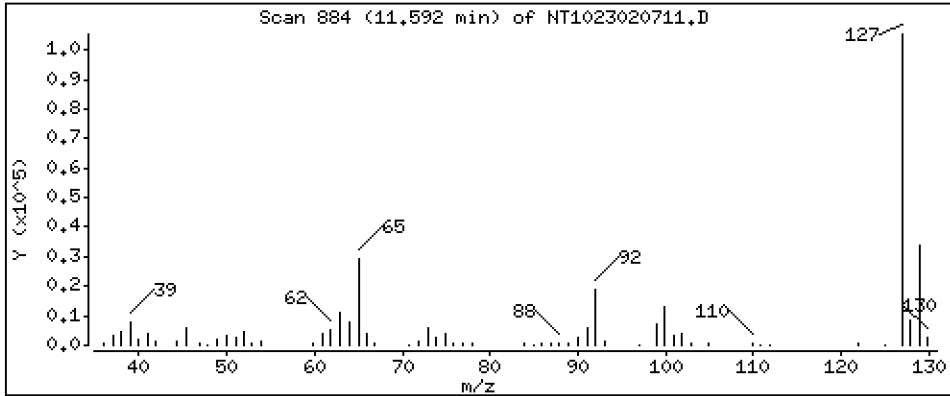
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 3,623 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

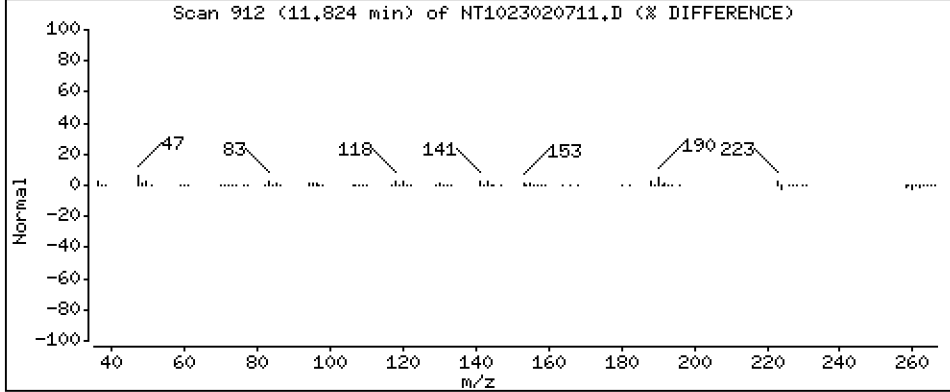
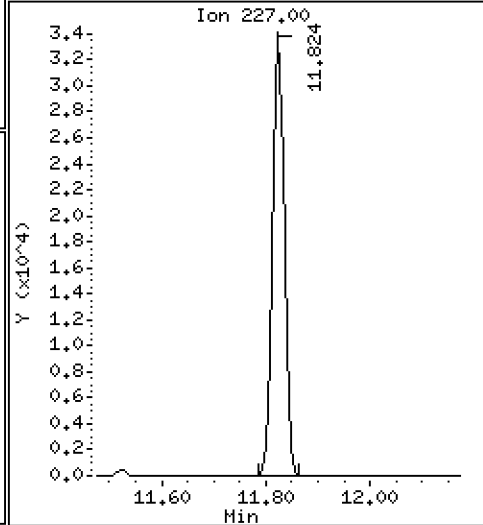
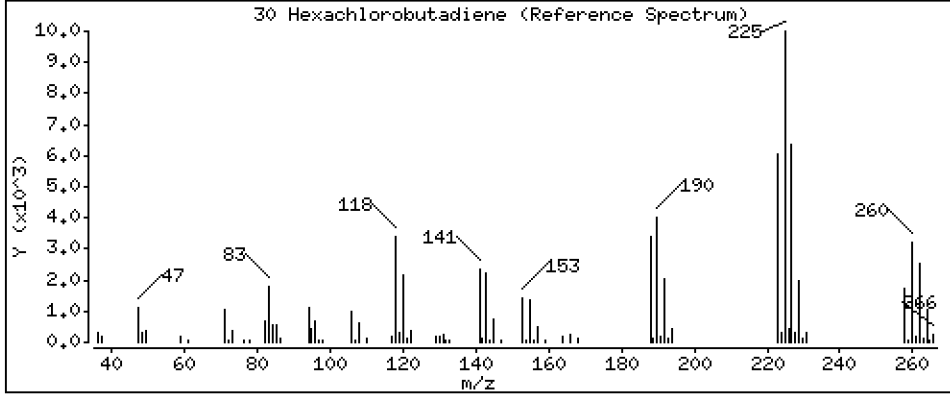
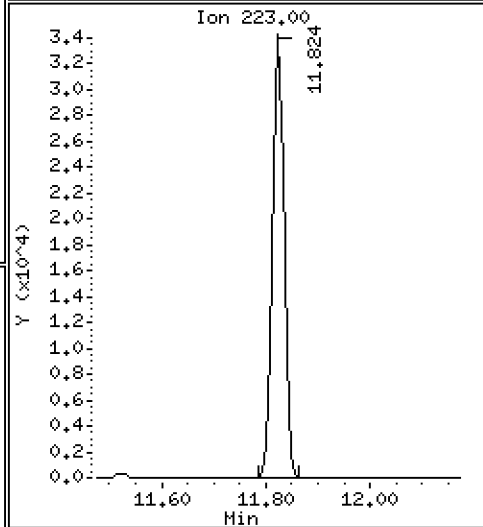
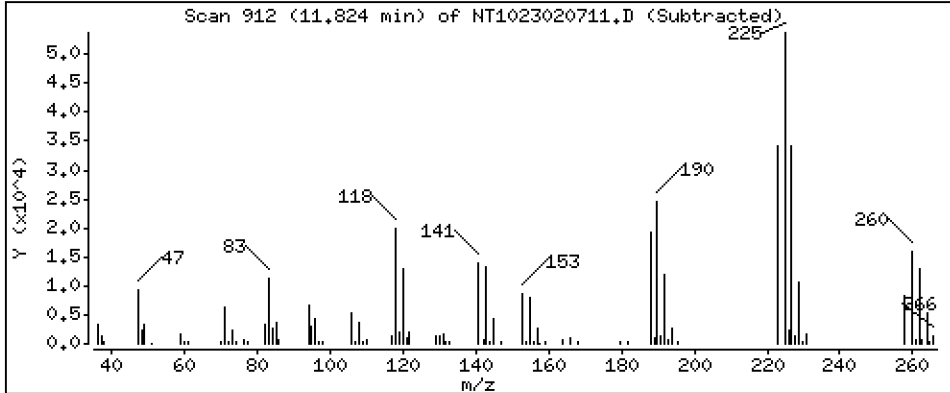
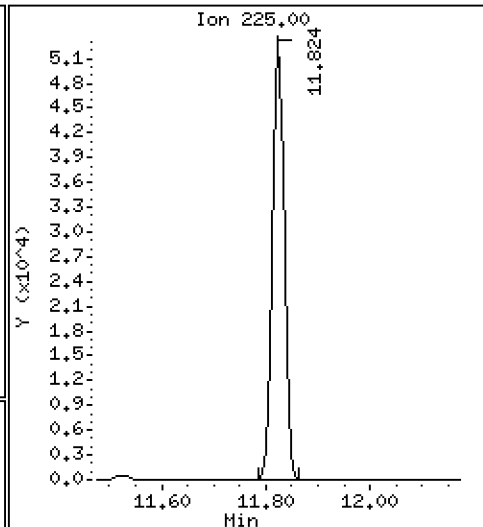
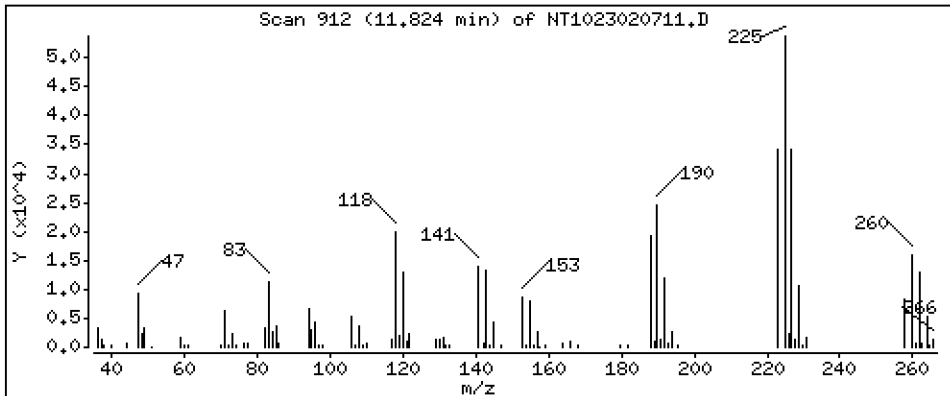
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,364 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

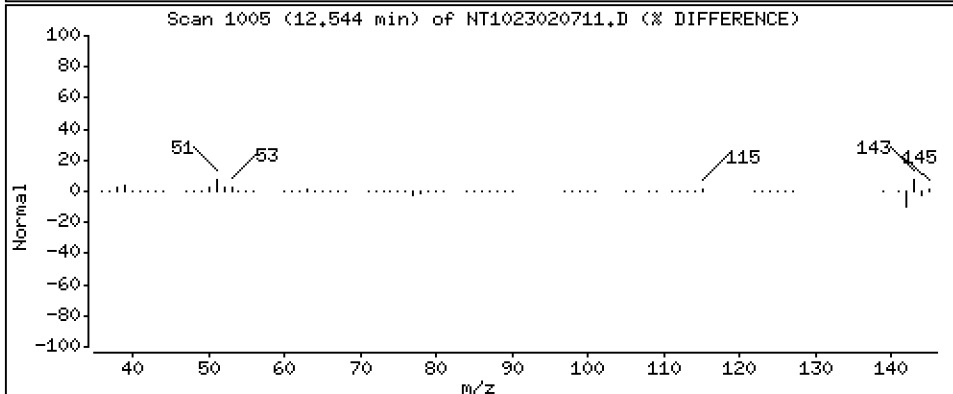
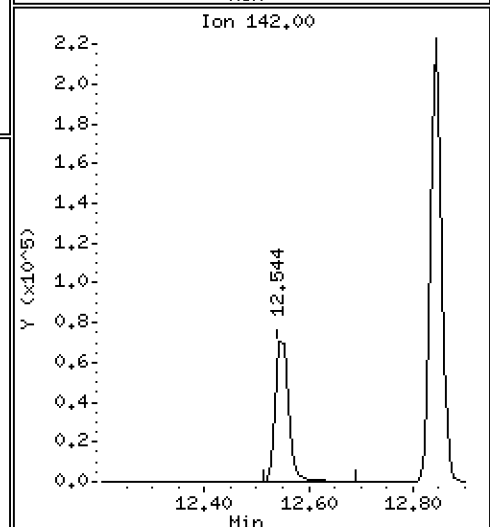
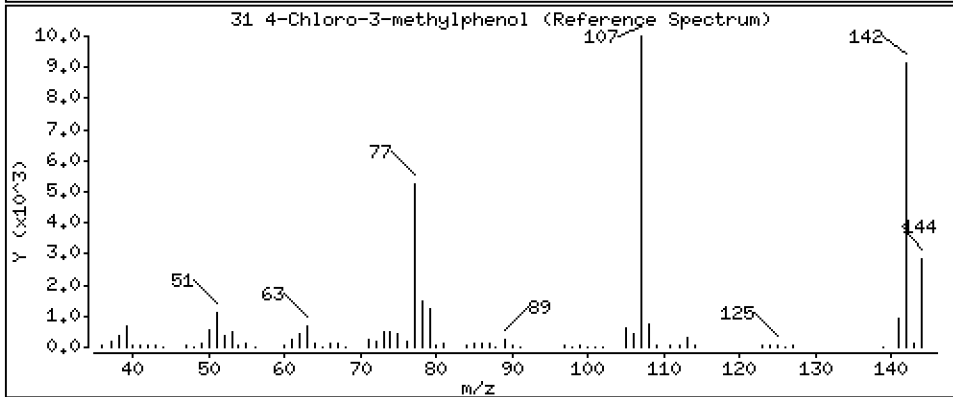
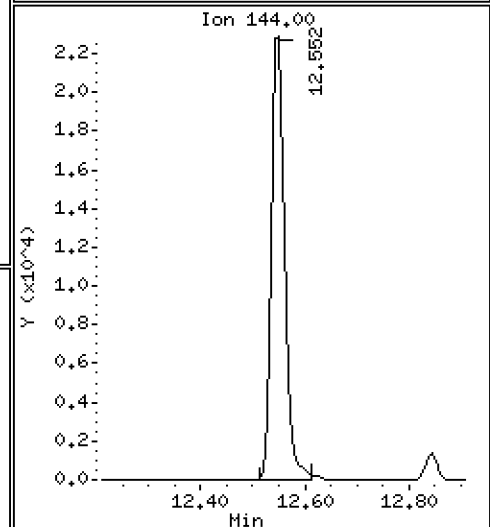
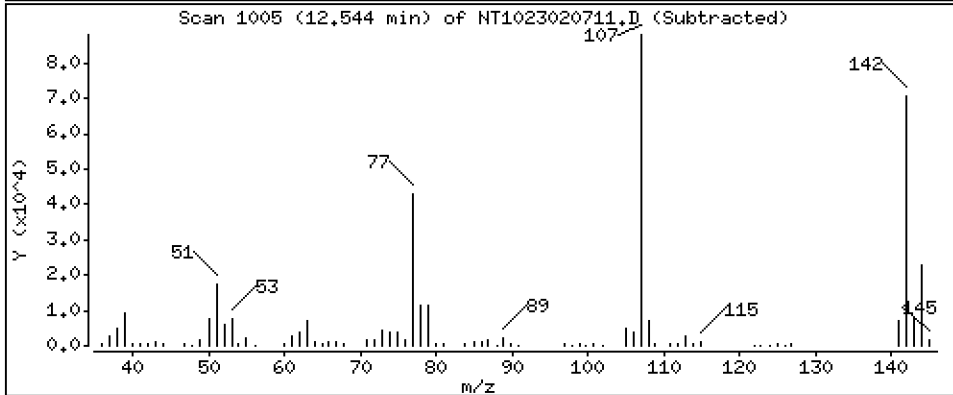
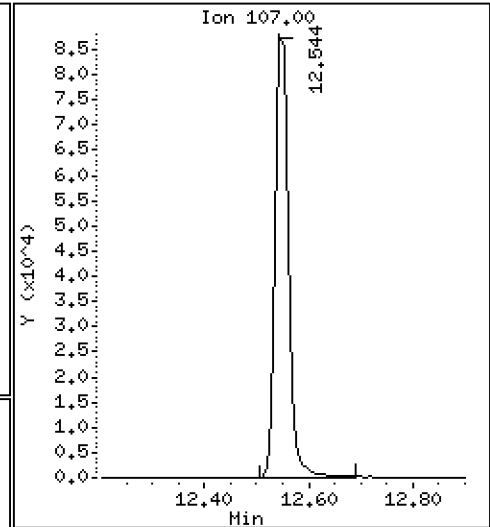
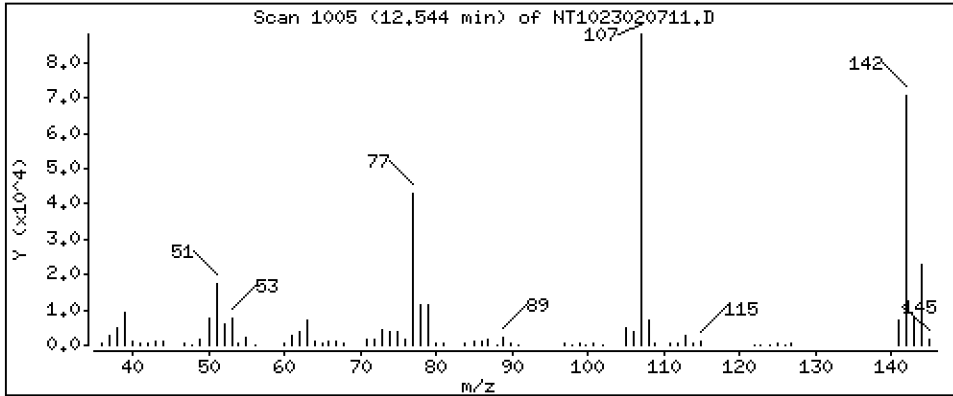
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

31 4-Chloro-3-methylphenol

Concentration: 4.308 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

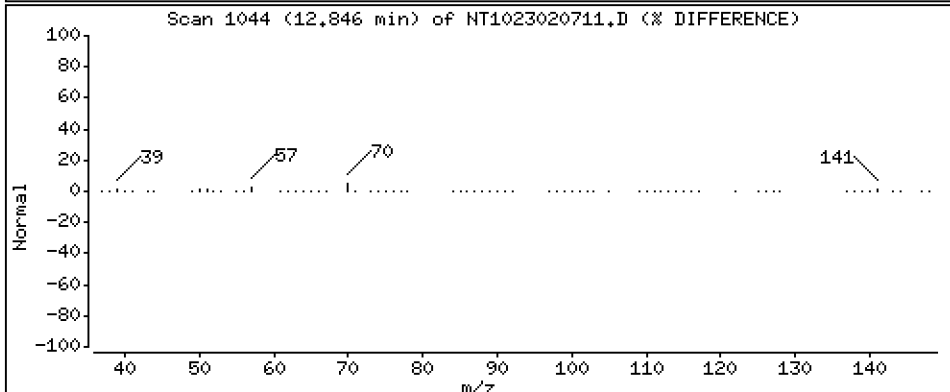
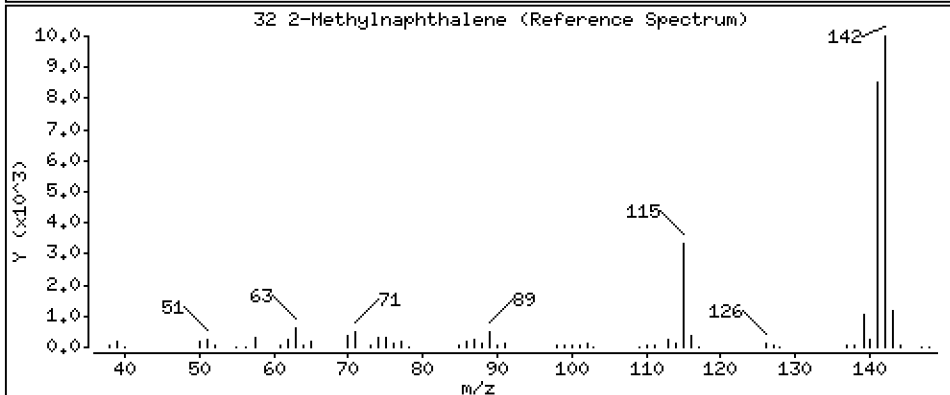
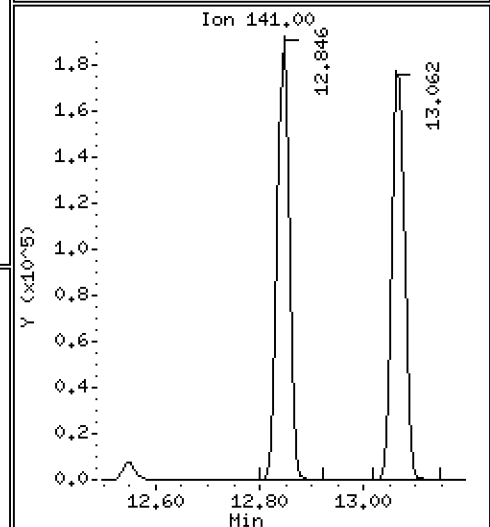
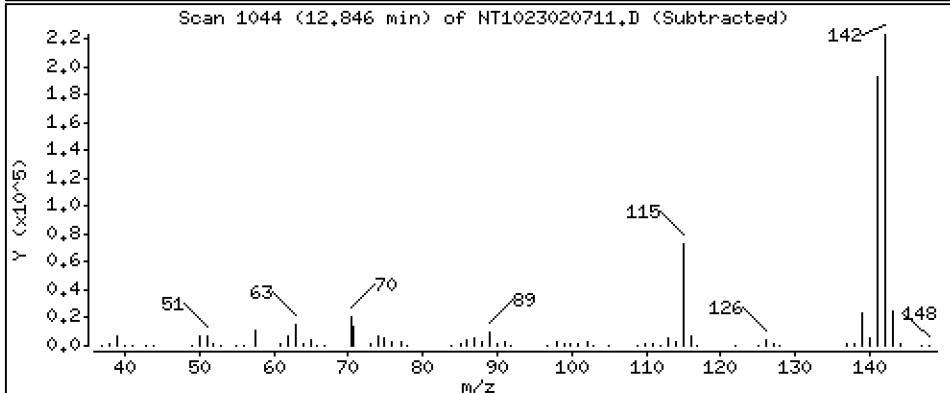
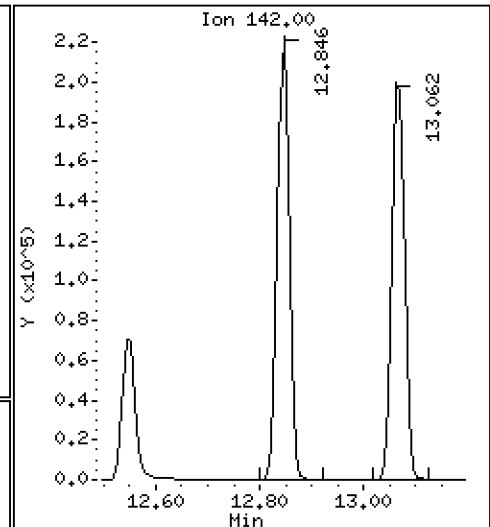
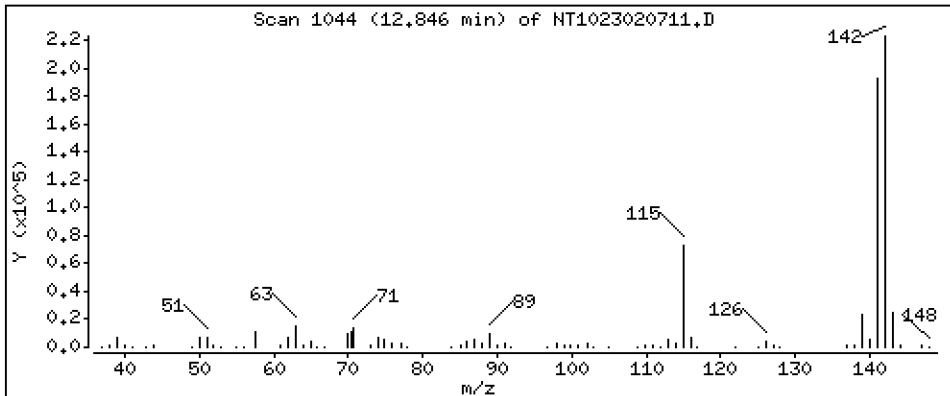
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 4,226 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

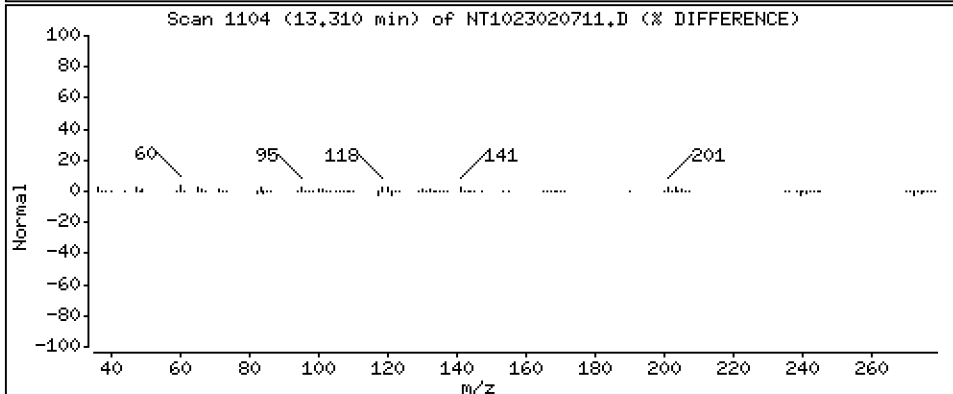
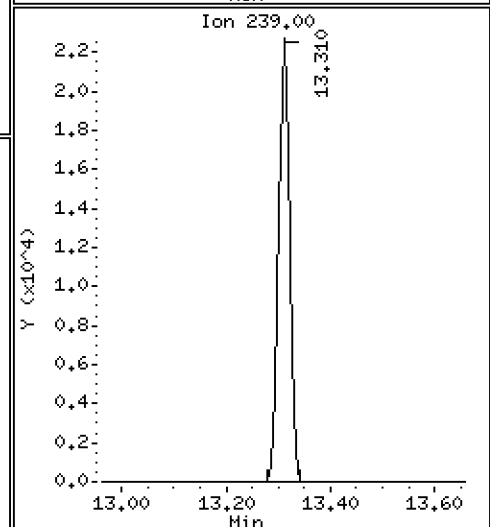
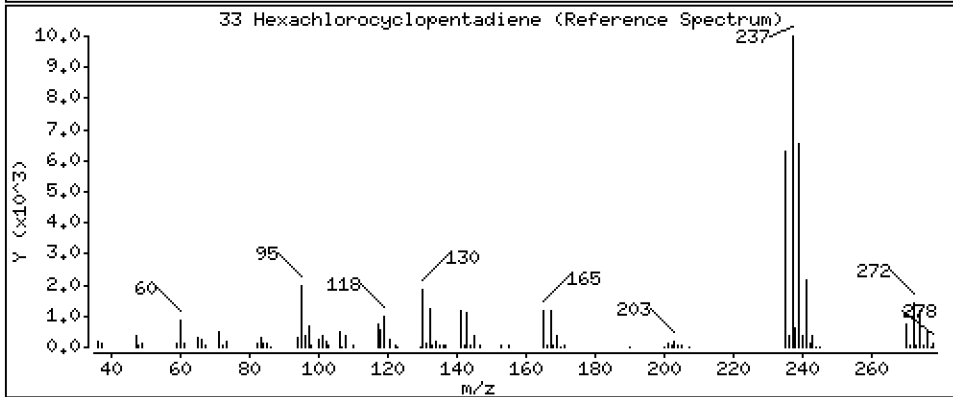
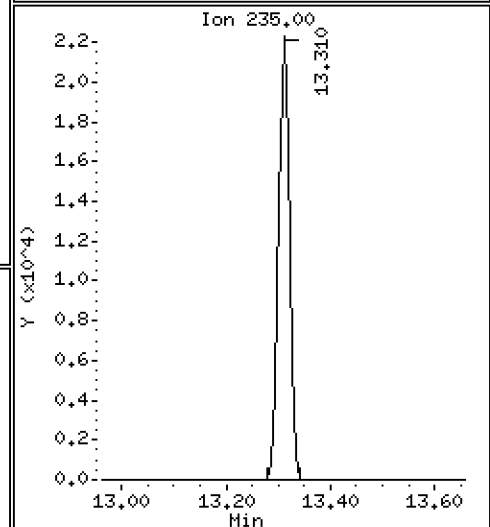
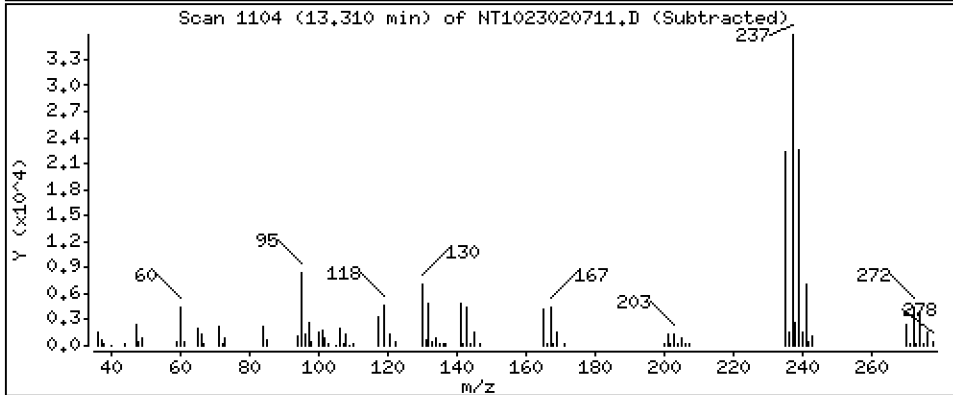
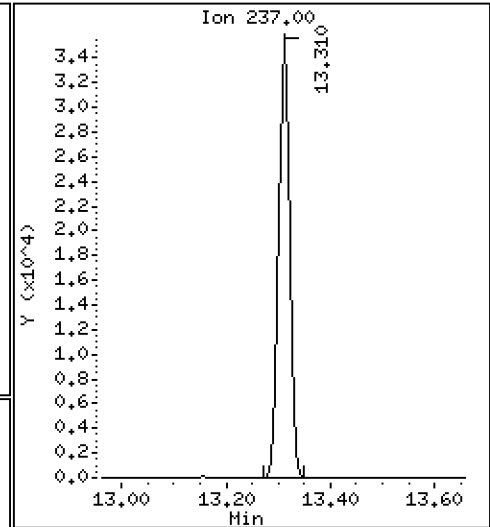
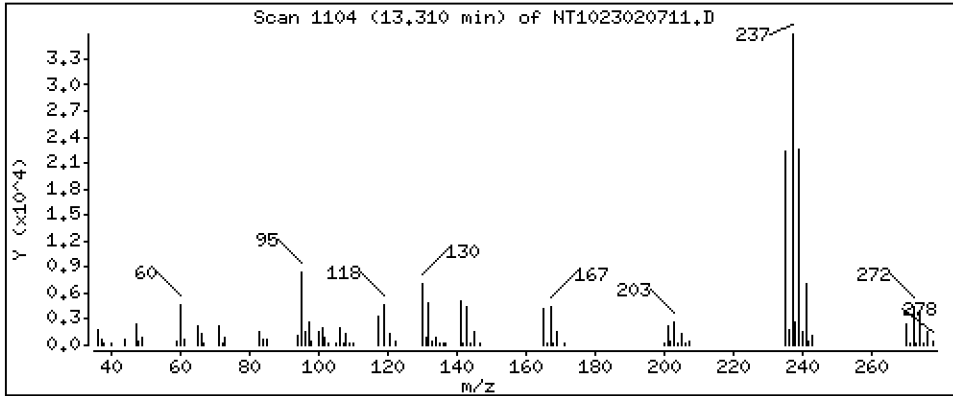
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

33 Hexachlorocyclopentadiene

Concentration: 3.355 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

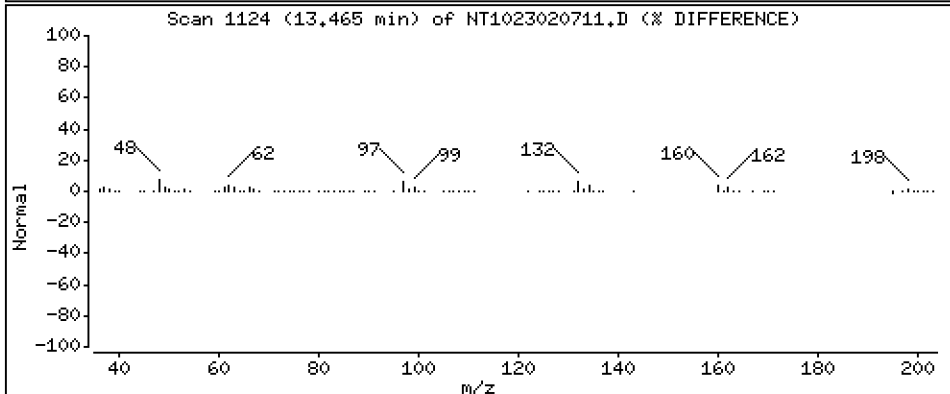
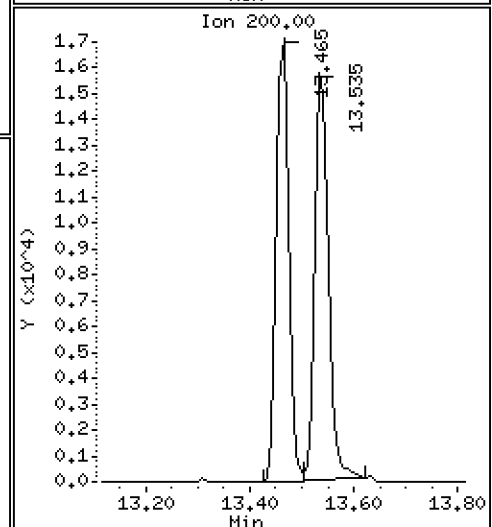
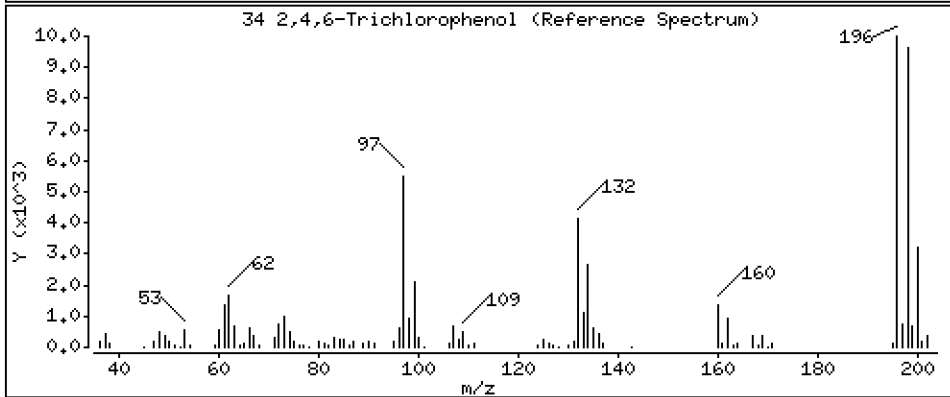
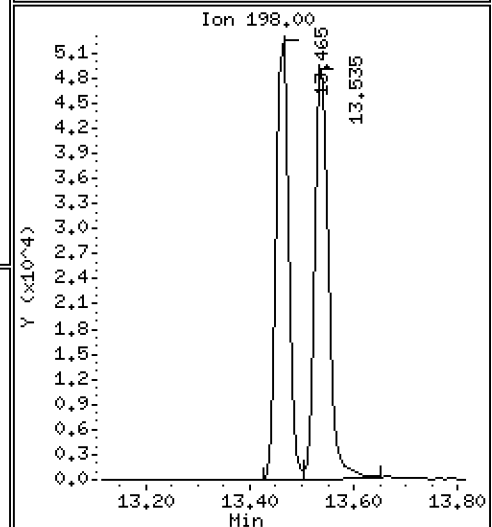
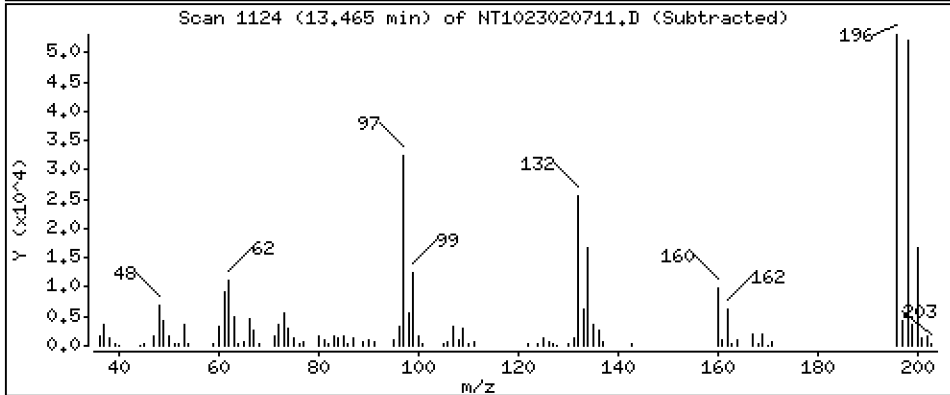
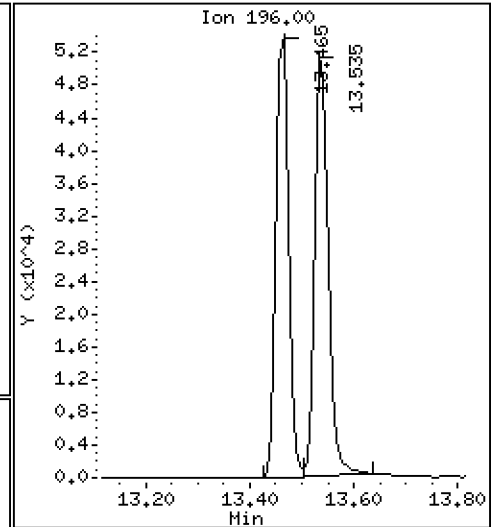
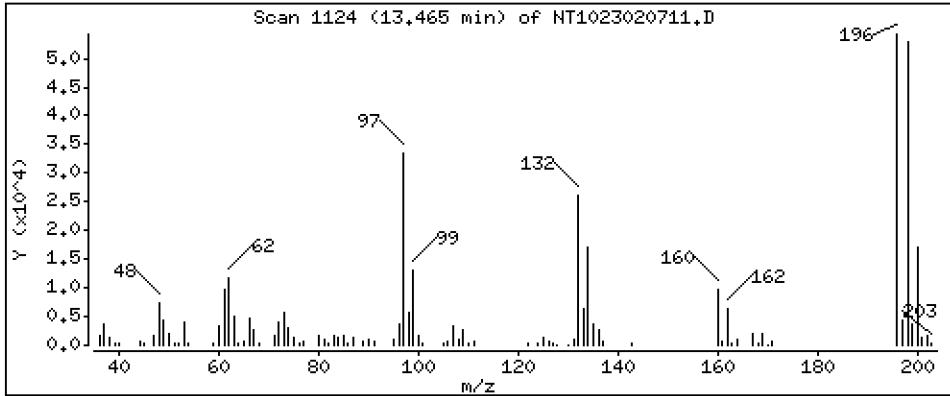
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 4,079 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

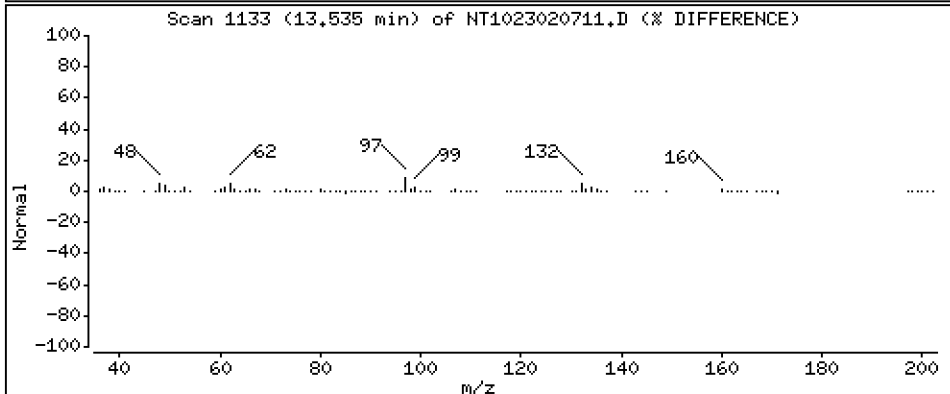
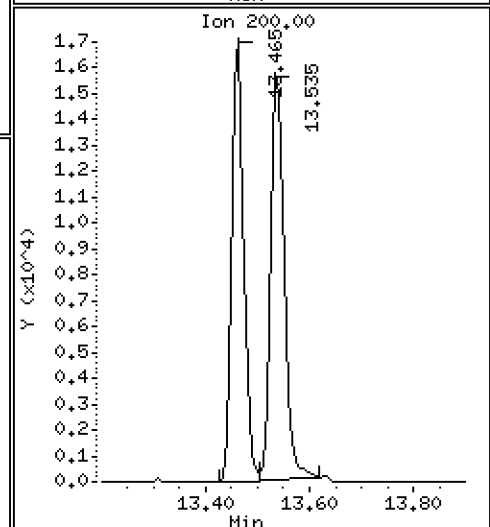
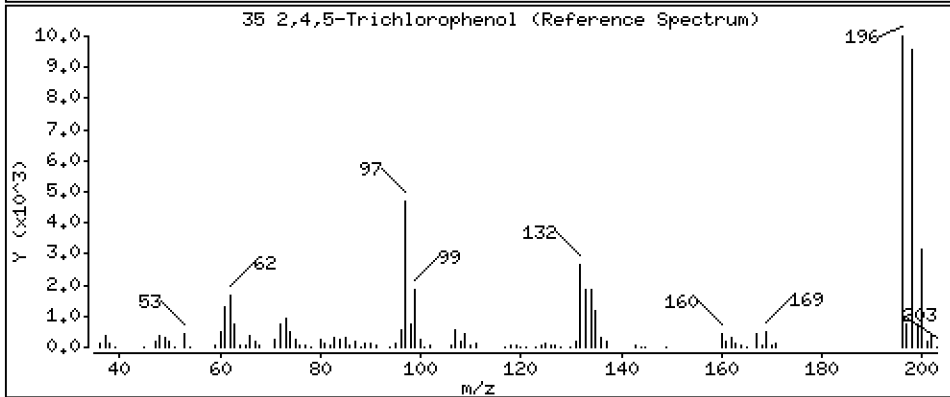
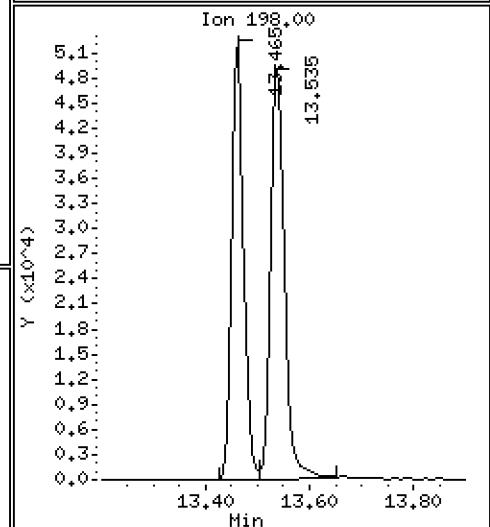
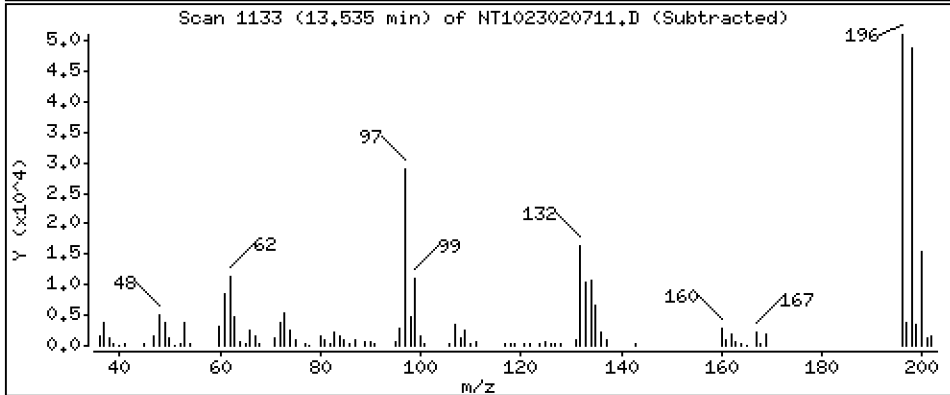
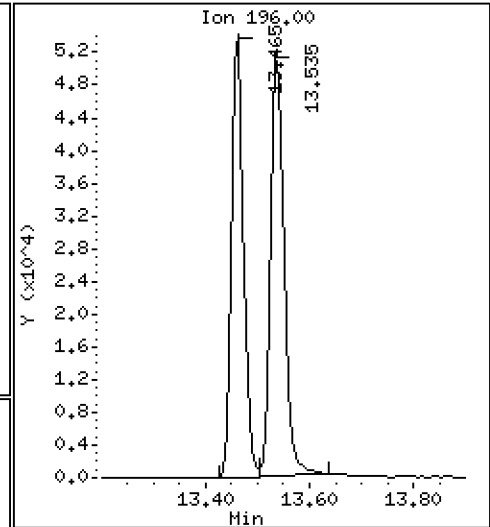
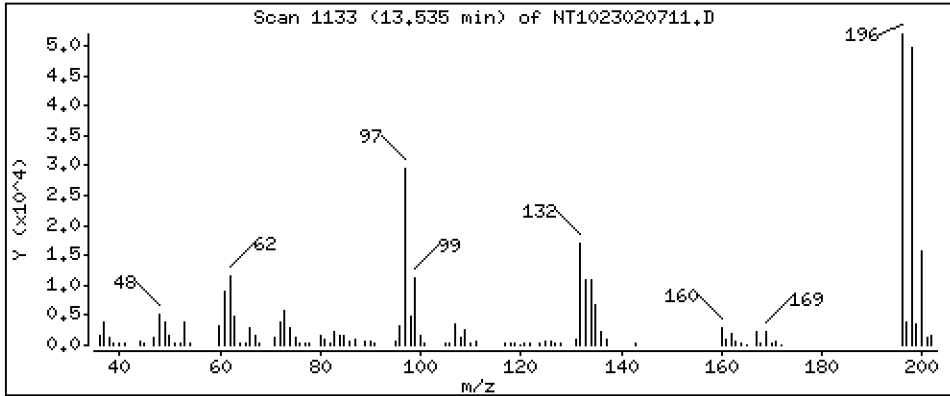
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 3,913 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

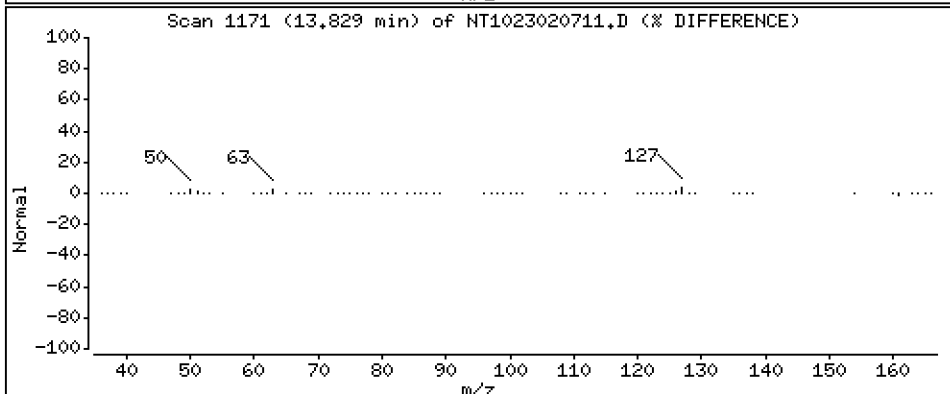
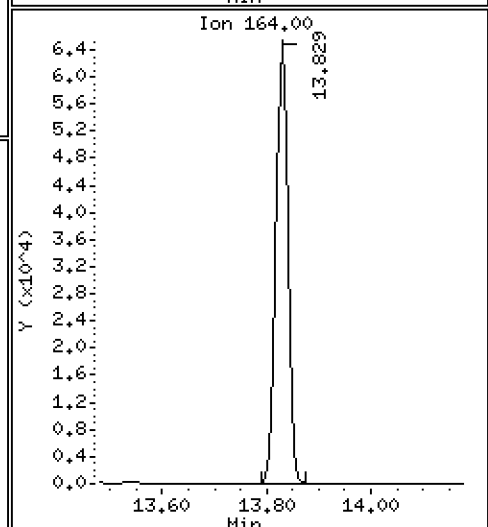
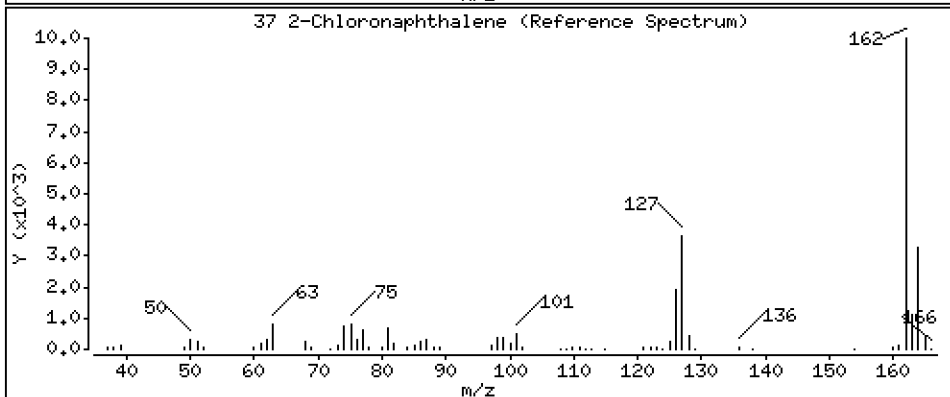
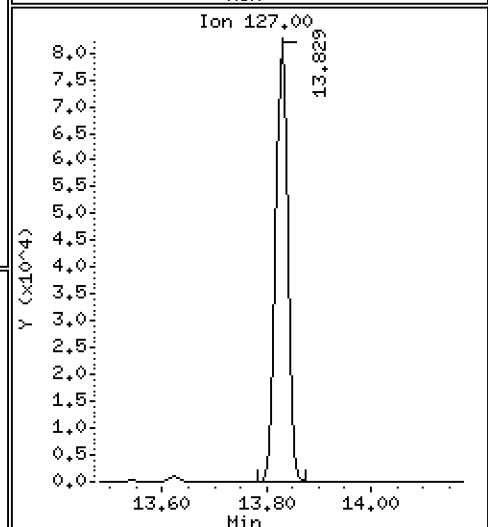
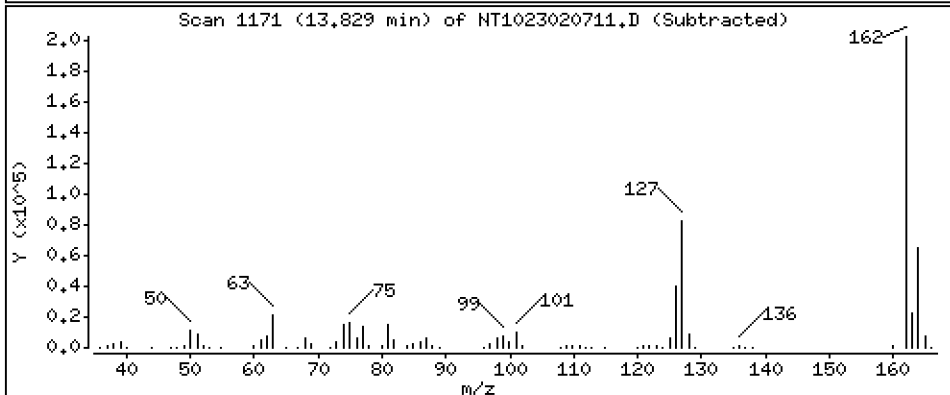
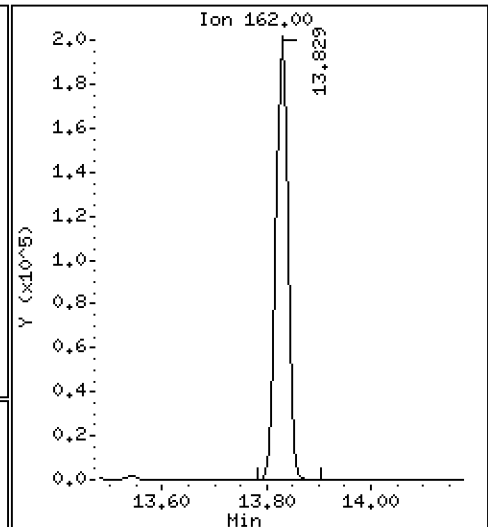
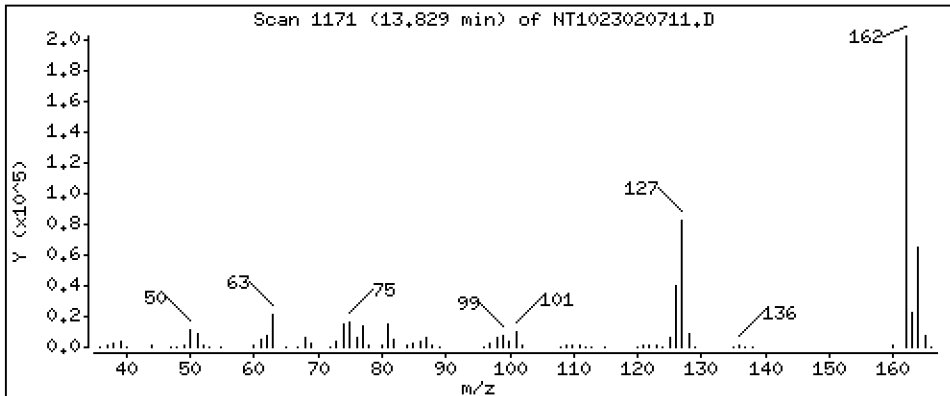
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 4.155 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

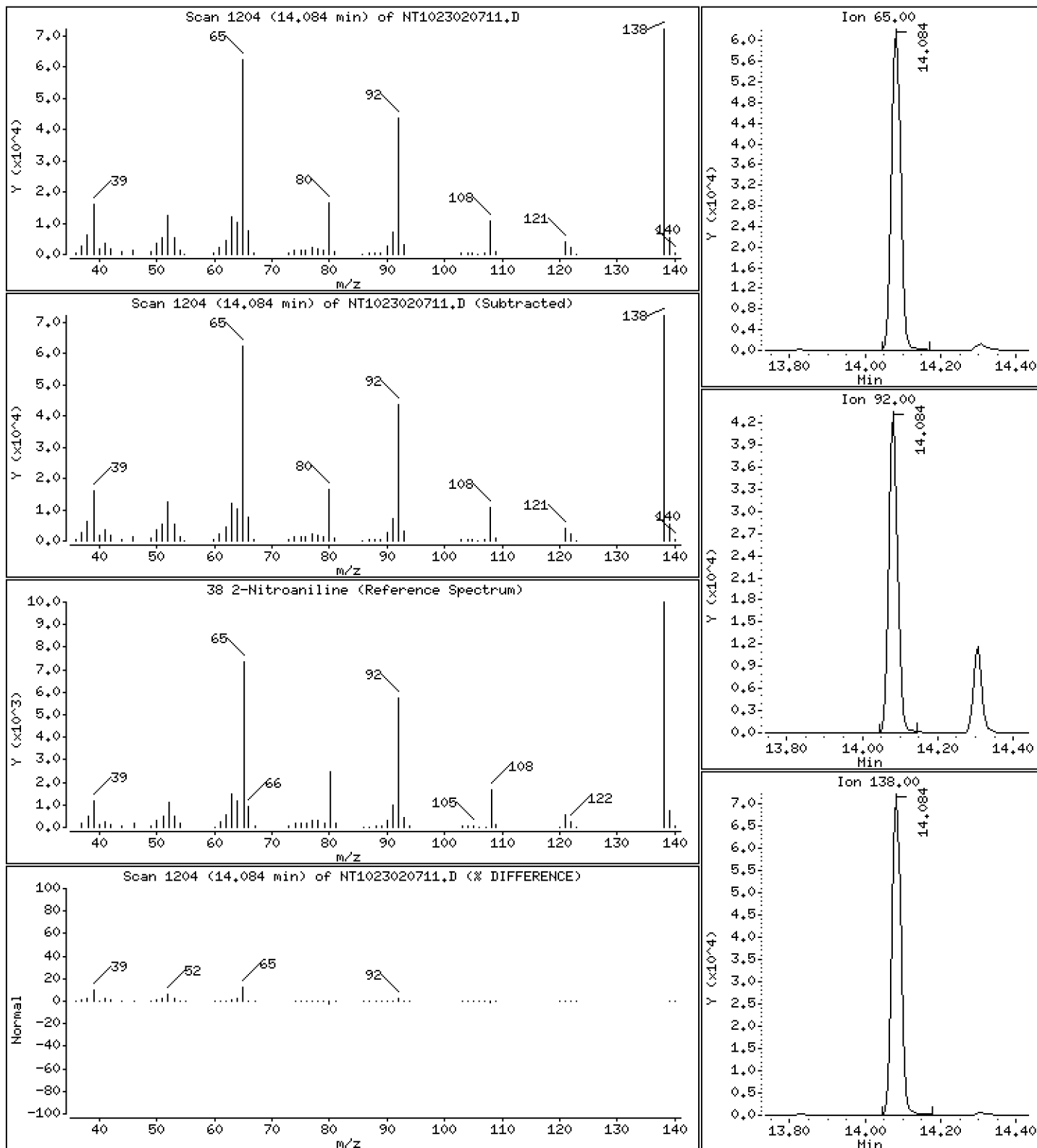
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 4,336 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

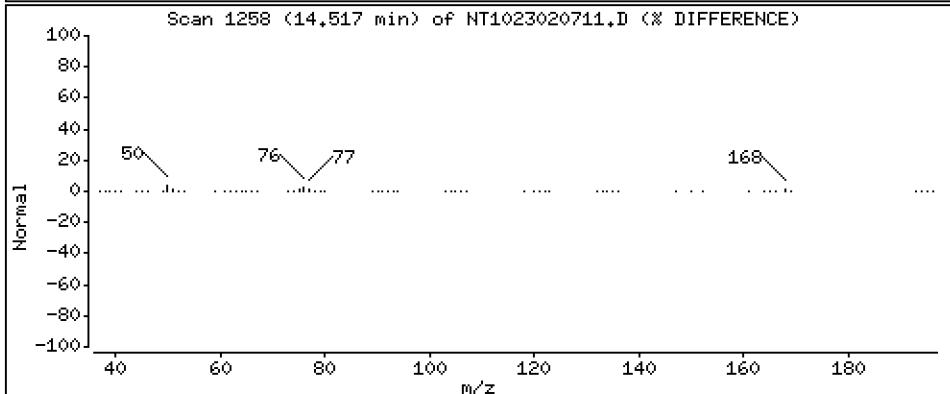
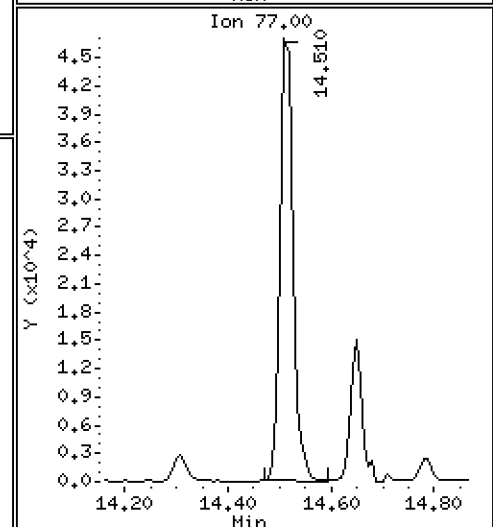
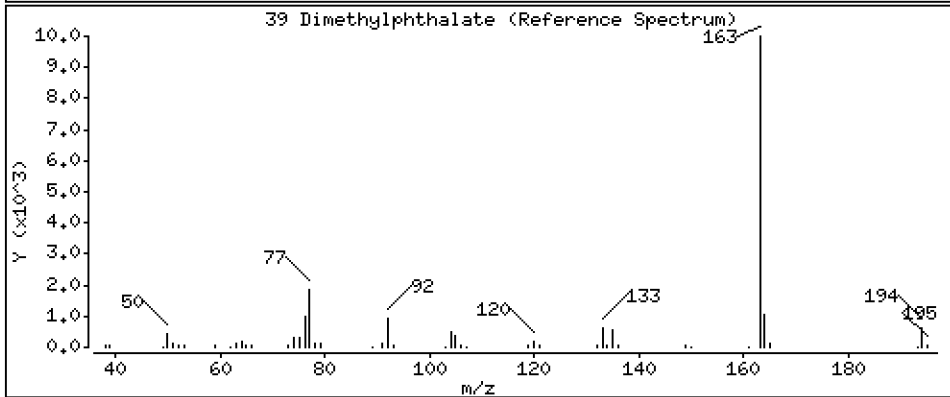
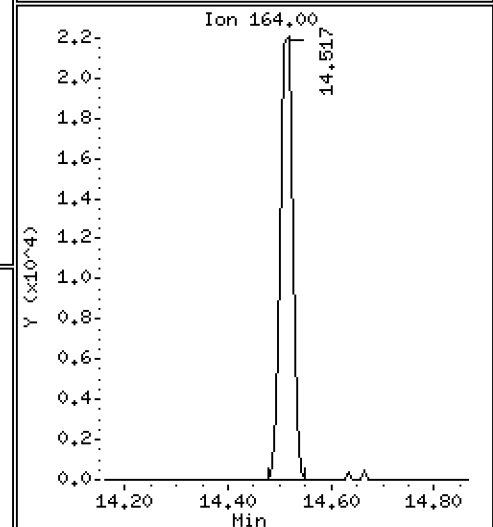
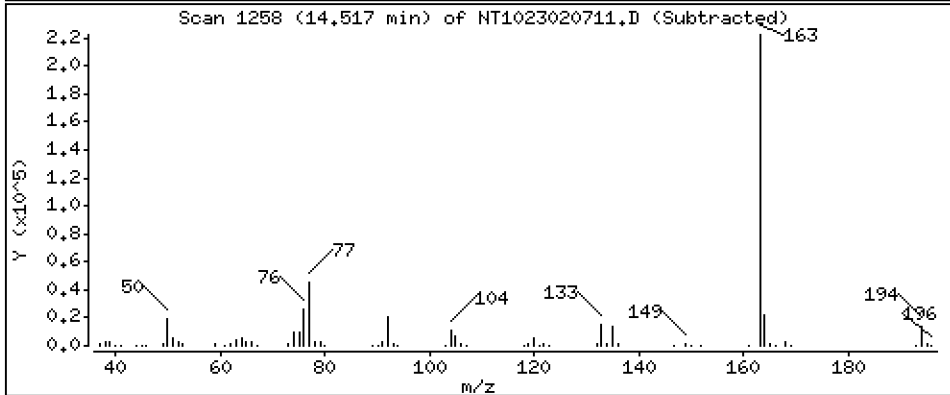
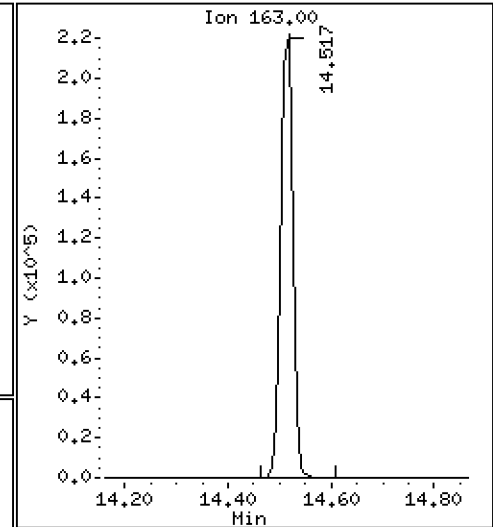
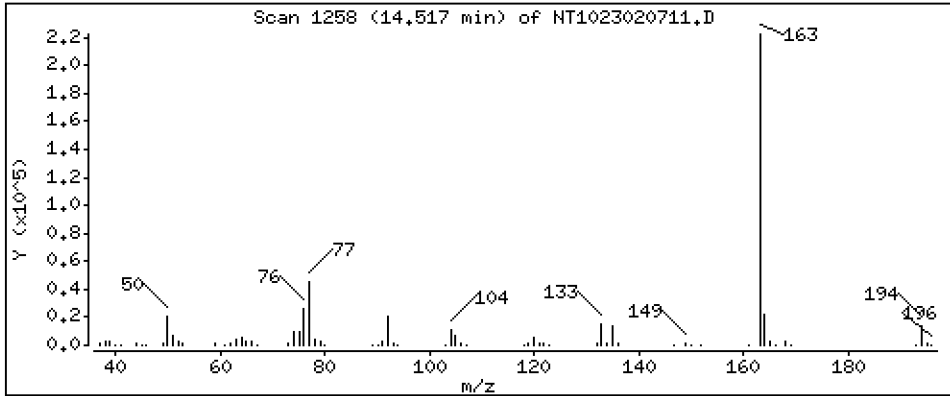
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,280 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

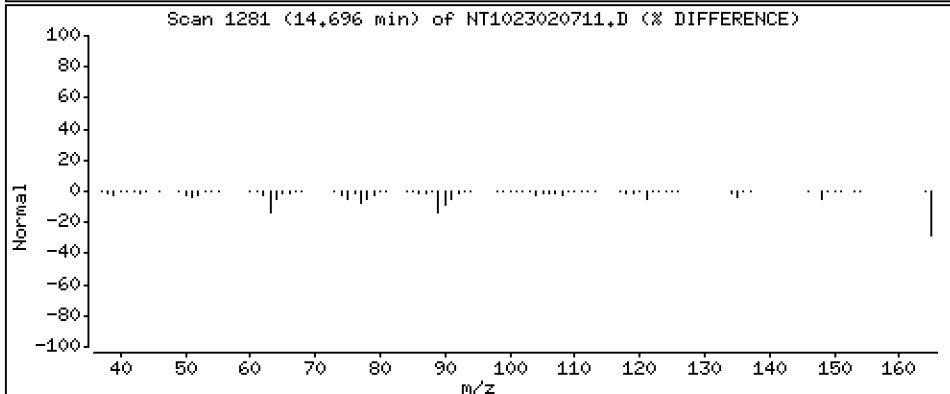
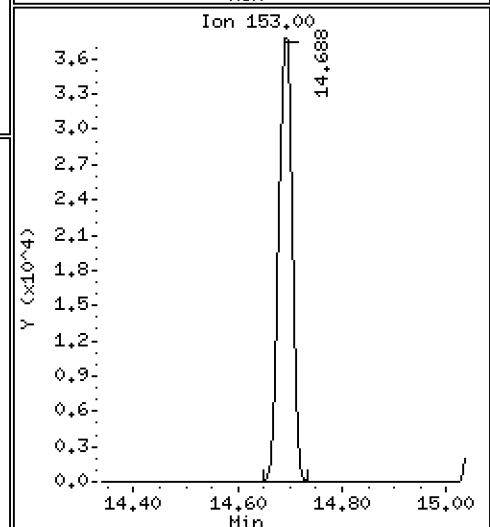
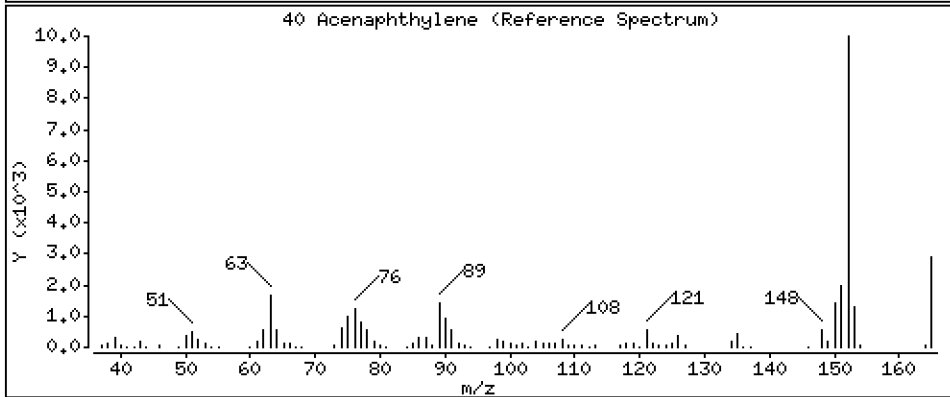
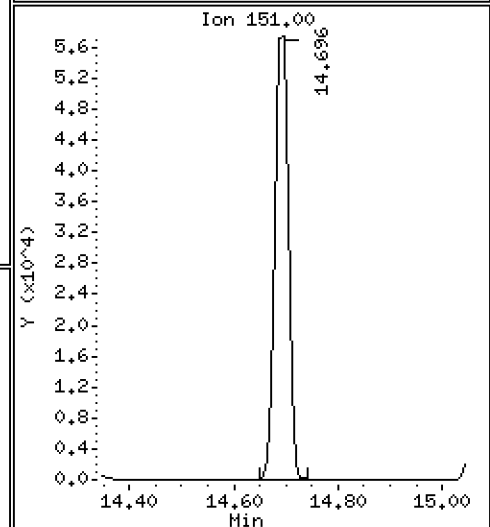
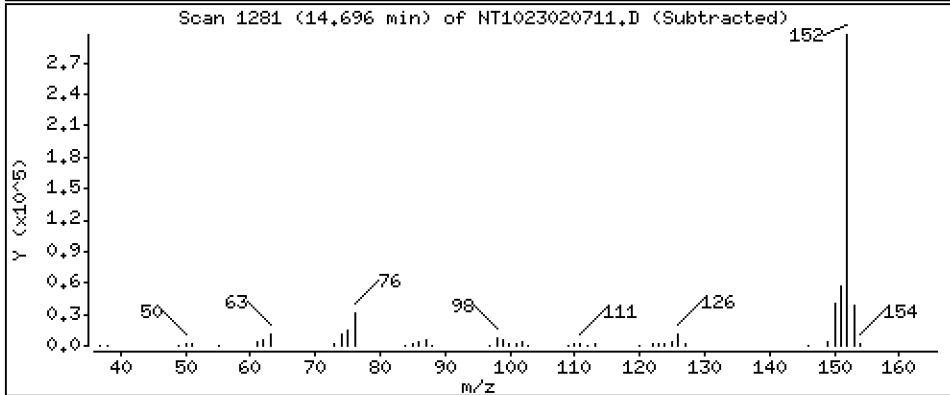
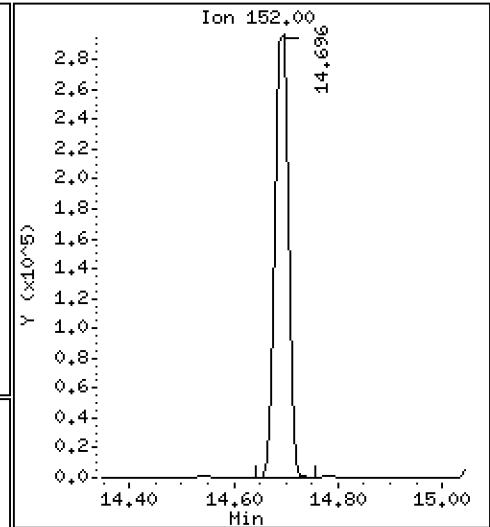
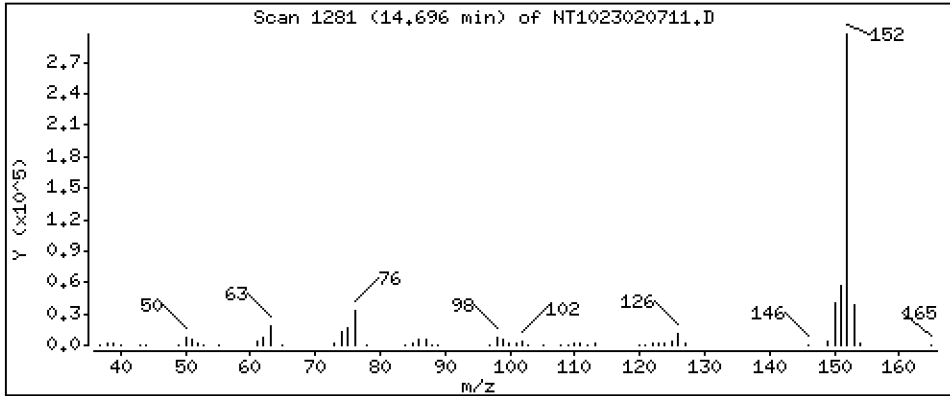
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 4,322 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

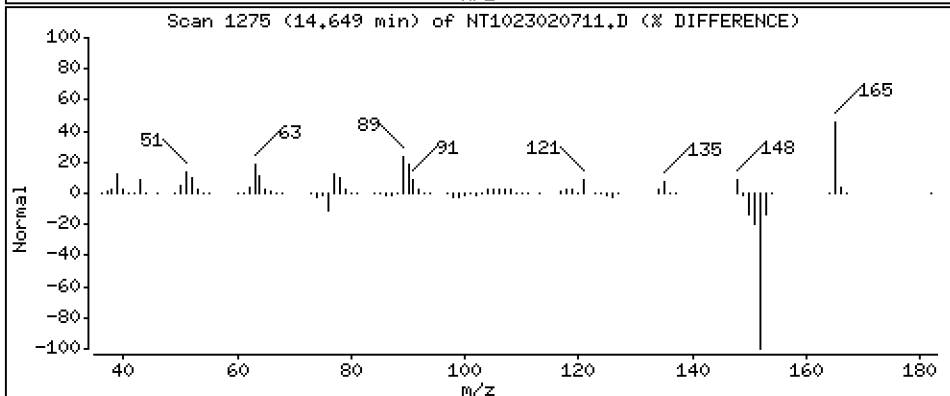
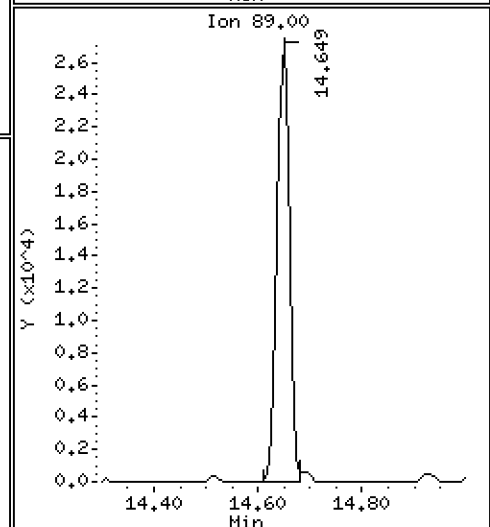
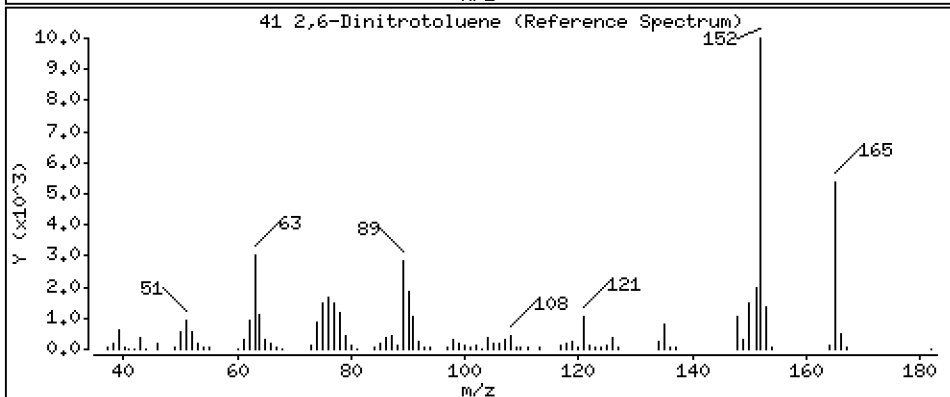
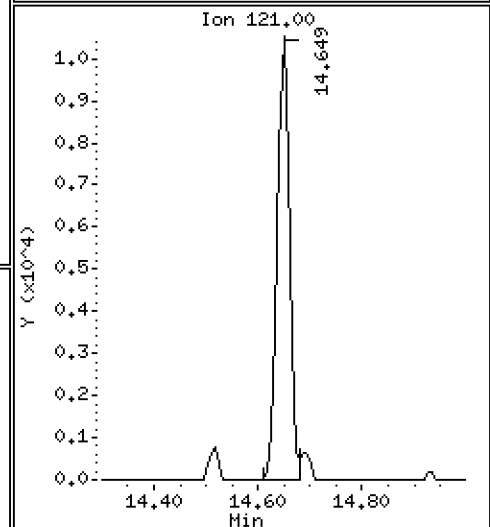
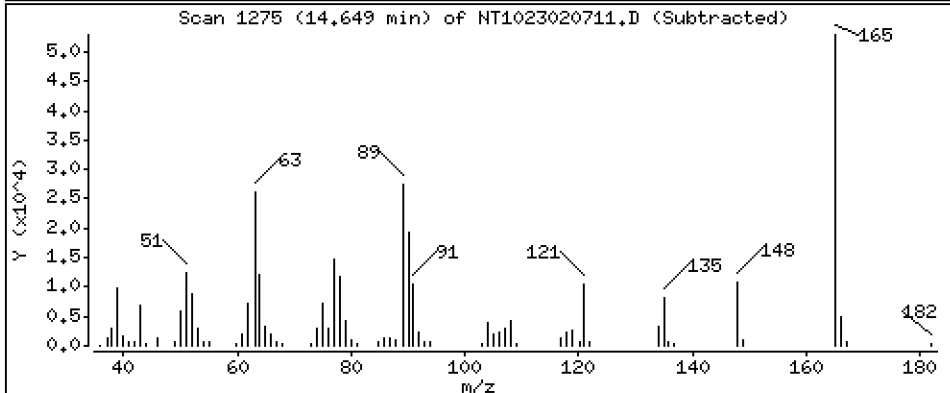
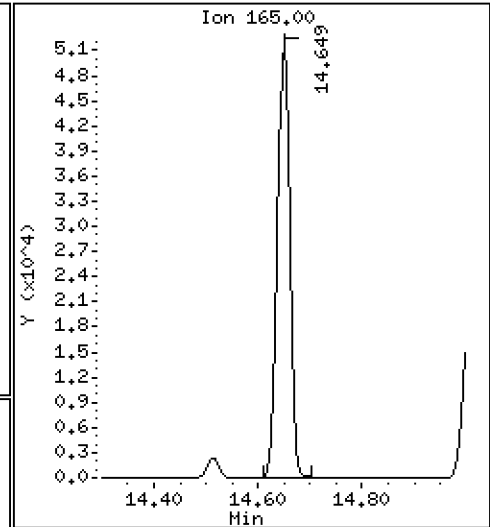
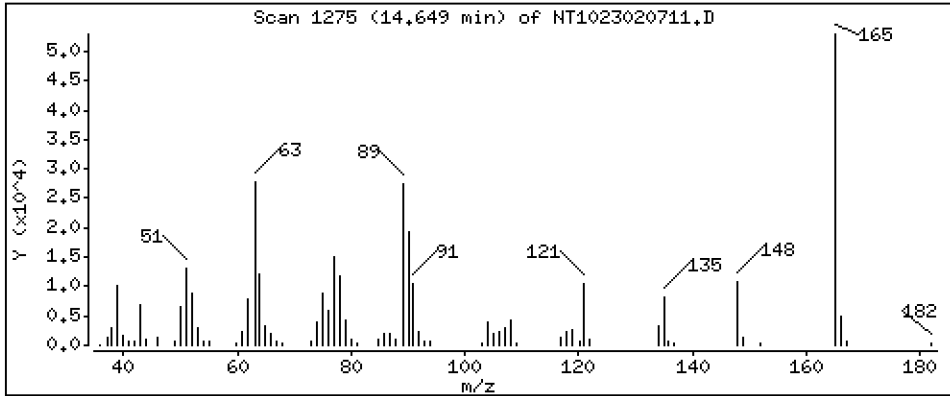
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 4.377 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

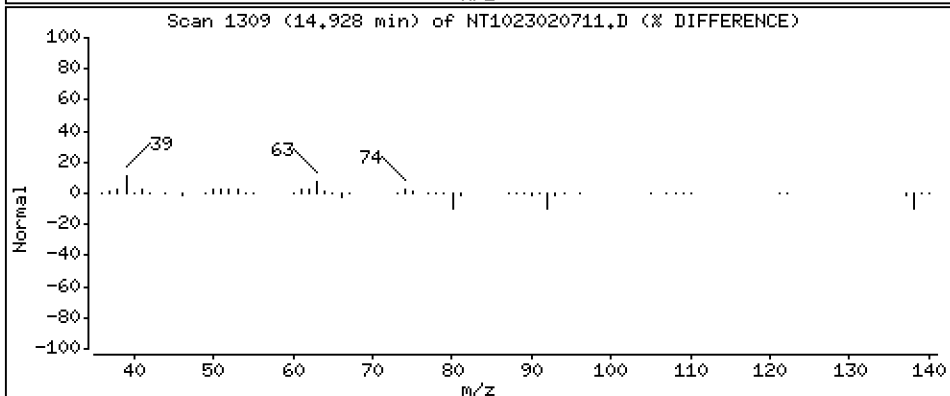
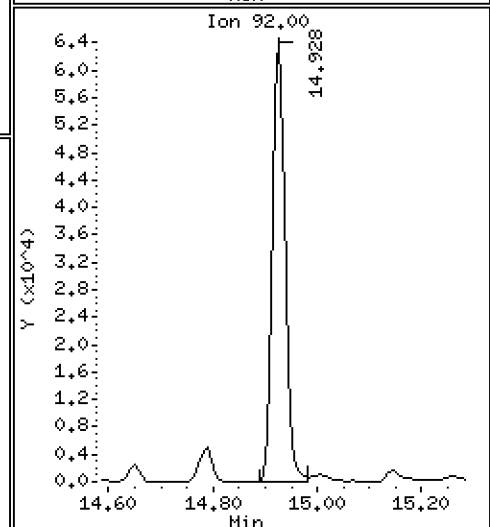
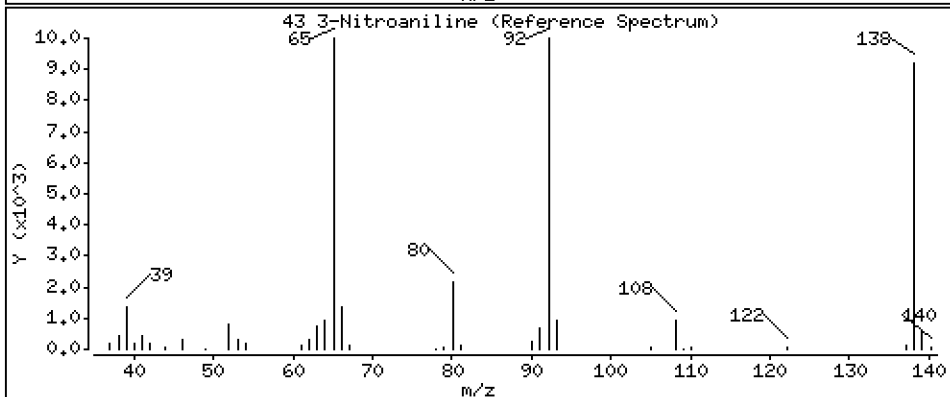
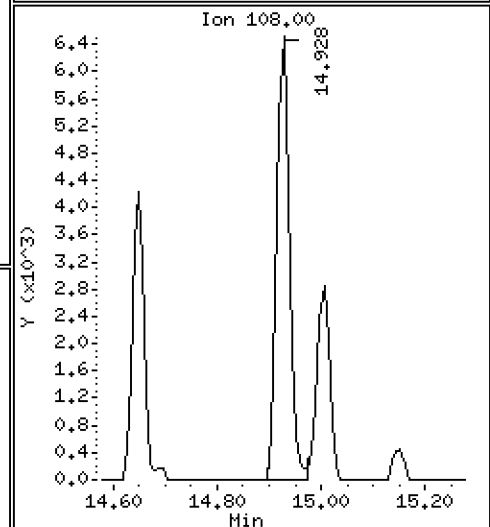
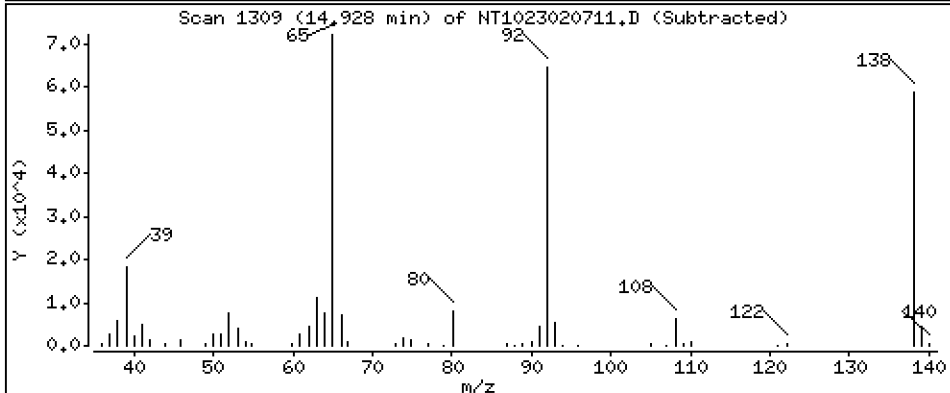
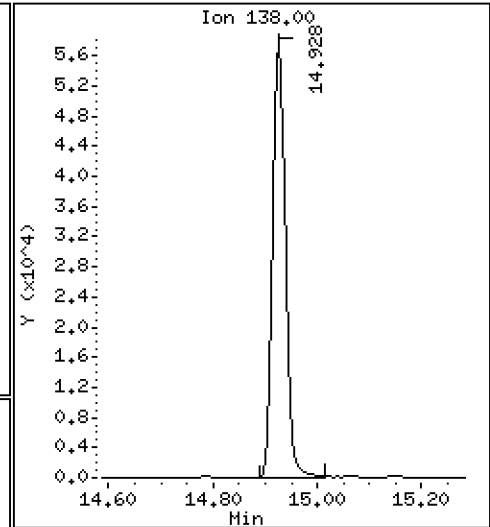
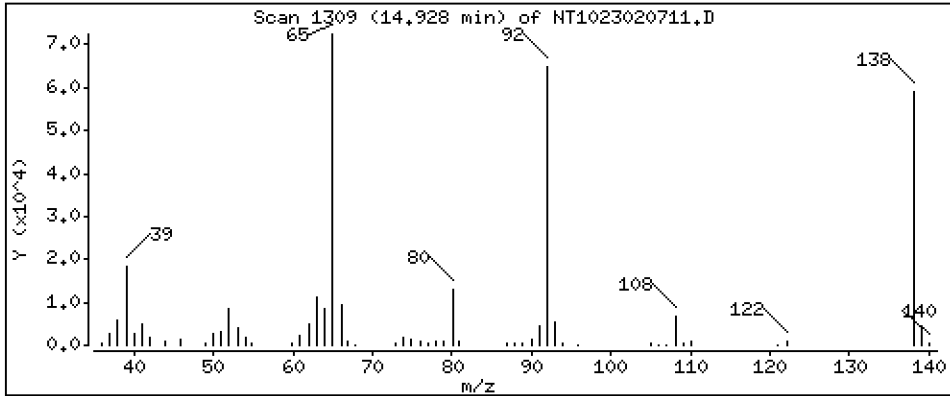
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

43 3-Nitroaniline

Concentration: 4.362 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

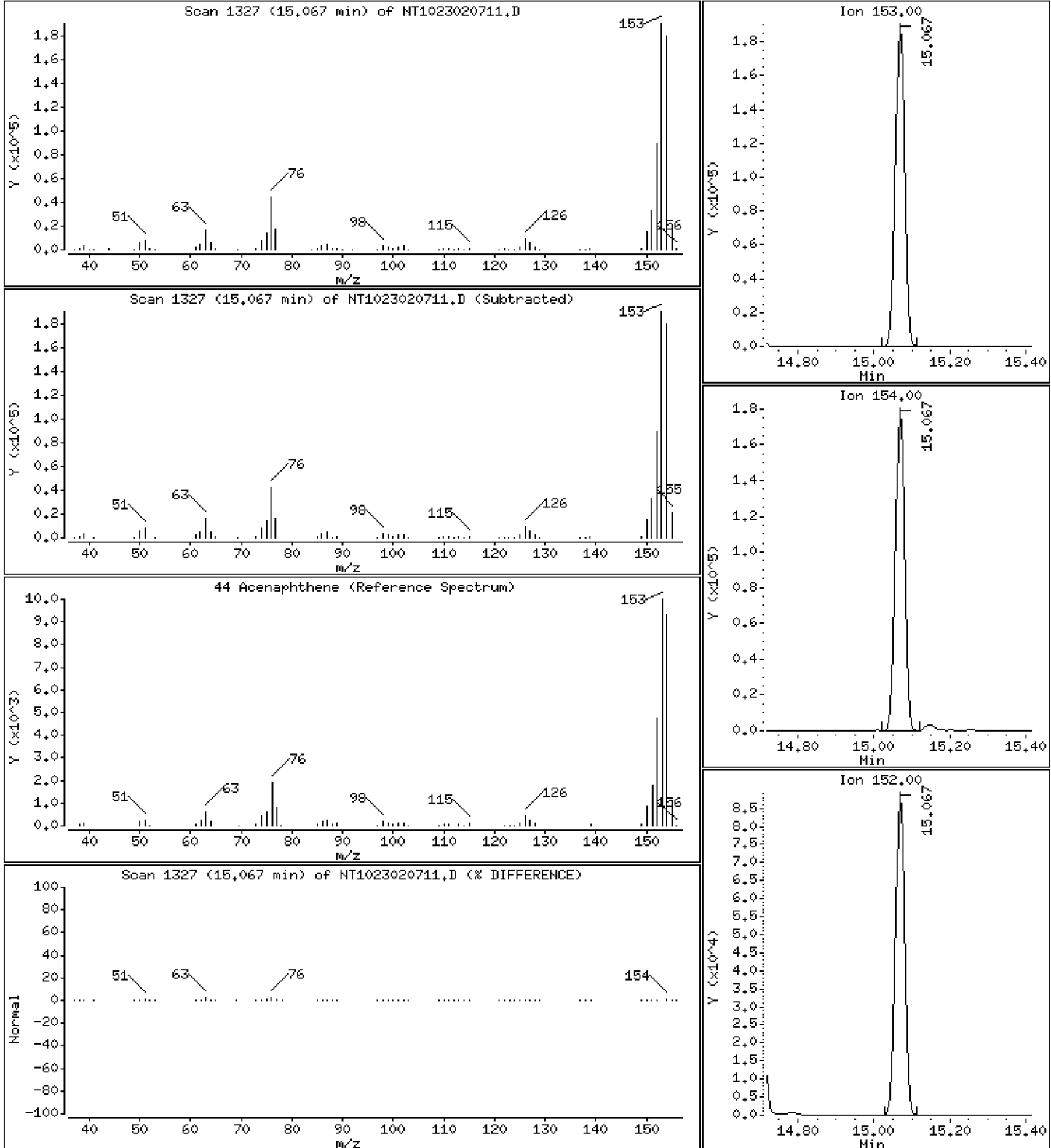
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,233 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

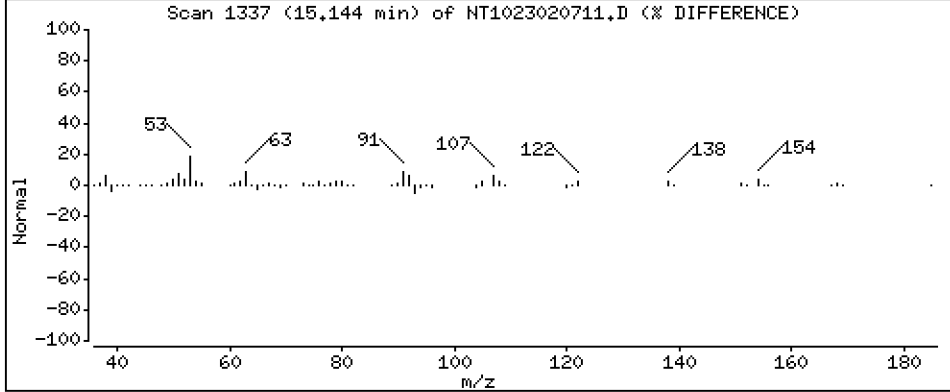
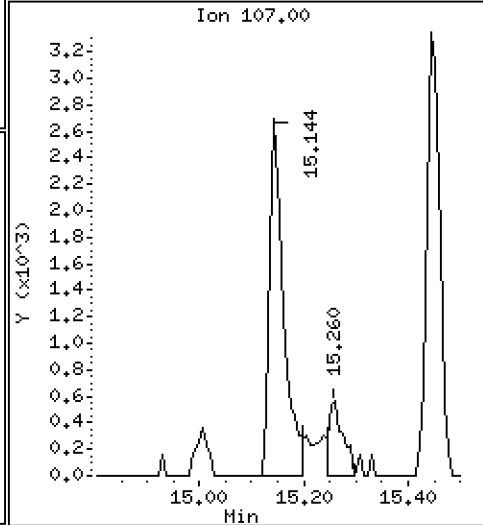
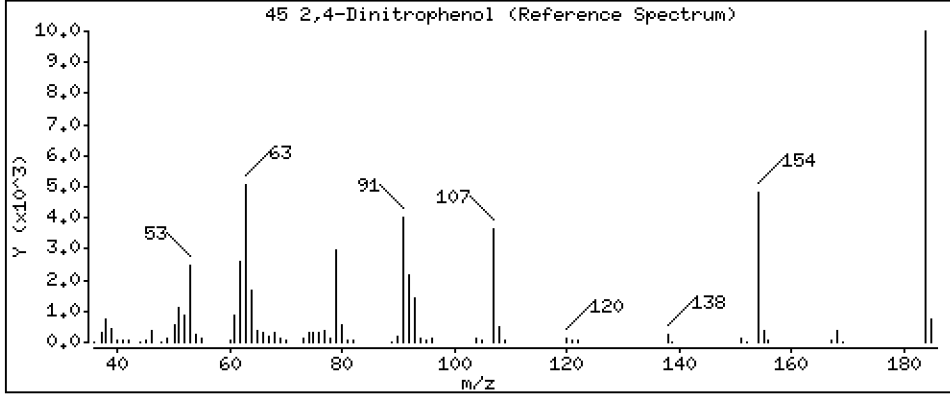
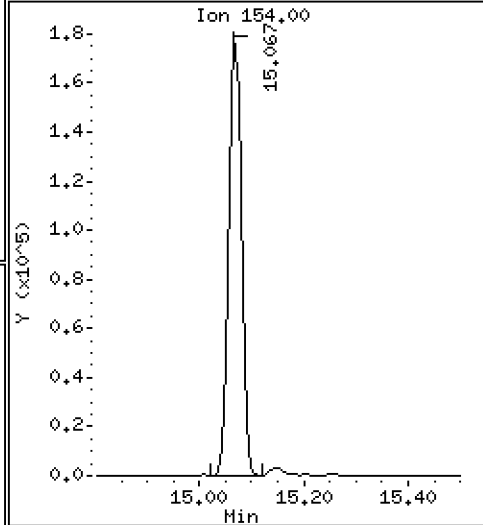
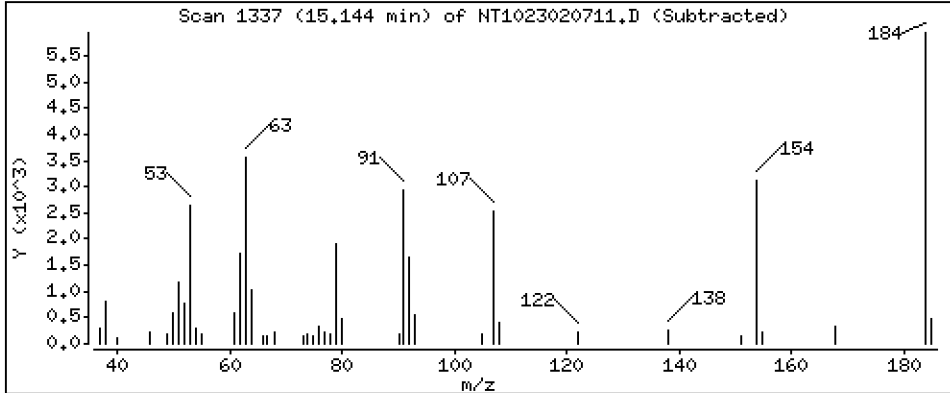
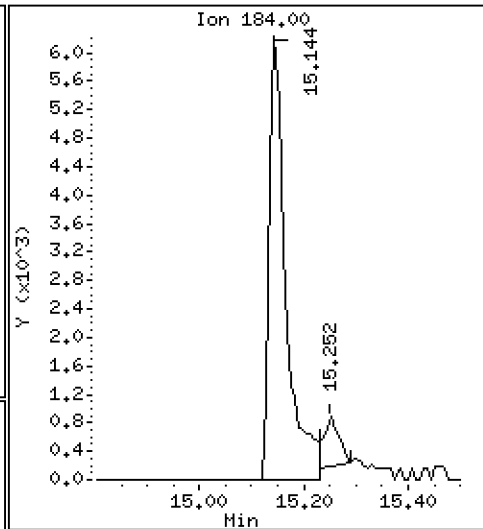
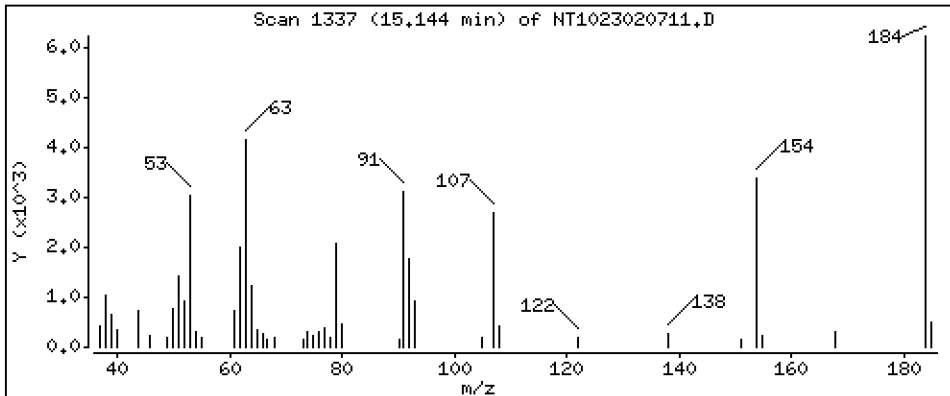
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

45 2,4-Dinitrophenol

Concentration: 1.385 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

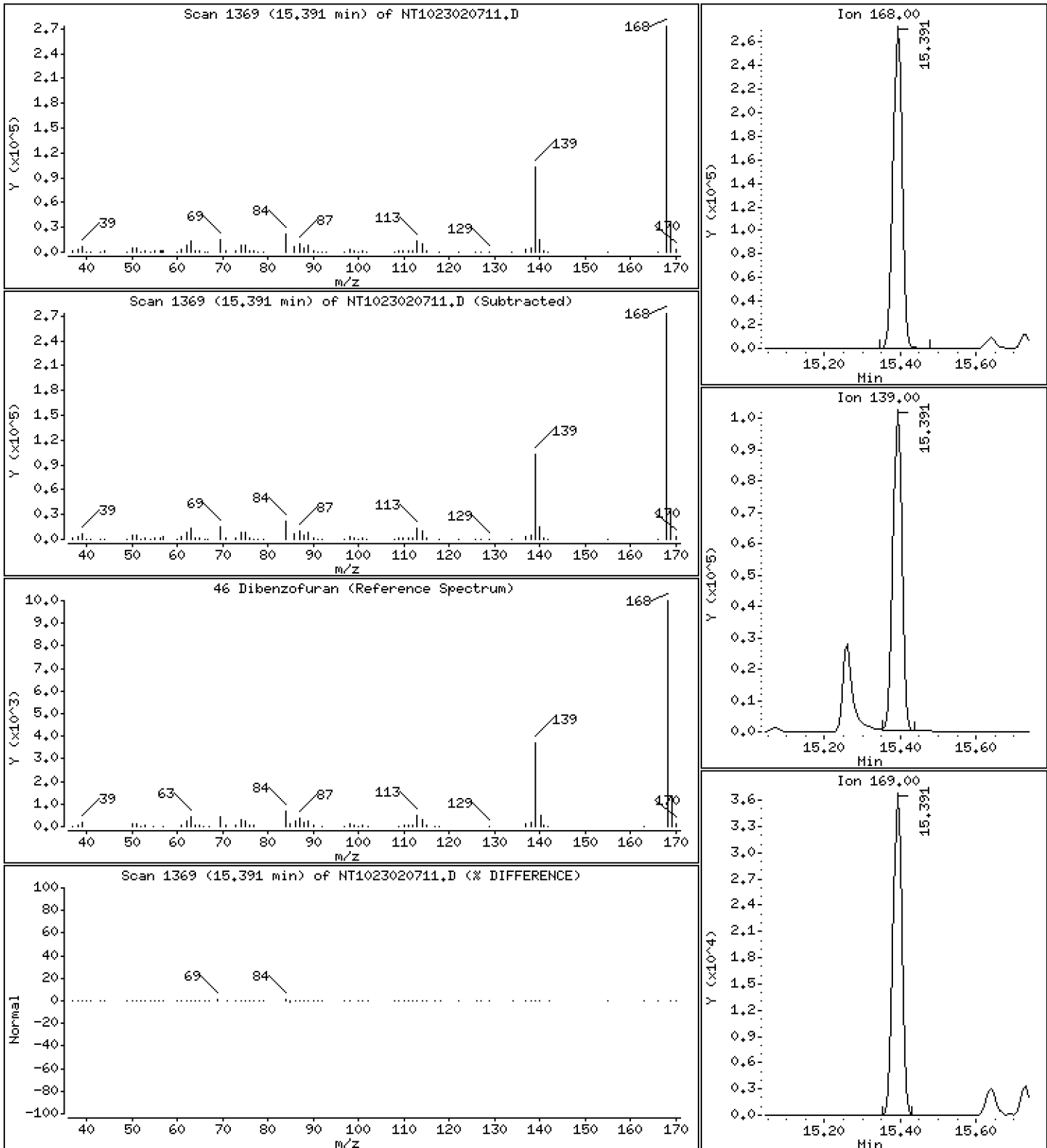
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 4,183 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

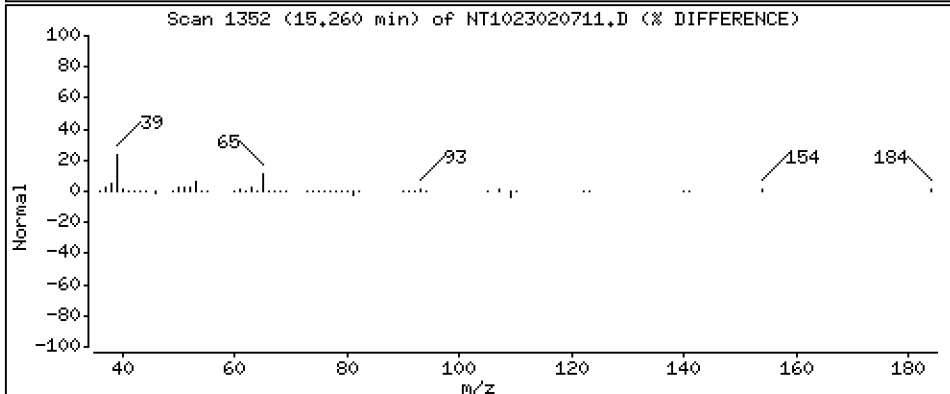
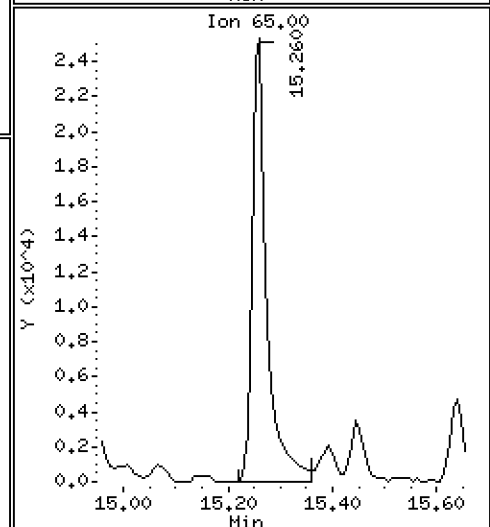
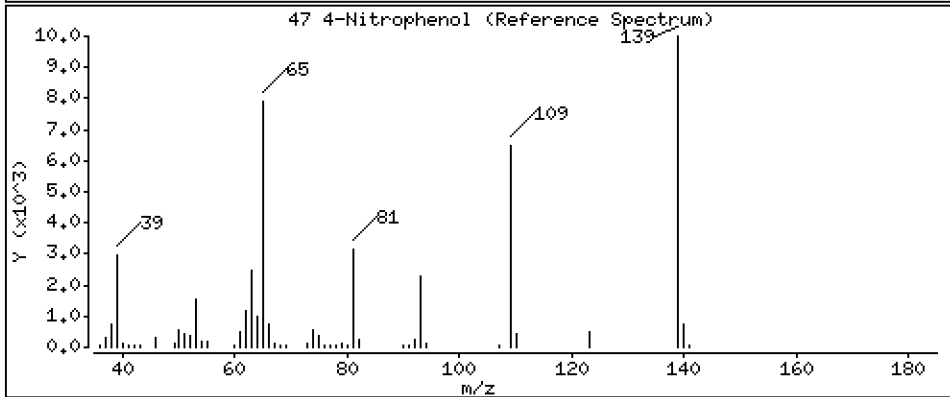
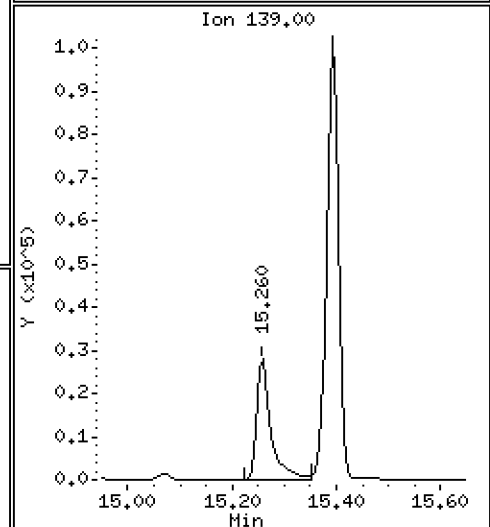
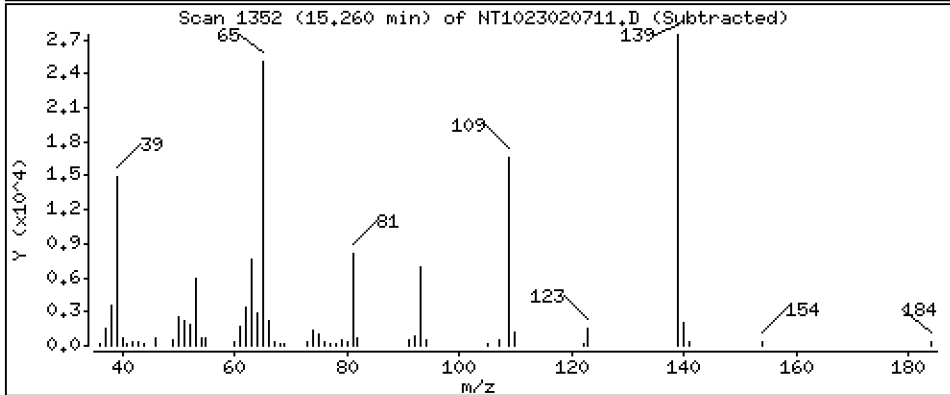
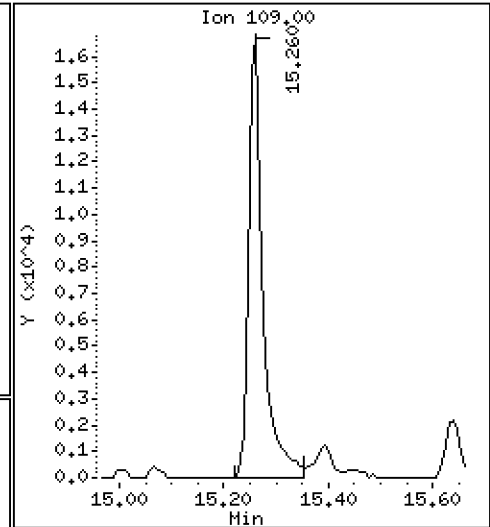
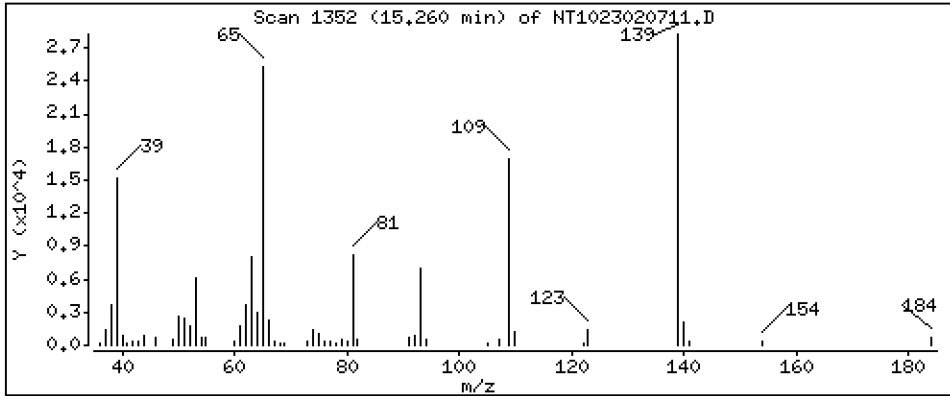
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

47 4-Nitrophenol

Concentration: 4.116 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

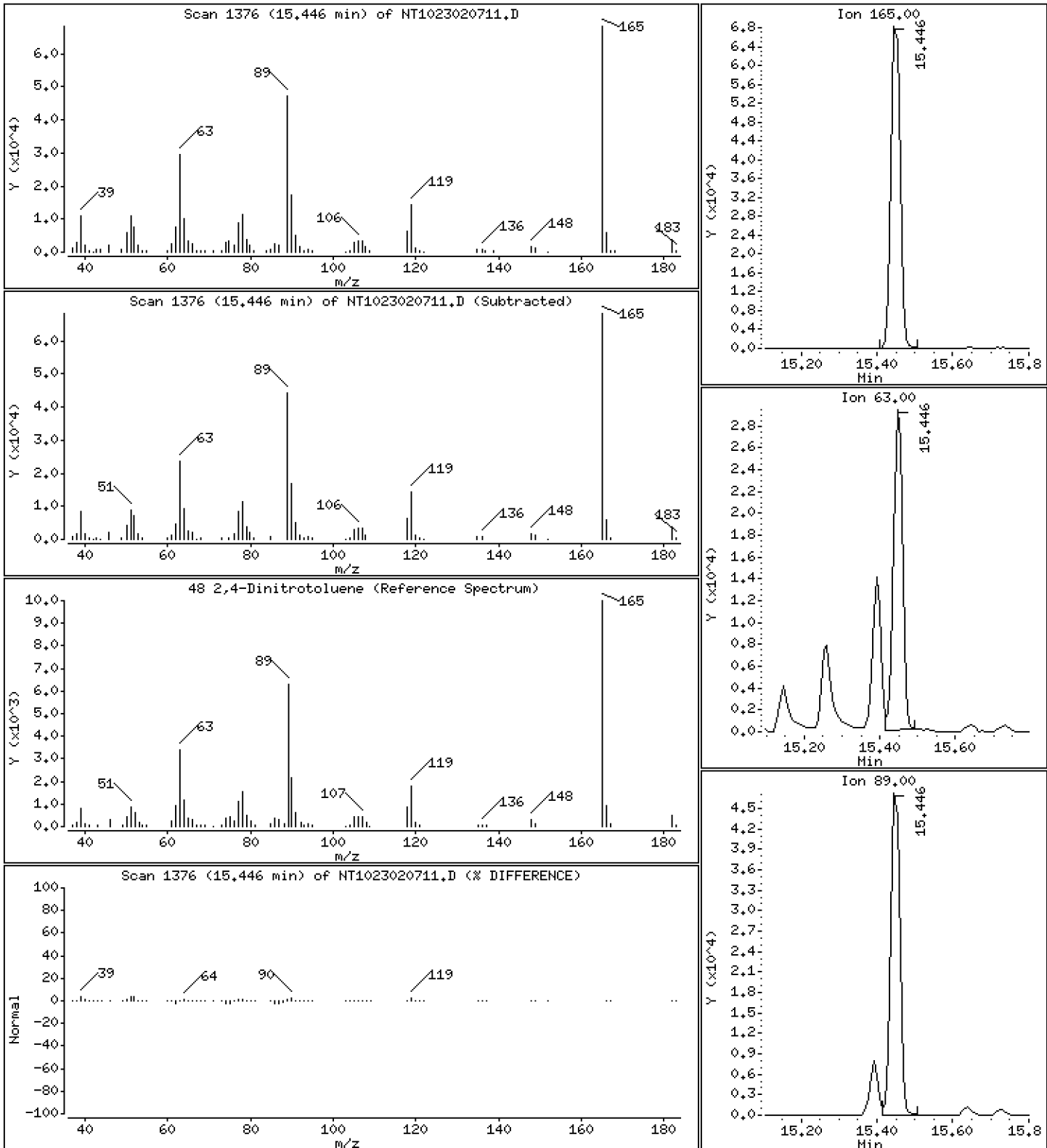
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

48 2,4-Dinitrotoluene

Concentration: 4.265 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

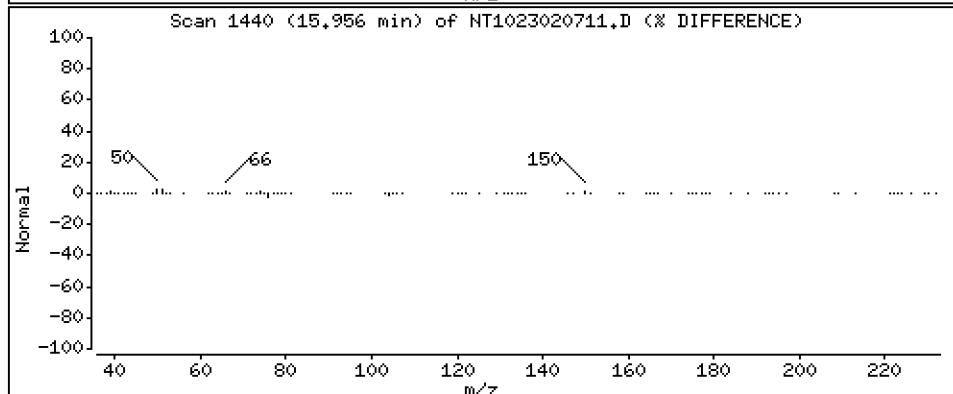
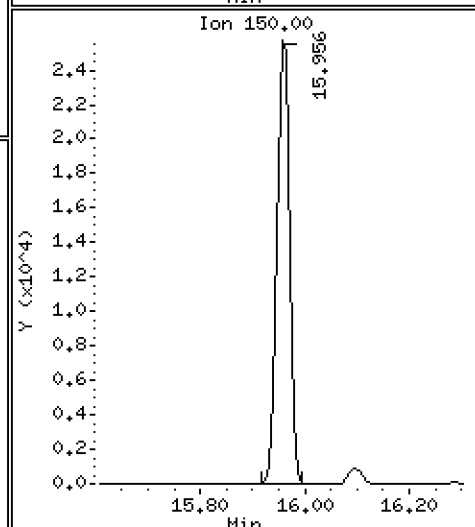
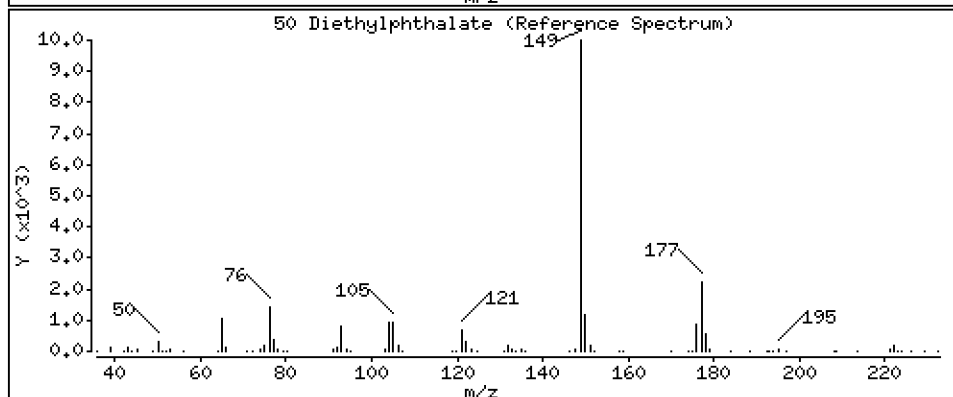
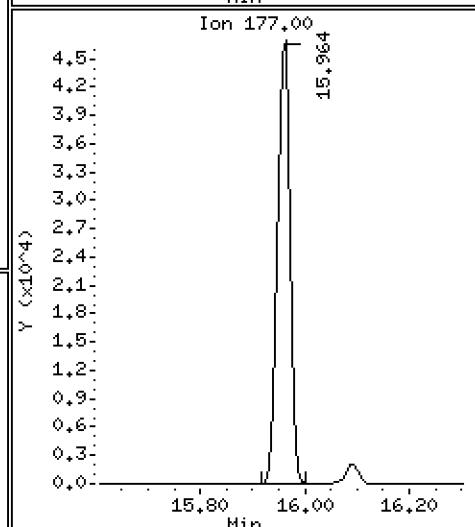
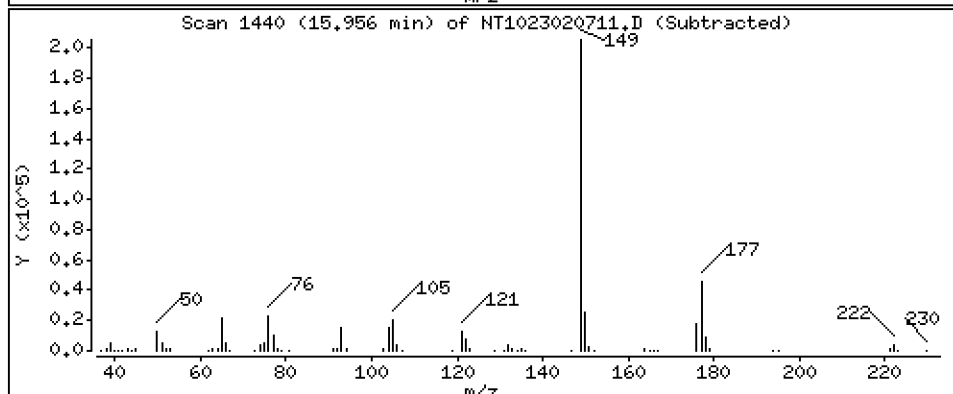
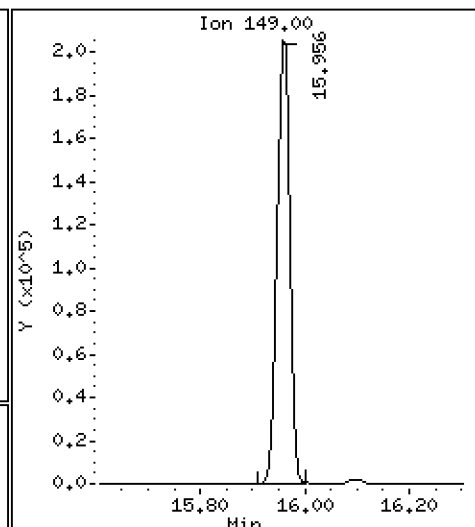
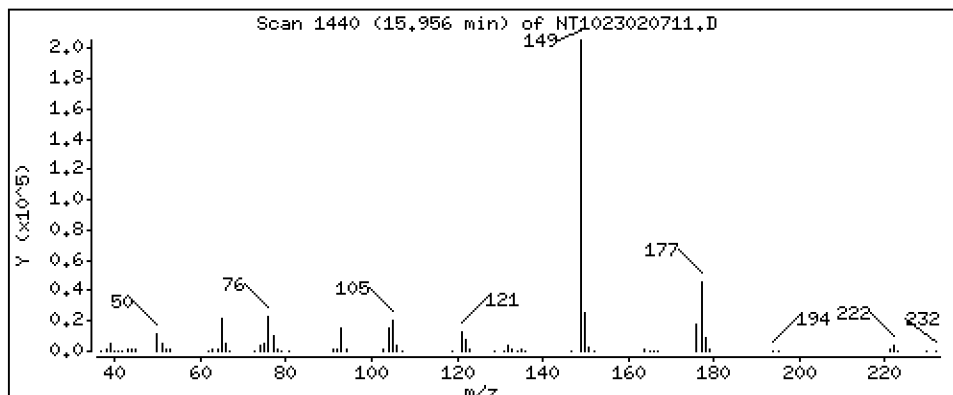
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 4.422 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

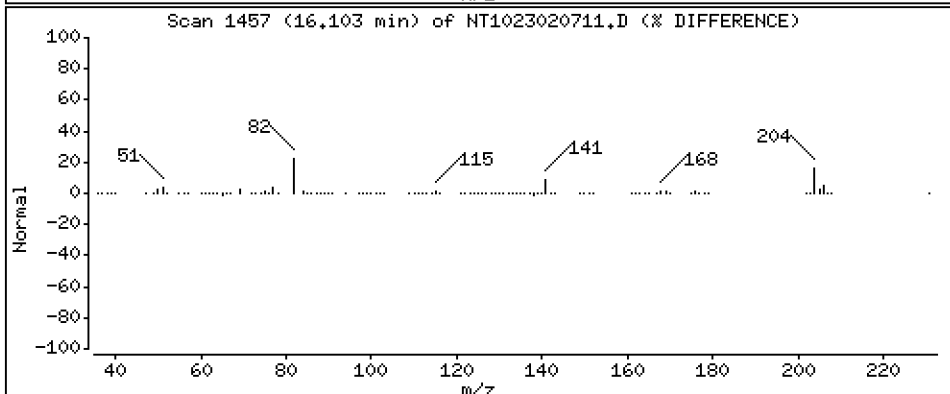
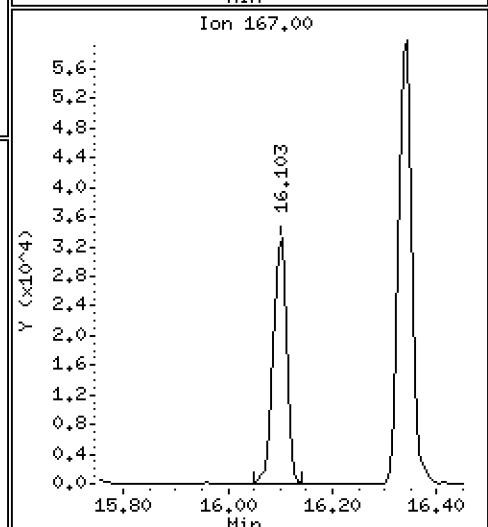
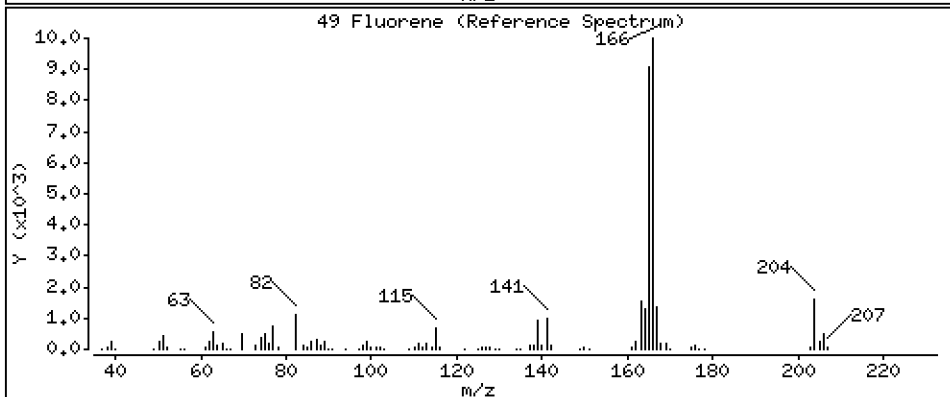
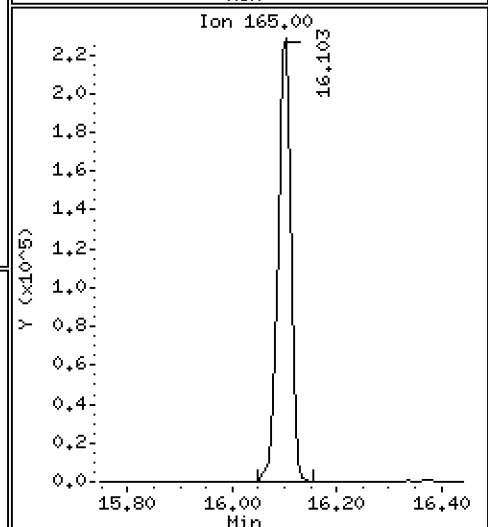
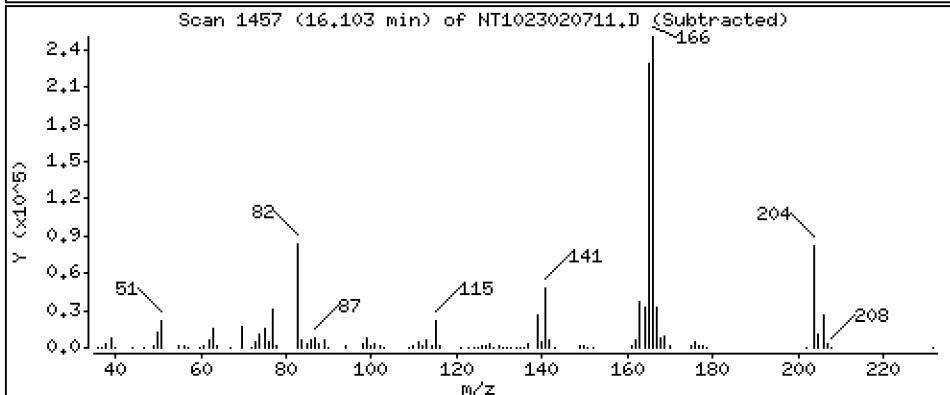
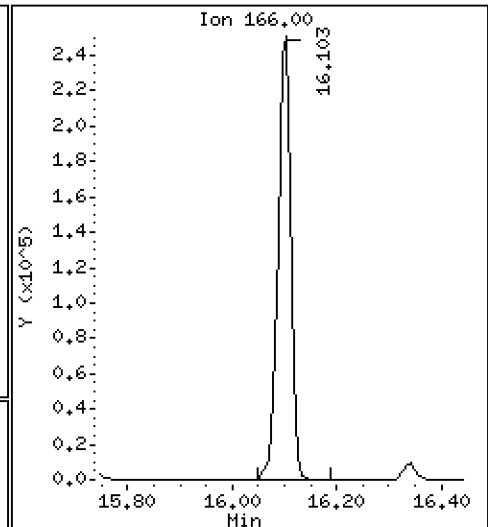
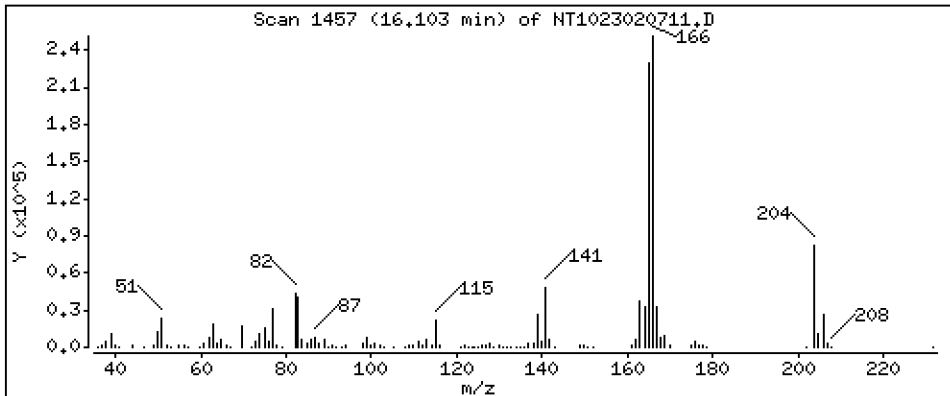
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 4,139 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

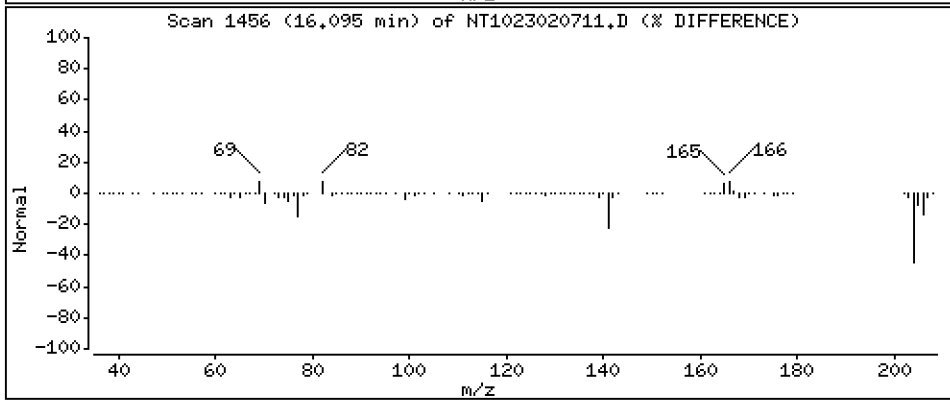
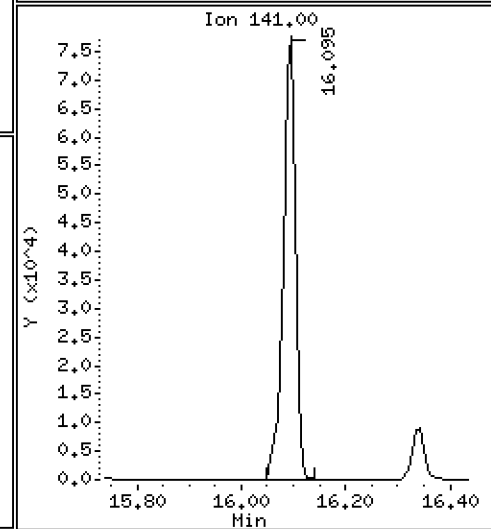
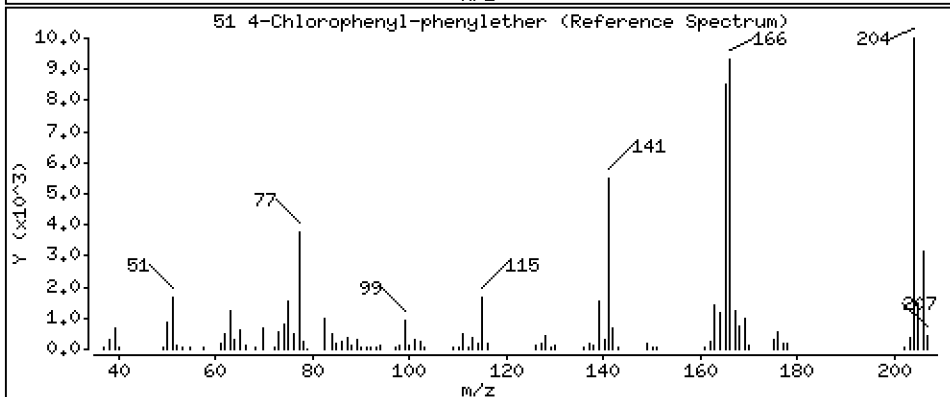
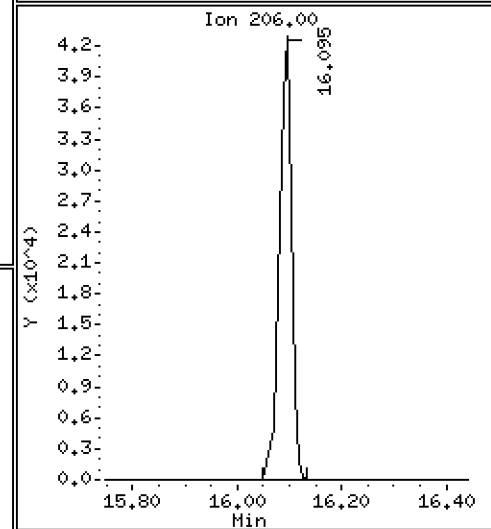
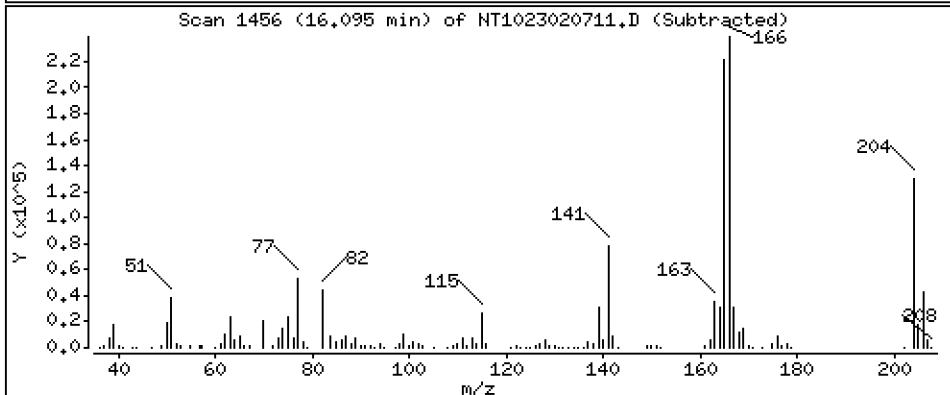
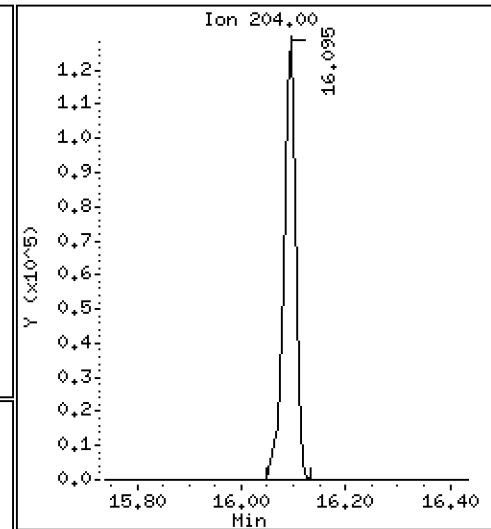
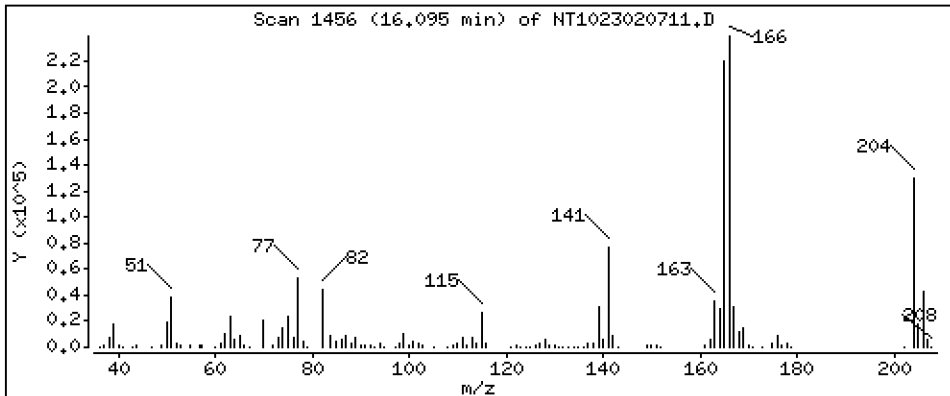
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,315 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

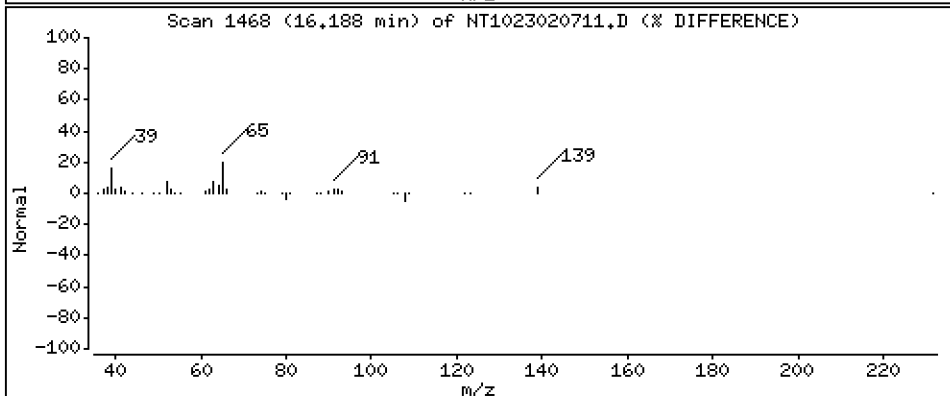
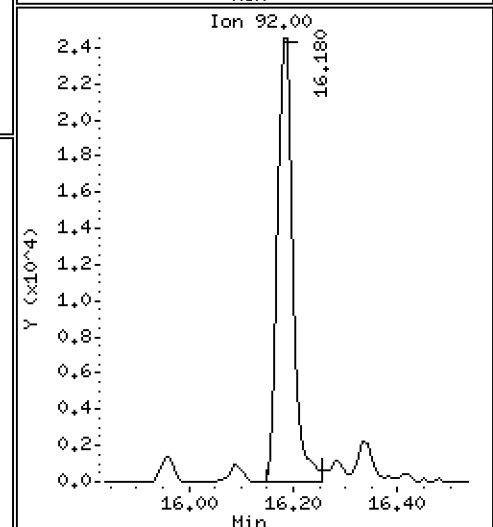
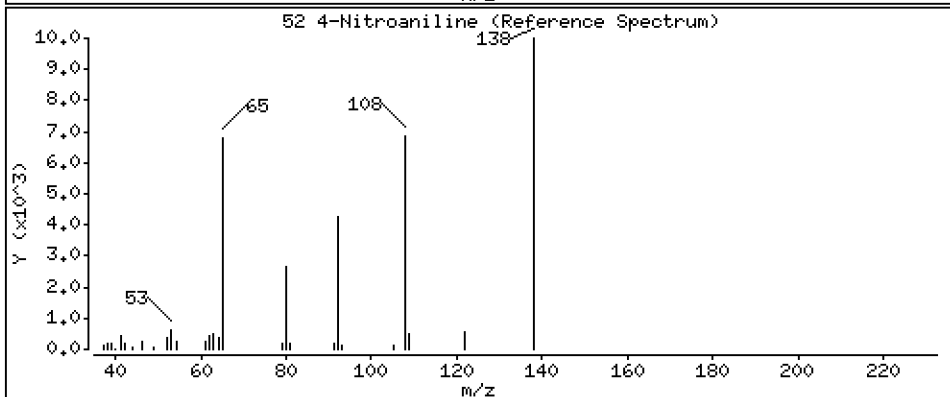
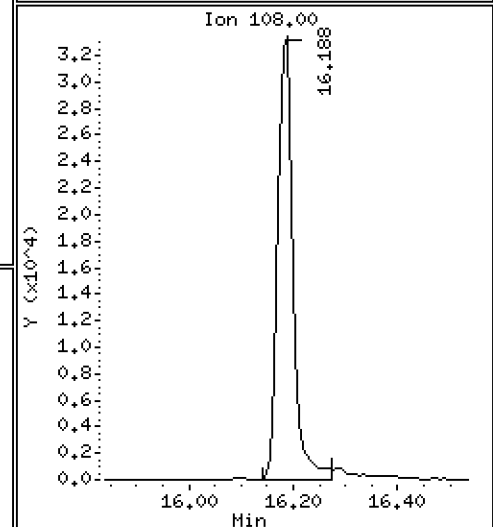
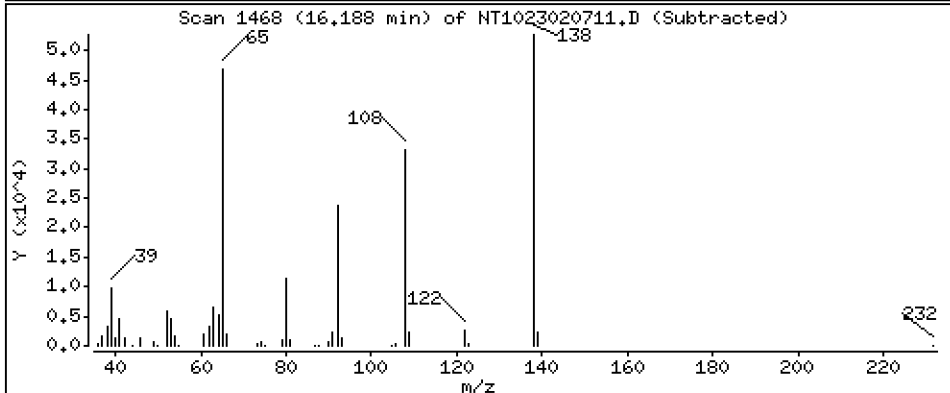
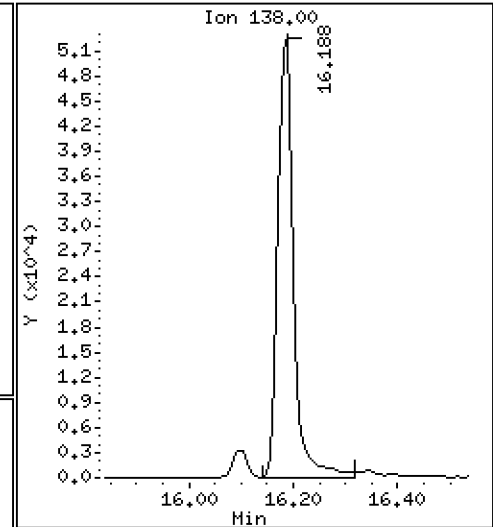
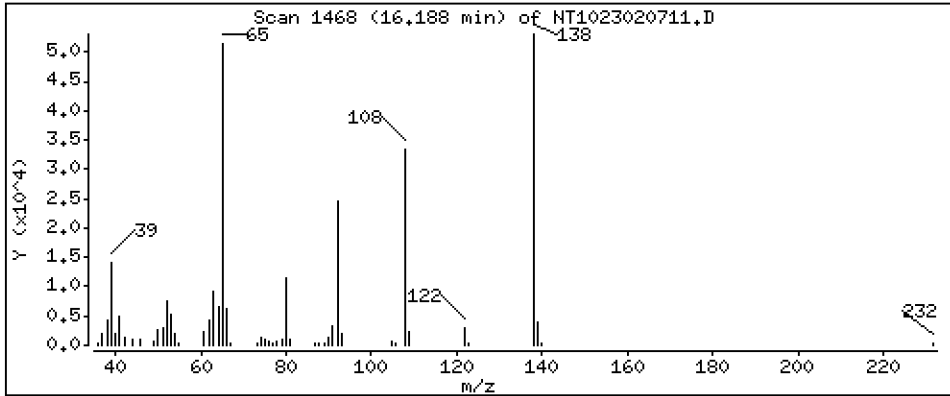
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

52 4-Nitroaniline

Concentration: 4,340 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

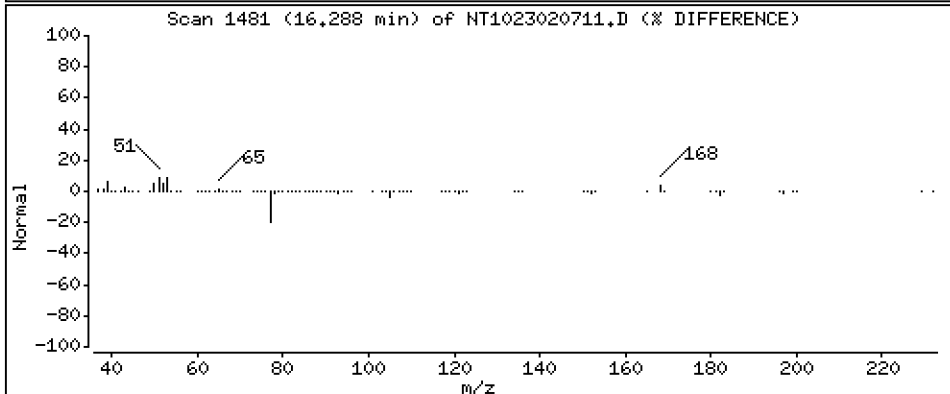
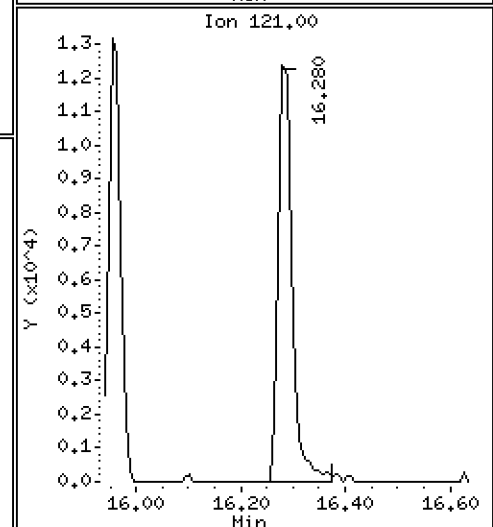
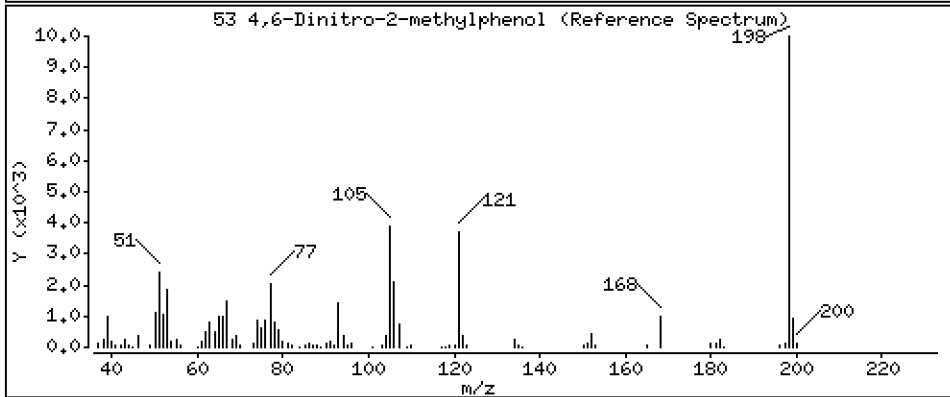
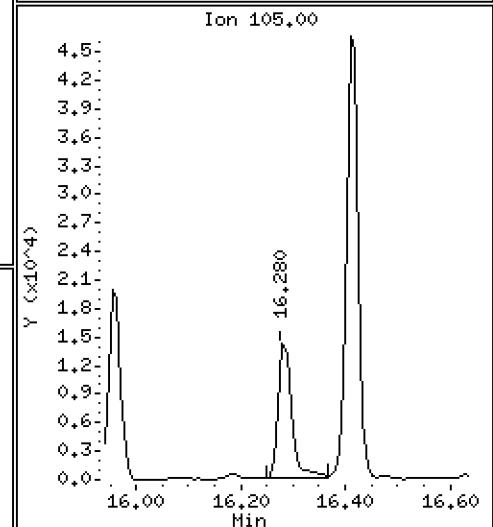
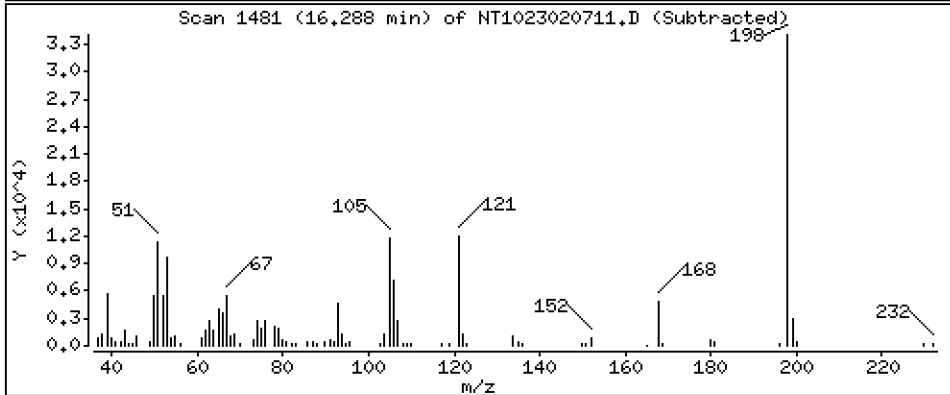
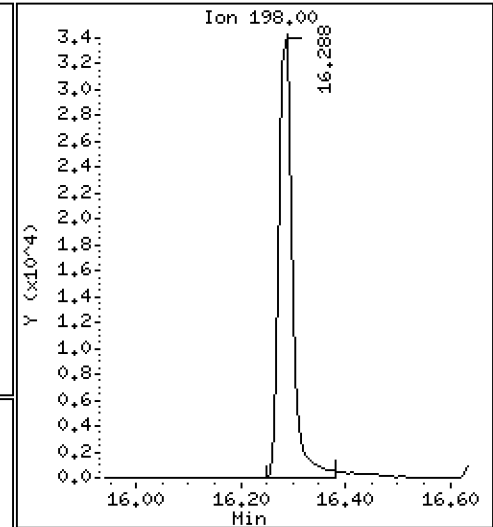
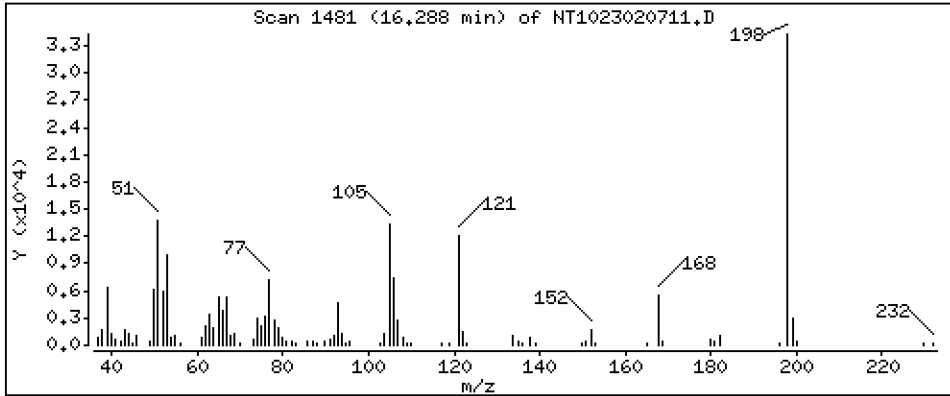
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,995 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

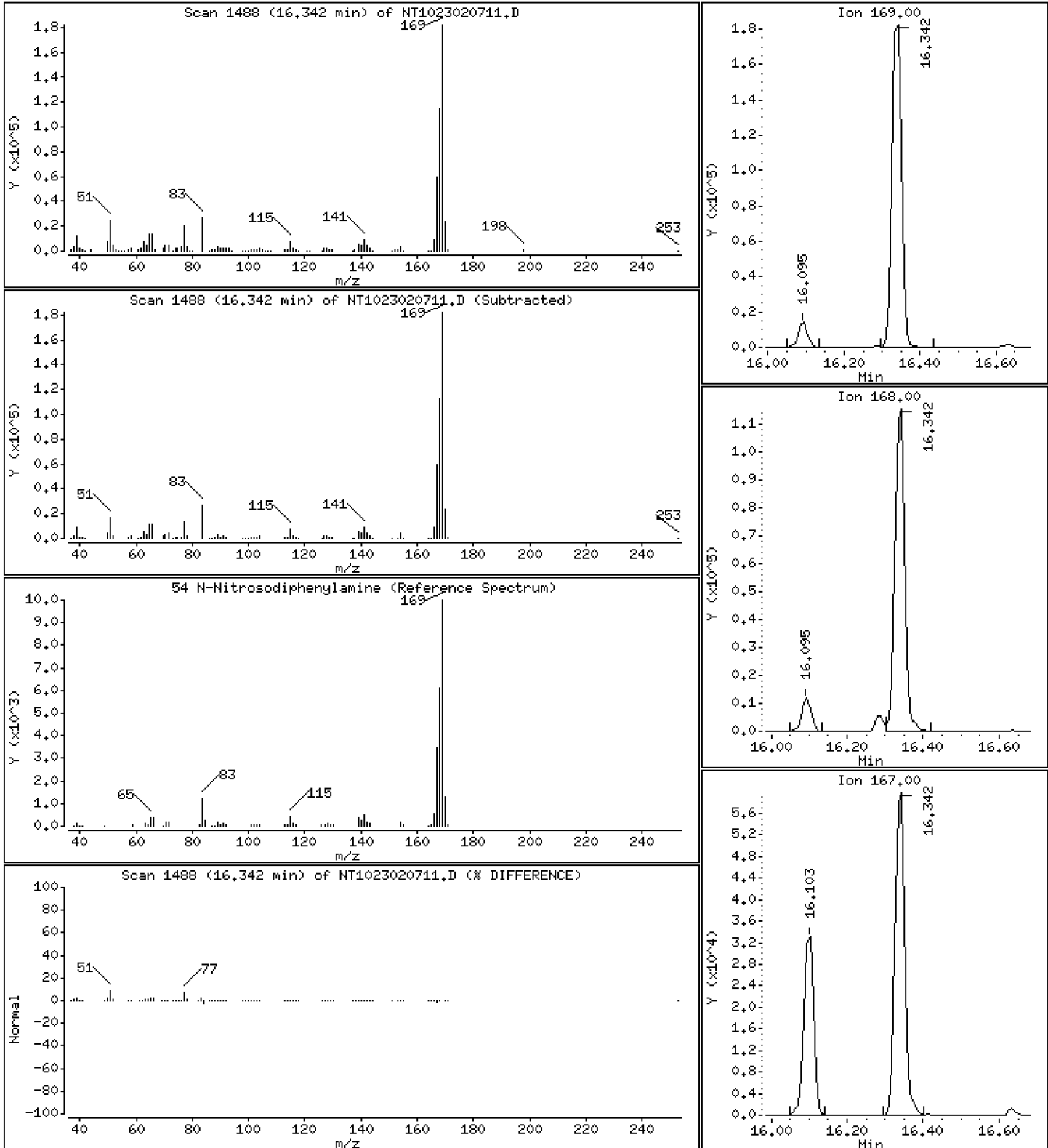
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 4,384 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

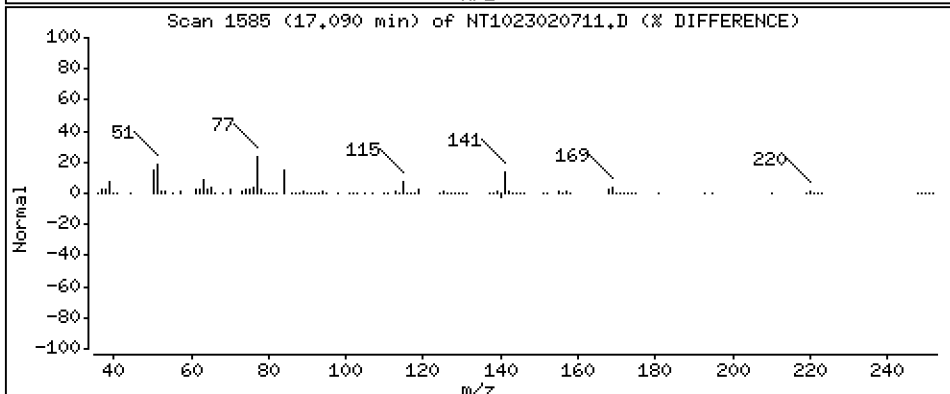
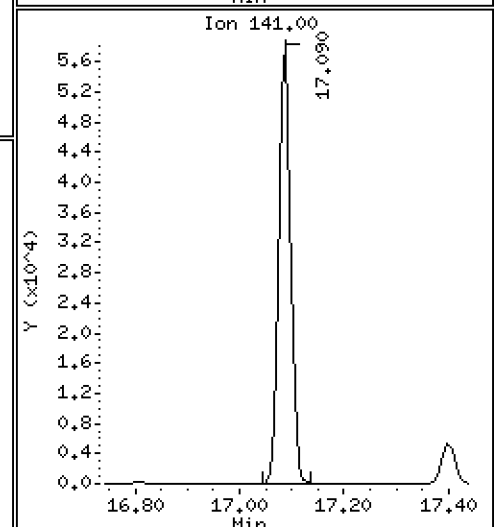
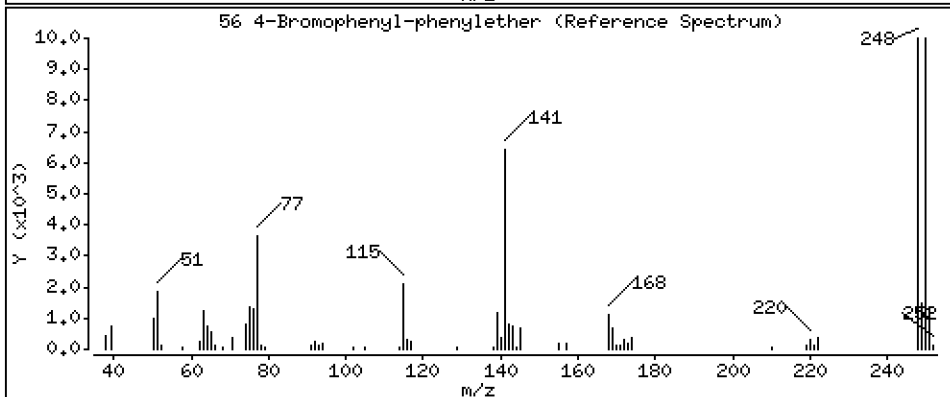
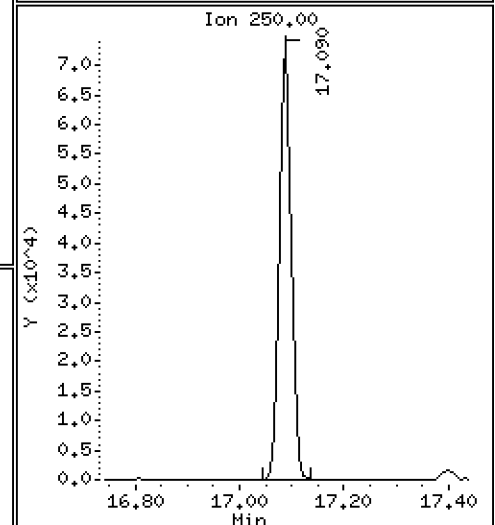
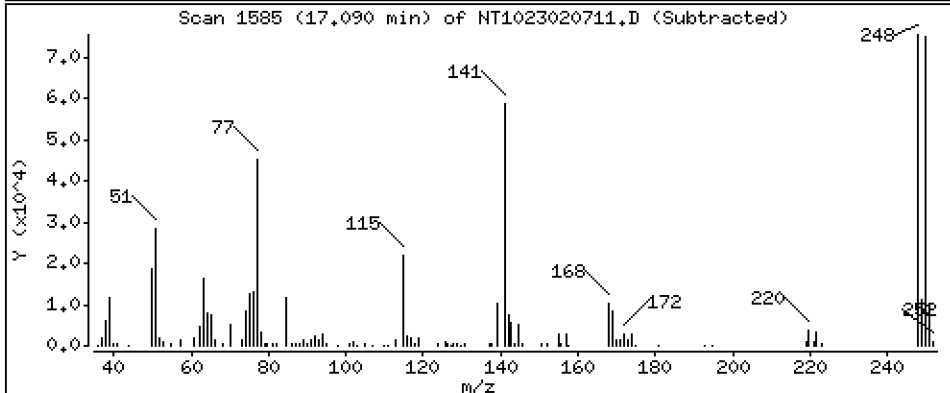
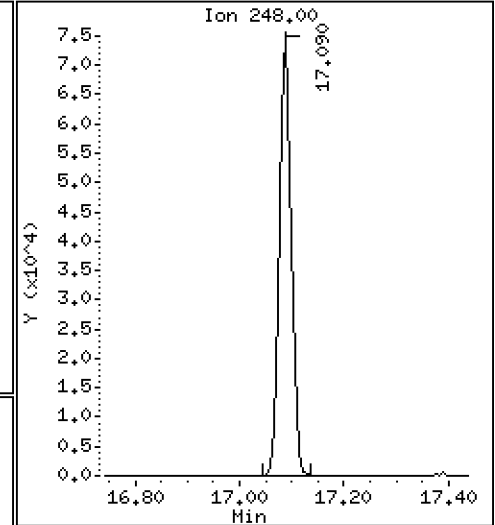
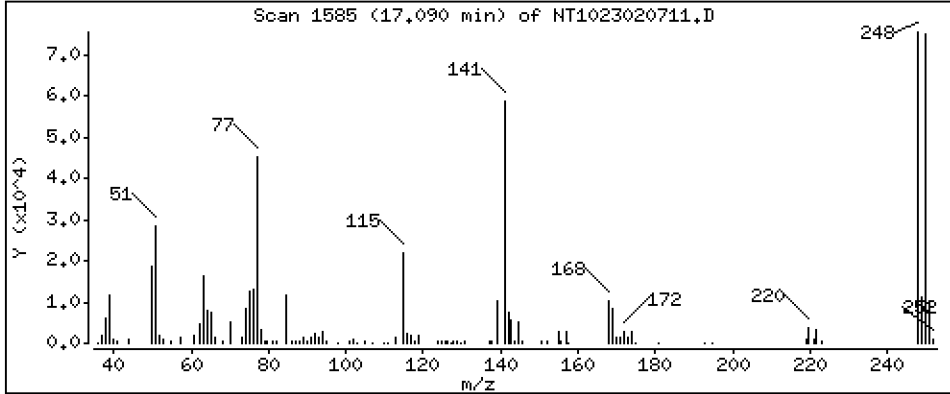
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,550 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

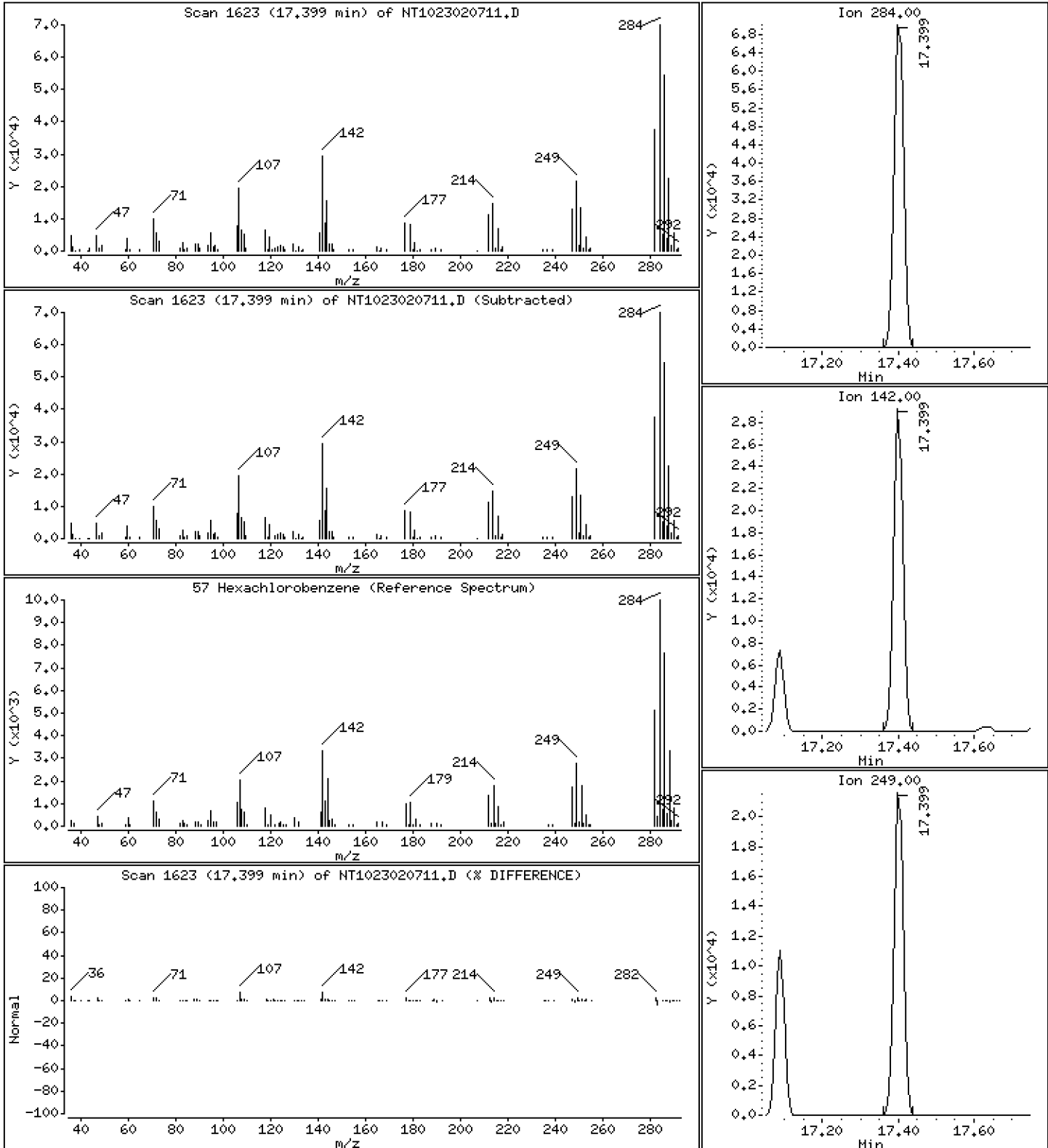
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 4.289 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

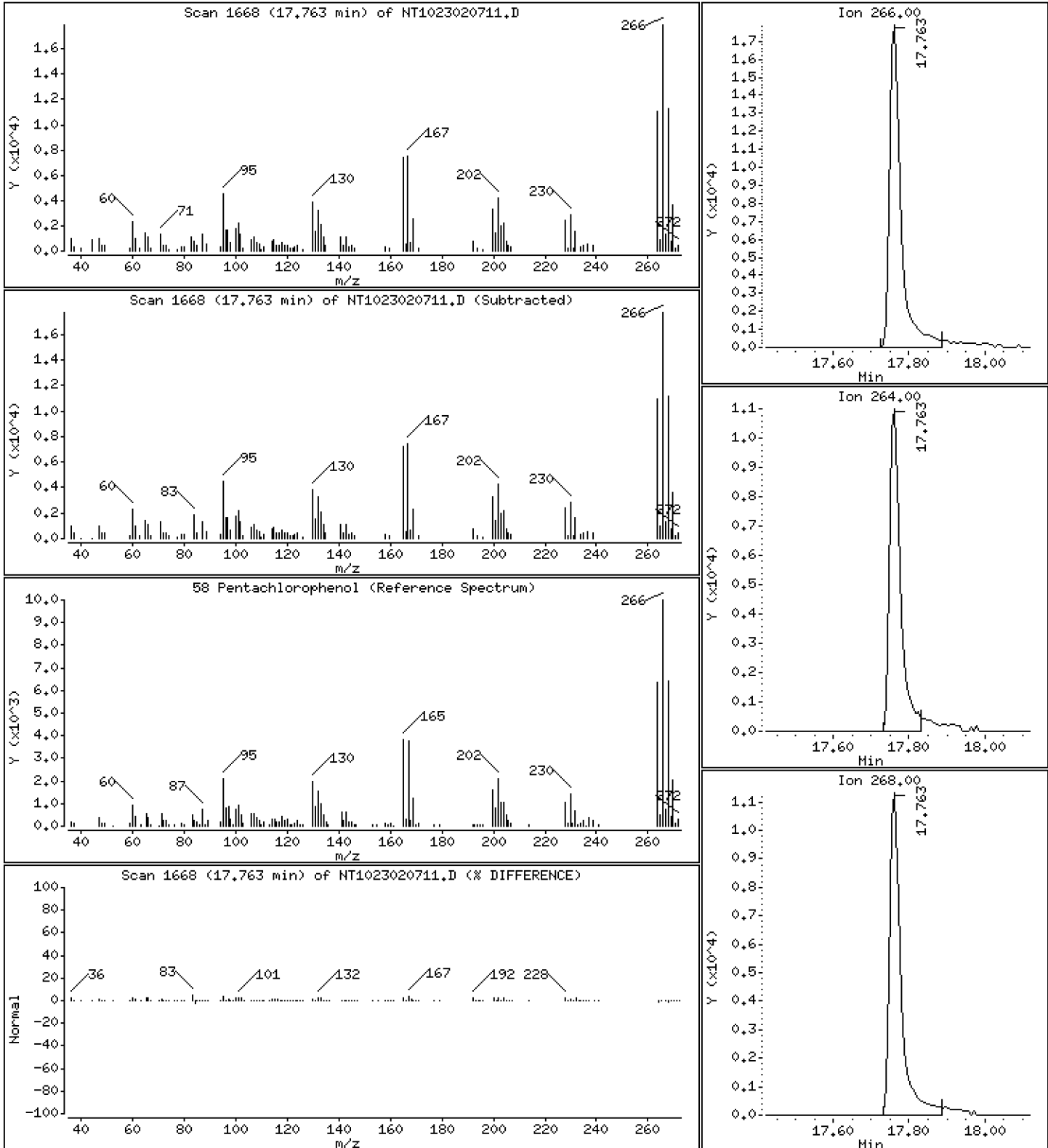
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,453 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

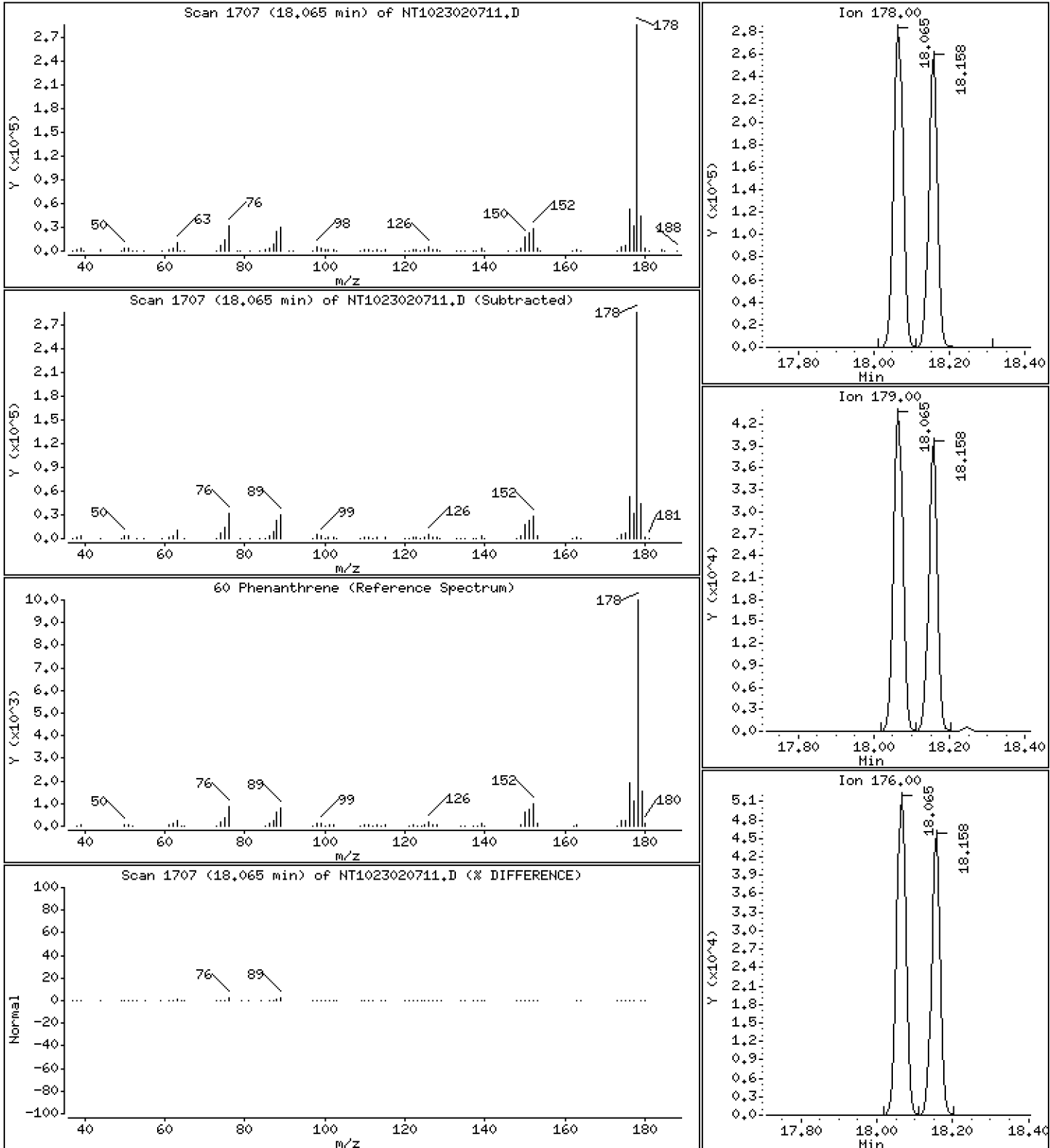
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,304 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

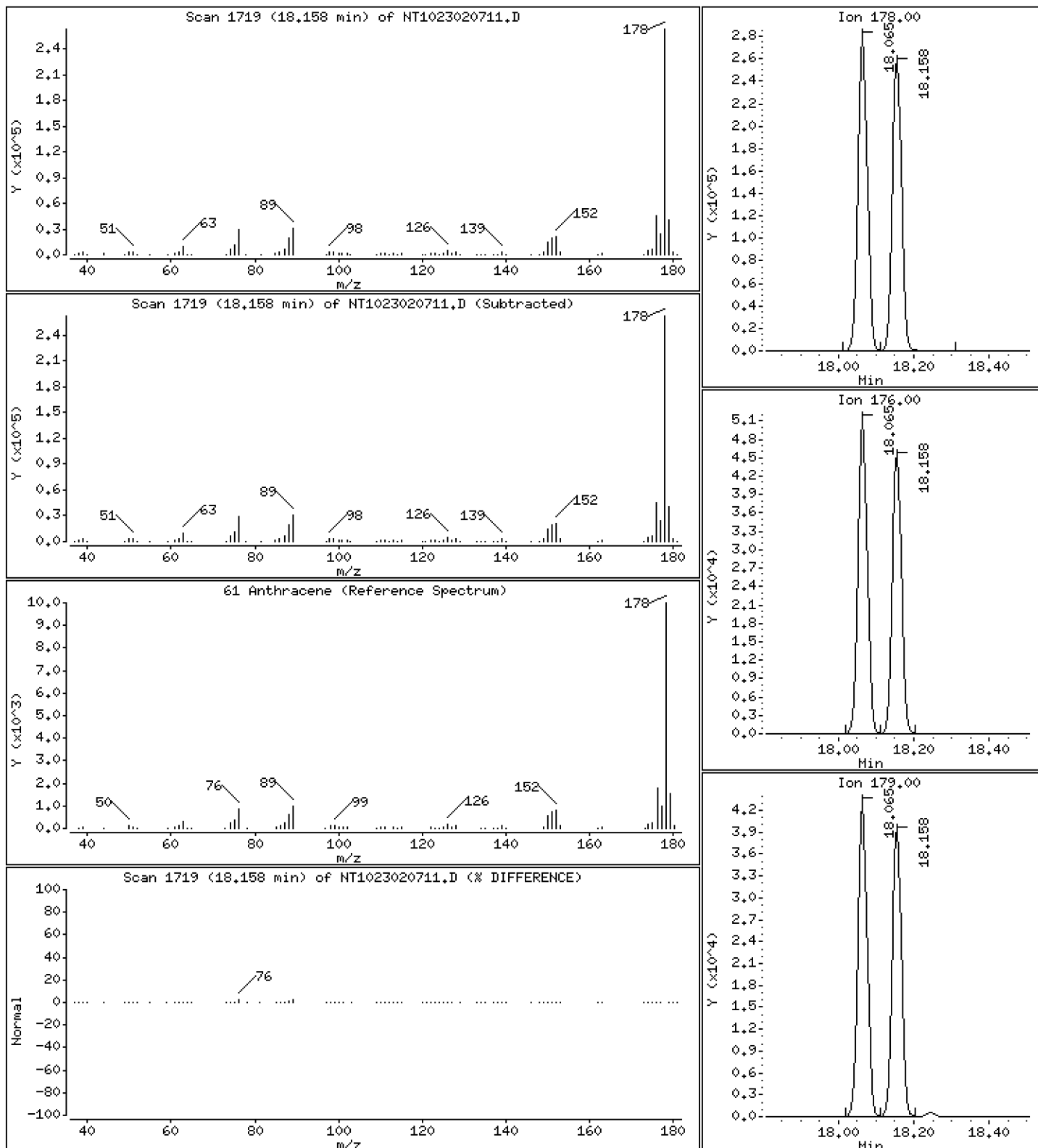
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 3,900 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

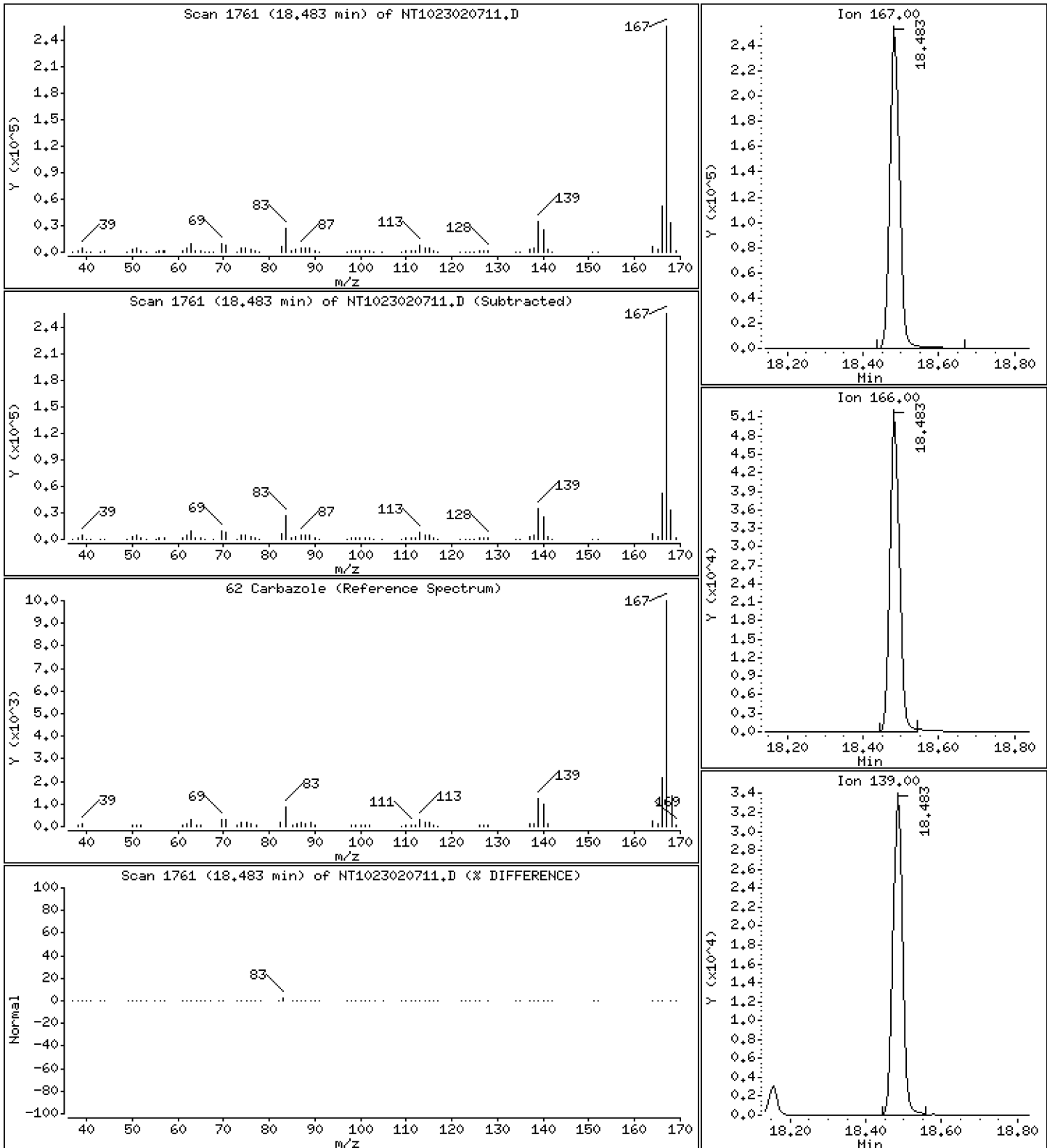
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 4,166 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

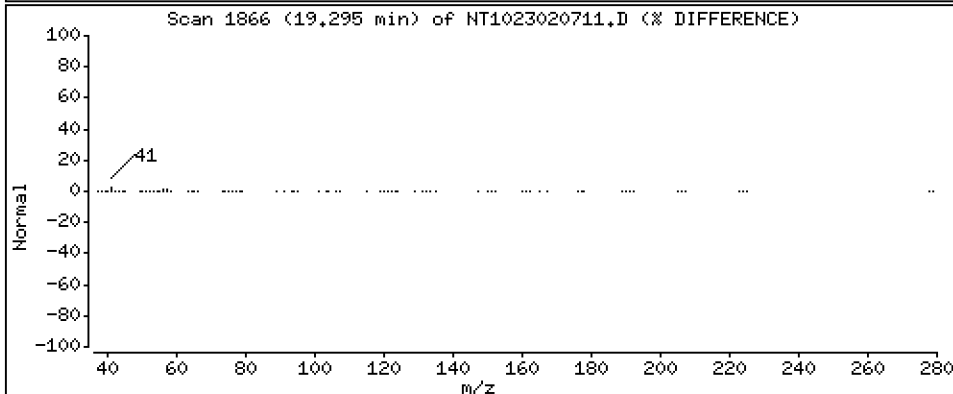
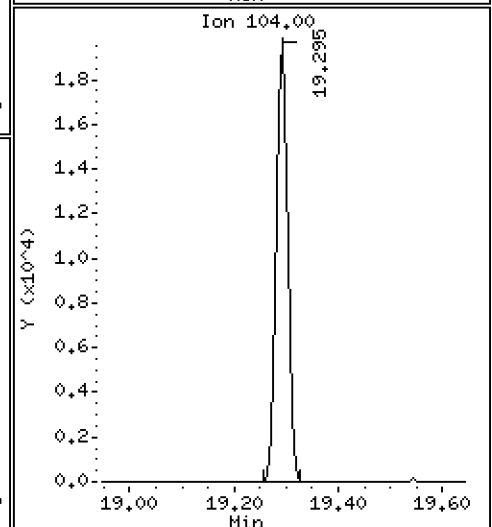
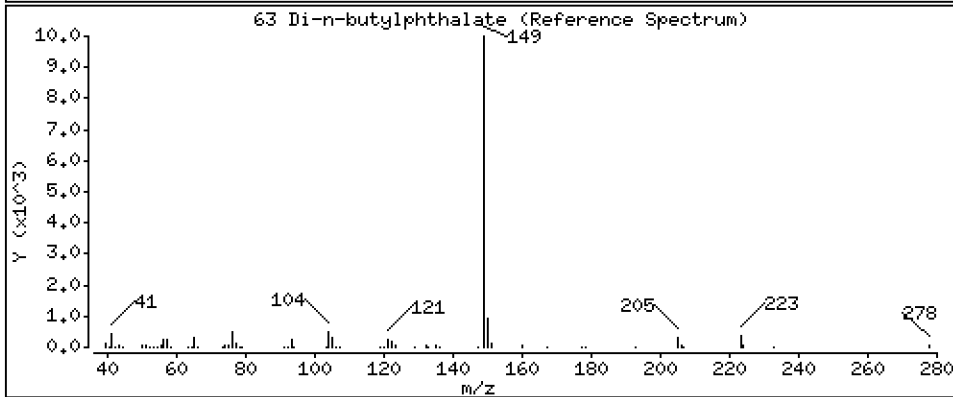
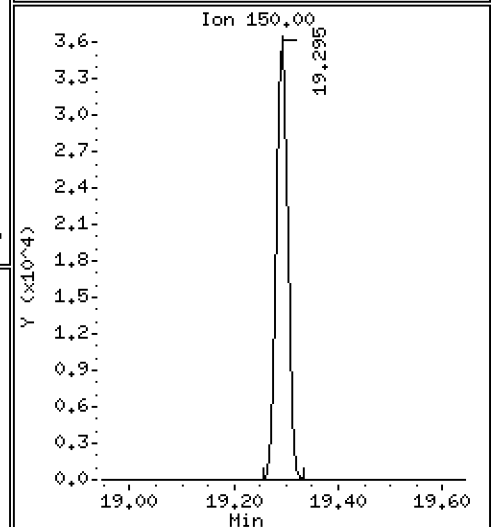
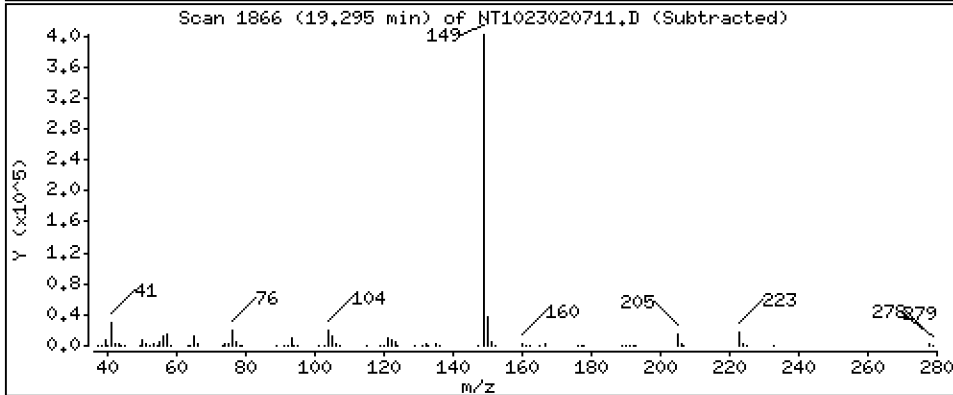
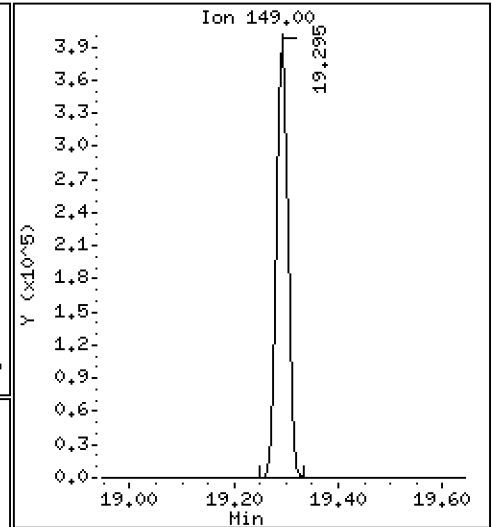
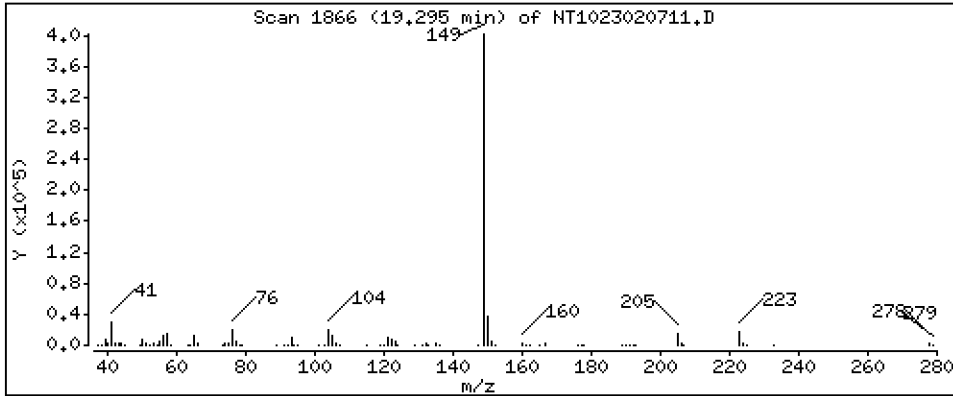
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

63 Di-n-butylphthalate

Concentration: 4.611 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

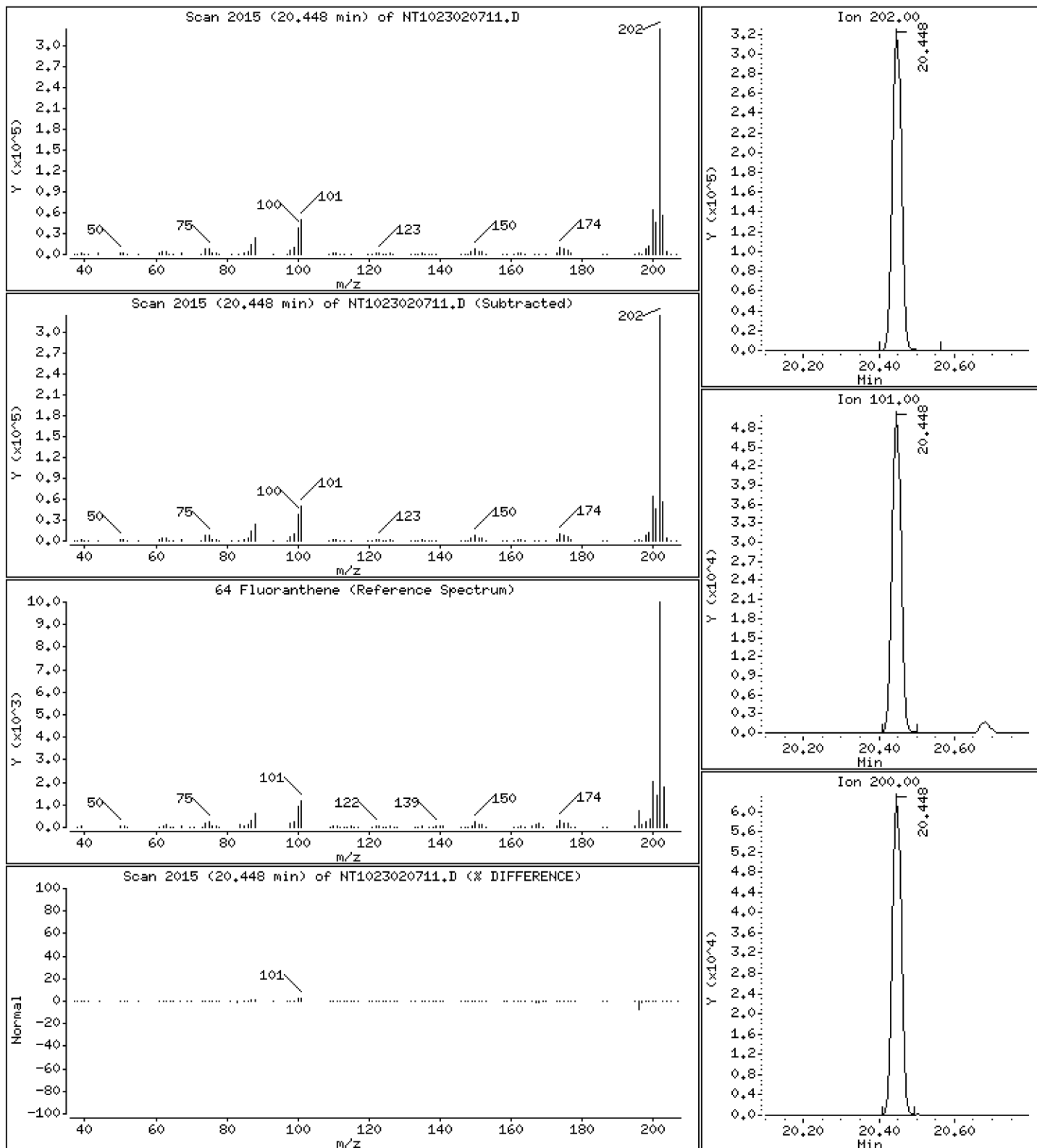
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,340 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

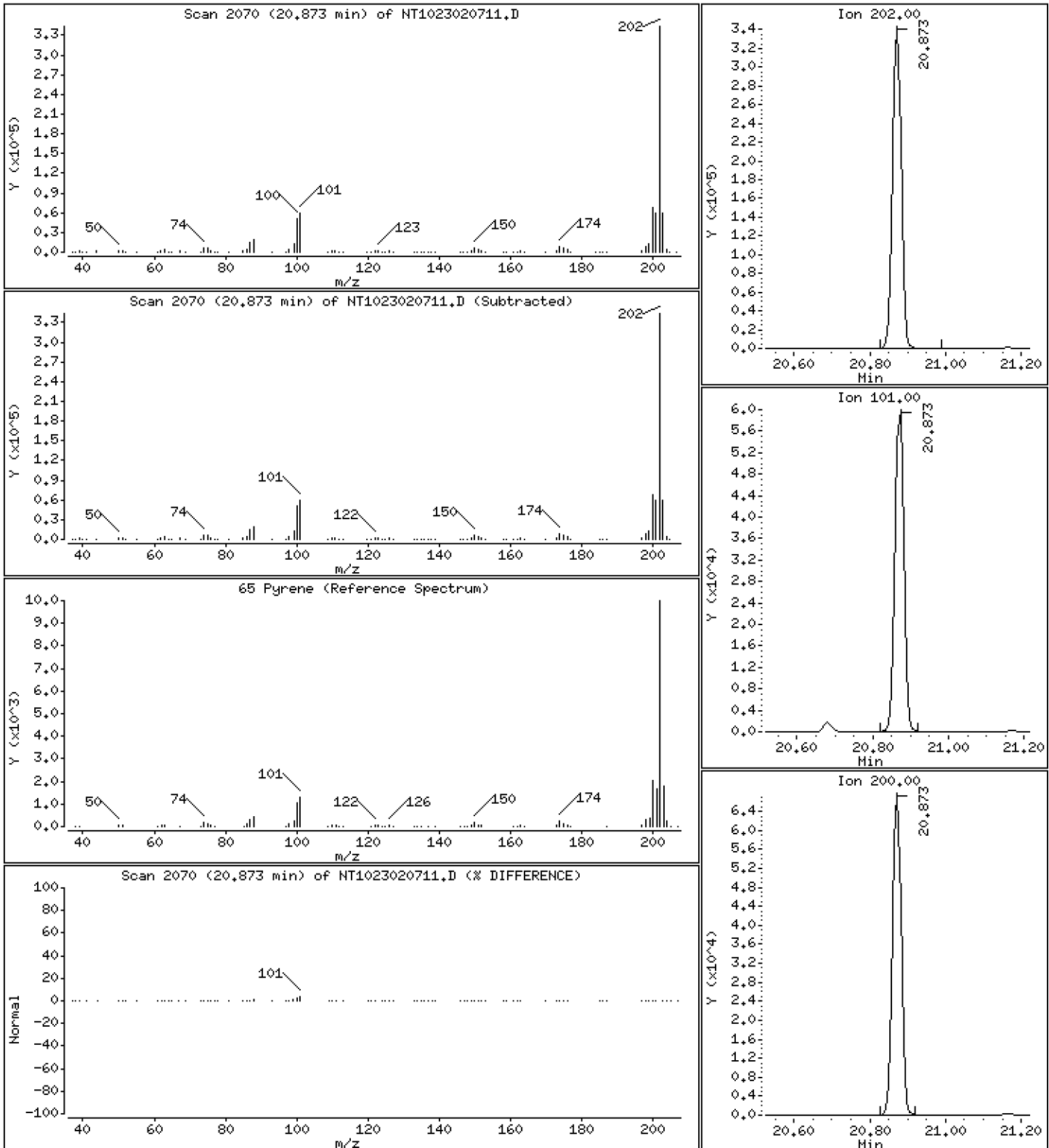
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 4,276 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

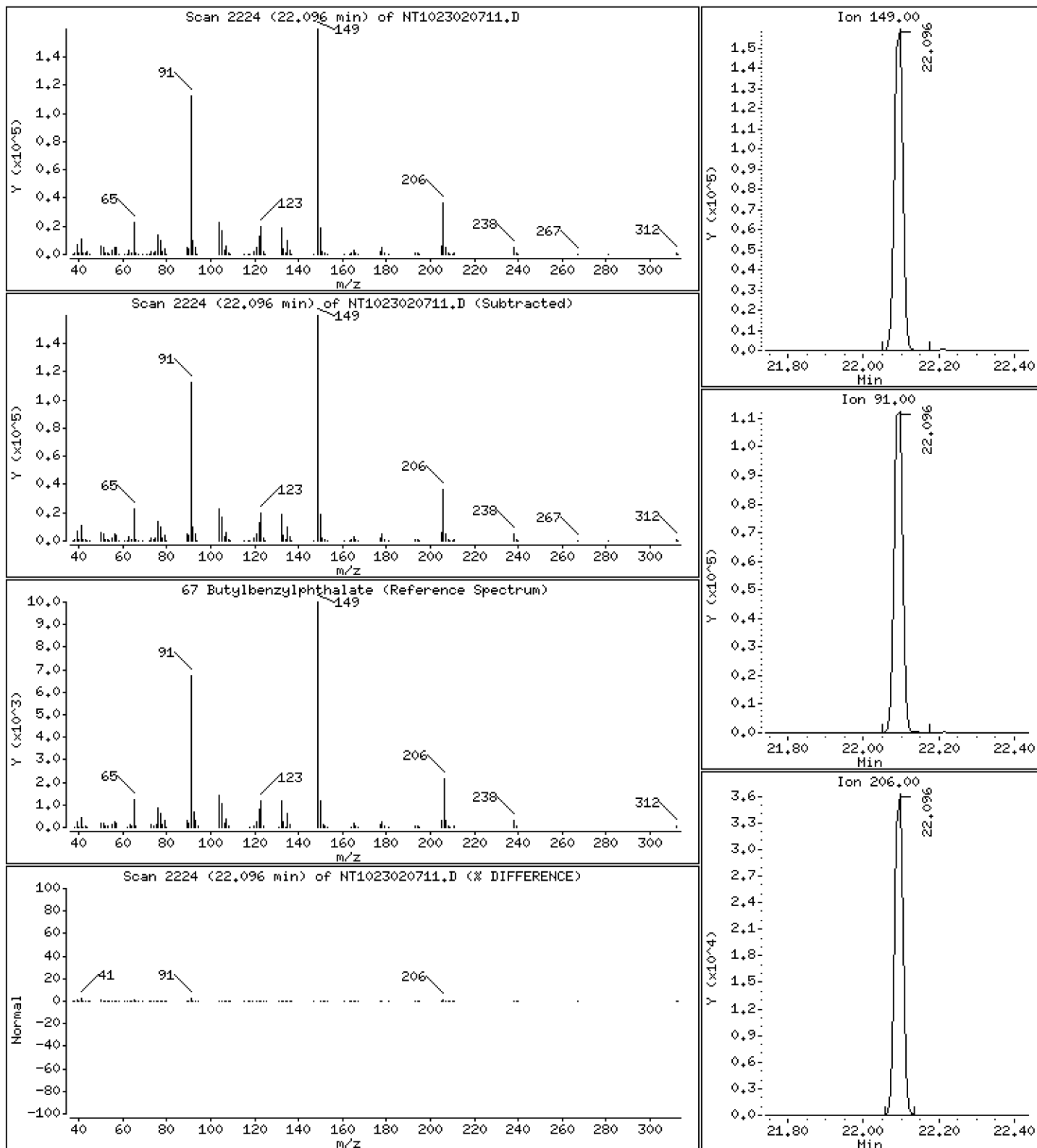
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,385 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

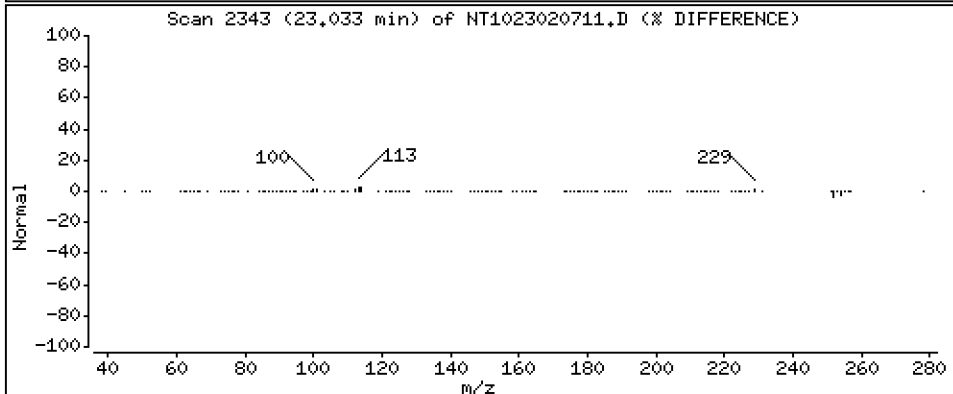
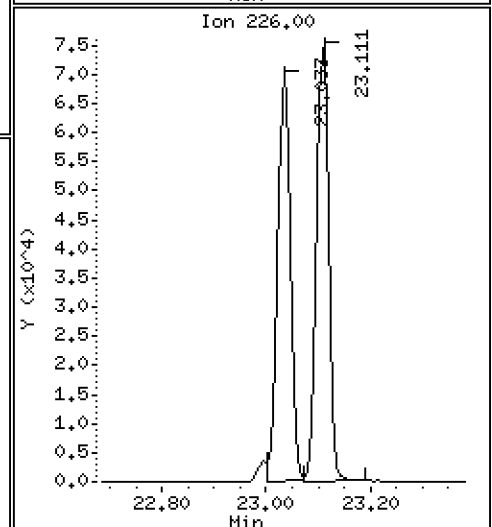
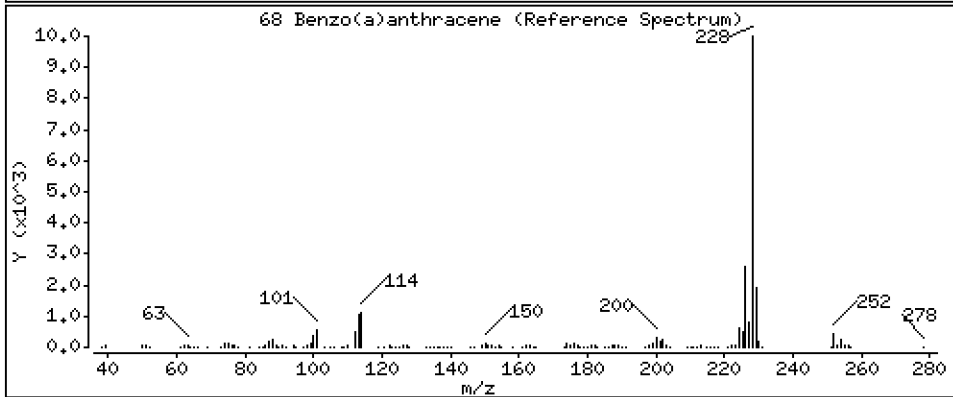
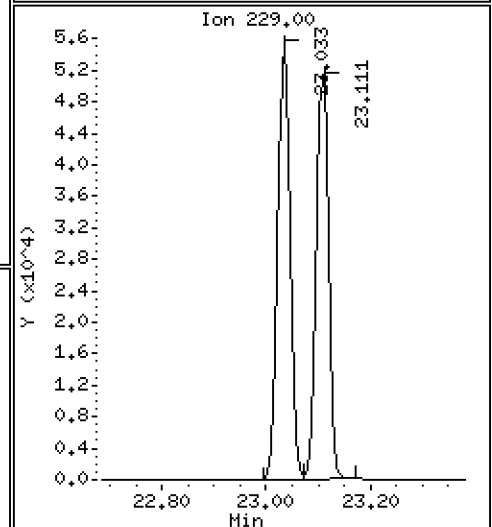
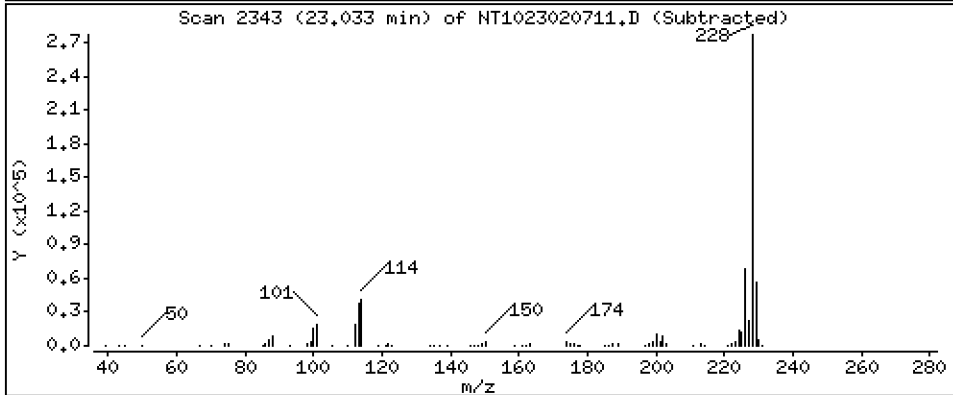
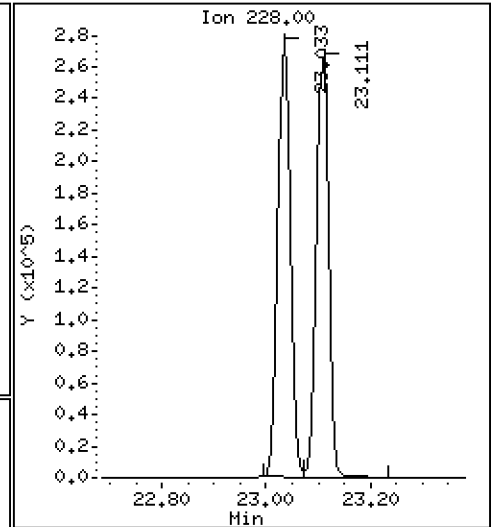
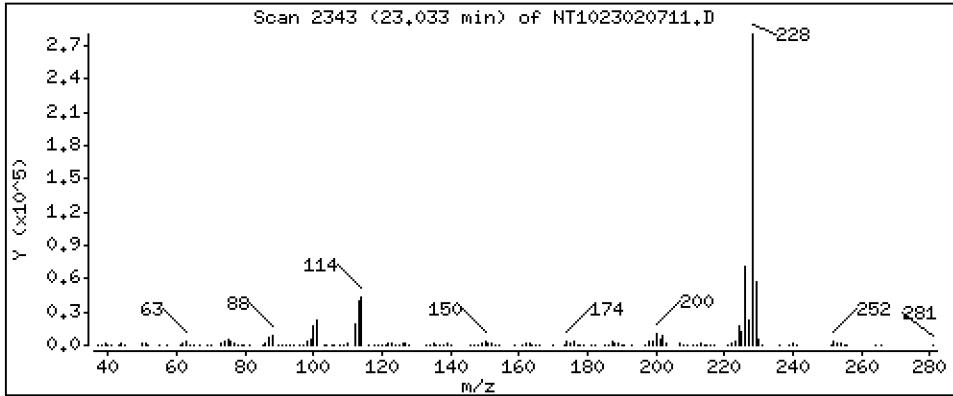
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,097 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

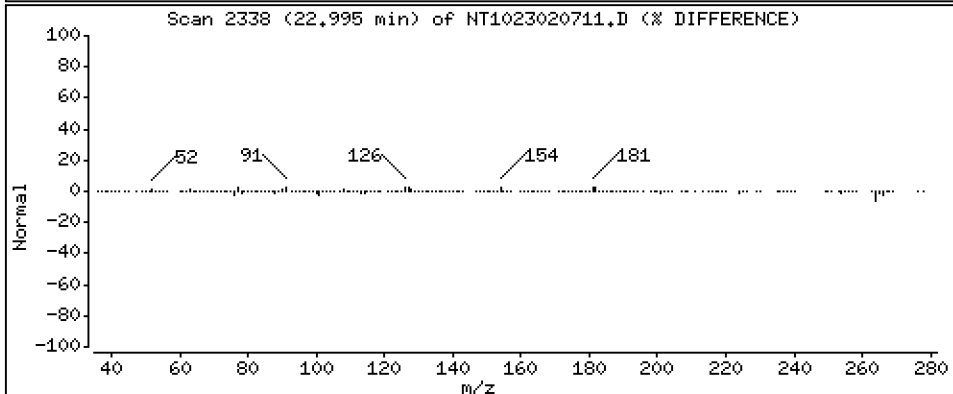
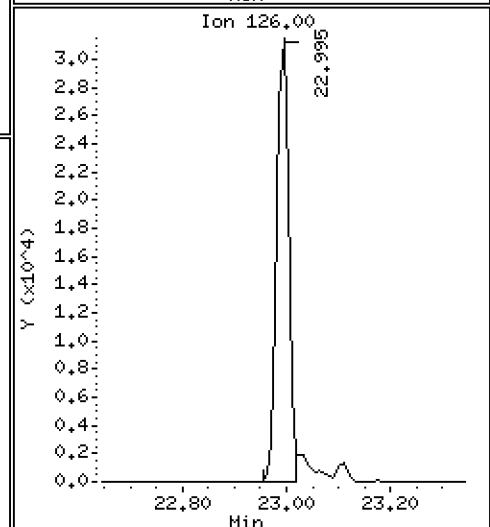
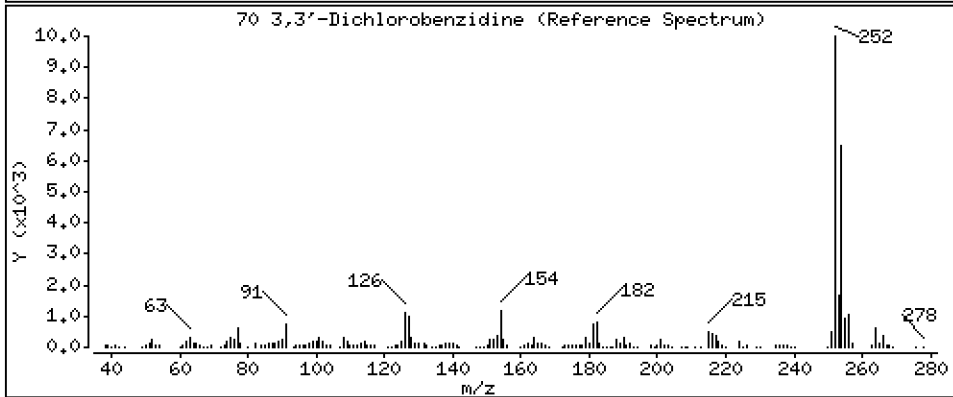
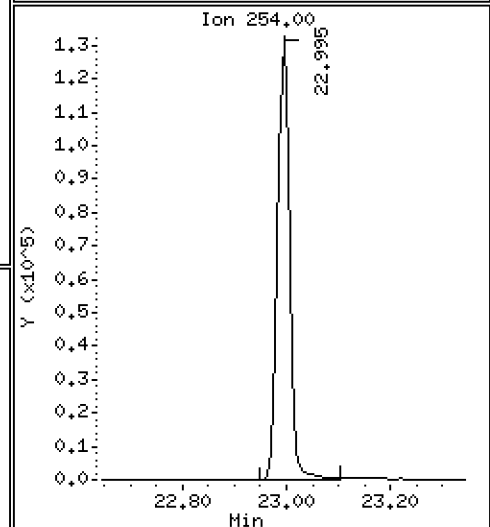
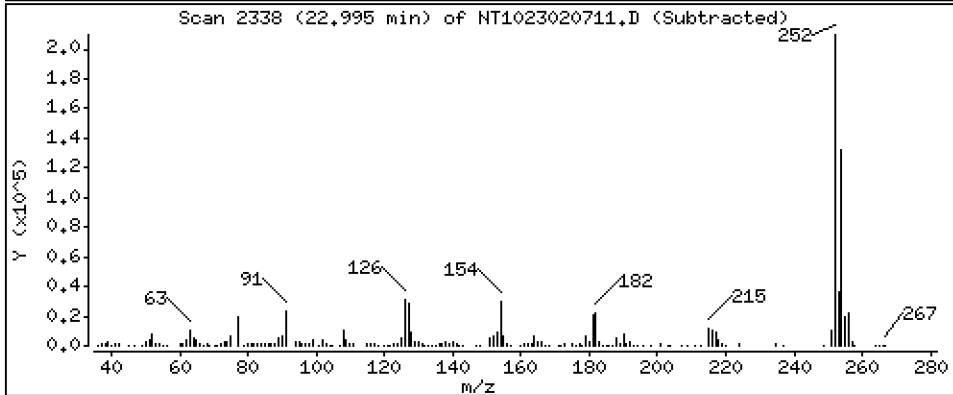
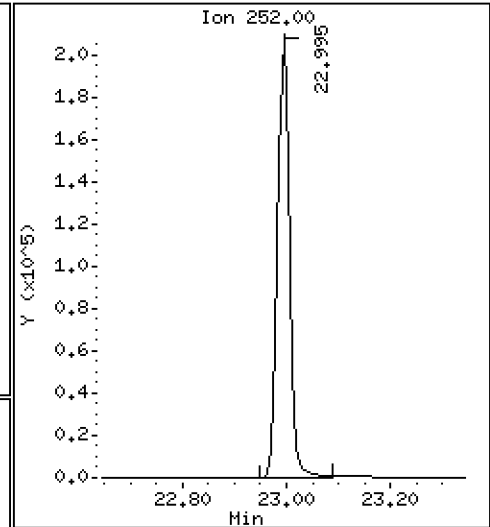
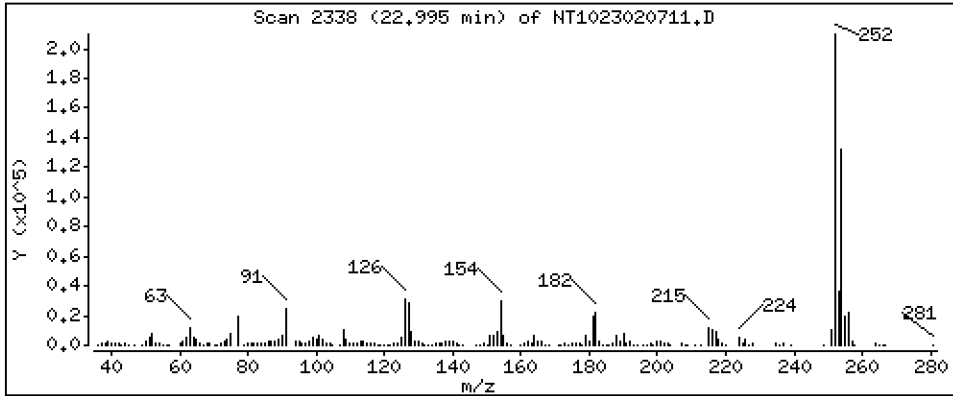
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 8,645 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

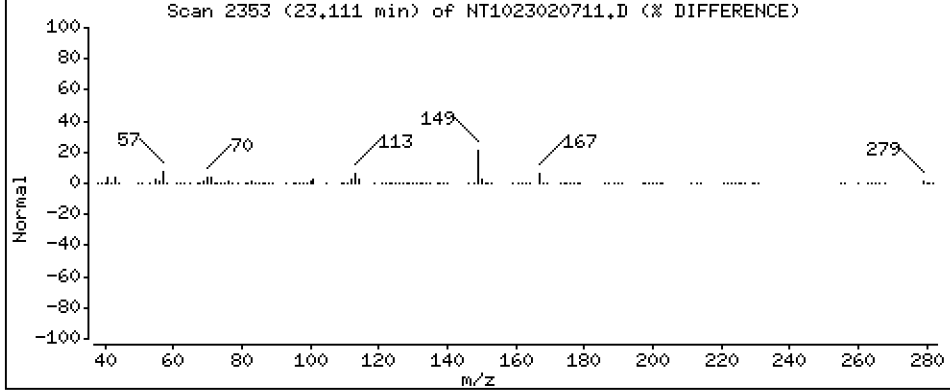
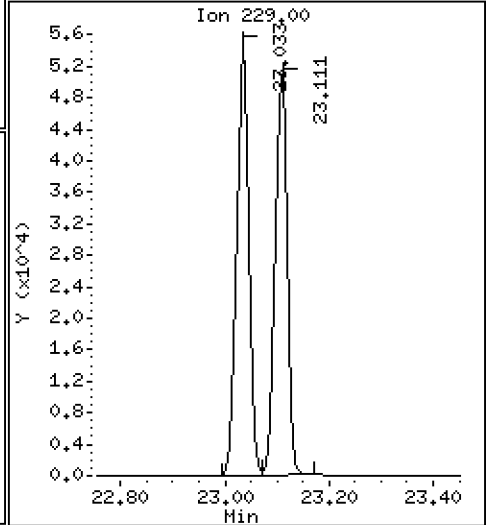
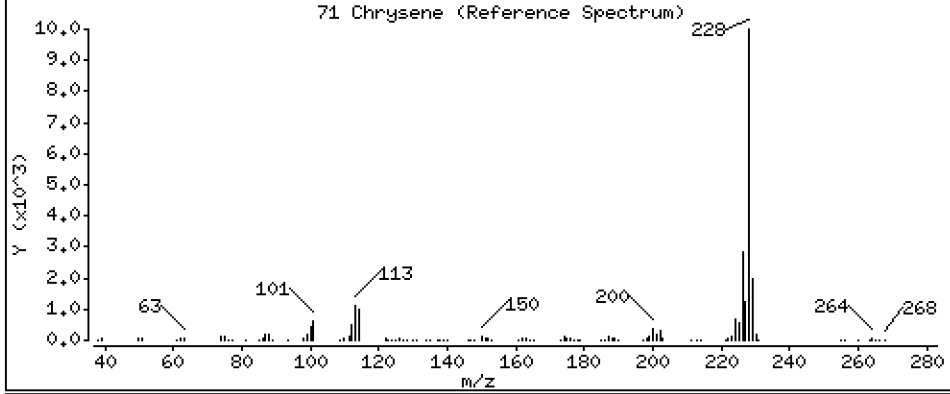
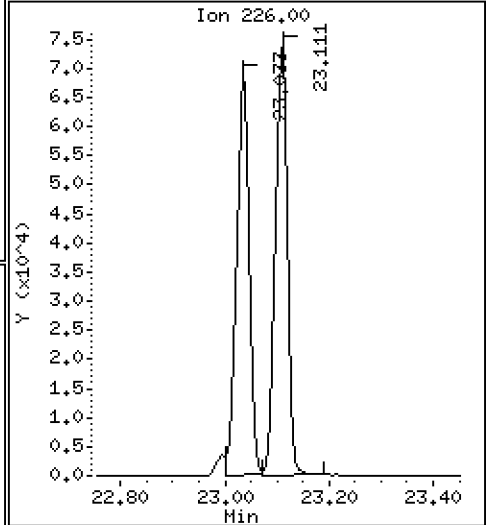
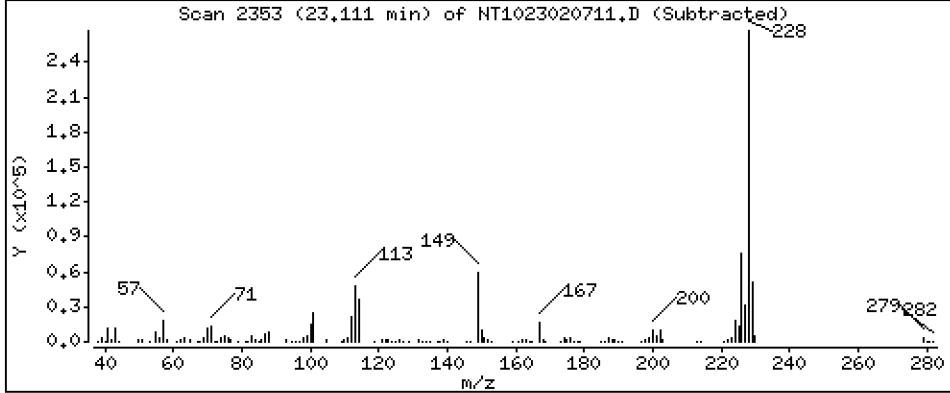
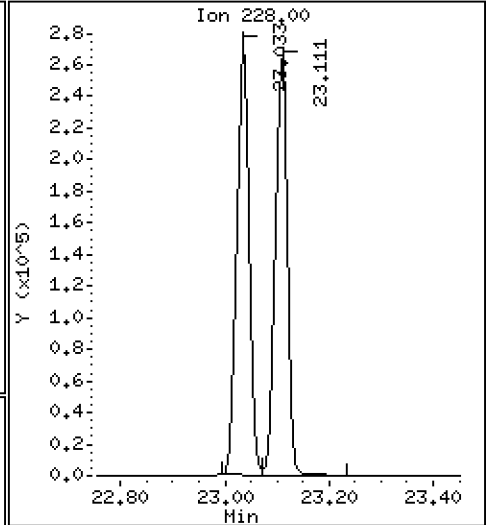
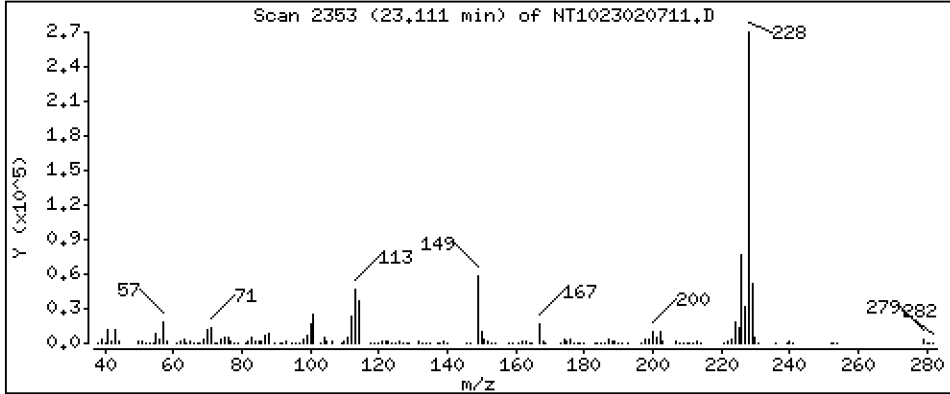
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,018 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

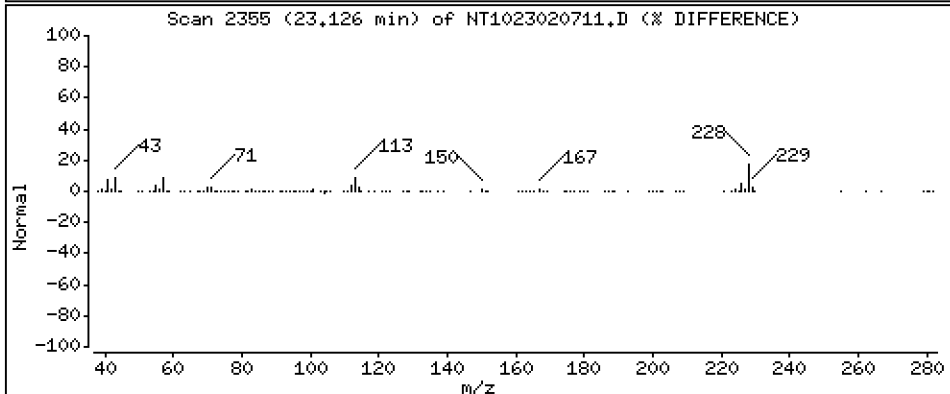
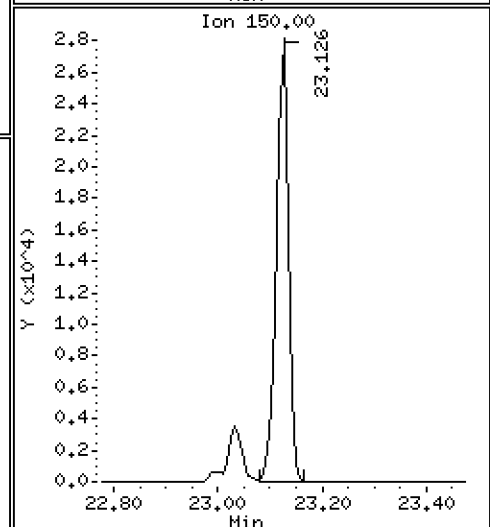
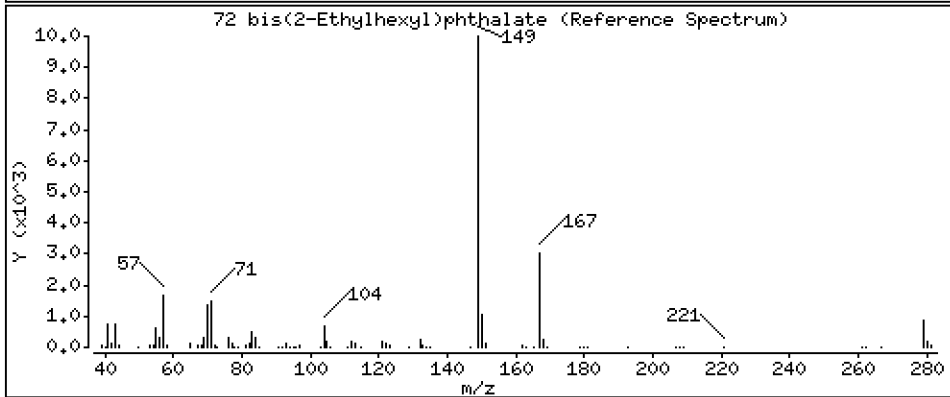
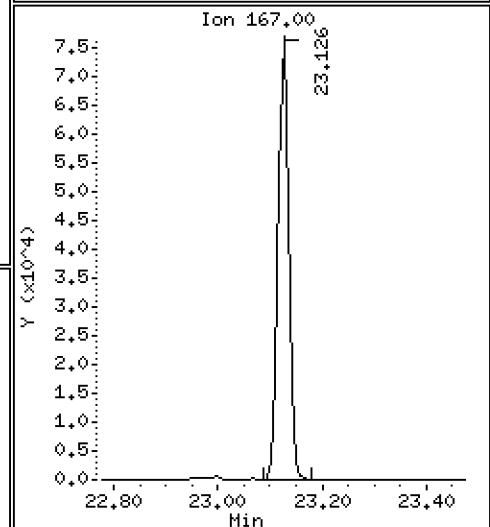
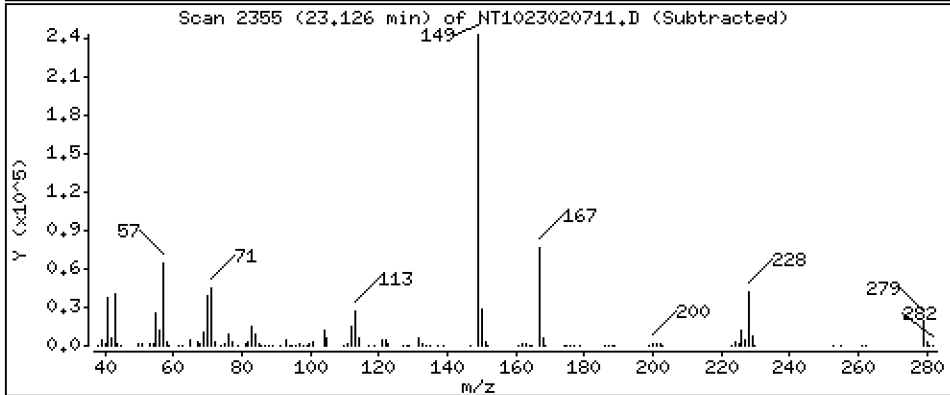
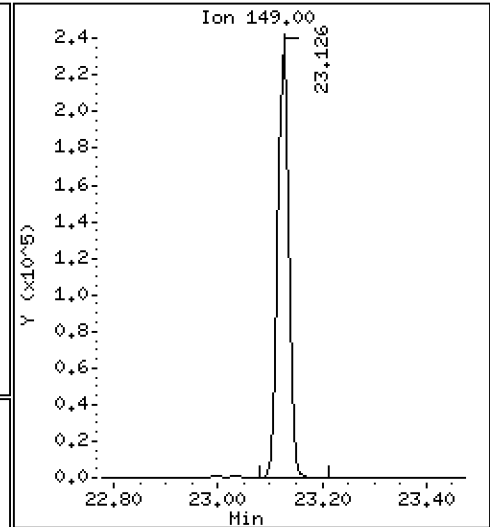
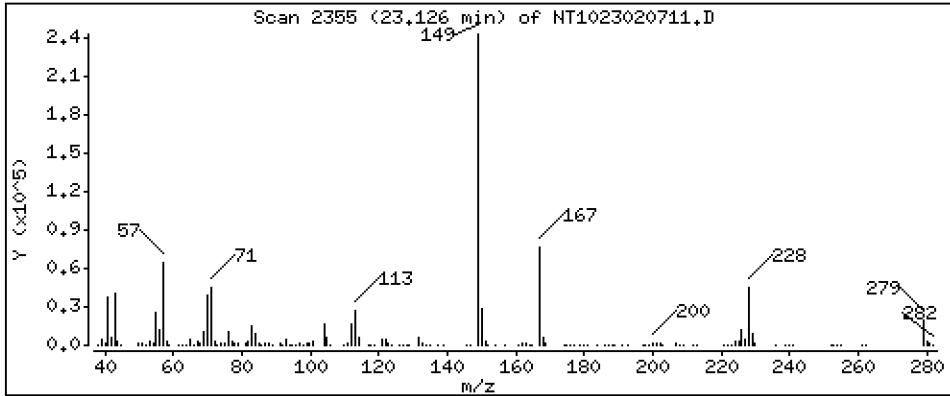
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 4,692 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

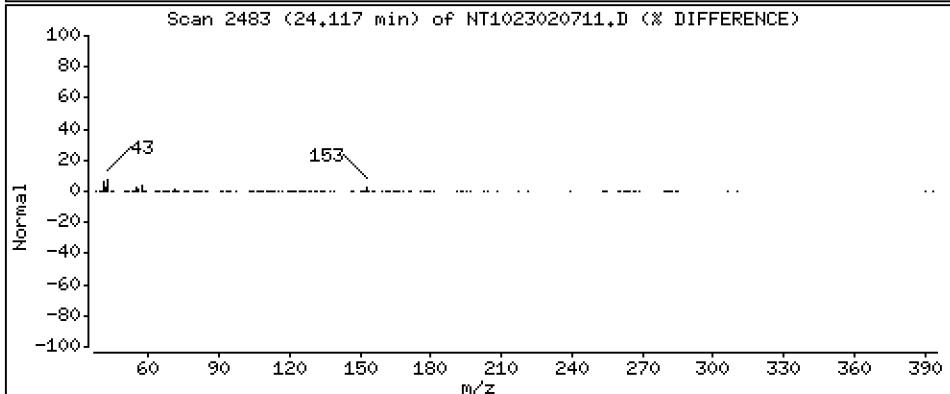
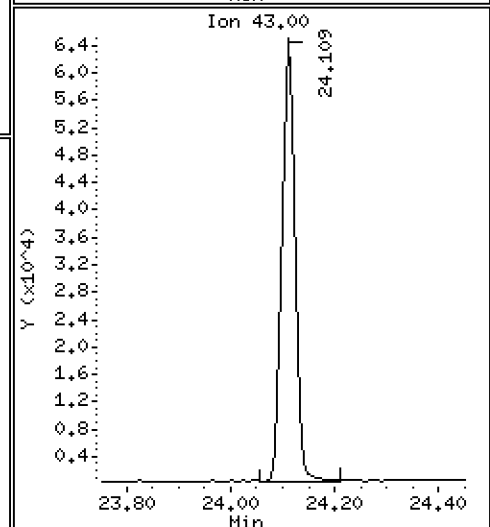
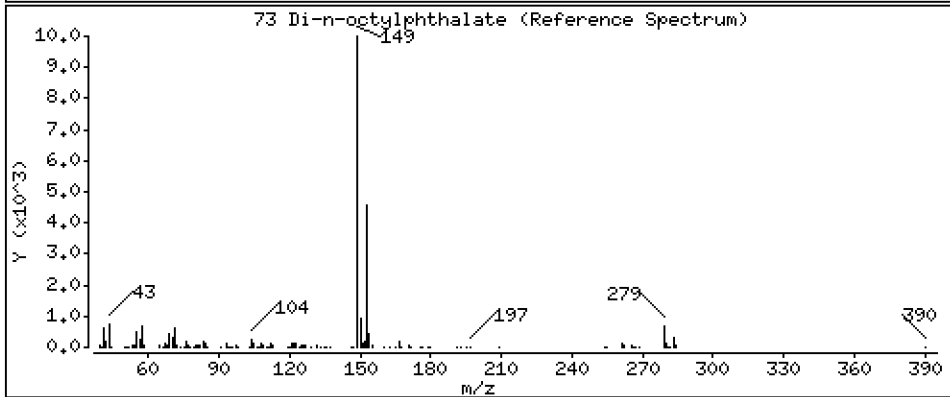
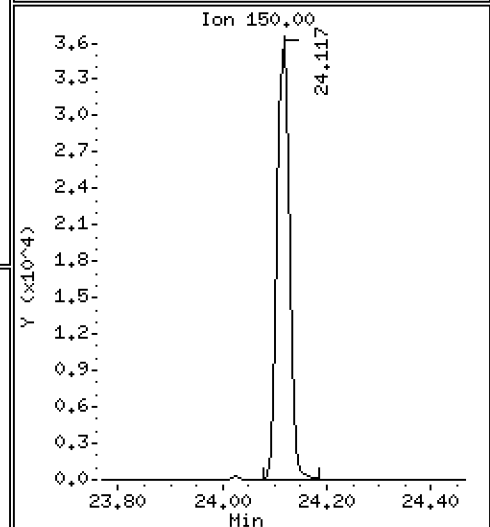
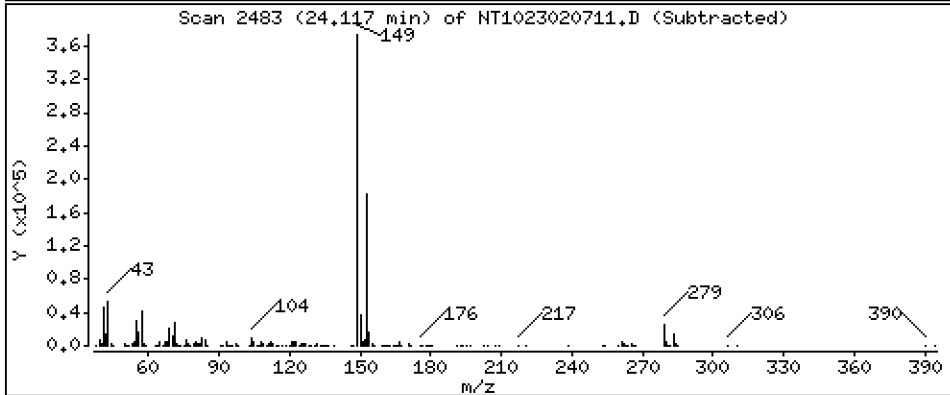
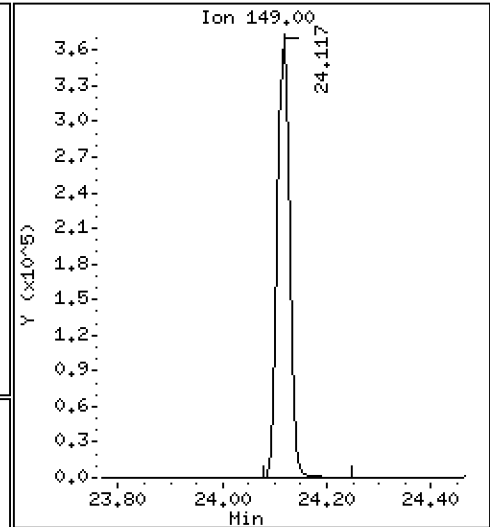
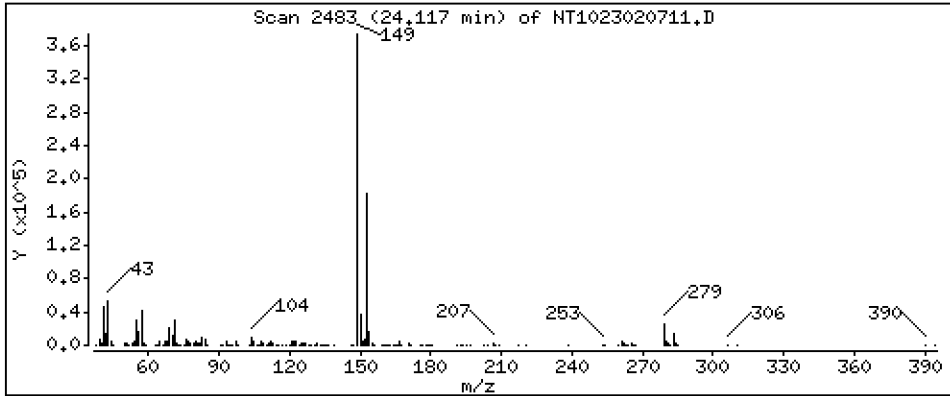
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 4,483 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

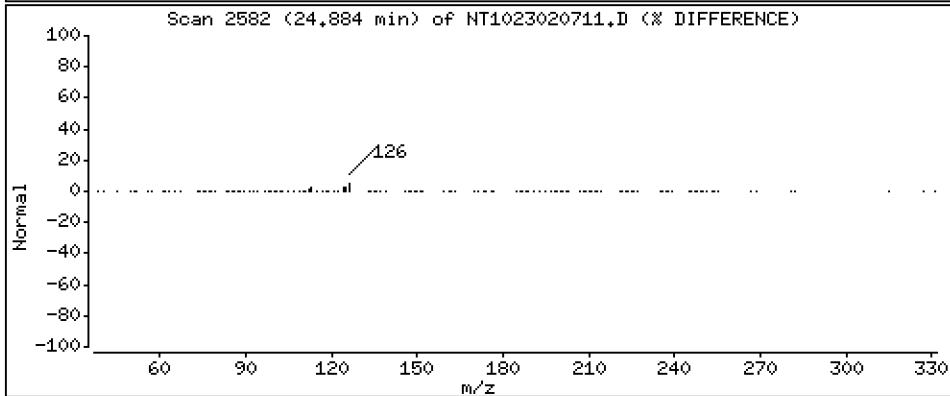
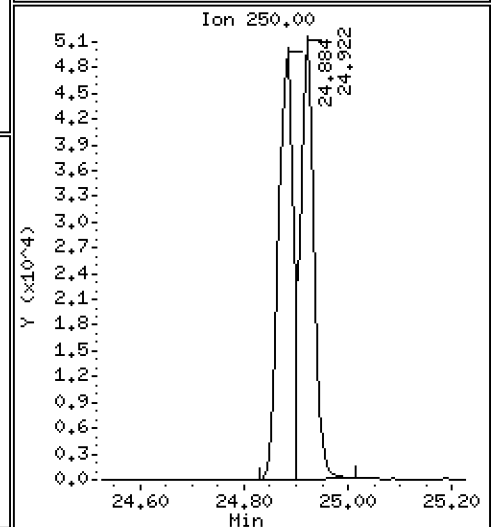
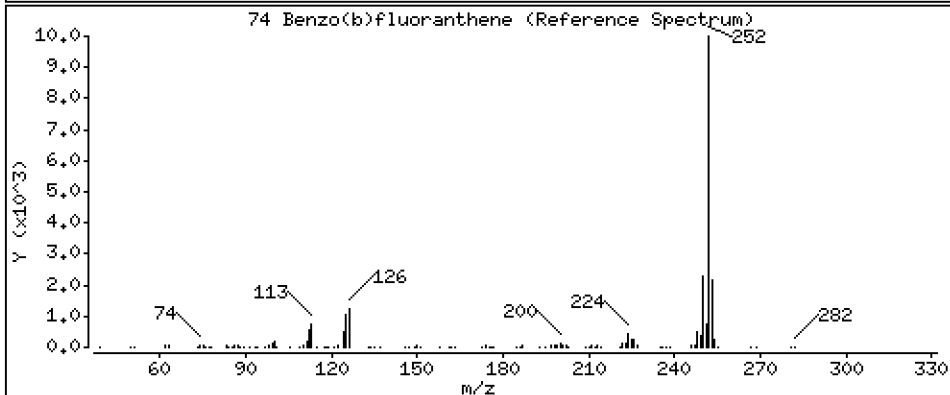
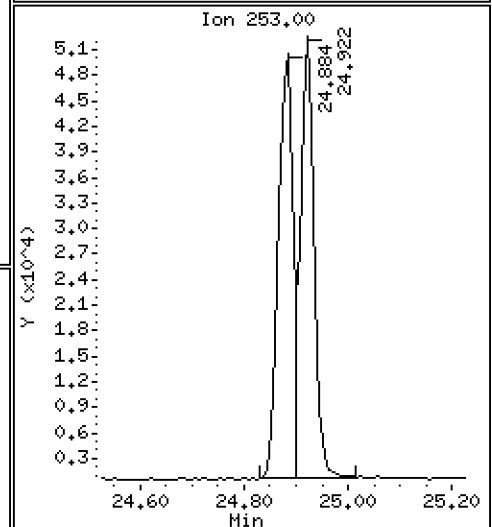
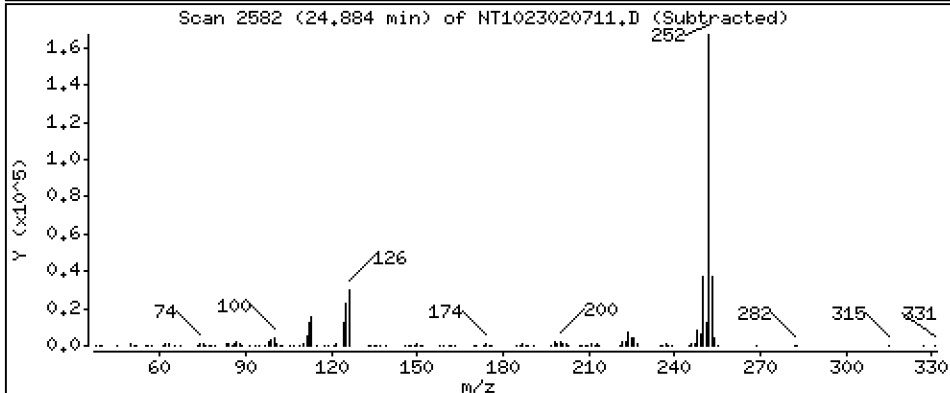
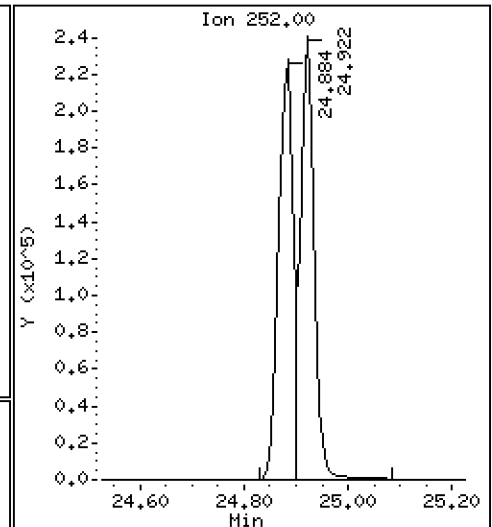
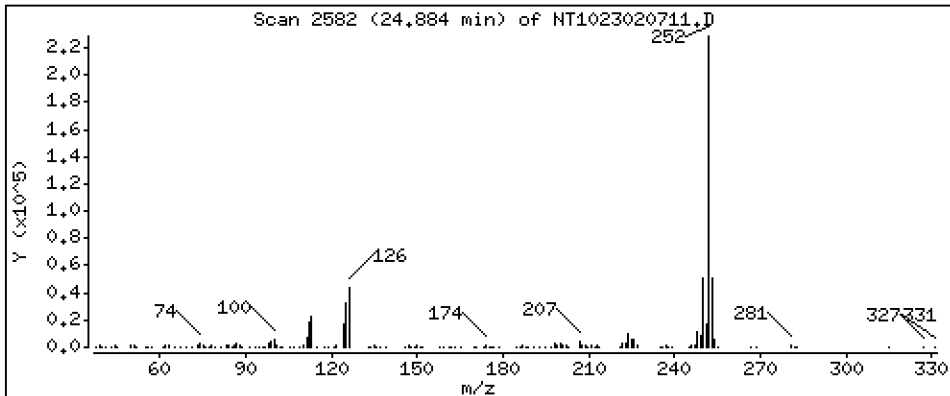
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,235 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

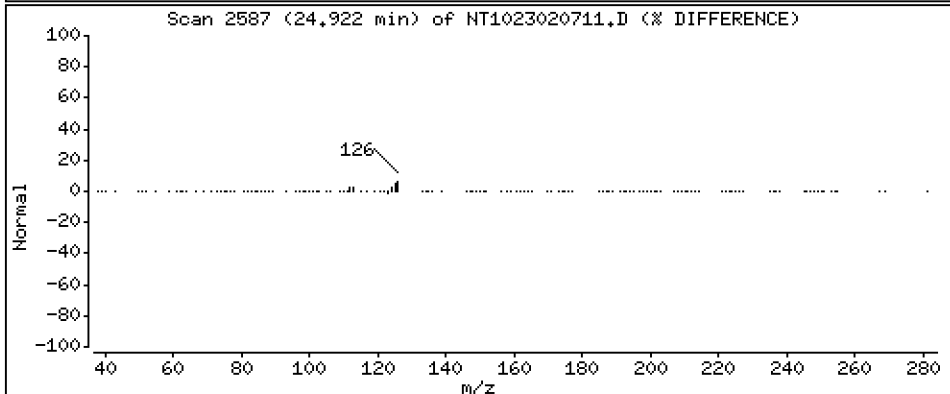
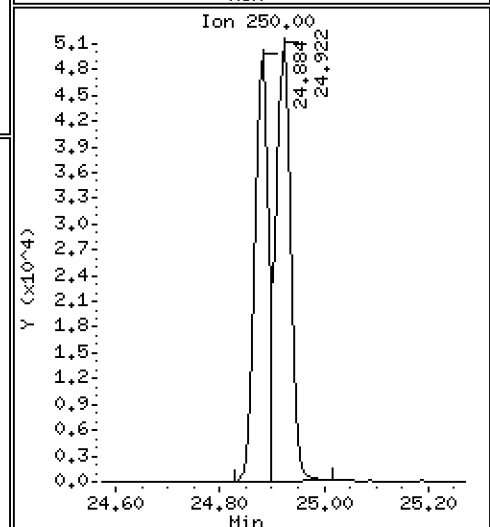
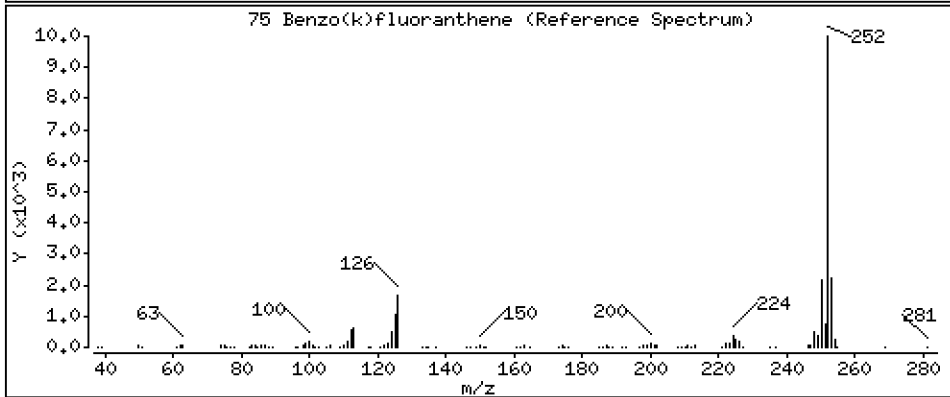
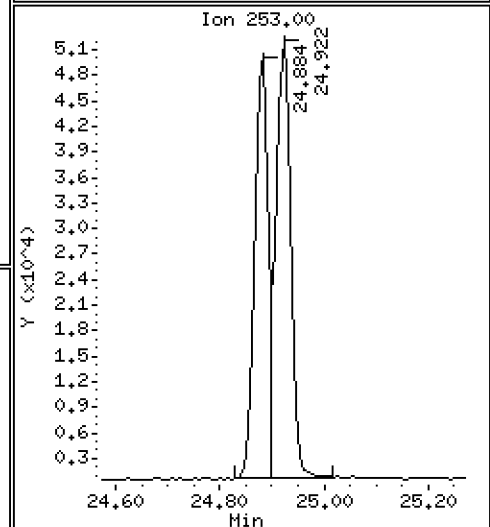
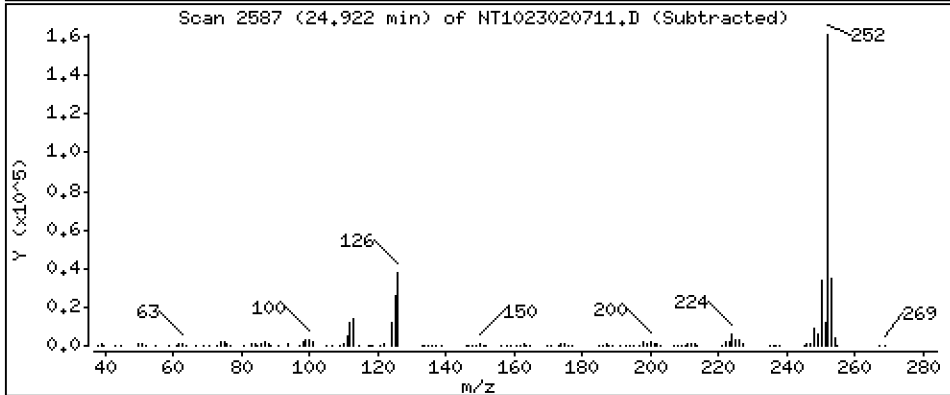
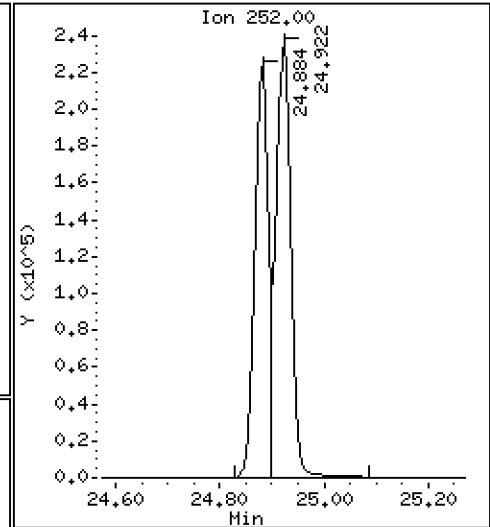
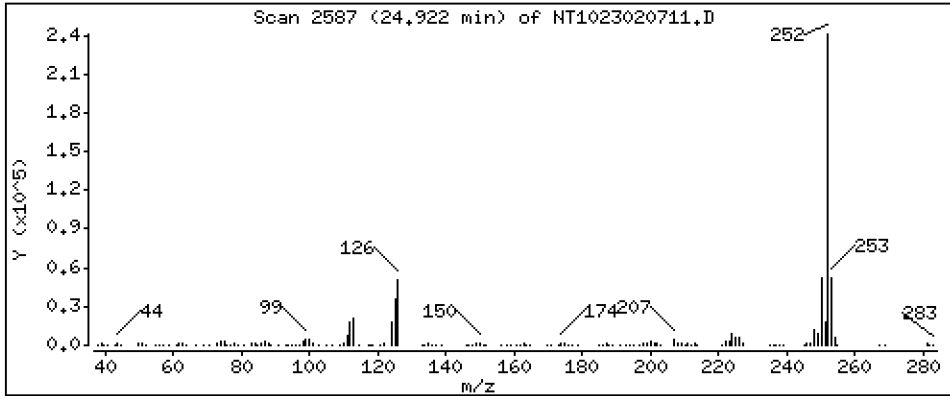
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,389 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

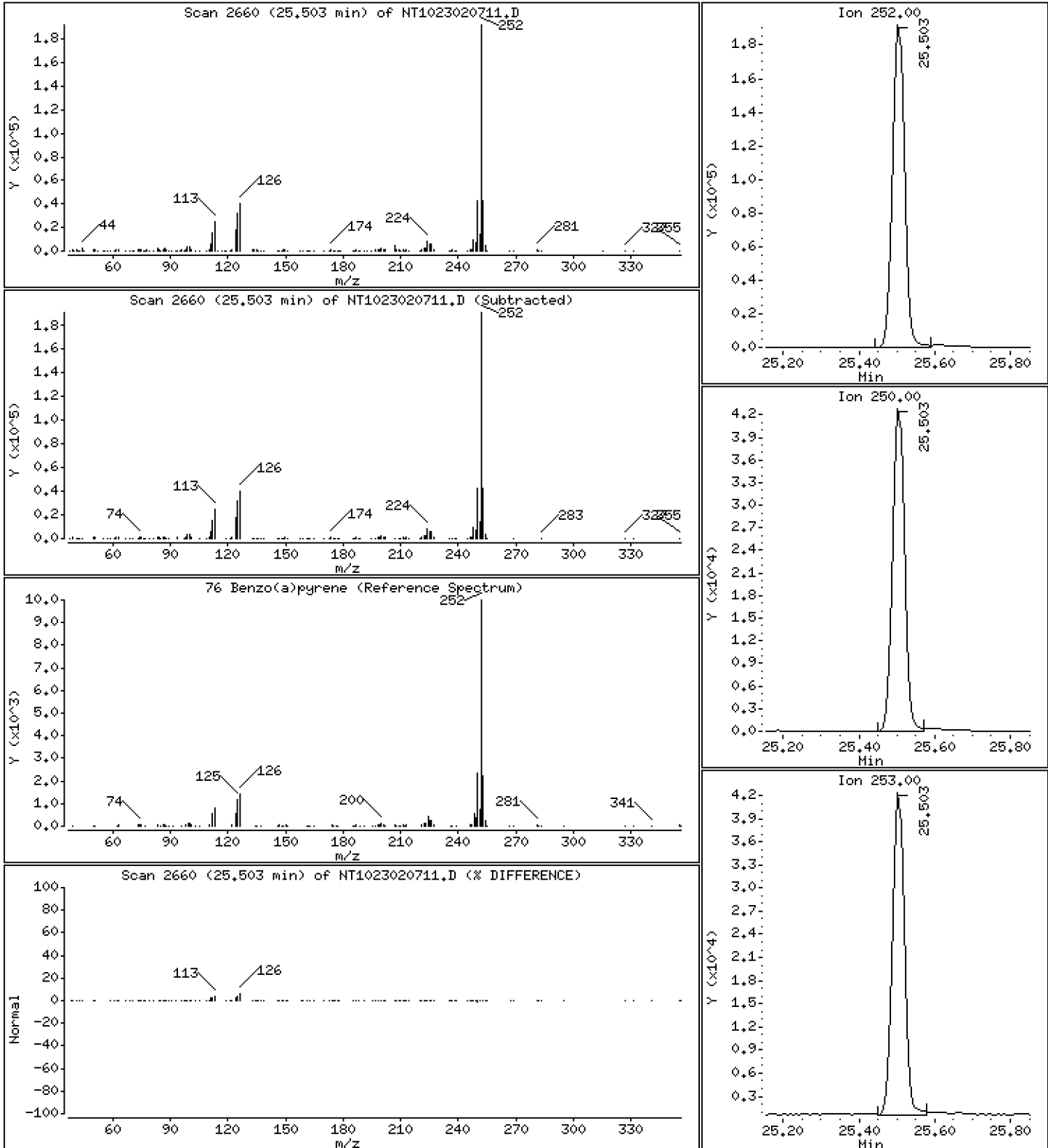
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,376 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

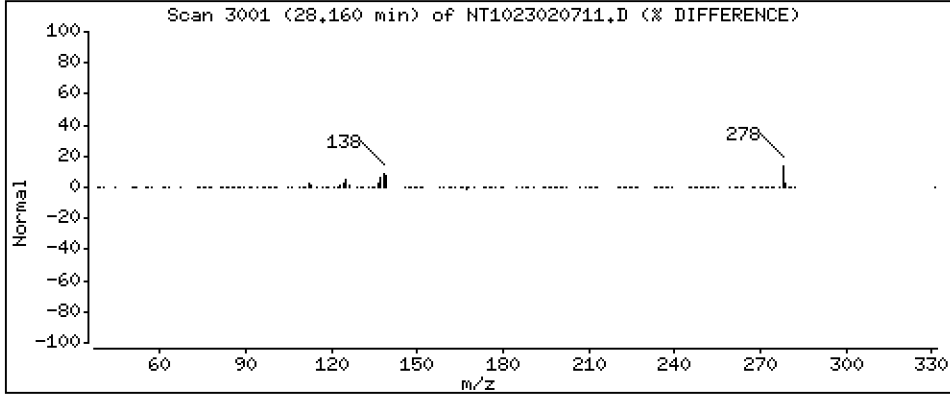
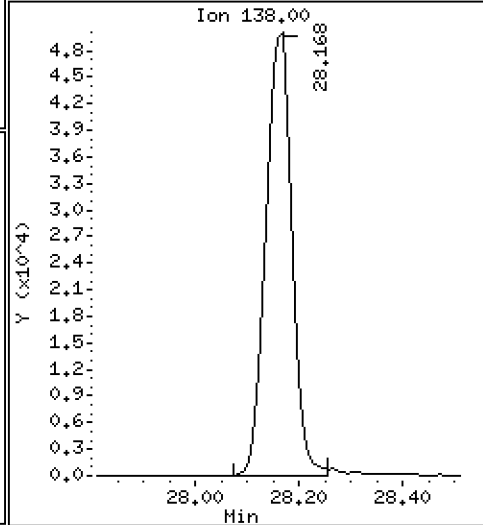
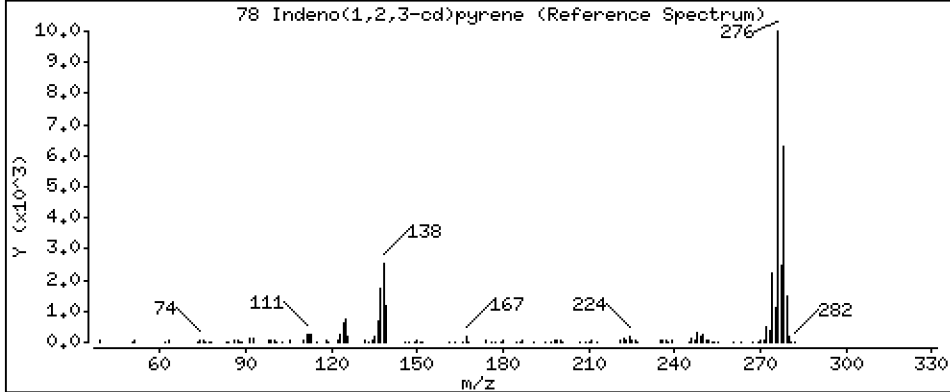
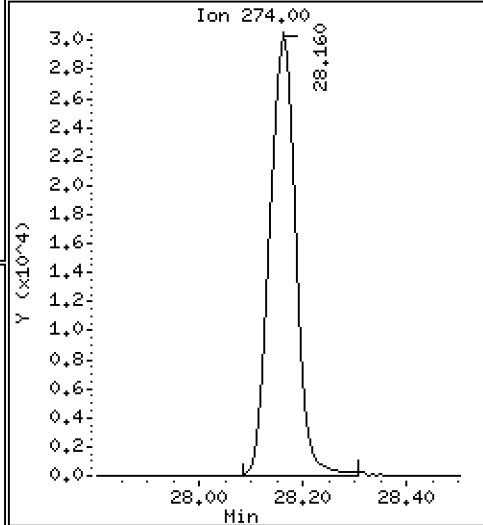
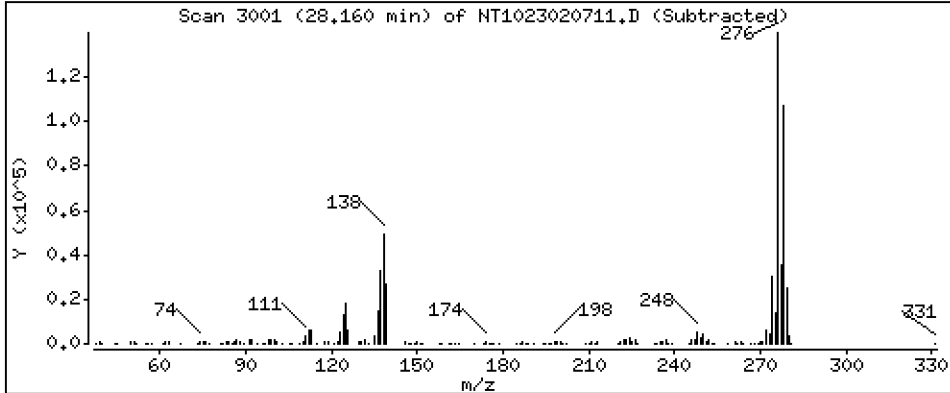
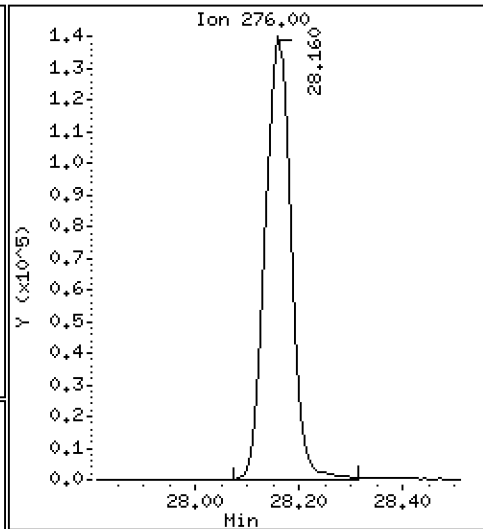
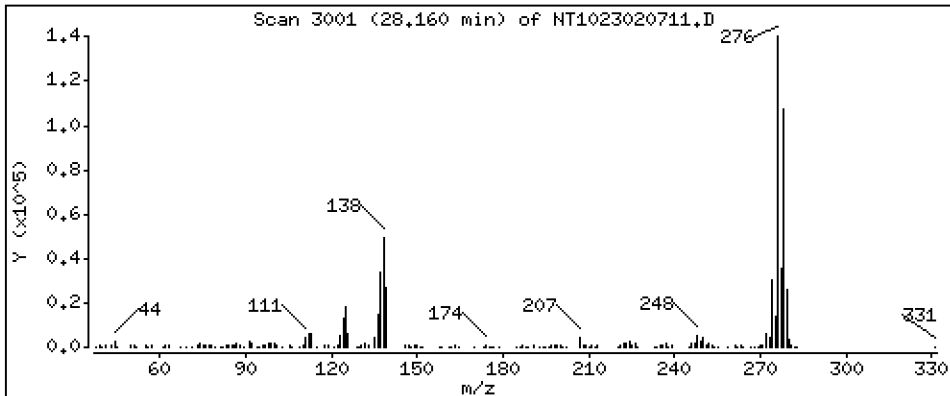
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 4,357 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

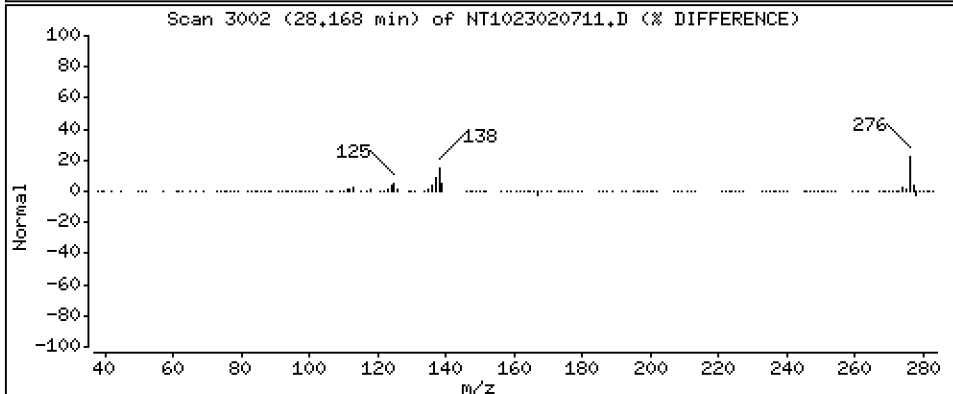
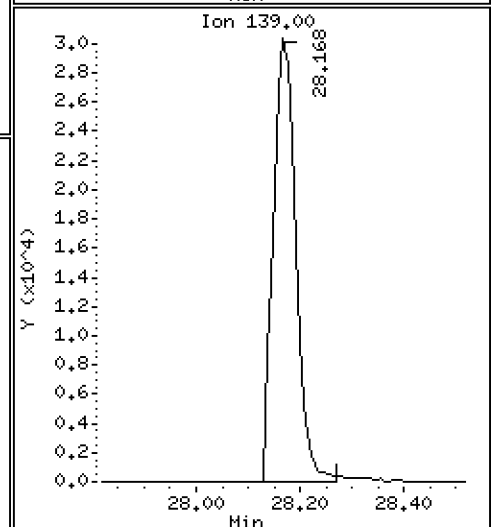
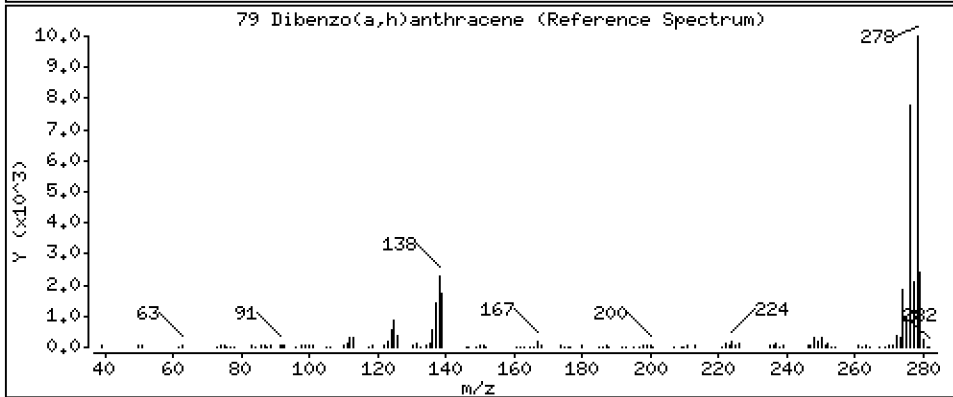
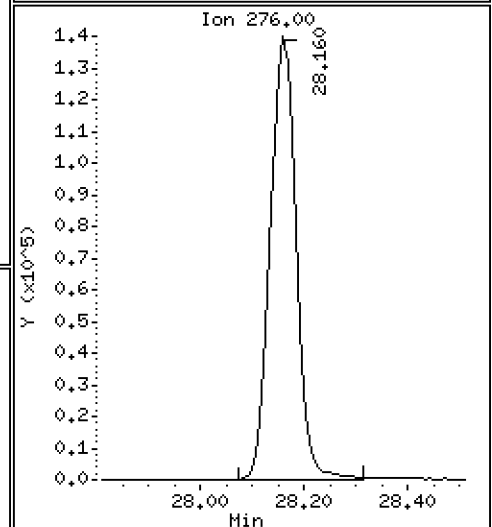
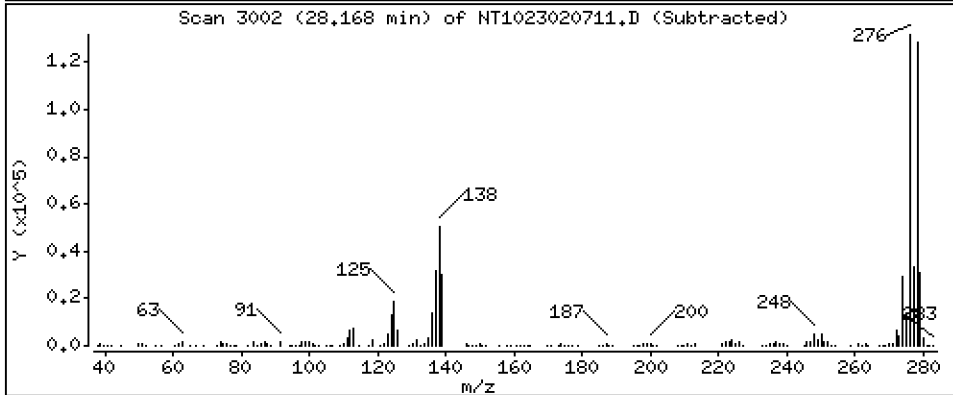
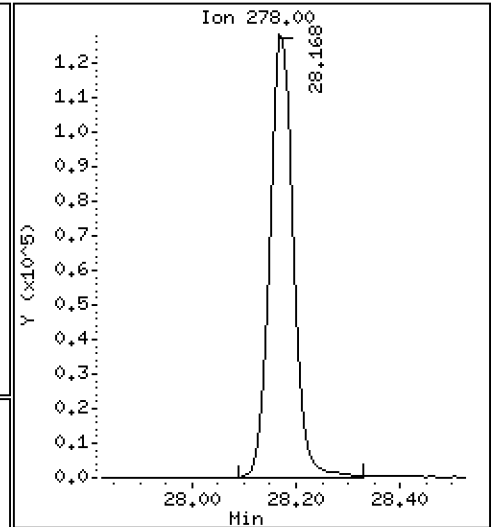
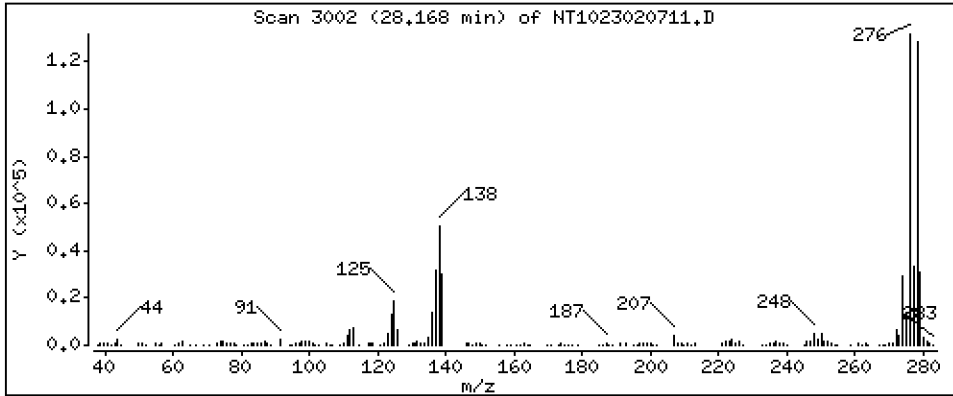
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,352 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

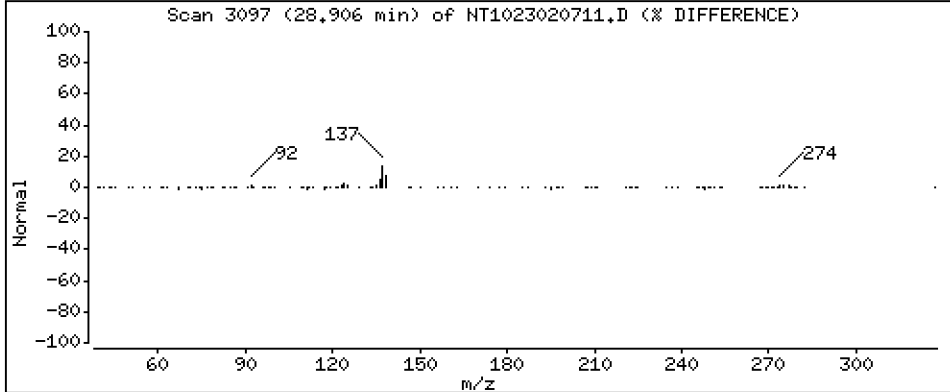
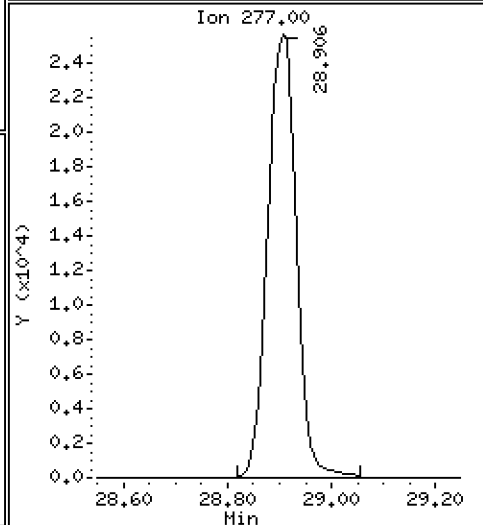
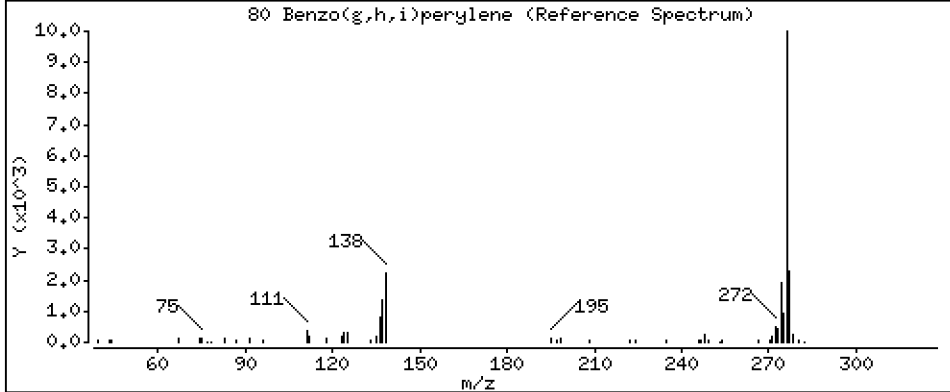
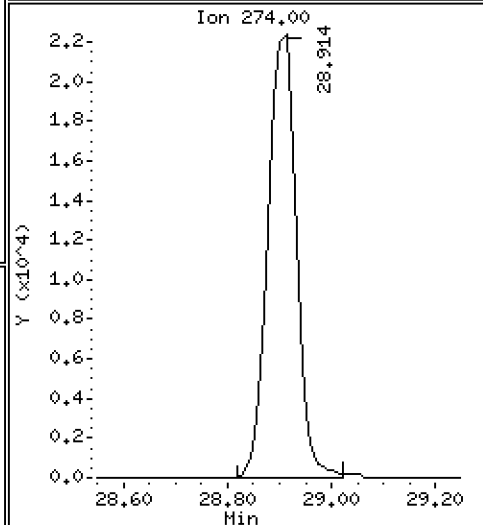
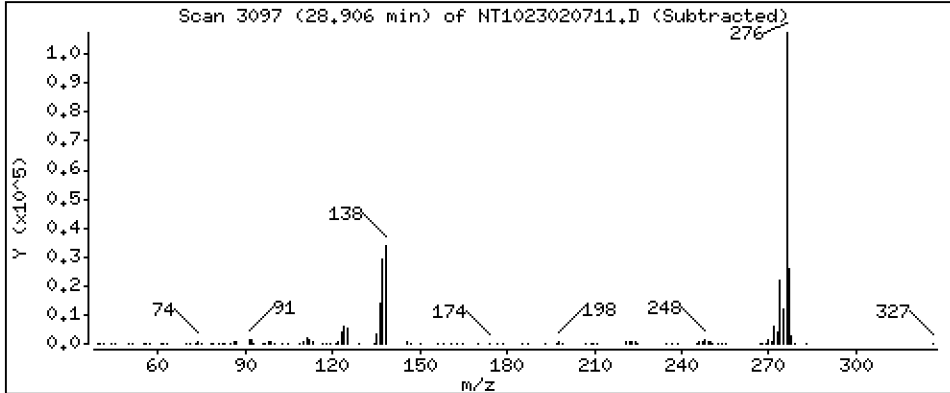
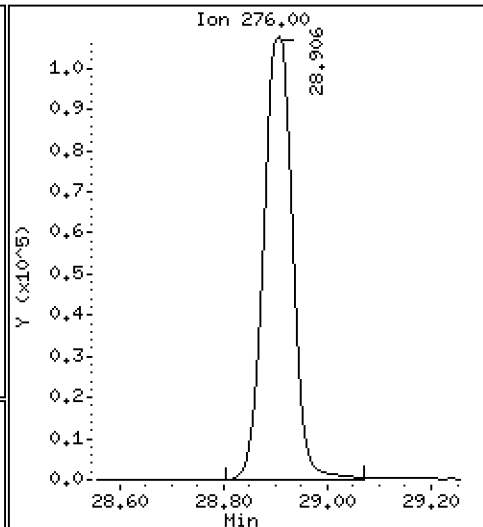
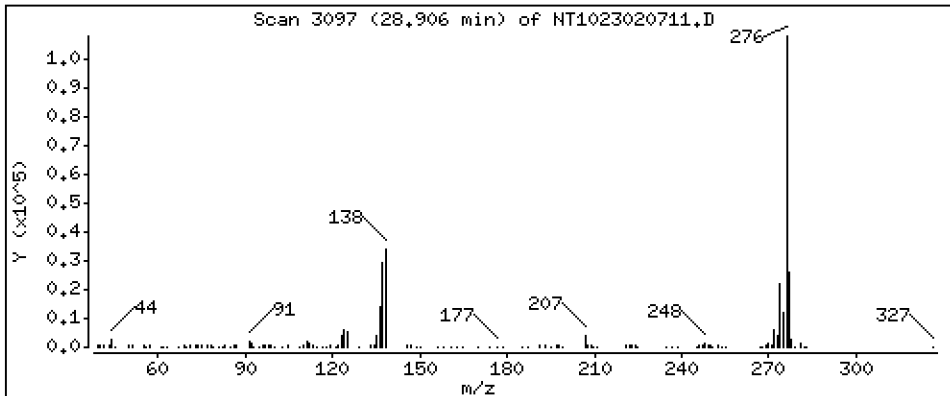
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 4,345 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

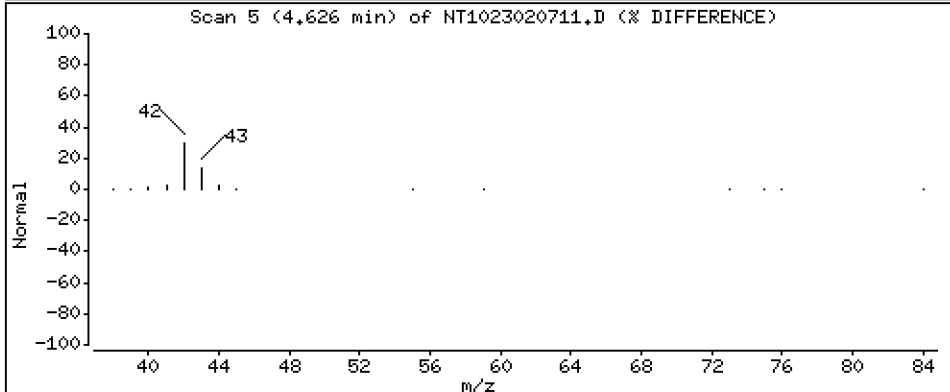
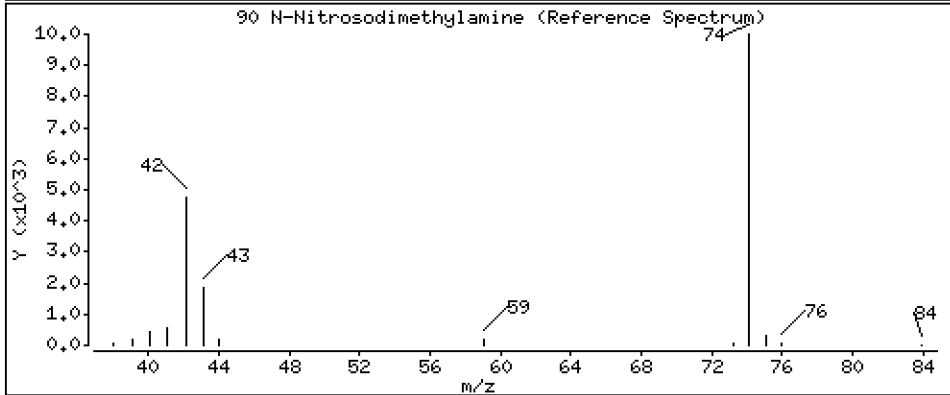
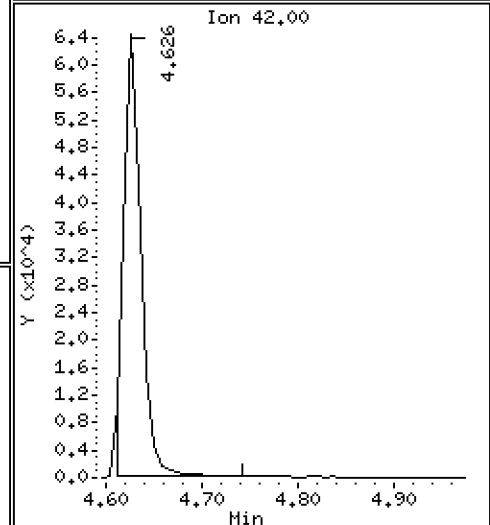
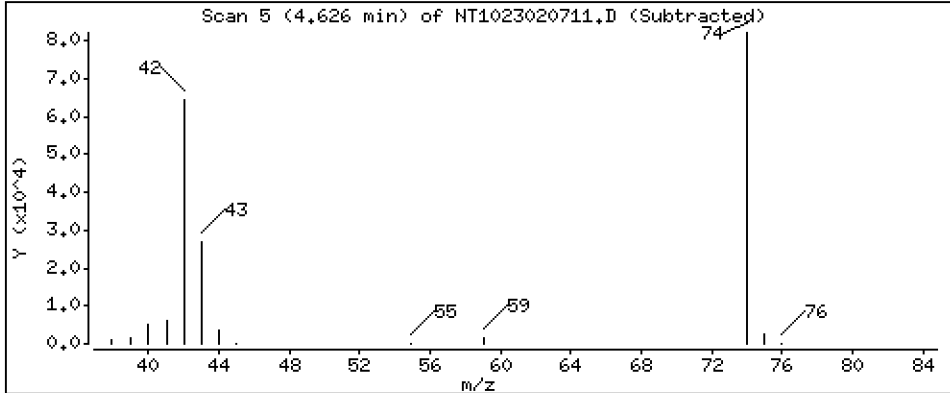
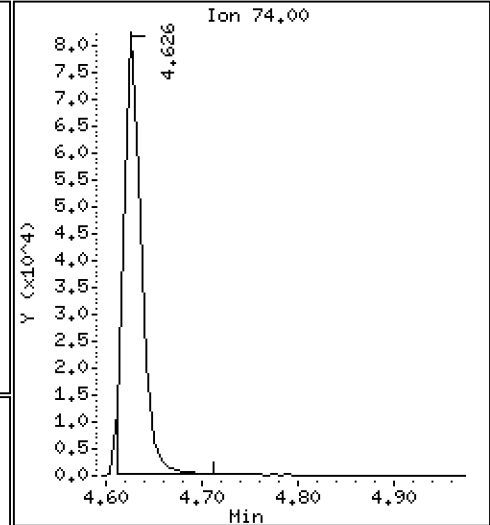
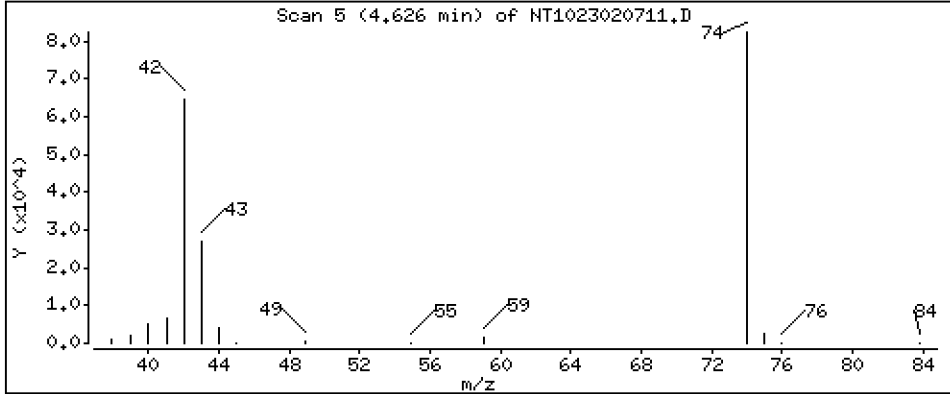
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 4,555 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

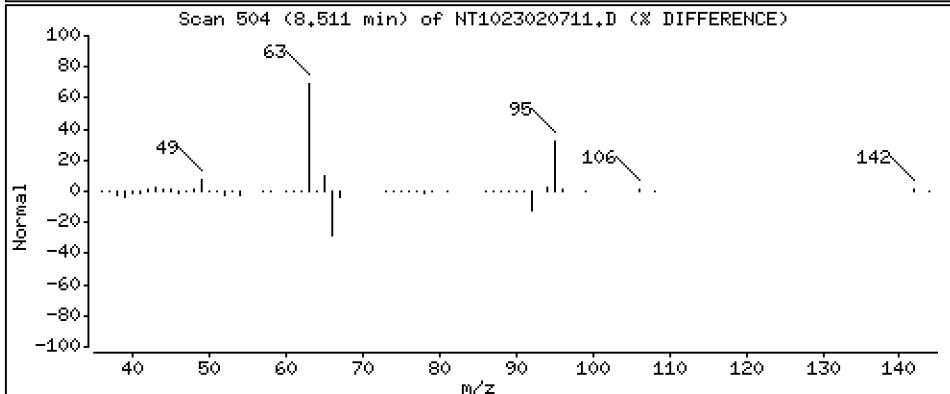
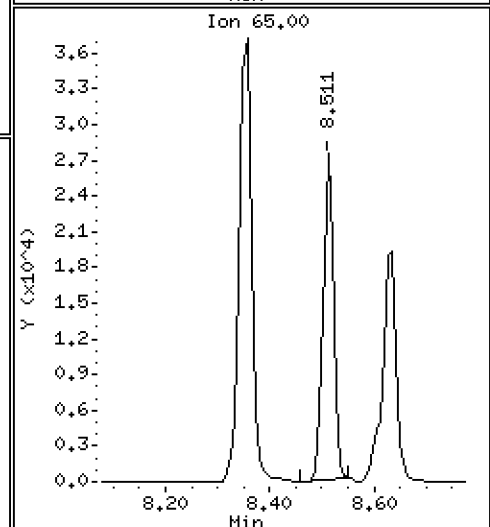
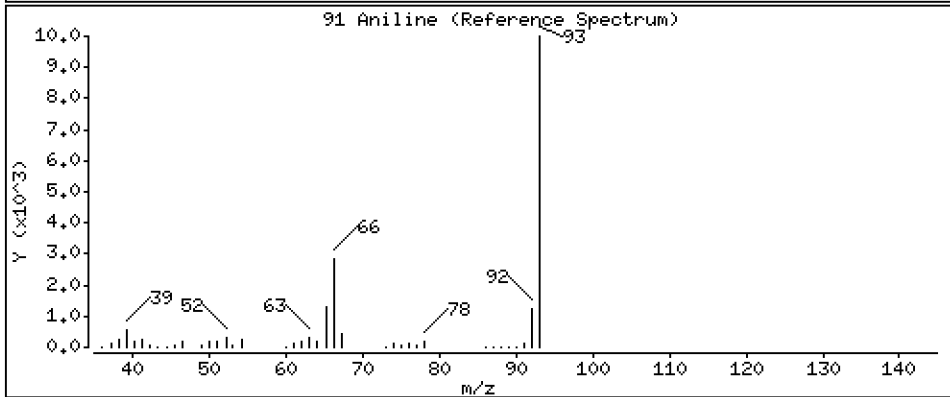
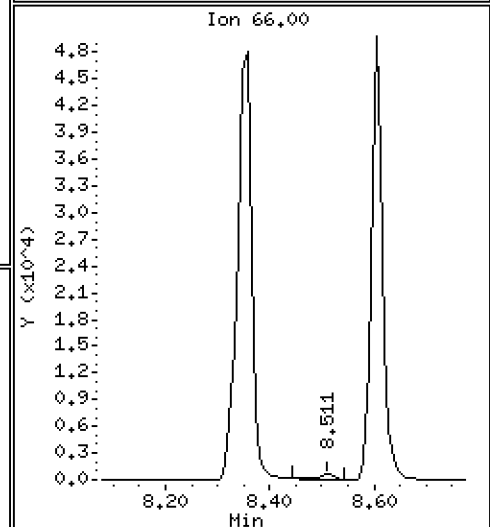
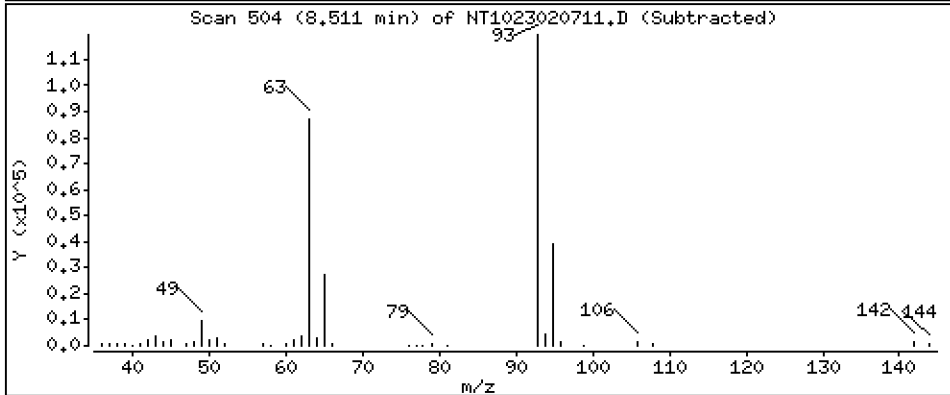
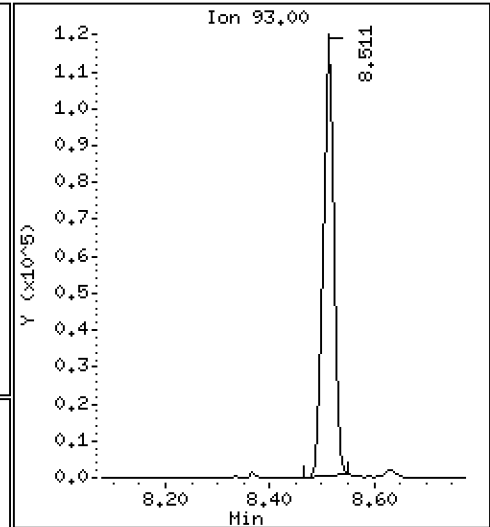
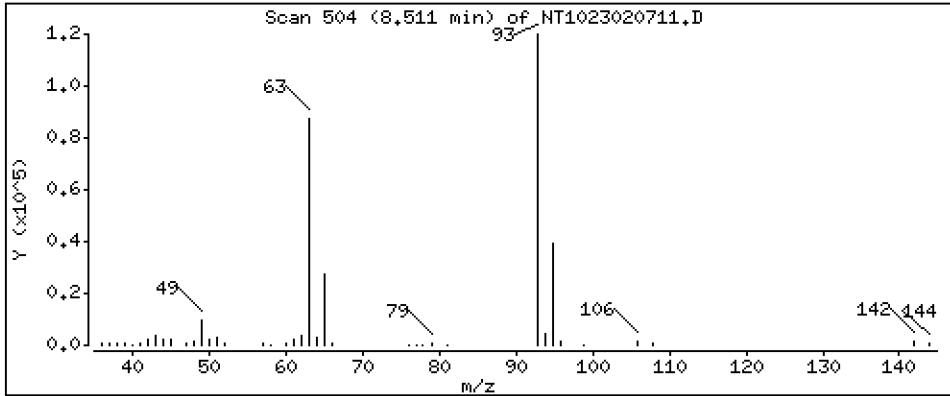
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

91 Aniline

Concentration: 3,348 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

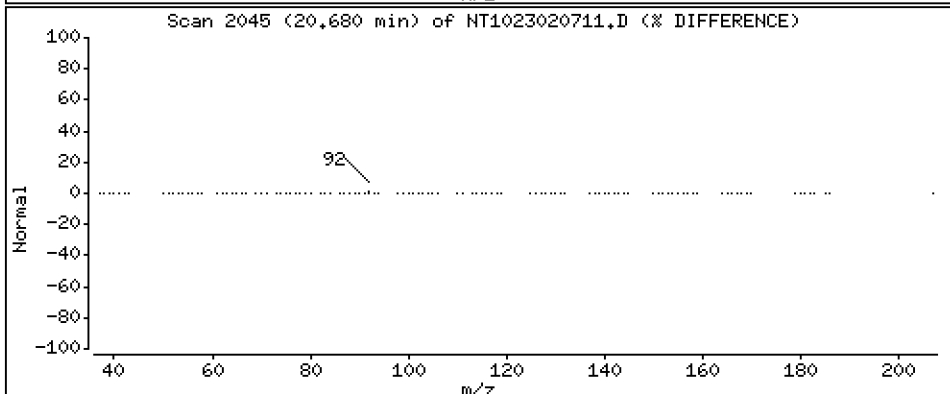
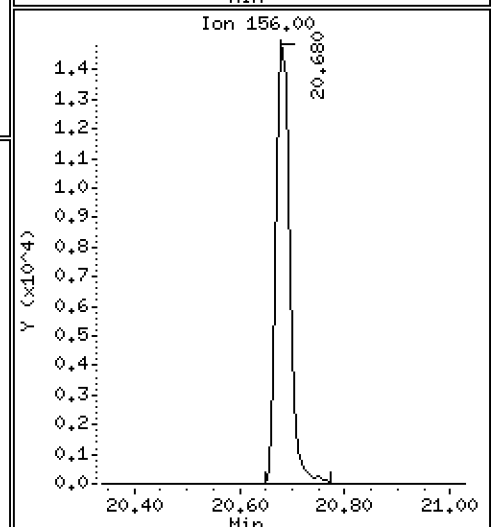
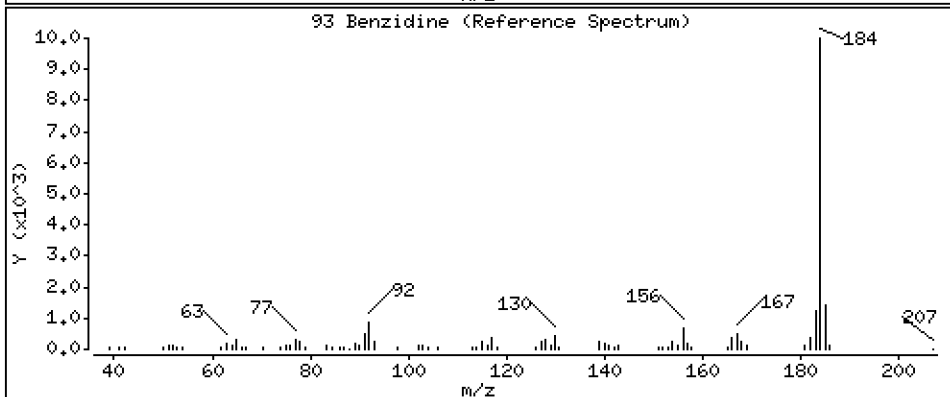
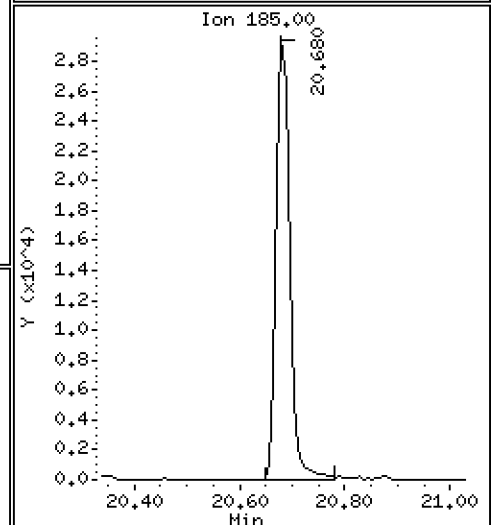
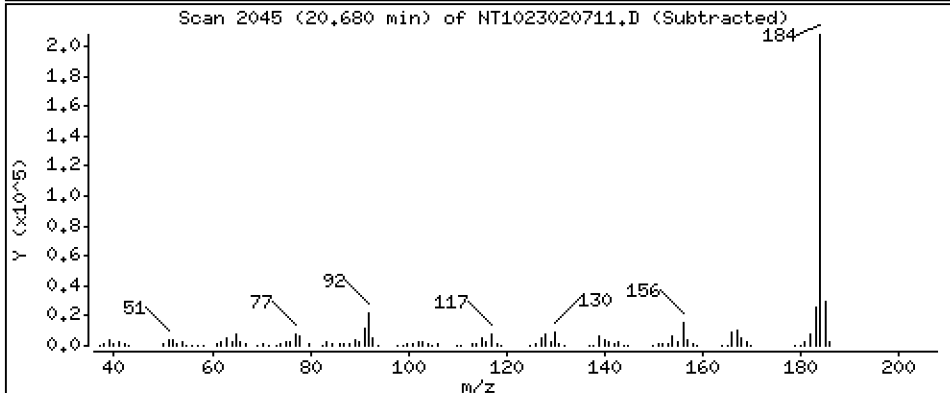
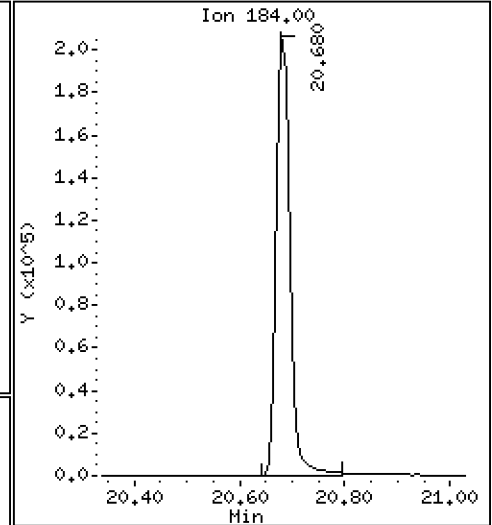
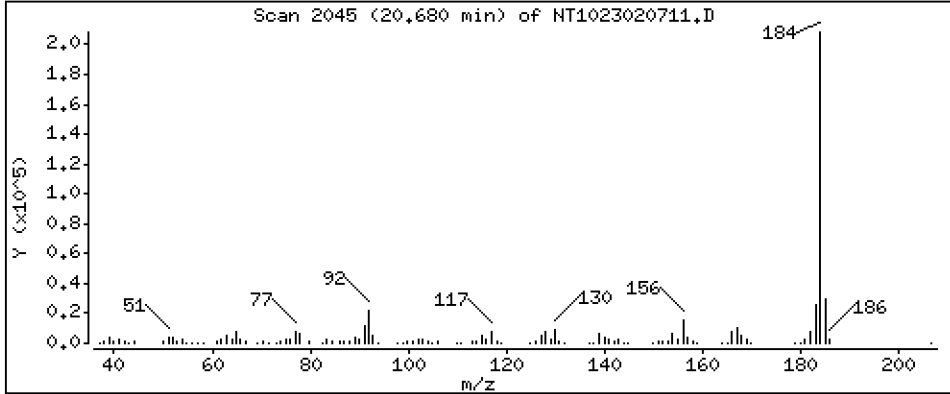
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 9,500 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

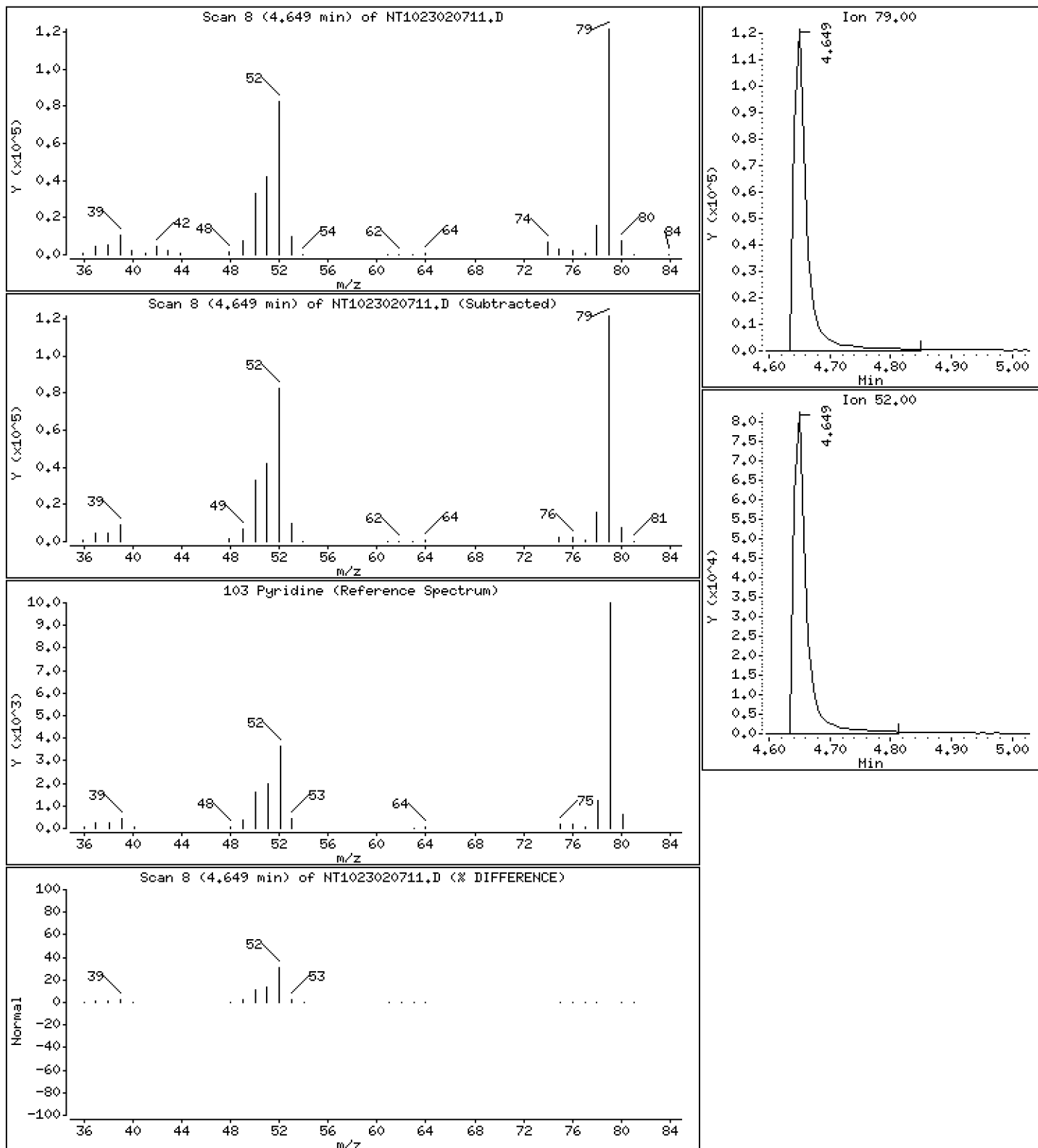
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 4,802 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

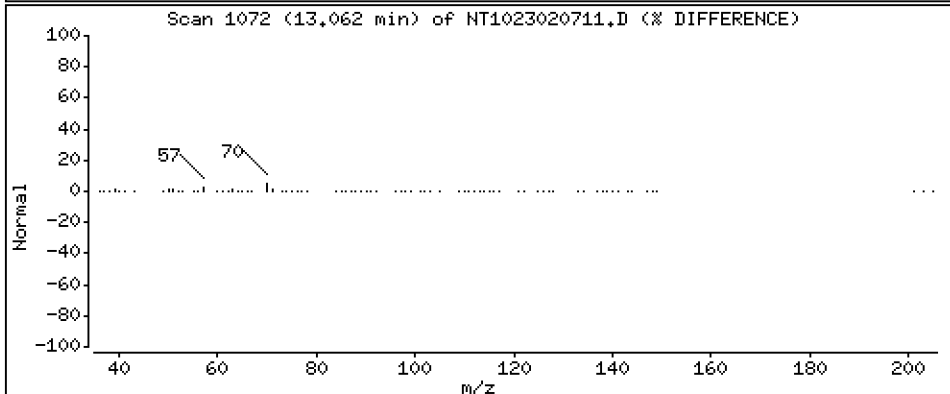
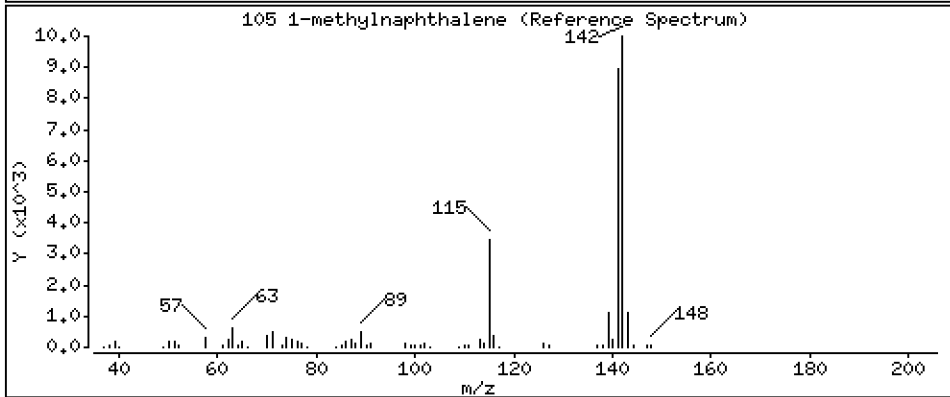
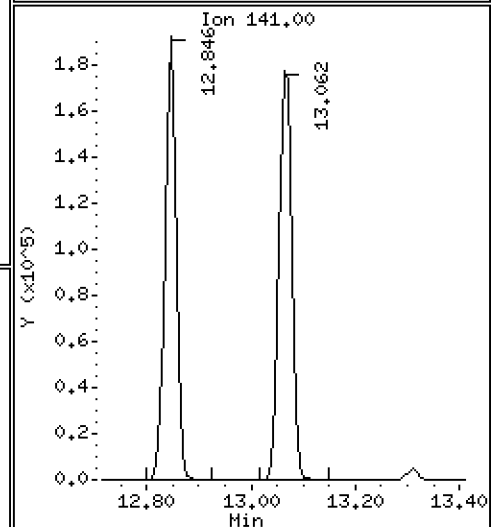
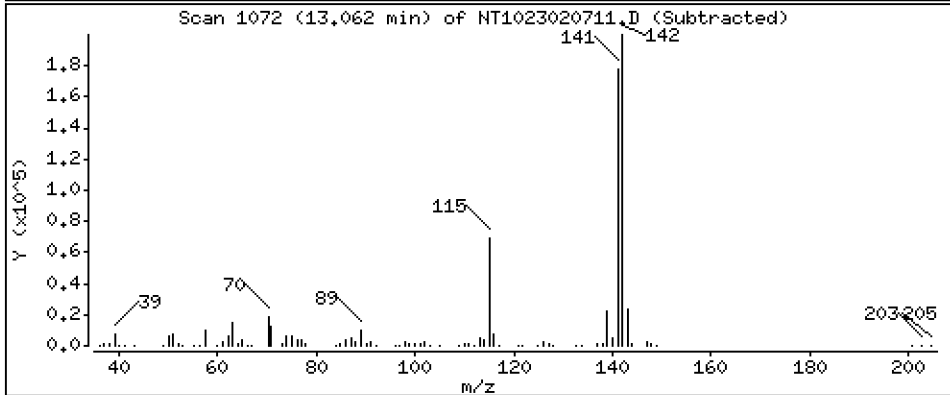
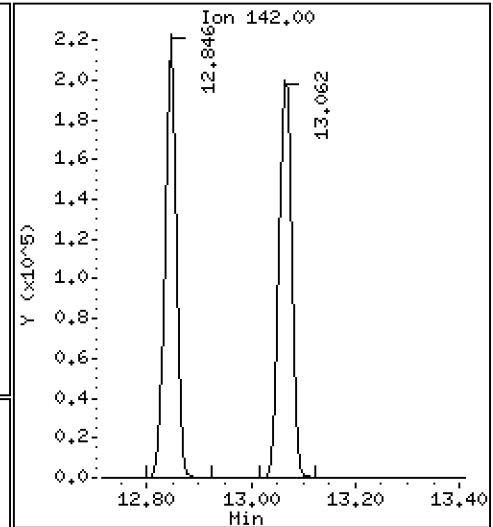
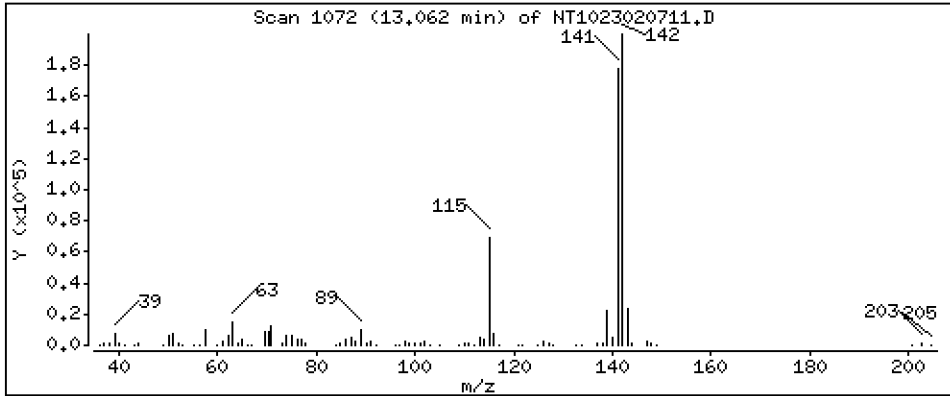
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 4,286 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

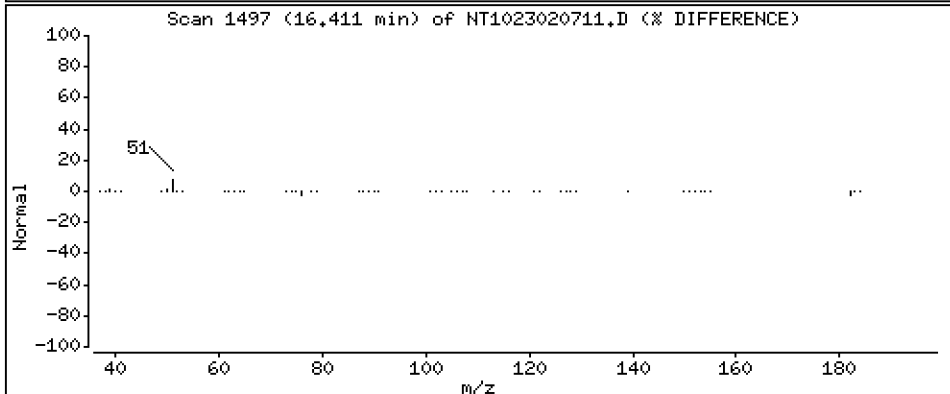
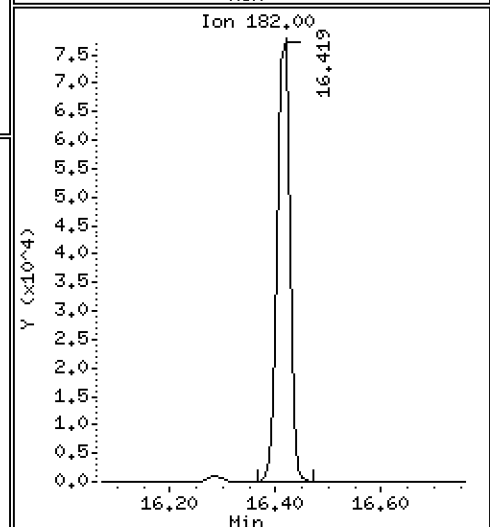
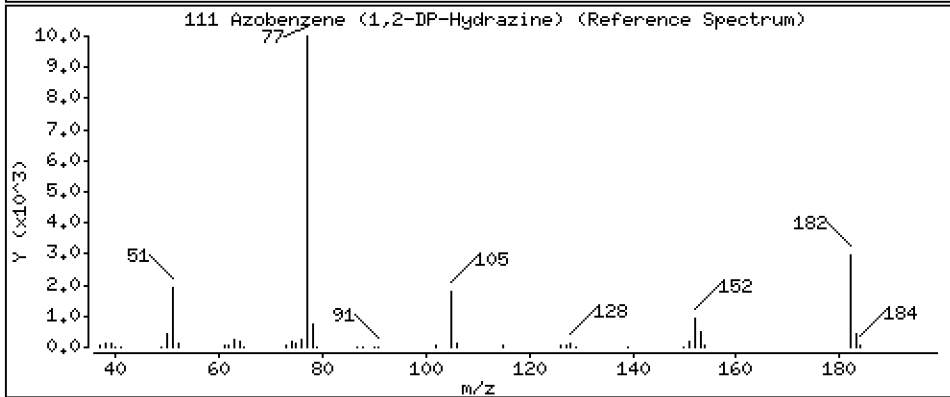
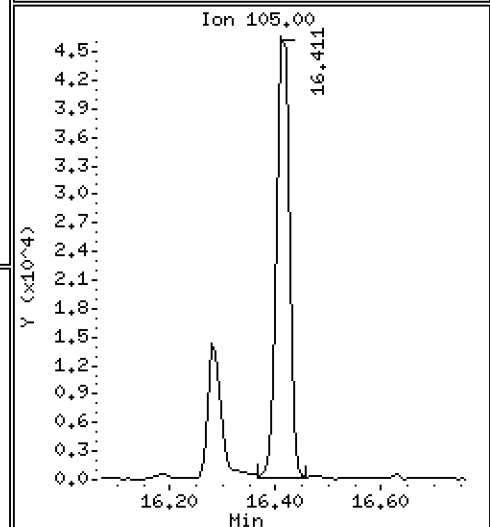
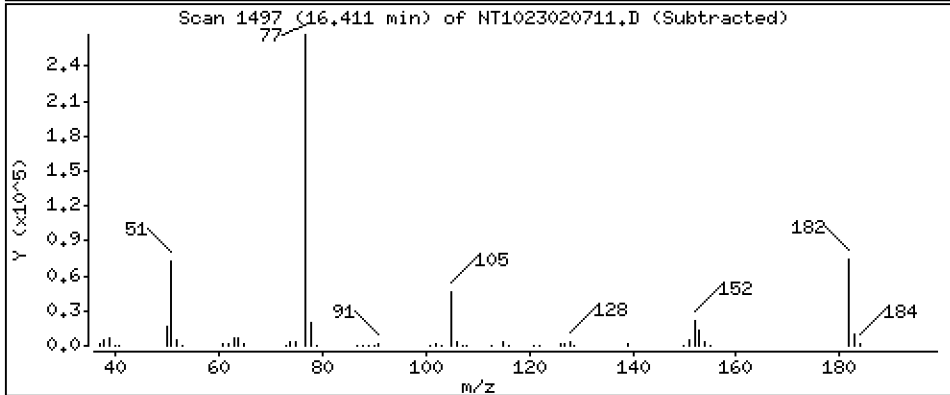
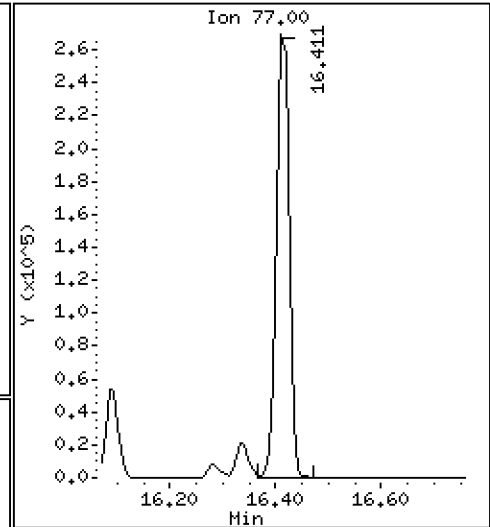
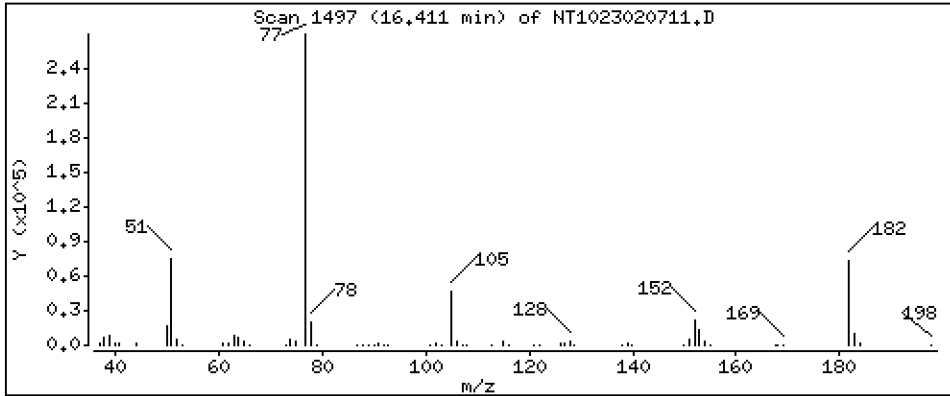
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 4.292 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

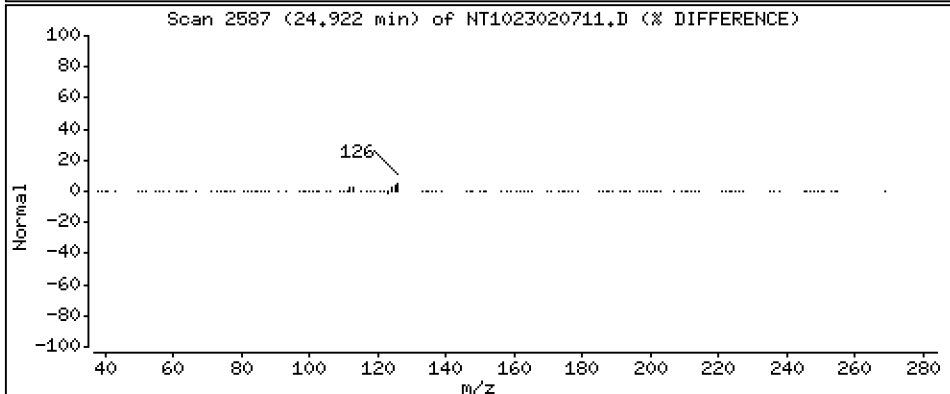
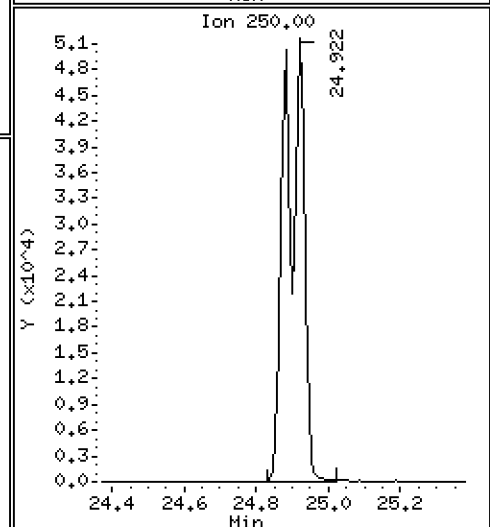
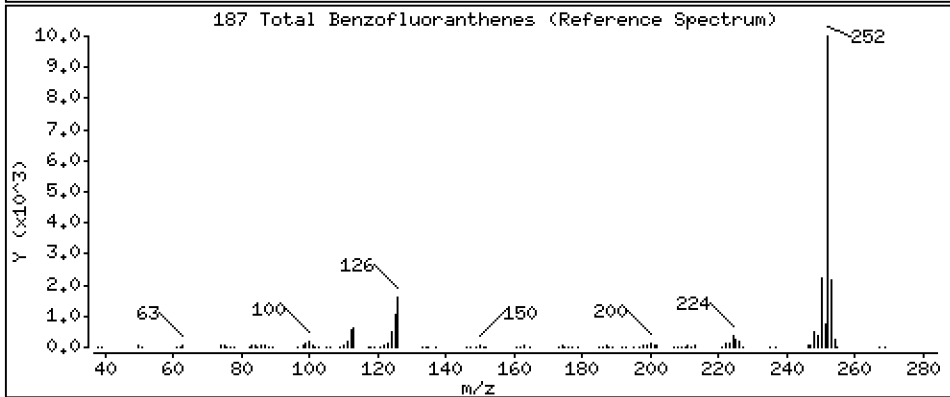
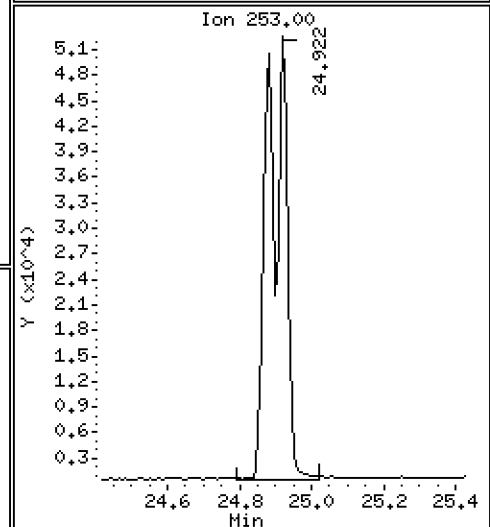
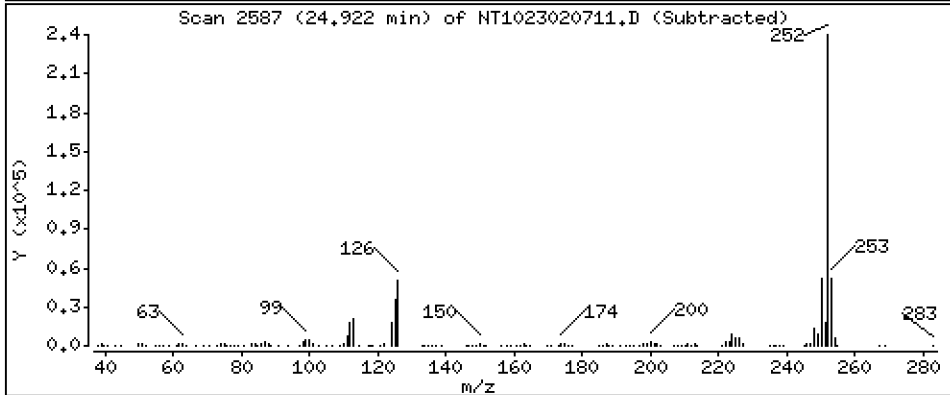
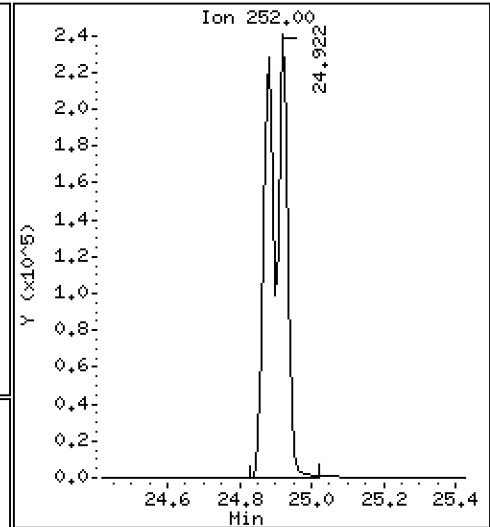
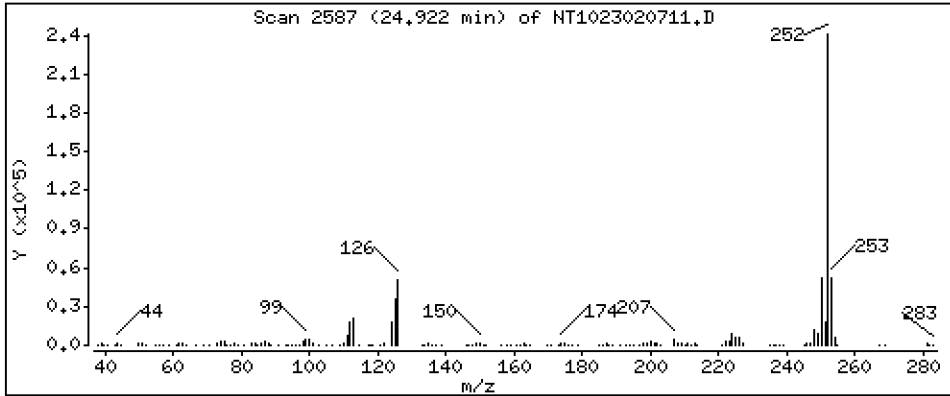
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 8,587 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

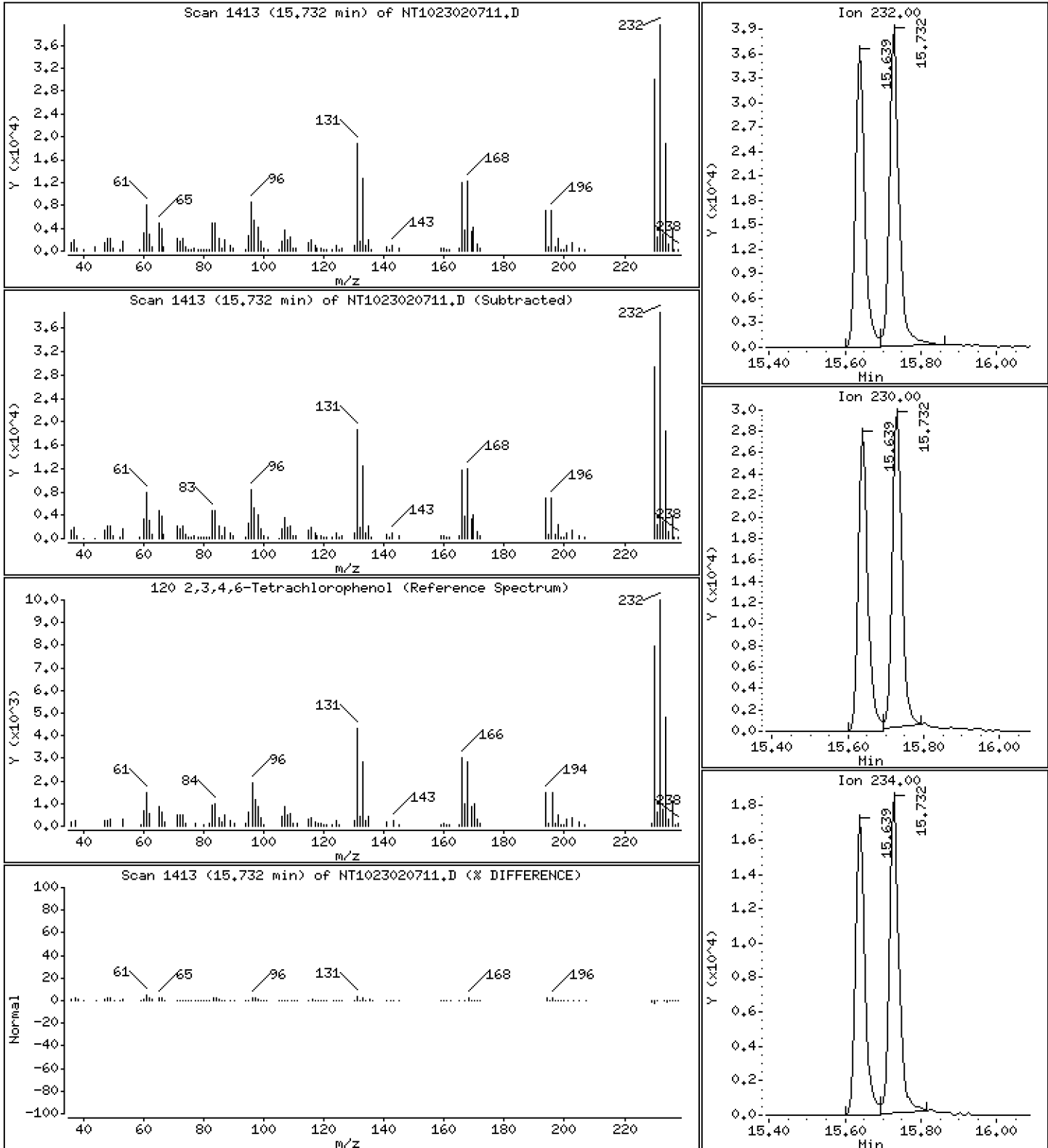
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,363 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020711.D
 Lab Smp Id: SLB0102-SCV1
 Inj Date : 07-FEB-2023 18:04
 Operator : VTS
 Smp Info : SLB0102-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 08-Feb-2023 10:39 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		6.765	6.772	(0.755)	255658	7.42059	7.421
\$ 2 Phenol-d5	99		8.333	8.333	(0.930)	336503	7.24016	7.240
3 Phenol	94		8.356	8.356	(0.933)	206466	4.10667	4.107
\$ 5 2-Chlorophenol-d4	132		8.604	8.603	(0.960)	272440	7.22261	7.223
4 Bis(2-Chloroethyl)ether	93		8.511	8.511	(0.950)	166519	4.55458	4.555
6 2-Chlorophenol	128		8.635	8.634	(0.964)	166557	4.05388	4.054
7 1,3-Dichlorobenzene	146		8.898	8.897	(0.993)	187090	4.33802	4.338
* 8 1,4-Dichlorobenzene-d4	152		8.960	8.959	(1.000)	108369	4.00000	
9 1,4-Dichlorobenzene	146		8.991	8.990	(1.003)	184757	4.34939	4.349
\$ 10 1,2-Dichlorobenzene-d4	152		9.317	9.316	(1.040)	120754	4.67680	4.677
12 1,2-Dichlorobenzene	146		9.348	9.340	(1.043)	179325	4.37882	4.379
11 Benzyl alcohol	108		9.231	9.239	(1.030)	107713	4.83673	4.837
14 2,2'-oxybis(1-Chloropropane)	121		9.526	9.526	(1.063)	58854	5.00174	5.002
13 2-Methylphenol	108		9.456	9.456	(1.055)	142781	3.82937	3.829
17 Hexachloroethane	117		9.930	9.929	(1.108)	72276	4.43822	4.438
16 N-Nitroso-di-n-propylamine	70		9.782	9.782	(1.092)	127909	4.56192	4.562
15 4-Methylphenol	108		9.728	9.728	(1.086)	155931	3.94823	3.948
\$ 18 Nitrobenzene-d5	82		10.038	10.038	(0.879)	201210	4.74845	4.748
19 Nitrobenzene	77		10.077	10.077	(0.882)	185871	4.39881	4.399
20 Isophorone	82		10.520	10.519	(0.921)	376895	6.40531	6.405
21 2-Nitrophenol	139		10.698	10.698	(0.937)	92330	4.24221	4.242
22 2,4-Dimethylphenol	107		10.758	10.757	(0.942)	137587	3.53638	3.536
23 Bis(2-Chloroethoxy)methane	93		10.944	10.944	(0.958)	195103	5.10637	5.106
24 Benzoic acid	105		10.936	11.003	(0.957)	97860	4.40978	4.410
25 2,4-Dichlorophenol	162		11.157	11.156	(0.977)	144593	4.57448	4.574
26 1,2,4-Trichlorobenzene	180		11.337	11.337	(0.993)	144321	4.19068	4.191
* 27 Naphthalene-d8	136		11.422	11.422	(1.000)	428903	4.00000	
28 Naphthalene	128		11.461	11.460	(1.003)	508486	4.43653	4.437
29 4-Chloroaniline	127		11.592	11.592	(1.015)	178023	3.62338	3.623
30 Hexachlorobutadiene	225		11.824	11.823	(1.035)	78384	4.36431	4.364
31 4-Chloro-3-methylphenol	107		12.543	12.551	(1.098)	148870	4.30829	4.308
32 2-Methylnaphthalene	142		12.845	12.845	(1.125)	336792	4.22624	4.226
33 Hexachlorocyclopentadiene	237		13.310	13.309	(0.887)	48748	3.35488	3.355
34 2,4,6-Trichlorophenol	196		13.464	13.464	(0.897)	86379	4.07941	4.079

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
35 2,4,5-Trichlorophenol	196	13.534	13.549	(0.902)	89332	3.91330	3.913
\$ 36 2-Fluorobiphenyl	172	13.619	13.619	(0.908)	380733	4.50425	4.504
37 2-Chloronaphthalene	162	13.828	13.828	(0.922)	305322	4.15548	4.155
38 2-Nitroaniline	65	14.084	14.083	(0.939)	100324	4.33640	4.336
39 Dimethylphthalate	163	14.517	14.509	(0.968)	336465	4.28029	4.280
40 Acenaphthylene	152	14.695	14.695	(0.979)	505791	4.32170	4.322
41 2,6-Dinitrotoluene	165	14.649	14.648	(0.976)	81495	4.37719	4.377
* 42 Acenaphthene-d10	164	15.004	15.004	(1.000)	234560	4.00000	
43 3-Nitroaniline	138	14.927	14.935	(0.995)	93629	4.36156	4.362
44 Acenaphthene	153	15.066	15.066	(1.004)	303572	4.23254	4.233
45 2,4-Dinitrophenol	184	15.144	15.151	(1.009)	13332	1.38463	1.385
46 Dibenzofuran	168	15.391	15.391	(1.026)	431624	4.18335	4.183
47 4-Nitrophenol	109	15.260	15.313	(1.017)	32938	4.11607	4.116
48 2,4-Dinitrotoluene	165	15.445	15.452	(1.029)	109550	4.26455	4.265
50 Diethylphthalate	149	15.955	15.955	(1.063)	333844	4.42248	4.422
49 Fluorene	166	16.102	16.094	(1.073)	479965	4.13854	4.139
51 4-Chlorophenyl-phenylether	204	16.095	16.087	(1.073)	244410	4.31488	4.315
52 4-Nitroaniline	138	16.187	16.187	(1.079)	106457	4.33959	4.340
53 4,6-Dinitro-2-methylphenol	198	16.287	16.287	(0.904)	58398	3.99461	3.995
54 N-Nitrosodiphenylamine	169	16.341	16.341	(0.907)	303362	4.38443	4.384
\$ 55 2,4,6-Tribromophenol	330	16.627	16.619	(1.108)	83549	7.11340	7.113
56 4-Bromophenyl-phenylether	248	17.089	17.089	(0.948)	116005	4.54993	4.550
57 Hexachlorobenzene	284	17.399	17.398	(0.966)	117771	4.28908	4.289
58 Pentachlorophenol	266	17.763	17.770	(0.986)	36088	3.45281	3.453
* 59 Phenanthrene-d10	188	18.018	18.018	(1.000)	404758	4.00000	
60 Phenanthrene	178	18.064	18.064	(1.003)	468874	4.30426	4.304
61 Anthracene	178	18.157	18.157	(1.008)	420633	3.89959	3.900
62 Carbazole	167	18.482	18.489	(1.026)	433438	4.16620	4.166
63 Di-n-butylphthalate	149	19.294	19.294	(1.071)	572045	4.61099	4.611
64 Fluoranthene	202	20.447	20.447	(0.887)	512115	4.34016	4.340
65 Pyrene	202	20.873	20.872	(0.905)	520882	4.27594	4.276
\$ 66 Terphenyl-d14	244	21.167	21.167	(0.918)	415185	4.52003	4.520
67 Butylbenzylphthalate	149	22.096	22.088	(0.958)	230821	4.38473	4.385
68 Benzo(a)anthracene	228	23.033	23.033	(0.999)	439471	4.09739	4.097
* 69 Chrysene-d12	240	23.064	23.064	(1.000)	321783	4.00000	
70 3,3'-Dichlorobenzidine	252	22.994	22.994	(0.997)	313735	8.64513	8.645
71 Chrysene	228	23.110	23.102	(1.002)	413343	4.01838	4.018
72 bis(2-Ethylhexyl)phthalate	149	23.126	23.125	(0.959)	322683	4.69228	4.692
* 134 Di-n-octylphthalate-d4	153	24.109	24.109	(1.000)	505567	4.00000	
73 Di-n-octylphthalate	149	24.117	24.116	(1.000)	572730	4.48283	4.483
74 Benzo(b)fluoranthene	252	24.883	24.875	(0.971)	435974	4.23486	4.235
75 Benzo(k)fluoranthene	252	24.922	24.922	(0.973)	475700	4.38893	4.389
76 Benzo(a)pyrene	252	25.502	25.502	(0.995)	407352	4.37606	4.376
* 77 Perylene-d12	264	25.619	25.611	(1.000)	325220	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.160	28.159	(1.099)	482778	4.35726	4.357
79 Dibenzo(a,h)anthracene	278	28.168	28.175	(1.099)	399451	4.35211	4.352
80 Benzo(g,h,i)perylene	276	28.905	28.905	(1.128)	413155	4.34488	4.345
90 N-Nitrosodimethylamine	74	4.626	4.625	(0.516)	109183	4.55509	4.555
91 Aniline	93	8.511	8.426	(0.950)	162935	3.34843	3.348 (M)
93 Benzidine	184	20.679	20.687	(0.897)	356906	9.49988	9.500
103 Pyridine	79	4.649	4.679	(0.519)	178138	4.80158	4.802
105 1-methylnaphthalene	142	13.062	13.062	(1.144)	328833	4.28597	4.286
111 Azobenzene (1,2-DP-Hydrazine)	77	16.411	16.410	(1.094)	431713	4.29217	4.292
187 Total Benzofluoranthenes	252	24.922	24.922	(0.973)	866639	8.58675	8.587

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====	=====	=====	=====	=====	=====	
120 2,3,4,6-Tetrachlorophenol	232	15.731	15.738	(1.048)	73774	3.36344	3.363

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 08-FEB-2023
 Lab File ID: NT1023020711.D Calibration Time: 07:24
 Lab Smp Id: SLB0102-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	110702	55351	221404	108369	-2.11
27 Naphthalene-d8	429852	214926	859704	428903	-0.22
42 Acenaphthene-d10	233715	116858	467430	234560	0.36
59 Phenanthrene-d10	388662	194331	777324	404758	4.14
69 Chrysene-d12	345176	172588	690352	321783	-6.78
134 Di-n-octylphthala	579750	289875	1159500	505567	-12.80
77 Perylene-d12	378227	189114	756454	325220	-14.01

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.96	-0.08
27 Naphthalene-d8	11.43	10.93	11.93	11.42	-0.06
42 Acenaphthene-d10	15.01	14.51	15.51	15.00	-0.05
59 Phenanthrene-d10	18.03	17.53	18.53	18.02	-0.04
69 Chrysene-d12	23.07	22.57	23.57	23.06	-0.03
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	0.00
77 Perylene-d12	25.63	25.13	26.13	25.62	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020711.D

Lab ID: SLB0102-SCV1
nt10.i, 20230207.b\ABN.m, 07-FEB-2023 18:04

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.957	0.000	0.9574	Benzoic acid
1.009	0.000	1.0093	2,4-Dinitrophenol
0.950	0.940	0.0095	Aniline

RRT check based on Ccal File: NT1023020708.D

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

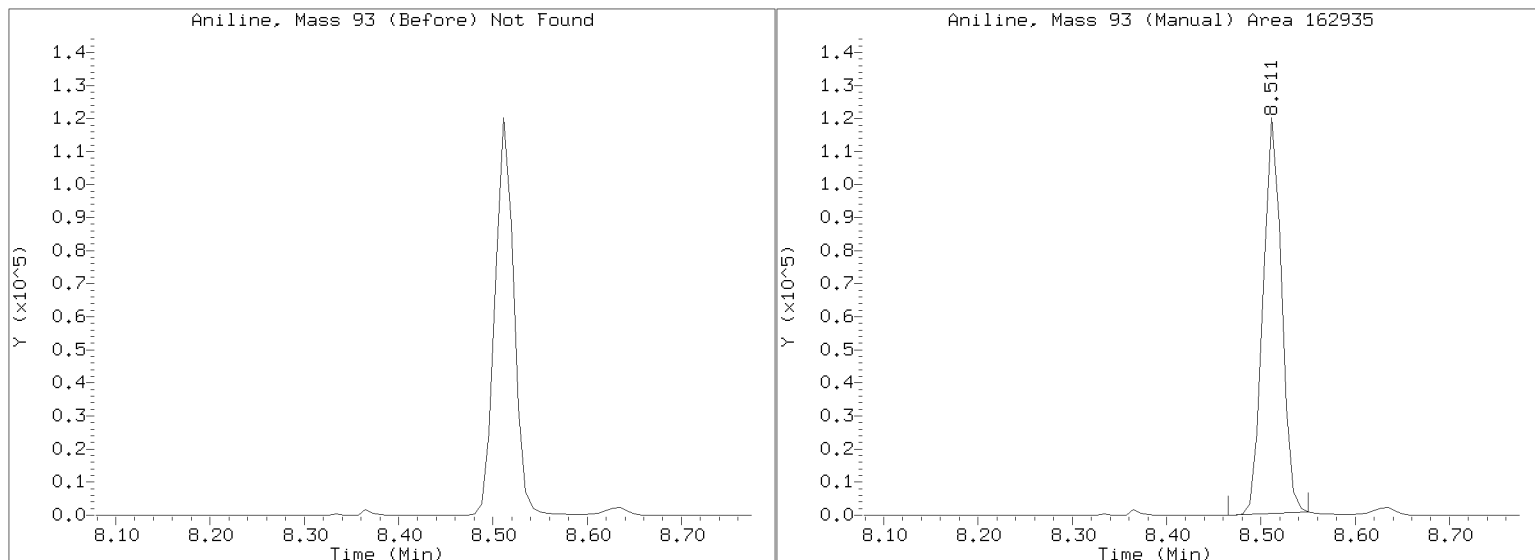
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020711.D

Injection Date: 07-FEB-2023 18:04

Lab ID:SLB0102-SCV1 Client ID:

Report Date: 02/09/2023 11:24



APPROVED

By Deenay Dunmore at 11:30 am, Feb 09, 2023



**SECOND-SOURCE
CALIBRATION VERIFICATION**

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00036

Laboratory ID: SLB0195-SCV1

Sequence: SLB0195

Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	5.0000	4.3	-14.3	20.00
bis(2-chloroethyl) ether	5.0000	4.7	-6.8	20.00
2-Chlorophenol	5.0000	4.3	-13.6	20.00
1,3-Dichlorobenzene	5.0000	4.4	-11.1	20.00
1,4-Dichlorobenzene	5.0000	4.6	-7.4	20.00
1,2-Dichlorobenzene	5.0000	4.4	-12.4	20.00
Benzyl Alcohol	5.0000	4.1	-17.3	20.00
2,2'-Oxybis(1-chloropropane)	5.0000	4.9	-1.4	20.00
2-Methylphenol	5.0000	4.1	-17.8	20.00
Hexachloroethane	5.0000	4.7	-5.5	20.00
N-Nitroso-di-n-Propylamine	5.0000	4.8	-4.5	20.00
4-Methylphenol	5.0000	3.9	-21.1 *	20.00
Nitrobenzene	5.0000	4.7	-5.3	20.00
Isophorone	5.0000	6.0	20.8 *	20.00
2-Nitrophenol	5.0000	4.0	-19.3	20.00
2,4-Dimethylphenol	5.0000	3.7	-25.3 *	20.00
Bis(2-Chloroethoxy)methane	5.0000	5.3	5.7	20.00
2,4-Dichlorophenol	5.0000	4.5	-9.4	20.00
1,2,4-Trichlorobenzene	5.0000	4.2	-15.1	20.00
Naphthalene	5.0000	4.5	-9.1	20.00
Benzoic acid	10.0000	4.3	-57.5 *	20.00
4-Chloroaniline	5.0000	3.5	-29.9 *	20.00
Hexachlorobutadiene	5.0000	4.4	-11.7	20.00
4-Chloro-3-Methylphenol	5.0000	4.5	-10.3	20.00
2-Methylnaphthalene	5.0000	4.3	-14.4	20.00
Hexachlorocyclopentadiene	5.0000	4.1	-17.4	20.00
2,4,6-Trichlorophenol	5.0000	4.3	-13.3	20.00
2,4,5-Trichlorophenol	5.0000	4.2	-15.5	20.00
2-Chloronaphthalene	5.0000	4.3	-14.0	20.00
2-Nitroaniline	5.0000	4.4	-11.4	20.00
Acenaphthylene	5.0000	4.7	-6.4	20.00
Dimethylphthalate	5.0000	4.5	-9.1	20.00



**SECOND-SOURCE
CALIBRATION VERIFICATION**

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00036

Laboratory ID: SLB0195-SCV1

Sequence: SLB0195

Standard ID: K010066

2,6-Dinitrotoluene	5.0000	4.6	-8.8	20.00
Acenaphthene	5.0000	4.4	-12.0	20.00
3-Nitroaniline	5.0000	4.7	-7.0	20.00
2,4-Dinitrophenol	5.0000	1.9	-61.3 *	20.00
Dibenzofuran	5.0000	4.2	-15.1	20.00
4-Nitrophenol	5.0000	4.0	-20.5 *	20.00
2,4-Dinitrotoluene	5.0000	4.4	-11.1	20.00
Fluorene	5.0000	4.5	-9.2	20.00
4-Chlorophenylphenyl ether	5.0000	4.3	-13.2	20.00
Diethyl phthalate	5.0000	5.1	1.2	20.00
4-Nitroaniline	5.0000	4.1	-17.4	20.00
4,6-Dinitro-2-methylphenol	5.0000	3.3	-34.0 *	20.00
N-Nitrosodiphenylamine	5.0000	4.4	-12.9	20.00
4-Bromophenyl phenyl ether	5.0000	4.5	-10.7	20.00
Hexachlorobenzene	5.0000	4.1	-18.3	20.00
Pentachlorophenol	5.0000	3.5	-29.9 *	20.00
Phenanthrene	5.0000	4.2	-15.4	20.00
Anthracene	5.0000	4.0	-19.5	20.00
Carbazole	5.0000	4.1	-18.7	20.00
Di-n-Butylphthalate	5.0000	4.1	-17.2	20.00
Fluoranthene	5.0000	4.6	-8.9	20.00
Pyrene	5.0000	4.3	-13.4	20.00
Butylbenzylphthalate	5.0000	4.2	-15.9	20.00
Benzo(a)anthracene	5.0000	4.2	-15.1	20.00
3,3'-Dichlorobenzidine	10.000	7.6	-24.2 *	20.00
Chrysene	5.0000	4.1	-18.8	20.00
bis(2-Ethylhexyl)phthalate	5.0000	4.9	-2.9	20.00
Di-n-Octylphthalate	5.0000	4.3	-13.9	20.00
Benzo(a)fluoranthene, Total	10.000	8.4	-16.4	20.00
Benzo(a)pyrene	5.0000	4.6	-8.8	20.00
Indeno(1,2,3-cd)pyrene	5.0000	3.9	-22.8 *	20.00
Dibenzo(a,h)anthracene	5.0000	3.9	-21.3 *	20.00
Benzo(g,h,i)perylene	5.0000	3.9	-21.1 *	20.00
1-Methylnaphthalene	5.0000	4.2	-15.1	20.00
2-Fluorophenol	7.5000	6.55	-12.7	20.00



SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00036

Laboratory ID: SLB0195-SCV1

Sequence: SLB0195

Standard ID: K010066

Phenol-d5	7.5000	6.73	-10.3	20.00
2-Chlorophenol-d4	7.5000	6.67	-11.0	20.00
1,2-Dichlorobenzene-d4	5.0000	4.27	-14.6	20.00
Nitrobenzene-d5	5.0000	4.67	-6.6	20.00
2-Fluorobiphenyl	5.0000	4.24	-15.2	20.00
2,4,6-Tribromophenol	7.5000	6.01	-19.9	20.00
p-Terphenyl-d14	5.0000	4.15	-17.0	20.00

* Values outside of QC limits

Data File: \\target\share\chem3\nt18.1\20230210.16\NT1802102311.D

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Client ID:

Sample Info: SLB0195-SCV1

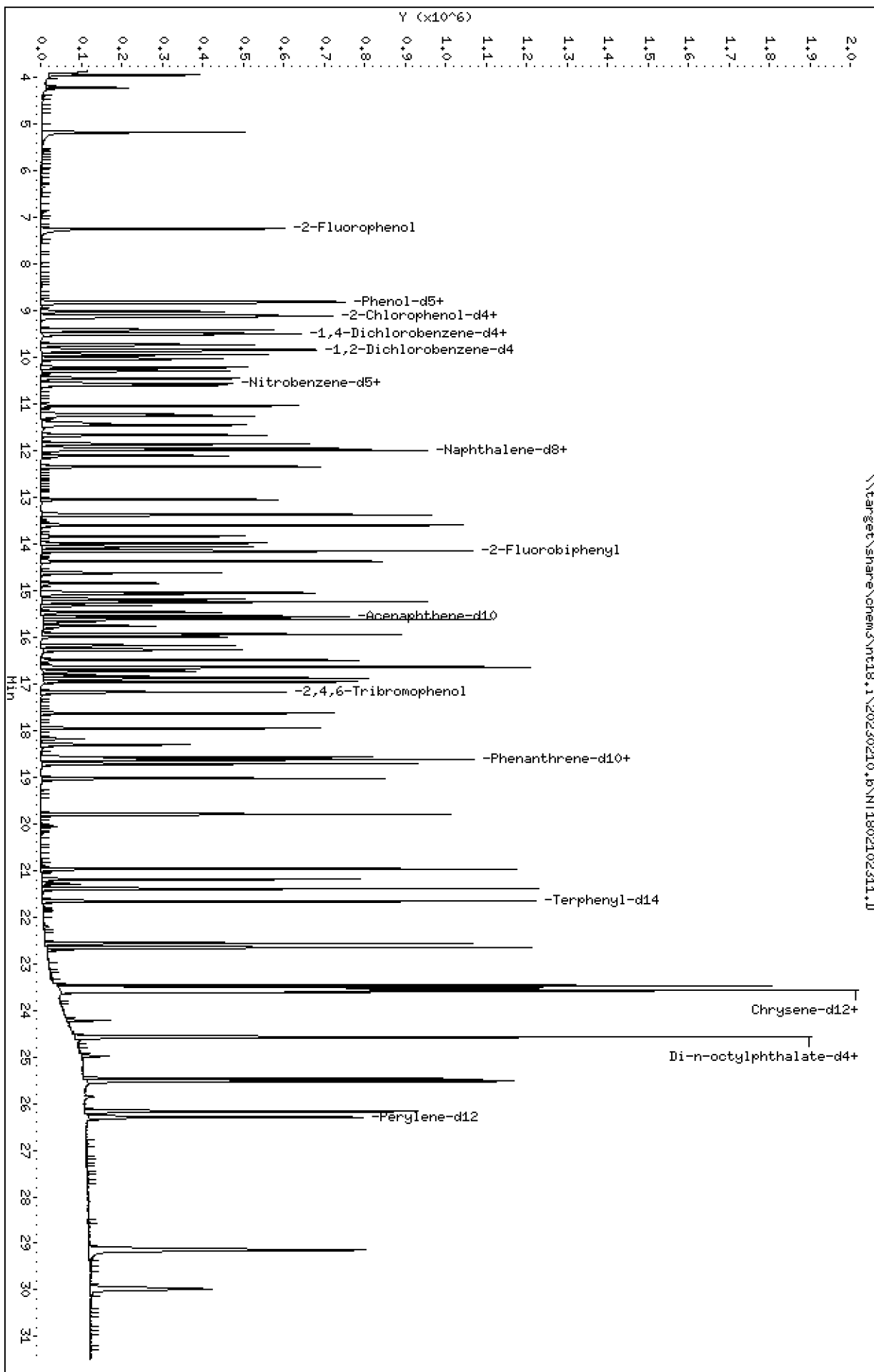
Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

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Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

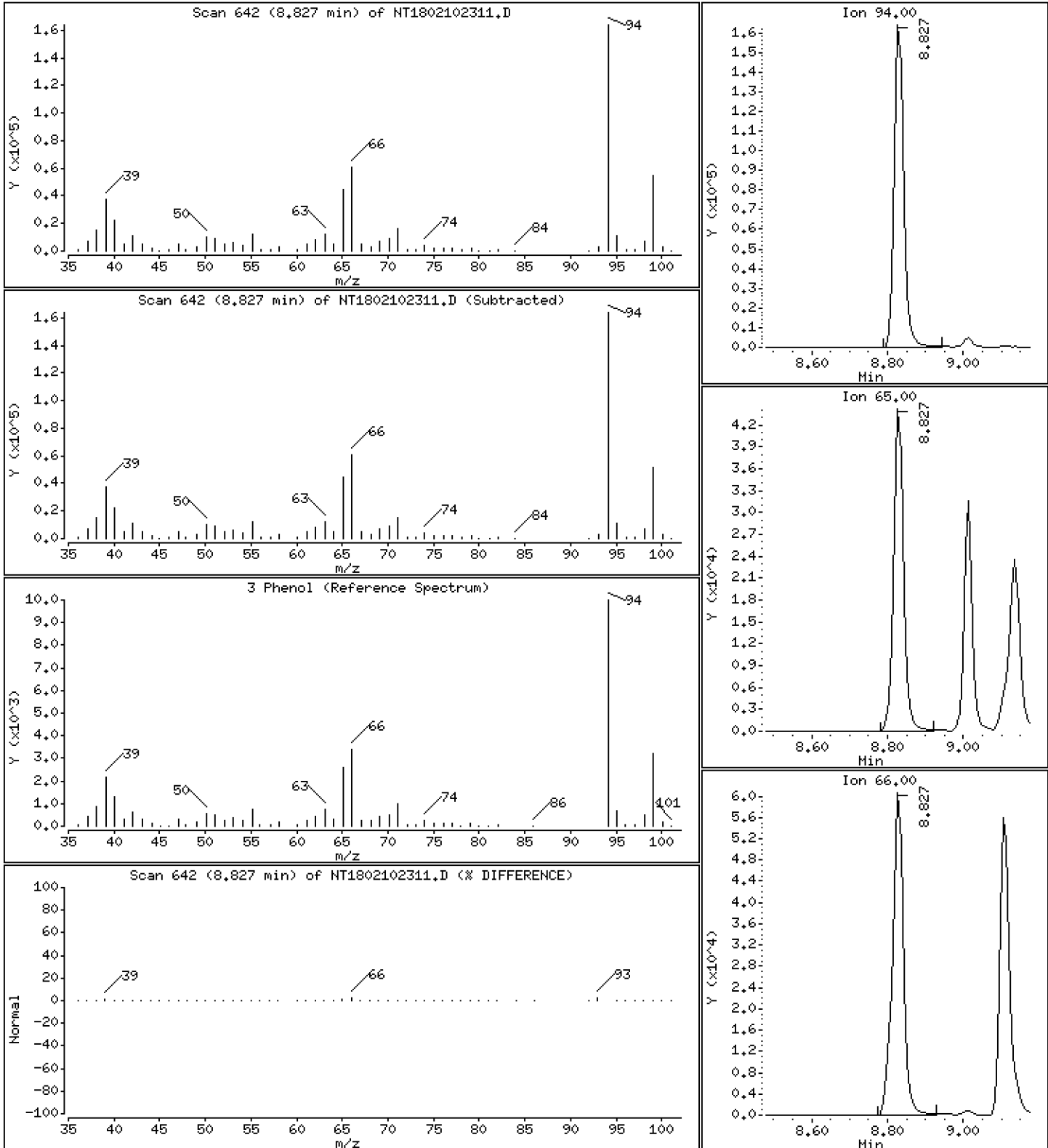
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 4.286 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

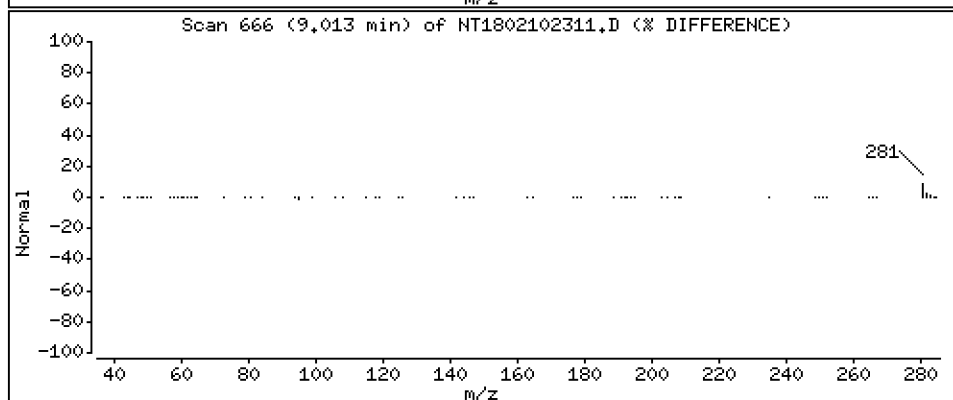
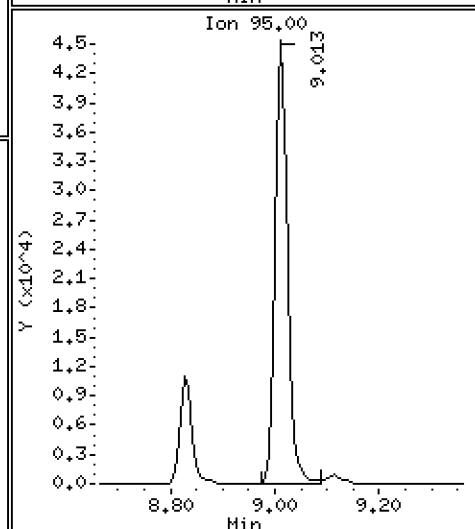
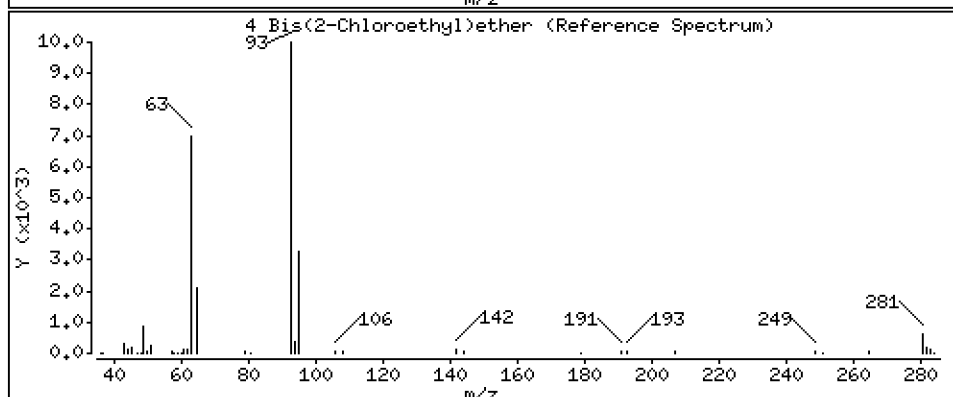
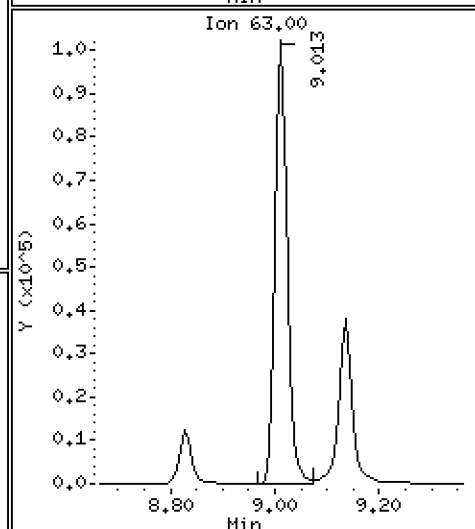
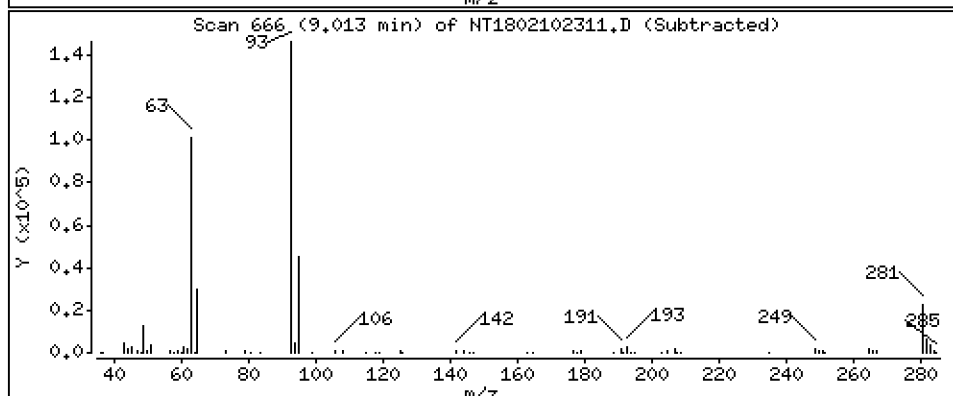
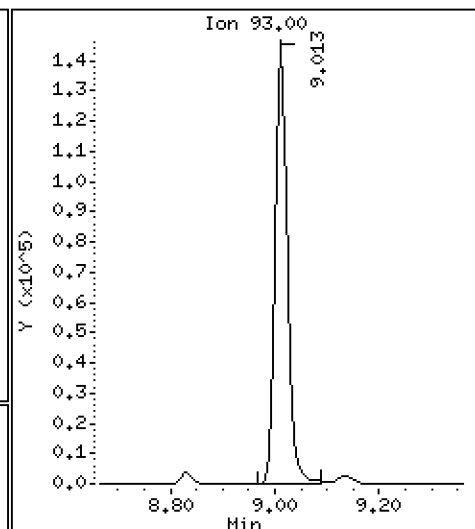
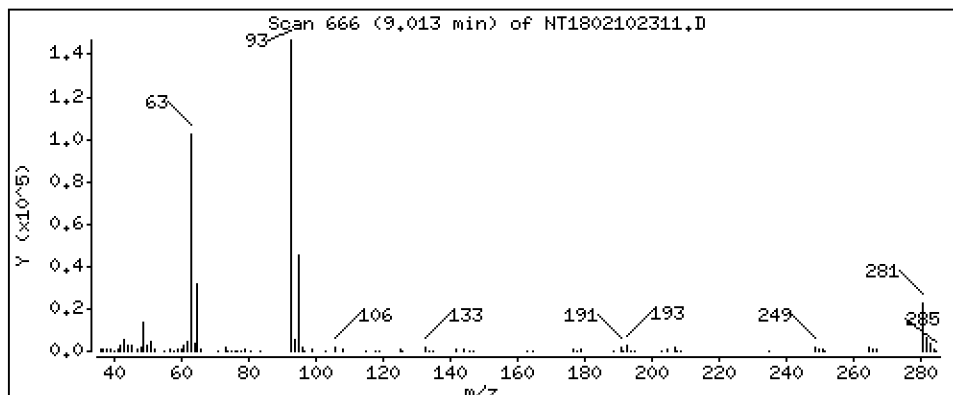
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 4,661 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

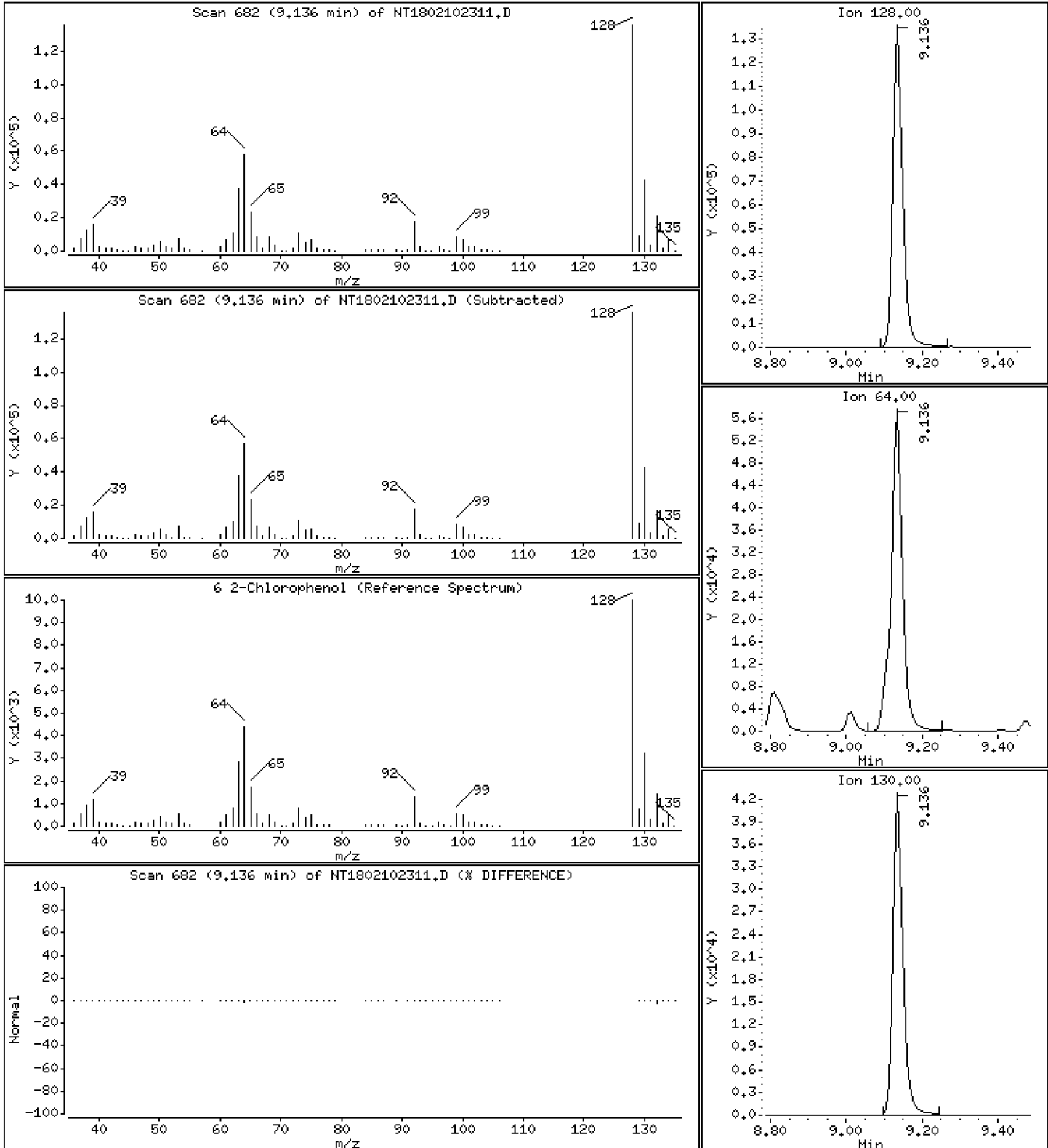
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 4,318 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

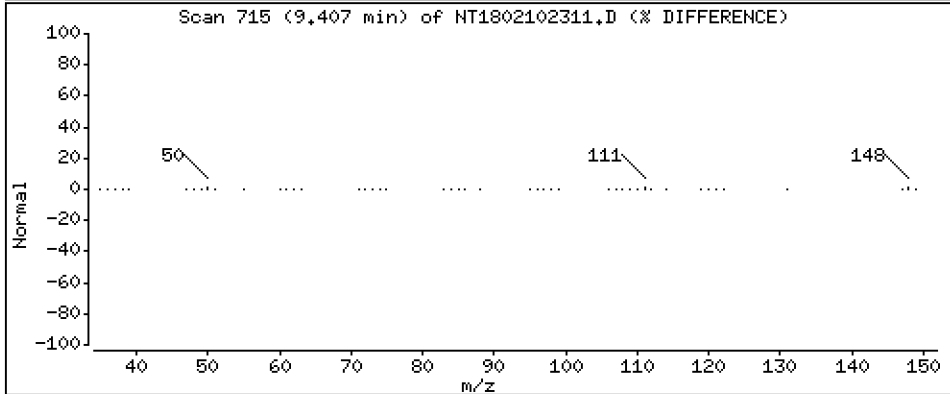
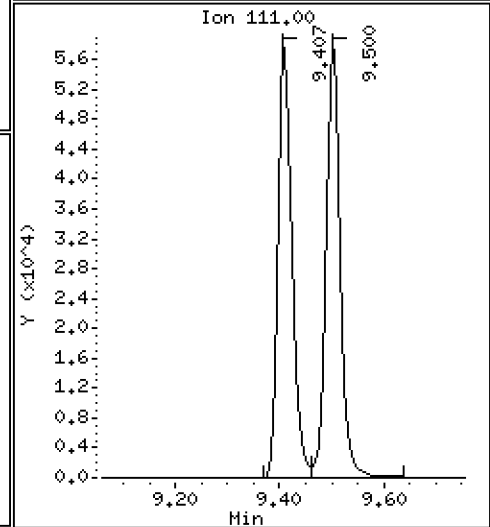
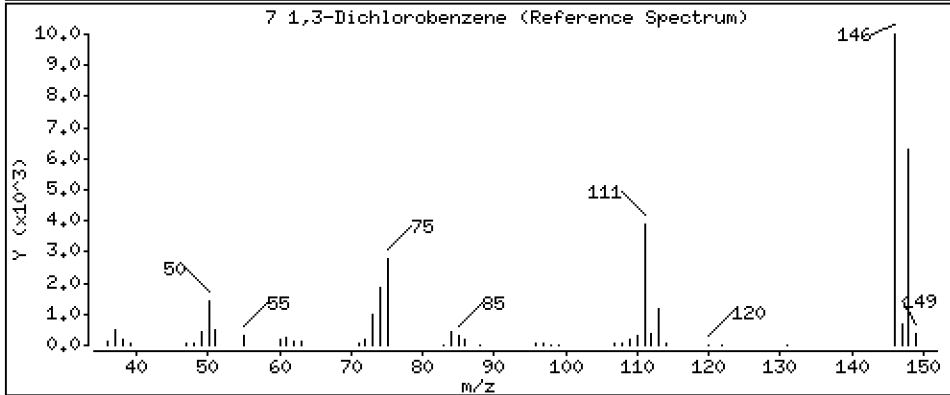
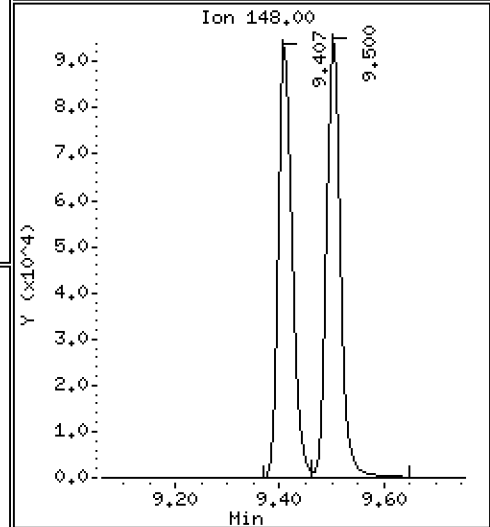
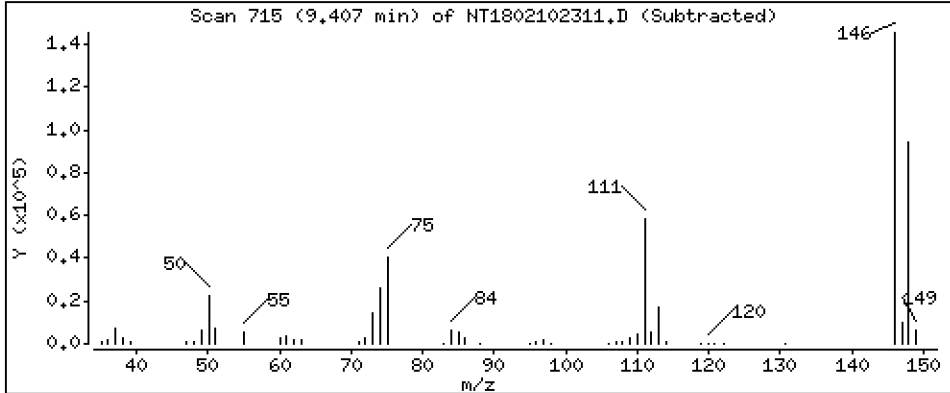
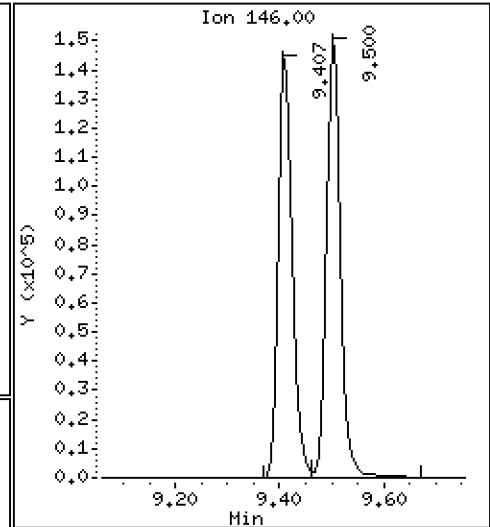
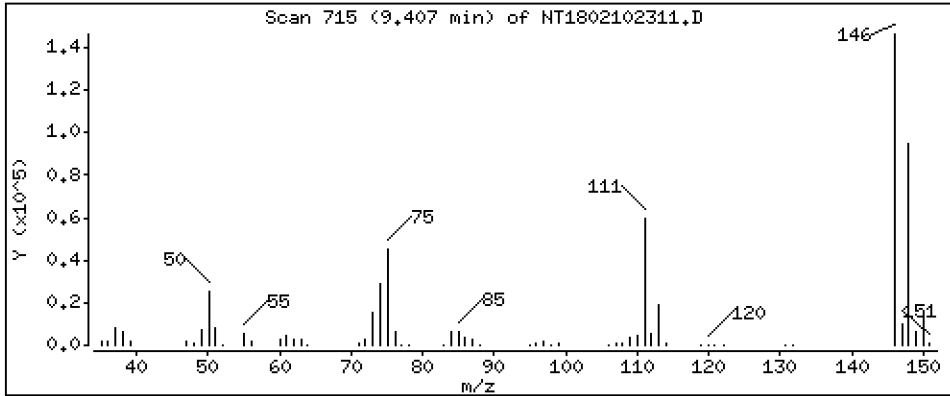
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 4.446 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

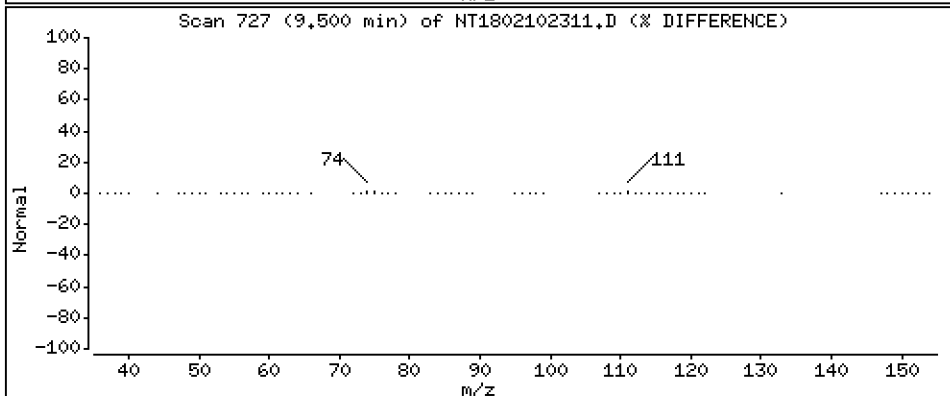
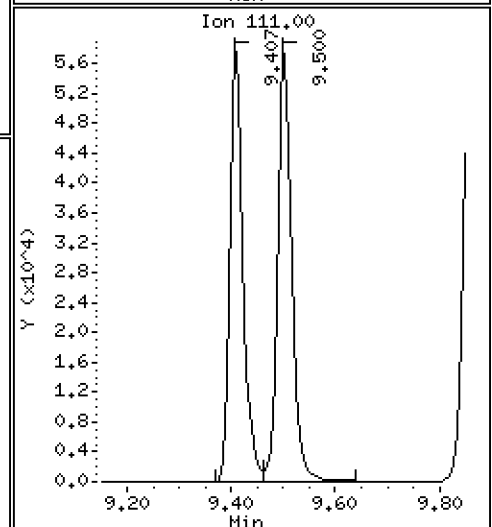
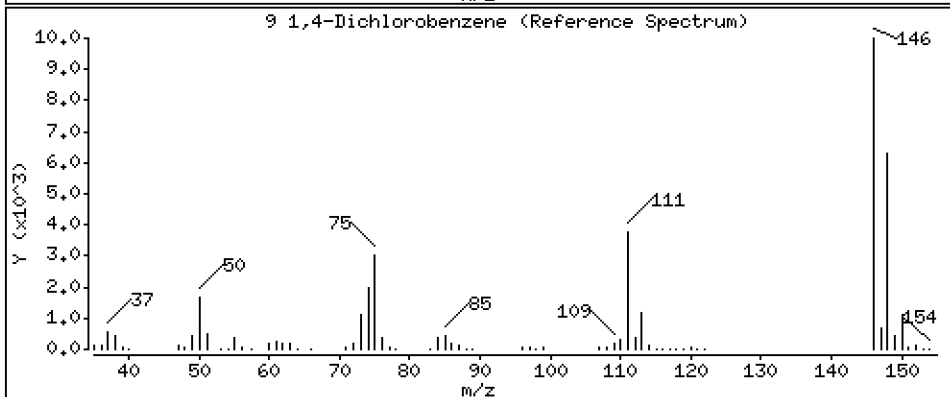
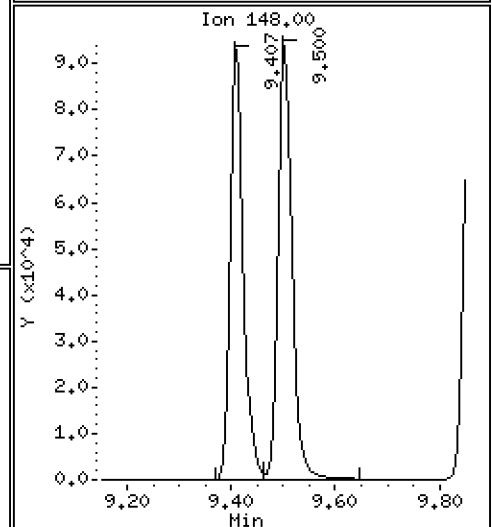
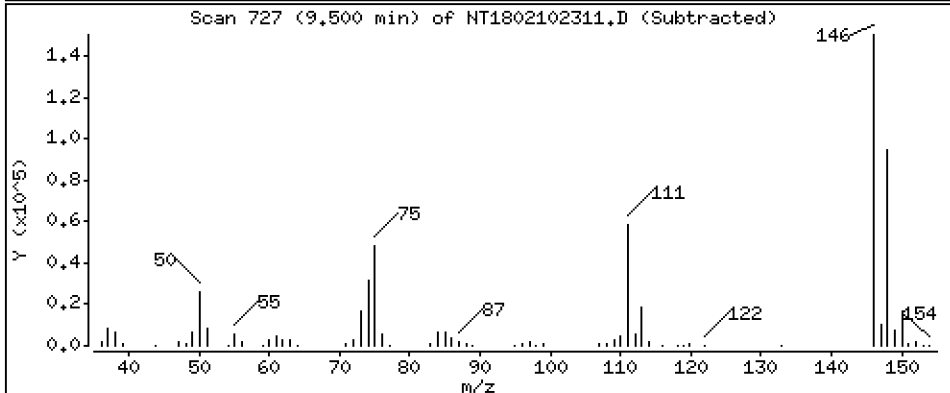
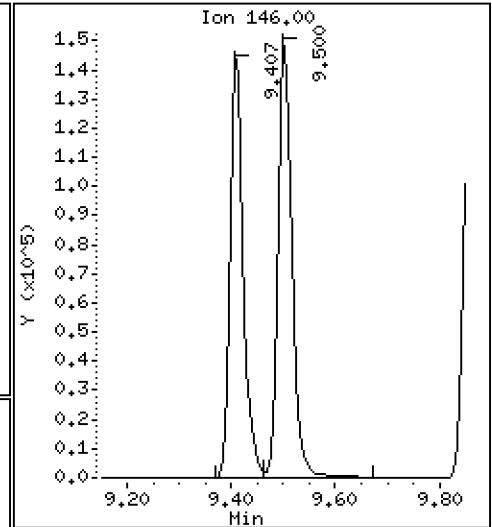
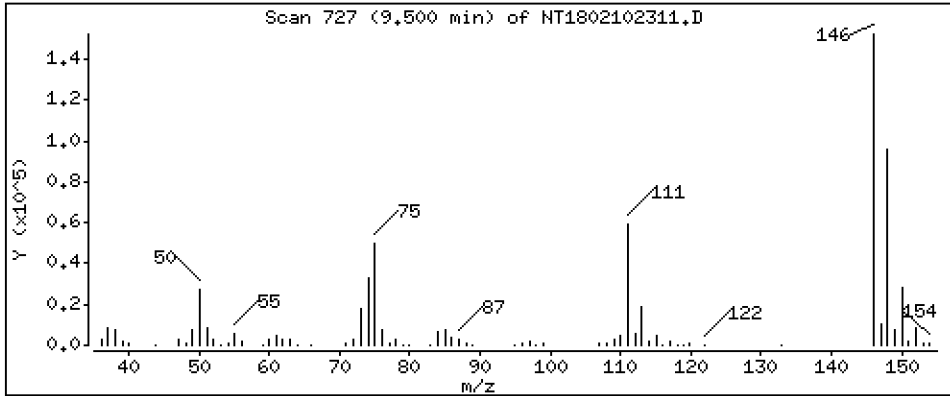
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 4,629 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

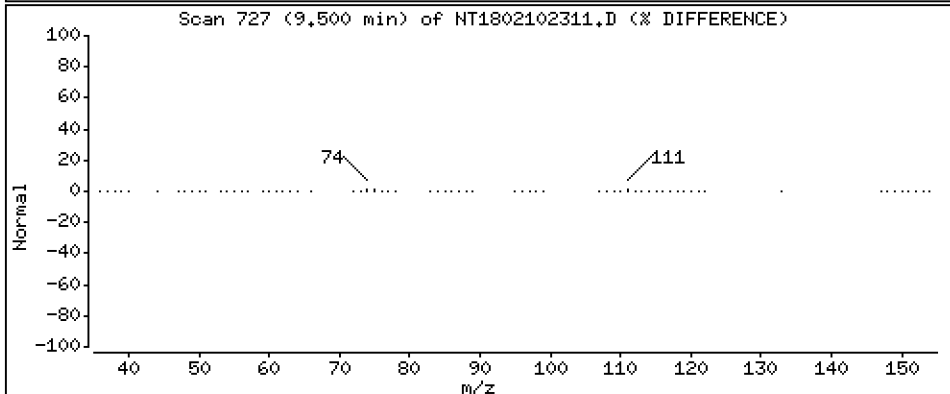
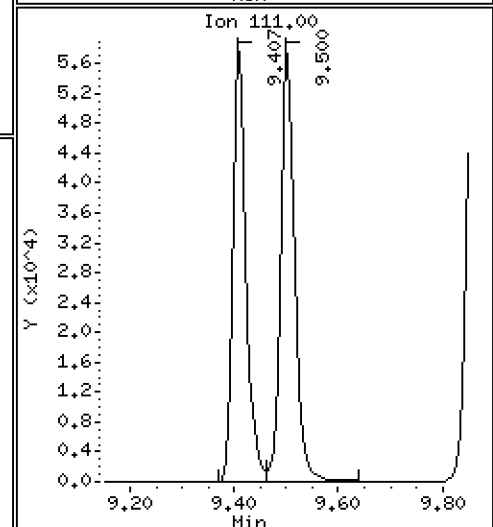
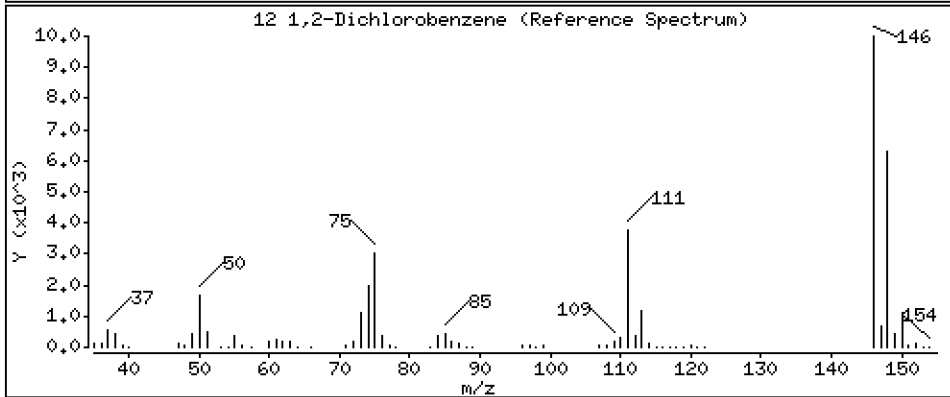
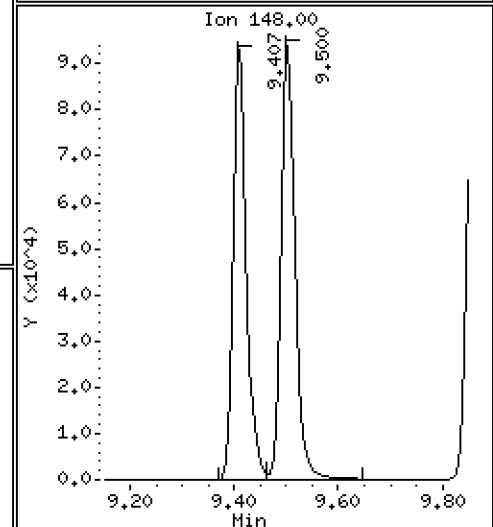
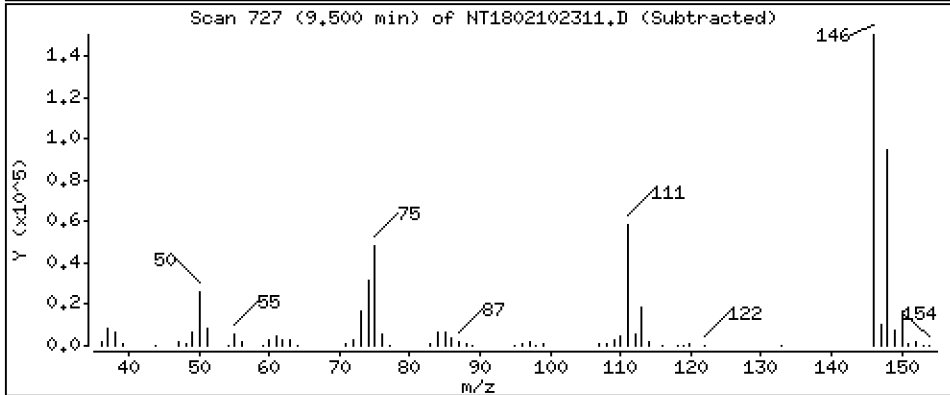
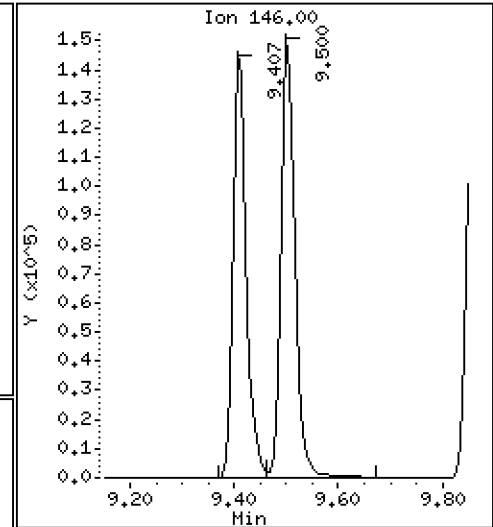
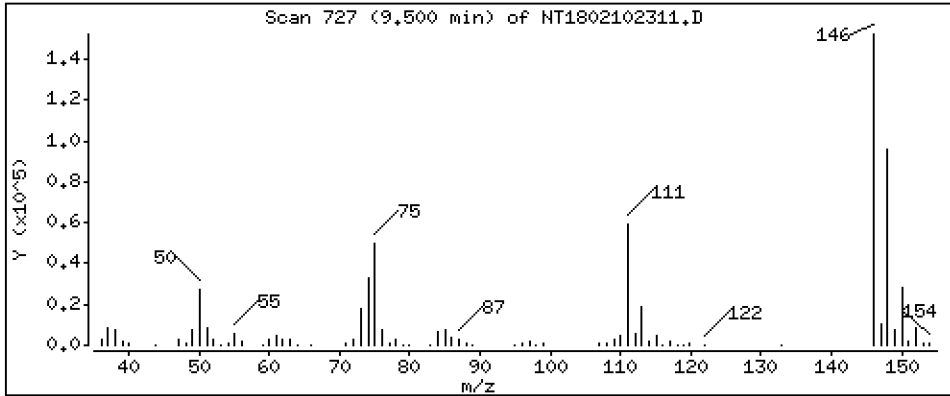
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 4,629 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

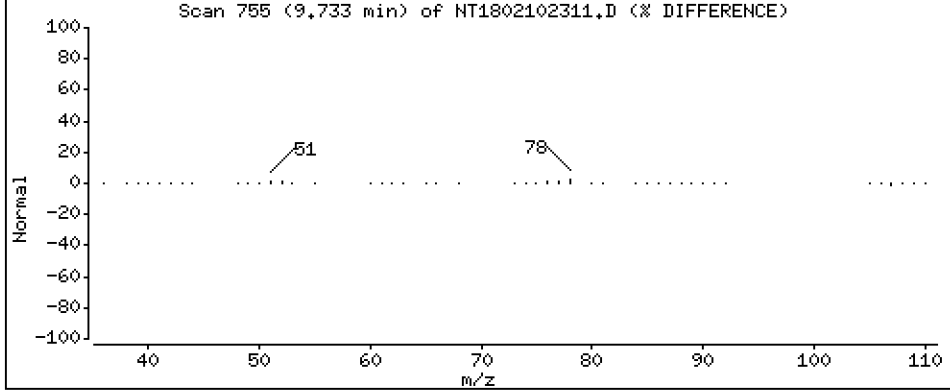
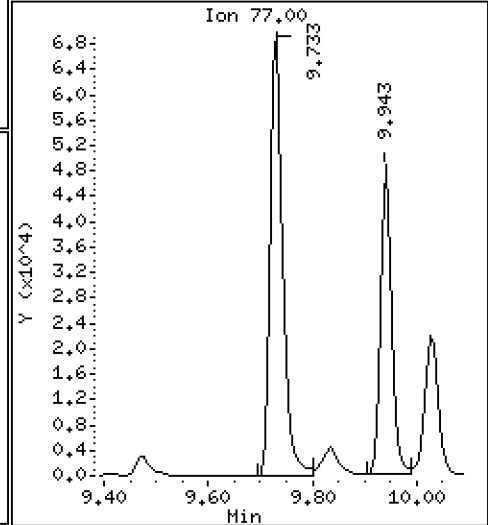
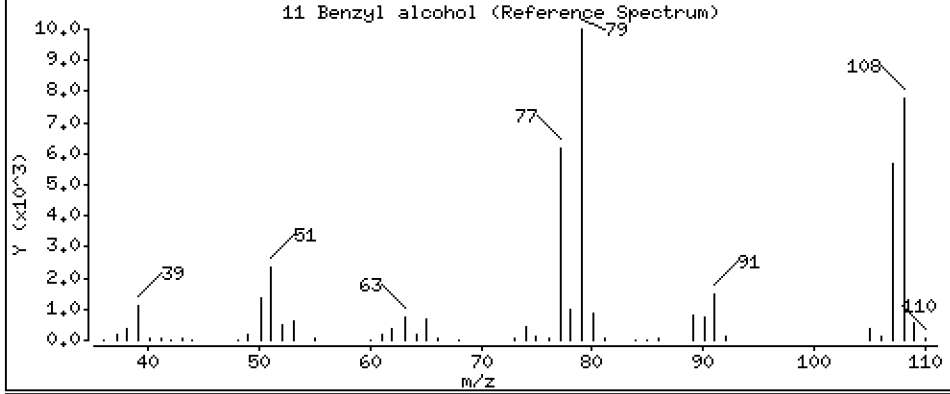
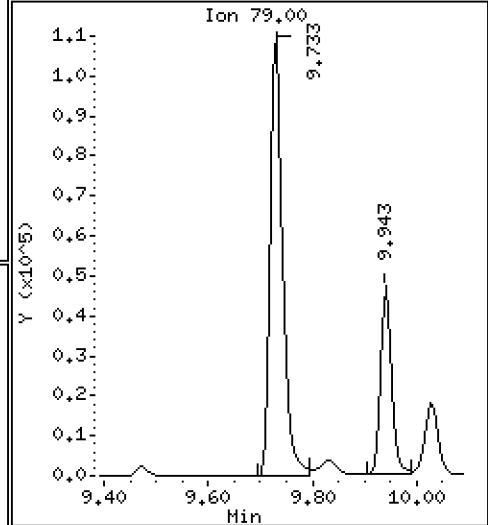
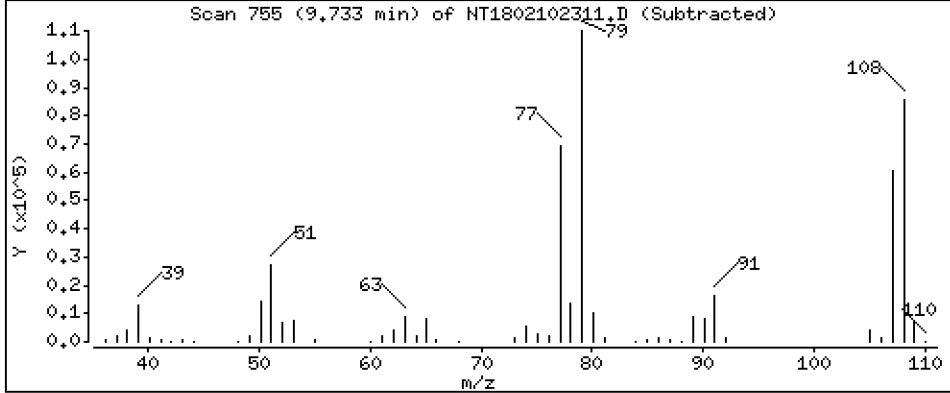
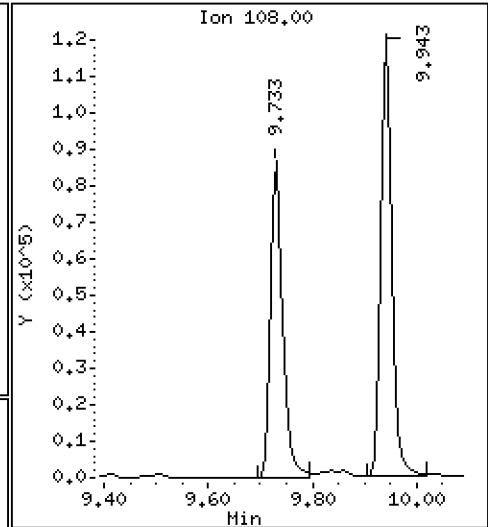
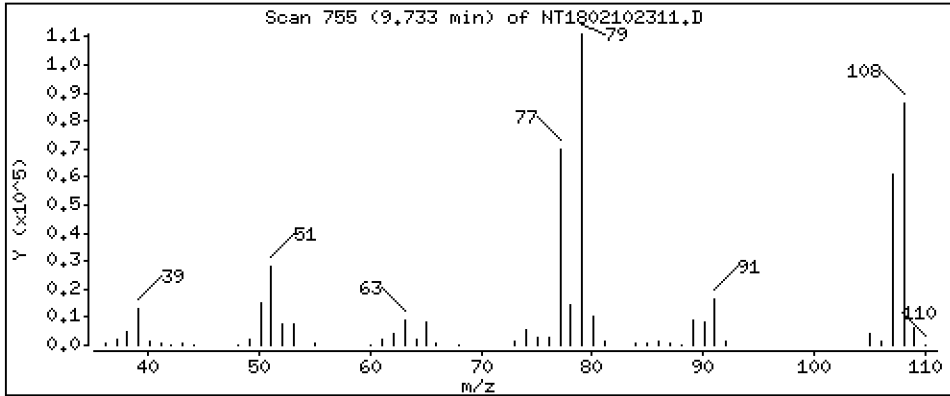
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 4.135 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

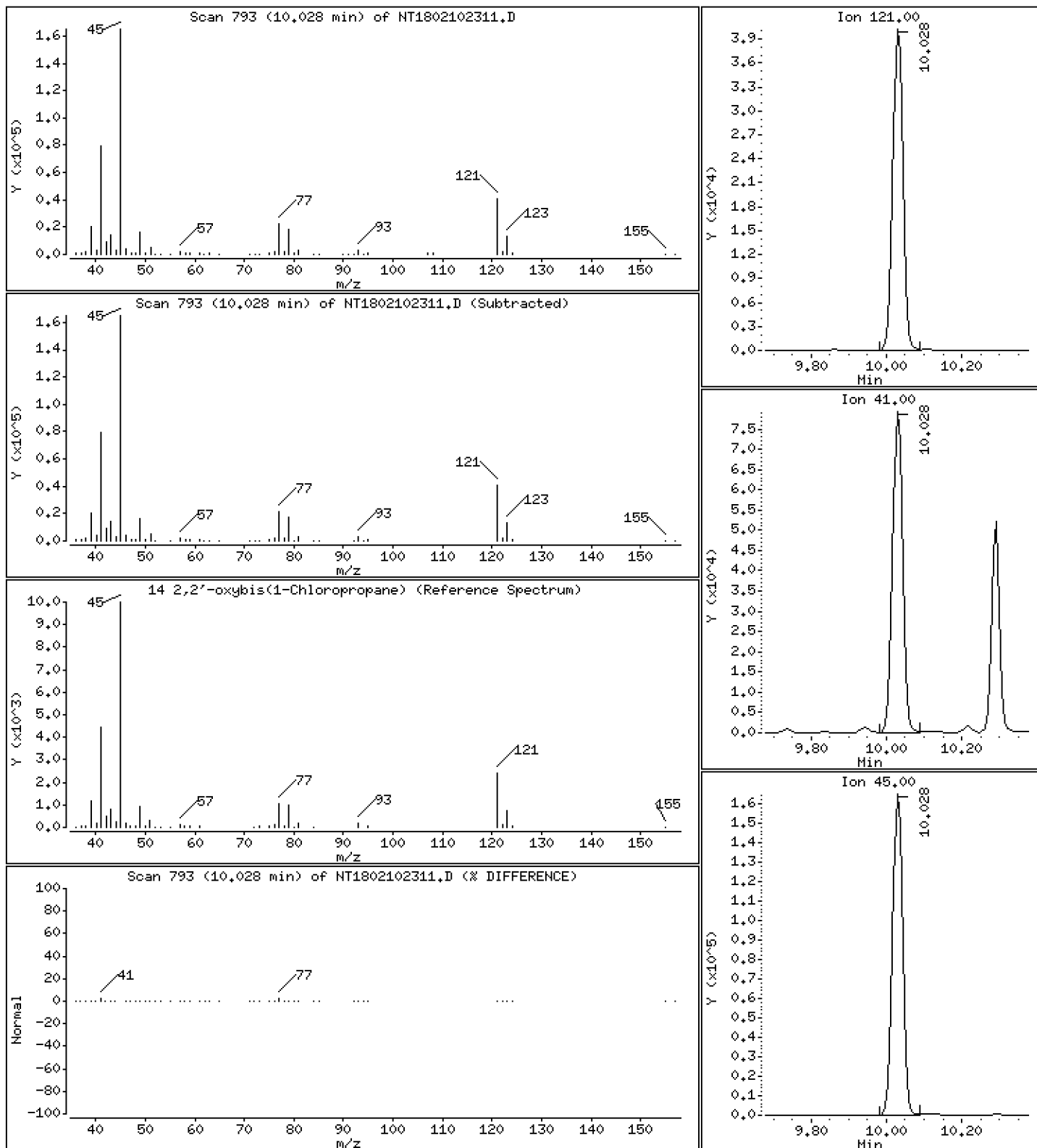
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 4,932 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

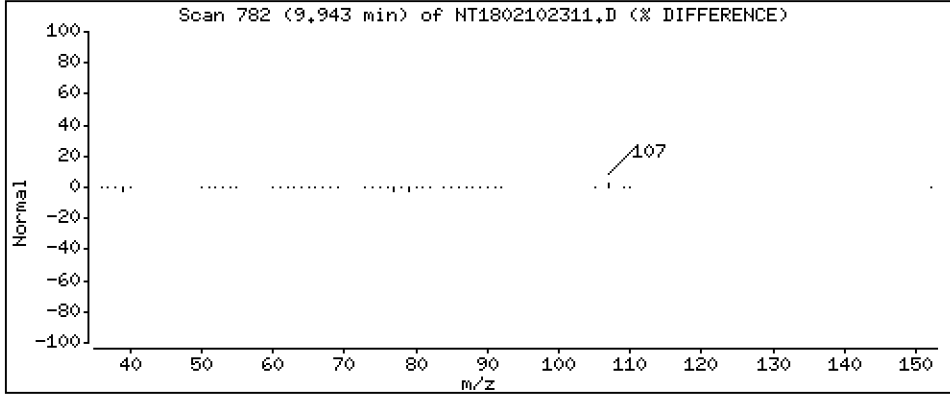
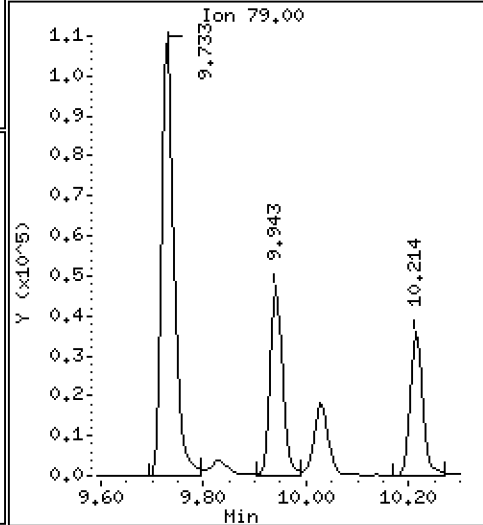
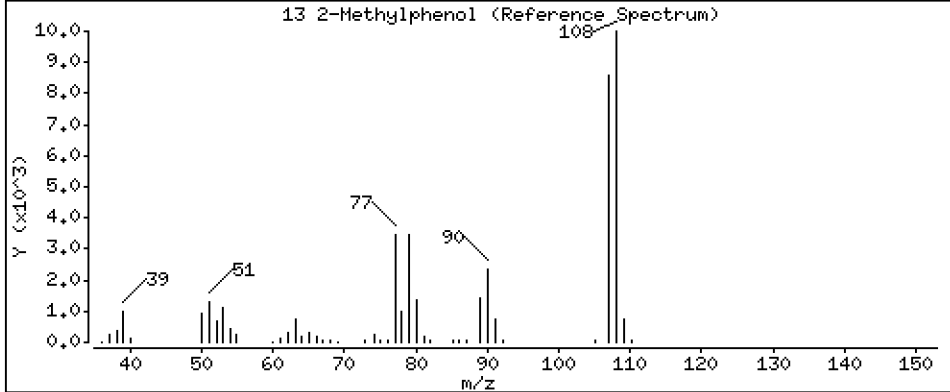
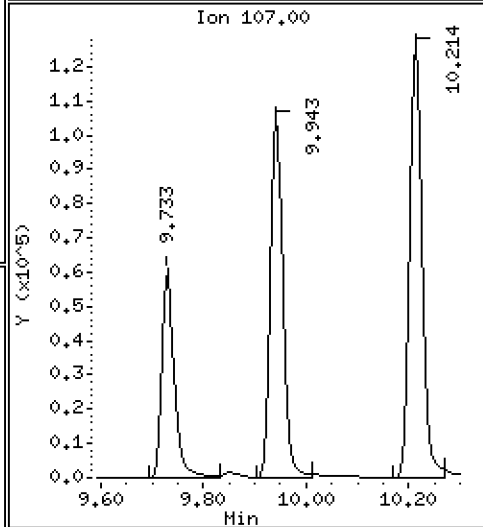
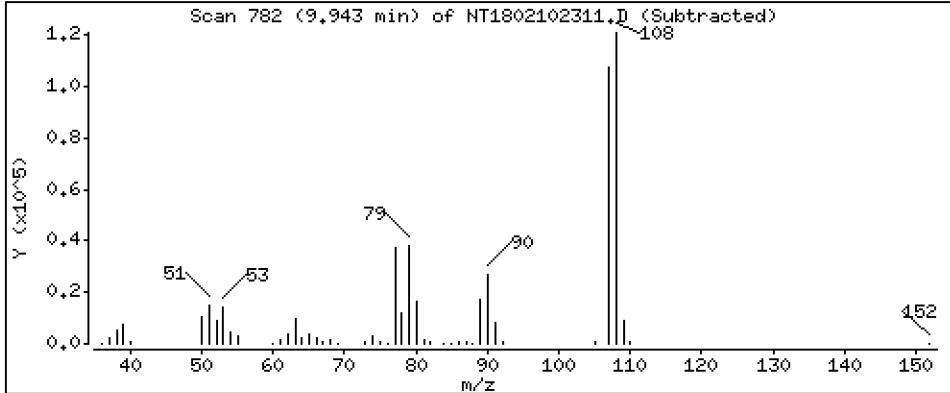
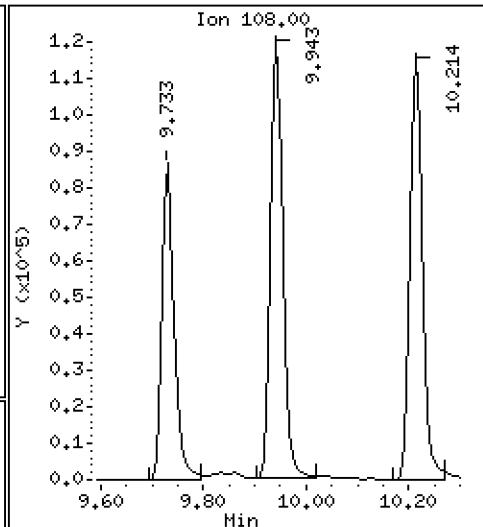
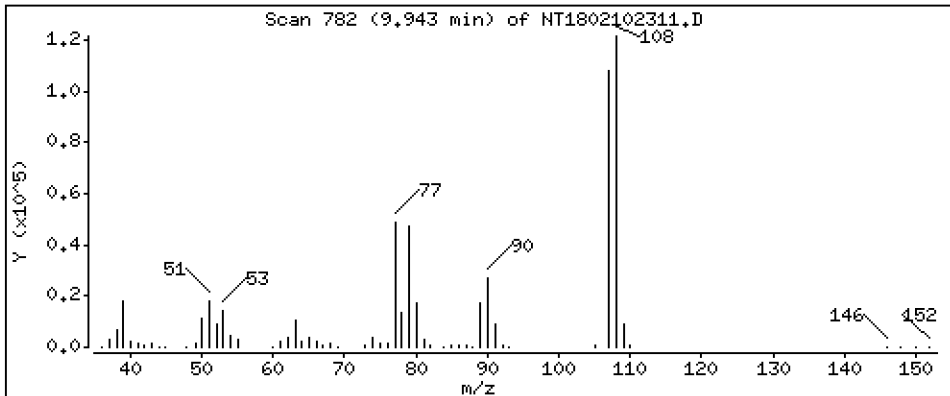
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 4,109 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

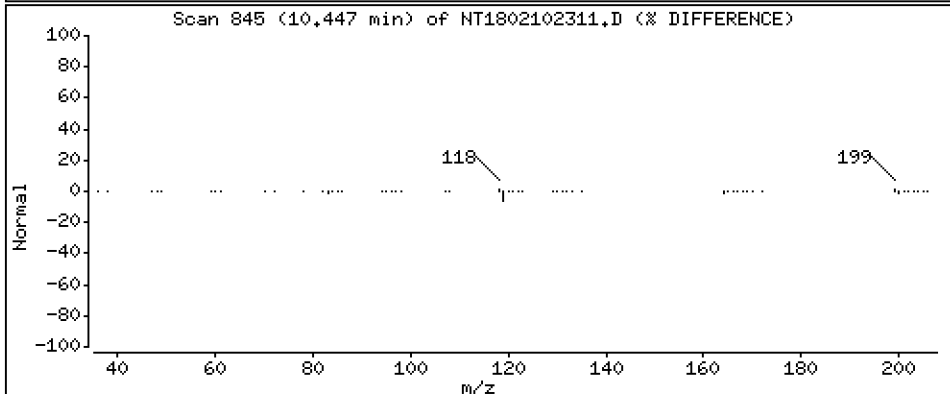
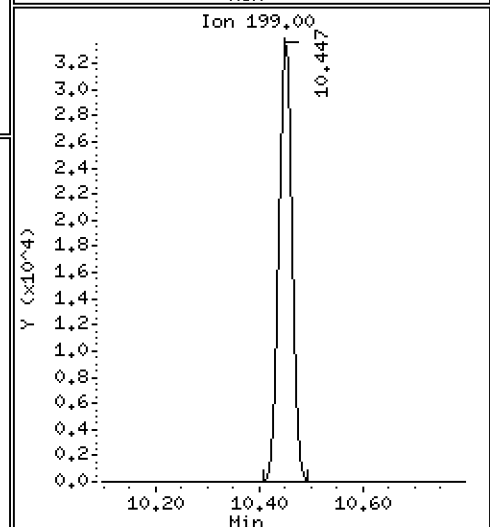
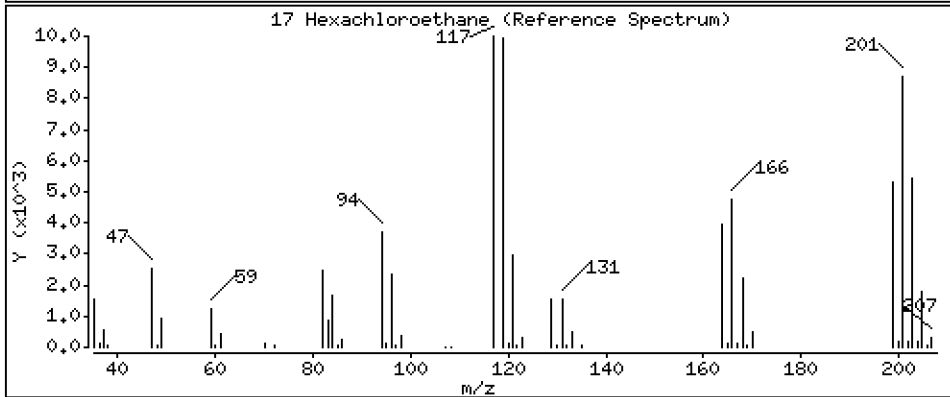
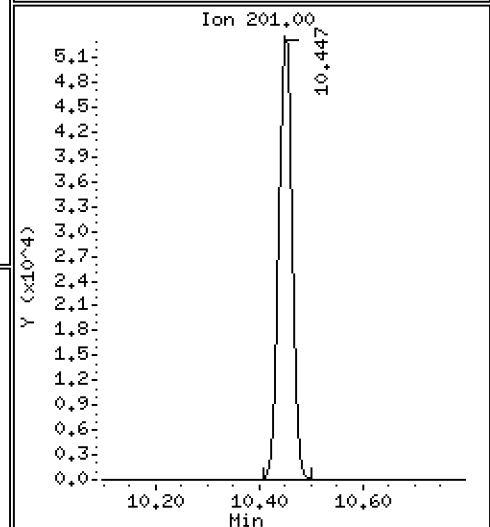
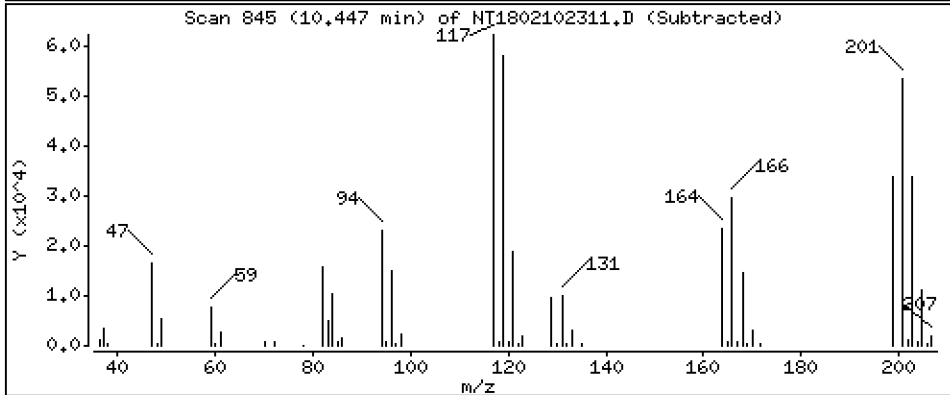
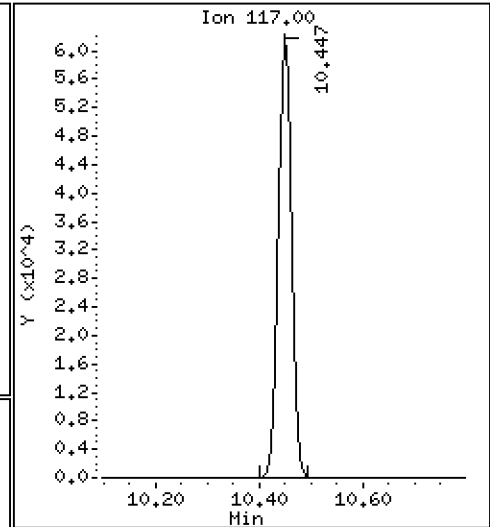
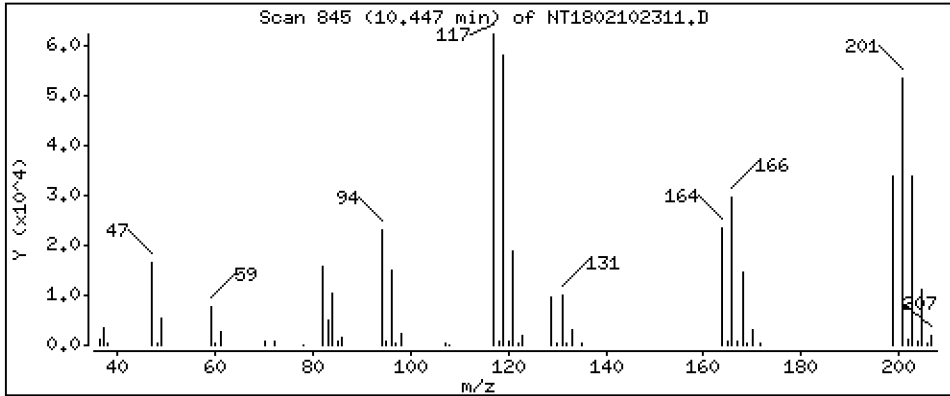
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 4,727 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

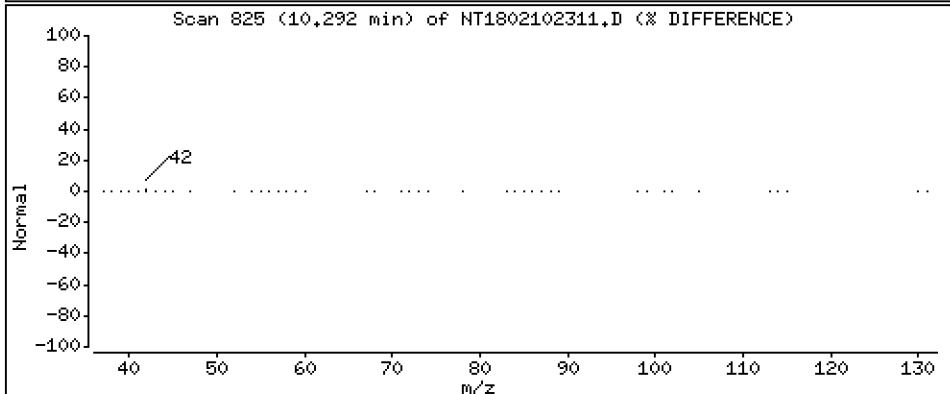
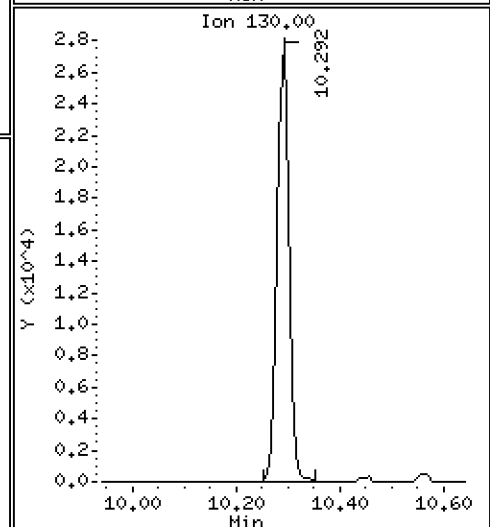
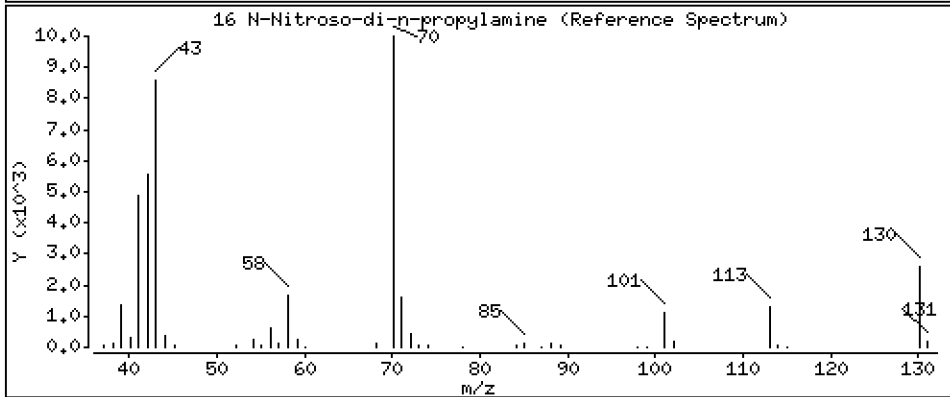
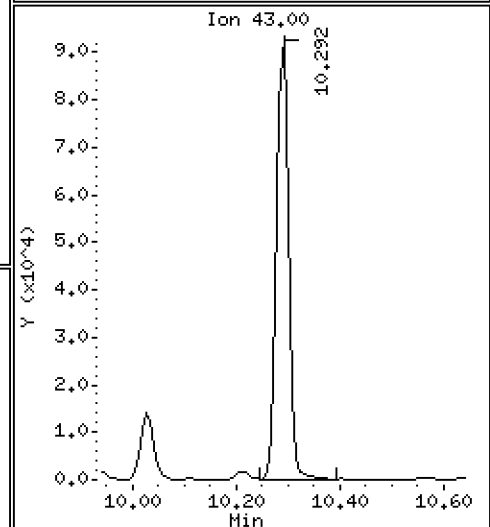
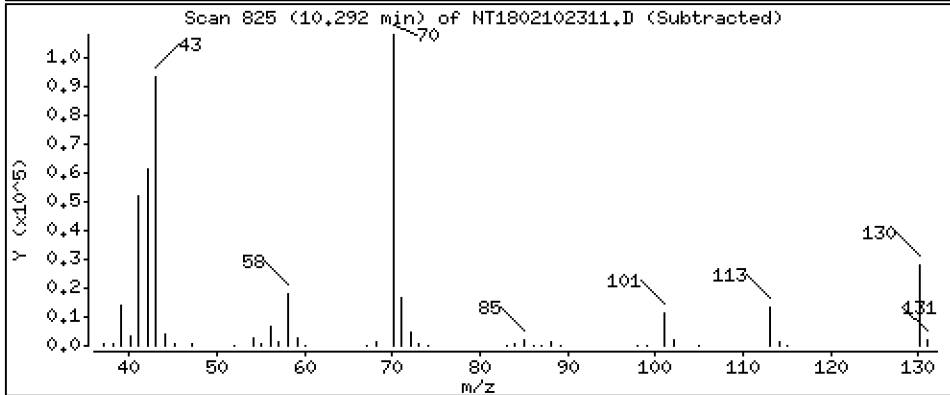
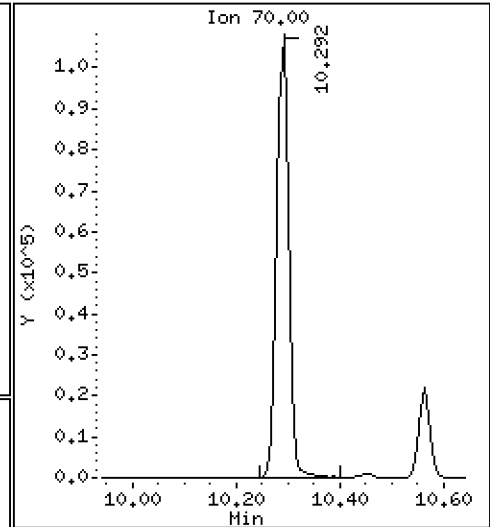
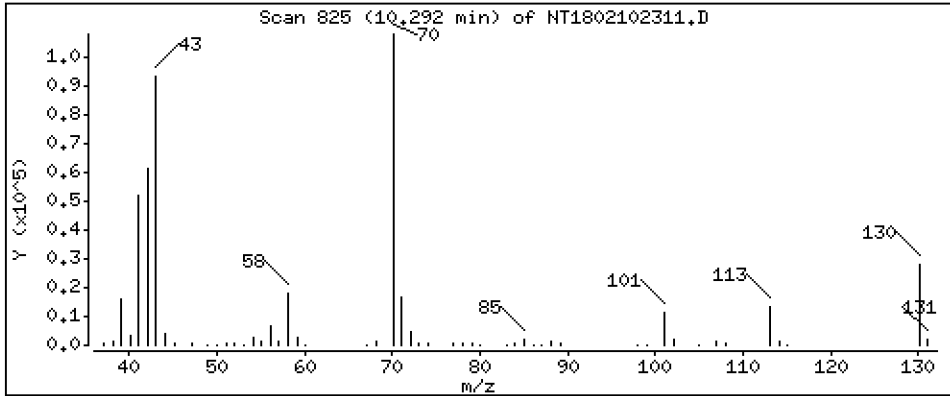
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 4,774 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

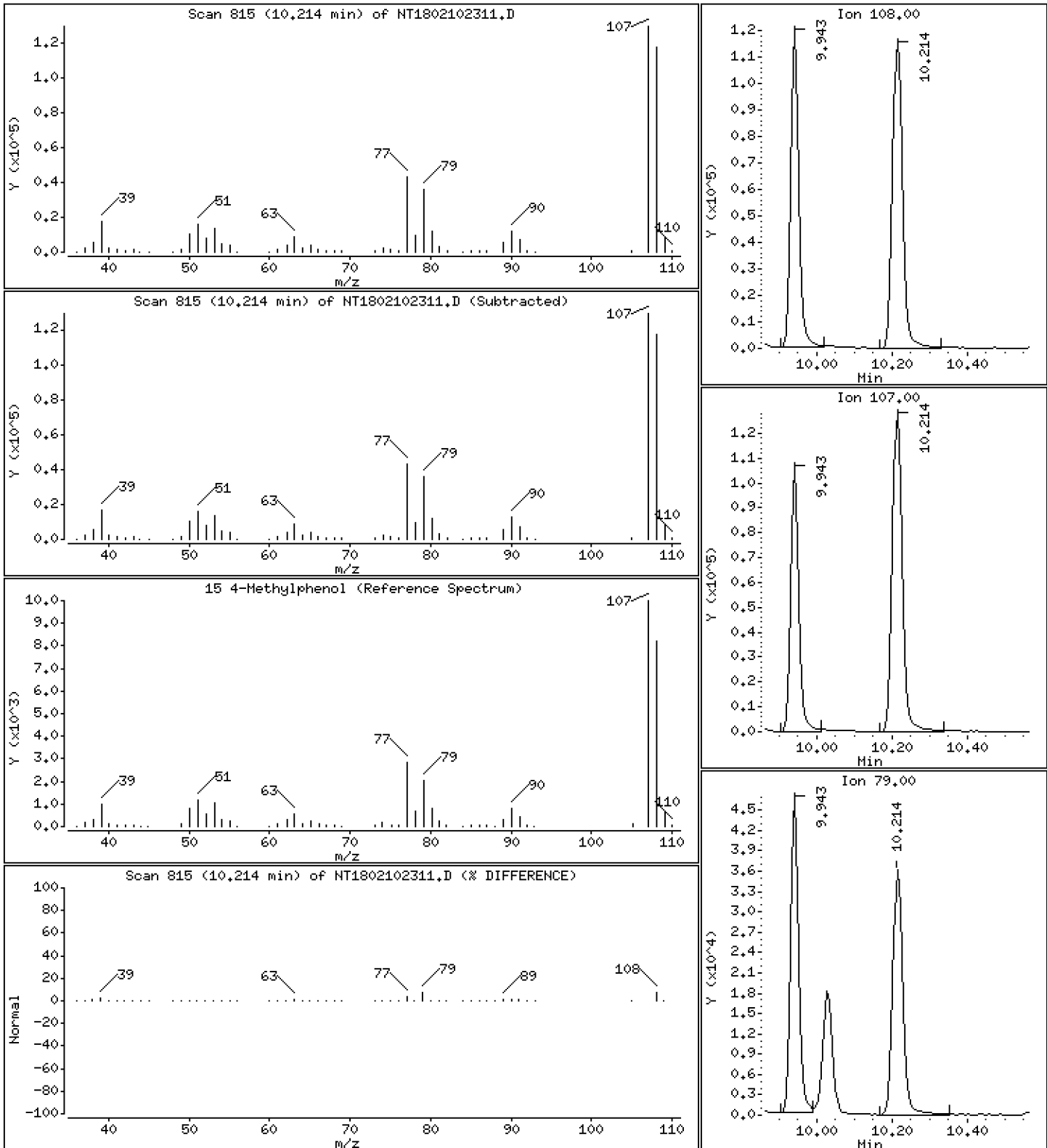
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,945 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

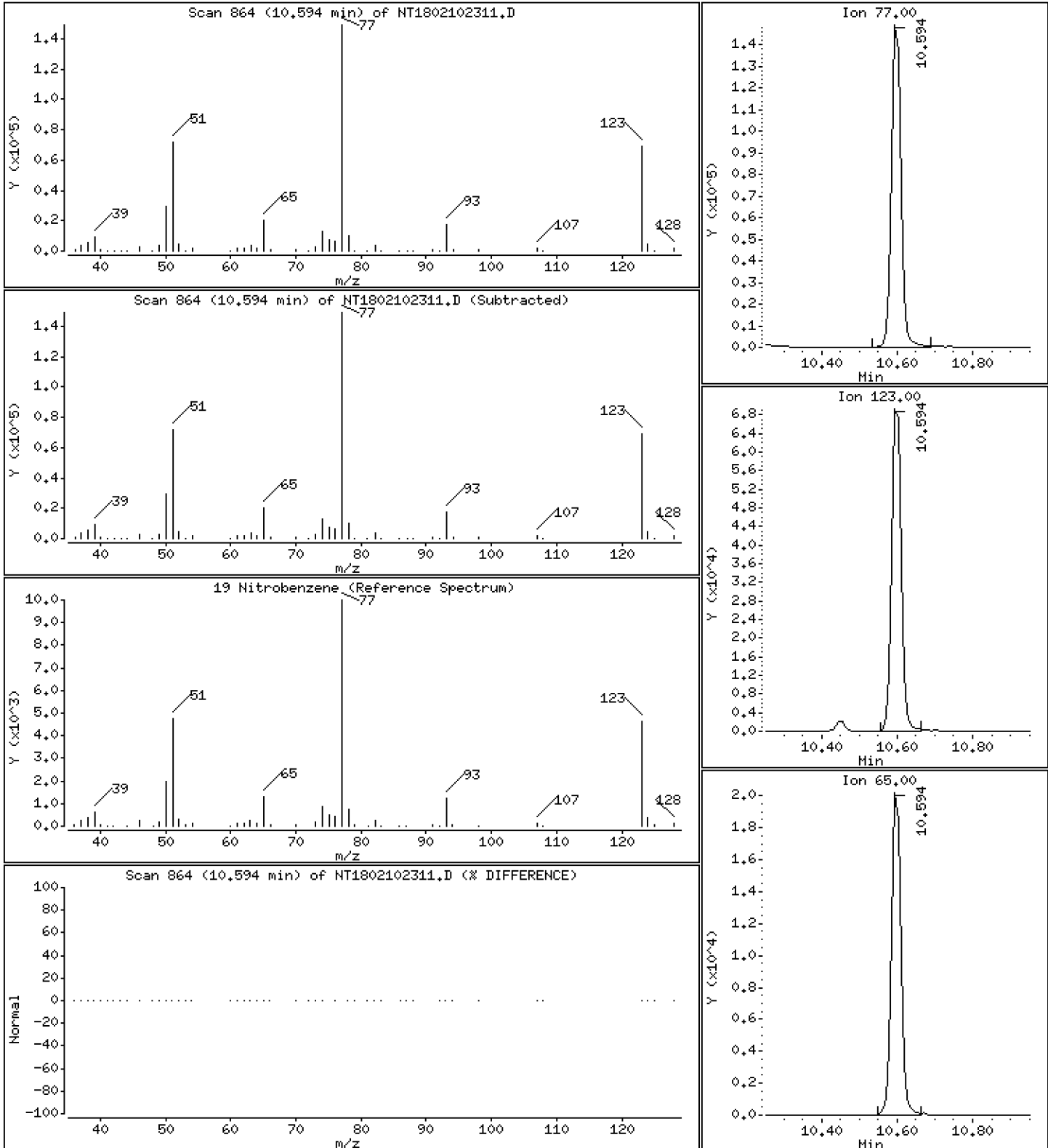
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 4,733 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

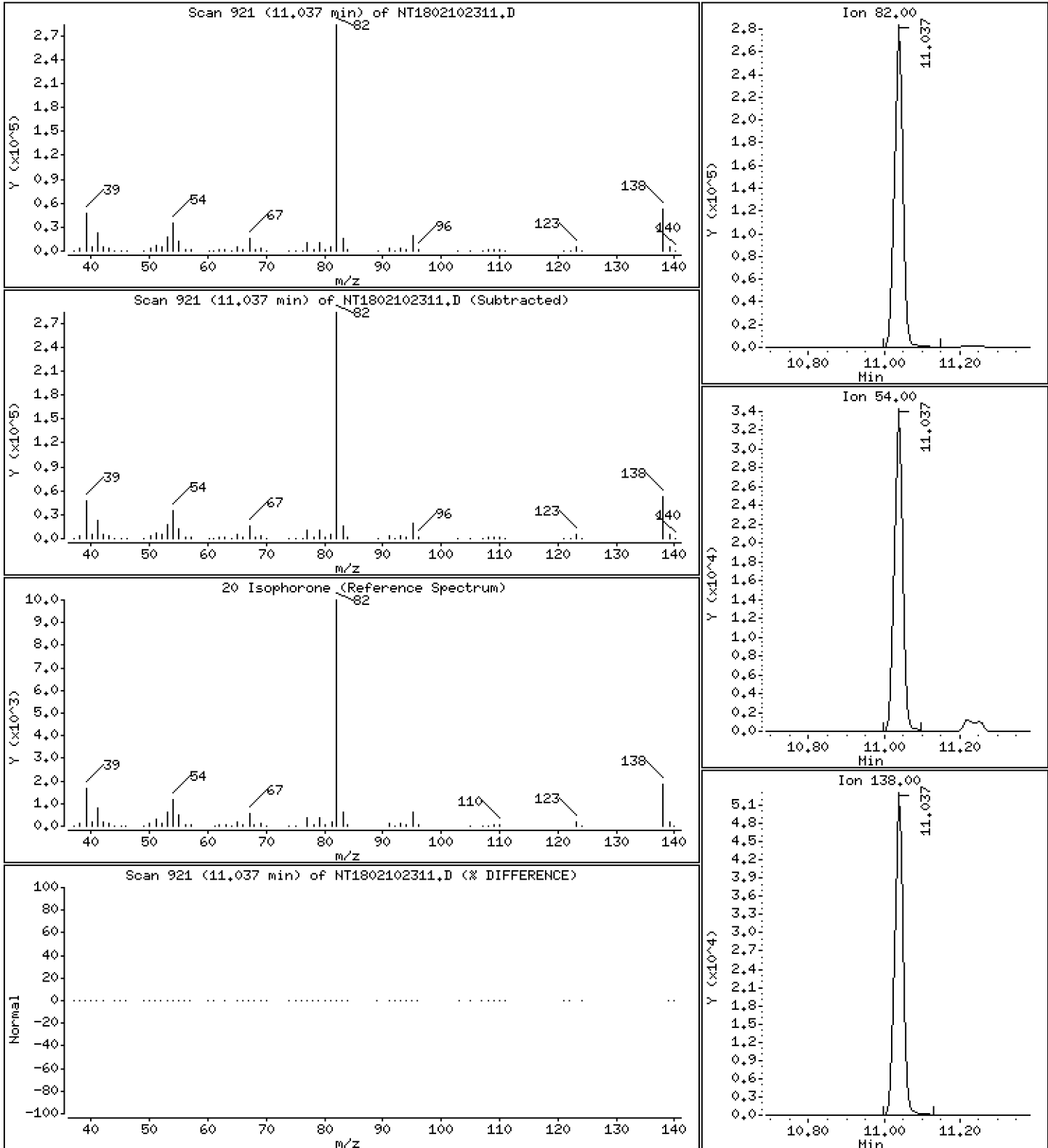
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

20 Isophorone

Concentration: 6.042 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

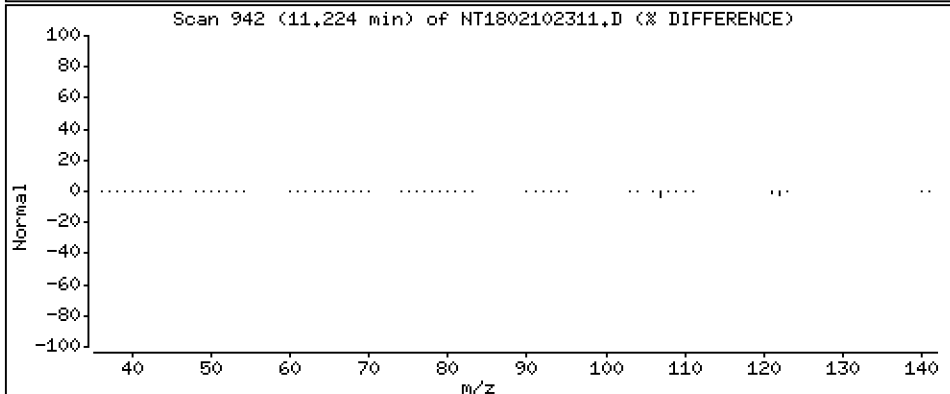
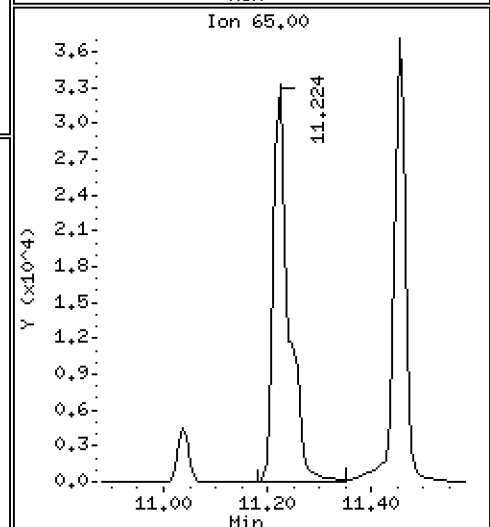
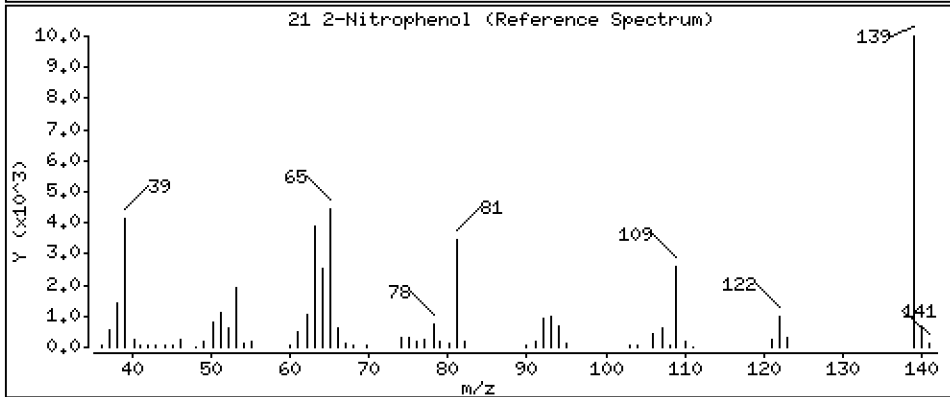
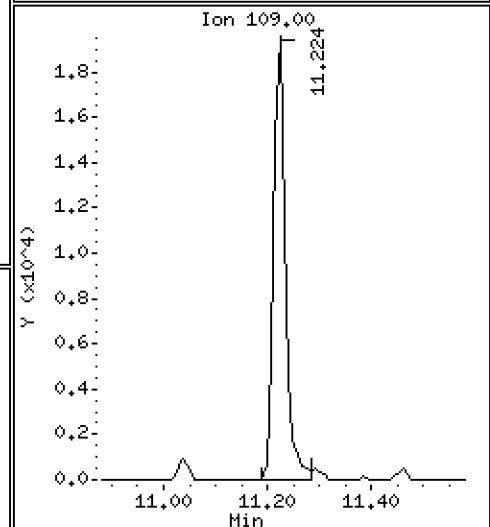
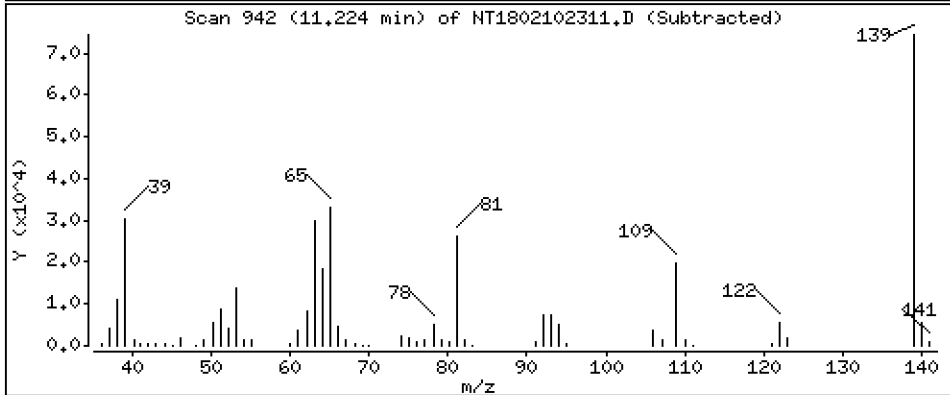
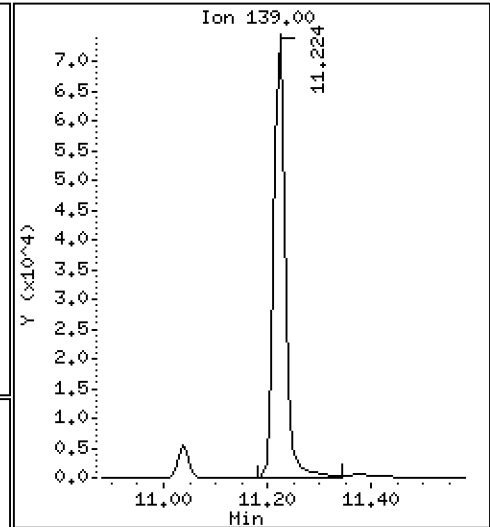
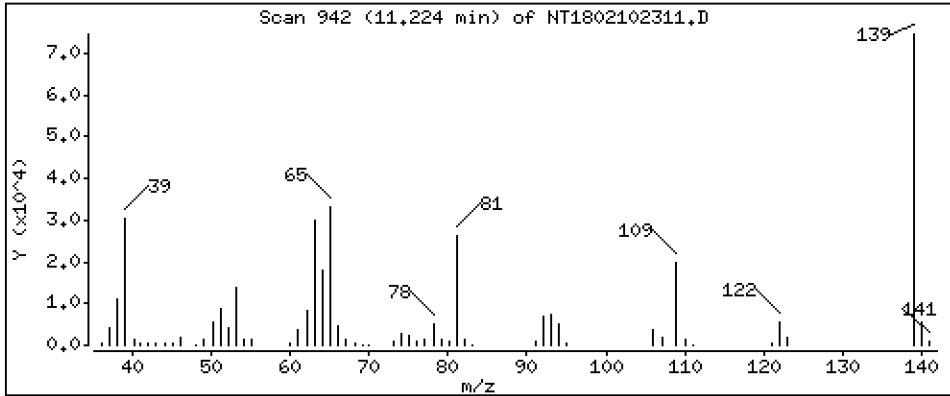
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 4,033 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

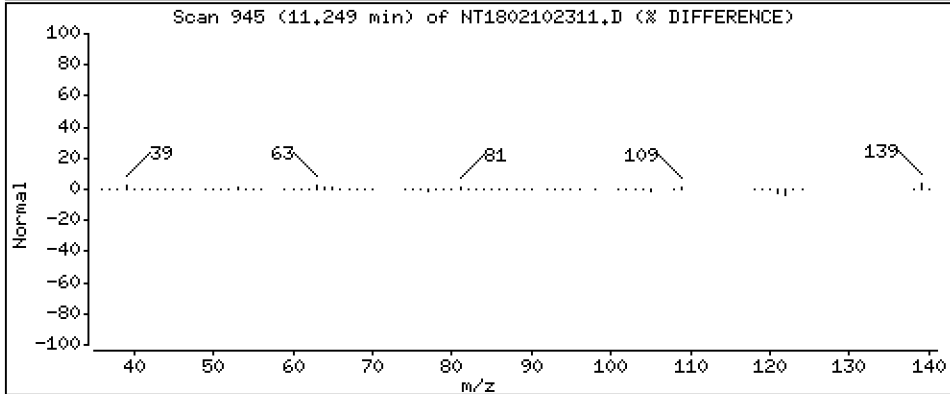
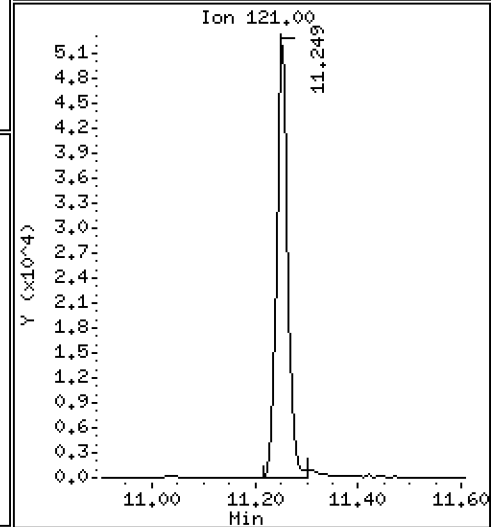
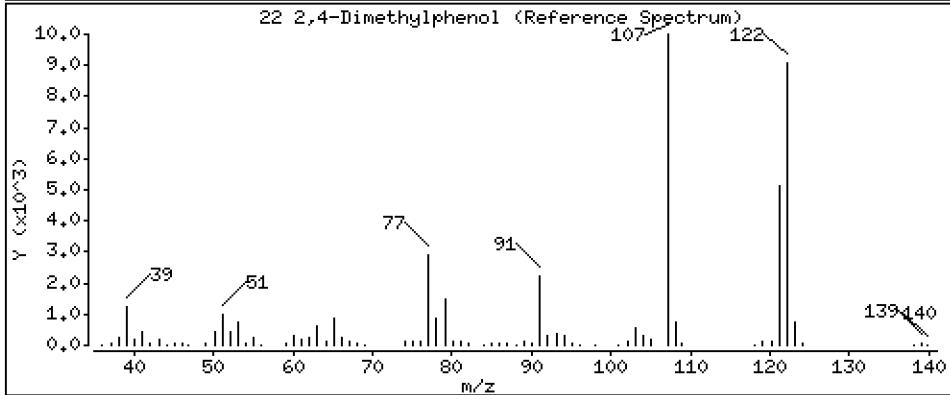
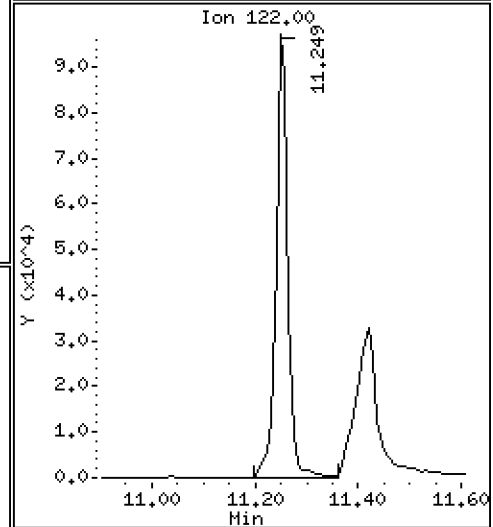
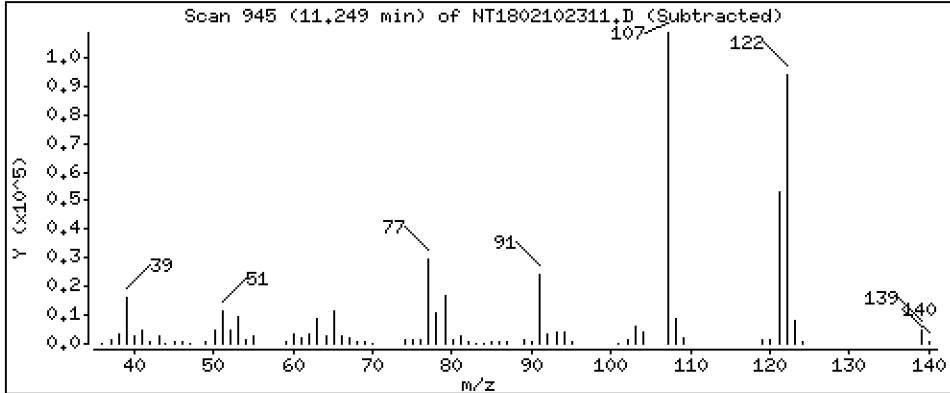
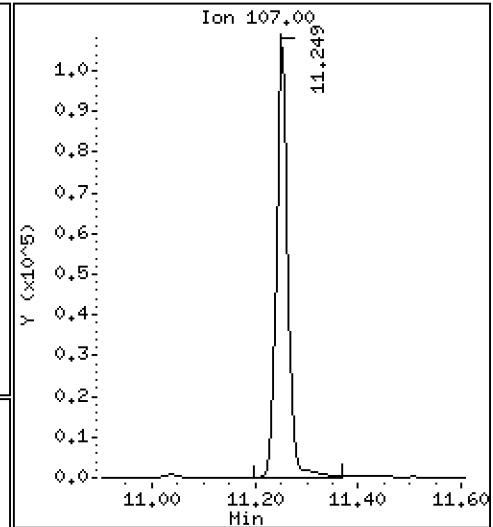
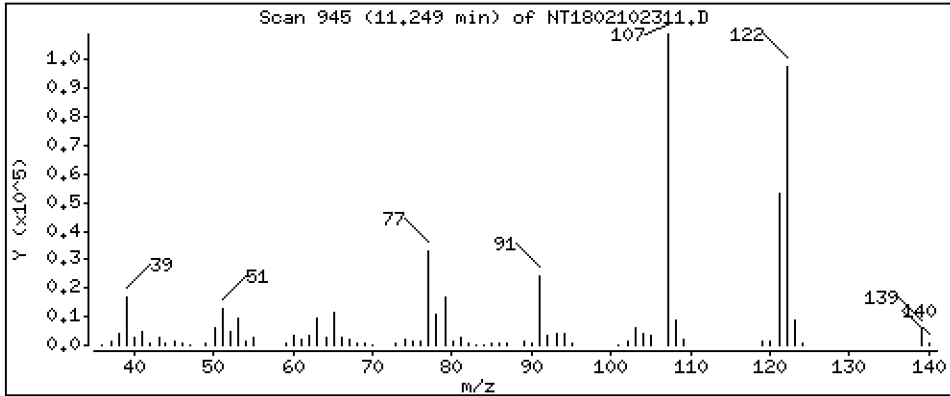
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,734 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

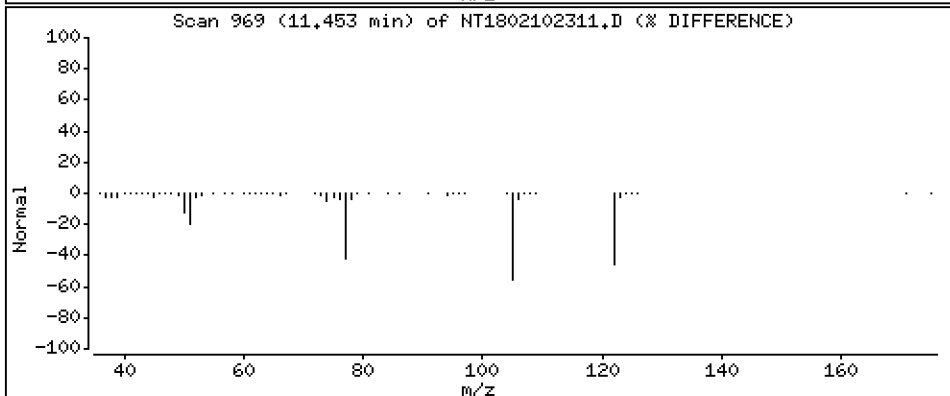
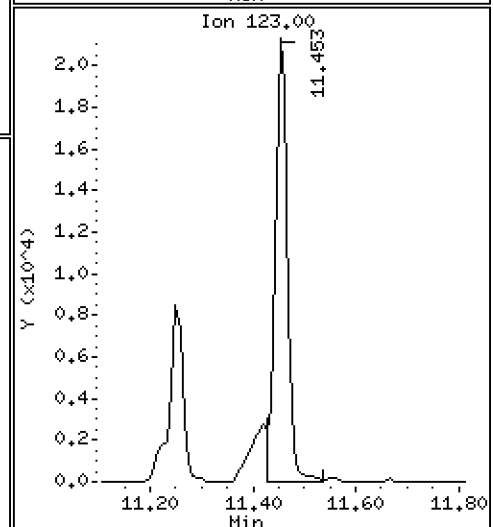
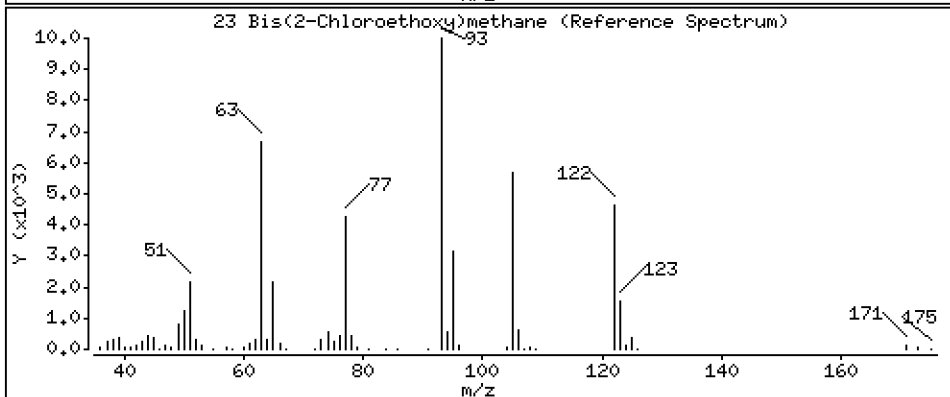
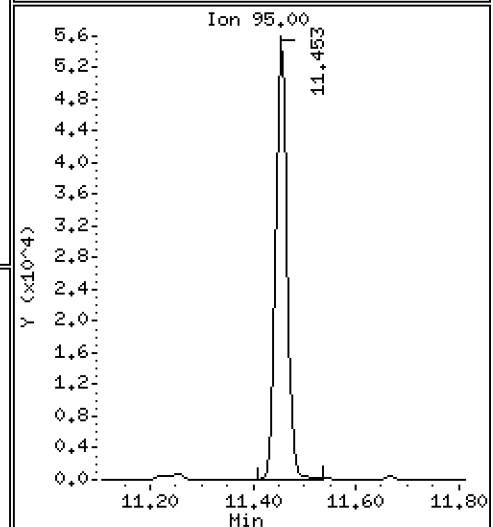
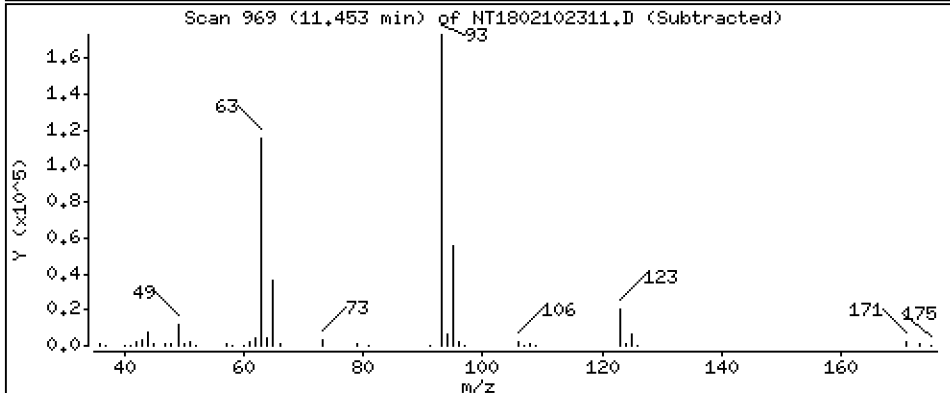
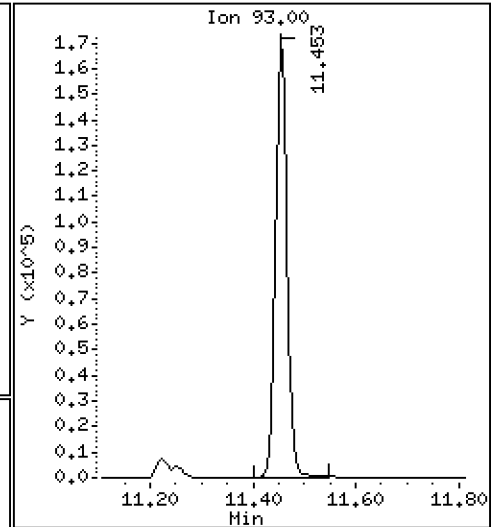
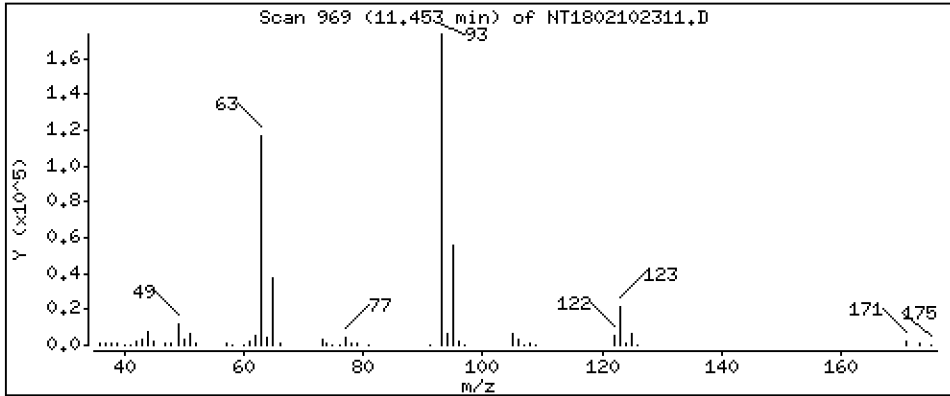
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 5,286 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

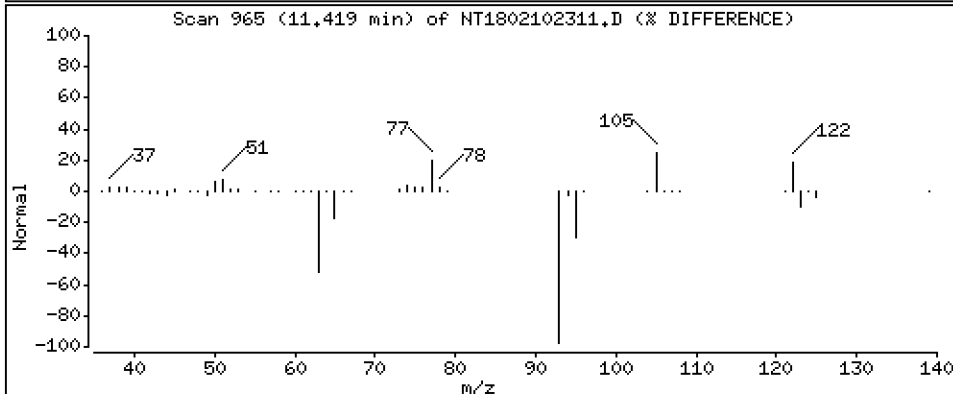
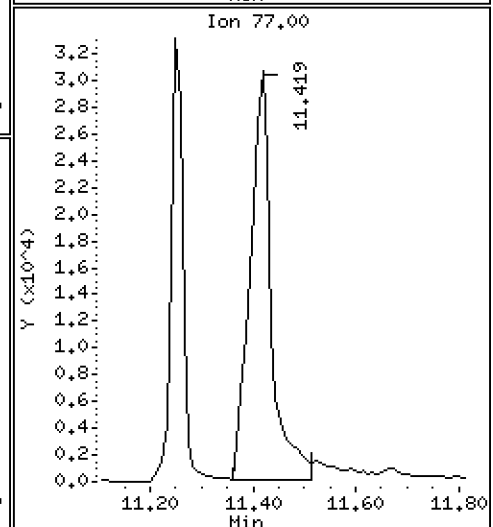
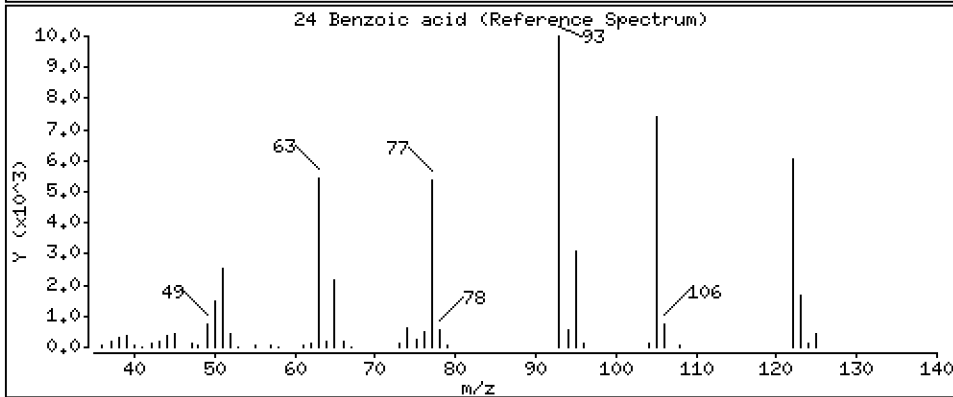
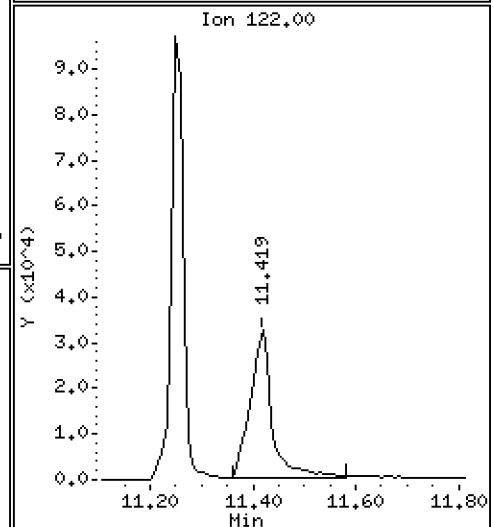
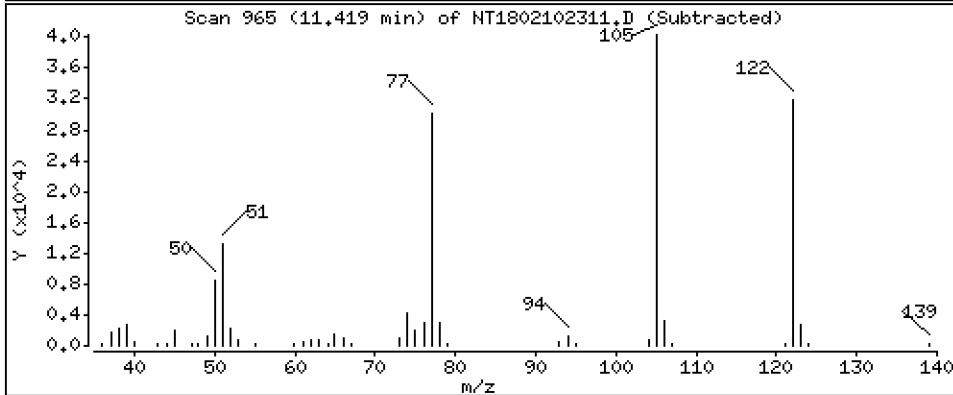
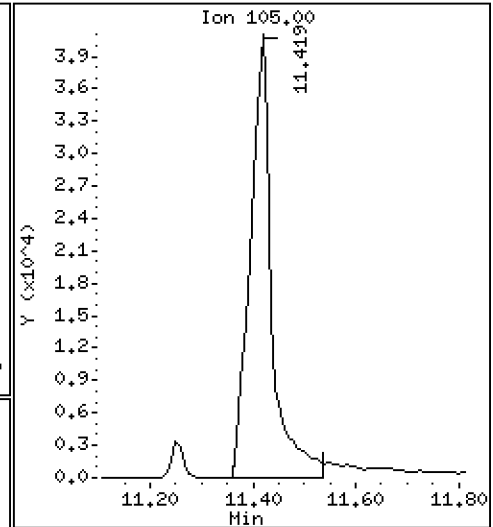
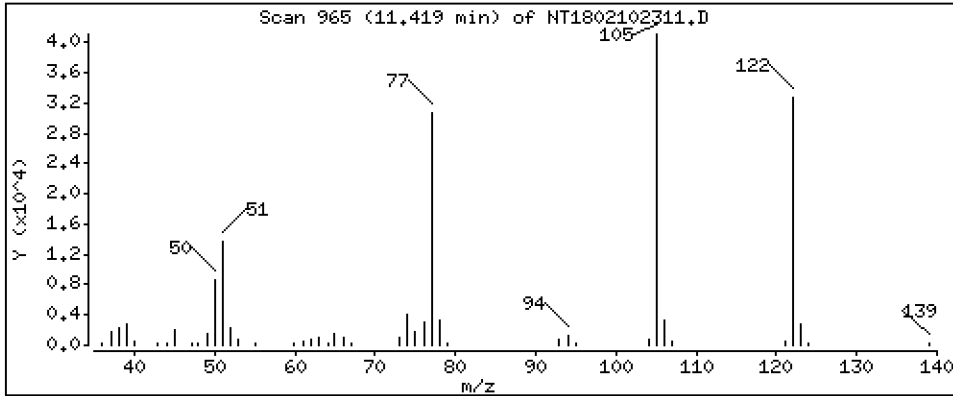
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 4,252 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

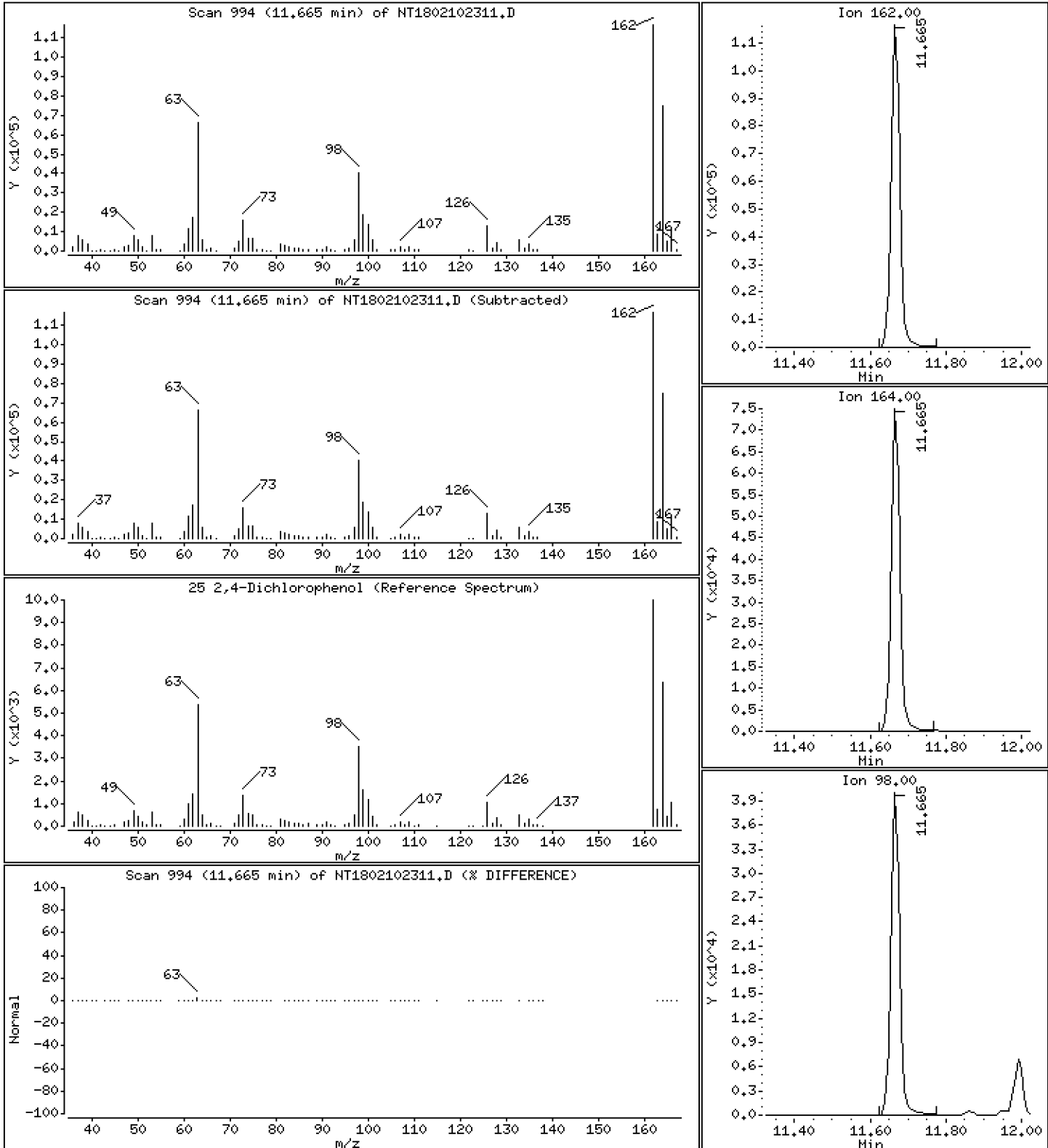
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,529 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

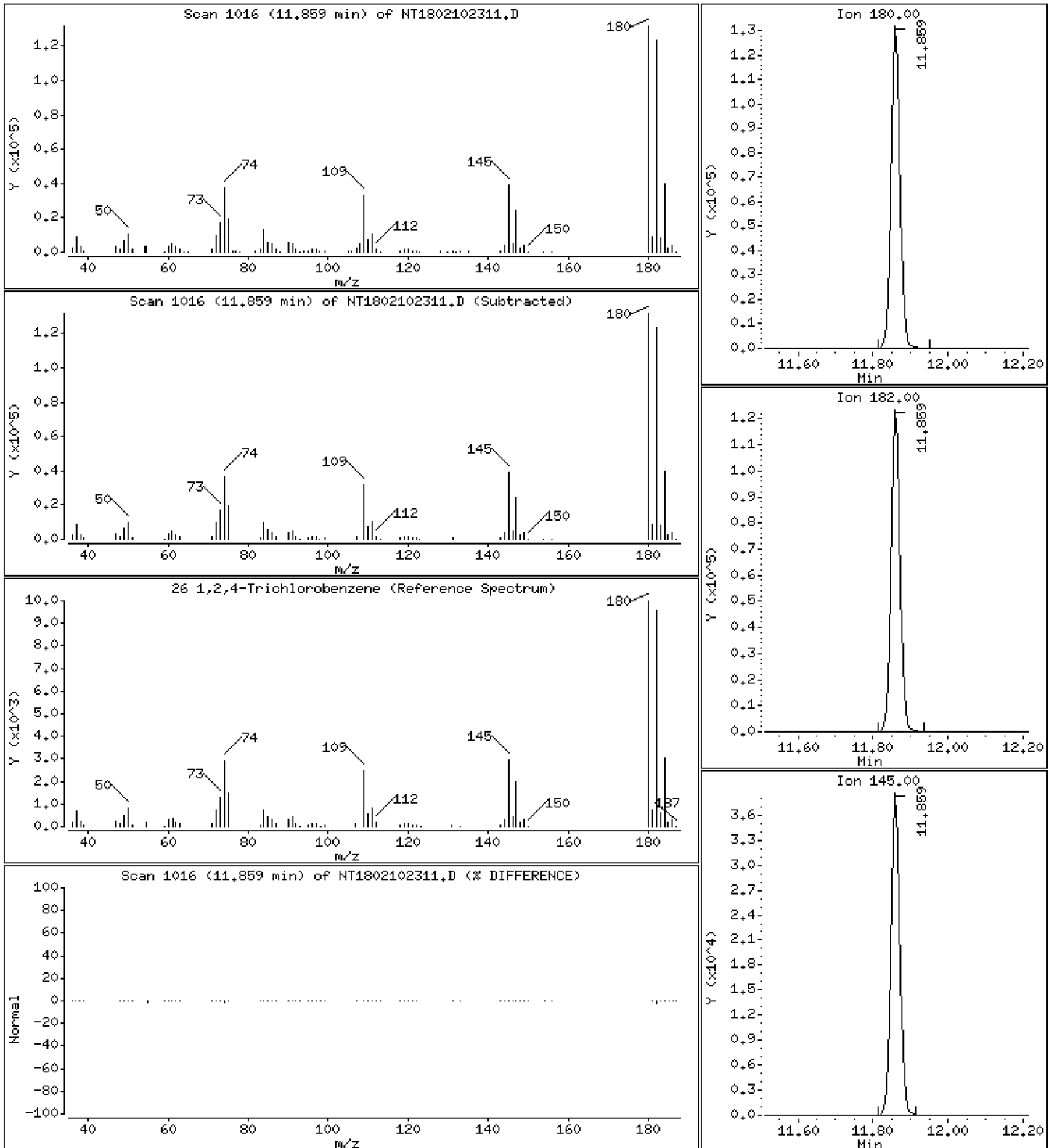
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 4.245 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

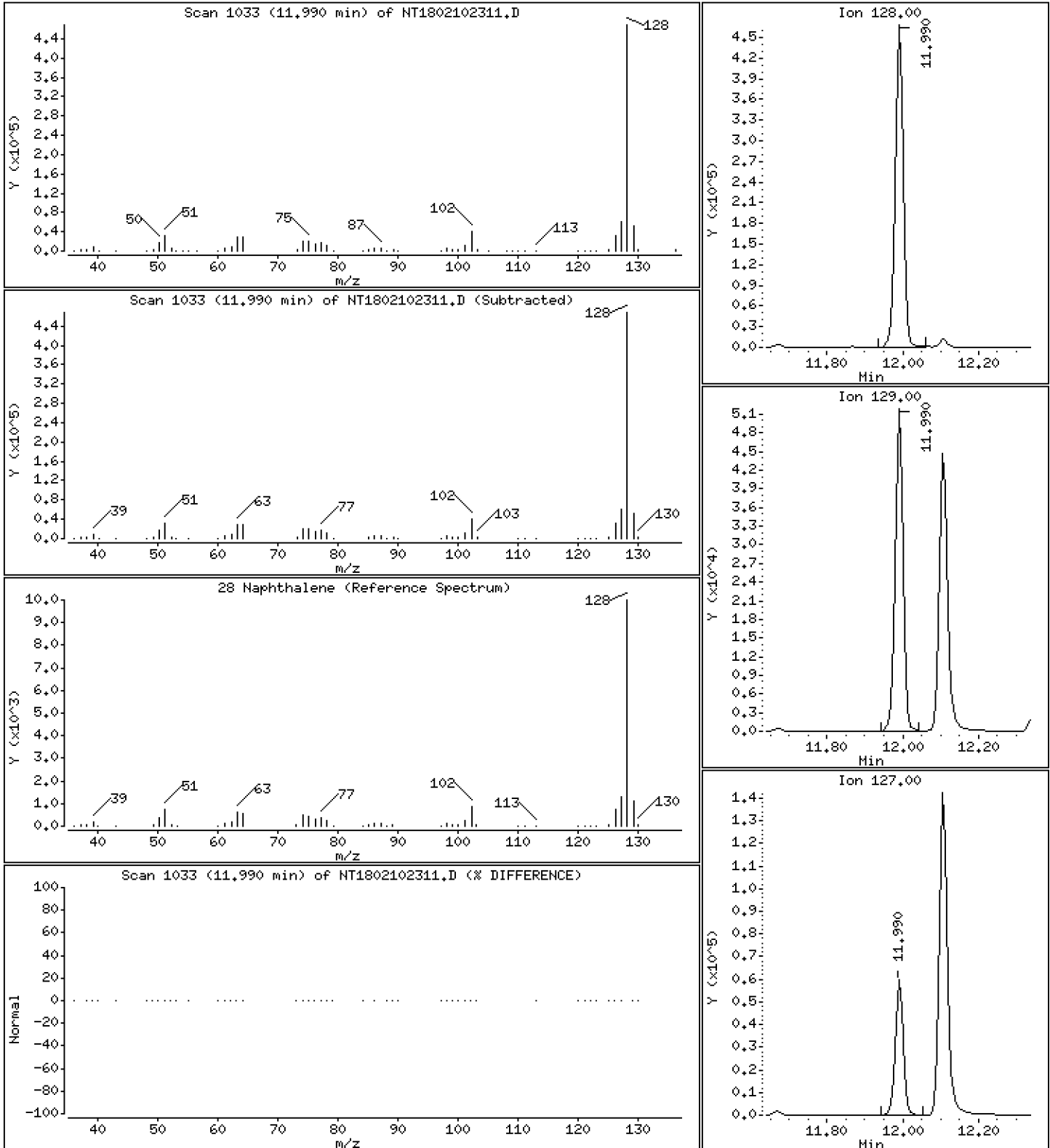
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 4,546 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

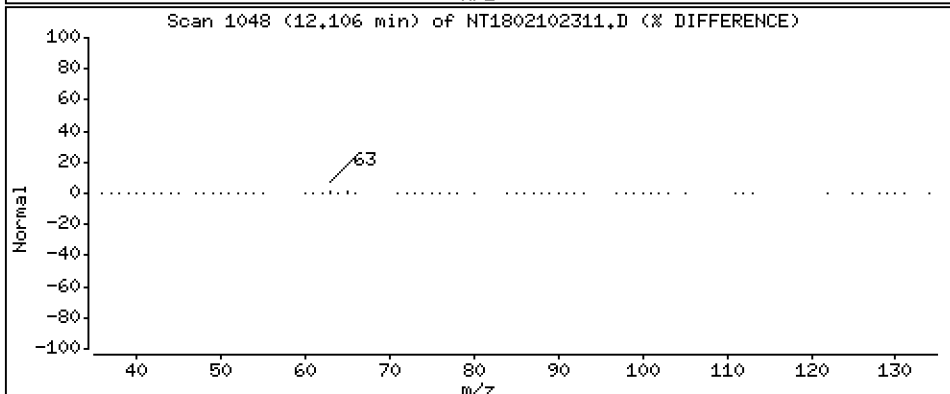
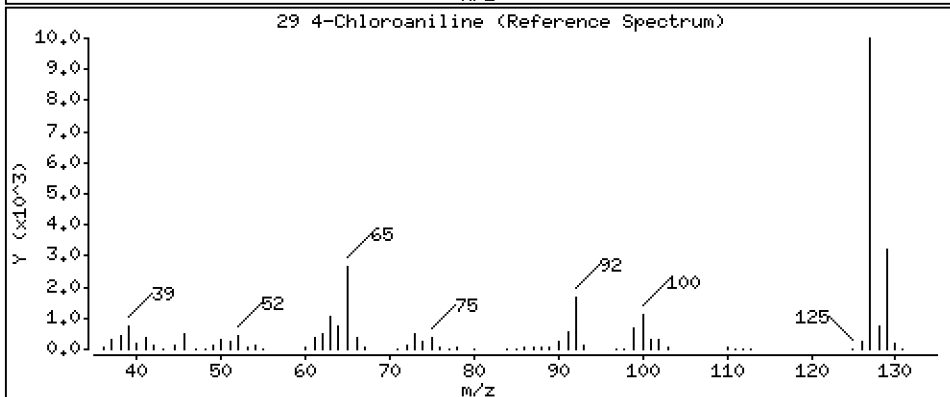
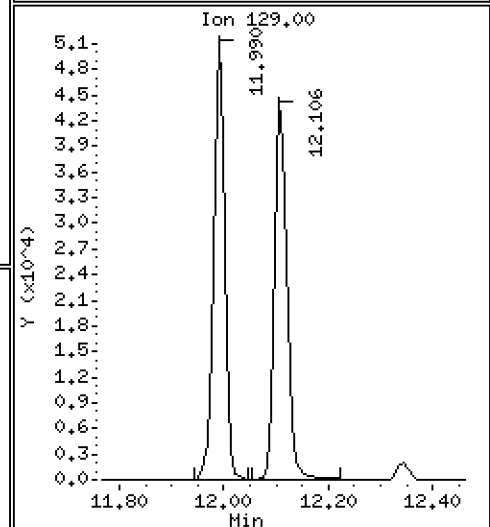
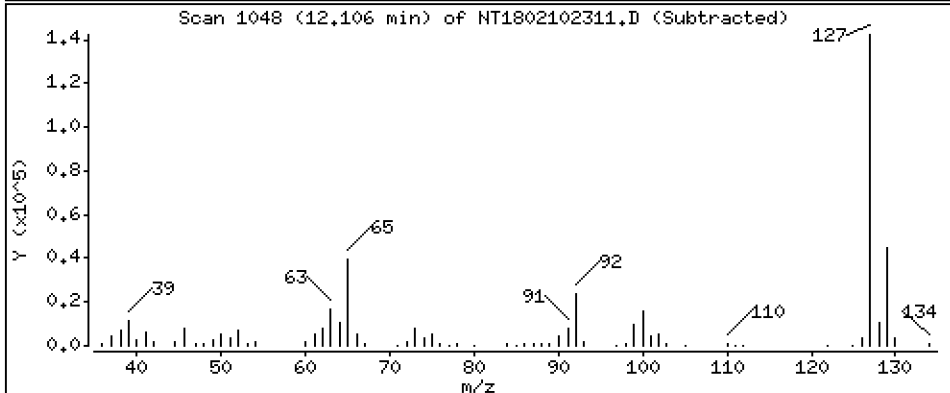
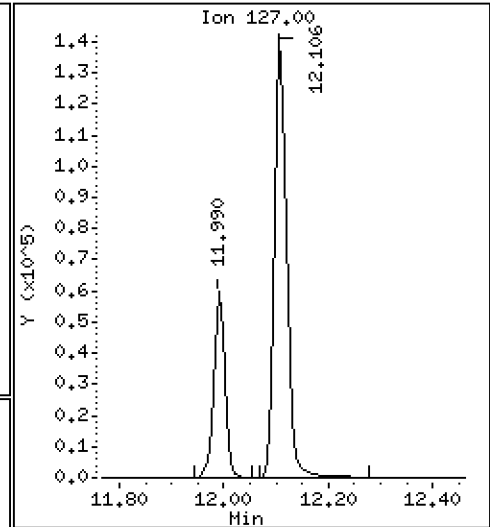
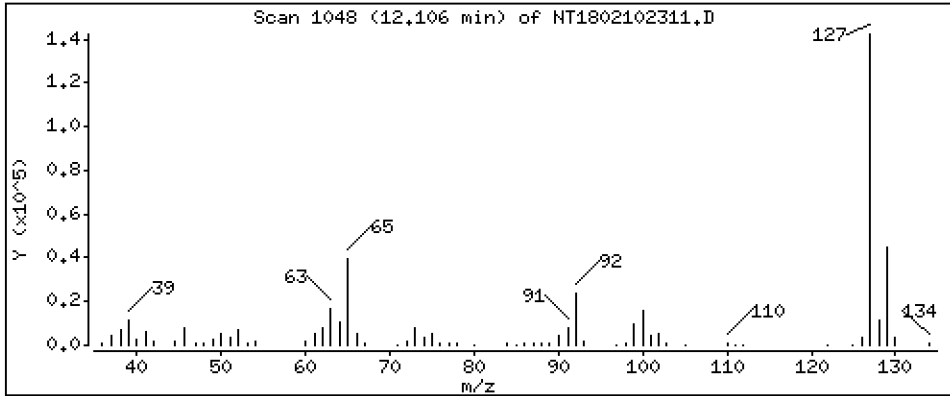
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 3,506 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

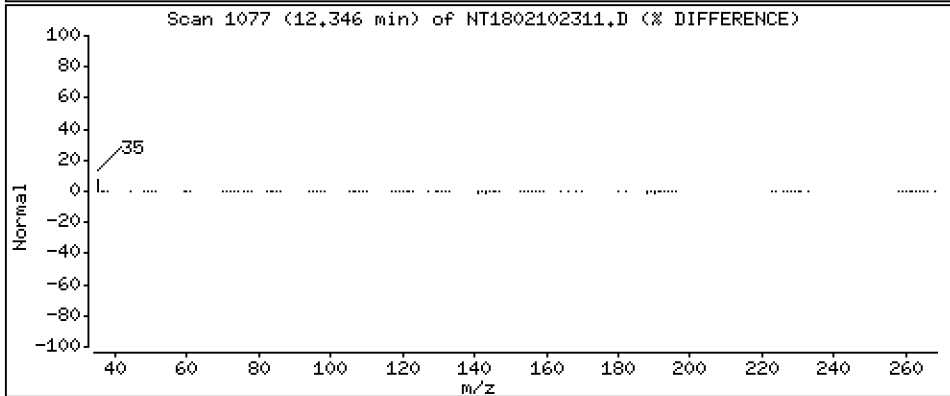
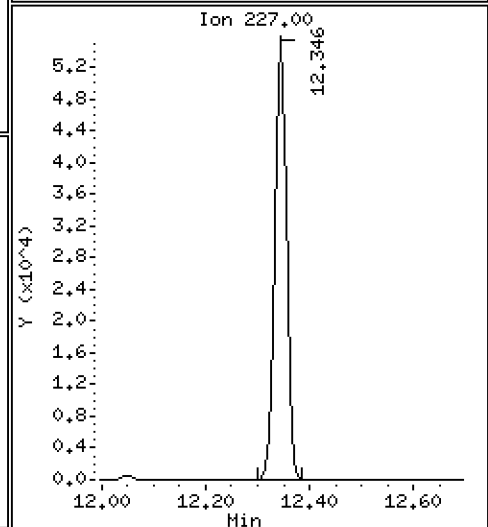
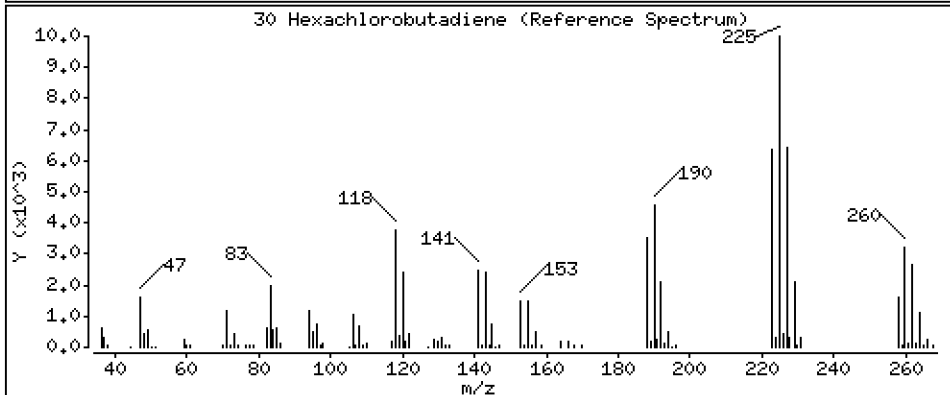
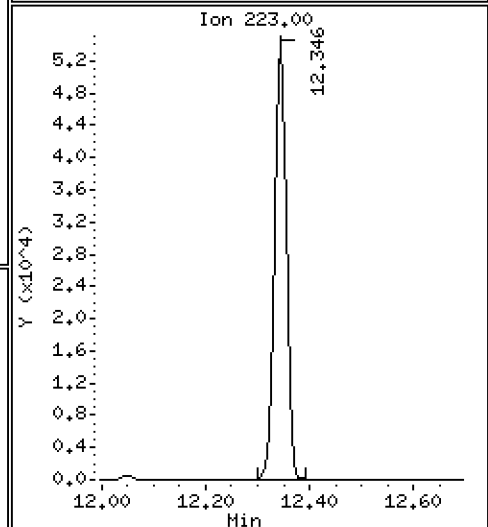
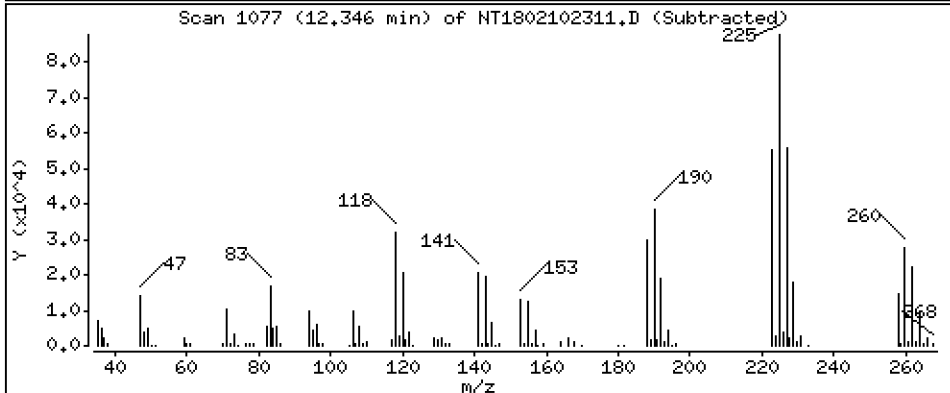
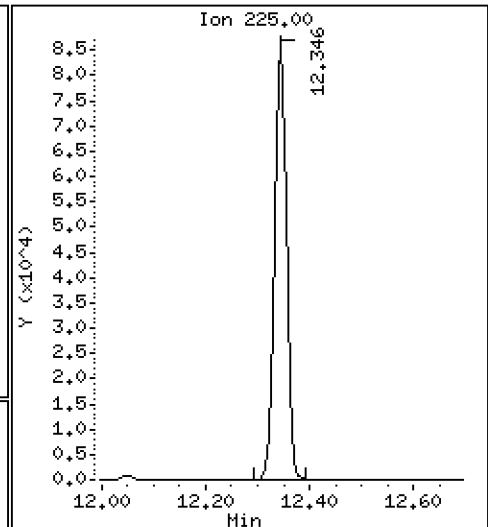
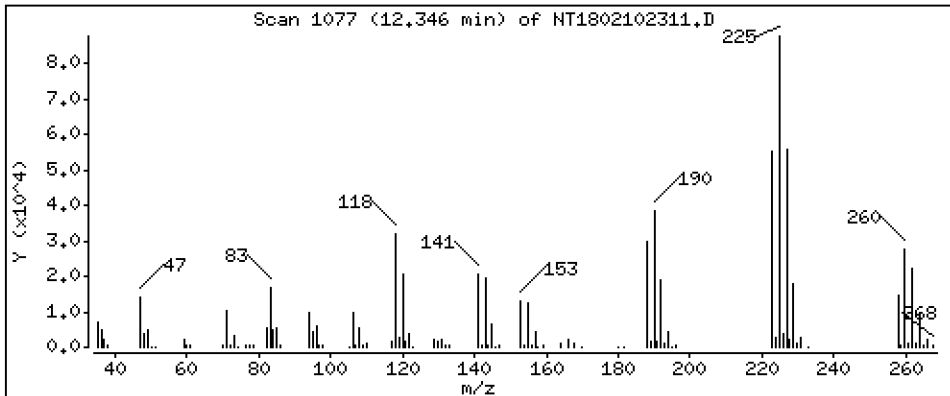
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,414 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

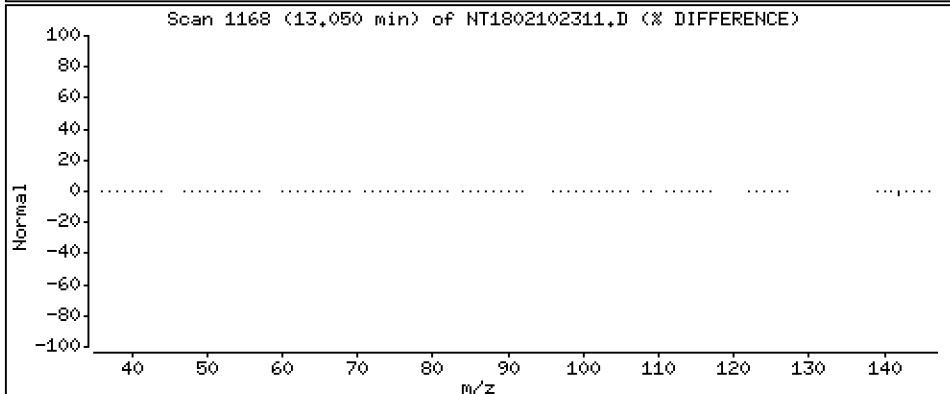
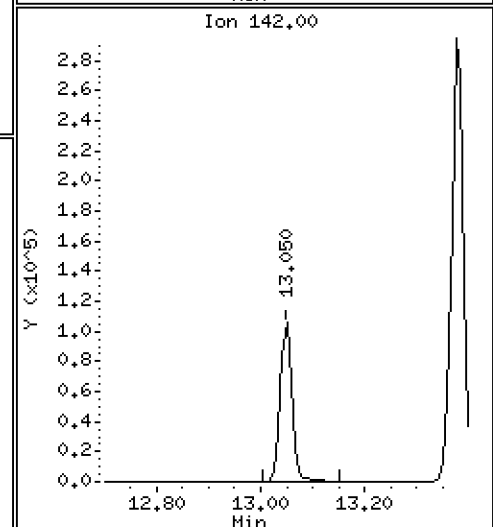
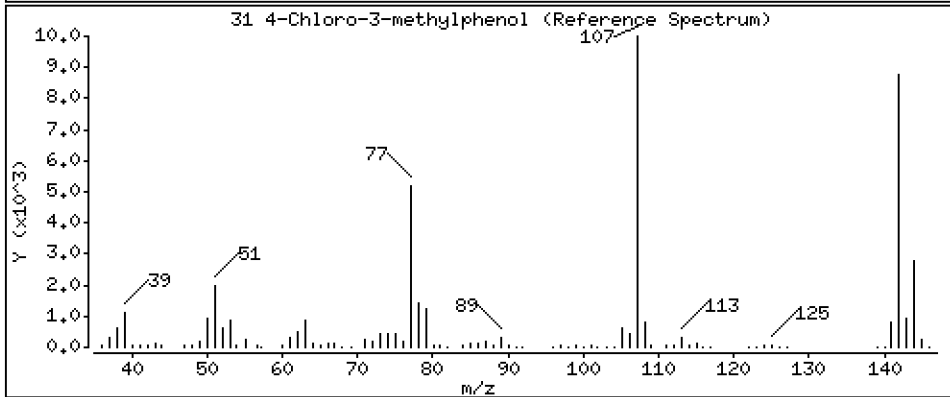
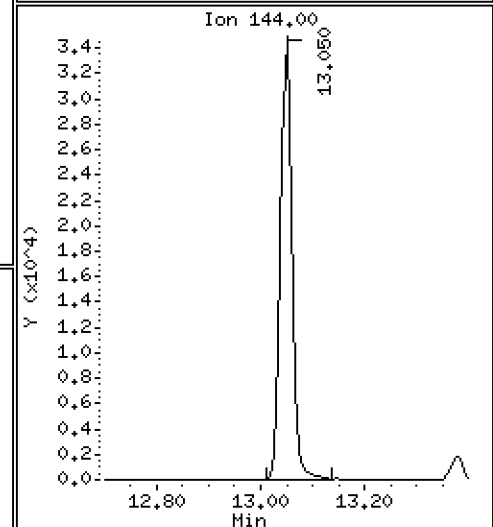
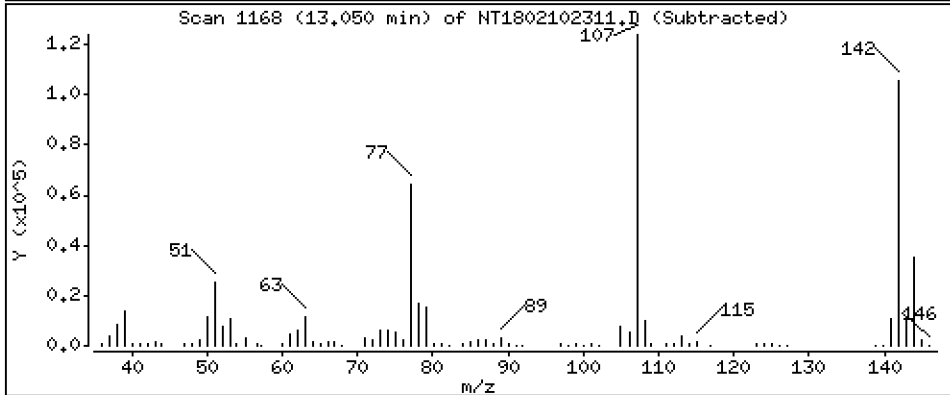
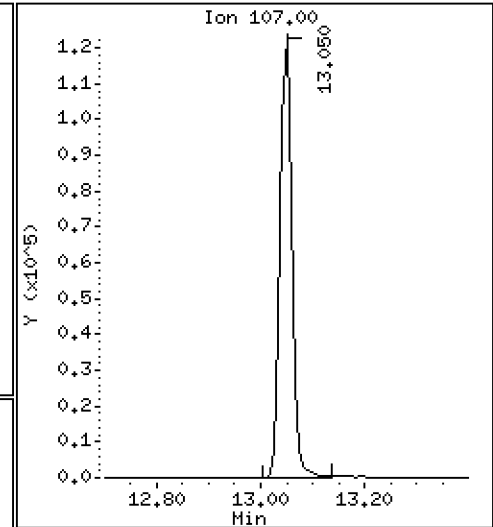
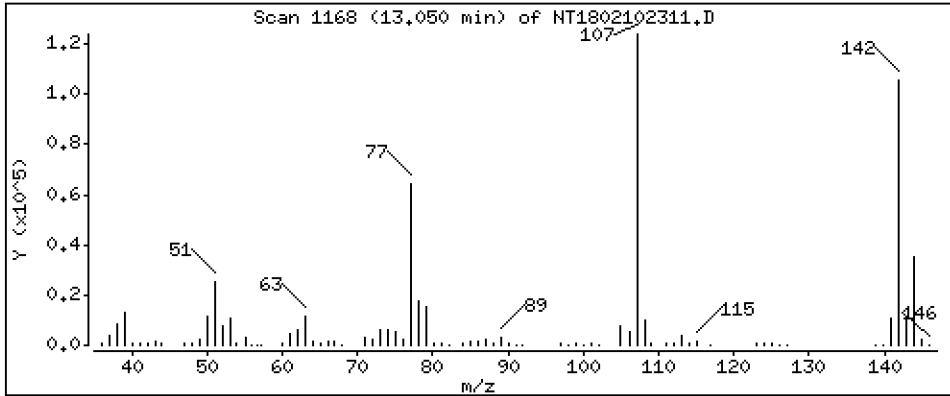
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 4,485 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

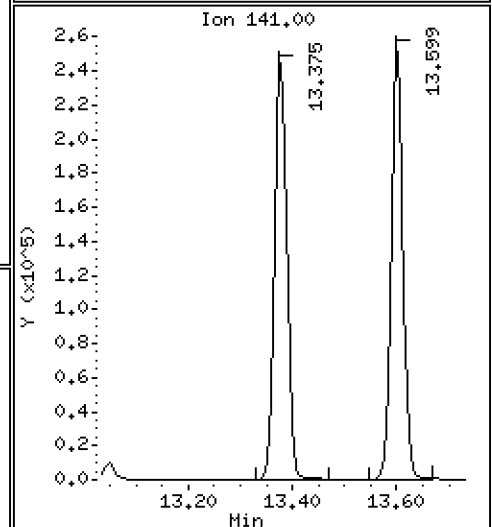
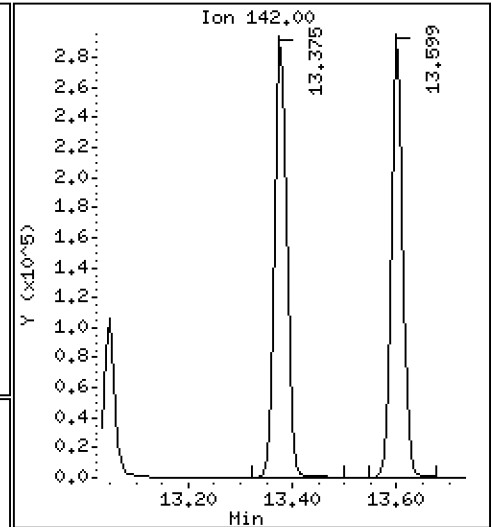
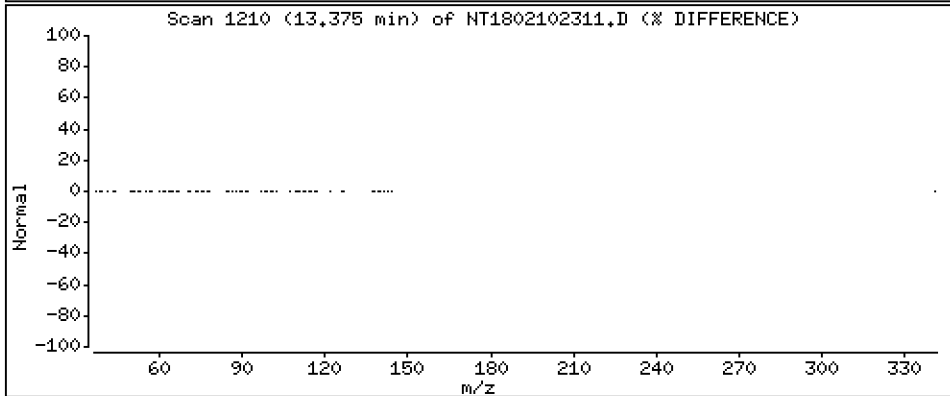
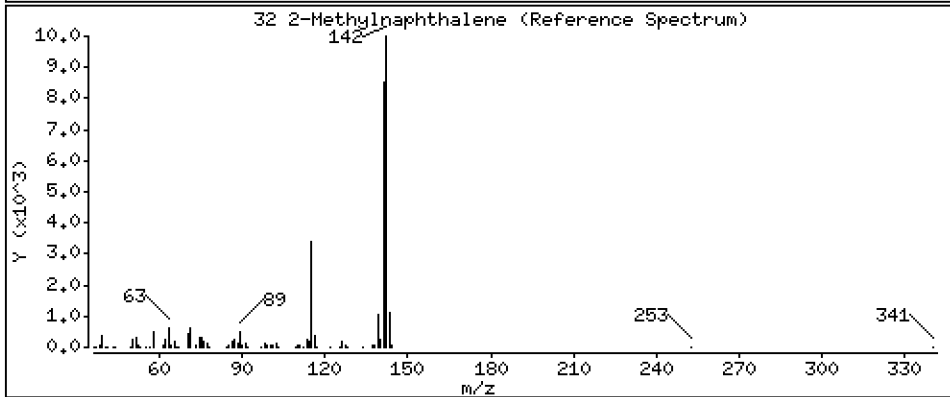
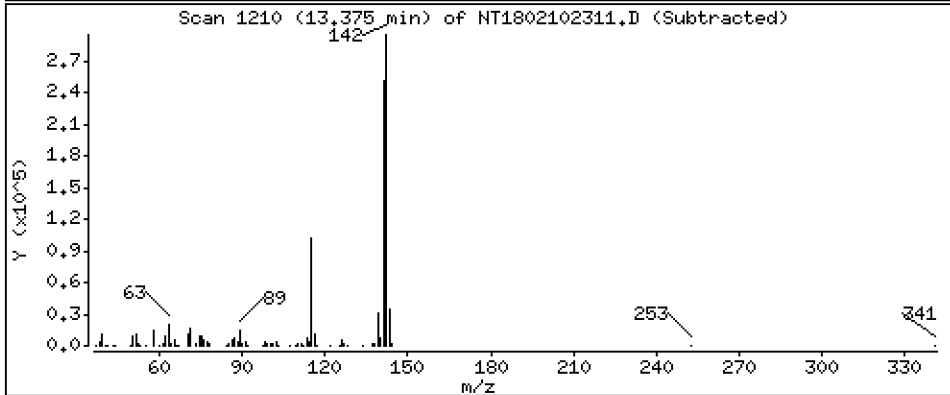
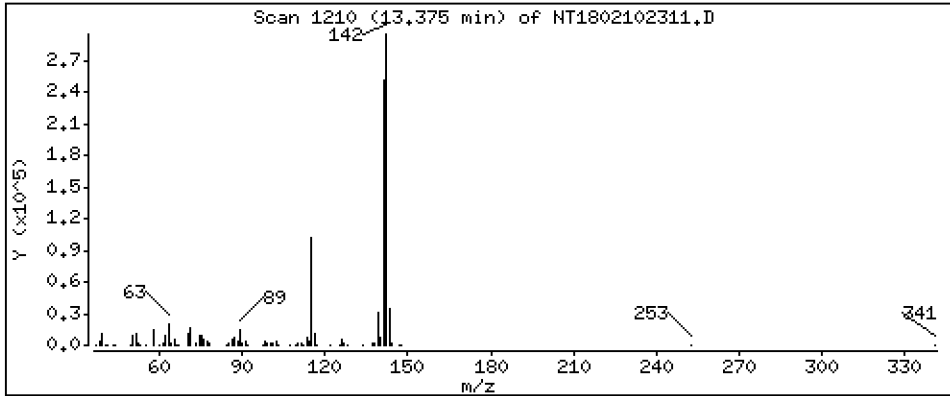
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 4,279 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

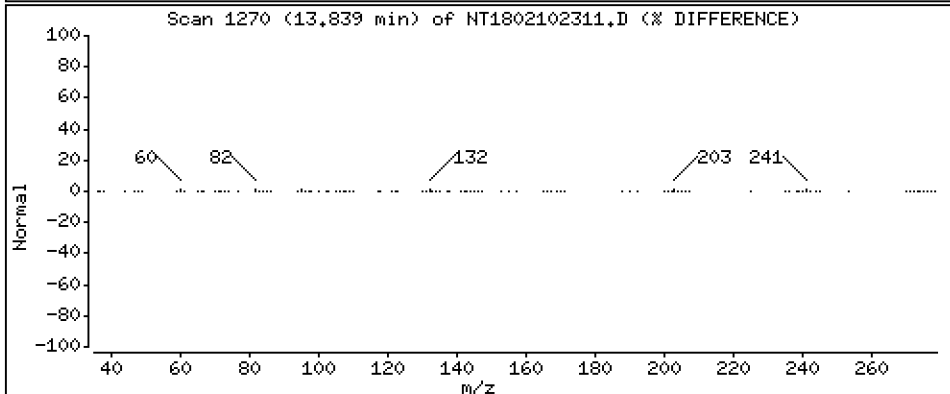
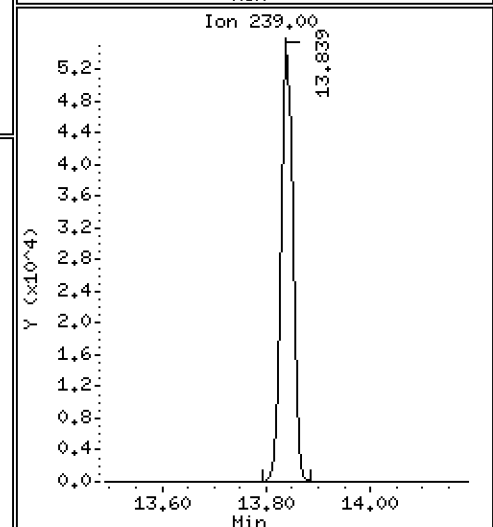
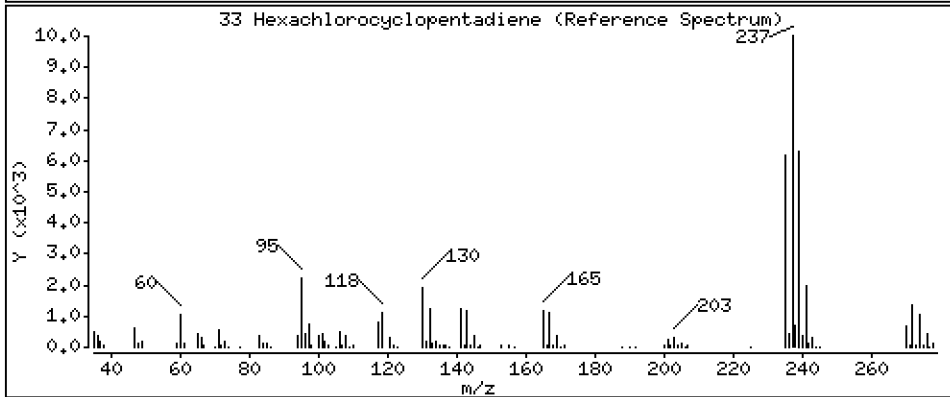
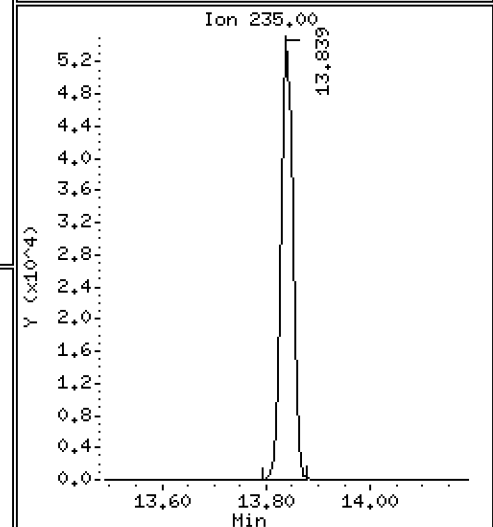
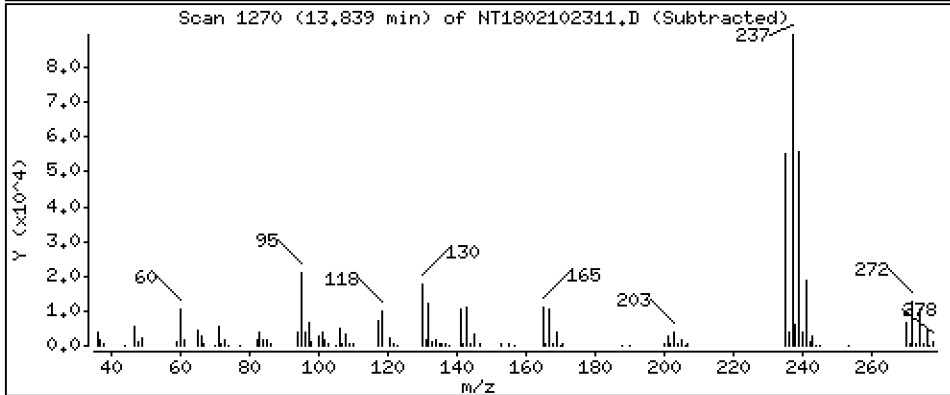
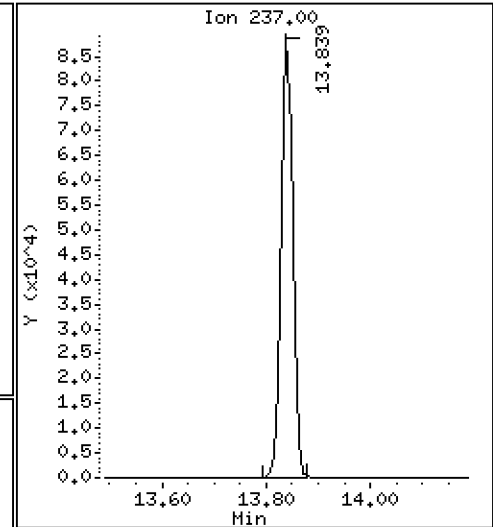
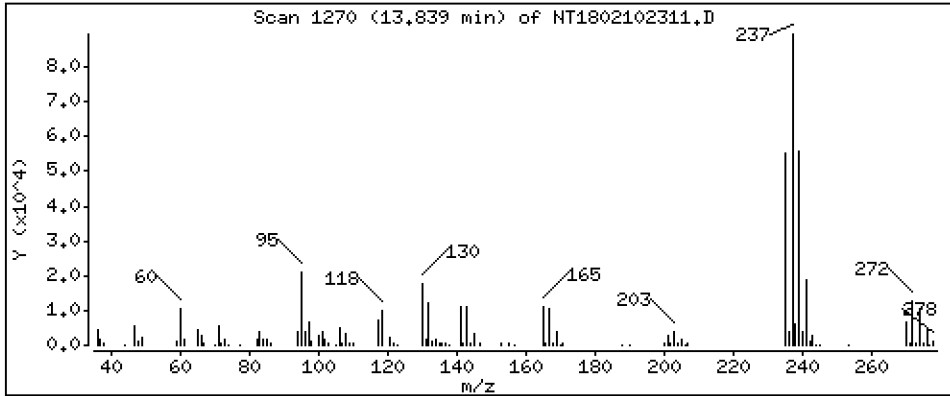
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 4,130 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

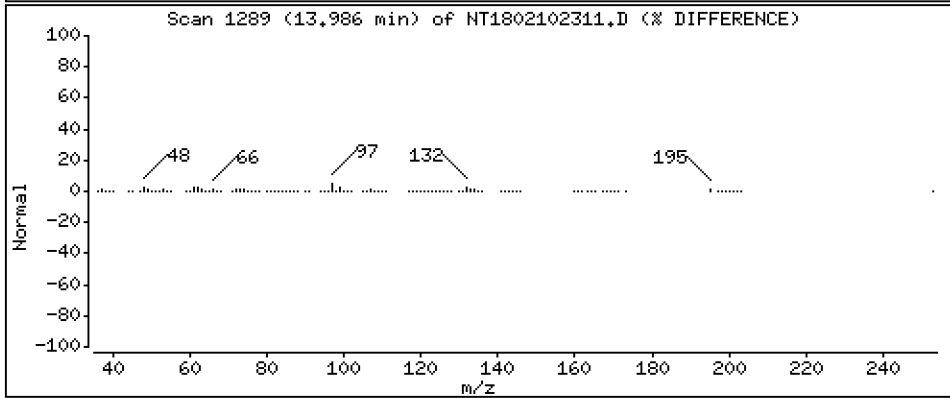
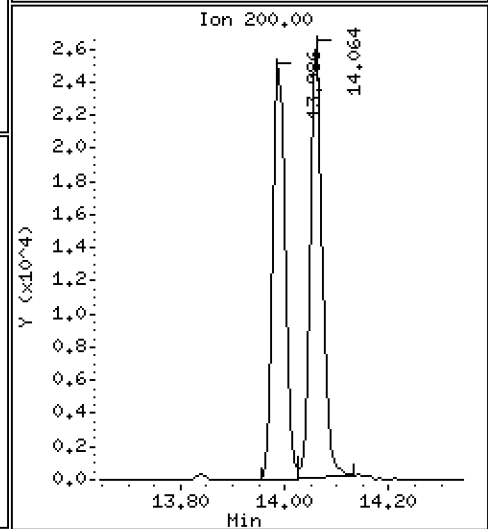
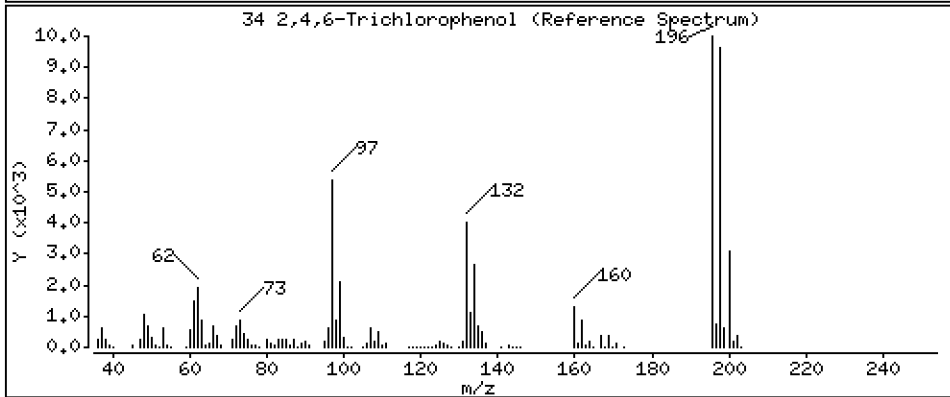
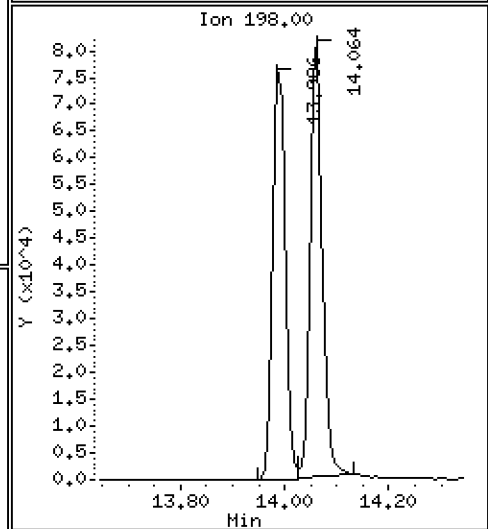
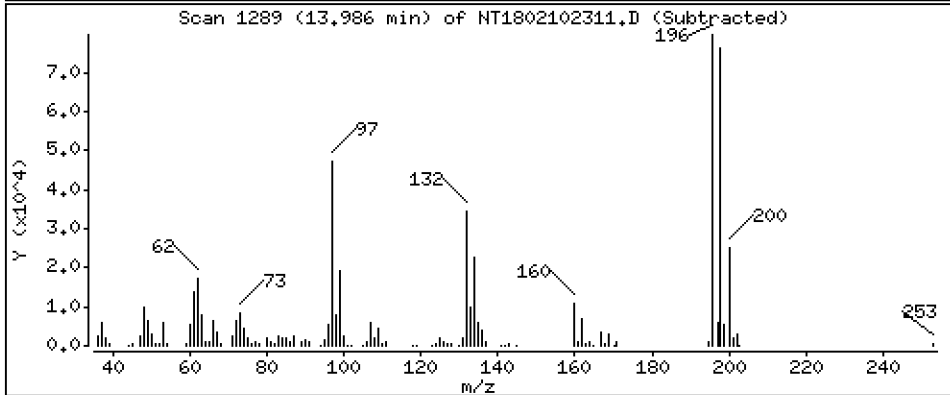
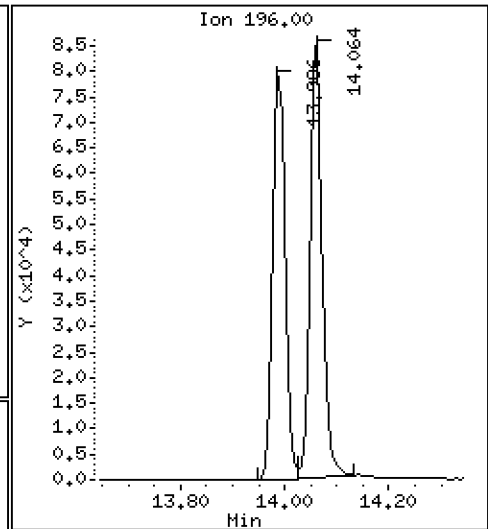
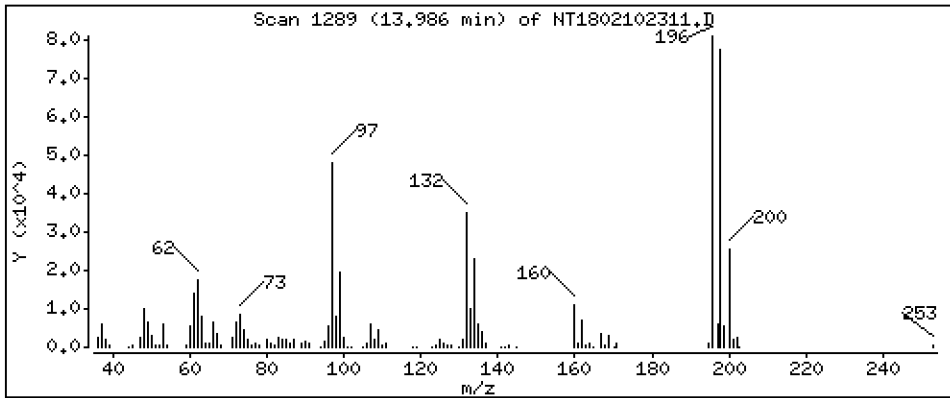
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

34 2,4,6-Trichlorophenol

Concentration: 4.334 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

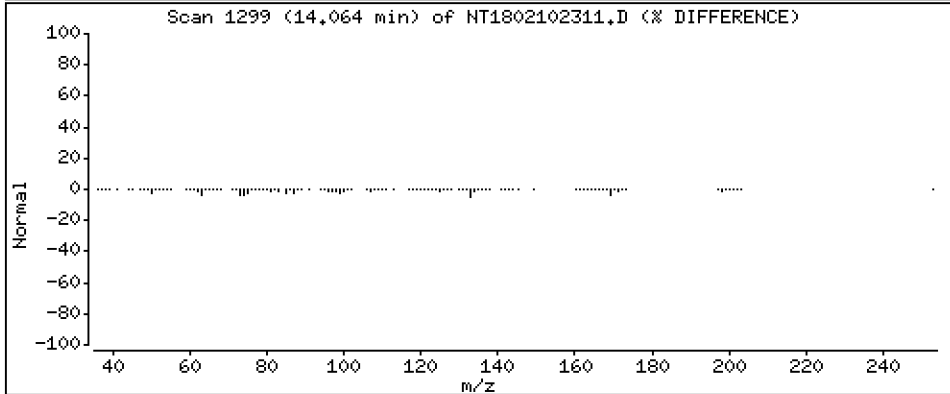
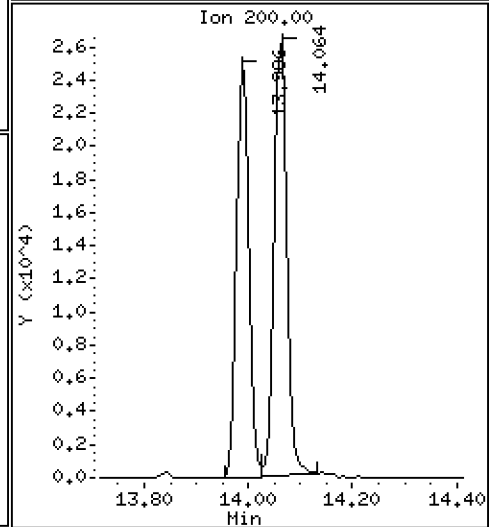
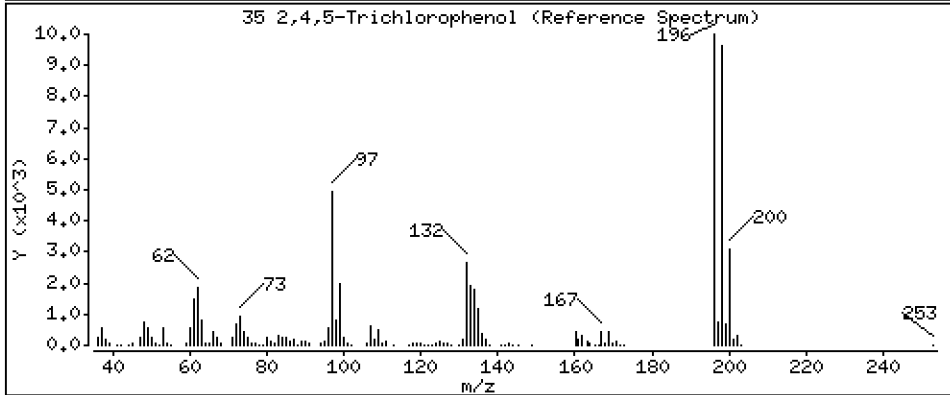
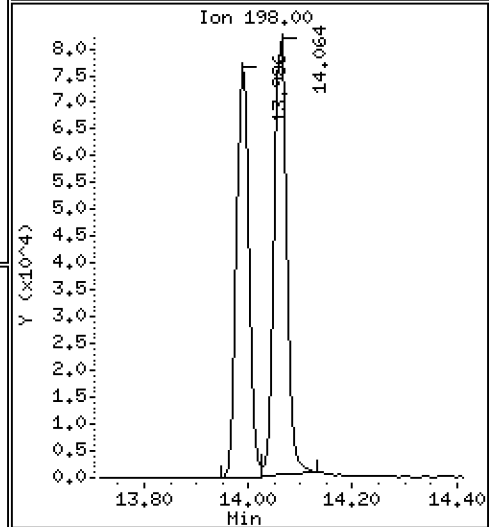
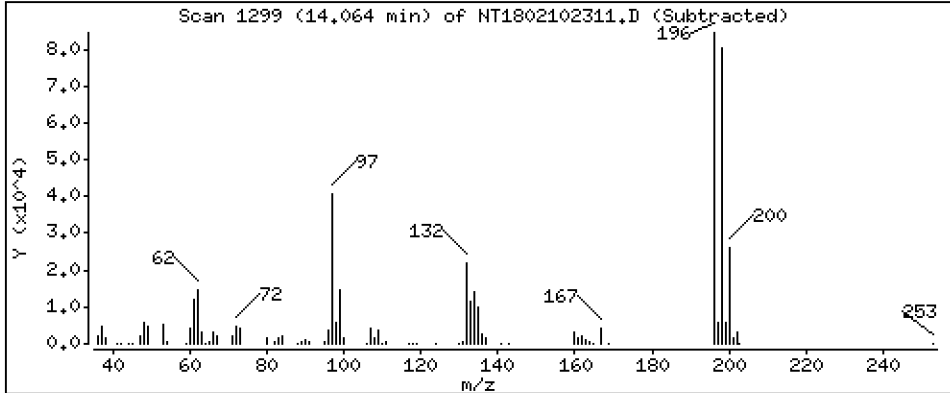
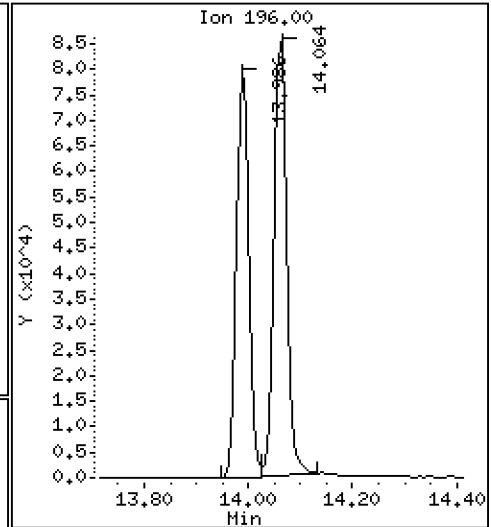
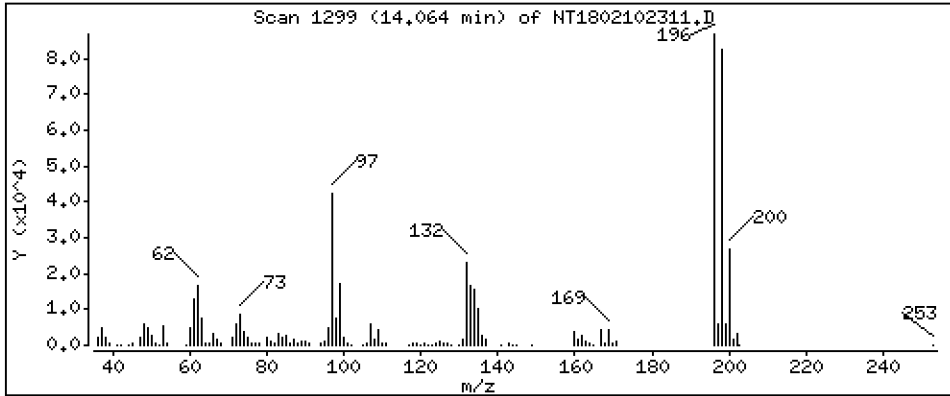
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 4,225 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

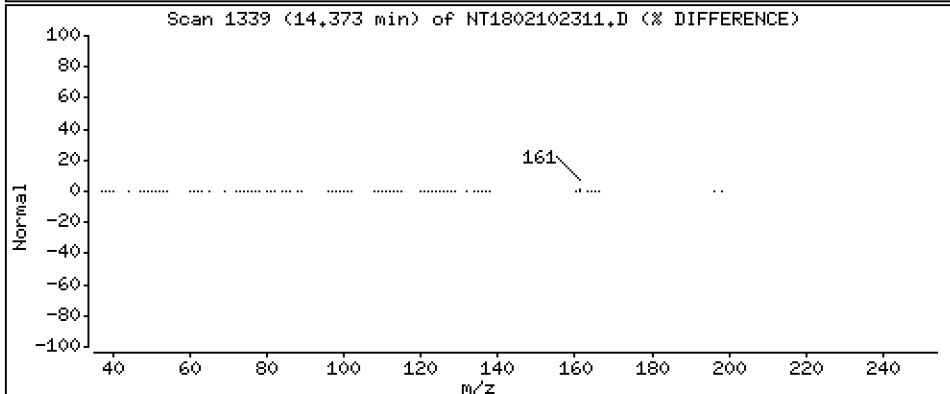
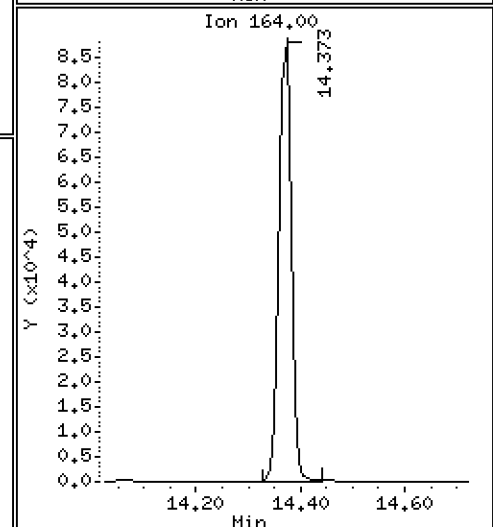
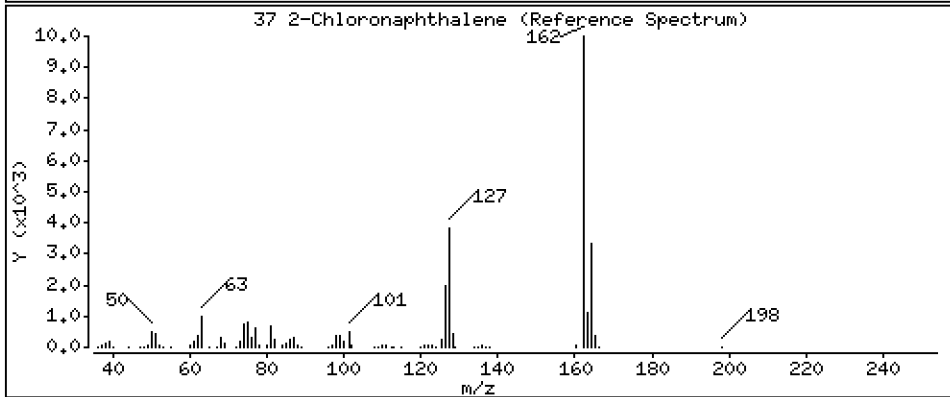
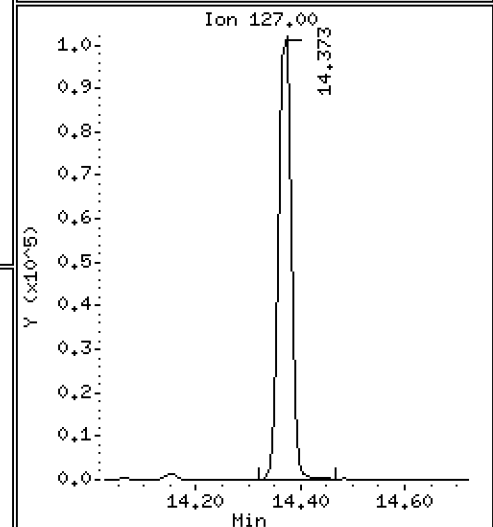
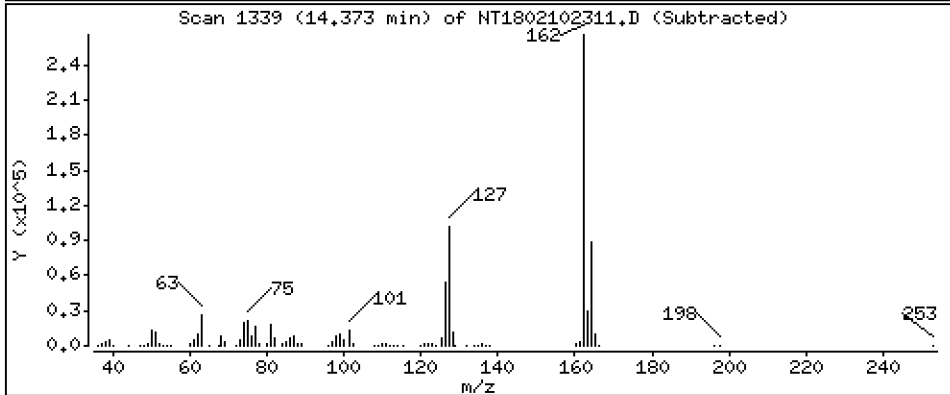
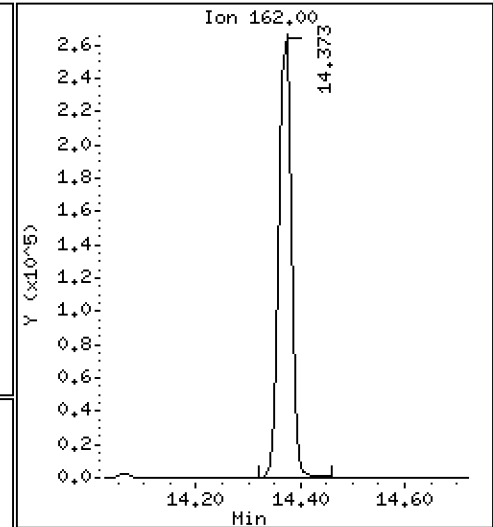
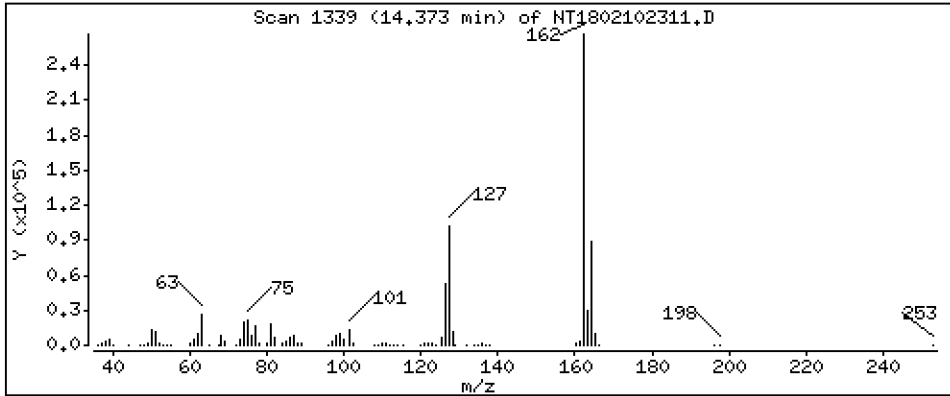
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 4.299 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

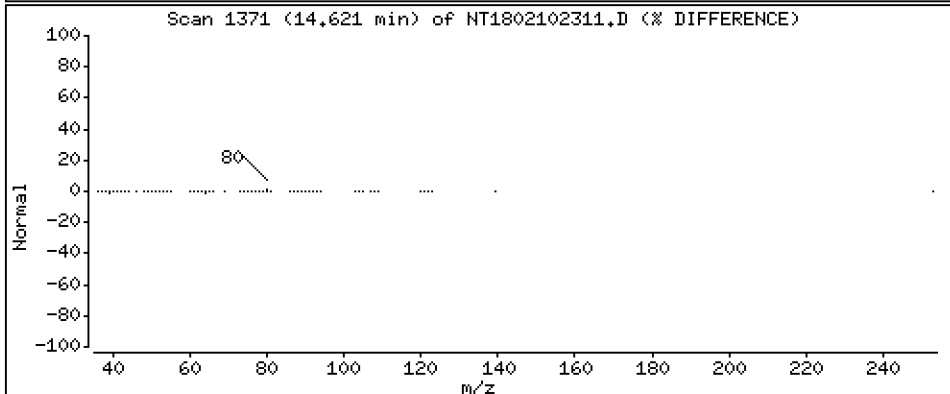
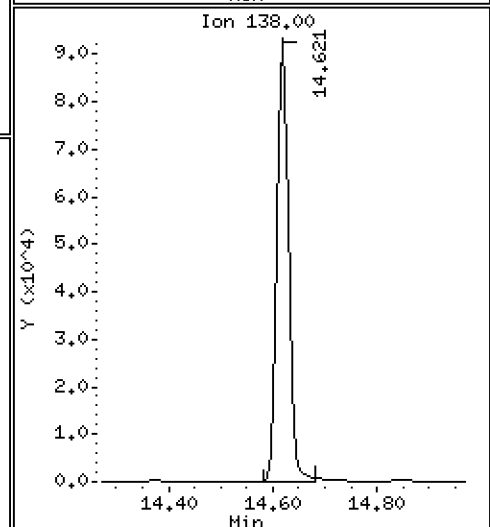
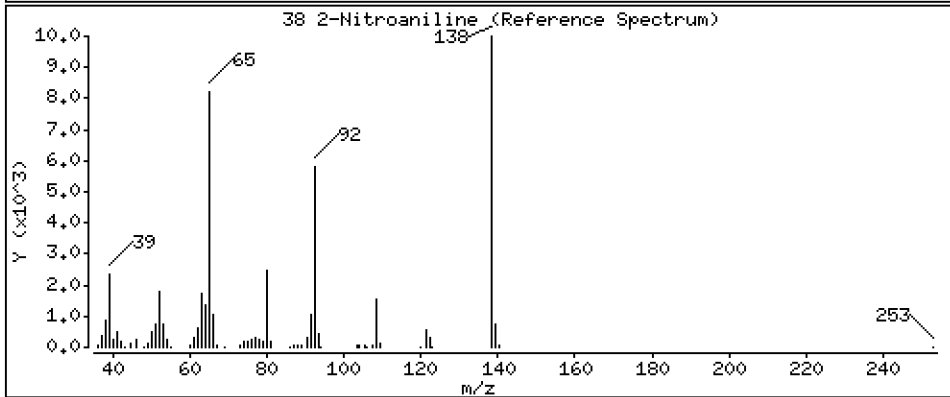
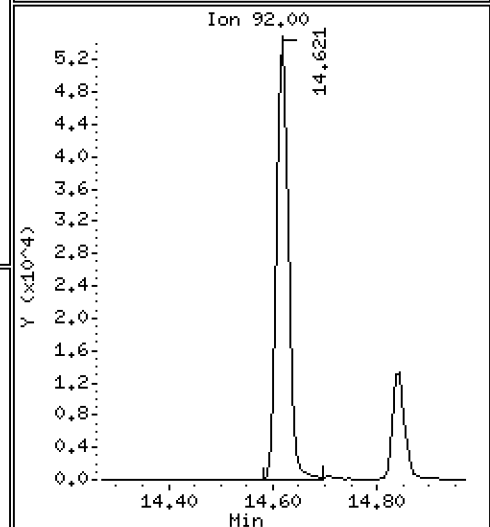
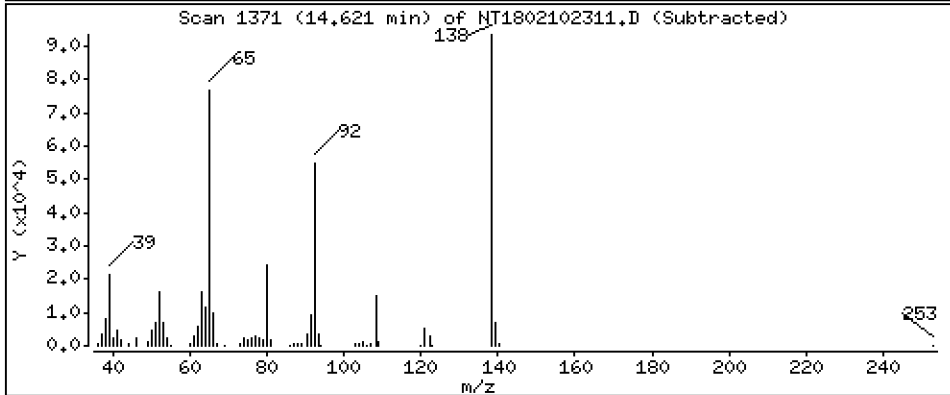
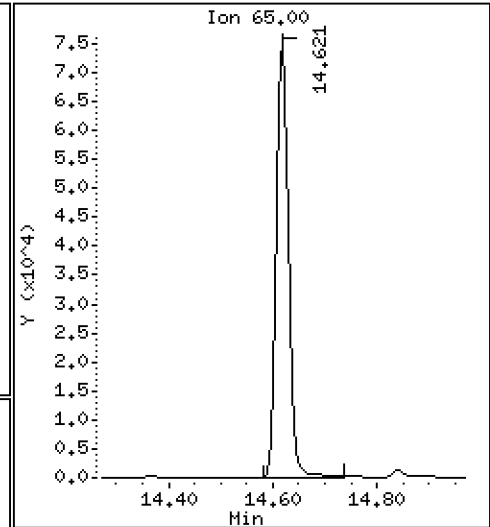
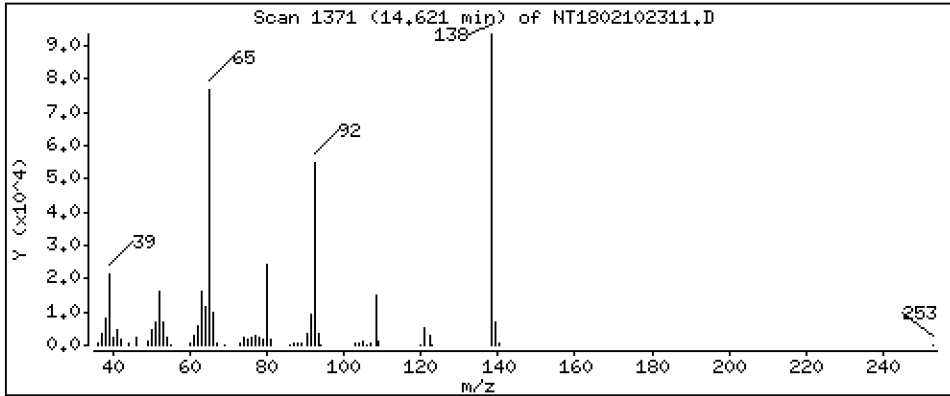
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

38 2-Nitroaniline

Concentration: 4.431 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

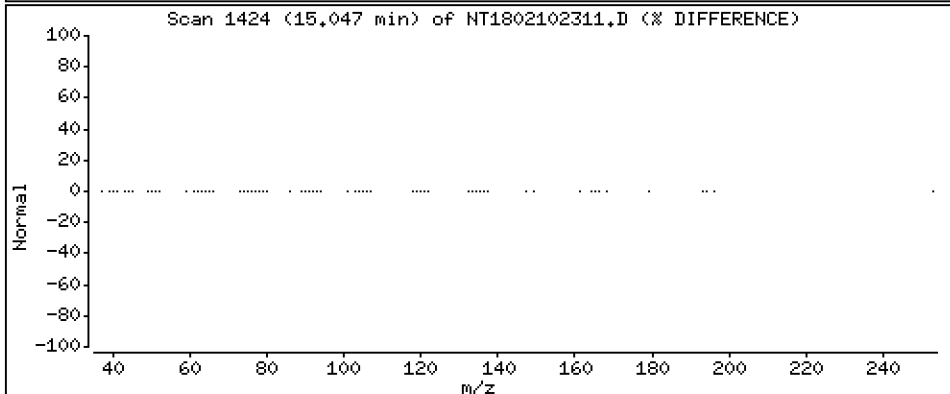
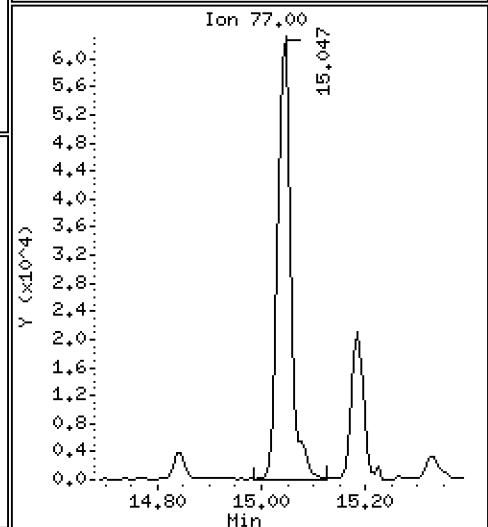
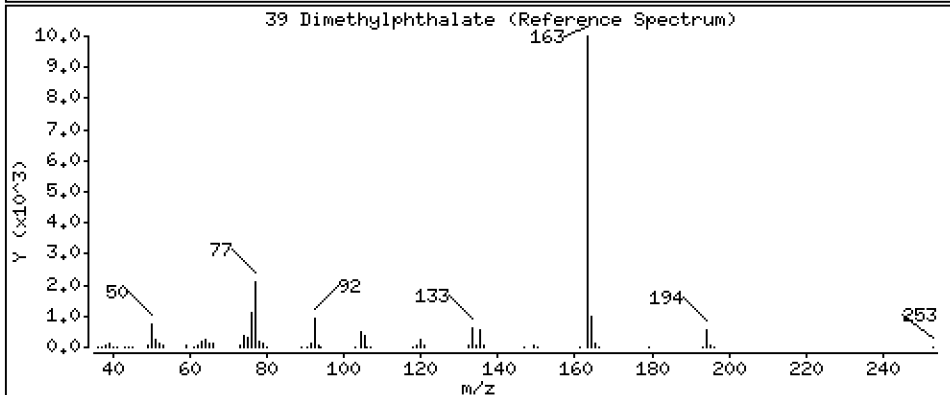
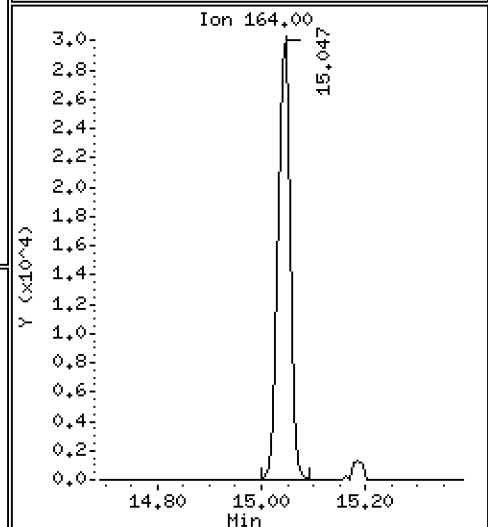
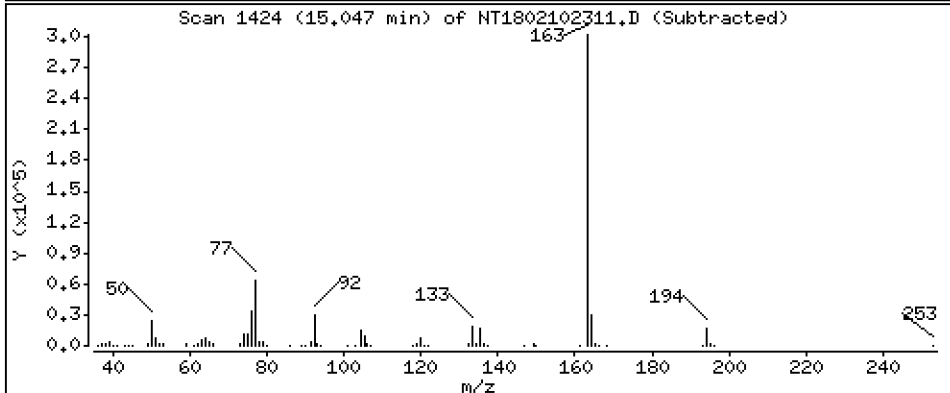
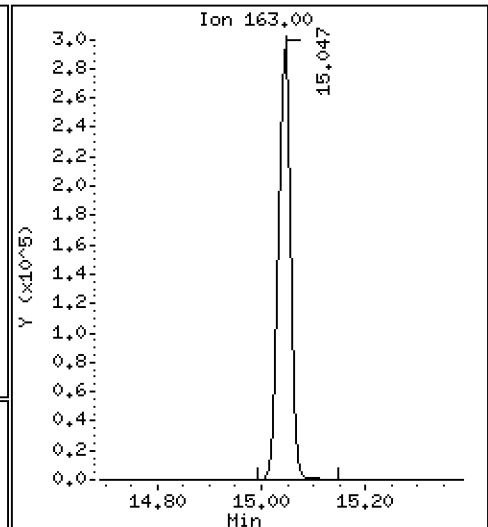
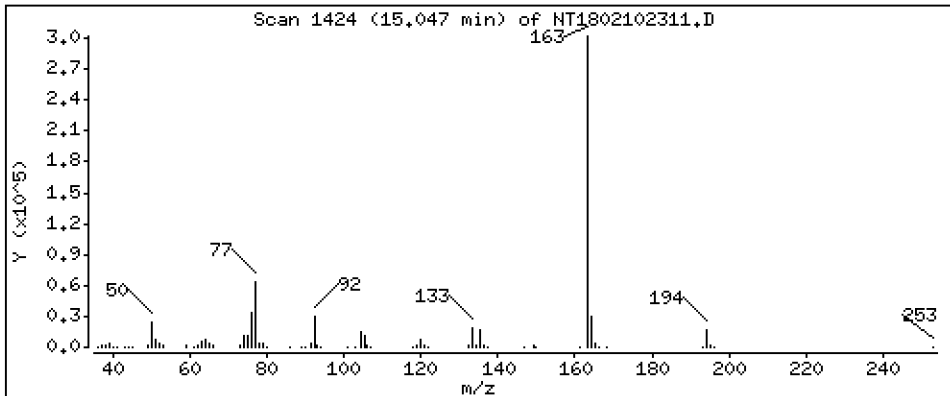
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,546 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

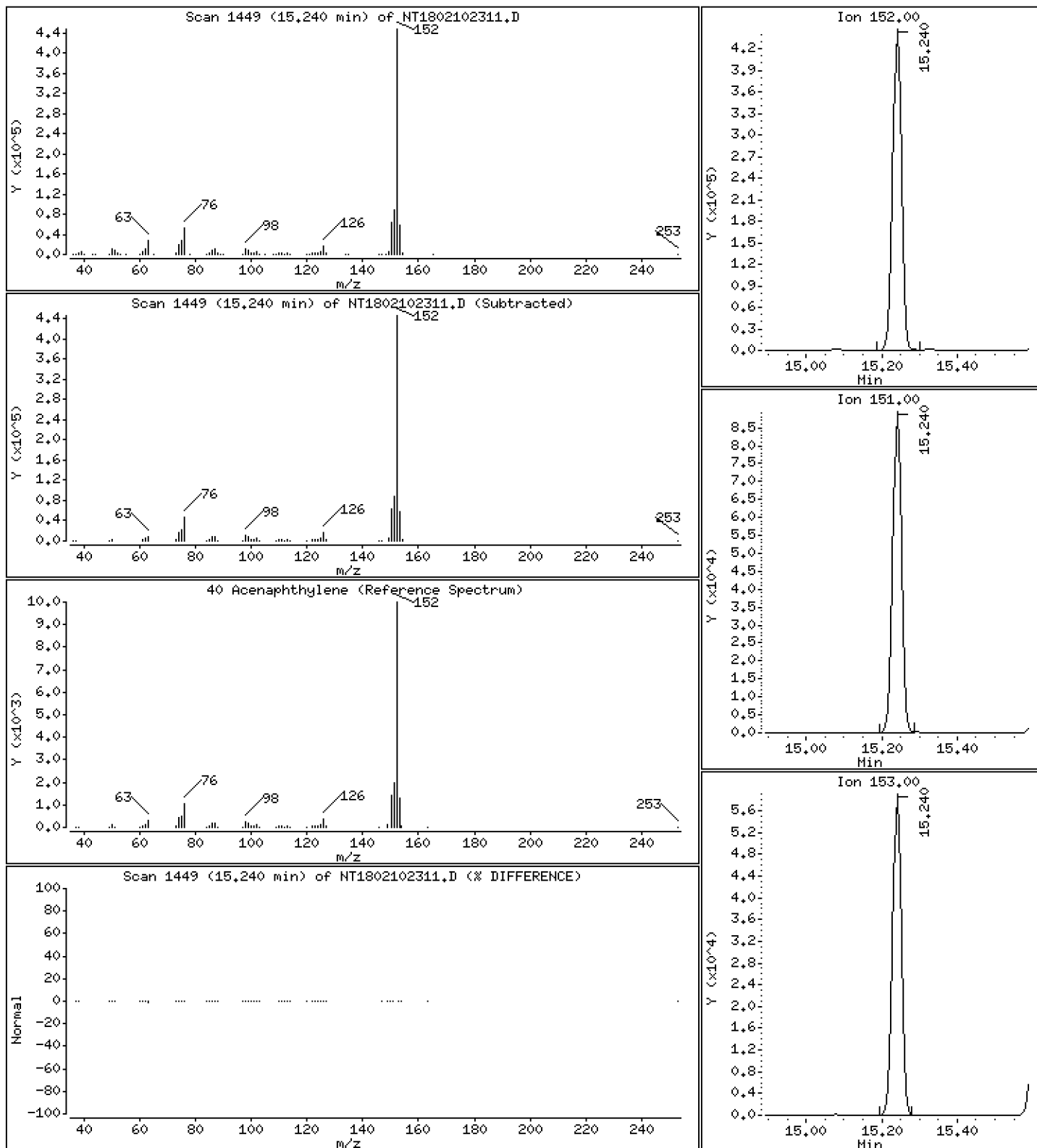
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 4,678 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

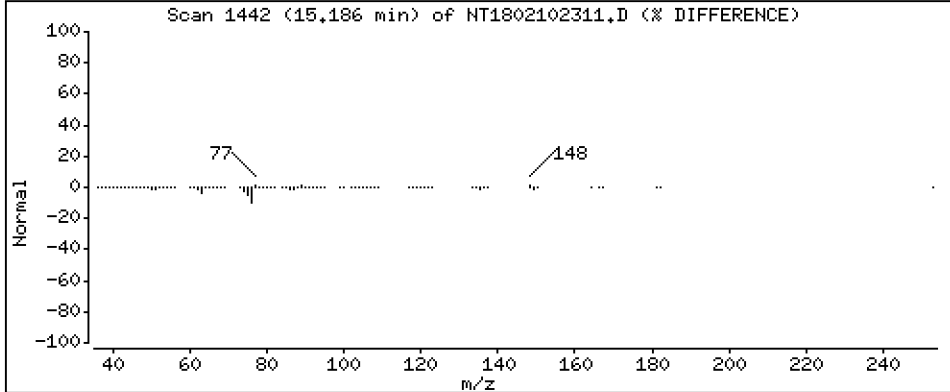
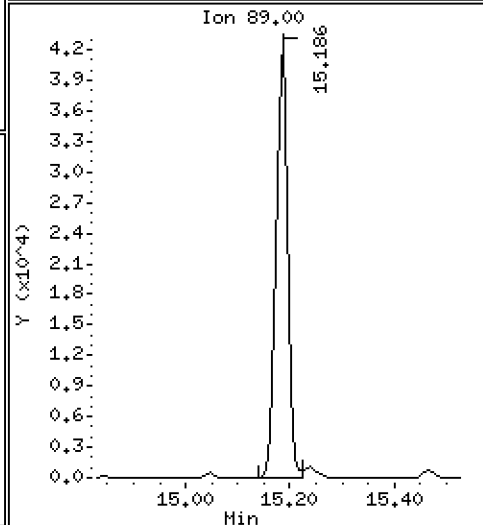
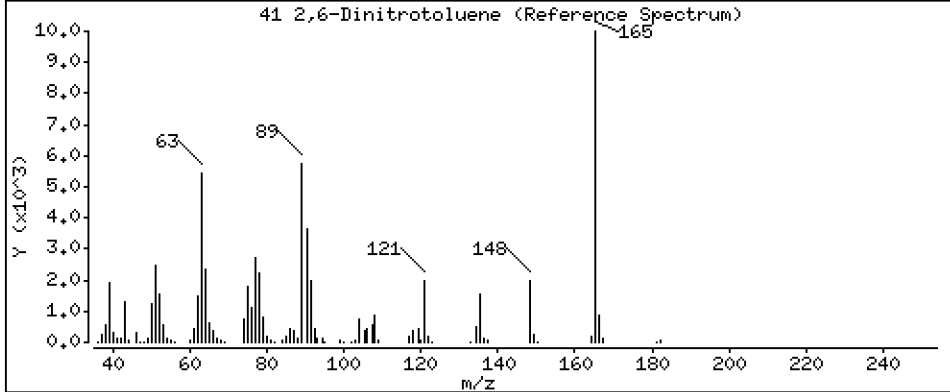
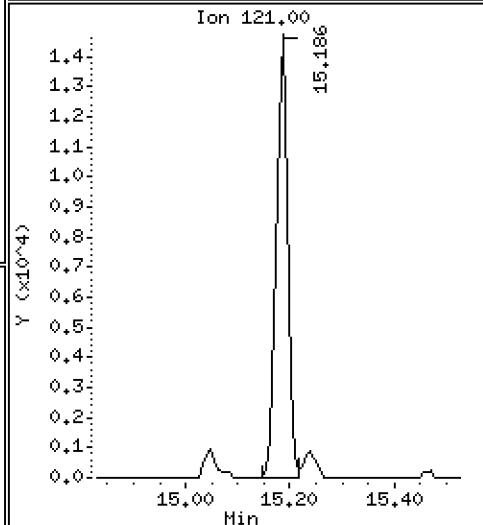
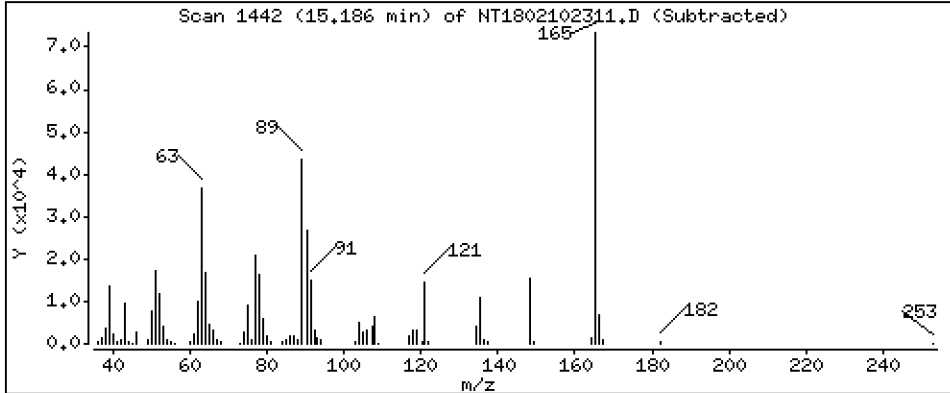
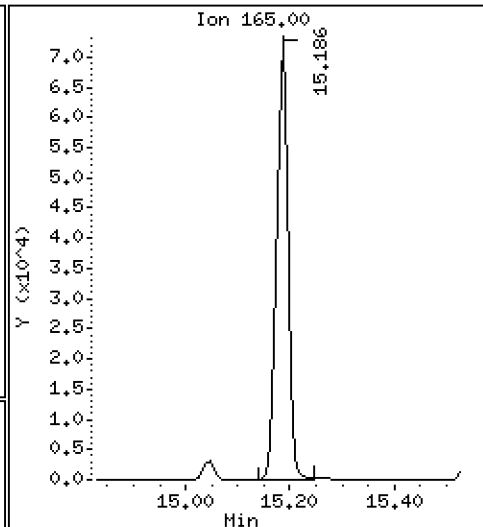
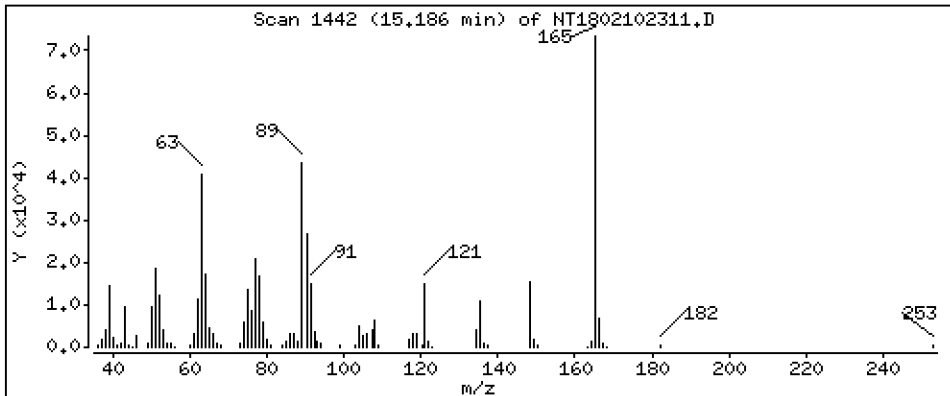
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 4,560 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

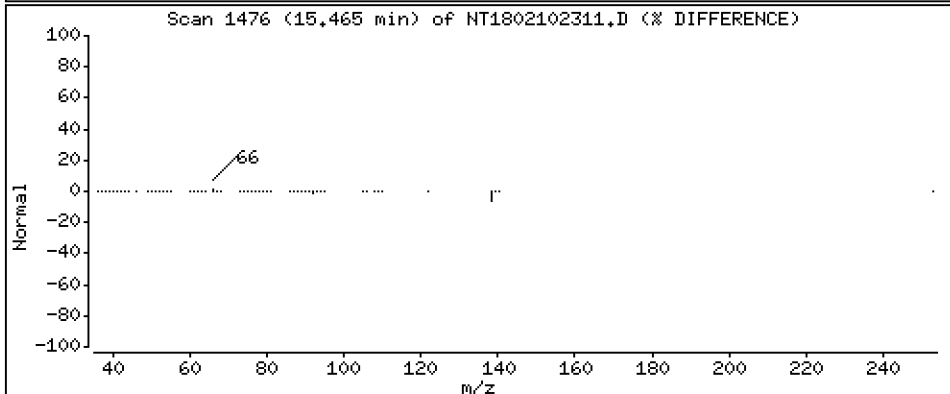
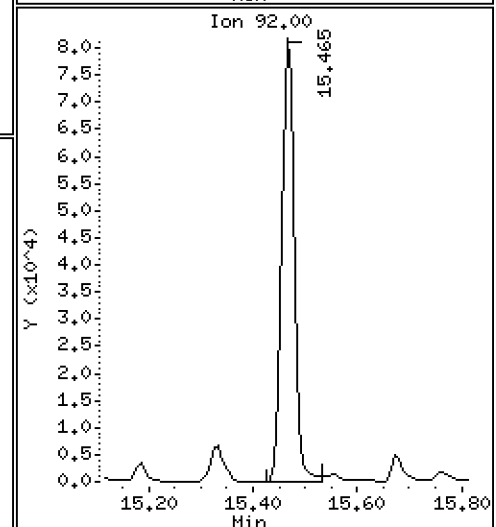
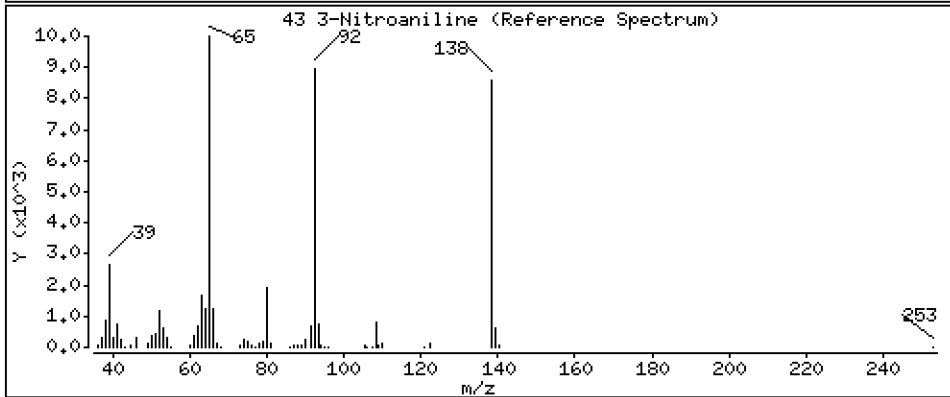
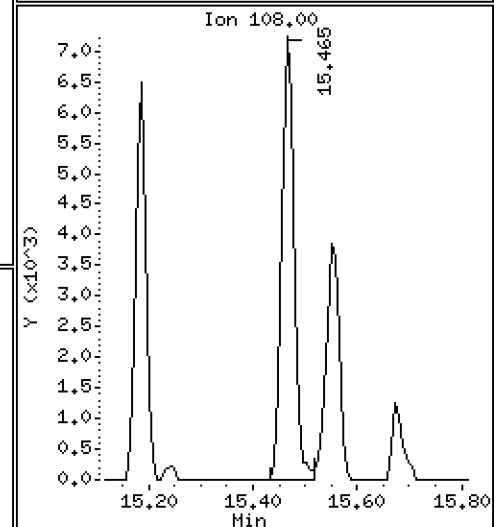
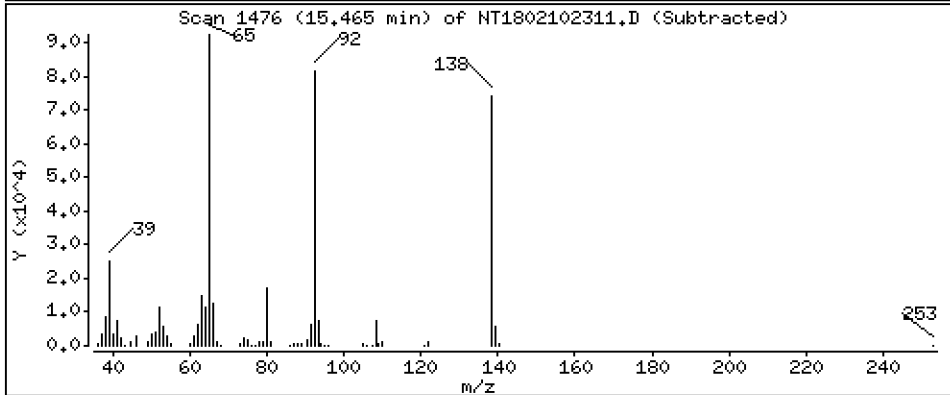
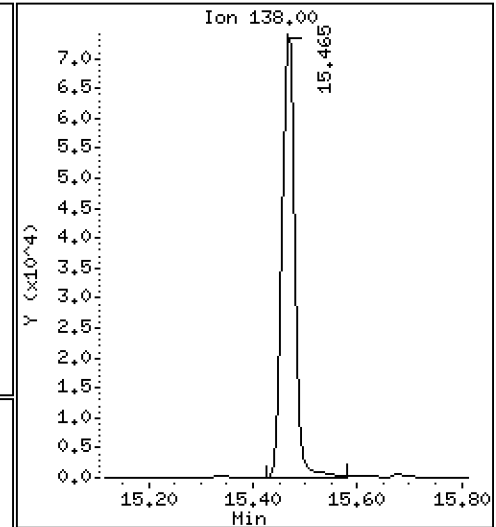
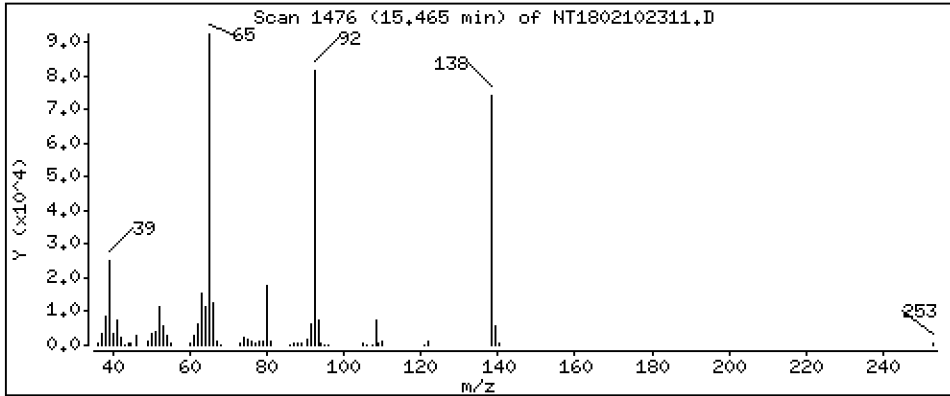
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 4,651 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

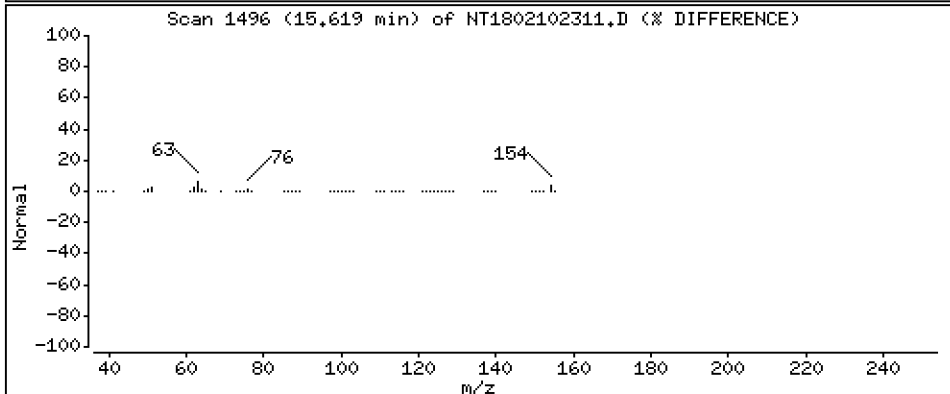
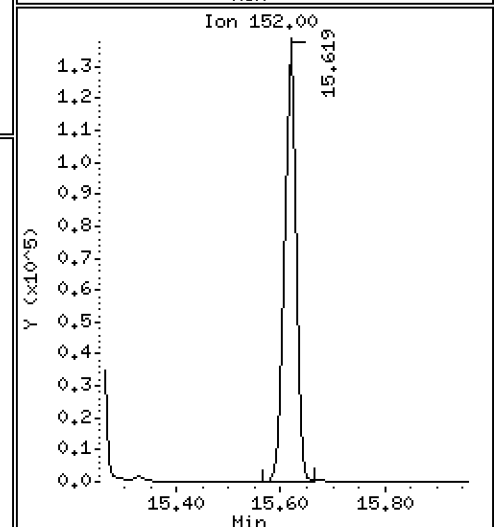
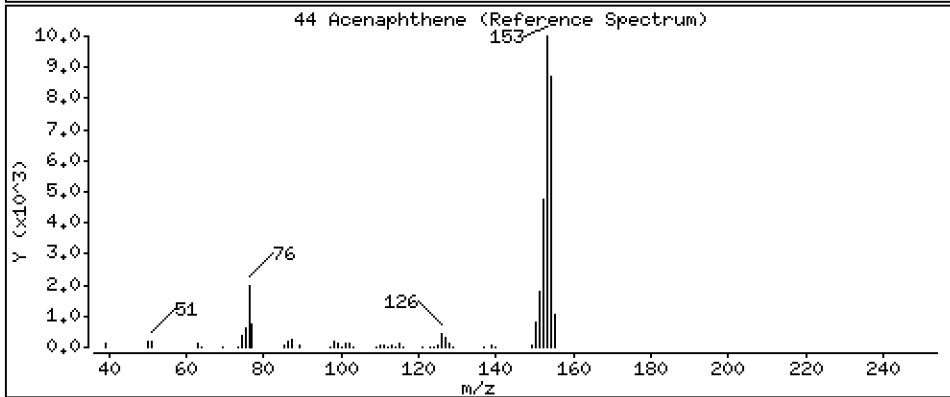
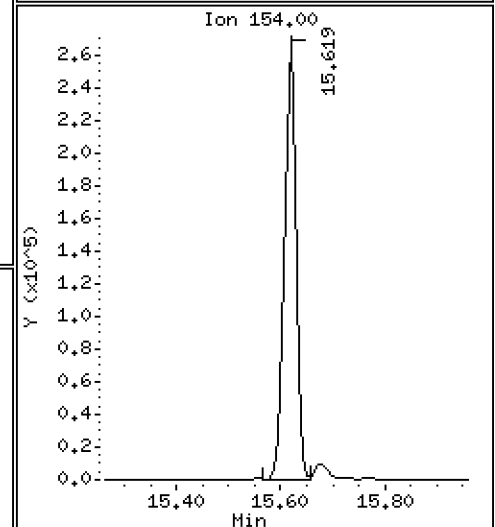
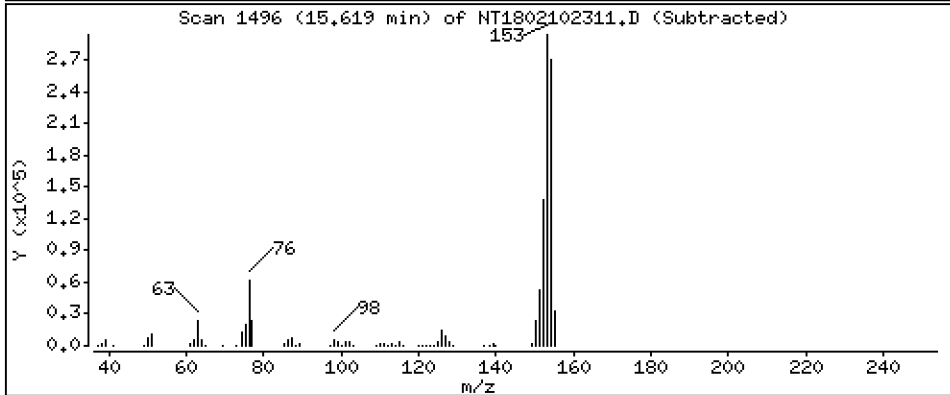
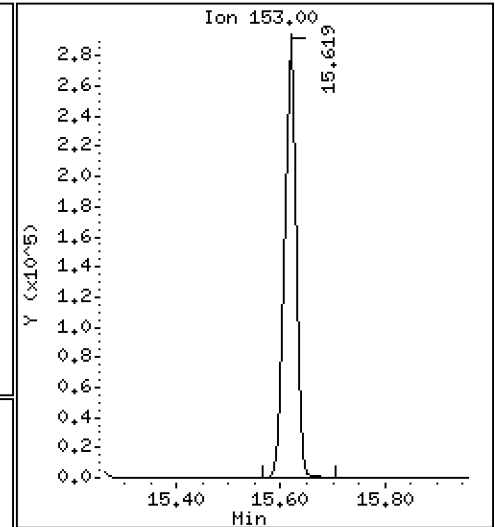
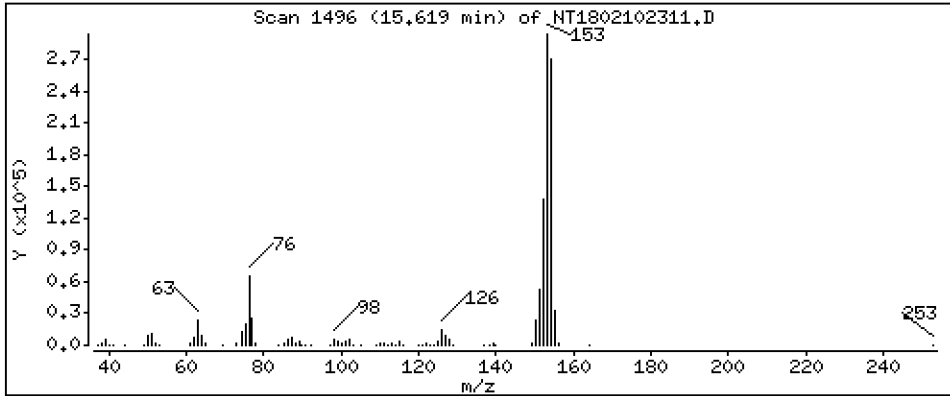
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,402 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

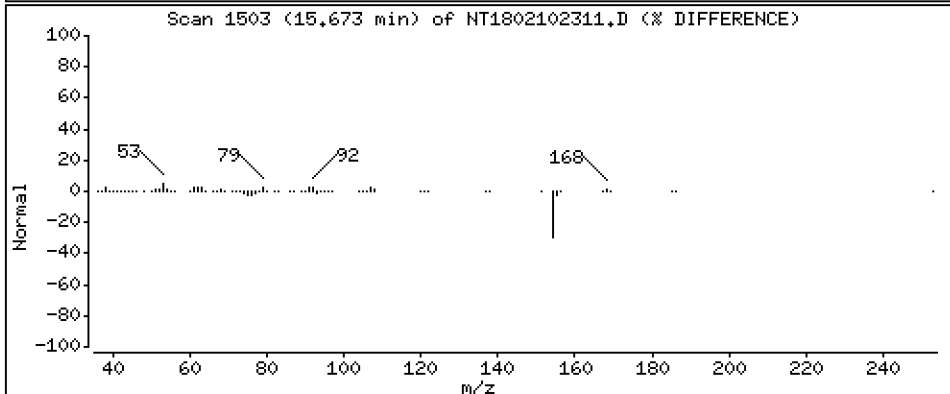
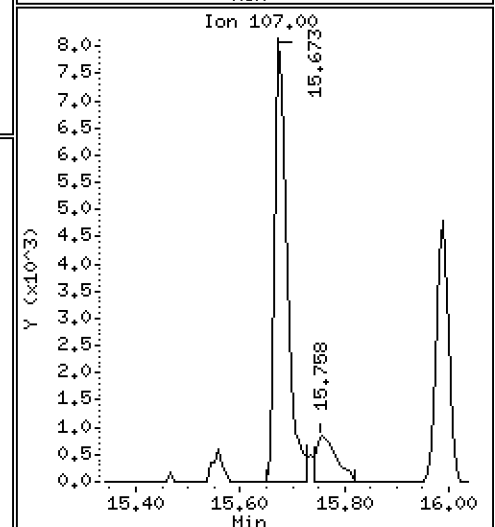
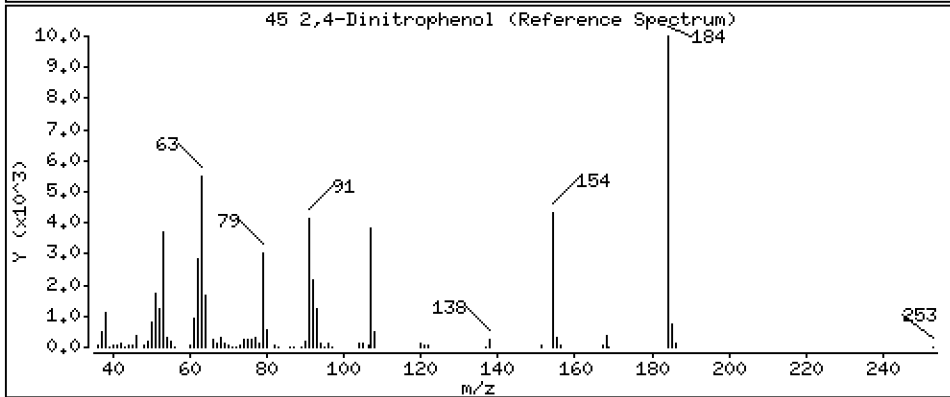
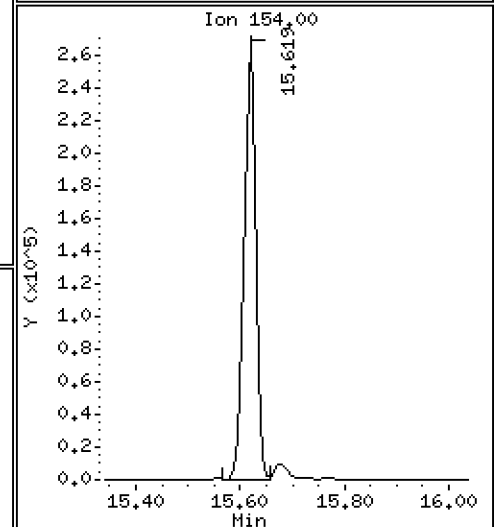
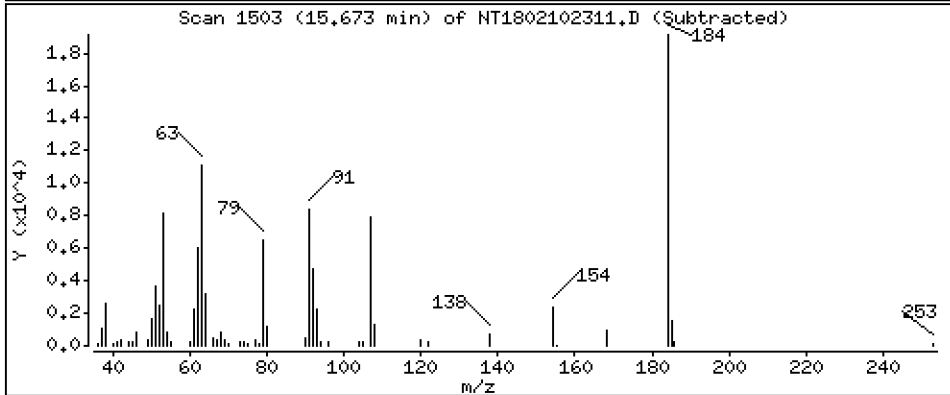
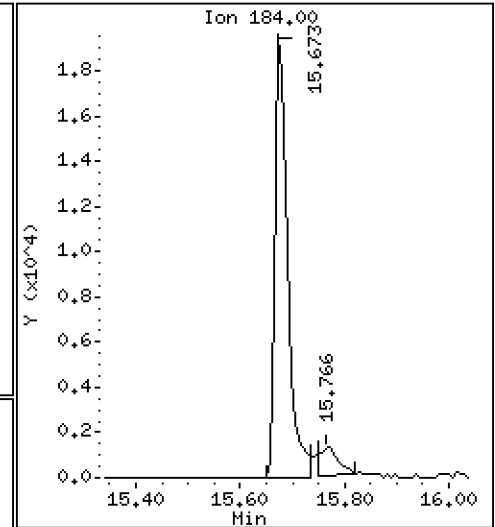
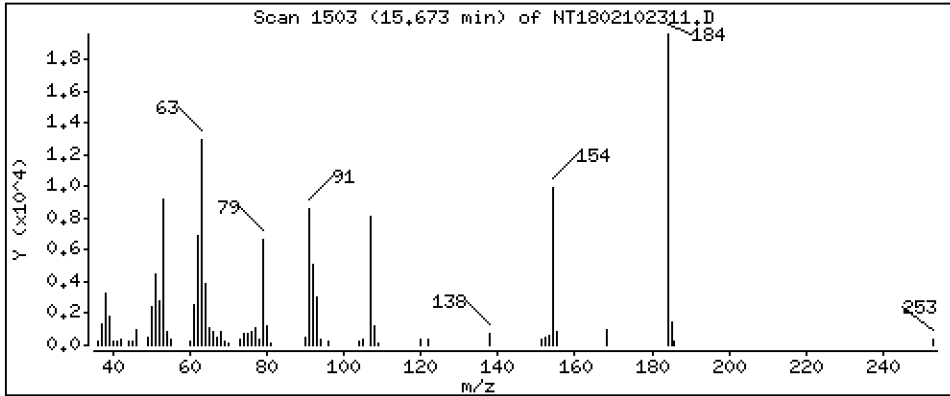
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 1,936 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

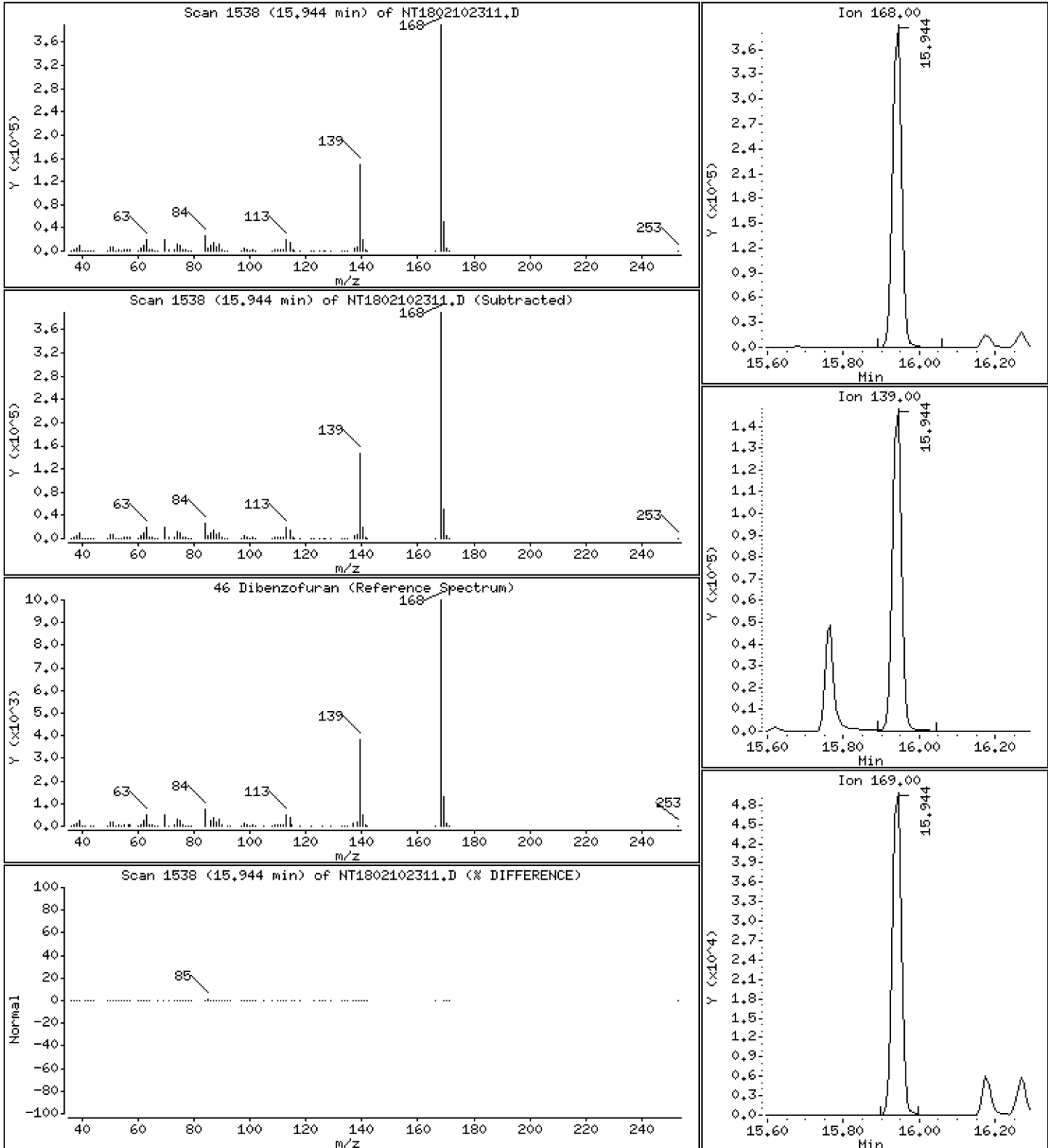
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 4,247 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

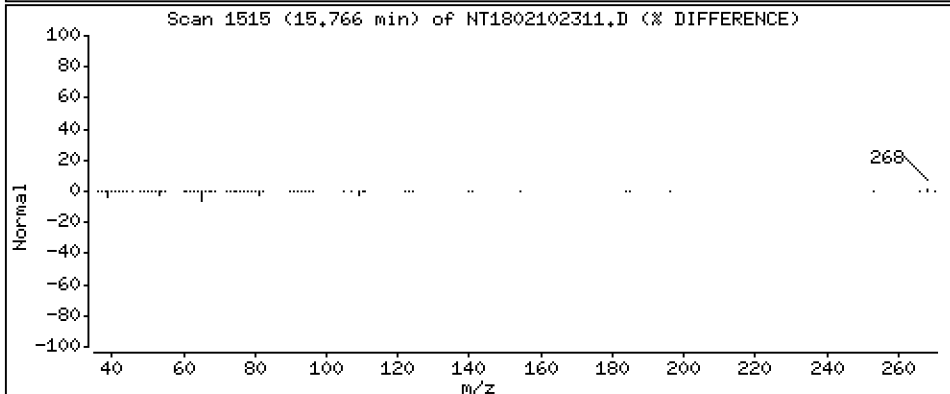
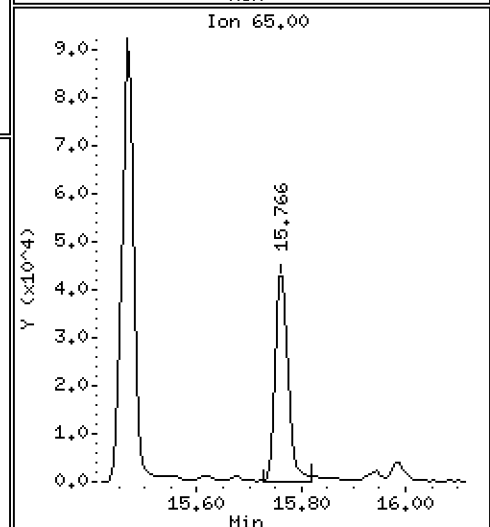
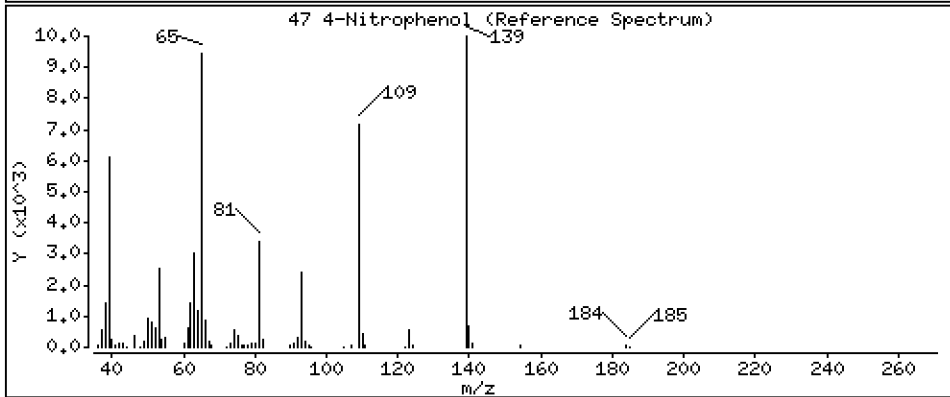
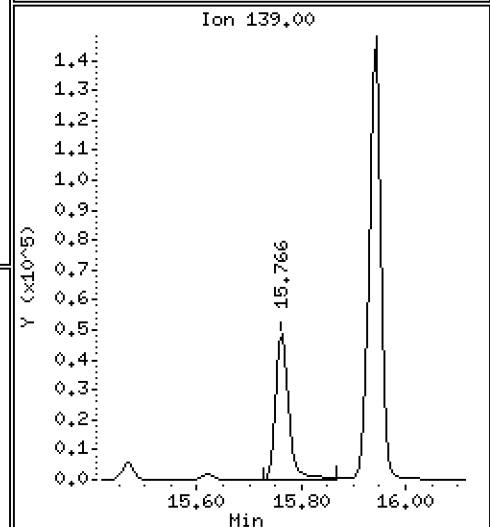
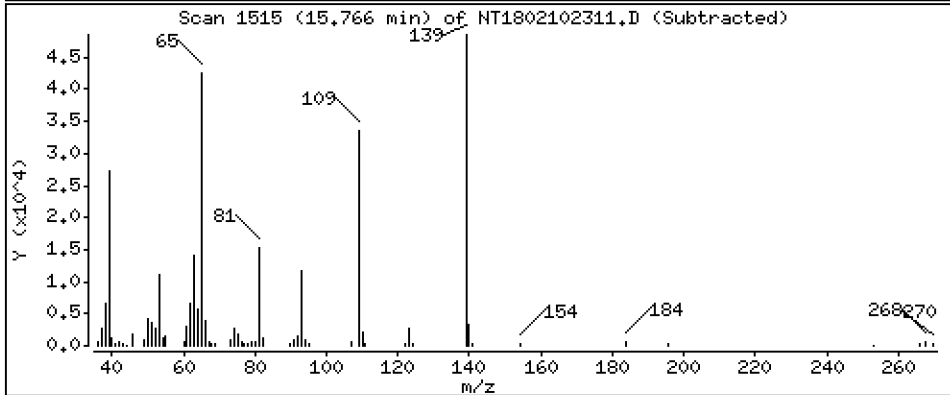
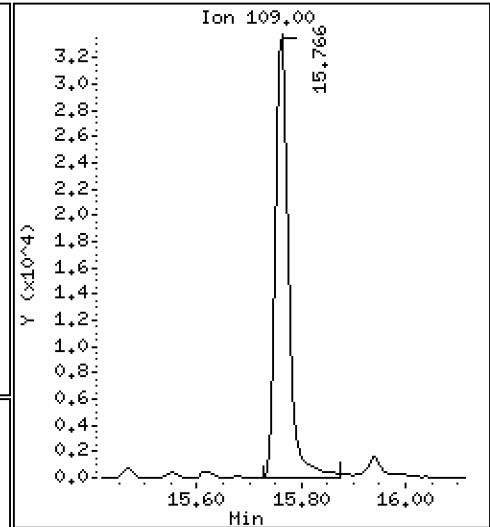
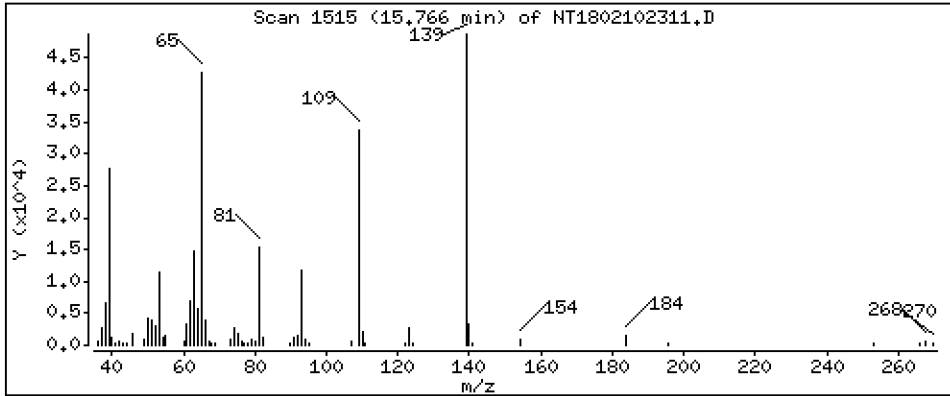
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 3,976 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

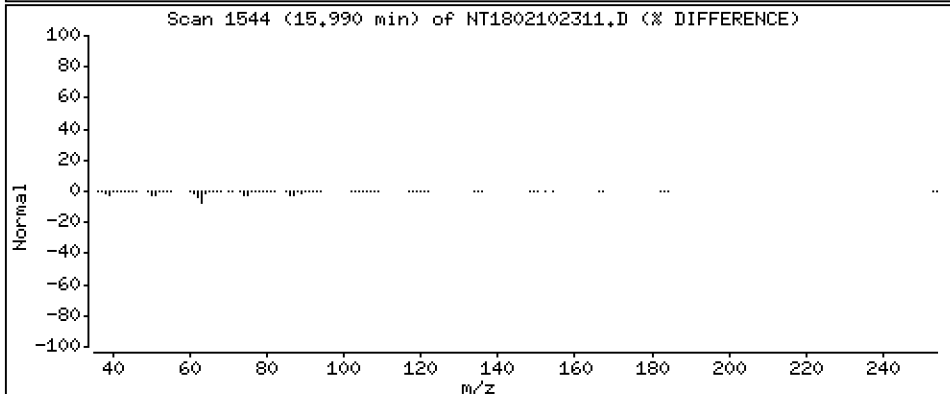
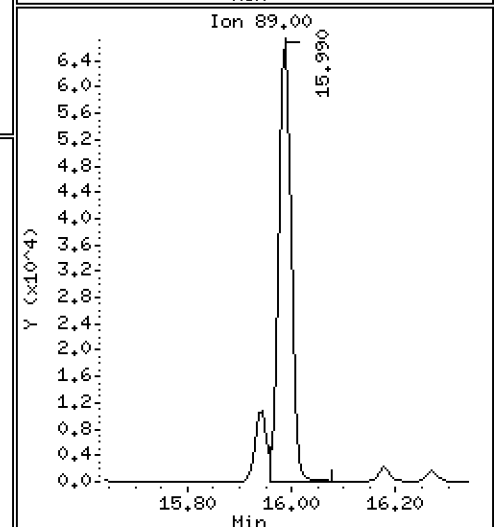
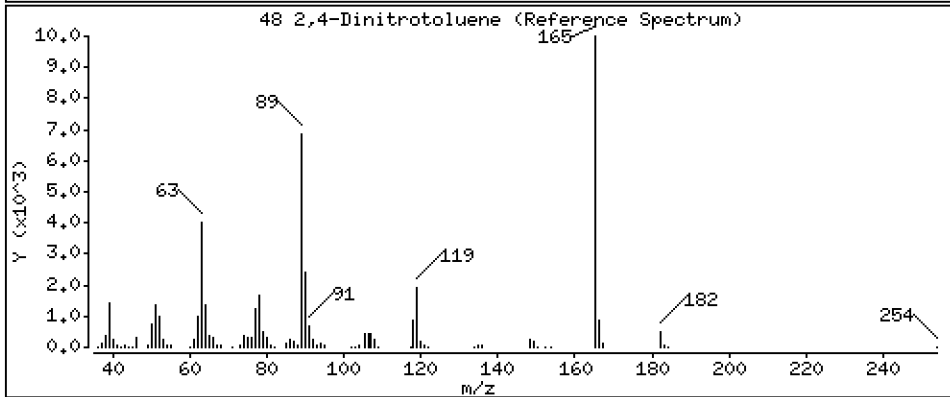
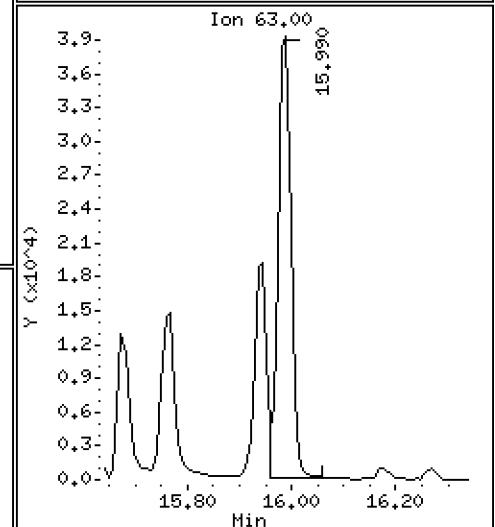
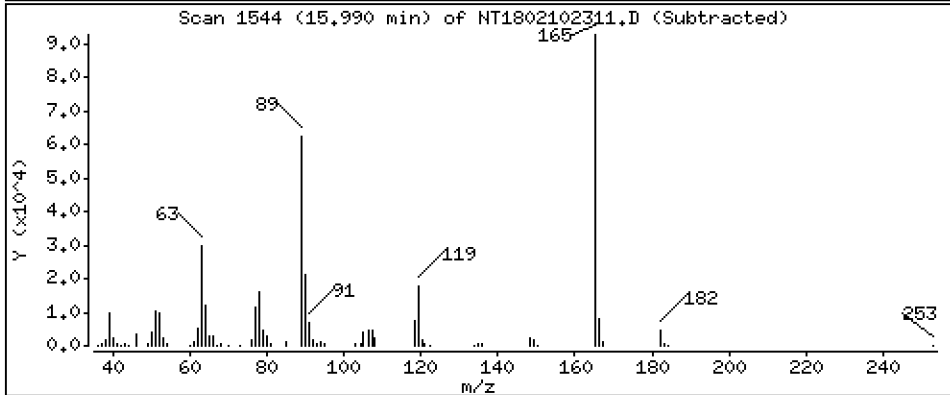
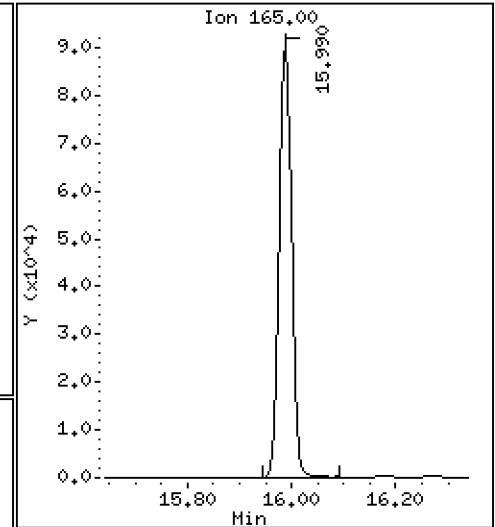
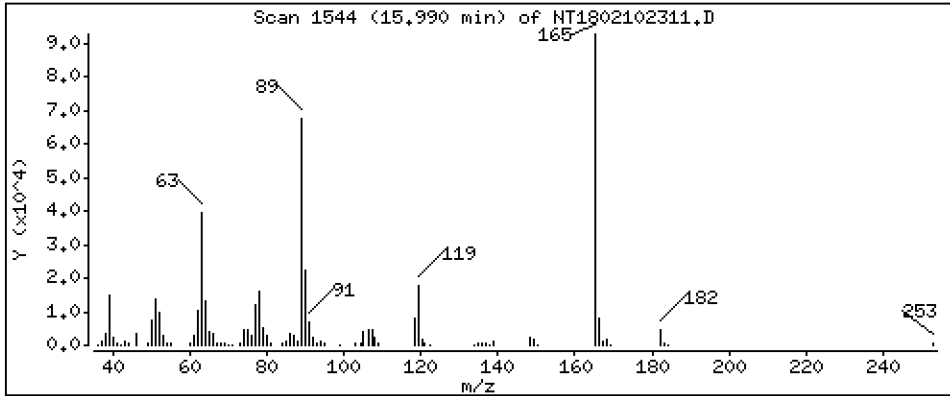
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 4,446 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

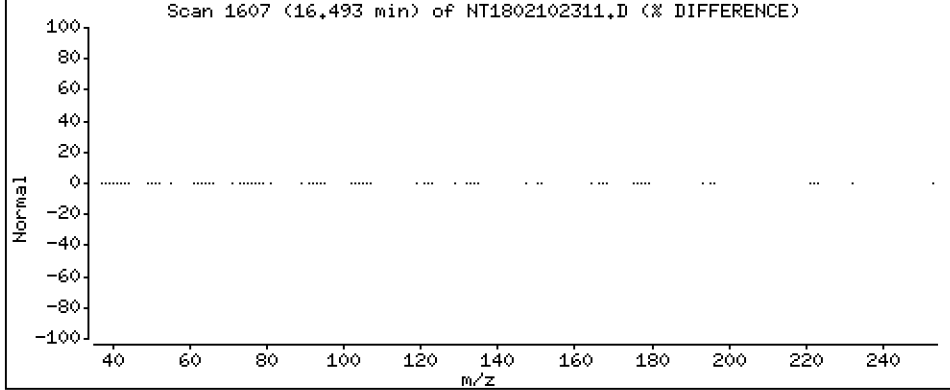
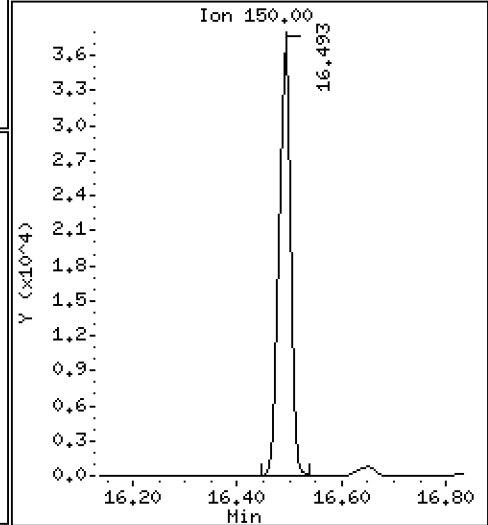
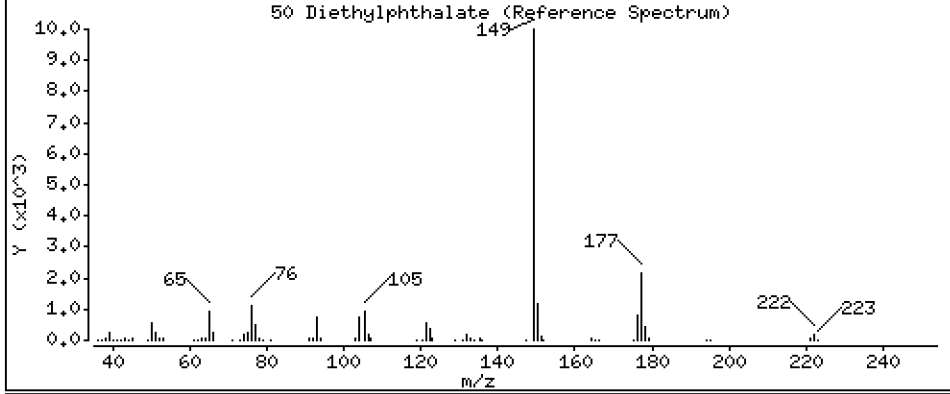
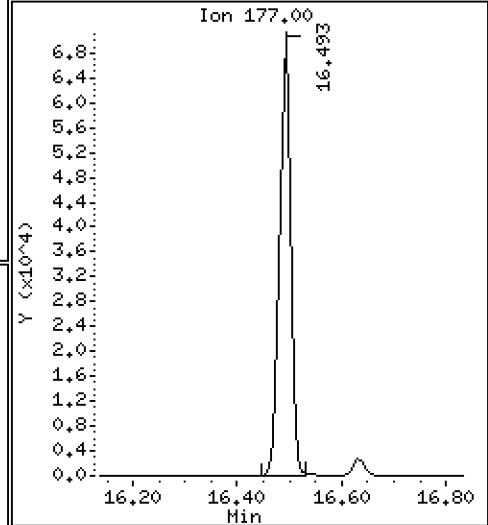
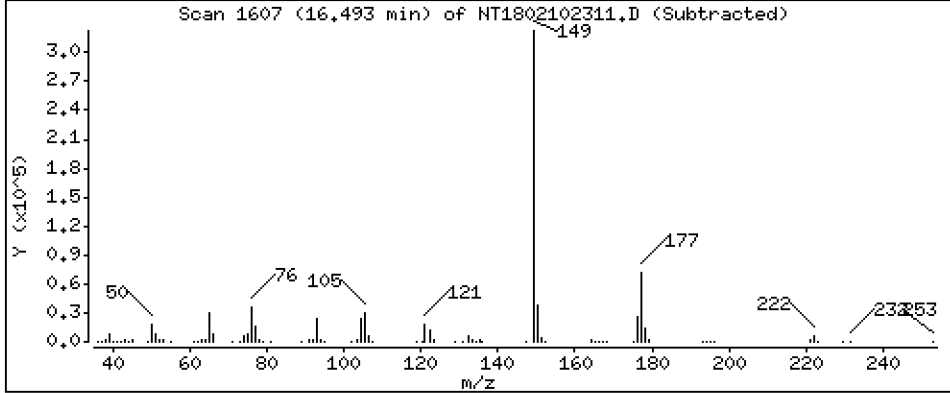
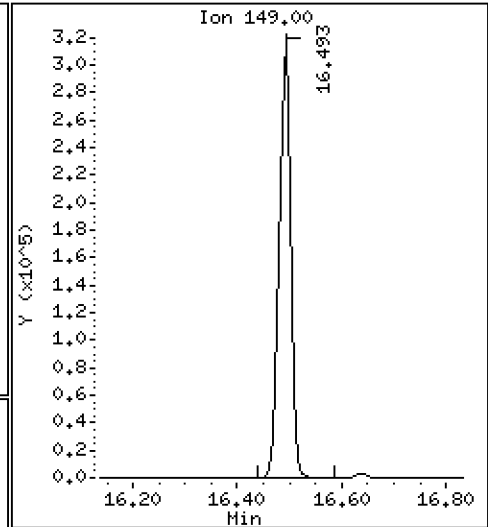
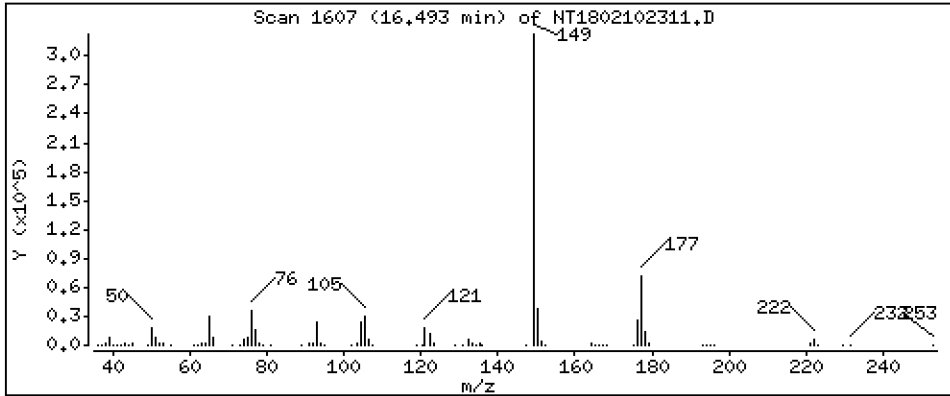
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,062 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

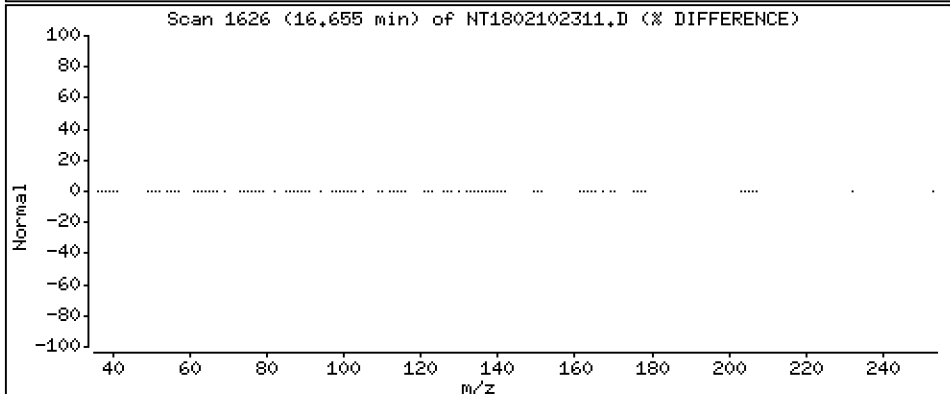
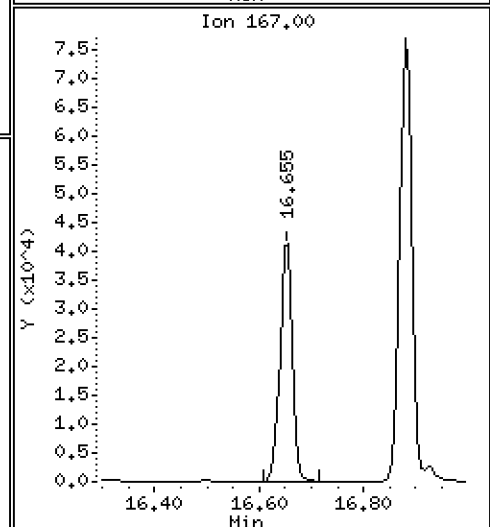
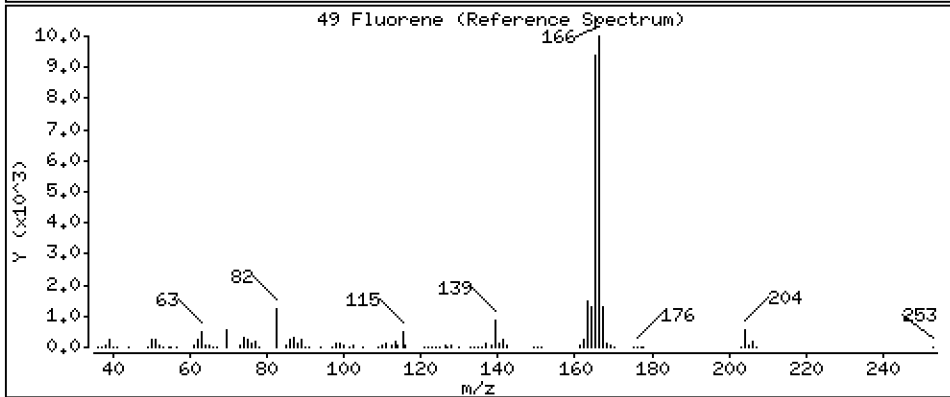
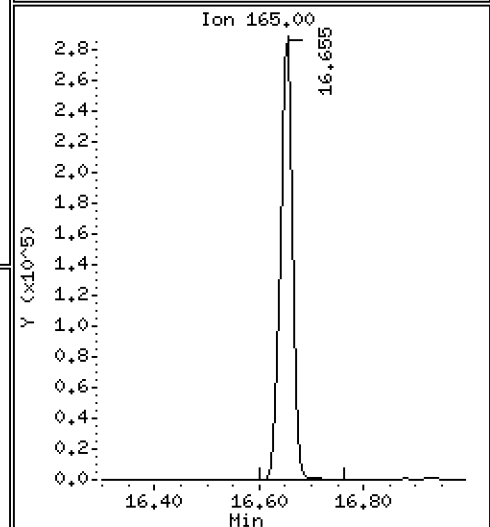
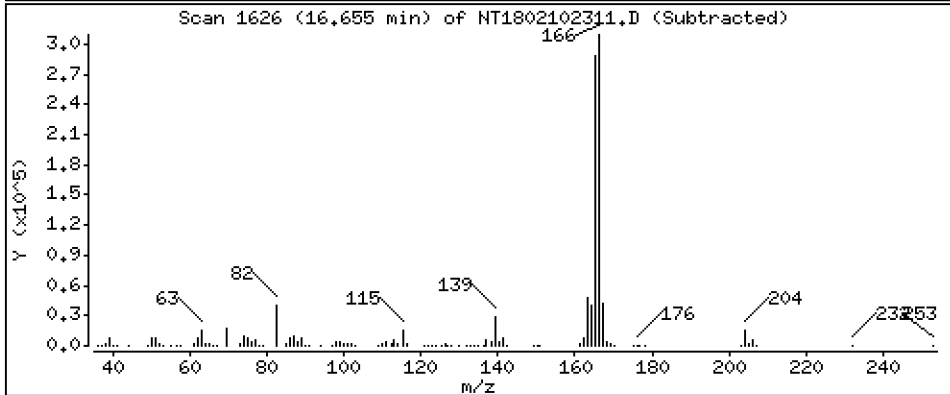
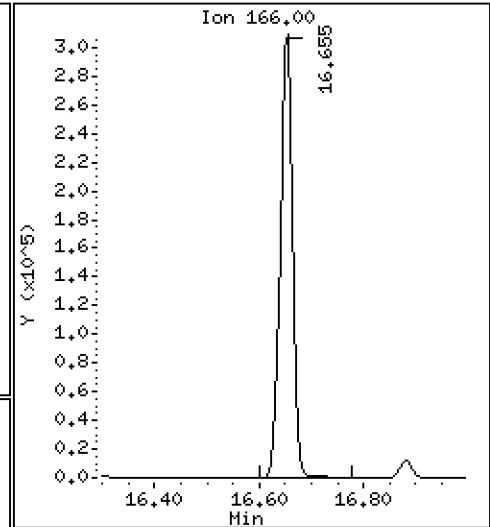
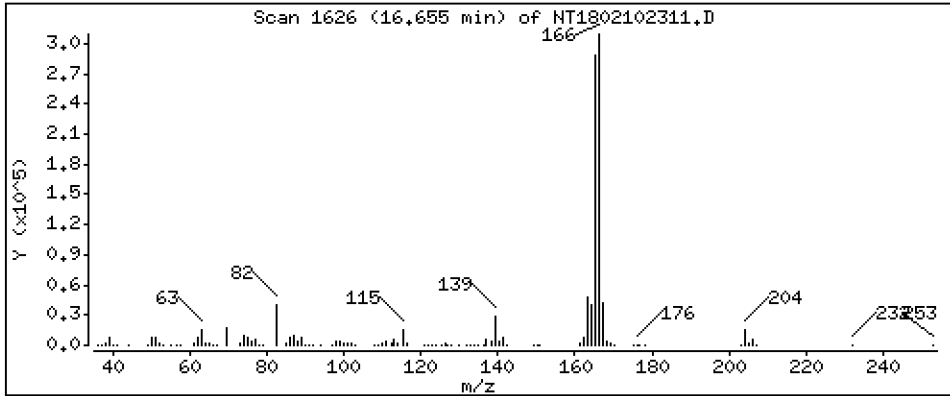
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 4,542 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

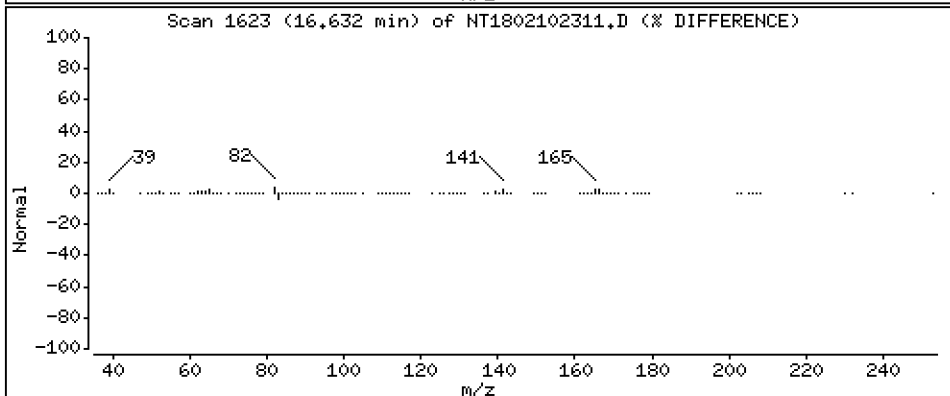
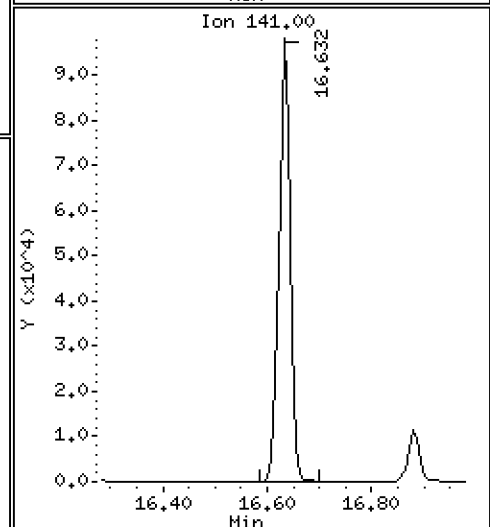
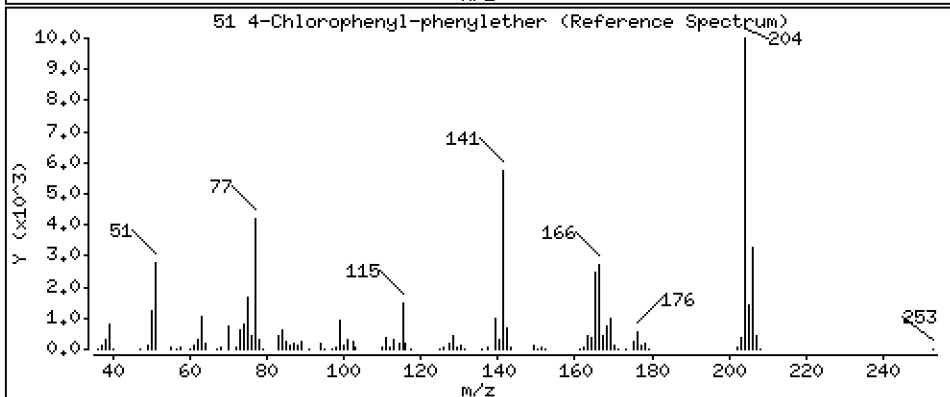
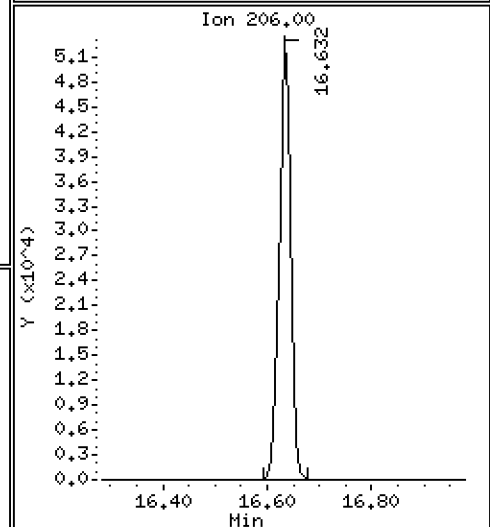
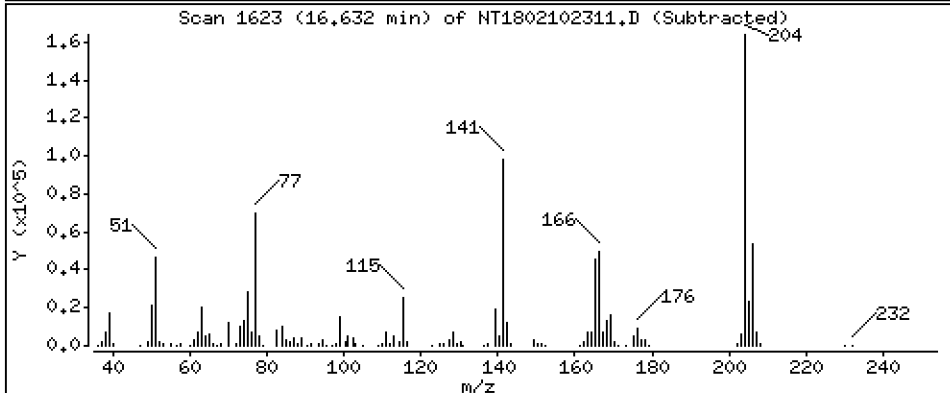
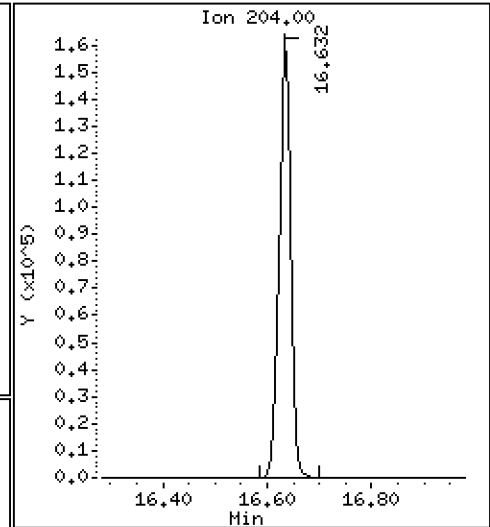
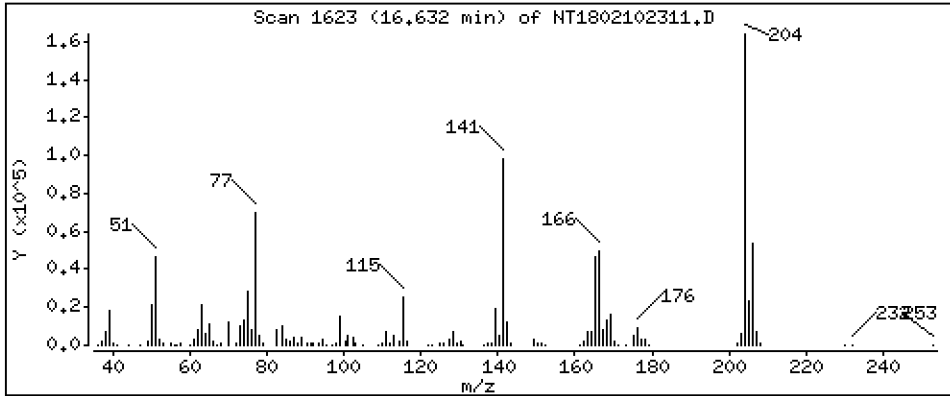
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,339 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

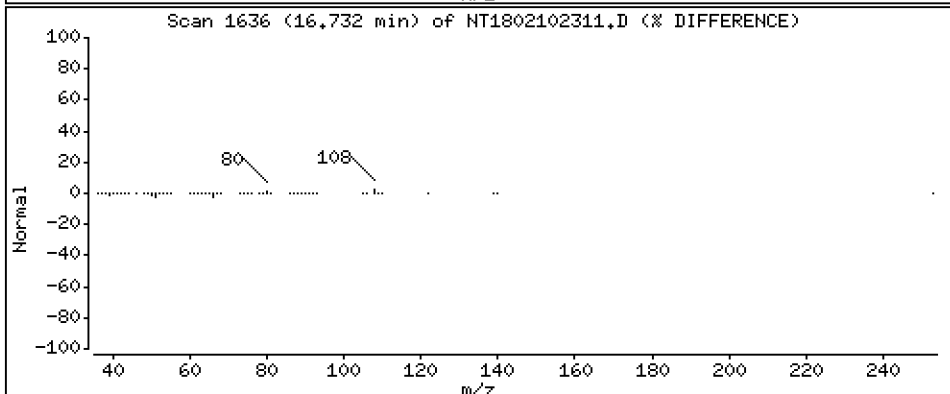
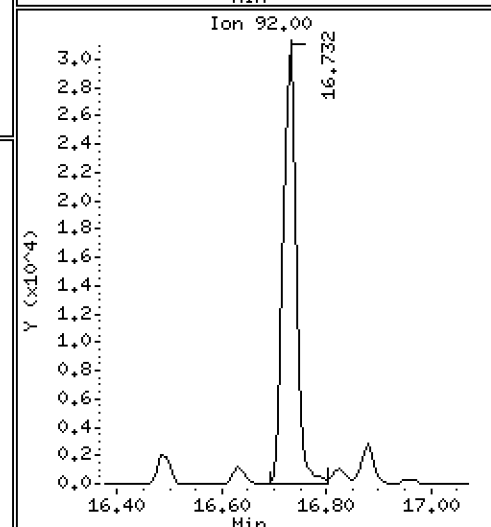
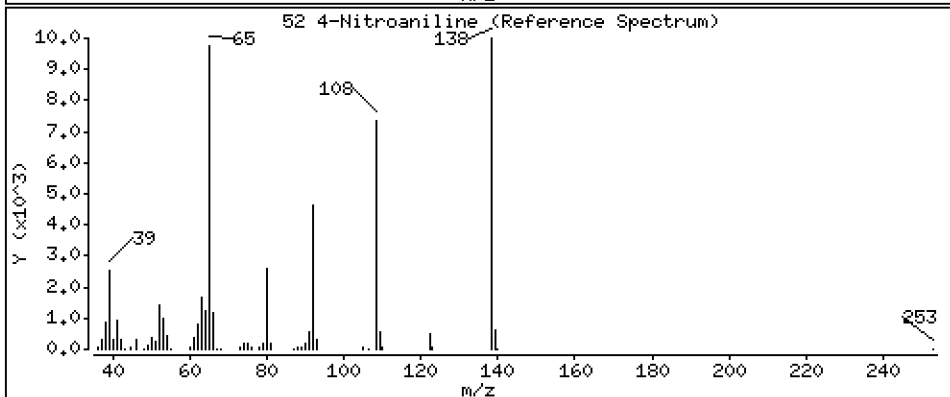
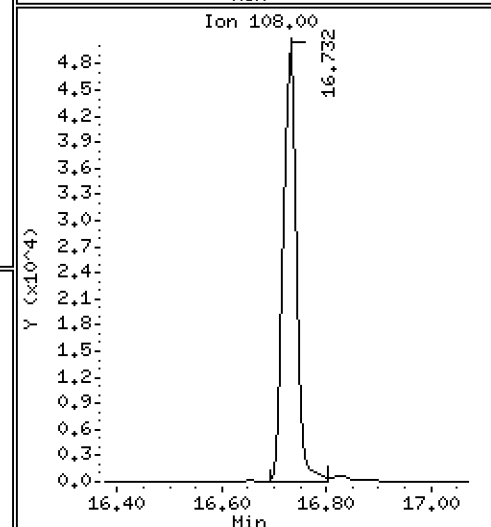
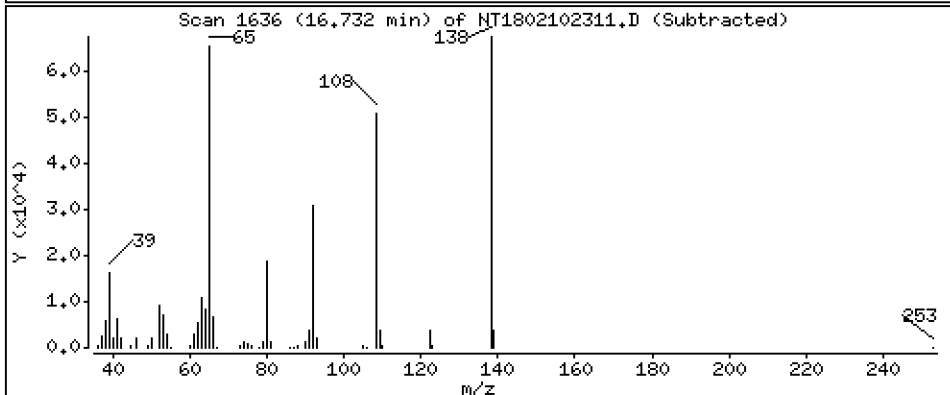
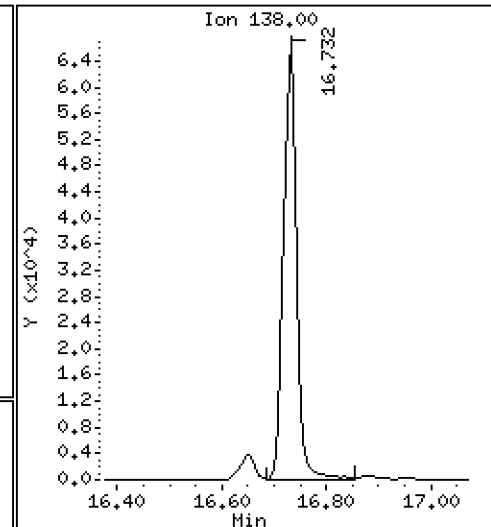
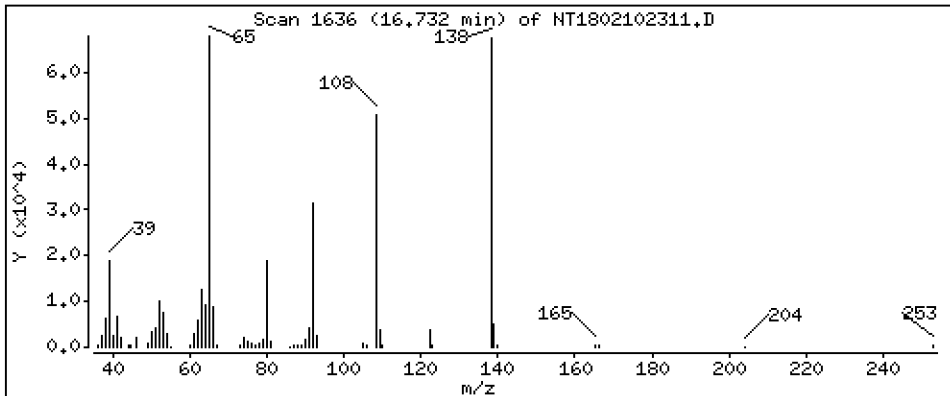
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 4,131 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

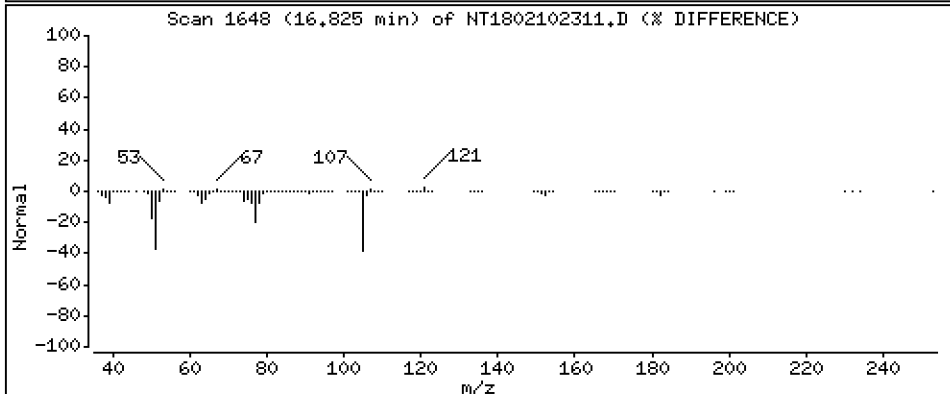
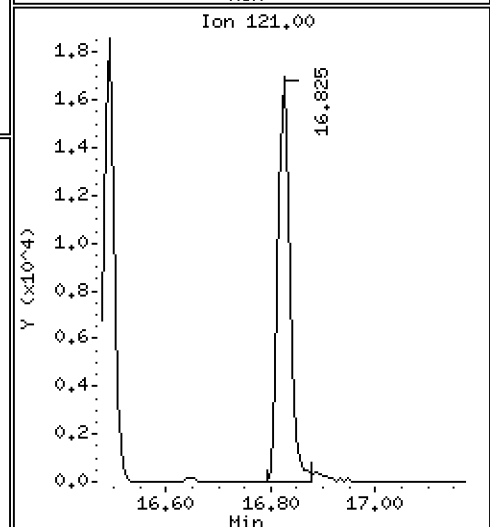
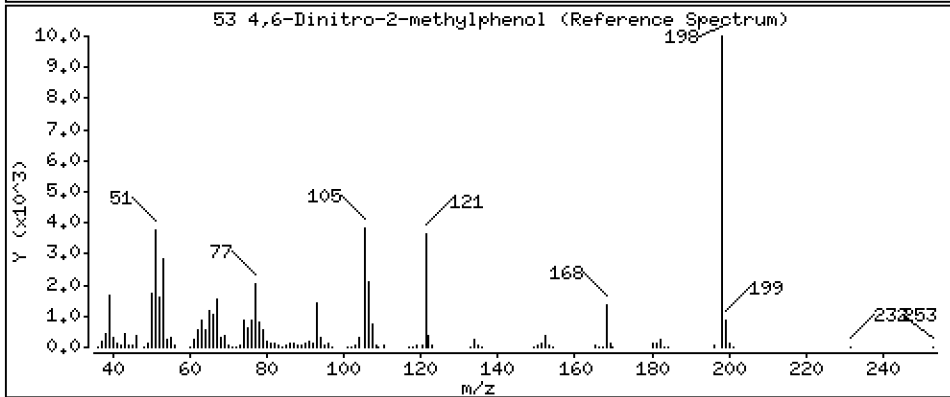
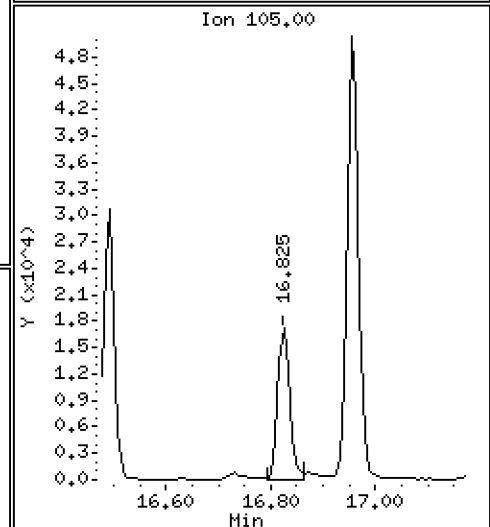
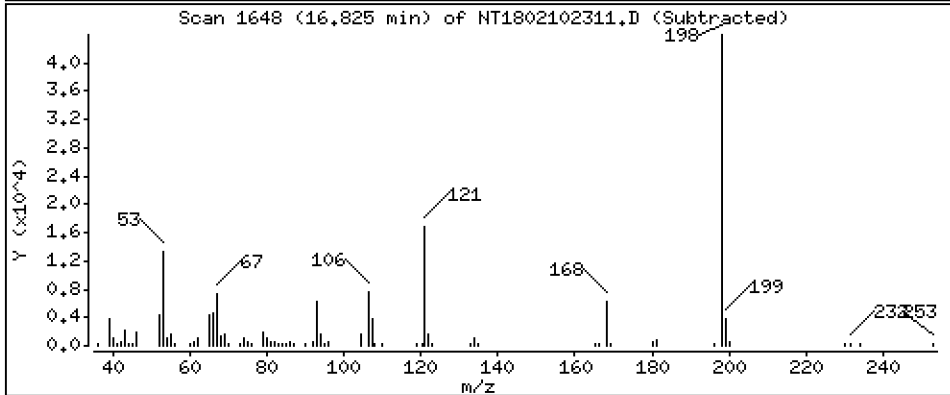
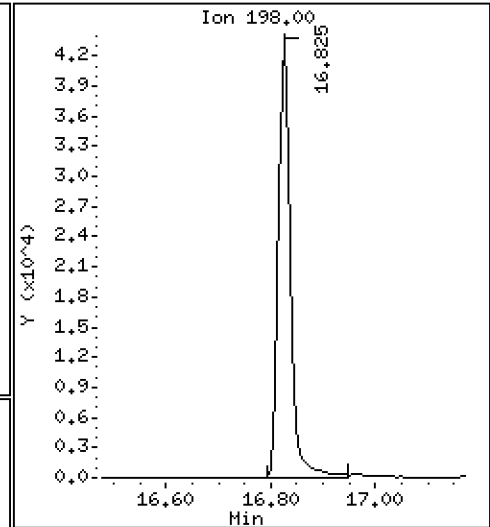
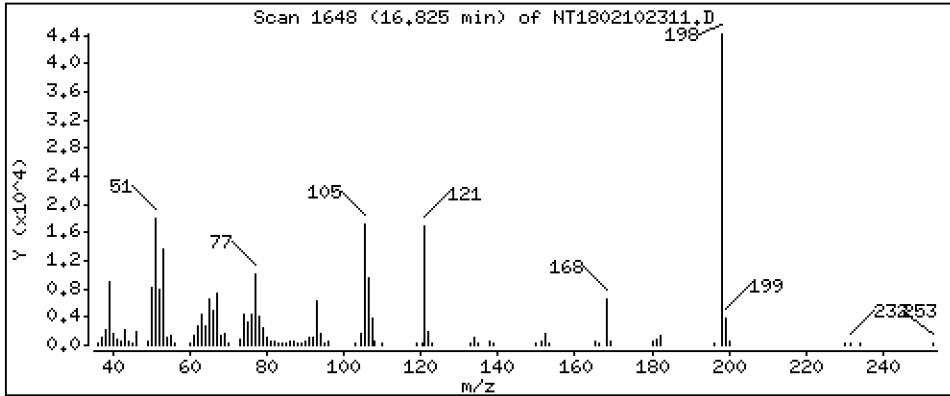
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,301 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

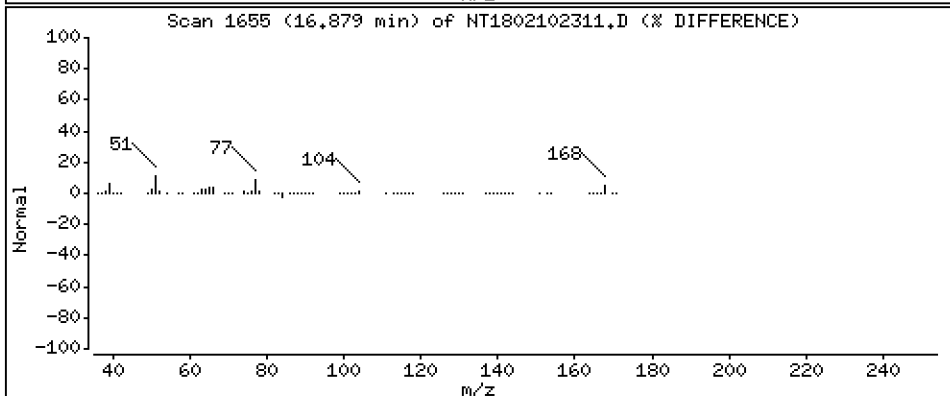
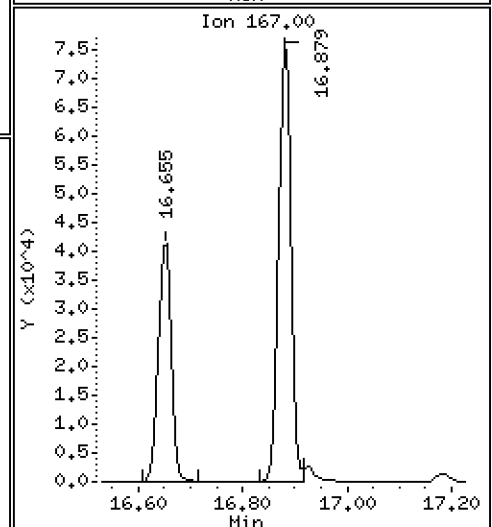
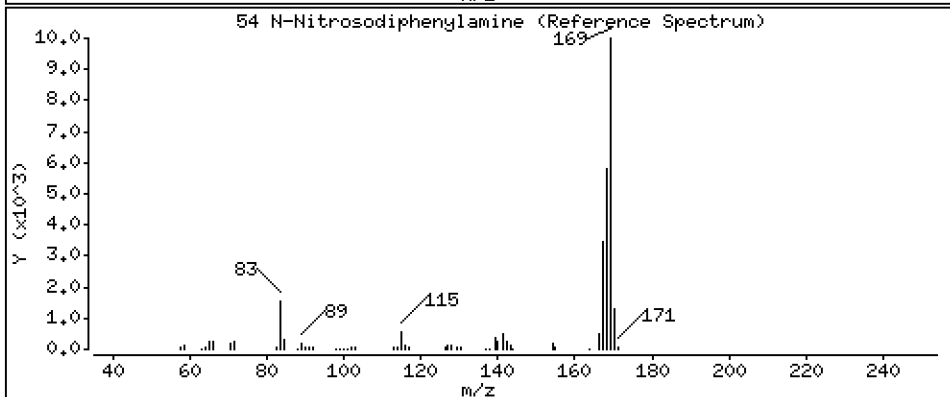
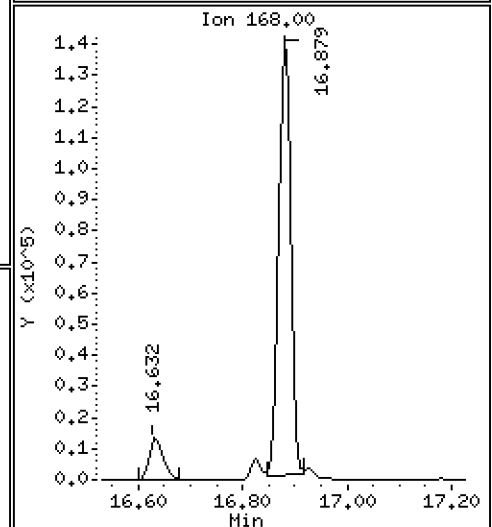
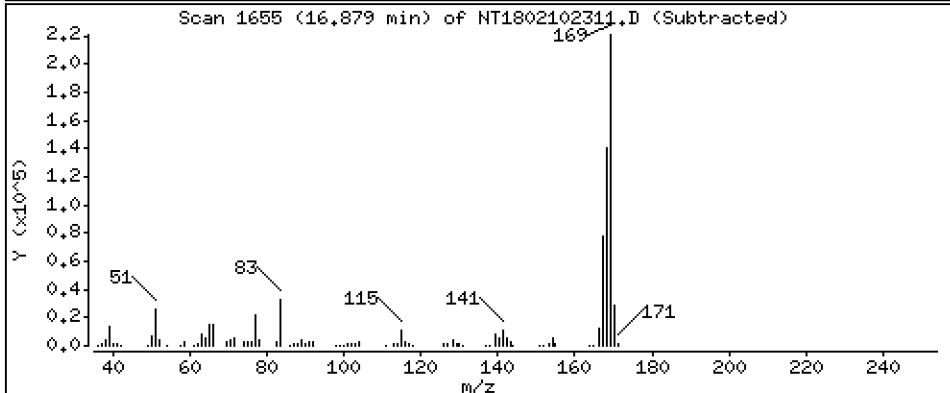
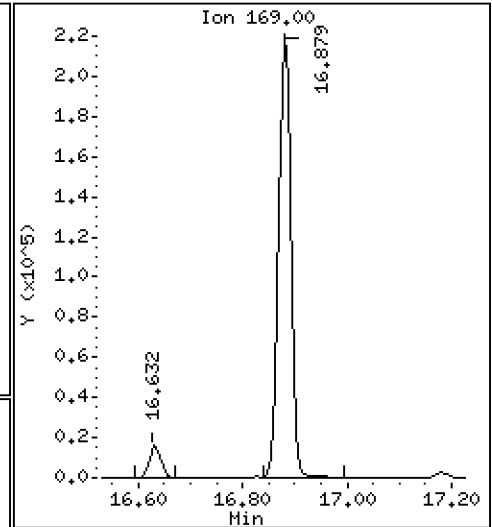
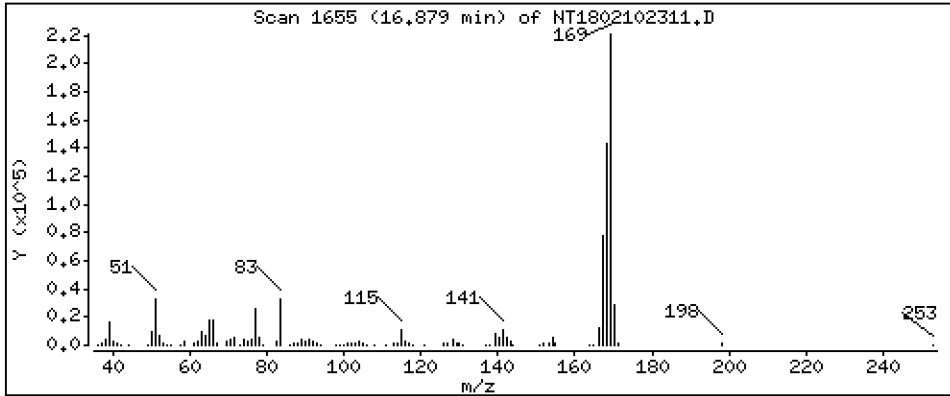
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 4.356 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

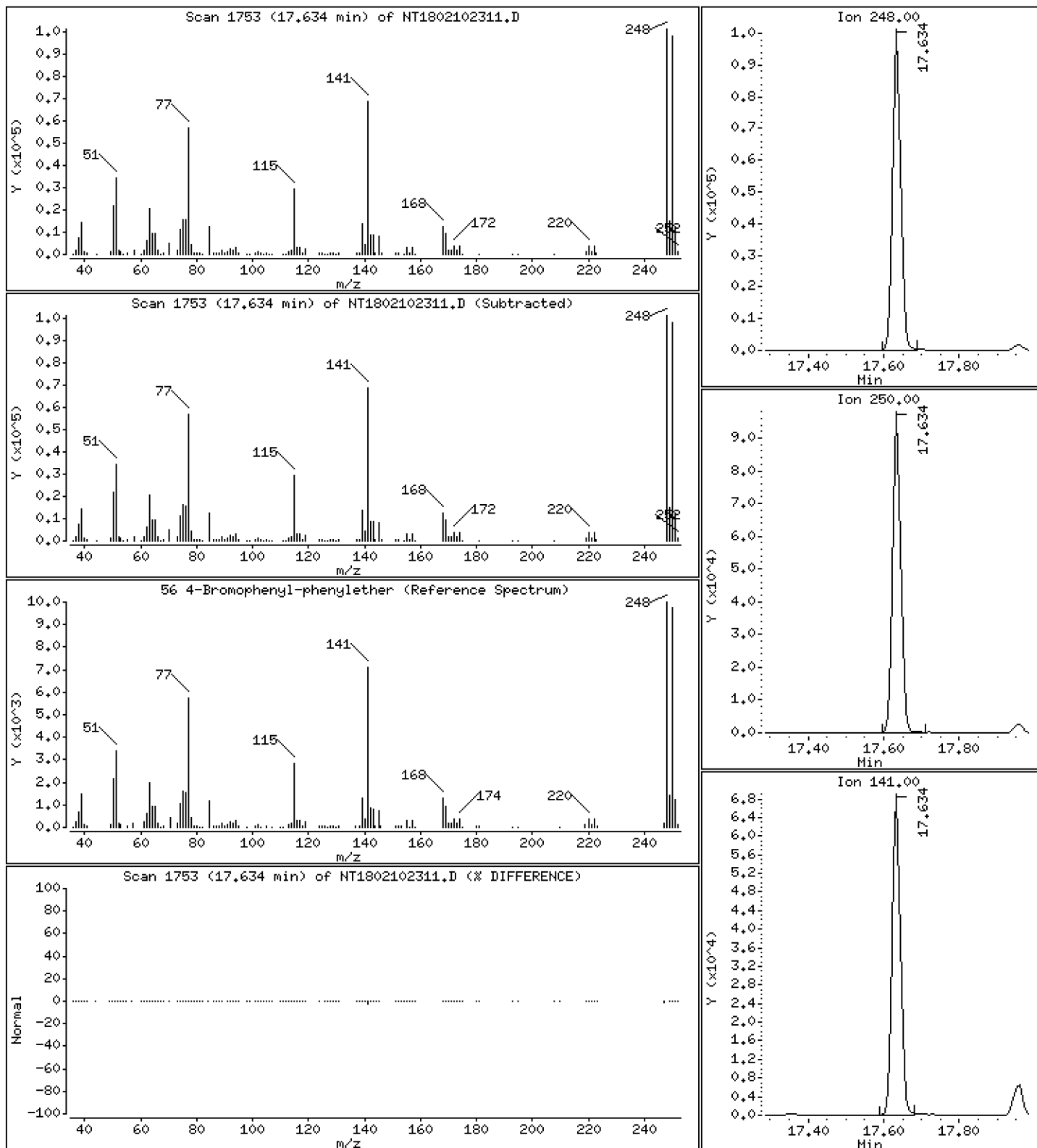
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,464 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

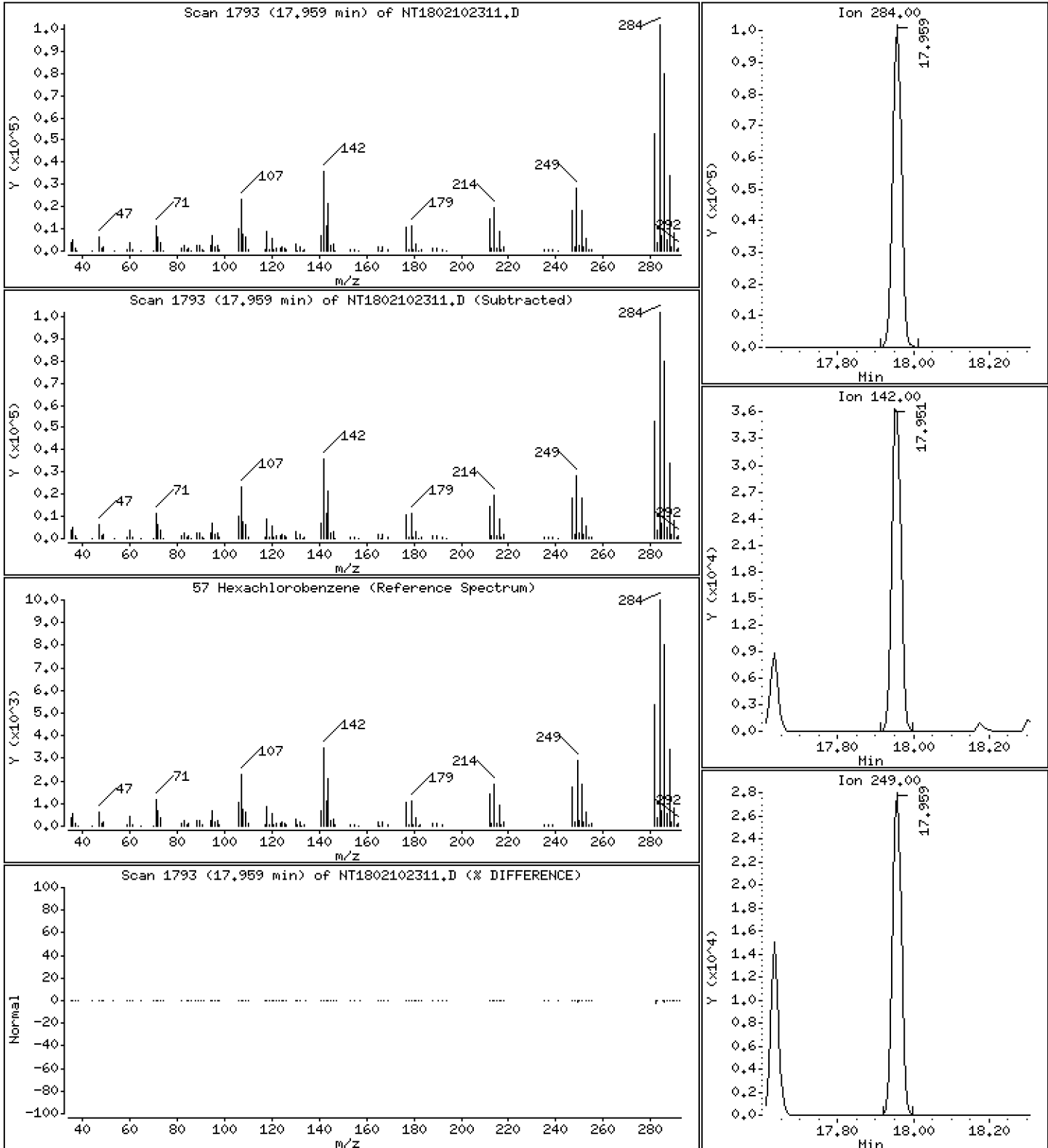
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,085 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

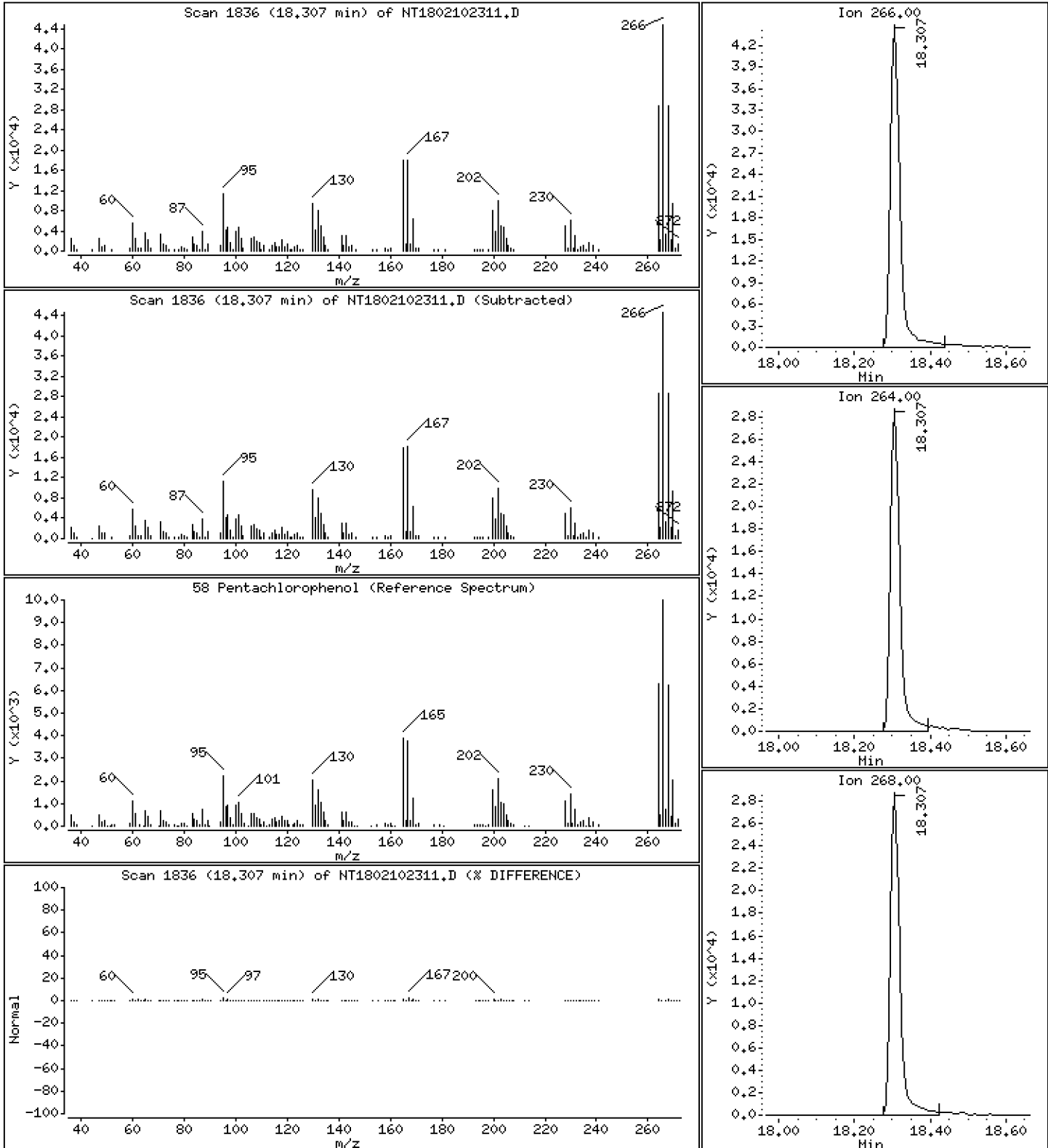
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,507 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

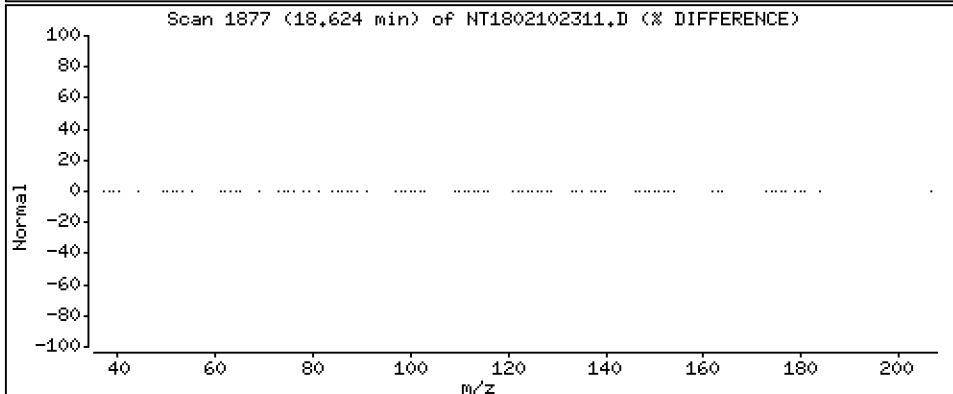
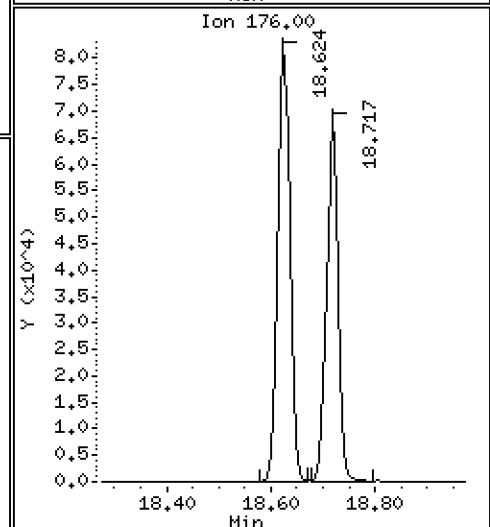
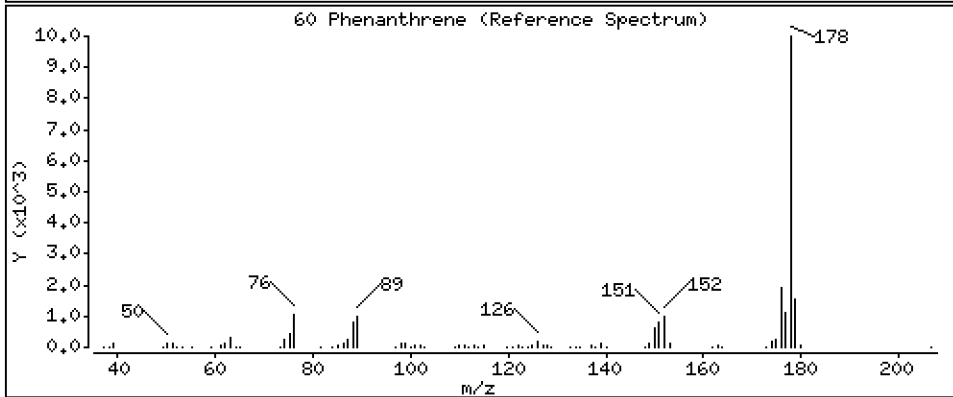
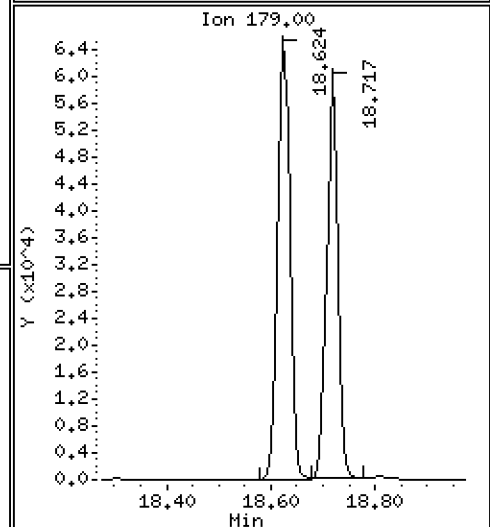
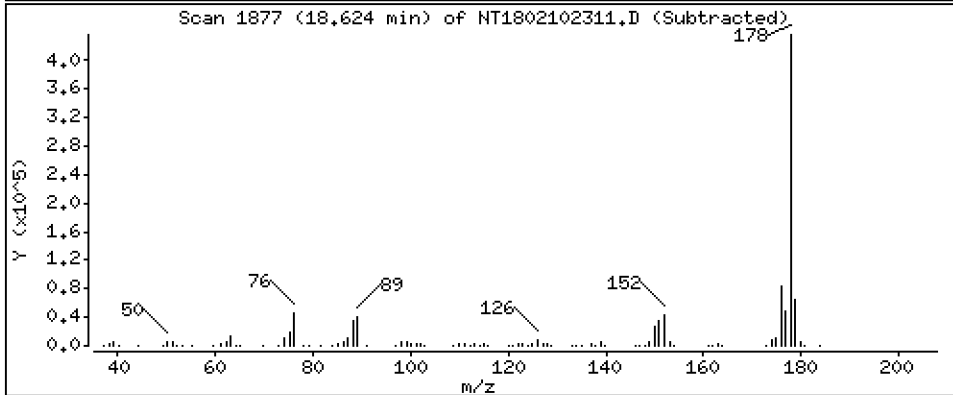
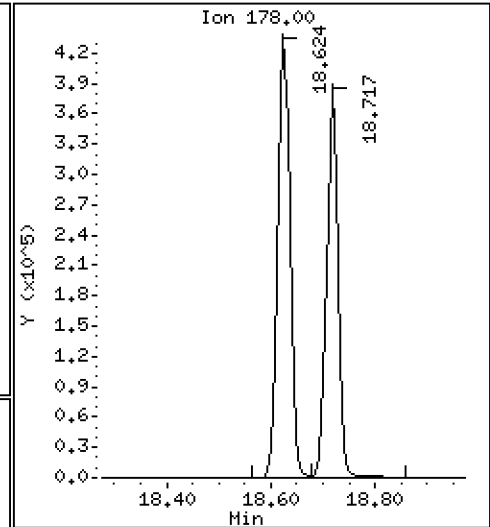
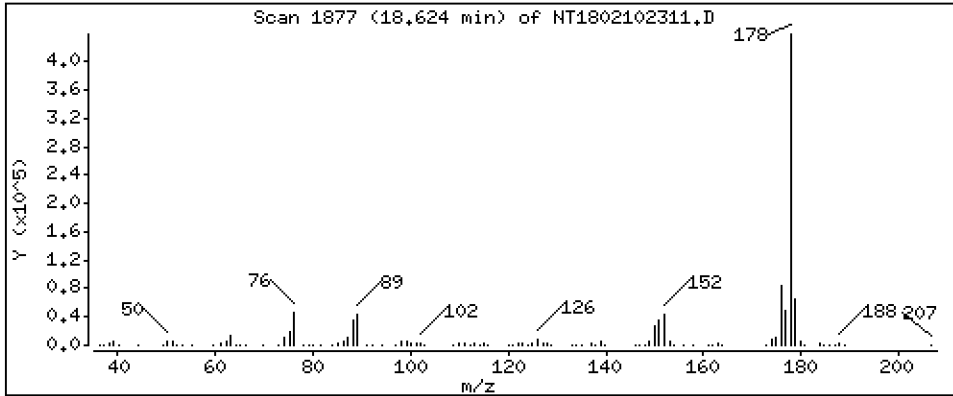
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,228 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

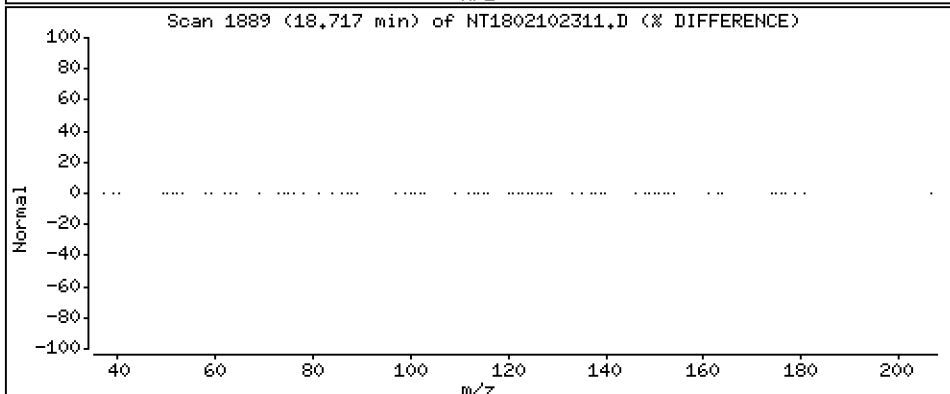
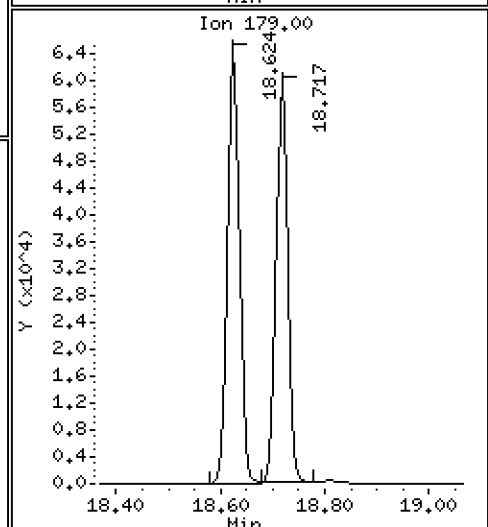
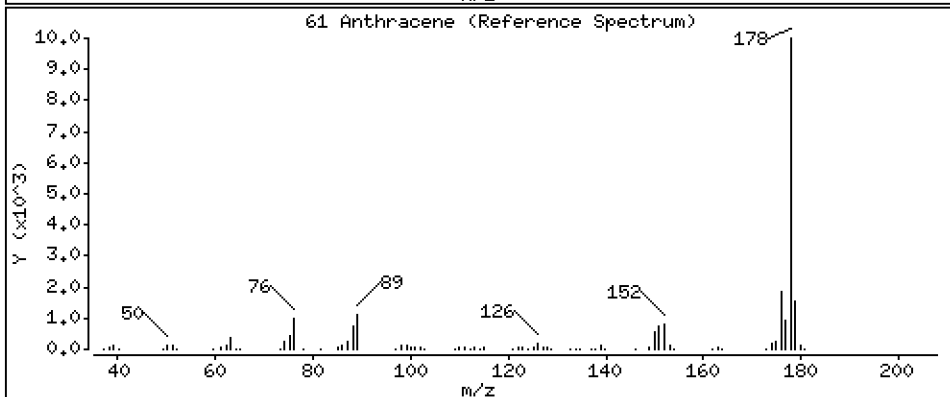
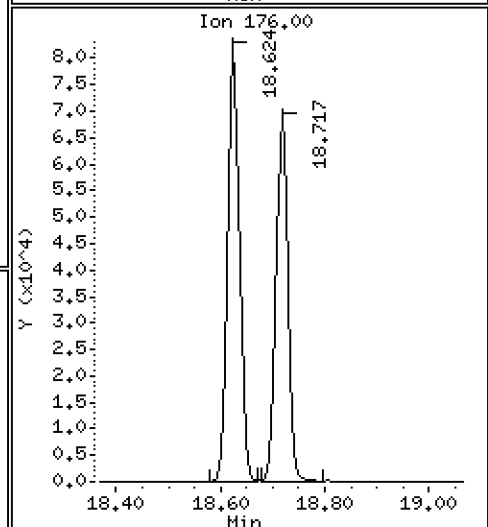
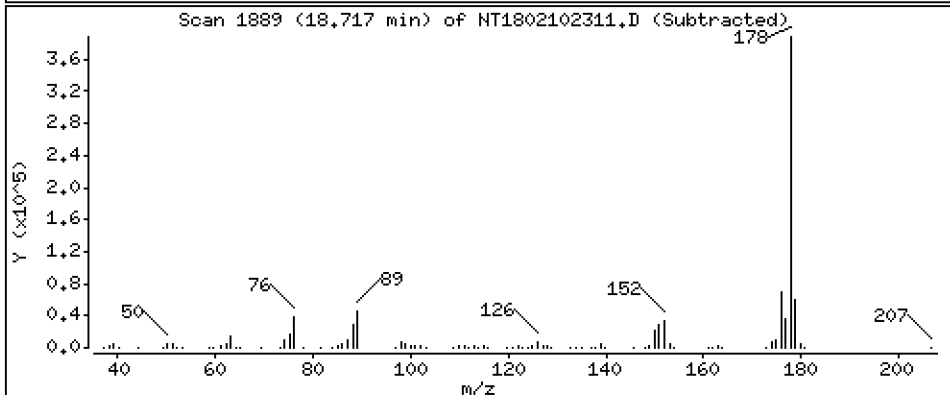
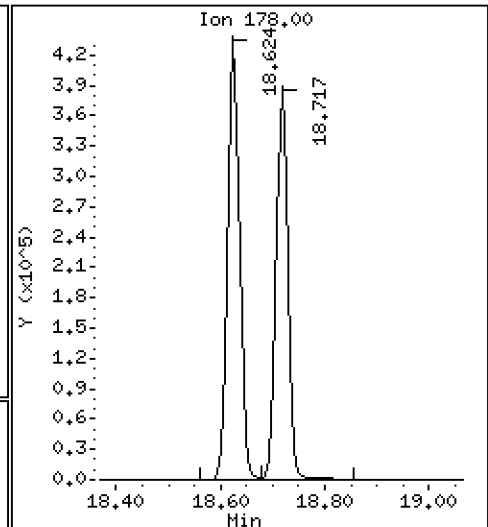
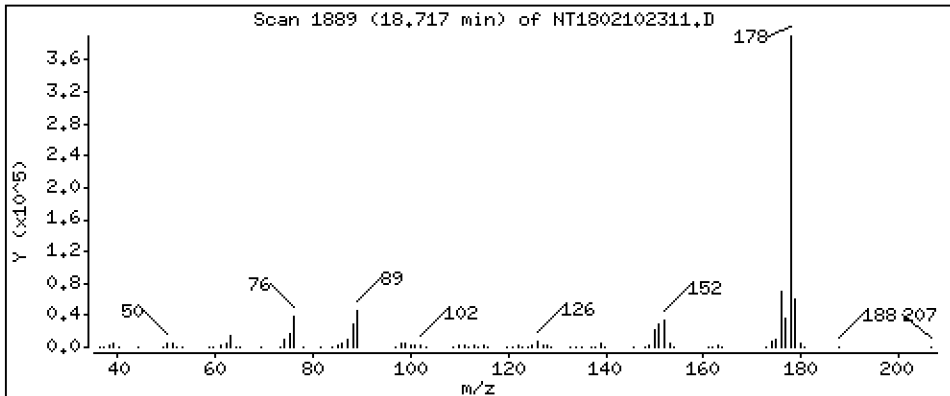
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 4,027 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

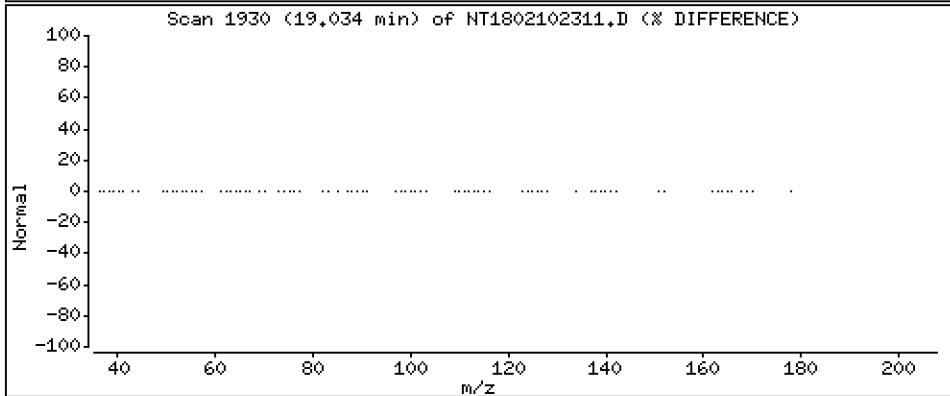
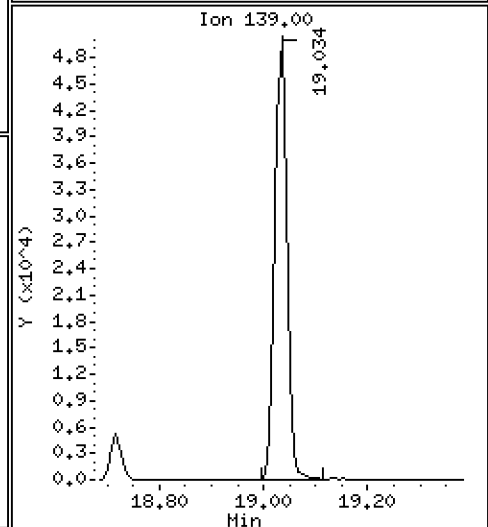
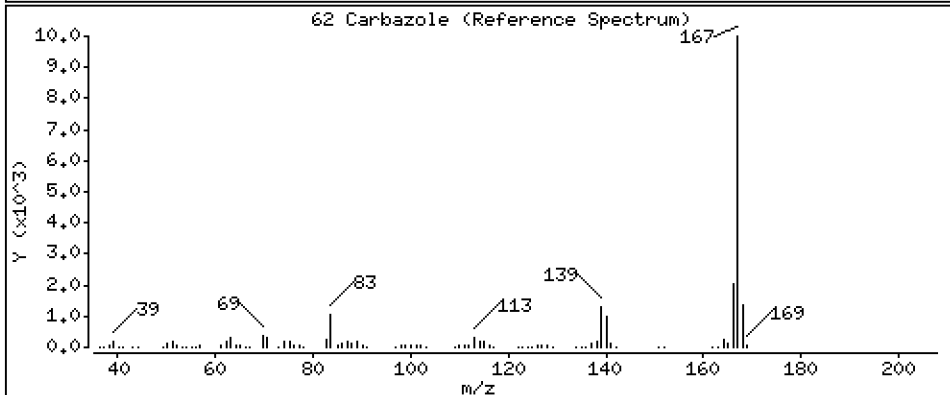
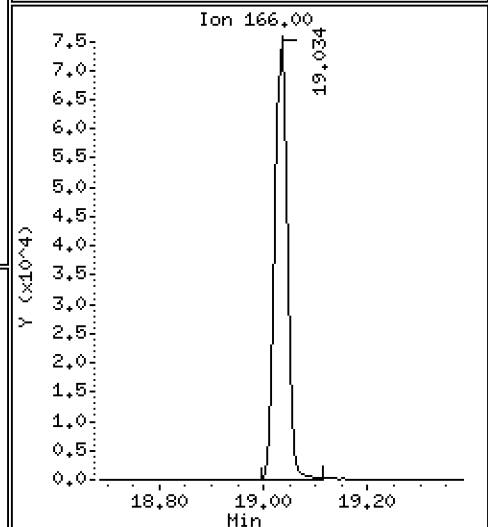
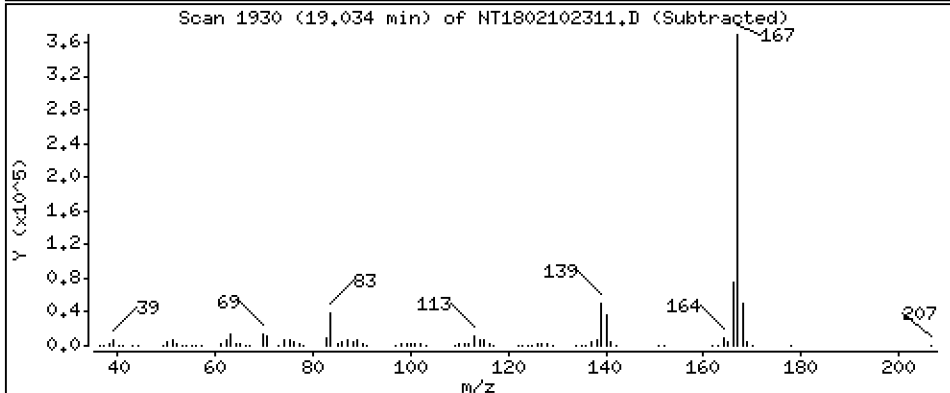
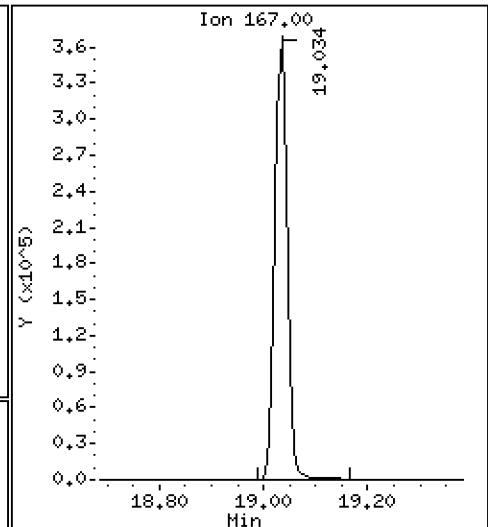
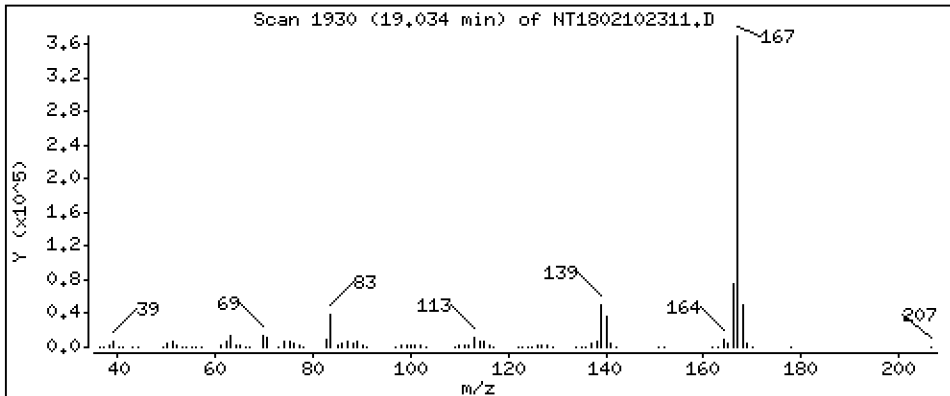
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

62 Carbazole

Concentration: 4.066 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

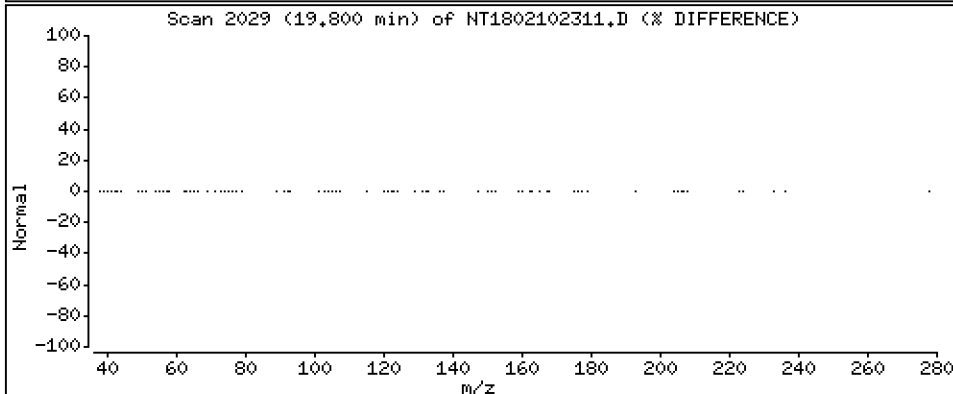
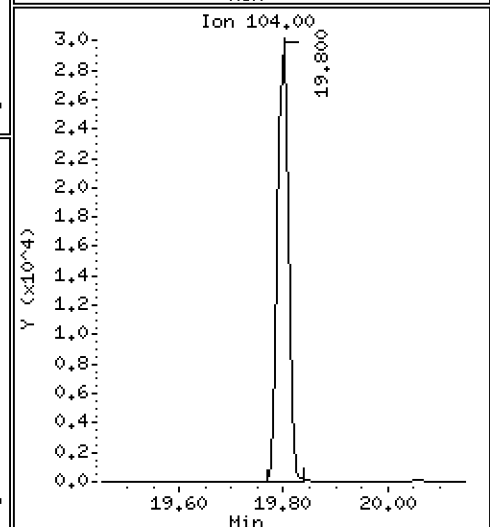
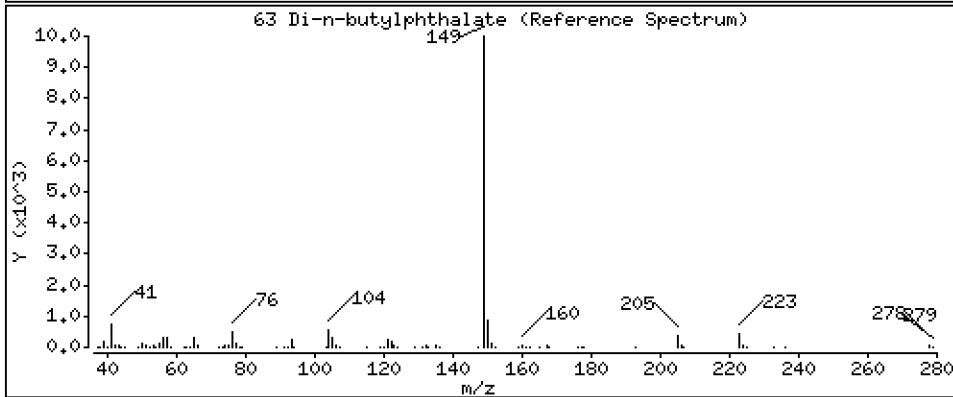
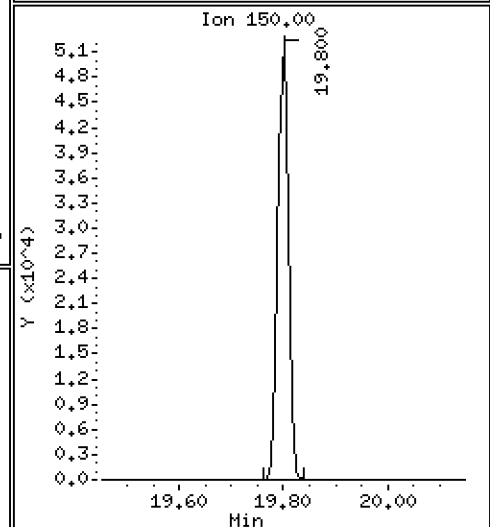
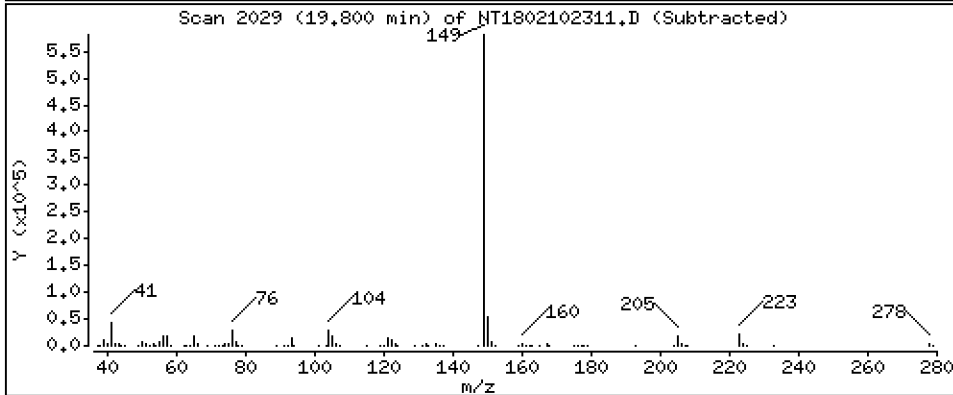
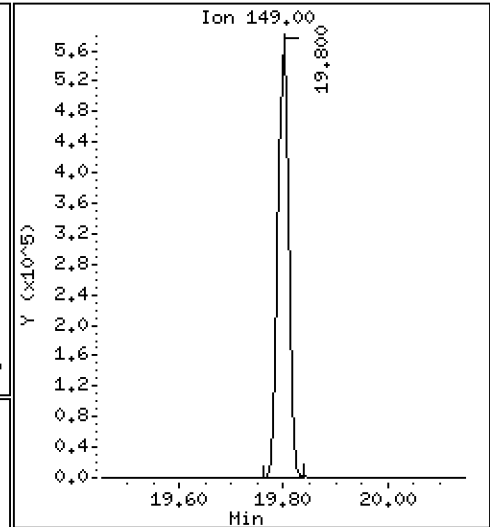
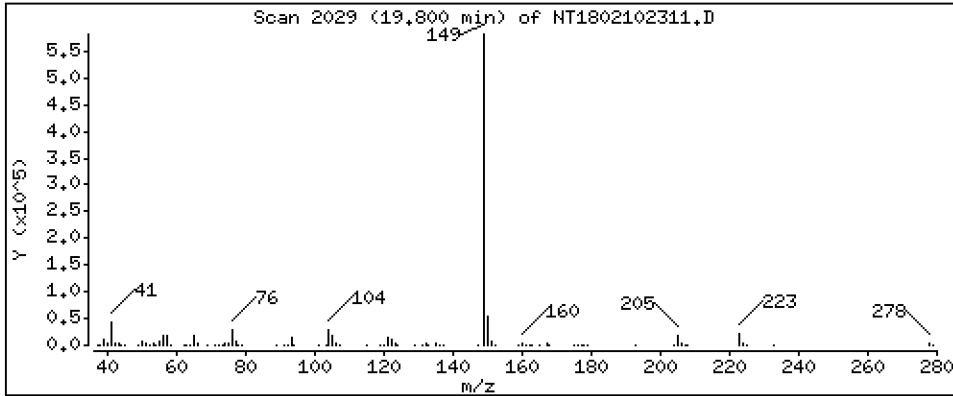
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,139 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

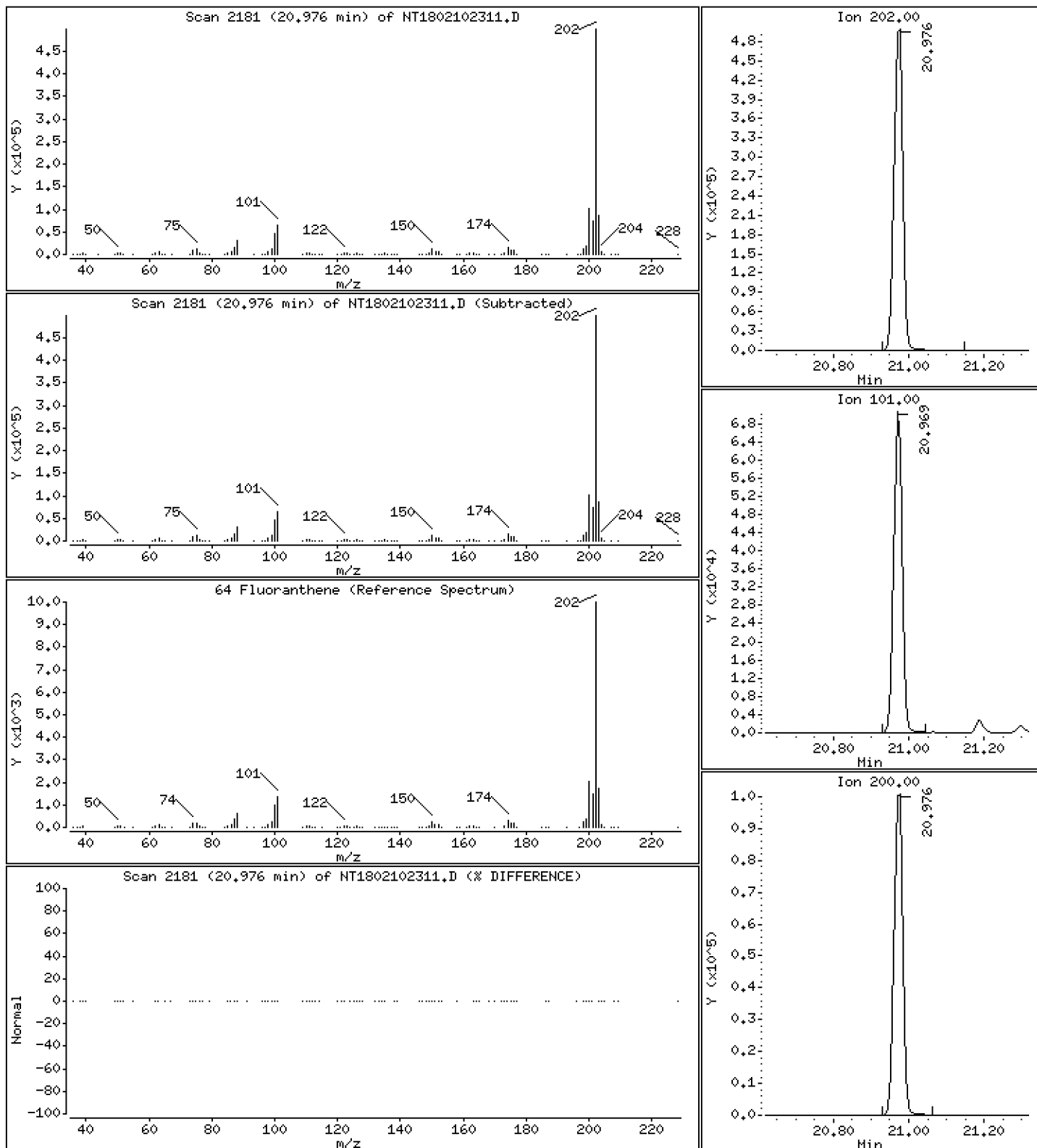
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,555 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

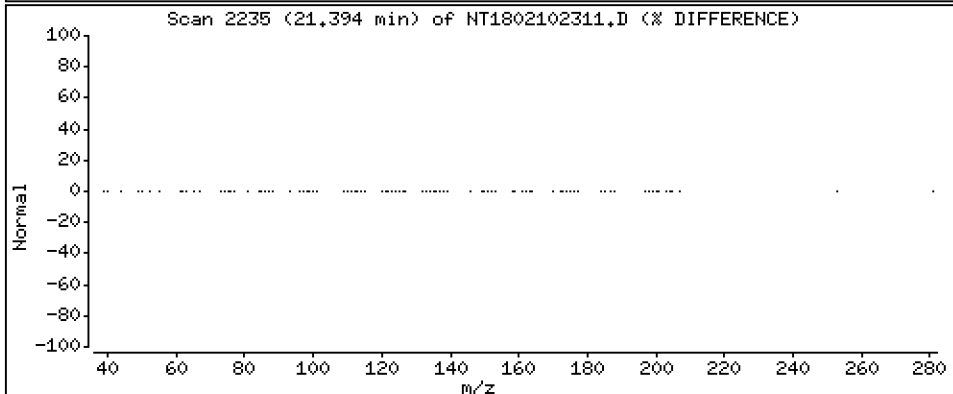
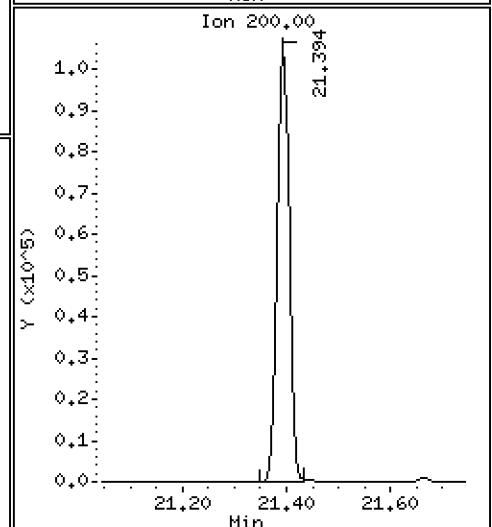
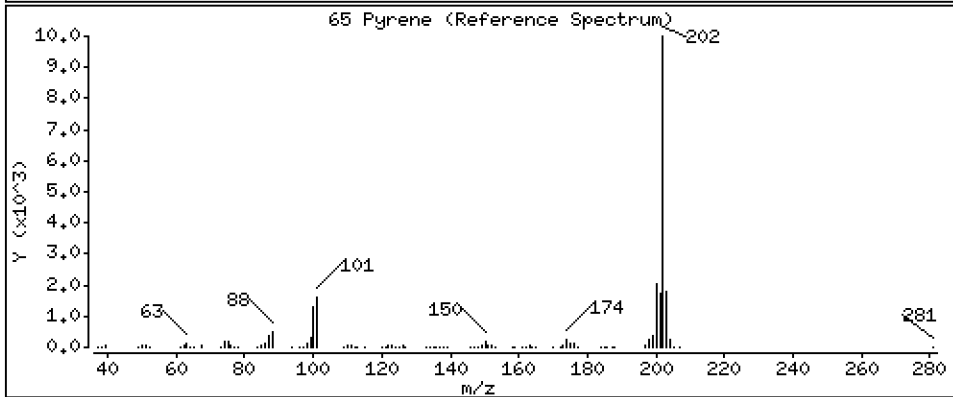
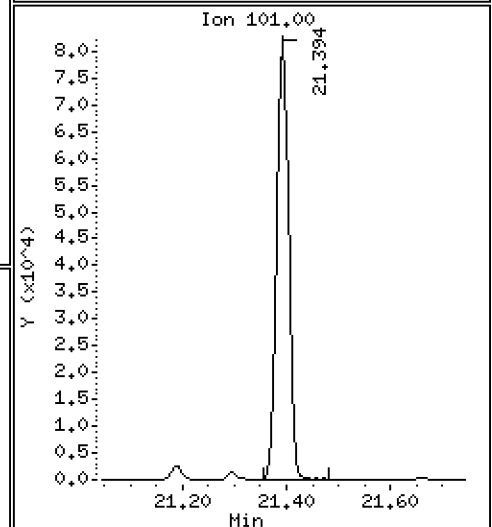
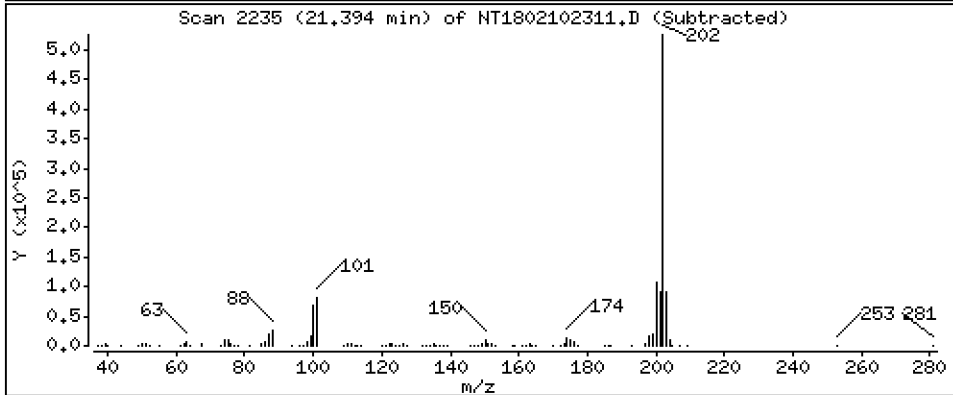
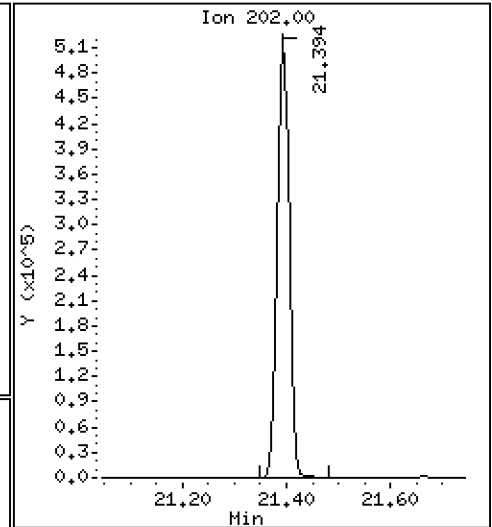
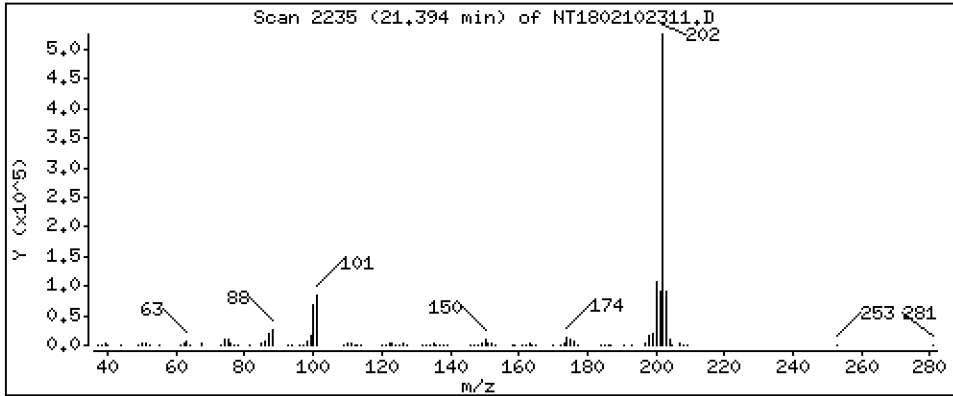
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 4,328 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

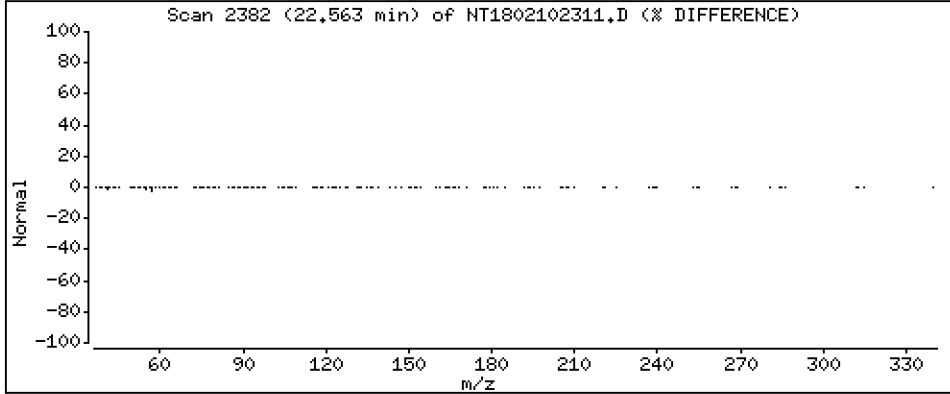
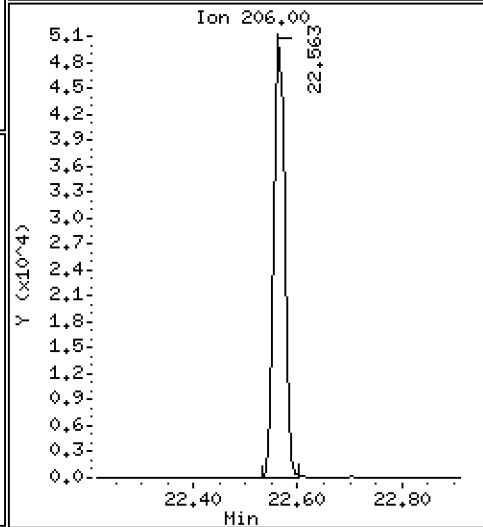
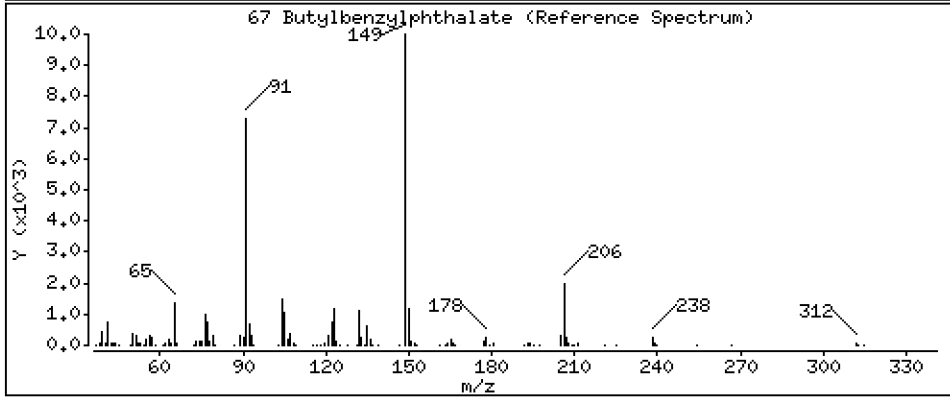
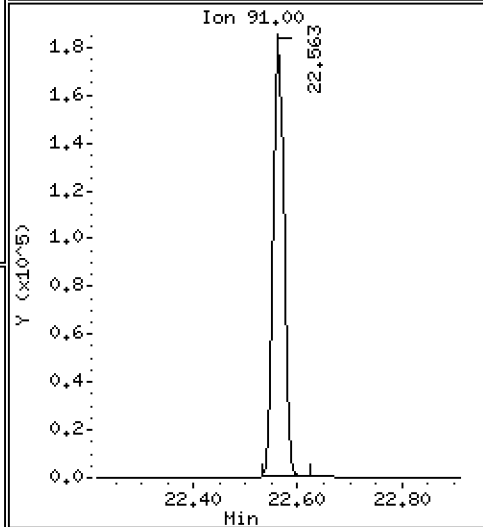
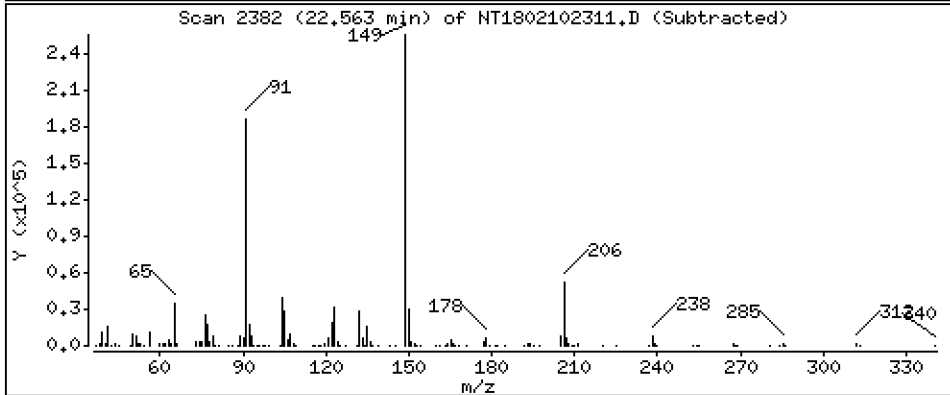
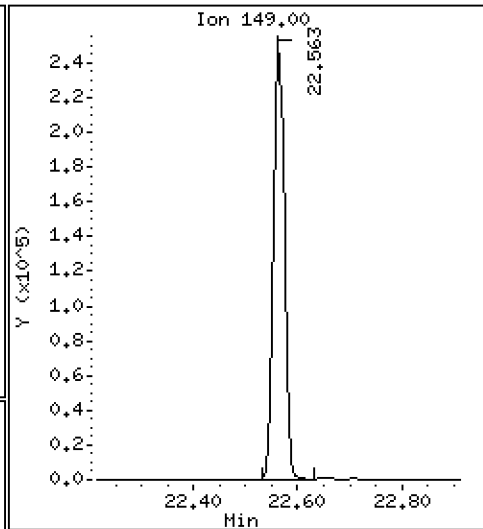
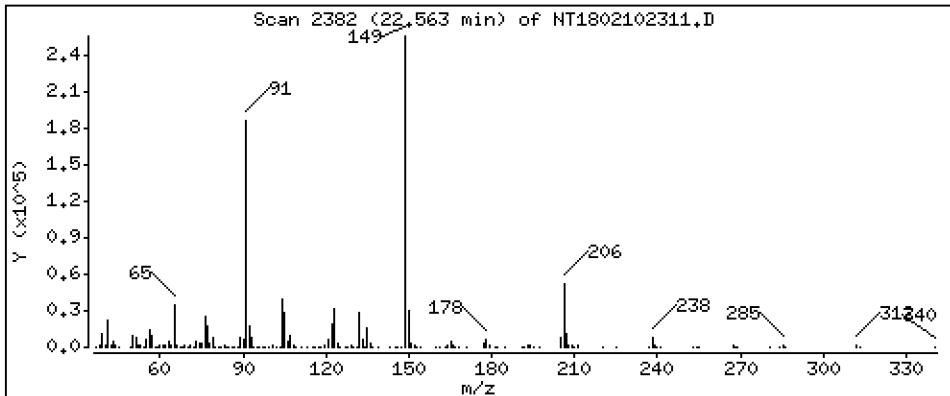
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,203 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

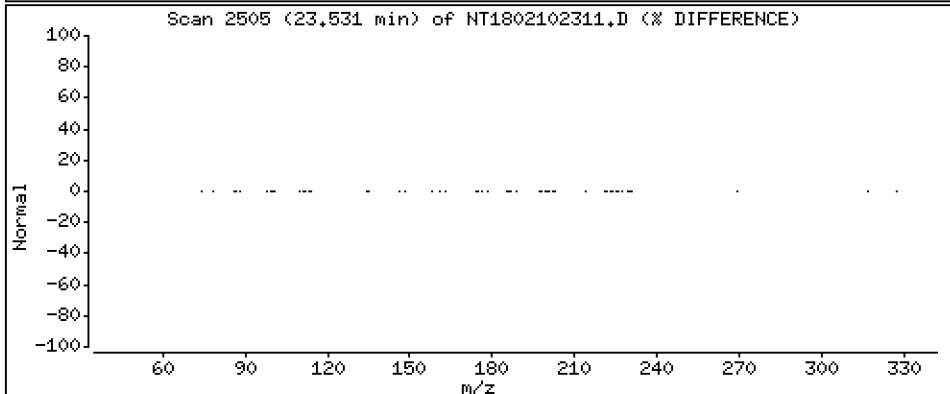
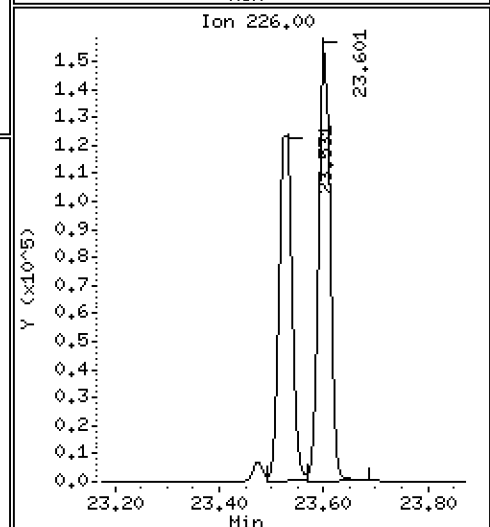
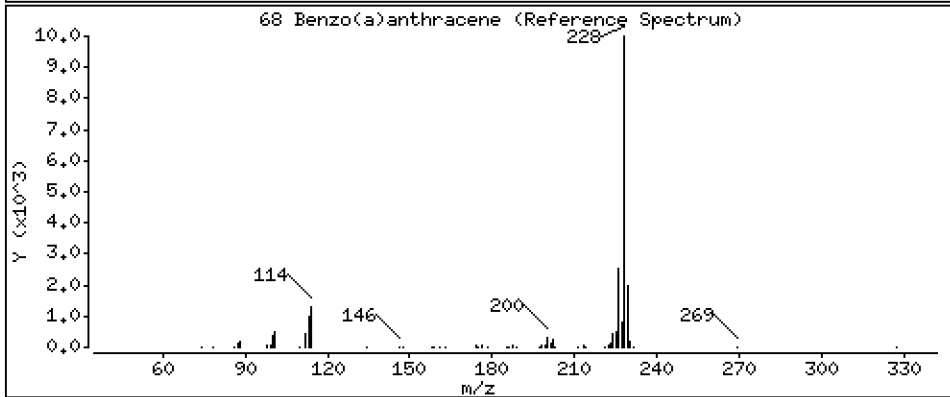
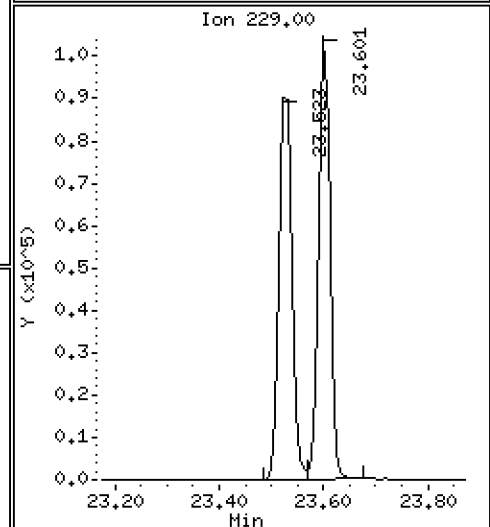
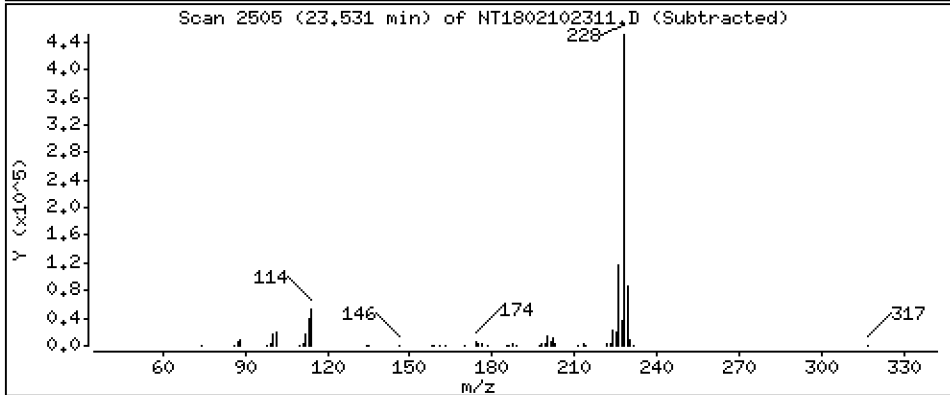
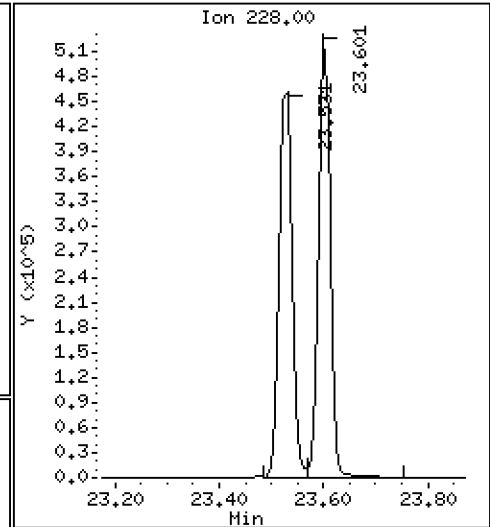
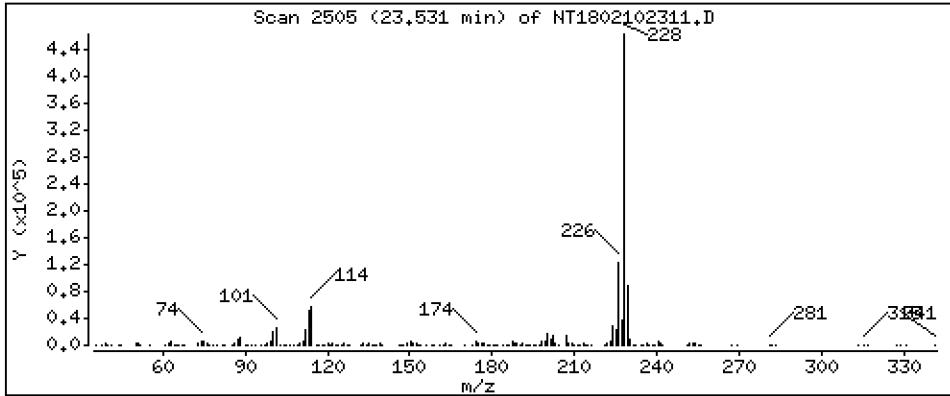
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

68 Benzo(a)anthracene

Concentration: 4.247 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

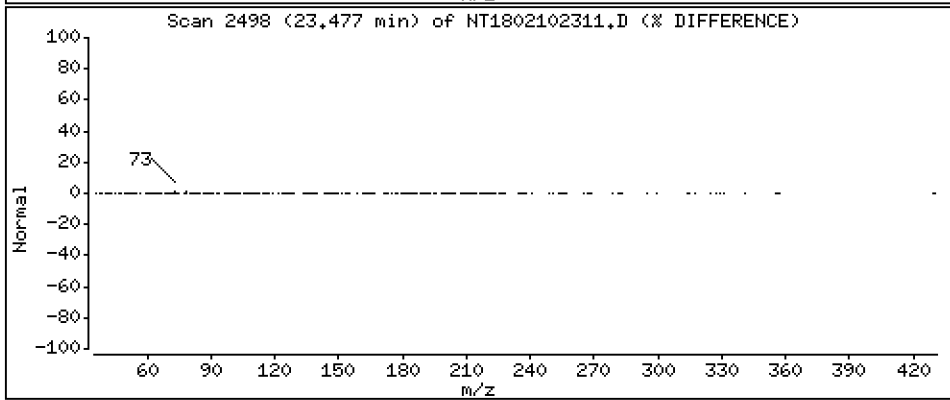
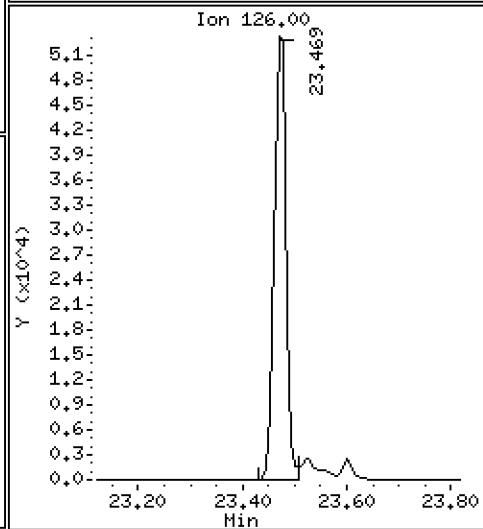
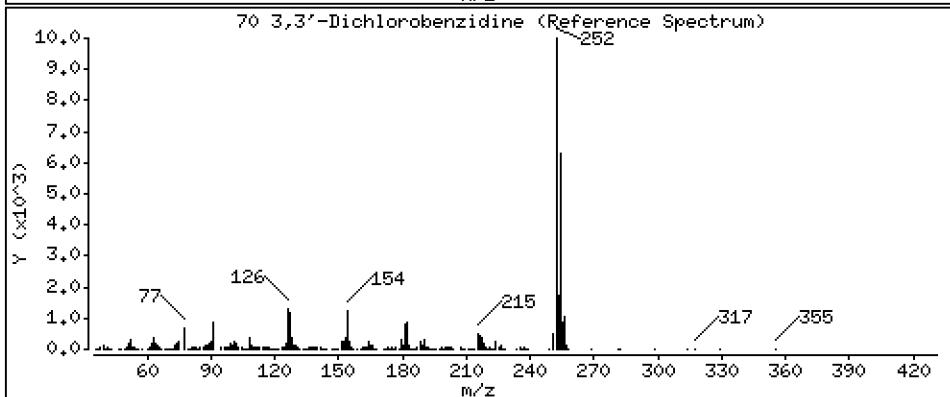
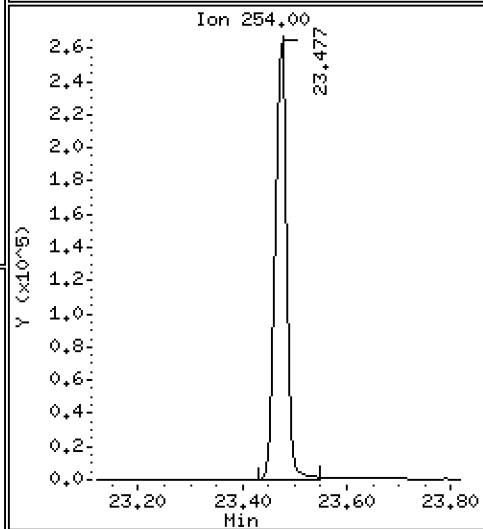
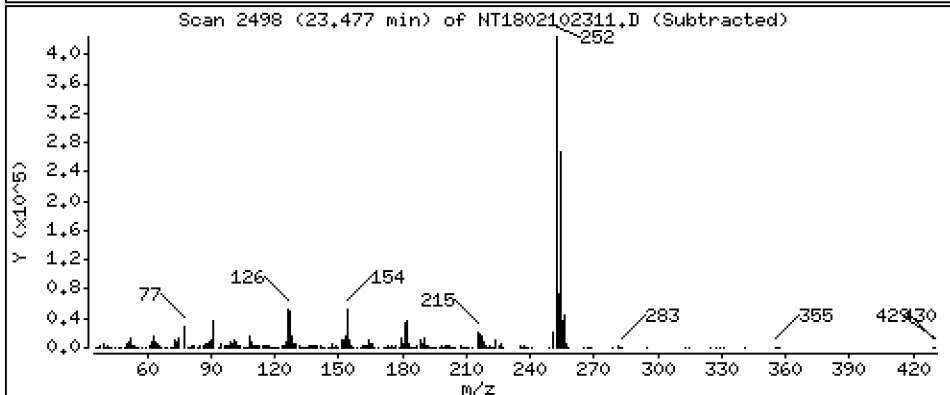
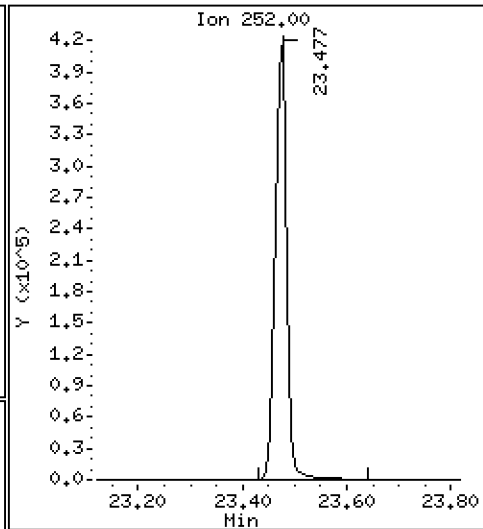
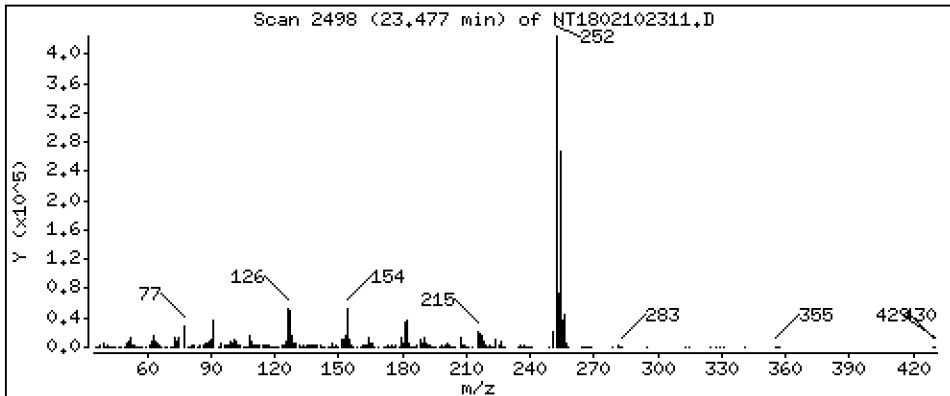
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 7,582 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

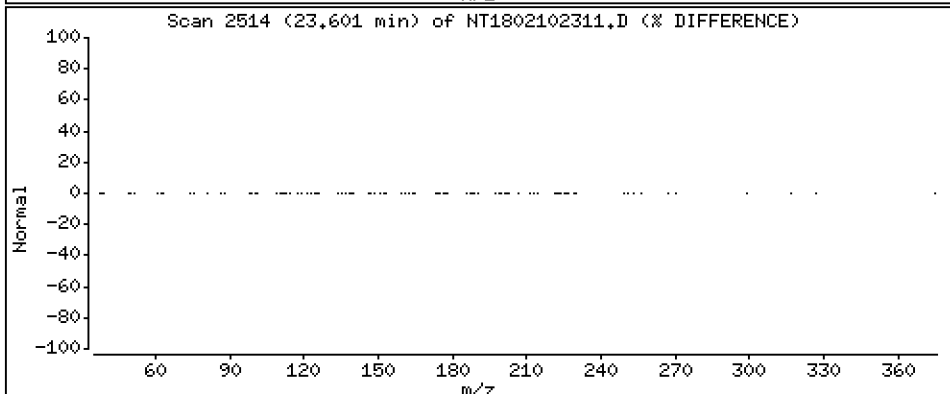
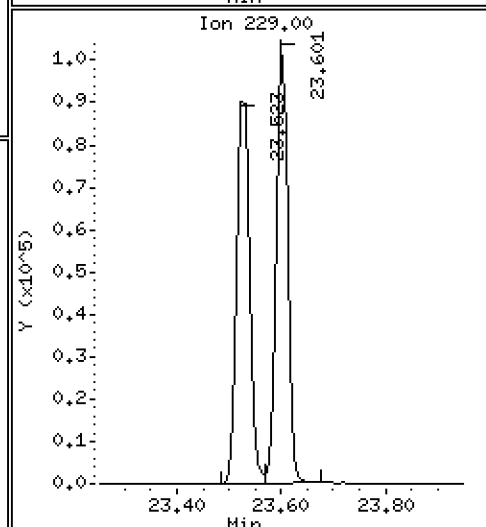
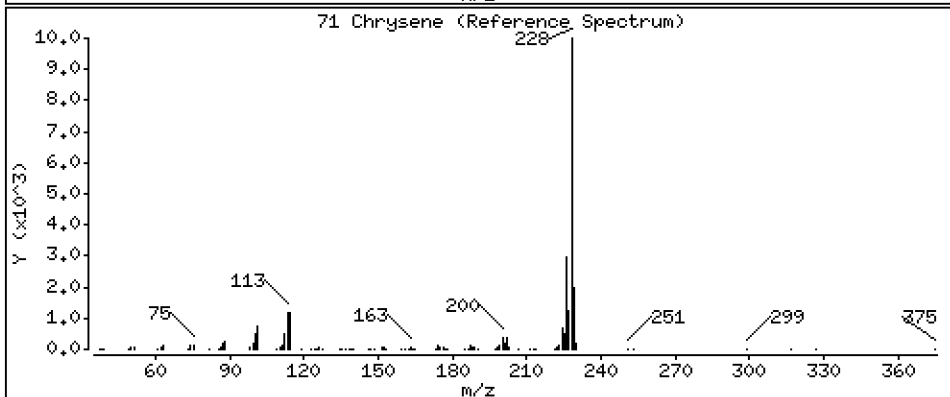
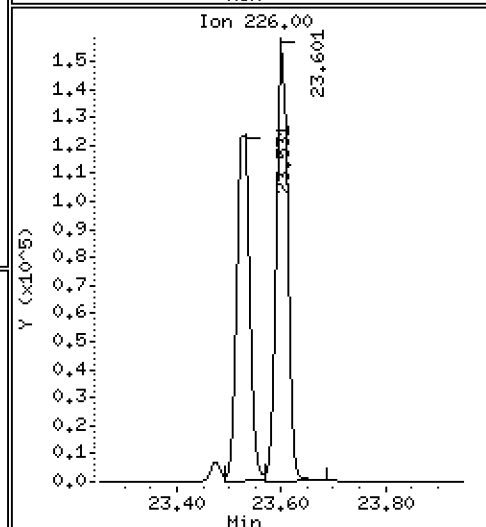
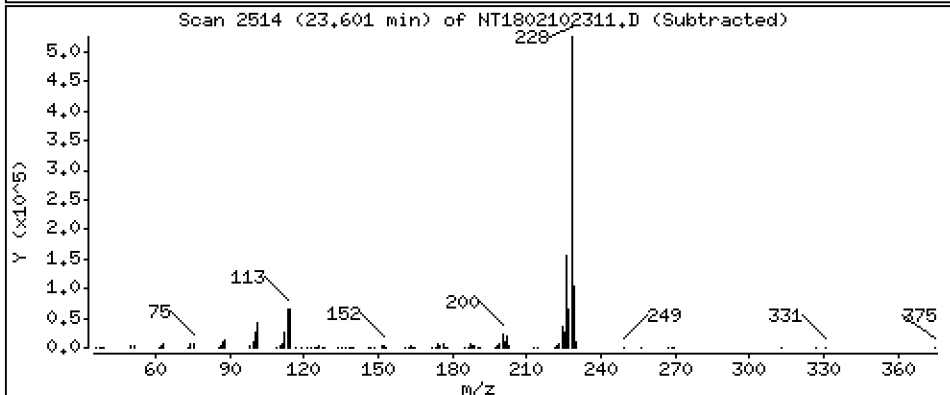
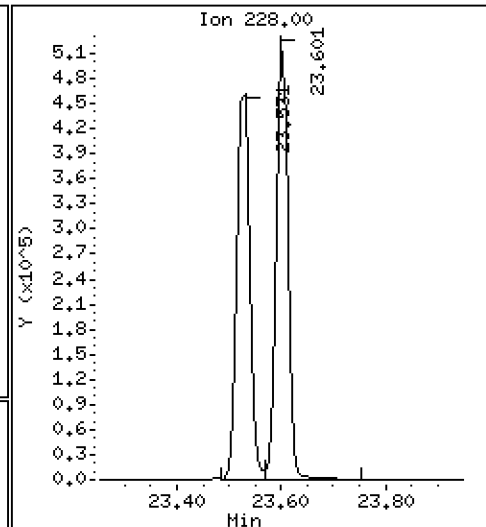
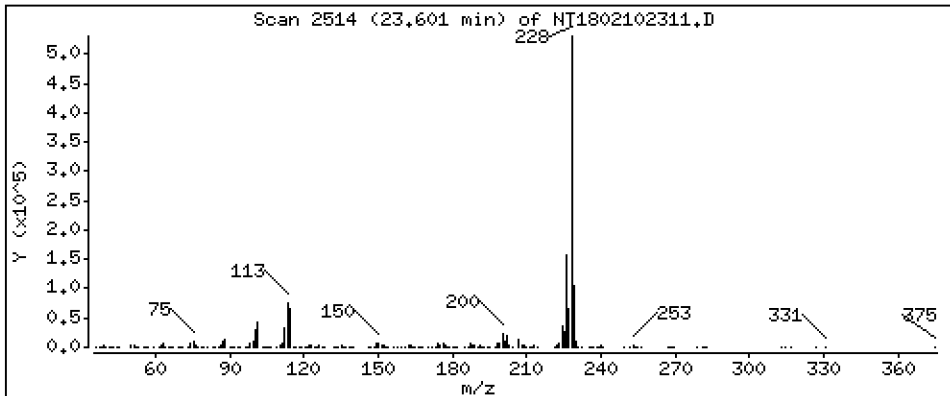
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,062 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

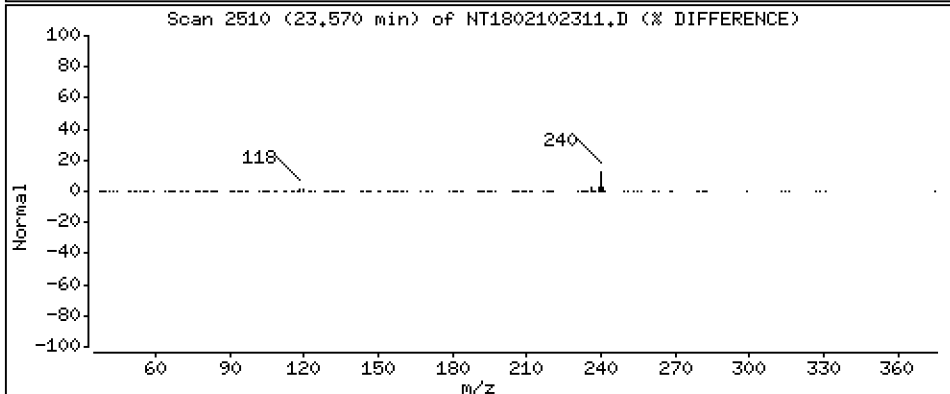
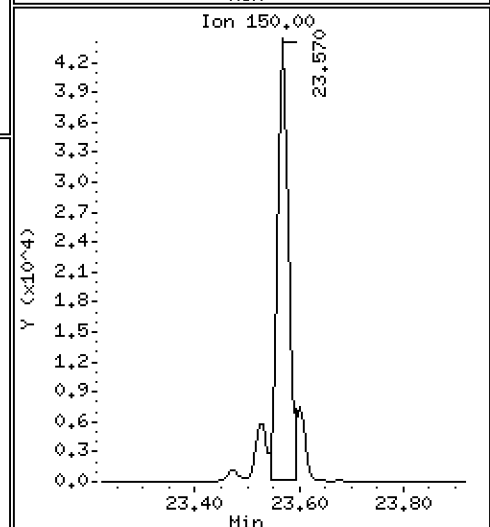
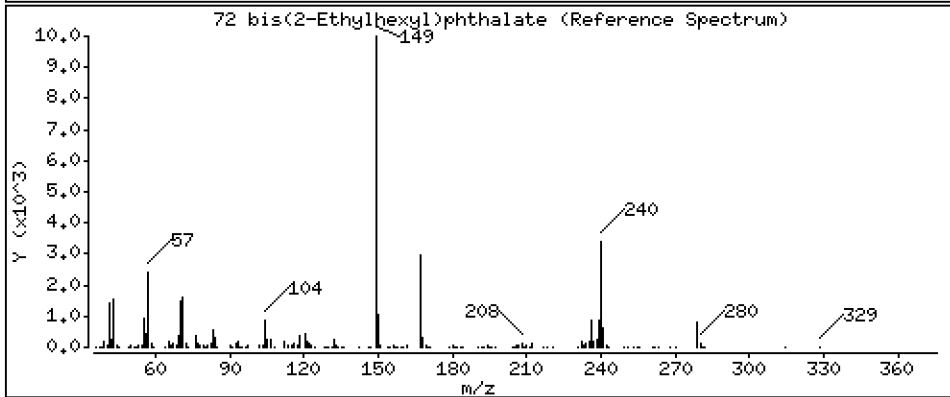
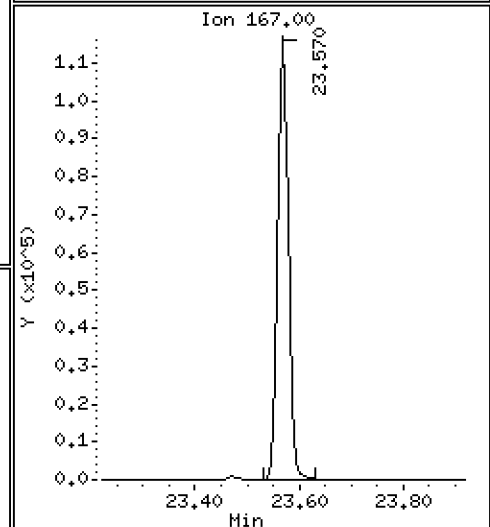
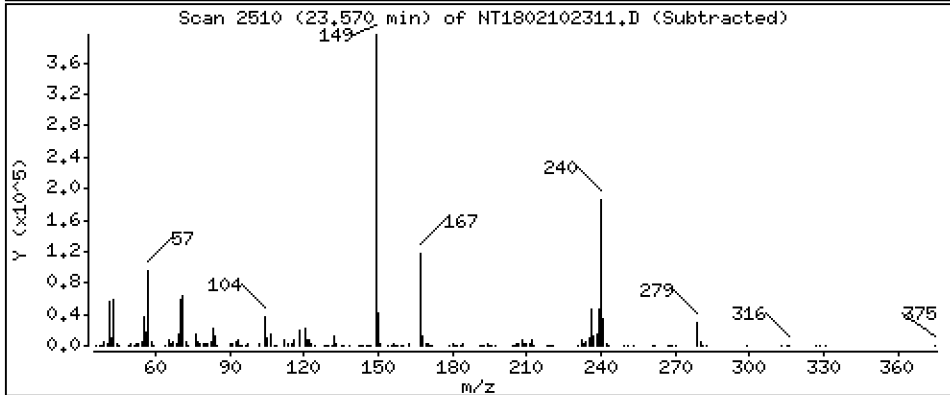
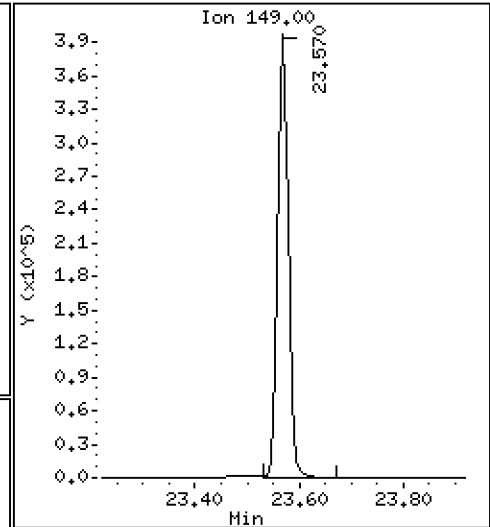
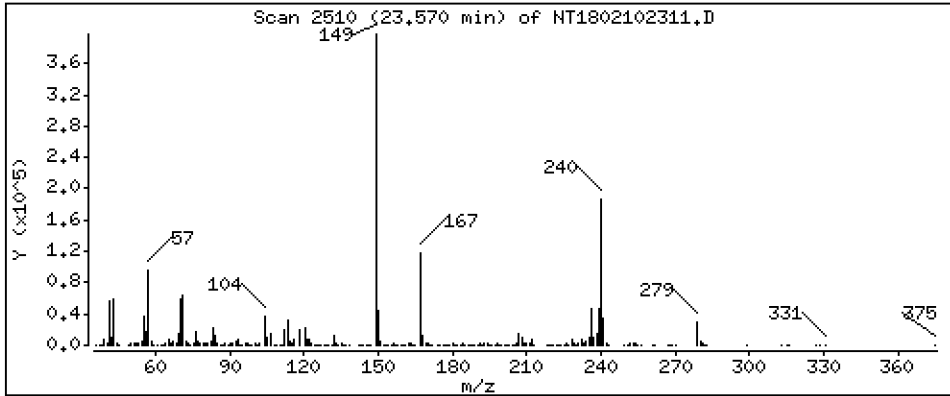
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 4,857 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

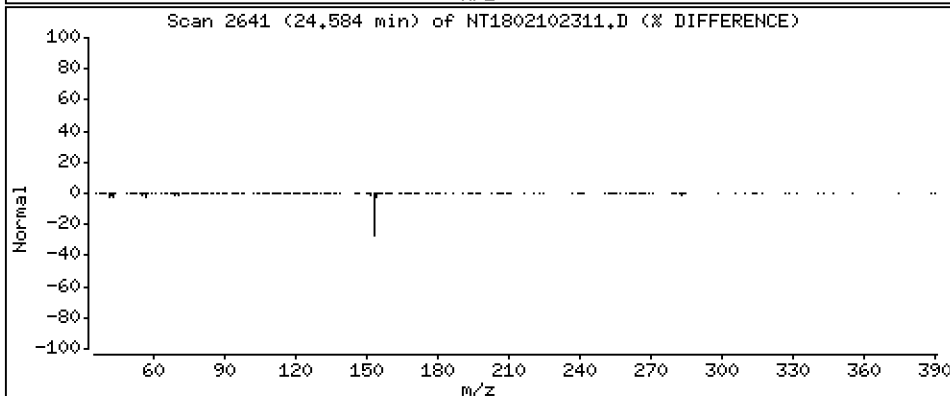
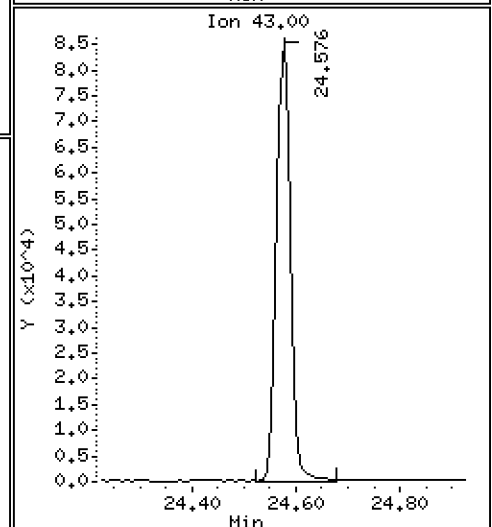
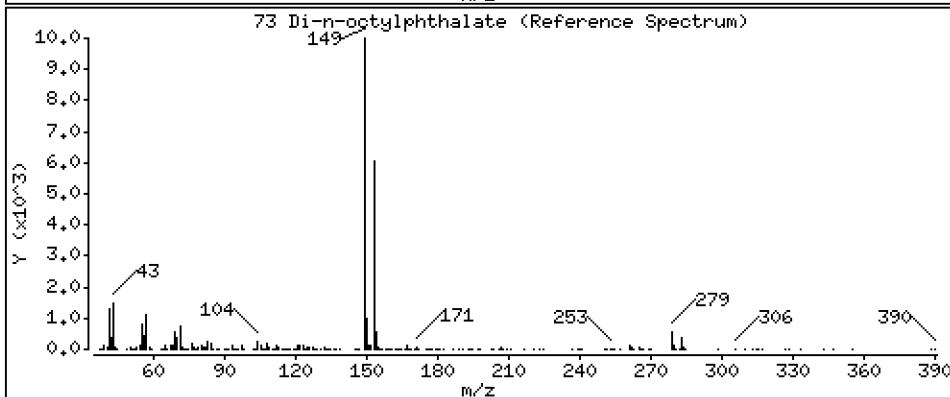
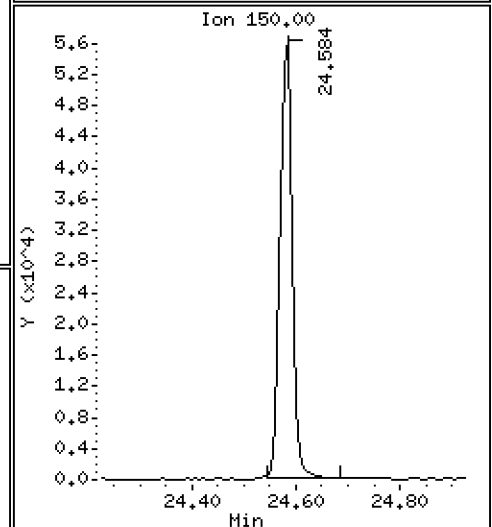
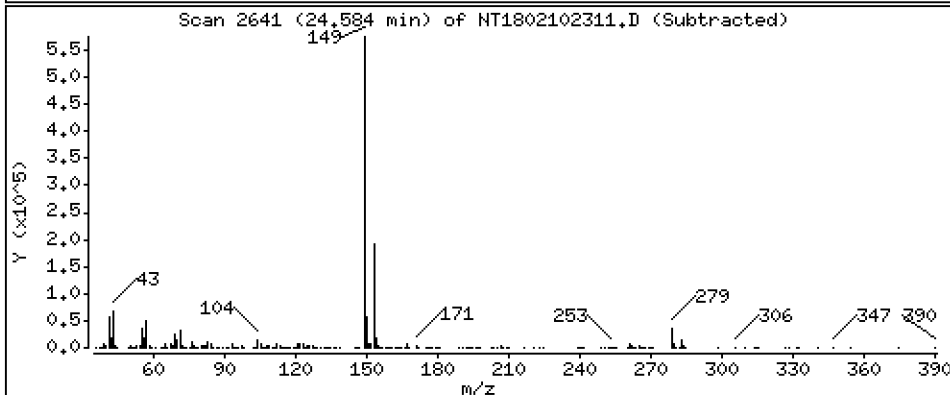
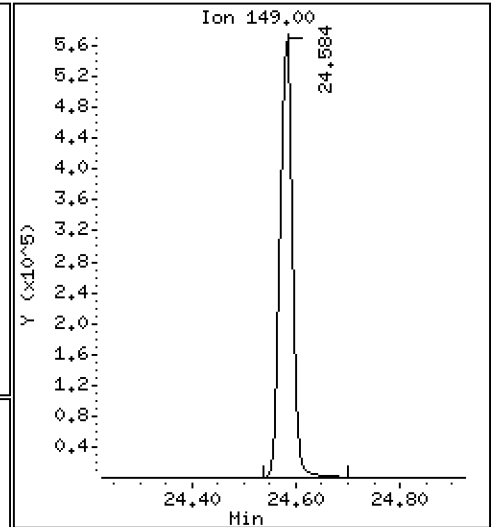
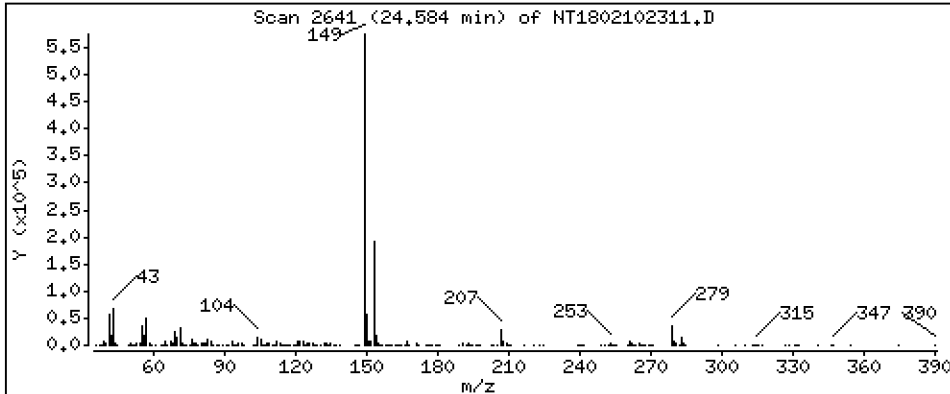
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 4,307 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

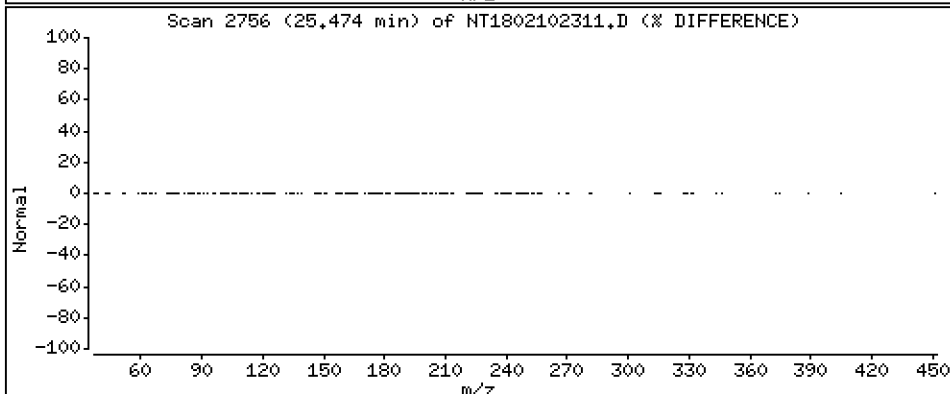
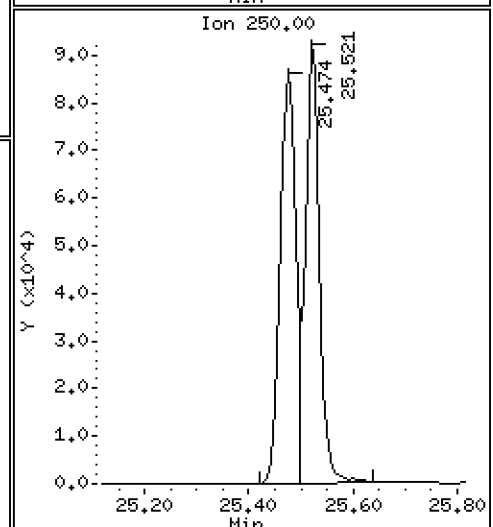
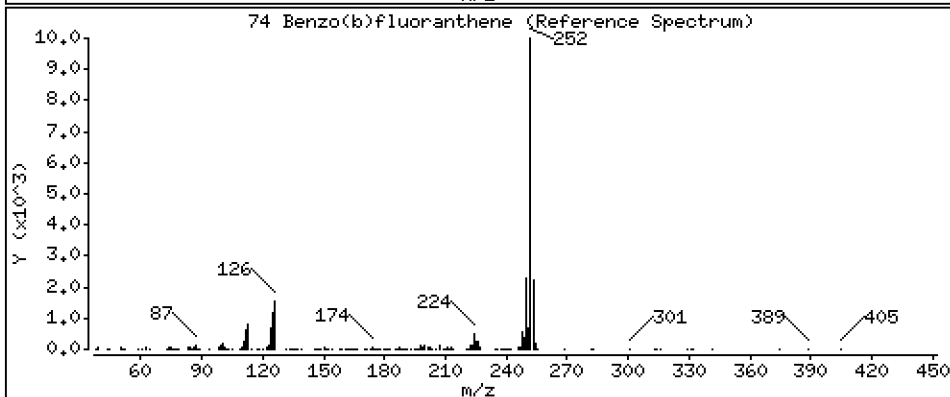
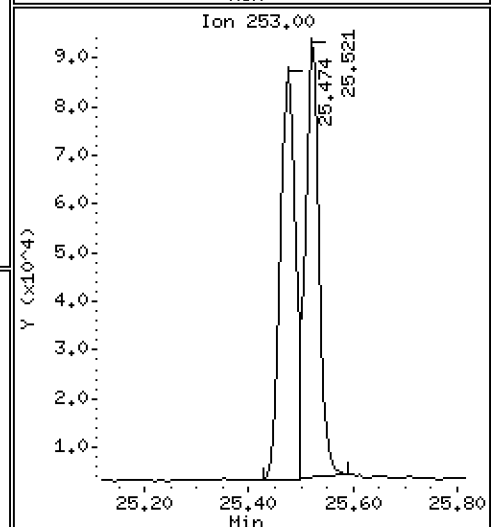
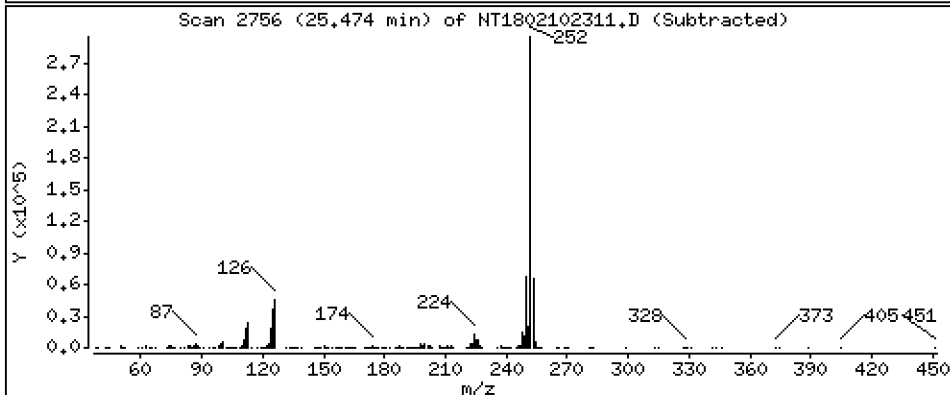
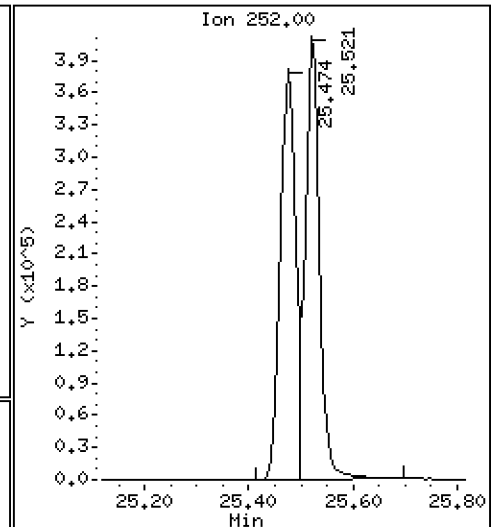
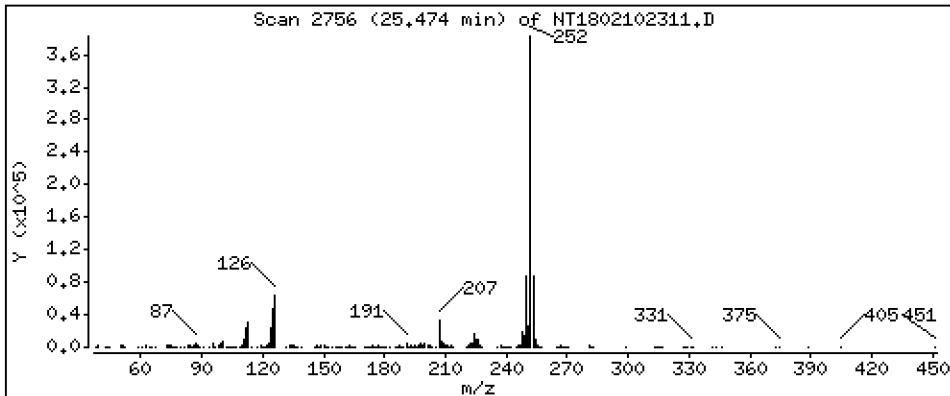
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,173 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

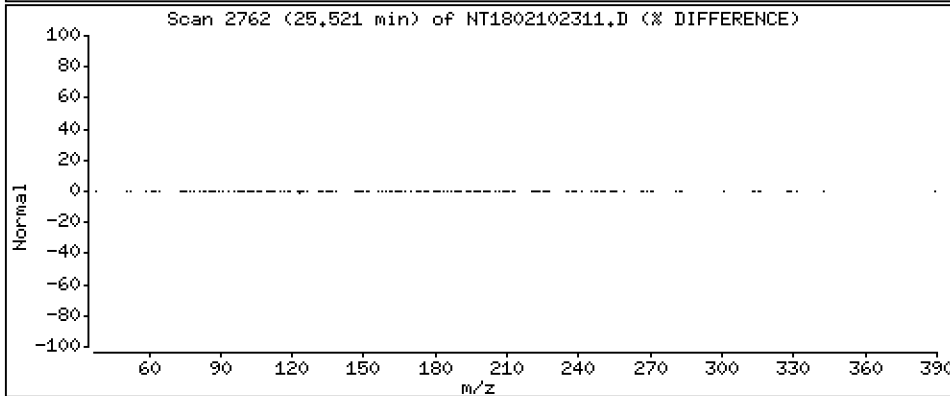
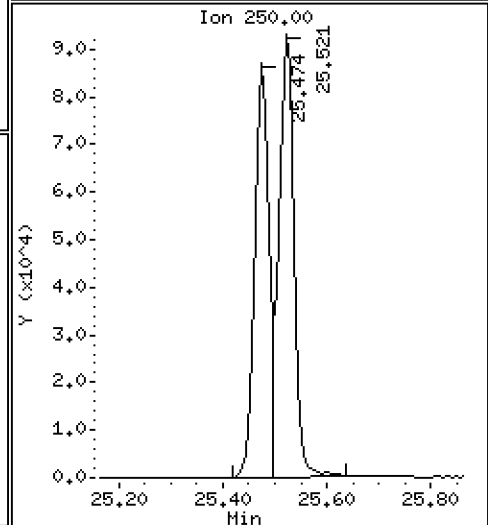
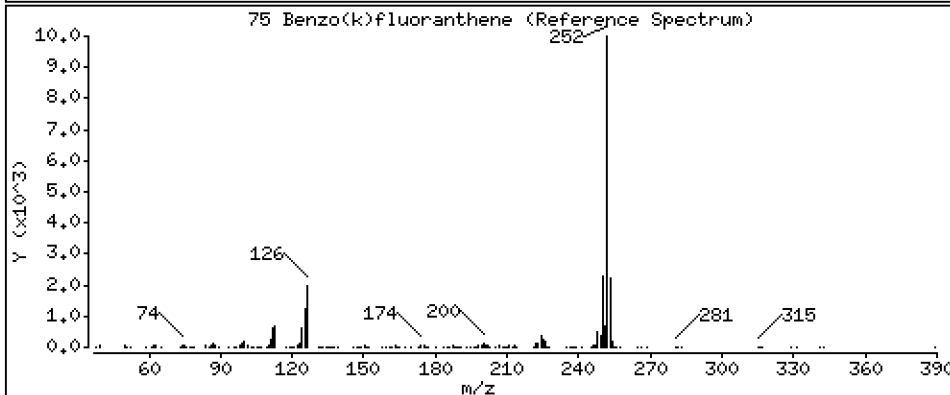
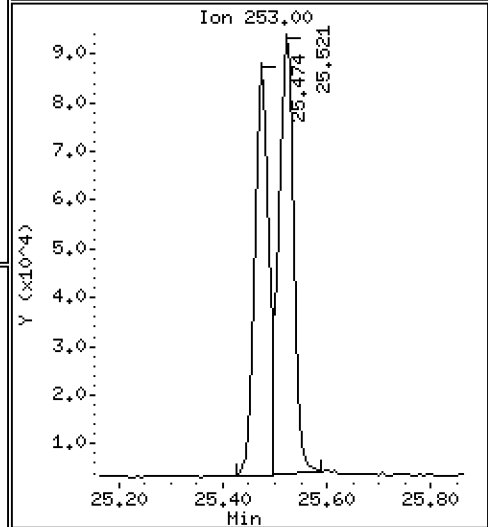
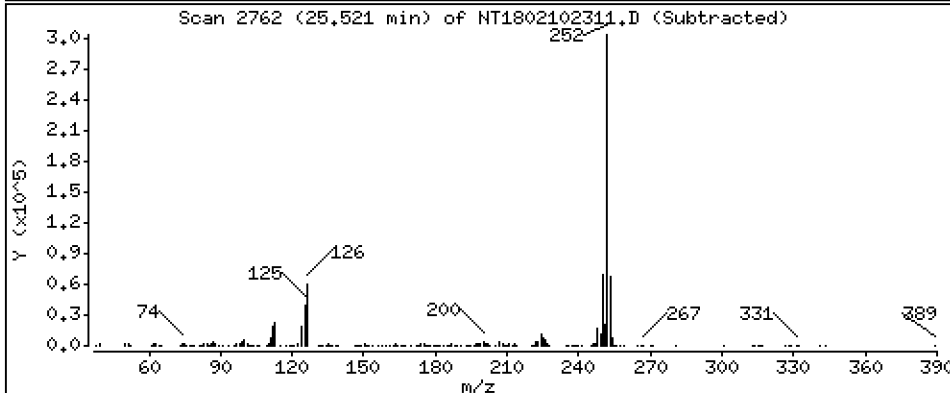
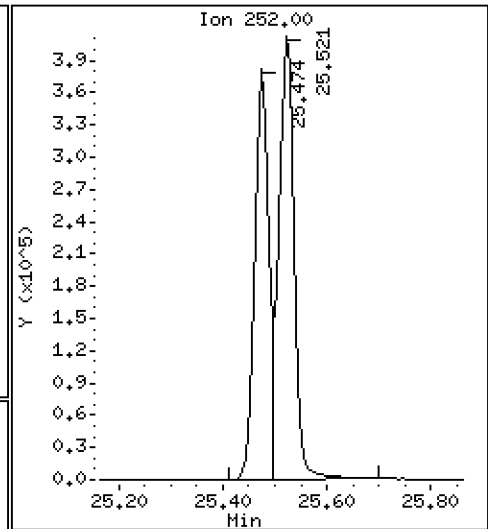
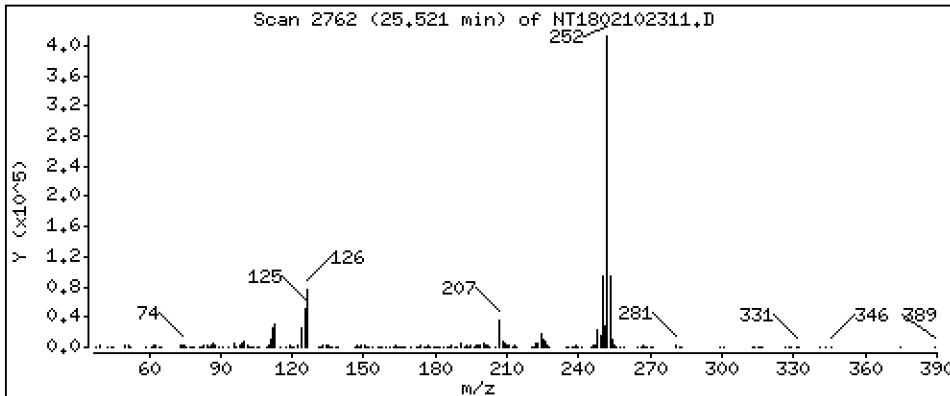
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,199 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

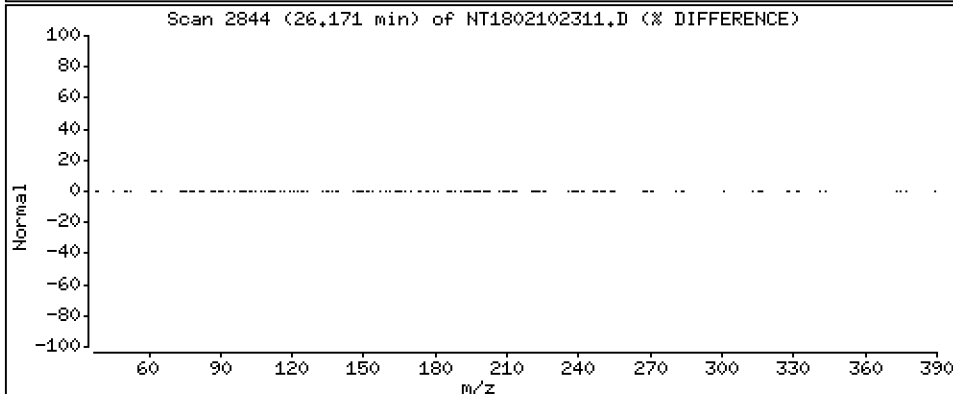
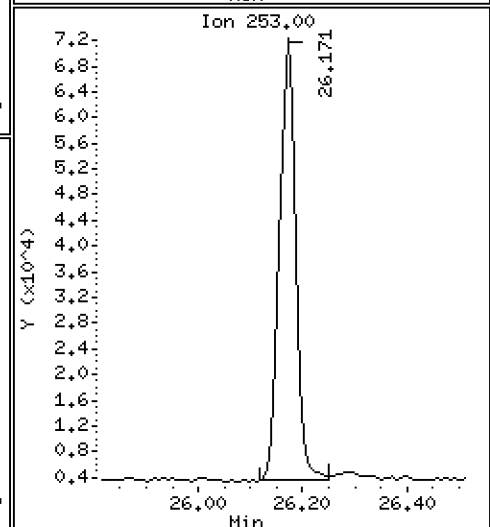
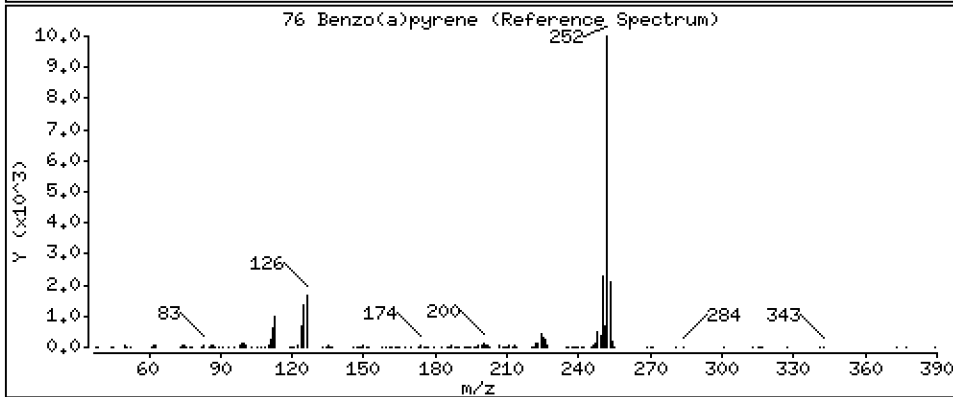
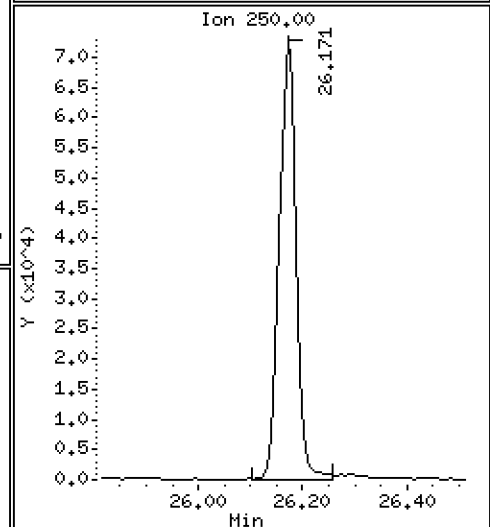
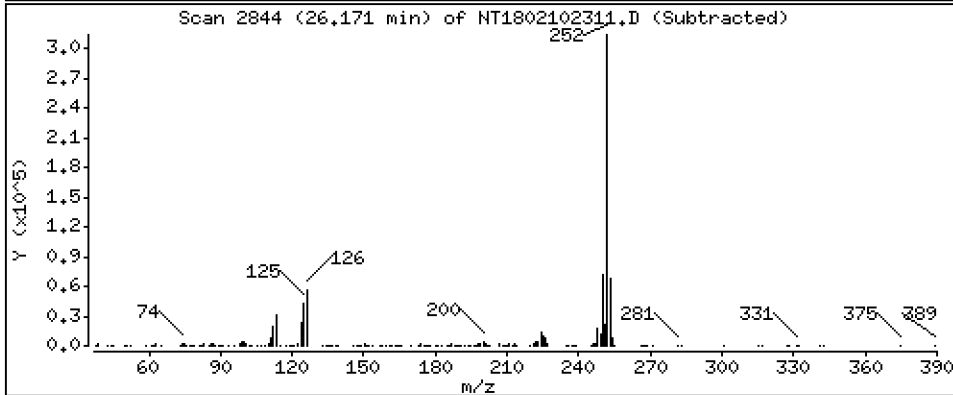
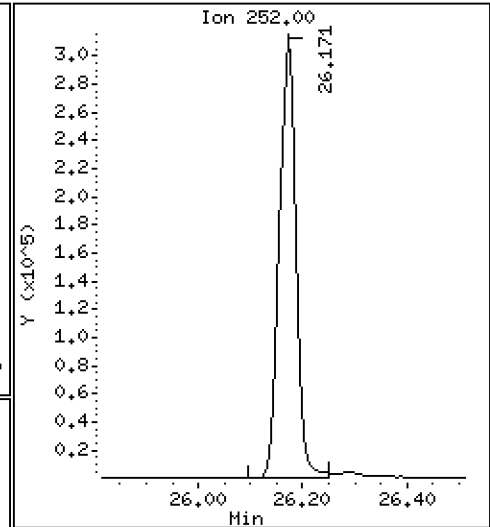
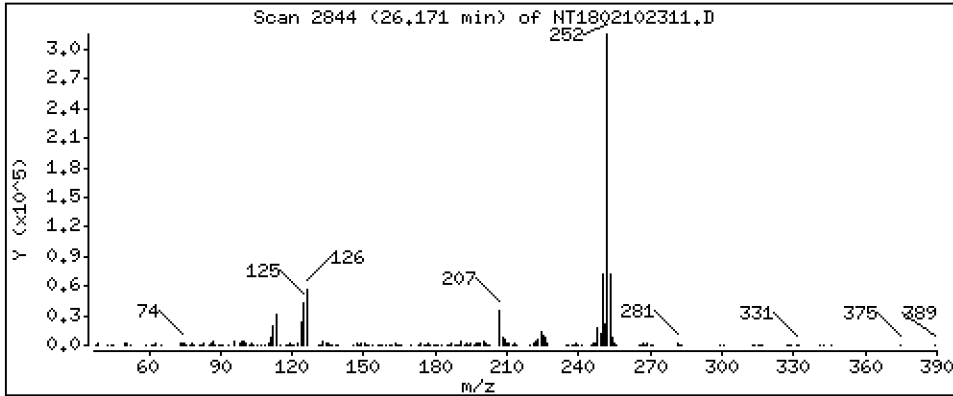
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,560 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

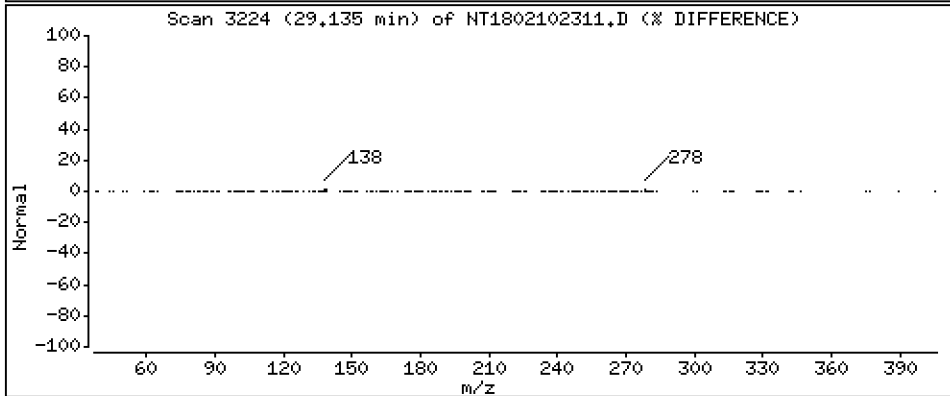
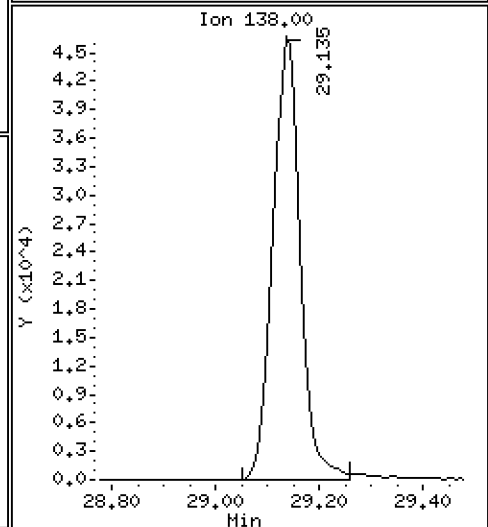
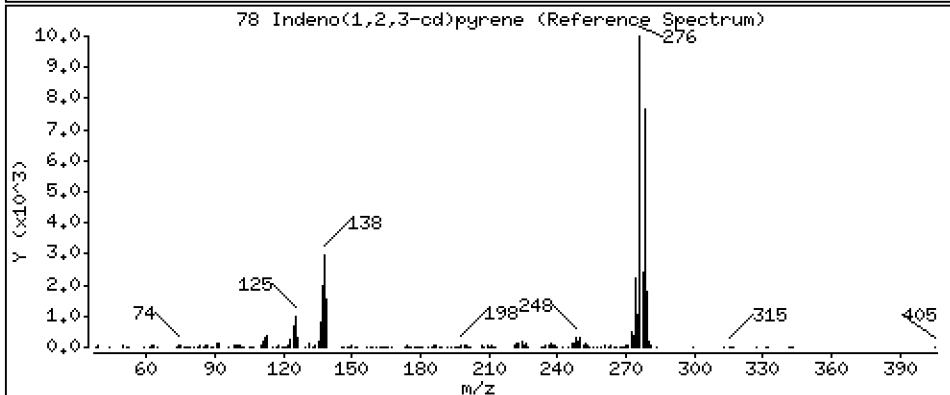
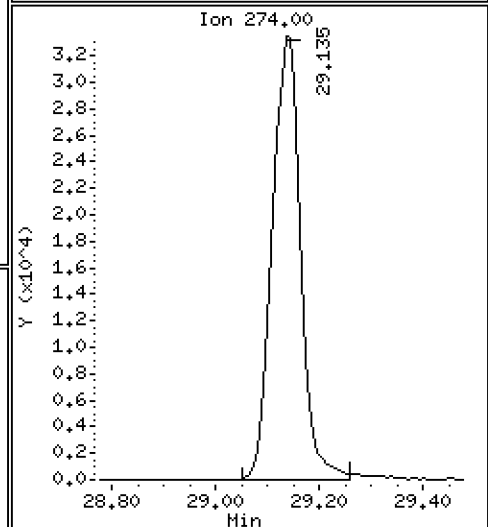
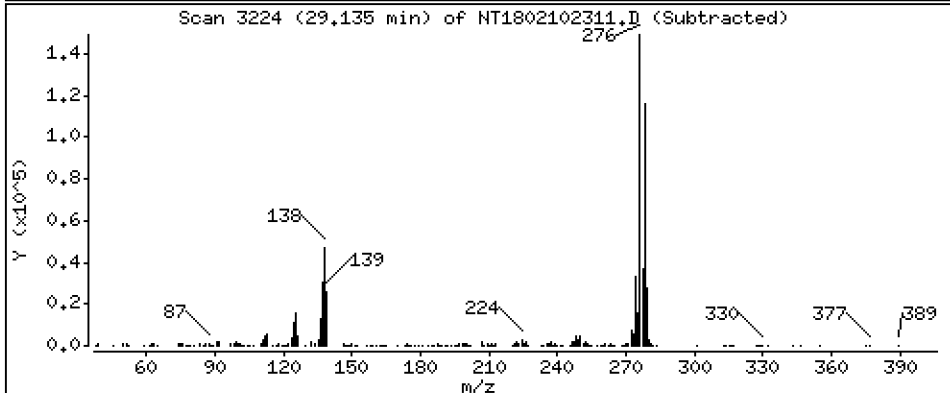
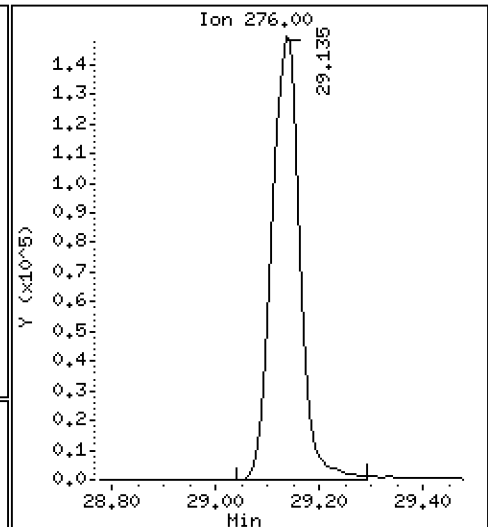
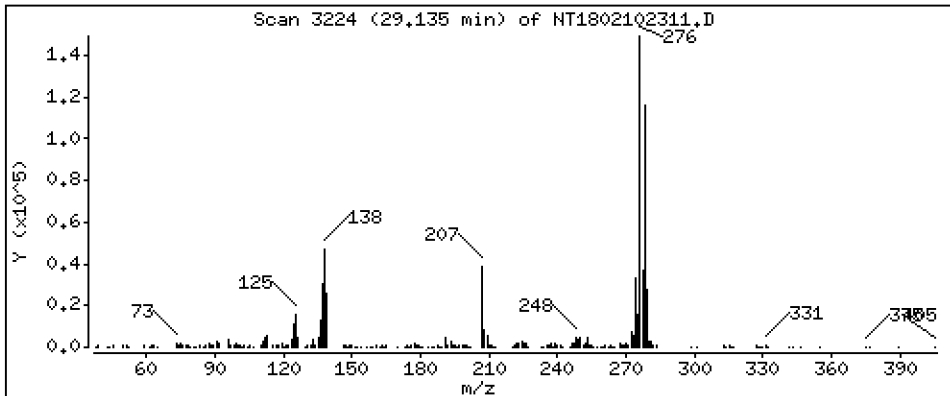
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 3,859 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

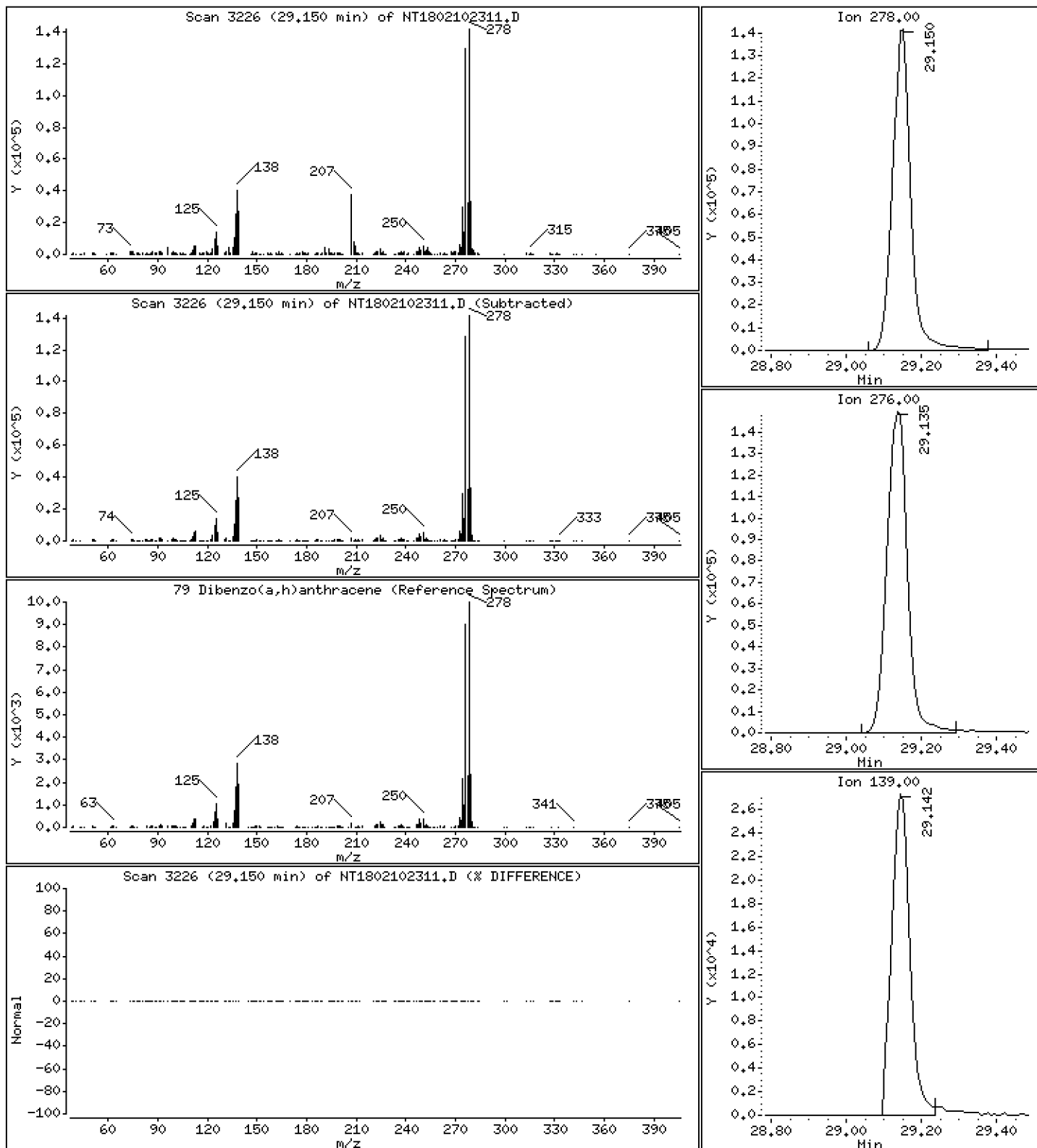
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 3,933 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

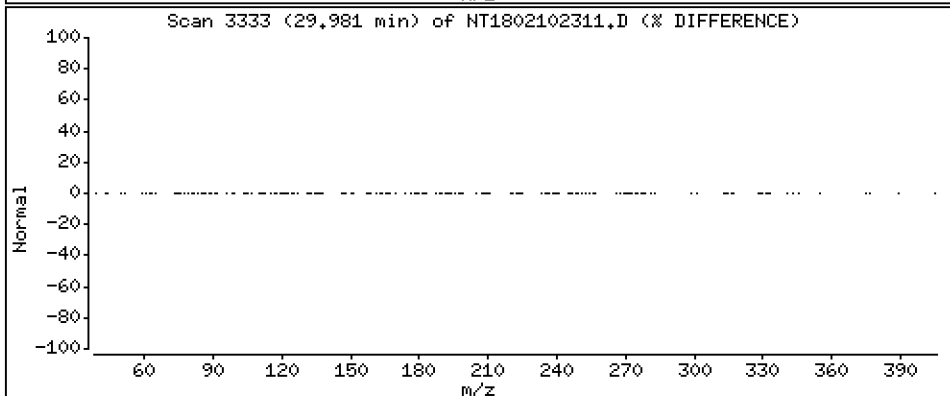
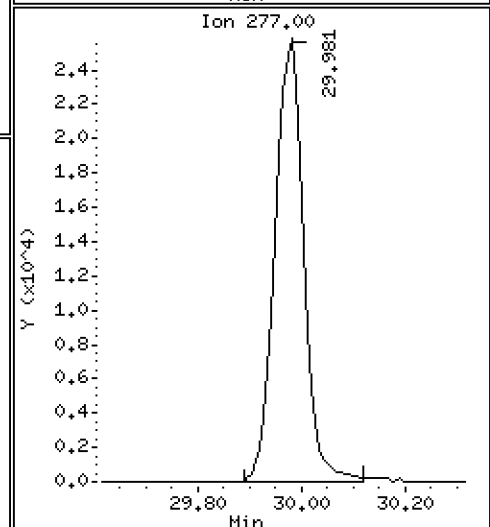
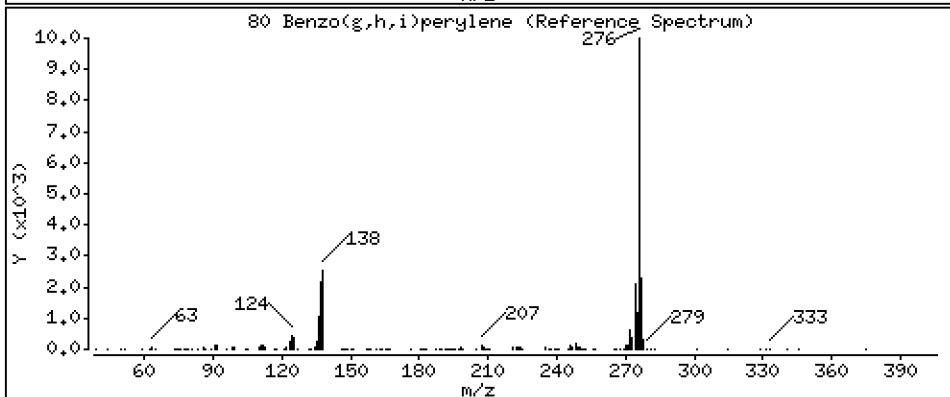
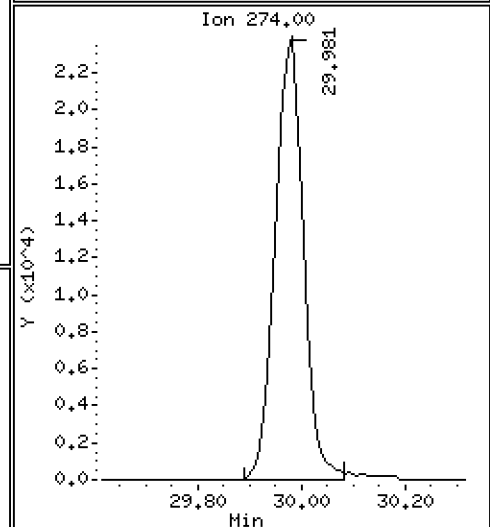
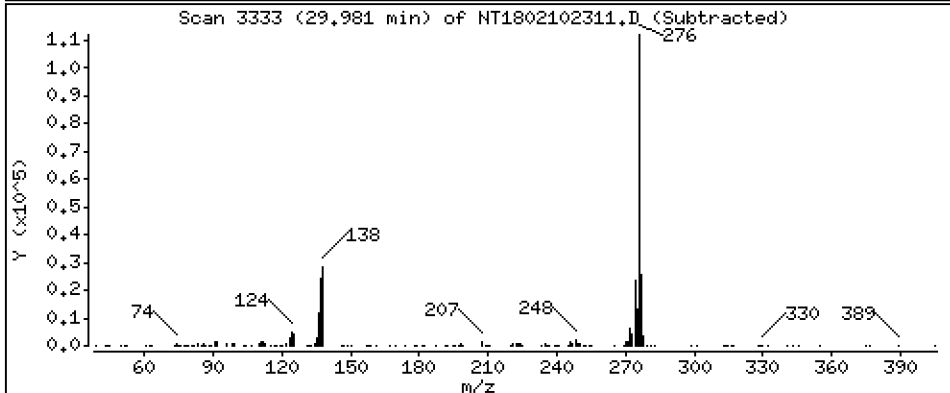
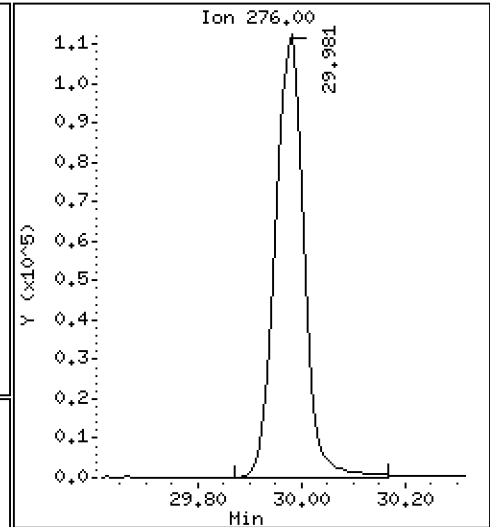
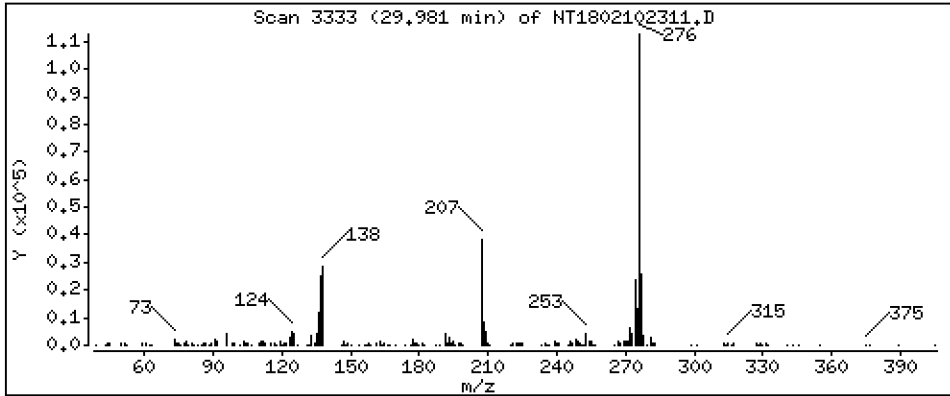
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 3,943 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

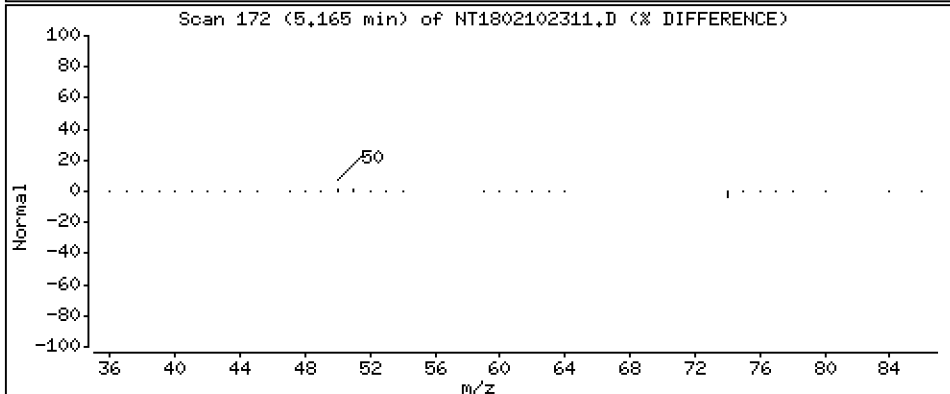
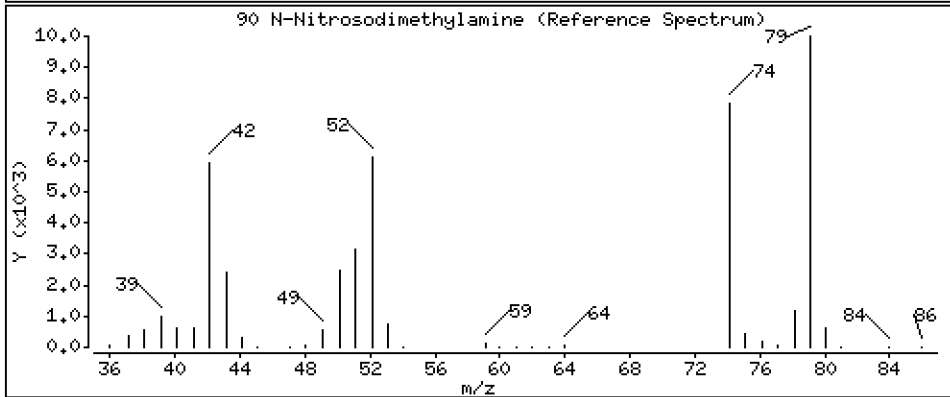
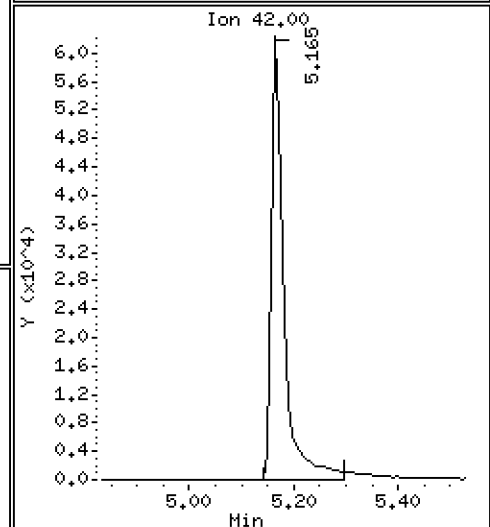
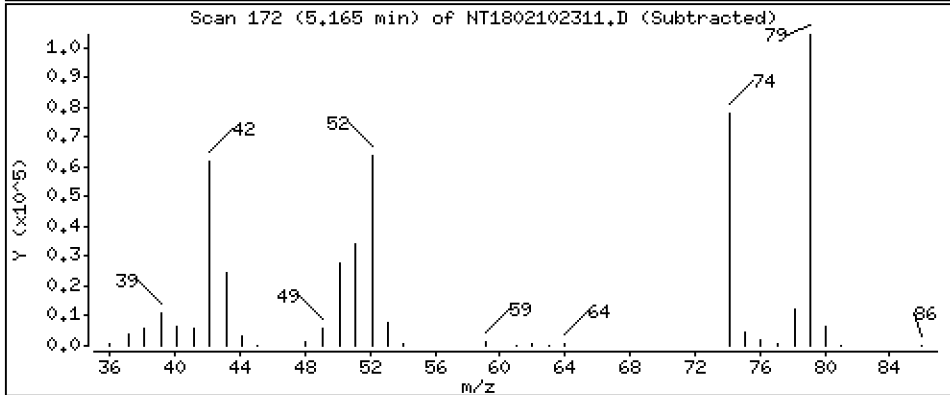
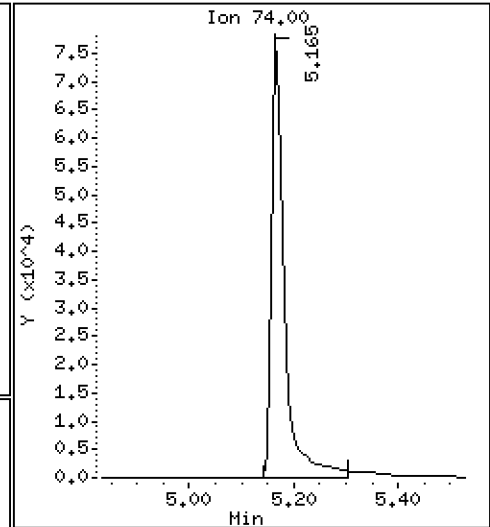
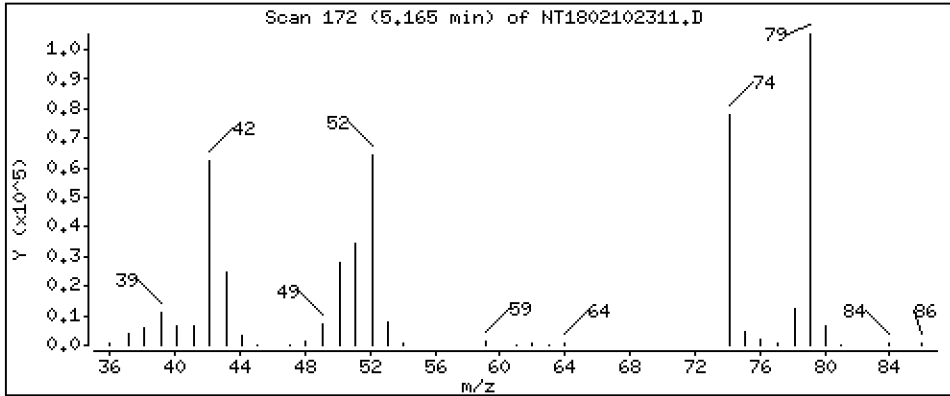
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 4,665 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

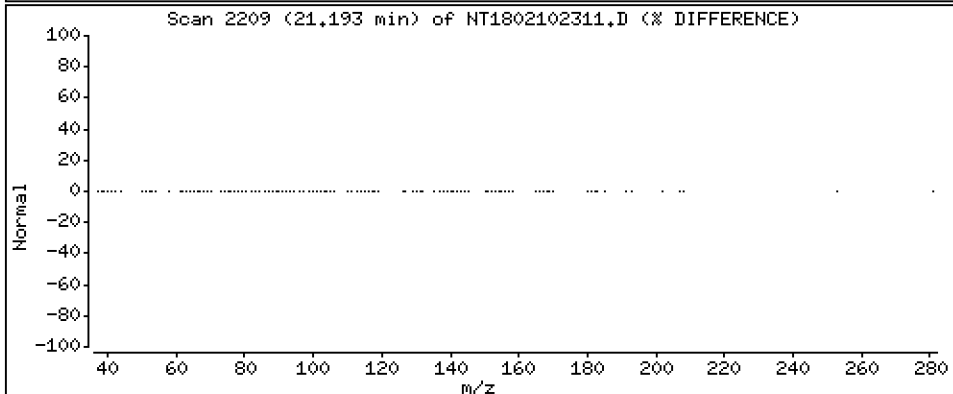
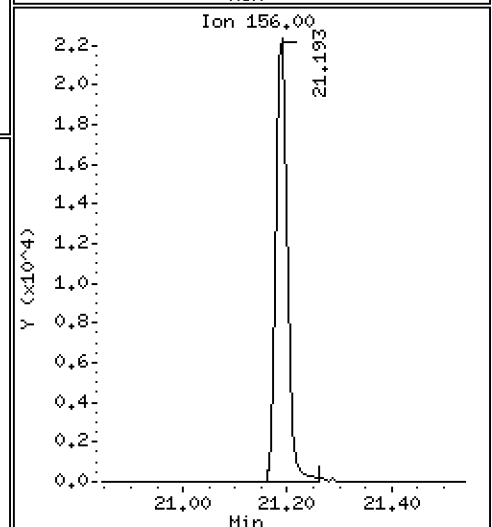
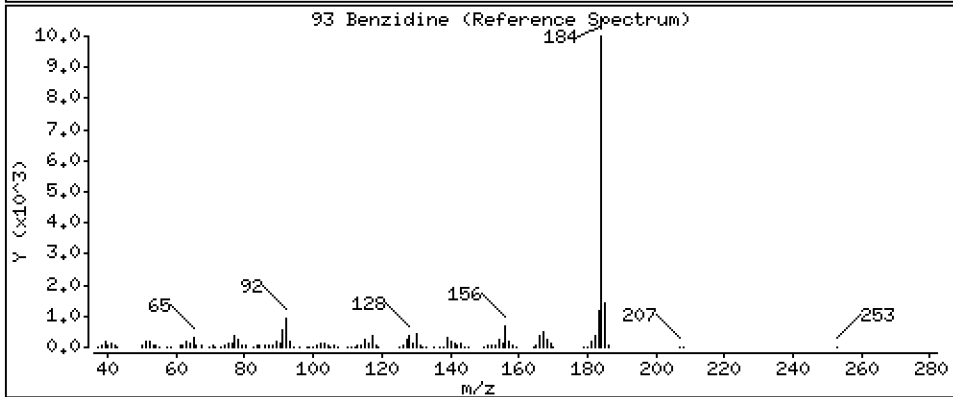
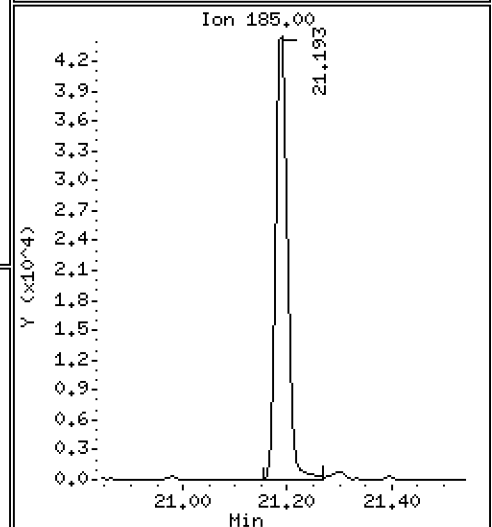
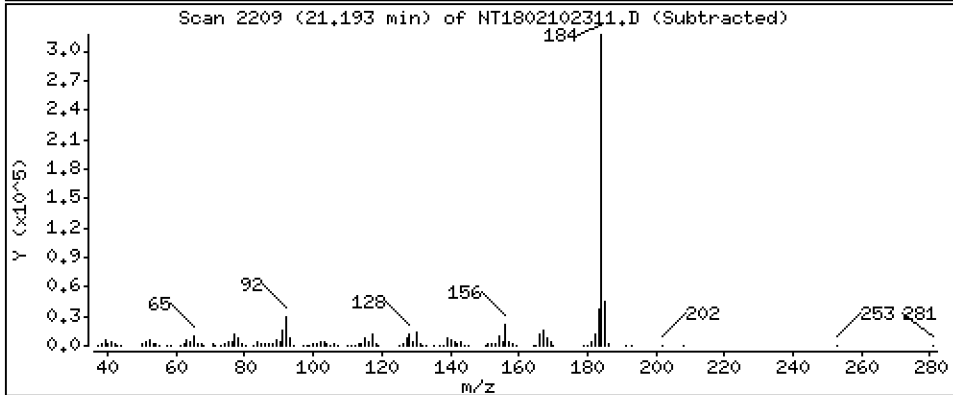
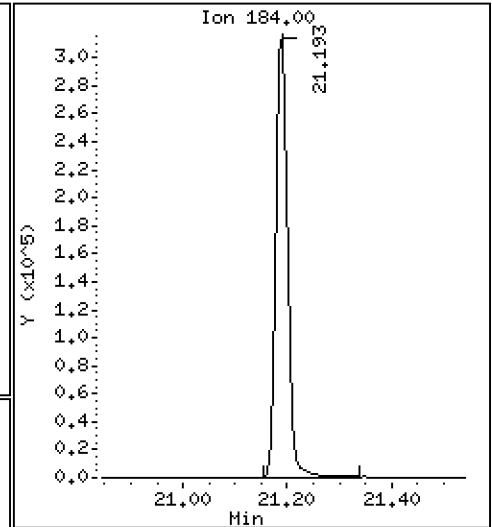
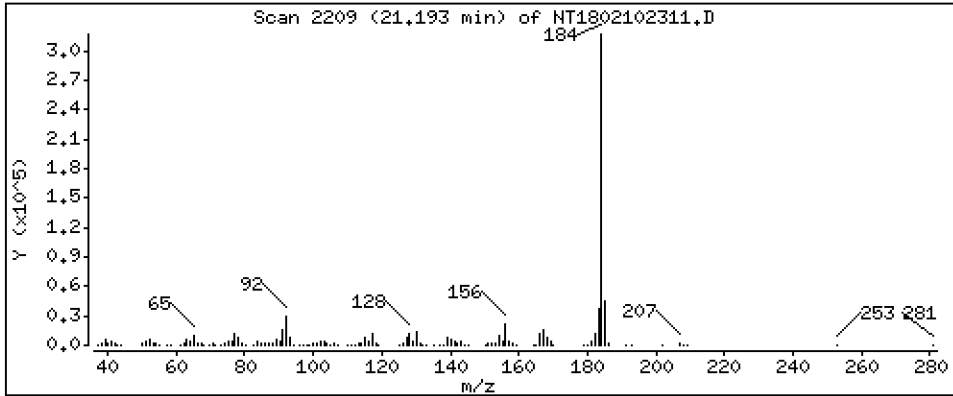
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 6,981 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

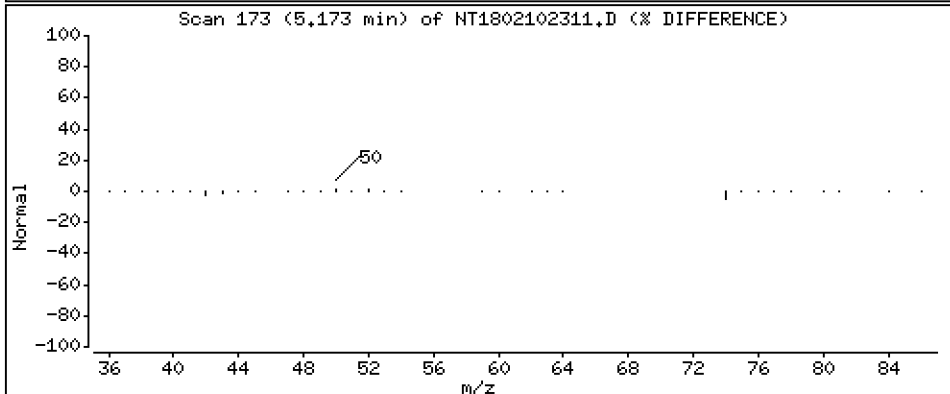
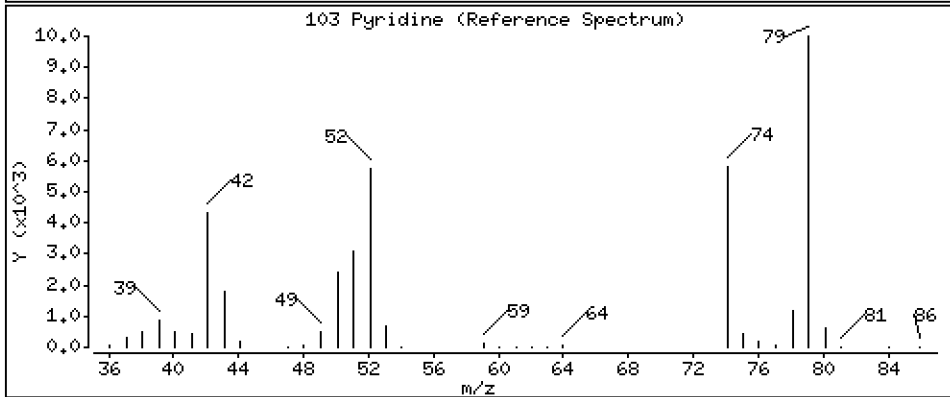
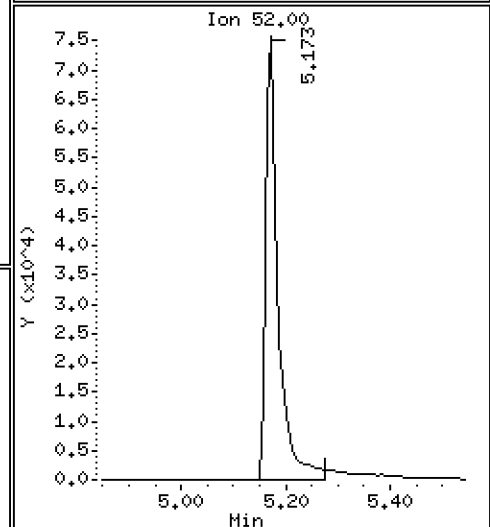
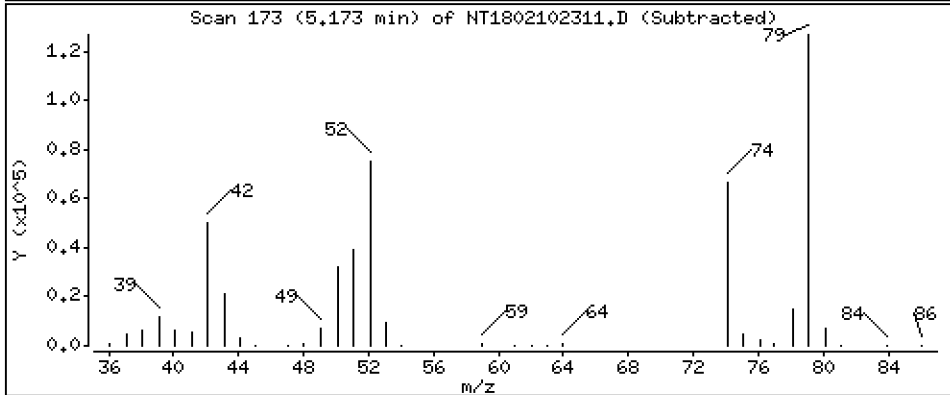
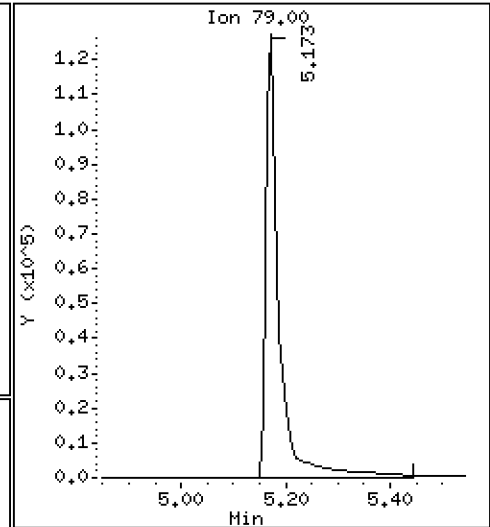
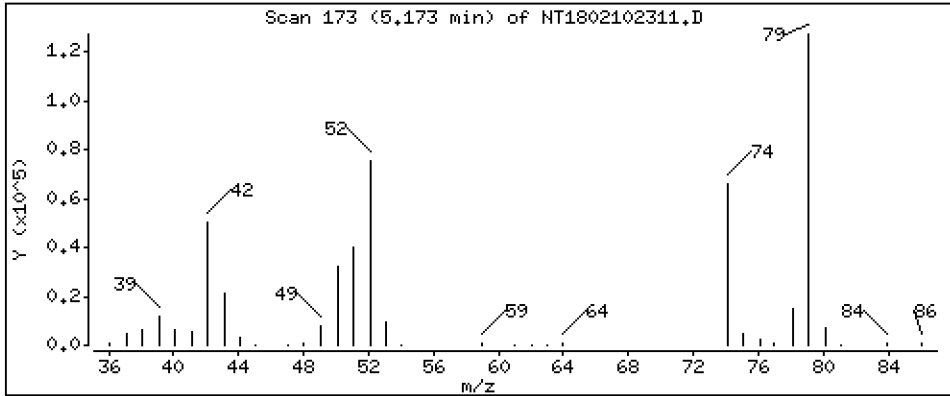
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

103 Pyridine

Concentration: 5,560 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

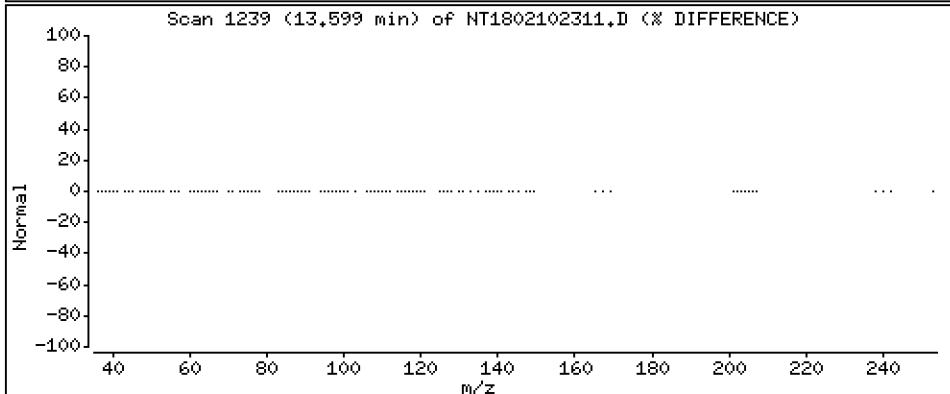
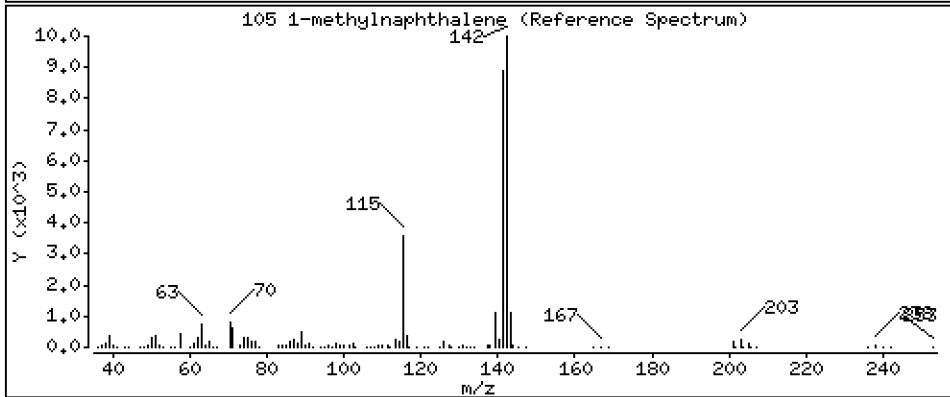
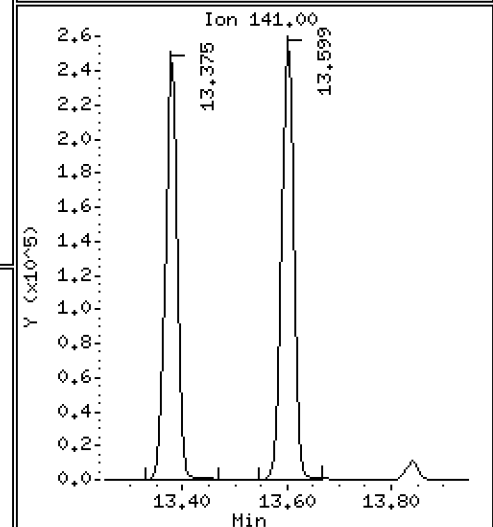
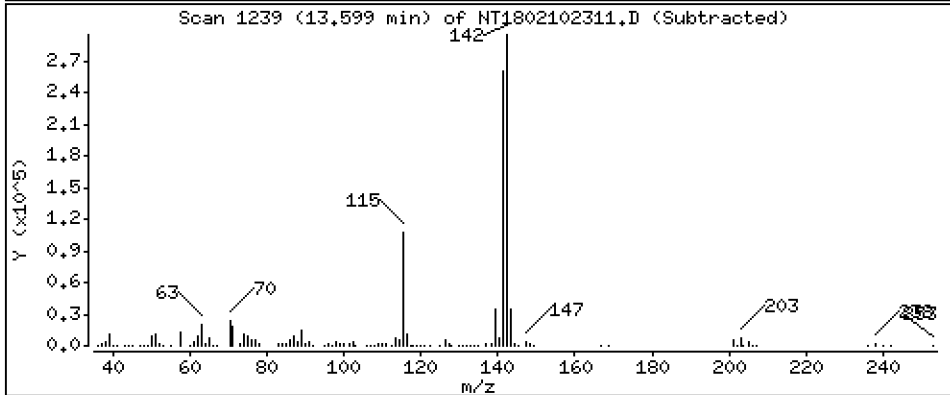
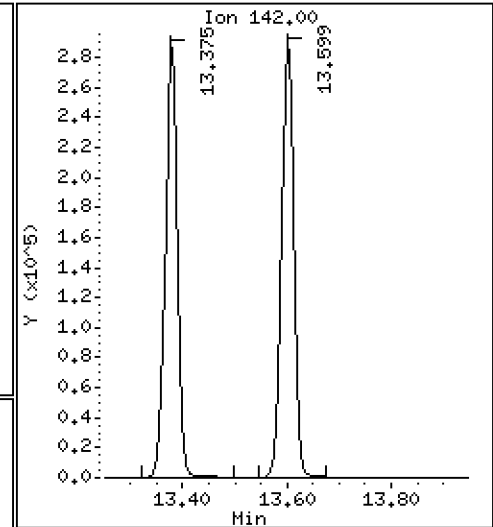
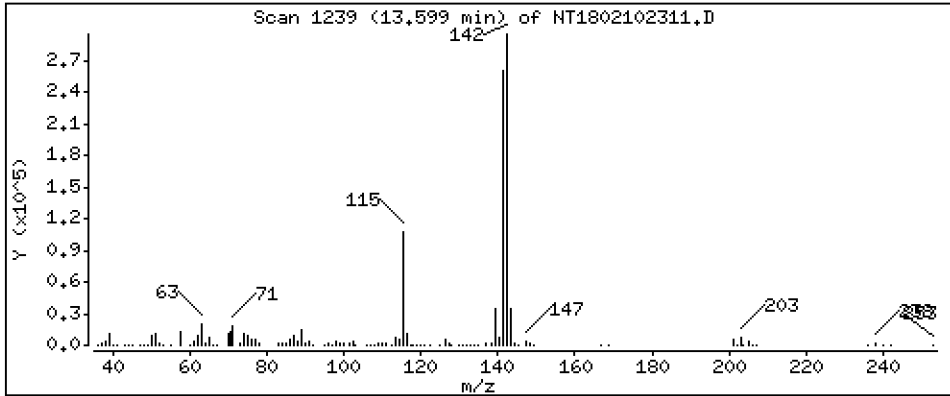
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 4,246 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

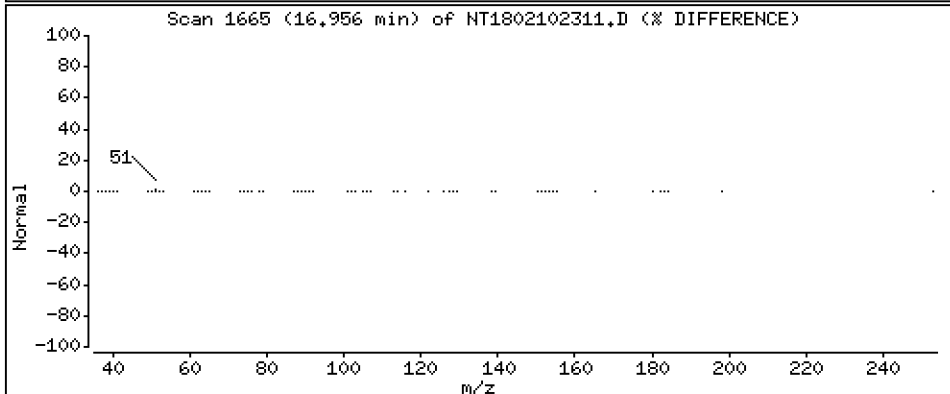
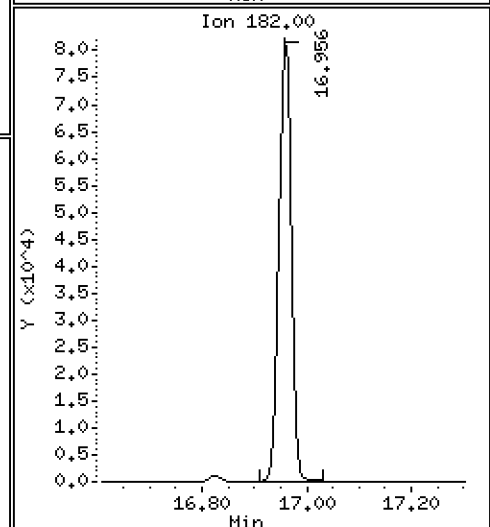
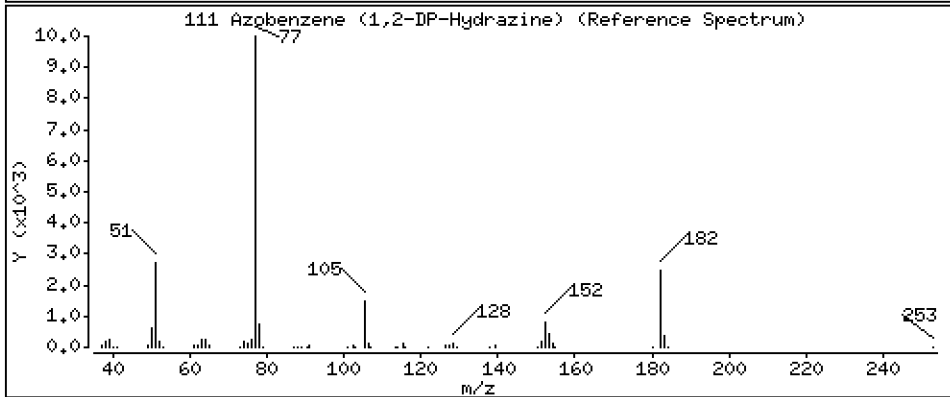
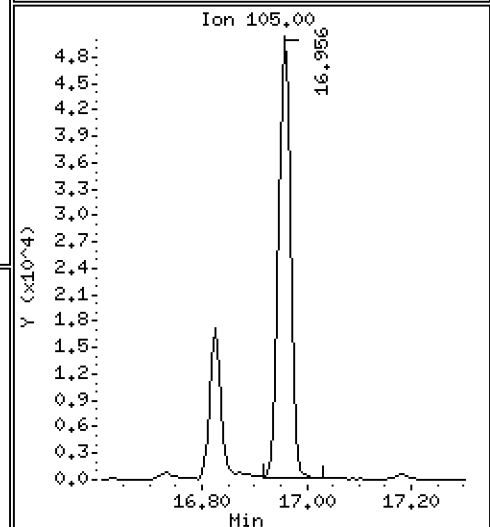
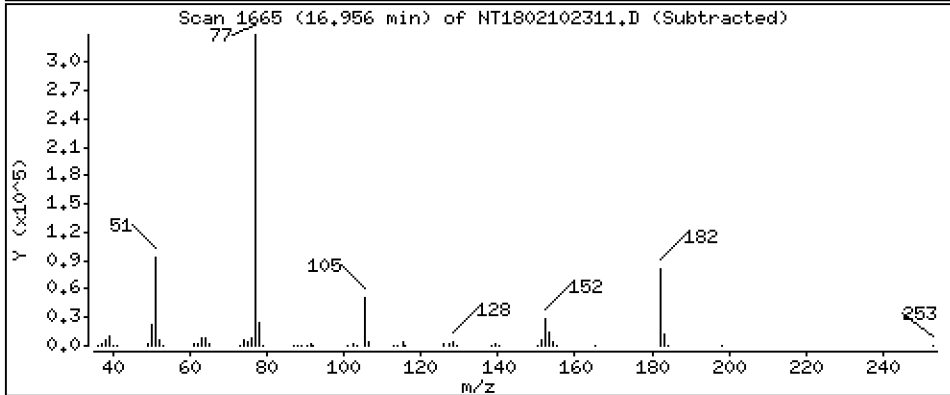
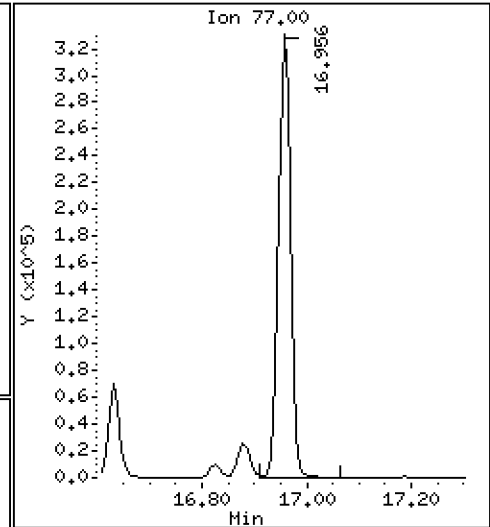
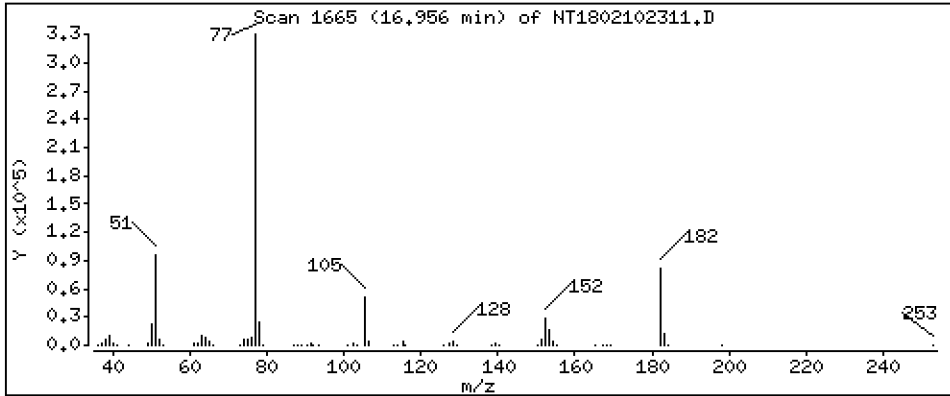
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 4,599 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

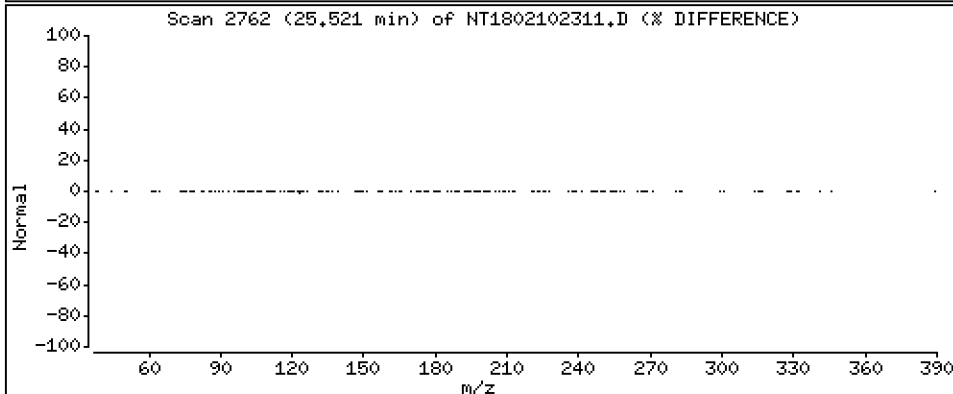
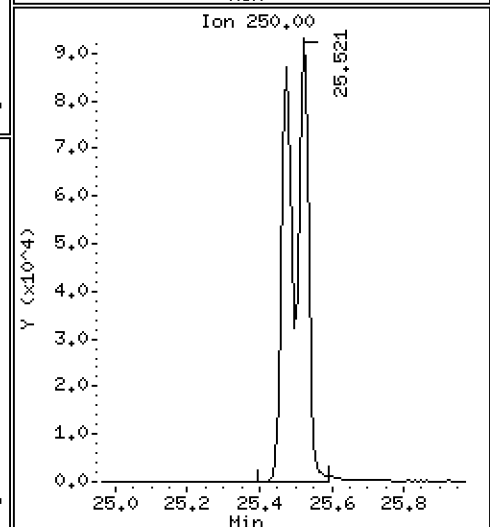
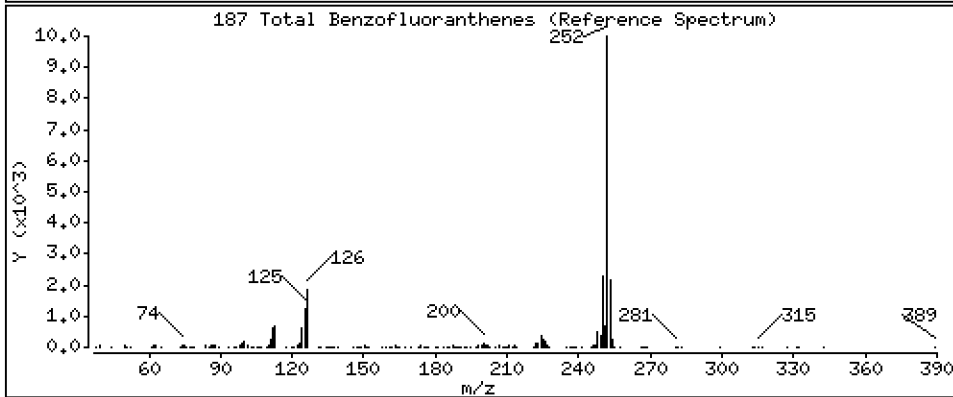
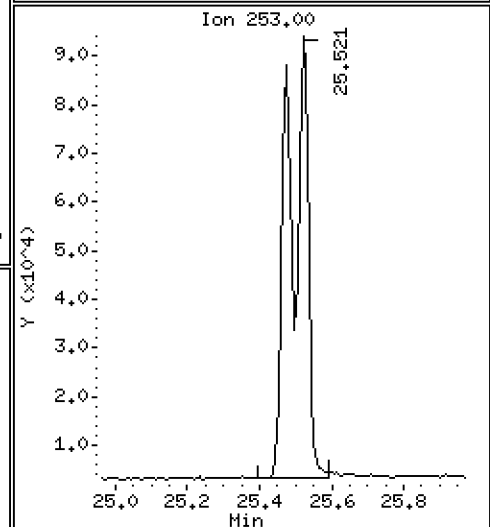
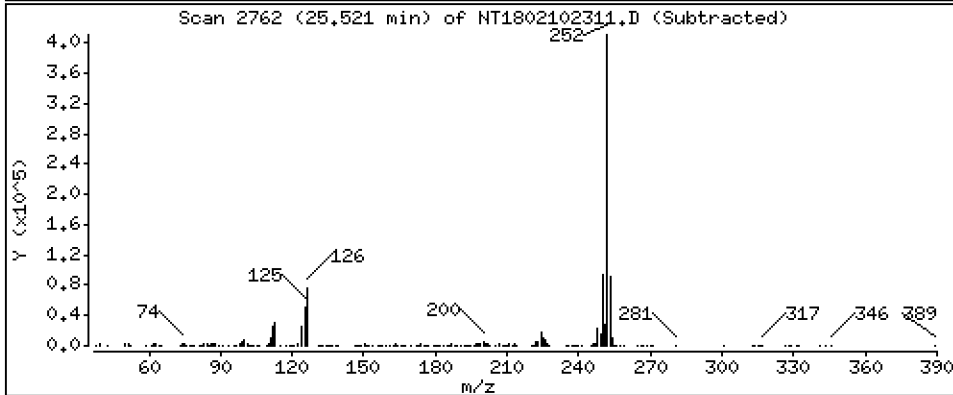
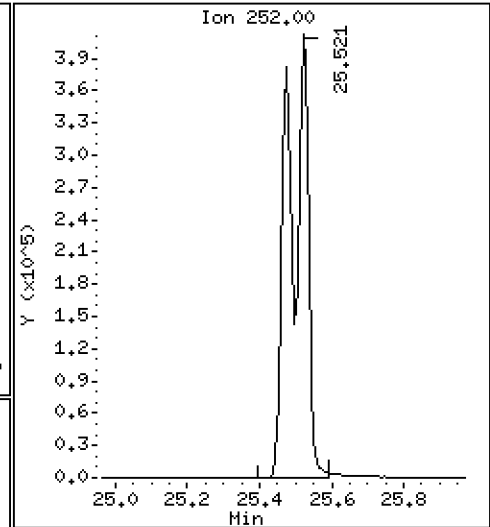
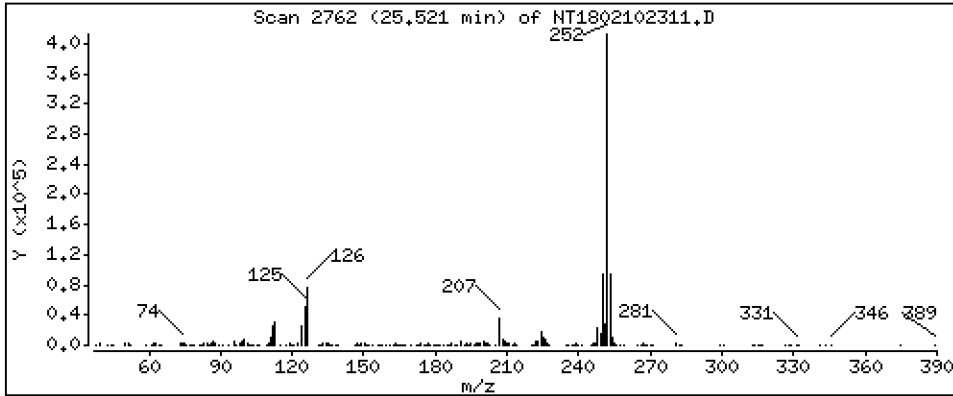
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 8,365 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

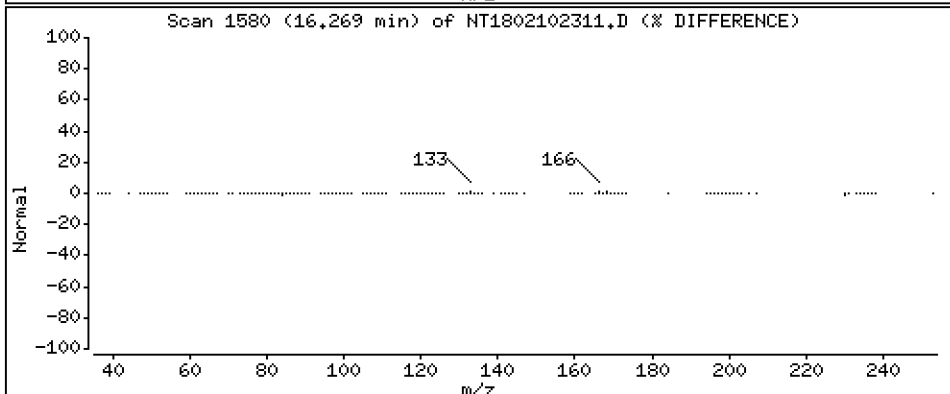
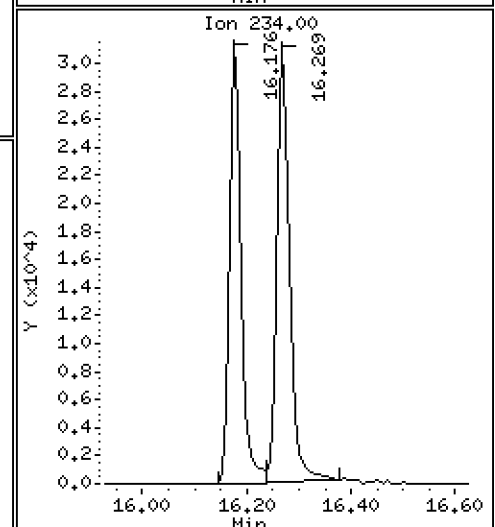
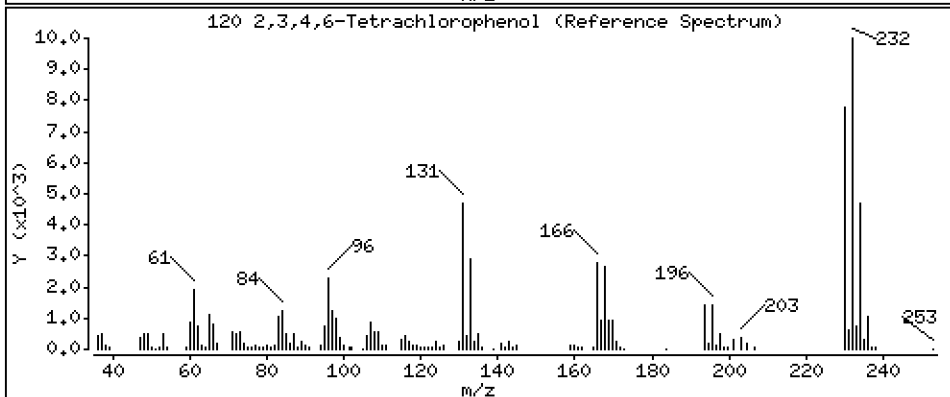
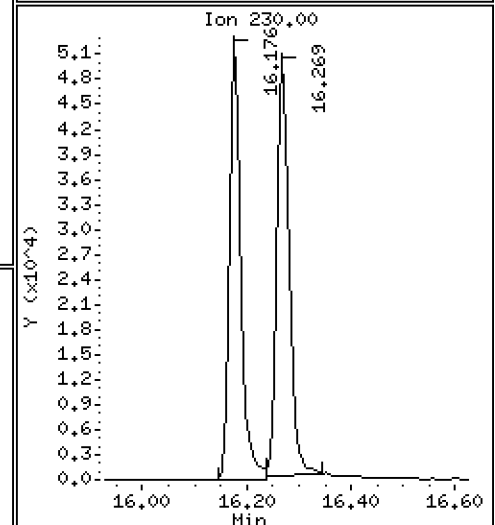
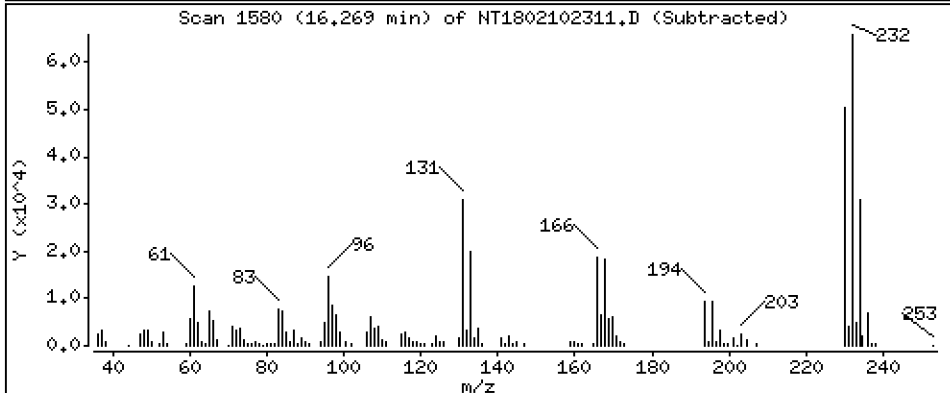
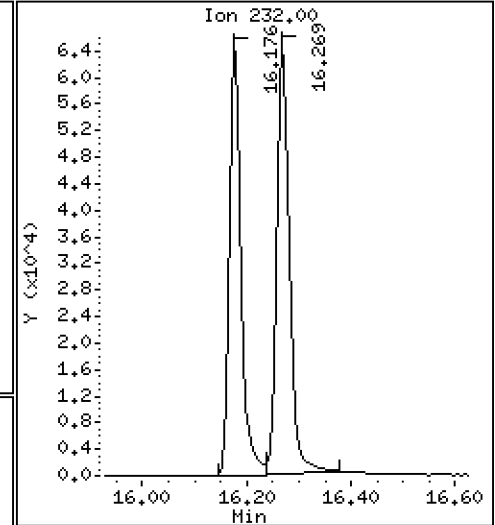
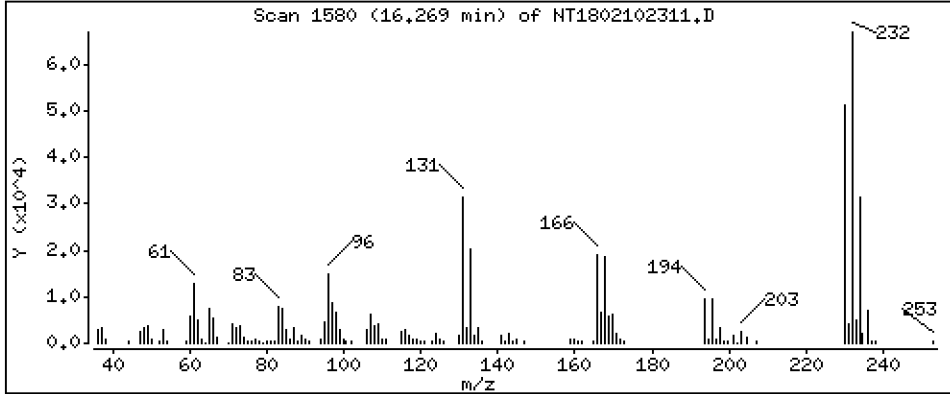
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,293 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230210.b\NT1802102311.D
 Lab Smp Id: SLB0195-SCV1
 Inj Date : 10-FEB-2023 23:06
 Operator : VTS
 Smp Info : SLB0195-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Meth Date : 15-Feb-2023 08:10 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i

Quant Type: ISTD
 Cal File: NT1802102308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.243	7.258	(0.765)	329487	6.54515	6.545
\$ 2 Phenol-d5	99		8.804	8.811	(0.930)	430038	6.72812	6.728
3 Phenol	94		8.827	8.827	(0.932)	268447	4.28578	4.286
\$ 5 2-Chlorophenol-d4	132		9.105	9.113	(0.962)	370890	6.67443	6.674
4 Bis(2-Chloroethyl)ether	93		9.012	9.012	(0.952)	220953	4.66095	4.661
6 2-Chlorophenol	128		9.136	9.136	(0.965)	232546	4.31814	4.318
7 1,3-Dichlorobenzene	146		9.406	9.406	(0.993)	260903	4.44563	4.446
* 8 1,4-Dichlorobenzene-d4	152		9.469	9.469	(1.000)	145438	4.00000	
9 1,4-Dichlorobenzene	146		9.500	9.500	(1.003)	291431	4.62944	4.629
\$ 10 1,2-Dichlorobenzene-d4	152		9.833	9.833	(1.039)	170712	4.26821	4.268
12 1,2-Dichlorobenzene	146		9.500	9.500	(1.003)	291431	4.62944	4.629
11 Benzyl alcohol	108		9.732	9.740	(1.028)	139735	4.13477	4.135
14 2,2'-oxybis(1-Chloropropane)	121		10.027	10.027	(1.059)	72717	4.93218	4.932
13 2-Methylphenol	108		9.942	9.950	(1.050)	186528	4.10909	4.109
17 Hexachloroethane	117		10.447	10.447	(1.103)	104716	4.72730	4.727
16 N-Nitroso-di-n-propylamine	70		10.291	10.291	(1.087)	163774	4.77438	4.774
15 4-Methylphenol	108		10.214	10.214	(1.079)	207510	3.94467	3.945
\$ 18 Nitrobenzene-d5	82		10.563	10.563	(0.884)	253399	4.67107	4.671
19 Nitrobenzene	77		10.594	10.602	(0.886)	245588	4.73327	4.733
20 Isophorone	82		11.036	11.036	(0.923)	482745	6.04164	6.042
21 2-Nitrophenol	139		11.224	11.232	(0.939)	115784	4.03252	4.033
22 2,4-Dimethylphenol	107		11.249	11.257	(0.941)	171402	3.73380	3.734
23 Bis(2-Chloroethoxy)methane	93		11.453	11.461	(0.958)	259246	5.28642	5.286
24 Benzoic acid	105		11.419	11.461	(0.955)	121178	4.25160	4.252
25 2,4-Dichlorophenol	162		11.665	11.673	(0.976)	204801	4.52884	4.529
26 1,2,4-Trichlorobenzene	180		11.859	11.858	(0.992)	214124	4.24526	4.245
* 27 Naphthalene-d8	136		11.951	11.951	(1.000)	551199	4.00000	
28 Naphthalene	128		11.990	11.990	(1.003)	720247	4.54551	4.546
29 4-Chloroaniline	127		12.106	12.113	(1.013)	238457	3.50595	3.506
30 Hexachlorobutadiene	225		12.345	12.345	(1.033)	128017	4.41413	4.414
31 4-Chloro-3-methylphenol	107		13.049	13.049	(1.092)	183451	4.48477	4.485
32 2-Methylnaphthalene	142		13.374	13.382	(1.119)	461441	4.27864	4.279
33 Hexachlorocyclopentadiene	237		13.839	13.839	(0.890)	128716	4.13030	4.130

Compounds	QUANT SIG					CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)	
34 2,4,6-Trichlorophenol	196	13.986	13.994	(0.899)	125703	4.33357	4.334	
35 2,4,5-Trichlorophenol	196	14.063	14.063	(0.904)	136483	4.22515	4.225	
§ 36 2-Fluorobiphenyl	172	14.148	14.148	(0.909)	548612	4.24153	4.242	
37 2-Chloronaphthalene	162	14.373	14.373	(0.924)	417815	4.29866	4.299	
38 2-Nitroaniline	65	14.620	14.620	(0.940)	116262	4.43115	4.431	
39 Dimethylphthalate	163	15.046	15.038	(0.967)	465121	4.54591	4.546	
40 Acenaphthylene	152	15.240	15.240	(0.980)	693610	4.67761	4.678	
41 2,6-Dinitrotoluene	165	15.186	15.178	(0.976)	107878	4.56021	4.560	
* 42 Acenaphthene-d10	164	15.557	15.549	(1.000)	292562	4.00000		
43 3-Nitroaniline	138	15.464	15.464	(0.994)	120752	4.65113	4.651	
44 Acenaphthene	153	15.619	15.611	(1.004)	435254	4.40183	4.402	
45 2,4-Dinitrophenol	184	15.673	15.688	(1.007)	31634	1.93630	1.936	
46 Dibenzofuran	168	15.943	15.943	(1.025)	601599	4.24667	4.247	
47 4-Nitrophenol	109	15.766	15.766	(1.013)	57165	3.97553	3.976	
48 2,4-Dinitrotoluene	165	15.990	15.990	(1.028)	142818	4.44610	4.446	
50 Diethylphthalate	149	16.492	16.484	(1.060)	525799	5.06221	5.062	
49 Fluorene	166	16.654	16.647	(1.071)	508979	4.54229	4.542	
51 4-Chlorophenyl-phenylether	204	16.631	16.631	(1.069)	245105	4.33907	4.339	
52 4-Nitroaniline	138	16.732	16.724	(1.076)	112840	4.13087	4.131	
53 4,6-Dinitro-2-methylphenol	198	16.824	16.824	(0.906)	66257	3.30084	3.301	
54 N-Nitrosodiphenylamine	169	16.878	16.878	(0.909)	339419	4.35576	4.356	
§ 55 2,4,6-Tribromophenol	330	17.179	17.179	(1.104)	114426	6.00954	6.010	
56 4-Bromophenyl-phenylether	248	17.634	17.634	(0.949)	145114	4.46384	4.464	
57 Hexachlorobenzene	284	17.958	17.958	(0.967)	154985	4.08548	4.085	
58 Pentachlorophenol	266	18.307	18.314	(0.985)	74910	3.50720	3.507	
* 59 Phenanthrene-d10	188	18.577	18.577	(1.000)	526860	4.00000		
60 Phenanthrene	178	18.624	18.624	(1.002)	673000	4.22805	4.228	
61 Anthracene	178	18.717	18.717	(1.007)	573319	4.02695	4.027	
62 Carbazole	167	19.034	19.034	(1.025)	578774	4.06642	4.066	
63 Di-n-butylphthalate	149	19.800	19.800	(1.066)	762492	4.13897	4.139	
64 Fluoranthene	202	20.976	20.968	(0.890)	769747	4.55528	4.555	
65 Pyrene	202	21.394	21.394	(0.908)	777517	4.32844	4.328	
§ 66 Terphenyl-d14	244	21.665	21.657	(0.919)	687413	4.14974	4.150	
67 Butylbenzylphthalate	149	22.563	22.563	(0.958)	338834	4.20350	4.203	
68 Benzo(a)anthracene	228	23.531	23.523	(0.999)	751678	4.24696	4.247	
* 69 Chrysene-d12	240	23.562	23.554	(1.000)	535596	4.00000		
70 3,3'-Dichlorobenzidine	252	23.476	23.469	(0.996)	610586	7.58242	7.582	
71 Chrysene	228	23.600	23.600	(1.002)	757675	4.06155	4.062	
72 bis(2-Ethylhexyl)phthalate	149	23.569	23.569	(0.959)	527963	4.85659	4.857	
* 134 Di-n-octylphthalate-d4	153	24.568	24.568	(1.000)	714503	4.00000		
73 Di-n-octylphthalate	149	24.584	24.576	(1.001)	904032	4.30658	4.307	
74 Benzo(b)fluoranthene	252	25.474	25.466	(0.969)	762201	4.17262	4.173	
75 Benzo(k)fluoranthene	252	25.520	25.513	(0.971)	838953	4.19851	4.199	
76 Benzo(a)pyrene	252	26.171	26.163	(0.995)	680380	4.56046	4.560	
* 77 Perylene-d12	264	26.295	26.287	(1.000)	523305	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	29.134	29.126	(1.108)	562656	3.85904	3.859	
79 Dibenzo(a,h)anthracene	278	29.150	29.134	(1.109)	473204	3.93269	3.933	
80 Benzo(g,h,i)perylene	276	29.981	29.965	(1.140)	431324	3.94280	3.943	
90 N-Nitrosodimethylamine	74	5.165	5.180	(0.545)	128409	4.66507	4.665	
91 Aniline	93	Compound Not Detected.						
93 Benzidine	184	21.193	21.193	(0.899)	471681	6.98064	6.981	
103 Pyridine	79	5.173	5.196	(0.546)	224983	5.55984	5.560	
105 1-methylnaphthalene	142	13.599	13.599	(1.138)	446626	4.24597	4.246	
111 Azobenzene (1,2-DP-Hydrazine)	77	16.955	16.955	(1.090)	503784	4.59932	4.599	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.520	25.466	(0.971)	1530839	8.36489	8.365
120 2,3,4,6-Tetrachlorophenol	232	16.268	16.276	(1.046)	105822	3.29329	3.293

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 10-FEB-2023
 Lab File ID: NT1802102311.D Calibration Time: 18:25
 Lab Smp Id: SLB0195-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	102093	51047	204186	145438	42.46
27 Naphthalene-d8	389769	194885	779538	551199	41.42
42 Acenaphthene-d10	207438	103719	414876	292562	41.04
59 Phenanthrene-d10	358643	179322	717286	526860	46.90
69 Chrysene-d12	349501	174751	699002	535596	53.25
134 Di-n-octylphthala	468622	234311	937244	714503	52.47
77 Perylene-d12	343443	171722	686886	523305	52.37

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.48	8.98	9.98	9.47	-0.08
27 Naphthalene-d8	11.95	11.45	12.45	11.95	0.00
42 Acenaphthene-d10	15.55	15.05	16.05	15.56	0.05
59 Phenanthrene-d10	18.58	18.08	19.08	18.58	0.00
69 Chrysene-d12	23.55	23.05	24.05	23.56	0.03
134 Di-n-octylphthala	24.57	24.07	25.07	24.57	0.00
77 Perylene-d12	26.30	25.80	26.80	26.30	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802102311.D

Lab ID: SLB0195-SCV1
nt18.i, ABN.m, 10-FEB-2023 23:06

RT	CO-ELUTION COMPOUNDS
9.500	1,2-Dichlorobenzene and 1,4-Dichlorobenzene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.955	0.000	0.9555	Benzoic acid
1.007	0.000	1.0075	2,4-Dinitrophenol

RRT check based on Ccal File: NT1802102308.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *



**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00018

Laboratory ID: SLB0102-LCV1

Sequence: SLB0102

Standard ID: K011106

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	0.50000	0.5	5.3	50.00
4-Methylphenol	0.50000	0.5	4.6	50.00
Naphthalene	0.50000	0.5	4.8	50.00
2-Methylnaphthalene	0.50000	0.5	3.8	50.00
Acenaphthylene	0.50000	0.5	6.2	50.00
Dimethylphthalate	0.50000	0.5	6.0	50.00
Acenaphthene	0.50000	0.5	4.3	50.00
Dibenzofuran	0.50000	0.5	2.9	50.00
Fluorene	0.50000	0.6	11.1	50.00
Phenanthrene	0.50000	0.5	5.5	50.00
Anthracene	0.50000	0.5	4.6	50.00
Fluoranthene	0.50000	0.5	4.6	50.00
Pyrene	0.50000	0.5	5.3	50.00
Butylbenzylphthalate	0.50000	0.5	-1.1	50.00
Benzo(a)anthracene	0.50000	0.5	9.4	50.00
Chrysene	0.50000	0.6	10.1	50.00
bis(2-Ethylhexyl)phthalate	0.50000	0.5	2.2	50.00
Benzo(a)fluoranthene, Total	1.0000	1.1	6.3	50.00
Benzo(a)pyrene	0.50000	0.5	1.4	50.00
Indeno(1,2,3-cd)pyrene	0.50000	0.5	2.6	50.00
Dibenzo(a,h)anthracene	0.50000	0.5	3.1	50.00
Benzo(g,h,i)perylene	0.50000	0.5	0.8	50.00
2-Fluorophenol	0.75000	0.743	-0.9	50.00
Phenol-d5	0.75000	0.779	3.9	50.00
2-Chlorophenol-d4	0.75000	0.800	6.7	50.00
1,2-Dichlorobenzene-d4	0.50000	0.535	7.0	50.00
Nitrobenzene-d5	0.50000	0.528	5.7	50.00
2-Fluorobiphenyl	0.50000	0.532	6.5	50.00
2,4,6-Tribromophenol	0.75000	0.661	-11.9	50.00



**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00018

Laboratory ID: SLB0102-LCV1

Sequence: SLB0102

Standard ID: K011106

p-Terphenyl-d14	0.50000	0.546	9.2	50.00
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* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.16\NT1023020713.D

Date: 07-FEB-2023 19:20

Client ID:

Sample Info: SLB0102-LCW1

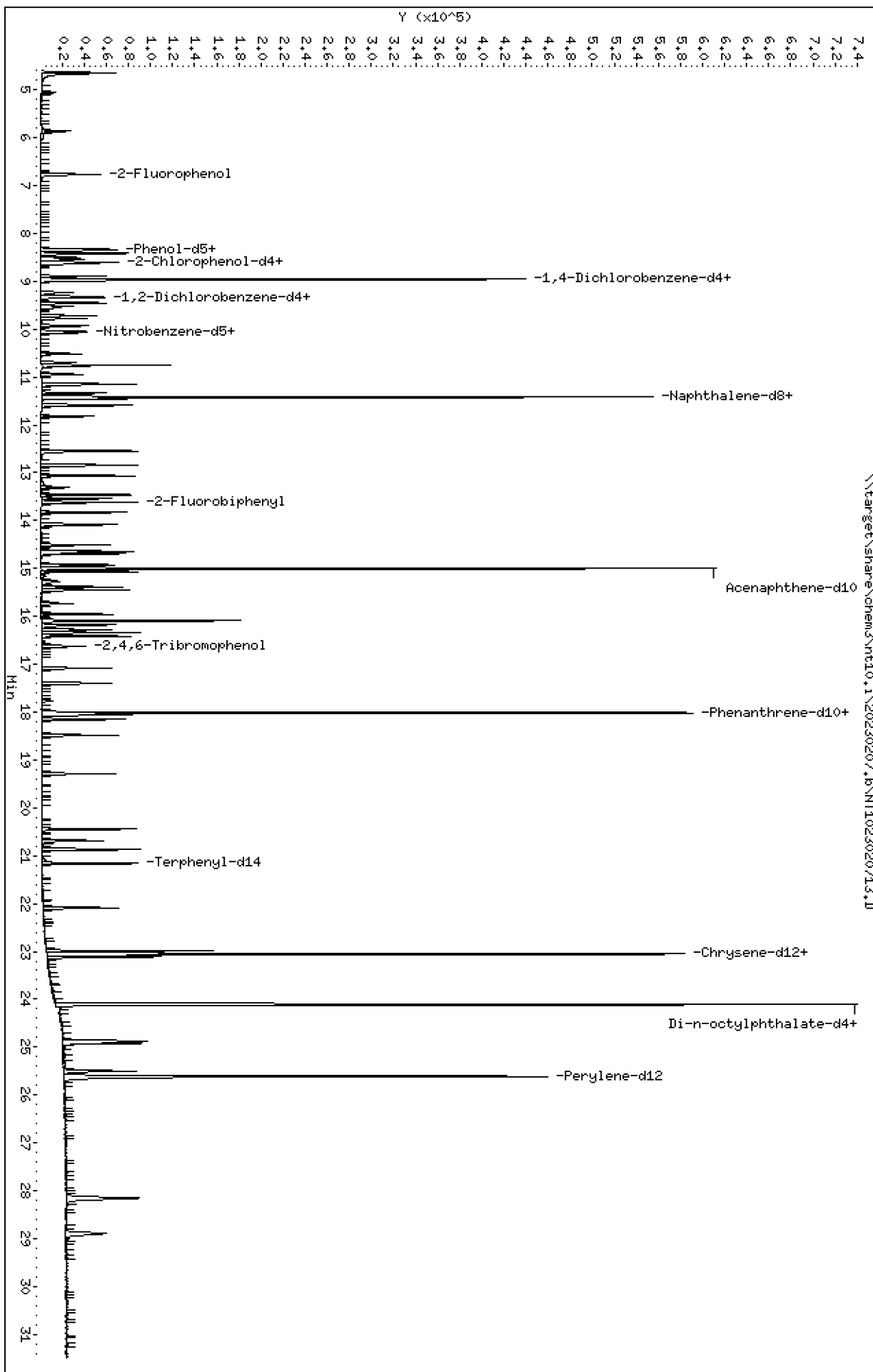
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

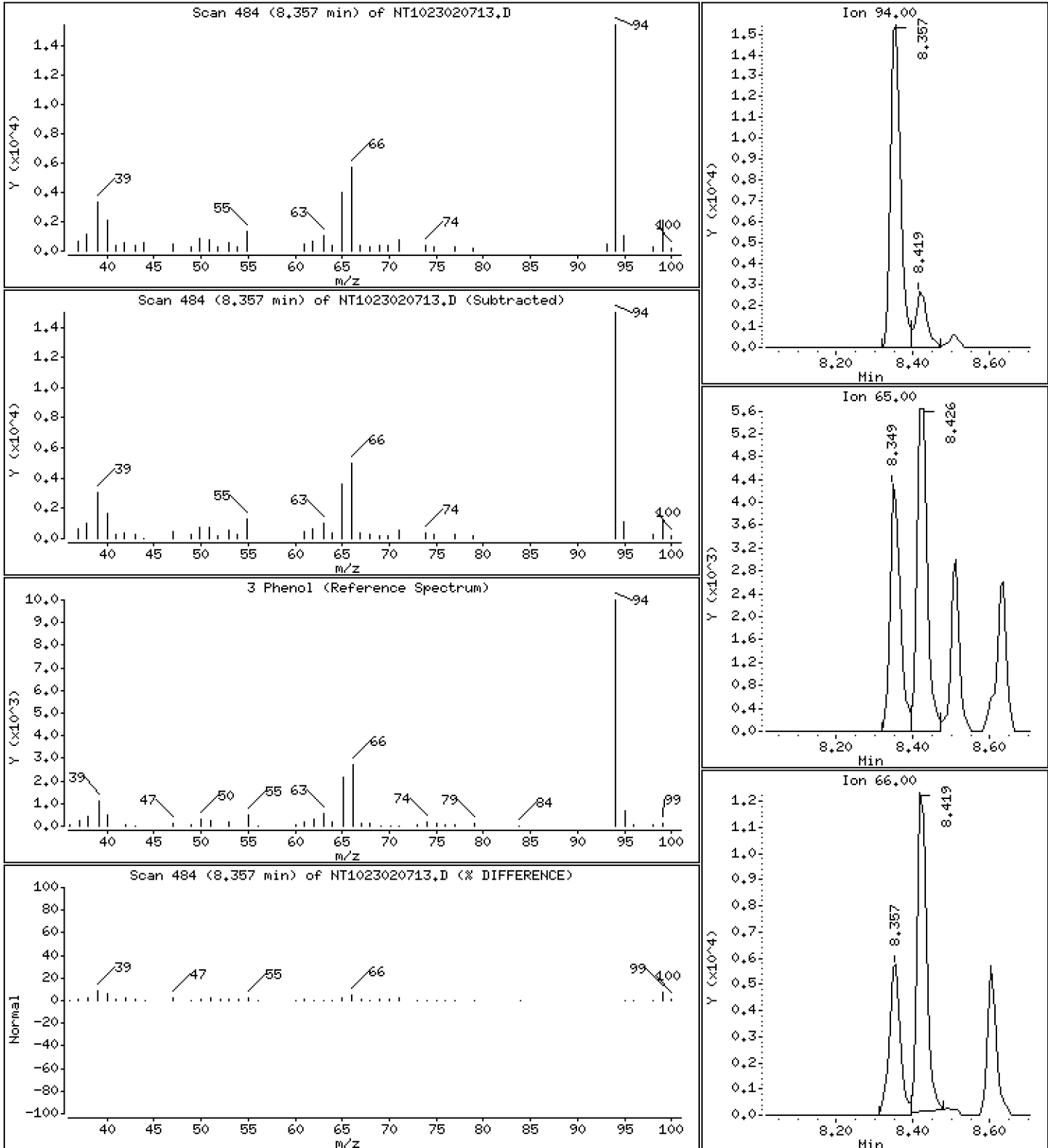
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,5264 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

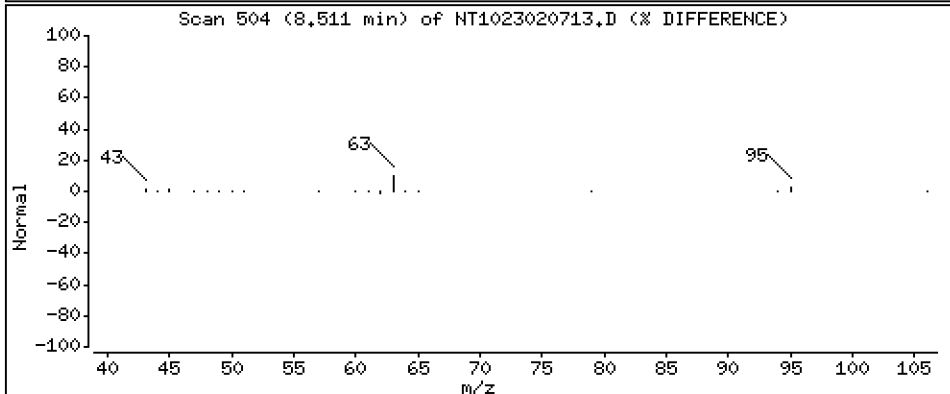
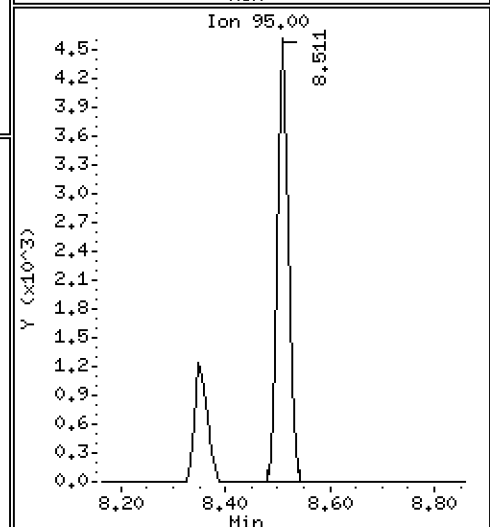
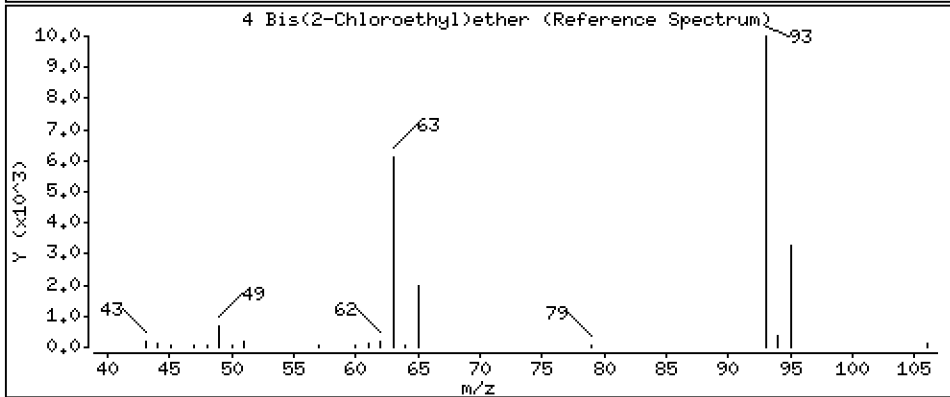
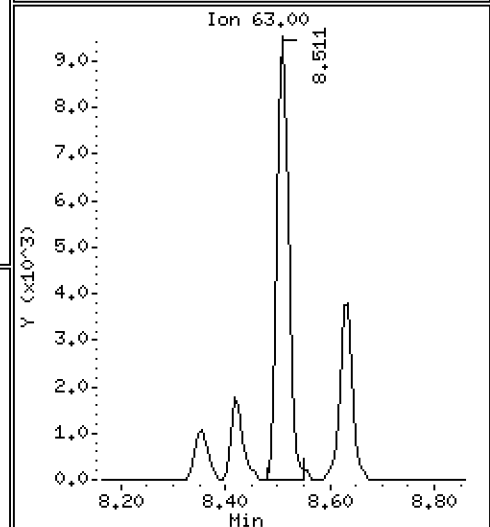
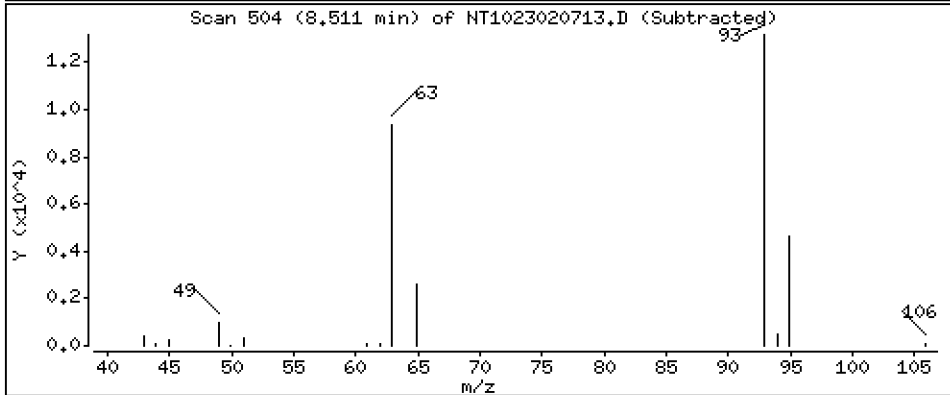
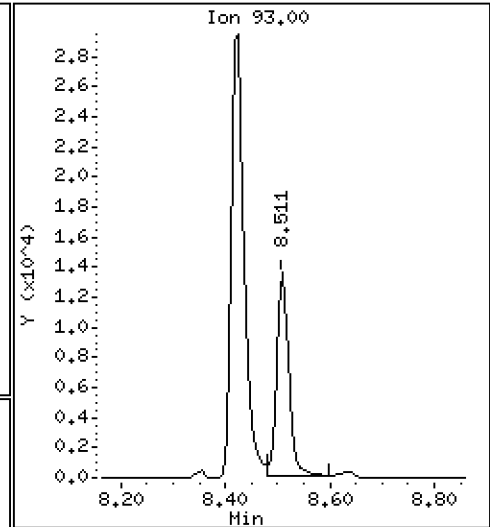
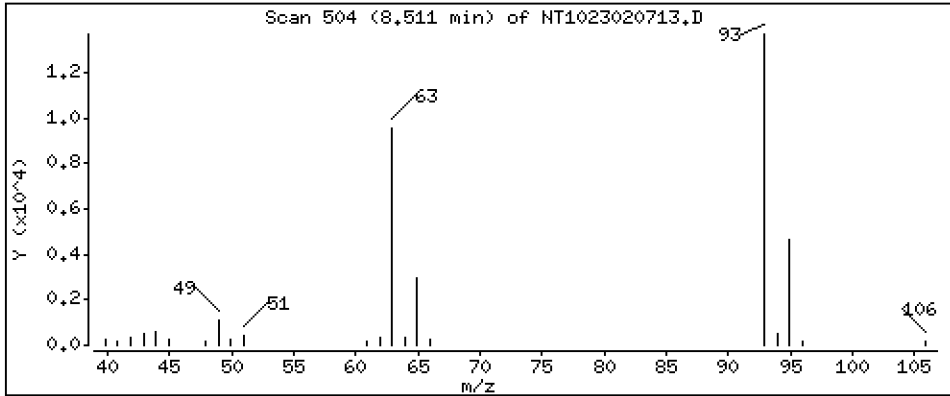
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,5444 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

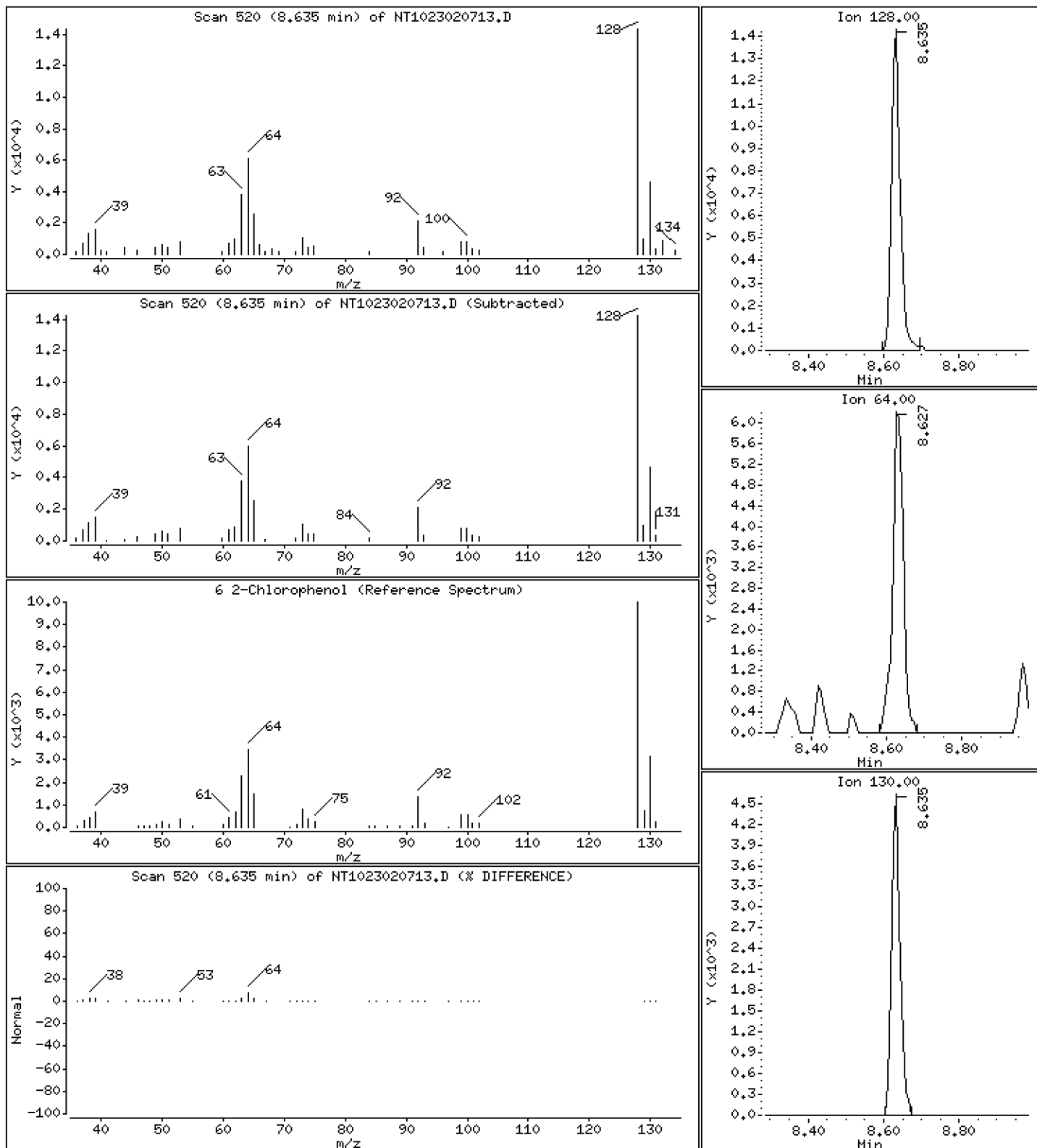
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 0,5367 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

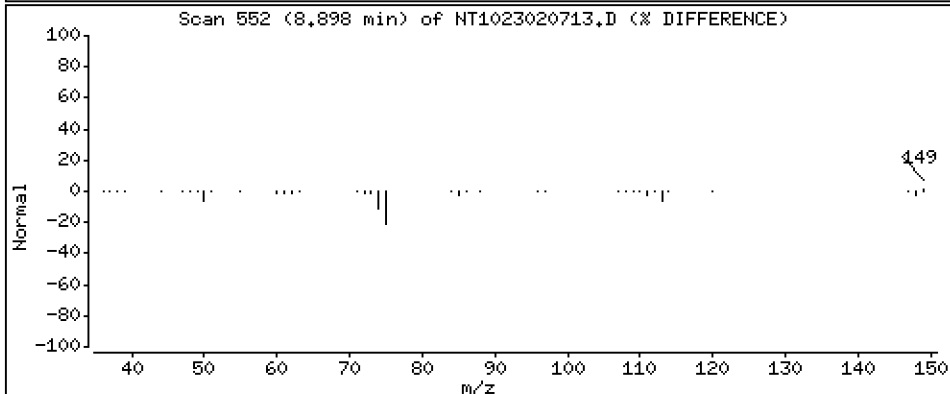
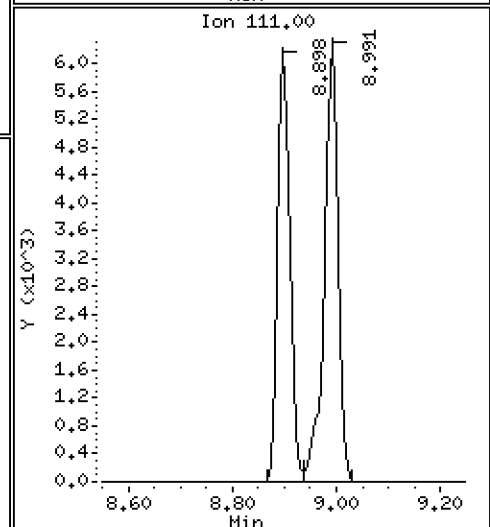
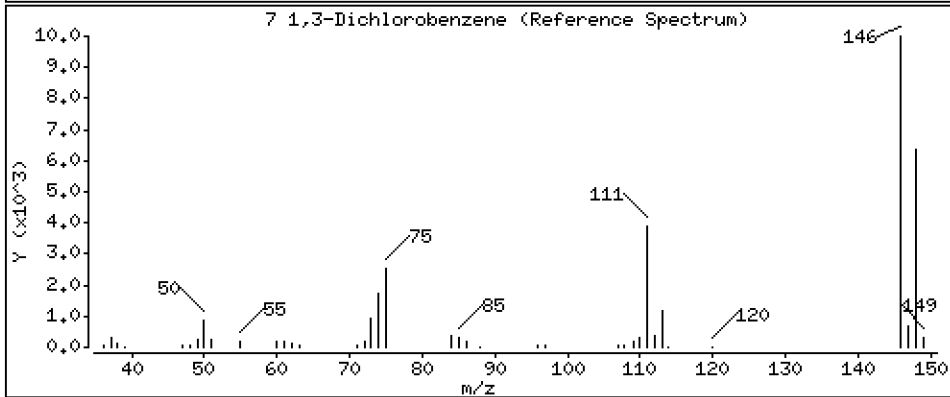
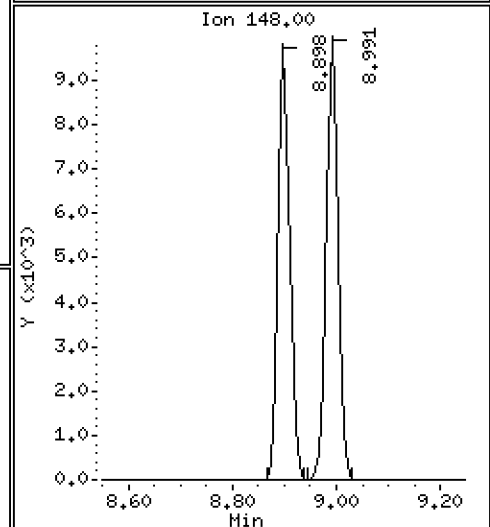
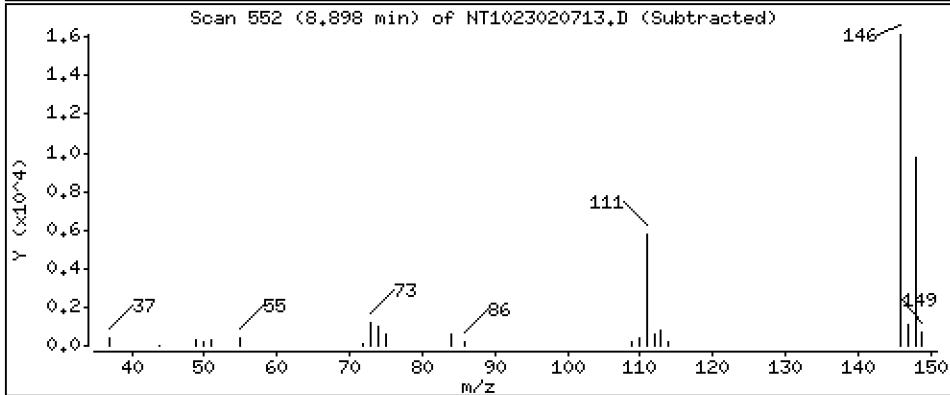
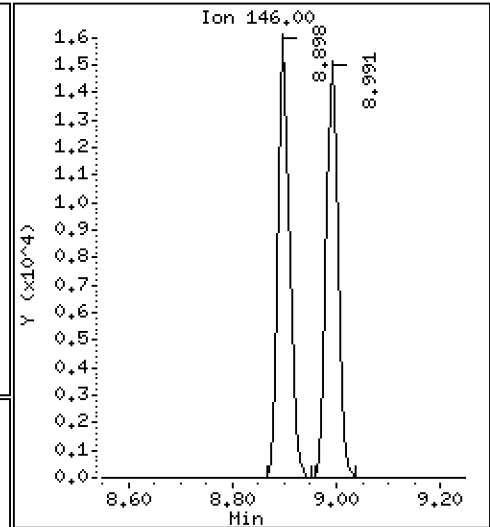
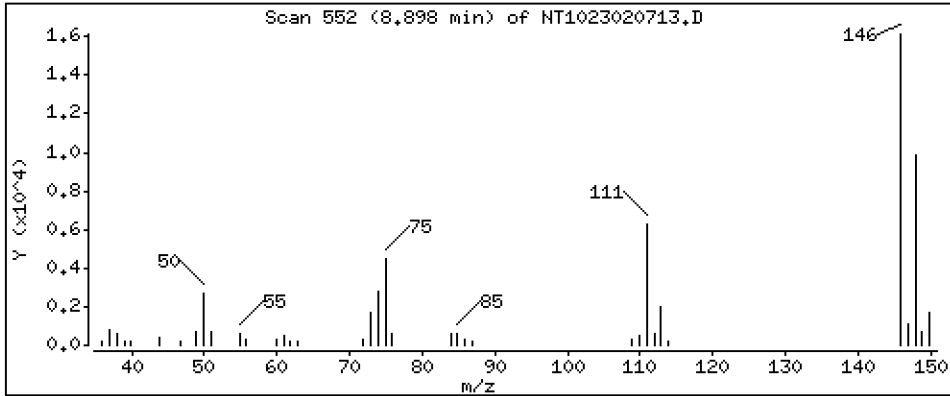
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.5413 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

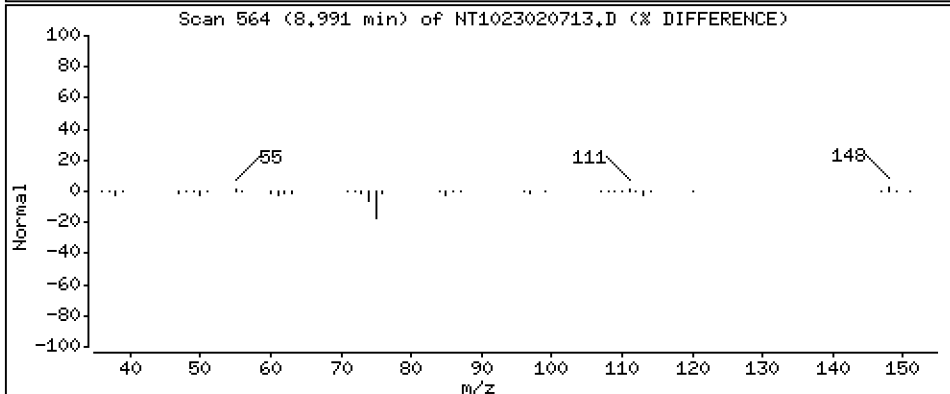
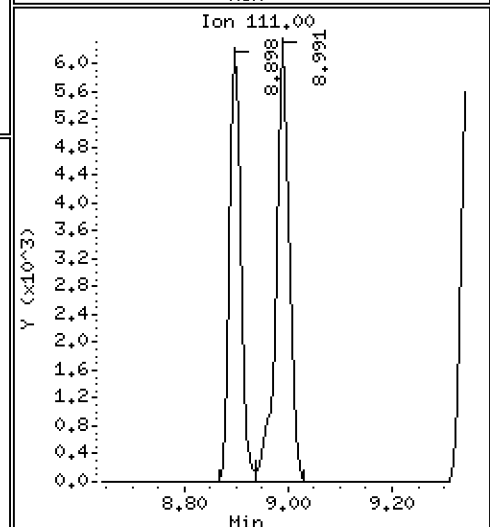
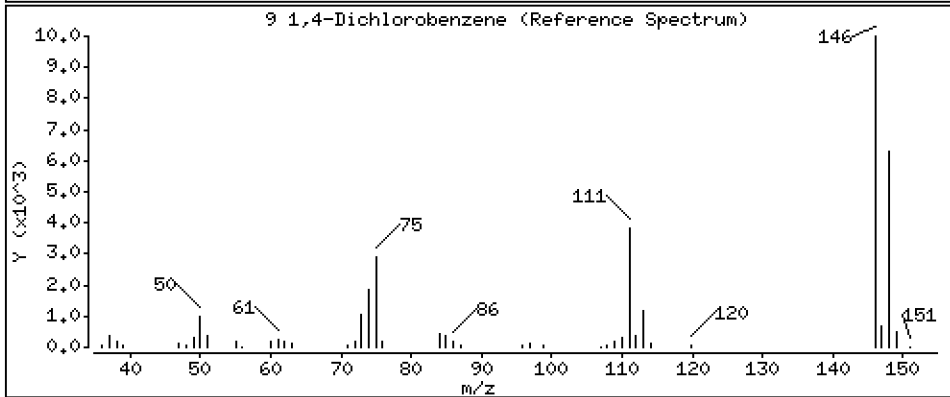
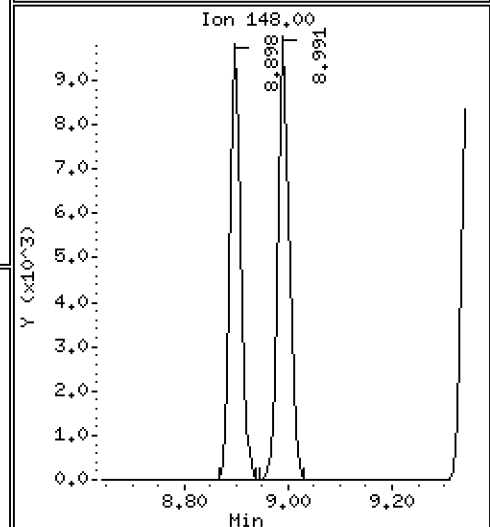
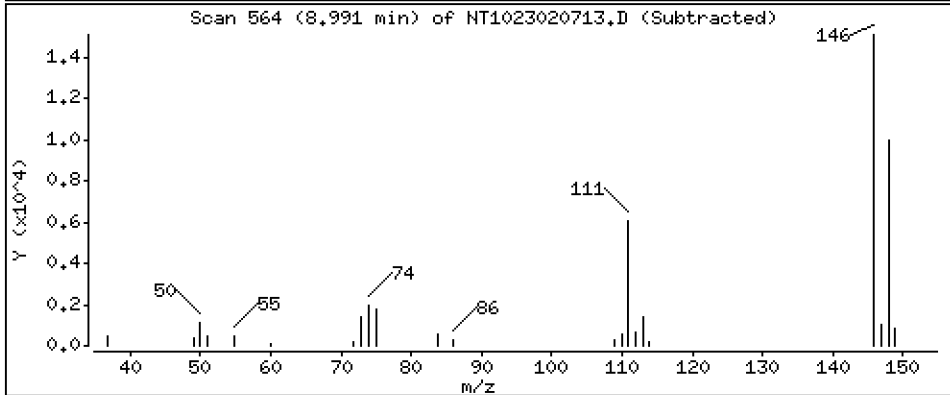
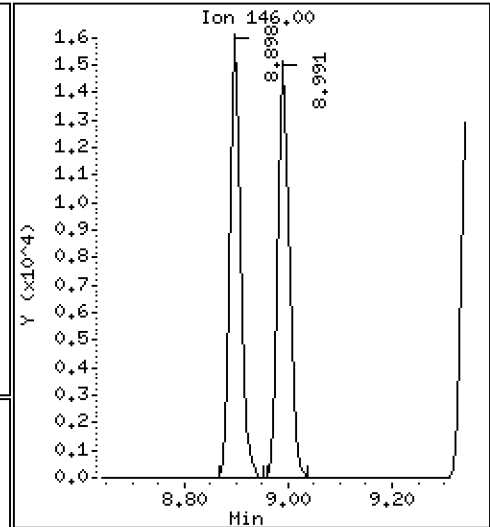
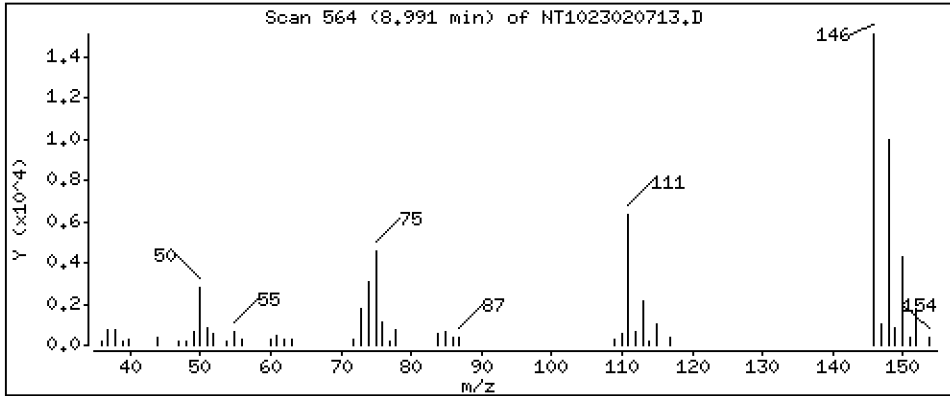
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,5183 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

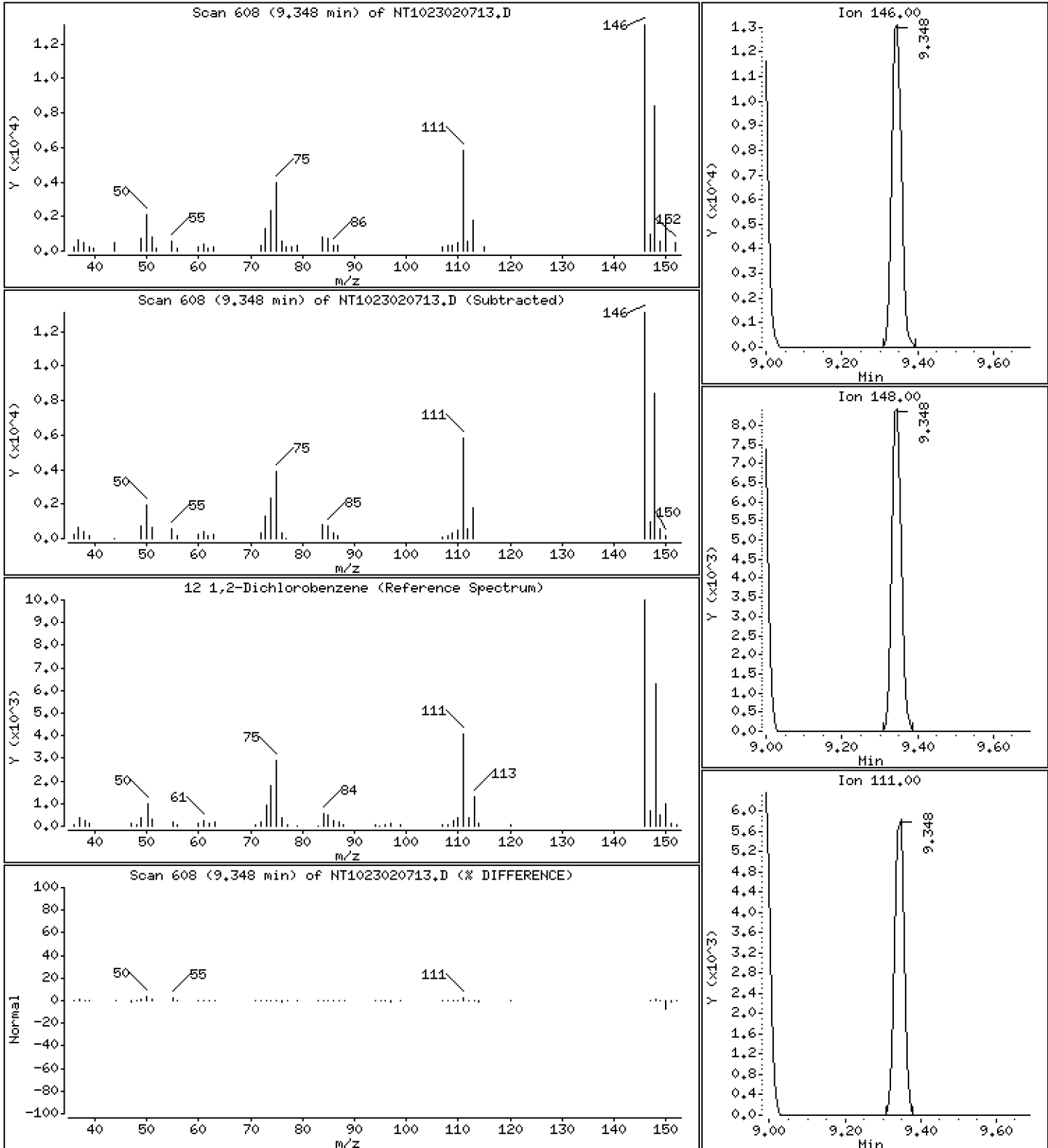
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.5316 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

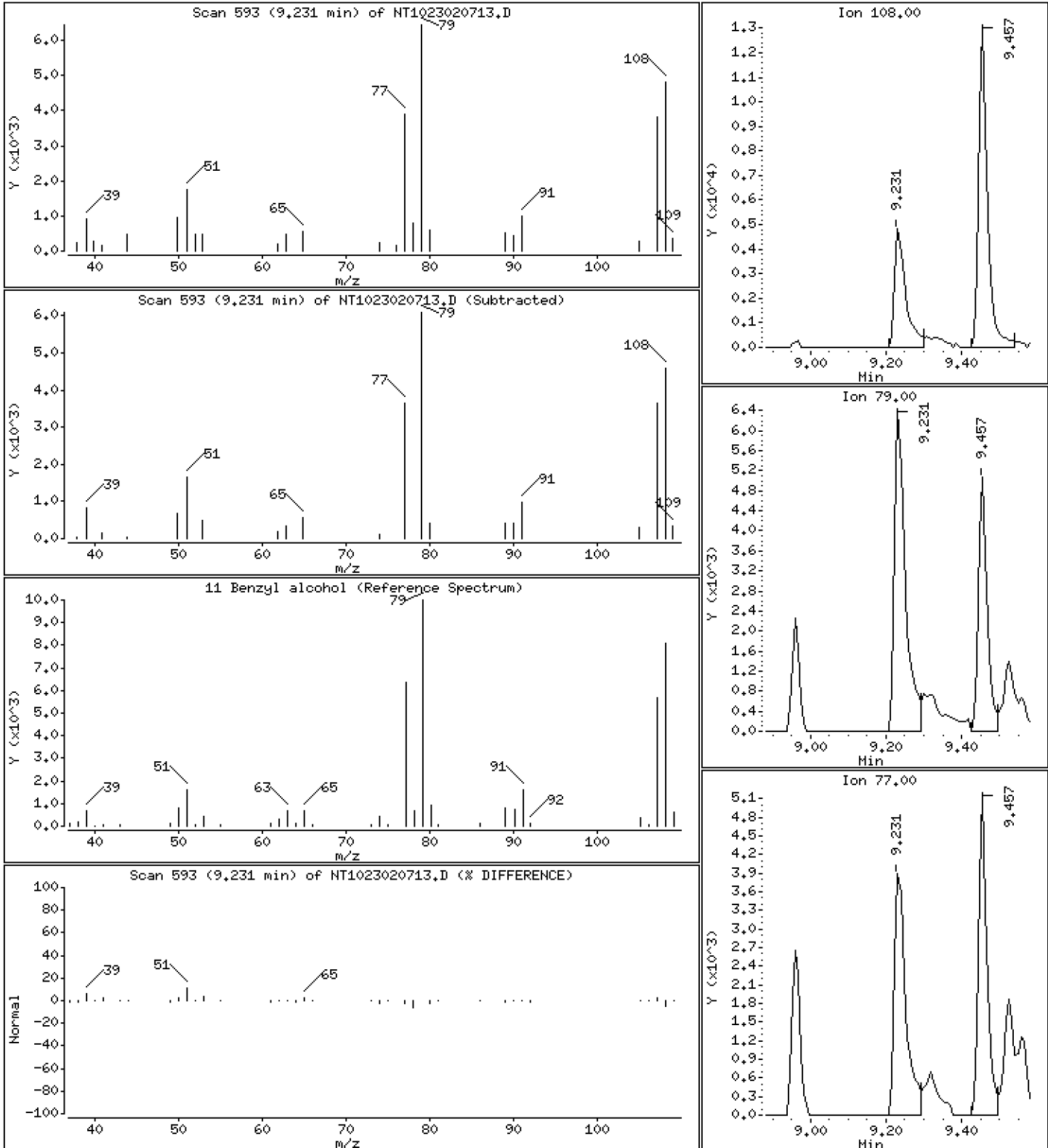
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.4184 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

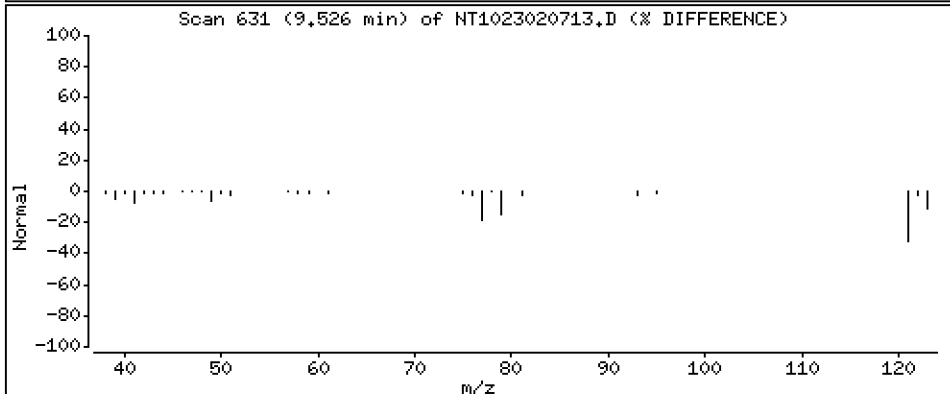
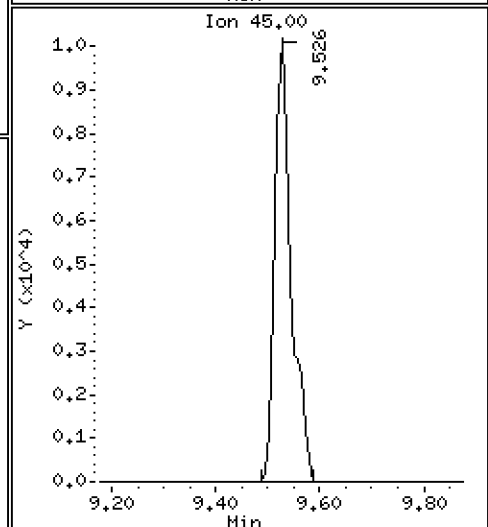
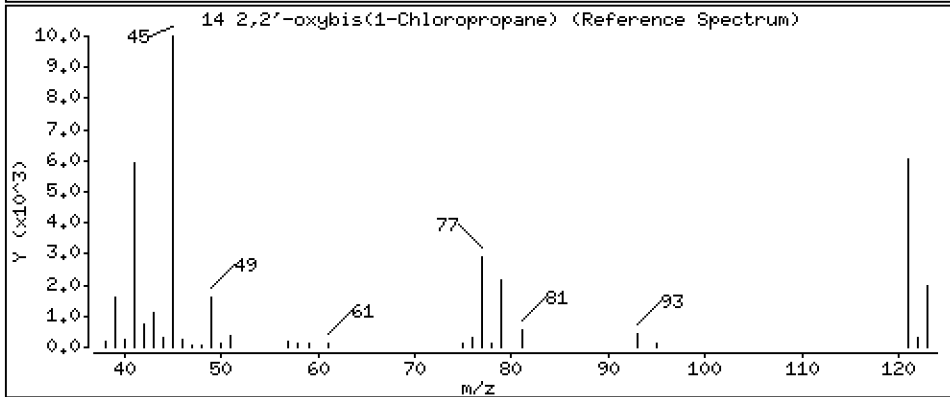
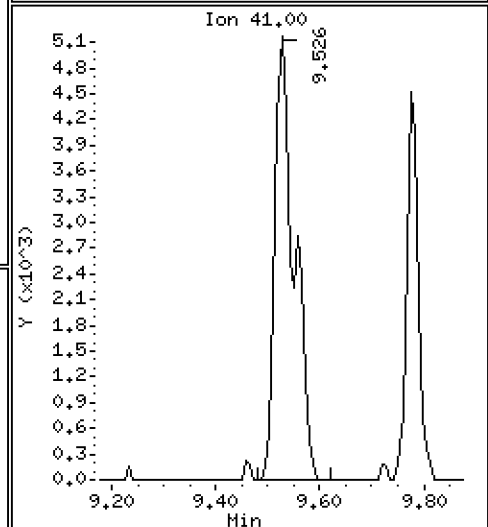
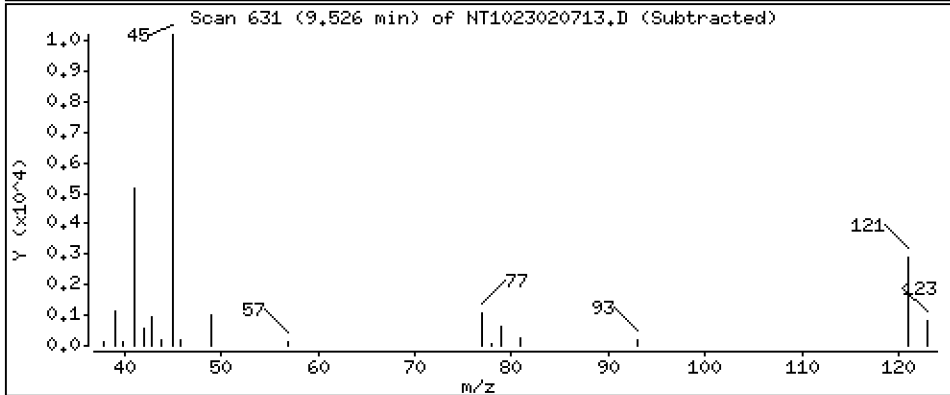
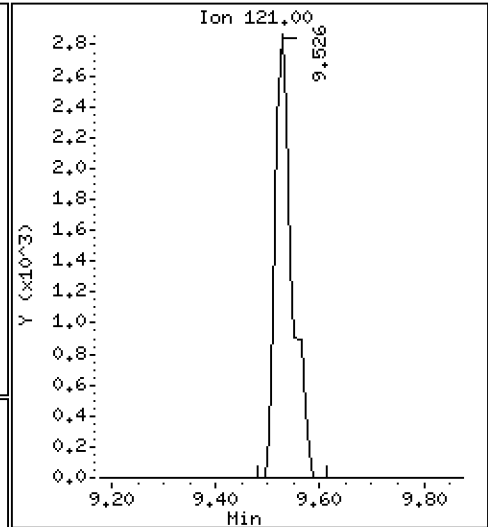
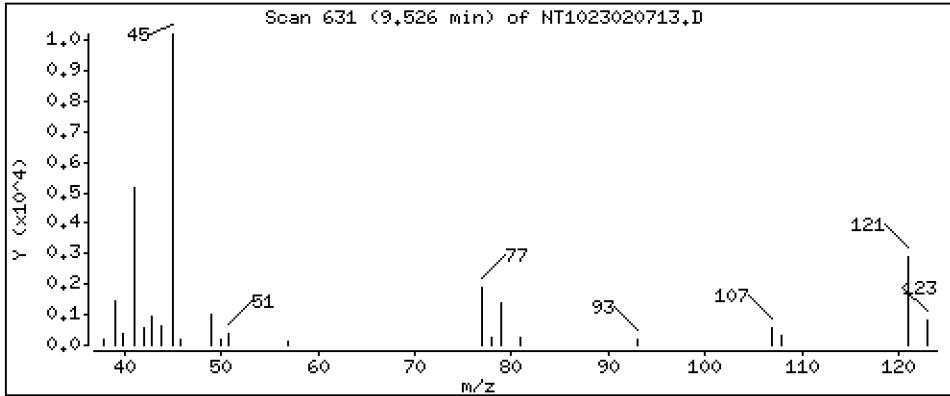
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 0.5215 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

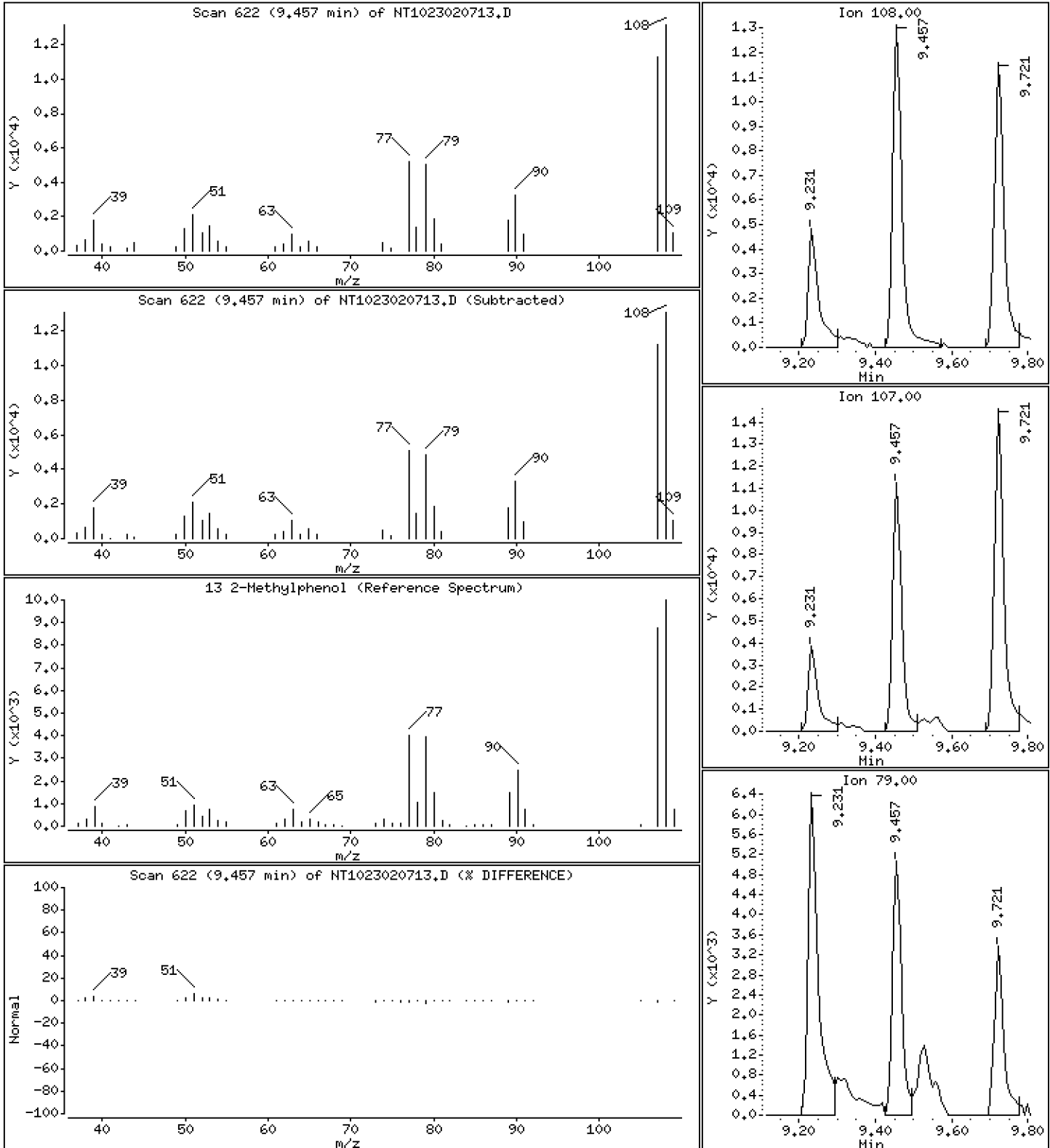
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.5516 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

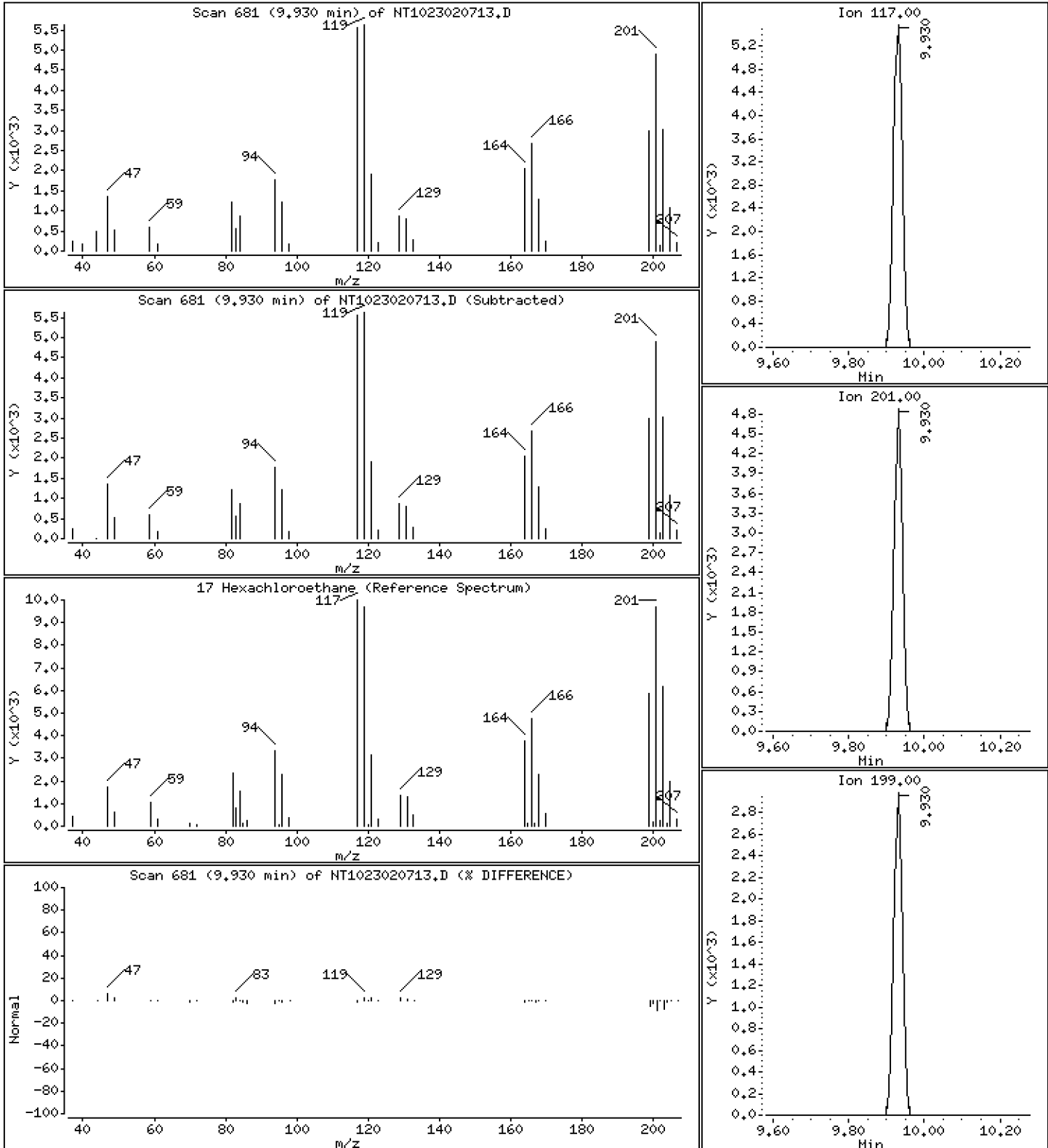
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

17 Hexachloroethane

Concentration: 0.5132 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

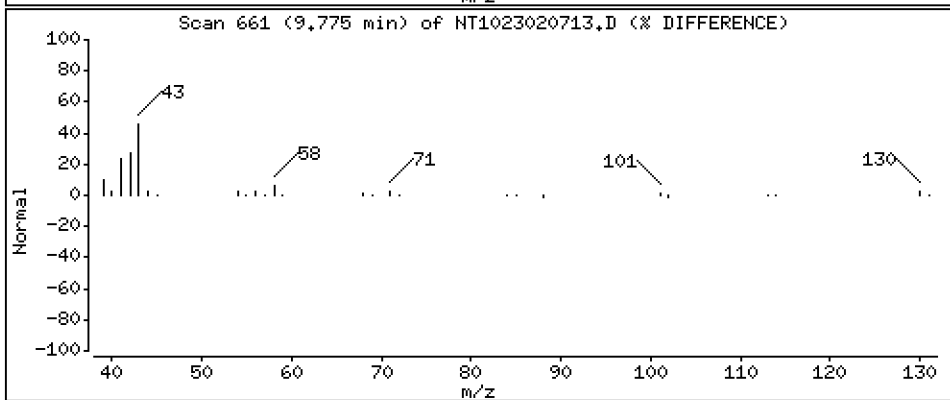
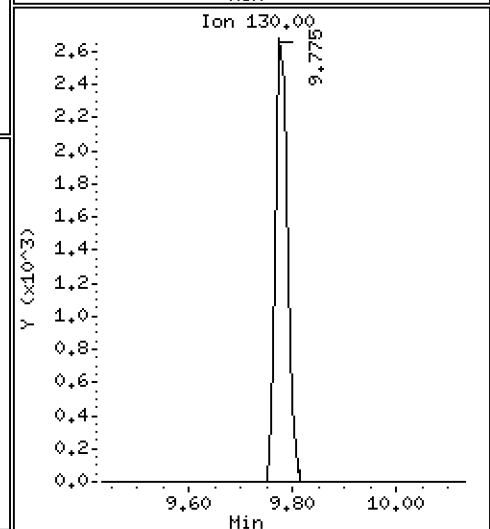
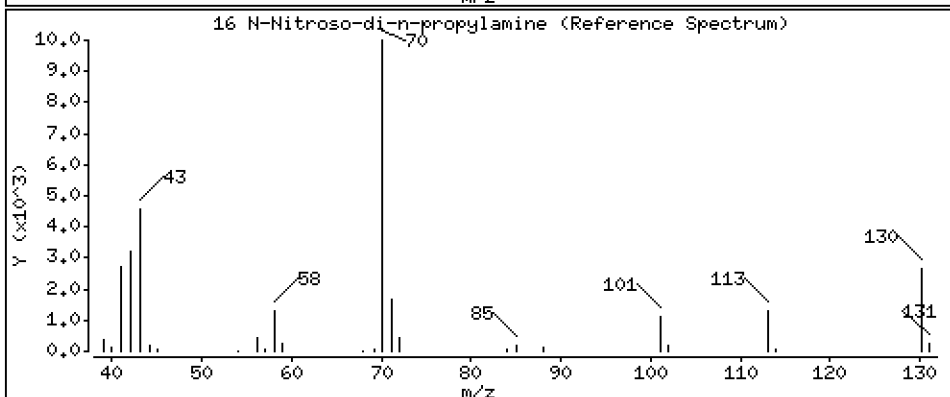
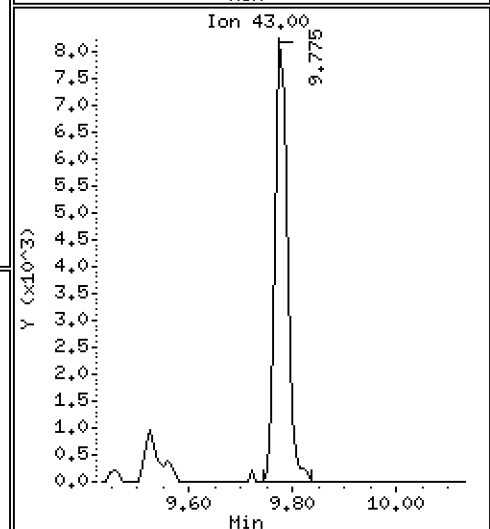
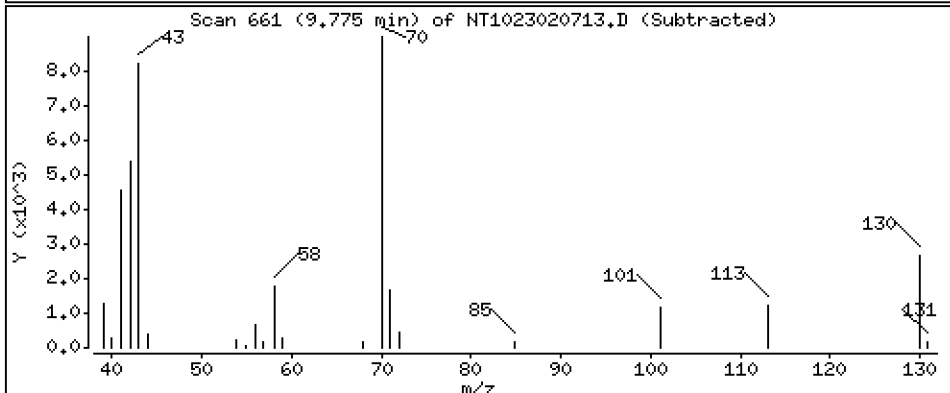
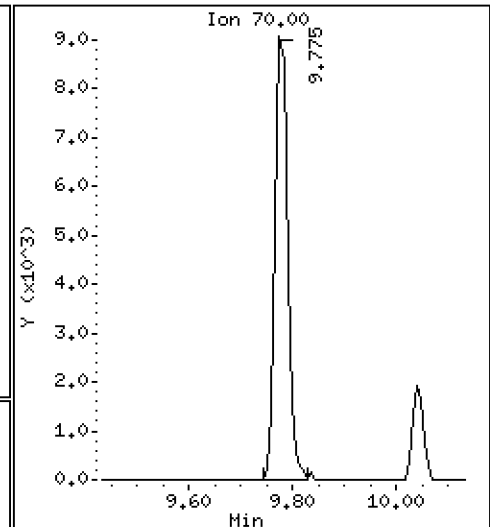
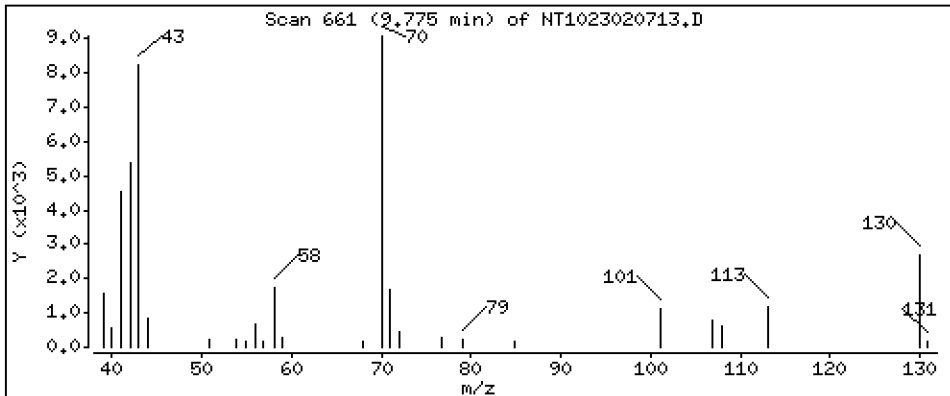
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 0.5047 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

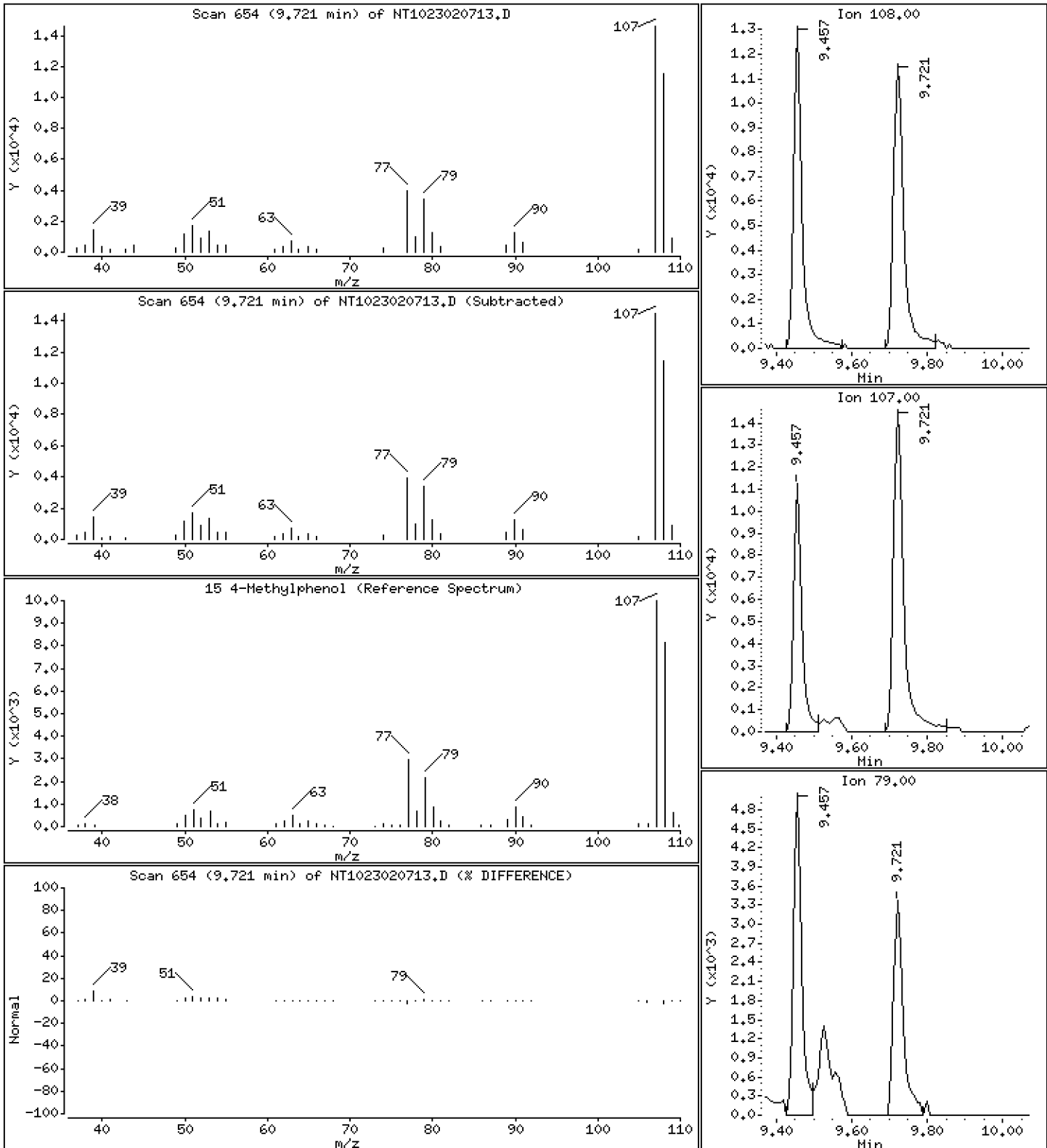
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.5228 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

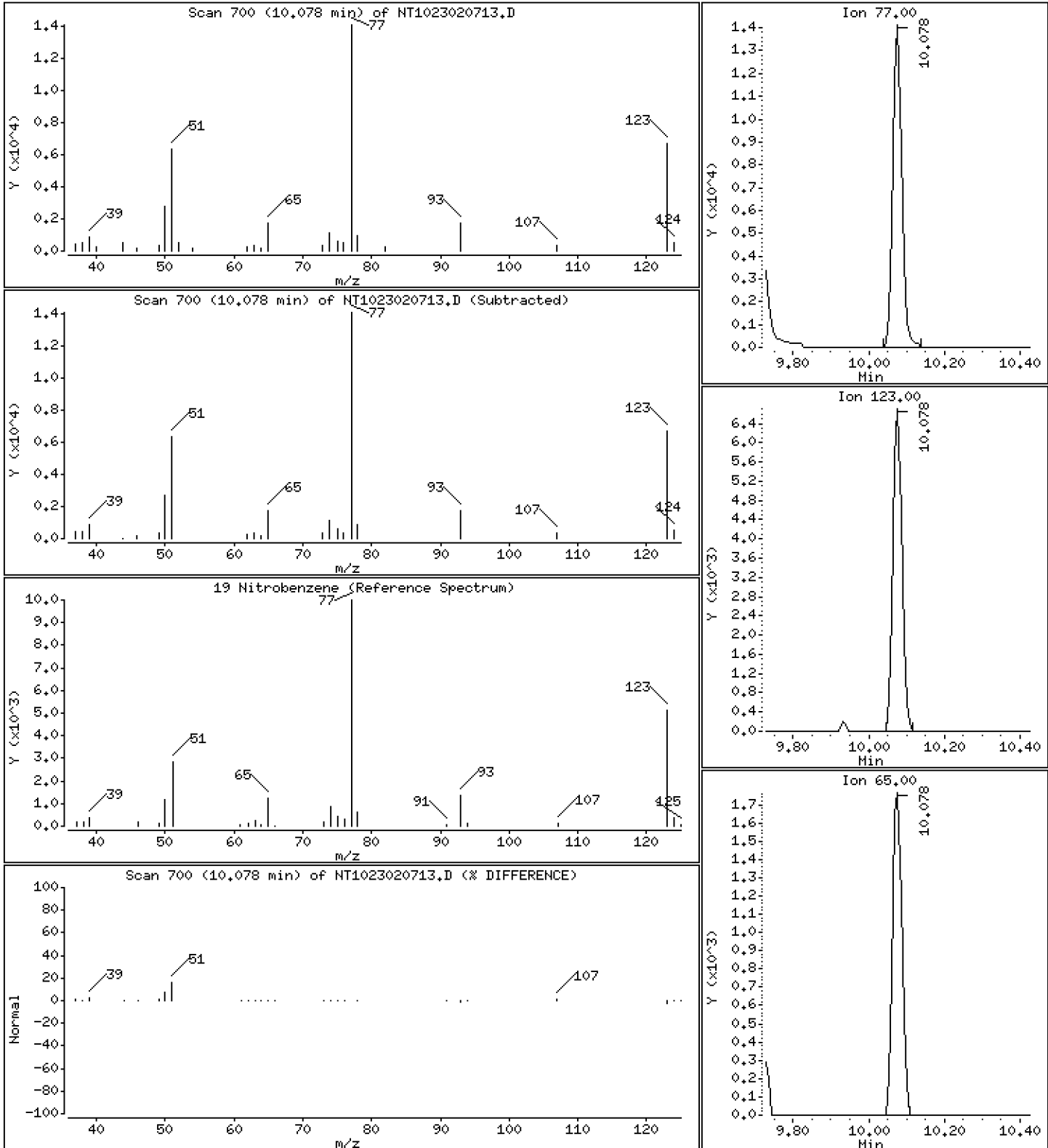
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 0,5221 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

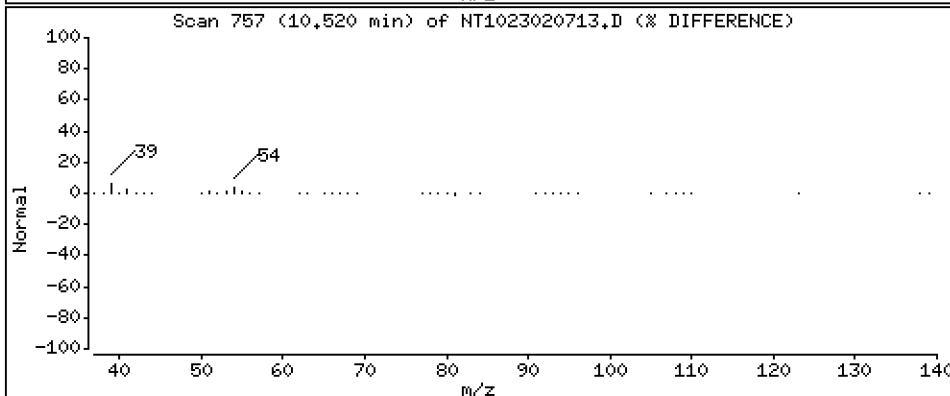
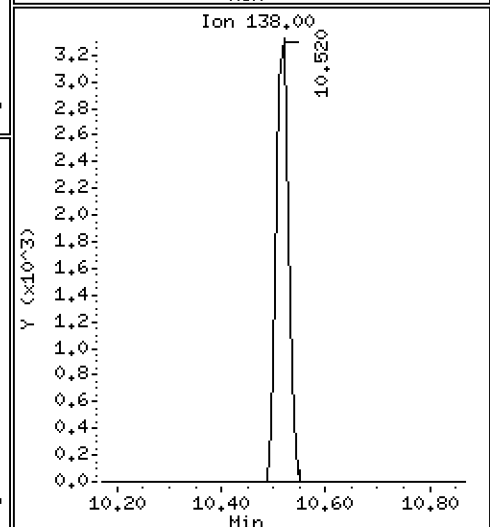
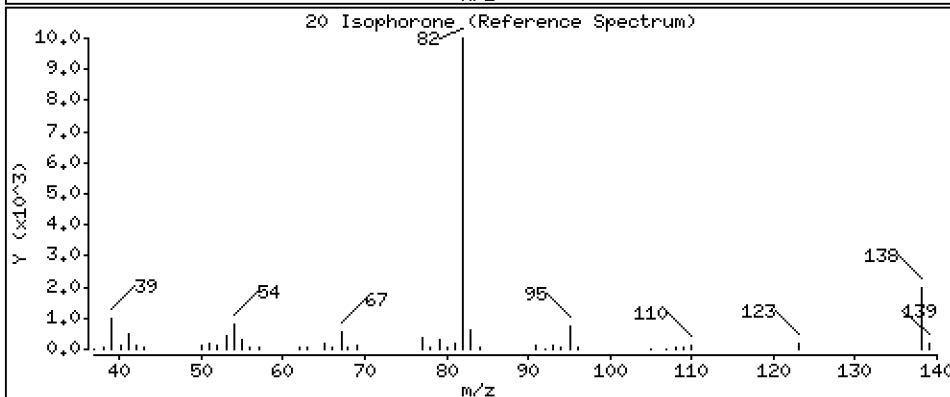
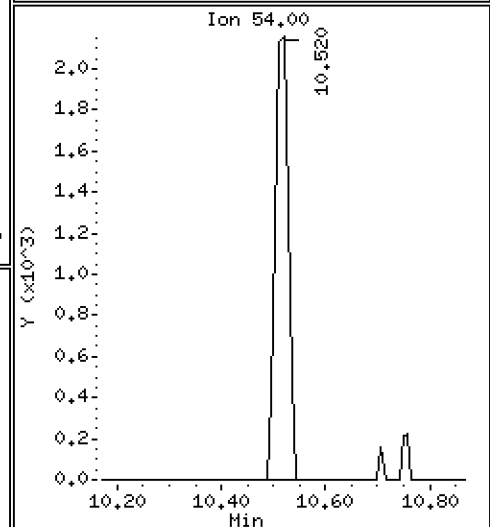
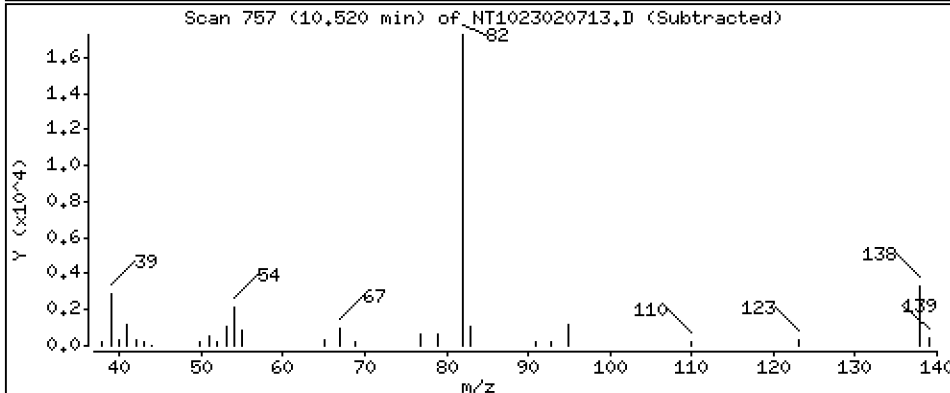
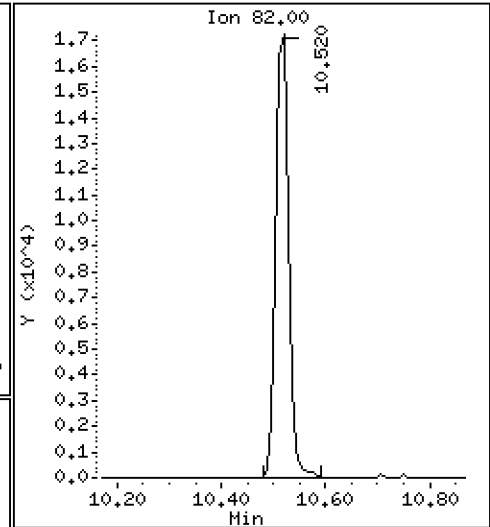
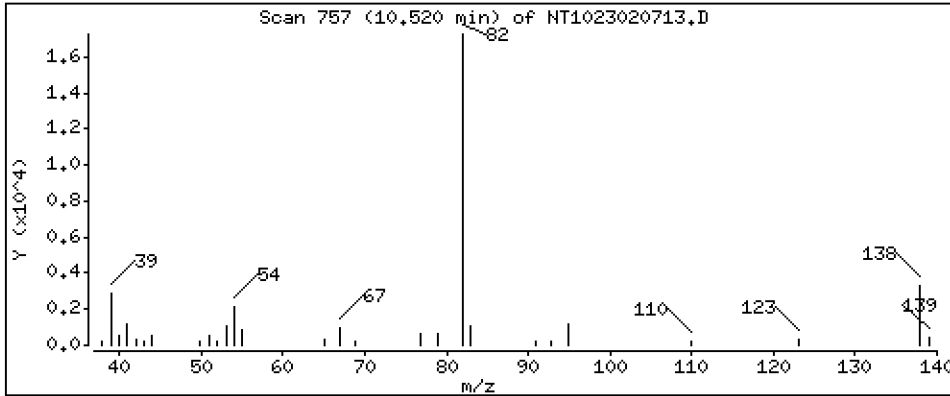
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 0,4765 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

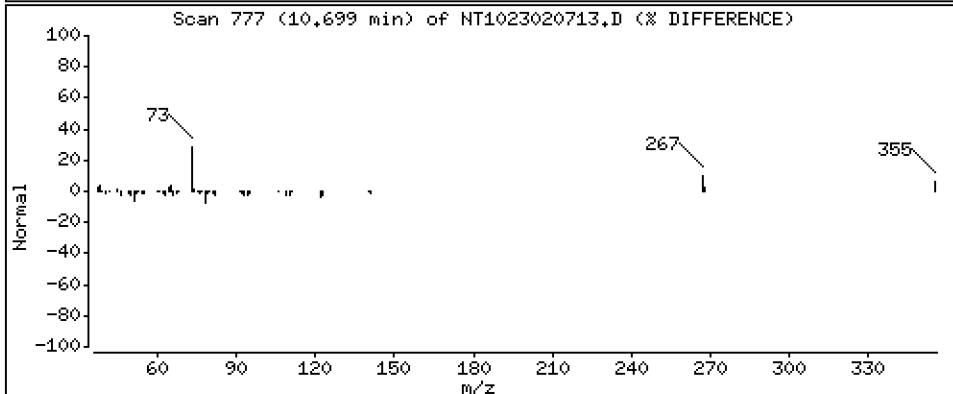
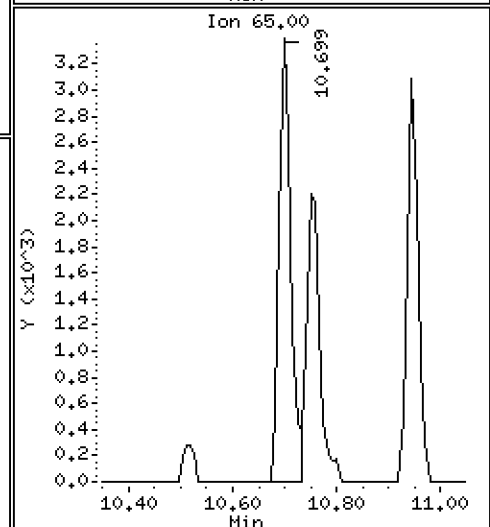
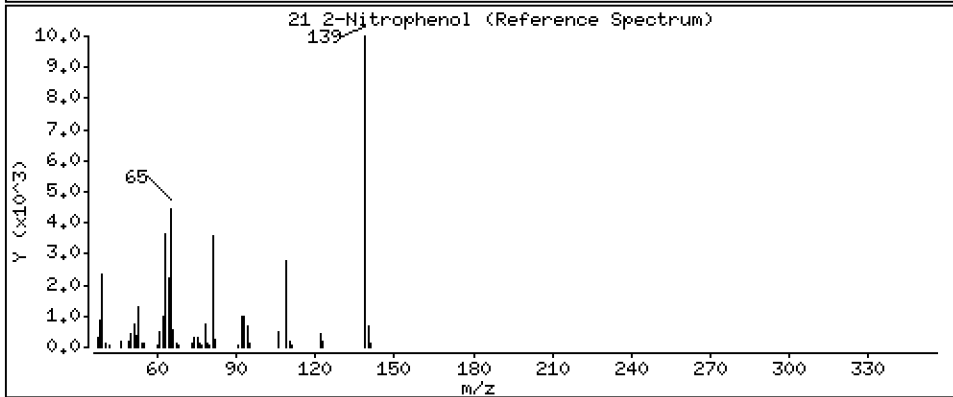
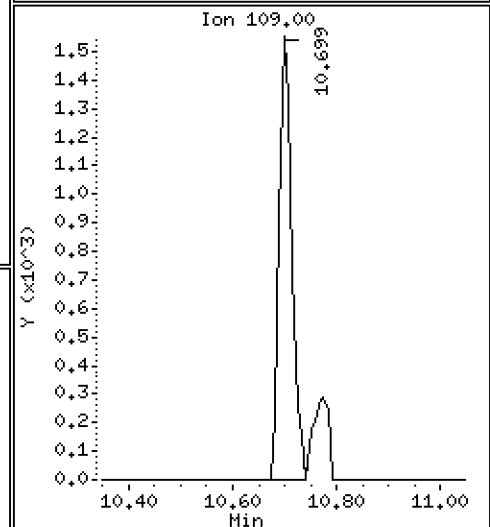
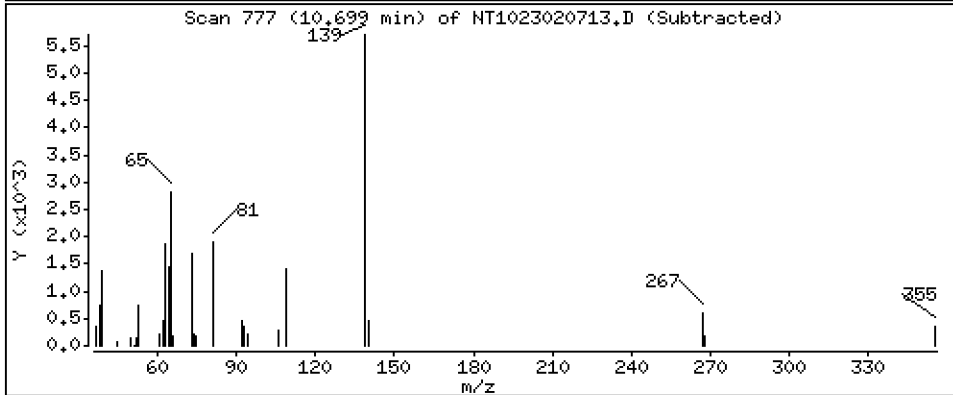
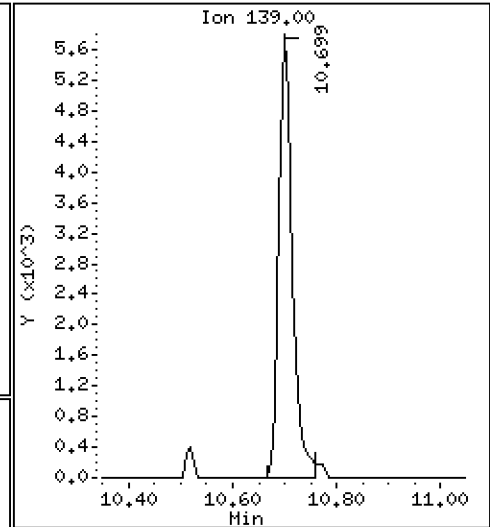
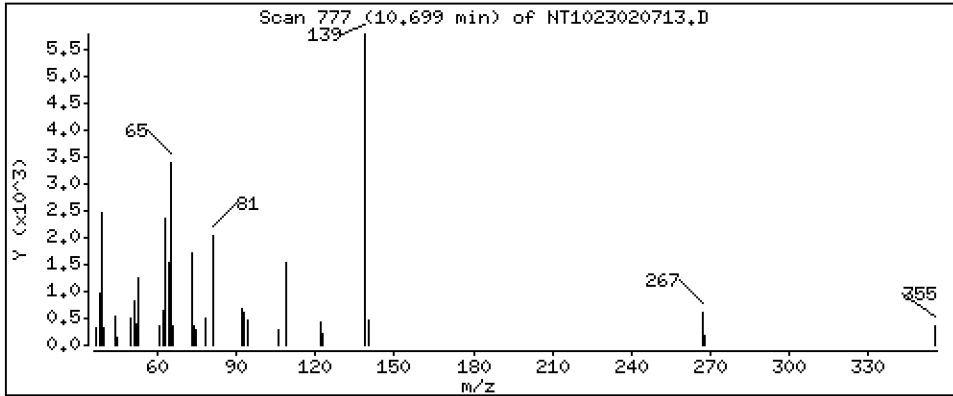
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,4771 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

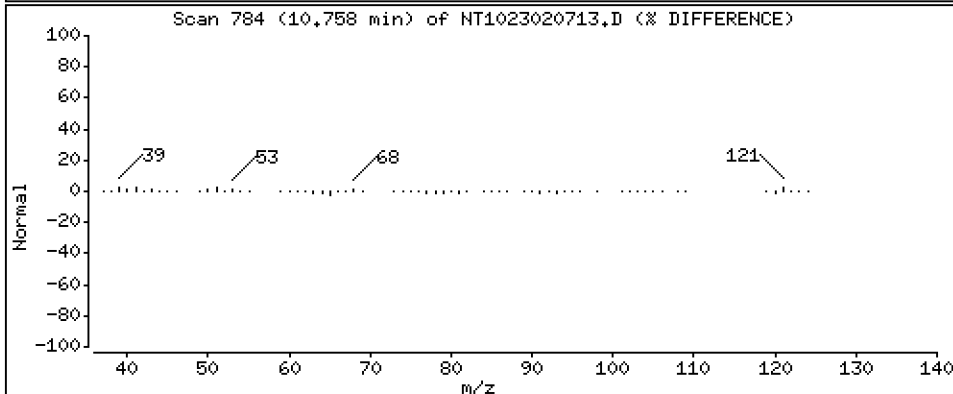
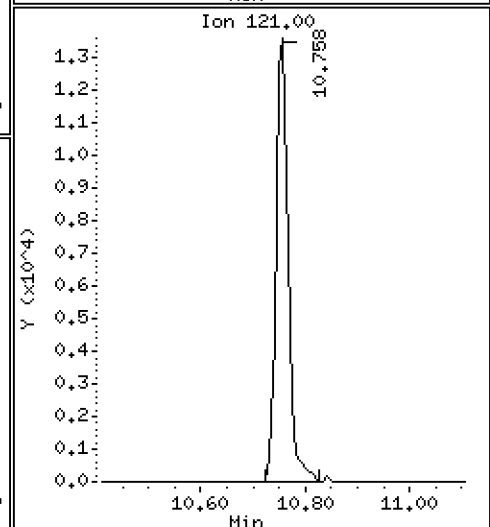
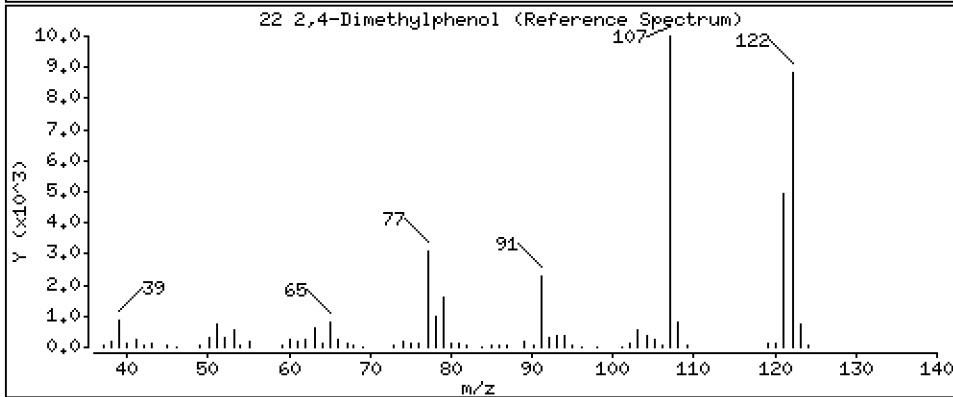
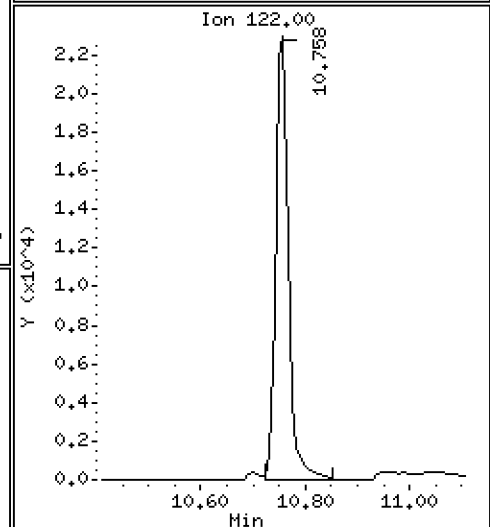
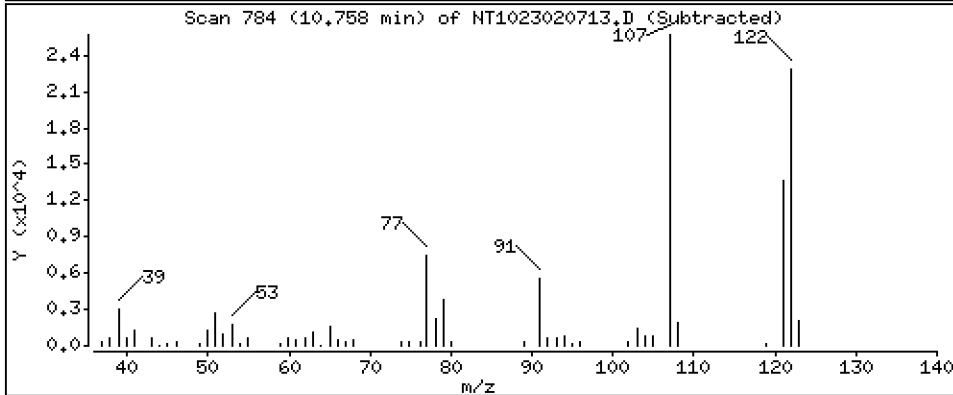
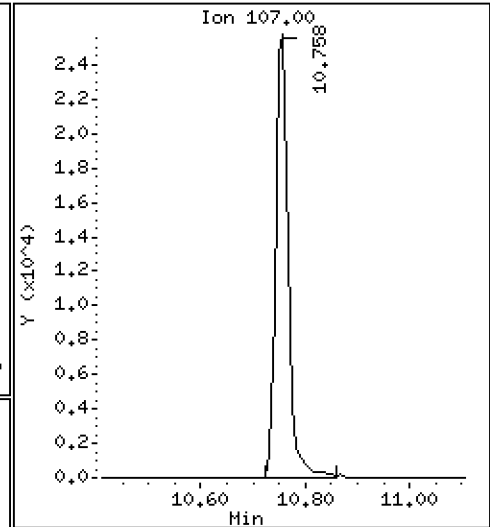
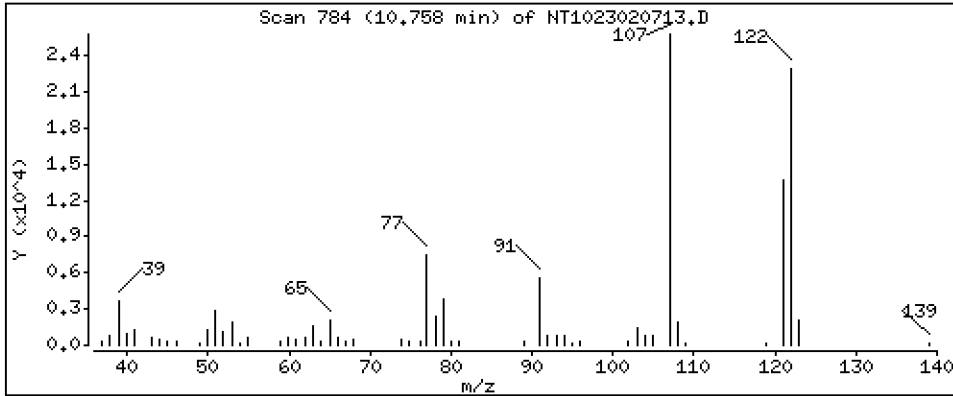
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 1,107 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

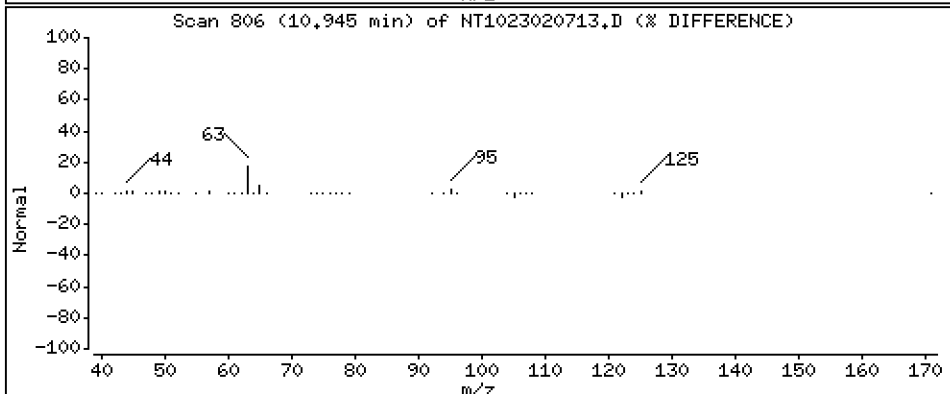
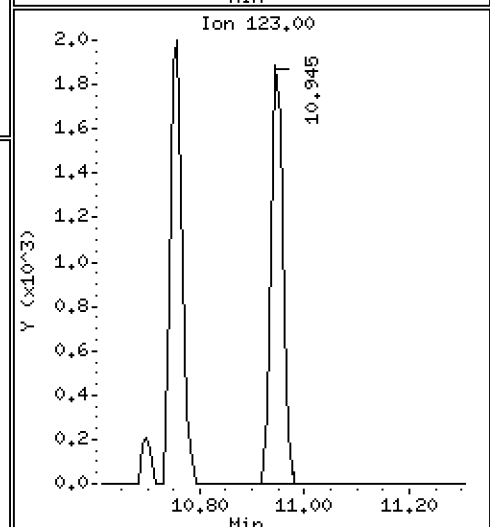
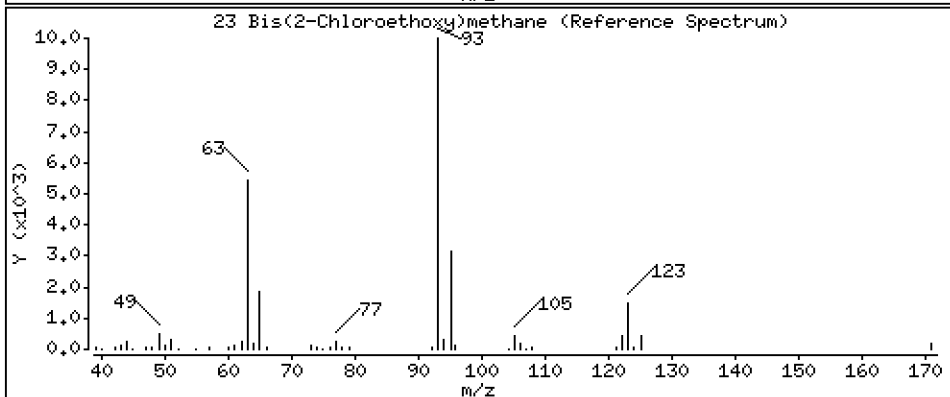
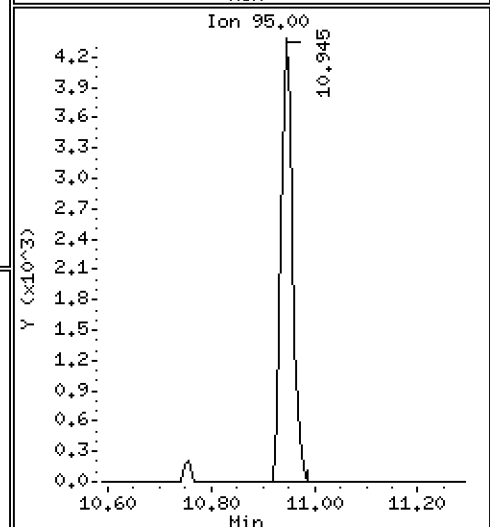
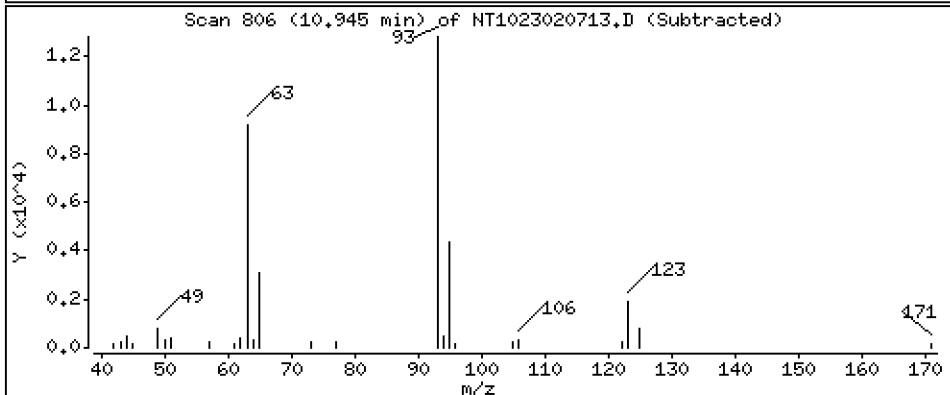
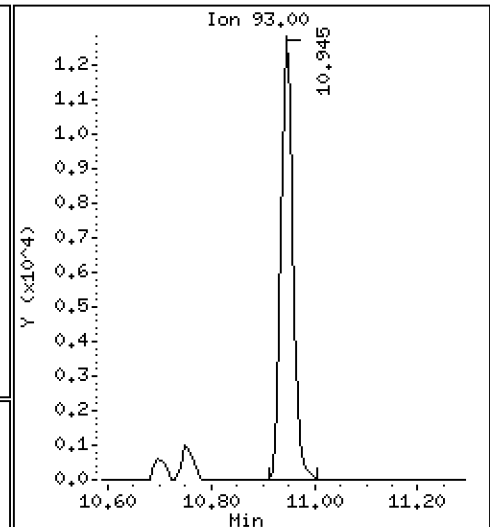
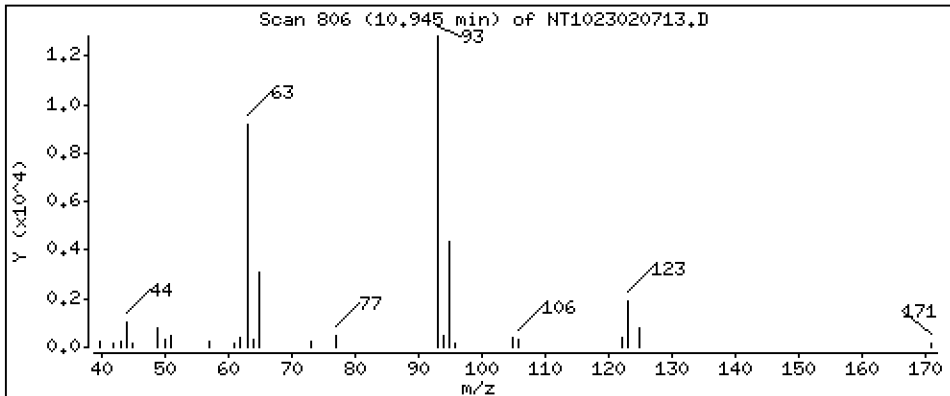
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 0,5343 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

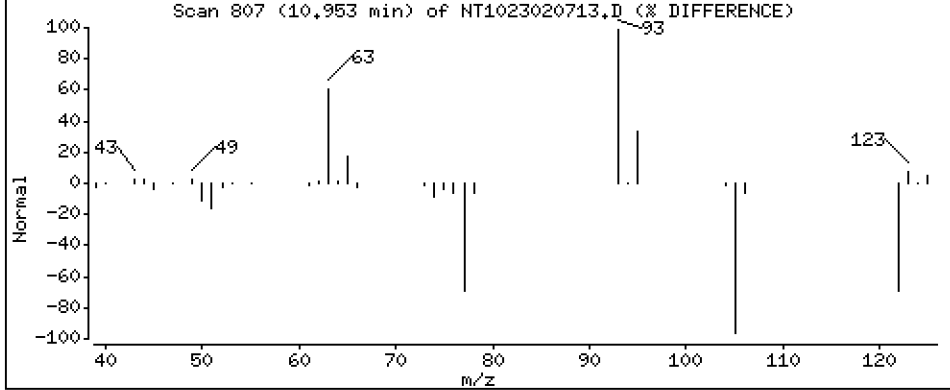
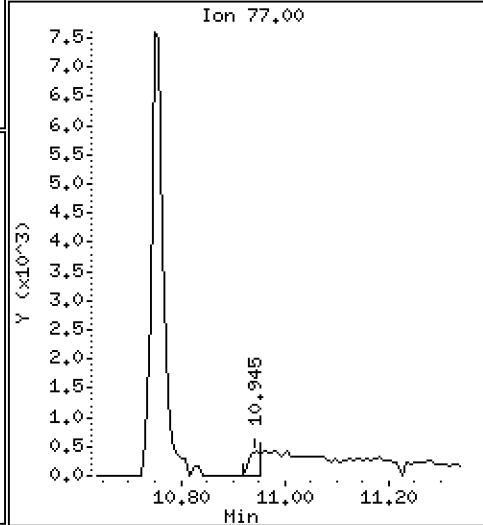
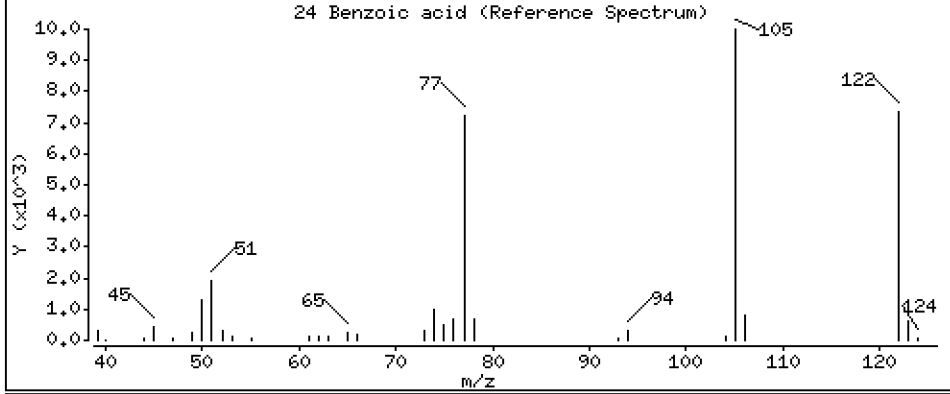
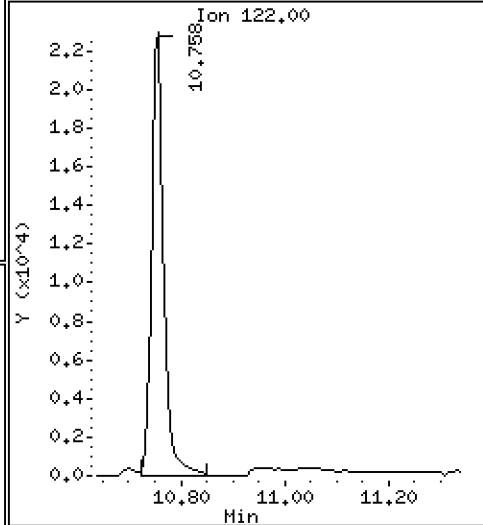
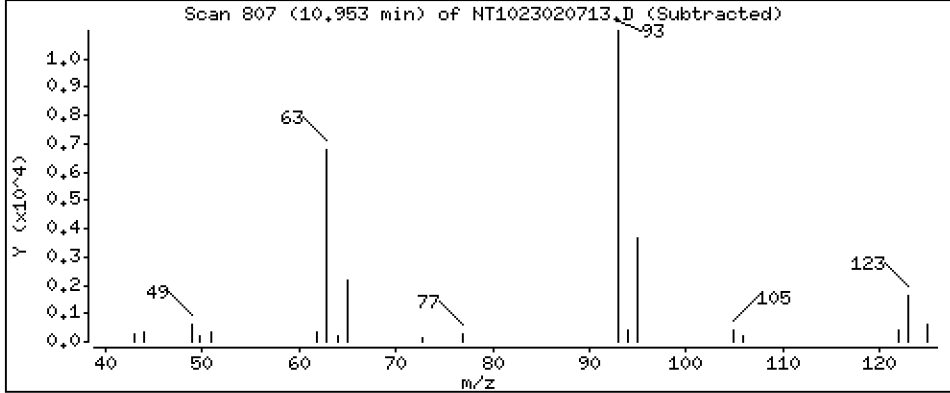
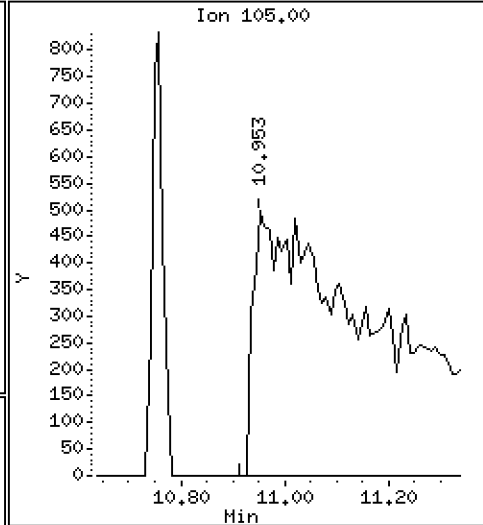
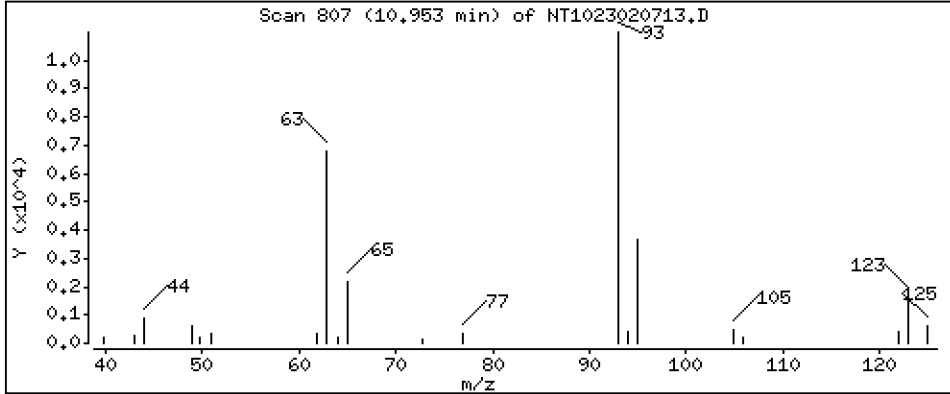
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.3586 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

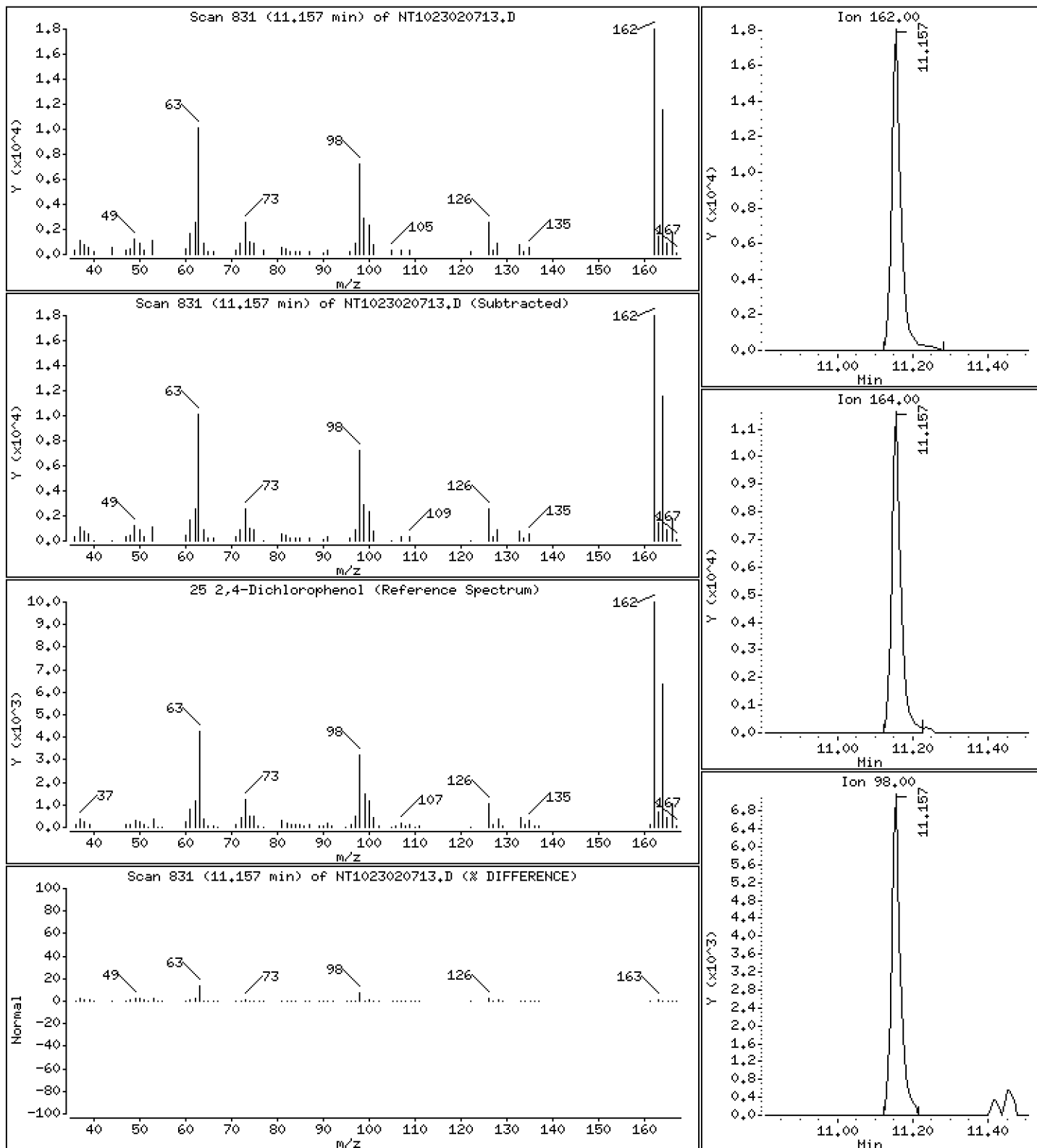
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

25 2,4-Dichlorophenol

Concentration: 1.104 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

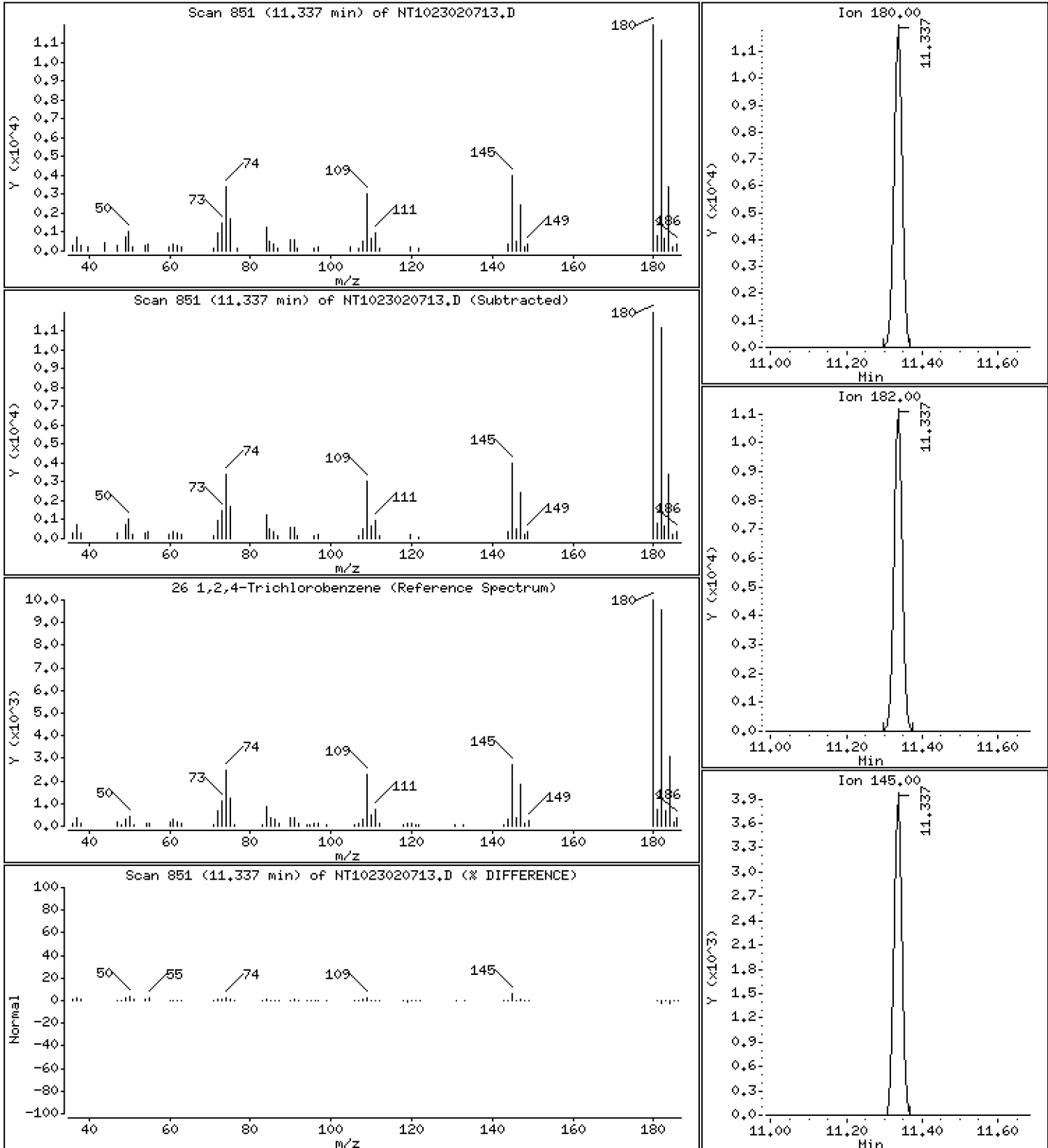
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,5428 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

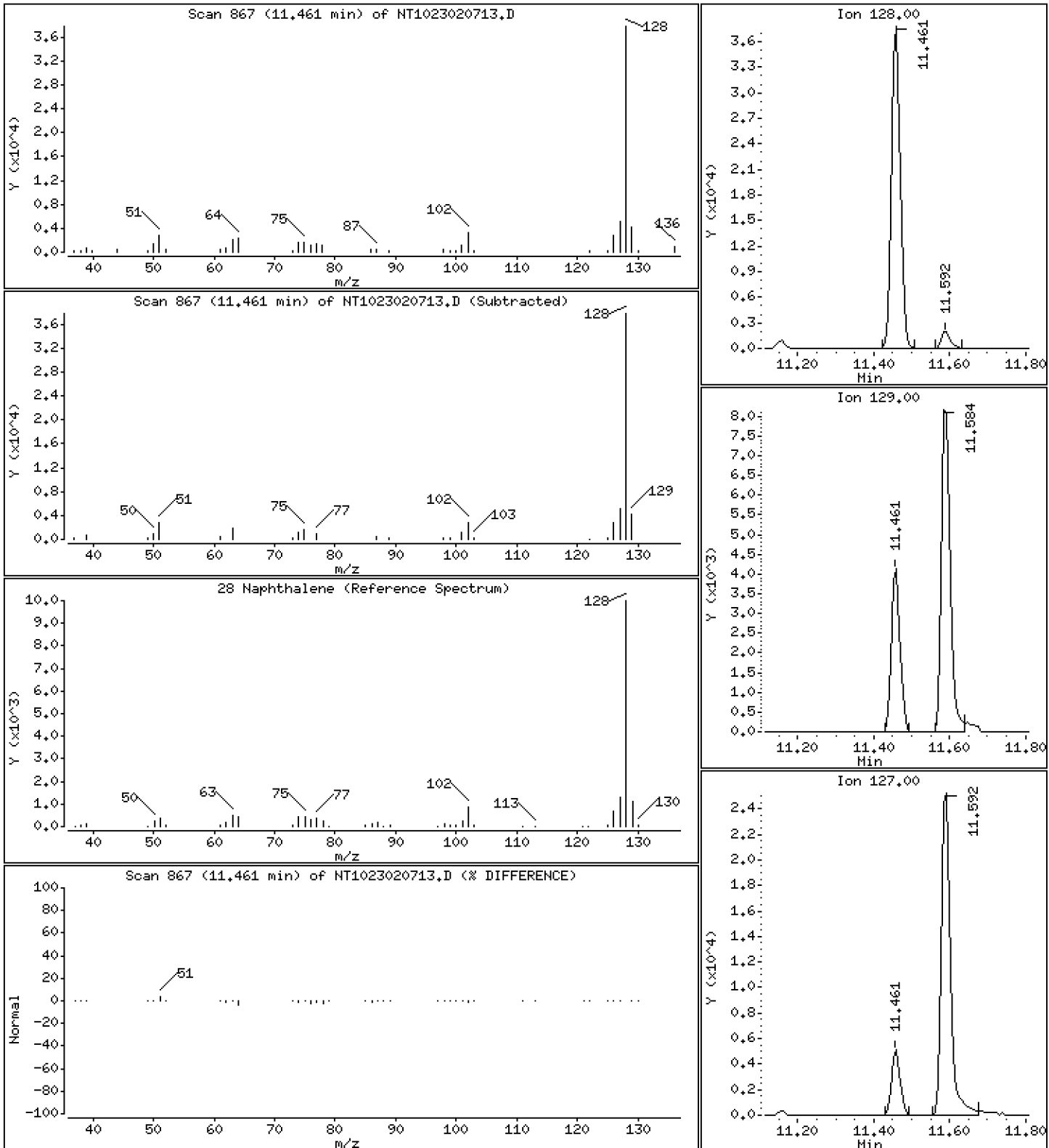
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

28 Naphthalene

Concentration: 0.5238 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

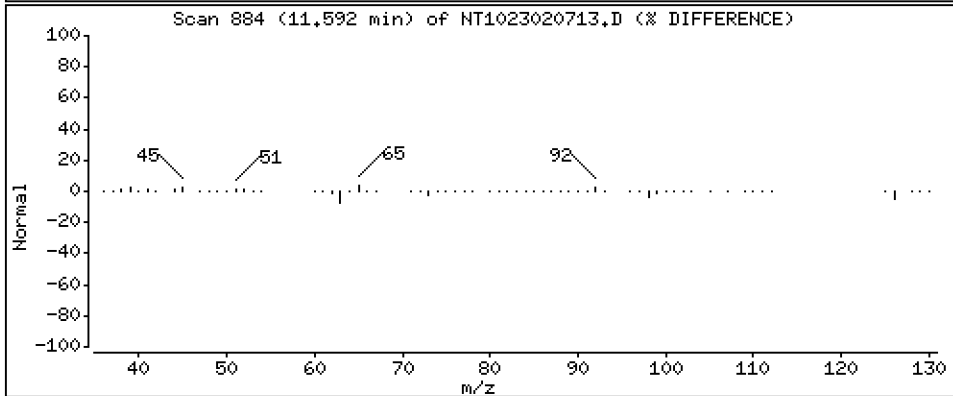
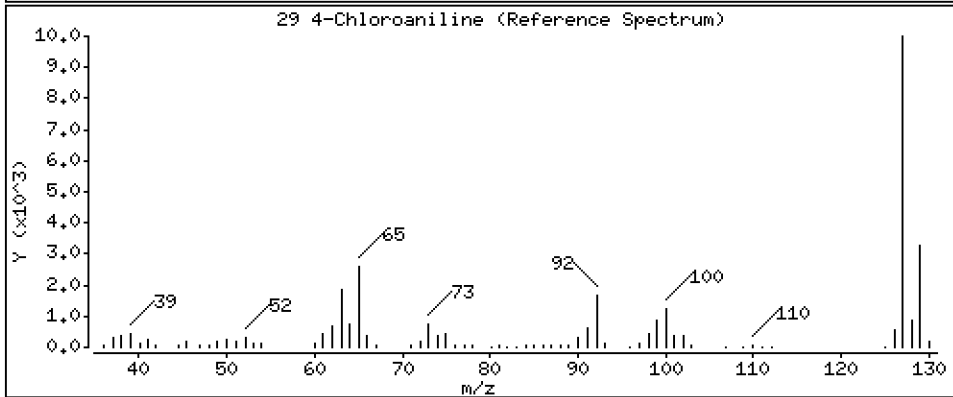
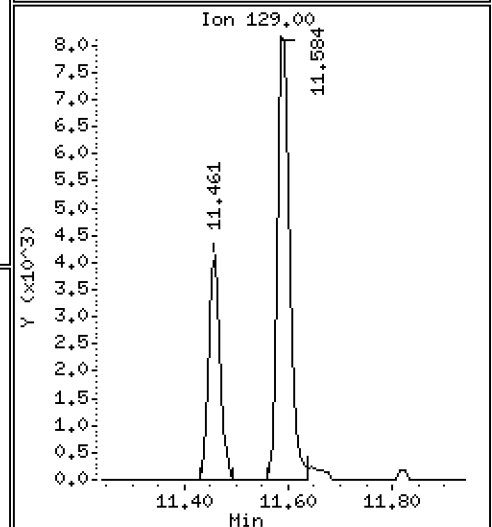
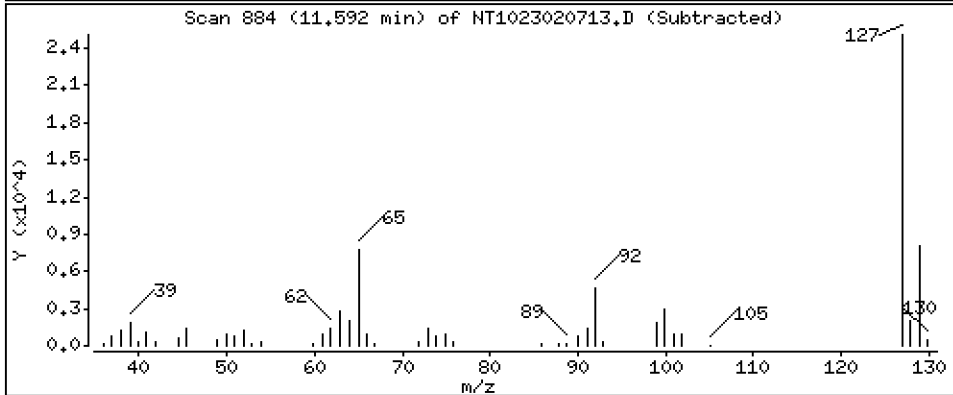
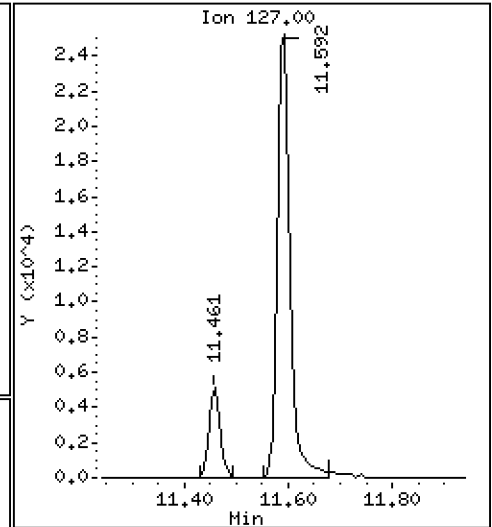
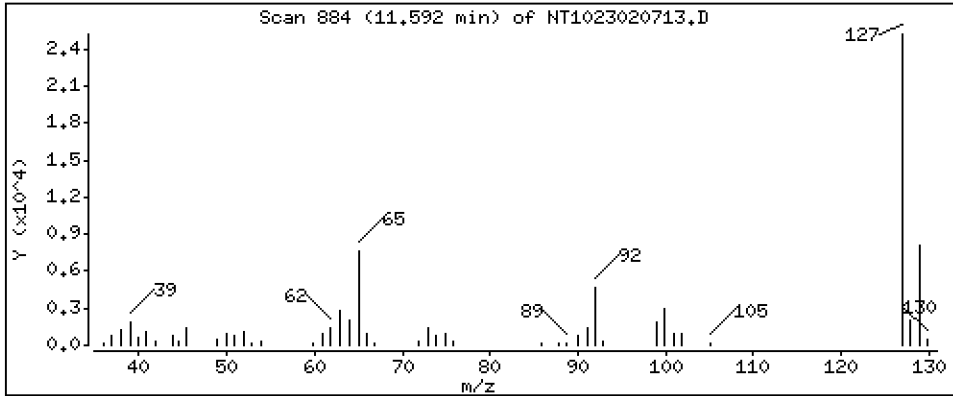
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 0,9037 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

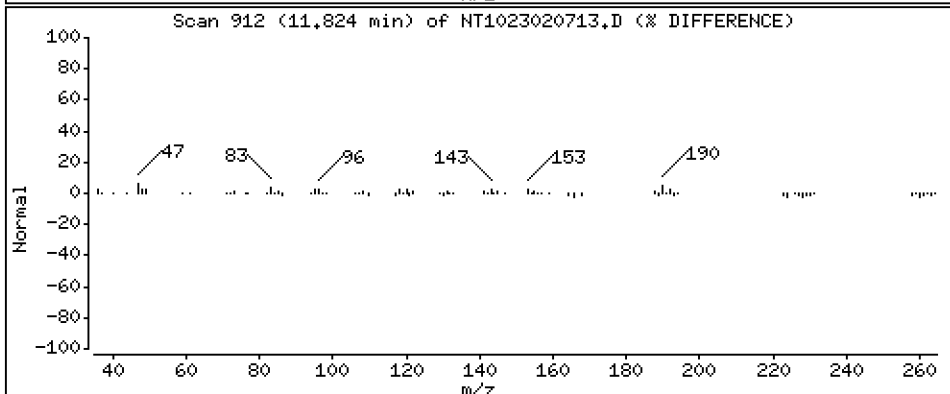
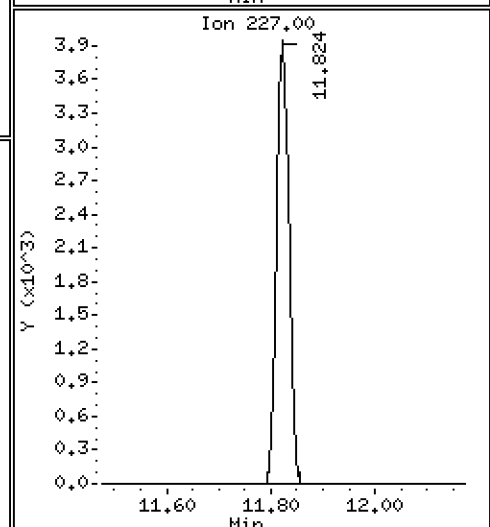
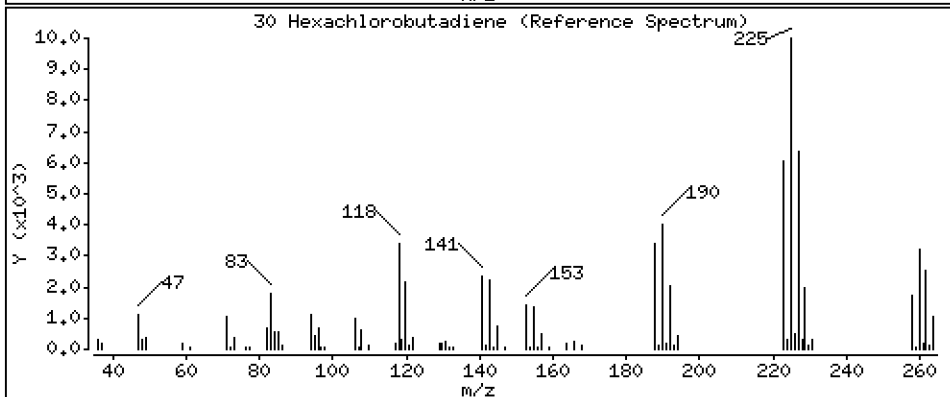
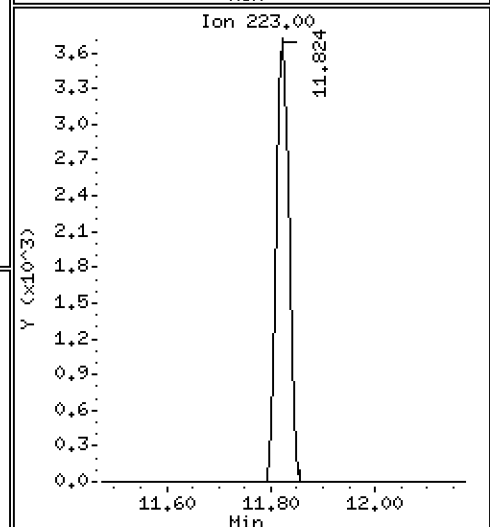
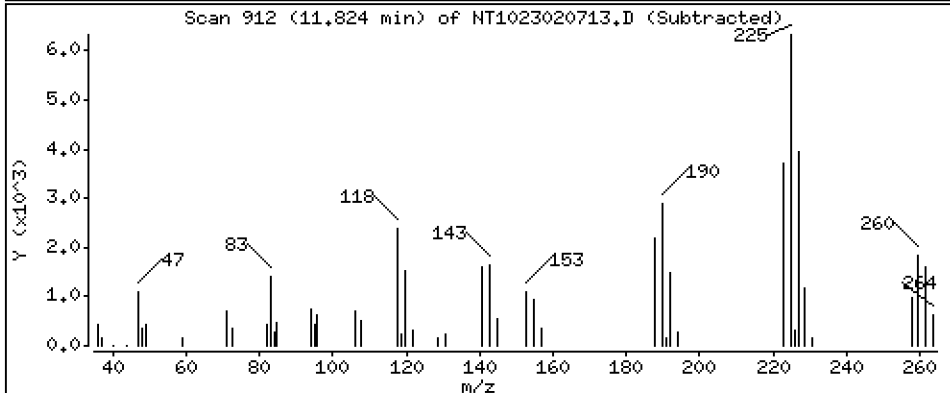
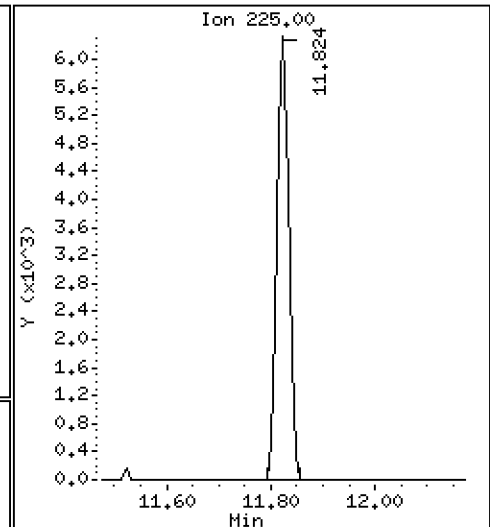
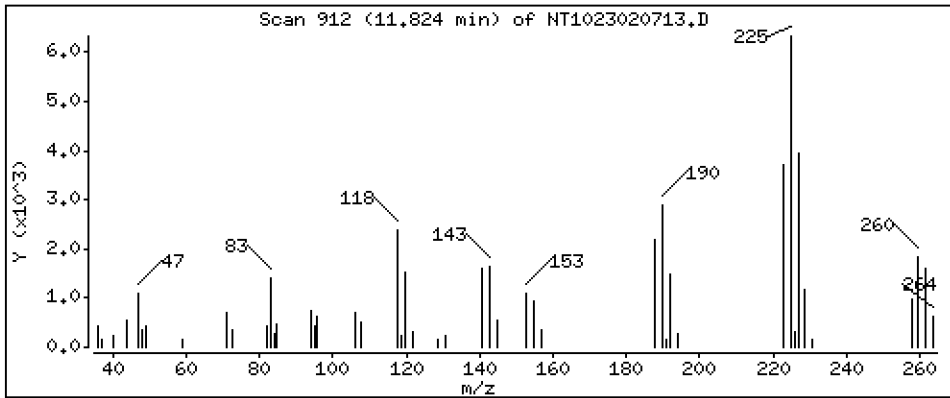
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,5253 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

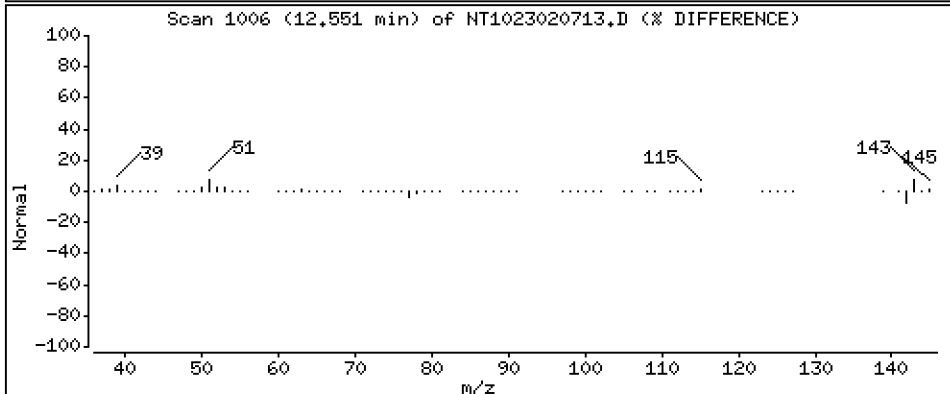
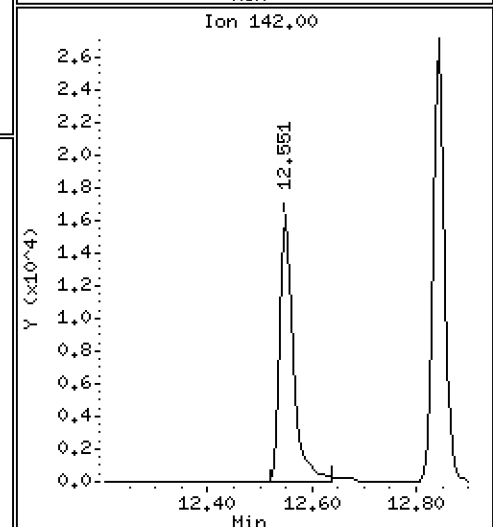
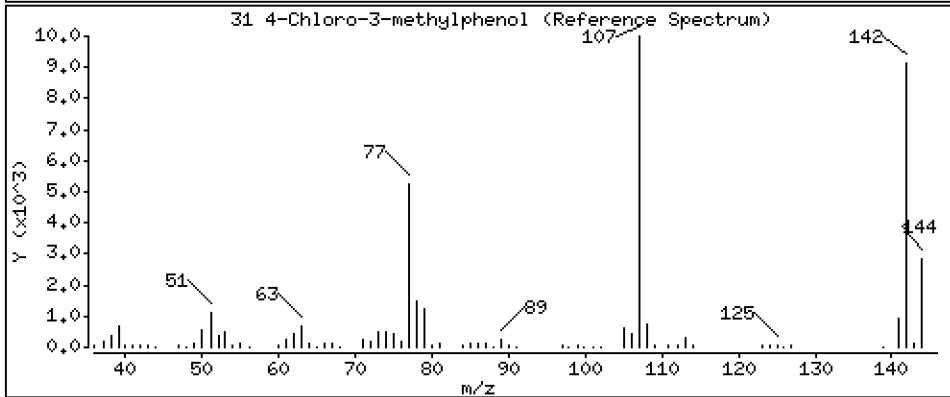
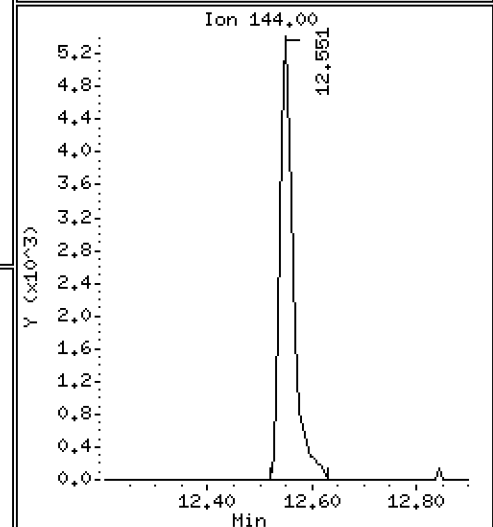
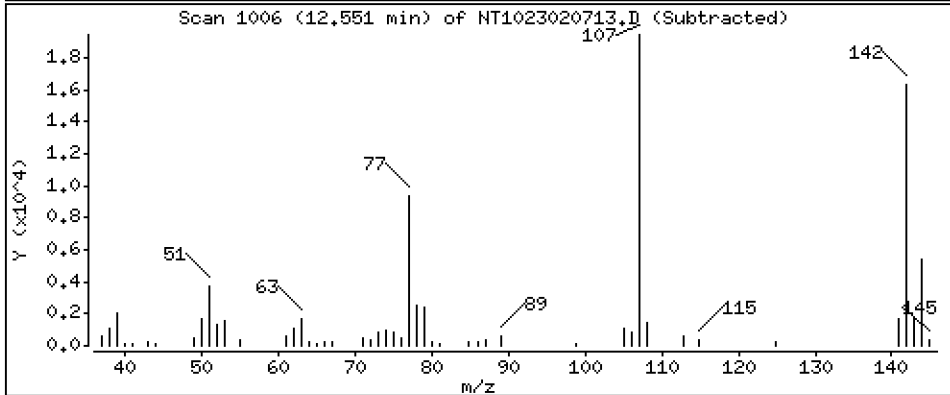
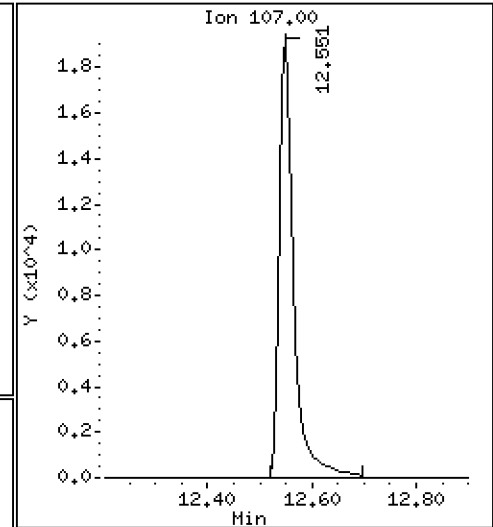
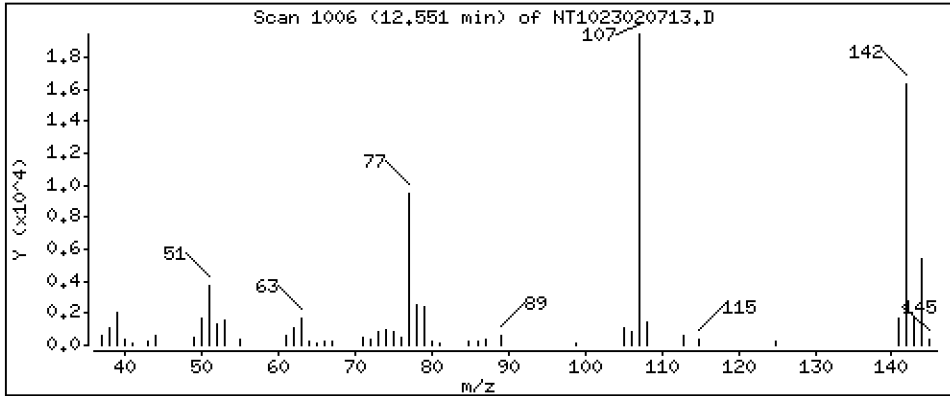
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

31 4-Chloro-3-methylphenol

Concentration: 1.021 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

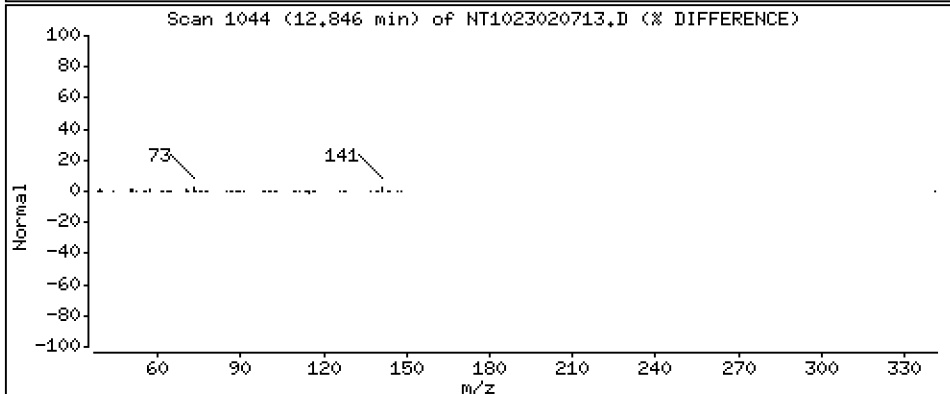
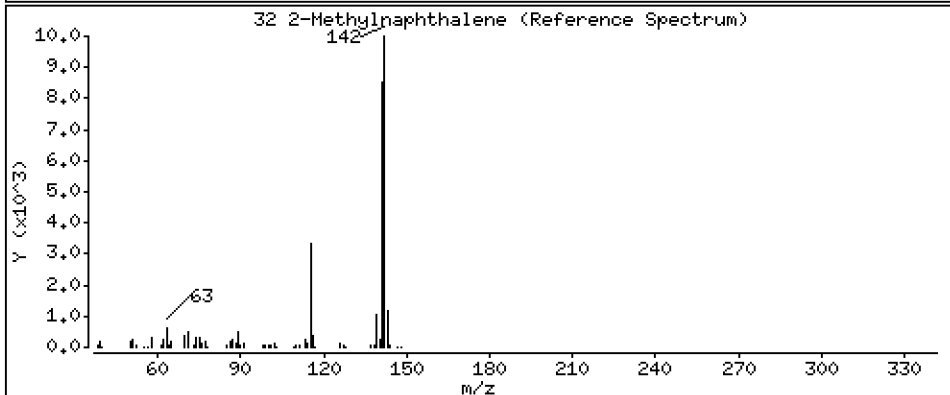
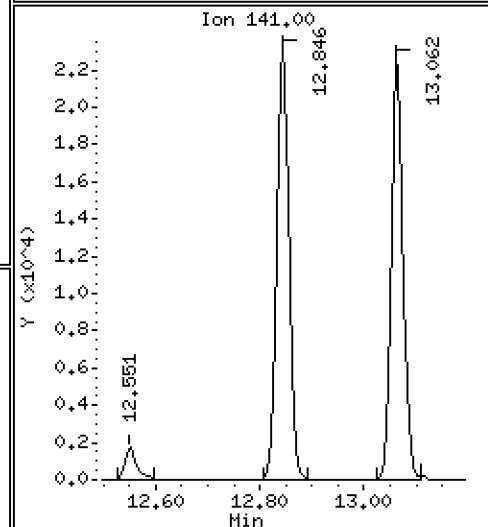
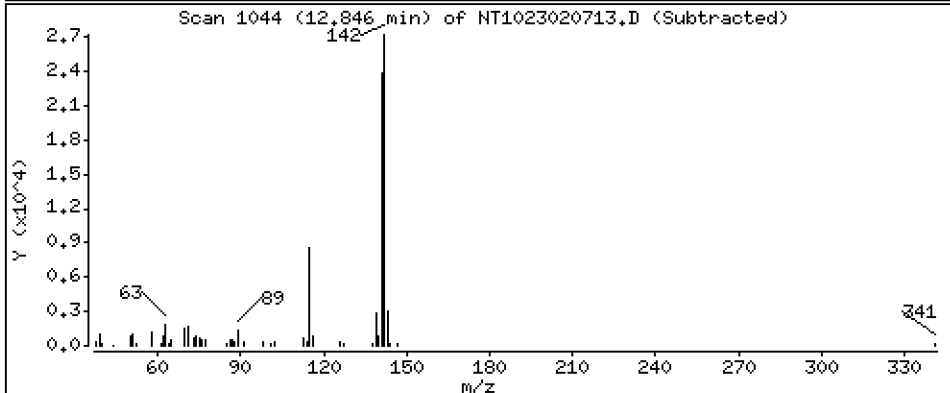
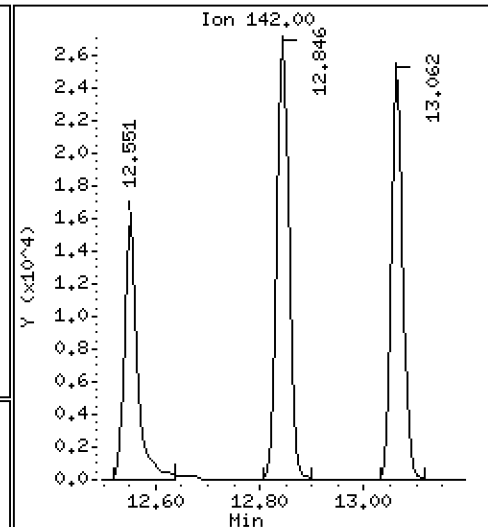
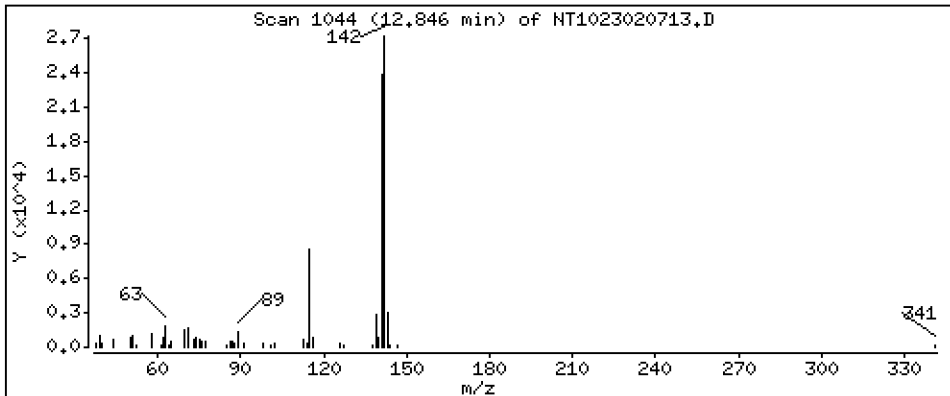
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,5188 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

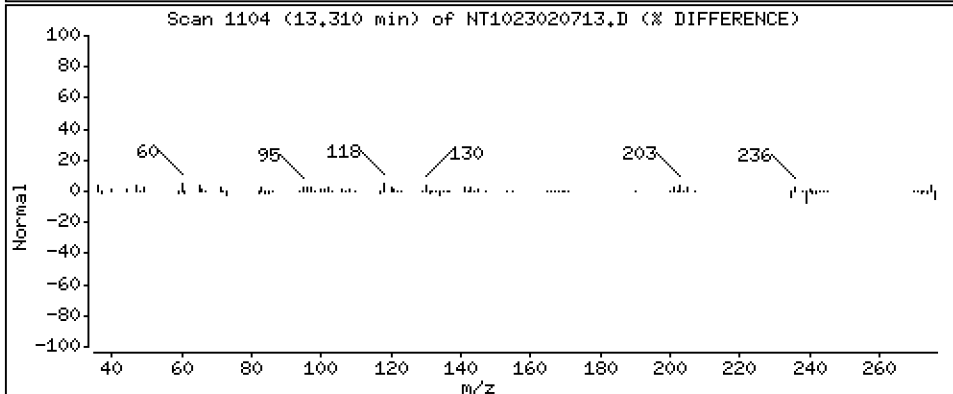
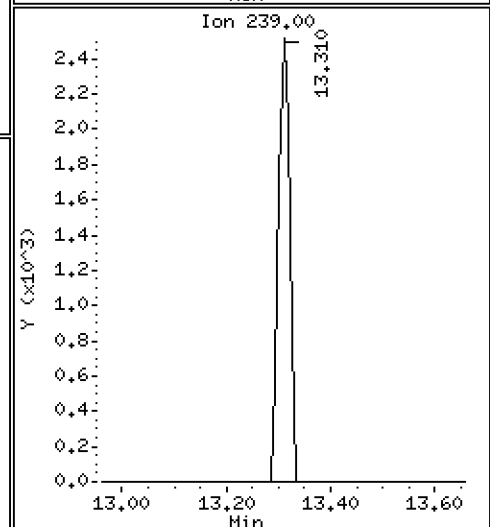
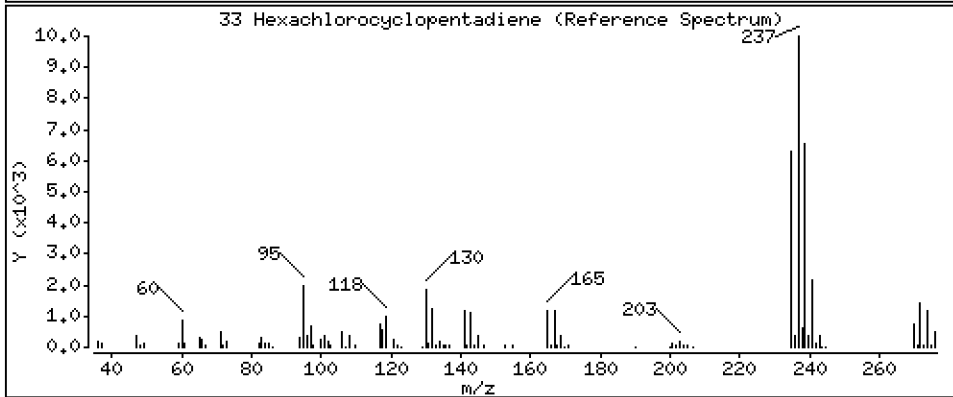
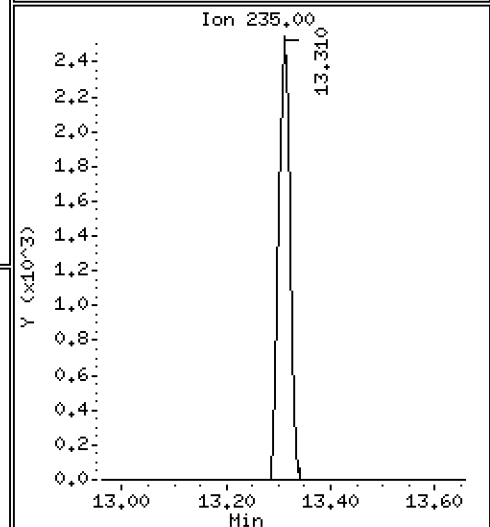
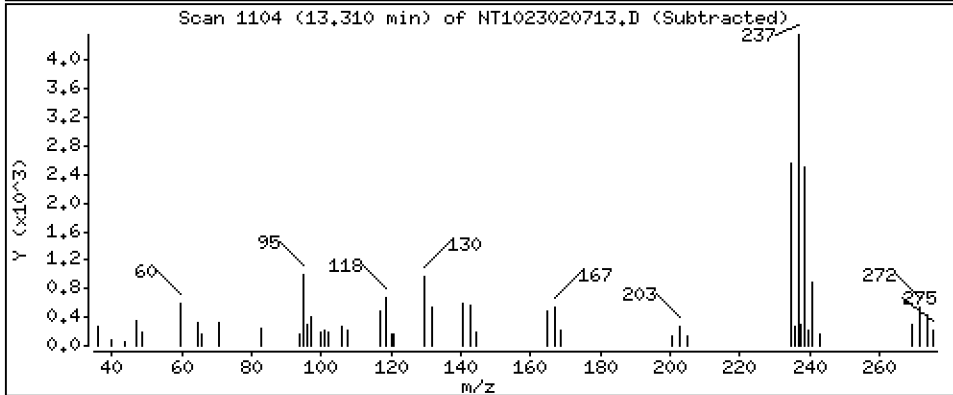
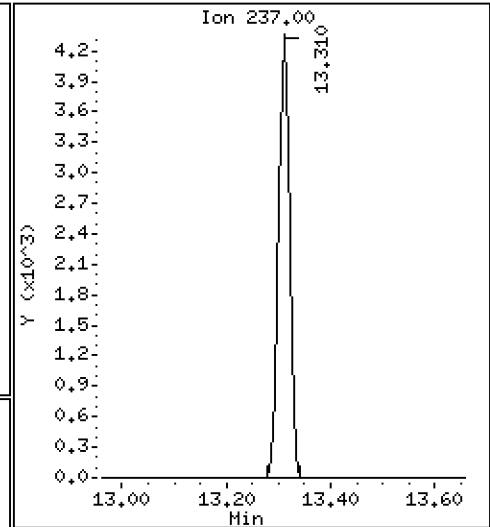
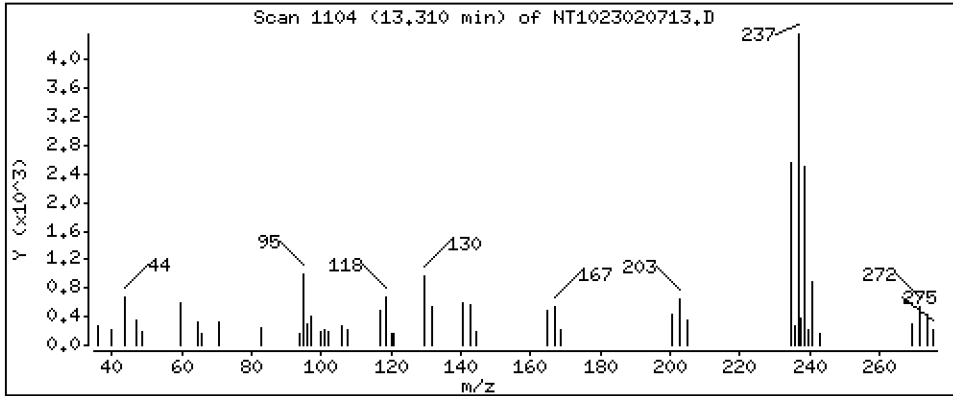
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 0,4331 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

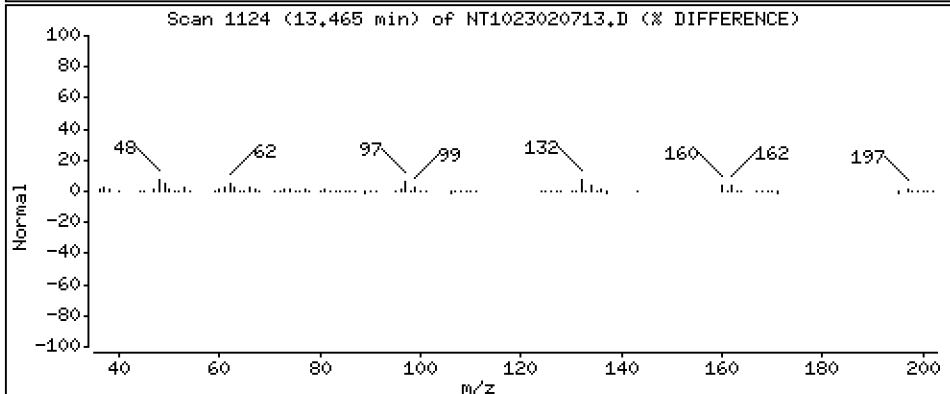
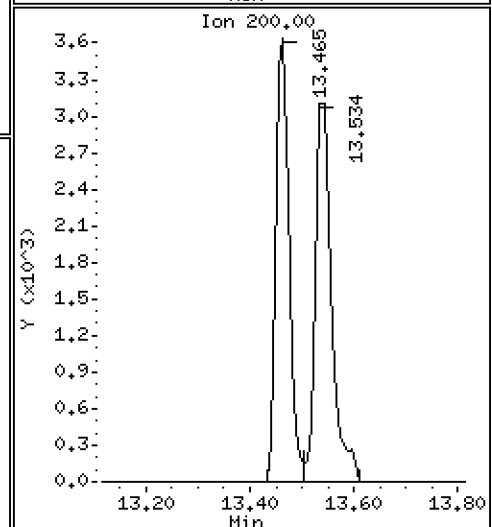
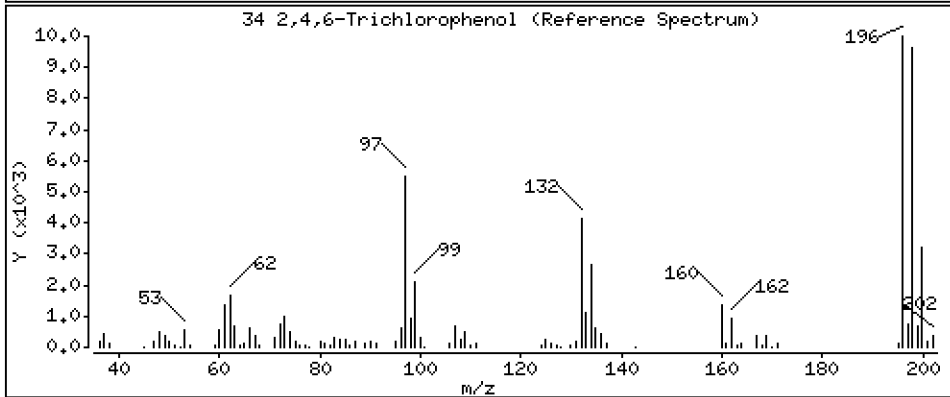
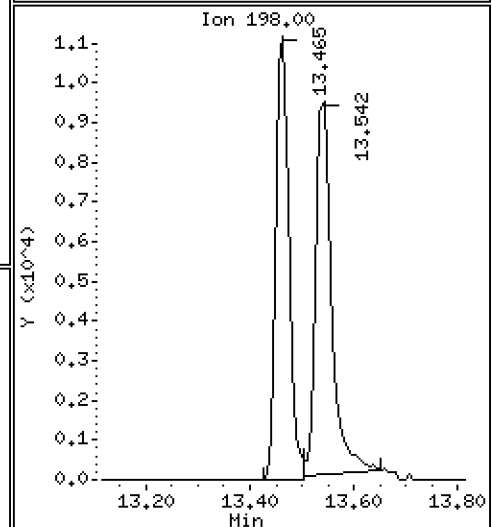
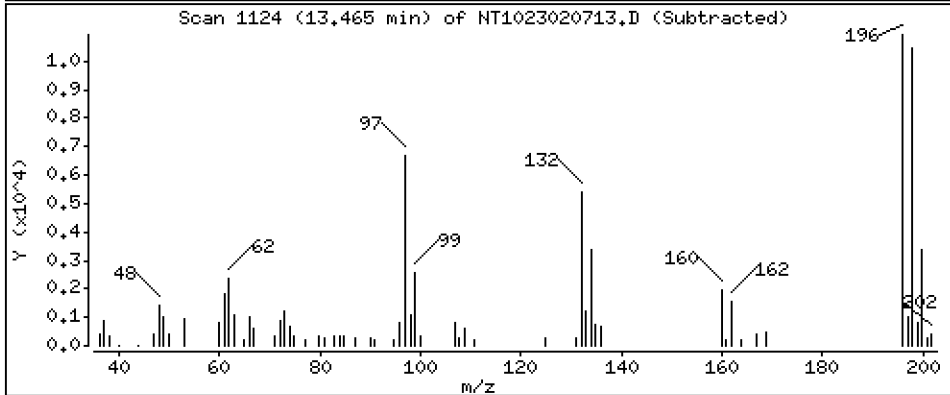
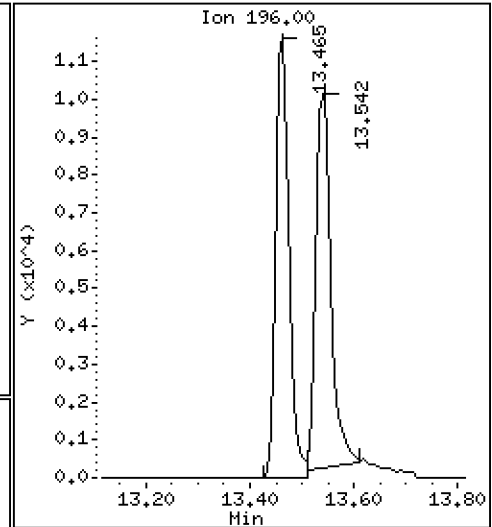
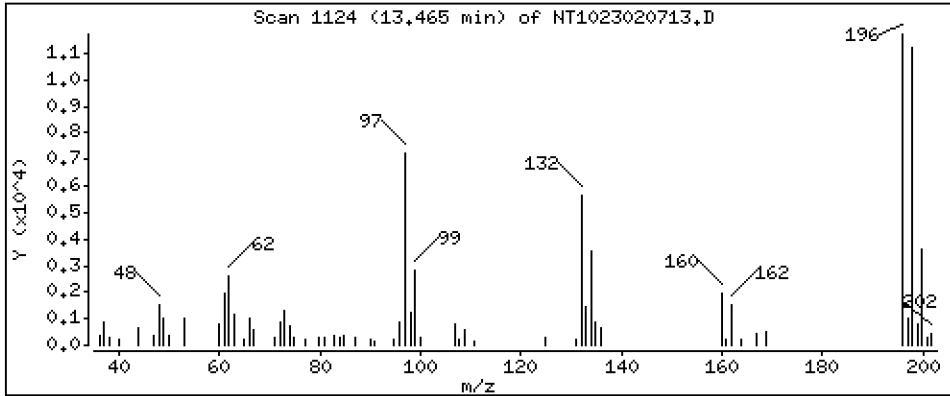
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

34 2,4,6-Trichlorophenol

Concentration: 0.9559 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

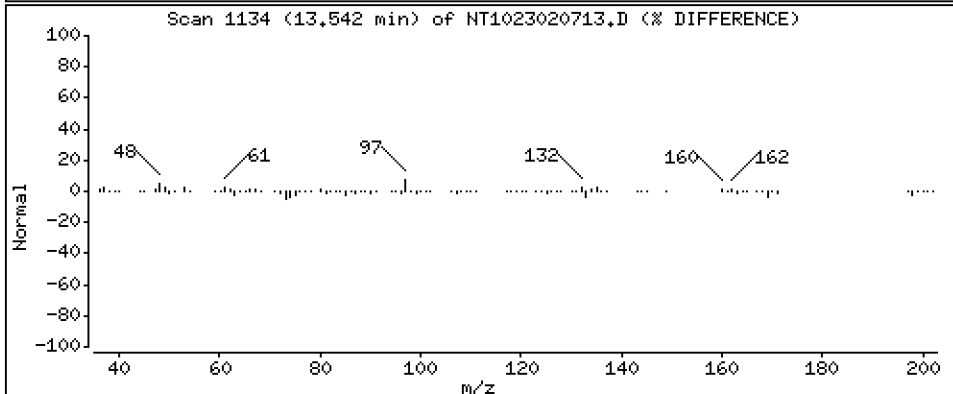
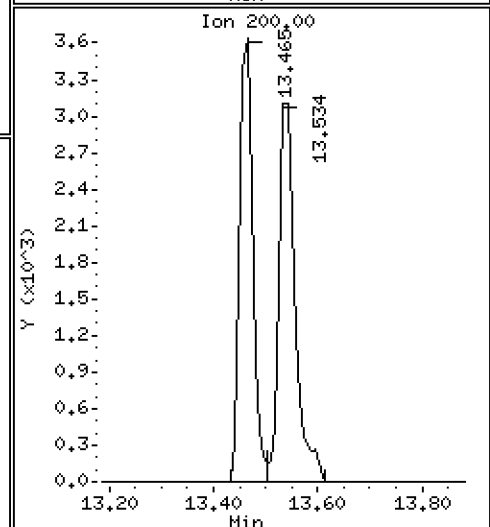
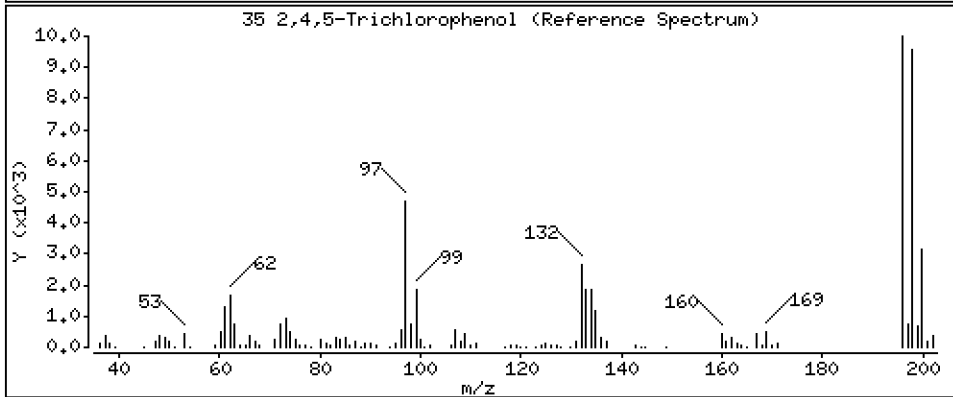
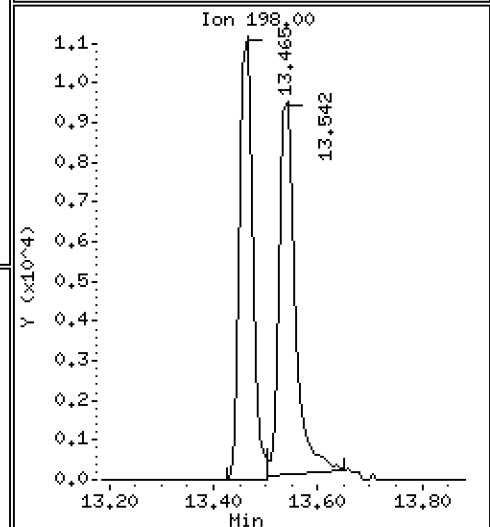
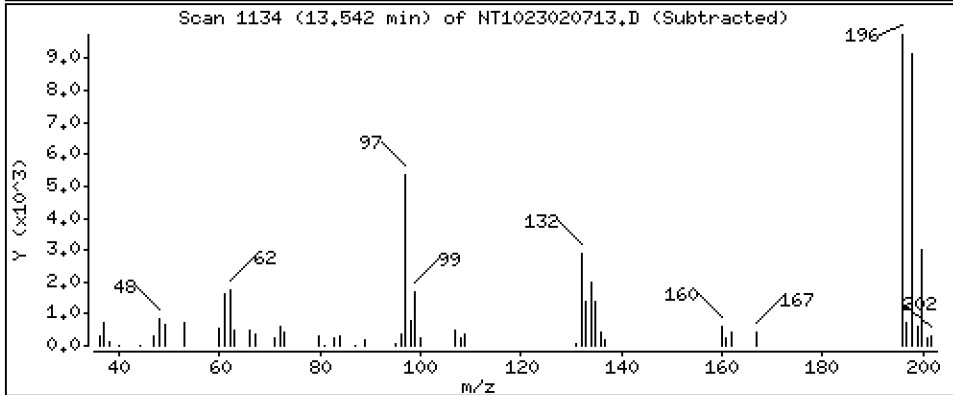
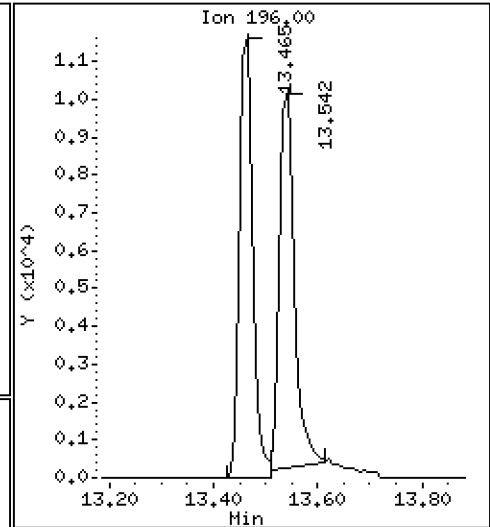
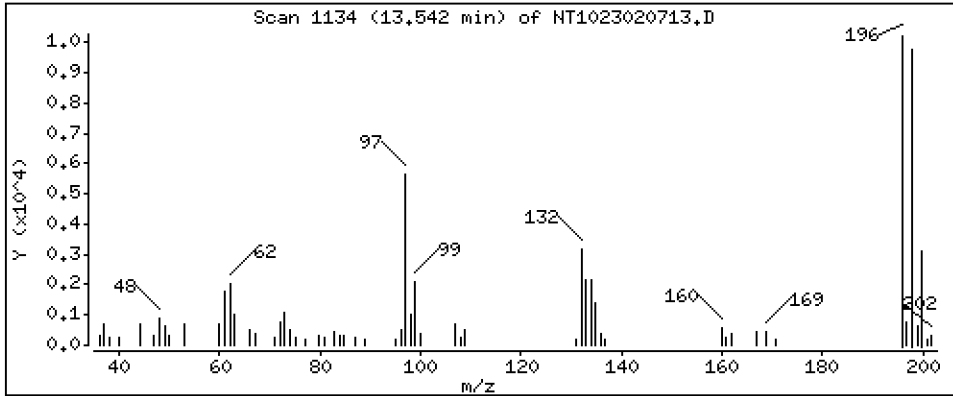
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 0,8507 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

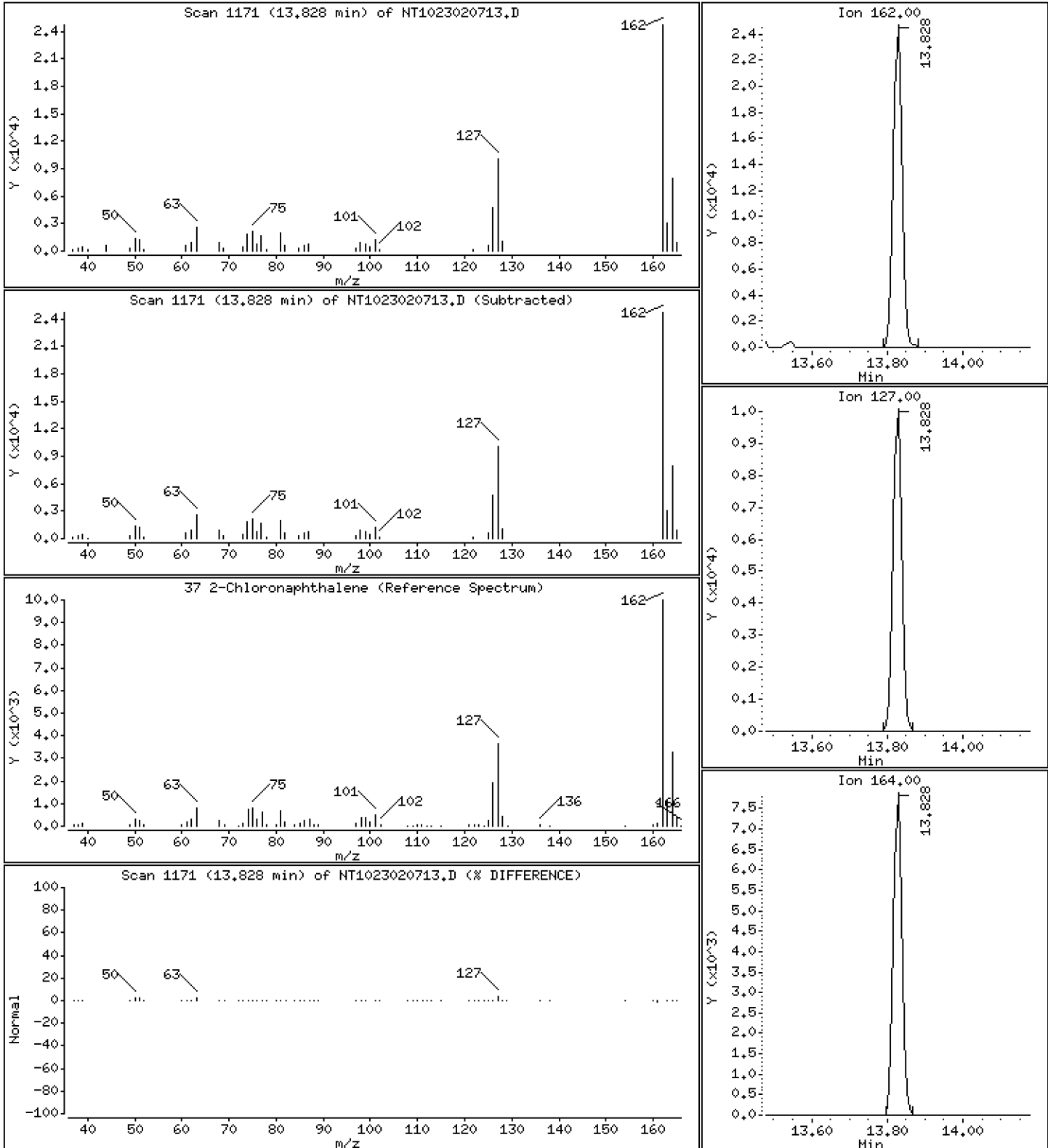
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 0,5257 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

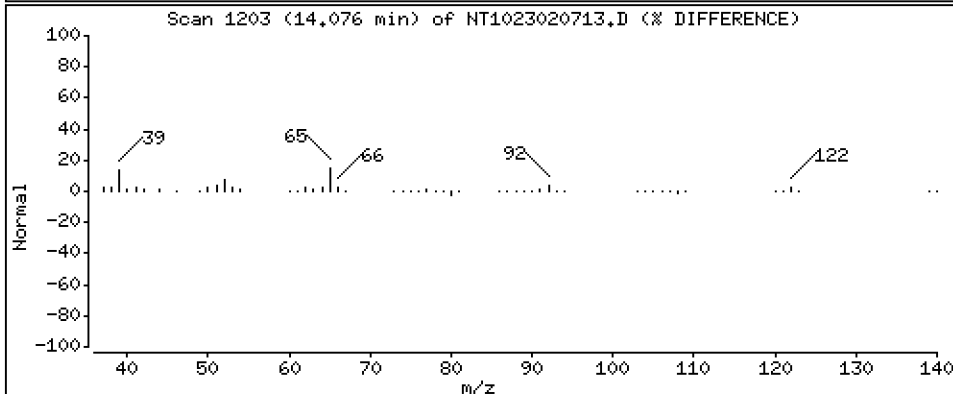
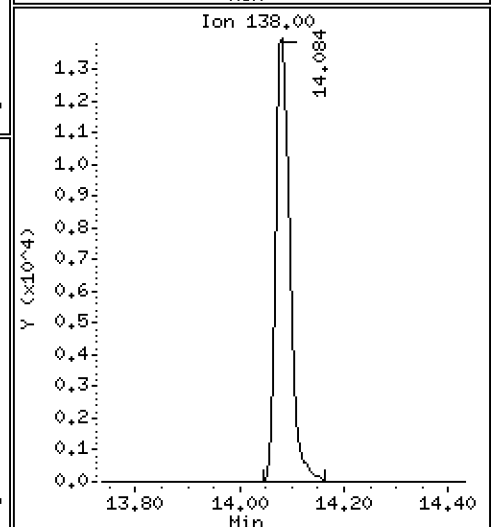
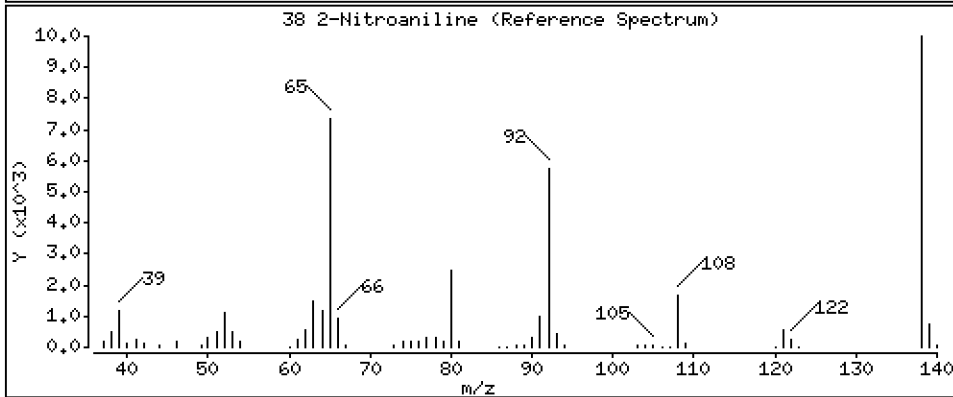
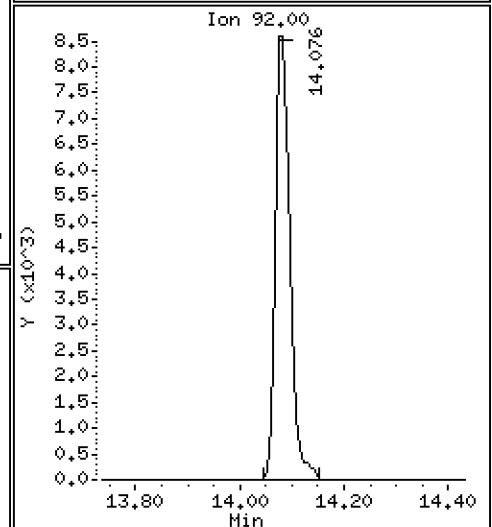
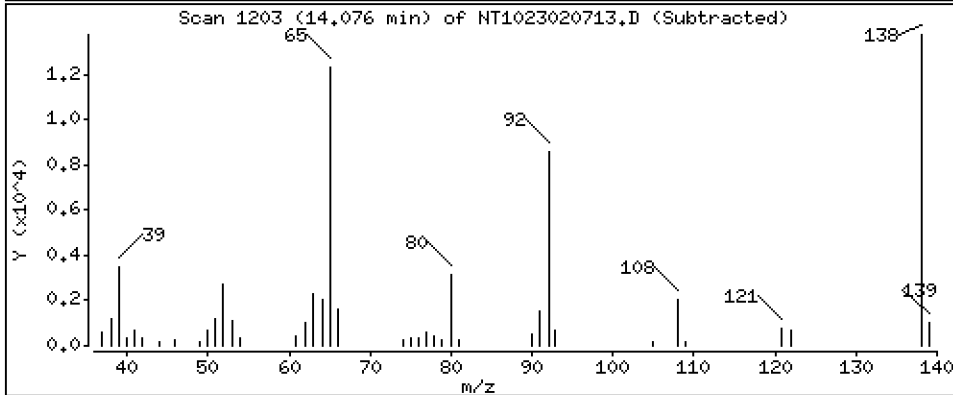
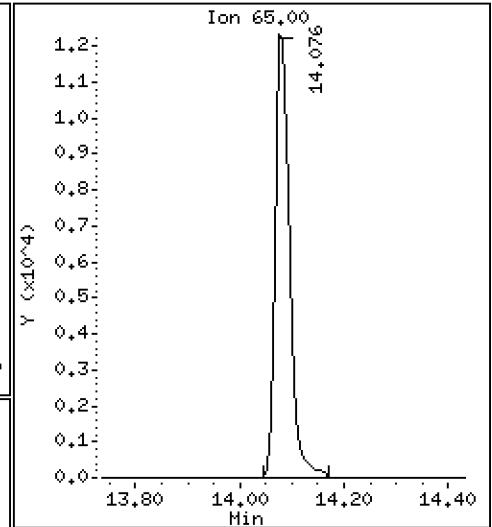
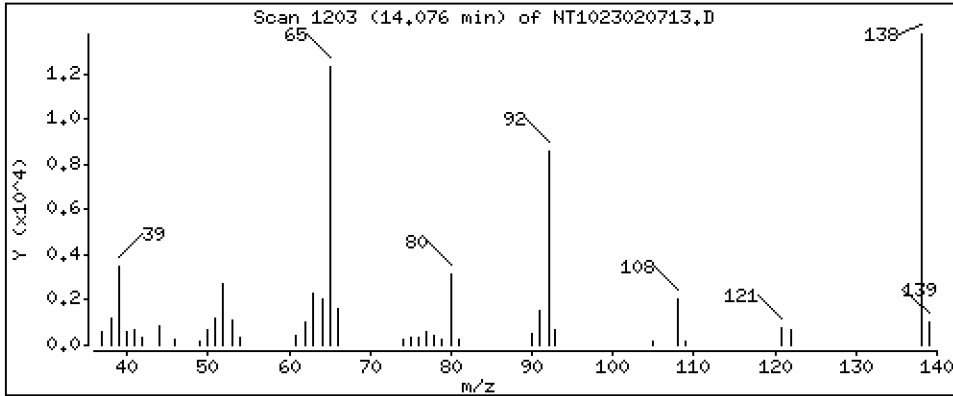
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 1,009 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

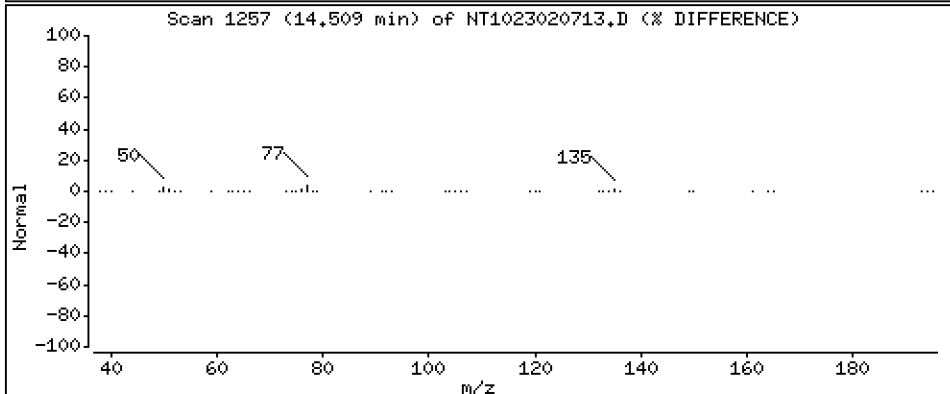
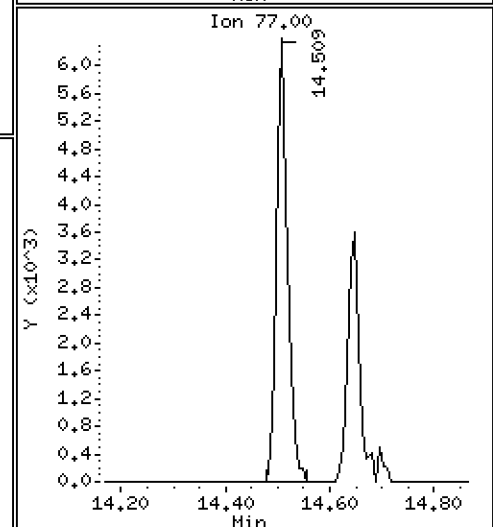
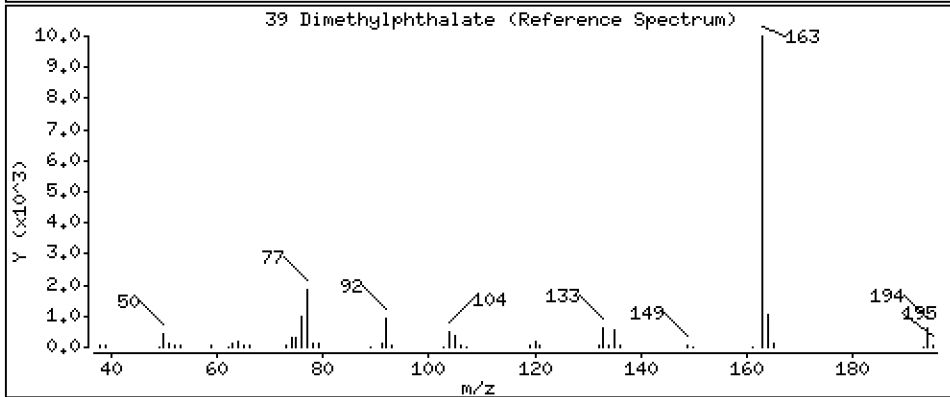
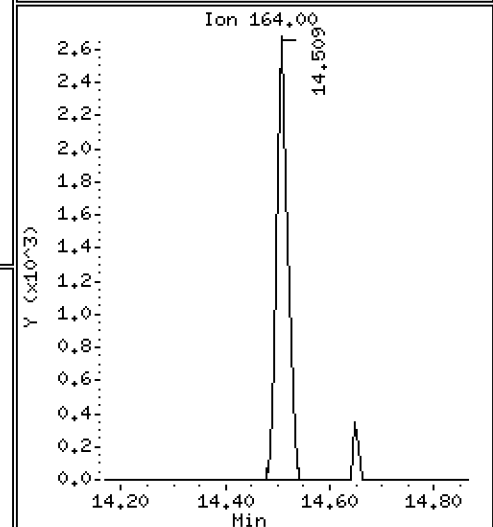
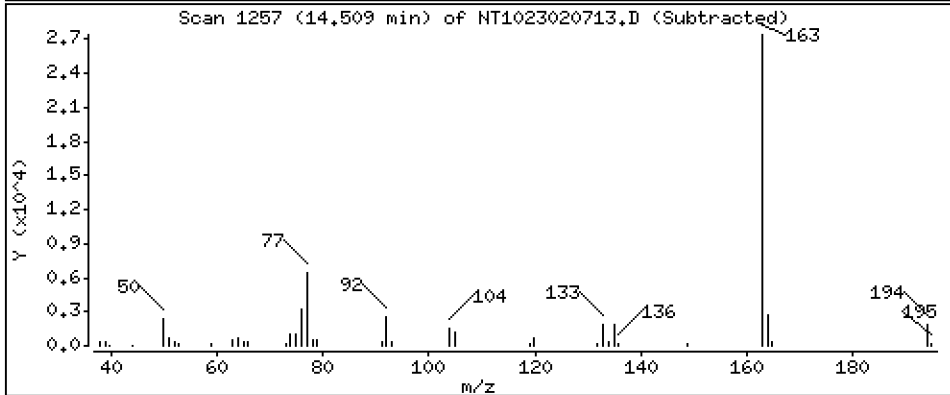
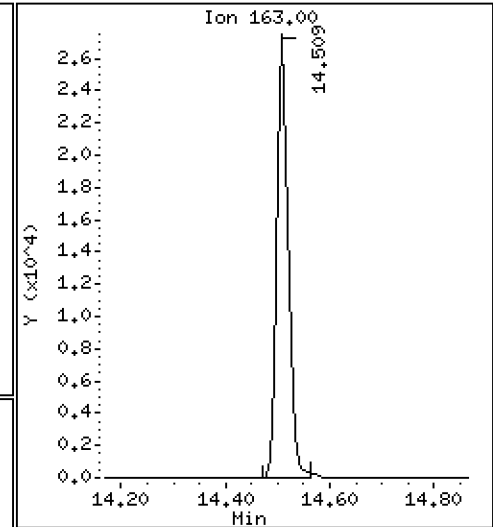
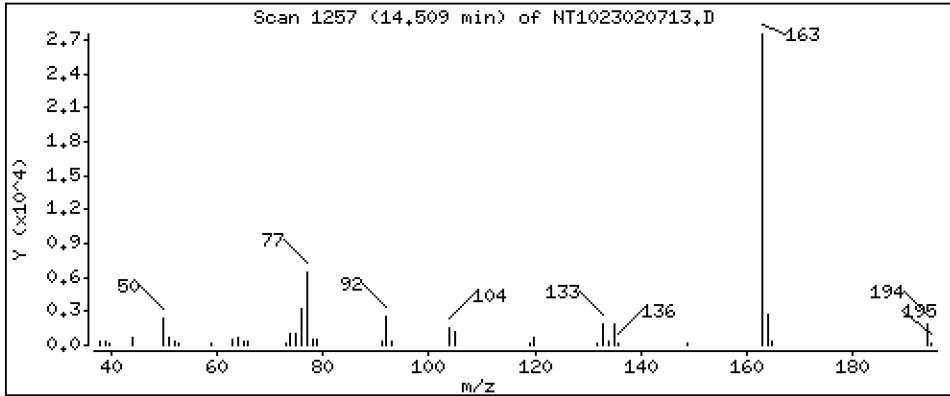
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 0.5302 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

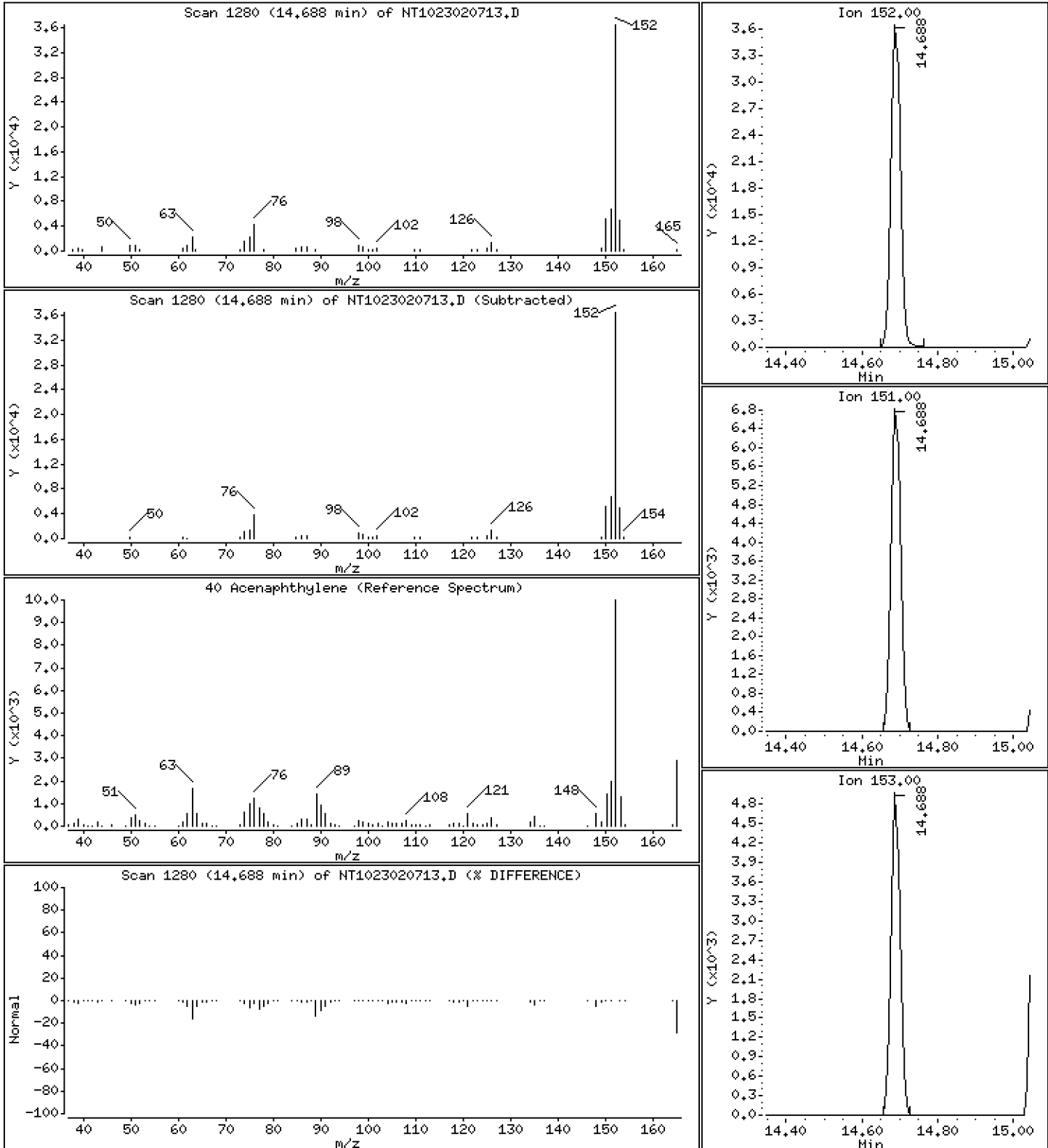
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,5309 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

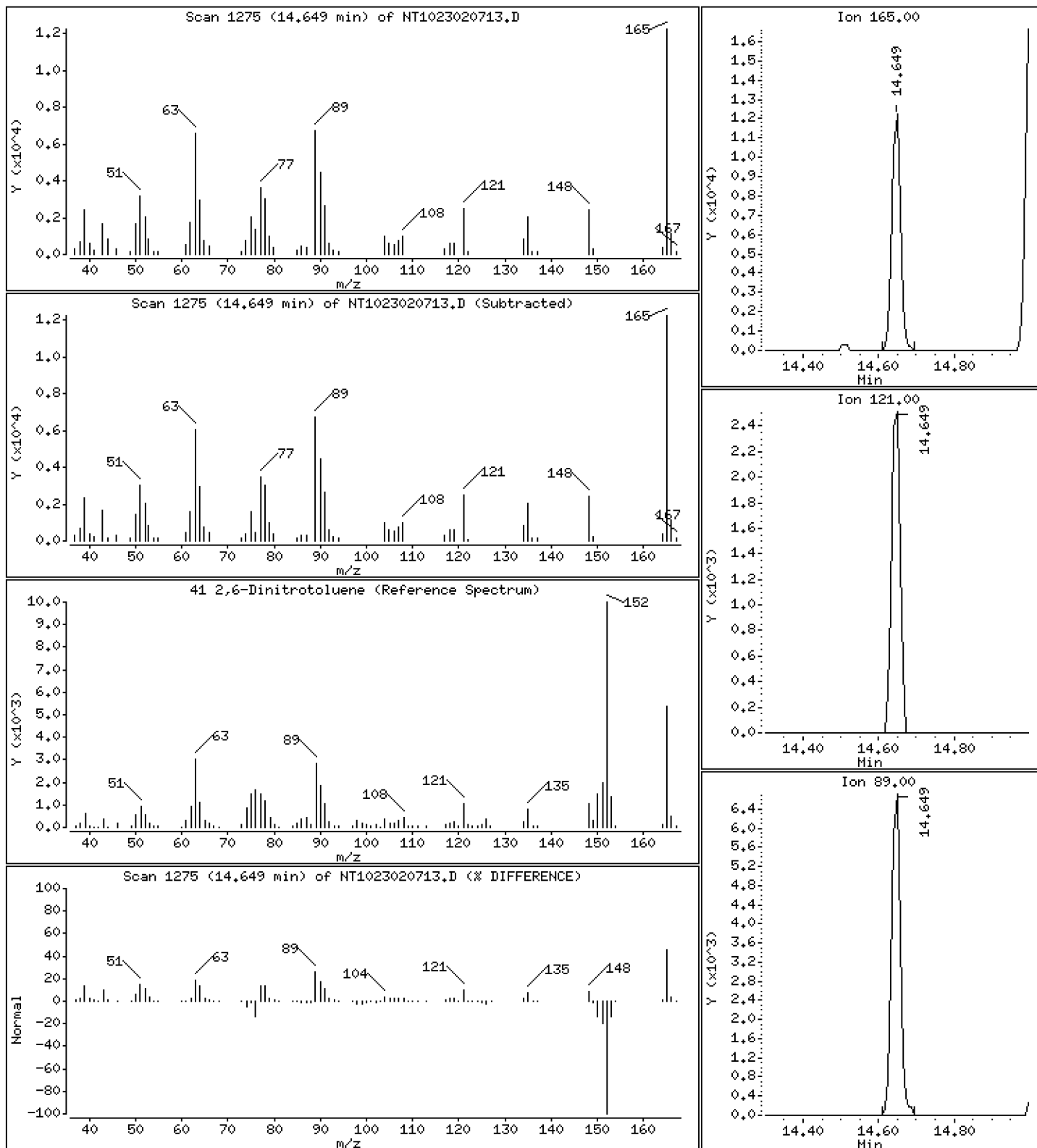
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 1.012 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

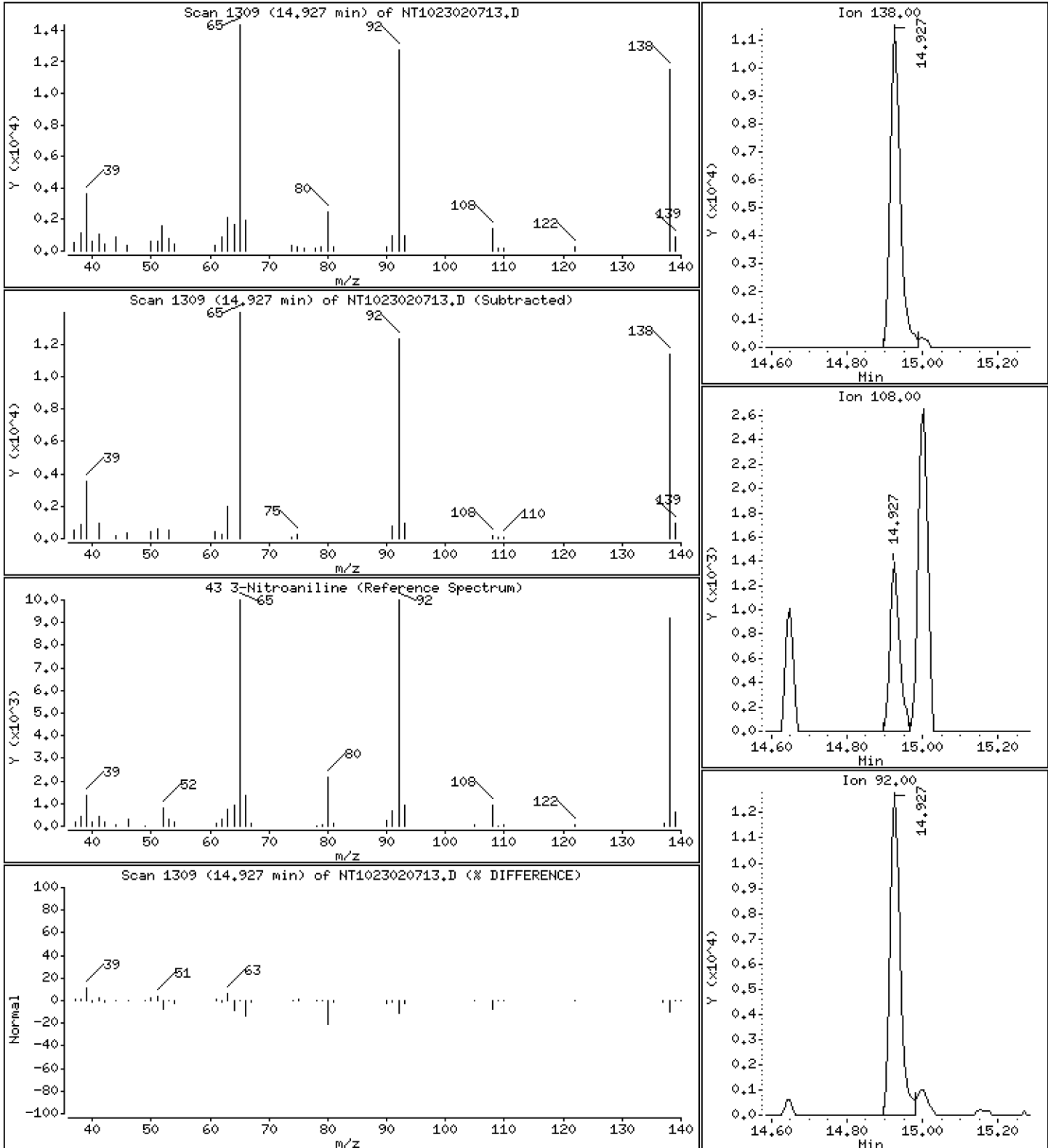
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 0,9486 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

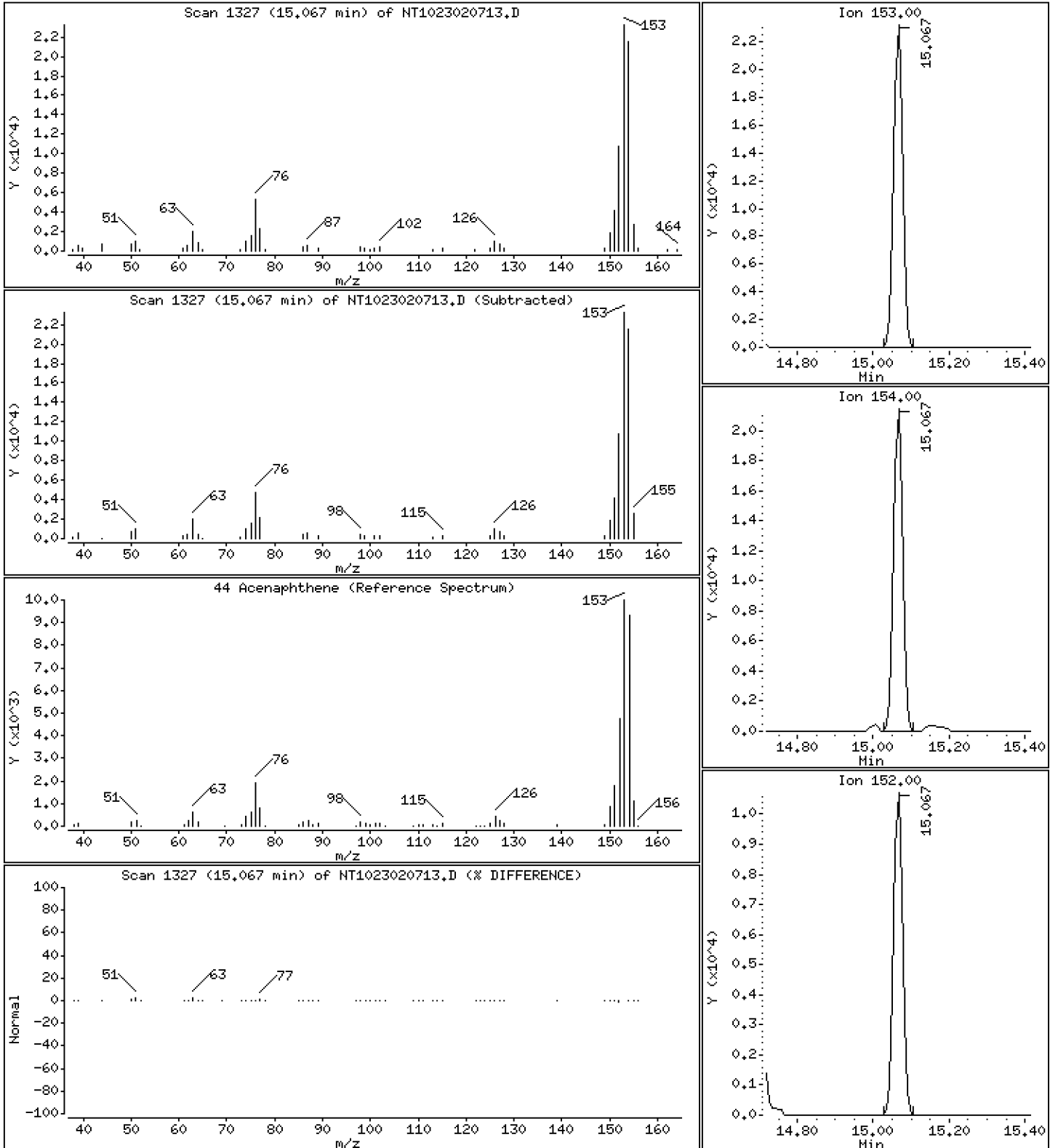
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,5214 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

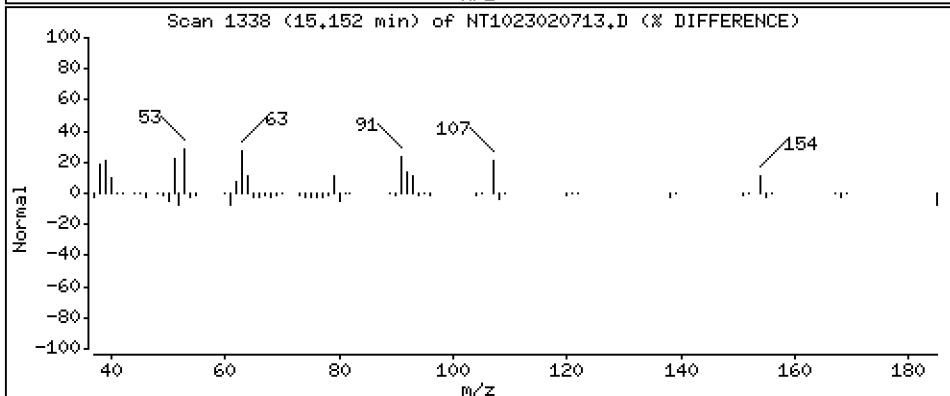
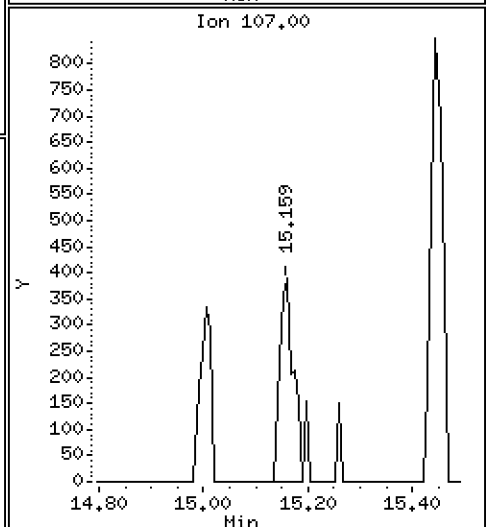
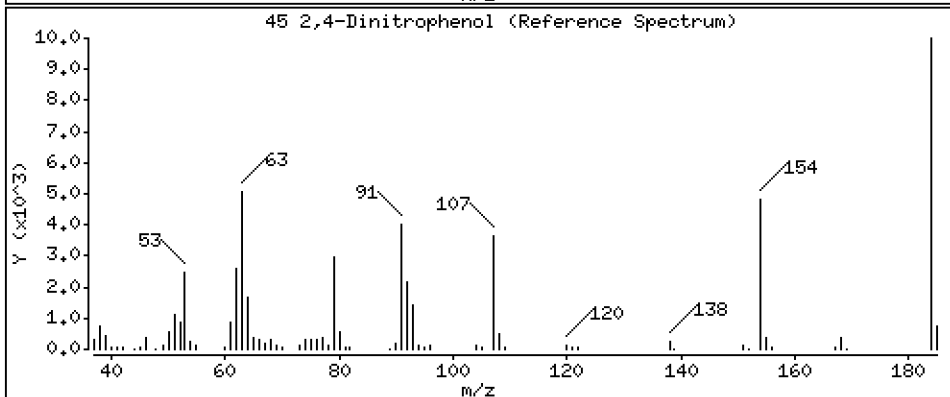
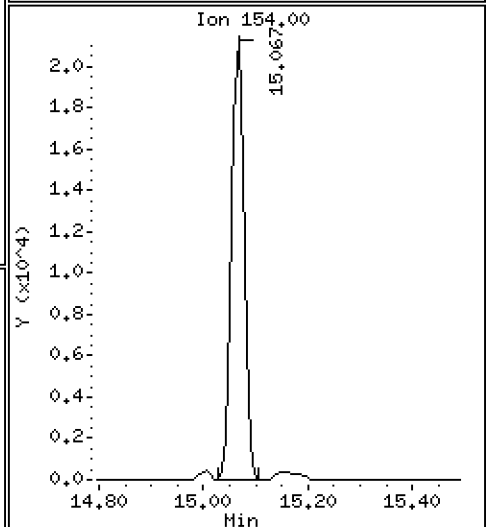
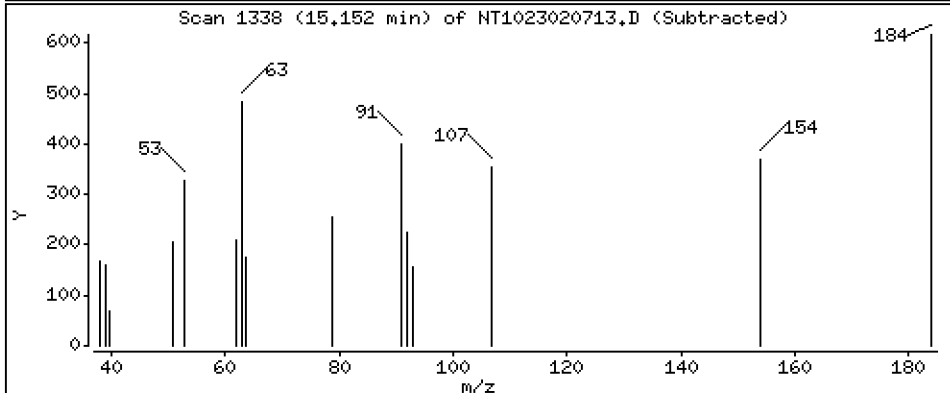
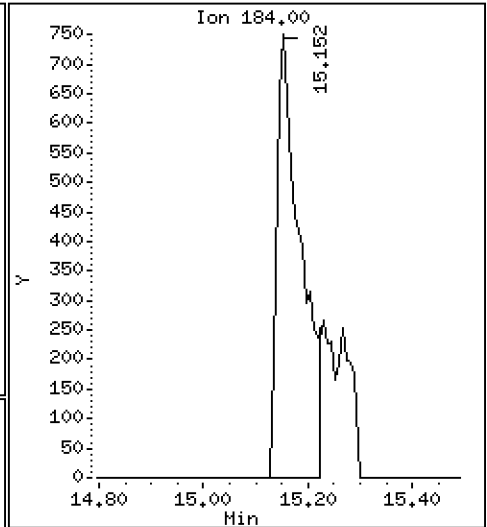
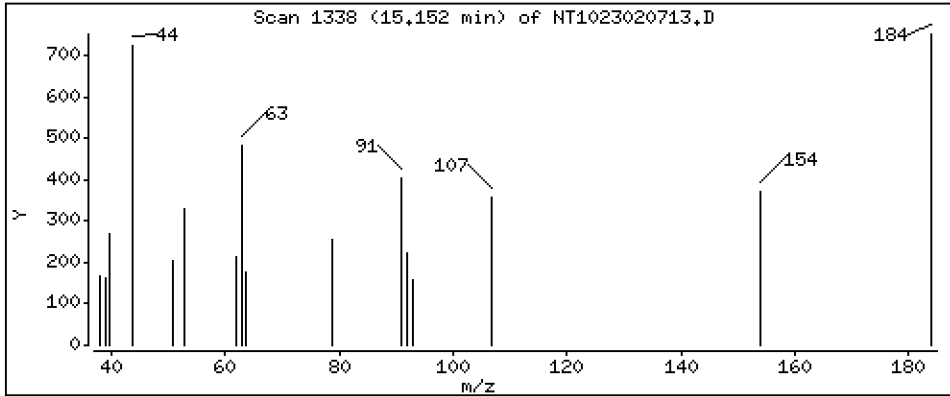
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,2542 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

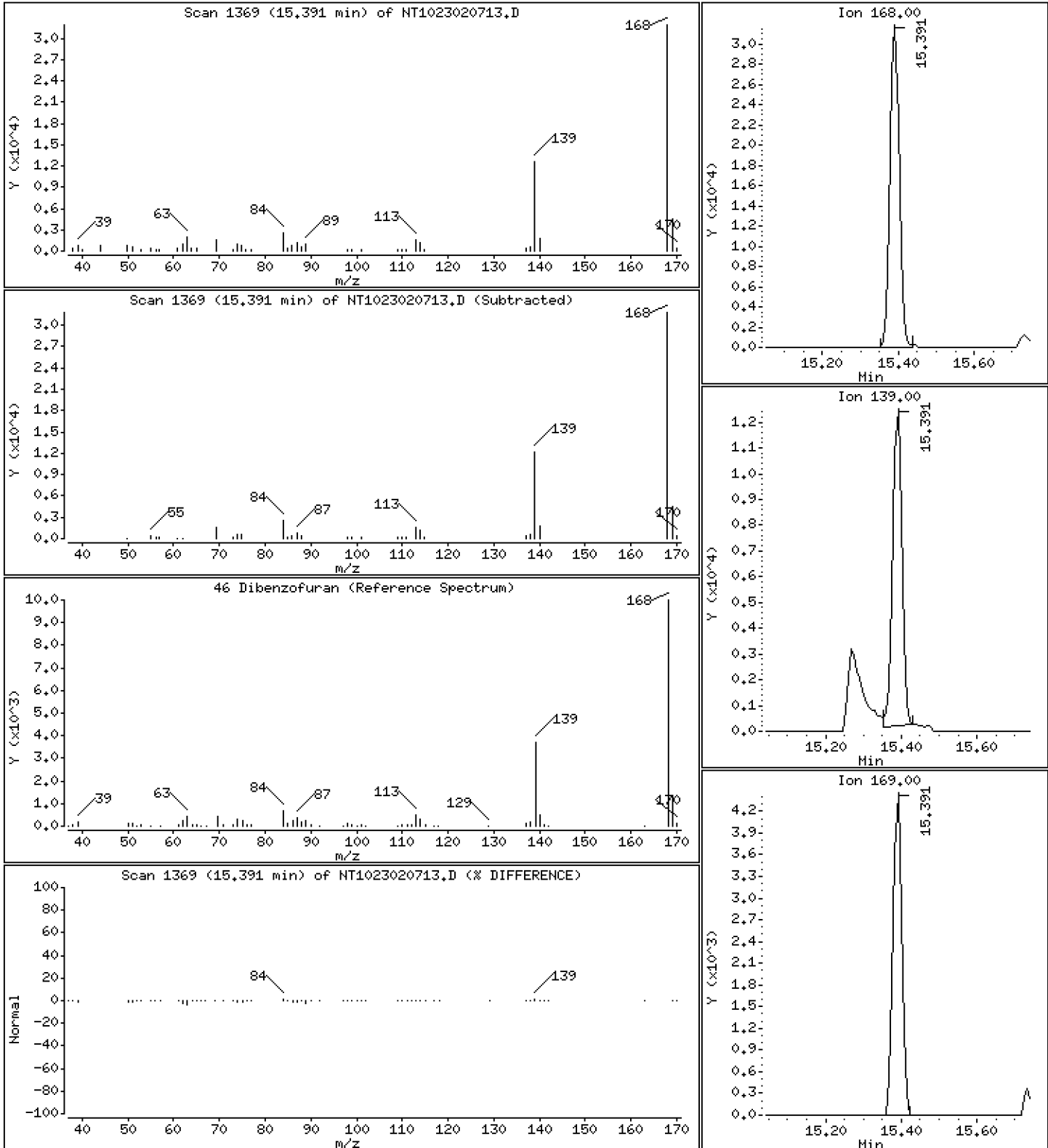
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,5146 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

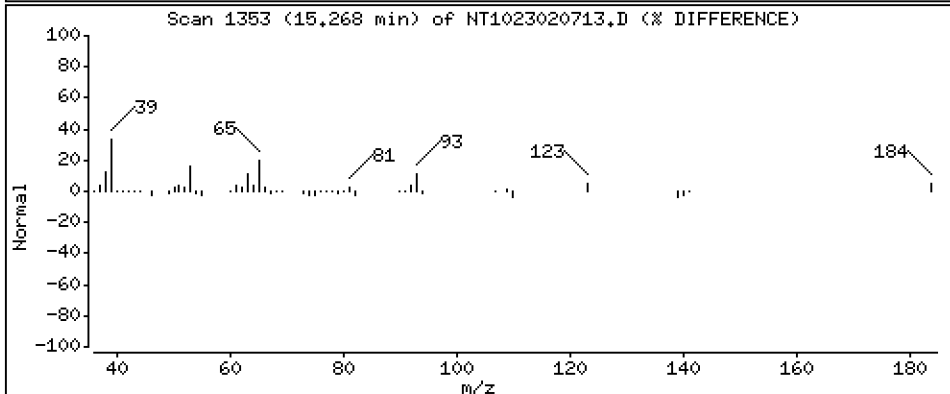
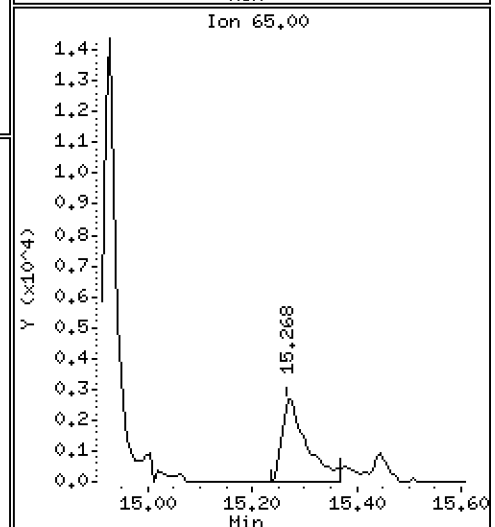
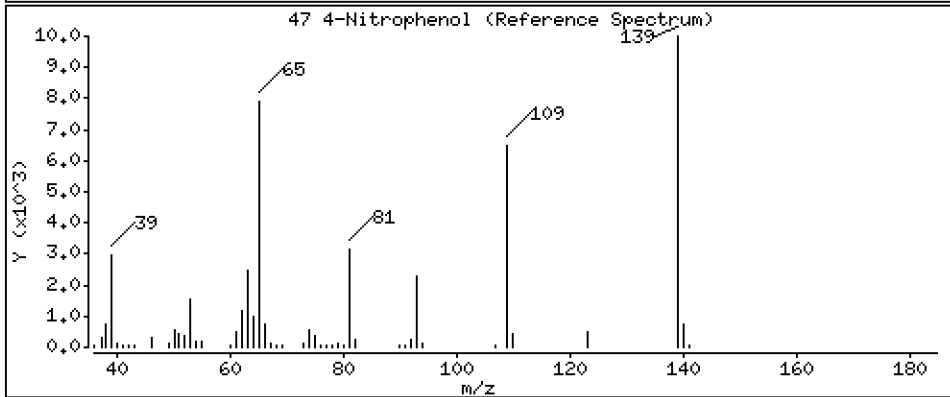
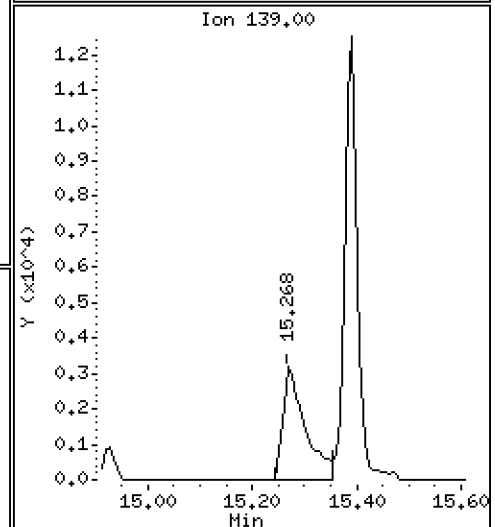
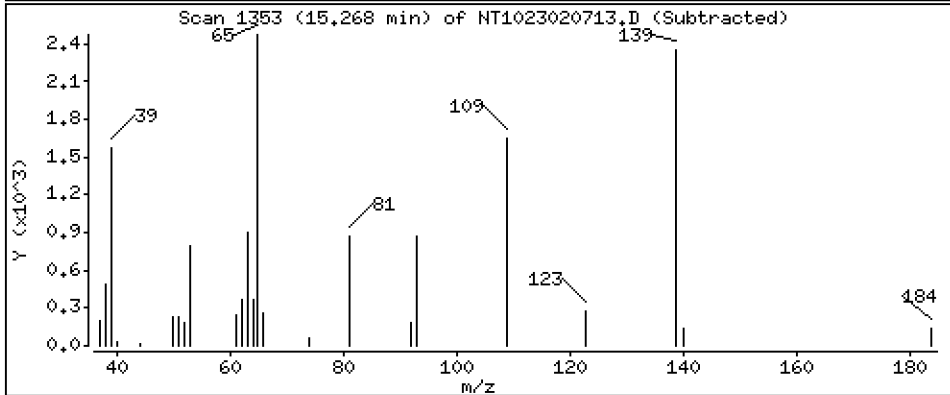
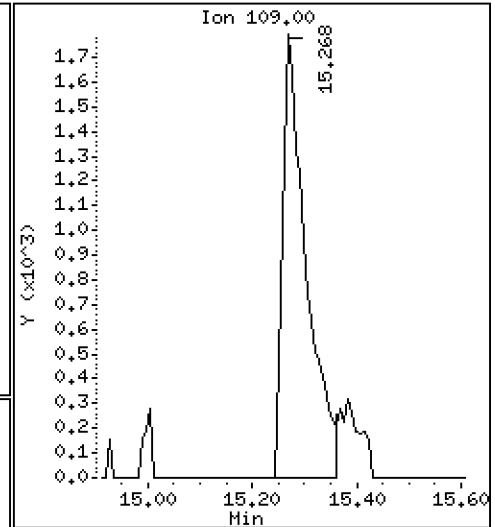
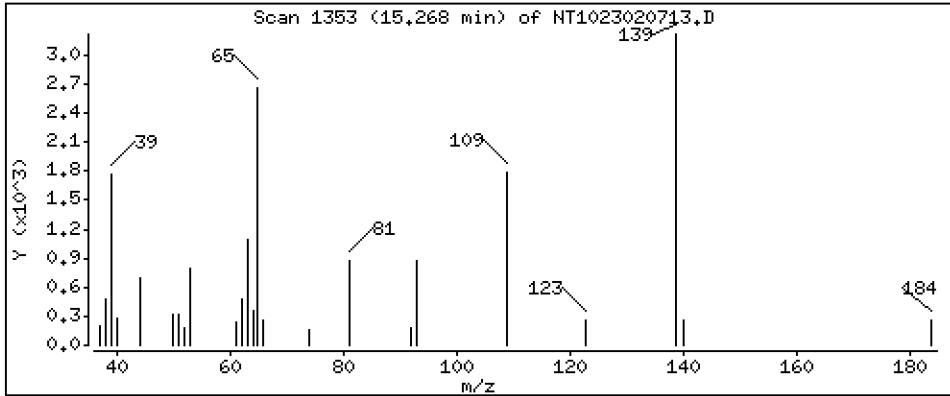
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 0,7280 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

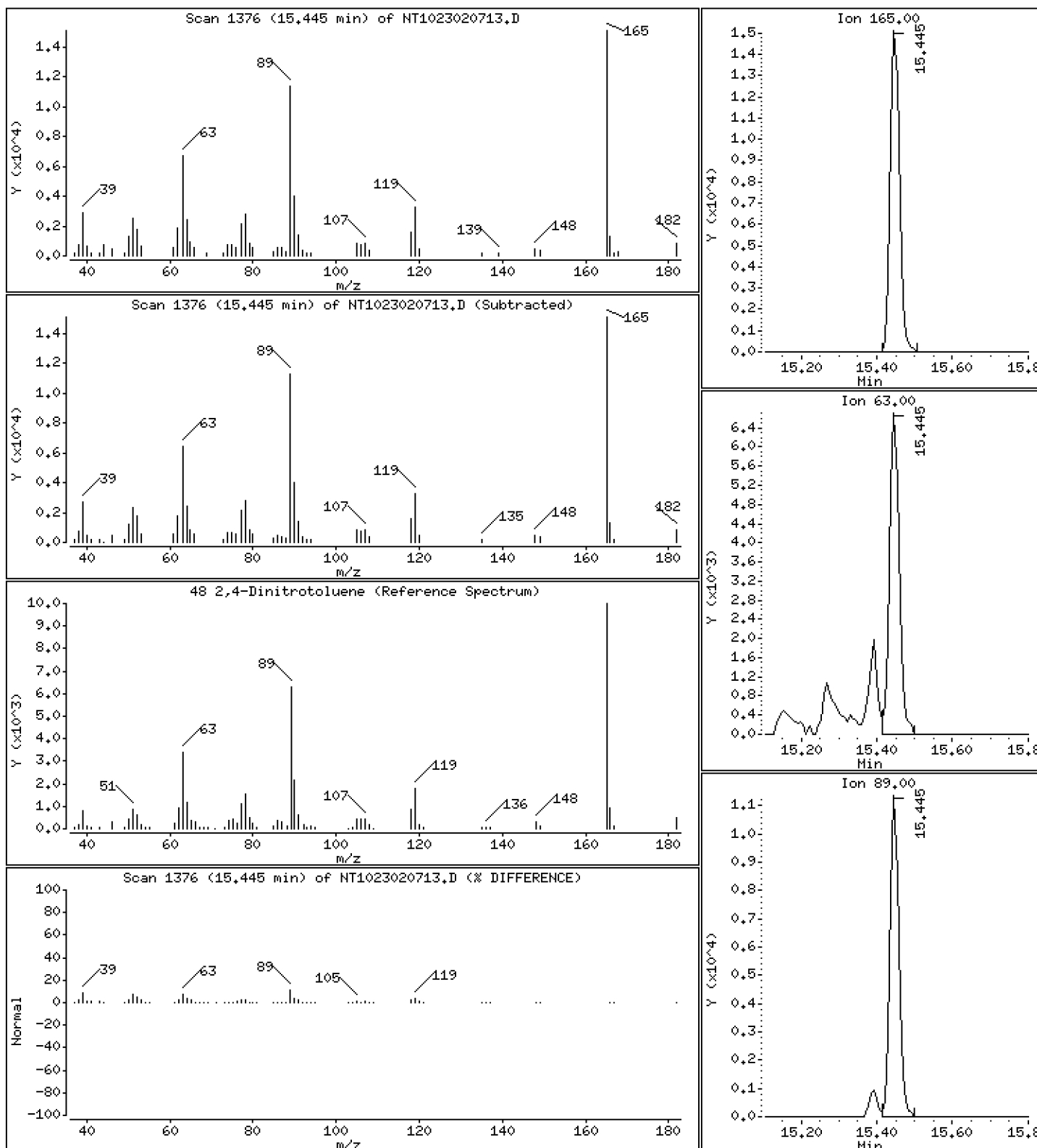
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 0,9819 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

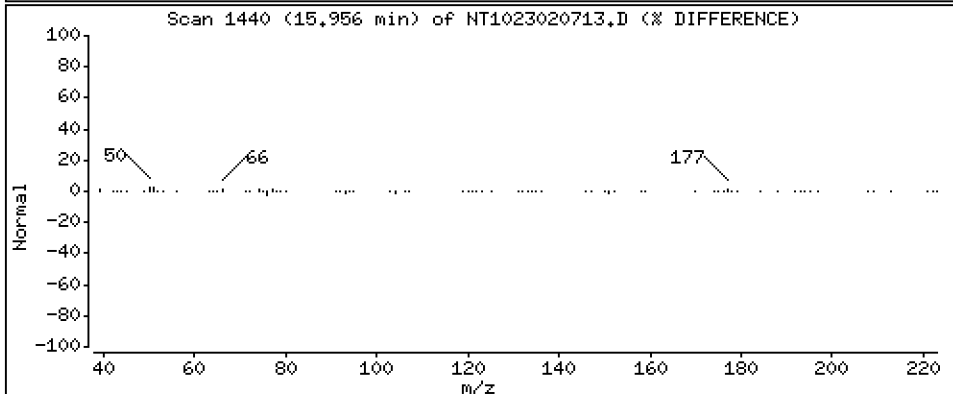
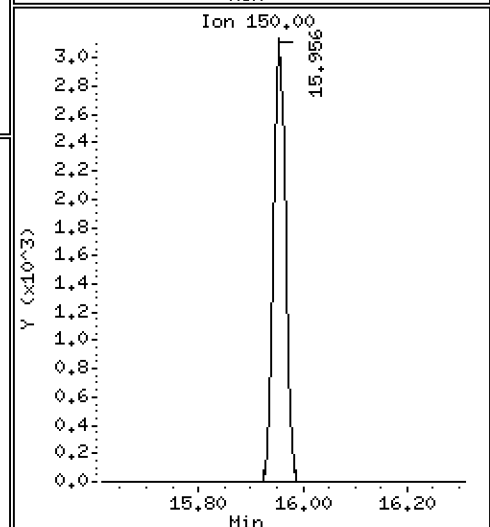
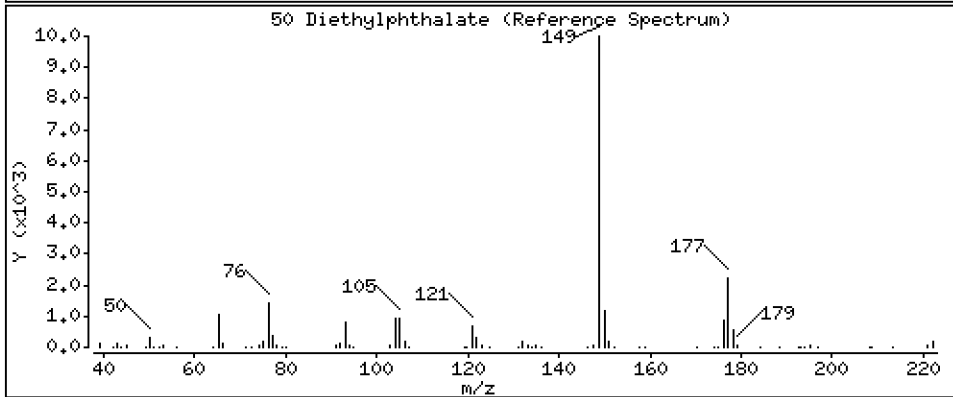
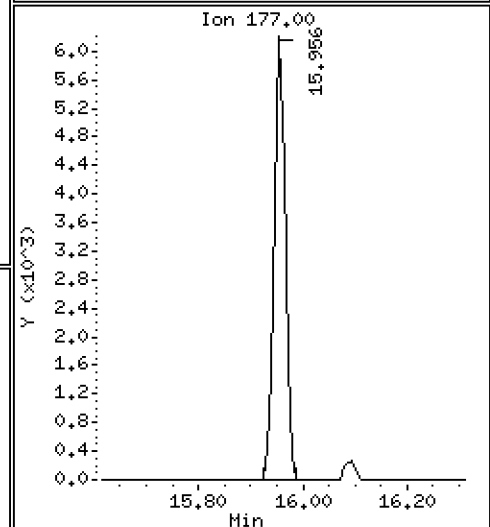
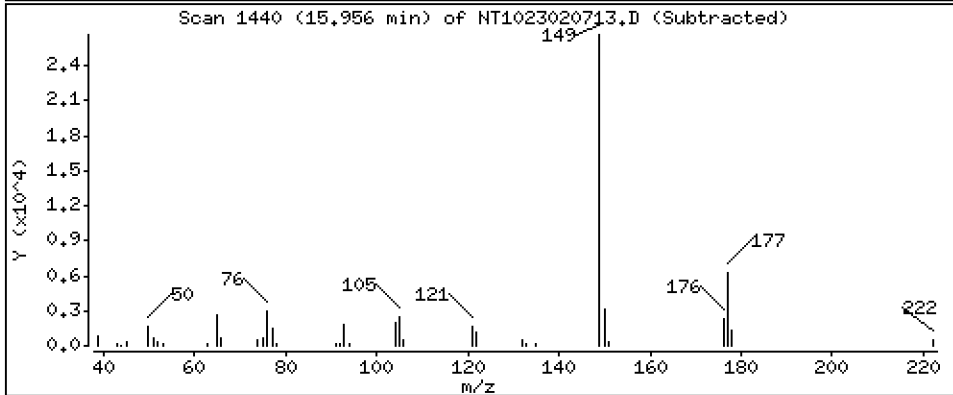
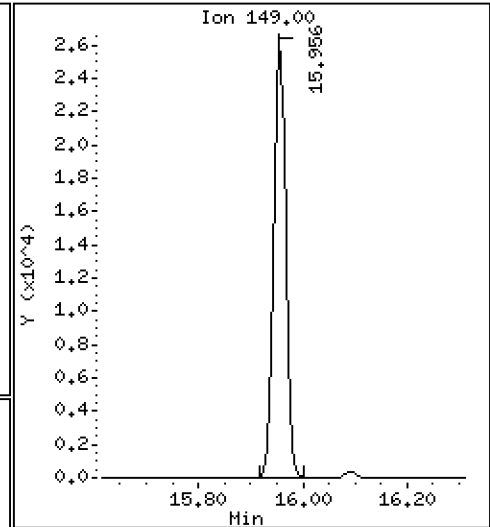
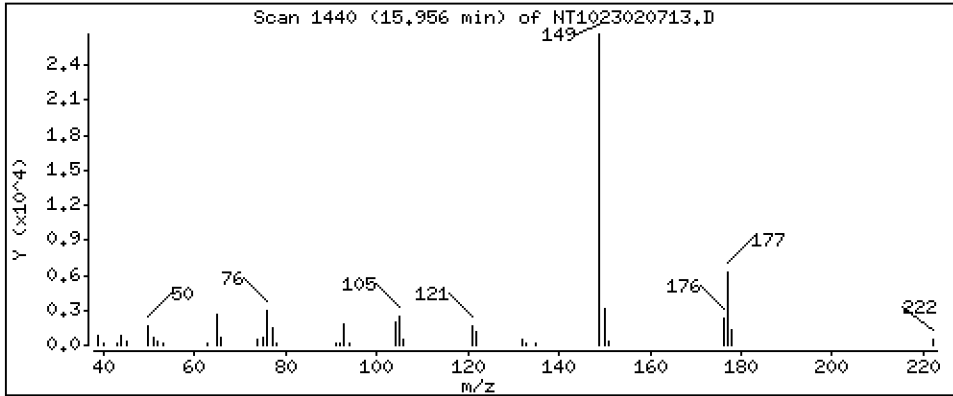
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.5351 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

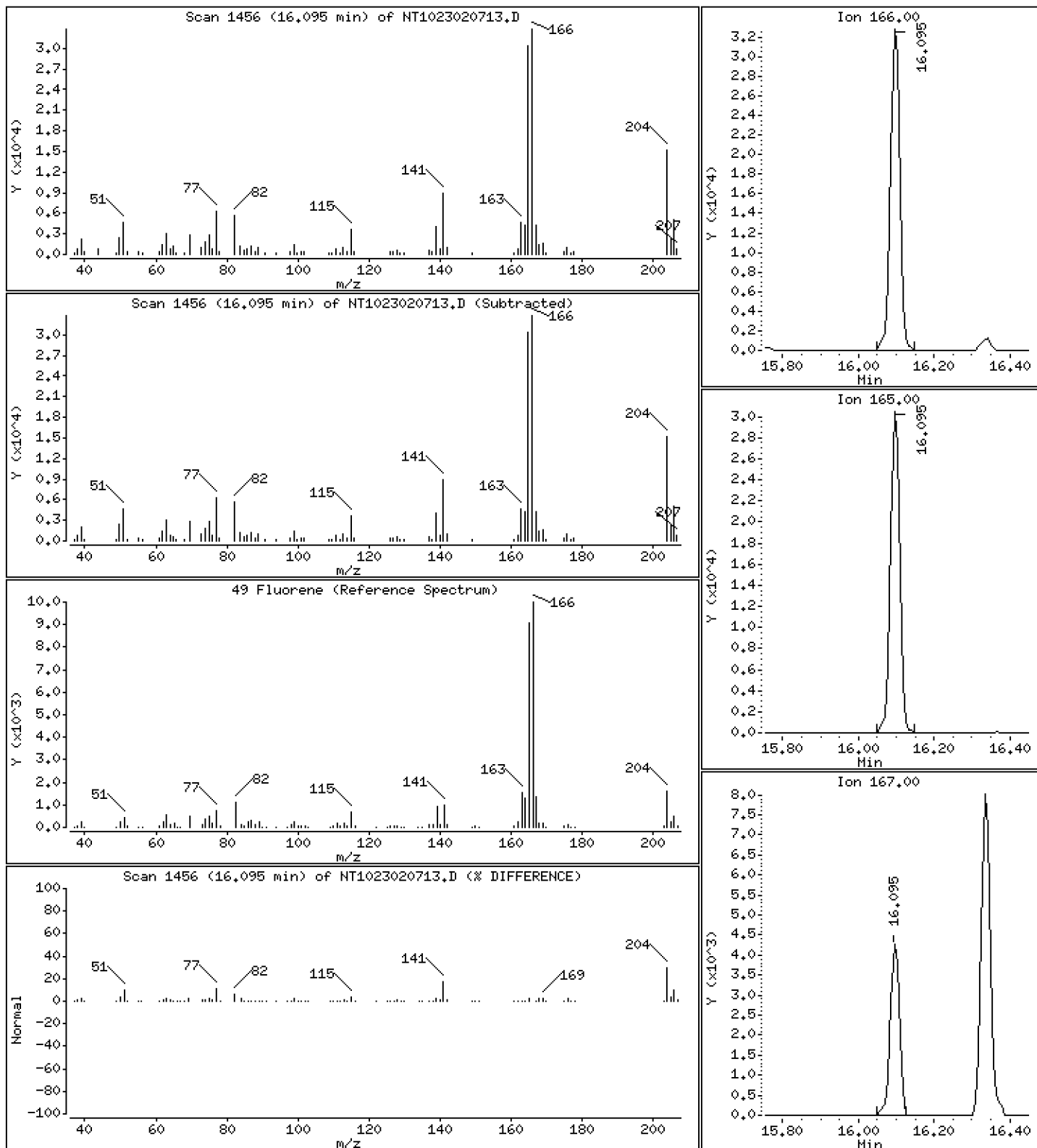
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

49 Fluorene

Concentration: 0.5553 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

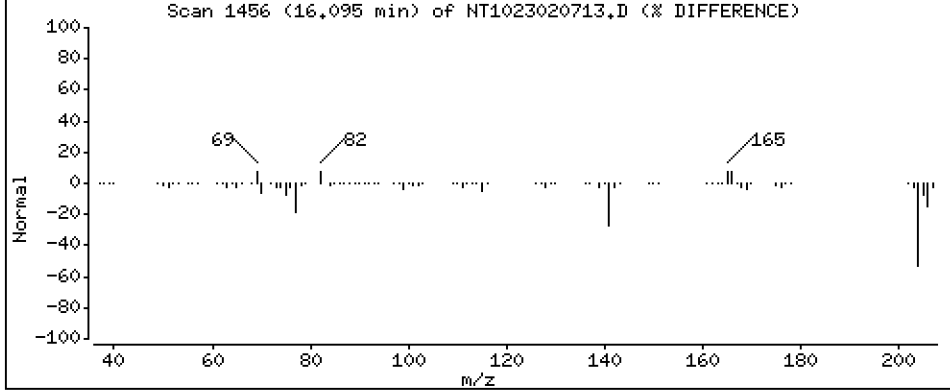
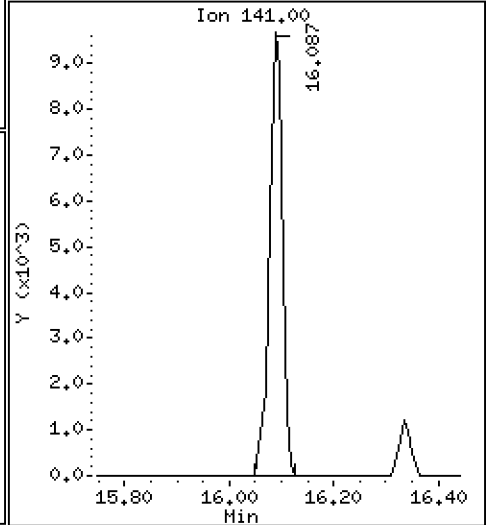
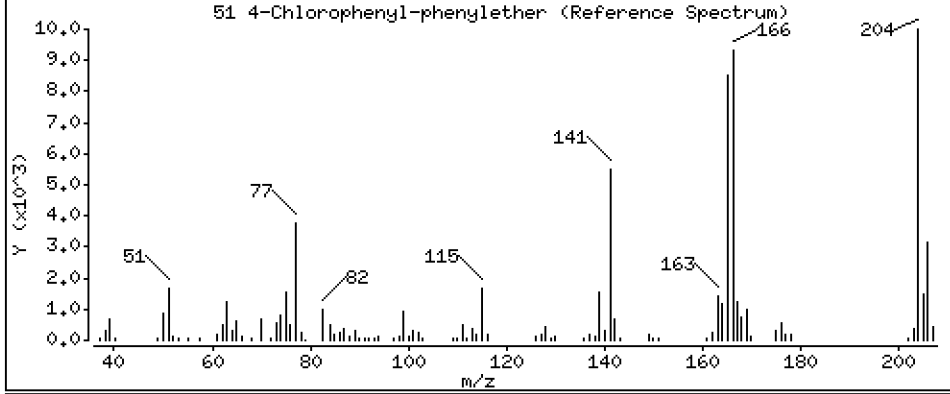
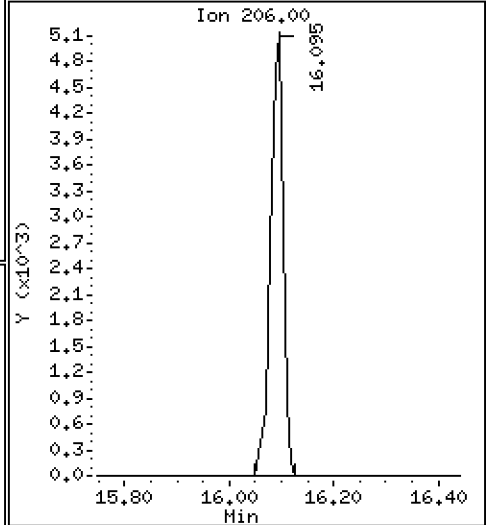
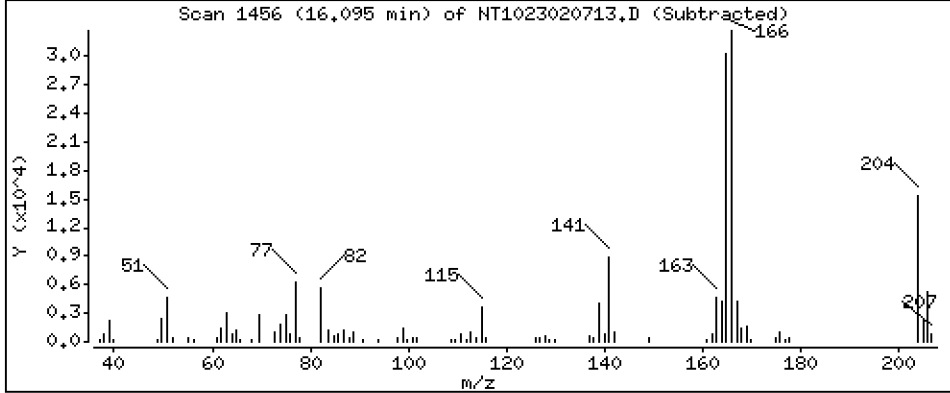
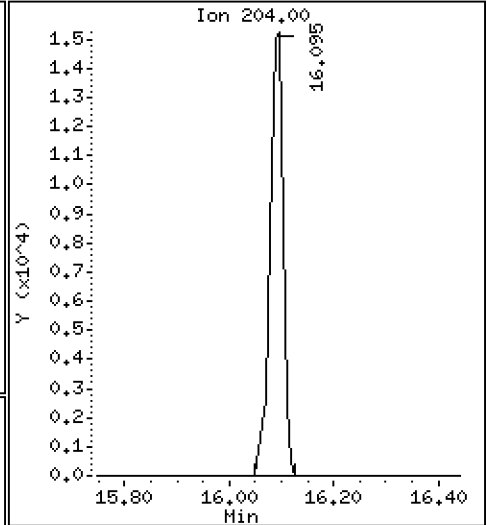
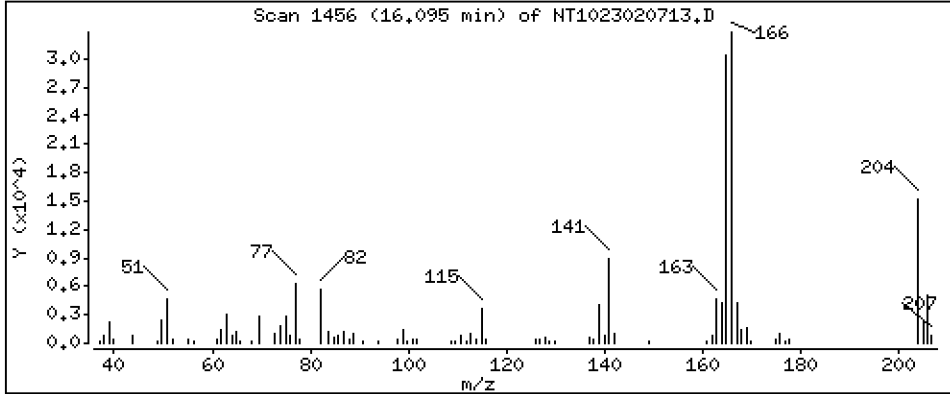
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 0,5552 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

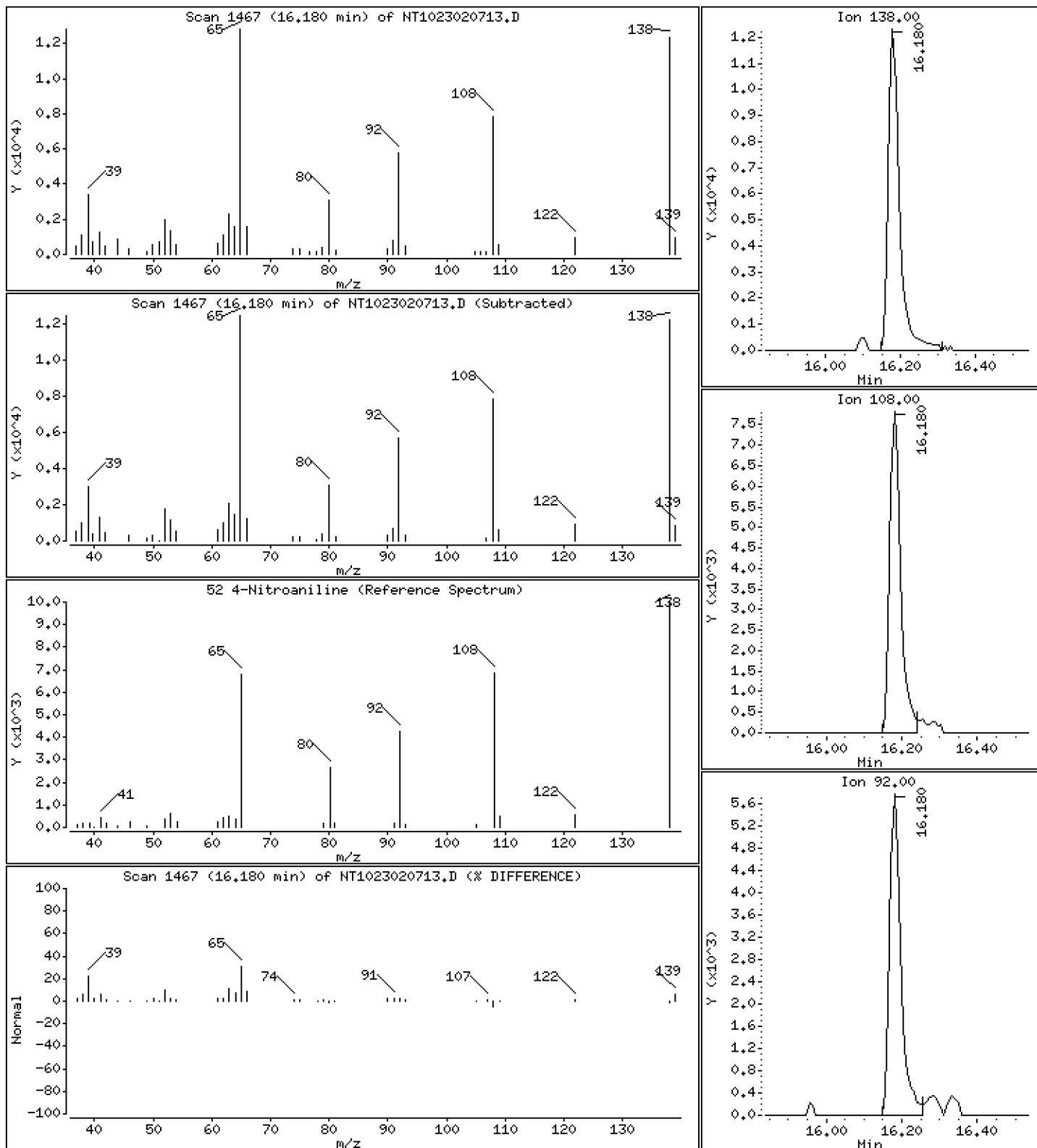
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 1,021 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

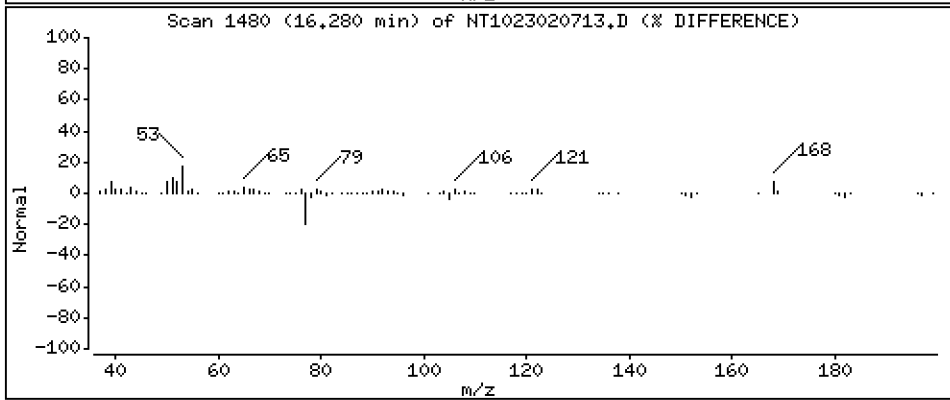
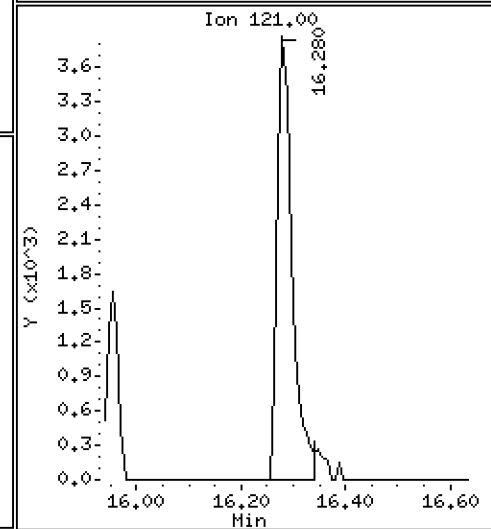
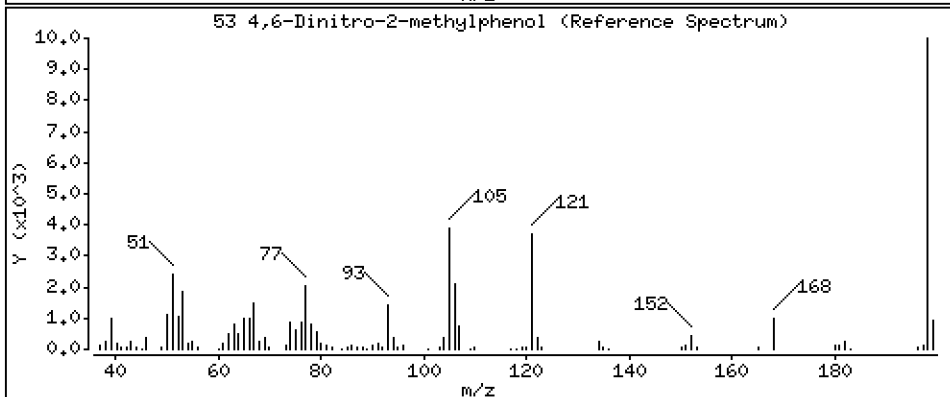
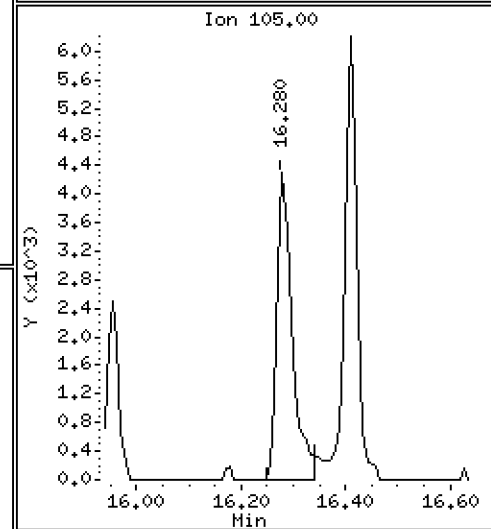
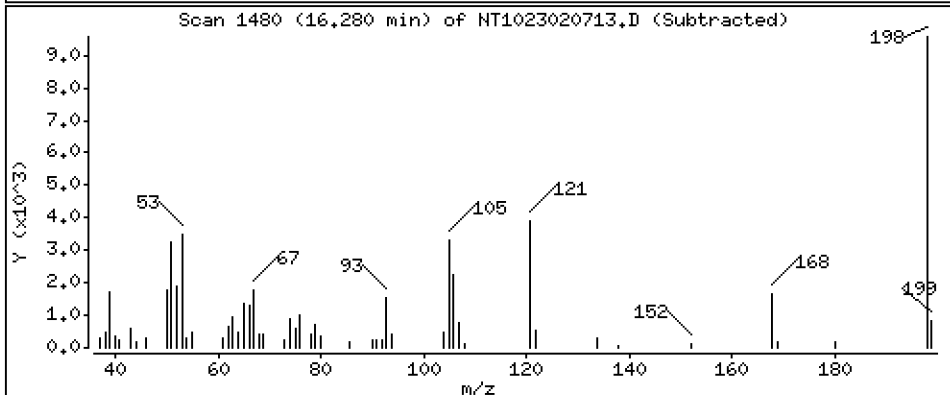
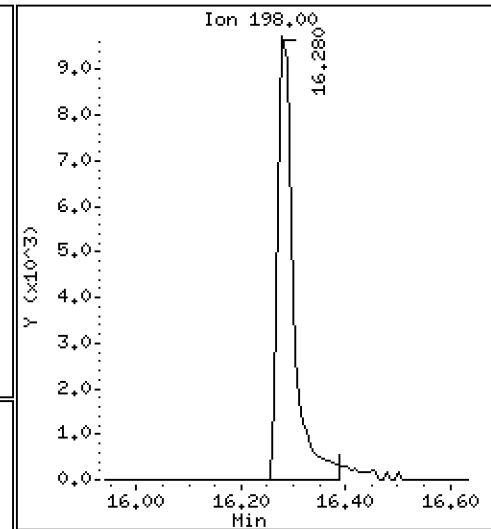
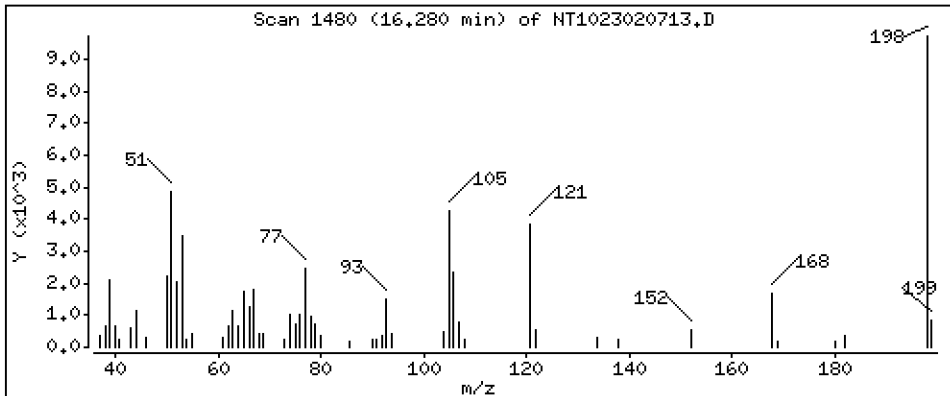
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 1,342 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

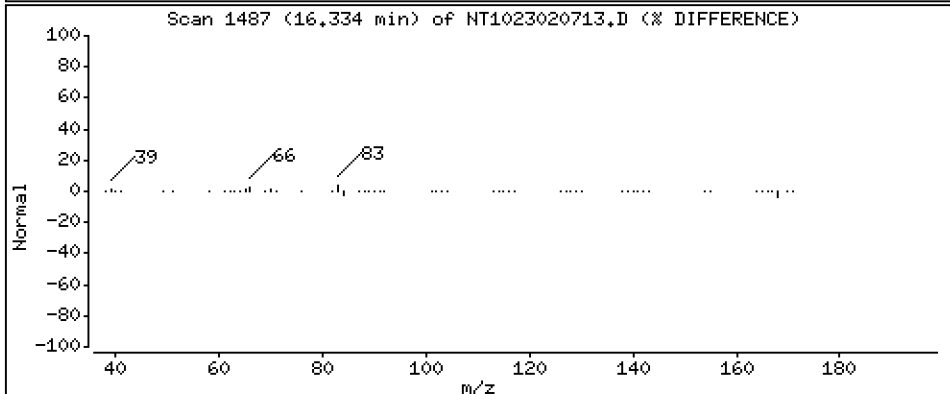
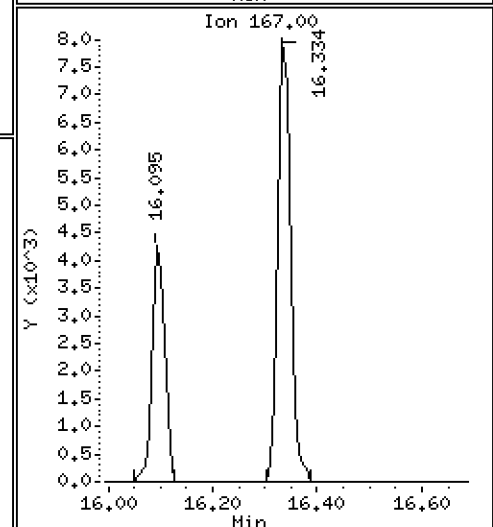
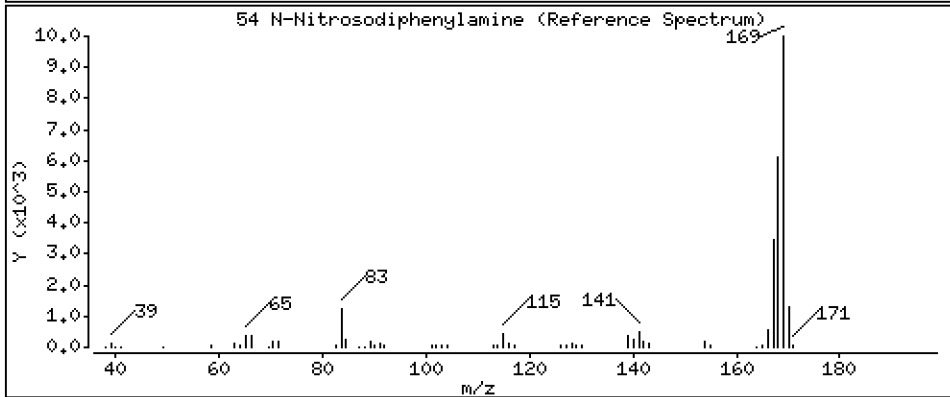
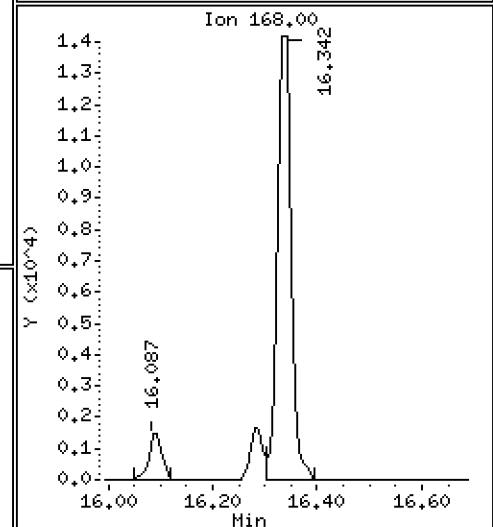
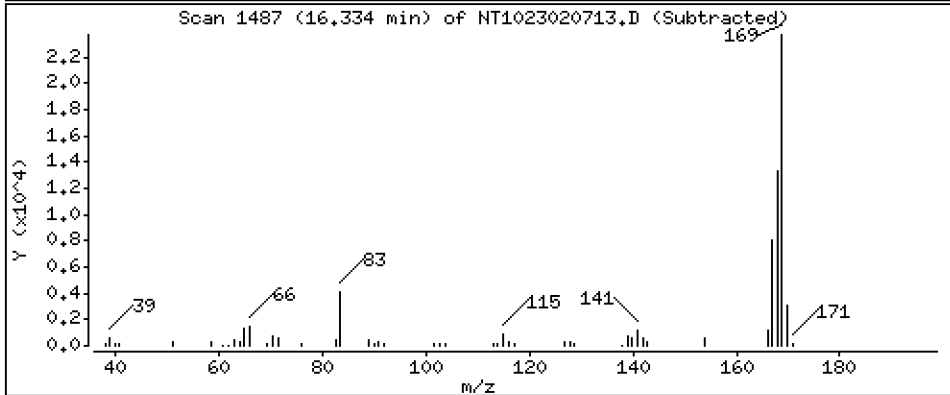
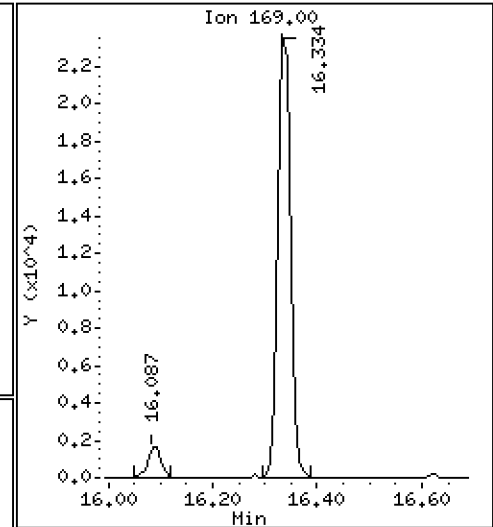
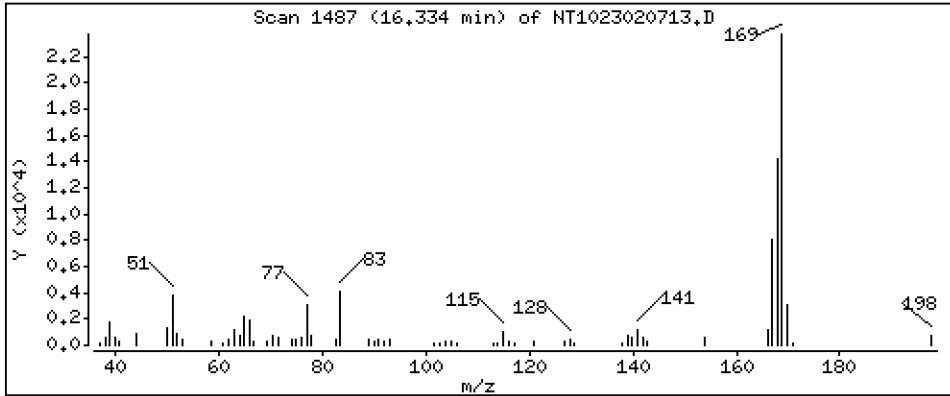
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 0.5398 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

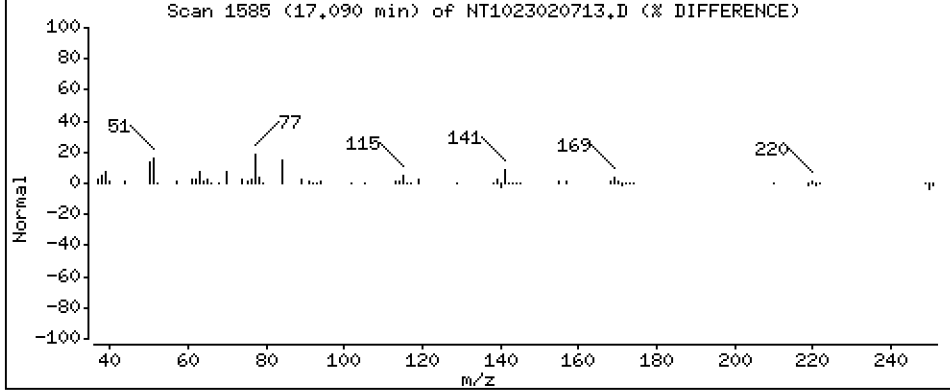
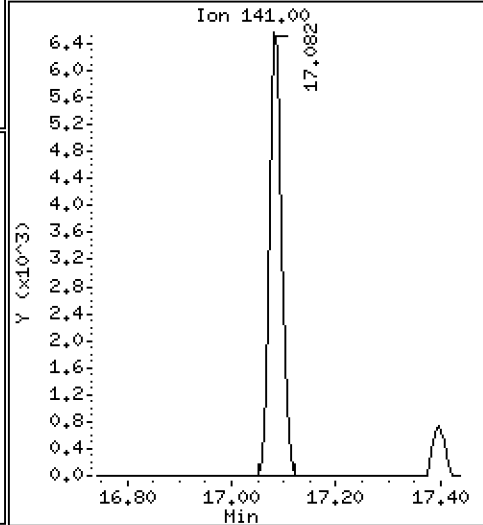
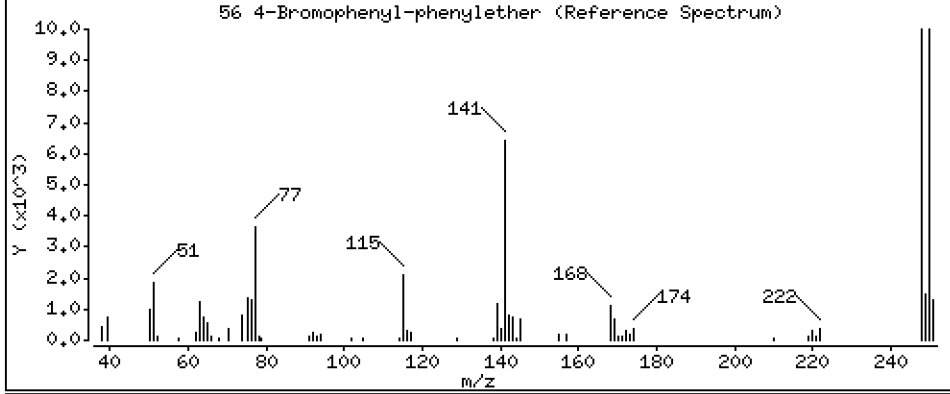
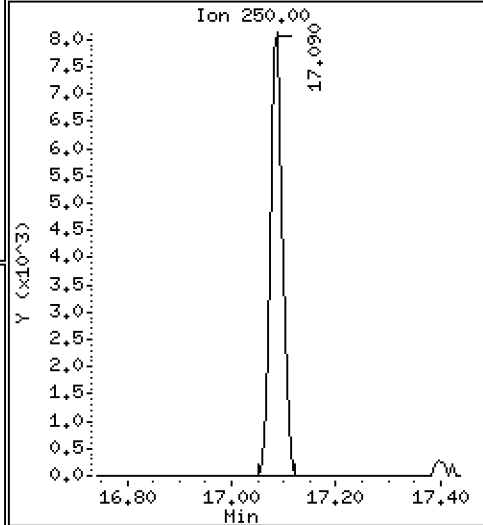
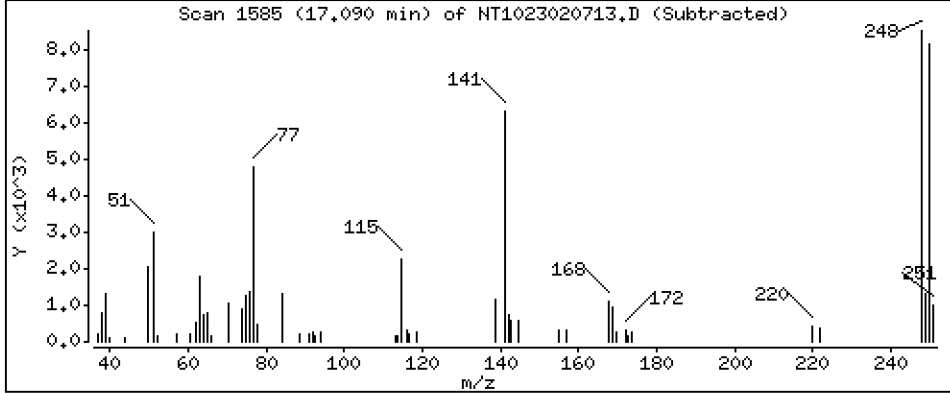
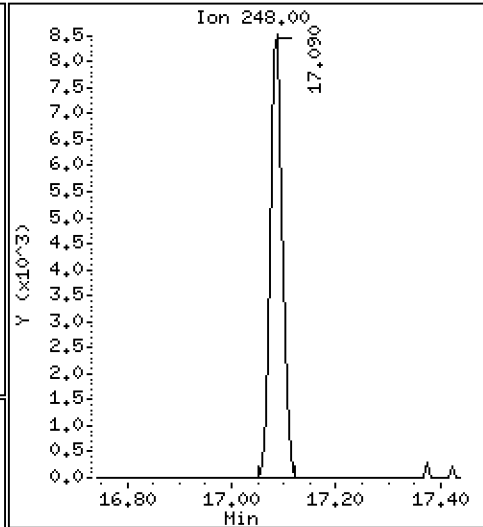
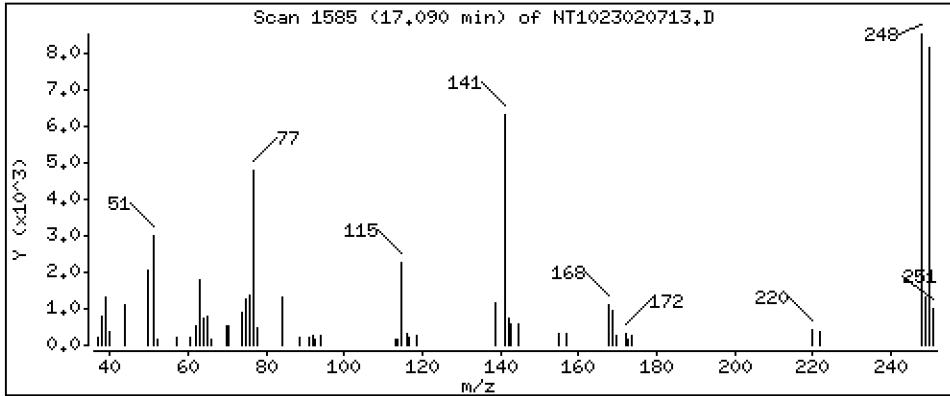
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 0,5301 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

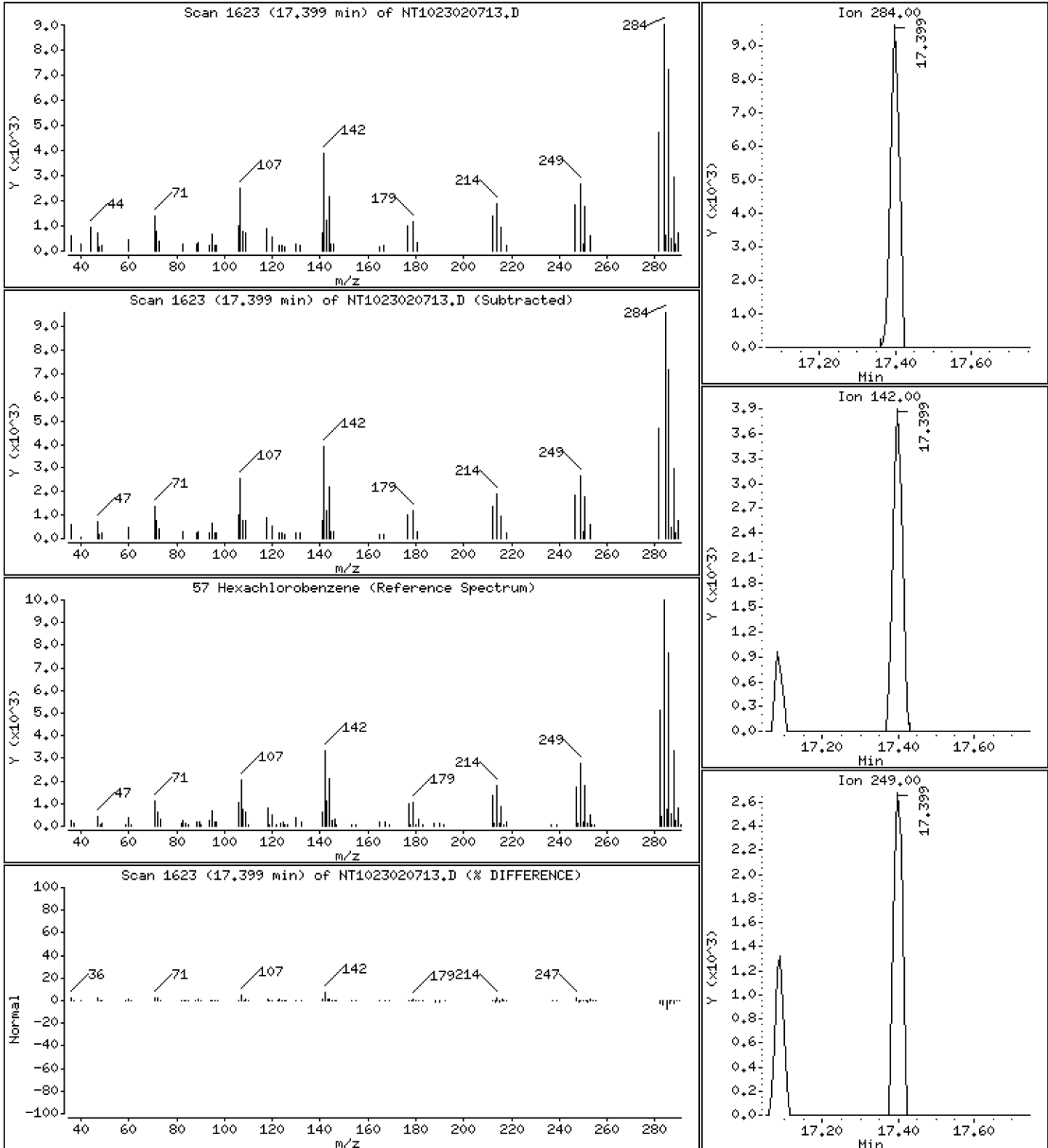
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,5377 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

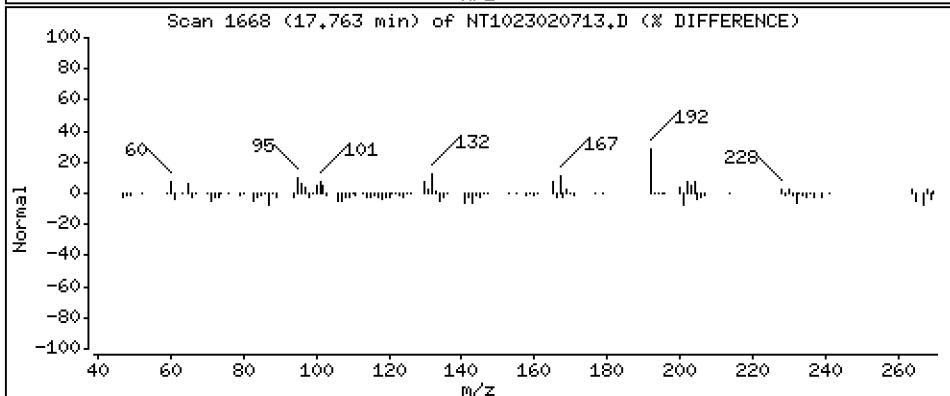
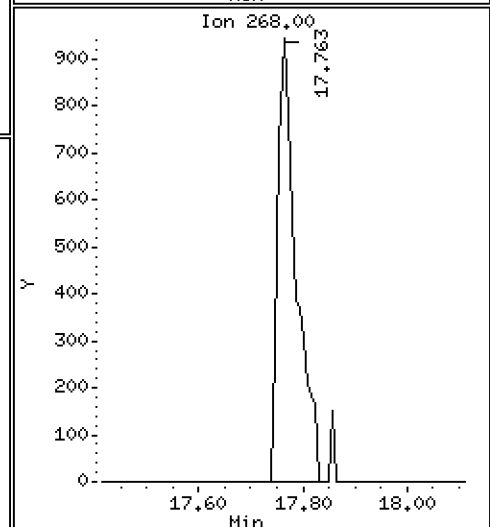
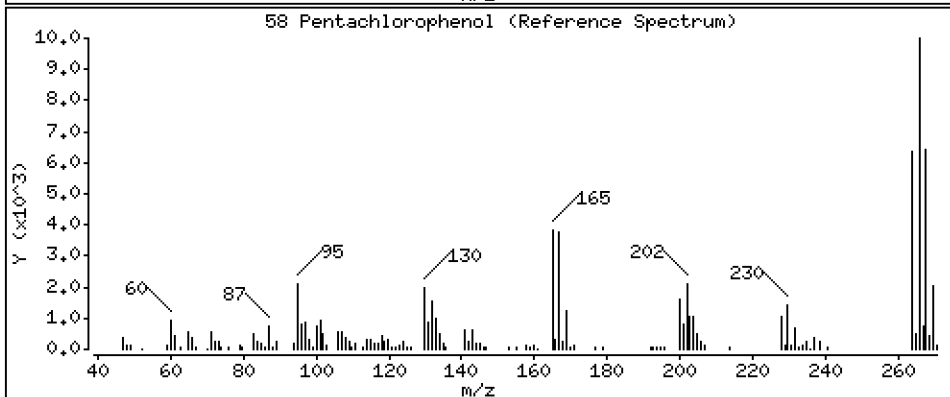
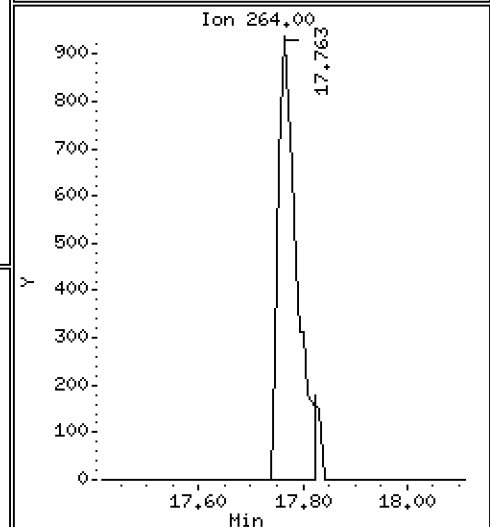
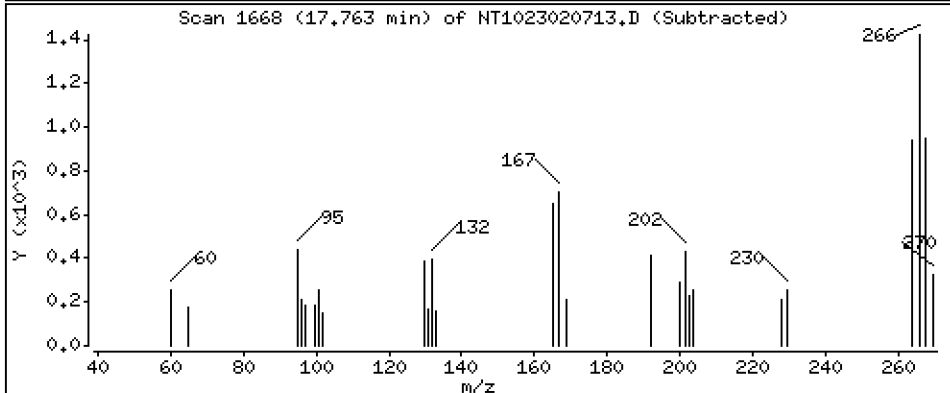
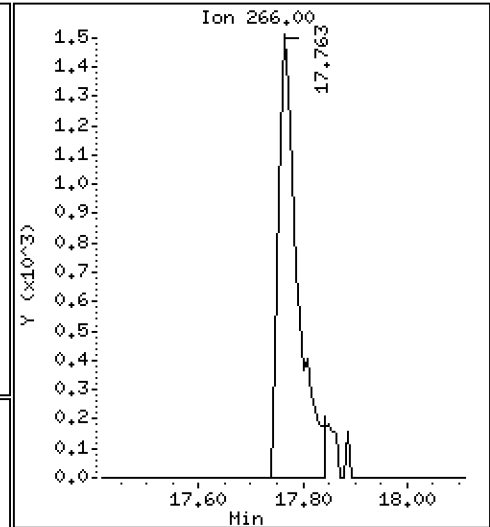
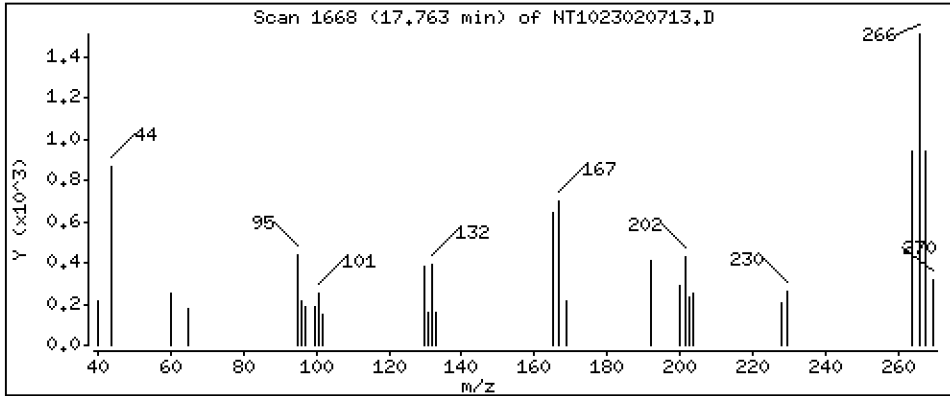
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,3622 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

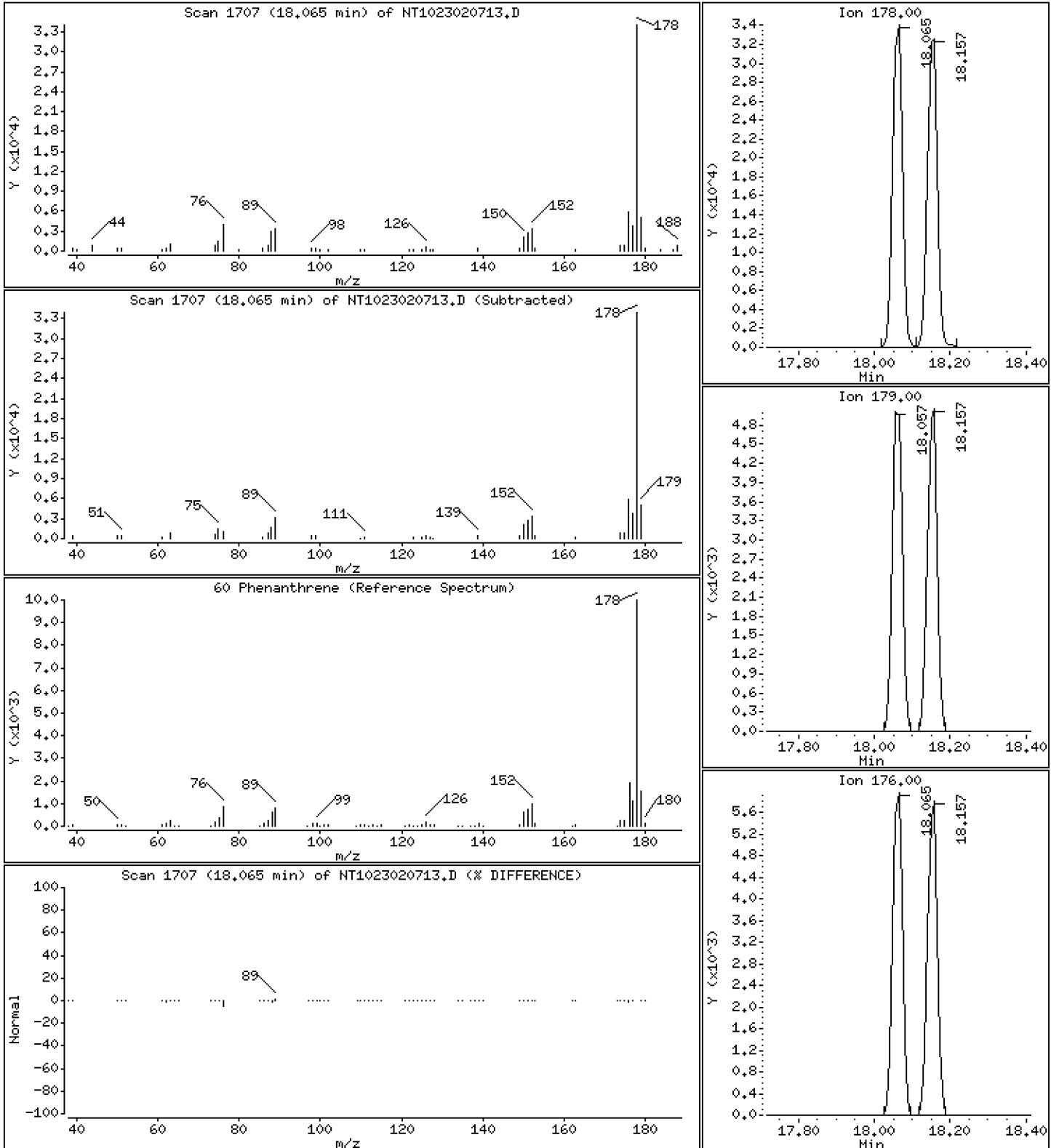
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,5276 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

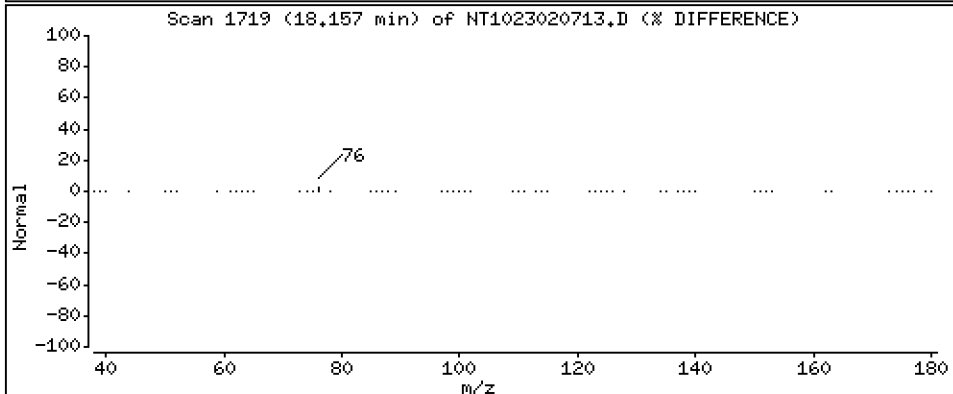
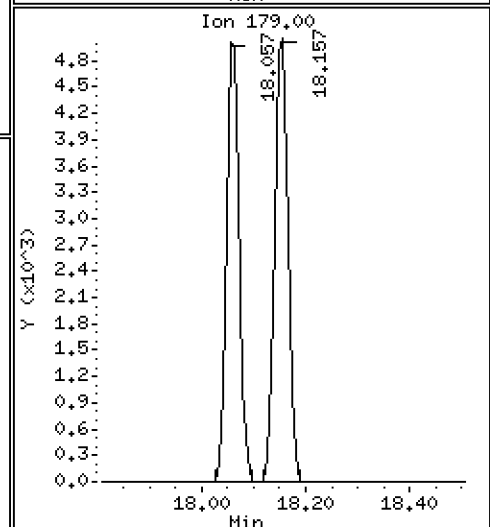
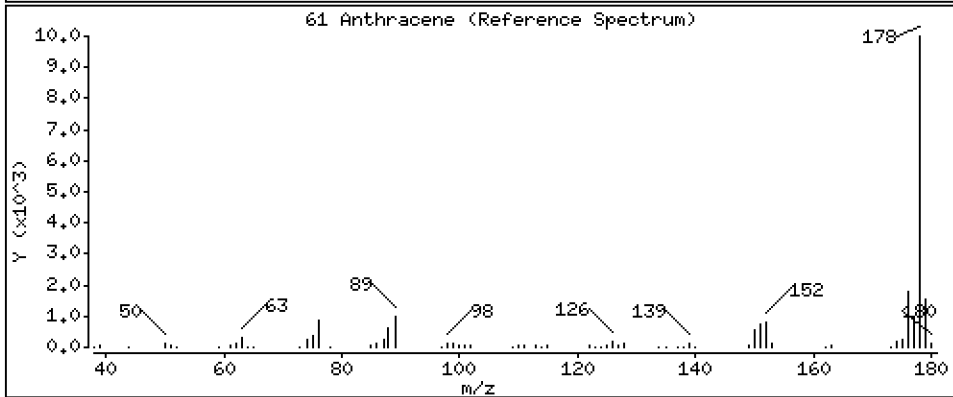
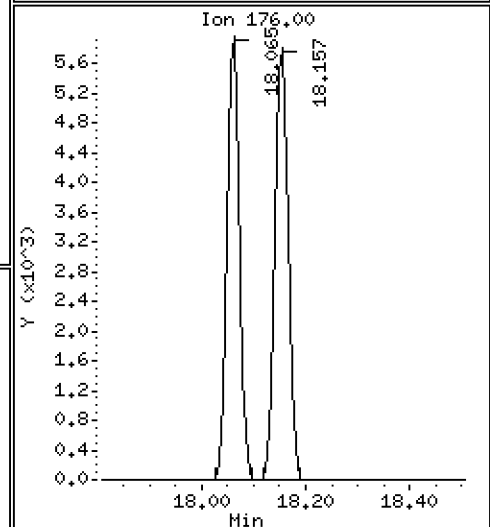
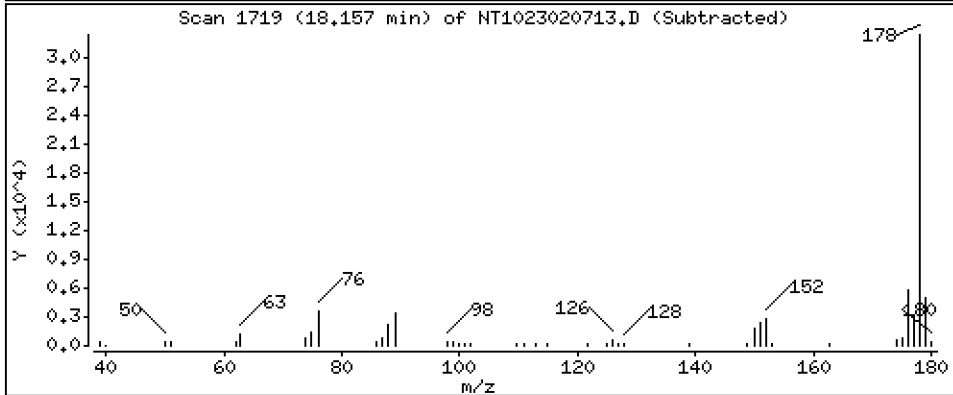
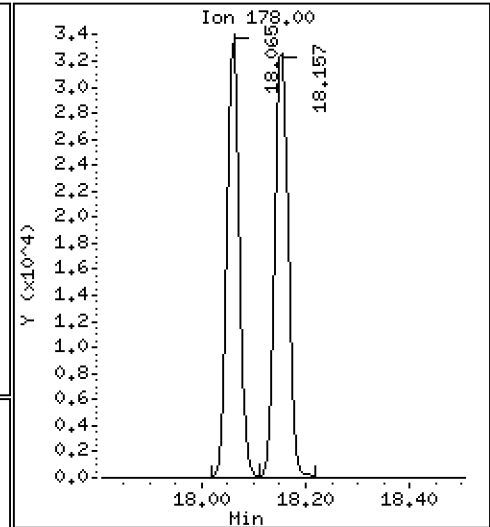
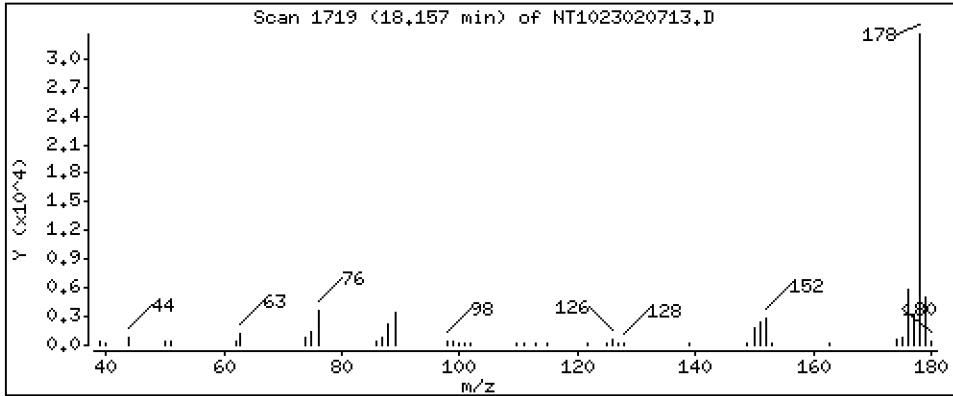
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,5229 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

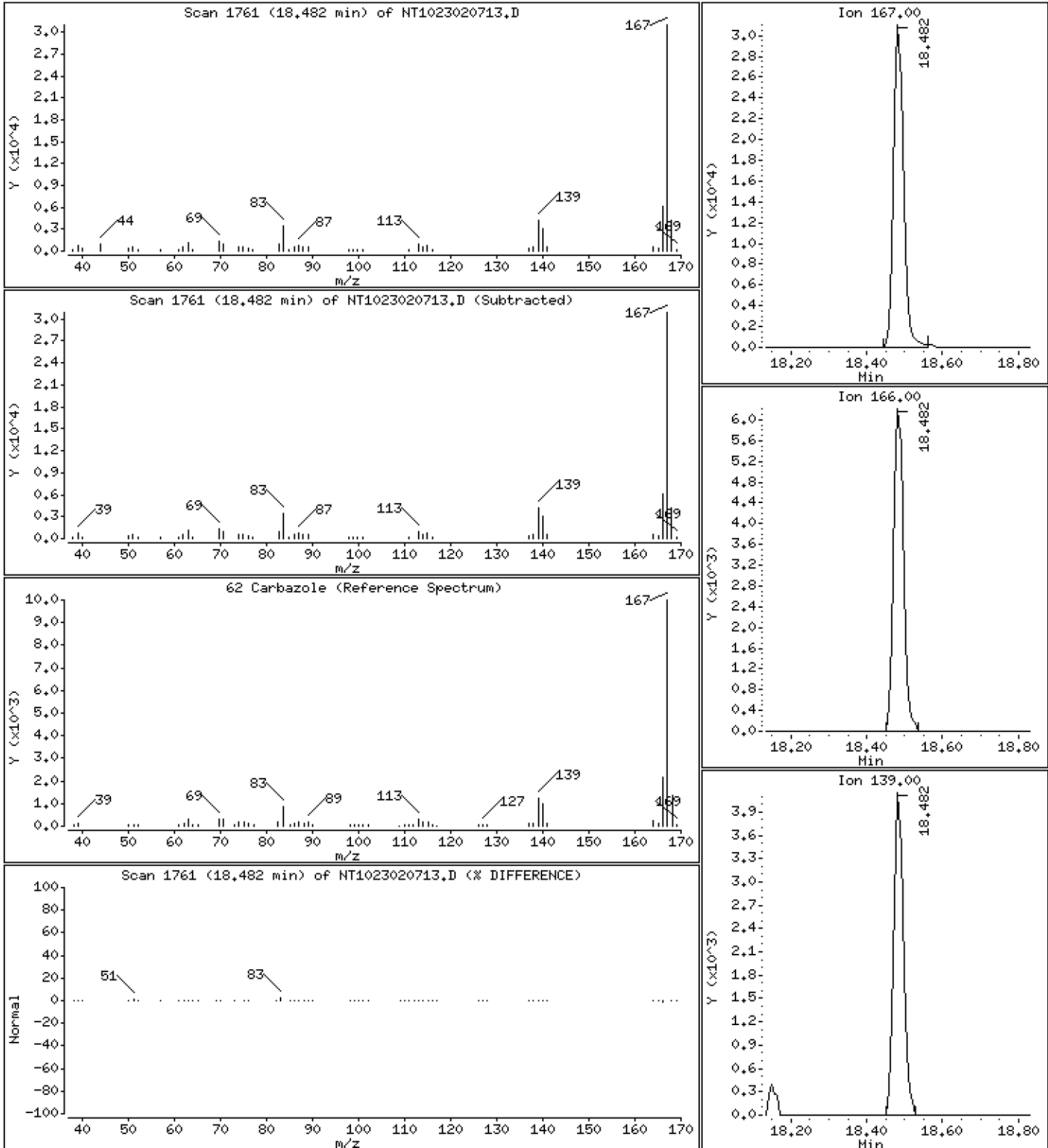
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

62 Carbazole

Concentration: 0.5133 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

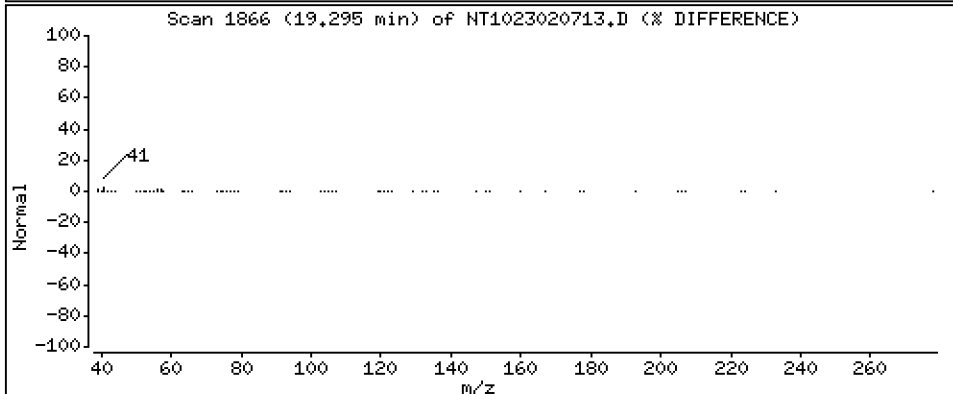
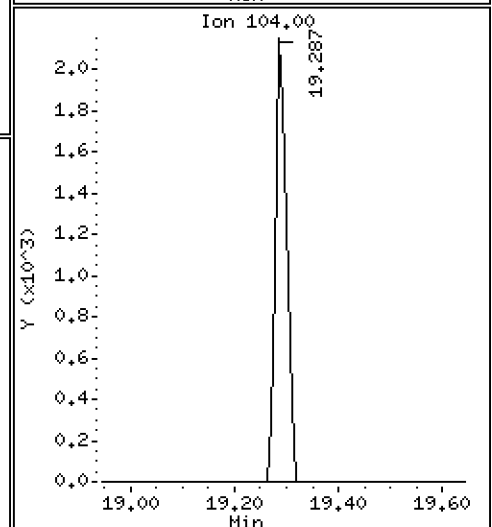
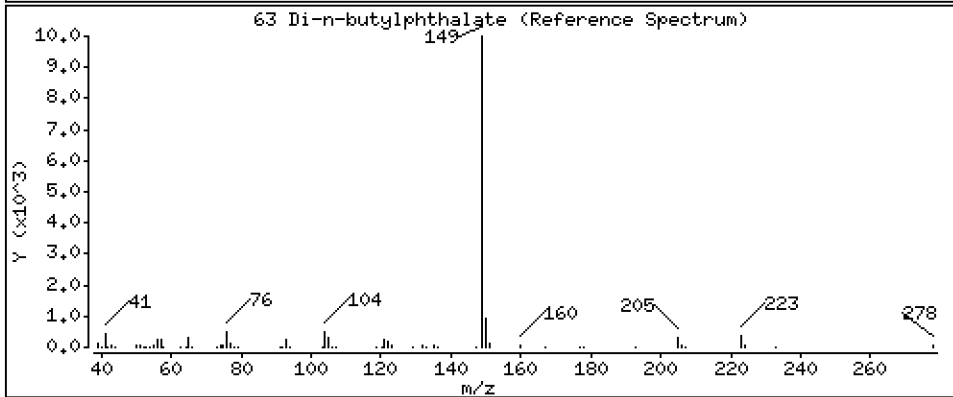
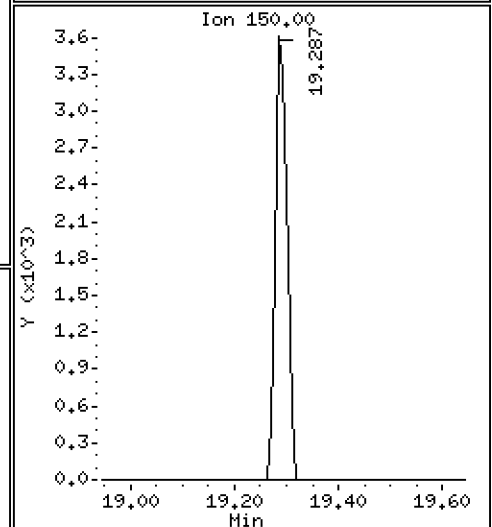
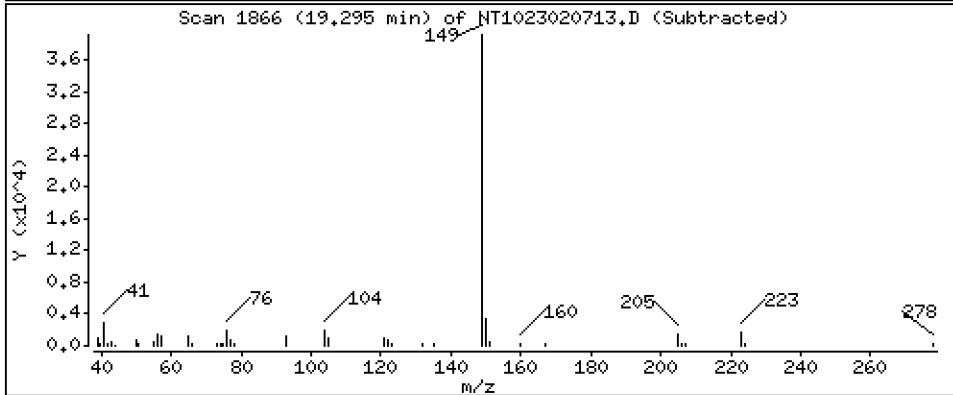
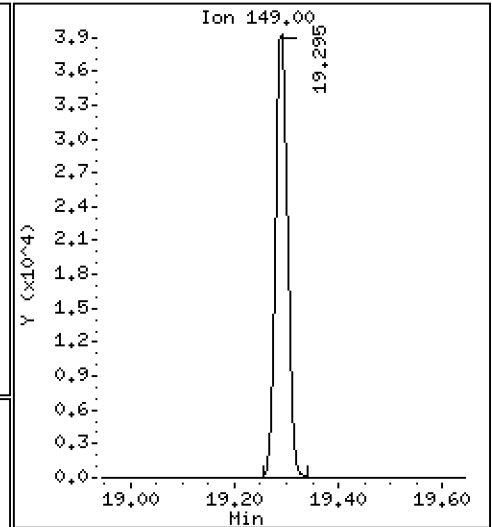
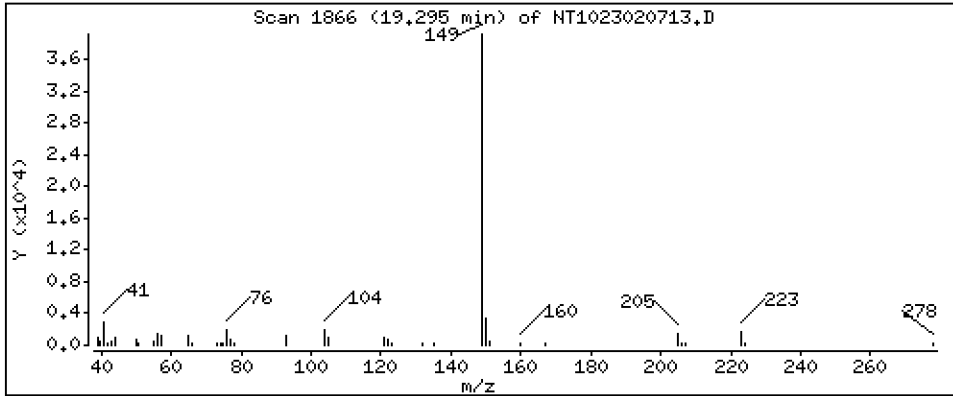
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 0,4795 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

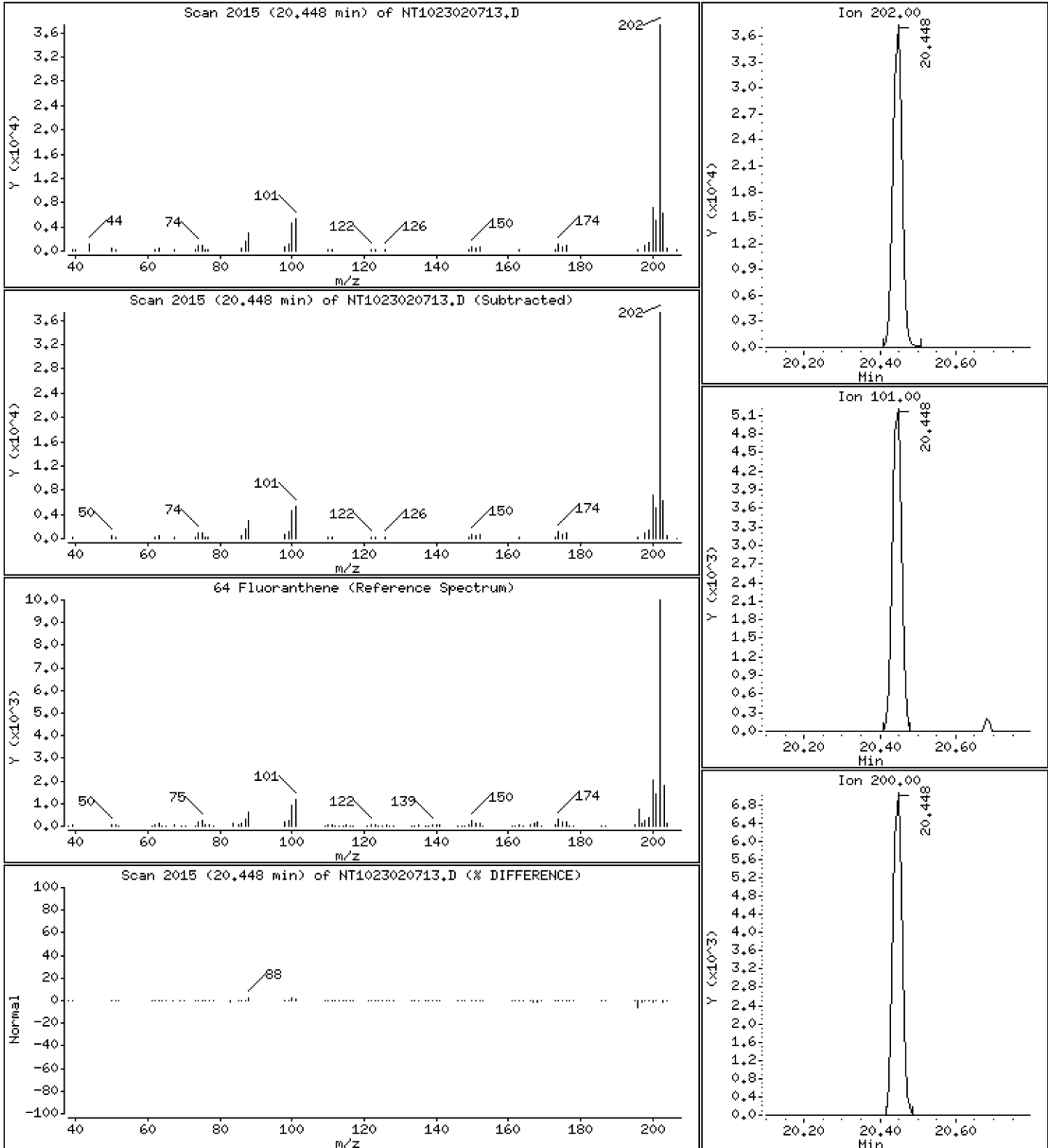
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,5229 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

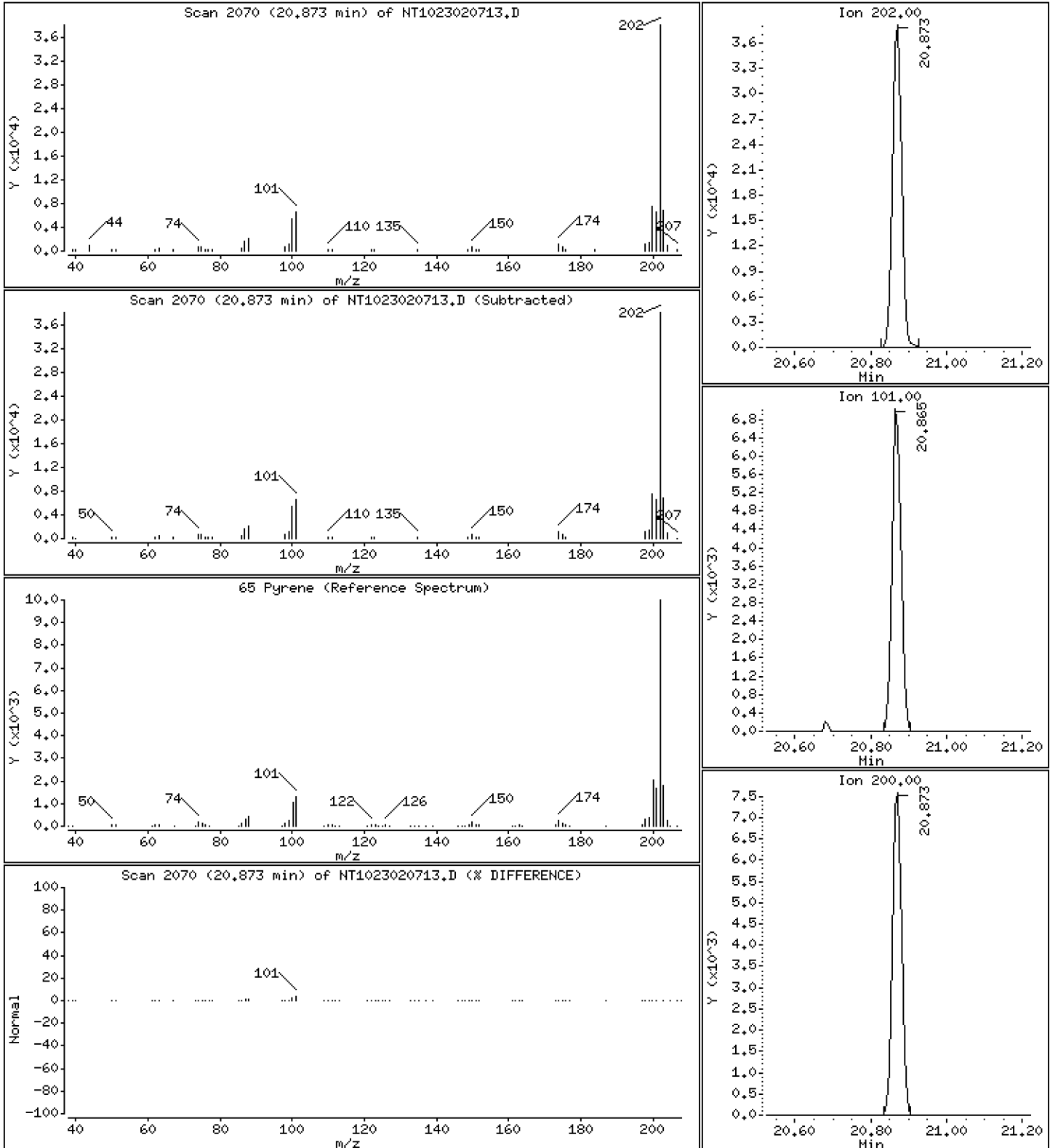
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 0,5266 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

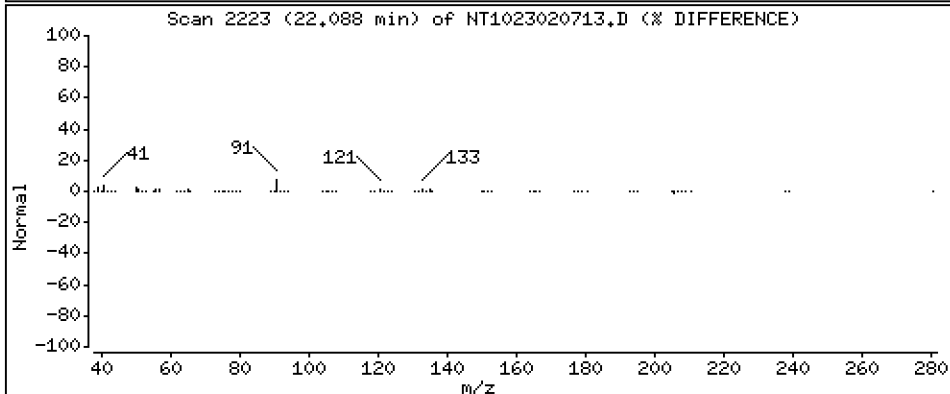
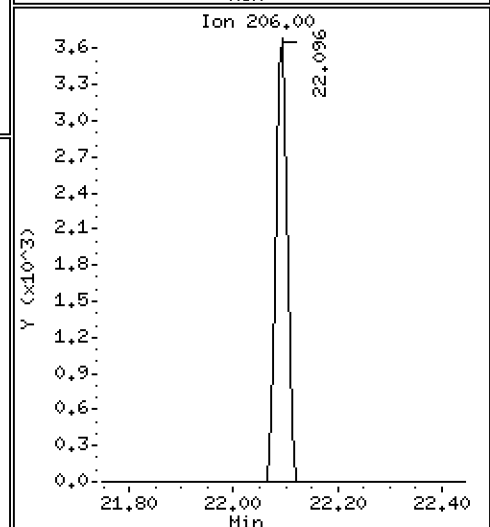
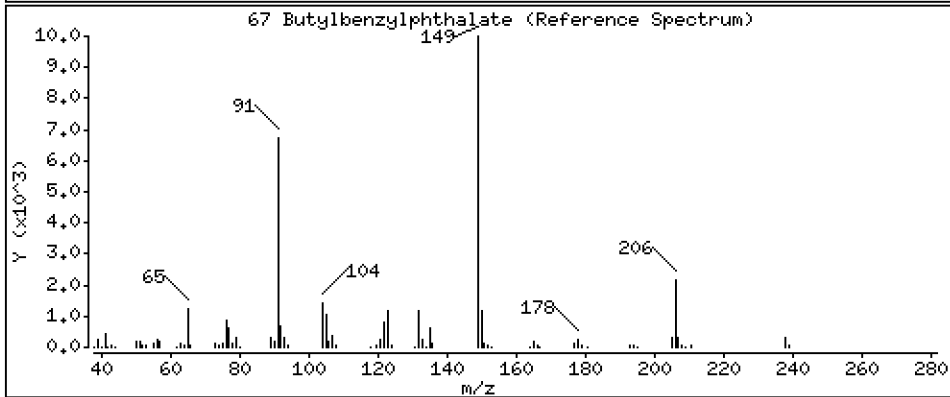
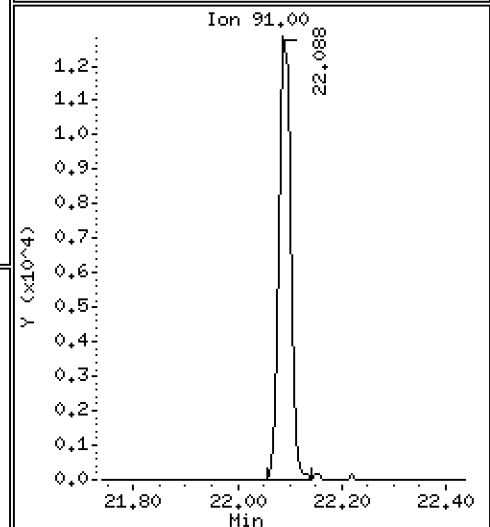
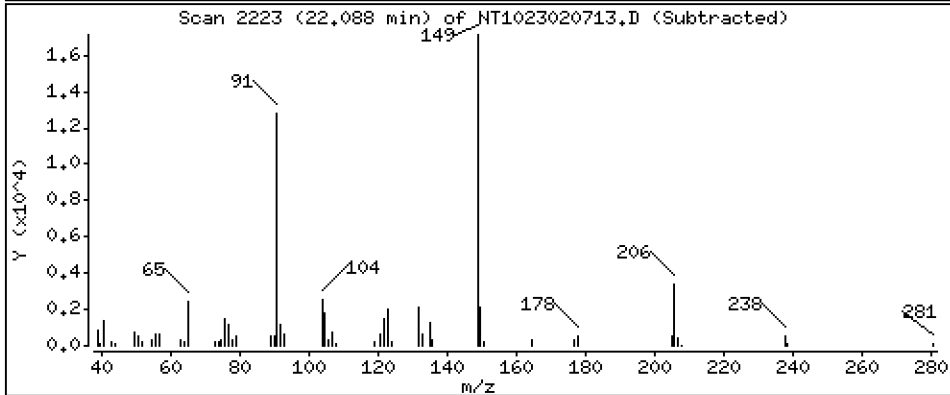
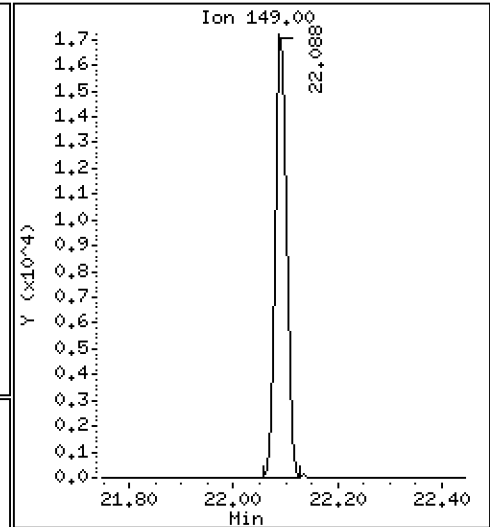
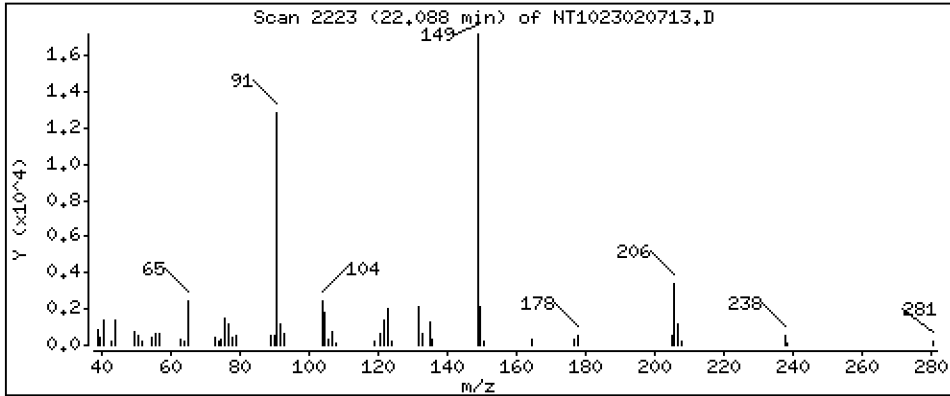
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.4945 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

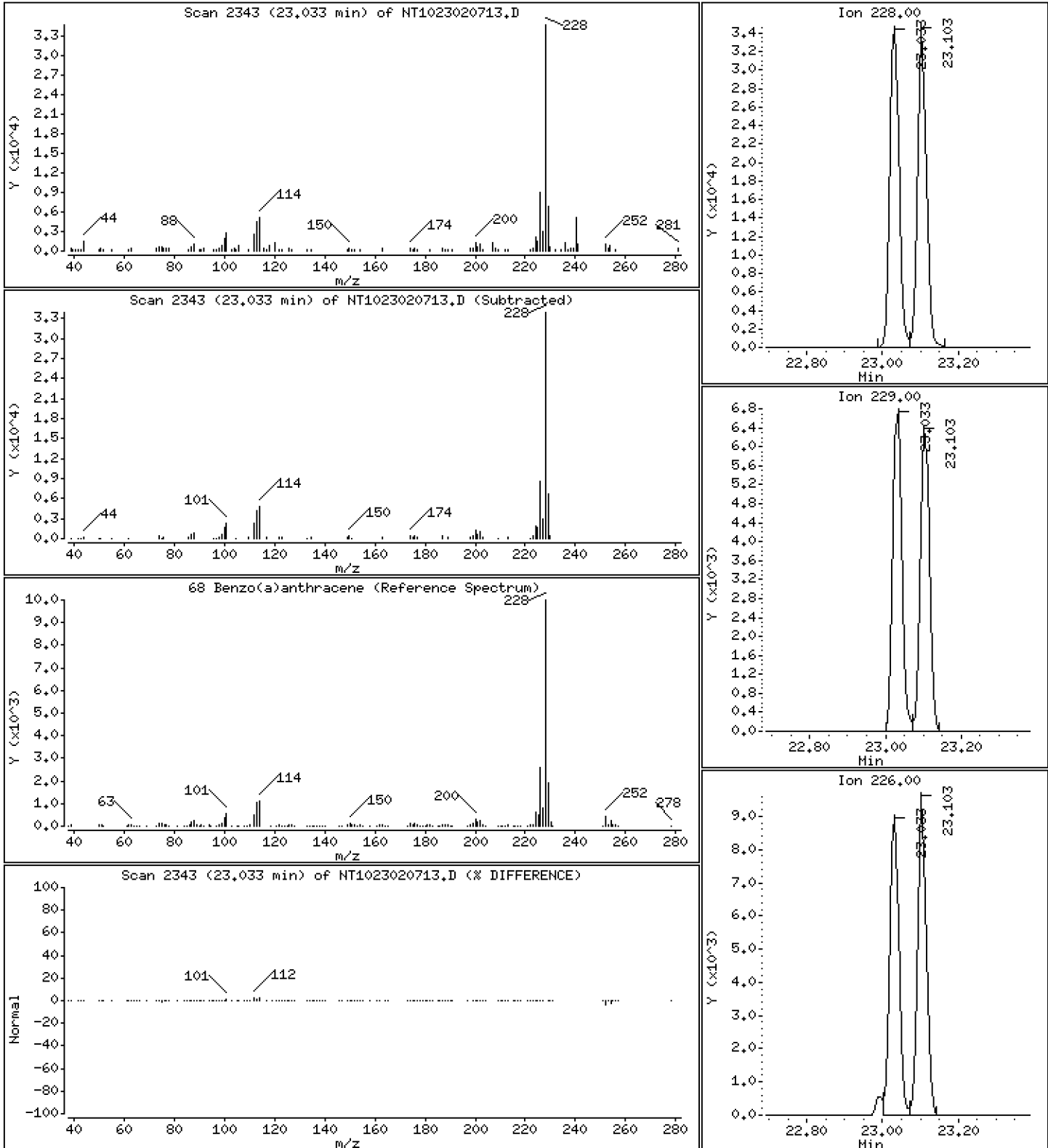
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,5470 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

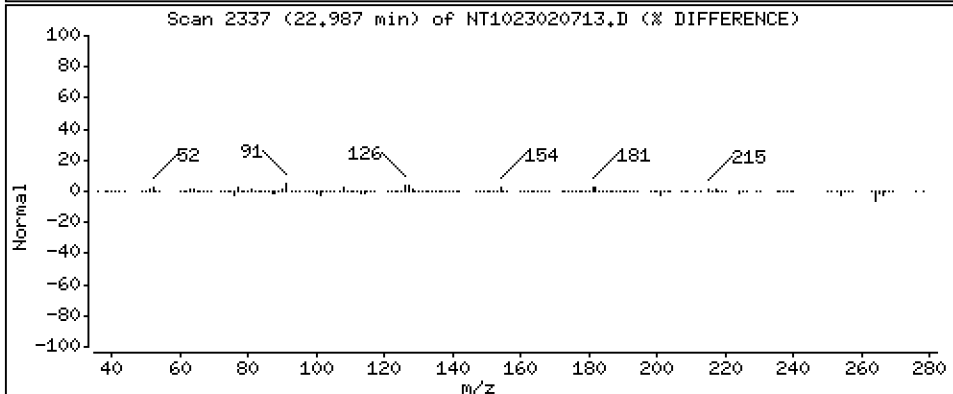
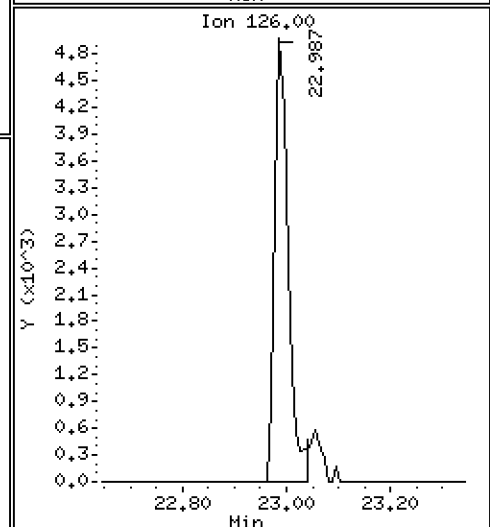
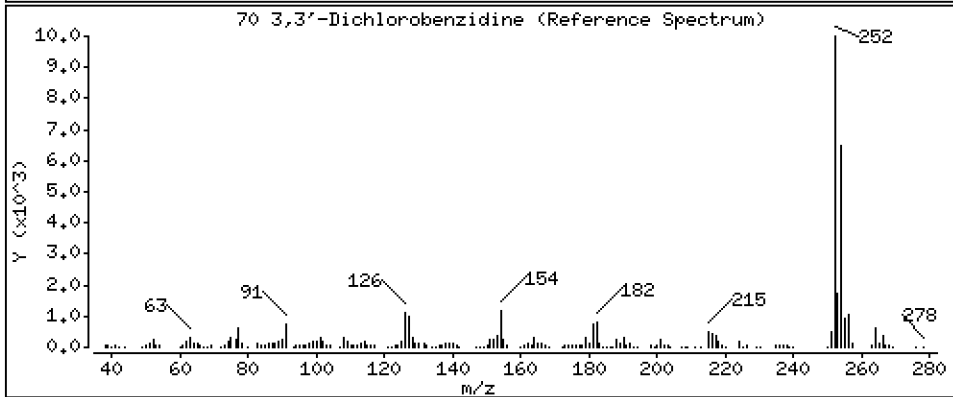
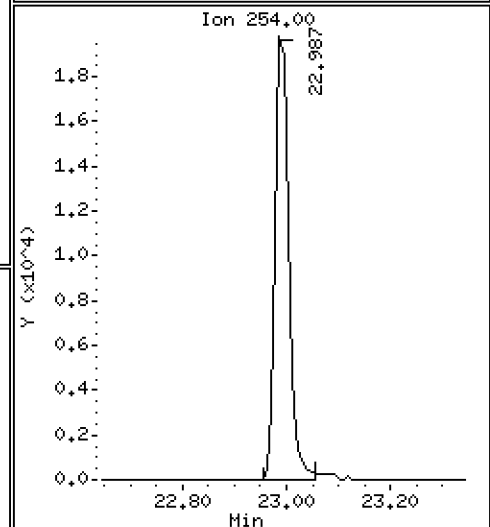
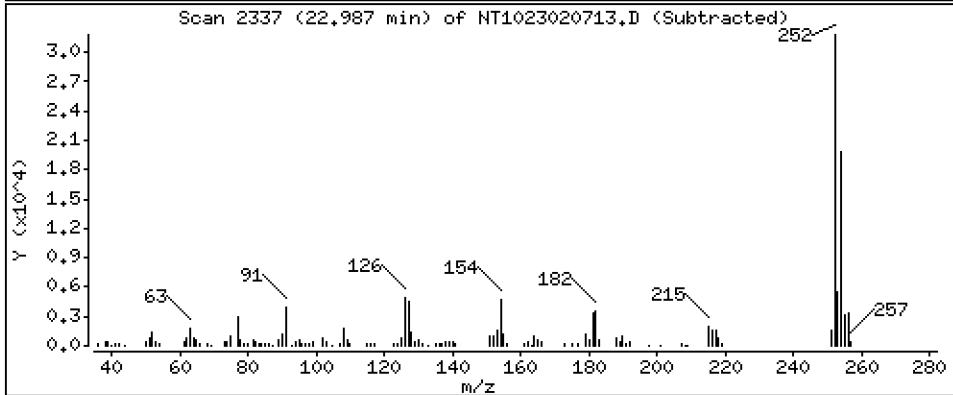
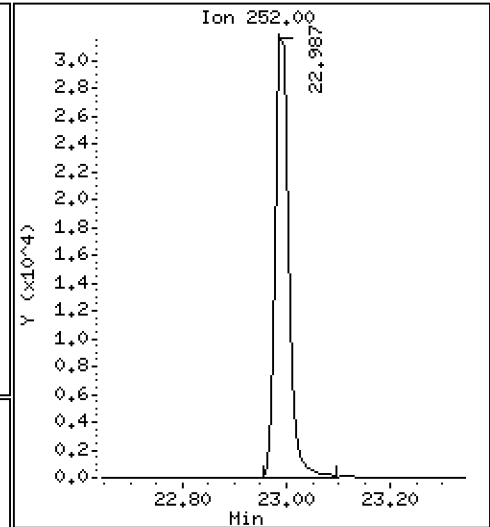
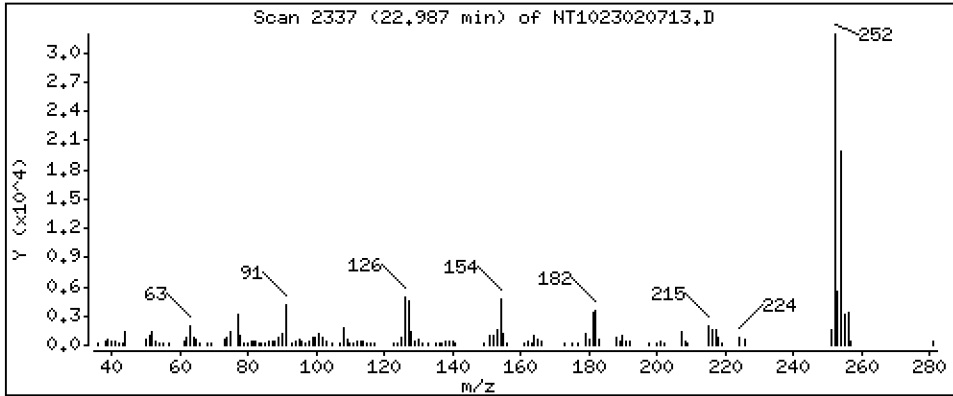
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 1,574 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

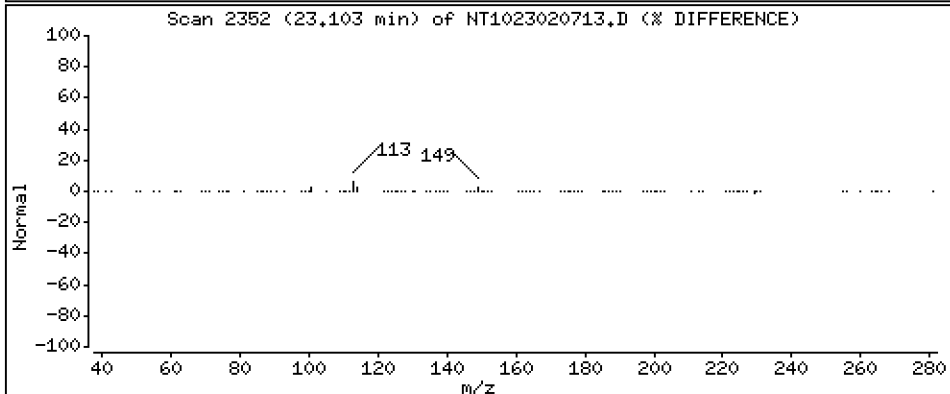
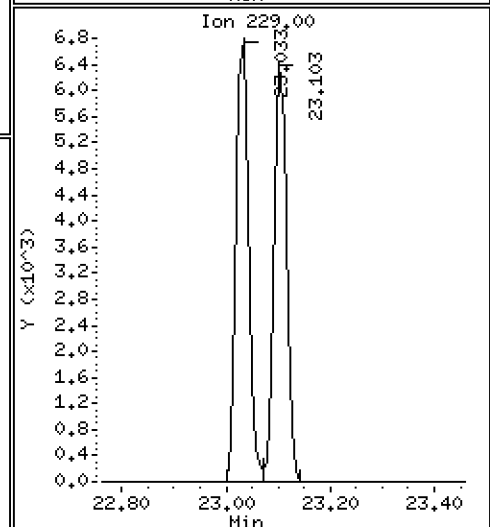
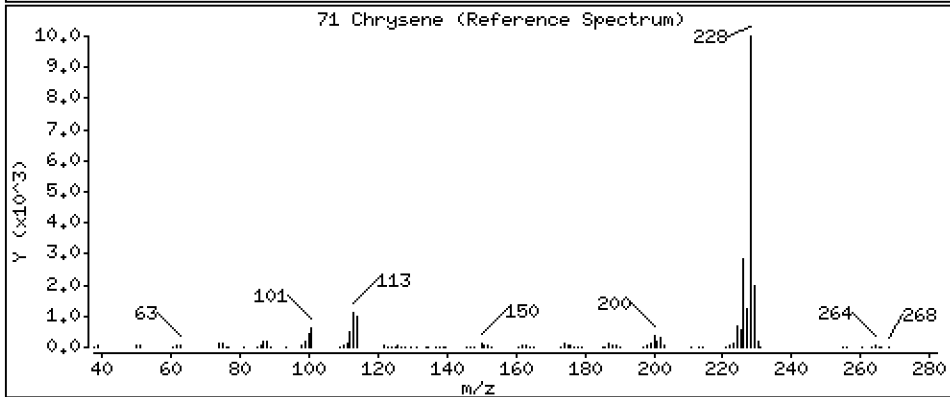
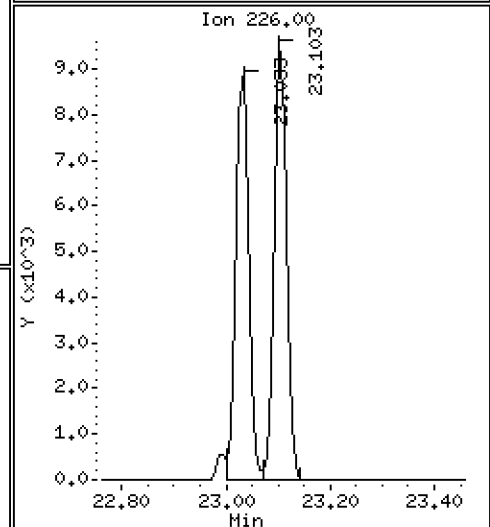
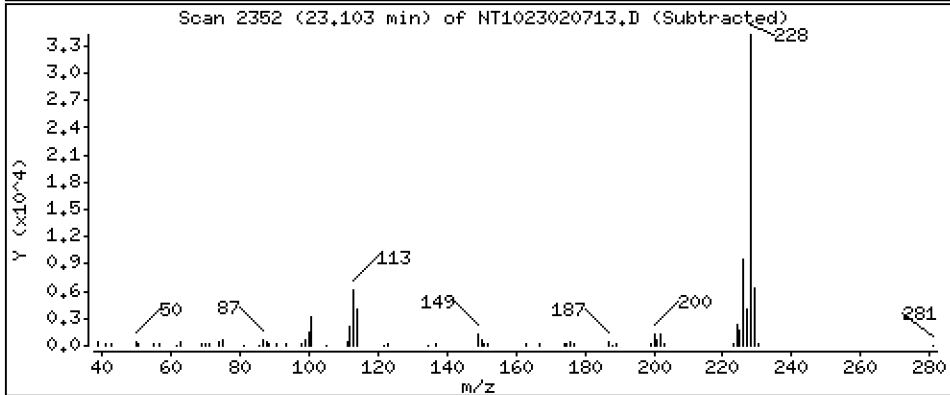
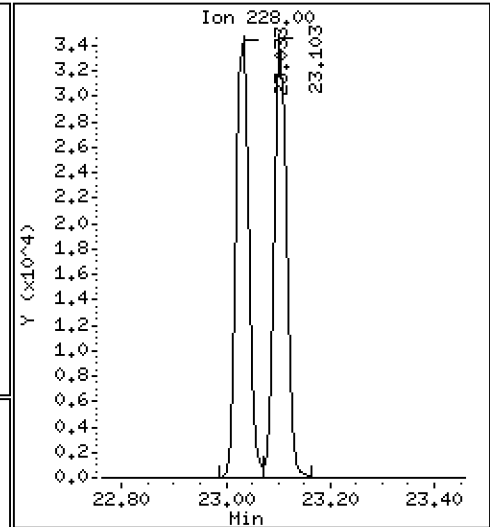
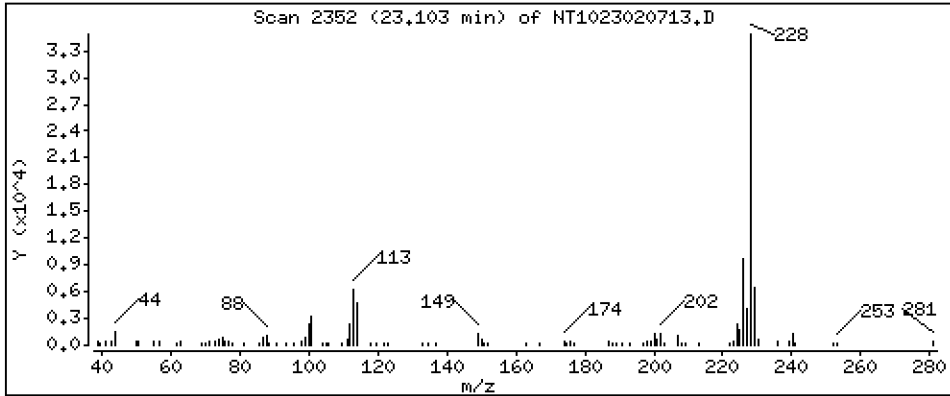
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

71 Chrysene

Concentration: 0.5504 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

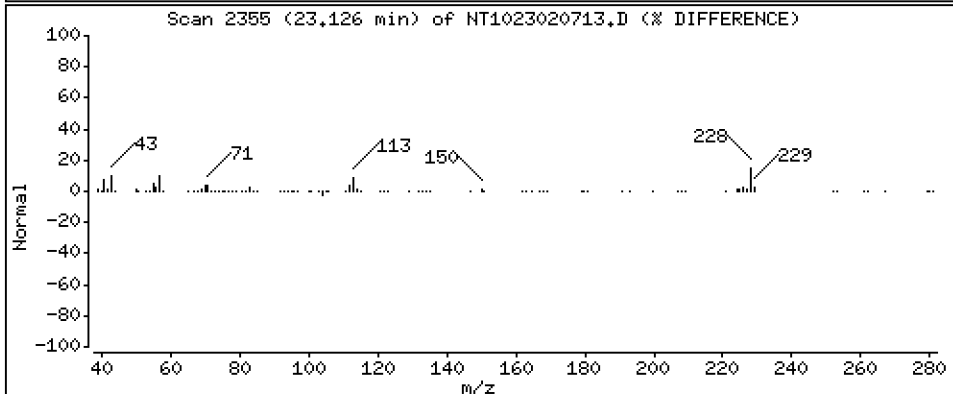
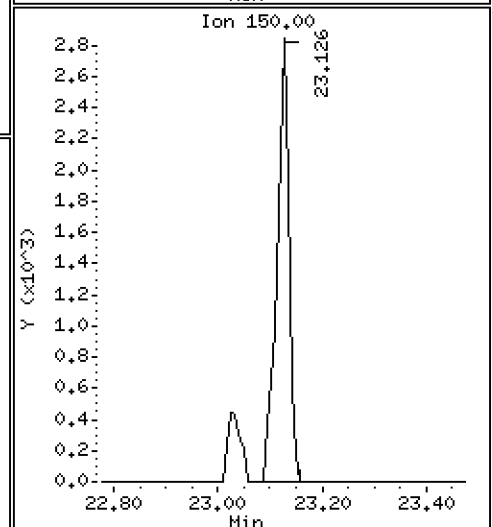
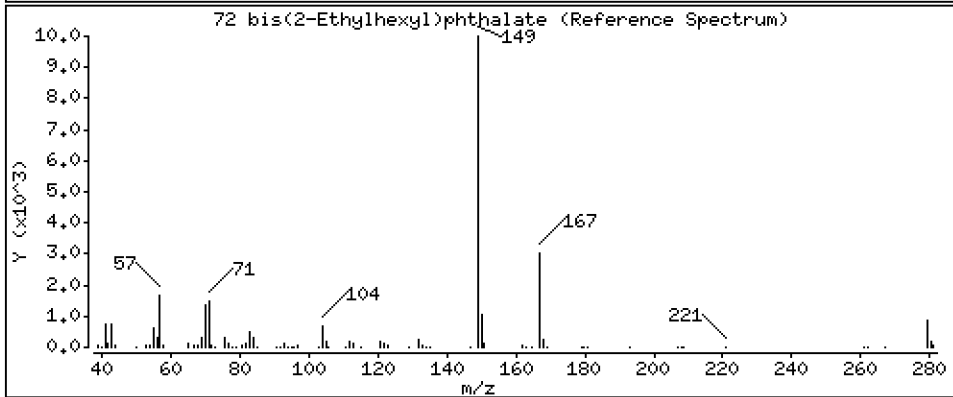
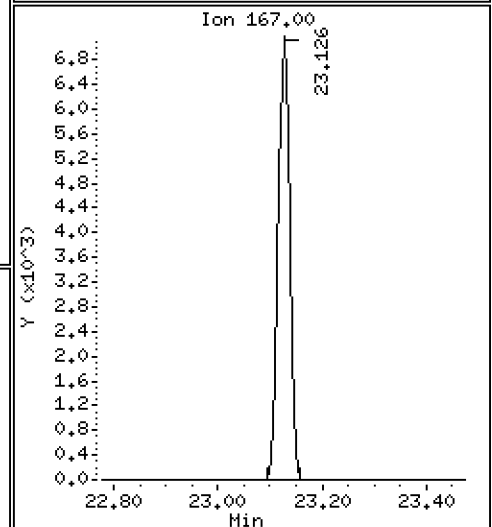
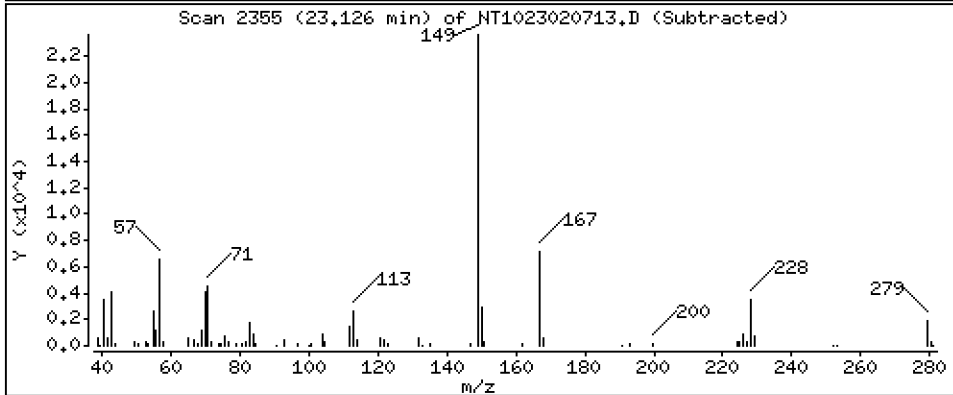
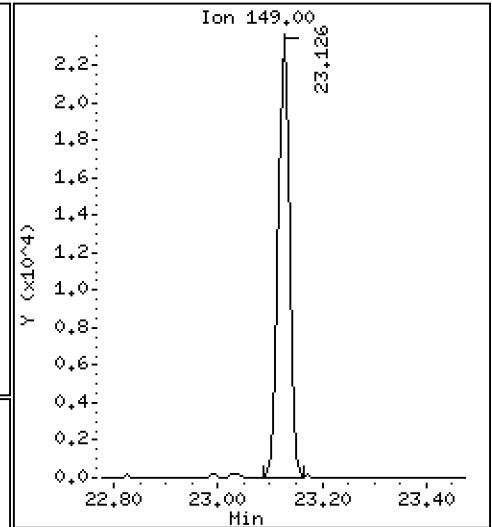
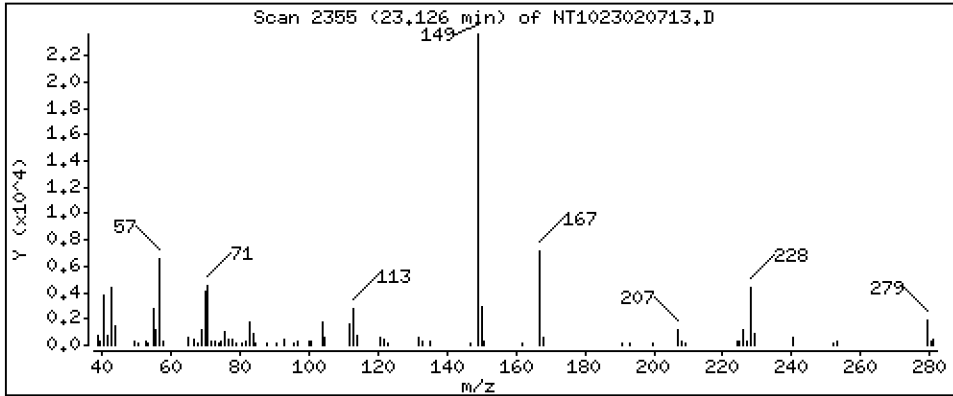
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,5110 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

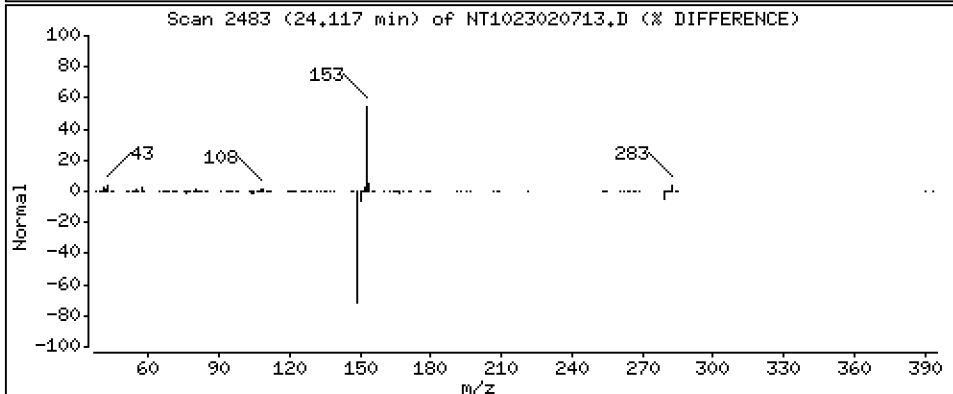
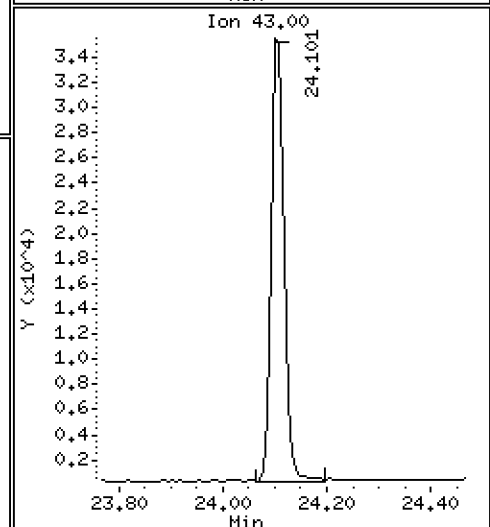
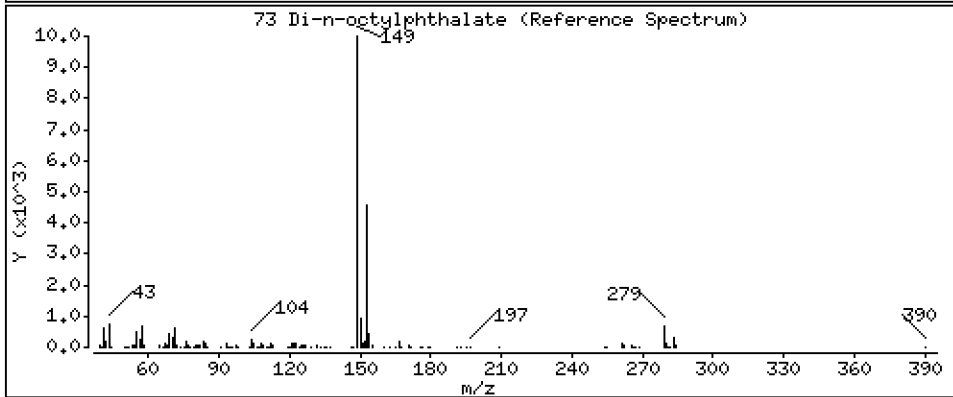
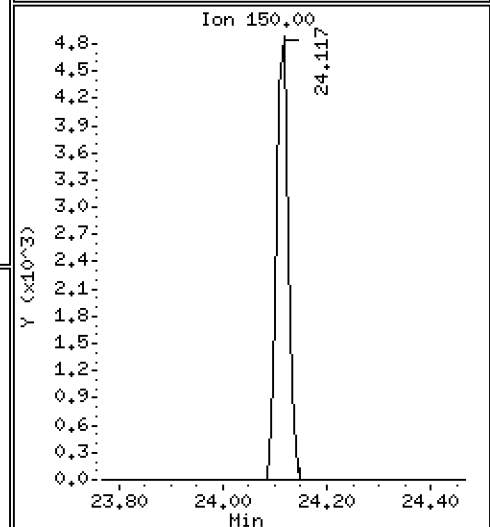
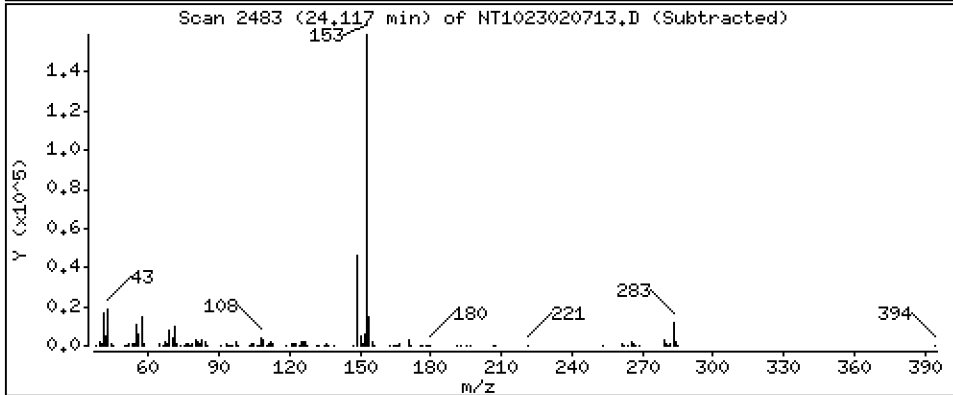
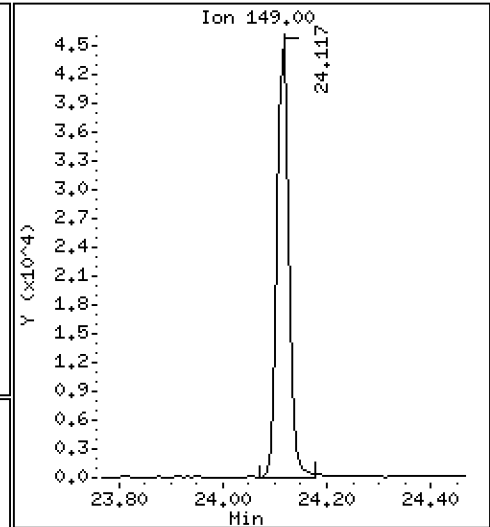
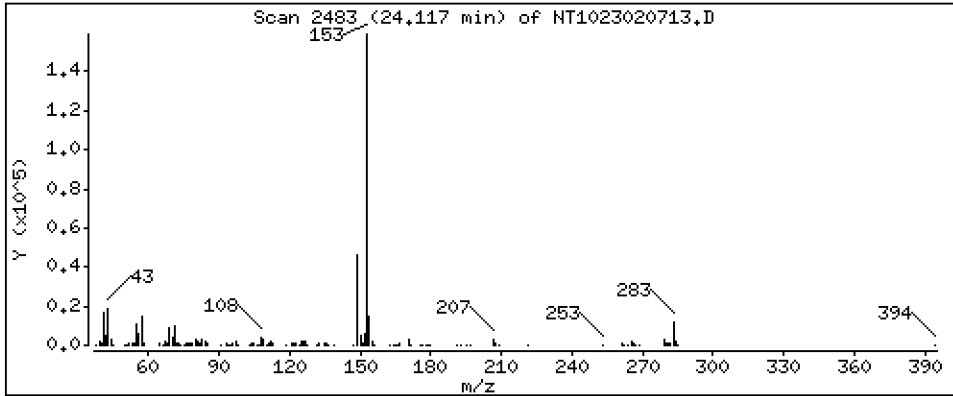
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,5523 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

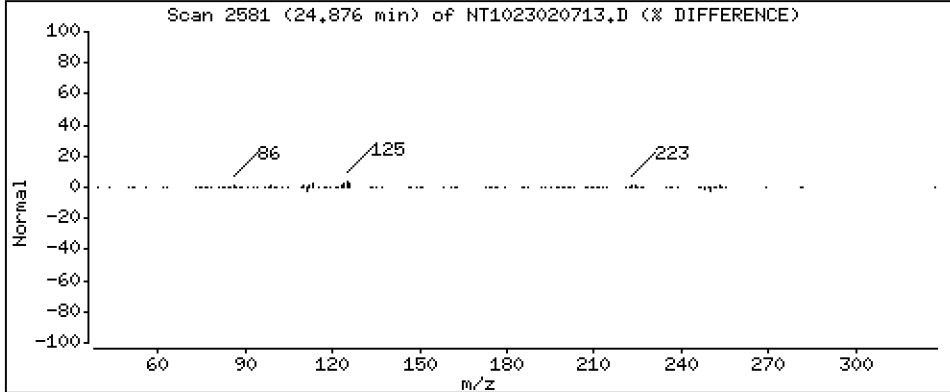
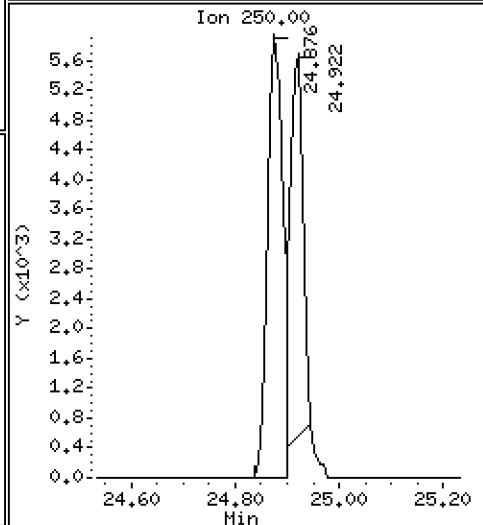
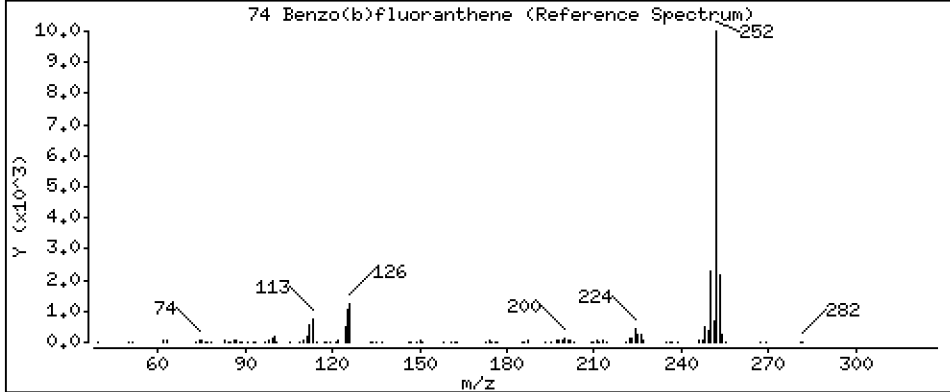
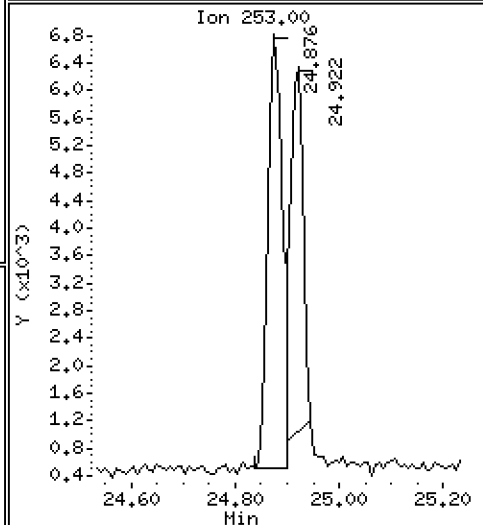
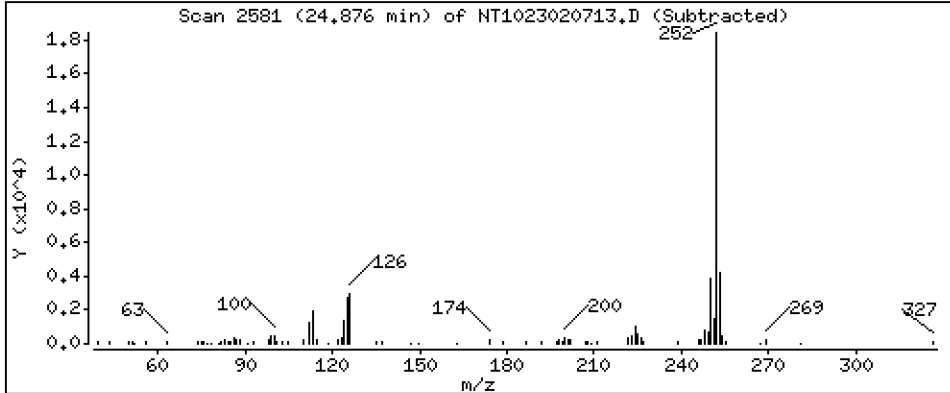
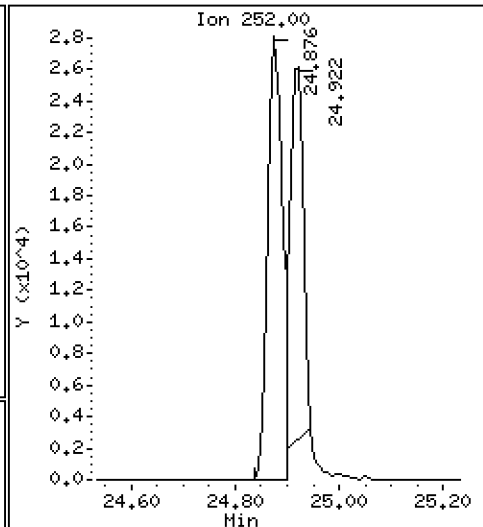
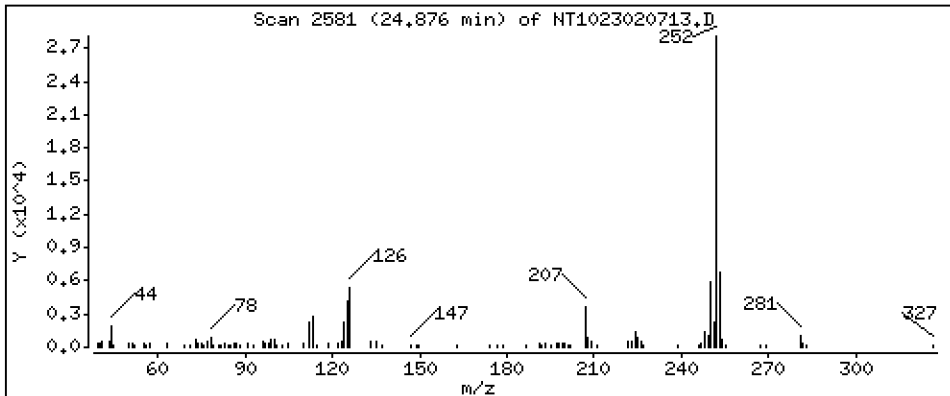
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,5428 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

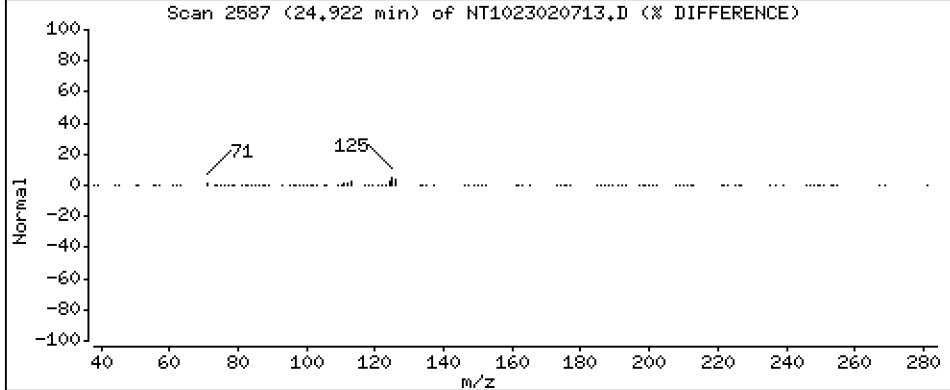
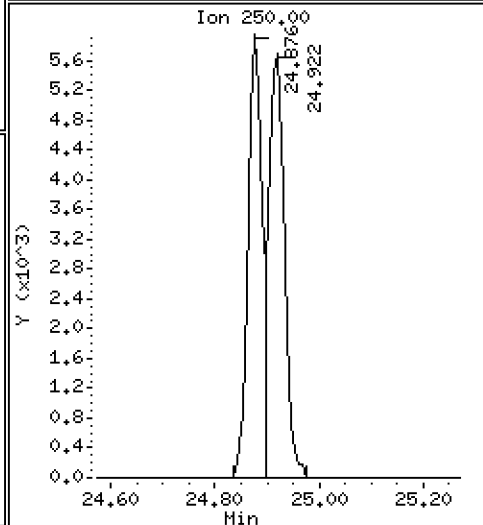
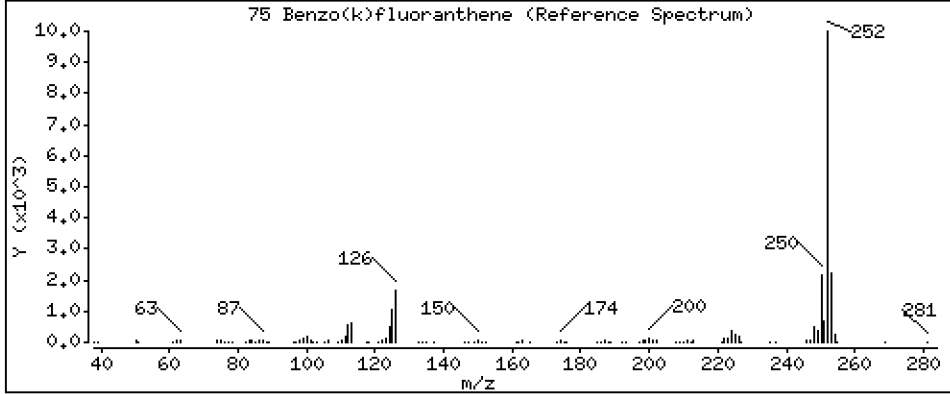
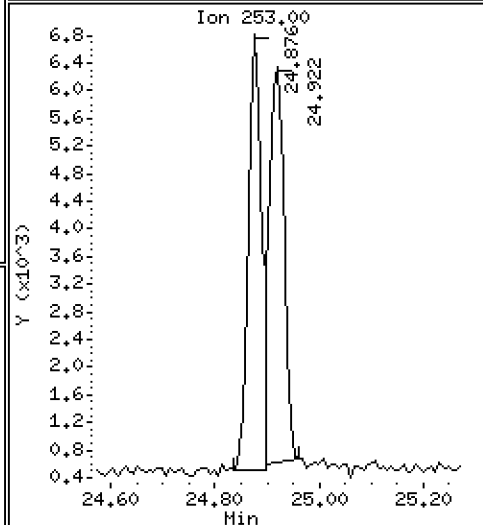
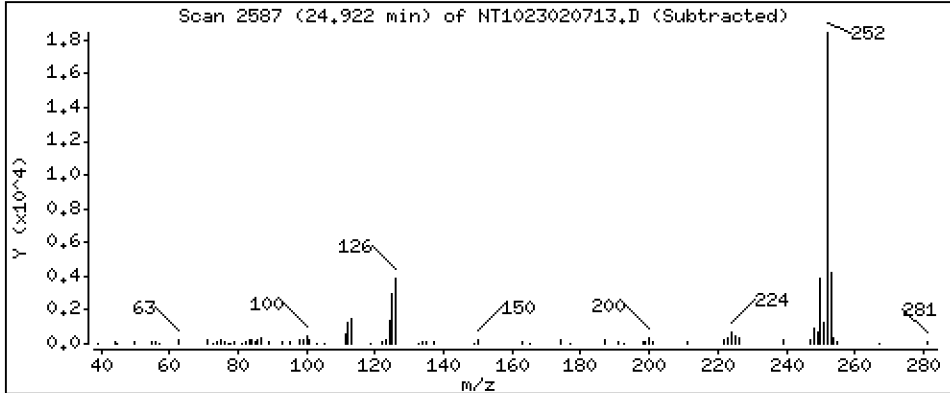
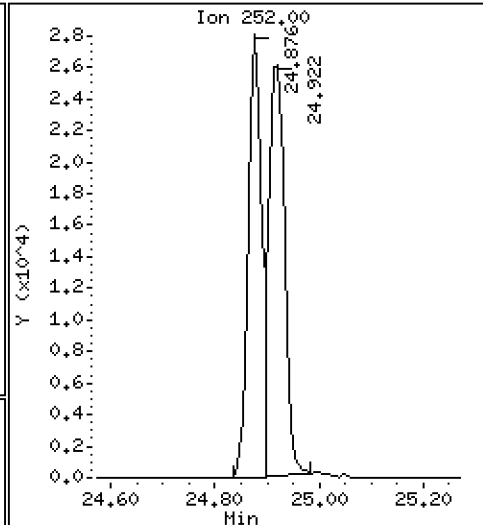
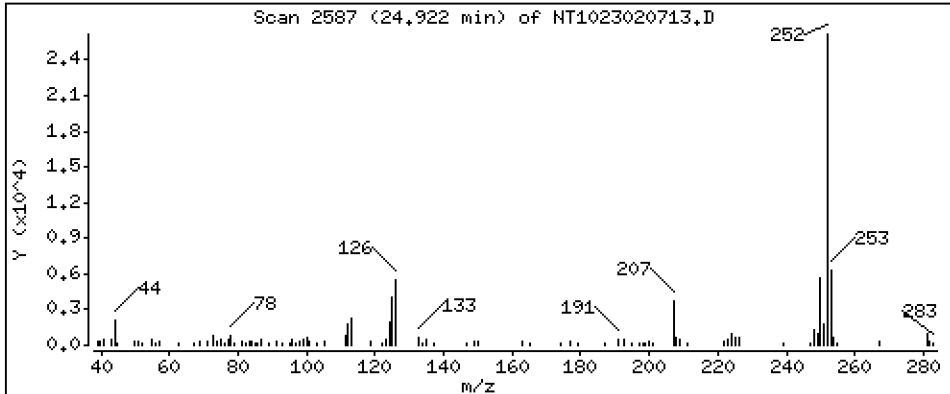
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,5129 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

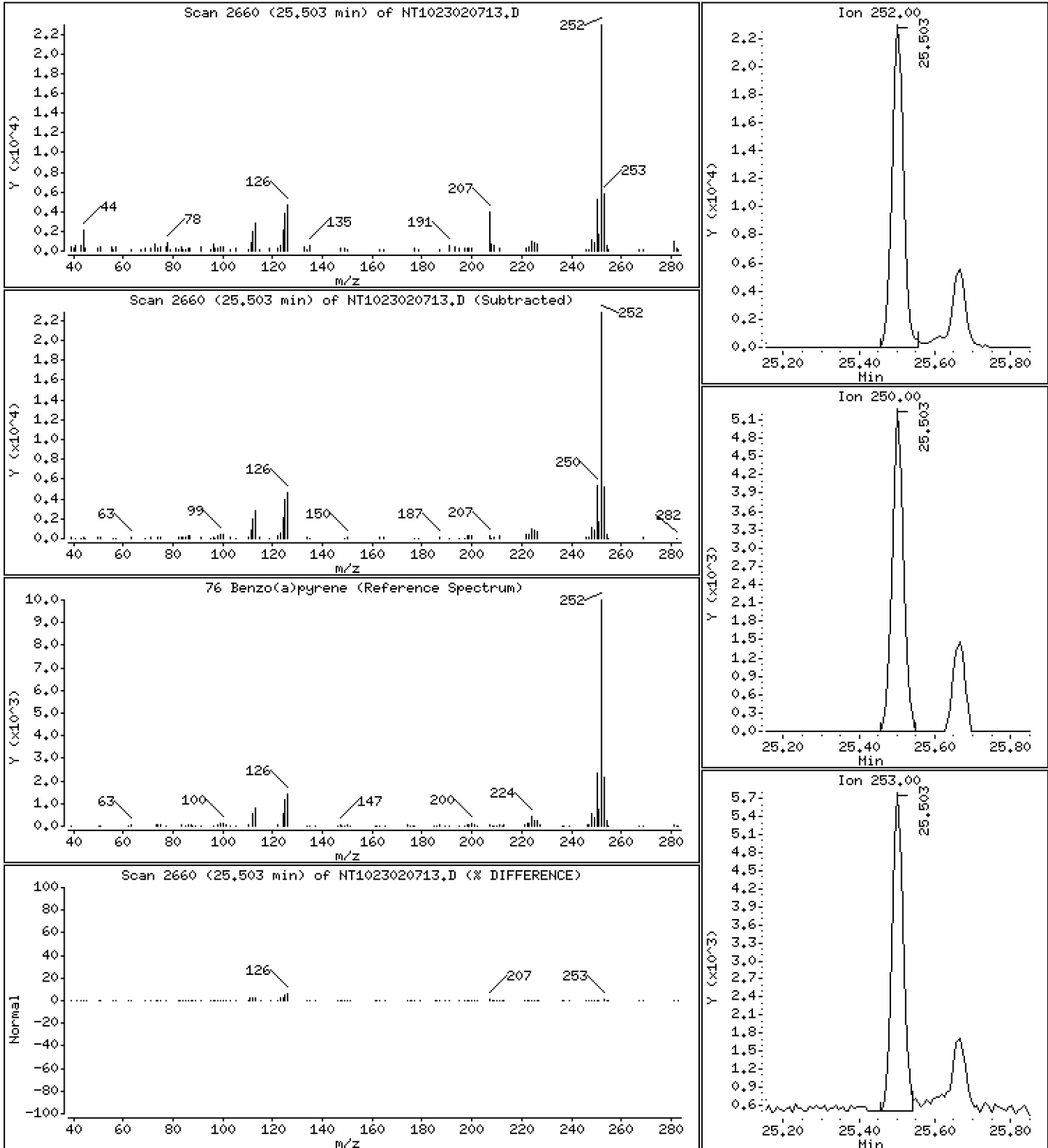
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,5068 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

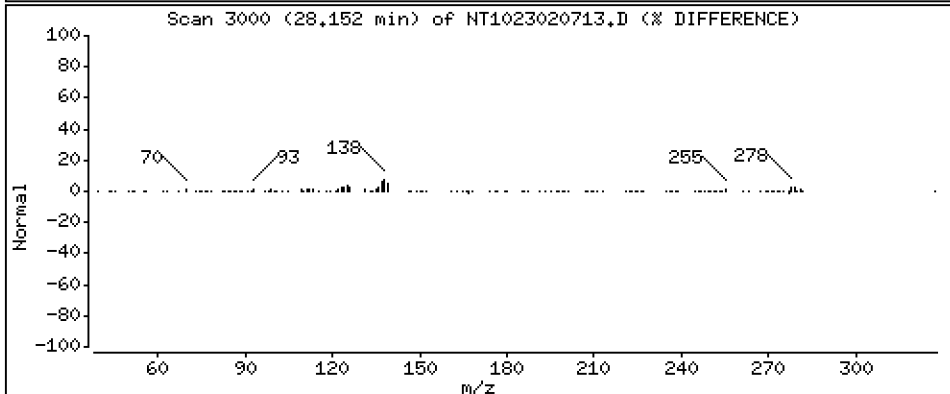
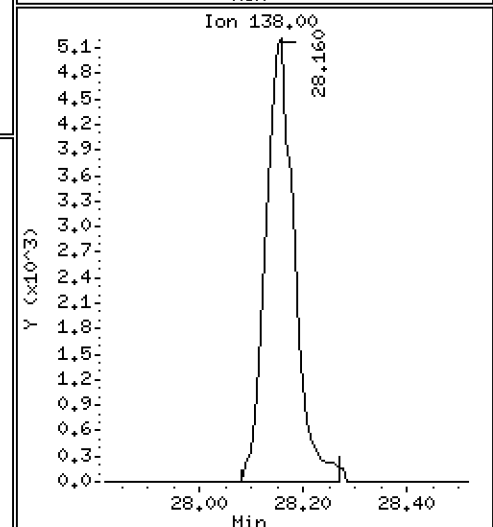
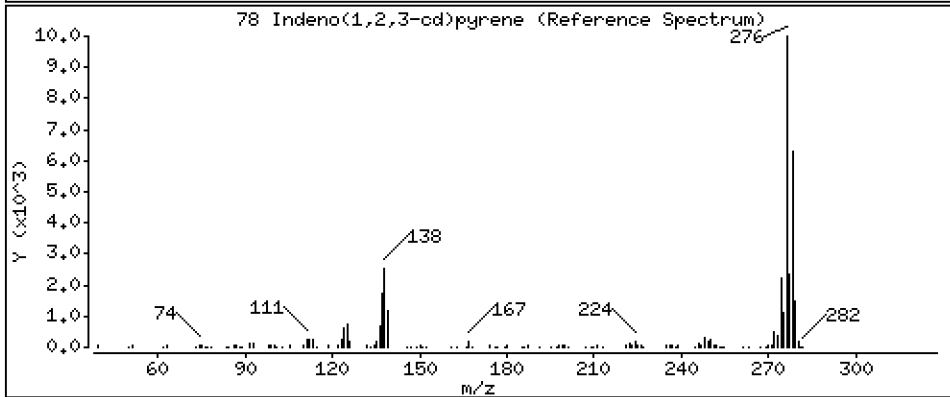
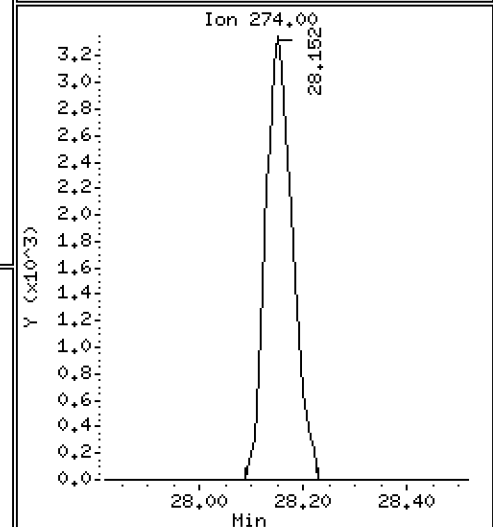
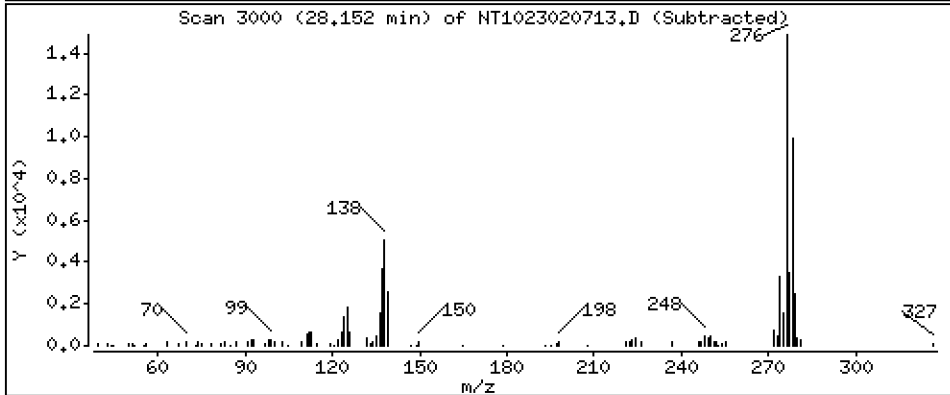
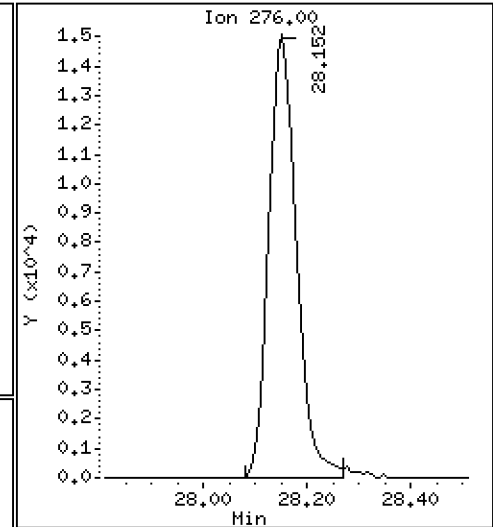
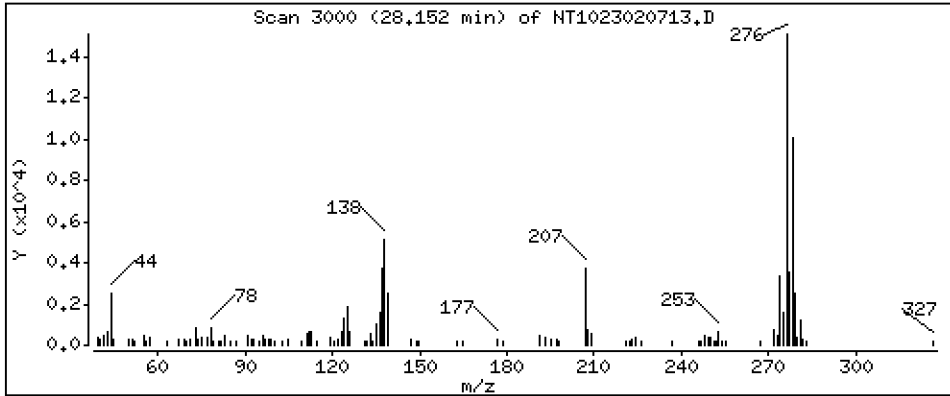
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 0,5128 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

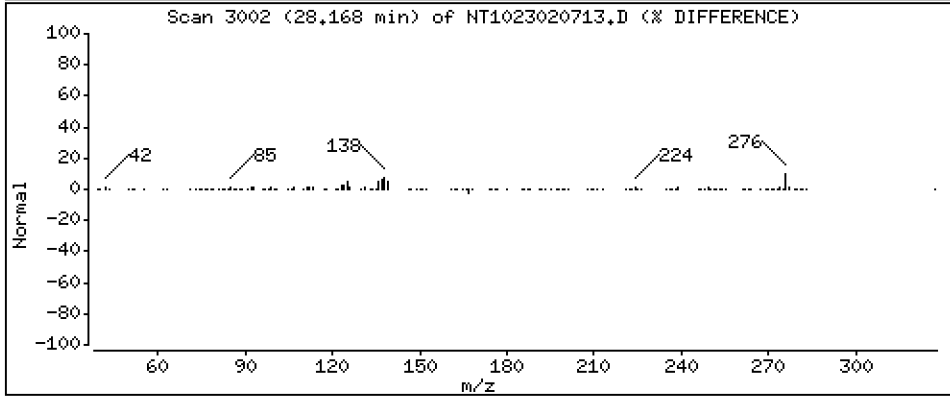
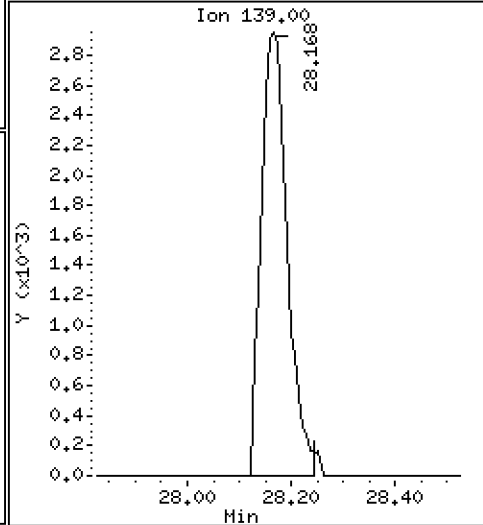
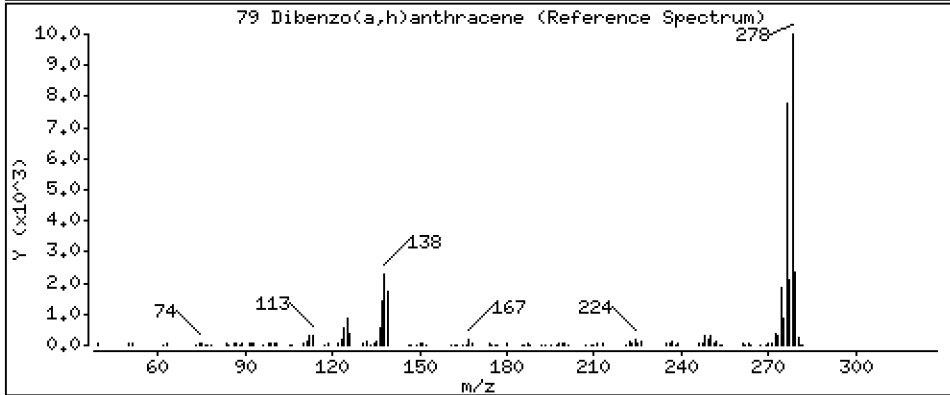
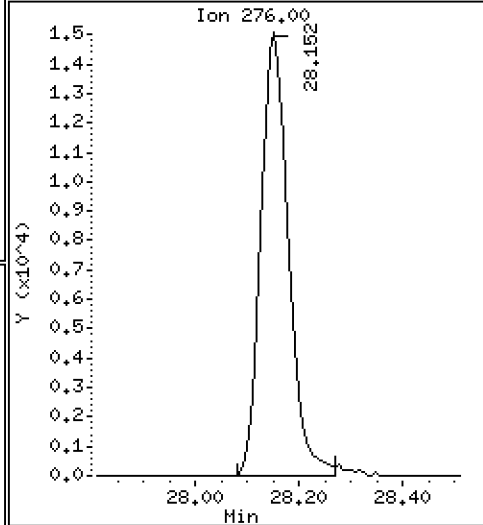
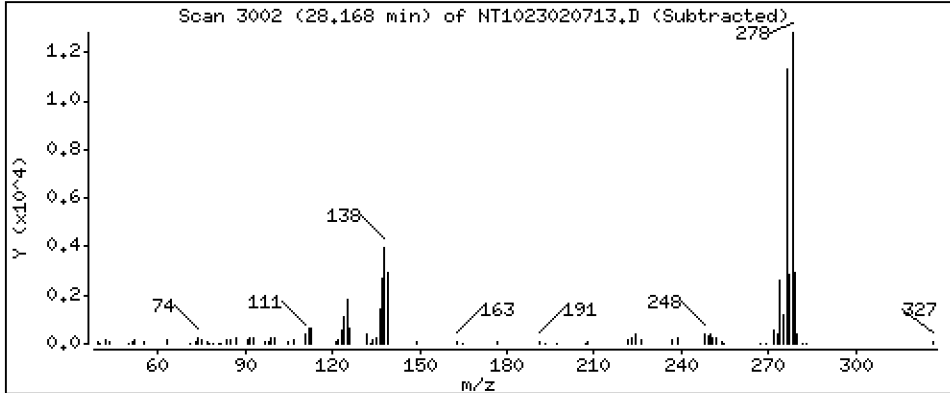
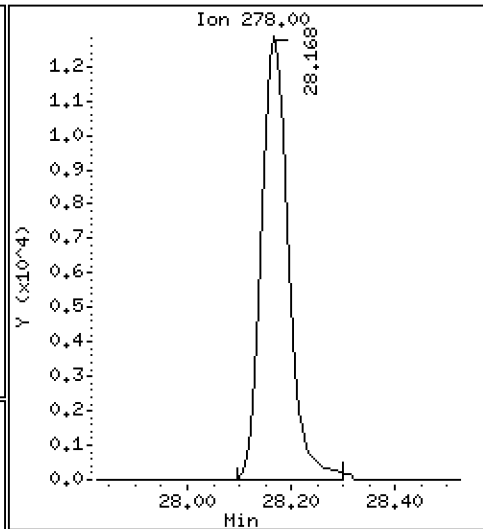
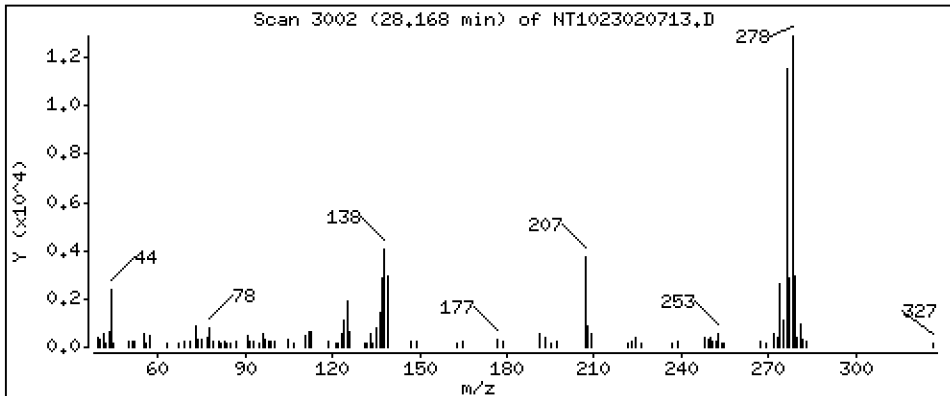
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,5153 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

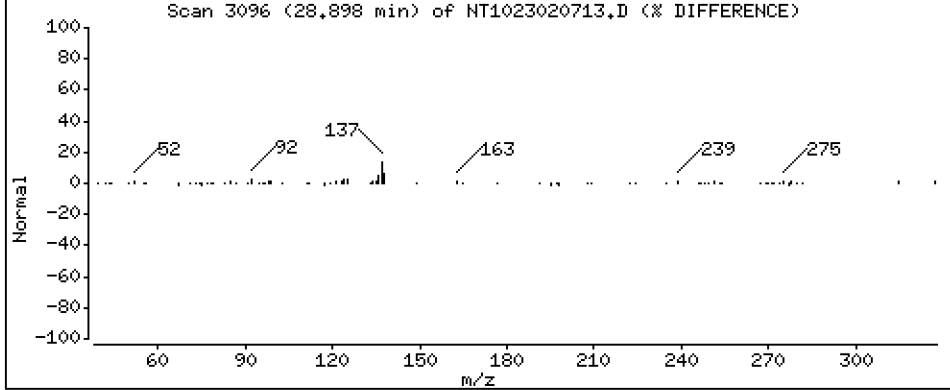
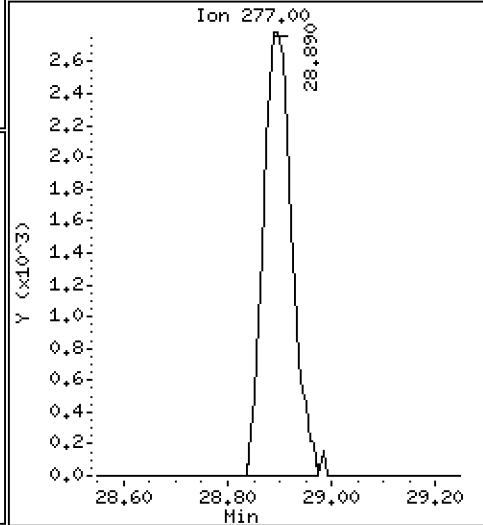
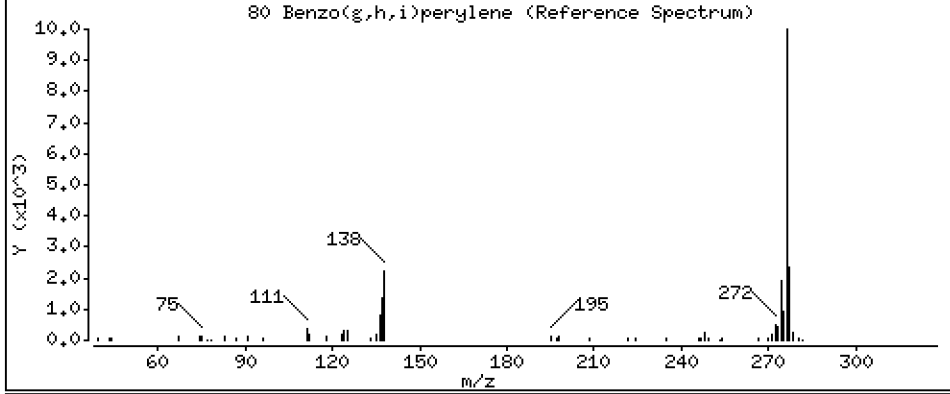
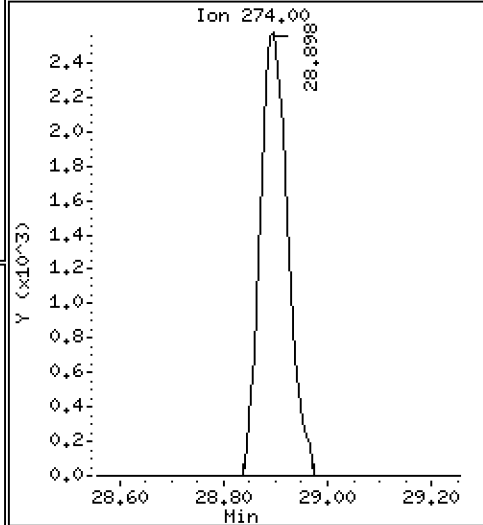
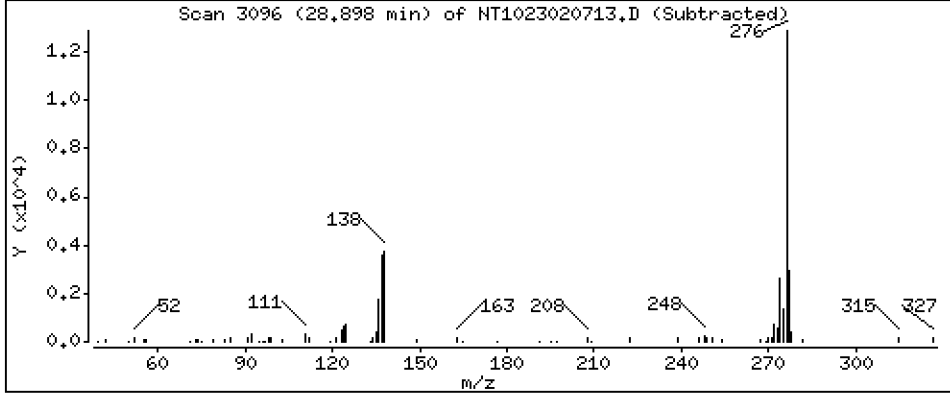
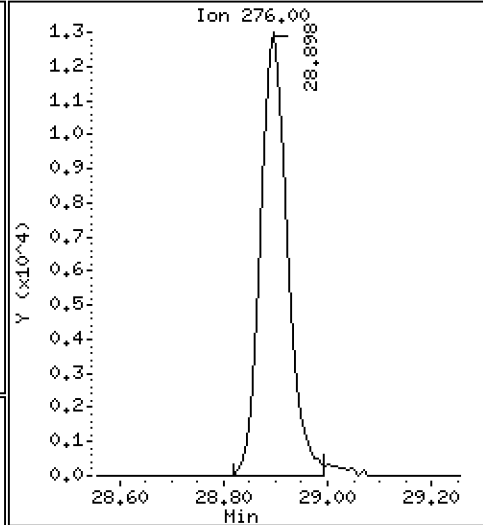
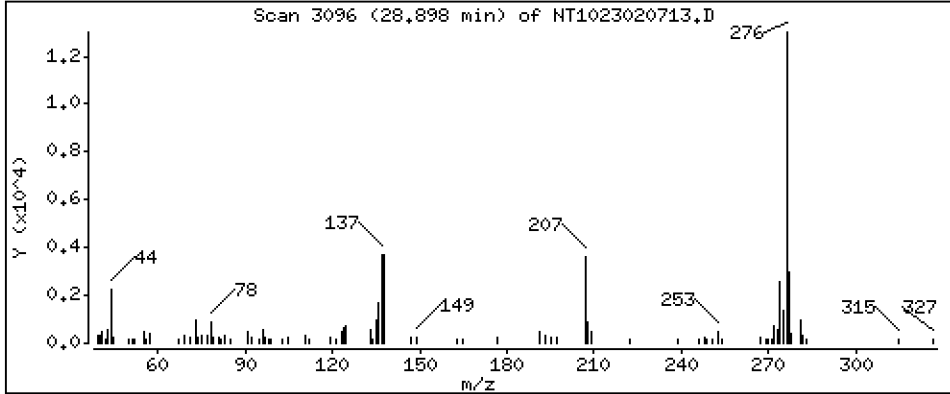
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,5041 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

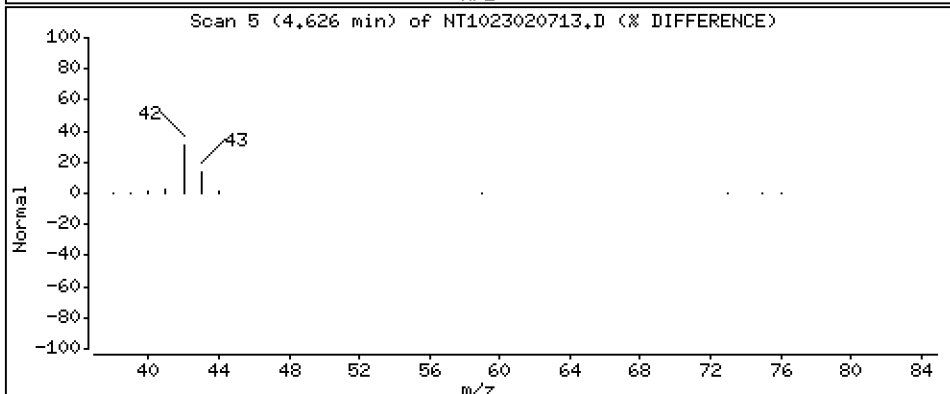
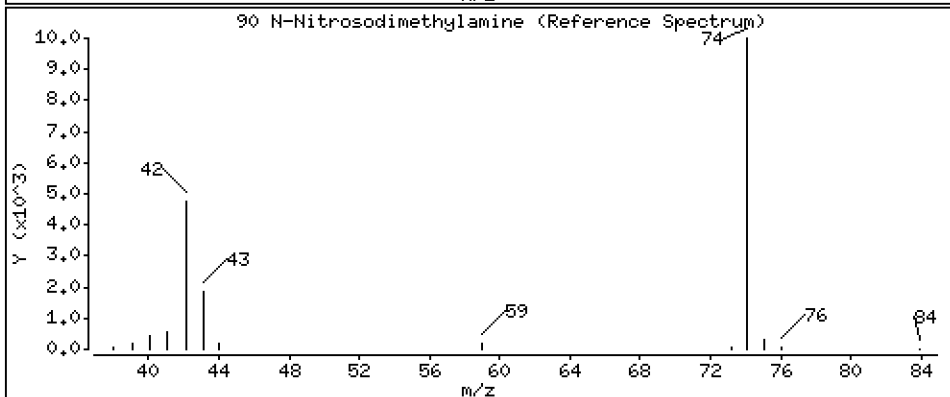
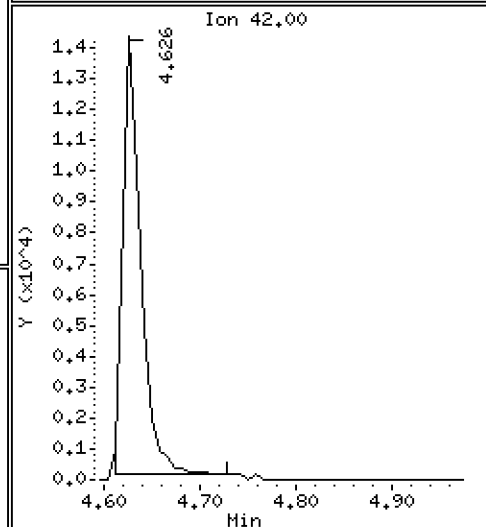
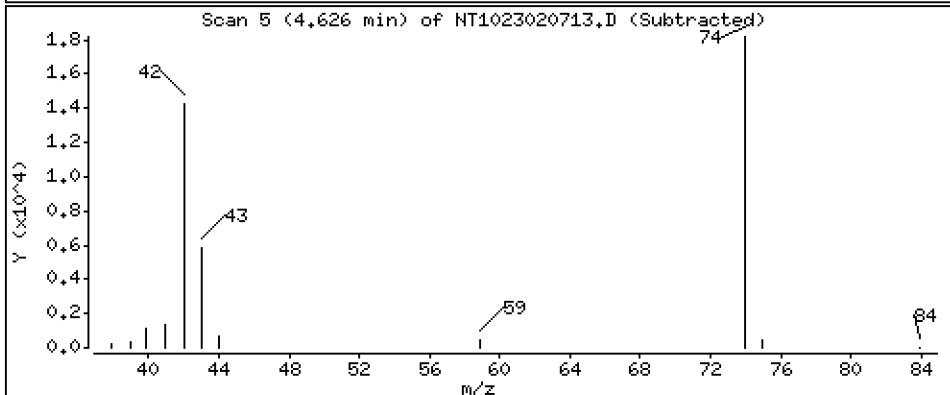
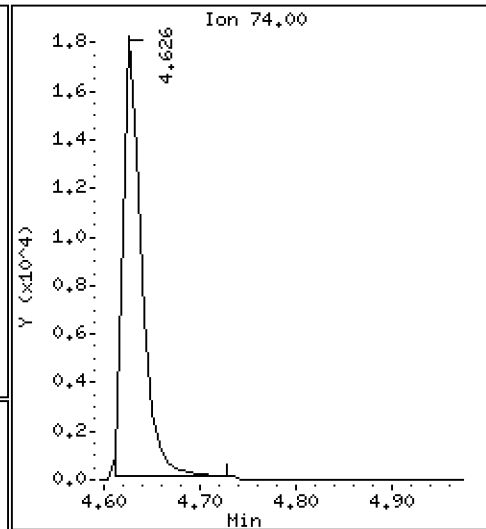
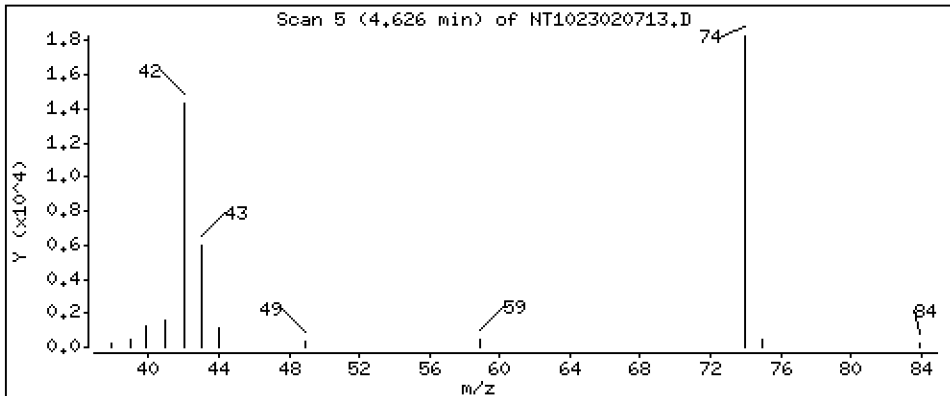
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 1,015 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

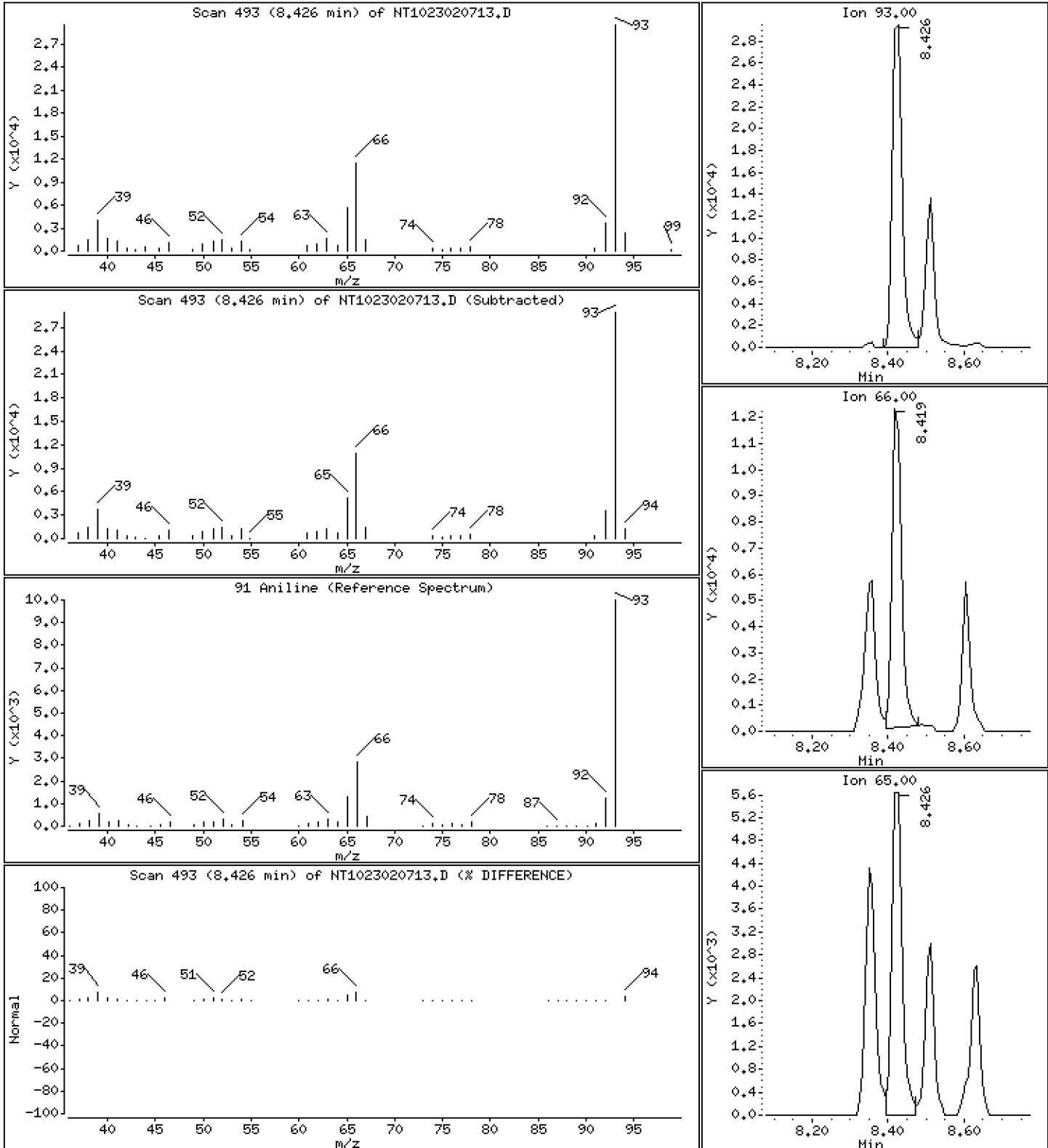
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

91 Aniline

Concentration: 1.020 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

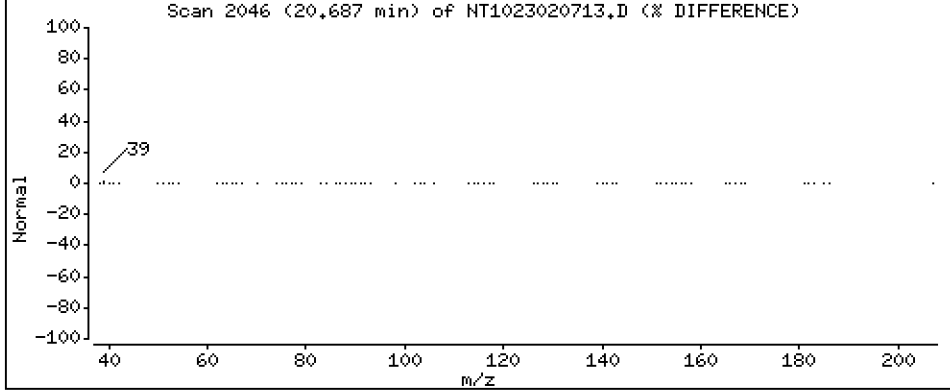
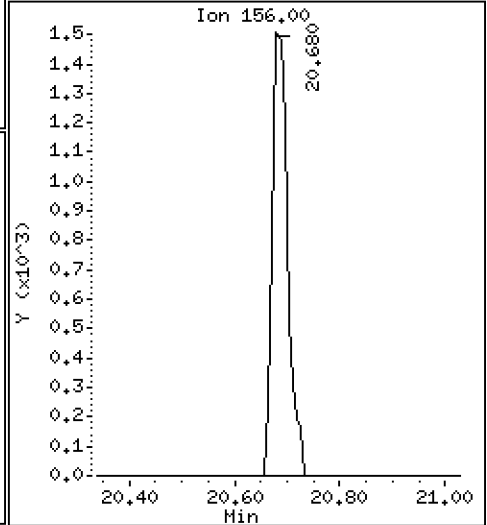
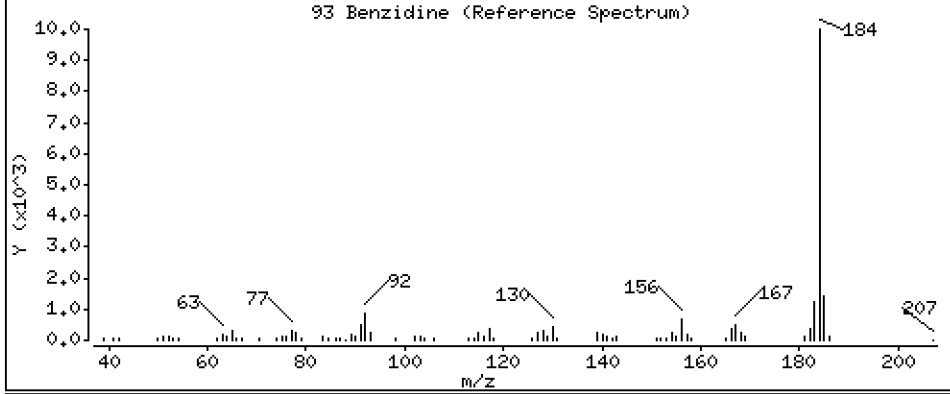
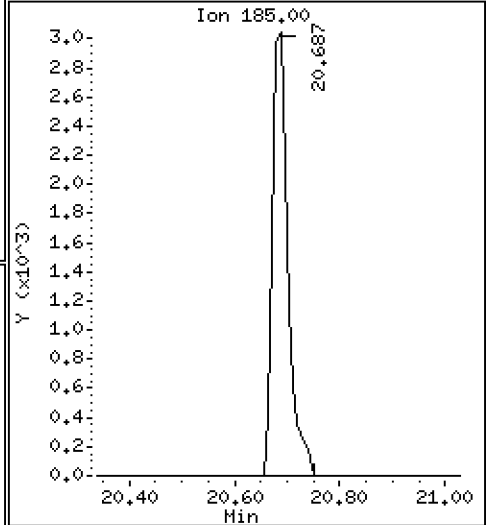
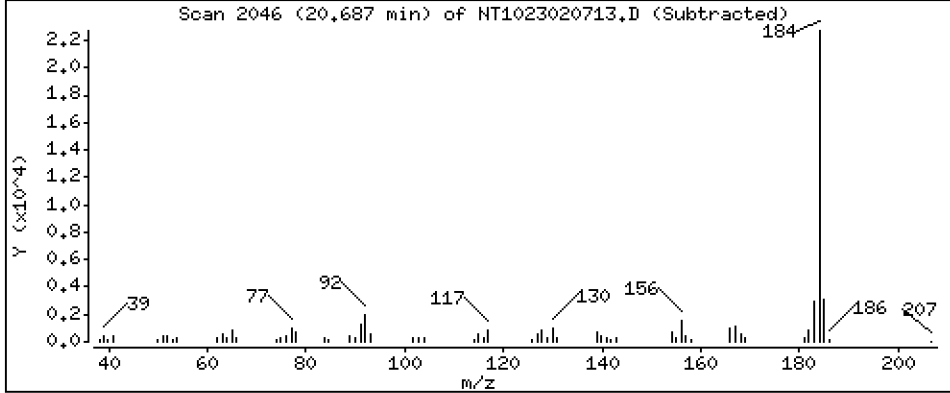
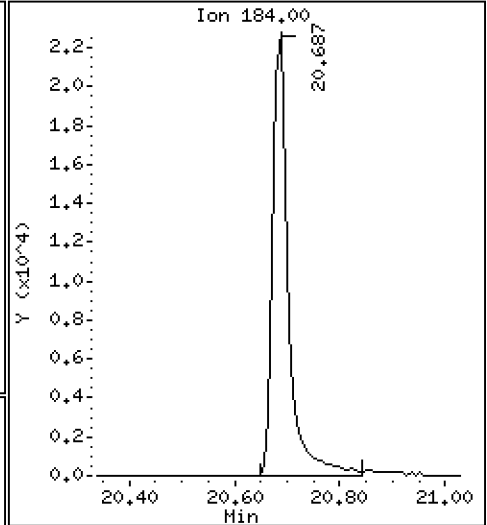
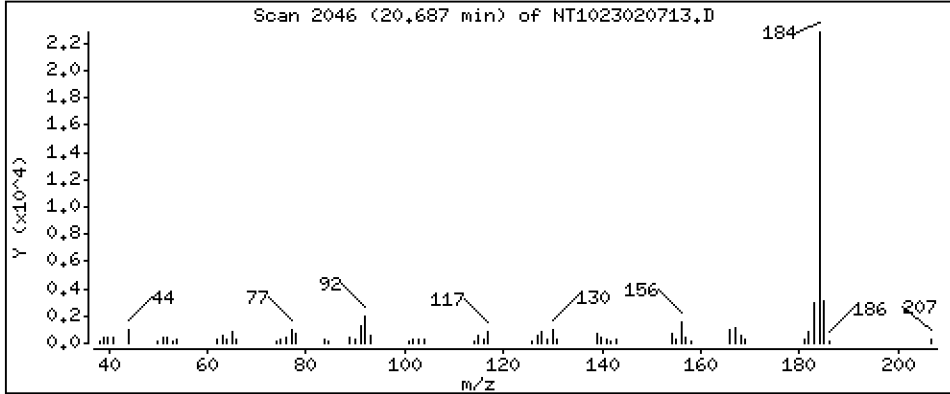
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 1,220 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

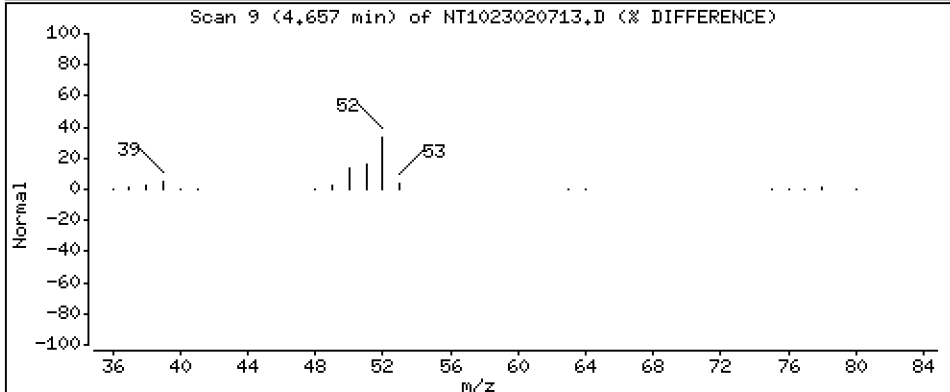
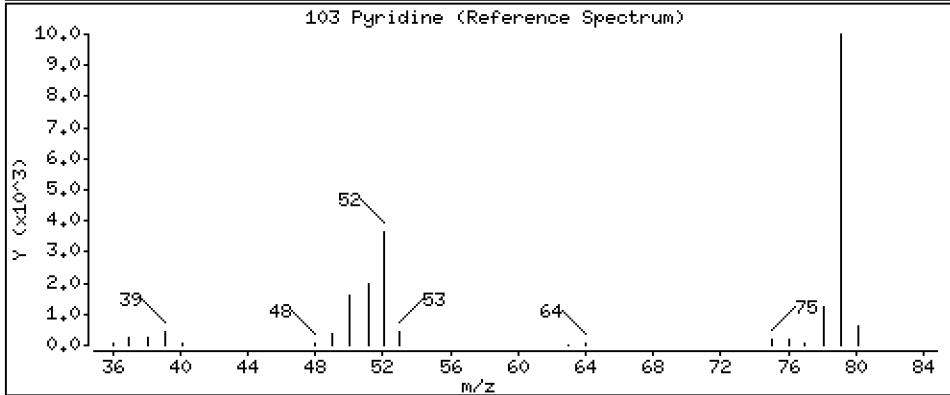
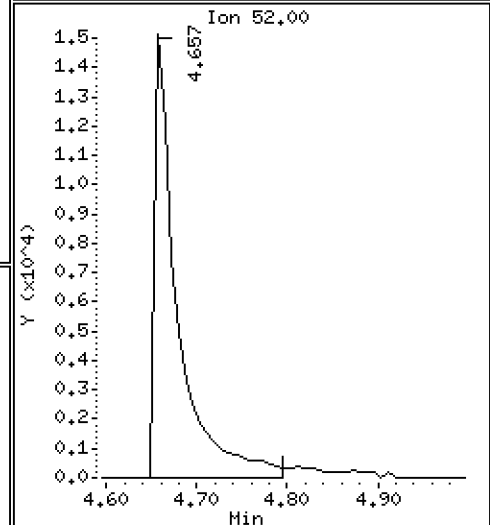
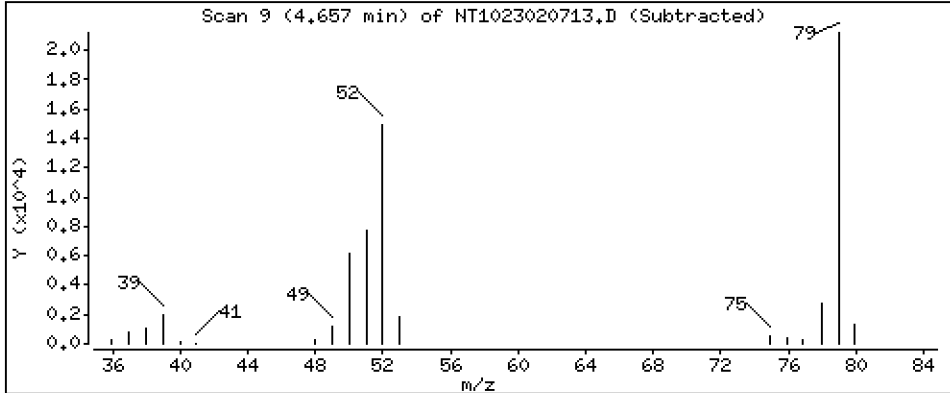
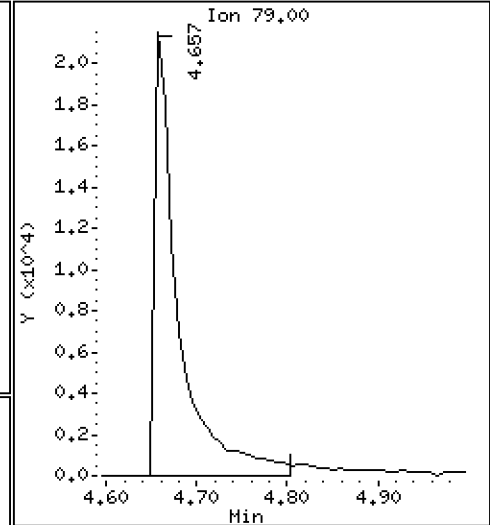
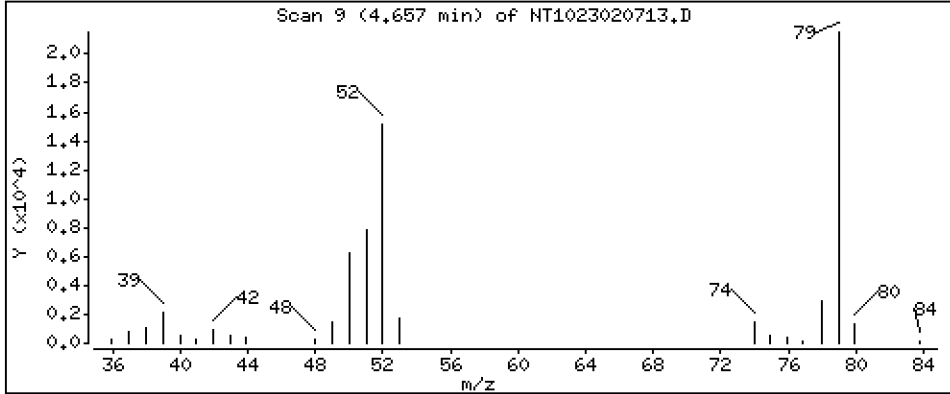
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 1,014 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

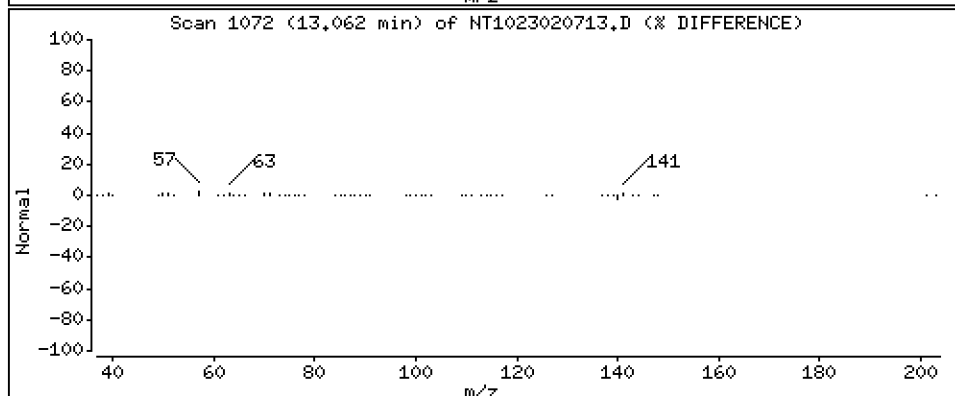
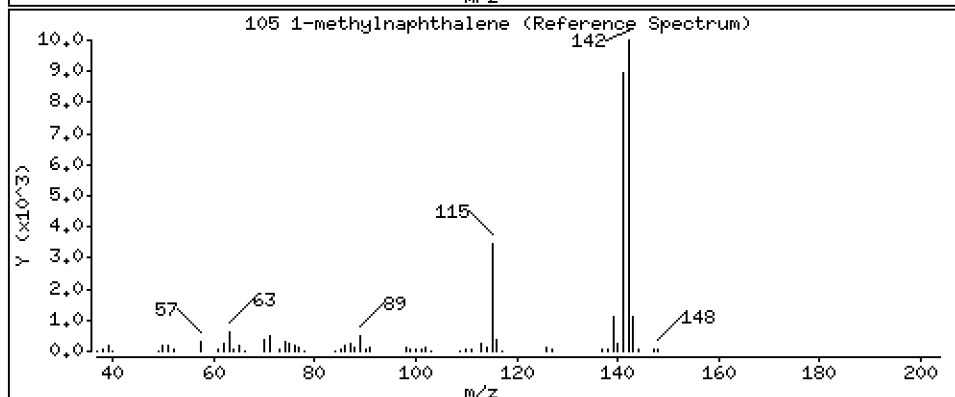
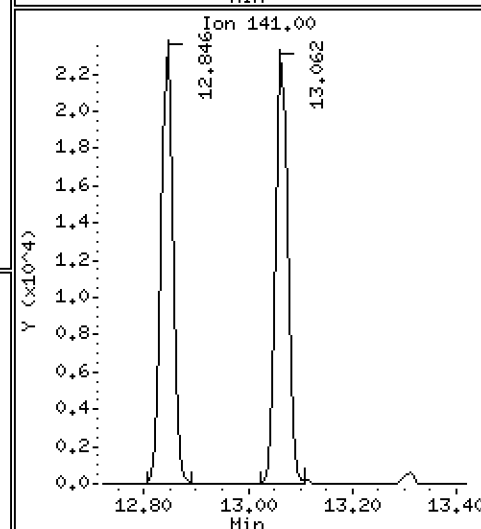
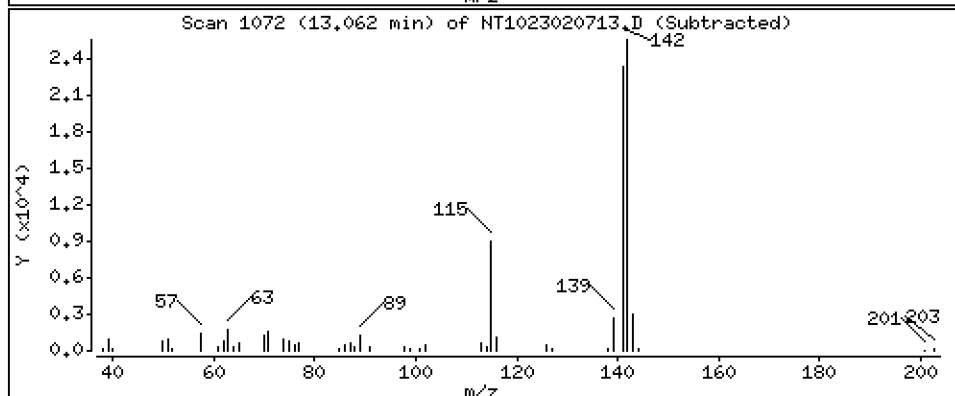
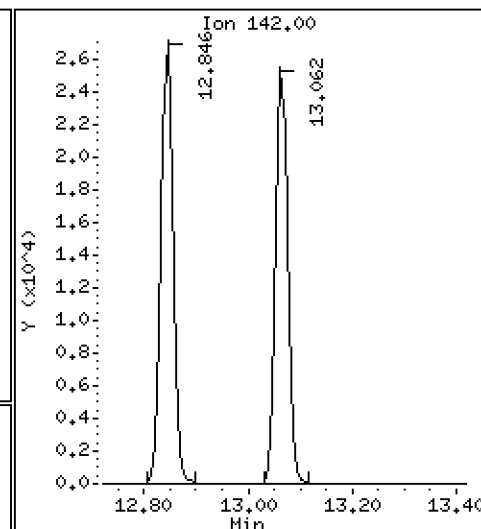
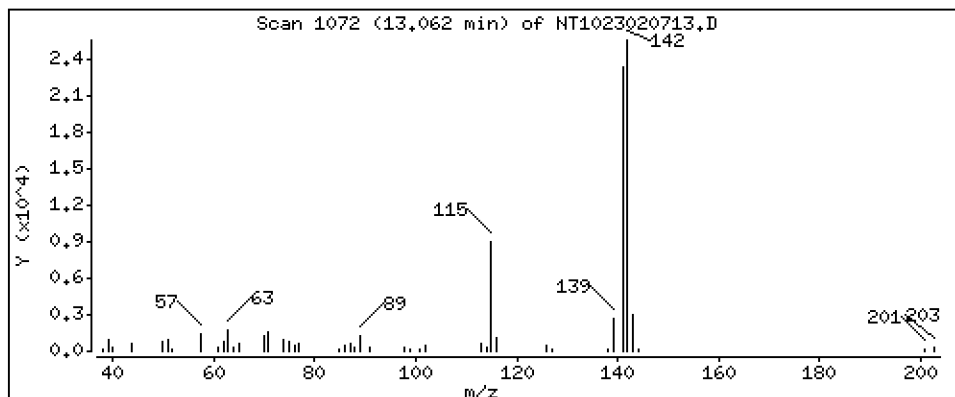
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,5061 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

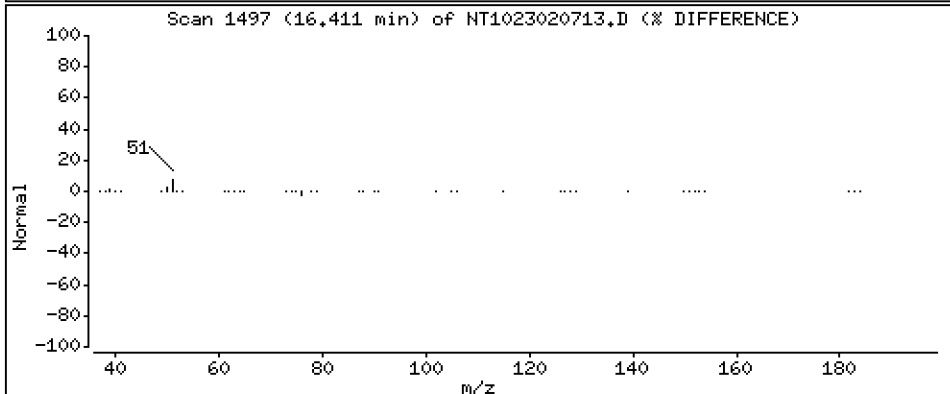
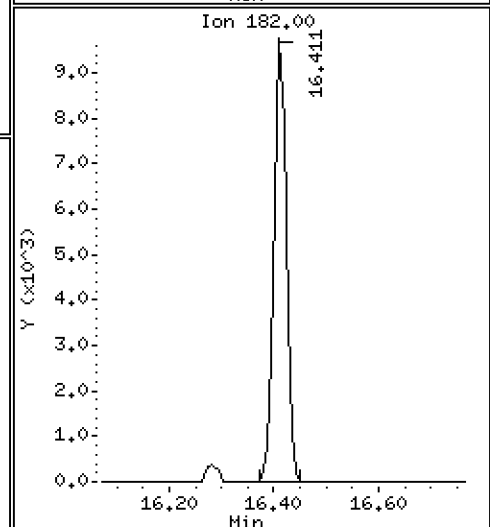
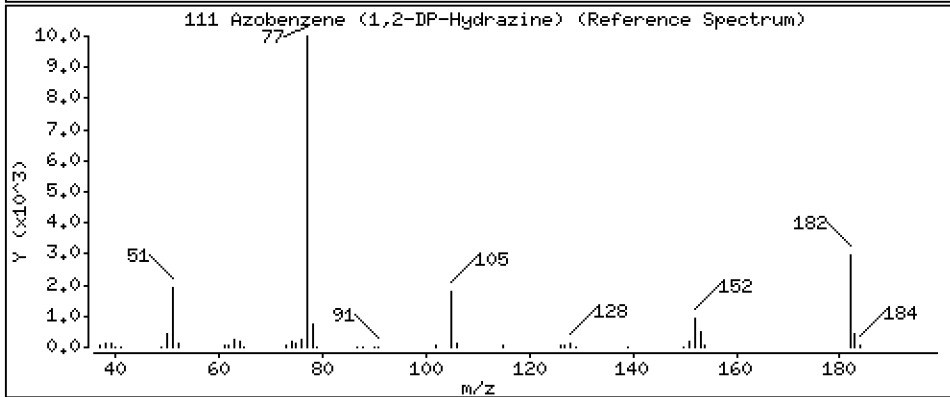
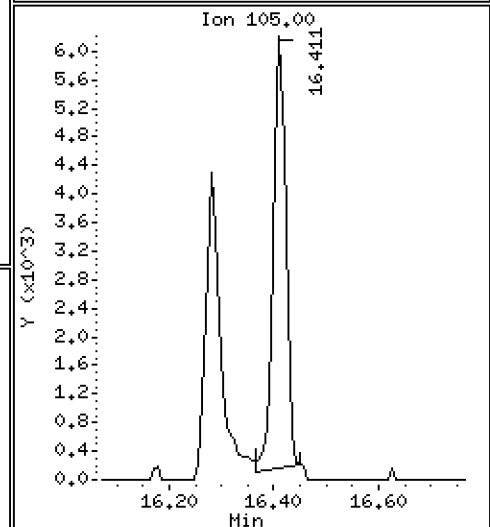
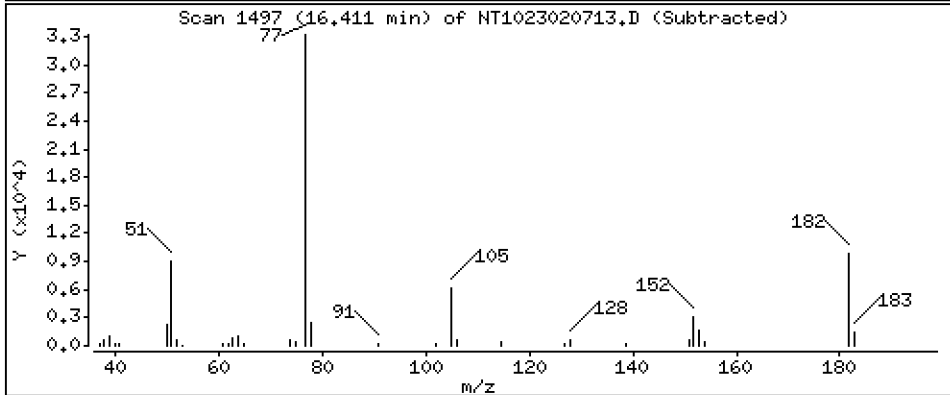
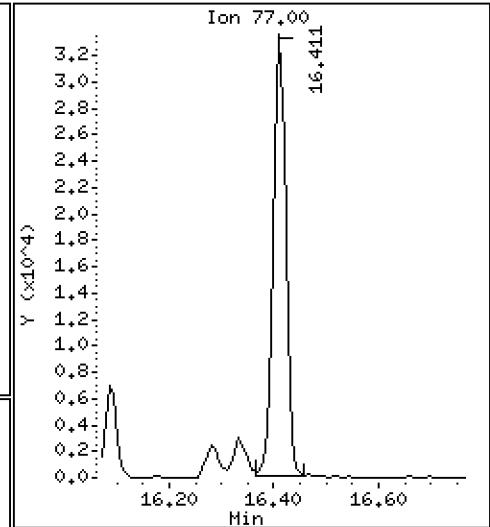
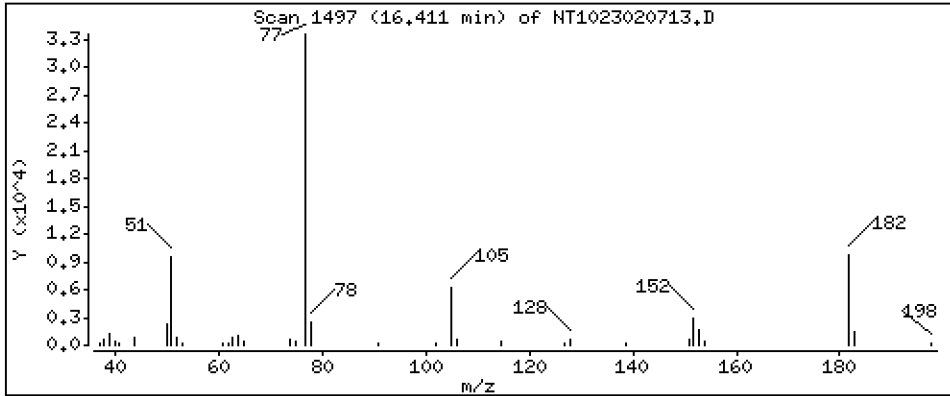
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0.5408 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

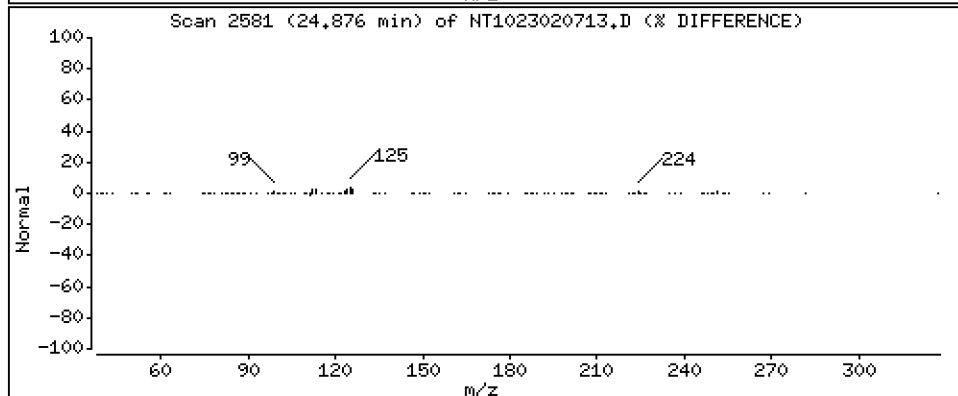
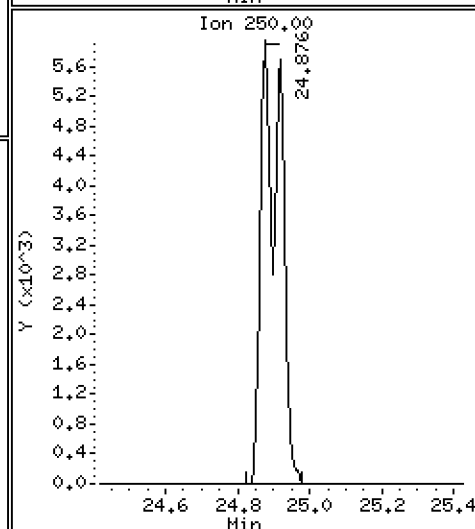
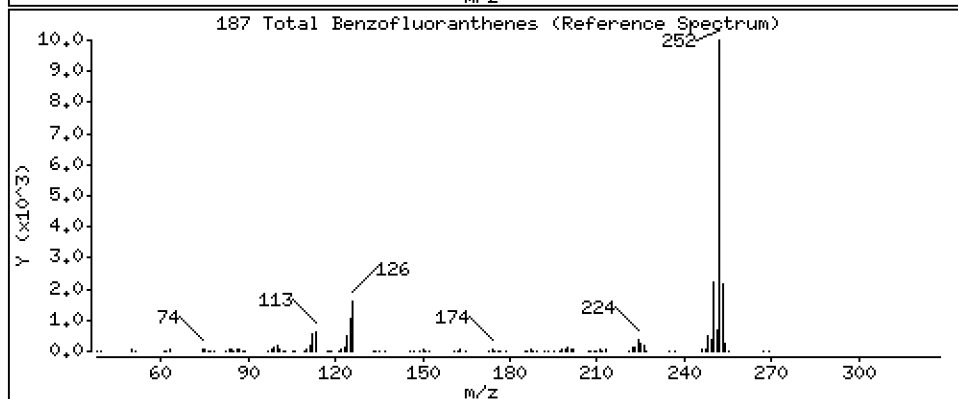
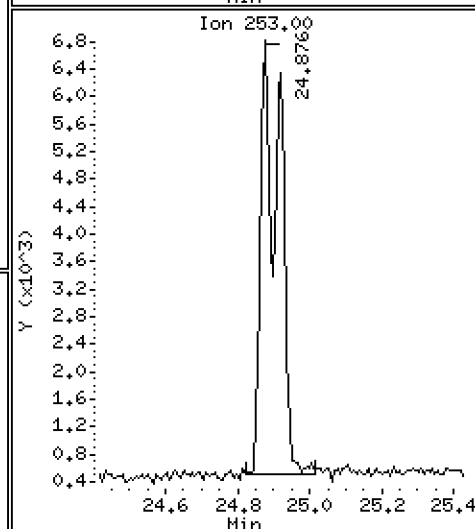
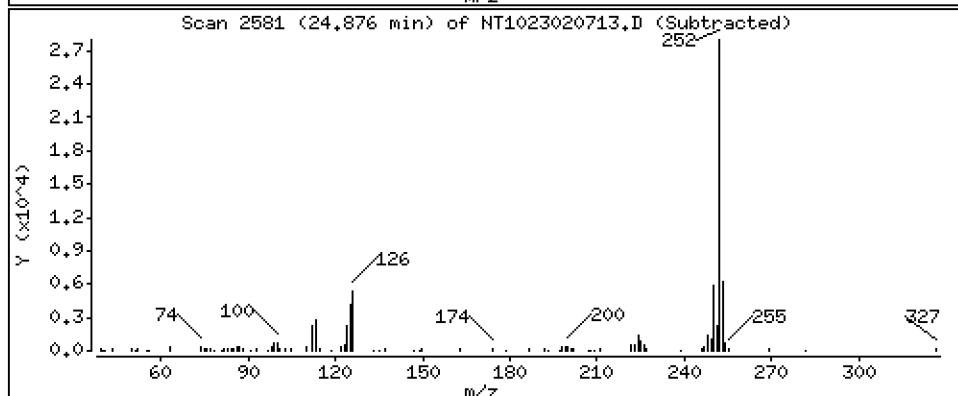
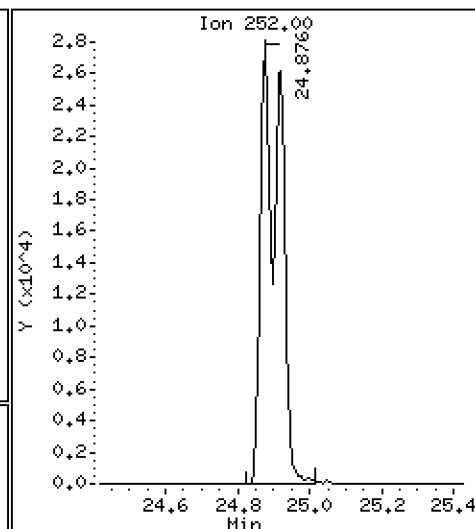
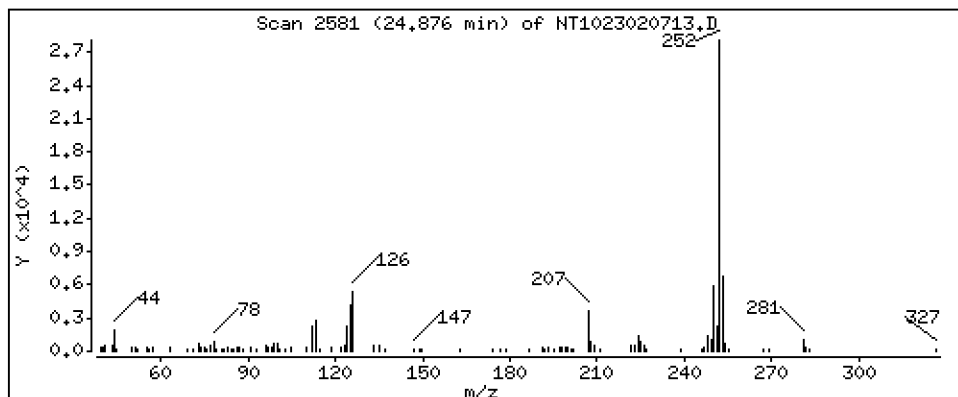
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 1,063 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

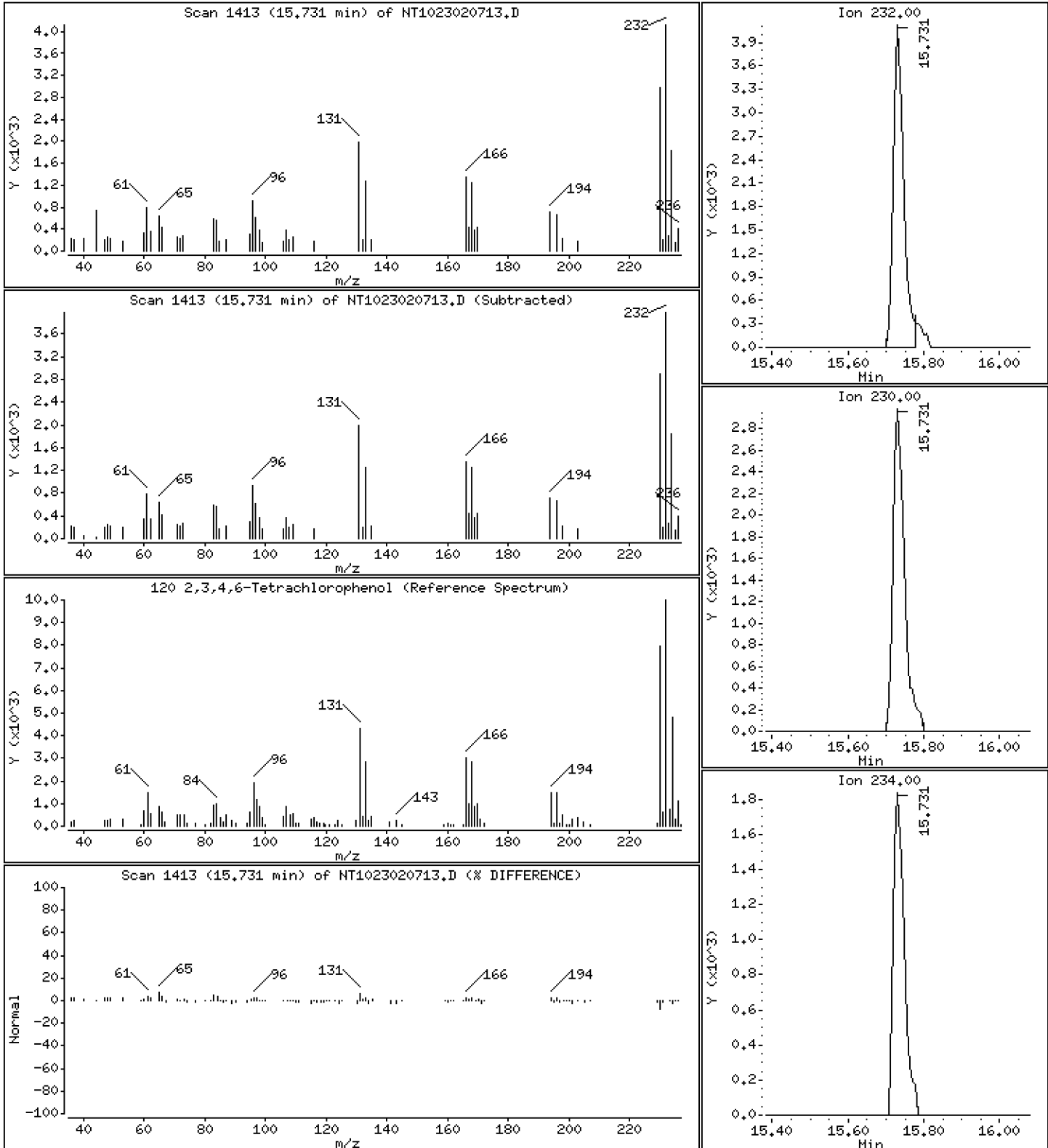
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0.3500 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020713.D
 Lab Smp Id: SLB0102-LCV1
 Inj Date : 07-FEB-2023 19:20
 Operator : VTS
 Smp Info : SLB0102-LCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 10-Feb-2023 11:37 van
 Cal Date : 07-FEB-2023 12:18
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt10.i

Quant Type: ISTD
 Cal File: NT1023020702.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		6.772	6.765	(0.756)	26377	0.74312	0.7431
\$ 2 Phenol-d5	99		8.333	8.333	(0.930)	37299	0.77895	0.7790
3 Phenol	94		8.356	8.356	(0.933)	27265	0.52638	0.5264
\$ 5 2-Chlorophenol-d4	132		8.603	8.604	(0.960)	31095	0.80014	0.8001
4 Bis(2-Chloroethyl)ether	93		8.511	8.511	(0.950)	20505	0.54438	0.5444
6 2-Chlorophenol	128		8.634	8.634	(0.964)	22720	0.53675	0.5367
7 1,3-Dichlorobenzene	146		8.897	8.897	(0.993)	24052	0.54131	0.5413
* 8 1,4-Dichlorobenzene-d4	152		8.959	8.959	(1.000)	111648	4.00000	
9 1,4-Dichlorobenzene	146		8.990	8.991	(1.003)	22685	0.51835	0.5183
\$ 10 1,2-Dichlorobenzene-d4	152		9.316	9.316	(1.040)	14232	0.53502	0.5350
12 1,2-Dichlorobenzene	146		9.347	9.348	(1.043)	22429	0.53159	0.5316
11 Benzyl alcohol	108		9.231	9.231	(1.030)	9600	0.41842	0.4184
14 2,2'-oxybis(1-Chloropropane)	121		9.526	9.526	(1.063)	6322	0.52150	0.5215 (M)
13 2-Methylphenol	108		9.456	9.456	(1.055)	21191	0.55165	0.5516
17 Hexachloroethane	117		9.930	9.930	(1.108)	8611	0.51324	0.5132
16 N-Nitroso-di-n-propylamine	70		9.774	9.782	(1.091)	14580	0.50473	0.5047
15 4-Methylphenol	108		9.720	9.720	(1.085)	21272	0.52280	0.5228
\$ 18 Nitrobenzene-d5	82		10.038	10.046	(0.879)	22454	0.52835	0.5284
19 Nitrobenzene	77		10.077	10.077	(0.882)	22124	0.52205	0.5221
20 Isophorone	82		10.519	10.520	(0.921)	28122	0.47654	0.4765
21 2-Nitrophenol	139		10.698	10.698	(0.937)	10414	0.47709	0.4771
22 2,4-Dimethylphenol	107		10.757	10.758	(0.942)	43201	1.10715	1.107
23 Bis(2-Chloroethoxy)methane	93		10.944	10.944	(0.958)	20473	0.53427	0.5343
24 Benzoic acid	105		10.953	10.987	(0.959)	7914	0.35862	0.3586 (M)
25 2,4-Dichlorophenol	162		11.156	11.156	(0.977)	35001	1.10409	1.104
26 1,2,4-Trichlorobenzene	180		11.337	11.337	(0.993)	18749	0.54283	0.5428
* 27 Naphthalene-d8	136		11.422	11.422	(1.000)	430160	4.00000	
28 Naphthalene	128		11.460	11.461	(1.003)	60210	0.52380	0.5238
29 4-Chloroaniline	127		11.592	11.592	(1.015)	44530	0.90369	0.9037
30 Hexachlorobutadiene	225		11.824	11.824	(1.035)	9462	0.52529	0.5253
31 4-Chloro-3-methylphenol	107		12.551	12.551	(1.099)	35394	1.02131	1.021
32 2-Methylnaphthalene	142		12.845	12.845	(1.125)	41462	0.51877	0.5188
33 Hexachlorocyclopentadiene	237		13.309	13.310	(0.887)	6031	0.43306	0.4331

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.464	13.464	(0.897)	19653	0.95594	0.9559
35 2,4,5-Trichlorophenol	196	13.542	13.534	(0.903)	18856	0.85075	0.8507
§ 36 2-Fluorobiphenyl	172	13.619	13.619	(0.908)	43700	0.53247	0.5325
37 2-Chloronaphthalene	162	13.828	13.828	(0.922)	37502	0.52569	0.5257
38 2-Nitroaniline	65	14.076	14.083	(0.938)	22657	1.00865	1.009
39 Dimethylphthalate	163	14.509	14.517	(0.967)	40469	0.53024	0.5302
40 Acenaphthylene	152	14.687	14.695	(0.979)	60326	0.53089	0.5309
41 2,6-Dinitrotoluene	165	14.648	14.649	(0.976)	18302	1.01246	1.012
* 42 Acenaphthene-d10	164	15.004	15.004	(1.000)	227740	4.00000	
43 3-Nitroaniline	138	14.927	14.935	(0.995)	19772	0.94863	0.9486
44 Acenaphthene	153	15.066	15.066	(1.004)	36309	0.52140	0.5214
45 2,4-Dinitrophenol	184	15.151	15.144	(1.010)	2370	0.25417	0.2542
46 Dibenzofuran	168	15.391	15.399	(1.026)	51546	0.51455	0.5146
47 4-Nitrophenol	109	15.267	15.259	(1.018)	5656	0.72796	0.7280
48 2,4-Dinitrotoluene	165	15.445	15.453	(1.029)	24489	0.98185	0.9819
50 Diethylphthalate	149	15.955	15.963	(1.063)	39220	0.53511	0.5351
49 Fluorene	166	16.094	16.102	(1.073)	62528	0.55530	0.5553
51 4-Chlorophenyl-phenylether	204	16.094	16.094	(1.073)	30534	0.55520	0.5552
52 4-Nitroaniline	138	16.179	16.195	(1.078)	24327	1.02136	1.021
53 4,6-Dinitro-2-methylphenol	198	16.279	16.287	(0.904)	19812	1.34186	1.342
54 N-Nitrosodiphenylamine	169	16.333	16.341	(0.907)	37722	0.53982	0.5398
§ 55 2,4,6-Tribromophenol	330	16.626	16.627	(1.108)	7539	0.66110	0.6611
56 4-Bromophenyl-phenylether	248	17.089	17.089	(0.948)	13649	0.53007	0.5301
57 Hexachlorobenzene	284	17.398	17.406	(0.966)	14912	0.53773	0.5377
58 Pentachlorophenol	266	17.762	17.762	(0.986)	3782	0.36219	0.3622
* 59 Phenanthrene-d10	188	18.018	18.018	(1.000)	408782	4.00000	
60 Phenanthrene	178	18.064	18.064	(1.003)	58044	0.52760	0.5276
61 Anthracene	178	18.157	18.157	(1.008)	56965	0.52291	0.5229
62 Carbazole	167	18.482	18.482	(1.026)	53938	0.51335	0.5133
63 Di-n-butylphthalate	149	19.294	19.294	(1.071)	60079	0.47950	0.4795
64 Fluoranthene	202	20.447	20.447	(0.887)	58669	0.52293	0.5229
65 Pyrene	202	20.873	20.873	(0.905)	60989	0.52656	0.5266
§ 66 Terphenyl-d14	244	21.159	21.167	(0.918)	47677	0.54589	0.5459
67 Butylbenzylphthalate	149	22.088	22.096	(0.958)	24751	0.49449	0.4945
68 Benzo(a)anthracene	228	23.033	23.041	(0.999)	55784	0.54700	0.5470
* 69 Chrysene-d12	240	23.056	23.064	(1.000)	305959	4.00000	
70 3,3'-Dichlorobenzidine	252	22.986	22.994	(0.997)	54308	1.57388	1.574
71 Chrysene	228	23.102	23.110	(1.002)	53830	0.55038	0.5504
72 bis(2-Ethylhexyl)phthalate	149	23.126	23.126	(0.959)	33404	0.51098	0.5110
* 134 Di-n-octylphthalate-d4	153	24.109	24.109	(1.000)	480597	4.00000	
73 Di-n-octylphthalate	149	24.116	24.117	(1.000)	67074	0.55227	0.5523
74 Benzo(b)fluoranthene	252	24.875	24.883	(0.971)	54777	0.54279	0.5428
75 Benzo(k)fluoranthene	252	24.922	24.922	(0.973)	54494	0.51290	0.5129
76 Benzo(a)pyrene	252	25.502	25.502	(0.996)	46249	0.50684	0.5068
* 77 Perylene-d12	264	25.611	25.619	(1.000)	318801	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.152	28.160	(1.099)	55698	0.51282	0.5128
79 Dibenzo(a,h)anthracene	278	28.167	28.175	(1.100)	46366	0.51534	0.5153
80 Benzo(g,h,i)perylene	276	28.897	28.905	(1.128)	46989	0.50410	0.5041
90 N-Nitrosodimethylamine	74	4.625	4.626	(0.516)	25066	1.01504	1.015
91 Aniline	93	8.426	8.426	(0.940)	51140	1.02010	1.020
93 Benzidine	184	20.687	20.687	(0.897)	45826	1.22026	1.220
103 Pyridine	79	4.656	4.649	(0.520)	38741	1.01357	1.014
105 1-methylnaphthalene	142	13.062	13.070	(1.144)	38942	0.50608	0.5061
111 Azobenzene (1,2-DP-Hydrazine)	77	16.410	16.418	(1.094)	52814	0.54081	0.5408

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	24.875	24.922	(0.971)	105145	1.06276	1.063
120 2,3,4,6-Tetrachlorophenol	232	15.731	15.731	(1.048)	7362	0.35005	0.3500

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 07-FEB-2023
 Lab File ID: NT1023020713.D Calibration Time: 18:42
 Lab Smp Id: SLB0102-LCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	100731	50366	201462	111648	10.84
27 Naphthalene-d8	402059	201030	804118	430160	6.99
42 Acenaphthene-d10	222764	111382	445528	227740	2.23
59 Phenanthrene-d10	378593	189297	757186	408782	7.97
69 Chrysene-d12	296375	148188	592750	305959	3.23
134 Di-n-octylphthala	473500	236750	947000	480597	1.50
77 Perylene-d12	302737	151369	605474	318801	5.31

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.96	-0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	-0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.00	-0.00
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	-0.00
69 Chrysene-d12	23.06	22.56	23.56	23.06	-0.03
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	-0.00
77 Perylene-d12	25.62	25.12	26.12	25.61	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020713.D

Lab ID: SLB0102-LCV1
nt10.i, 20230207.b\ABN.m, 07-FEB-2023 19:20

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1023020712.D

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

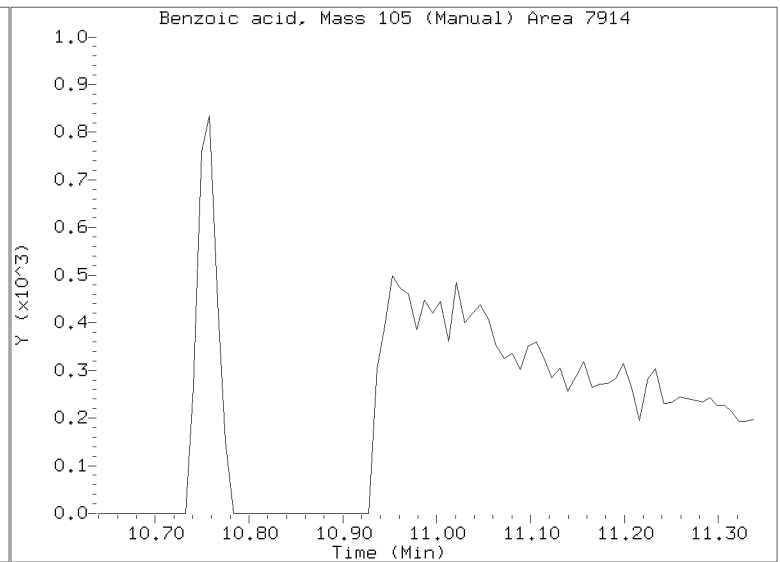
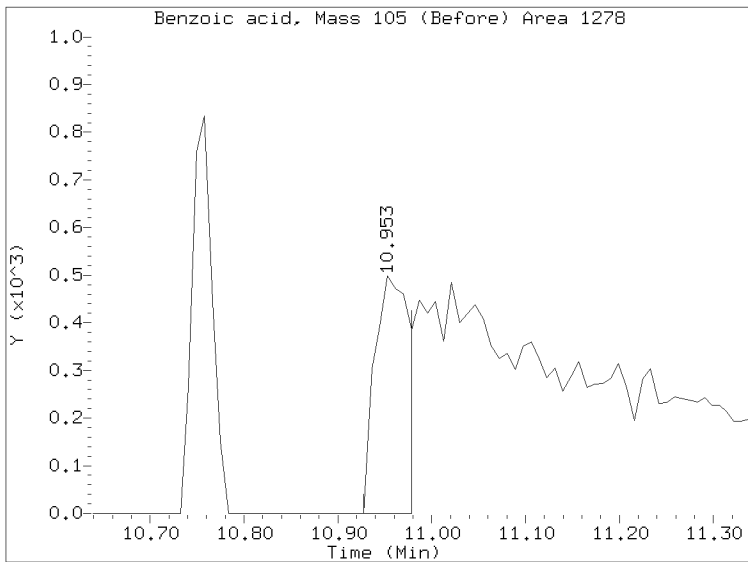
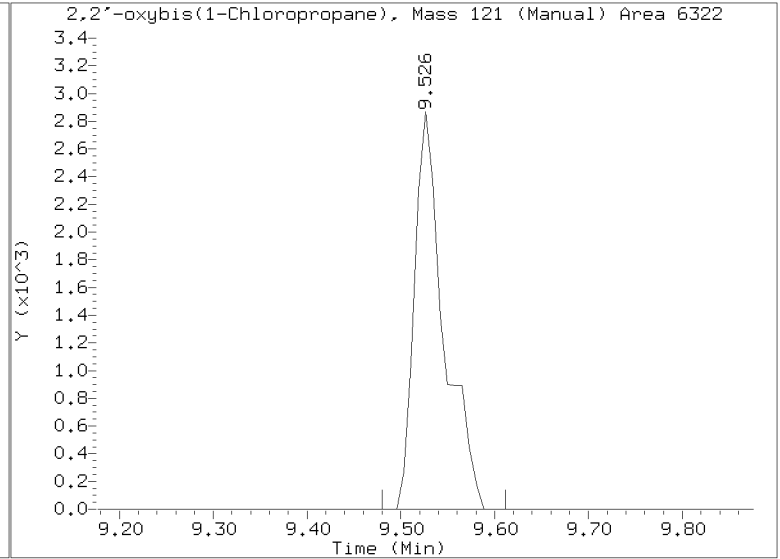
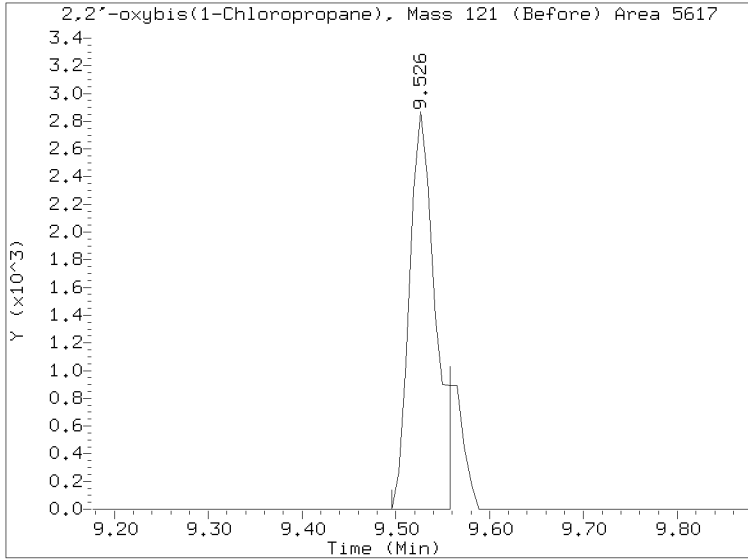
Quant Ion Manual Peak Adjustment Report

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Injection Date: 07-FEB-2023 19:20

Lab ID:SLB0102-LCV1 Client ID:

Report Date: 02/10/2023 11:38





**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00018

Laboratory ID: SLB0102-LCV2

Sequence: SLB0102

Standard ID: K011106

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	0.50000	0.5	4.4	50.00
4-Methylphenol	0.50000	0.5	8.1	50.00
Naphthalene	0.50000	0.5	4.3	50.00
2-Methylnaphthalene	0.50000	0.5	4.8	50.00
Acenaphthylene	0.50000	0.6	11.6	50.00
Dimethylphthalate	0.50000	0.6	11.8	50.00
Acenaphthene	0.50000	0.5	7.8	50.00
Dibenzofuran	0.50000	0.5	4.5	50.00
Fluorene	0.50000	0.5	5.7	50.00
Phenanthrene	0.50000	0.5	5.5	50.00
Anthracene	0.50000	0.5	8.9	50.00
Fluoranthene	0.50000	0.5	-0.2	50.00
Pyrene	0.50000	0.5	-0.8	50.00
Butylbenzylphthalate	0.50000	0.5	8.8	50.00
Benzo(a)anthracene	0.50000	0.6	11.6	50.00
Chrysene	0.50000	0.5	8.6	50.00
bis(2-Ethylhexyl)phthalate	0.50000	0.5	5.3	50.00
Benzo(a)fluoranthene, Total	1.0000	1.1	11.9	50.00
Benzo(a)pyrene	0.50000	0.6	11.9	50.00
Indeno(1,2,3-cd)pyrene	0.50000	0.4	-14.2	50.00
Dibenzo(a,h)anthracene	0.50000	0.5	-9.2	50.00
Benzo(g,h,i)perylene	0.50000	0.4	-28.5	50.00
2-Fluorophenol	0.75000	0.812	8.2	50.00
Phenol-d5	0.75000	0.782	4.3	50.00
2-Chlorophenol-d4	0.75000	0.801	6.8	50.00
1,2-Dichlorobenzene-d4	0.50000	0.533	6.5	50.00
Nitrobenzene-d5	0.50000	0.554	10.8	50.00
2-Fluorobiphenyl	0.50000	0.554	10.8	50.00
2,4,6-Tribromophenol	0.75000	0.746	-0.5	50.00



**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00018

Laboratory ID: SLB0102-LCV2

Sequence: SLB0102

Standard ID: K011106

p-Terphenyl-d14	0.50000	0.507	1.3	50.00
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* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.16\NT1023020733.D

Date: 08-FEB-2023 08:02

Client ID:

Sample Info: SLB0102-LCW2

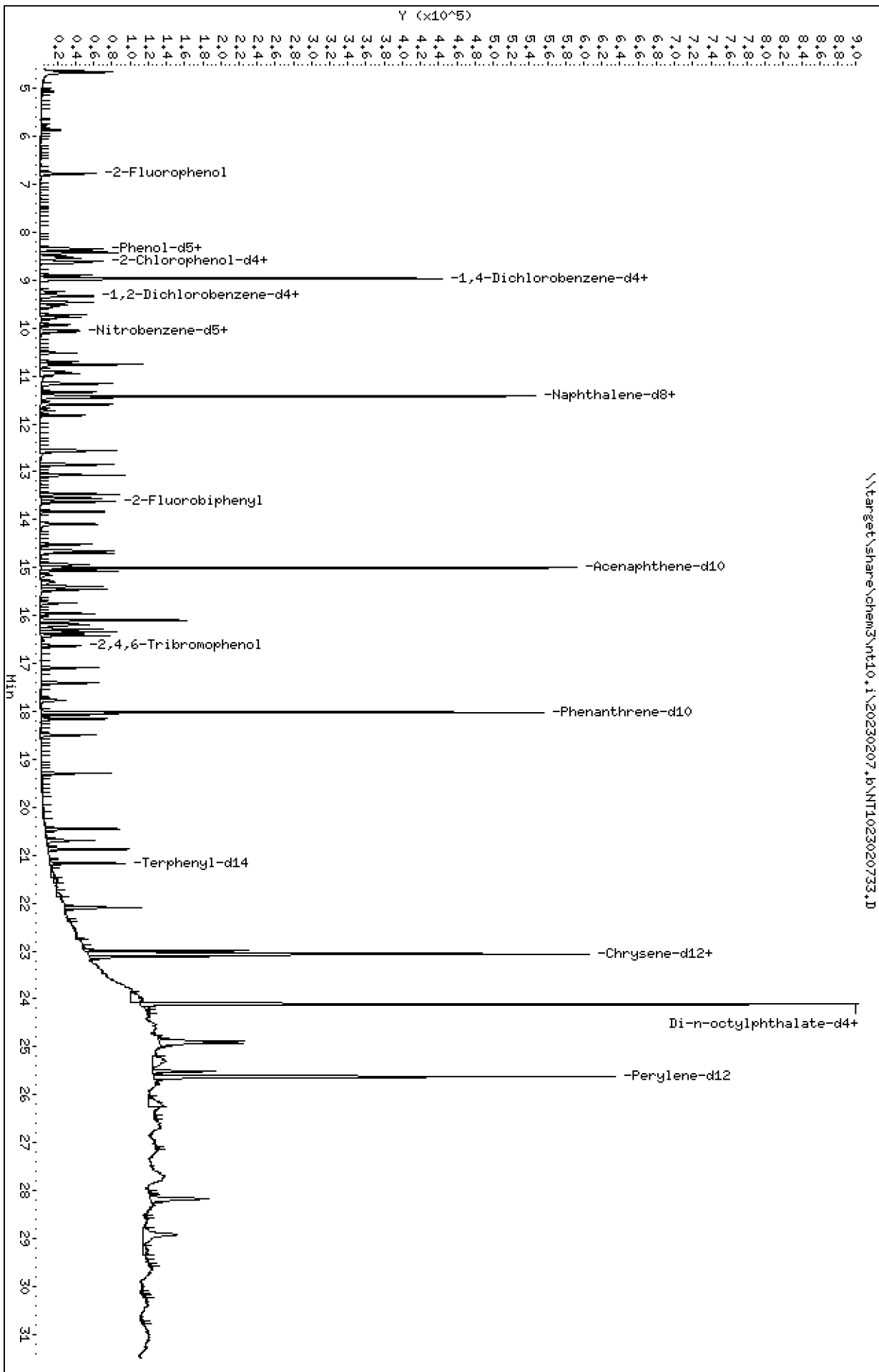
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

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Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

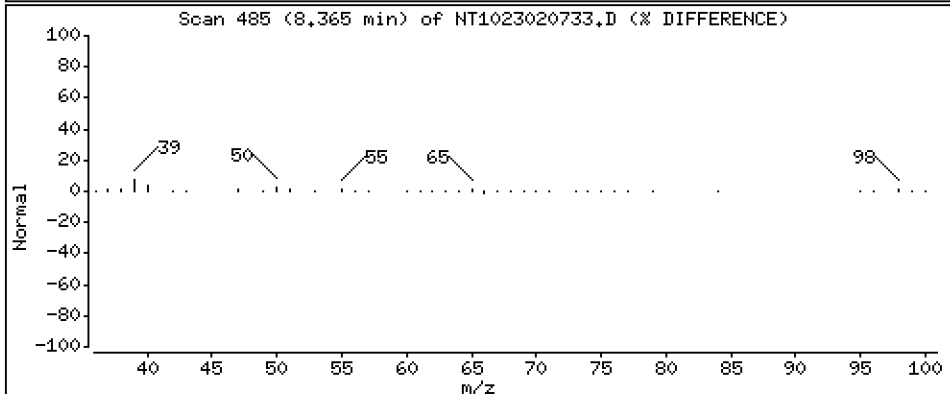
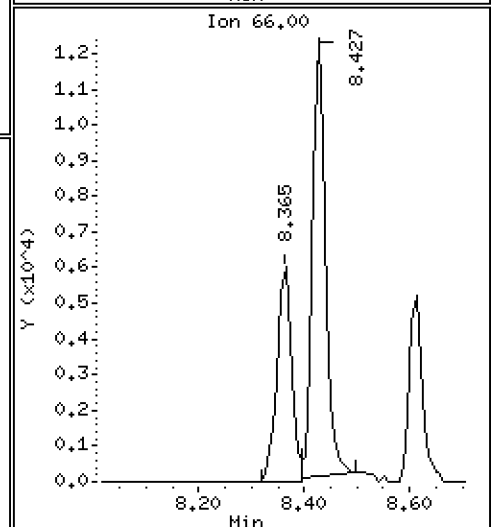
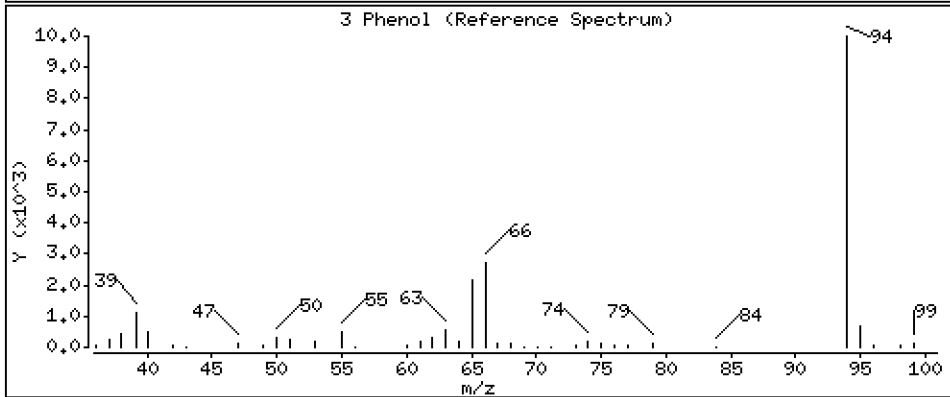
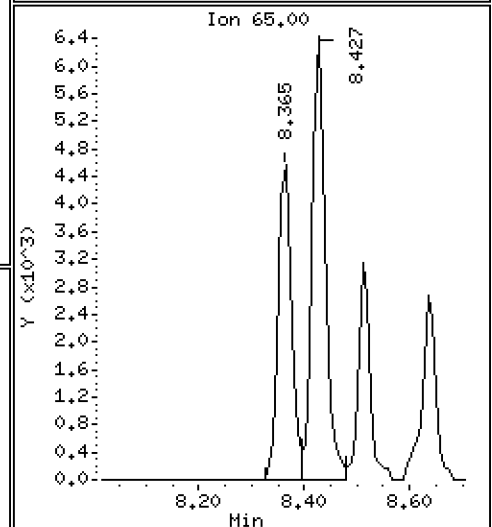
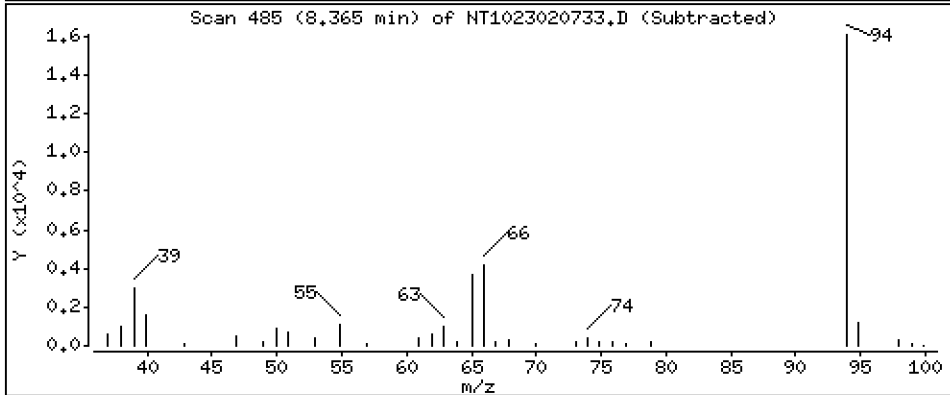
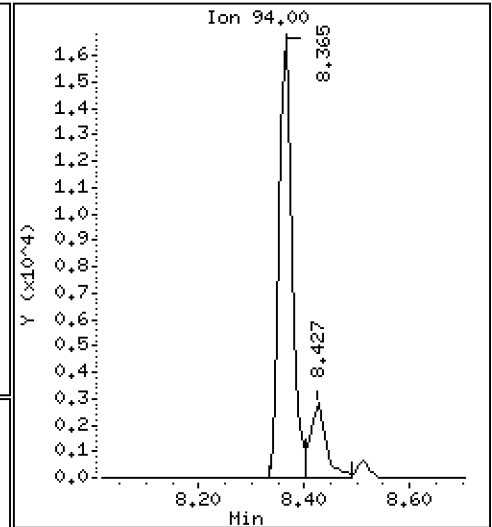
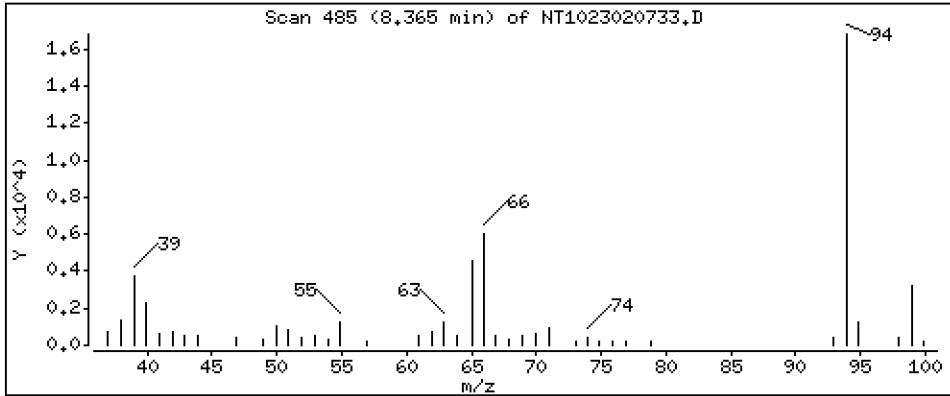
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,5218 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

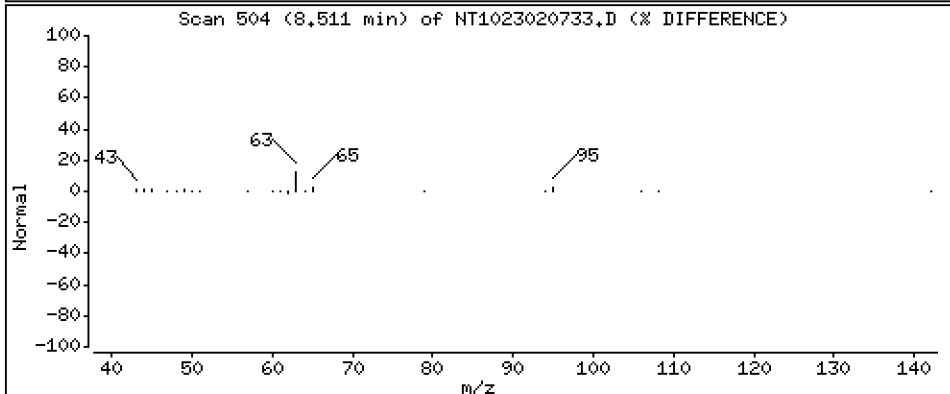
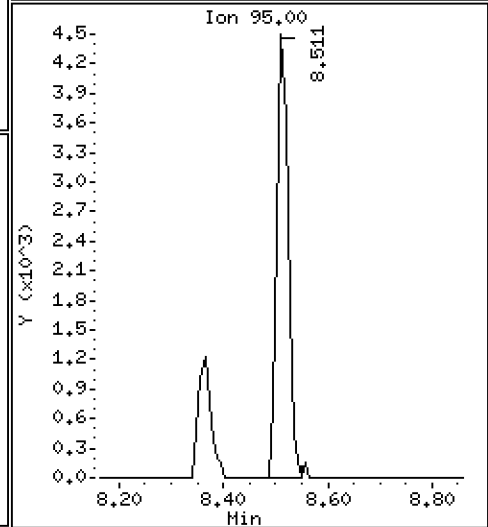
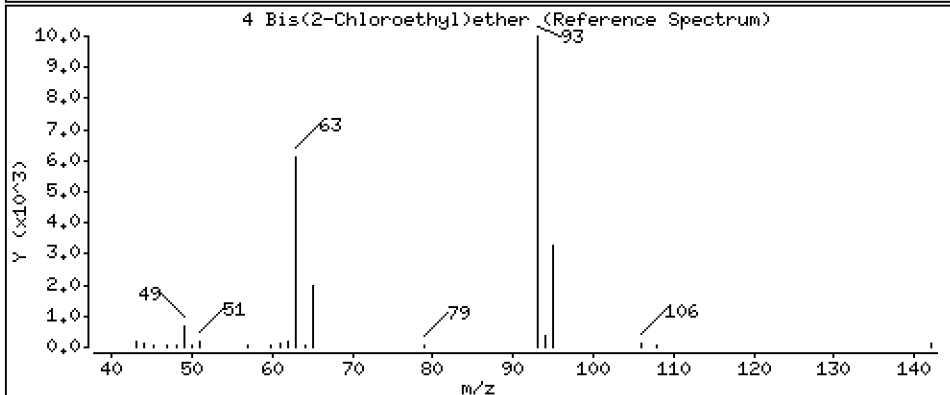
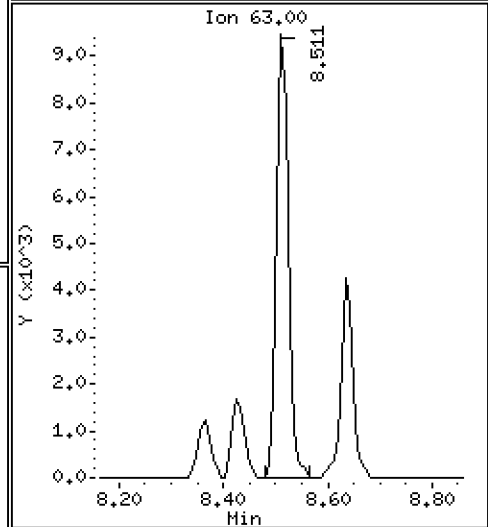
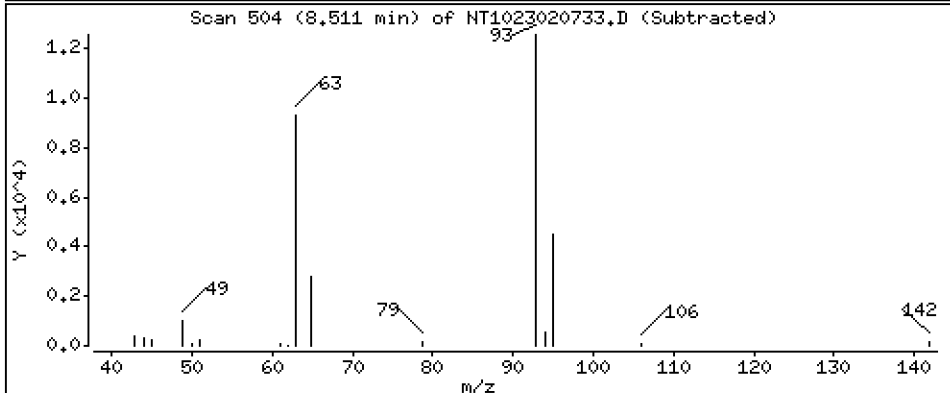
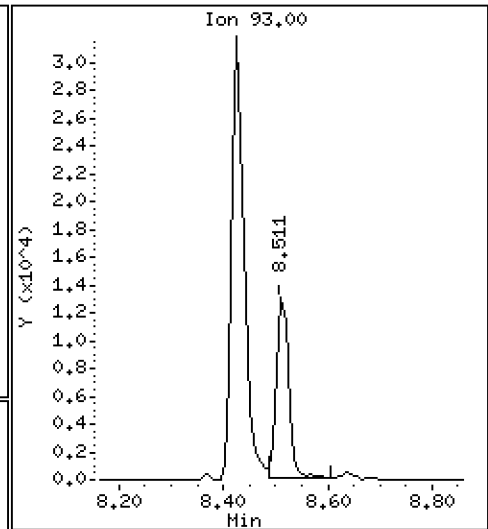
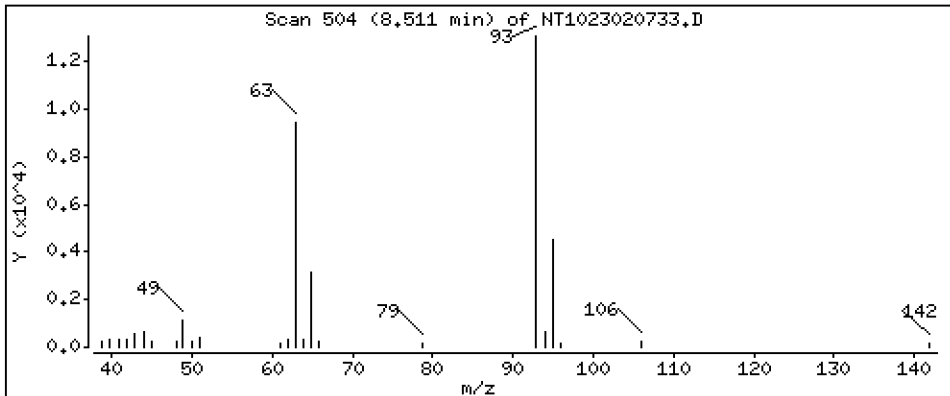
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,5302 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

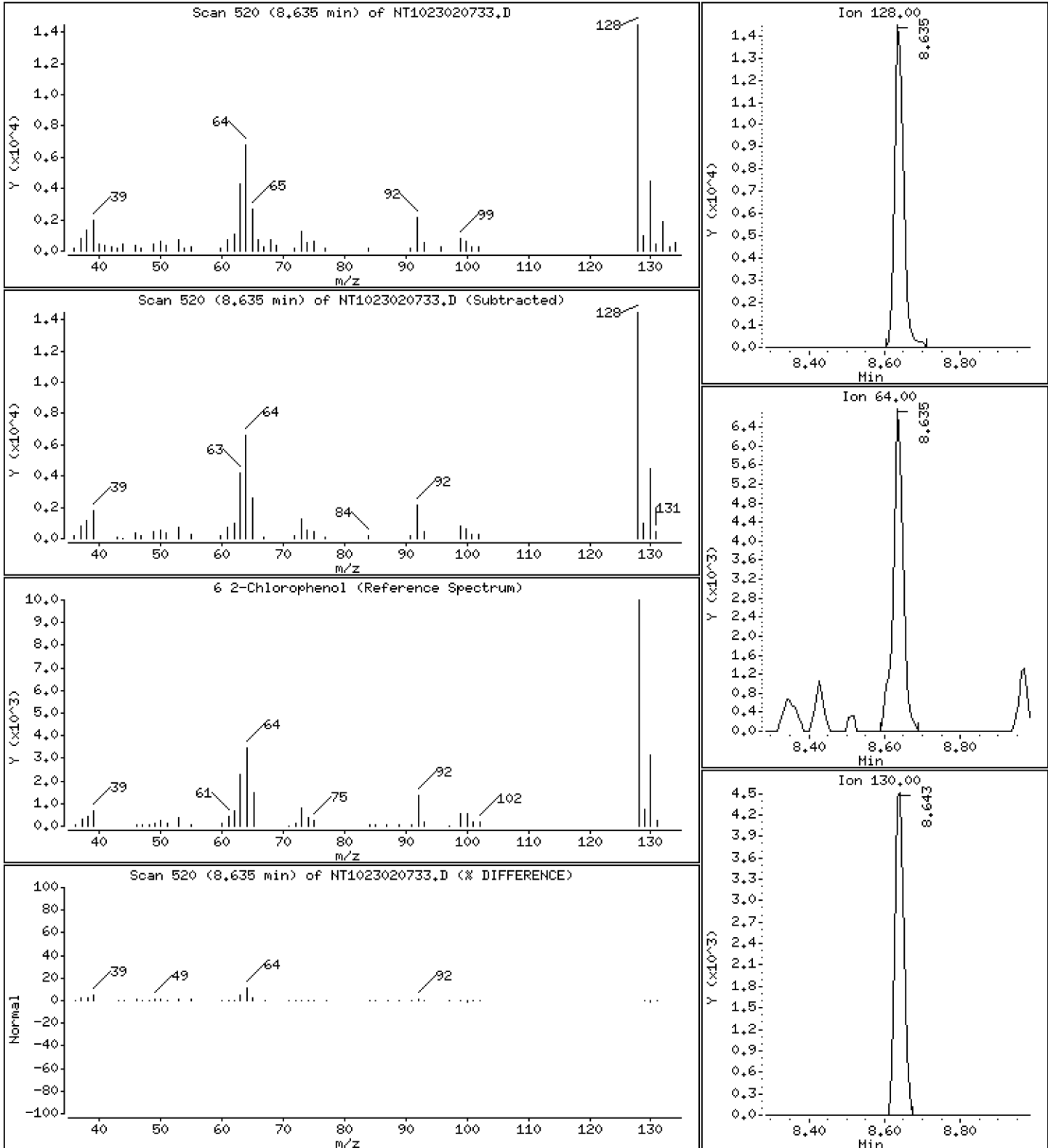
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

6 2-Chlorophenol

Concentration: 0.5348 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

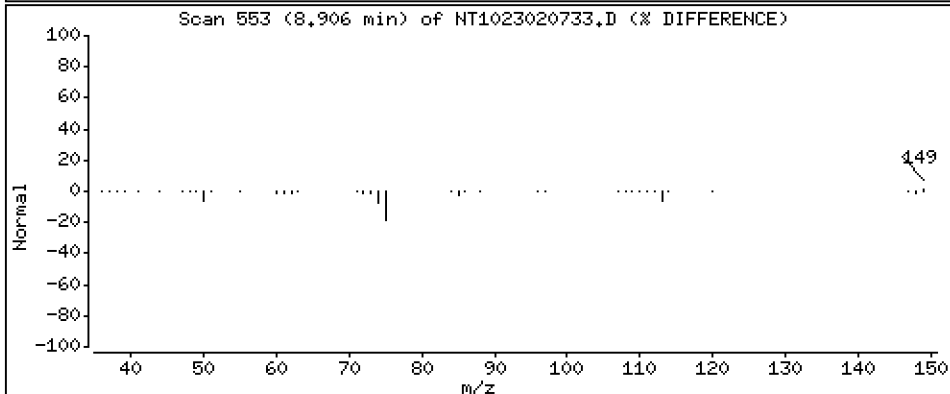
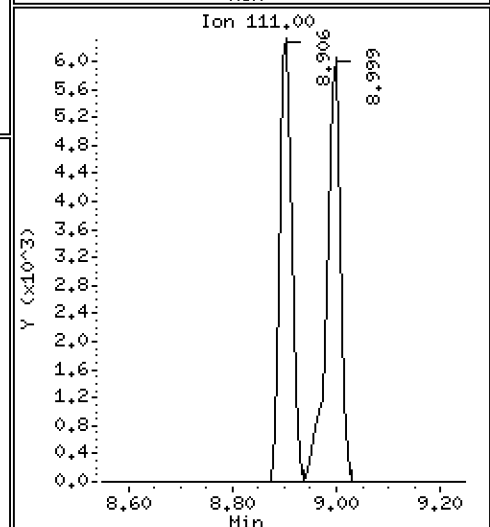
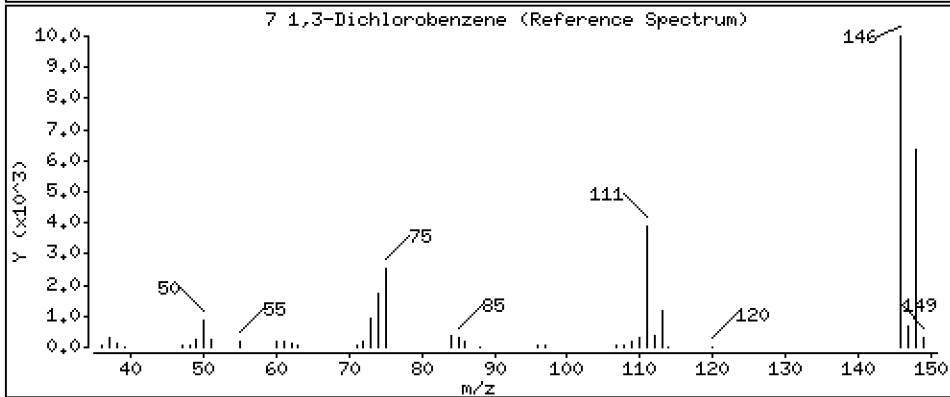
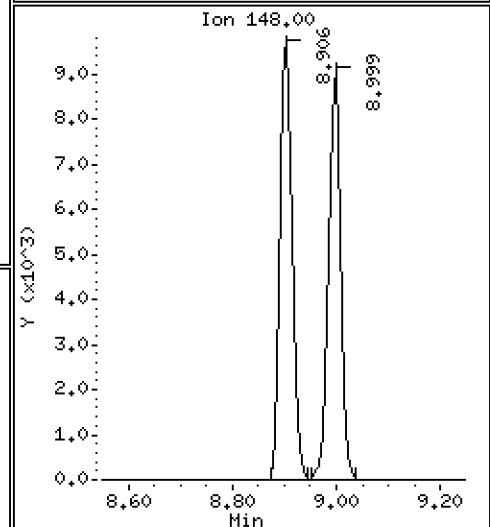
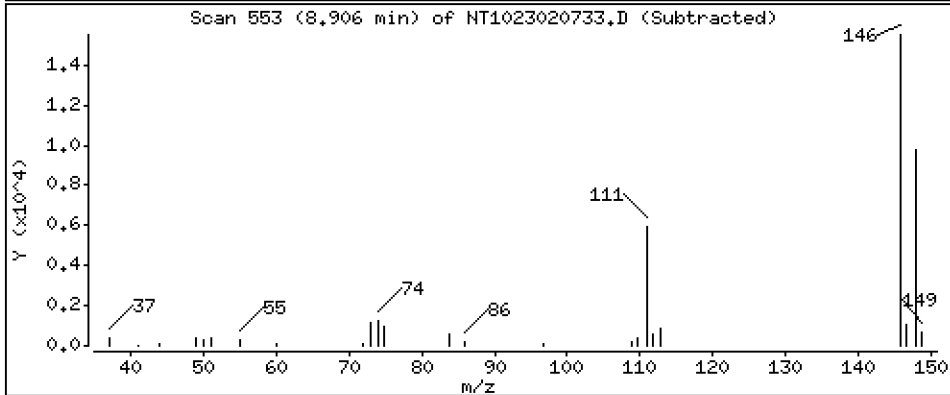
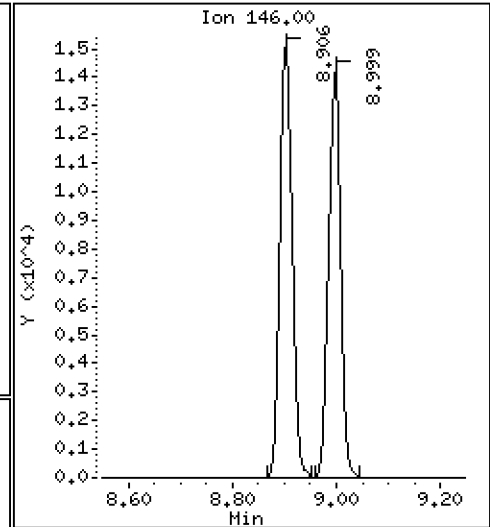
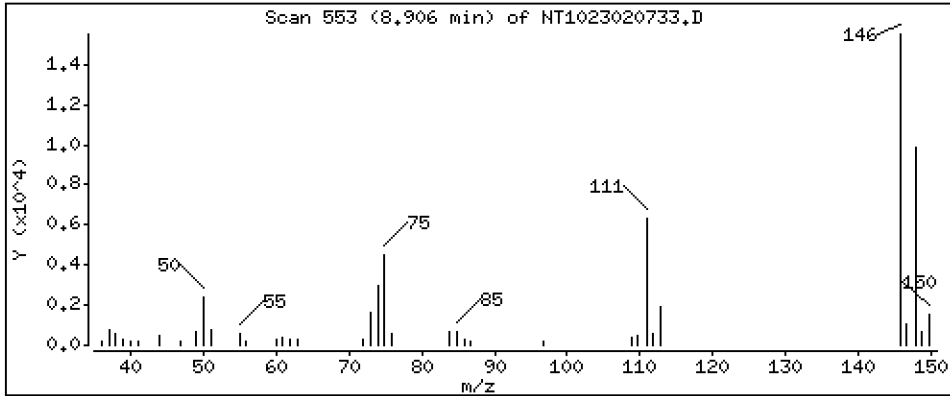
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,5273 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

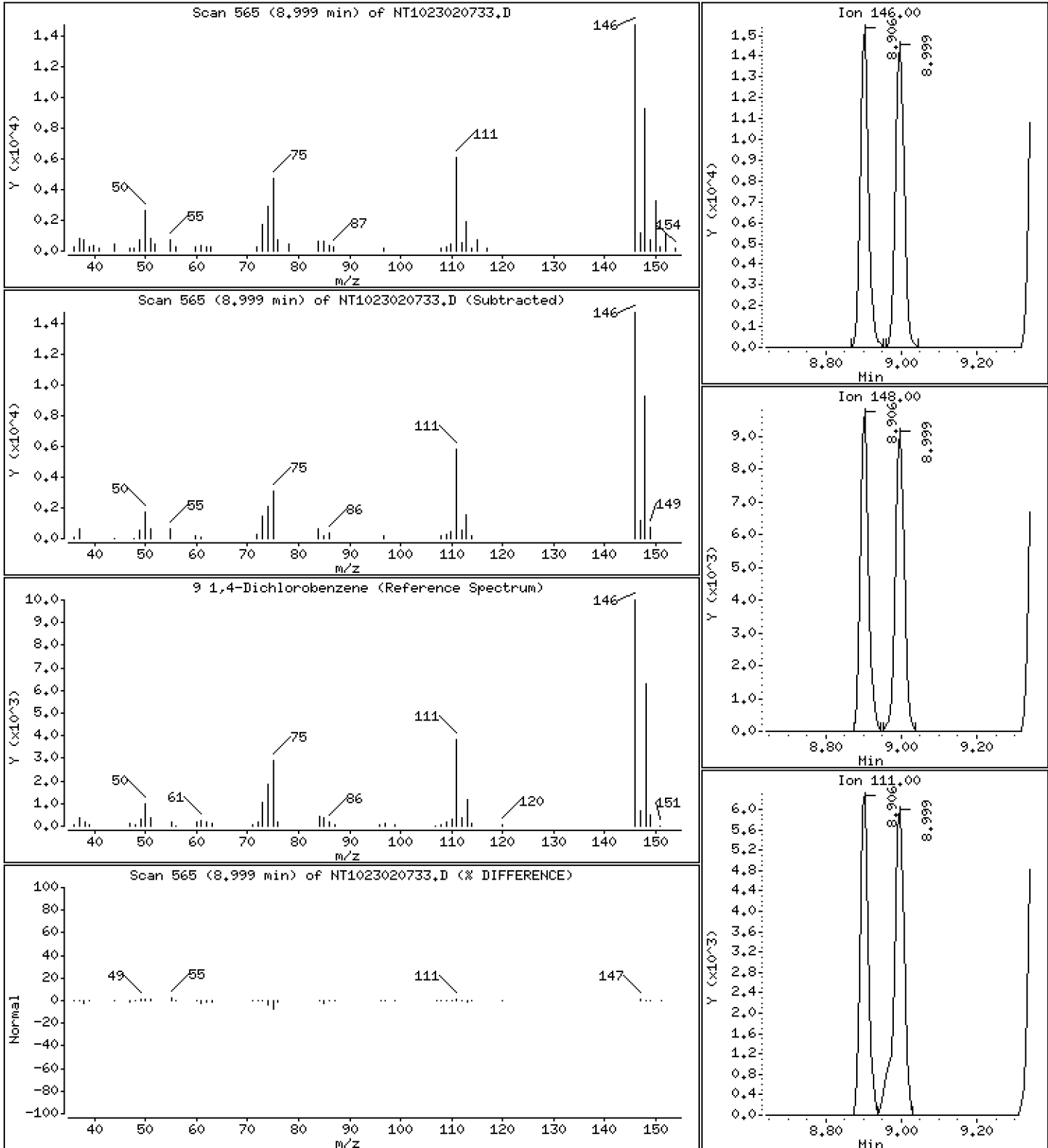
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,5024 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

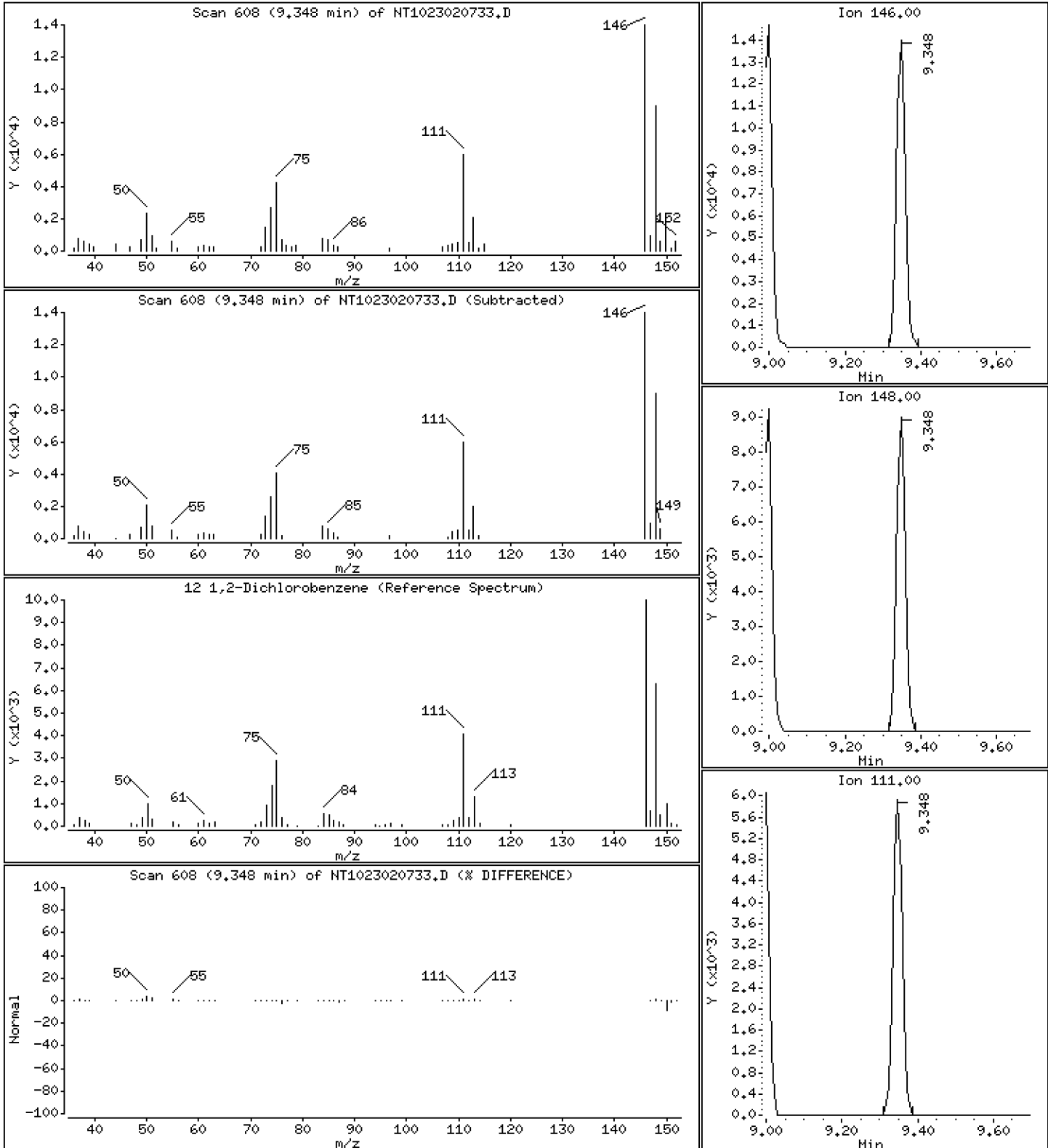
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.5089 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

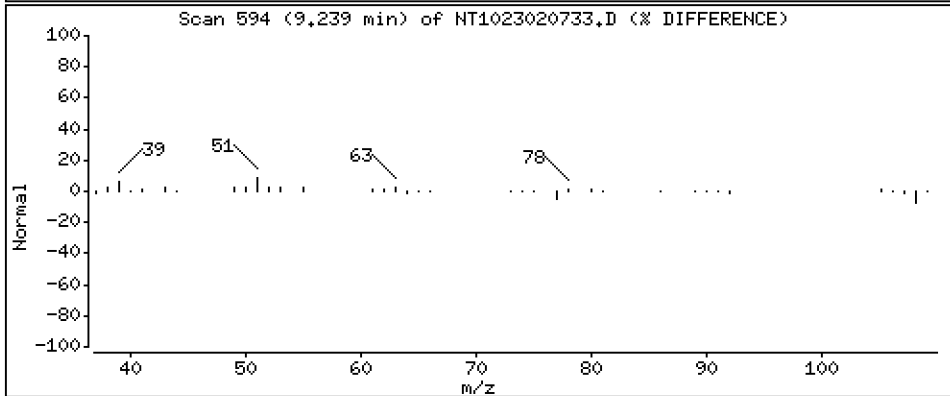
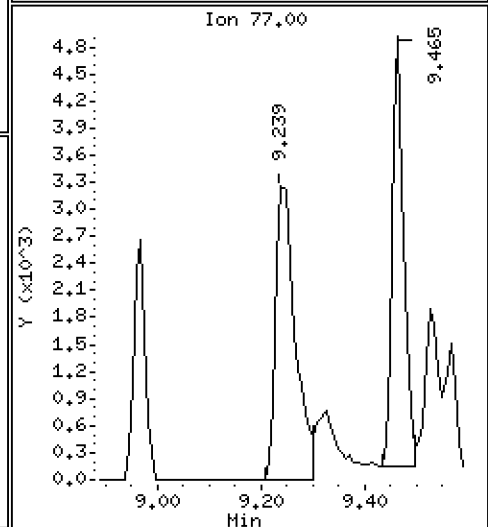
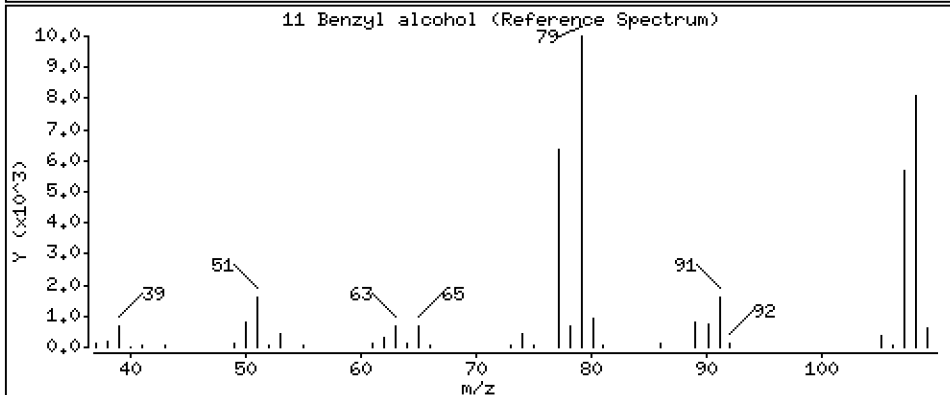
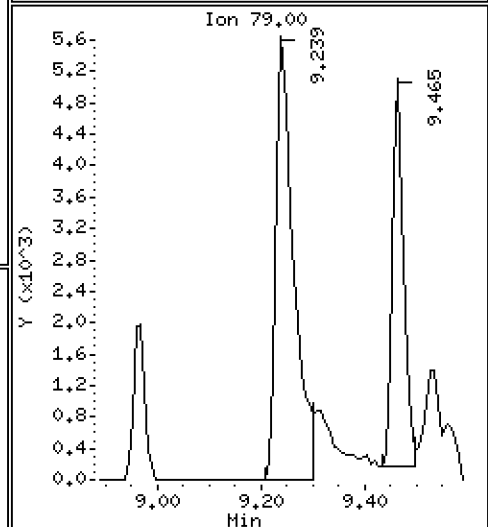
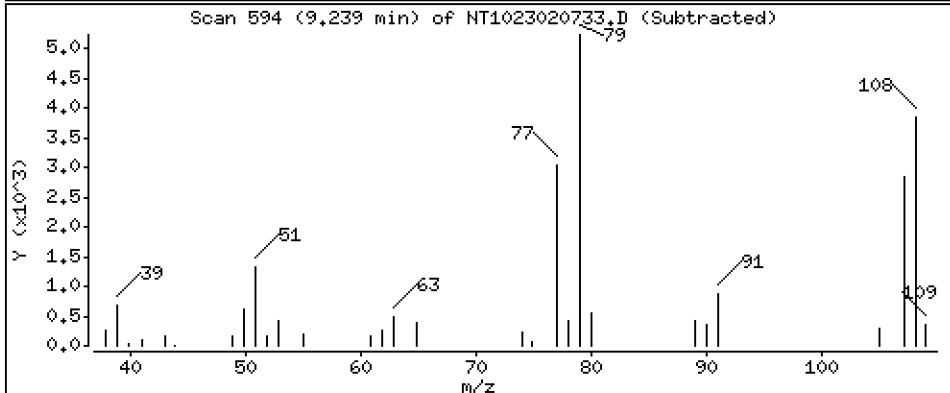
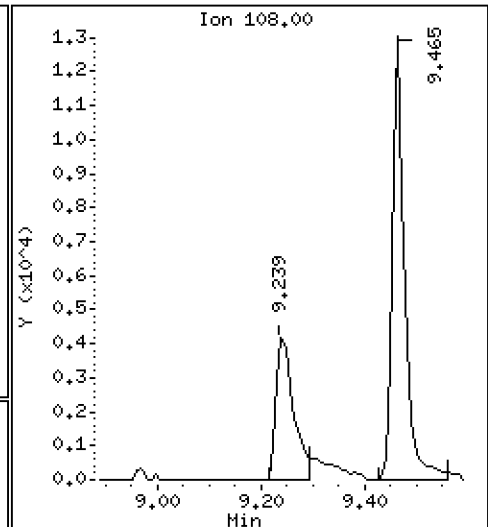
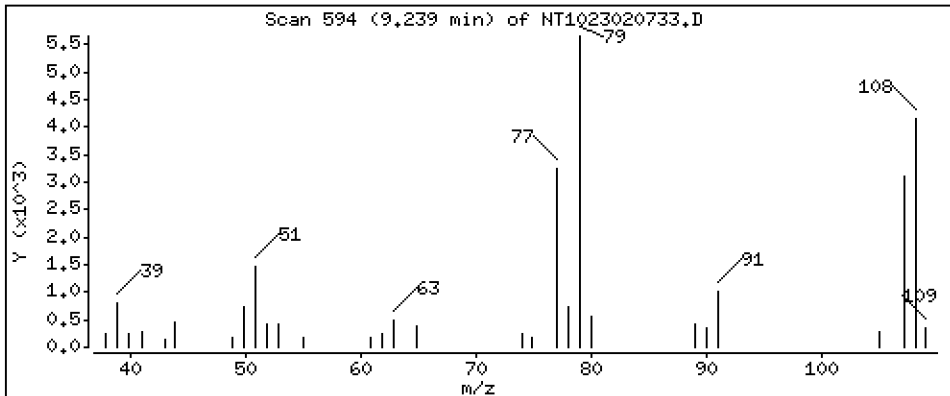
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.4138 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

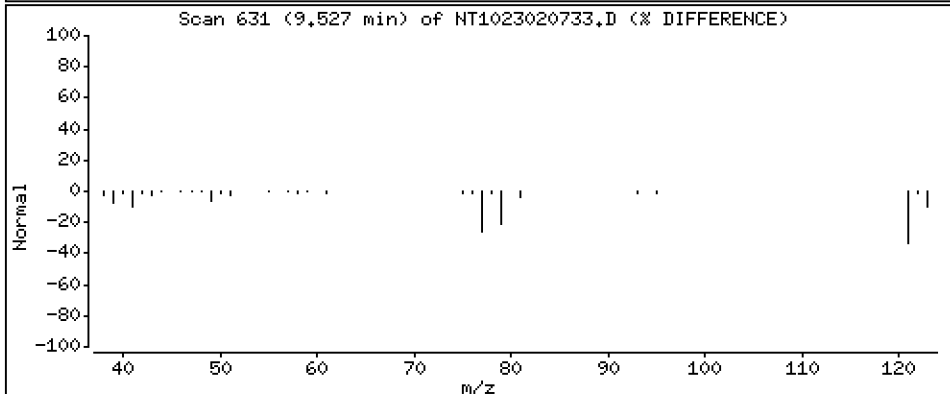
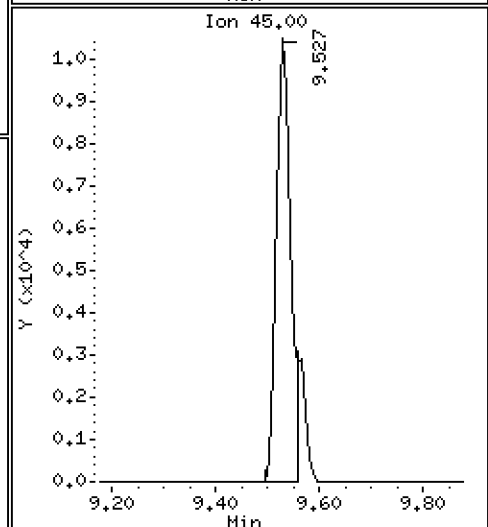
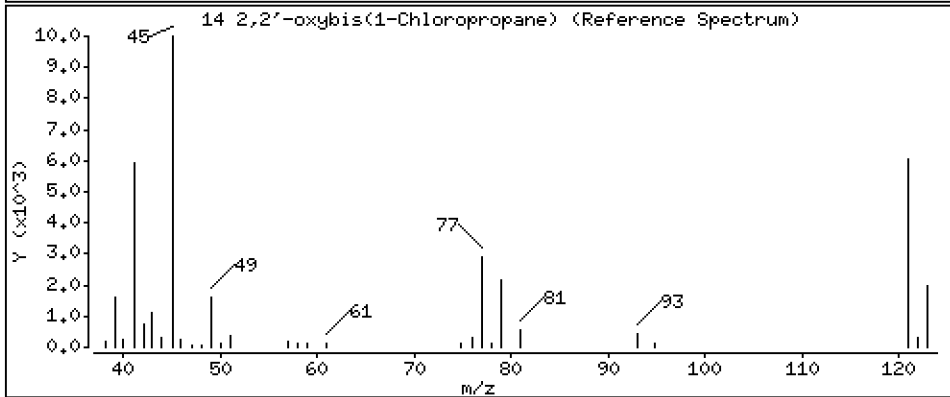
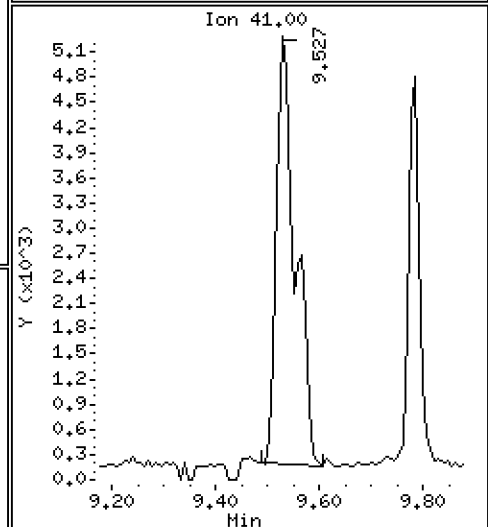
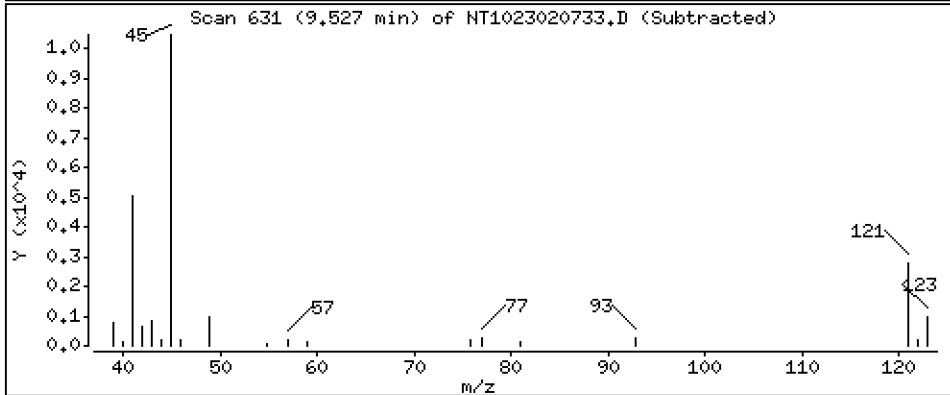
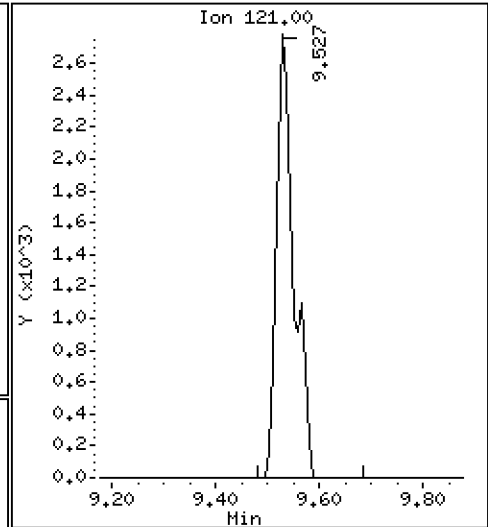
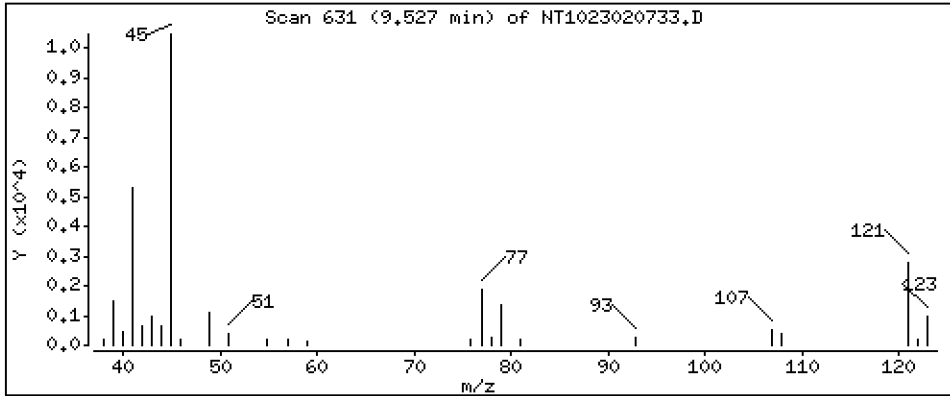
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 0,5562 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

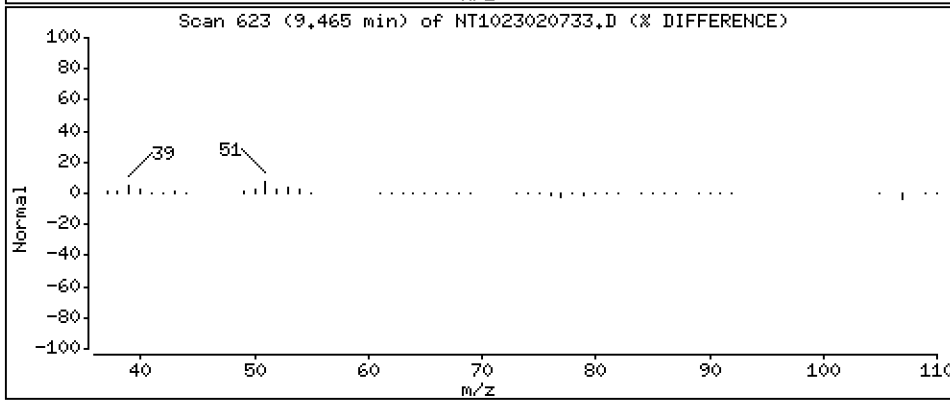
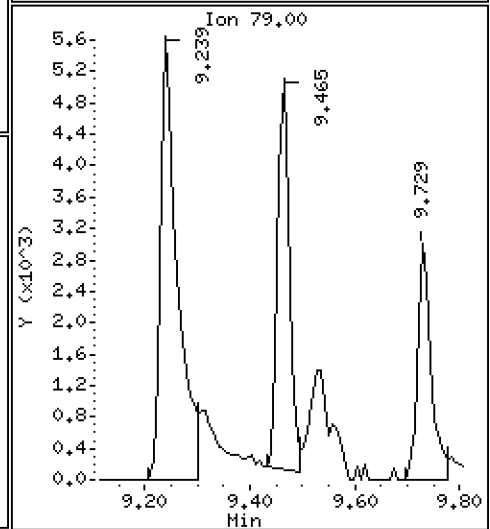
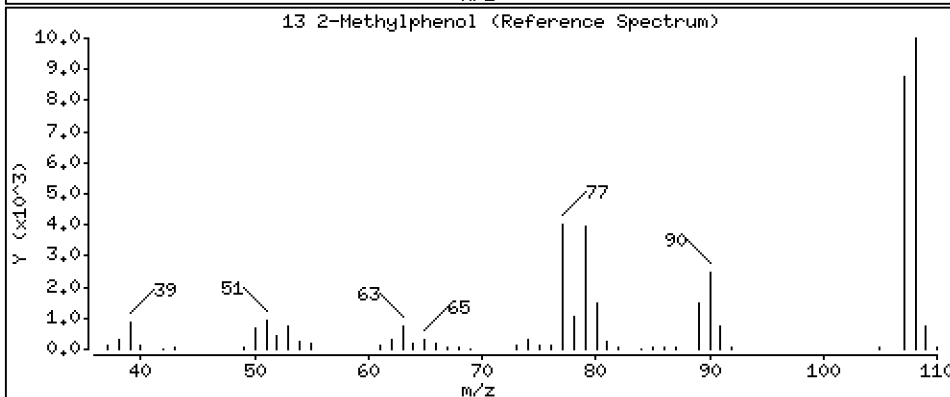
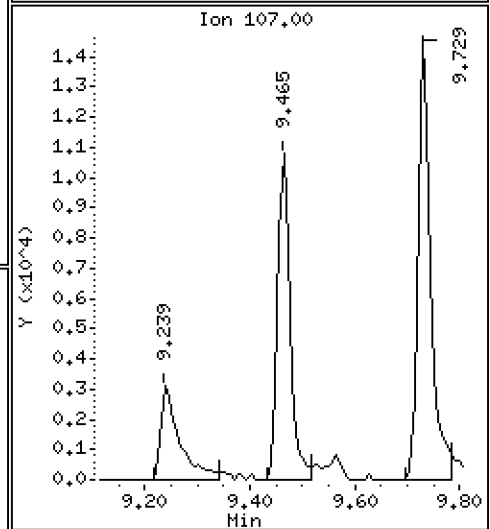
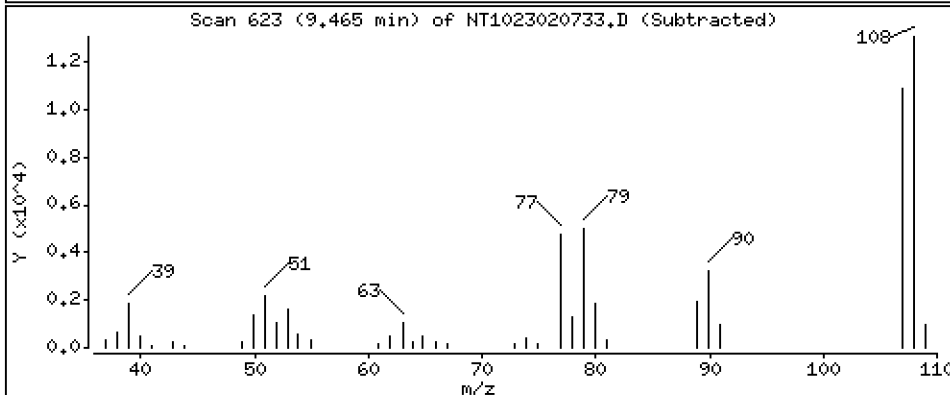
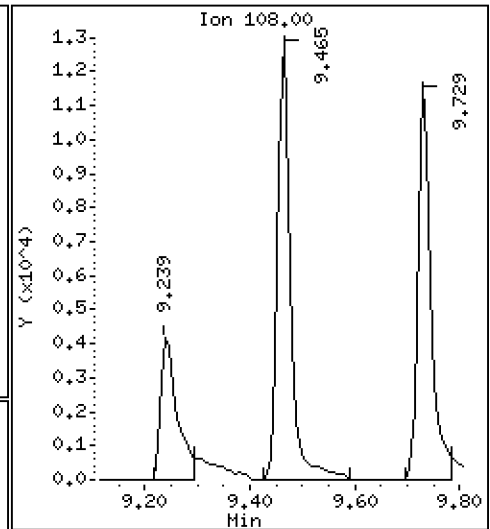
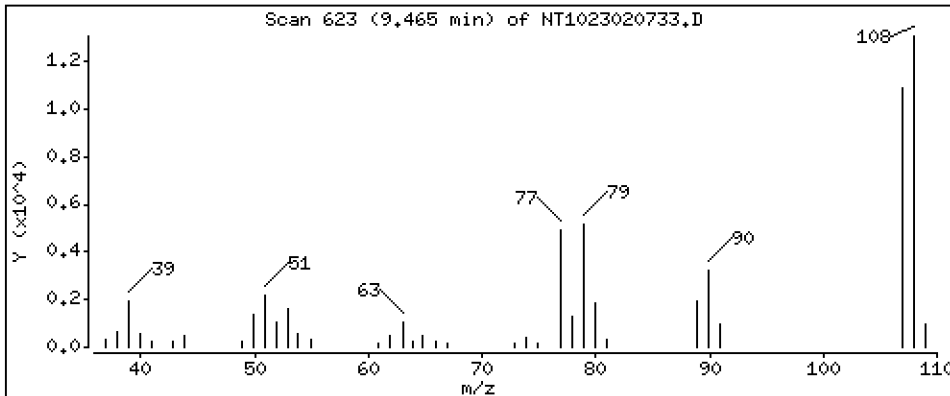
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.5449 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

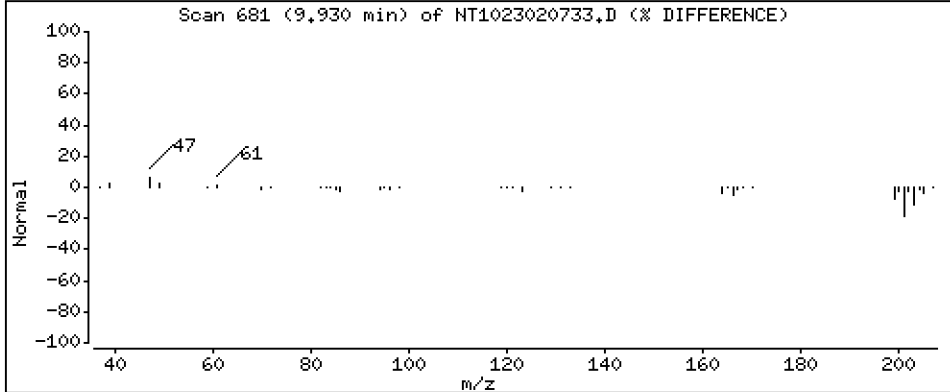
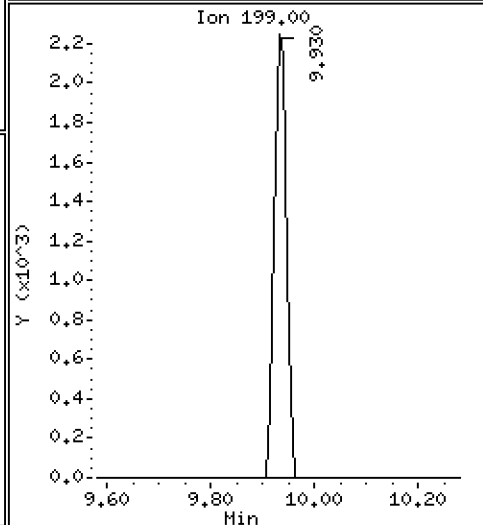
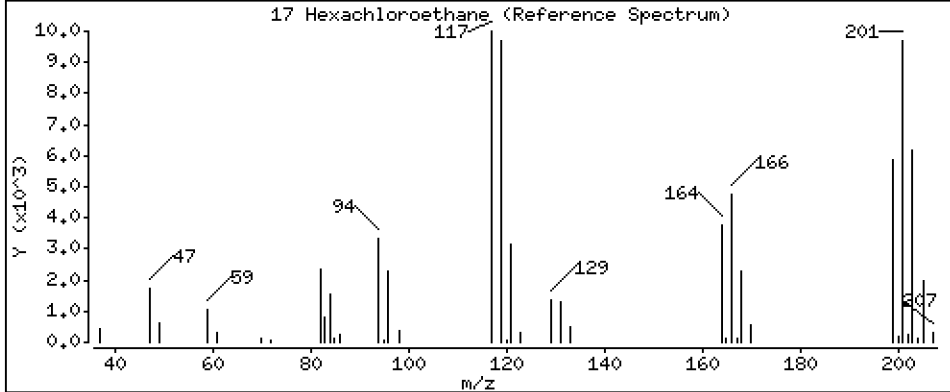
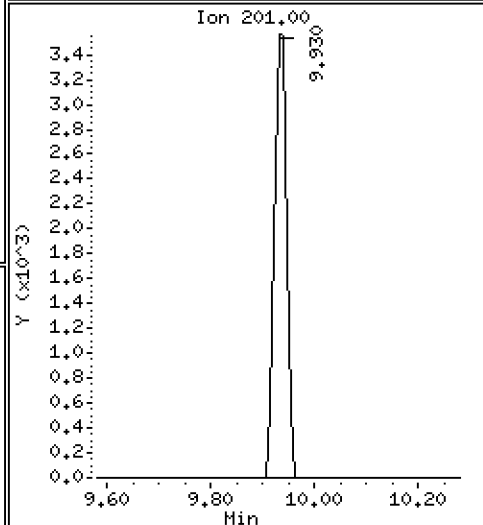
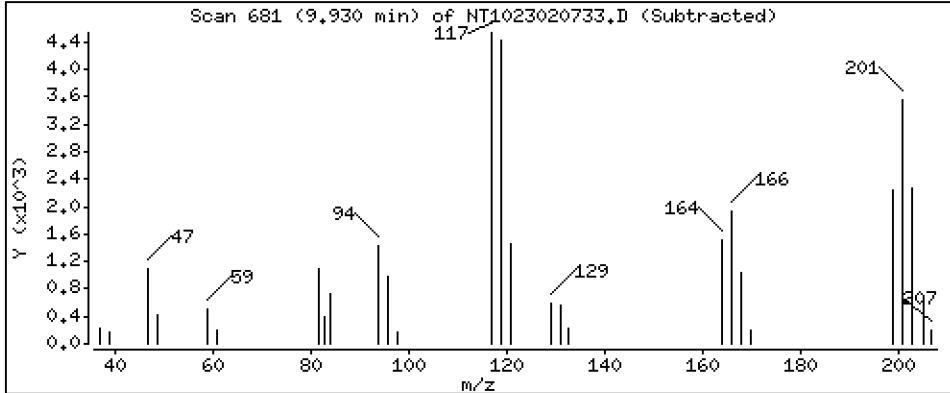
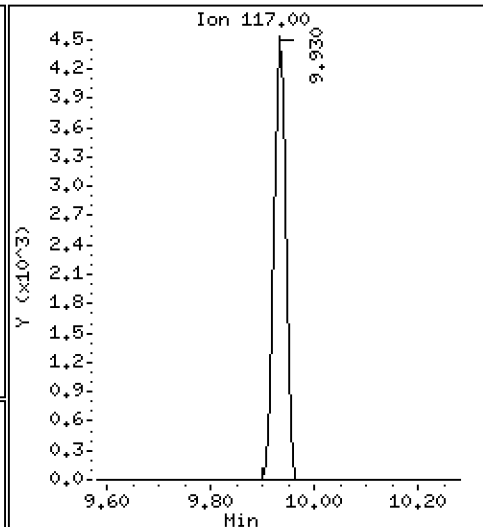
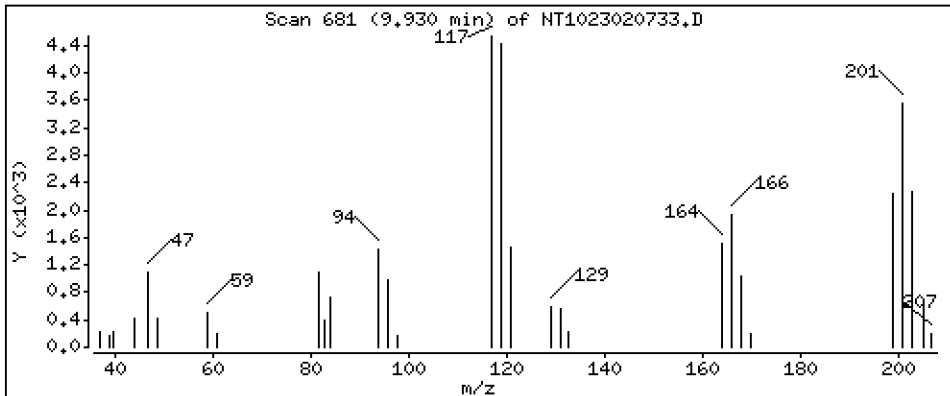
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 0,4022 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

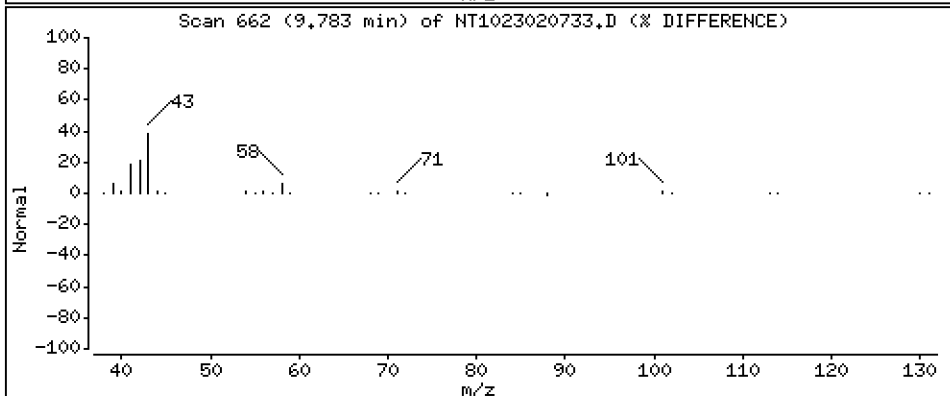
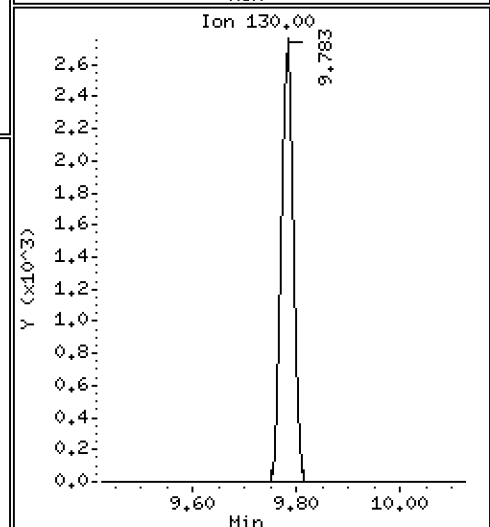
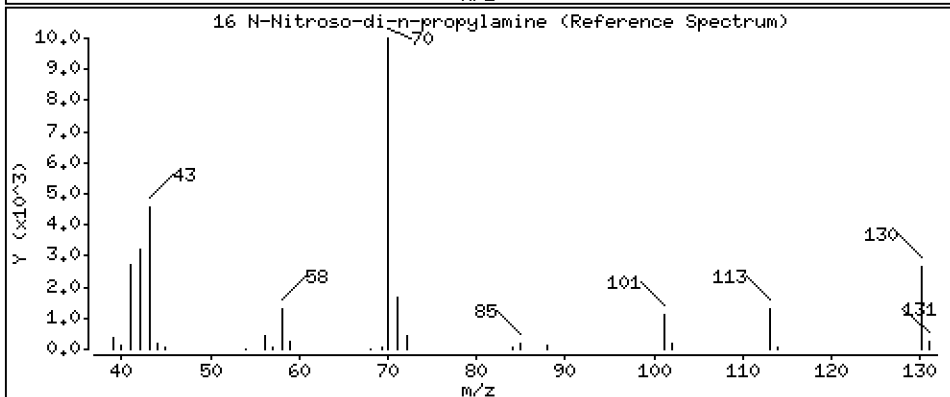
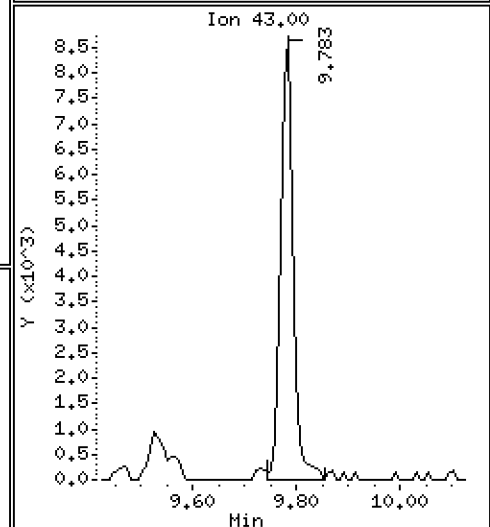
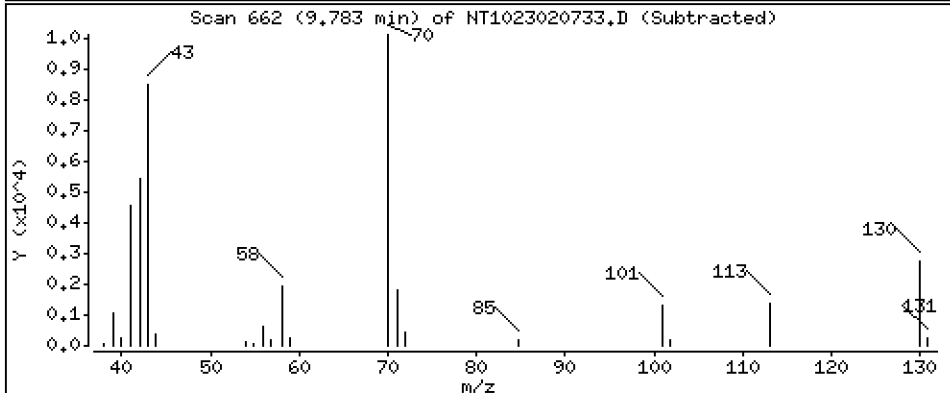
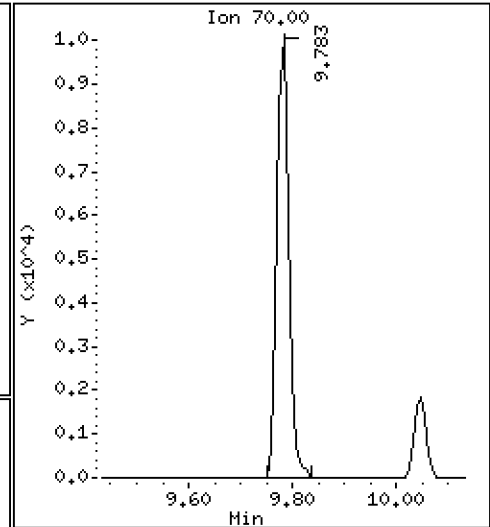
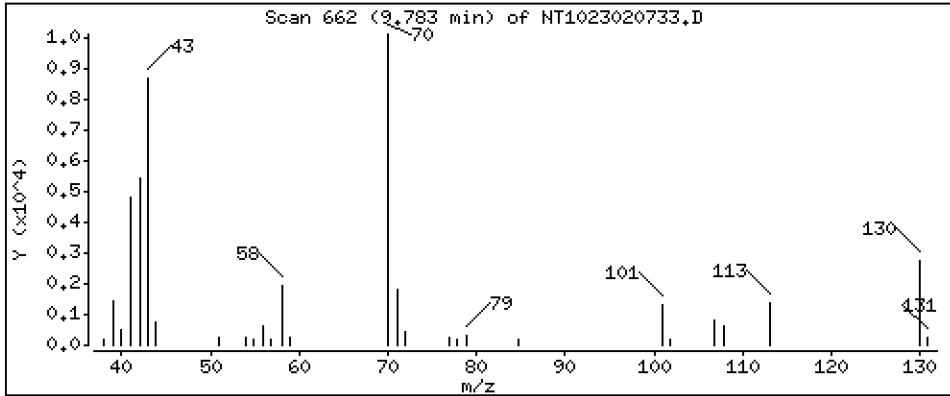
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 0,5220 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

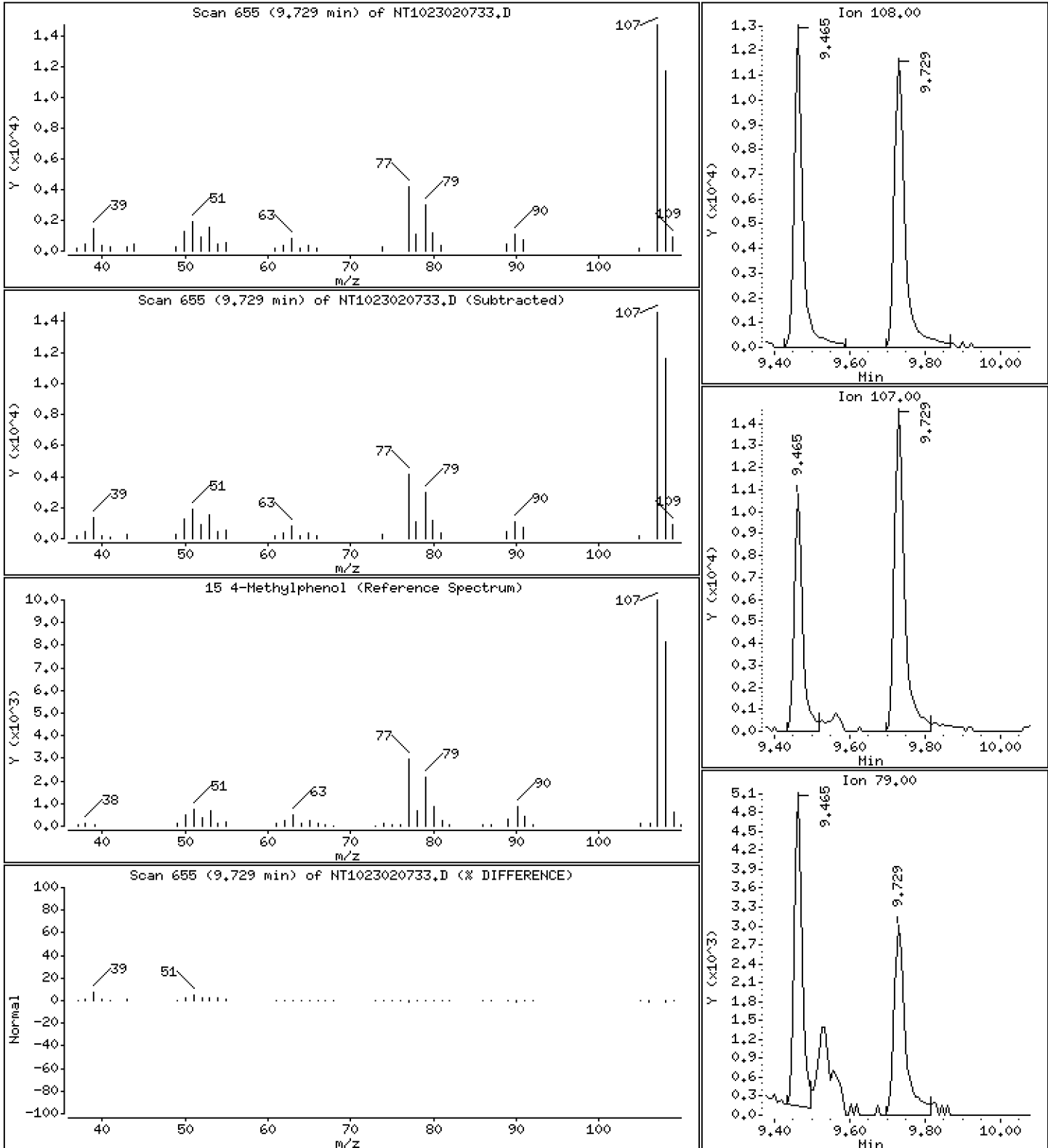
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.5402 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

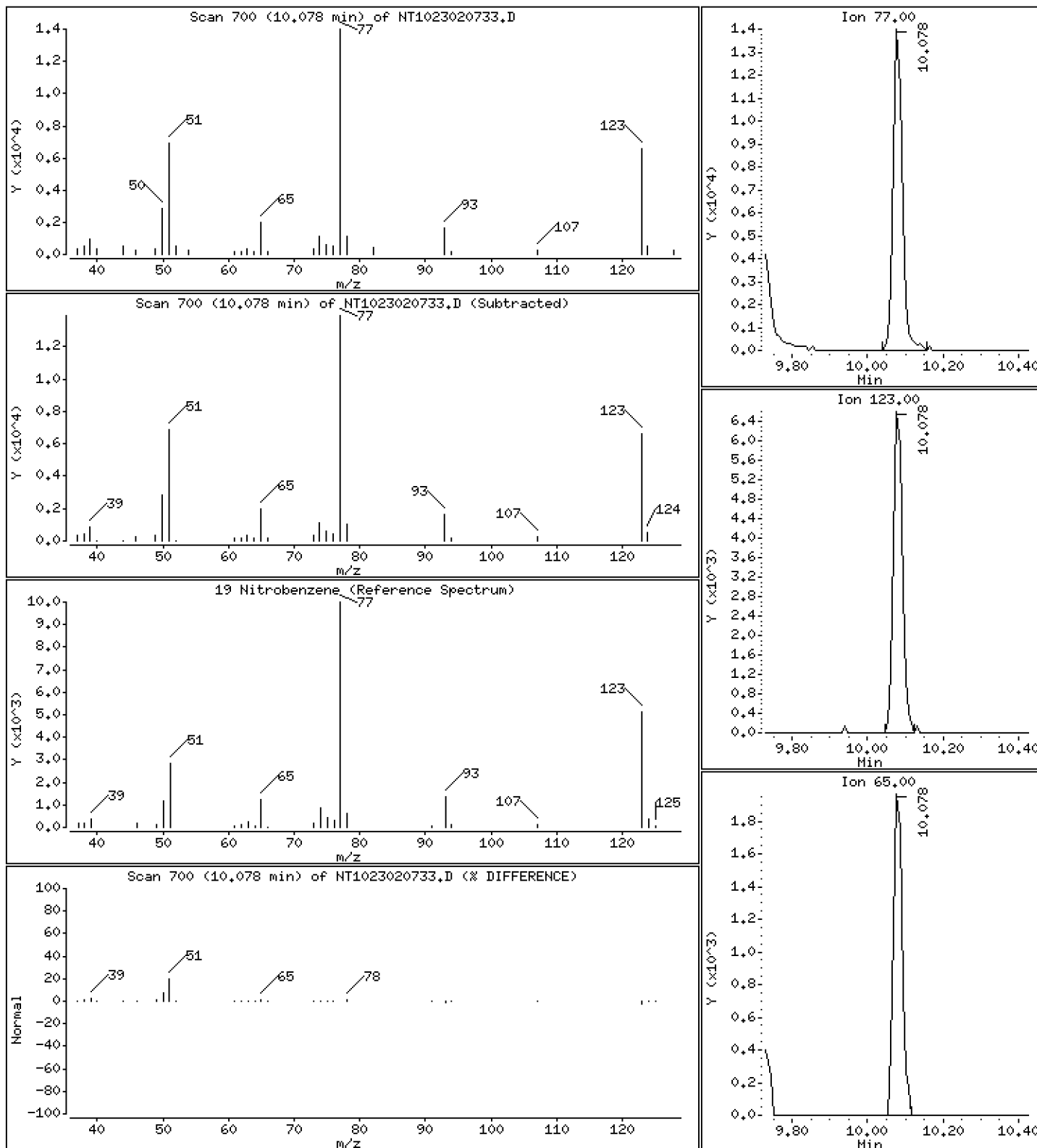
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 0,5345 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

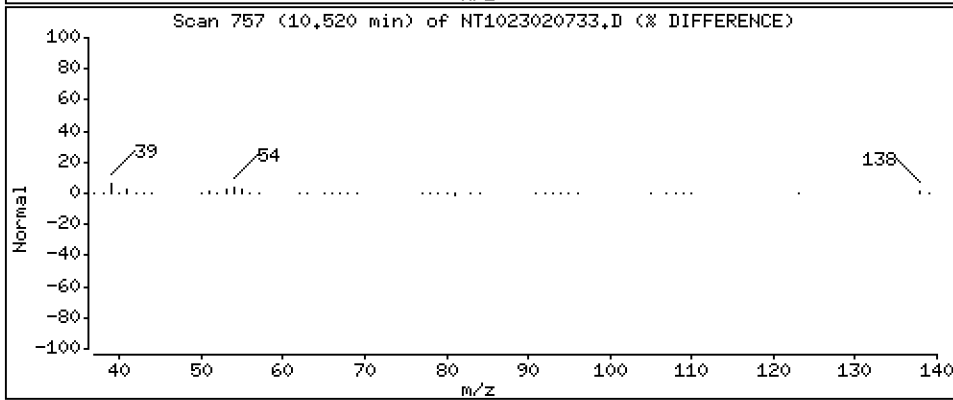
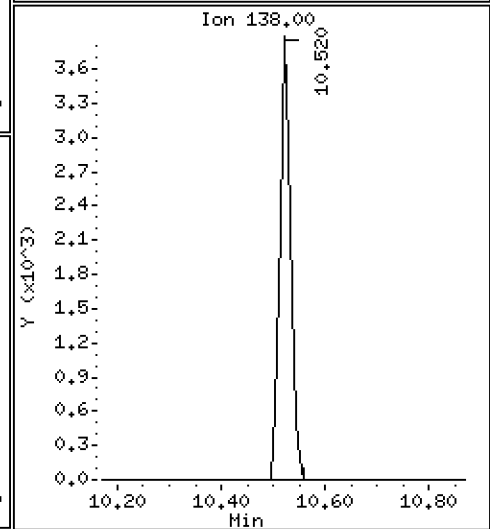
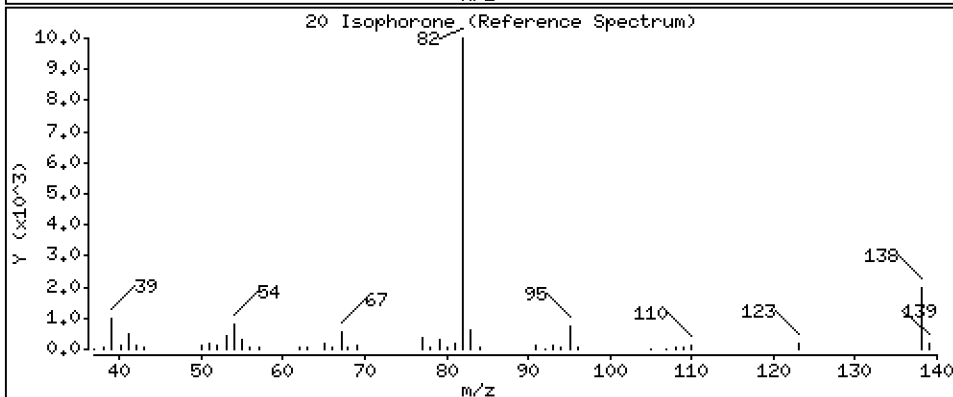
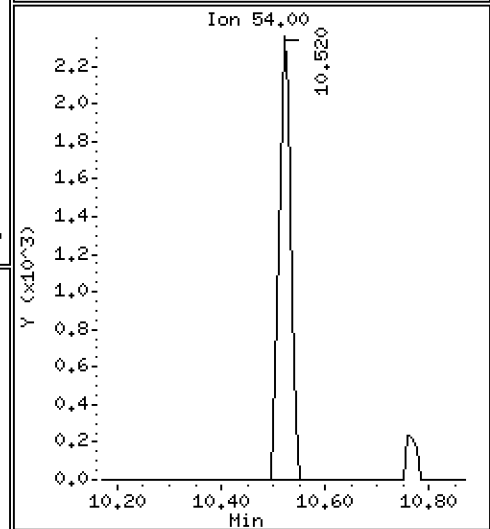
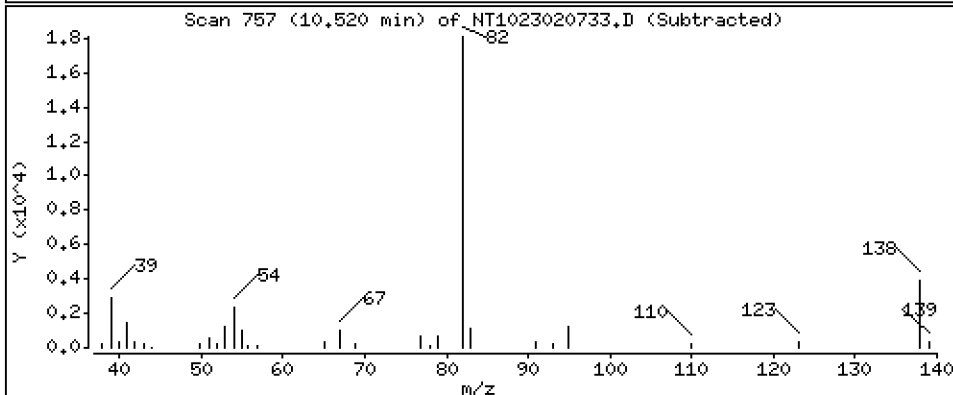
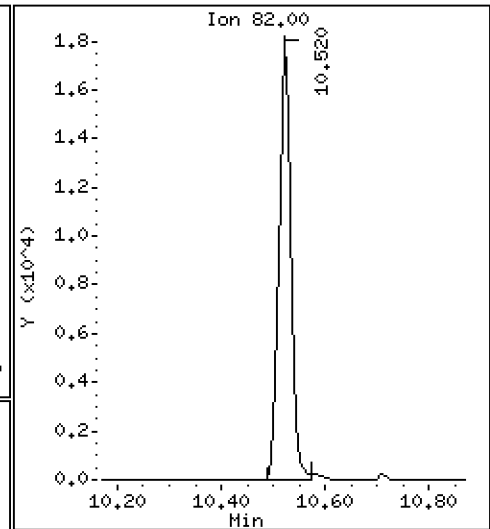
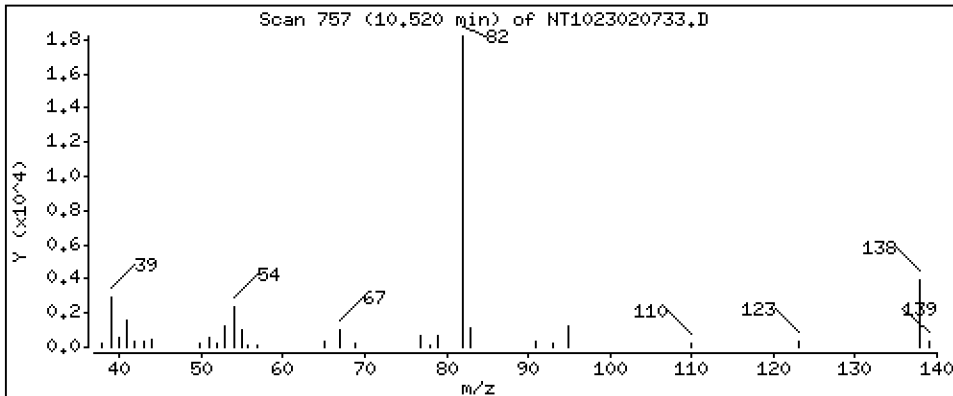
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 0,4893 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

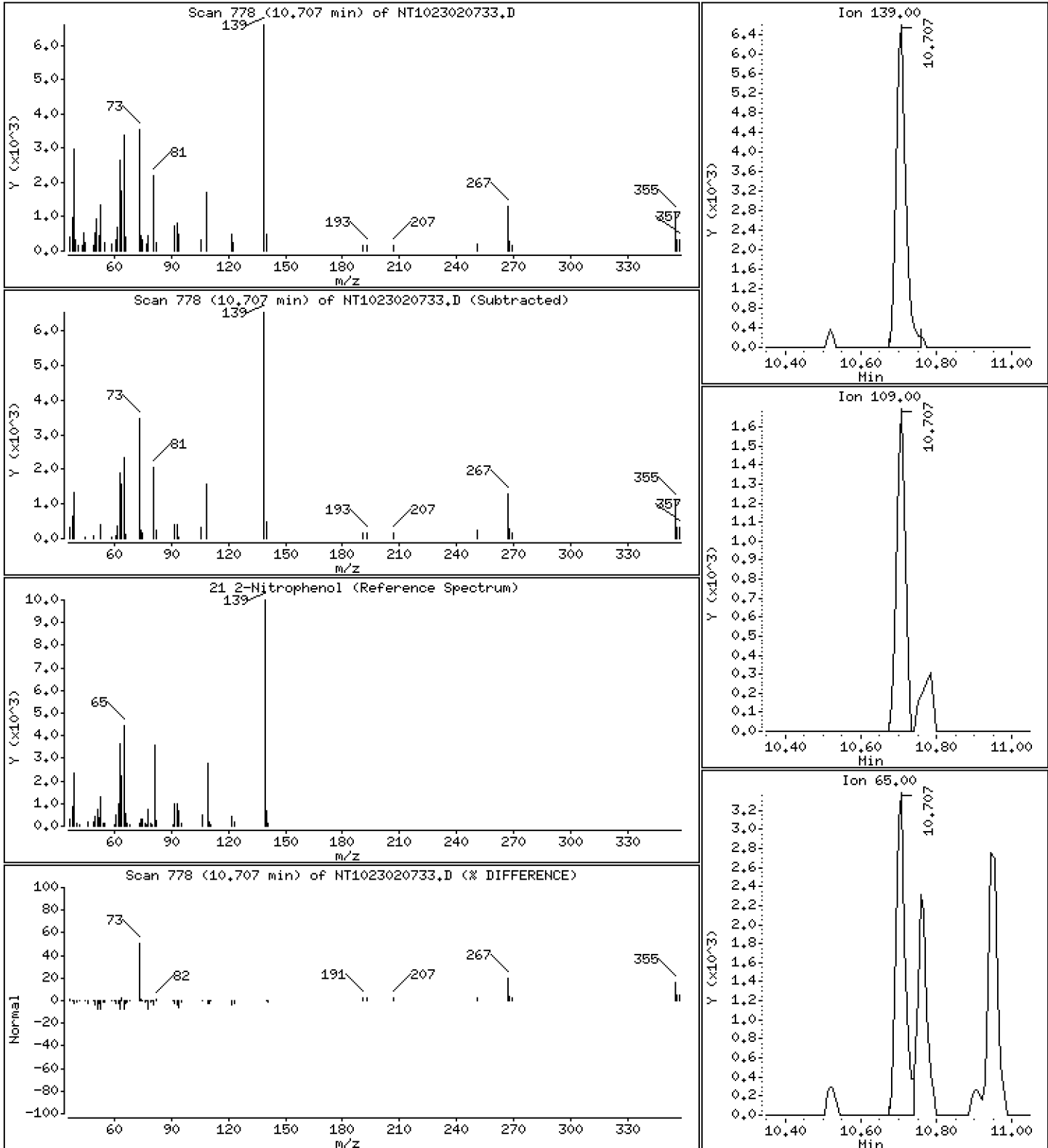
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,5365 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

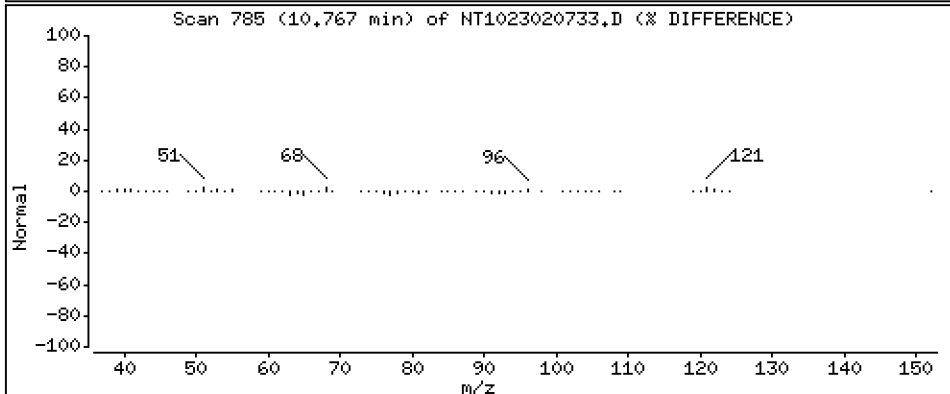
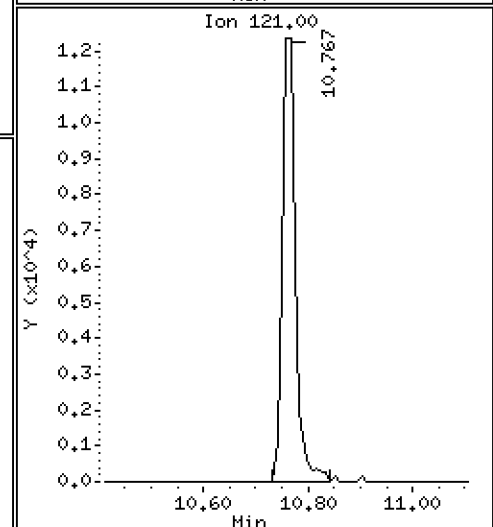
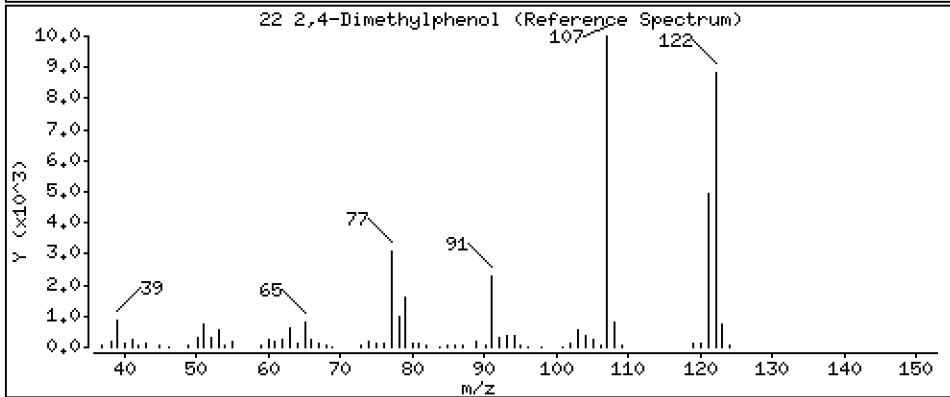
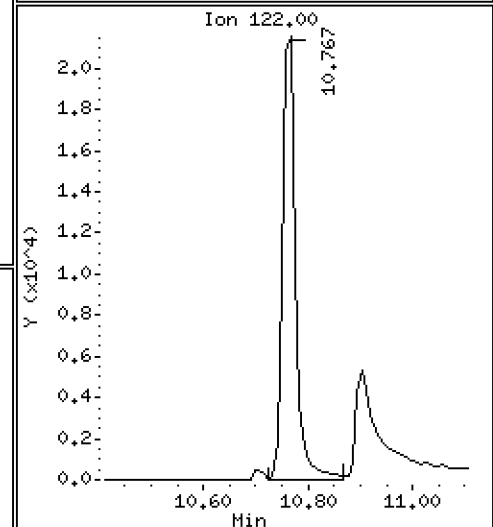
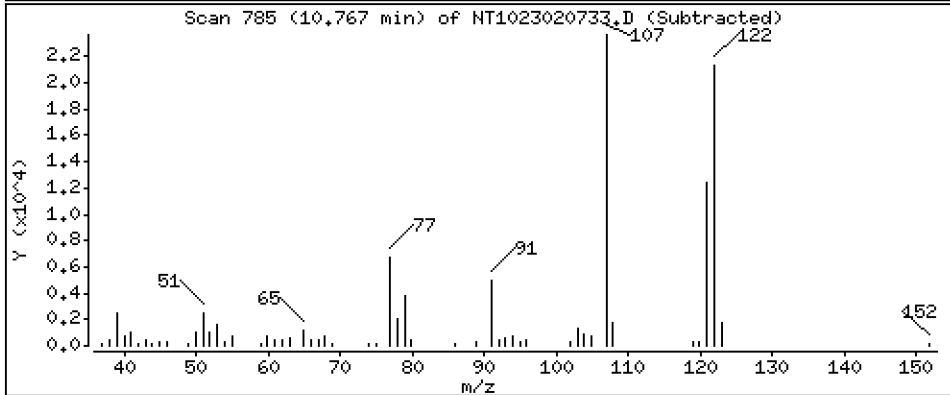
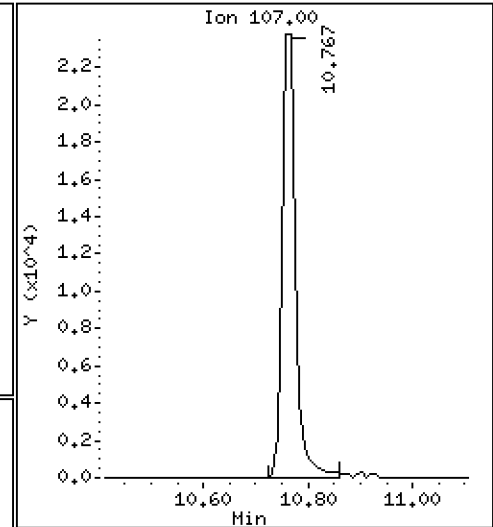
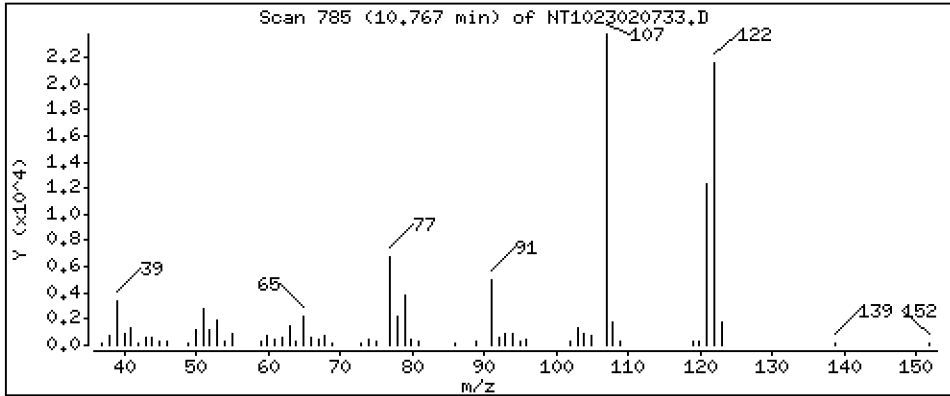
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 1,108 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

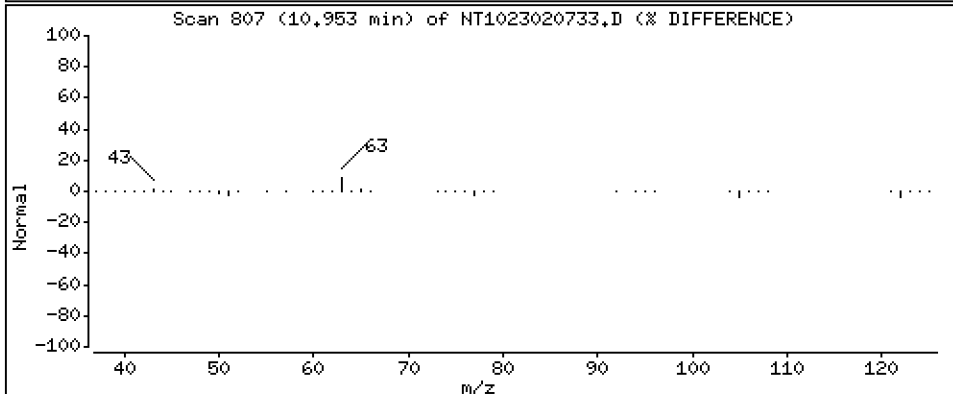
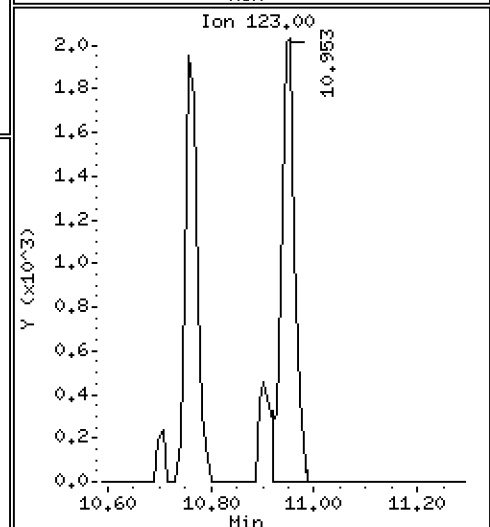
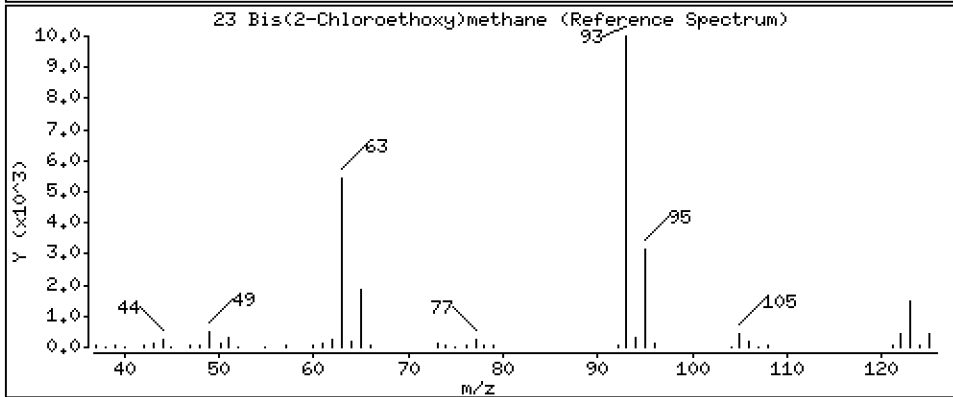
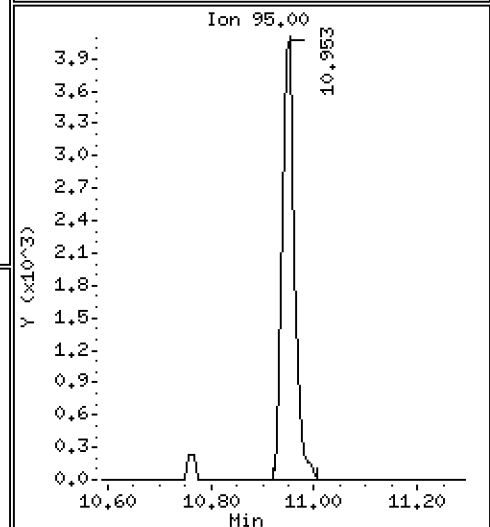
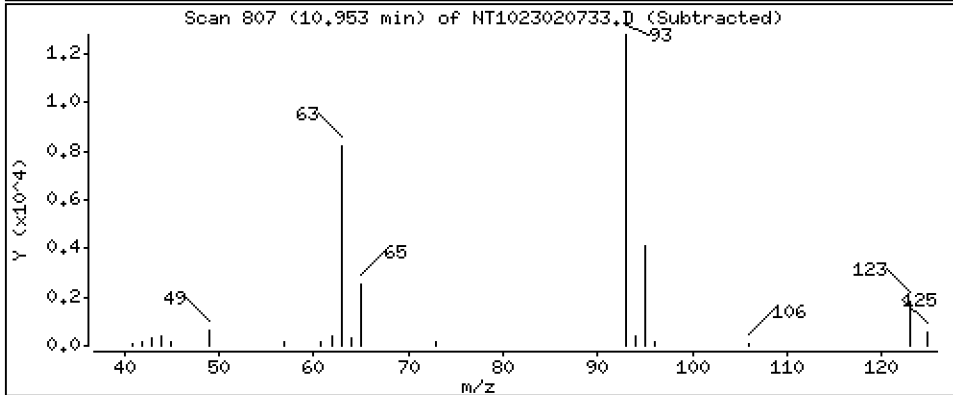
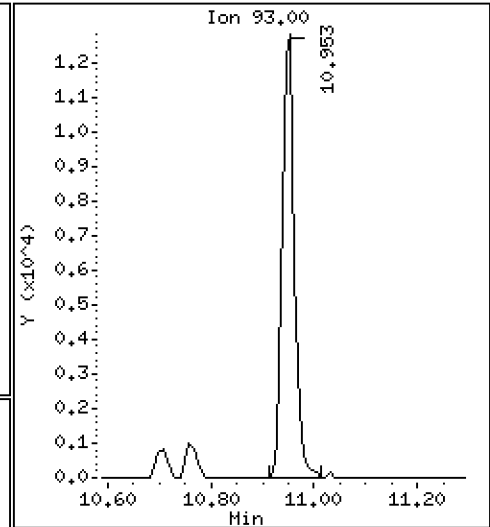
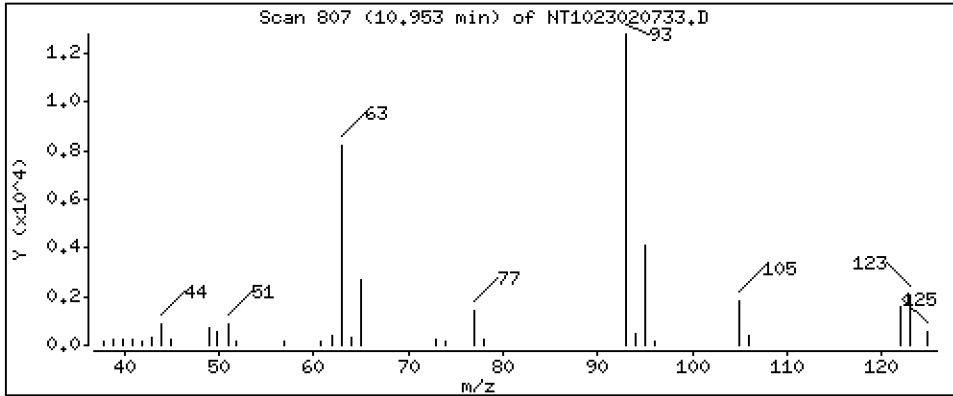
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 0,5528 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

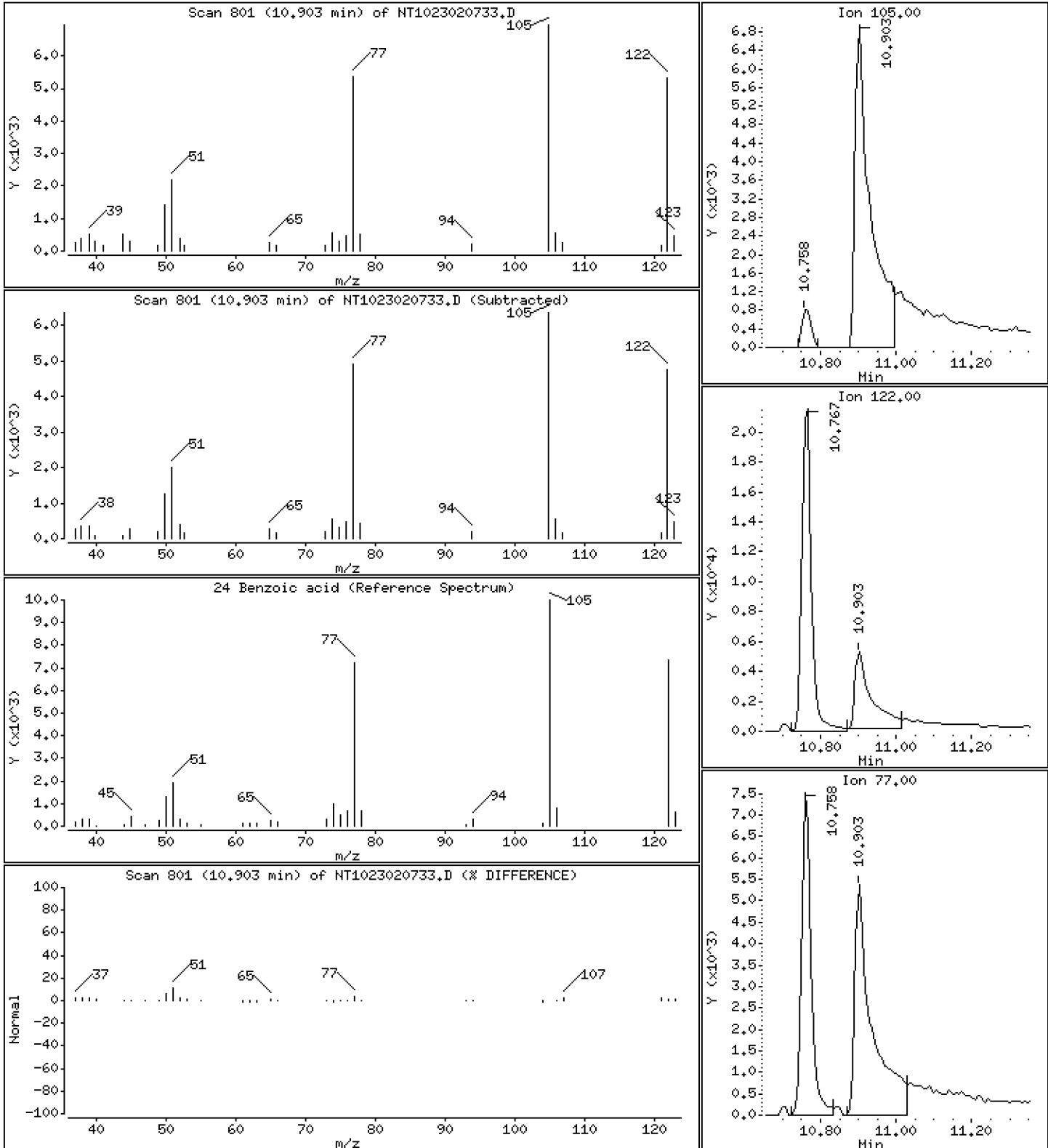
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 0,9261 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

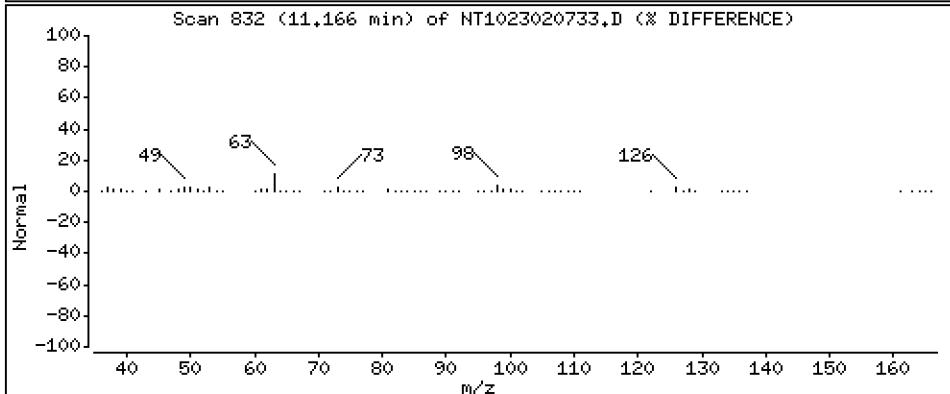
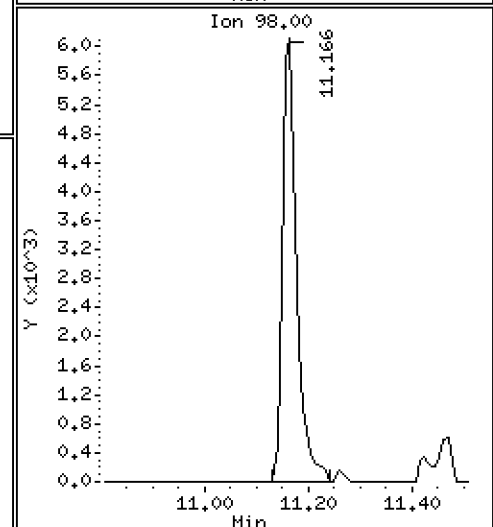
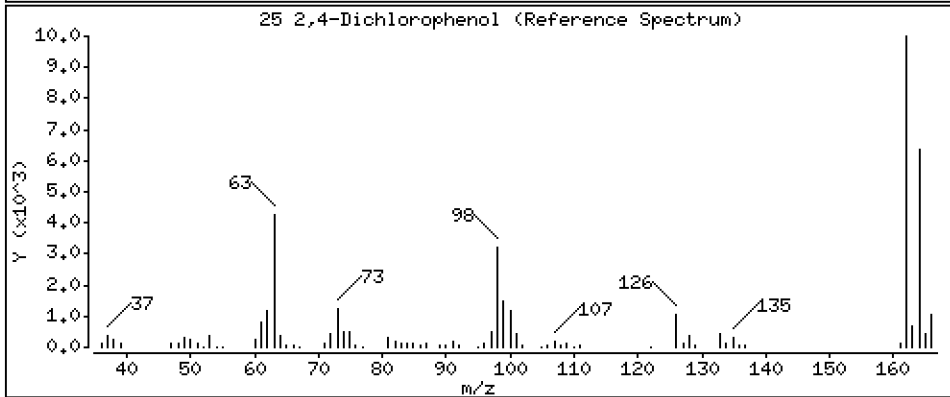
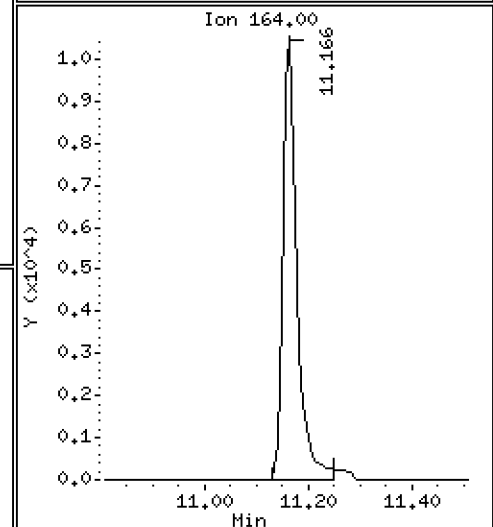
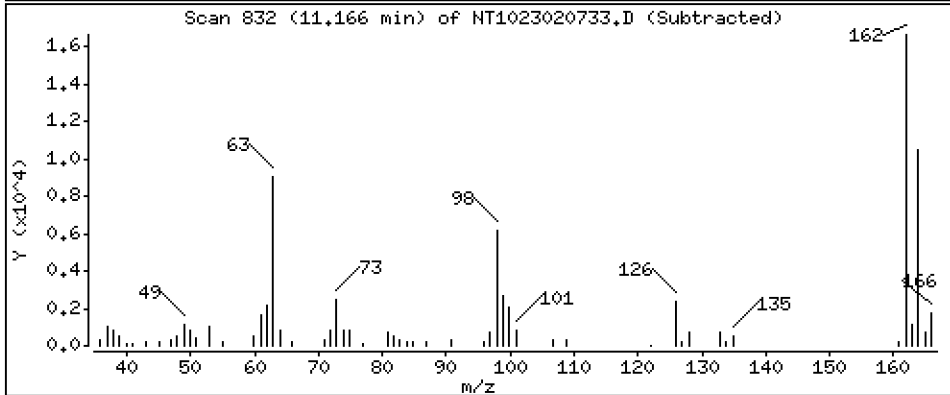
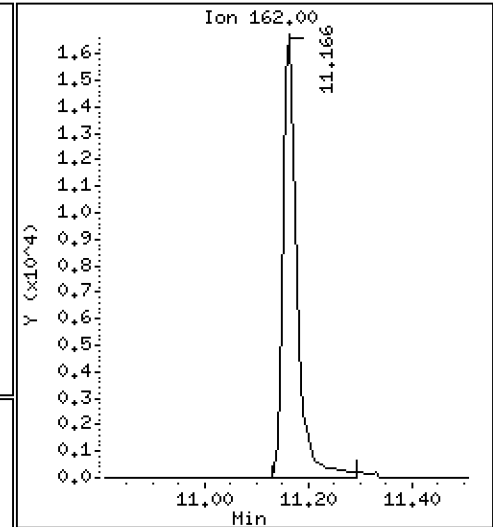
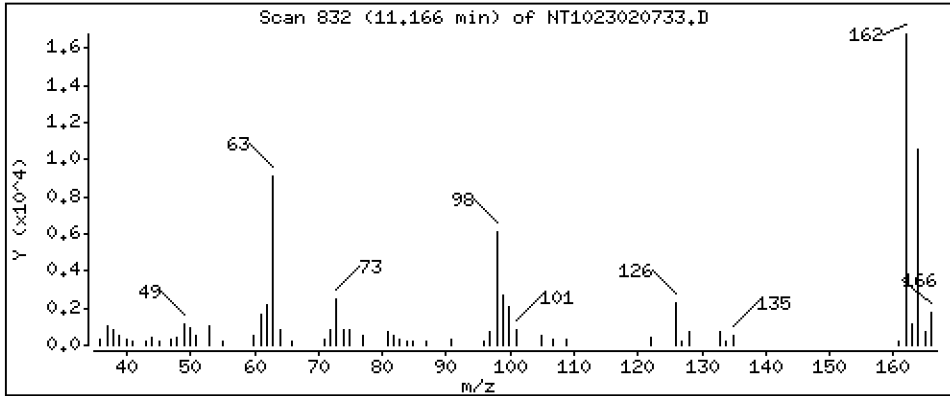
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

25 2,4-Dichlorophenol

Concentration: 1.129 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

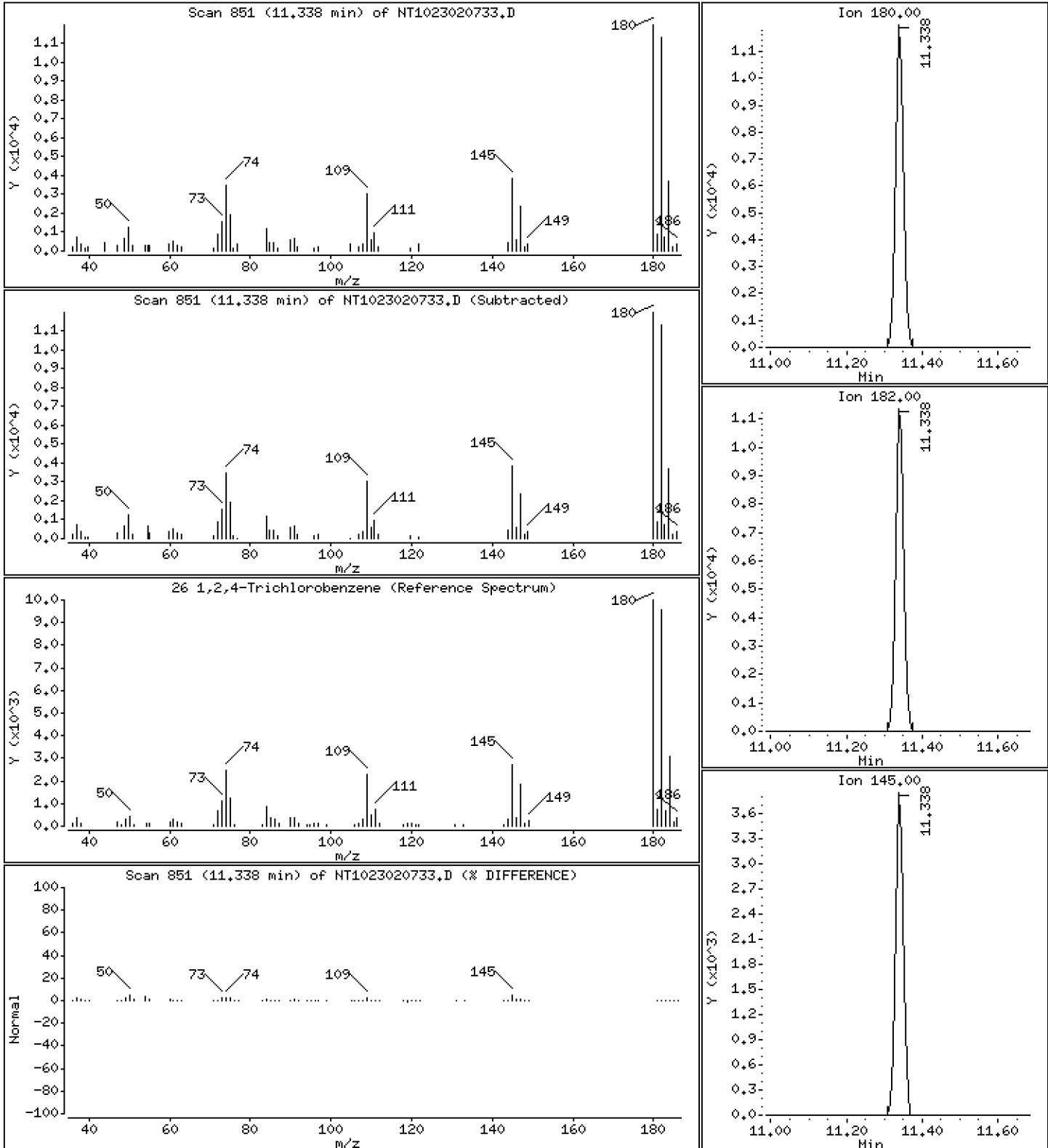
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 0.5364 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

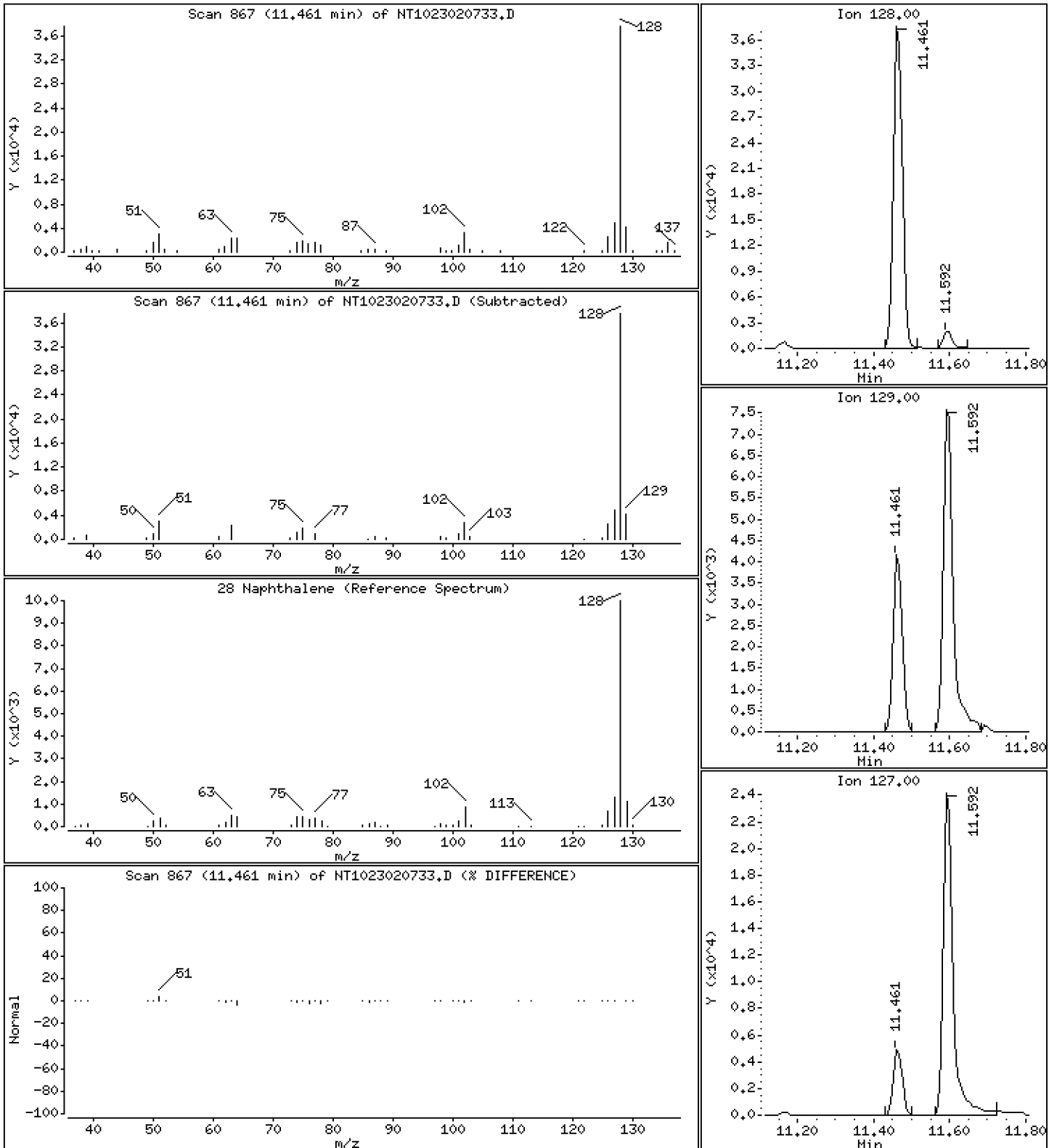
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

28 Naphthalene

Concentration: 0.5213 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

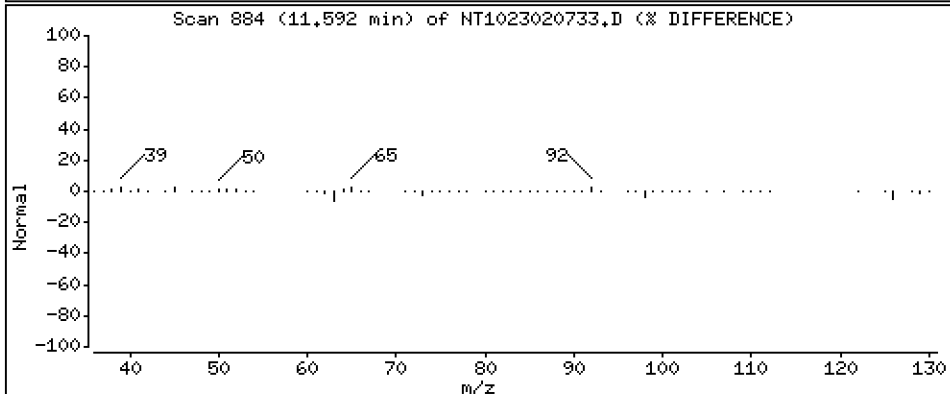
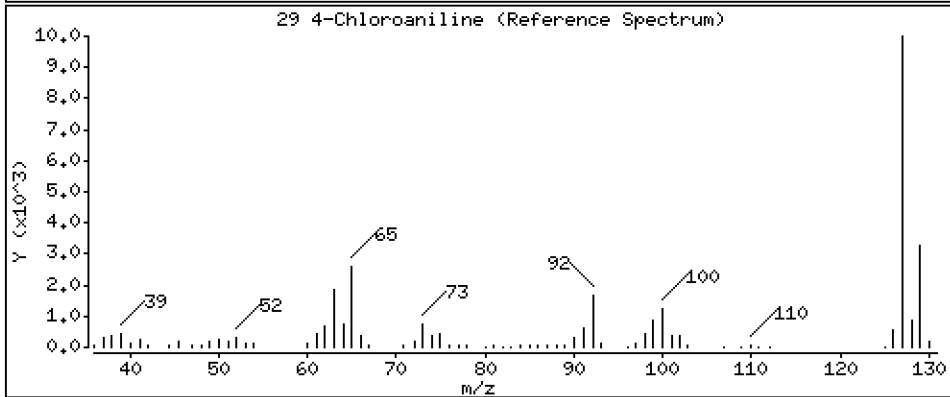
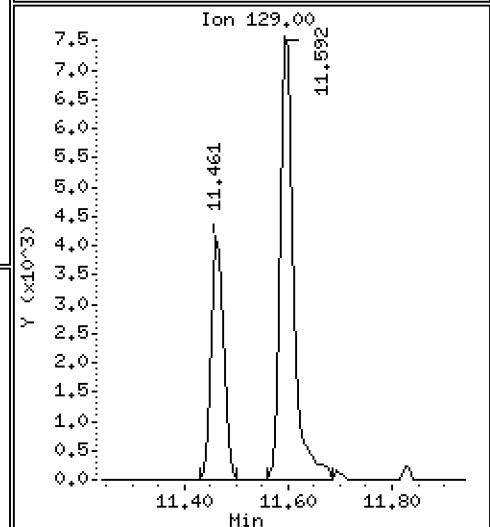
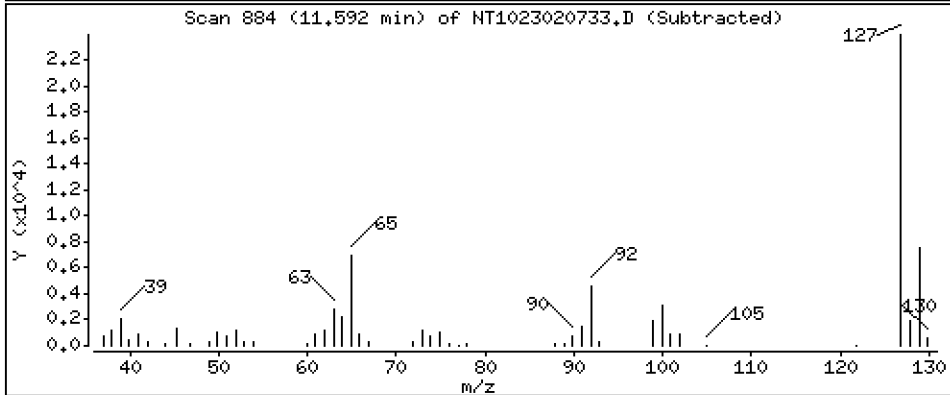
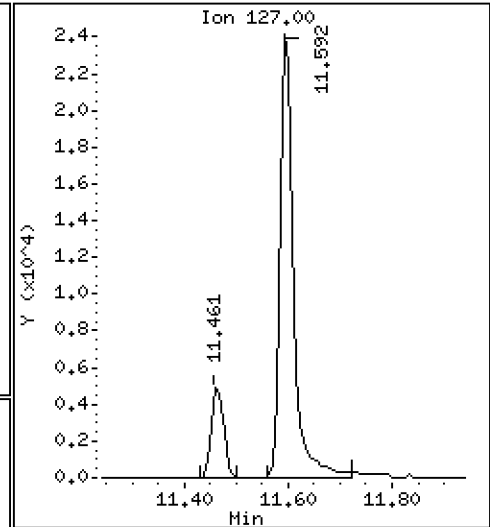
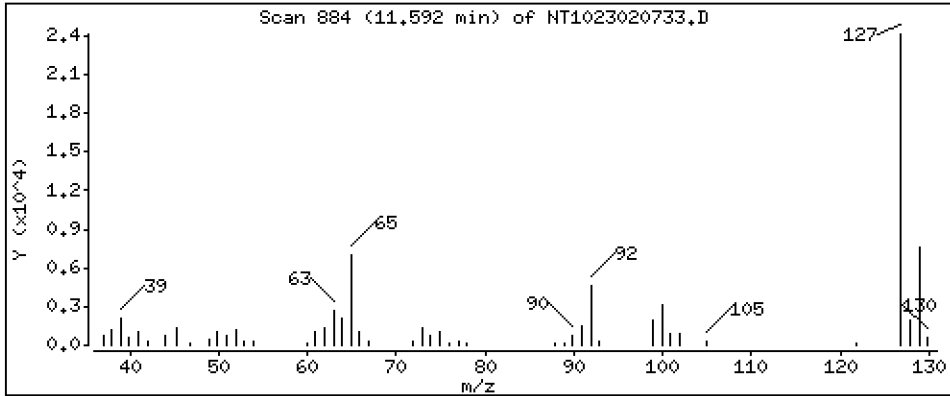
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 1,033 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

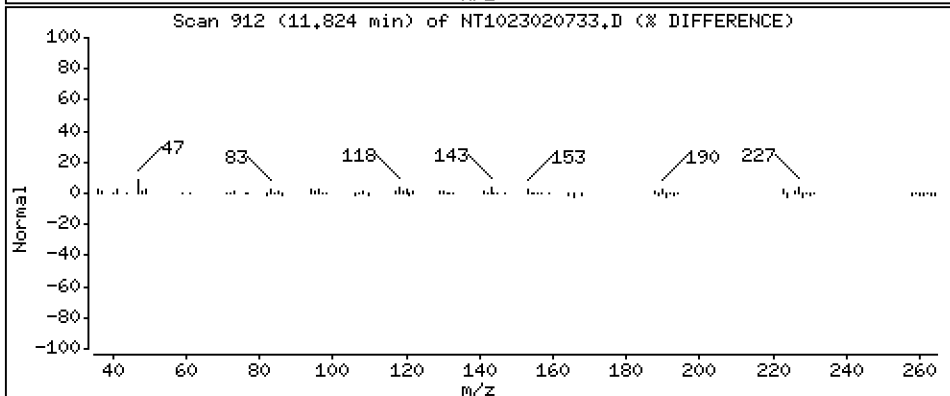
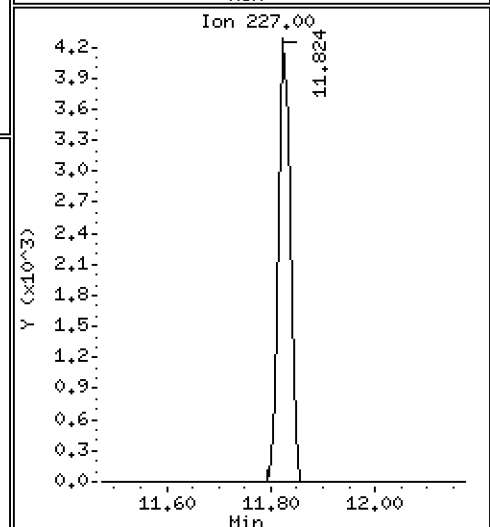
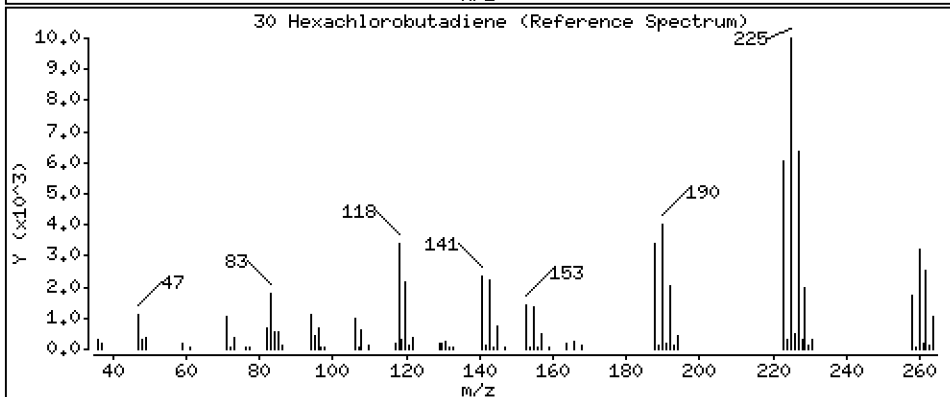
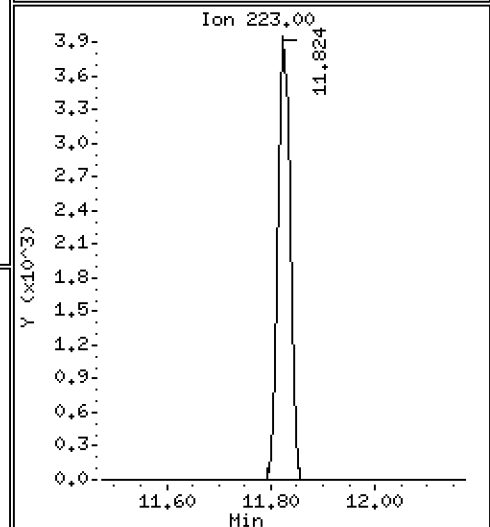
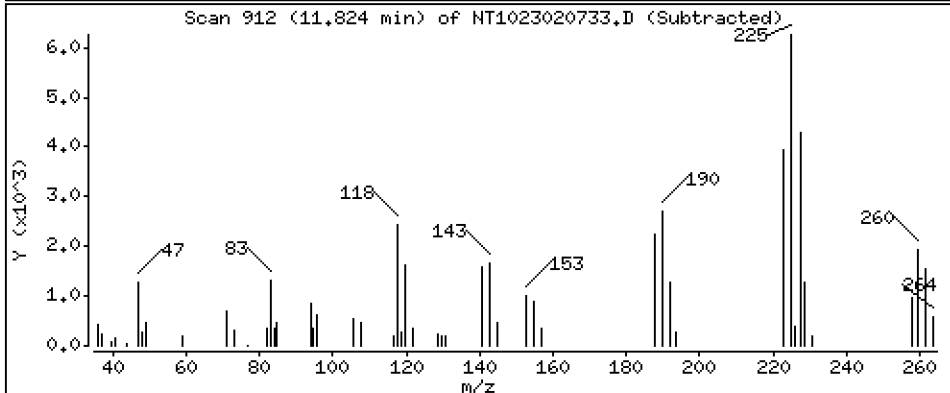
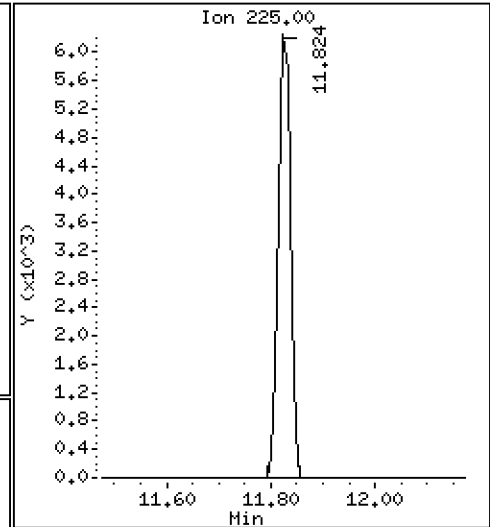
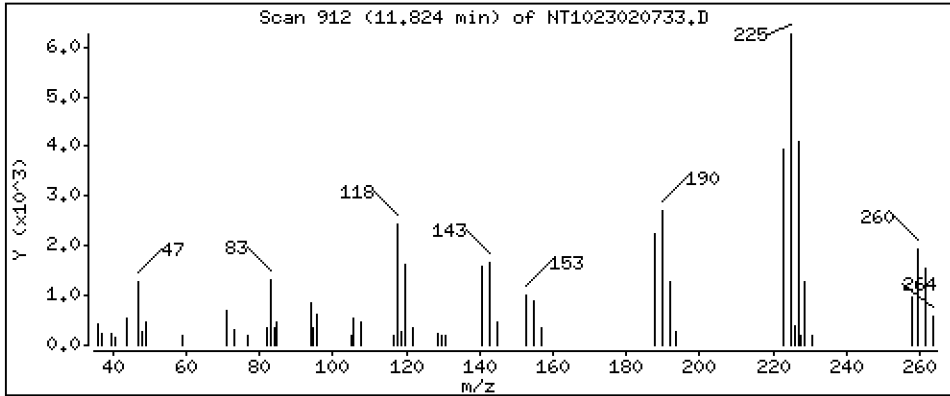
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

30 Hexachlorobutadiene

Concentration: 0.5411 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

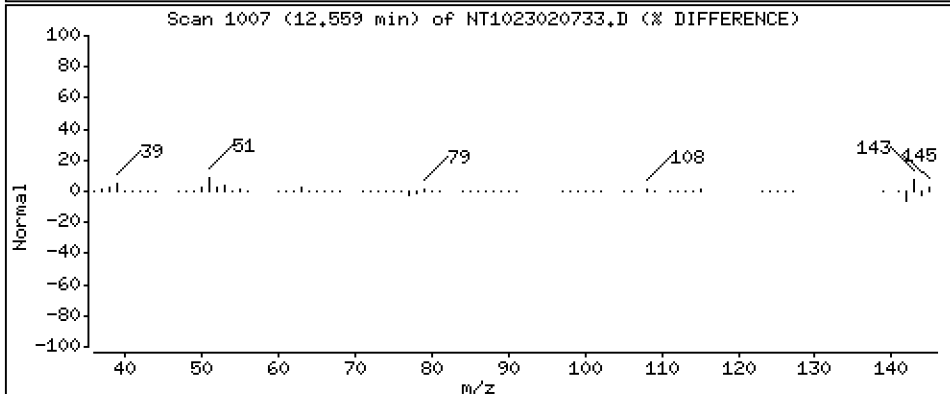
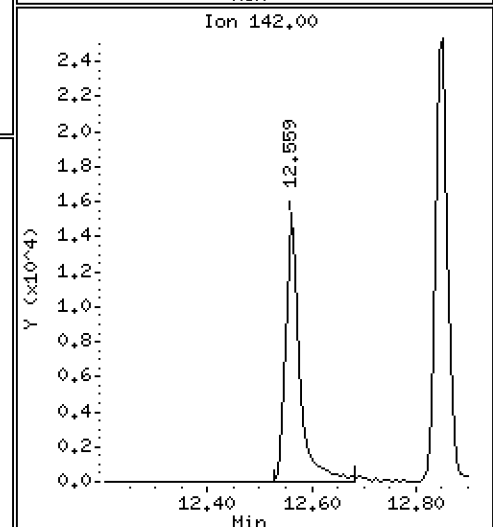
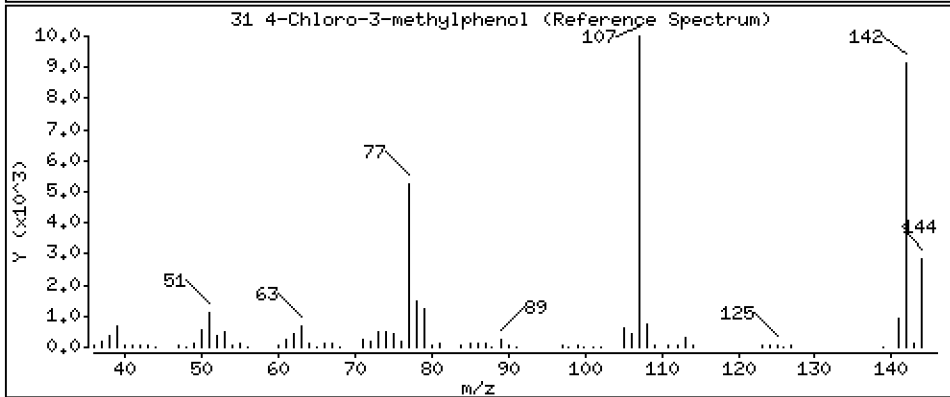
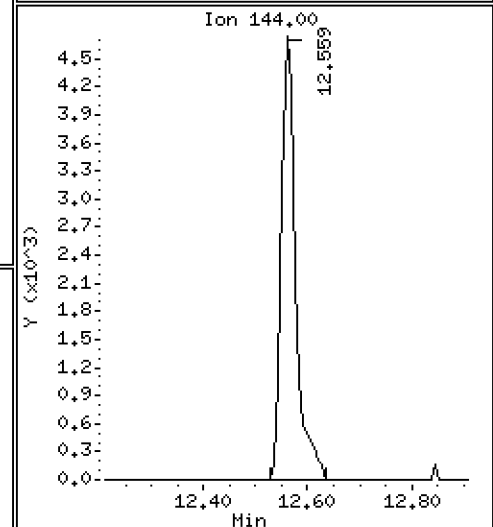
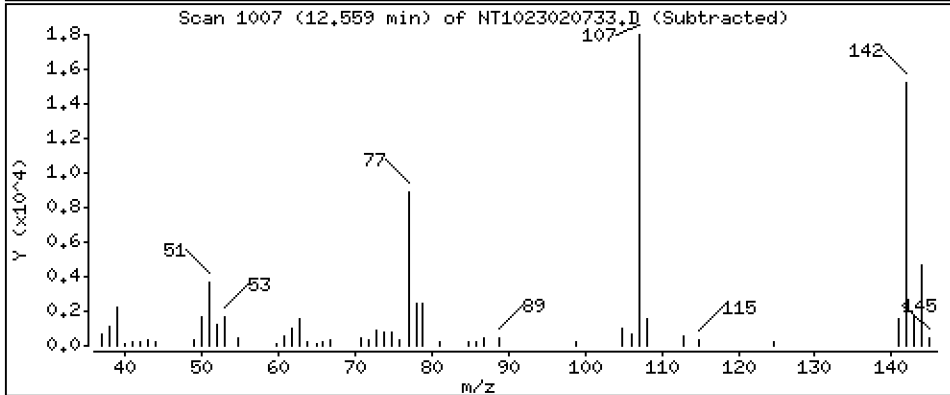
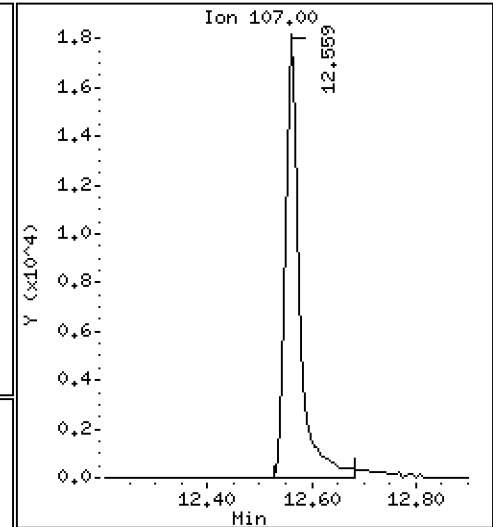
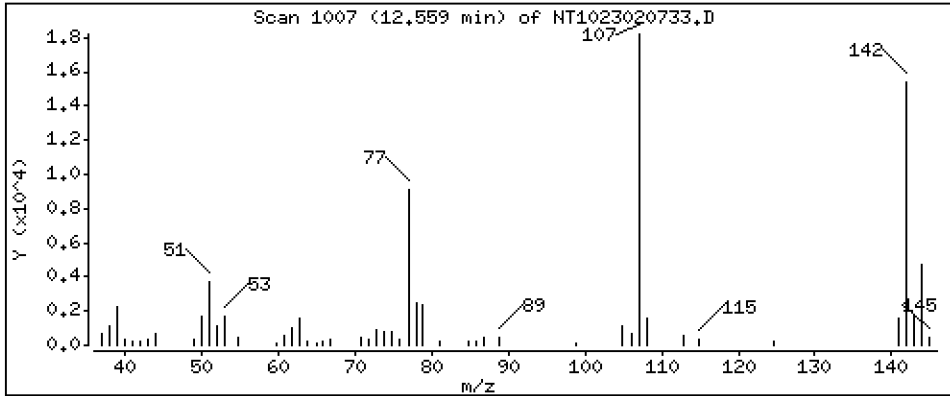
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 0,9992 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

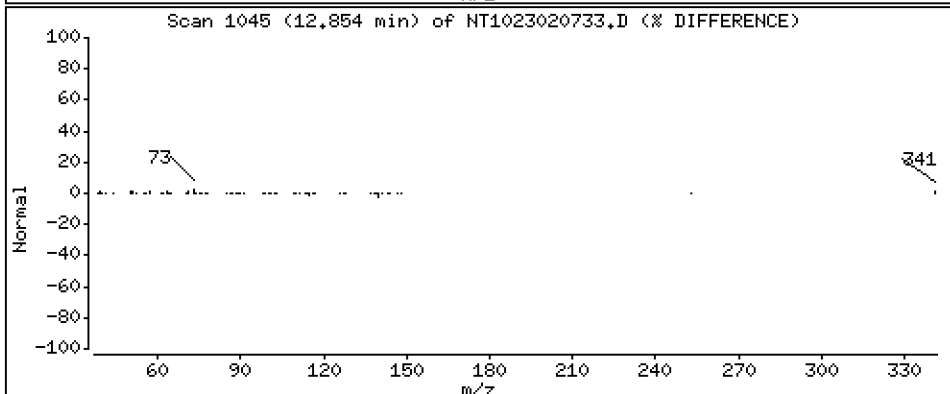
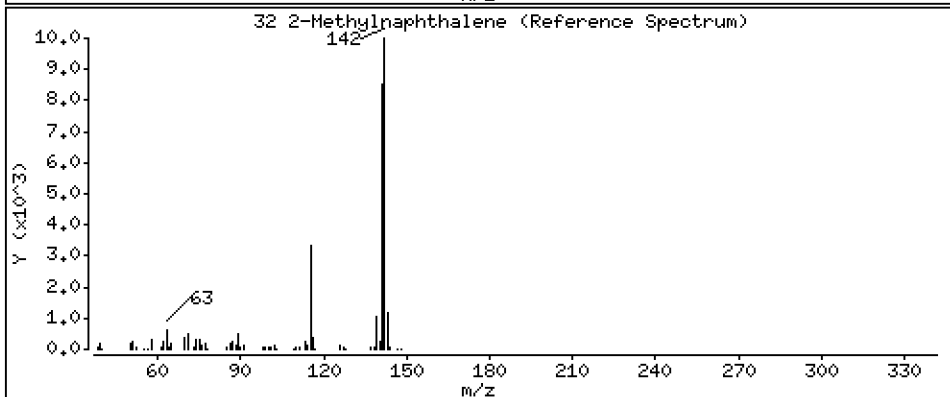
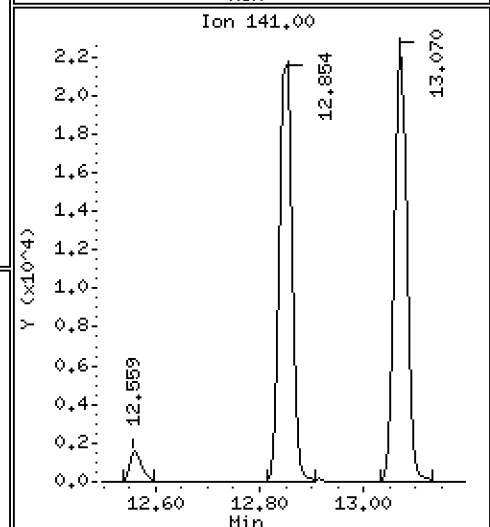
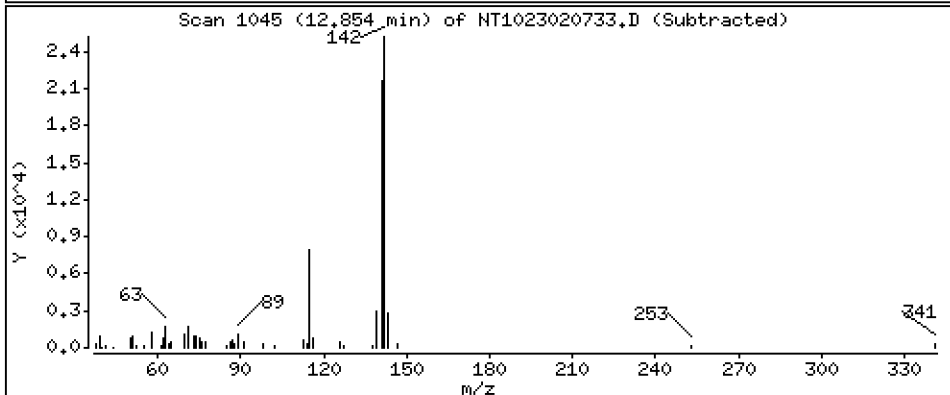
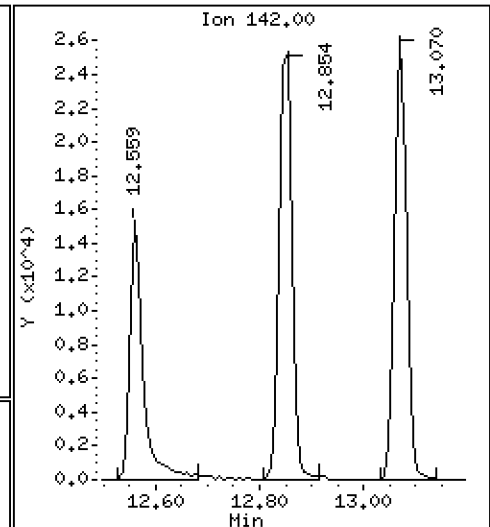
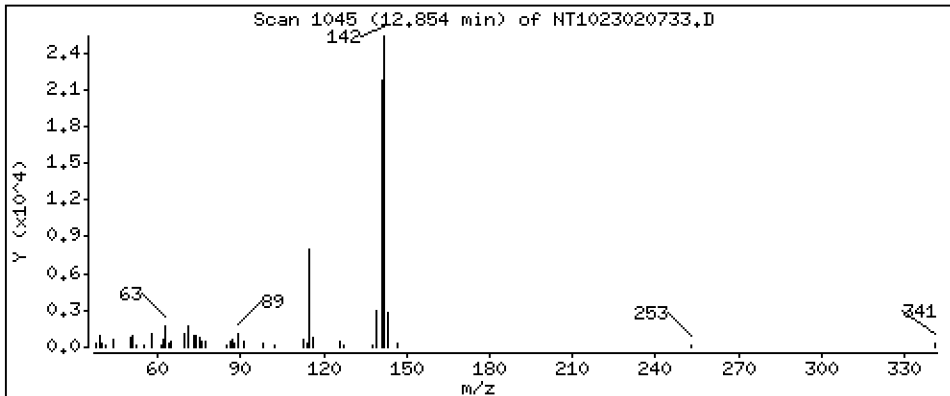
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

32 2-Methylnaphthalene

Concentration: 0.5241 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

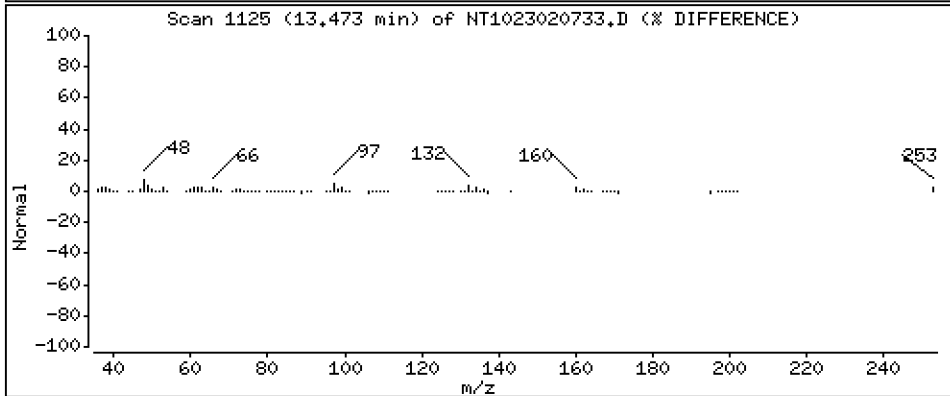
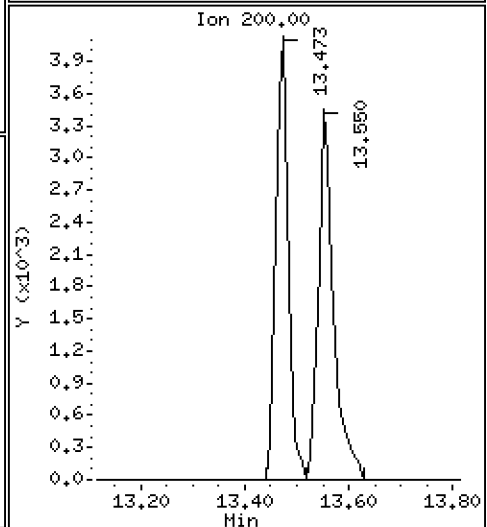
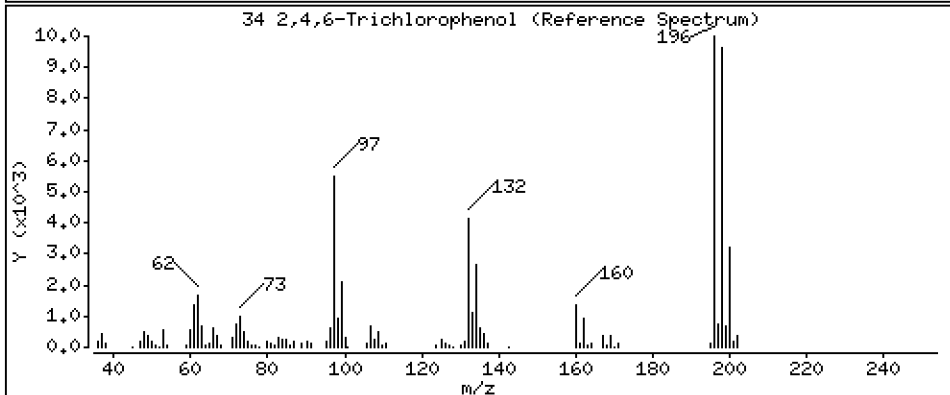
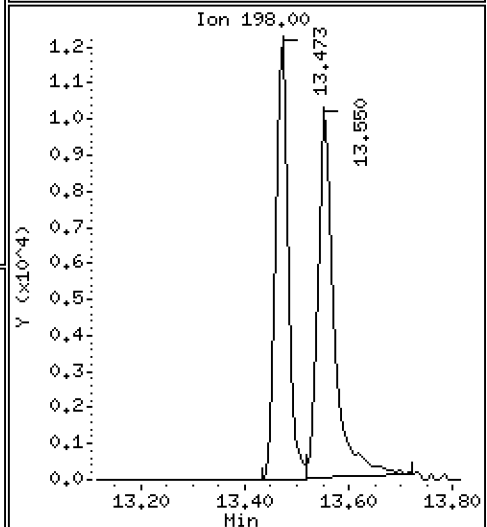
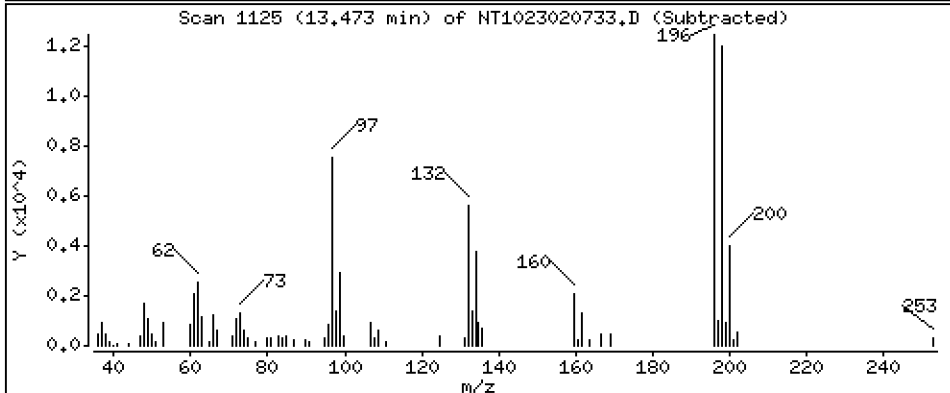
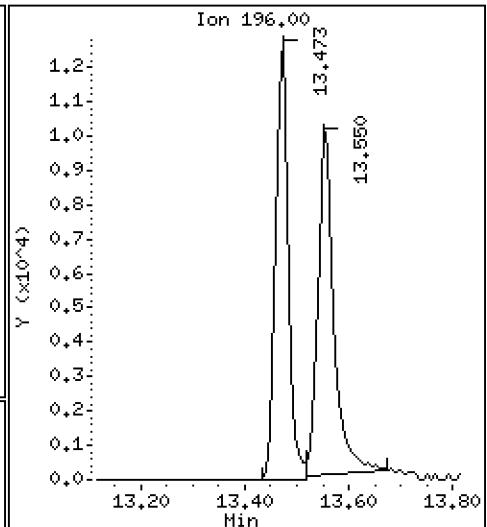
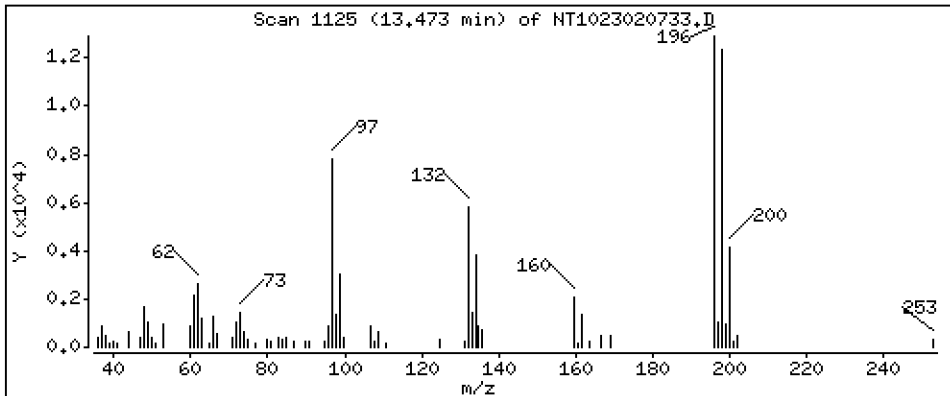
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

34 2,4,6-Trichlorophenol

Concentration: 1.069 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

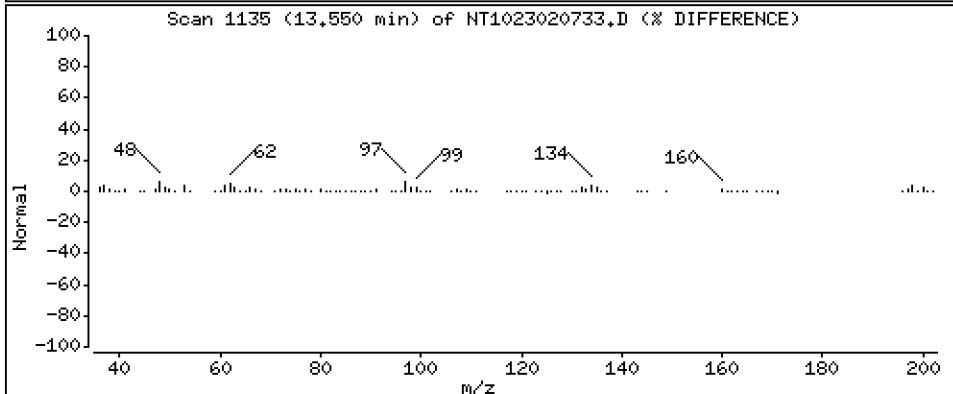
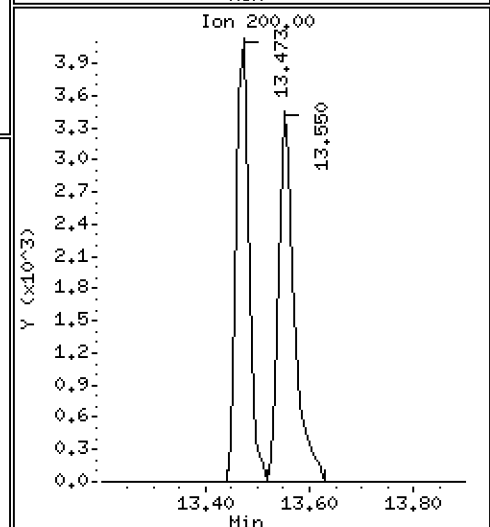
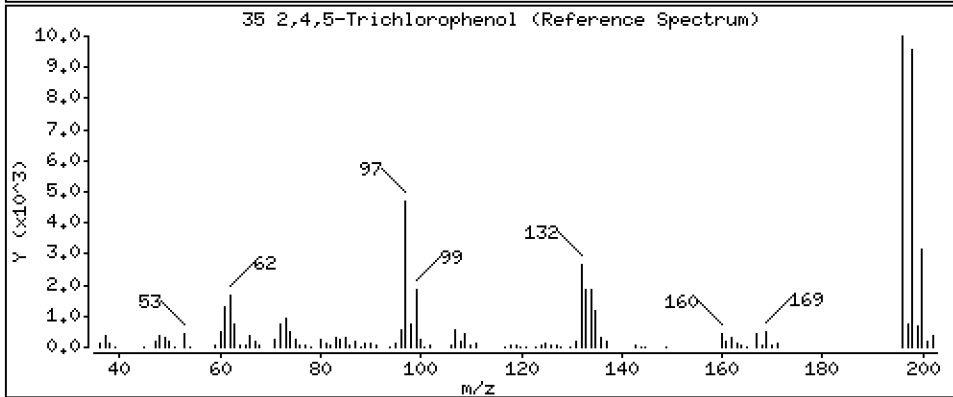
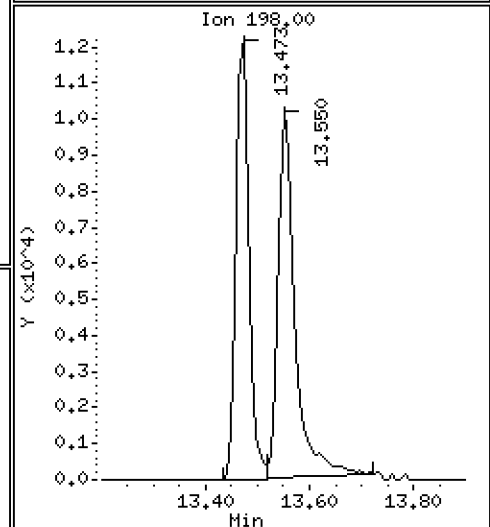
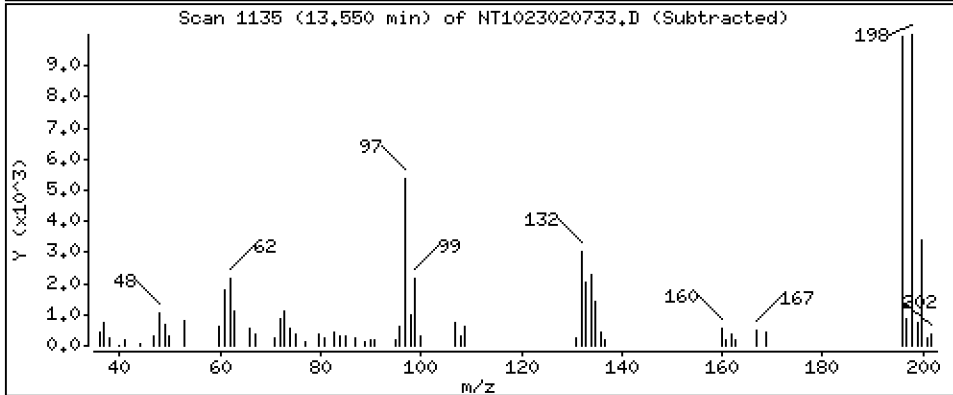
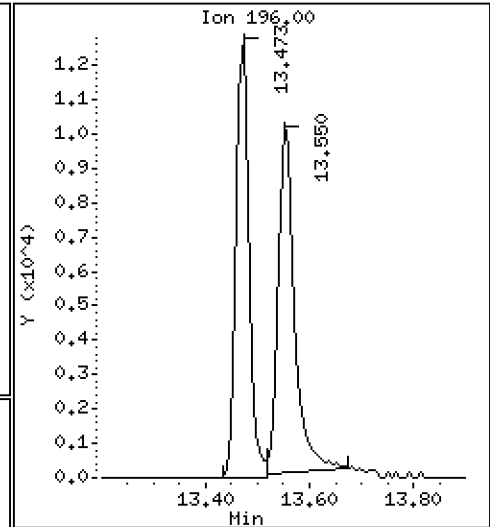
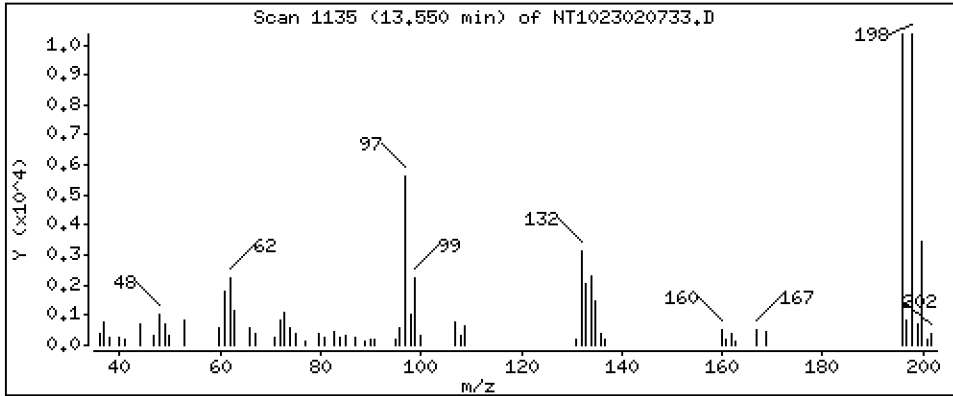
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 1,009 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

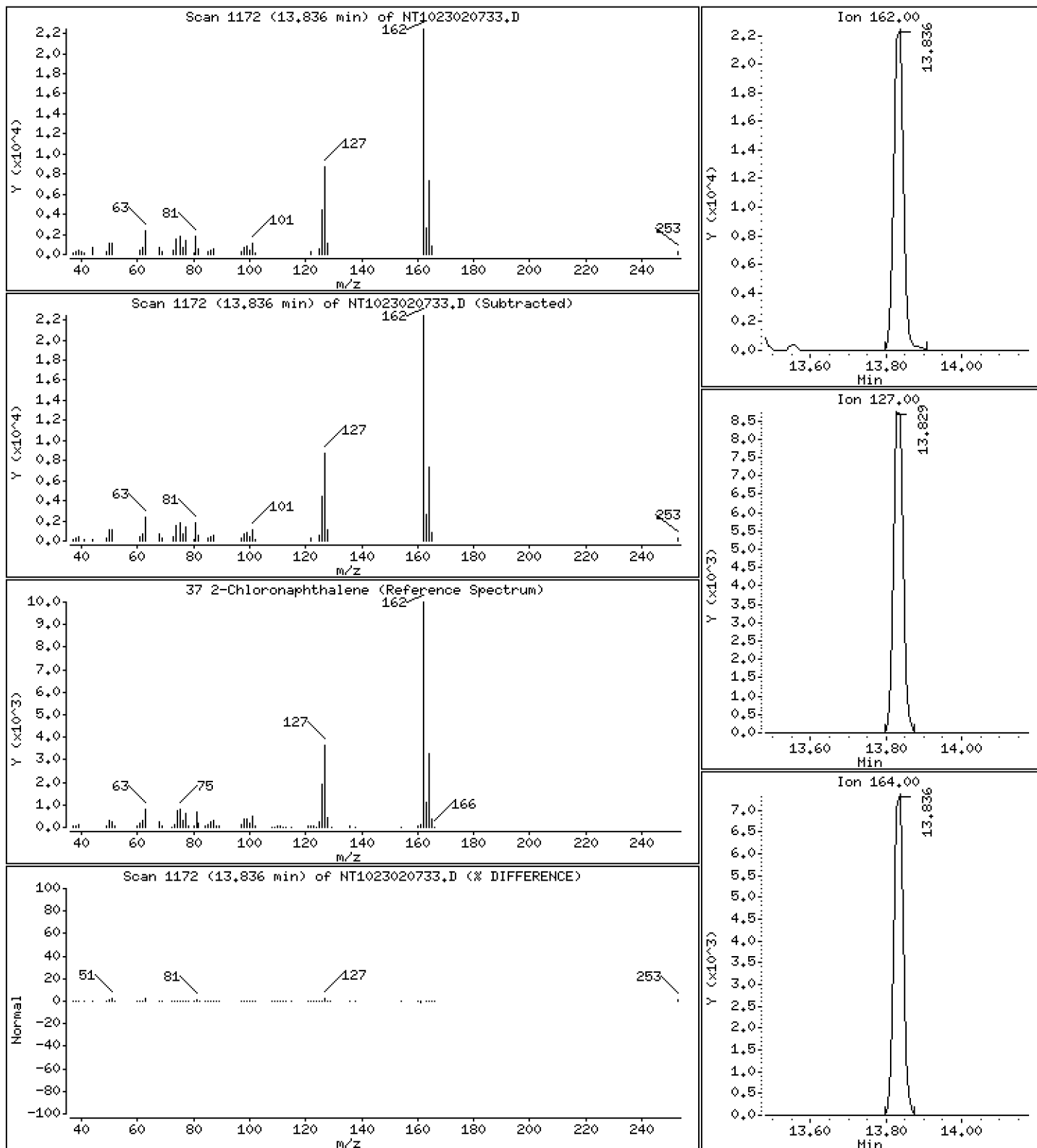
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 0,5451 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

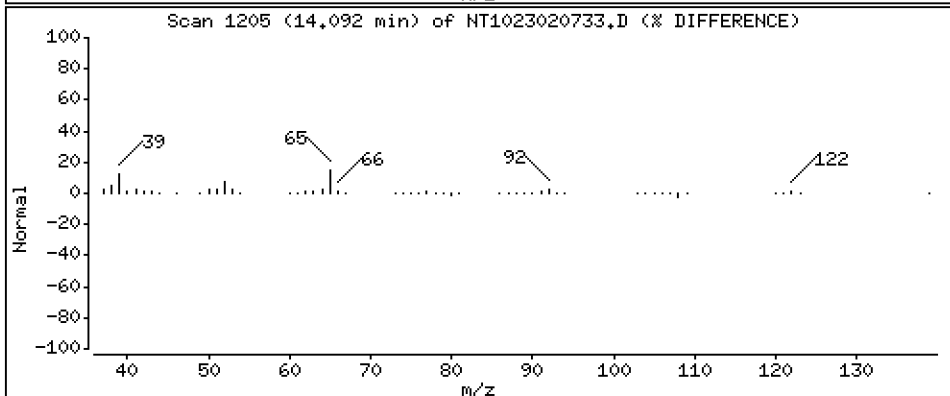
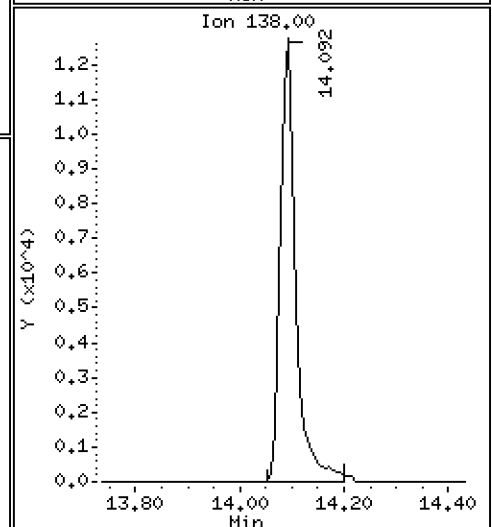
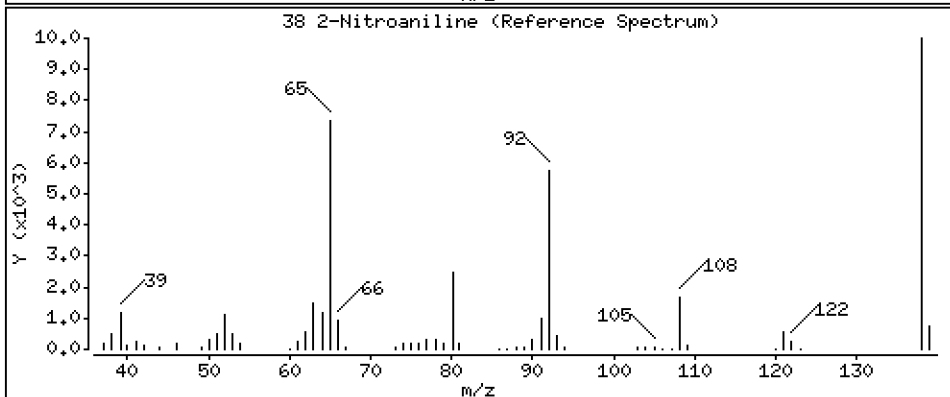
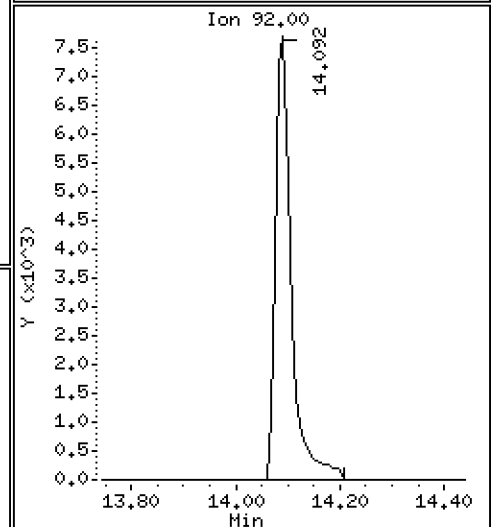
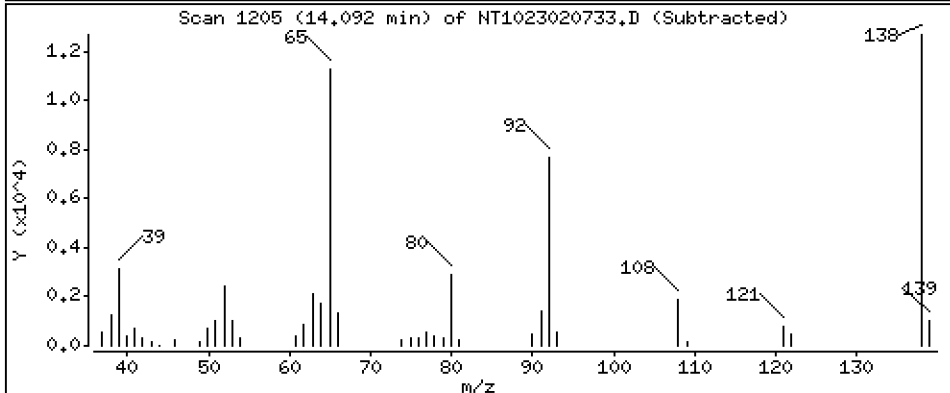
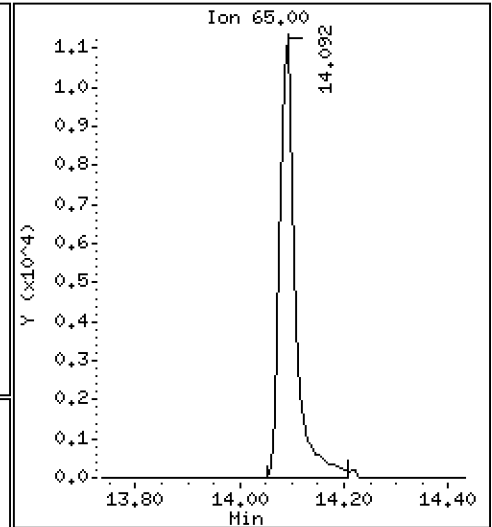
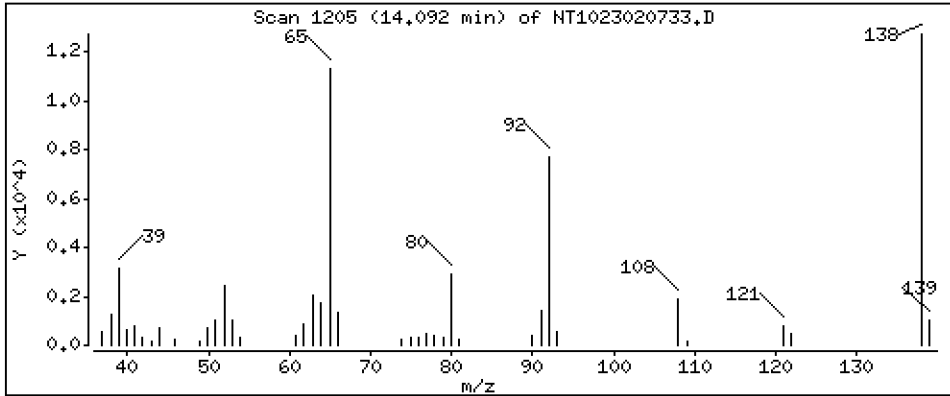
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 1,067 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

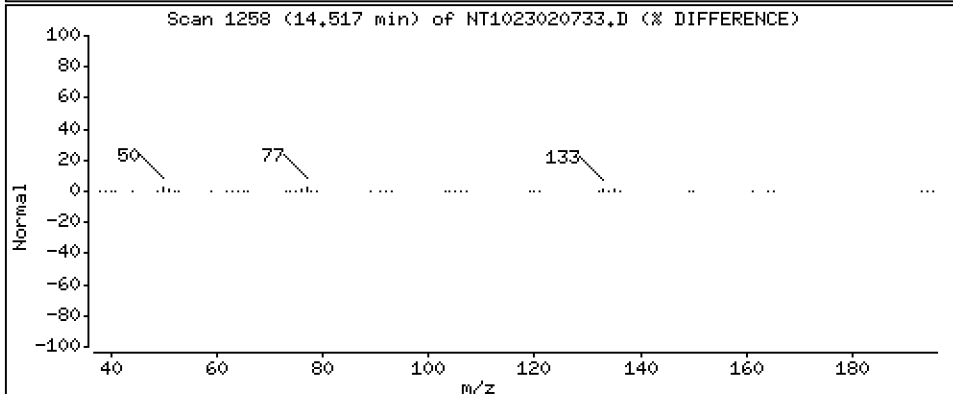
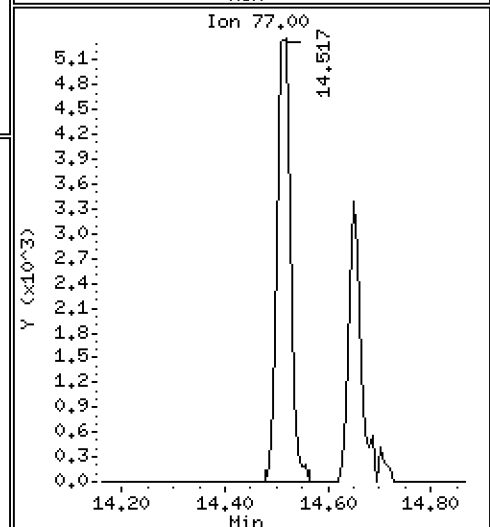
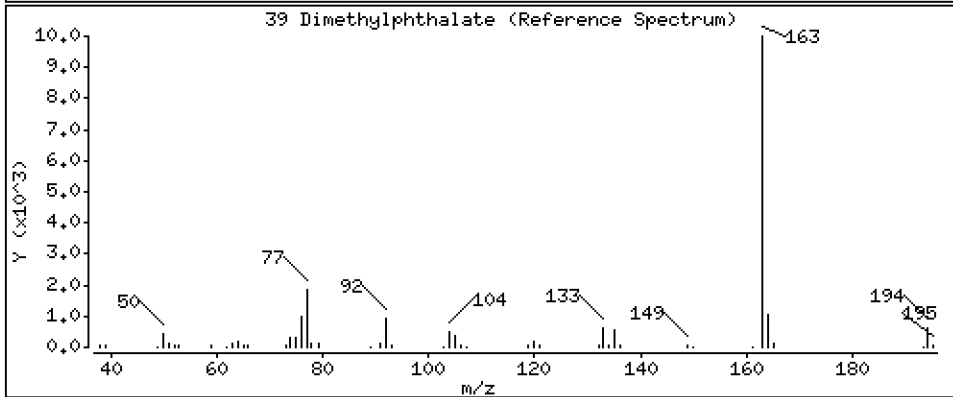
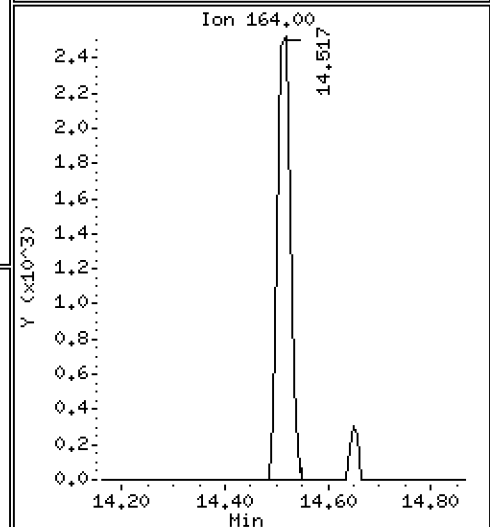
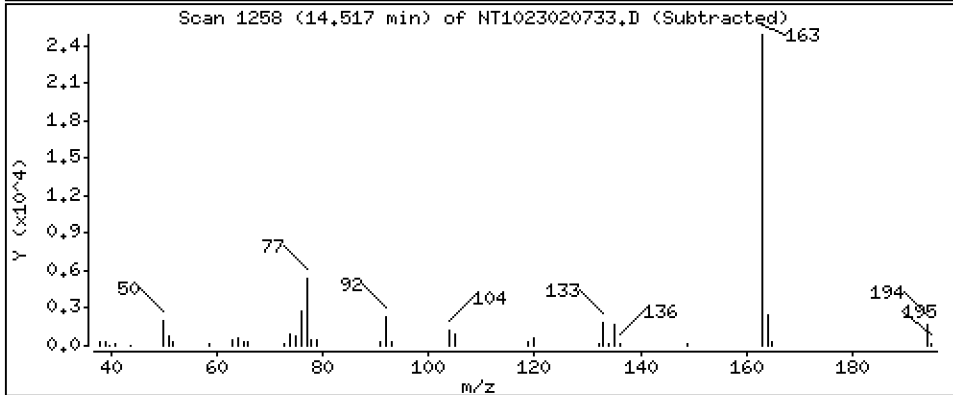
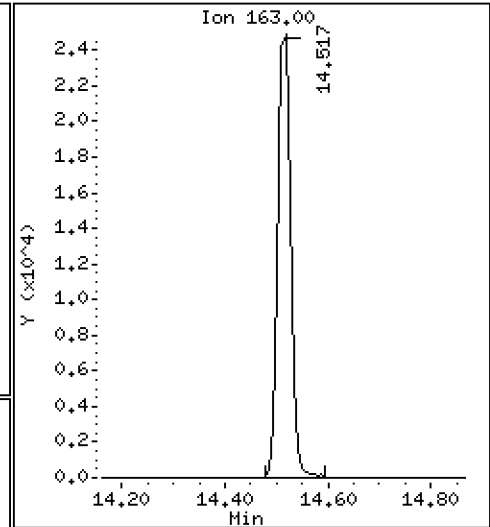
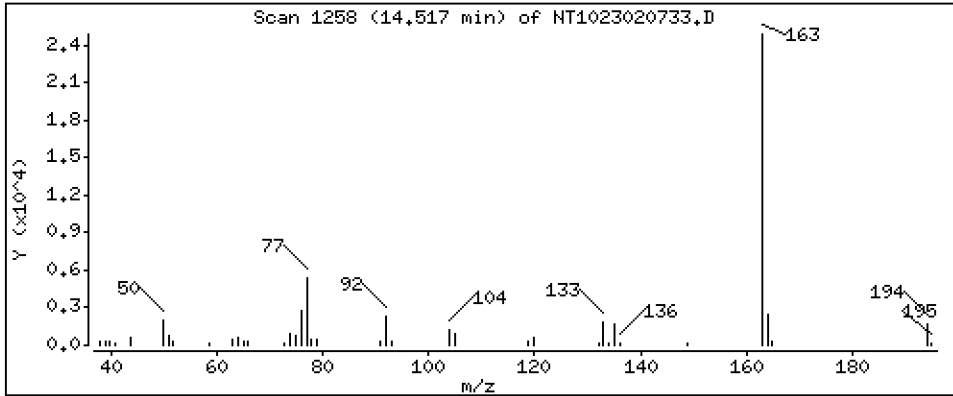
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,5590 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

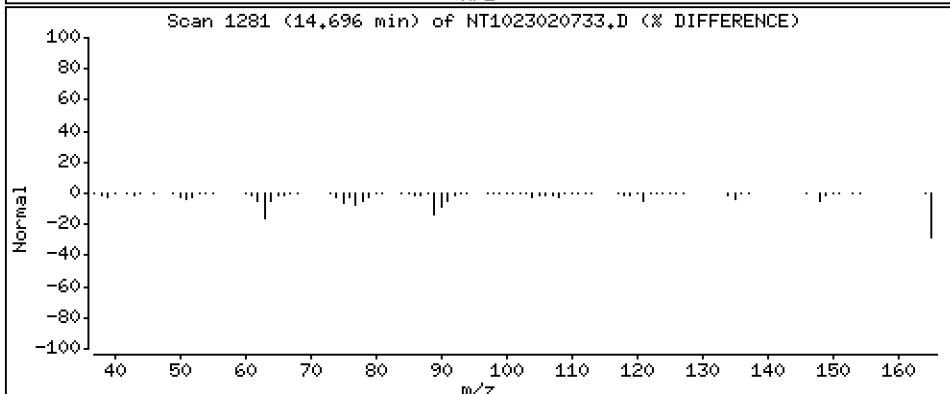
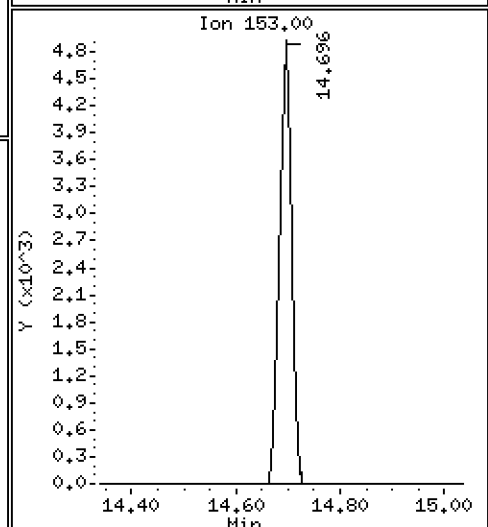
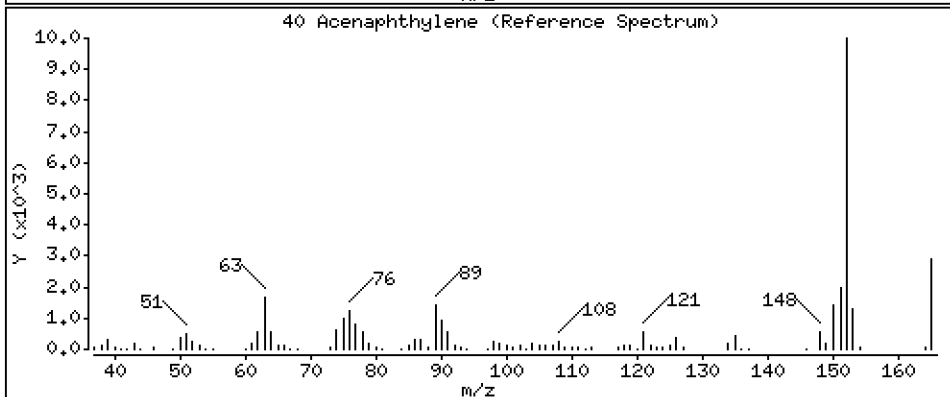
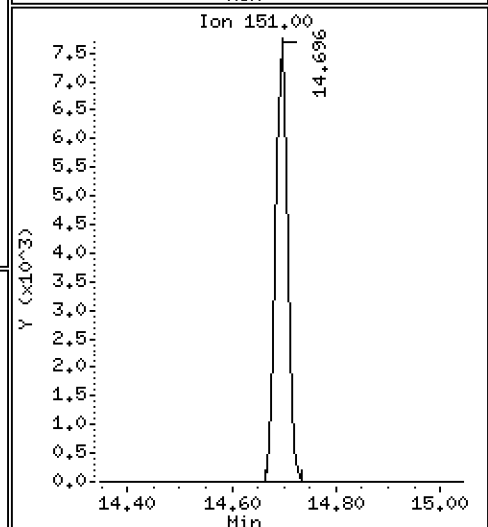
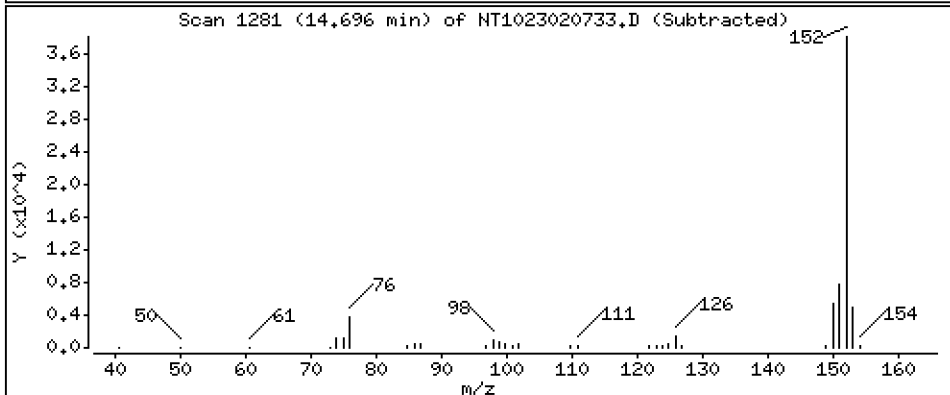
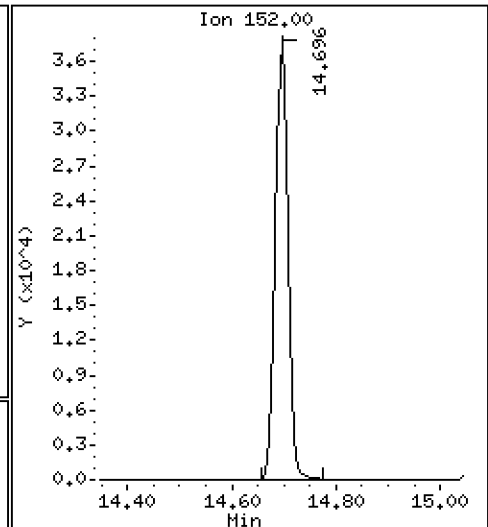
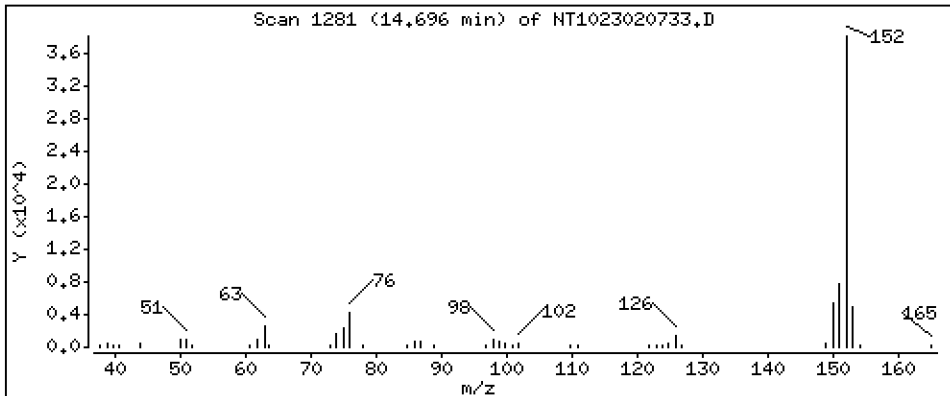
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,5580 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

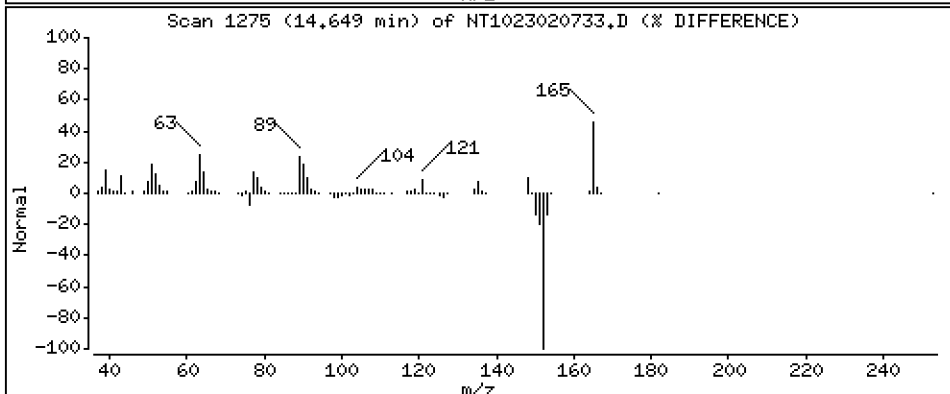
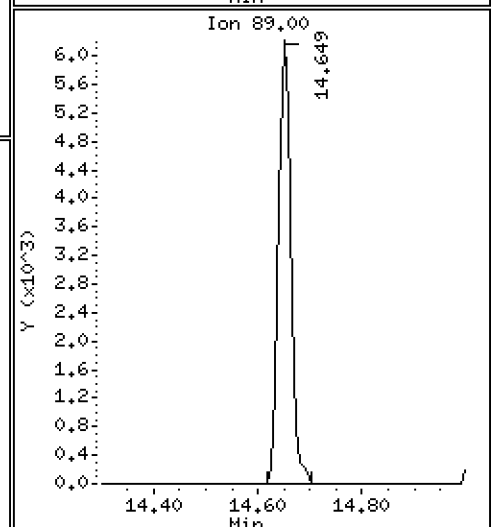
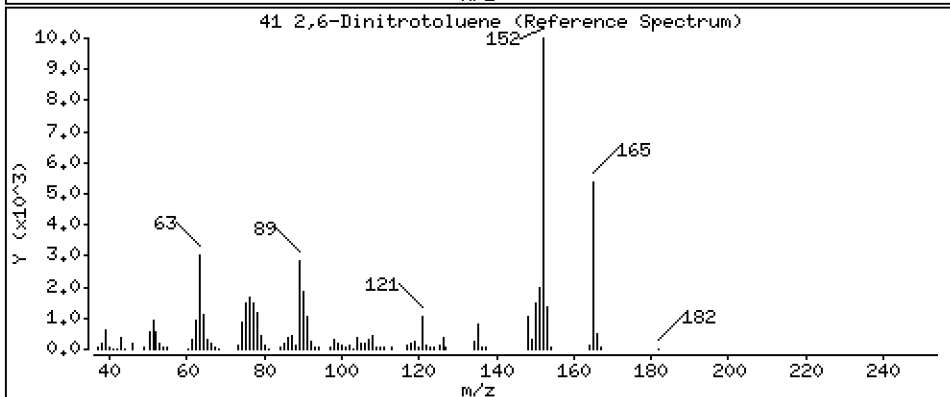
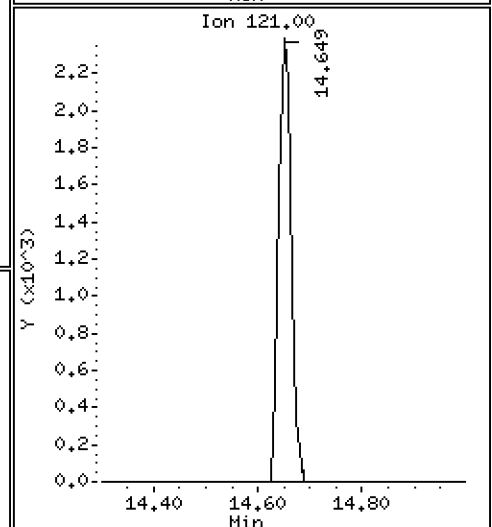
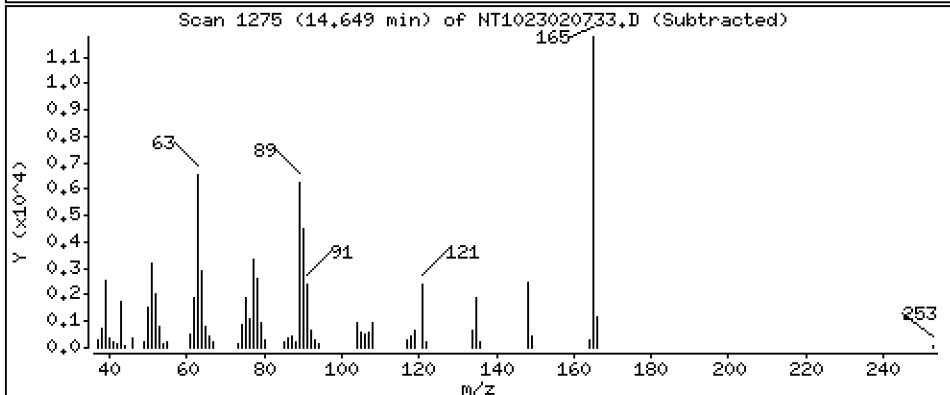
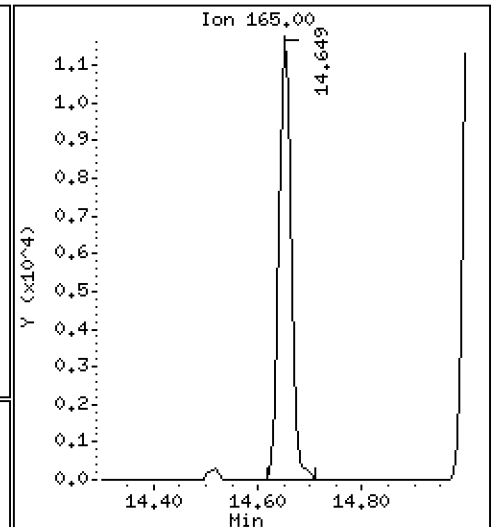
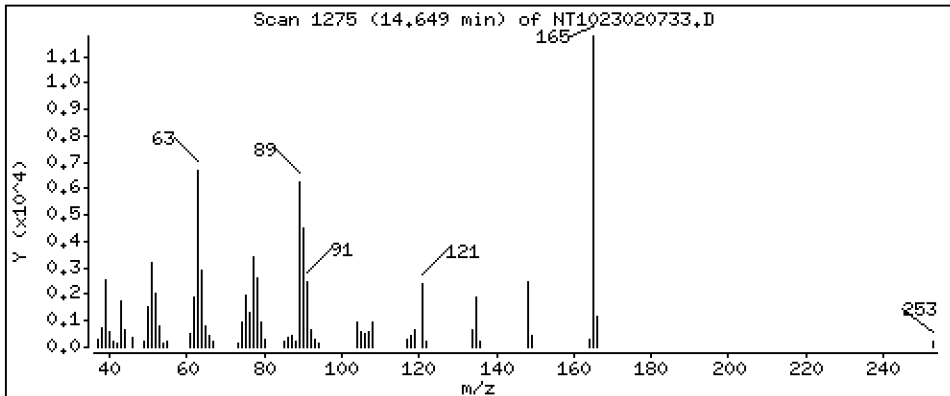
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 1.059 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

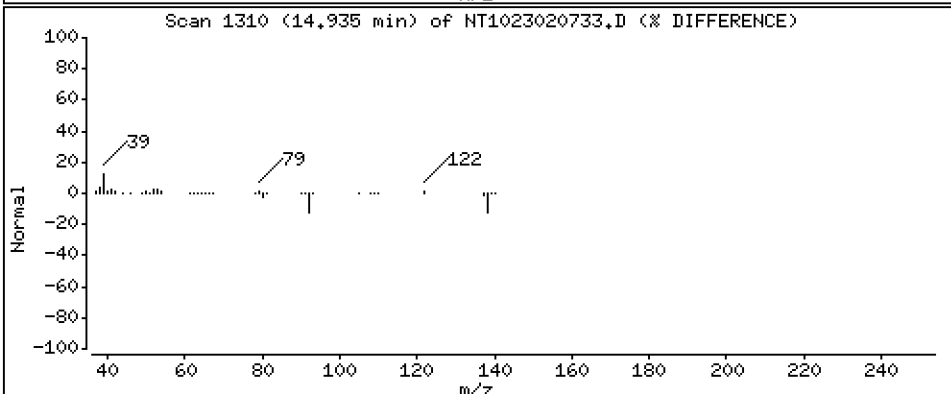
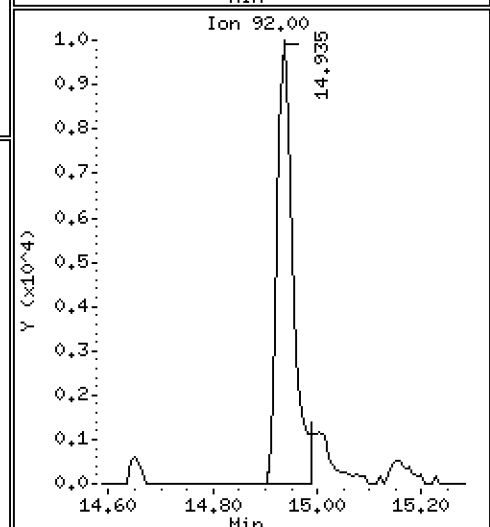
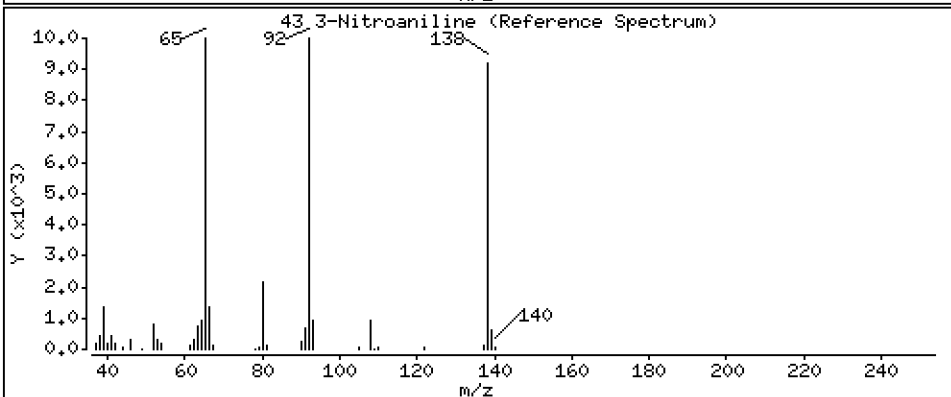
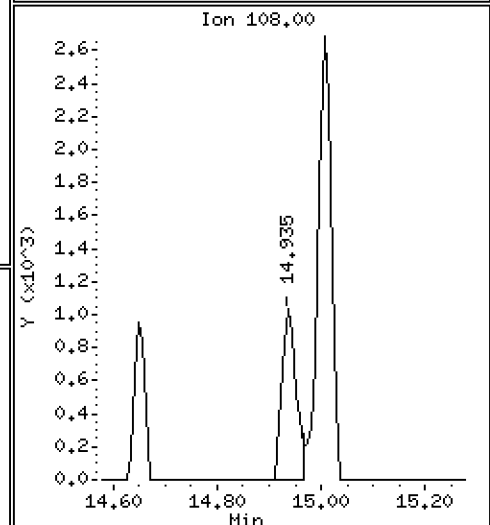
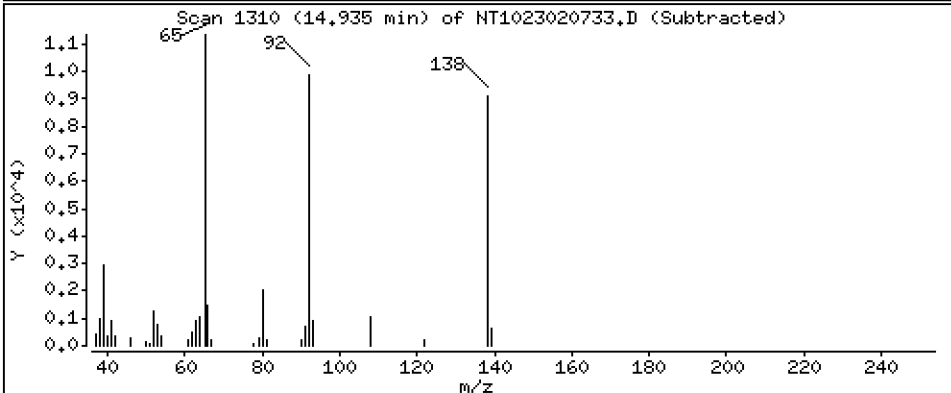
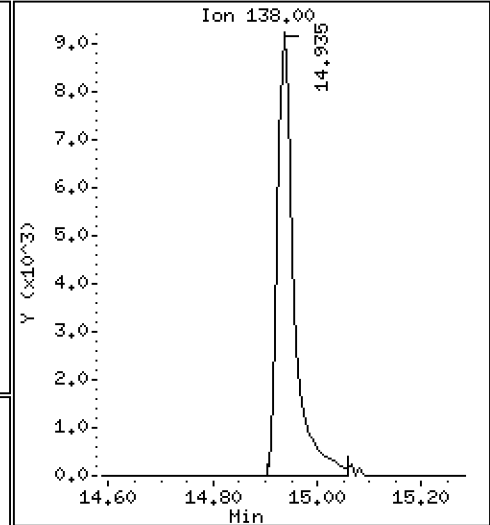
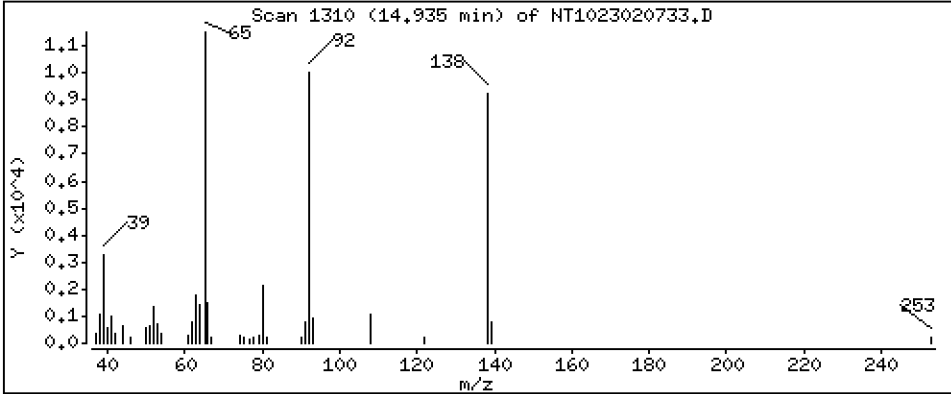
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 0,9990 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

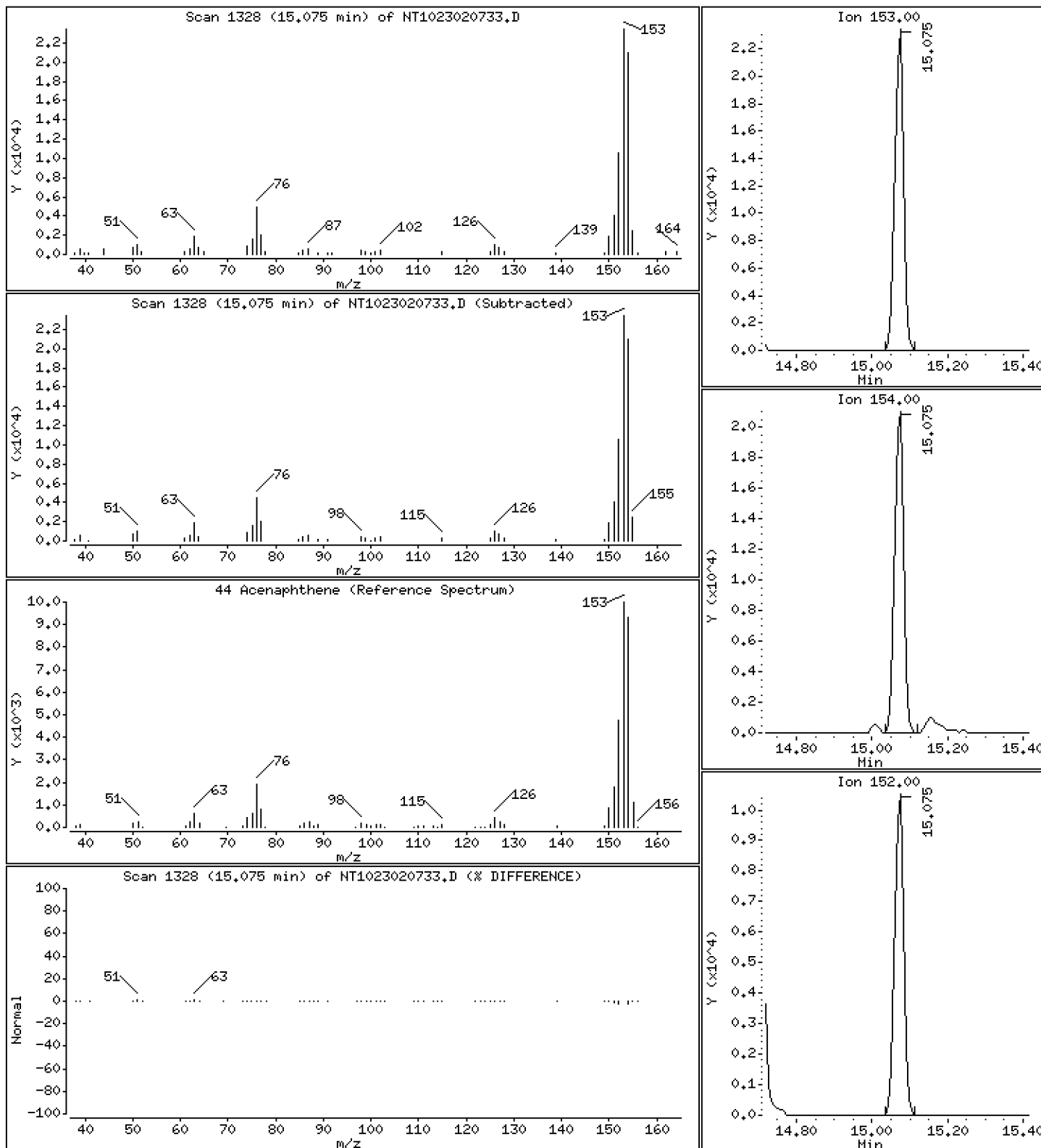
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,5391 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

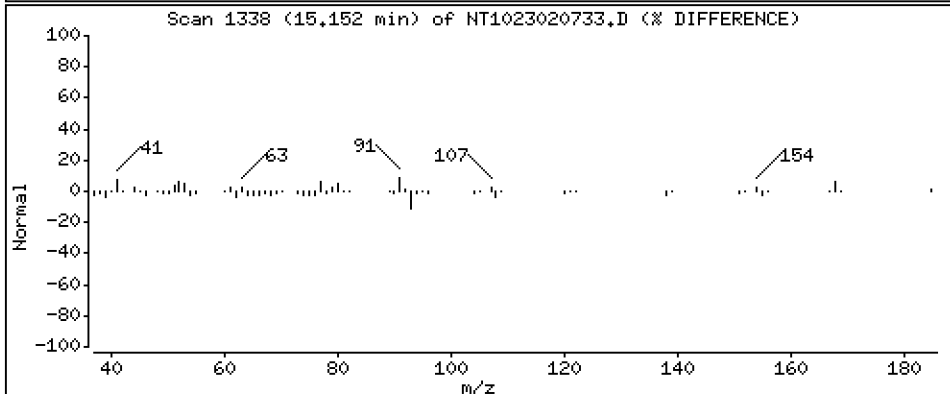
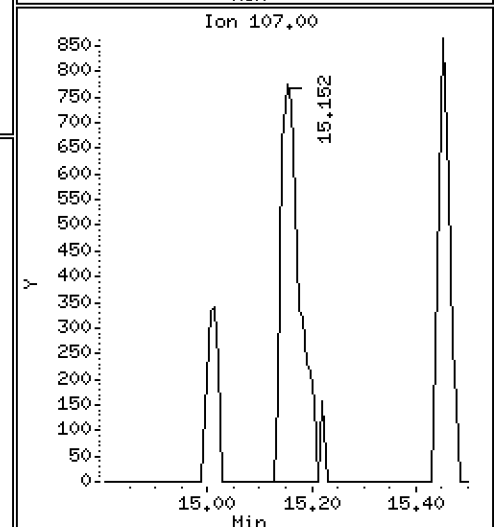
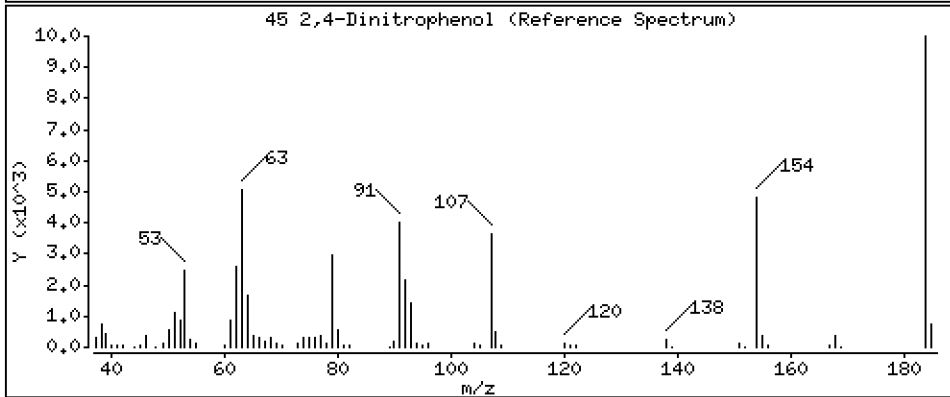
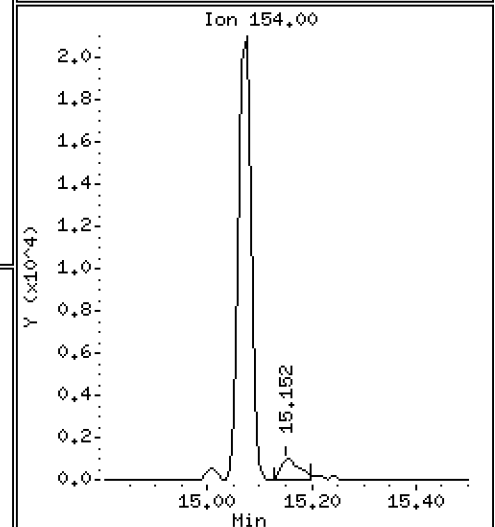
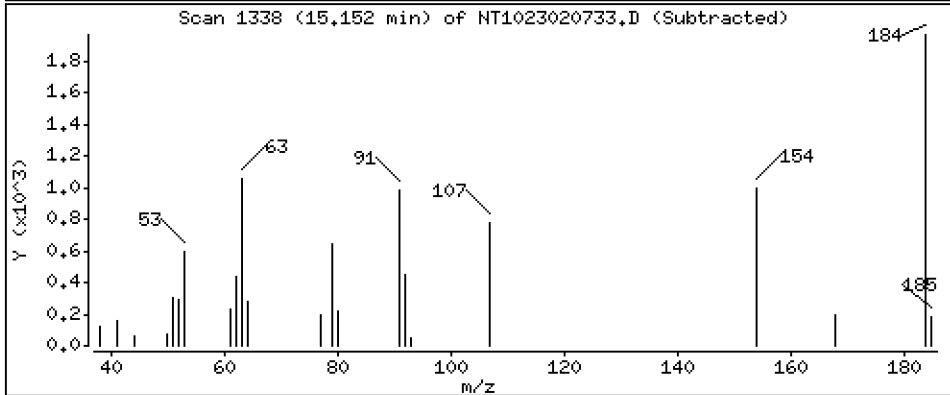
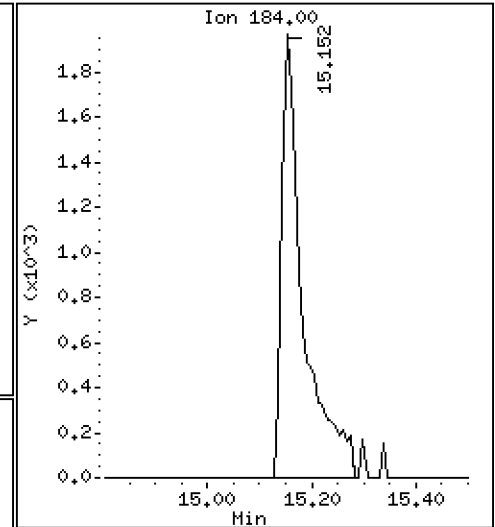
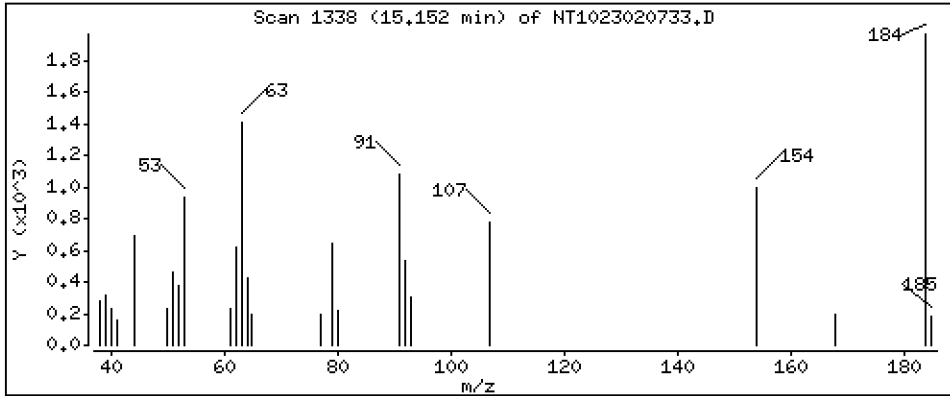
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,6156 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

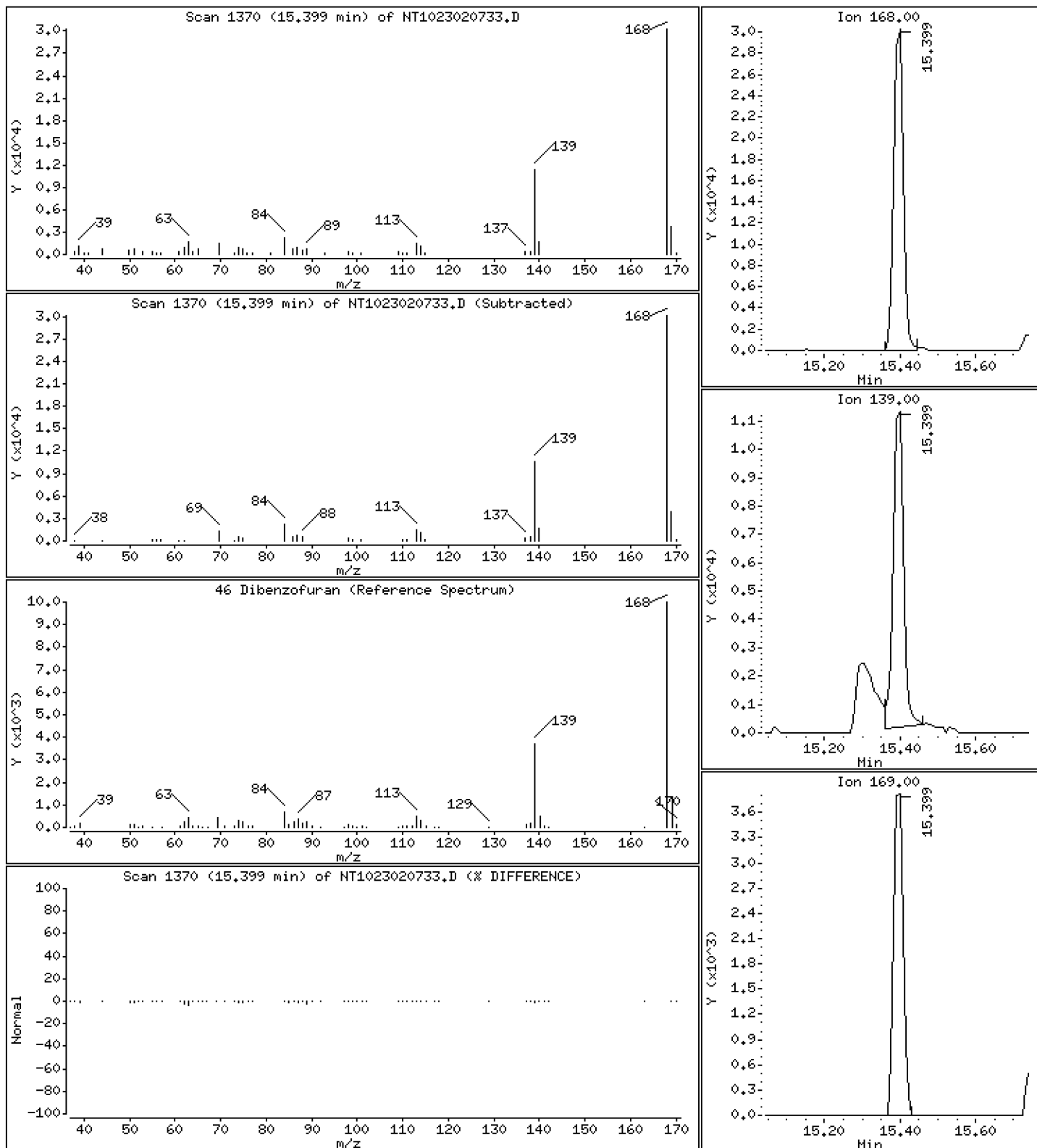
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,5225 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

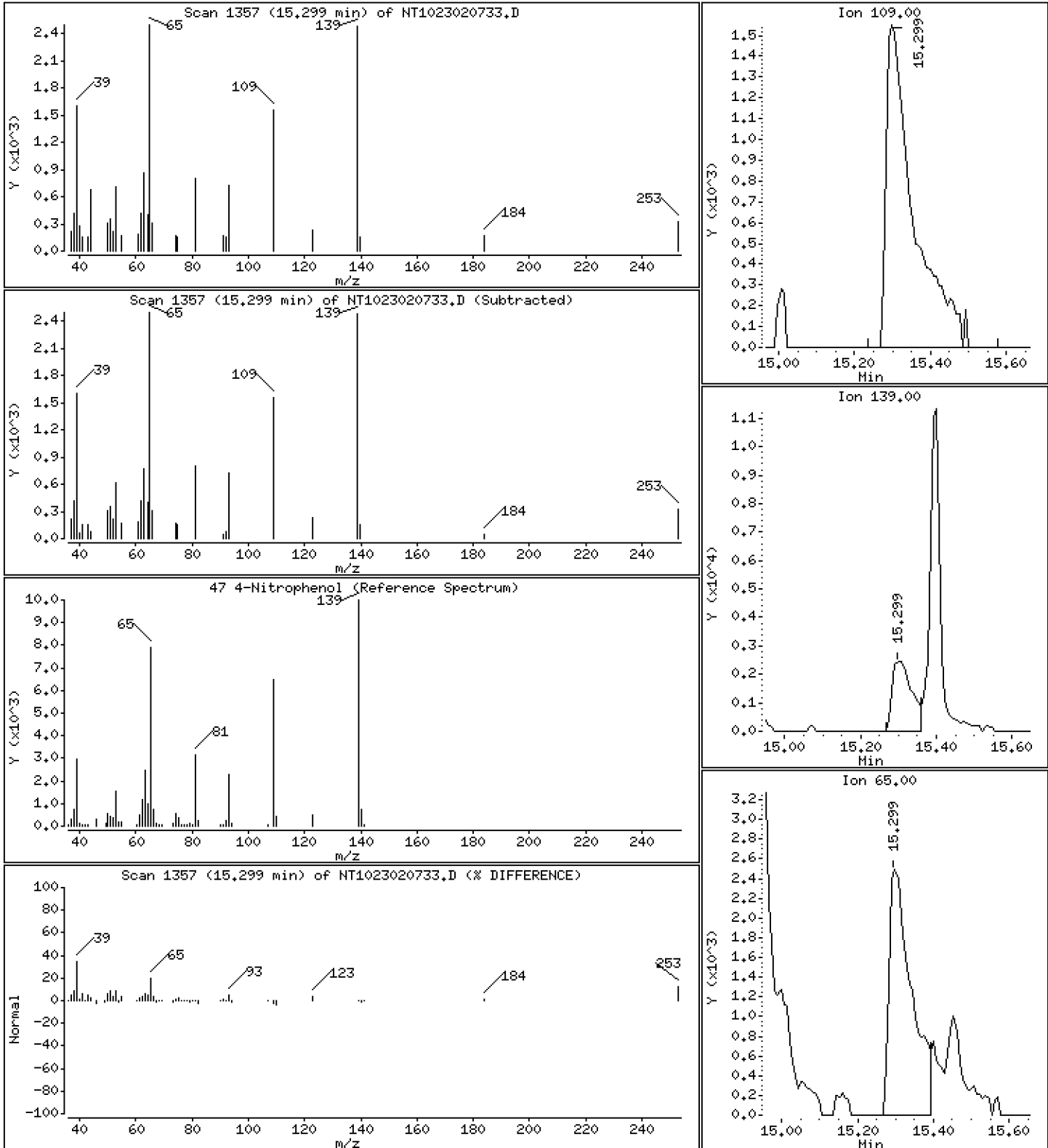
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 1,049 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

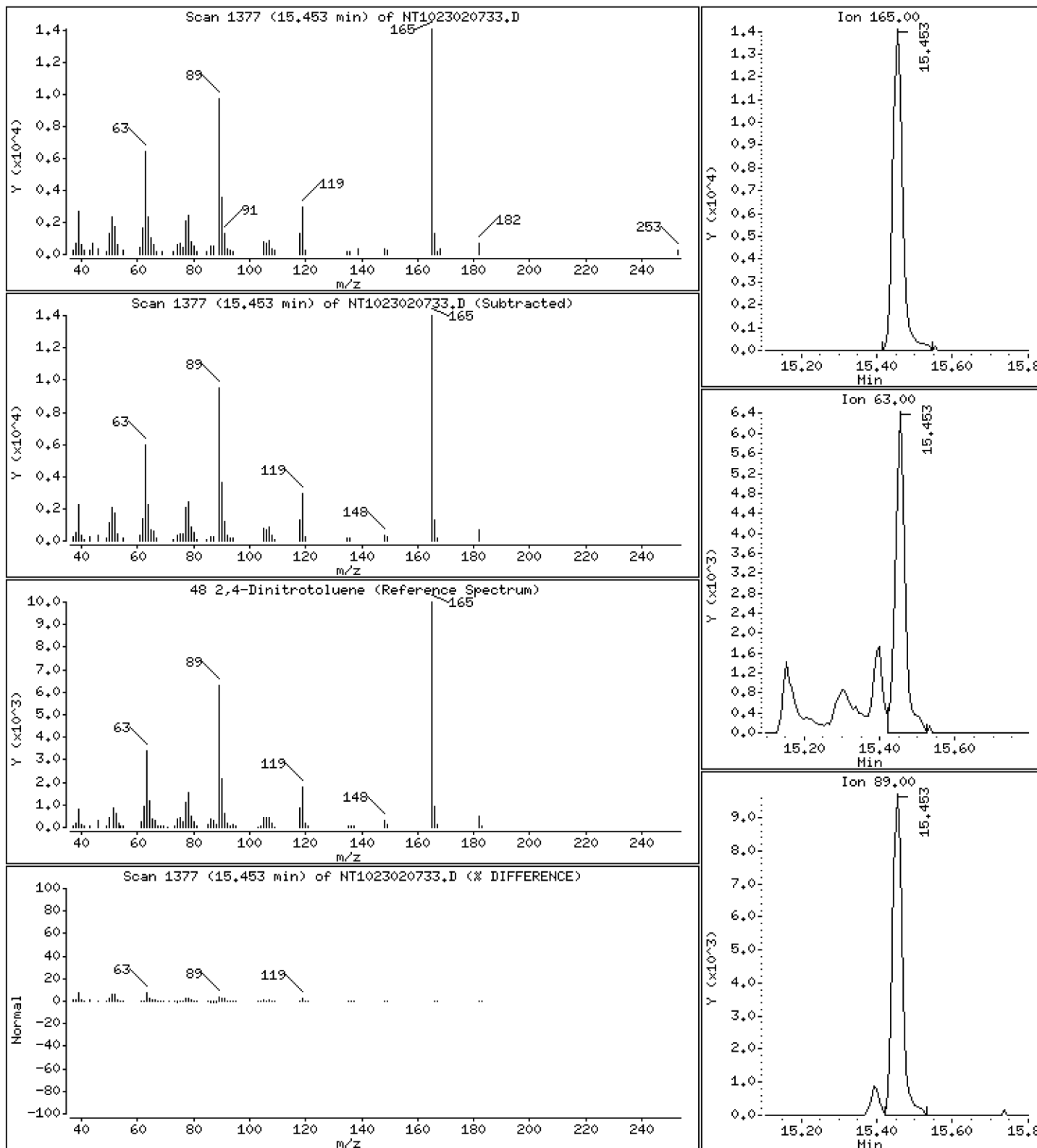
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 1,012 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

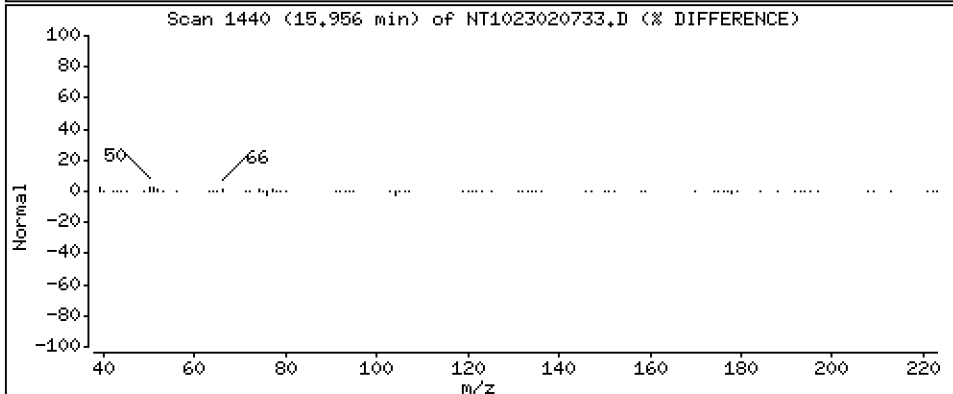
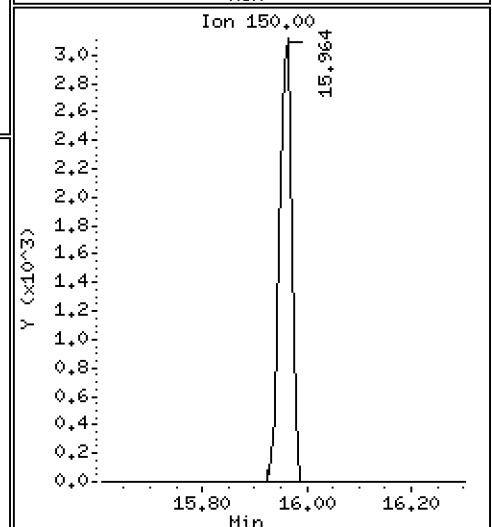
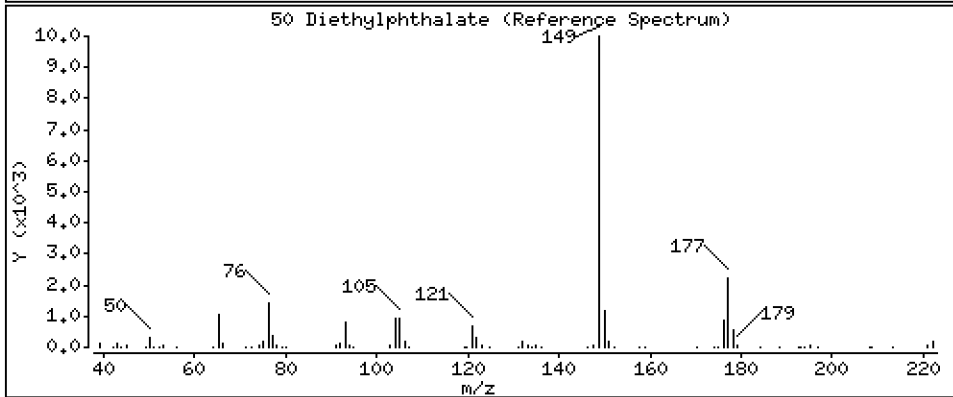
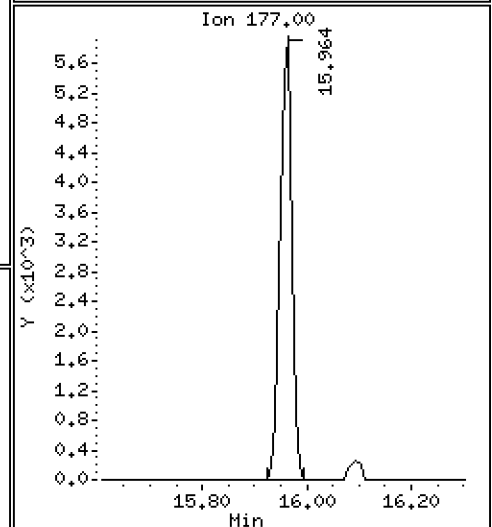
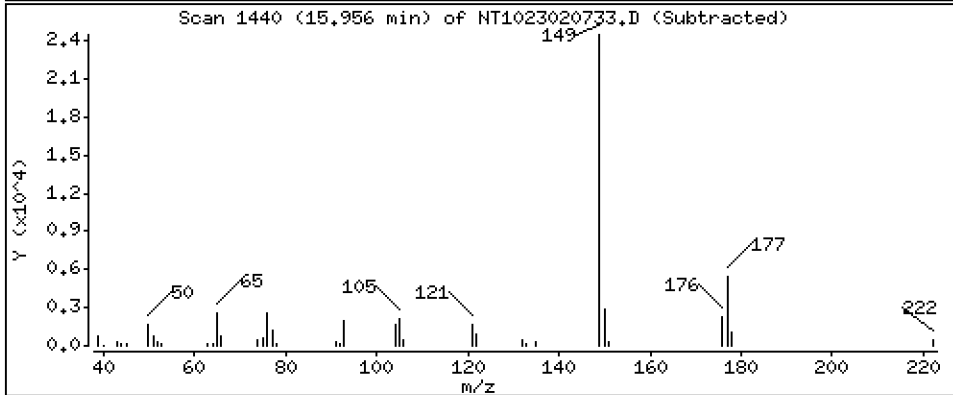
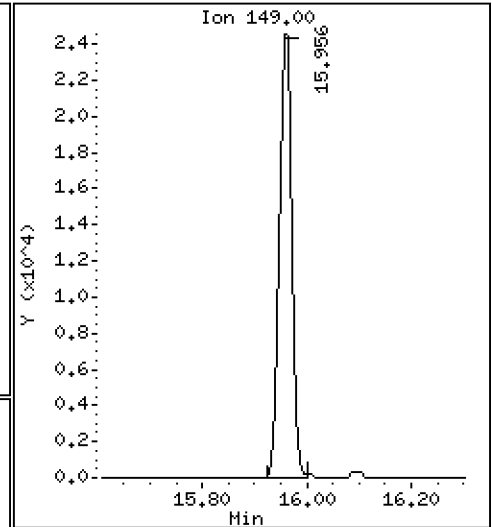
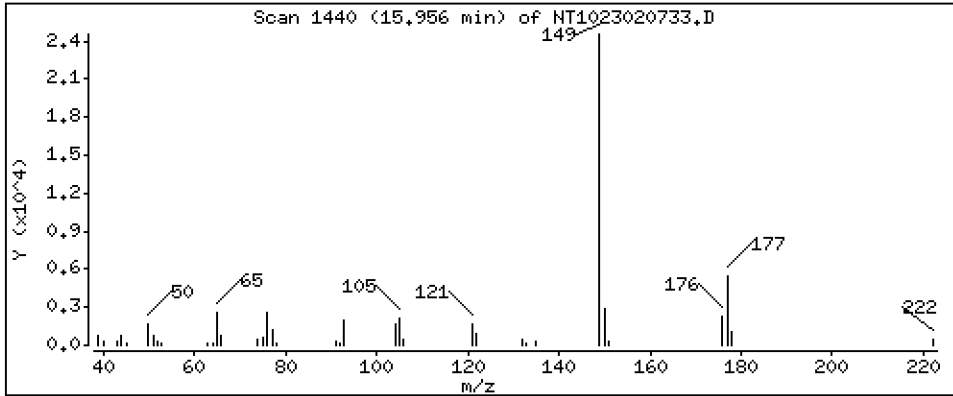
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,5541 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

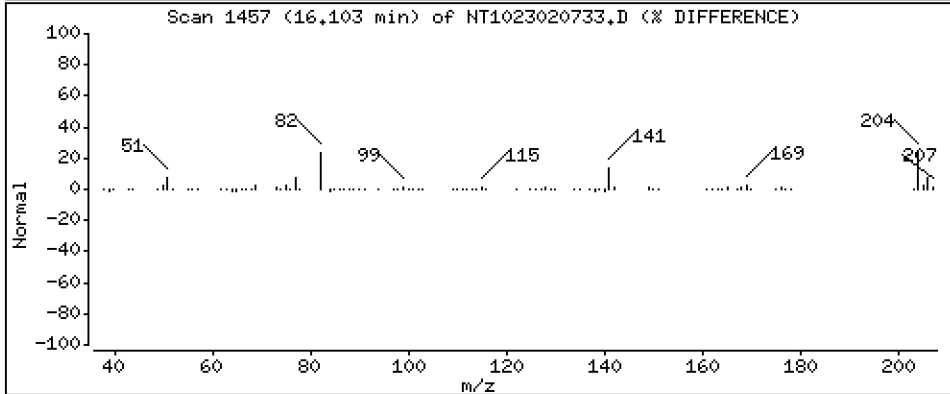
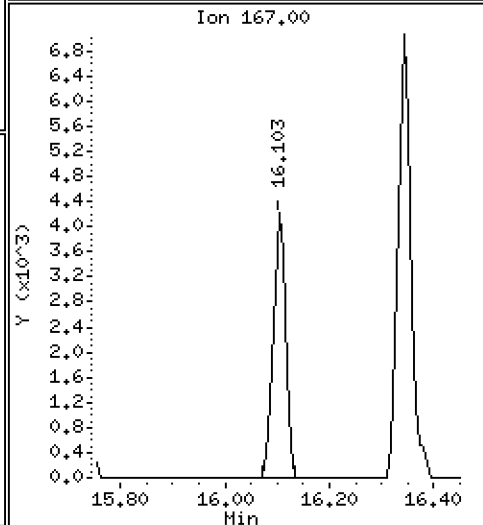
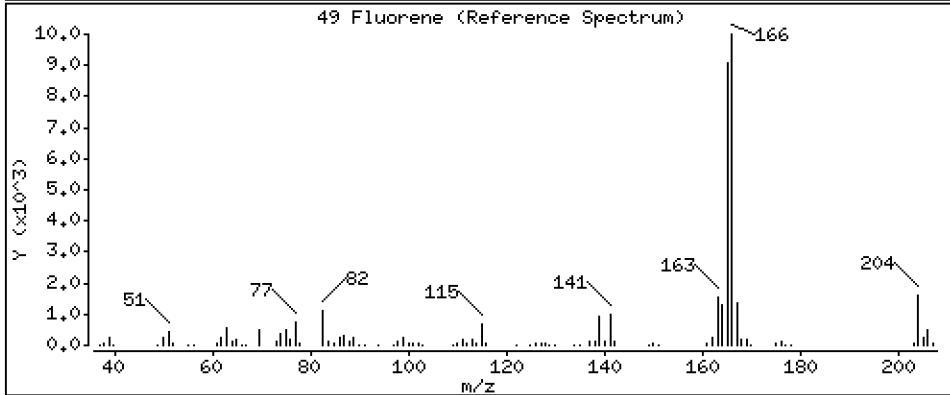
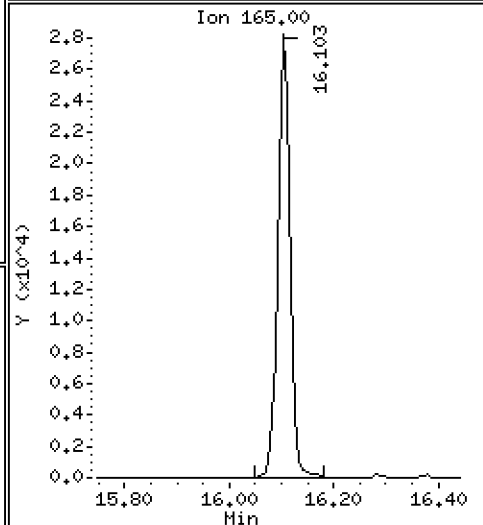
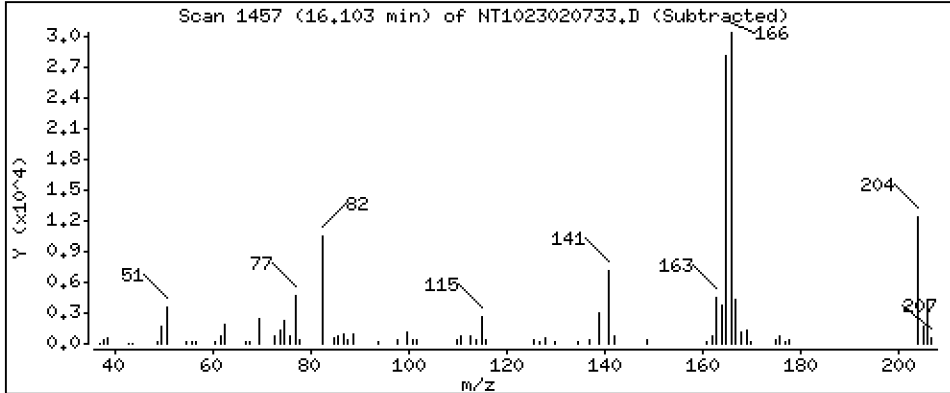
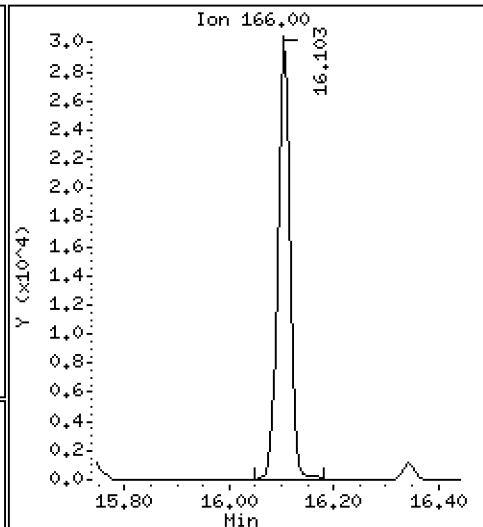
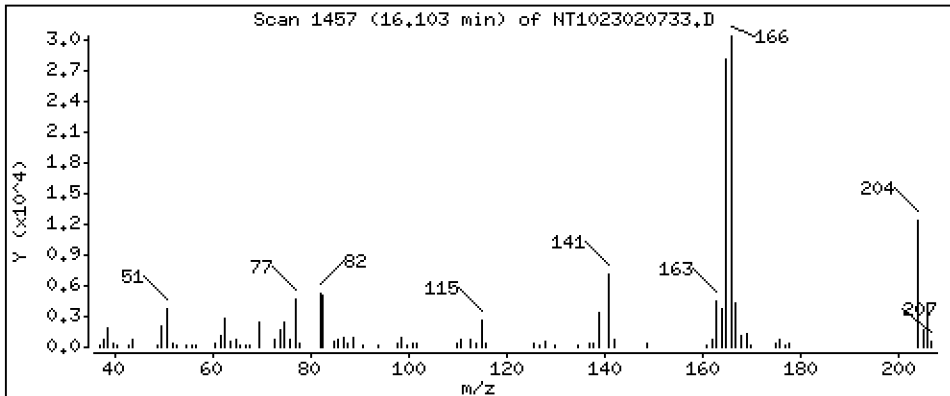
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

49 Fluorene

Concentration: 0.5285 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

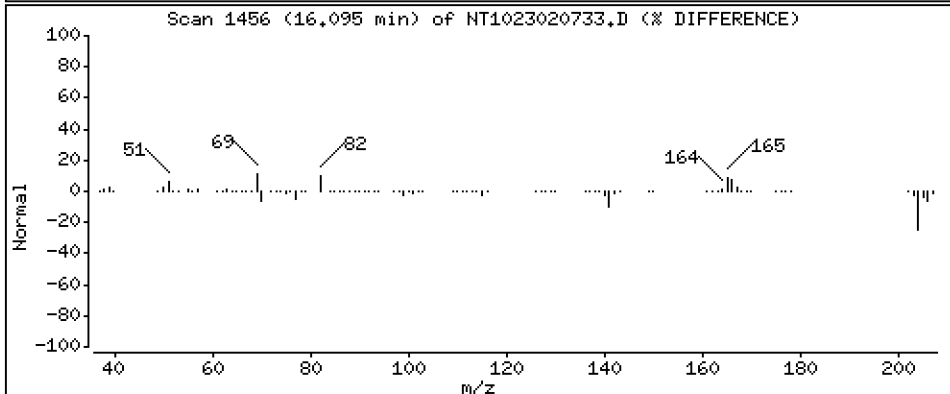
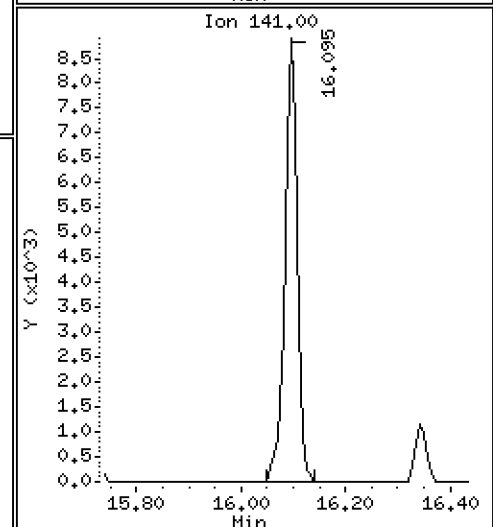
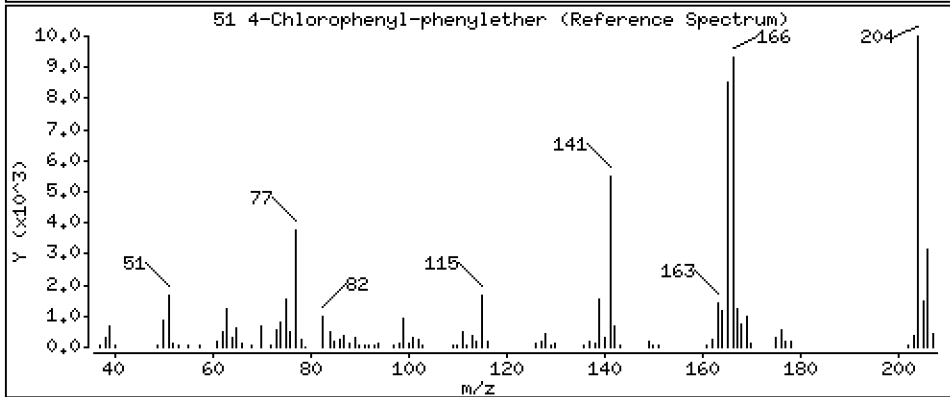
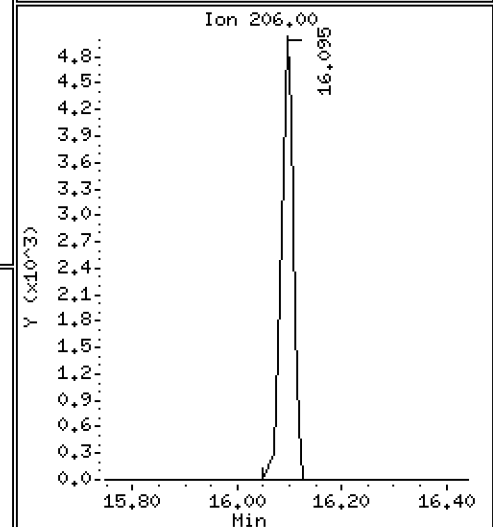
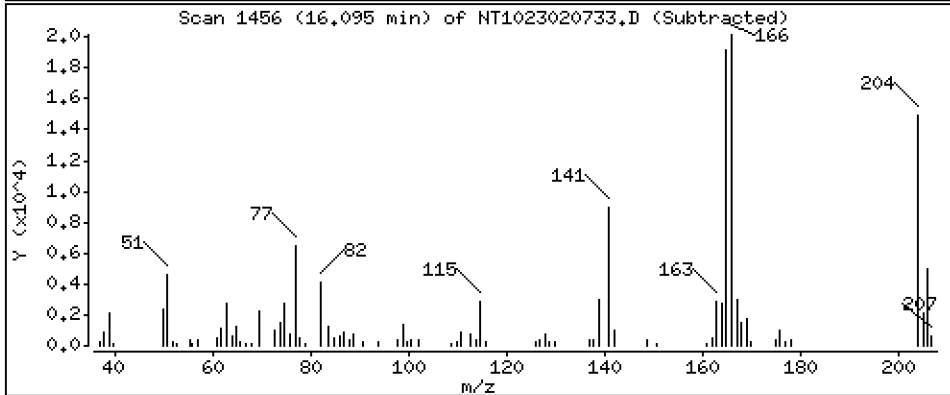
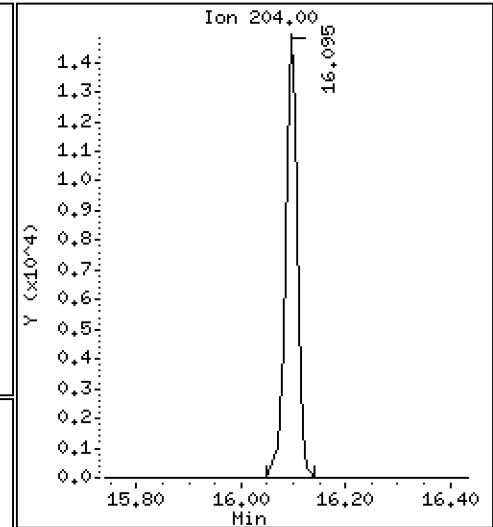
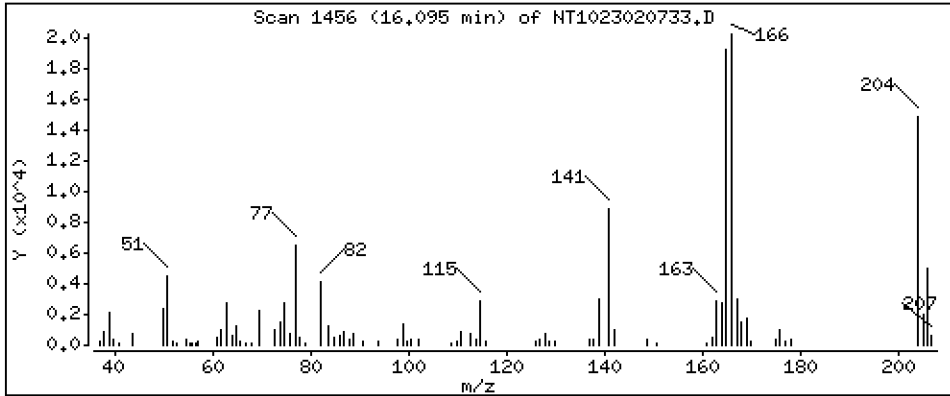
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

51 4-Chlorophenyl-phenylether

Concentration: 0.5399 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

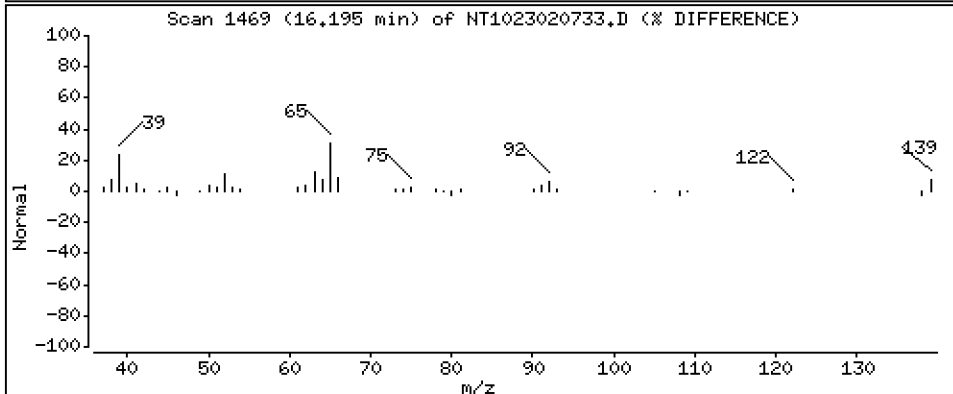
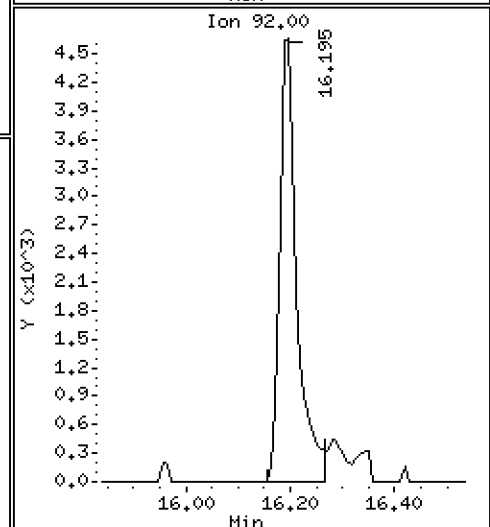
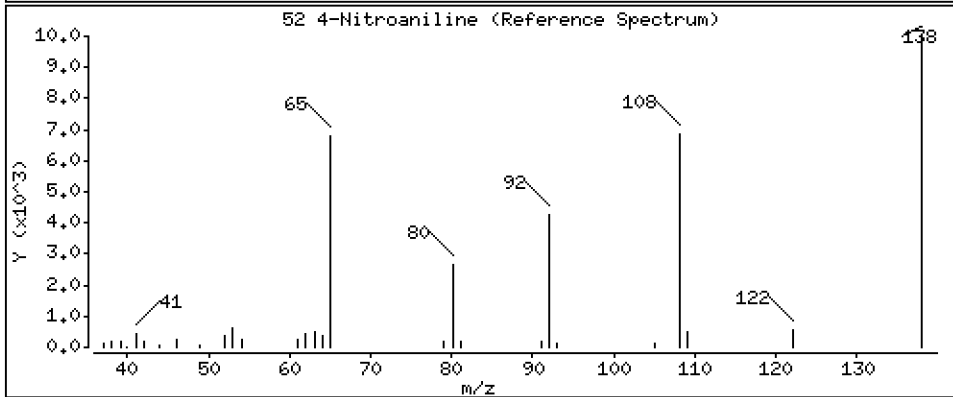
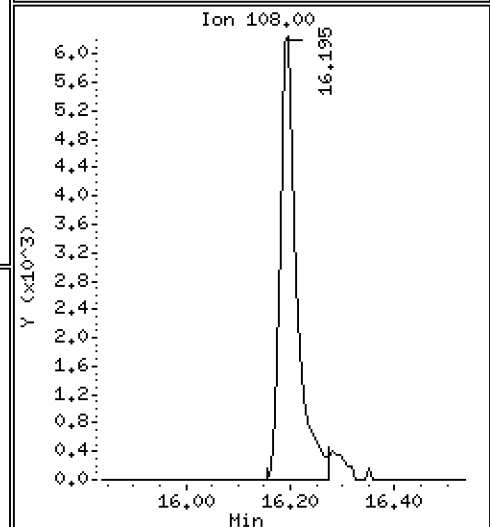
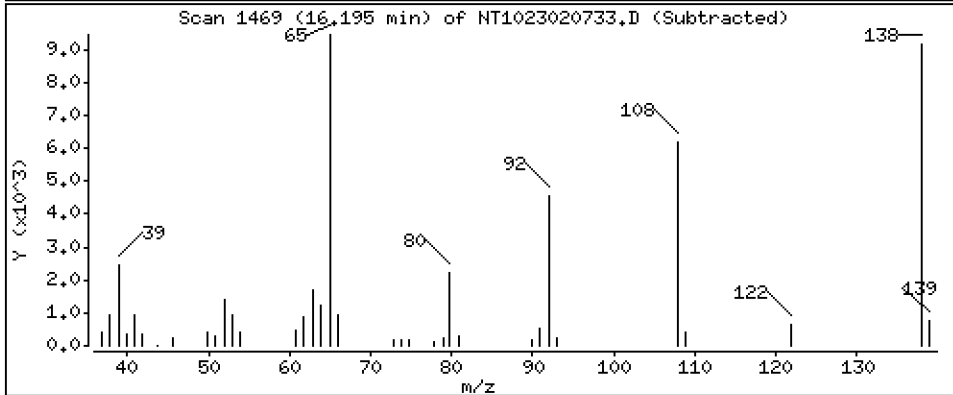
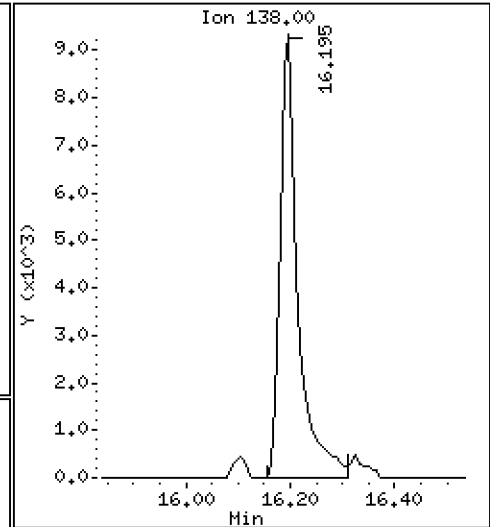
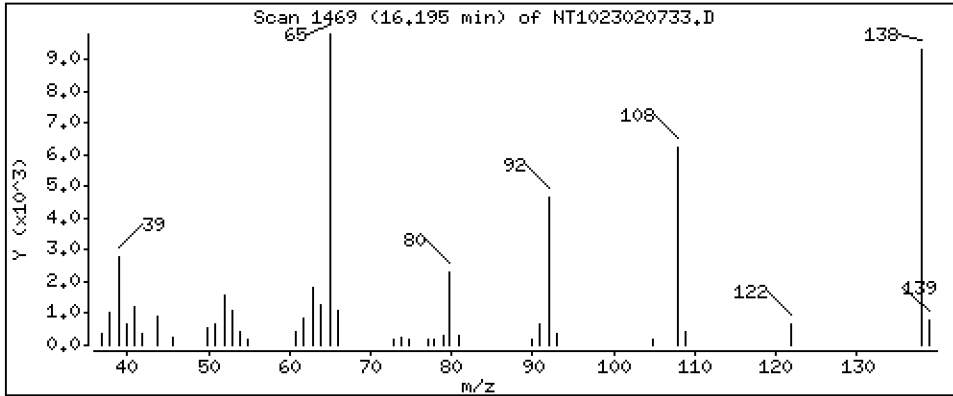
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 0,9729 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

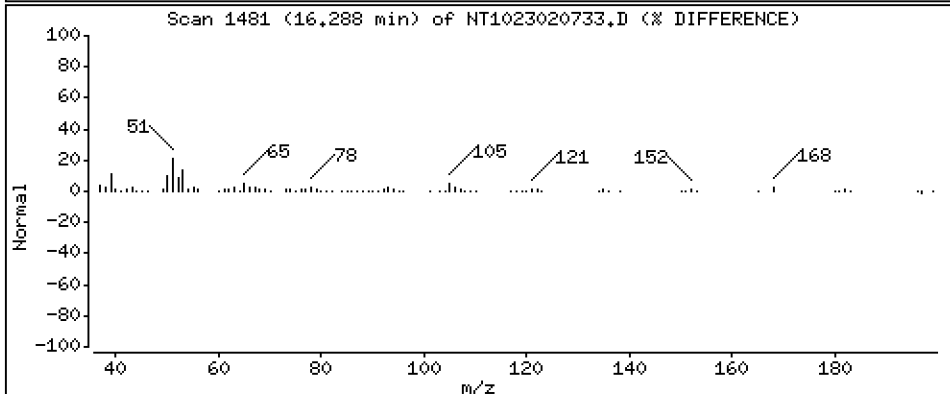
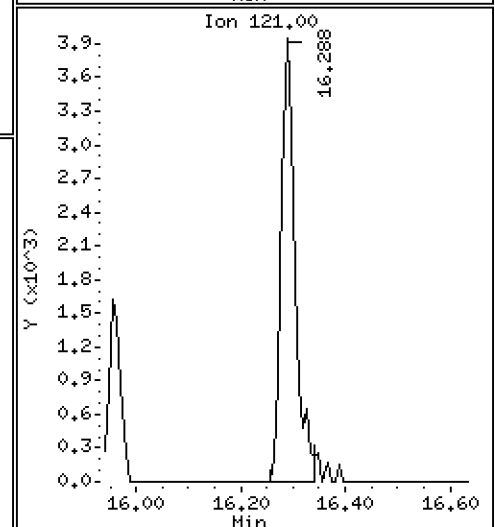
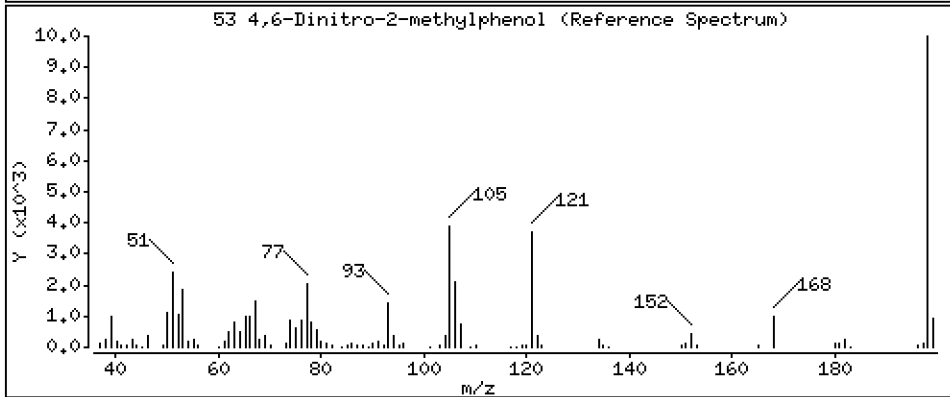
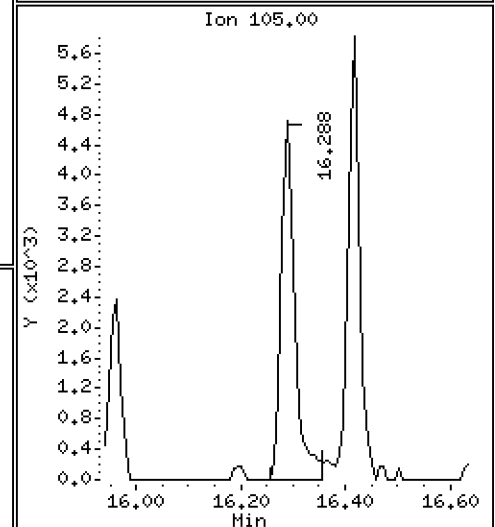
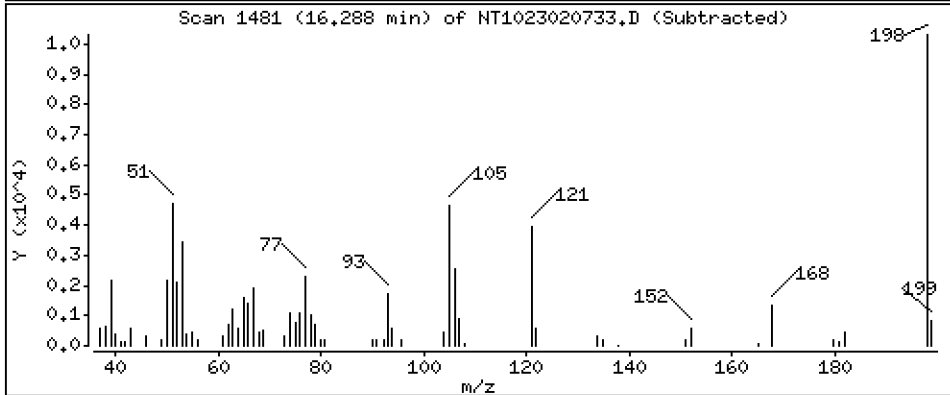
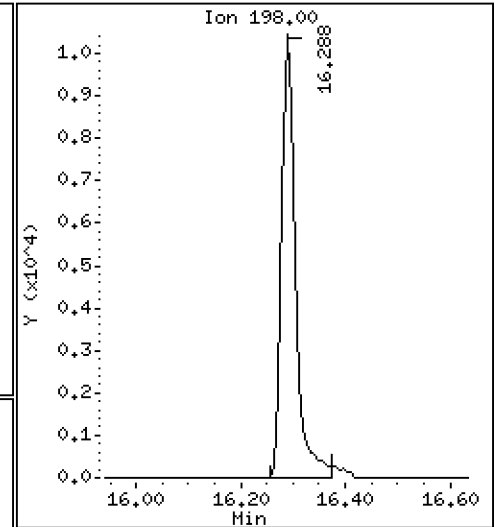
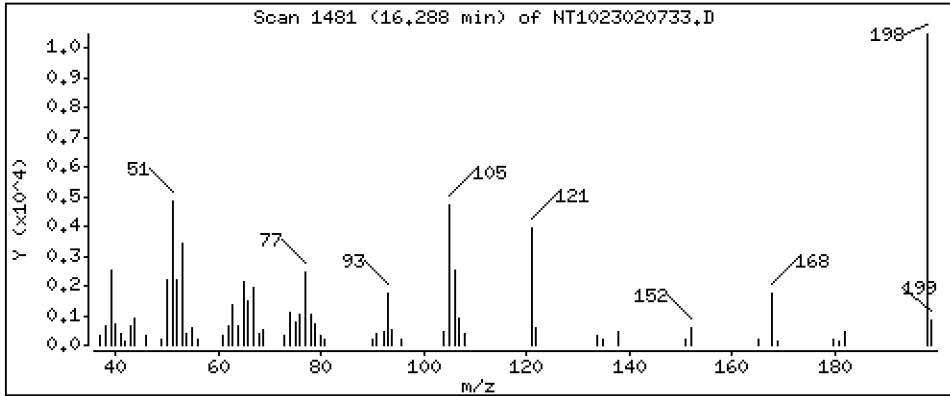
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

53 4,6-Dinitro-2-methylphenol

Concentration: 1.366 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

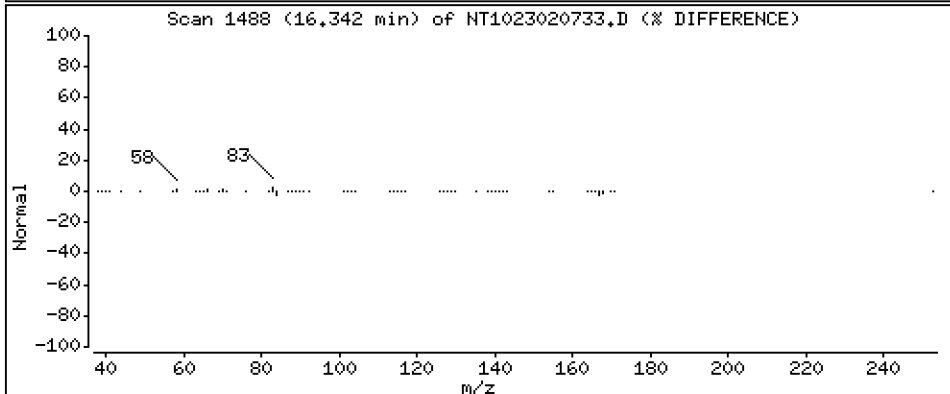
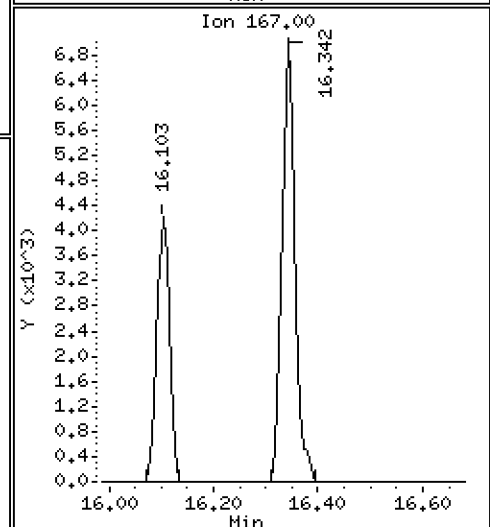
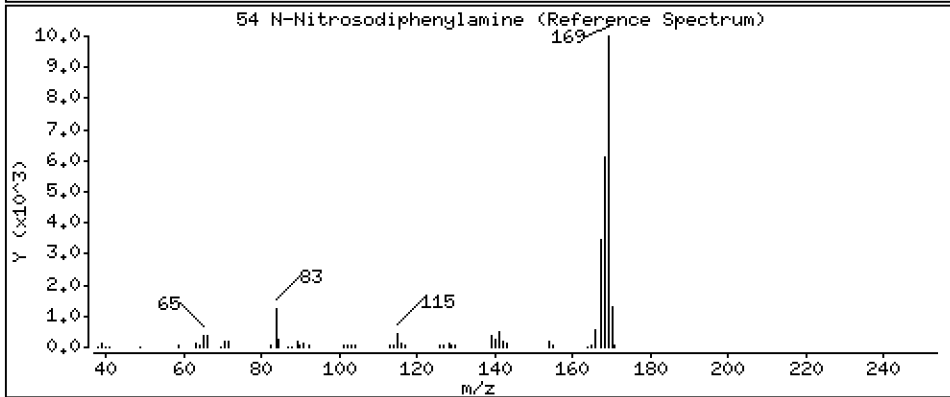
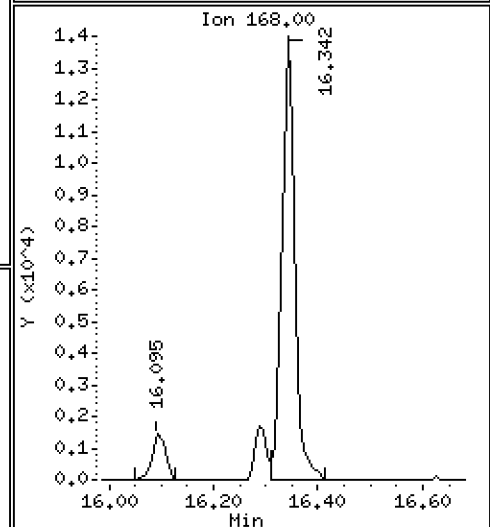
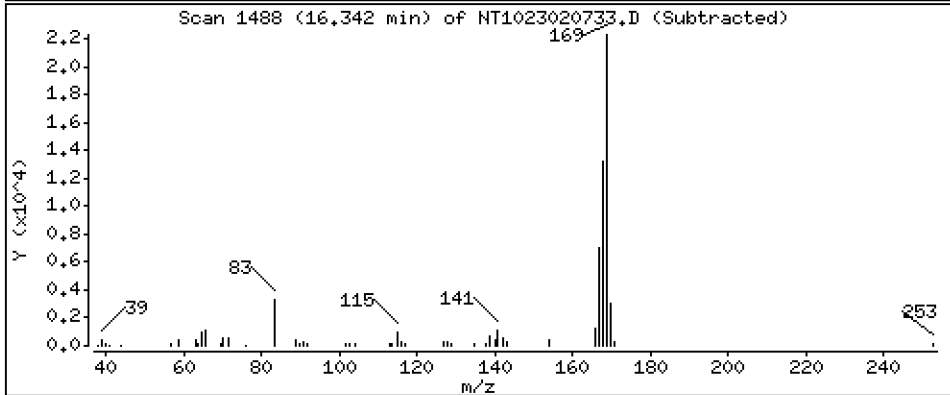
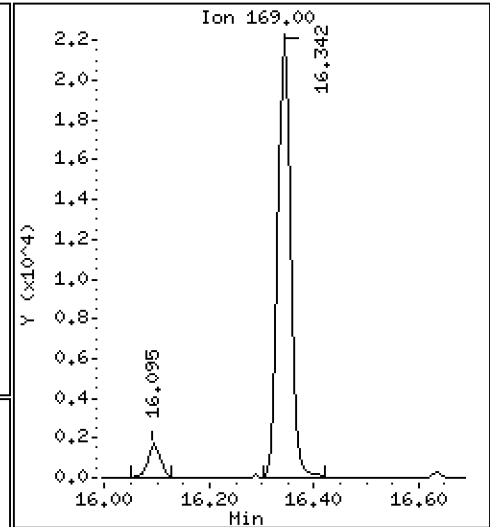
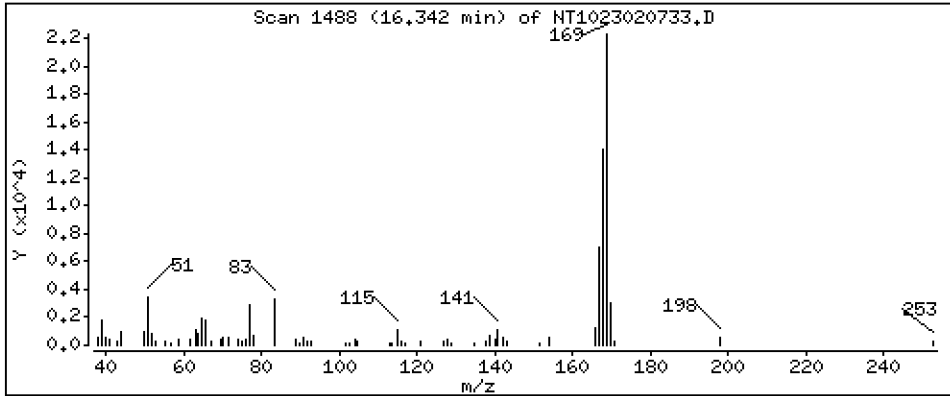
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 0,5610 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

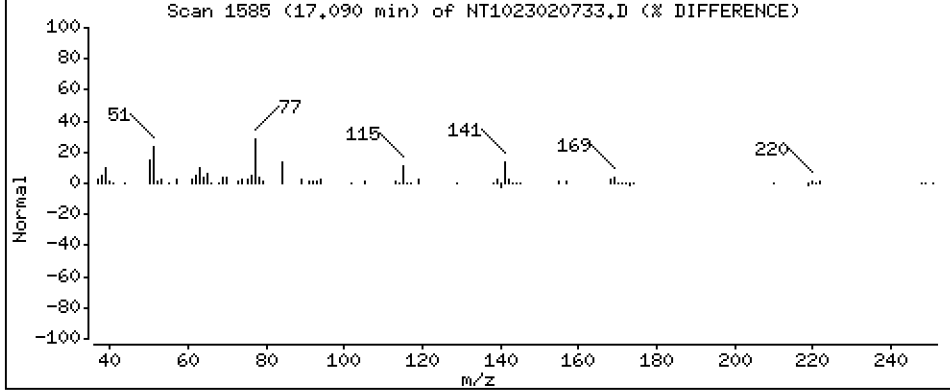
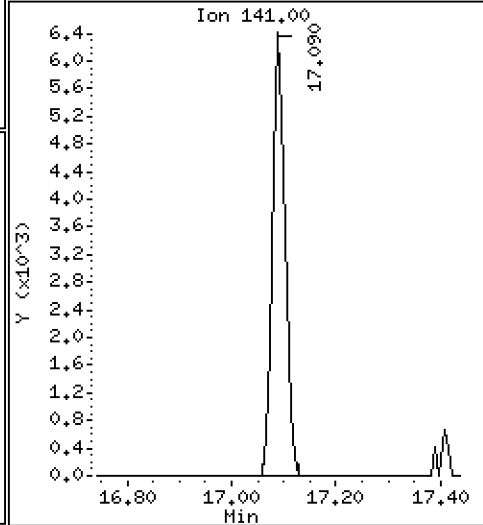
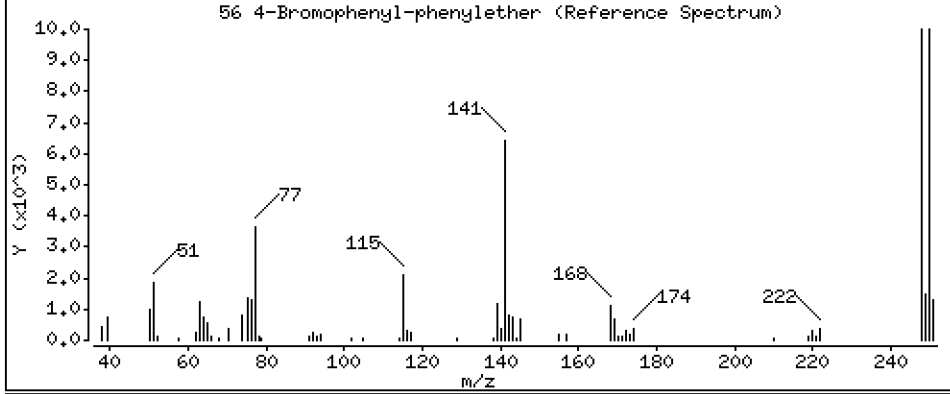
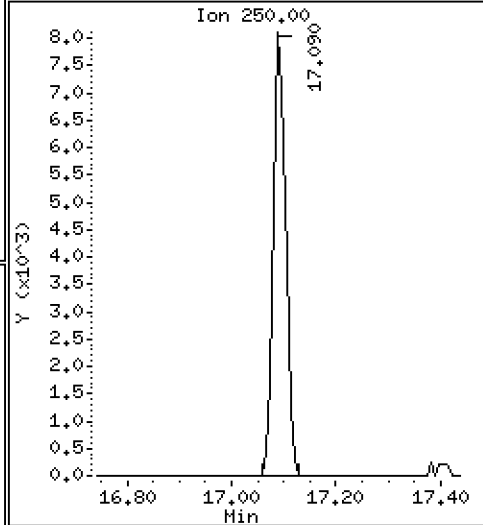
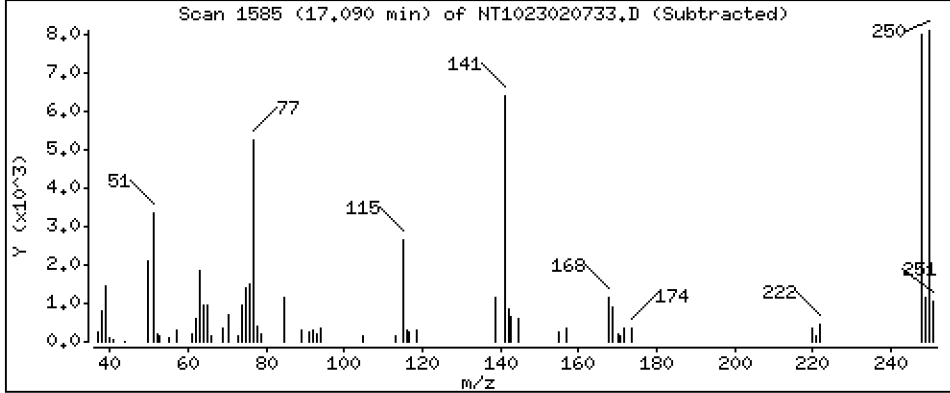
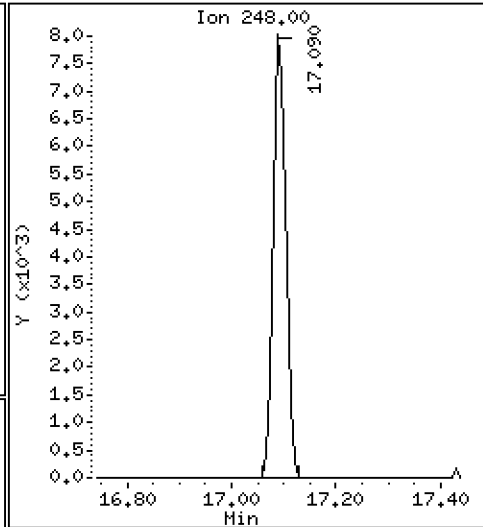
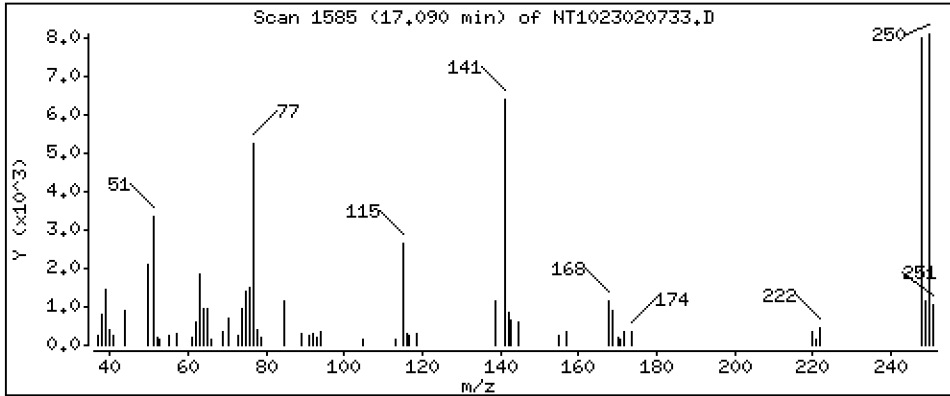
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 0,5458 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

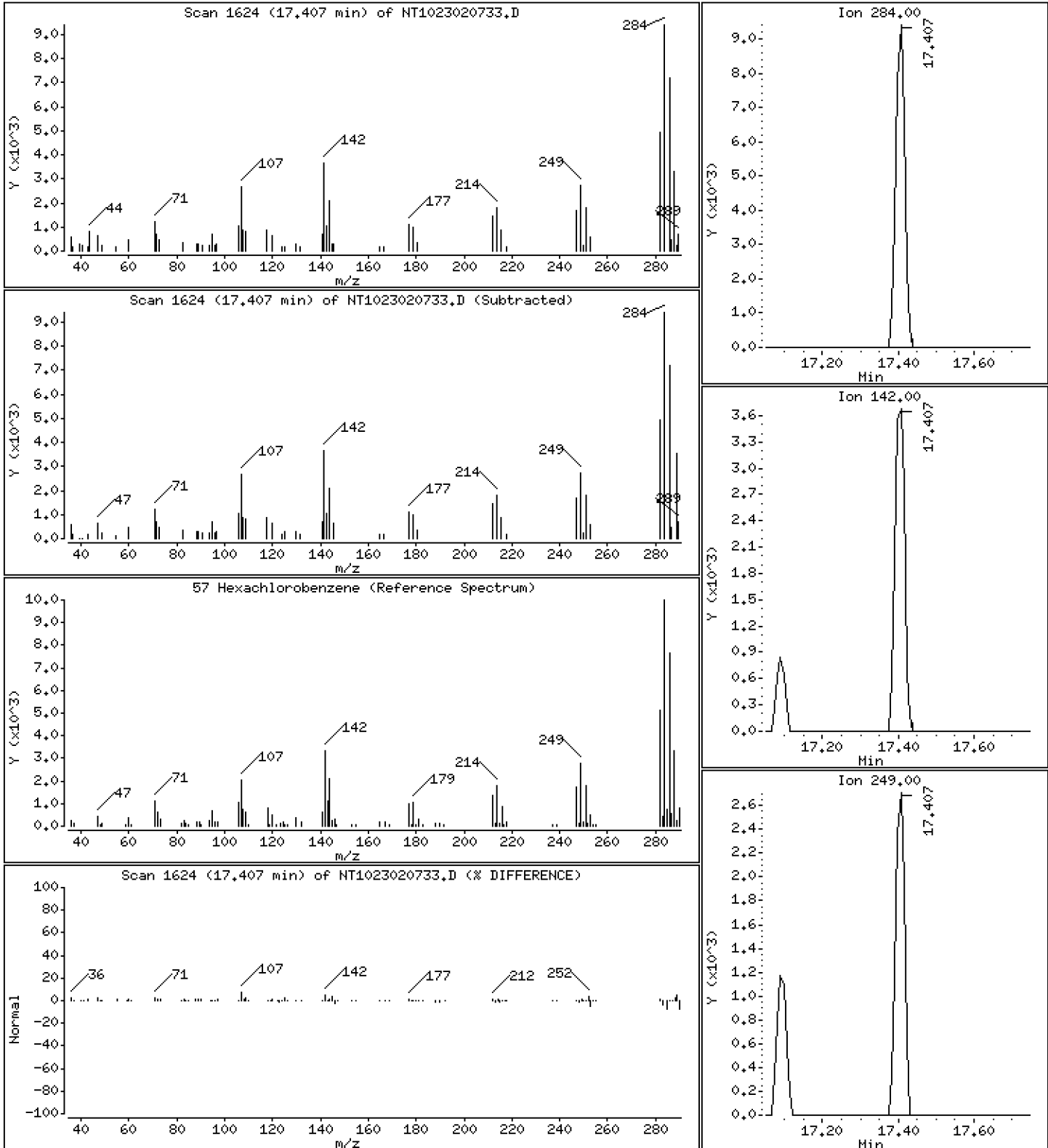
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,5720 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

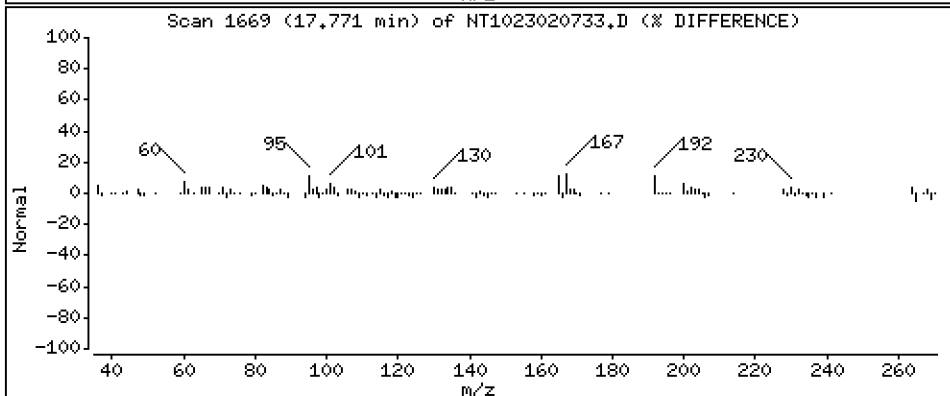
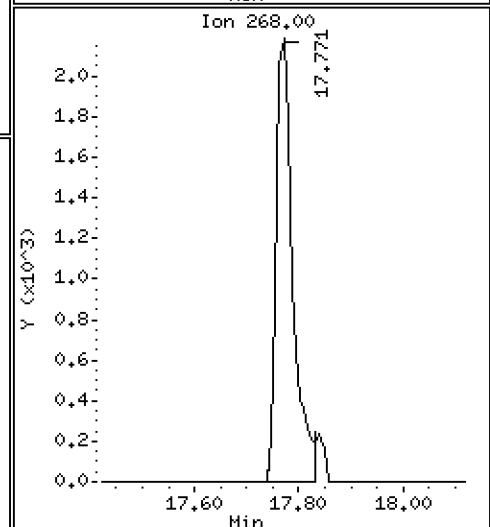
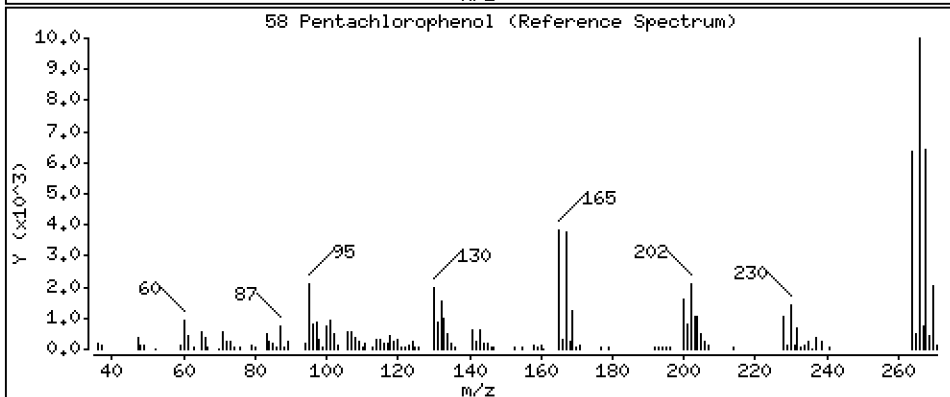
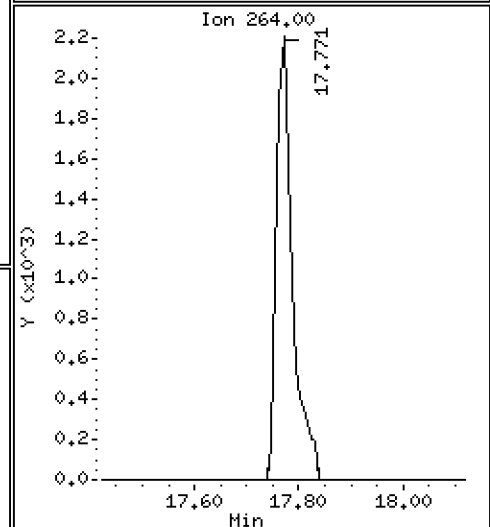
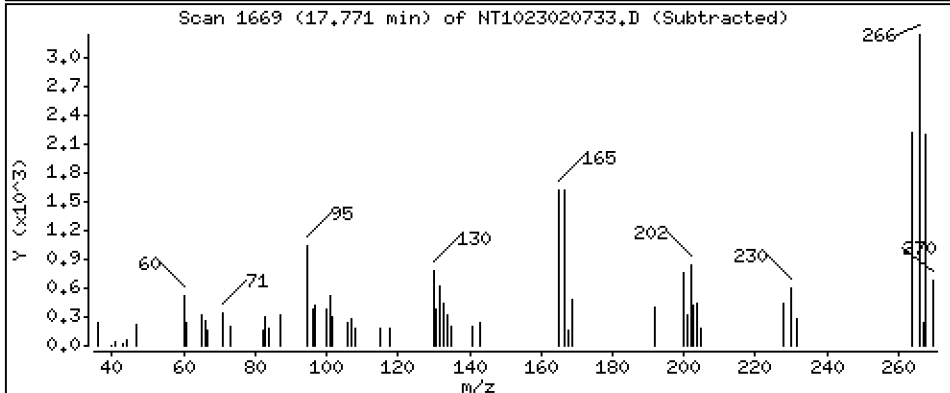
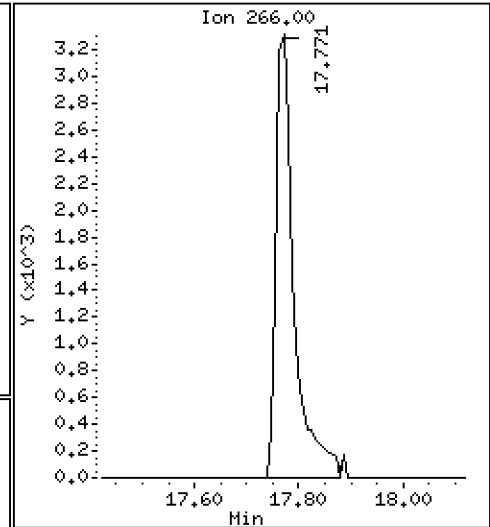
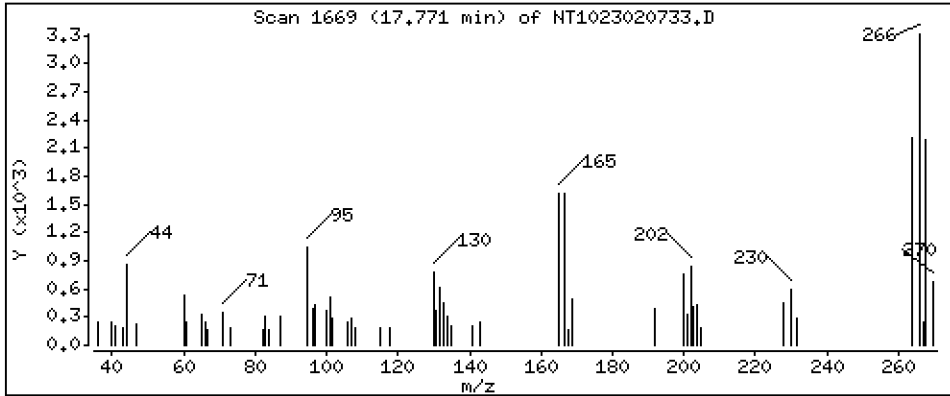
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,7960 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

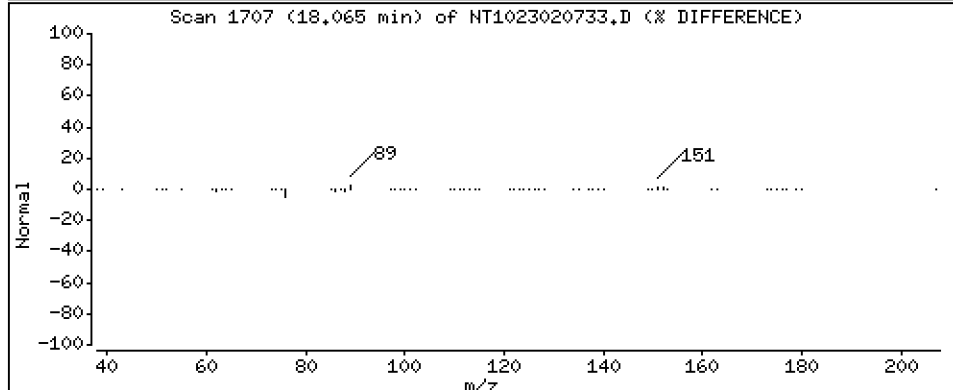
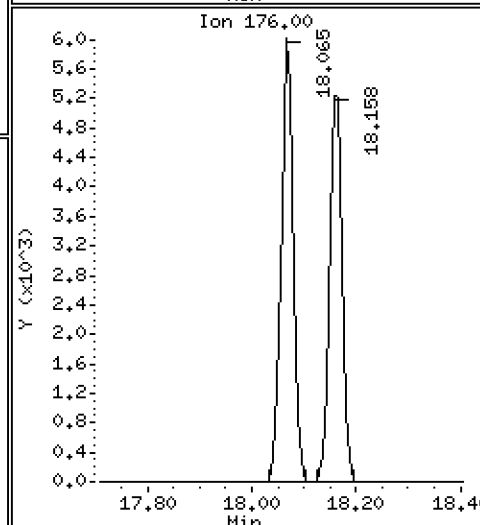
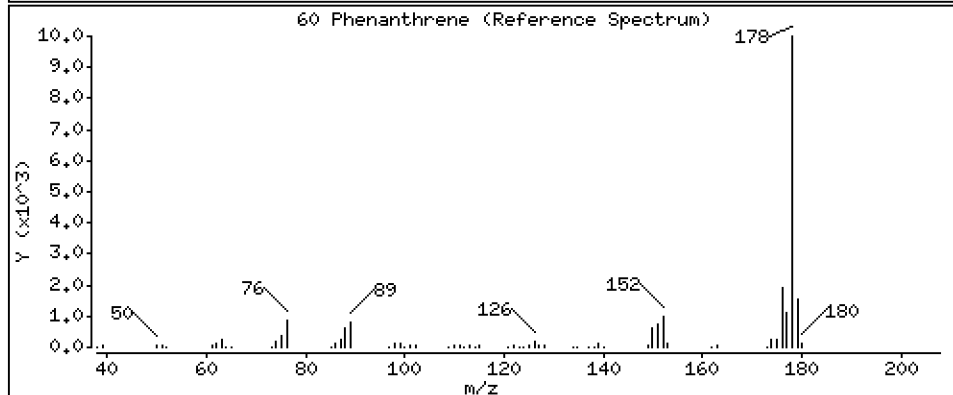
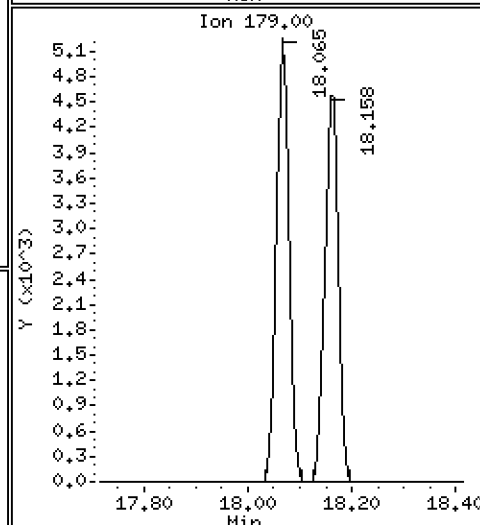
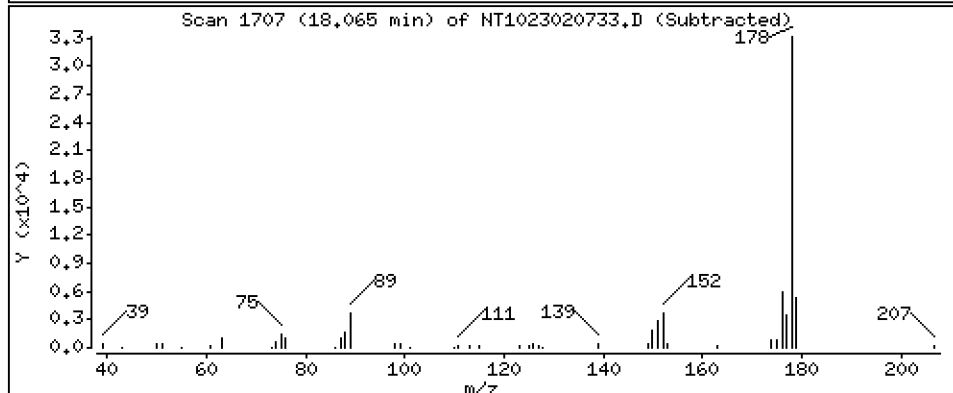
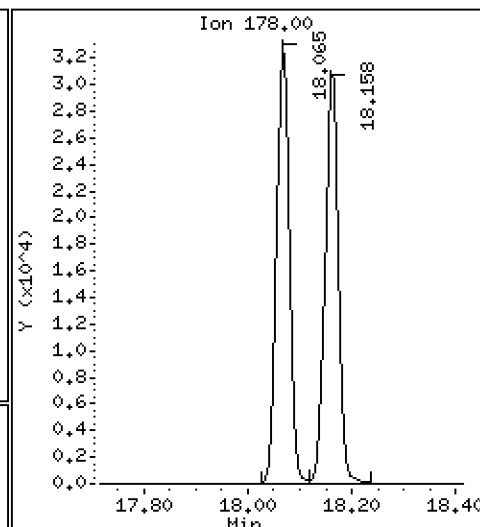
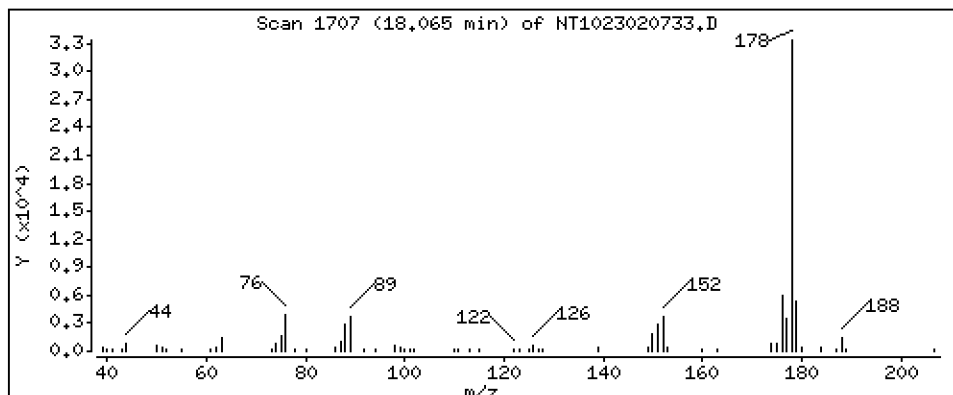
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,5276 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

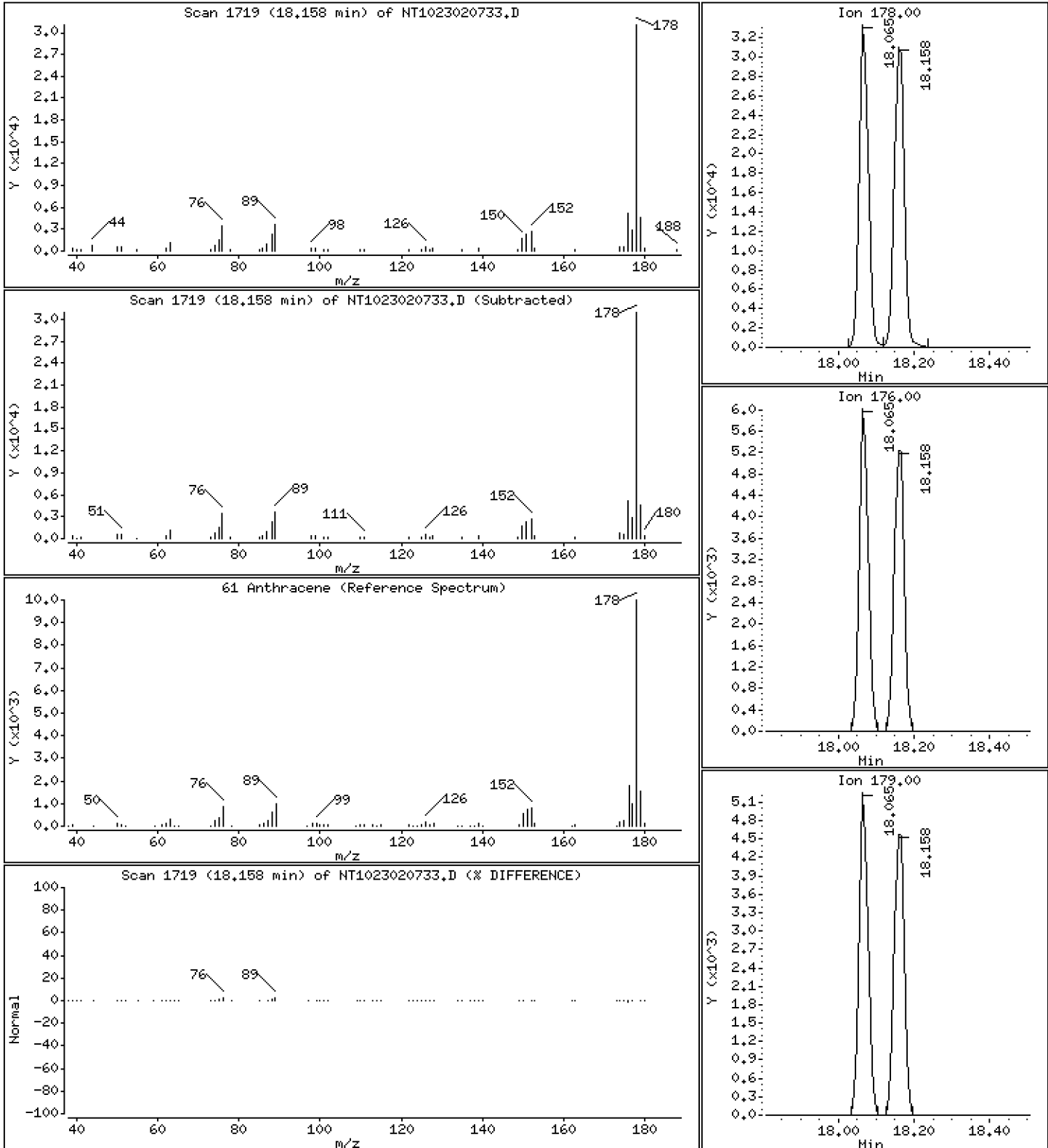
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,5445 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

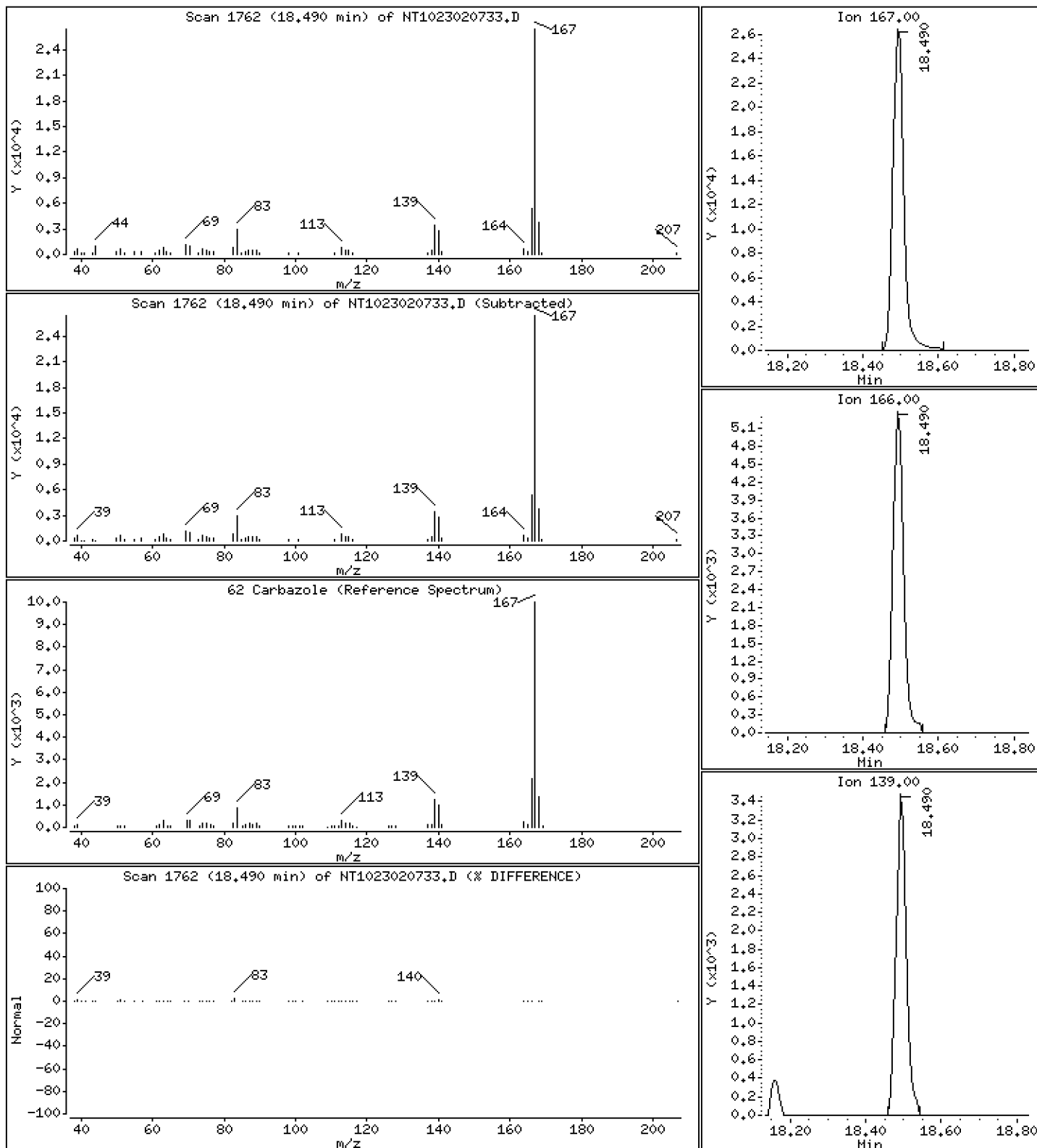
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,5250 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

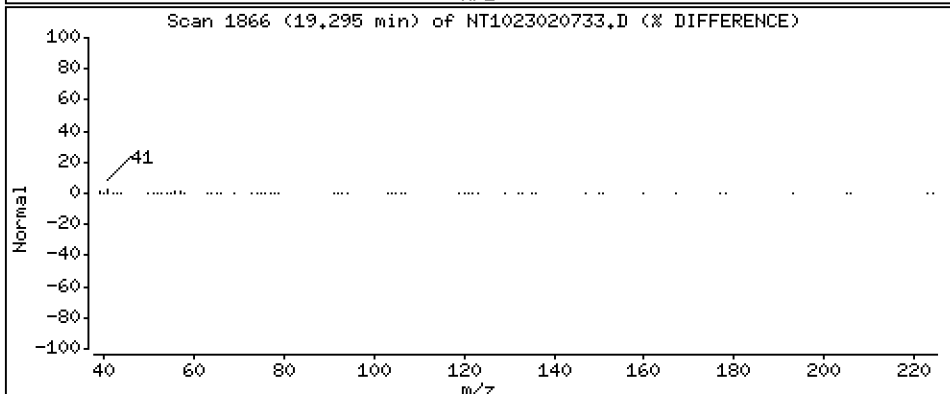
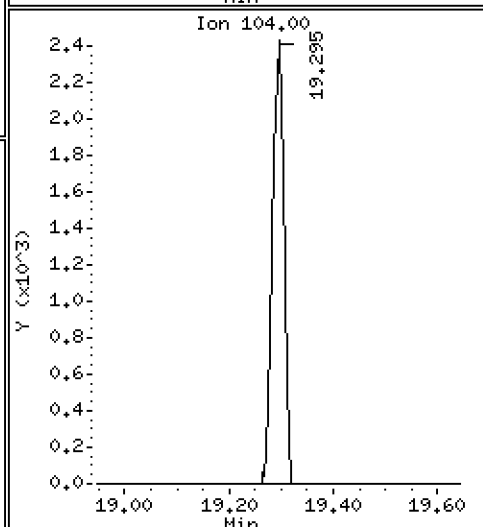
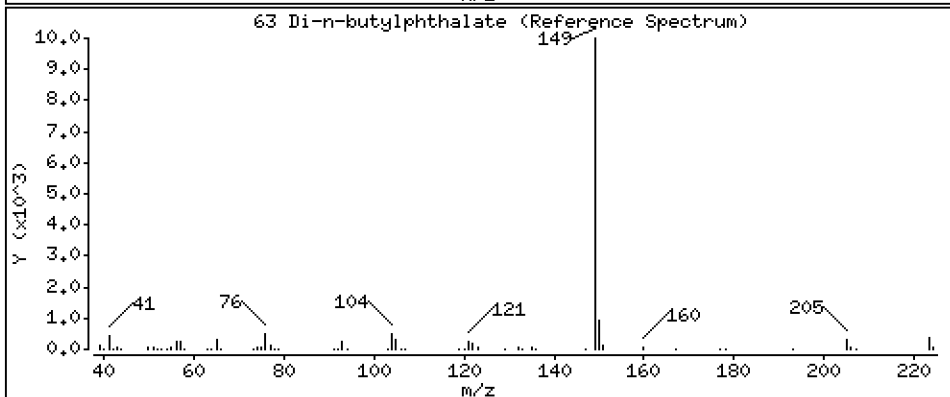
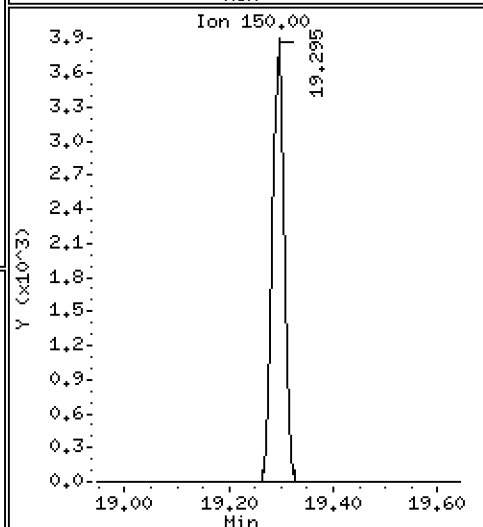
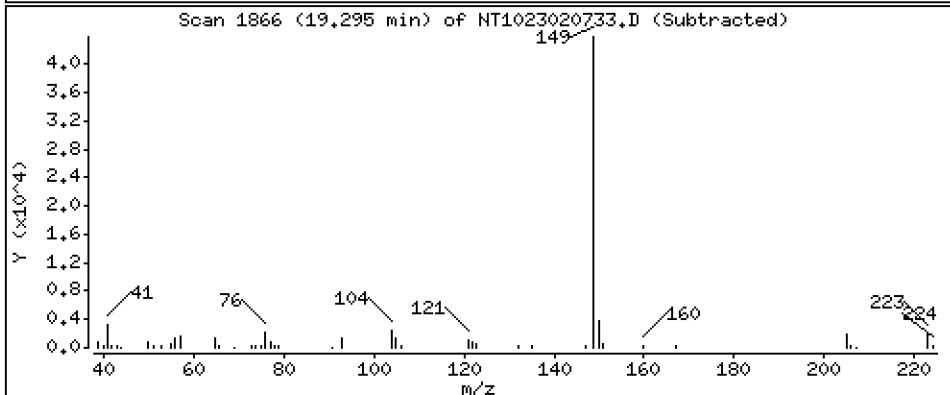
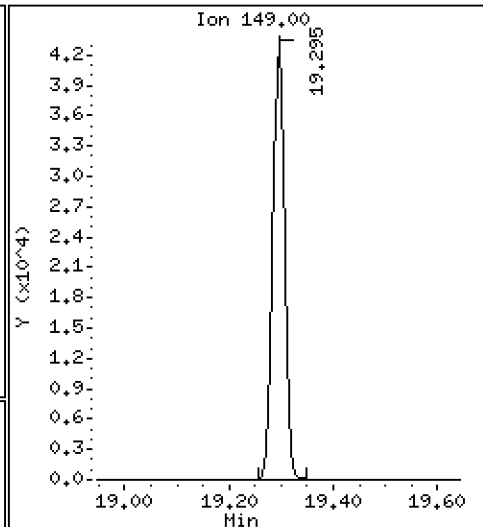
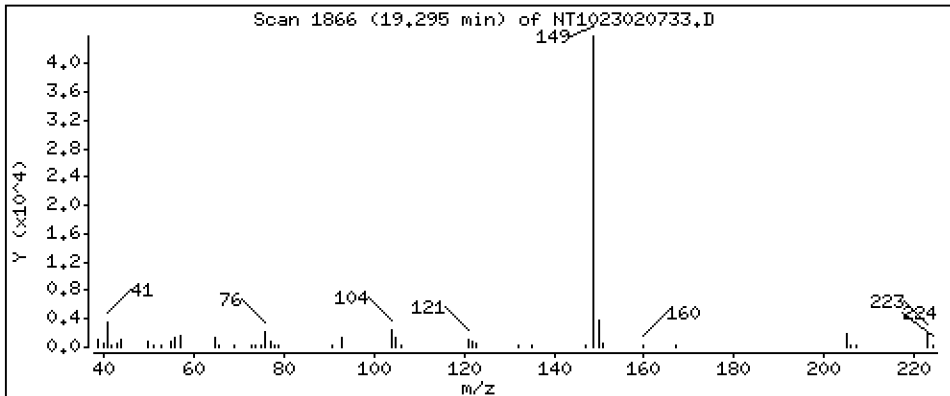
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

63 Di-n-butylphthalate

Concentration: 0.5534 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

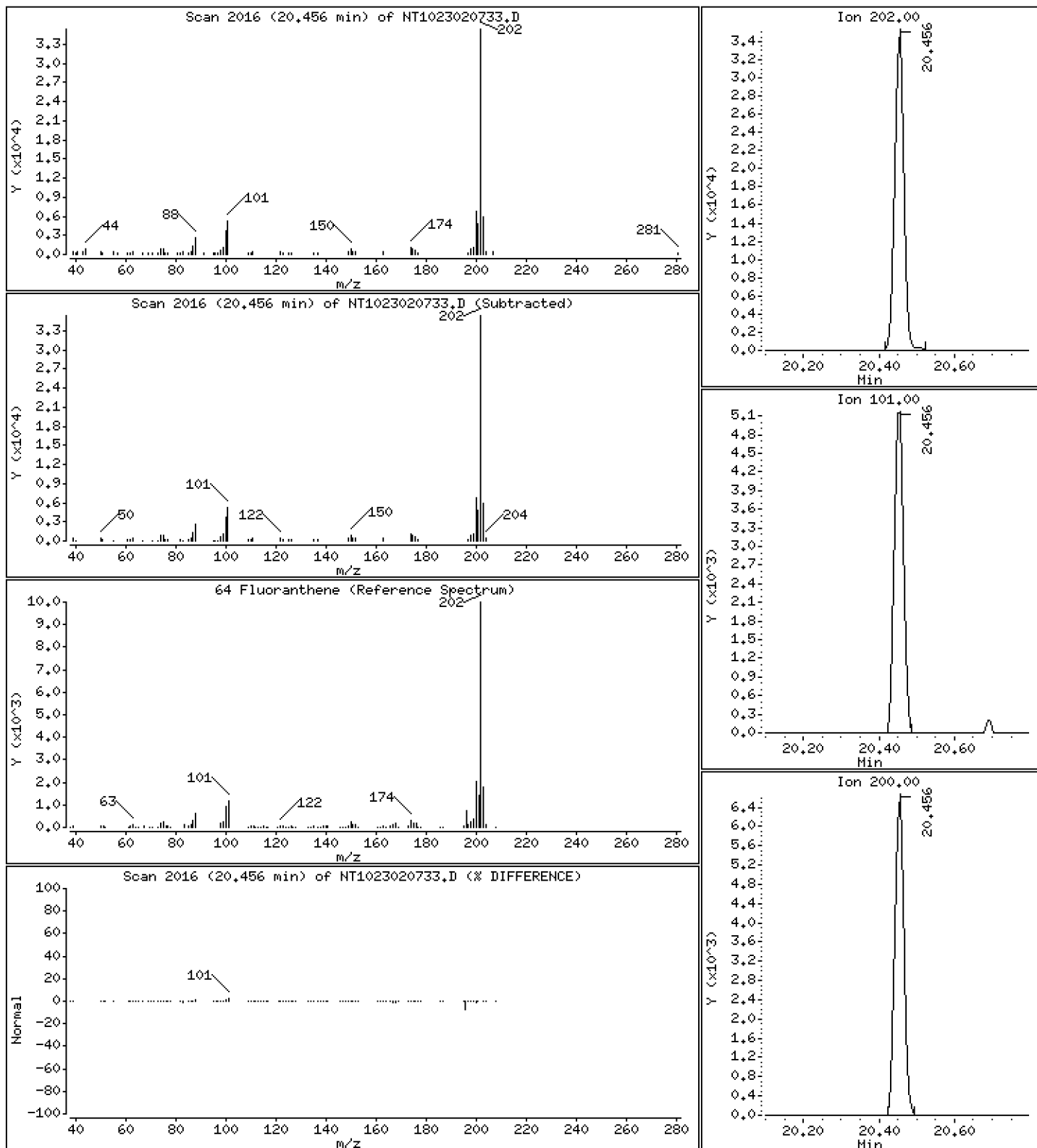
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,4988 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

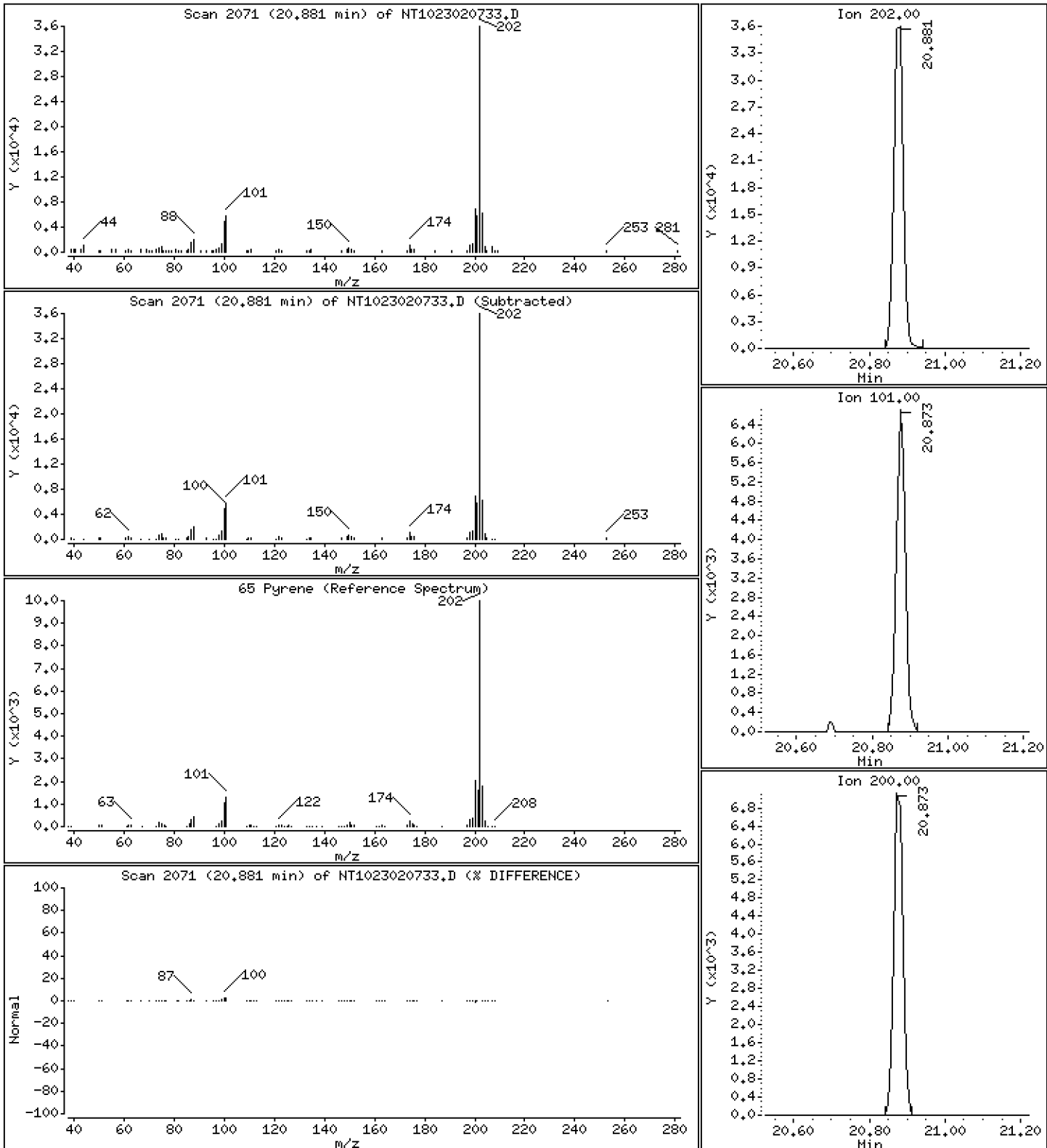
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 0,4960 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

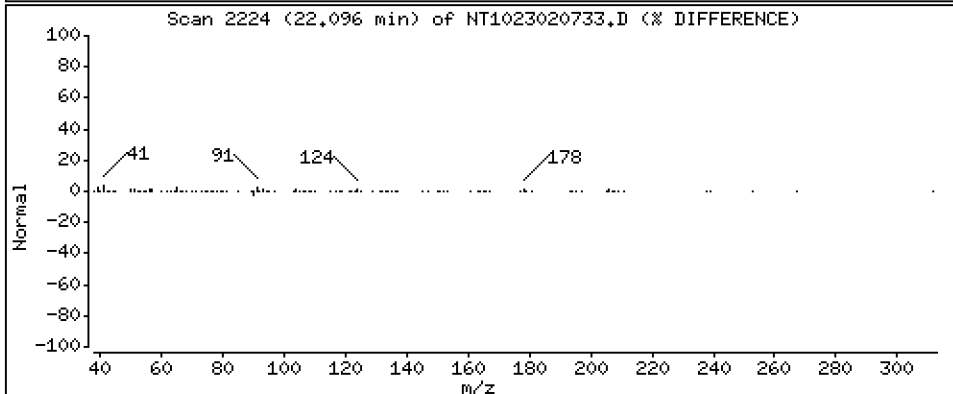
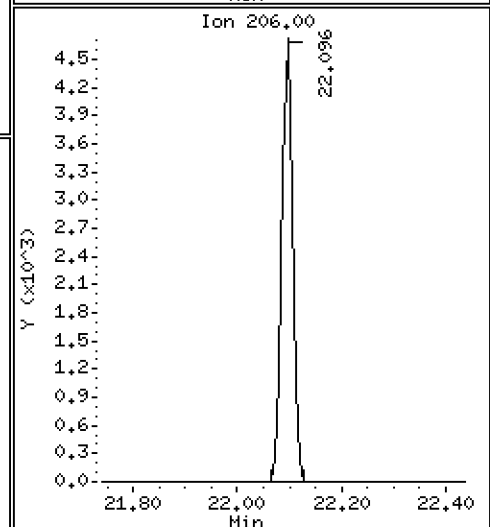
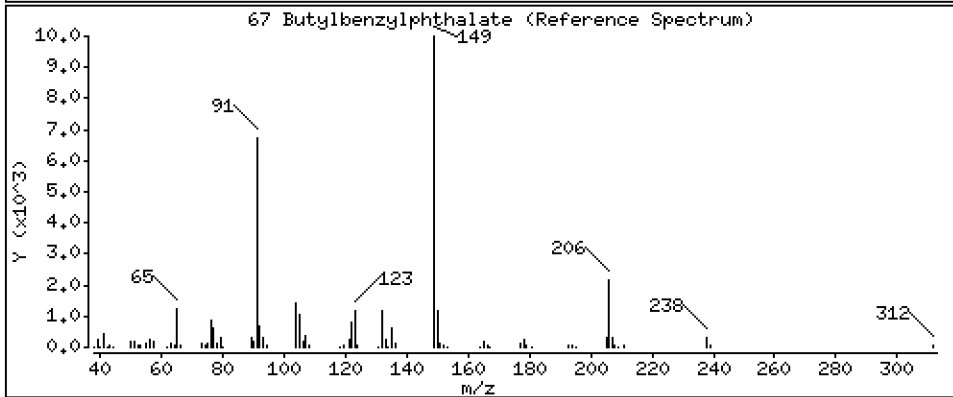
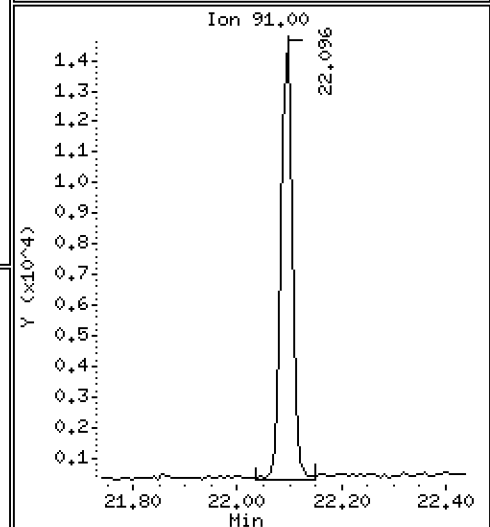
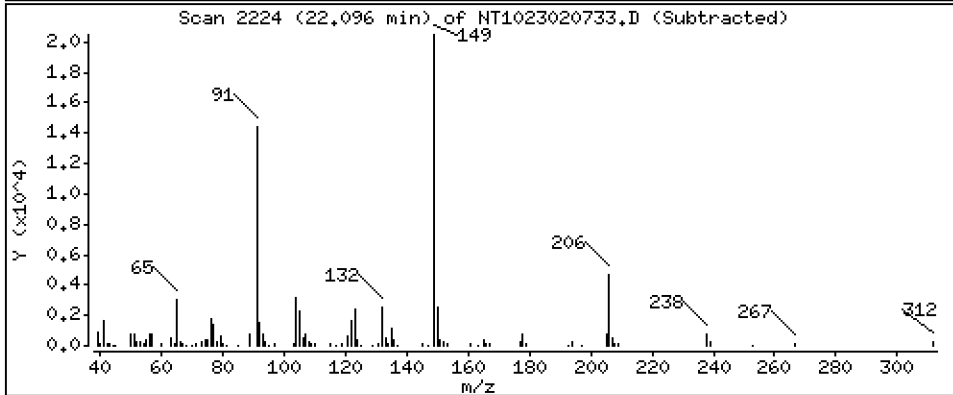
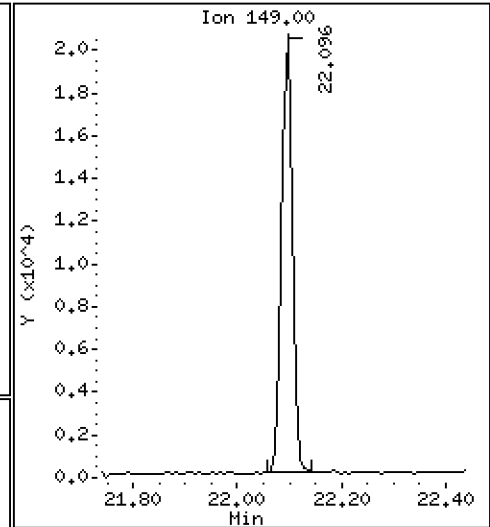
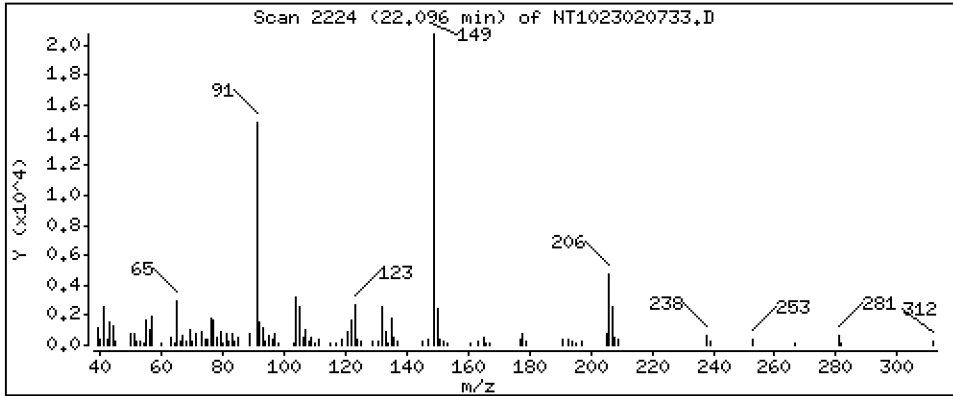
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 0,5441 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

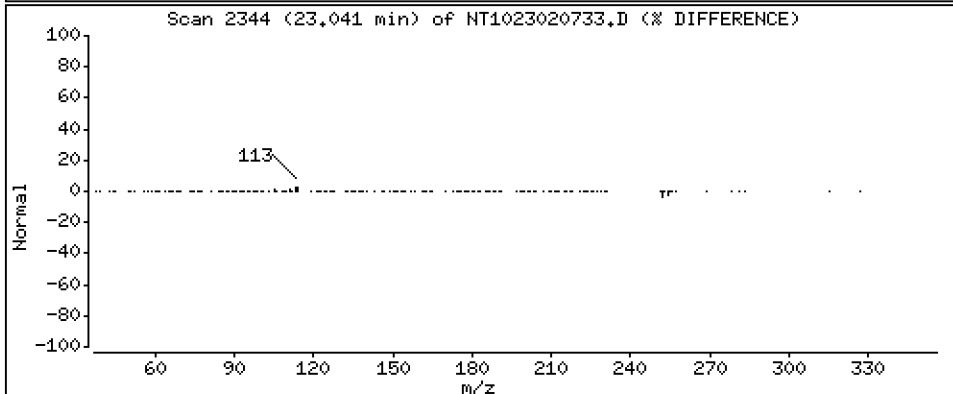
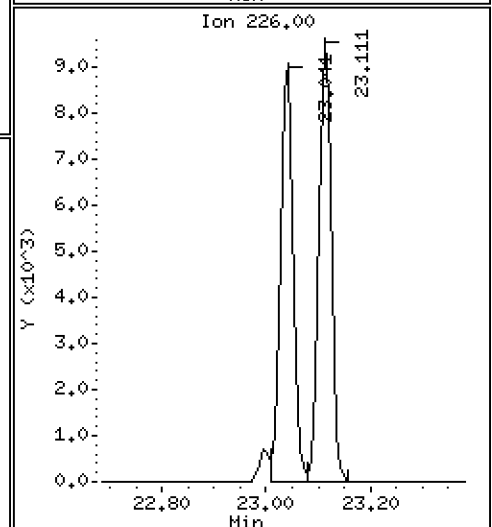
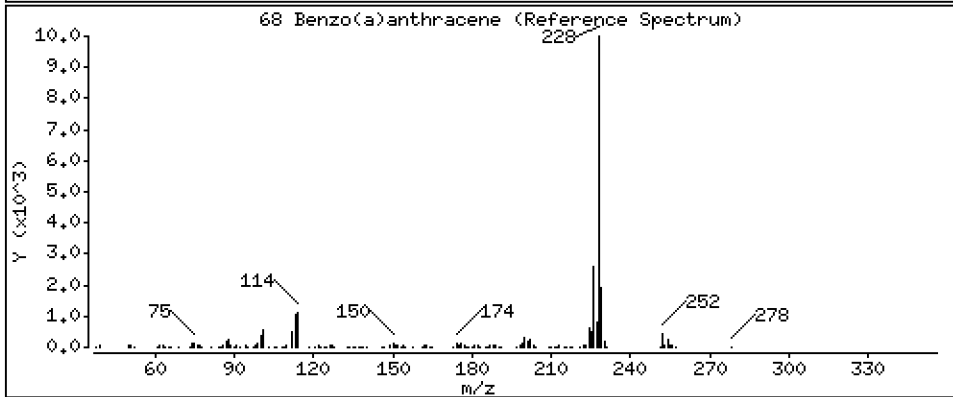
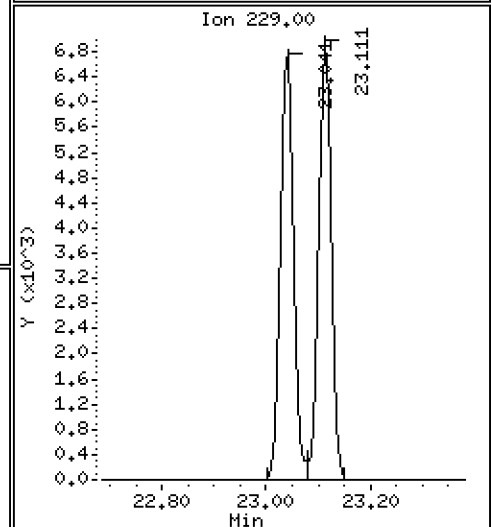
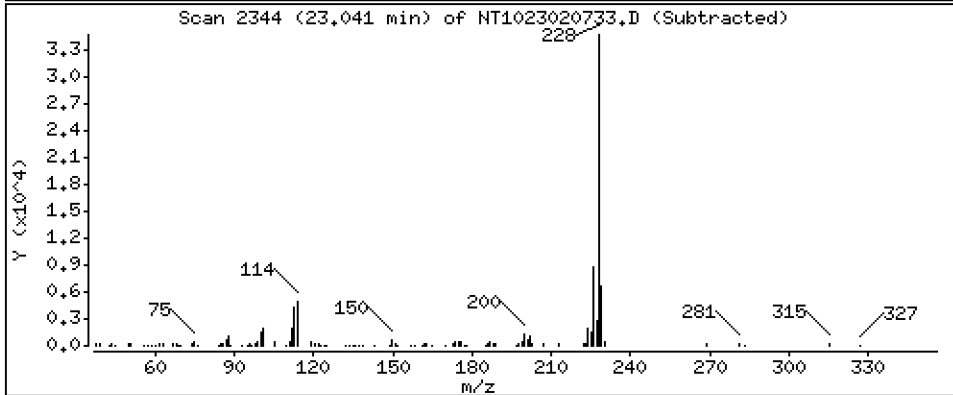
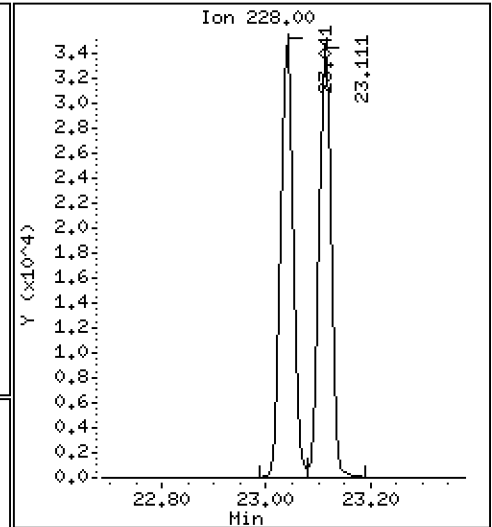
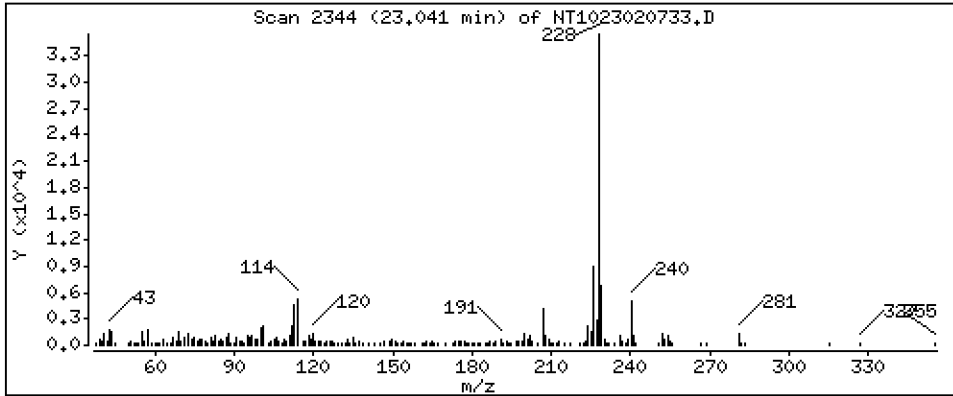
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,5582 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

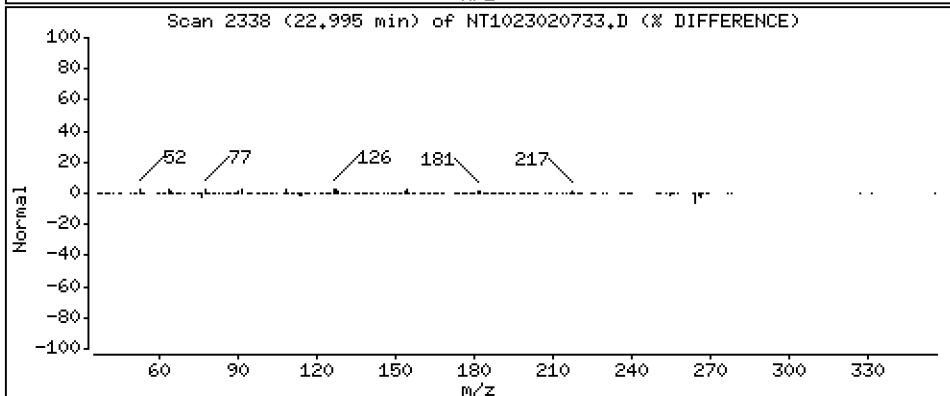
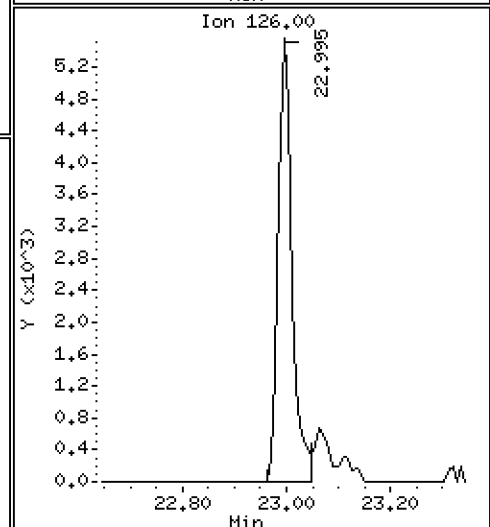
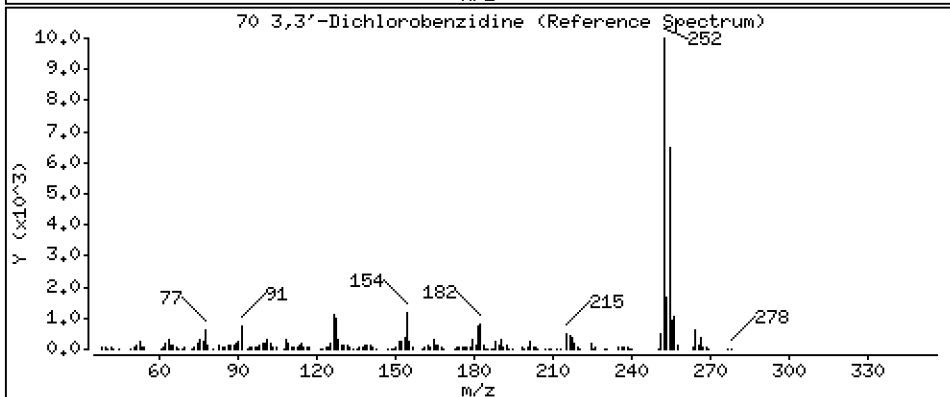
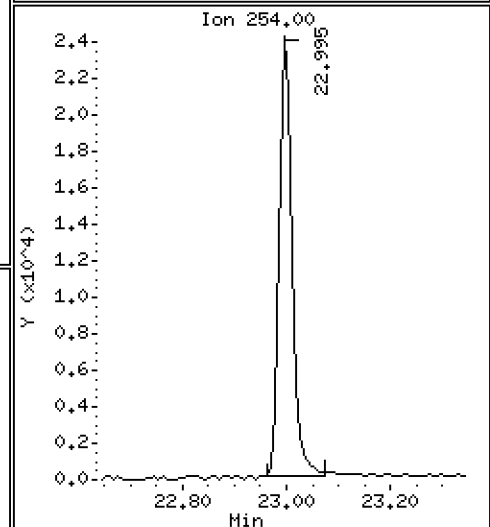
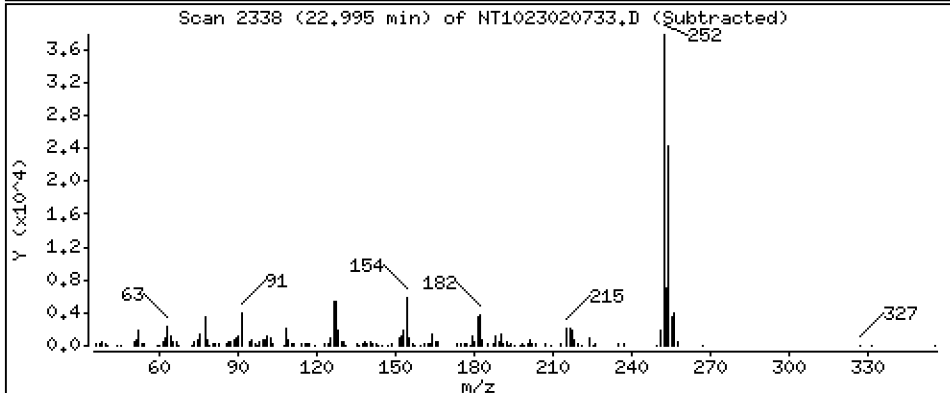
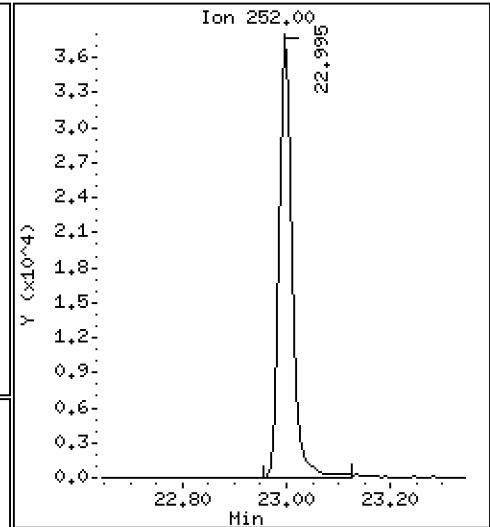
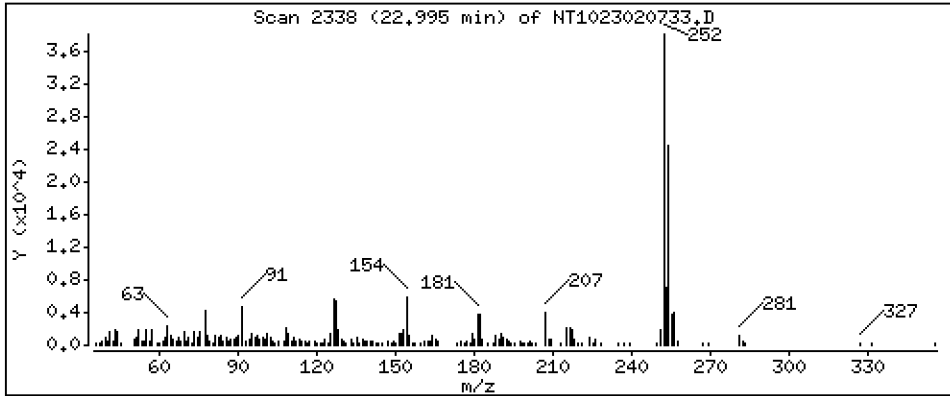
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 1,808 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

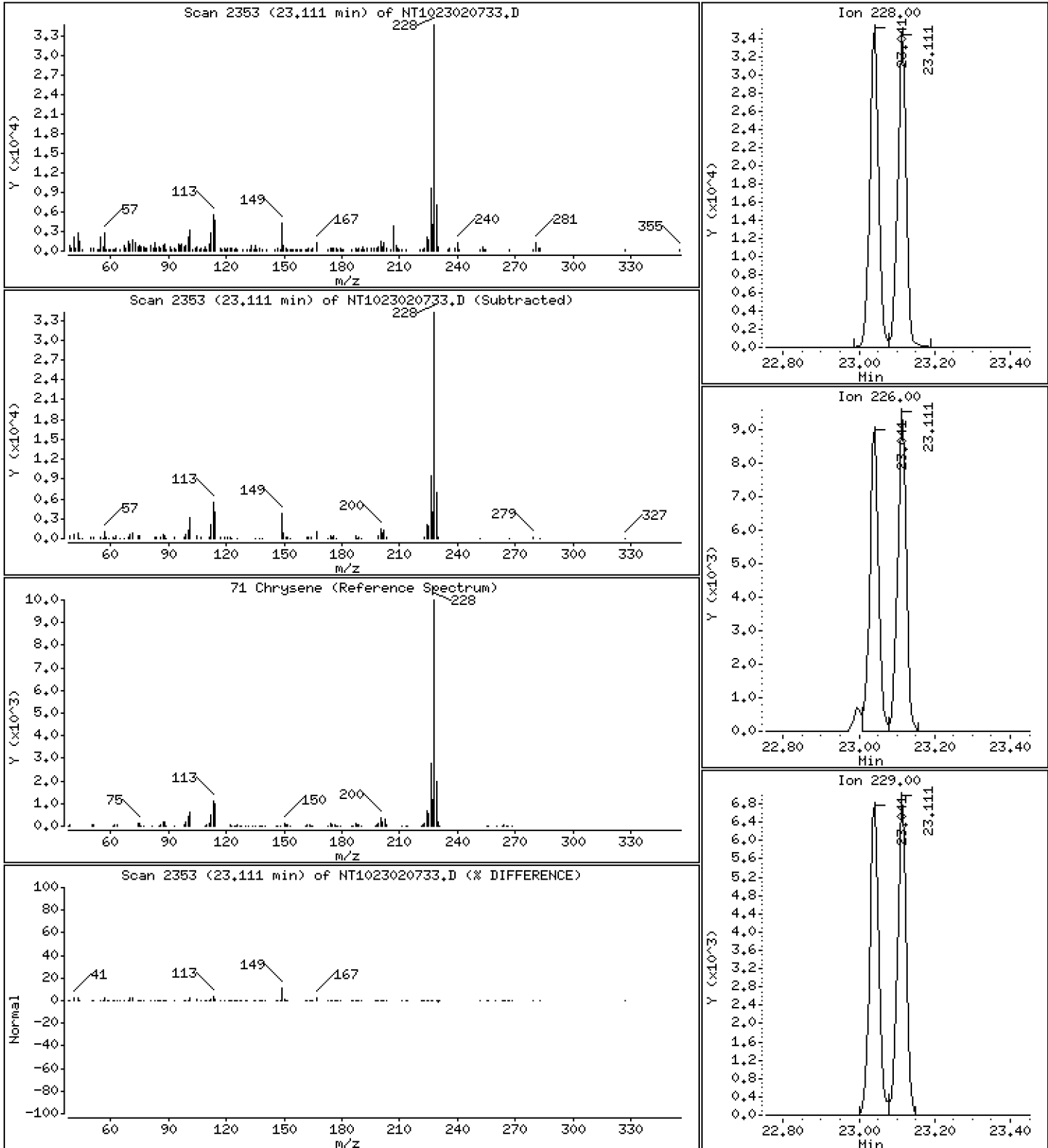
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,5429 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

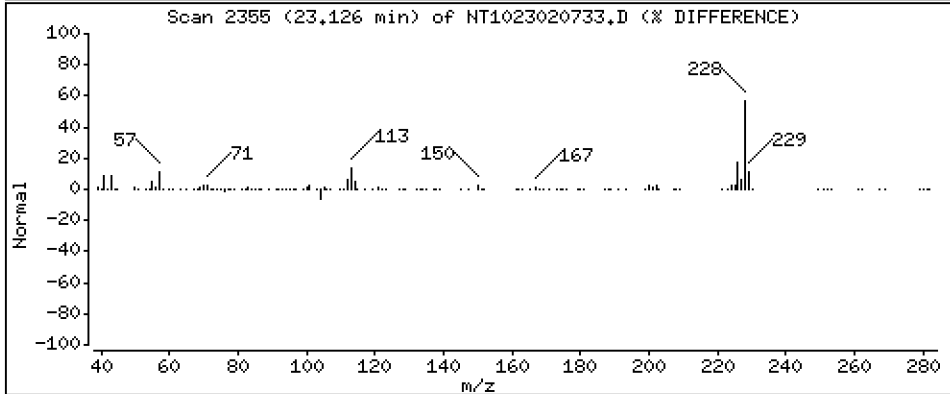
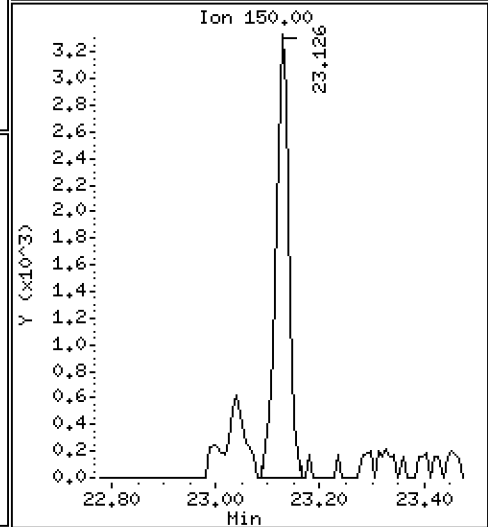
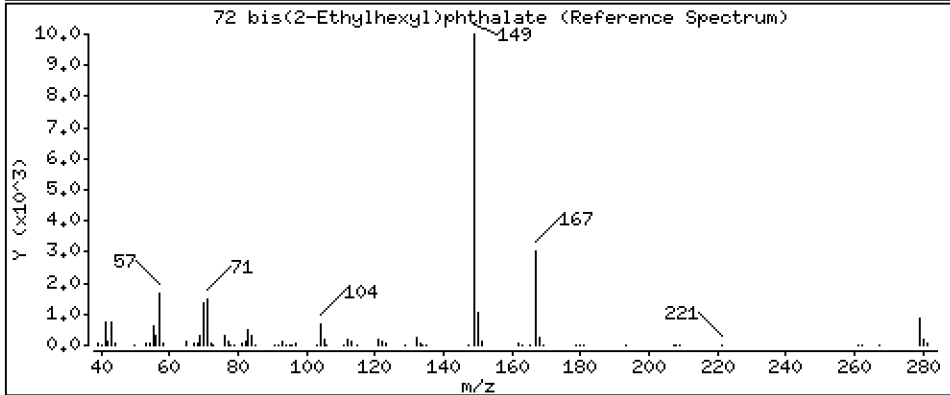
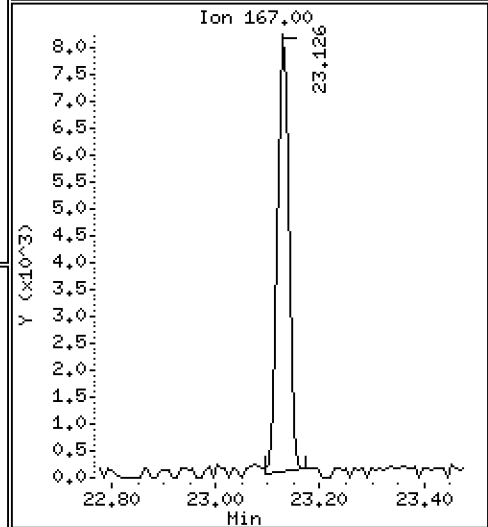
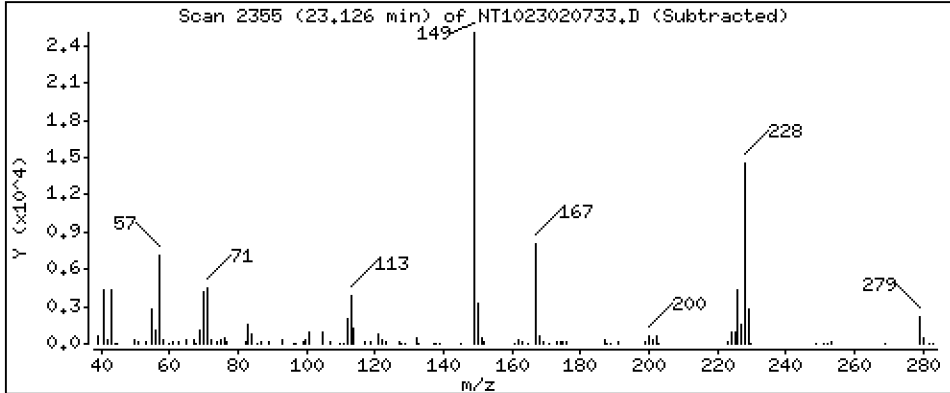
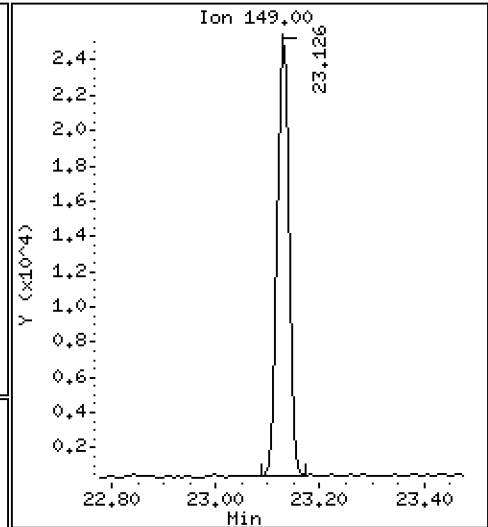
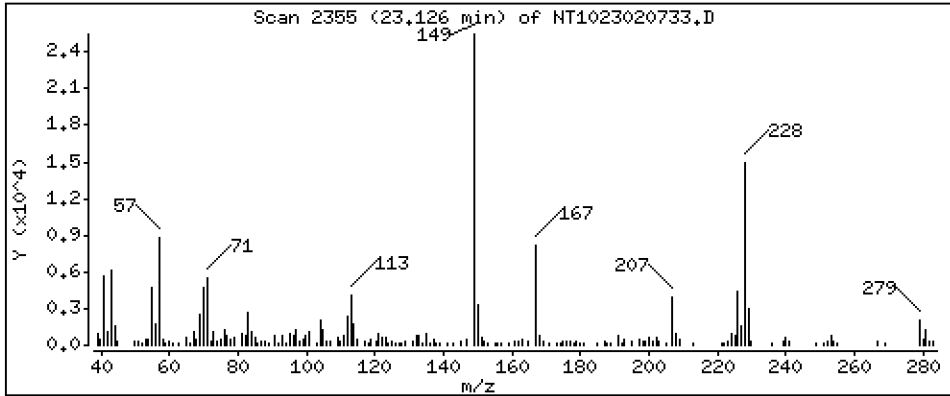
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0.5264 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

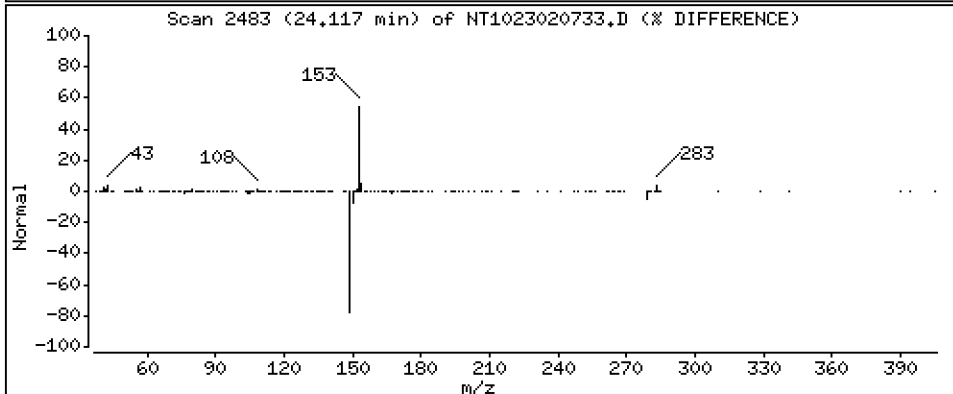
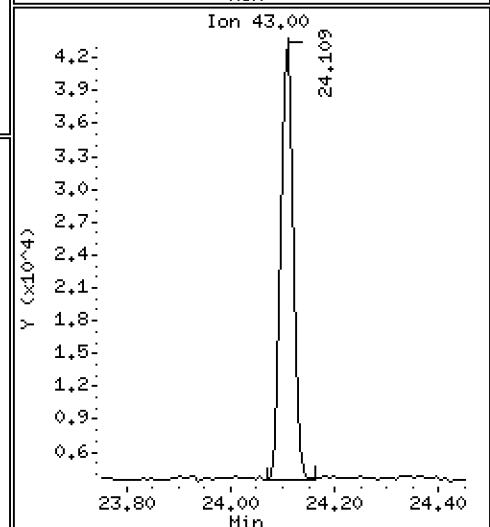
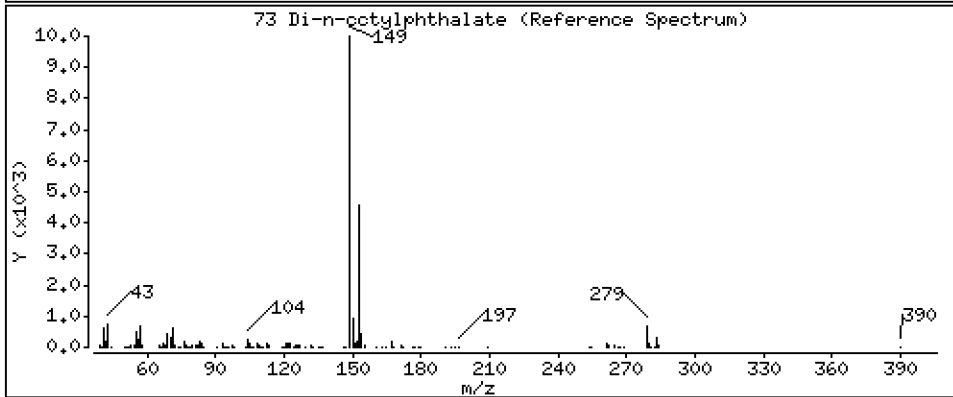
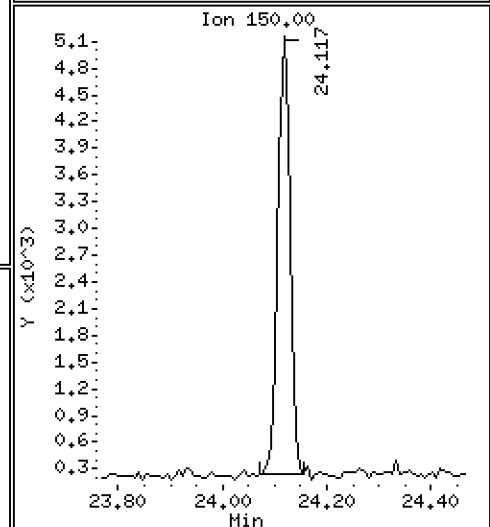
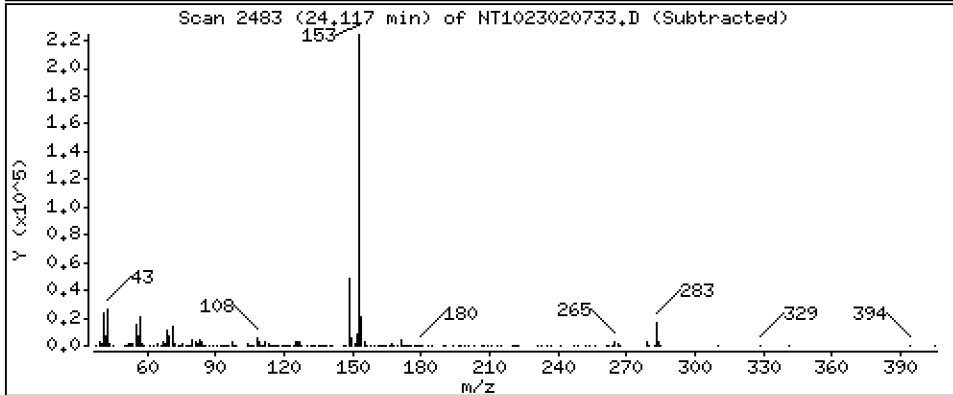
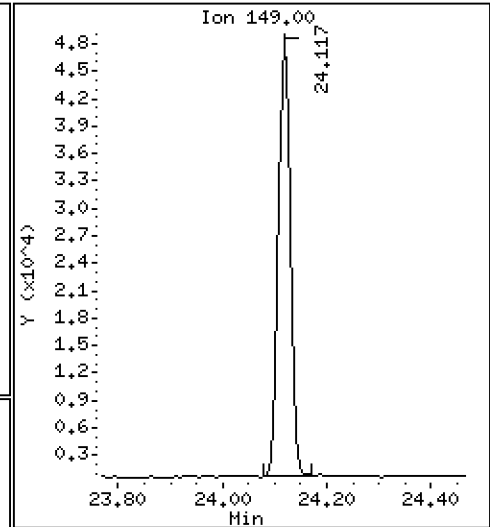
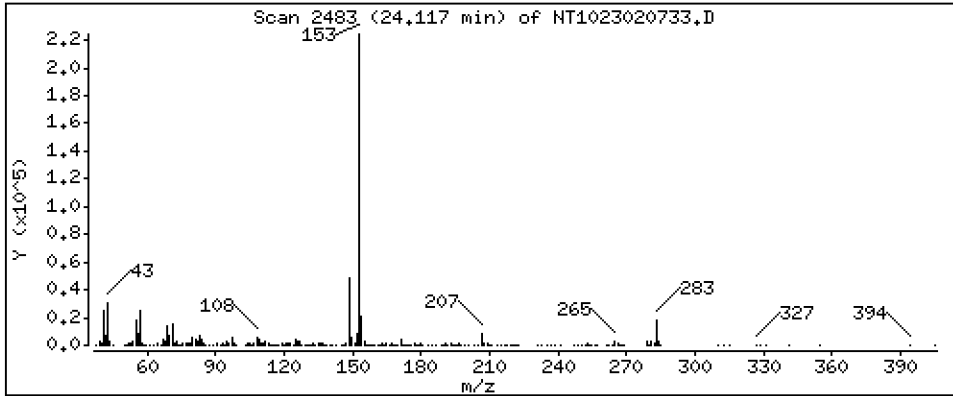
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,5489 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

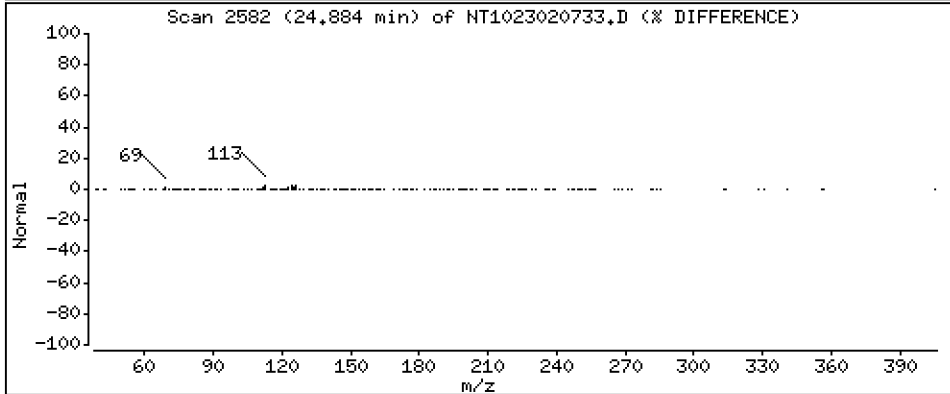
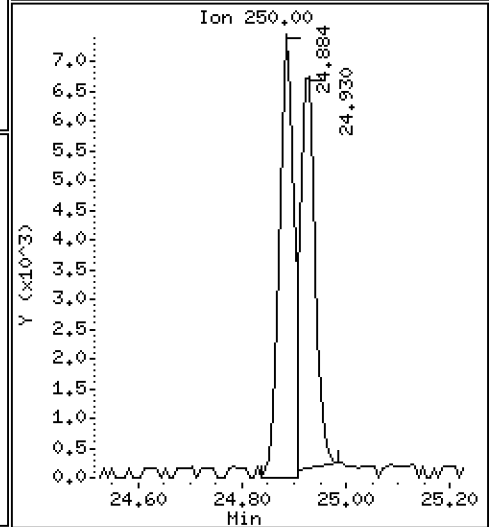
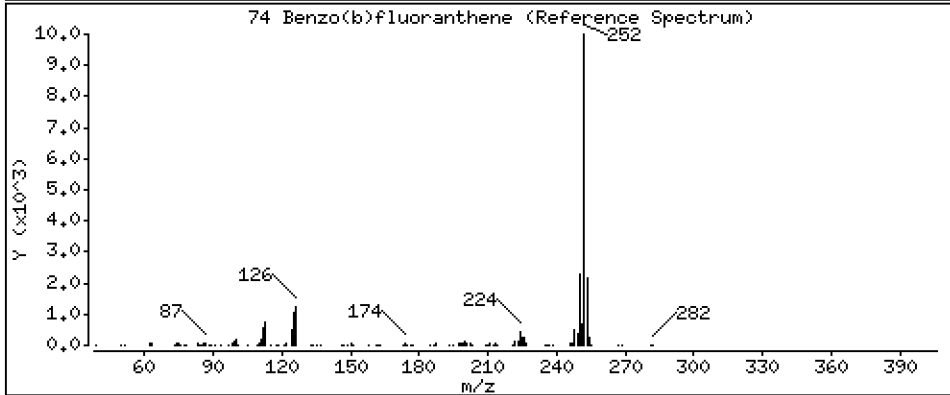
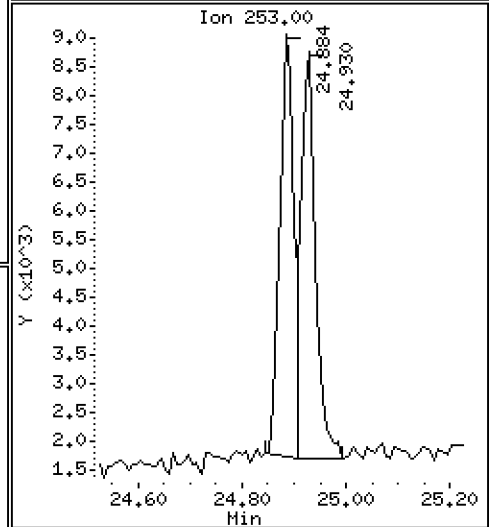
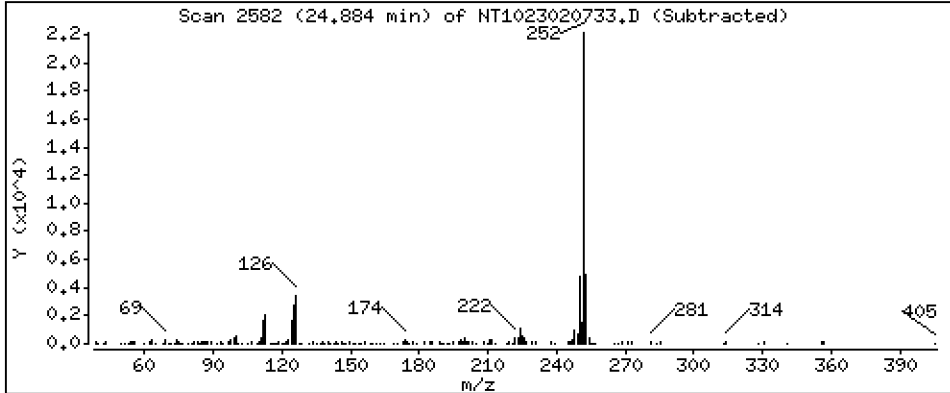
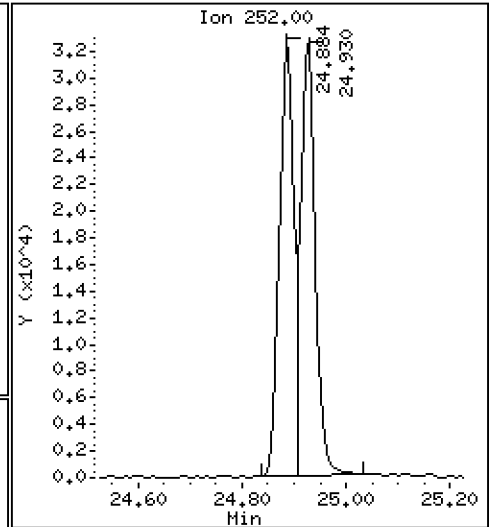
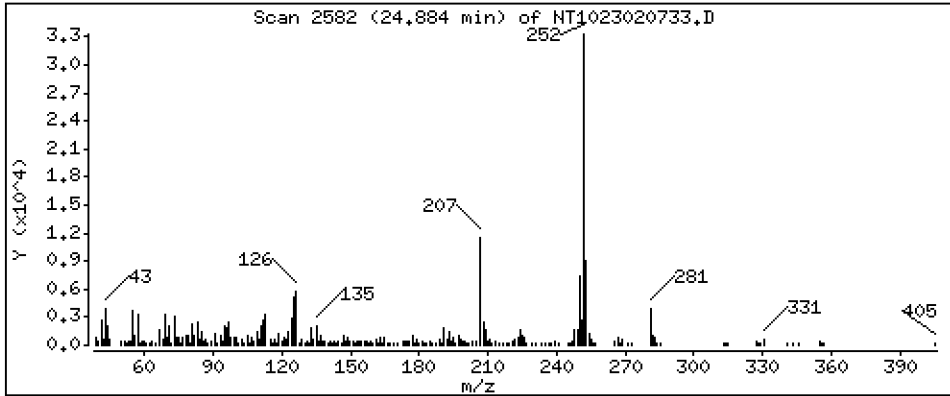
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,5634 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

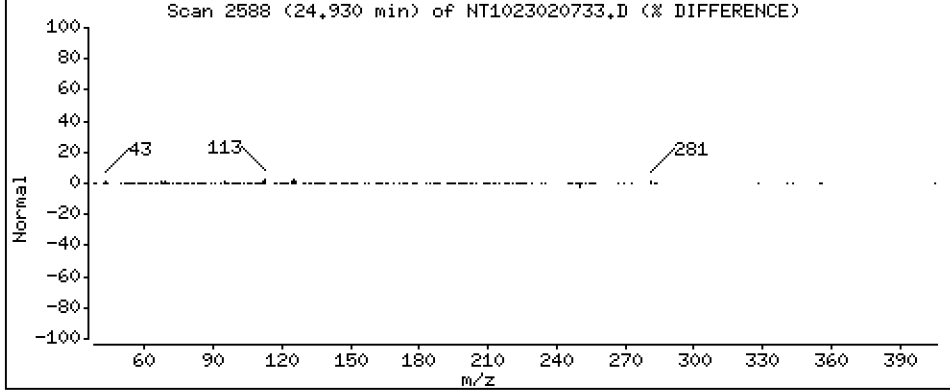
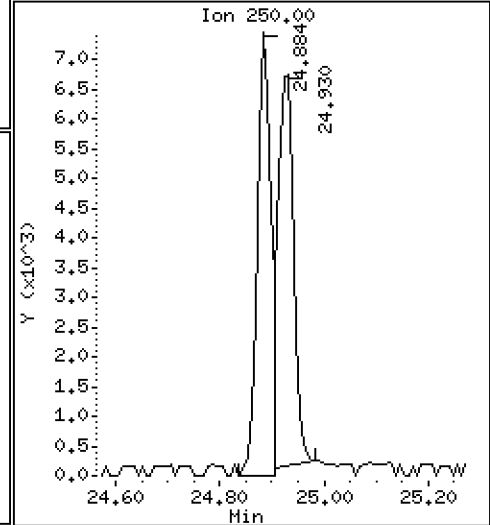
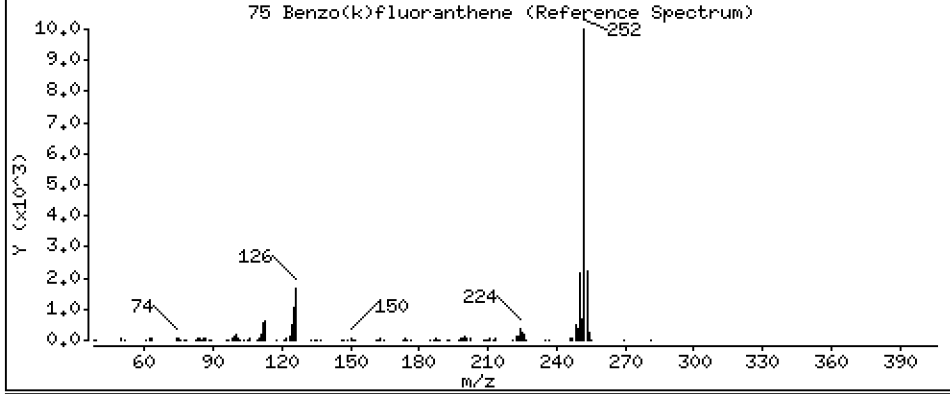
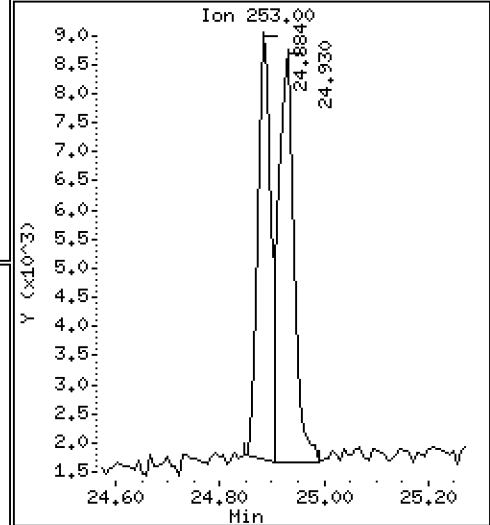
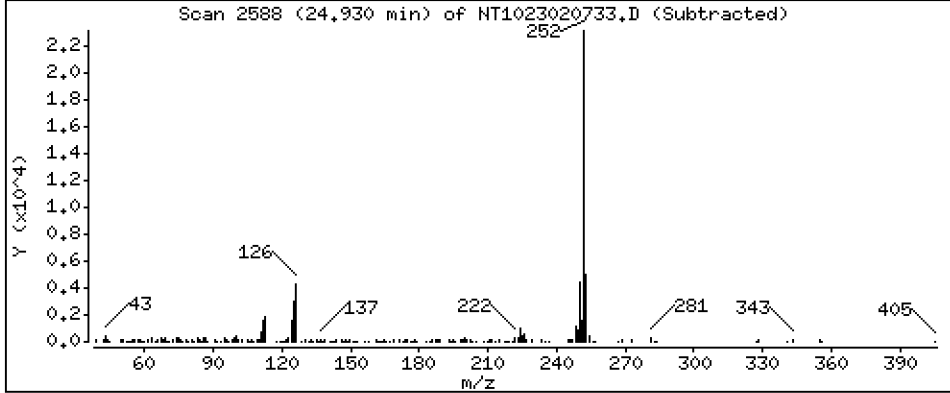
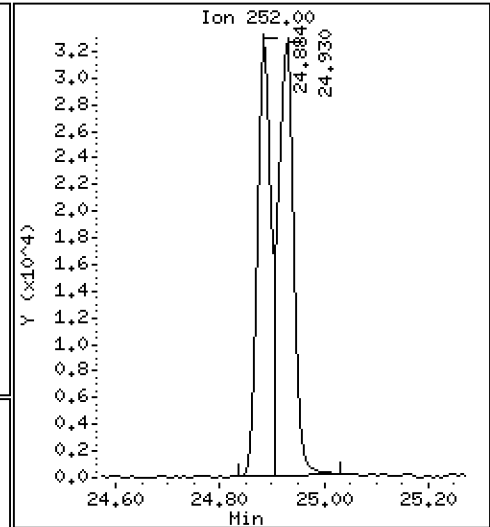
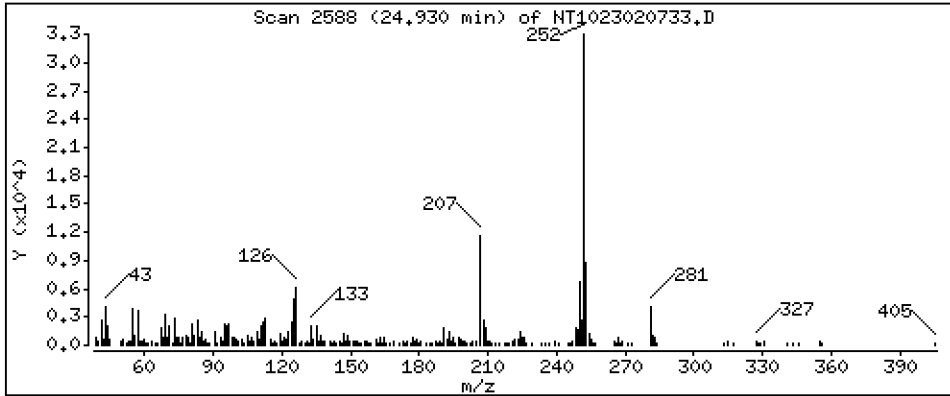
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,5467 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

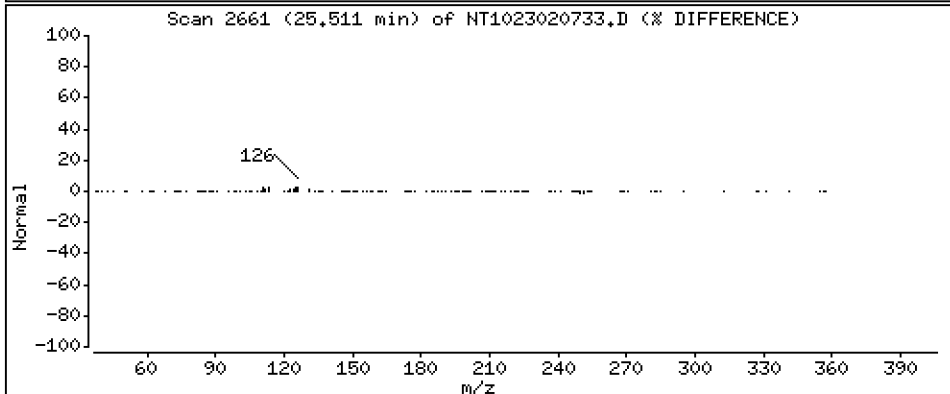
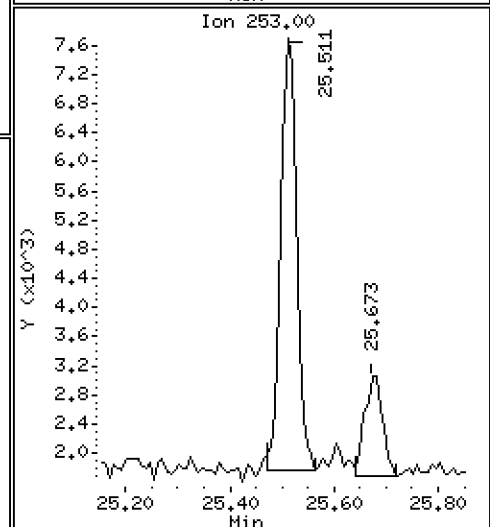
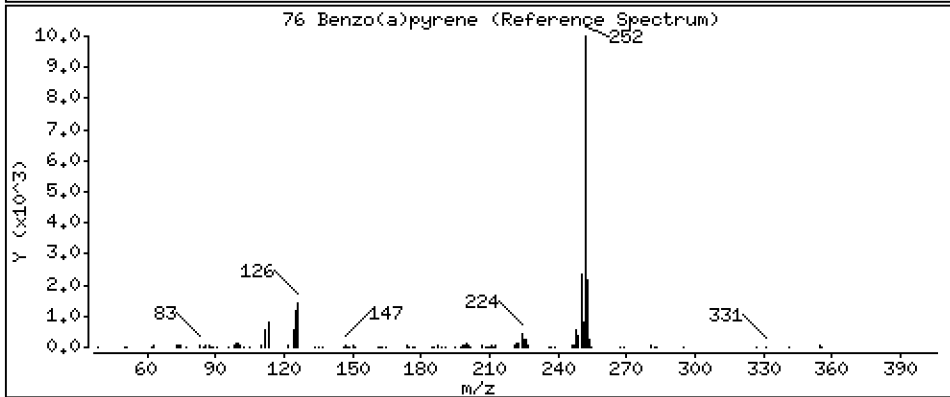
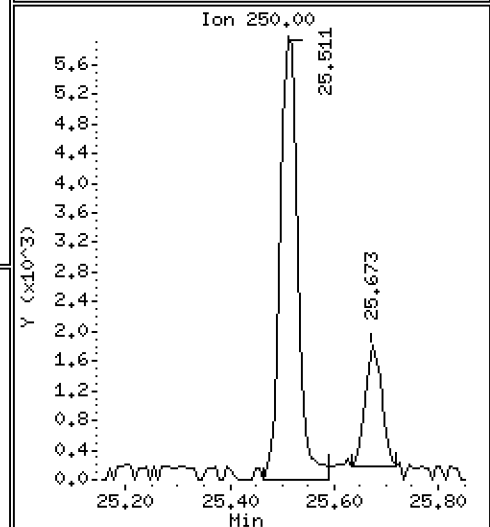
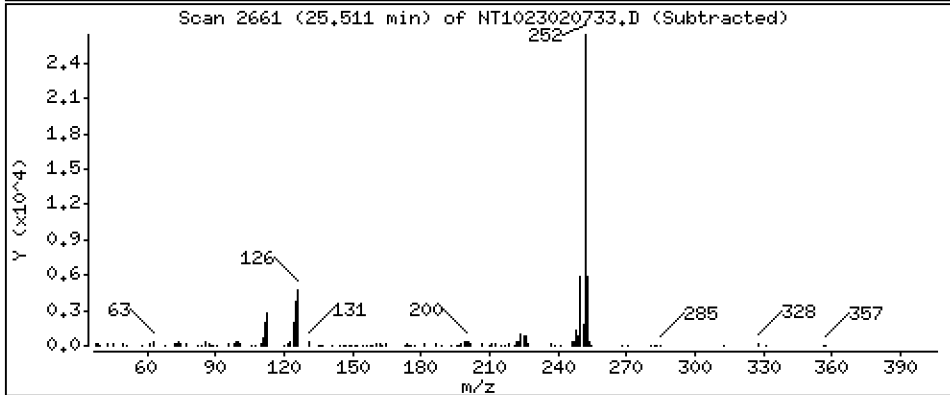
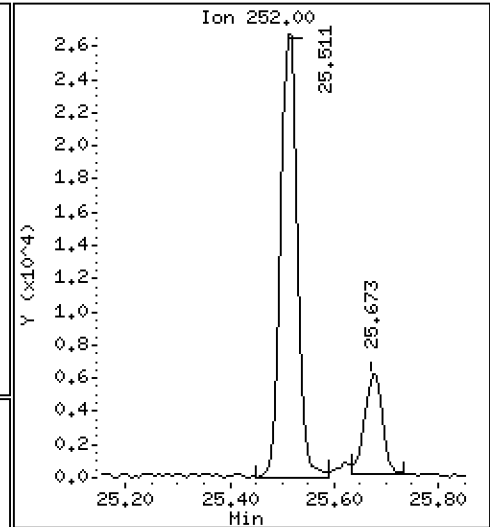
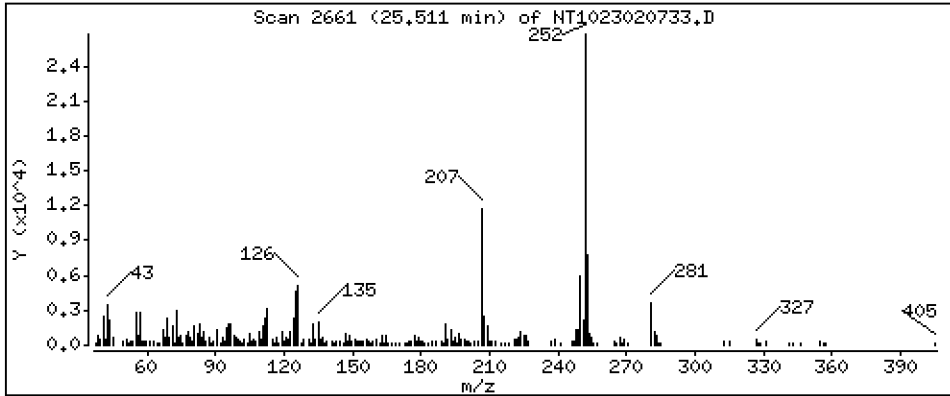
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,5595 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

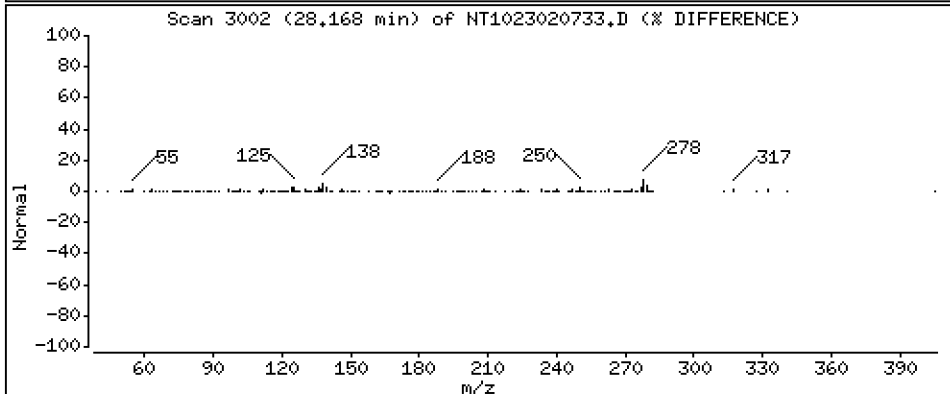
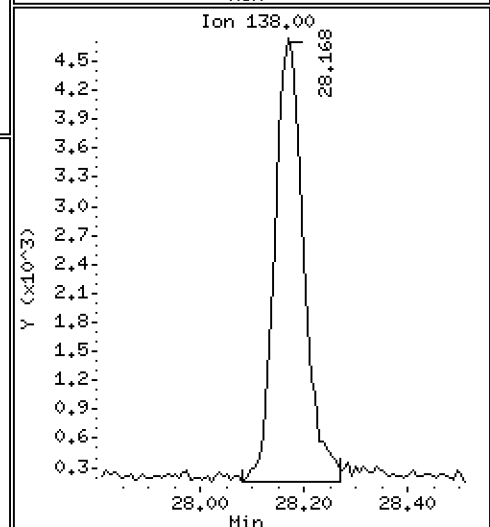
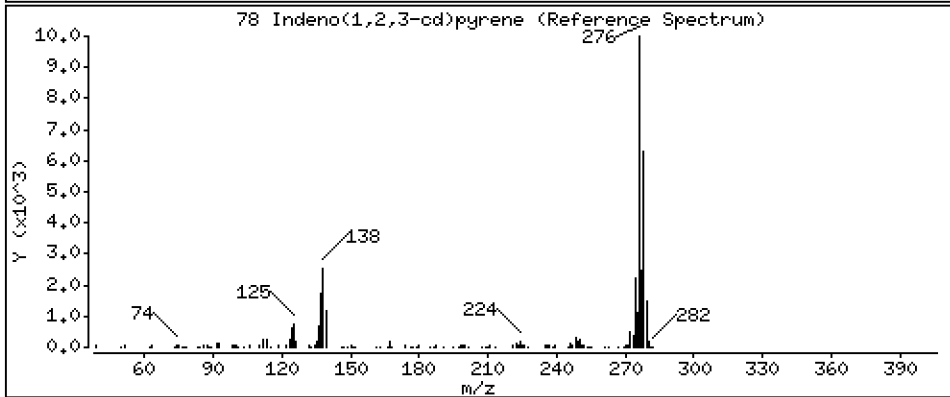
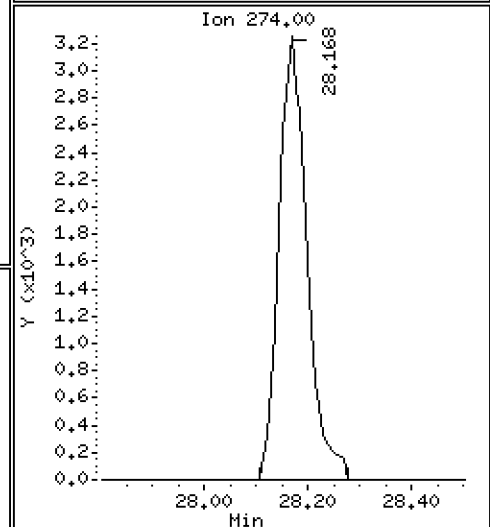
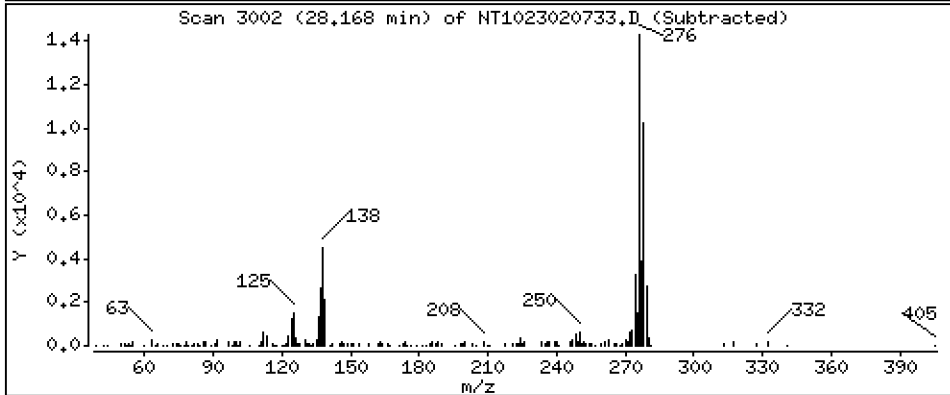
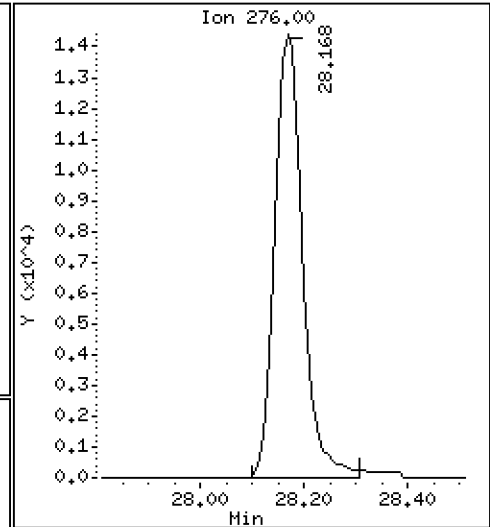
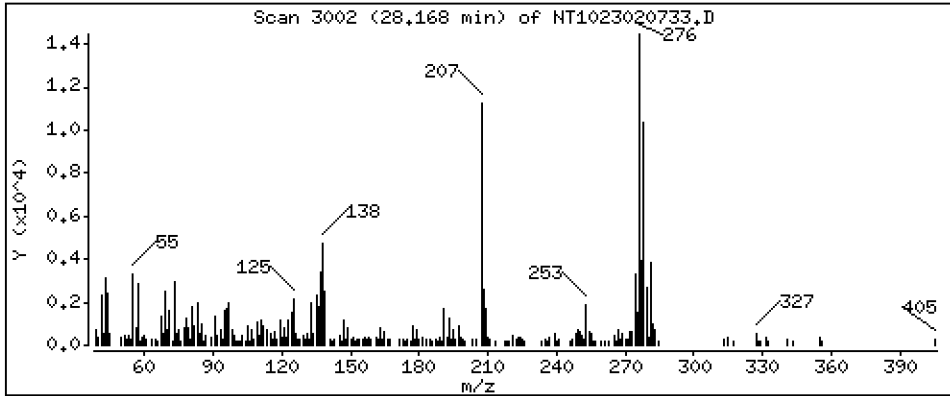
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 0,4288 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

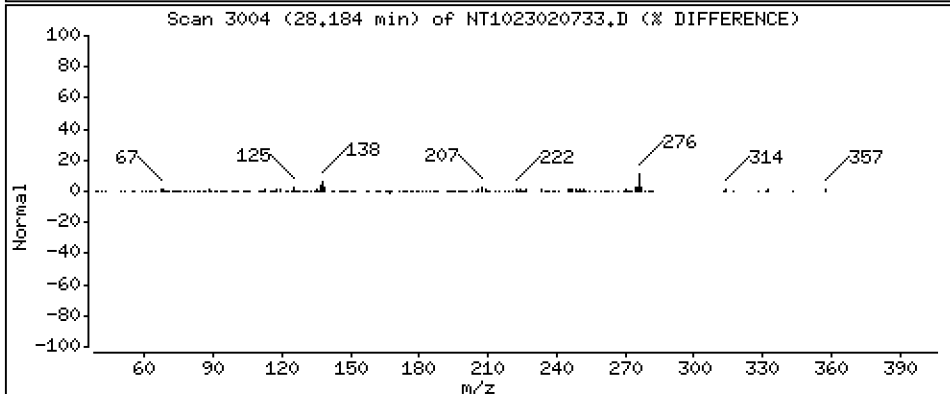
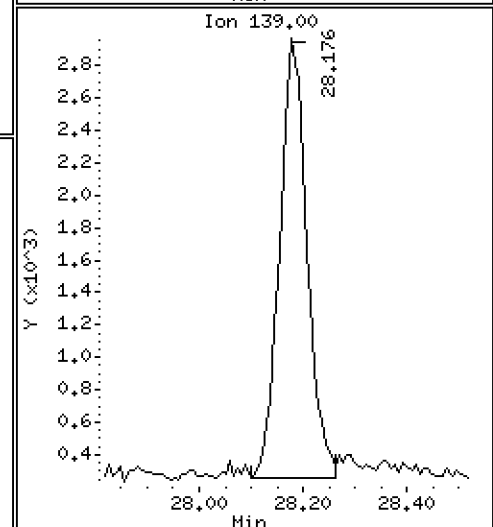
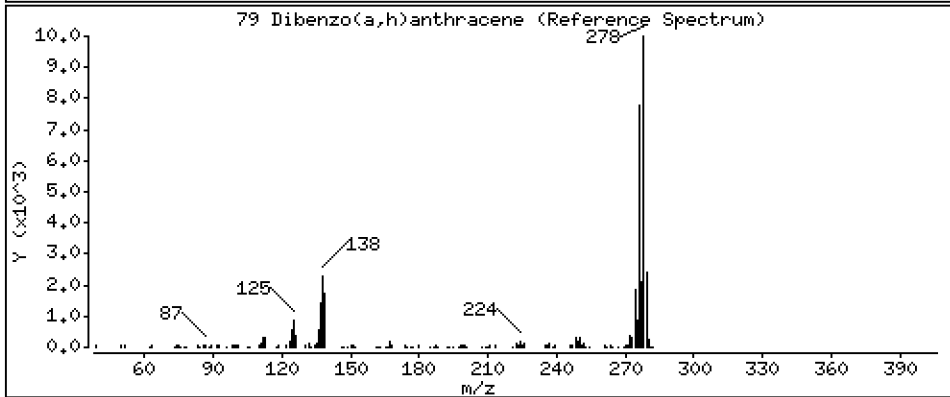
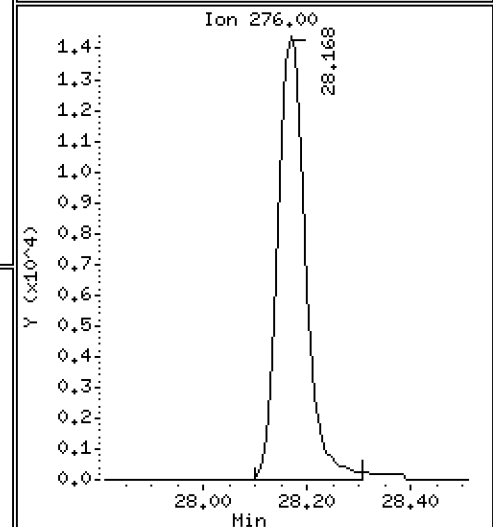
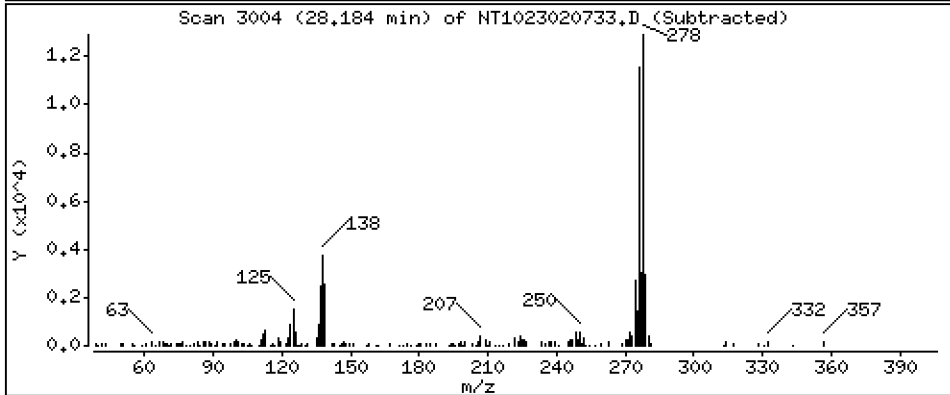
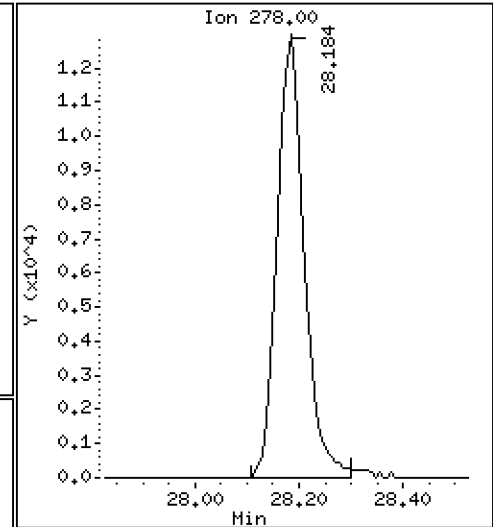
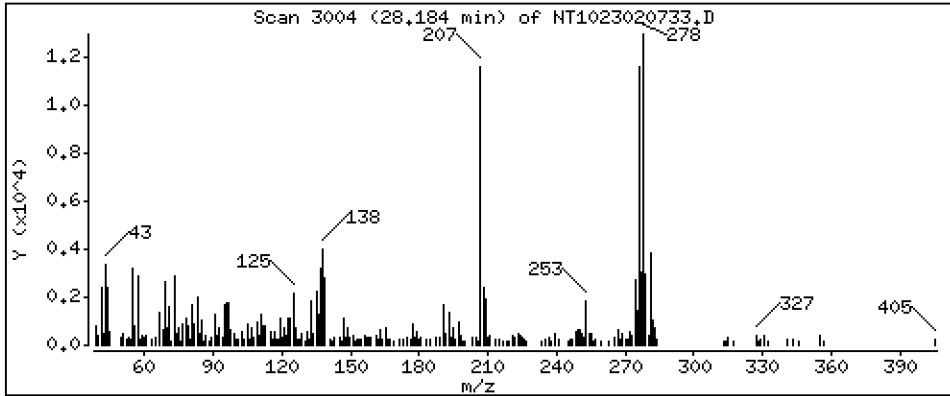
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,4538 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

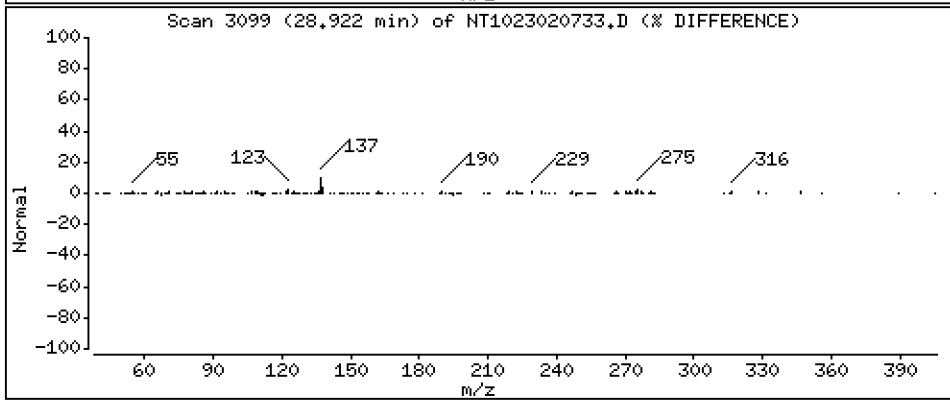
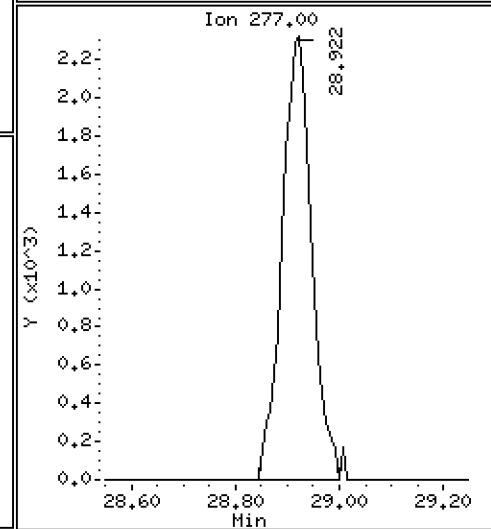
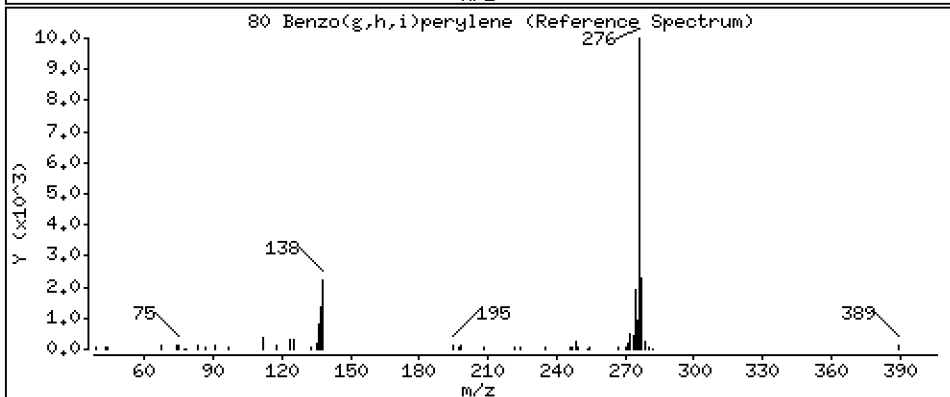
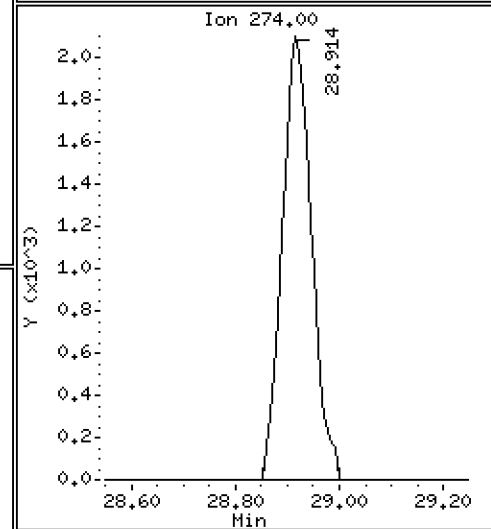
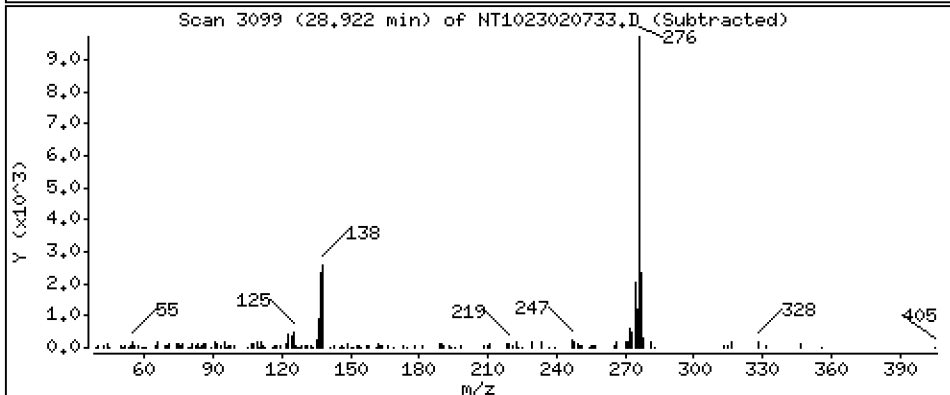
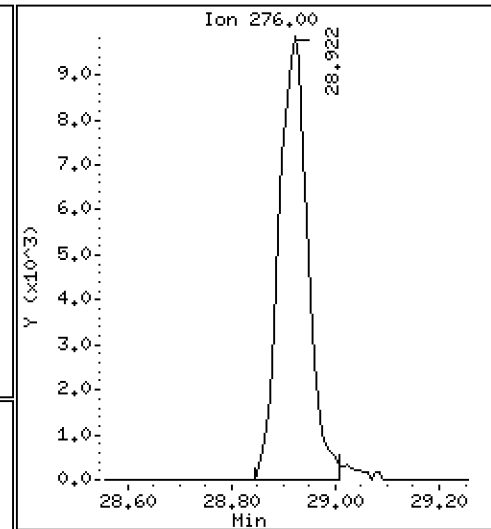
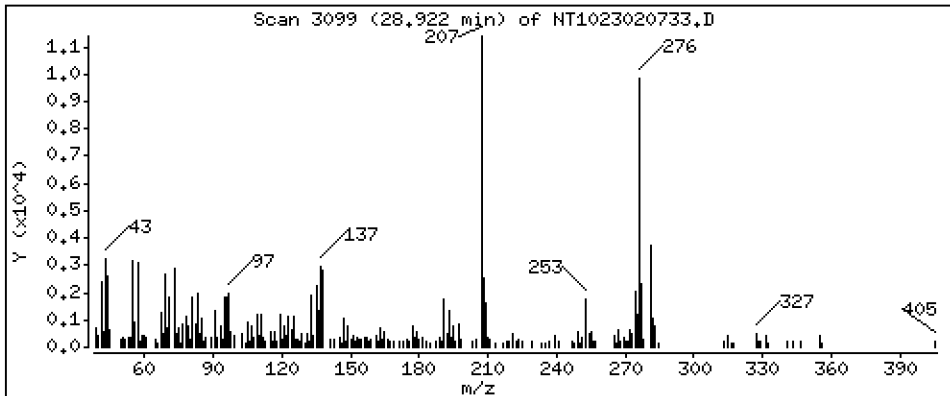
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,3577 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

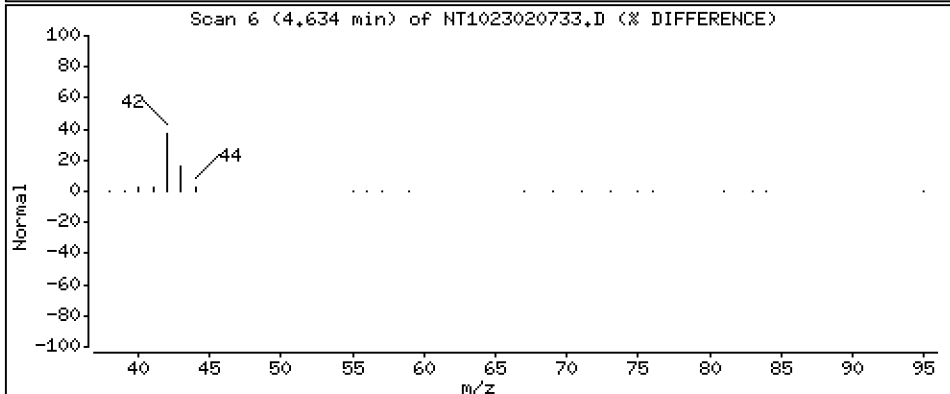
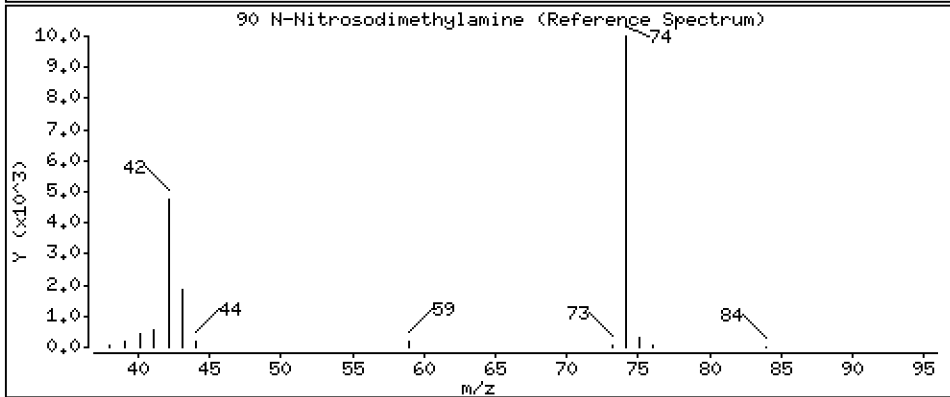
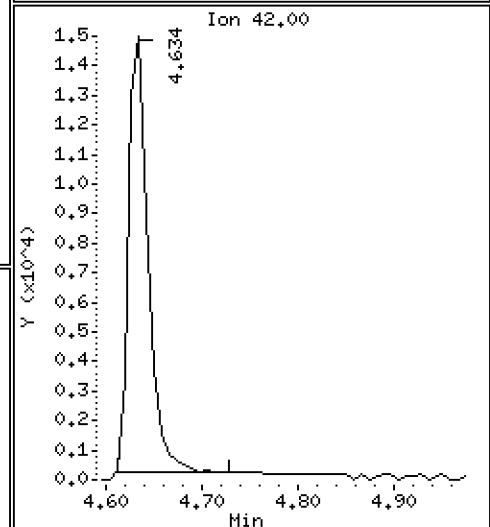
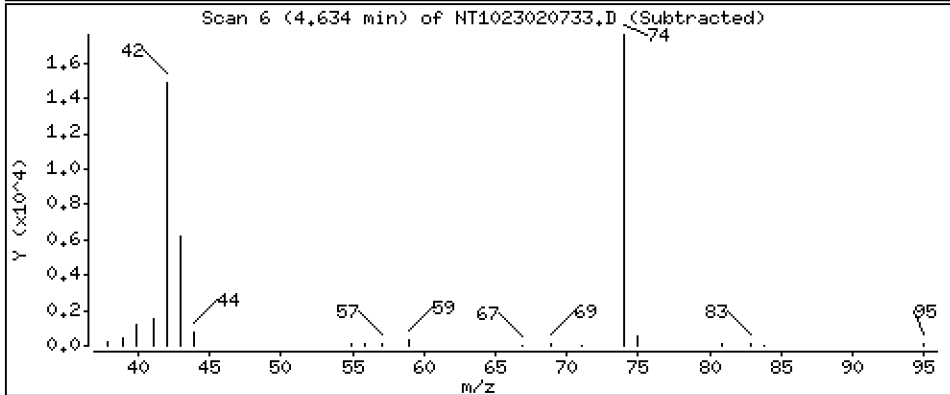
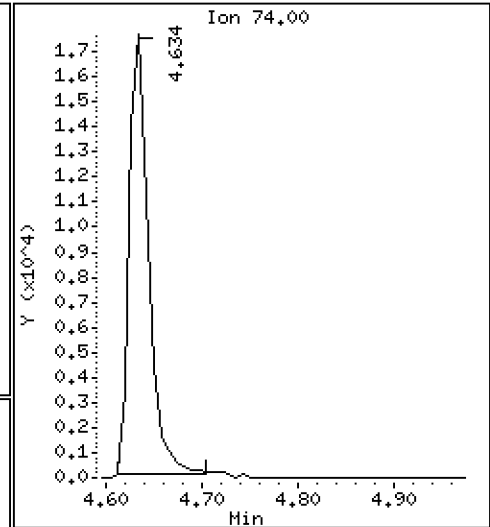
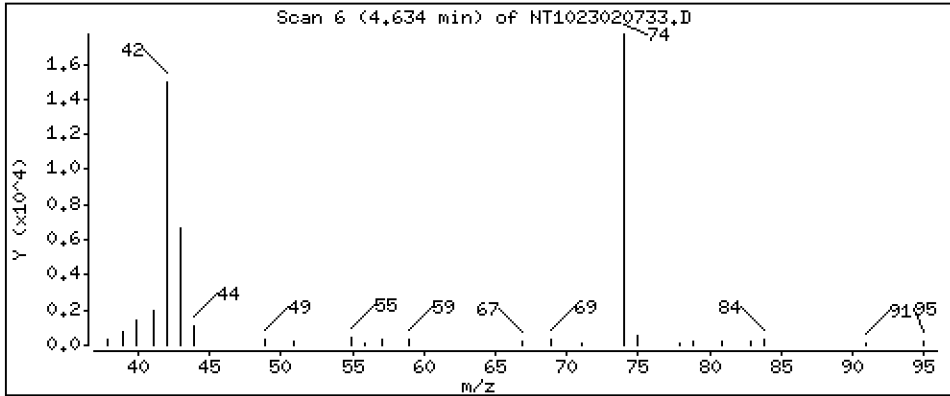
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 0.9973 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

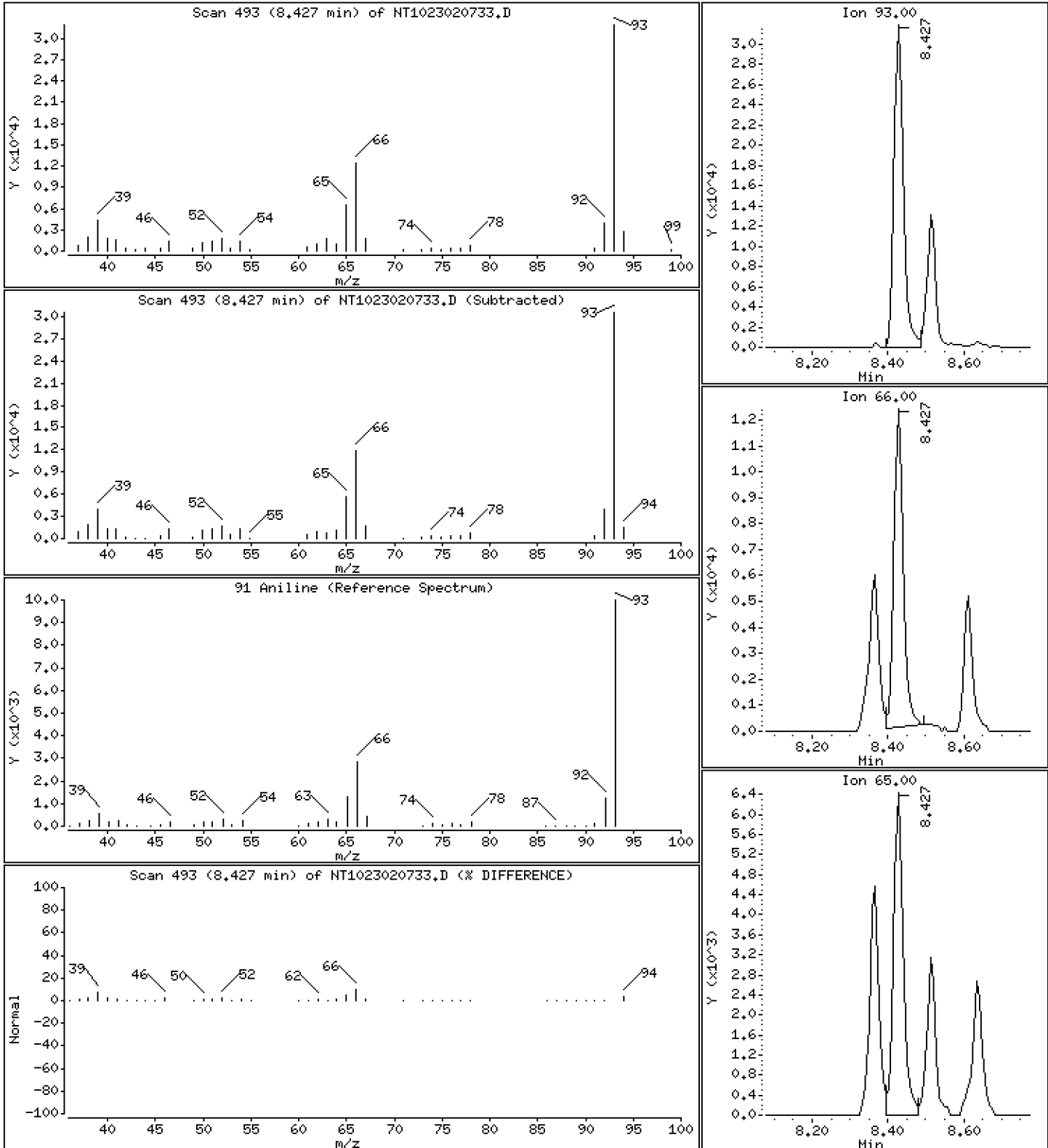
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 1,035 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

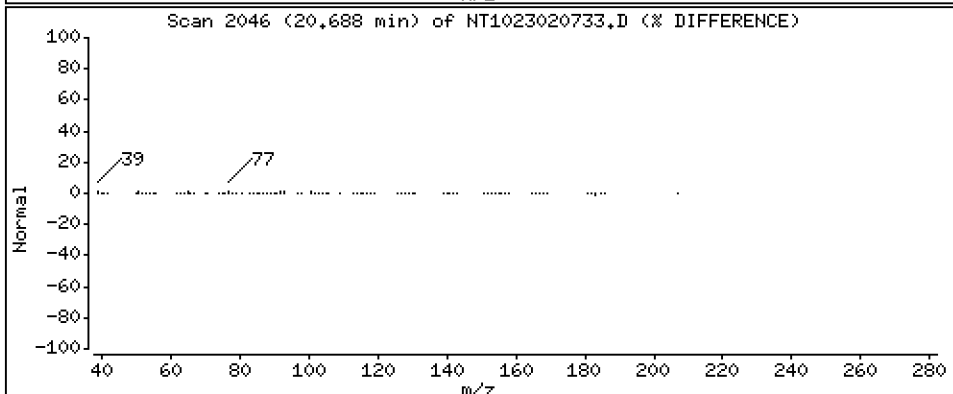
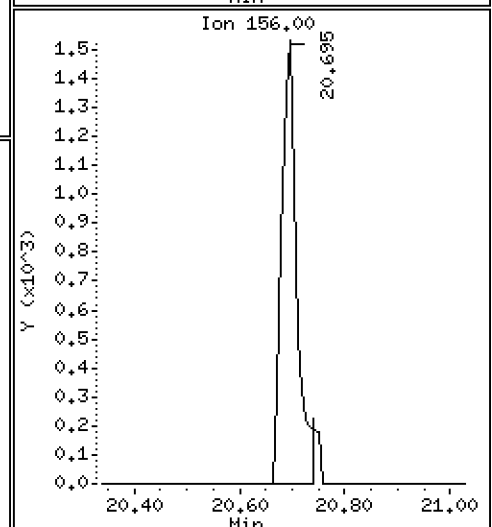
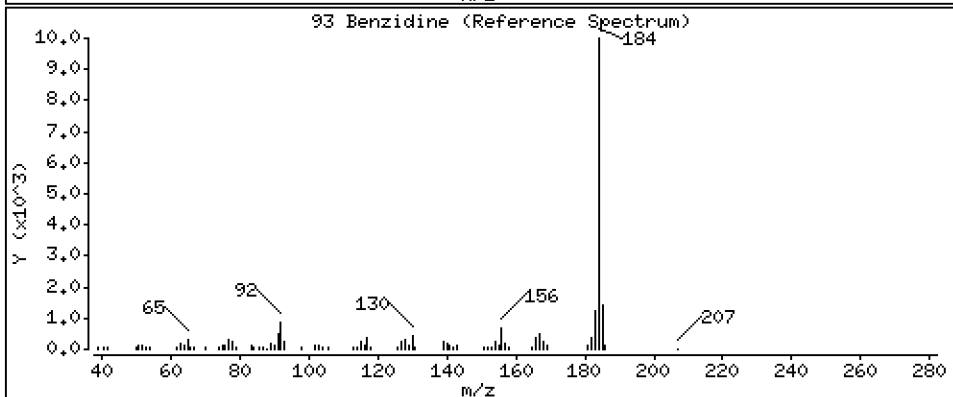
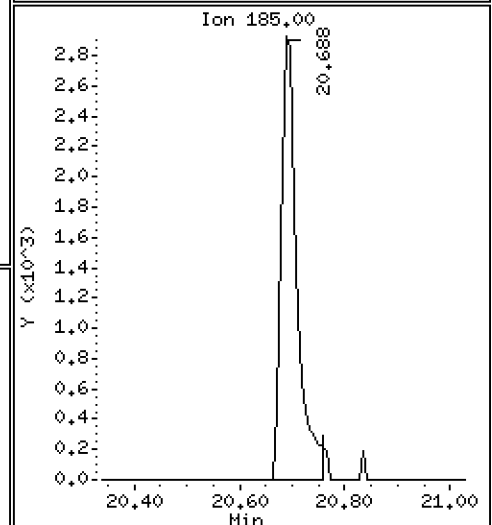
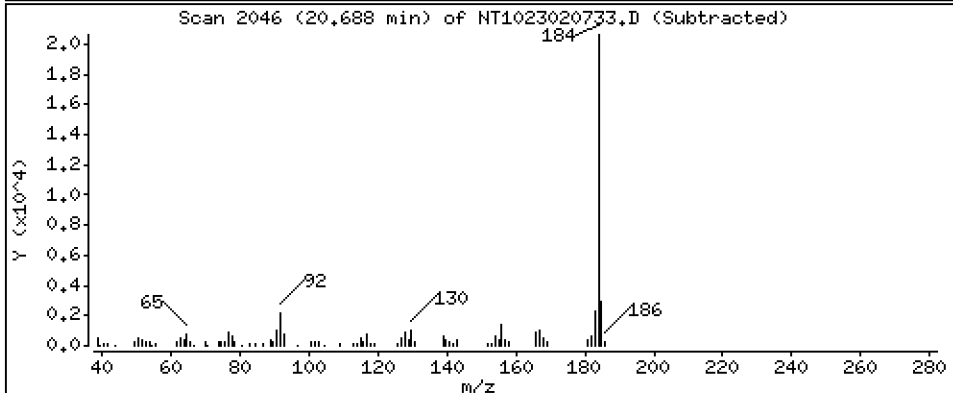
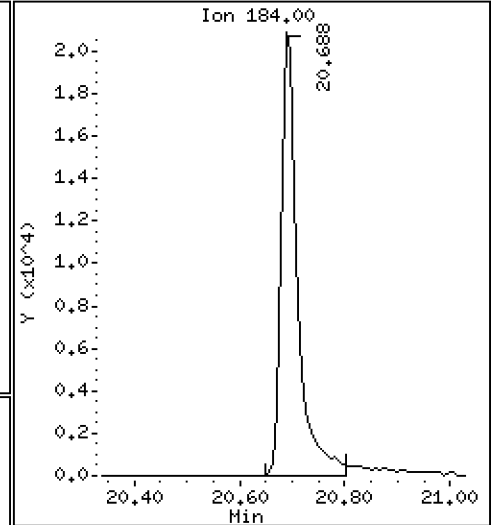
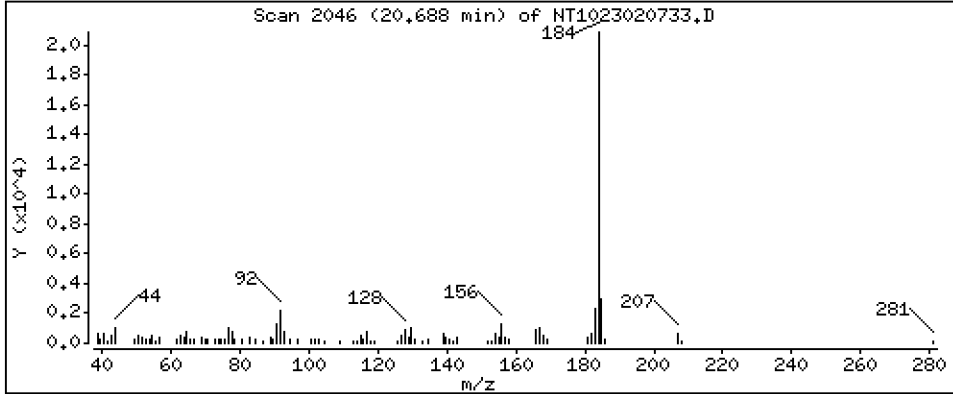
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 1,172 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

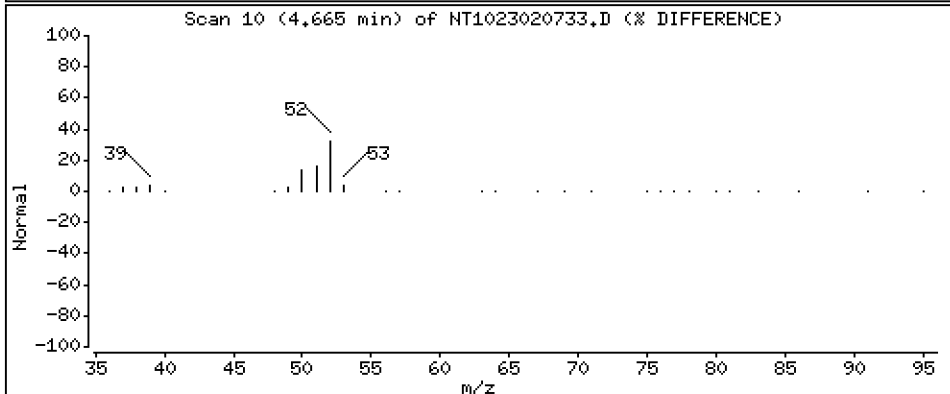
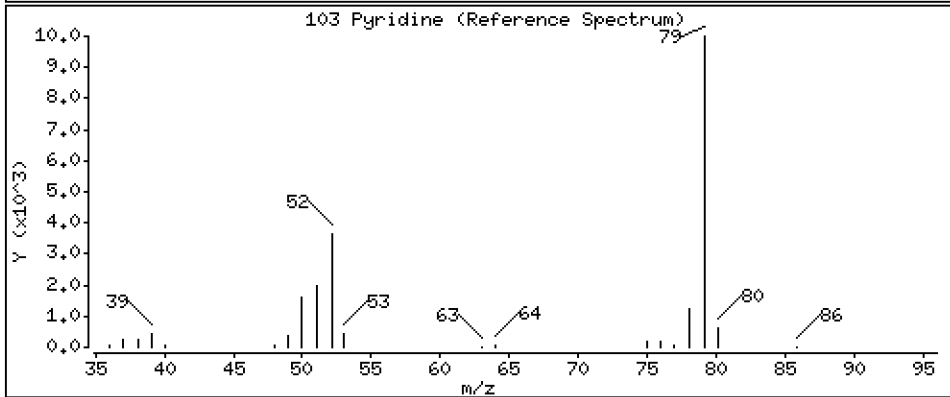
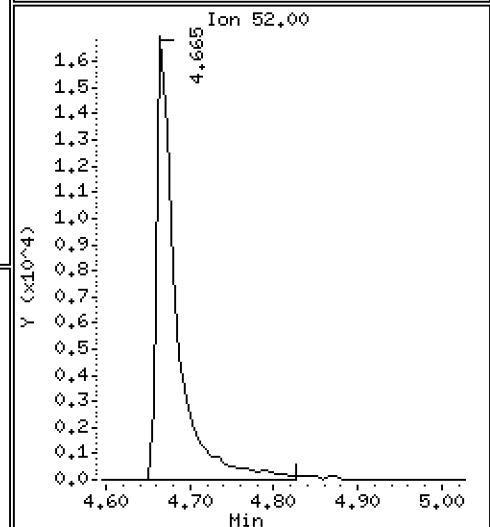
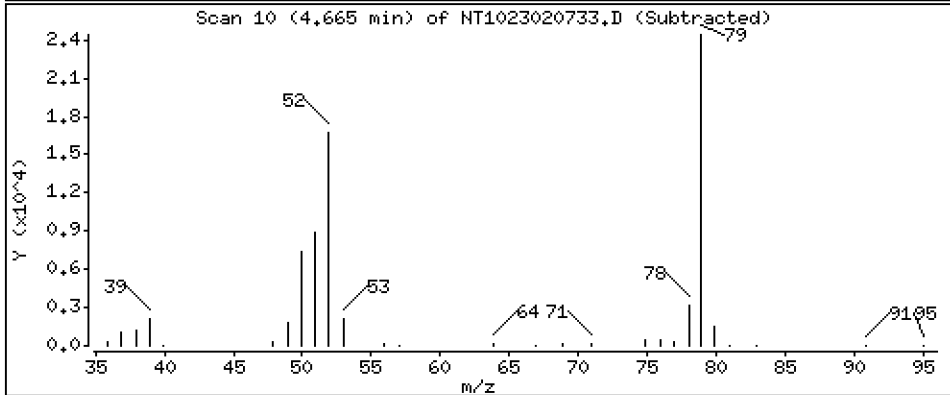
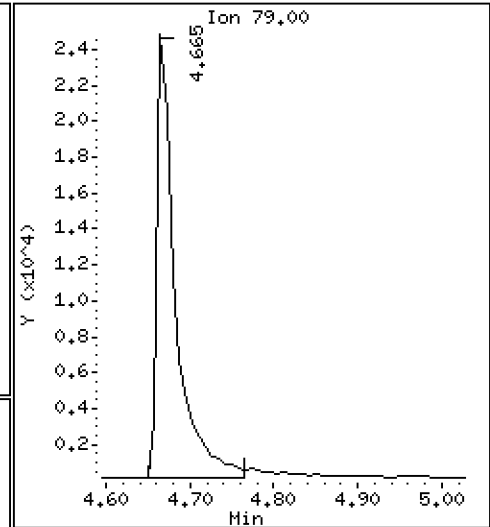
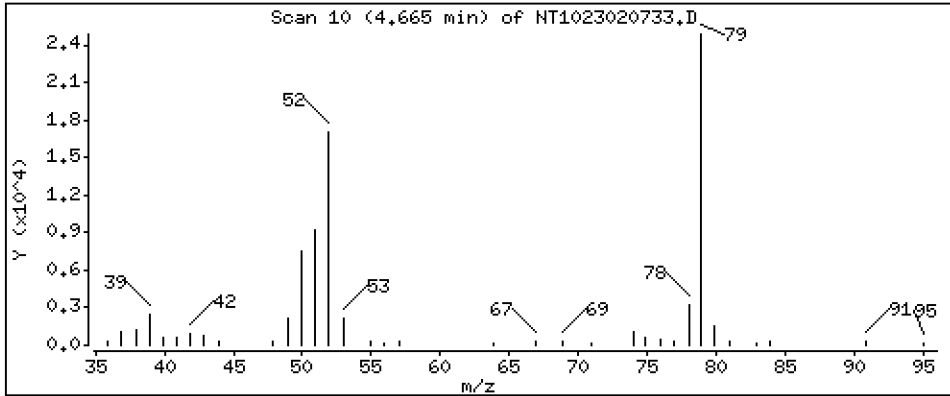
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,9801 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

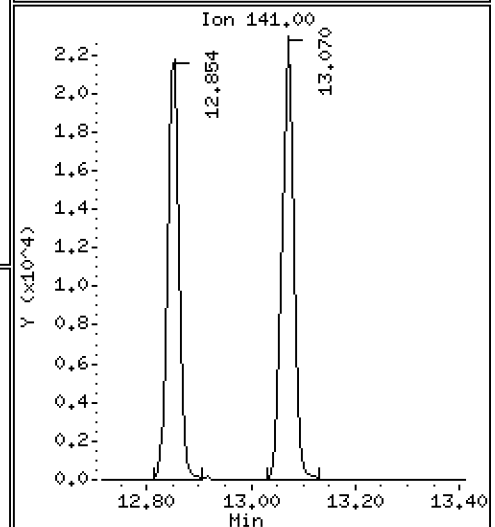
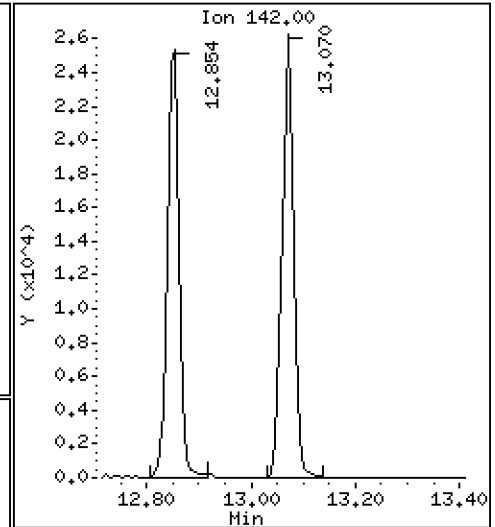
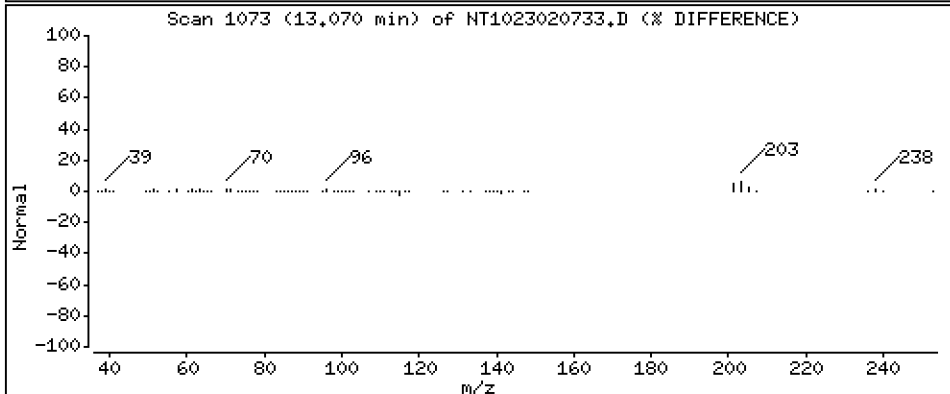
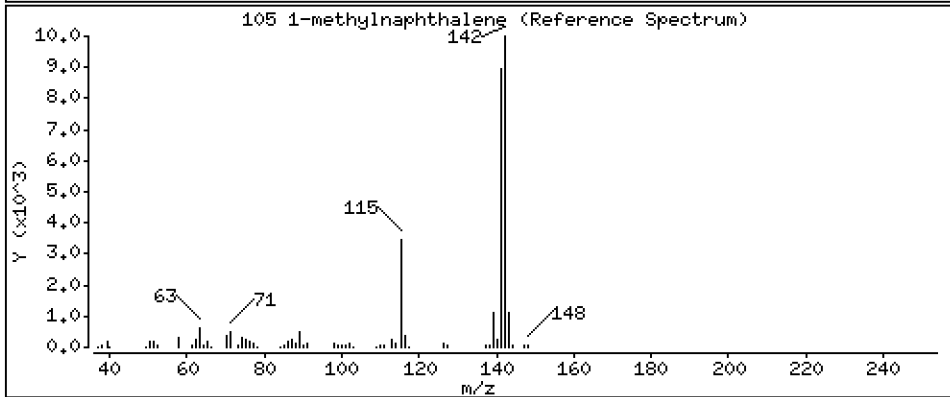
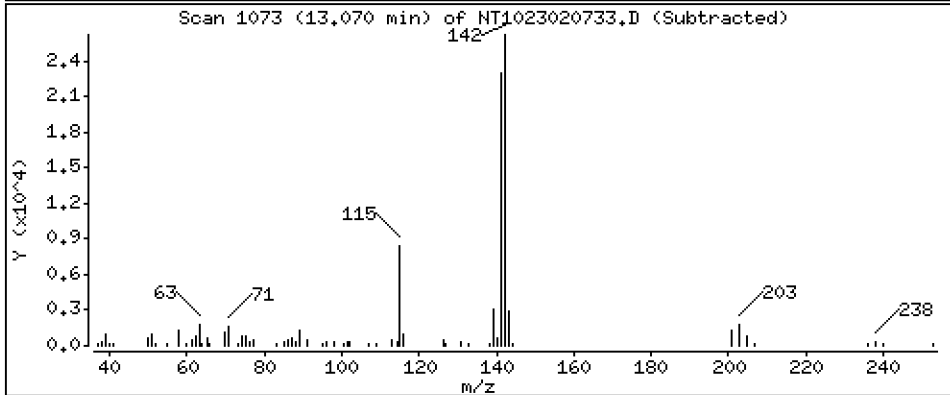
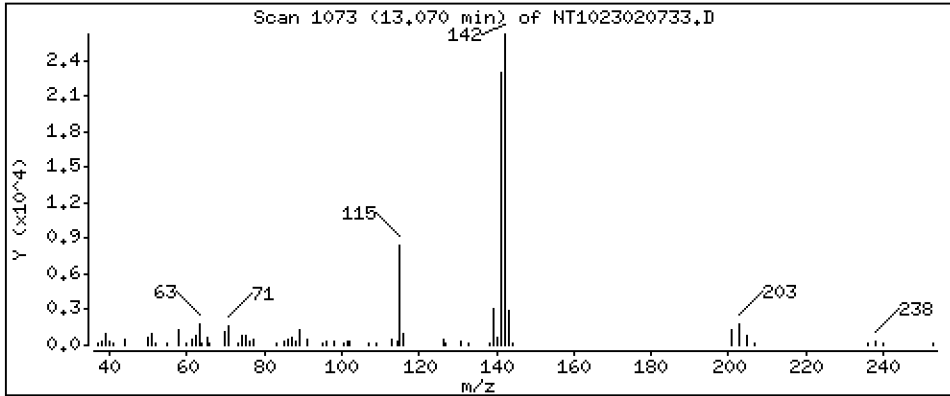
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,5253 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

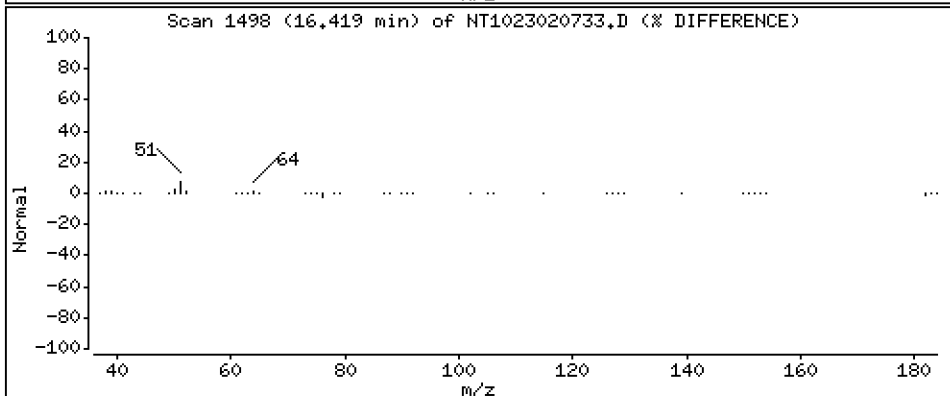
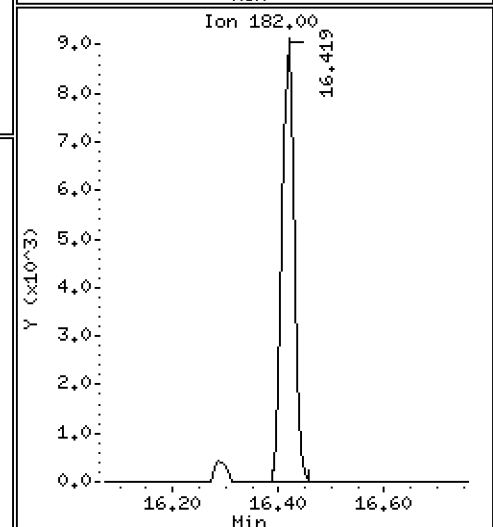
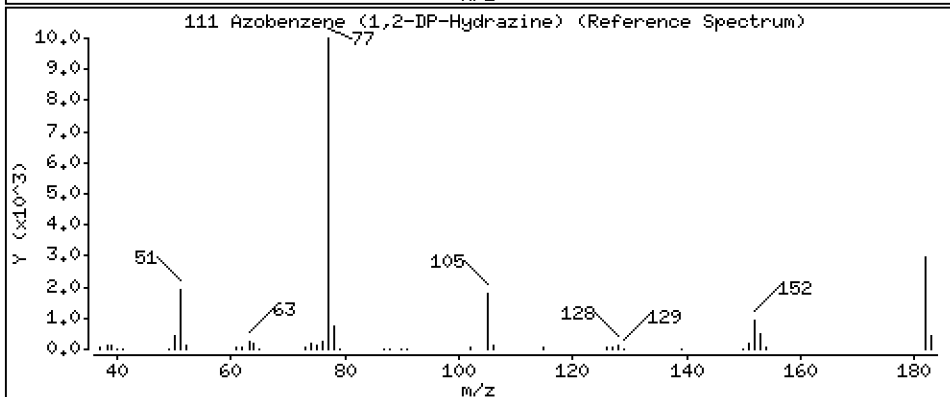
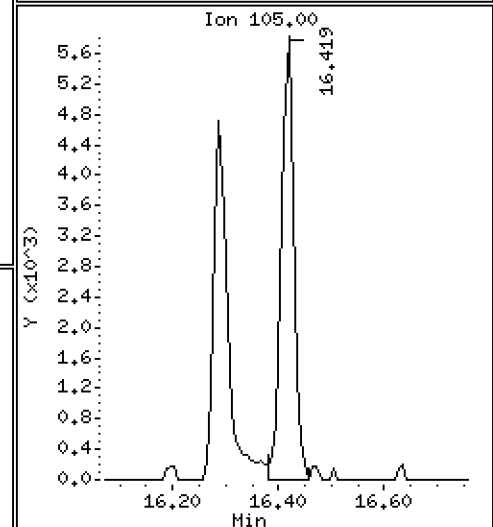
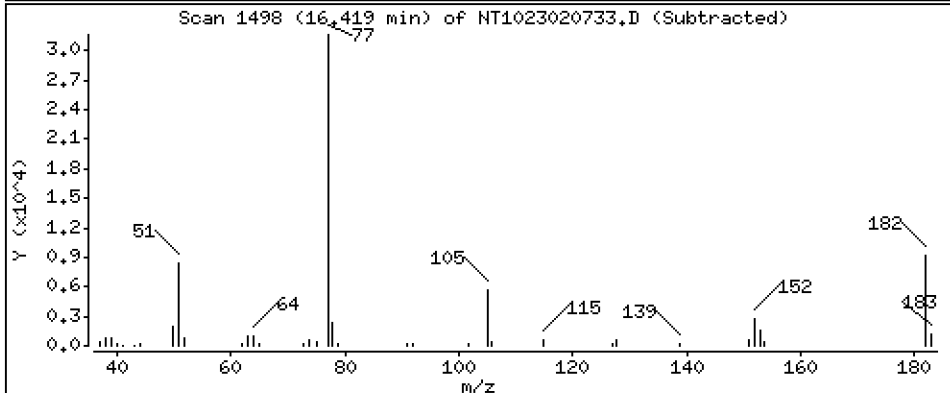
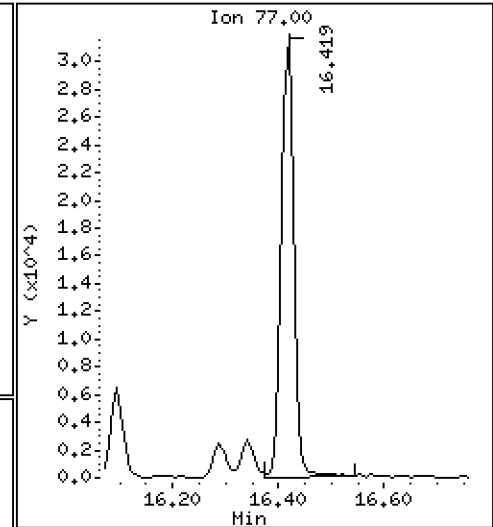
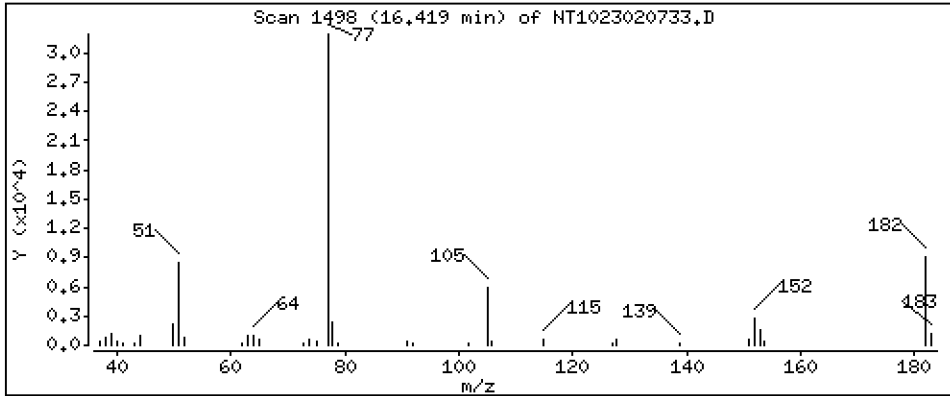
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0.5330 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

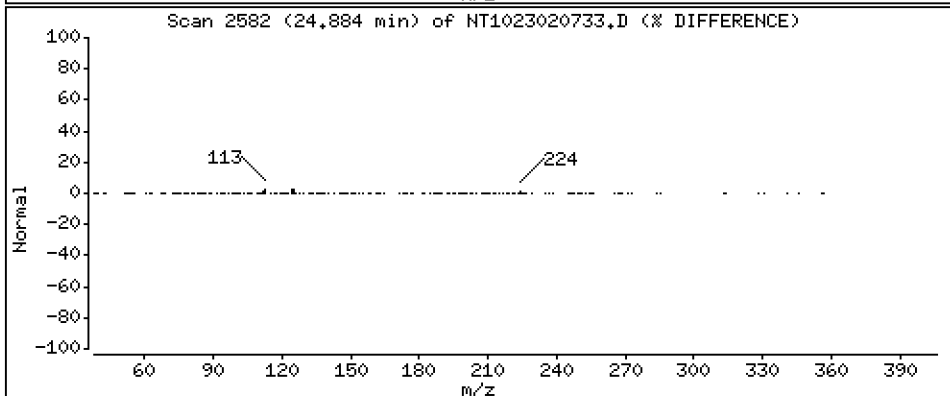
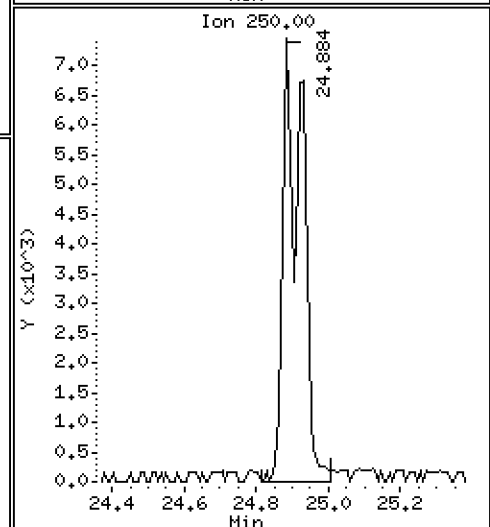
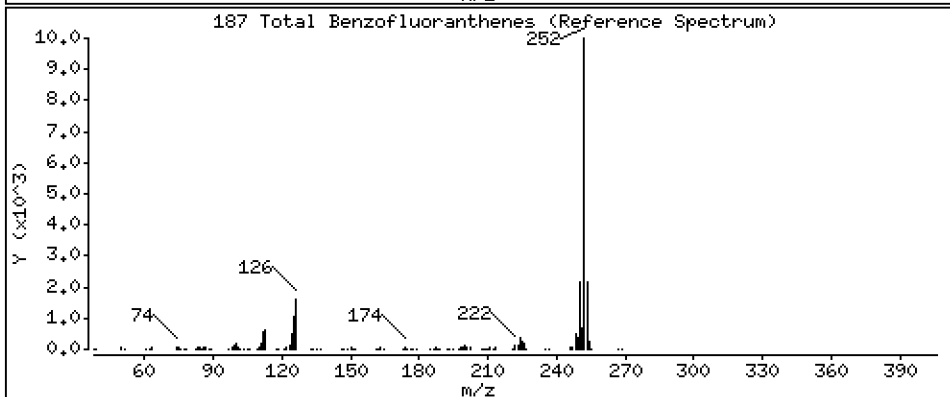
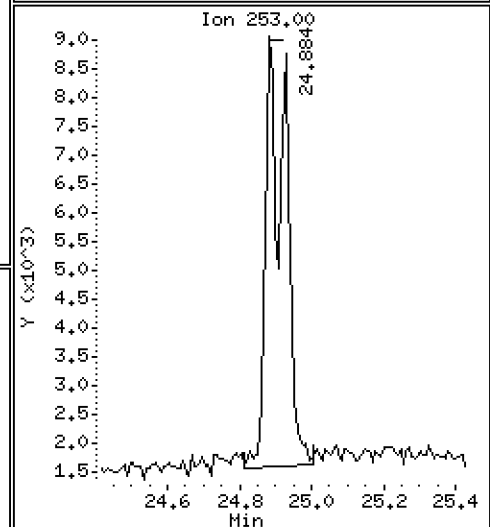
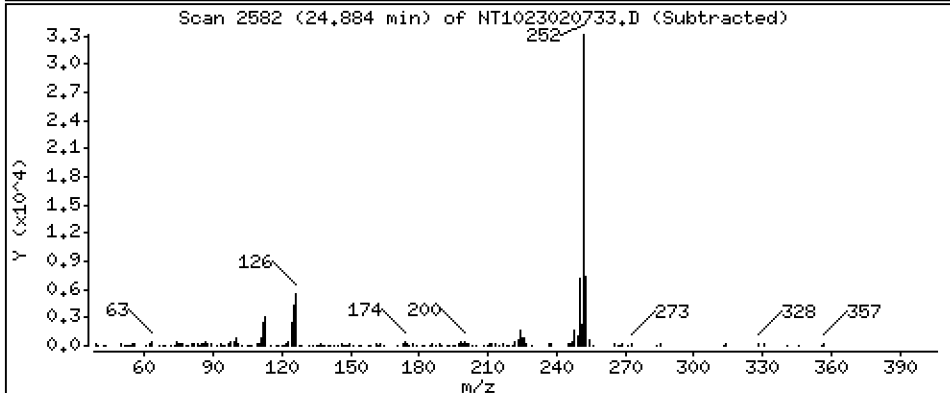
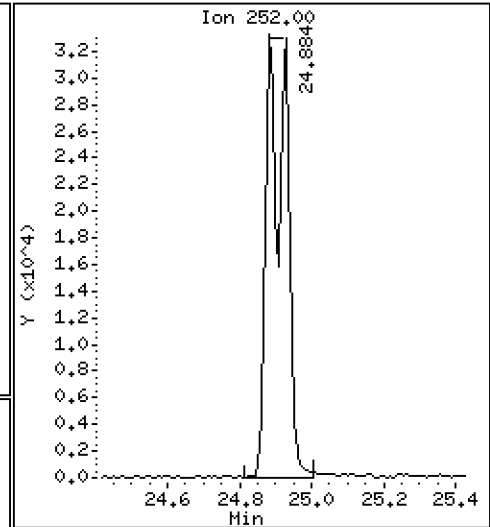
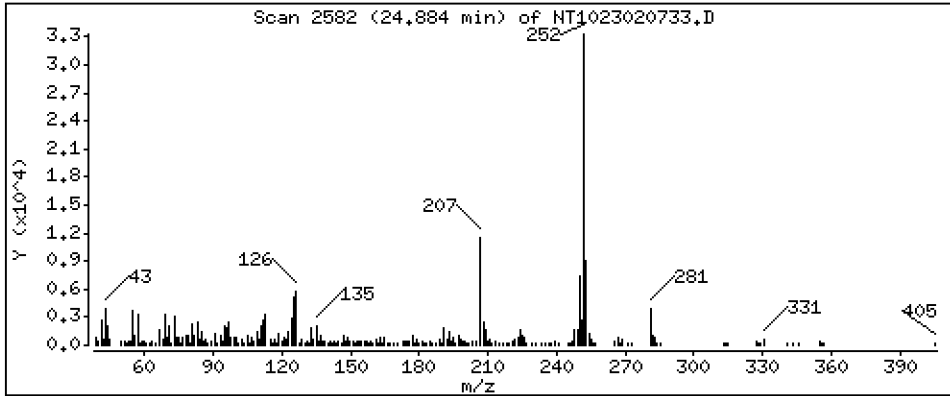
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 1,119 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

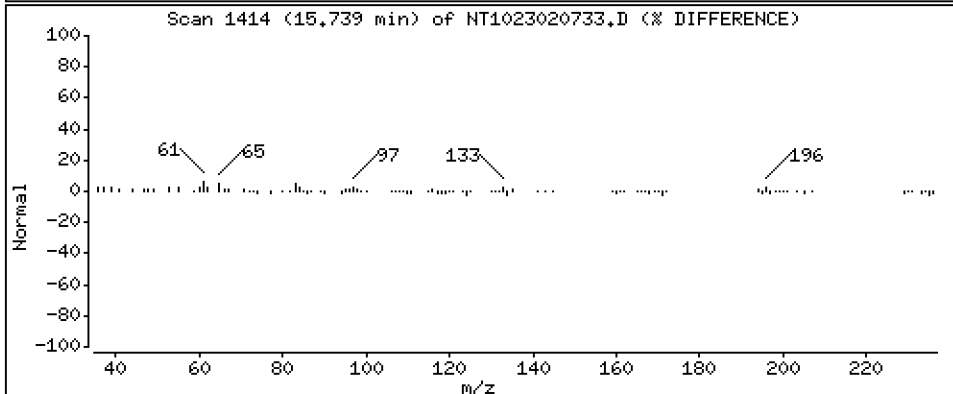
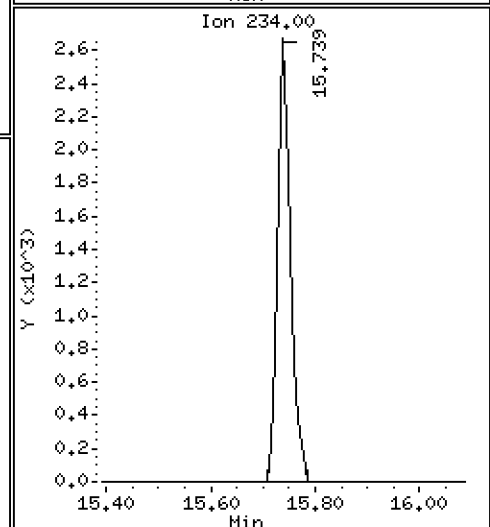
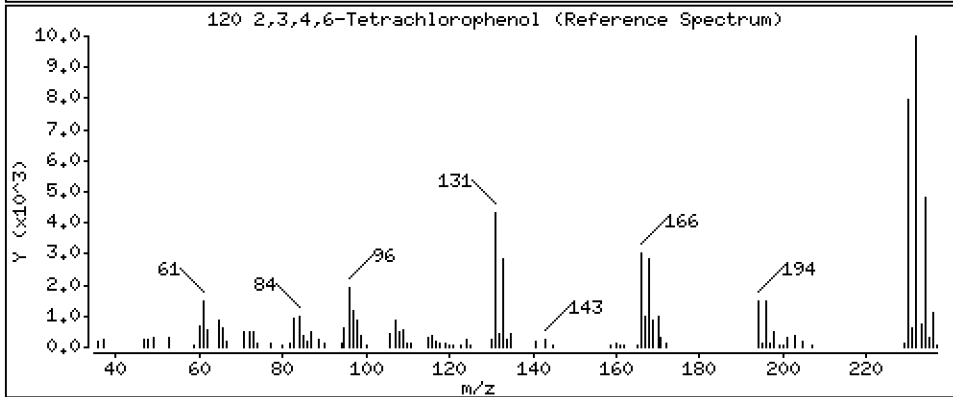
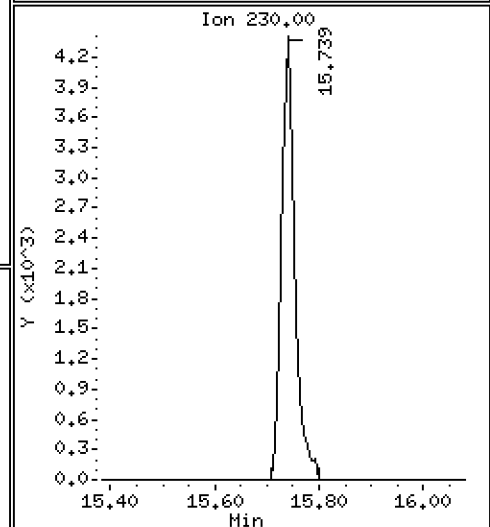
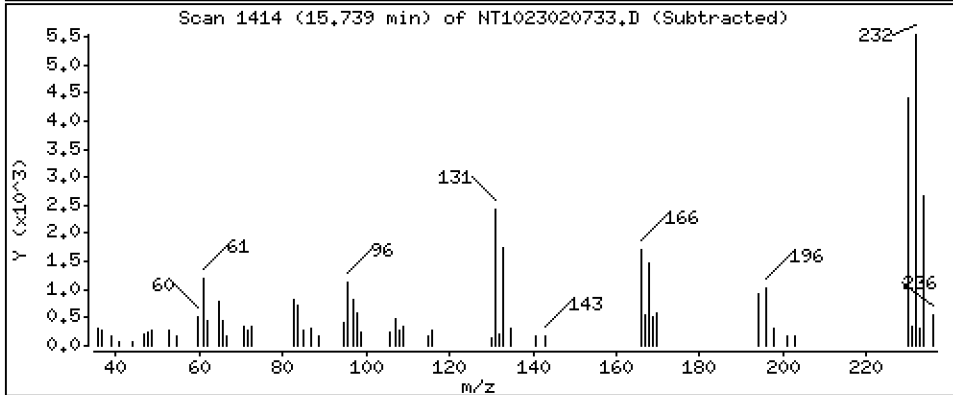
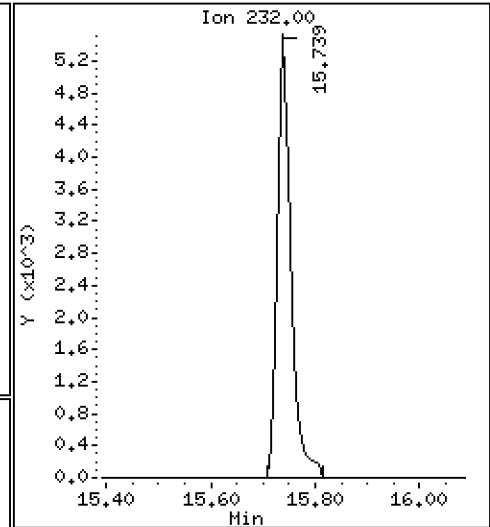
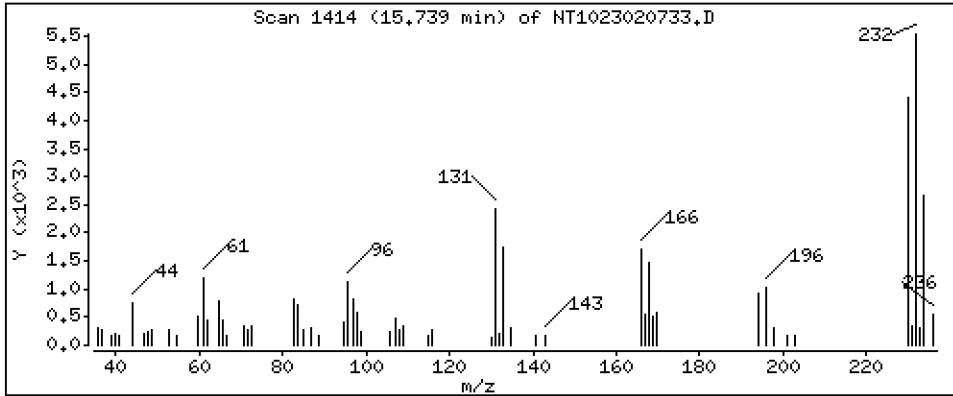
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0.4681 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020733.D
 Lab Smp Id: SLB0102-LCV2
 Inj Date : 08-FEB-2023 08:02
 Operator : VTS
 Smp Info : SLB0102-LCV2
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 08-Feb-2023 10:39 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		6.780	6.772	(0.756)	29029	0.81171	0.8117
\$ 2 Phenol-d5	99		8.341	8.333	(0.930)	37737	0.78219	0.7822
3 Phenol	94		8.364	8.356	(0.933)	27233	0.52182	0.5218
\$ 5 2-Chlorophenol-d4	132		8.611	8.603	(0.960)	31374	0.80127	0.8013
4 Bis(2-Chloroethyl)ether	93		8.511	8.511	(0.949)	20123	0.53023	0.5302
6 2-Chlorophenol	128		8.635	8.634	(0.963)	22809	0.53481	0.5348
7 1,3-Dichlorobenzene	146		8.905	8.897	(0.993)	23606	0.52729	0.5273
* 8 1,4-Dichlorobenzene-d4	152		8.967	8.959	(1.000)	112491	4.00000	
9 1,4-Dichlorobenzene	146		8.998	8.990	(1.003)	22155	0.50244	0.5024
\$ 10 1,2-Dichlorobenzene-d4	152		9.324	9.316	(1.040)	14277	0.53269	0.5327
12 1,2-Dichlorobenzene	146		9.348	9.340	(1.042)	21632	0.50886	0.5089
11 Benzyl alcohol	108		9.239	9.239	(1.030)	9565	0.41377	0.4138
14 2,2'-oxybis(1-Chloropropane)	121		9.526	9.526	(1.062)	6794	0.55623	0.5562 (M)
13 2-Methylphenol	108		9.464	9.456	(1.055)	21090	0.54490	0.5449
17 Hexachloroethane	117		9.930	9.929	(1.107)	6799	0.40220	0.4022
16 N-Nitroso-di-n-propylamine	70		9.782	9.782	(1.091)	15193	0.52201	0.5220
15 4-Methylphenol	108		9.728	9.728	(1.085)	22148	0.54025	0.5402
\$ 18 Nitrobenzene-d5	82		10.046	10.038	(0.880)	23115	0.55400	0.5540
19 Nitrobenzene	77		10.077	10.077	(0.882)	22238	0.53448	0.5345
20 Isophorone	82		10.520	10.519	(0.921)	28351	0.48933	0.4893
21 2-Nitrophenol	139		10.707	10.698	(0.937)	11497	0.53647	0.5365
22 2,4-Dimethylphenol	107		10.766	10.757	(0.943)	42454	1.10818	1.108
23 Bis(2-Chloroethoxy)methane	93		10.953	10.944	(0.959)	20796	0.55276	0.5528
24 Benzoic acid	105		10.902	11.003	(0.954)	20089	0.92612	0.9261
25 2,4-Dichlorophenol	162		11.165	11.156	(0.978)	35125	1.12855	1.129
26 1,2,4-Trichlorobenzene	180		11.337	11.337	(0.993)	18189	0.53638	0.5364
* 27 Naphthalene-d8	136		11.422	11.422	(1.000)	422326	4.00000	
28 Naphthalene	128		11.461	11.460	(1.003)	58828	0.52127	0.5213
29 4-Chloroaniline	127		11.592	11.592	(1.015)	49961	1.03271	1.033
30 Hexachlorobutadiene	225		11.824	11.823	(1.035)	9569	0.54109	0.5411
31 4-Chloro-3-methylphenol	107		12.559	12.551	(1.100)	33996	0.99916	0.9992
32 2-Methylnaphthalene	142		12.853	12.845	(1.125)	41125	0.52409	0.5241
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196		13.472	13.464	(0.898)	21012	1.06942	1.069	
35 2,4,5-Trichlorophenol	196		13.550	13.549	(0.903)	21364	1.00858	1.009	
§ 36 2-Fluorobiphenyl	172		13.627	13.619	(0.908)	43452	0.55399	0.5540	
37 2-Chloronaphthalene	162		13.836	13.828	(0.922)	37165	0.54512	0.5451	
38 2-Nitroaniline	65		14.091	14.083	(0.939)	22912	1.06728	1.067	
39 Dimethylphthalate	163		14.517	14.509	(0.968)	40771	0.55895	0.5590	
40 Acenaphthylene	152		14.695	14.695	(0.979)	60599	0.55801	0.5580	
41 2,6-Dinitrotoluene	165		14.649	14.648	(0.976)	18301	1.05933	1.059	
* 42 Acenaphthene-d10	164		15.005	15.004	(1.000)	217652	4.00000		
43 3-Nitroaniline	138		14.935	14.935	(0.995)	19899	0.99897	0.9990	
44 Acenaphthene	153		15.074	15.066	(1.005)	35882	0.53915	0.5391	
45 2,4-Dinitrophenol	184		15.151	15.151	(1.010)	5490	0.61555	0.6156	
46 Dibenzofuran	168		15.399	15.391	(1.026)	50028	0.52254	0.5225	
47 4-Nitrophenol	109		15.298	15.313	(1.020)	7791	1.04923	1.049 (M)	
48 2,4-Dinitrotoluene	165		15.453	15.452	(1.030)	24111	1.01150	1.012	
50 Diethylphthalate	149		15.955	15.955	(1.063)	38815	0.55413	0.5541	
49 Fluorene	166		16.102	16.094	(1.073)	56878	0.52853	0.5285	
51 4-Chlorophenyl-phenylether	204		16.095	16.087	(1.073)	28378	0.53991	0.5399	
52 4-Nitroaniline	138		16.195	16.187	(1.079)	22147	0.97293	0.9729	
53 4,6-Dinitro-2-methylphenol	198		16.287	16.287	(0.904)	18574	1.36570	1.366	
54 N-Nitrosodiphenylamine	169		16.341	16.341	(0.907)	36112	0.56102	0.5610	
§ 55 2,4,6-Tribromophenol	330		16.634	16.619	(1.109)	8135	0.74642	0.7464	
56 4-Bromophenyl-phenylether	248		17.089	17.089	(0.948)	12946	0.54580	0.5458	
57 Hexachlorobenzene	284		17.406	17.398	(0.966)	14611	0.57198	0.5720	
58 Pentachlorophenol	266		17.770	17.770	(0.986)	7668	0.79601	0.7960	
* 59 Phenanthrene-d10	188		18.018	18.018	(1.000)	376550	4.00000		
60 Phenanthrene	178		18.064	18.064	(1.003)	53468	0.52761	0.5276	
61 Anthracene	178		18.157	18.157	(1.008)	54643	0.54453	0.5445	
62 Carbazole	167		18.490	18.489	(1.026)	50813	0.52500	0.5250	
63 Di-n-butylphthalate	149		19.294	19.294	(1.071)	63876	0.55344	0.5534	
64 Fluoranthene	202		20.455	20.447	(0.887)	56532	0.49880	0.4988	
65 Pyrene	202		20.881	20.872	(0.905)	58038	0.49602	0.4960	
§ 66 Terphenyl-d14	244		21.167	21.167	(0.917)	44701	0.50665	0.5067	
67 Butylbenzylphthalate	149		22.096	22.088	(0.958)	27513	0.54413	0.5441	
68 Benzo(a)anthracene	228		23.041	23.033	(0.999)	57507	0.55820	0.5582	
* 69 Chrysene-d12	240		23.072	23.064	(1.000)	309079	4.00000		
70 3,3'-Dichlorobenzidine	252		22.994	22.994	(0.997)	63008	1.80758	1.808	
71 Chrysene	228		23.110	23.102	(1.002)	53635	0.54285	0.5429	
72 bis(2-Ethylhexyl)phthalate	149		23.126	23.125	(0.959)	37172	0.52645	0.5264	
* 134 Di-n-octylphthalate-d4	153		24.109	24.109	(1.000)	519094	4.00000		
73 Di-n-octylphthalate	149		24.117	24.116	(1.000)	72002	0.54888	0.5489	
74 Benzo(b)fluoranthene	252		24.883	24.875	(0.971)	64902	0.56342	0.5634	
75 Benzo(k)fluoranthene	252		24.930	24.922	(0.973)	66297	0.54666	0.5467	
76 Benzo(a)pyrene	252		25.510	25.502	(0.995)	58271	0.55945	0.5595	
* 77 Perylene-d12	264		25.626	25.611	(1.000)	363898	4.00000		
78 Indeno(1,2,3-cd)pyrene	276		28.168	28.159	(1.099)	53159	0.42879	0.4288	
79 Dibenzo(a,h)anthracene	278		28.183	28.175	(1.100)	46607	0.45382	0.4538	
80 Benzo(g,h,i)perylene	276		28.921	28.905	(1.129)	38055	0.35766	0.3577	
90 N-Nitrosodimethylamine	74		4.633	4.625	(0.517)	24813	0.99726	0.9973	
91 Aniline	93		8.426	8.426	(0.940)	52266	1.03475	1.035	
93 Benzidine	184		20.687	20.687	(0.897)	44488	1.17231	1.172	
103 Pyridine	79		4.664	4.679	(0.520)	37744	0.98008	0.9801	
105 1-methylnaphthalene	142		13.070	13.062	(1.144)	39682	0.52526	0.5253	
111 Azobenzene (1,2-DP-Hydrazine)	77		16.418	16.410	(1.094)	49744	0.53298	0.5330	

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252		24.883	24.922	(0.971)	126359	1.11891	1.119
120 2,3,4,6-Tetrachlorophenol	232		15.739	15.738	(1.049)	9413	0.46809	0.4681

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 08-FEB-2023
 Lab File ID: NT1023020733.D Calibration Time: 07:24
 Lab Smp Id: SLB0102-LCV2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	110702	55351	221404	112491	1.62
27 Naphthalene-d8	429852	214926	859704	422326	-1.75
42 Acenaphthene-d10	233715	116858	467430	217652	-6.87
59 Phenanthrene-d10	388662	194331	777324	376550	-3.12
69 Chrysene-d12	345176	172588	690352	309079	-10.46
134 Di-n-octylphthala	579750	289875	1159500	519094	-10.46
77 Perylene-d12	378227	189114	756454	363898	-3.79

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.97	0.01
27 Naphthalene-d8	11.43	10.93	11.93	11.42	-0.06
42 Acenaphthene-d10	15.01	14.51	15.51	15.01	-0.05
59 Phenanthrene-d10	18.03	17.53	18.53	18.02	-0.04
69 Chrysene-d12	23.07	22.57	23.57	23.07	0.00
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	0.00
77 Perylene-d12	25.63	25.13	26.13	25.63	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020733.D

Lab ID: SLB0102-LCV2
nt10.i, 20230207.b\ABN.m, 08-FEB-2023 08:02

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.954	0.000	0.9545	Benzoic acid
1.010	0.000	1.0098	2,4-Dinitrophenol

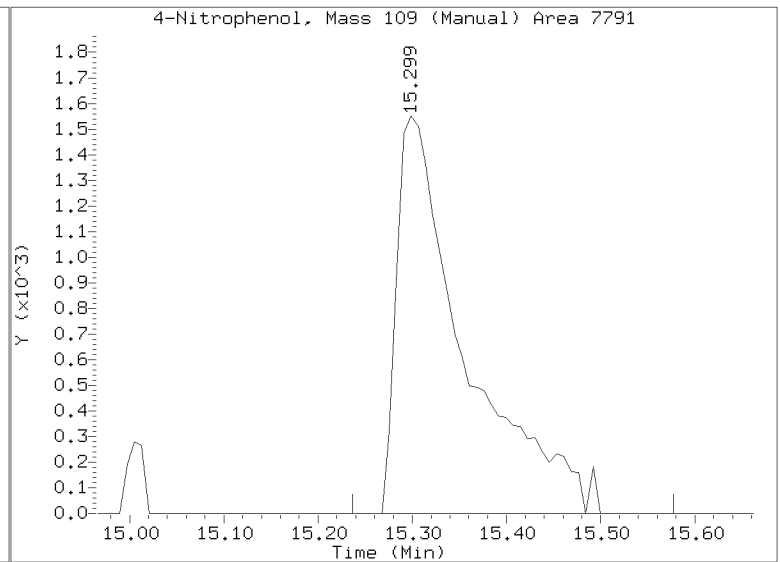
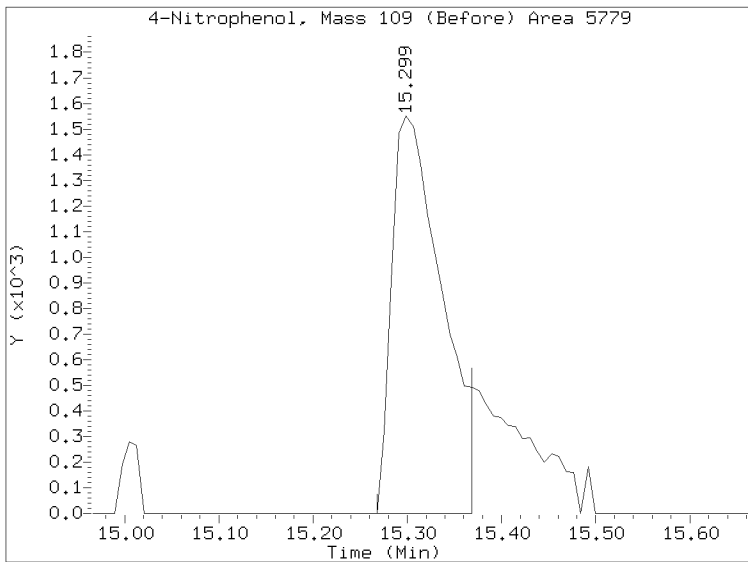
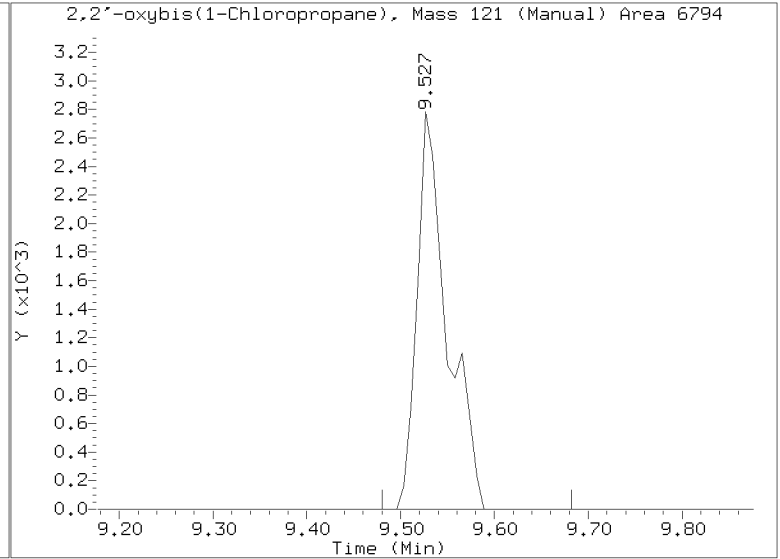
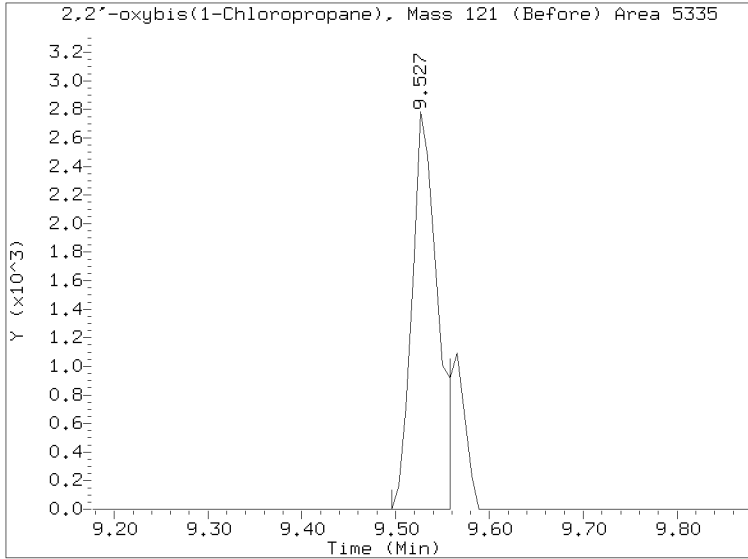
RRT check based on Ccal File: NT1023020708.D

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020733.D
Injection Date: 08-FEB-2023 08:02
Lab ID:SLB0102-LCV2 Client ID:
Report Date: 02/09/2023 11:27



APPROVED

By Deenay Dunmore at 11:33 am, Feb 09, 2023



**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00018

Laboratory ID: SLB0122-LCV1

Sequence: SLB0122

Standard ID: K011106

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	0.50000	0.5	3.3	50.00
4-Methylphenol	0.50000	0.5	0.8	50.00
Naphthalene	0.50000	0.5	3.1	50.00
2-Methylnaphthalene	0.50000	0.5	1.6	50.00
Acenaphthylene	0.50000	0.5	6.4	50.00
Dimethylphthalate	0.50000	0.5	3.4	50.00
Acenaphthene	0.50000	0.5	5.3	50.00
Dibenzofuran	0.50000	0.5	1.7	50.00
Fluorene	0.50000	0.4	-11.3	50.00
Phenanthrene	0.50000	0.5	3.4	50.00
Anthracene	0.50000	0.5	2.8	50.00
Fluoranthene	0.50000	0.5	3.6	50.00
Pyrene	0.50000	0.5	5.5	50.00
Butylbenzylphthalate	0.50000	0.5	-6.0	50.00
Benzo(a)anthracene	0.50000	0.6	10.0	50.00
Chrysene	0.50000	0.5	6.6	50.00
bis(2-Ethylhexyl)phthalate	0.50000	0.5	-0.3	50.00
Benzo(a)fluoranthene, Total	1.0000	1.0	4.0	50.00
Benzo(a)pyrene	0.50000	0.5	7.8	50.00
Indeno(1,2,3-cd)pyrene	0.50000	0.6	14.7	50.00
Dibenzo(a,h)anthracene	0.50000	0.6	12.0	50.00
Benzo(g,h,i)perylene	0.50000	0.6	13.6	50.00
2-Fluorophenol	0.75000	0.758	1.1	50.00
Phenol-d5	0.75000	0.762	1.5	50.00
2-Chlorophenol-d4	0.75000	0.795	5.9	50.00
1,2-Dichlorobenzene-d4	0.50000	0.520	4.0	50.00
Nitrobenzene-d5	0.50000	0.531	6.2	50.00
2-Fluorobiphenyl	0.50000	0.560	11.9	50.00
2,4,6-Tribromophenol	0.75000	0.678	-9.6	50.00



**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00018

Laboratory ID: SLB0122-LCV1

Sequence: SLB0122

Standard ID: K011106

p-Terphenyl-d14	0.50000	0.538	7.7	50.00
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* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230209.1\NT1023020903.D

Date: 09-FEB-2023 14:10

Client ID:

Sample Info: SLB0122-LCW1

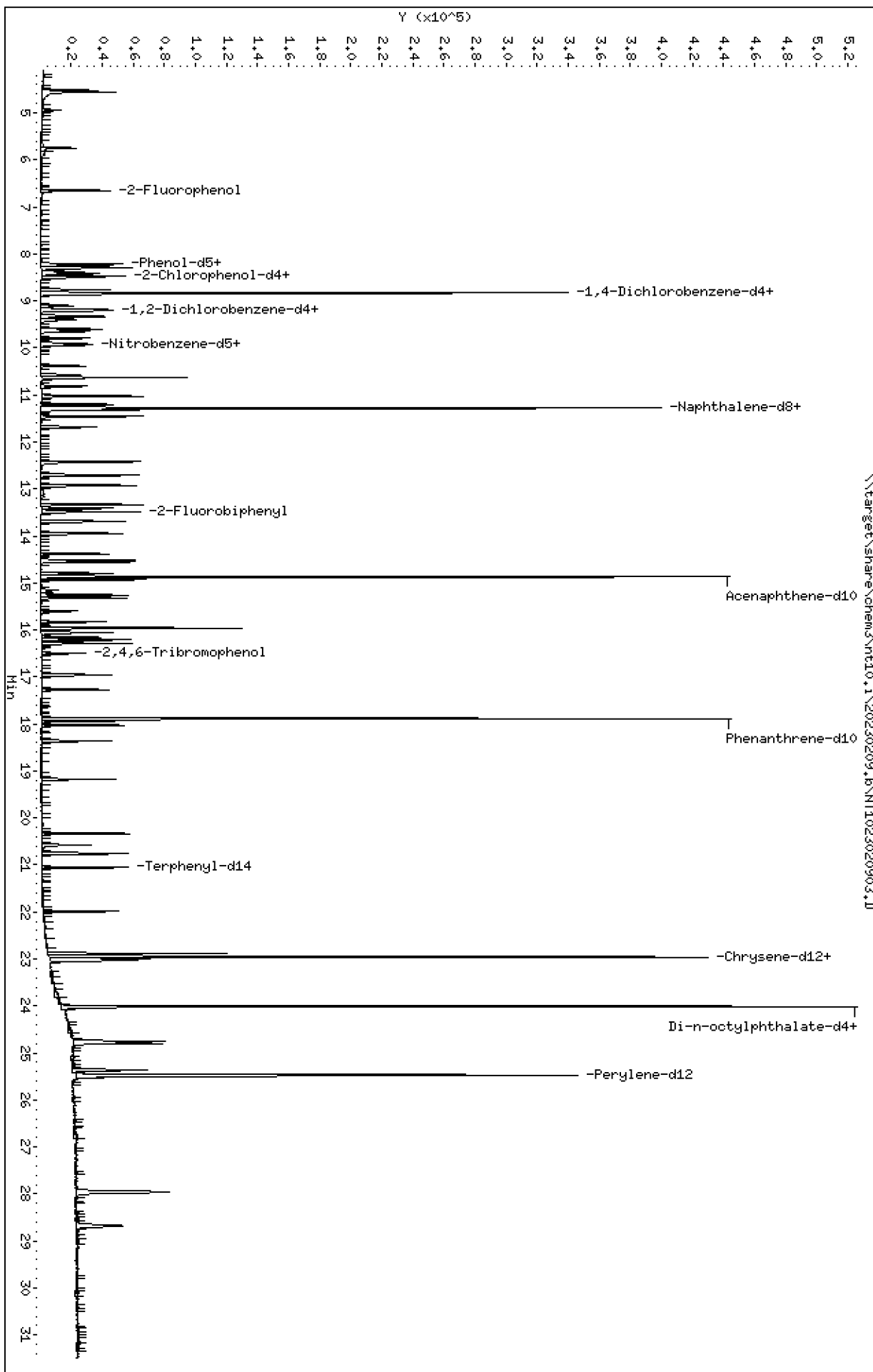
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

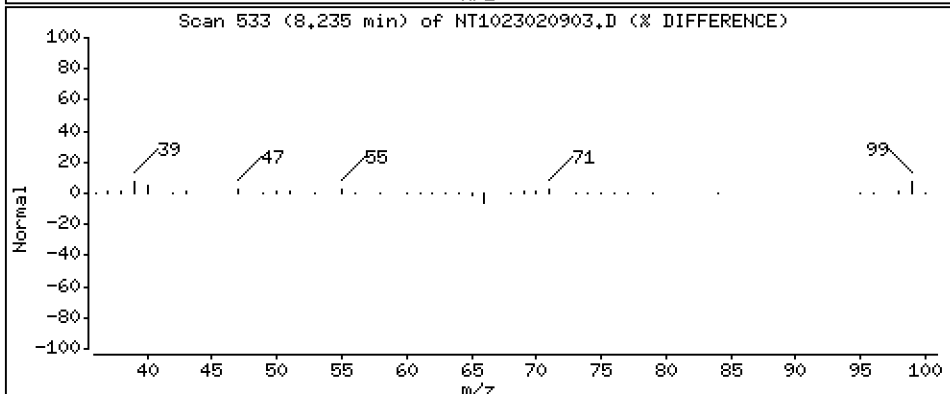
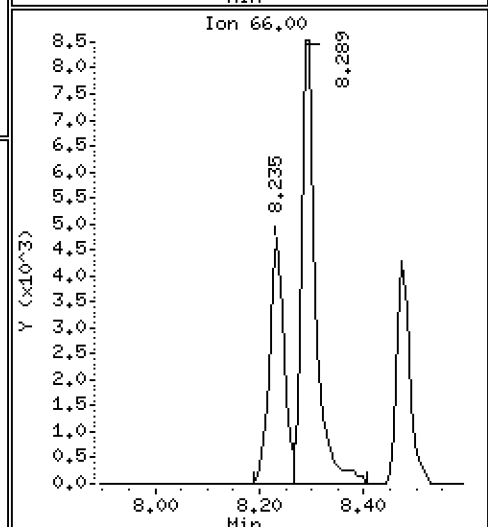
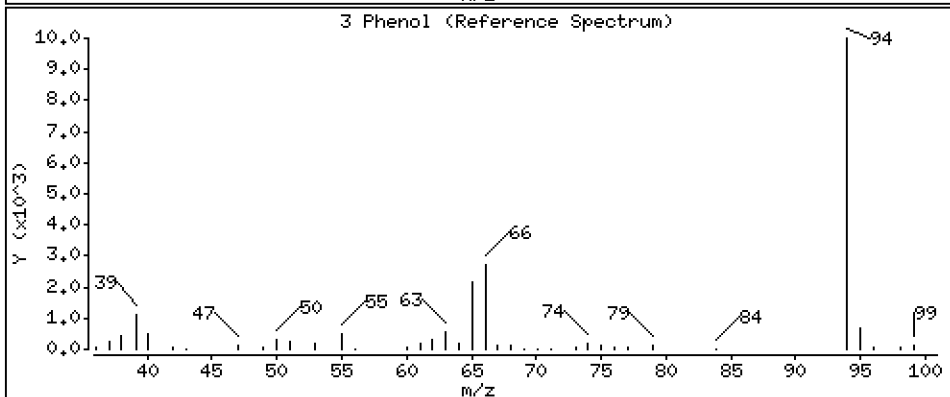
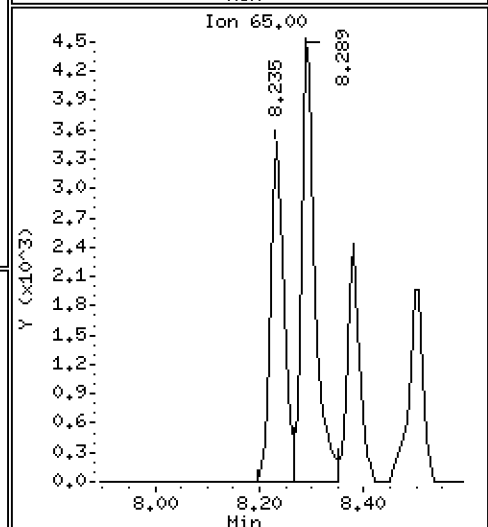
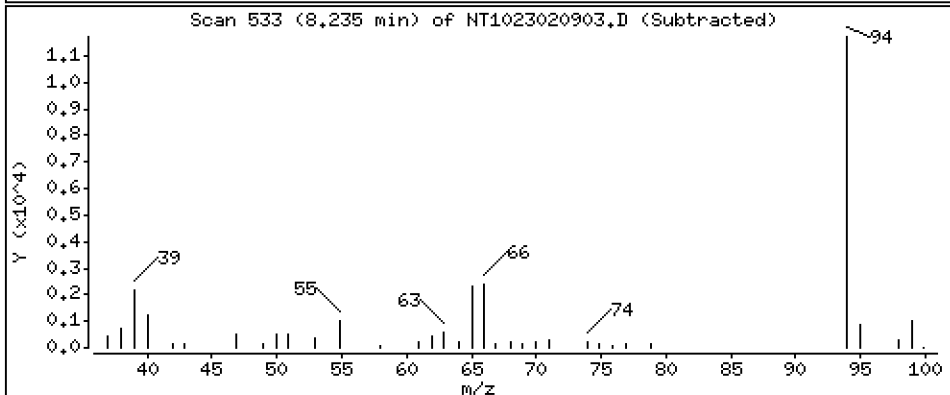
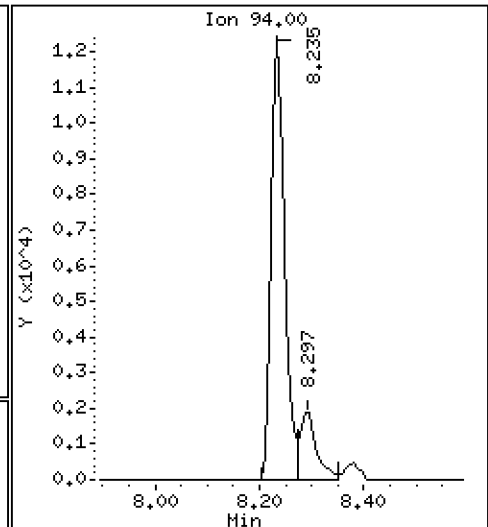
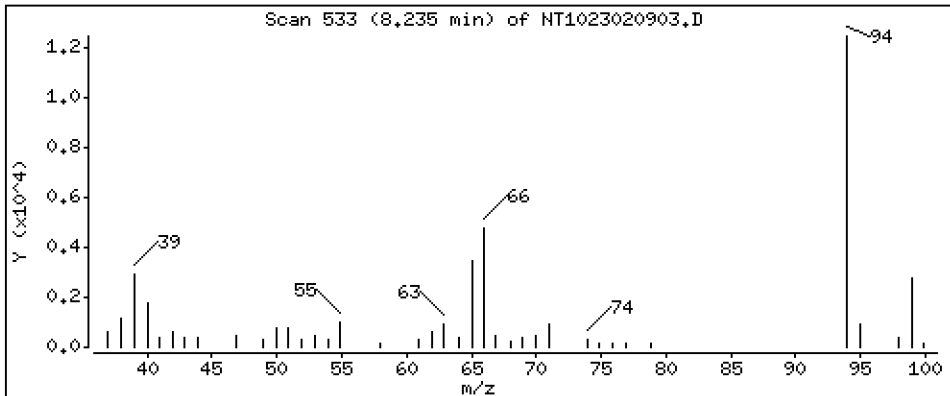
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 0.5166 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

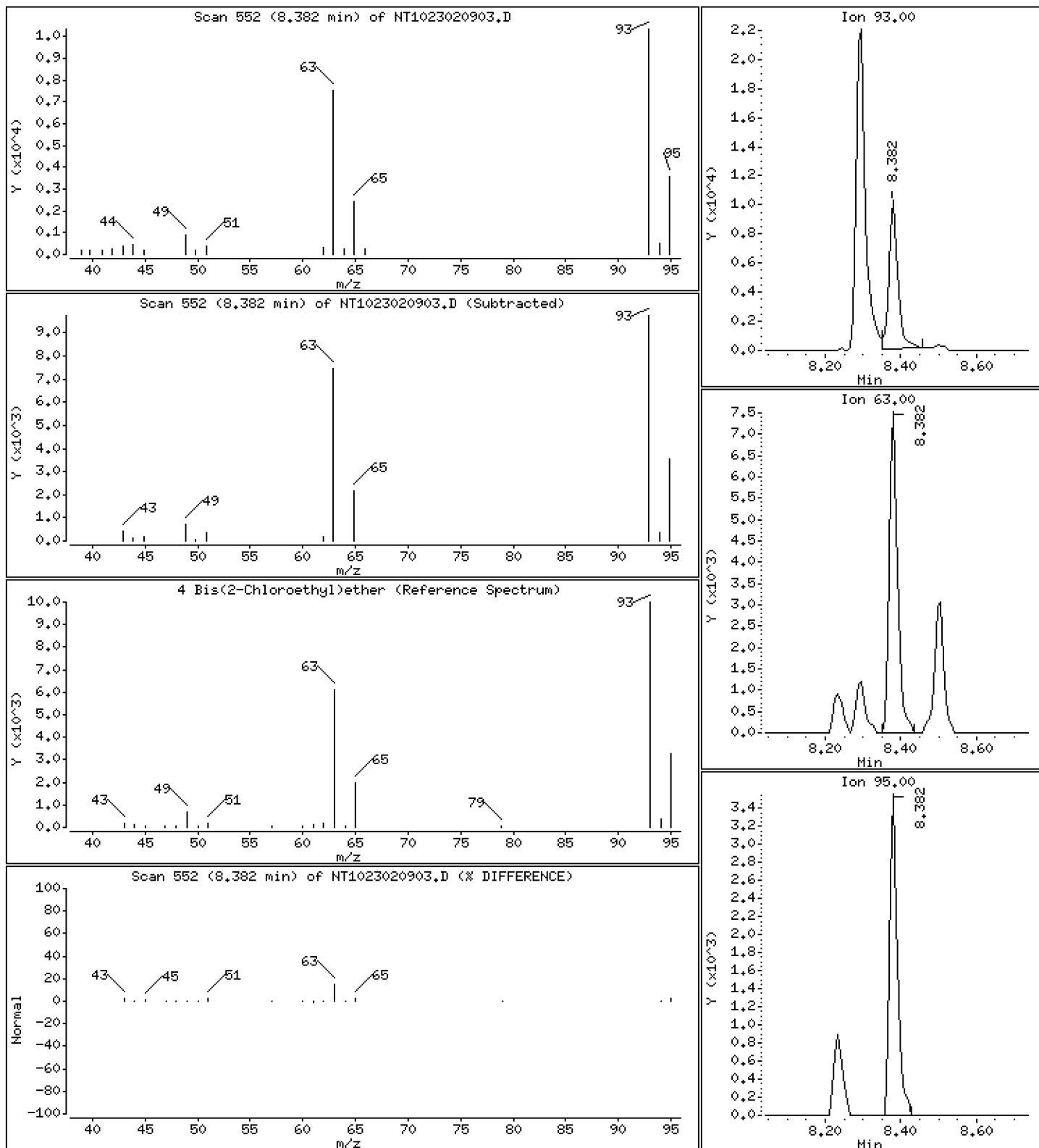
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,5392 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

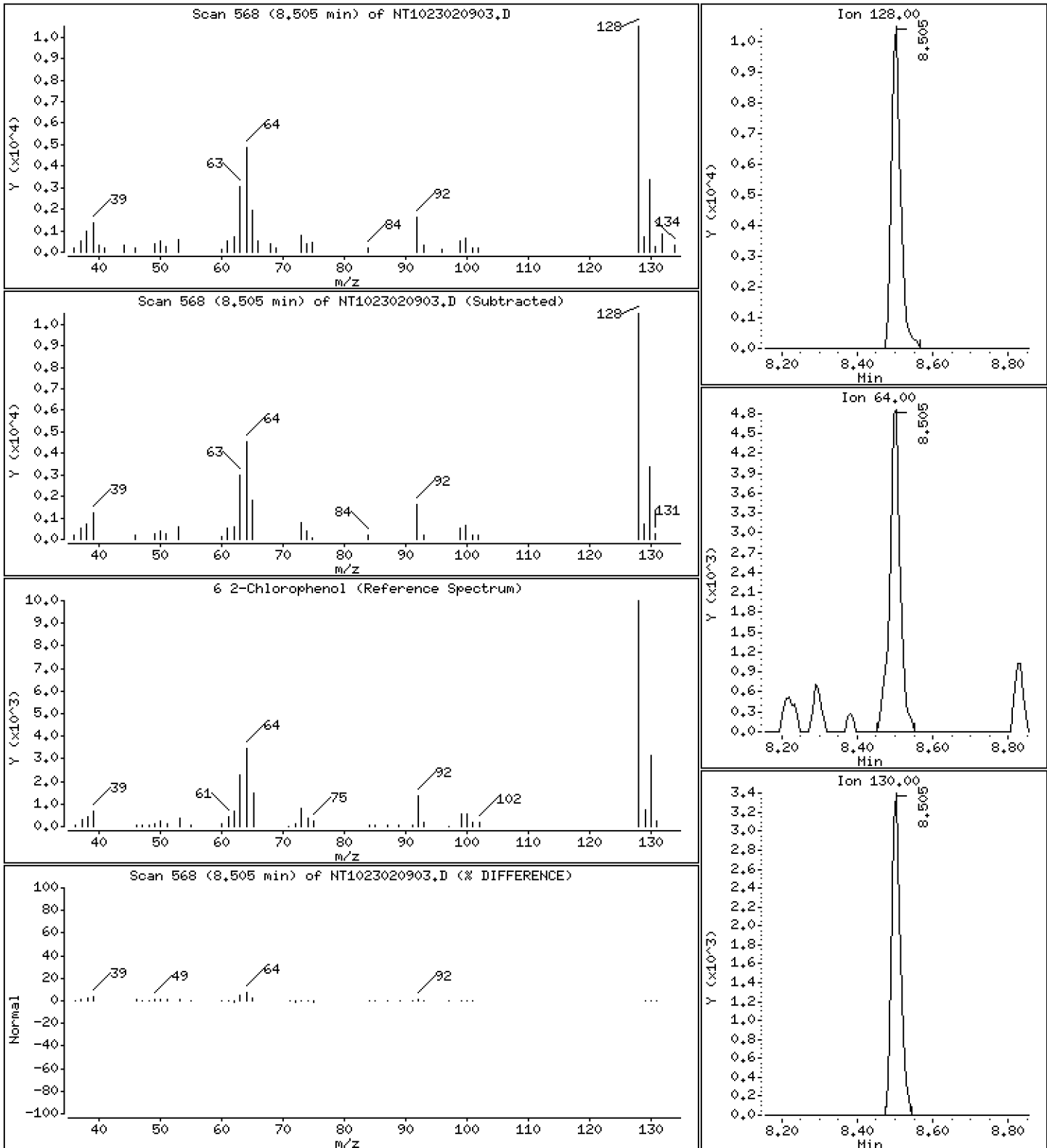
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 0,5220 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

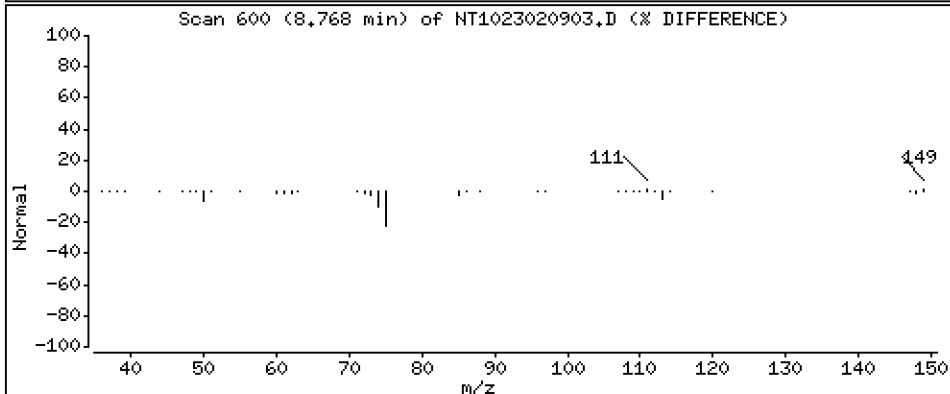
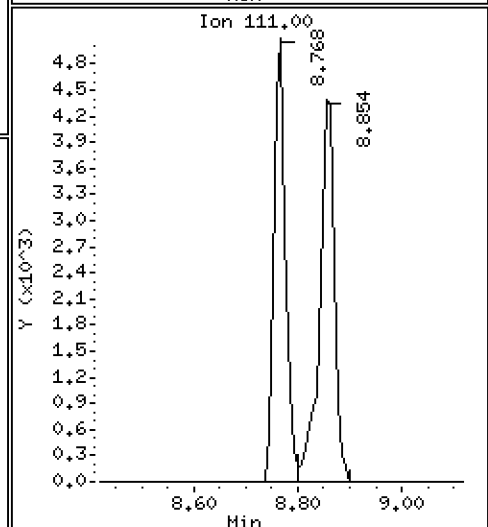
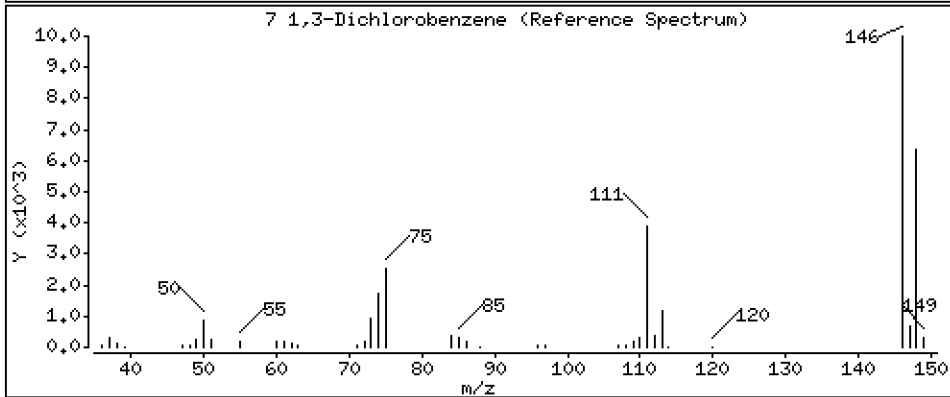
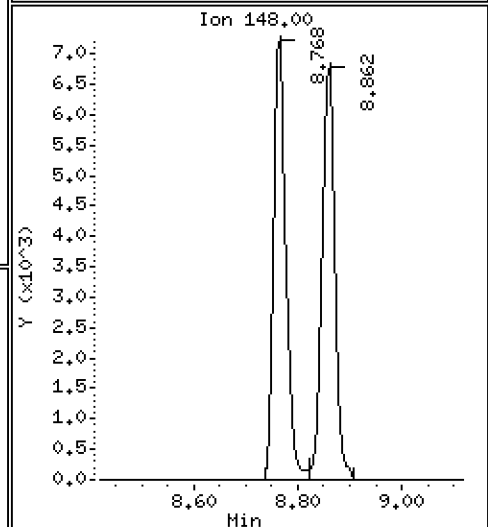
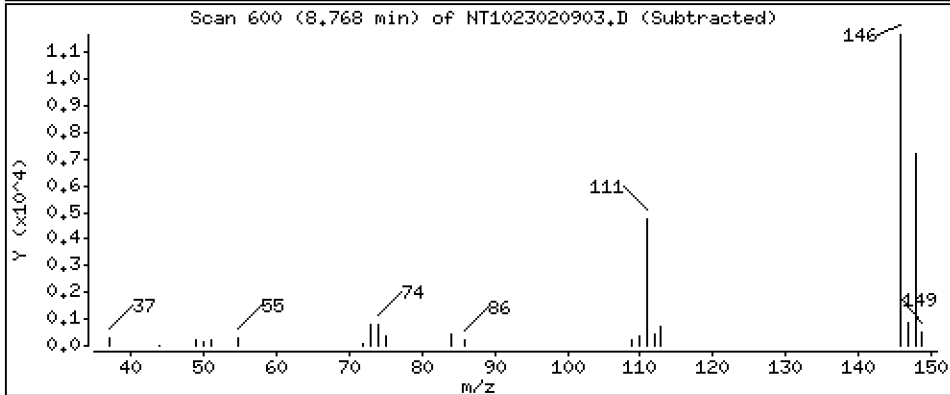
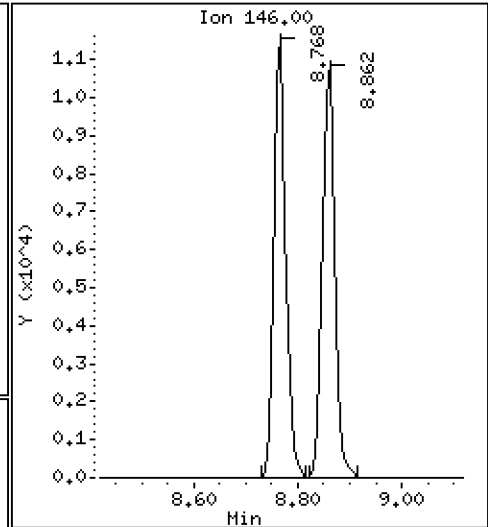
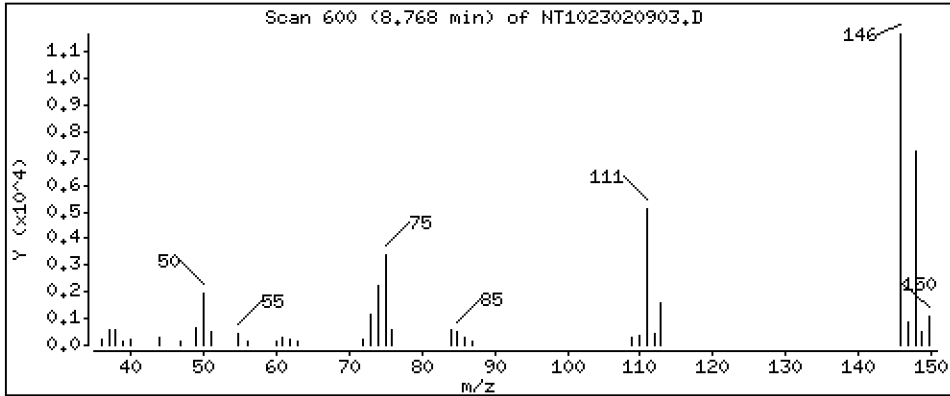
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.5160 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

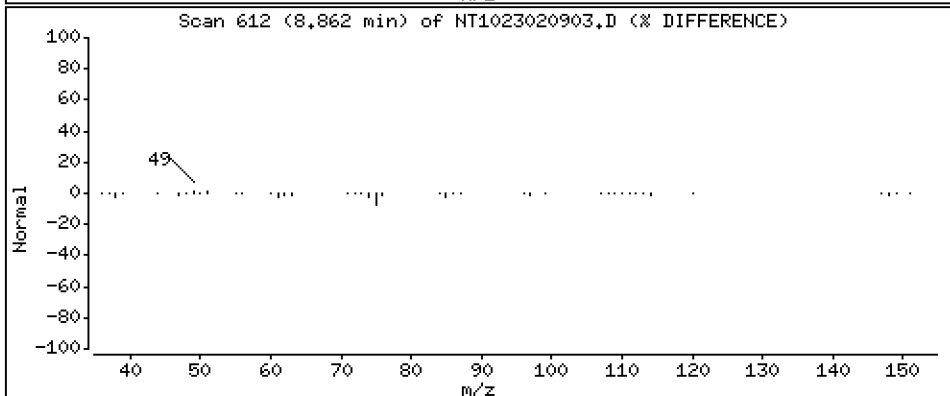
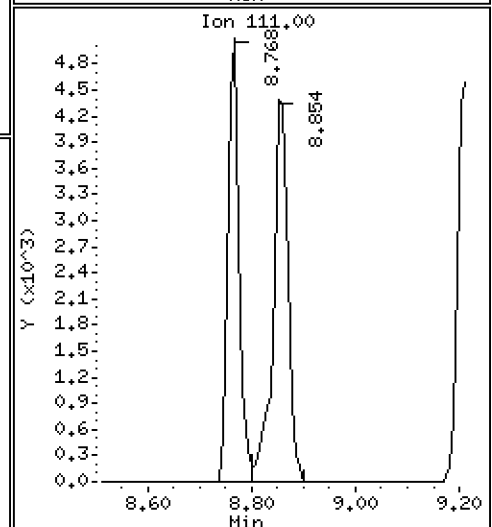
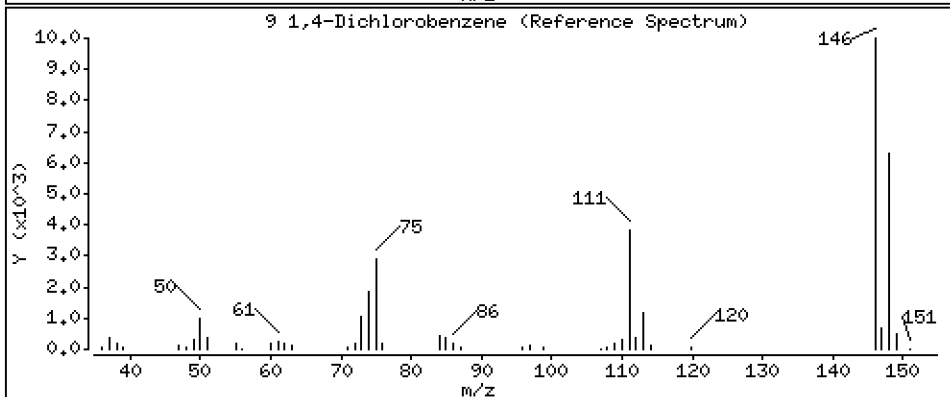
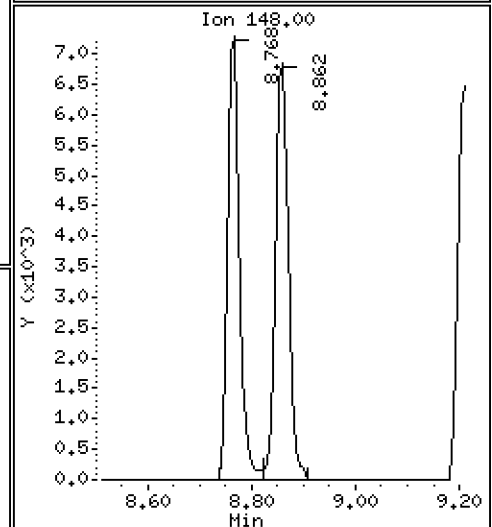
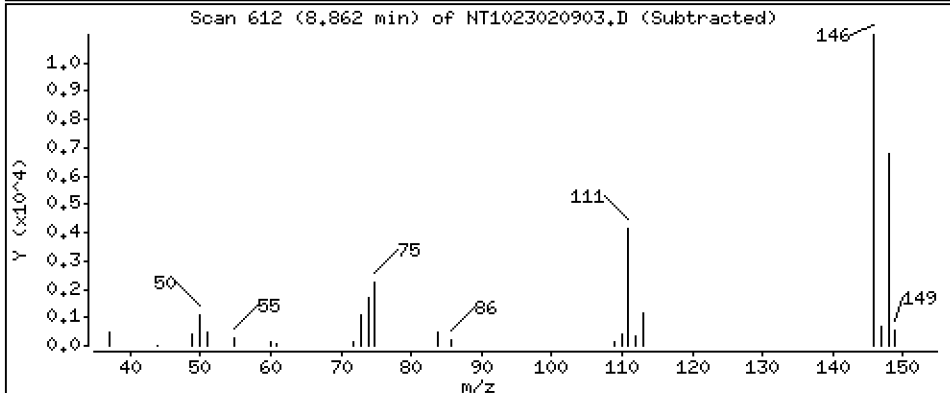
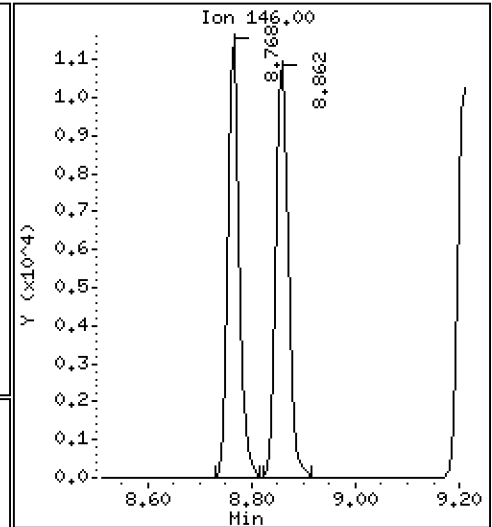
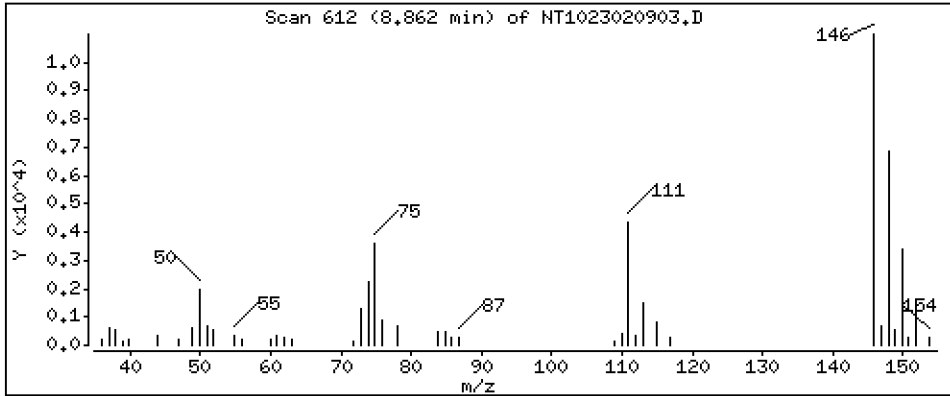
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,5063 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

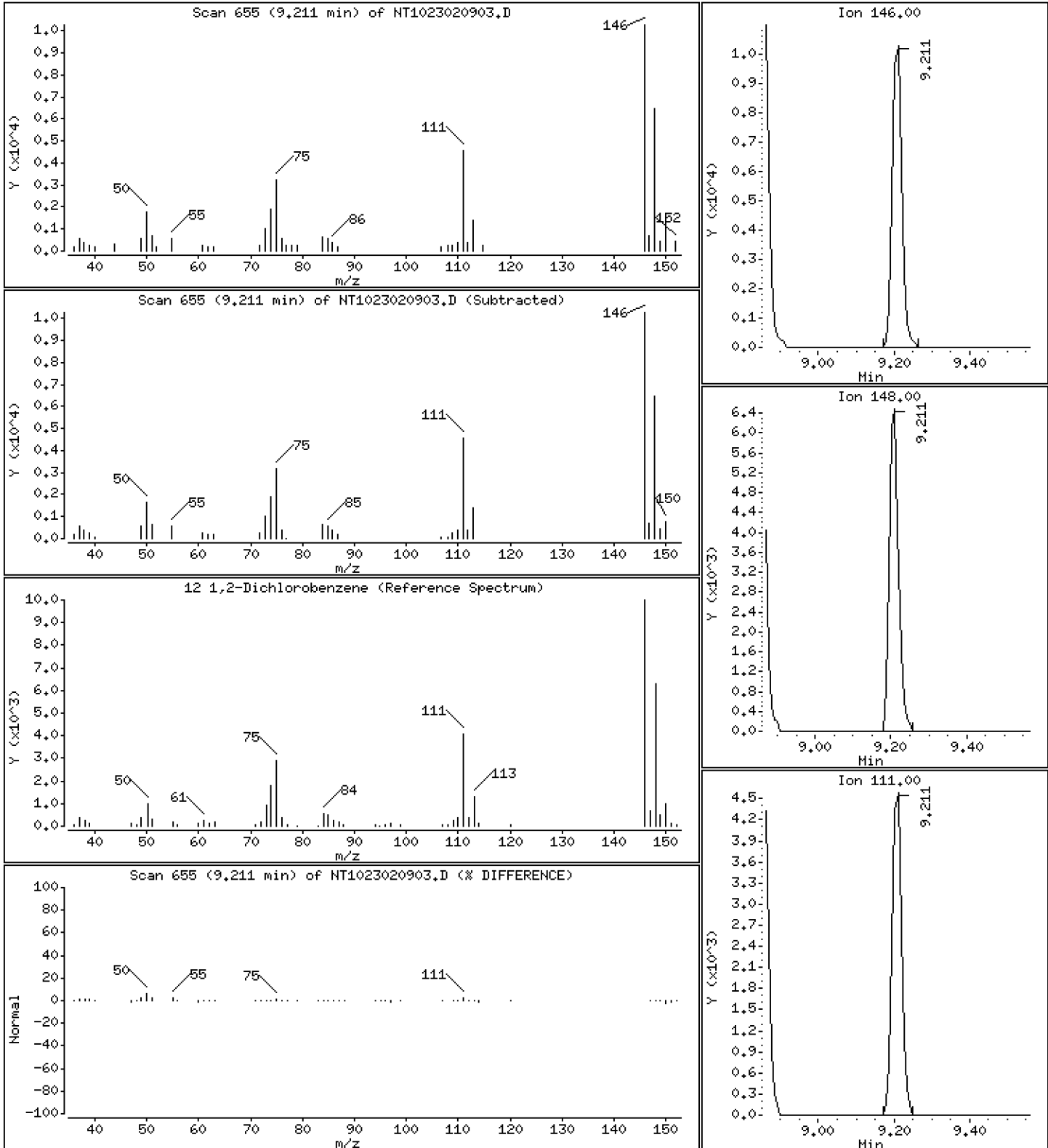
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,5149 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

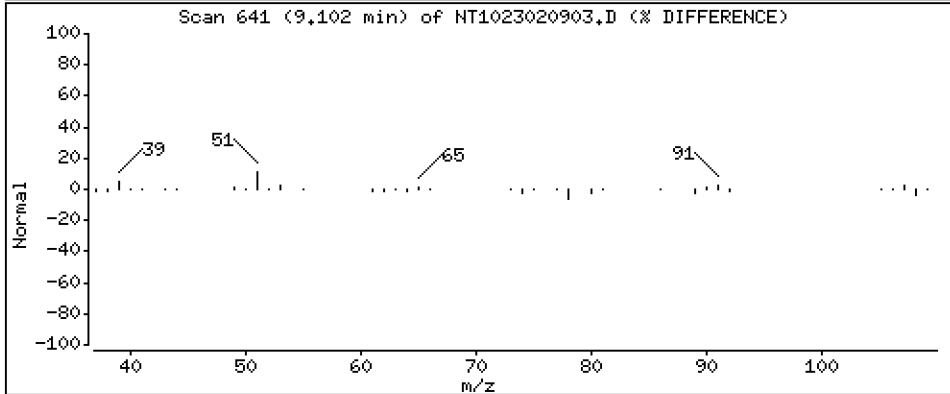
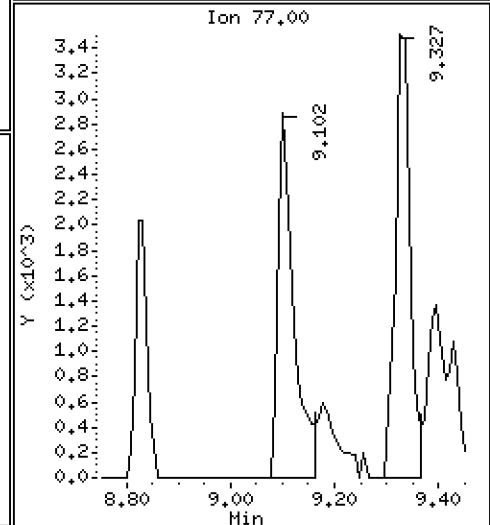
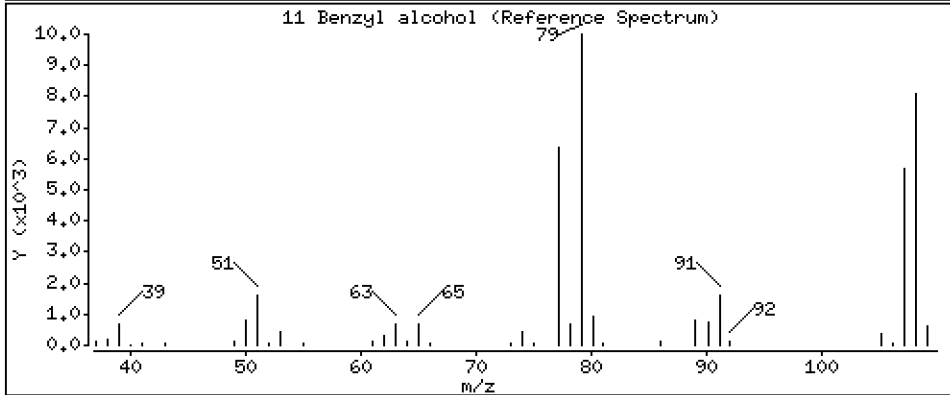
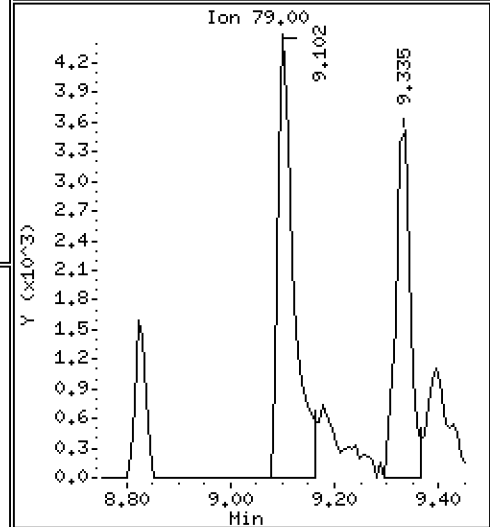
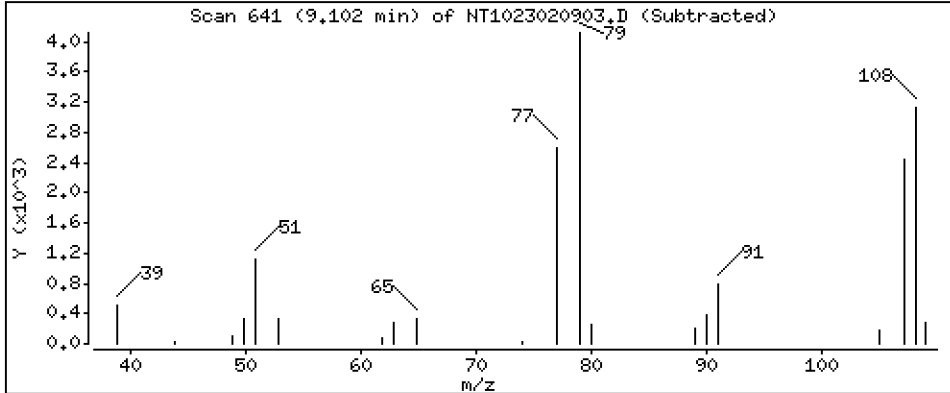
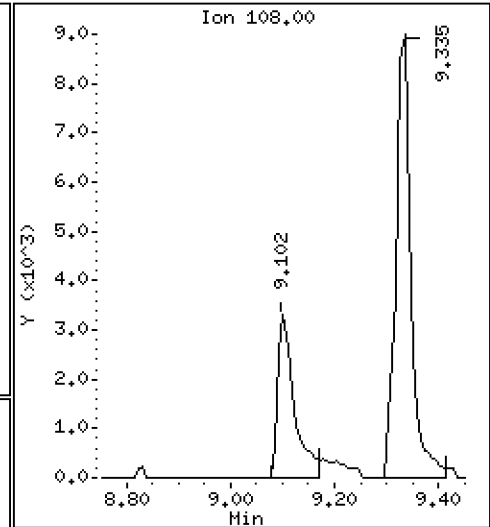
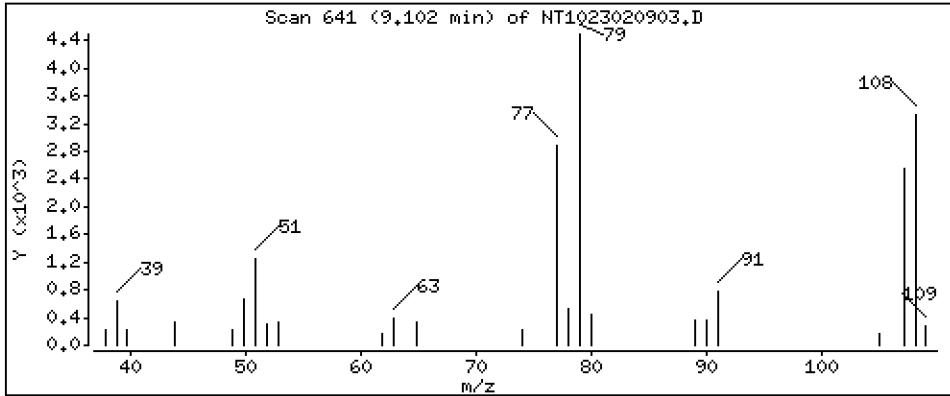
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.3892 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

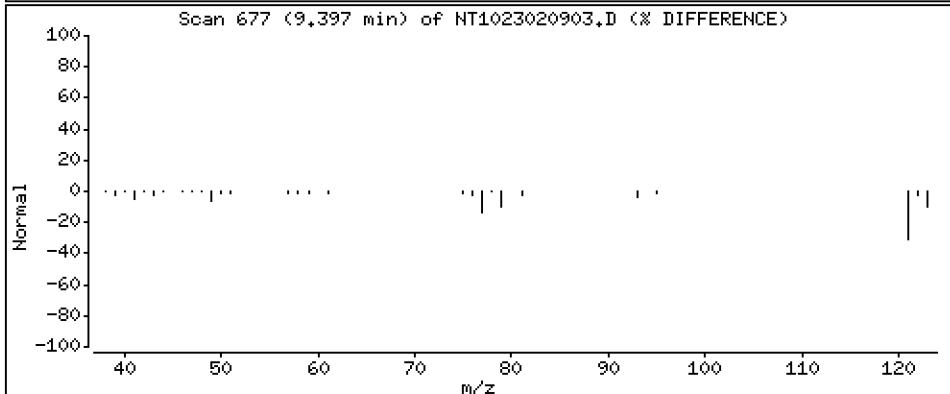
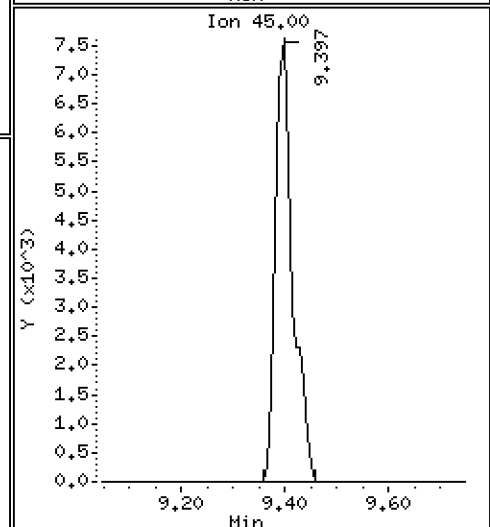
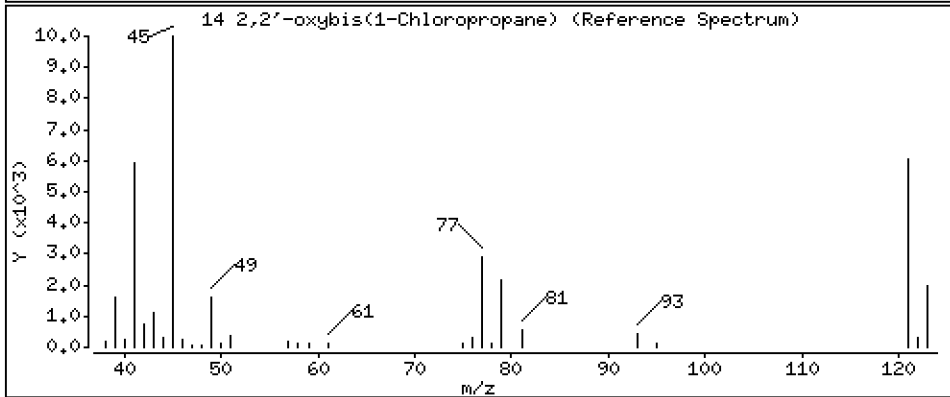
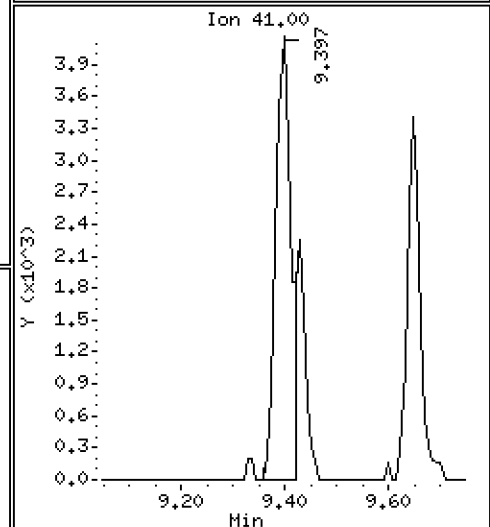
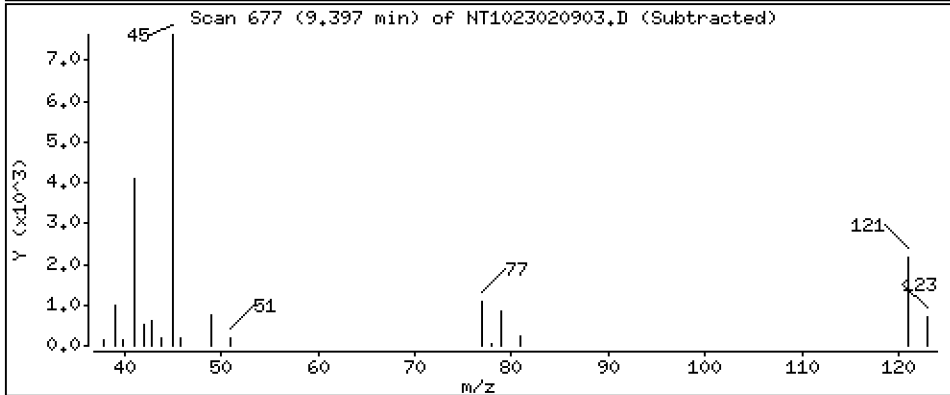
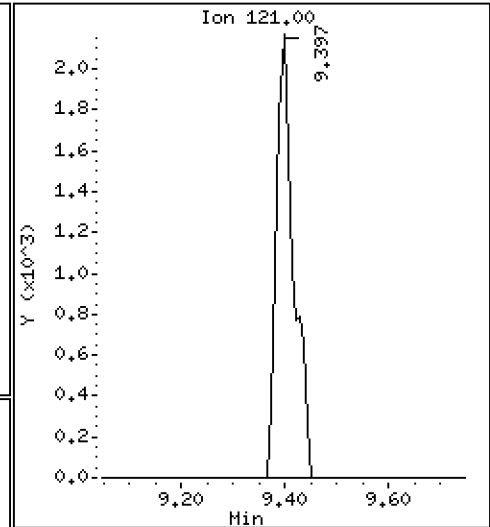
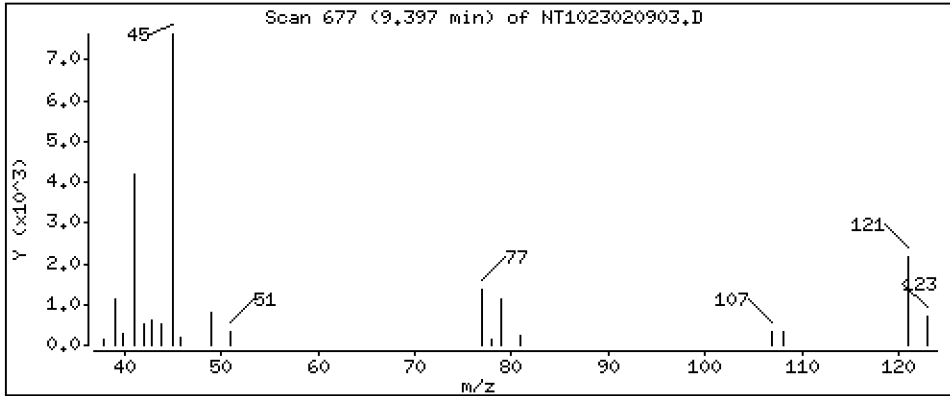
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 0.5054 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

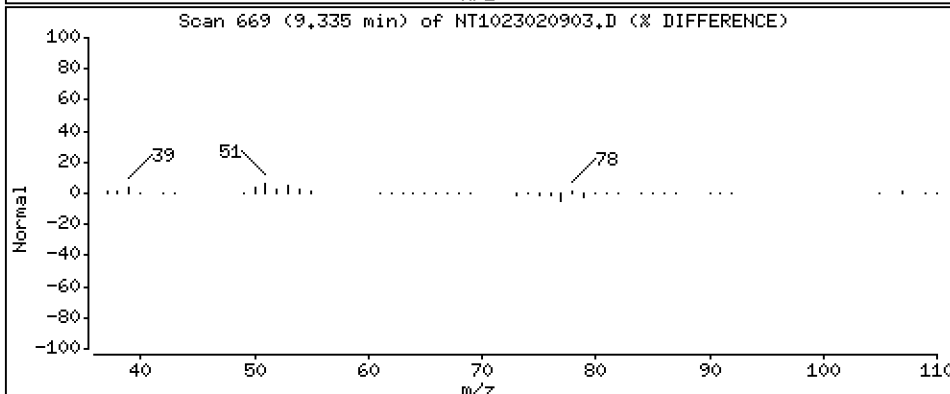
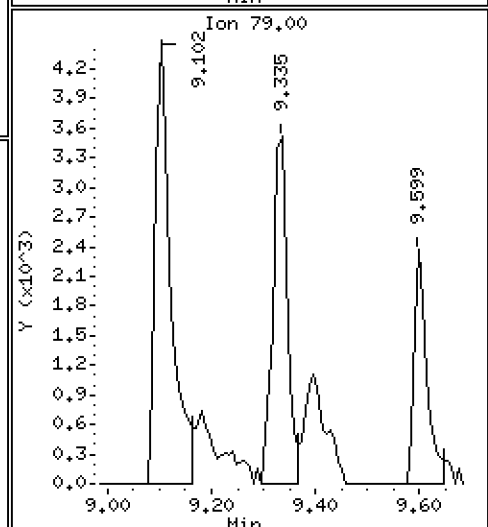
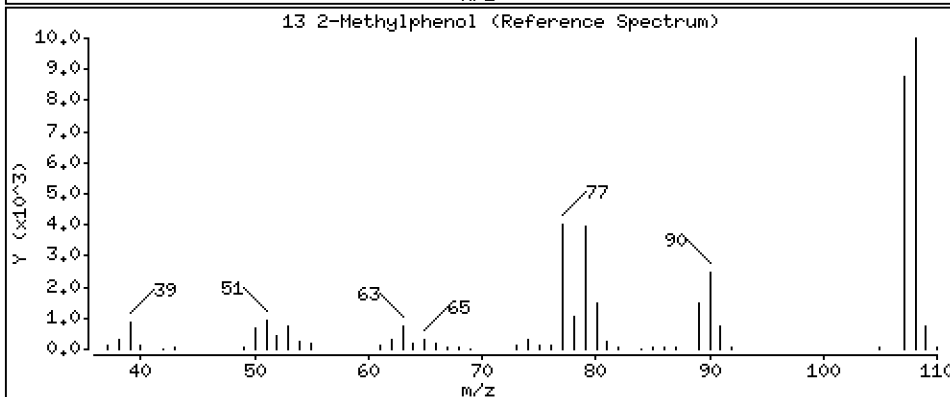
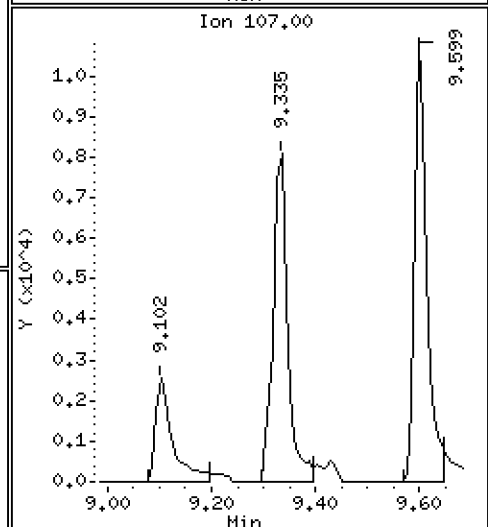
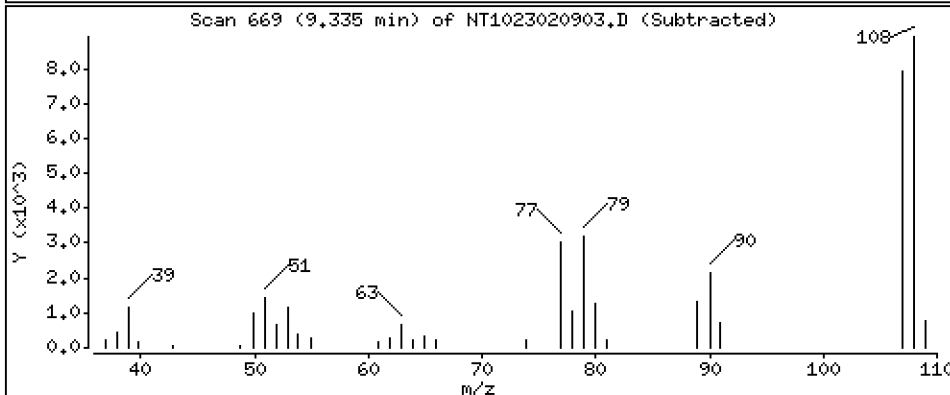
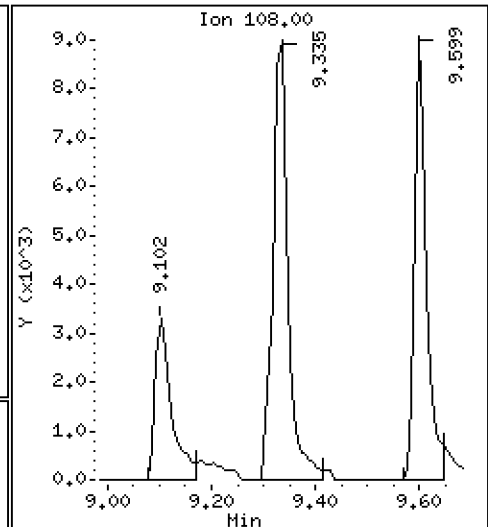
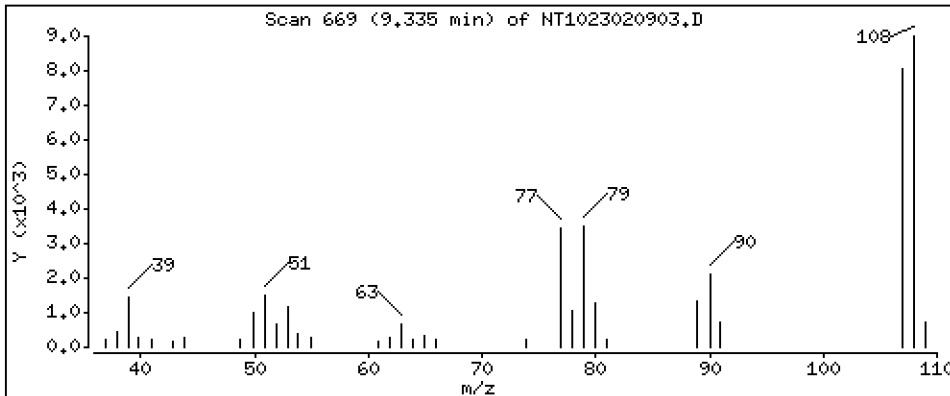
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 0,5874 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

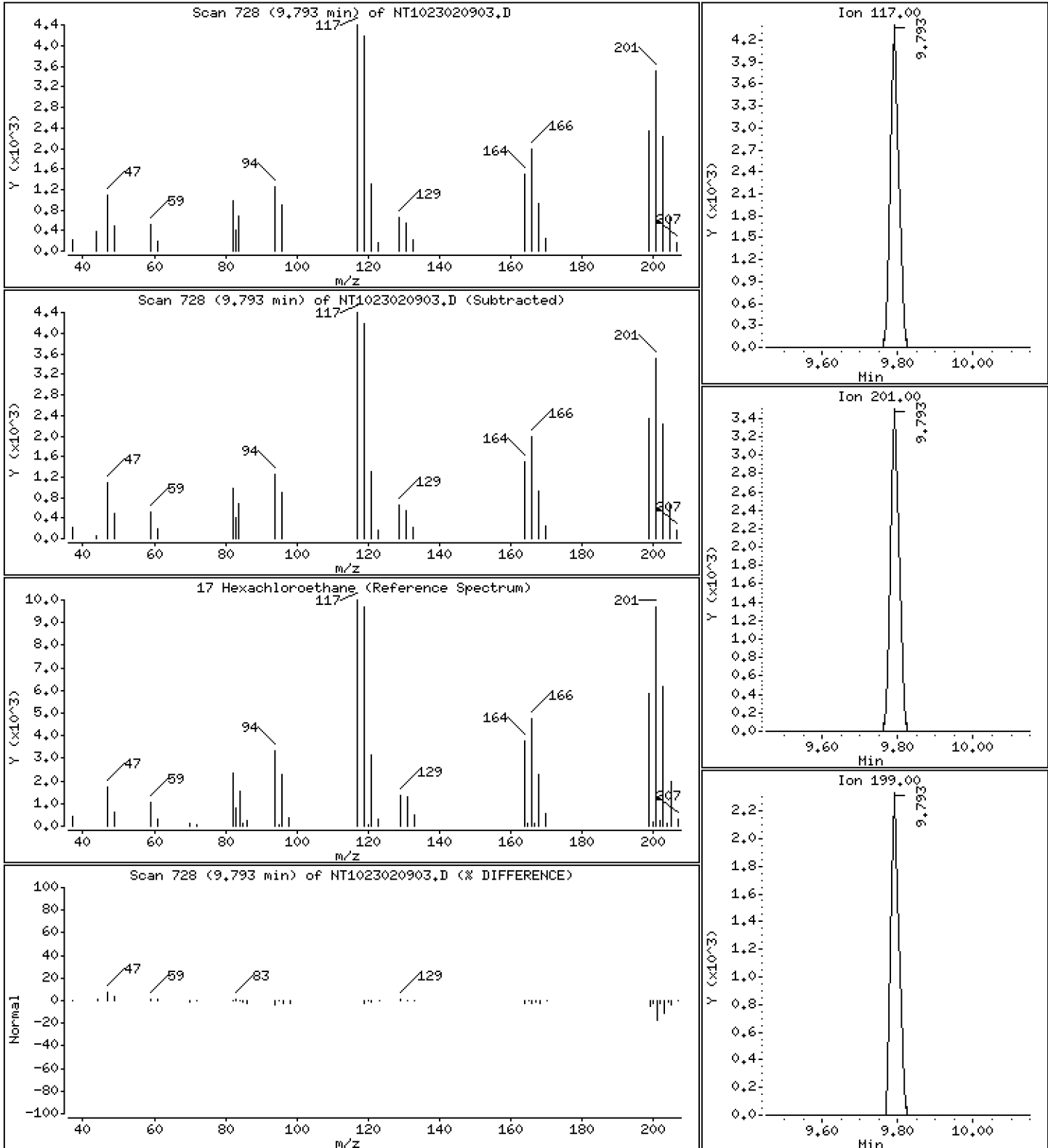
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 0,5021 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

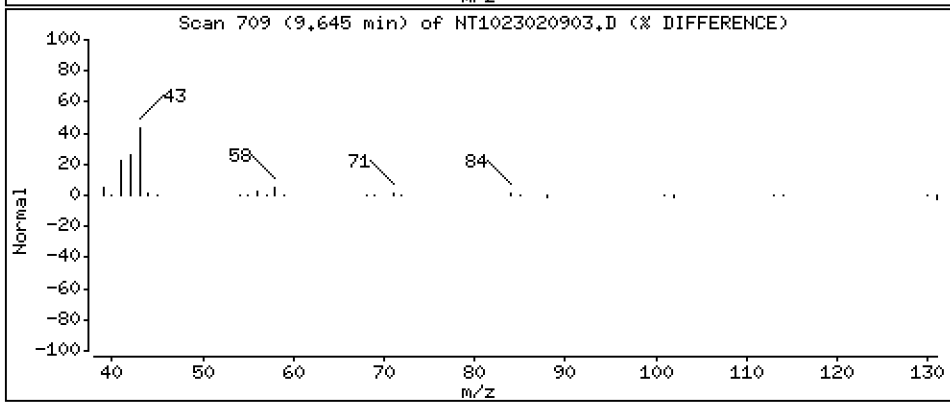
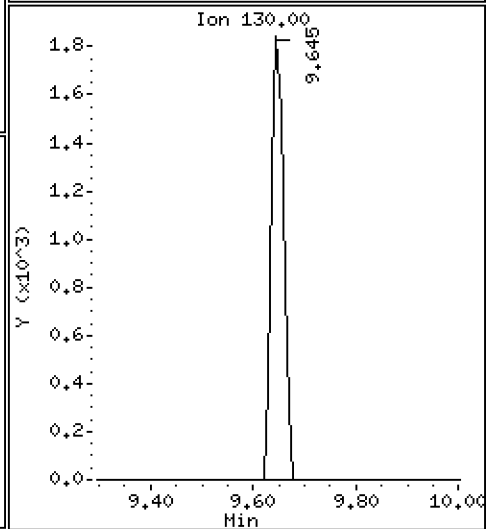
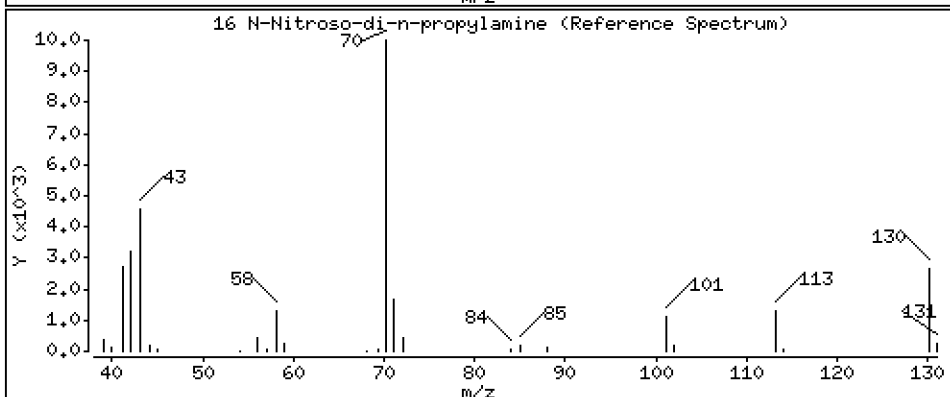
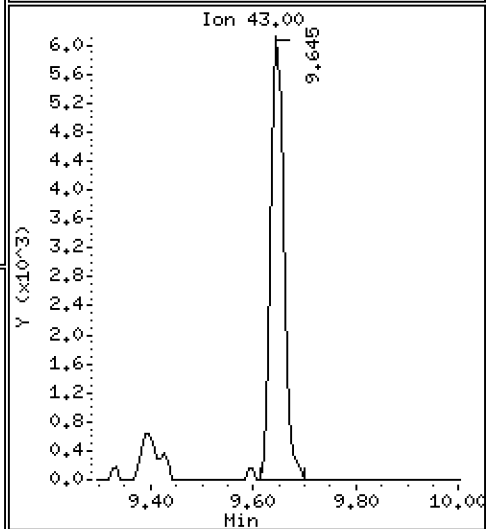
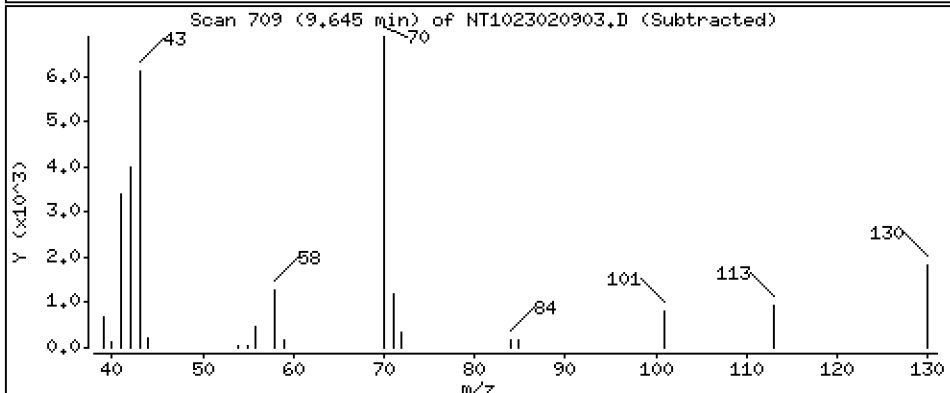
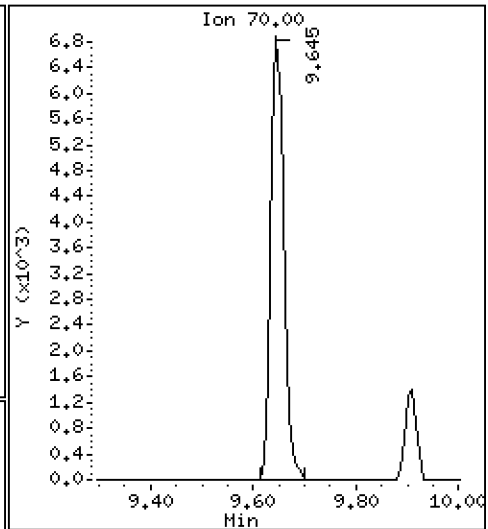
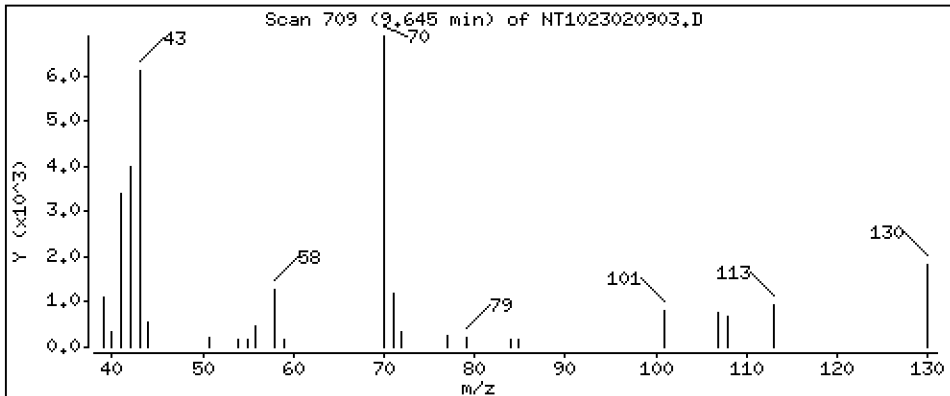
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 0.4985 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

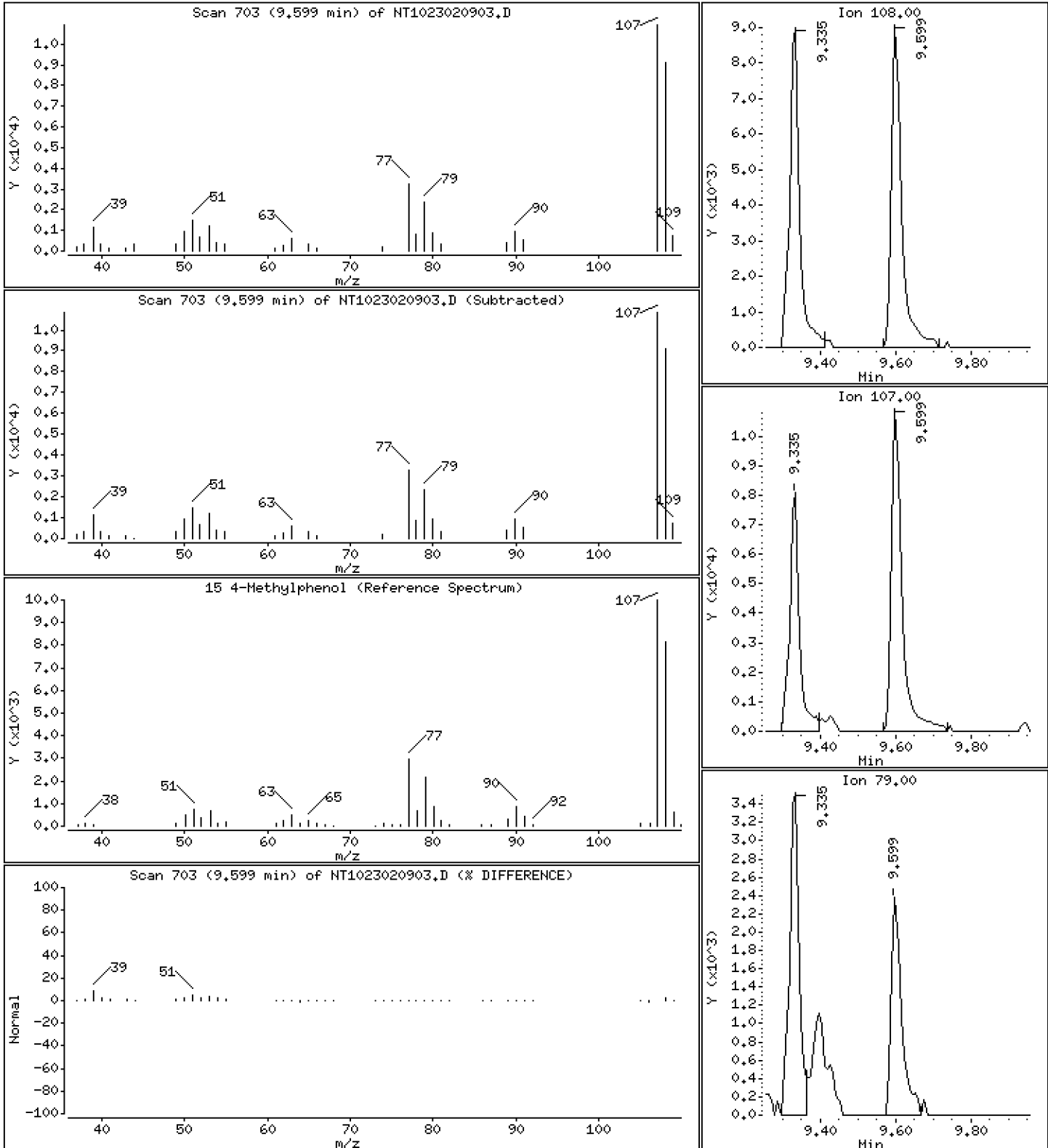
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.5038 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

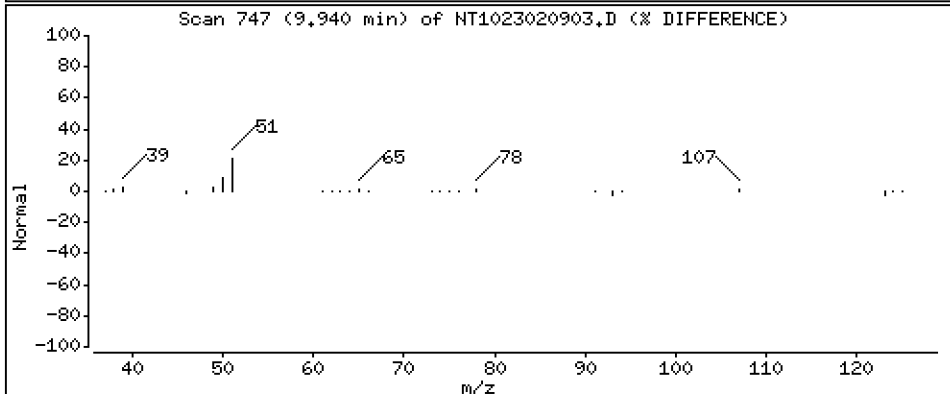
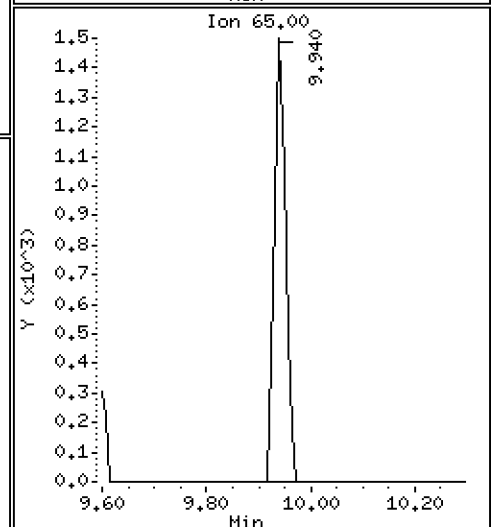
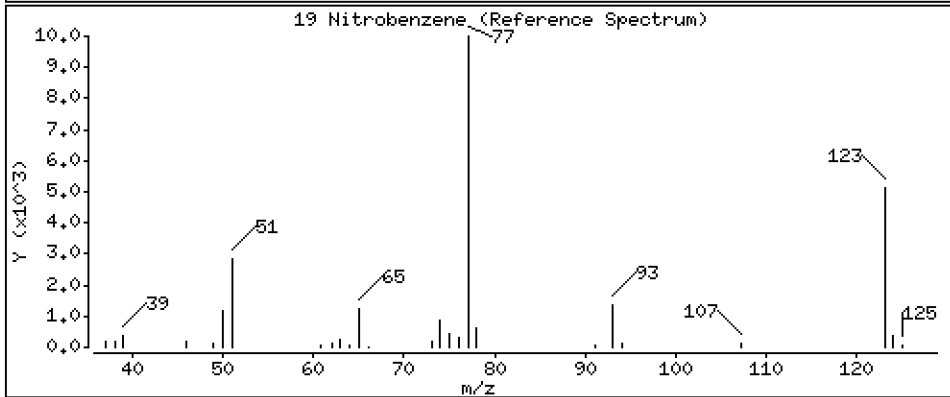
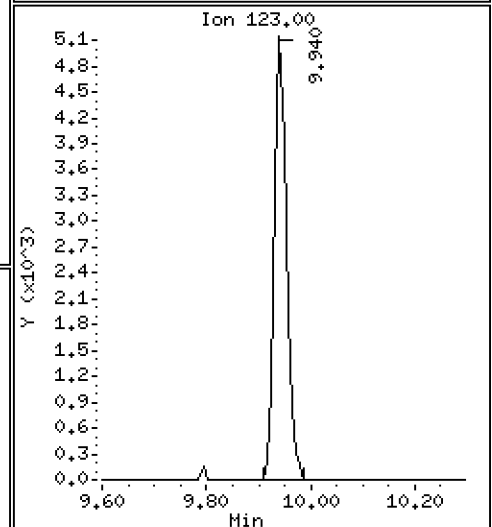
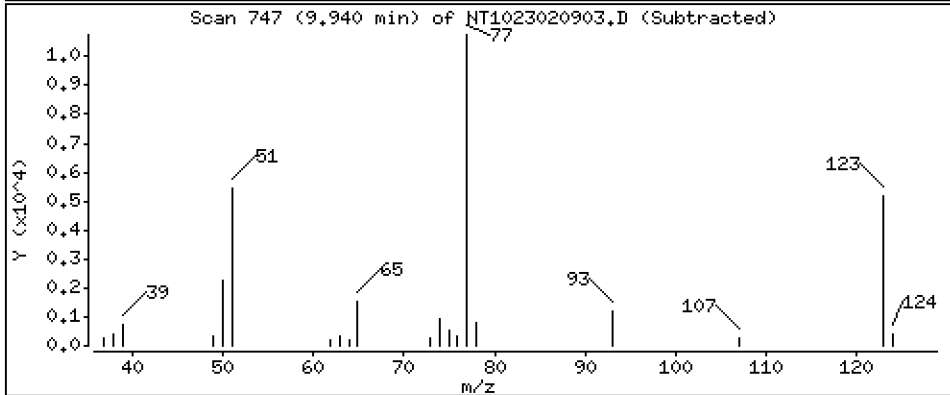
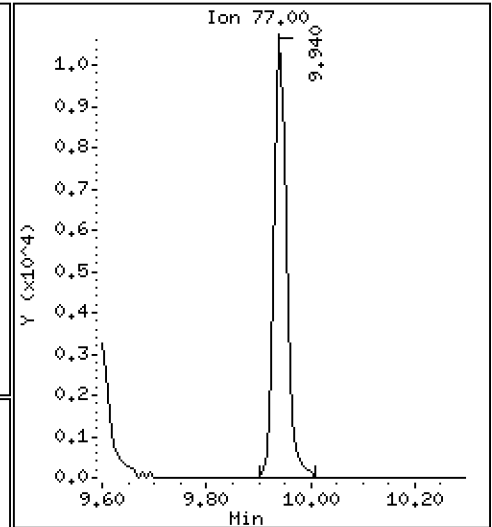
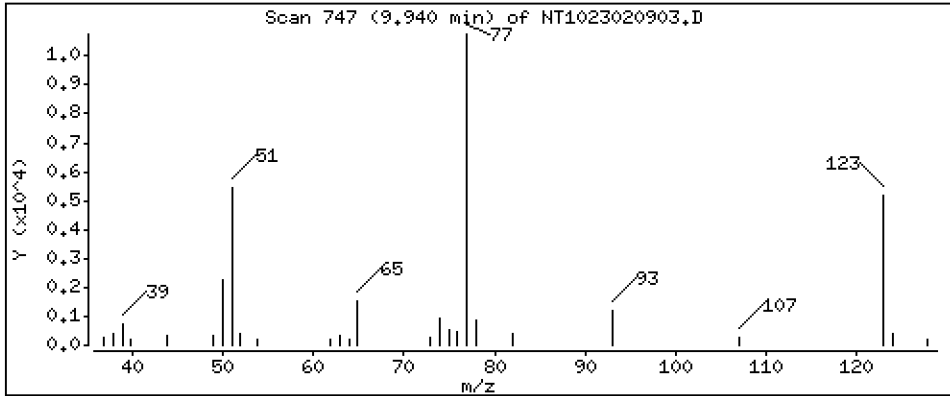
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

19 Nitrobenzene

Concentration: 0.5269 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

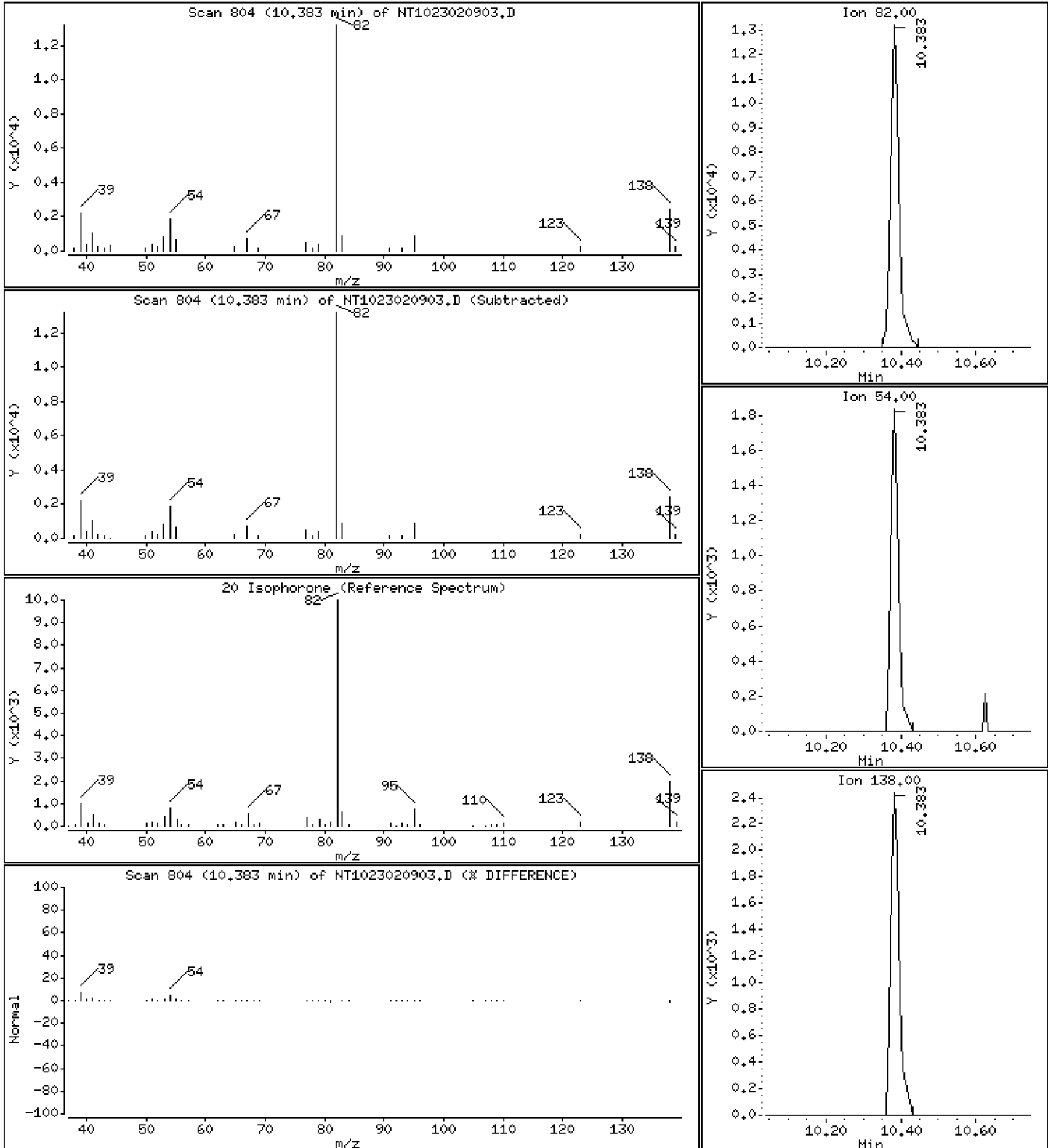
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

20 Isophorone

Concentration: 0.5517 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

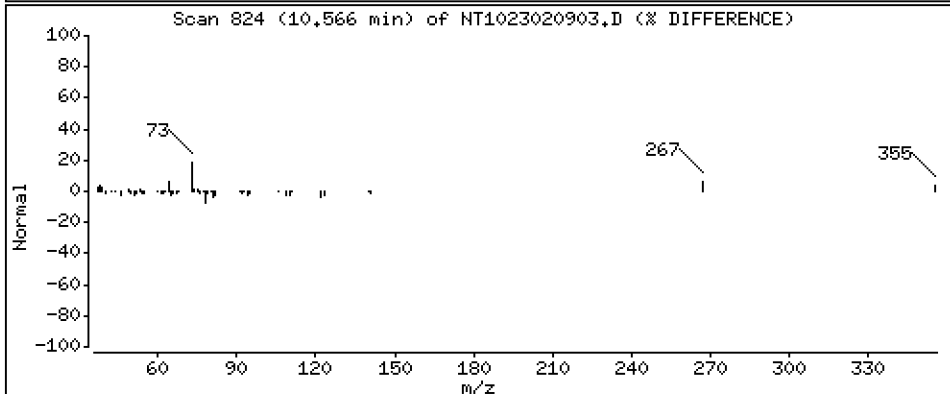
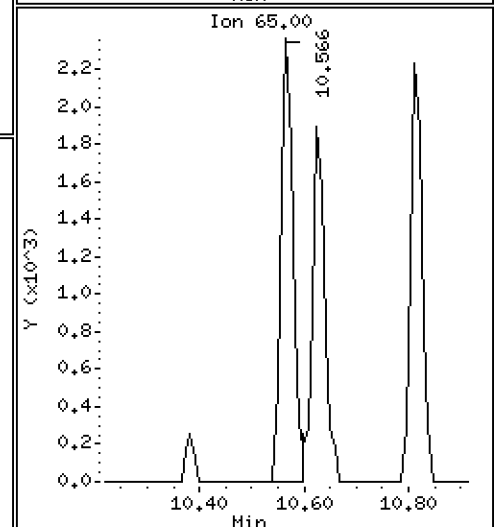
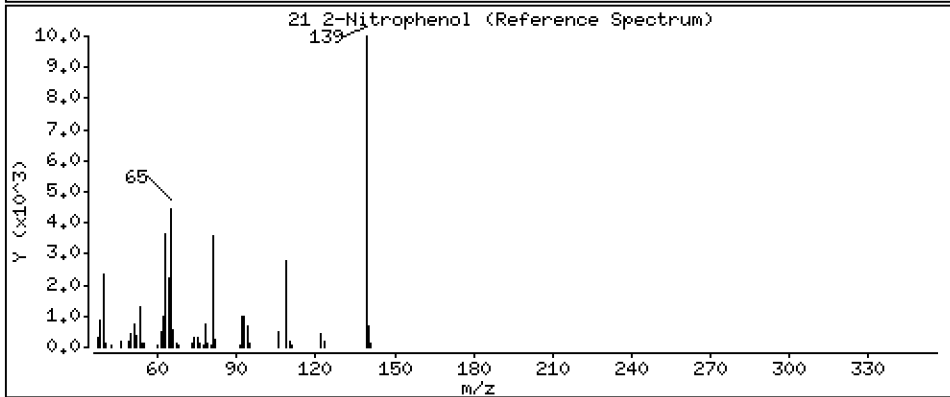
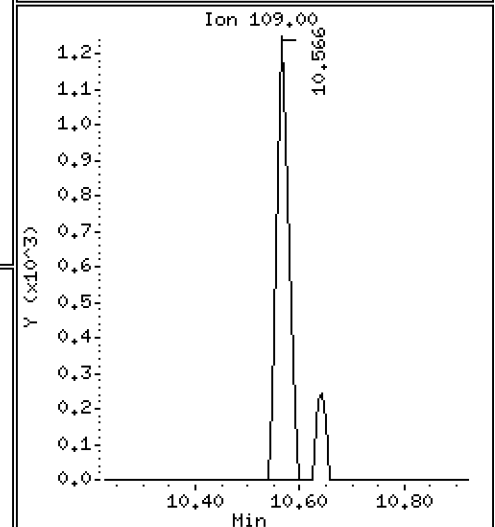
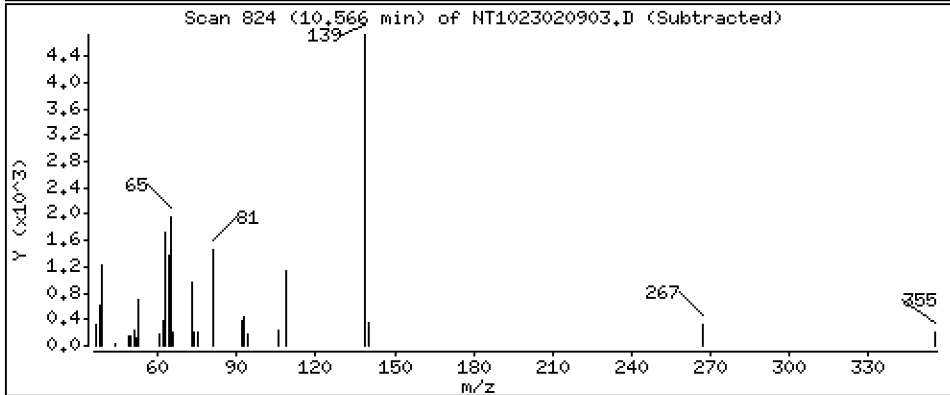
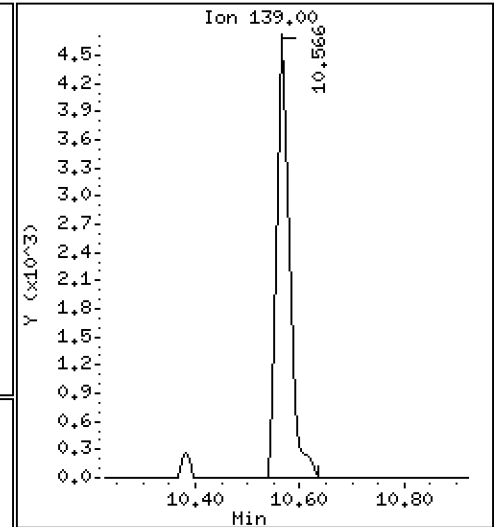
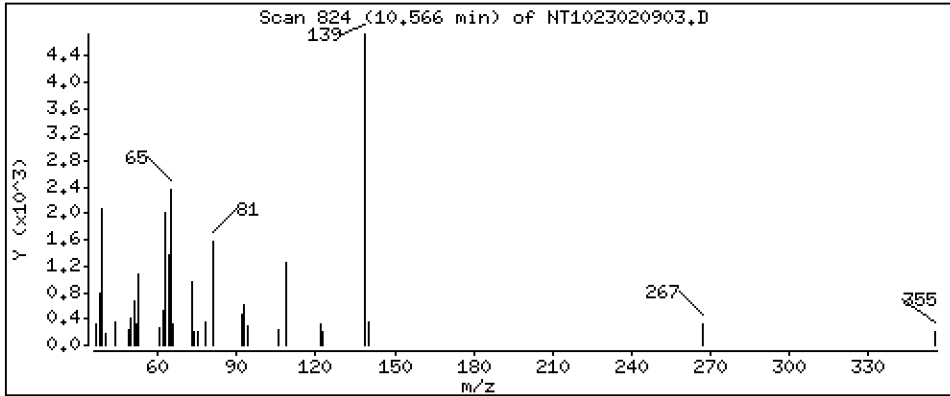
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,4857 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

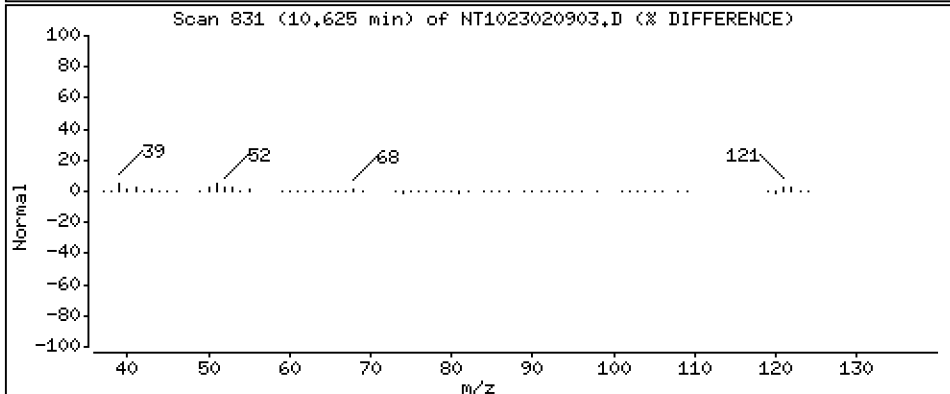
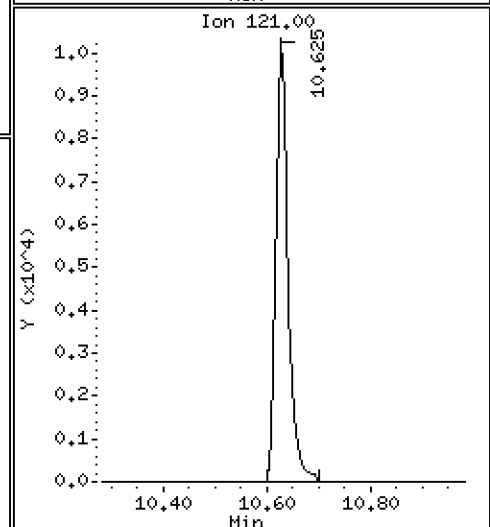
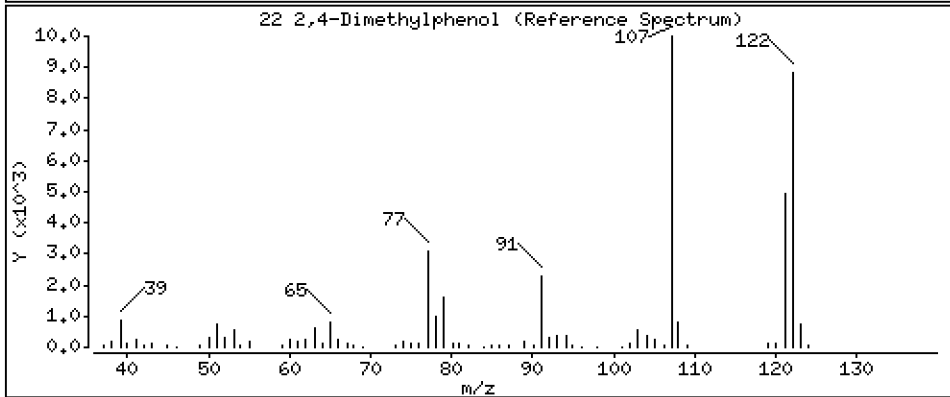
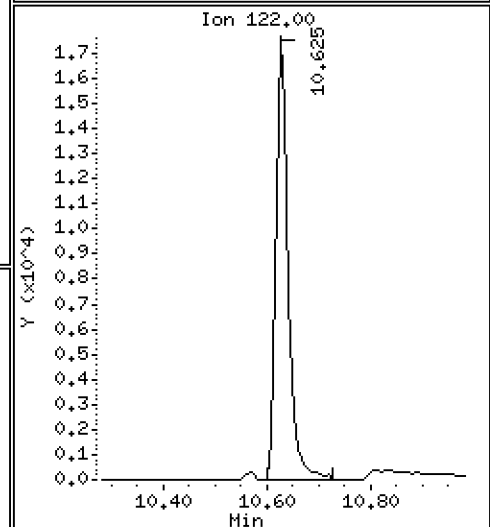
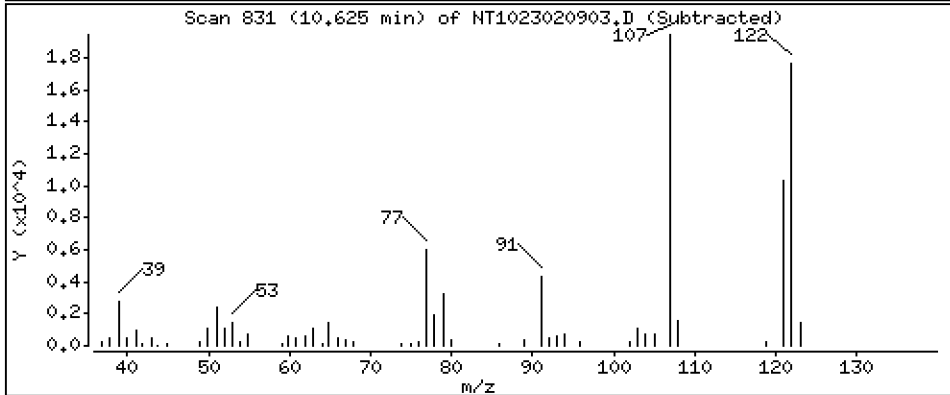
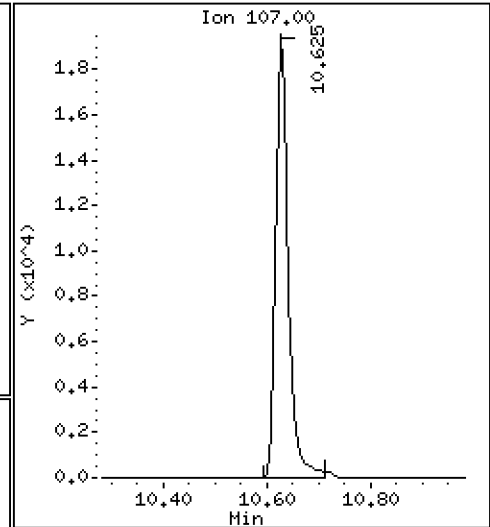
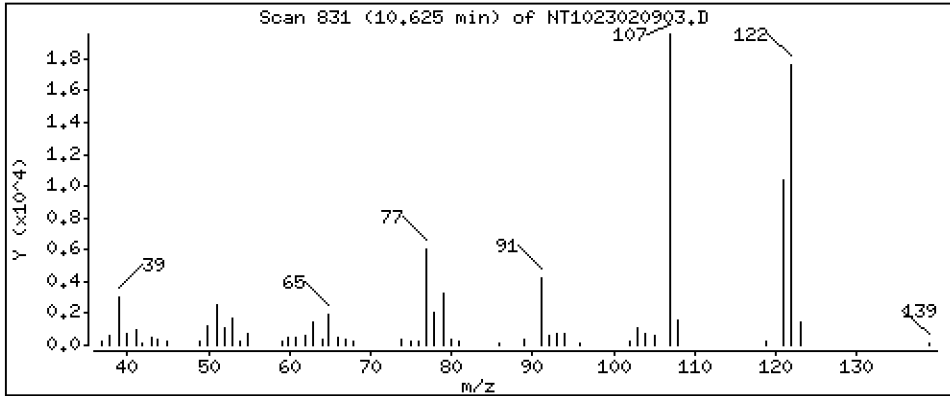
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 1,082 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

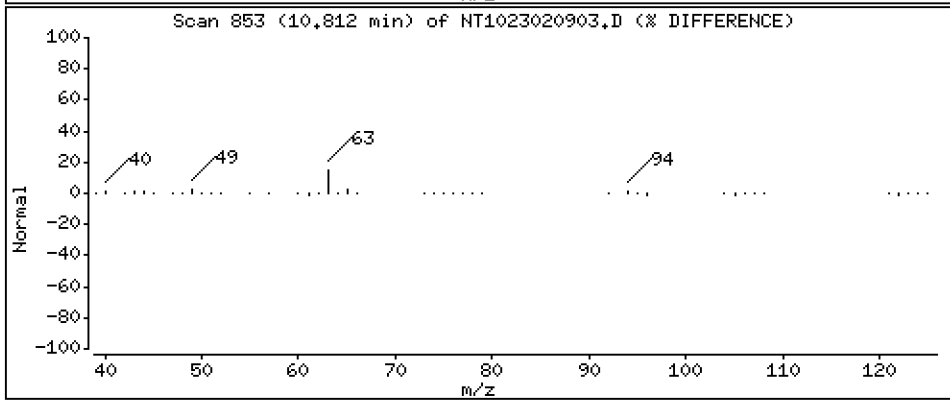
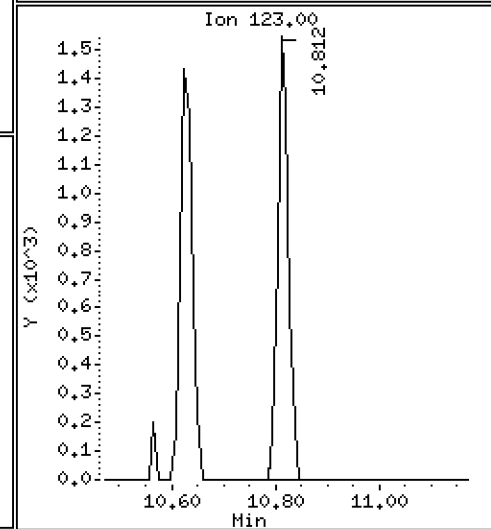
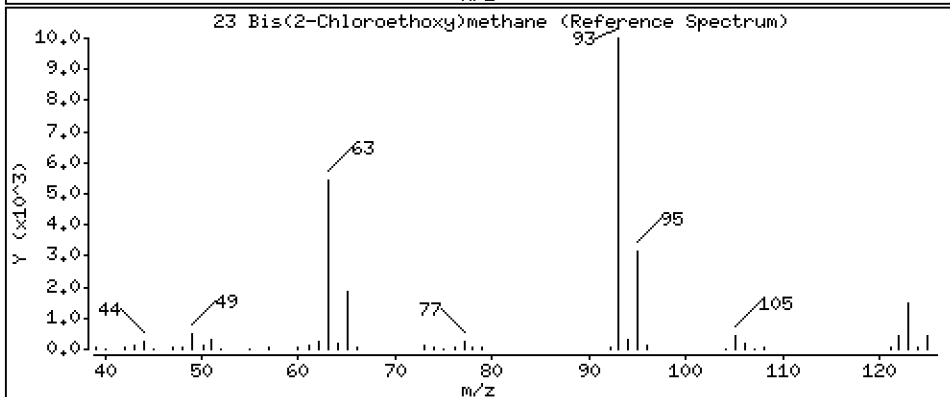
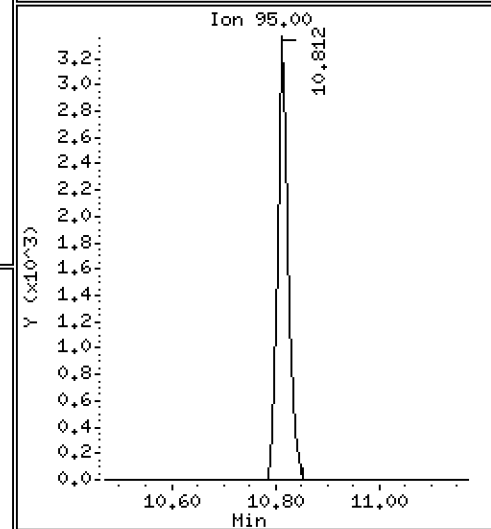
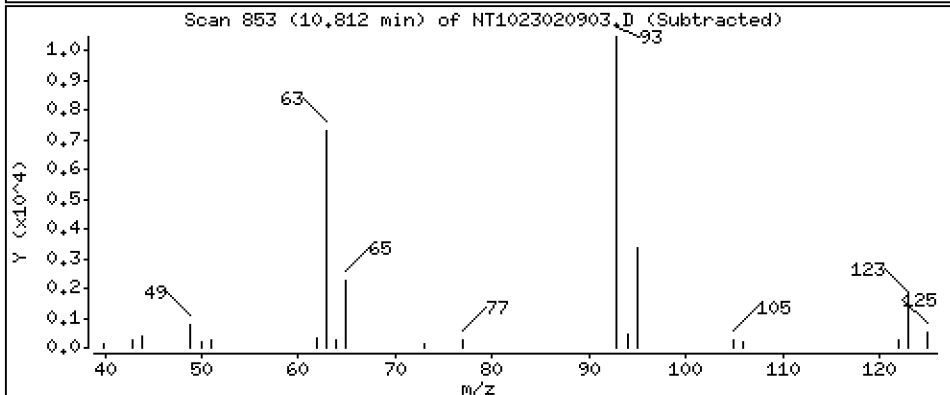
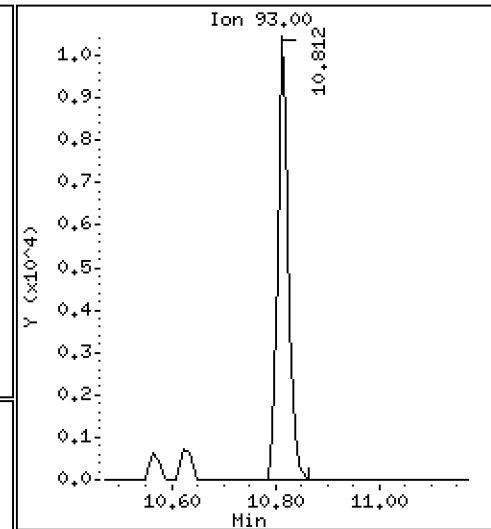
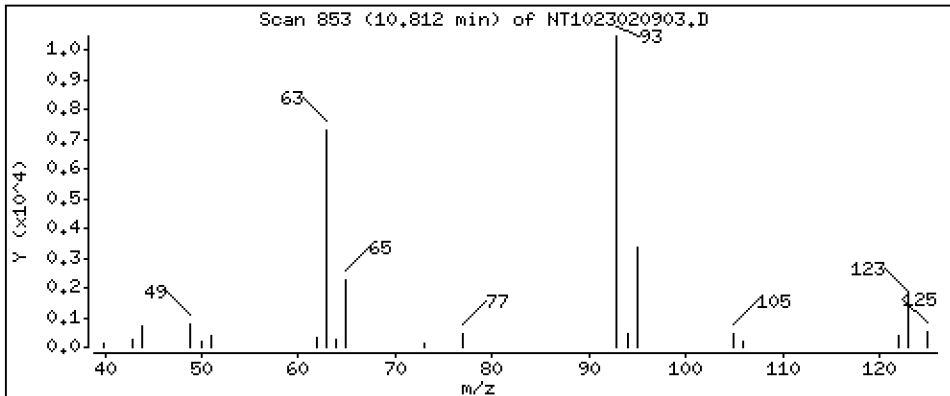
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 0,5302 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

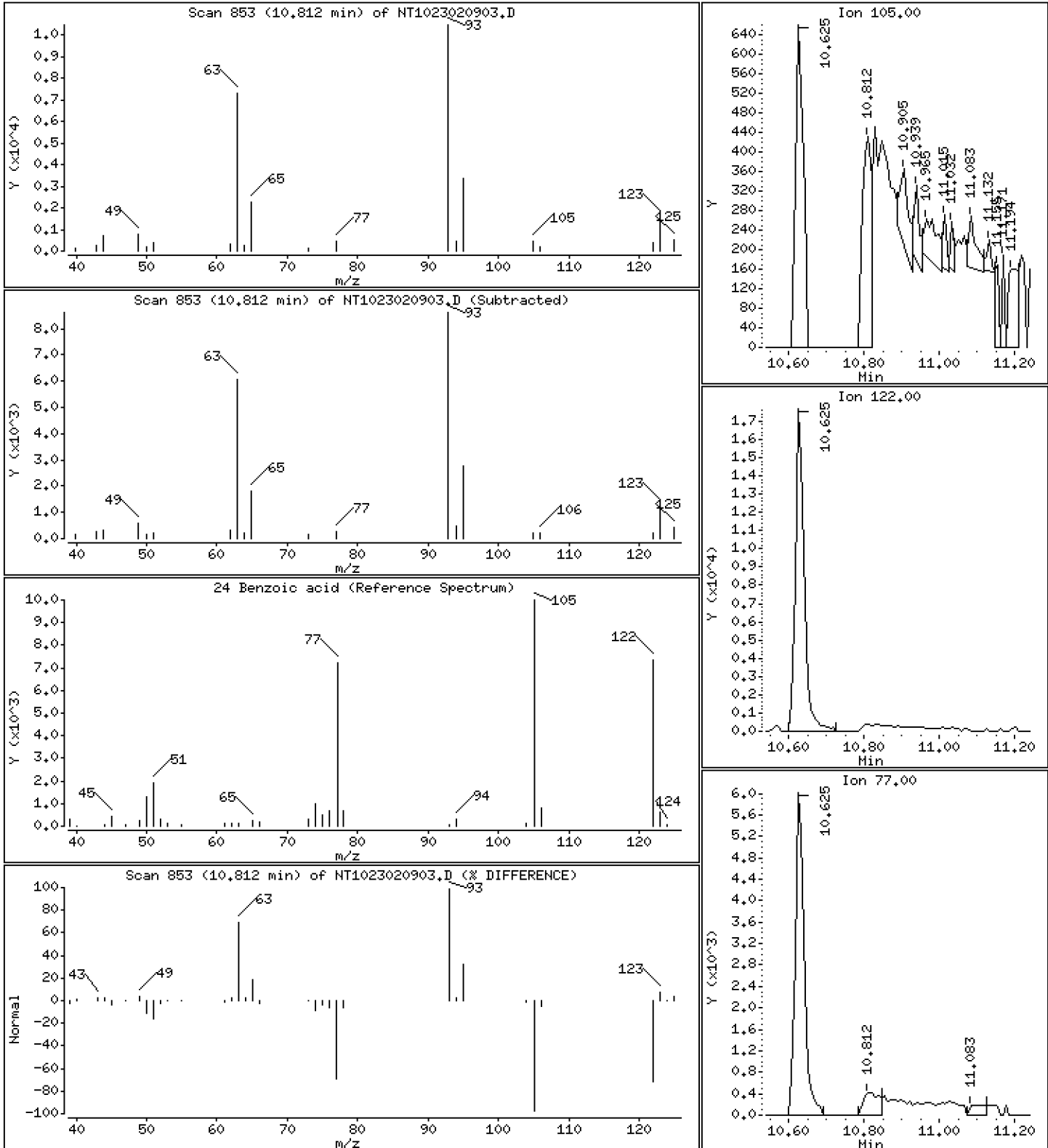
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.04465 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

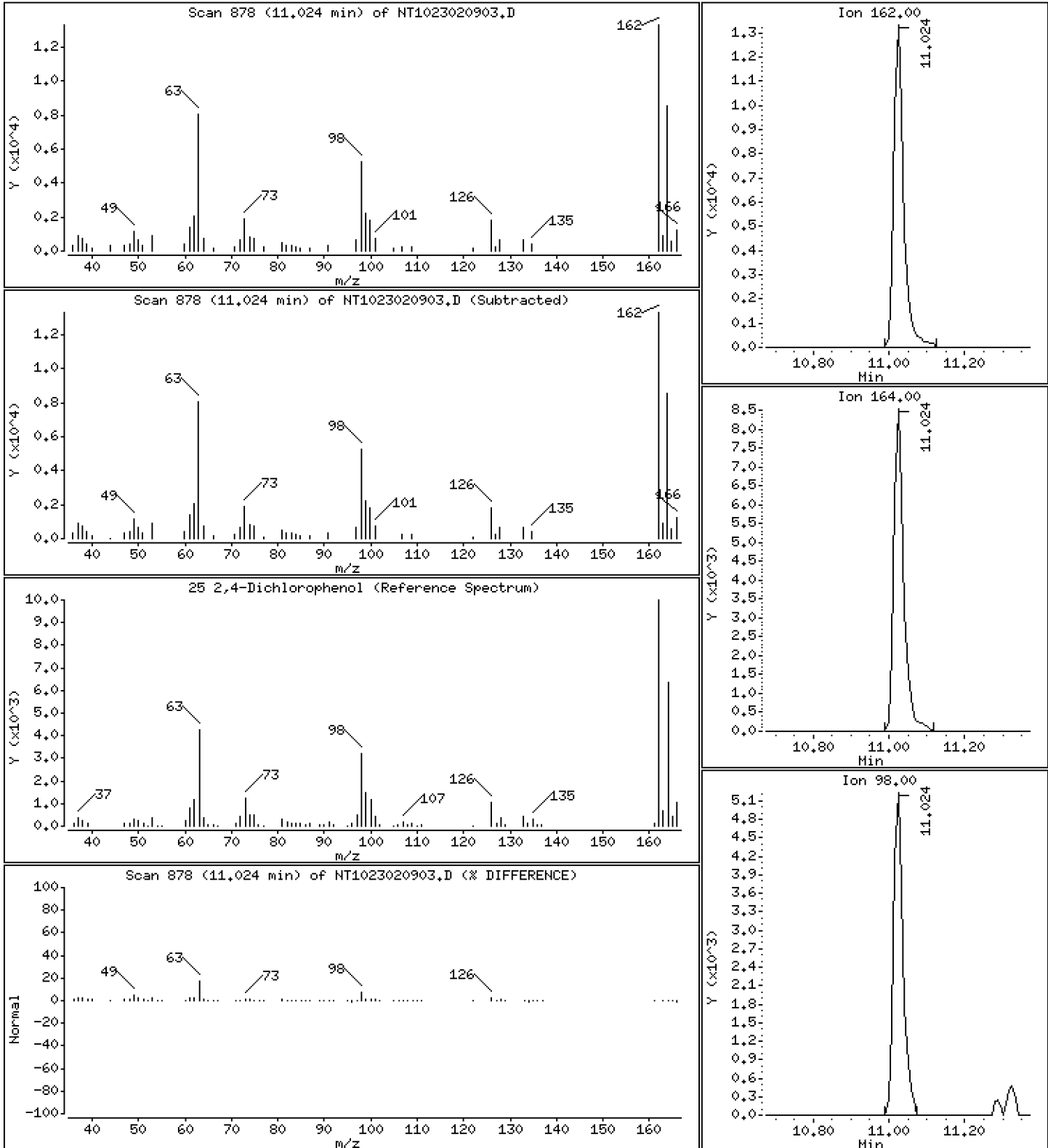
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 1,110 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

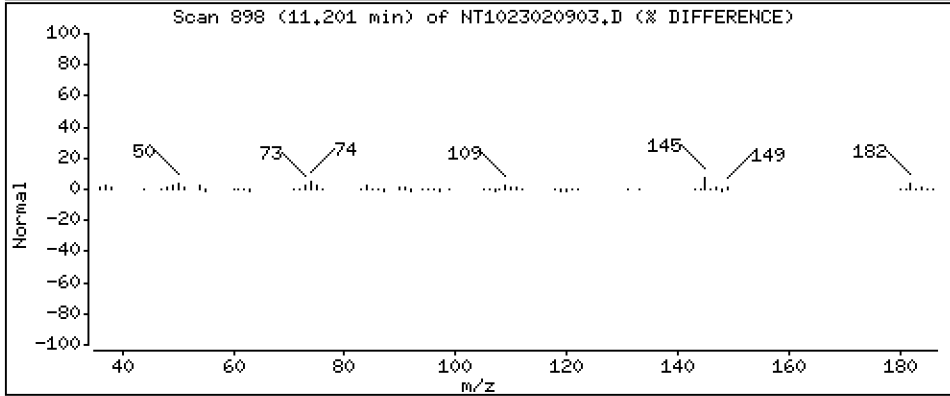
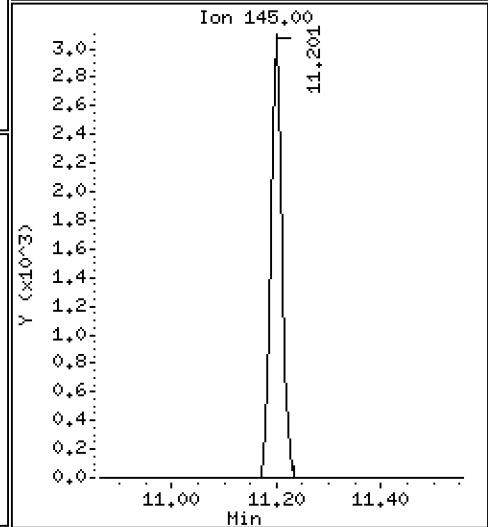
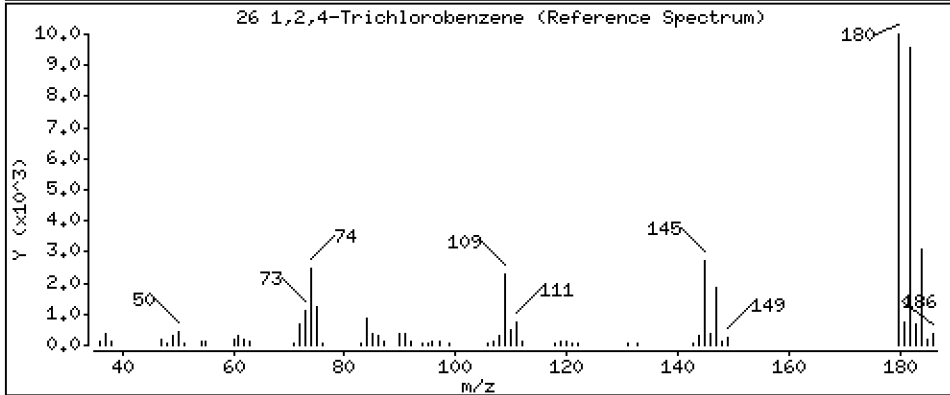
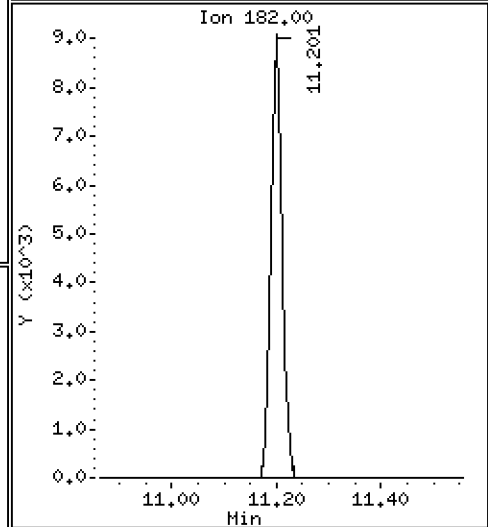
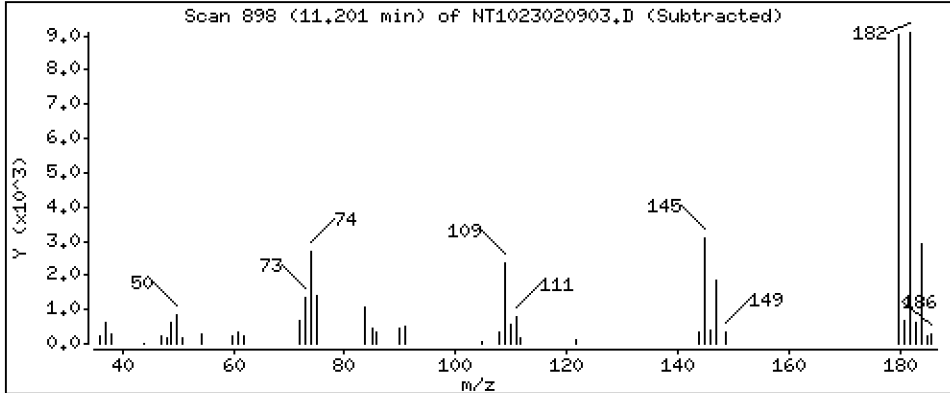
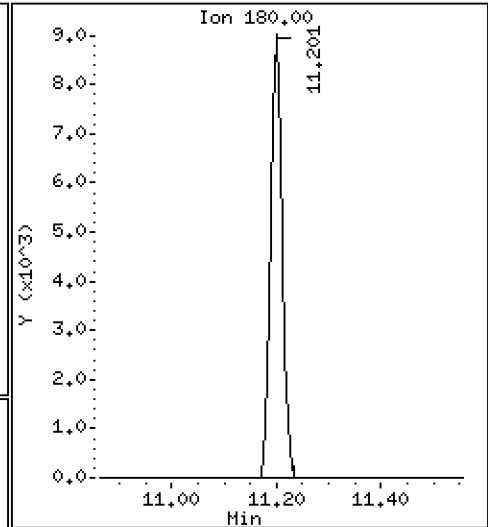
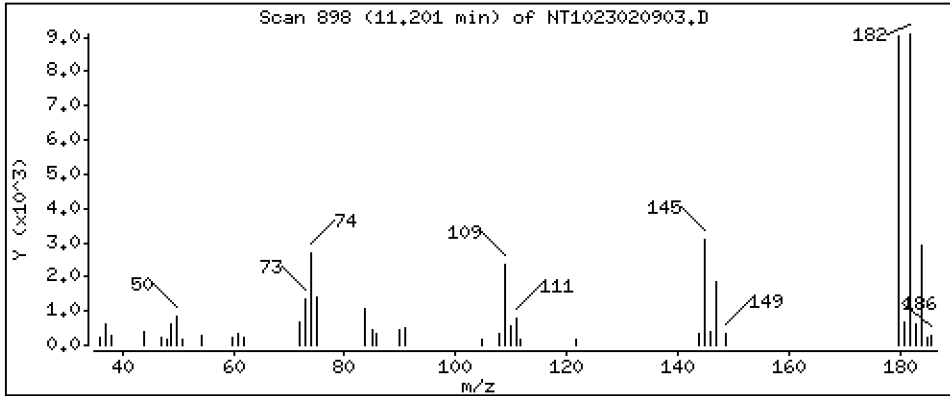
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,5385 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

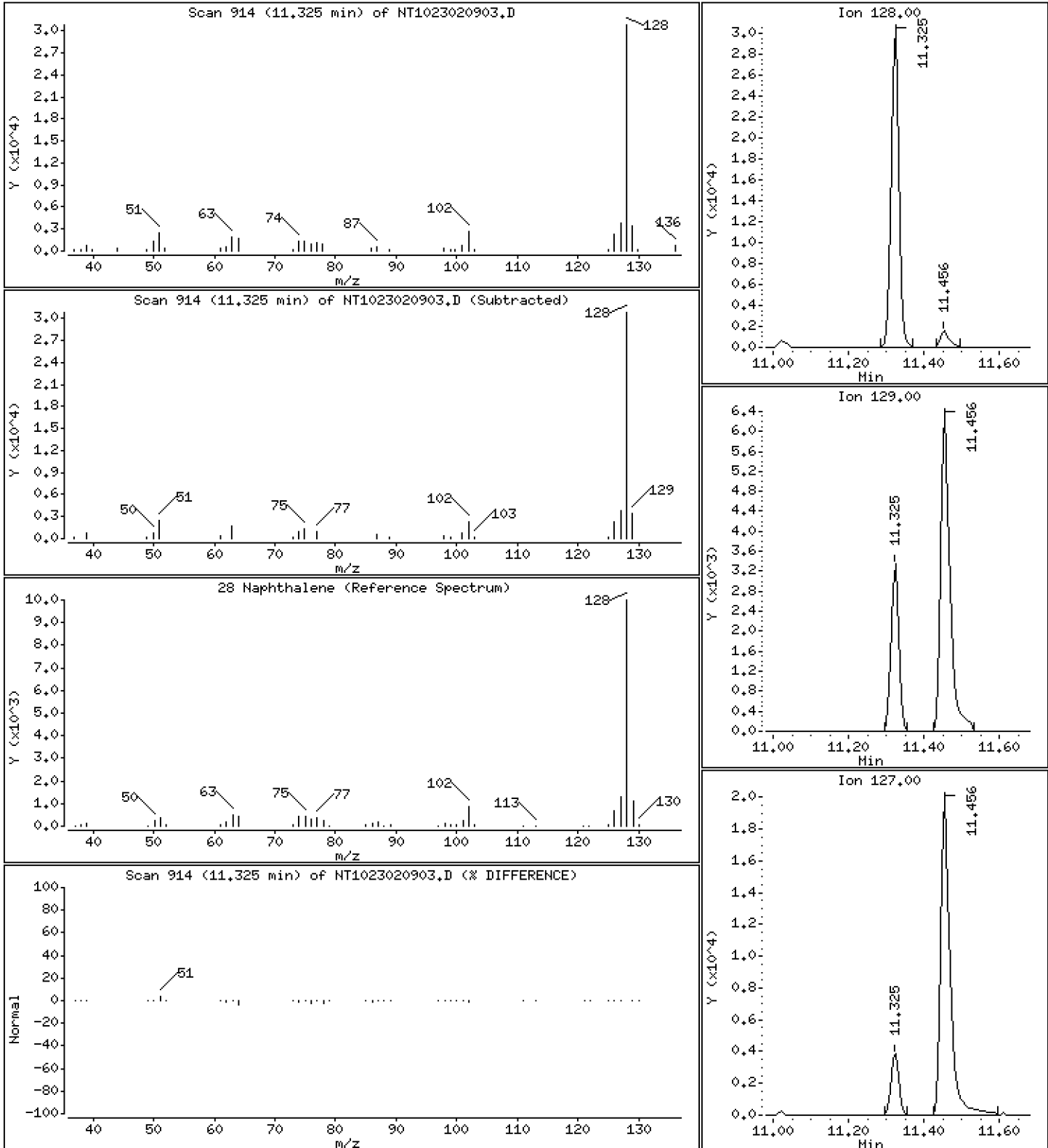
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,5153 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

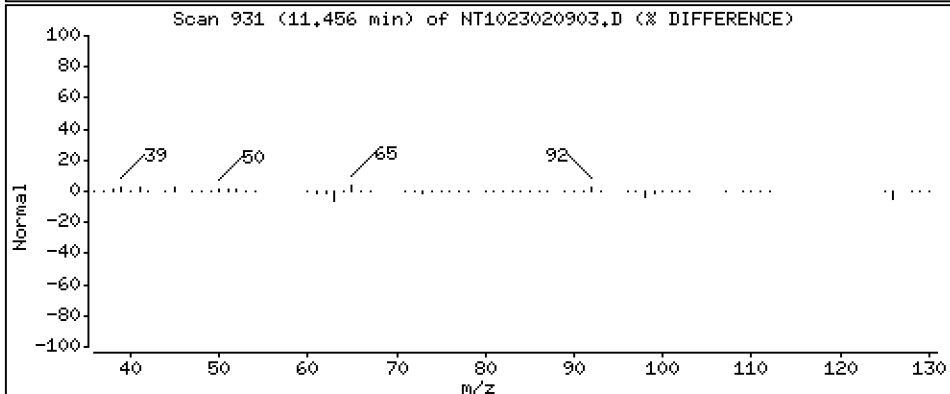
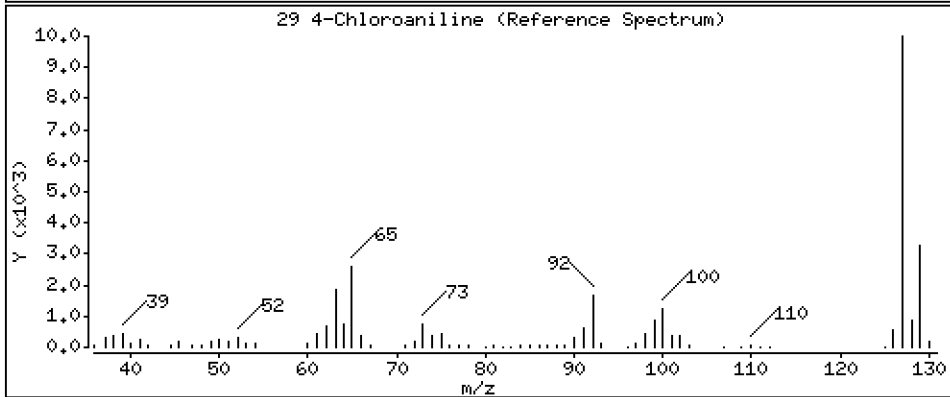
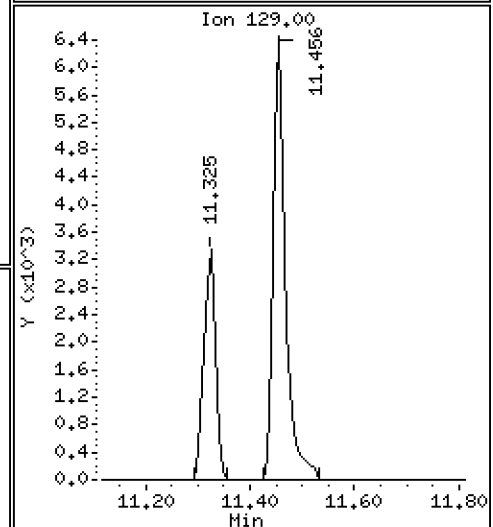
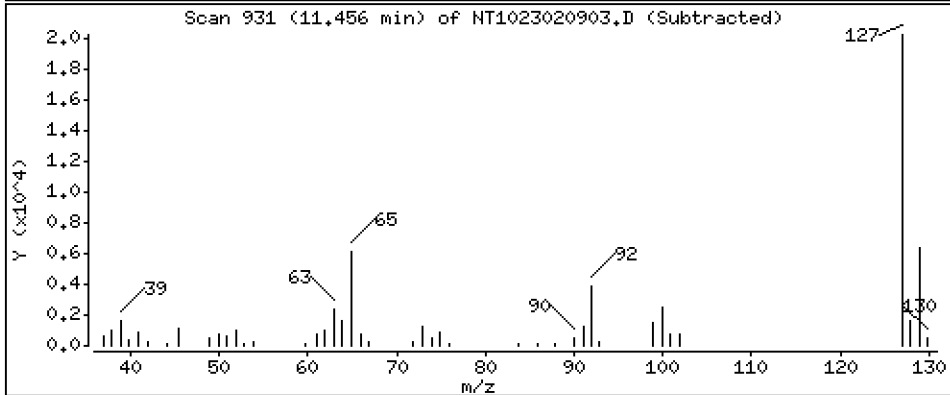
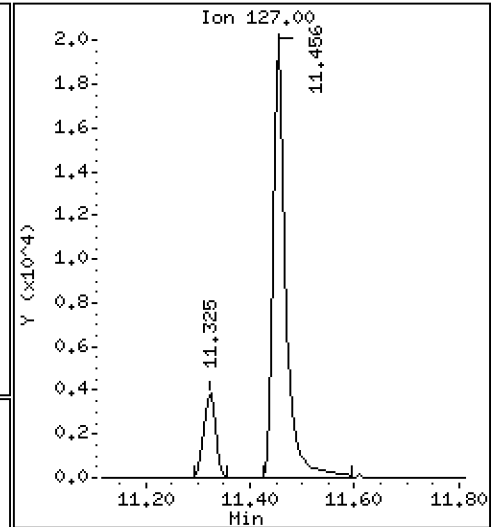
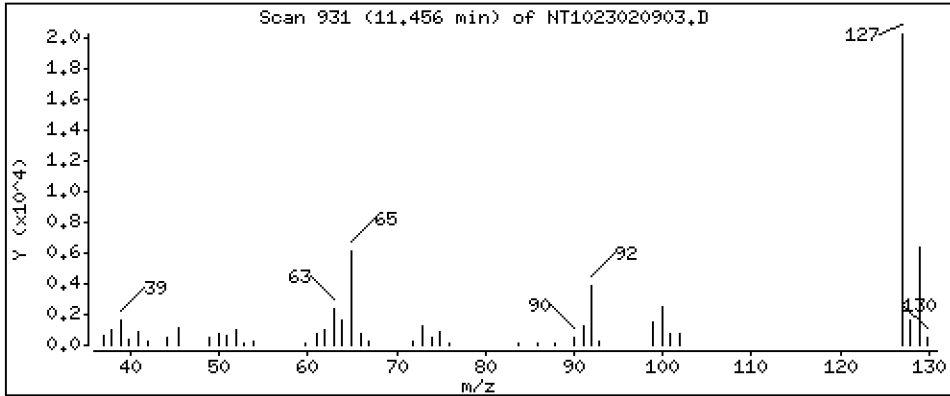
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

29 4-Chloroaniline

Concentration: 0.9814 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

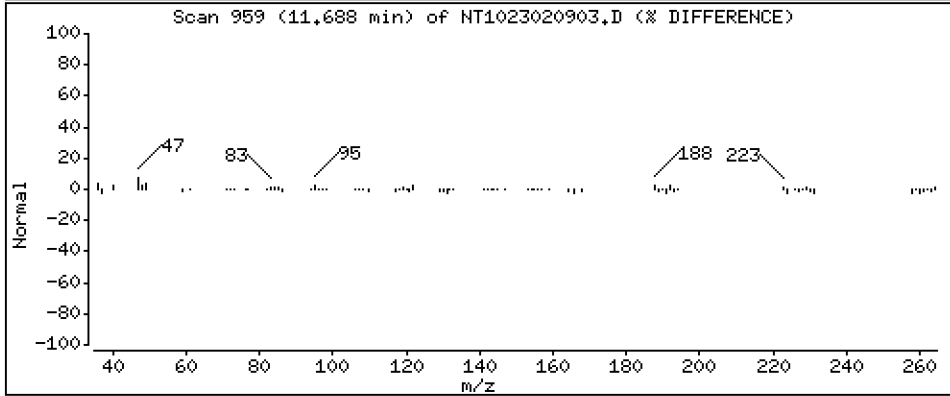
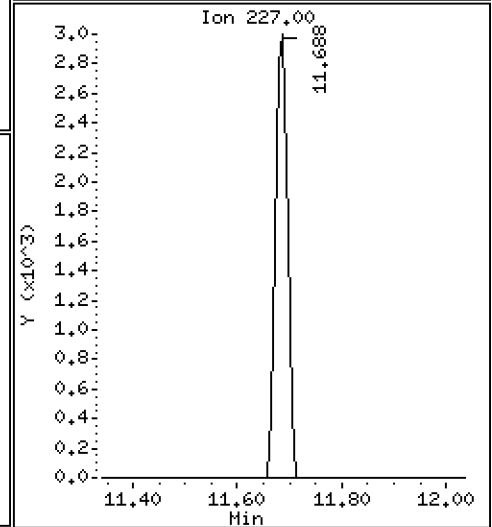
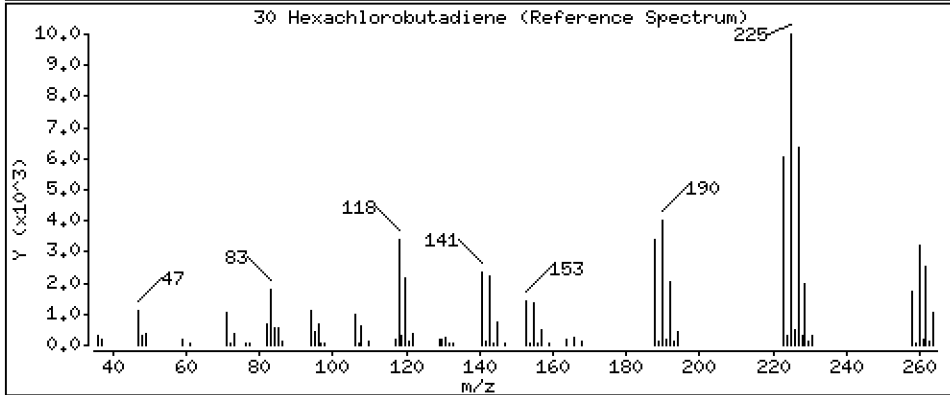
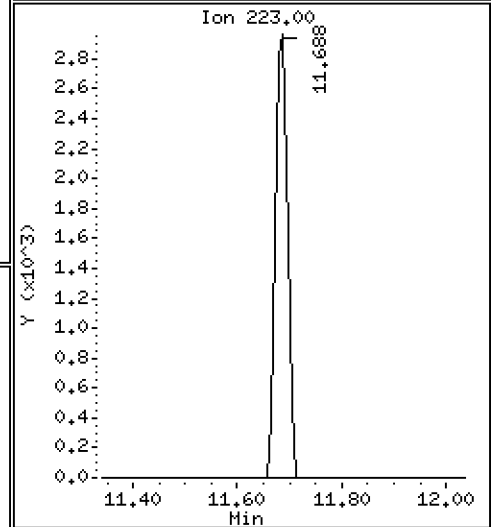
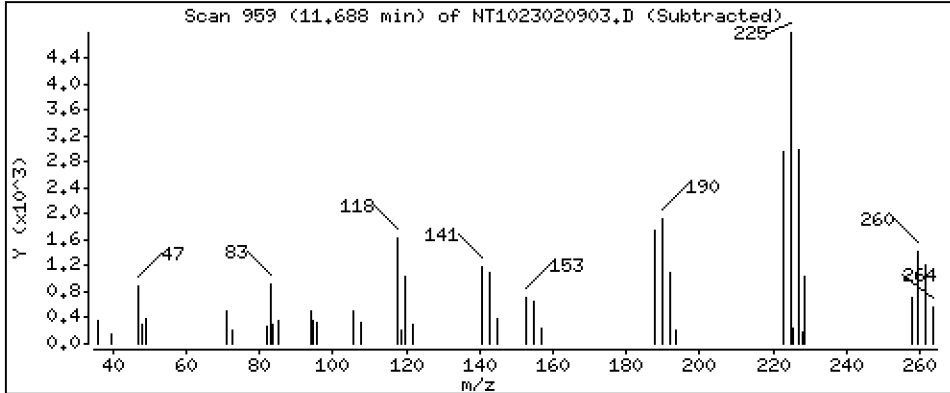
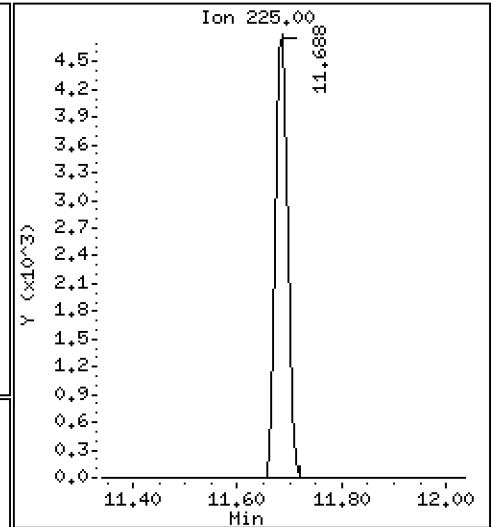
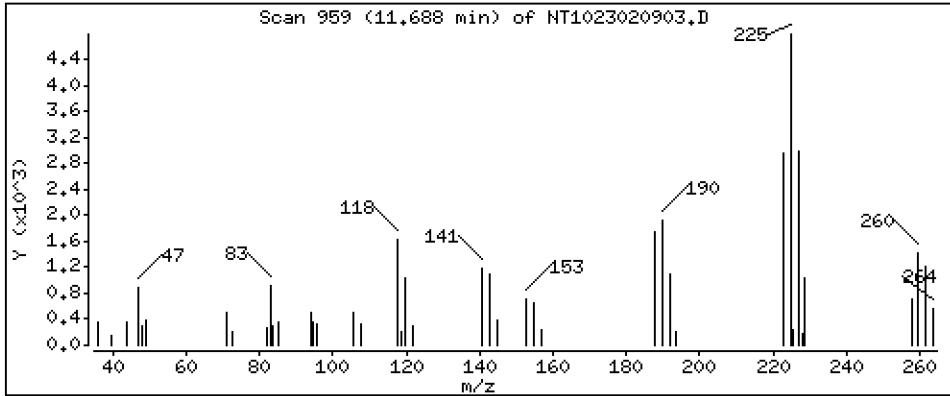
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,5447 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

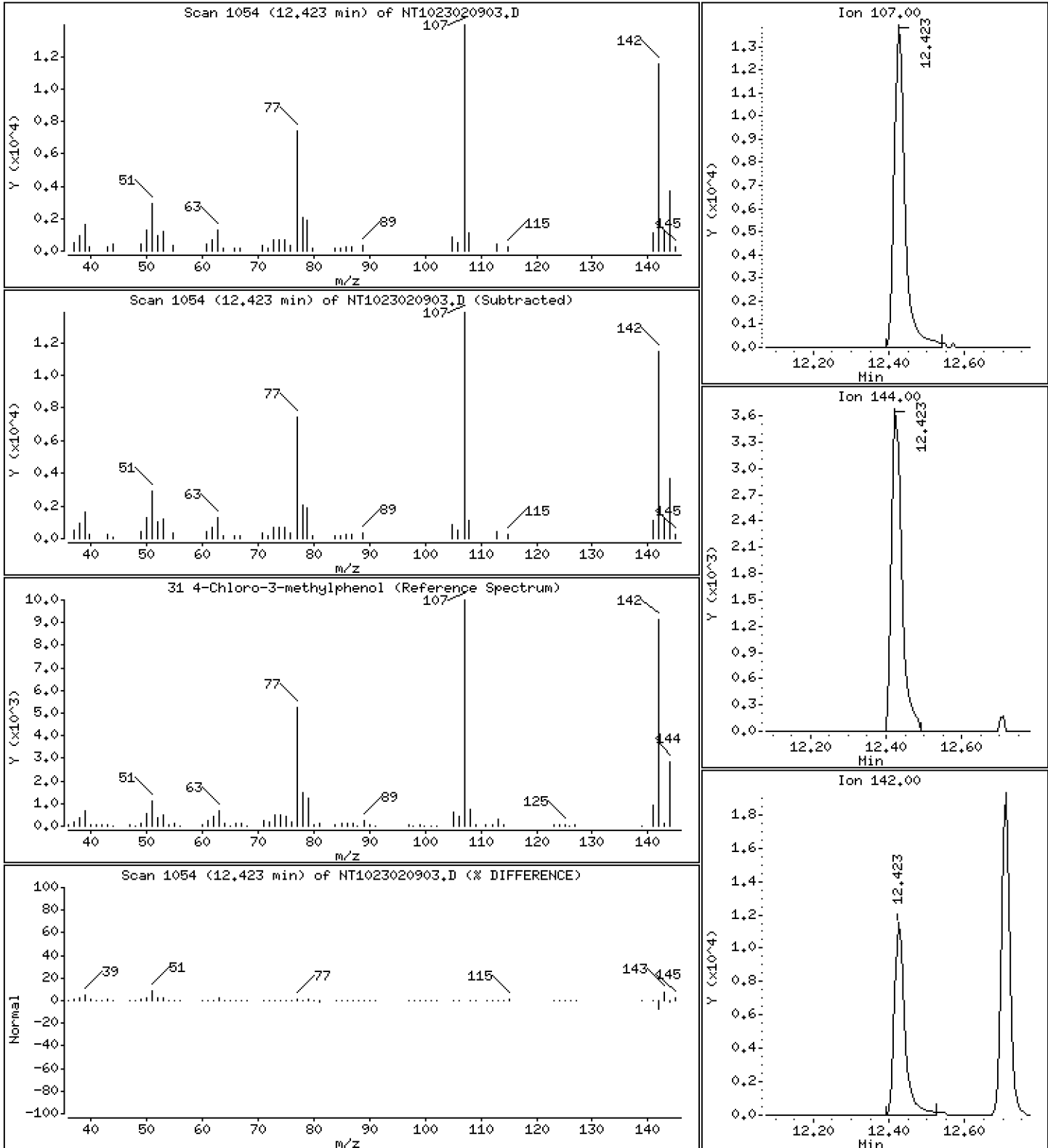
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 0,9950 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

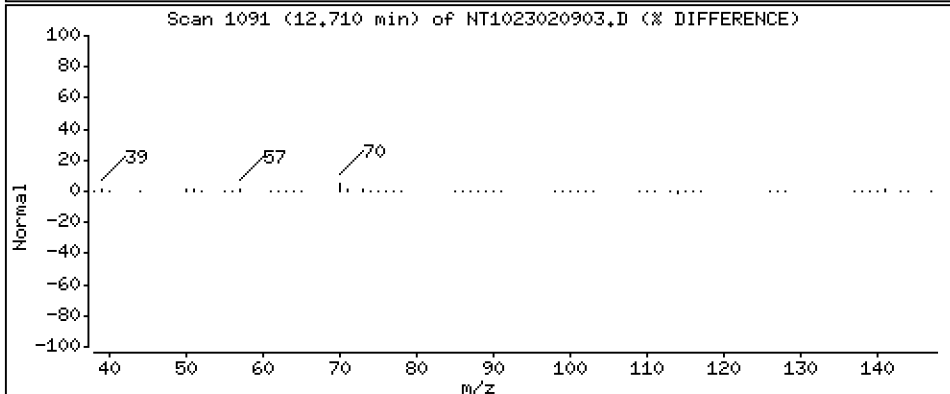
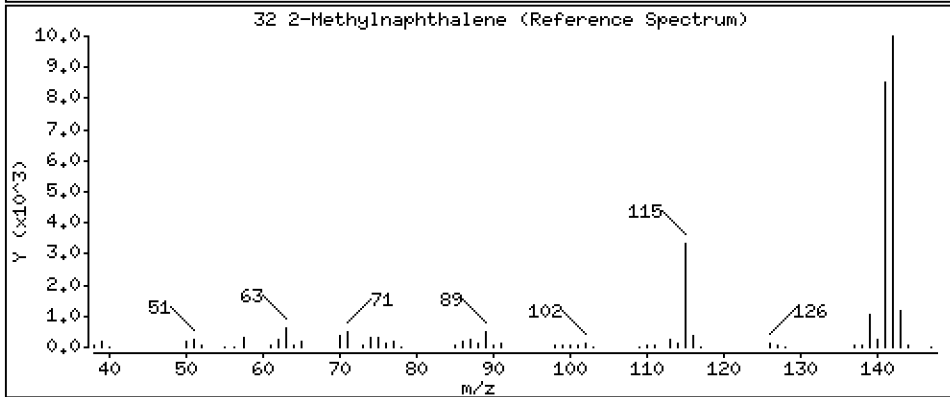
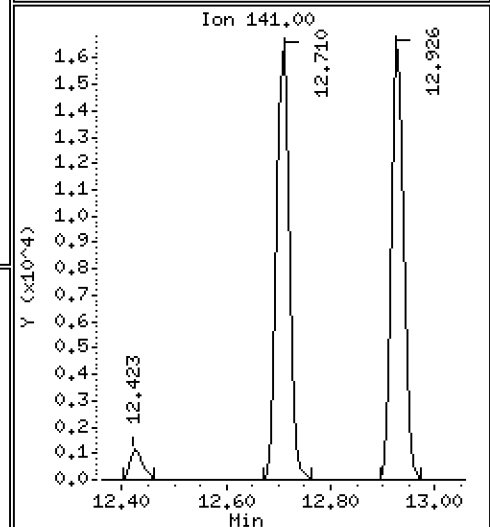
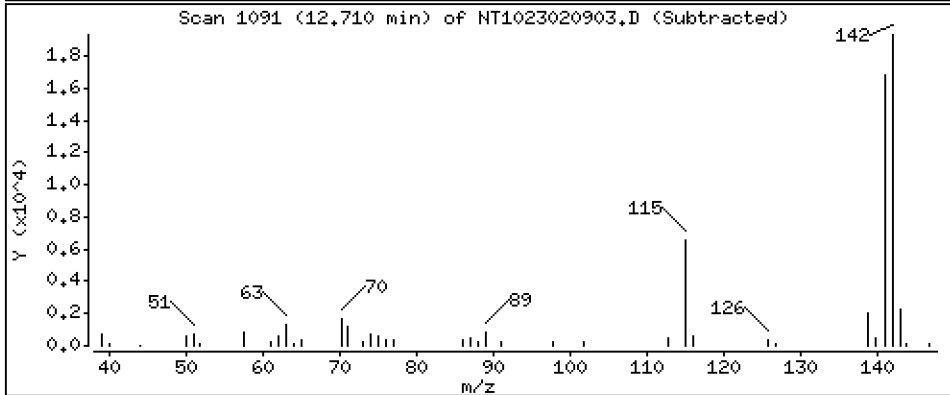
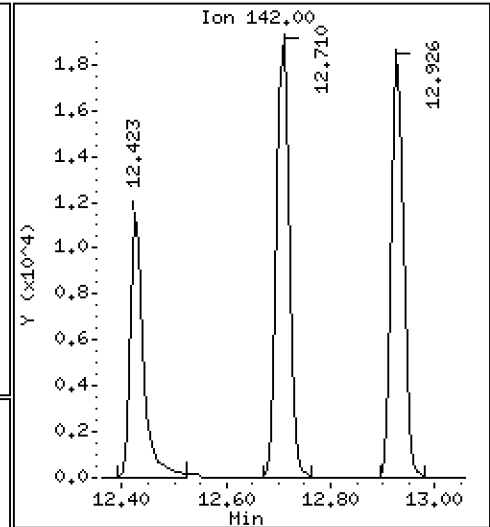
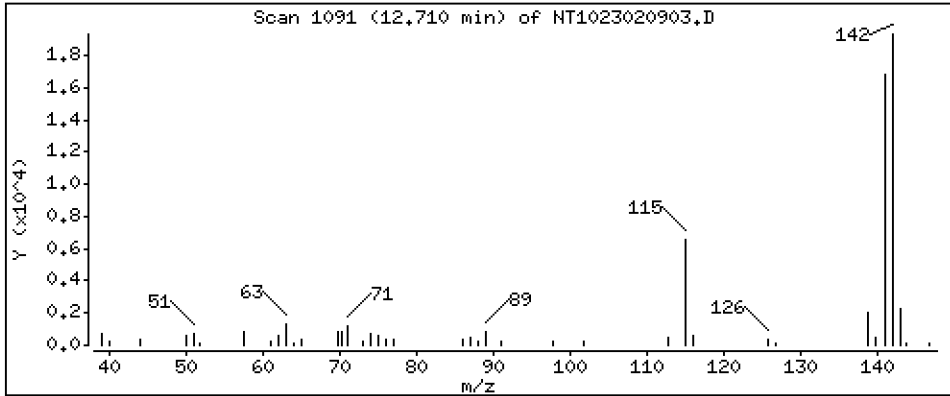
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,5082 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

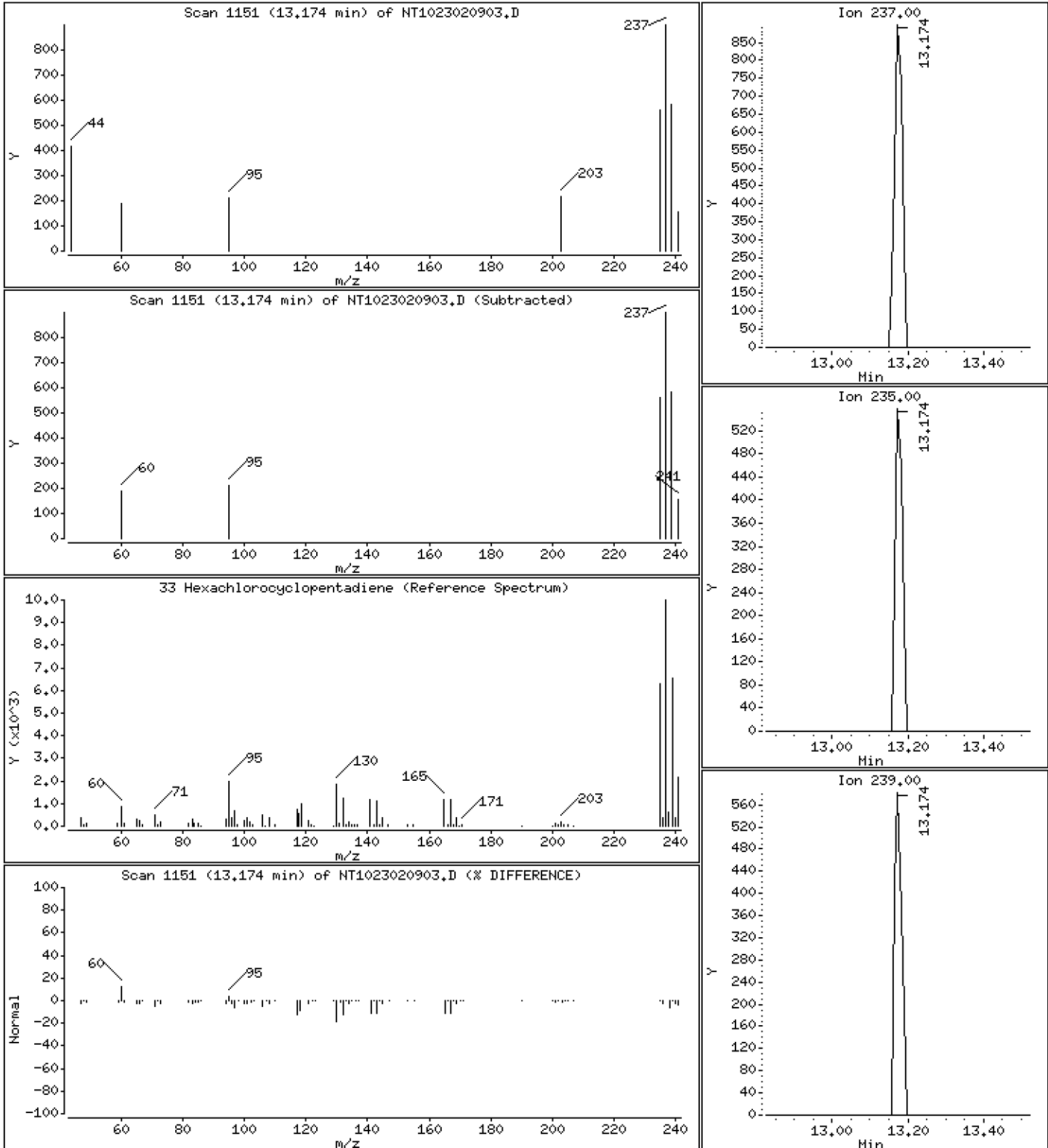
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 0,1175 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

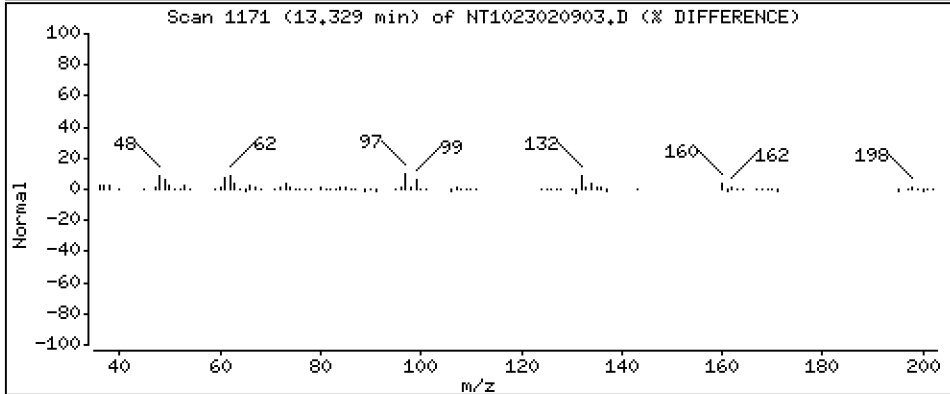
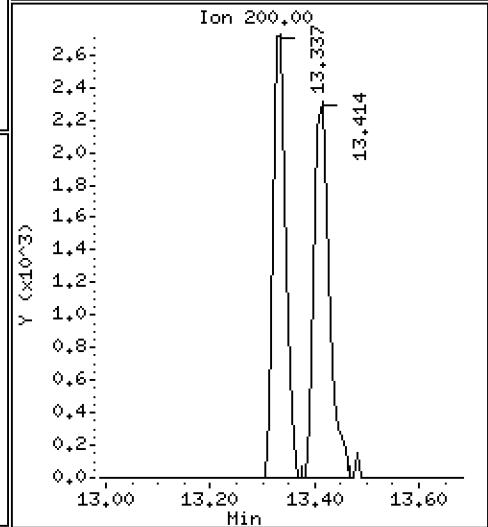
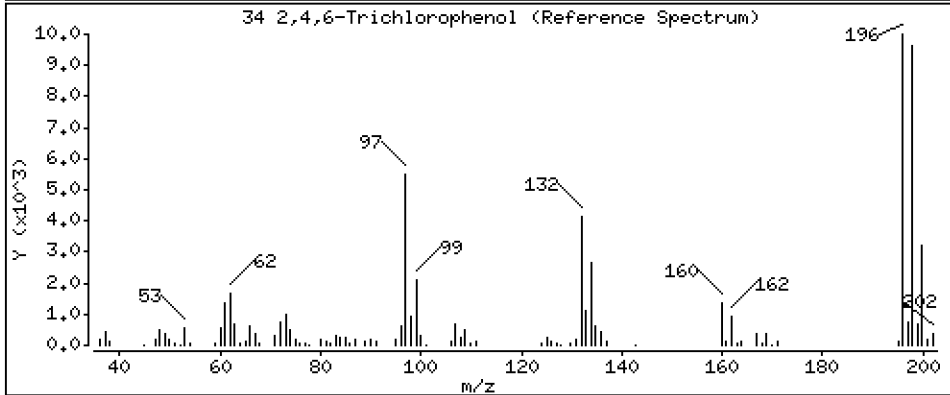
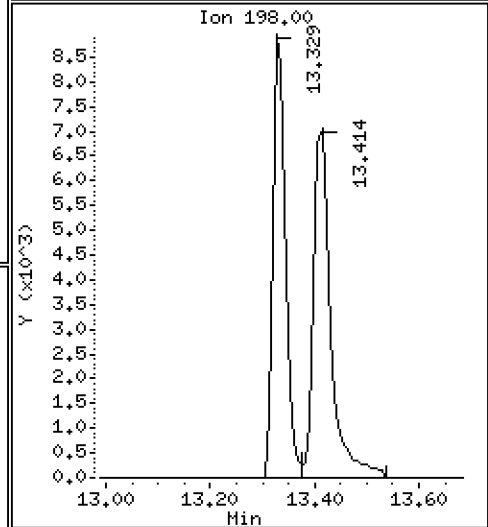
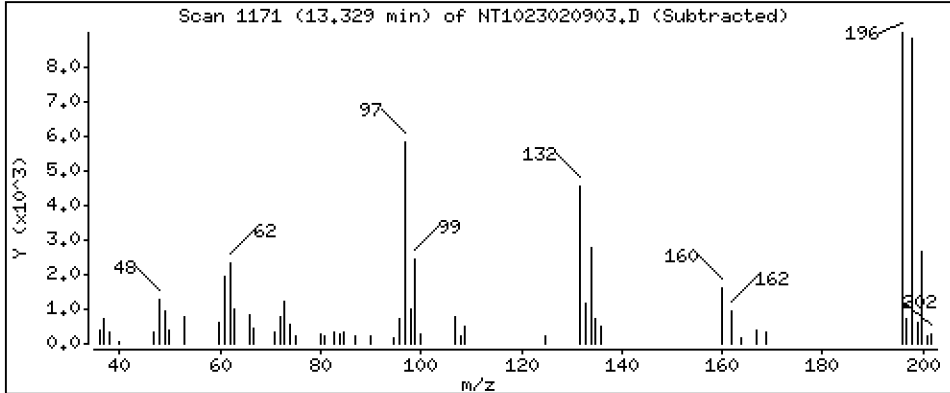
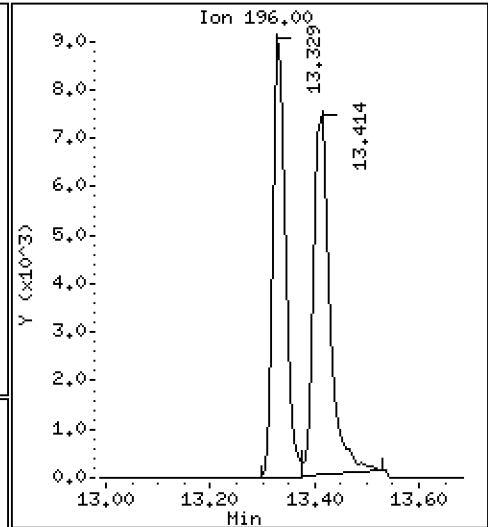
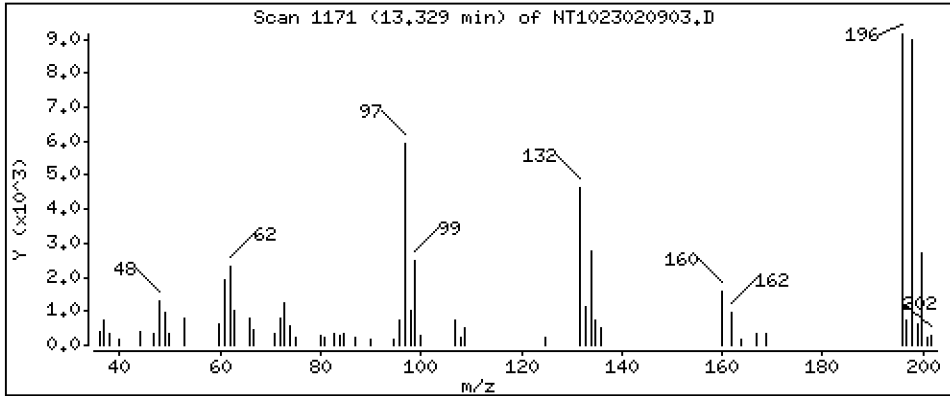
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

34 2,4,6-Trichlorophenol

Concentration: 0.9718 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

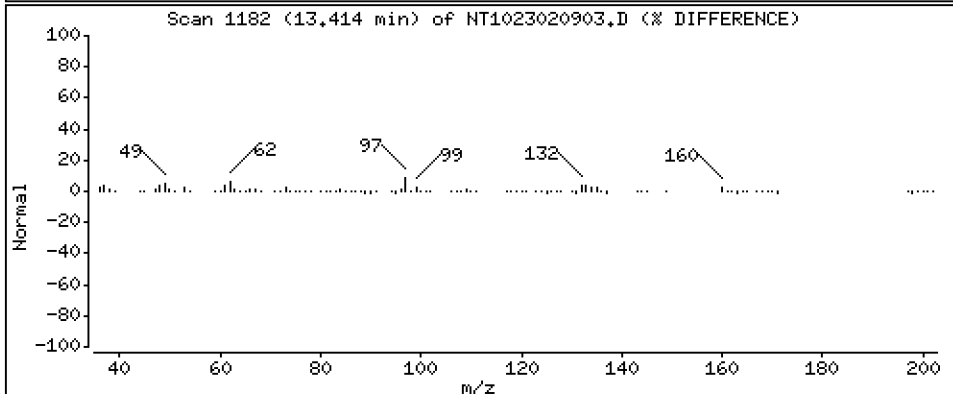
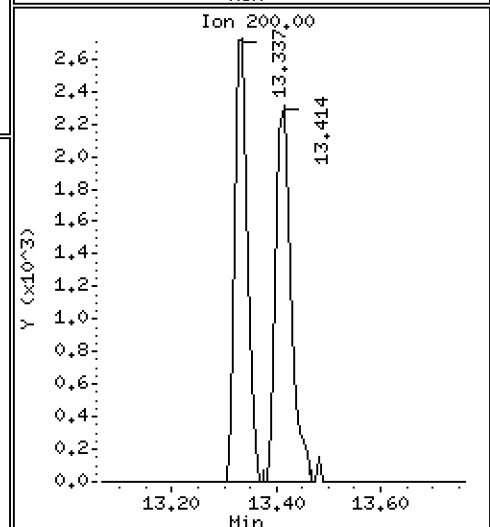
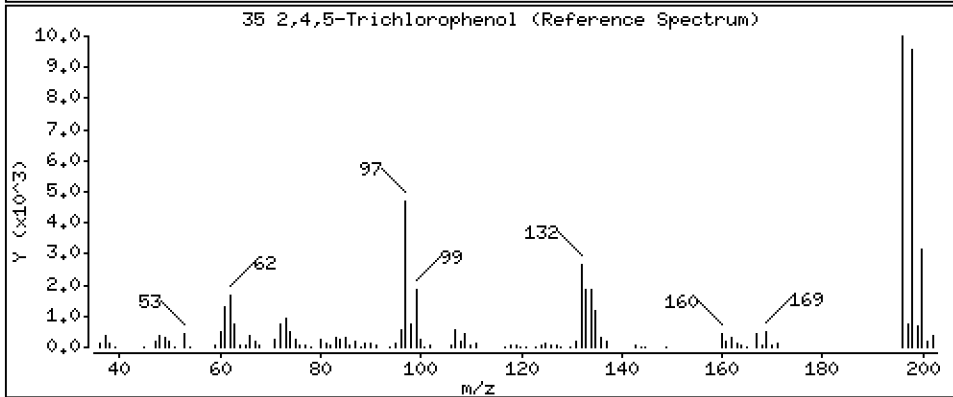
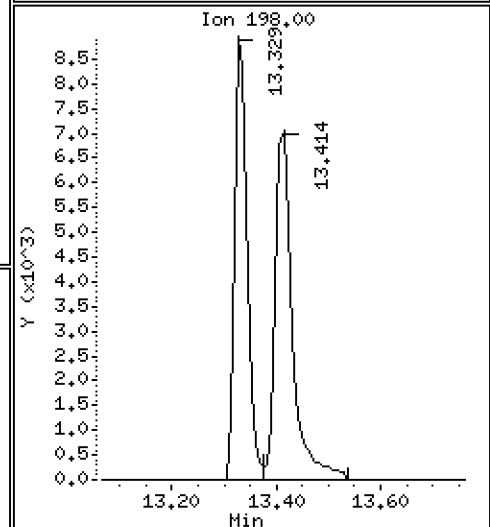
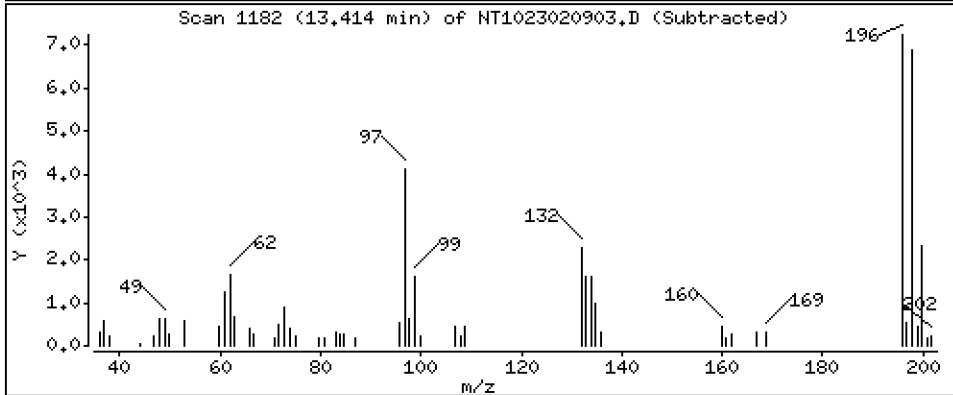
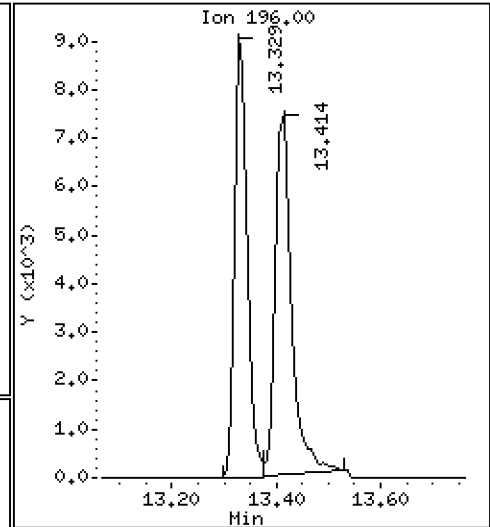
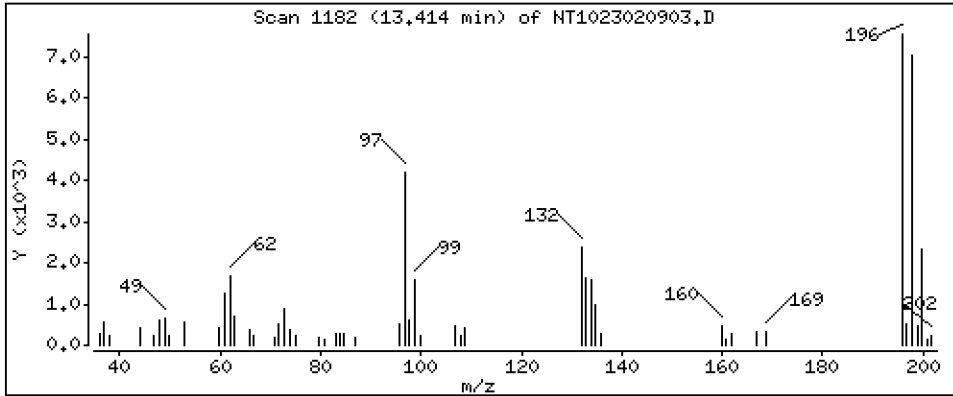
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 0,9448 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

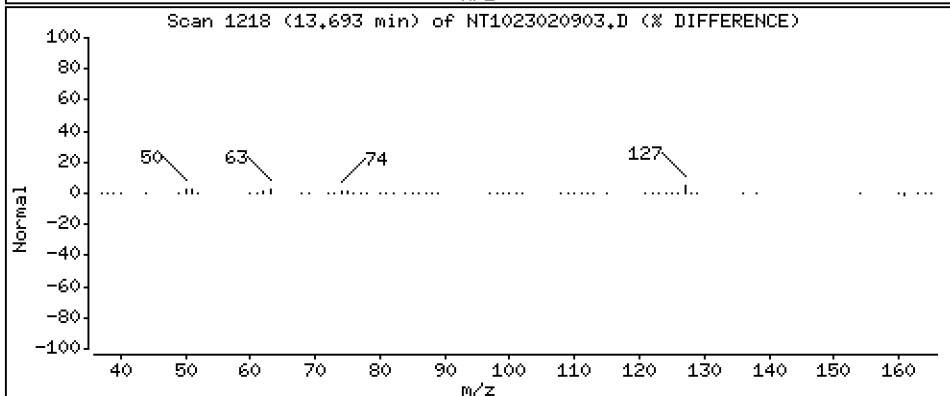
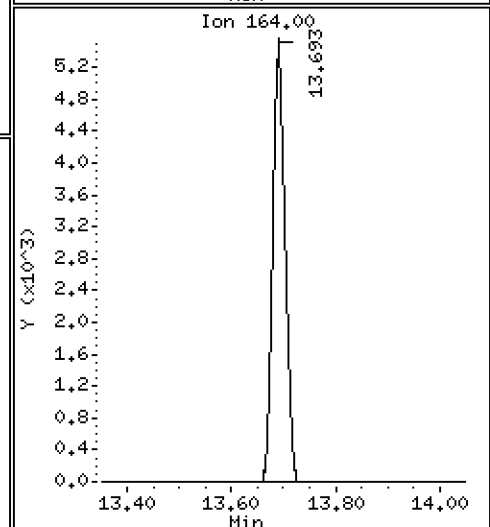
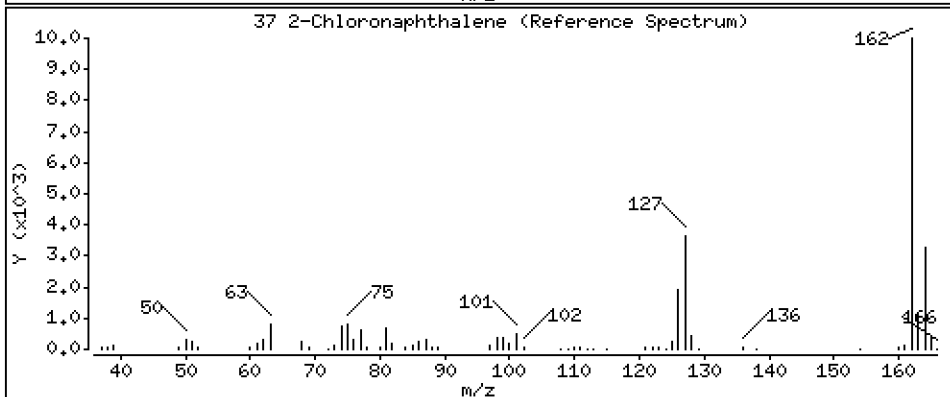
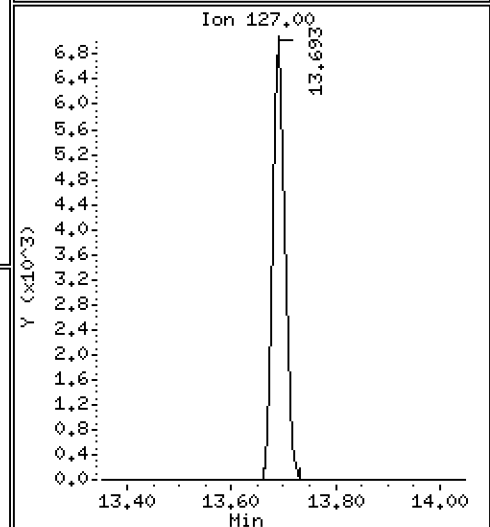
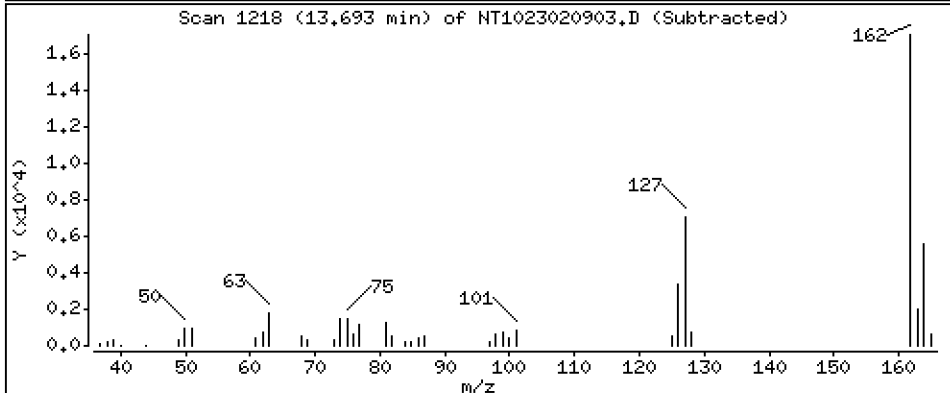
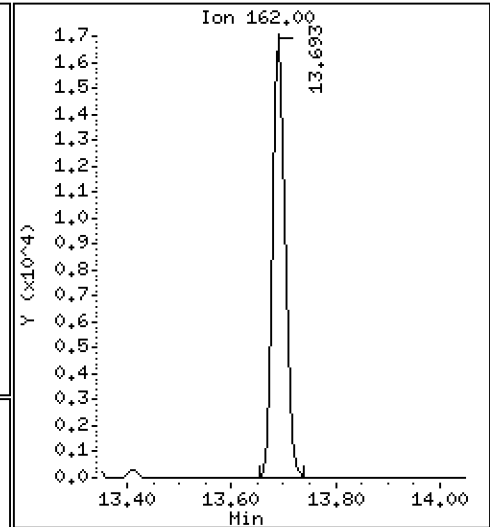
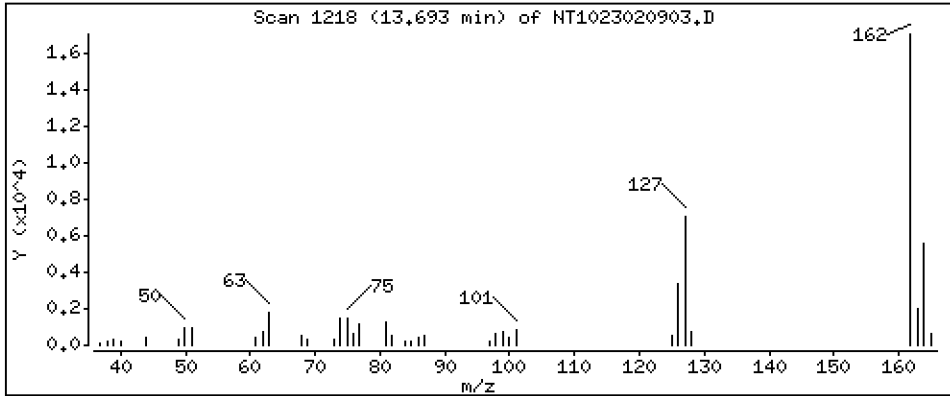
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 0,5301 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

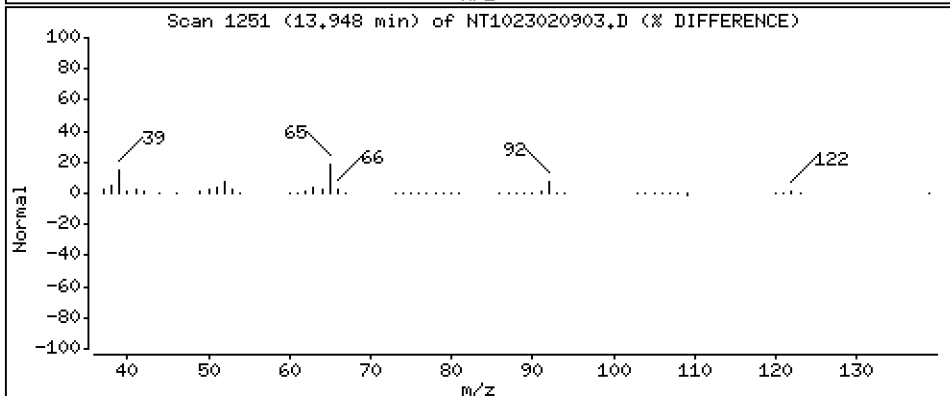
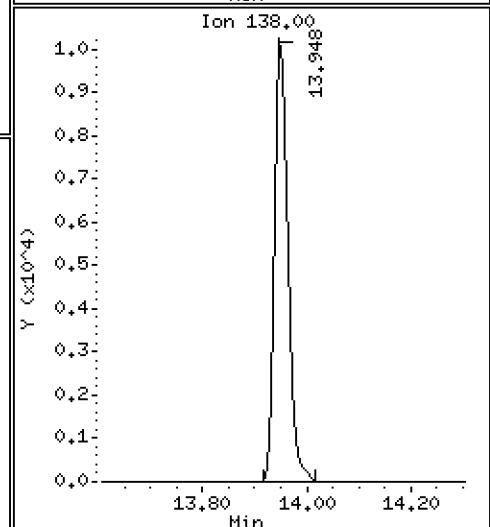
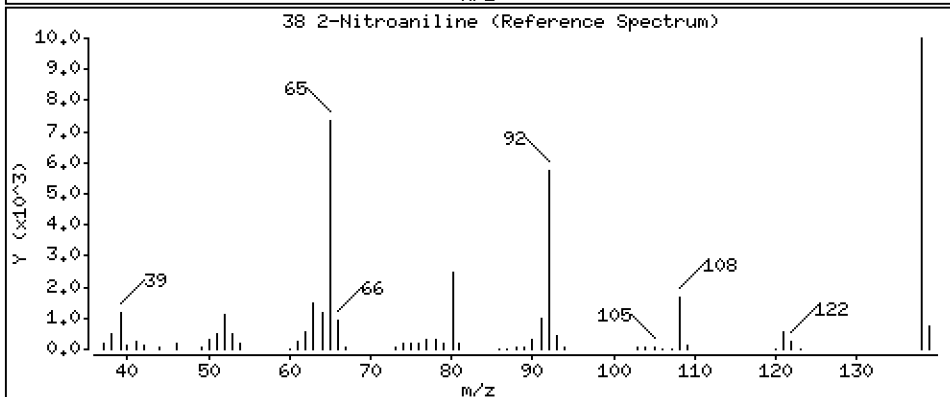
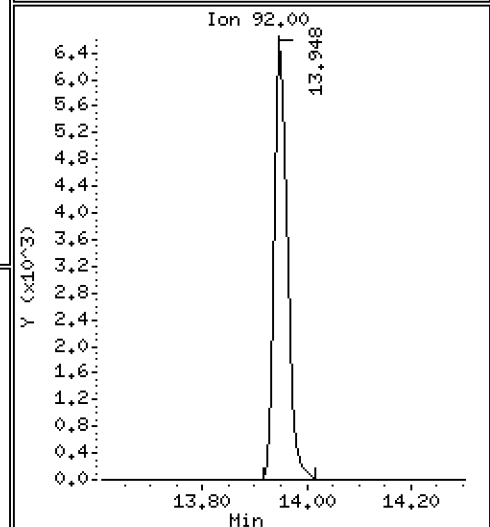
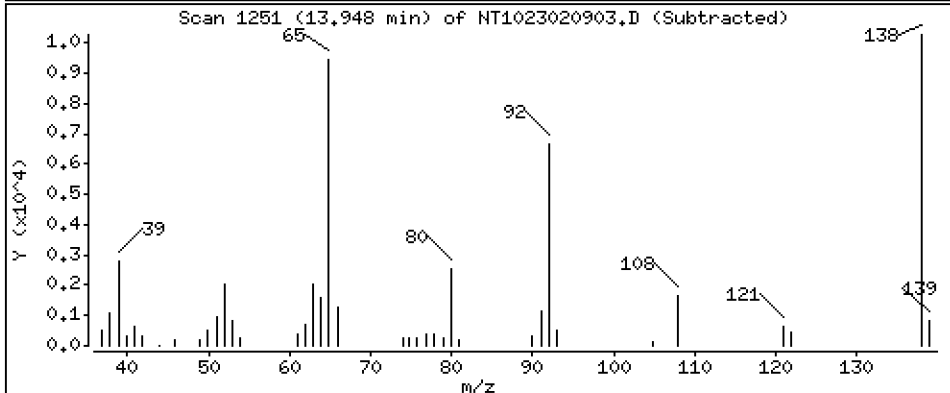
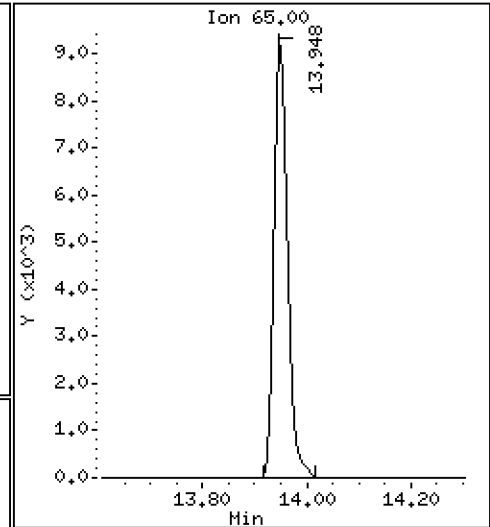
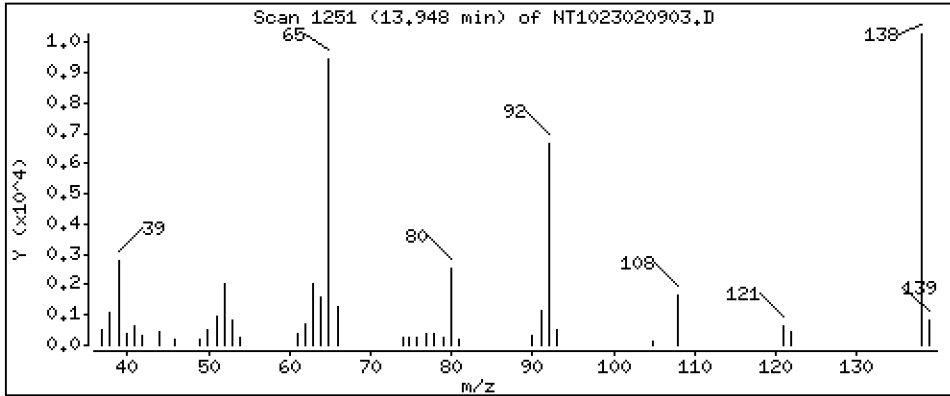
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

38 2-Nitroaniline

Concentration: 1.142 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

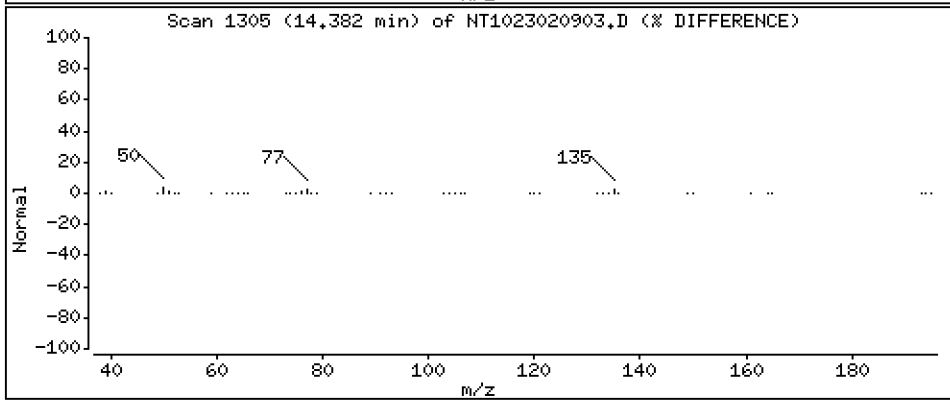
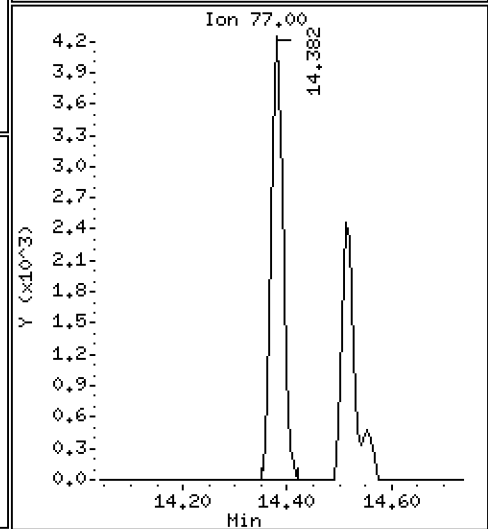
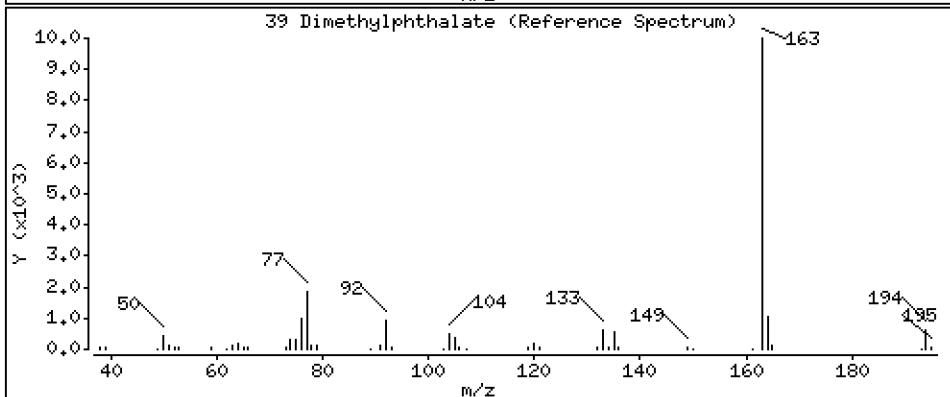
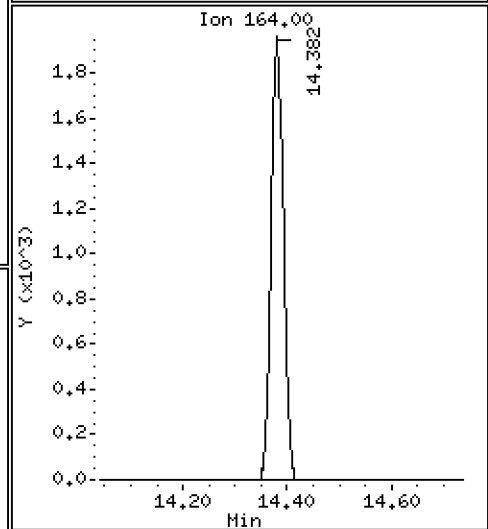
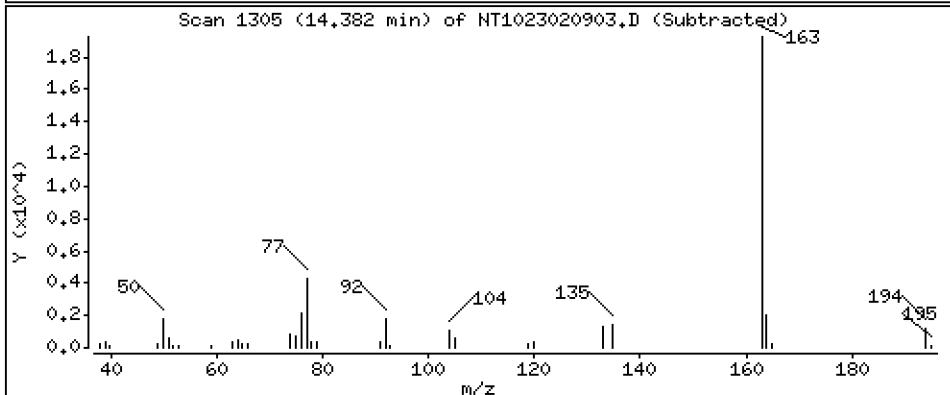
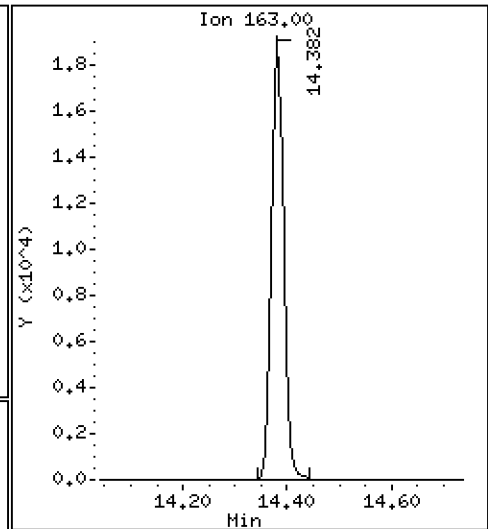
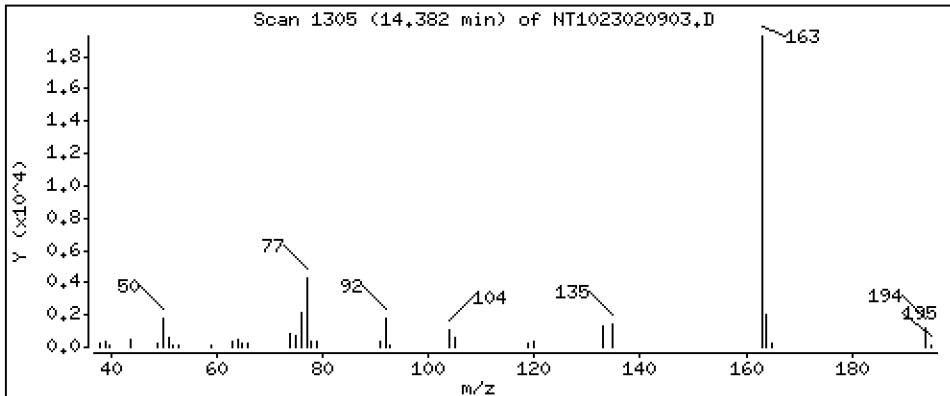
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,5172 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

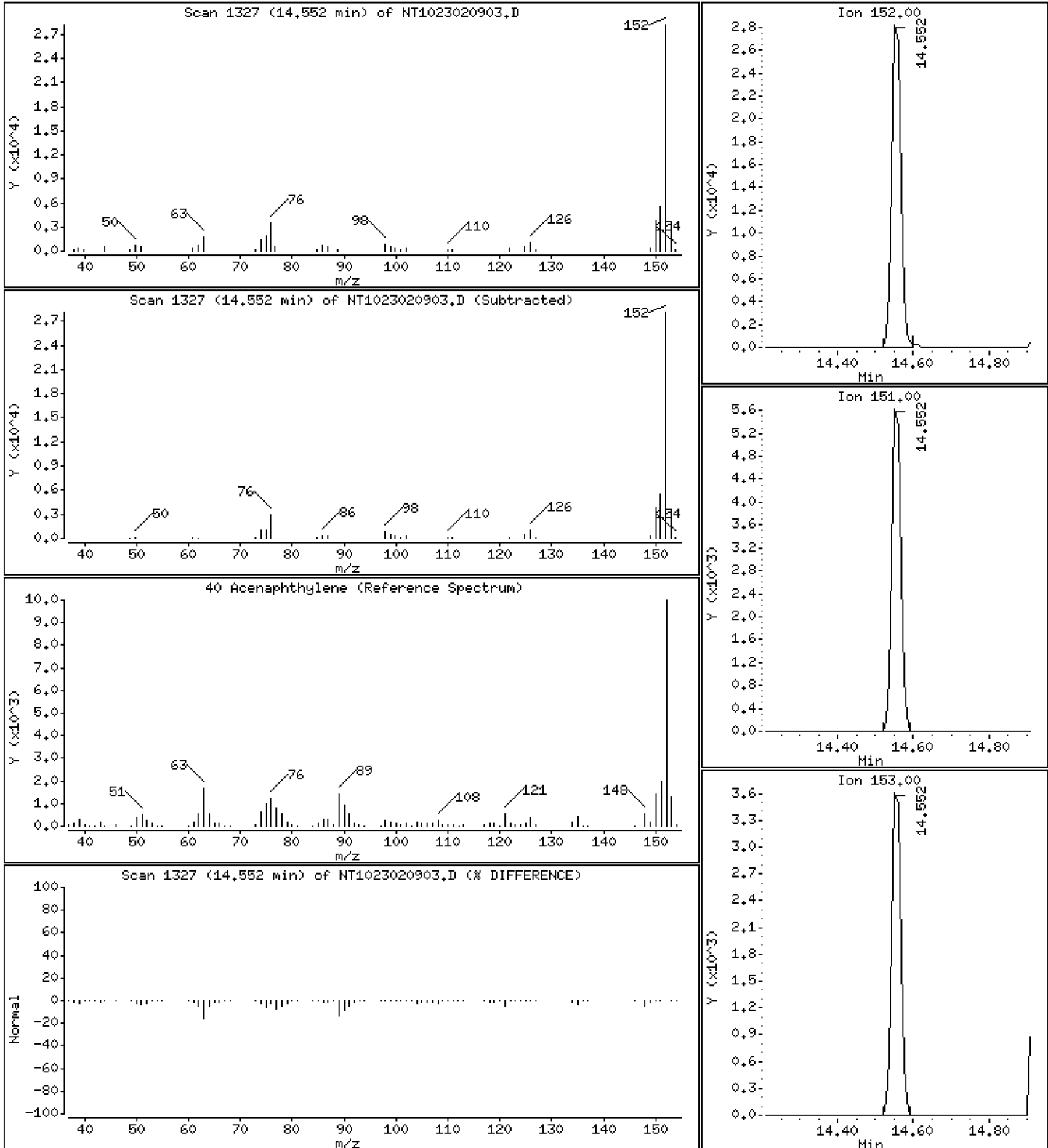
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,5318 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

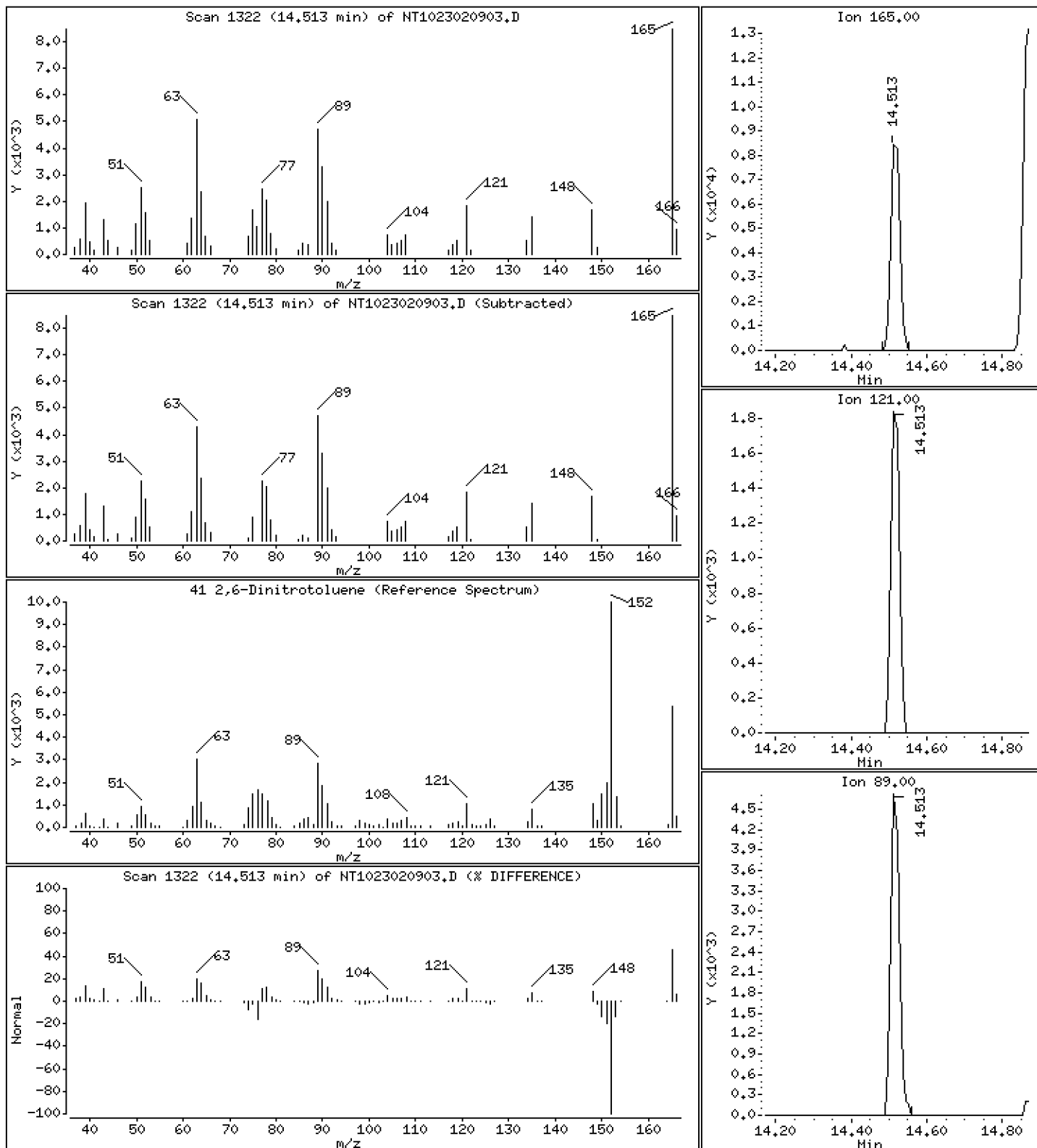
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 0.9980 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

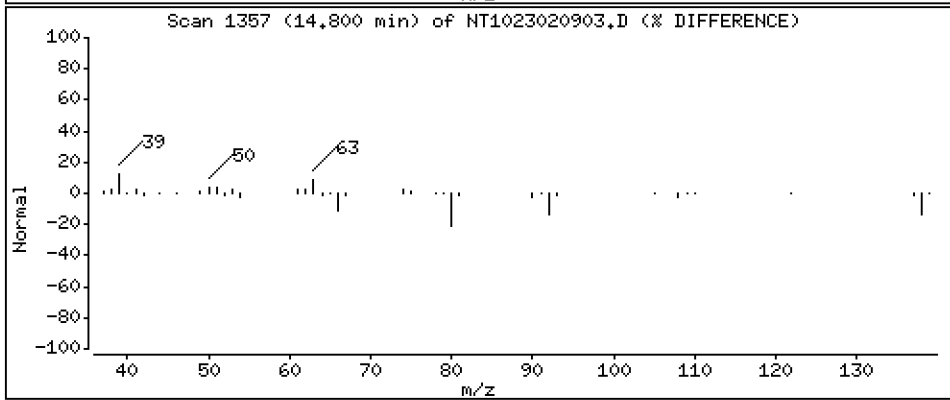
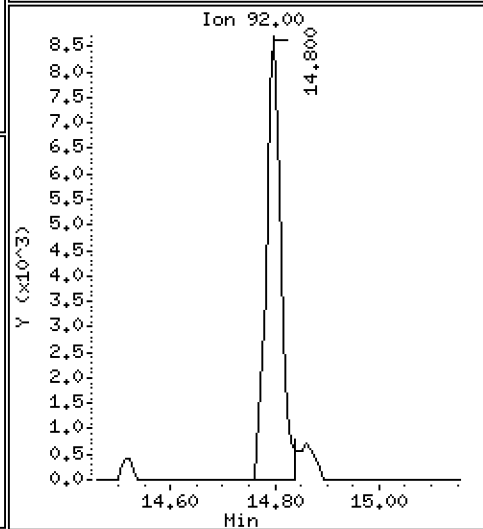
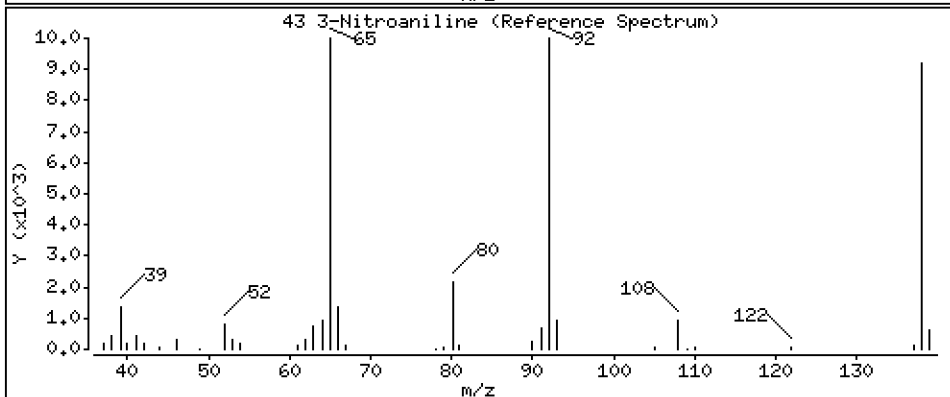
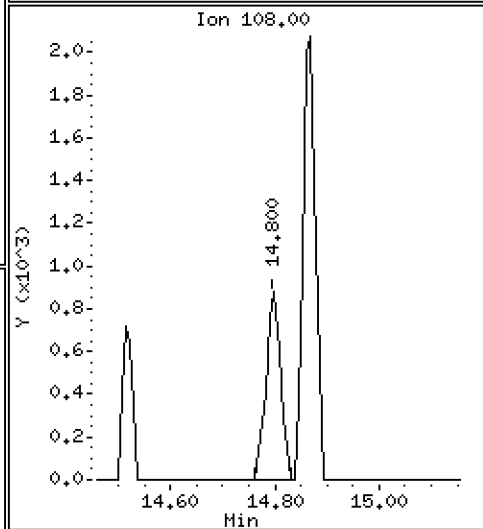
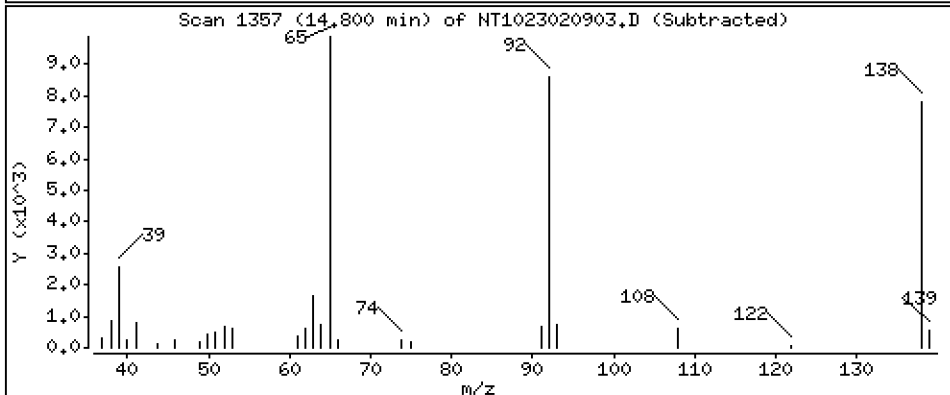
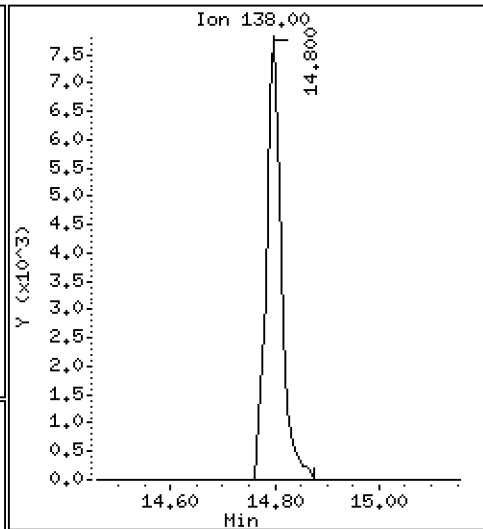
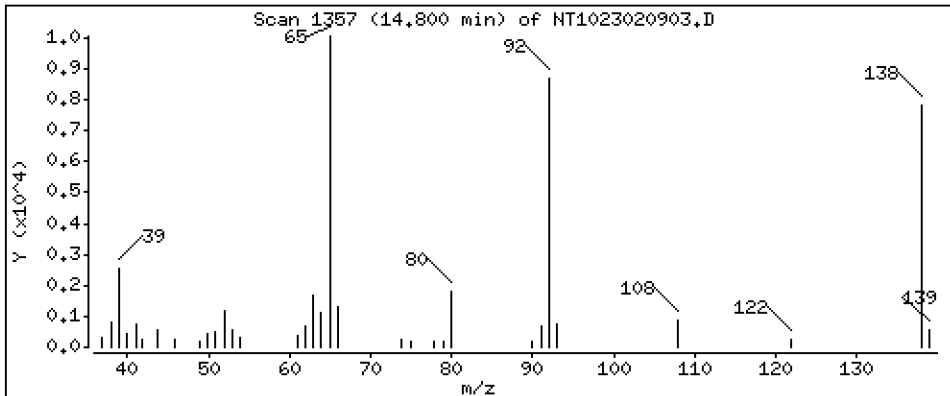
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 1,017 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

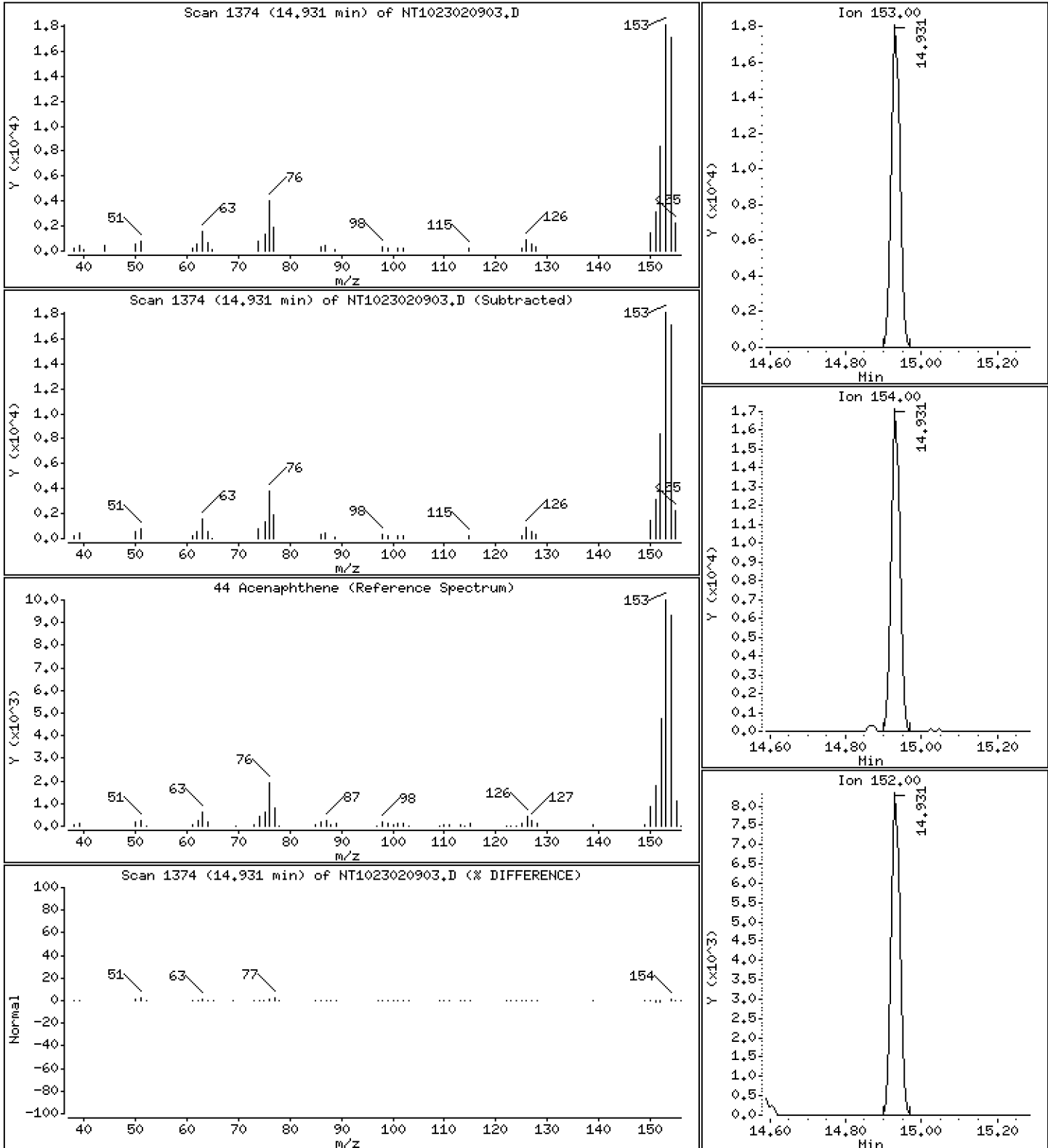
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

44 Acenaphthene

Concentration: 0.5266 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

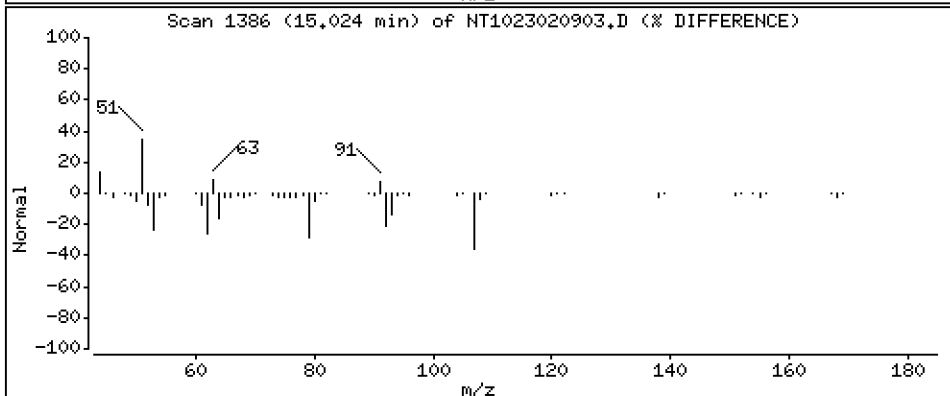
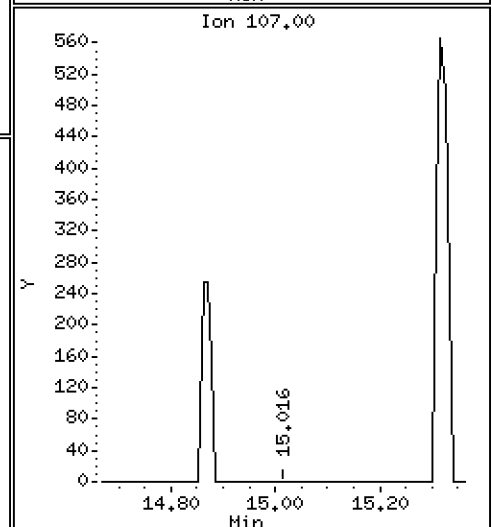
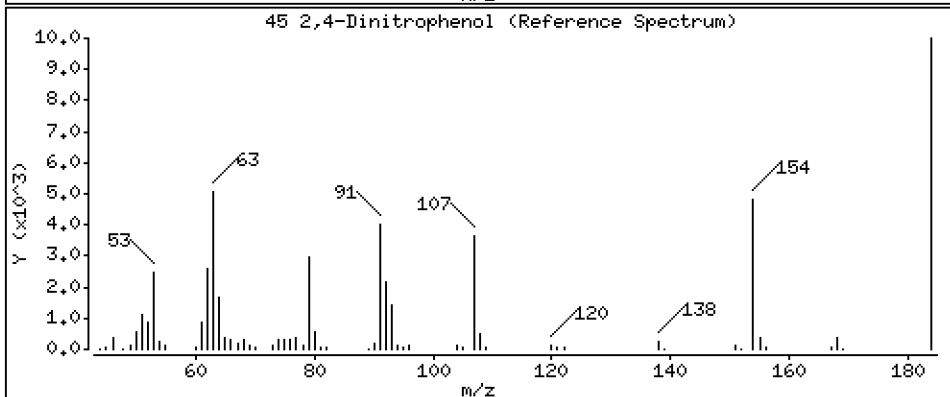
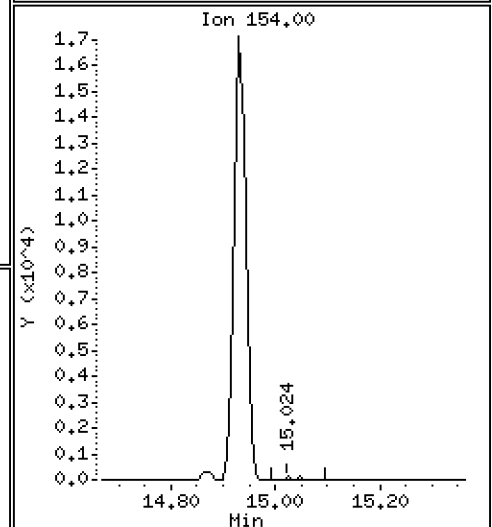
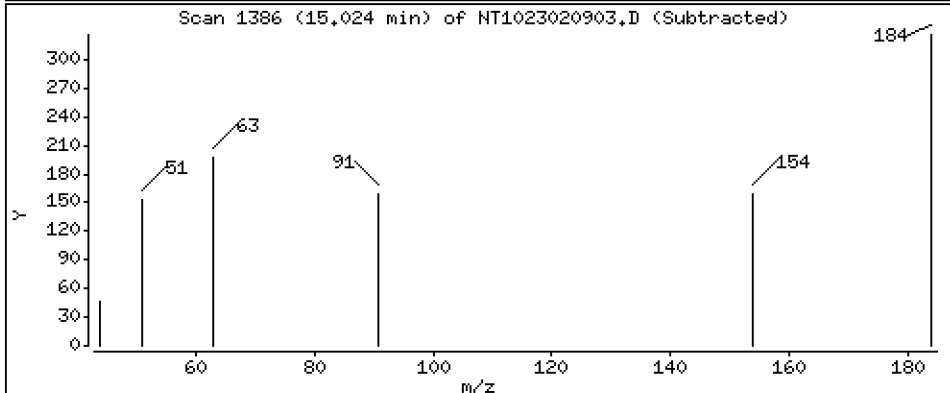
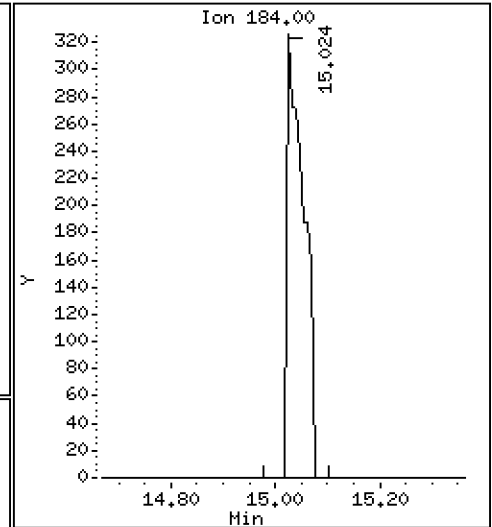
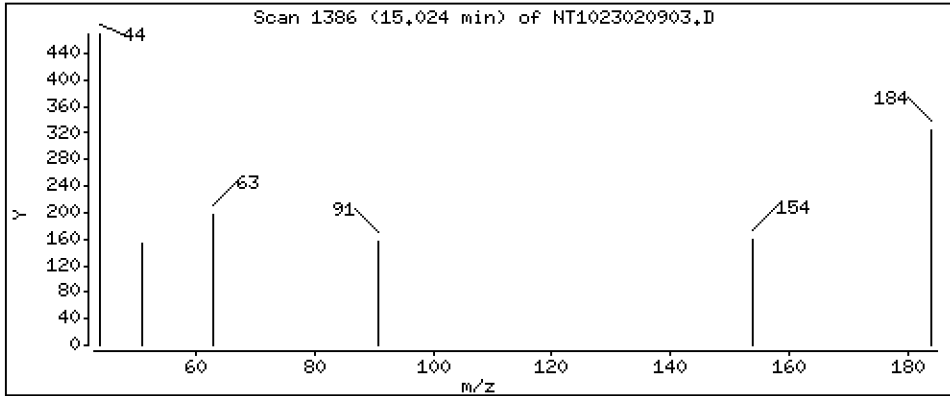
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,1105 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

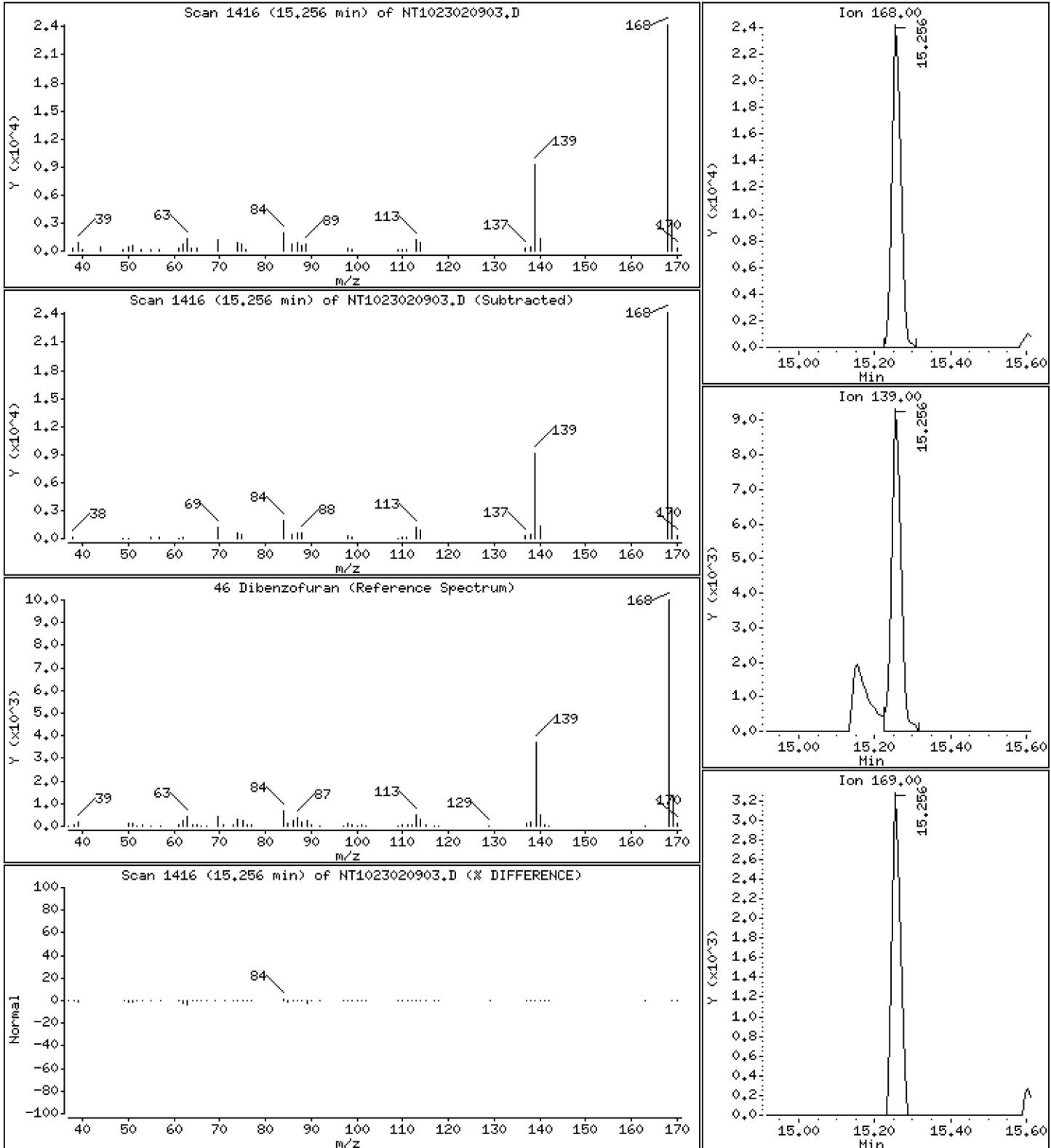
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,5085 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

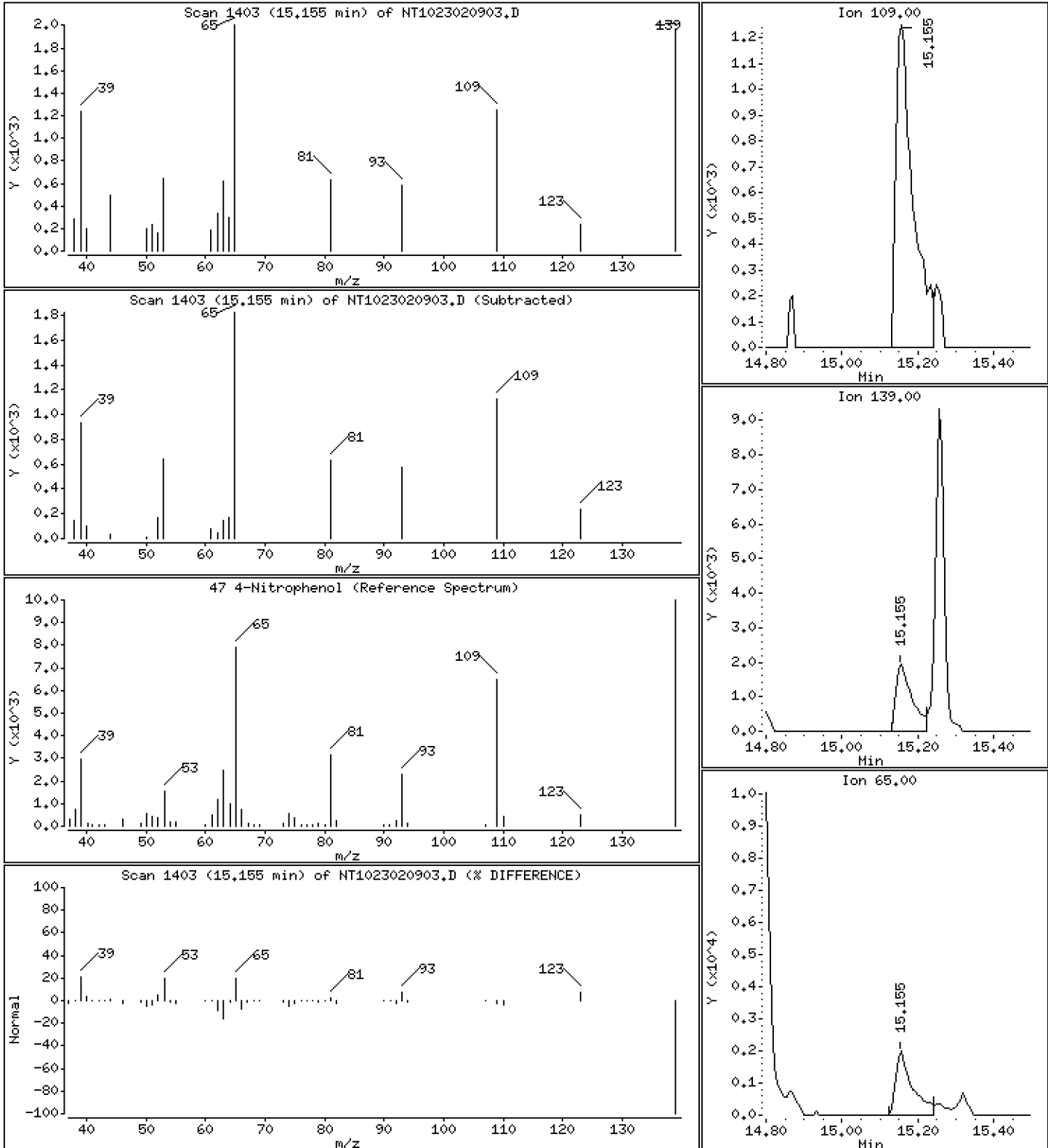
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 0,6858 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

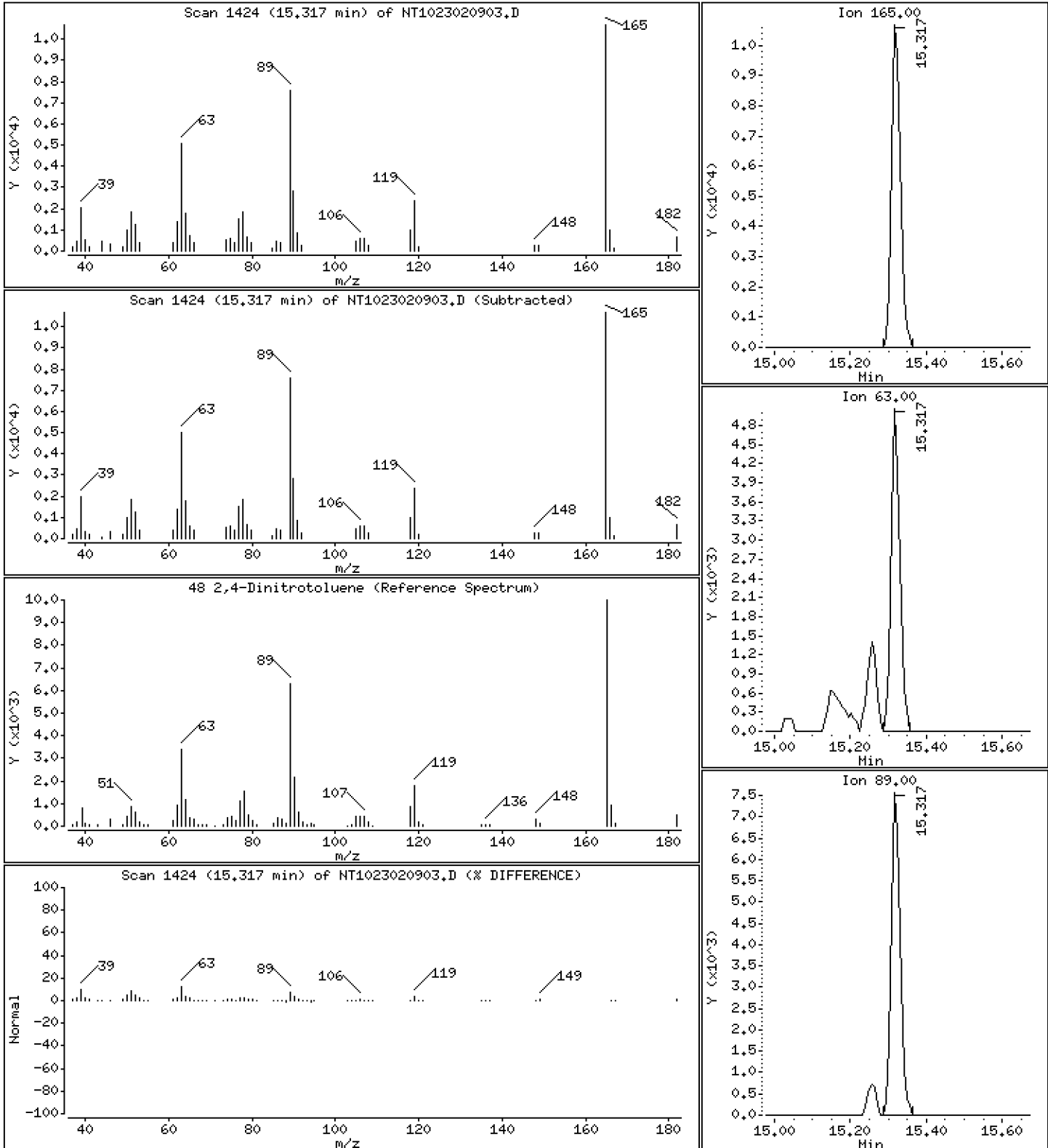
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 0,9124 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

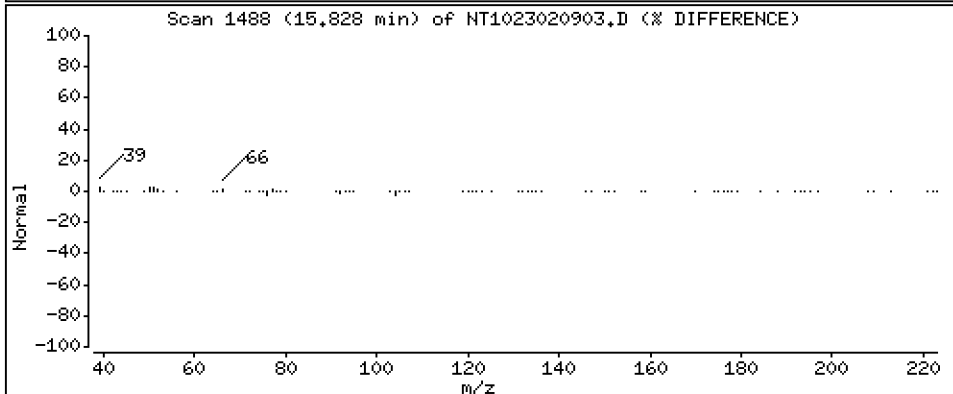
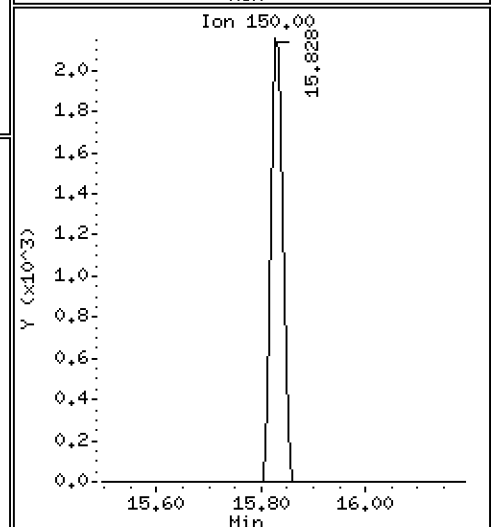
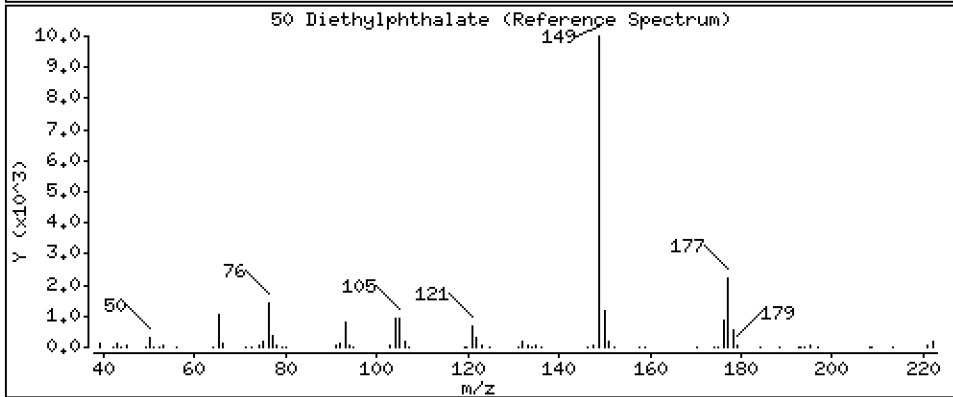
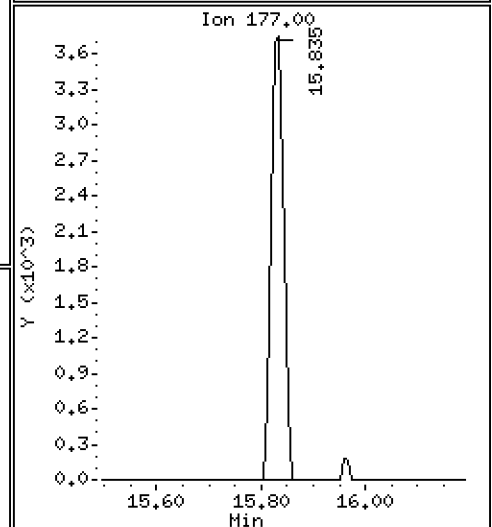
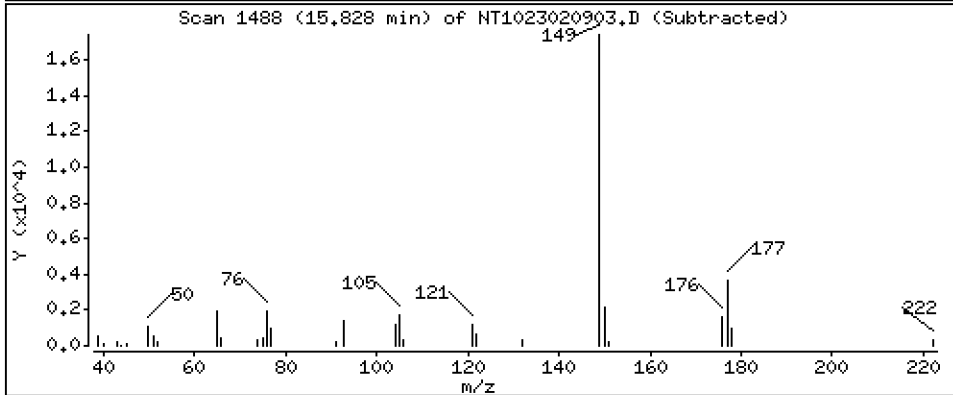
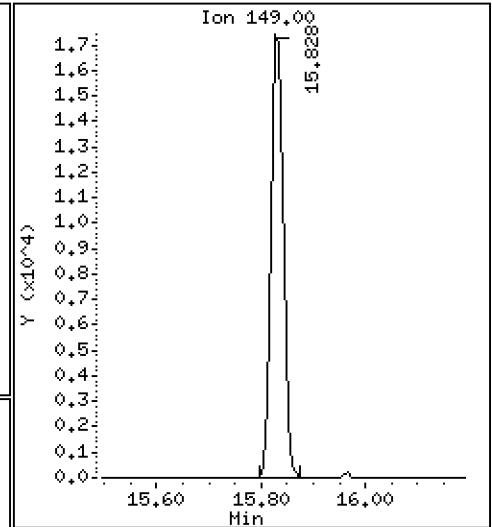
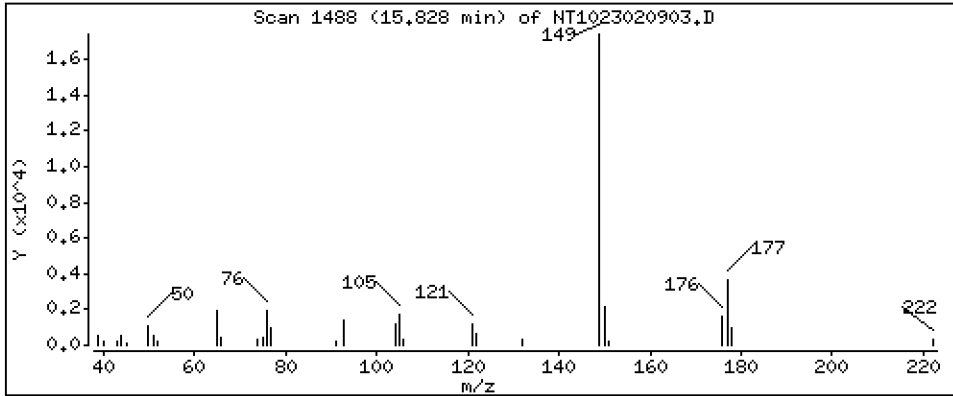
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.5065 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

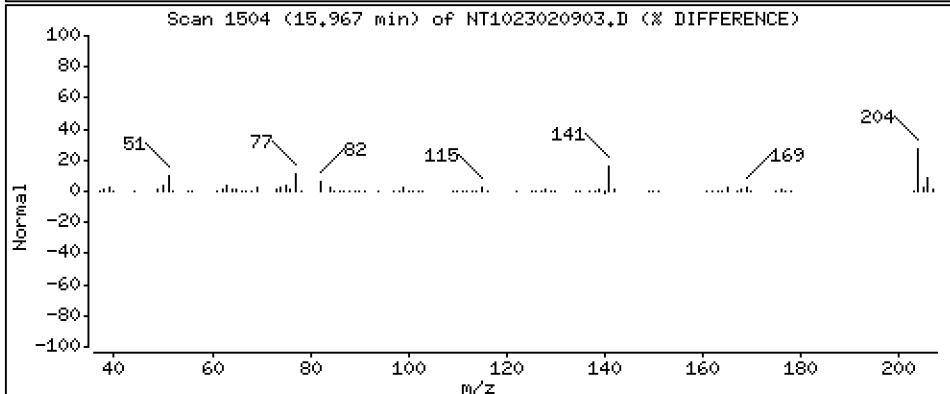
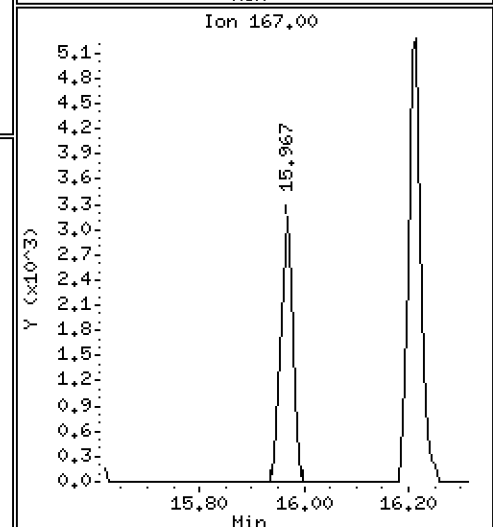
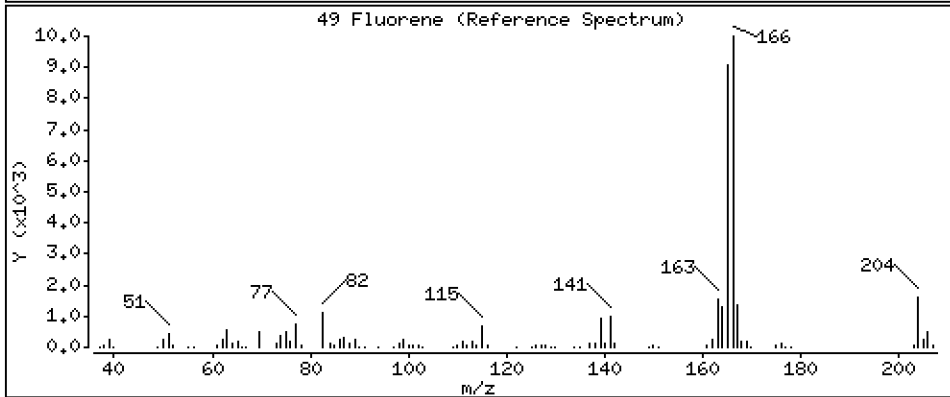
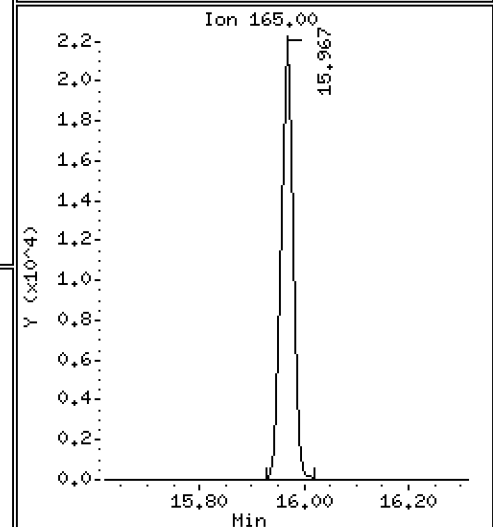
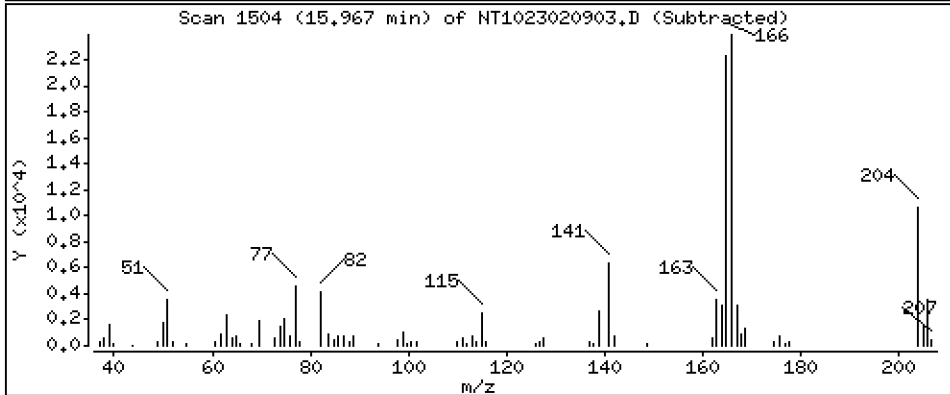
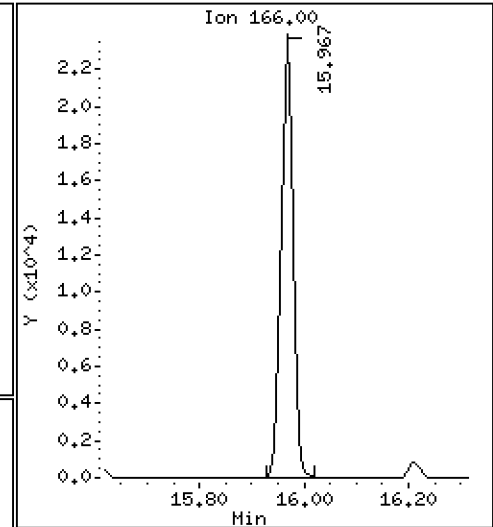
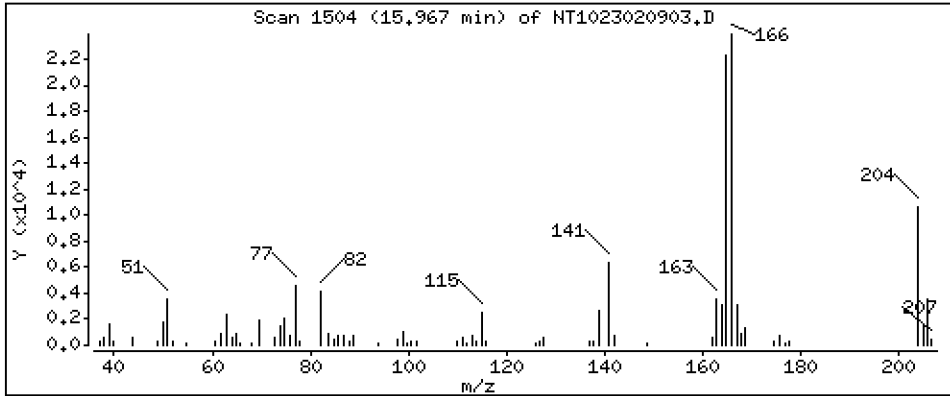
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,4434 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

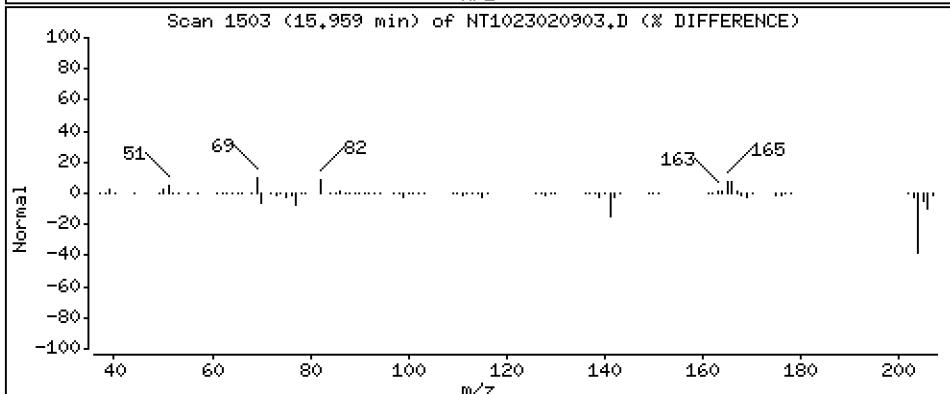
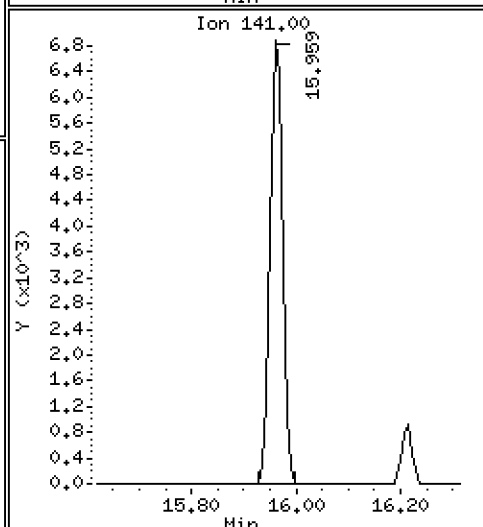
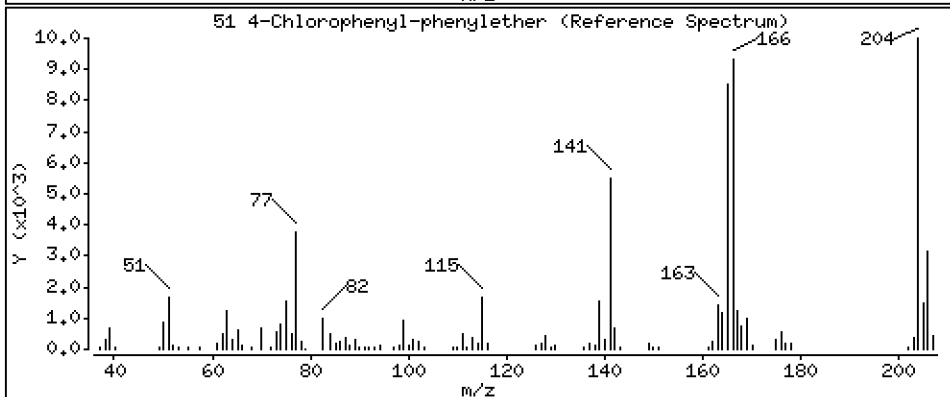
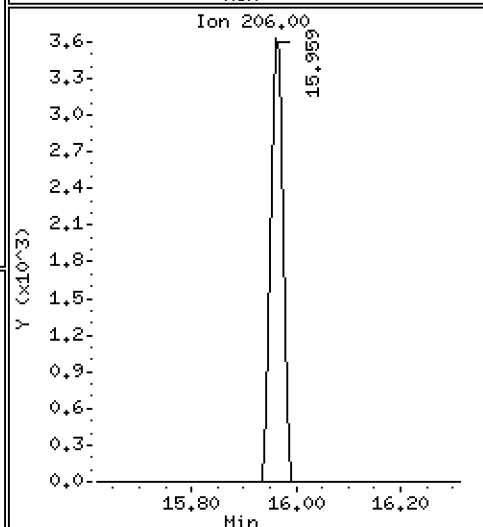
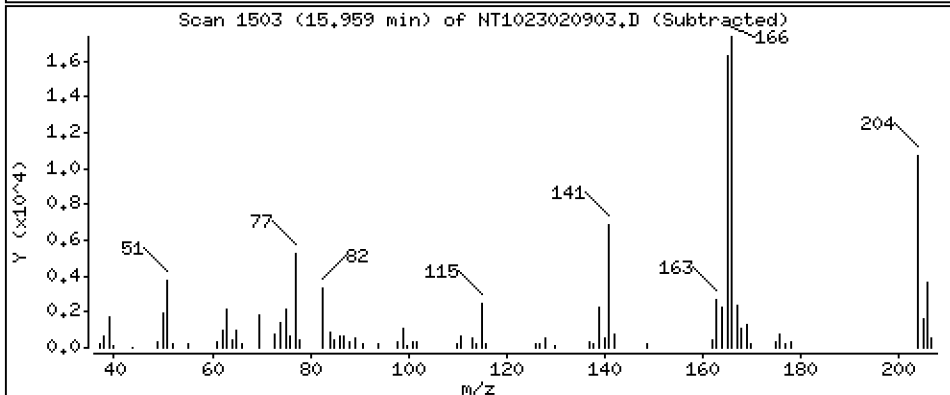
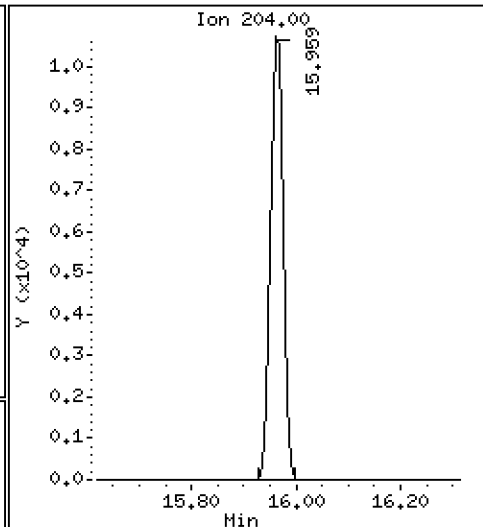
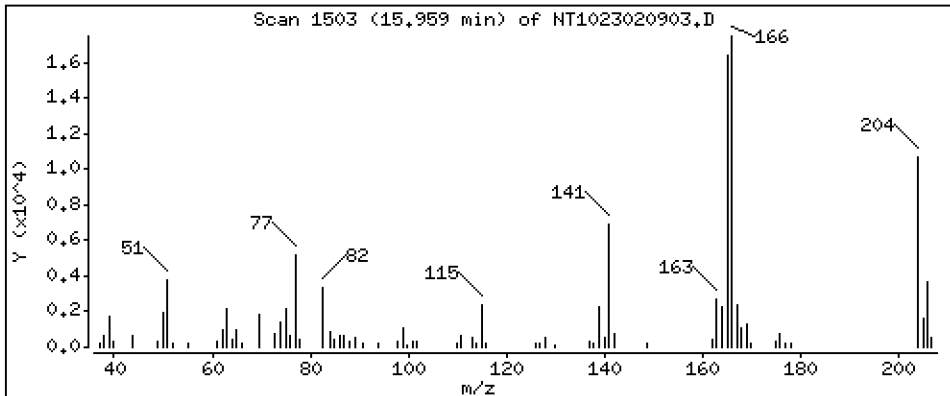
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 0,4289 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

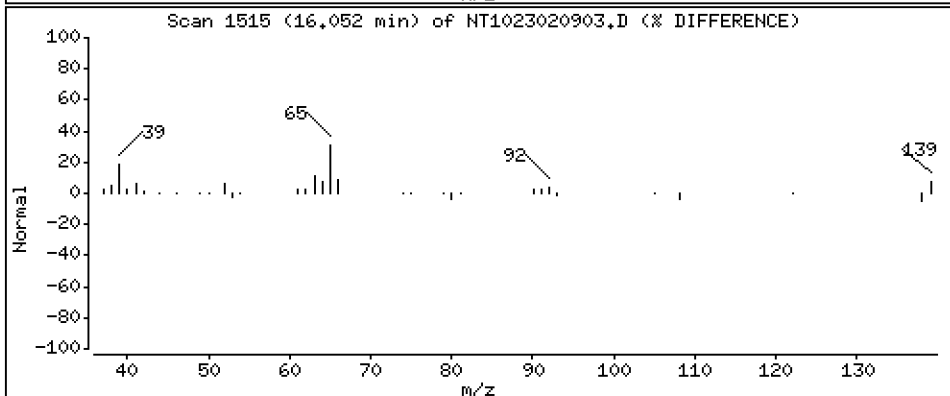
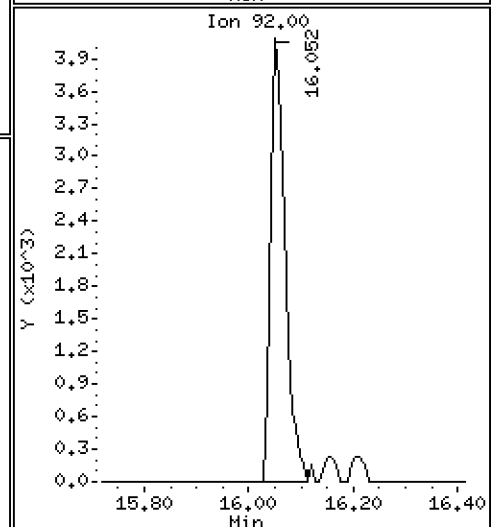
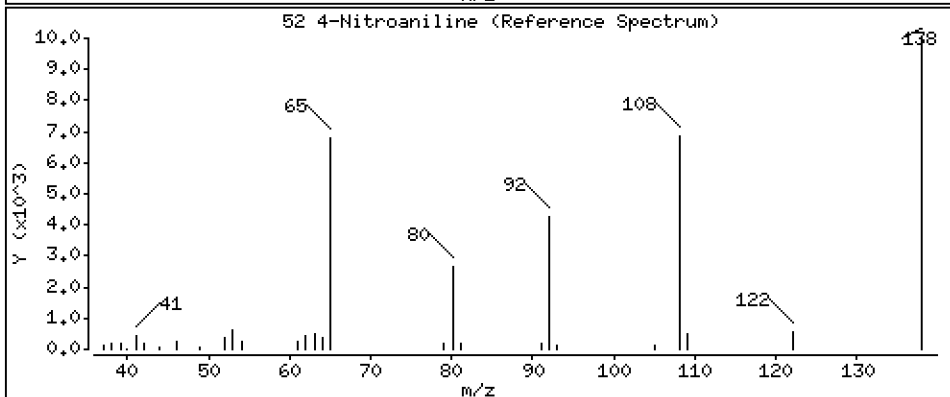
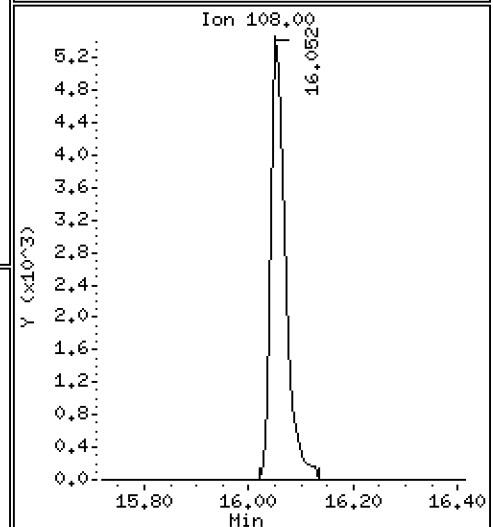
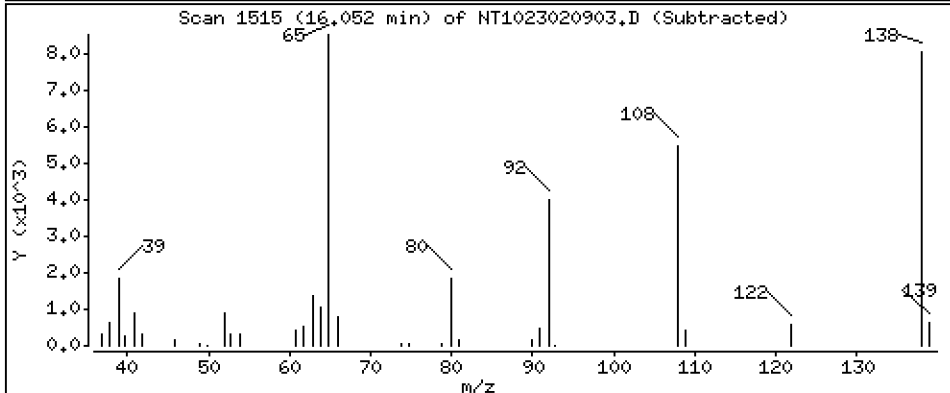
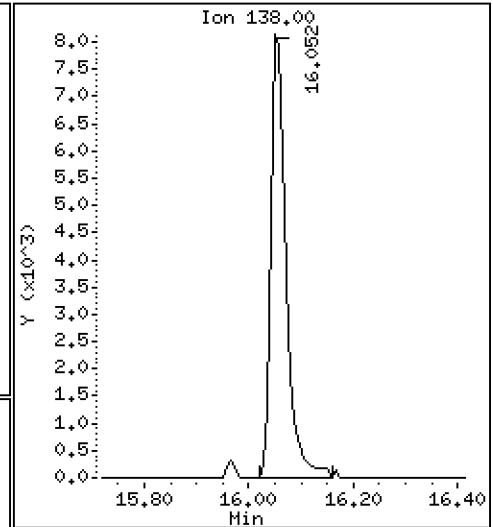
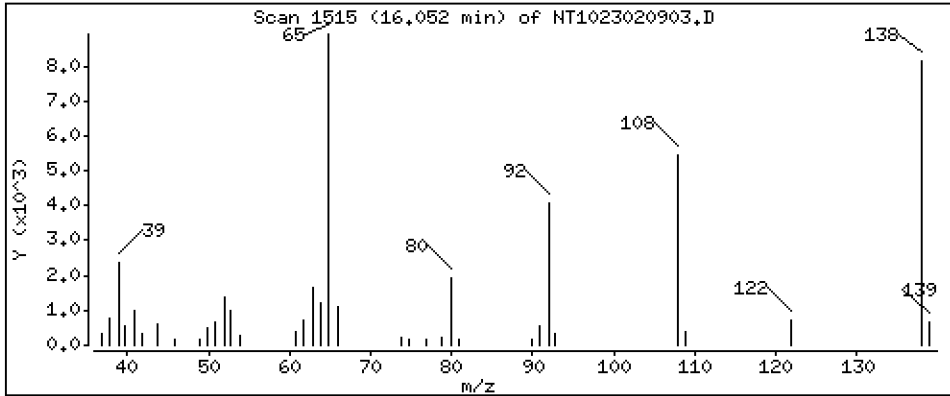
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 0,9006 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

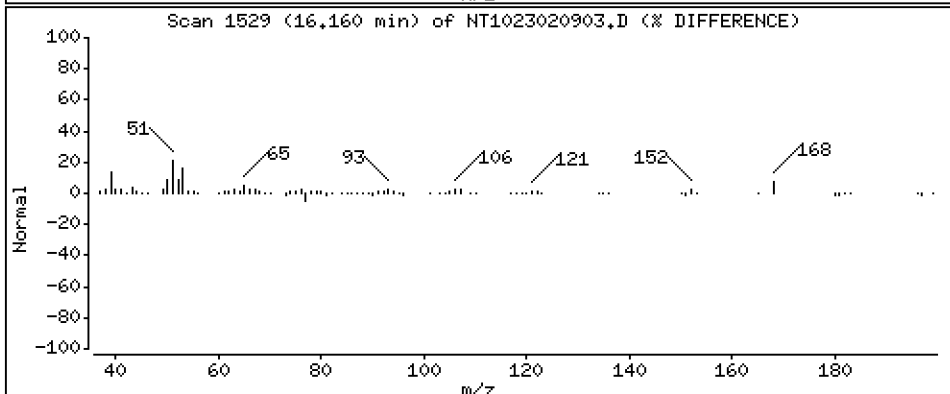
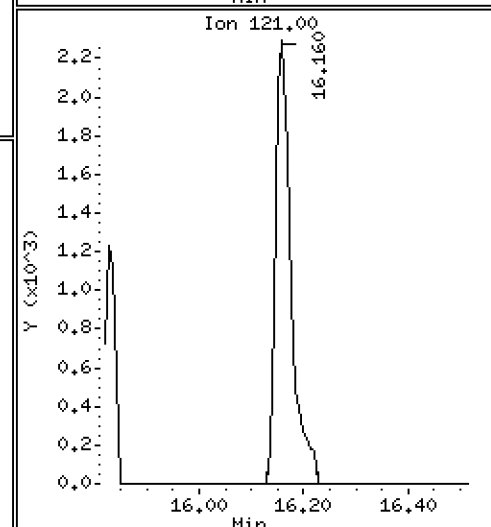
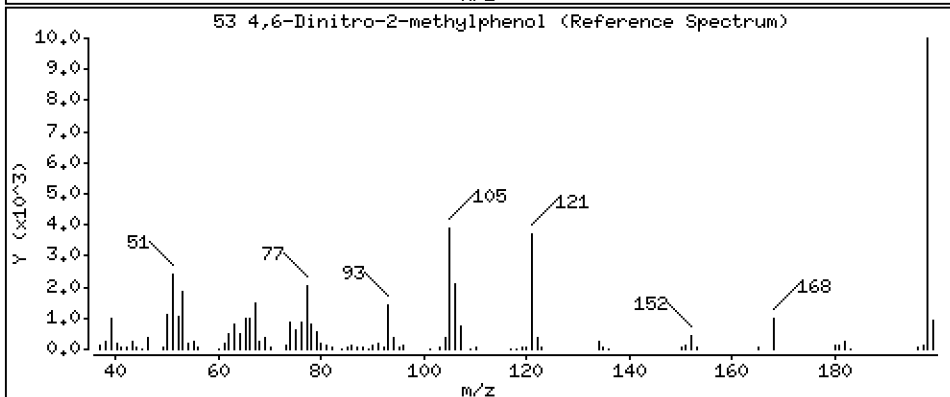
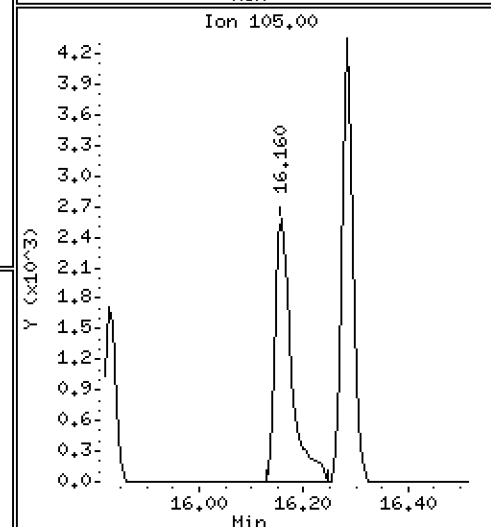
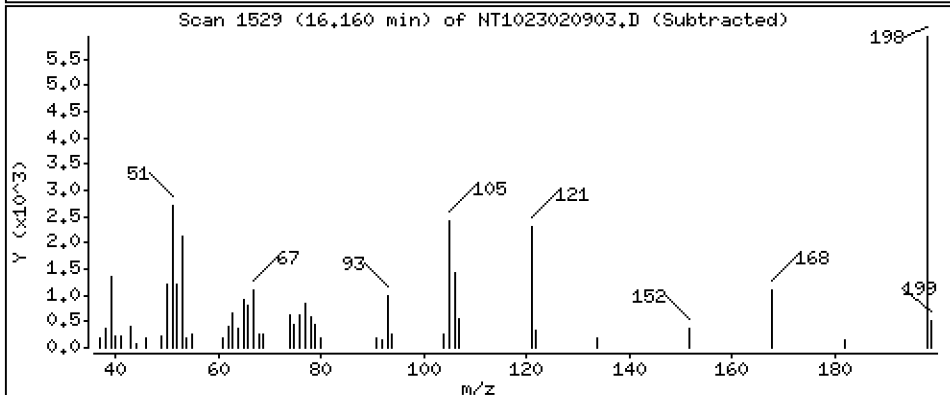
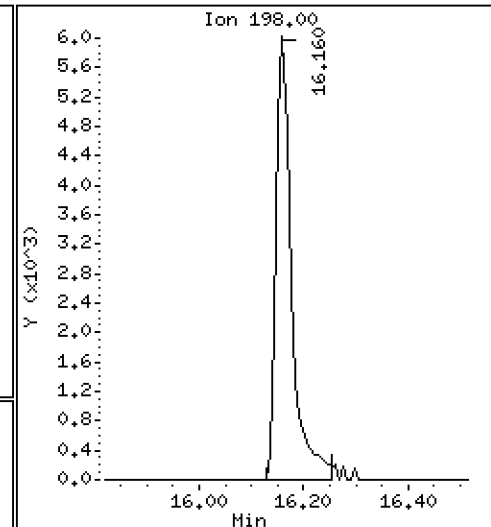
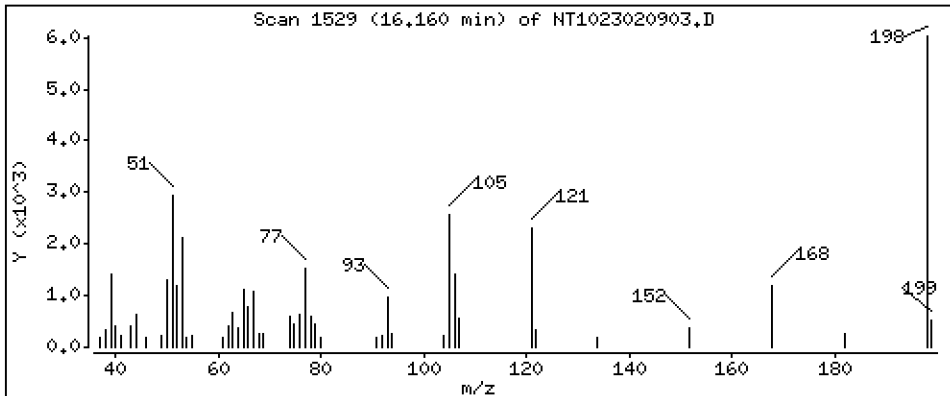
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 1,167 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

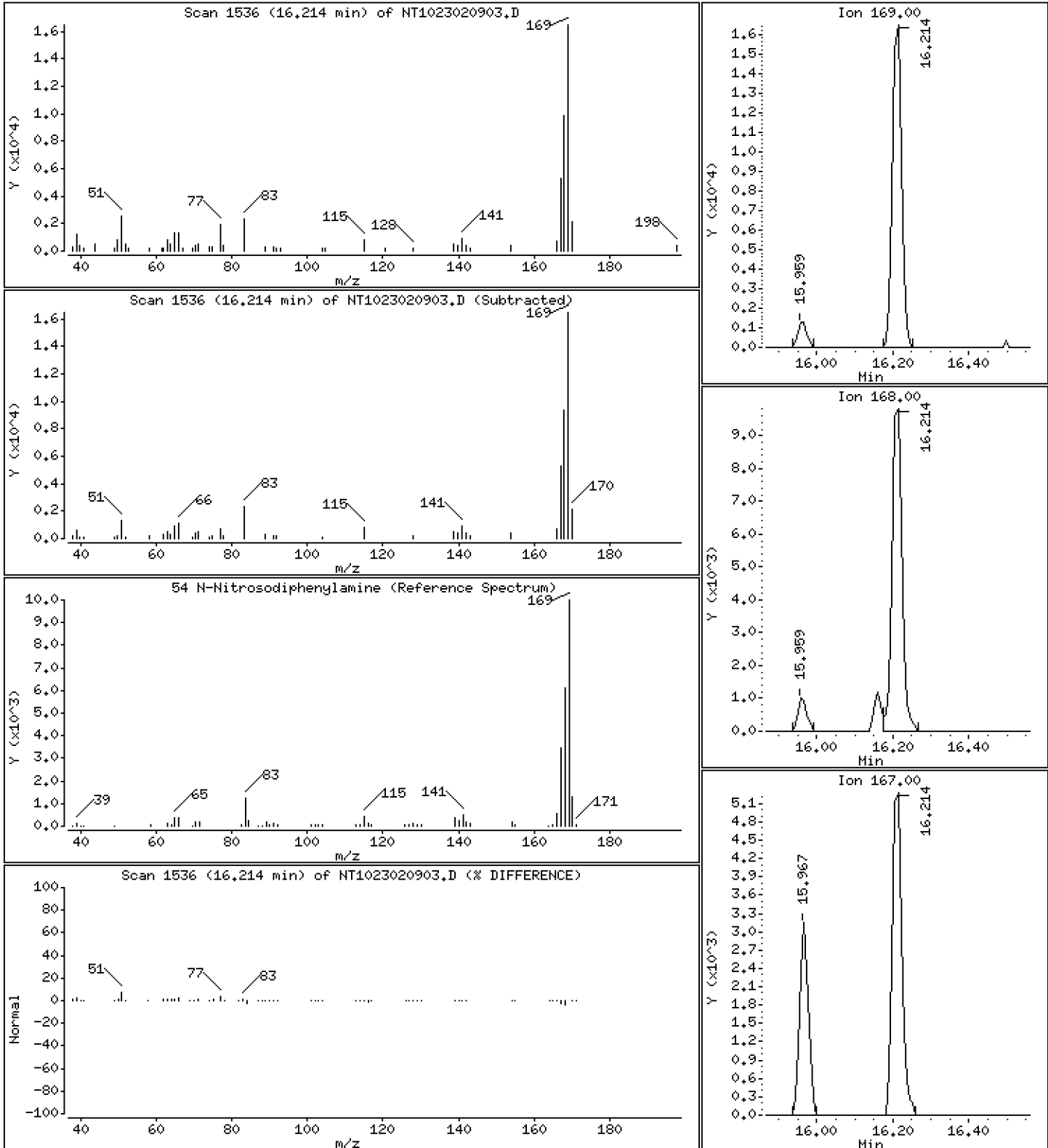
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 0,5385 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

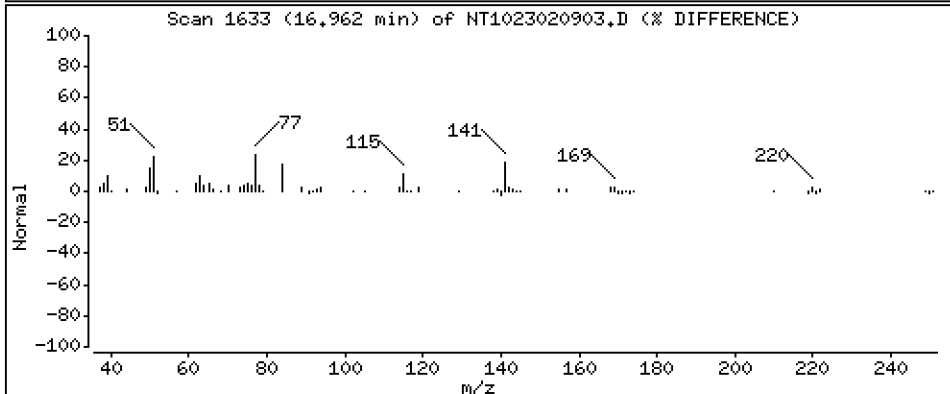
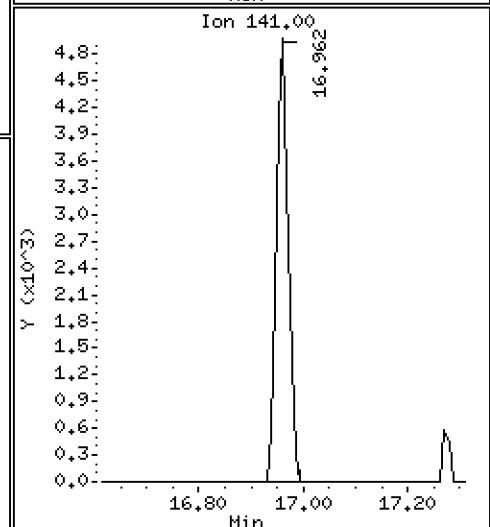
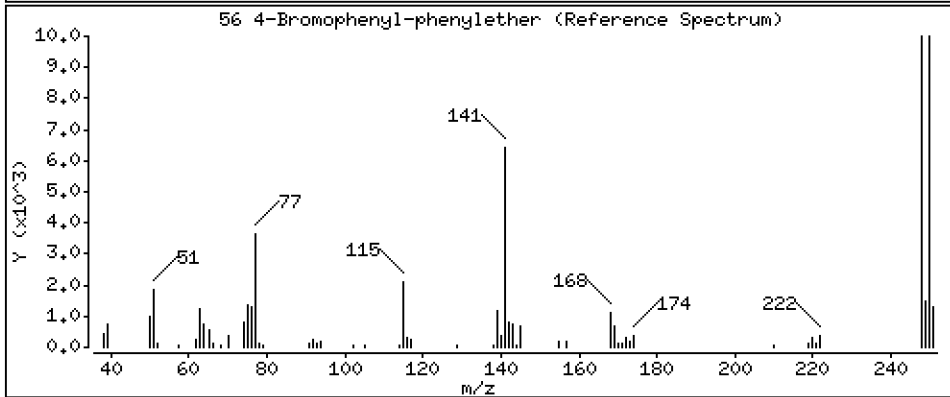
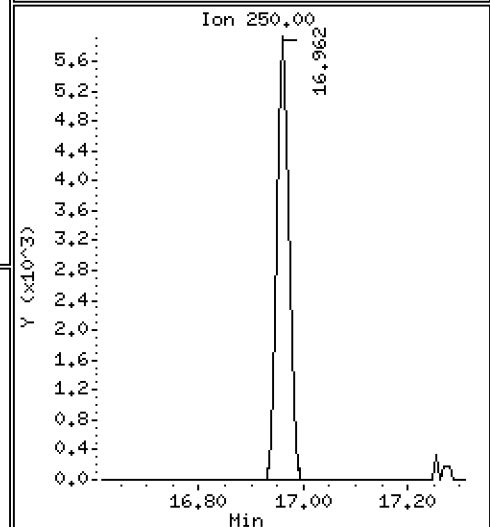
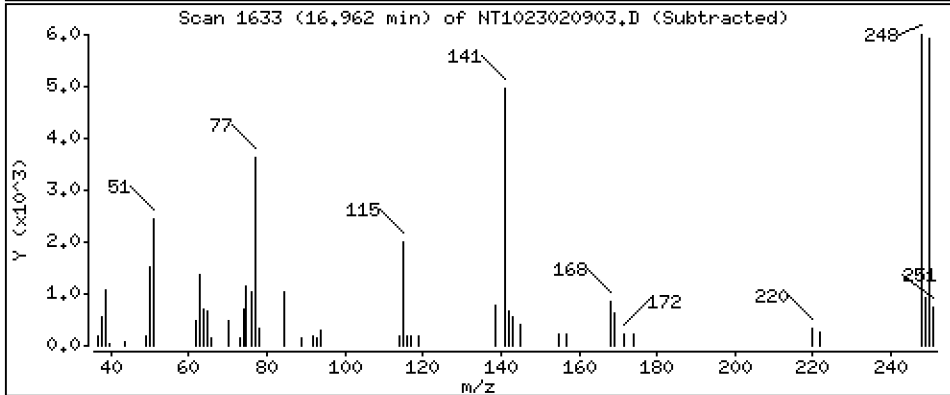
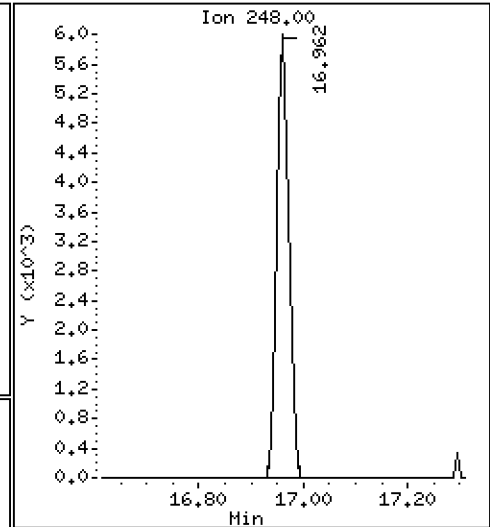
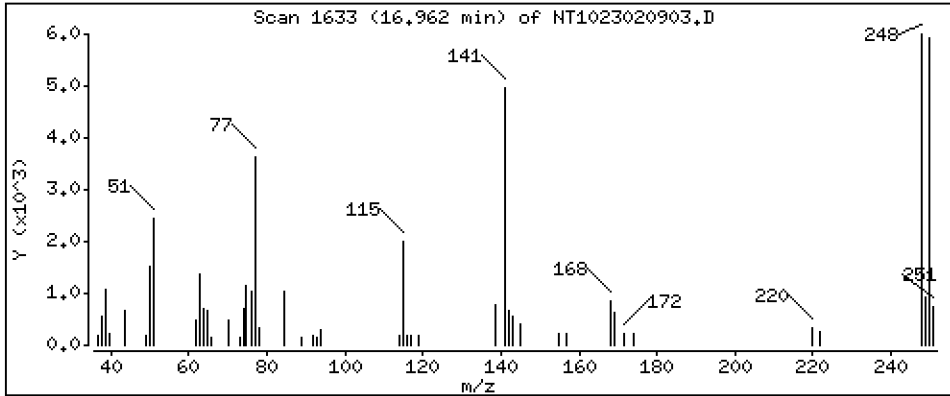
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 0,5294 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

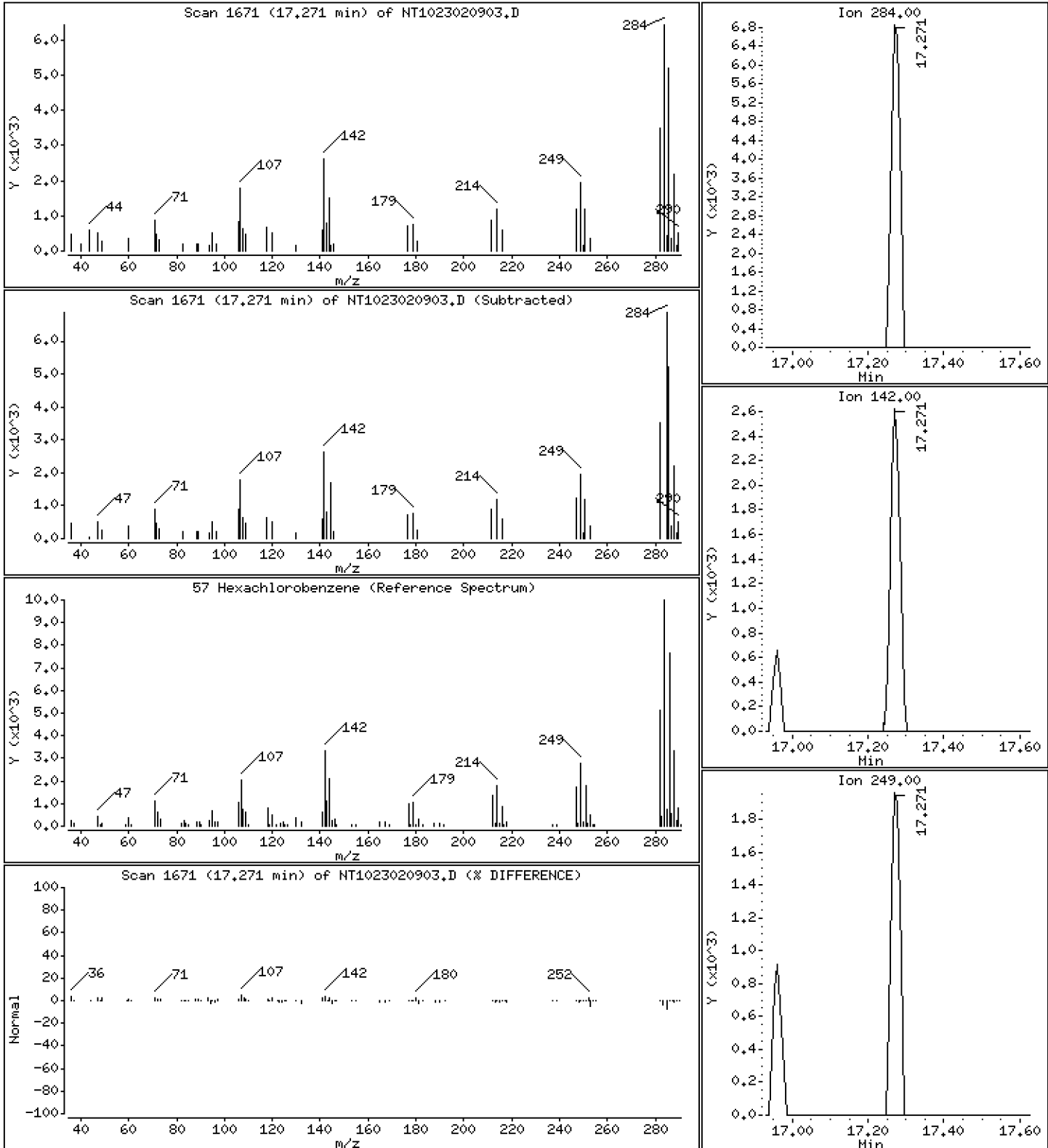
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,5528 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

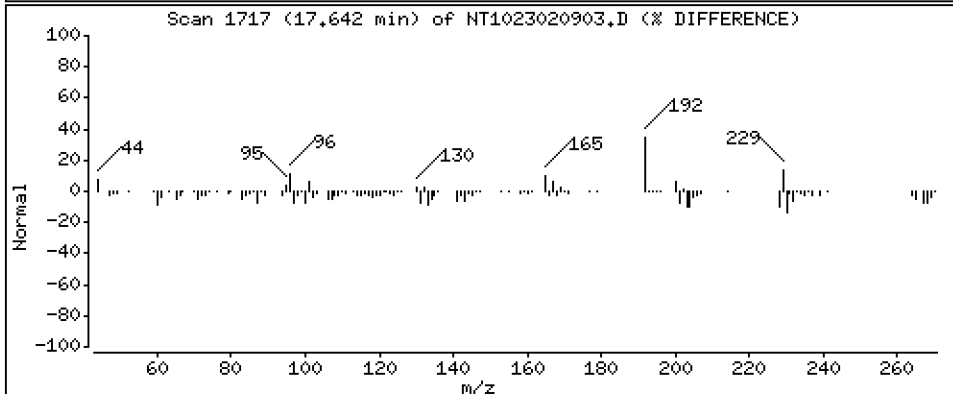
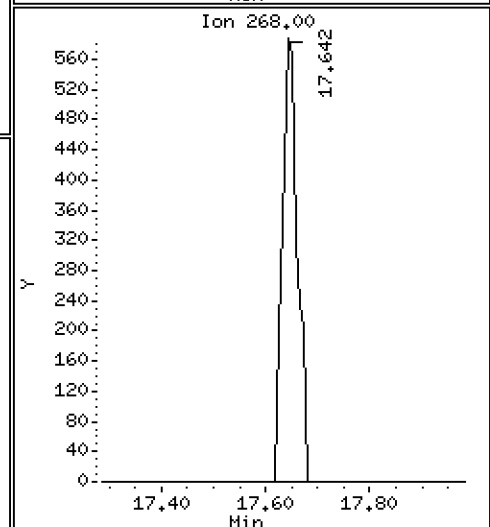
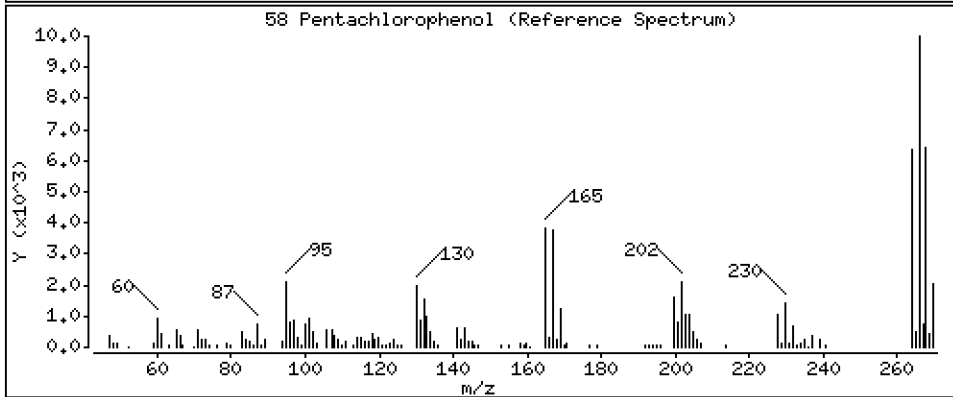
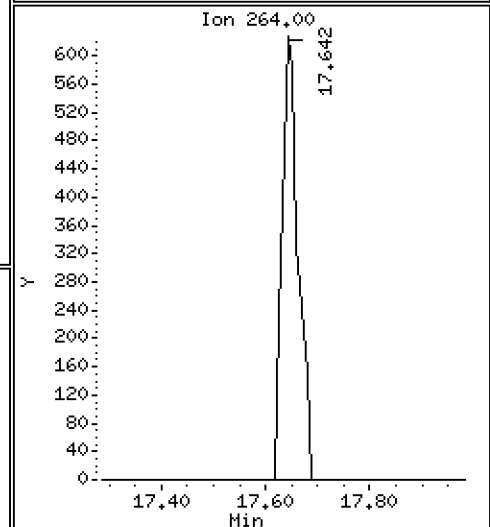
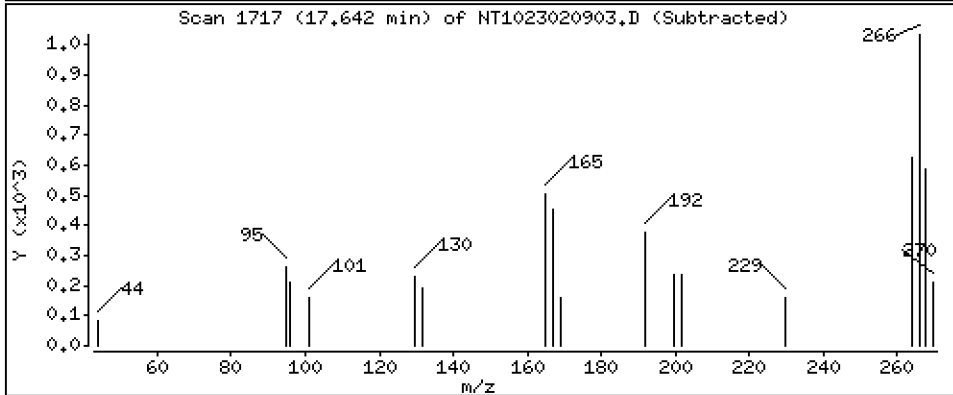
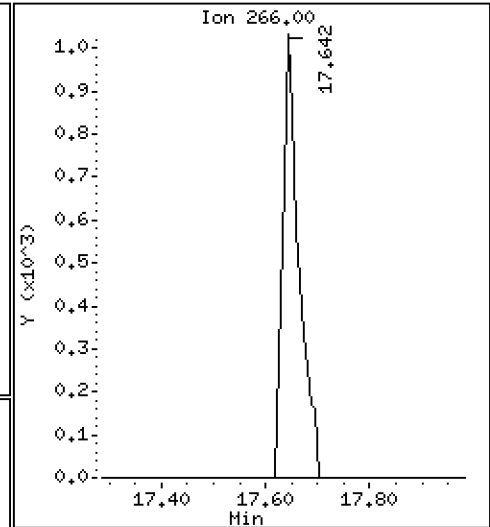
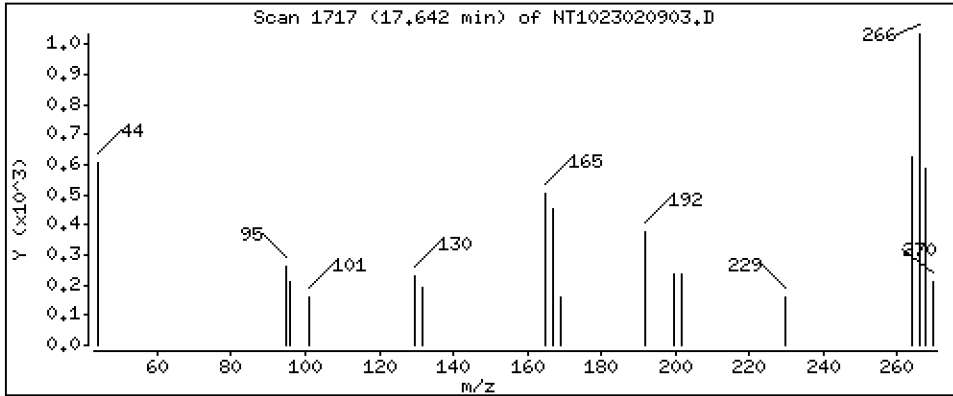
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,3088 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

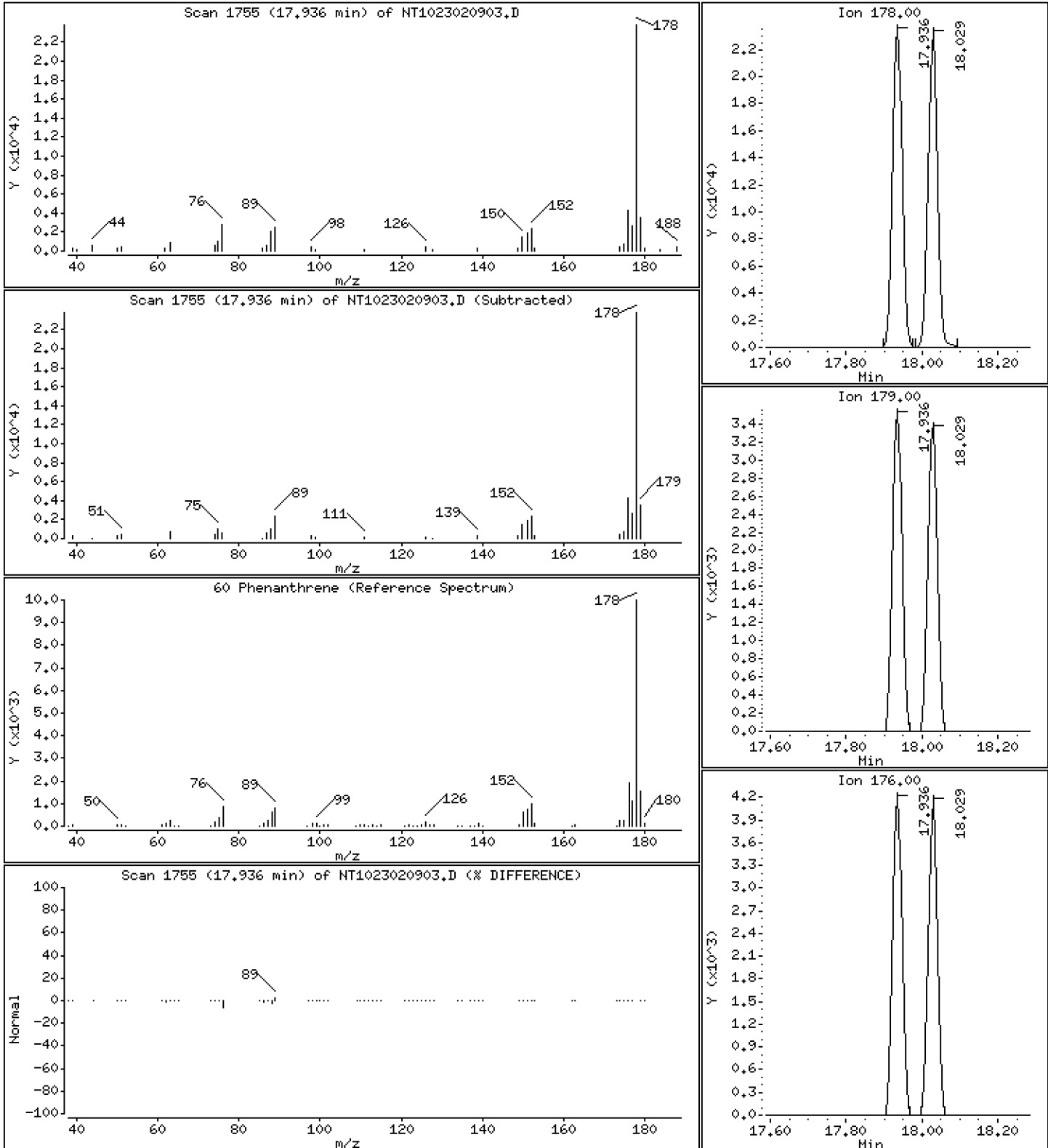
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,5171 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

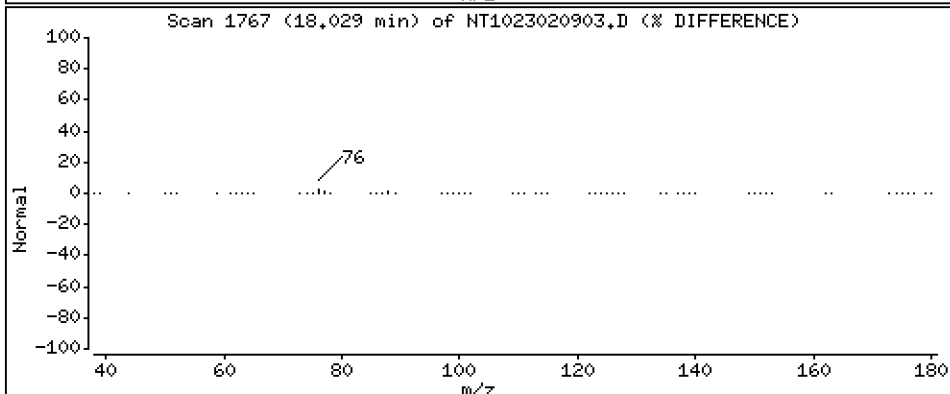
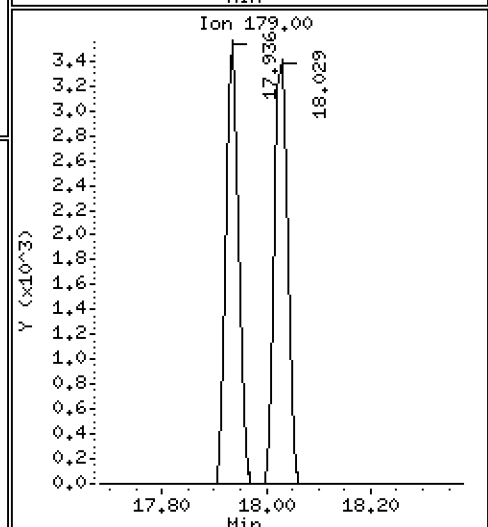
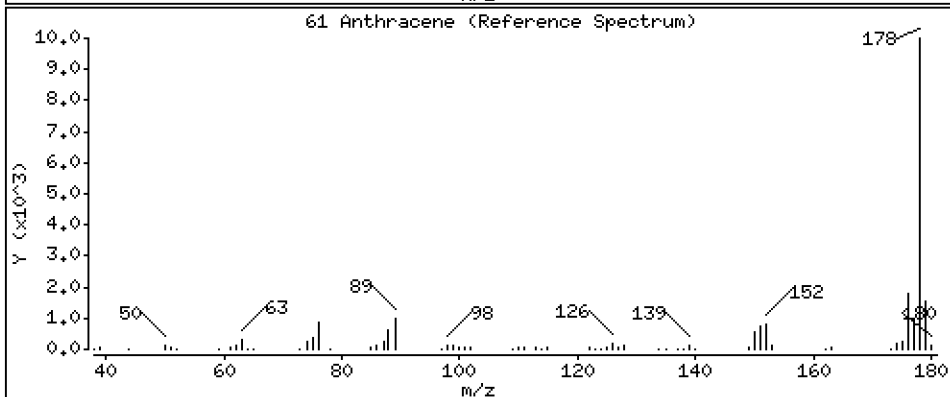
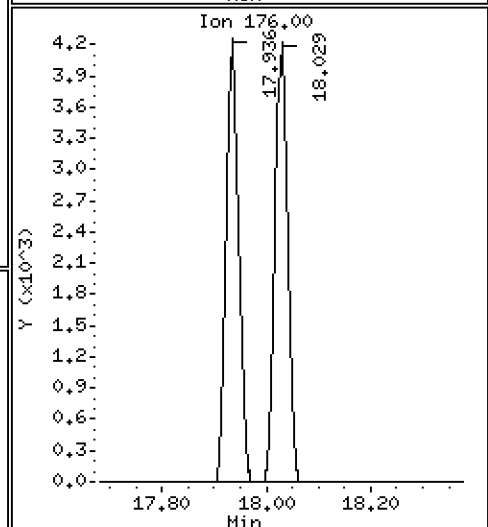
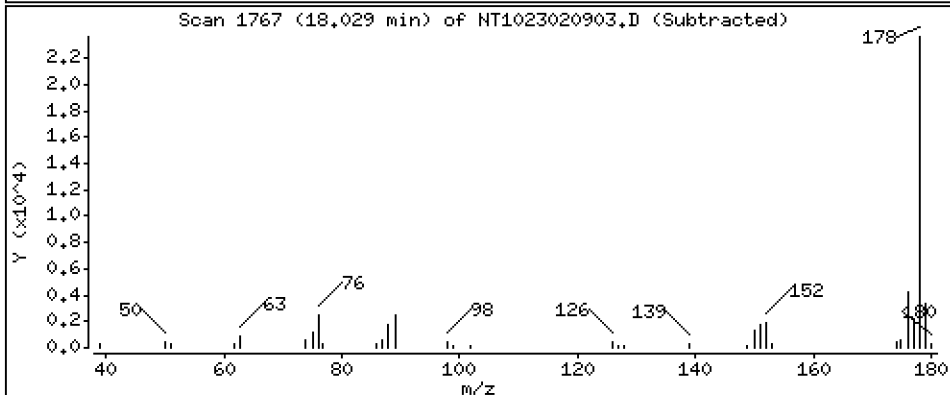
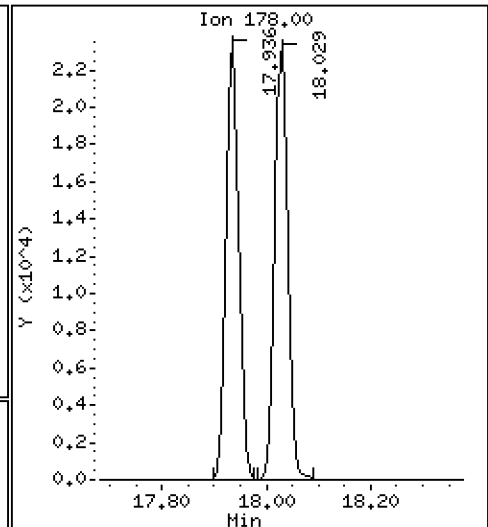
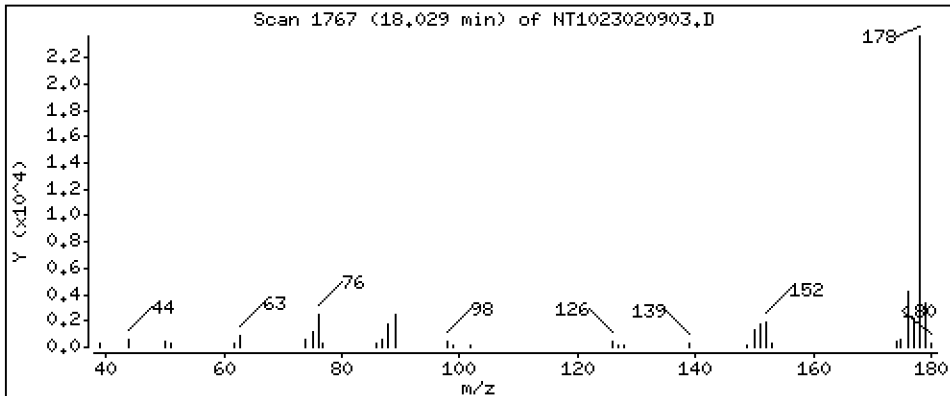
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,5139 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

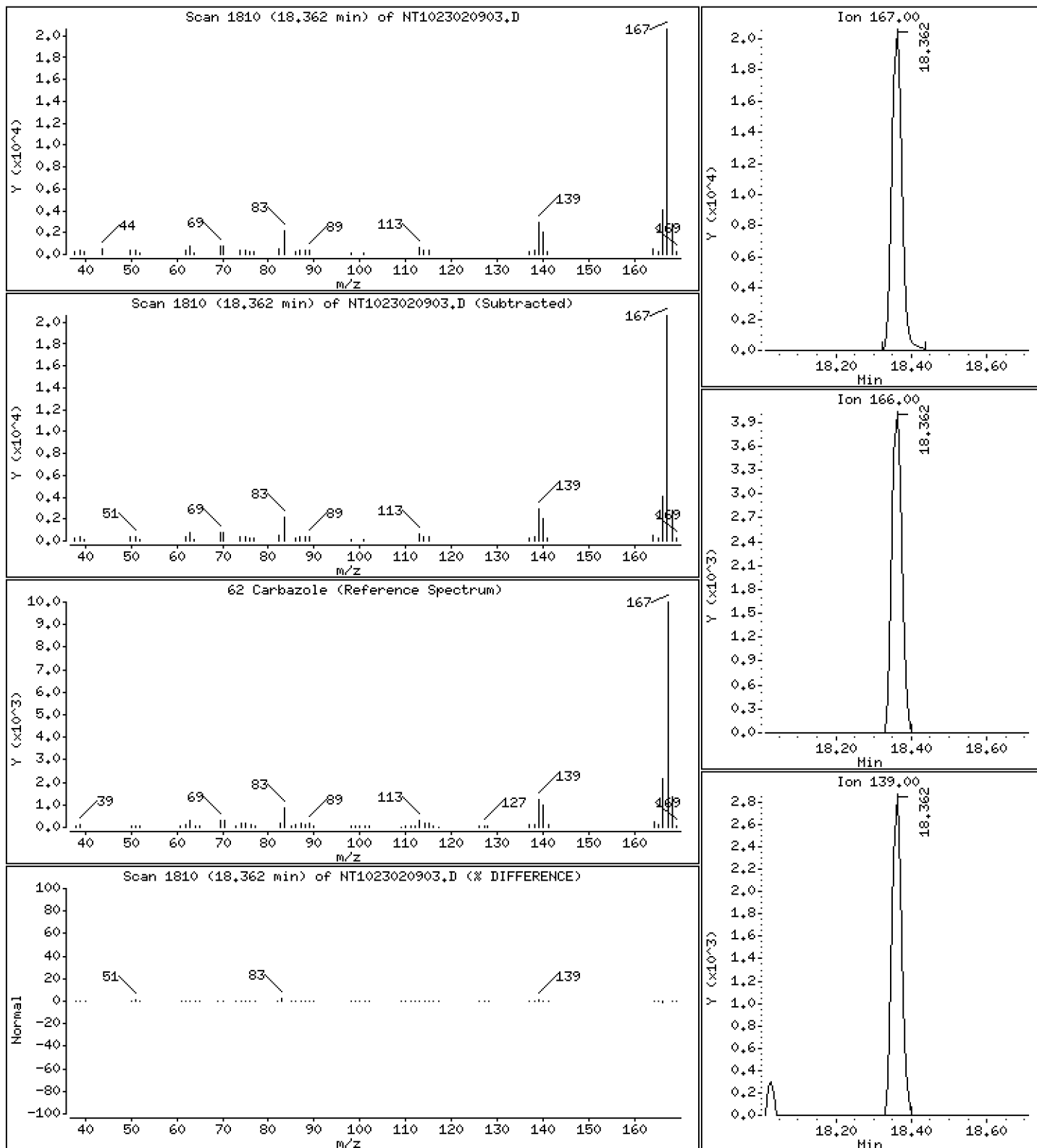
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,4961 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

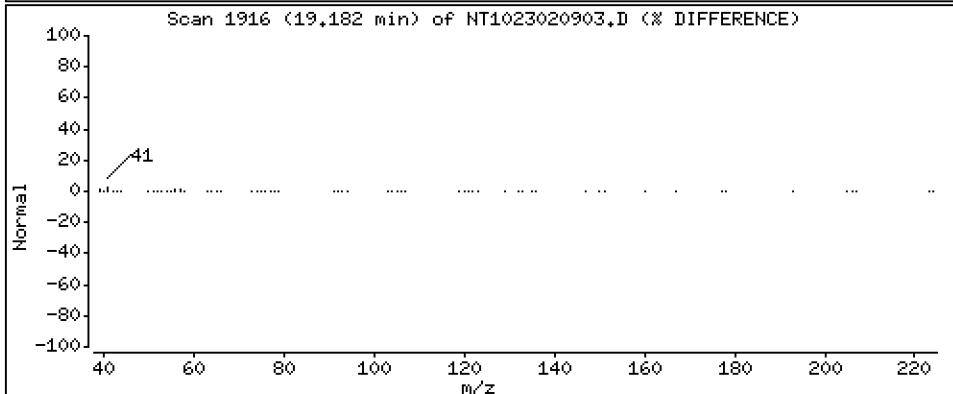
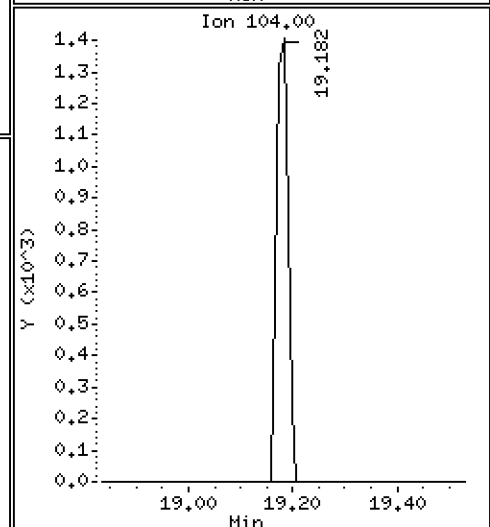
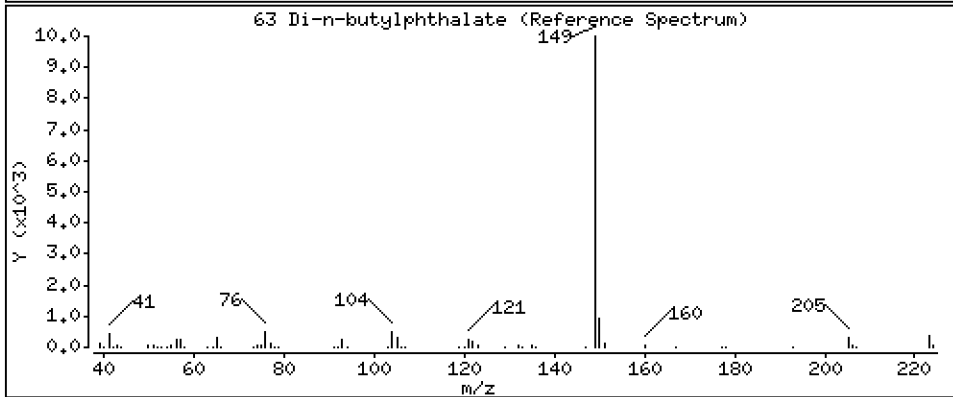
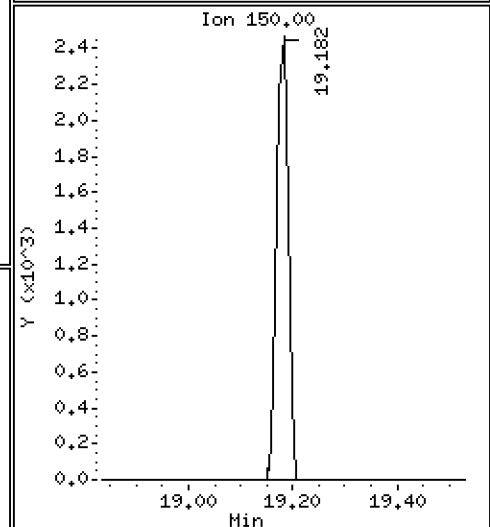
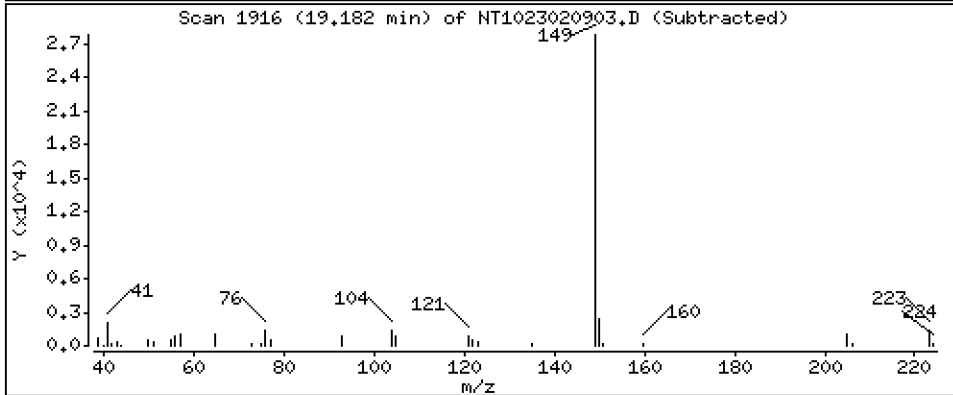
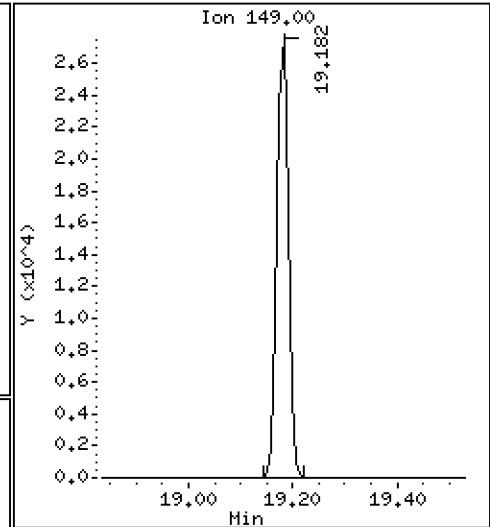
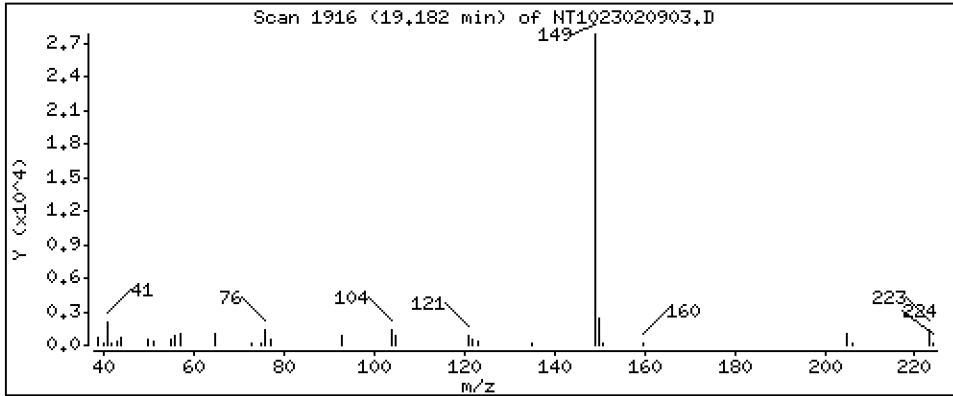
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 0,4607 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

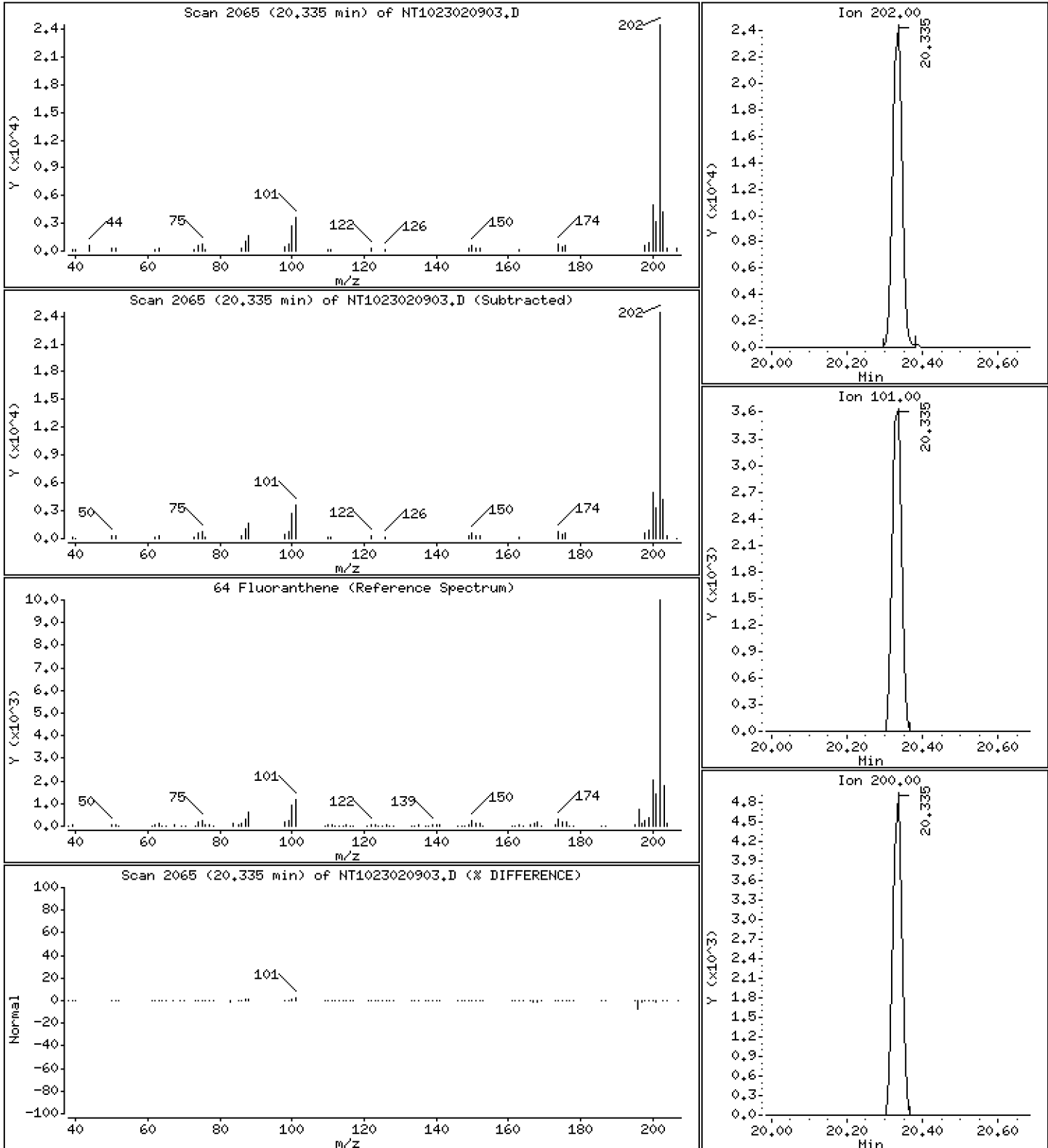
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,5181 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

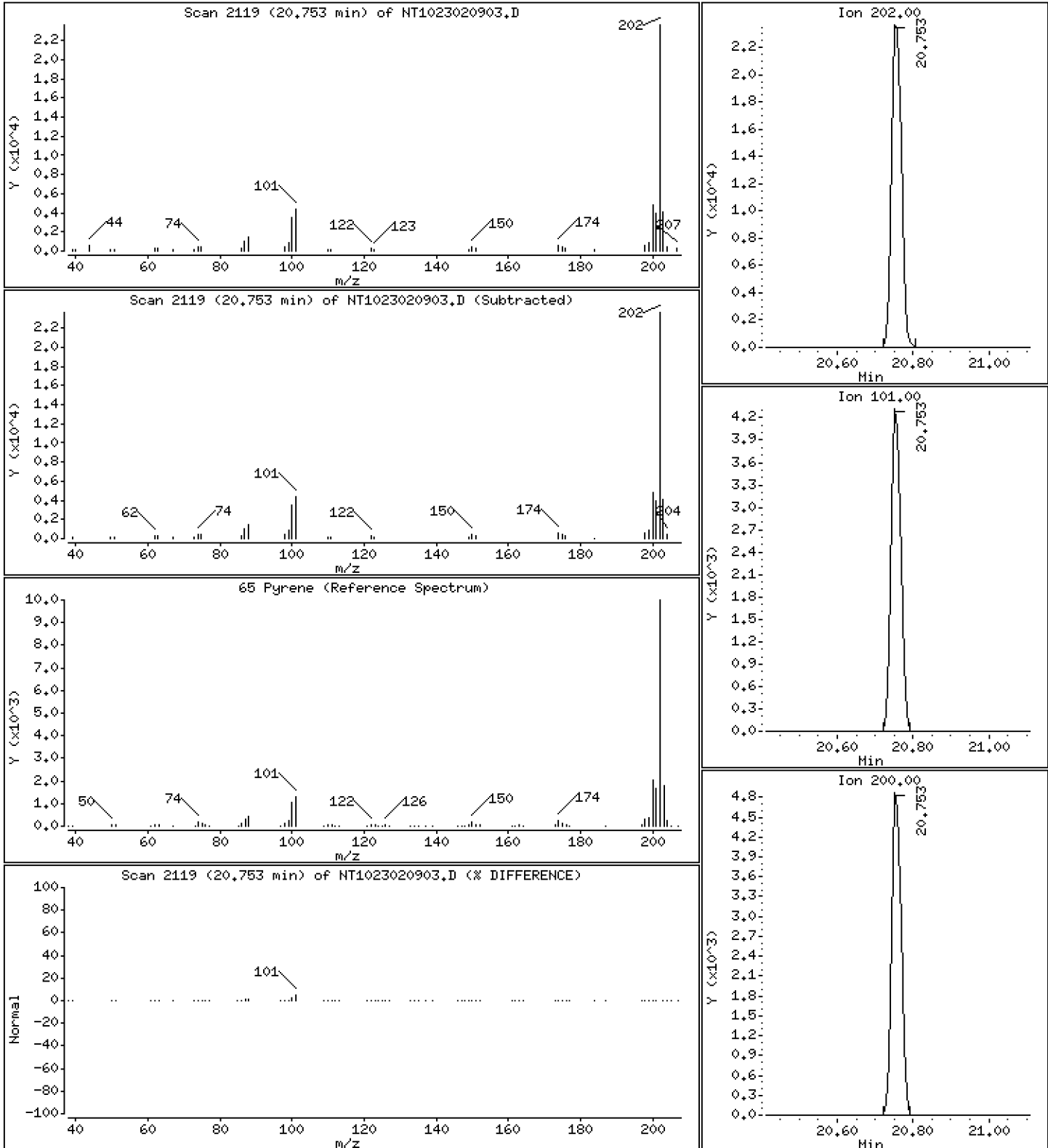
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

65 Pyrene

Concentration: 0.5274 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

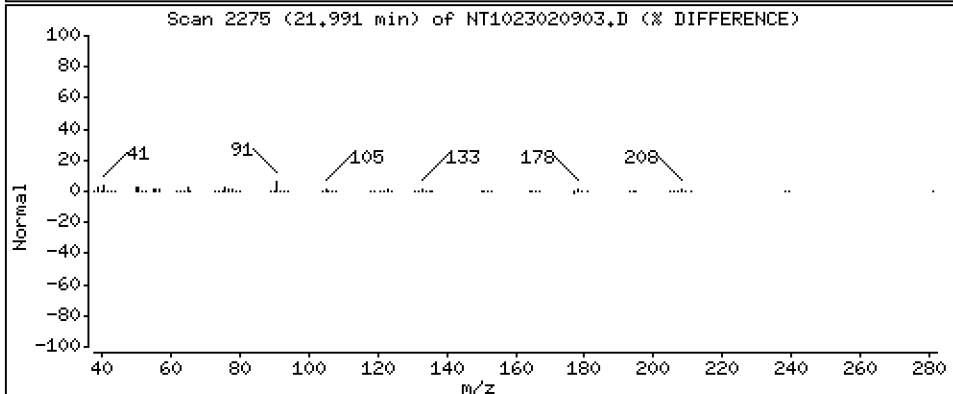
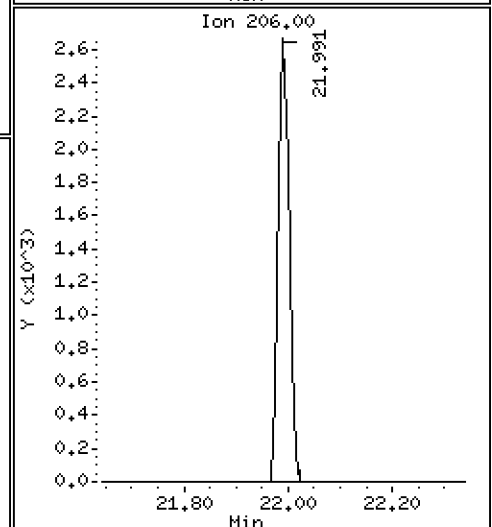
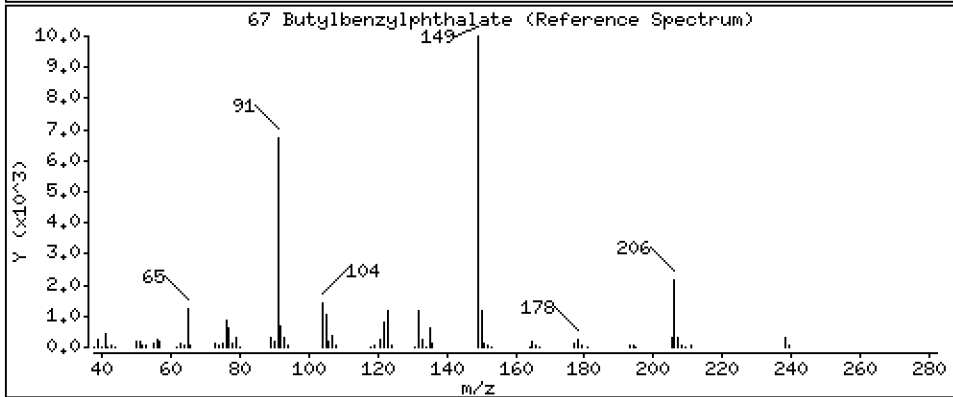
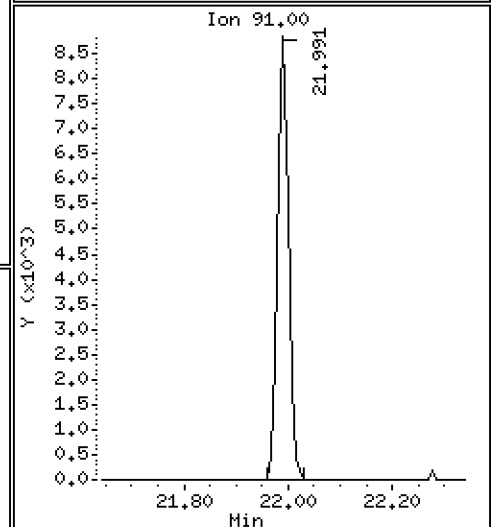
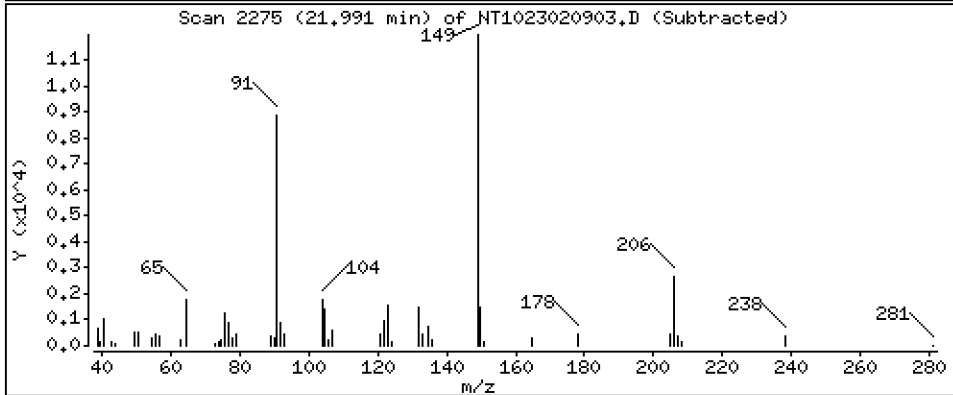
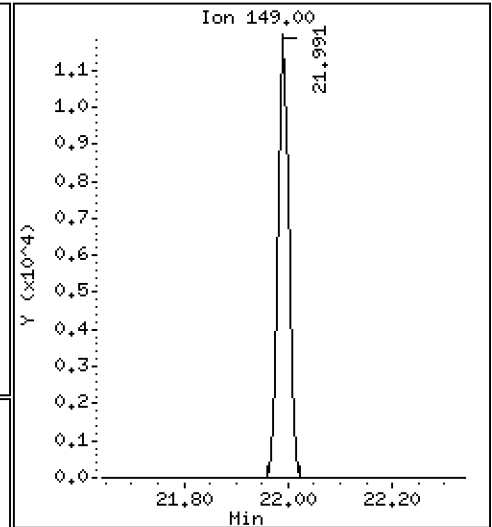
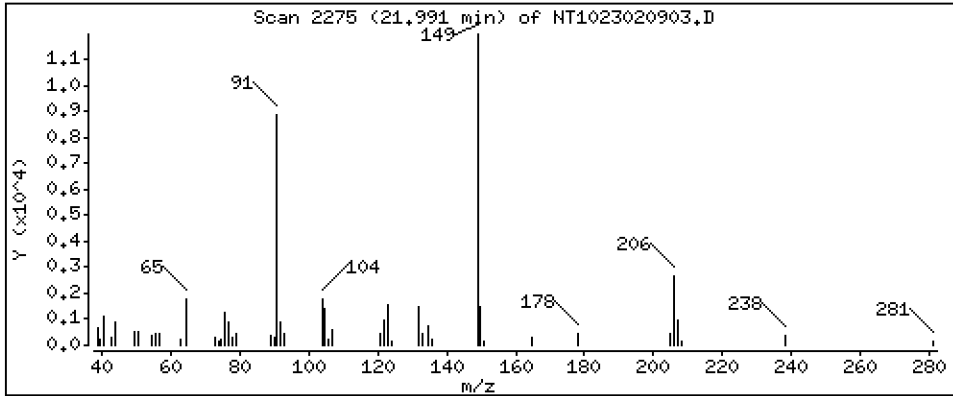
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 0,4701 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

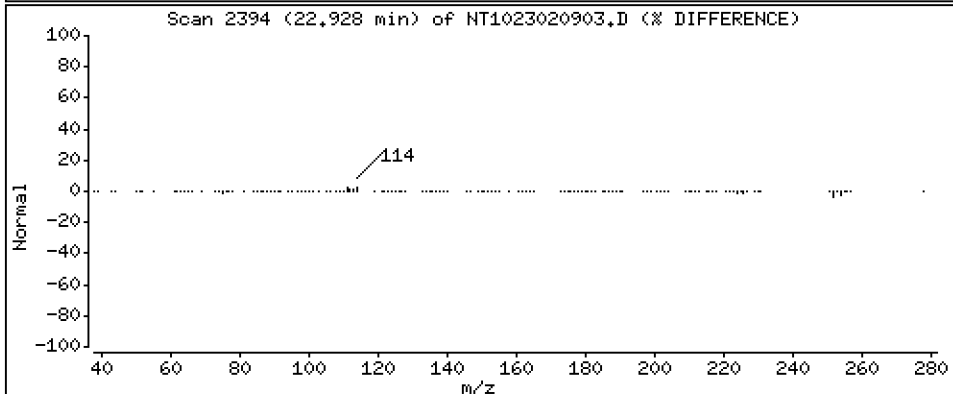
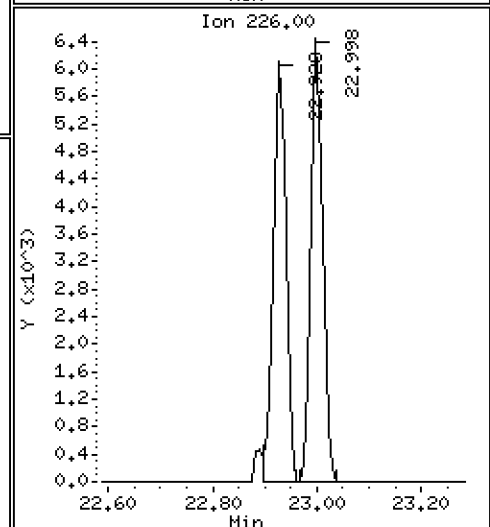
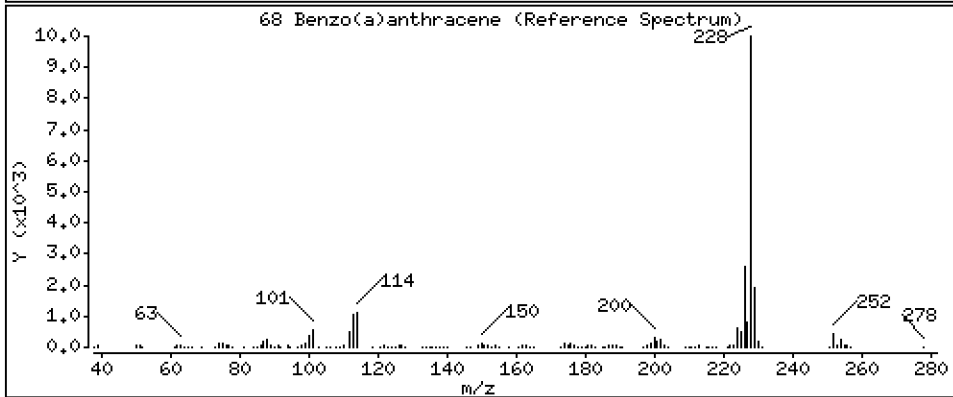
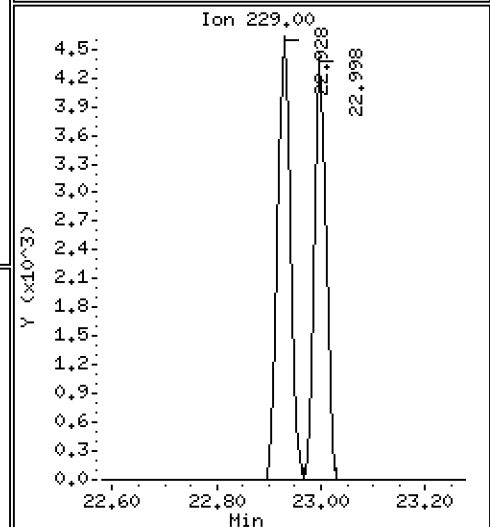
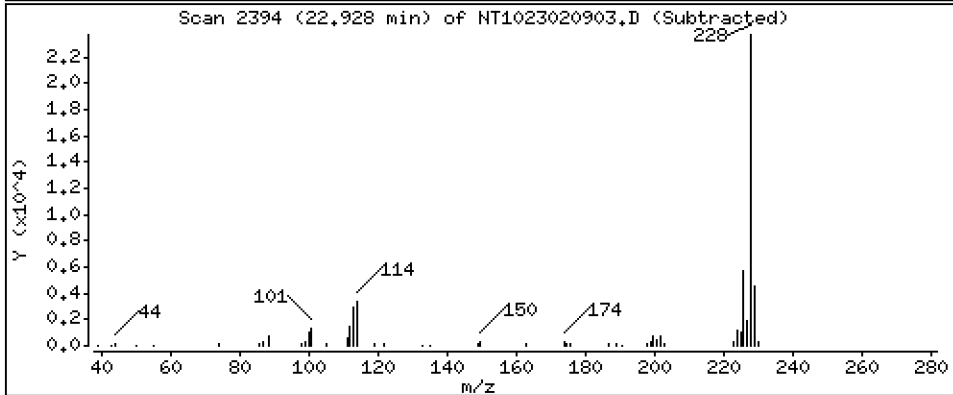
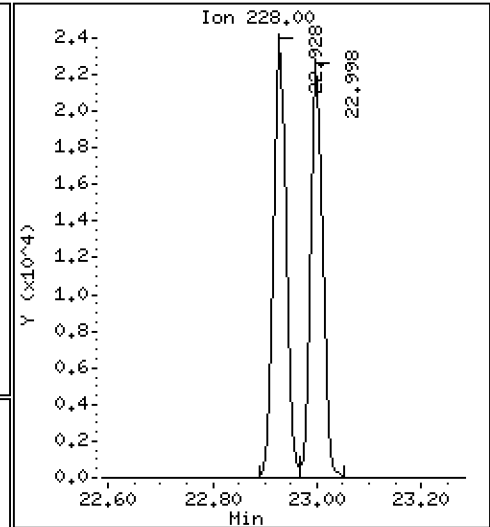
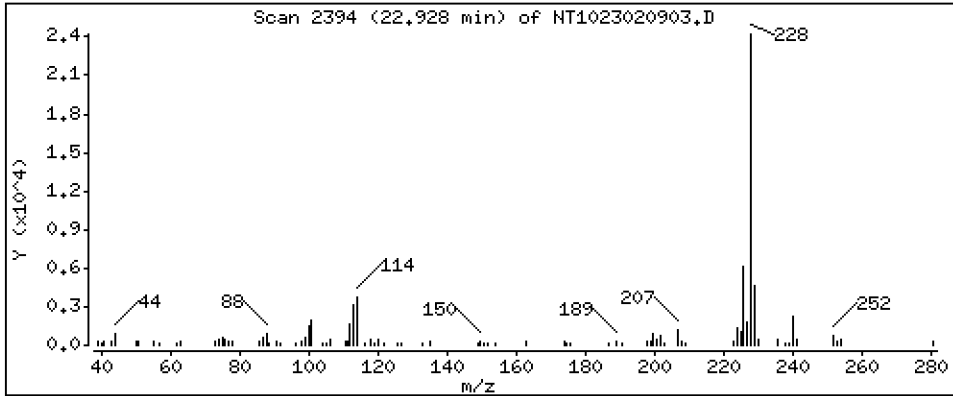
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,5501 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

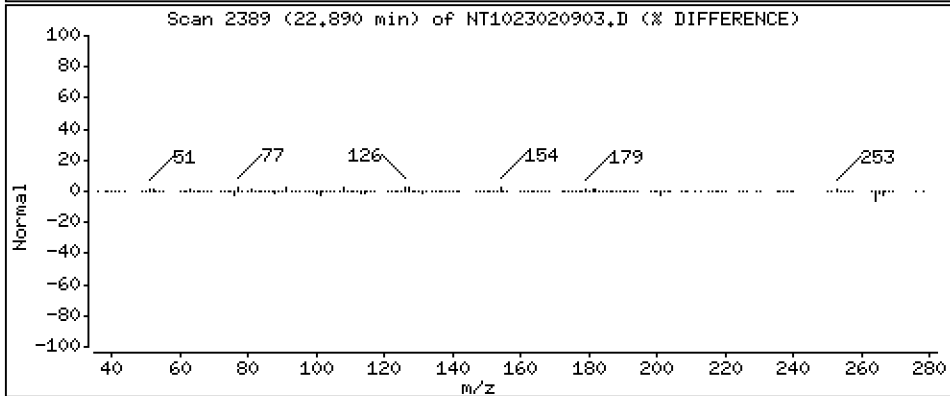
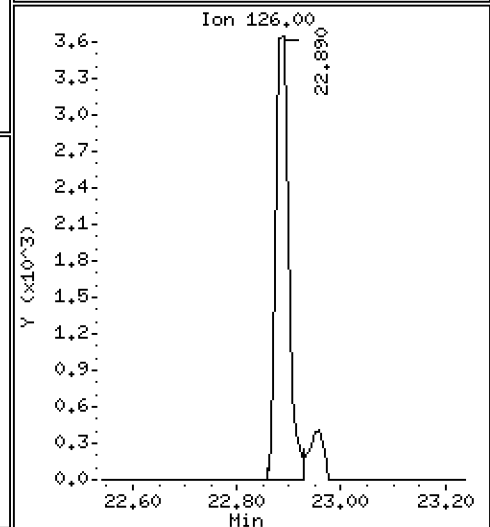
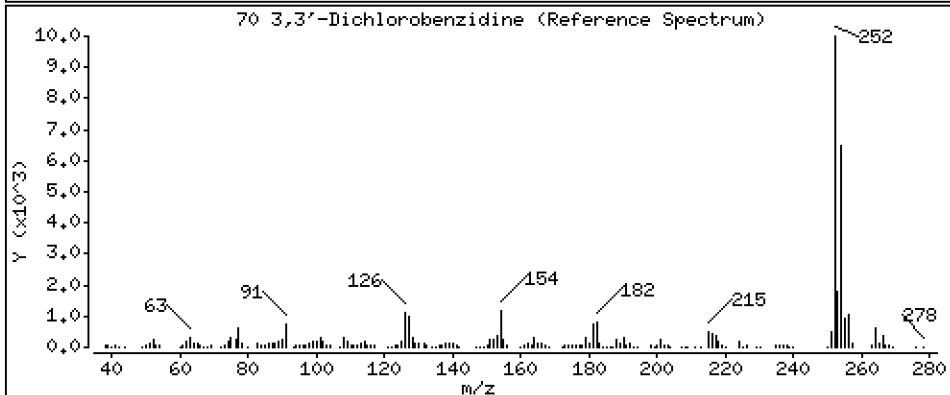
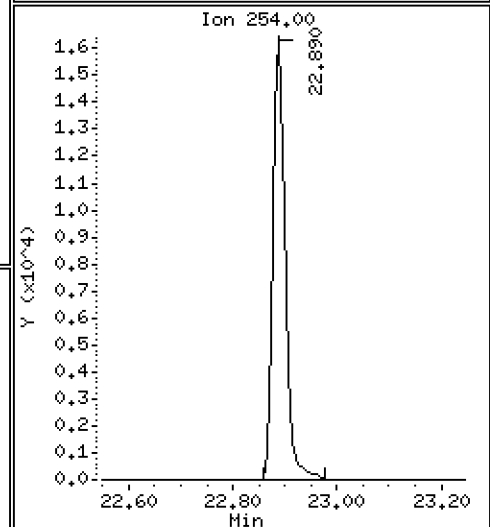
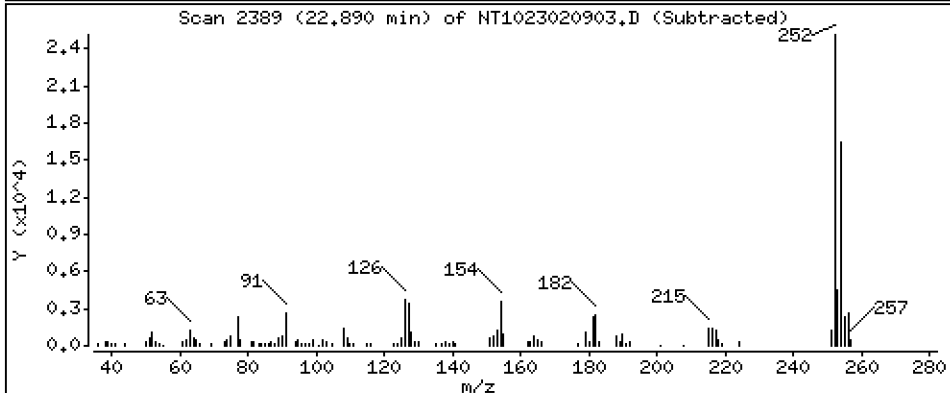
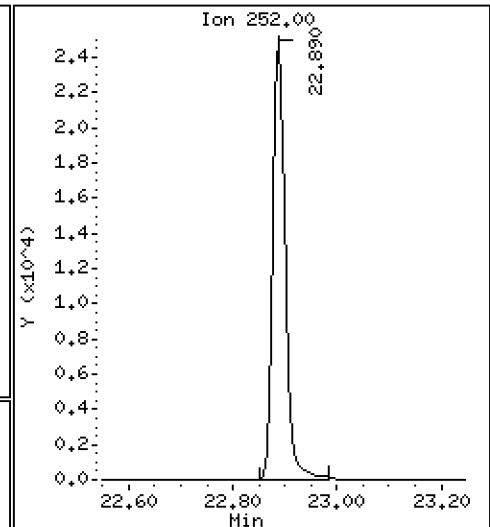
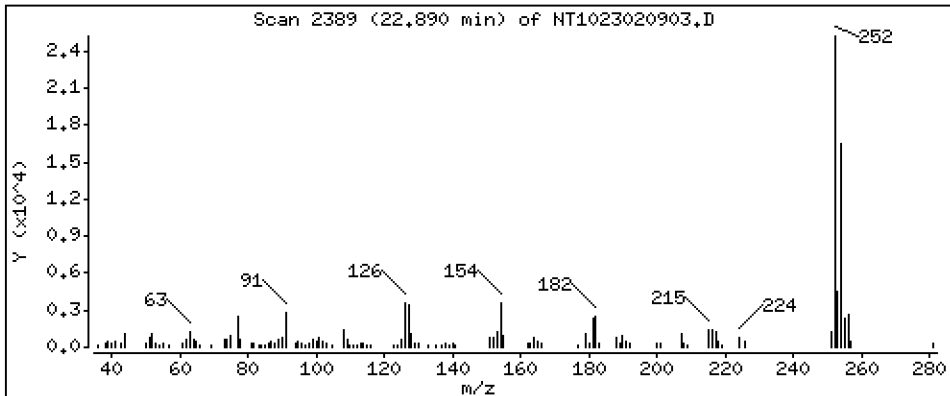
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 1,682 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

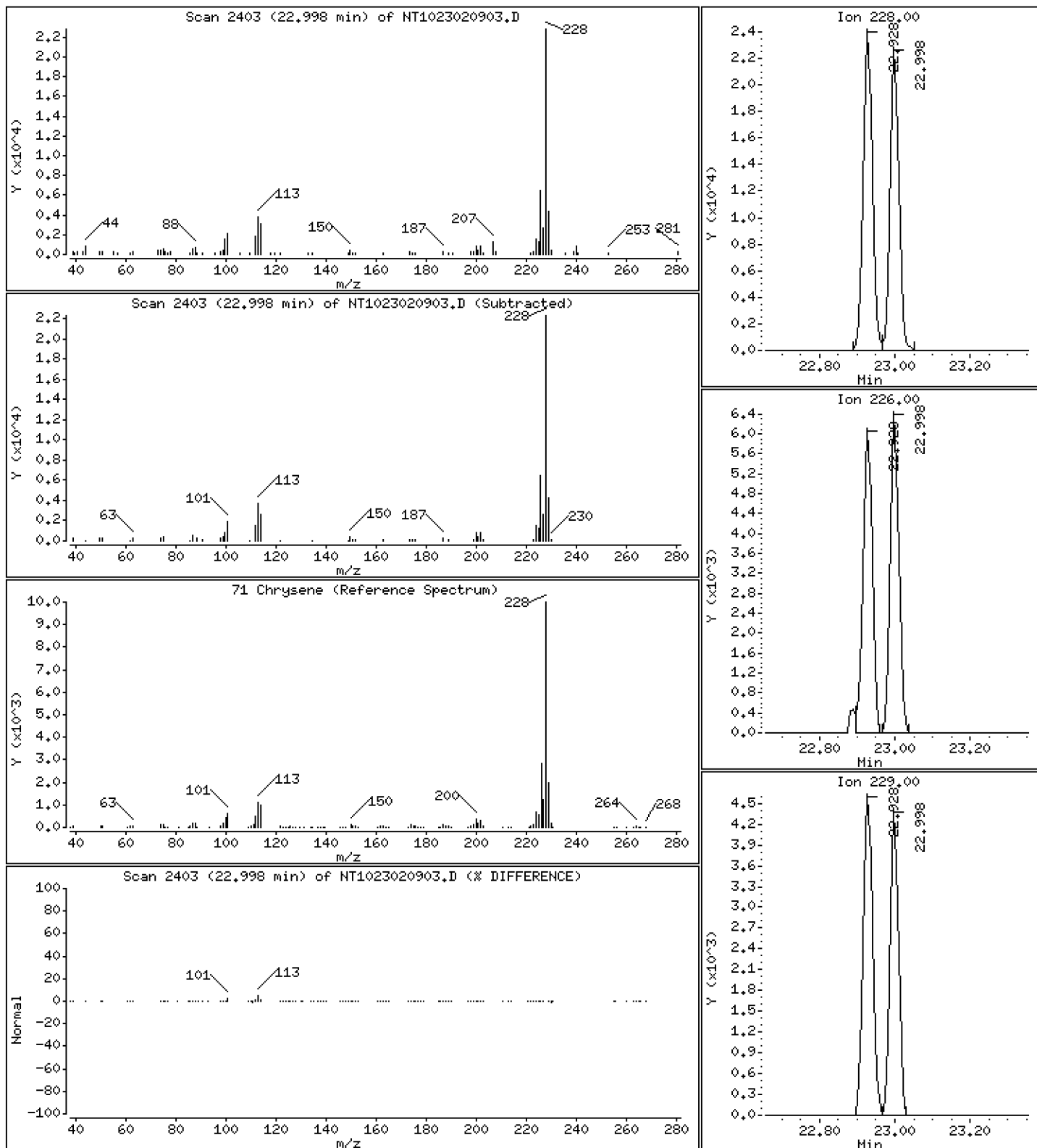
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,5328 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

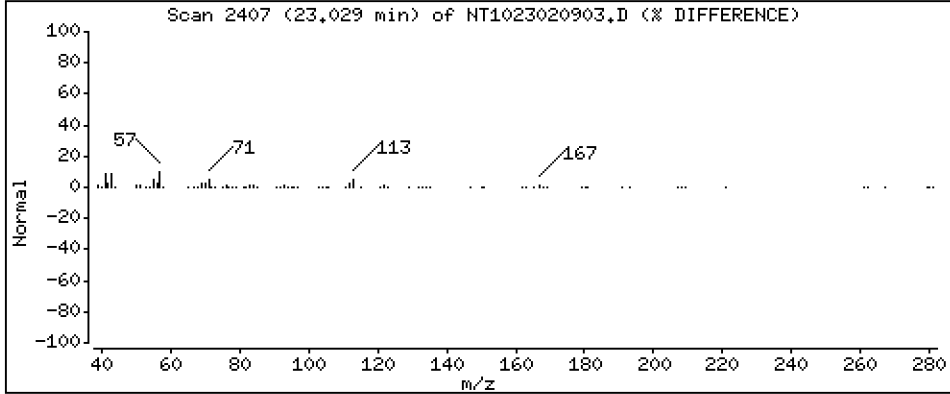
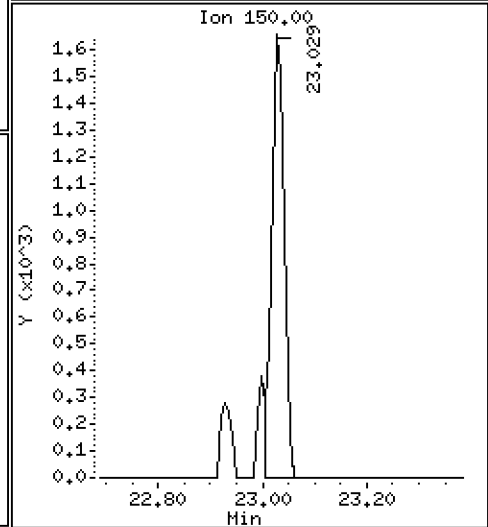
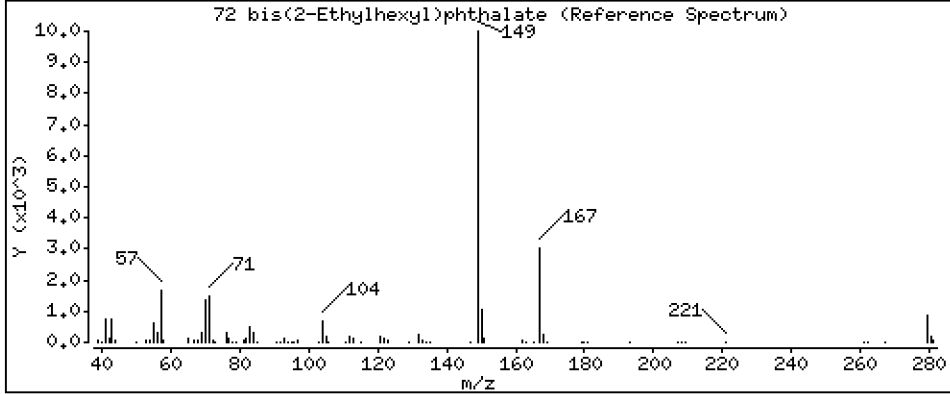
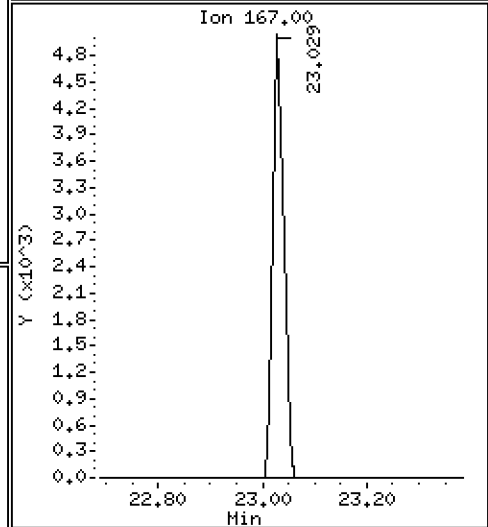
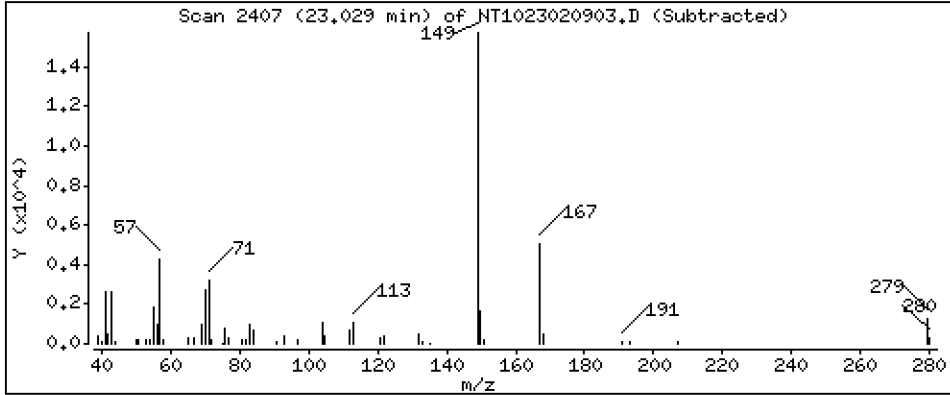
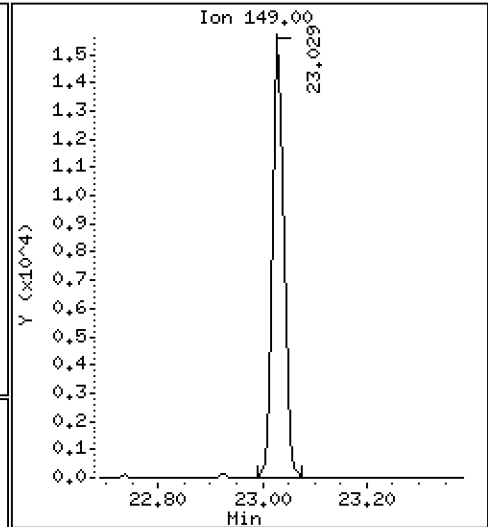
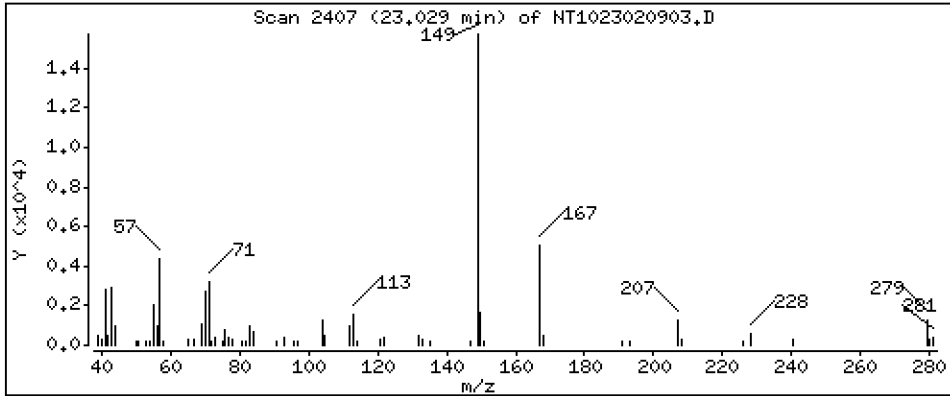
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,4983 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

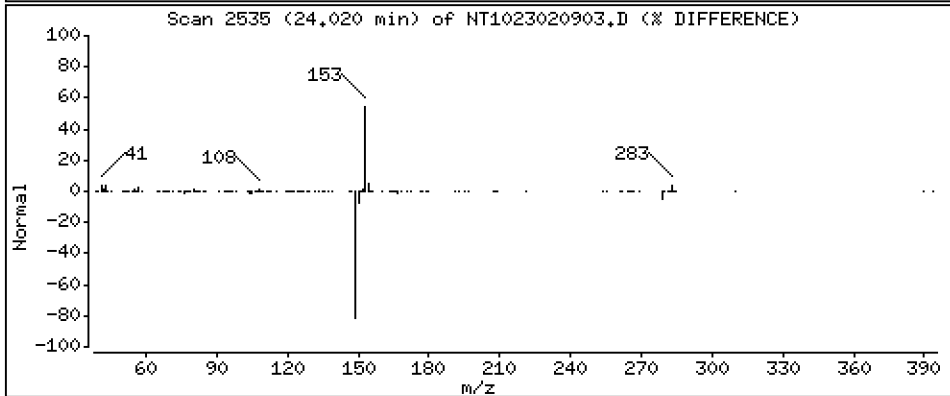
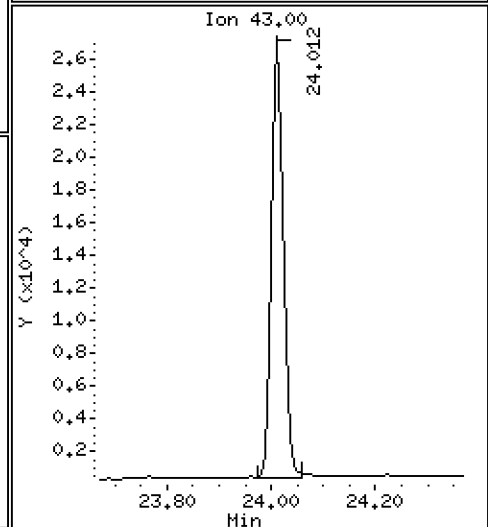
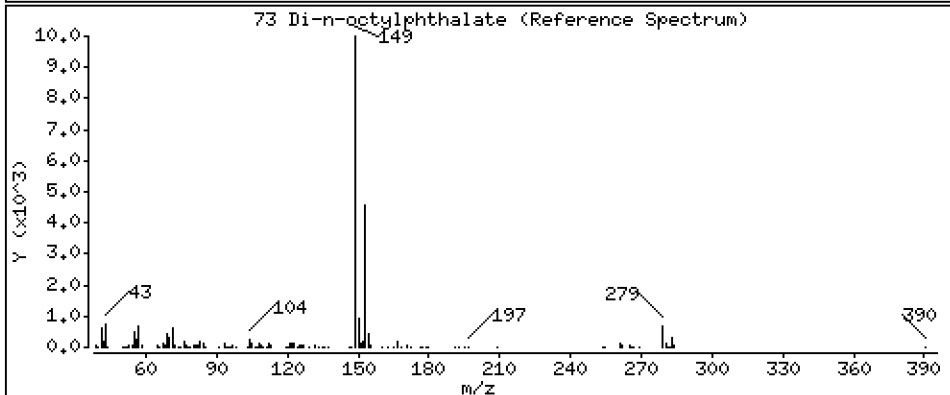
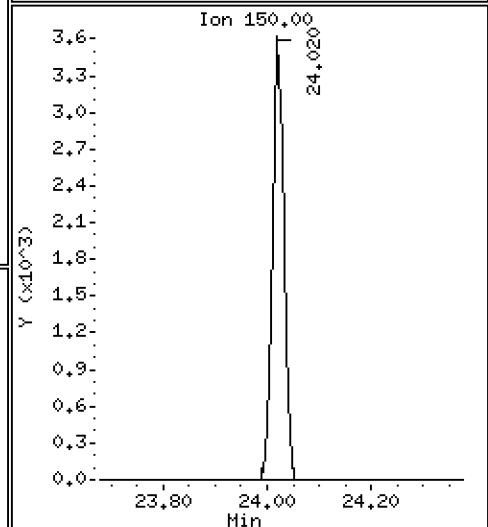
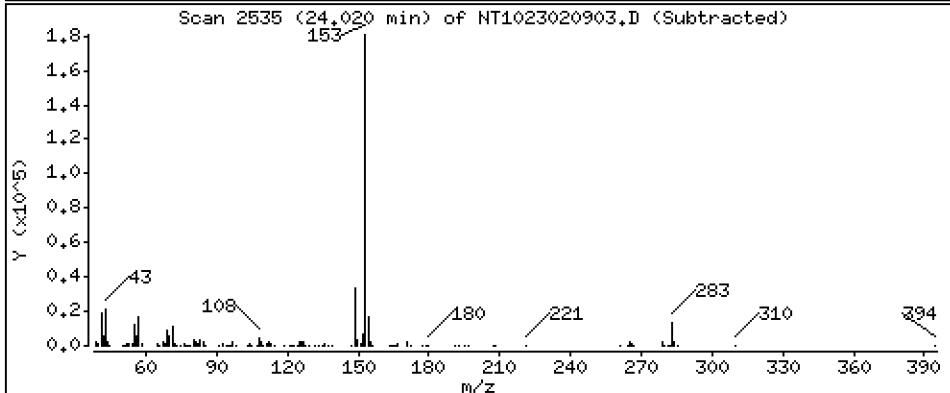
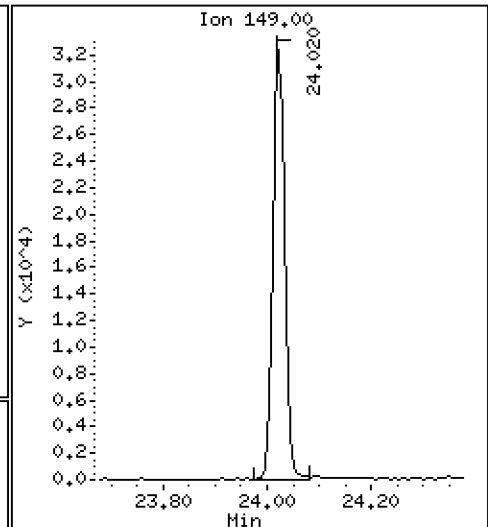
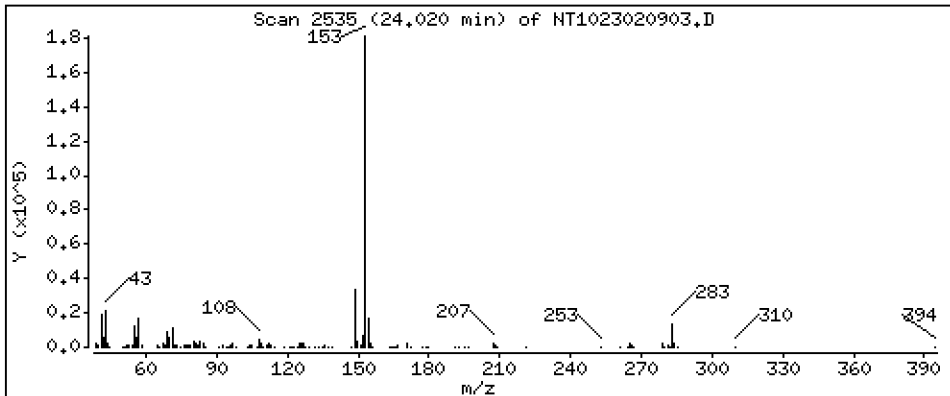
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,5612 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

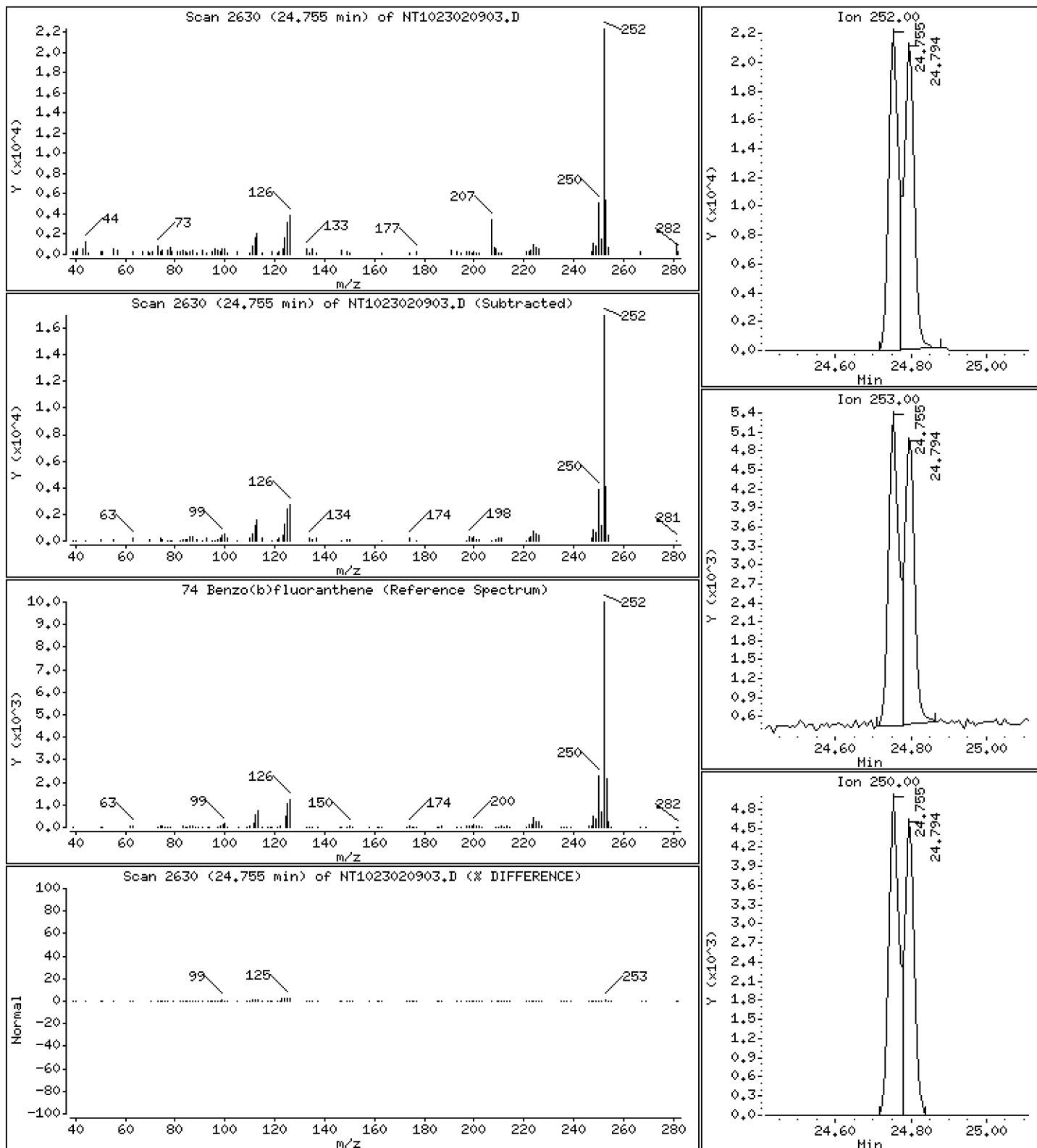
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,4936 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

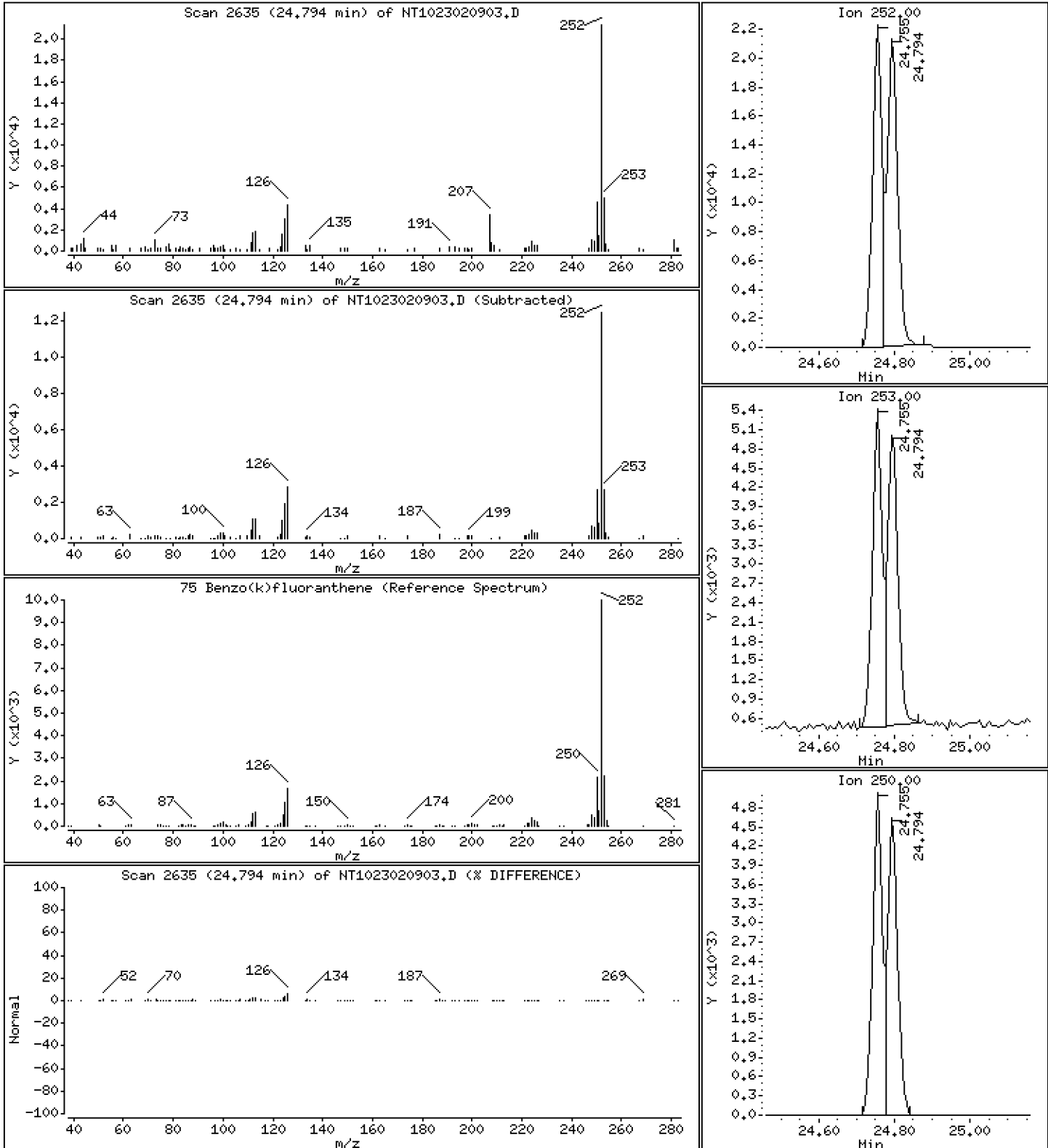
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,5498 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

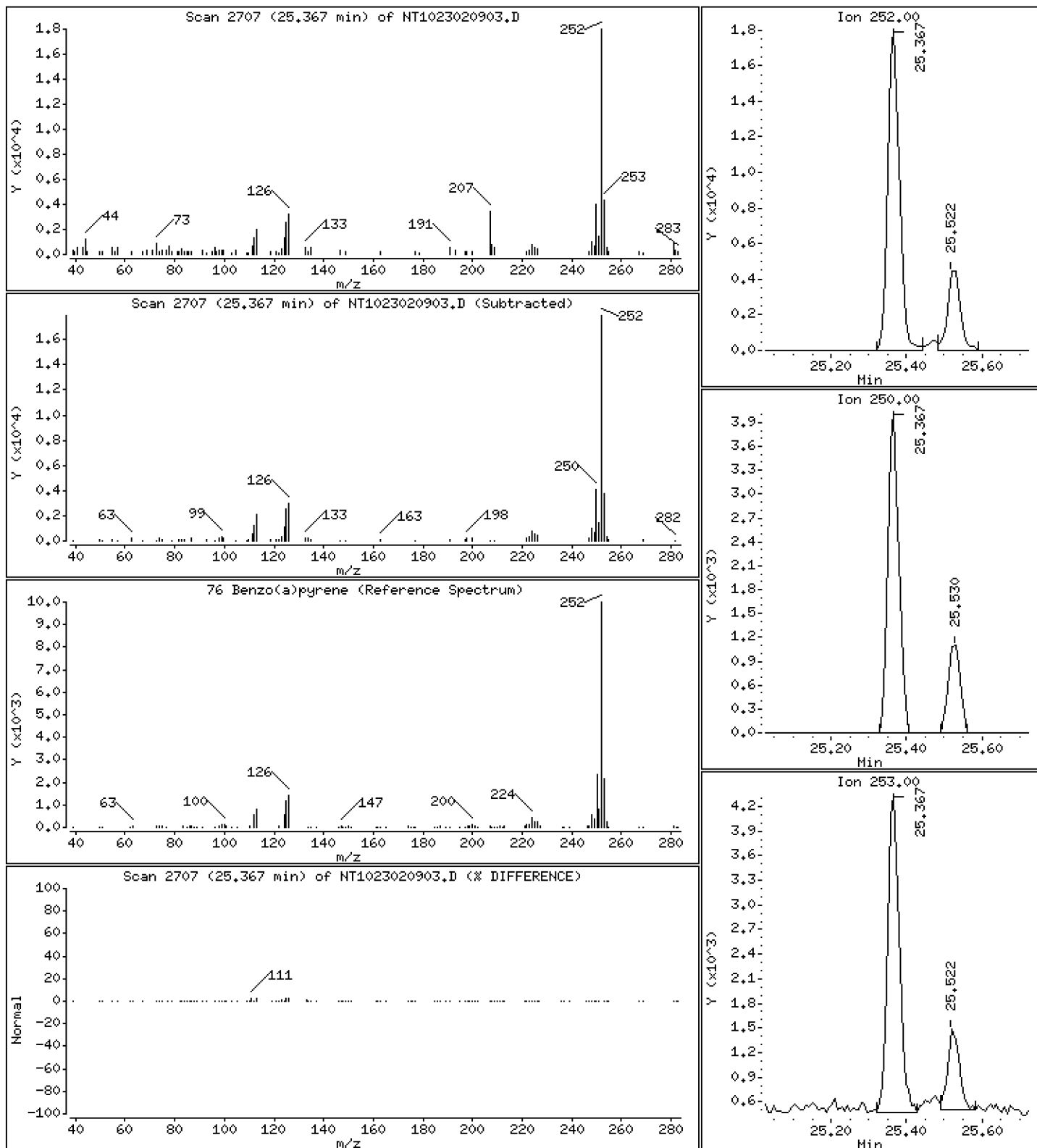
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,5390 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

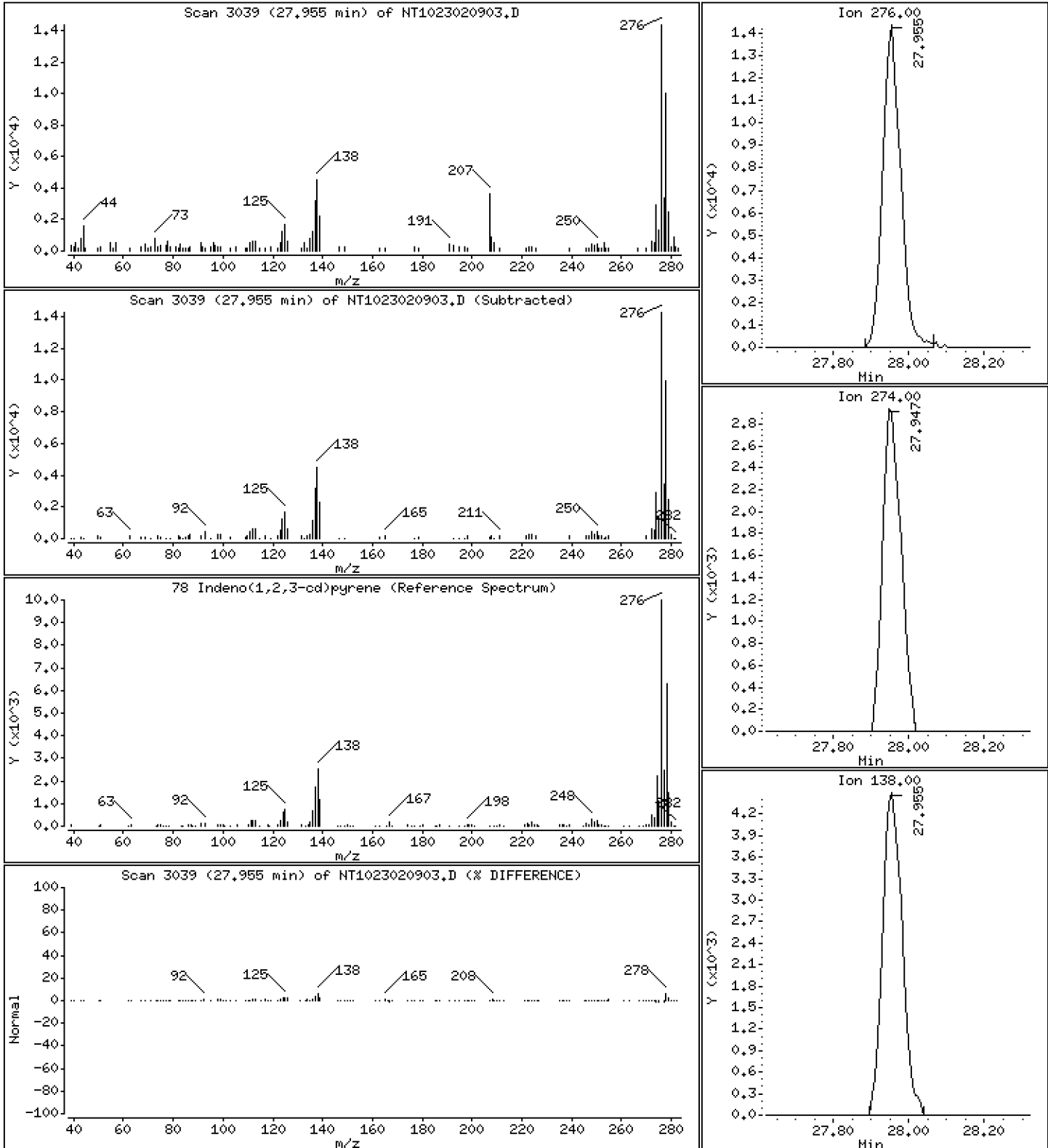
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 0,5734 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

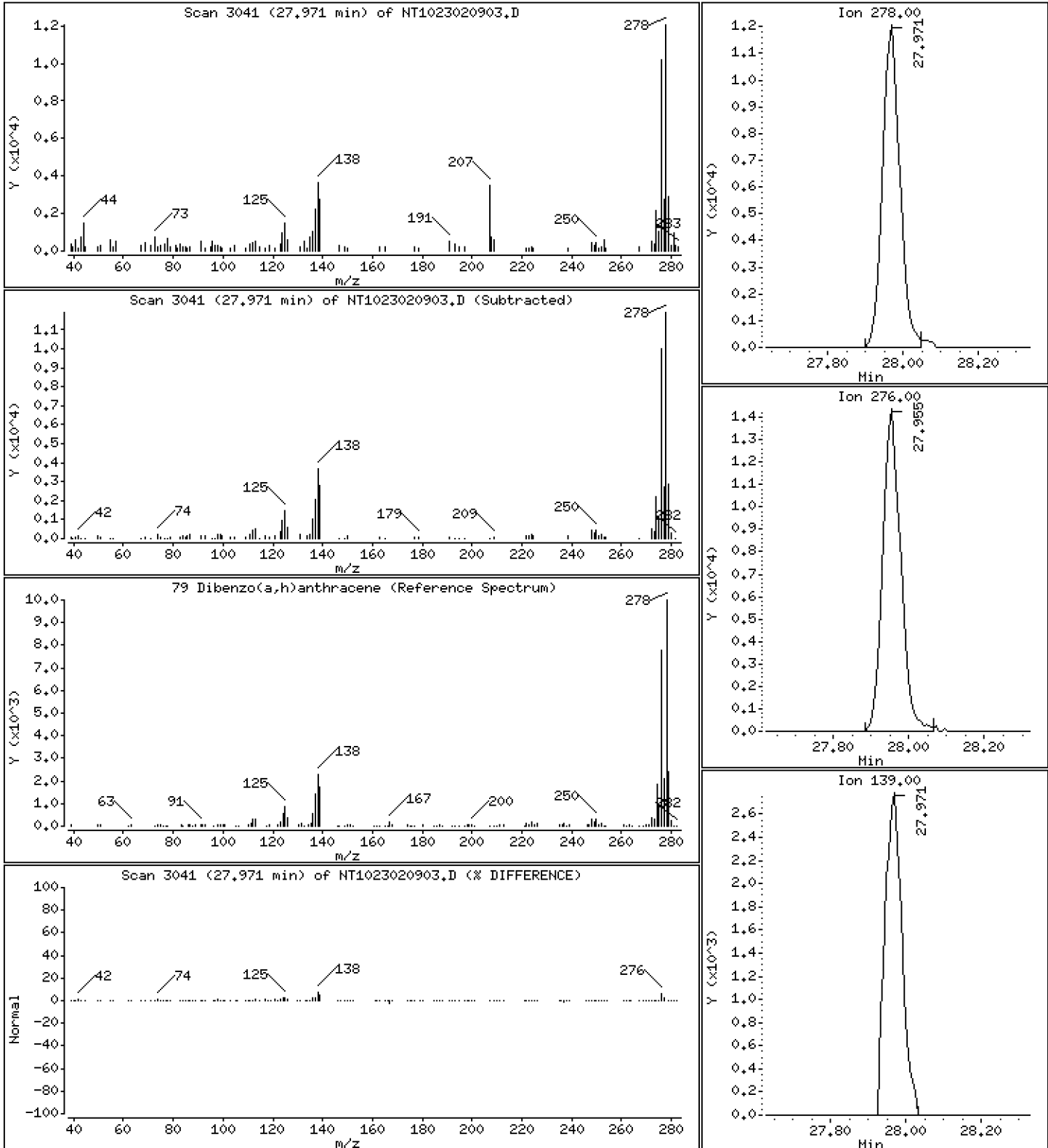
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,5602 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

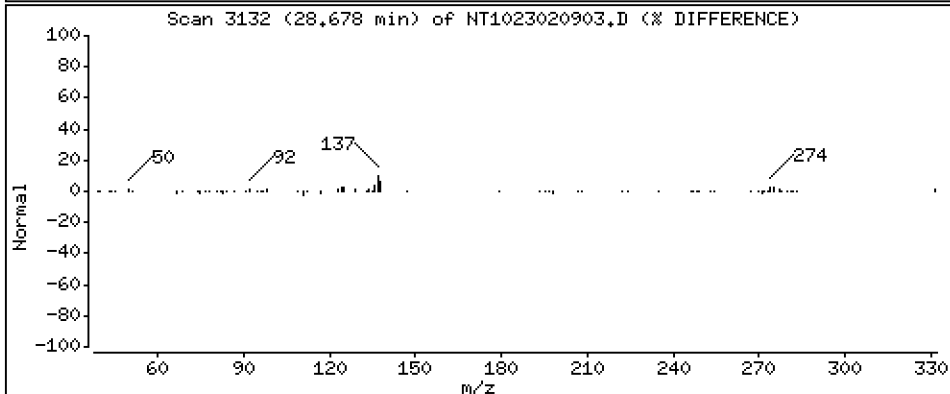
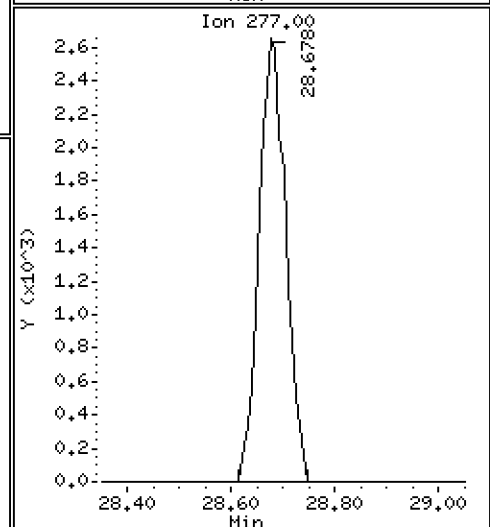
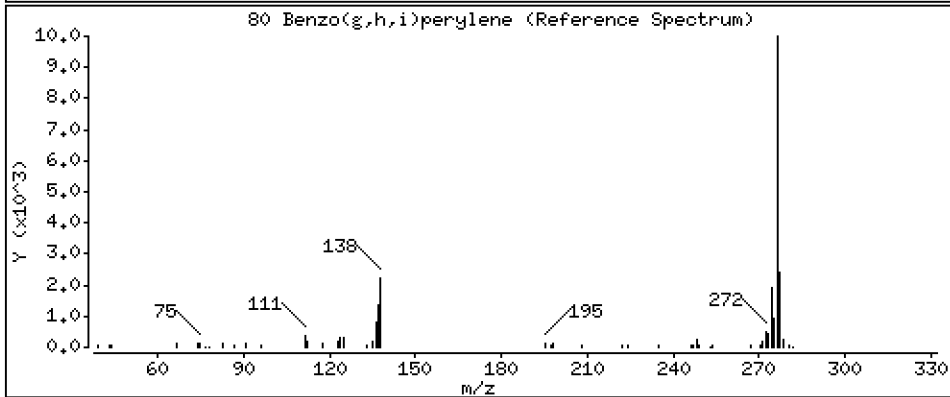
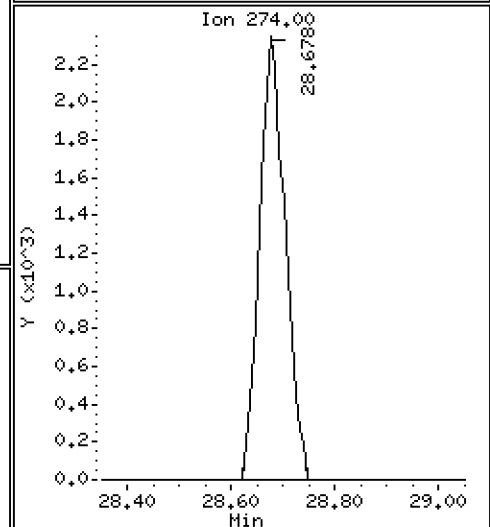
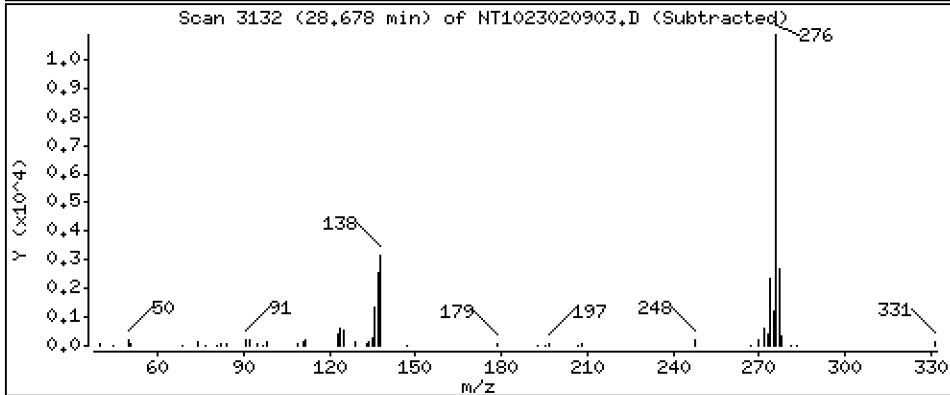
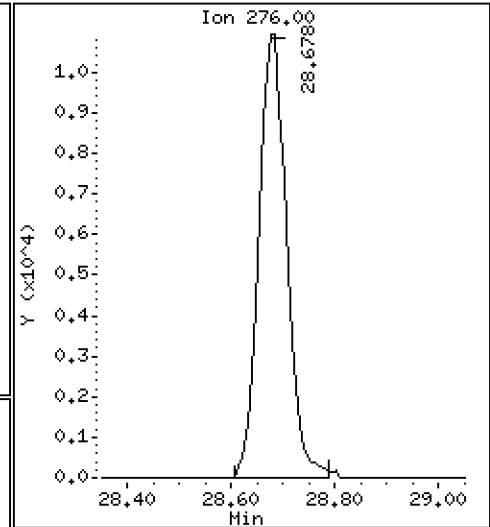
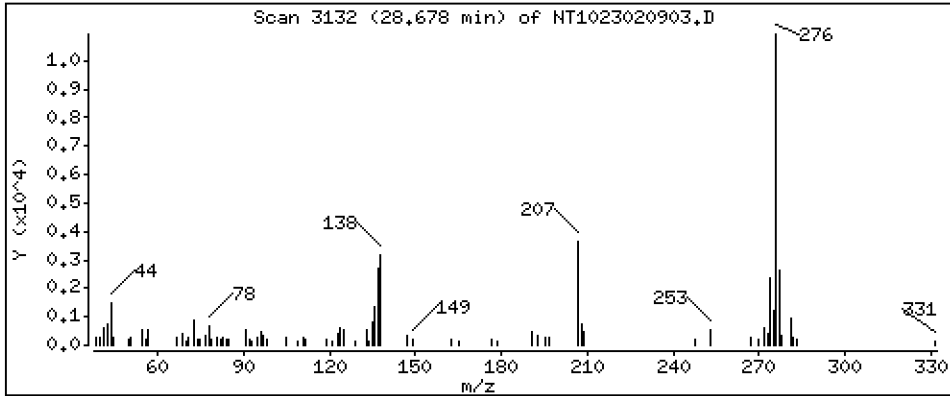
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,5681 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

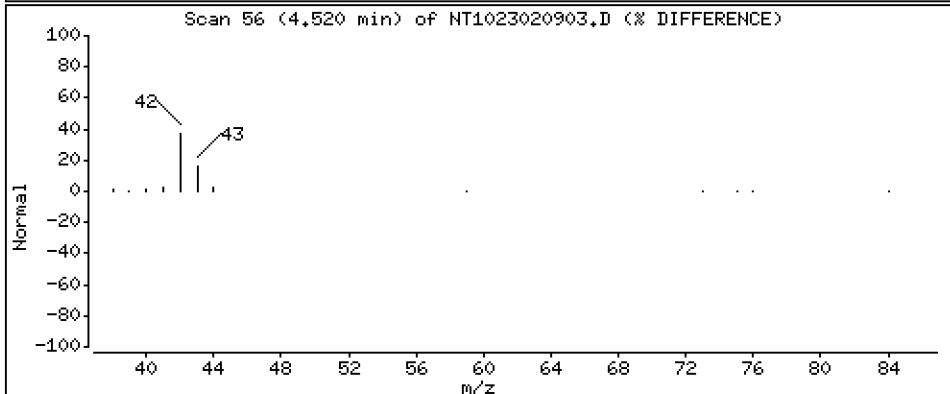
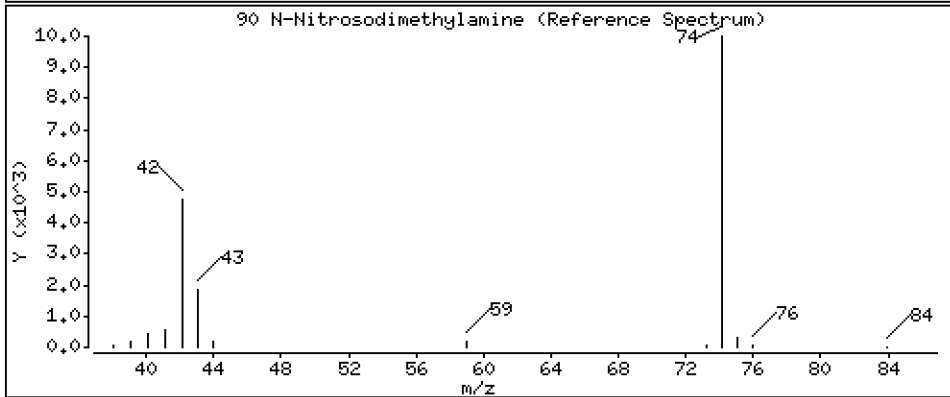
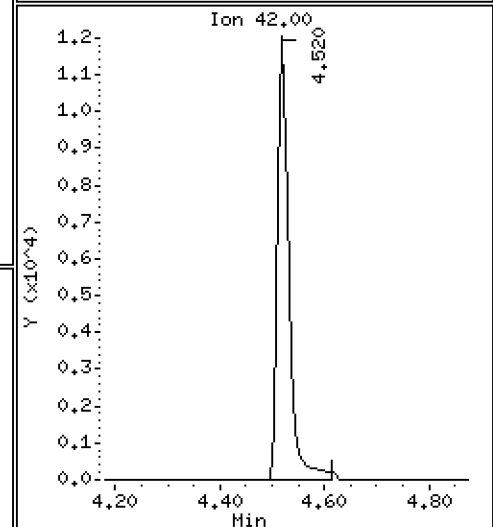
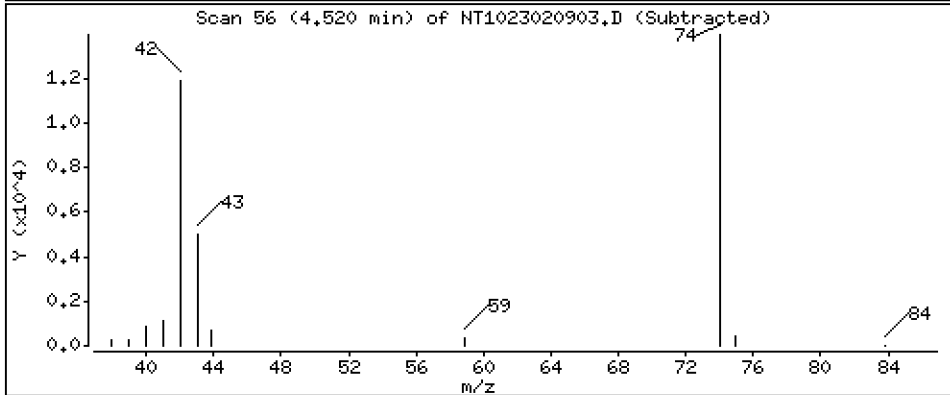
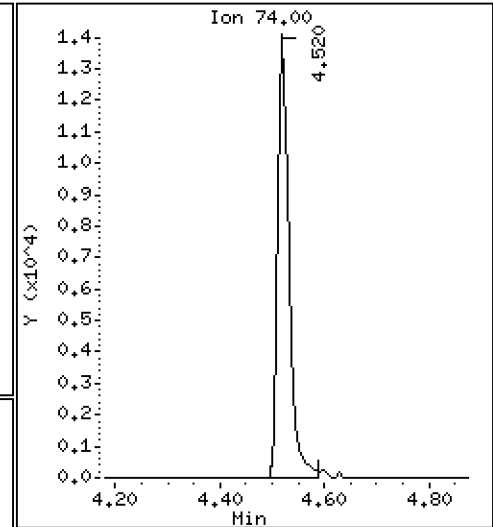
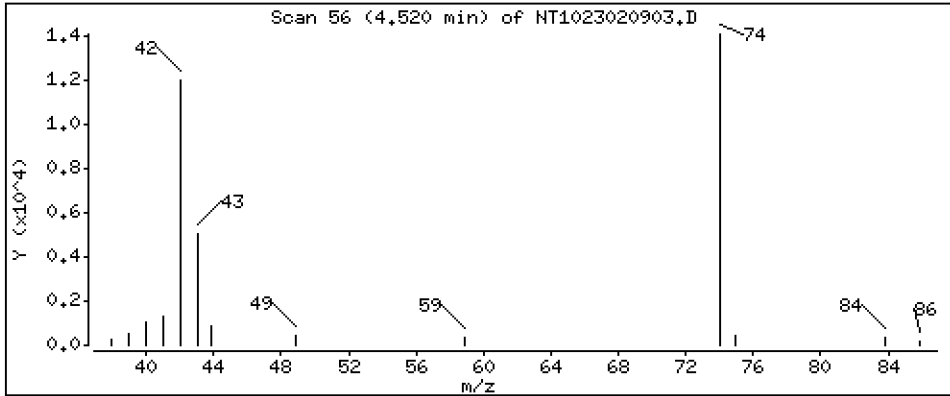
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 1.013 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

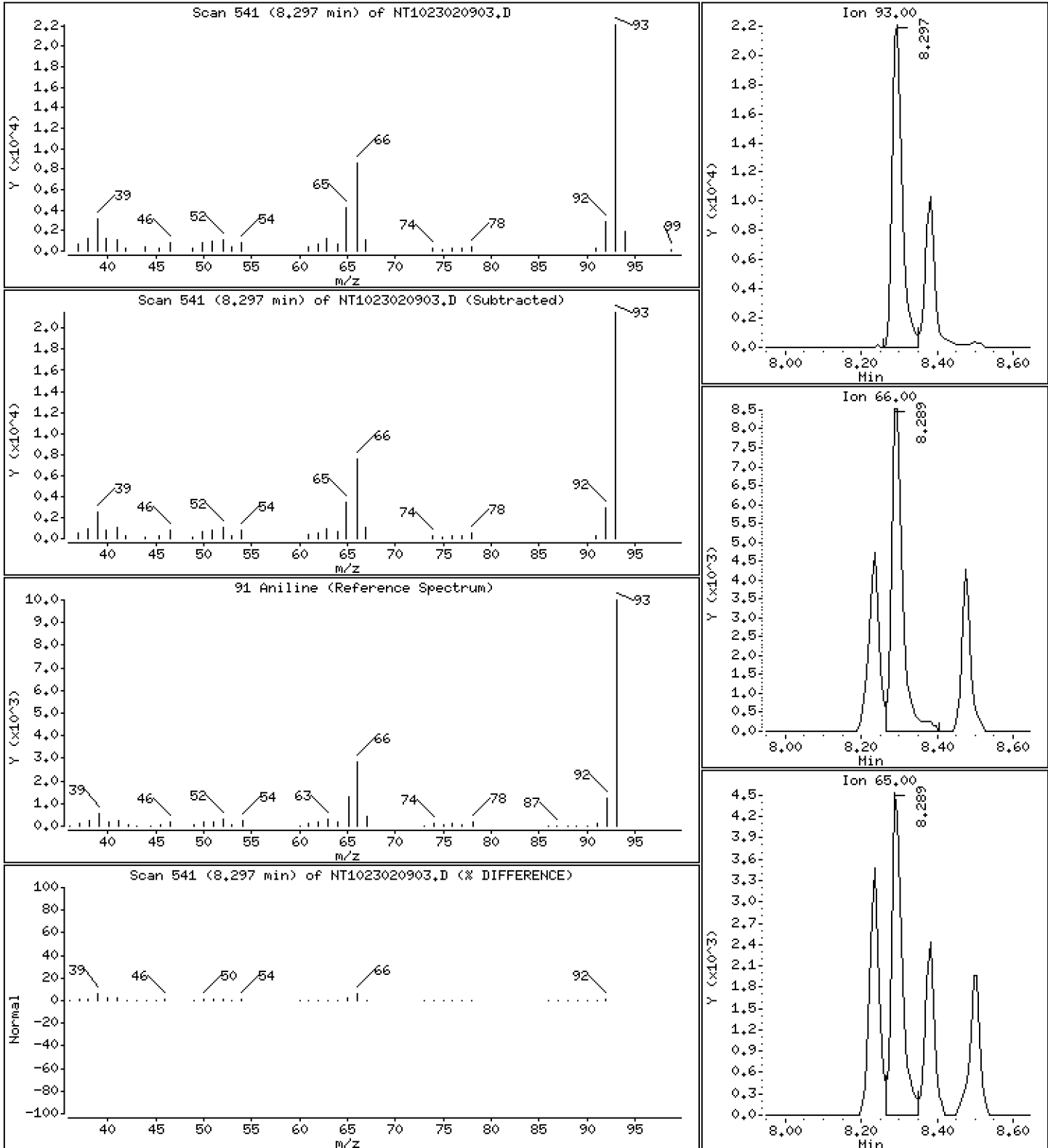
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 0,9849 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

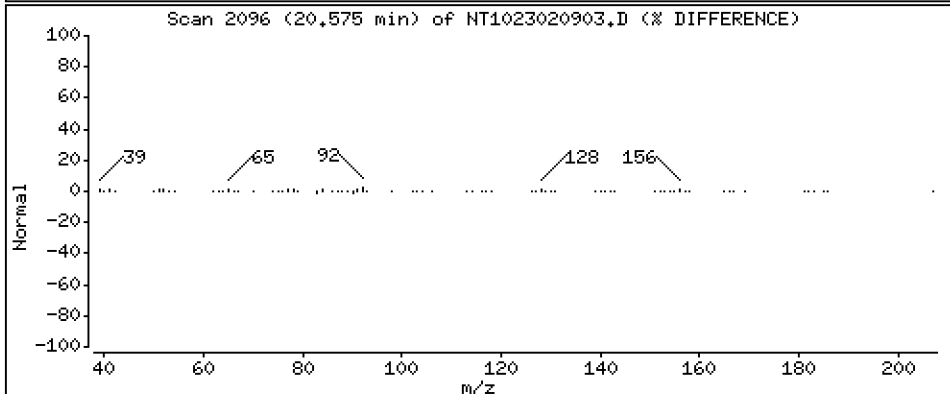
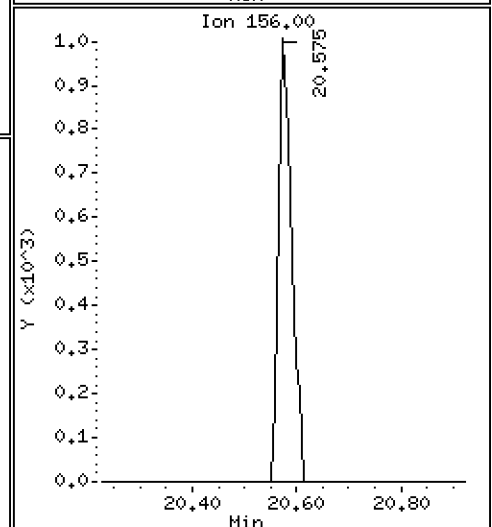
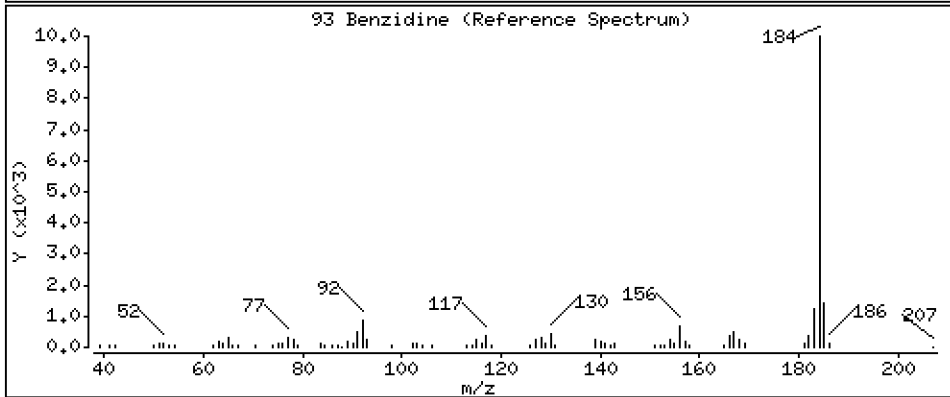
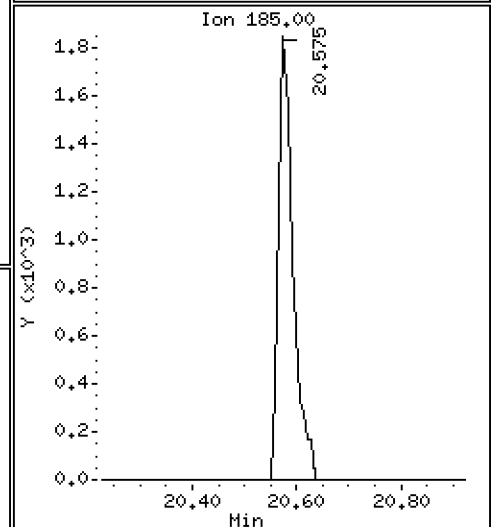
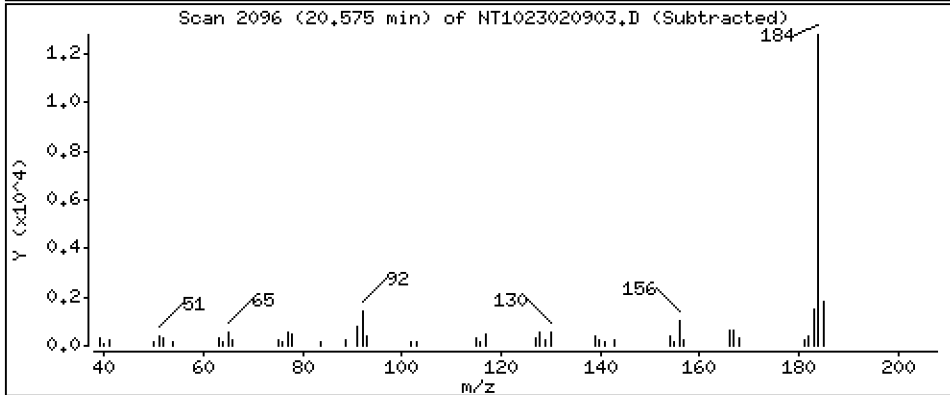
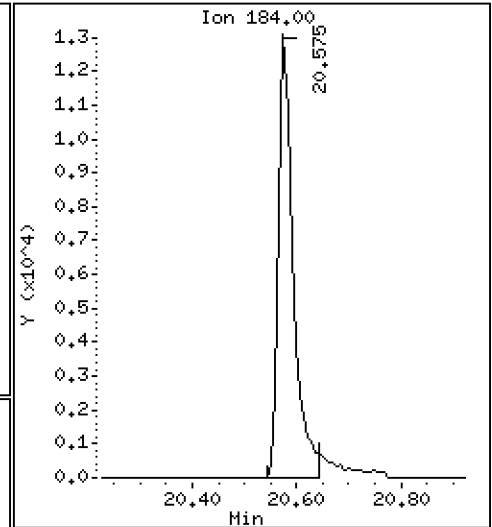
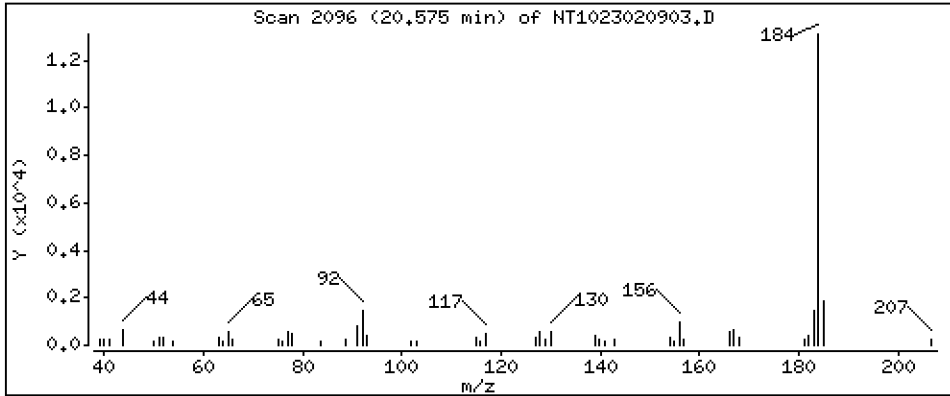
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 0,9700 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

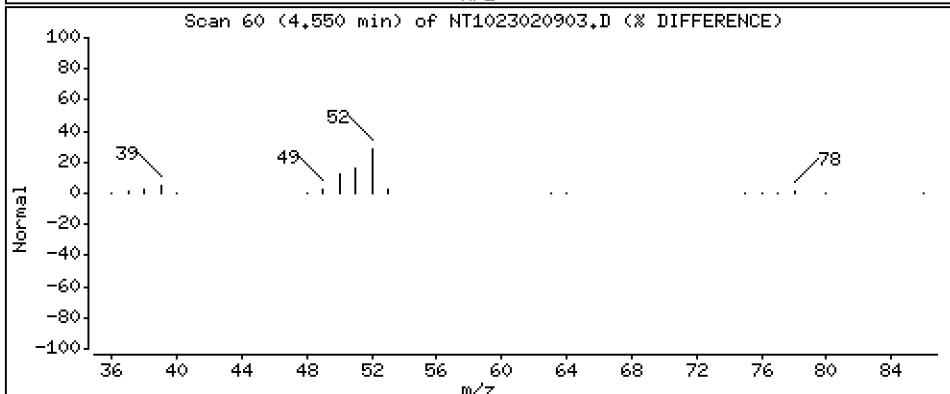
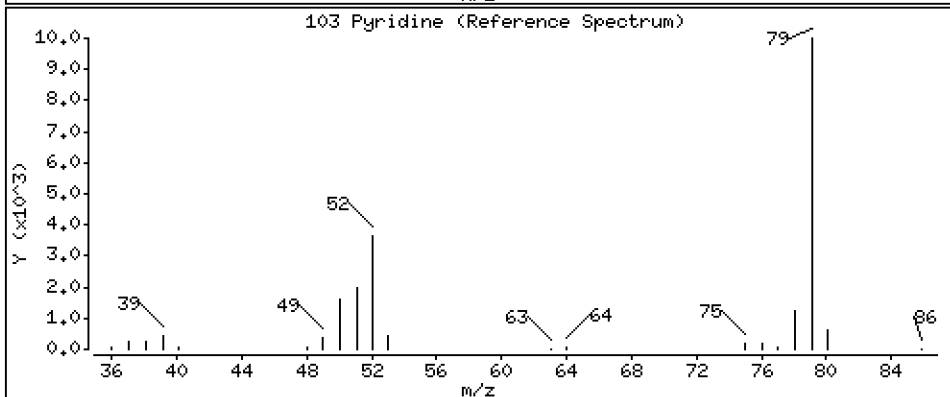
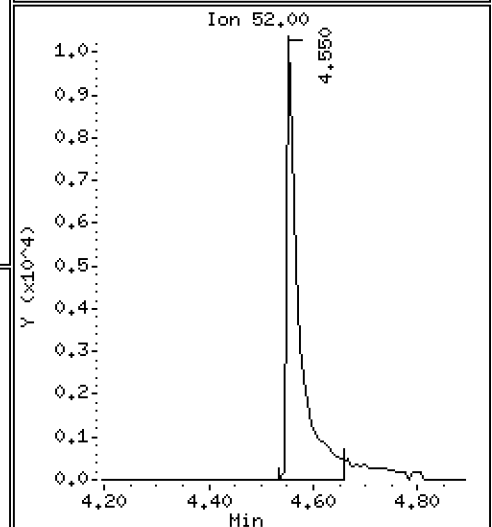
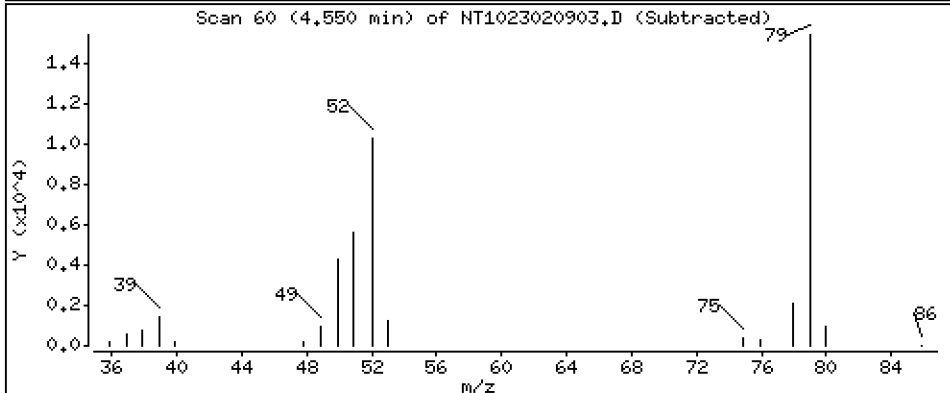
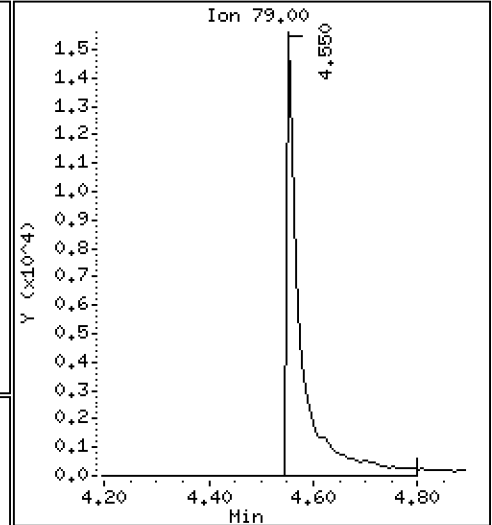
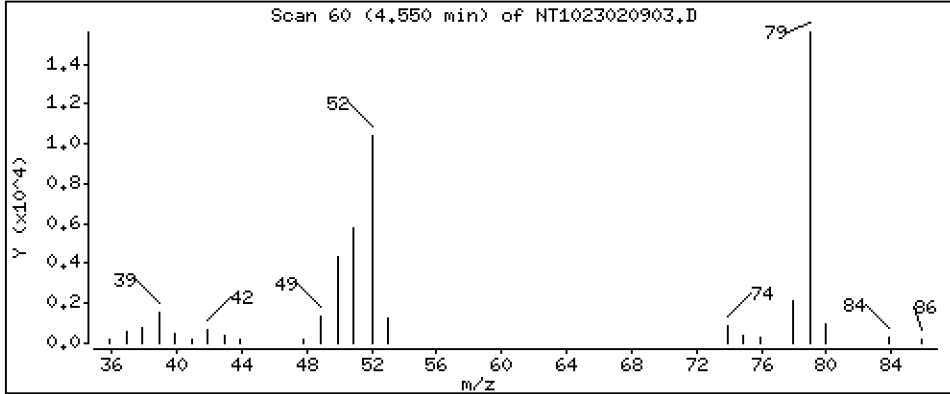
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,9682 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

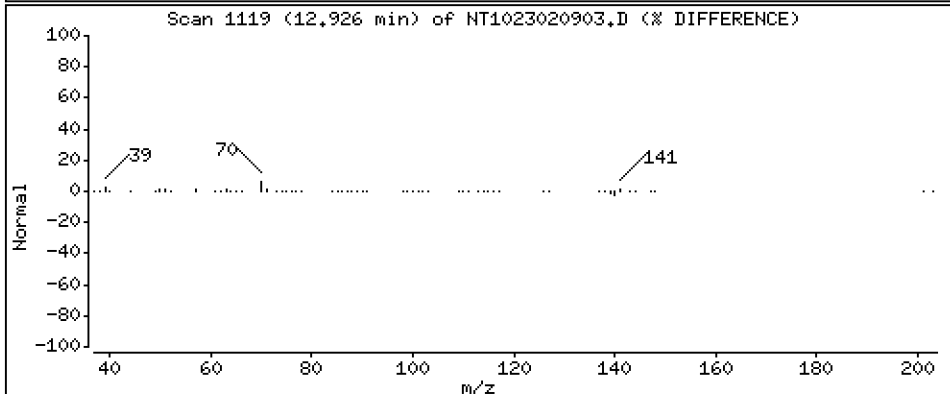
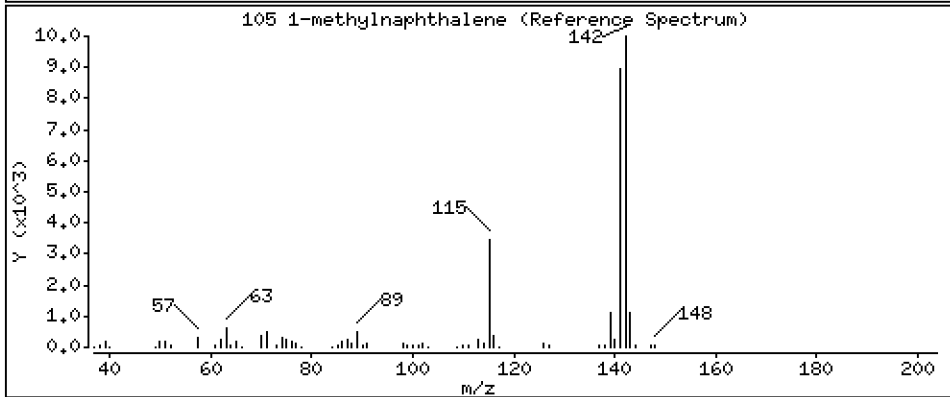
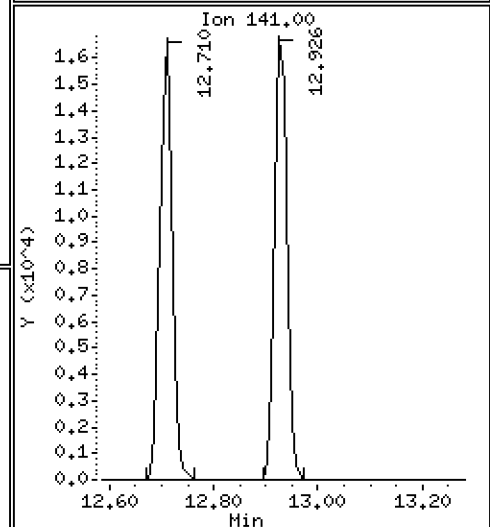
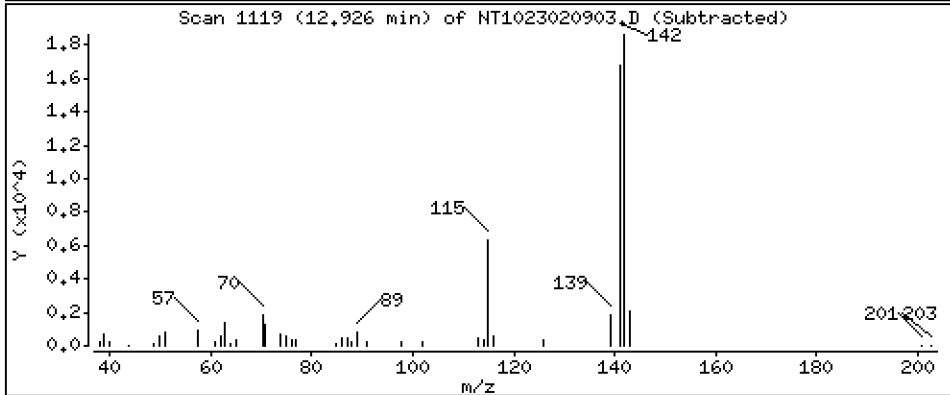
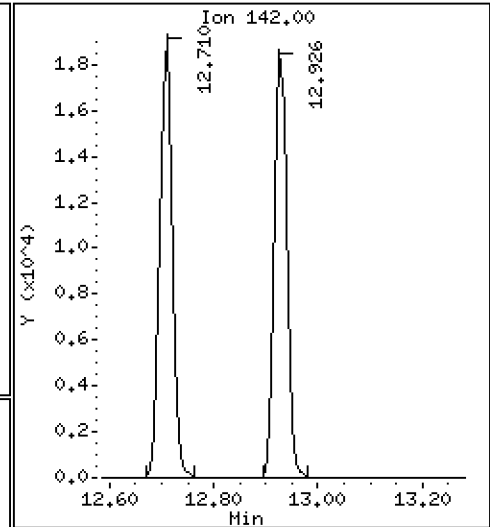
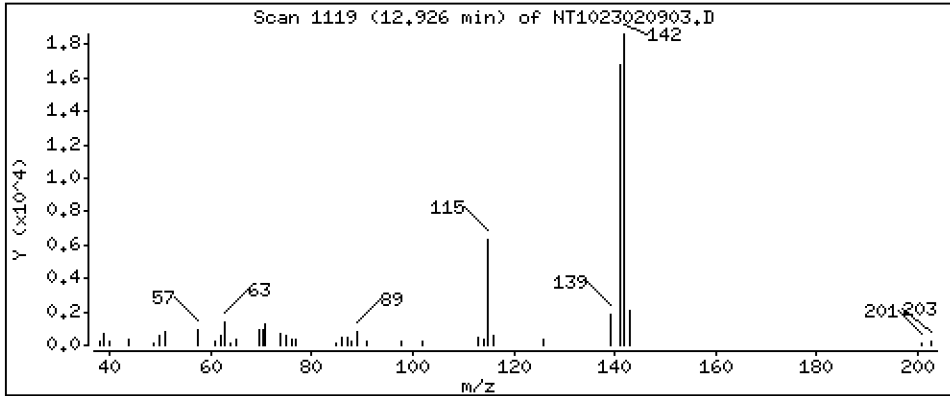
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,5024 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

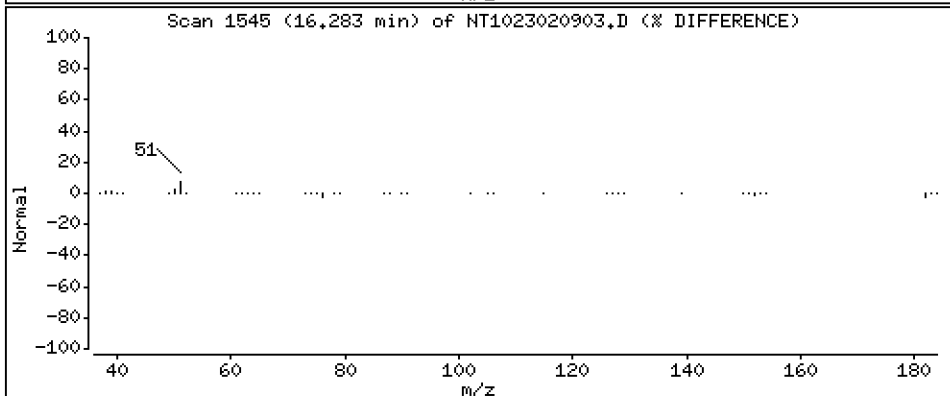
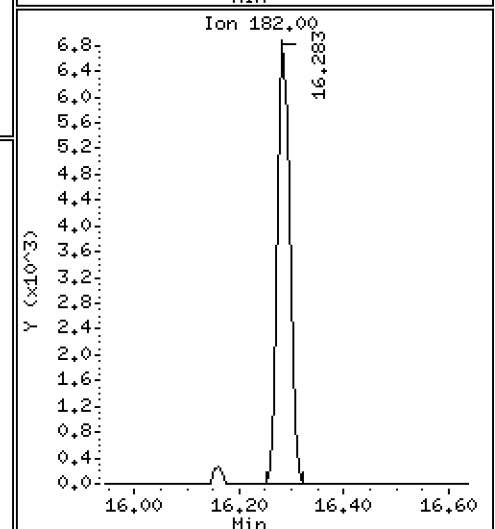
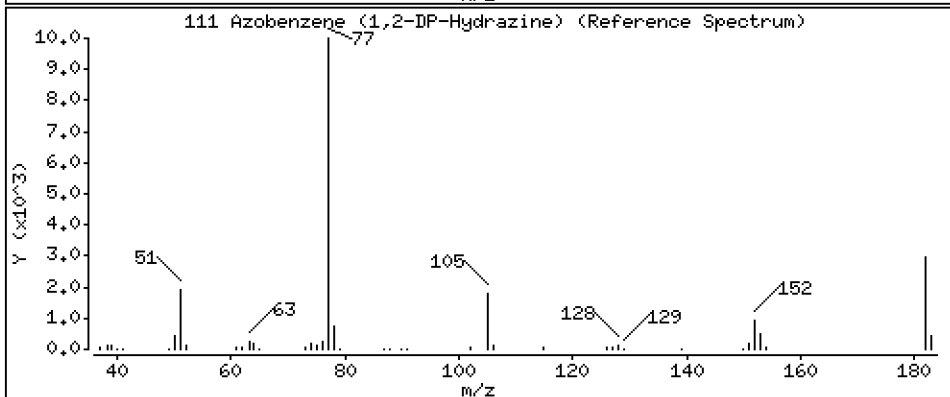
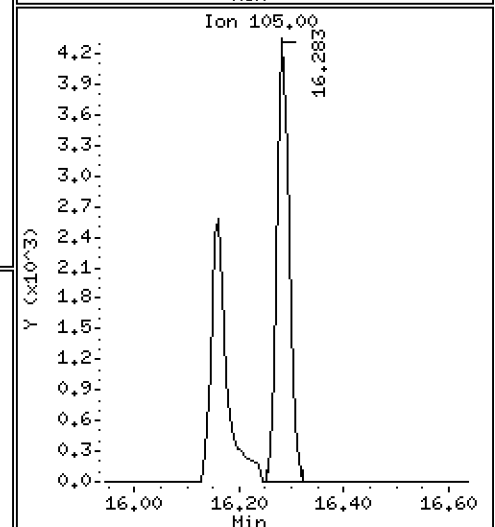
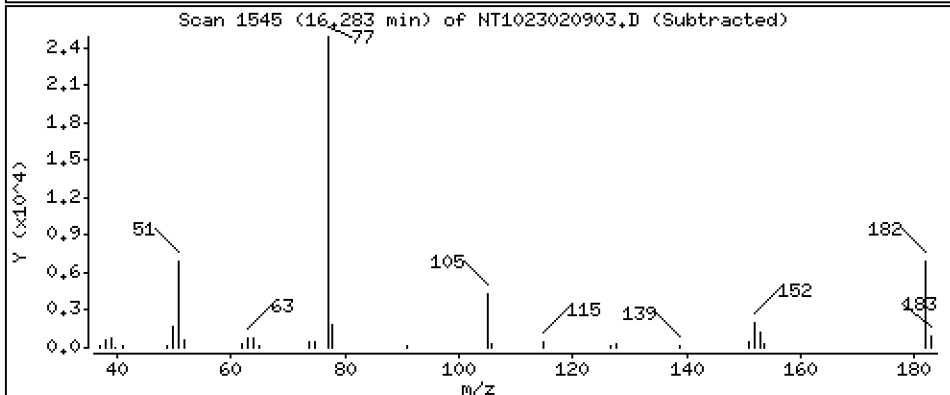
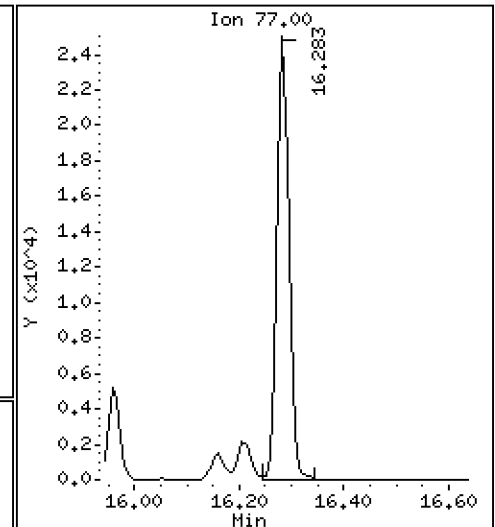
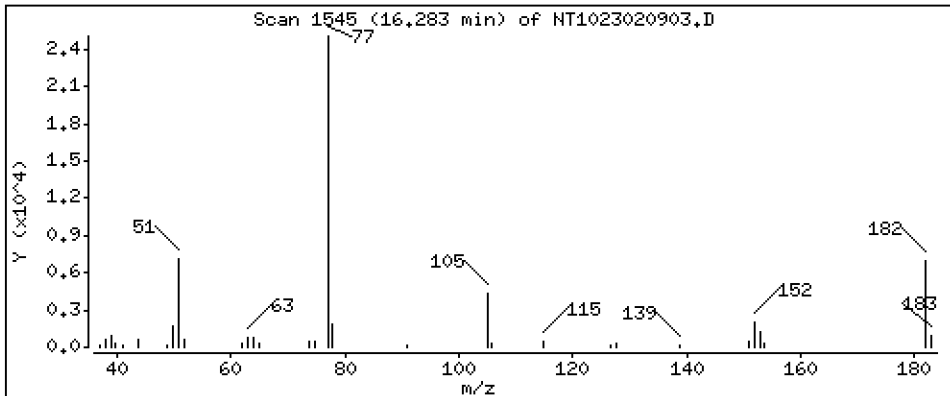
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0,5204 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

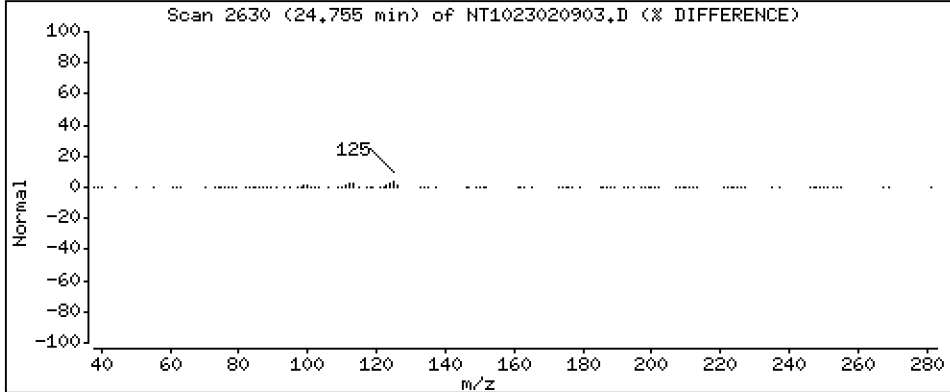
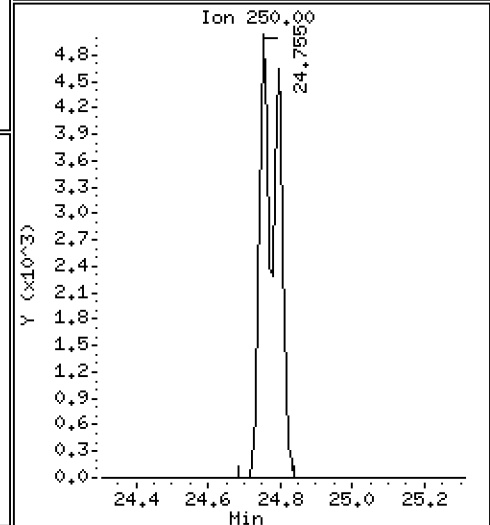
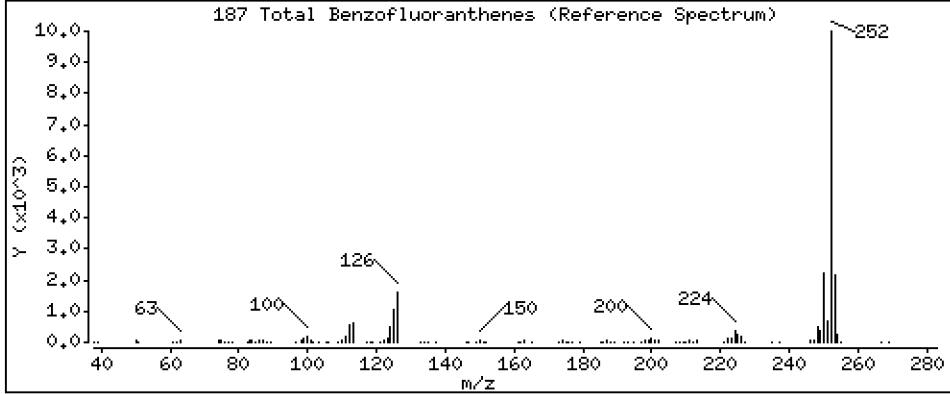
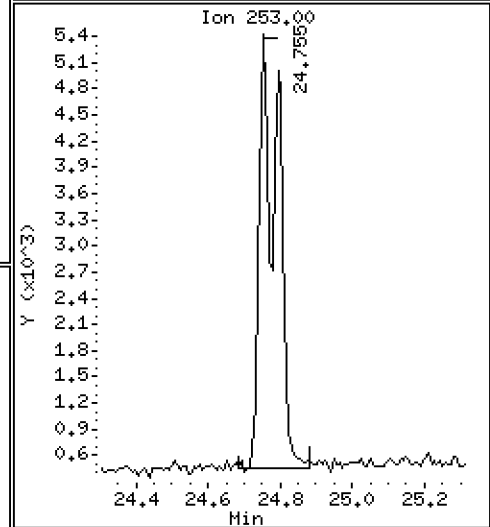
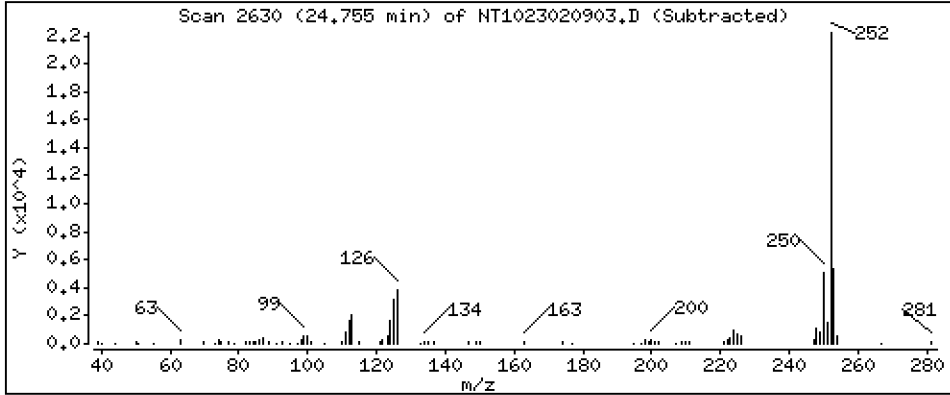
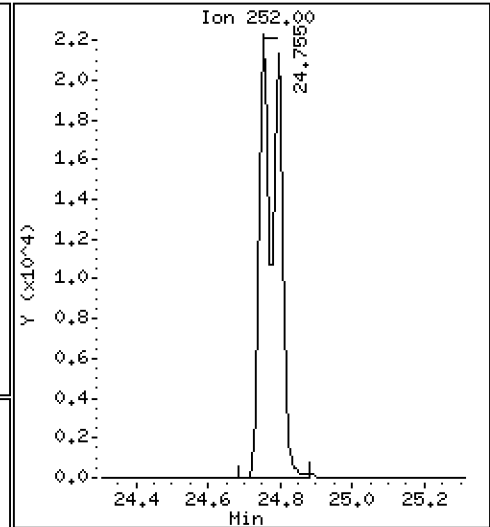
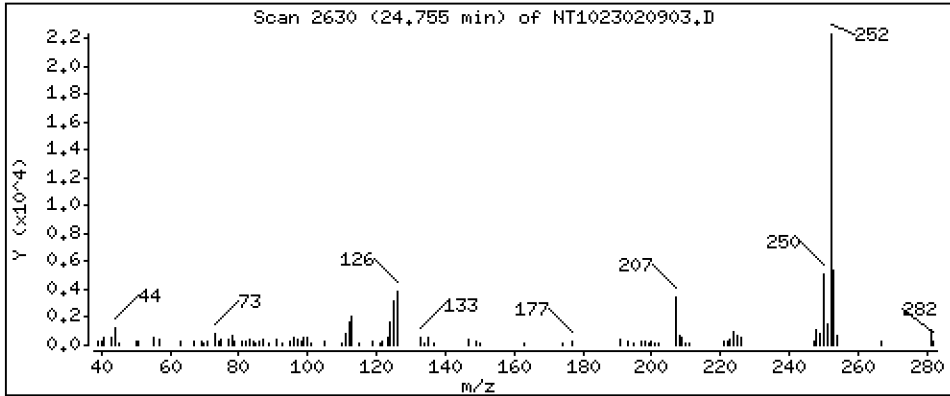
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 1,040 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

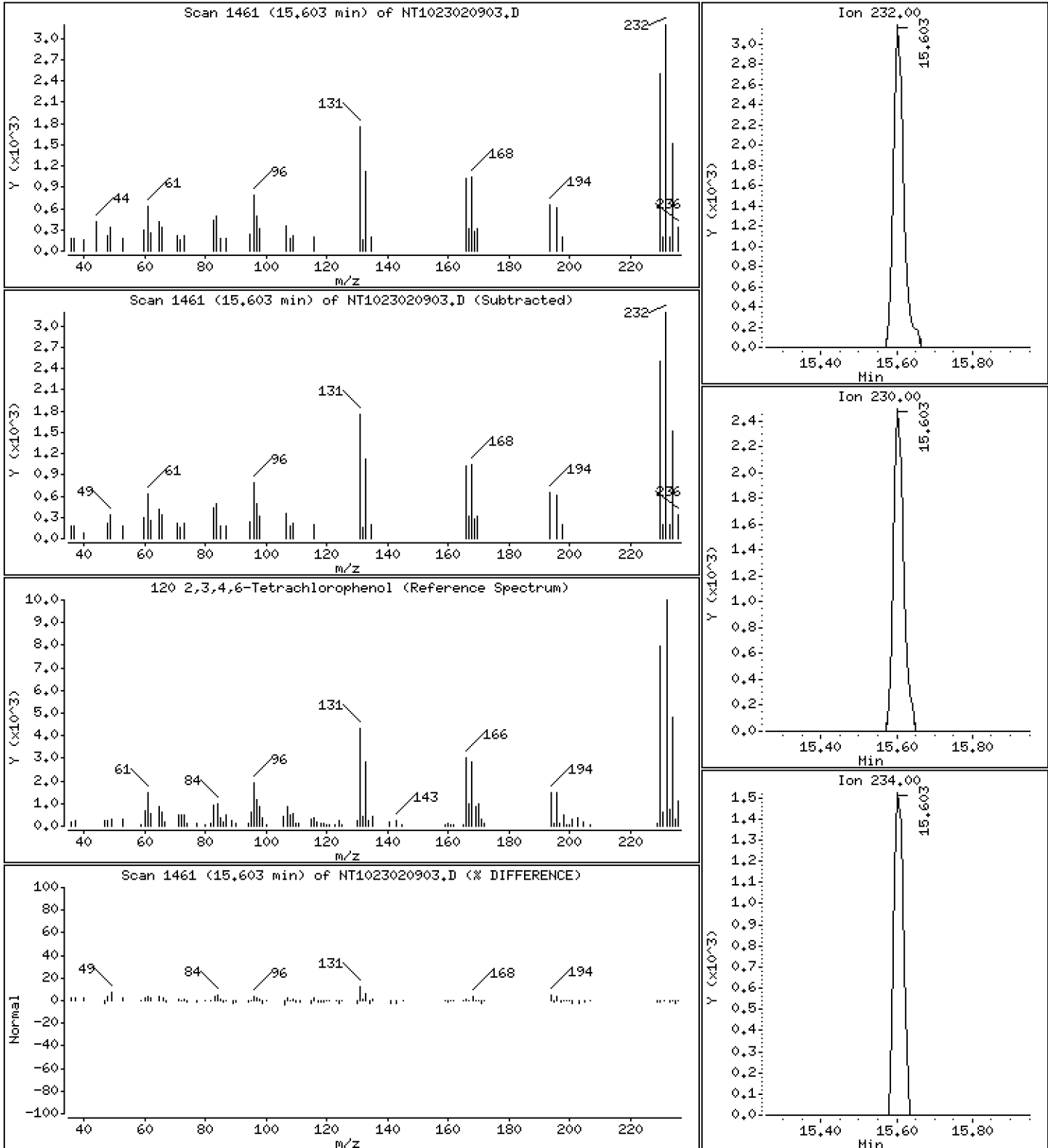
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0.3645 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230209.b\NT1023020903.D
 Lab Smp Id: SLB0122-LCV1
 Inj Date : 09-FEB-2023 14:10
 Operator : VTS
 Smp Info : SLB0122-LCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230209.b\ABN.m
 Meth Date : 09-Feb-2023 14:46 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		6.650	6.651	(0.753)	21263	0.75825	0.7582
\$ 2 Phenol-d5	99		8.211	8.219	(0.930)	28809	0.76154	0.7615
3 Phenol	94		8.234	8.242	(0.933)	21139	0.51657	0.5166
\$ 5 2-Chlorophenol-d4	132		8.474	8.482	(0.960)	24393	0.79450	0.7945
4 Bis(2-Chloroethyl)ether	93		8.381	8.389	(0.949)	16046	0.53921	0.5392
6 2-Chlorophenol	128		8.505	8.505	(0.963)	17455	0.52196	0.5220
7 1,3-Dichlorobenzene	146		8.768	8.768	(0.993)	18112	0.51596	0.5160
* 8 1,4-Dichlorobenzene-d4	152		8.830	8.838	(1.000)	88206	4.00000	
9 1,4-Dichlorobenzene	146		8.861	8.861	(1.004)	17504	0.50626	0.5063
\$ 10 1,2-Dichlorobenzene-d4	152		9.179	9.187	(1.040)	10927	0.51994	0.5199
12 1,2-Dichlorobenzene	146		9.210	9.211	(1.043)	17164	0.51492	0.5149
11 Benzyl alcohol	108		9.102	9.102	(1.031)	7055	0.38921	0.3892
14 2,2'-oxybis(1-Chloropropane)	121		9.397	9.397	(1.064)	4840	0.50536	0.5054
13 2-Methylphenol	108		9.334	9.335	(1.057)	17828	0.58744	0.5874
17 Hexachloroethane	117		9.792	9.800	(1.109)	6655	0.50208	0.5021
16 N-Nitroso-di-n-propylamine	70		9.645	9.653	(1.092)	11376	0.49847	0.4985
15 4-Methylphenol	108		9.598	9.606	(1.087)	16194	0.50377	0.5038
\$ 18 Nitrobenzene-d5	82		9.909	9.909	(0.878)	17216	0.53110	0.5311
19 Nitrobenzene	77		9.940	9.948	(0.881)	17031	0.52687	0.5269
20 Isophorone	82		10.382	10.390	(0.920)	24832	0.55166	0.5517
21 2-Nitrophenol	139		10.565	10.574	(0.936)	8087	0.48571	0.4857
22 2,4-Dimethylphenol	107		10.625	10.633	(0.941)	32195	1.08171	1.082
23 Bis(2-Chloroethoxy)methane	93		10.811	10.820	(0.958)	15496	0.53016	0.5302
24 Benzoic acid	105		10.811	10.888	(0.958)	751	0.04465	0.04465 (H)
25 2,4-Dichlorophenol	162		11.023	11.024	(0.977)	26835	1.10978	1.110
26 1,2,4-Trichlorobenzene	180		11.201	11.209	(0.992)	14188	0.53854	0.5385
* 27 Naphthalene-d8	136		11.286	11.286	(1.000)	328110	4.00000	
28 Naphthalene	128		11.324	11.333	(1.003)	45184	0.51533	0.5153
29 4-Chloroaniline	127		11.456	11.464	(1.015)	36886	0.98138	0.9814
30 Hexachlorobutadiene	225		11.688	11.688	(1.036)	7484	0.54471	0.5447
31 4-Chloro-3-methylphenol	107		12.423	12.423	(1.101)	26302	0.99501	0.9950
32 2-Methylnaphthalene	142		12.709	12.710	(1.126)	30980	0.50818	0.5082
33 Hexachlorocyclopentadiene	237		13.174	13.174	(0.886)	1205	0.11754	0.1175

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.328	13.336	(0.896)	14728	0.97181	0.9718
35 2,4,5-Trichlorophenol	196	13.413	13.414	(0.902)	15437	0.94481	0.9448
§ 36 2-Fluorobiphenyl	172	13.483	13.491	(0.907)	33854	0.55958	0.5596
37 2-Chloronaphthalene	162	13.692	13.700	(0.921)	27875	0.53006	0.5301
38 2-Nitroaniline	65	13.947	13.956	(0.938)	18912	1.14211	1.142
39 Dimethylphthalate	163	14.381	14.389	(0.967)	29100	0.51722	0.5172
40 Acenaphthylene	152	14.551	14.559	(0.979)	44546	0.53179	0.5318
41 2,6-Dinitrotoluene	165	14.513	14.521	(0.976)	13299	0.99800	0.9980
* 42 Acenaphthene-d10	164	14.869	14.869	(1.000)	167883	4.00000	
43 3-Nitroaniline	138	14.799	14.807	(0.995)	15627	1.01708	1.017
44 Acenaphthene	153	14.930	14.939	(1.004)	27034	0.52662	0.5266
45 2,4-Dinitrophenol	184	15.023	15.016	(1.010)	759	0.11046	0.1105 (M)
46 Dibenzofuran	168	15.255	15.263	(1.026)	37554	0.50854	0.5085
47 4-Nitrophenol	109	15.155	15.147	(1.019)	3928	0.68581	0.6858
48 2,4-Dinitrotoluene	165	15.317	15.325	(1.030)	16776	0.91242	0.9124
50 Diethylphthalate	149	15.827	15.843	(1.064)	27364	0.50646	0.5065
49 Fluorene	166	15.966	15.967	(1.074)	36808	0.44343	0.4434
51 4-Chlorophenyl-phenylether	204	15.959	15.967	(1.073)	17388	0.42889	0.4289
52 4-Nitroaniline	138	16.051	16.067	(1.080)	15812	0.90055	0.9006
53 4,6-Dinitro-2-methylphenol	198	16.159	16.167	(0.903)	11935	1.16692	1.167
54 N-Nitrosodiphenylamine	169	16.213	16.213	(0.906)	26068	0.53852	0.5385
§ 55 2,4,6-Tribromophenol	330	16.498	16.506	(1.110)	5701	0.67816	0.6782
56 4-Bromophenyl-phenylether	248	16.961	16.961	(0.948)	9443	0.52939	0.5294
57 Hexachlorobenzene	284	17.270	17.278	(0.965)	10620	0.55283	0.5528
58 Pentachlorophenol	266	17.642	17.635	(0.986)	2233	0.30876	0.3088
* 59 Phenanthrene-d10	188	17.890	17.890	(1.000)	283175	4.00000	
60 Phenanthrene	178	17.936	17.936	(1.003)	39408	0.51709	0.5171
61 Anthracene	178	18.029	18.029	(1.008)	38783	0.51392	0.5139
62 Carbazole	167	18.362	18.362	(1.026)	36107	0.49607	0.4961
63 Di-n-butylphthalate	149	19.182	19.182	(1.072)	39988	0.46072	0.4607
64 Fluoranthene	202	20.334	20.335	(0.886)	39427	0.51808	0.5181
65 Pyrene	202	20.752	20.760	(0.904)	41434	0.52737	0.5274
§ 66 Terphenyl-d14	244	21.054	21.054	(0.917)	31887	0.53825	0.5382
67 Butylbenzylphthalate	149	21.991	21.991	(0.958)	15960	0.47008	0.4701
68 Benzo(a)anthracene	228	22.928	22.936	(0.999)	38054	0.55010	0.5501
* 69 Chrysene-d12	240	22.959	22.959	(1.000)	207537	4.00000	
70 3,3'-Dichlorobenzidine	252	22.889	22.897	(0.997)	39365	1.68185	1.682
71 Chrysene	228	22.997	23.006	(1.002)	35350	0.53284	0.5328
72 bis(2-Ethylhexyl)phthalate	149	23.028	23.037	(0.959)	22814	0.49828	0.4983
* 134 Di-n-octylphthalate-d4	153	24.012	24.020	(1.000)	336602	4.00000	
73 Di-n-octylphthalate	149	24.019	24.027	(1.000)	47738	0.56121	0.5612
74 Benzo(b)fluoranthene	252	24.755	24.763	(0.972)	38362	0.49360	0.4936
75 Benzo(k)fluoranthene	252	24.793	24.809	(0.973)	44984	0.54977	0.5498
76 Benzo(a)pyrene	252	25.367	25.375	(0.996)	37879	0.53902	0.5390
* 77 Perylene-d12	264	25.475	25.483	(1.000)	245518	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	27.955	27.971	(1.097)	47959	0.57336	0.5734
79 Dibenzo(a,h)anthracene	278	27.970	27.986	(1.098)	38813	0.56015	0.5602
80 Benzo(g,h,i)perylene	276	28.677	28.701	(1.126)	40781	0.56809	0.5681
90 N-Nitrosodimethylamine	74	4.519	4.527	(0.512)	19769	1.01329	1.013
91 Aniline	93	8.296	8.297	(0.940)	39009	0.98491	0.9849
93 Benzidine	184	20.574	20.575	(0.896)	24749	0.96997	0.9700
103 Pyridine	79	4.550	4.543	(0.515)	29238	0.96824	0.9682
105 1-methylnaphthalene	142	12.926	12.934	(1.145)	29489	0.50243	0.5024
111 Azobenzene (1,2-DP-Hydrazine)	77	16.282	16.291	(1.095)	37460	0.52035	0.5204

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252		24.755	24.809	(0.972)	79227	1.03982	1.040
120 2,3,4,6-Tetrachlorophenol	232		15.603	15.603	(1.049)	5652	0.36454	0.3645

QC Flag Legend

- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 09-FEB-2023
 Lab File ID: NT1023020903.D Calibration Time: 13:31
 Lab Smp Id: SLB0122-LCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230209.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	89503	44752	179006	88206	-1.45
27 Naphthalene-d8	348104	174052	696208	328110	-5.74
42 Acenaphthene-d10	183525	91763	367050	167883	-8.52
59 Phenanthrene-d10	295489	147745	590978	283175	-4.17
69 Chrysene-d12	239590	119795	479180	207537	-13.38
134 Di-n-octylphthala	404293	202147	808586	336602	-16.74
77 Perylene-d12	274336	137168	548672	245518	-10.50

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.83	-0.09
27 Naphthalene-d8	11.29	10.79	11.79	11.29	-0.00
42 Acenaphthene-d10	14.87	14.37	15.37	14.87	-0.00
59 Phenanthrene-d10	17.89	17.39	18.39	17.89	-0.00
69 Chrysene-d12	22.96	22.46	23.46	22.96	-0.00
134 Di-n-octylphthala	24.02	23.52	24.52	24.01	-0.03
77 Perylene-d12	25.48	24.98	25.98	25.48	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020903.D

Lab ID: SLB0122-LCV1
nt10.i, 20230209.b\ABN.m, 09-FEB-2023 14:10

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.958	0.965	-0.0068	Benzoic acid

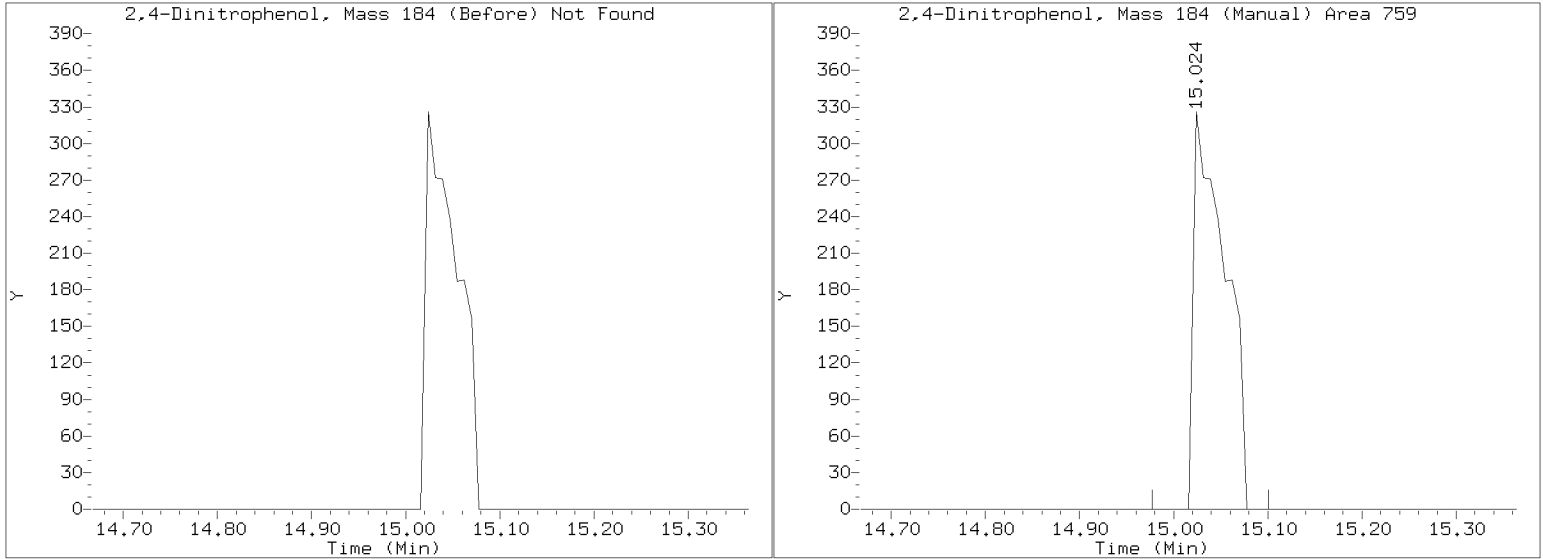
RRT check based on Ccal File: NT1023020902.D

On Column LOD for nt10.i, 20230209.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209.b/NT1023020903.D
Injection Date: 09-FEB-2023 14:10
Lab ID:SLB0122-LCV1 Client ID:
Report Date: 02/10/2023 17:18



APPROVED
By Deenay Dunmore at 9:41 am, Feb 11, 2023



**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00018

Laboratory ID: SLB0122-LCV2

Sequence: SLB0122

Standard ID: K011106

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	0.50000	0.5	-0.8	50.00
4-Methylphenol	0.50000	0.5	0.8	50.00
Naphthalene	0.50000	0.5	4.2	50.00
2-Methylnaphthalene	0.50000	0.5	0.7	50.00
Acenaphthylene	0.50000	0.5	8.3	50.00
Dimethylphthalate	0.50000	0.5	6.7	50.00
Acenaphthene	0.50000	0.5	4.5	50.00
Dibenzofuran	0.50000	0.5	2.0	50.00
Fluorene	0.50000	0.5	-9.5	50.00
Phenanthrene	0.50000	0.5	3.8	50.00
Anthracene	0.50000	0.5	3.4	50.00
Fluoranthene	0.50000	0.5	-5.9	50.00
Pyrene	0.50000	0.5	-4.6	50.00
Butylbenzylphthalate	0.50000	0.5	3.3	50.00
Benzo(a)anthracene	0.50000	0.6	12.4	50.00
Chrysene	0.50000	0.5	7.9	50.00
bis(2-Ethylhexyl)phthalate	0.50000	0.5	4.1	50.00
Benzo(a)fluoranthene, Total	1.0000	1.1	9.1	50.00
Benzo(a)pyrene	0.50000	0.5	8.2	50.00
Indeno(1,2,3-cd)pyrene	0.50000	0.4	-13.9	50.00
Dibenzo(a,h)anthracene	0.50000	0.4	-11.5	50.00
Benzo(g,h,i)perylene	0.50000	0.4	-26.4	50.00
2-Fluorophenol	0.75000	0.771	2.8	50.00
Phenol-d5	0.75000	0.762	1.6	50.00
2-Chlorophenol-d4	0.75000	0.781	4.1	50.00
1,2-Dichlorobenzene-d4	0.50000	0.518	3.7	50.00
Nitrobenzene-d5	0.50000	0.543	8.7	50.00
2-Fluorobiphenyl	0.50000	0.549	9.8	50.00
2,4,6-Tribromophenol	0.75000	0.610	-18.7	50.00



**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00018

Laboratory ID: SLB0122-LCV2

Sequence: SLB0122

Standard ID: K011106

p-Terphenyl-d14	0.50000	0.477	-4.6	50.00
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* Values outside of QC limits

Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

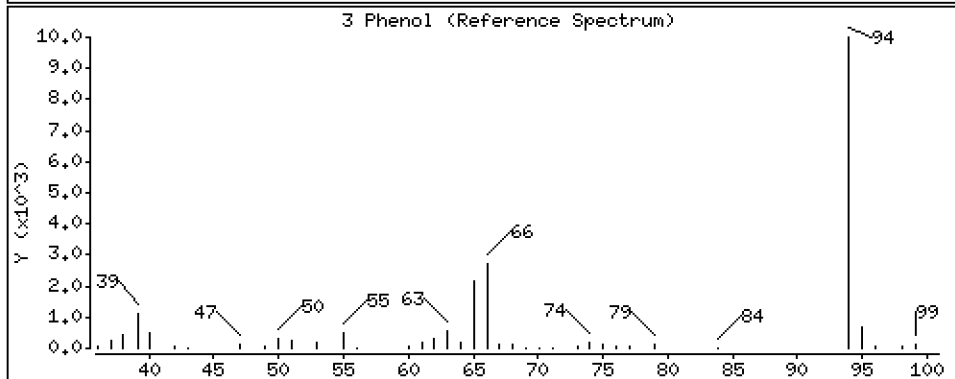
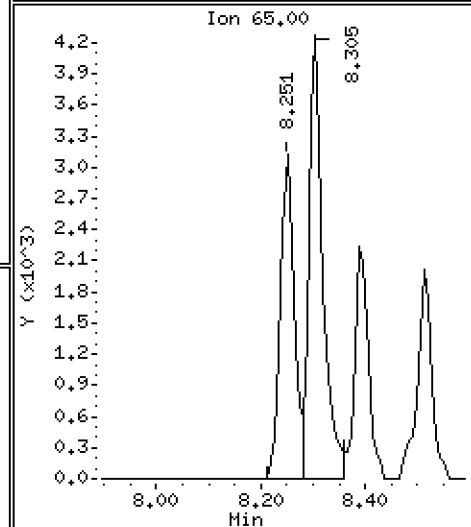
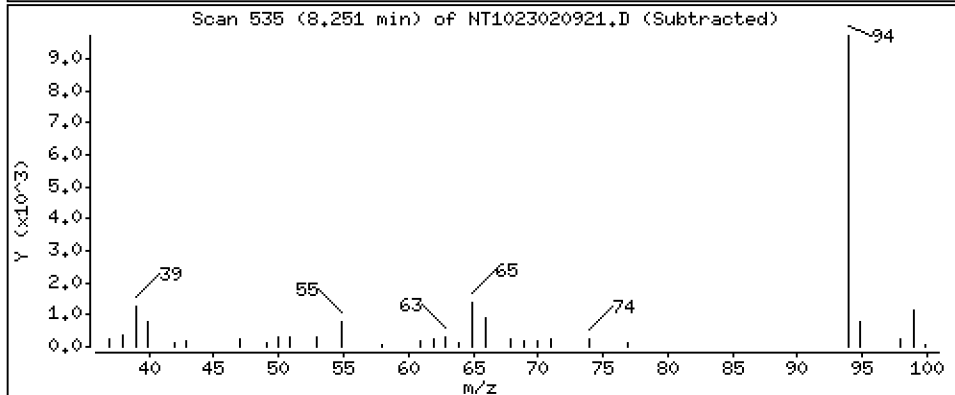
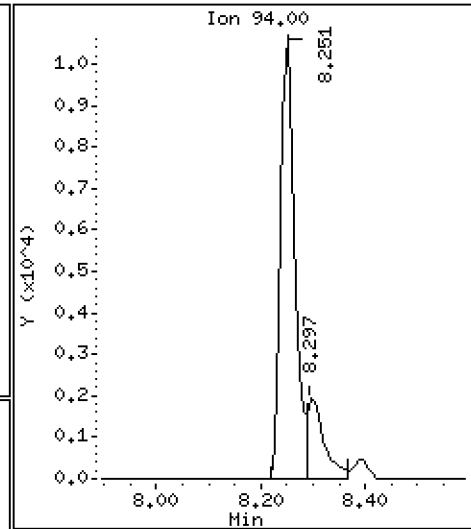
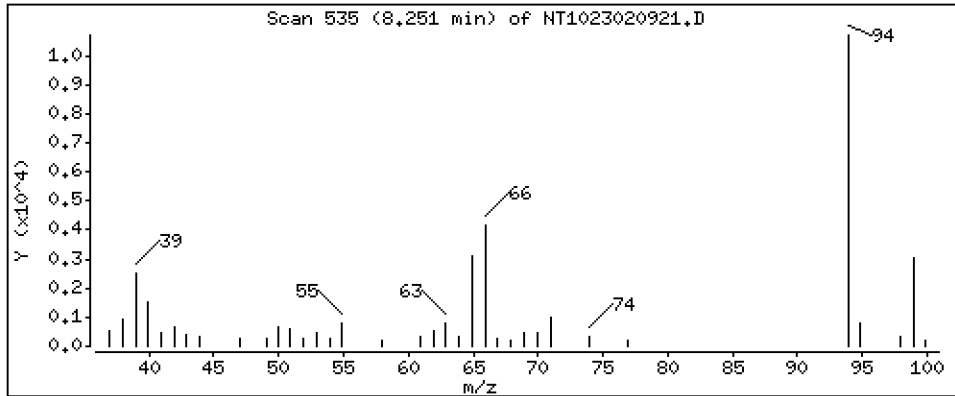
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,4960 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

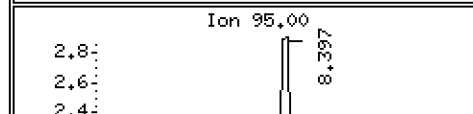
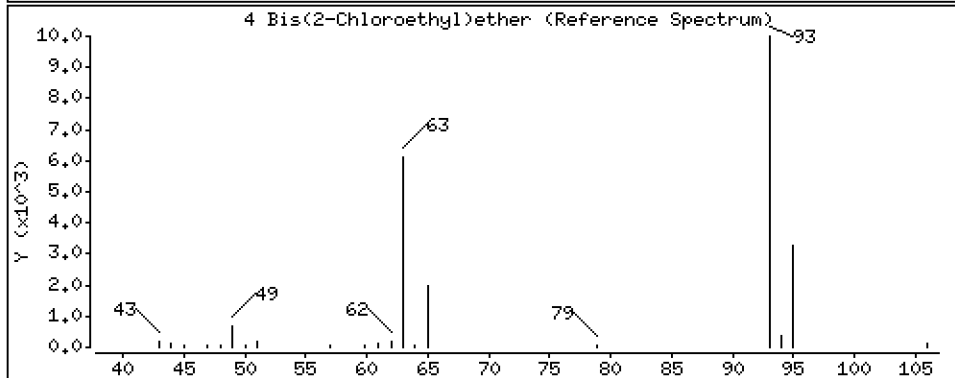
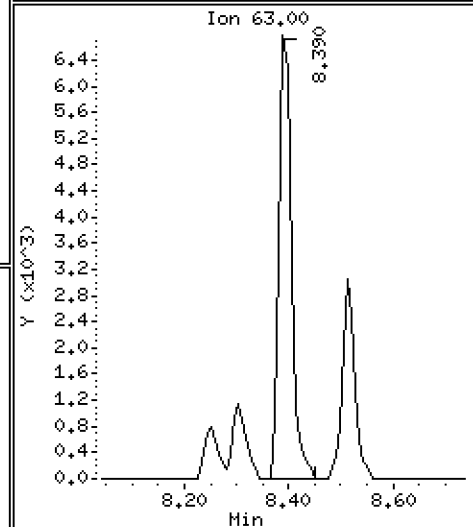
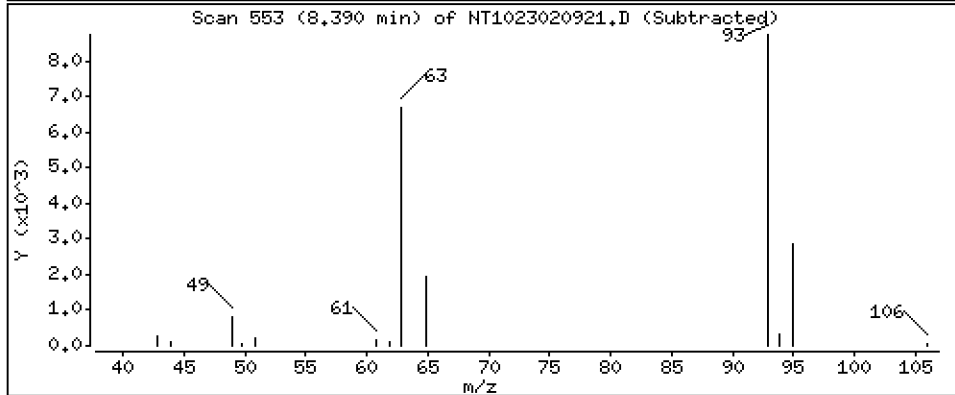
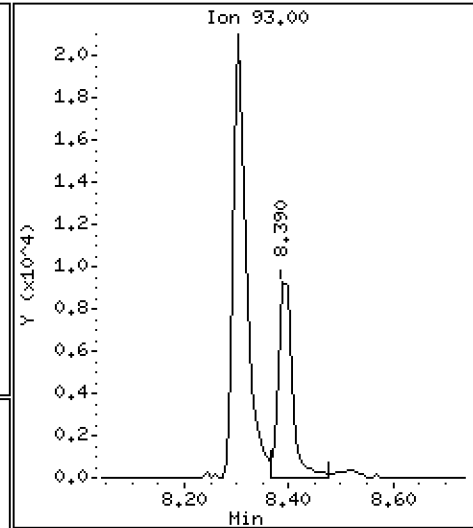
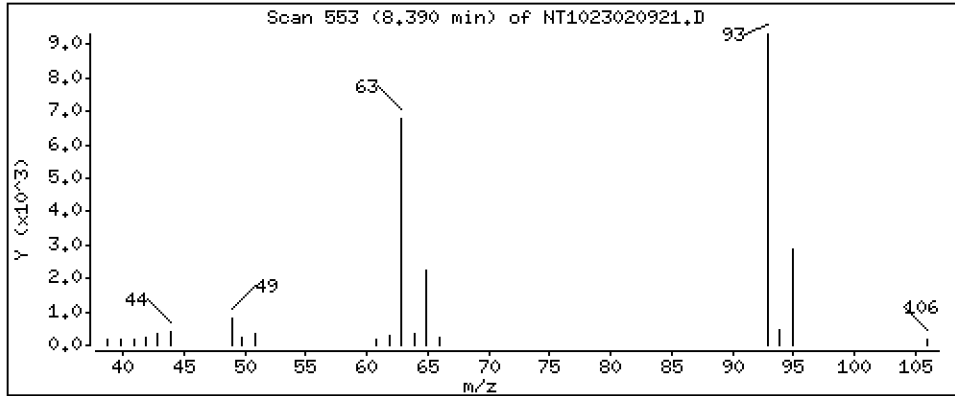
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,5819 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

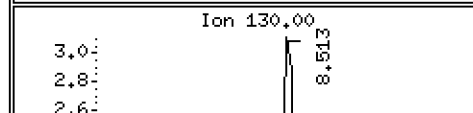
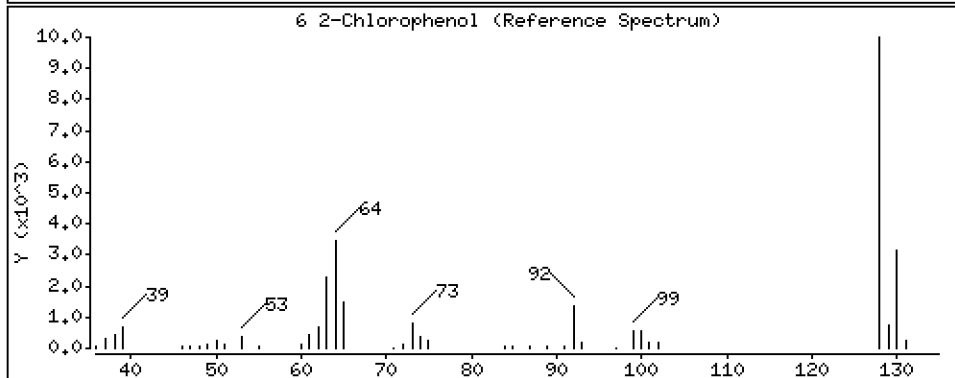
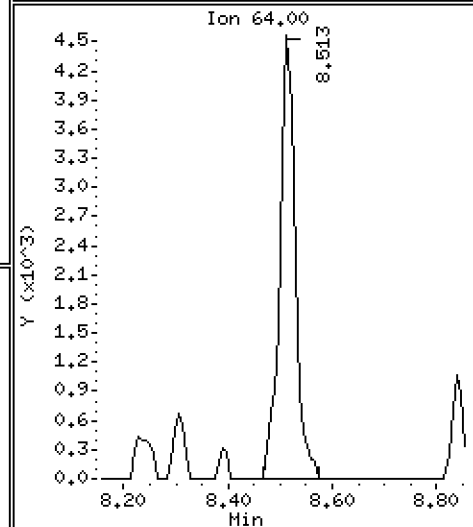
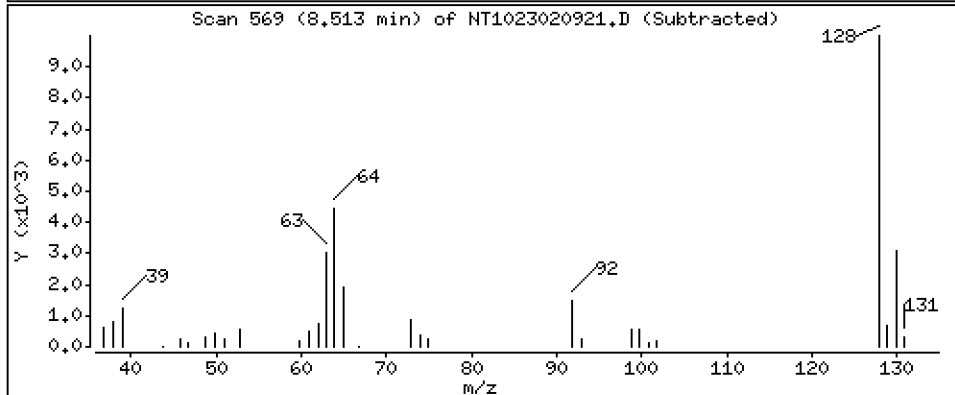
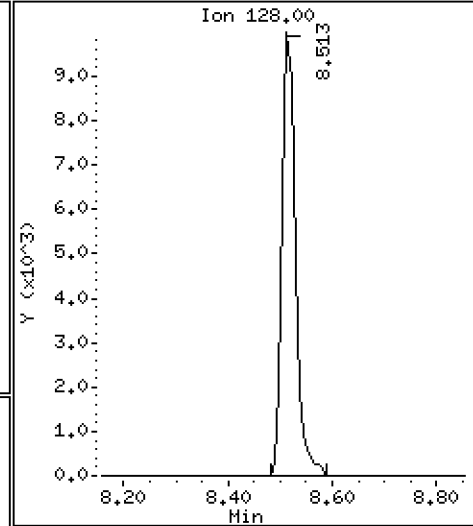
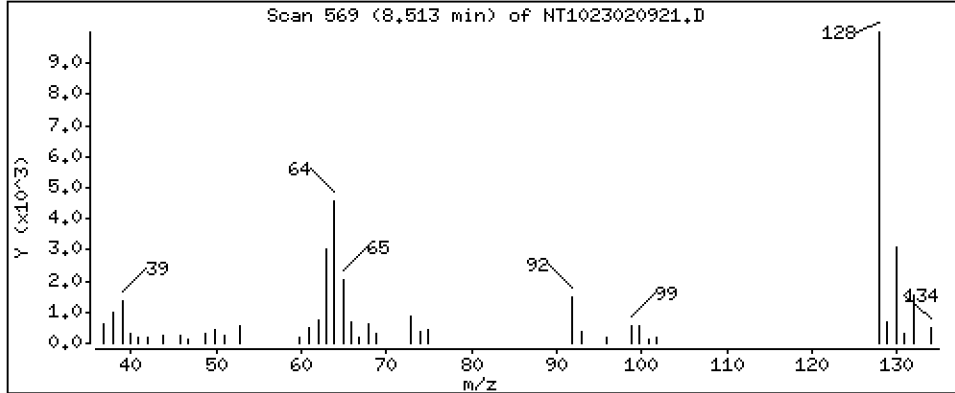
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 0,5308 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

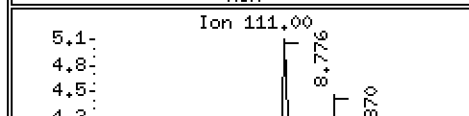
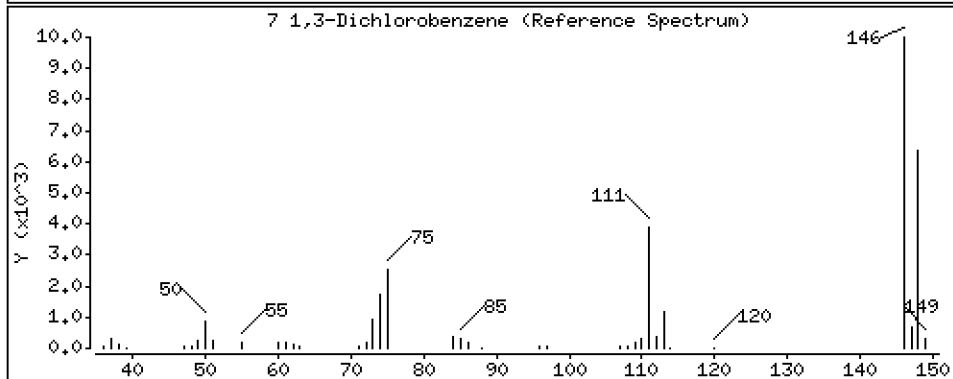
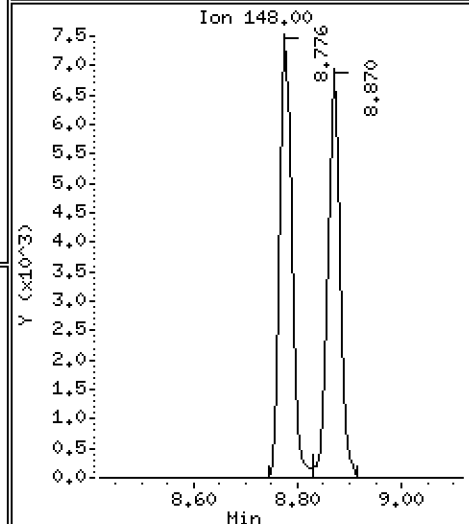
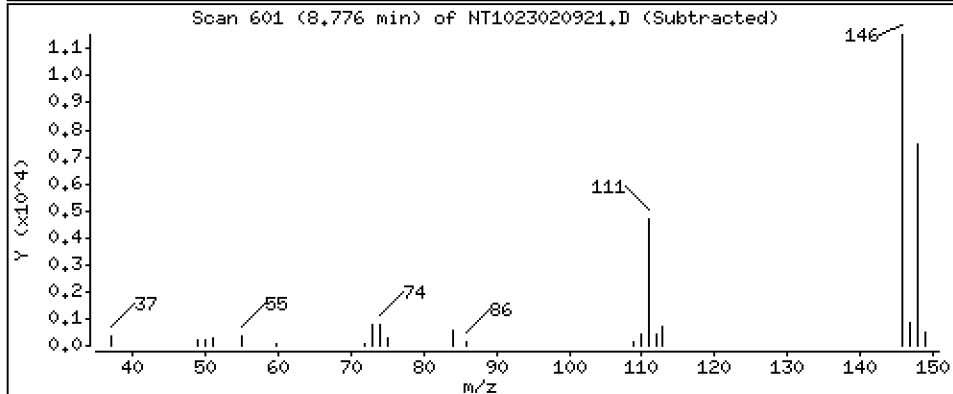
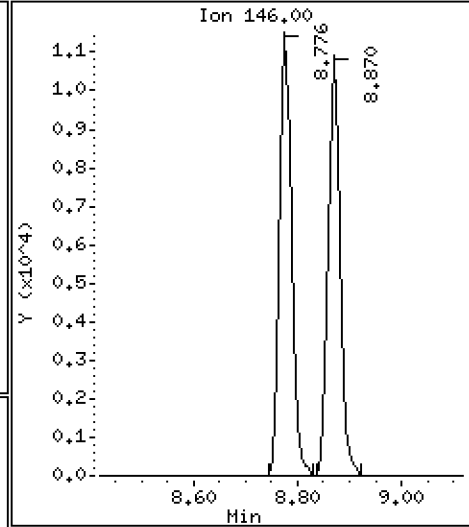
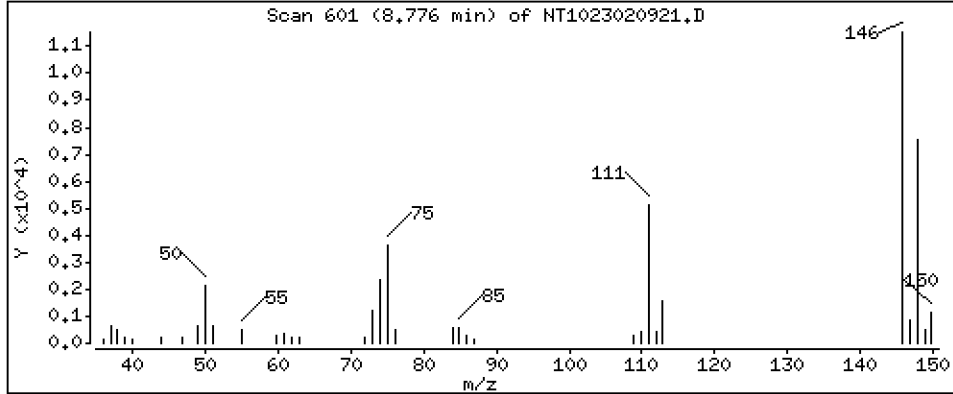
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,5188 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

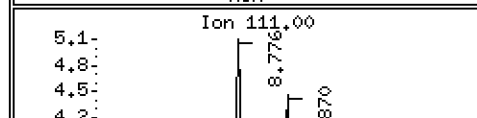
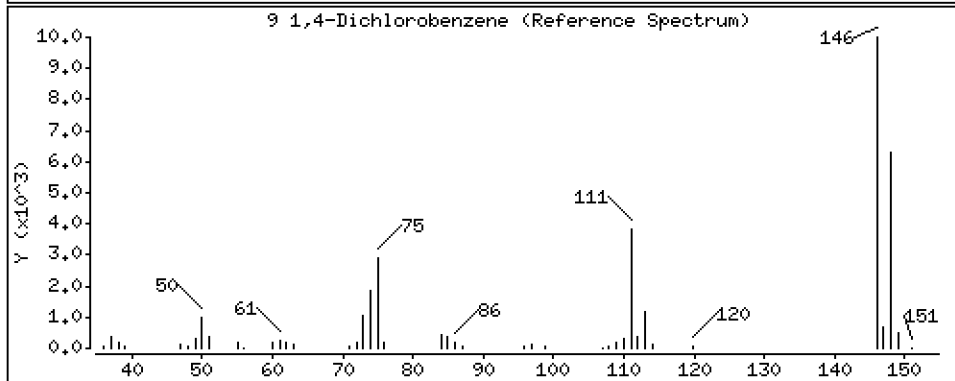
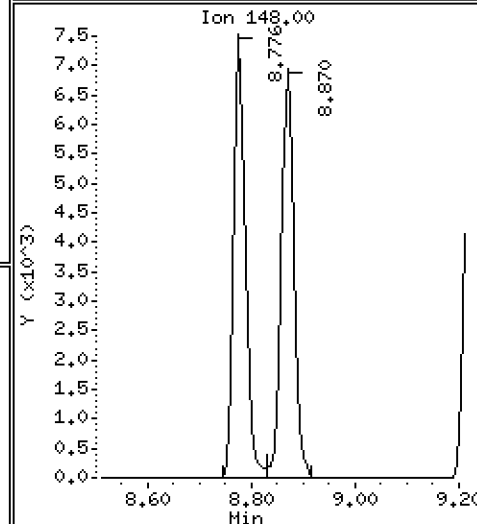
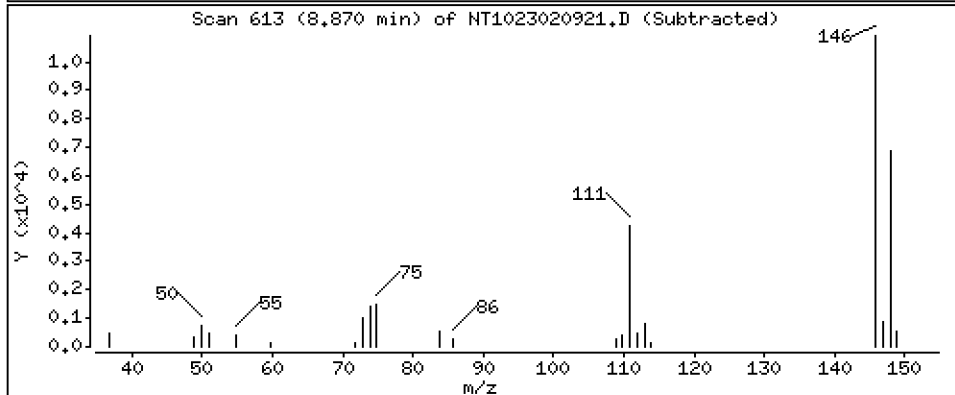
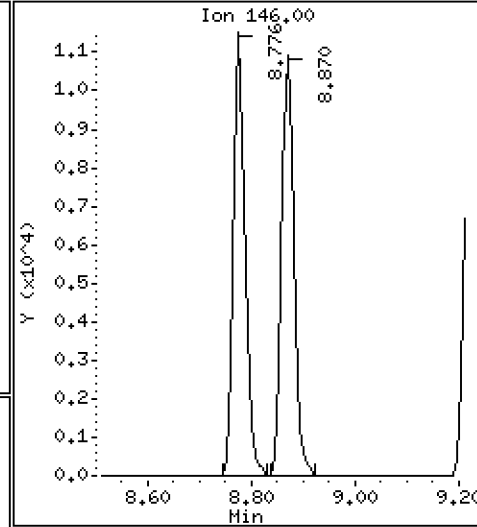
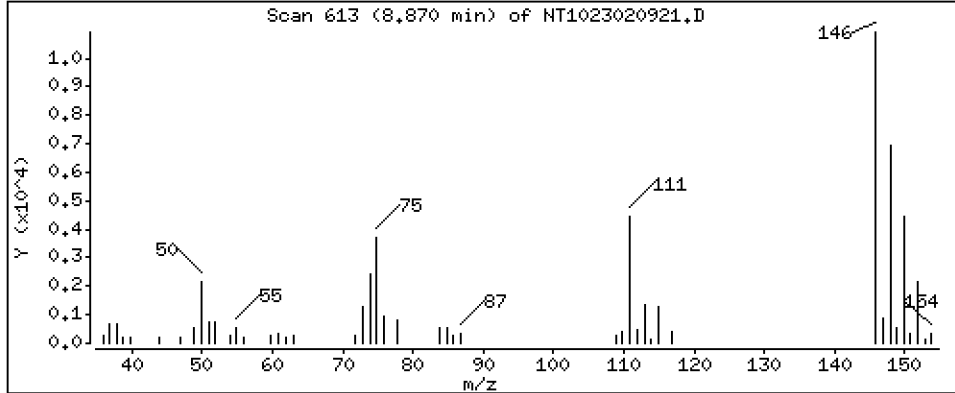
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,5164 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

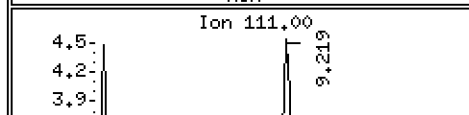
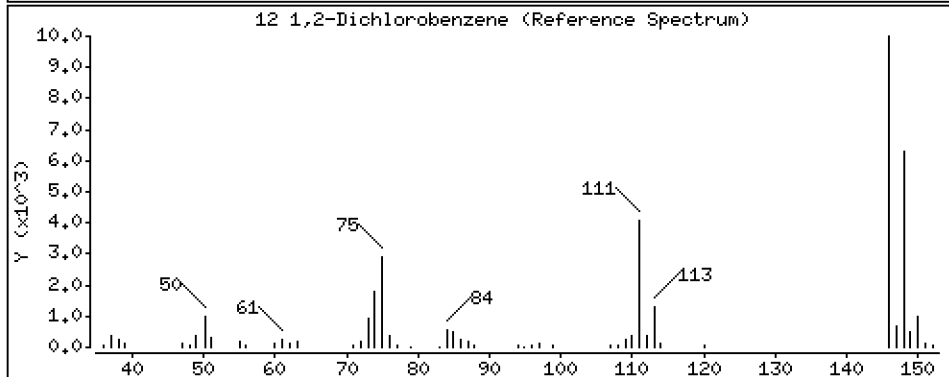
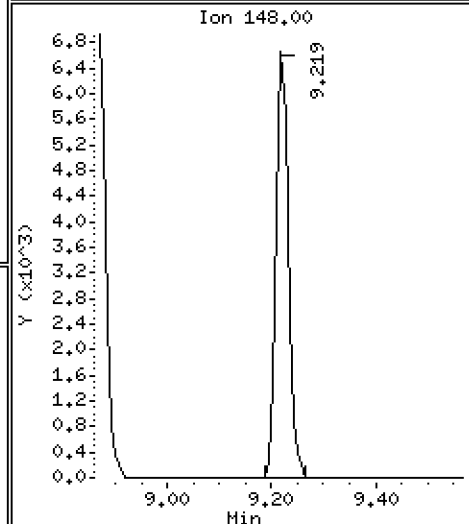
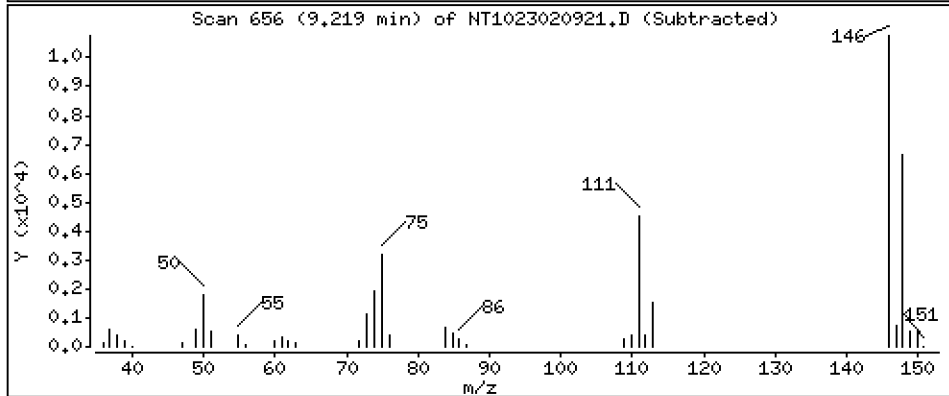
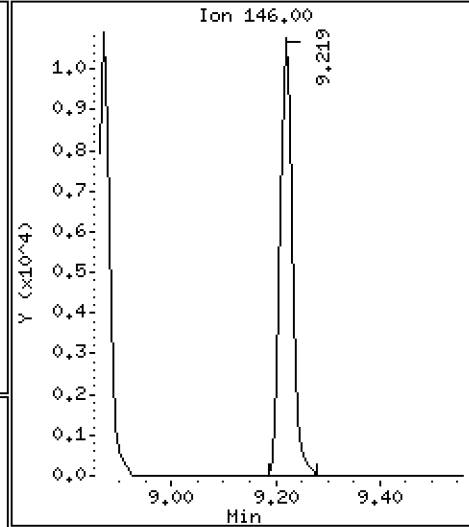
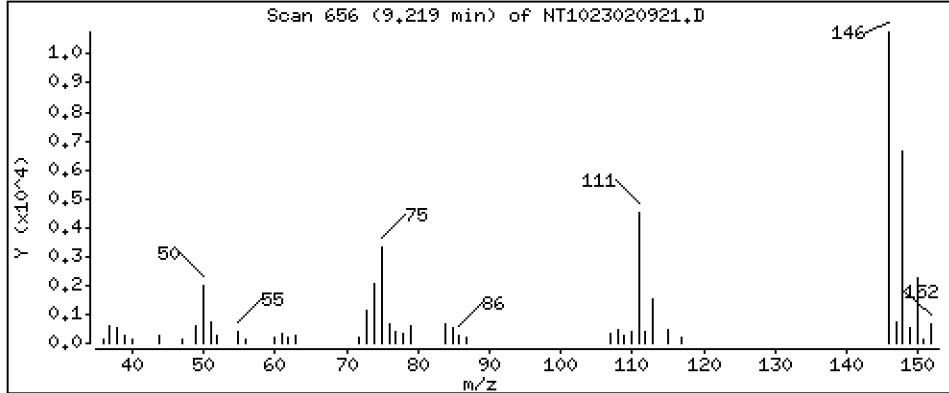
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,5261 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

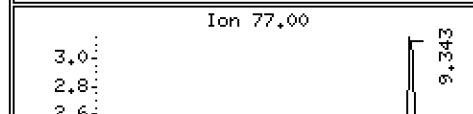
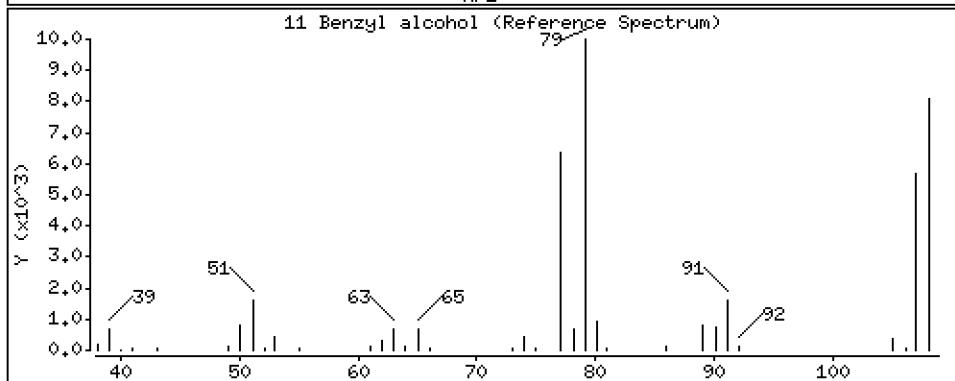
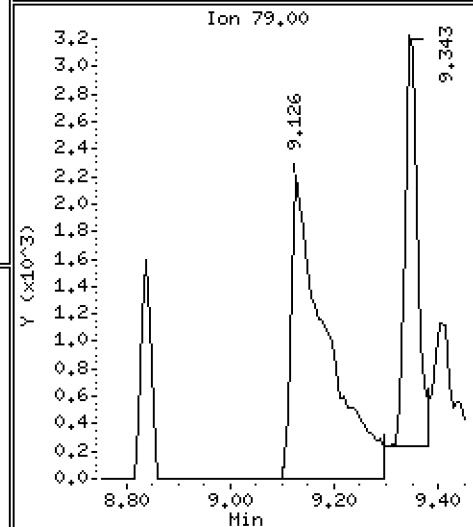
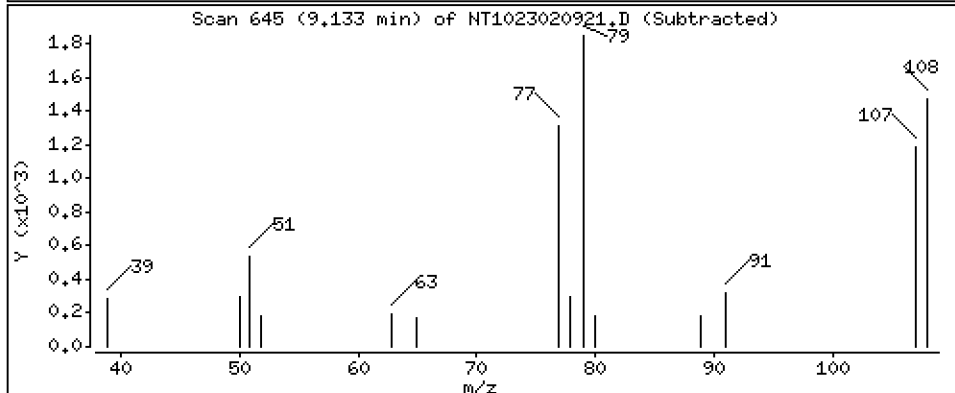
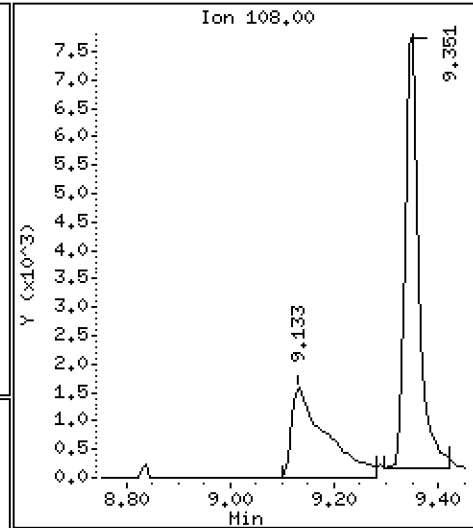
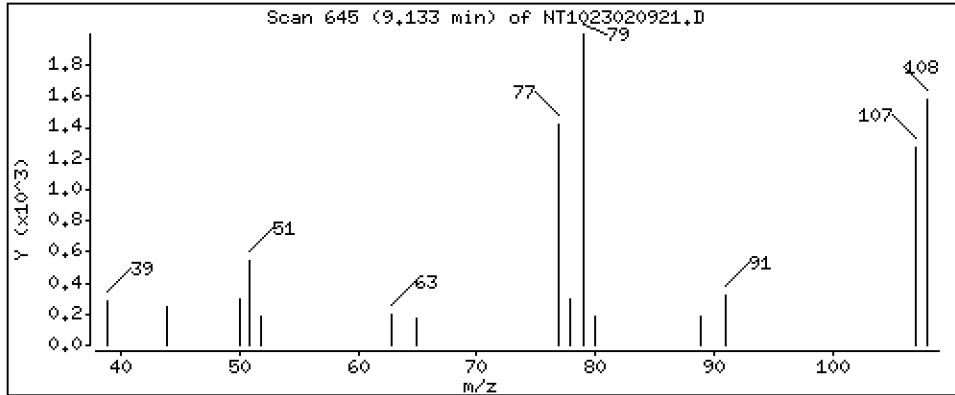
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 0,4284 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

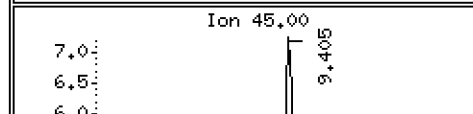
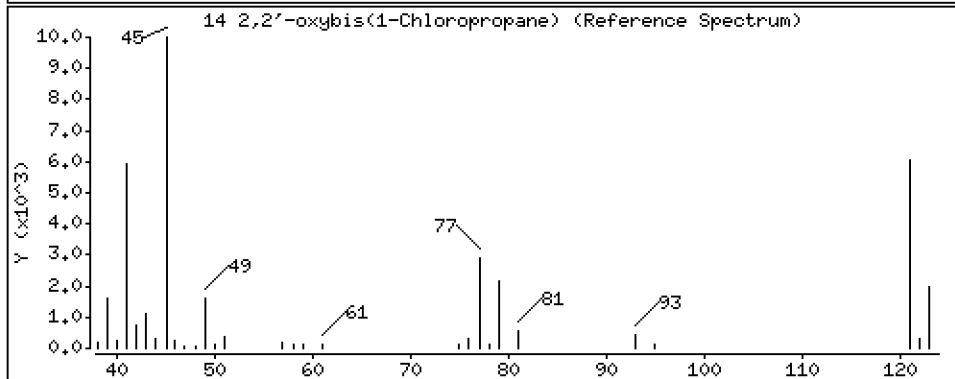
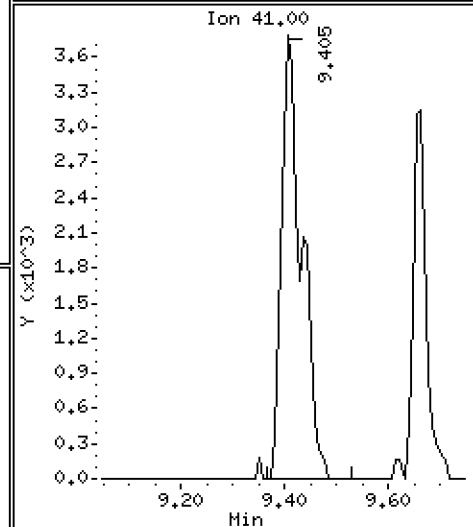
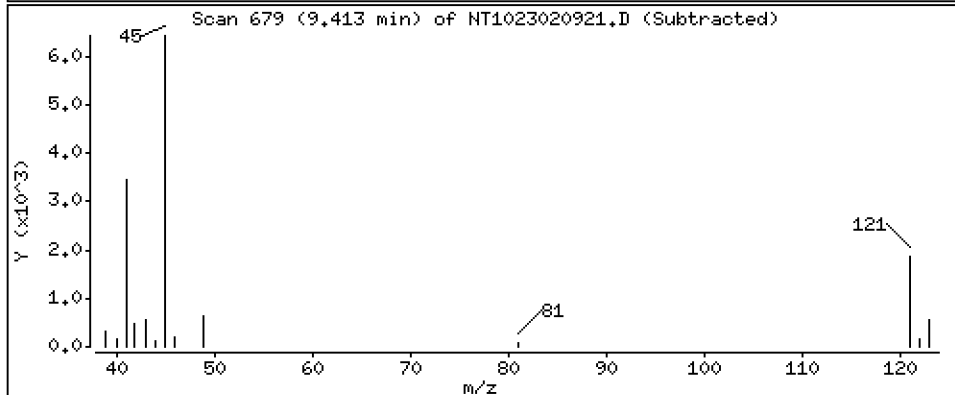
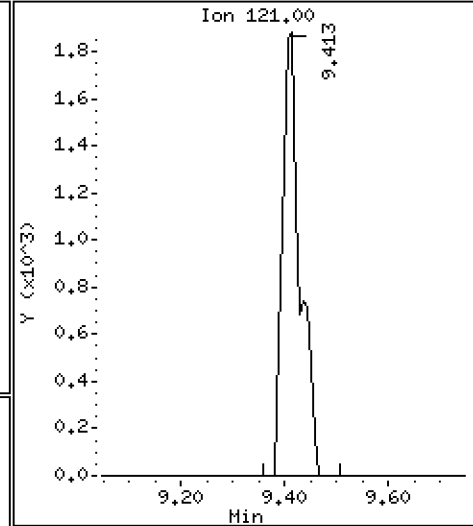
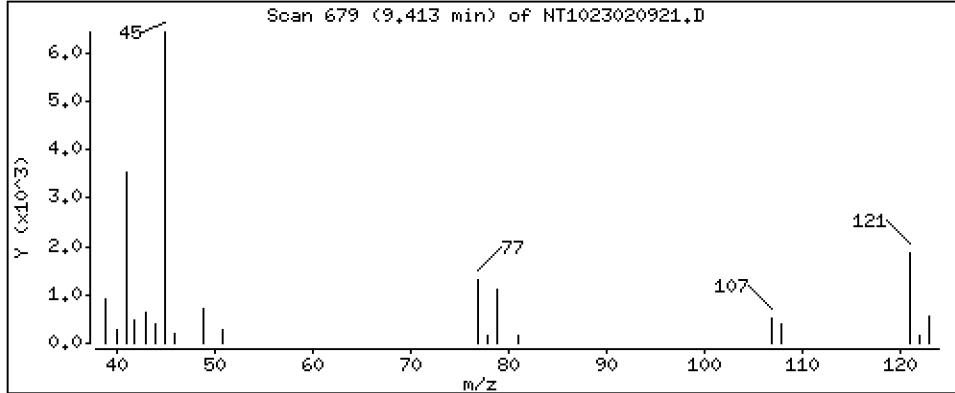
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 0,4844 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

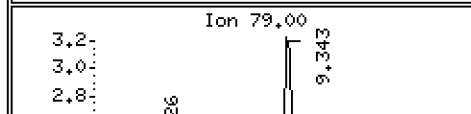
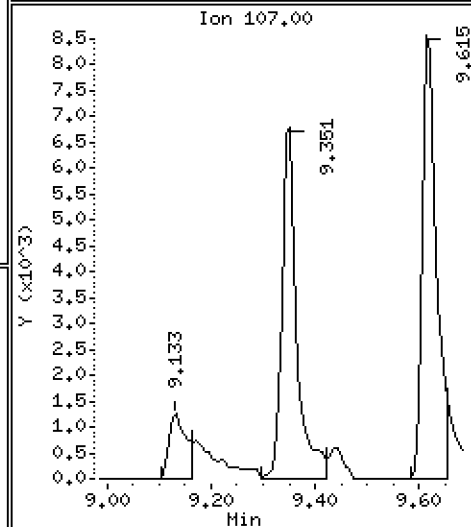
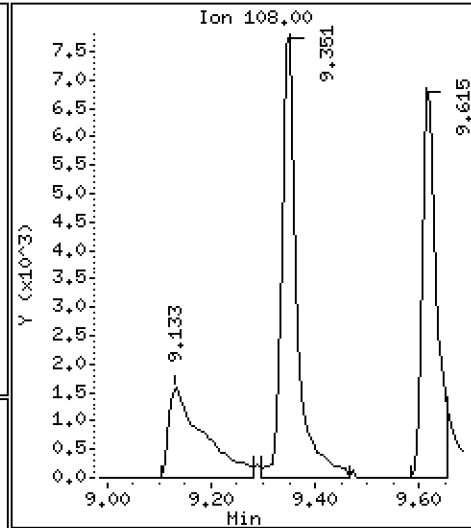
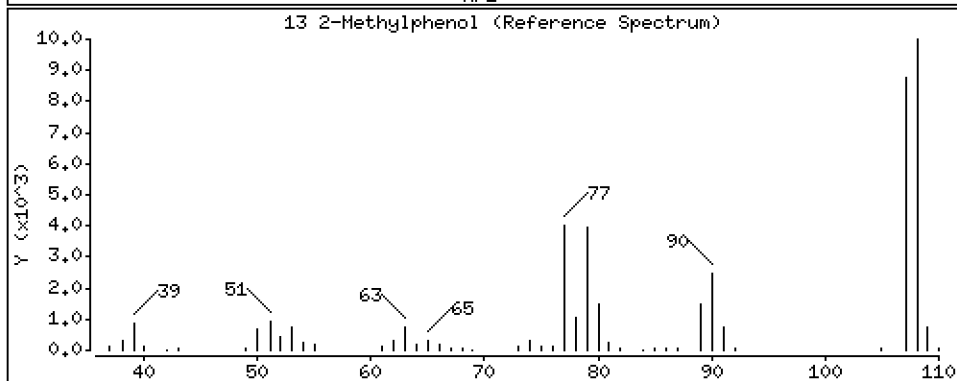
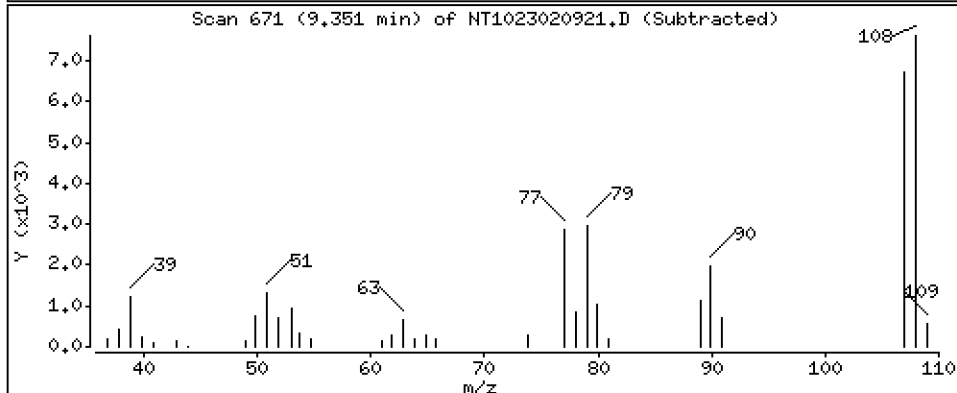
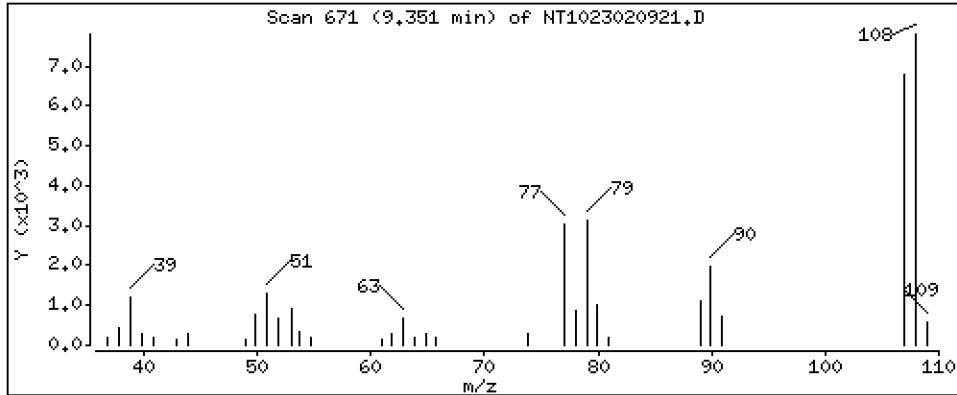
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 0,5986 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

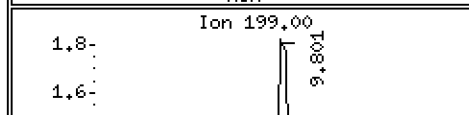
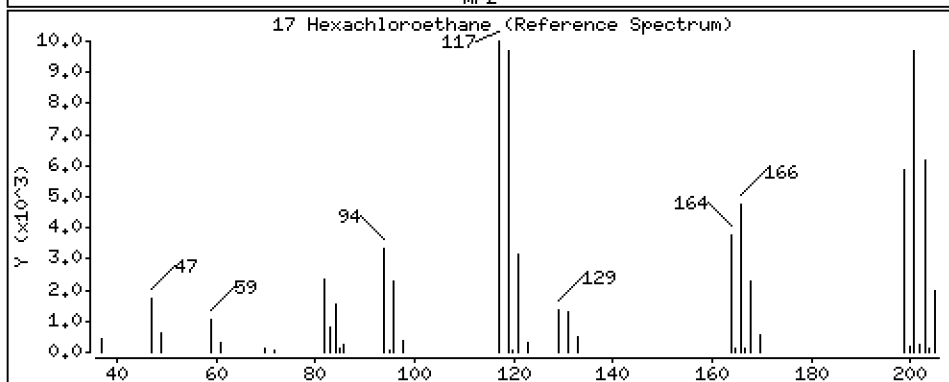
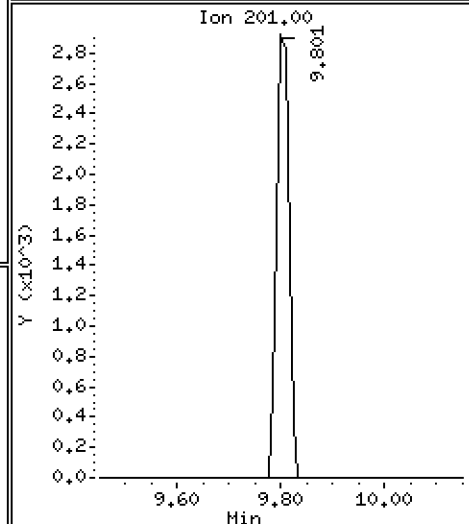
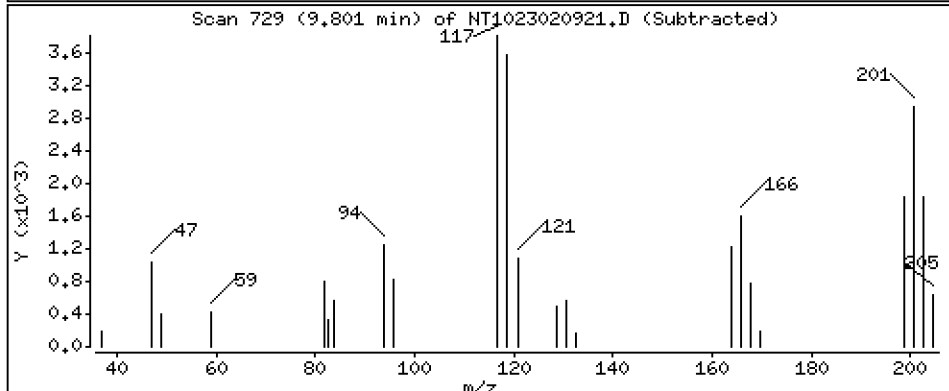
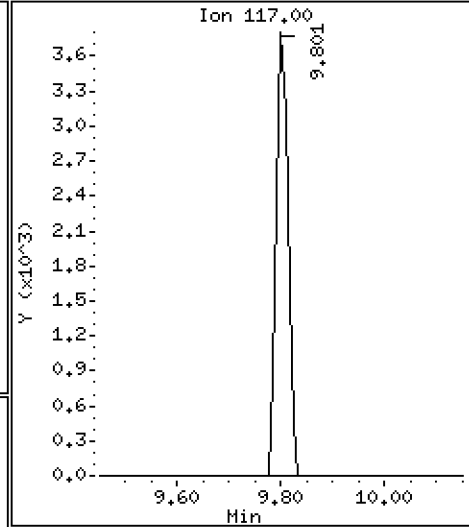
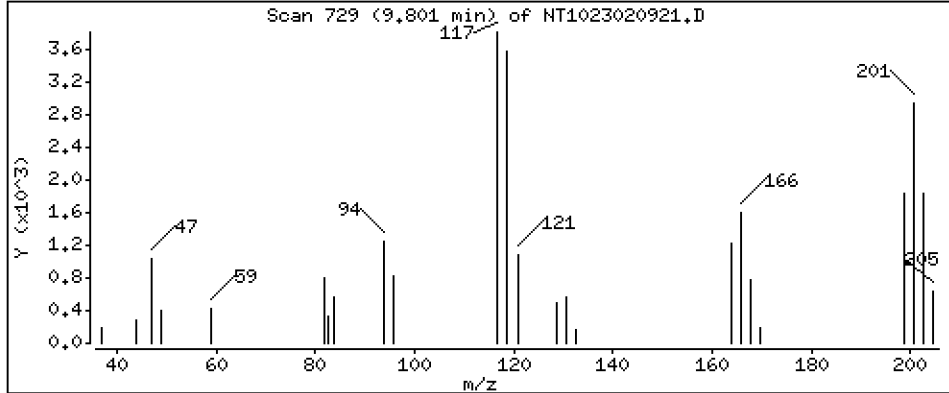
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 0,4459 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

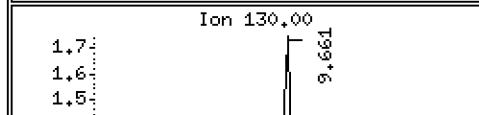
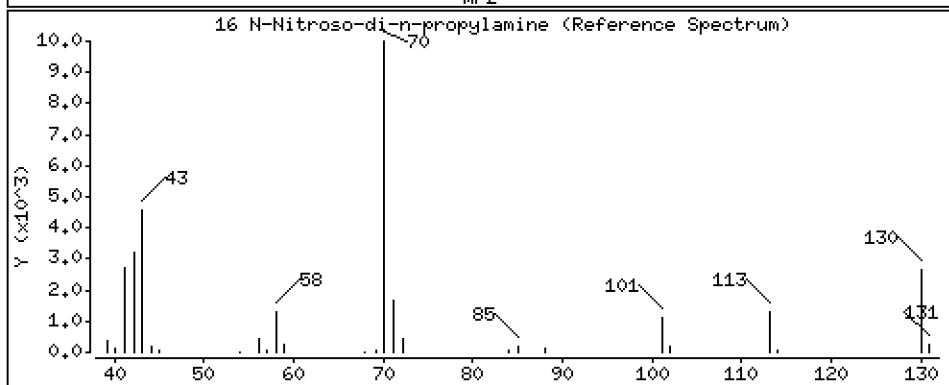
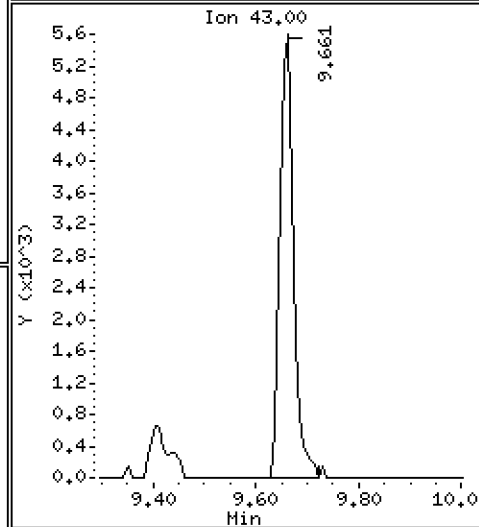
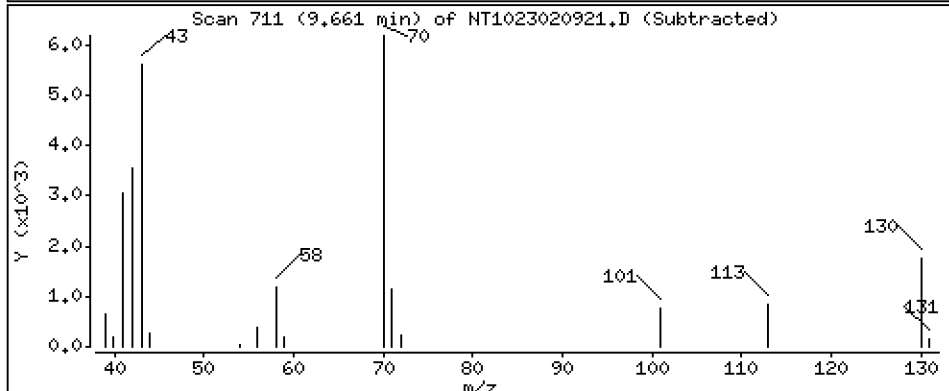
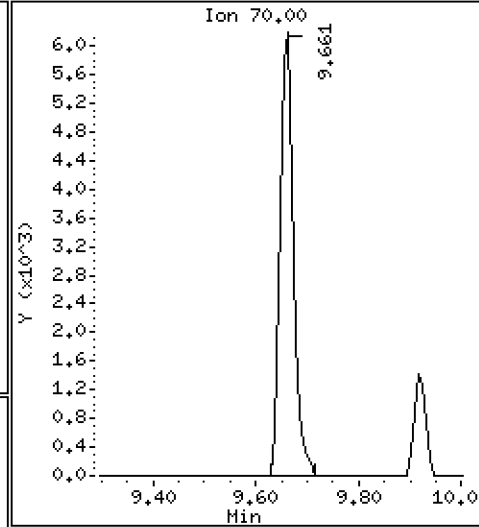
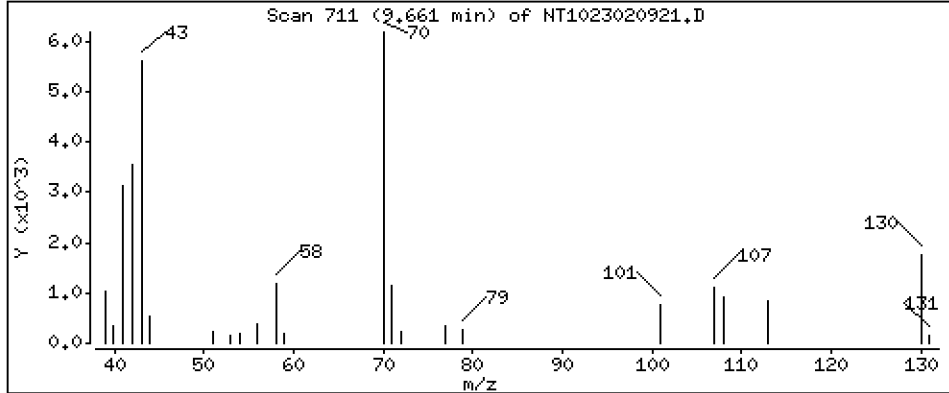
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 0,4872 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

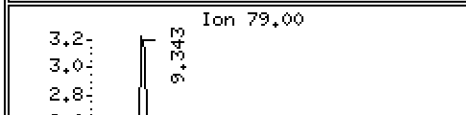
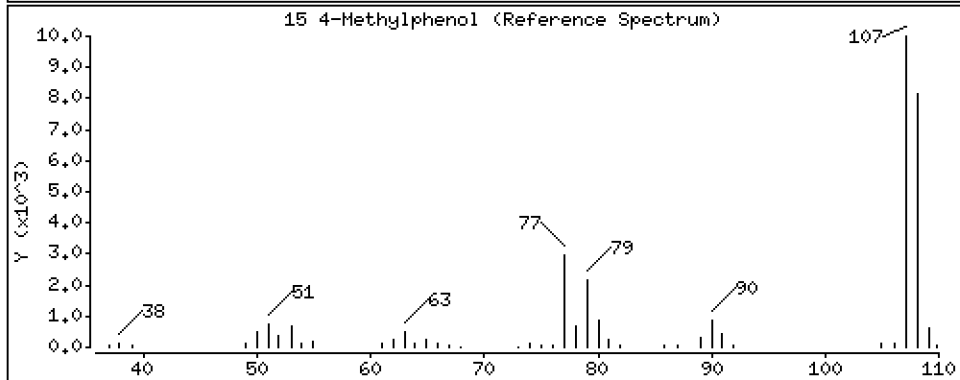
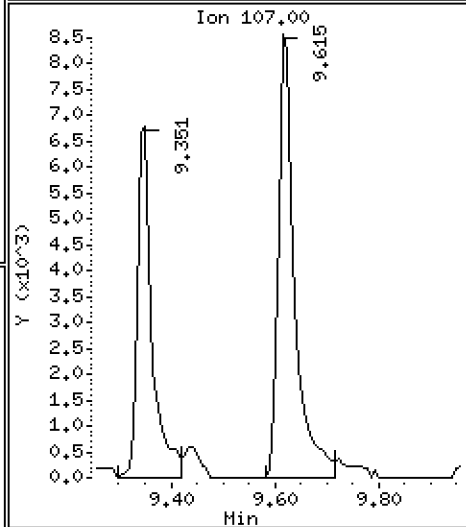
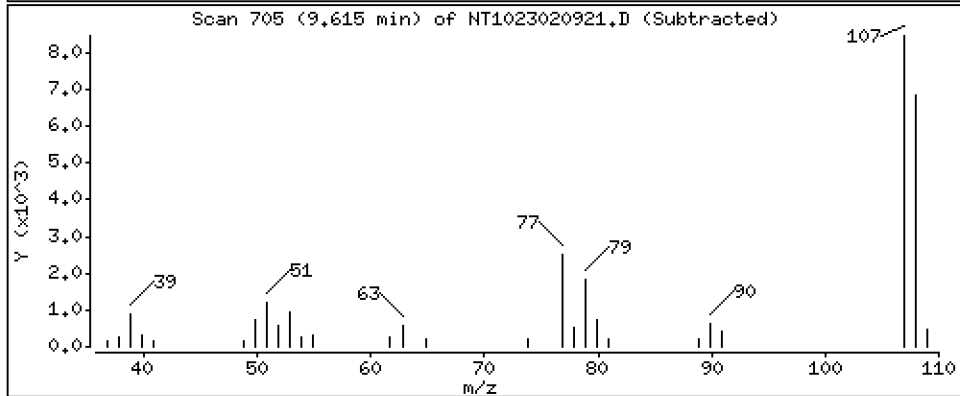
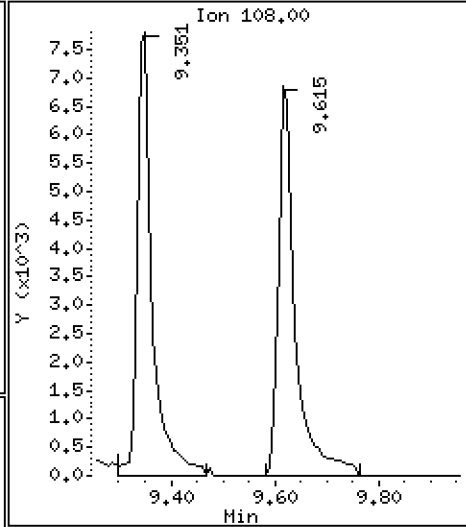
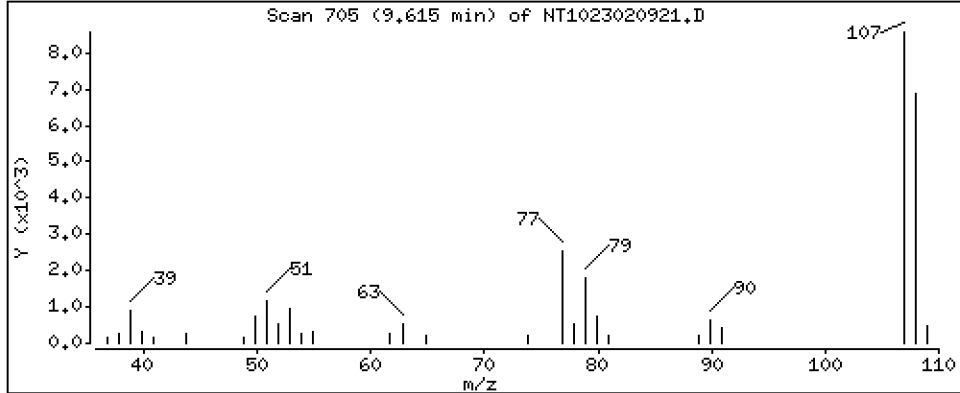
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 0,5042 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

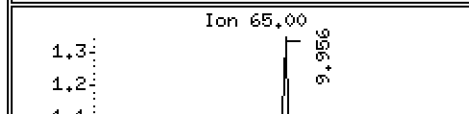
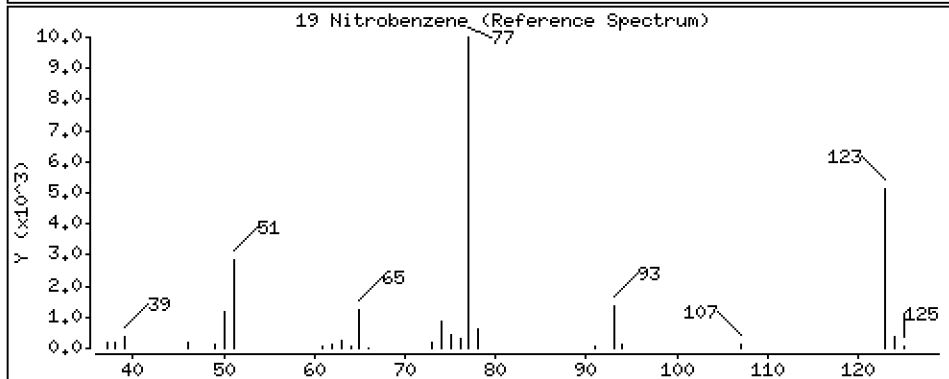
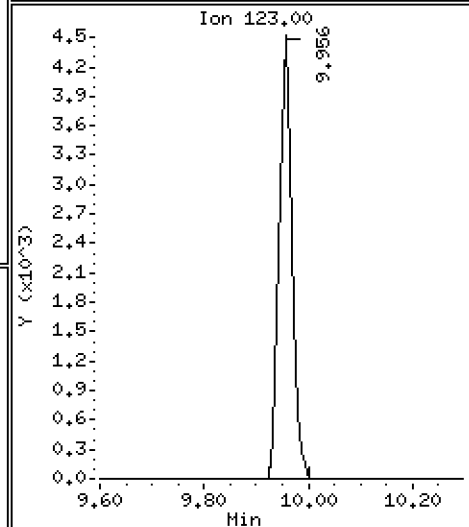
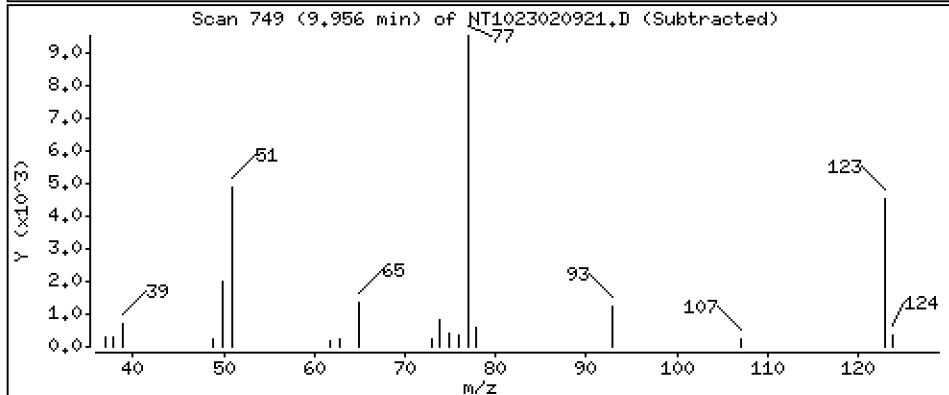
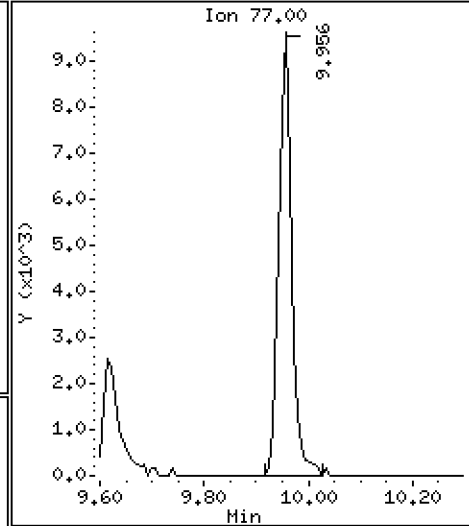
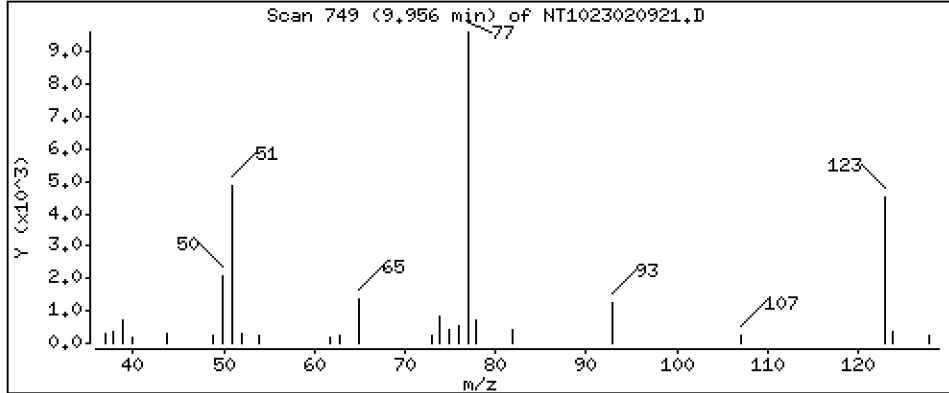
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 0,5285 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

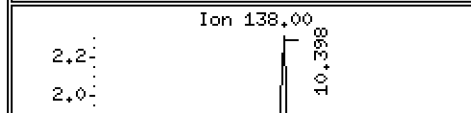
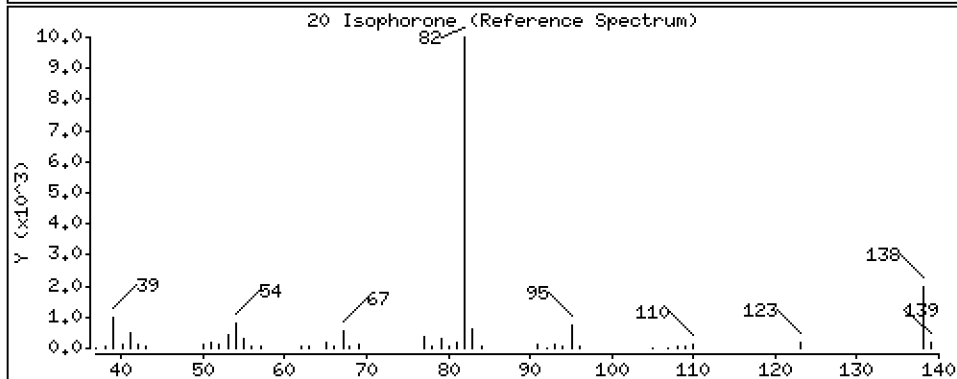
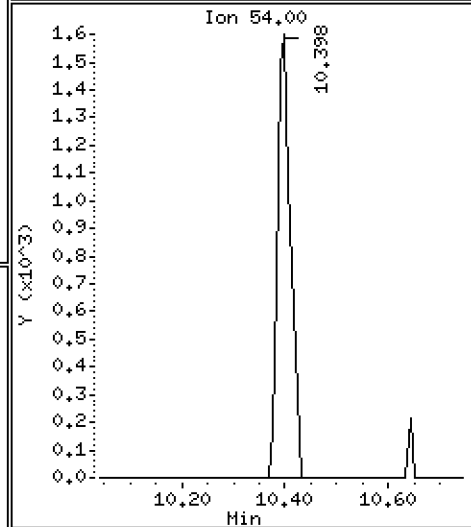
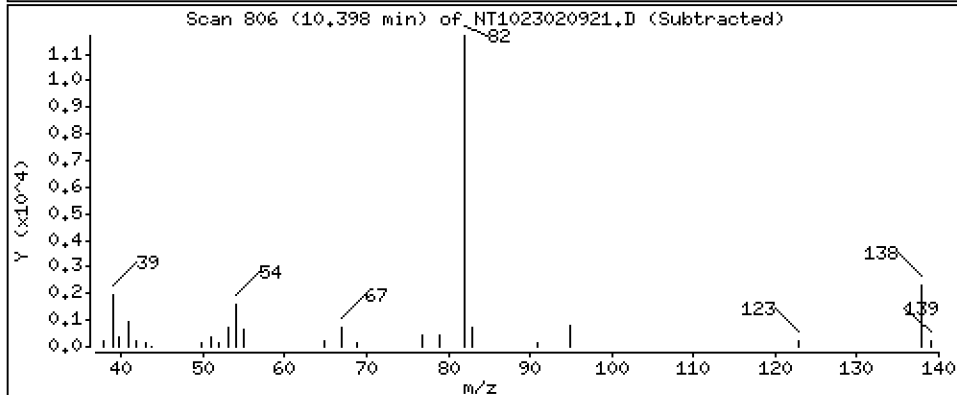
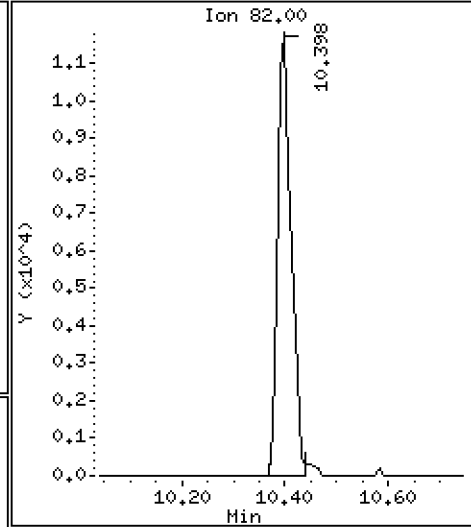
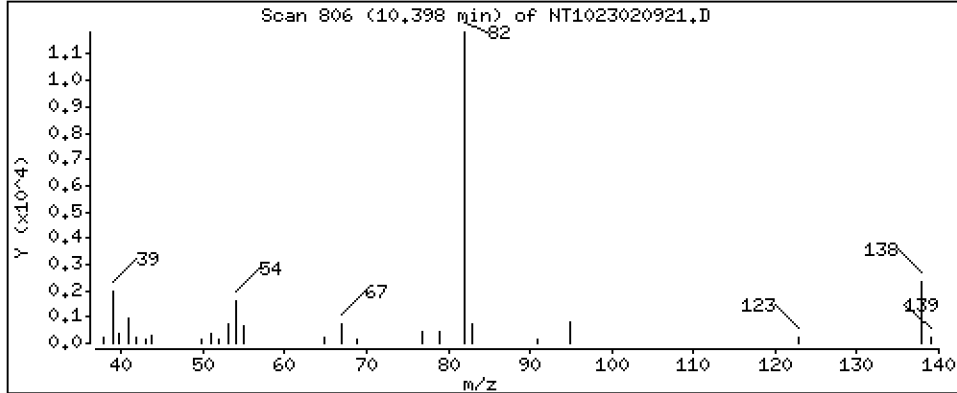
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 0,5413 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

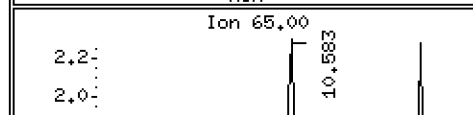
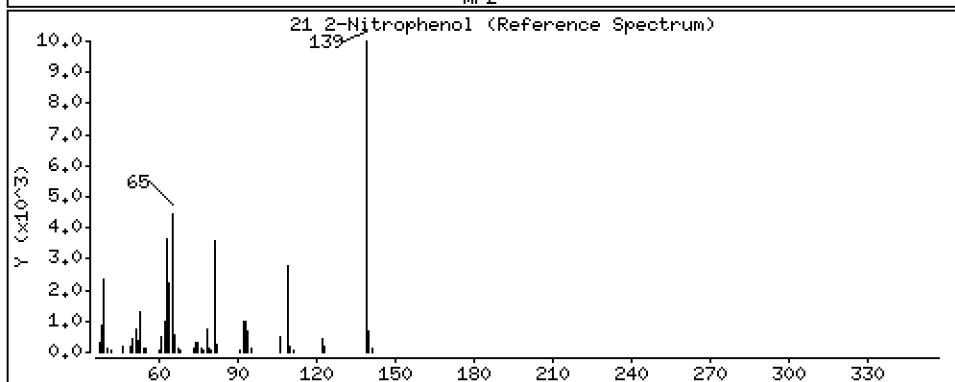
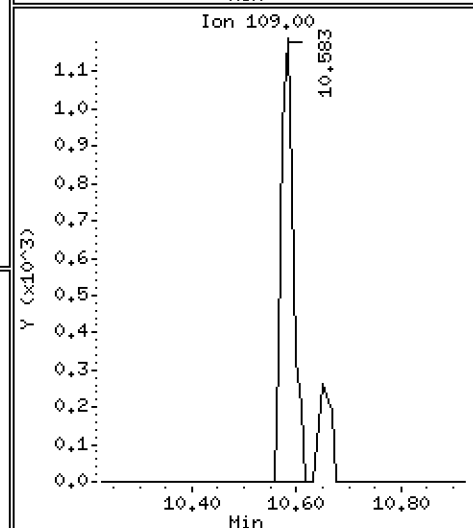
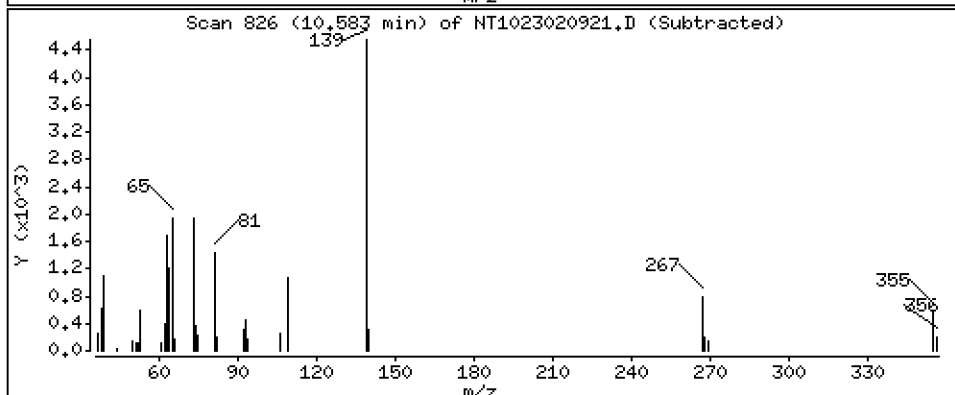
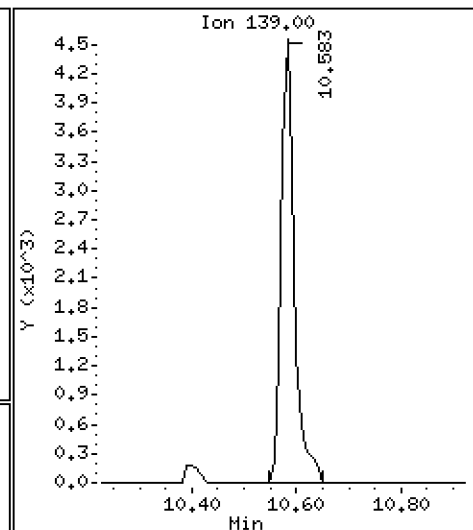
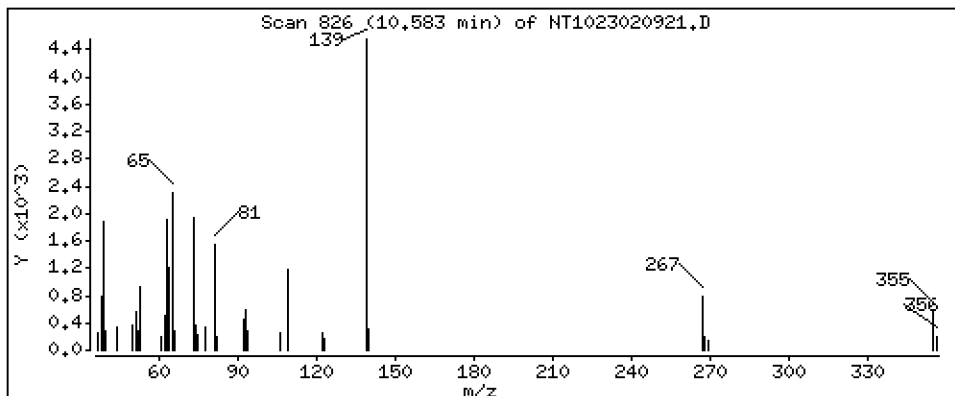
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,5089 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

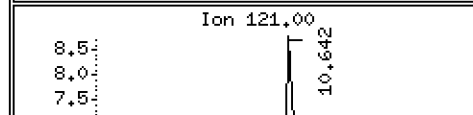
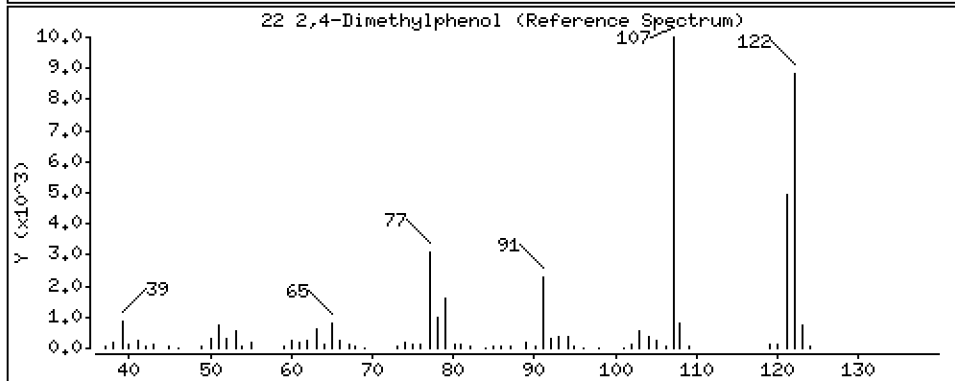
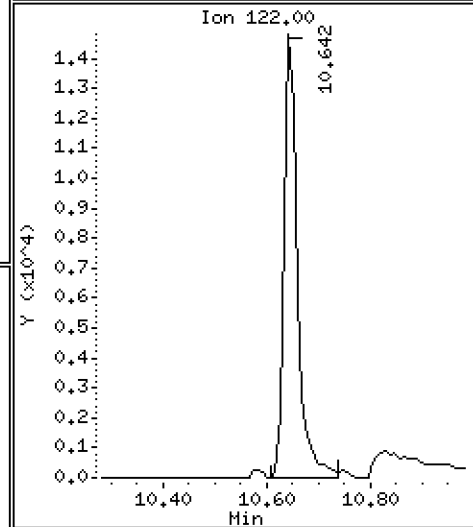
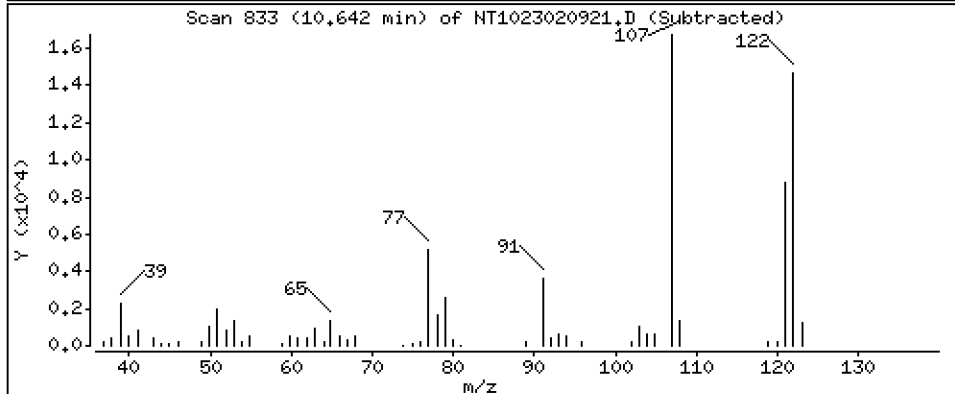
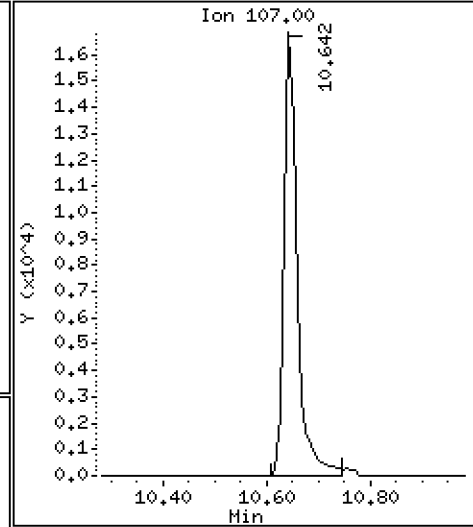
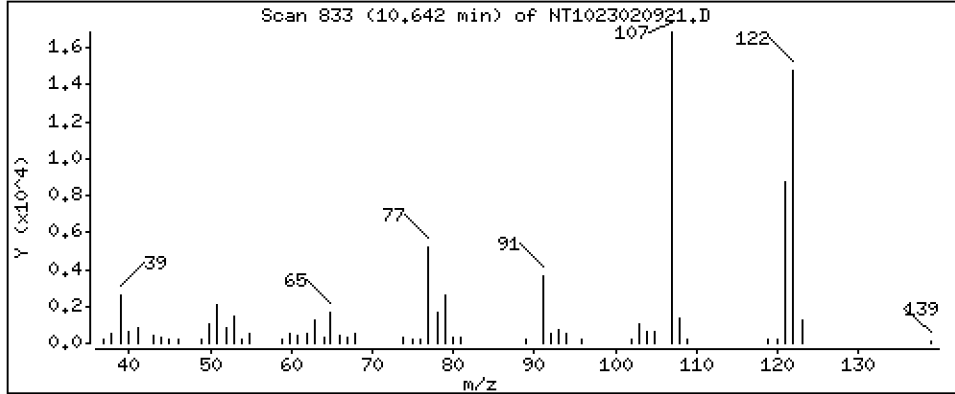
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 1,057 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

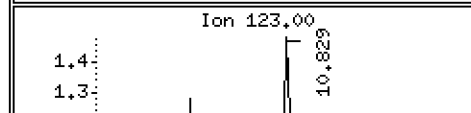
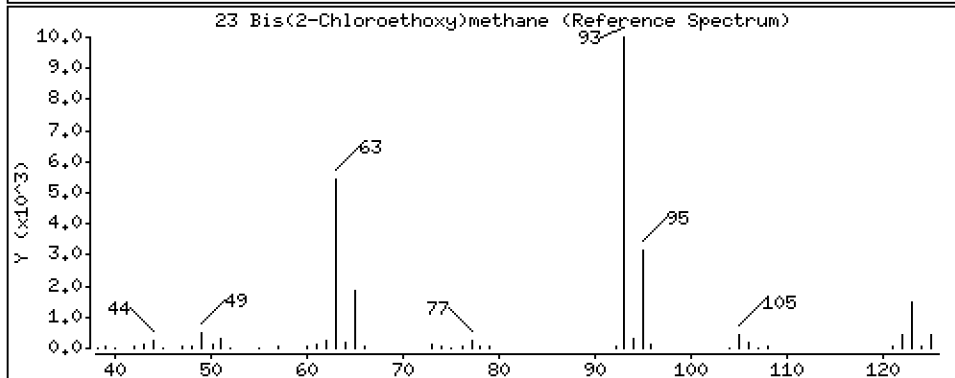
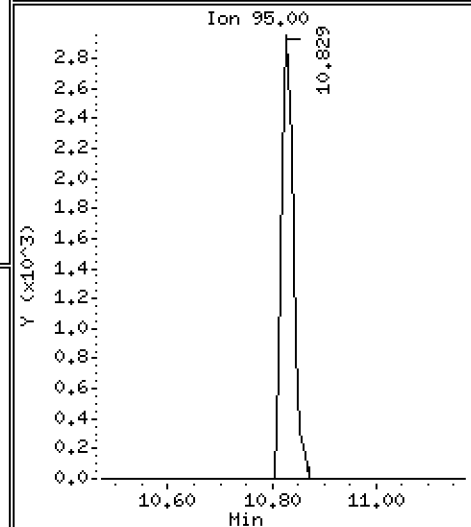
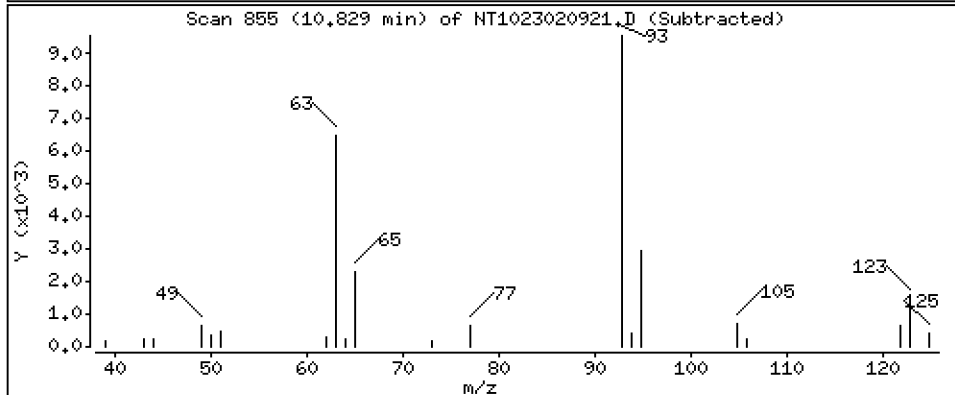
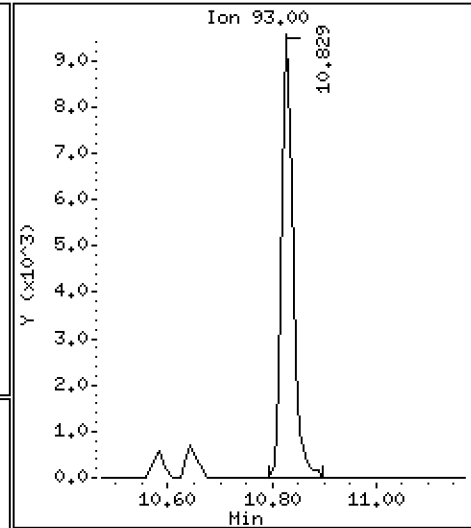
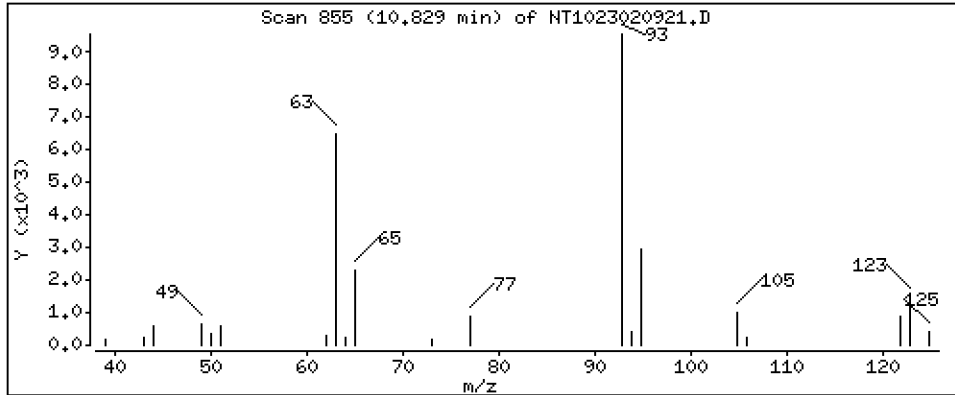
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 0,5347 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

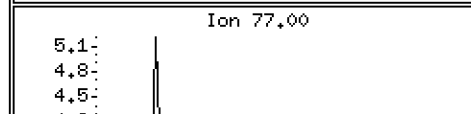
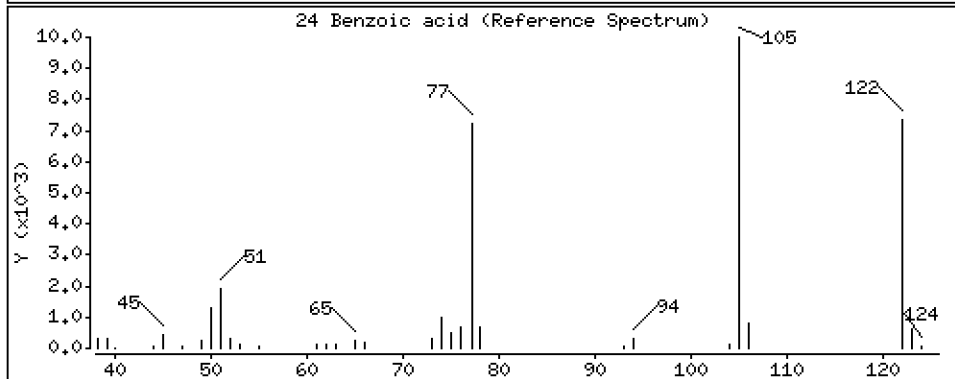
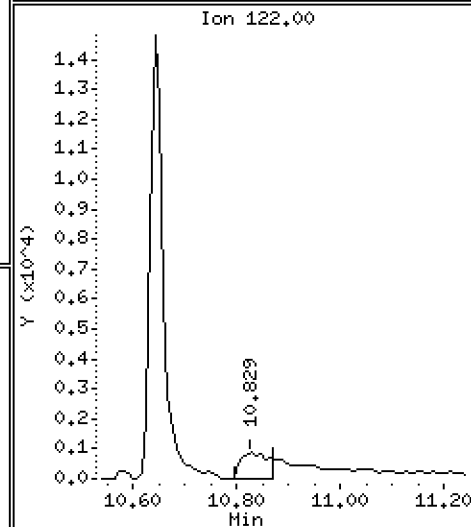
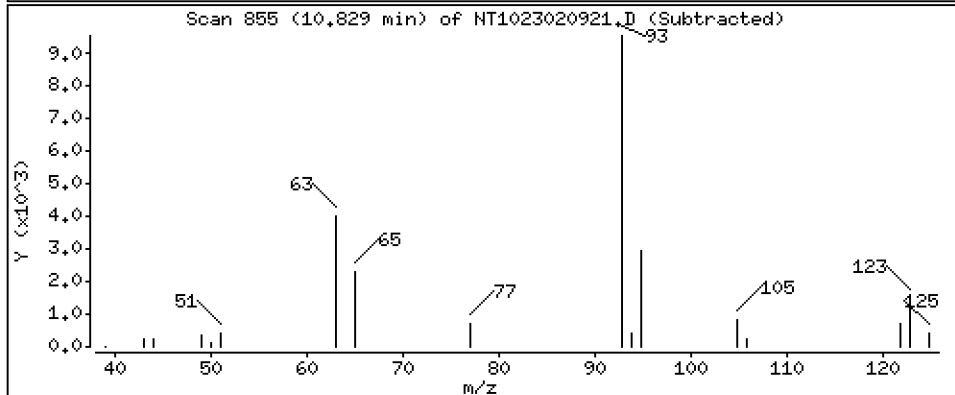
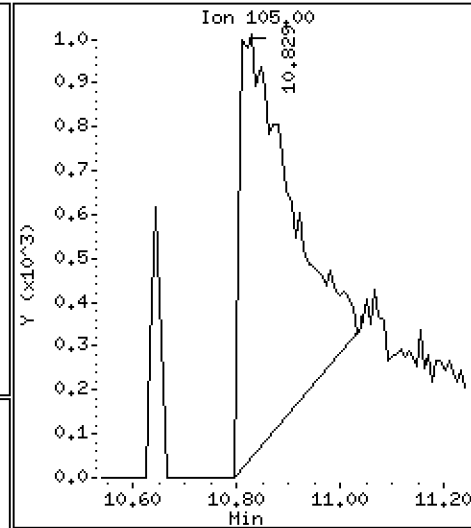
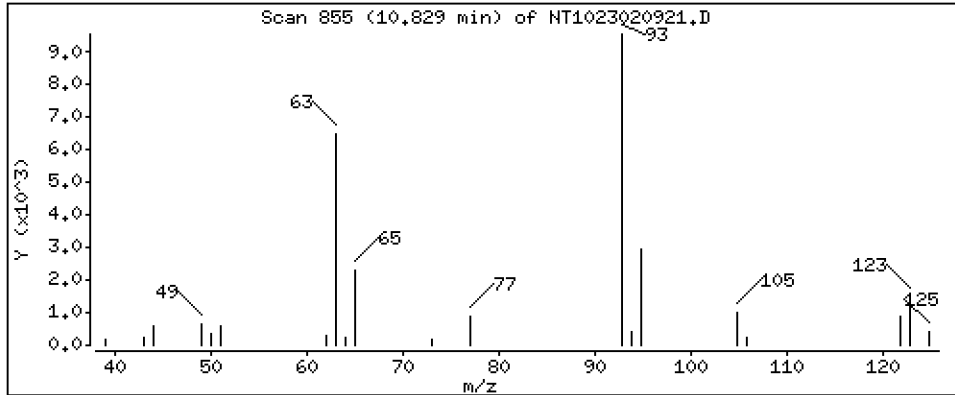
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 0,4094 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

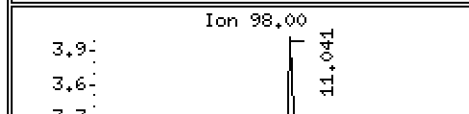
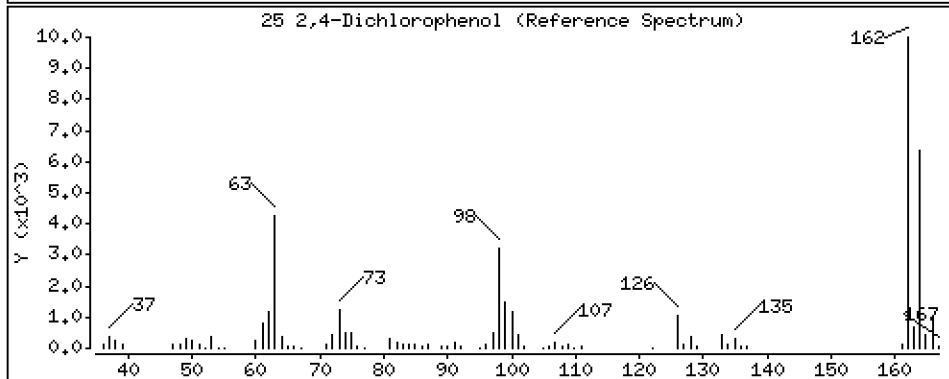
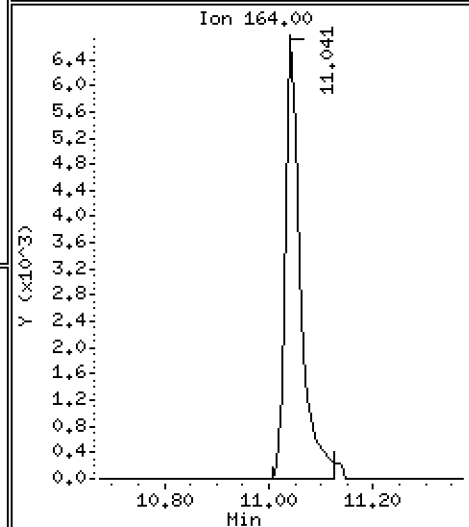
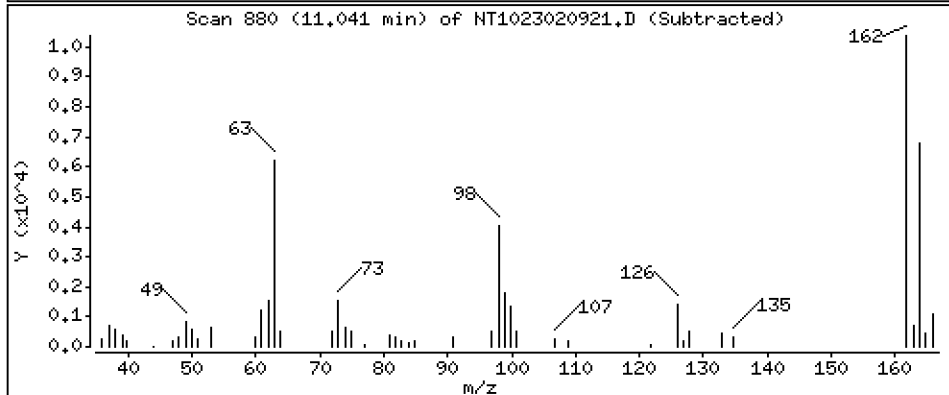
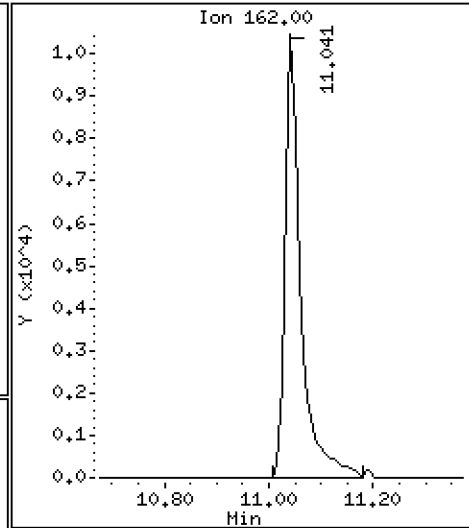
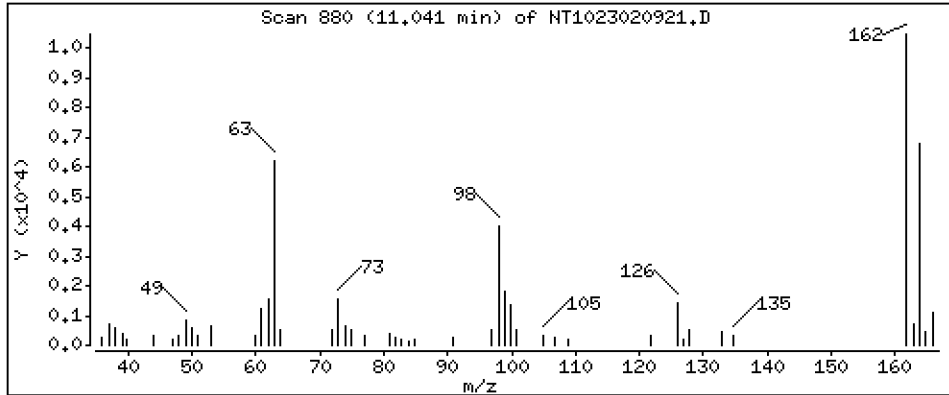
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 0,9918 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

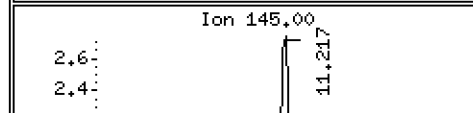
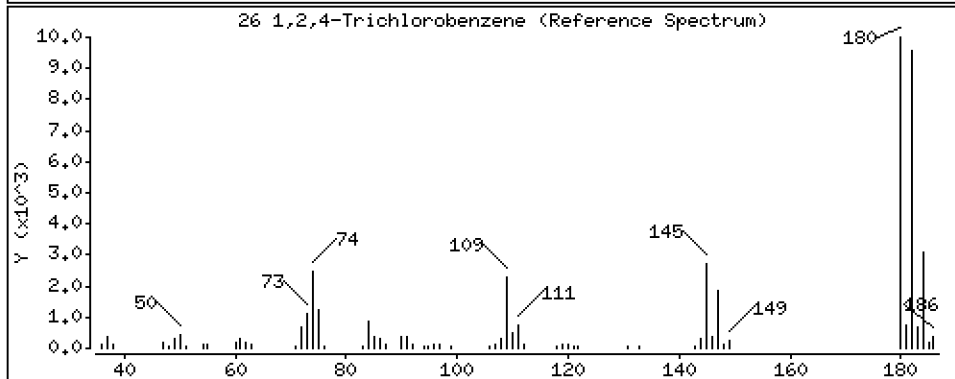
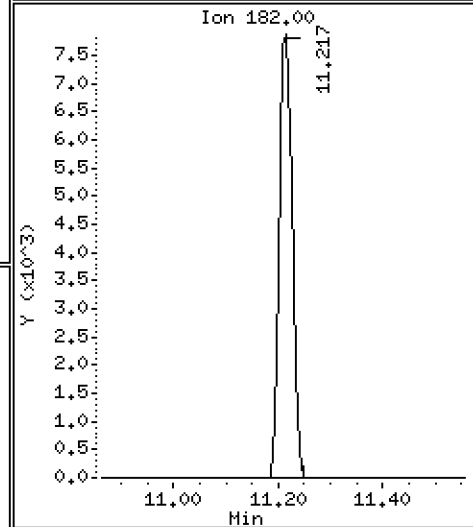
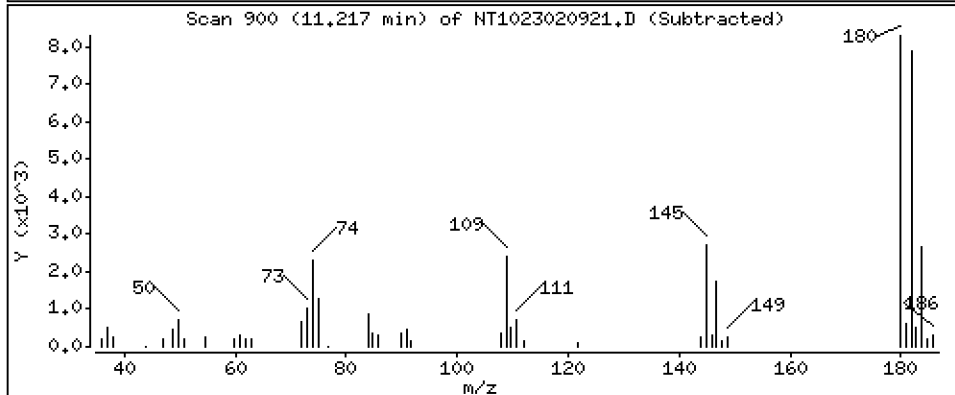
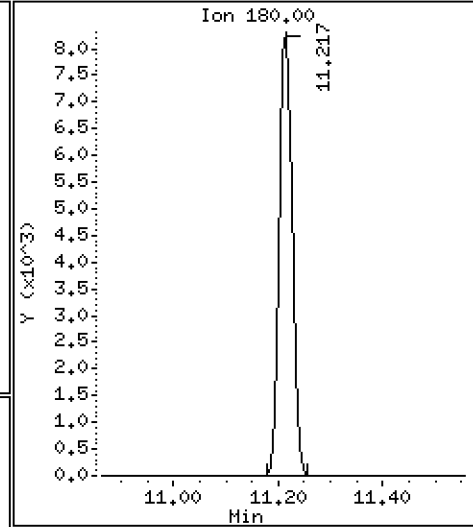
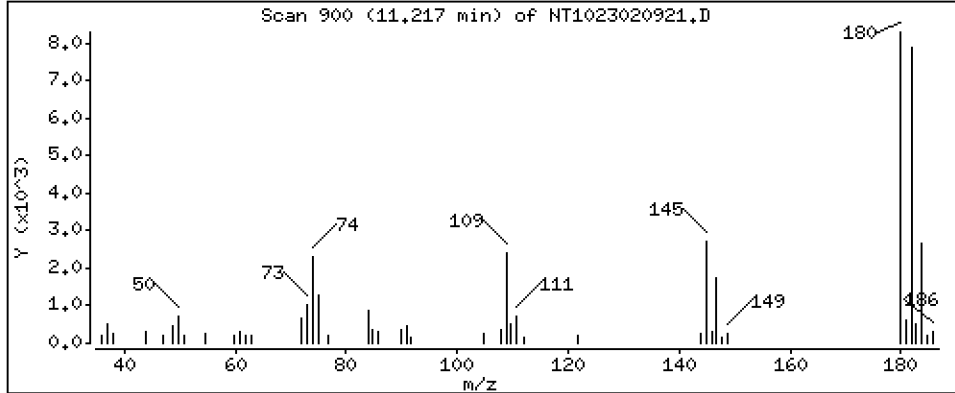
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,5482 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

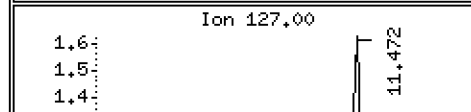
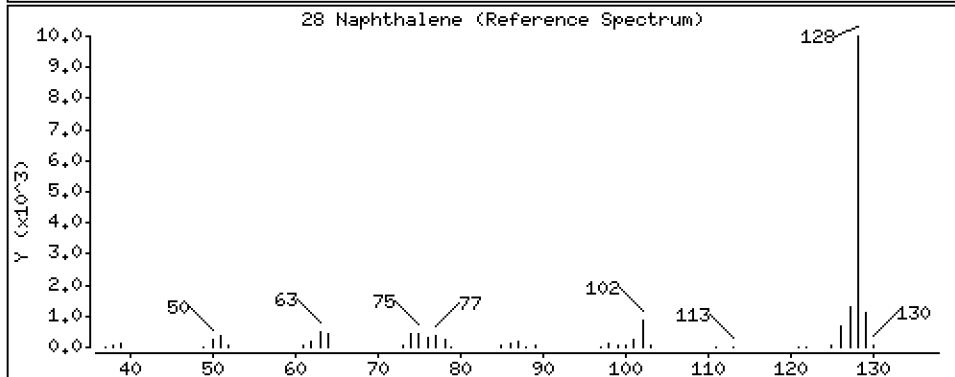
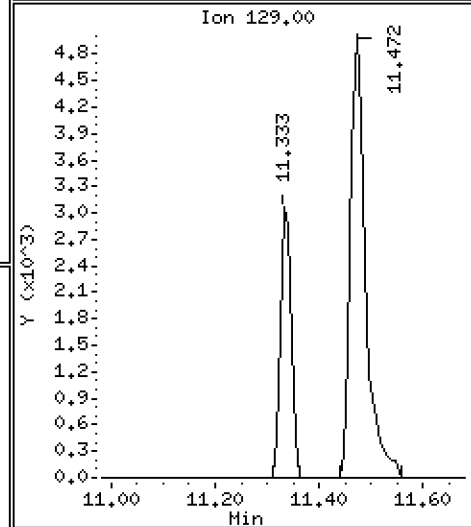
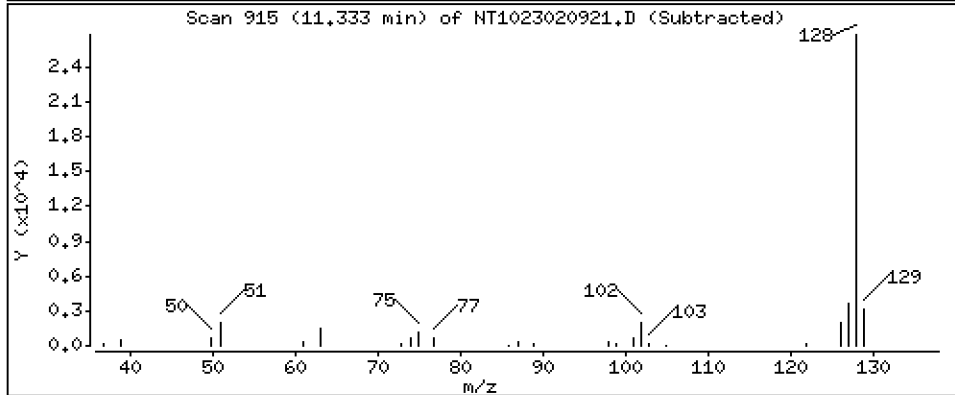
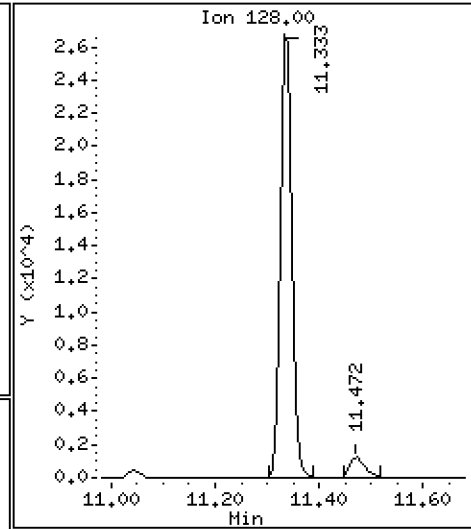
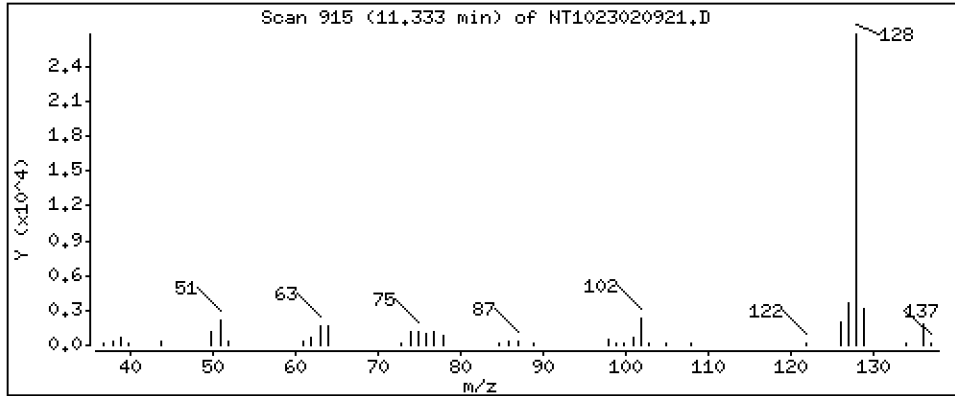
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,5208 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

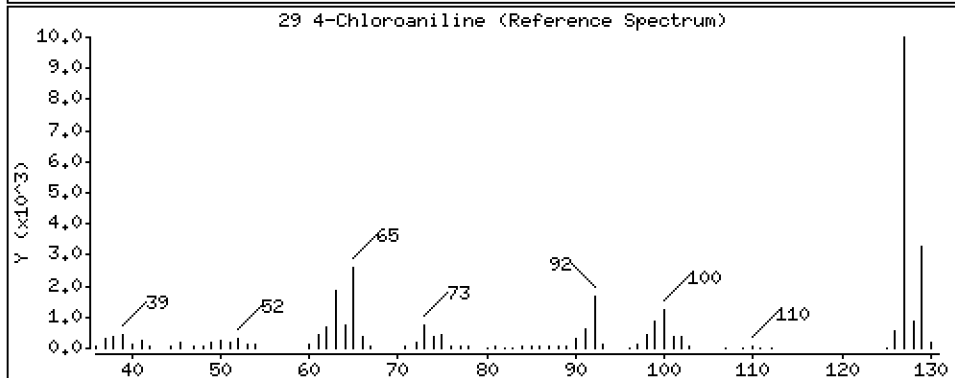
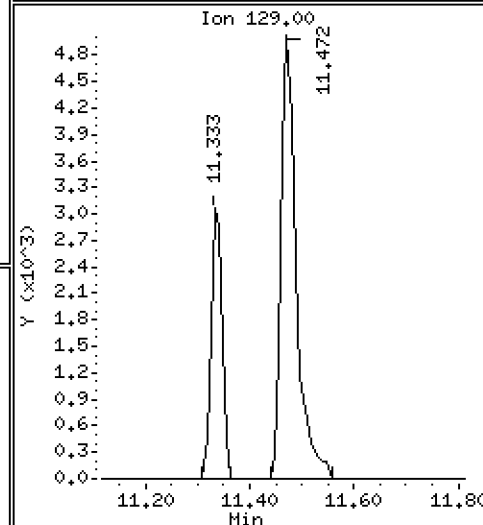
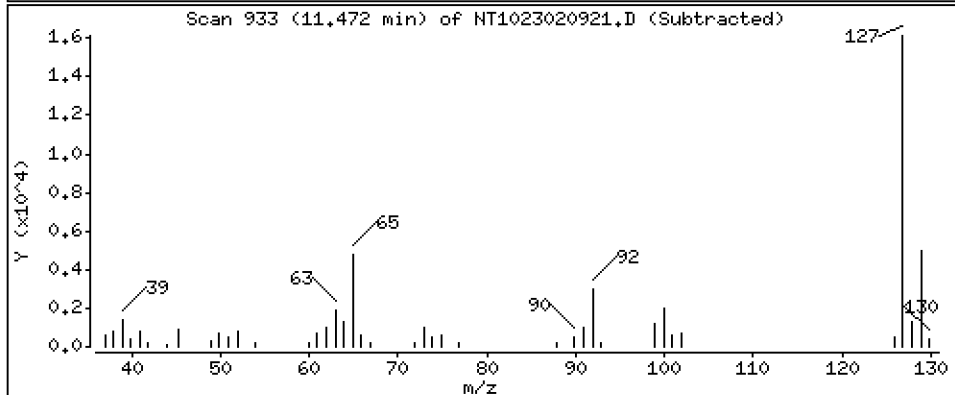
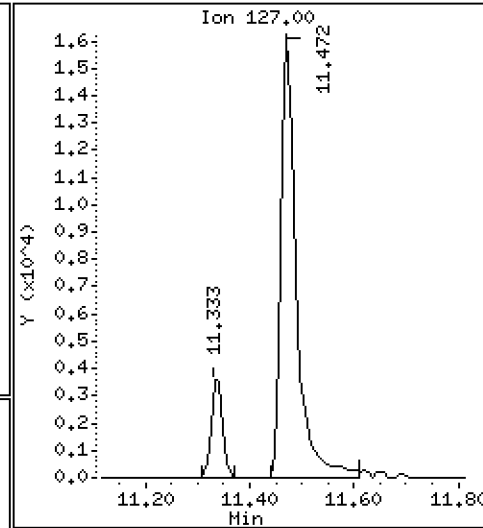
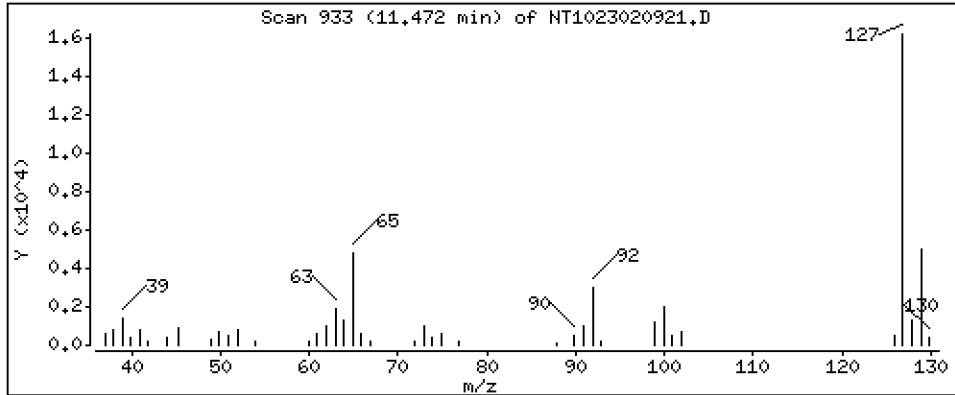
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 0,9254 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

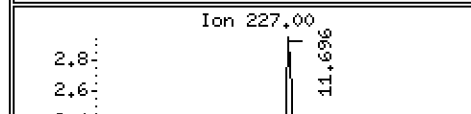
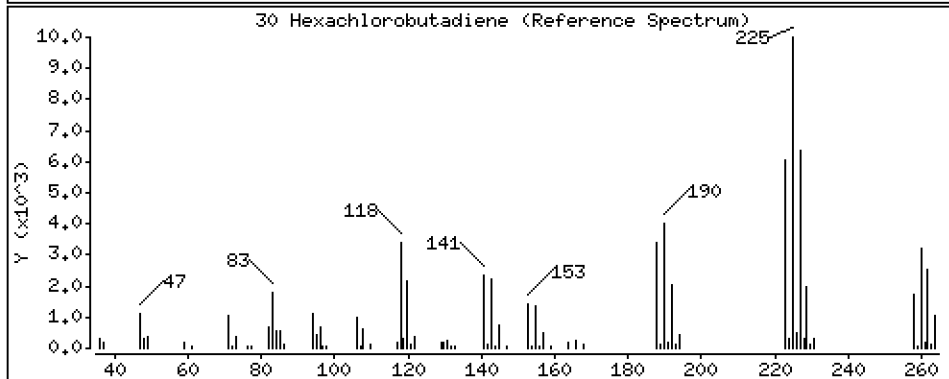
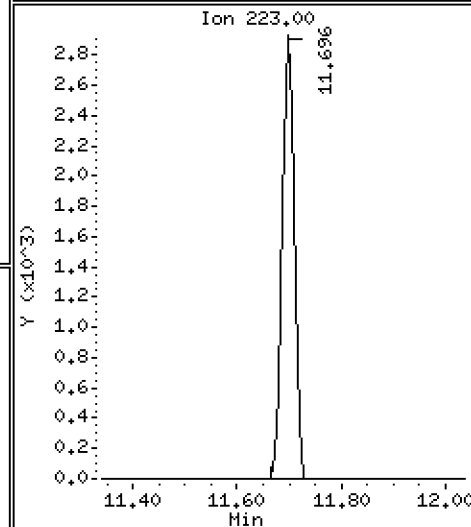
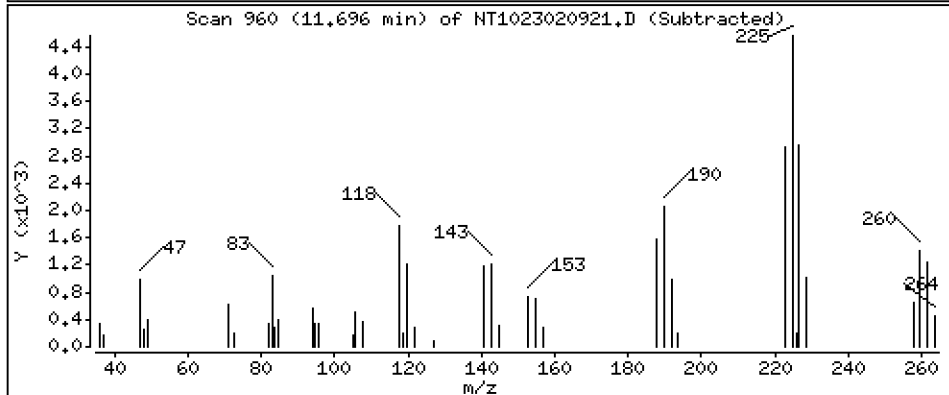
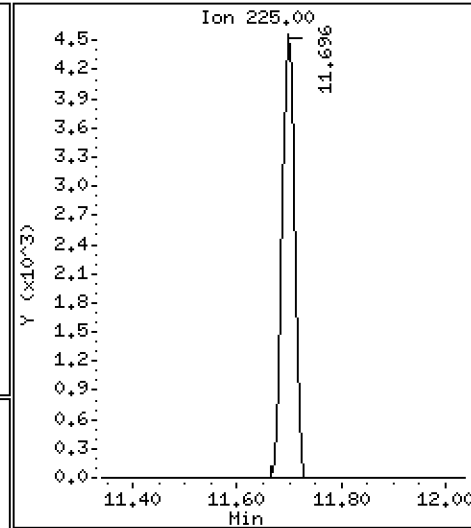
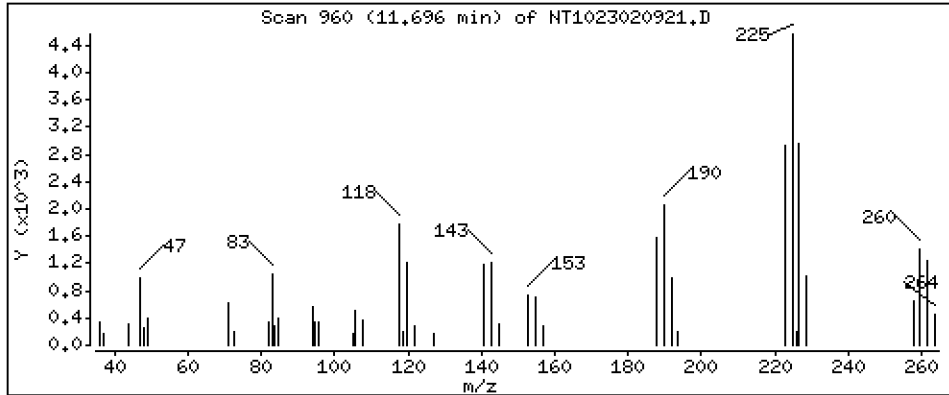
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,5539 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

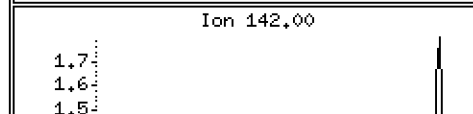
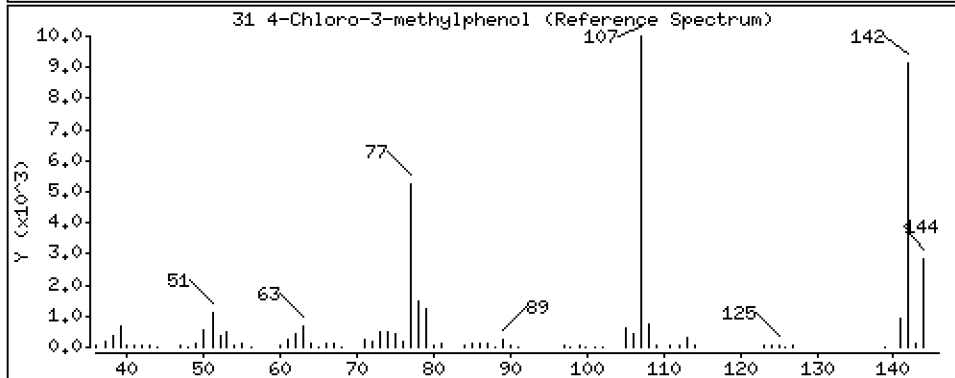
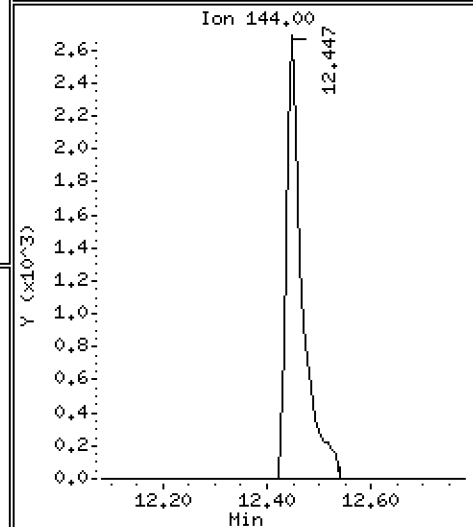
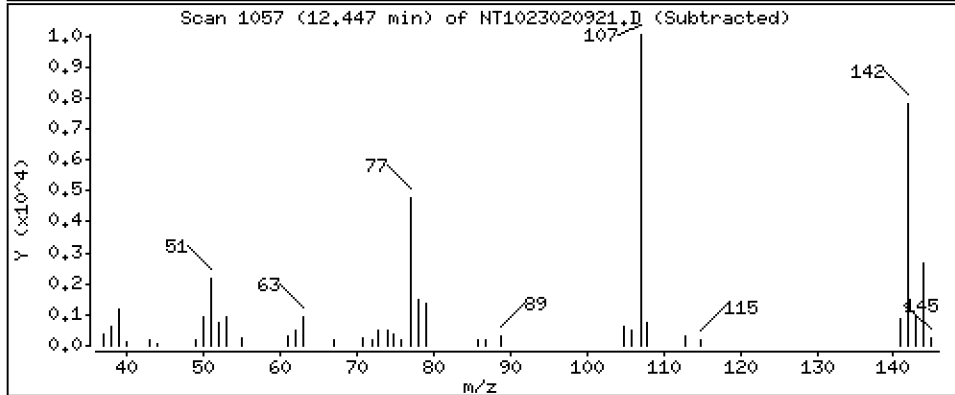
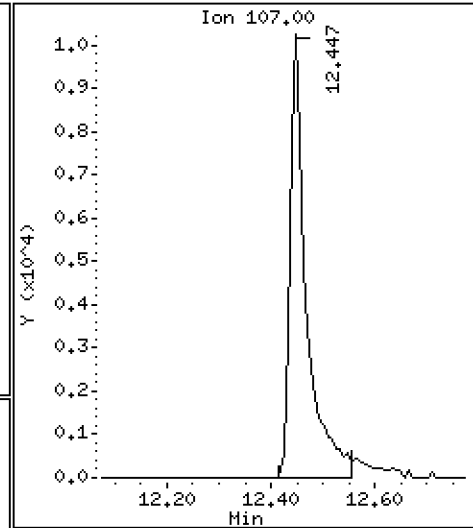
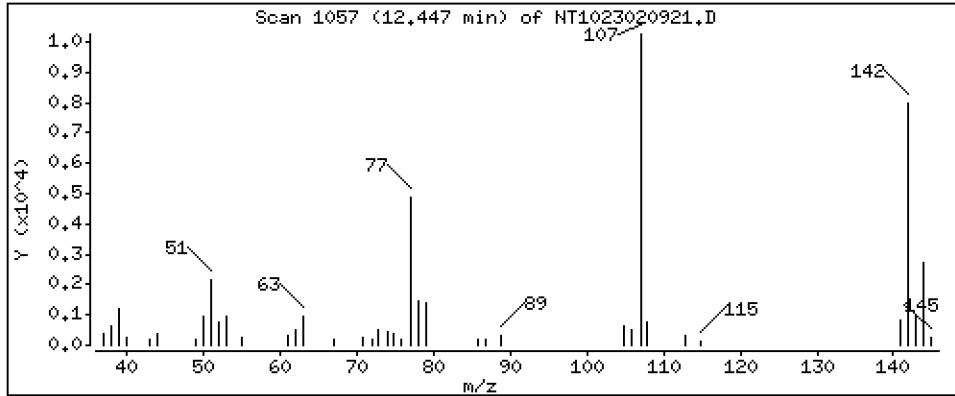
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 0,9240 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

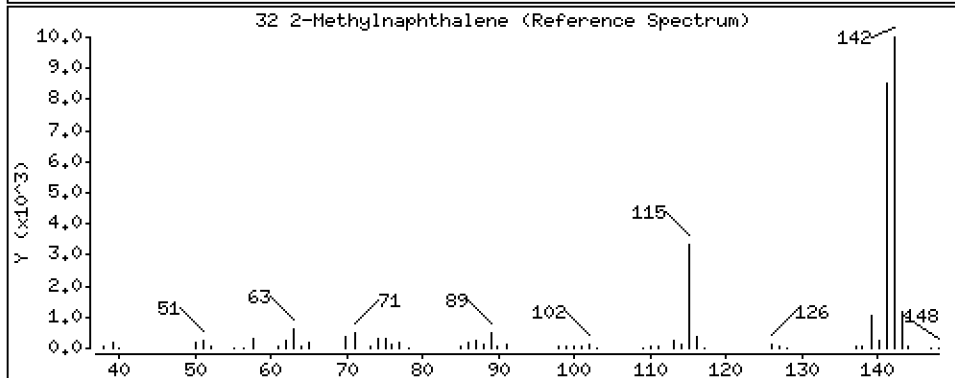
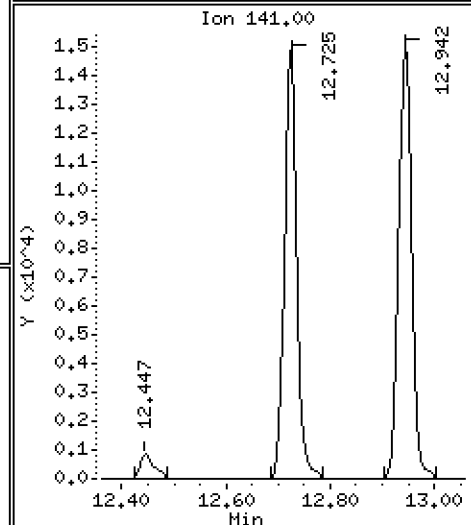
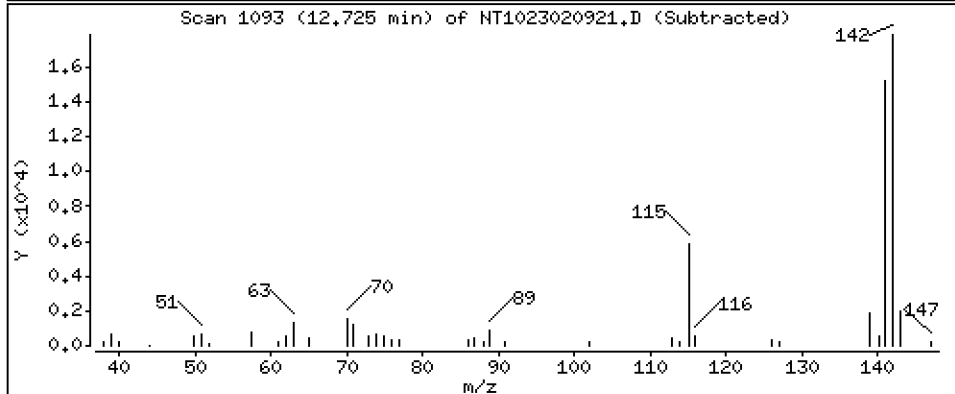
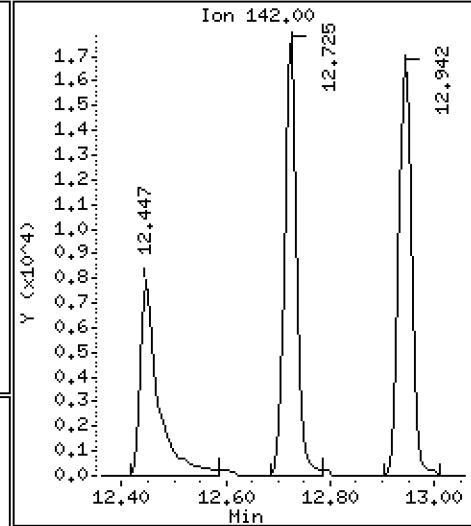
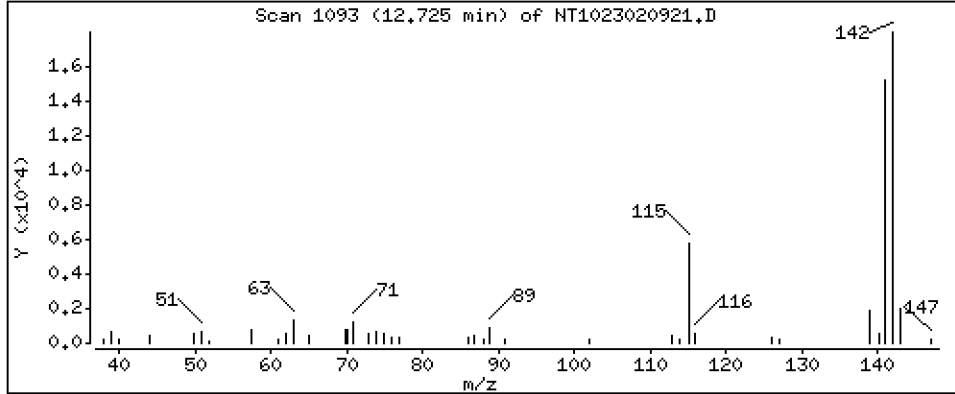
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,5035 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

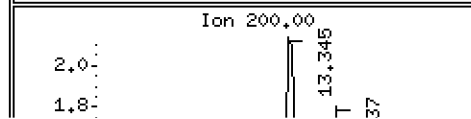
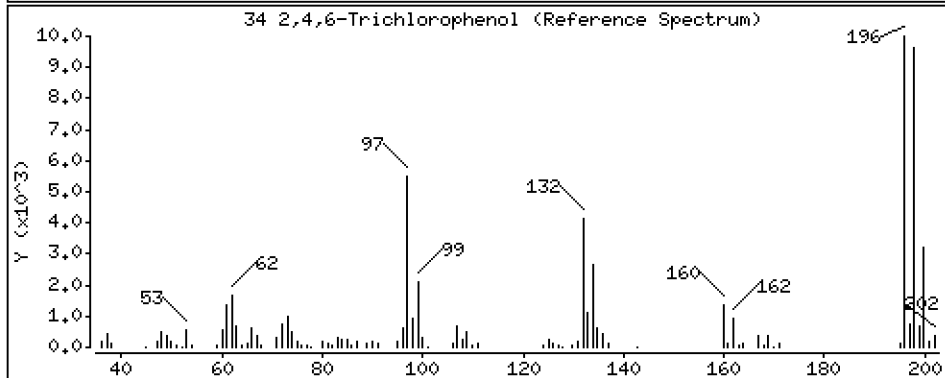
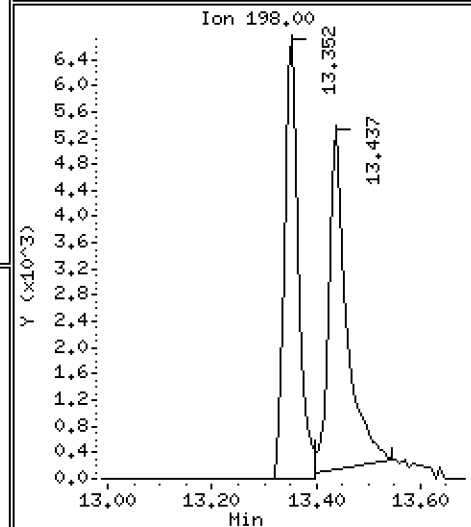
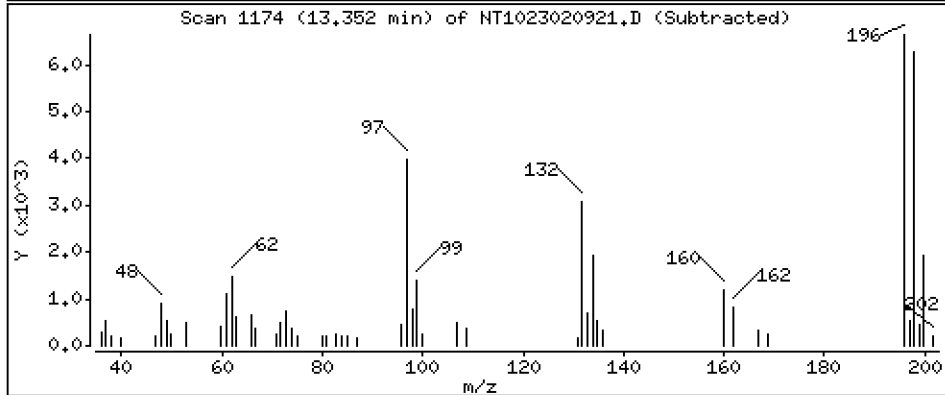
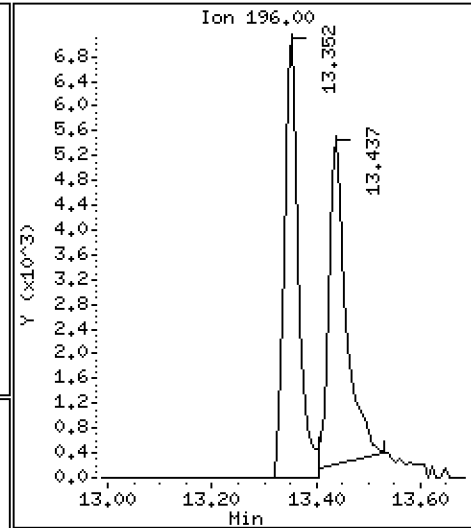
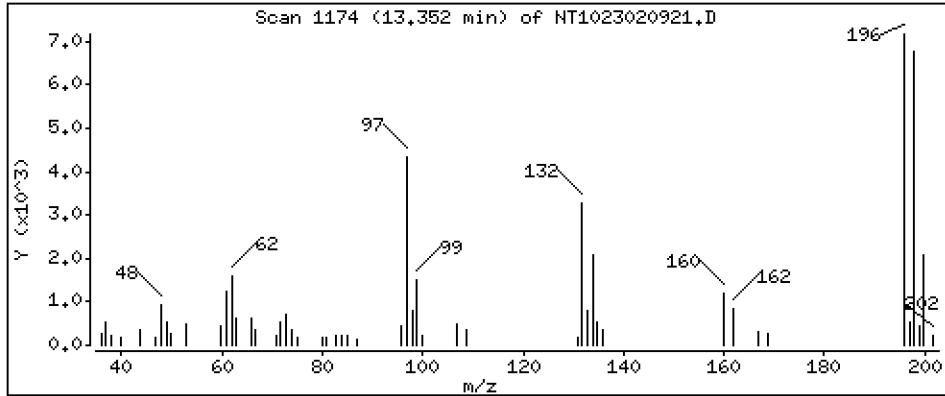
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 0,9743 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

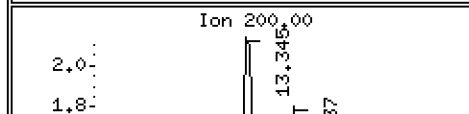
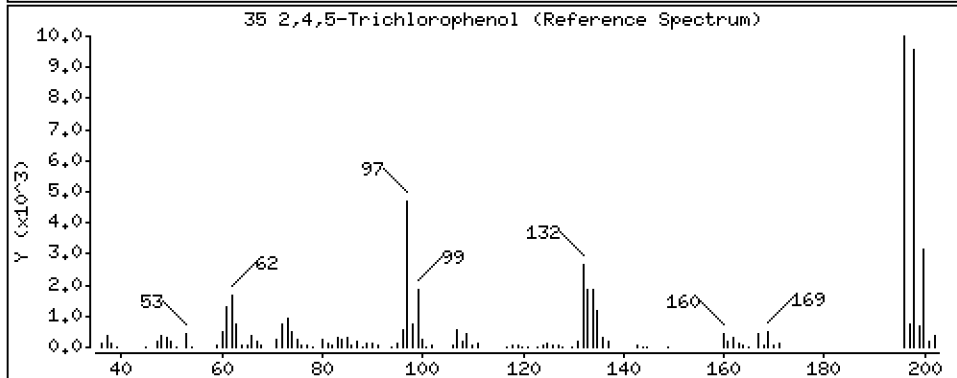
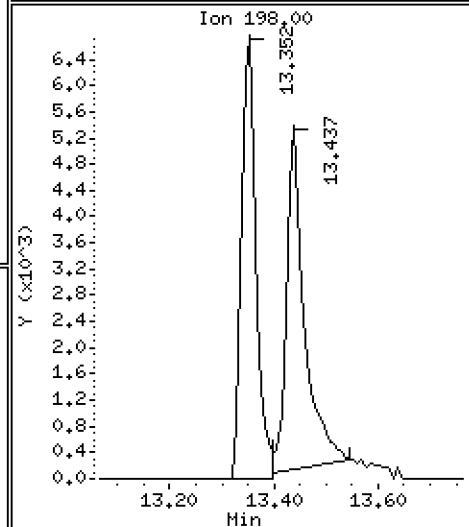
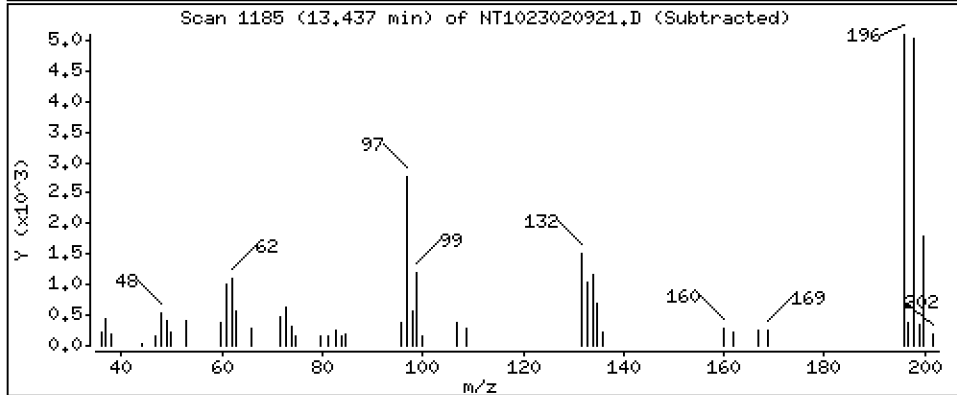
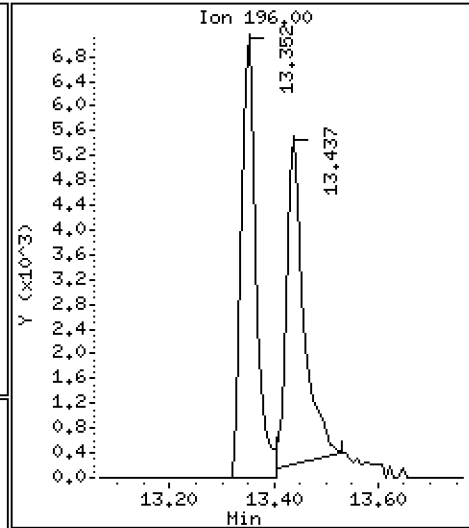
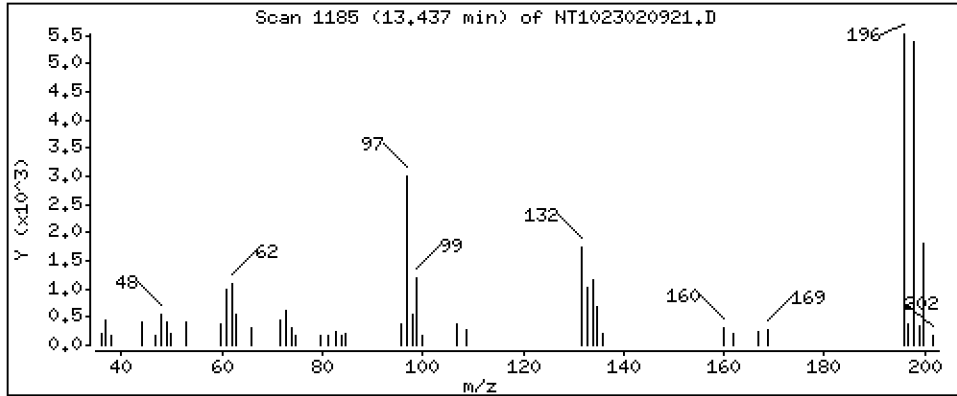
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 0,8255 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

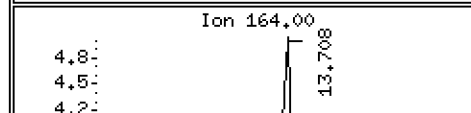
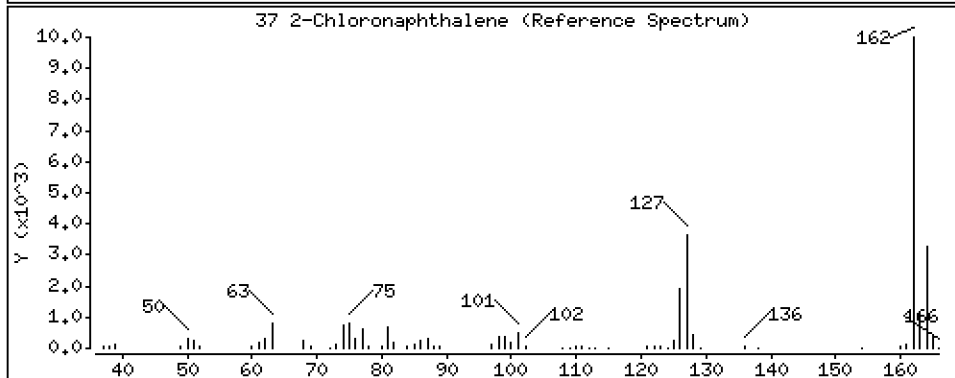
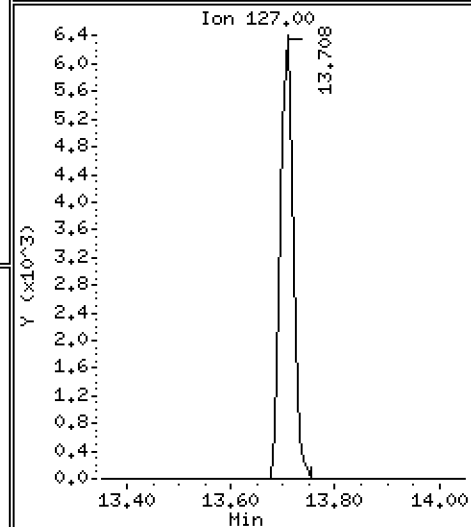
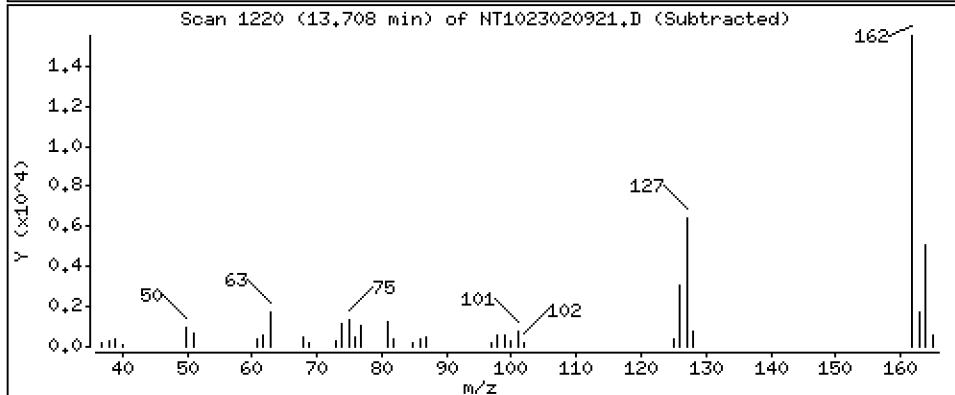
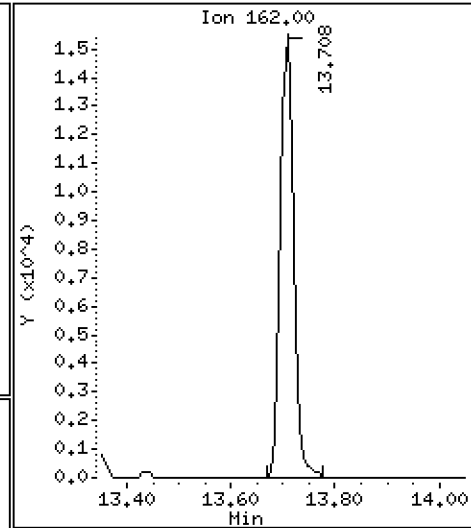
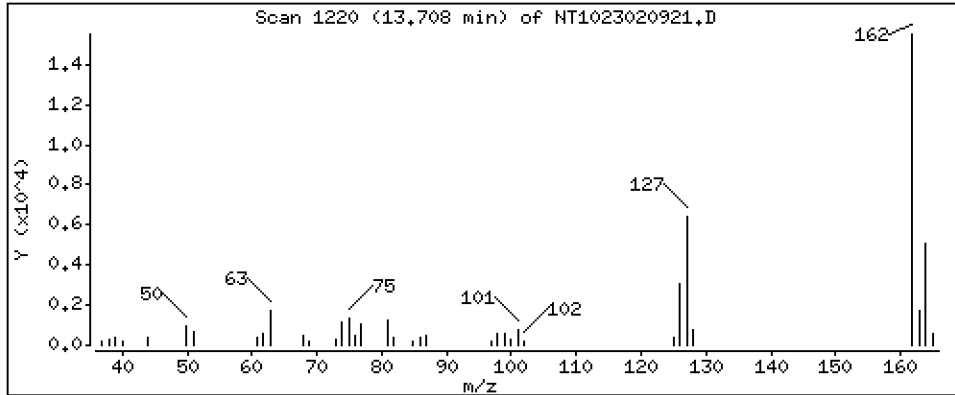
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 0,5402 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

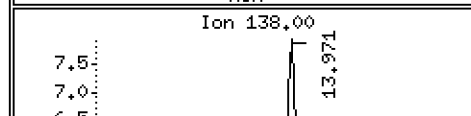
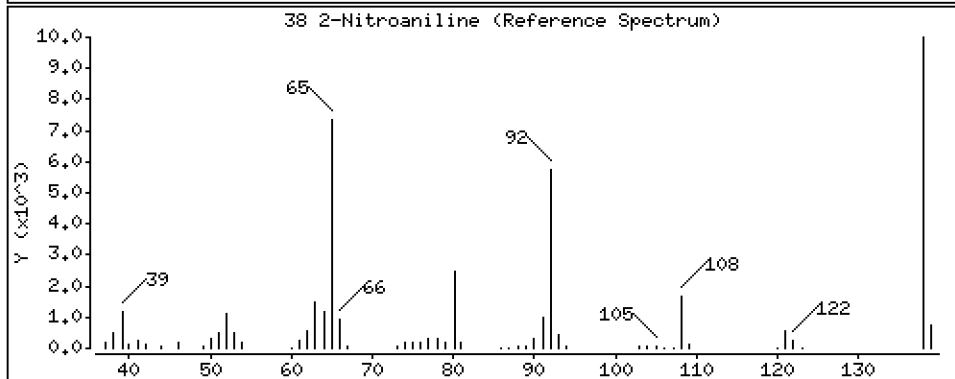
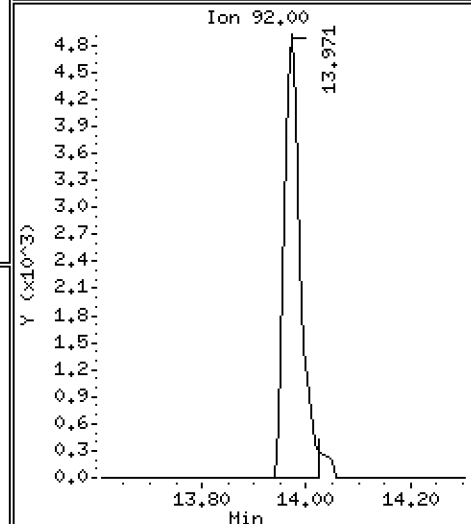
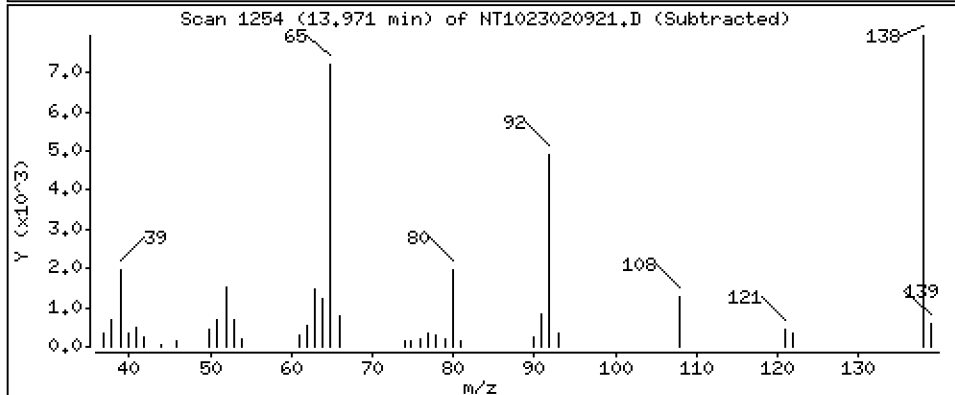
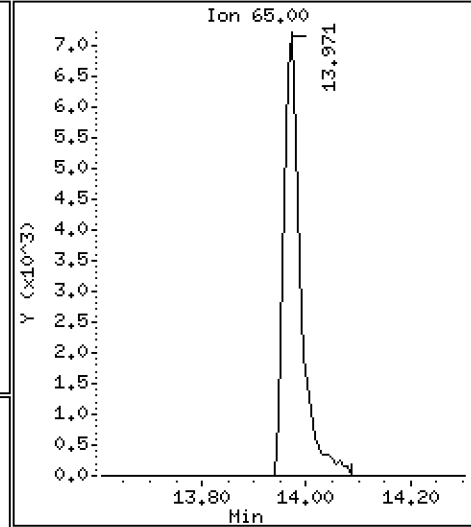
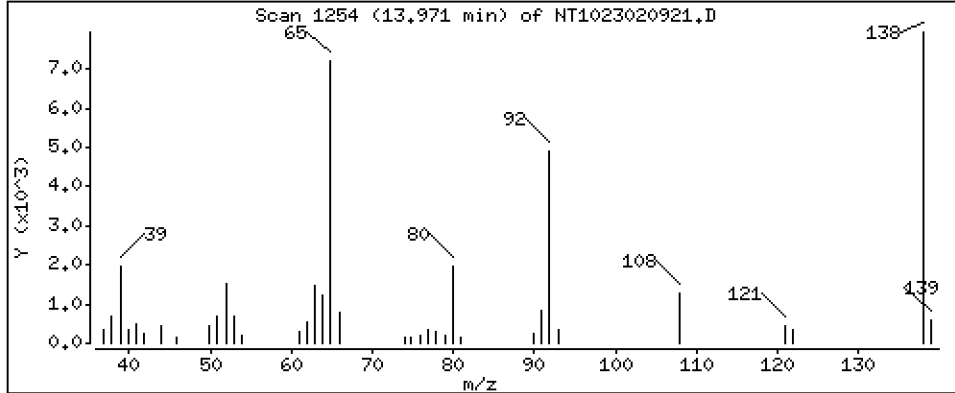
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 1,073 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

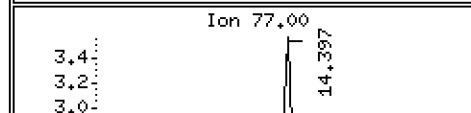
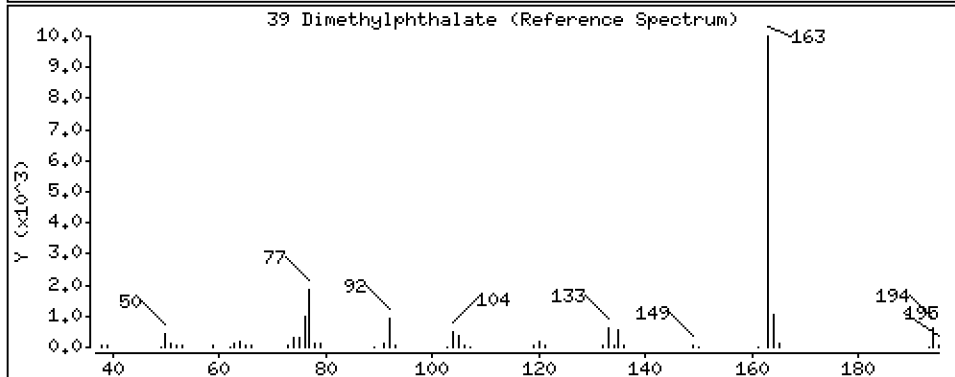
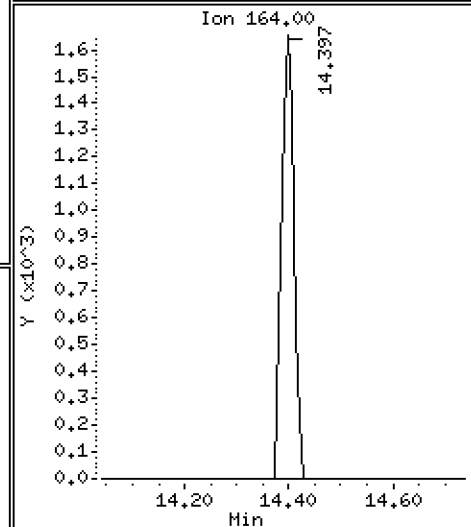
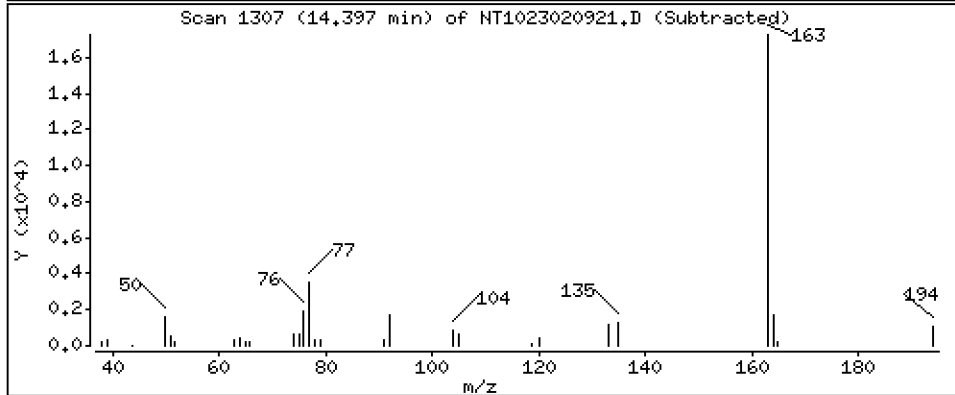
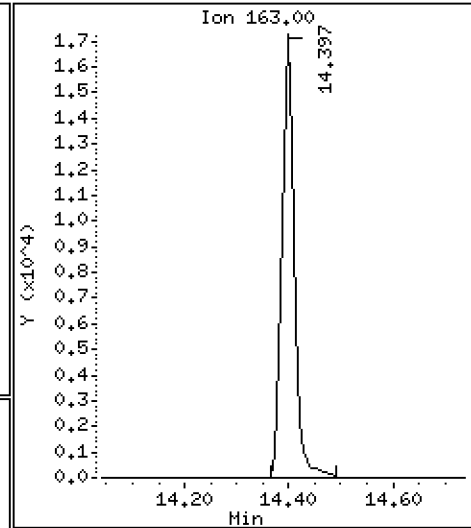
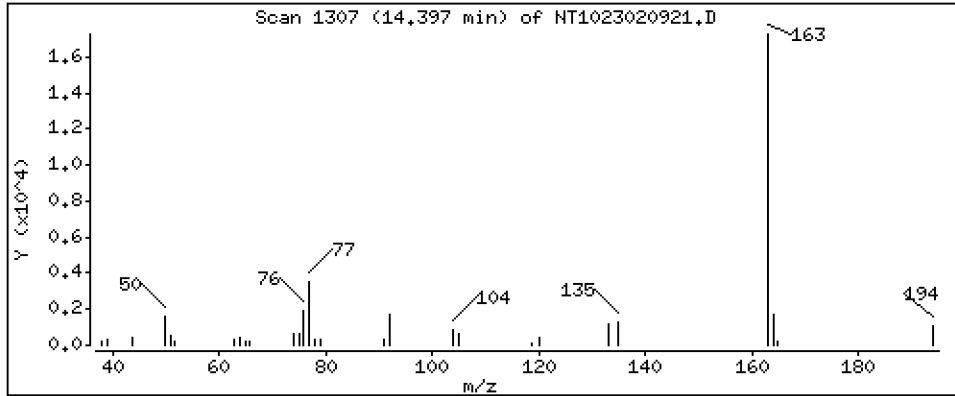
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,5335 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

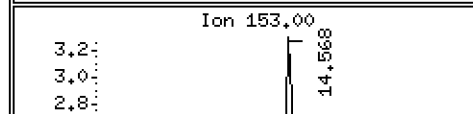
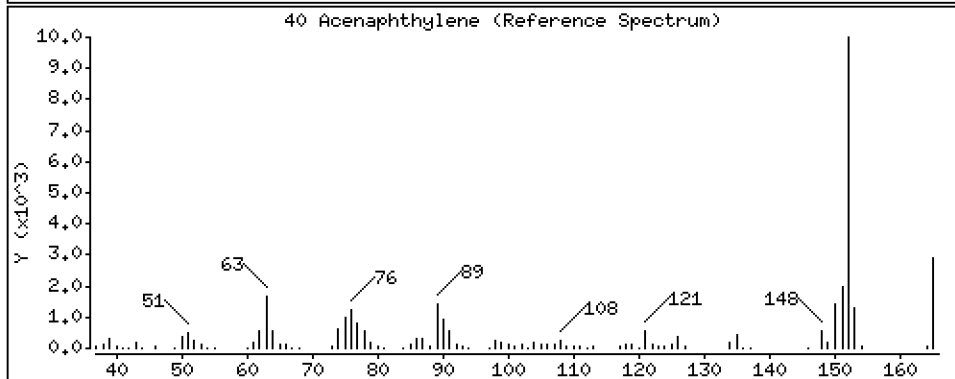
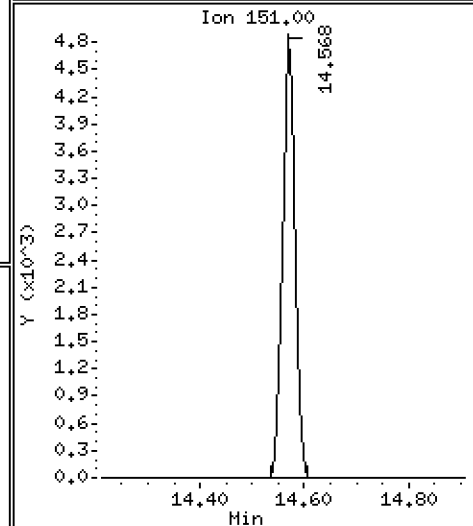
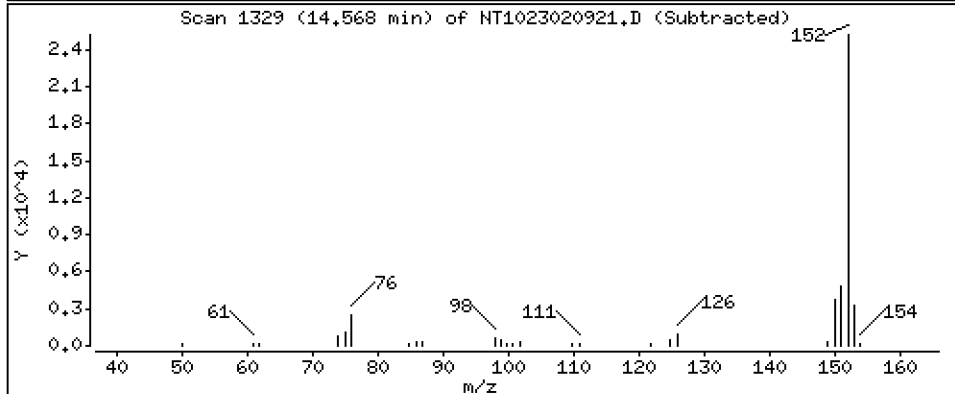
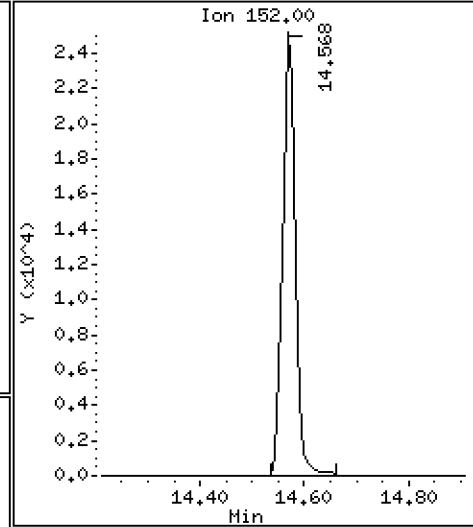
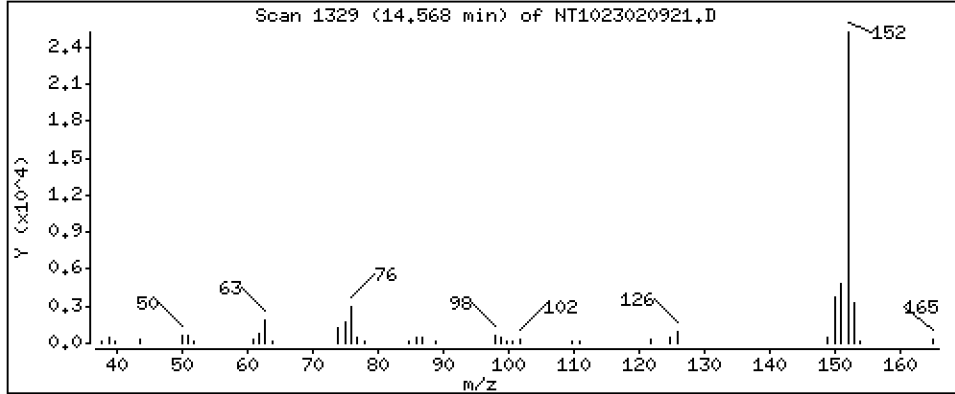
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,5413 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

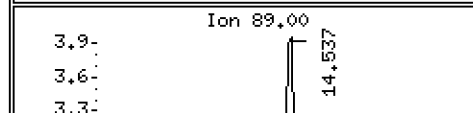
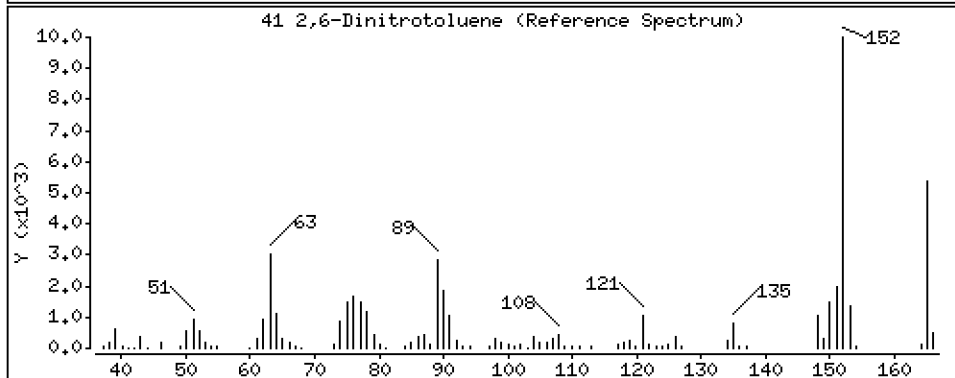
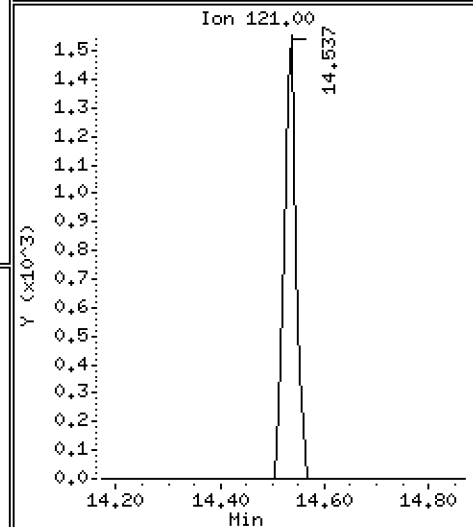
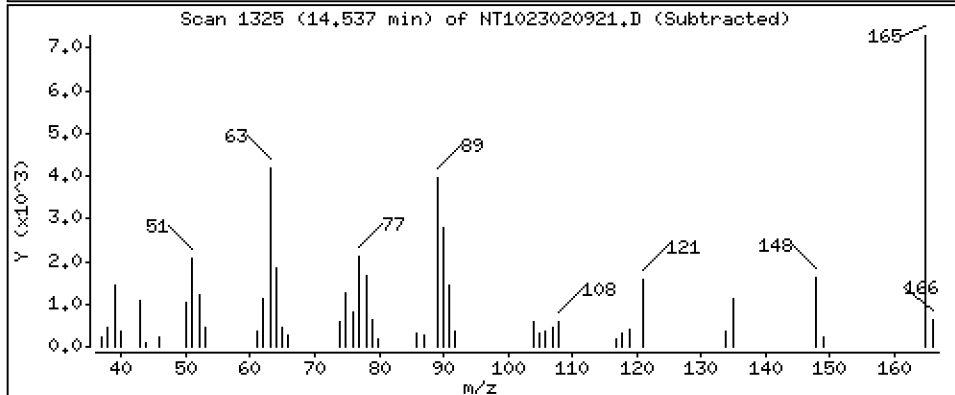
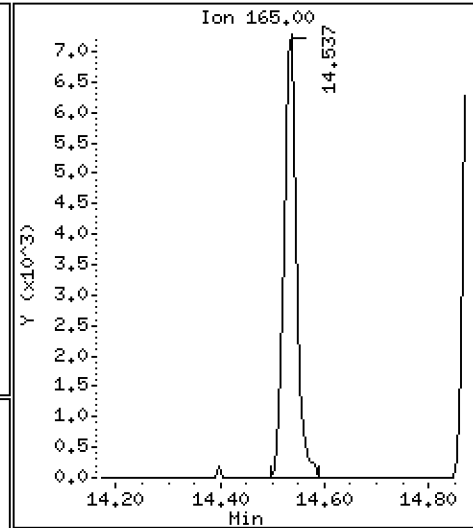
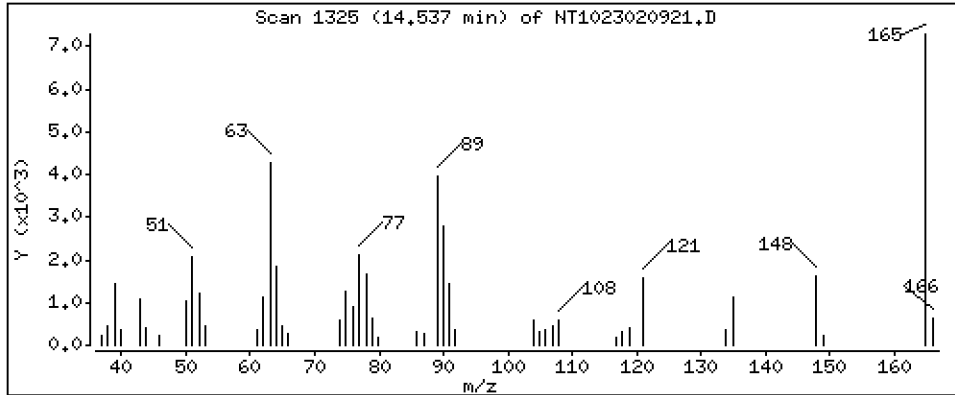
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 0,9945 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

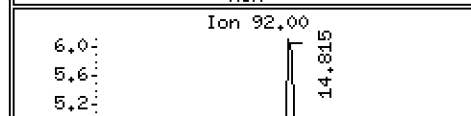
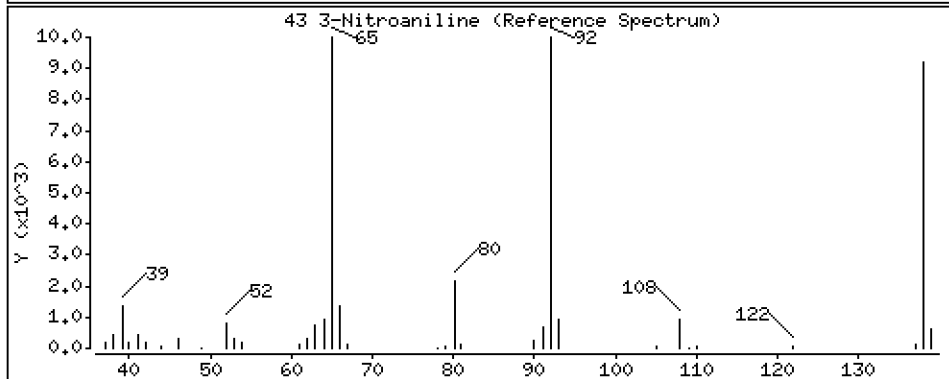
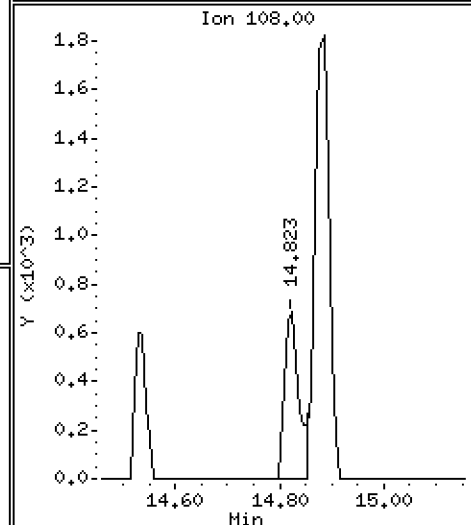
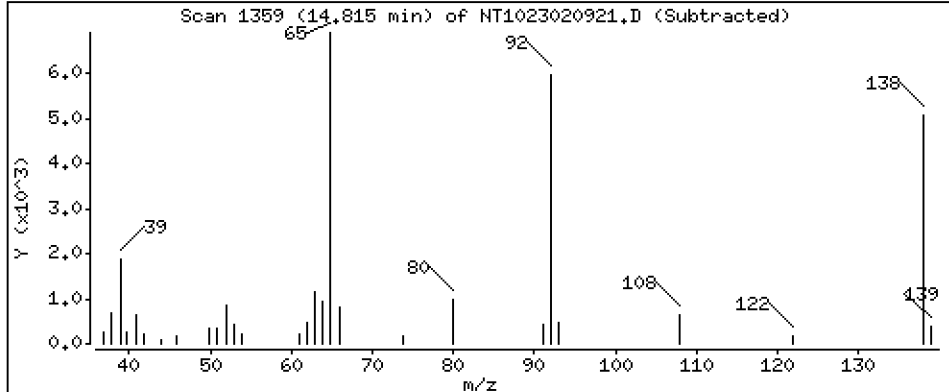
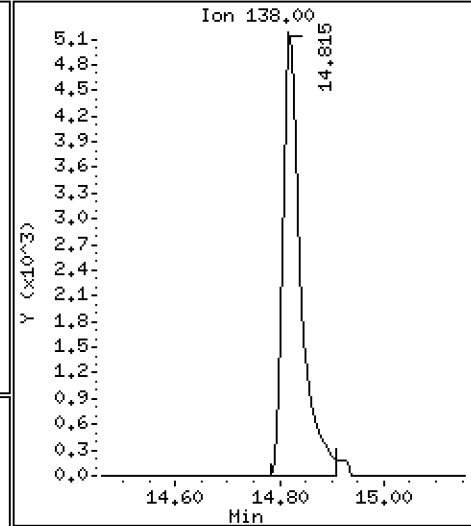
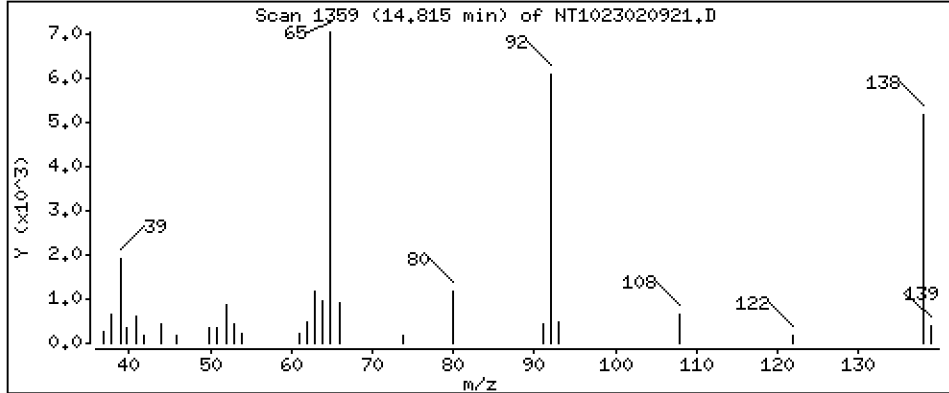
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 0,8791 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

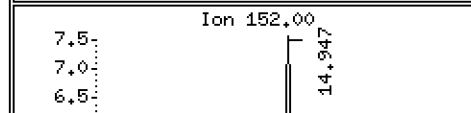
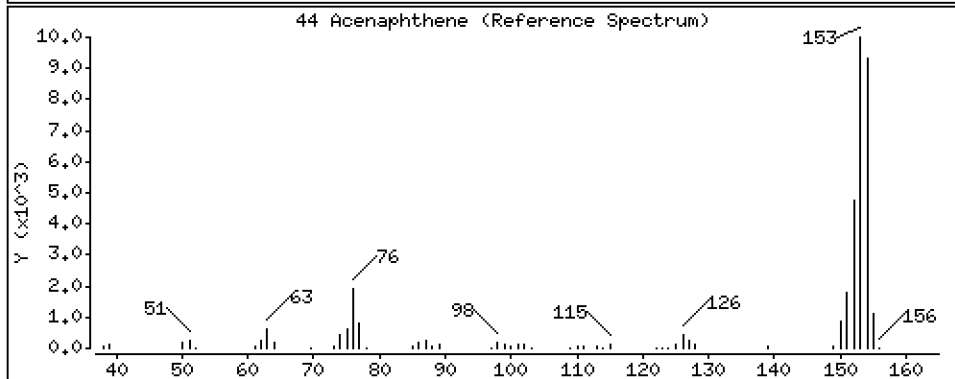
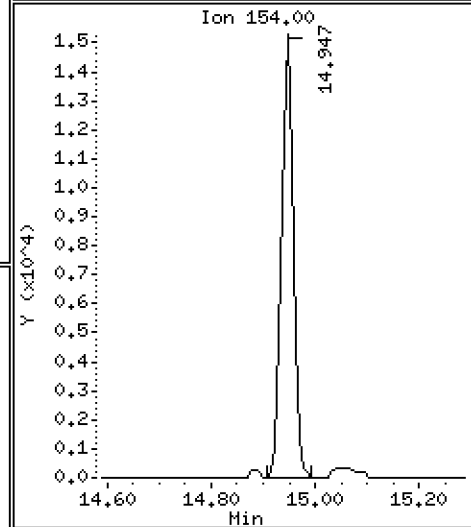
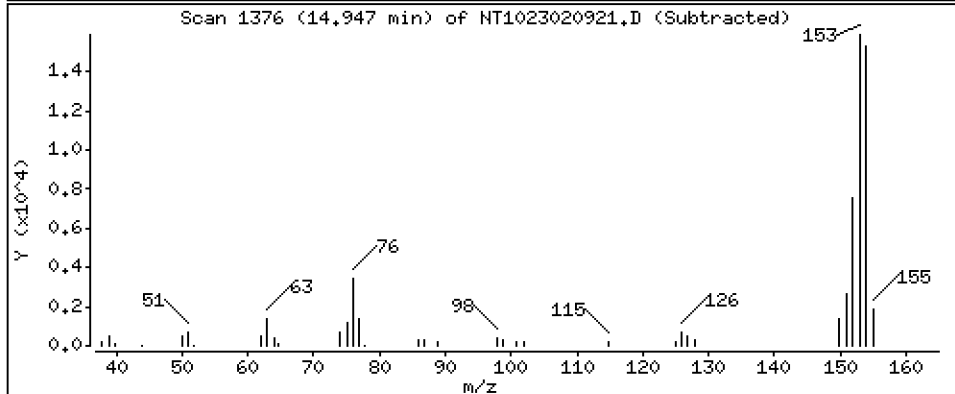
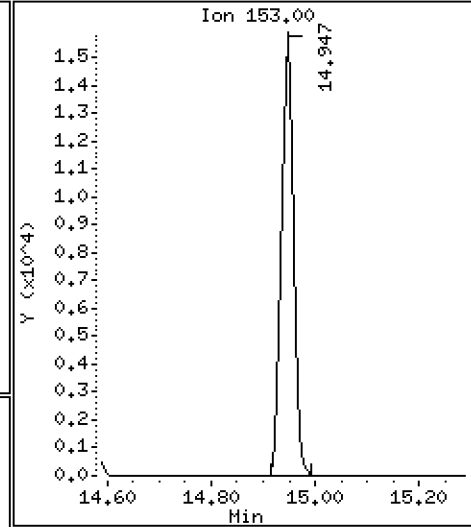
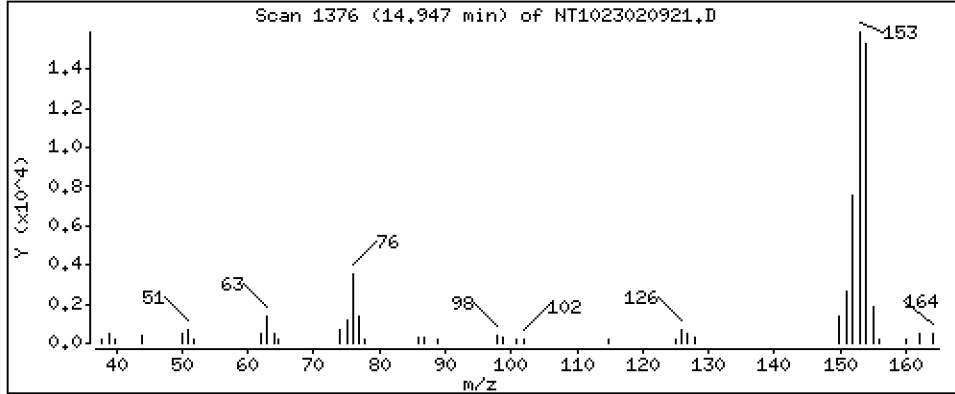
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,5226 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

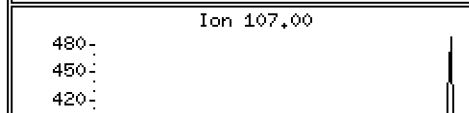
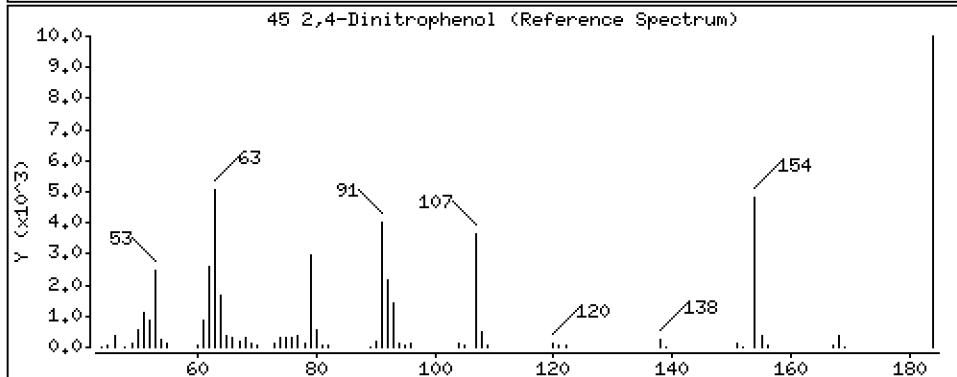
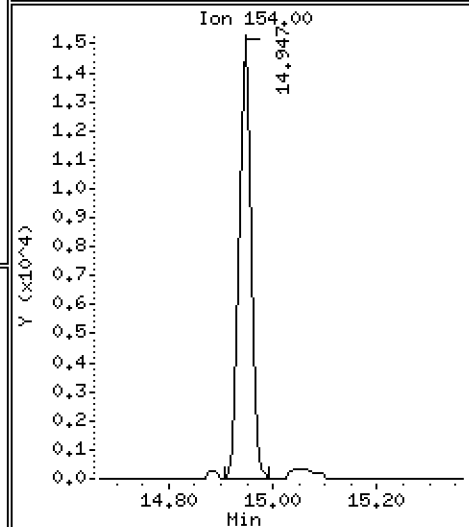
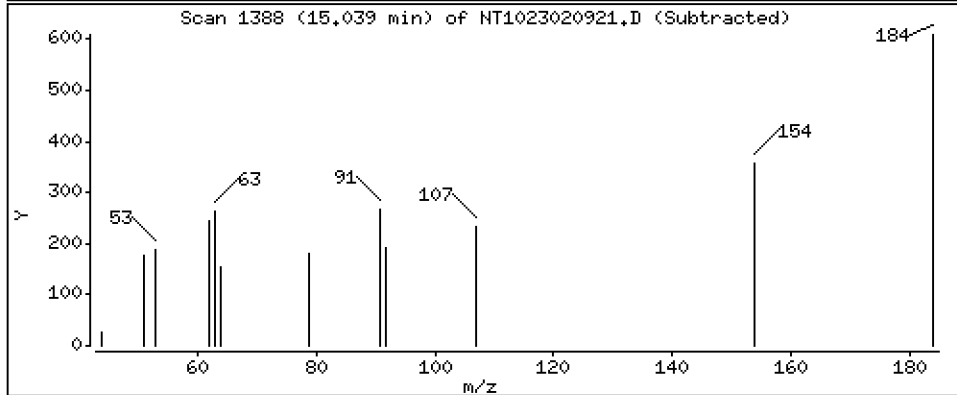
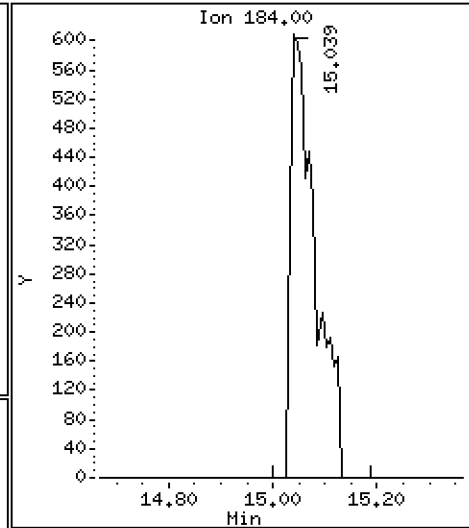
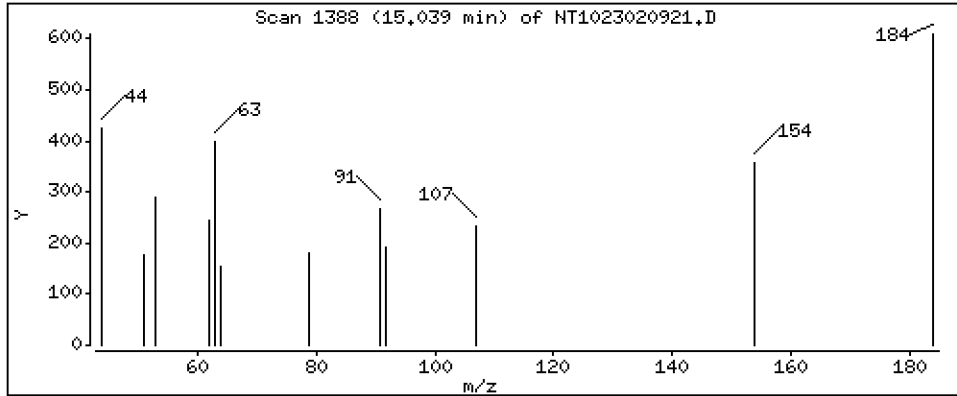
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,3258 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

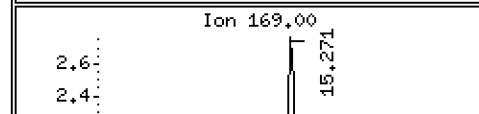
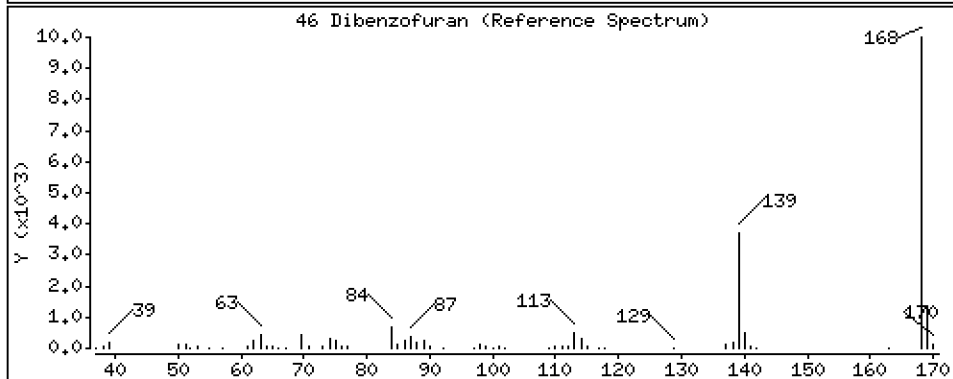
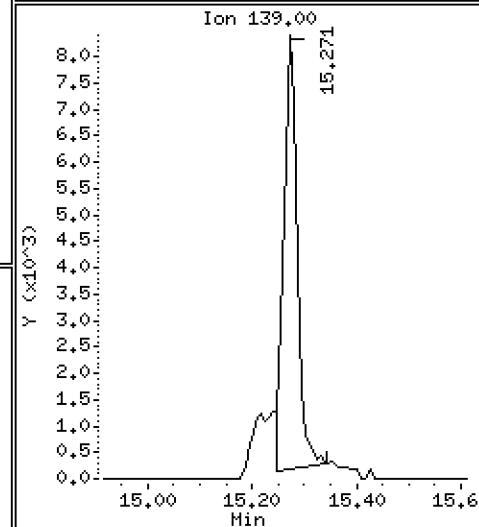
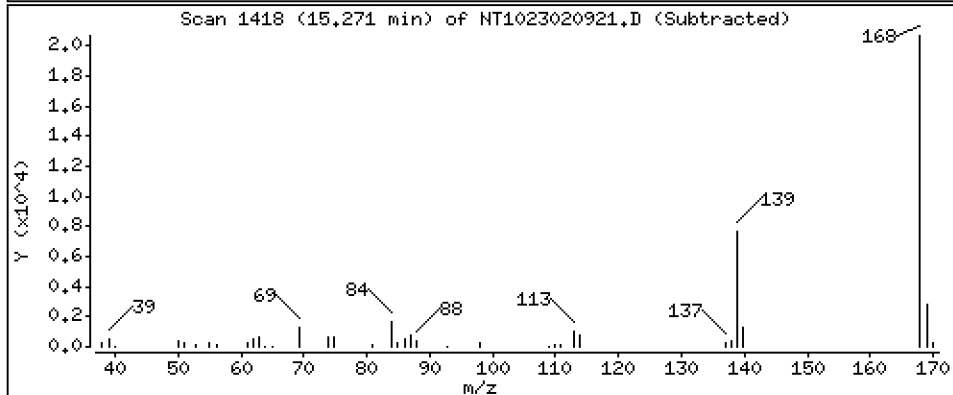
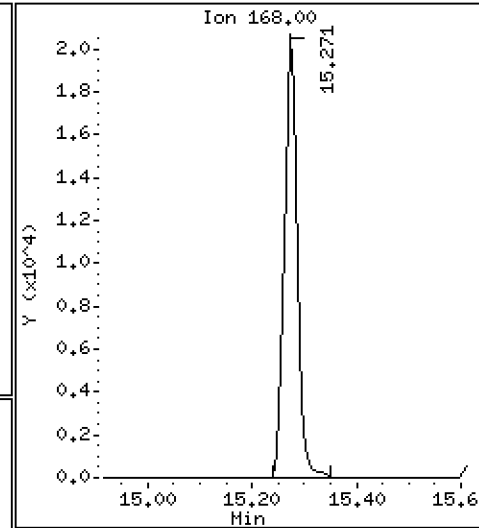
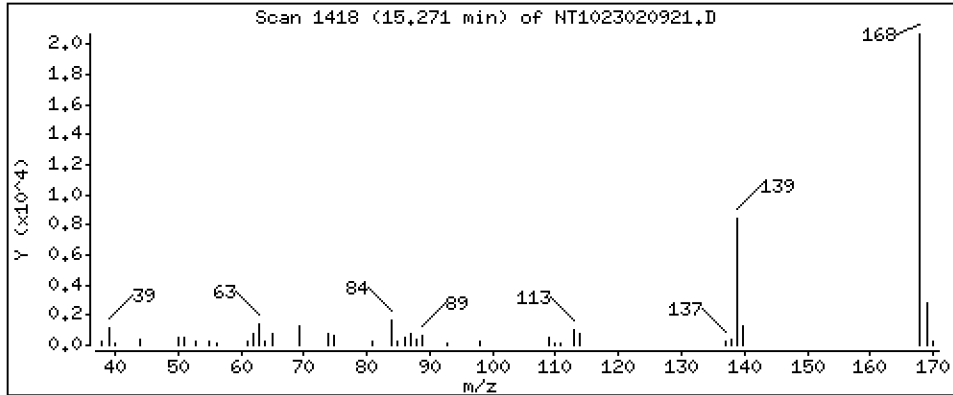
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,5100 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

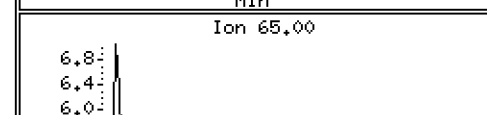
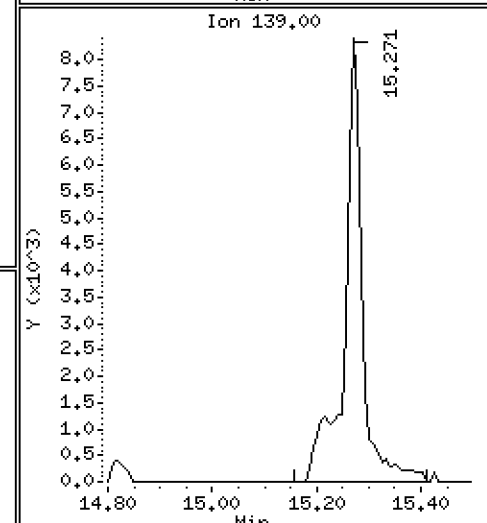
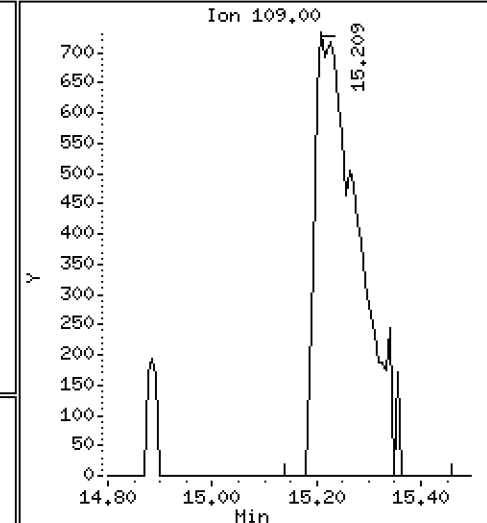
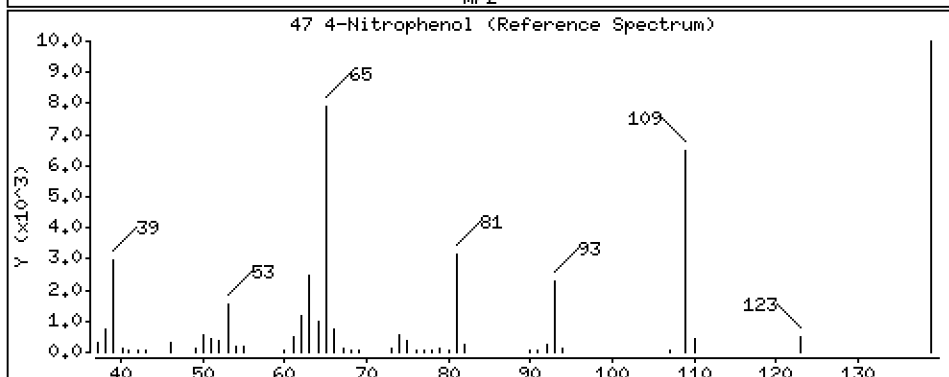
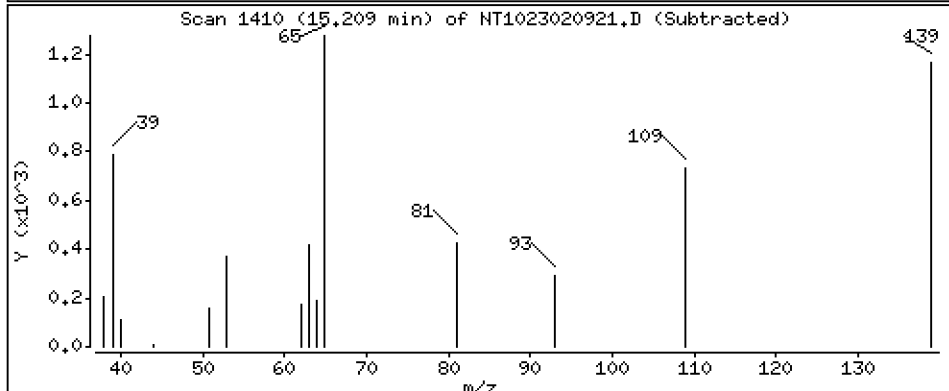
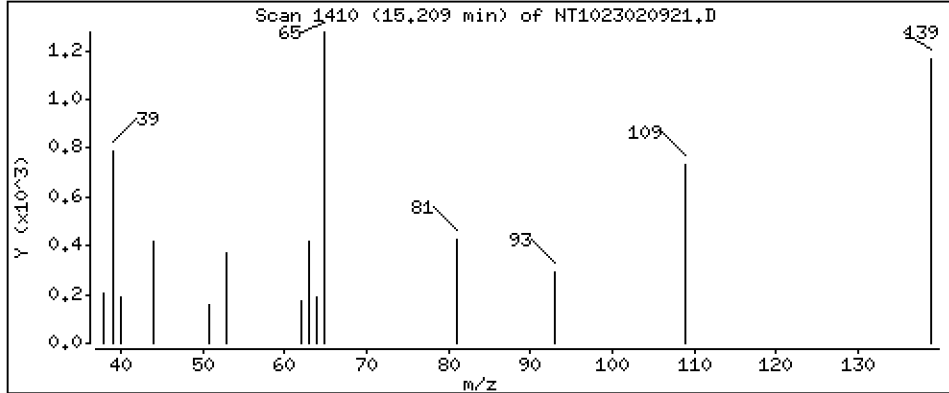
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 0,8069 ug/mL



Date : 10-FEB-2023 01:47

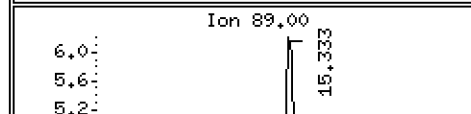
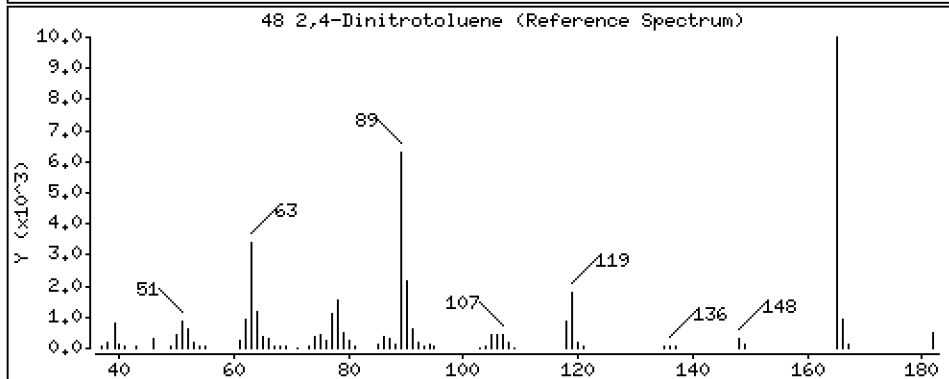
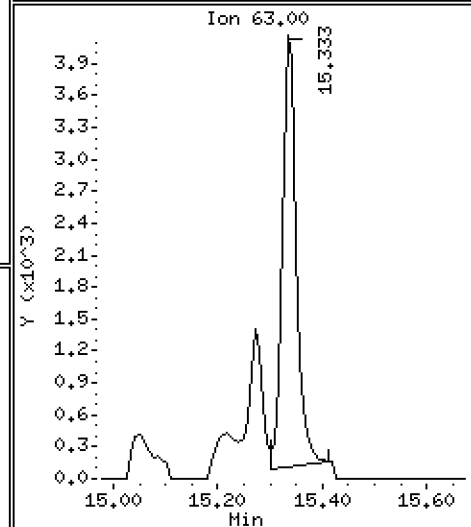
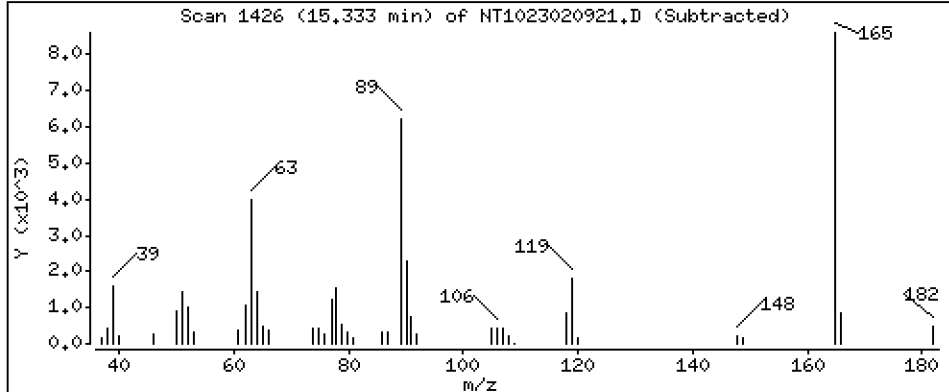
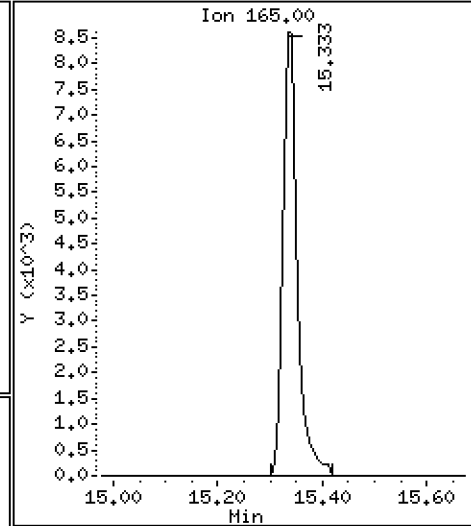
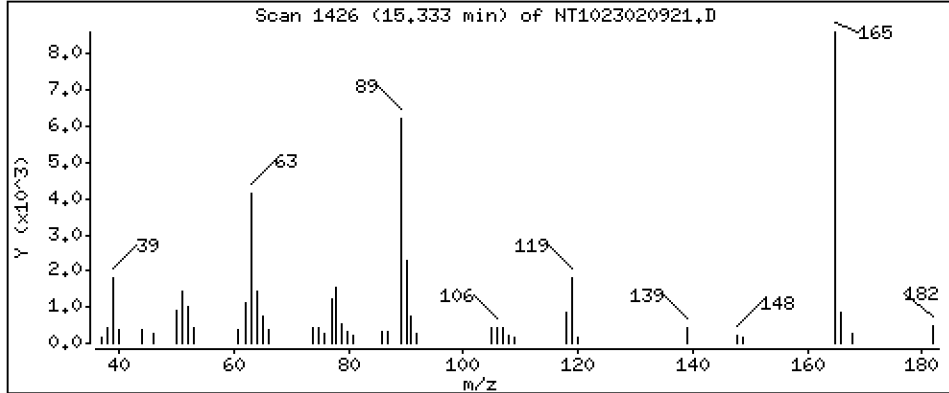
Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

48 2,4-Dinitrotoluene Concentration: 0,9327 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

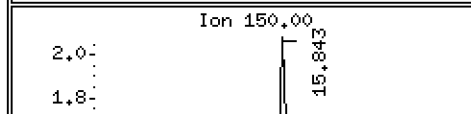
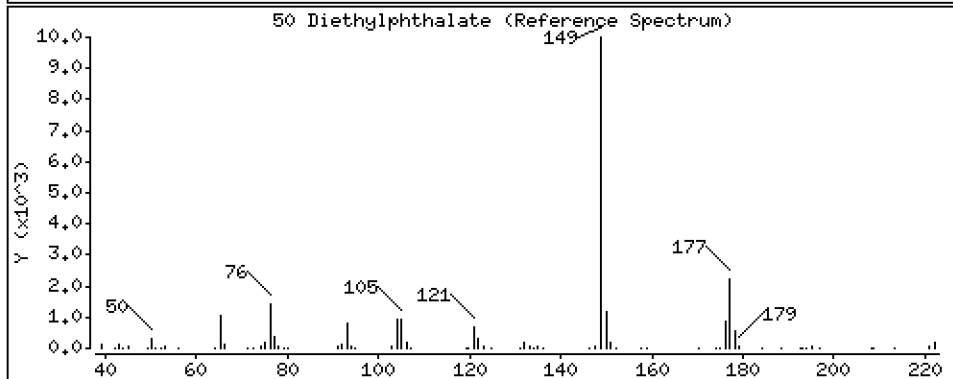
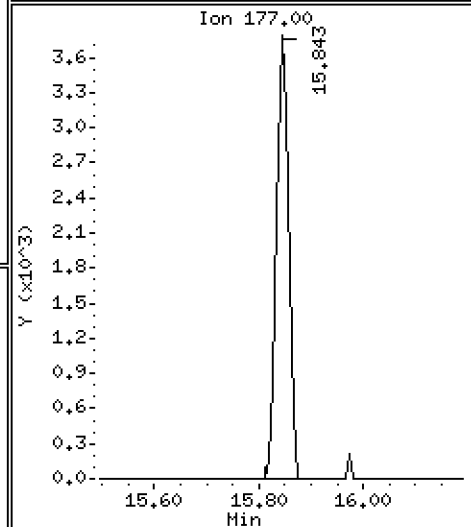
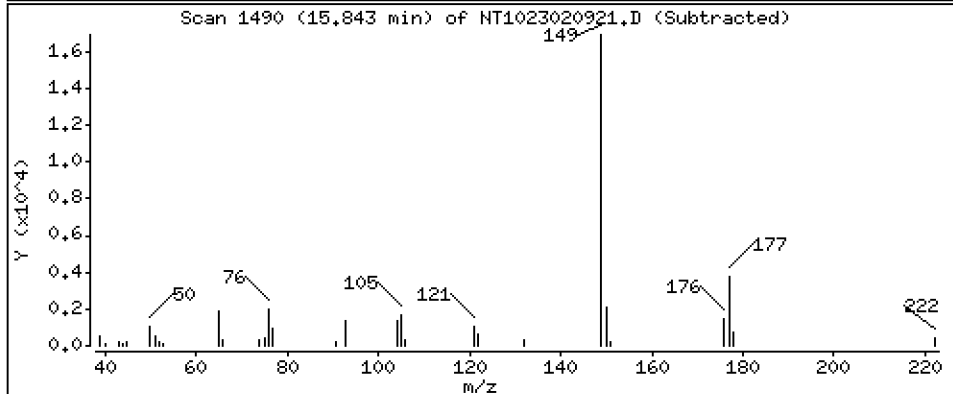
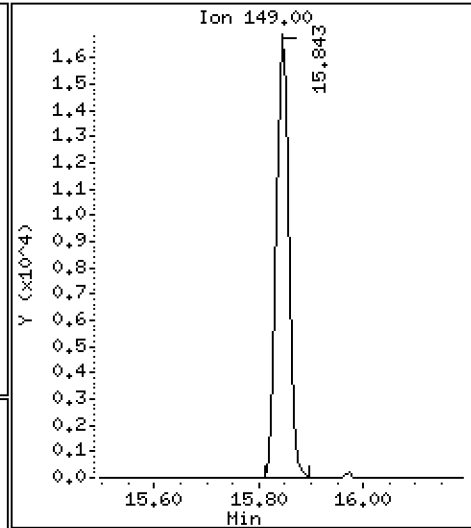
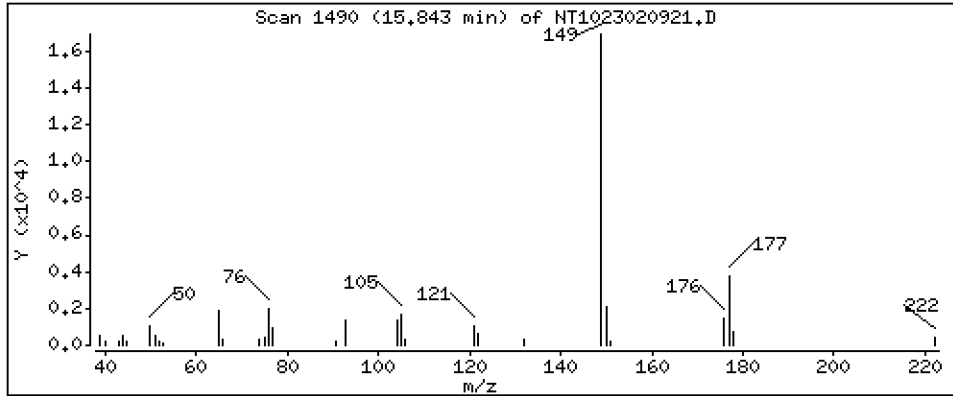
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,5331 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

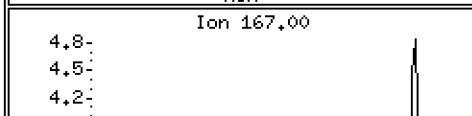
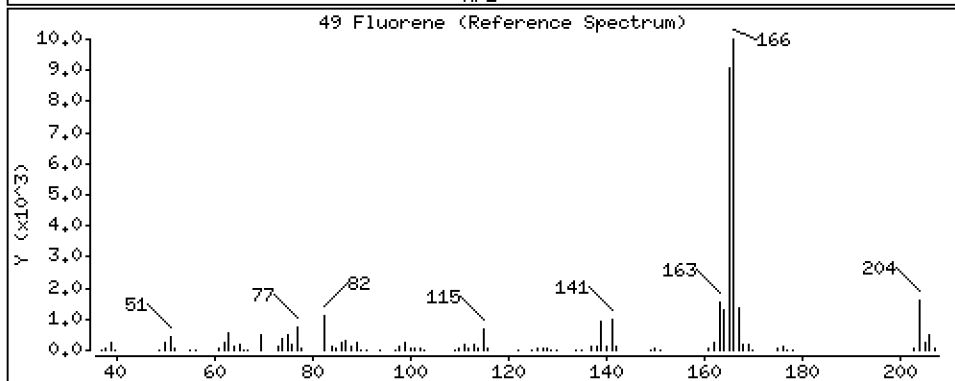
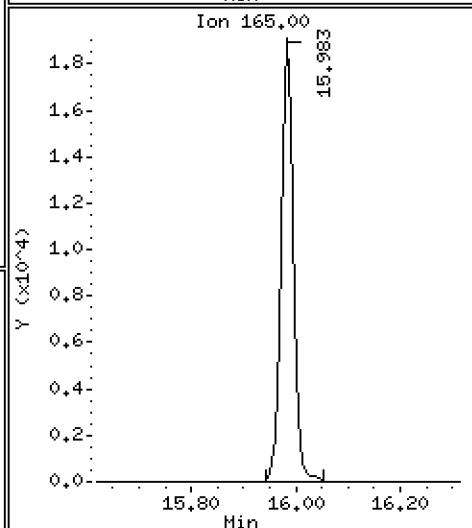
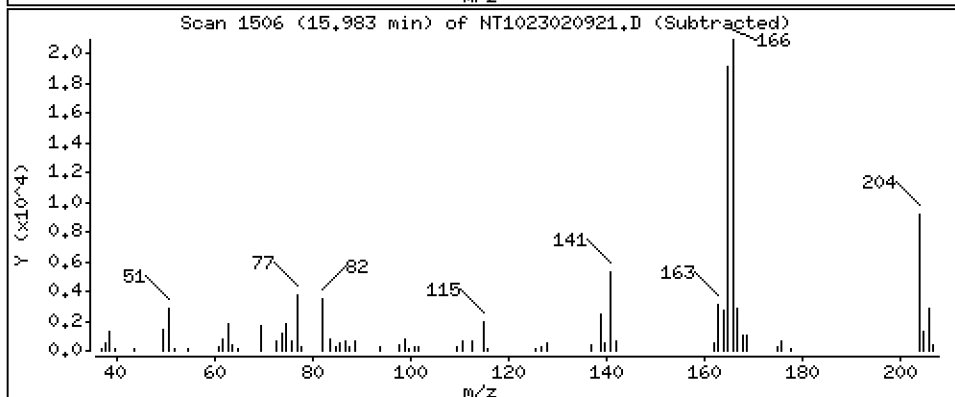
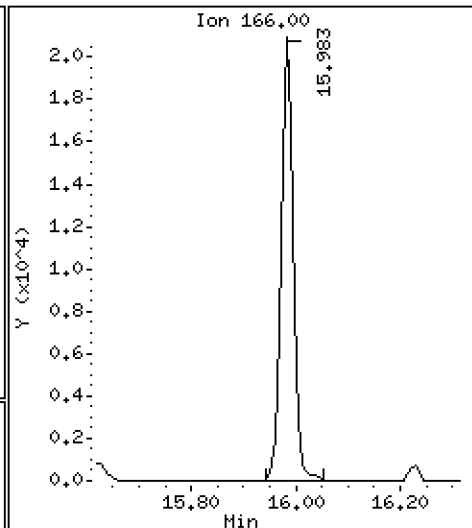
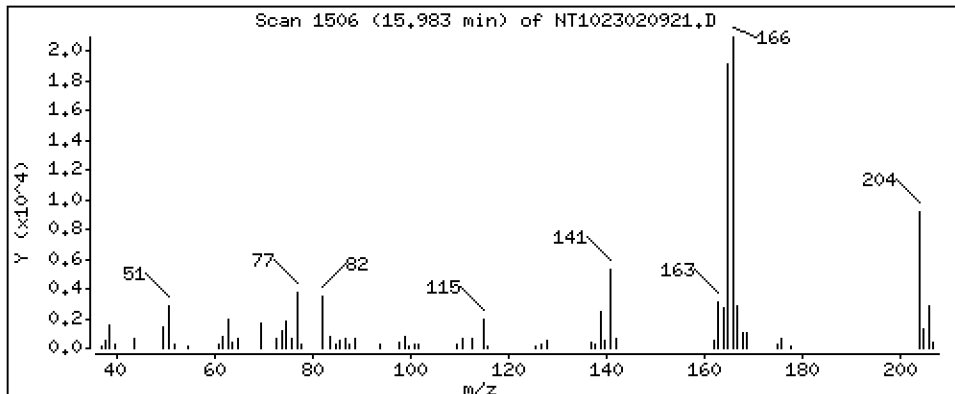
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,4527 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

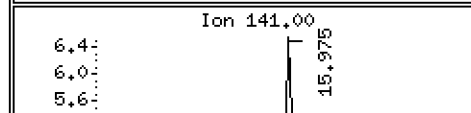
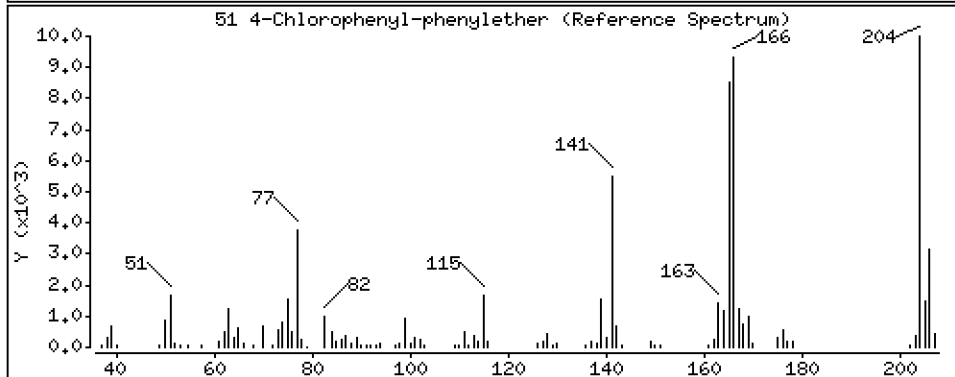
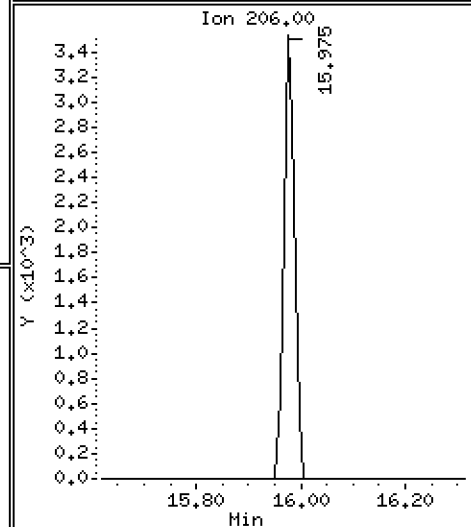
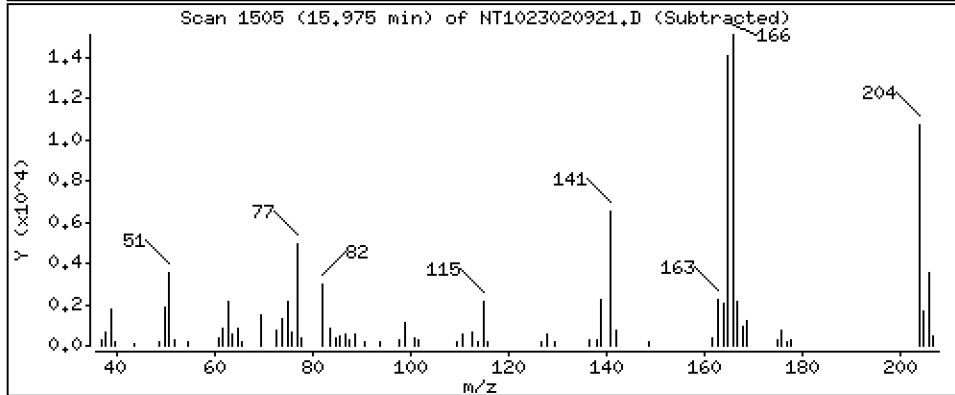
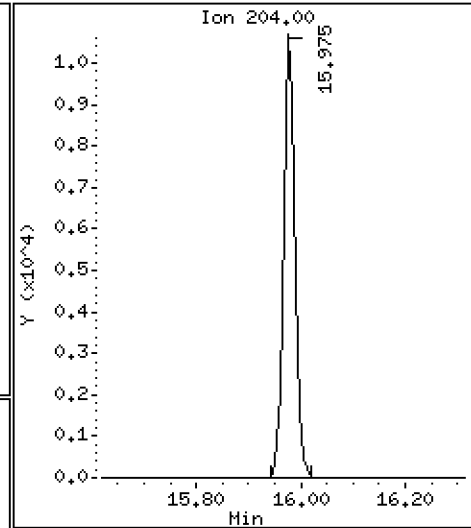
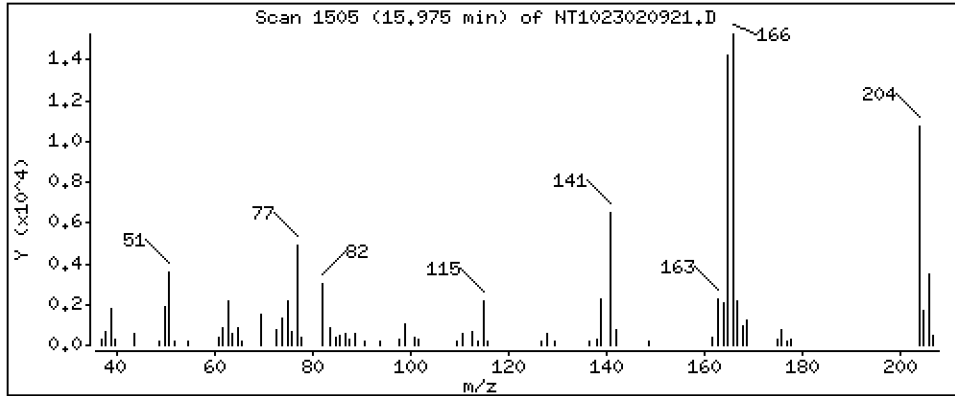
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 0,4379 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

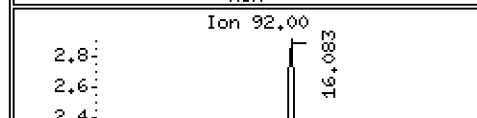
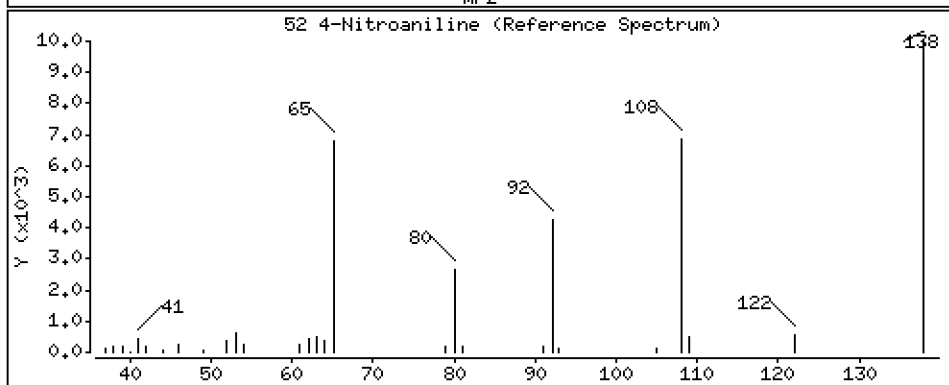
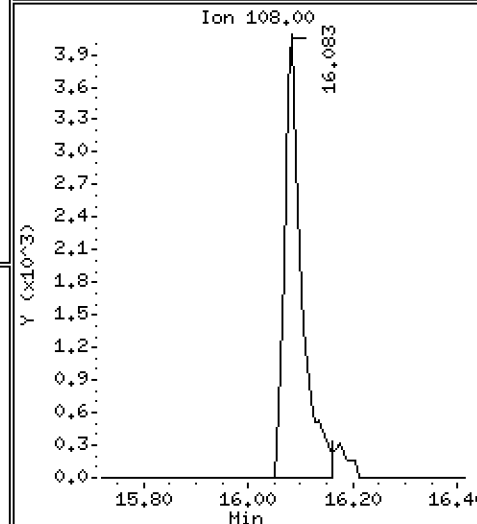
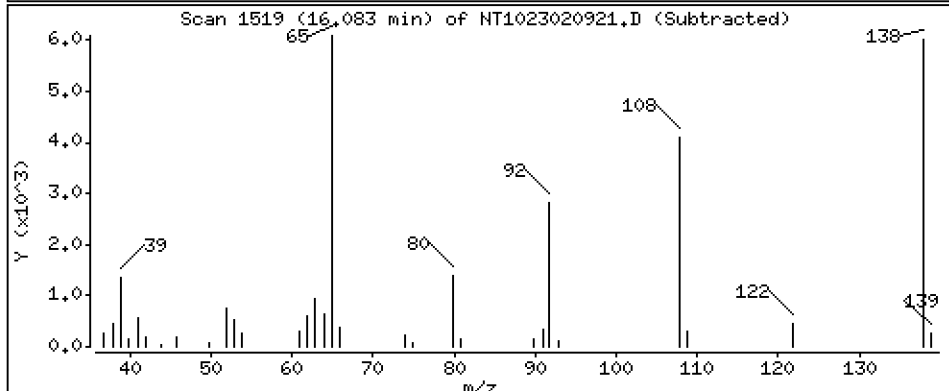
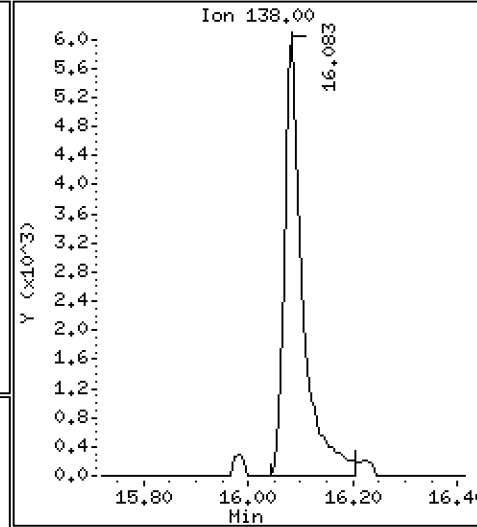
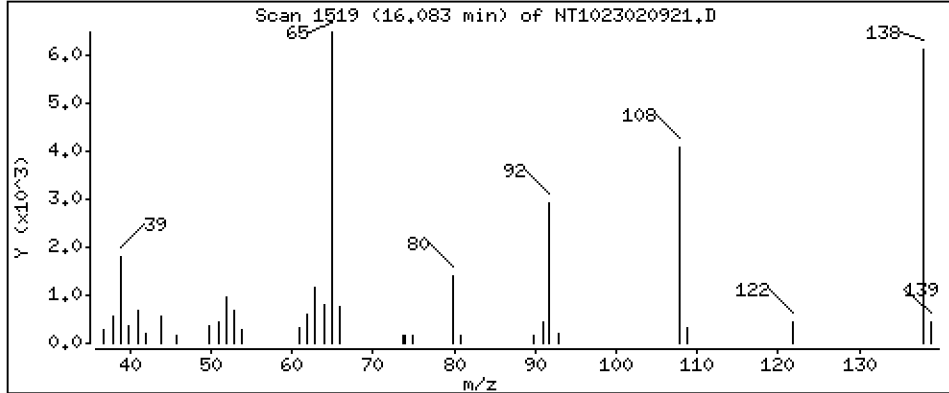
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 0,9095 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

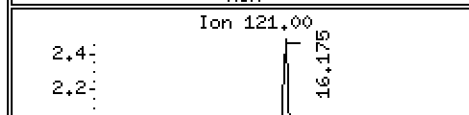
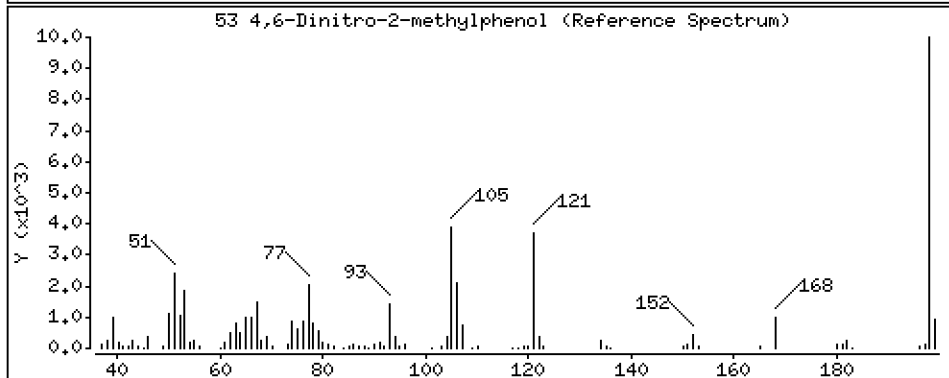
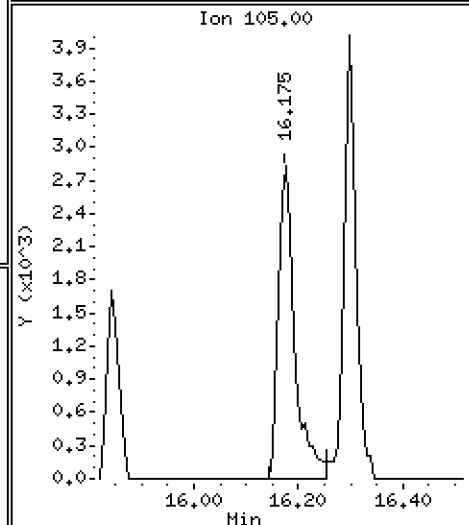
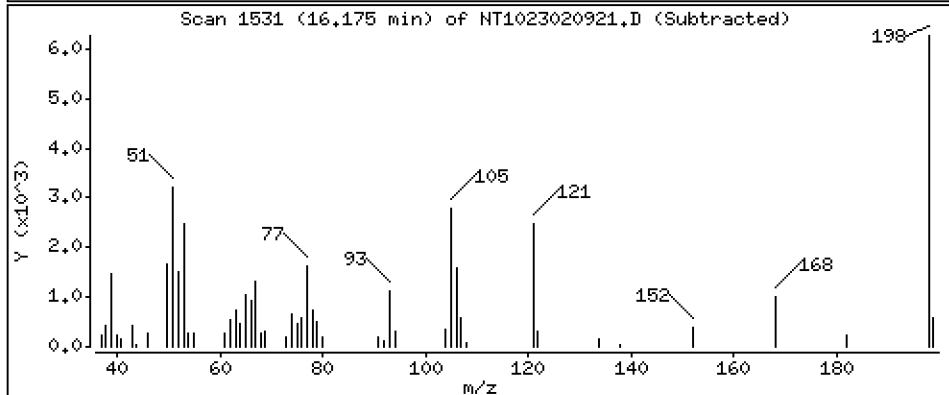
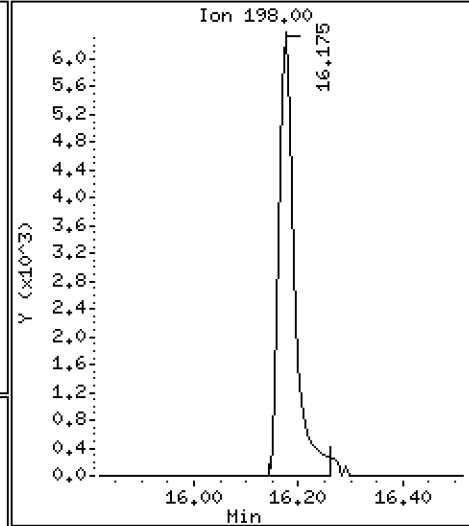
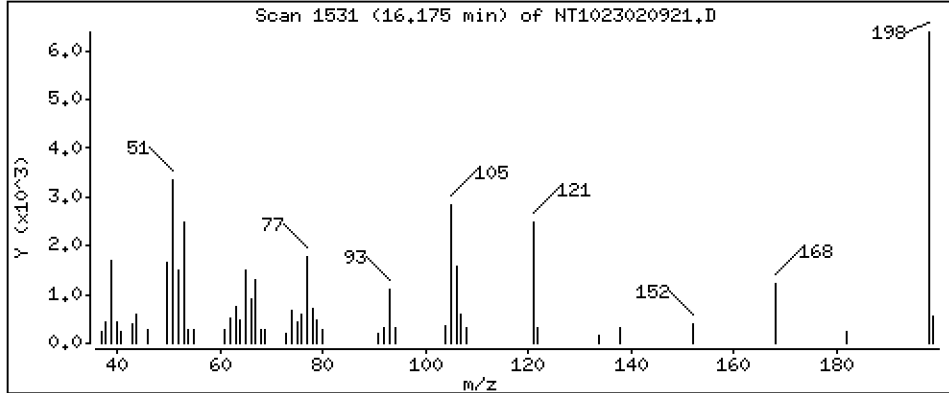
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 1,397 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

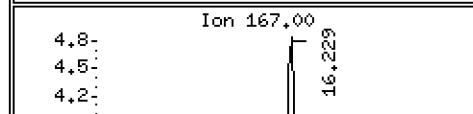
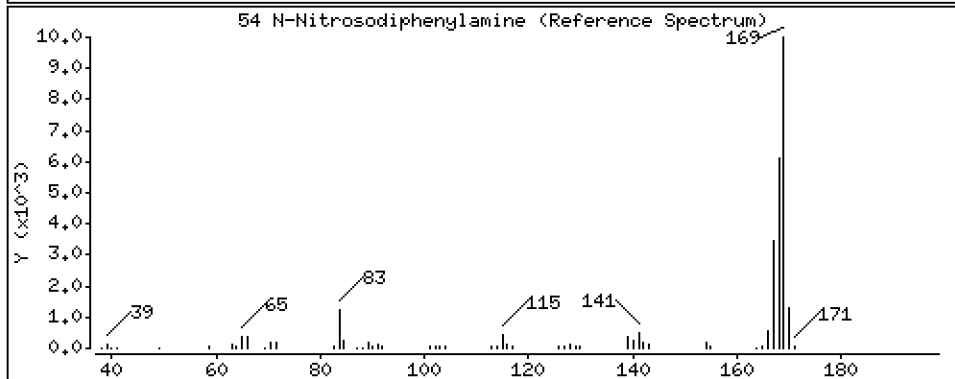
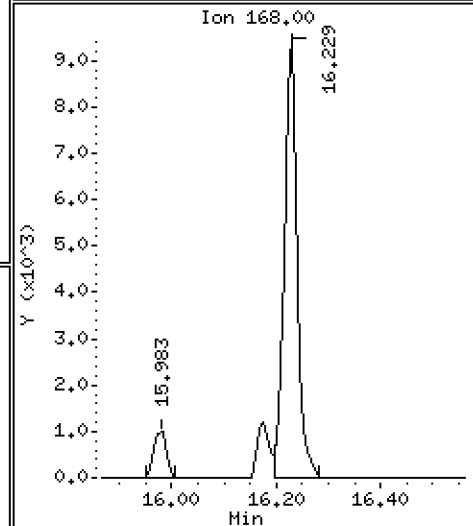
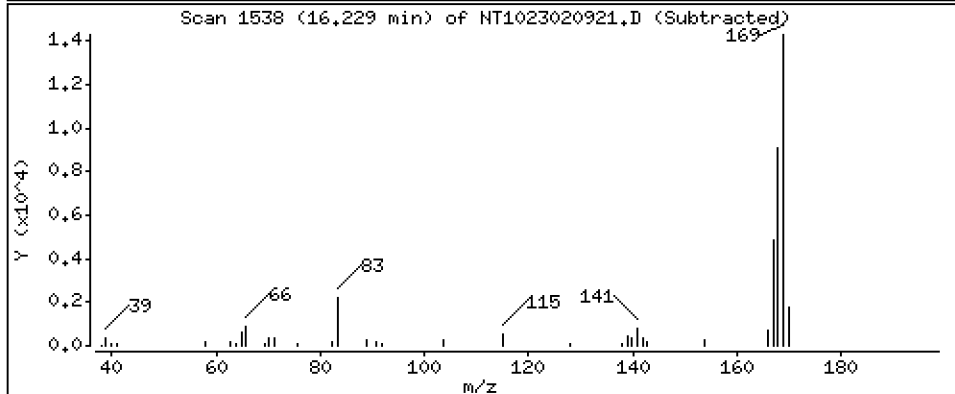
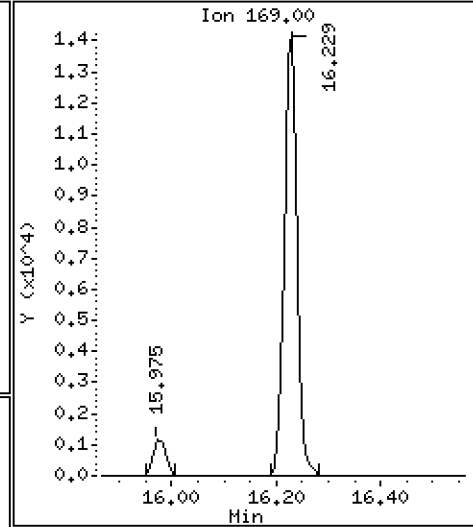
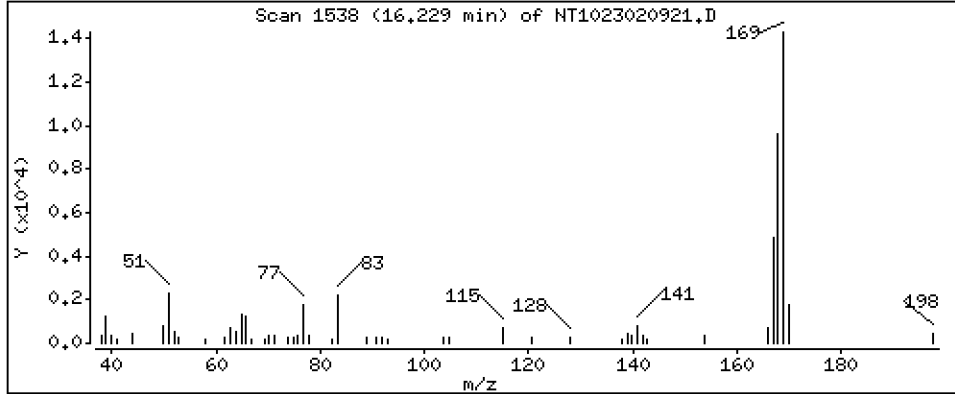
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 0,5441 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

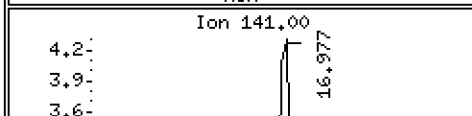
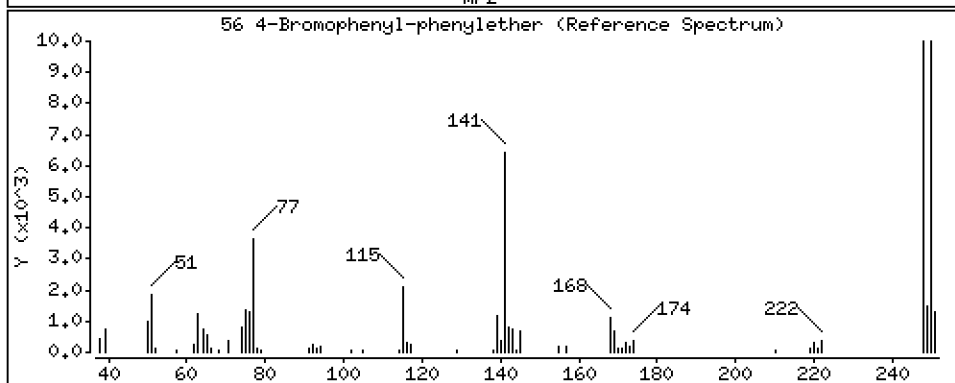
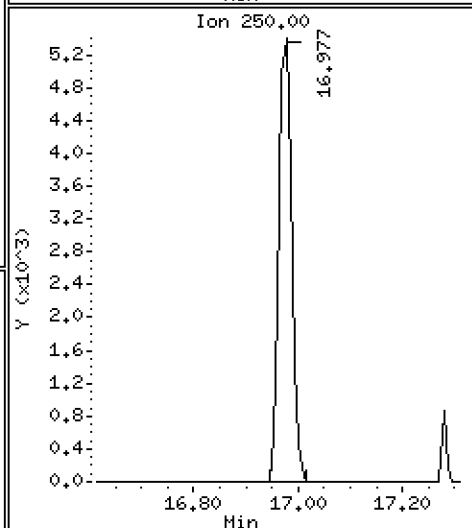
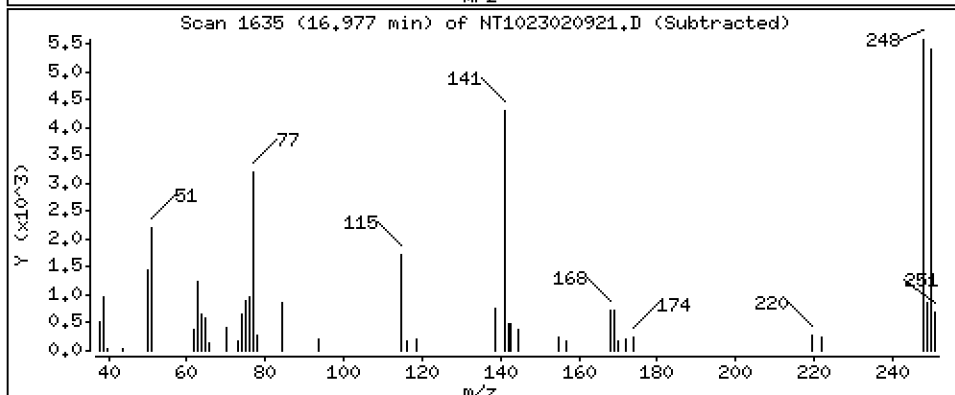
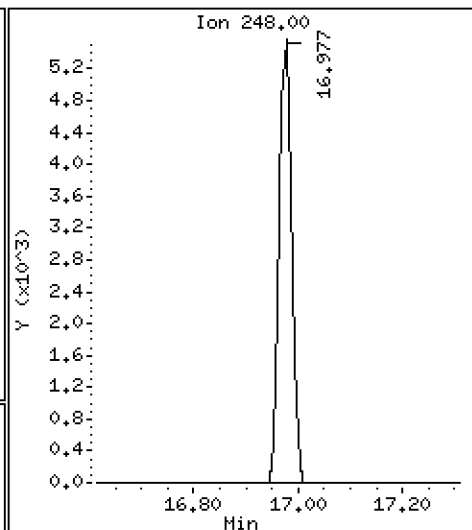
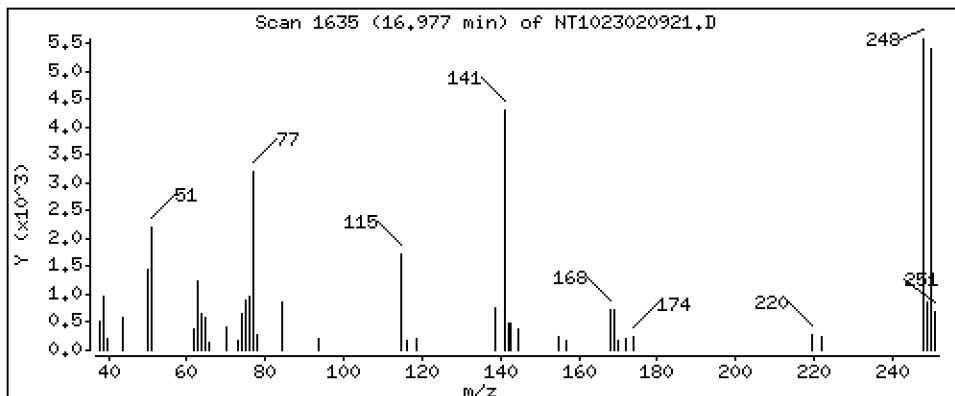
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 0,5310 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

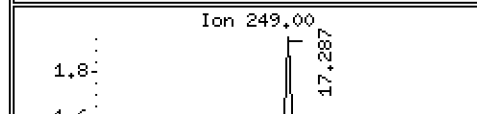
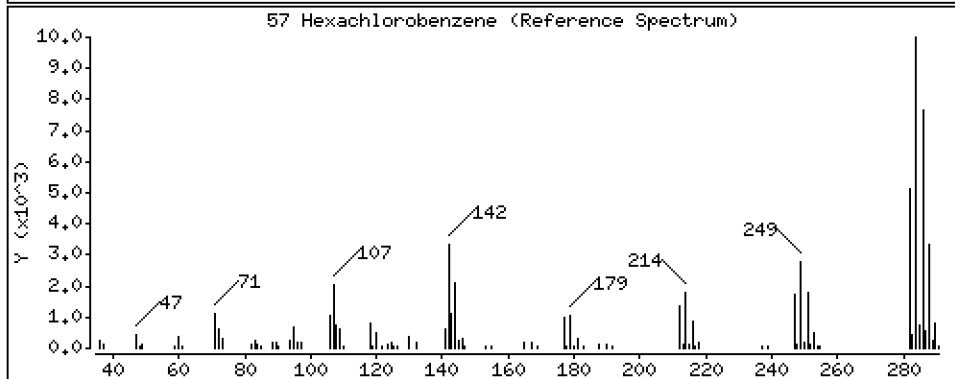
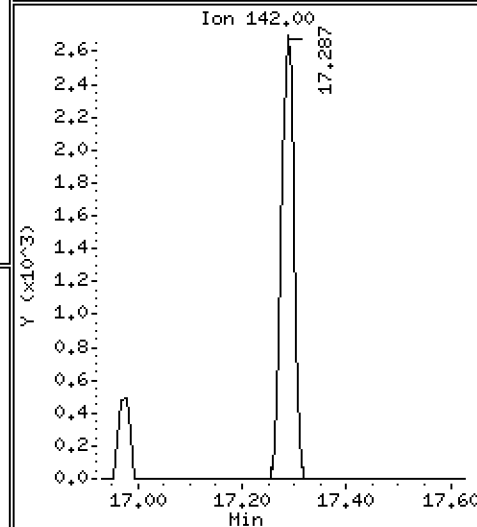
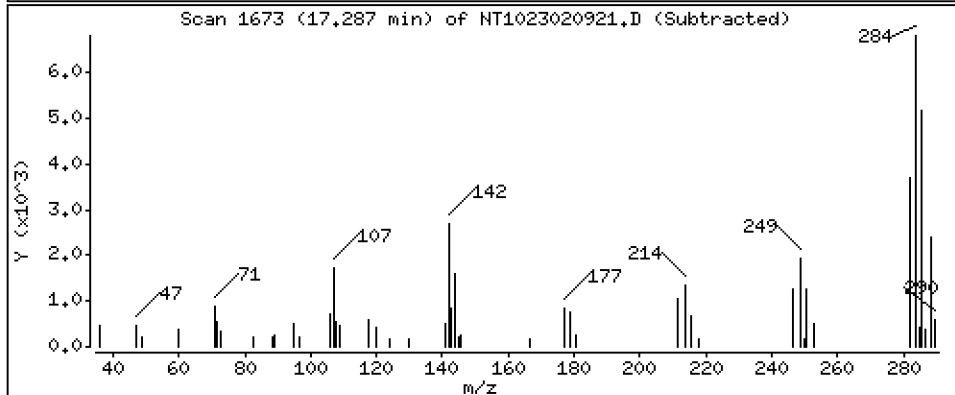
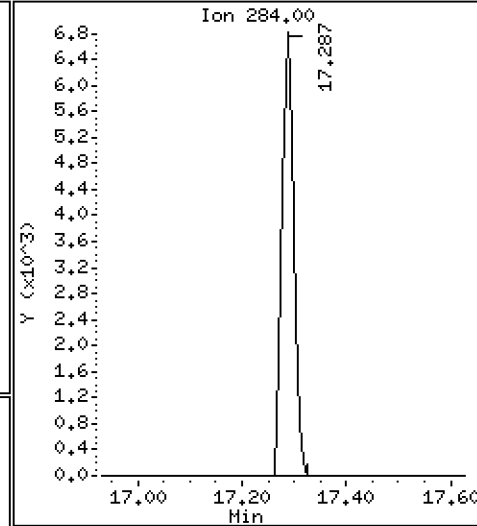
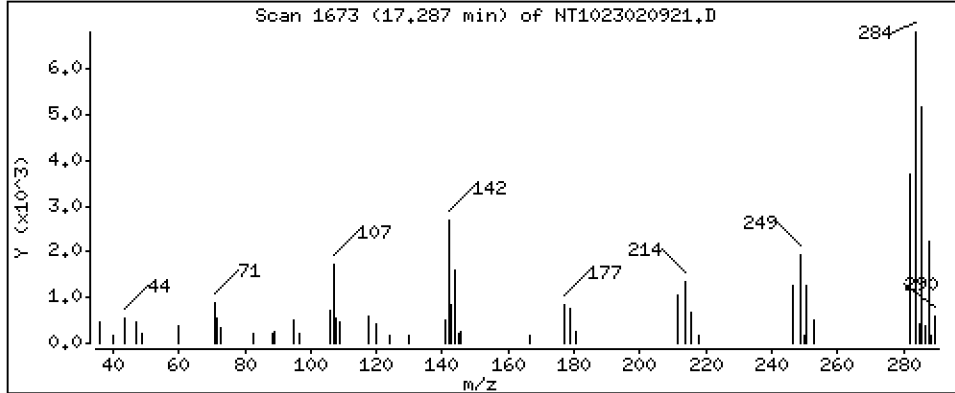
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,5719 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

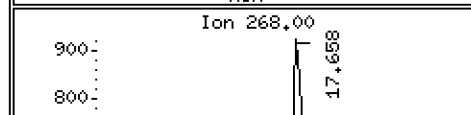
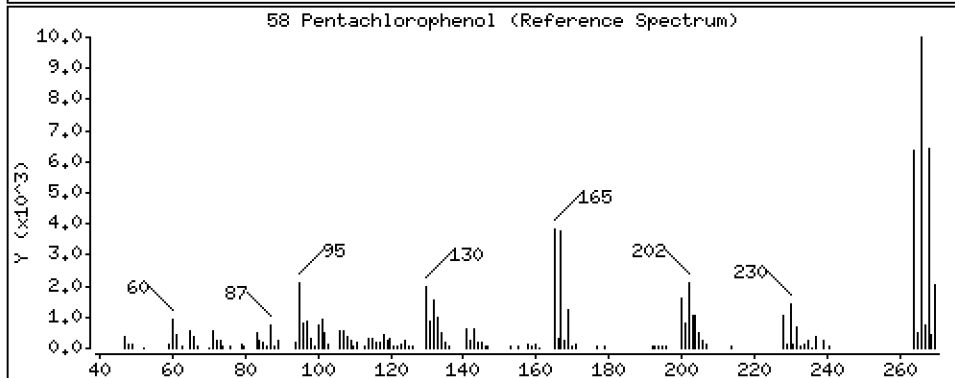
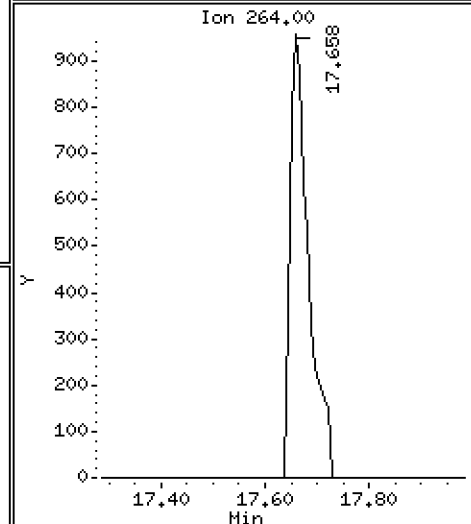
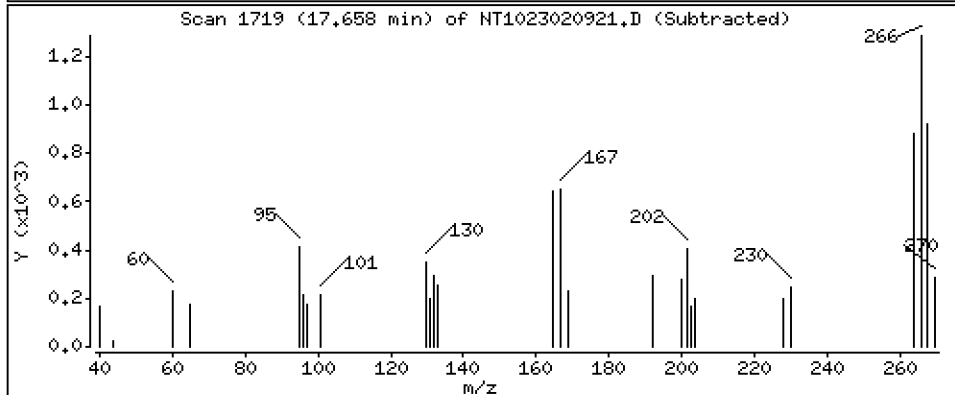
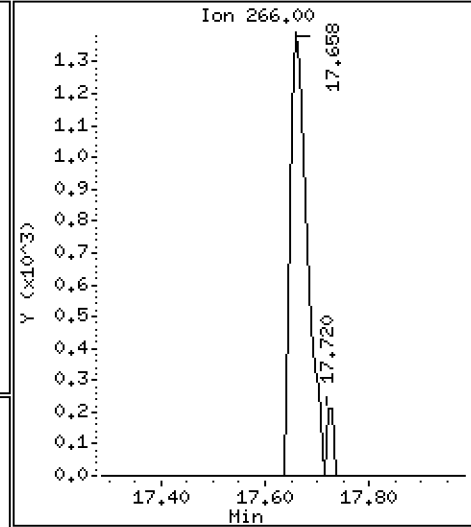
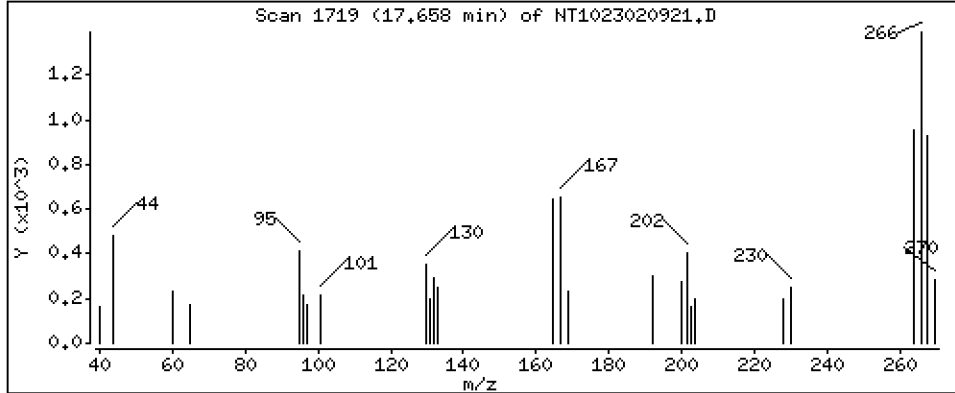
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,4982 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

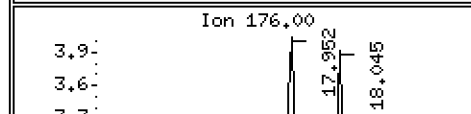
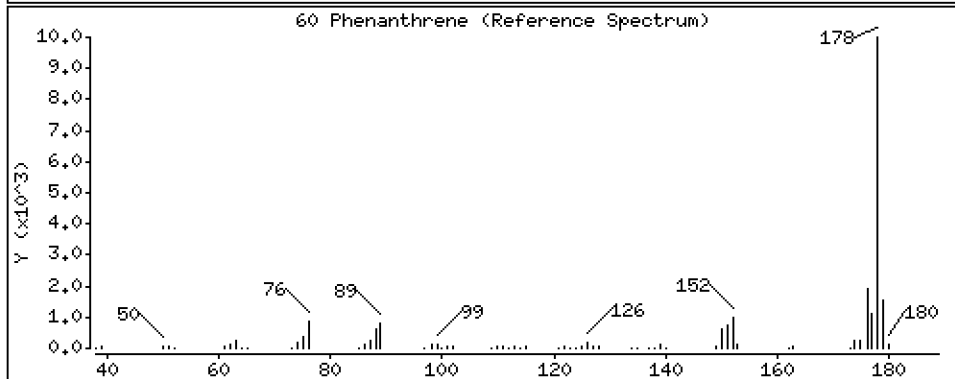
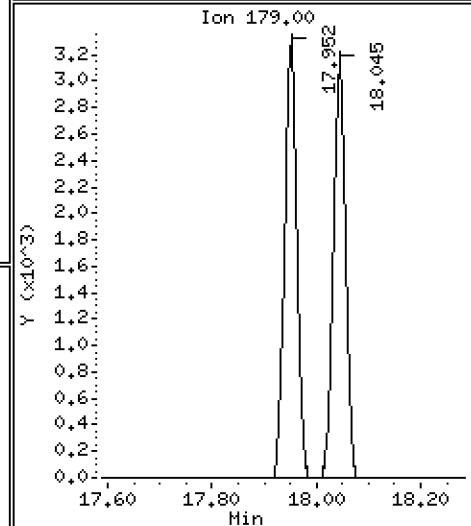
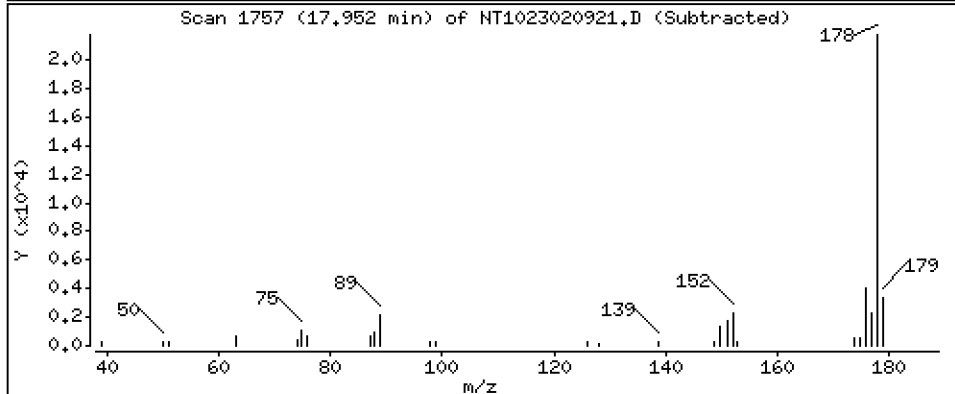
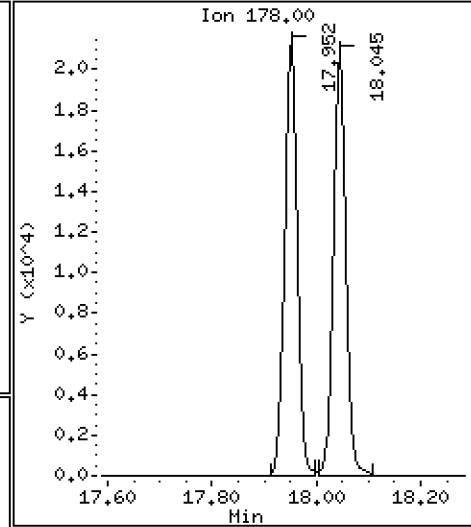
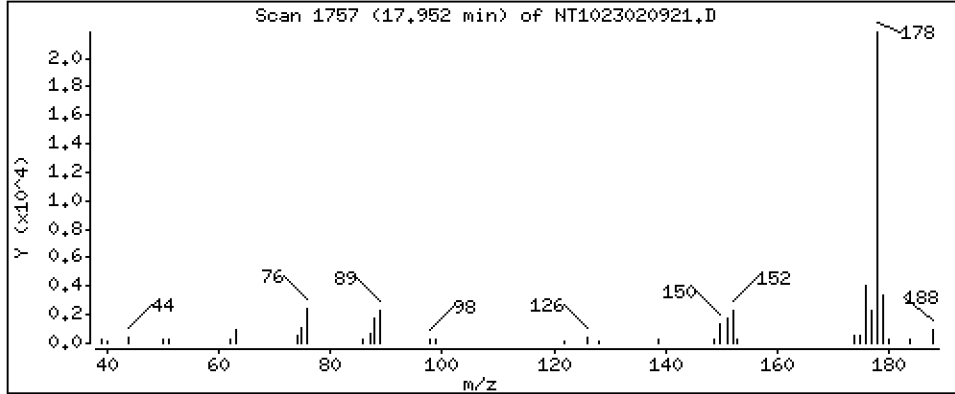
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,5190 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

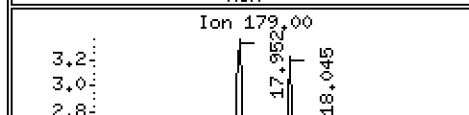
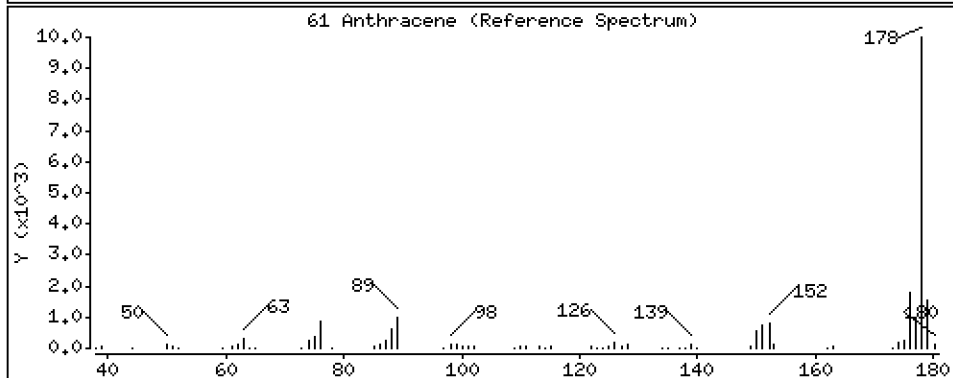
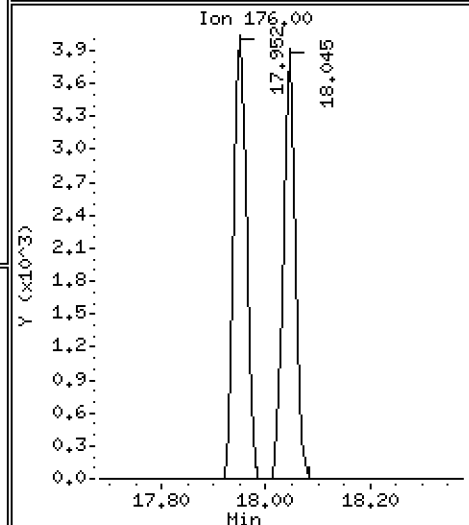
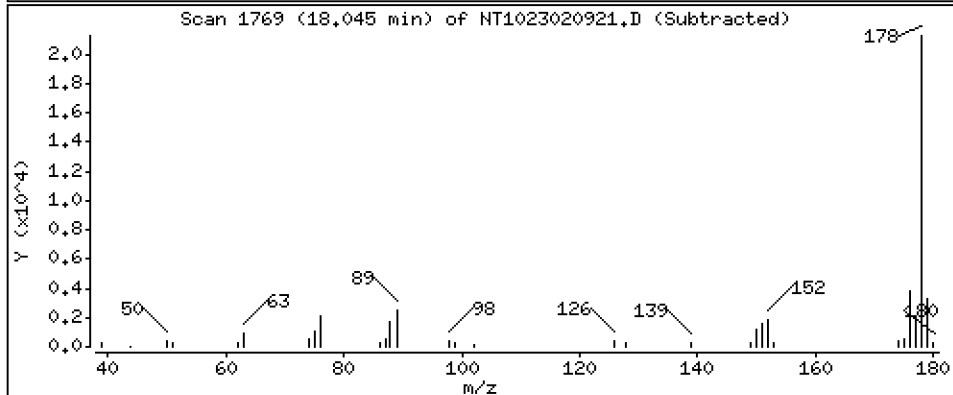
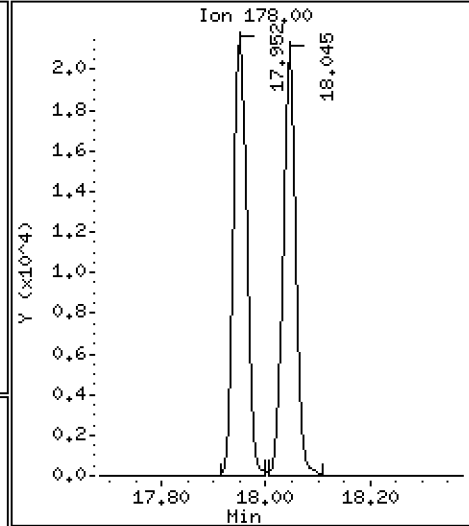
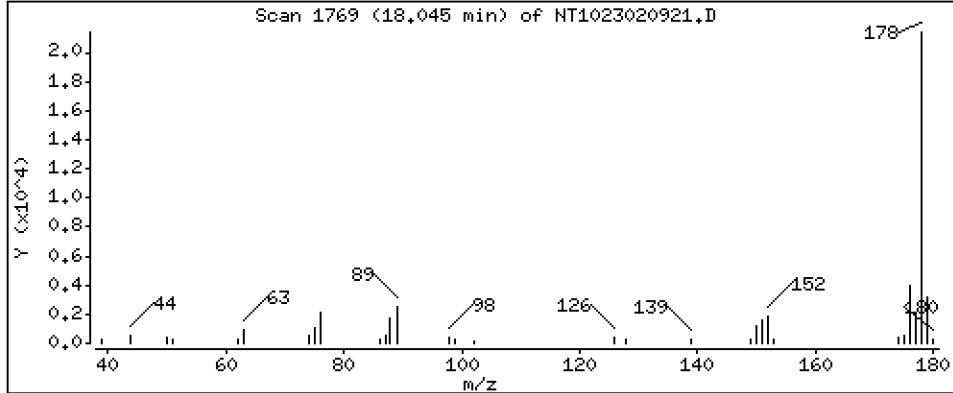
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,5171 ug/mL



Date : 10-FEB-2023 01:47

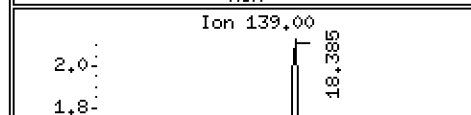
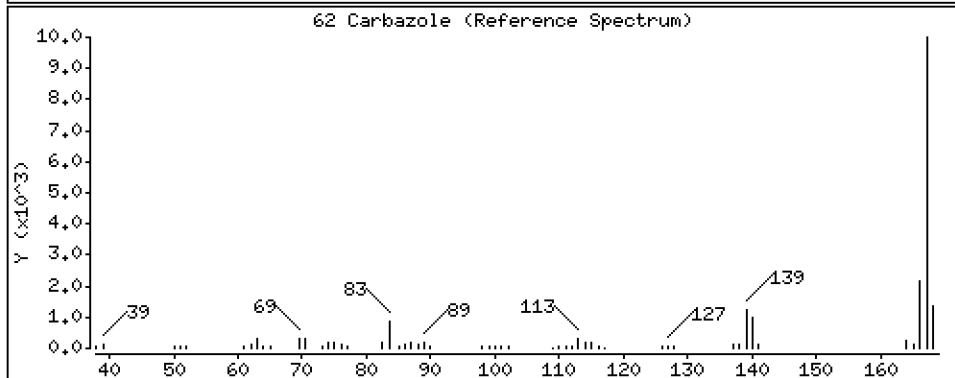
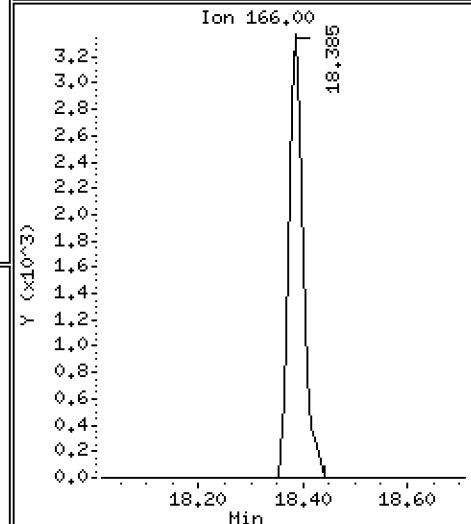
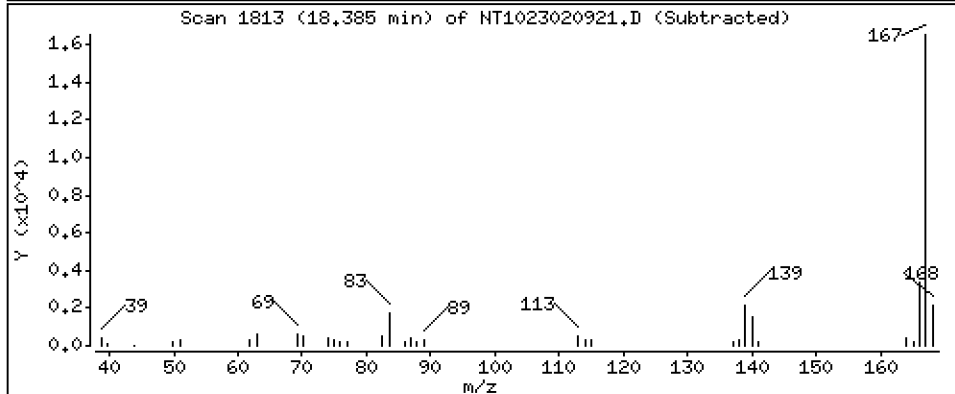
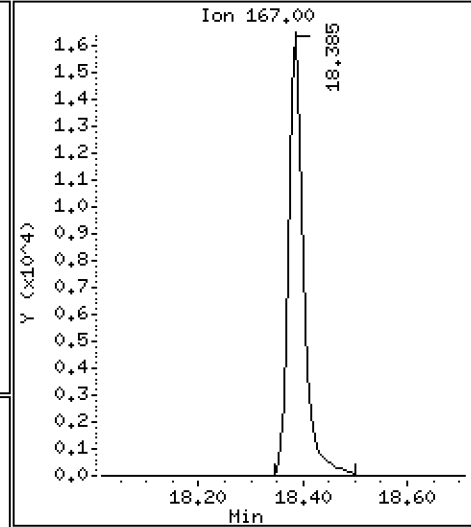
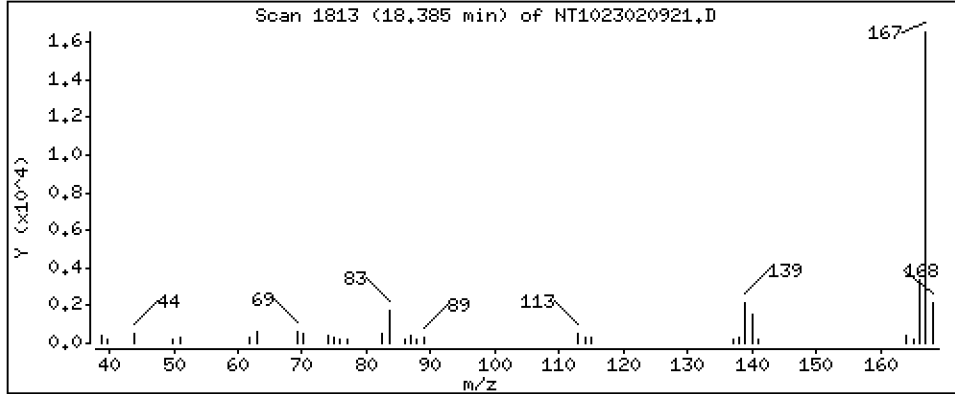
Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

62 Carbazole Concentration: 0,5073 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

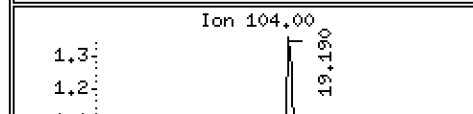
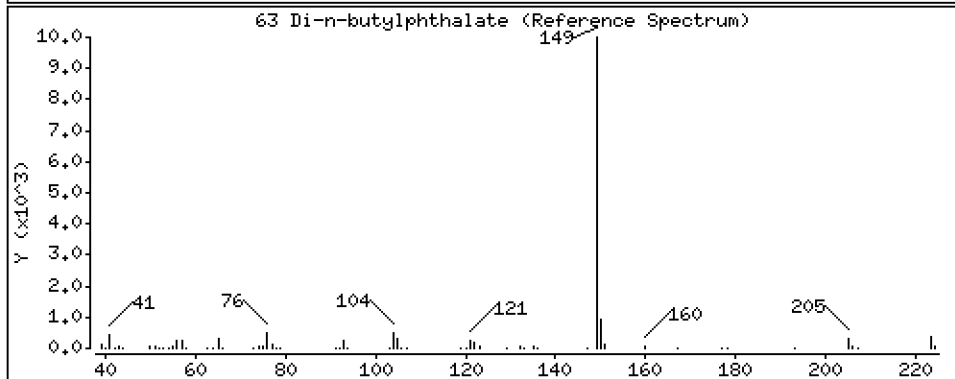
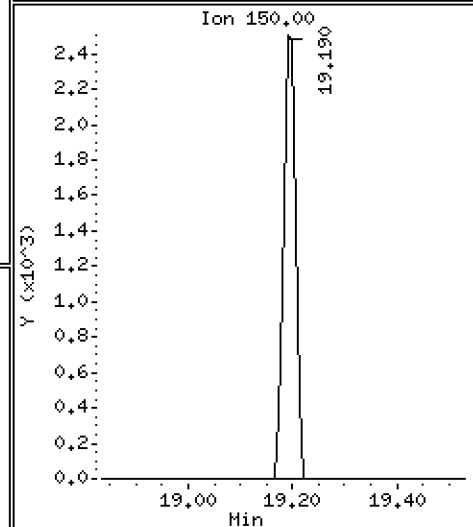
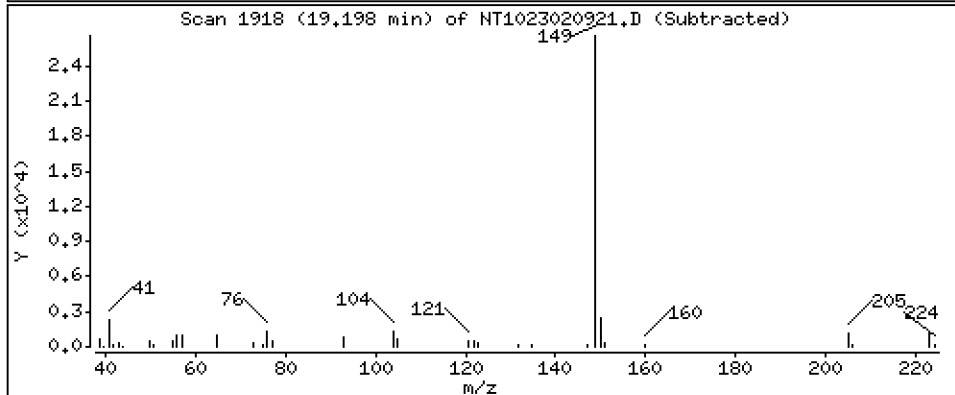
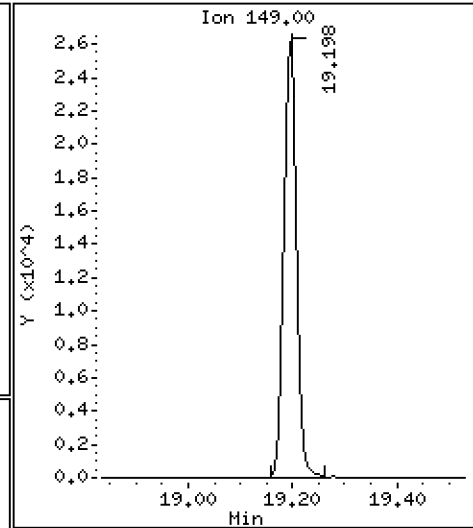
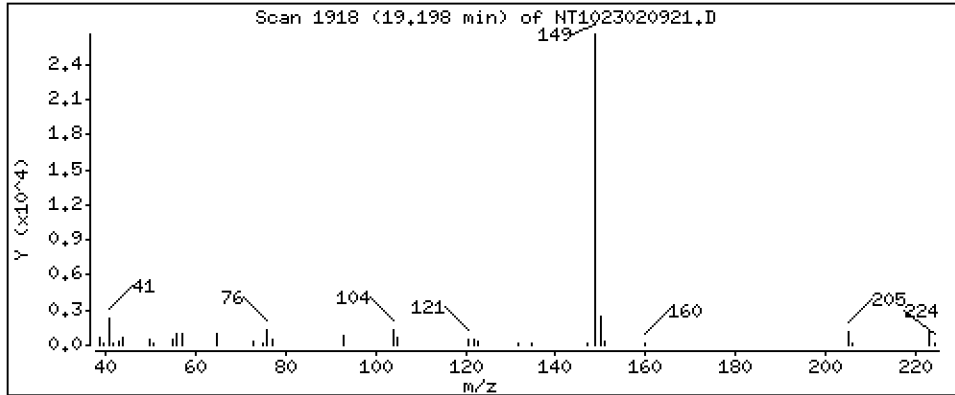
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 0,5311 ug/mL



Date : 10-FEB-2023 01:47

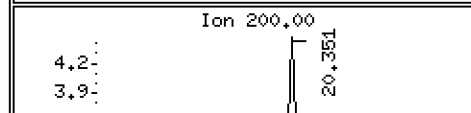
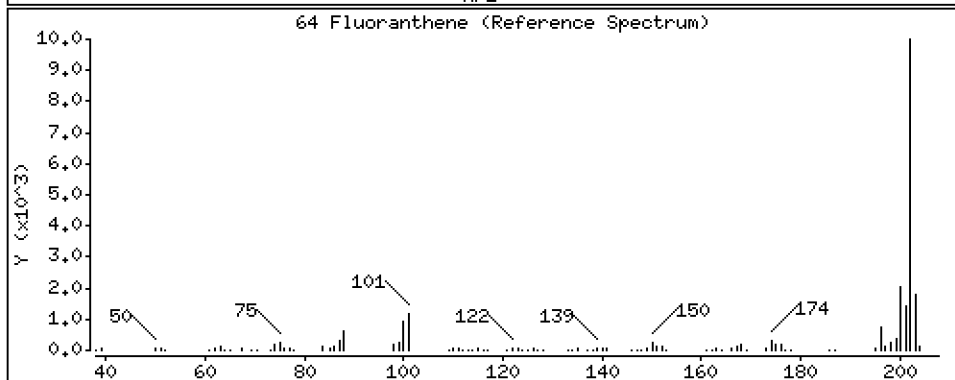
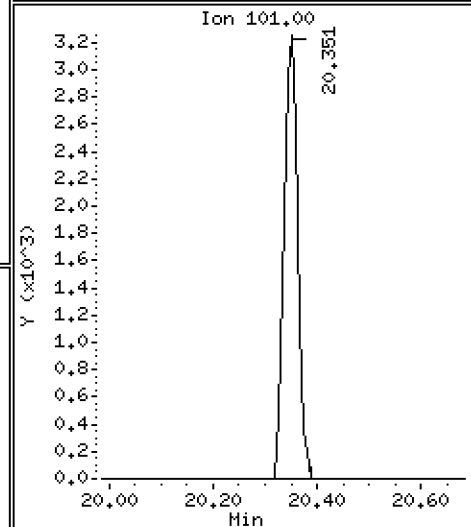
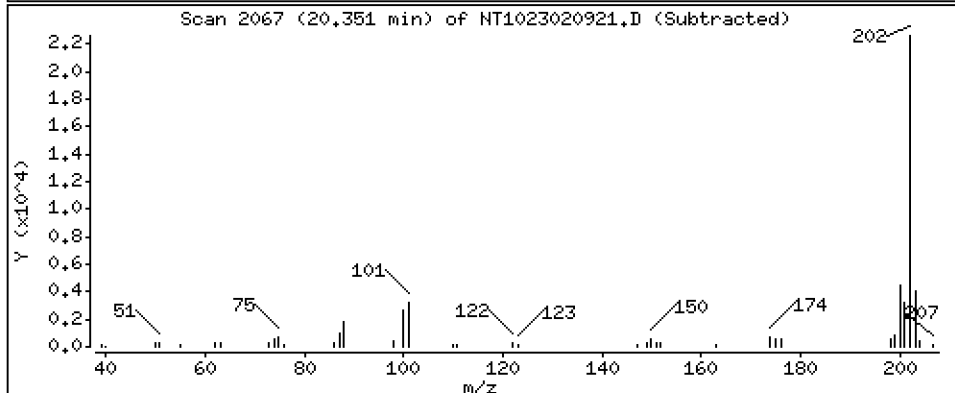
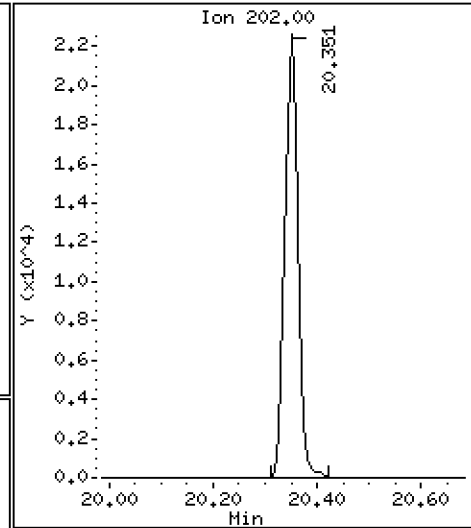
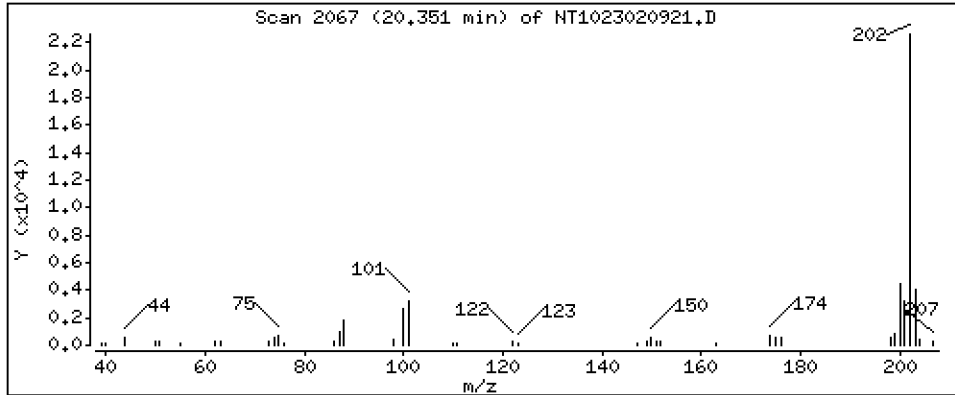
Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

64 Fluoranthene Concentration: 0,4706 ug/mL



Date : 10-FEB-2023 01:47

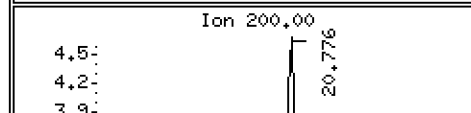
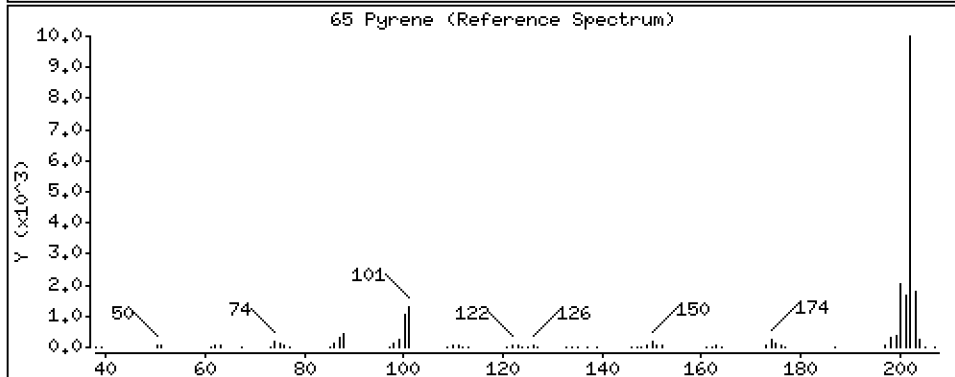
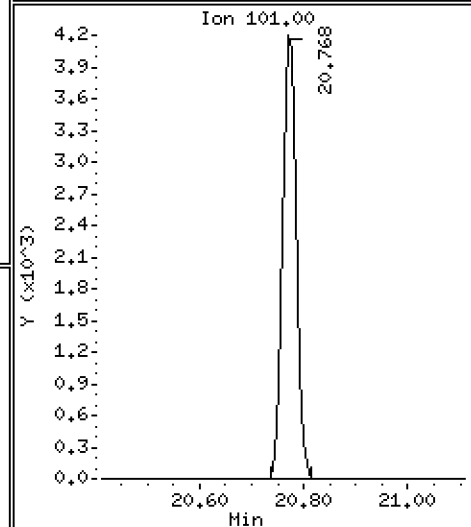
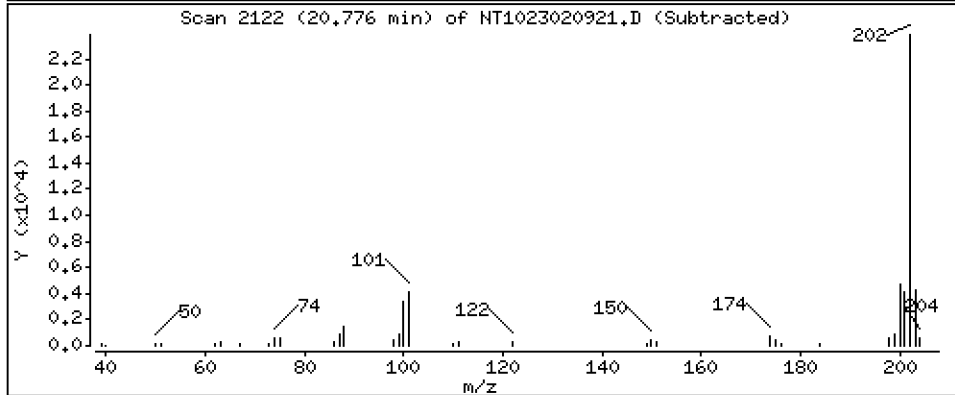
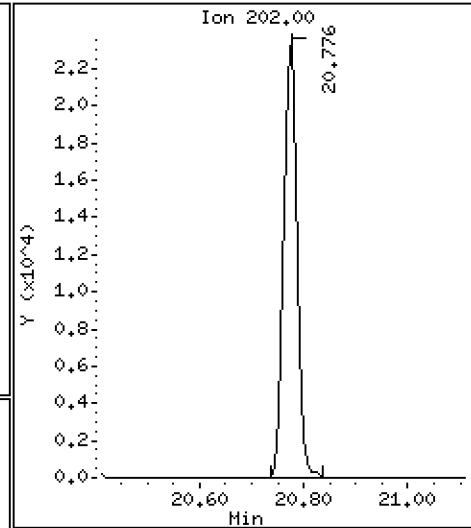
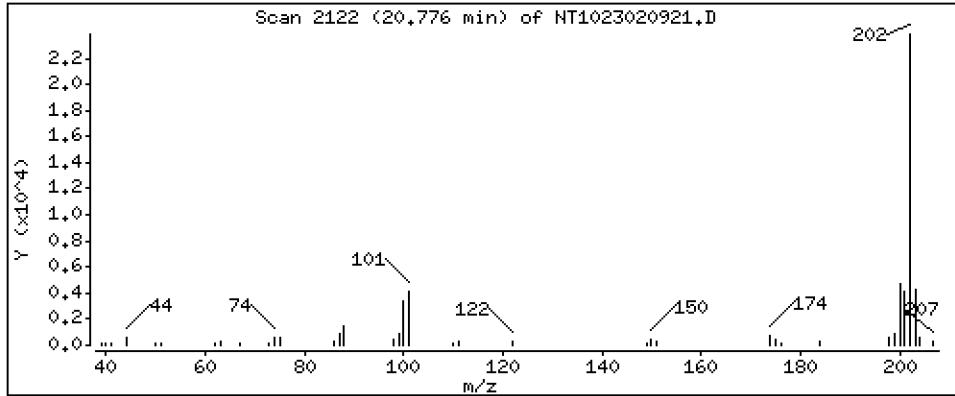
Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

65 Pyrene Concentration: 0,4771 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

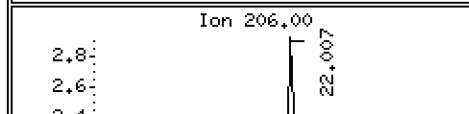
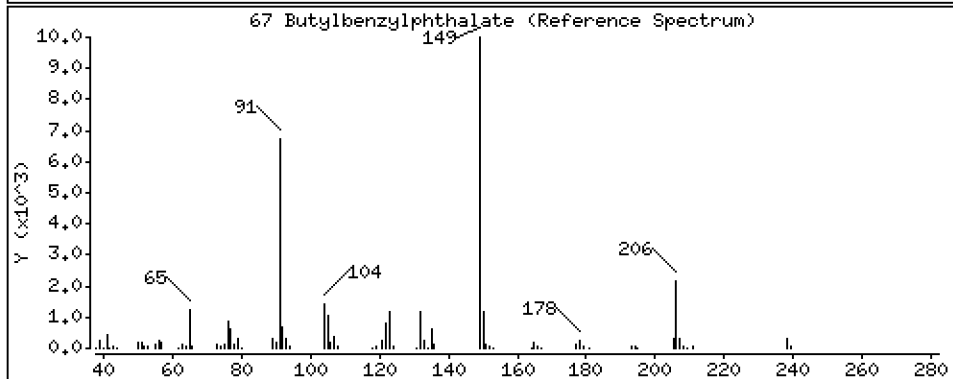
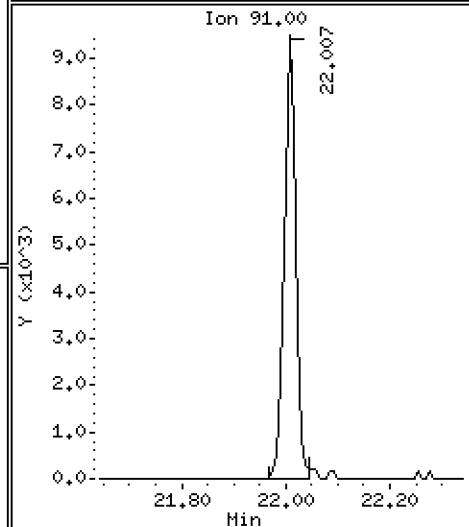
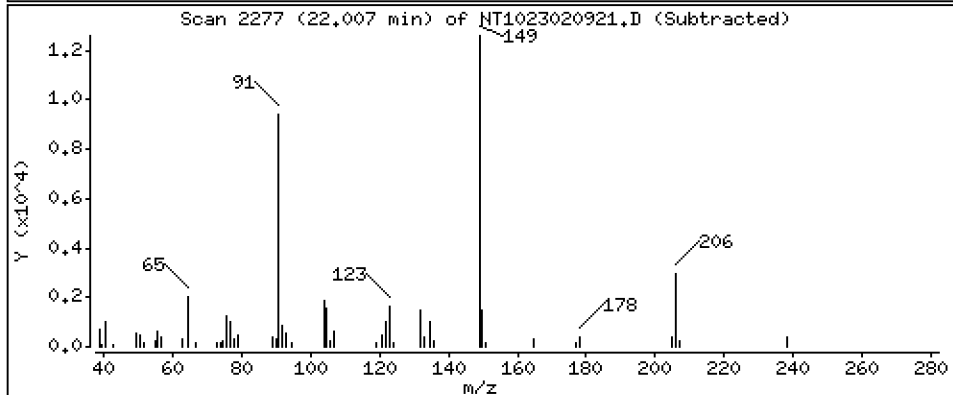
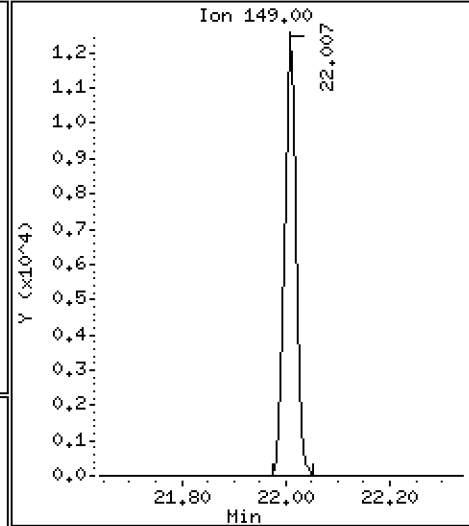
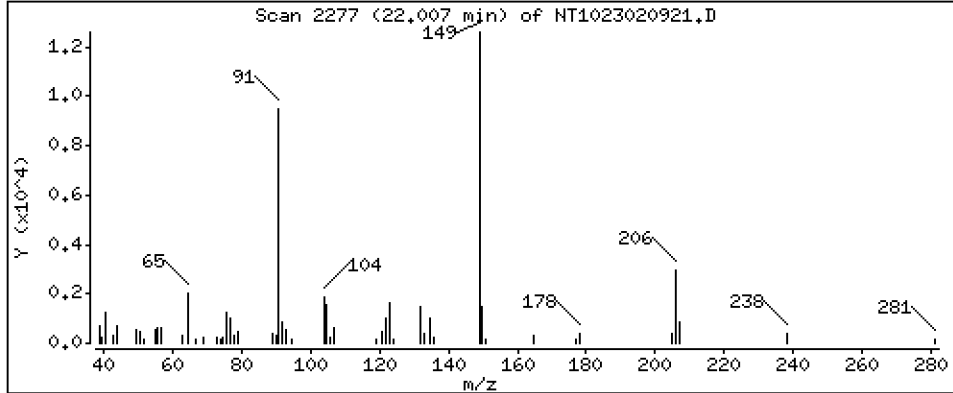
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 0,5166 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

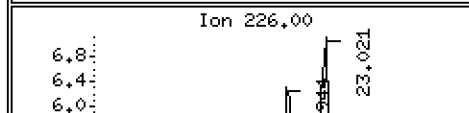
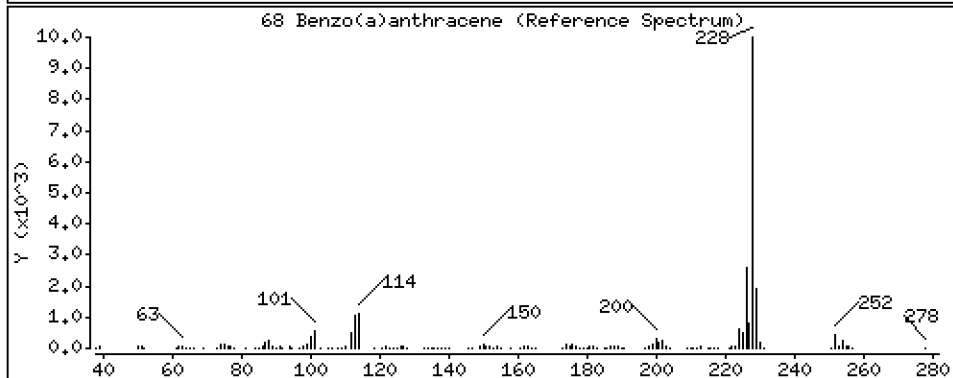
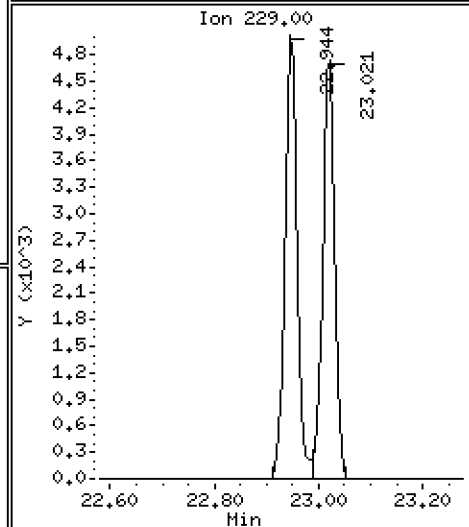
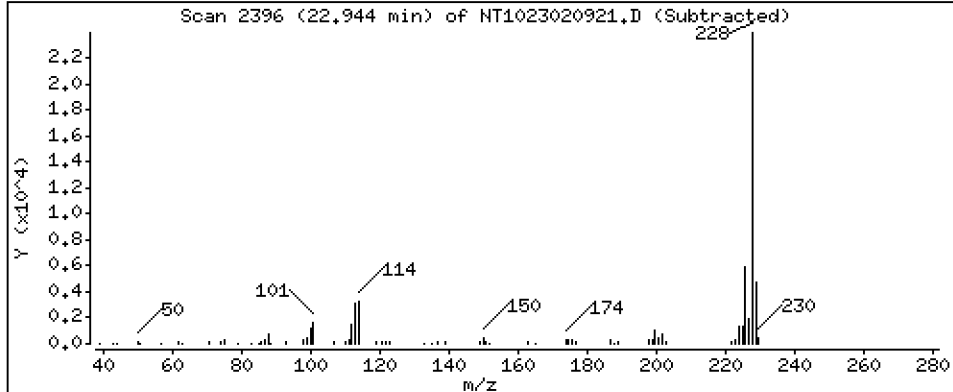
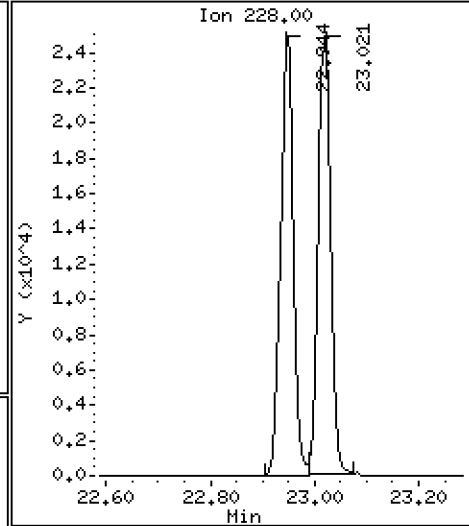
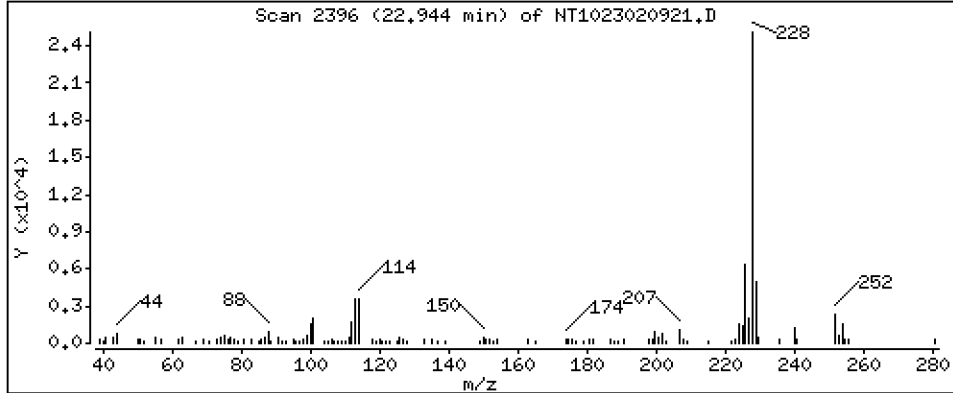
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,5619 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

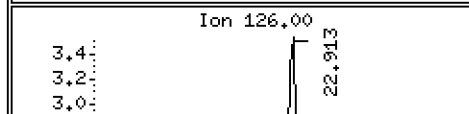
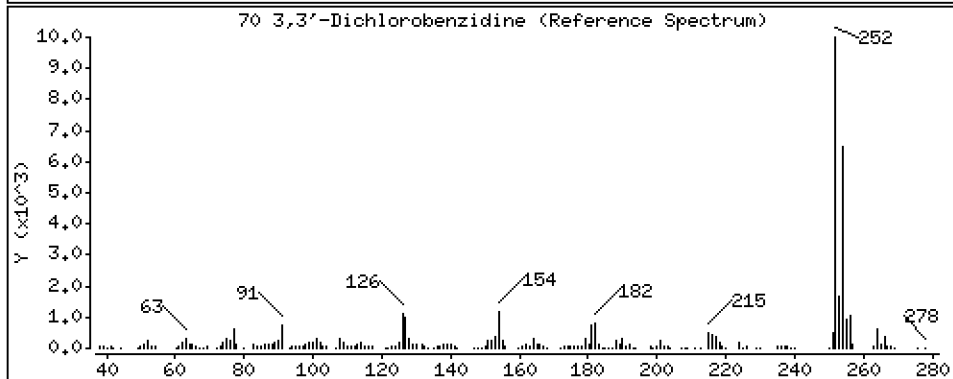
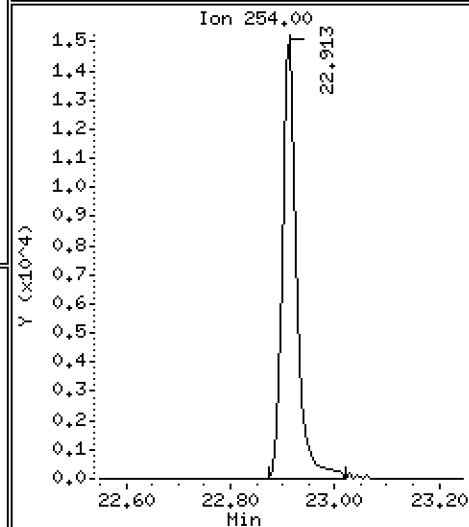
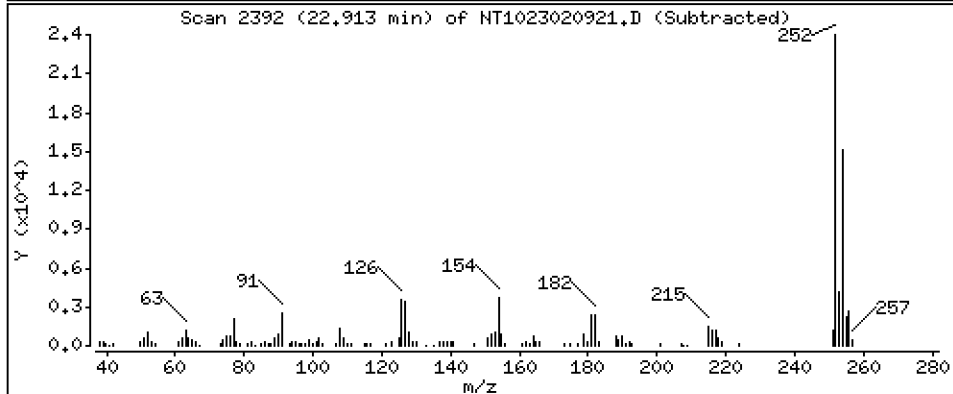
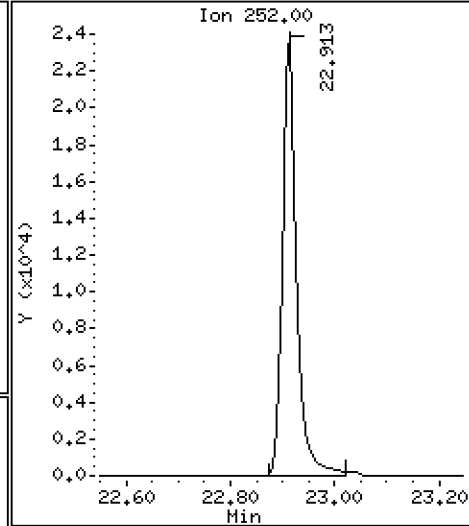
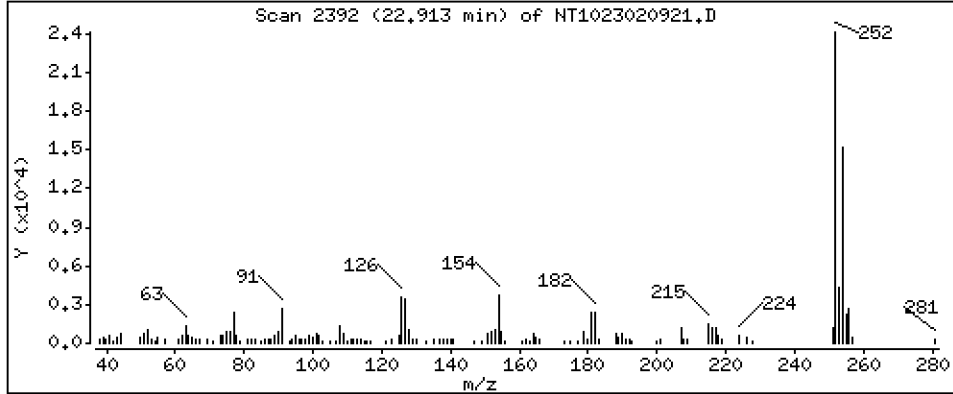
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 1,772 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

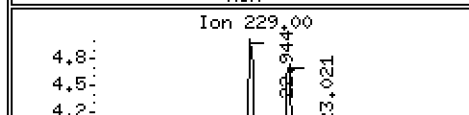
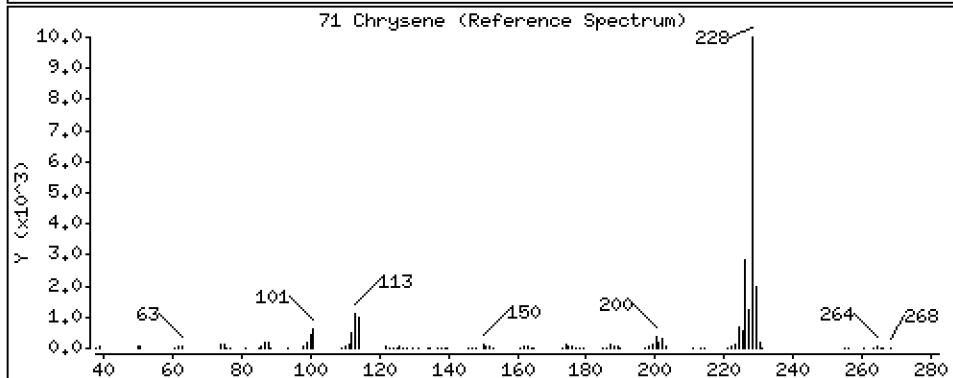
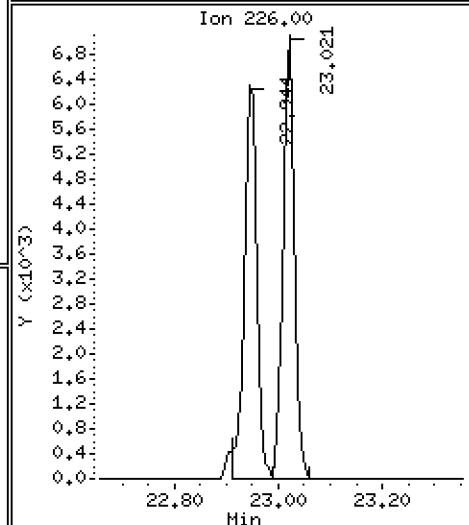
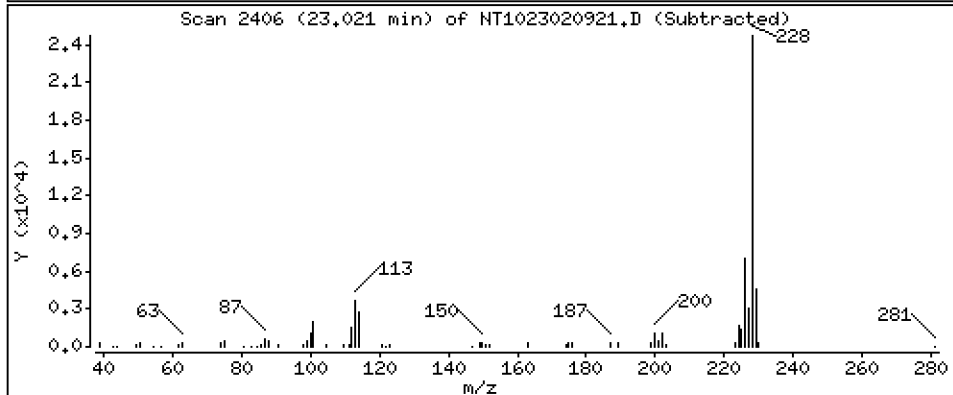
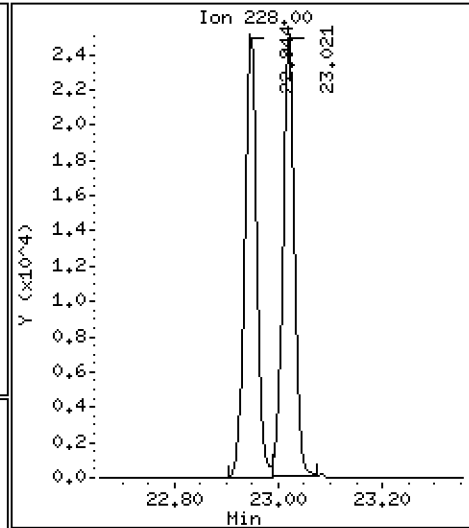
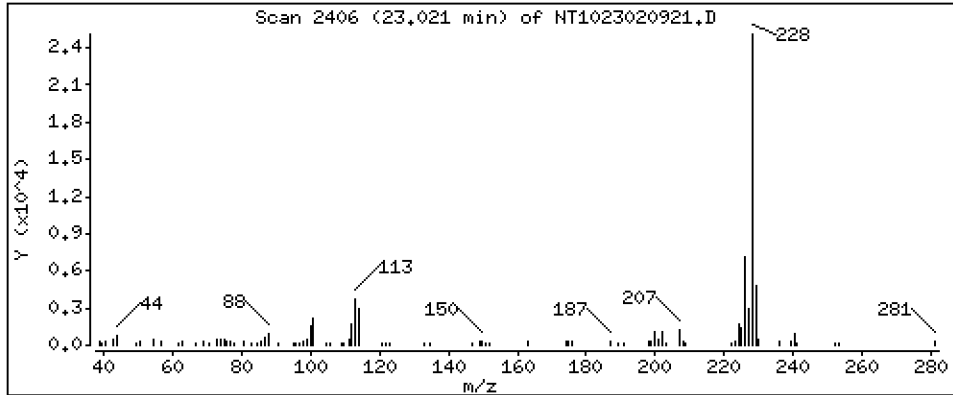
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,5393 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

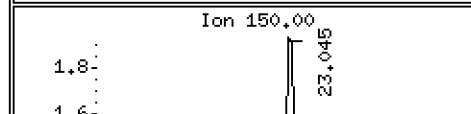
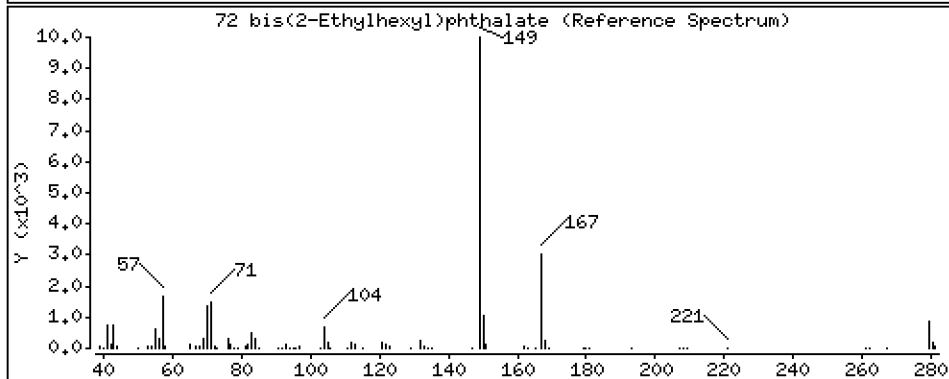
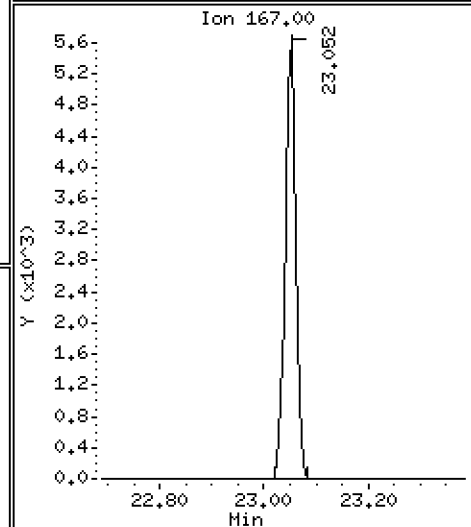
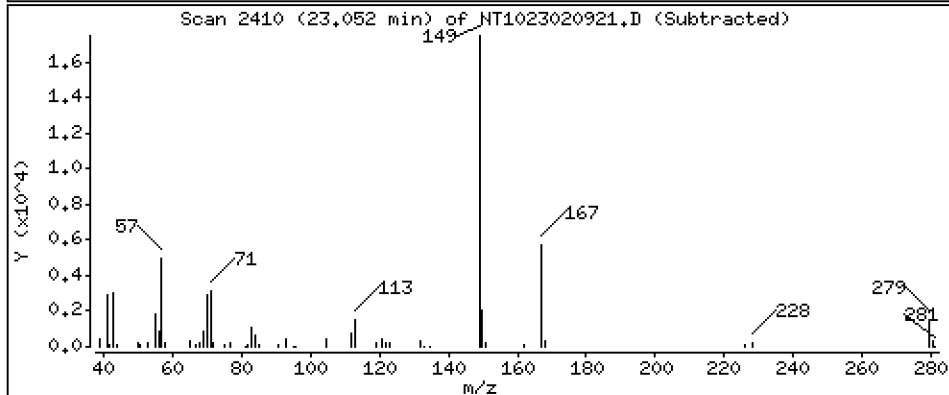
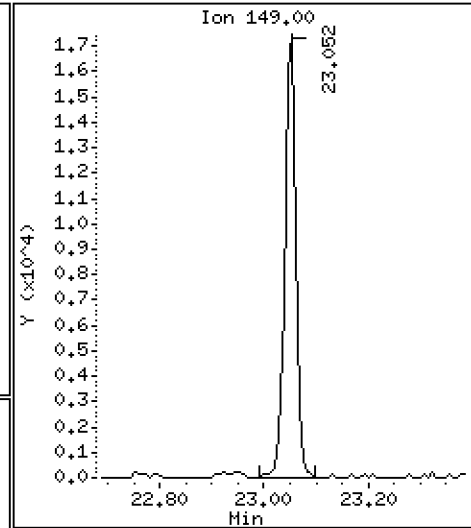
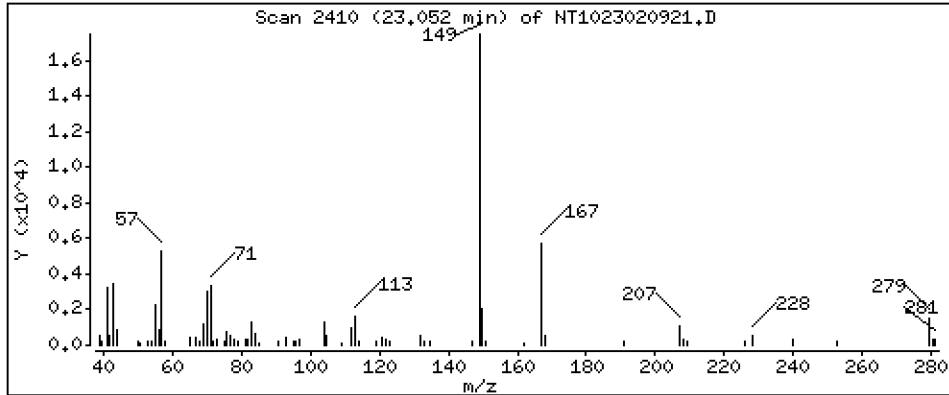
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,5205 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

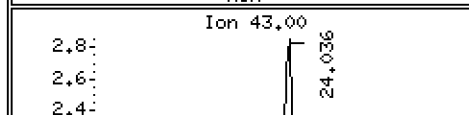
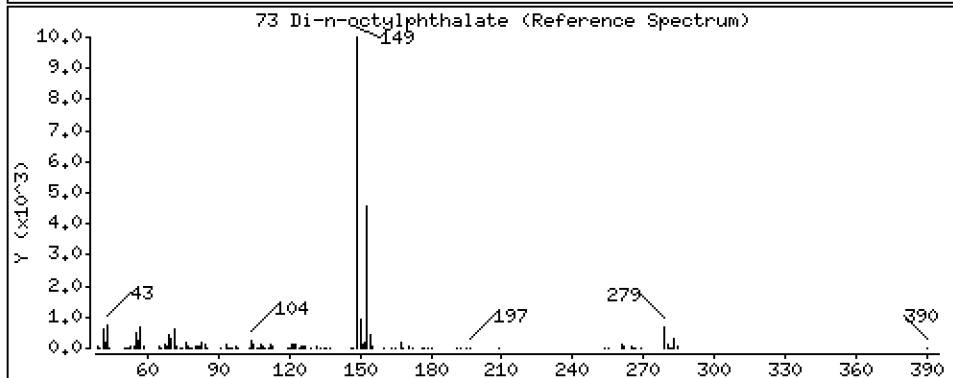
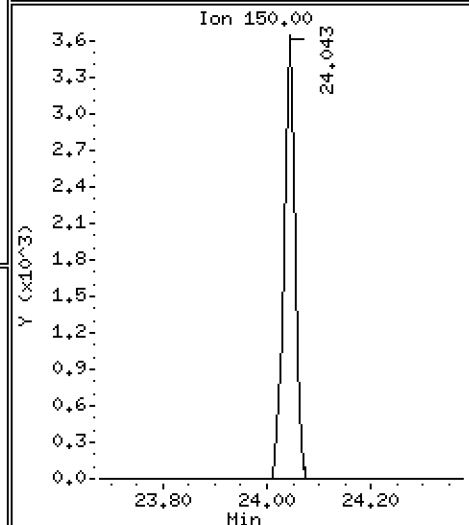
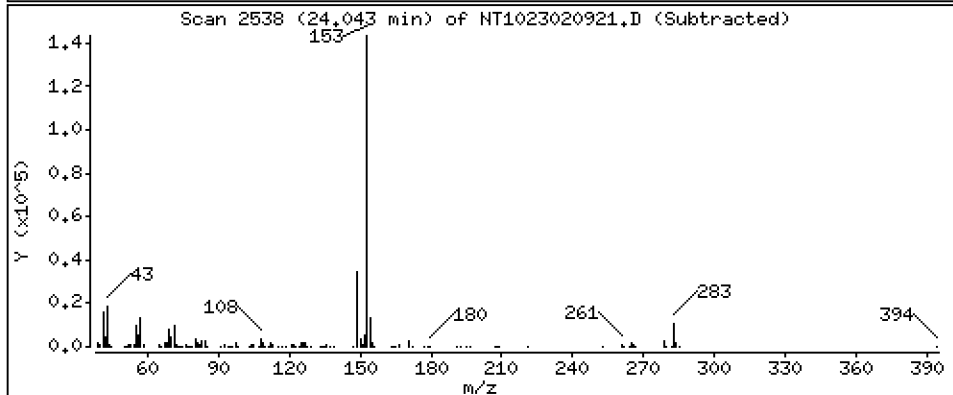
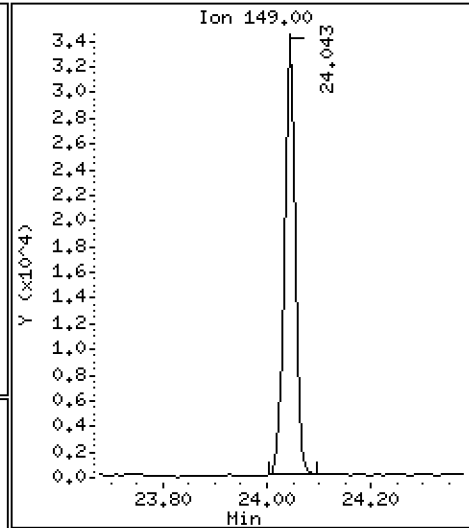
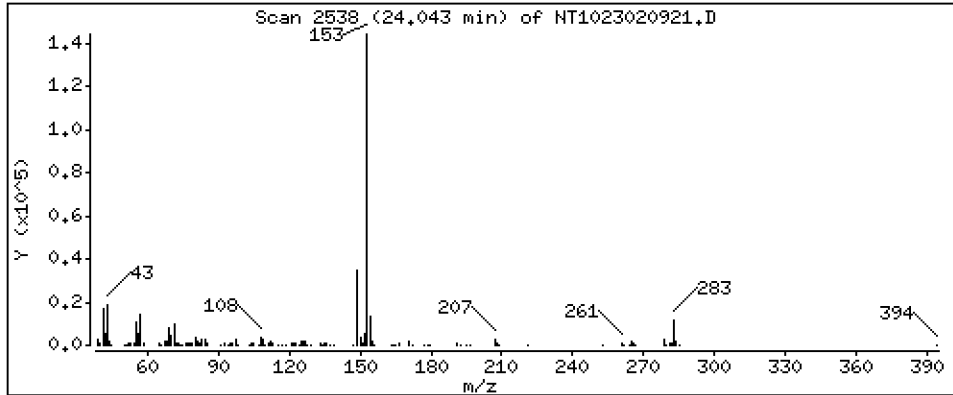
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,5365 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

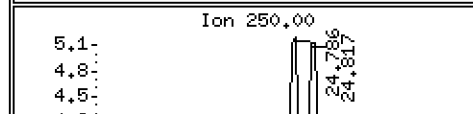
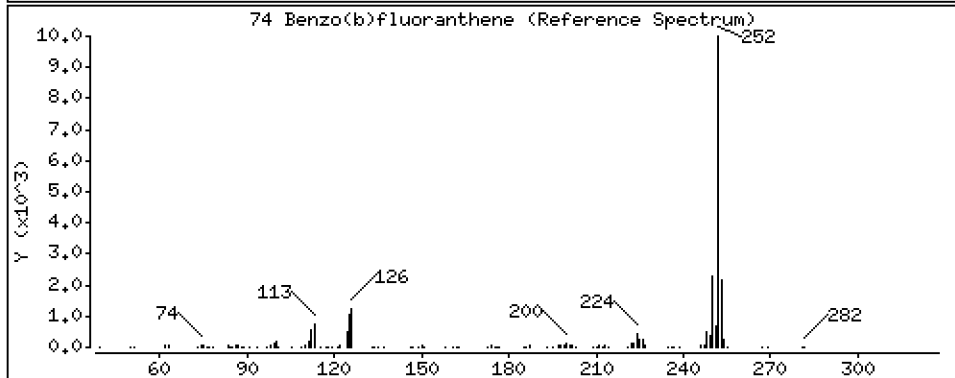
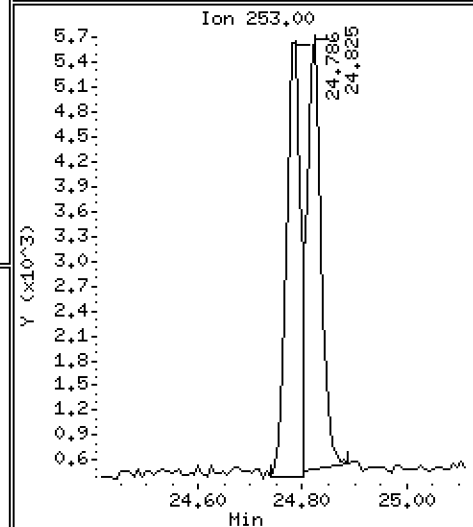
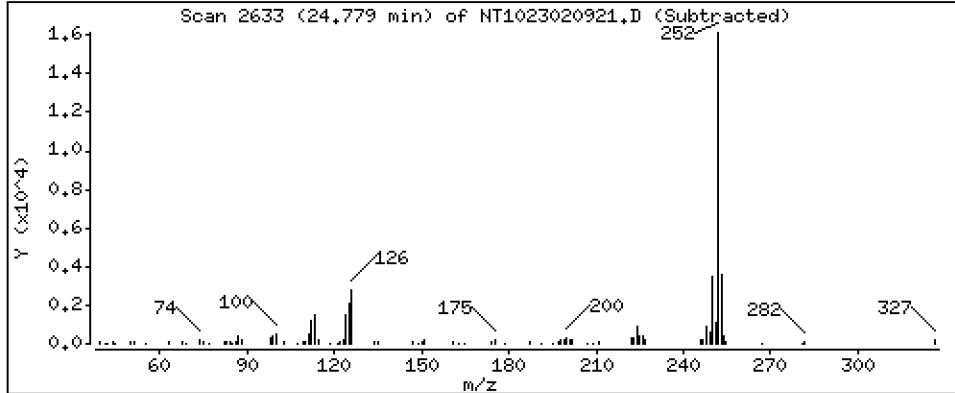
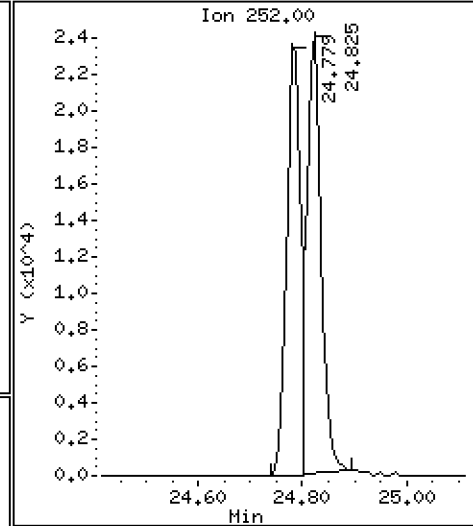
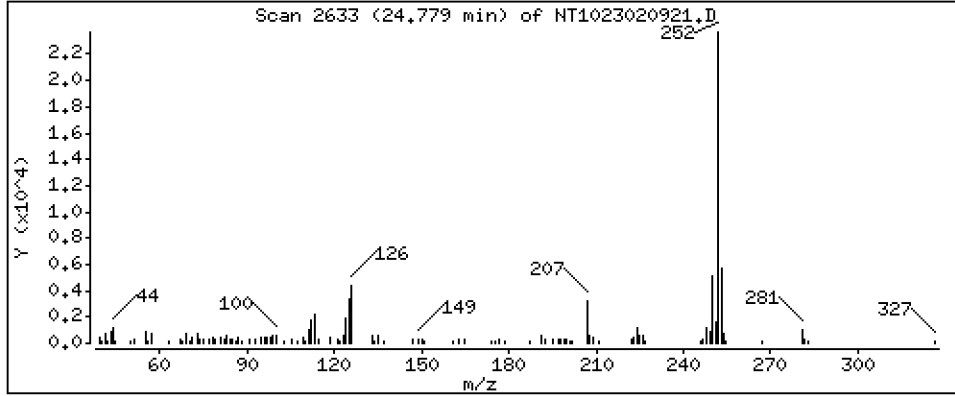
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,5348 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

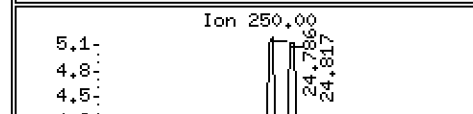
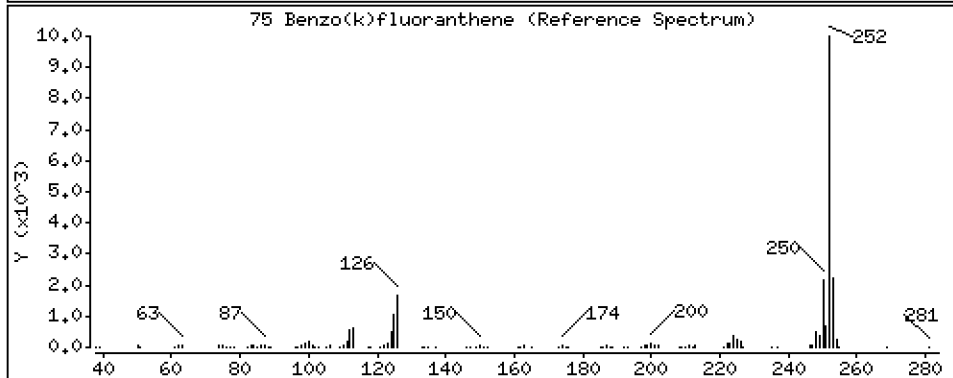
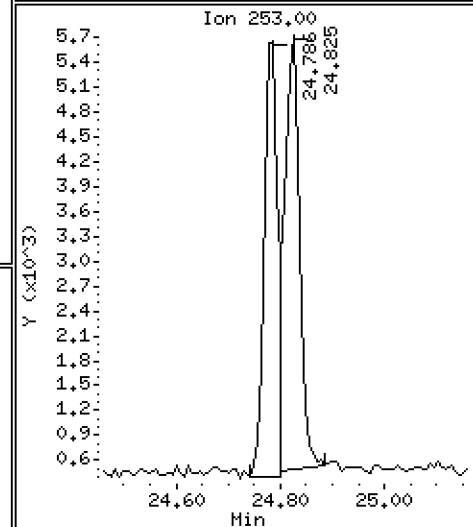
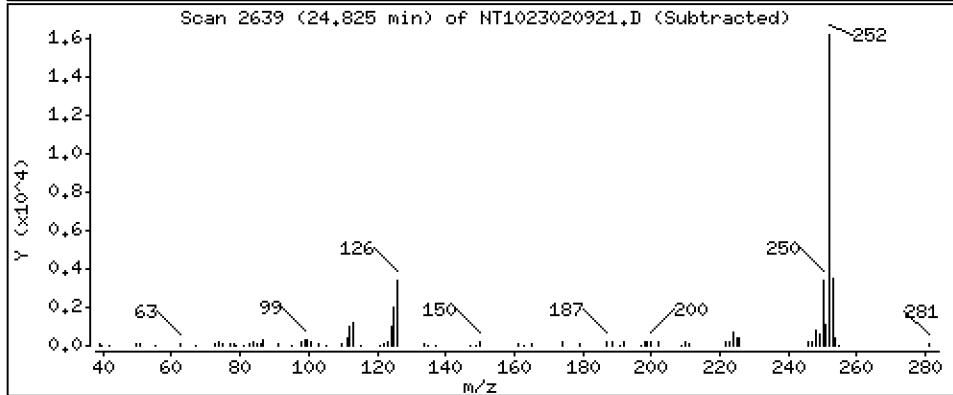
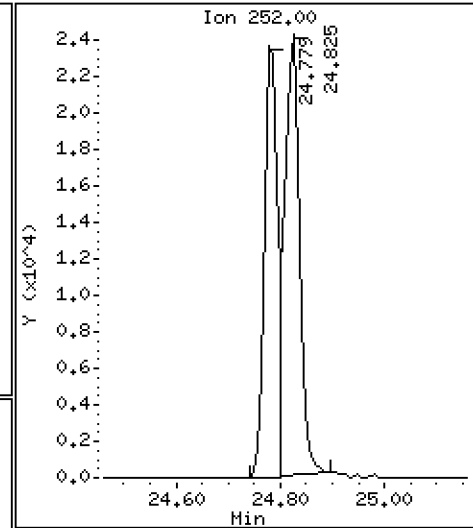
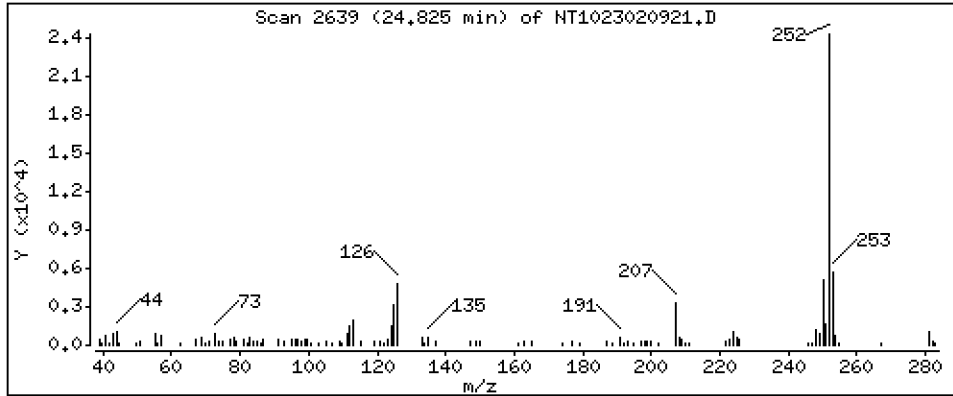
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,5514 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

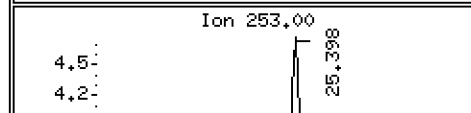
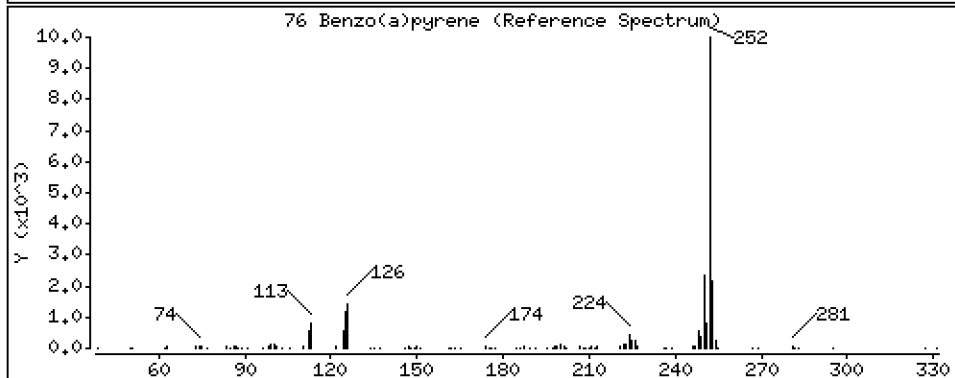
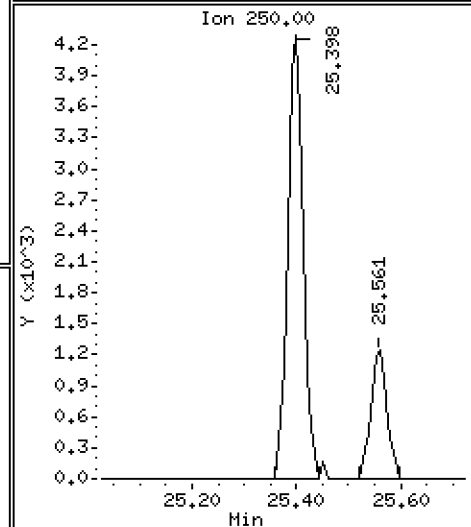
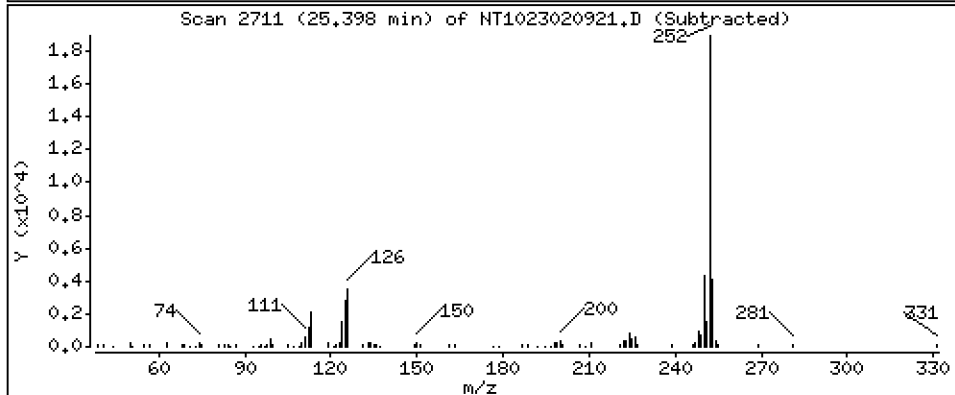
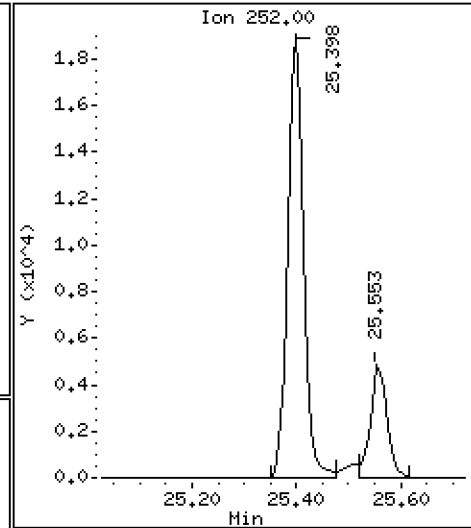
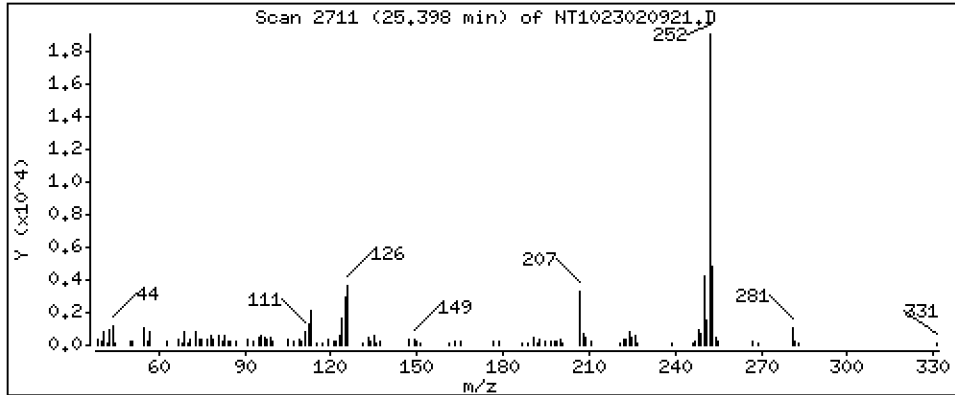
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,5410 ug/mL



Date : 10-FEB-2023 01:47

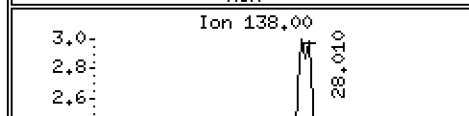
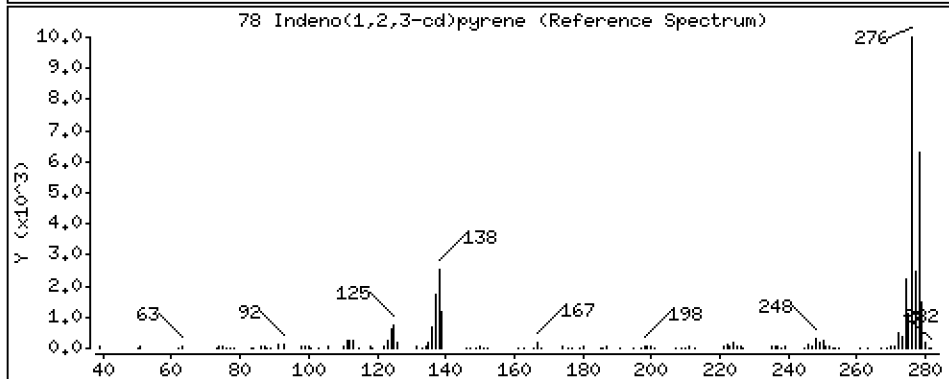
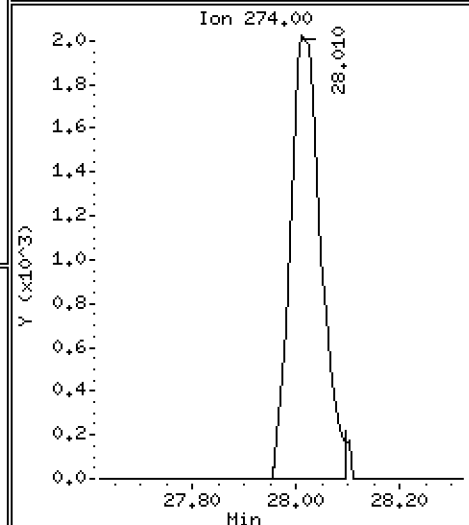
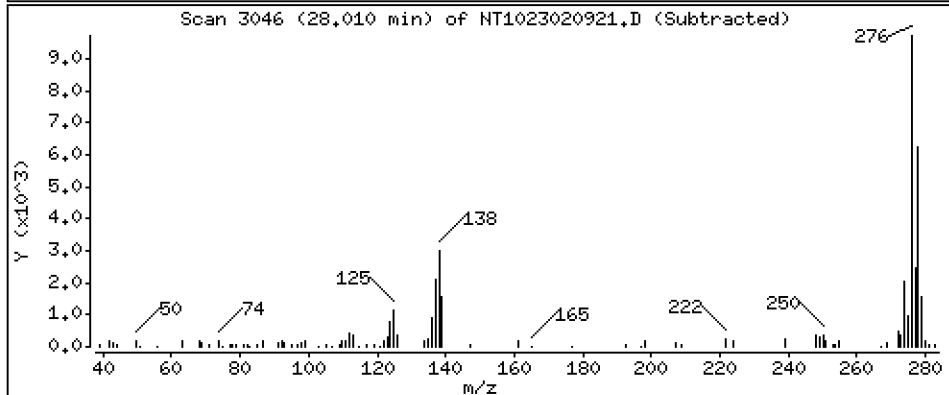
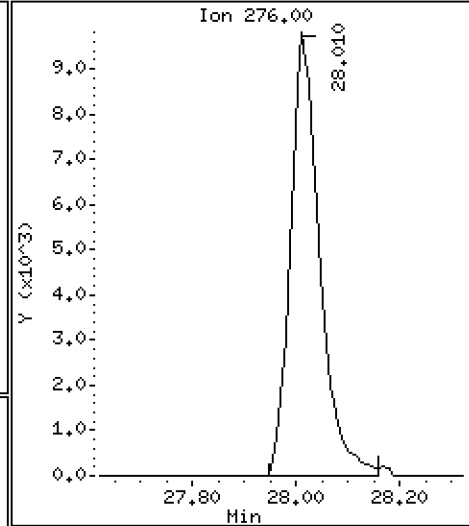
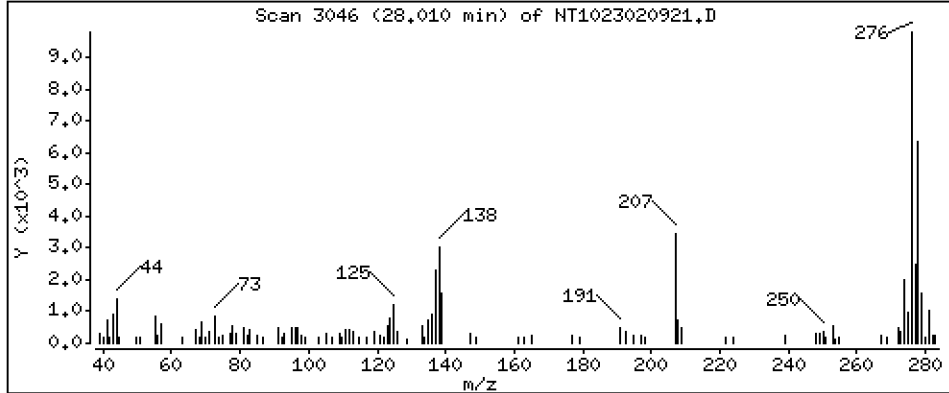
Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene Concentration: 0,4303 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

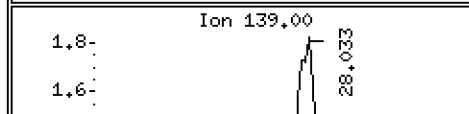
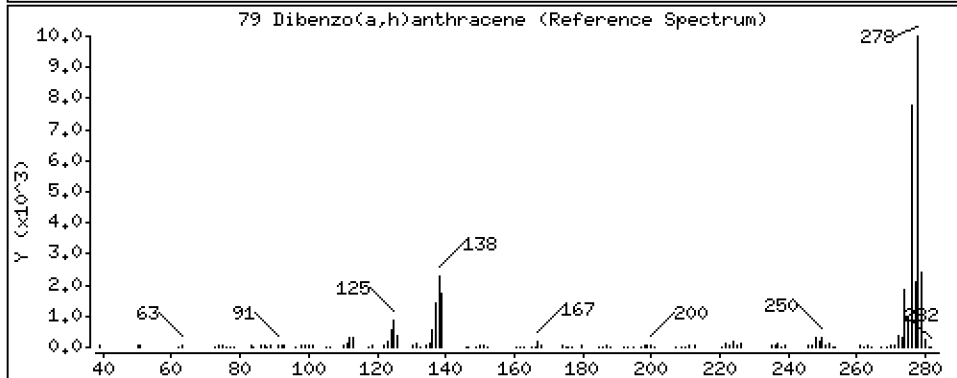
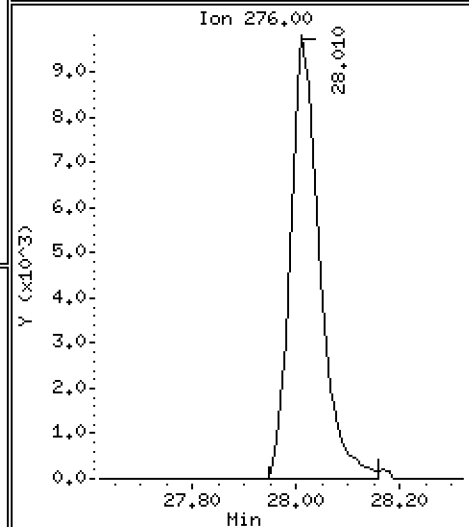
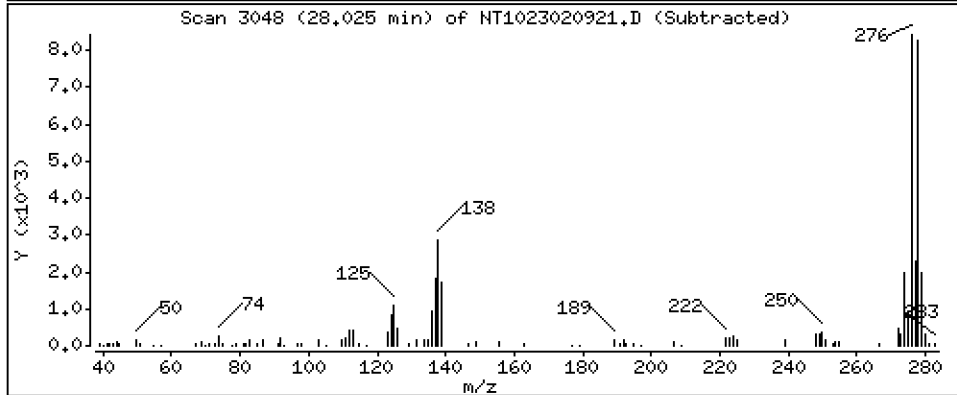
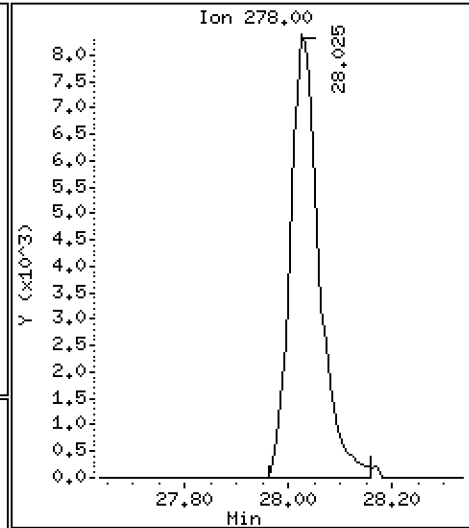
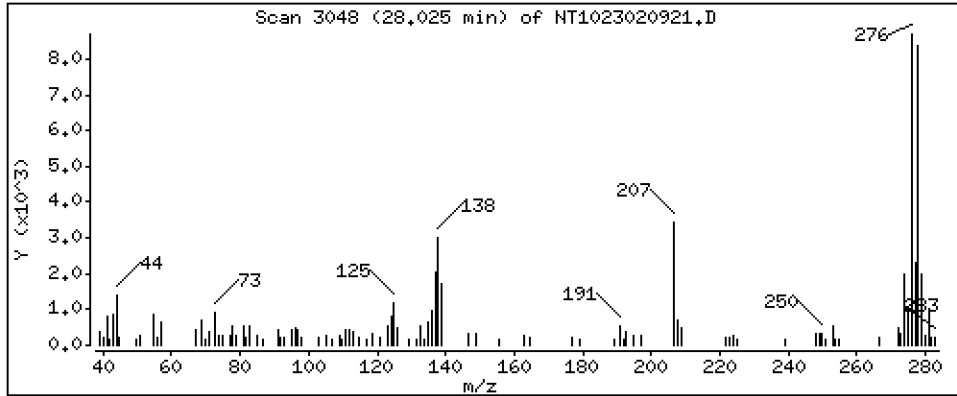
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,4425 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

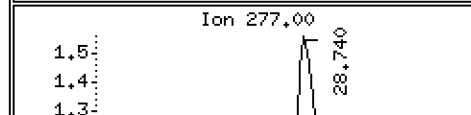
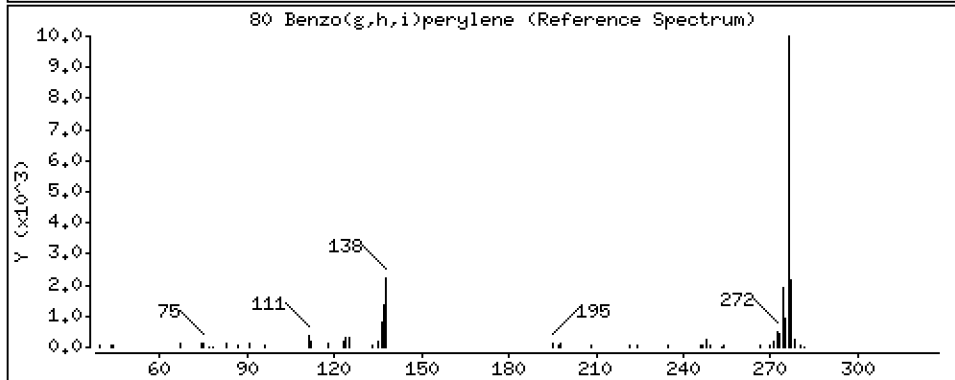
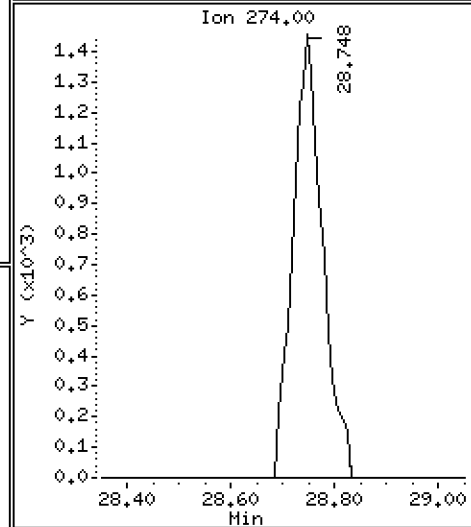
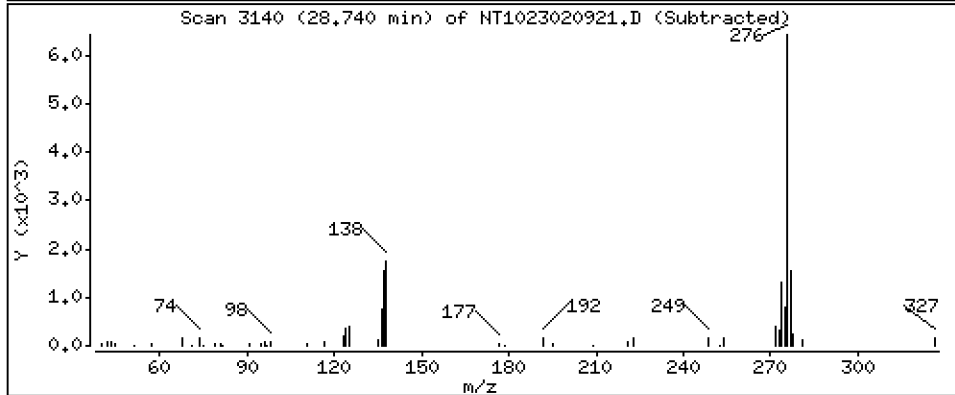
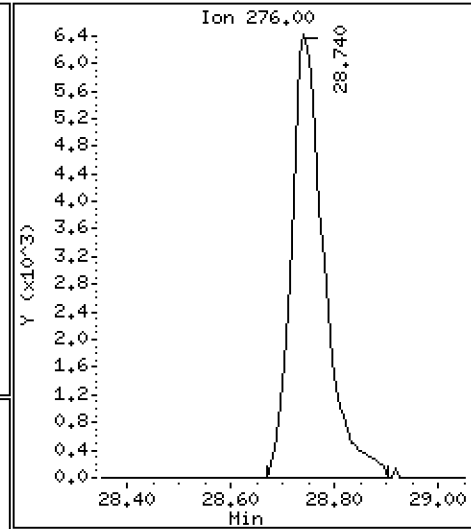
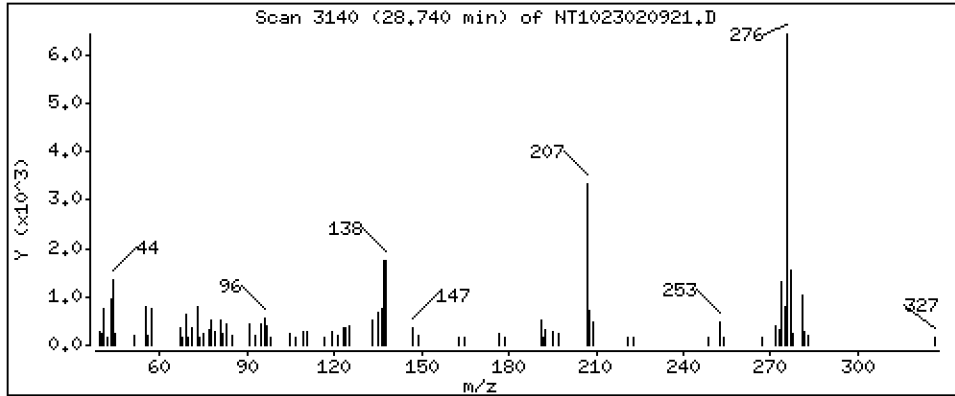
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,3679 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

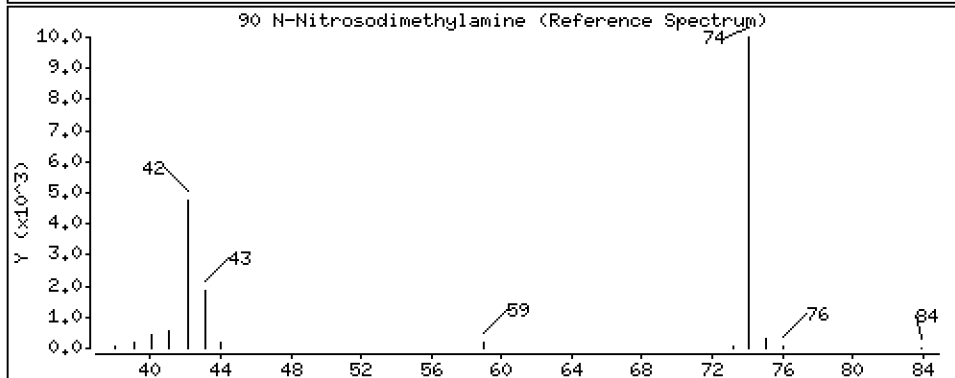
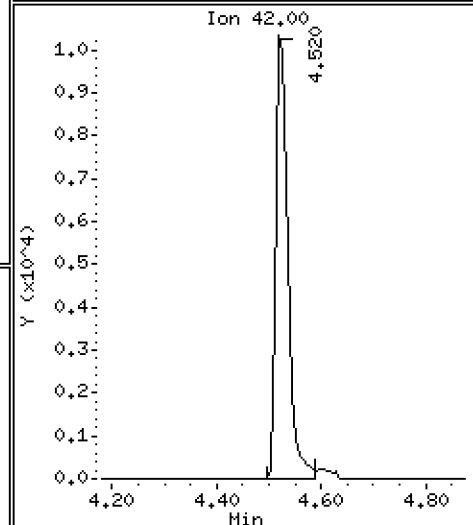
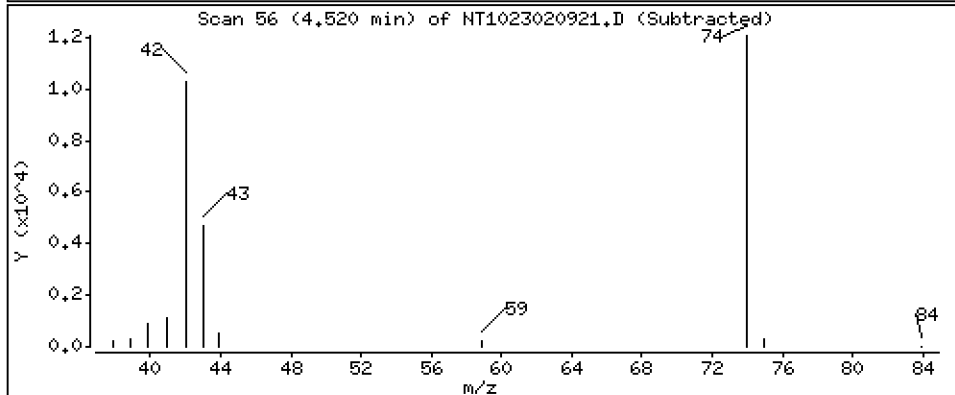
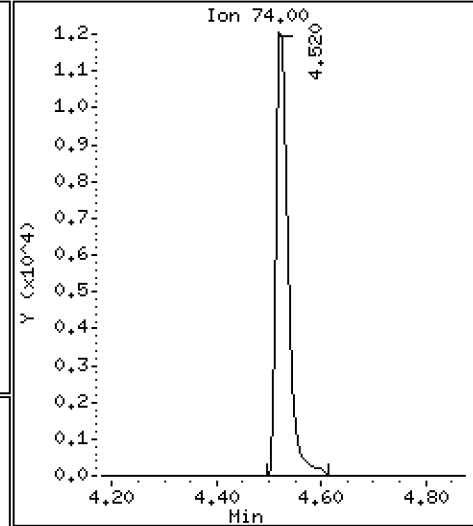
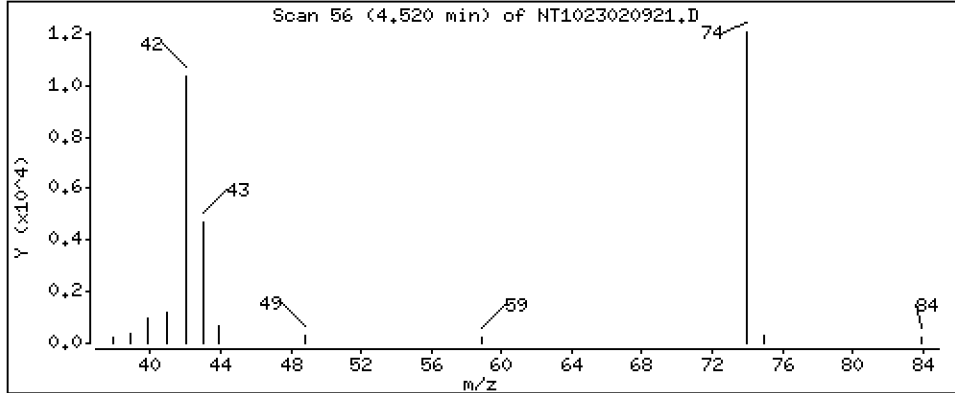
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 0,9990 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

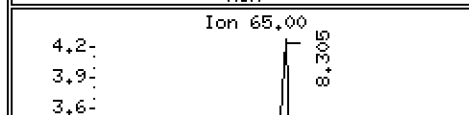
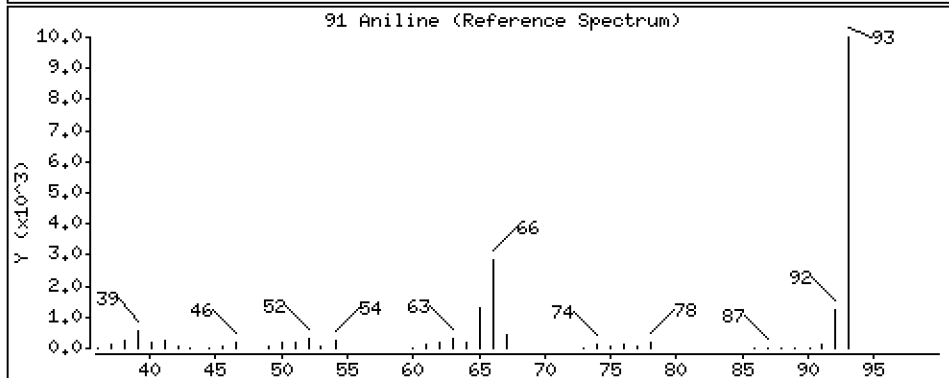
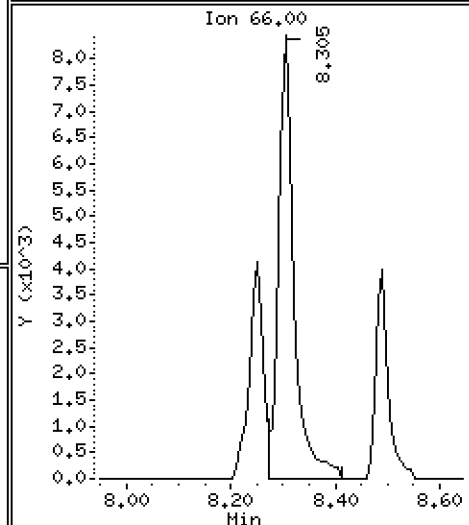
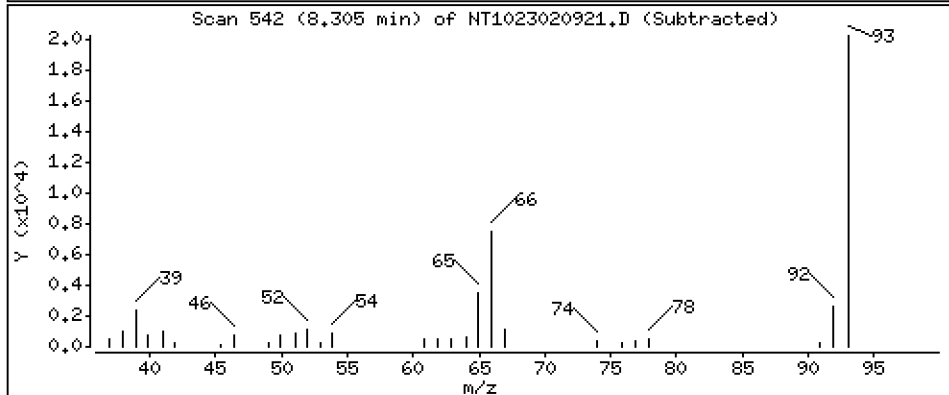
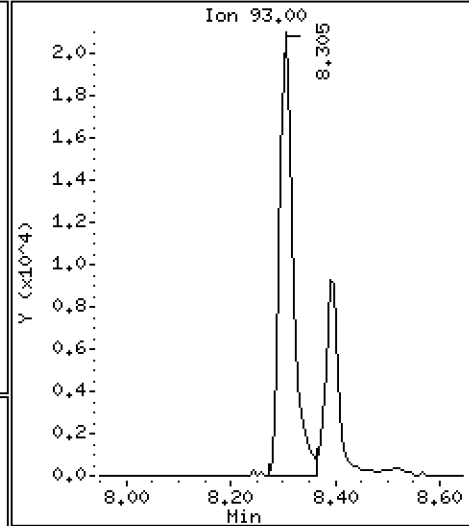
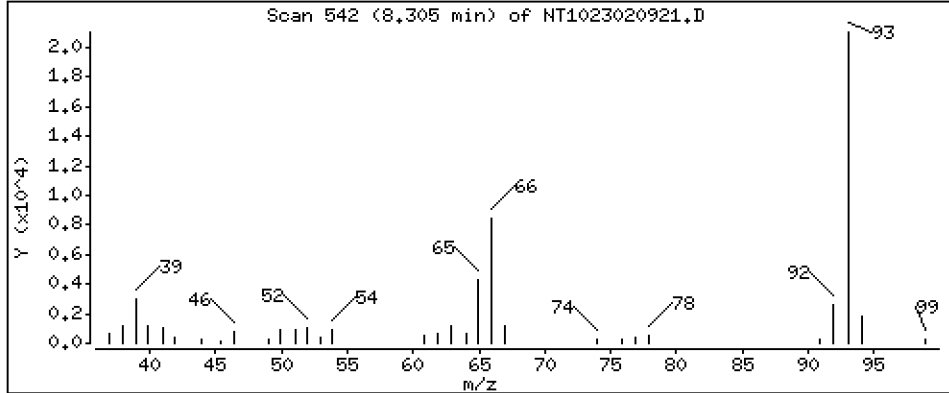
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 0,9653 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

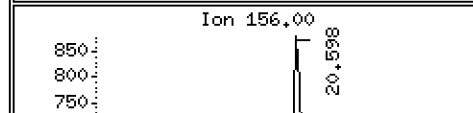
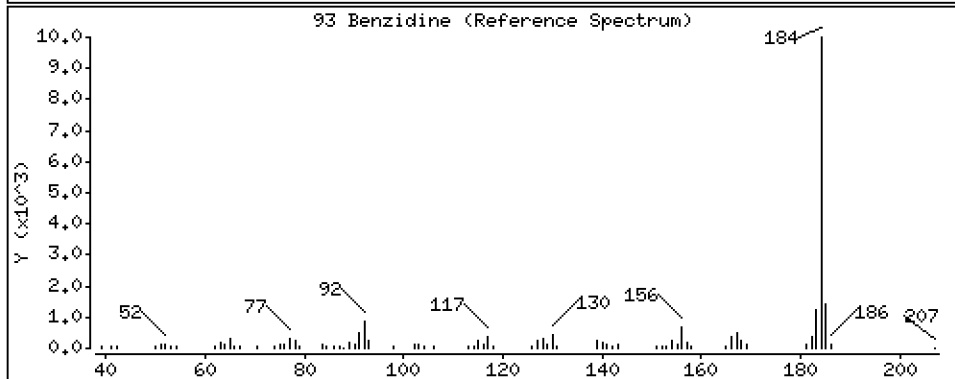
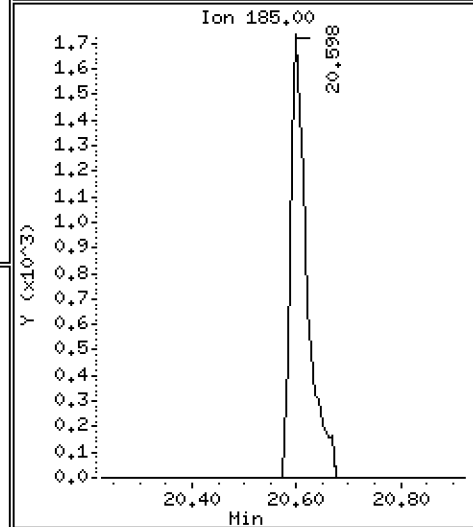
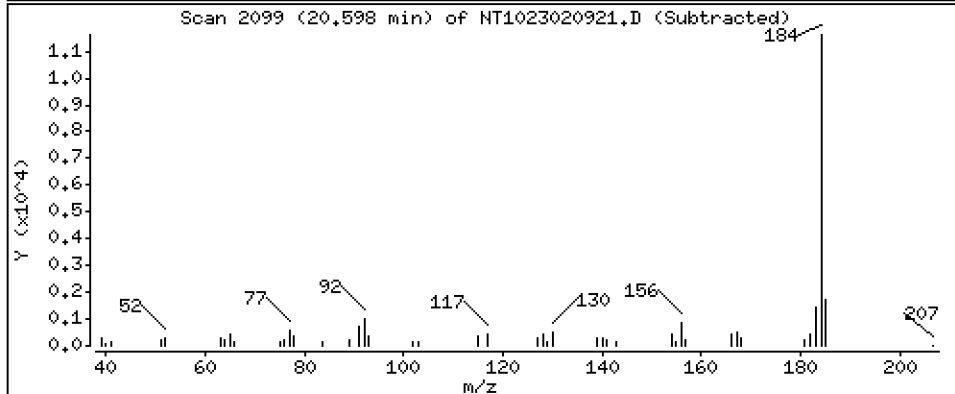
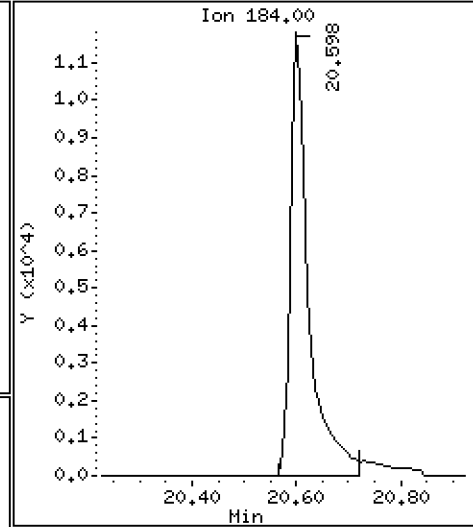
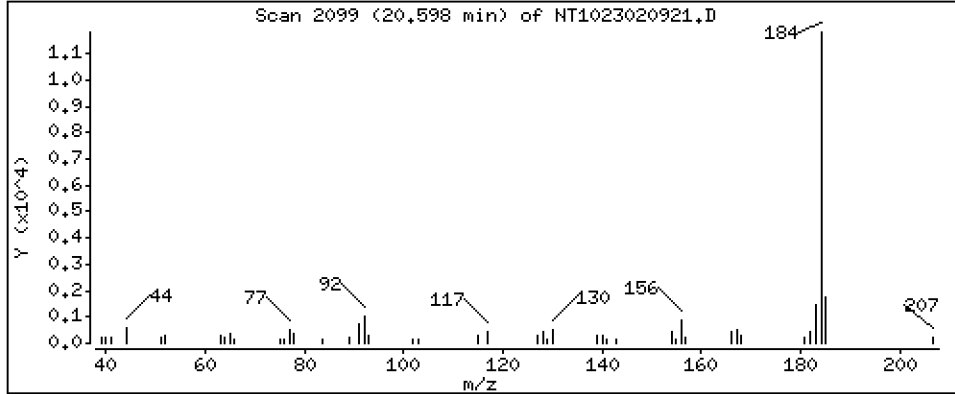
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 1,071 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

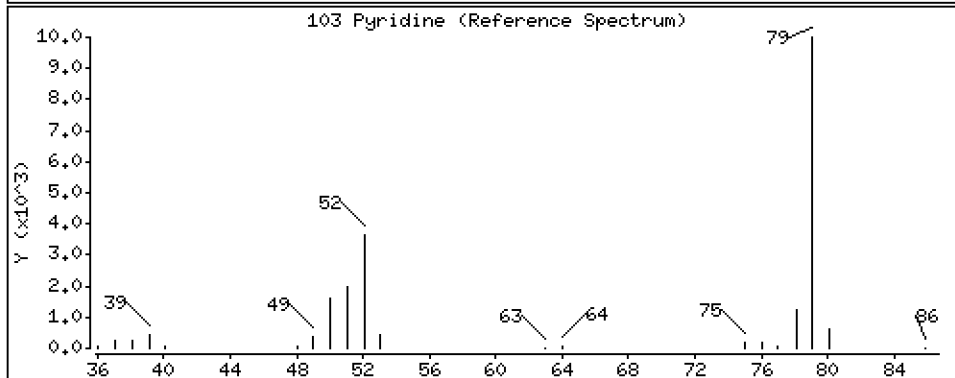
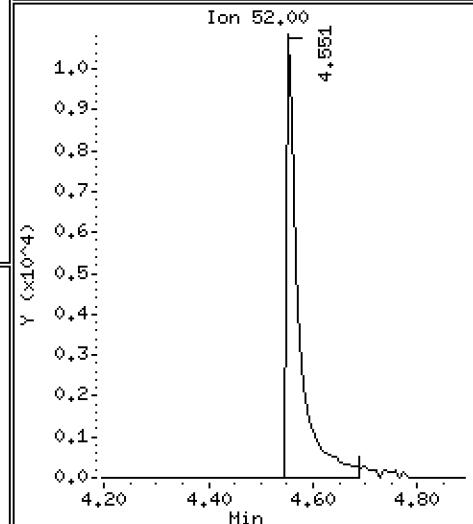
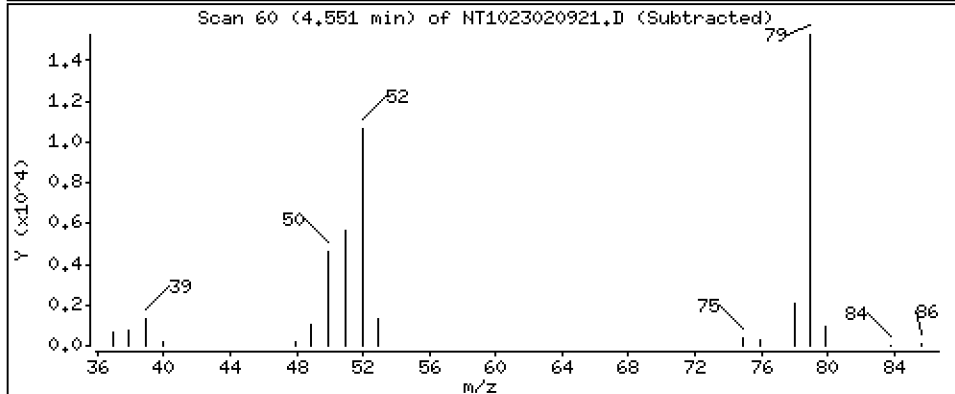
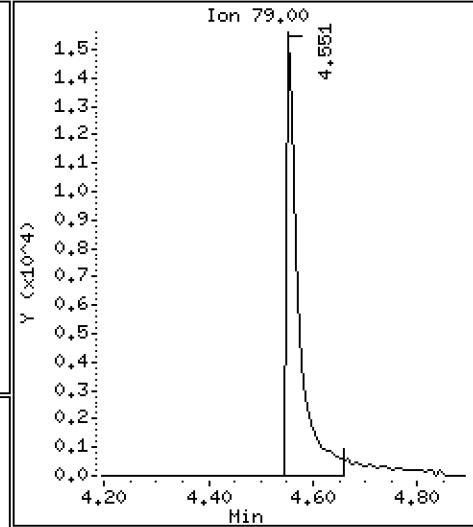
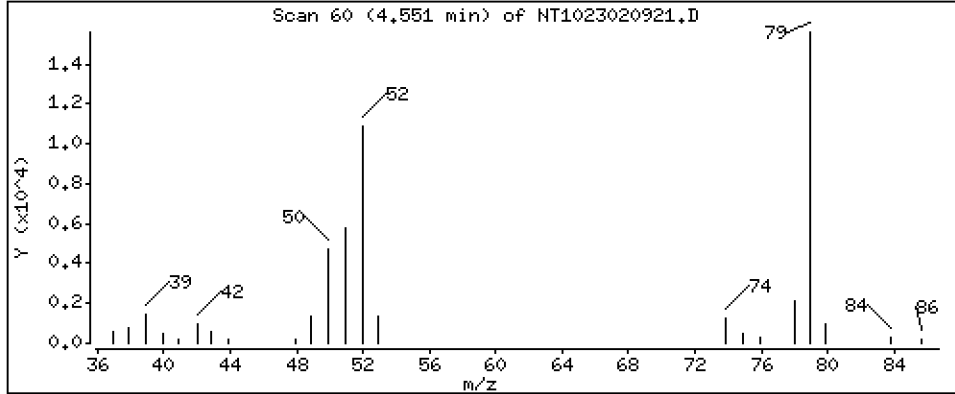
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,8961 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

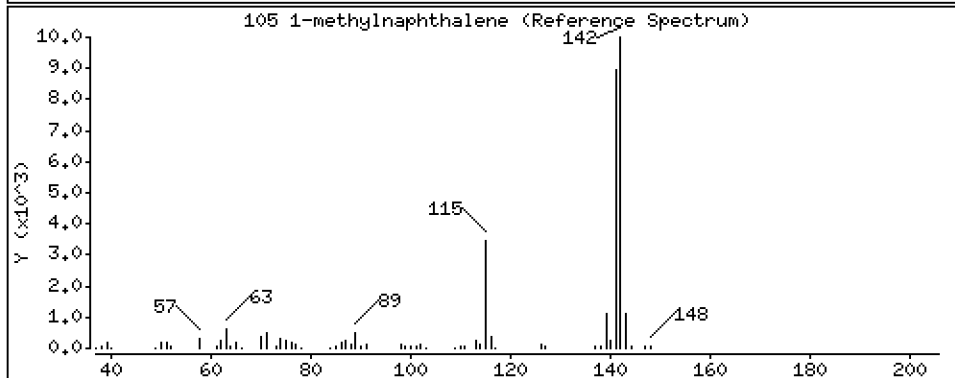
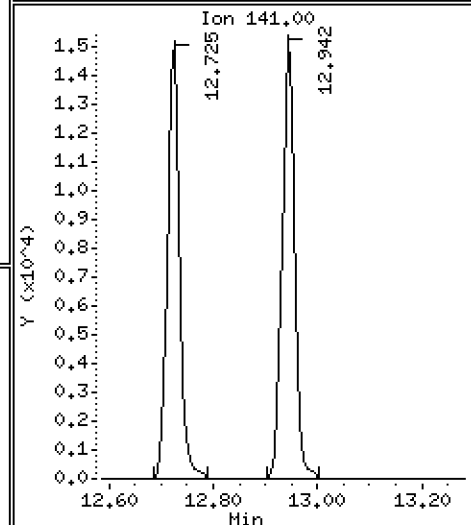
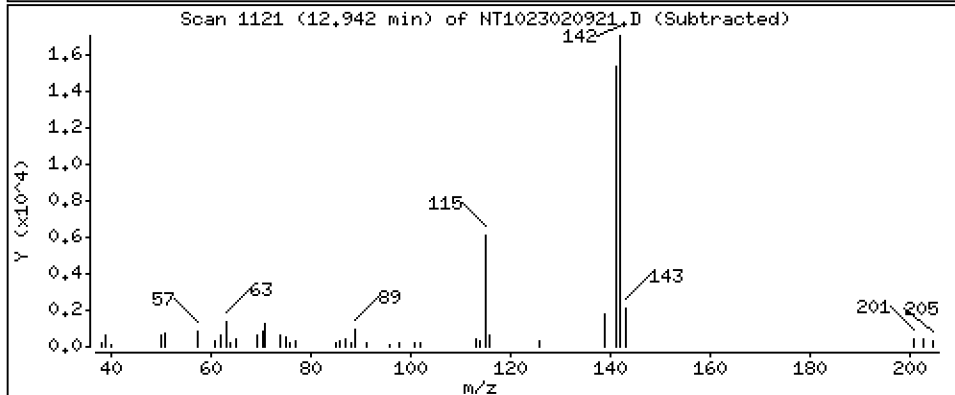
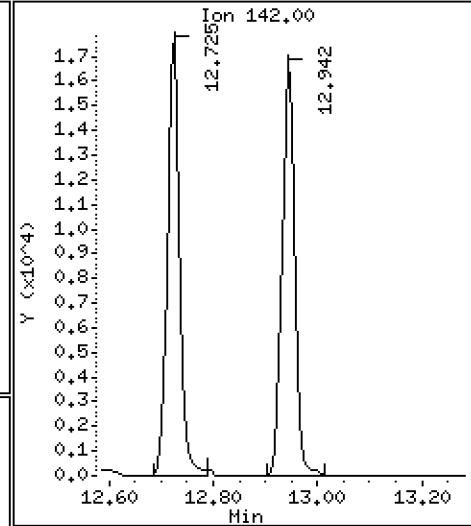
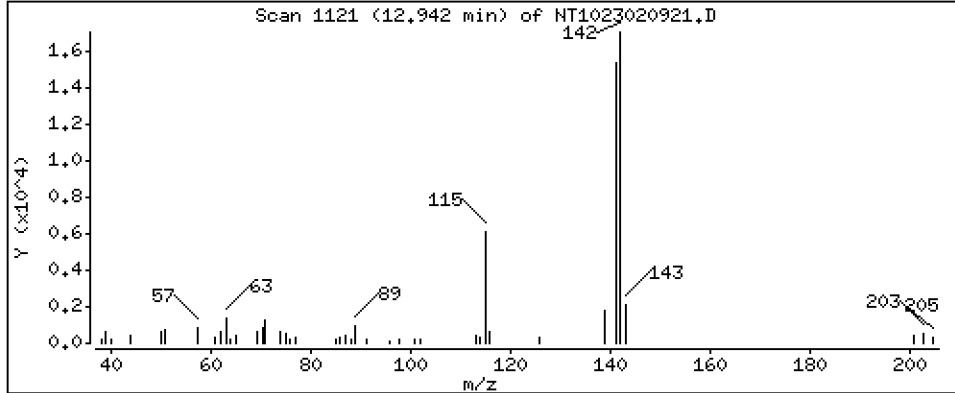
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,5033 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

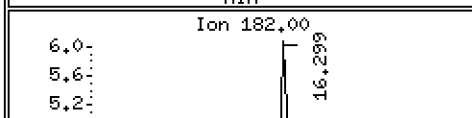
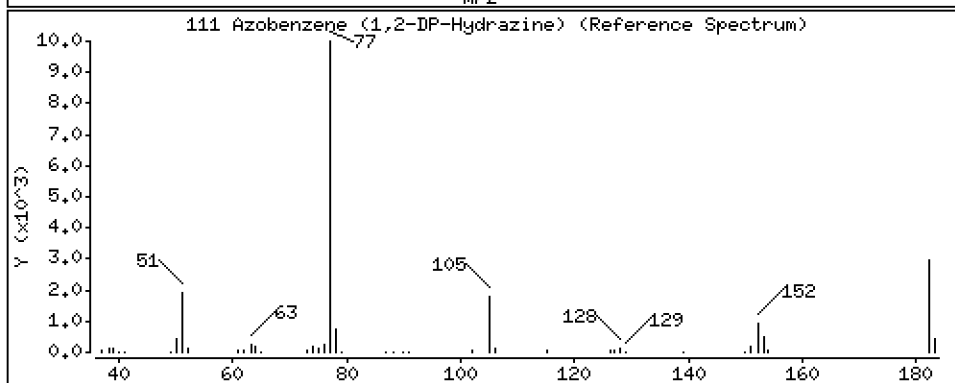
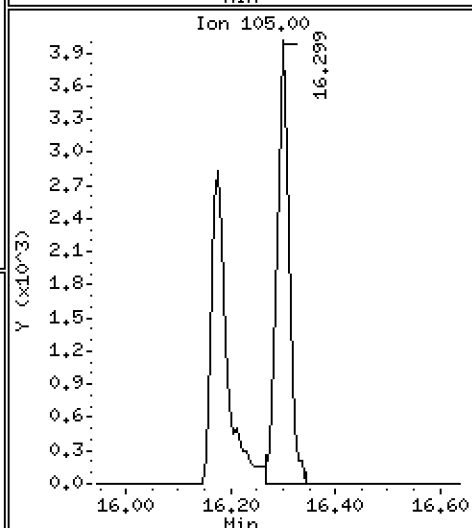
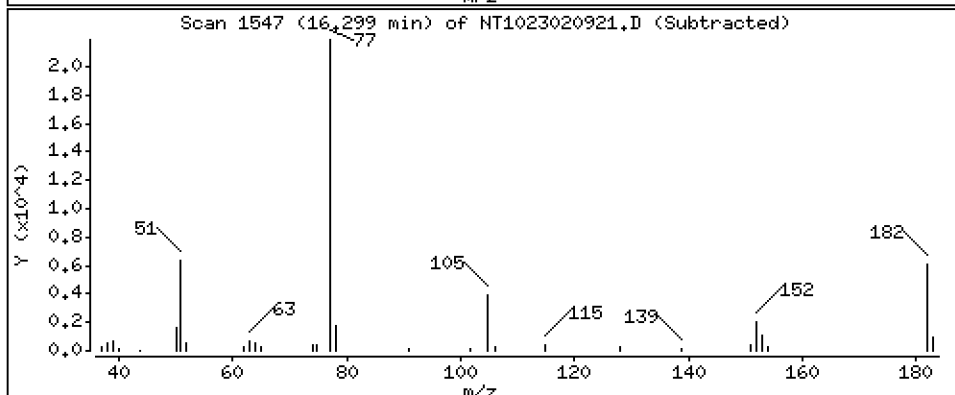
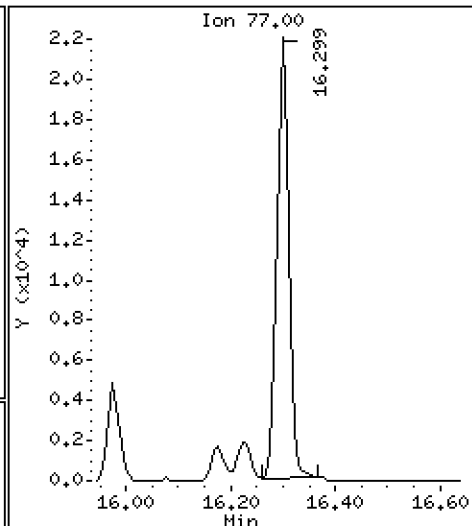
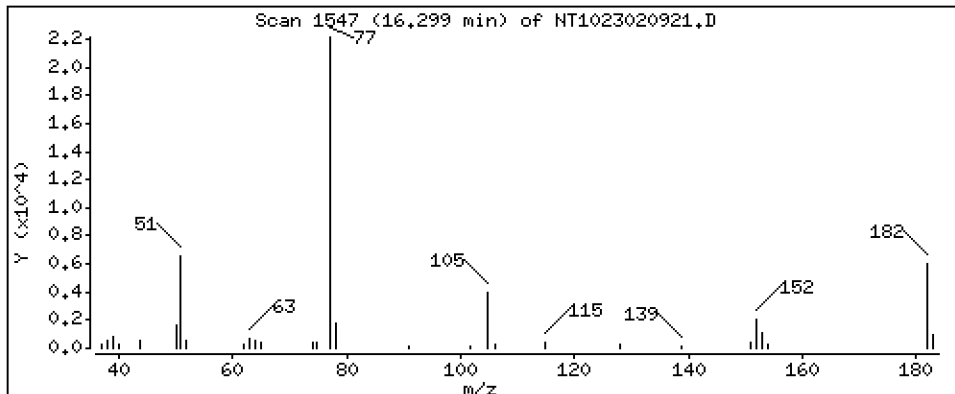
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0,5108 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

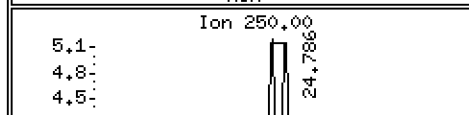
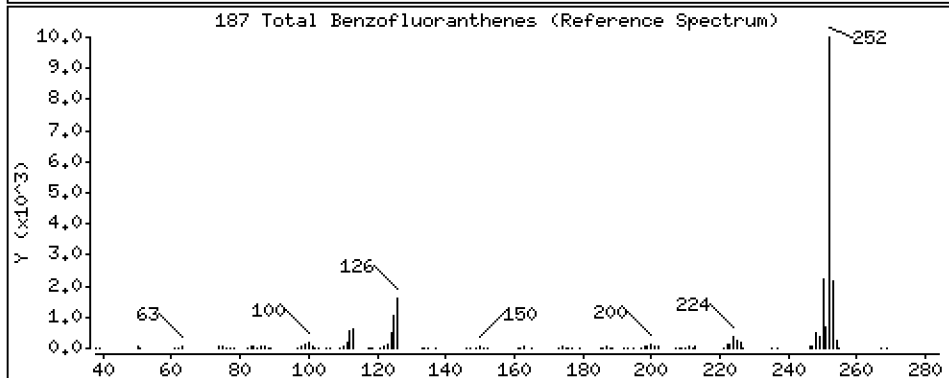
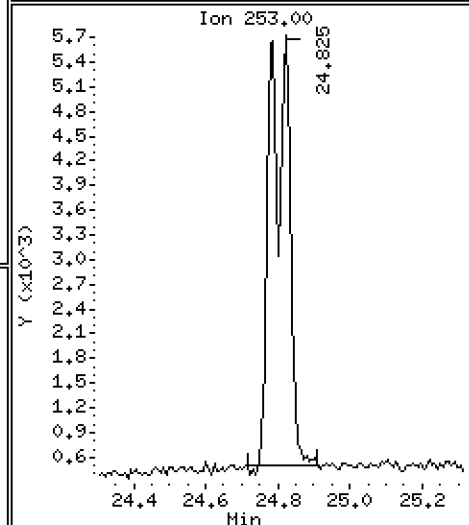
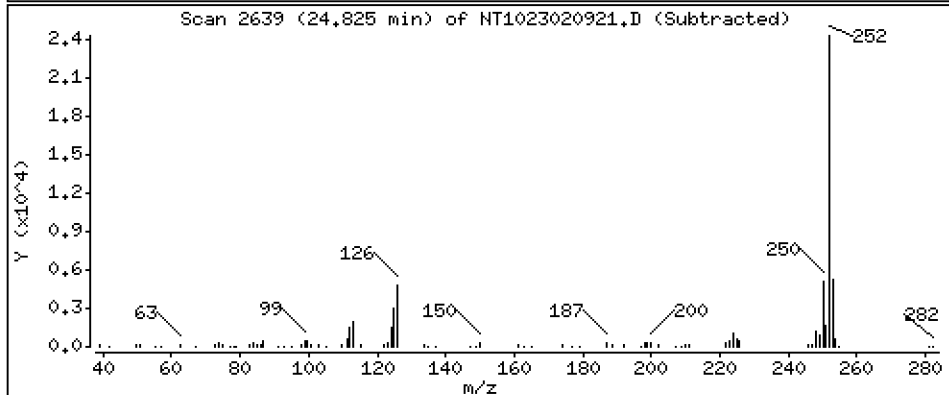
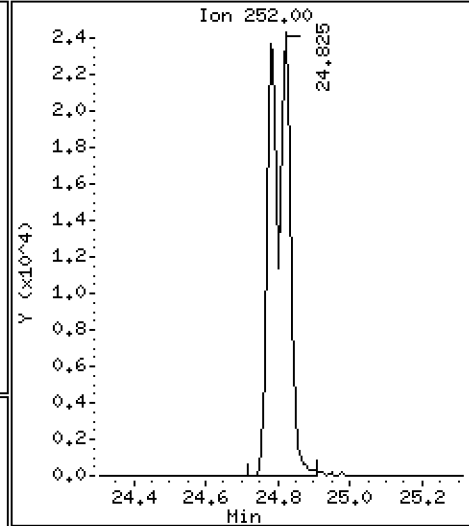
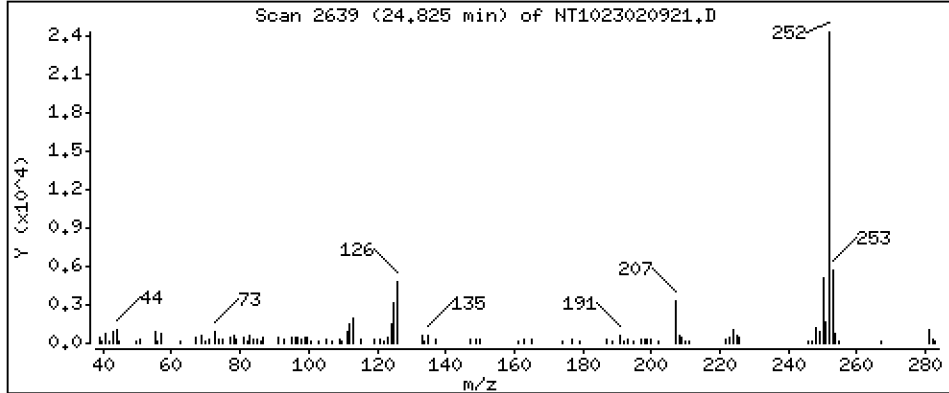
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 1,091 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

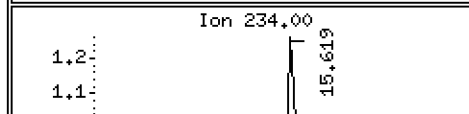
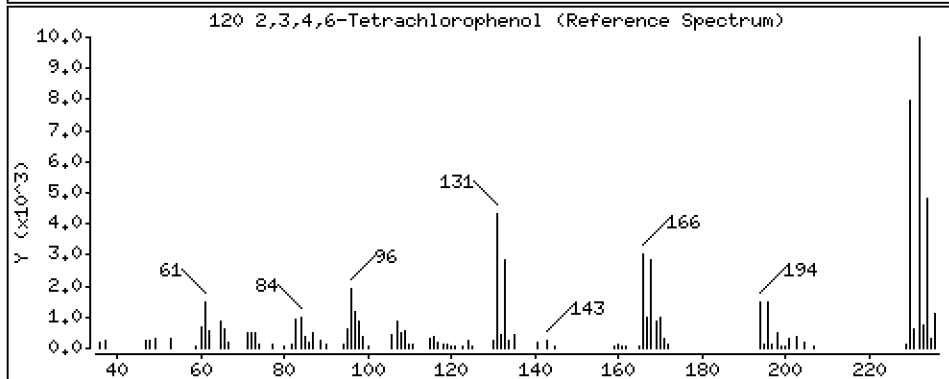
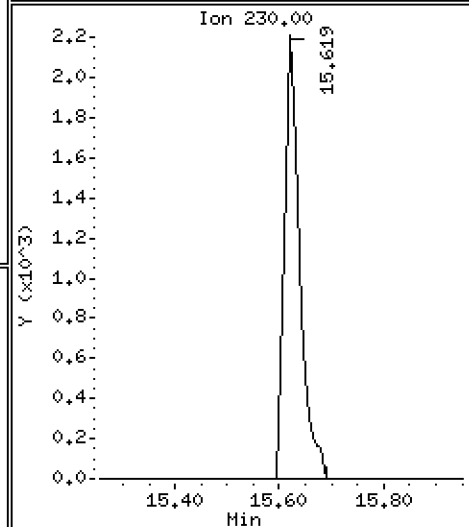
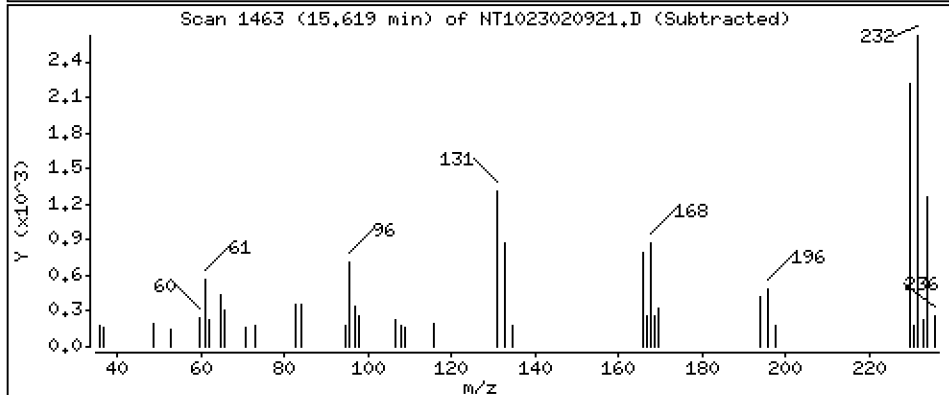
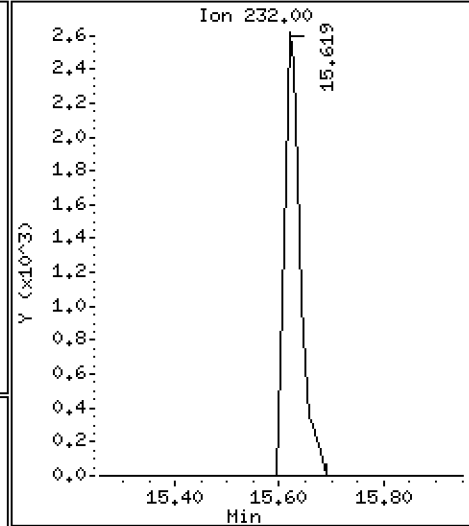
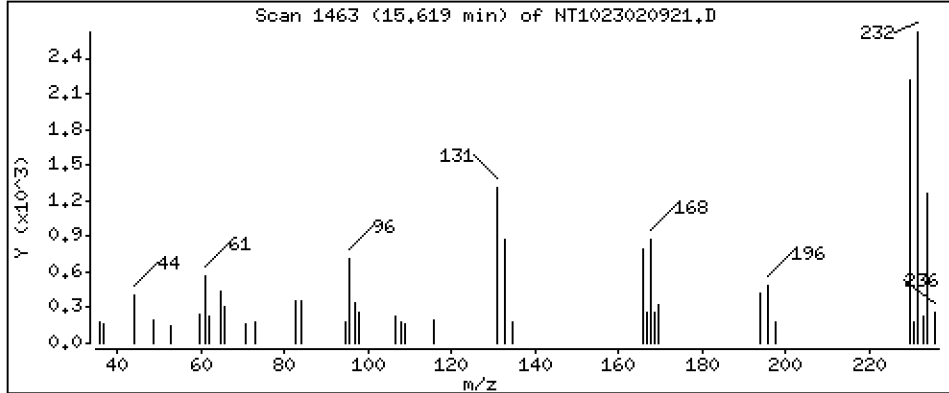
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0,3869 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230209A.b\NT1023020921.D
 Lab Smp Id: SLB0122-LCV2
 Inj Date : 10-FEB-2023 01:47
 Operator : VTS
 Smp Info : SLB0122-LCV2
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230209A.b\ABN.m
 Meth Date : 09-Feb-2023 14:46 deenayd
 Cal Date : 07-FEB-2023 16:09
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Quant Type: ISTD
 Cal File: NT1023020708.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		6.658	6.651	(0.753)	20735	0.77070	0.7707
\$ 2 Phenol-d5	99		8.227	8.219	(0.931)	27656	0.76199	0.7620
3 Phenol	94		8.250	8.242	(0.933)	19472	0.49597	0.4960
\$ 5 2-Chlorophenol-d4	132		8.489	8.482	(0.961)	22994	0.78062	0.7806
4 Bis(2-Chloroethyl)ether	93		8.389	8.389	(0.949)	16614	0.58192	0.5819
6 2-Chlorophenol	128		8.513	8.505	(0.963)	17030	0.53079	0.5308
7 1,3-Dichlorobenzene	146		8.776	8.768	(0.993)	17471	0.51875	0.5188
* 8 1,4-Dichlorobenzene-d4	152		8.838	8.838	(1.000)	84626	4.00000	
9 1,4-Dichlorobenzene	146		8.869	8.861	(1.004)	17130	0.51640	0.5164
\$ 10 1,2-Dichlorobenzene-d4	152		9.195	9.187	(1.040)	10452	0.51838	0.5184
12 1,2-Dichlorobenzene	146		9.218	9.211	(1.043)	16824	0.52607	0.5261
11 Benzyl alcohol	108		9.133	9.102	(1.033)	7450	0.42839	0.4284
14 2,2'-oxybis(1-Chloropropane)	121		9.412	9.397	(1.065)	4451	0.48440	0.4844 (M)
13 2-Methylphenol	108		9.350	9.335	(1.058)	17428	0.59856	0.5986
17 Hexachloroethane	117		9.800	9.800	(1.109)	5670	0.44586	0.4459
16 N-Nitroso-di-n-propylamine	70		9.661	9.653	(1.093)	10667	0.48718	0.4872
15 4-Methylphenol	108		9.614	9.606	(1.088)	15549	0.50417	0.5042
\$ 18 Nitrobenzene-d5	82		9.917	9.909	(0.878)	16623	0.54342	0.5434
19 Nitrobenzene	77		9.956	9.948	(0.882)	16122	0.52853	0.5285

20	Isophorone	82	10.398	10.390	(0.921)	22994	0.54133	0.5413
21	2-Nitrophenol	139	10.582	10.574	(0.937)	7996	0.50892	0.5089
22	2,4-Dimethylphenol	107	10.642	10.633	(0.942)	29675	1.05657	1.057
23	Bis(2-Chloroethoxy)methane	93	10.828	10.820	(0.959)	14749	0.53473	0.5347
24	Benzoic acid	105	10.828	10.888	(0.959)	6503	0.40936	0.4094 (M)
25	2,4-Dichlorophenol	162	11.041	11.024	(0.978)	22632	0.99184	0.9918
26	1,2,4-Trichlorobenzene	180	11.217	11.209	(0.993)	13628	0.54817	0.5482
* 27	Naphthalene-d8	136	11.294	11.286	(1.000)	309623	4.00000	
28	Naphthalene	128	11.332	11.333	(1.003)	43090	0.52079	0.5208
29	4-Chloroaniline	127	11.471	11.464	(1.016)	32821	0.92537	0.9254
30	Hexachlorobutadiene	225	11.696	11.688	(1.036)	7181	0.55386	0.5539
31	4-Chloro-3-methylphenol	107	12.446	12.423	(1.102)	23049	0.92401	0.9240
32	2-Methylnaphthalene	142	12.725	12.710	(1.127)	28965	0.50349	0.5035
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					
34	2,4,6-Trichlorophenol	196	13.352	13.336	(0.897)	13681	0.97432	0.9743

Compounds	QUANT	SIG	CONCENTRATIONS					
			ON-COLUMN	FINAL	RT	EXP RT	REL RT	RESPONSE
	MASS		(ug/mL)	(ug/mL)				
=====	=====		=====	=====	=====	=====	=====	=====
35 2,4,5-Trichlorophenol	196		13.437	13.414	(0.903)	12497	0.82554	0.8255
\$ 36 2-Fluorobiphenyl	172		13.499	13.491	(0.907)	30777	0.54906	0.5491
37 2-Chloronaphthalene	162		13.708	13.700	(0.921)	26319	0.54017	0.5402
38 2-Nitroaniline	65		13.971	13.956	(0.939)	16467	1.07333	1.073
39 Dimethylphthalate	163		14.397	14.389	(0.967)	27808	0.53346	0.5335
40 Acenaphthylene	152		14.567	14.559	(0.979)	42007	0.54125	0.5413
41 2,6-Dinitrotoluene	165		14.536	14.521	(0.977)	12278	0.99446	0.9945
* 42 Acenaphthene-d10	164		14.884	14.869	(1.000)	155546	4.00000	
43 3-Nitroaniline	138		14.815	14.807	(0.995)	12515	0.87914	0.8791
44 Acenaphthene	153		14.946	14.939	(1.004)	24854	0.52255	0.5226
45 2,4-Dinitrophenol	184		15.039	15.016	(1.010)	2075	0.32576	0.3258 (M)
46 Dibenzofuran	168		15.271	15.263	(1.026)	34892	0.50996	0.5100
47 4-Nitrophenol	109		15.209	15.147	(1.022)	4282	0.80691	0.8069 (M)
48 2,4-Dinitrotoluene	165		15.333	15.325	(1.030)	15888	0.93266	0.9327
50 Diethylphthalate	149		15.843	15.843	(1.064)	26685	0.53307	0.5331
49 Fluorene	166		15.982	15.967	(1.074)	34814	0.45267	0.4527
51 4-Chlorophenyl-phenylether	204		15.974	15.967	(1.073)	16448	0.43788	0.4379
52 4-Nitroaniline	138		16.082	16.067	(1.080)	14795	0.90946	0.9095
53 4,6-Dinitro-2-methylphenol	198		16.175	16.167	(0.903)	13152	1.39721	1.397
54 N-Nitrosodiphenylamine	169		16.229	16.213	(0.906)	24240	0.54410	0.5441
\$ 55 2,4,6-Tribromophenol	330		16.522	16.506	(1.110)	4752	0.61011	0.6101
56 4-Bromophenyl-phenylether	248		16.977	16.961	(0.948)	8717	0.53099	0.5310
57 Hexachlorobenzene	284		17.286	17.278	(0.965)	10111	0.57189	0.5719
58 Pentachlorophenol	266		17.658	17.635	(0.986)	3318	0.49818	0.4982
* 59 Phenanthrene-d10	188		17.905	17.890	(1.000)	260617	4.00000	
60 Phenanthrene	178		17.952	17.936	(1.003)	36405	0.51903	0.5190
61 Anthracene	178		18.045	18.029	(1.008)	35911	0.51705	0.5171
62 Carbazole	167		18.385	18.362	(1.027)	33982	0.50729	0.5073
63 Di-n-butylphthalate	149		19.197	19.182	(1.072)	42424	0.53109	0.5311
64 Fluoranthene	202		20.350	20.335	(0.886)	38715	0.47059	0.4706
65 Pyrene	202		20.776	20.760	(0.904)	40518	0.47706	0.4771
\$ 66 Terphenyl-d14	244		21.070	21.054	(0.917)	30542	0.47690	0.4769
67 Butylbenzylphthalate	149		22.007	21.991	(0.958)	18961	0.51660	0.5166
68 Benzo(a)anthracene	228		22.943	22.936	(0.999)	42021	0.56192	0.5619
* 69 Chrysene-d12	240		22.974	22.959	(1.000)	224354	4.00000	
70 3,3'-Dichlorobenzidine	252		22.913	22.897	(0.997)	44827	1.77165	1.772
71 Chrysene	228		23.021	23.006	(1.002)	38676	0.53928	0.5393
72 bis(2-Ethylhexyl)phthalate	149		23.052	23.037	(0.959)	25953	0.52045	0.5205
* 134 Di-n-octylphthalate-d4	153		24.035	24.020	(1.000)	366602	4.00000	
73 Di-n-octylphthalate	149		24.043	24.027	(1.000)	49703	0.53650	0.5365

74	Benzo(b)fluoranthene	252	24.778	24.763	(0.971)	44841	0.53480	0.5348
75	Benzo(k)fluoranthene	252	24.825	24.809	(0.973)	48679	0.55145	0.5514
76	Benzo(a)pyrene	252	25.398	25.375	(0.996)	41019	0.54105	0.5410
* 77	Perylene-d12	264	25.506	25.483	(1.000)	264875	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.009	27.971	(1.098)	38833	0.43033	0.4303
79	Dibenzo(a,h)anthracene	278	28.025	27.986	(1.099)	33077	0.44248	0.4425
80	Benzo(g,h,i)perylene	276	28.739	28.701	(1.127)	28495	0.36793	0.3679
90	N-Nitrosodimethylamine	74	4.519	4.527	(0.511)	18700	0.99905	0.9990
91	Aniline	93	8.304	8.297	(0.940)	36680	0.96529	0.9653
93	Benzidine	184	20.598	20.575	(0.897)	29513	1.07068	1.071
103	Pyridine	79	4.550	4.543	(0.515)	25961	0.89609	0.8961
105	1-methylnaphthalene	142	12.942	12.934	(1.146)	27875	0.50329	0.5033
111	Azobenzene (1,2-DP-Hydrazine)	77	16.298	16.291	(1.095)	34068	0.51077	0.5108
187	Total Benzo(a)fluoranthenes	252	24.825	24.809	(0.973)	89646	1.09058	1.091

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
120 2,3,4,6-Tetrachlorophenol	232	15.619	15.603	(1.049)	5558	0.38687	0.3869

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 09-FEB-2023
 Lab File ID: NT1023020921.D Calibration Time: 13:31
 Lab Smp Id: SLB0122-LCV2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230209A.b\ABN.m
 Misc Info:

Test Mode: Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	89503	44752	179006	84626	-5.45
27 Naphthalene-d8	348104	174052	696208	309623	-11.05
42 Acenaphthene-d10	183525	91763	367050	155546	-15.25
59 Phenanthrene-d10	295489	147745	590978	260617	-11.80
69 Chrysene-d12	239590	119795	479180	224354	-6.36
134 Di-n-octylphthala	404293	202147	808586	366602	-9.32
77 Perylene-d12	274336	137168	548672	264875	-3.45

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	-0.00
27 Naphthalene-d8	11.29	10.79	11.79	11.29	0.07
42 Acenaphthene-d10	14.87	14.37	15.37	14.88	0.10
59 Phenanthrene-d10	17.89	17.39	18.39	17.91	0.09
69 Chrysene-d12	22.96	22.46	23.46	22.97	0.07
134 Di-n-octylphthala	24.02	23.52	24.52	24.04	0.06
77 Perylene-d12	25.48	24.98	25.98	25.51	0.09

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020921.D

Lab ID: SLB0122-LCV2
nt10.i, 20230209A.b\ABN.m, 10-FEB-2023 01:47

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.959	0.965	-0.0059	Benzoic acid

RRT check based on Ccal File: NT1023020902.D

On Column LOD for nt10.i, 20230209A.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

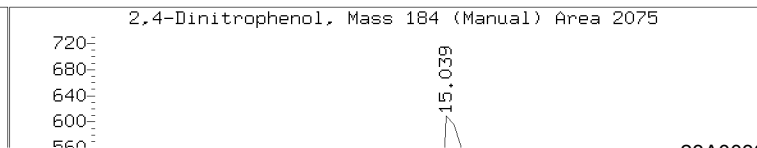
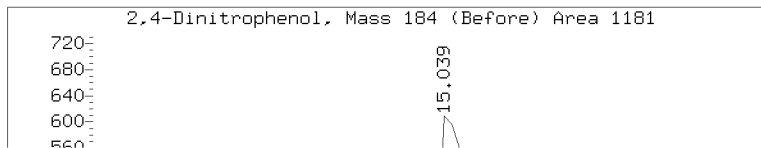
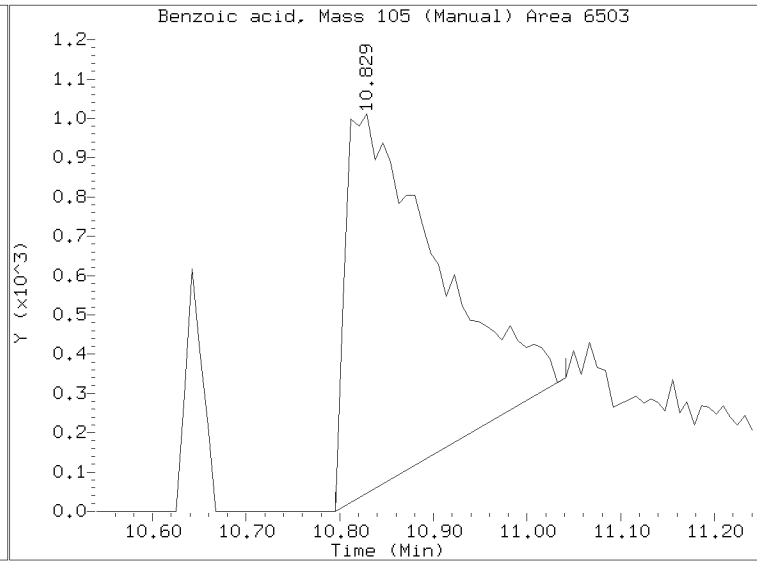
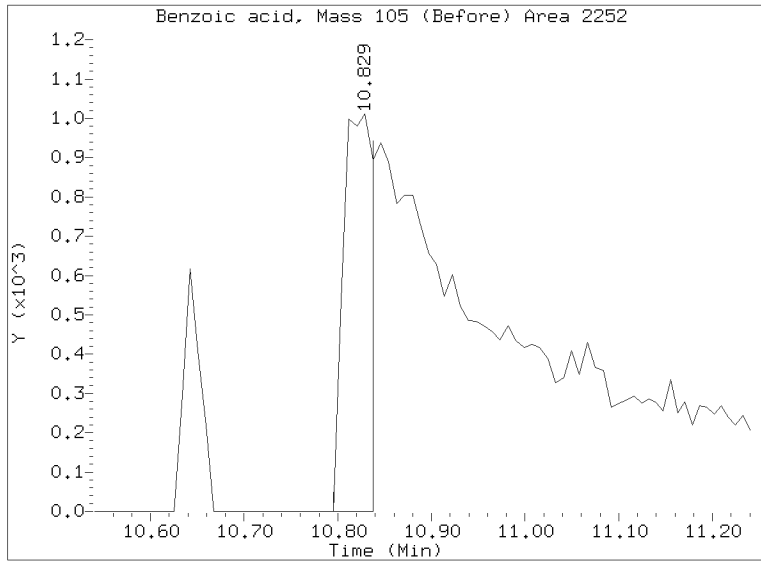
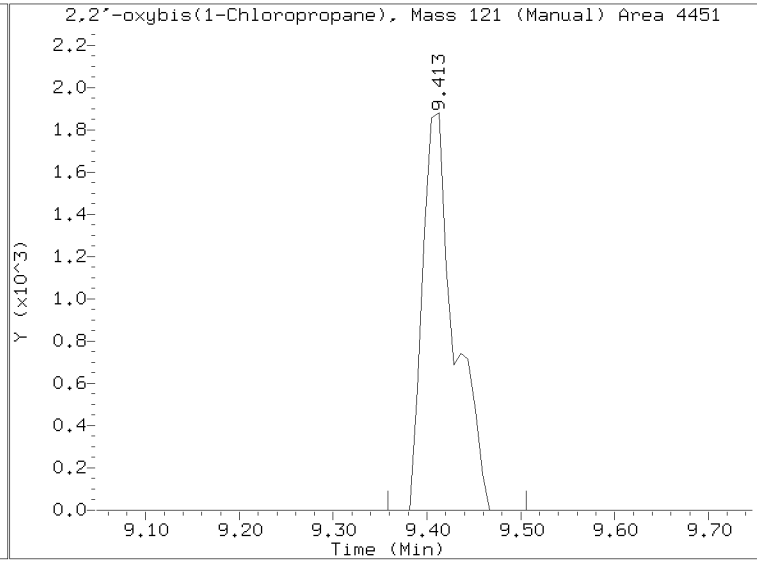
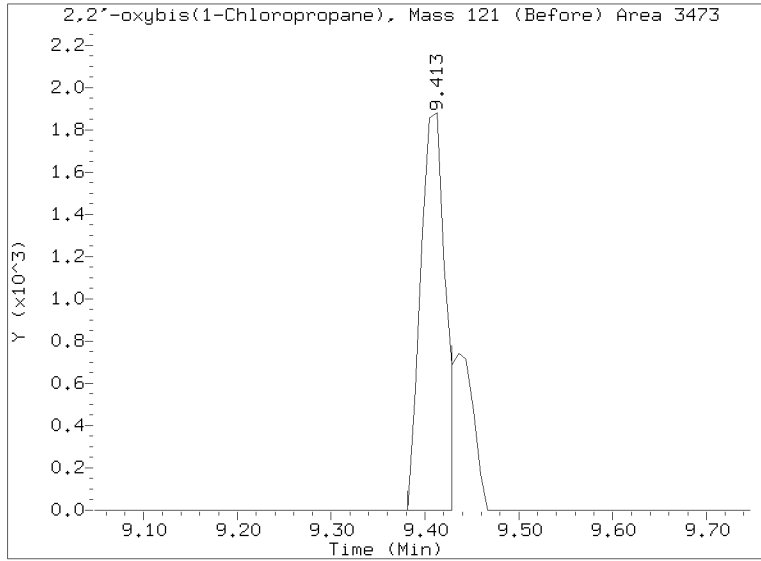
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209A.b/NT1023020921.D

Injection Date: 10-FEB-2023 01:47

Lab ID:SLB0122-LCV2 Client ID:

Report Date: 02/11/2023 10:02



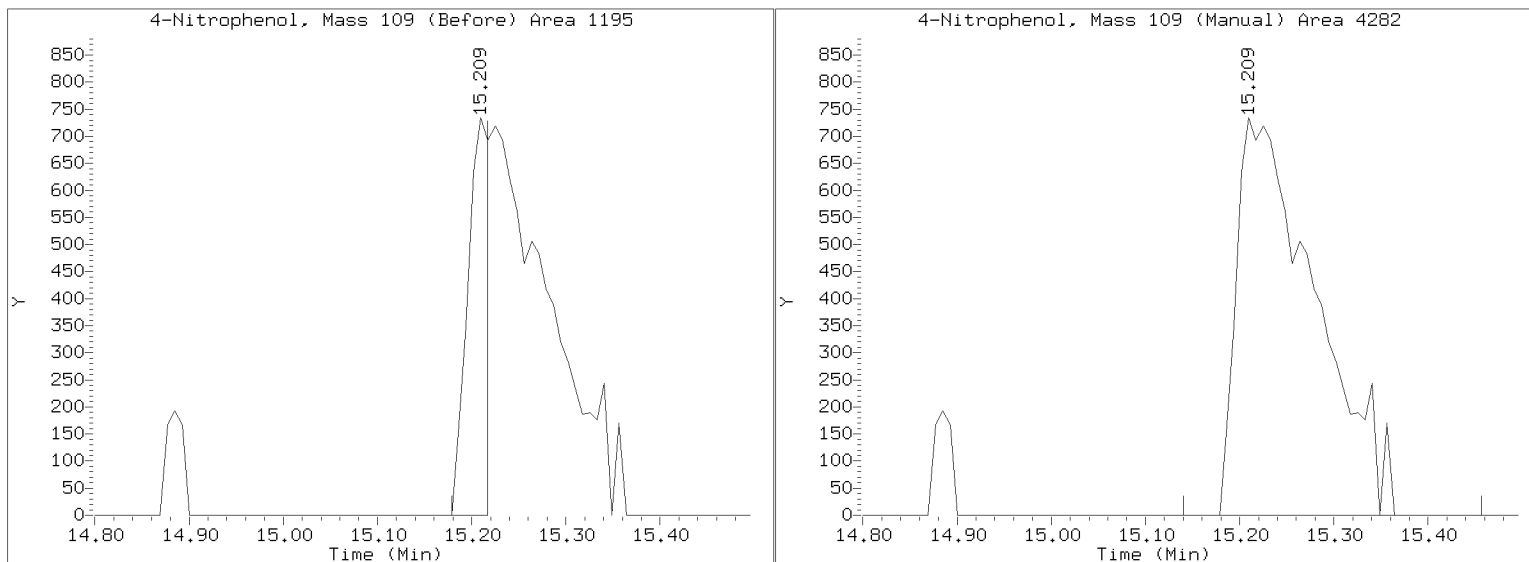
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209A.b/NT1023020921.D

Injection Date: 10-FEB-2023 01:47

Lab ID:SLB0122-LCV2 Client ID:

Report Date: 02/11/2023 10:02



APPROVED

By Deenay Dunmore at 10:06 am, Feb 11, 2023



**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00018

Laboratory ID: SLB0154-LCV1

Sequence: SLB0154

Standard ID: K011106

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	0.50000	0.5	5.0	50.00
4-Methylphenol	0.50000	0.5	2.7	50.00
Naphthalene	0.50000	0.5	4.9	50.00
2-Methylnaphthalene	0.50000	0.5	2.6	50.00
Acenaphthylene	0.50000	0.5	8.1	50.00
Dimethylphthalate	0.50000	0.5	9.6	50.00
Acenaphthene	0.50000	0.5	4.3	50.00
Dibenzofuran	0.50000	0.5	4.0	50.00
Fluorene	0.50000	0.5	-6.1	50.00
Phenanthrene	0.50000	0.5	5.9	50.00
Anthracene	0.50000	0.5	4.9	50.00
Fluoranthene	0.50000	0.5	3.6	50.00
Pyrene	0.50000	0.5	6.5	50.00
Butylbenzylphthalate	0.50000	0.5	6.4	50.00
Benzo(a)anthracene	0.50000	0.6	11.1	50.00
Chrysene	0.50000	0.5	6.8	50.00
bis(2-Ethylhexyl)phthalate	0.50000	0.5	2.8	50.00
Benzo(a)fluoranthene, Total	1.0000	1.1	7.1	50.00
Benzo(a)pyrene	0.50000	0.5	6.9	50.00
Indeno(1,2,3-cd)pyrene	0.50000	0.6	10.8	50.00
Dibenzo(a,h)anthracene	0.50000	0.6	12.3	50.00
Benzo(g,h,i)perylene	0.50000	0.5	8.5	50.00
2-Fluorophenol	0.75000	0.731	-2.5	50.00
Phenol-d5	0.75000	0.775	3.3	50.00
2-Chlorophenol-d4	0.75000	0.787	5.0	50.00
1,2-Dichlorobenzene-d4	0.50000	0.519	3.7	50.00
Nitrobenzene-d5	0.50000	0.536	7.2	50.00
2-Fluorobiphenyl	0.50000	0.546	9.2	50.00
2,4,6-Tribromophenol	0.75000	0.672	-10.4	50.00



**LOW-CONCENTRATION
CALIBRATION VERIFICATION
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00018

Laboratory ID: SLB0154-LCV1

Sequence: SLB0154

Standard ID: K011106

p-Terphenyl-d14	0.50000	0.556	11.3	50.00
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* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230210.1\NT1023021003.D

Date: 10-FEB-2023 16:43

Client ID:

Sample Info: SLB0154-LCW1

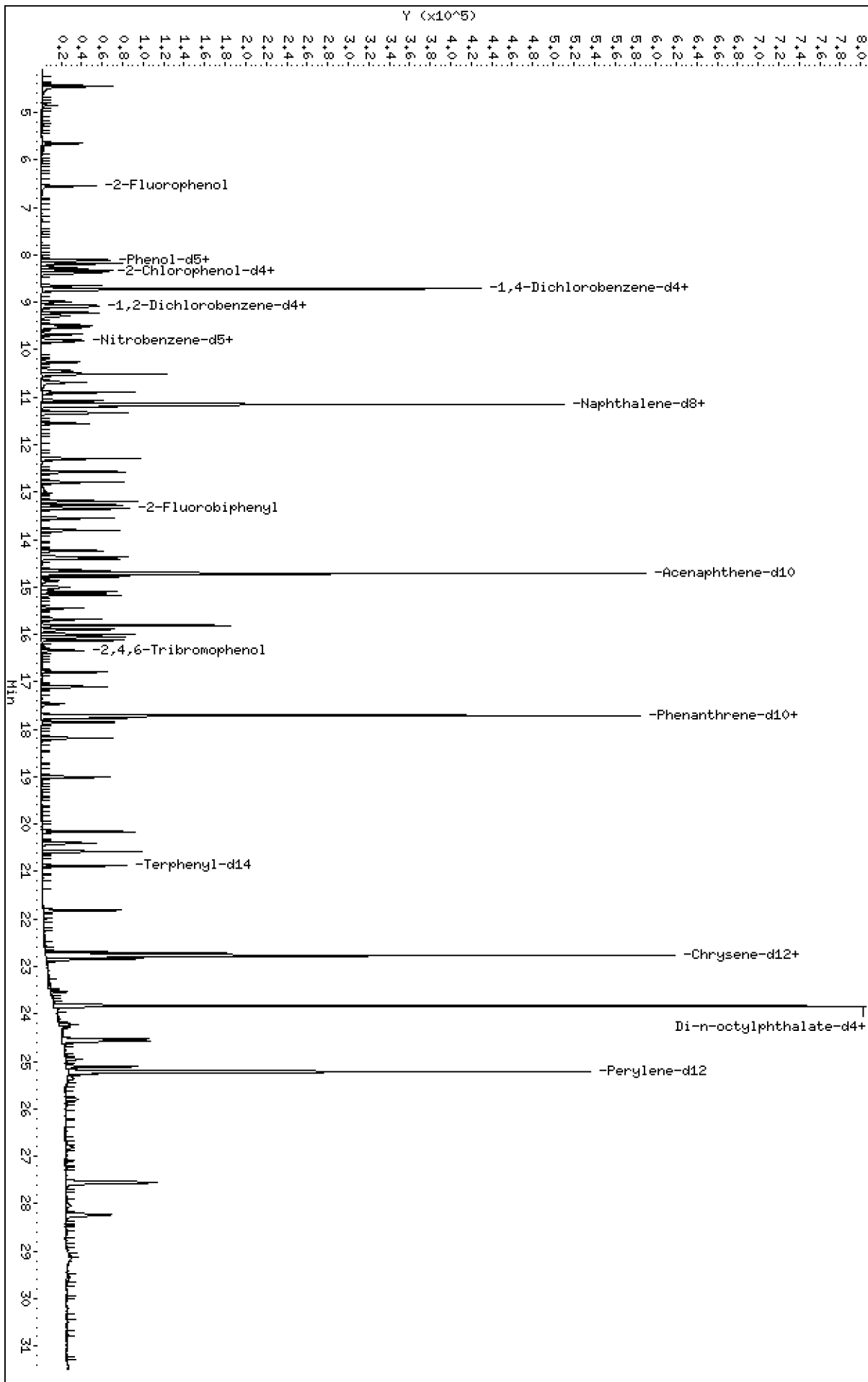
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230210.1\NT1023021003.D



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

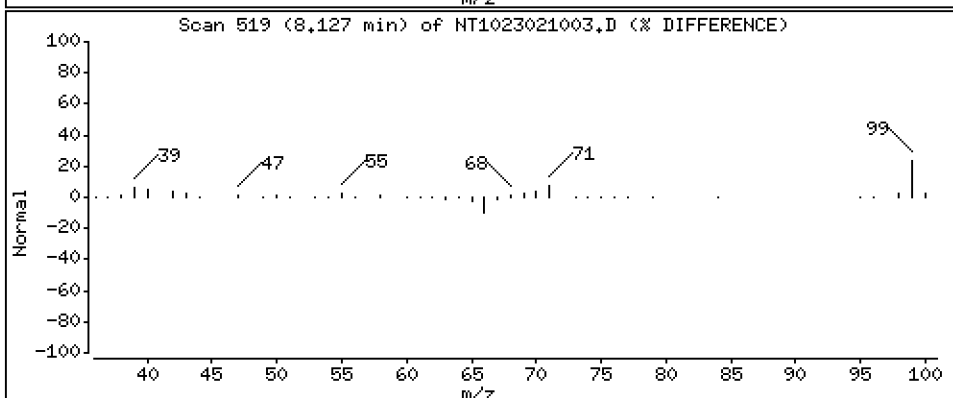
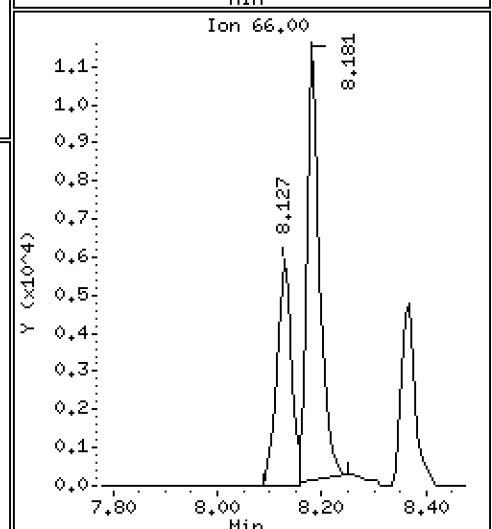
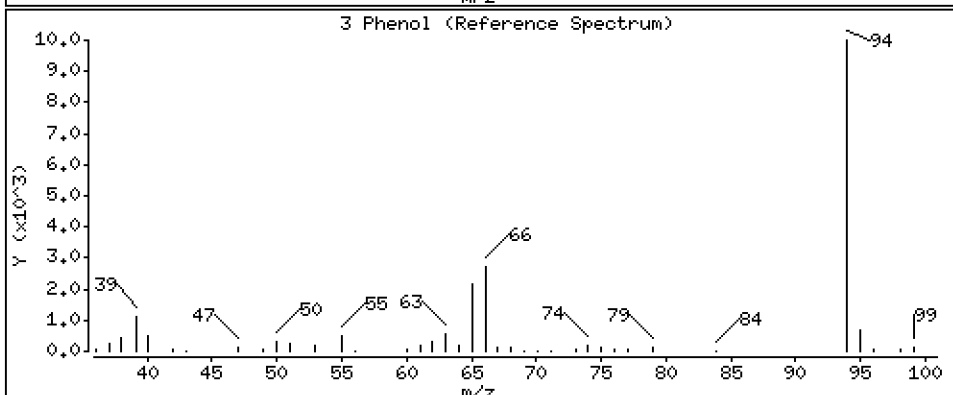
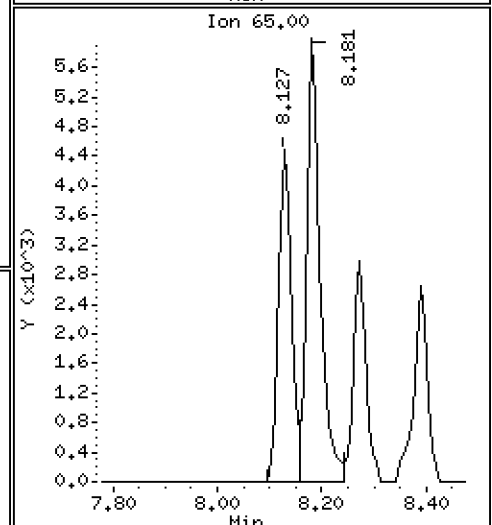
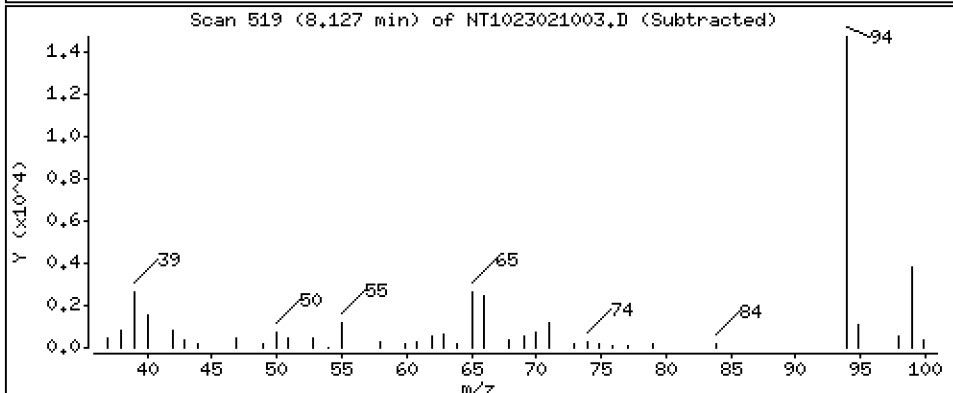
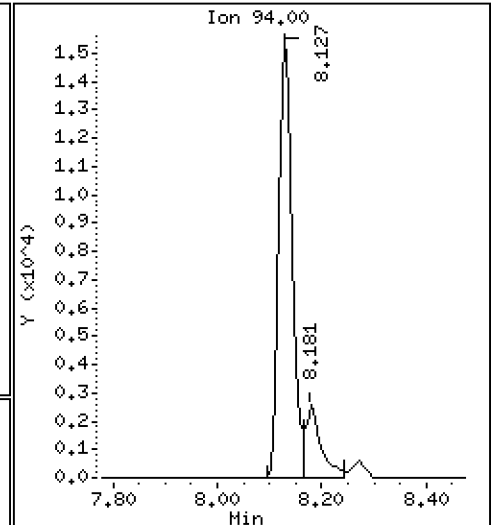
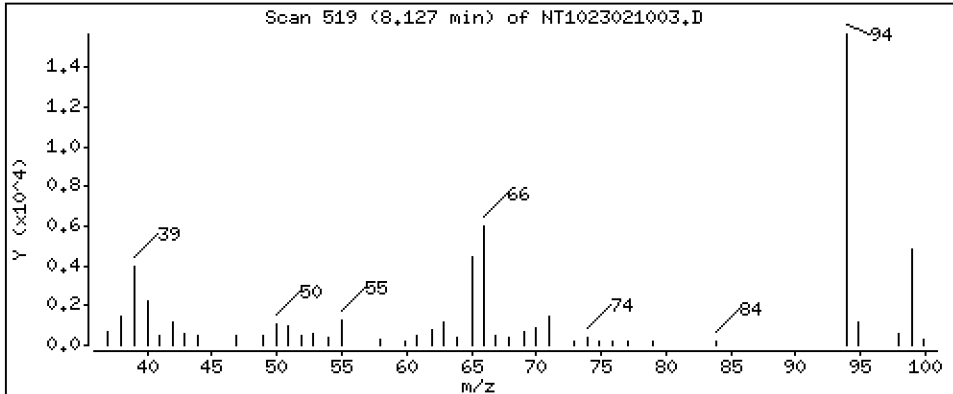
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,5252 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

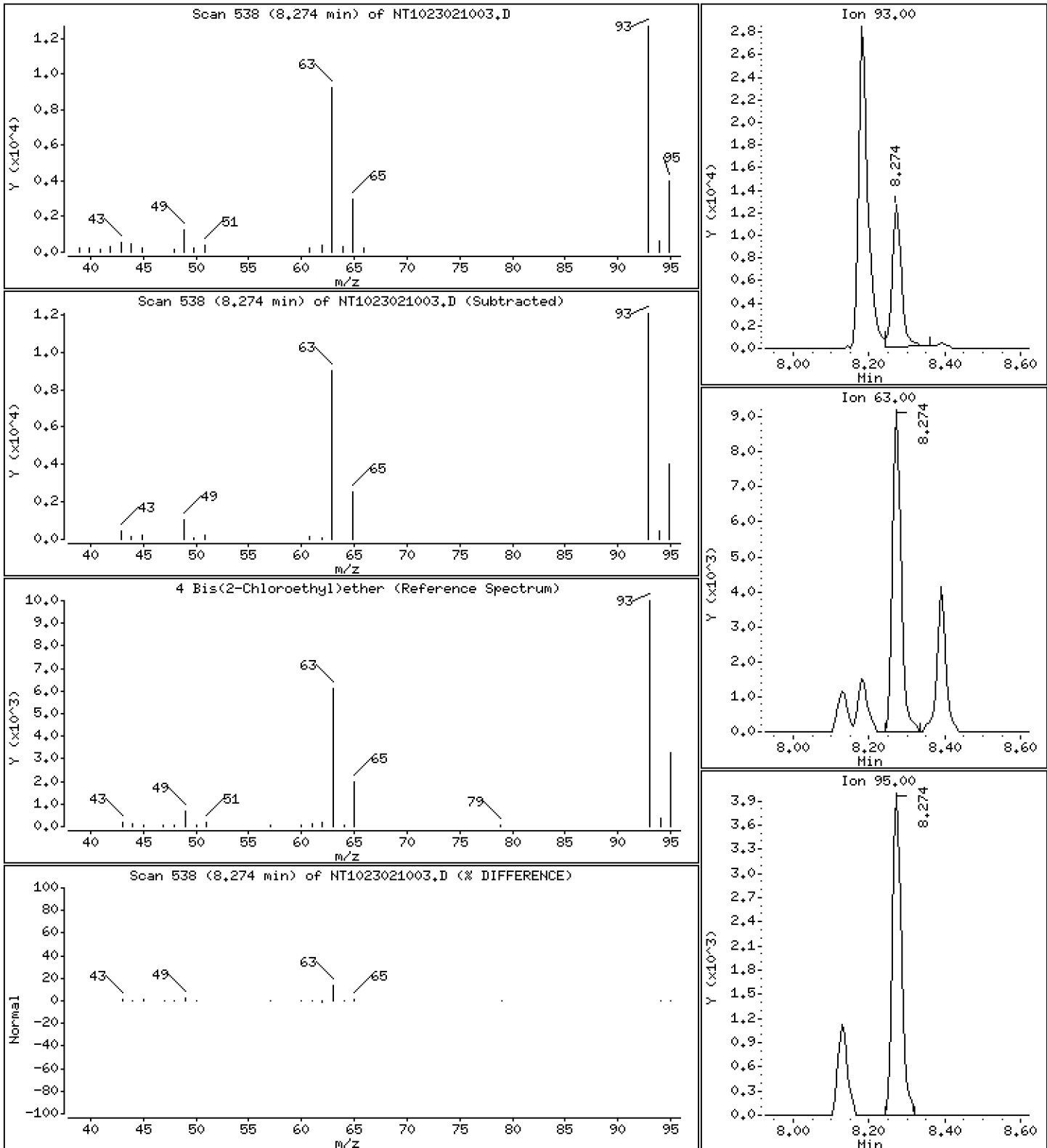
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,5343 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

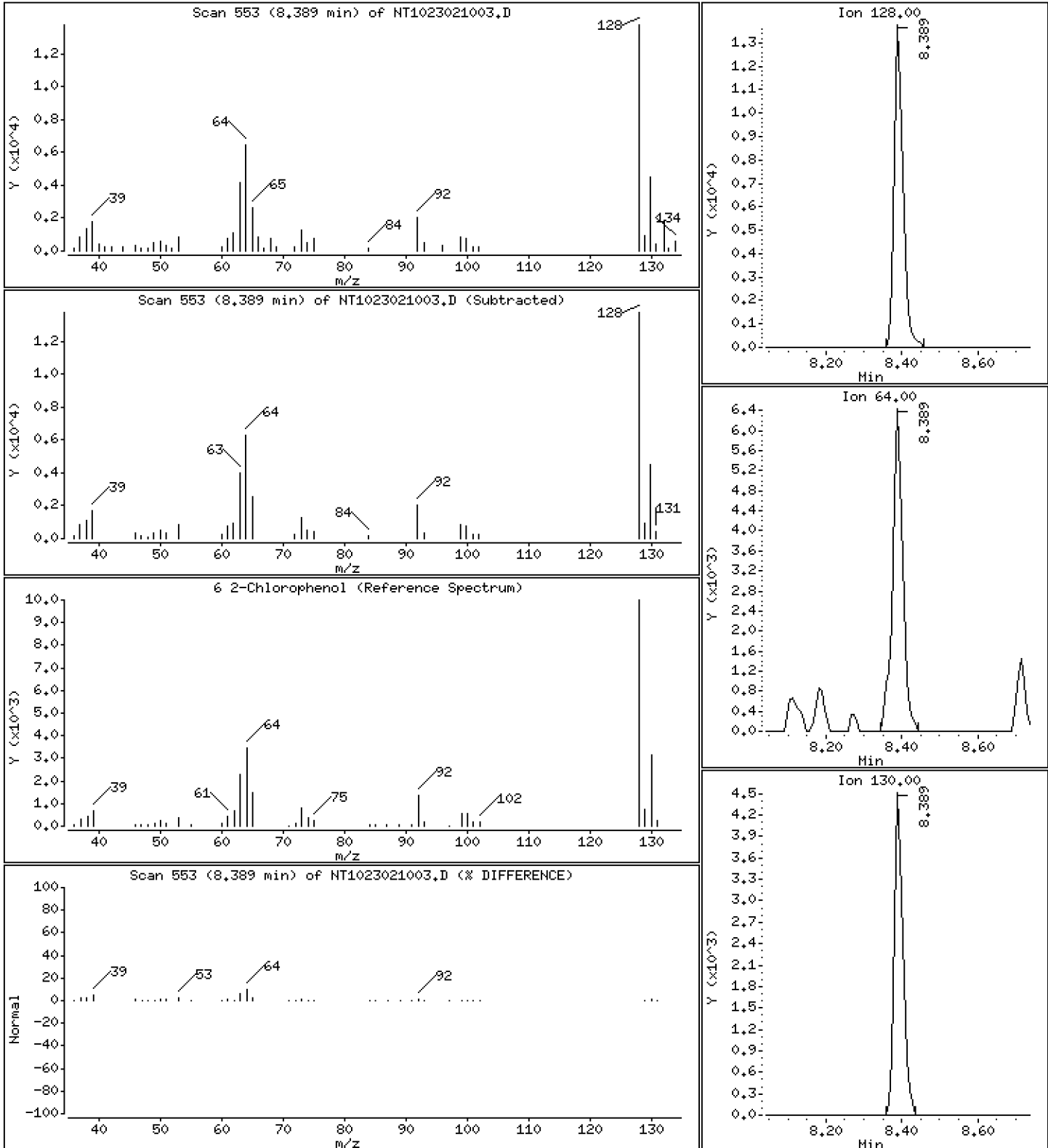
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 0,5238 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

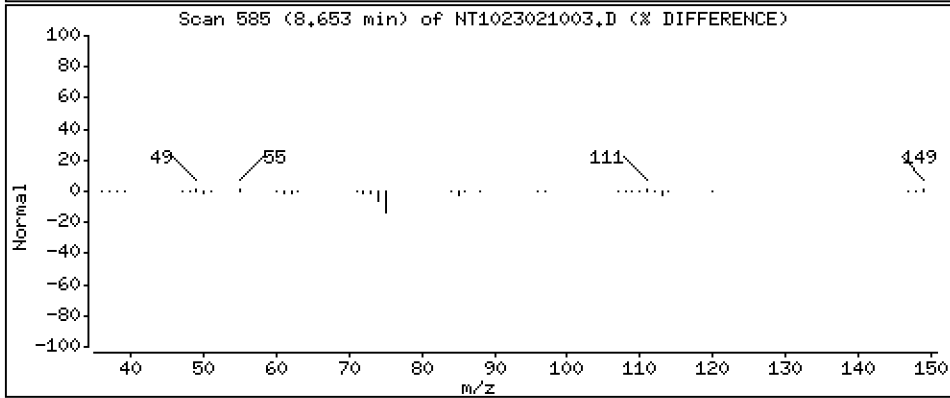
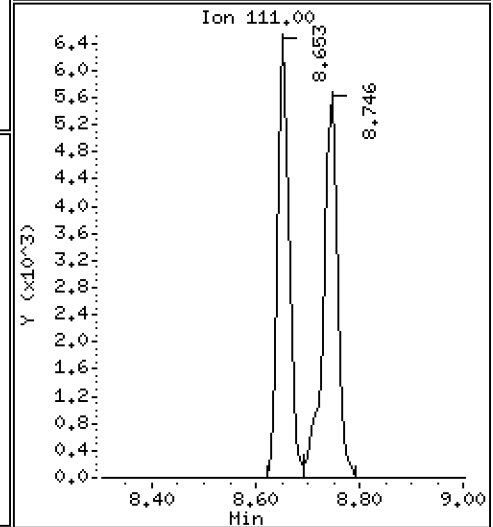
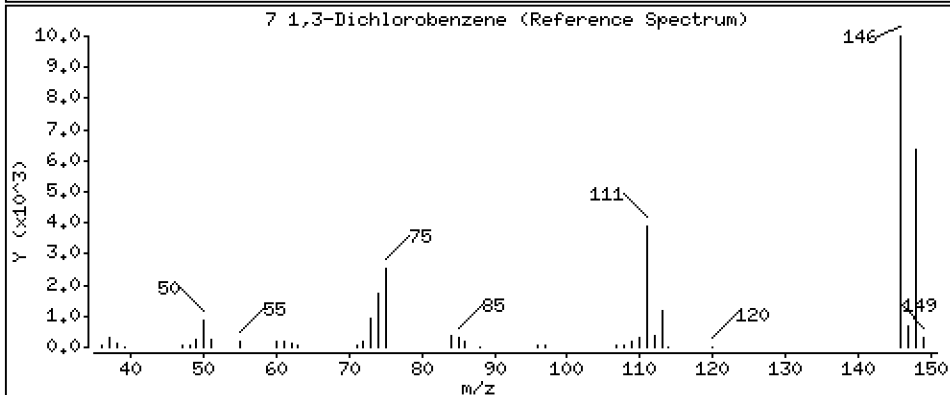
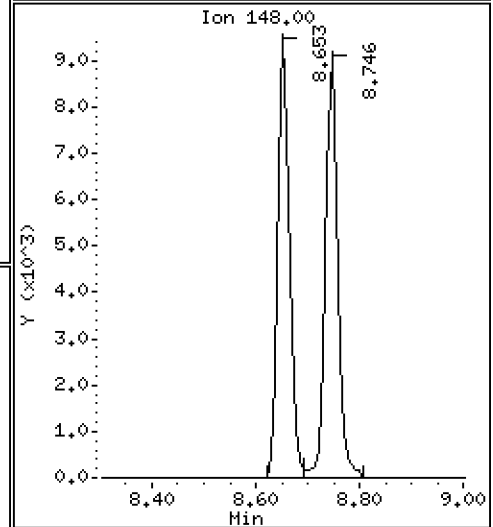
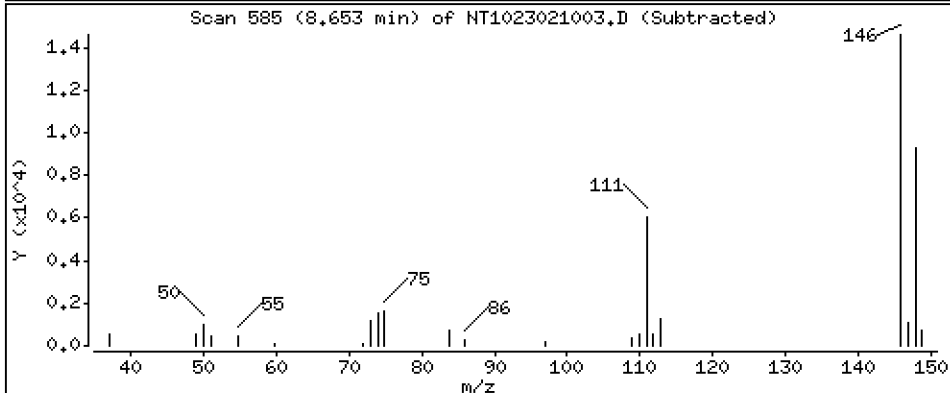
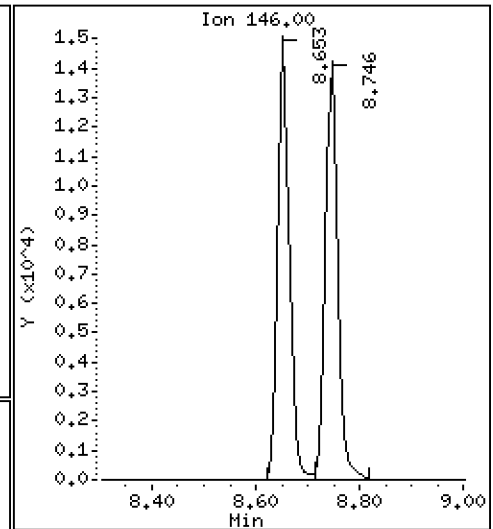
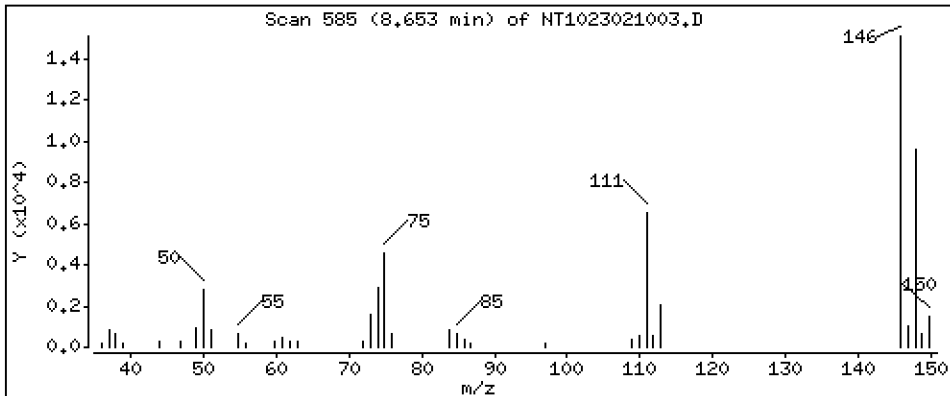
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.5238 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

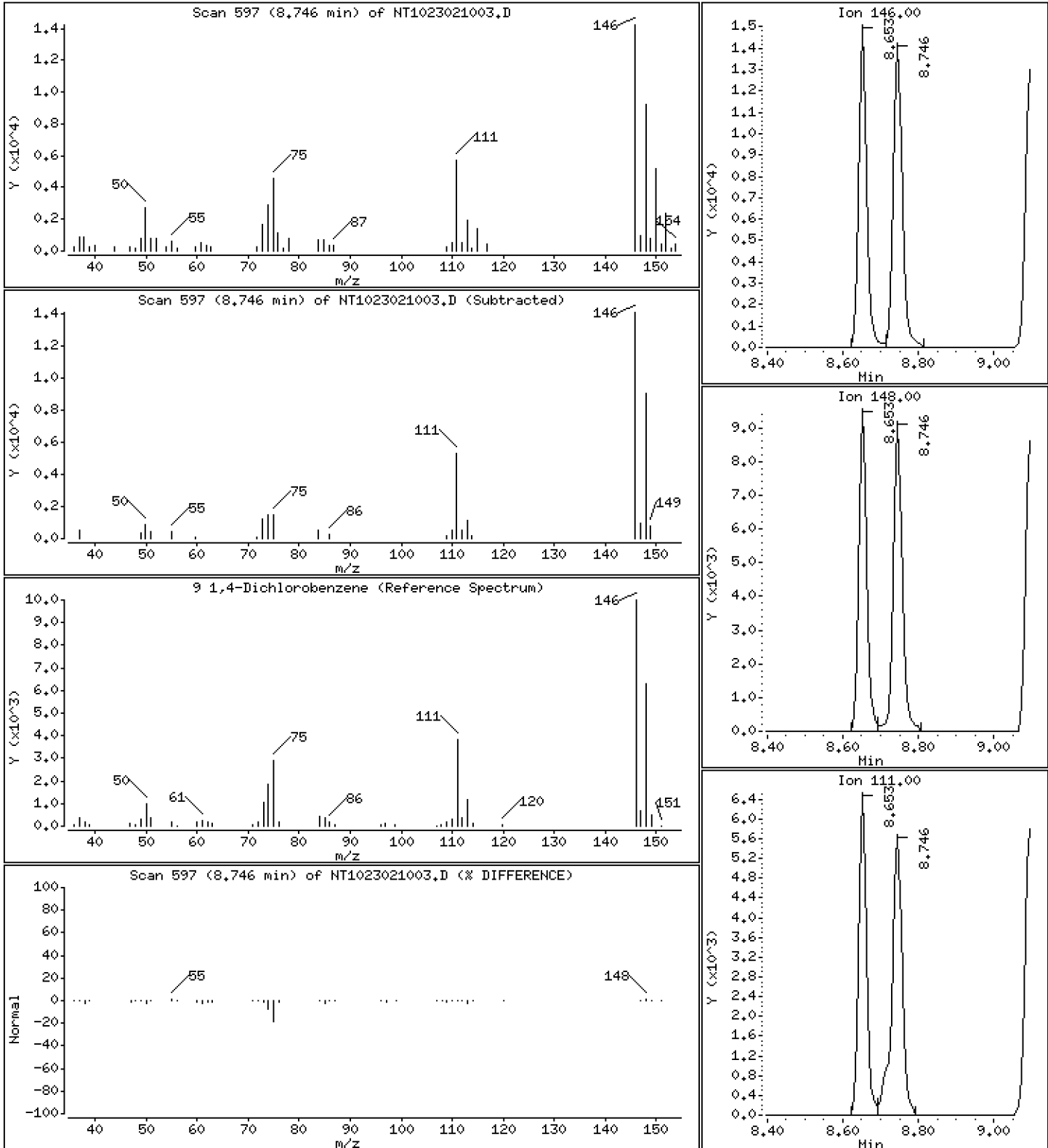
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,5156 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

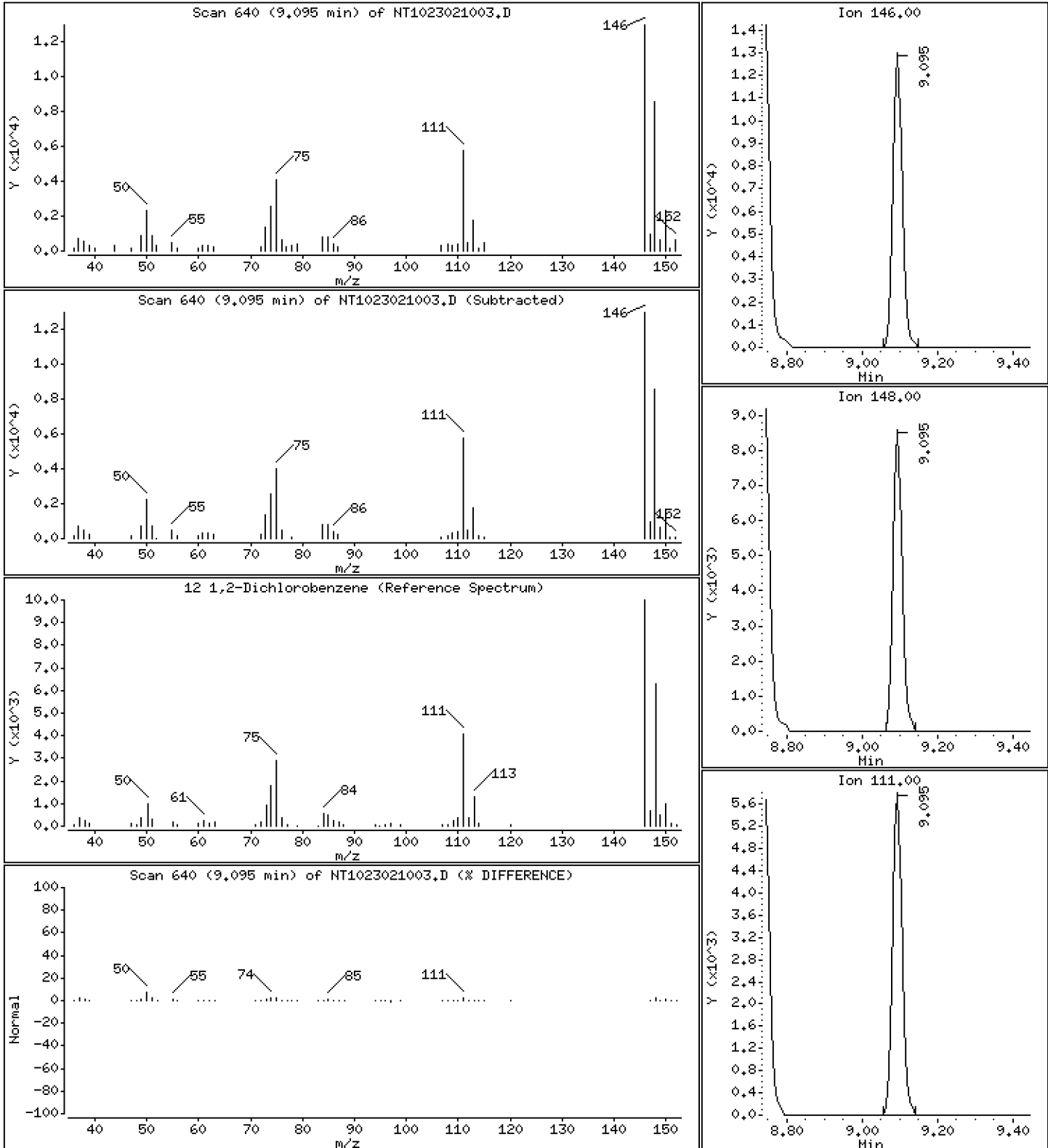
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,5117 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

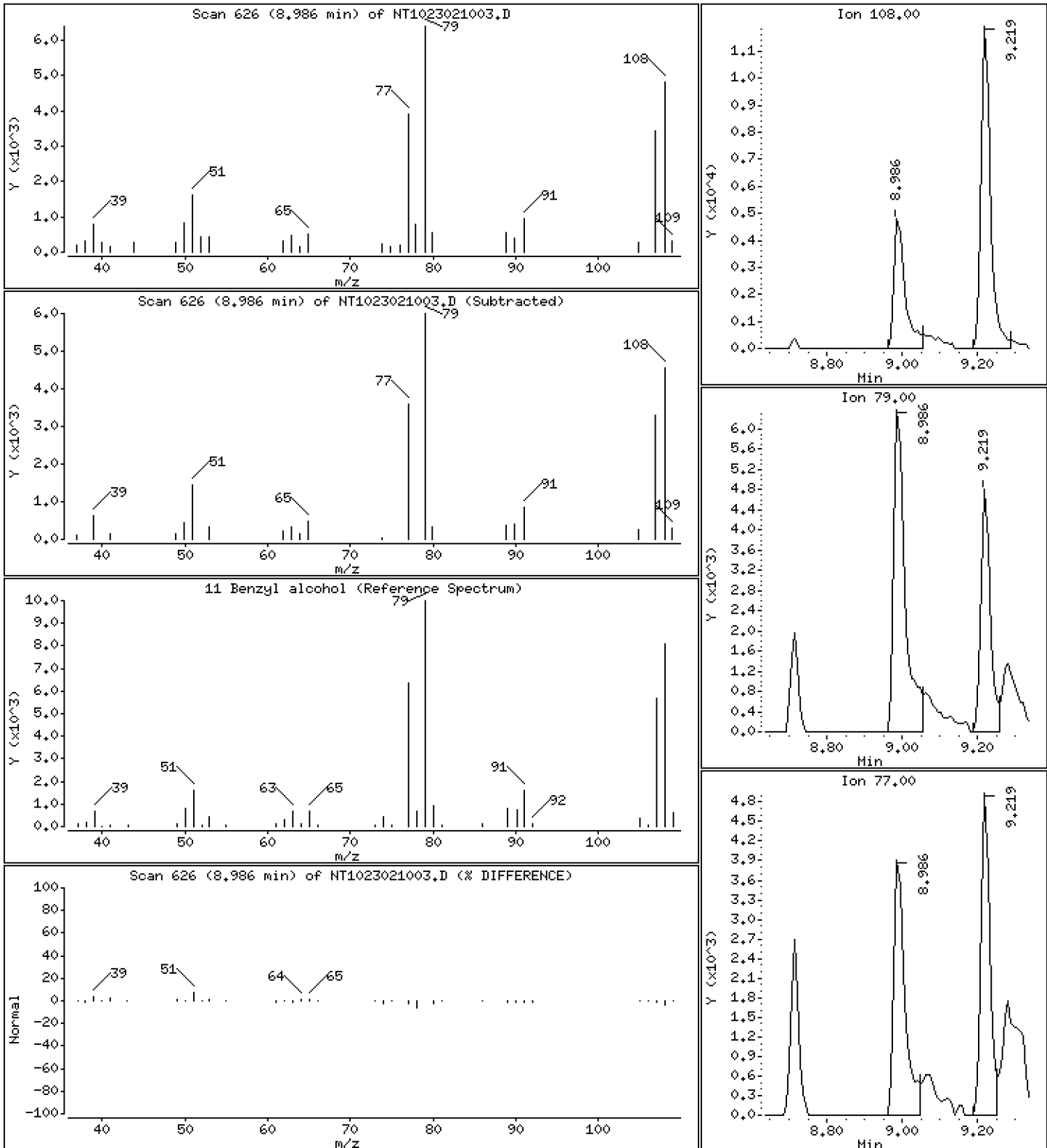
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 0,4299 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

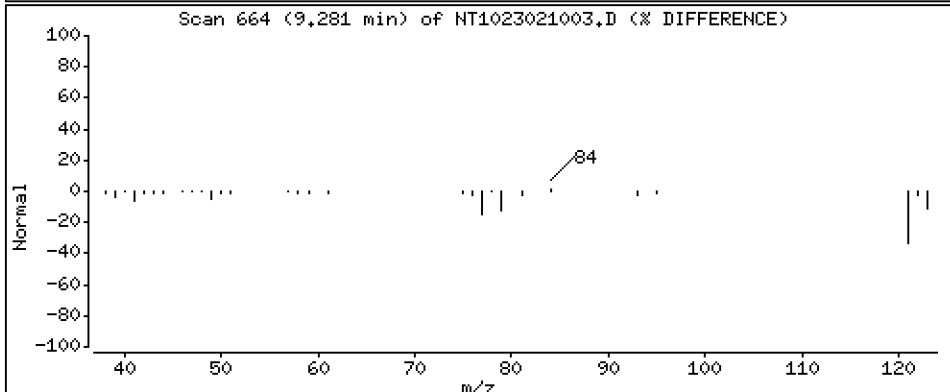
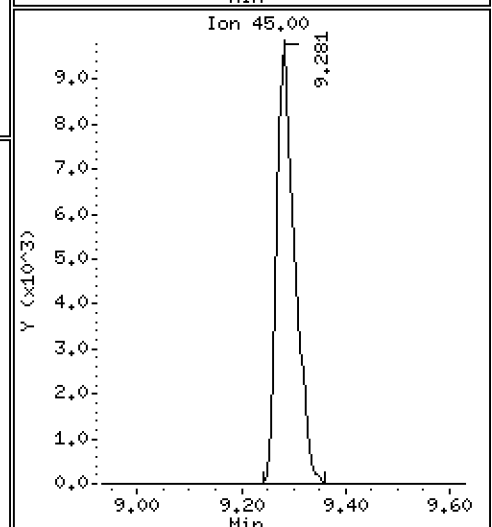
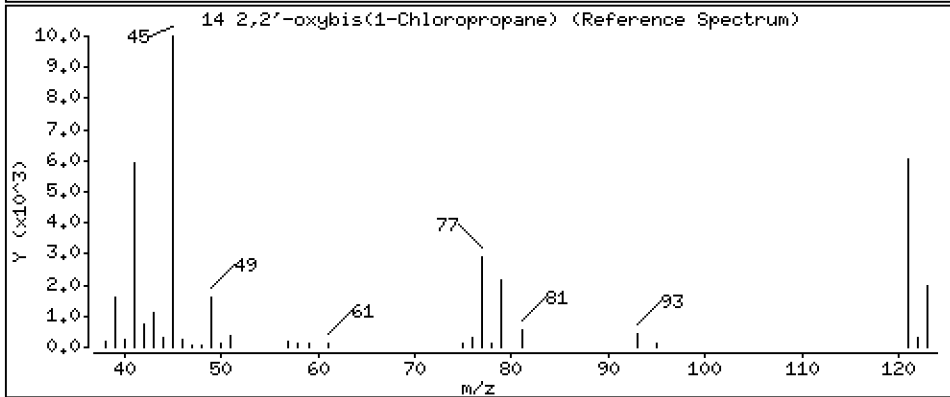
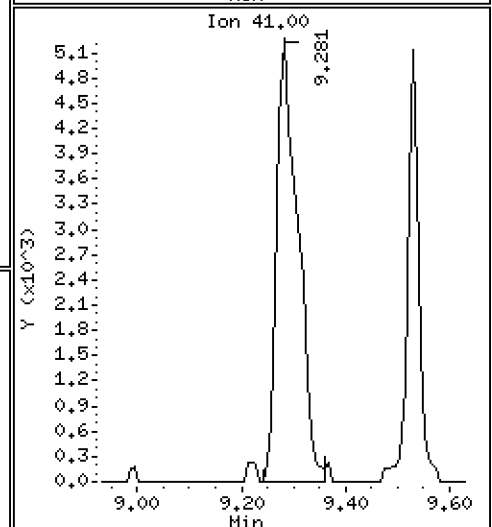
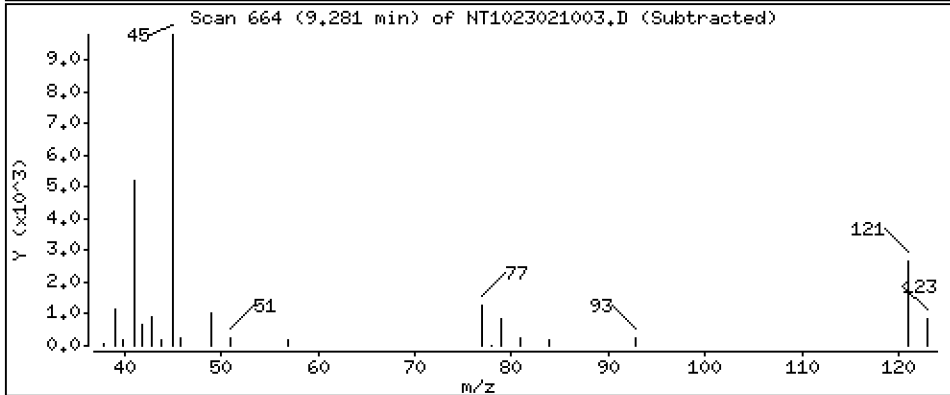
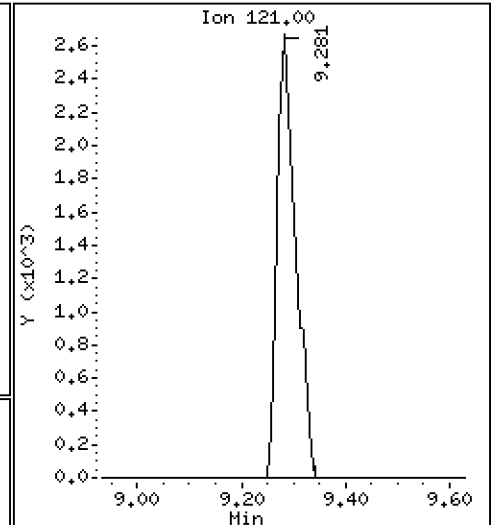
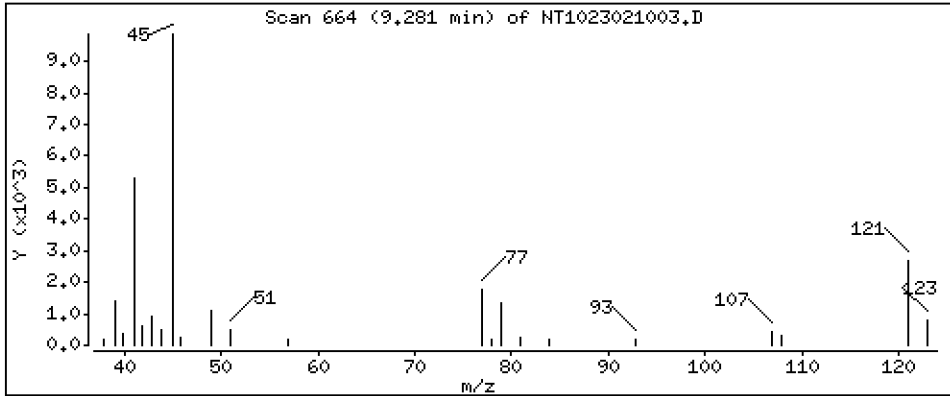
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 0.5027 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

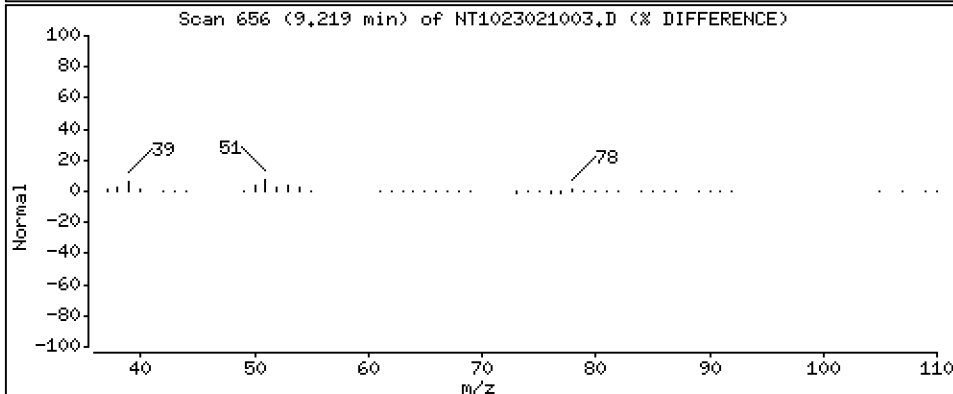
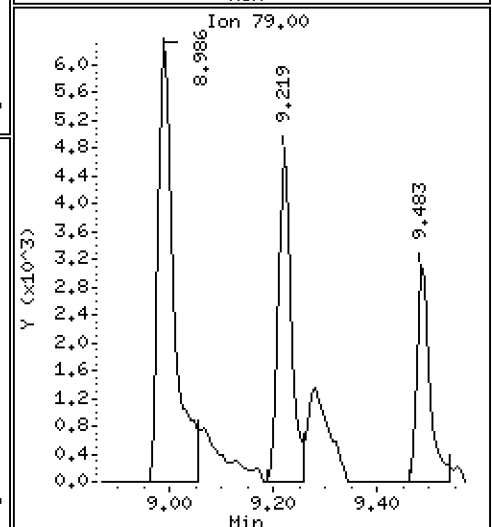
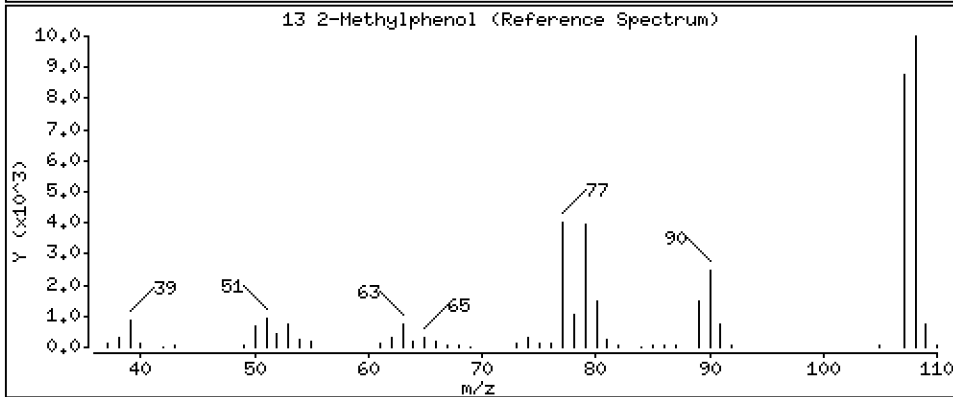
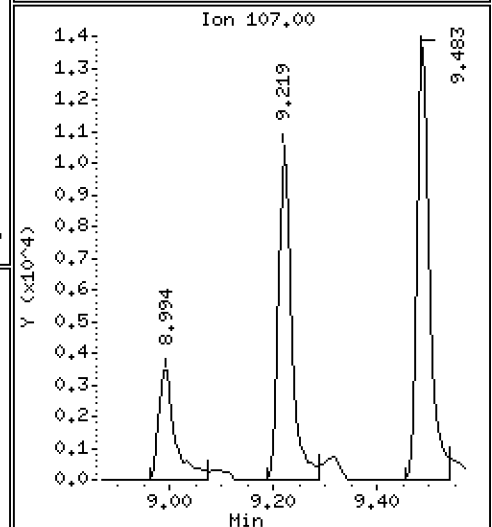
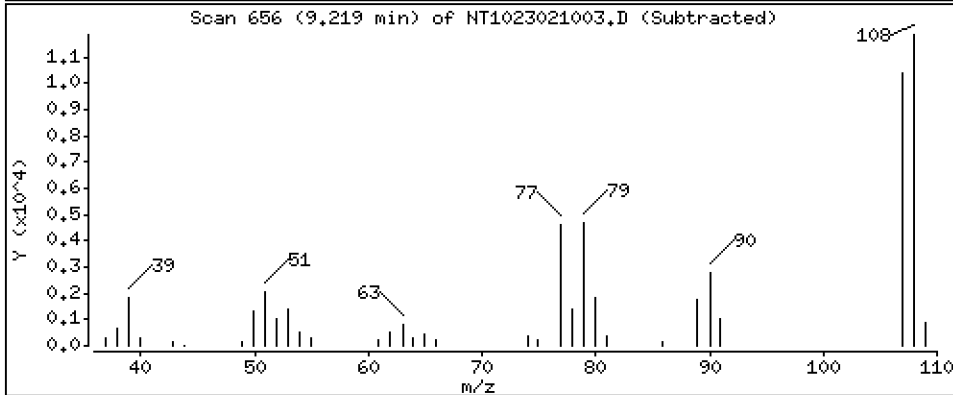
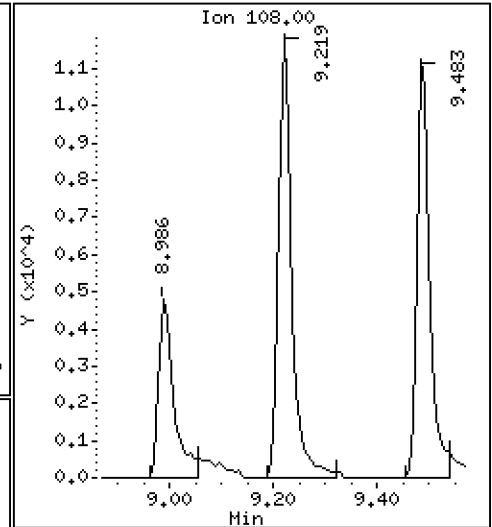
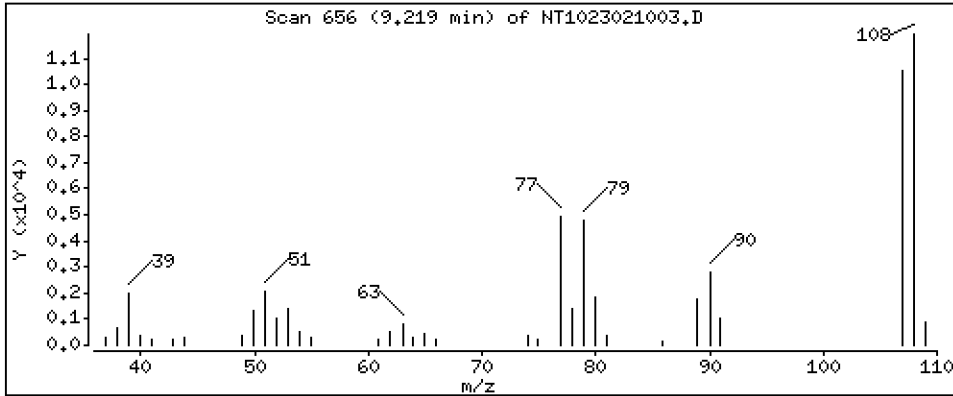
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 0,5952 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

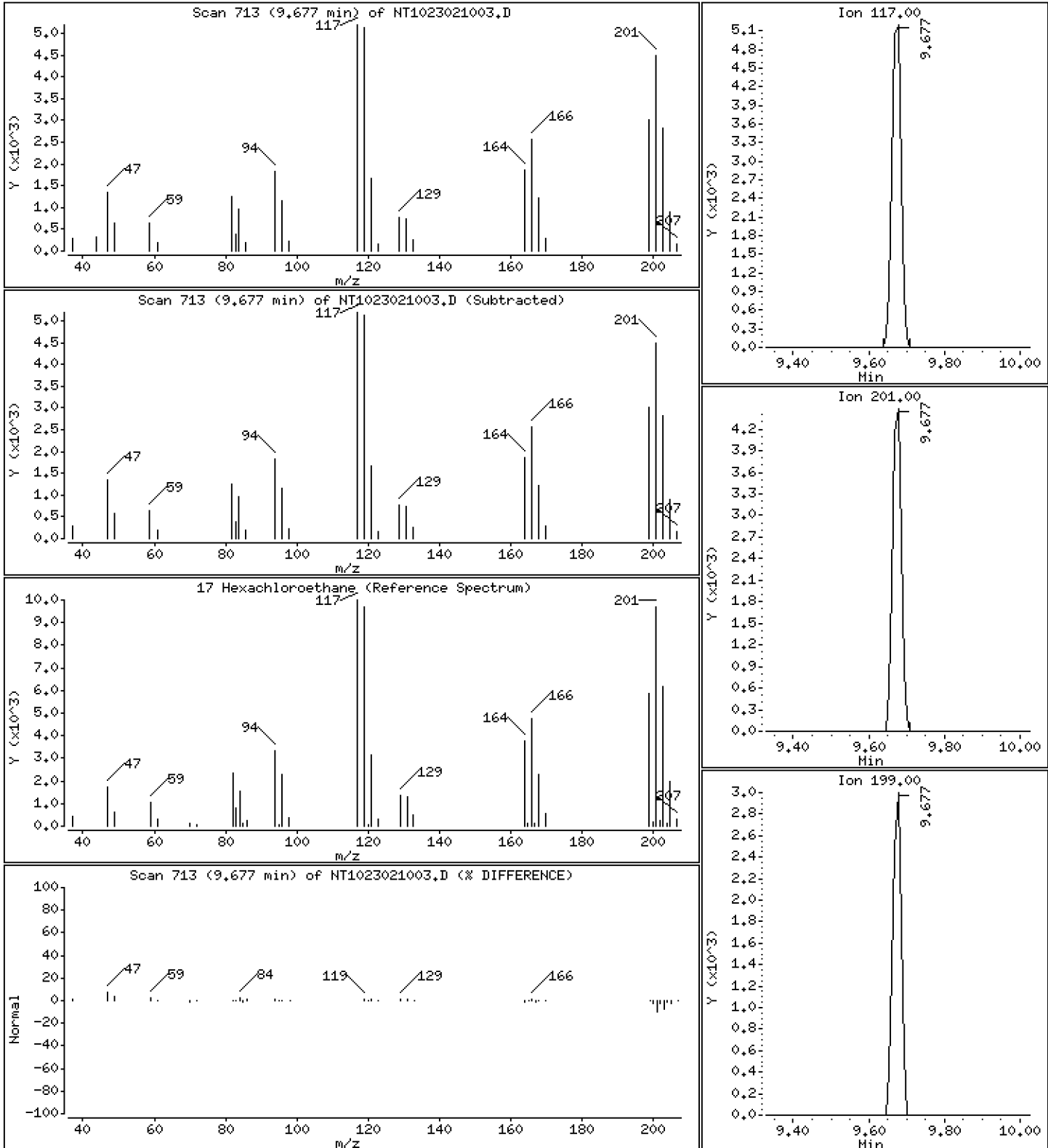
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

17 Hexachloroethane

Concentration: 0.5101 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

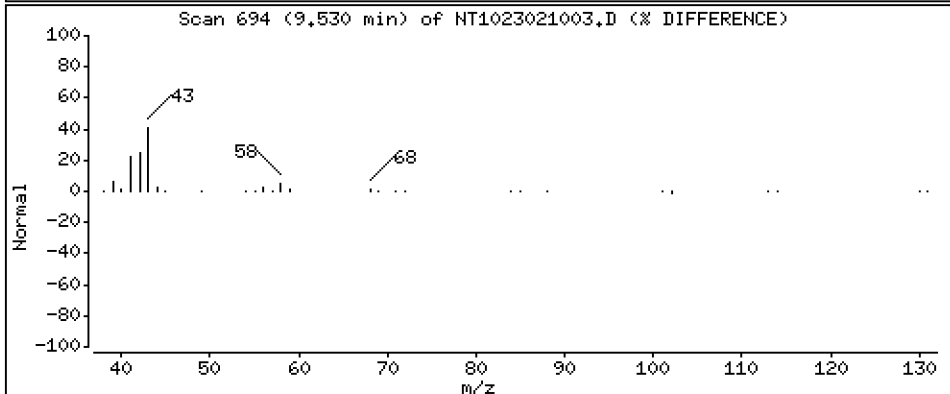
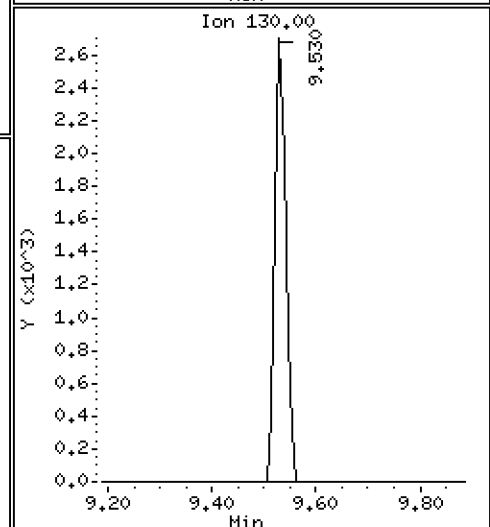
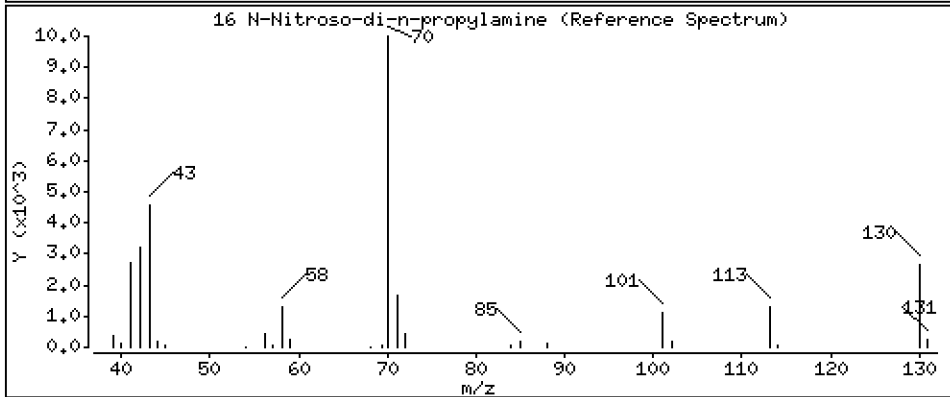
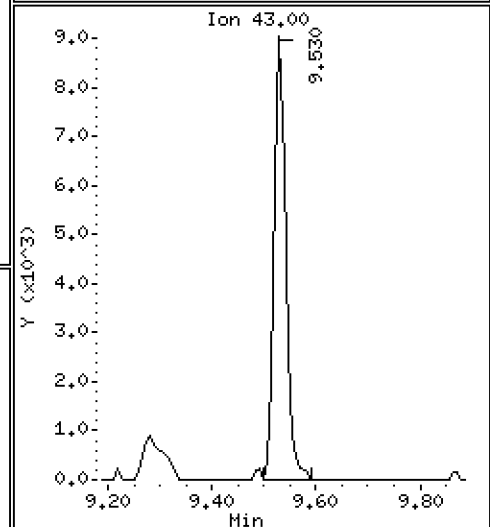
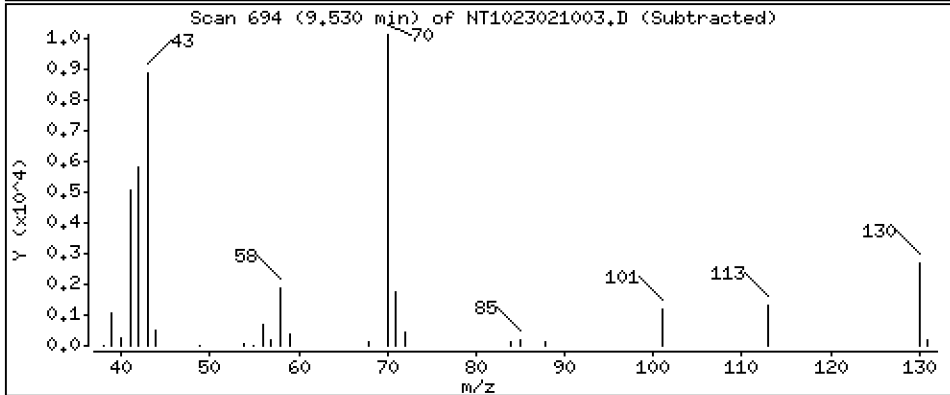
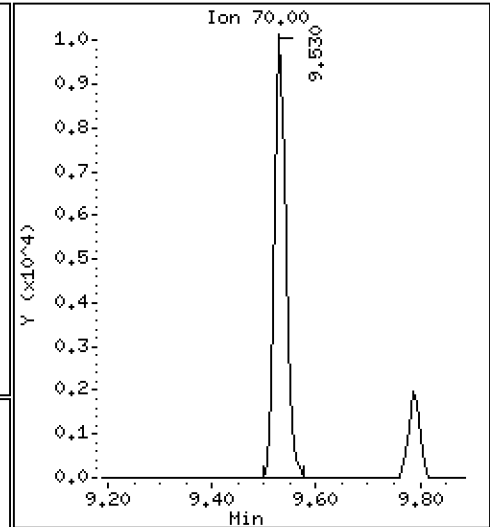
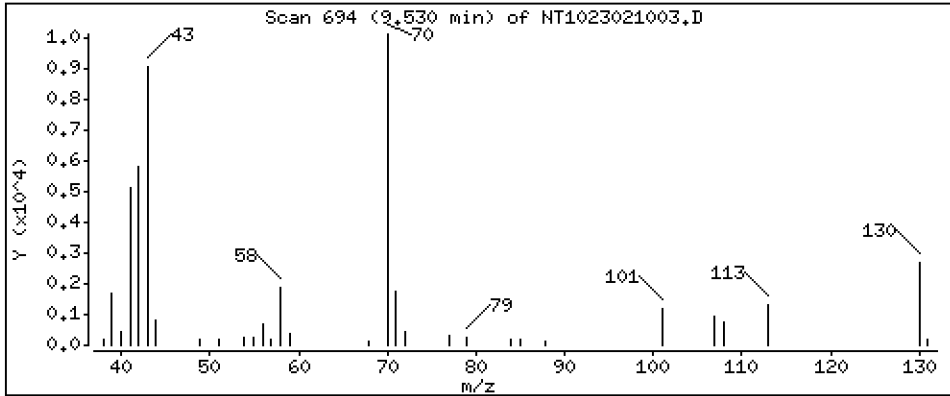
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 0.5099 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

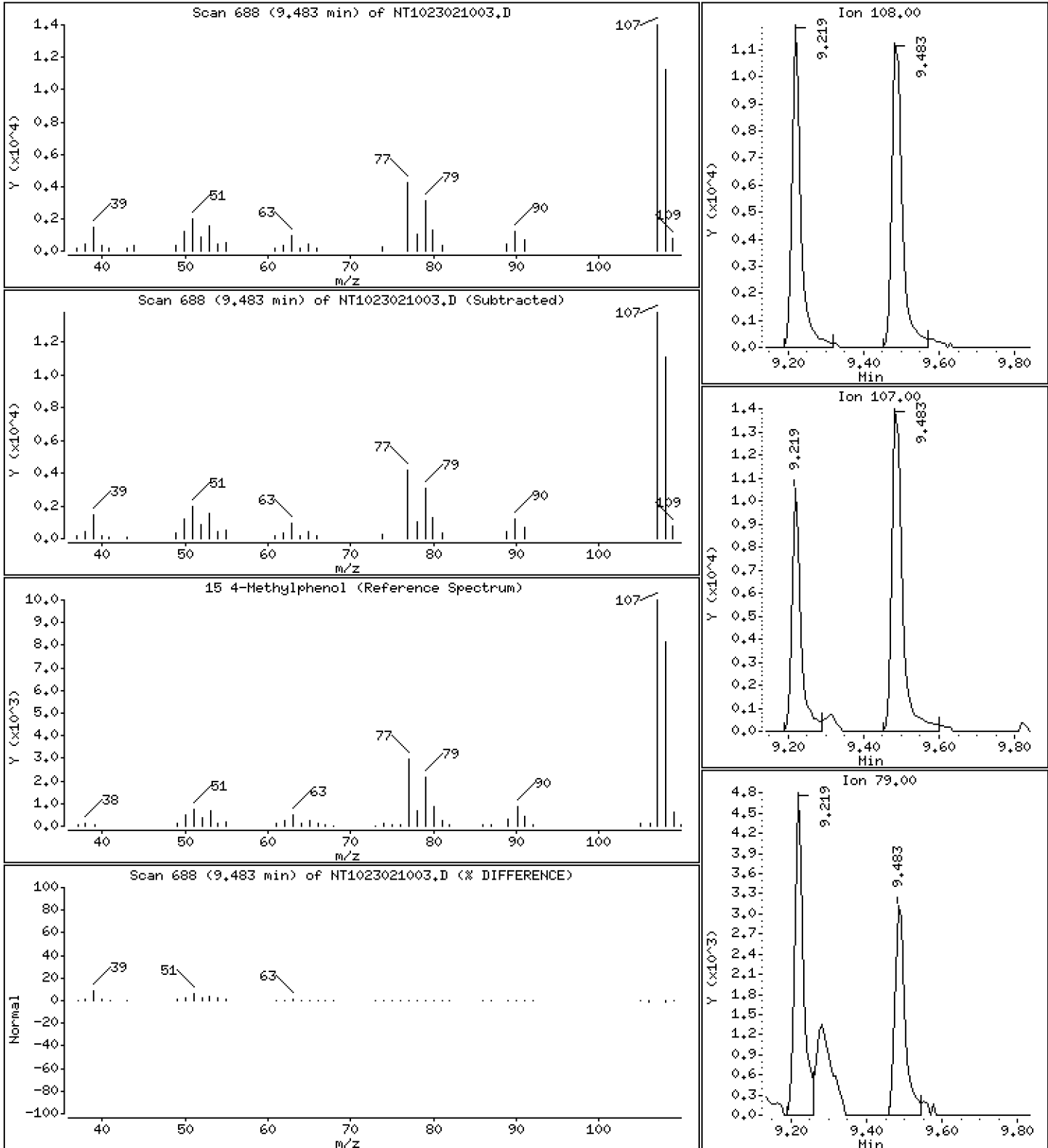
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 0,5134 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

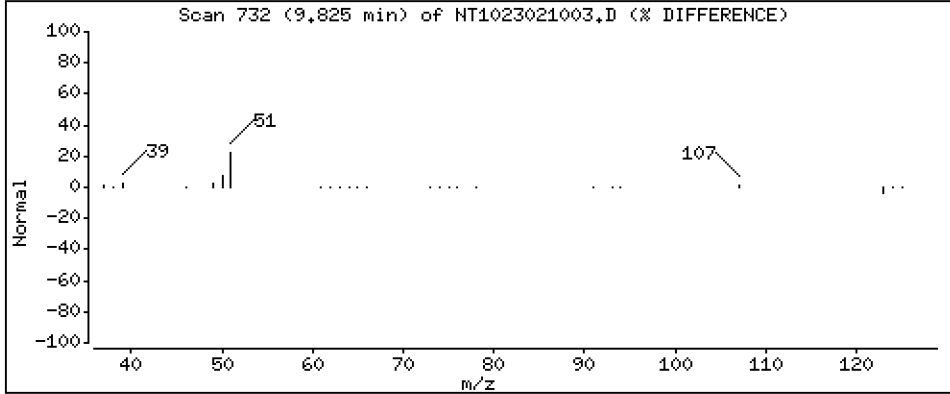
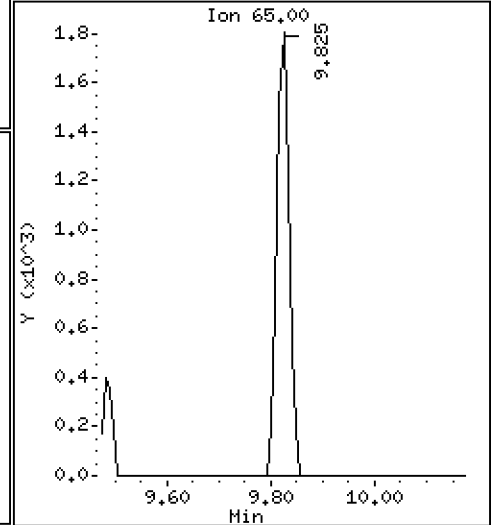
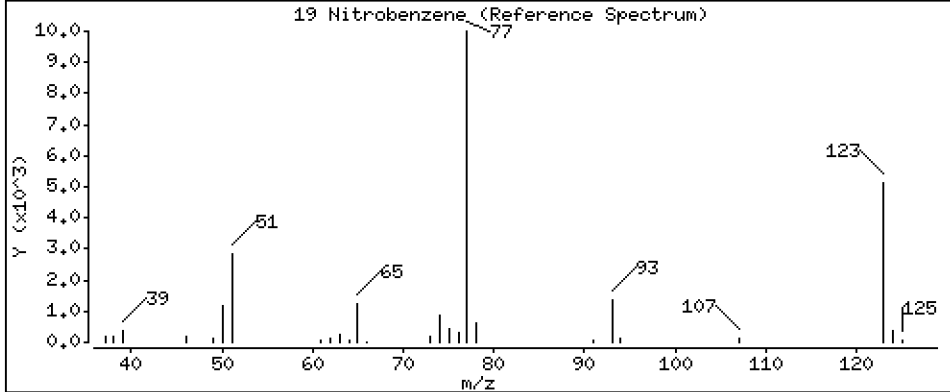
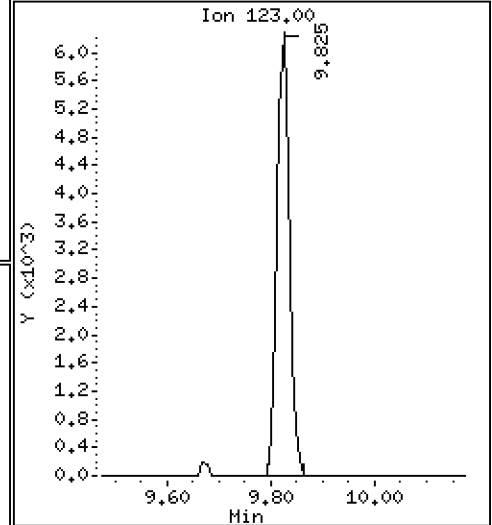
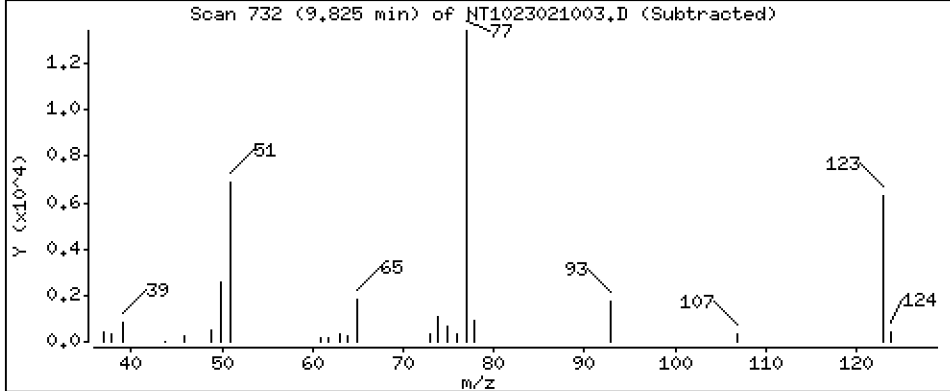
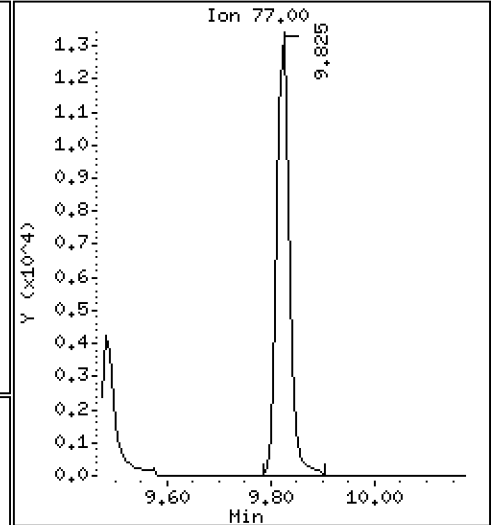
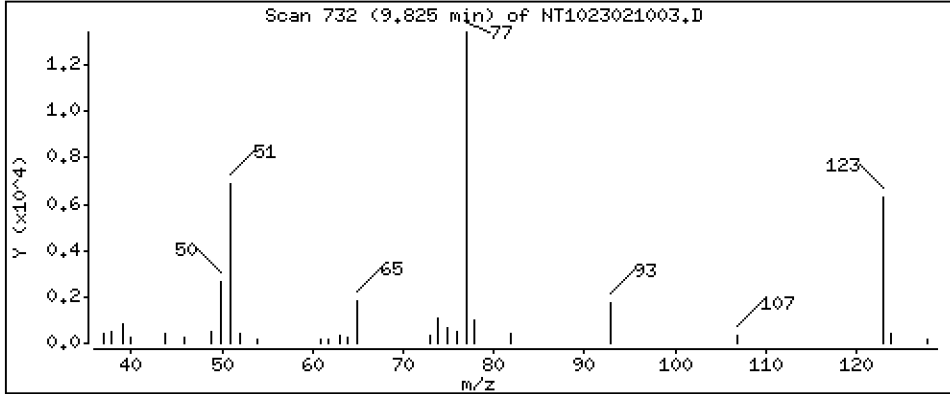
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Concentration: 0.5324 ug/mL

19 Nitrobenzene



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

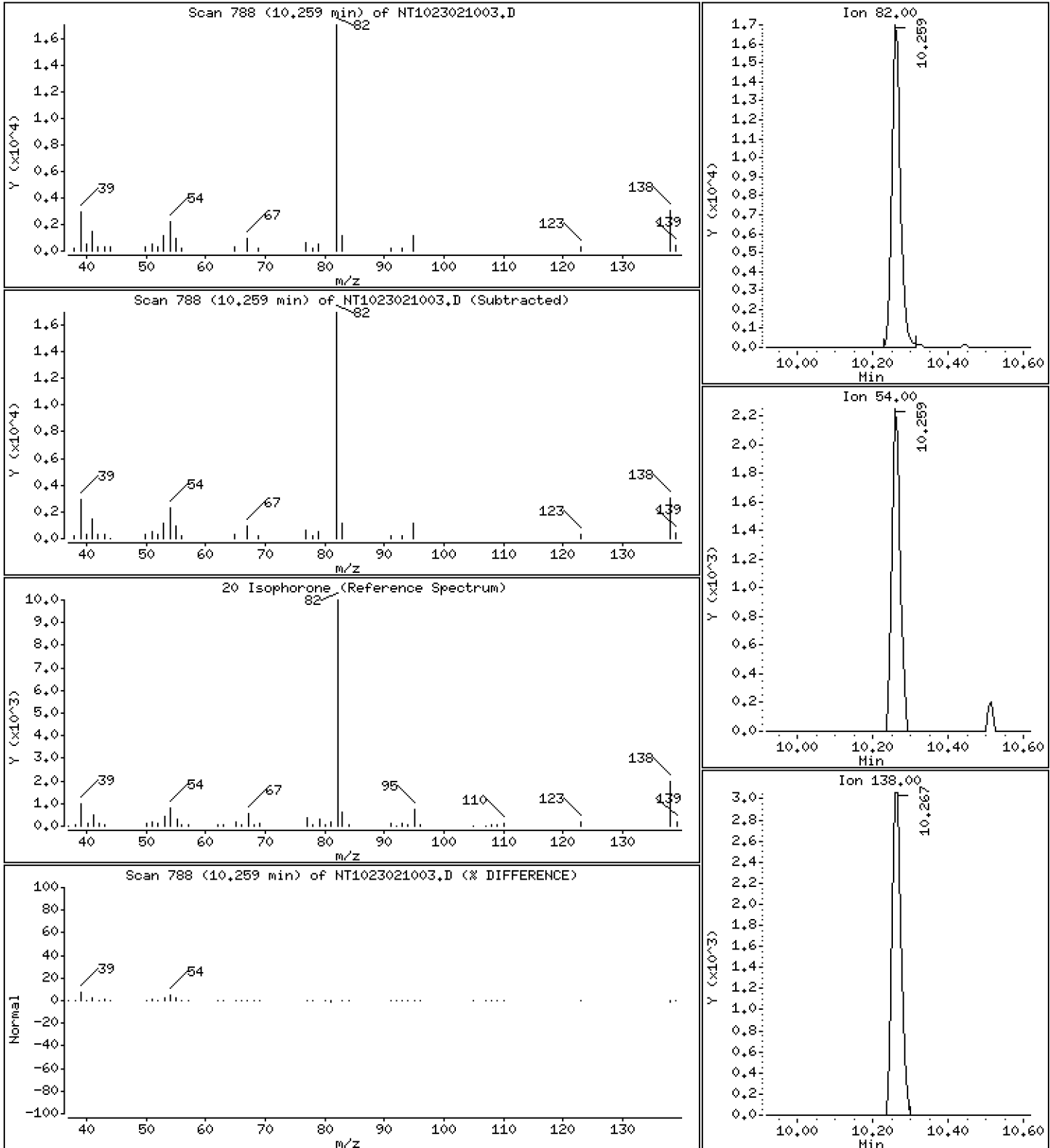
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 0,4776 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

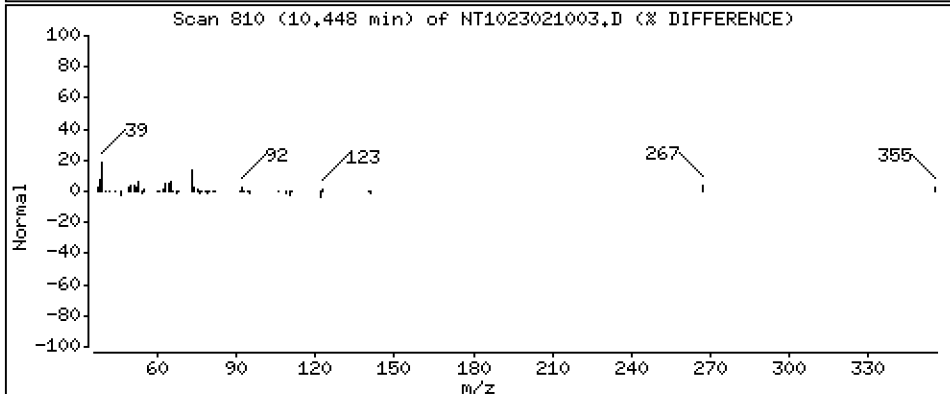
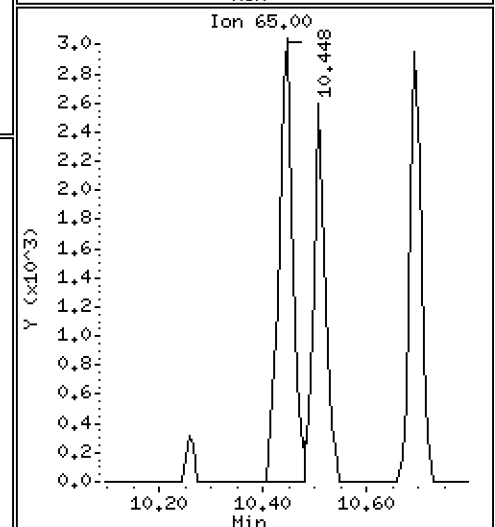
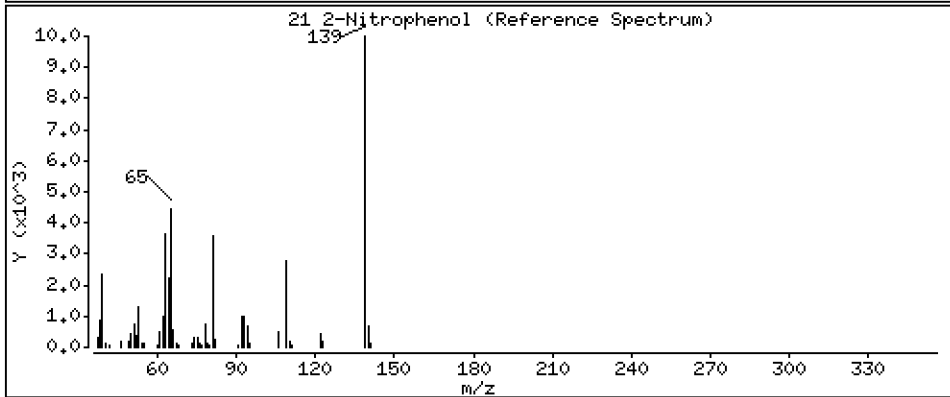
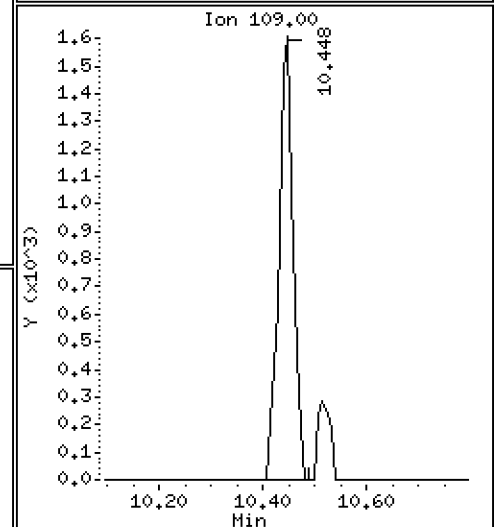
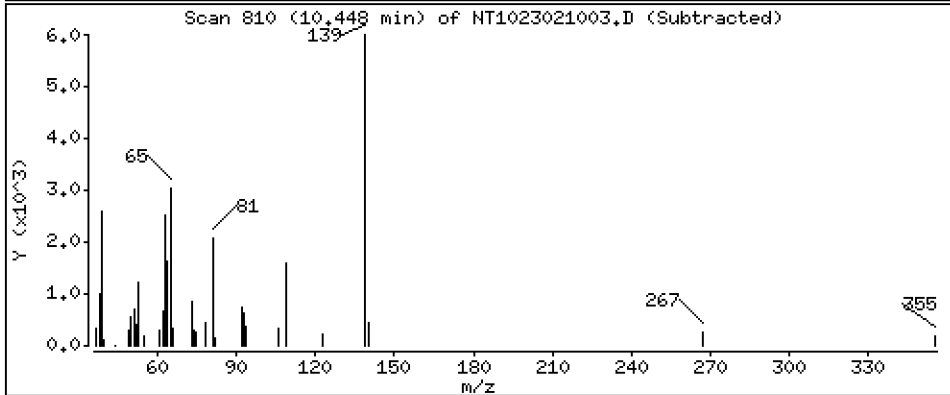
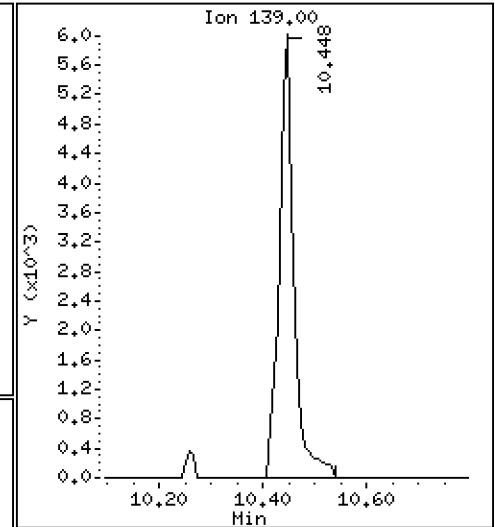
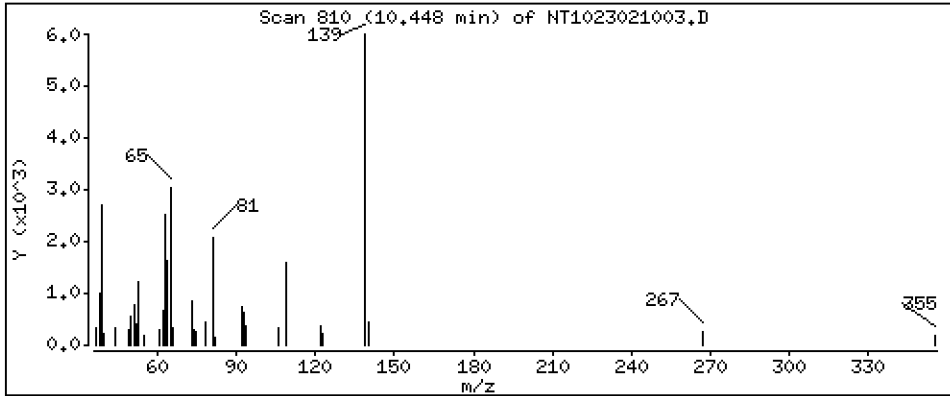
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,5842 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

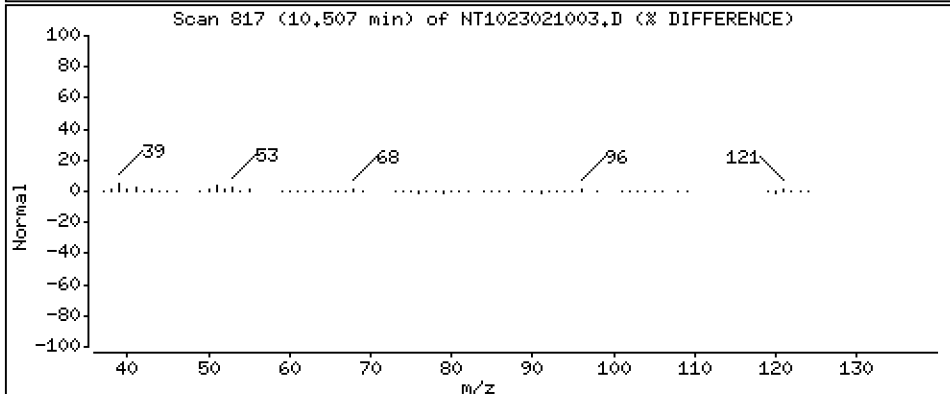
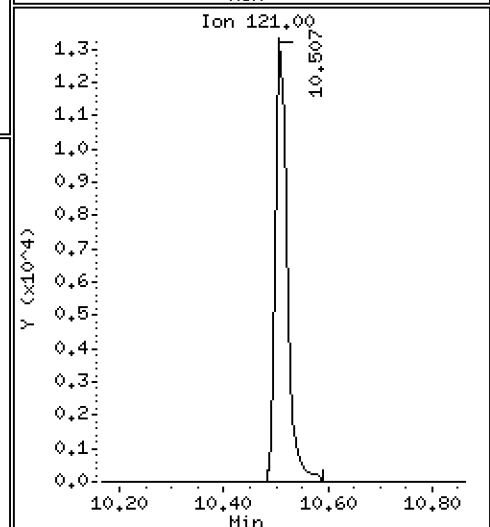
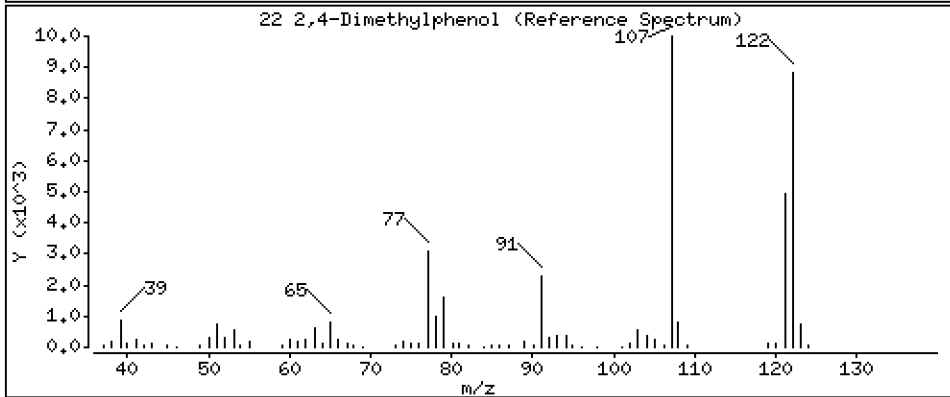
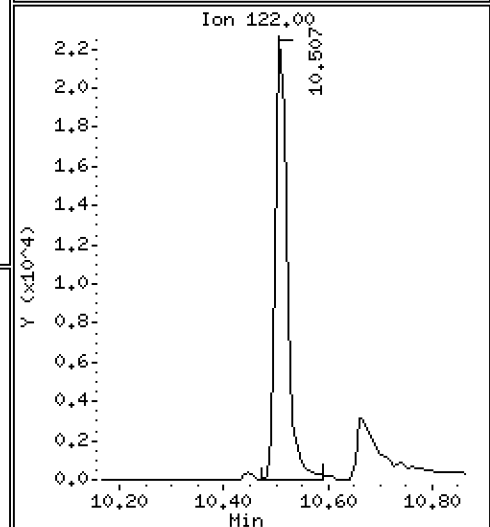
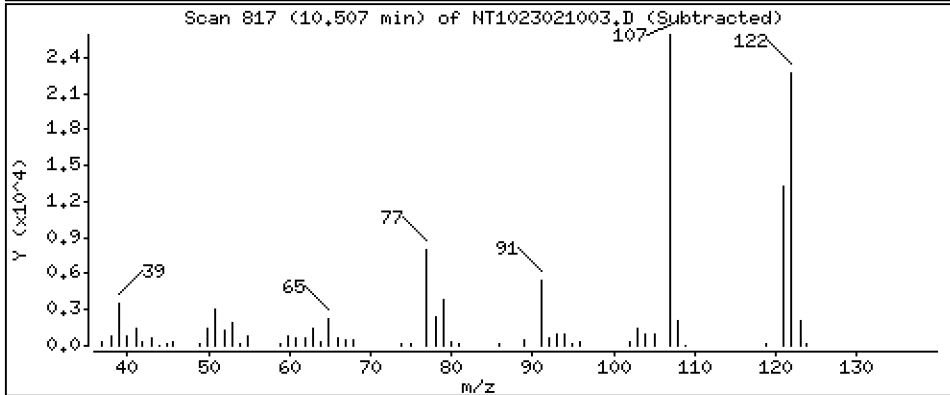
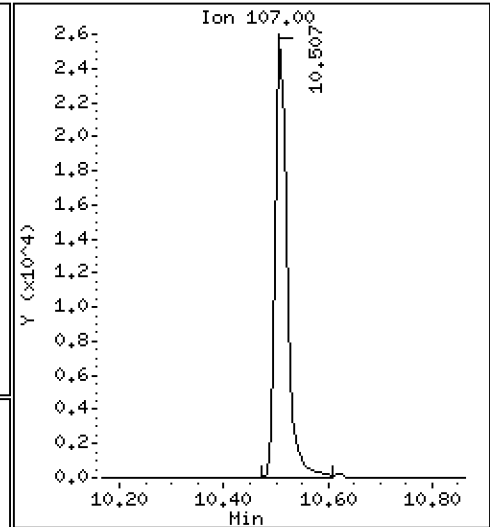
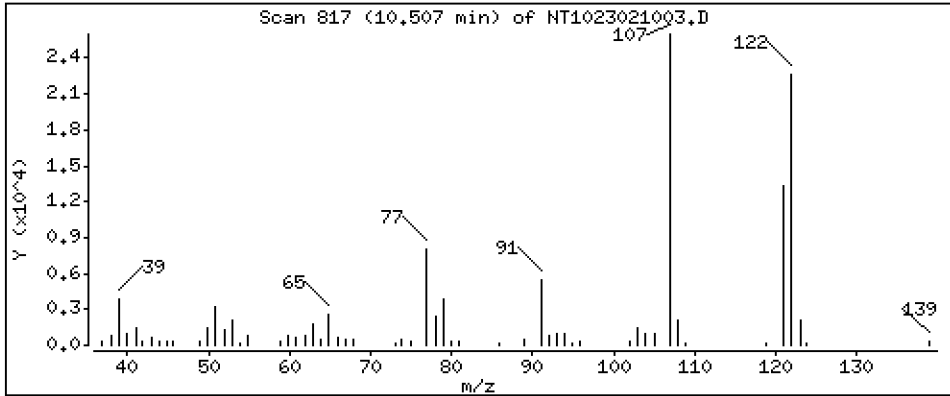
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 1.105 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

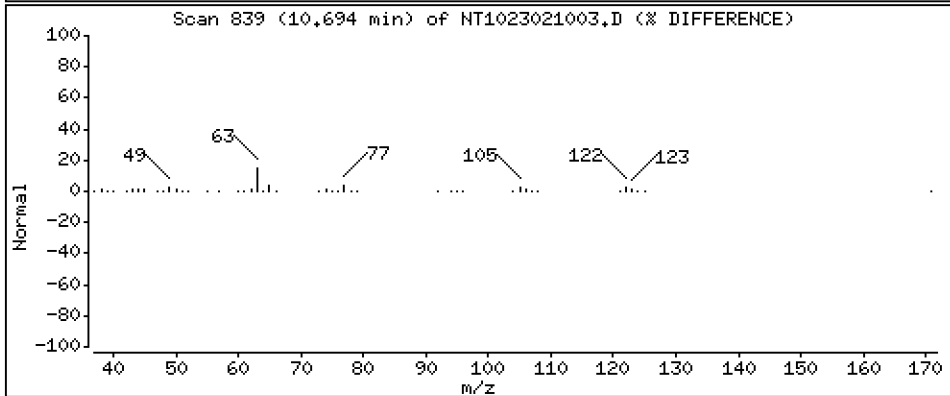
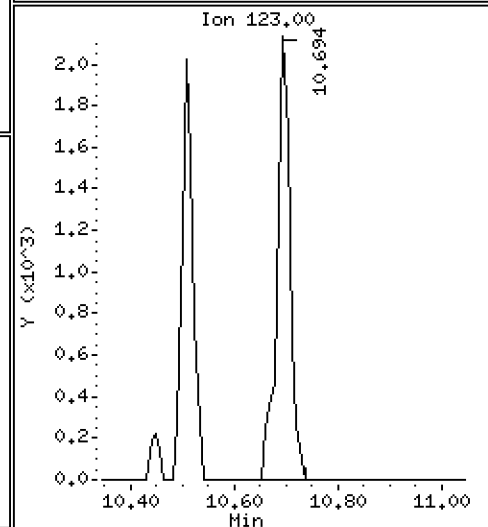
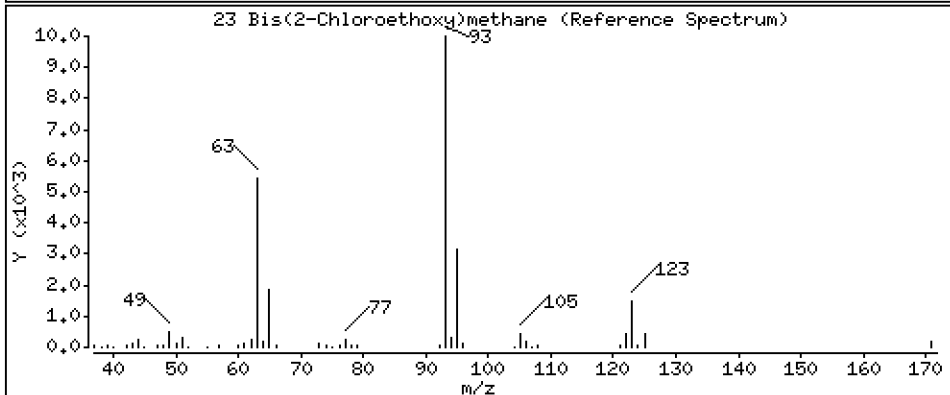
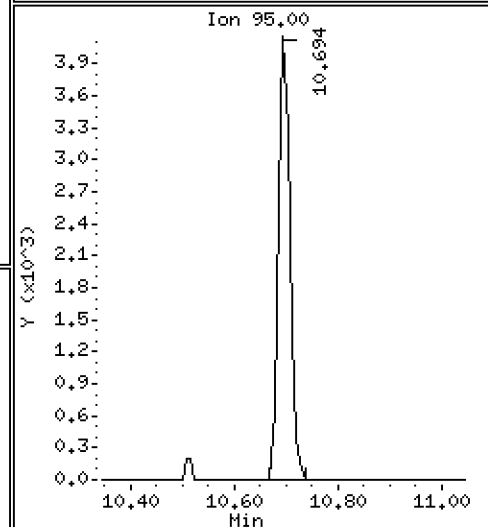
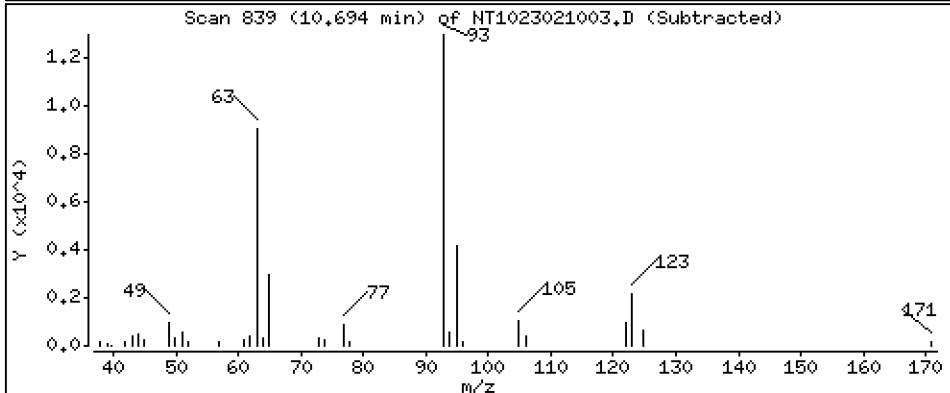
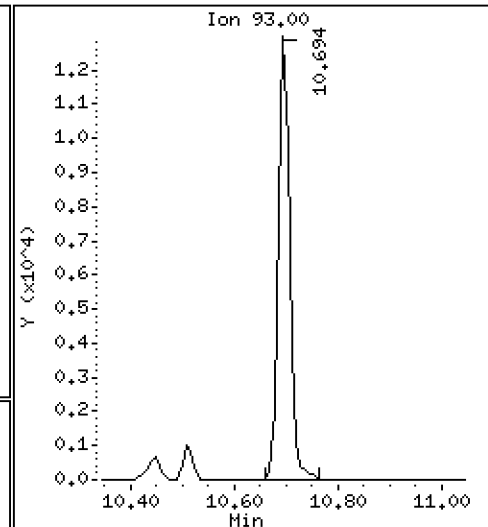
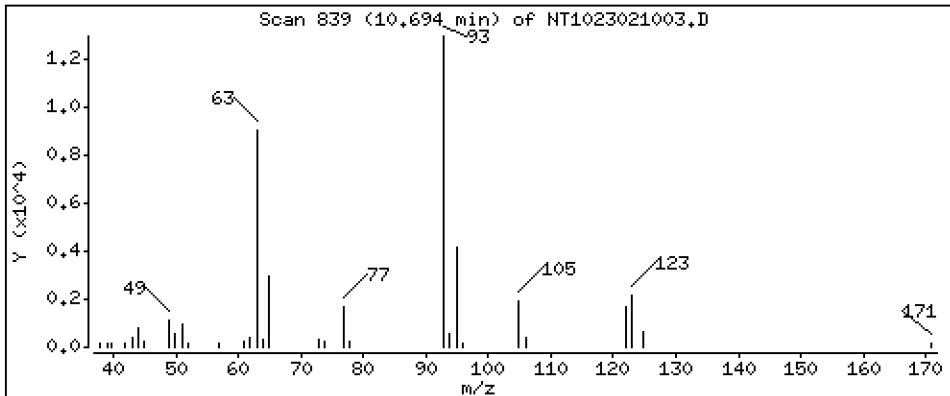
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 0,5431 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

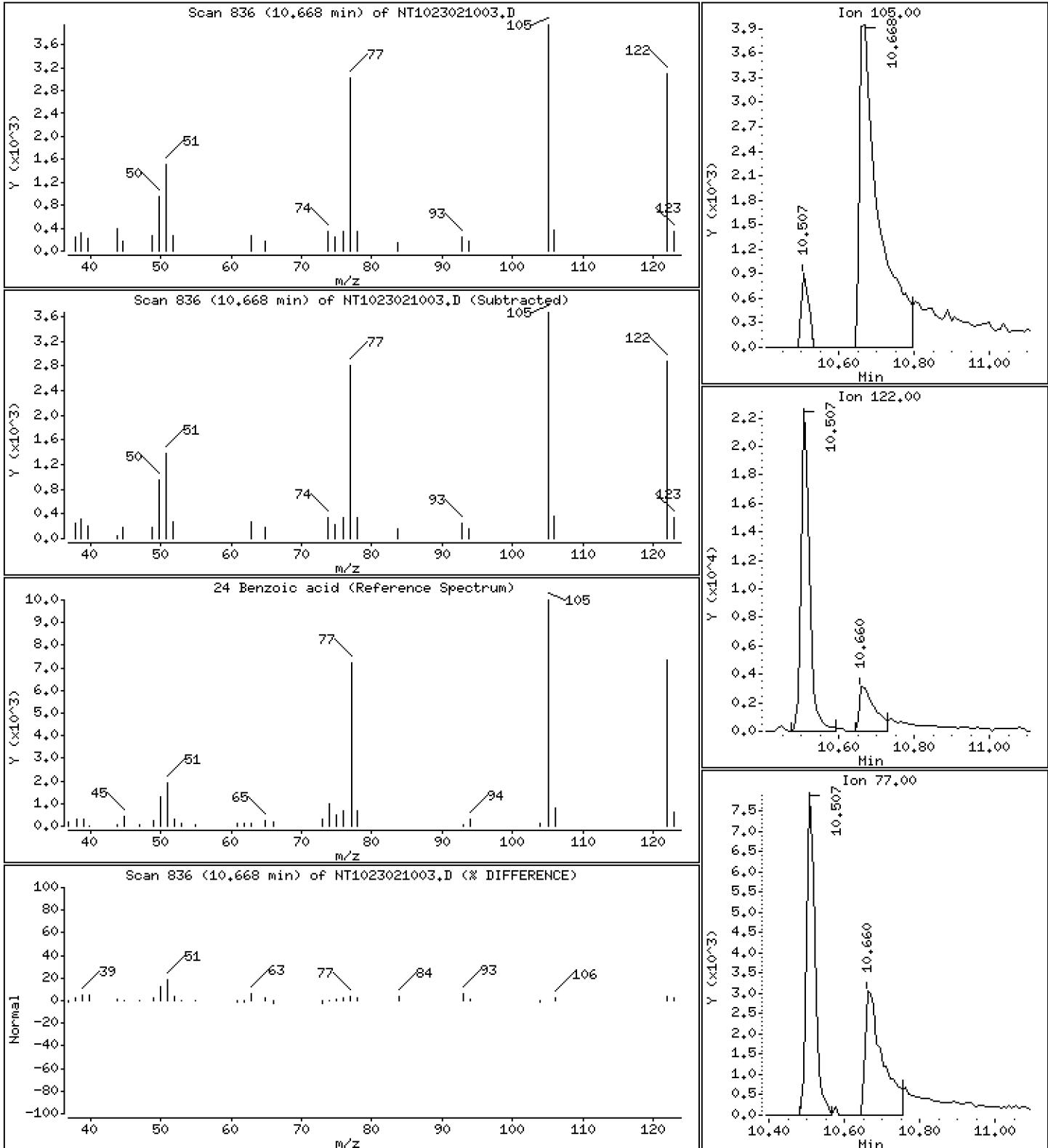
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 0,6729 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

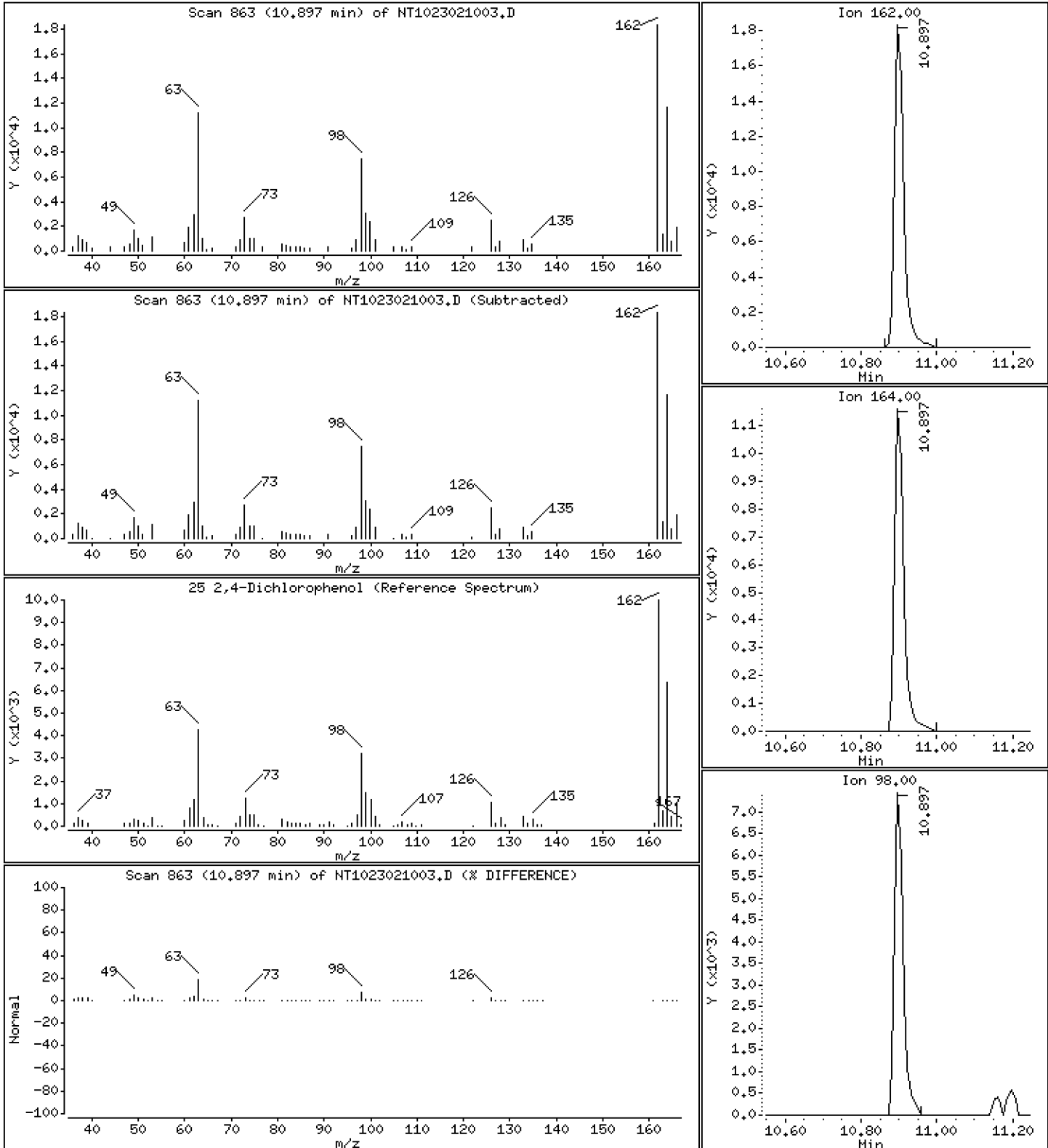
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 1,167 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

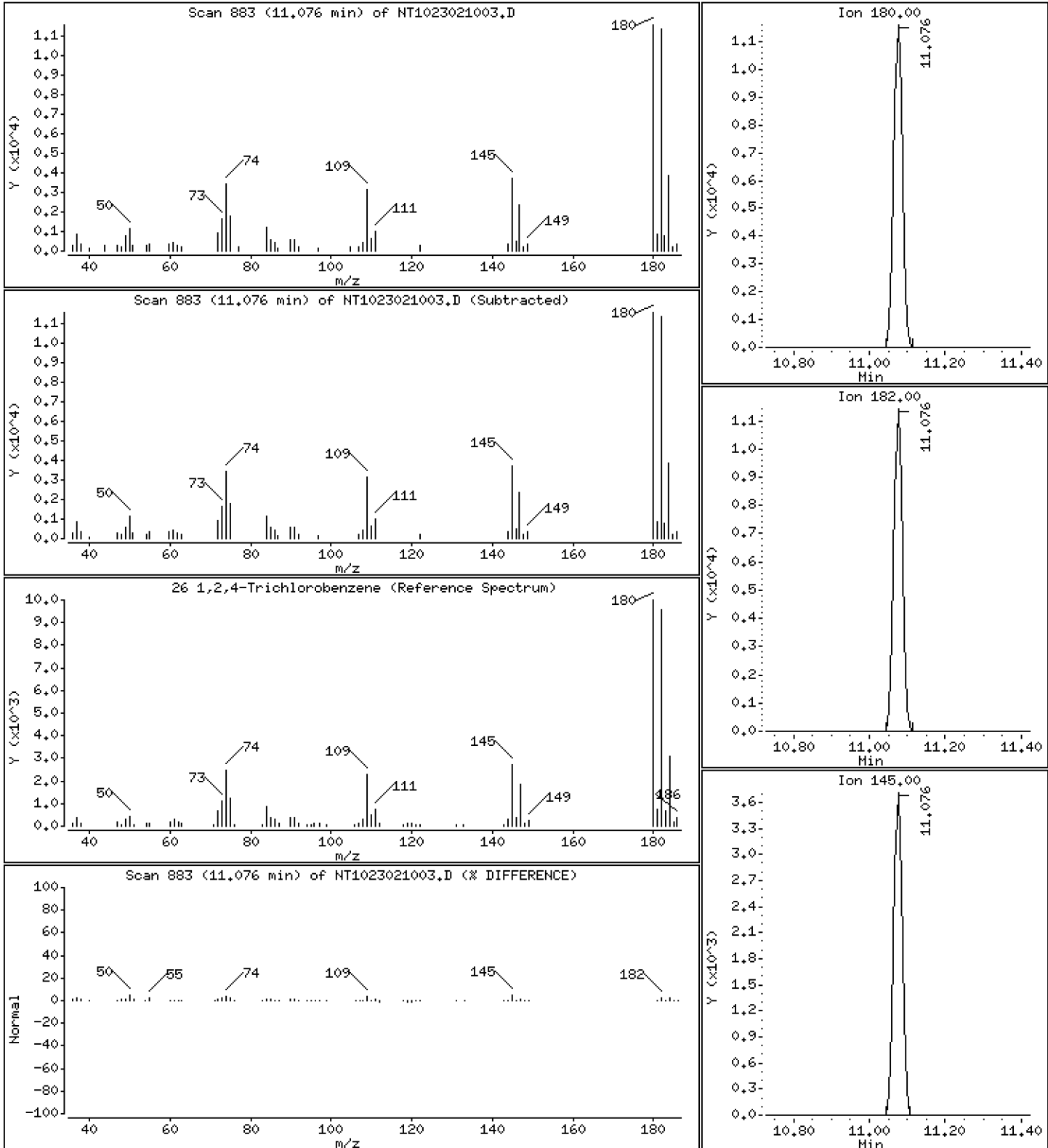
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,5378 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

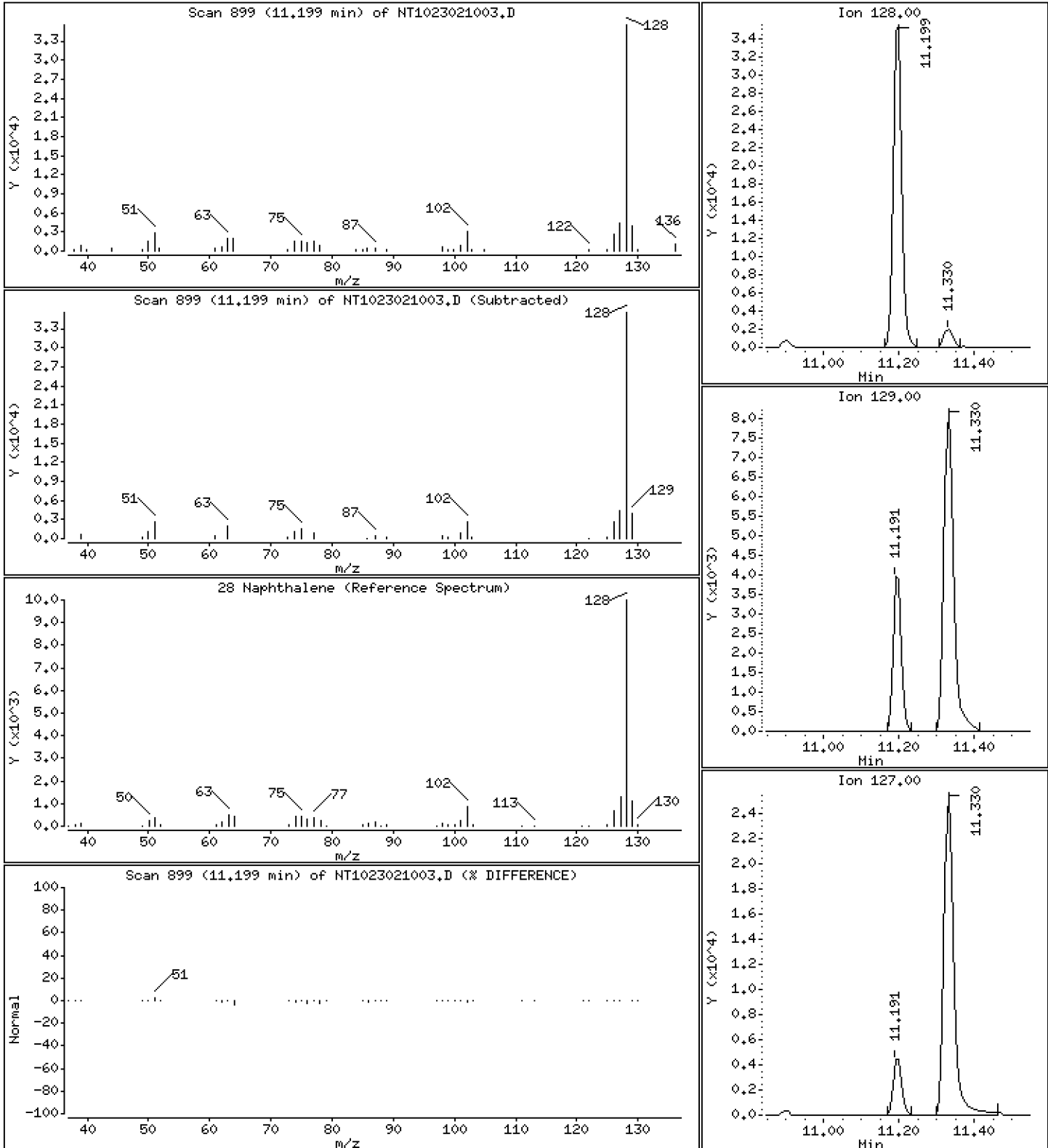
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

28 Naphthalene

Concentration: 0.5244 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

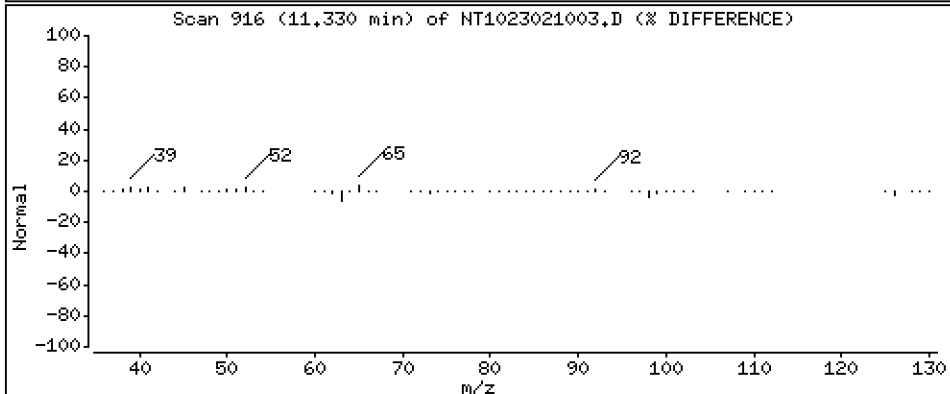
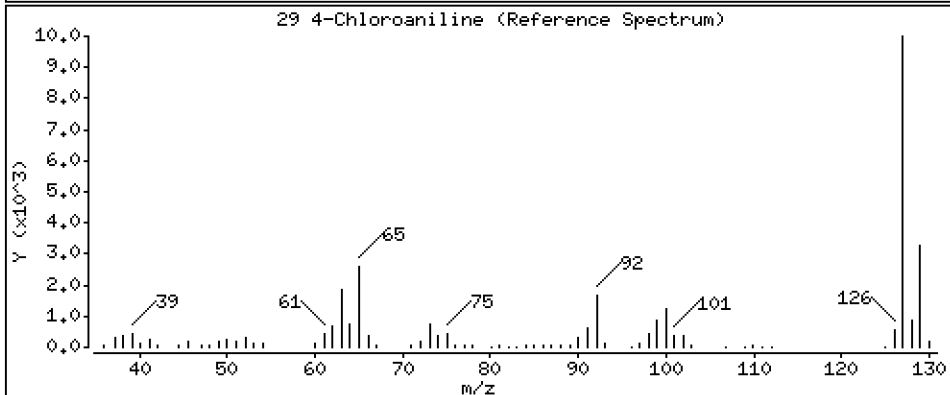
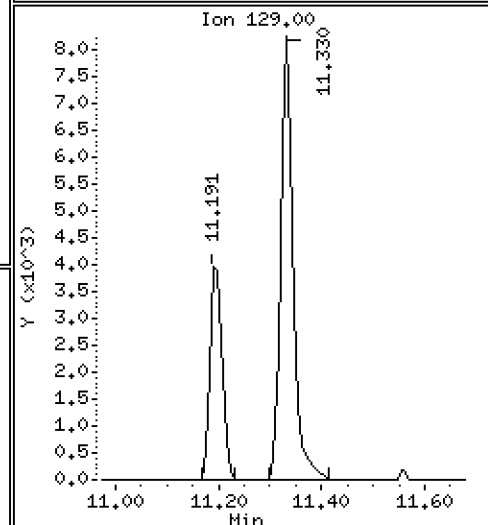
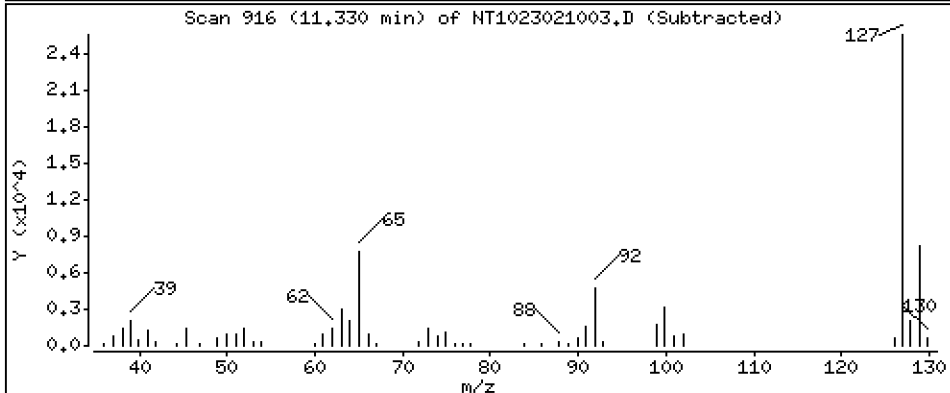
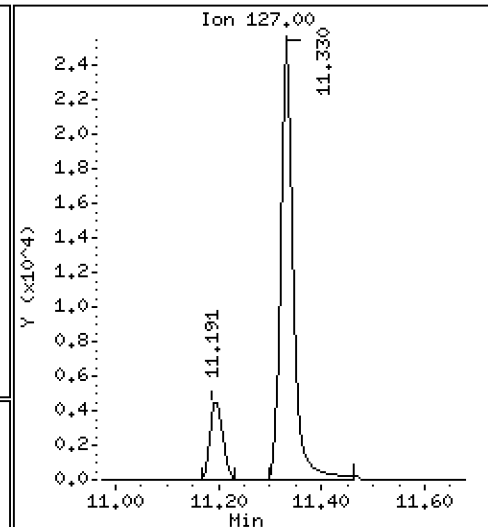
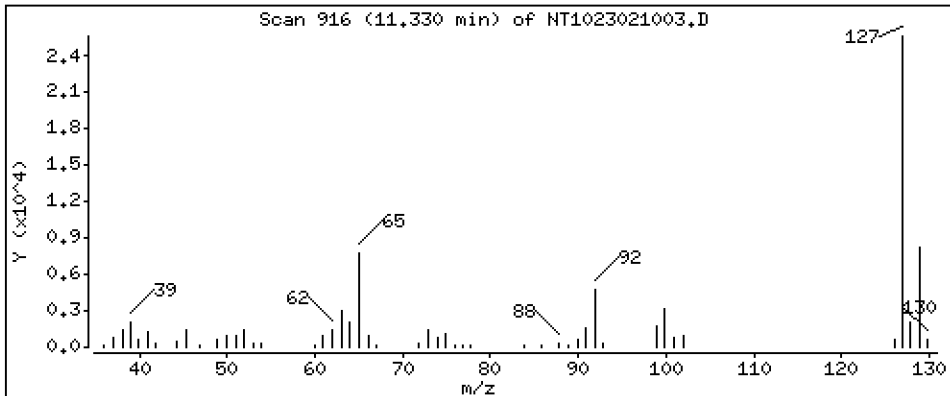
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 1,022 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

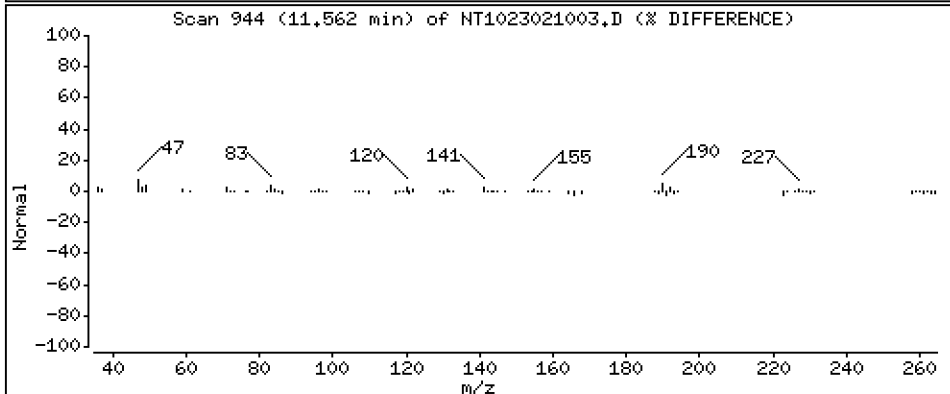
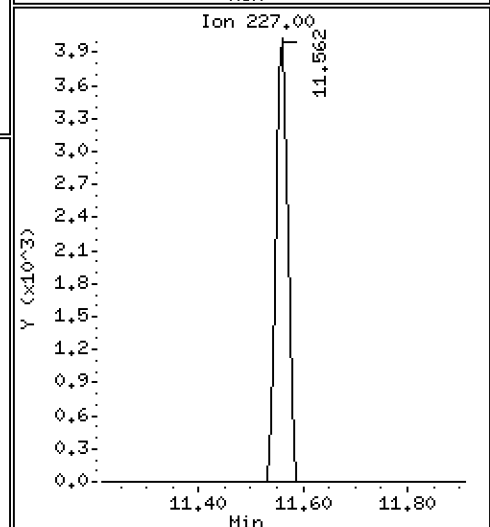
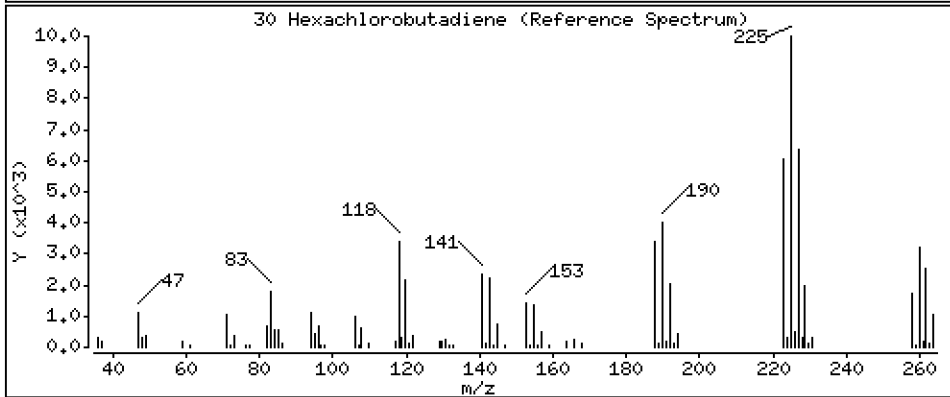
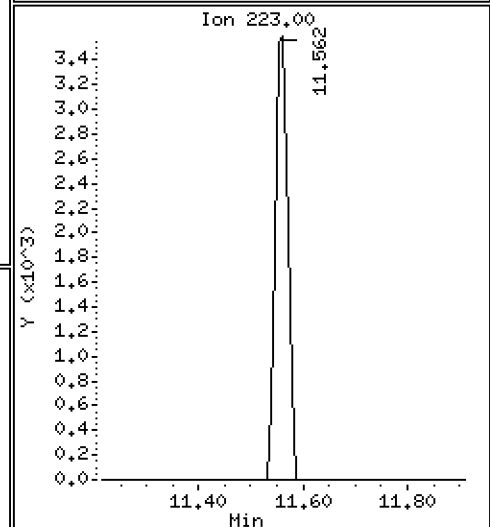
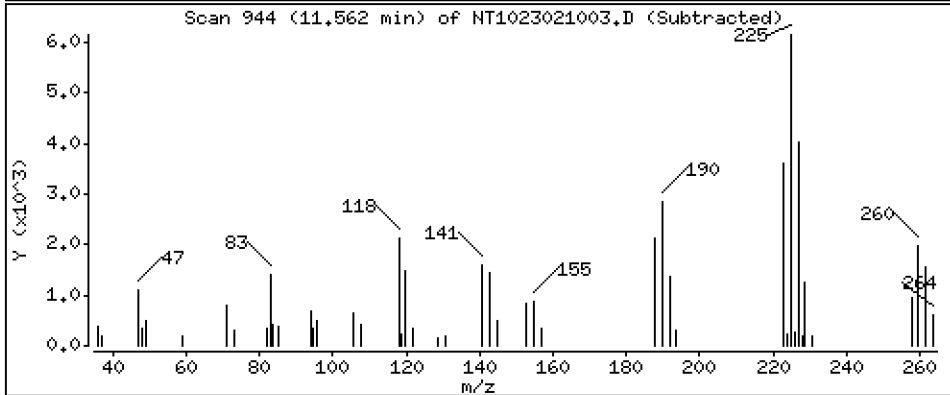
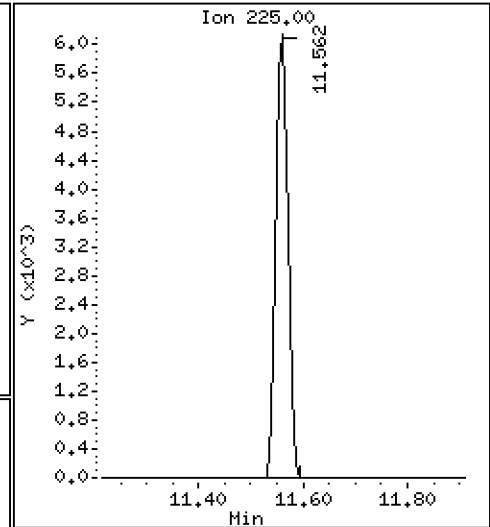
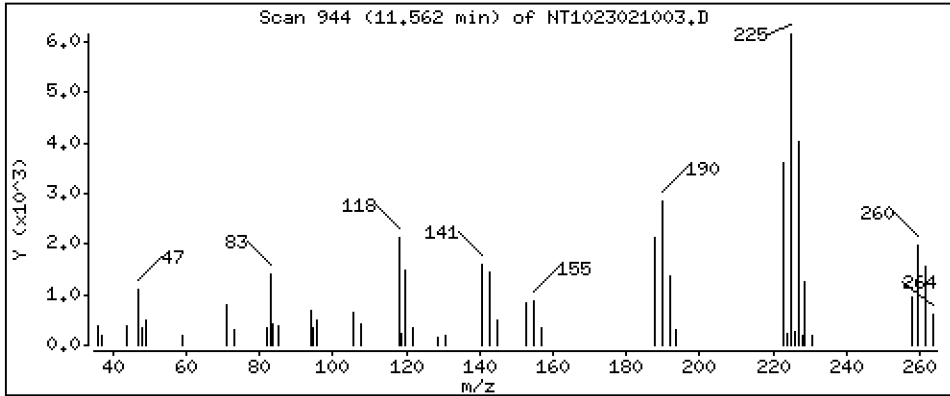
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,5489 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

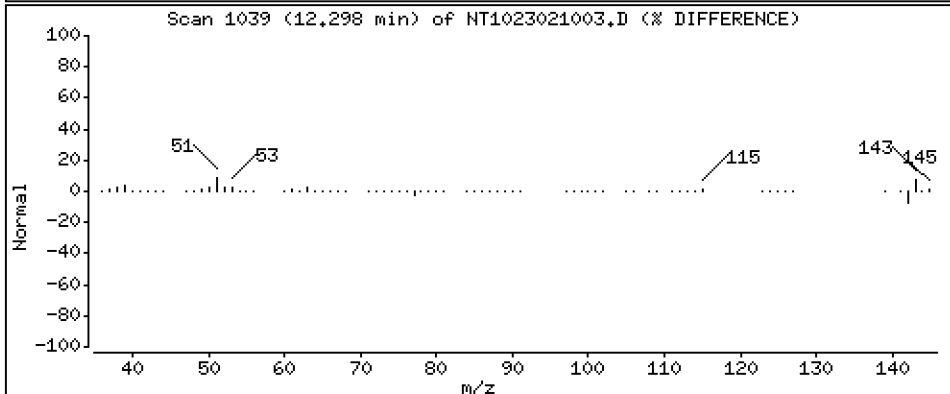
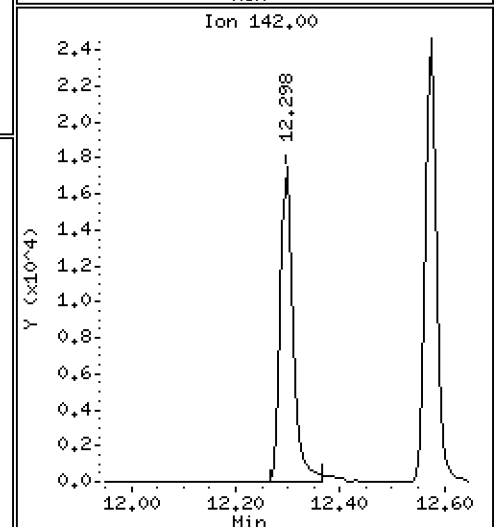
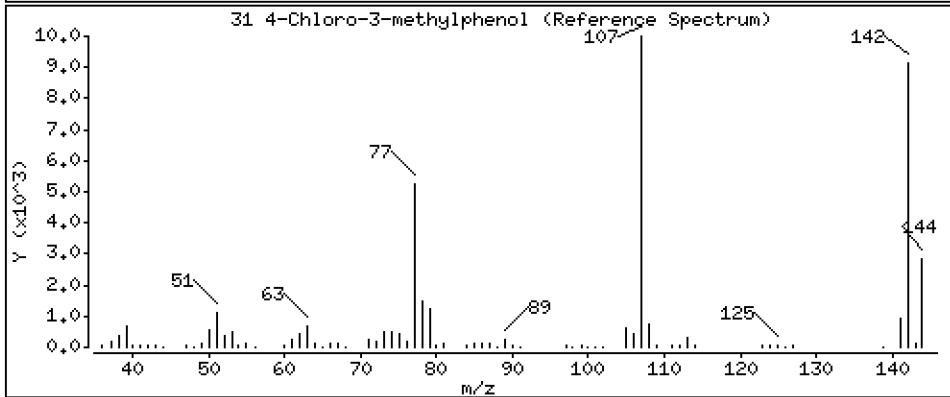
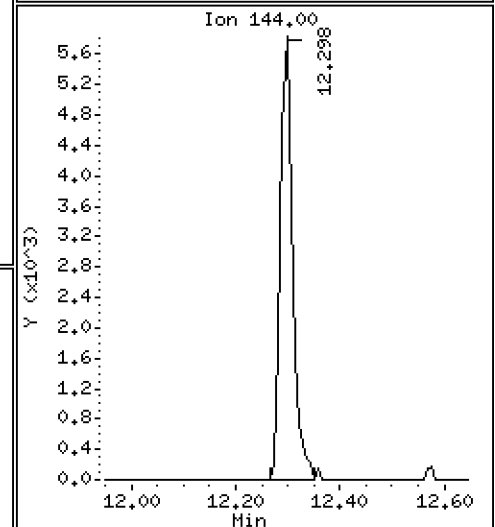
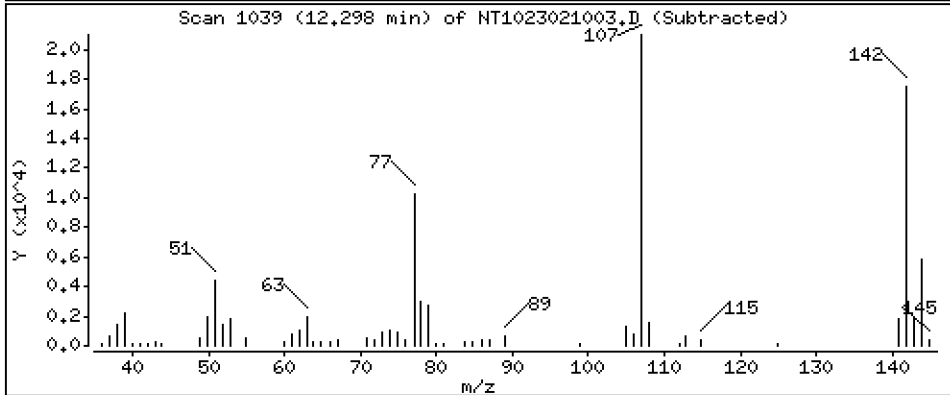
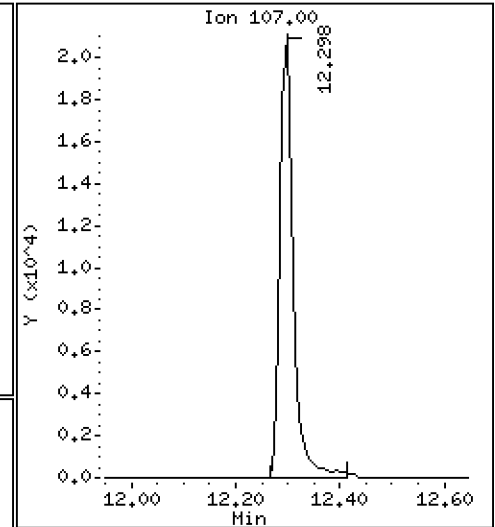
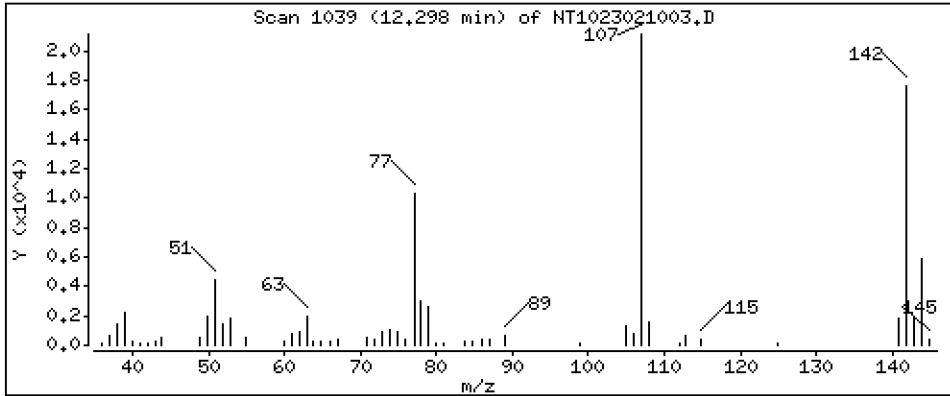
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

31 4-Chloro-3-methylphenol

Concentration: 1.071 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

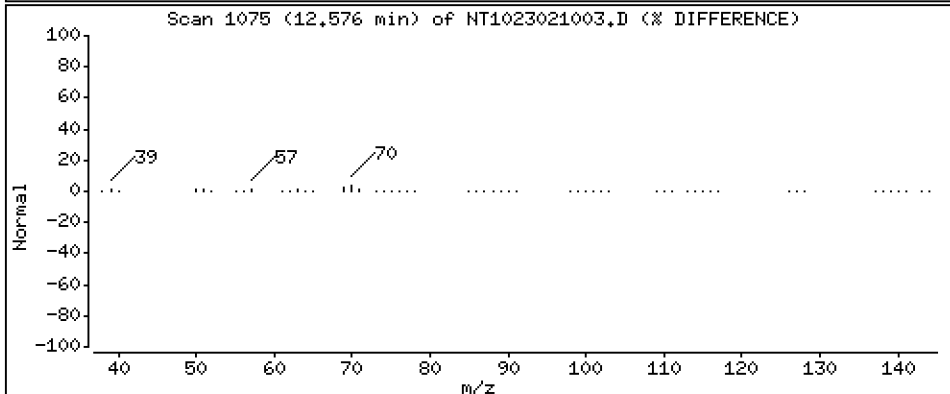
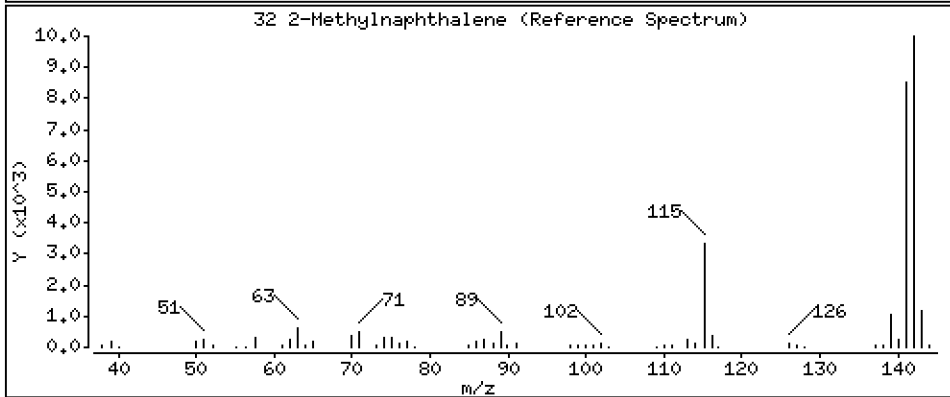
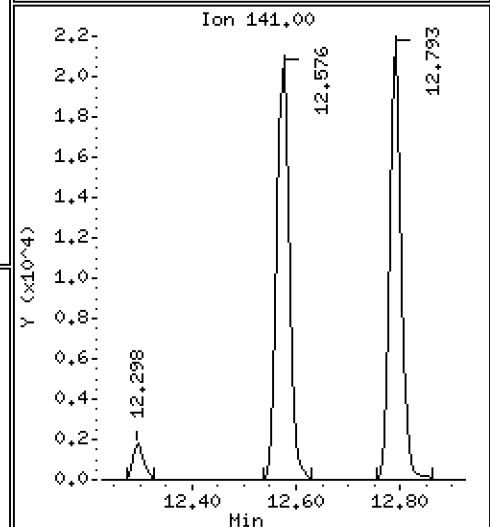
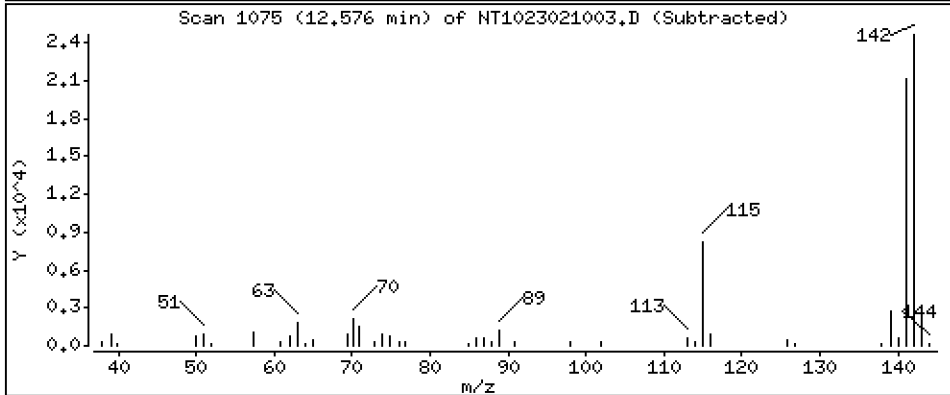
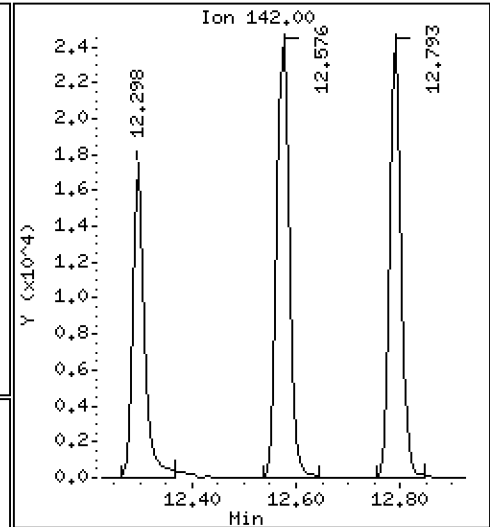
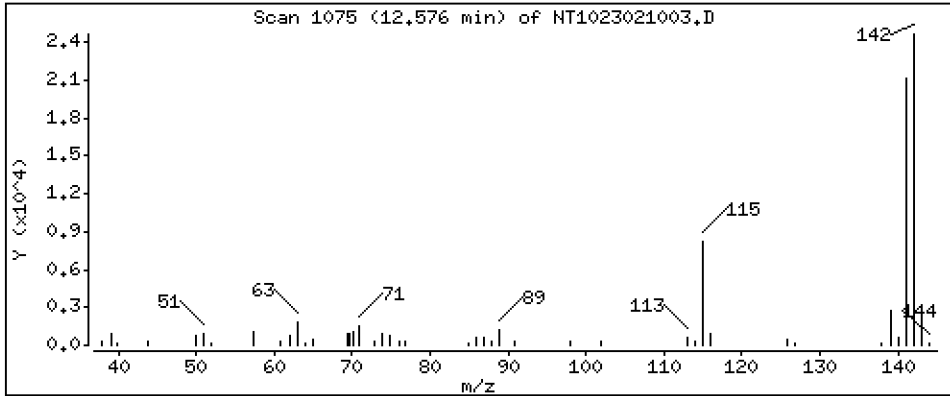
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,5132 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

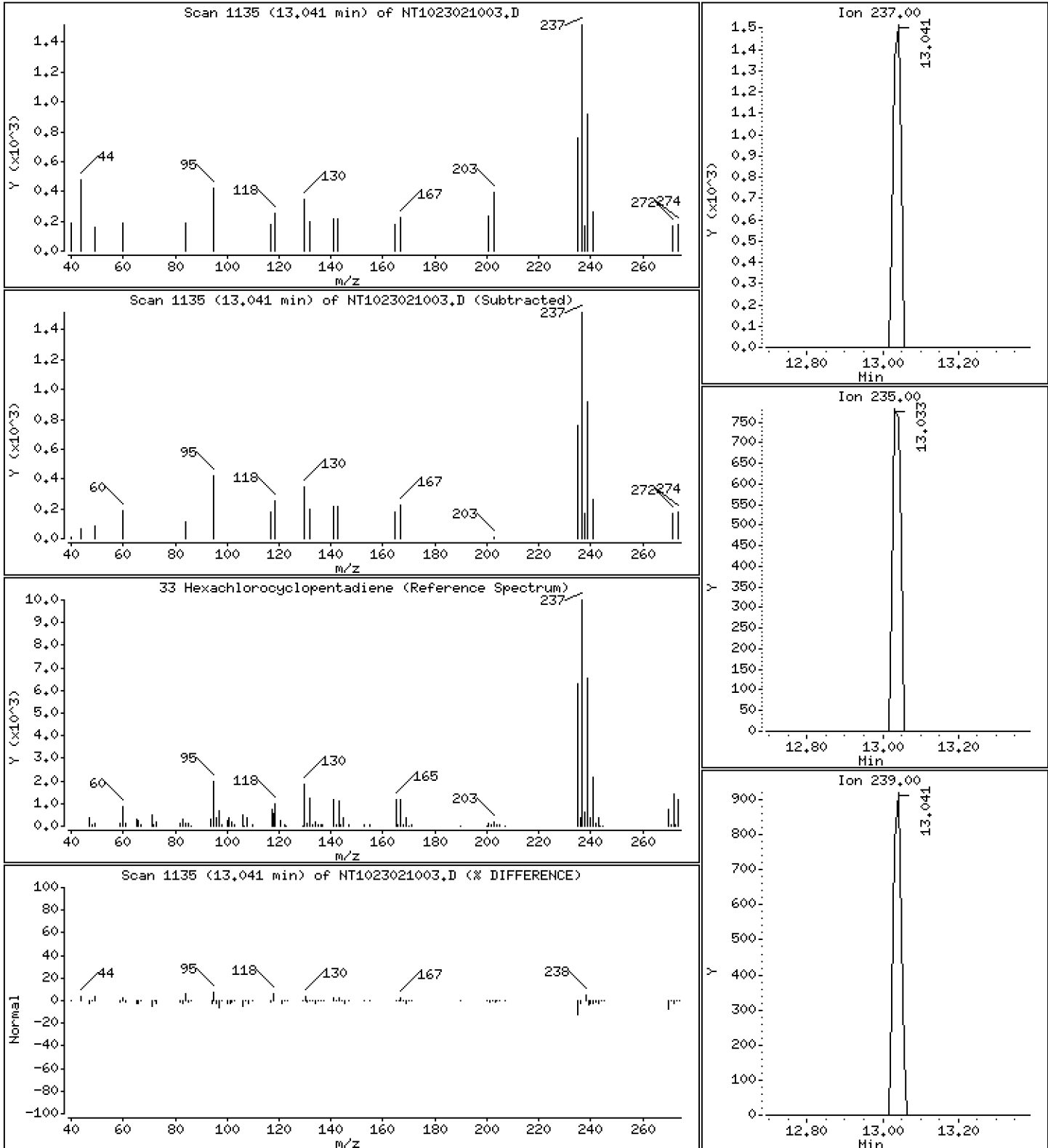
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 0,1502 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

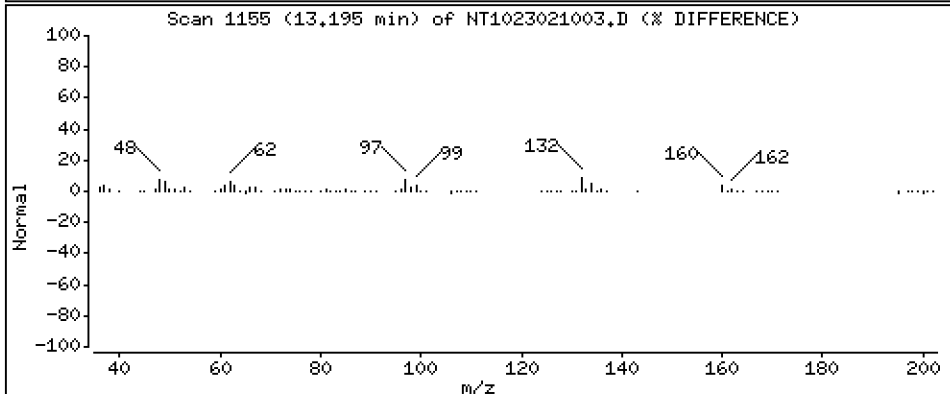
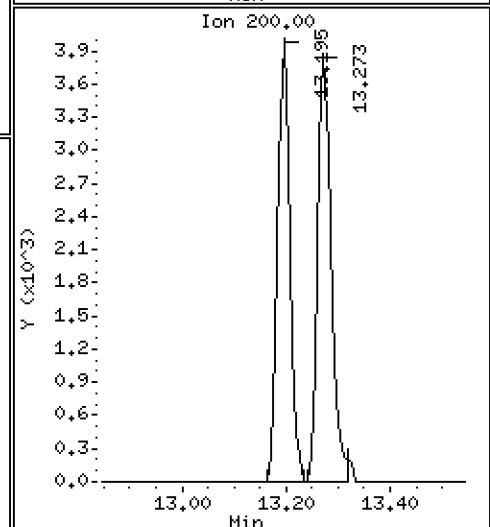
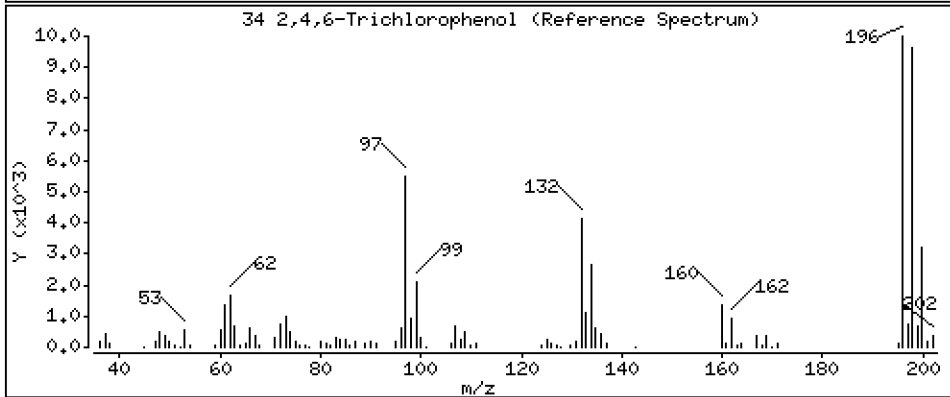
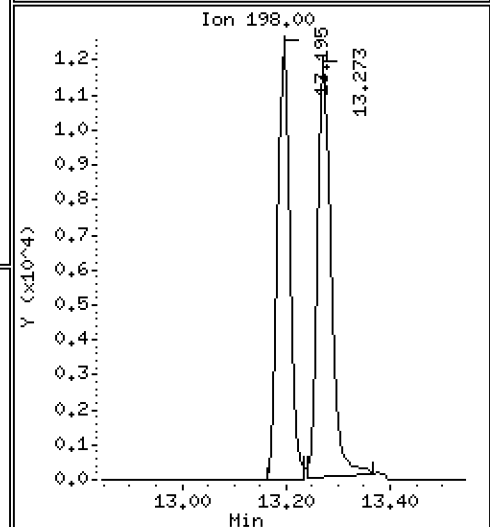
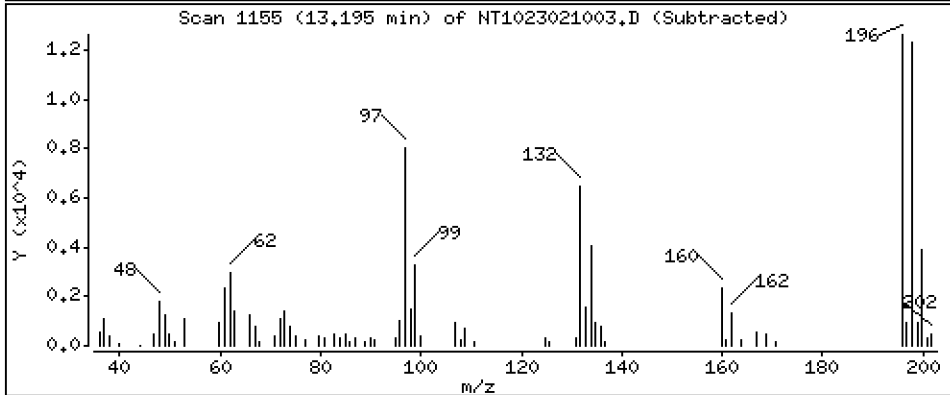
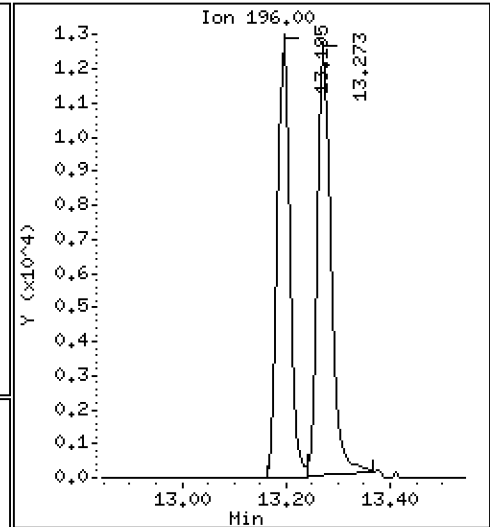
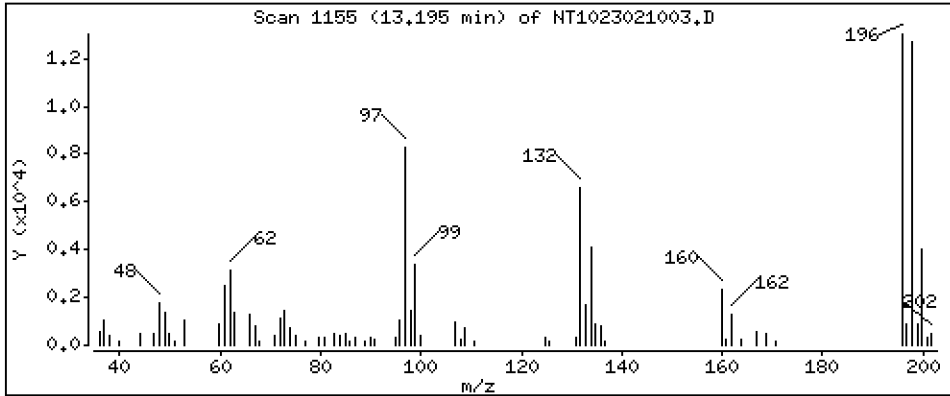
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 1,048 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

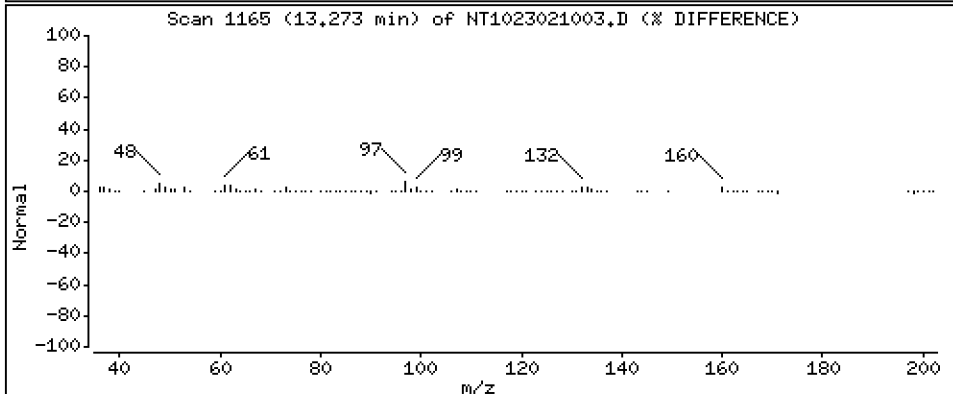
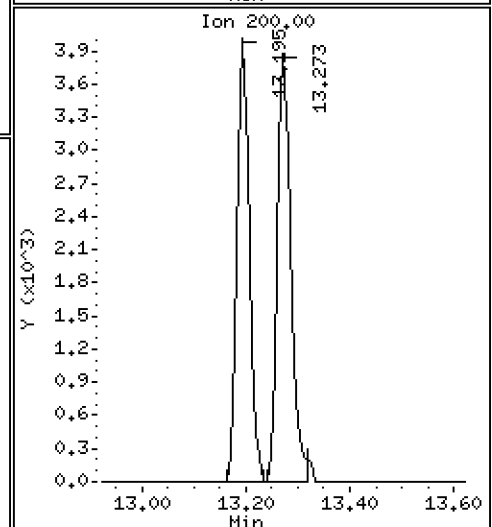
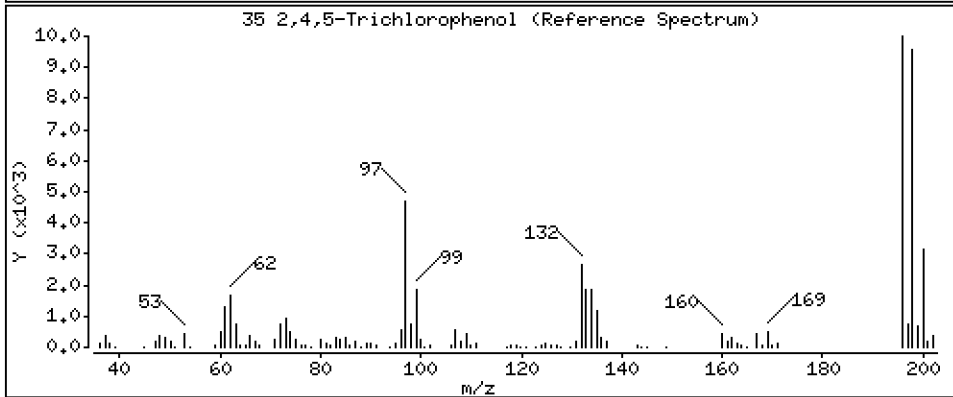
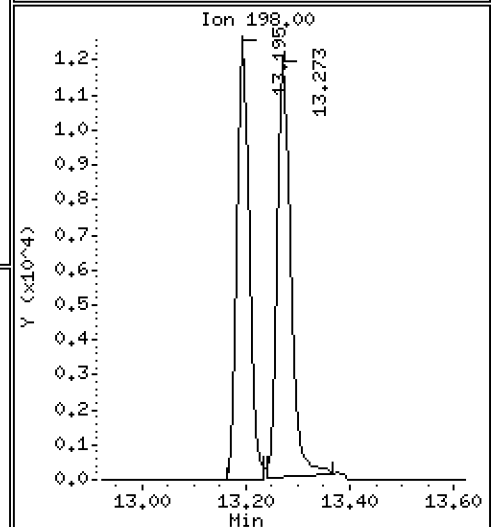
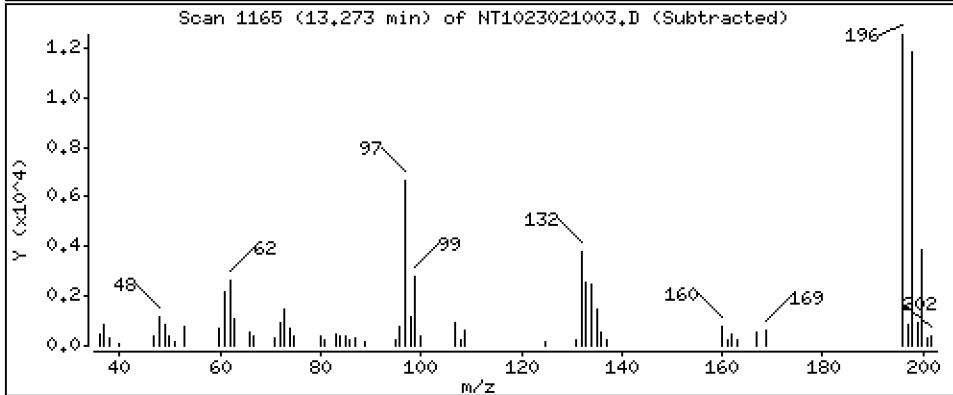
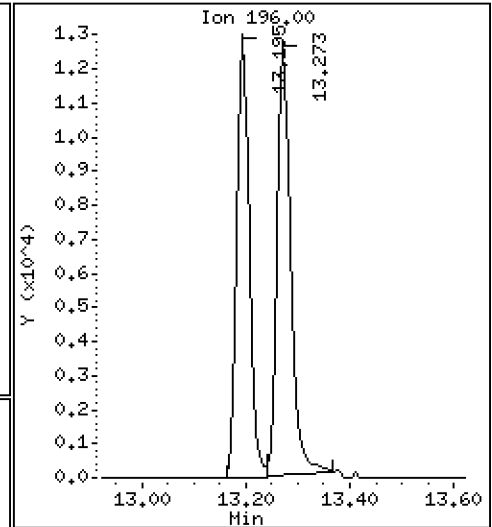
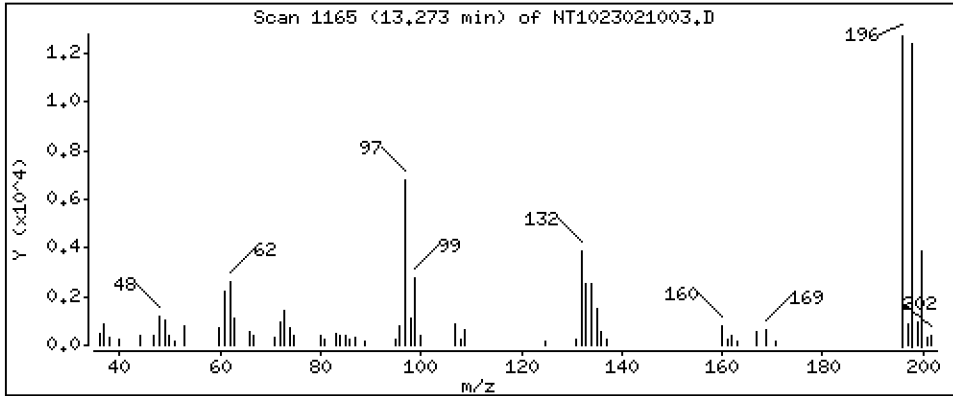
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 1,021 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

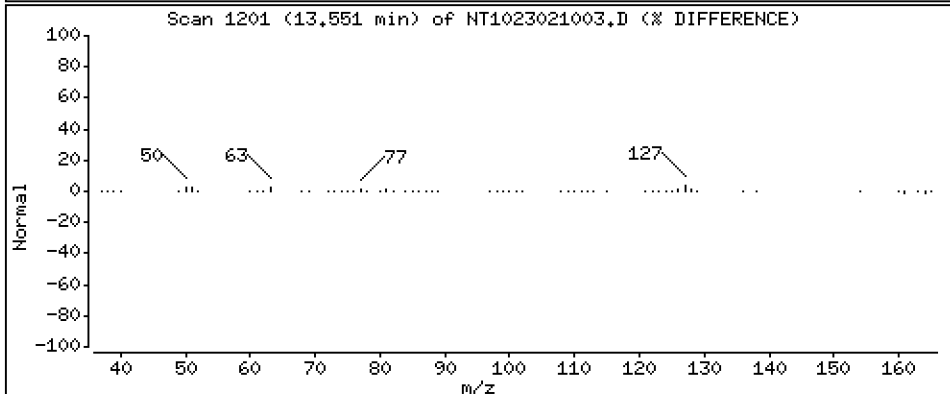
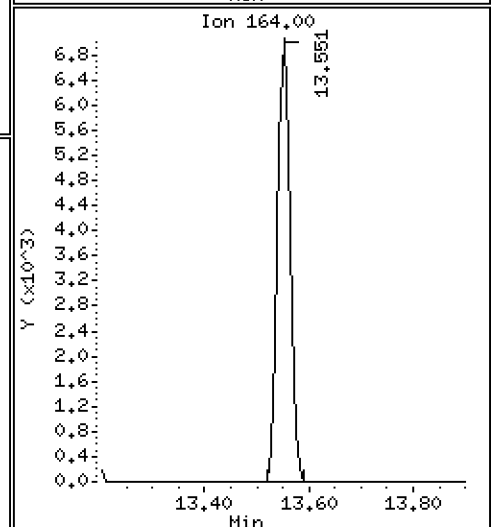
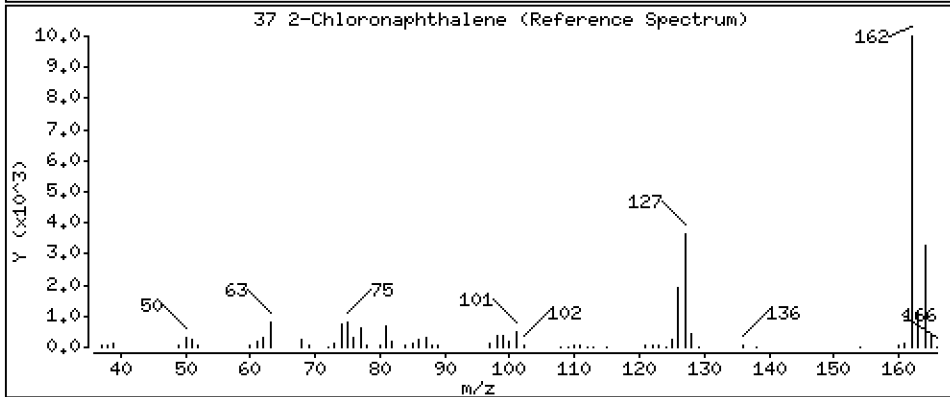
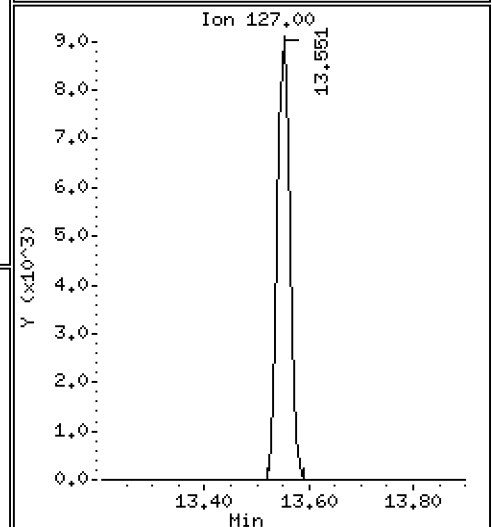
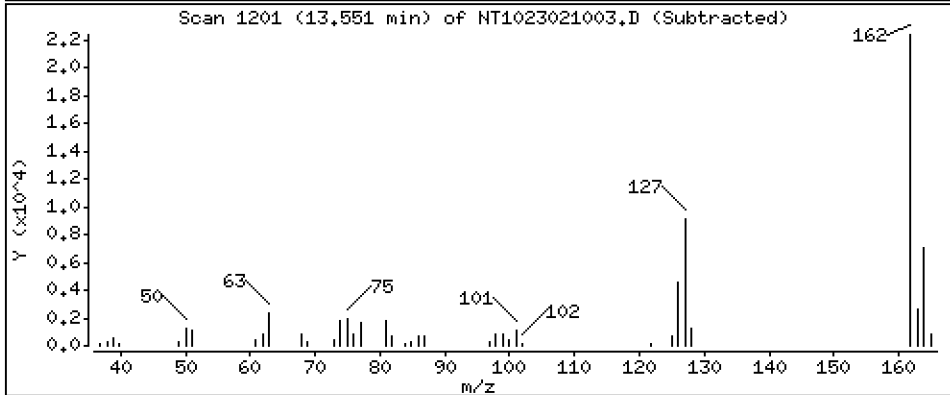
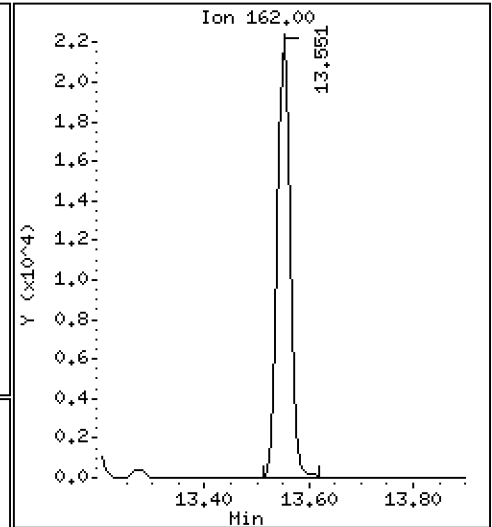
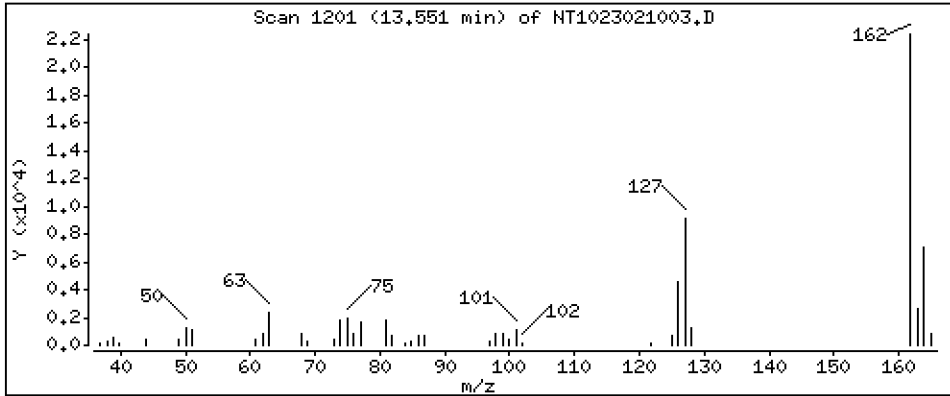
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 0,5336 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

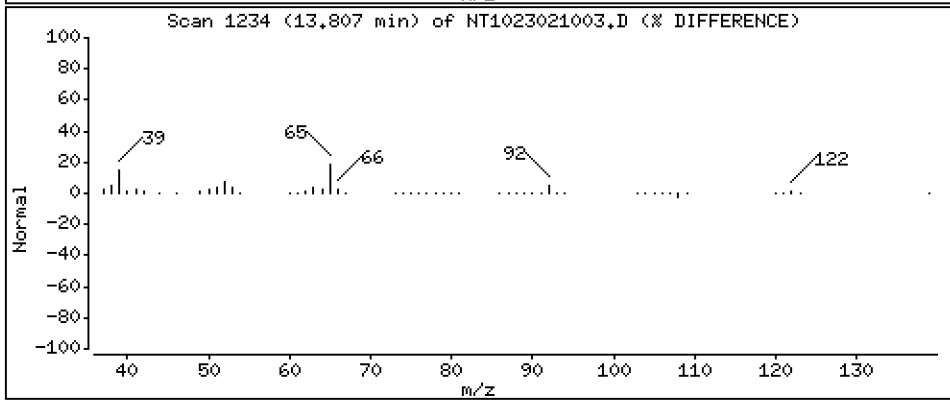
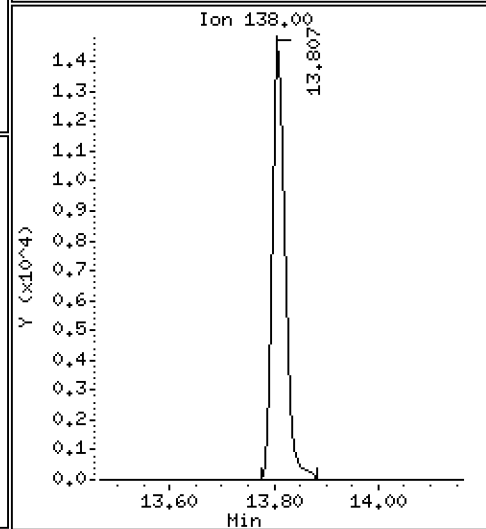
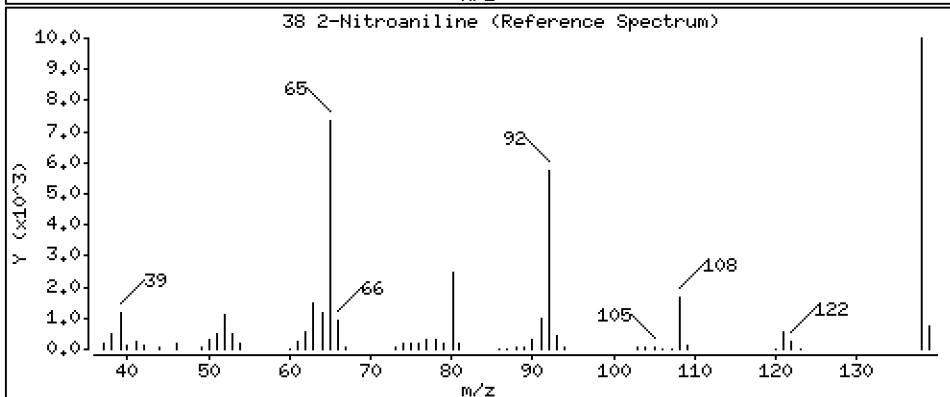
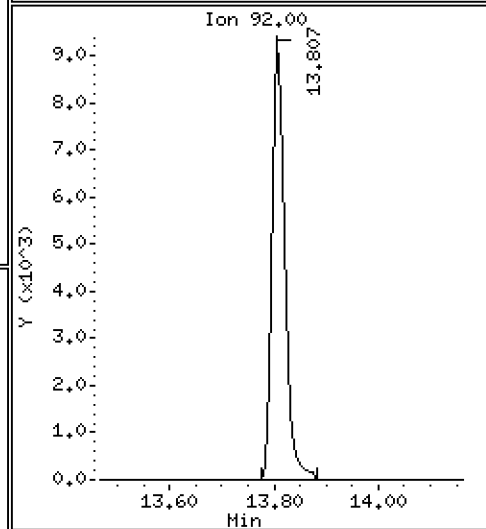
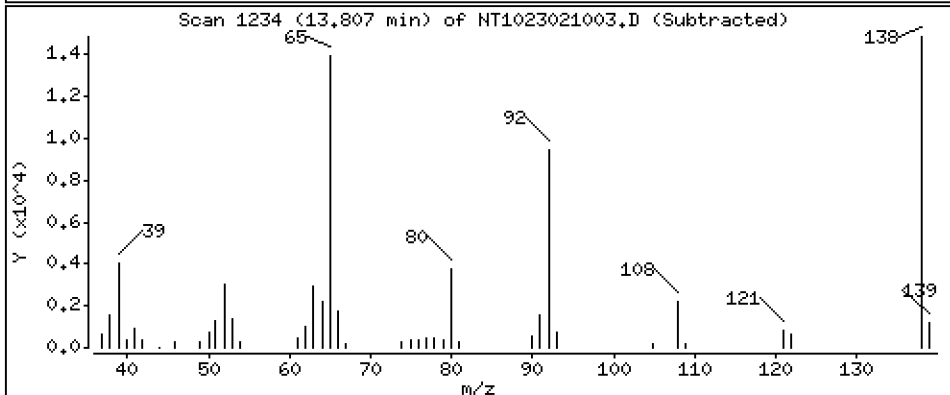
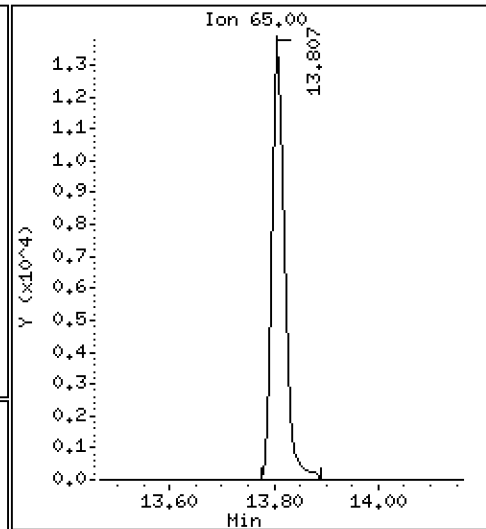
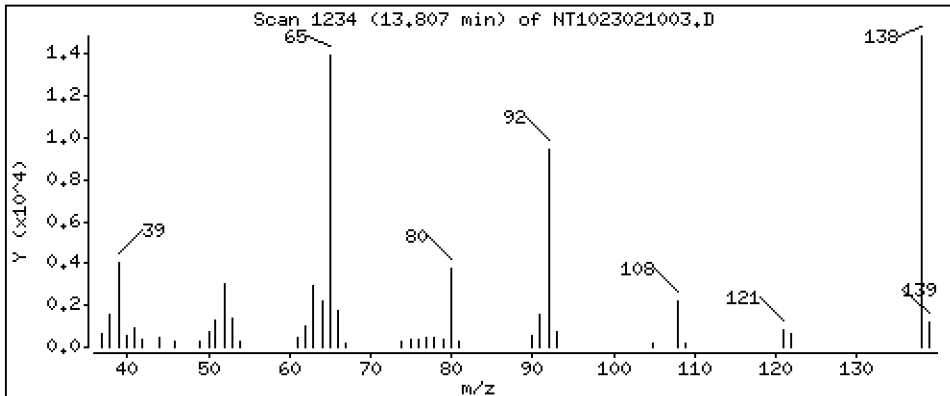
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

38 2-Nitroaniline

Concentration: 1.065 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

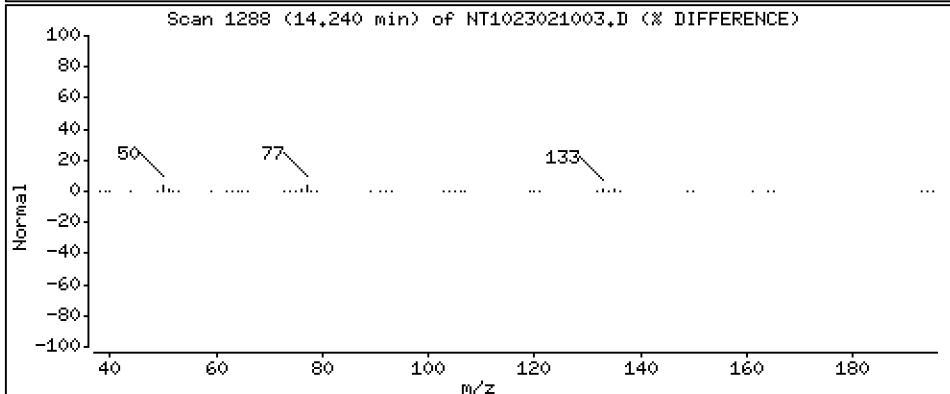
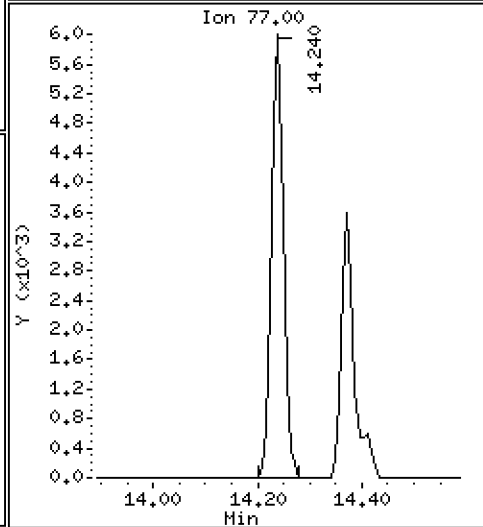
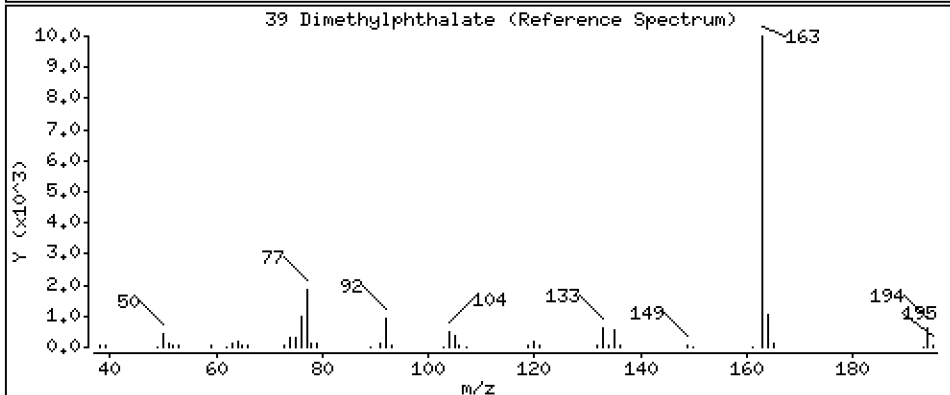
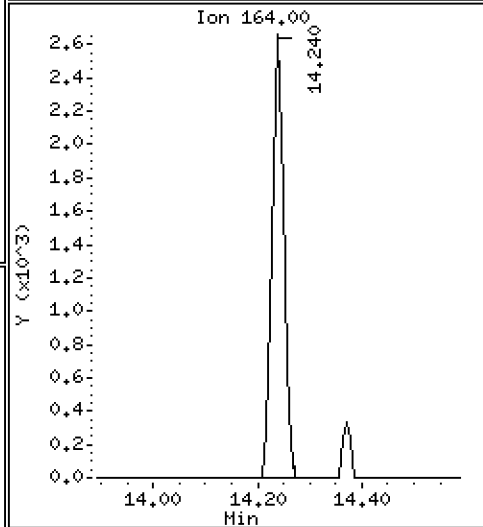
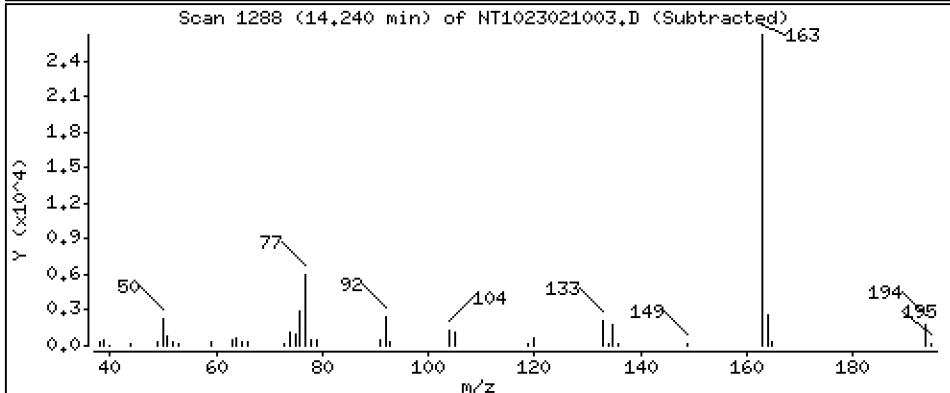
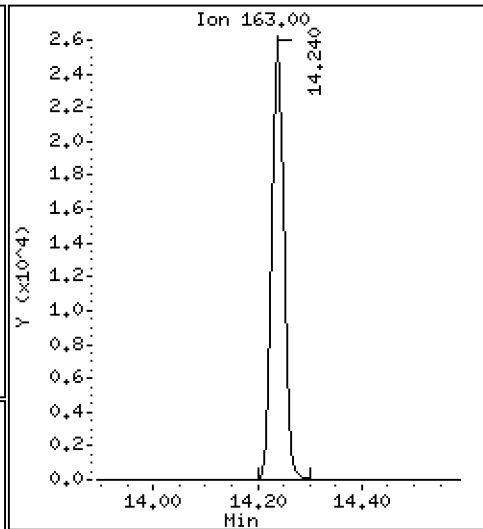
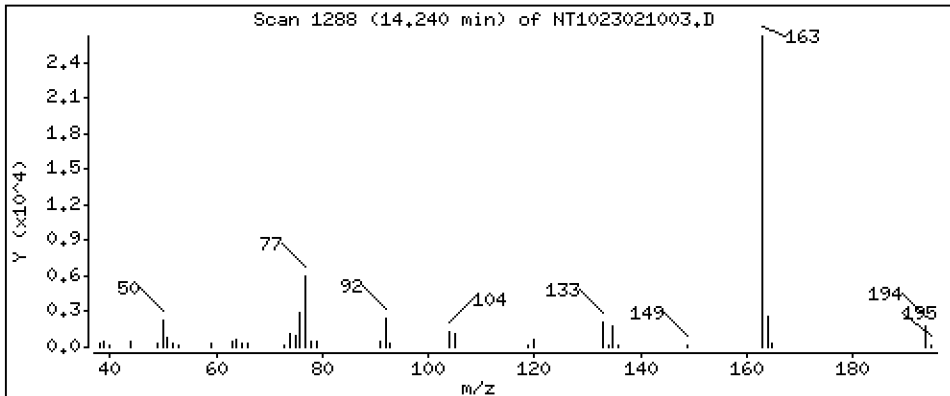
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,5479 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

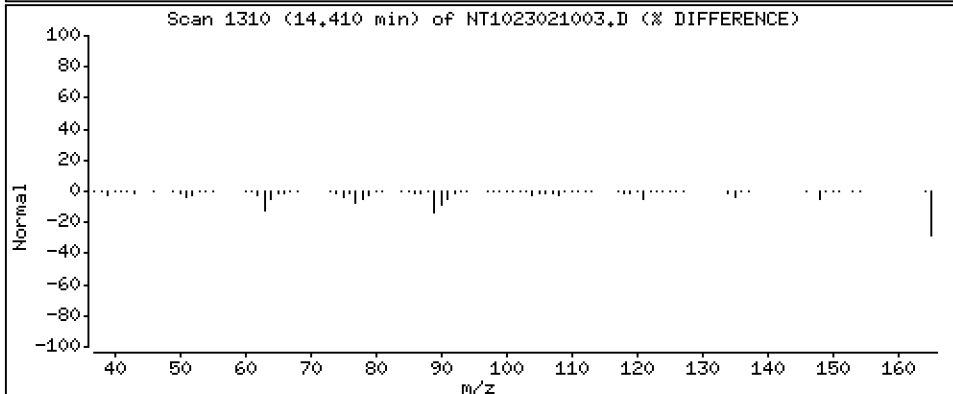
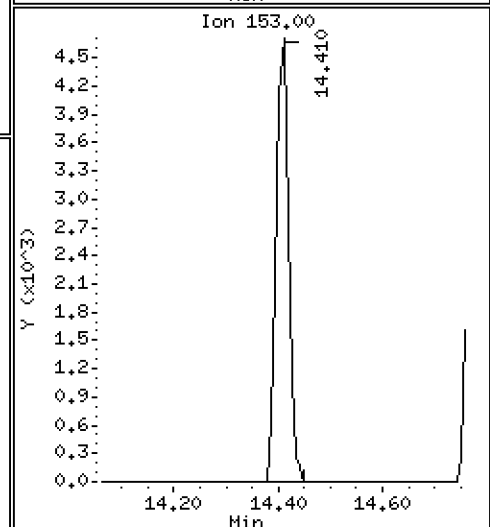
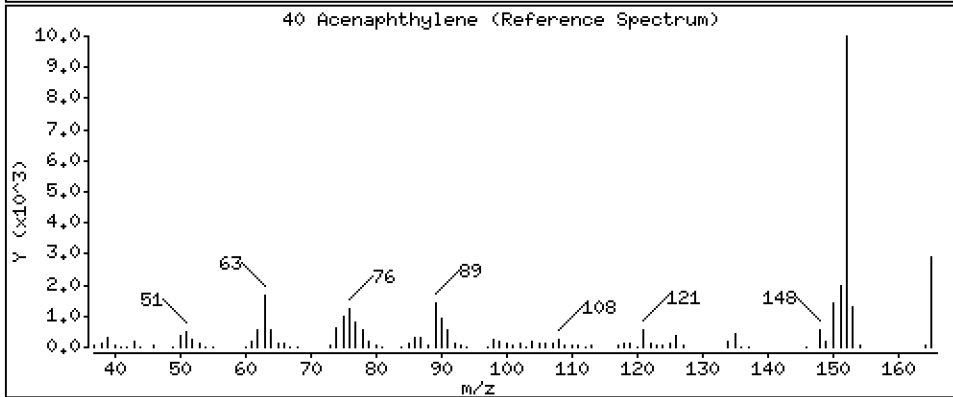
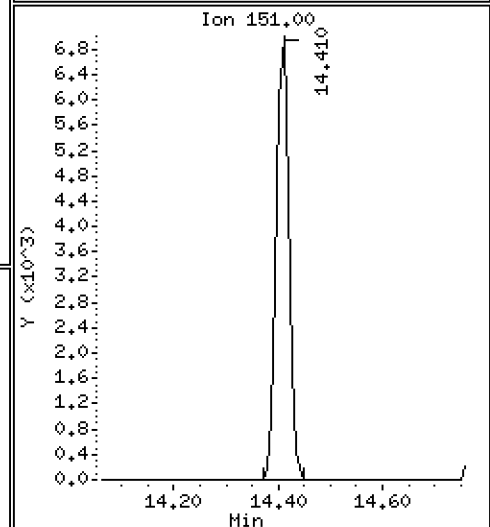
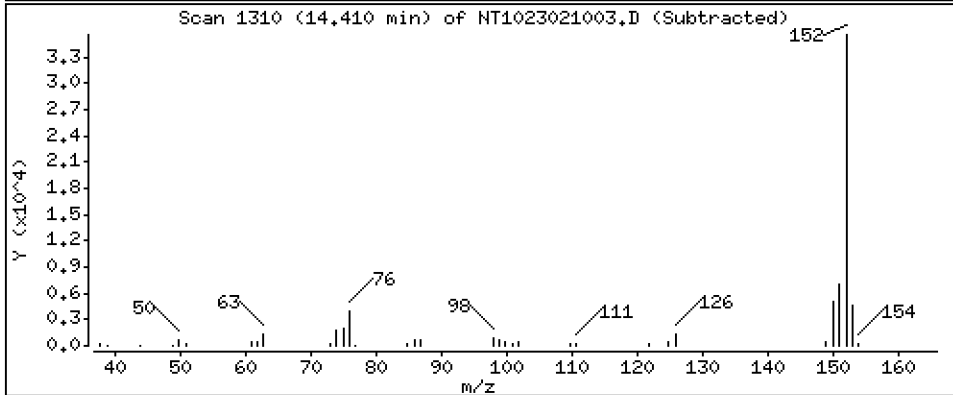
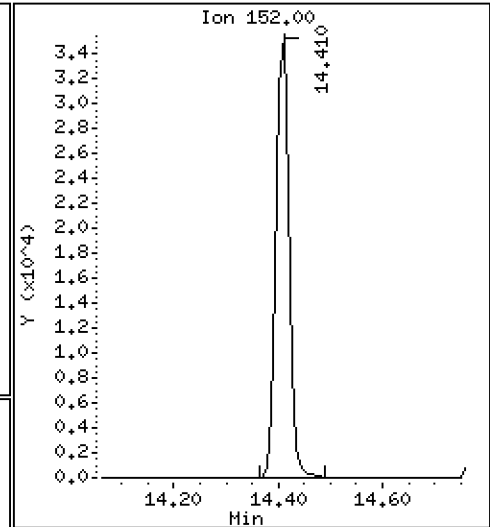
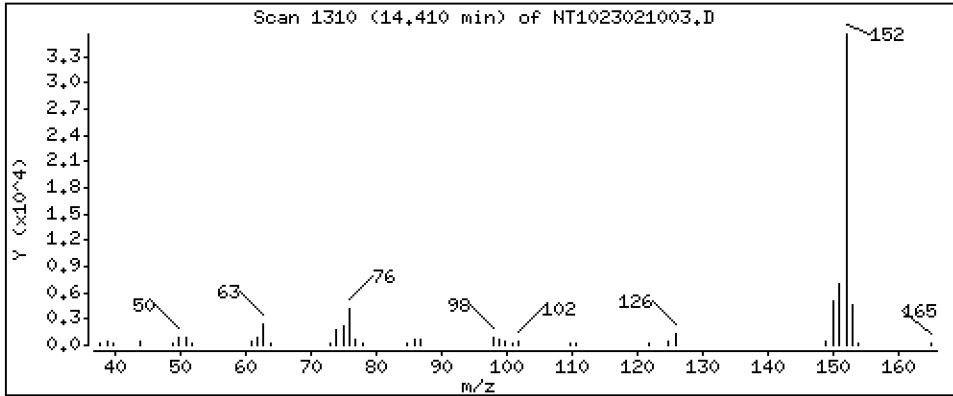
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,5405 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

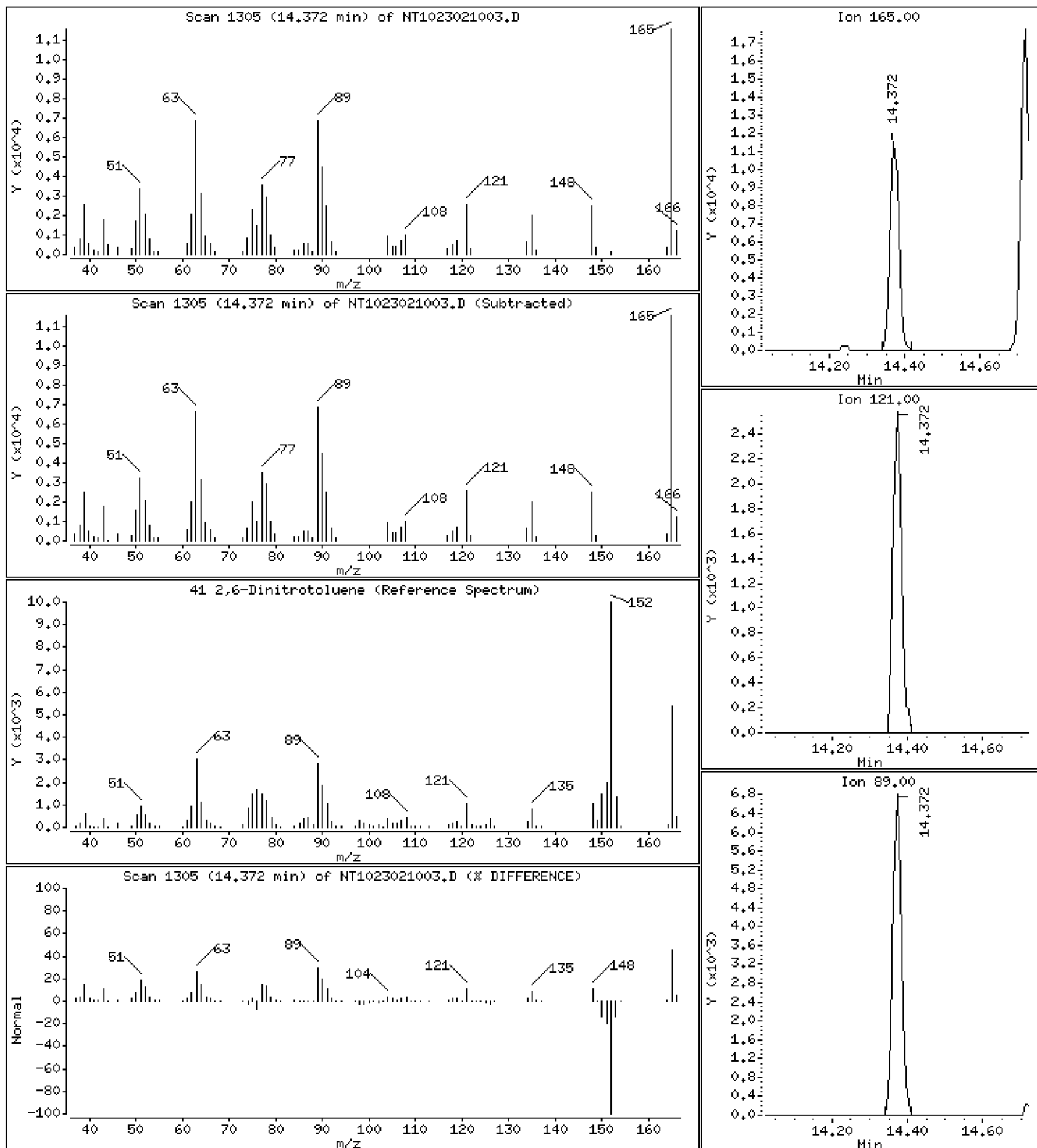
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 1.038 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

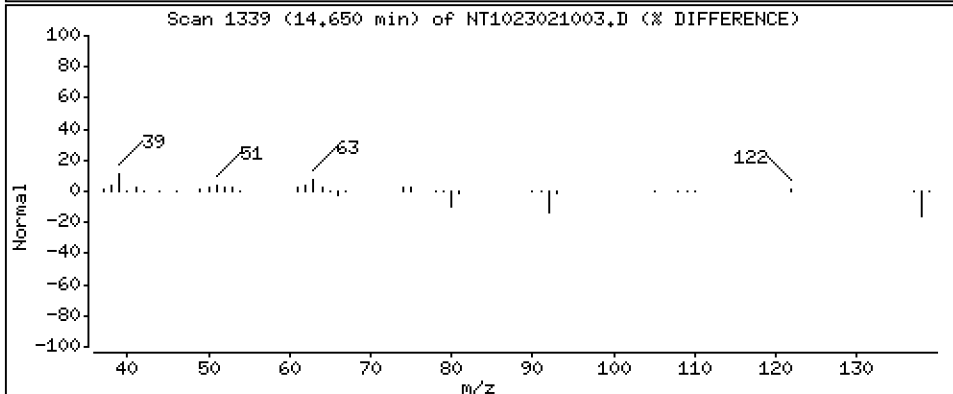
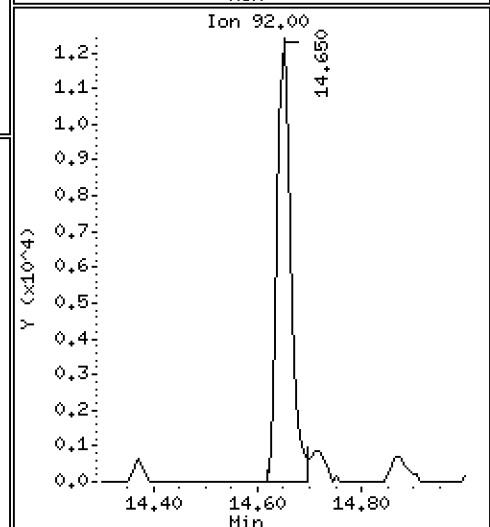
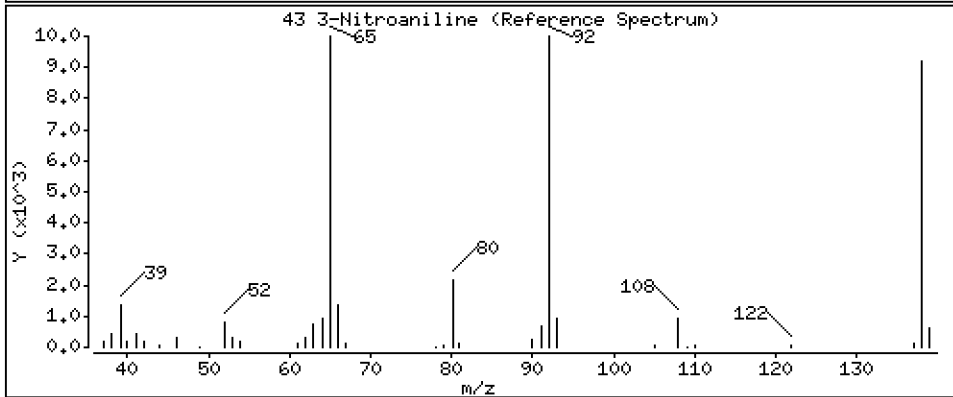
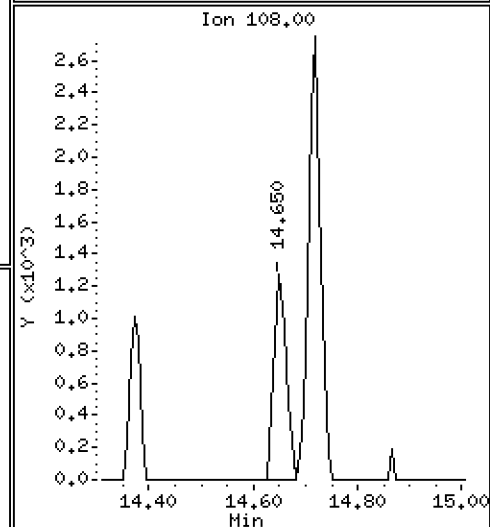
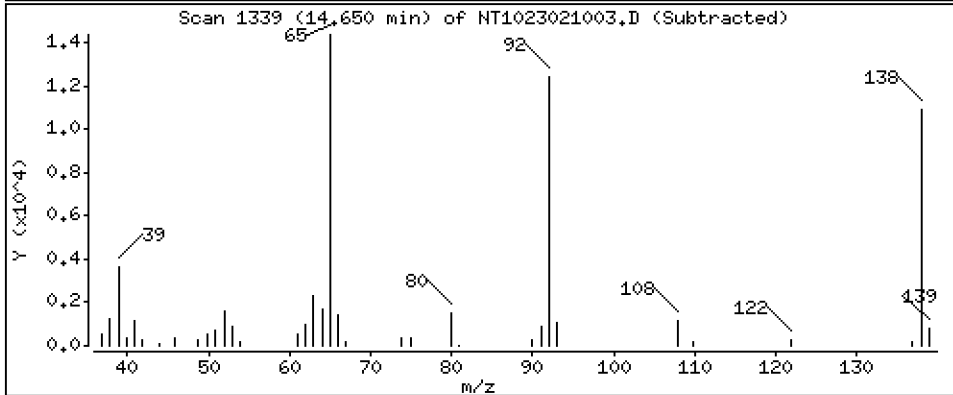
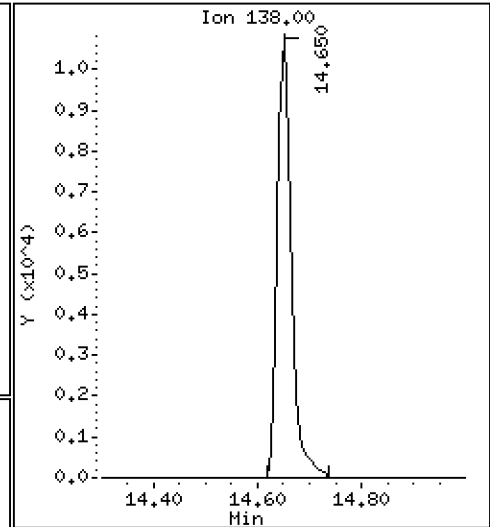
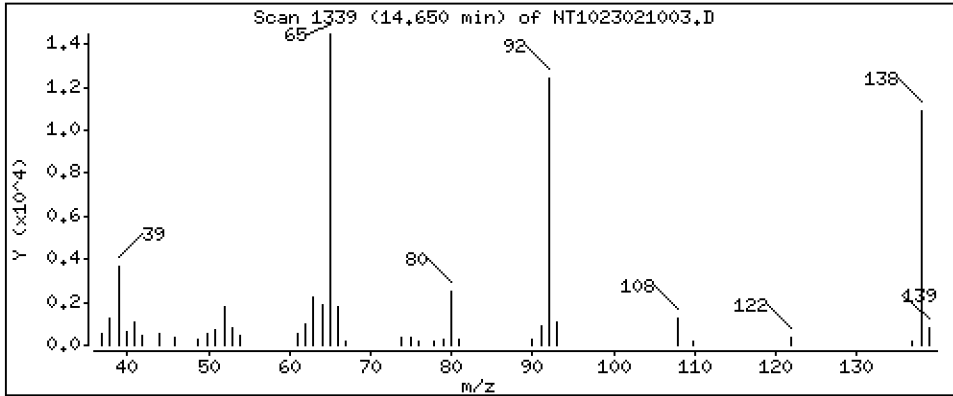
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

43 3-Nitroaniline

Concentration: 0.9747 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

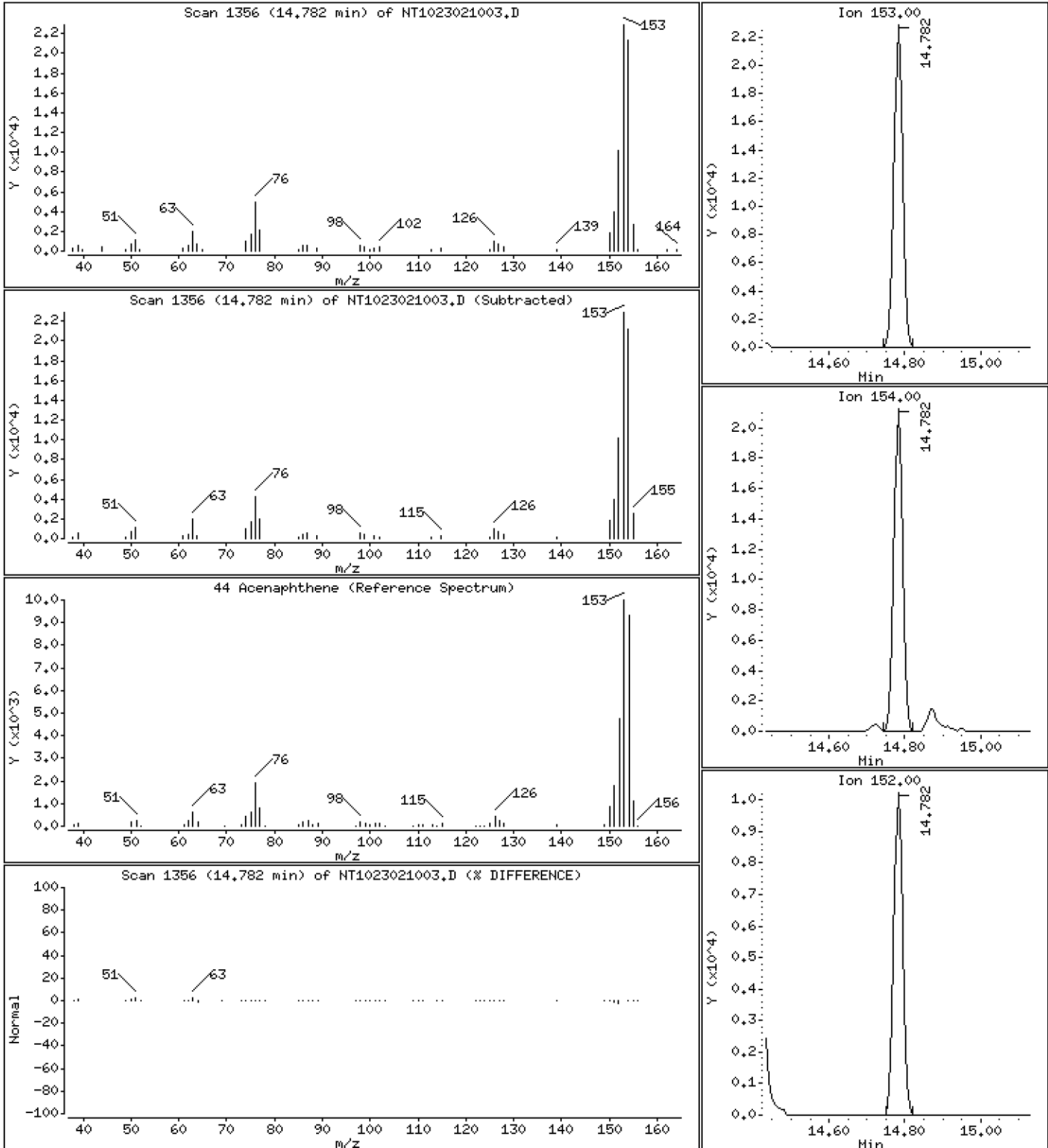
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,5213 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

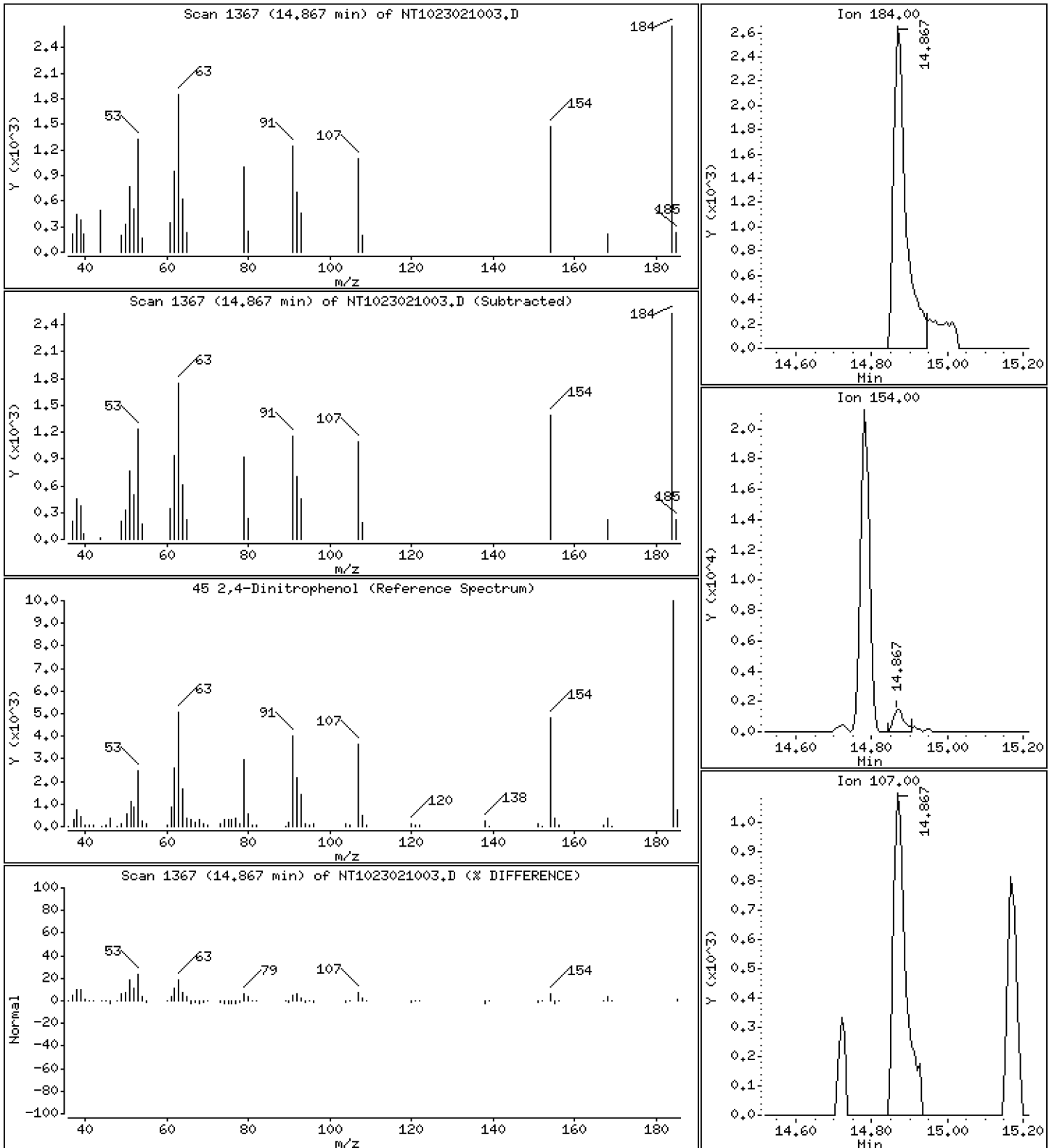
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,6690 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

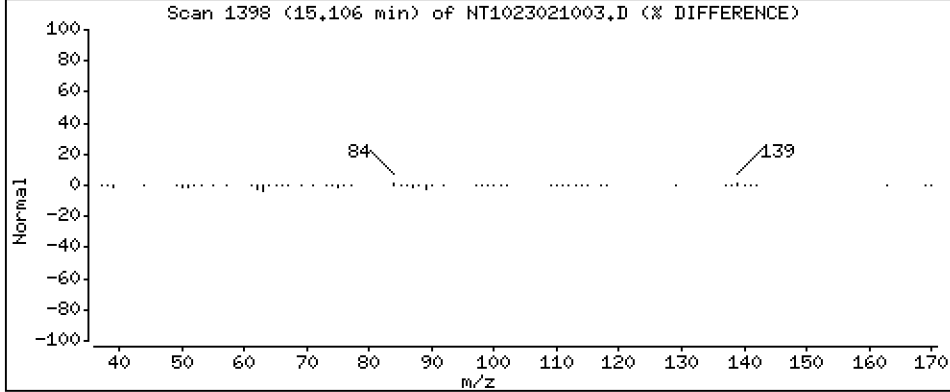
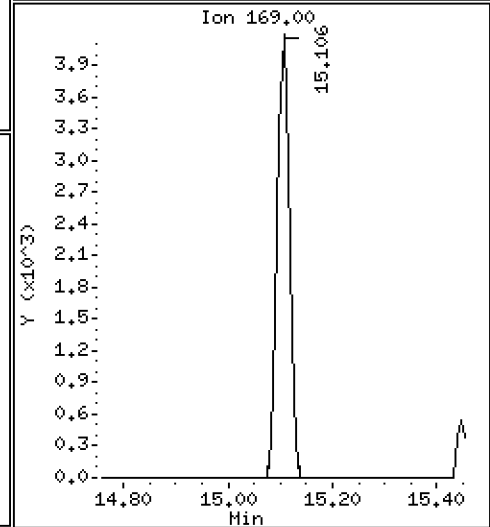
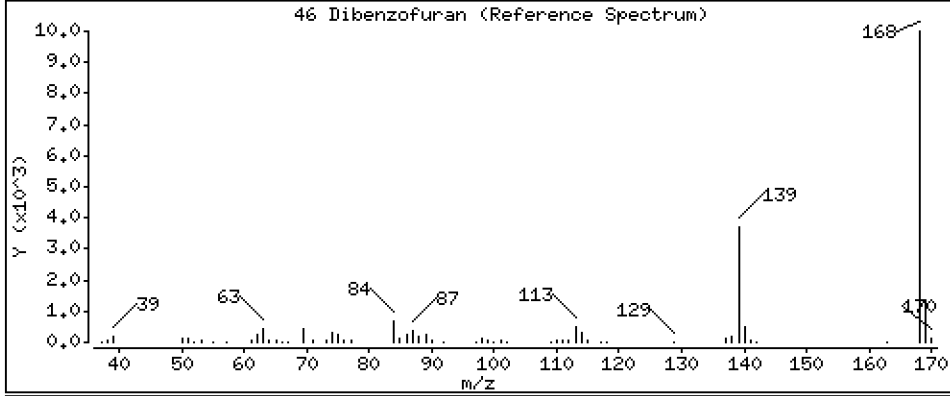
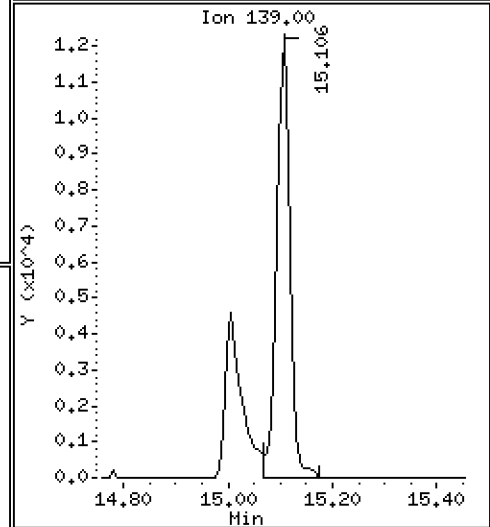
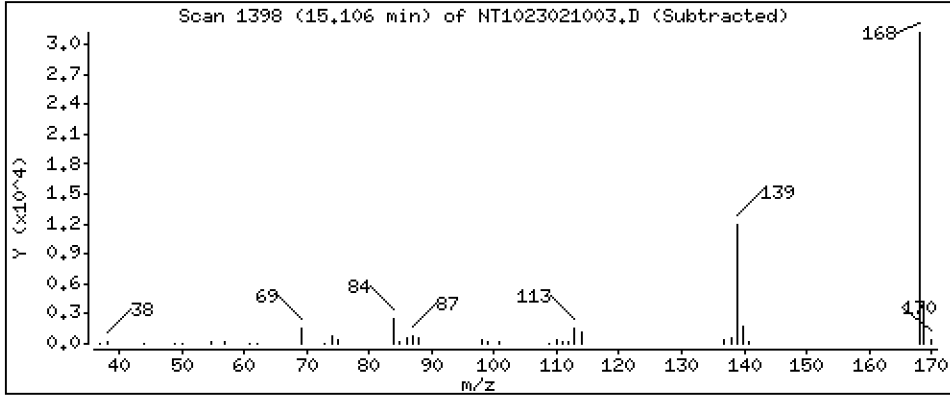
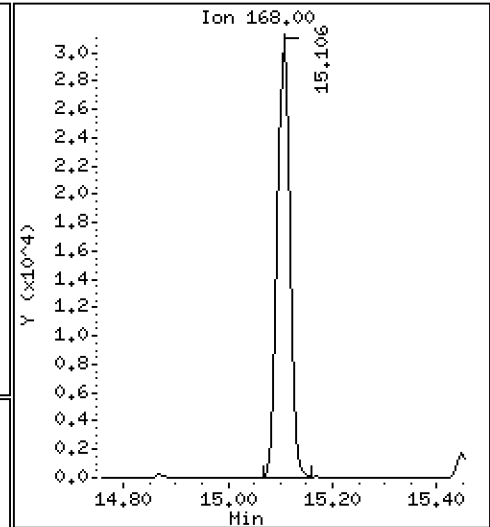
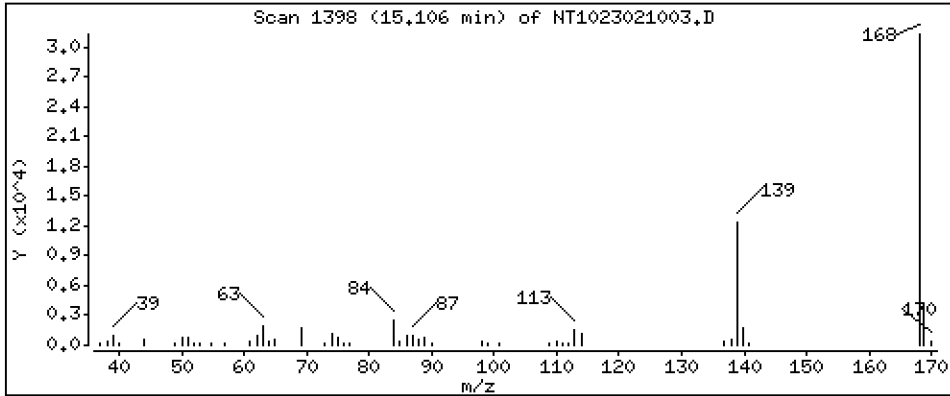
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

46 Dibenzofuran

Concentration: 0.5200 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

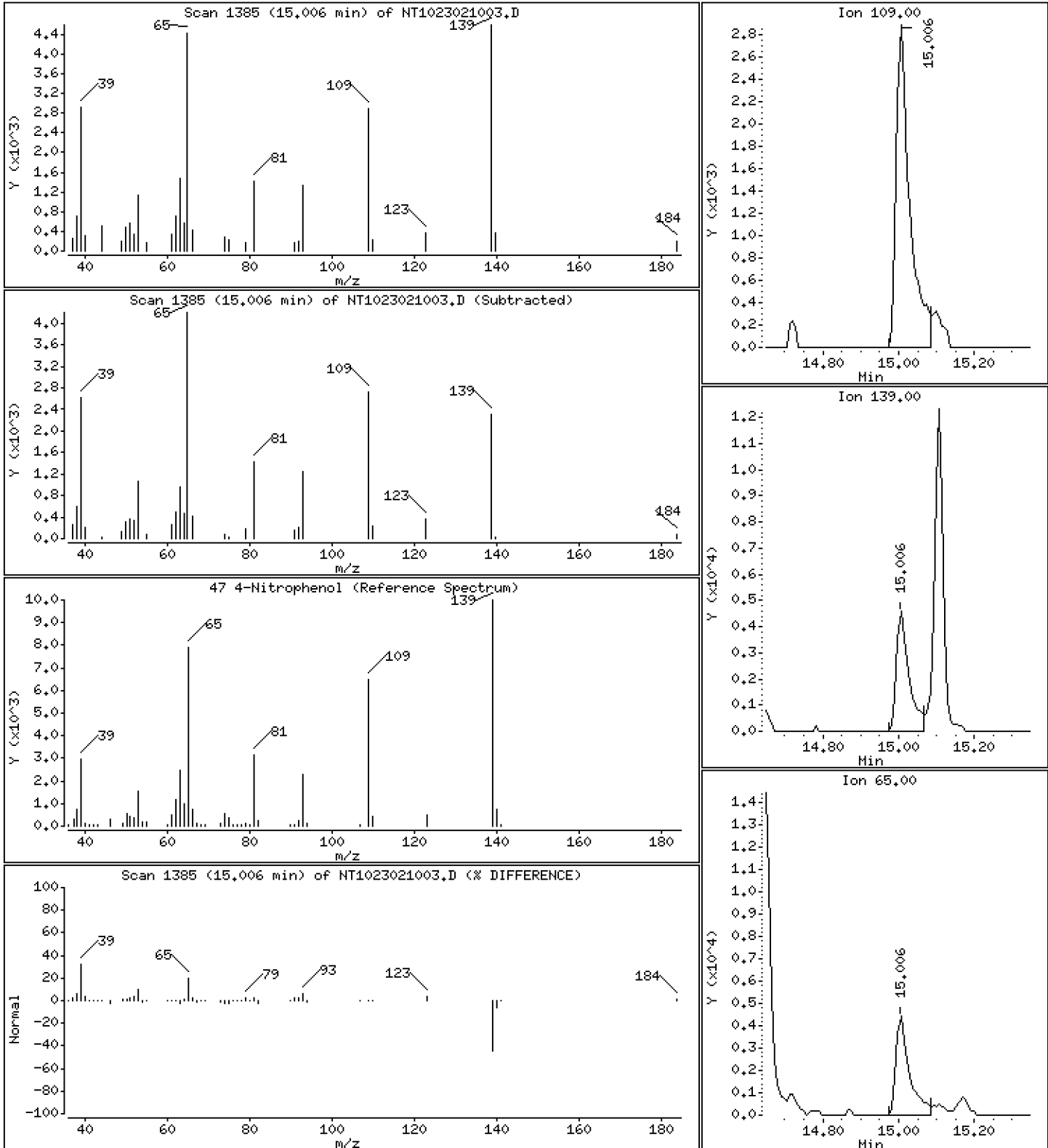
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 0,9466 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

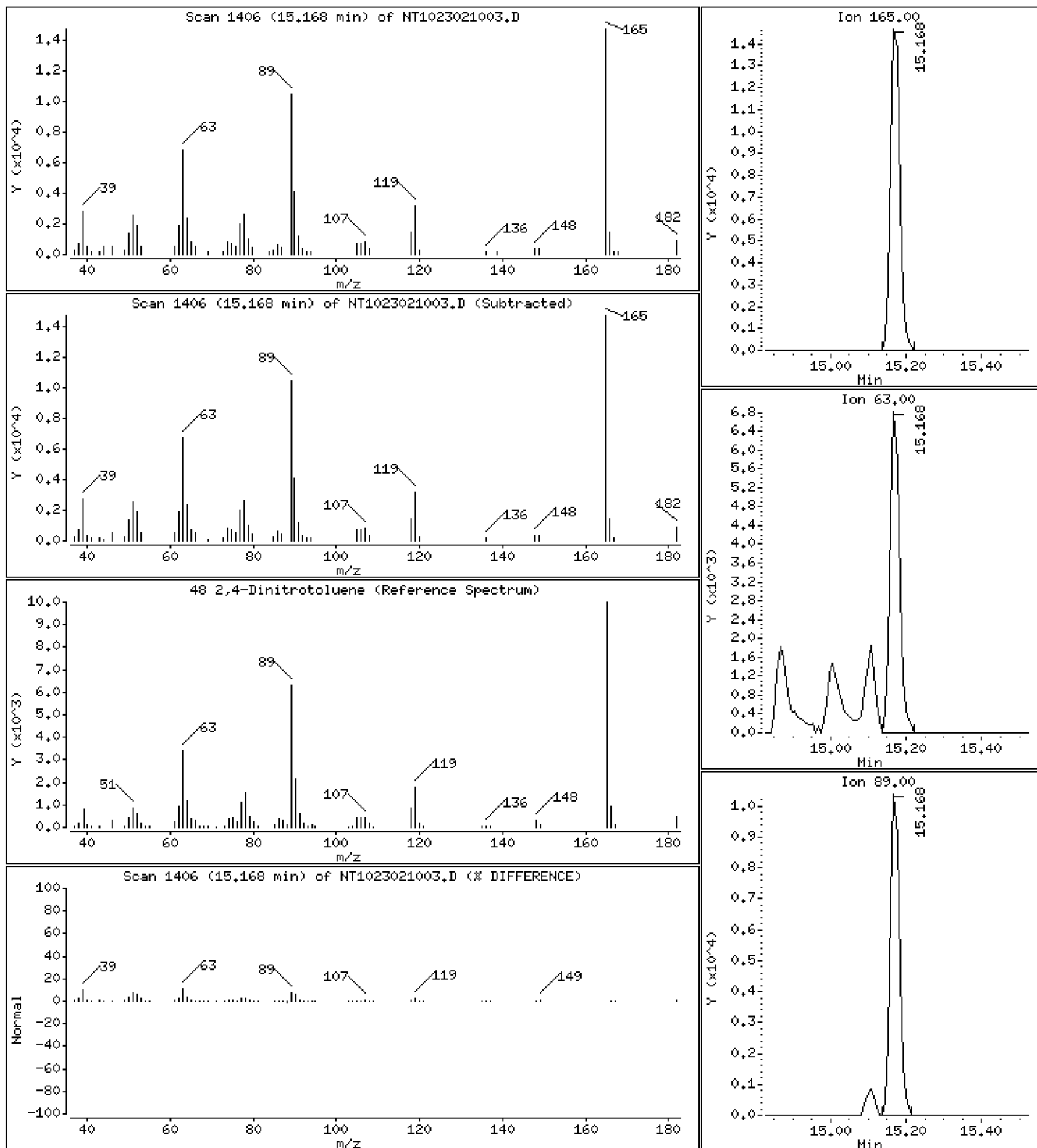
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 1,013 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

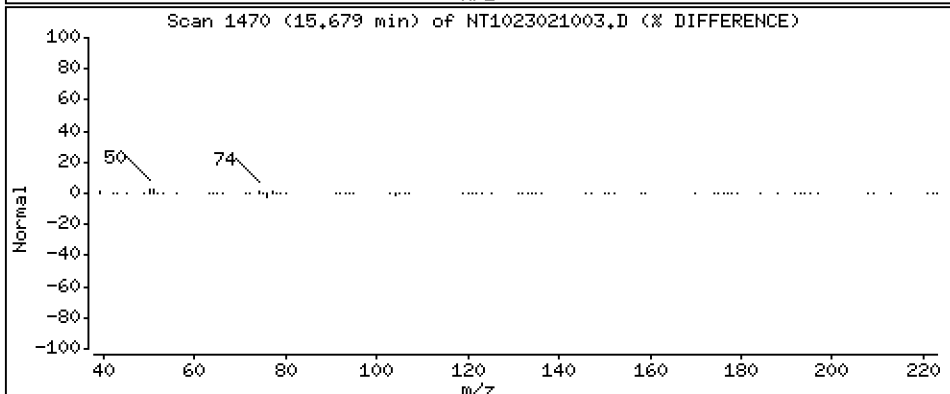
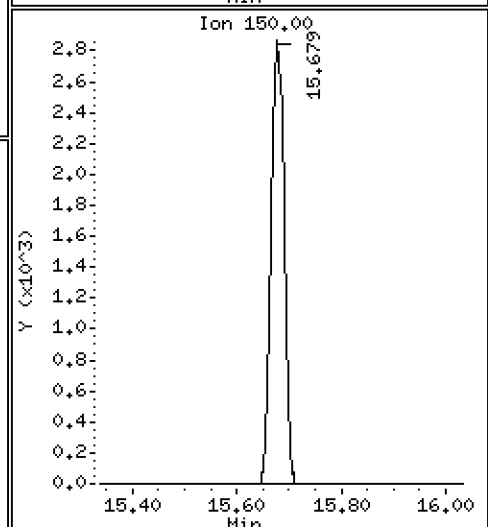
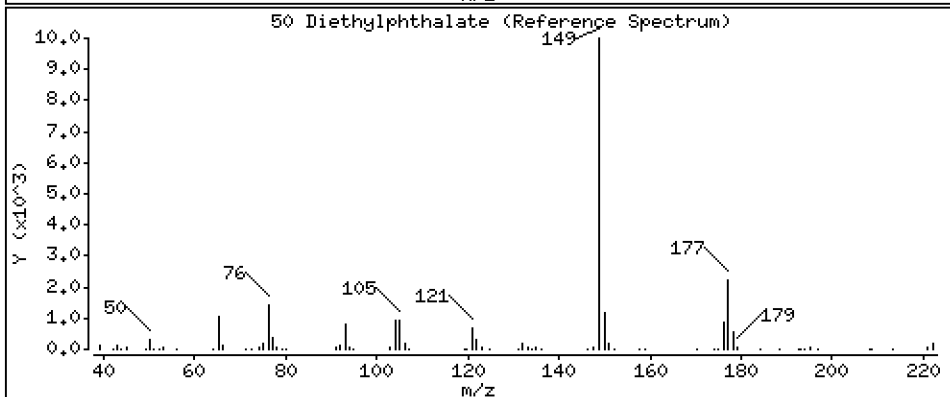
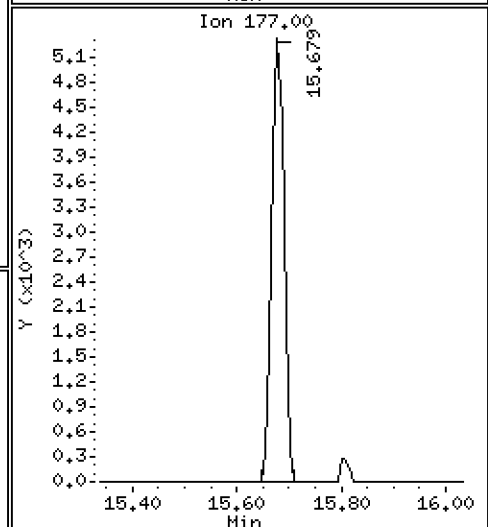
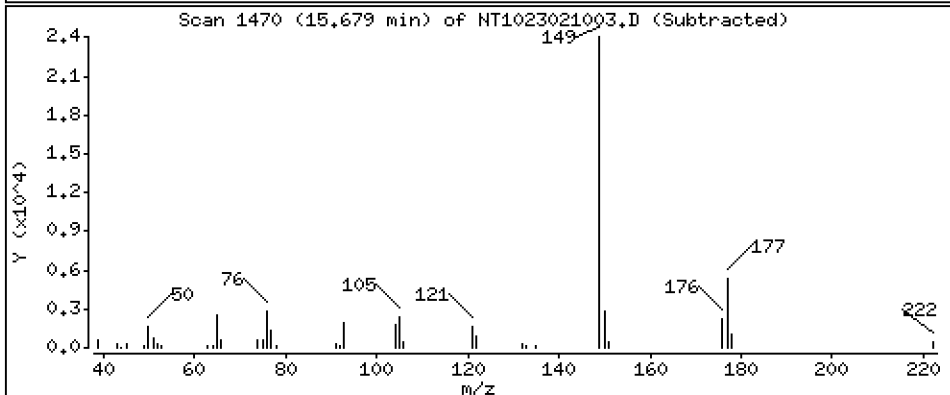
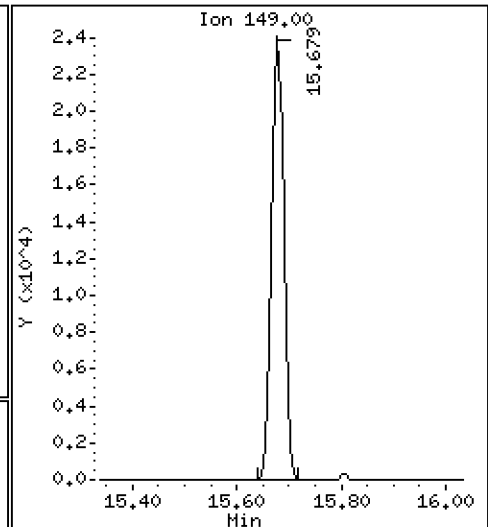
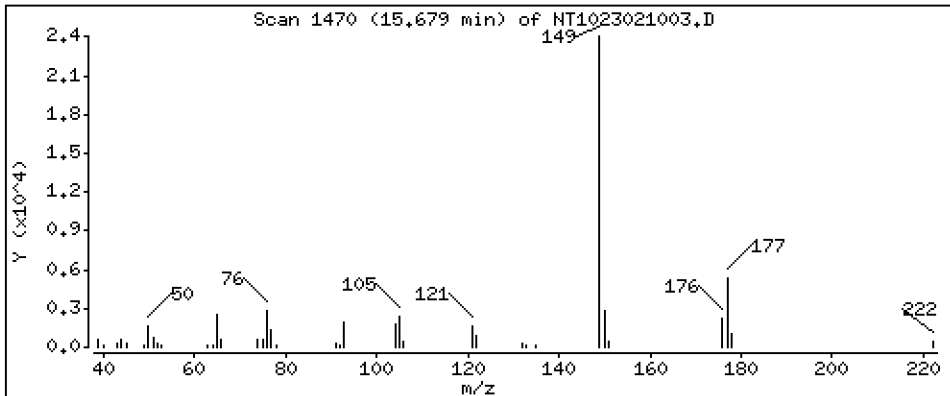
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,5344 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

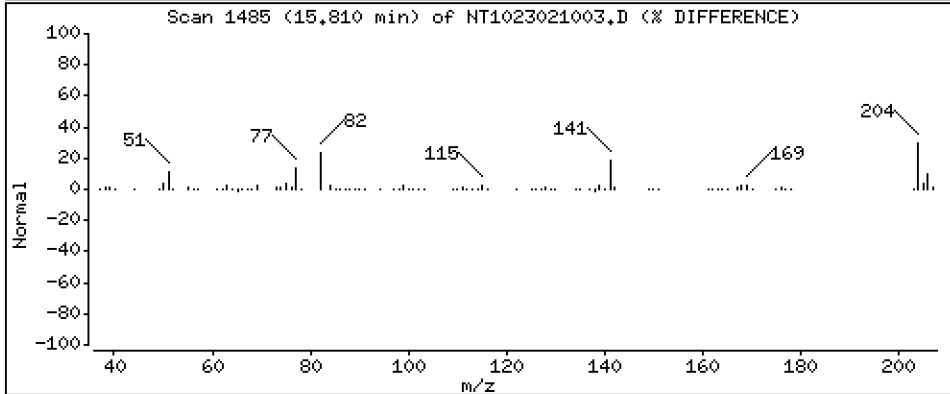
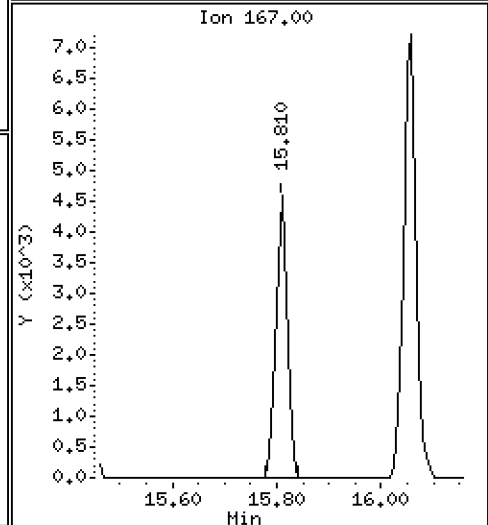
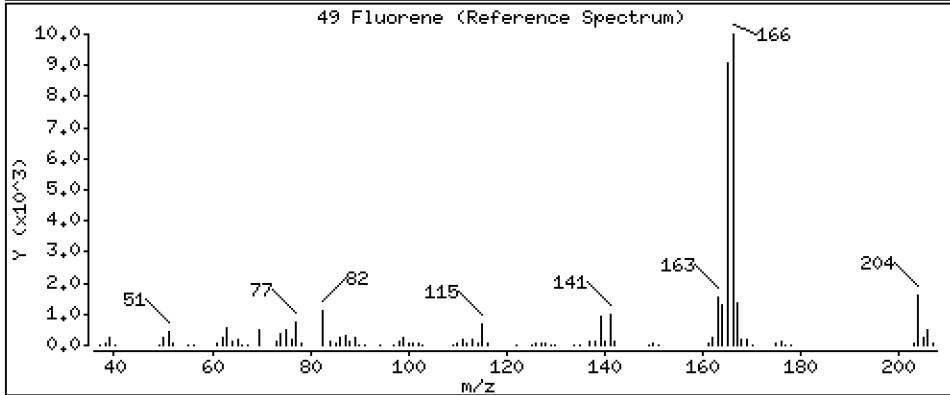
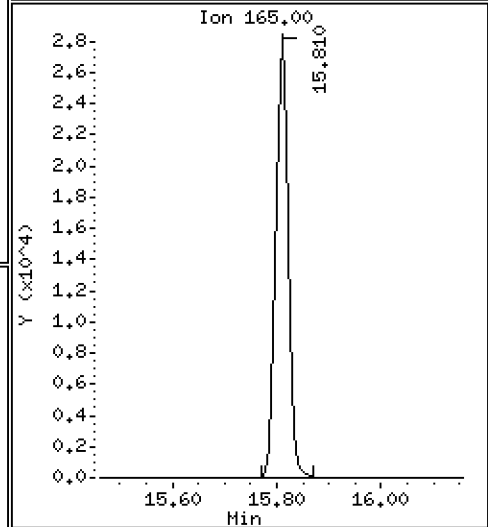
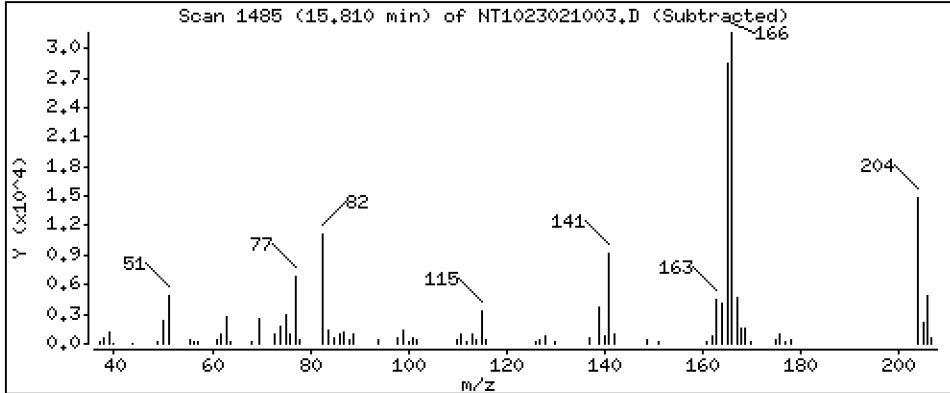
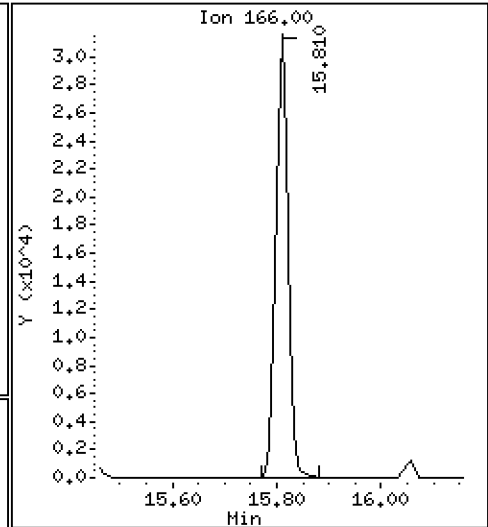
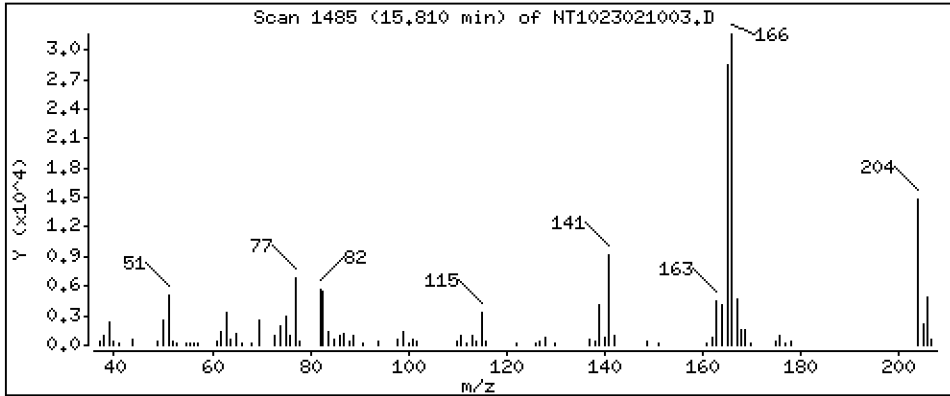
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

49 Fluorene

Concentration: 0.4697 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

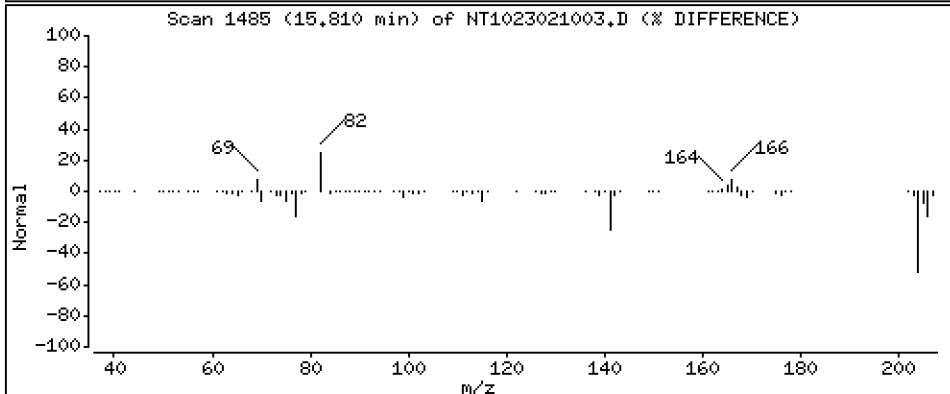
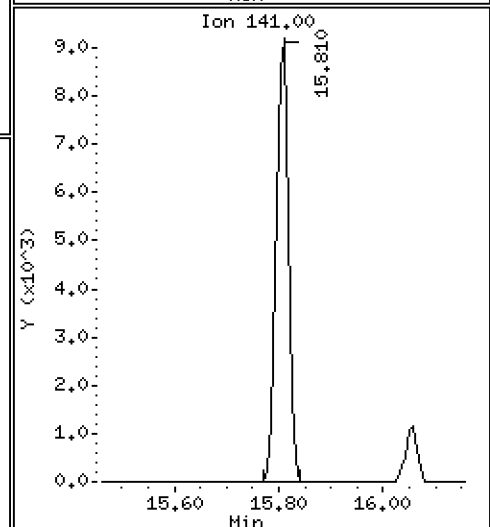
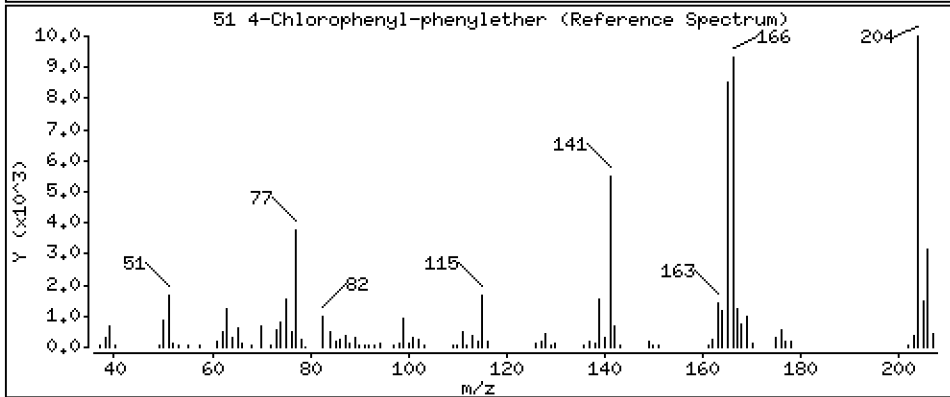
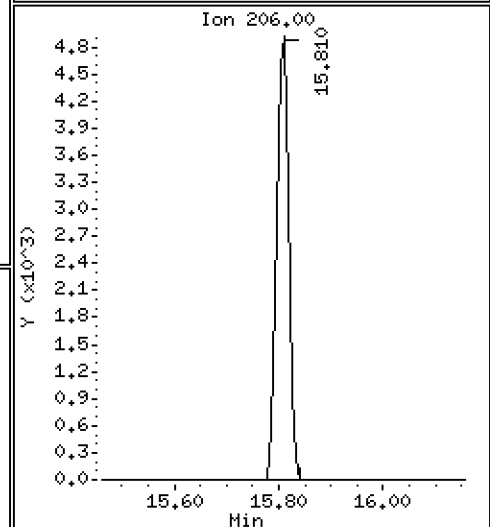
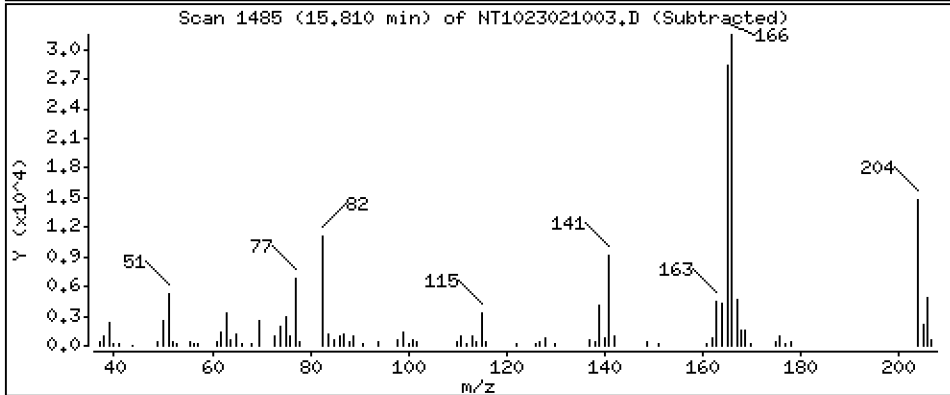
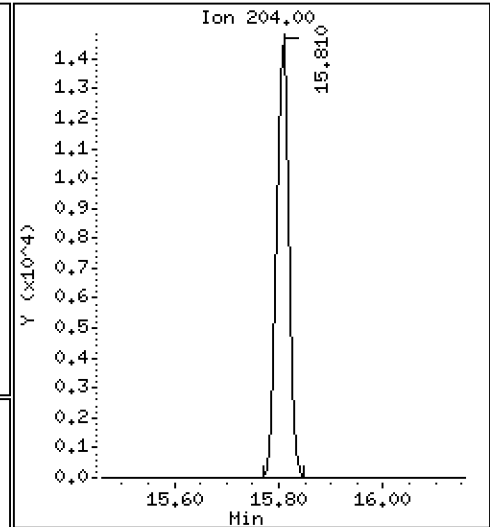
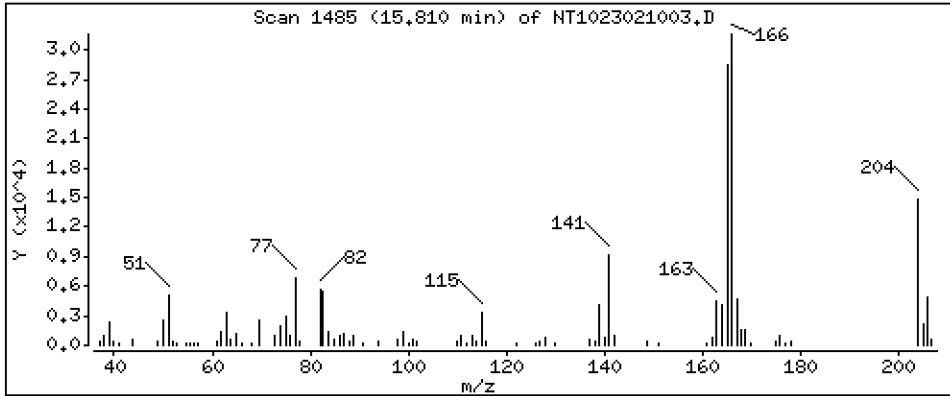
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

51 4-Chlorophenyl-phenylether

Concentration: 0.4434 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

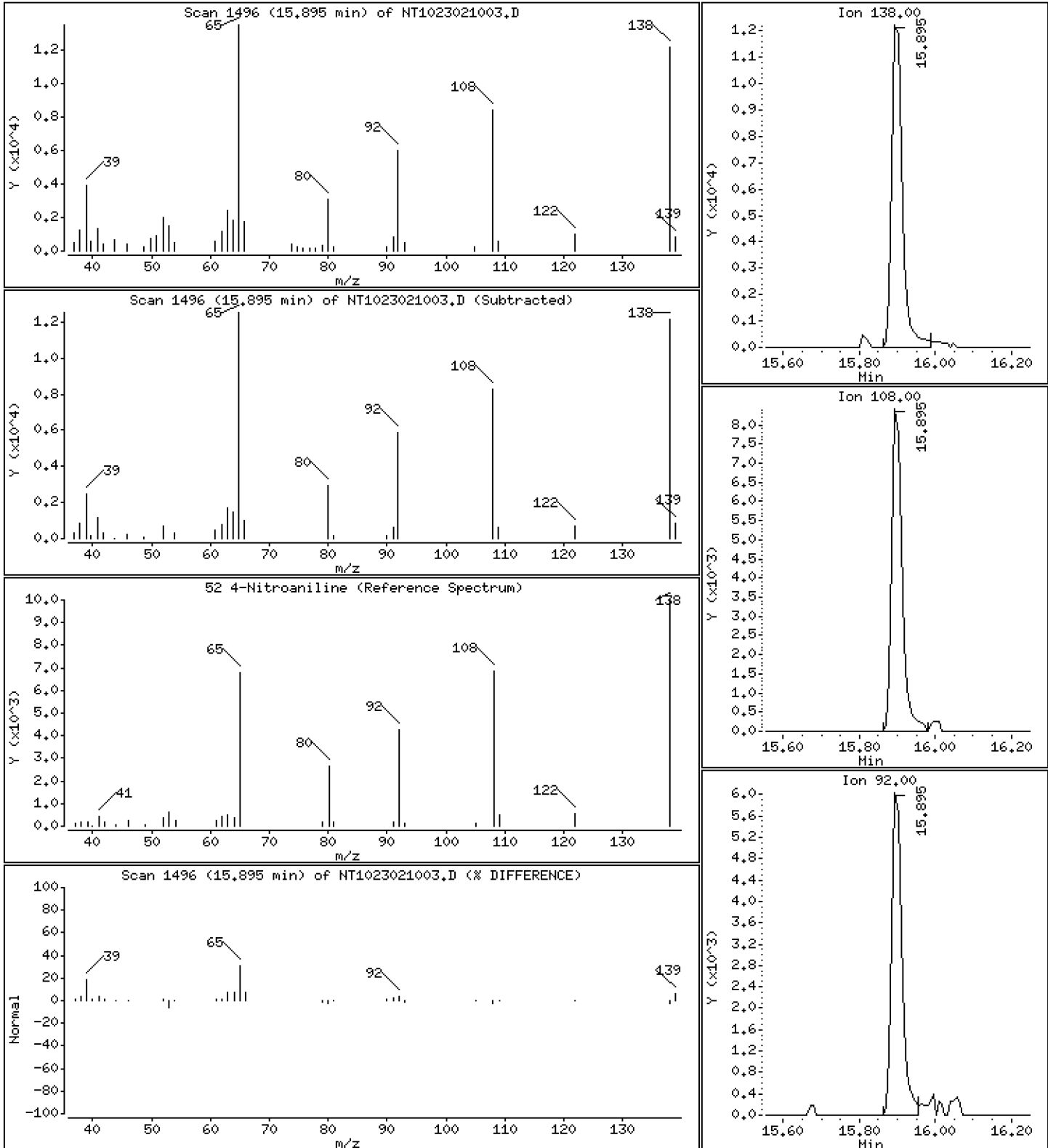
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 1,003 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

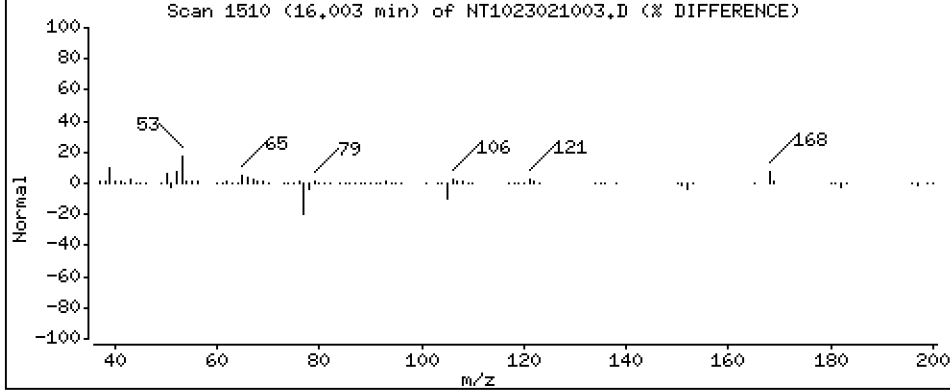
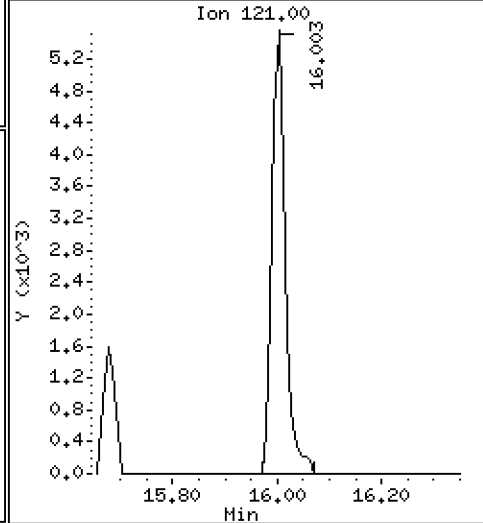
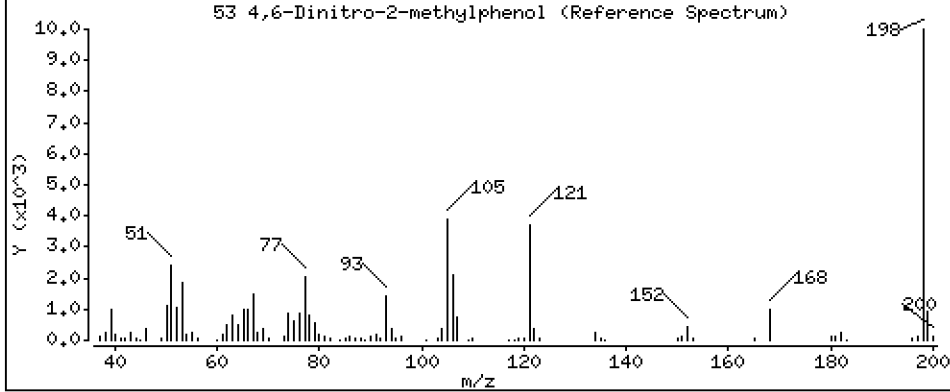
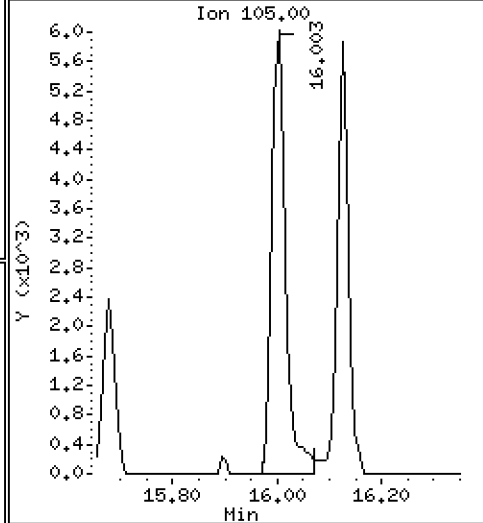
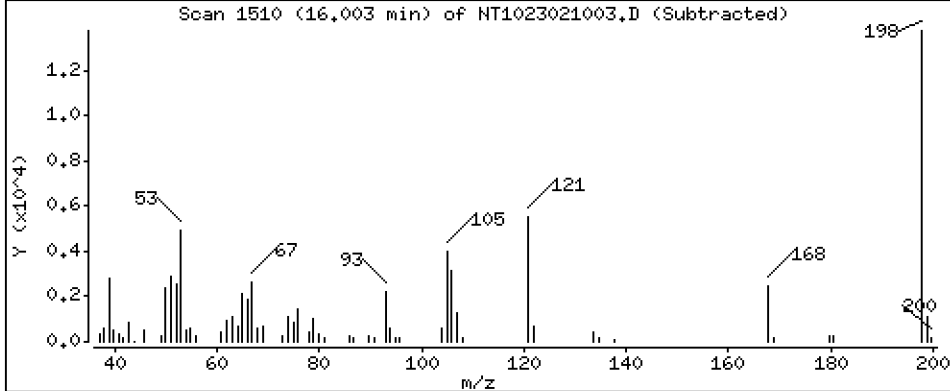
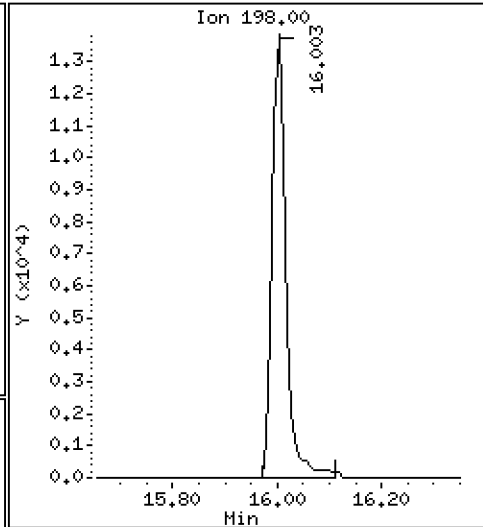
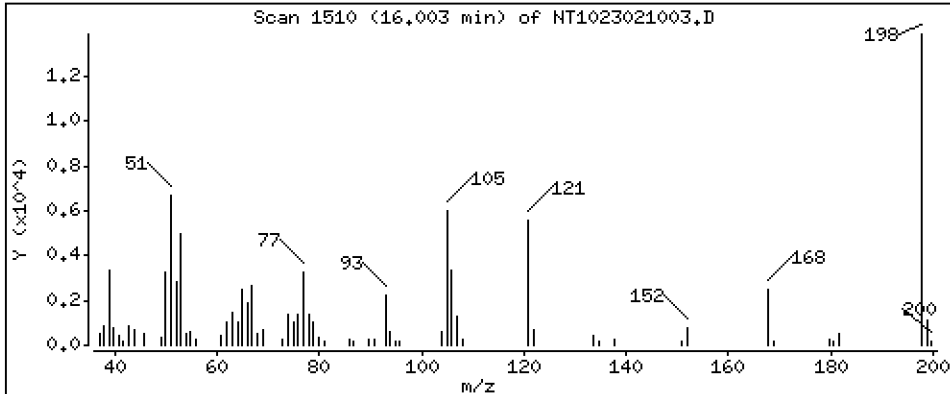
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 1,723 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

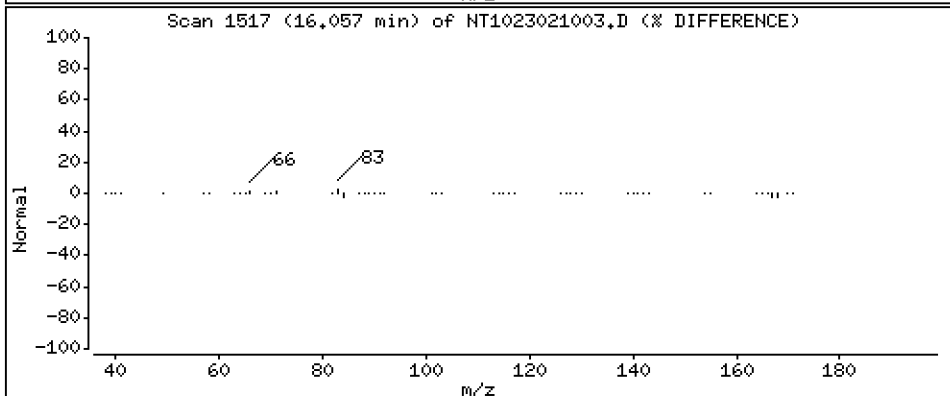
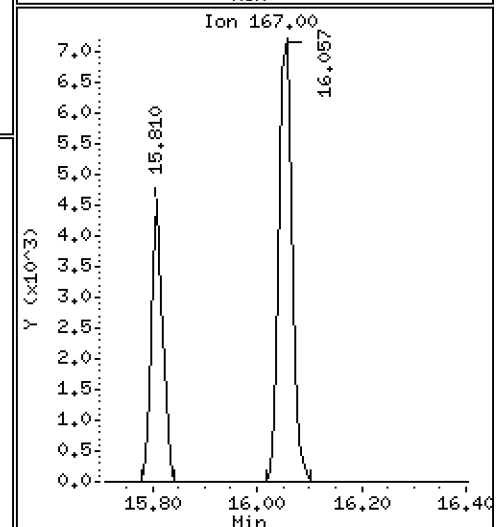
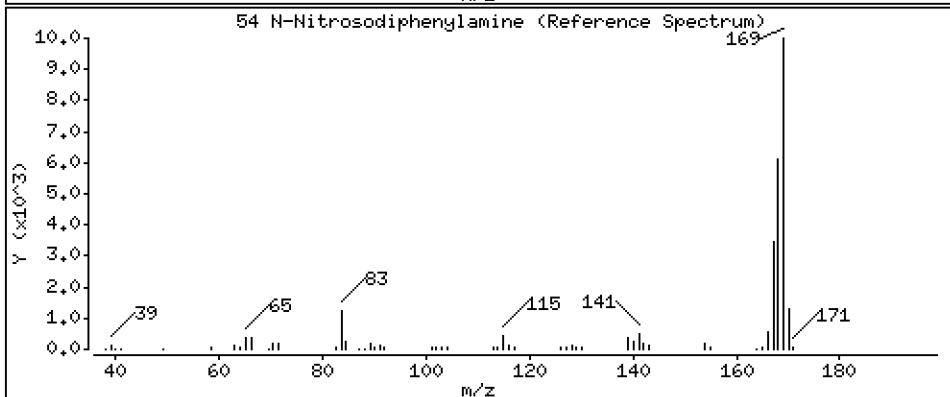
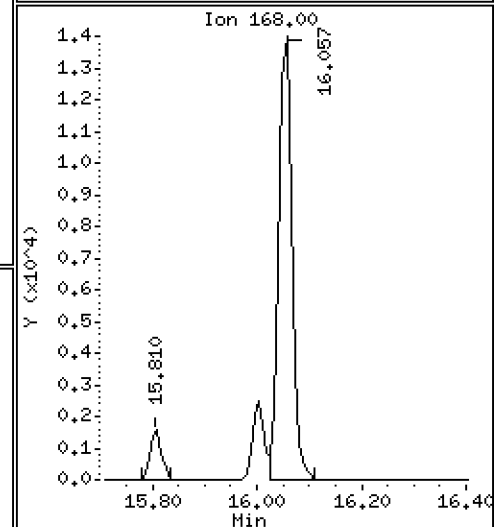
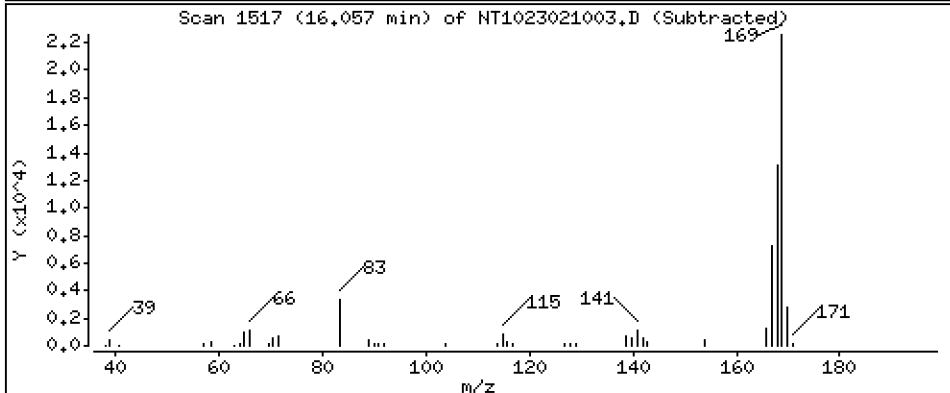
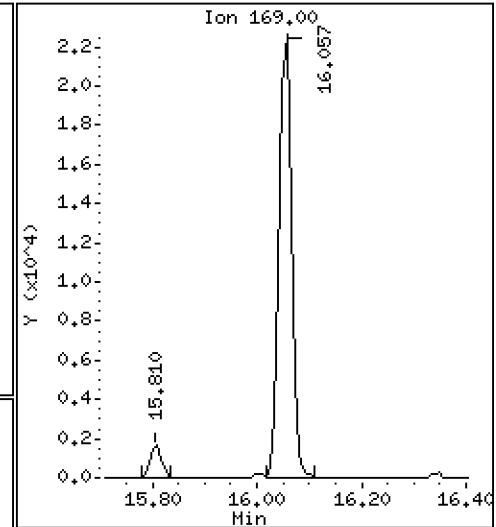
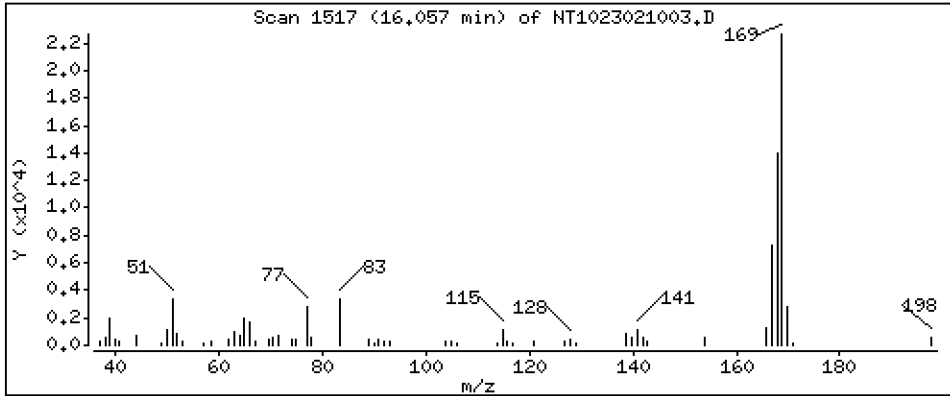
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 0.5381 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

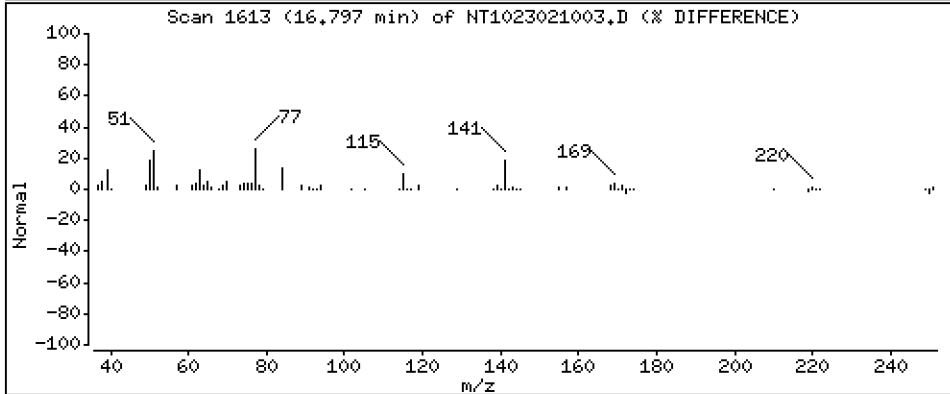
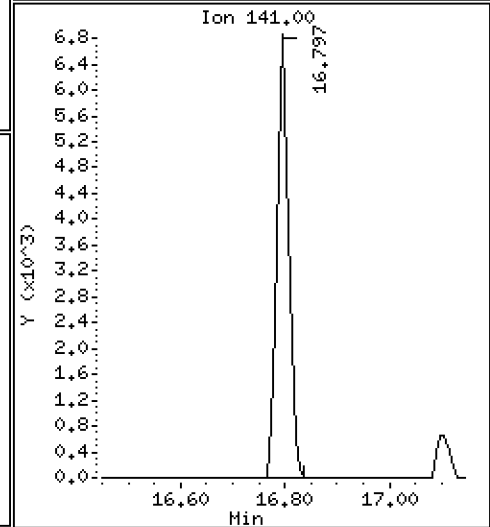
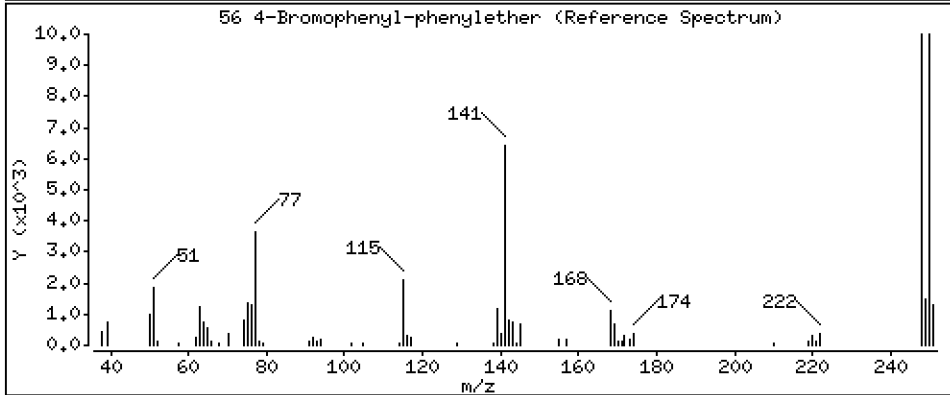
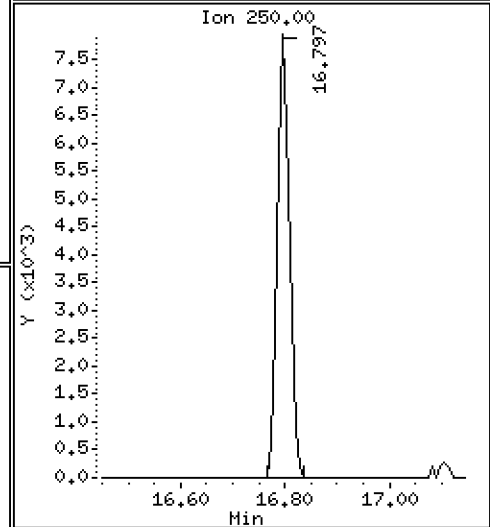
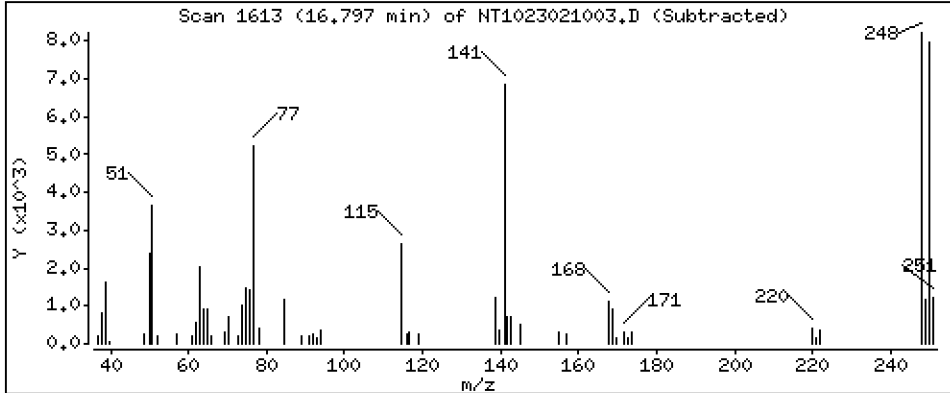
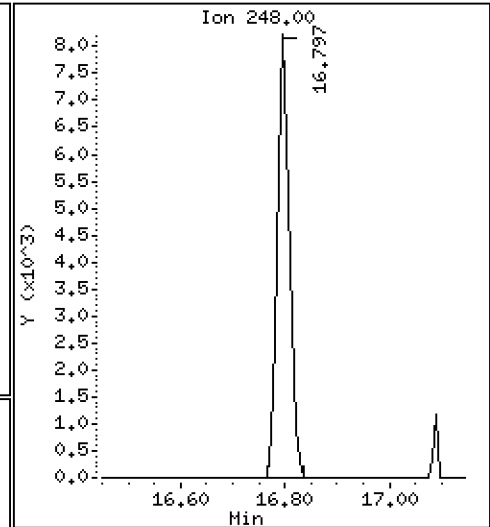
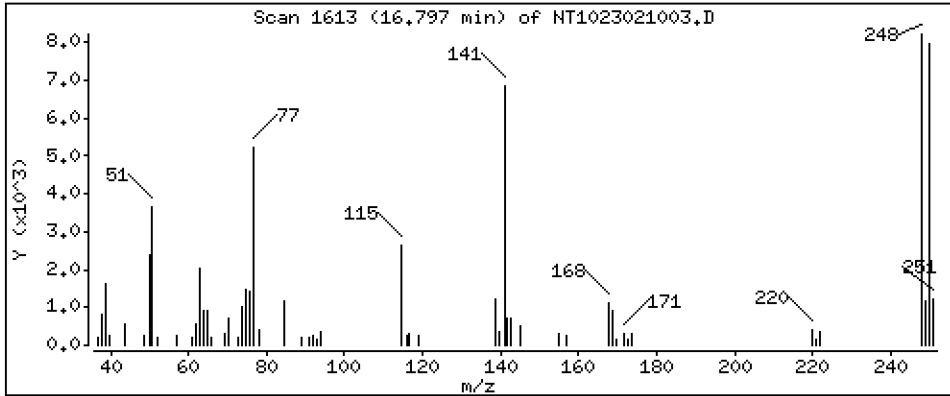
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 0,5252 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

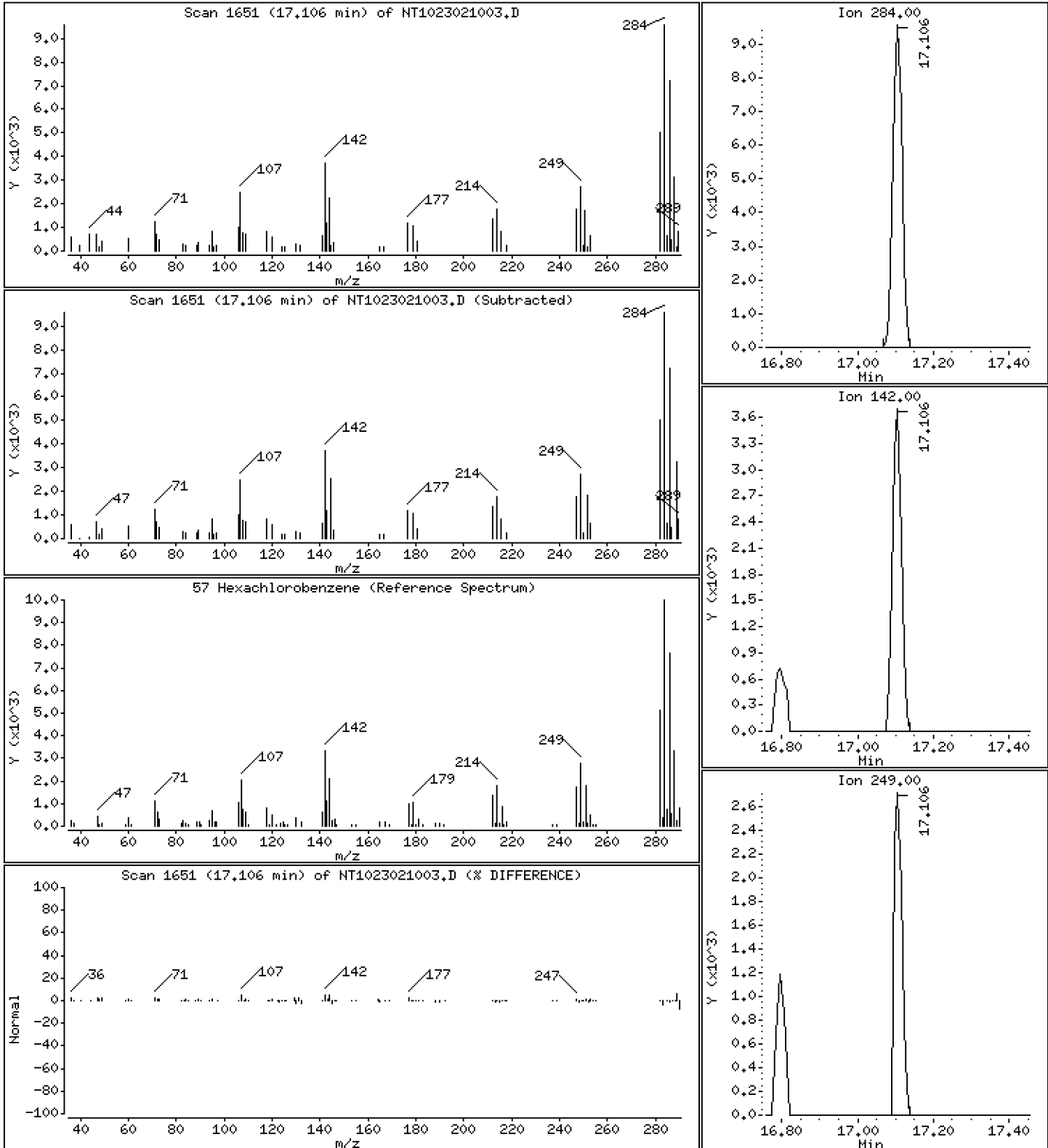
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 0.5776 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

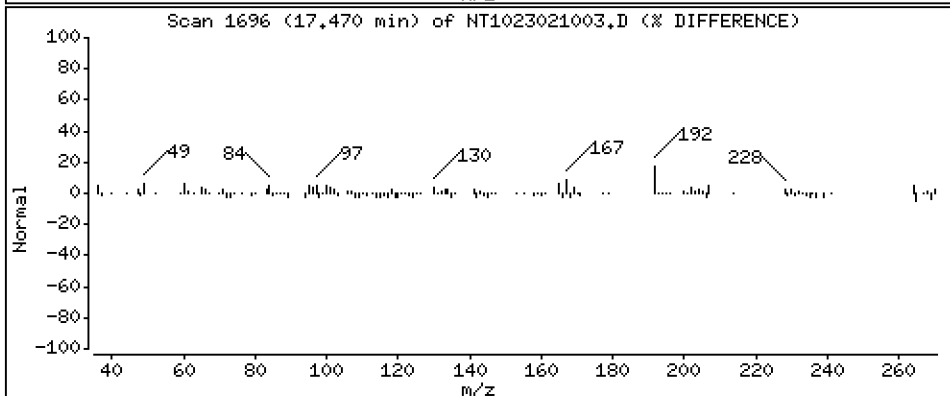
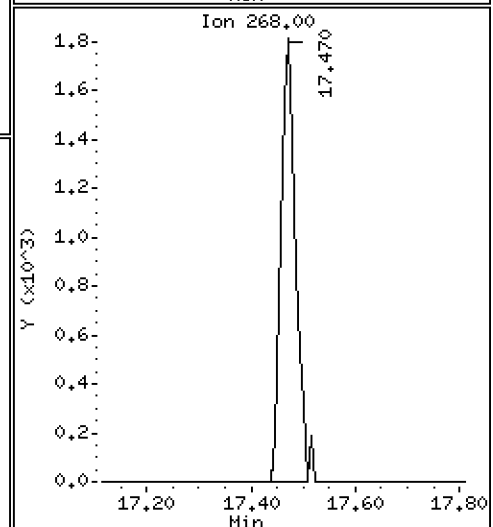
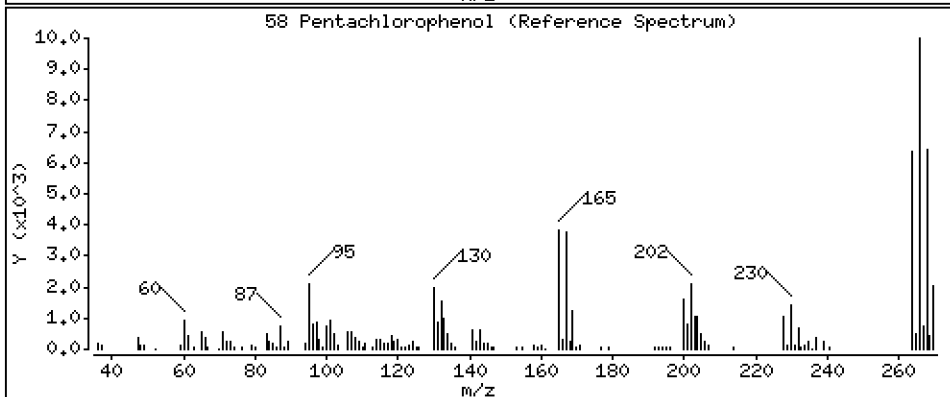
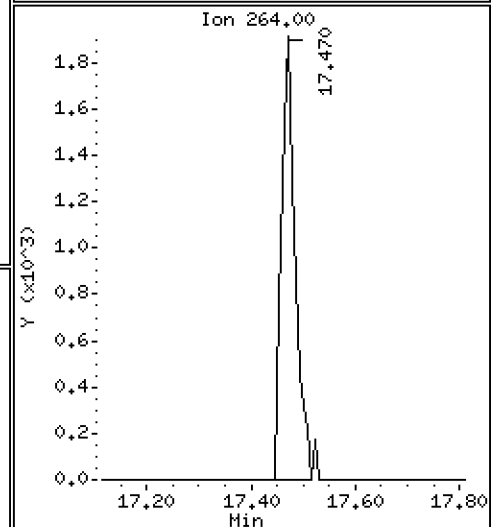
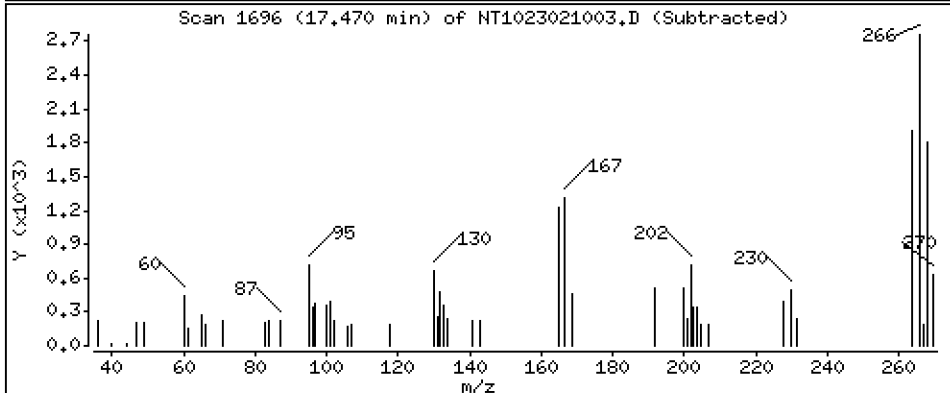
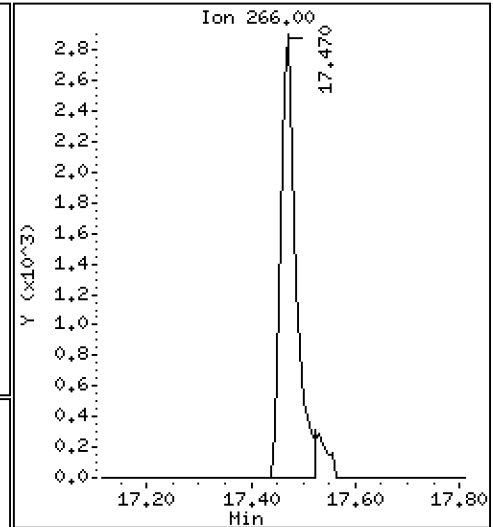
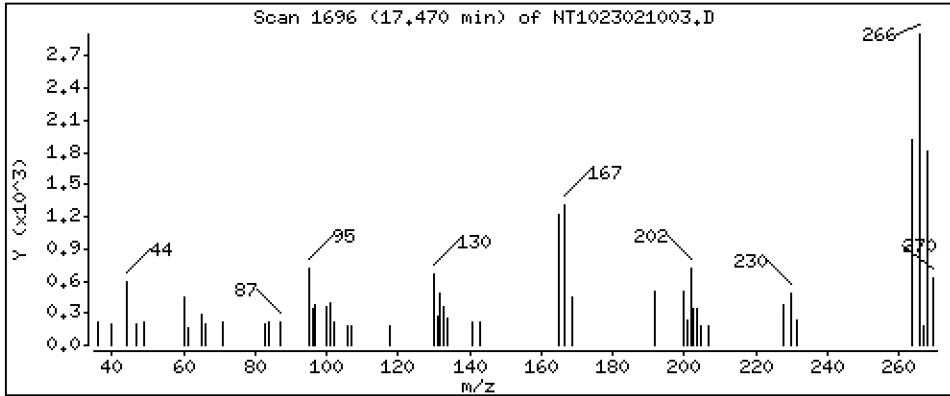
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,5895 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

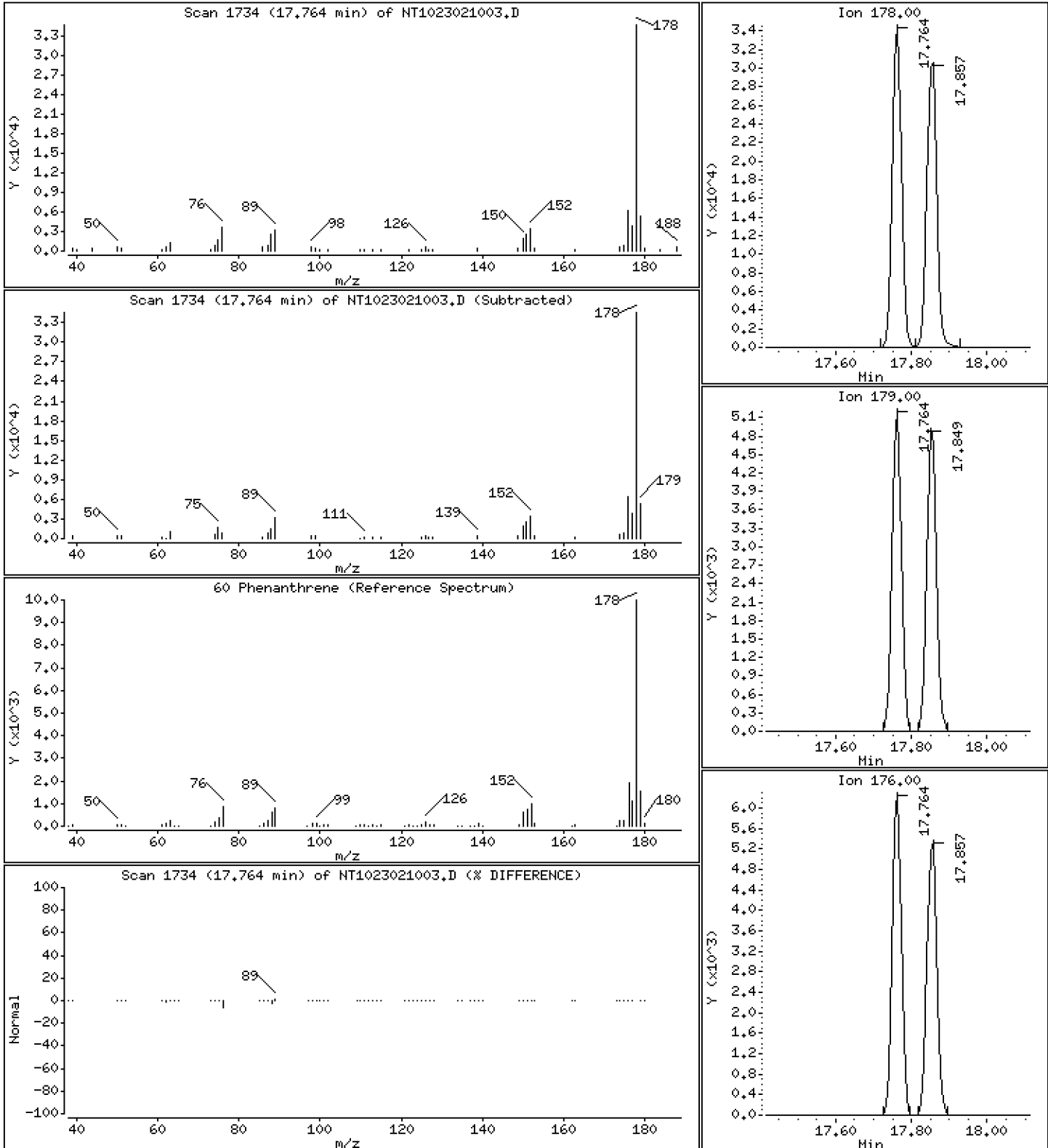
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,5293 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

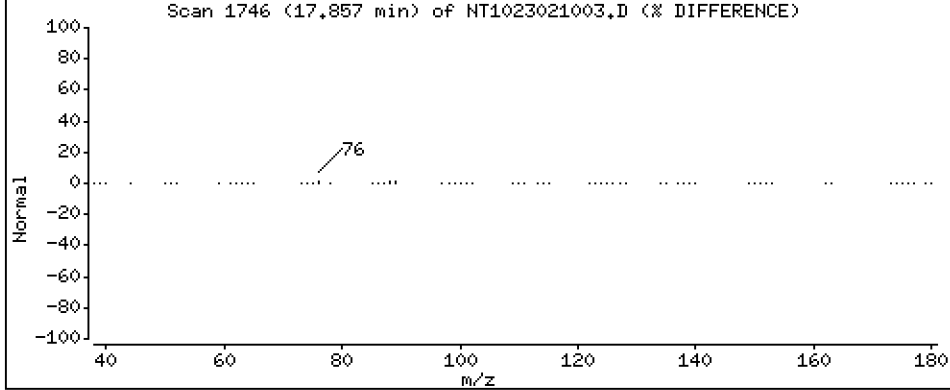
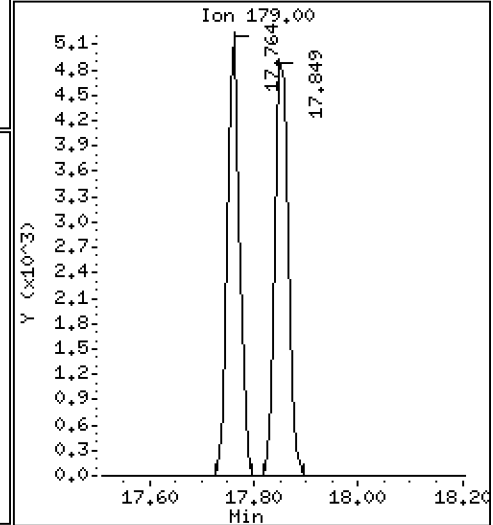
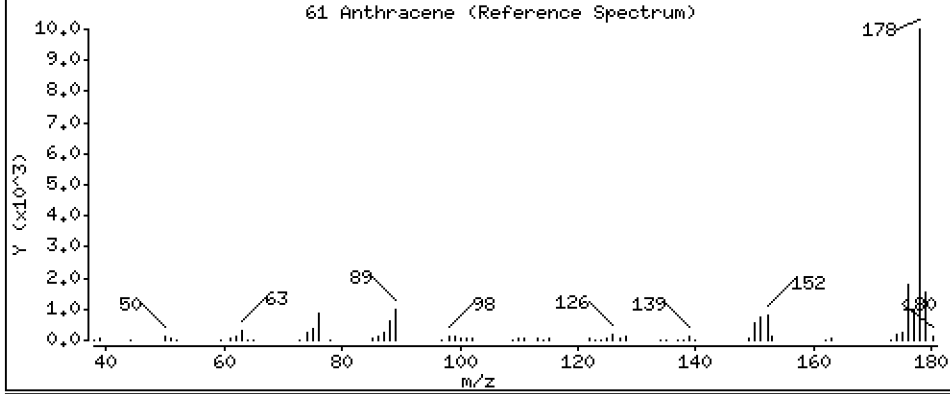
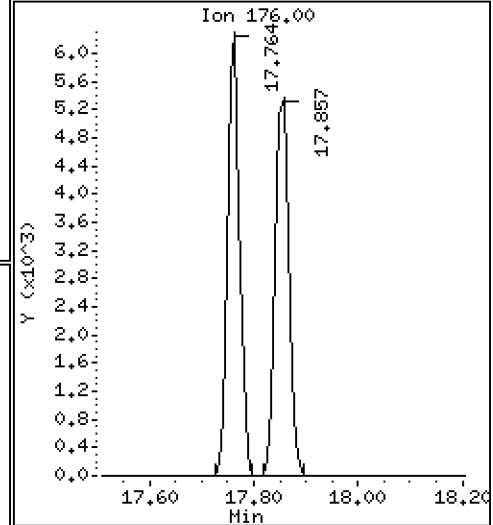
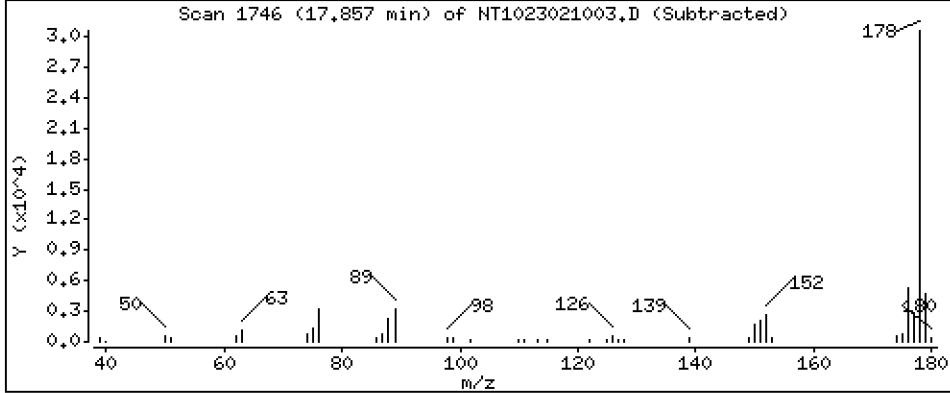
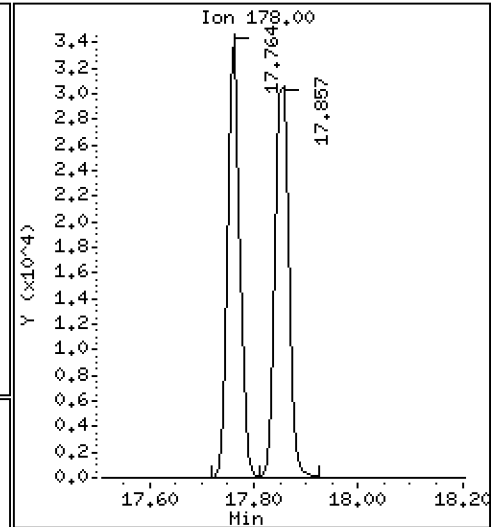
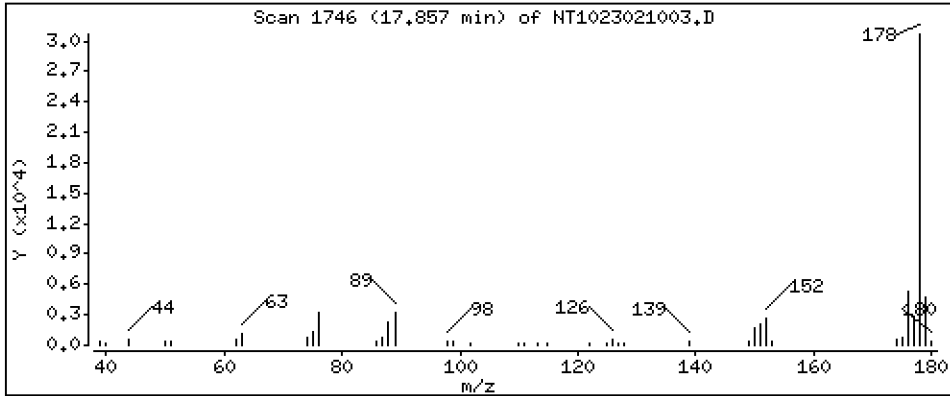
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,5243 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

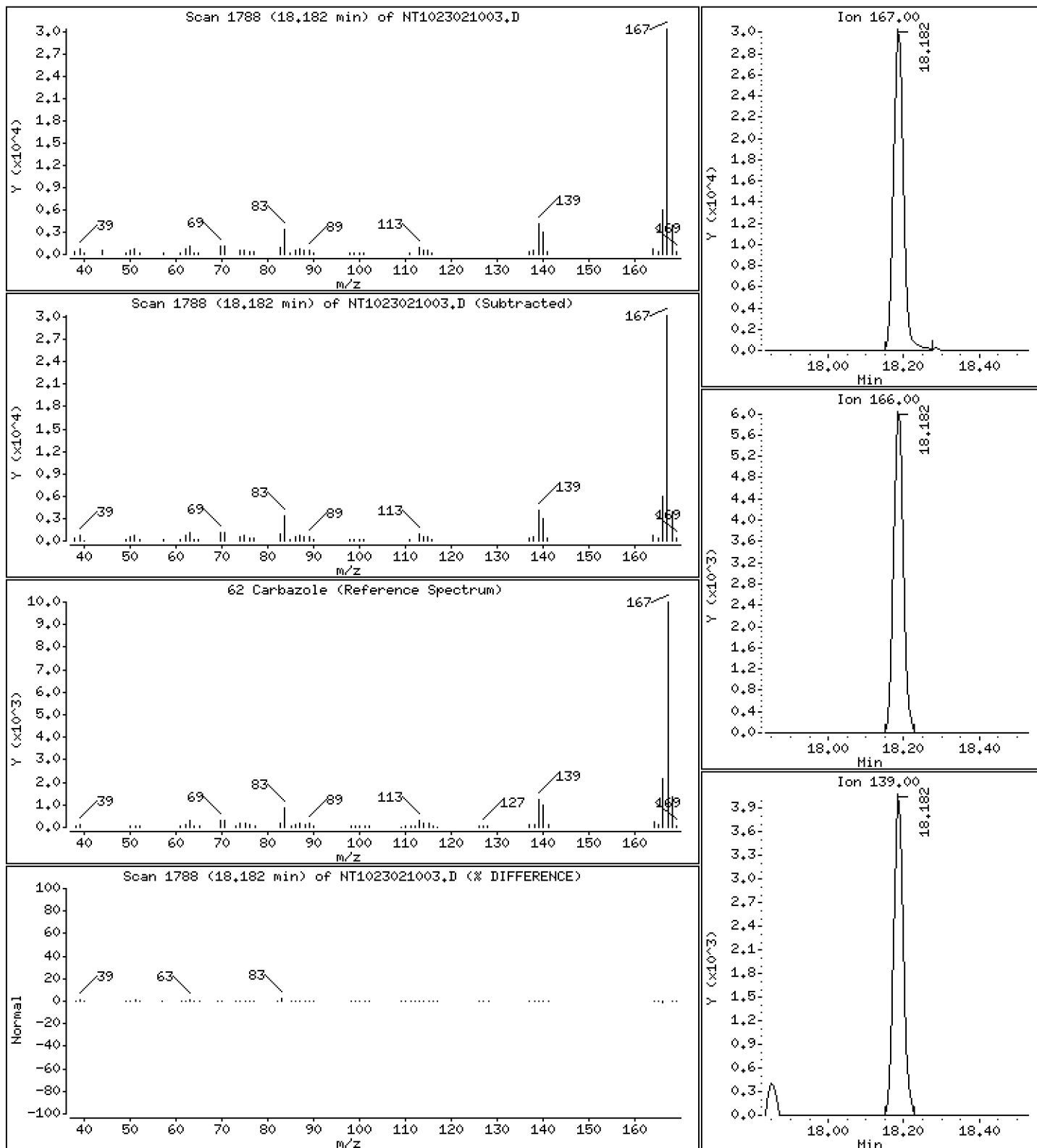
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,5293 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

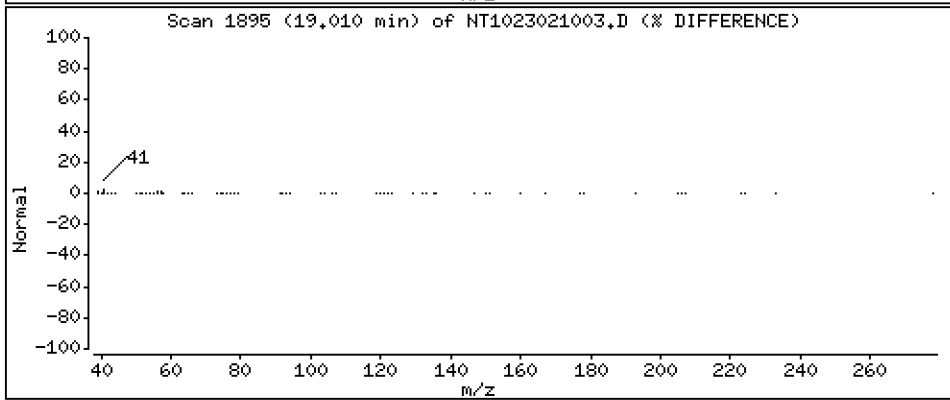
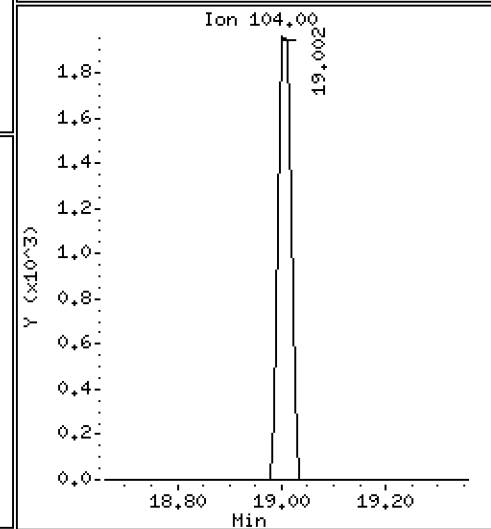
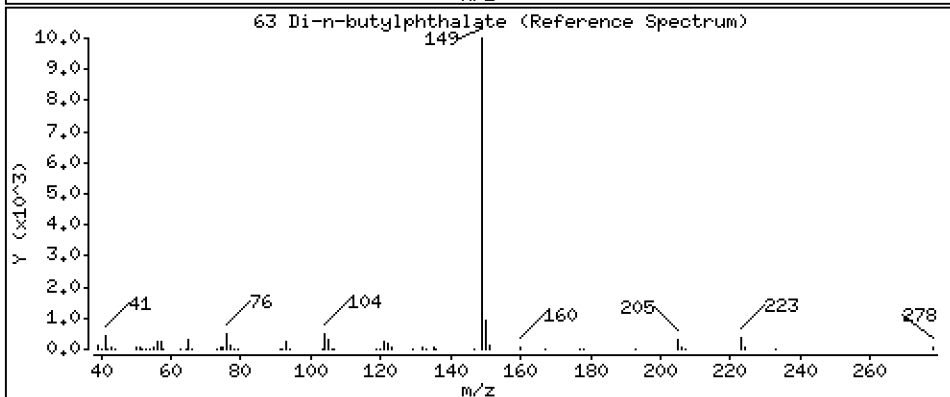
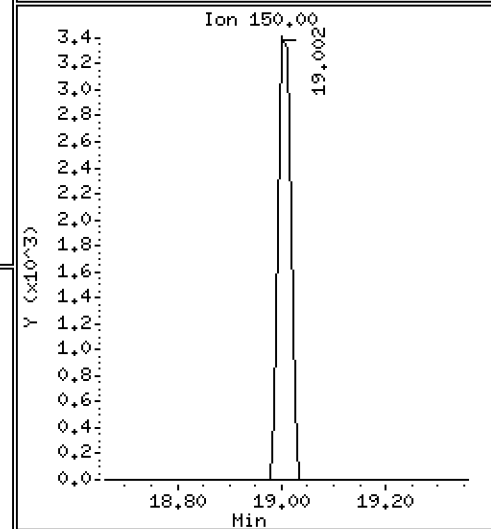
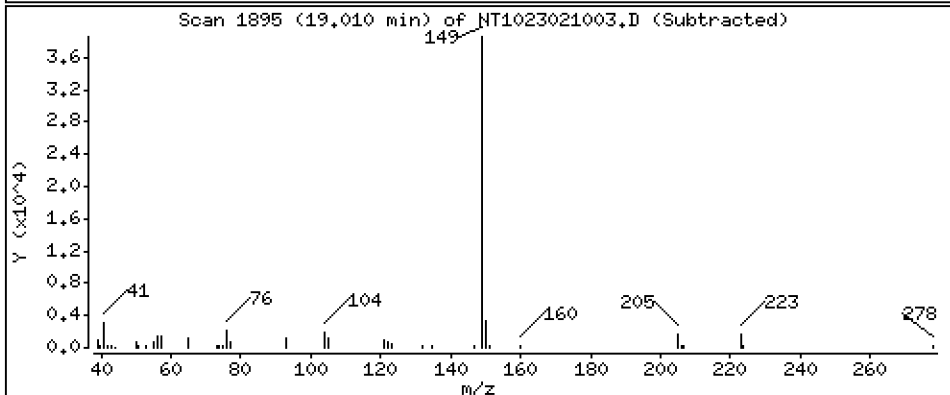
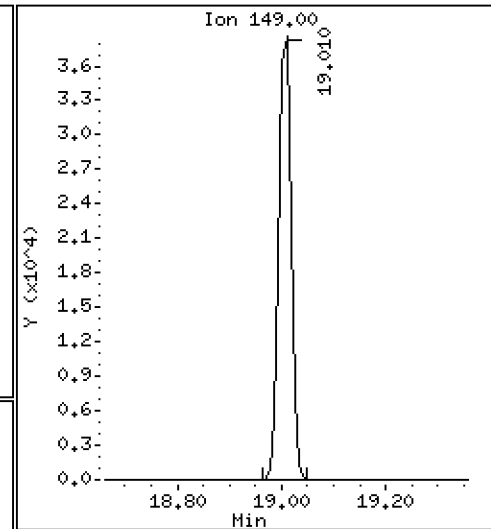
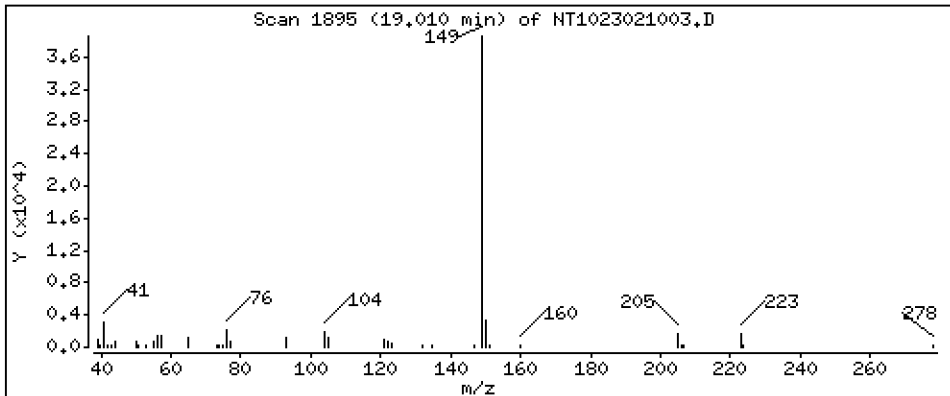
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 0,5094 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

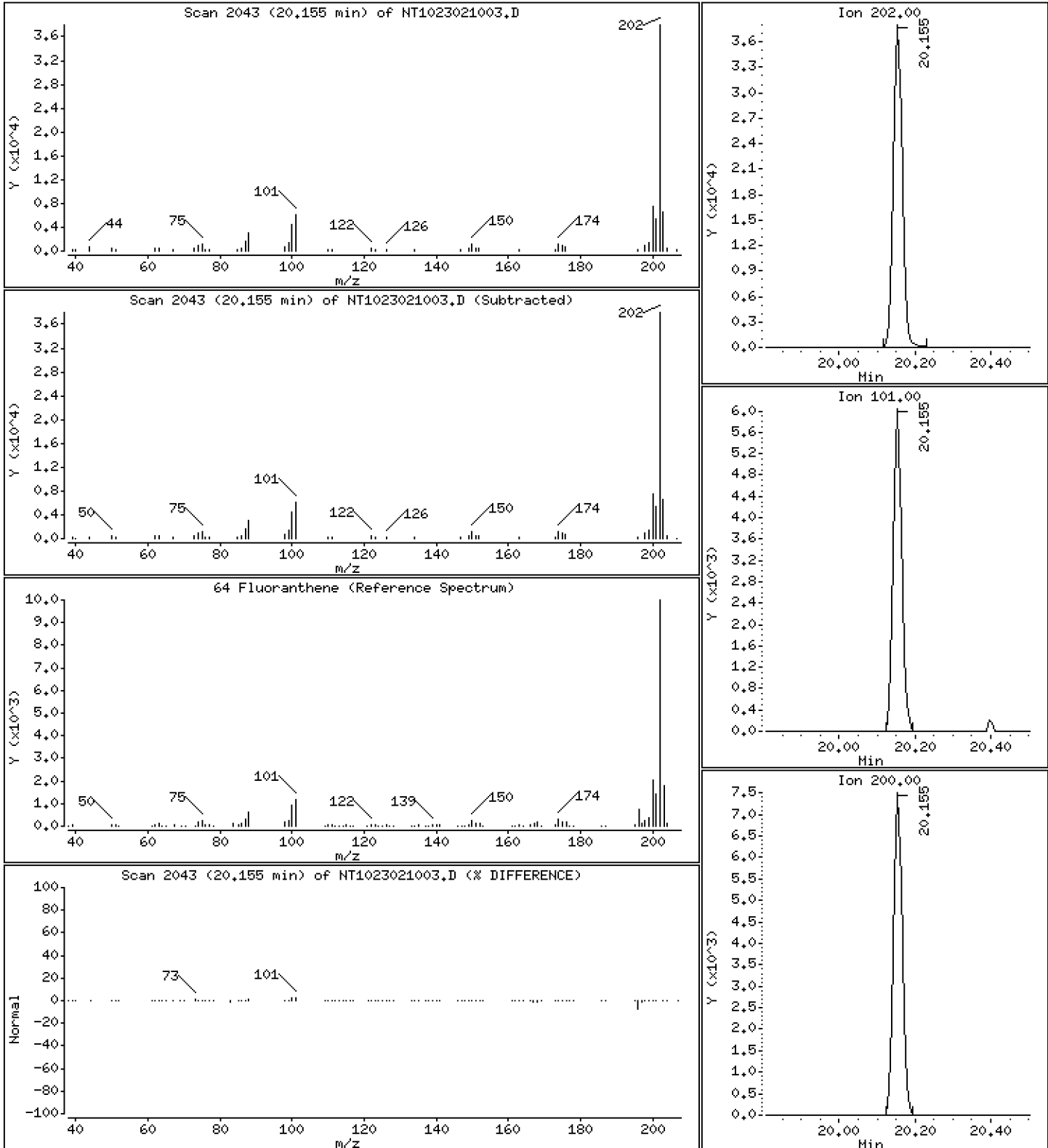
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,5182 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

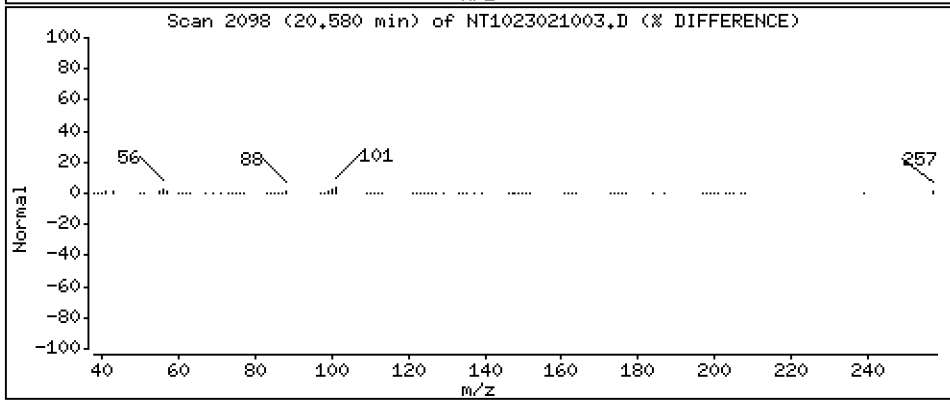
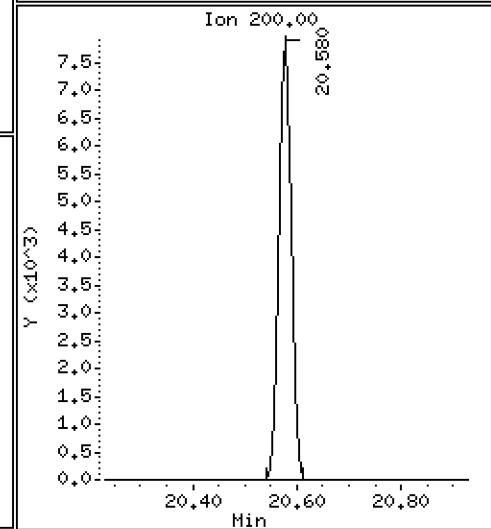
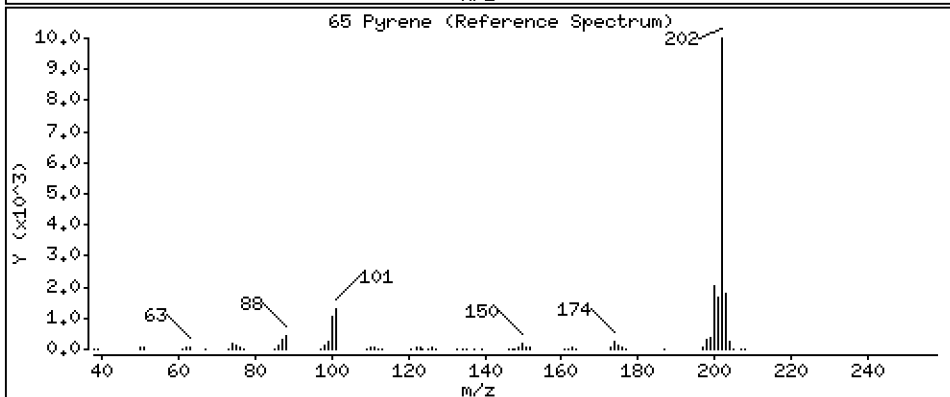
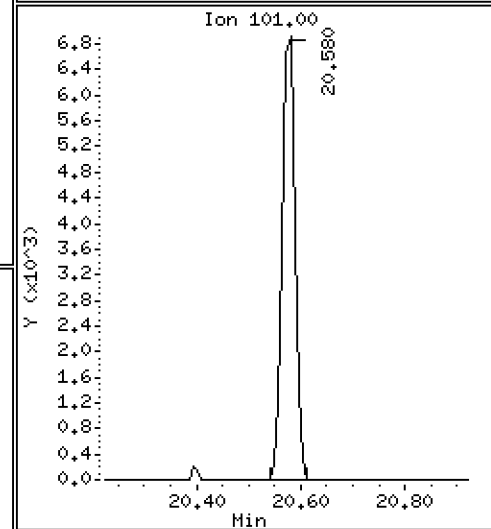
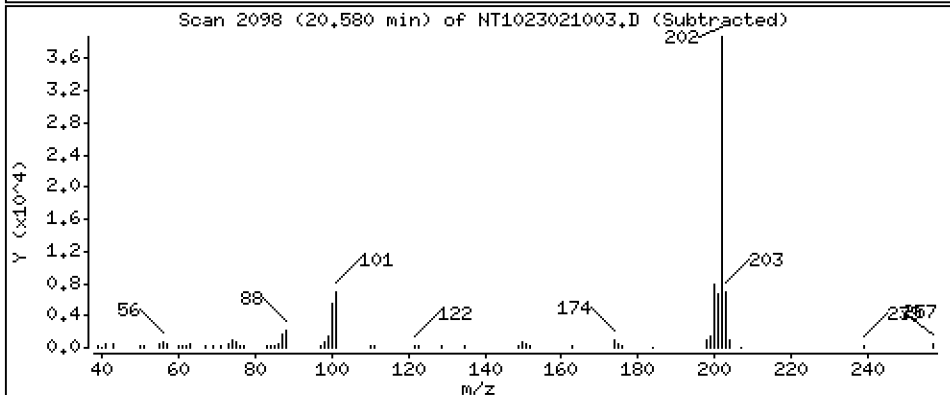
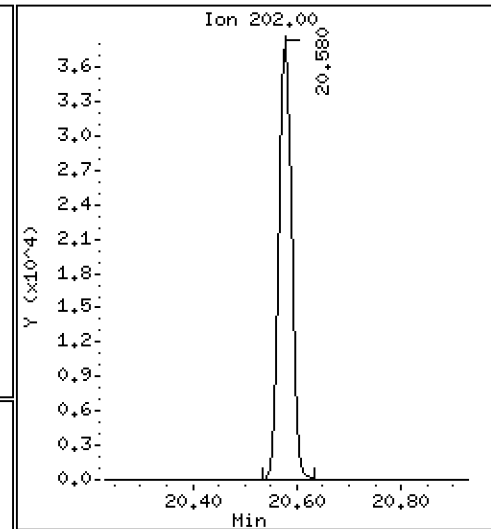
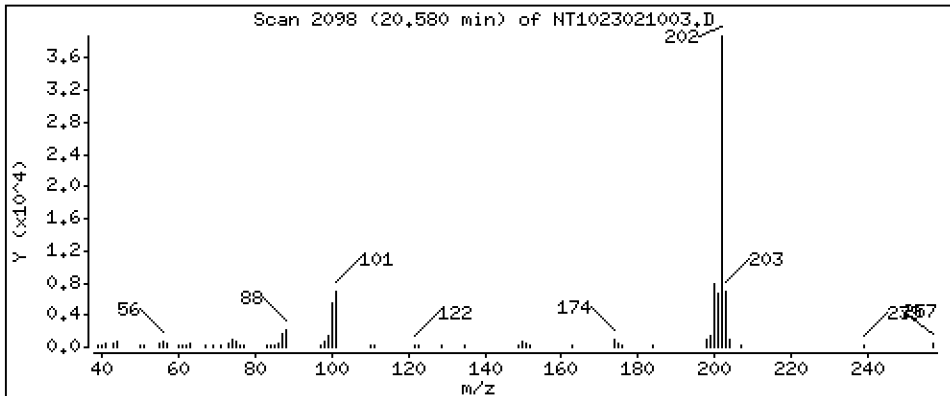
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 0,5326 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

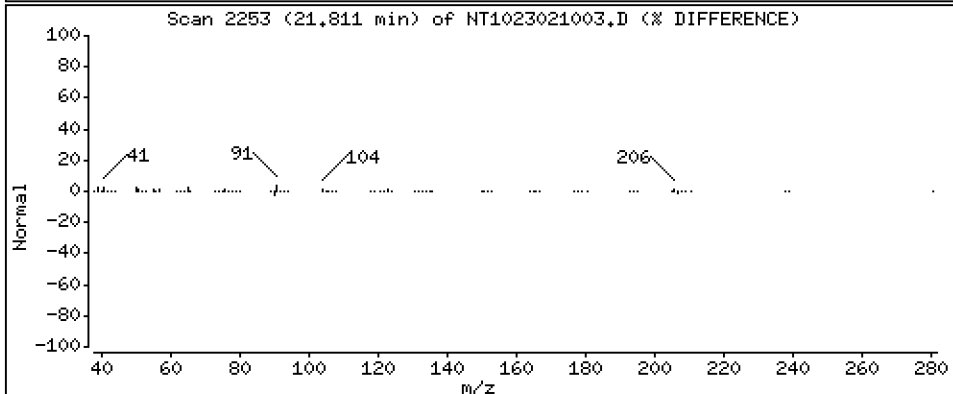
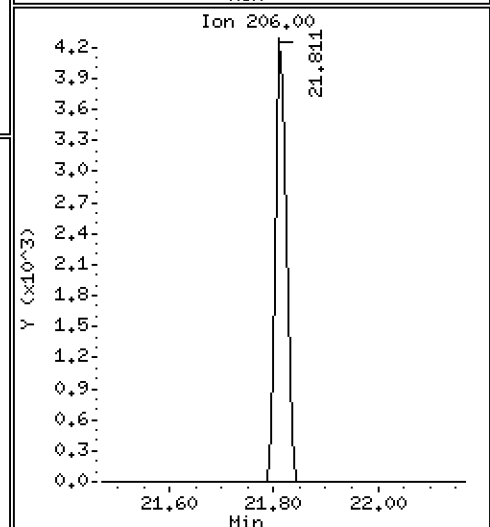
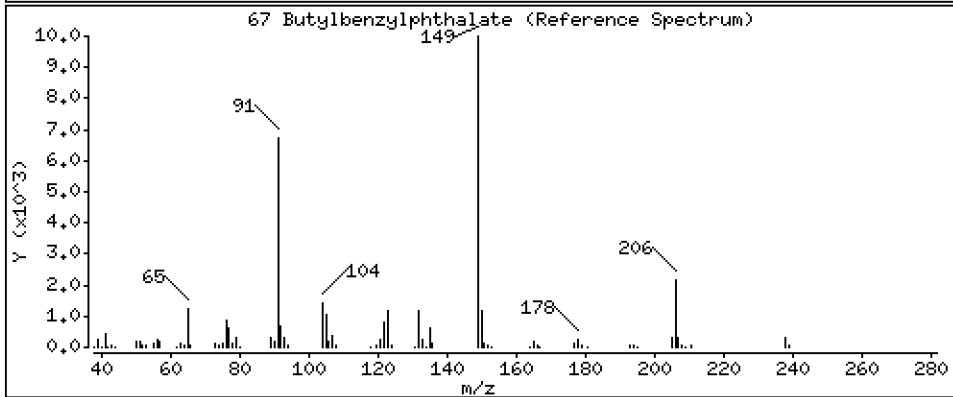
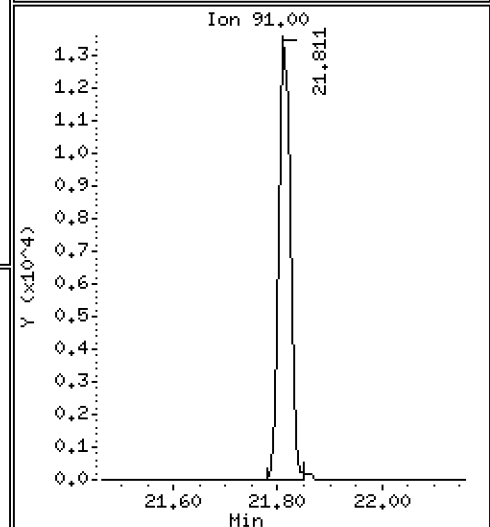
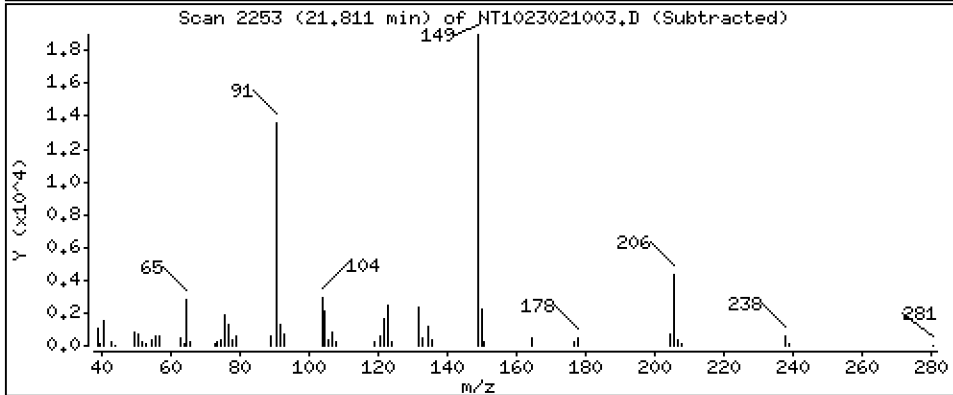
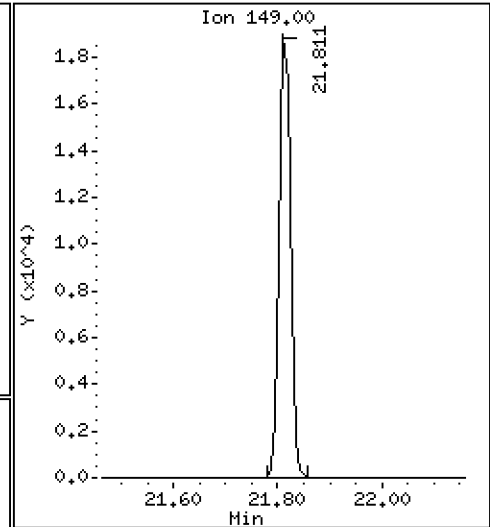
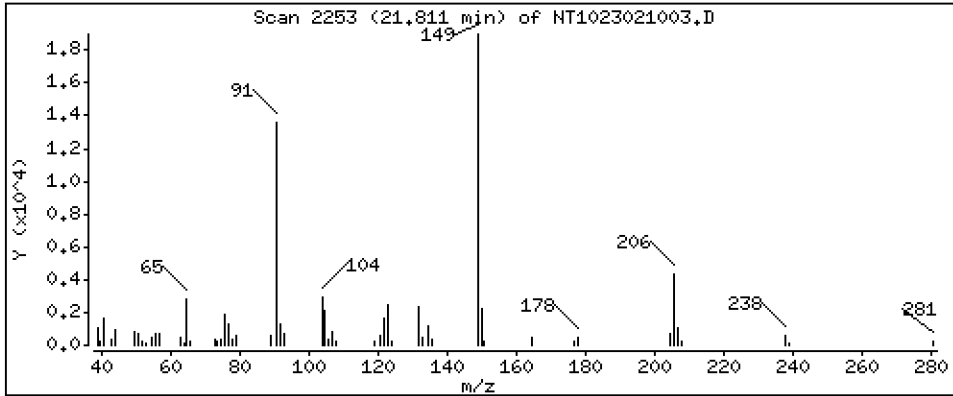
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.5320 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

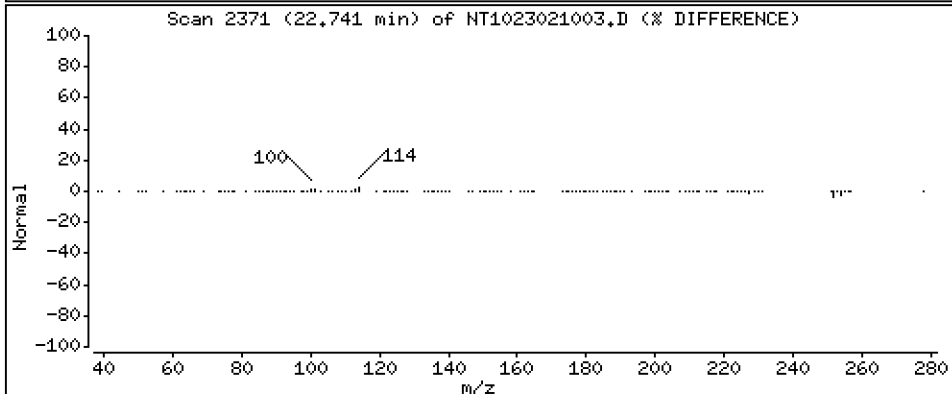
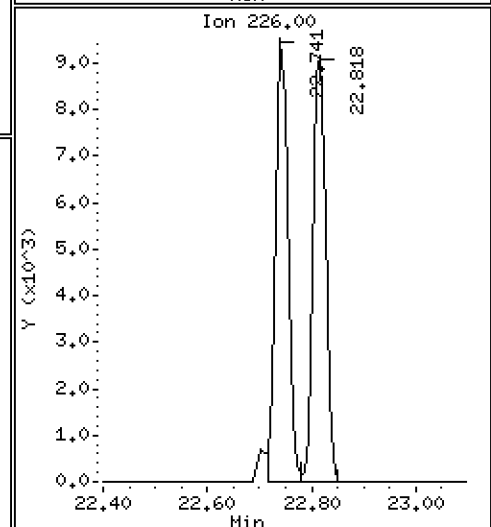
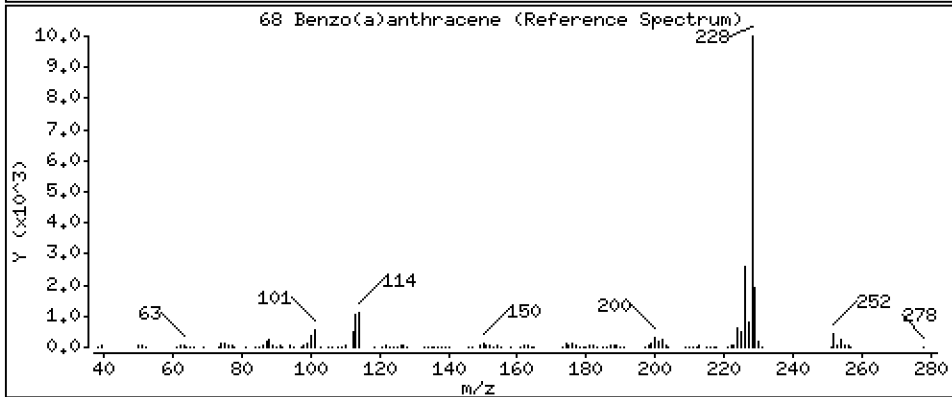
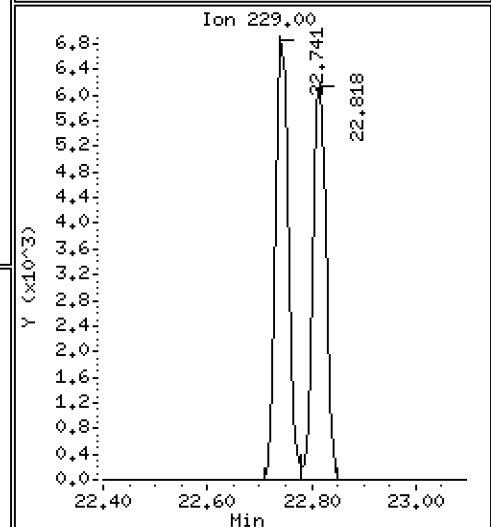
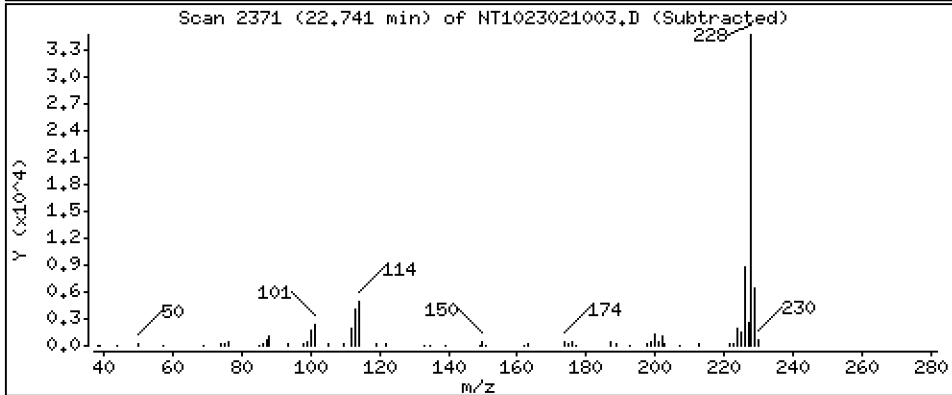
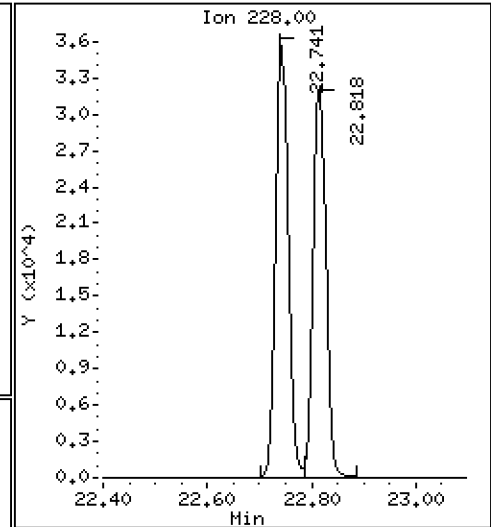
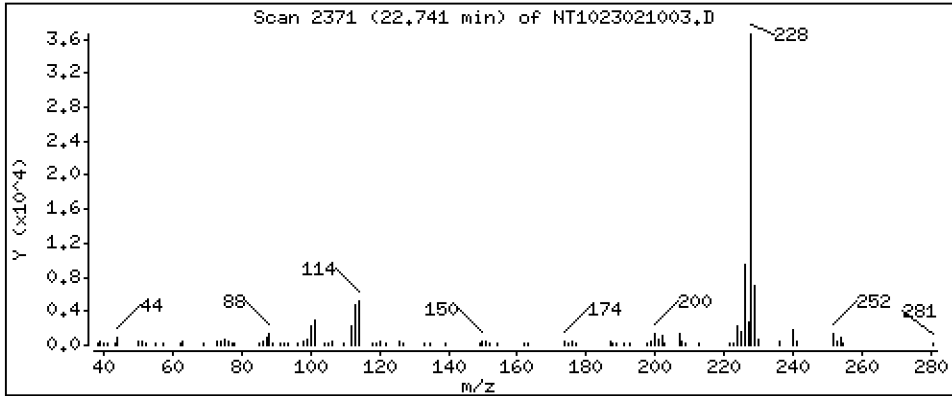
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,5554 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

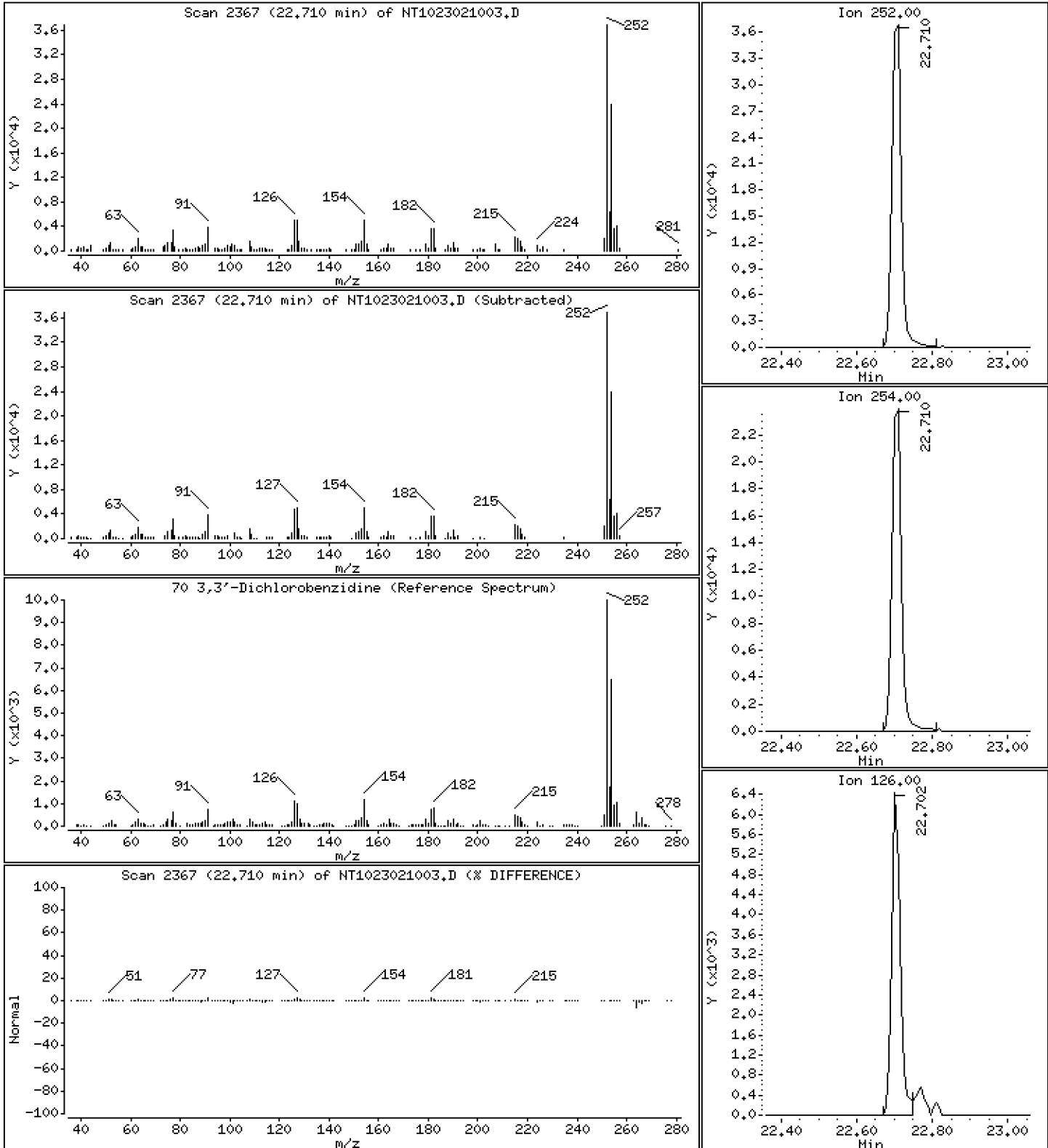
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 1,694 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

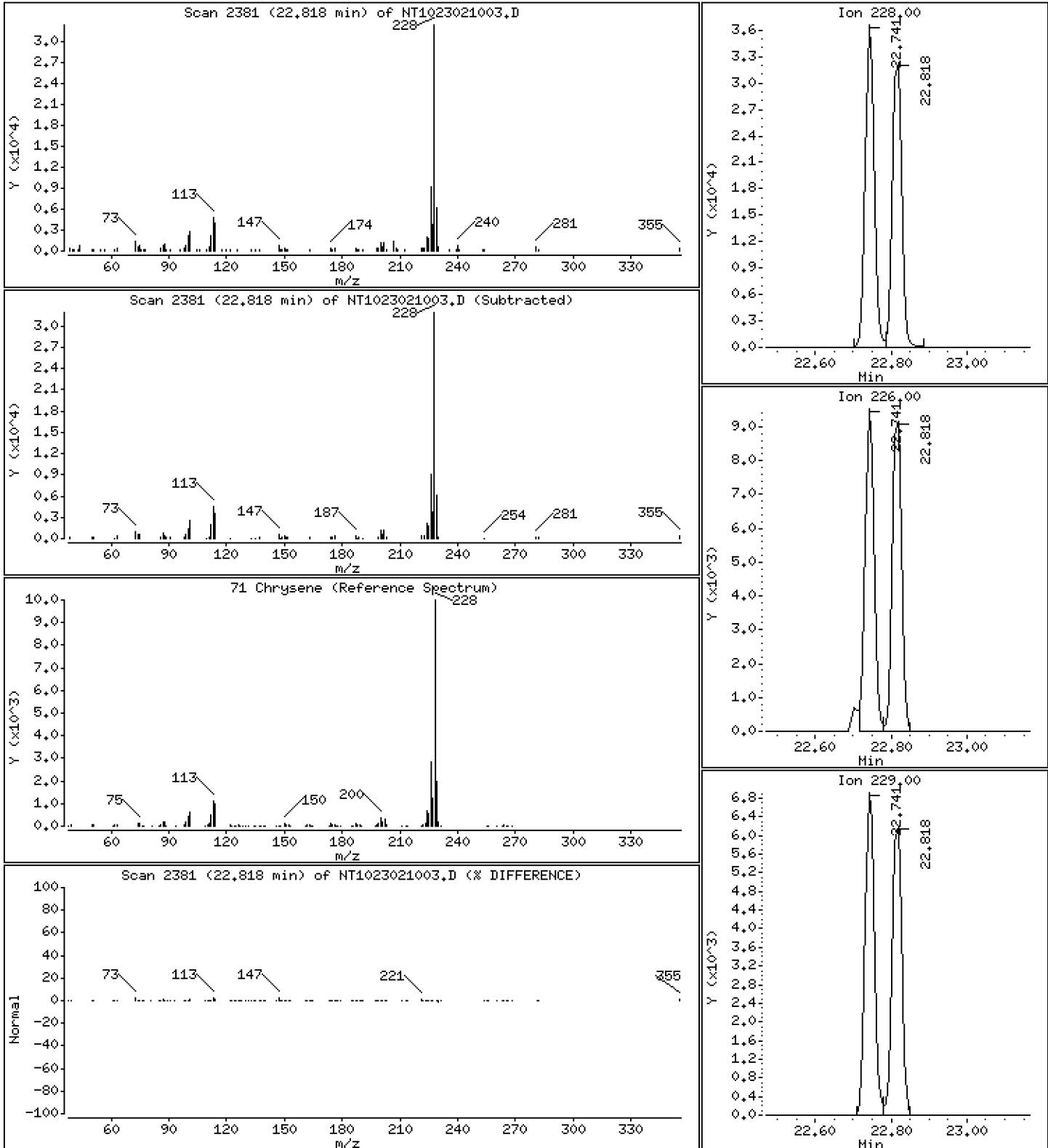
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,5342 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

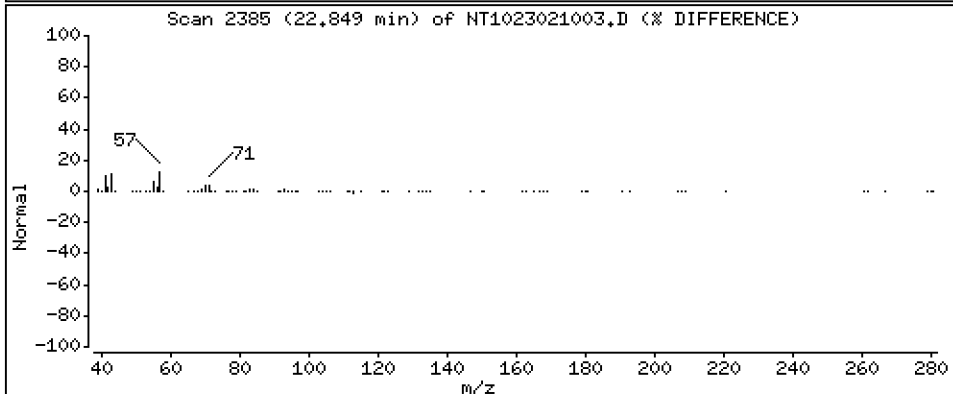
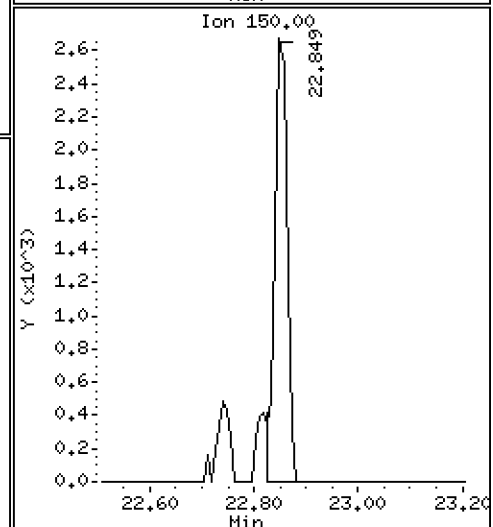
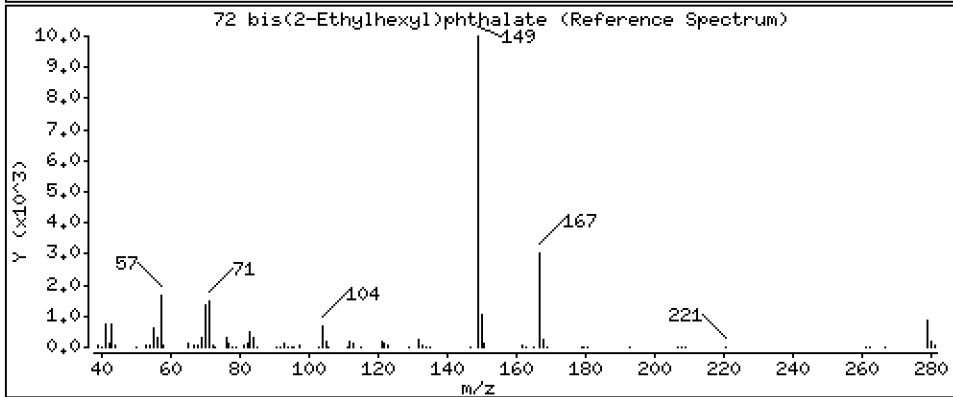
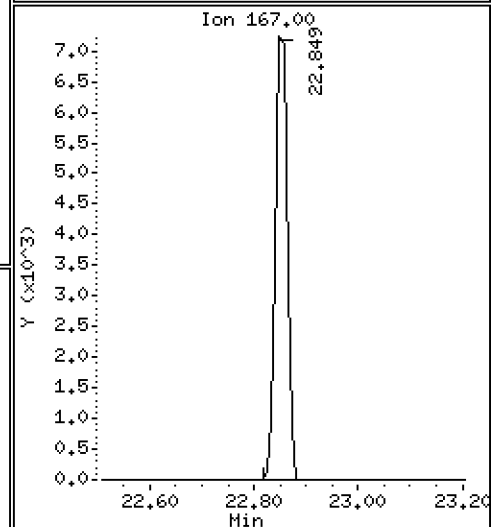
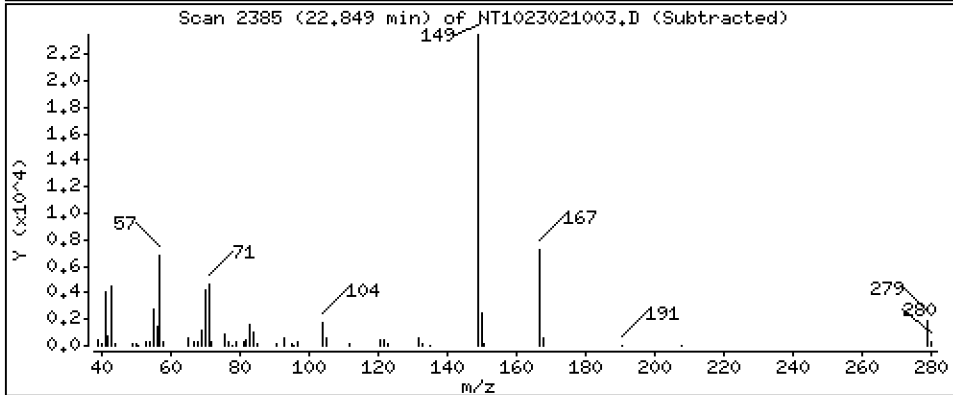
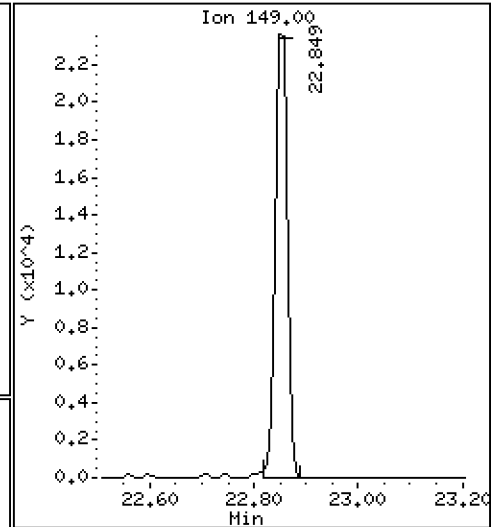
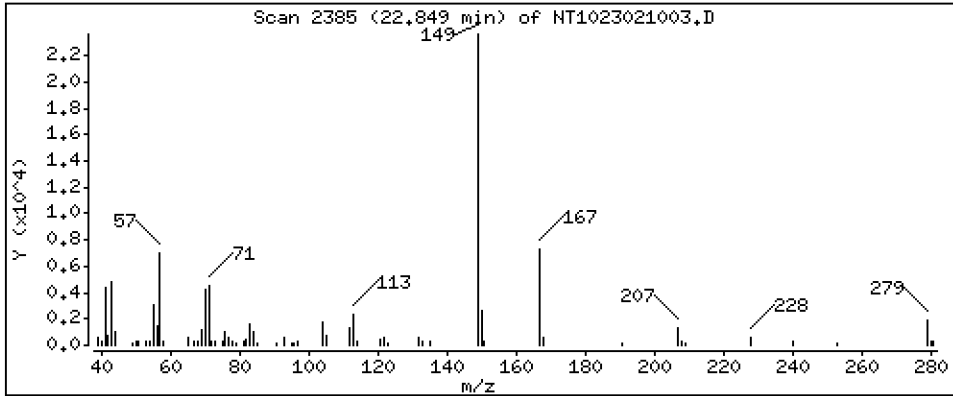
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,5141 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

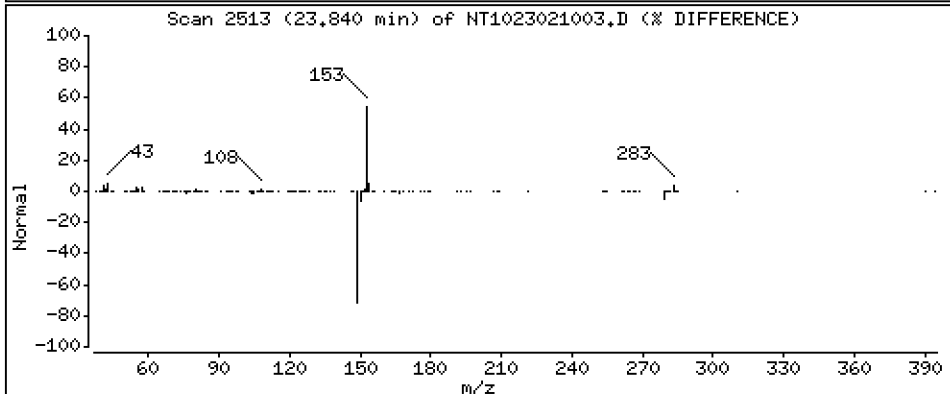
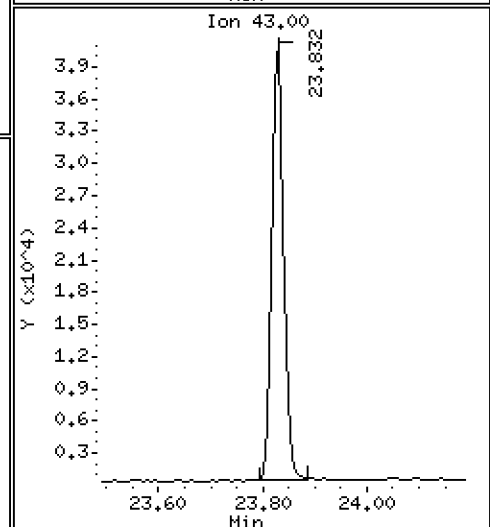
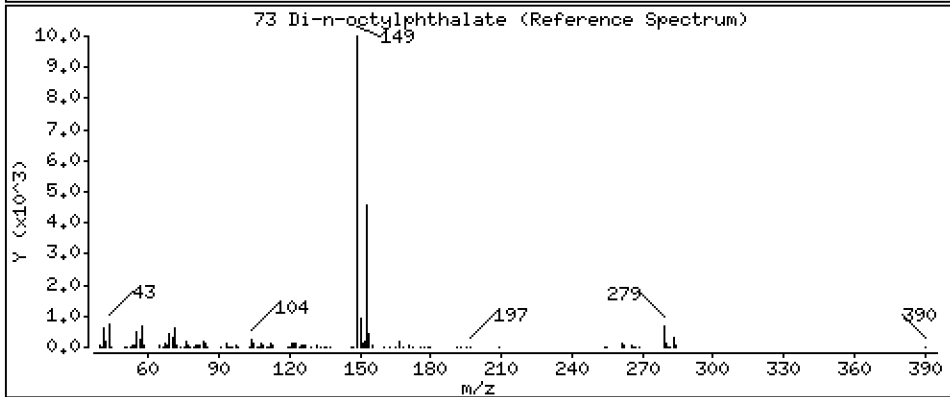
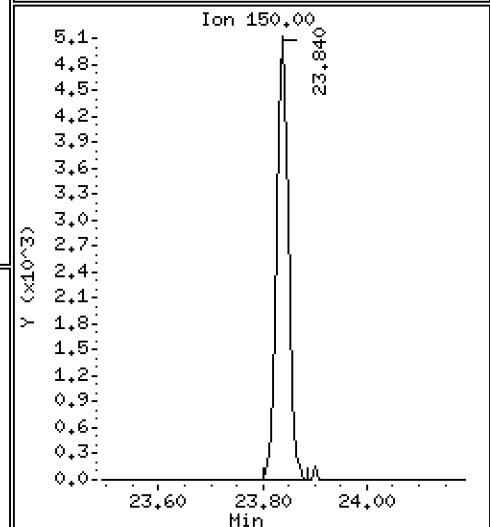
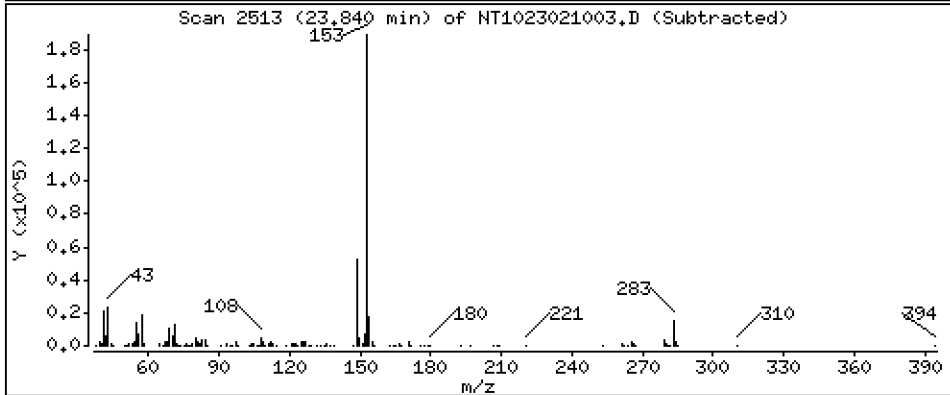
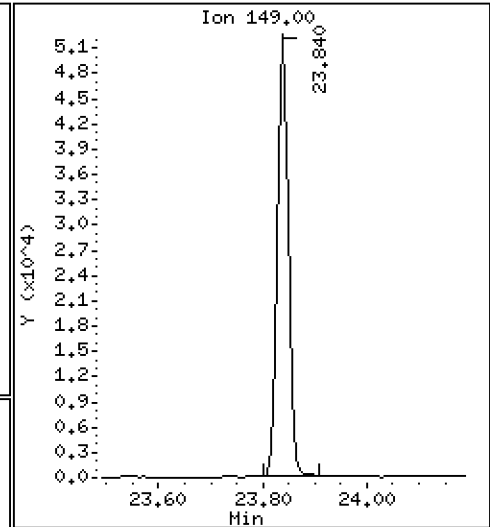
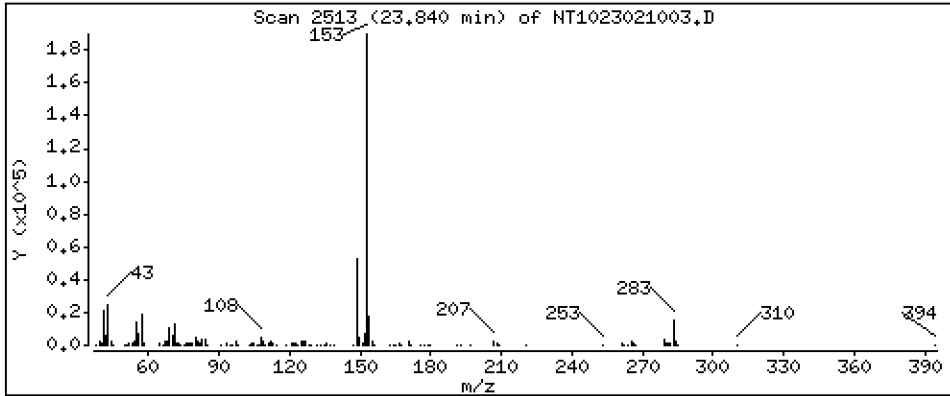
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

73 Di-n-octylphthalate

Concentration: 0.5539 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

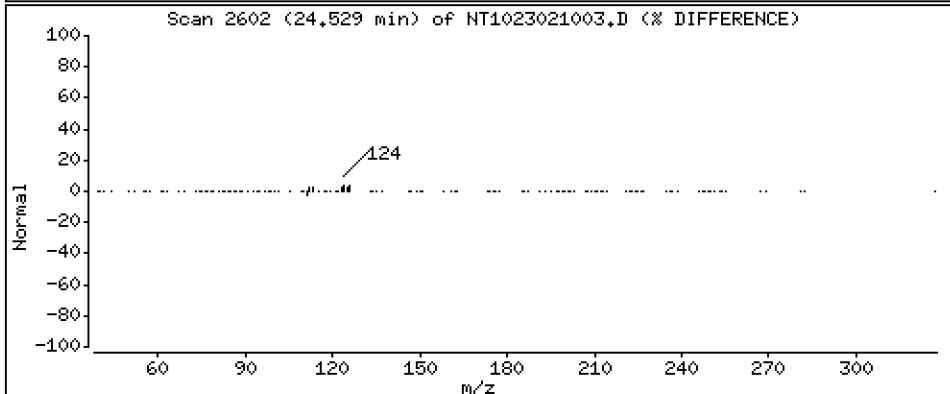
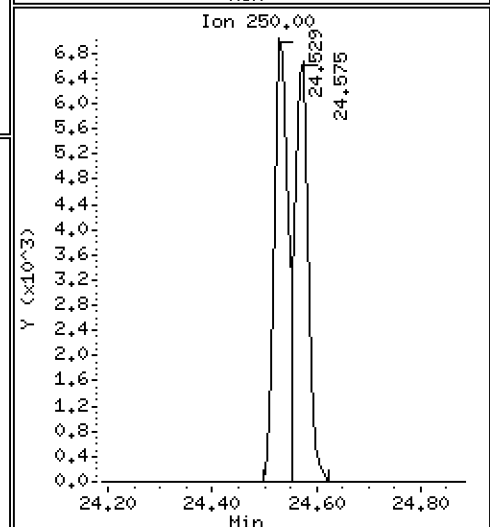
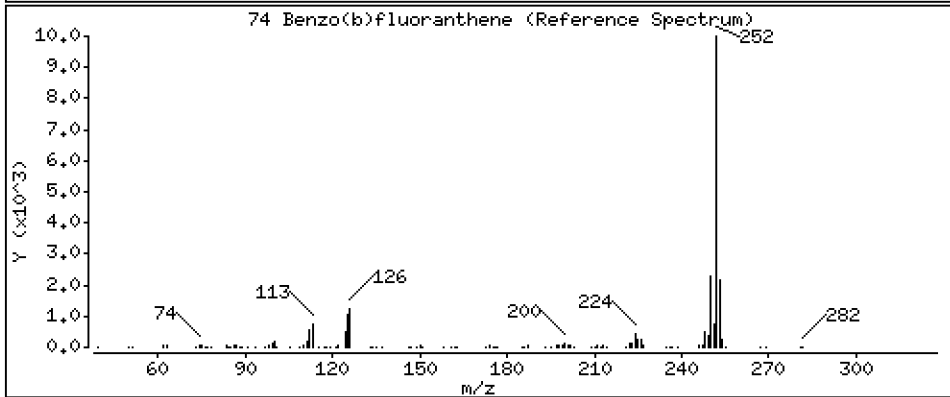
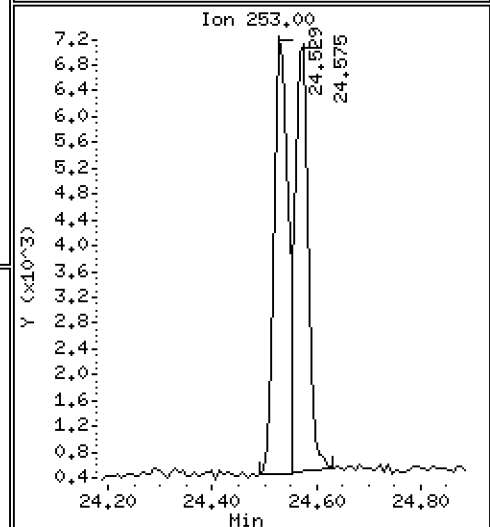
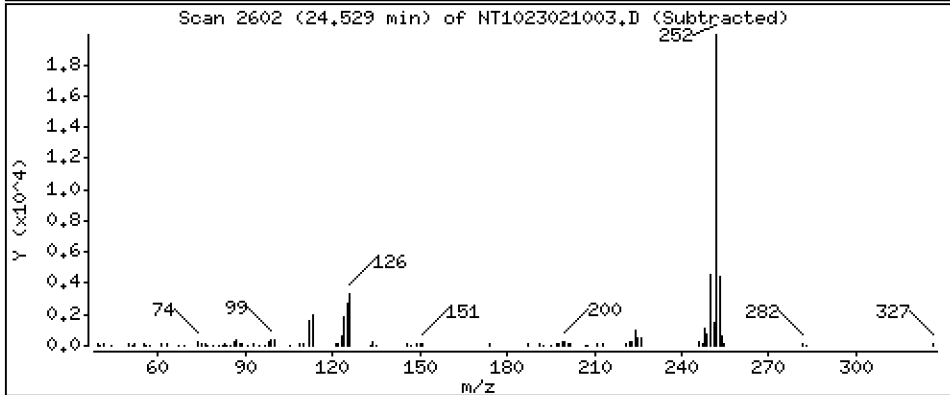
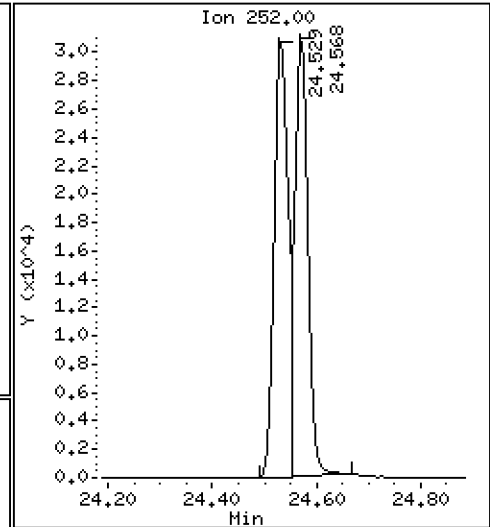
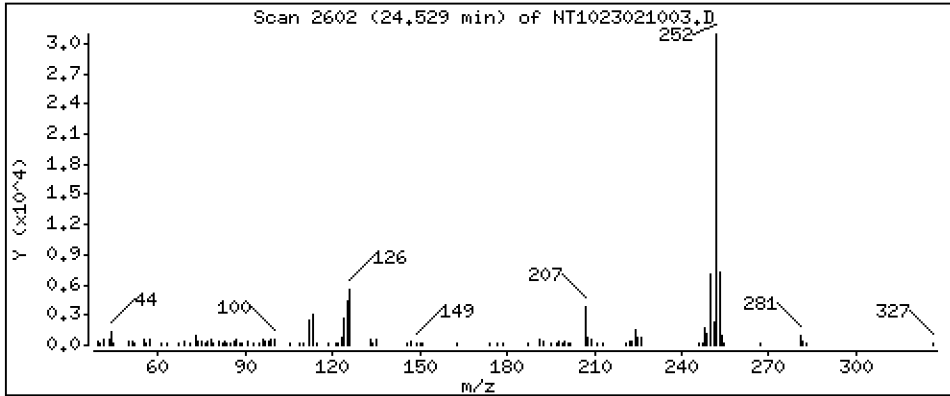
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,5457 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

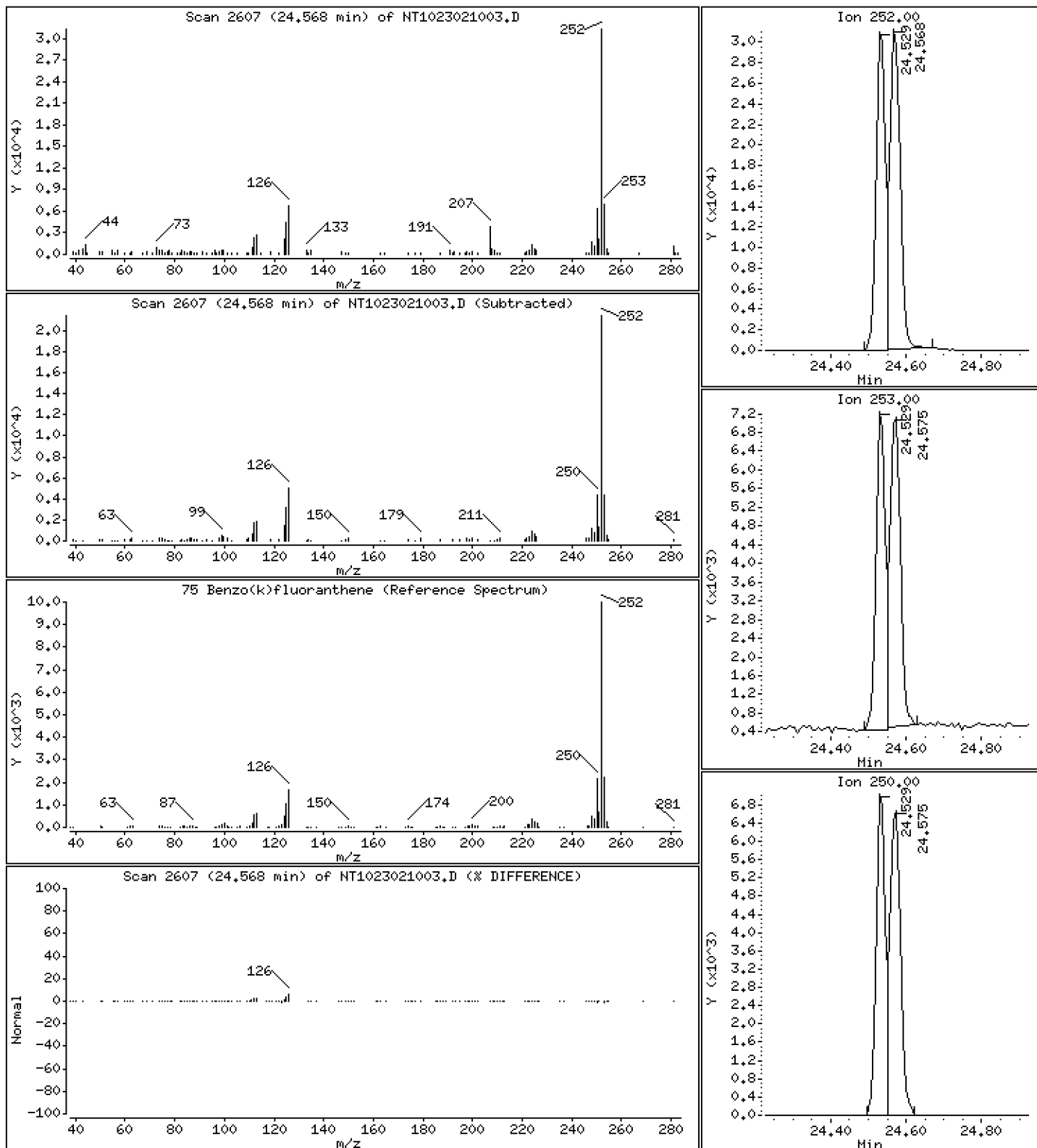
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,5314 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

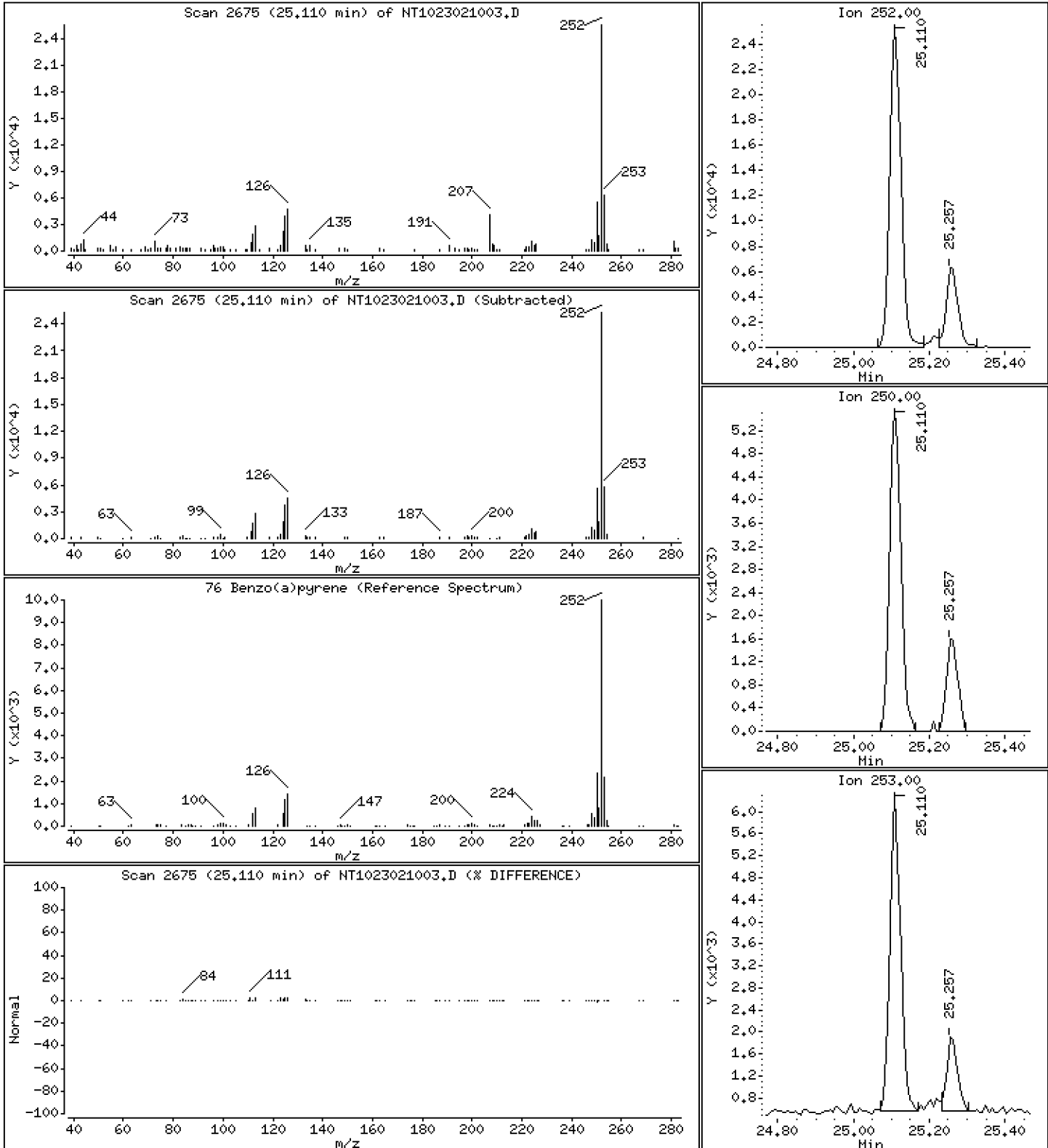
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,5347 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

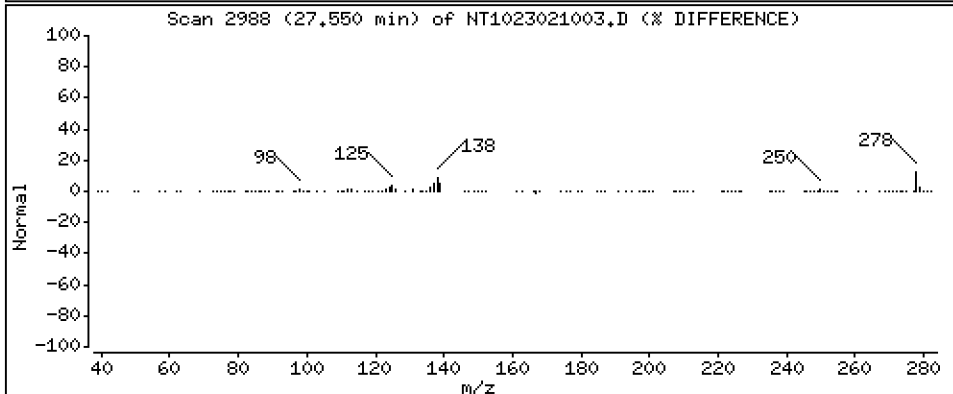
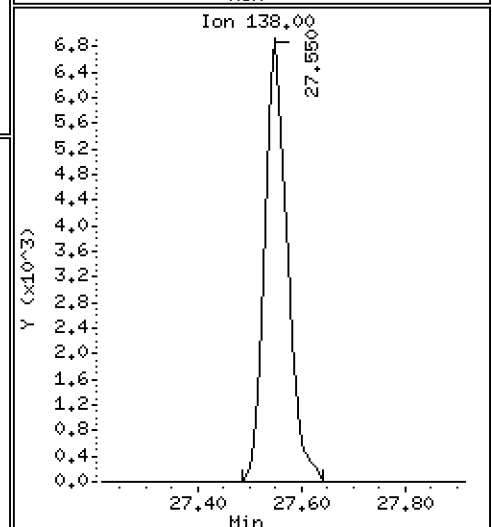
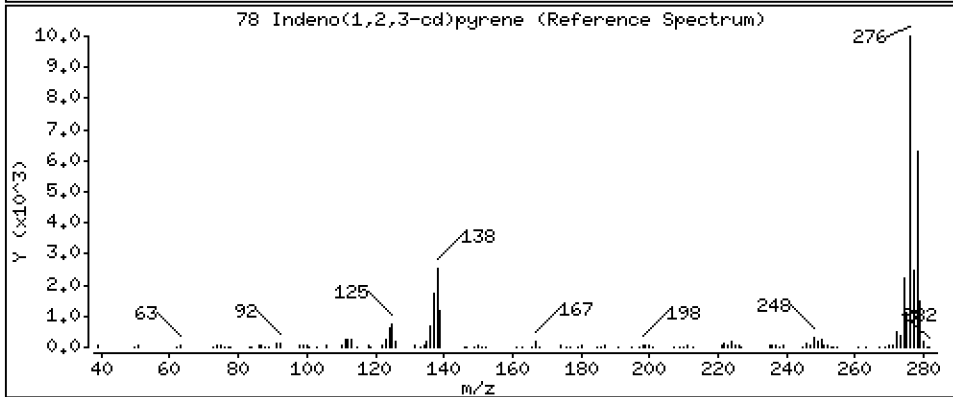
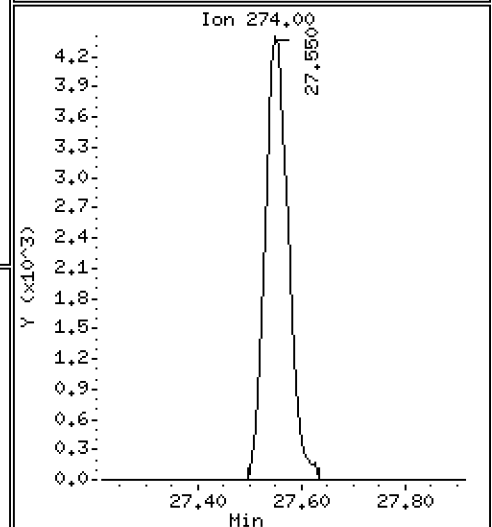
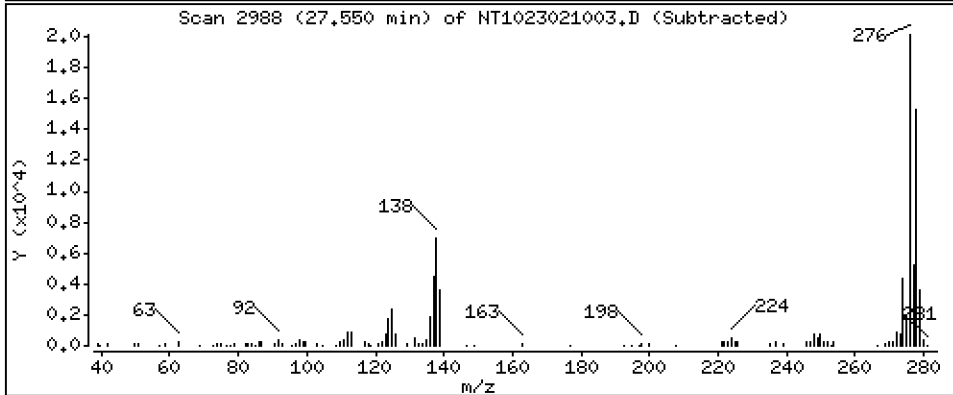
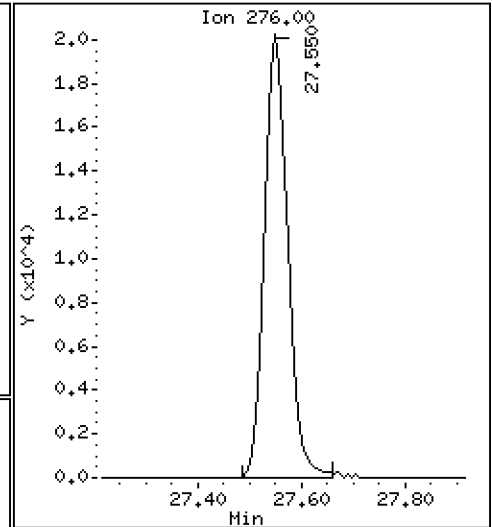
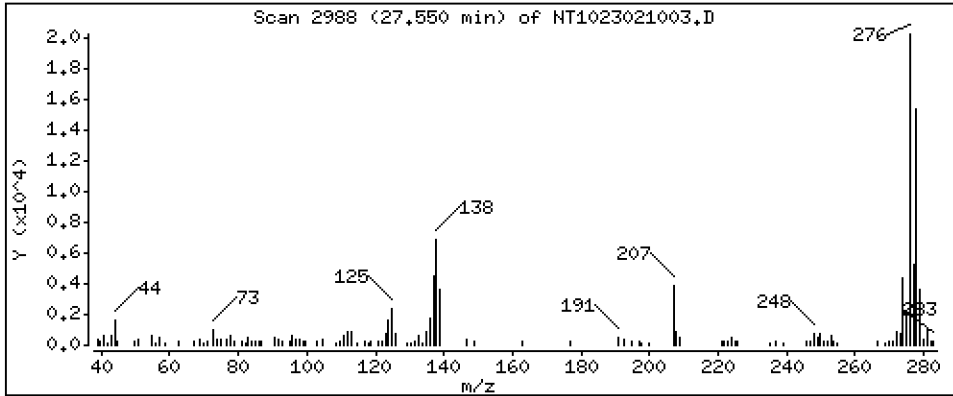
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 0,5538 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

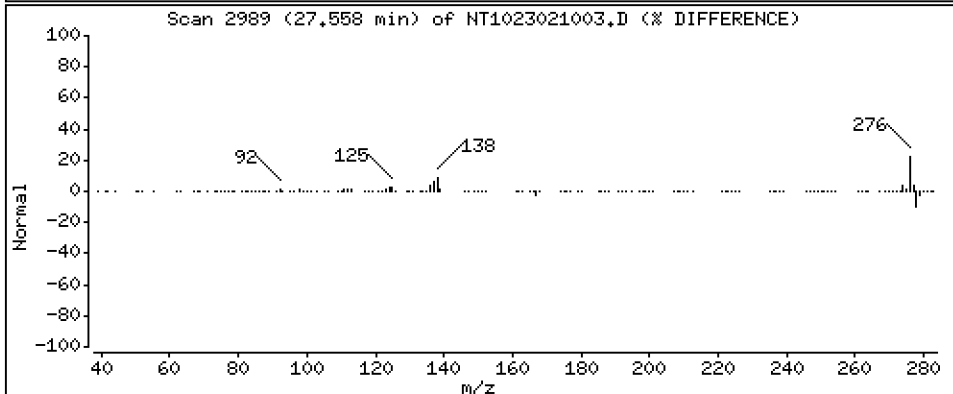
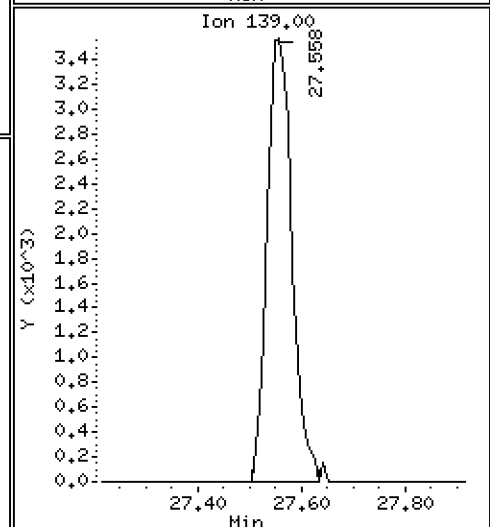
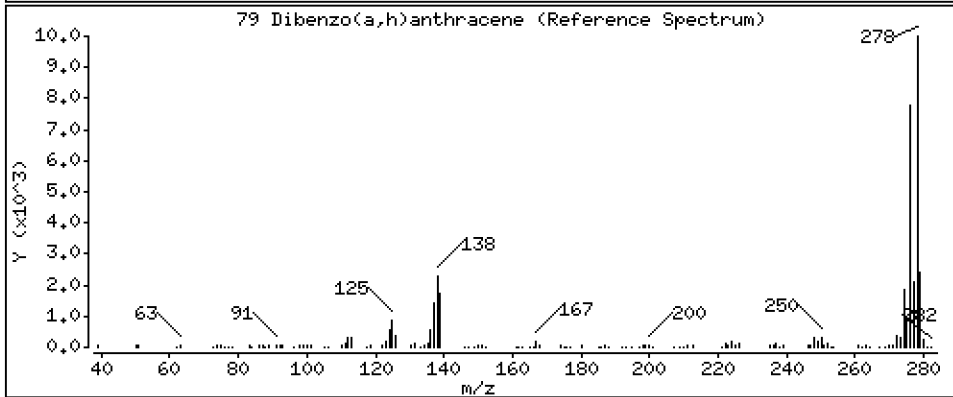
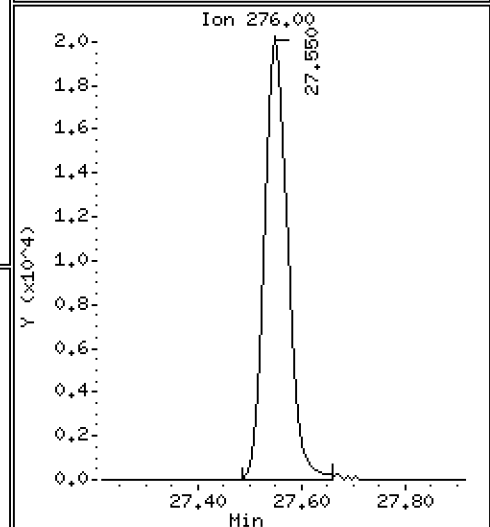
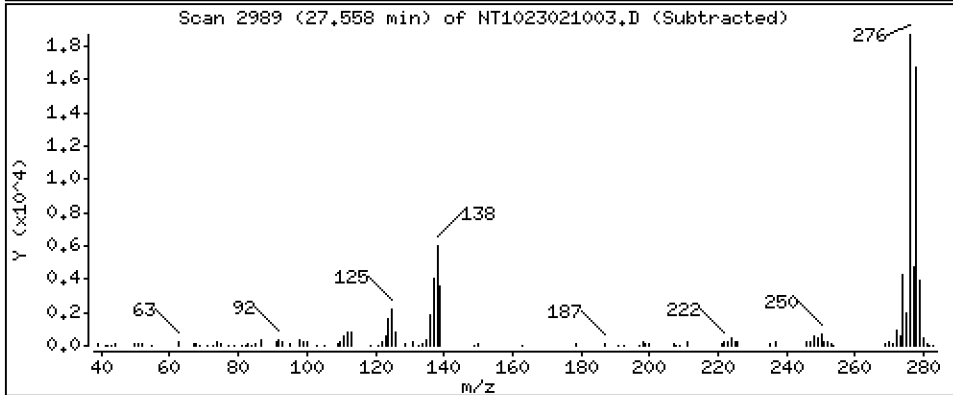
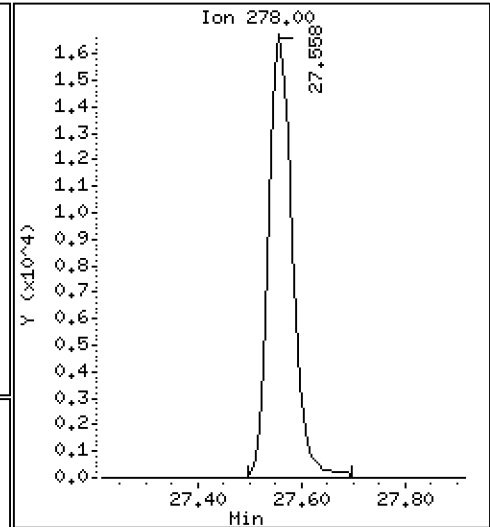
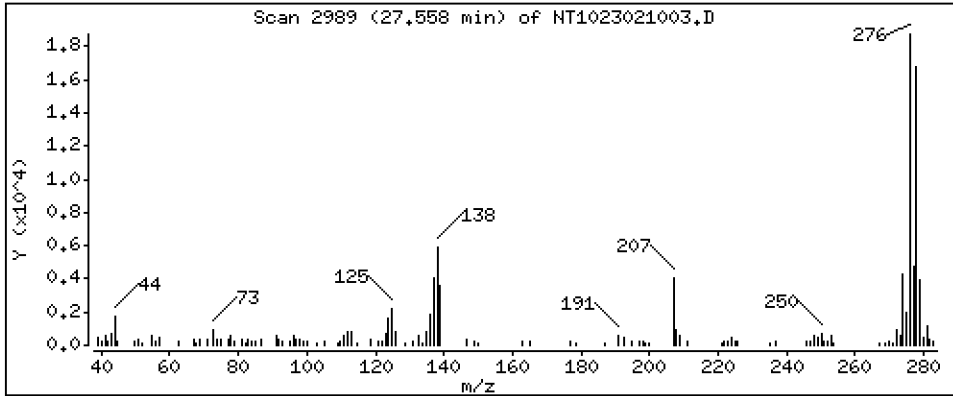
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,5613 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

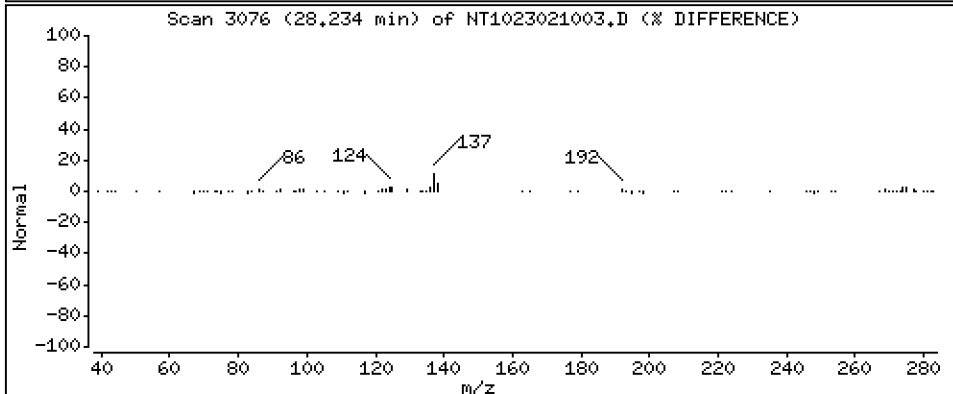
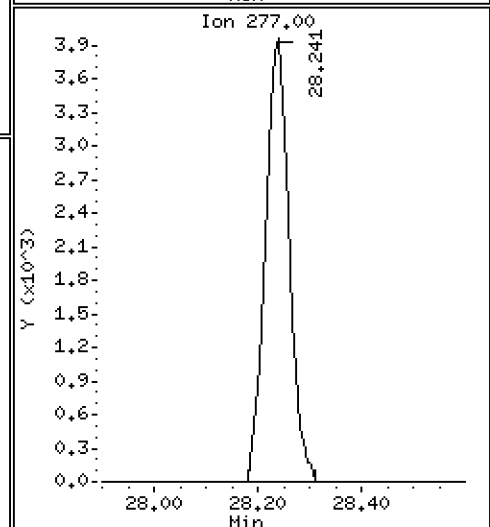
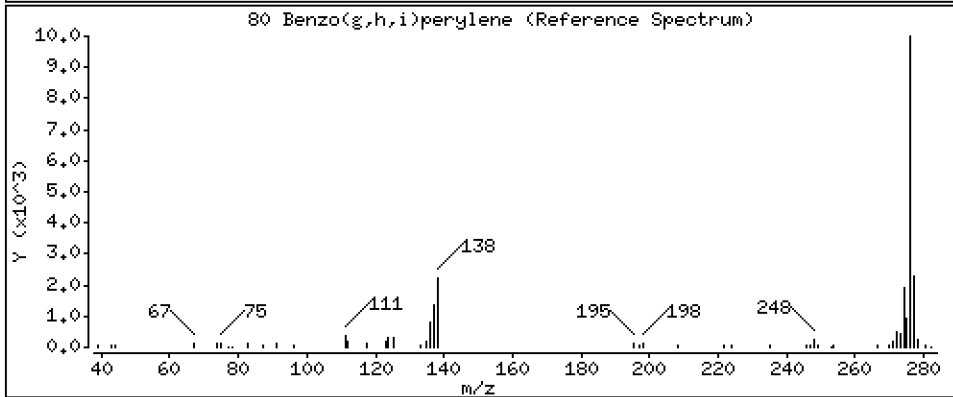
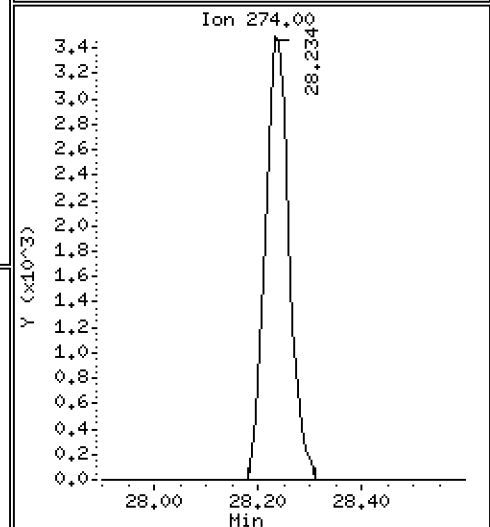
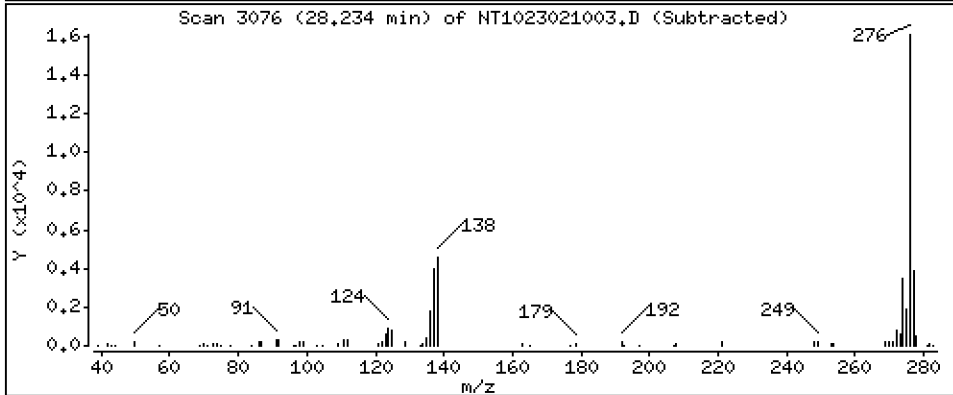
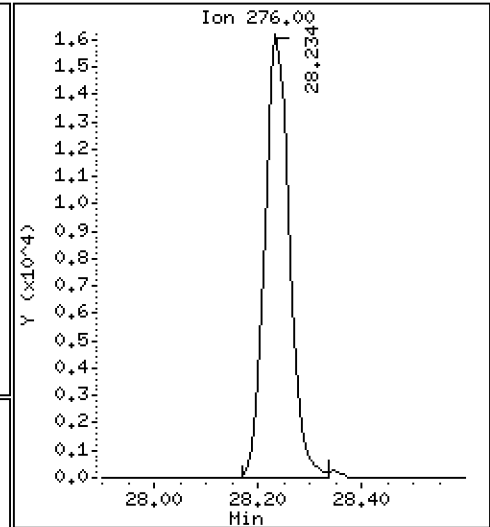
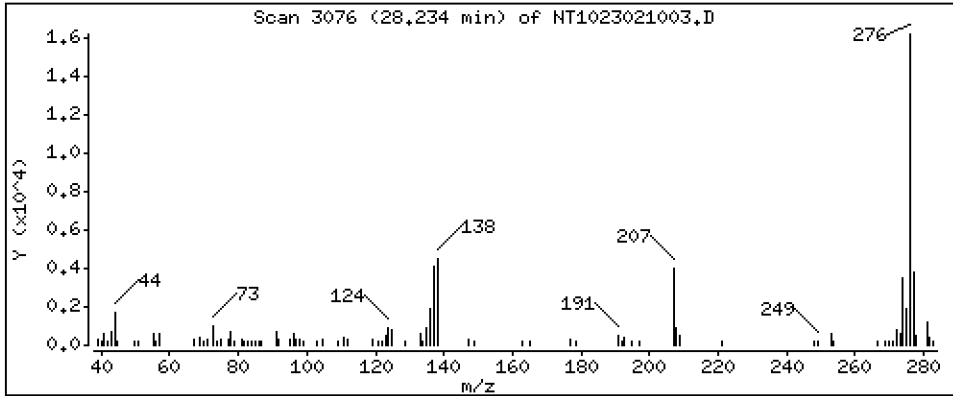
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,5425 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

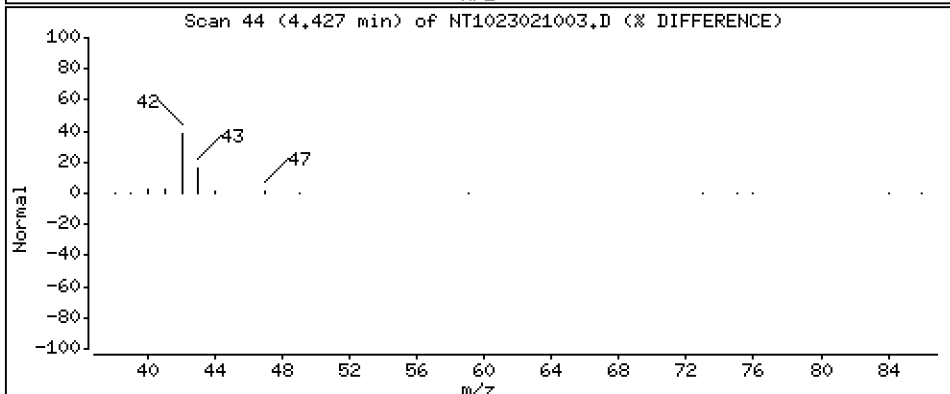
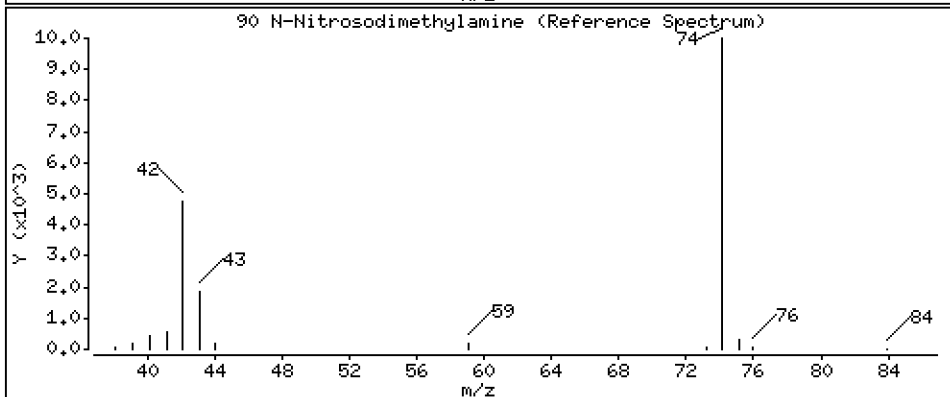
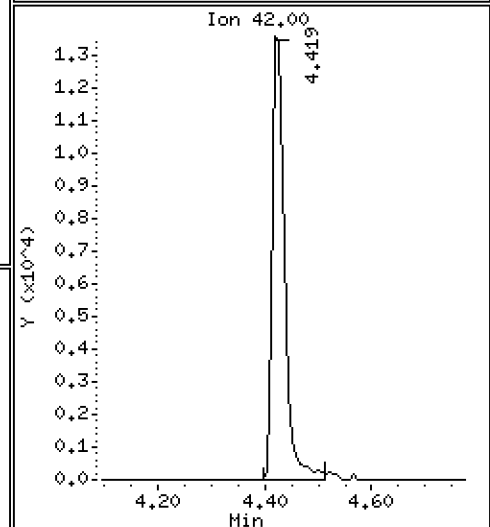
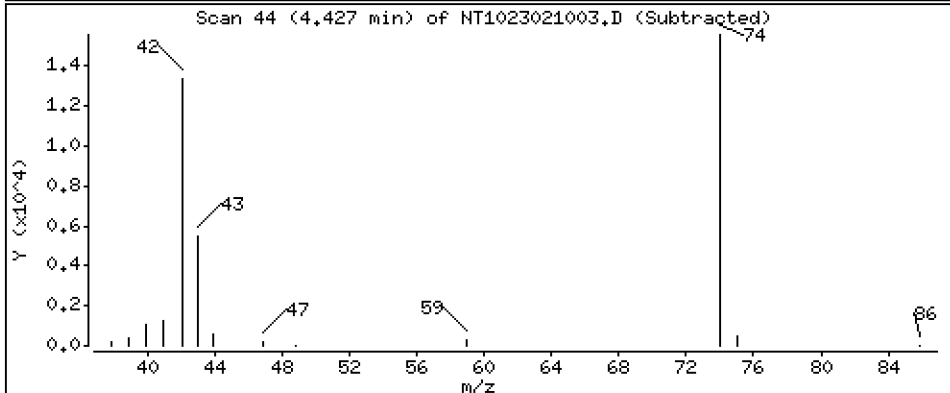
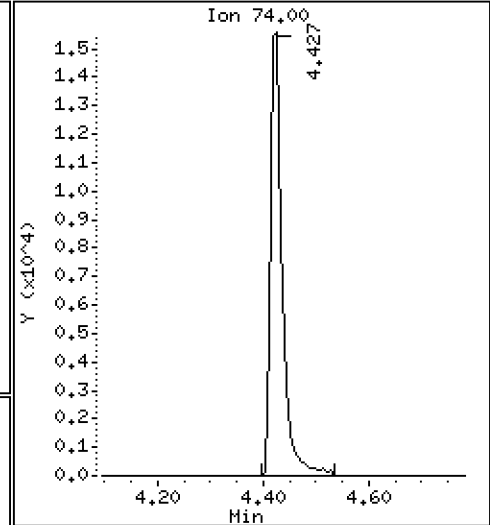
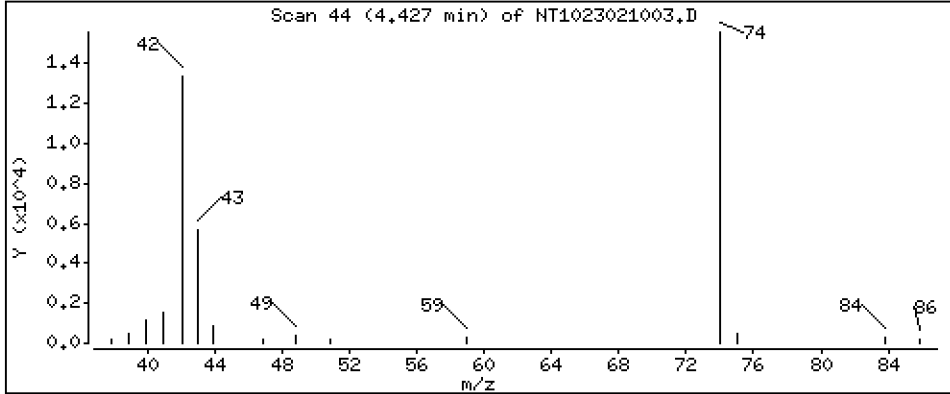
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 1.010 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

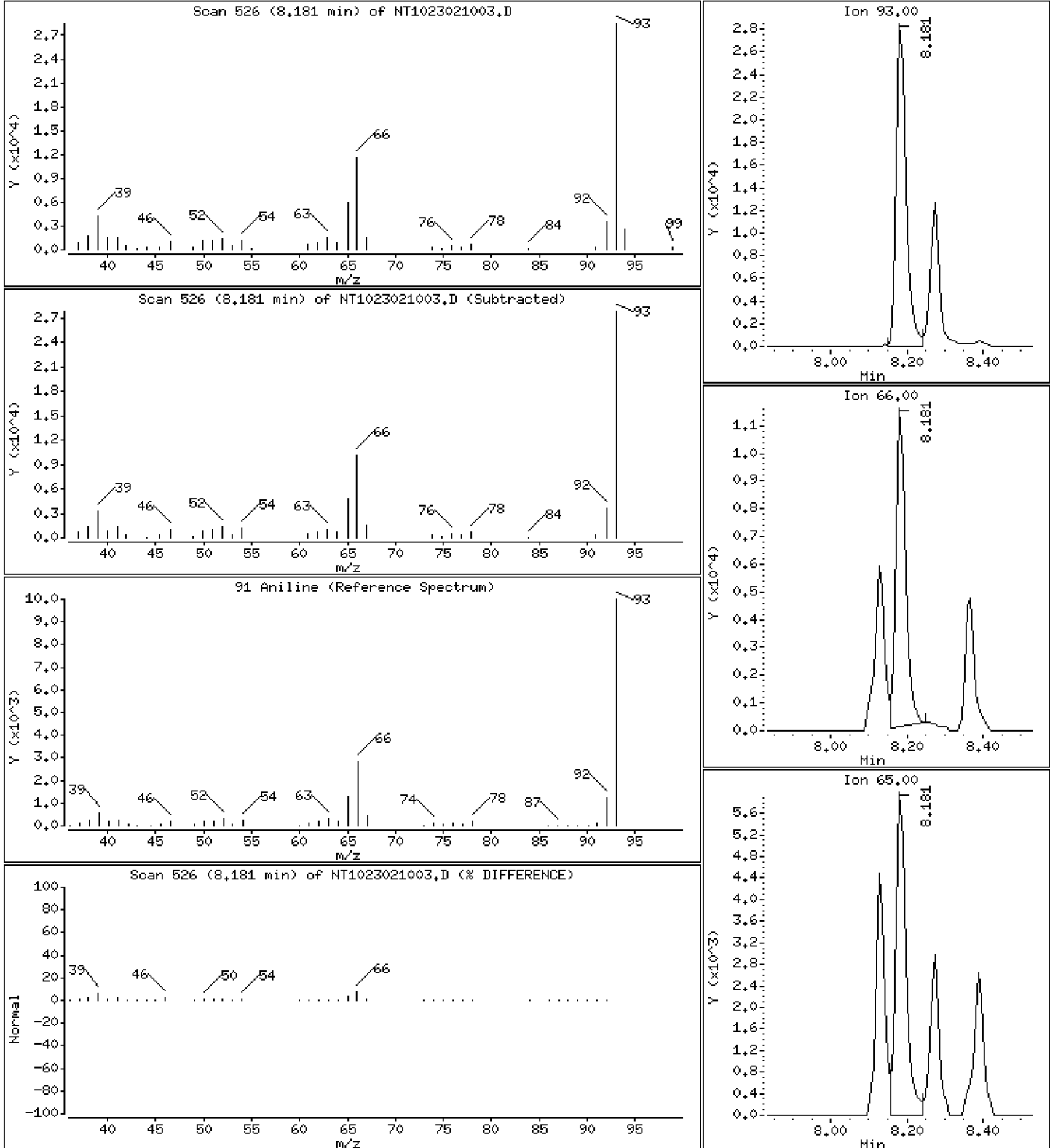
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

91 Aniline

Concentration: 0.9990 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

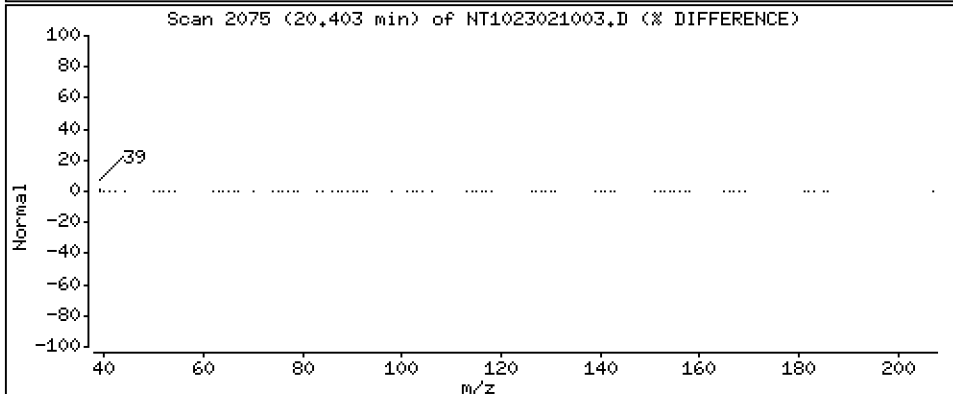
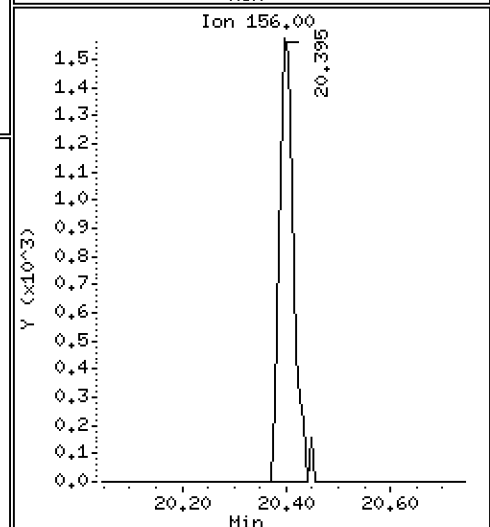
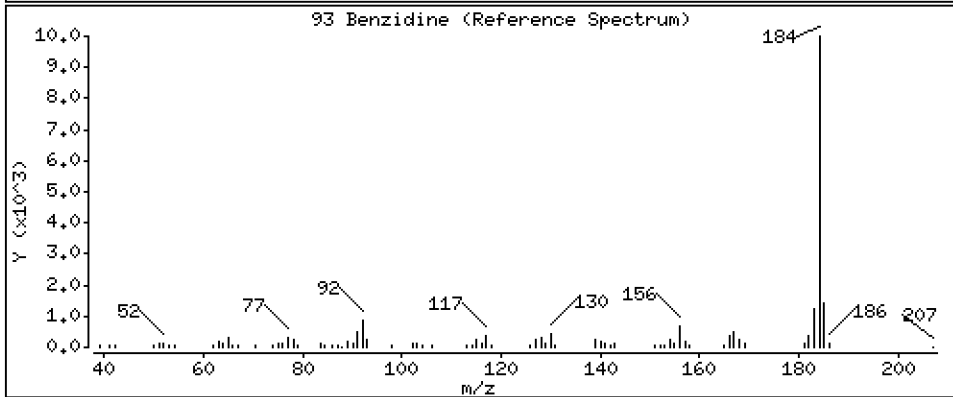
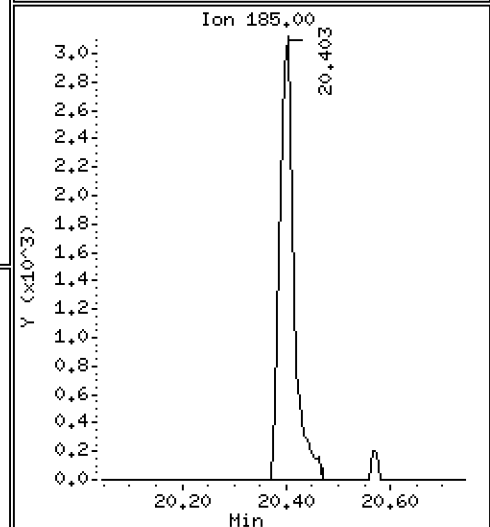
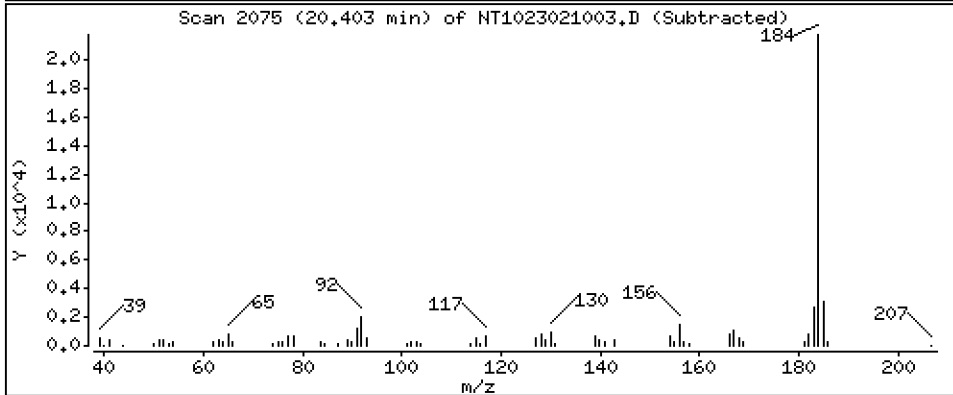
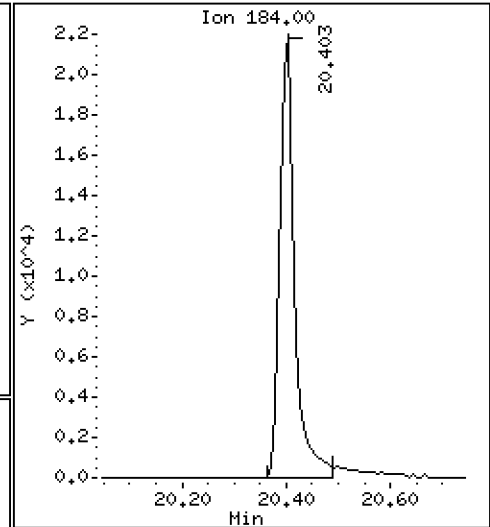
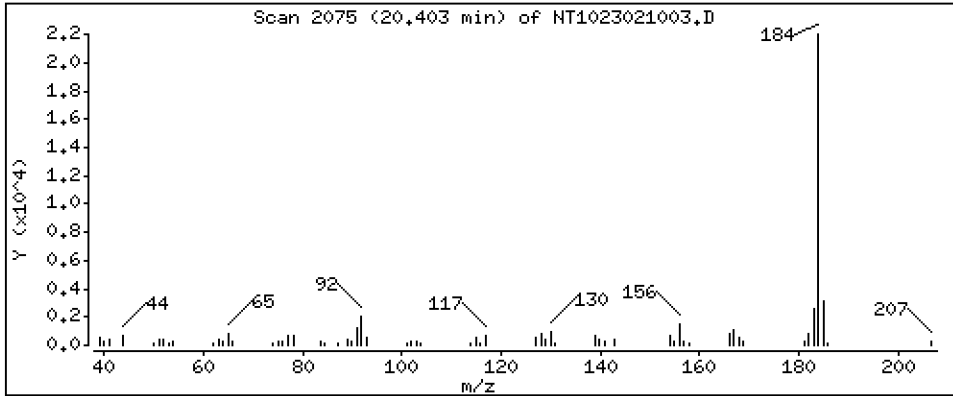
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 1,108 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

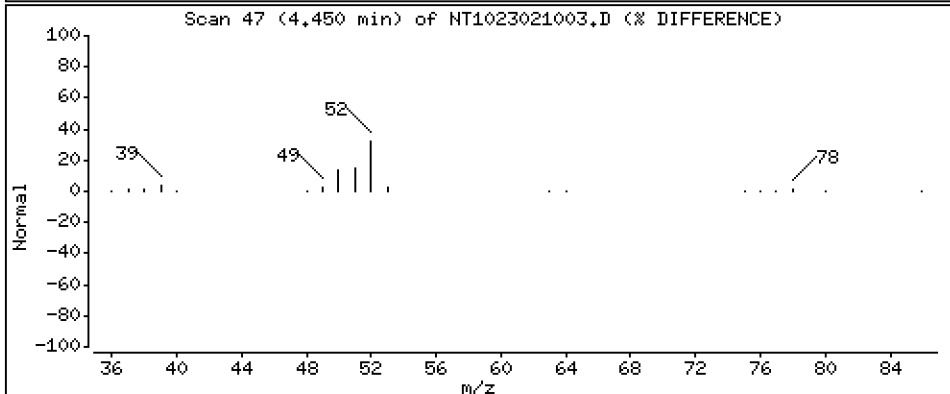
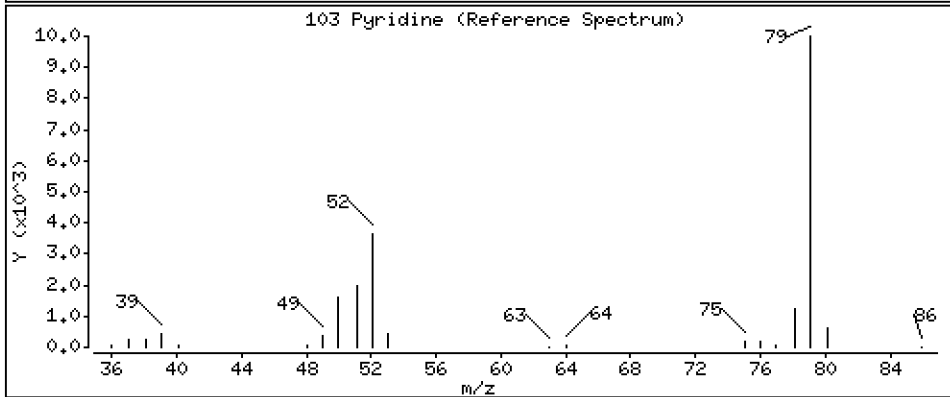
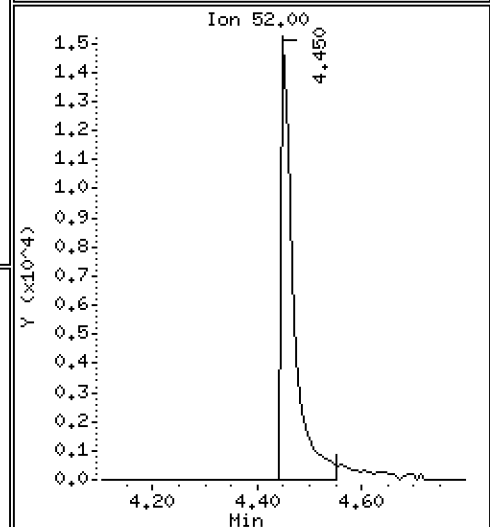
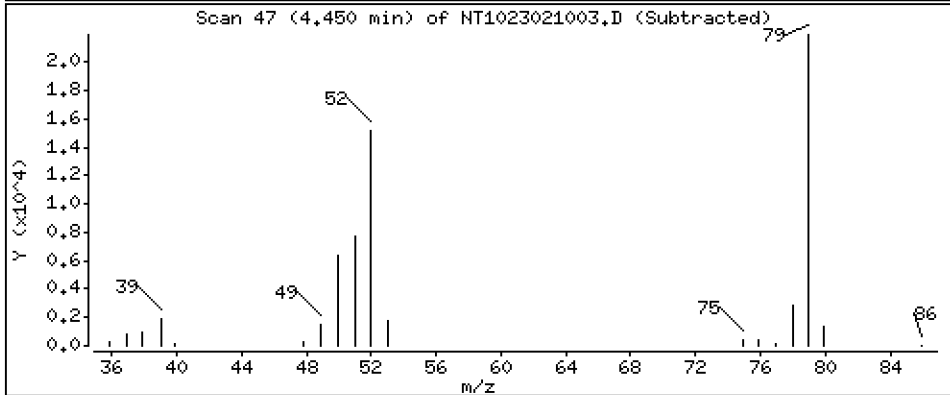
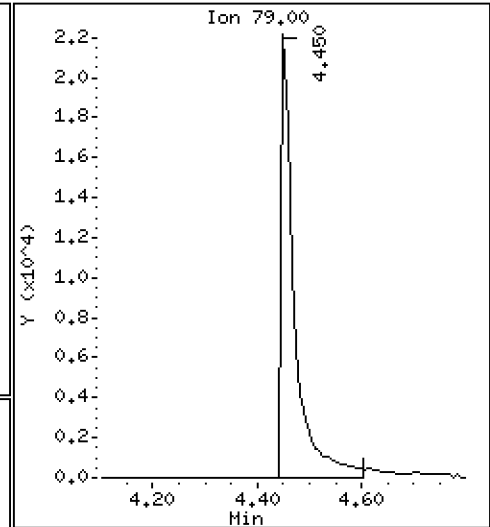
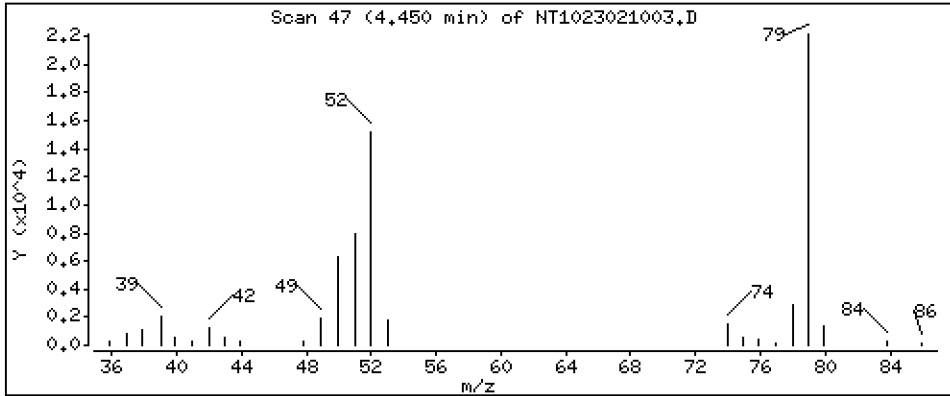
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,9776 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

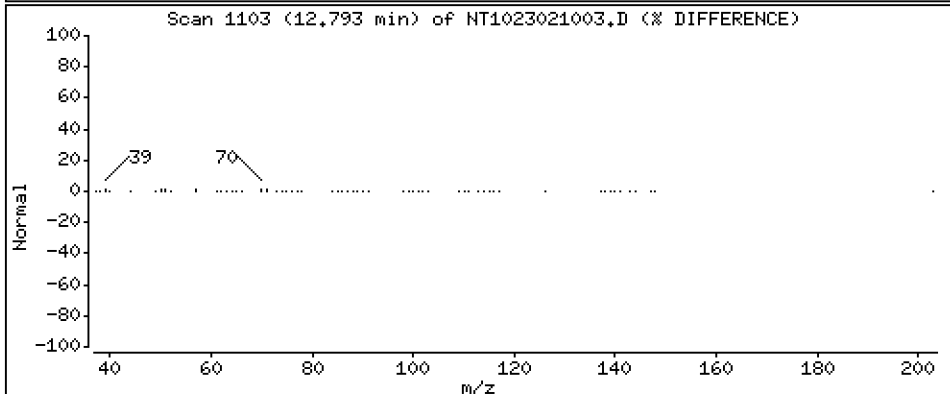
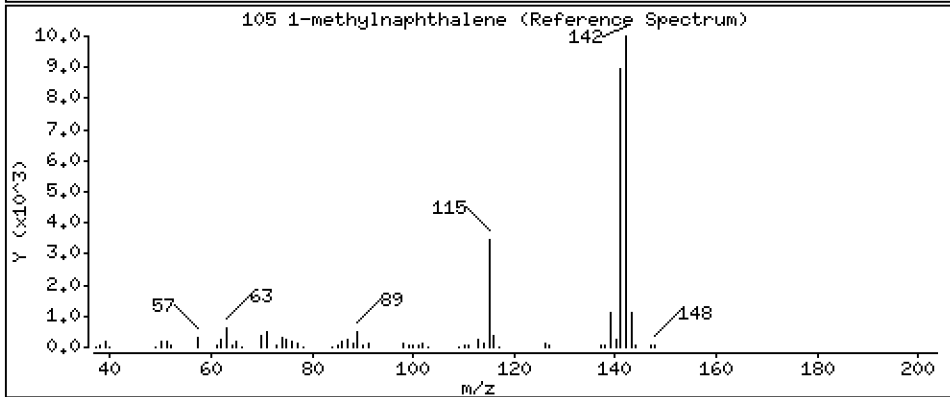
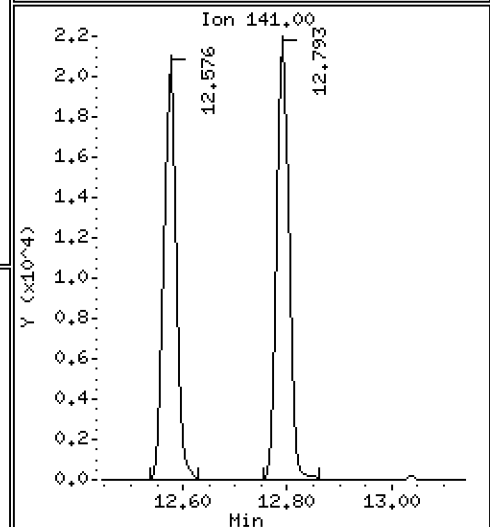
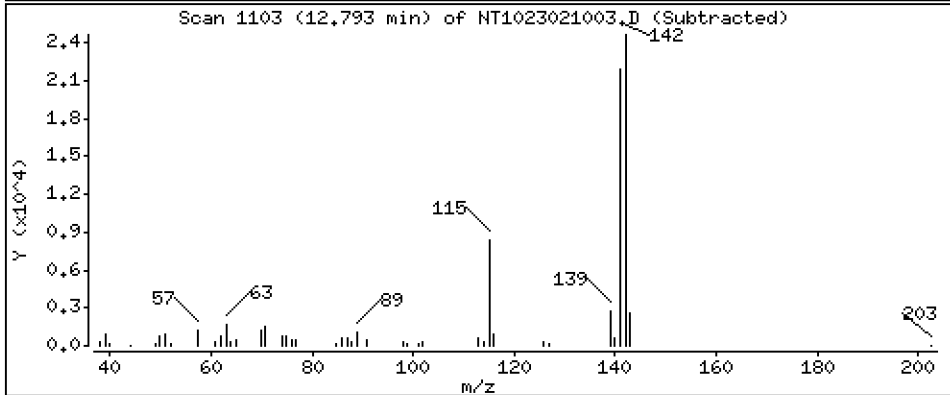
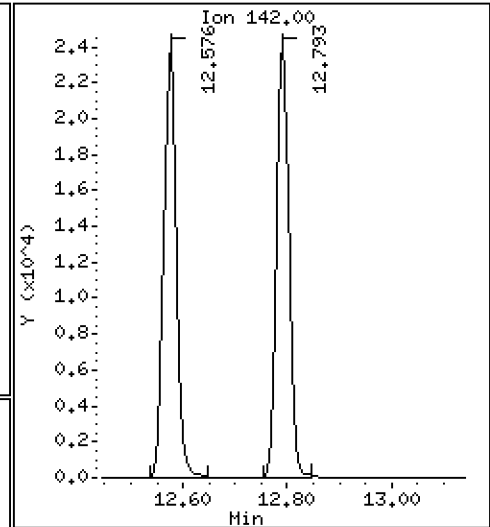
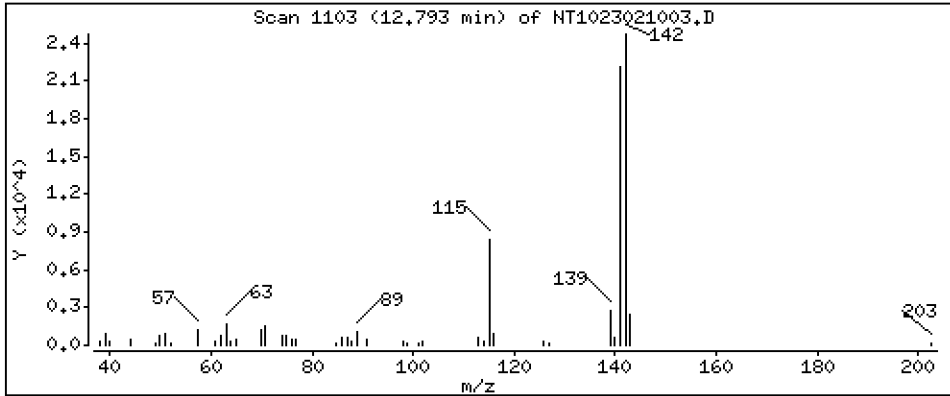
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,5167 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

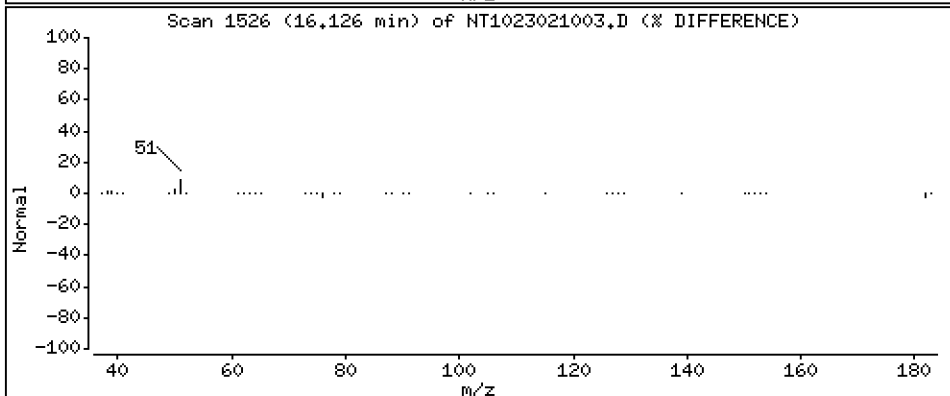
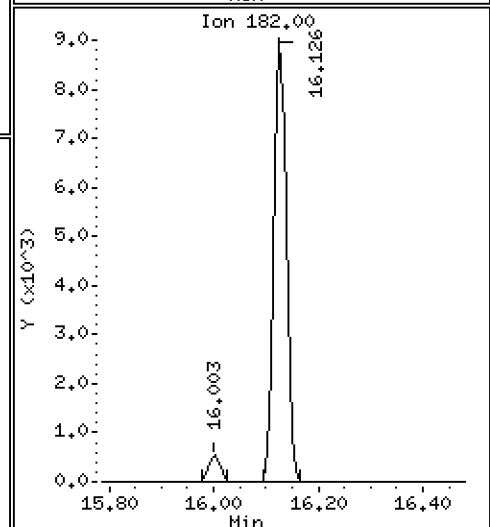
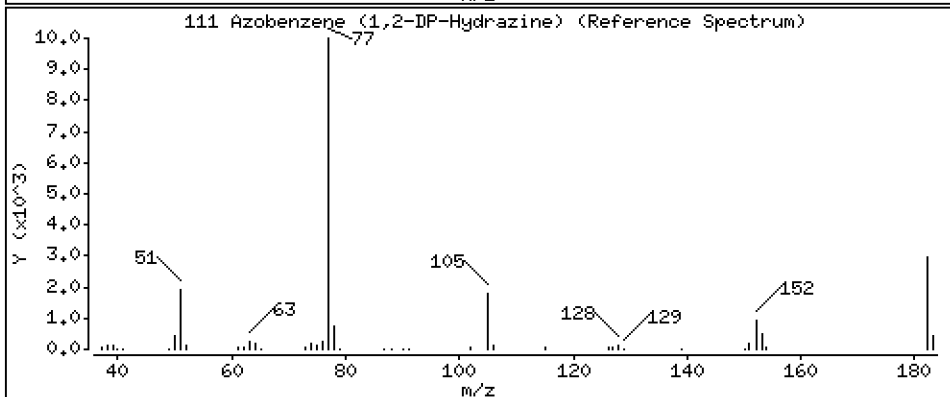
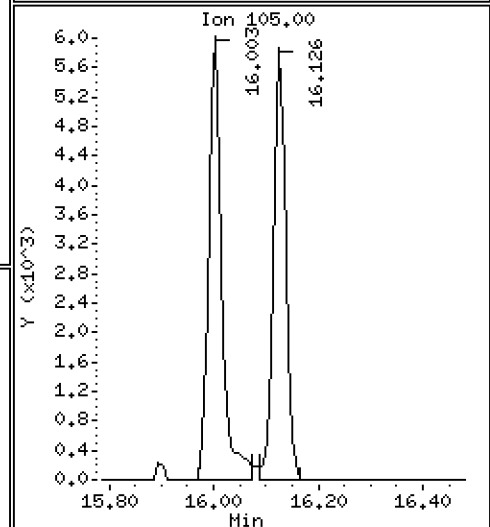
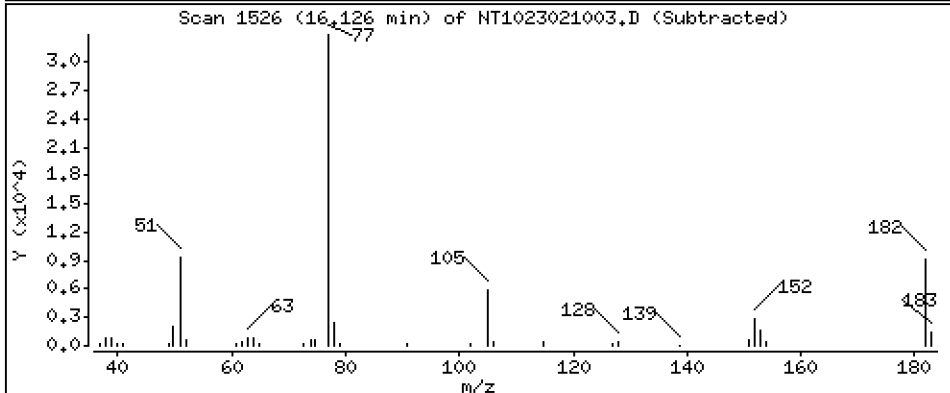
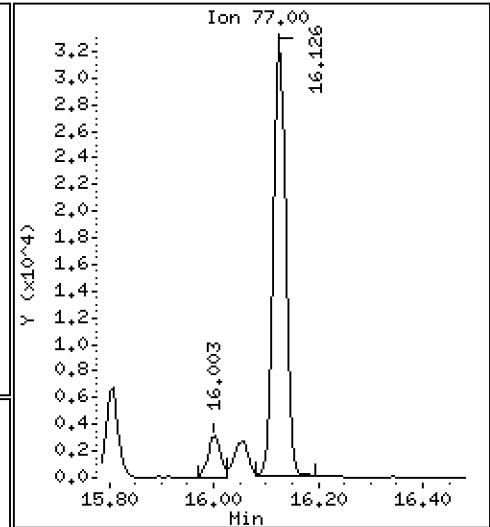
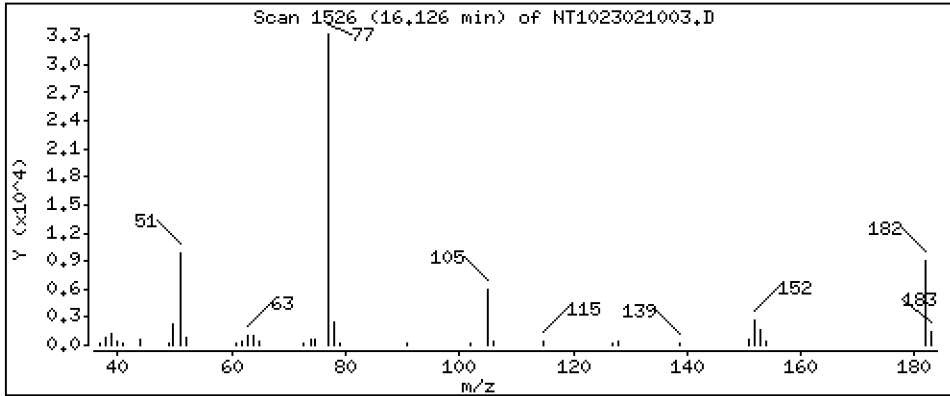
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0.5459 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

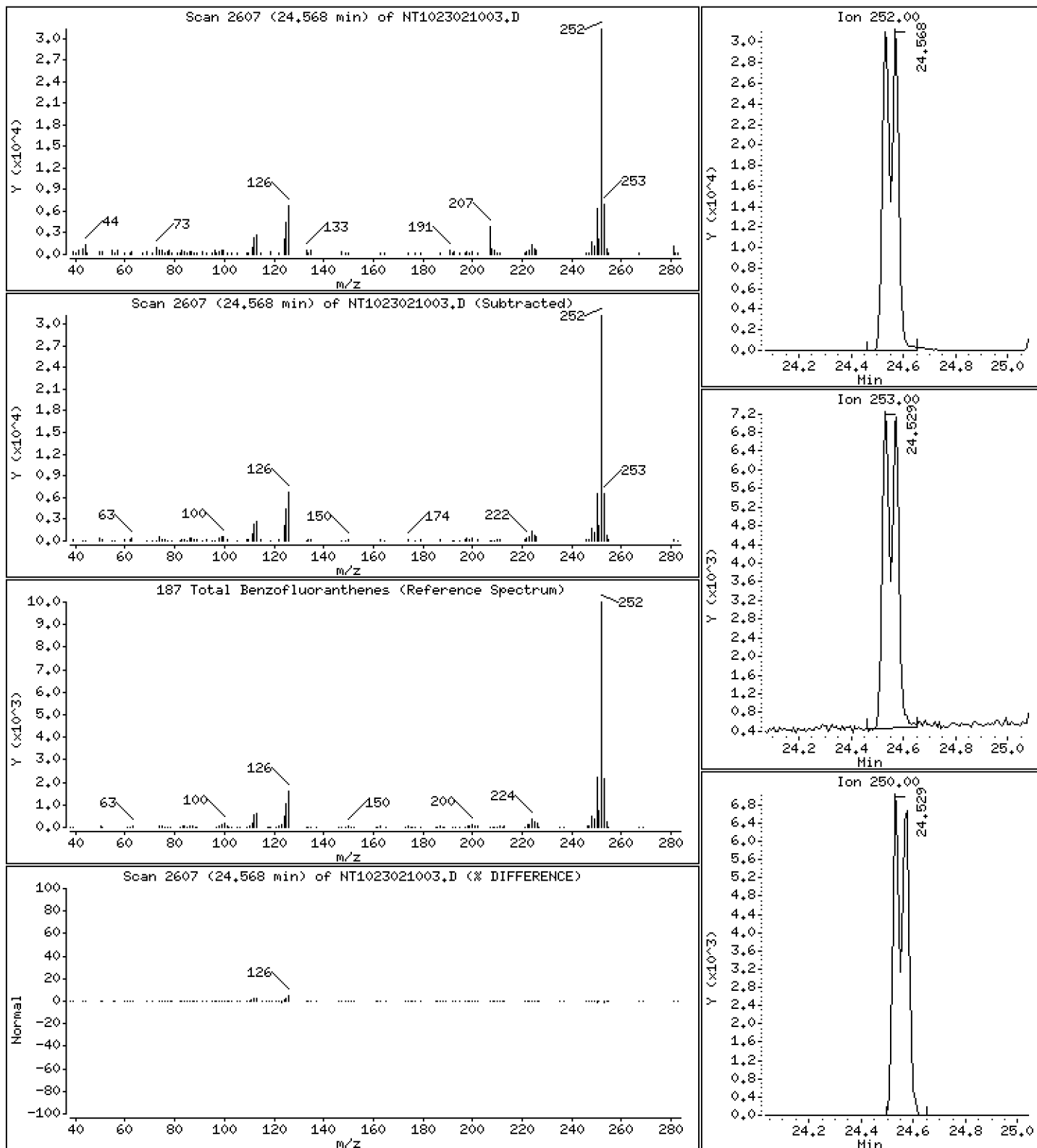
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 1,071 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

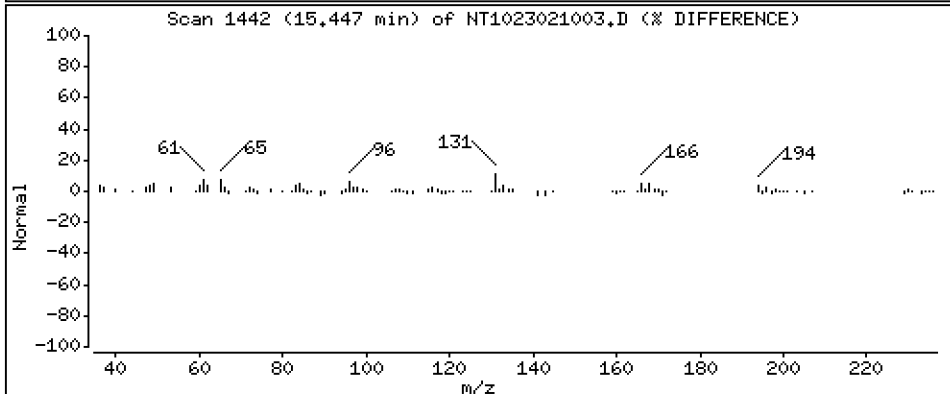
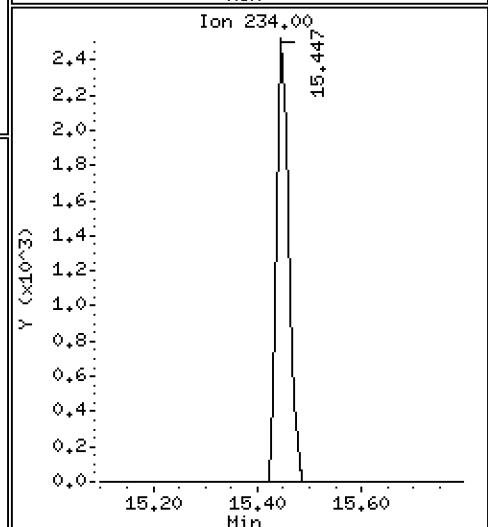
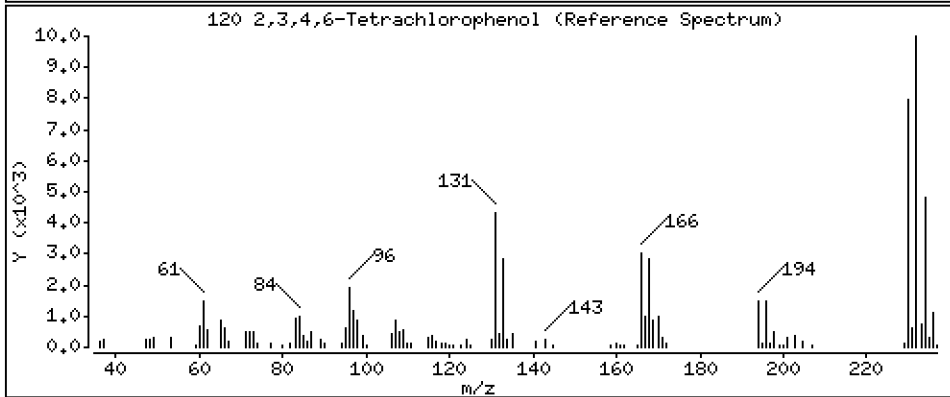
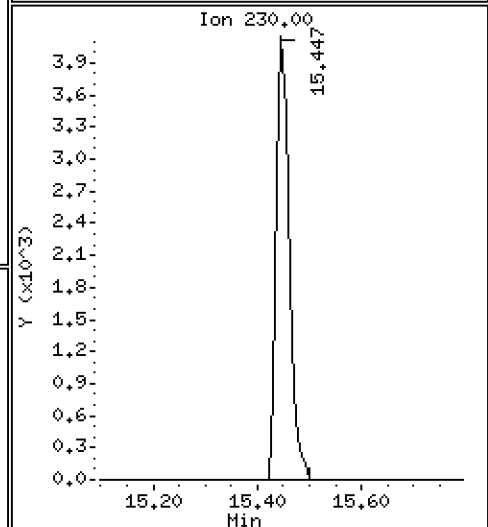
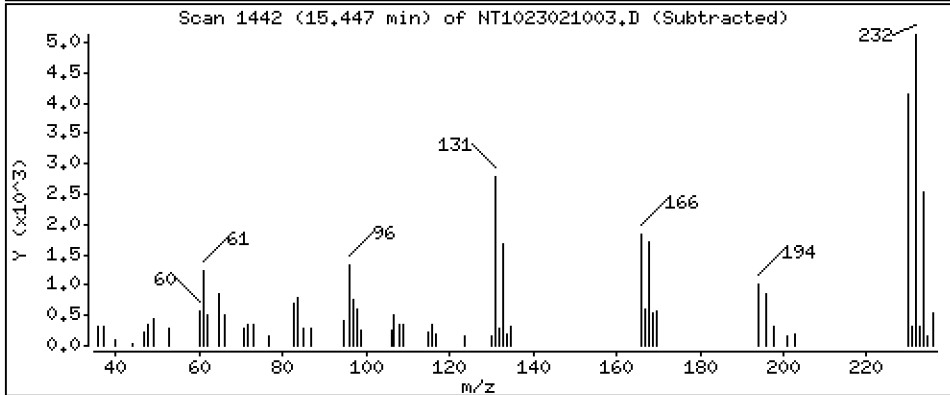
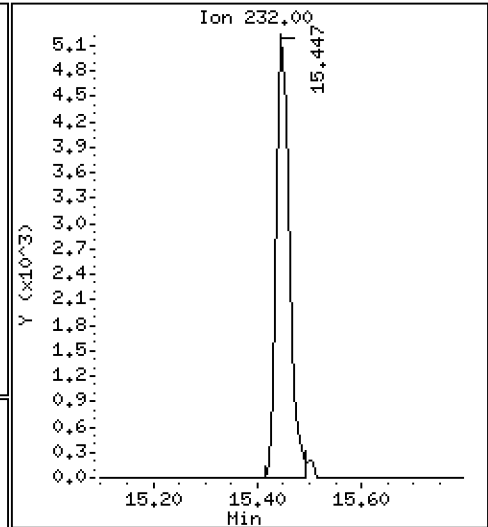
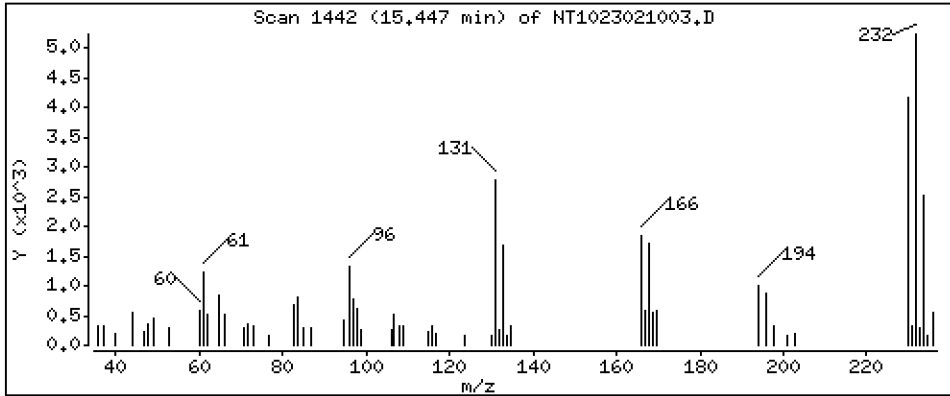
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0.4342 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230210.b\NT1023021003.D
 Lab Smp Id: SLB0154-LCV1
 Inj Date : 10-FEB-2023 16:43
 Operator : VTS
 Smp Info : SLB0154-LCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230210.b\ABN.m
 Meth Date : 11-Feb-2023 12:03 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		6.550	6.550	(0.752)	25424	0.73122	0.7312
\$ 2 Phenol-d5	99		8.103	8.111	(0.930)	36341	0.77479	0.7748
3 Phenol	94		8.126	8.126	(0.933)	26648	0.52521	0.5252
\$ 5 2-Chlorophenol-d4	132		8.366	8.366	(0.960)	29965	0.78716	0.7872
4 Bis(2-Chloroethyl)ether	93		8.273	8.273	(0.949)	19713	0.53427	0.5343
6 2-Chlorophenol	128		8.389	8.389	(0.963)	21717	0.52376	0.5238
7 1,3-Dichlorobenzene	146		8.652	8.652	(0.993)	22798	0.52380	0.5238
* 8 1,4-Dichlorobenzene-d4	152		8.714	8.714	(1.000)	109365	4.00000	
9 1,4-Dichlorobenzene	146		8.745	8.745	(1.004)	22103	0.51559	0.5156
\$ 10 1,2-Dichlorobenzene-d4	152		9.063	9.071	(1.040)	13515	0.51867	0.5187
12 1,2-Dichlorobenzene	146		9.095	9.094	(1.044)	21148	0.51170	0.5117
11 Benzyl alcohol	108		8.986	8.986	(1.031)	9661	0.42987	0.4299
14 2,2'-oxybis(1-Chloropropane)	121		9.281	9.281	(1.065)	5970	0.50274	0.5027
13 2-Methylphenol	108		9.219	9.219	(1.058)	22396	0.59519	0.5952
17 Hexachloroethane	117		9.677	9.677	(1.110)	8384	0.51014	0.5101
16 N-Nitroso-di-n-propylamine	70		9.529	9.537	(1.094)	14429	0.50993	0.5099
15 4-Methylphenol	108		9.483	9.490	(1.088)	20463	0.51341	0.5134
\$ 18 Nitrobenzene-d5	82		9.785	9.785	(0.877)	21718	0.53592	0.5359
19 Nitrobenzene	77		9.824	9.824	(0.880)	21516	0.53243	0.5324
20 Isophorone	82		10.259	10.266	(0.919)	26876	0.47759	0.4776
21 2-Nitrophenol	139		10.447	10.447	(0.936)	12161	0.58424	0.5842
22 2,4-Dimethylphenol	107		10.507	10.515	(0.941)	41122	1.10518	1.105
23 Bis(2-Chloroethoxy)methane	93		10.693	10.693	(0.958)	19846	0.54312	0.5431
24 Benzoic acid	105		10.668	10.753	(0.956)	14170	0.67294	0.6729
25 2,4-Dichlorophenol	162		10.897	10.897	(0.976)	35287	1.16730	1.167
26 1,2,4-Trichlorobenzene	180		11.075	11.075	(0.992)	17713	0.53780	0.5378
* 27 Naphthalene-d8	136		11.160	11.160	(1.000)	410189	4.00000	
28 Naphthalene	128		11.199	11.199	(1.003)	57482	0.52441	0.5244
29 4-Chloroaniline	127		11.330	11.330	(1.015)	48031	1.02220	1.022
30 Hexachlorobutadiene	225		11.562	11.562	(1.036)	9429	0.54895	0.5489
31 4-Chloro-3-methylphenol	107		12.297	12.297	(1.102)	35398	1.07115	1.071
32 2-Methylnaphthalene	142		12.576	12.576	(1.127)	39110	0.51316	0.5132
33 Hexachlorocyclopentadiene	237		13.040	13.040	(0.886)	1982	0.15021	0.1502
34 2,4,6-Trichlorophenol	196		13.195	13.195	(0.896)	20444	1.04828	1.048

Compounds	QUANT		SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)	
35 2,4,5-Trichlorophenol	196	13.272	13.272	(0.902)	21457	1.02053	1.021	
\$ 36 2-Fluorobiphenyl	172	13.350	13.350	(0.907)	42505	0.54596	0.5460	
37 2-Chloronaphthalene	162	13.551	13.551	(0.921)	36110	0.53360	0.5336	
38 2-Nitroaniline	65	13.806	13.814	(0.938)	22699	1.06525	1.065	
39 Dimethylphthalate	163	14.240	14.240	(0.967)	39667	0.54788	0.5479	
40 Acenaphthylene	152	14.410	14.410	(0.979)	58259	0.54047	0.5405	
41 2,6-Dinitrotoluene	165	14.371	14.379	(0.976)	17808	1.03849	1.038	
* 42 Acenaphthene-d10	164	14.719	14.719	(1.000)	216039	4.00000		
43 3-Nitroaniline	138	14.650	14.650	(0.995)	19271	0.97467	0.9747	
44 Acenaphthene	153	14.781	14.781	(1.004)	34437	0.52130	0.5213	
45 2,4-Dinitrophenol	184	14.866	14.866	(1.010)	5923	0.66898	0.6690	
46 Dibenzofuran	168	15.106	15.106	(1.026)	49419	0.52004	0.5200	
47 4-Nitrophenol	109	15.005	14.998	(1.019)	6977	0.94662	0.9466	
48 2,4-Dinitrotoluene	165	15.168	15.175	(1.030)	23978	1.01344	1.013	
50 Diethylphthalate	149	15.678	15.686	(1.065)	37152	0.53435	0.5344	
49 Fluorene	166	15.809	15.809	(1.074)	50168	0.46966	0.4697	
51 4-Chlorophenyl-phenylether	204	15.809	15.809	(1.074)	23132	0.44339	0.4434	
52 4-Nitroaniline	138	15.894	15.902	(1.080)	22661	1.00294	1.003	
53 4,6-Dinitro-2-methylphenol	198	16.002	16.002	(0.903)	24140	1.72283	1.723	
54 N-Nitrosodiphenylamine	169	16.056	16.056	(0.906)	35684	0.53809	0.5381	
\$ 55 2,4,6-Tribromophenol	330	16.341	16.341	(1.110)	7269	0.67194	0.6719	
56 4-Bromophenyl-phenylether	248	16.796	16.796	(0.948)	12834	0.52519	0.5252	
57 Hexachlorobenzene	284	17.106	17.106	(0.965)	15201	0.57760	0.5776	
58 Pentachlorophenol	266	17.470	17.462	(0.986)	5846	0.58947	0.5895	
* 59 Phenanthrene-d10	188	17.717	17.717	(1.000)	387942	4.00000		
60 Phenanthrene	178	17.764	17.764	(1.003)	55265	0.52932	0.5293	
61 Anthracene	178	17.857	17.857	(1.008)	54204	0.52429	0.5243	
62 Carbazole	167	18.182	18.181	(1.026)	52779	0.52930	0.5293	
63 Di-n-butylphthalate	149	19.009	19.009	(1.073)	60575	0.50943	0.5094	
64 Fluoranthene	202	20.154	20.154	(0.885)	58672	0.51821	0.5182	
65 Pyrene	202	20.580	20.580	(0.904)	62258	0.53263	0.5326	
\$ 66 Terphenyl-d14	244	20.882	20.882	(0.917)	49032	0.55631	0.5563	
67 Butylbenzylphthalate	149	21.811	21.811	(0.958)	26873	0.53201	0.5320	
68 Benzo(a)anthracene	228	22.740	22.748	(0.999)	57162	0.55542	0.5554	
* 69 Chrysene-d12	240	22.771	22.779	(1.000)	308765	4.00000		
70 3,3'-Dichlorobenzidine	252	22.709	22.709	(0.997)	59003	1.69441	1.694	
71 Chrysene	228	22.818	22.817	(1.002)	52723	0.53417	0.5342	
72 bis(2-Ethylhexyl)phthalate	149	22.848	22.856	(0.959)	35643	0.51406	0.5141	
* 134 Di-n-octylphthalate-d4	153	23.832	23.832	(1.000)	509739	4.00000		
73 Di-n-octylphthalate	149	23.839	23.839	(1.000)	71349	0.55389	0.5539	
74 Benzo(b)fluoranthene	252	24.528	24.536	(0.973)	57801	0.54573	0.5457	
75 Benzo(k)fluoranthene	252	24.567	24.575	(0.974)	59254	0.53138	0.5314 (H)	
76 Benzo(a)pyrene	252	25.109	25.117	(0.996)	51207	0.53469	0.5347	
* 77 Perylene-d12	264	25.218	25.218	(1.000)	334593	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	27.550	27.565	(1.092)	63133	0.55384	0.5538	
79 Dibenzo(a,h)anthracene	278	27.557	27.565	(1.093)	53003	0.56130	0.5613	
80 Benzo(g,h,i)perylene	276	28.233	28.249	(1.120)	53071	0.54248	0.5425	
90 N-Nitrosodimethylamine	74	4.427	4.434	(0.508)	24425	1.00973	1.010	
91 Aniline	93	8.180	8.180	(0.939)	49056	0.99895	0.9990	
93 Benzidine	184	20.402	20.394	(0.896)	42036	1.10836	1.108	
103 Pyridine	79	4.450	4.450	(0.511)	36603	0.97762	0.9776	
105 1-methylnaphthalene	142	12.792	12.792	(1.146)	37911	0.51667	0.5167	
111 Azobenzene (1,2-DP-Hydrazine)	77	16.126	16.133	(1.096)	50568	0.54586	0.5459	
187 Total Benzofluoranthenes	252	24.567	24.575	(0.974)	111230	1.07121	1.071	

Compounds	QUANT SIG						CONCENTRATIONS	
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		15.446	15.446	(1.049)	8666	0.43422	0.4342

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 10-FEB-2023
 Lab File ID: NT1023021003.D Calibration Time: 16:04
 Lab Smp Id: SLB0154-LCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230210.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	73741	36871	147482	109365	48.31
27 Naphthalene-d8	288014	144007	576028	410189	42.42
42 Acenaphthene-d10	158505	79253	317010	216039	36.30
59 Phenanthrene-d10	277023	138512	554046	387942	40.04
69 Chrysene-d12	234791	117396	469582	308765	31.51
134 Di-n-octylphthala	369178	184589	738356	509739	38.07
77 Perylene-d12	231074	115537	462148	334593	44.80

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.71	8.21	9.21	8.71	0.00
27 Naphthalene-d8	11.16	10.66	11.66	11.16	0.00
42 Acenaphthene-d10	14.72	14.22	15.22	14.72	0.00
59 Phenanthrene-d10	17.72	17.22	18.22	17.72	0.00
69 Chrysene-d12	22.78	22.28	23.28	22.77	-0.03
134 Di-n-octylphthala	23.83	23.33	24.33	23.83	0.00
77 Perylene-d12	25.22	24.72	25.72	25.22	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023021003.D

Lab ID: SLB0154-LCV1
nt10.i, 20230210.b\ABN.m, 10-FEB-2023 16:43

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.956	0.963	-0.0076	Benzoic acid

RRT check based on Ccal File: NT1023021002.D

On Column LOD for nt10.i, 20230210.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00018

Lab File ID: NT1023020712.D

Calibration Date: 02/07/2023

Sequence: SLB0102

Injection Date: 02/07/23

Lab Sample ID: SLB0102-ICV1

Injection Time: 18:42

Sequence Name: Initial Cal Check

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Phenol	A	5.0000	4.9	1.8557260	1.8186730		-2.0	+/-20
4-Methylphenol	A	5.0000	4.9	1.4577560	1.4268420		-2.1	+/-20
Naphthalene	A	5.0000	4.7	1.0689	0.9954201		-6.9	+/-20
2-Methylnaphthalene	A	5.0000	4.8	0.7432041	0.7097545		-4.5	+/-20
Acenaphthylene	A	5.0000	4.6	1.9958230	1.8200320		-8.8	+/-20
Dimethylphthalate	A	5.0000	4.6	1.3405170	1.2197990		-9.0	+/-20
Acenaphthene	A	5.0000	4.5	1.2231120	1.1027960		-9.8	+/-20
Dibenzofuran	A	5.0000	4.6	1.7594910	1.6151050		-8.2	+/-20
Fluorene	A	5.0000	4.7	1.9777380	1.8479970		-6.6	+/-20
Phenanthrene	A	5.0000	4.6	1.0765200	1.0007480		-7.0	+/-20
Anthracene	A	5.0000	4.8	1.0659800	1.0255320		-3.8	+/-20
Fluoranthene	A	5.0000	4.7	1.4667580	1.3649190		-6.9	+/-20
Pyrene	A	5.0000	4.7	1.5142740	1.4162840		-6.5	+/-20
Butylbenzylphthalate	A	5.0000	4.7	0.6543795	0.6102647		-6.7	+/-20
Benzo(a)anthracene	A	5.0000	4.5	1.3332750	1.1991650		-10.1	+/-20
Chrysene	A	5.0000	4.5	1.2786640	1.1423820		-10.7	+/-20
bis(2-Ethylhexyl)phthalate	A	5.0000	4.9	0.5440929	0.5353039		-1.6	+/-20
Benzo(a)fluoranthene, Total	A	10.0000	9.4	1.2413430	1.1612100		-6.5	+/-20
Benzo(a)pyrene	A	5.0000	4.7	1.1449040	1.0789510		-5.8	+/-20
Indeno(1,2,3-cd)pyrene	A	5.0000	4.8	1.3627520	1.3024800		-4.4	+/-20
Dibenzo(a,h)anthracene	A	5.0000	4.8	1.1288770	1.0801670		-4.3	+/-20
Benzo(g,h,i)perylene	A	5.0000	4.8	1.1695480	1.1212110		-4.1	+/-20
2-Fluorophenol	A	7.5000	7.52	1.2716740	1.2757150		0.3	+/-20
Phenol-d5	A	7.5000	7.38	1.7155190	1.6872130		-1.7	+/-20
2-Chlorophenol-d4	A	7.5000	7.31	1.3922970	1.3561770		-2.6	+/-20
1,2-Dichlorobenzene-d4	A	5.0000	4.70	0.9530327	0.8949142		-6.1	+/-20
Nitrobenzene-d5	A	5.0000	4.77	0.3951837	0.3766950		-4.7	+/-20
2-Fluorobiphenyl	A	5.0000	4.50	1.4414640	1.2966190		-10.0	+/-20
2,4,6-Tribromophenol	A	7.5000	7.27	0.2002949	0.1940206		-3.1	+/-20
p-Terphenyl-d14	A	5.0000	4.54	1.1418200	1.0363520		-9.2	+/-20

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GB00018</u>
Lab File ID:	<u>NT1023020712.D</u>	Calibration Date:	<u>02/07/2023</u>
Sequence:	<u>SLB0102</u>	Injection Date:	<u>02/07/23</u>
Lab Sample ID:	<u>SLB0102-ICV1</u>	Injection Time:	<u>18:42</u>
Sequence Name:	<u>Initial Cal Check</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene-d4	A	4.0000	4.0	27697.1100	1.0000		0.0	
Naphthalene-d8	A	4.0000	4.0	107855.1000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.0	57284.5700	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.0	101358.1000	1.0000		0.0	
Chrysene-d12	A	4.0000	4.0	77804.6800	1.0000		0.0	
Di-n-Octylphthalate-d4	A	4.0000	4.0	130651.7000	1.0000		0.0	
Perylene-d12	A	4.0000	4.0	82834.8600	1.0000		0.0	

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.1\NT1023020712.D

Date: 07-FEB-2023 18:42

Client ID:

Sample Info: SLB0102-ICW1

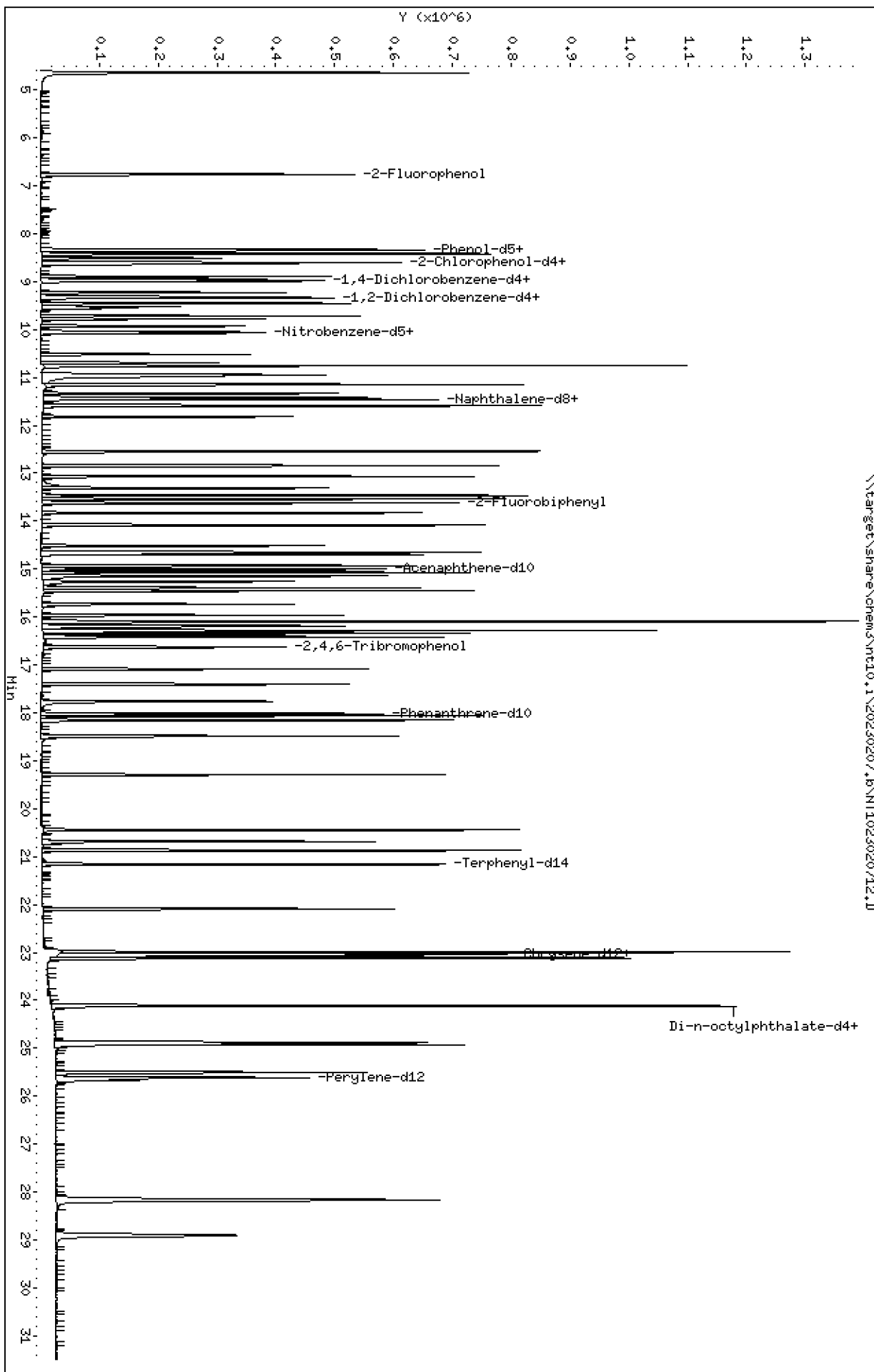
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020712.D
 Lab Smp Id: SLB0102-ICV1
 Inj Date : 07-FEB-2023 18:42
 Operator : VTS
 Smp Info : SLB0102-ICV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 10-Feb-2023 11:37 van
 Cal Date : 07-FEB-2023 12:18
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt10.i
 Quant Type: ISTD
 Cal File: NT1023020702.D
 Continuing Calibration Sample
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		6.765	6.765	(0.755)	240945	7.50000	7.524
\$ 2 Phenol-d5	99		8.333	8.333	(0.930)	318665	7.50000	7.376
3 Phenol	94		8.356	8.356	(0.933)	228996	5.00000	4.900
\$ 5 2-Chlorophenol-d4	132		8.604	8.604	(0.960)	256142	7.50000	7.305
4 Bis(2-Chloroethyl)ether	93		8.511	8.511	(0.950)	156818	5.00000	4.614
6 2-Chlorophenol	128		8.634	8.634	(0.964)	181814	5.00000	4.761
7 1,3-Dichlorobenzene	146		8.897	8.897	(0.993)	191030	5.00000	4.765
* 8 1,4-Dichlorobenzene-d4	152		8.959	8.959	(1.000)	100731	4.00000	
9 1,4-Dichlorobenzene	146		8.991	8.991	(1.003)	185840	5.00000	4.707
\$ 10 1,2-Dichlorobenzene-d4	152		9.316	9.316	(1.040)	112682	5.00000	4.695
12 1,2-Dichlorobenzene	146		9.348	9.348	(1.043)	181610	5.00000	4.771
11 Benzyl alcohol	108		9.231	9.231	(1.030)	106891	5.00000	5.164
14 2,2'-oxybis(1-Chloropropane)	121		9.526	9.526	(1.063)	54892	5.00000	5.019 (M)
13 2-Methylphenol	108		9.456	9.456	(1.055)	167902	5.00000	4.845
17 Hexachloroethane	117		9.930	9.930	(1.108)	72231	5.00000	4.772
16 N-Nitroso-di-n-propylamine	70		9.782	9.782	(1.092)	127654	5.00000	4.898
15 4-Methylphenol	108		9.720	9.720	(1.085)	179659	5.00000	4.894
\$ 18 Nitrobenzene-d5	82		10.046	10.046	(0.880)	189317	5.00000	4.766
19 Nitrobenzene	77		10.077	10.077	(0.882)	187922	5.00000	4.744
20 Isophorone	82		10.520	10.520	(0.921)	280959	5.00000	5.094
21 2-Nitrophenol	139		10.698	10.698	(0.937)	99464	5.00000	4.875
22 2,4-Dimethylphenol	107		10.758	10.758	(0.942)	353806	10.0000	9.701
23 Bis(2-Chloroethoxy)methane	93		10.944	10.944	(0.958)	171076	5.00000	4.776
24 Benzoic acid	105		10.987	10.987	(0.962)	319568	20.0000	15.01
25 2,4-Dichlorophenol	162		11.156	11.156	(0.977)	296363	10.0000	10.00
26 1,2,4-Trichlorobenzene	180		11.337	11.337	(0.993)	150579	5.00000	4.664
* 27 Naphthalene-d8	136		11.422	11.422	(1.000)	402059	4.00000	
28 Naphthalene	128		11.461	11.461	(1.003)	500272	5.00000	4.656
29 4-Chloroaniline	127		11.592	11.592	(1.015)	451722	10.0000	9.808
30 Hexachlorobutadiene	225		11.824	11.824	(1.035)	80429	5.00000	4.777
31 4-Chloro-3-methylphenol	107		12.551	12.551	(1.099)	312498	10.0000	9.647
32 2-Methylnaphthalene	142		12.845	12.845	(1.125)	356704	5.00000	4.775
33 Hexachlorocyclopentadiene	237		13.310	13.310	(0.887)	119938	10.0000	8.485

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.464	13.464	(0.897)	184011	10.0000	9.150
35 2,4,5-Trichlorophenol	196	13.534	13.534	(0.902)	201492	10.0000	9.294
§ 36 2-Fluorobiphenyl	172	13.619	13.619	(0.908)	361050	5.00000	4.498
37 2-Chloronaphthalene	162	13.828	13.828	(0.922)	316751	5.00000	4.539
38 2-Nitroaniline	65	14.083	14.083	(0.939)	208750	10.0000	9.501
39 Dimethylphthalate	163	14.517	14.517	(0.968)	339659	5.00000	4.550
40 Acenaphthylene	152	14.695	14.695	(0.979)	506797	5.00000	4.560
41 2,6-Dinitrotoluene	165	14.649	14.649	(0.976)	162524	10.0000	9.192
* 42 Acenaphthene-d10	164	15.004	15.004	(1.000)	222764	4.00000	
43 3-Nitroaniline	138	14.935	14.935	(0.995)	188829	10.0000	9.262
44 Acenaphthene	153	15.066	15.066	(1.004)	307079	5.00000	4.508
45 2,4-Dinitrophenol	184	15.144	15.144	(1.009)	144101	20.0000	15.24
46 Dibenzofuran	168	15.399	15.399	(1.026)	449734	5.00000	4.590
47 4-Nitrophenol	109	15.259	15.259	(1.017)	71790	10.0000	9.446
48 2,4-Dinitrotoluene	165	15.453	15.453	(1.030)	228689	10.0000	9.374
50 Diethylphthalate	149	15.963	15.963	(1.064)	328053	5.00000	4.576
49 Fluorene	166	16.102	16.102	(1.073)	514584	5.00000	4.672
51 4-Chlorophenyl-phenylether	204	16.094	16.094	(1.073)	237039	5.00000	4.406
52 4-Nitroaniline	138	16.195	16.195	(1.079)	211866	10.0000	9.094
53 4,6-Dinitro-2-methylphenol	198	16.287	16.287	(0.904)	280952	20.0000	20.55
54 N-Nitrosodiphenylamine	169	16.341	16.341	(0.907)	305366	5.00000	4.718
§ 55 2,4,6-Tribromophenol	330	16.627	16.627	(1.108)	81039	7.50000	7.265
56 4-Bromophenyl-phenylether	248	17.089	17.089	(0.948)	115442	5.00000	4.841
57 Hexachlorobenzene	284	17.406	17.406	(0.966)	123661	5.00000	4.815
58 Pentachlorophenol	266	17.762	17.762	(0.986)	84388	10.0000	8.475
* 59 Phenanthrene-d10	188	18.018	18.018	(1.000)	378593	4.00000	
60 Phenanthrene	178	18.064	18.064	(1.003)	473595	5.00000	4.648
61 Anthracene	178	18.157	18.157	(1.008)	485324	5.00000	4.810
62 Carbazole	167	18.482	18.482	(1.026)	459238	5.00000	4.719
63 Di-n-butylphthalate	149	19.294	19.294	(1.071)	567561	5.00000	4.891
64 Fluoranthene	202	20.447	20.447	(0.887)	505660	5.00000	4.653
65 Pyrene	202	20.873	20.873	(0.905)	524689	5.00000	4.676
§ 66 Terphenyl-d14	244	21.167	21.167	(0.918)	383936	5.00000	4.538
67 Butylbenzylphthalate	149	22.096	22.096	(0.958)	226084	5.00000	4.663
68 Benzo(a)anthracene	228	23.041	23.041	(0.999)	444253	5.00000	4.497
* 69 Chrysene-d12	240	23.064	23.064	(1.000)	296375	4.00000	
70 3,3'-Dichlorobenzidine	252	22.994	22.994	(0.997)	413684	15.0000	12.38
71 Chrysene	228	23.110	23.110	(1.002)	423217	5.00000	4.467
72 bis(2-Ethylhexyl)phthalate	149	23.126	23.126	(0.959)	316833	5.00000	4.919
* 134 Di-n-octylphthalate-d4	153	24.109	24.109	(1.000)	473500	4.00000	
73 Di-n-octylphthalate	149	24.117	24.117	(1.000)	550189	5.00000	4.598
74 Benzo(b)fluoranthene	252	24.883	24.883	(0.971)	427483	5.00000	4.461
75 Benzo(k)fluoranthene	252	24.922	24.922	(0.973)	499993	5.00000	4.956
76 Benzo(a)pyrene	252	25.502	25.502	(0.995)	408298	5.00000	4.712
* 77 Perylene-d12	264	25.619	25.619	(1.000)	302737	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.160	28.160	(1.099)	492886	5.00000	4.779
79 Dibenzo(a,h)anthracene	278	28.175	28.175	(1.100)	408758	5.00000	4.784
80 Benzo(g,h,i)perylene	276	28.905	28.905	(1.128)	424290	5.00000	4.793
90 N-Nitrosodimethylamine	74	4.626	4.626	(0.516)	218408	10.0000	9.803
91 Aniline	93	8.426	8.426	(0.940)	448847	10.0000	9.924
93 Benzidine	184	20.687	20.687	(0.897)	385766	10.0000	11.26
103 Pyridine	79	4.649	4.649	(0.519)	342114	10.0000	9.921
105 1-methylnaphthalene	142	13.070	13.070	(1.144)	341114	5.00000	4.743
111 Azobenzene (1,2-DP-Hydrazine)	77	16.418	16.418	(1.094)	444378	5.00000	4.652

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
187 Total Benzofluoranthenes	252		24.922	24.922	(0.973)	878853	10.0000	9.354
120 2,3,4,6-Tetrachlorophenol	232		15.731	15.731	(1.048)	95727	5.00000	4.572

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 07-FEB-2023
 Lab File ID: NT1023020712.D Calibration Time: 13:35
 Lab Smp Id: SLB0102-ICV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	105928	52964	211856	100731	-4.91
27 Naphthalene-d8	423616	211808	847232	402059	-5.09
42 Acenaphthene-d10	230743	115372	461486	222764	-3.46
59 Phenanthrene-d10	394375	197188	788750	378593	-4.00
69 Chrysene-d12	320650	160325	641300	296375	-7.57
134 Di-n-octylphthala	529382	264691	1058764	473500	-10.56
77 Perylene-d12	332844	166422	665688	302737	-9.05

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.96	0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.00	0.00
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	0.00
69 Chrysene-d12	23.06	22.56	23.56	23.06	0.00
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	0.00
77 Perylene-d12	25.61	25.11	26.11	25.62	0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020712.D

Lab ID: SLB0102-ICV1
nt10.i, 20230207.b\ABN.m, 07-FEB-2023 18:42

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

No RRT check. Ccal file.

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

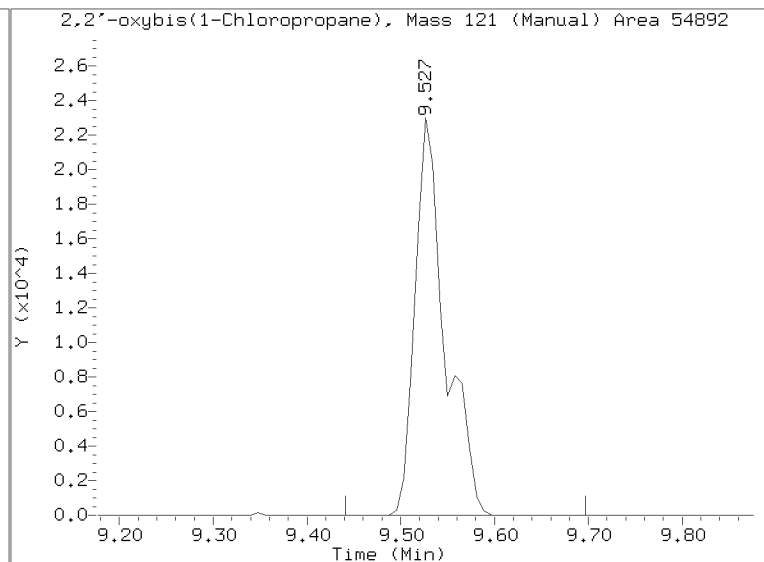
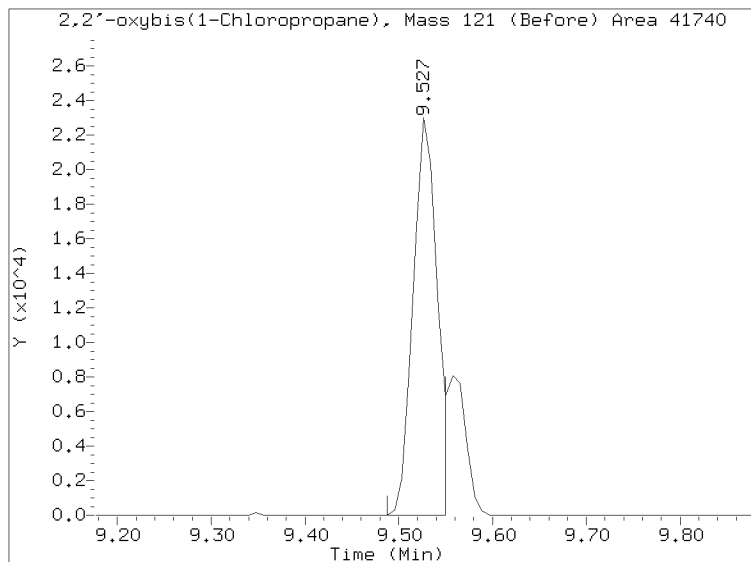
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020712.D

Injection Date: 07-FEB-2023 18:42

Lab ID:SLB0102-ICV1 Client ID:

Report Date: 02/10/2023 11:37



Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b

Instrument: nt10.i Date: 07-FEB-2023 Method: 20230207.b\ABN.m

INITIAL CAL: 30-DEC-2022

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1023020712.D 07-FEB-2023 18:42

Compound	%D

Benzoic acid	-25.0
2,4-Dinitrophenol	-23.8



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00018

Lab File ID: NT1023020732.D

Calibration Date: 02/07/2023

Sequence: SLB0102

Injection Date: 02/08/23

Lab Sample ID: SLB0102-ICV2

Injection Time: 07:24

Sequence Name: SSTD005

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Phenol	A	5.0000	4.7	1.8557260	1.7517730		-5.6	+/-20
4-Methylphenol	A	5.0000	4.8	1.4577560	1.3874290		-4.8	+/-20
Naphthalene	A	5.0000	4.6	1.0689	0.9816942		-8.2	+/-20
2-Methylnaphthalene	A	5.0000	4.8	0.7432041	0.7130938		-4.1	+/-20
Acenaphthylene	A	5.0000	4.6	1.9958230	1.8473030		-7.4	+/-20
Dimethylphthalate	A	5.0000	4.6	1.3405170	1.2445590		-7.2	+/-20
Acenaphthene	A	5.0000	4.6	1.2231120	1.1191750		-8.5	+/-20
Dibenzofuran	A	5.0000	4.6	1.7594910	1.6321010		-7.2	+/-20
Fluorene	A	5.0000	4.4	1.9777380	1.7226590		-12.9	+/-20
Phenanthrene	A	5.0000	4.8	1.0765200	1.0265250		-4.6	+/-20
Anthracene	A	5.0000	4.9	1.0659800	1.0370330		-2.7	+/-20
Fluoranthene	A	5.0000	4.2	1.4667580	1.2322290		-16.0	+/-20
Pyrene	A	5.0000	4.1	1.5142740	1.2382180		-18.2	+/-20
Butylbenzylphthalate	A	5.0000	4.6	0.6543795	0.5975780		-8.7	+/-20
Benzo(a)anthracene	A	5.0000	4.5	1.3332750	1.2032590		-9.8	+/-20
Chrysene	A	5.0000	4.5	1.2786640	1.1608620		-9.2	+/-20
bis(2-Ethylhexyl)phthalate	A	5.0000	4.7	0.5440929	0.5121752		-5.9	+/-20
Benzo(a)fluoranthene, Total	A	10.0000	9.6	1.2413430	1.1927630		-3.9	+/-20
Benzo(a)pyrene	A	5.0000	4.8	1.1449040	1.1044670		-3.5	+/-20
Indeno(1,2,3-cd)pyrene	A	5.0000	3.7	1.3627520	1.0128350		-25.7	+/-20 *
Dibenzo(a,h)anthracene	A	5.0000	4.0	1.1288770	0.8979962		-20.5	+/-20 *
Benzo(g,h,i)perylene	A	5.0000	3.1	1.1695480	0.7348518		-37.2	+/-20 *
2-Fluorophenol	A	7.5000	7.53	1.2716740	1.2768840		0.4	+/-20
Phenol-d5	A	7.5000	7.33	1.7155190	1.6760580		-2.3	+/-20
2-Chlorophenol-d4	A	7.5000	7.32	1.3922970	1.3596380		-2.3	+/-20
1,2-Dichlorobenzene-d4	A	5.0000	4.69	0.9530327	0.8938881		-6.2	+/-20
Nitrobenzene-d5	A	5.0000	4.84	0.3951837	0.3822506		-3.3	+/-20
2-Fluorobiphenyl	A	5.0000	4.64	1.4414640	1.3369720		-7.2	+/-20
2,4,6-Tribromophenol	A	7.5000	7.11	0.2002949	0.1898700		-5.2	+/-20
p-Terphenyl-d14	A	5.0000	4.13	1.1418200	0.9438316		-17.3	+/-20

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GB00018</u>
Lab File ID:	<u>NT1023020732.D</u>	Calibration Date:	<u>02/07/2023</u>
Sequence:	<u>SLB0102</u>	Injection Date:	<u>02/08/23</u>
Lab Sample ID:	<u>SLB0102-ICV2</u>	Injection Time:	<u>07:24</u>
Sequence Name:	<u>SSTD005</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene-d4	A	4.0000	4.0	27697.1100	1.0000		0.0	
Naphthalene-d8	A	4.0000	4.0	107855.1000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.0	57284.5700	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.0	101358.1000	1.0000		0.0	
Chrysene-d12	A	4.0000	4.0	77804.6800	1.0000		0.0	
Di-n-Octylphthalate-d4	A	4.0000	4.0	130651.7000	1.0000		0.0	
Perylene-d12	A	4.0000	4.0	82834.8600	1.0000		0.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.1\NT1023020732.D

Date: 08-FEB-2023 07:24

Client ID:

Sample Info: SLB0102-ICW2

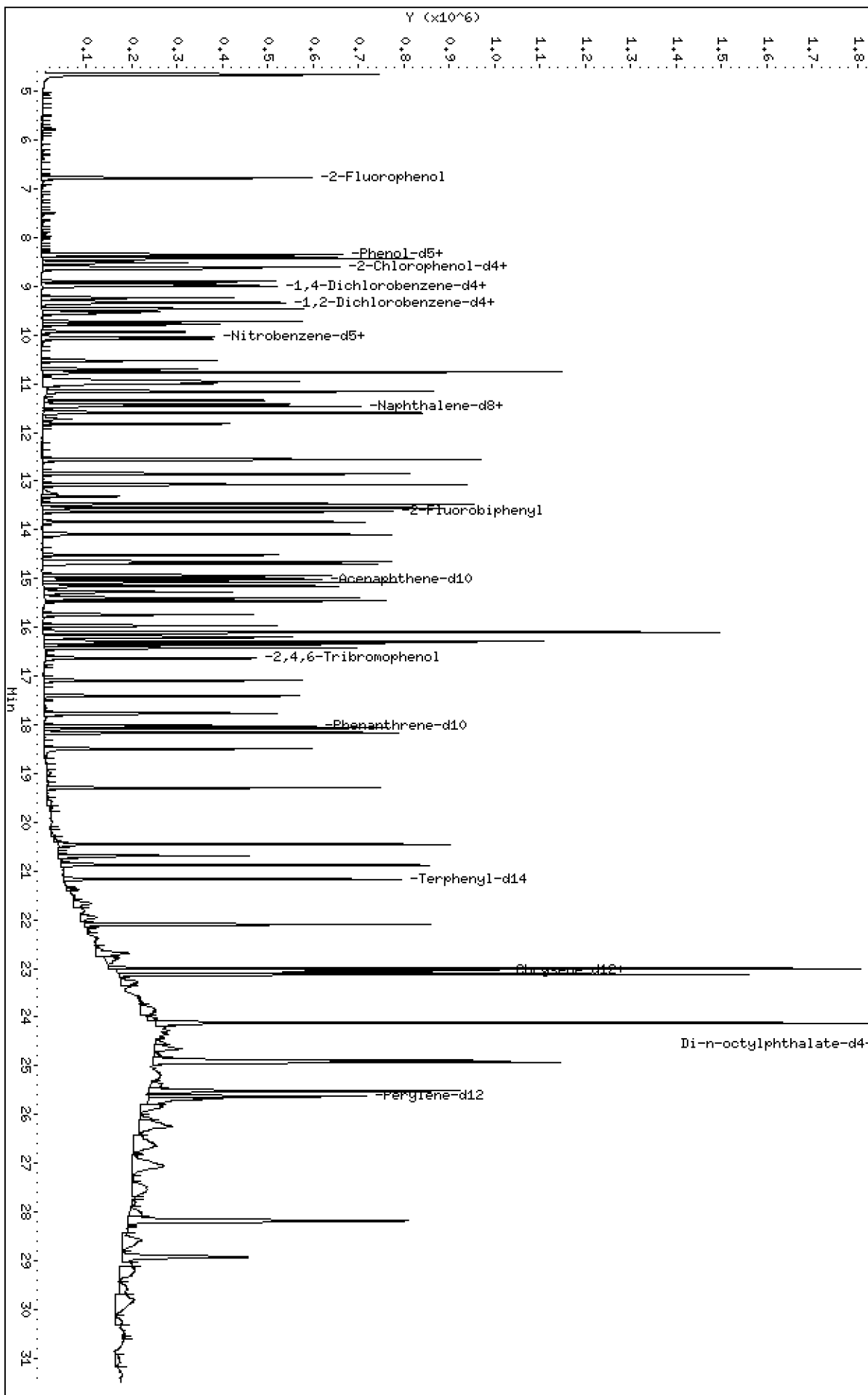
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230207.1\NT1023020732.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020732.D
 Lab Smp Id: SLB0102-ICV2
 Inj Date : 08-FEB-2023 07:24
 Operator : VTS
 Smp Info : SLB0102-ICV2
 Misc Info :
 Comment : lul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 08-Feb-2023 10:39 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 4 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		6.780	6.772	(0.756)	265038	7.50000	7.531
\$ 2 Phenol-d5	99		8.341	8.333	(0.930)	347893	7.50000	7.327
3 Phenol	94		8.364	8.356	(0.933)	242406	5.00000	4.720
\$ 5 2-Chlorophenol-d4	132		8.611	8.603	(0.960)	282215	7.50000	7.324
4 Bis(2-Chloroethyl)ether	93		8.518	8.511	(0.950)	172466	5.00000	4.618
6 2-Chlorophenol	128		8.642	8.634	(0.964)	199871	5.00000	4.762
7 1,3-Dichlorobenzene	146		8.905	8.897	(0.993)	203293	5.00000	4.614
* 8 1,4-Dichlorobenzene-d4	152		8.967	8.959	(1.000)	110702	4.00000	
9 1,4-Dichlorobenzene	146		8.998	8.990	(1.003)	198056	5.00000	4.564
\$ 10 1,2-Dichlorobenzene-d4	152		9.324	9.316	(1.040)	123694	5.00000	4.690
12 1,2-Dichlorobenzene	146		9.347	9.340	(1.042)	193094	5.00000	4.616
11 Benzyl alcohol	108		9.238	9.239	(1.030)	118862	5.00000	5.225
14 2,2'-oxybis(1-Chloropropane)	121		9.534	9.526	(1.063)	55420	5.00000	4.611 (M)
13 2-Methylphenol	108		9.464	9.456	(1.055)	178737	5.00000	4.693
17 Hexachloroethane	117		9.929	9.929	(1.107)	69516	5.00000	4.179
16 N-Nitroso-di-n-propylamine	70		9.782	9.782	(1.091)	139058	5.00000	4.855
15 4-Methylphenol	108		9.728	9.728	(1.085)	191989	5.00000	4.759
\$ 18 Nitrobenzene-d5	82		10.046	10.038	(0.879)	205389	5.00000	4.836
19 Nitrobenzene	77		10.085	10.077	(0.882)	199111	5.00000	4.702
20 Isophorone	82		10.527	10.519	(0.921)	305474	5.00000	5.180
21 2-Nitrophenol	139		10.706	10.698	(0.937)	109535	5.00000	5.022
22 2,4-Dimethylphenol	107		10.766	10.757	(0.942)	369173	10.00000	9.468
23 Bis(2-Chloroethoxy)methane	93		10.952	10.944	(0.958)	181187	5.00000	4.732
24 Benzoic acid	105		11.003	11.003	(0.963)	478468	20.00000	20.74
25 2,4-Dichlorophenol	162		11.165	11.156	(0.977)	317857	10.00000	10.03
26 1,2,4-Trichlorobenzene	180		11.344	11.337	(0.993)	157908	5.00000	4.575
* 27 Naphthalene-d8	136		11.429	11.422	(1.000)	429852	4.00000	
28 Naphthalene	128		11.468	11.460	(1.003)	527479	5.00000	4.592
29 4-Chloroaniline	127		11.599	11.592	(1.015)	470990	10.00000	9.565
30 Hexachlorobutadiene	225		11.823	11.823	(1.034)	84551	5.00000	4.697
31 4-Chloro-3-methylphenol	107		12.558	12.551	(1.099)	330499	10.00000	9.544
32 2-Methylnaphthalene	142		12.853	12.845	(1.125)	383156	5.00000	4.797
33 Hexachlorocyclopentadiene	237		13.309	13.309	(0.887)	44149	10.00000	3.054
34 2,4,6-Trichlorophenol	196		13.472	13.464	(0.897)	207096	10.00000	9.816

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	13.549	13.549	(0.903)	225250	10.0000	9.903
\$ 36 2-Fluorobiphenyl	172	13.626	13.619	(0.908)	390588	5.00000	4.638
37 2-Chloronaphthalene	162	13.835	13.828	(0.922)	340928	5.00000	4.657
38 2-Nitroaniline	65	14.091	14.083	(0.939)	222523	10.0000	9.653
39 Dimethylphthalate	163	14.517	14.509	(0.967)	363590	5.00000	4.642
40 Acenaphthylene	152	14.695	14.695	(0.979)	539678	5.00000	4.628
41 2,6-Dinitrotoluene	165	14.656	14.648	(0.976)	176120	10.0000	9.494
* 42 Acenaphthene-d10	164	15.012	15.004	(1.000)	233715	4.00000	
43 3-Nitroaniline	138	14.942	14.935	(0.995)	199417	10.0000	9.323
44 Acenaphthene	153	15.074	15.066	(1.004)	326960	5.00000	4.575
45 2,4-Dinitrophenol	184	15.151	15.151	(1.009)	170678	20.0000	17.12
46 Dibenzofuran	168	15.398	15.391	(1.026)	476808	5.00000	4.638
47 4-Nitrophenol	109	15.275	15.313	(1.018)	79577	10.0000	9.980
48 2,4-Dinitrotoluene	165	15.460	15.452	(1.030)	243789	10.0000	9.525
50 Diethylphthalate	149	15.970	15.955	(1.064)	353320	5.00000	4.697
49 Fluorene	166	16.110	16.094	(1.073)	503264	5.00000	4.355
51 4-Chlorophenyl-phenylether	204	16.094	16.087	(1.072)	245247	5.00000	4.345
52 4-Nitroaniline	138	16.202	16.187	(1.079)	216815	10.0000	8.870
53 4,6-Dinitro-2-methylphenol	198	16.295	16.287	(0.904)	284343	20.0000	20.26
54 N-Nitrosodiphenylamine	169	16.349	16.341	(0.907)	314889	5.00000	4.740
\$ 55 2,4,6-Tribromophenol	330	16.642	16.619	(1.109)	83204	7.50000	7.110
56 4-Bromophenyl-phenylether	248	17.096	17.089	(0.948)	121718	5.00000	4.972
57 Hexachlorobenzene	284	17.406	17.398	(0.966)	127537	5.00000	4.837
58 Pentachlorophenol	266	17.770	17.770	(0.986)	109907	10.0000	10.66
* 59 Phenanthrene-d10	188	18.025	18.018	(1.000)	388662	4.00000	
60 Phenanthrene	178	18.072	18.064	(1.003)	498714	5.00000	4.768
61 Anthracene	178	18.164	18.157	(1.008)	503819	5.00000	4.864
62 Carbazole	167	18.489	18.489	(1.026)	472472	5.00000	4.729
63 Di-n-butylphthalate	149	19.294	19.294	(1.070)	621787	5.00000	5.219
64 Fluoranthene	202	20.455	20.447	(0.887)	531670	5.00000	4.201
65 Pyrene	202	20.880	20.872	(0.905)	534254	5.00000	4.088
\$ 66 Terphenyl-d14	244	21.166	21.167	(0.917)	407235	5.00000	4.133
67 Butylbenzylphthalate	149	22.095	22.088	(0.958)	257837	5.00000	4.566
68 Benzo(a)anthracene	228	23.040	23.033	(0.999)	519170	5.00000	4.512
* 69 Chrysene-d12	240	23.071	23.064	(1.000)	345176	4.00000	
70 3,3'-Dichlorobenzidine	252	23.001	22.994	(0.997)	550826	15.0000	14.15
71 Chrysene	228	23.118	23.102	(1.002)	500877	5.00000	4.539
72 bis(2-Ethylhexyl)phthalate	149	23.133	23.125	(0.960)	371167	5.00000	4.707
* 134 Di-n-octylphthalate-d4	153	24.109	24.109	(1.000)	579750	4.00000	
73 Di-n-octylphthalate	149	24.124	24.116	(1.001)	674847	5.00000	4.606
74 Benzo(b)fluoranthene	252	24.890	24.875	(0.971)	597559	5.00000	4.991
75 Benzo(k)fluoranthene	252	24.929	24.922	(0.973)	586469	5.00000	4.653
76 Benzo(a)pyrene	252	25.518	25.502	(0.996)	522174	5.00000	4.823
* 77 Perylene-d12	264	25.626	25.611	(1.000)	378227	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.175	28.159	(1.099)	478852	5.00000	3.716
79 Dibenzo(a,h)anthracene	278	28.190	28.175	(1.100)	424558	5.00000	3.977
80 Benzo(g,h,i)perylene	276	28.928	28.905	(1.129)	347426	5.00000	3.142
90 N-Nitrosodimethylamine	74	4.641	4.625	(0.518)	230732	10.0000	9.423
91 Aniline	93	8.426	8.426	(0.940)	482897	10.0000	9.715
93 Benzidine	184	20.687	20.687	(0.897)	300675	10.0000	7.370
103 Pyridine	79	4.664	4.679	(0.520)	367634	10.0000	9.700
105 1-methylnaphthalene	142	13.069	13.062	(1.143)	372324	5.00000	4.842
111 Azobenzene (1,2-DP-Hydrazine)	77	16.426	16.410	(1.094)	459756	5.00000	4.588
187 Total Benzofluoranthenes	252	24.929	24.922	(0.973)	1127838	10.0000	9.609

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		15.738	15.738	(1.048)	112033	5.00000	5.088

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 07-FEB-2023
 Lab File ID: NT1023020732.D Calibration Time: 18:42
 Lab Smp Id: SLB0102-ICV2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	110702	55351	221404	110702	0.00
27 Naphthalene-d8	429852	214926	859704	429852	0.00
42 Acenaphthene-d10	233715	116858	467430	233715	0.00
59 Phenanthrene-d10	388662	194331	777324	388662	0.00
69 Chrysene-d12	345176	172588	690352	345176	0.00
134 Di-n-octylphthala	579750	289875	1159500	579750	0.00
77 Perylene-d12	378227	189114	756454	378227	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.97	0.00
27 Naphthalene-d8	11.43	10.93	11.93	11.43	0.00
42 Acenaphthene-d10	15.01	14.51	15.51	15.01	0.00
59 Phenanthrene-d10	18.03	17.53	18.53	18.03	0.00
69 Chrysene-d12	23.07	22.57	23.57	23.07	0.00
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	0.00
77 Perylene-d12	25.63	25.13	26.13	25.63	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020732.D

Lab ID: SLB0102-ICV2
nt10.i, 20230207.b\ABN.m, 08-FEB-2023 07:24

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.963	0.000	0.9627	Benzoic acid
1.009	0.000	1.0093	2,4-Dinitrophenol

No RRT check. Ccal file.

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

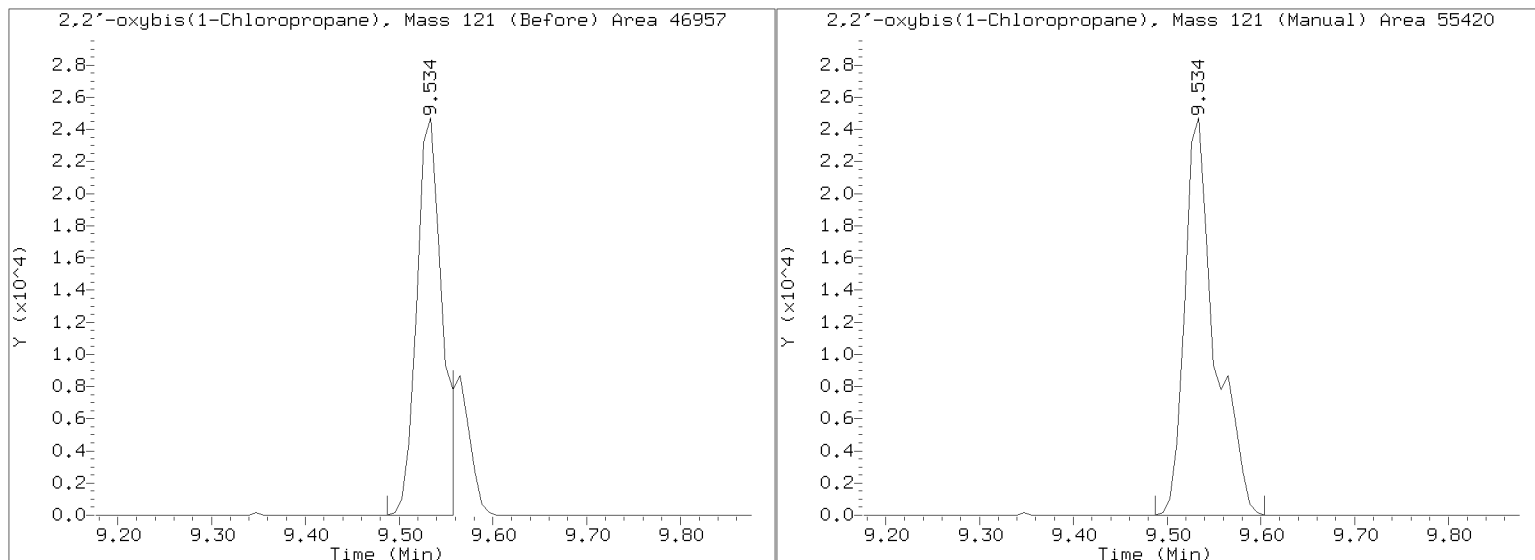
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020732.D

Injection Date: 08-FEB-2023 07:24

Lab ID:SLB0102-ICV2 Client ID:

Report Date: 02/09/2023 11:27



APPROVED

By Deenay Dunmore at 11:35 am, Feb 09, 2023

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b

Instrument: nt10.i Date: 08-FEB-2023 Method: 20230207.b\ABN.m

INITIAL CAL: 30-DEC-2022

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1023020732.D 08-FEB-2023 07:24

Compound	%D

Hexachlorocyclopentadiene	-69.5
Indeno(1,2,3-cd)pyrene	-25.7
Dibenzo(a,h)anthracene	-20.5
Benzo(g,h,i)perylene	-37.2
Benzidine	-26.3



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00018

Lab File ID: NT1023020902.D

Calibration Date: 02/07/2023

Sequence: SLB0122

Injection Date: 02/09/23

Lab Sample ID: SLB0122-ICV1

Injection Time: 13:31

Sequence Name: Initial Cal Check

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Phenol	A	5.0000	4.8	1.8557260	1.7911270		-3.5	+/-20
4-Methylphenol	A	5.0000	4.8	1.4577560	1.3854020		-5.0	+/-20
Naphthalene	A	5.0000	4.5	1.0689	0.9663595		-9.6	+/-20
2-Methylnaphthalene	A	5.0000	4.7	0.7432041	0.6992600		-5.9	+/-20
Acenaphthylene	A	5.0000	4.6	1.9958230	1.8302770		-8.3	+/-20
Dimethylphthalate	A	5.0000	4.6	1.3405170	1.2202680		-9.0	+/-20
Acenaphthene	A	5.0000	4.5	1.2231120	1.1039980		-9.7	+/-20
Dibenzofuran	A	5.0000	4.6	1.7594910	1.6054840		-8.8	+/-20
Fluorene	A	5.0000	3.8	1.9777380	1.5223690		-23.0	+/-20 *
Phenanthrene	A	5.0000	4.7	1.0765200	1.0145330		-5.8	+/-20
Anthracene	A	5.0000	4.8	1.0659800	1.0194270		-4.4	+/-20
Fluoranthene	A	5.0000	4.6	1.4667580	1.3483770		-8.1	+/-20
Pyrene	A	5.0000	4.6	1.5142740	1.3989430		-7.6	+/-20
Butylbenzylphthalate	A	5.0000	4.6	0.6543795	0.6026829		-7.9	+/-20
Benzo(a)anthracene	A	5.0000	4.5	1.3332750	1.2055760		-9.6	+/-20
Chrysene	A	5.0000	4.4	1.2786640	1.1354560		-11.2	+/-20
bis(2-Ethylhexyl)phthalate	A	5.0000	4.7	0.5440929	0.5122523		-5.9	+/-20
Benzo(a)fluoranthene, Total	A	10.0000	9.3	1.2413430	1.1499490		-7.4	+/-20
Benzo(a)pyrene	A	5.0000	4.8	1.1449040	1.0950050		-4.4	+/-20
Indeno(1,2,3-cd)pyrene	A	5.0000	5.2	1.3627520	1.4084070		3.4	+/-20
Dibenzo(a,h)anthracene	A	5.0000	5.1	1.1288770	1.1558320		2.4	+/-20
Benzo(g,h,i)perylene	A	5.0000	5.2	1.1695480	1.2216		4.5	+/-20
2-Fluorophenol	A	7.5000	7.70	1.2716740	1.3048770		2.6	+/-20
Phenol-d5	A	7.5000	7.45	1.7155190	1.7036120		-0.7	+/-20
2-Chlorophenol-d4	A	7.5000	7.30	1.3922970	1.3556220		-2.6	+/-20
1,2-Dichlorobenzene-d4	A	5.0000	4.77	0.9530327	0.9089126		-4.6	+/-20
Nitrobenzene-d5	A	5.0000	4.82	0.3951837	0.3813090		-3.5	+/-20
2-Fluorobiphenyl	A	5.0000	4.69	1.4414640	1.3532460		-6.1	+/-20
2,4,6-Tribromophenol	A	7.5000	6.85	0.2002949	0.1828198		-8.7	+/-20
p-Terphenyl-d14	A	5.0000	4.38	1.1418200	0.9993706		-12.5	+/-20

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GB00018</u>
Lab File ID:	<u>NT1023020902.D</u>	Calibration Date:	<u>02/07/2023</u>
Sequence:	<u>SLB0122</u>	Injection Date:	<u>02/09/23</u>
Lab Sample ID:	<u>SLB0122-ICV1</u>	Injection Time:	<u>13:31</u>
Sequence Name:	<u>Initial Cal Check</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene-d4	A	4.0000	4.0	27697.1100	1.0000		0.0	
Naphthalene-d8	A	4.0000	4.0	107855.1000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.0	57284.5700	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.0	101358.1000	1.0000		0.0	
Chrysene-d12	A	4.0000	4.0	77804.6800	1.0000		0.0	
Di-n-Octylphthalate-d4	A	4.0000	4.0	130651.7000	1.0000		0.0	
Perylene-d12	A	4.0000	4.0	82834.8600	1.0000		0.0	

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230209.1\2023020902.D

Date: 09-FEB-2023 13:31

Client ID:

Sample Info: SLB0122-ICW1

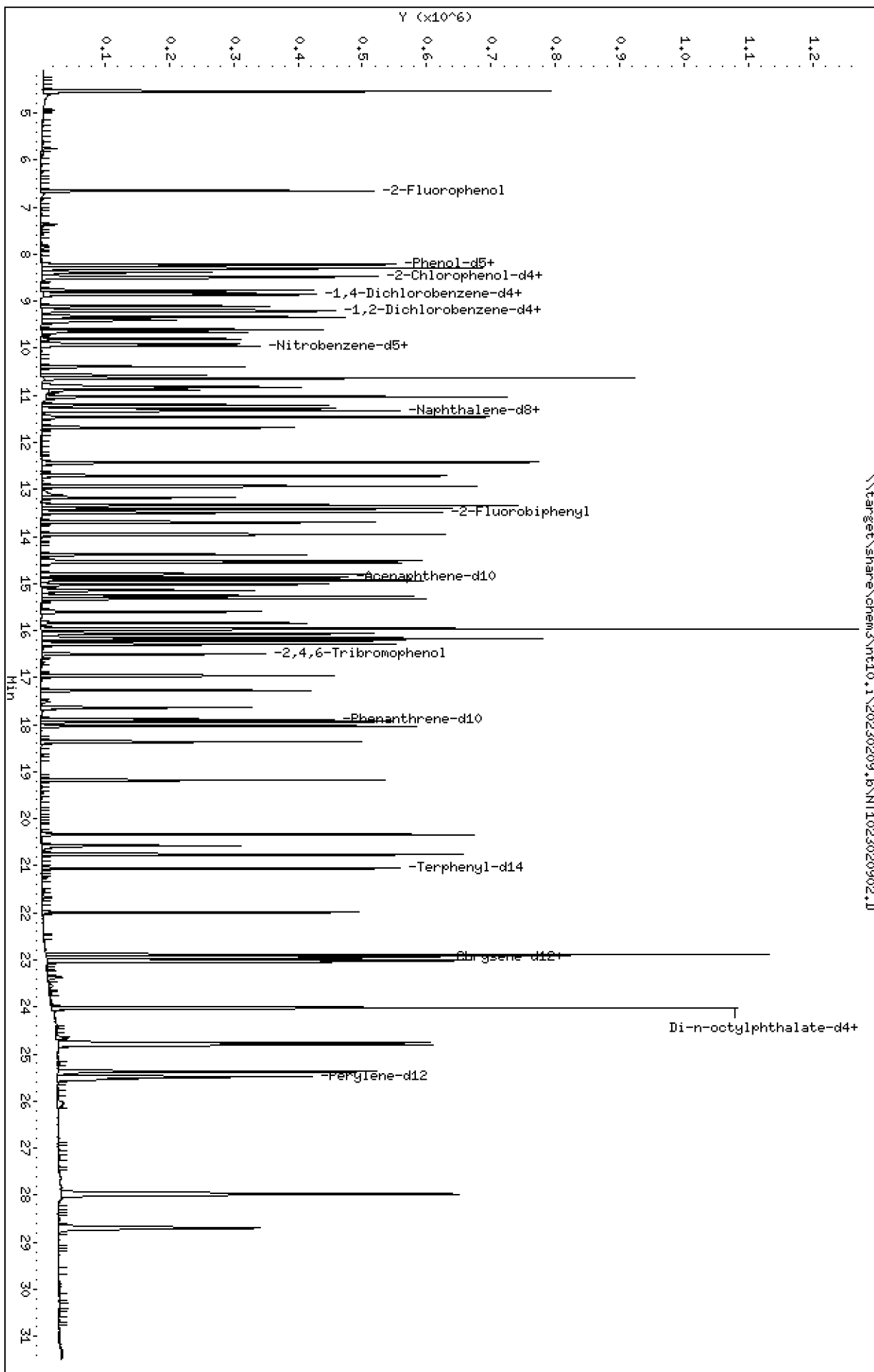
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230209.b\NT1023020902.D
 Lab Smp Id: SLB0122-ICV1
 Inj Date : 09-FEB-2023 13:31
 Operator : VTS
 Smp Info : SLB0122-ICV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230209.b\ABN.m
 Meth Date : 09-Feb-2023 14:46 deenayd
 Cal Date : 07-FEB-2023 16:09
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i
 Quant Type: ISTD
 Cal File: NT1023020708.D
 Continuing Calibration Sample
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
								CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112			6.651	6.651	(0.753)	218982	7.50000	7.696
\$ 2 Phenol-d5	99			8.219	8.219	(0.930)	285897	7.50000	7.448
3 Phenol	94			8.242	8.242	(0.933)	200389	5.00000	4.826
\$ 5 2-Chlorophenol-d4	132			8.482	8.482	(0.960)	227498	7.50000	7.302
4 Bis(2-Chloroethyl)ether	93			8.389	8.389	(0.949)	140092	5.00000	4.639
6 2-Chlorophenol	128			8.505	8.505	(0.962)	180892	5.00000	5.331
7 1,3-Dichlorobenzene	146			8.768	8.768	(0.992)	168916	5.00000	4.742
* 8 1,4-Dichlorobenzene-d4	152			8.838	8.838	(1.000)	89503	4.00000	
9 1,4-Dichlorobenzene	146			8.861	8.861	(1.003)	161915	5.00000	4.615
\$ 10 1,2-Dichlorobenzene-d4	152			9.187	9.187	(1.040)	101688	5.00000	4.769
12 1,2-Dichlorobenzene	146			9.211	9.211	(1.042)	159264	5.00000	4.709
11 Benzyl alcohol	108			9.102	9.102	(1.030)	93056	5.00000	5.059
14 2,2'-oxybis(1-Chloropropane)	121			9.397	9.397	(1.063)	44726	5.00000	4.602 (M)
13 2-Methylphenol	108			9.335	9.335	(1.056)	161324	5.00000	5.239
17 Hexachloroethane	117			9.800	9.800	(1.109)	64427	5.00000	4.790
16 N-Nitroso-di-n-propylamine	70			9.653	9.653	(1.092)	110775	5.00000	4.784
15 4-Methylphenol	108			9.606	9.606	(1.087)	154997	5.00000	4.752
\$ 18 Nitrobenzene-d5	82			9.909	9.909	(0.878)	165919	5.00000	4.824
19 Nitrobenzene	77			9.948	9.948	(0.881)	163374	5.00000	4.764
20 Isophorone	82			10.390	10.390	(0.921)	256000	5.00000	5.361
21 2-Nitrophenol	139			10.574	10.574	(0.937)	85243	5.00000	4.826
22 2,4-Dimethylphenol	107			10.633	10.633	(0.942)	291228	10.00000	9.223
23 Bis(2-Chloroethoxy)methane	93			10.820	10.820	(0.959)	145761	5.00000	4.700
24 Benzoic acid	105			10.888	10.888	(0.965)	295200	20.00000	15.98
25 2,4-Dichlorophenol	162			11.024	11.024	(0.977)	259813	10.00000	10.13
26 1,2,4-Trichlorobenzene	180			11.209	11.209	(0.993)	130270	5.00000	4.661
* 27 Naphthalene-d8	136			11.286	11.286	(1.000)	348104	4.00000	
28 Naphthalene	128			11.333	11.333	(1.004)	420492	5.00000	4.520
29 4-Chloroaniline	127			11.464	11.464	(1.016)	382605	10.00000	9.595
30 Hexachlorobutadiene	225			11.688	11.688	(1.036)	70276	5.00000	4.821
31 4-Chloro-3-methylphenol	107			12.423	12.423	(1.101)	263344	10.00000	9.390
32 2-Methylnaphthalene	142			12.710	12.710	(1.126)	304269	5.00000	4.704
33 Hexachlorocyclopentadiene	237			13.174	13.174	(0.886)	73219	10.00000	6.352
34 2,4,6-Trichlorophenol	196			13.336	13.336	(0.897)	159153	10.00000	9.606

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	13.414	13.414	(0.902)	169974	10.0000	9.517
\$ 36 2-Fluorobiphenyl	172	13.491	13.491	(0.907)	310443	5.00000	4.694
37 2-Chloronaphthalene	162	13.700	13.700	(0.921)	266649	5.00000	4.638
38 2-Nitroaniline	65	13.956	13.956	(0.939)	192068	10.0000	10.61
39 Dimethylphthalate	163	14.389	14.389	(0.968)	279937	5.00000	4.551
40 Acenaphthylene	152	14.559	14.559	(0.979)	419877	5.00000	4.585
41 2,6-Dinitrotoluene	165	14.521	14.521	(0.977)	133669	10.0000	9.176
* 42 Acenaphthene-d10	164	14.869	14.869	(1.000)	183525	4.00000	
43 3-Nitroaniline	138	14.807	14.807	(0.996)	162189	10.0000	9.656
44 Acenaphthene	153	14.939	14.939	(1.005)	253264	5.00000	4.513
45 2,4-Dinitrophenol	184	15.016	15.016	(1.010)	113336	20.0000	14.58
46 Dibenzofuran	168	15.263	15.263	(1.027)	368308	5.00000	4.562
47 4-Nitrophenol	109	15.147	15.147	(1.019)	56744	10.0000	9.063
48 2,4-Dinitrotoluene	165	15.325	15.325	(1.031)	179426	10.0000	8.927
50 Diethylphthalate	149	15.843	15.843	(1.066)	266788	5.00000	4.517
49 Fluorene	166	15.967	15.967	(1.074)	349241	5.00000	3.849
51 4-Chlorophenyl-phenylether	204	15.967	15.967	(1.074)	160828	5.00000	3.629
52 4-Nitroaniline	138	16.067	16.067	(1.081)	168021	10.0000	8.754
53 4,6-Dinitro-2-methylphenol	198	16.167	16.167	(0.904)	208639	20.0000	19.55
54 N-Nitrosodiphenylamine	169	16.213	16.213	(0.906)	232802	5.00000	4.609
\$ 55 2,4,6-Tribromophenol	330	16.506	16.506	(1.110)	62910	7.50000	6.846
56 4-Bromophenyl-phenylether	248	16.961	16.961	(0.948)	90373	5.00000	4.855
57 Hexachlorobenzene	284	17.278	17.278	(0.966)	101821	5.00000	5.079
58 Pentachlorophenol	266	17.635	17.635	(0.986)	69927	10.0000	8.980
* 59 Phenanthrene-d10	188	17.890	17.890	(1.000)	295489	4.00000	
60 Phenanthrene	178	17.936	17.936	(1.003)	374729	5.00000	4.712
61 Anthracene	178	18.029	18.029	(1.008)	376537	5.00000	4.782
62 Carbazole	167	18.362	18.362	(1.026)	354846	5.00000	4.672
63 Di-n-butylphthalate	149	19.182	19.182	(1.072)	452749	5.00000	4.999
64 Fluoranthene	202	20.335	20.335	(0.886)	403822	5.00000	4.596
65 Pyrene	202	20.760	20.760	(0.904)	418966	5.00000	4.619
\$ 66 Terphenyl-d14	244	21.054	21.054	(0.917)	299299	5.00000	4.376
67 Butylbenzylphthalate	149	21.991	21.991	(0.958)	180496	5.00000	4.605
68 Benzo(a)anthracene	228	22.936	22.936	(0.999)	361055	5.00000	4.521
* 69 Chrysene-d12	240	22.959	22.959	(1.000)	239590	4.00000	
70 3,3'-Dichlorobenzidine	252	22.897	22.897	(0.997)	396639	15.0000	14.68
71 Chrysene	228	23.006	23.006	(1.002)	340055	5.00000	4.440
72 bis(2-Ethylhexyl)phthalate	149	23.037	23.037	(0.959)	258875	5.00000	4.707
* 134 Di-n-octylphthalate-d4	153	24.020	24.020	(1.000)	404293	4.00000	
73 Di-n-octylphthalate	149	24.027	24.027	(1.000)	476492	5.00000	4.664
74 Benzo(b)fluoranthene	252	24.763	24.763	(0.972)	415075	5.00000	4.780
75 Benzo(k)fluoranthene	252	24.809	24.809	(0.974)	415767	5.00000	4.547
76 Benzo(a)pyrene	252	25.375	25.375	(0.996)	375499	5.00000	4.782
* 77 Perylene-d12	264	25.483	25.483	(1.000)	274336	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	27.971	27.971	(1.098)	482971	5.00000	5.168
79 Dibenzo(a,h)anthracene	278	27.986	27.986	(1.098)	396358	5.00000	5.119
80 Benzo(g,h,i)perylene	276	28.701	28.701	(1.126)	418911	5.00000	5.223
90 N-Nitrosodimethylamine	74	4.527	4.527	(0.512)	195930	10.0000	9.897
91 Aniline	93	8.297	8.297	(0.939)	399046	10.0000	9.929
93 Benzidine	184	20.575	20.575	(0.896)	208133	10.0000	7.349
103 Pyridine	79	4.543	4.543	(0.514)	302322	10.0000	9.867
105 1-methylnaphthalene	142	12.934	12.934	(1.146)	293737	5.00000	4.717
111 Azobenzene (1,2-DP-Hydrazine)	77	16.291	16.291	(1.096)	351914	5.00000	4.472
187 Total Benzofluoranthenes	252	24.809	24.809	(0.974)	788681	10.0000	9.264

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		15.603	15.603	(1.049)	79001	5.00000	4.579

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 08-FEB-2023
 Lab File ID: NT1023020902.D Calibration Time: 17:36
 Lab Smp Id: SLB0122-ICV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230209.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	89503	44752	179006	89503	0.00
27 Naphthalene-d8	348104	174052	696208	348104	0.00
42 Acenaphthene-d10	183525	91763	367050	183525	0.00
59 Phenanthrene-d10	295489	147745	590978	295489	0.00
69 Chrysene-d12	239590	119795	479180	239590	0.00
134 Di-n-octylphthala	404293	202147	808586	404293	0.00
77 Perylene-d12	274336	137168	548672	274336	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	0.00
27 Naphthalene-d8	11.29	10.79	11.79	11.29	0.00
42 Acenaphthene-d10	14.87	14.37	15.37	14.87	0.00
59 Phenanthrene-d10	17.89	17.39	18.39	17.89	0.00
69 Chrysene-d12	22.96	22.46	23.46	22.96	0.00
134 Di-n-octylphthala	24.02	23.52	24.52	24.02	0.00
77 Perylene-d12	25.48	24.98	25.98	25.48	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020902.D

Lab ID: SLB0122-ICV1
nt10.i, 20230209.b\ABN.m, 09-FEB-2023 13:31

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

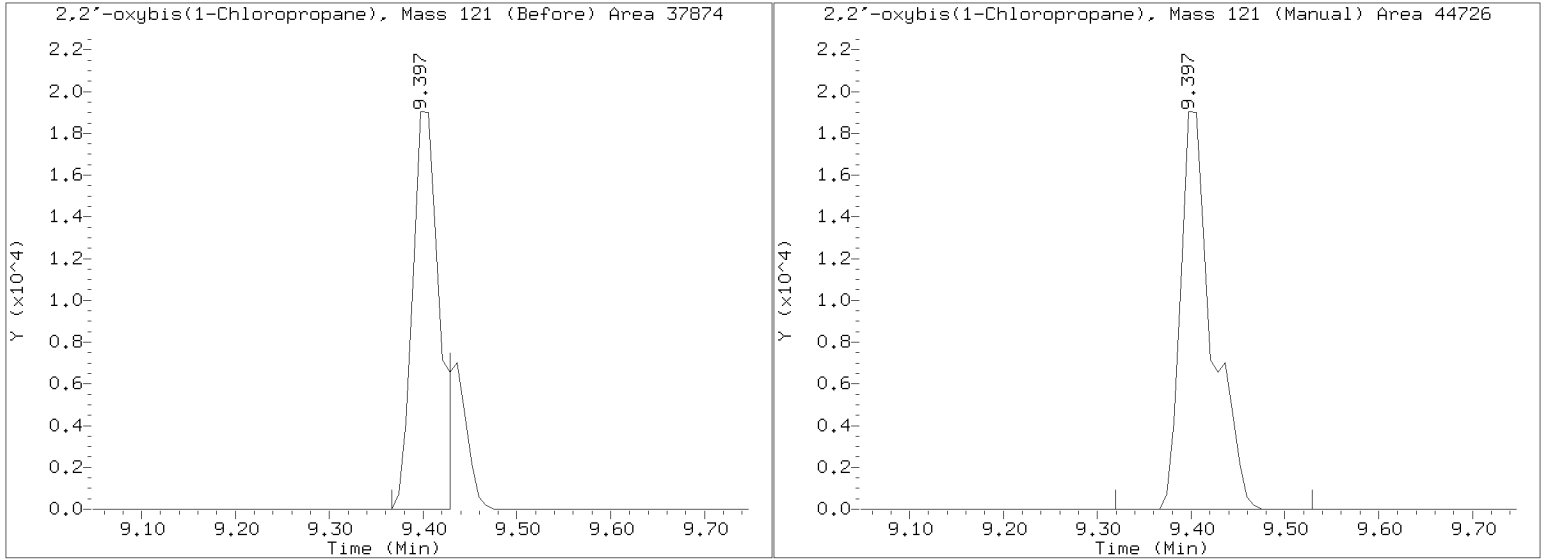
No RRT check. Ccal file.

On Column LOD for nt10.i, 20230209.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209.b/NT1023020902.D
Injection Date: 09-FEB-2023 13:31
Lab ID:SLB0122-ICV1 Client ID:
Report Date: 02/10/2023 17:18



APPROVED

By Deenay Dunmore at 9:41 am, Feb 11, 2023

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230209.b

Instrument: nt10.i Date: 09-FEB-2023 Method: 20230209.b\ABN.m

INITIAL CAL: 30-DEC-2022

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1023020902.D 09-FEB-2023 13:31

Compound	%D

Benzoic acid	-20.1
Hexachlorocyclopentadiene	-36.5
2,4-Dinitrophenol	-27.1
Fluorene	-23.0
4-Chlorophenyl-phenylether	-27.4
Benzidine	-26.5



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00018

Lab File ID: NT1023020920.D

Calibration Date: 02/07/2023

Sequence: SLB0122

Injection Date: 02/10/23

Lab Sample ID: SLB0122-ICV2

Injection Time: 01:09

Sequence Name: SSTD005

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Phenol	A	5.0000	4.6	1.8557260	1.7160010		-7.5	+/-20
4-Methylphenol	A	5.0000	4.6	1.4577560	1.3267470		-9.0	+/-20
Naphthalene	A	5.0000	4.6	1.0689	0.9764561		-8.6	+/-20
2-Methylnaphthalene	A	5.0000	4.8	0.7432041	0.7090275		-4.6	+/-20
Acenaphthylene	A	5.0000	4.6	1.9958230	1.8498230		-7.3	+/-20
Dimethylphthalate	A	5.0000	4.6	1.3405170	1.2403450		-7.5	+/-20
Acenaphthene	A	5.0000	4.6	1.2231120	1.1239280		-8.1	+/-20
Dibenzofuran	A	5.0000	4.5	1.7594910	1.5930980		-9.5	+/-20
Fluorene	A	5.0000	3.8	1.9777380	1.5227830		-23.0	+/-20 *
Phenanthrene	A	5.0000	4.7	1.0765200	1.0144790		-5.8	+/-20
Anthracene	A	5.0000	4.8	1.0659800	1.0183900		-4.5	+/-20
Fluoranthene	A	5.0000	4.2	1.4667580	1.2237470		-16.6	+/-20
Pyrene	A	5.0000	4.1	1.5142740	1.2484		-17.6	+/-20
Butylbenzylphthalate	A	5.0000	4.4	0.6543795	0.5815467		-11.1	+/-20
Benzo(a)anthracene	A	5.0000	4.6	1.3332750	1.2261630		-8.0	+/-20
Chrysene	A	5.0000	4.5	1.2786640	1.1564300		-9.6	+/-20
bis(2-Ethylhexyl)phthalate	A	5.0000	4.7	0.5440929	0.5082421		-6.6	+/-20
Benzo(a)fluoranthene, Total	A	10.0000	9.5	1.2413430	1.1795930		-5.0	+/-20
Benzo(a)pyrene	A	5.0000	4.8	1.1449040	1.1035290		-3.6	+/-20
Indeno(1,2,3-cd)pyrene	A	5.0000	3.9	1.3627520	1.0746630		-21.1	+/-20 *
Dibenzo(a,h)anthracene	A	5.0000	4.1	1.1288770	0.9210364		-18.4	+/-20
Benzo(g,h,i)perylene	A	5.0000	3.4	1.1695480	0.7960835		-31.9	+/-20 *
2-Fluorophenol	A	7.5000	7.38	1.2716740	1.2518890		-1.6	+/-20
Phenol-d5	A	7.5000	7.23	1.7155190	1.6534140		-3.6	+/-20
2-Chlorophenol-d4	A	7.5000	7.83	1.3922970	1.4541080		4.4	+/-20
1,2-Dichlorobenzene-d4	A	5.0000	4.66	0.9530327	0.8890617		-6.7	+/-20
Nitrobenzene-d5	A	5.0000	4.96	0.3951837	0.3918744		-0.8	+/-20
2-Fluorobiphenyl	A	5.0000	4.77	1.4414640	1.3747240		-4.6	+/-20
2,4,6-Tribromophenol	A	7.5000	6.48	0.2002949	0.1730221		-13.6	+/-20
p-Terphenyl-d14	A	5.0000	4.01	1.1418200	0.9149219		-19.9	+/-20

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GB00018</u>
Lab File ID:	<u>NT1023020920.D</u>	Calibration Date:	<u>02/07/2023</u>
Sequence:	<u>SLB0122</u>	Injection Date:	<u>02/10/23</u>
Lab Sample ID:	<u>SLB0122-ICV2</u>	Injection Time:	<u>01:09</u>
Sequence Name:	<u>SSTD005</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene-d4	A	4.0000	4.0	27697.1100	1.0000		0.0	
Naphthalene-d8	A	4.0000	4.0	107855.1000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.0	57284.5700	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.0	101358.1000	1.0000		0.0	
Chrysene-d12	A	4.0000	4.0	77804.6800	1.0000		0.0	
Di-n-Octylphthalate-d4	A	4.0000	4.0	130651.7000	1.0000		0.0	
Perylene-d12	A	4.0000	4.0	82834.8600	1.0000		0.0	

* Values outside of QC limits

Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

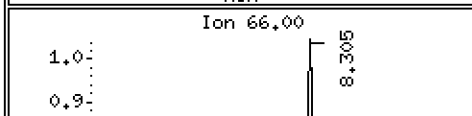
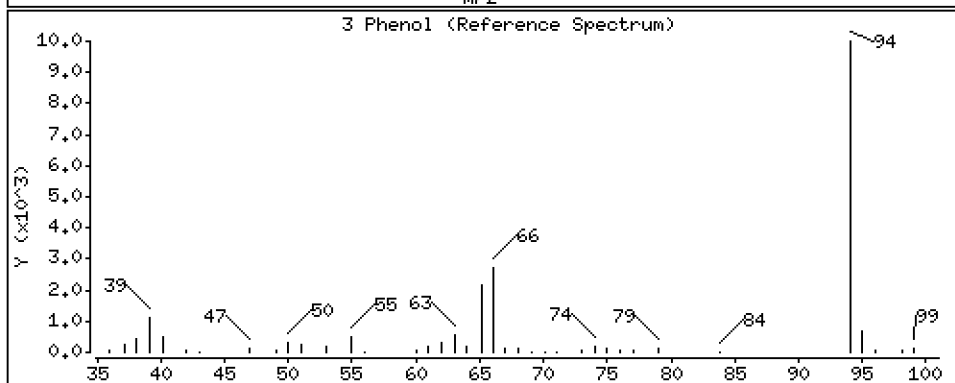
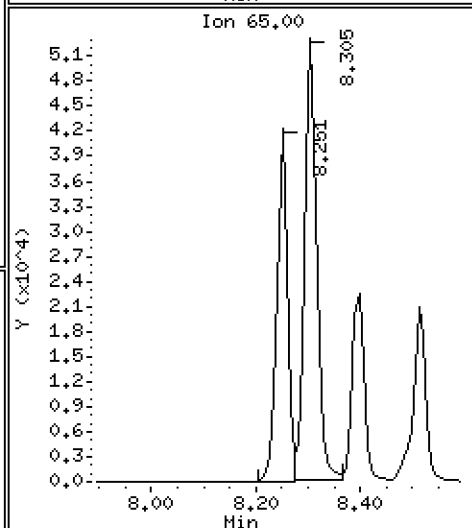
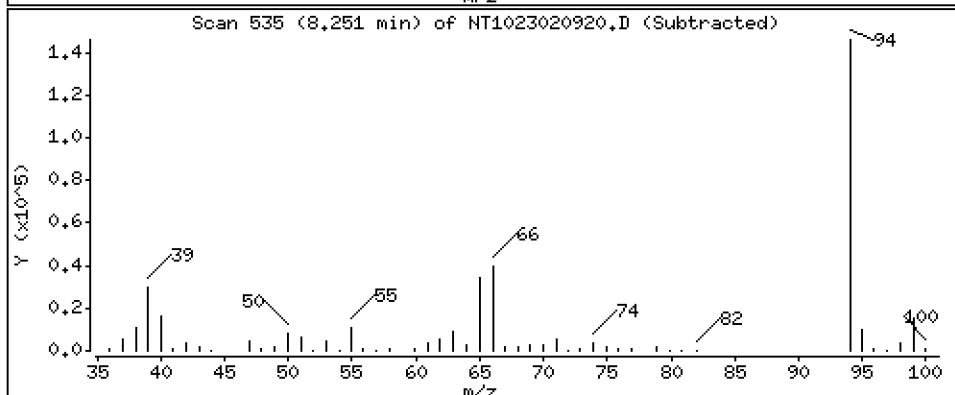
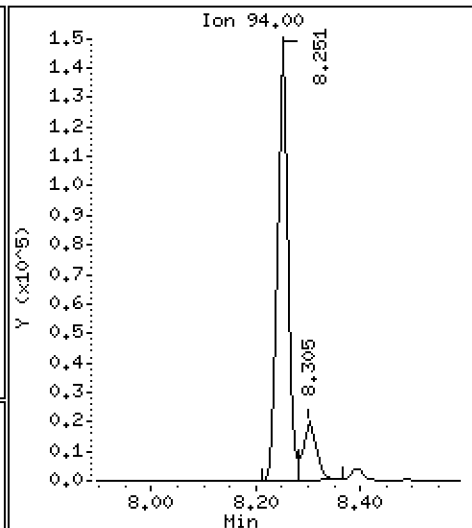
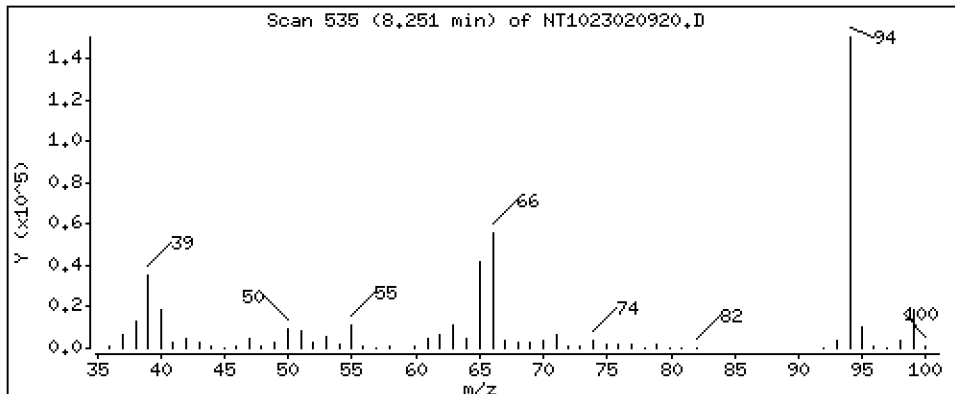
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,624 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

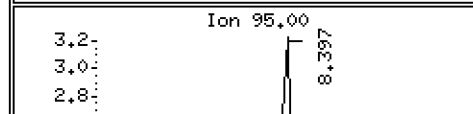
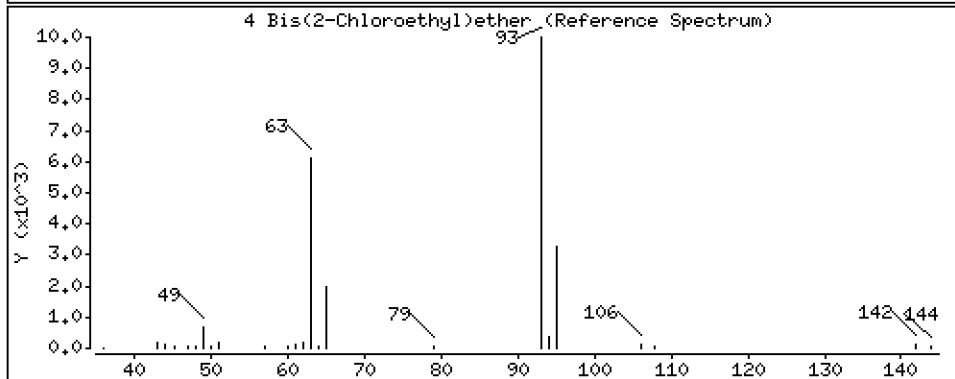
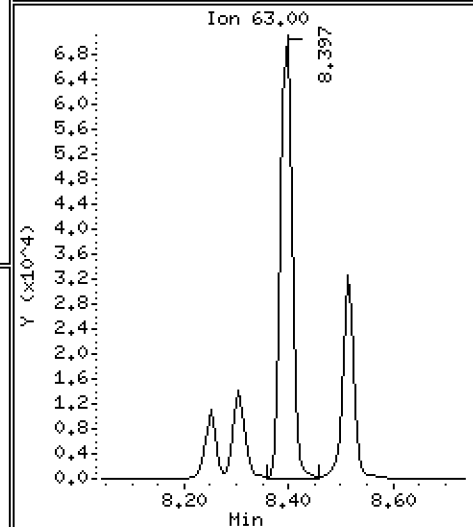
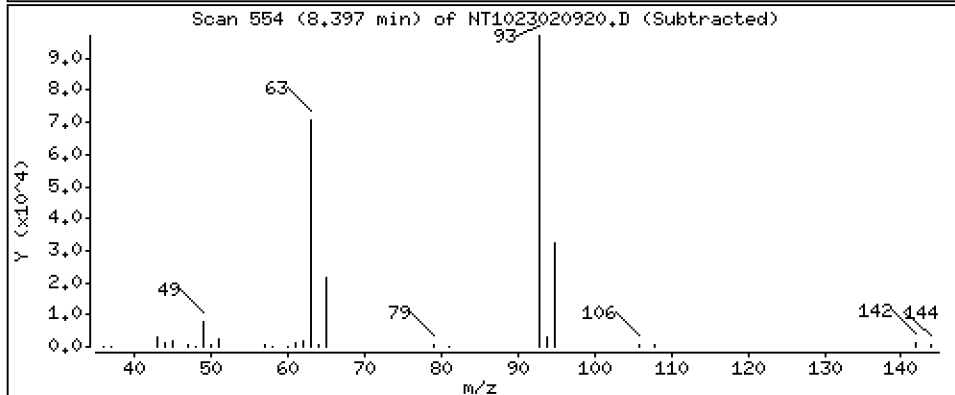
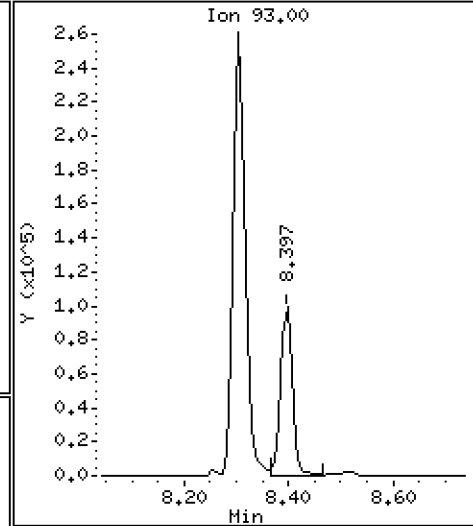
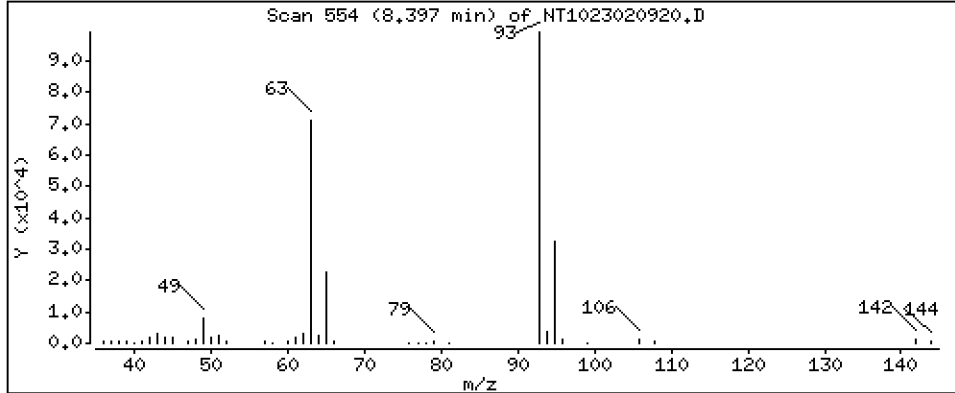
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 4,544 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

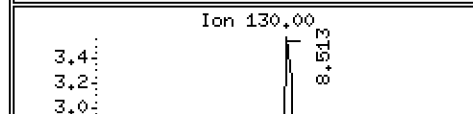
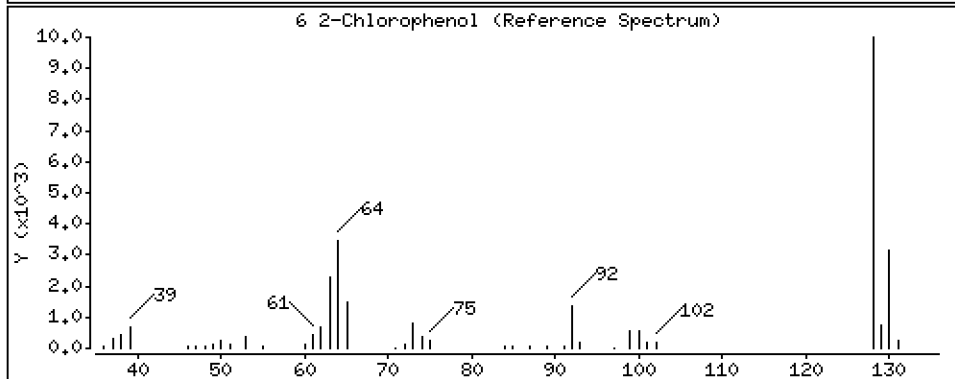
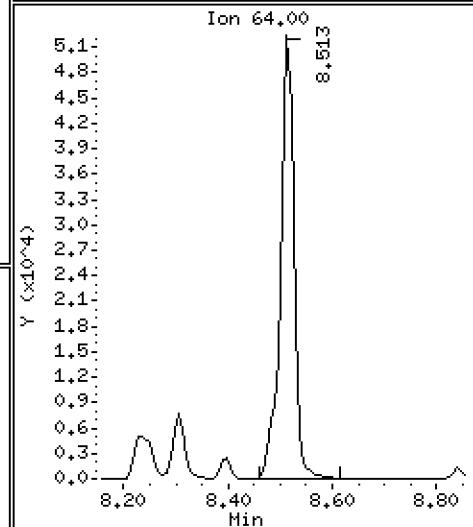
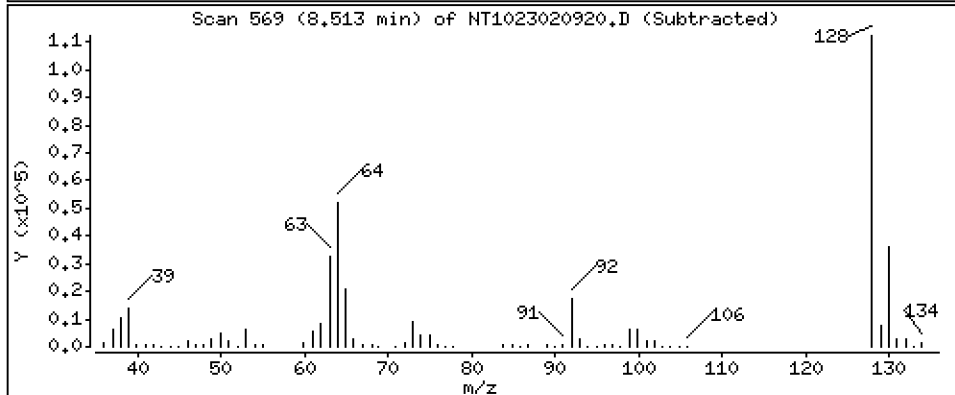
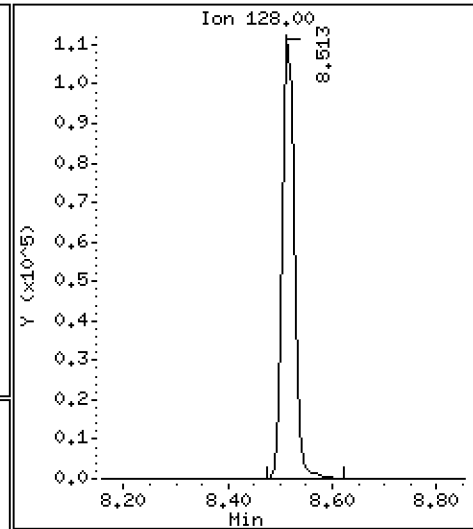
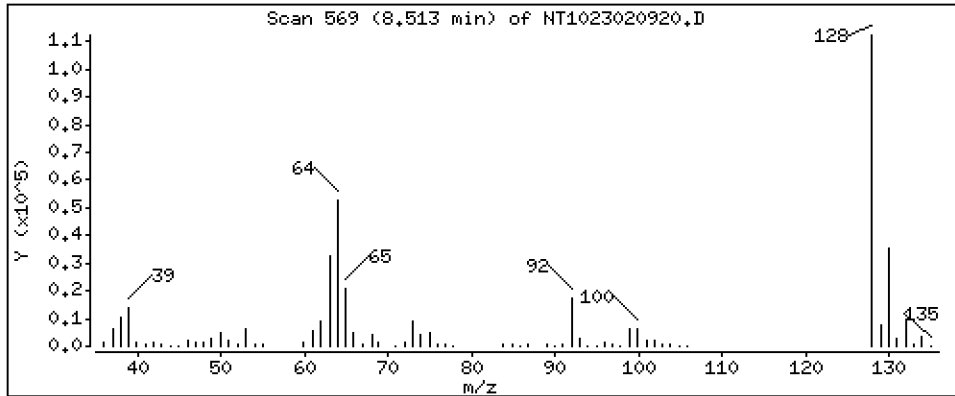
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 5,258 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

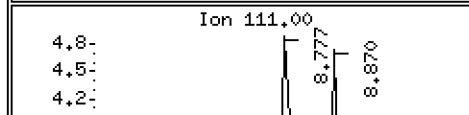
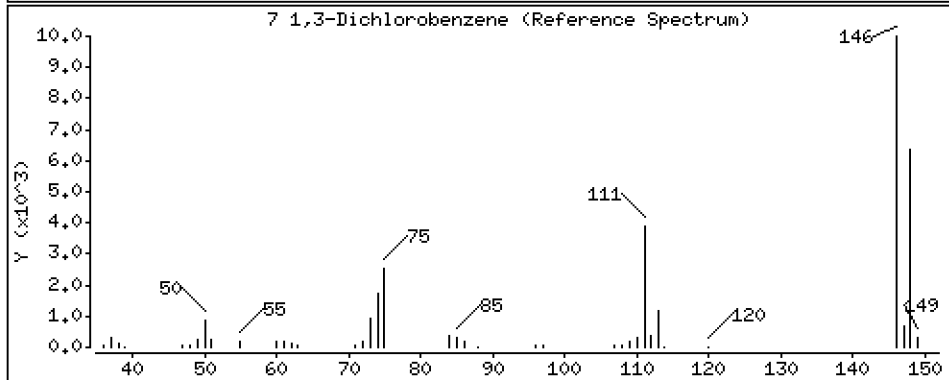
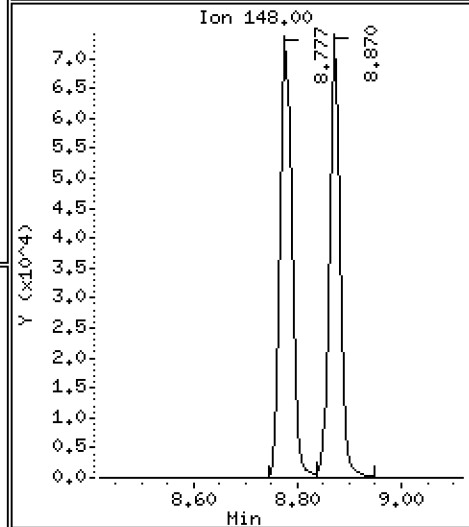
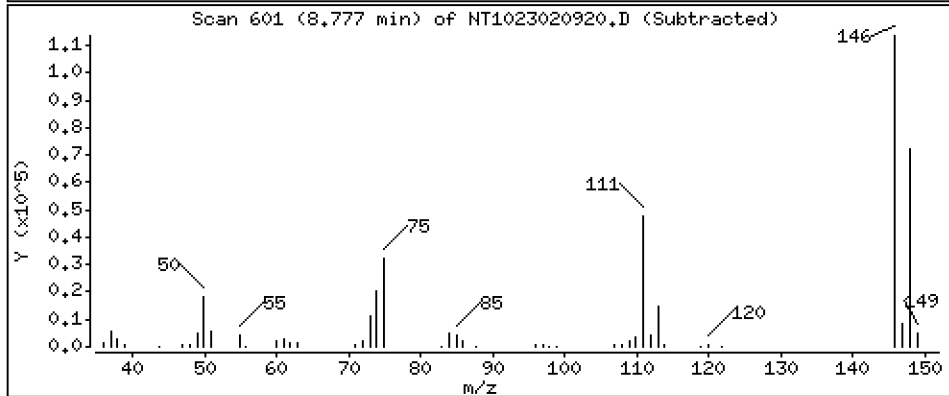
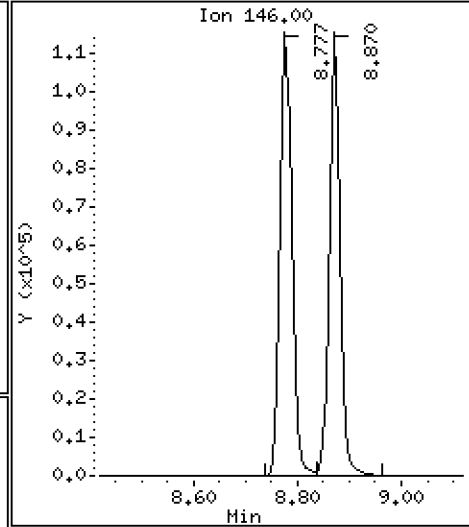
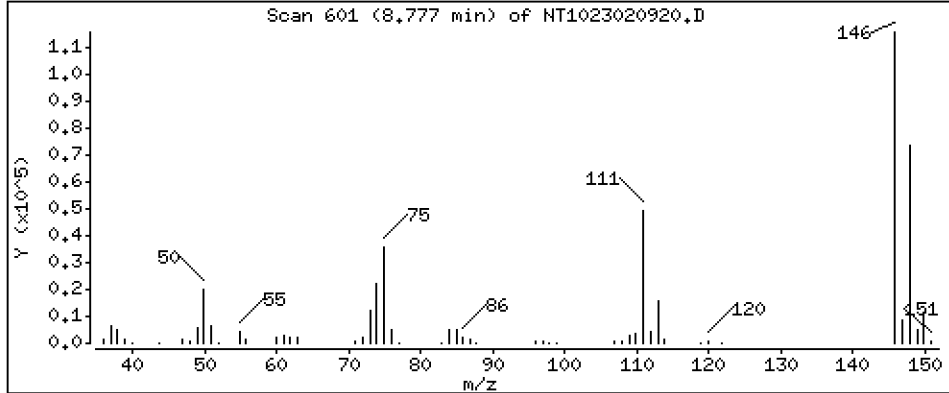
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 4,623 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

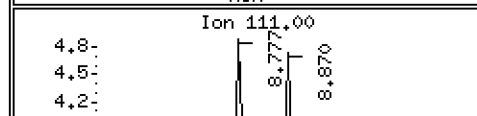
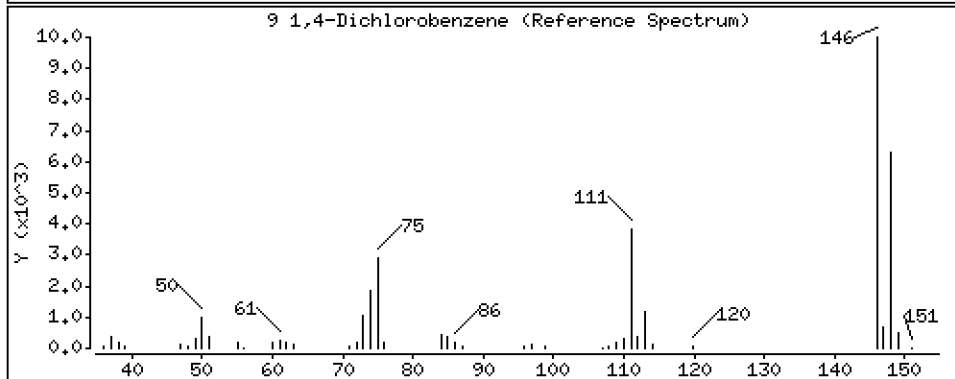
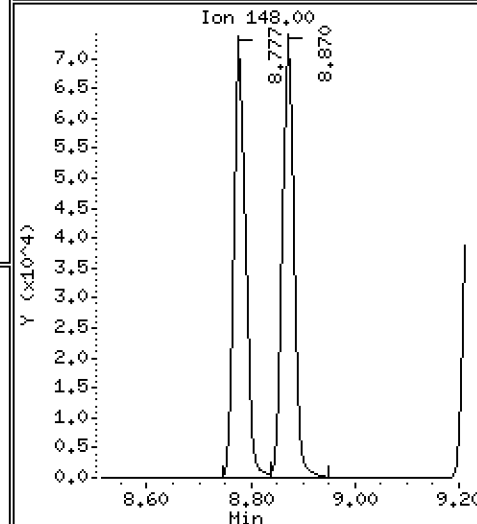
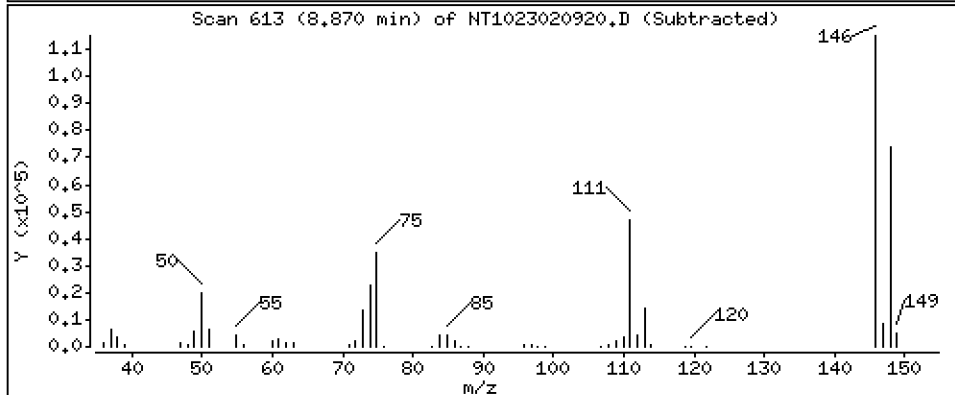
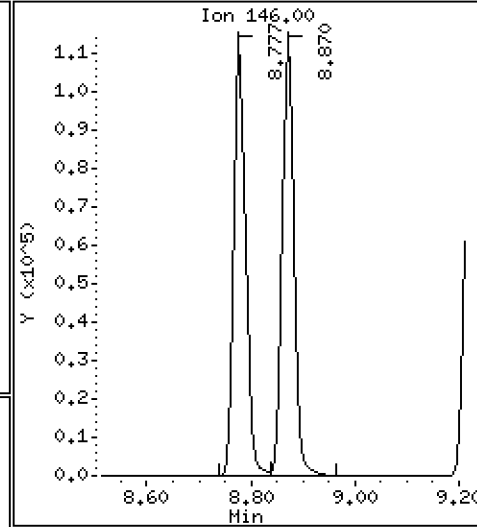
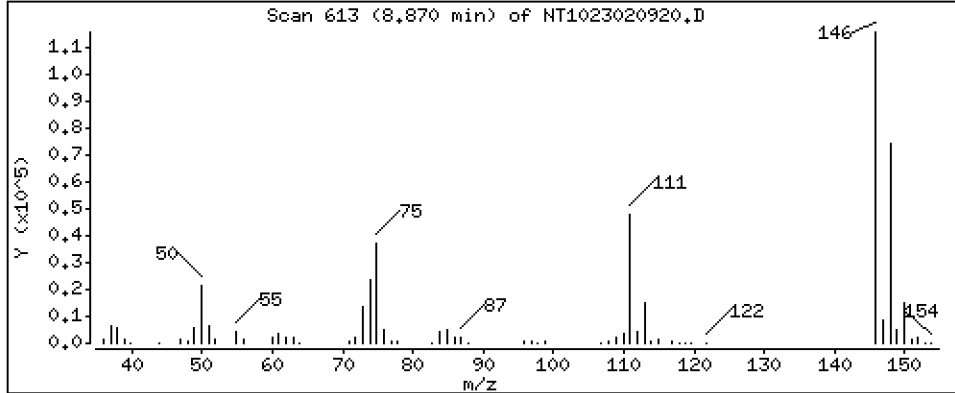
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 4,562 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

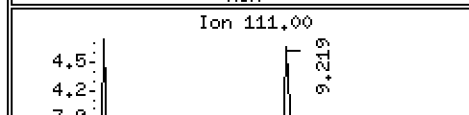
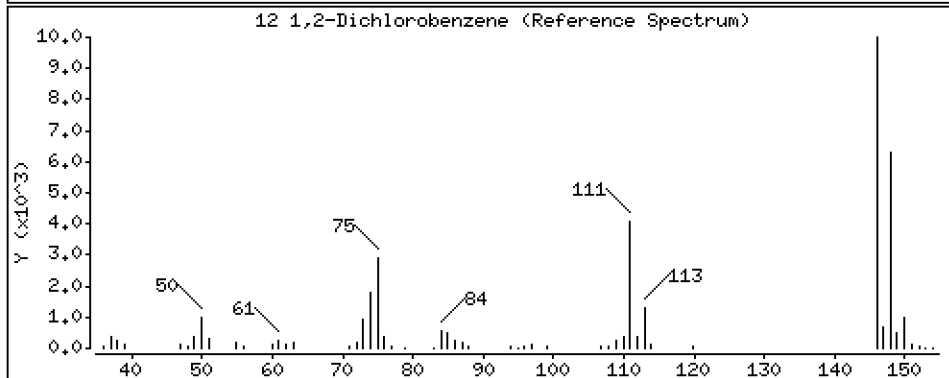
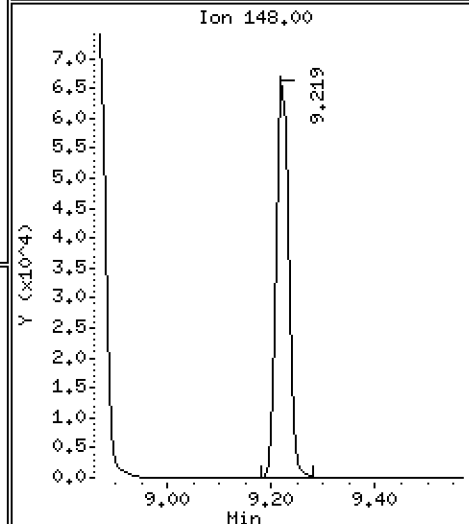
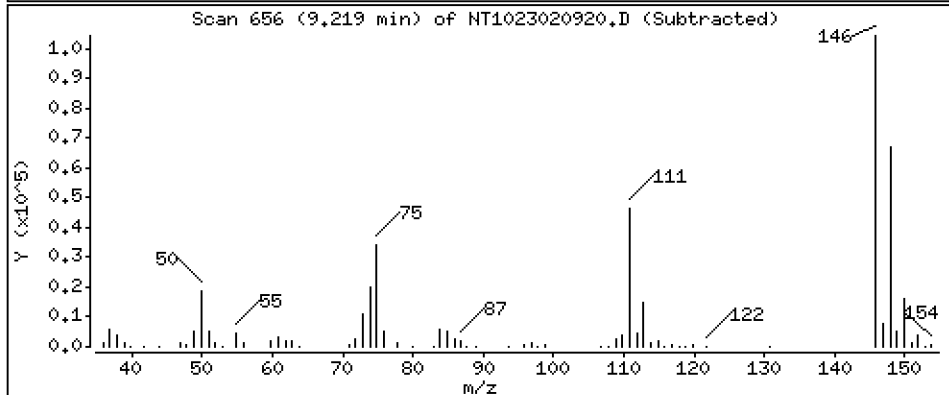
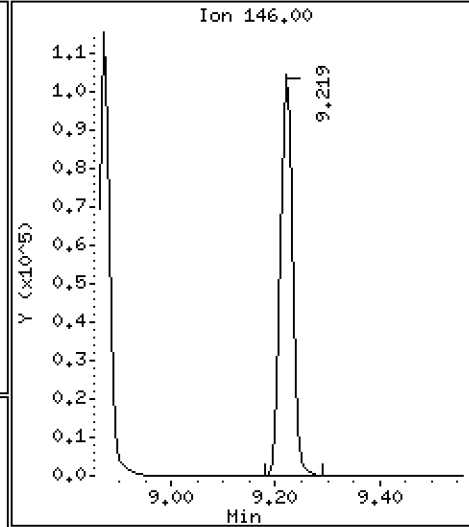
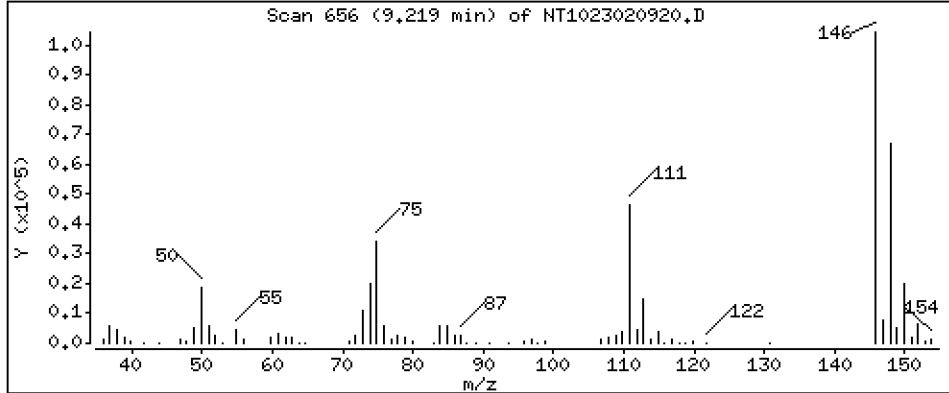
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 4,549 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

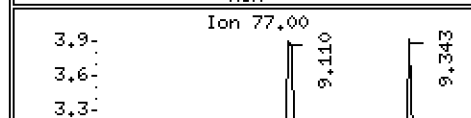
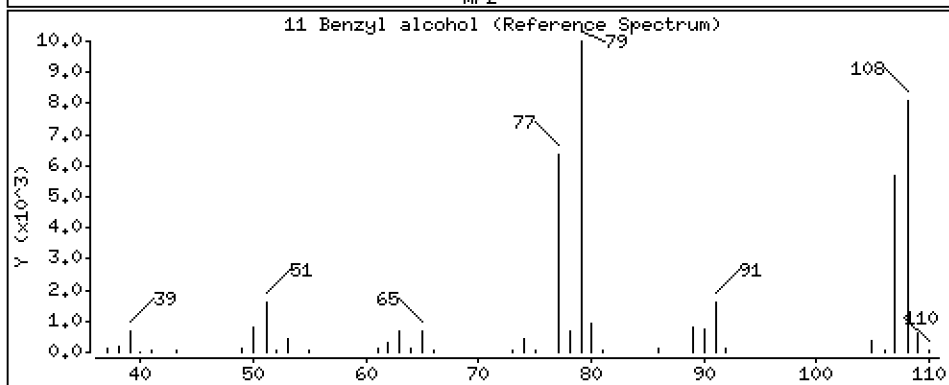
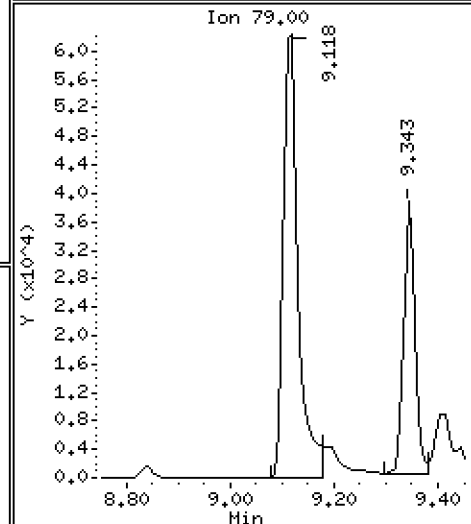
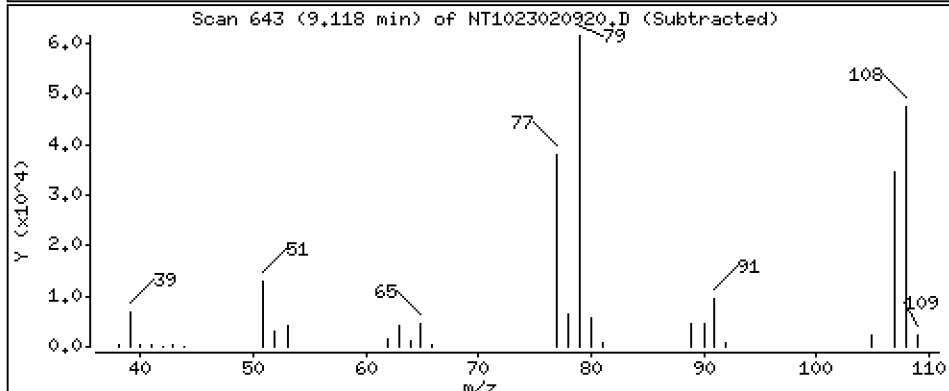
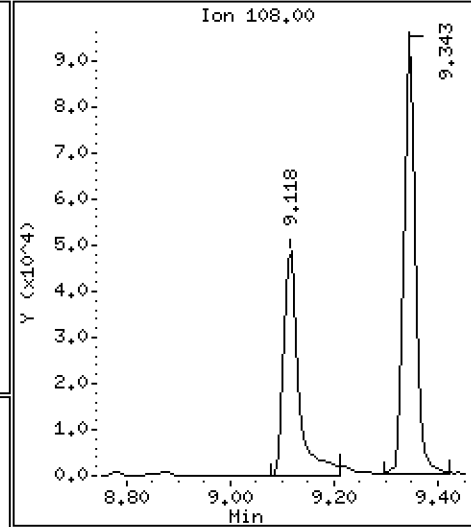
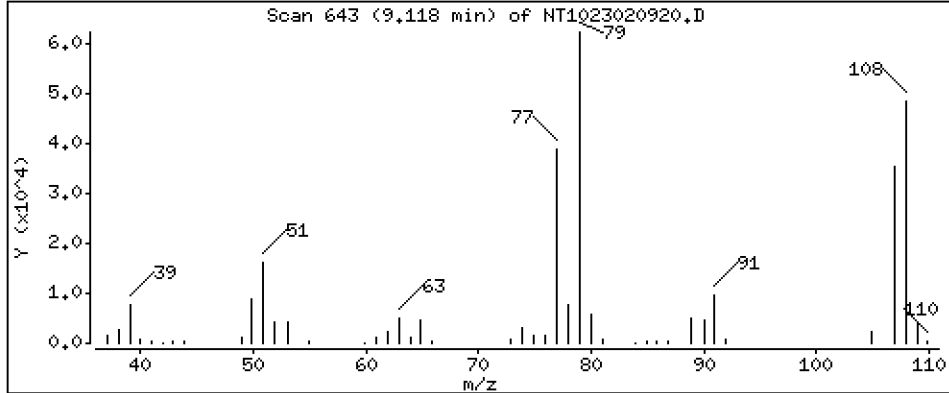
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 4,936 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

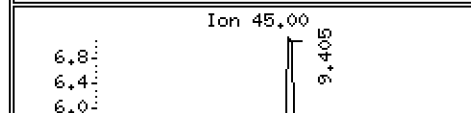
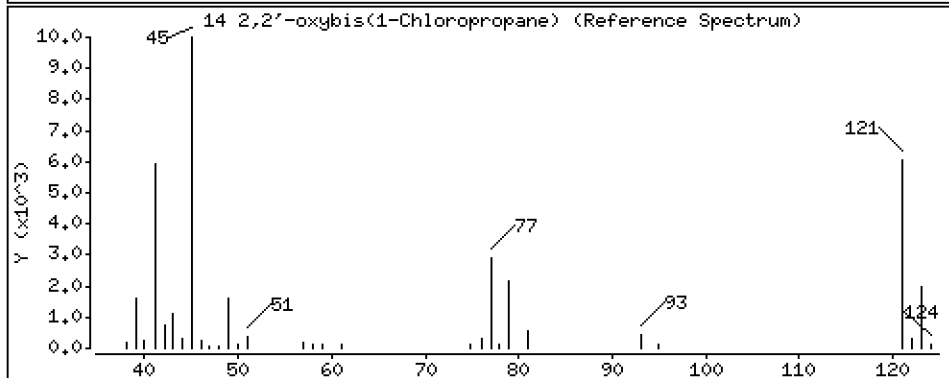
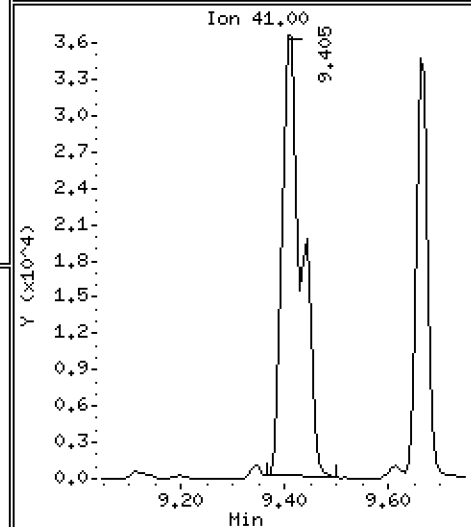
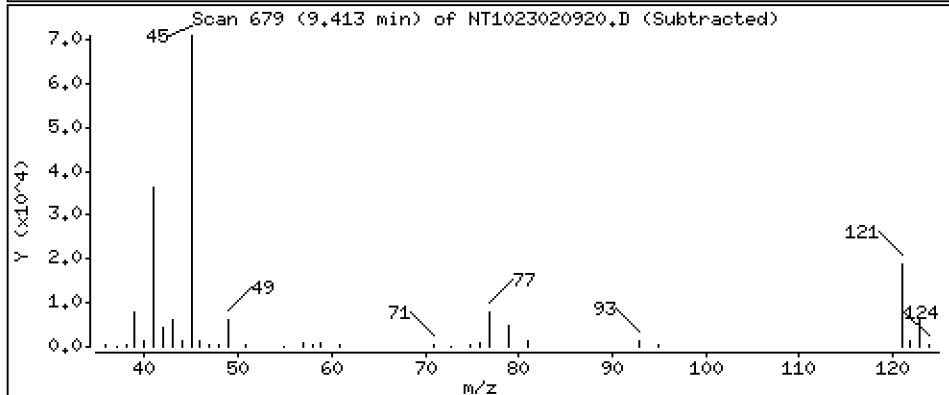
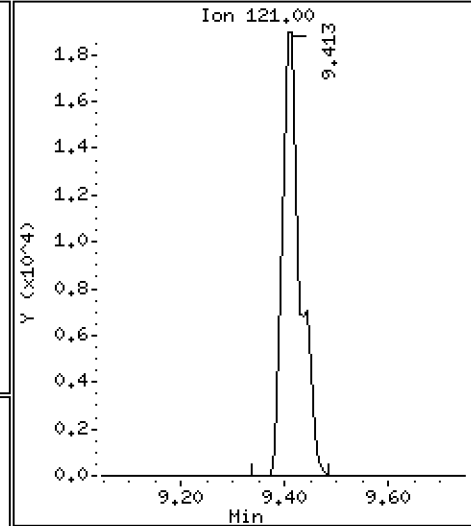
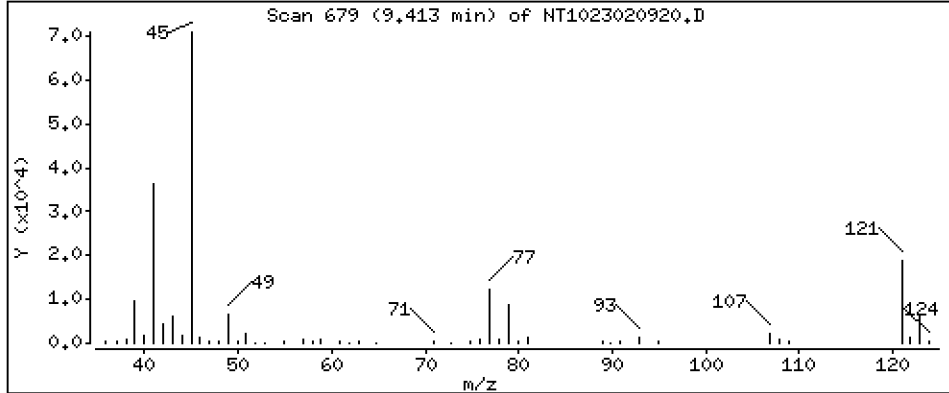
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 4,477 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

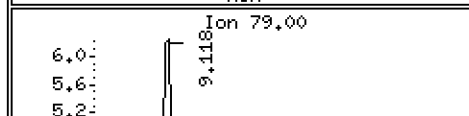
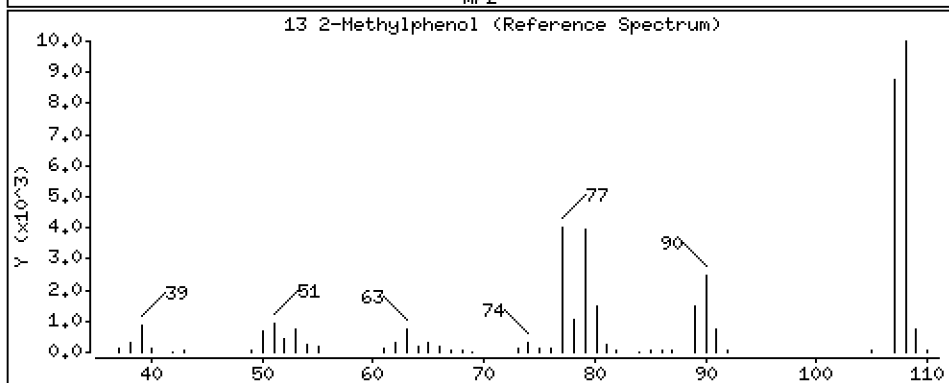
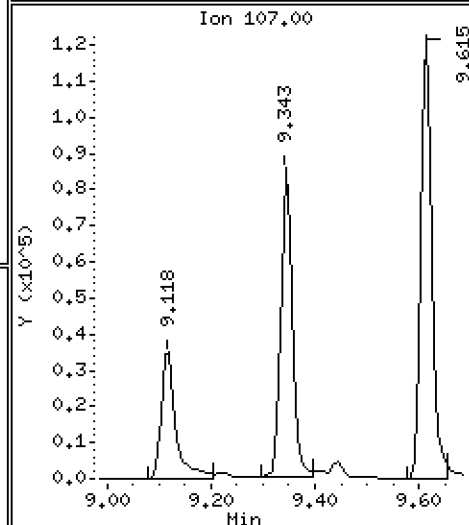
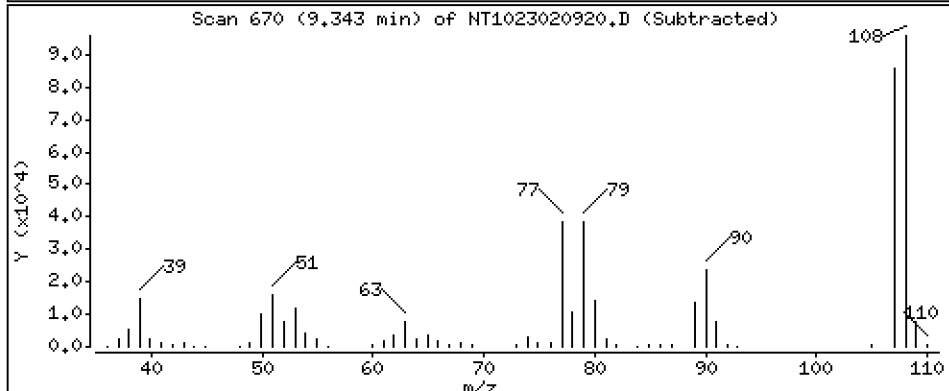
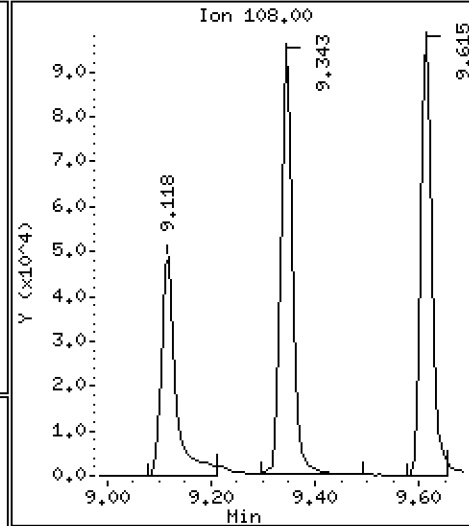
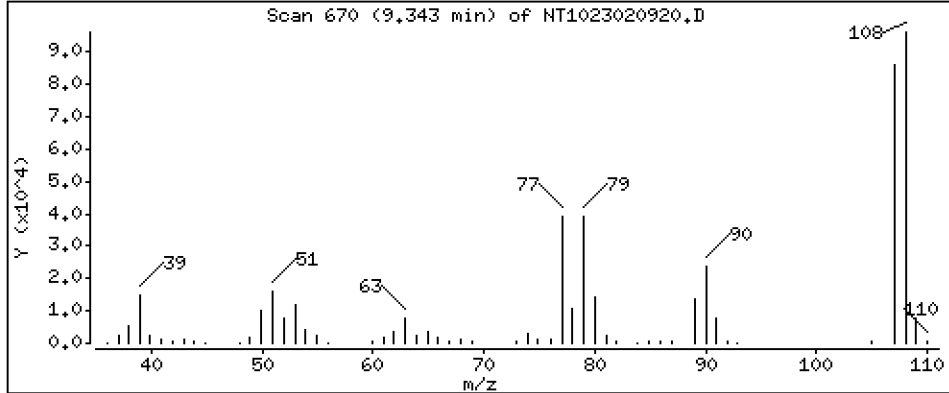
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 4,913 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

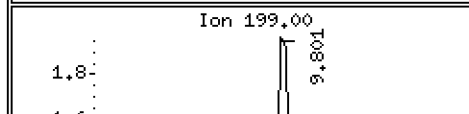
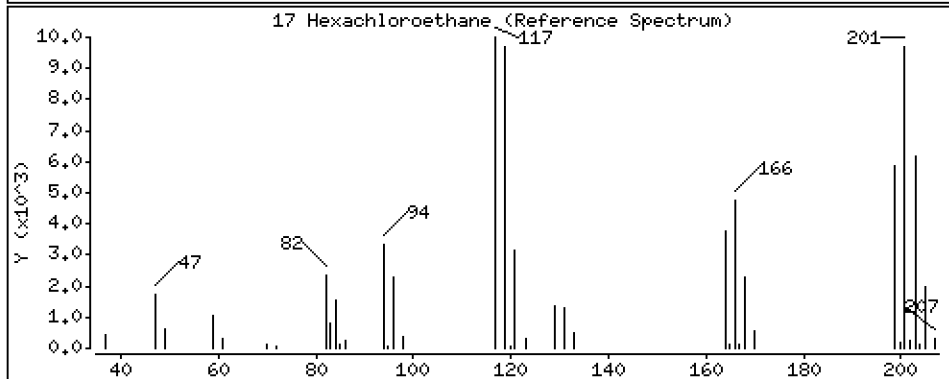
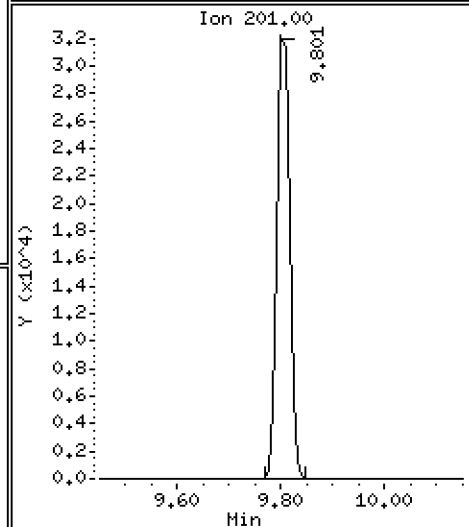
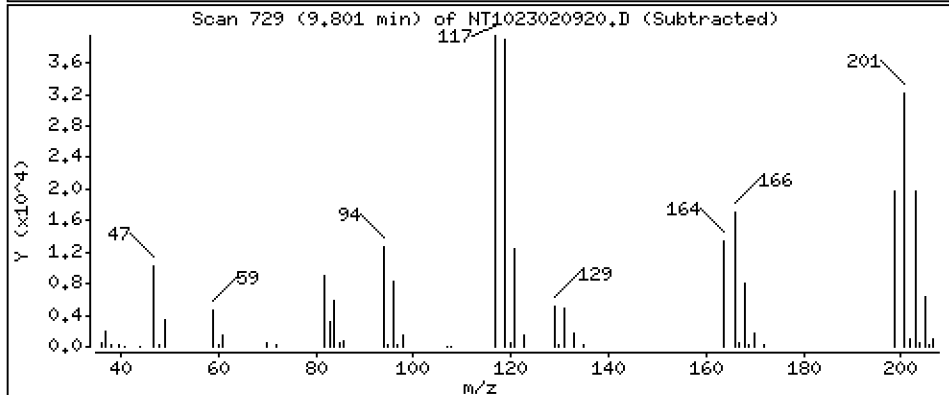
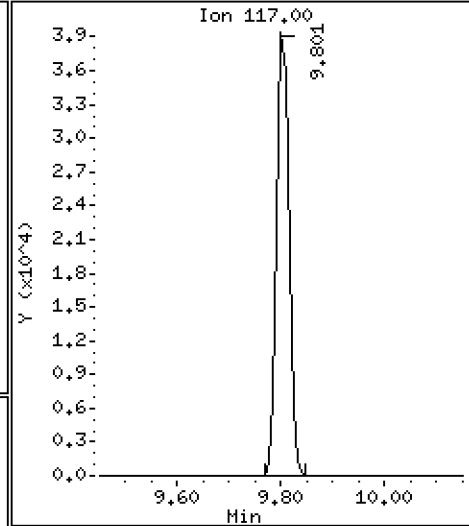
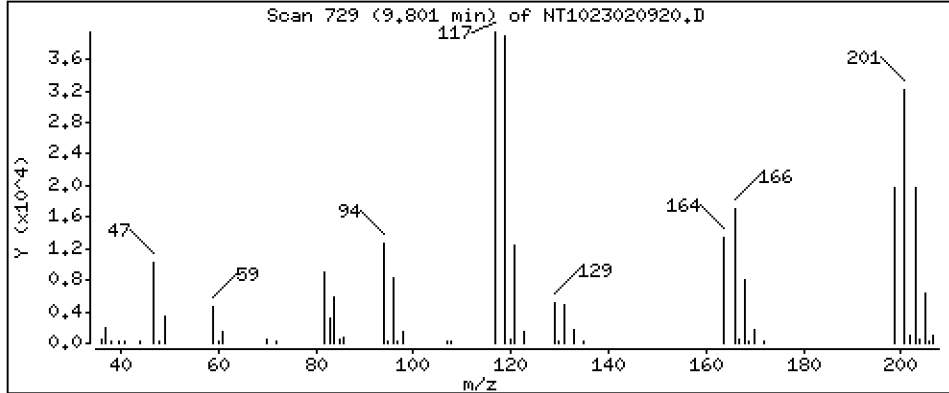
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 4,369 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

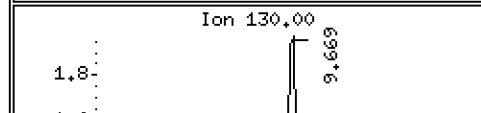
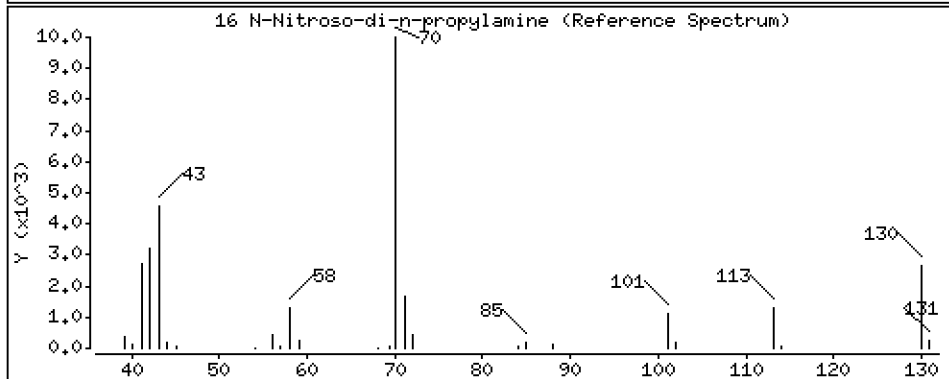
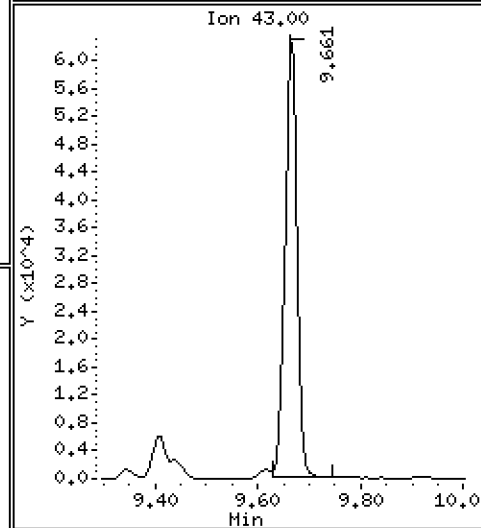
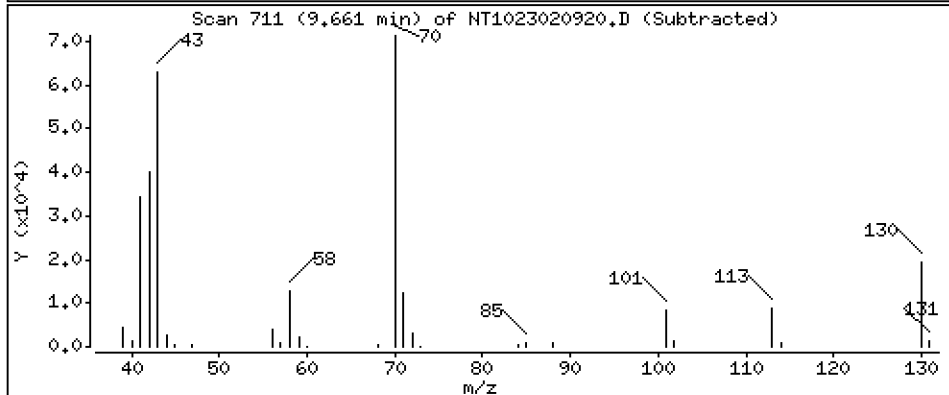
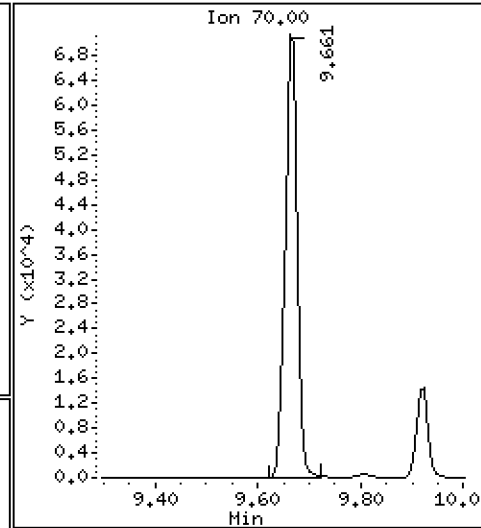
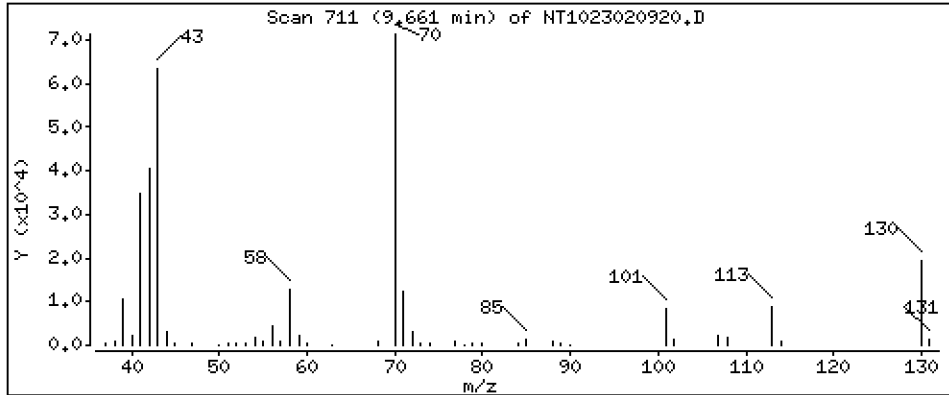
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 4,712 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

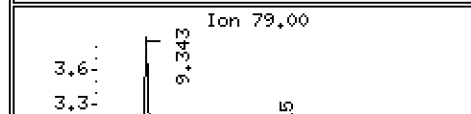
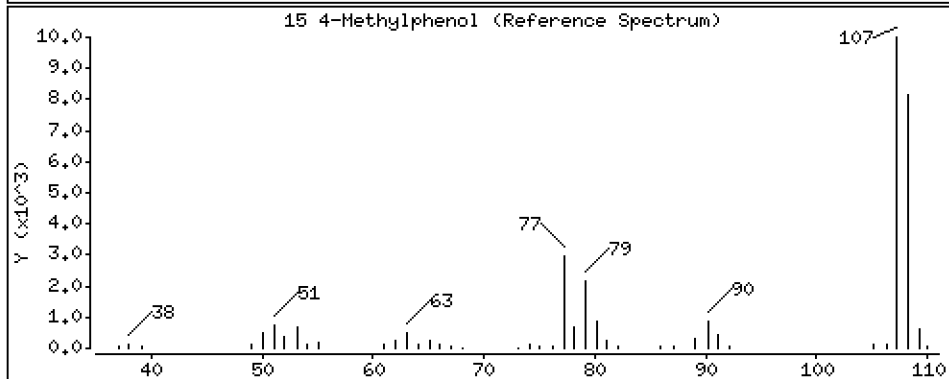
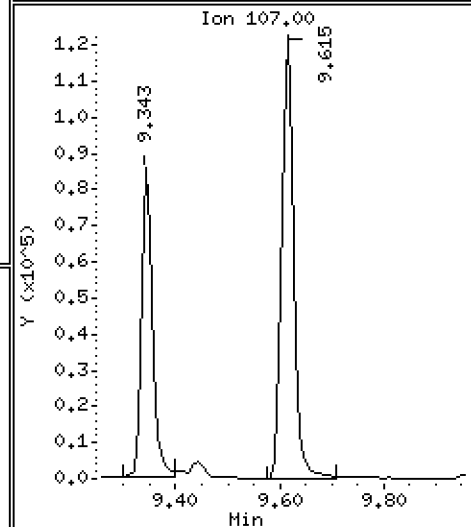
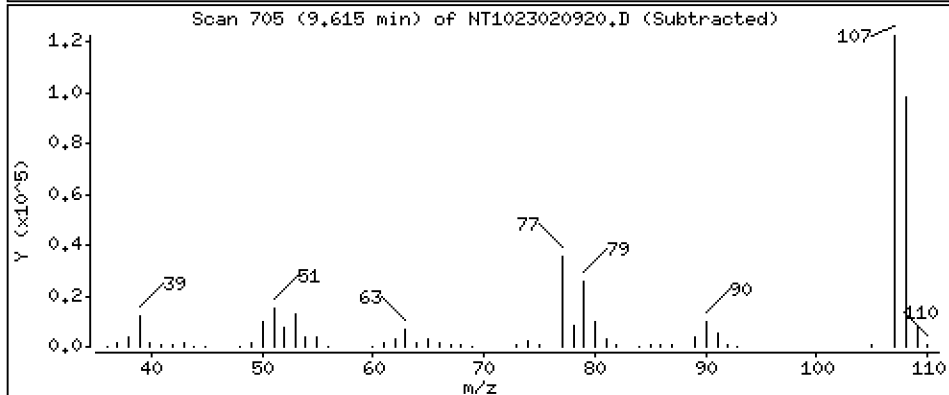
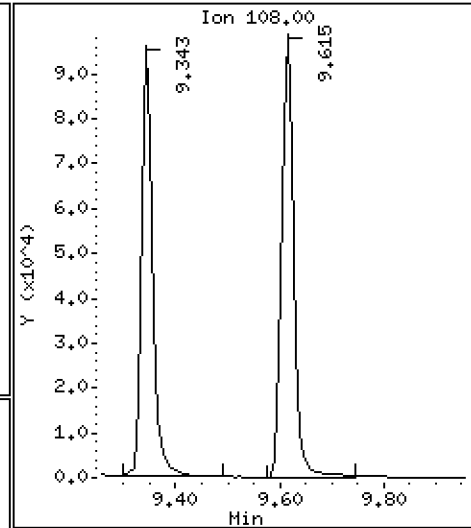
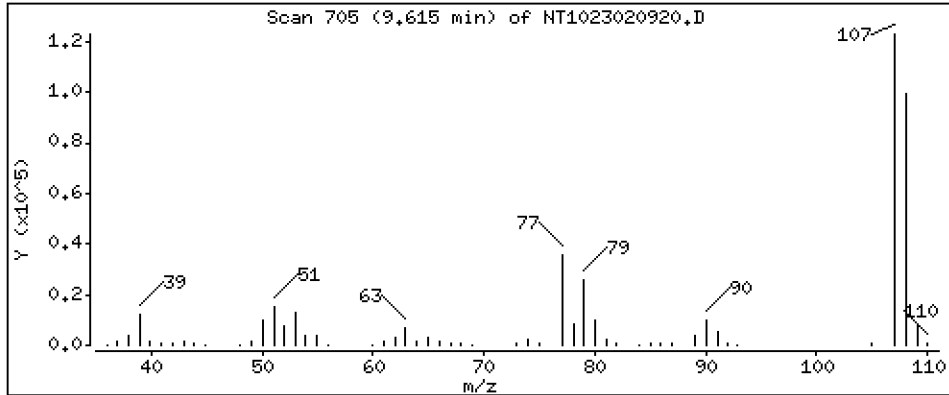
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 4,551 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

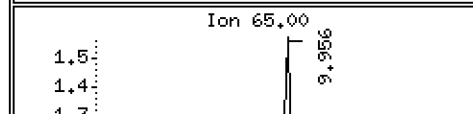
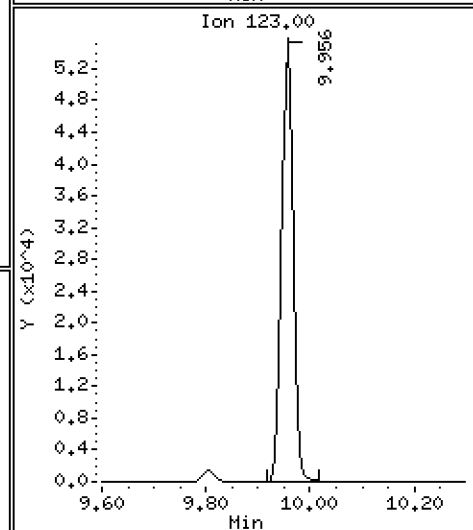
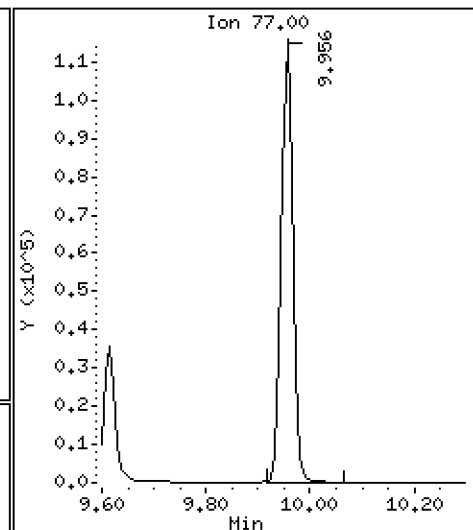
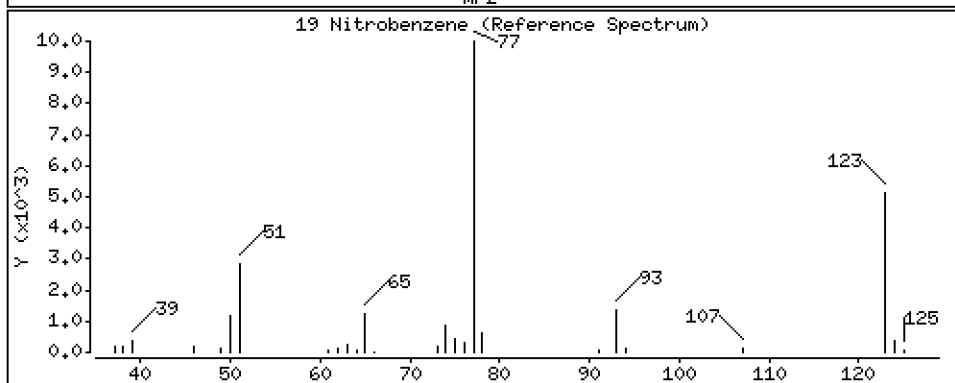
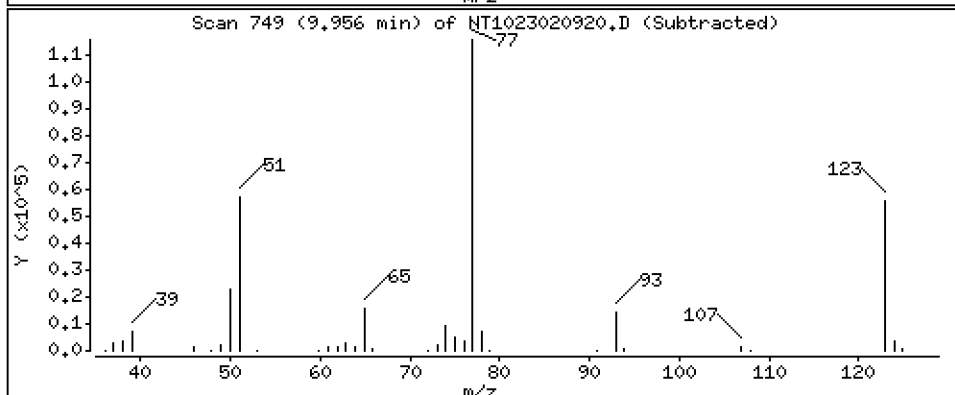
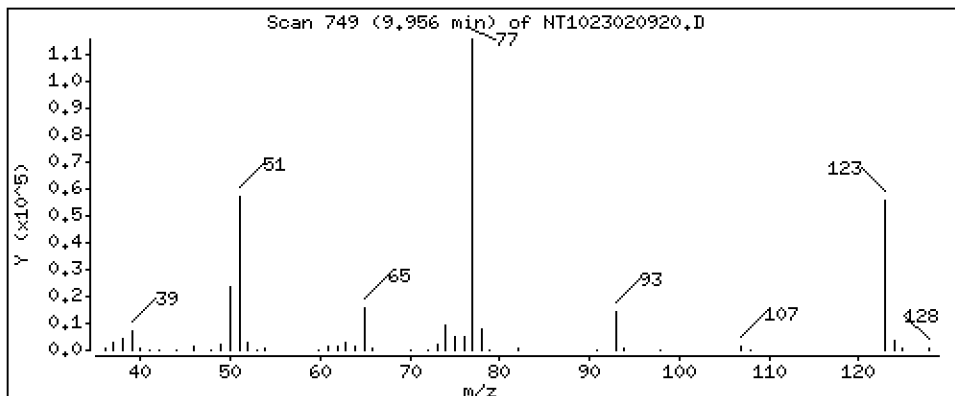
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 4,778 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

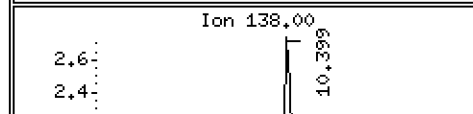
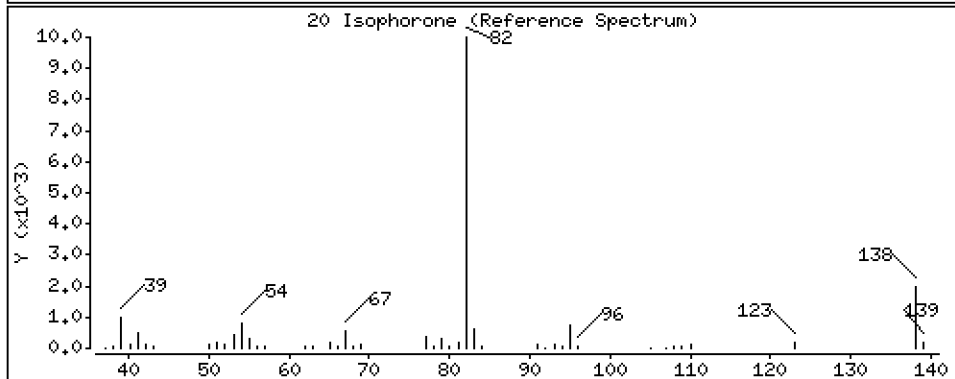
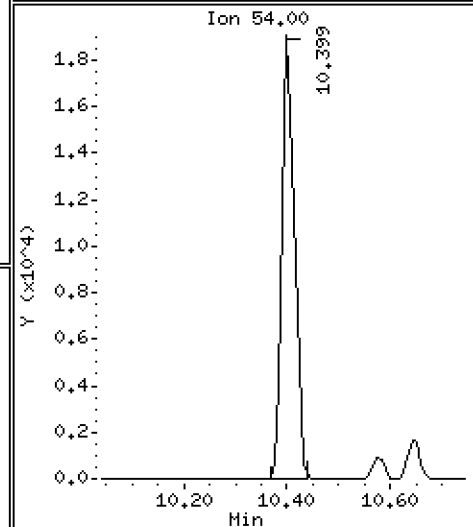
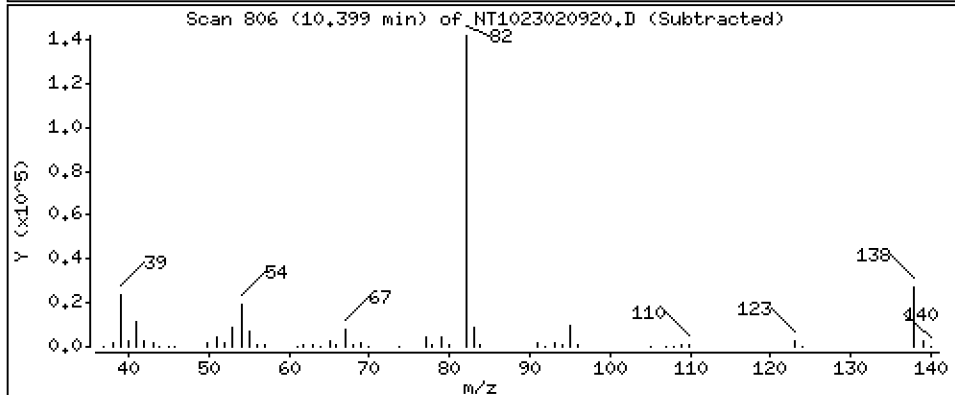
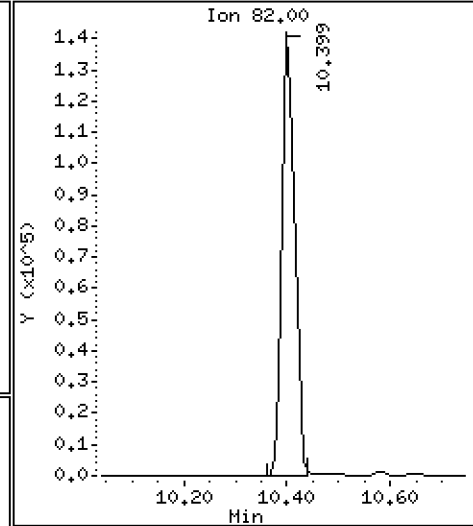
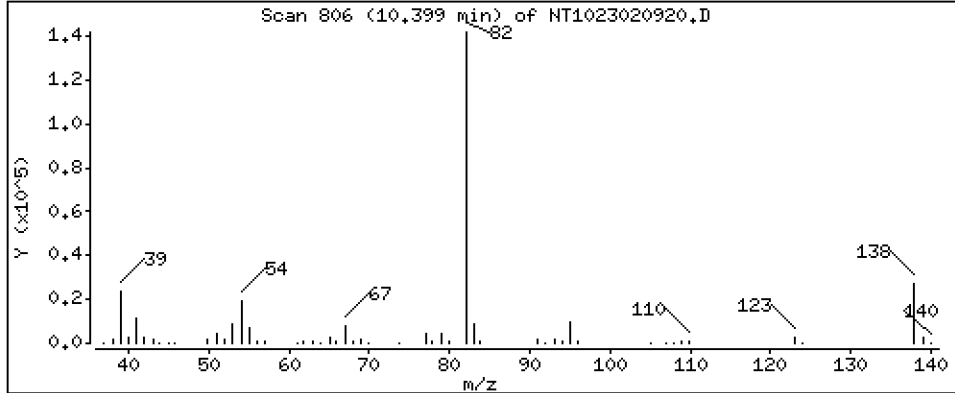
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 4,778 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

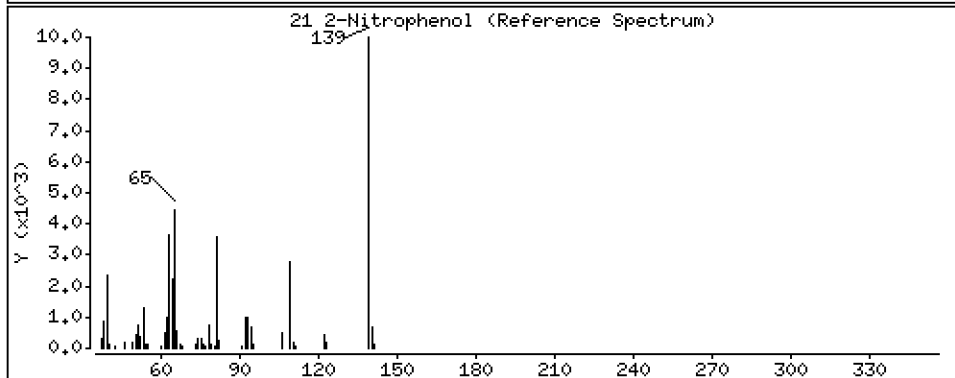
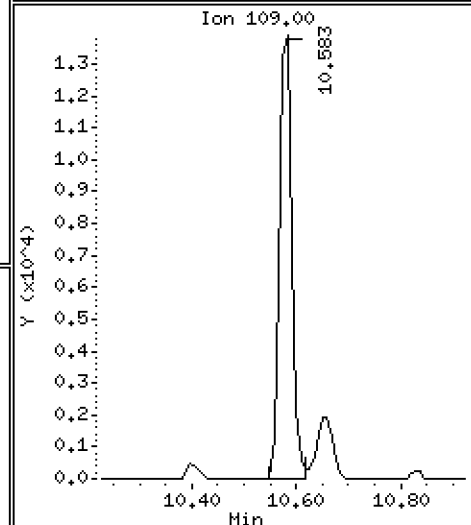
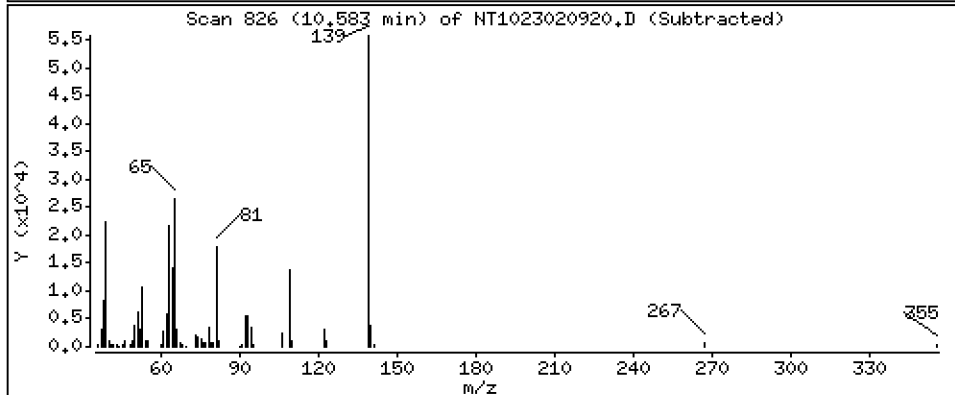
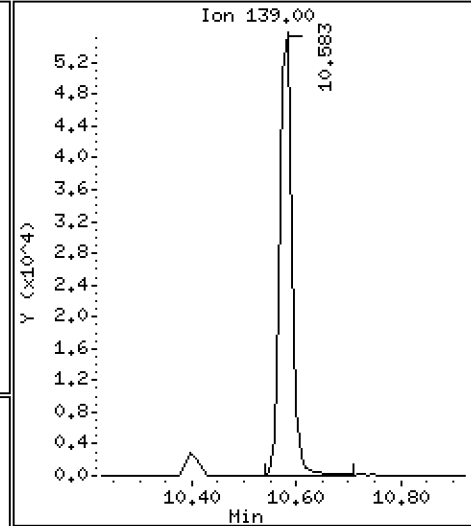
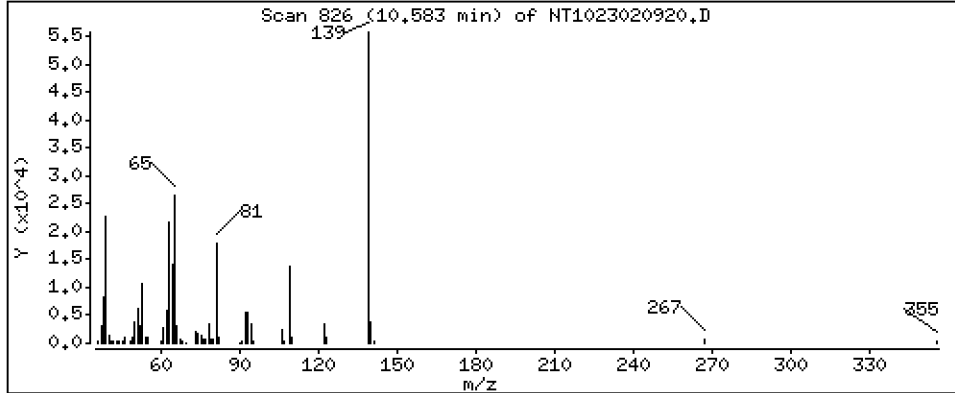
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 5,001 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

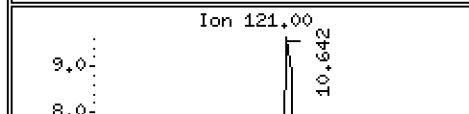
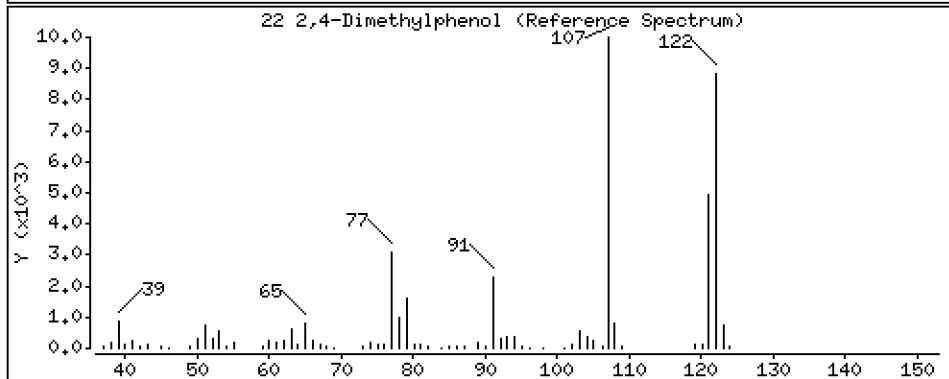
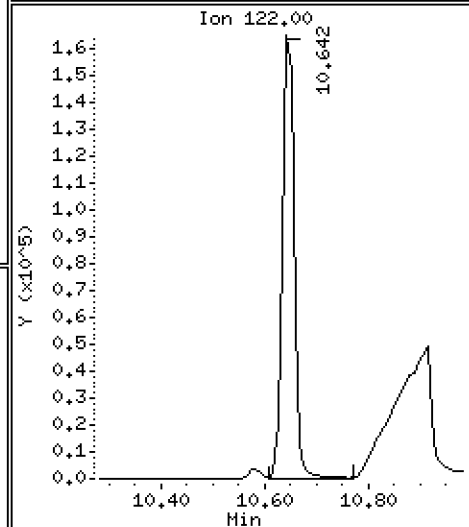
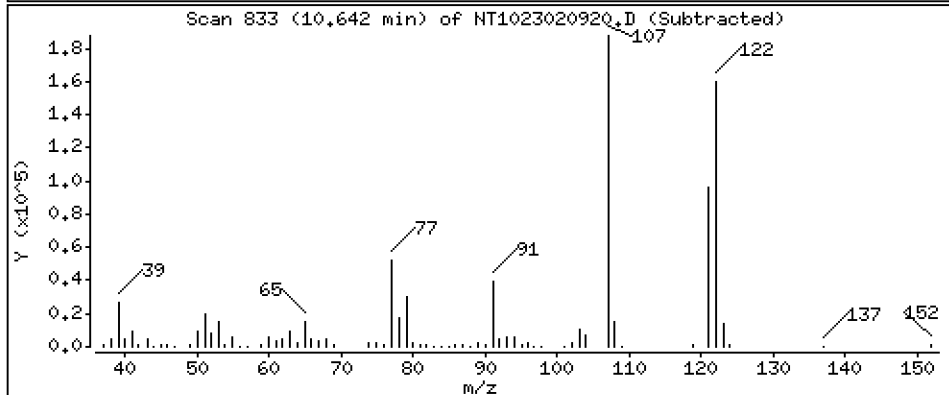
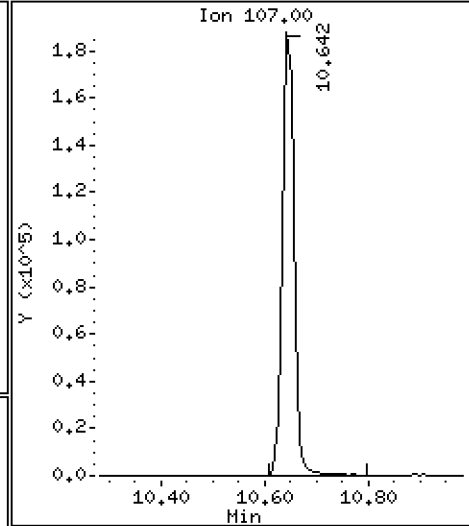
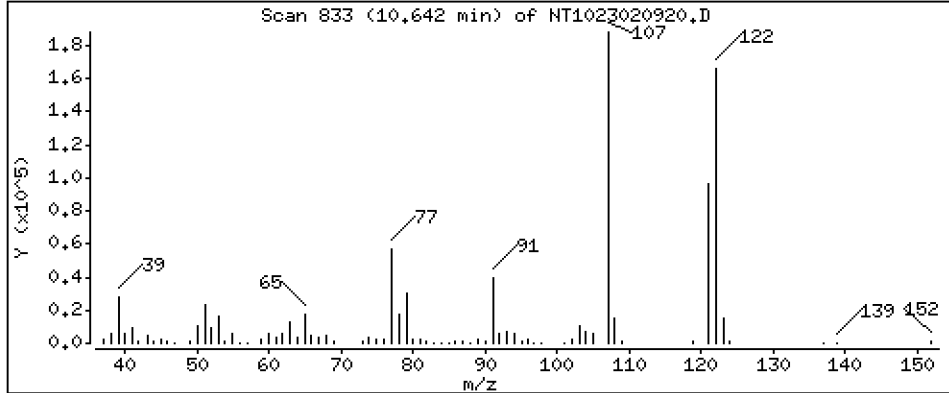
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 9,148 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

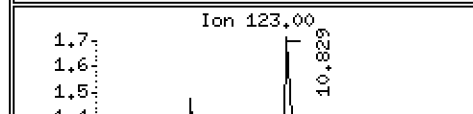
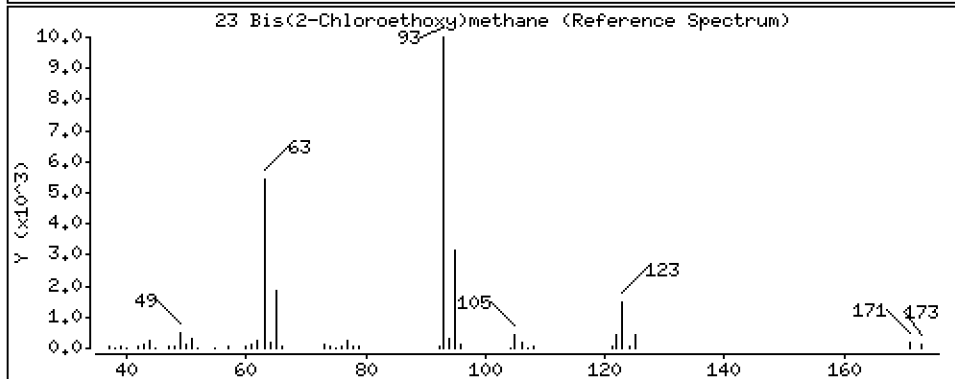
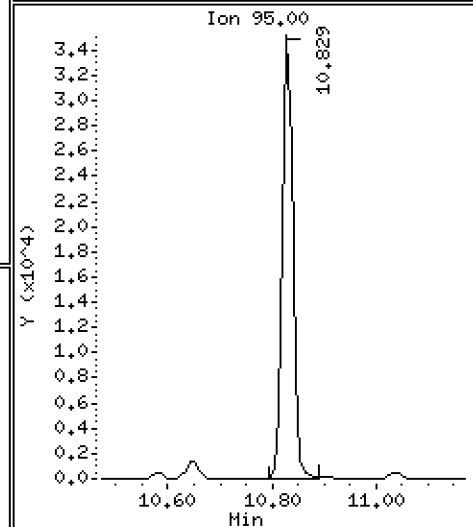
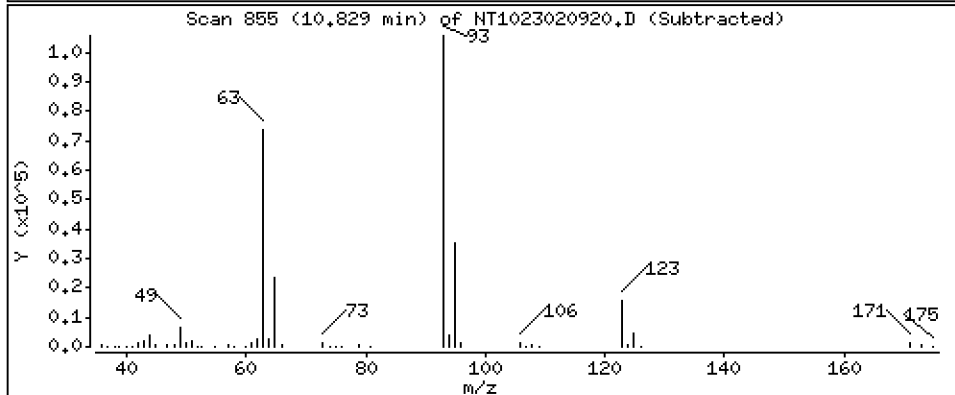
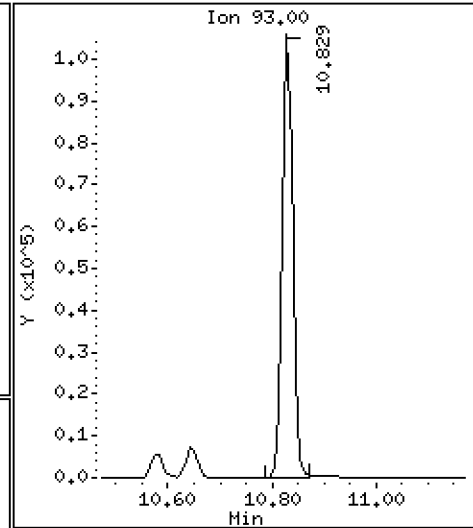
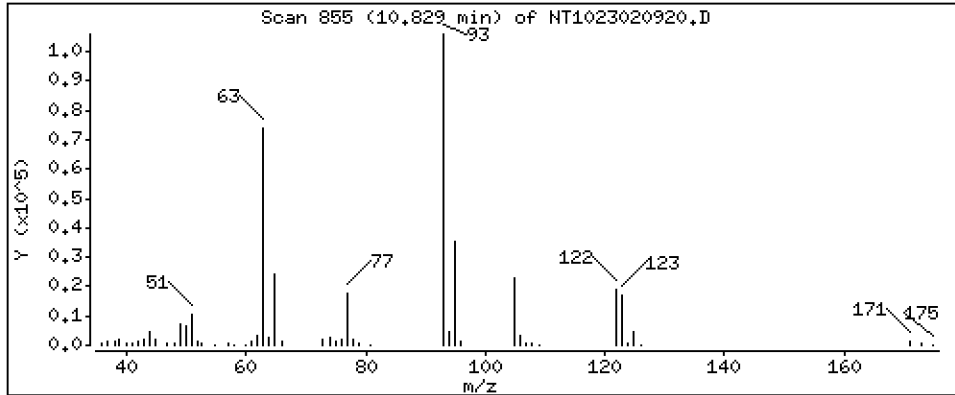
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 4,728 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

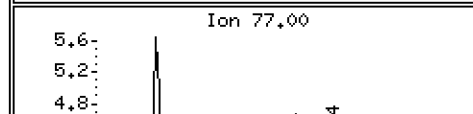
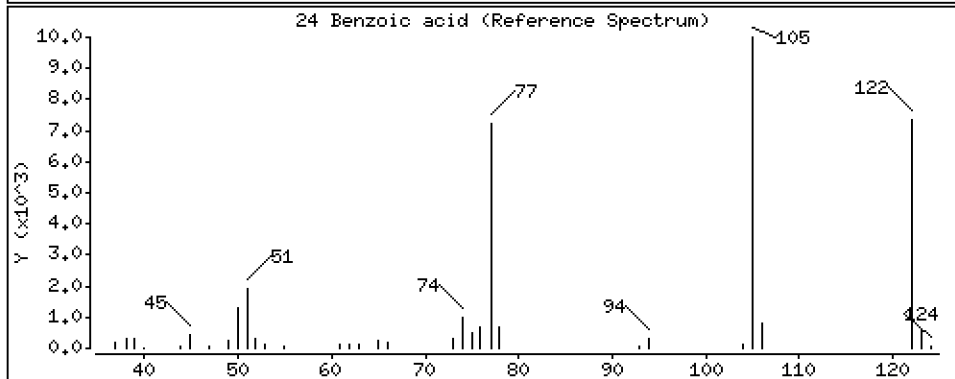
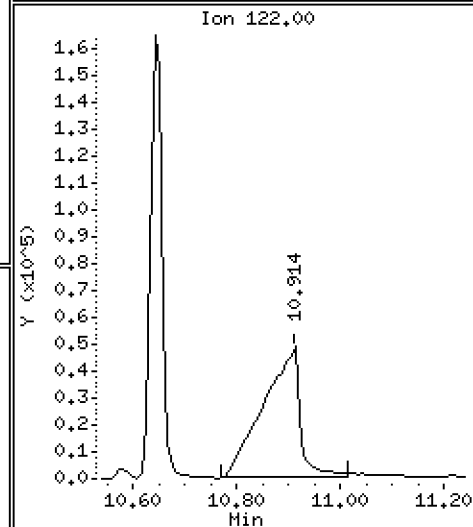
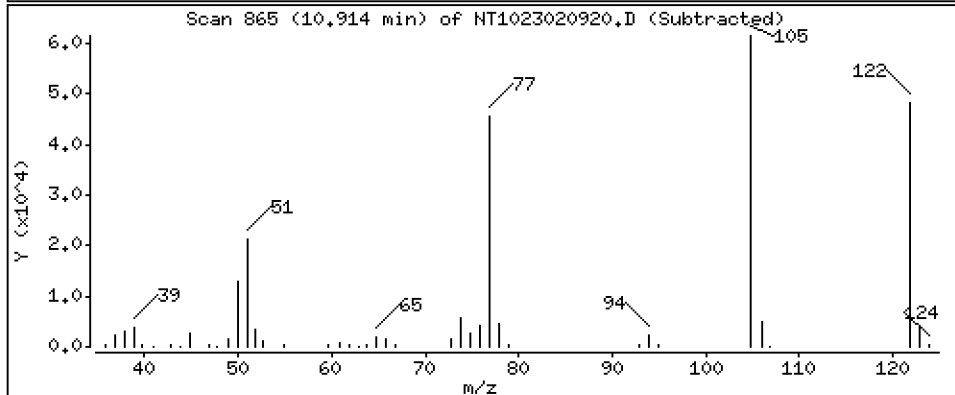
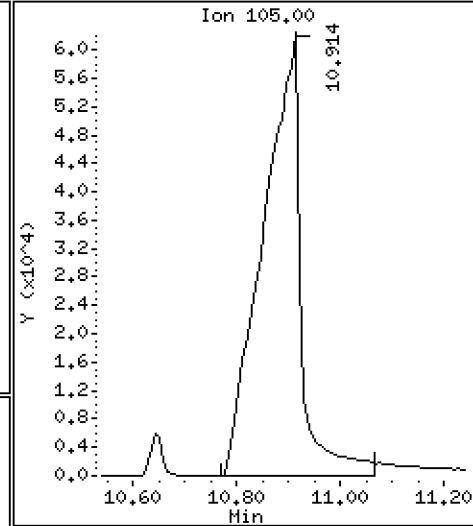
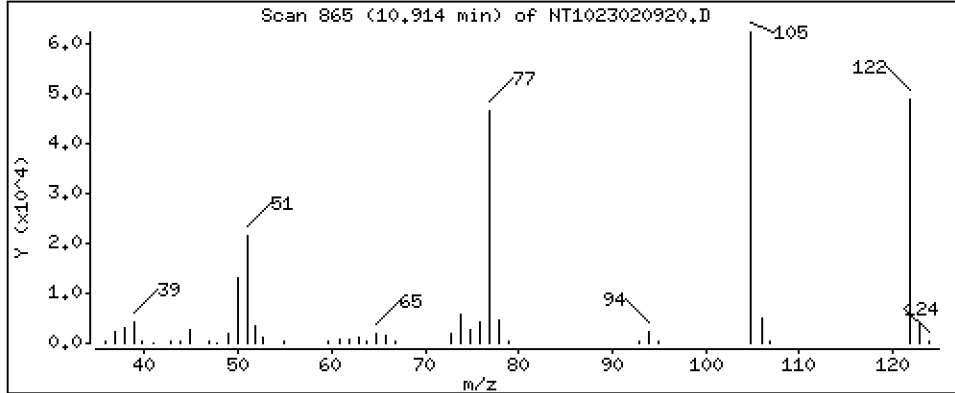
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 16,86 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

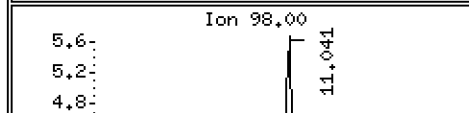
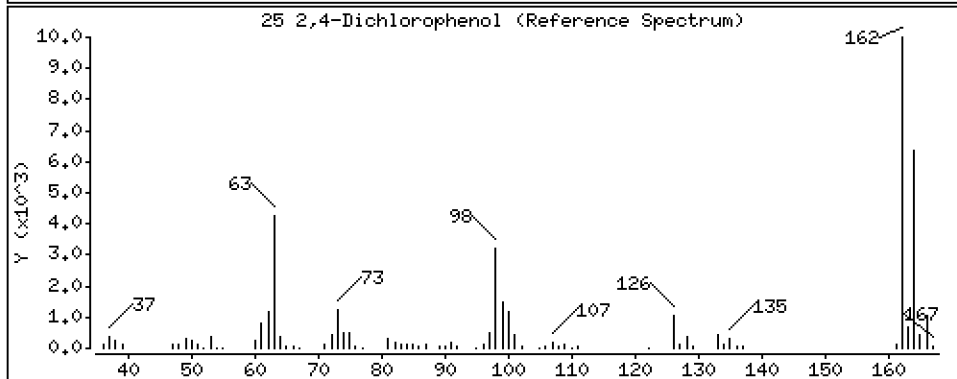
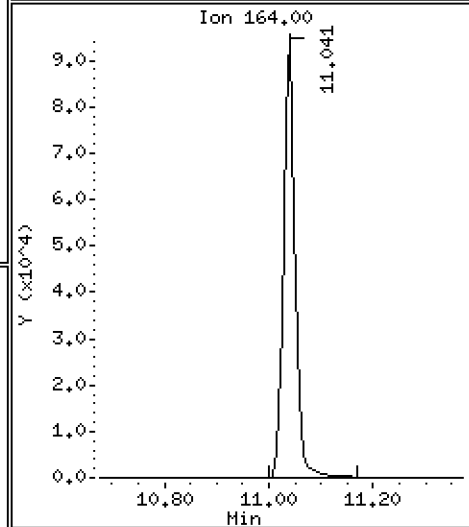
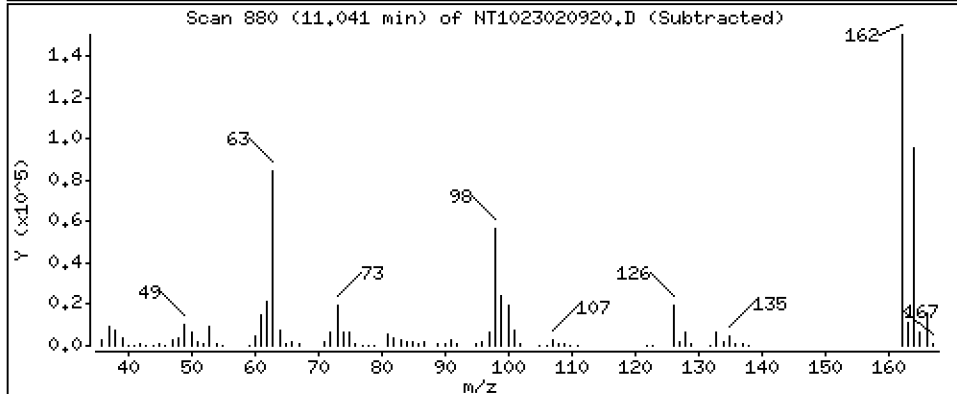
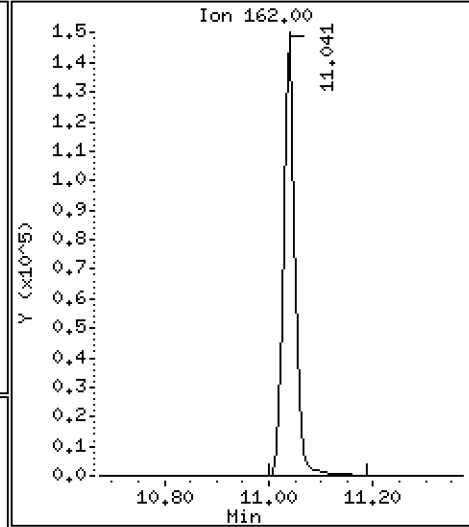
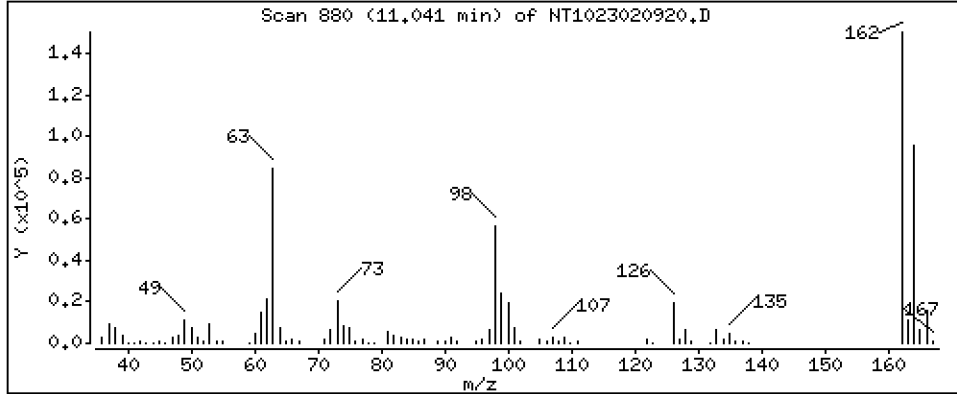
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 9,482 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

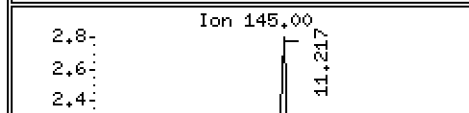
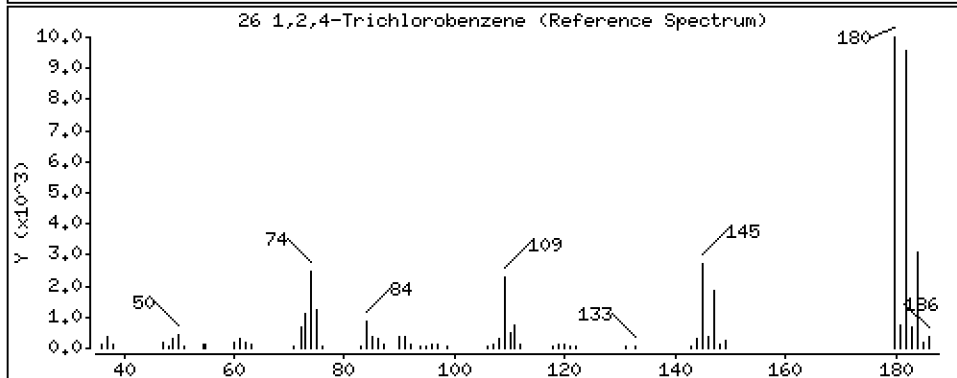
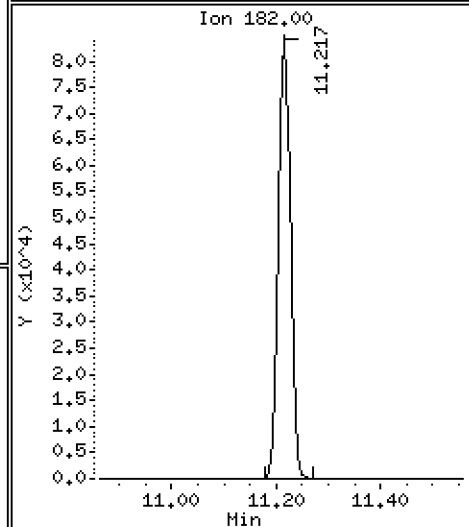
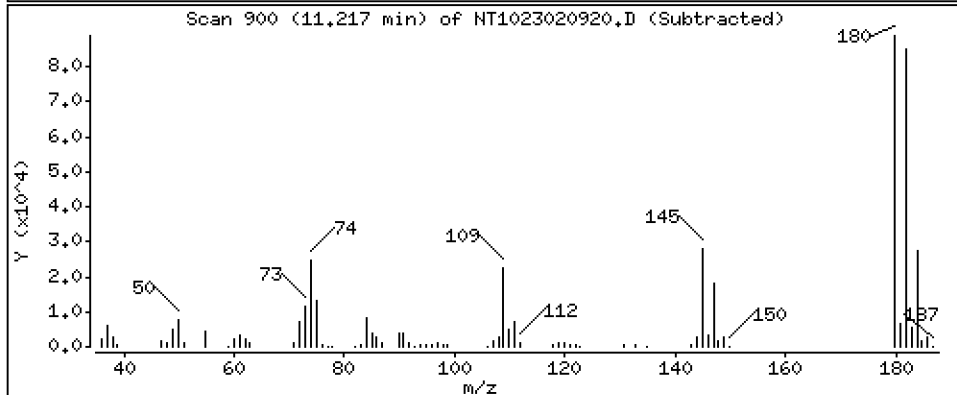
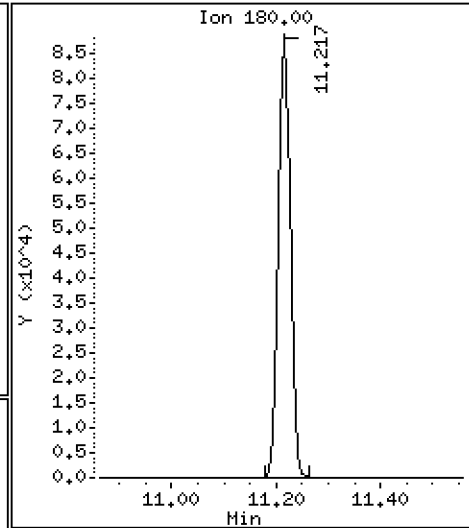
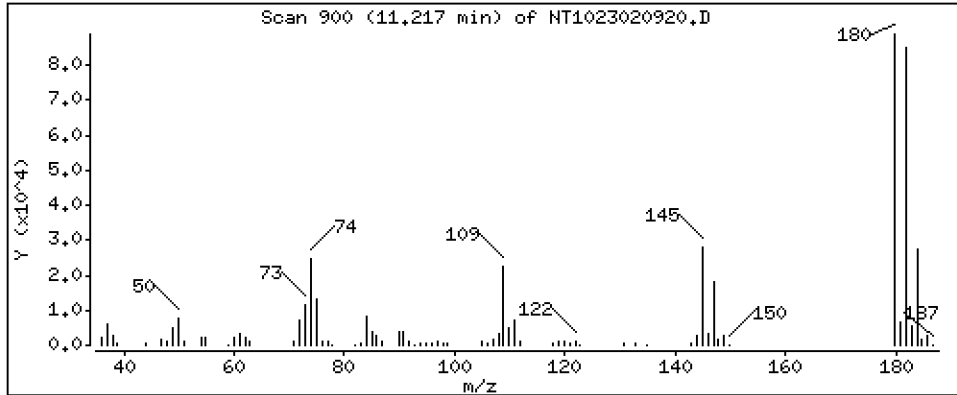
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,674 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

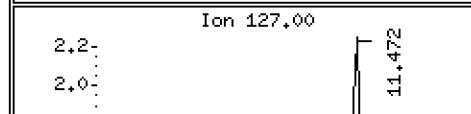
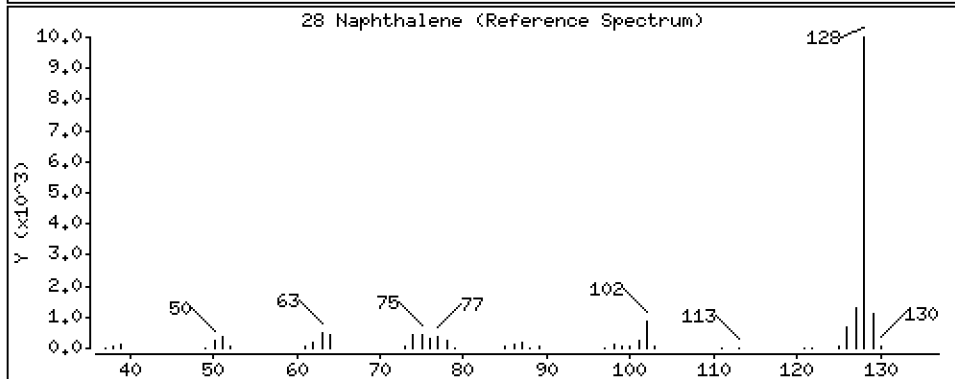
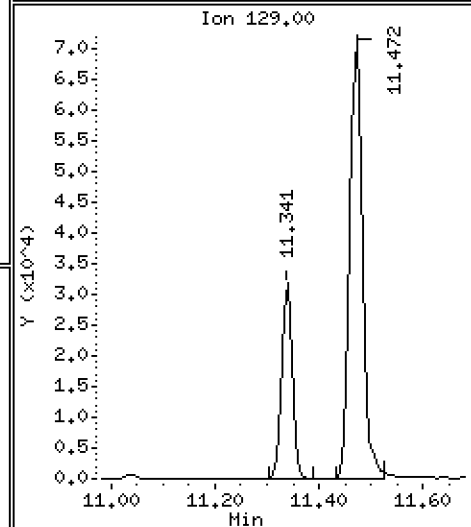
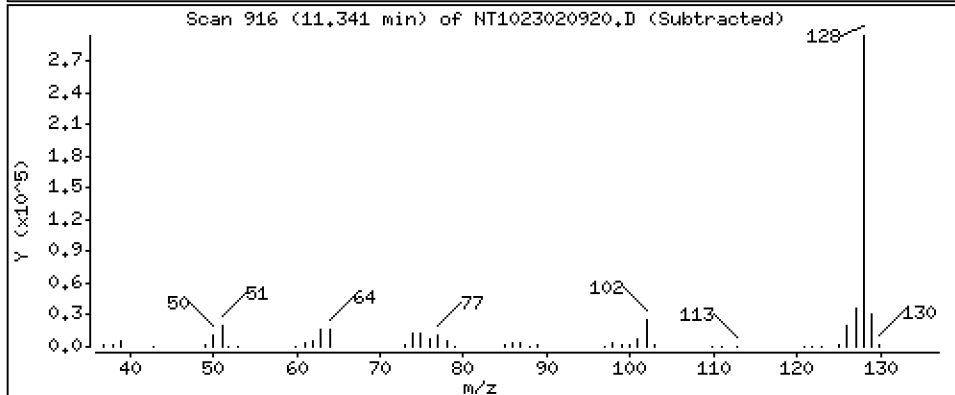
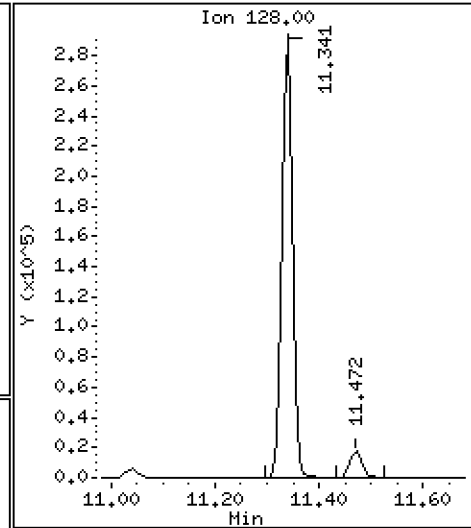
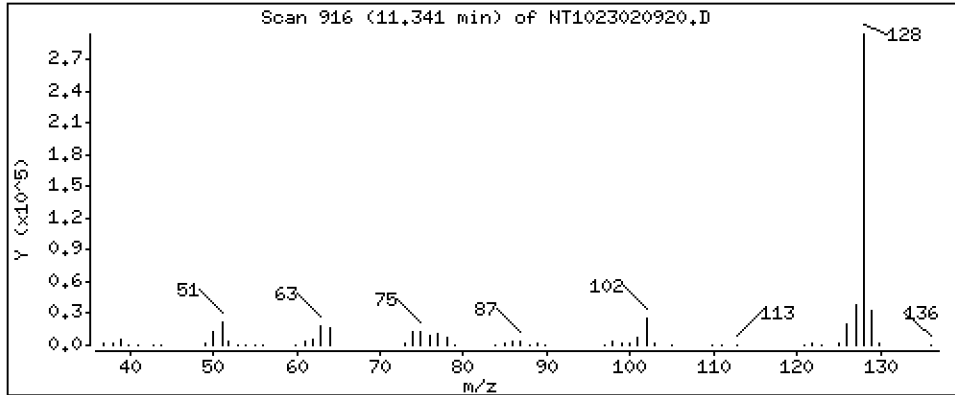
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 4,568 ug/mL



Date : 10-FEB-2023 01:09

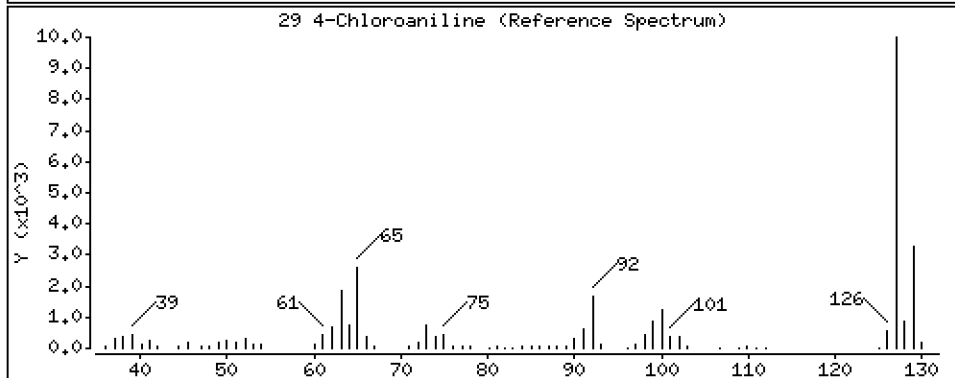
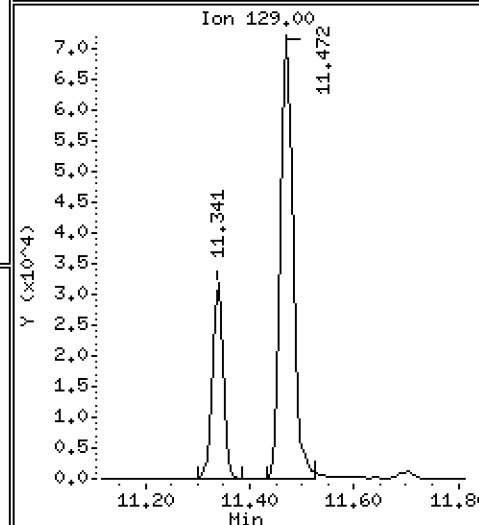
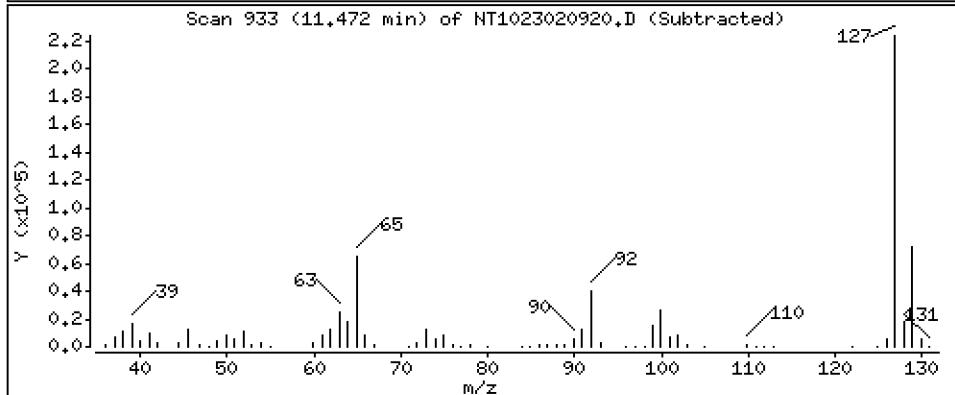
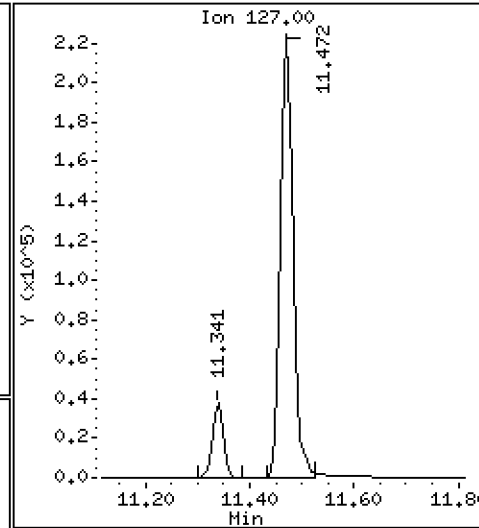
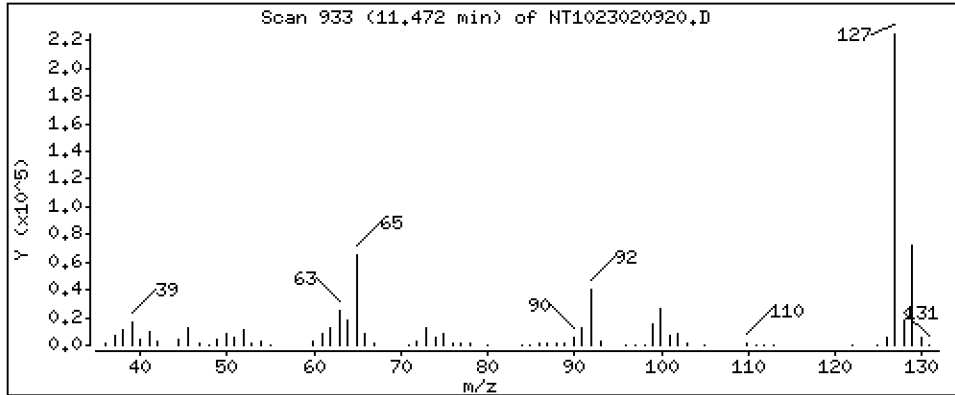
Client ID: Instrument: nt10.i

Sample Info: SLB0122-ICV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

29 4-Chloroaniline Concentration: 10,18 ug/mL



Date : 10-FEB-2023 01:09

Client ID: Instrument: nt10.i

Sample Info: SLB0122-ICV2

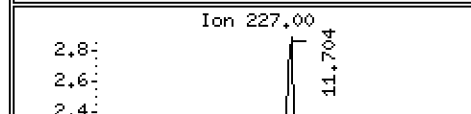
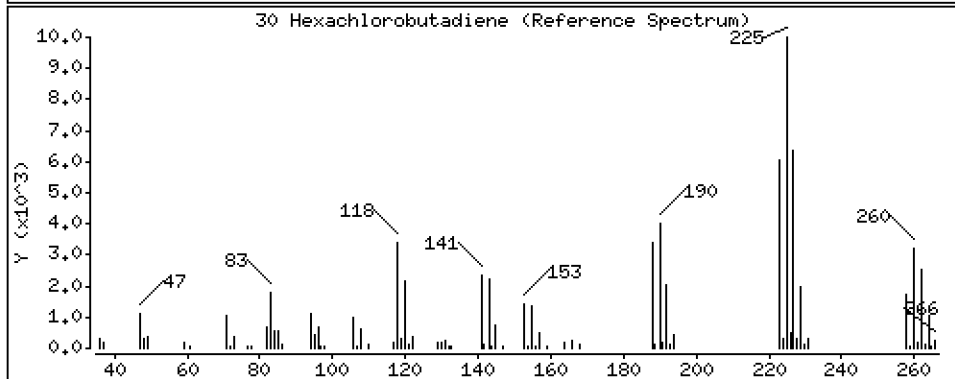
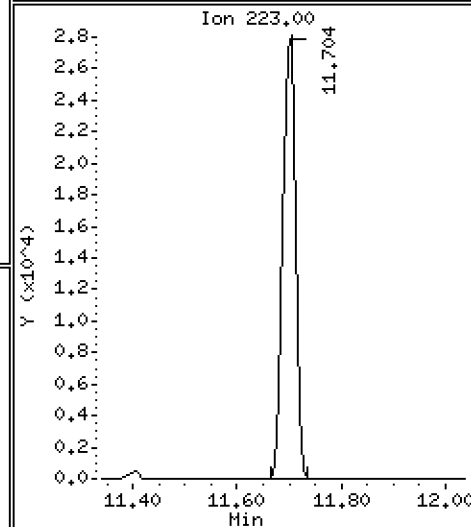
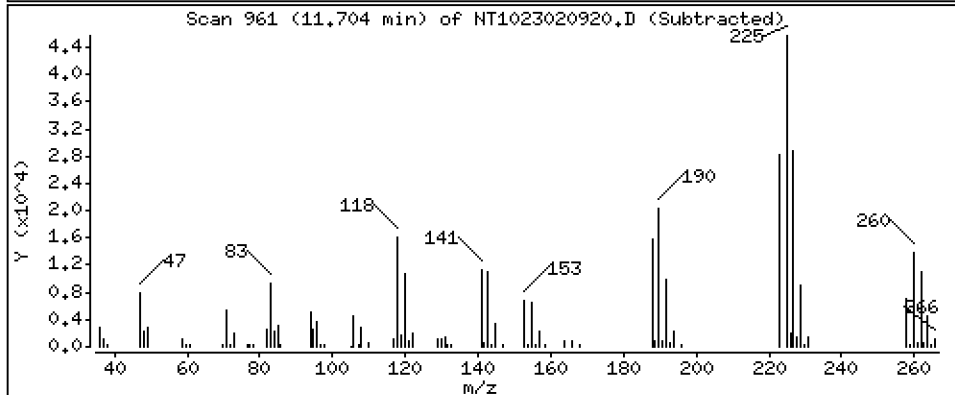
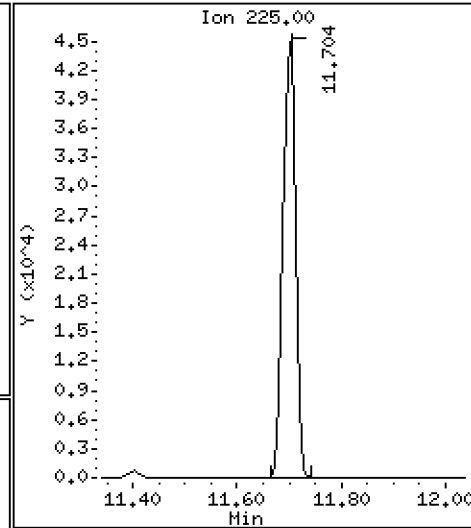
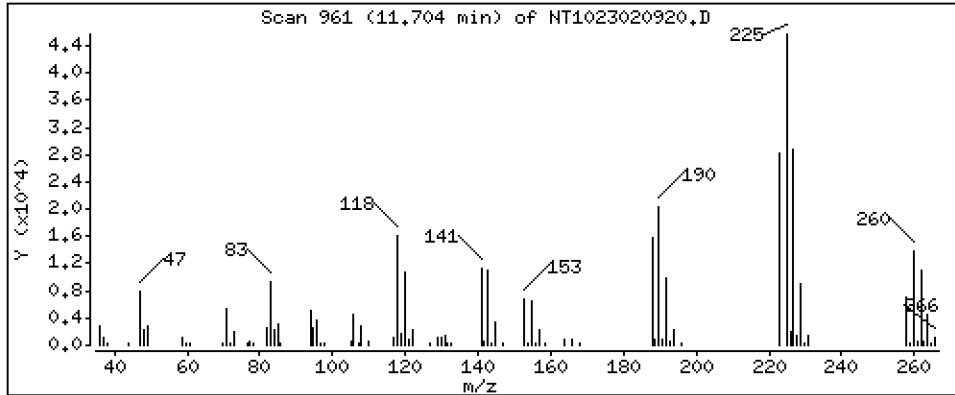
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,879 ug/mL



Date : 10-FEB-2023 01:09

Client ID: Instrument: nt10.i

Sample Info: SLB0122-ICV2

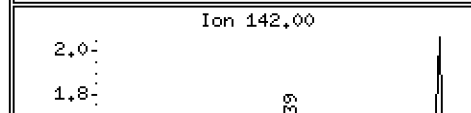
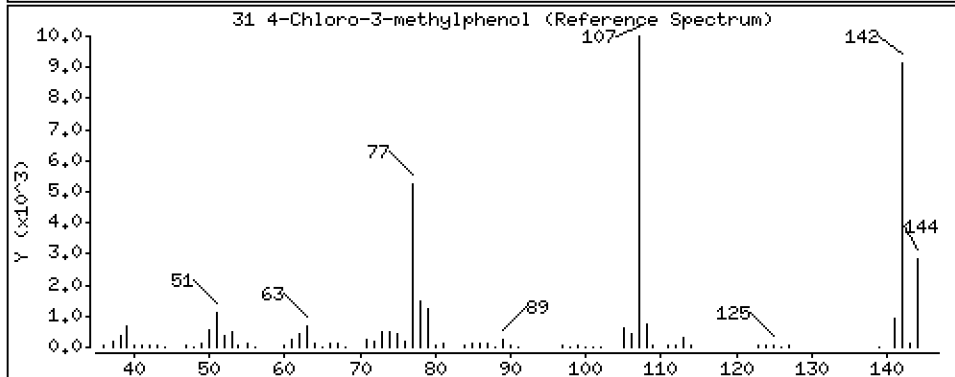
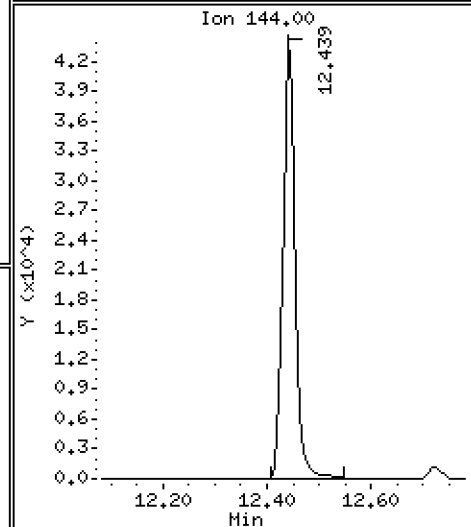
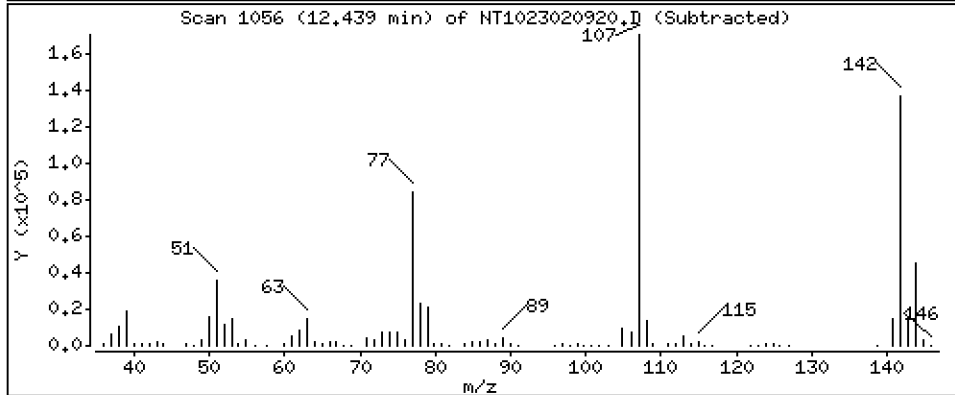
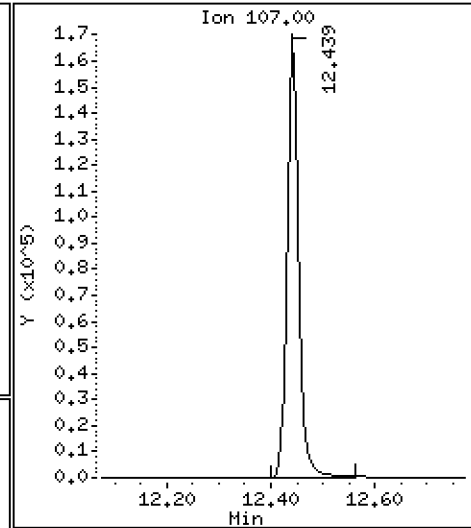
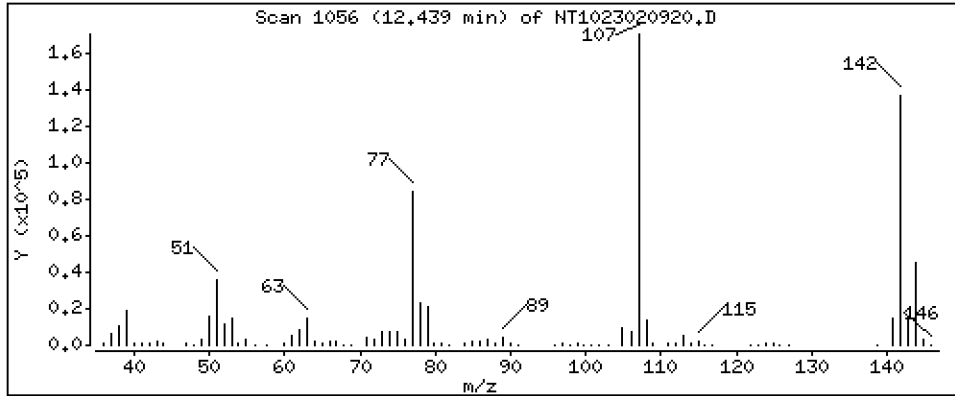
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 9,238 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

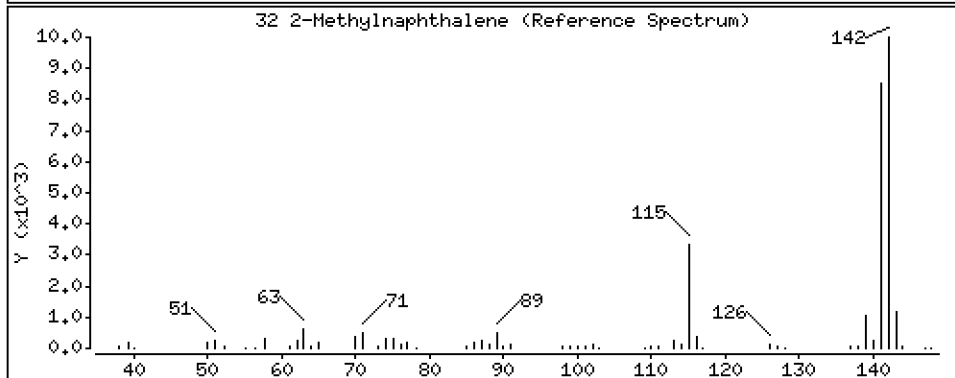
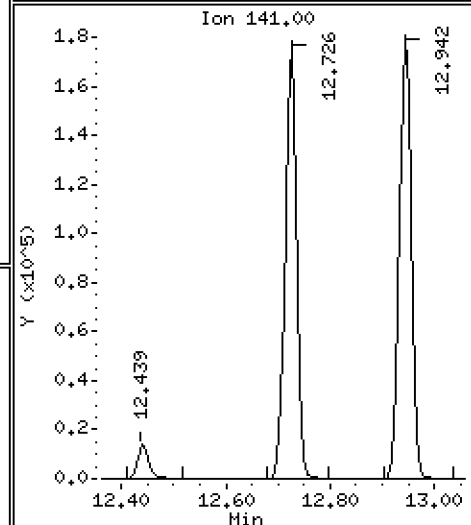
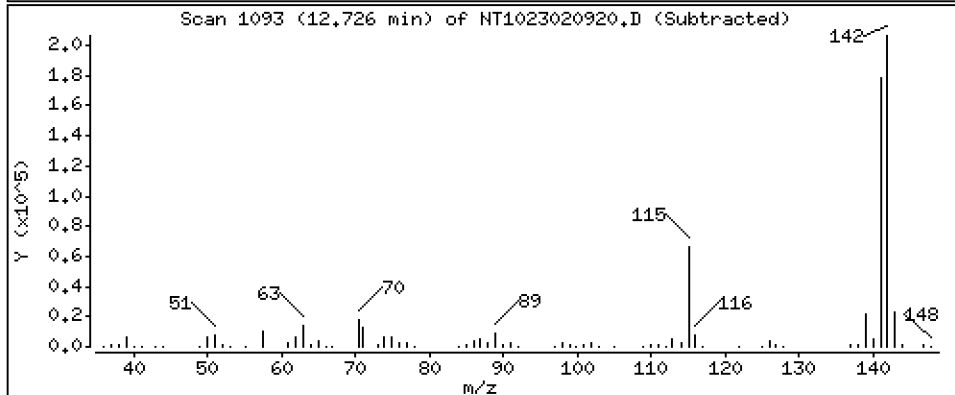
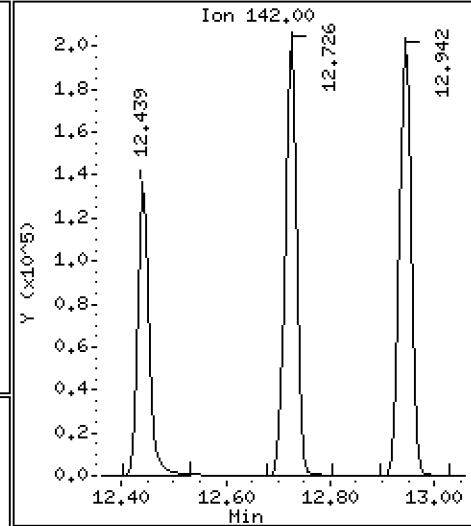
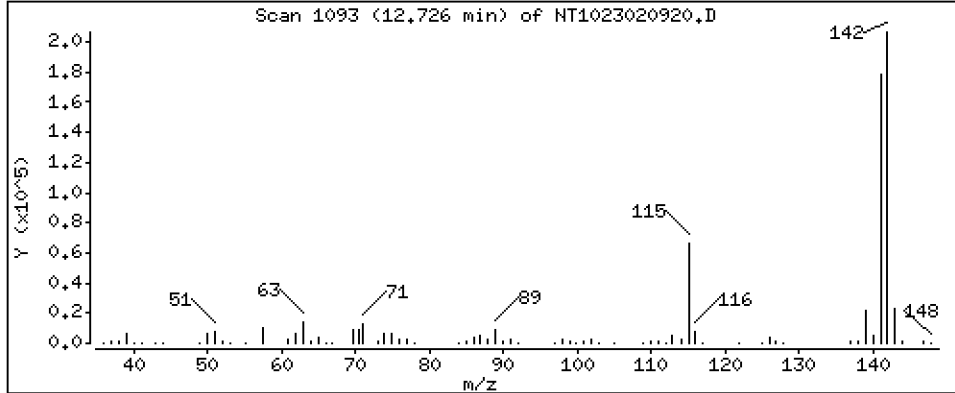
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 4,770 ug/mL



Date : 10-FEB-2023 01:09

Client ID: Instrument: nt10.i

Sample Info: SLB0122-ICV2

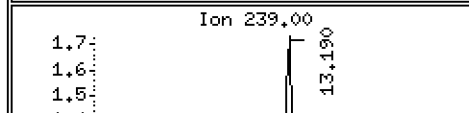
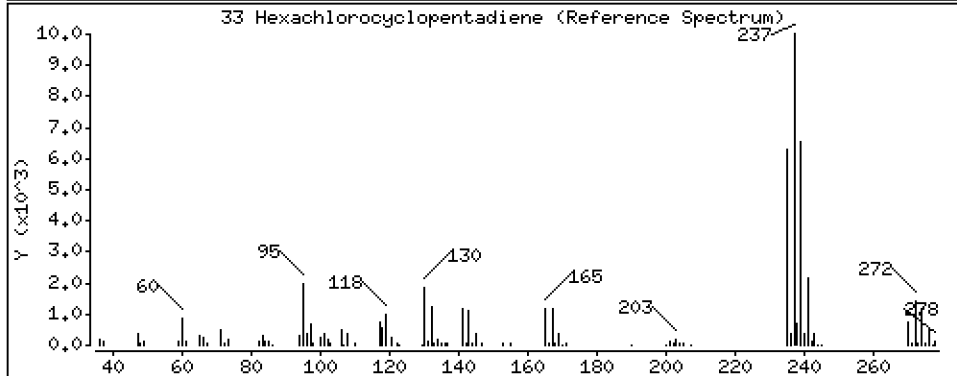
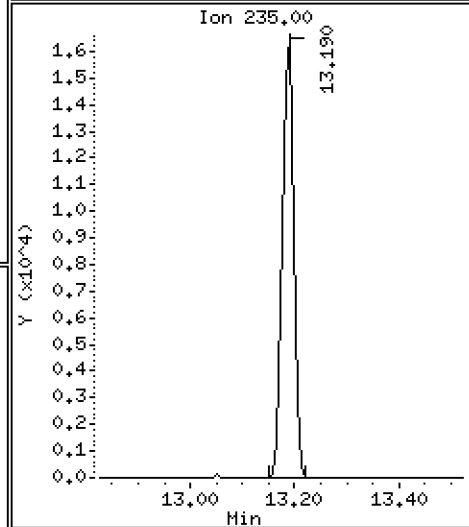
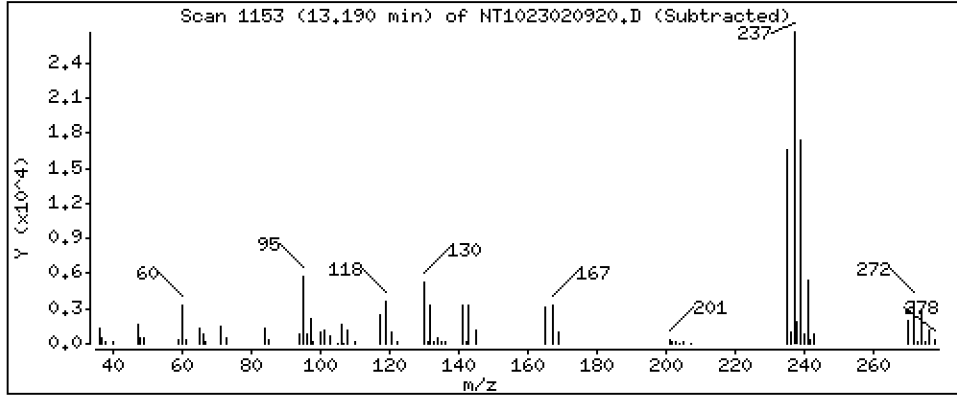
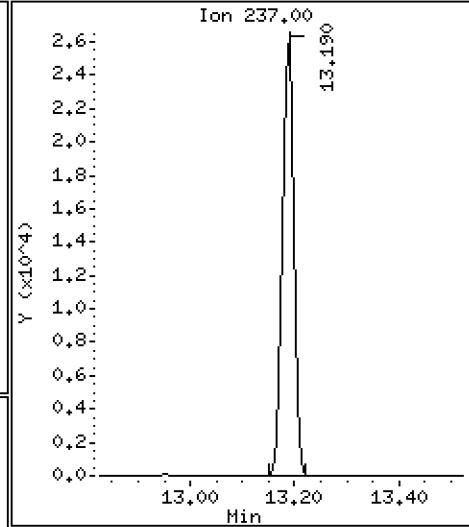
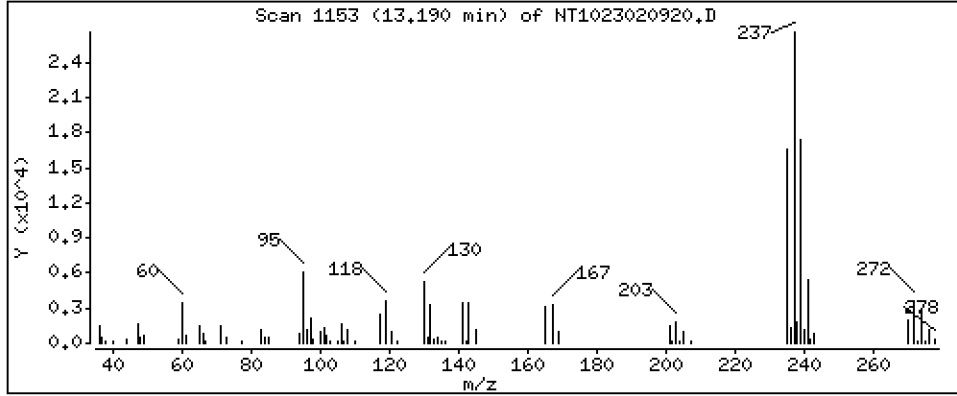
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 3,324 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

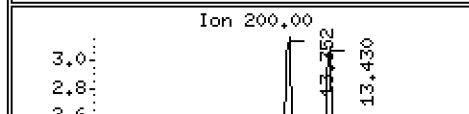
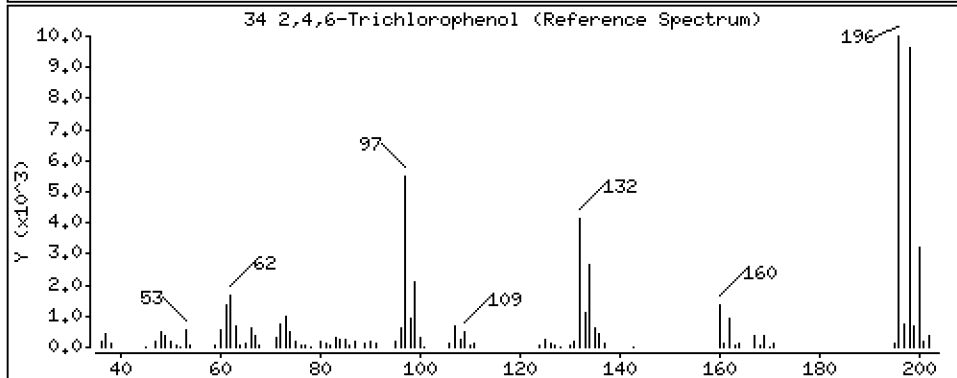
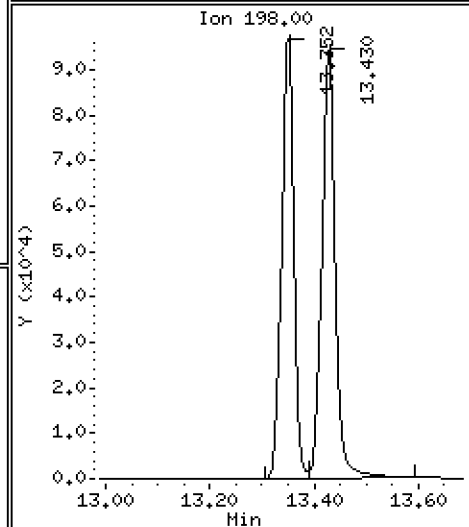
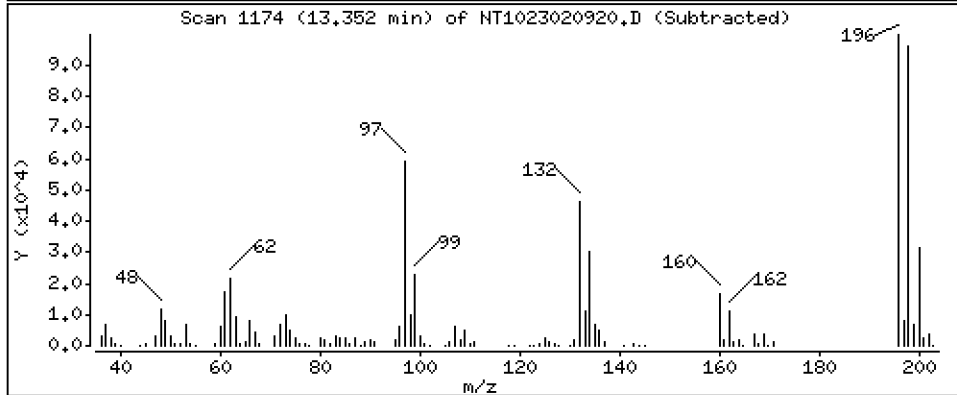
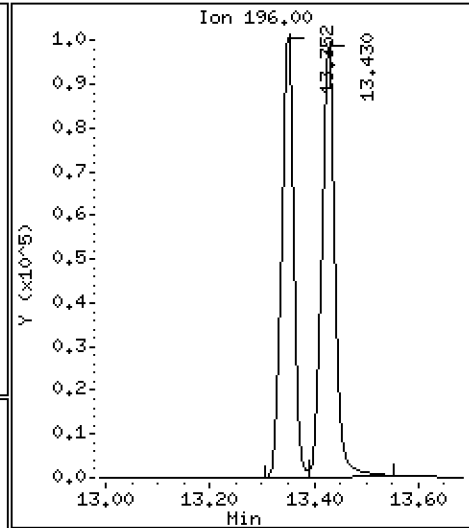
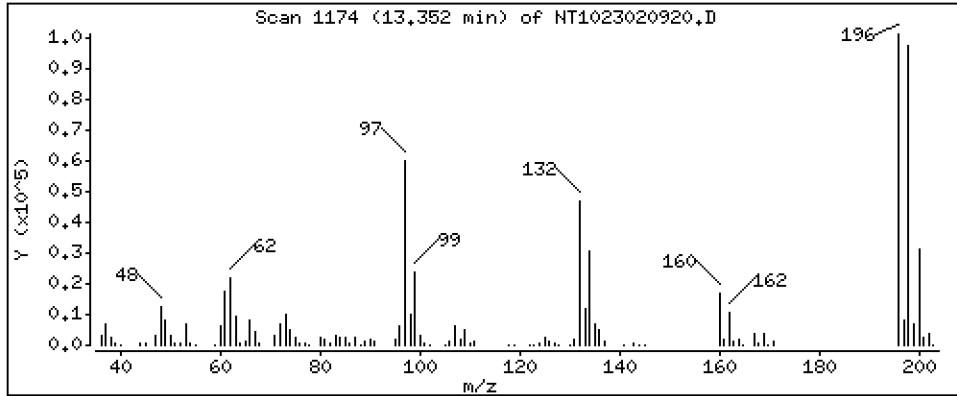
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 9,777 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

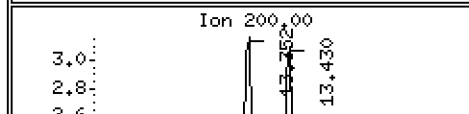
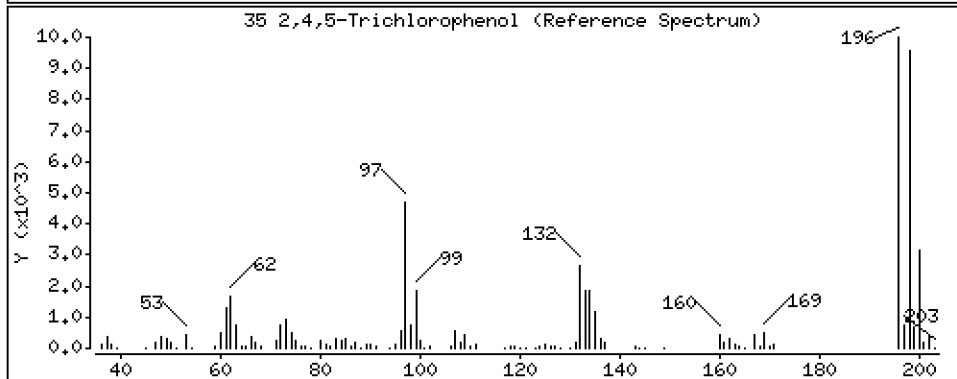
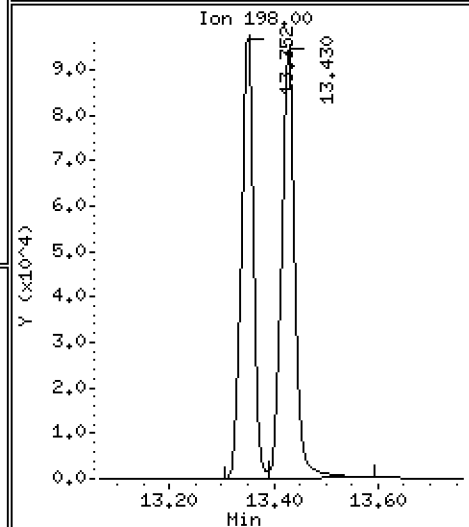
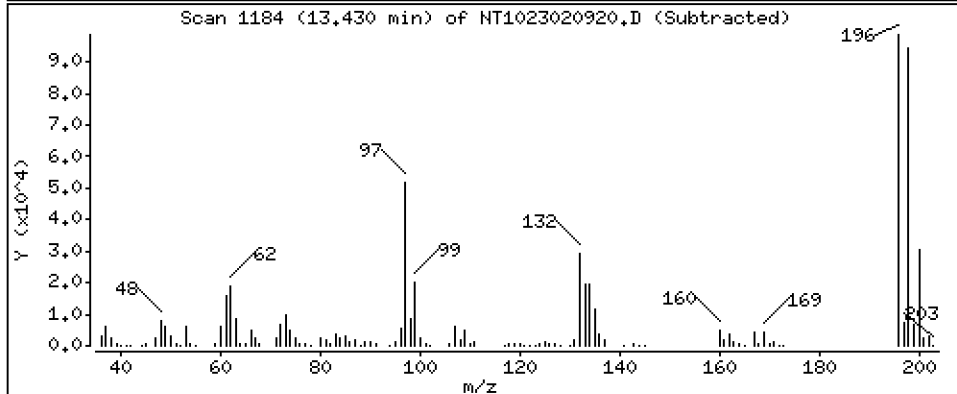
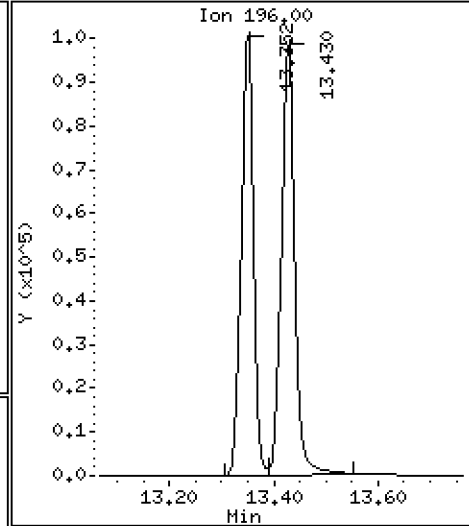
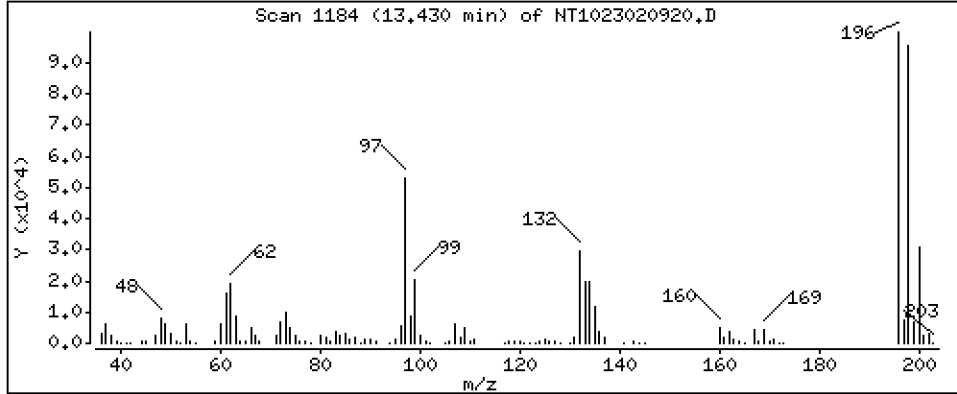
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 9,694 ug/mL



Date : 10-FEB-2023 01:09

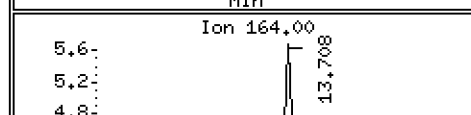
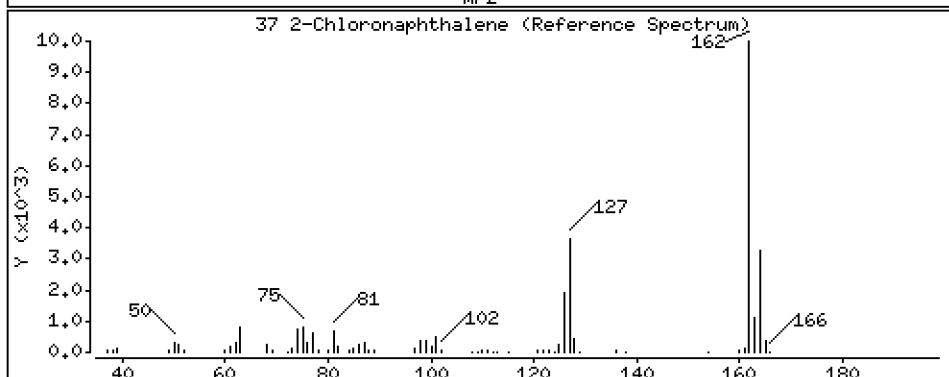
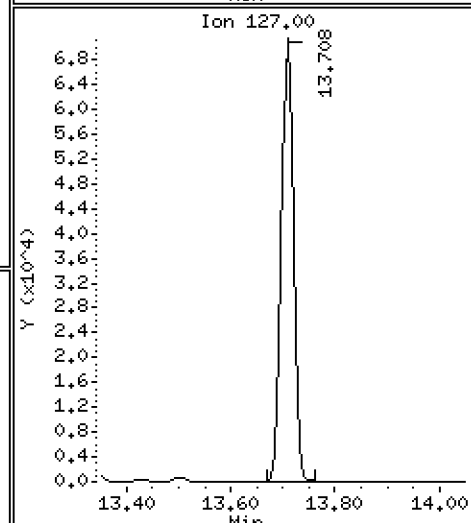
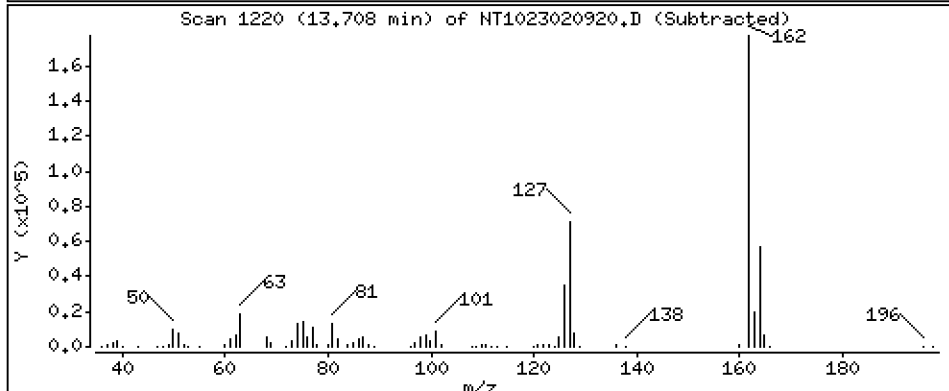
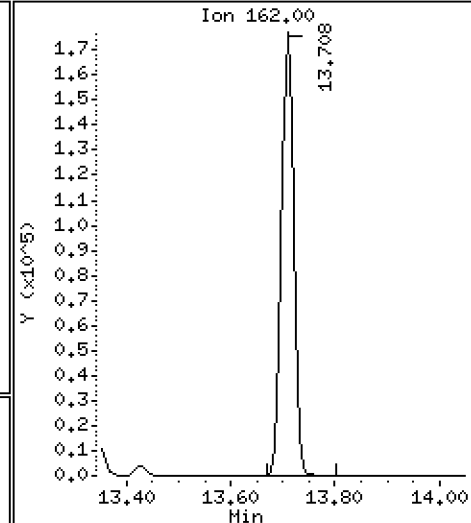
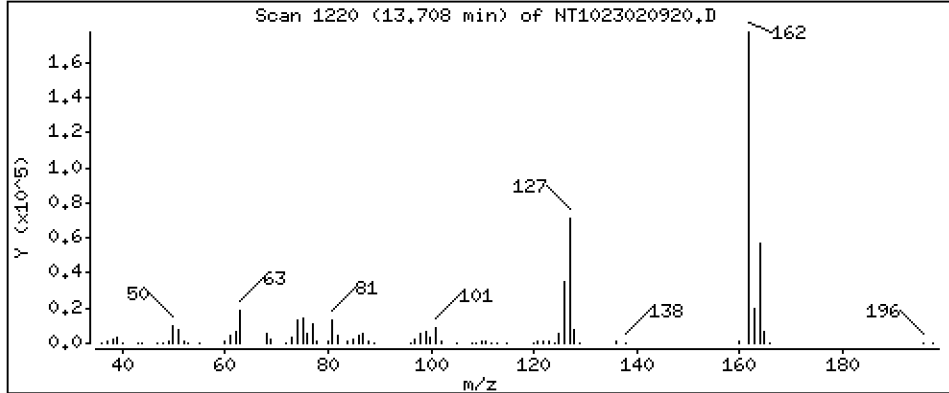
Client ID: Instrument: nt10.i

Sample Info: SLB0122-ICV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

37 2-Chloronaphthalene Concentration: 4,690 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

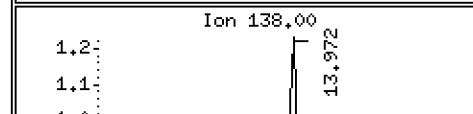
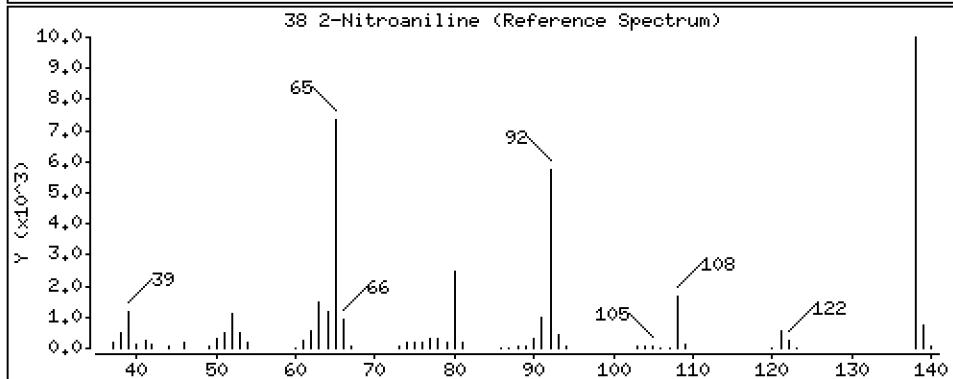
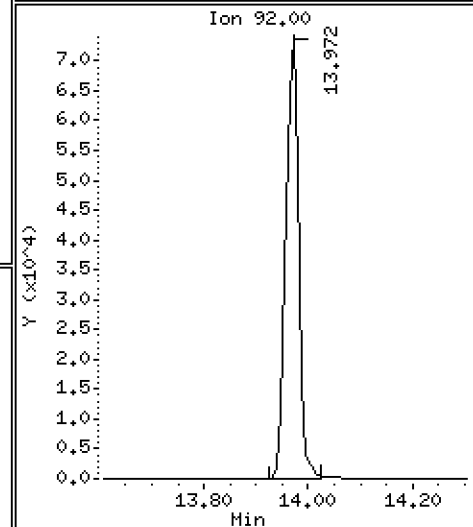
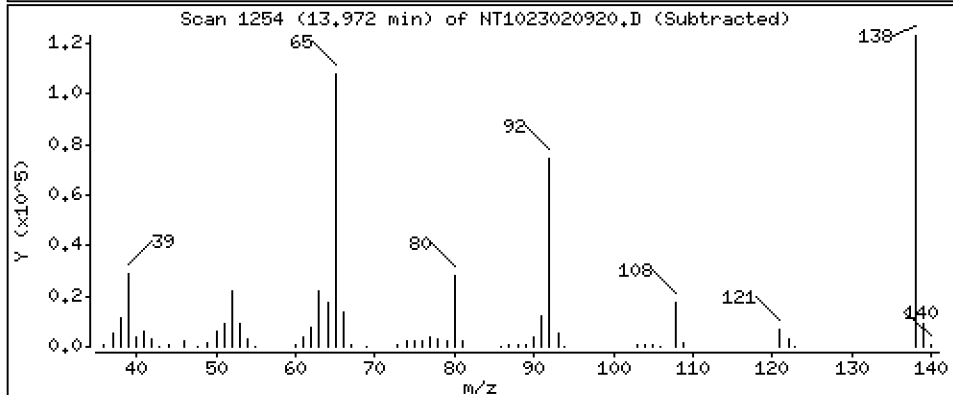
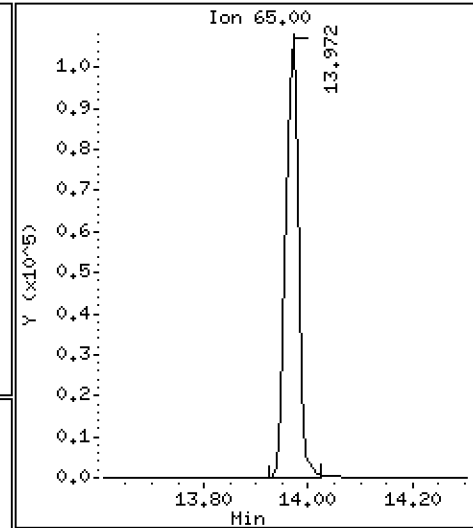
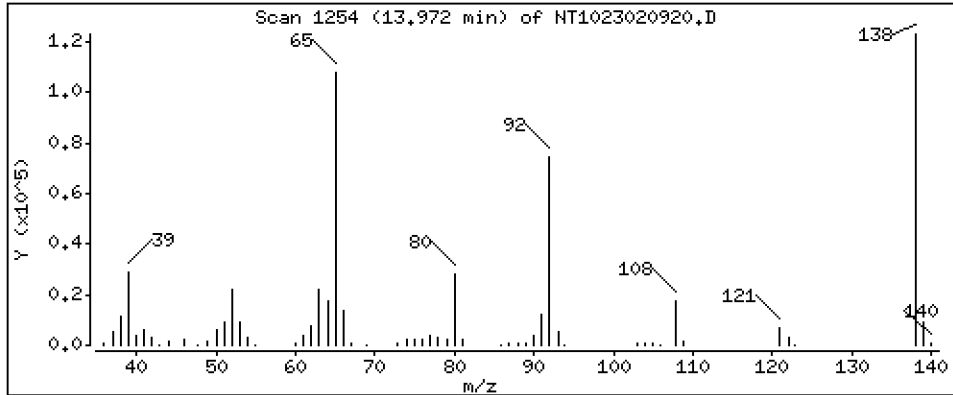
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 11,27 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

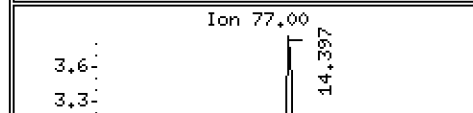
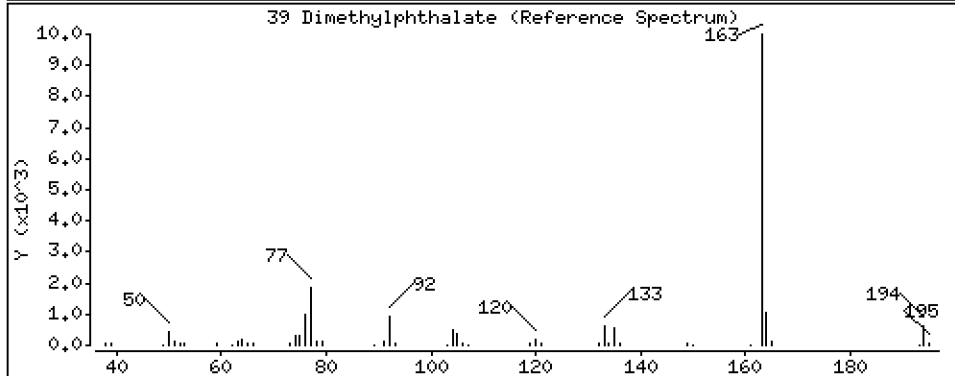
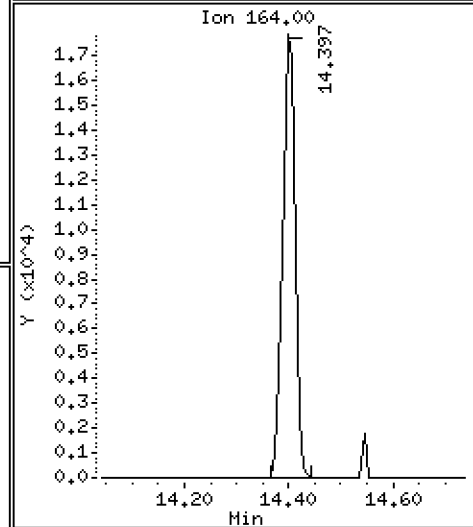
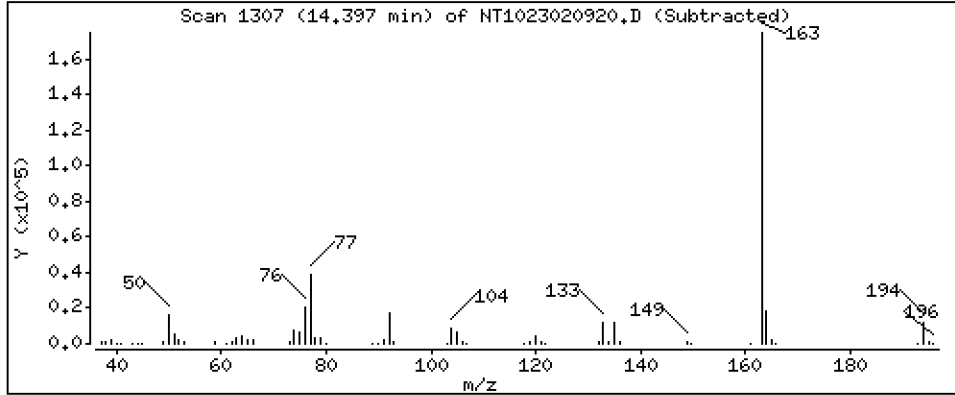
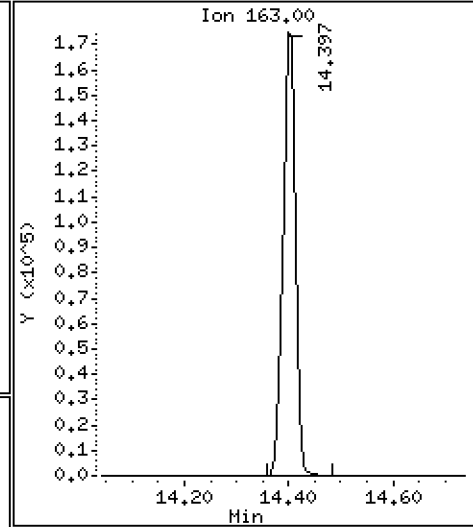
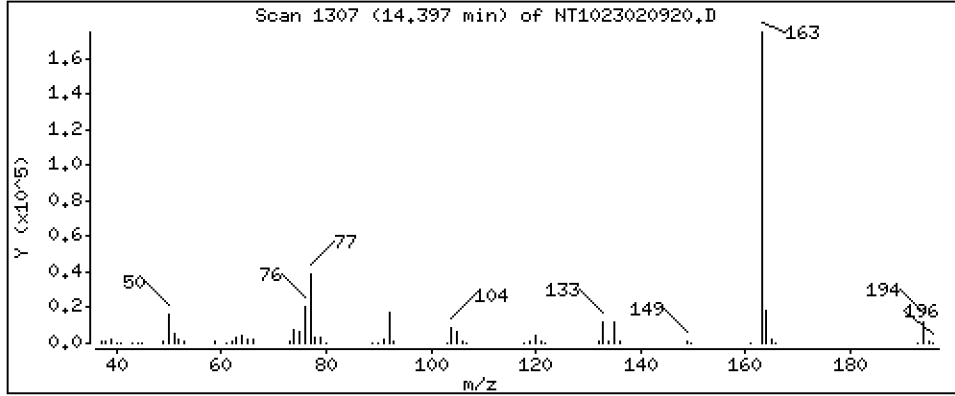
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,626 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

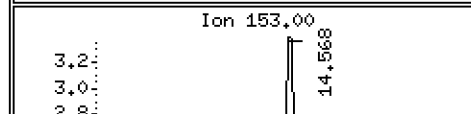
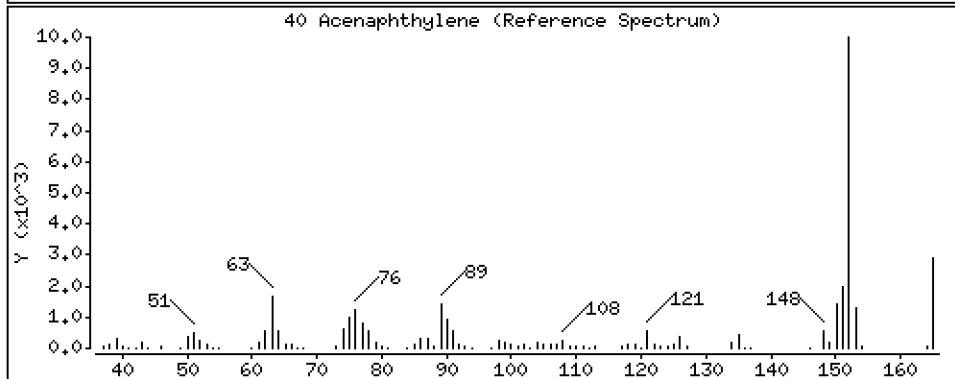
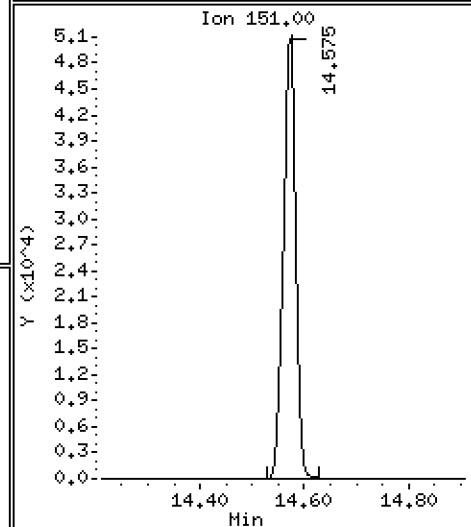
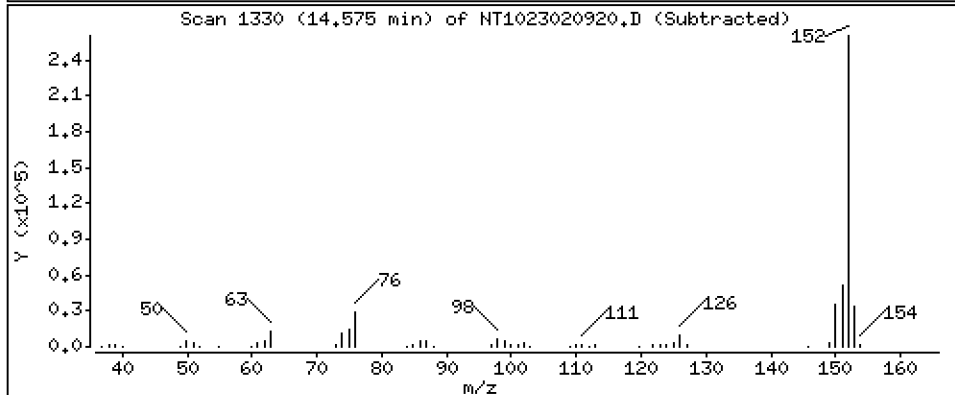
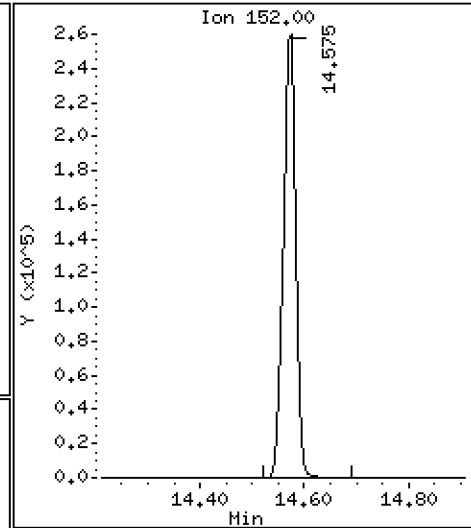
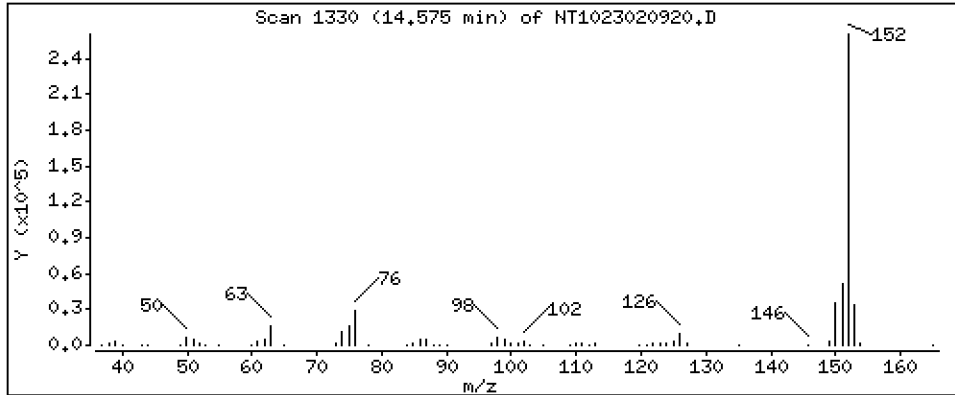
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 4,634 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

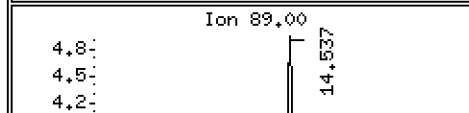
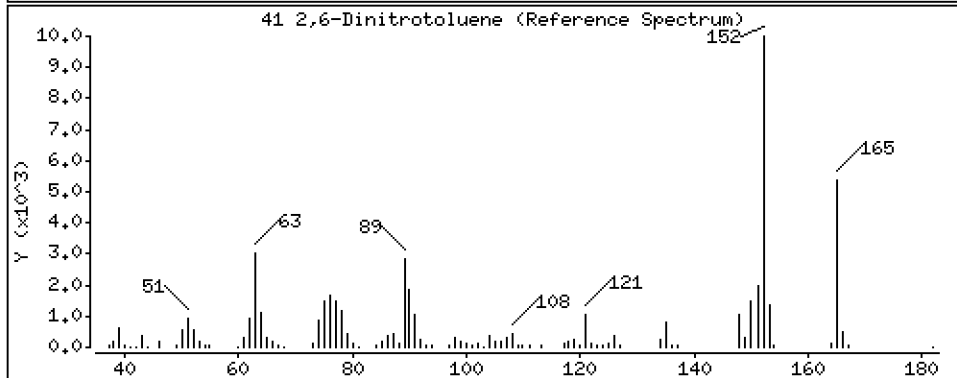
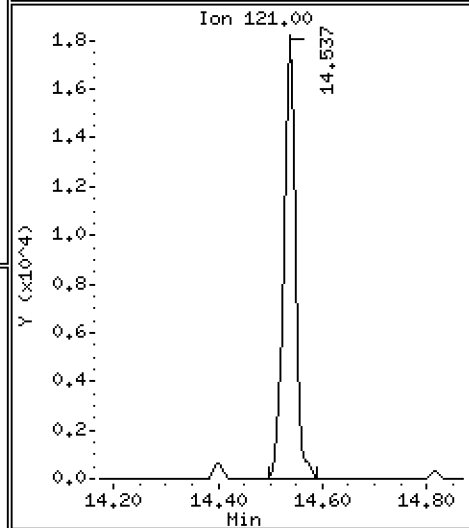
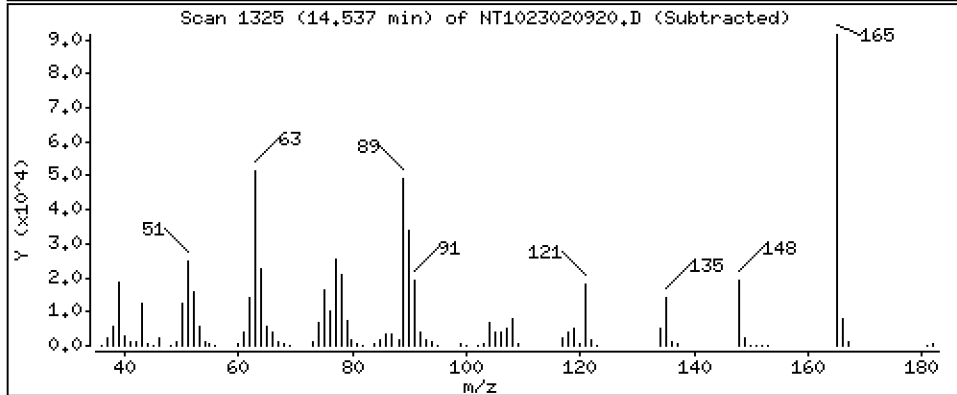
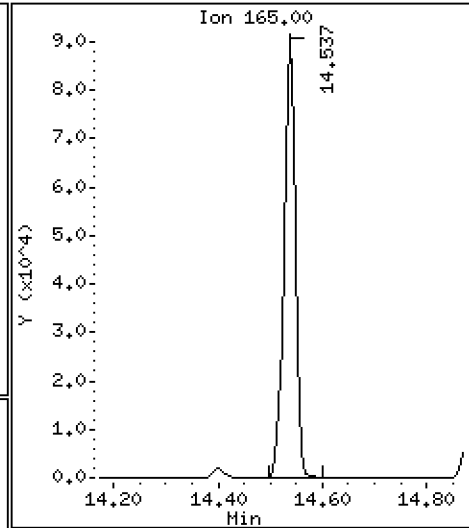
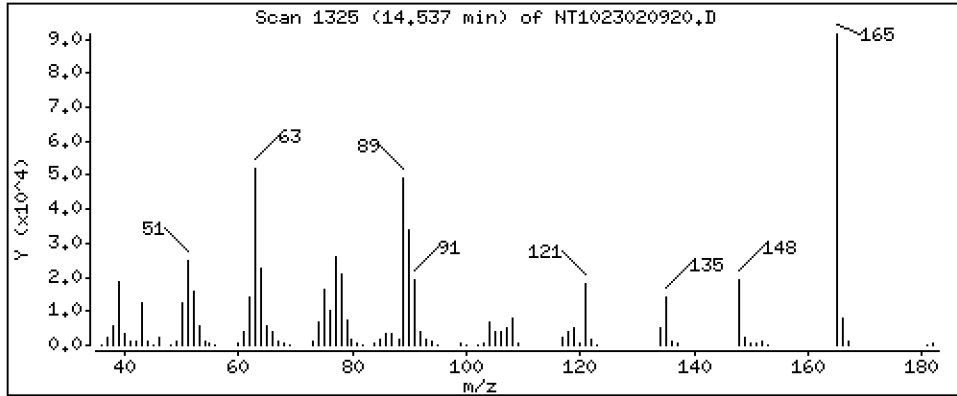
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 9,406 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

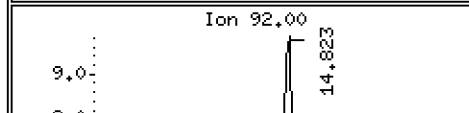
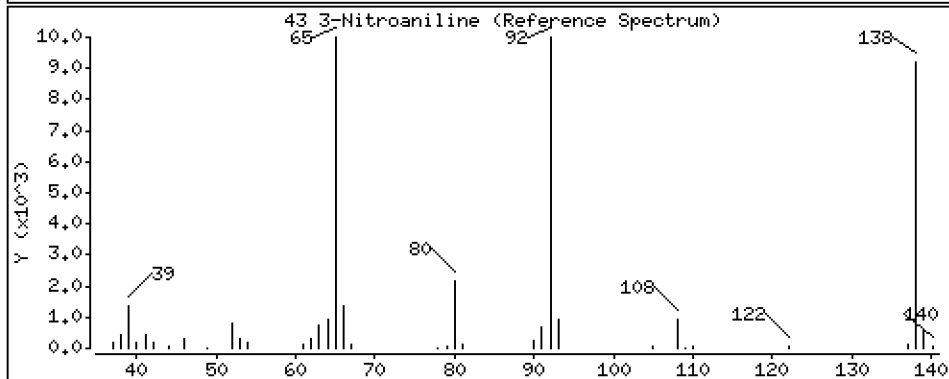
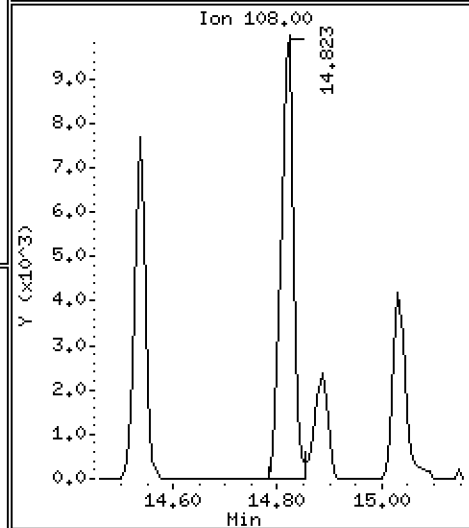
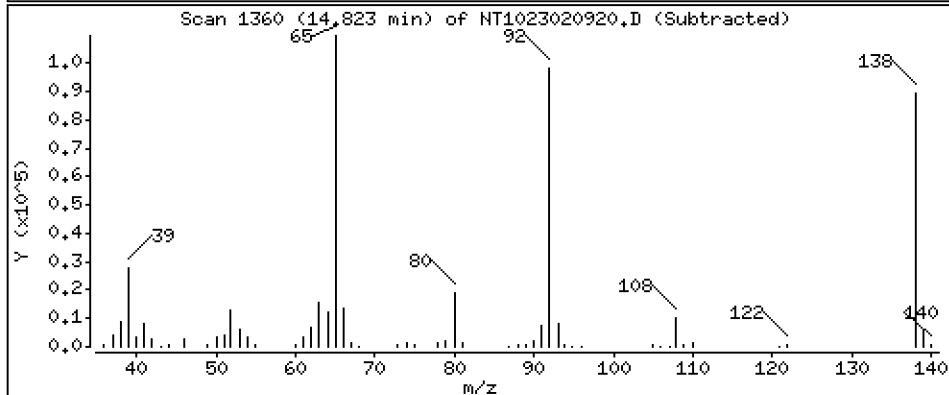
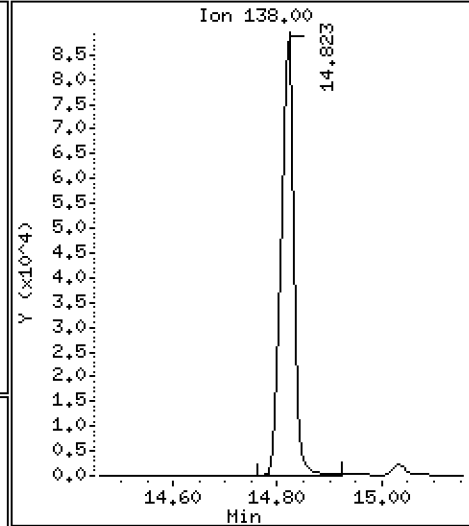
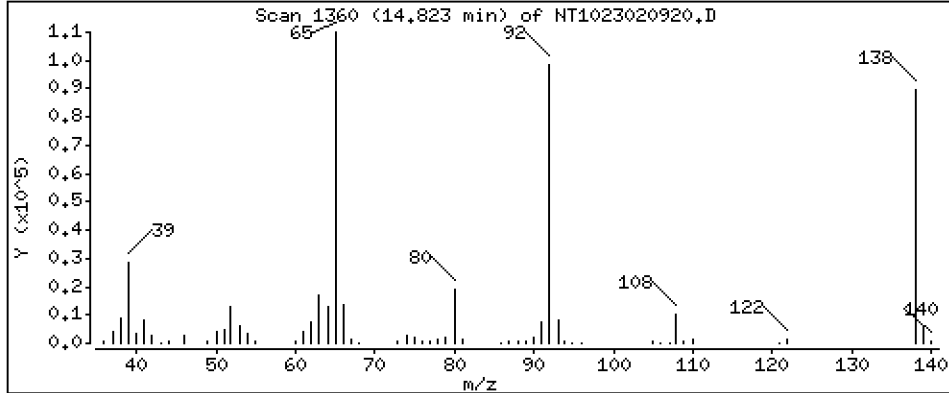
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 9,731 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

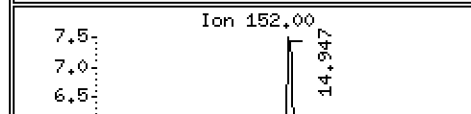
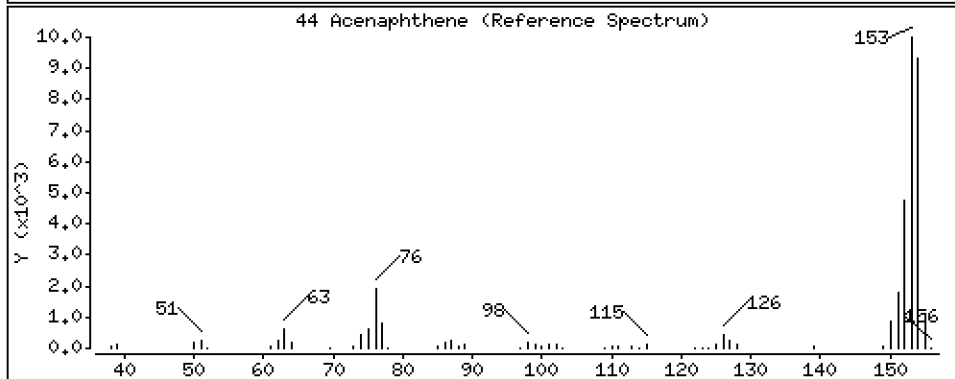
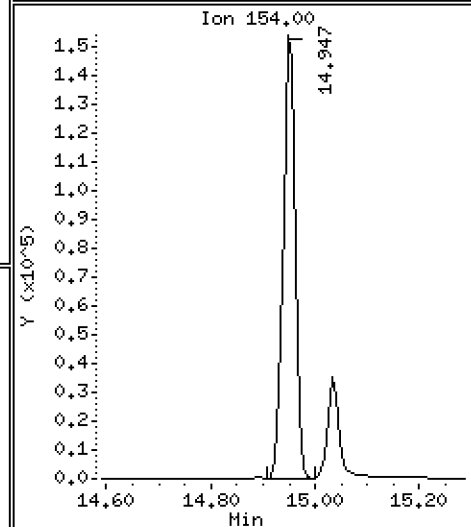
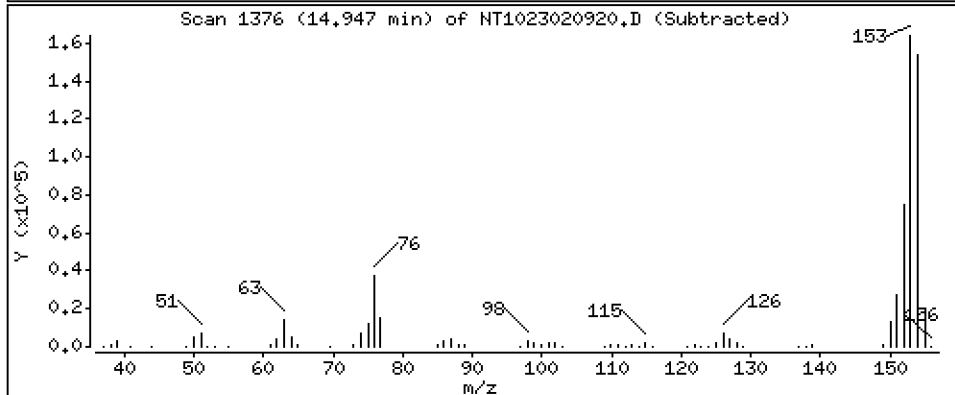
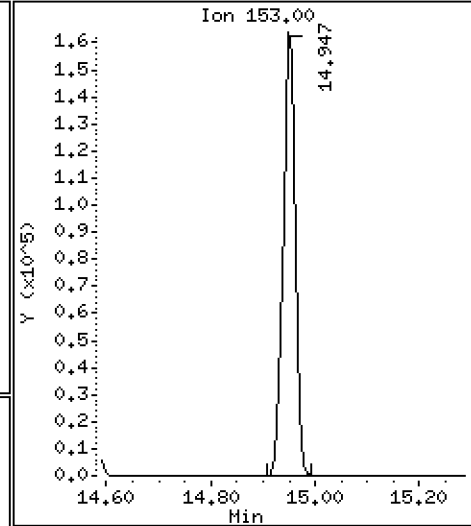
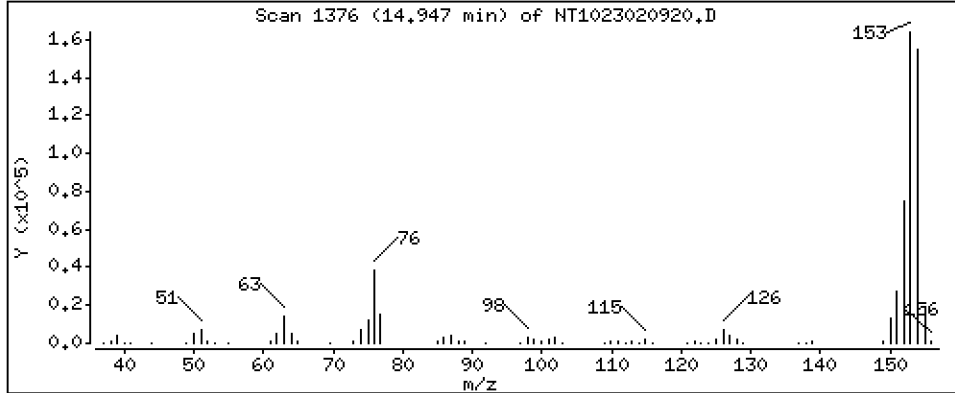
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,595 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

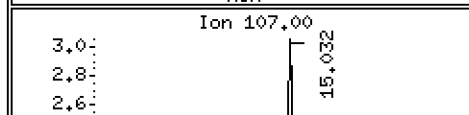
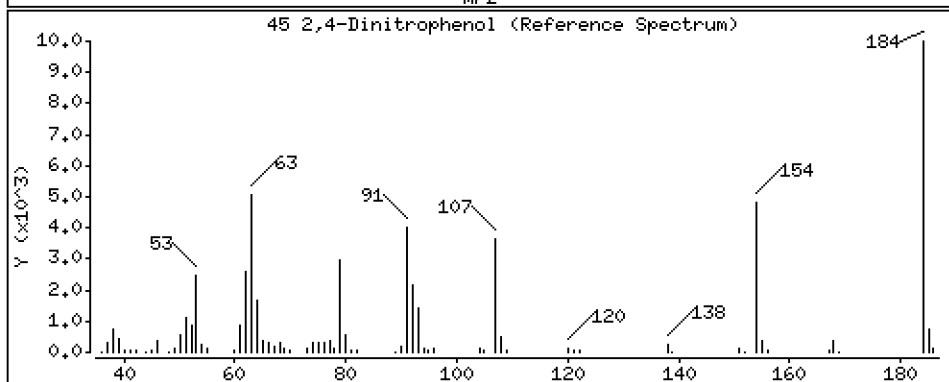
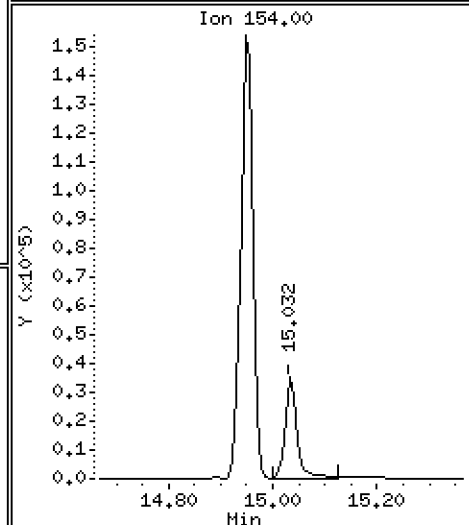
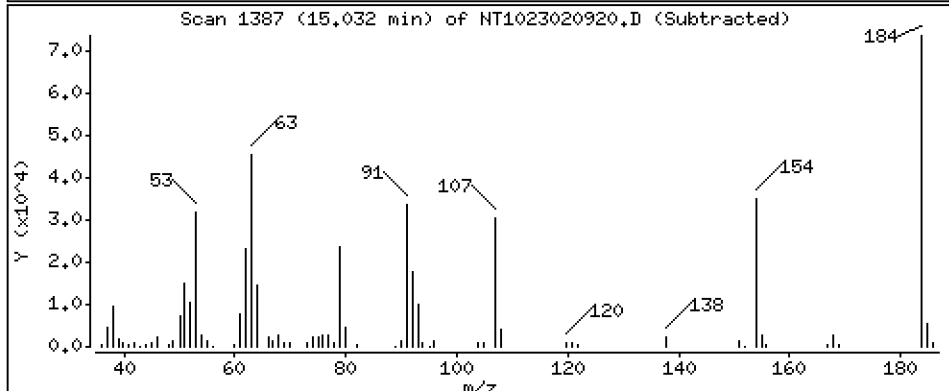
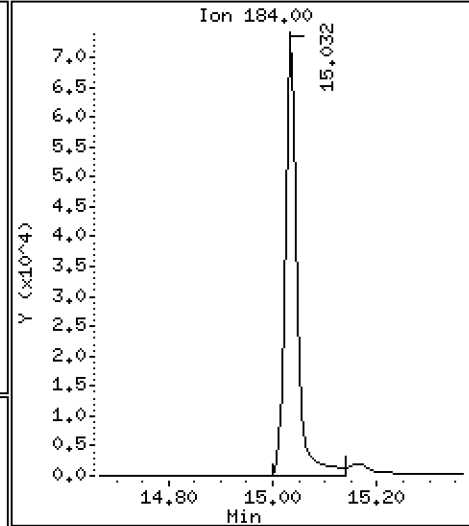
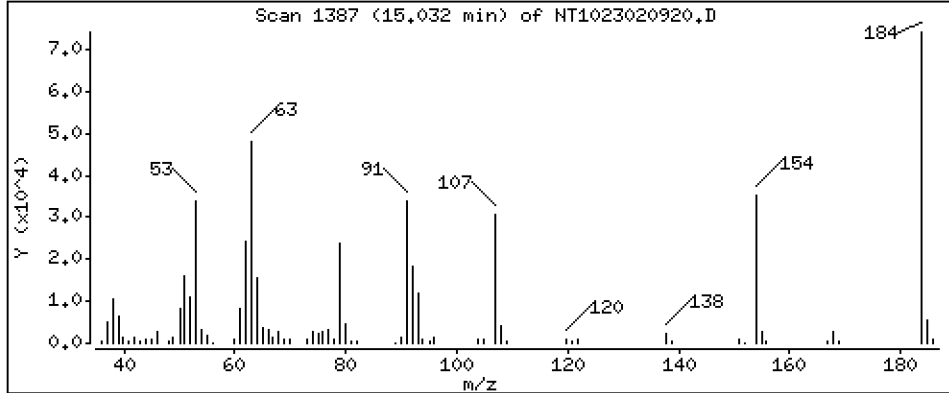
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 15,12 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

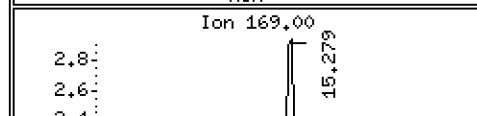
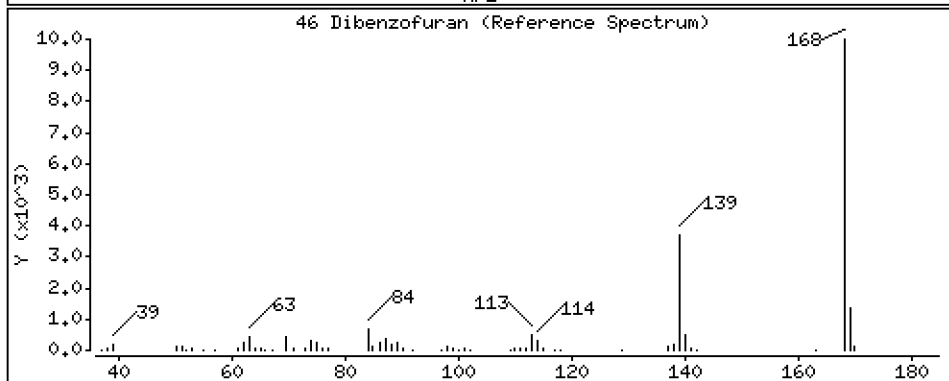
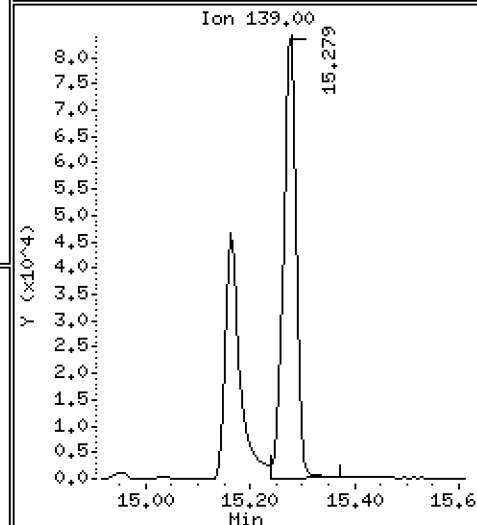
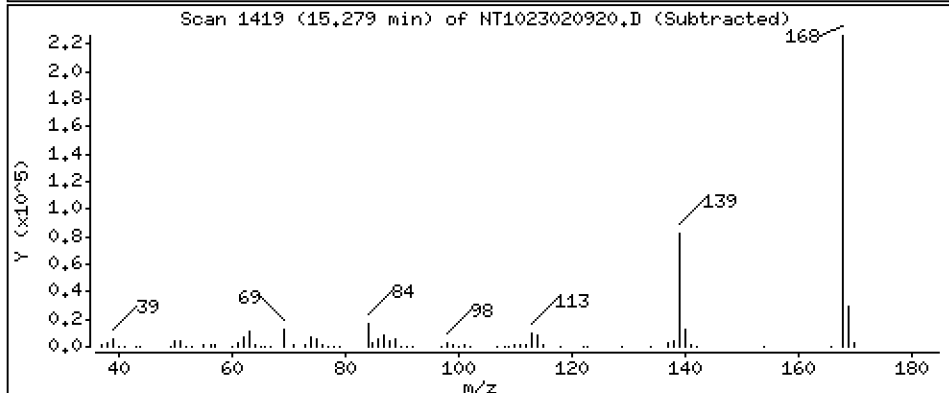
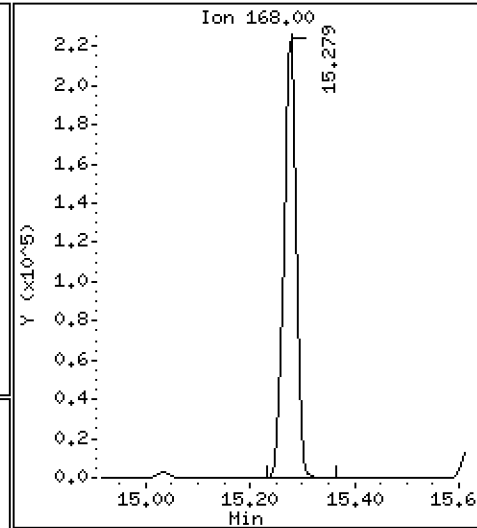
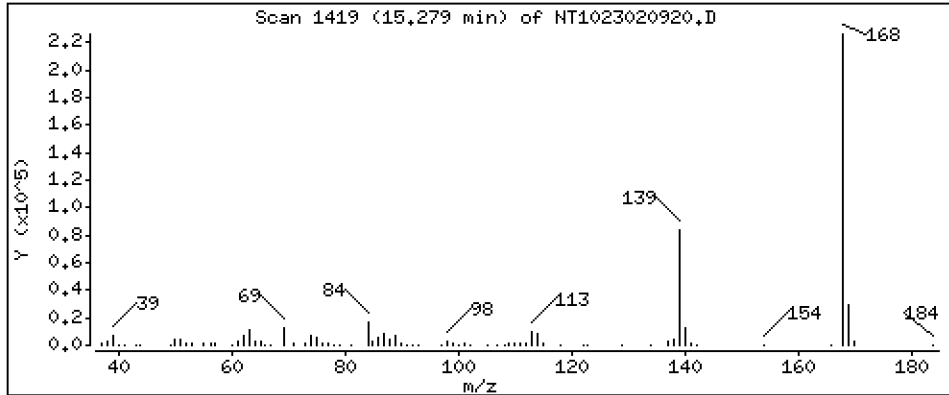
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 4,527 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

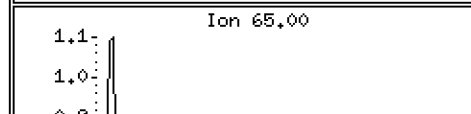
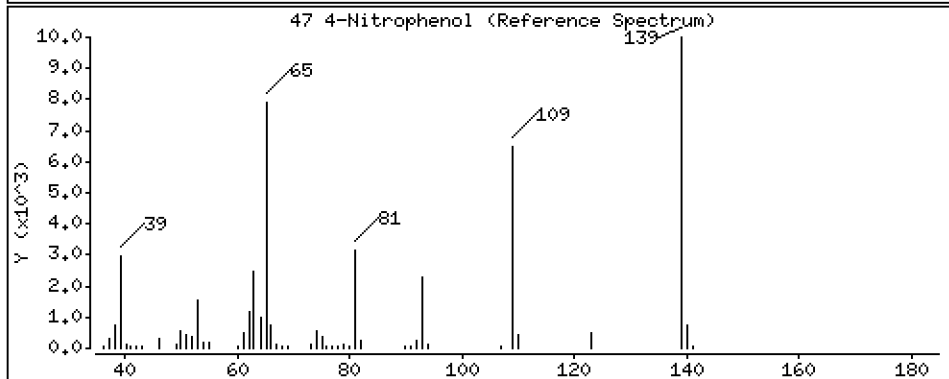
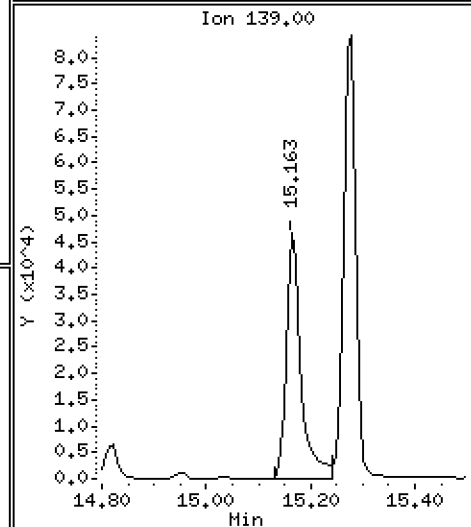
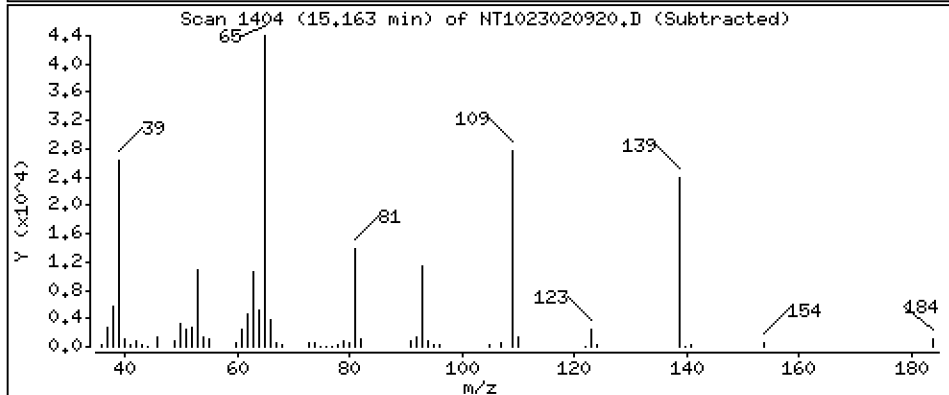
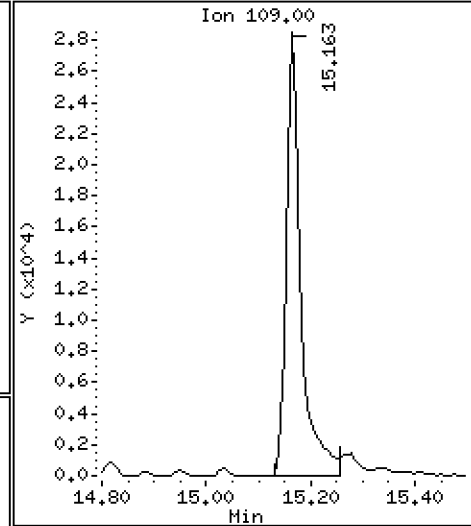
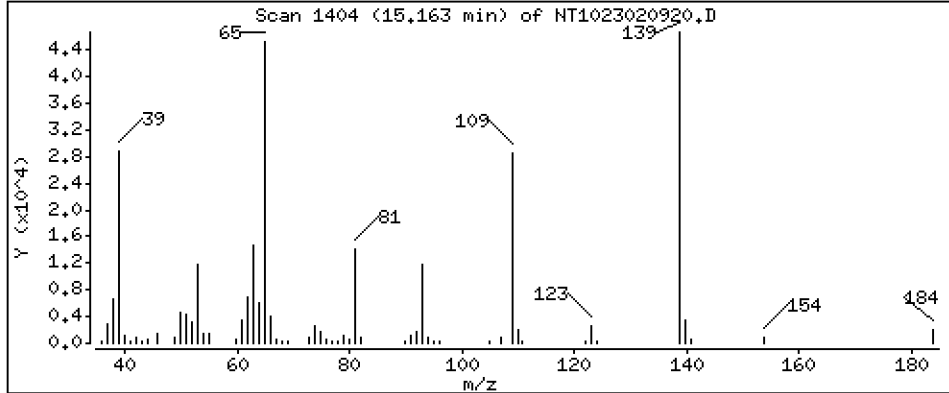
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 8,879 ug/mL



Date : 10-FEB-2023 01:09

Client ID: Instrument: nt10.i

Sample Info: SLB0122-ICV2

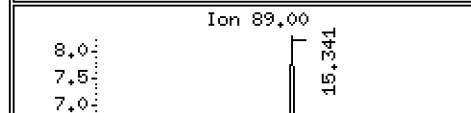
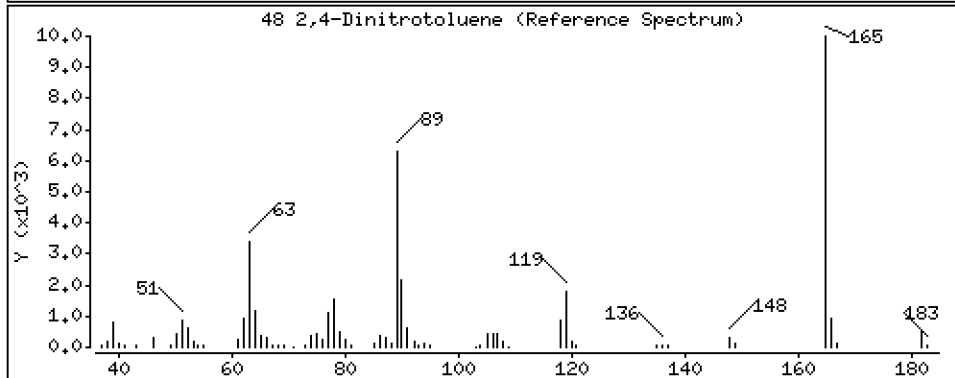
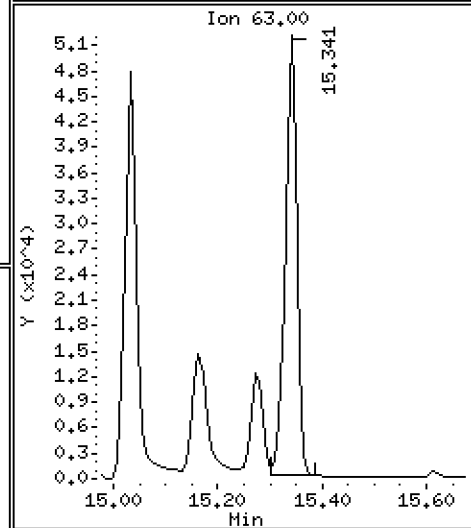
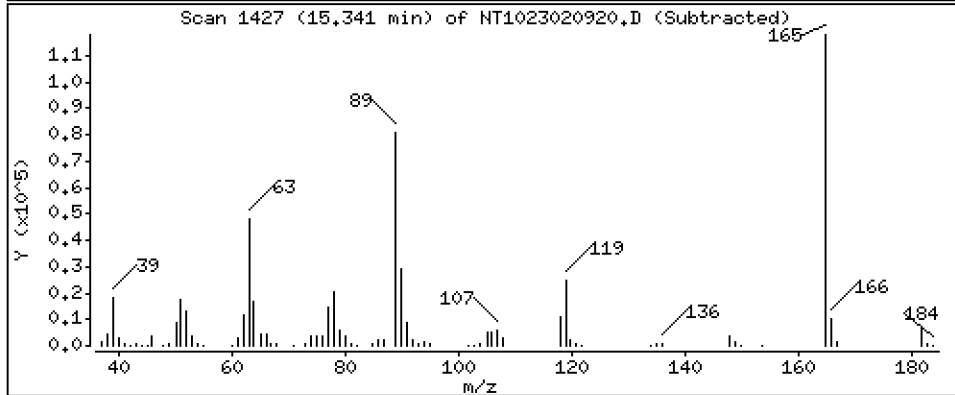
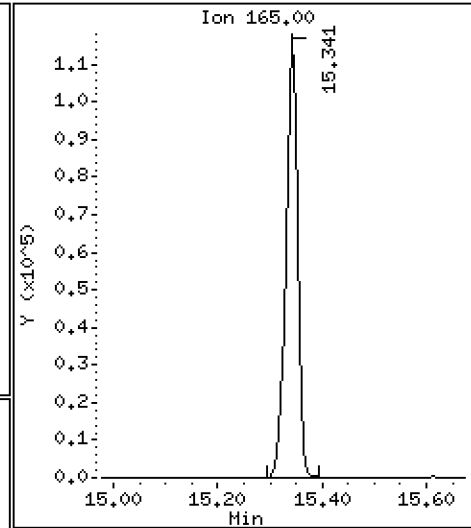
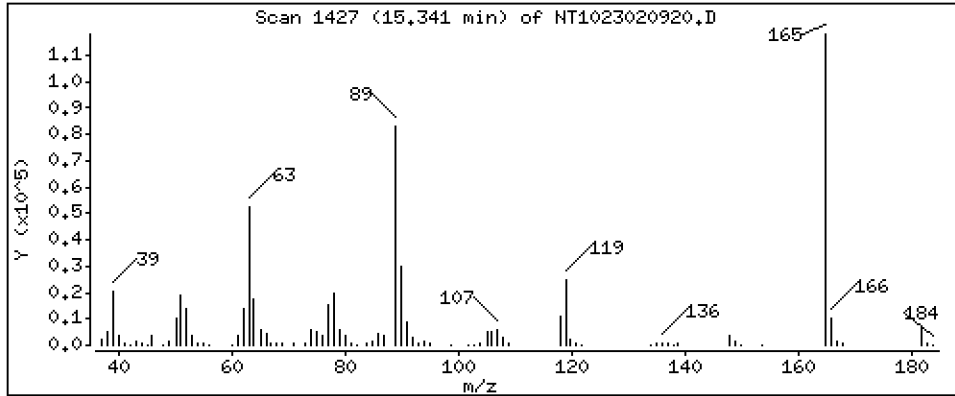
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 9,056 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

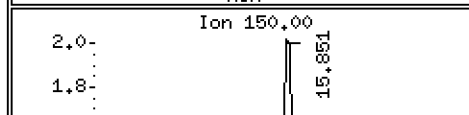
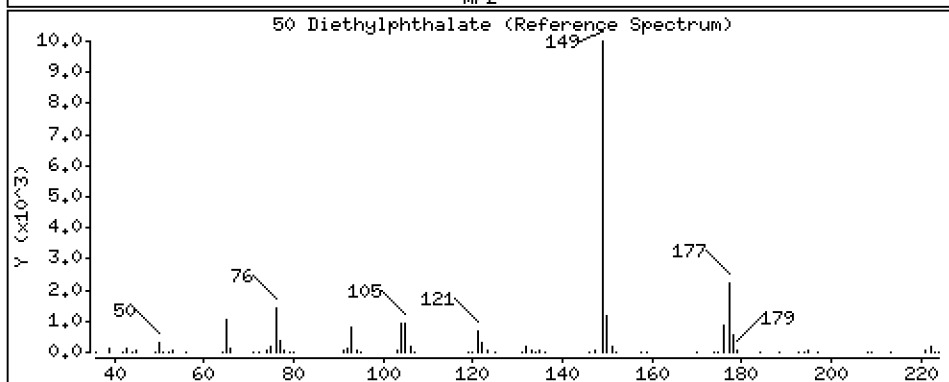
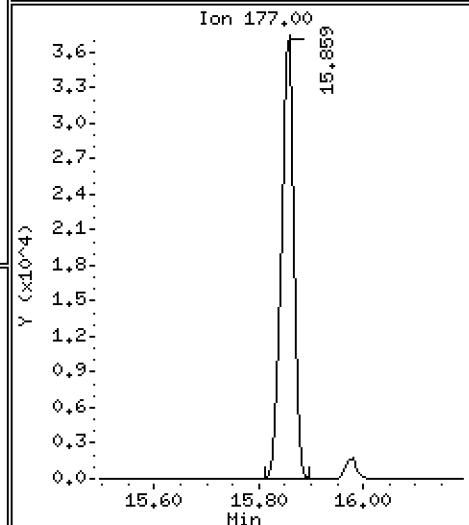
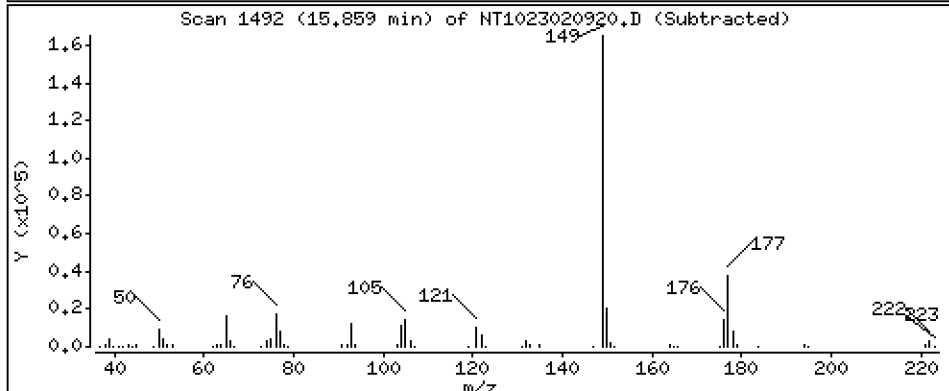
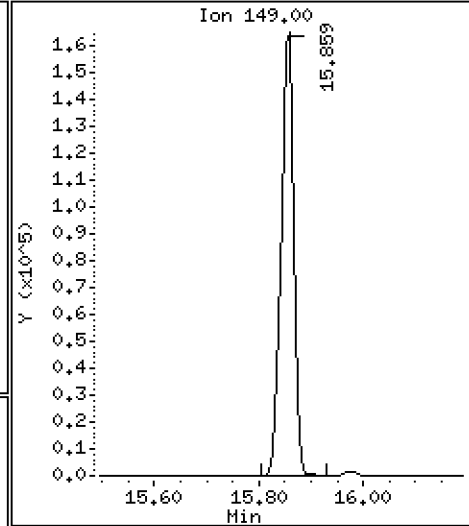
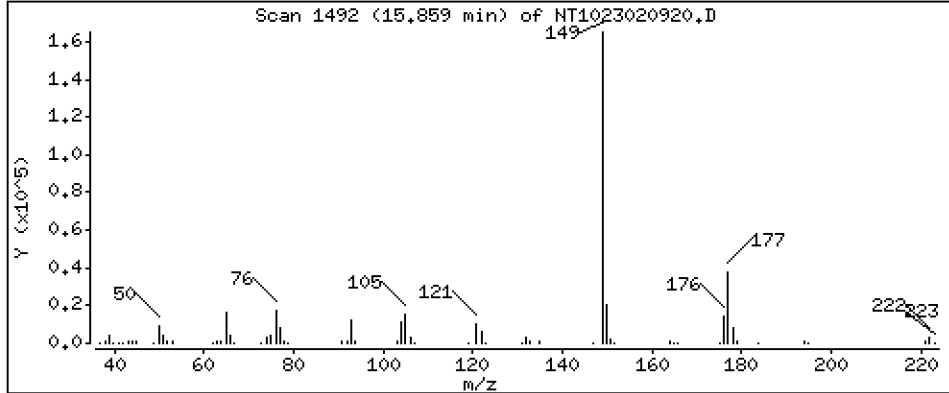
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,257 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

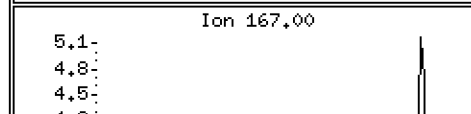
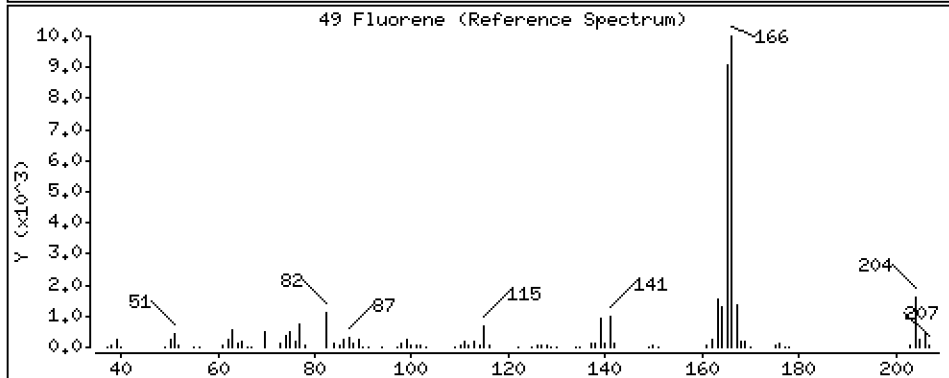
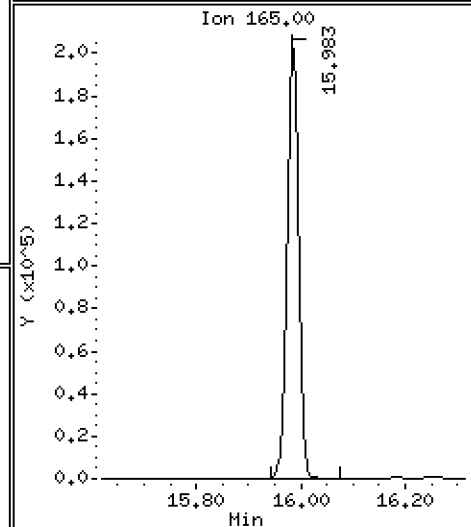
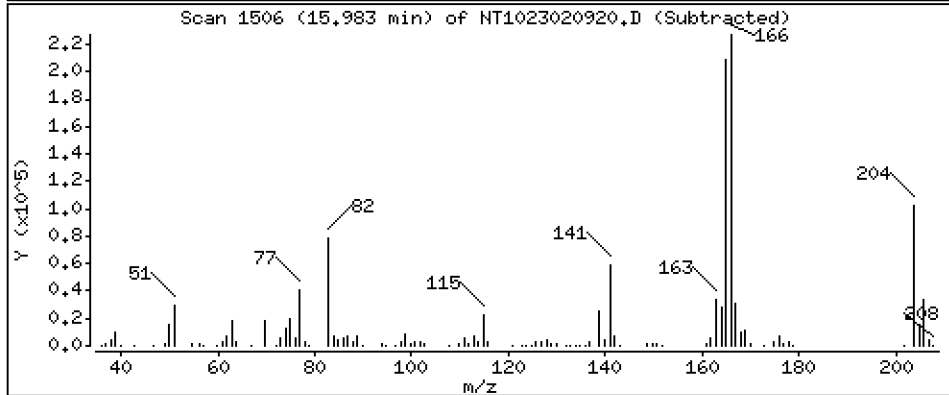
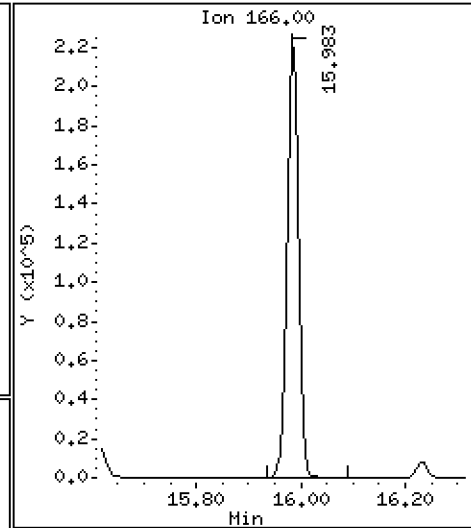
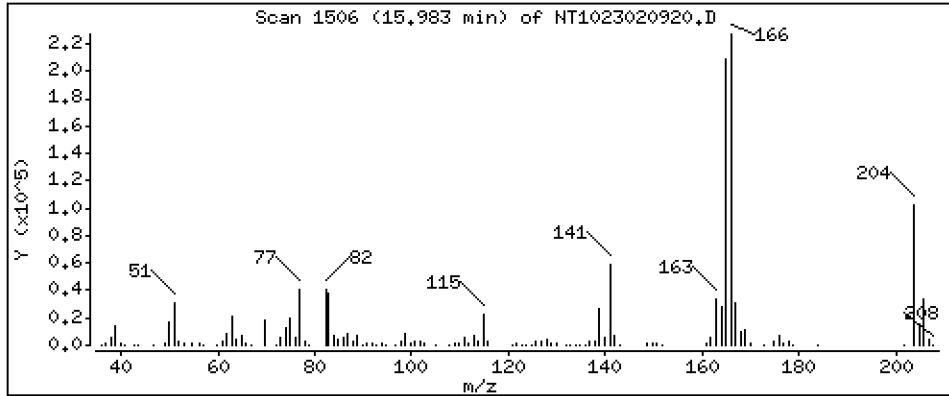
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 3,850 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

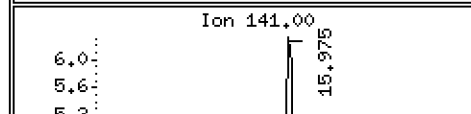
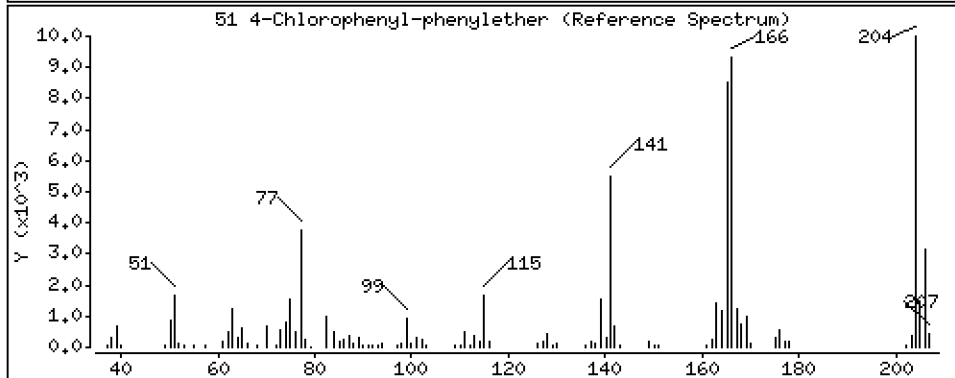
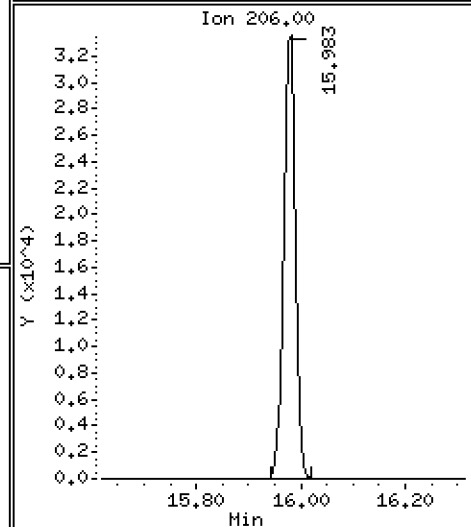
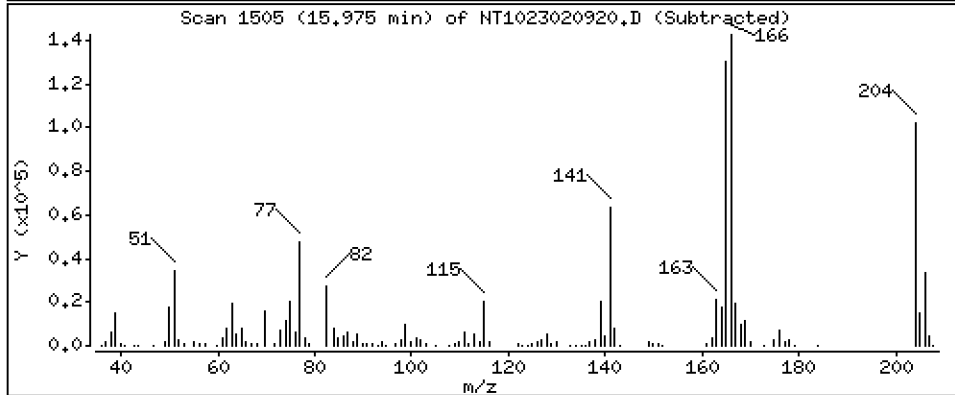
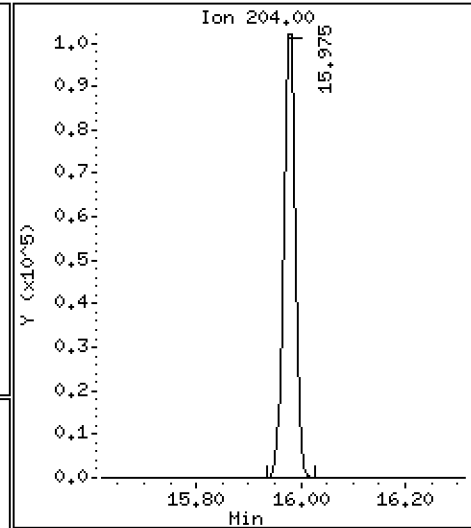
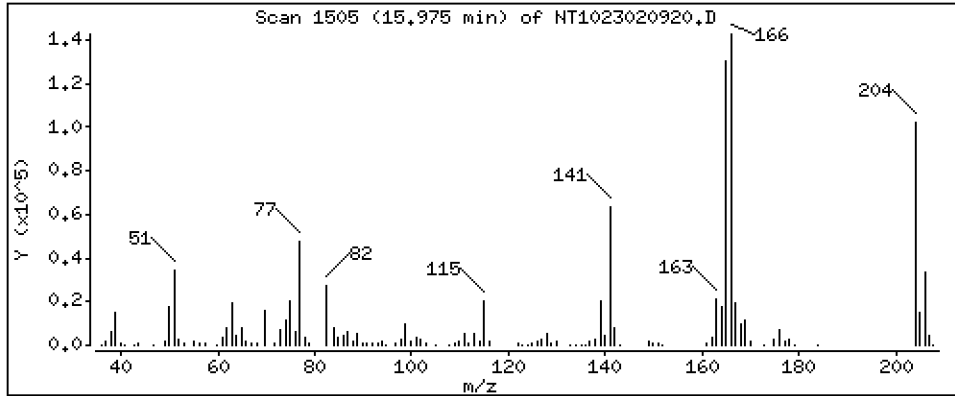
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 3,642 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

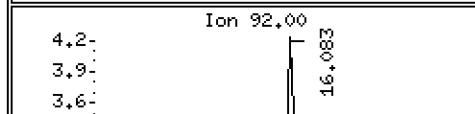
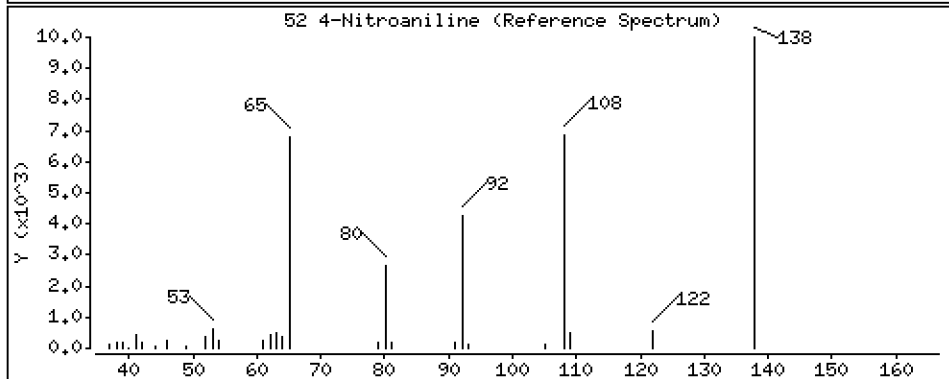
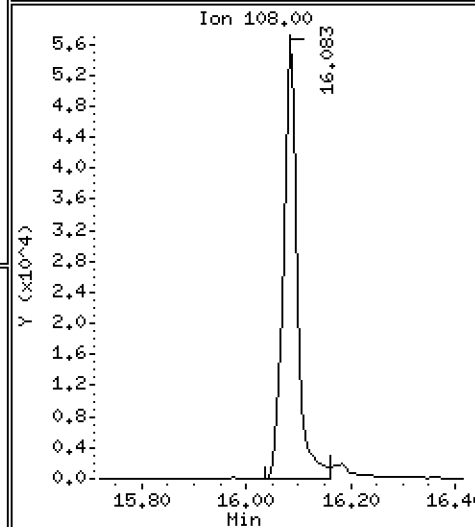
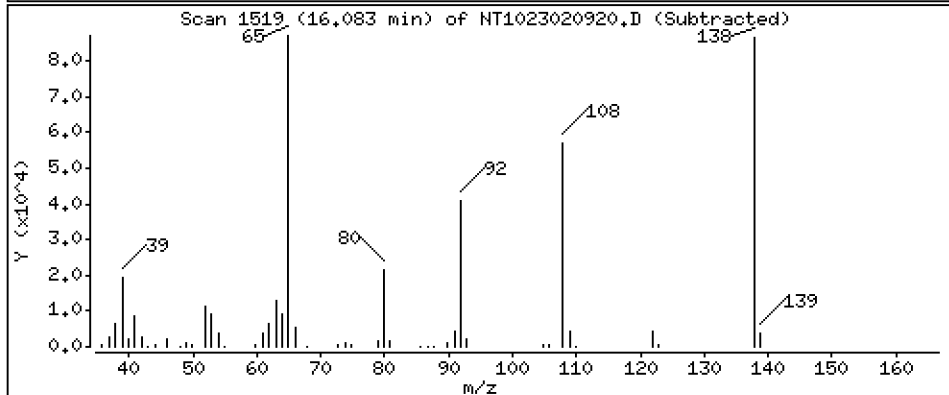
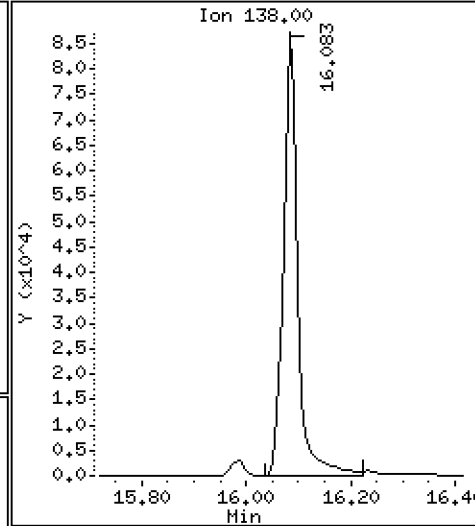
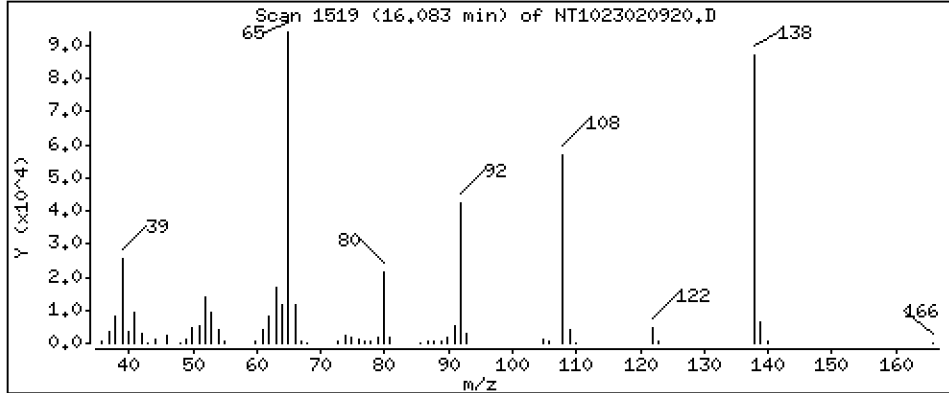
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 8,532 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

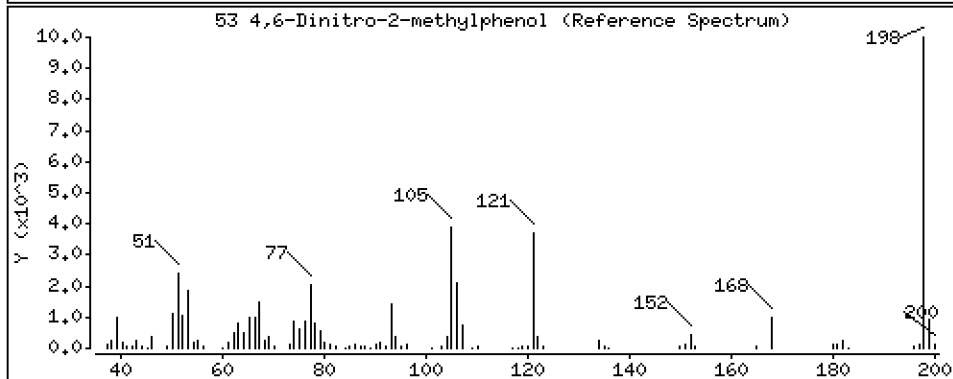
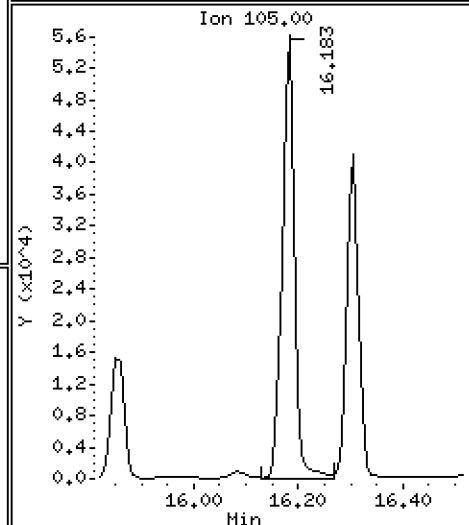
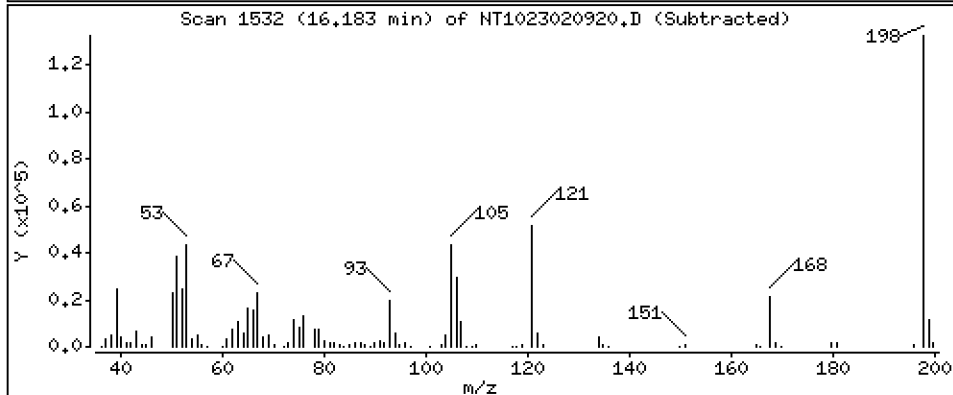
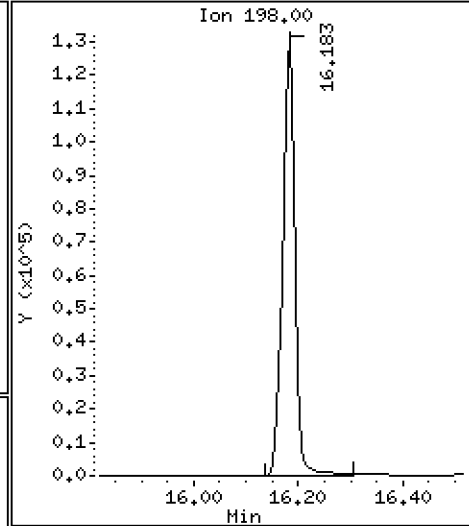
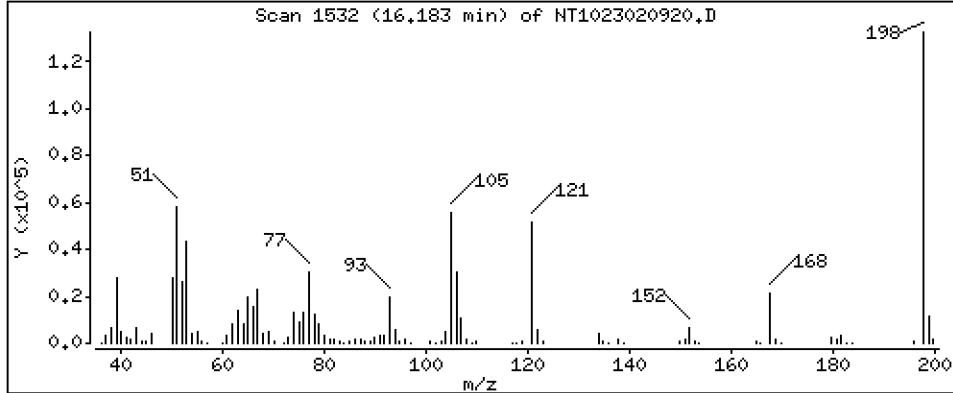
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 19,84 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

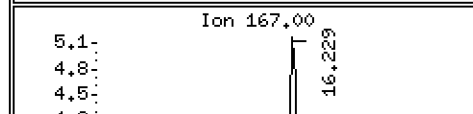
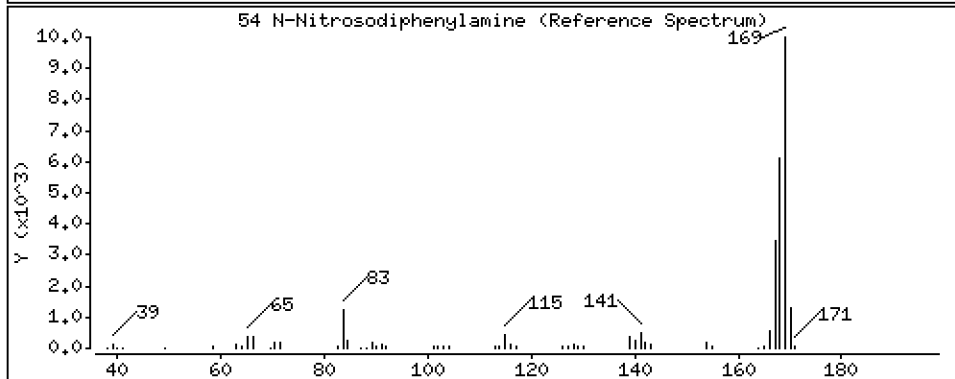
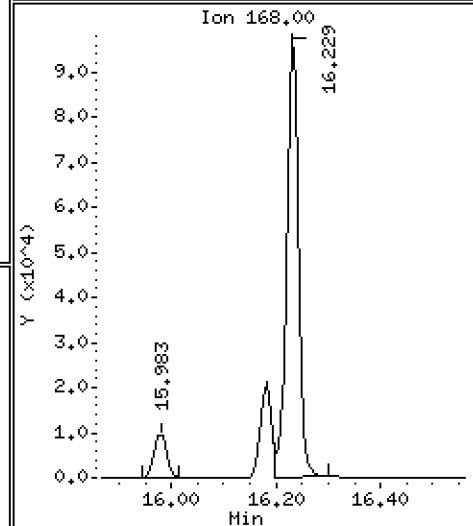
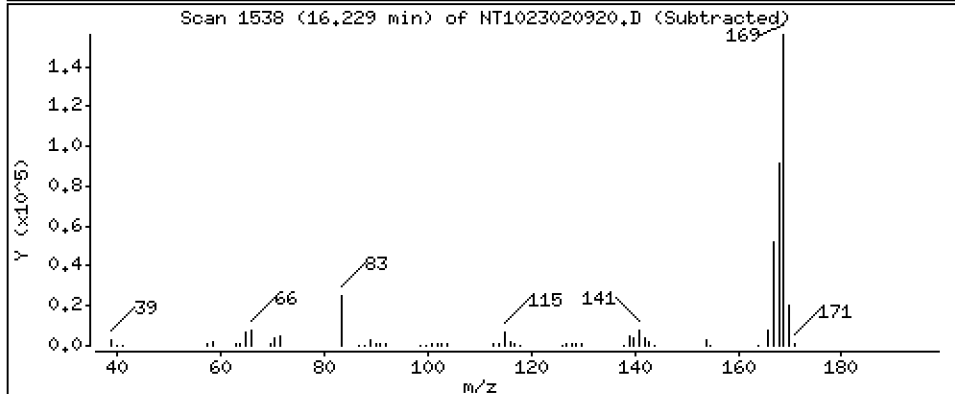
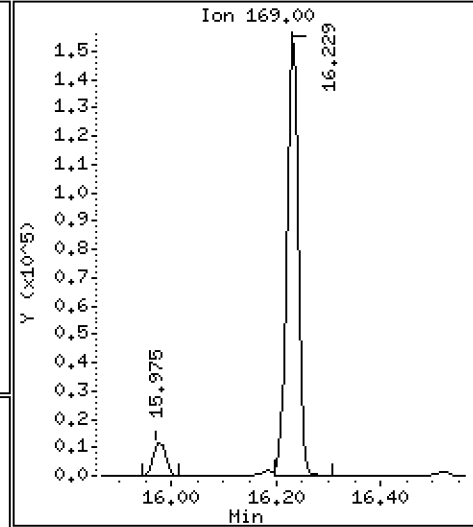
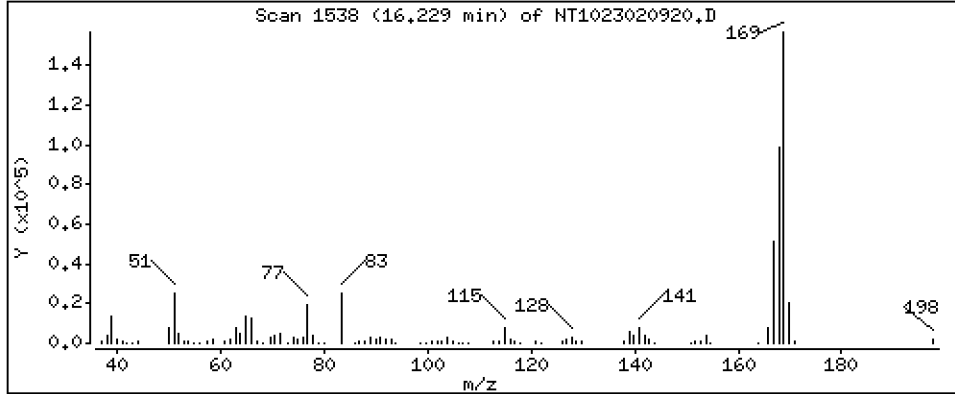
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 4,714 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

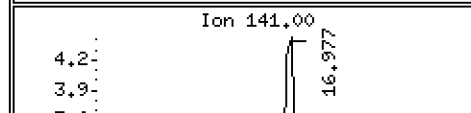
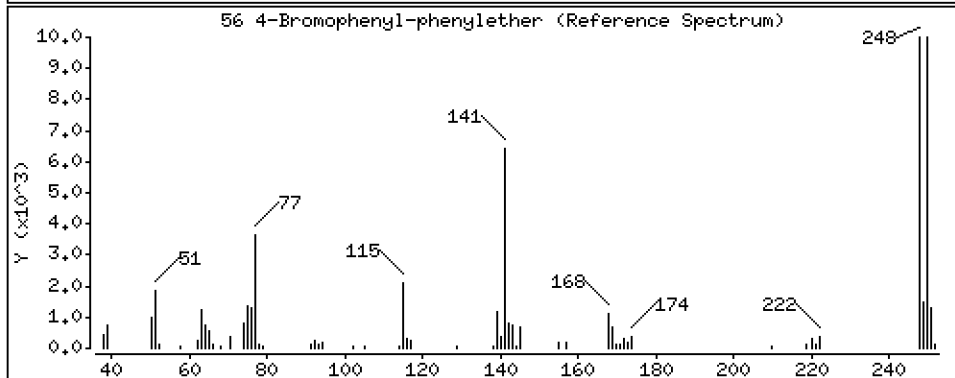
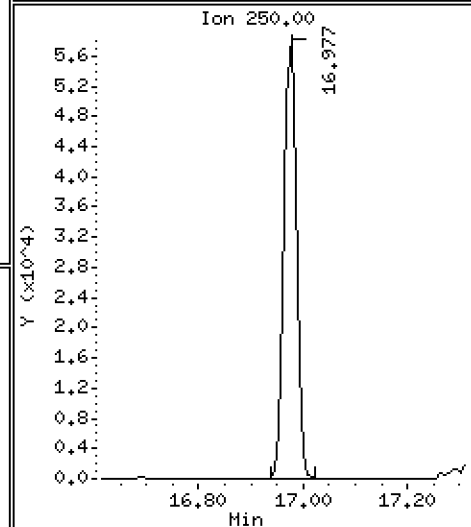
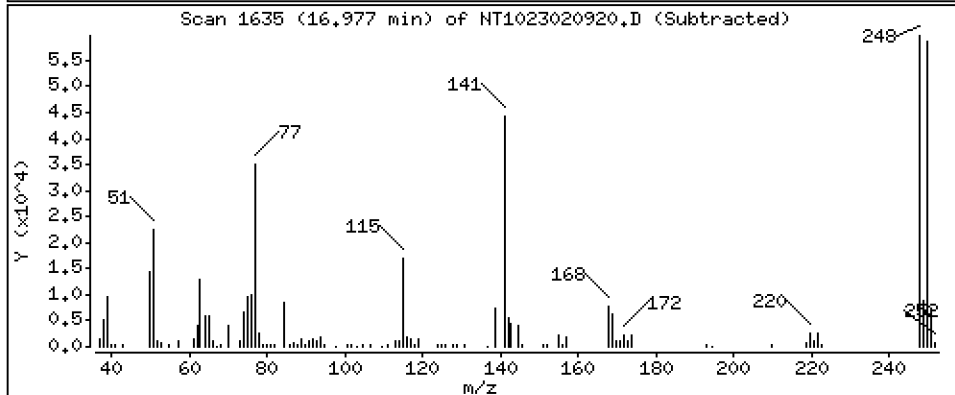
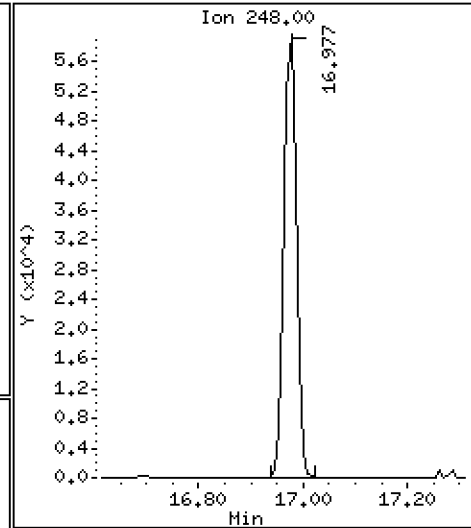
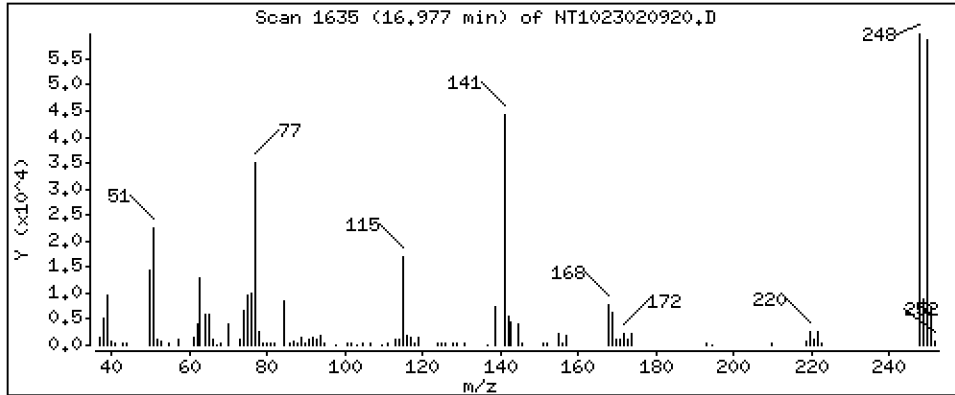
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,969 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

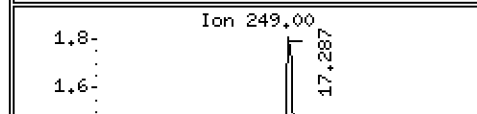
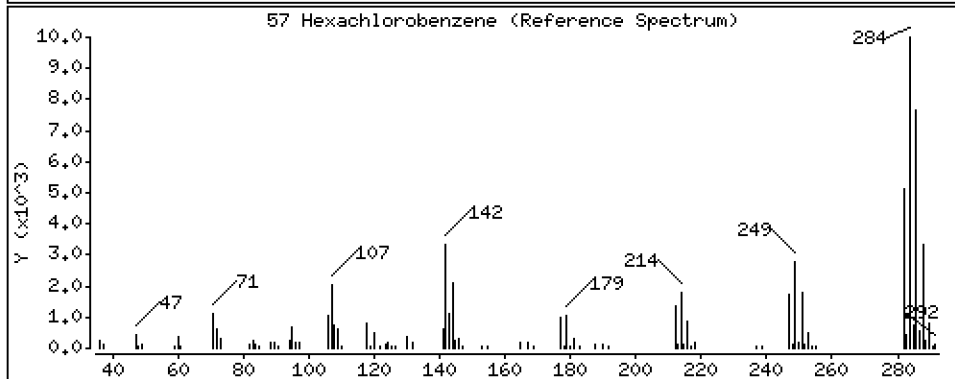
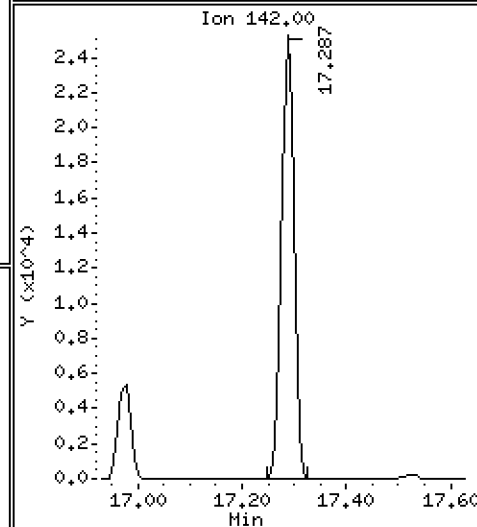
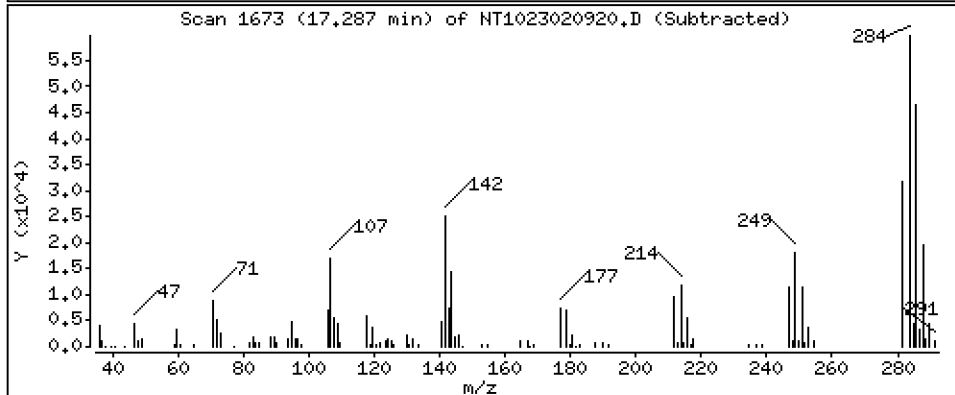
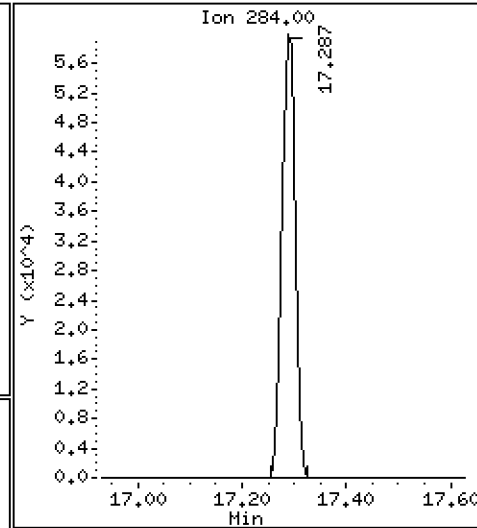
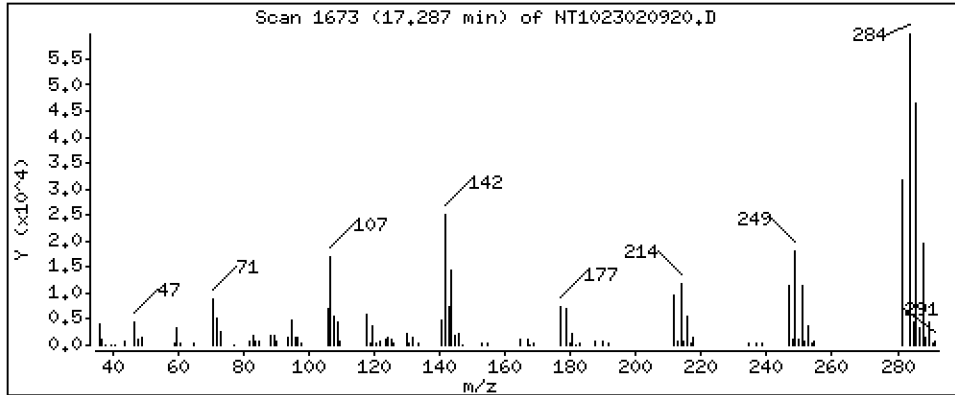
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 5,003 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

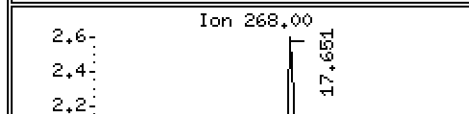
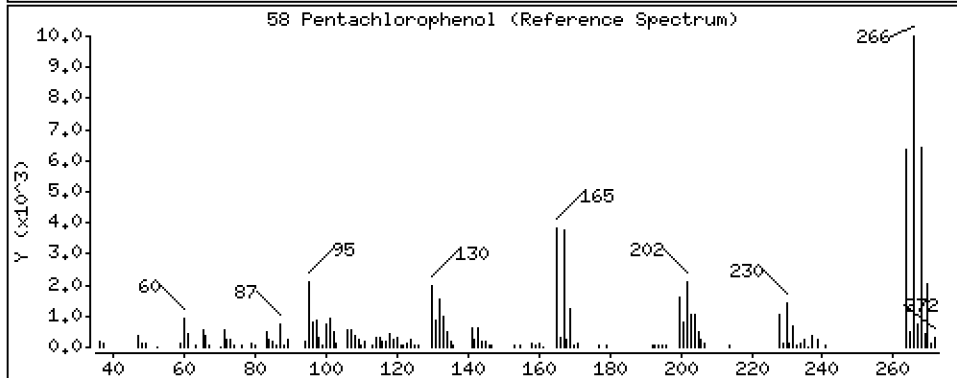
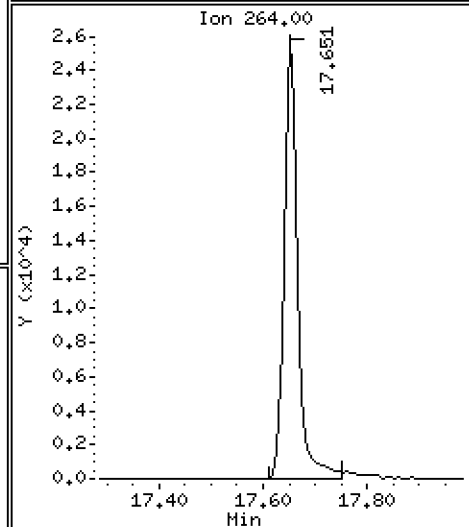
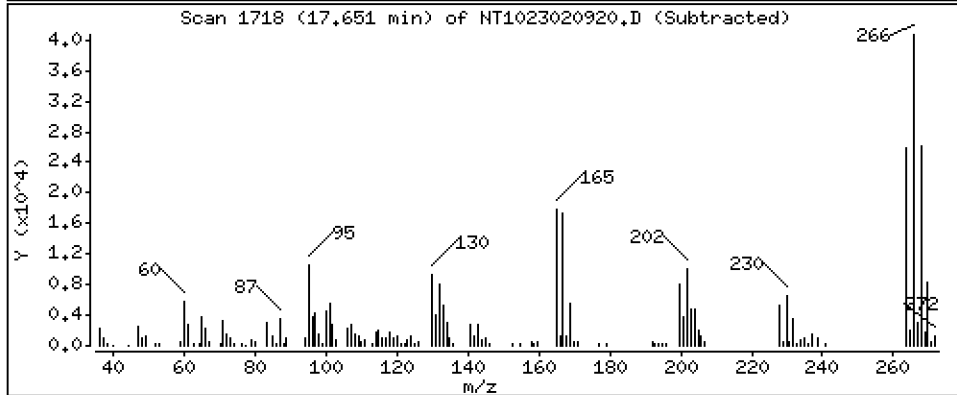
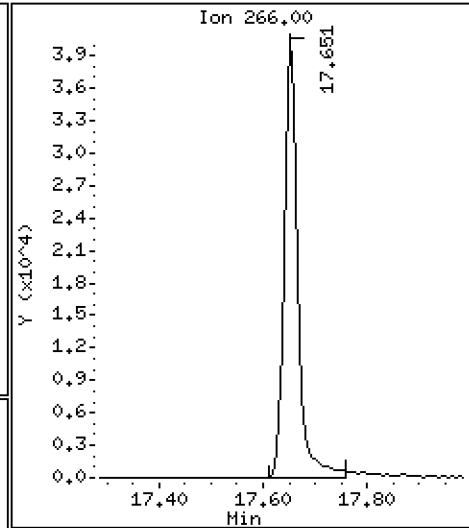
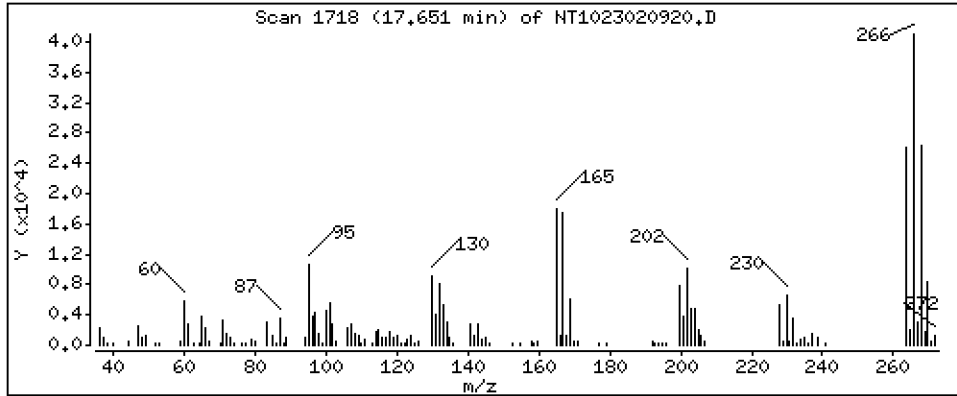
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 9,460 ug/mL



Date : 10-FEB-2023 01:09

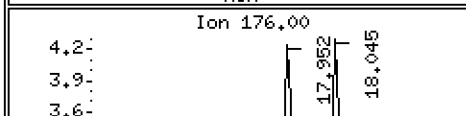
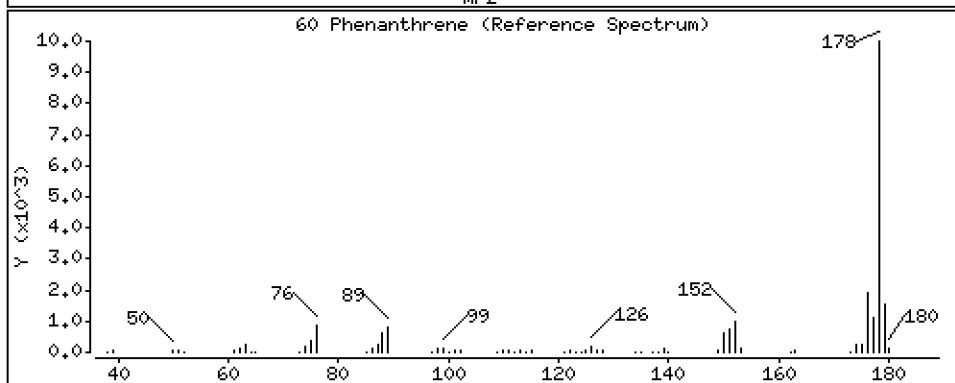
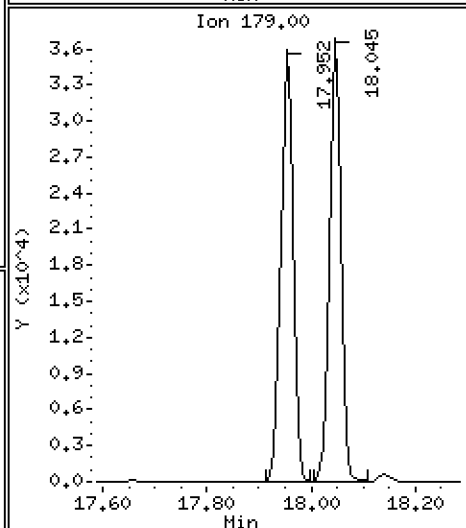
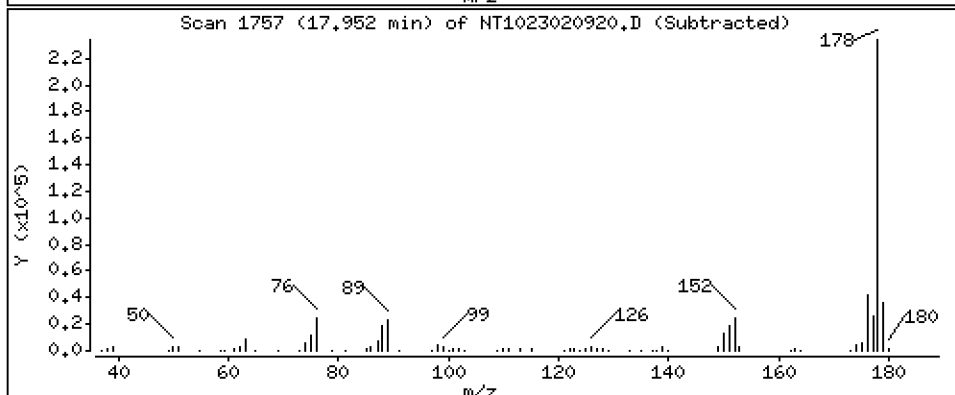
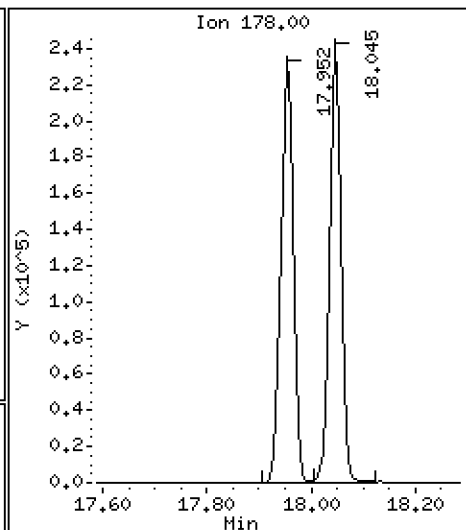
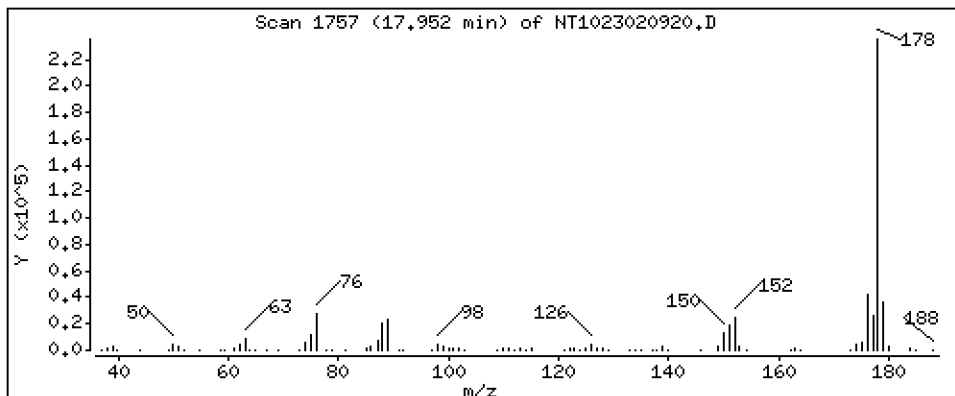
Client ID: Instrument: nt10.i

Sample Info: SLB0122-ICV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

60 Phenanthrene Concentration: 4,712 ug/mL



Date : 10-FEB-2023 01:09

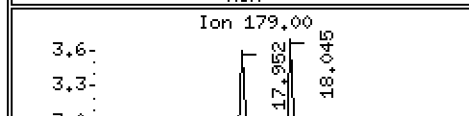
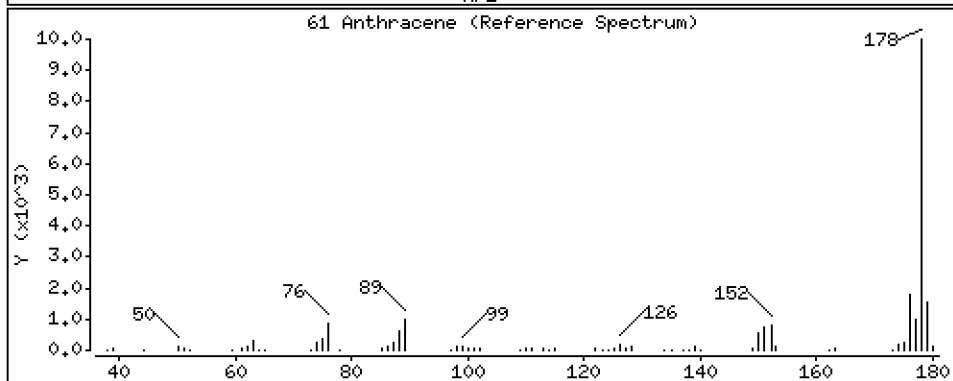
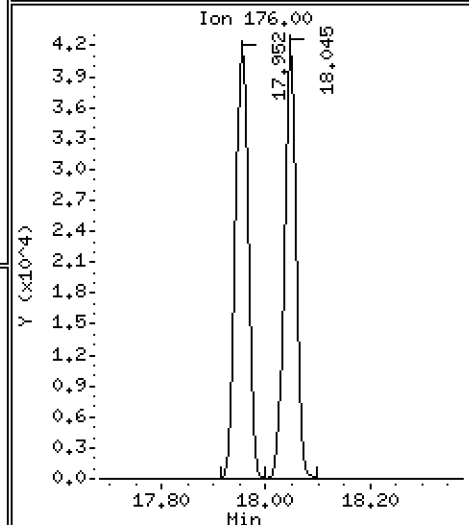
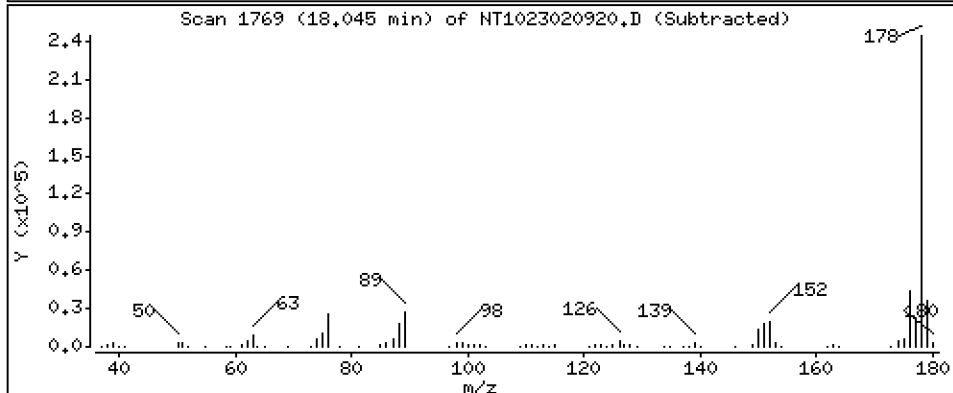
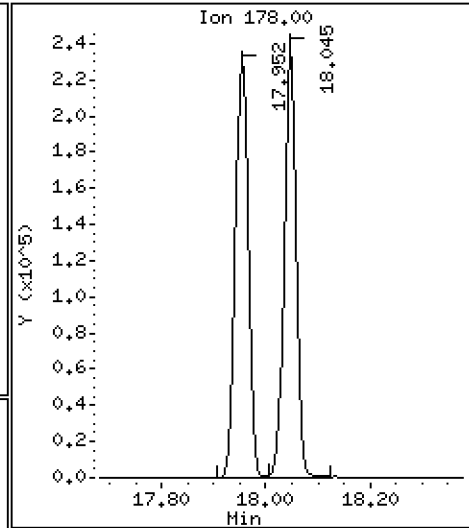
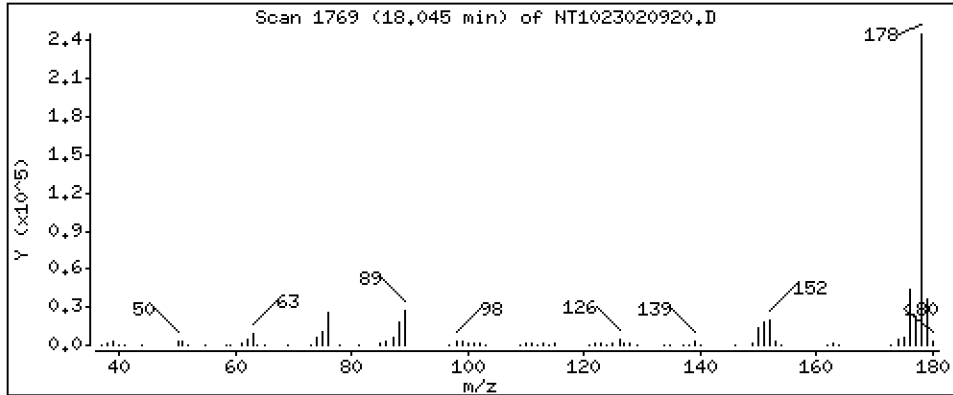
Client ID: Instrument: nt10.i

Sample Info: SLB0122-ICV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

61 Anthracene Concentration: 4,777 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

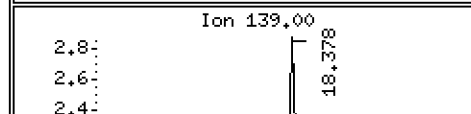
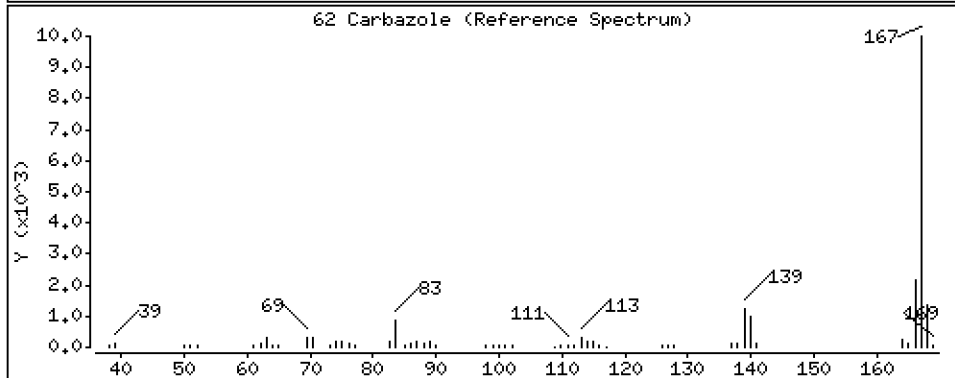
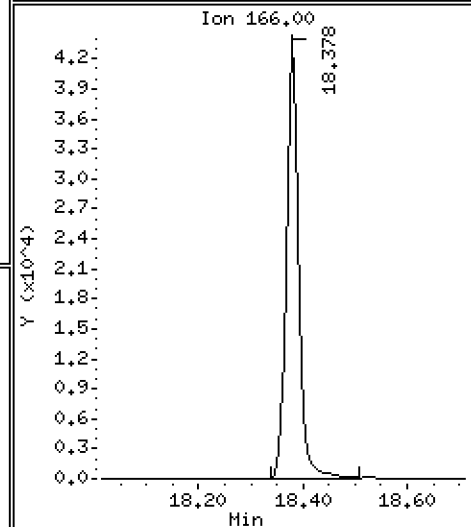
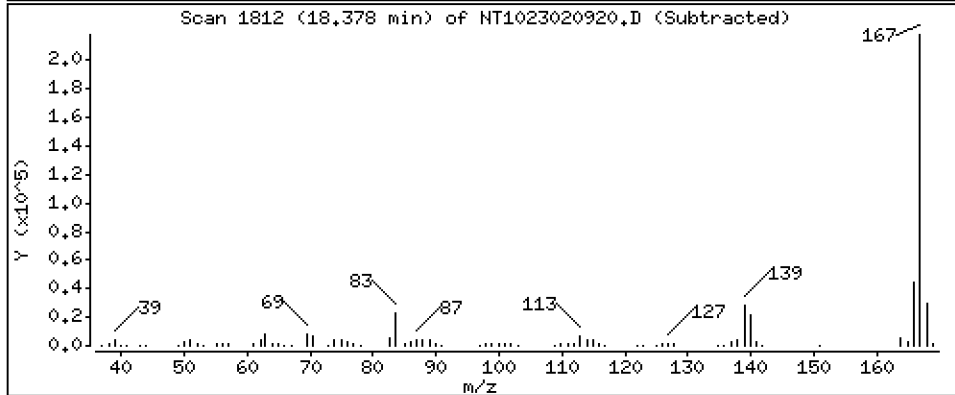
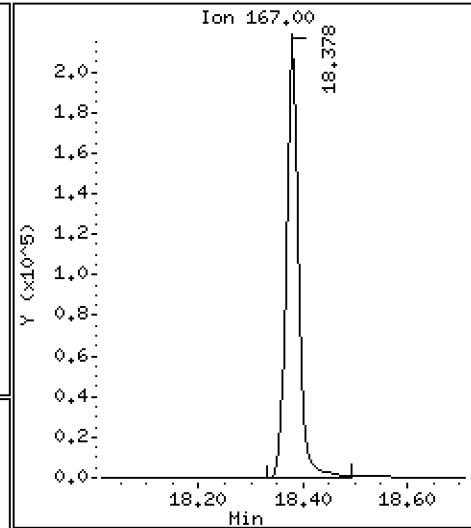
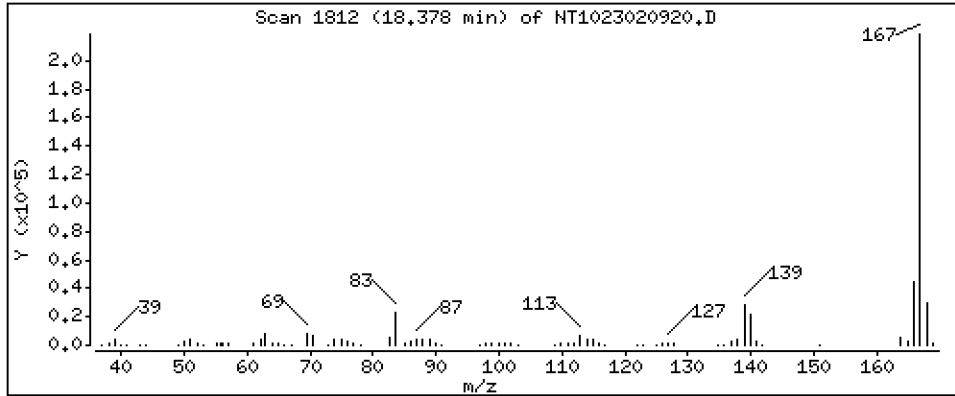
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 4,660 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

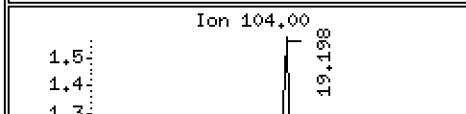
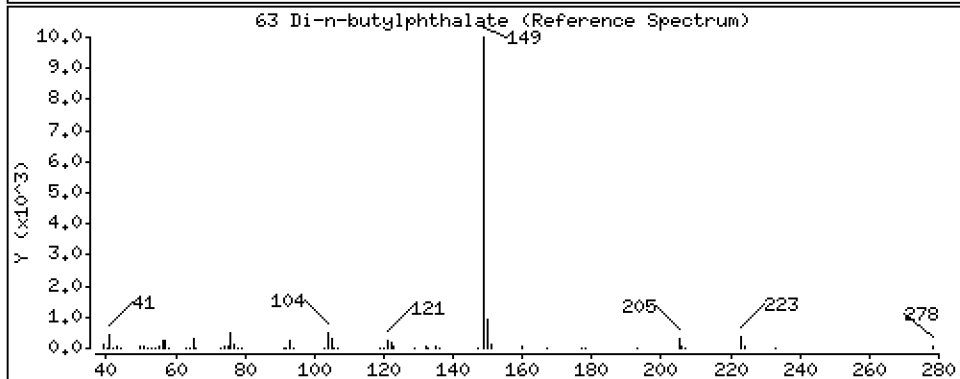
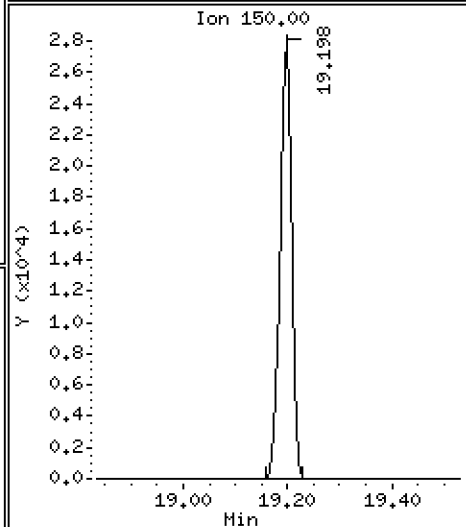
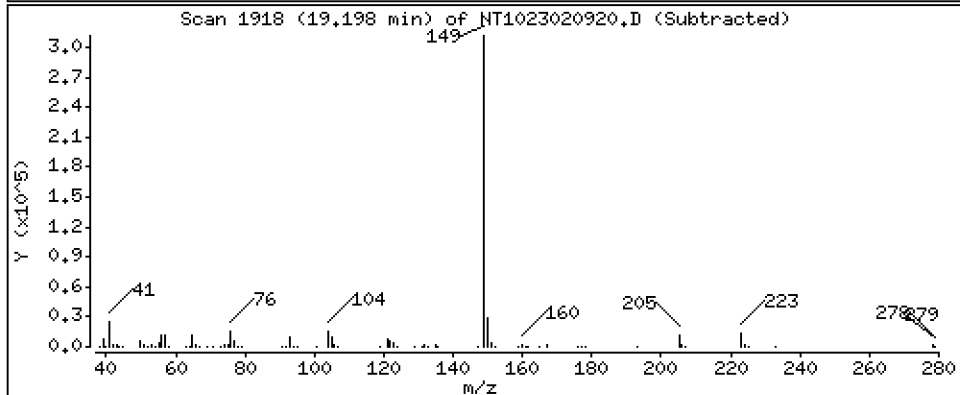
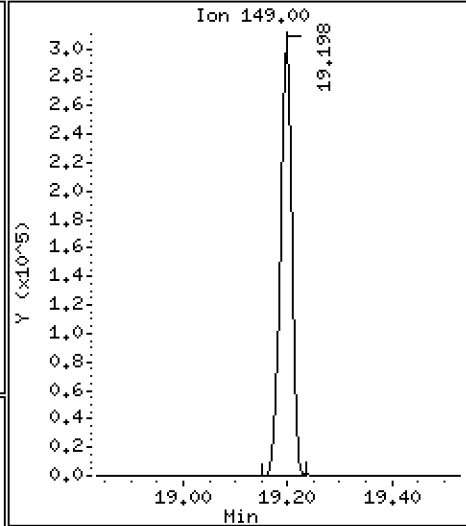
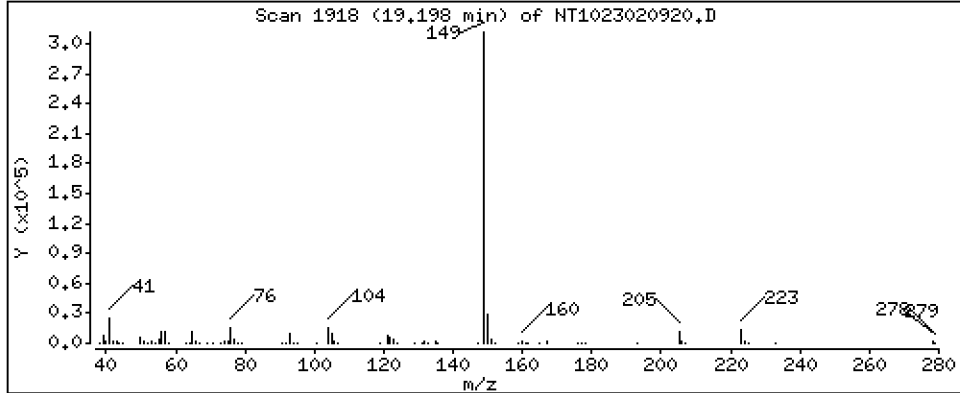
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 5,180 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

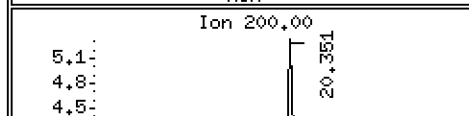
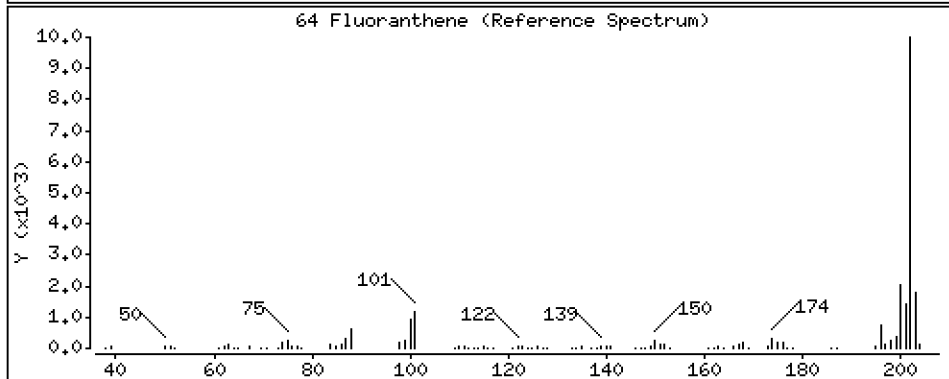
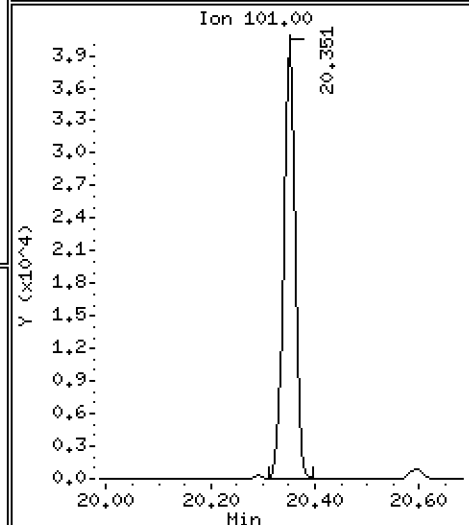
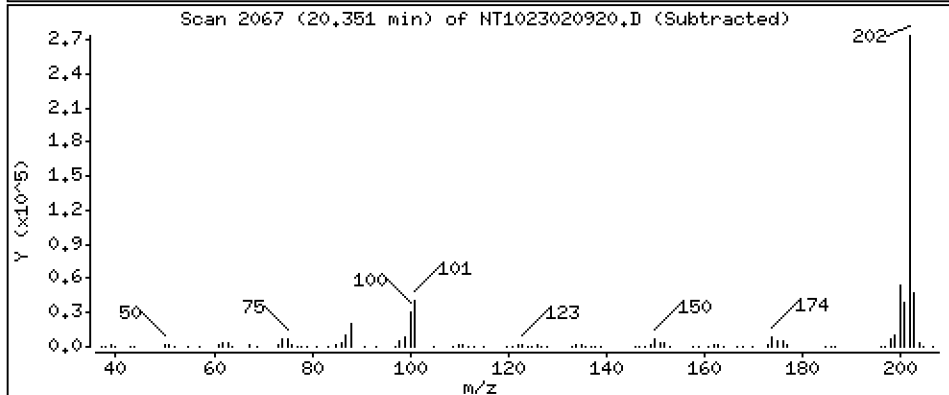
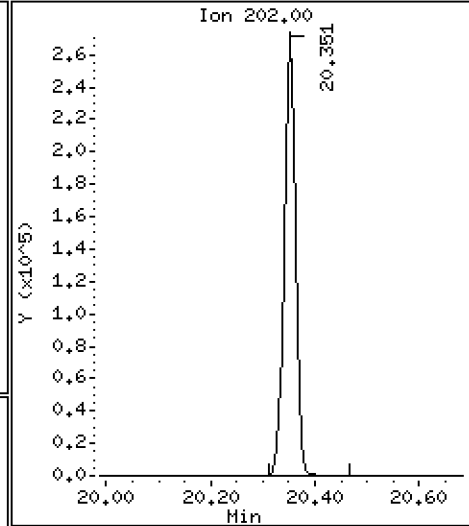
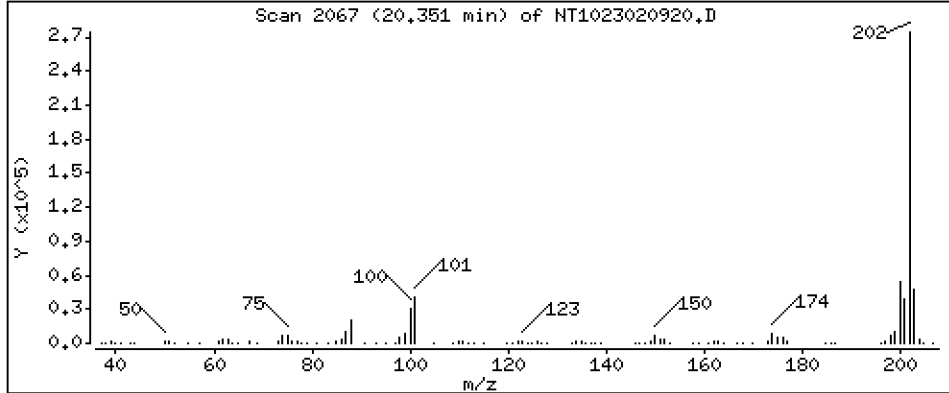
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,172 ug/mL



Date : 10-FEB-2023 01:09

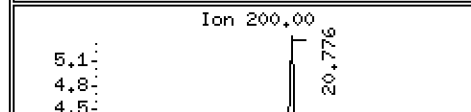
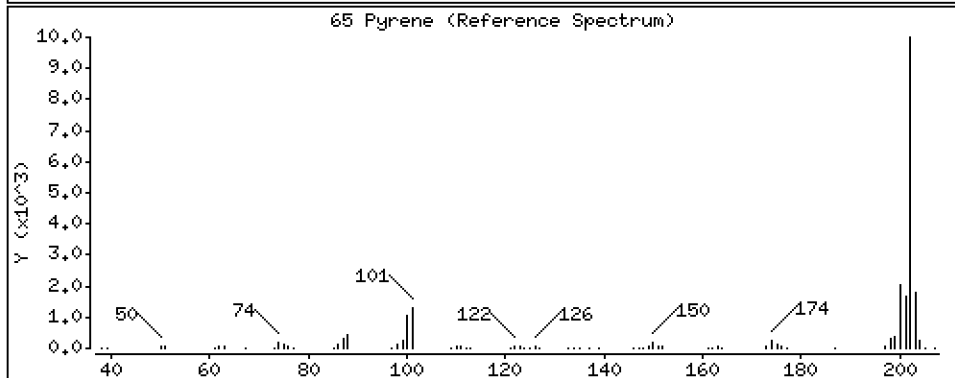
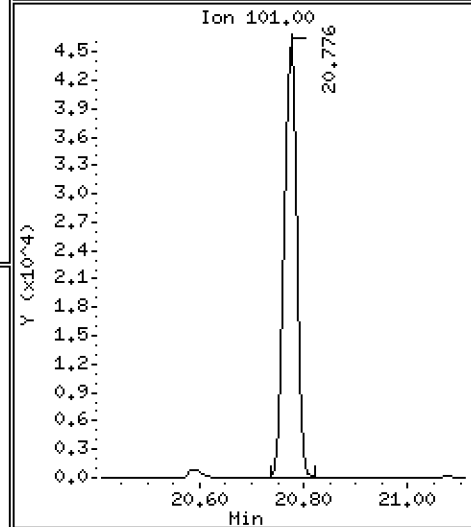
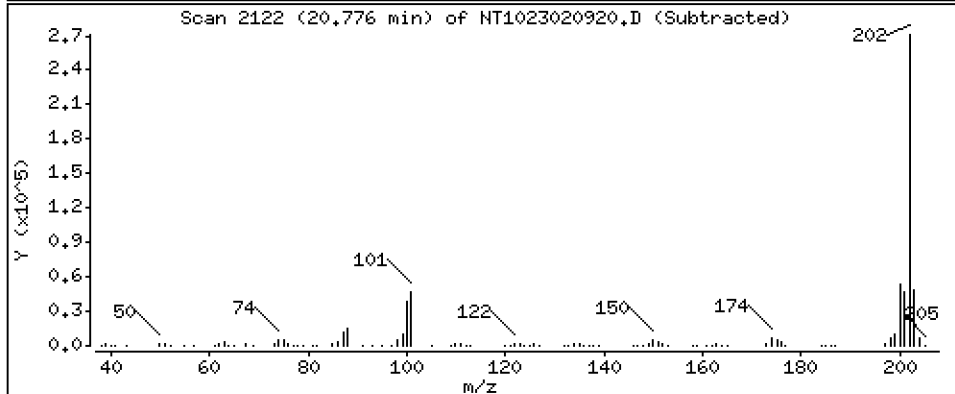
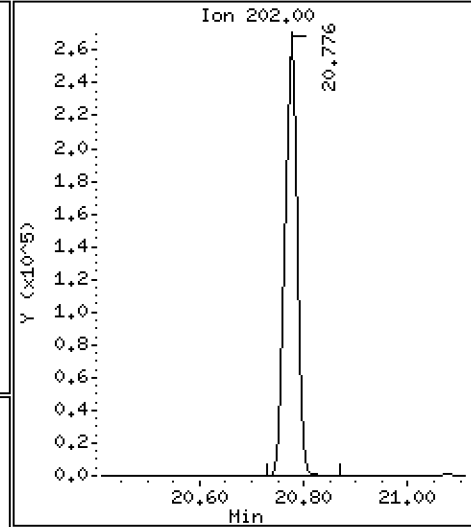
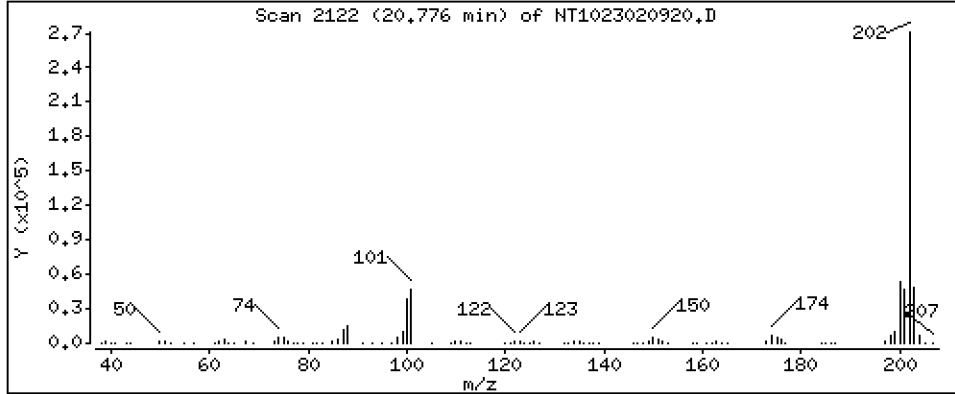
Client ID: Instrument: nt10.i

Sample Info: SLB0122-ICV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

65 Pyrene Concentration: 4,122 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

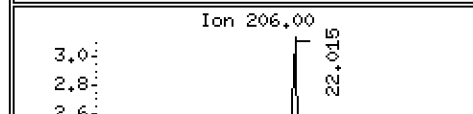
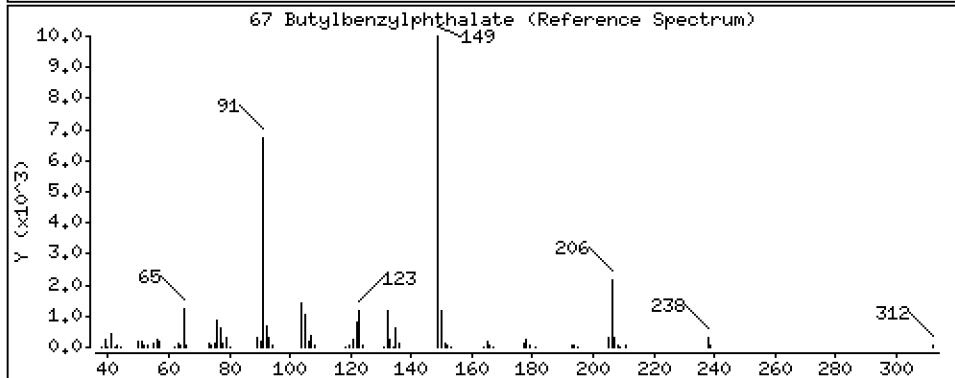
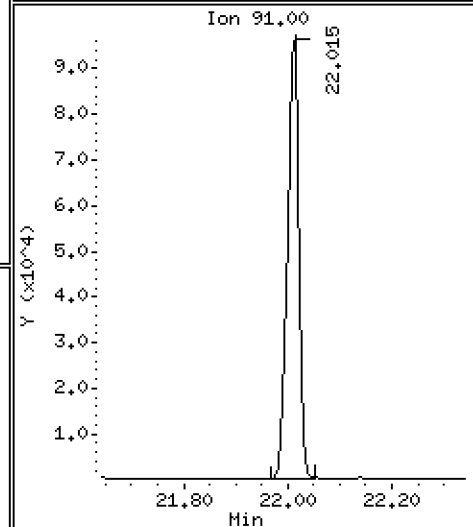
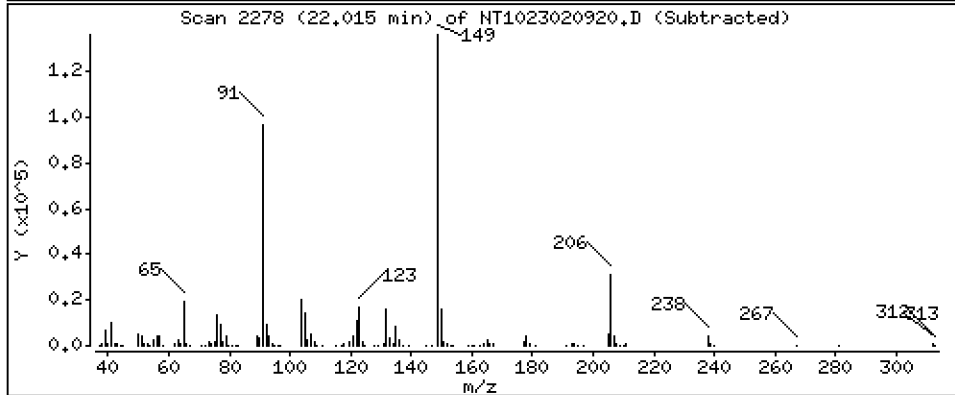
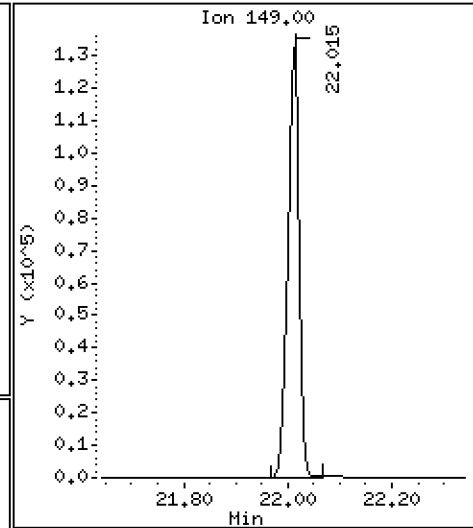
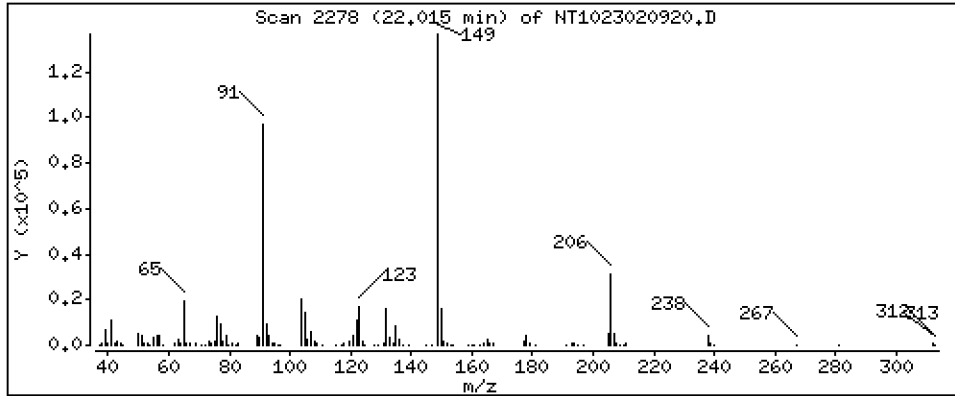
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,443 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

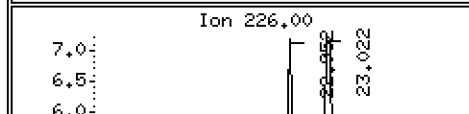
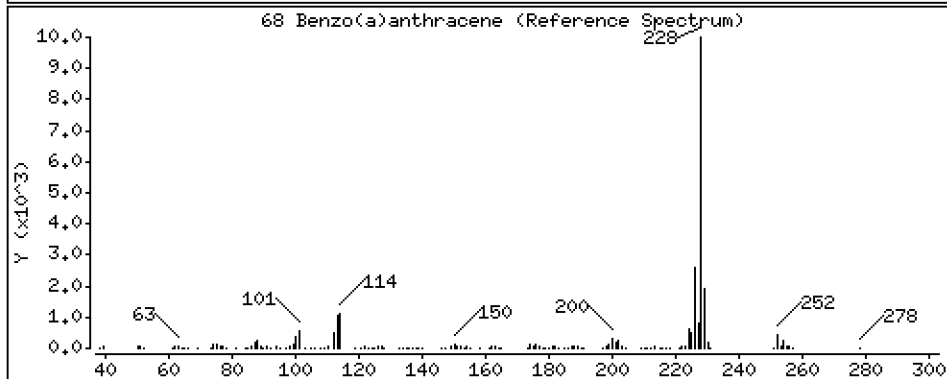
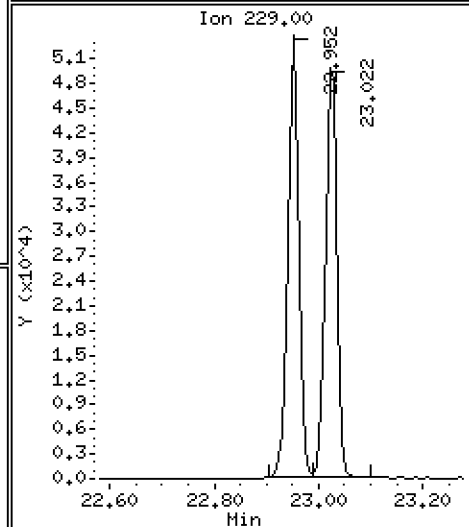
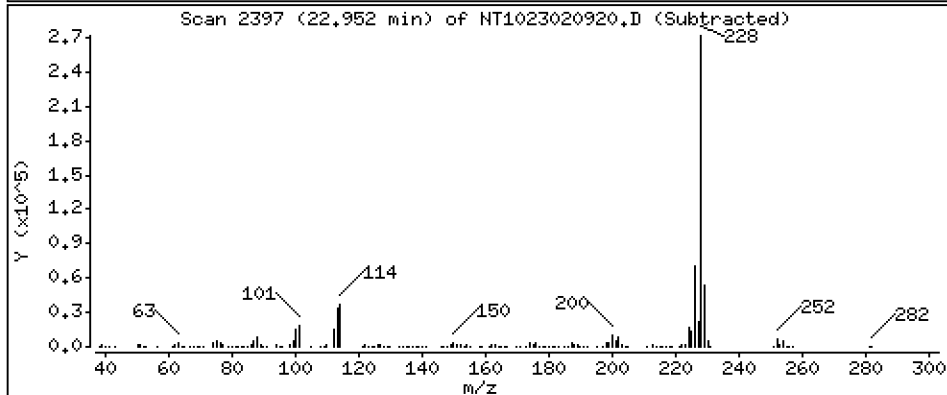
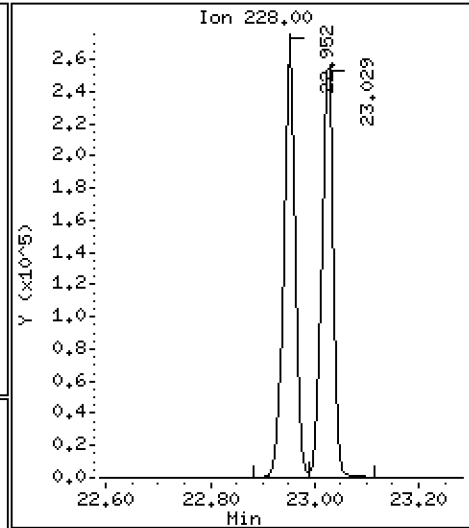
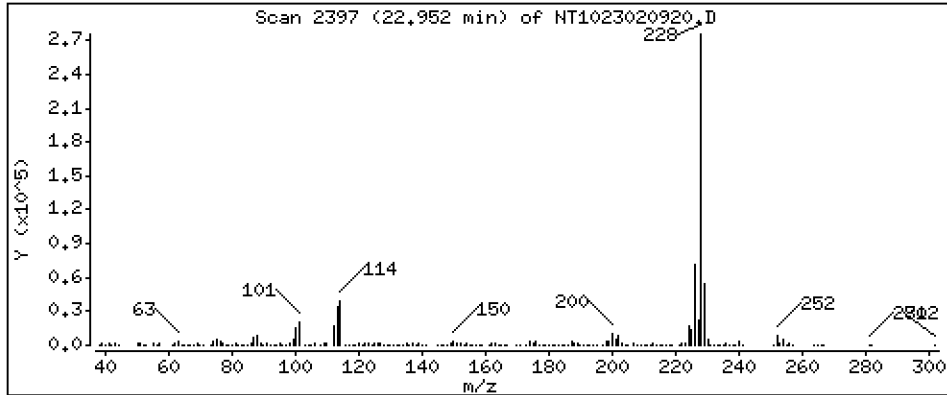
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,598 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

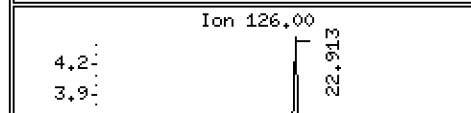
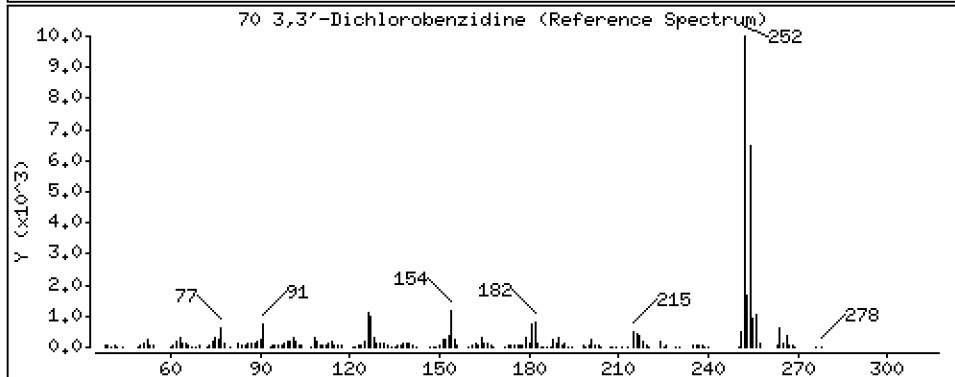
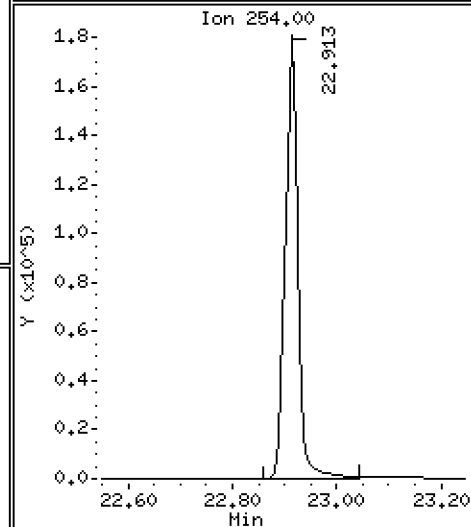
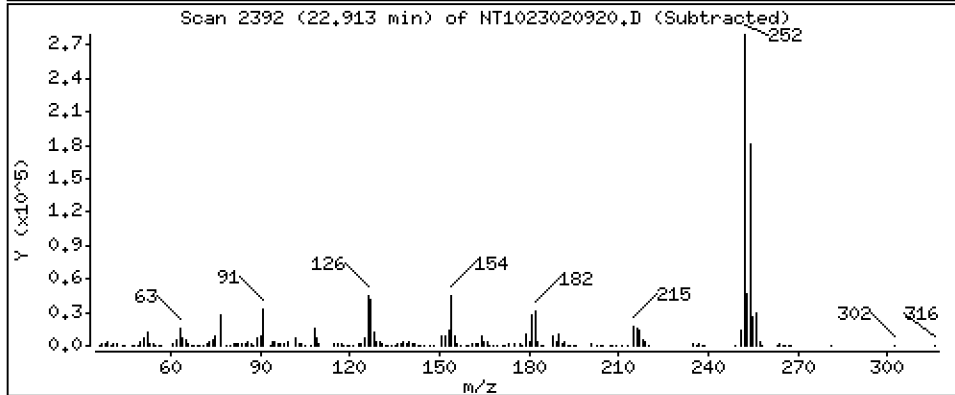
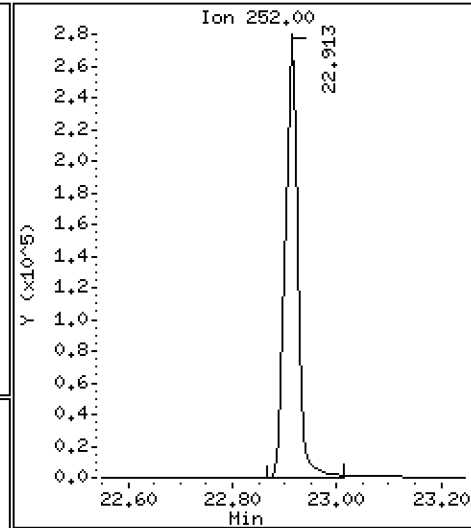
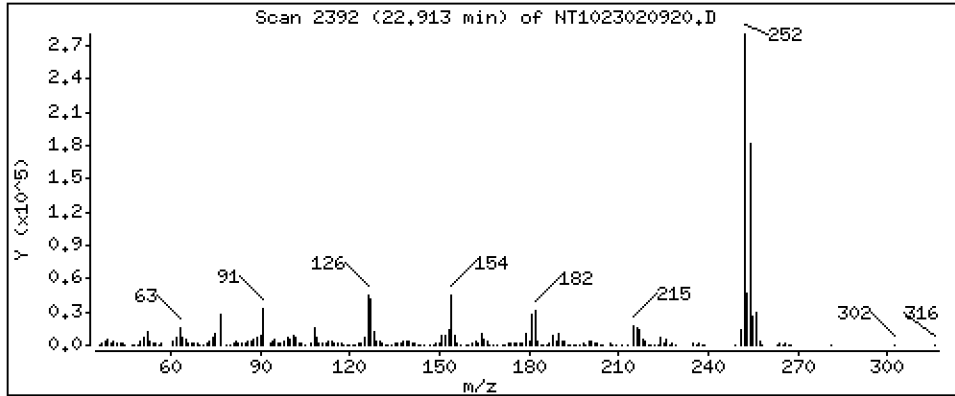
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 14,78 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

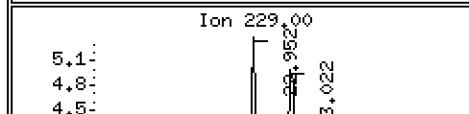
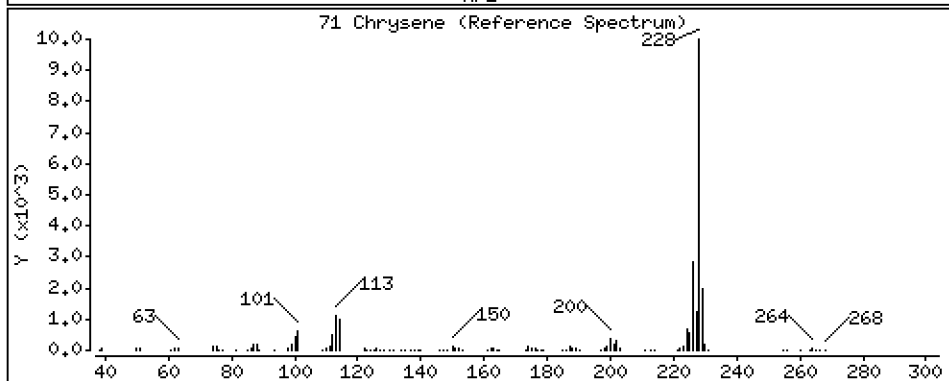
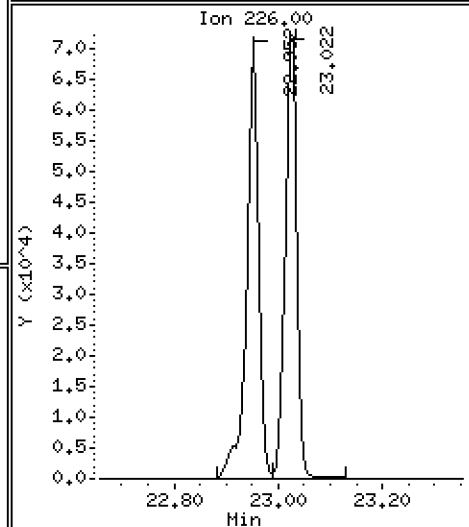
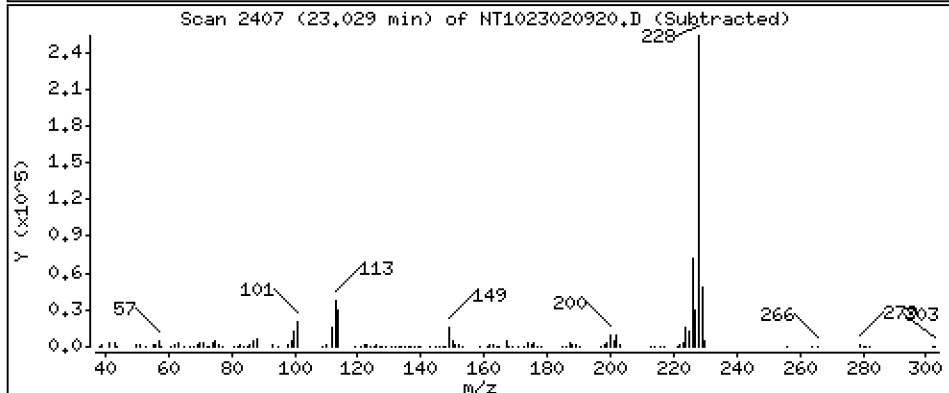
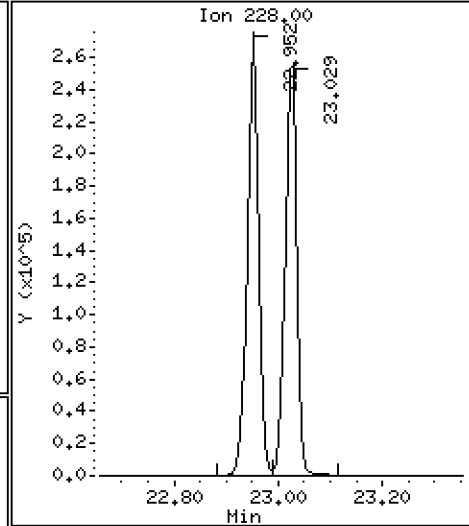
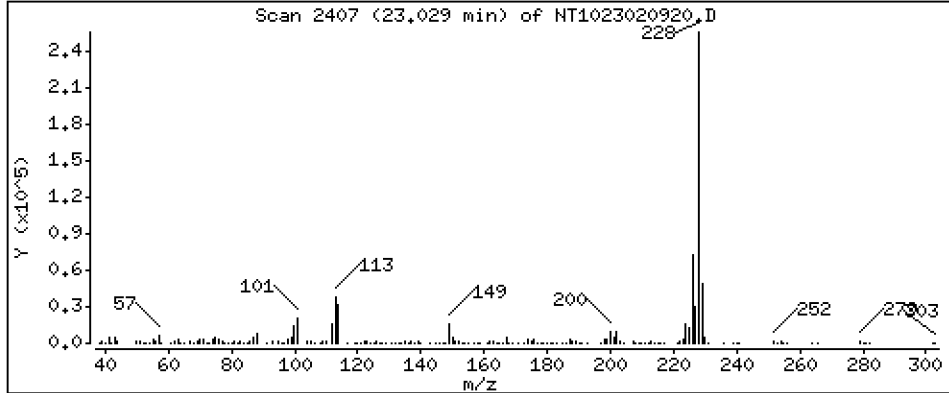
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,522 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

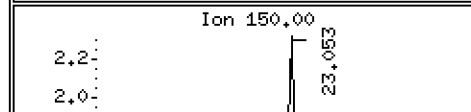
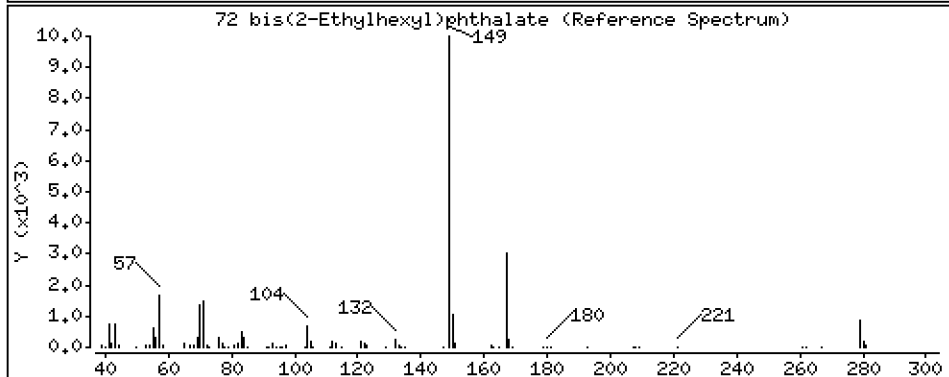
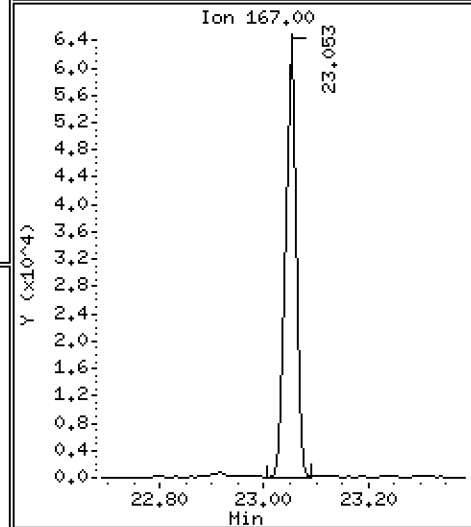
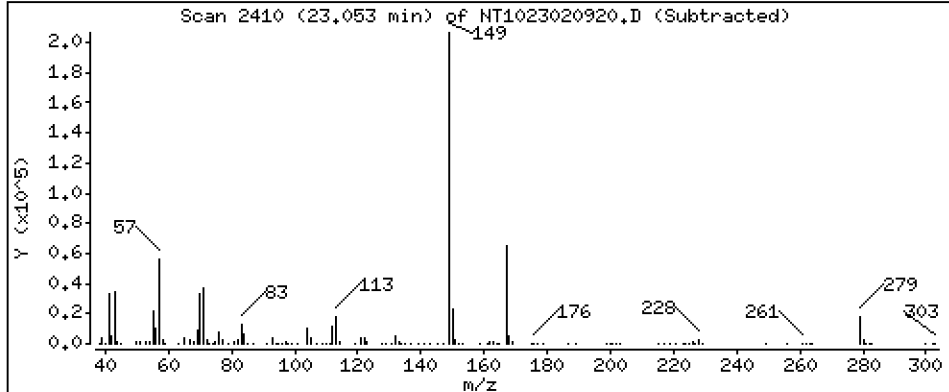
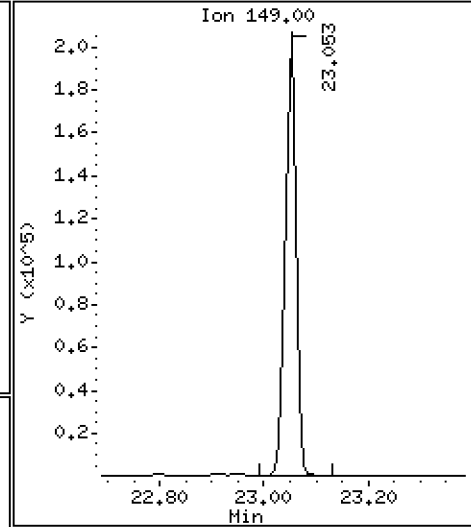
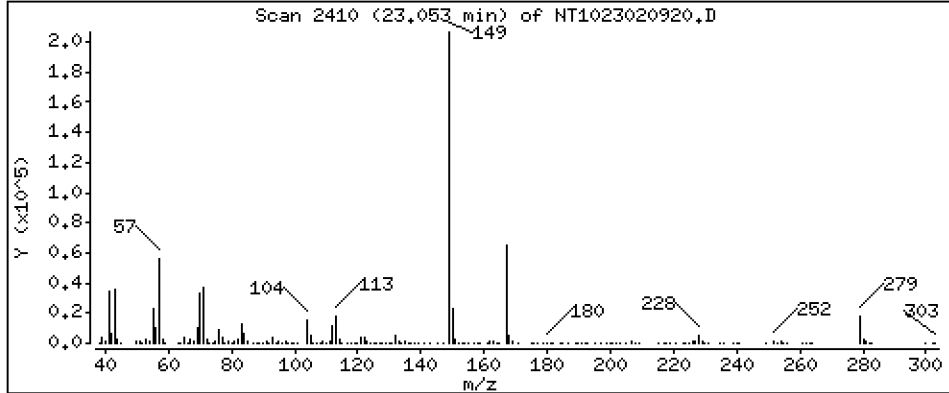
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 4,671 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

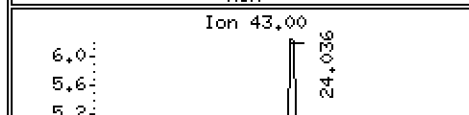
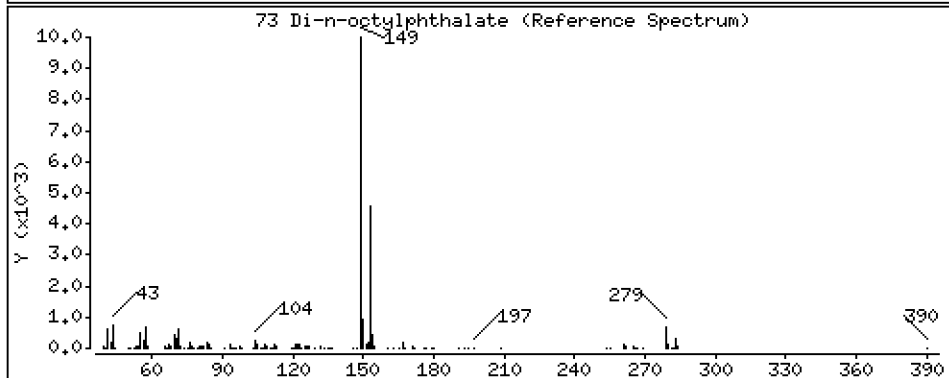
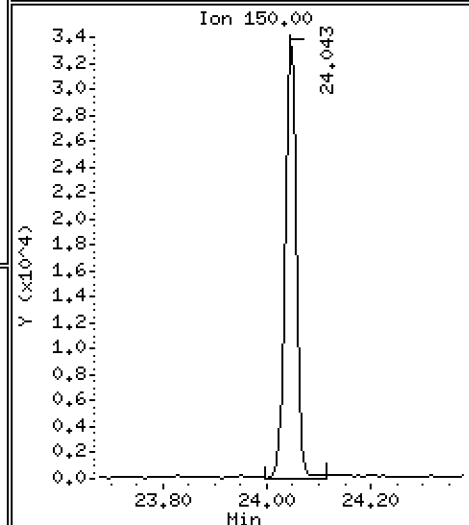
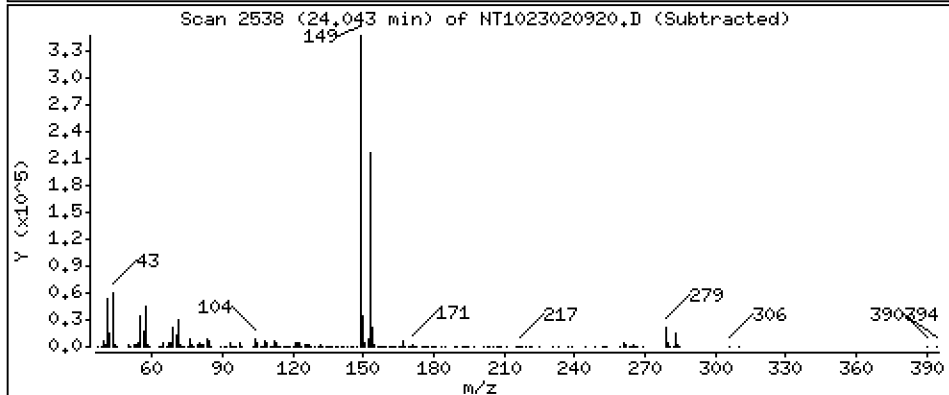
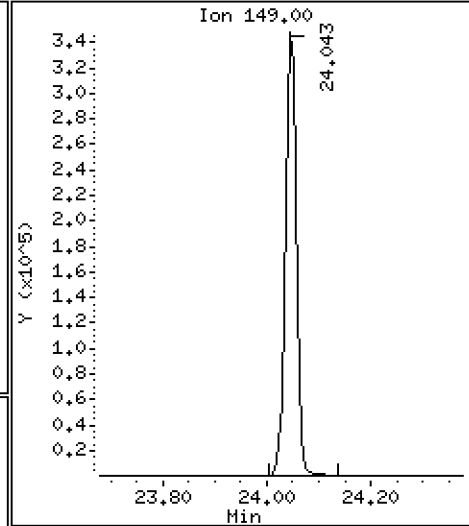
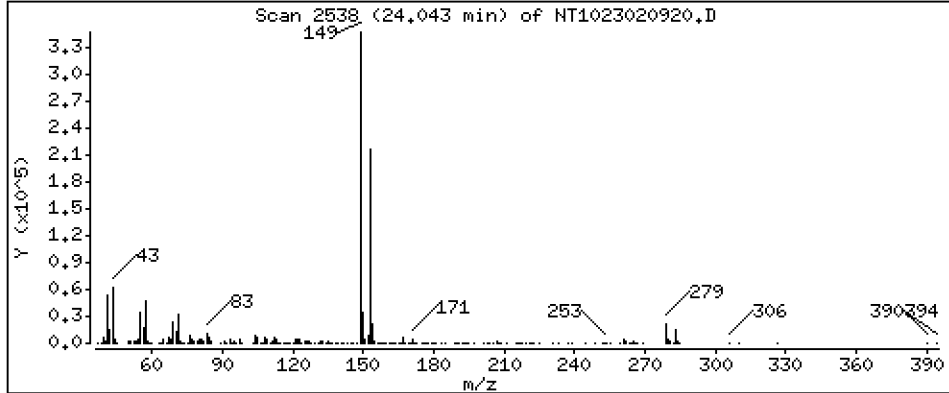
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 4,638 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

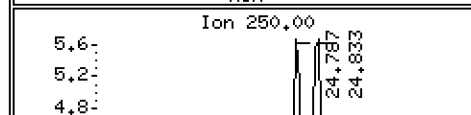
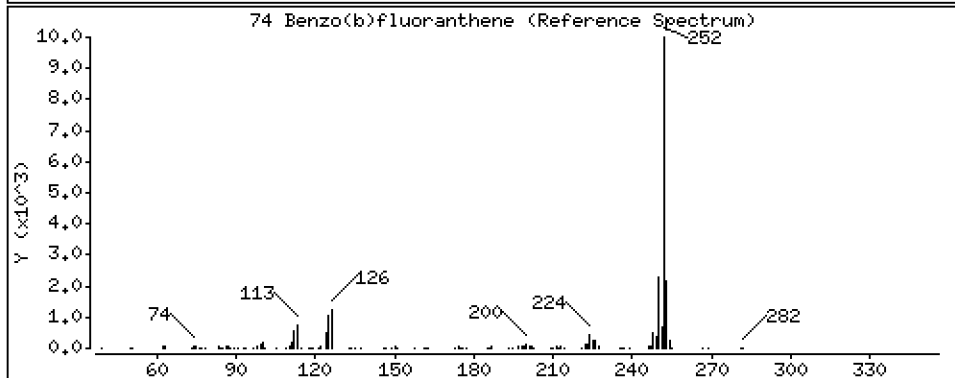
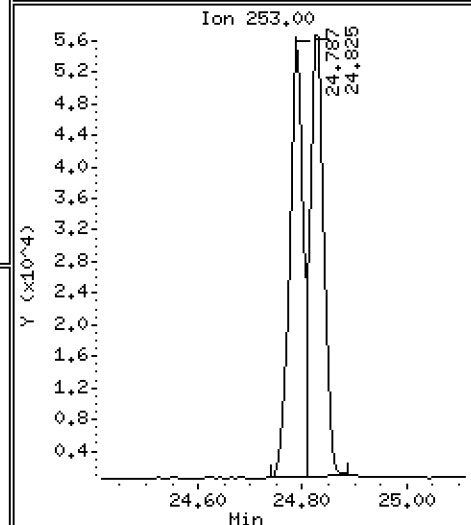
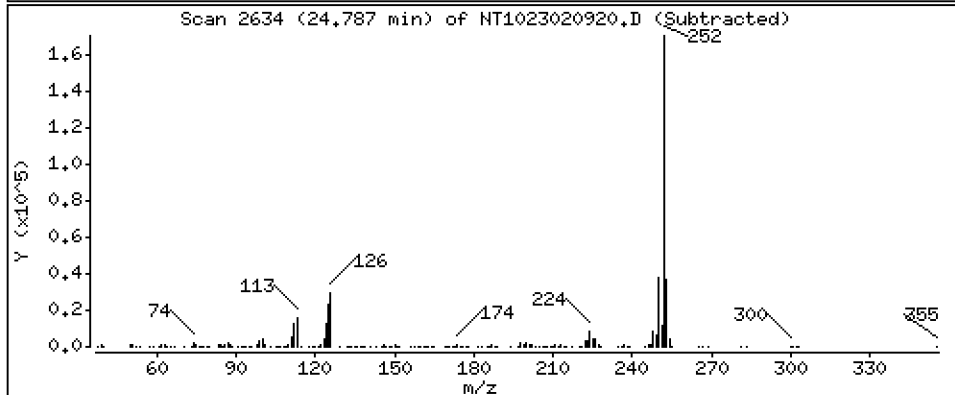
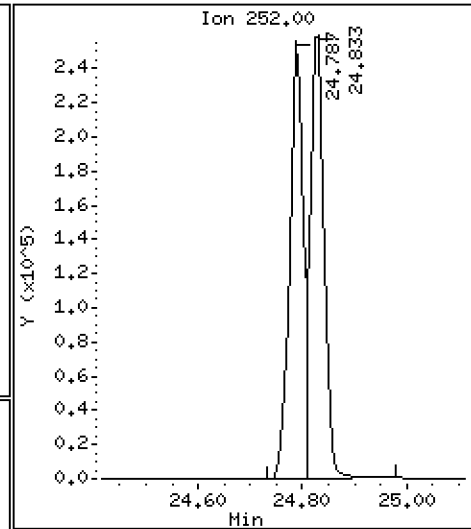
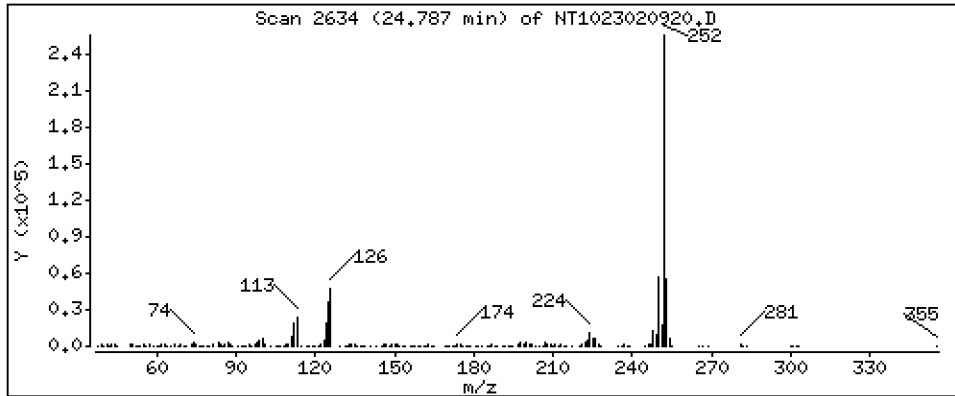
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,897 ug/mL



Date : 10-FEB-2023 01:09

Client ID: Instrument: nt10.i

Sample Info: SLB0122-ICV2

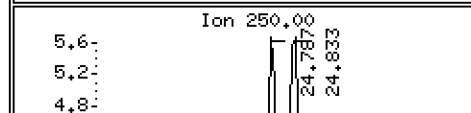
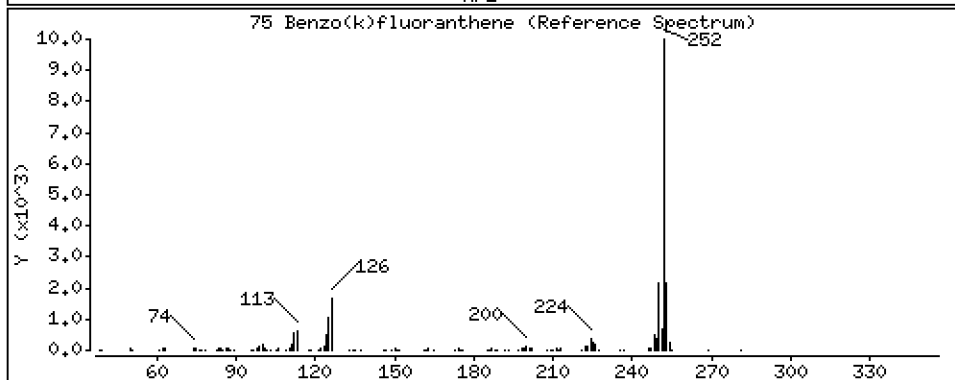
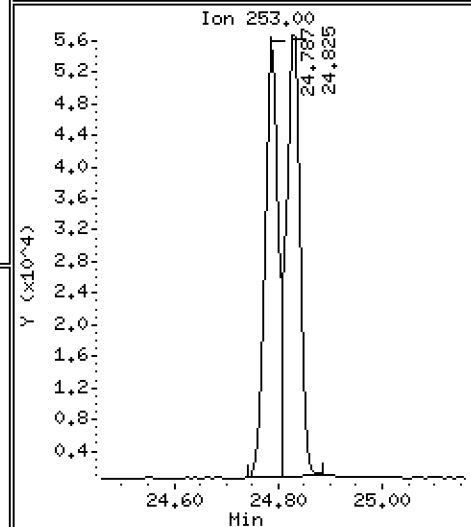
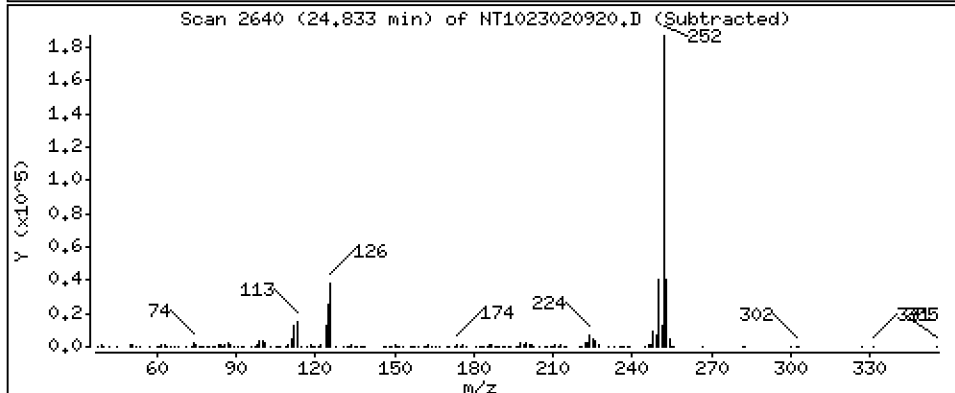
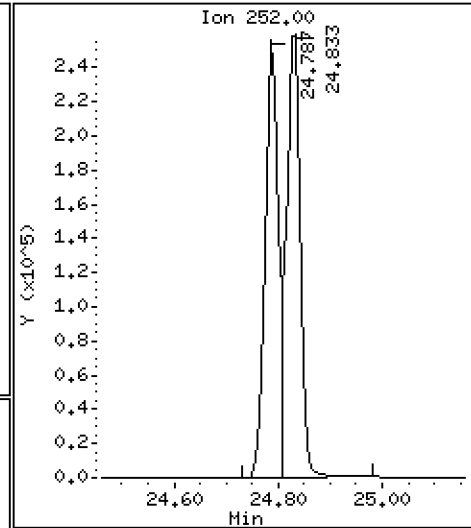
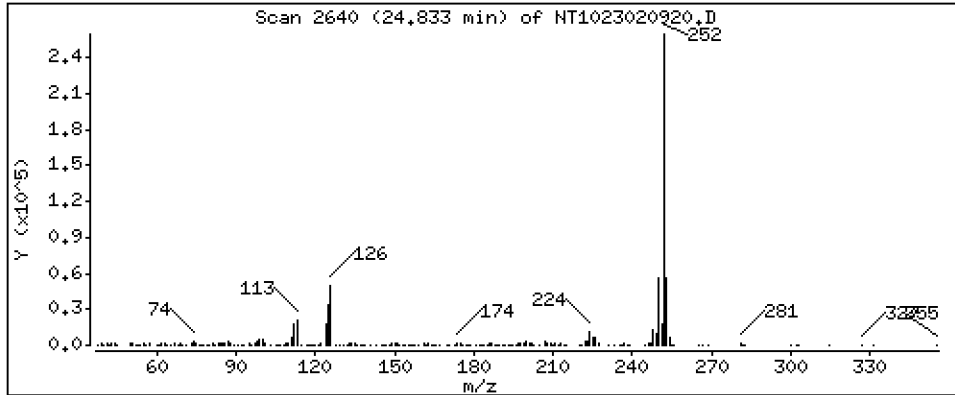
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,683 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

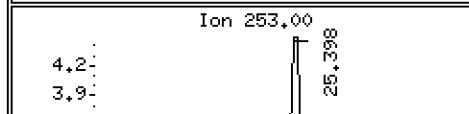
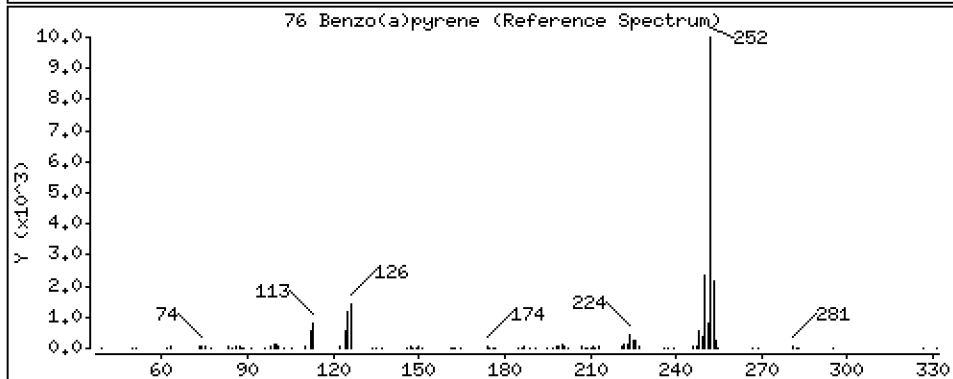
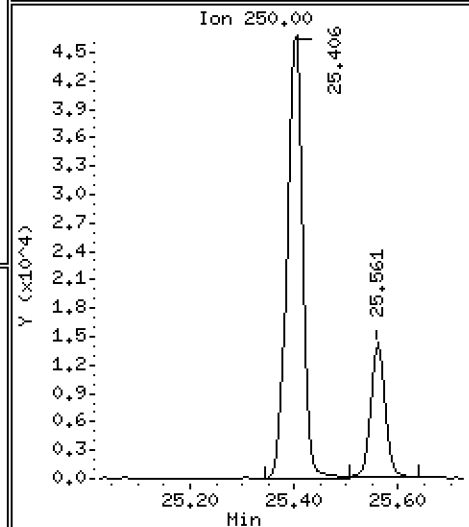
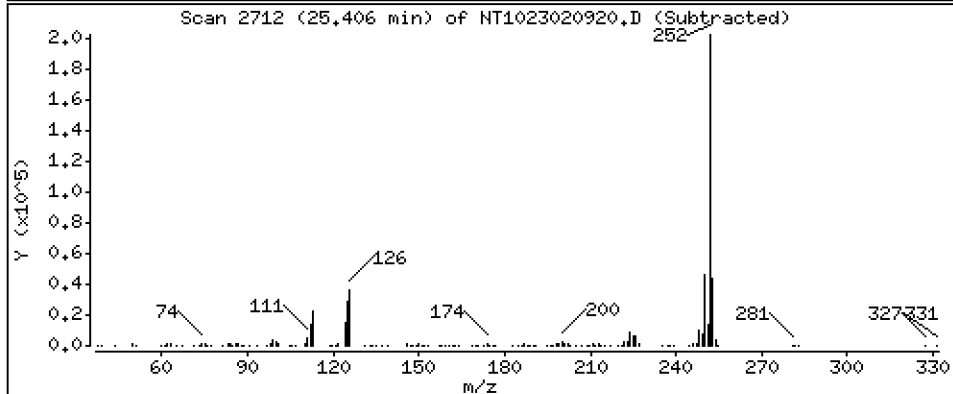
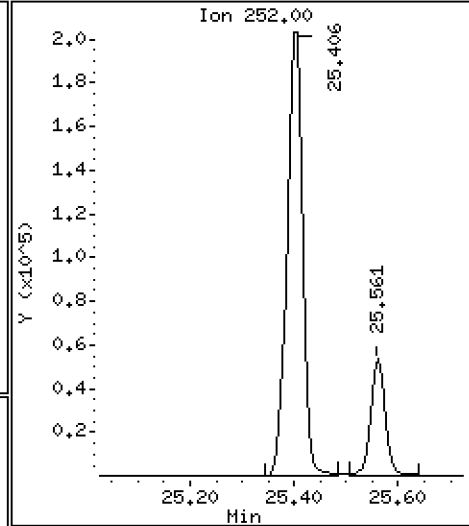
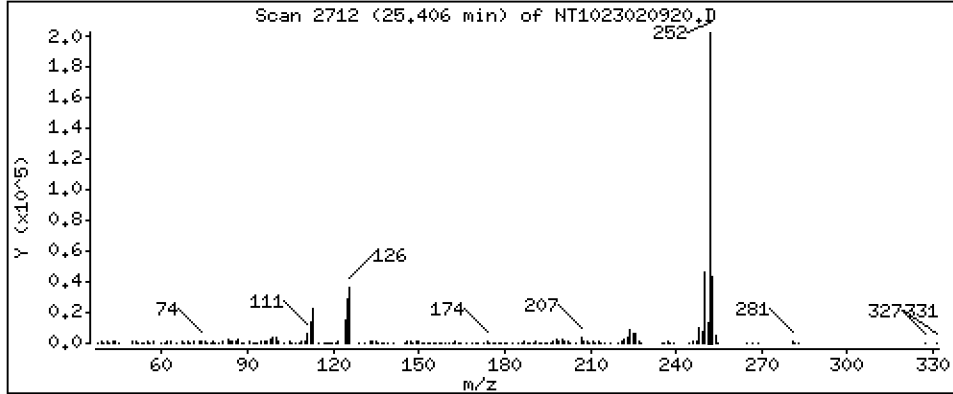
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,819 ug/mL



Date : 10-FEB-2023 01:09

Client ID: Instrument: nt10.i

Sample Info: SLB0122-ICV2

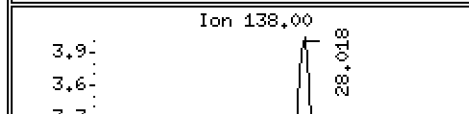
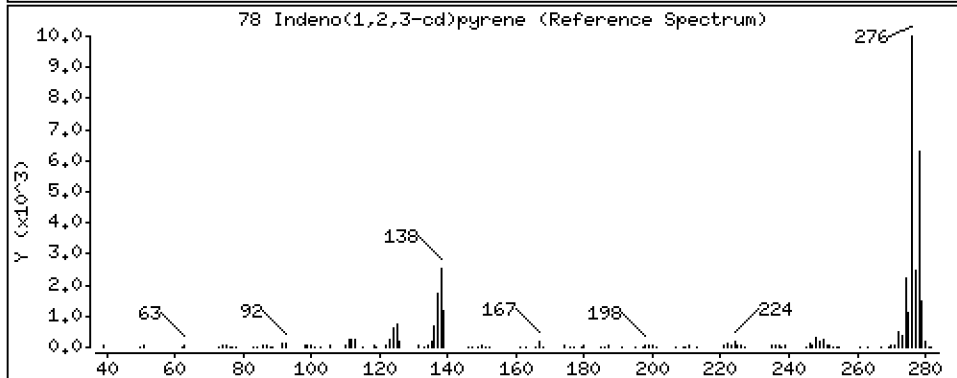
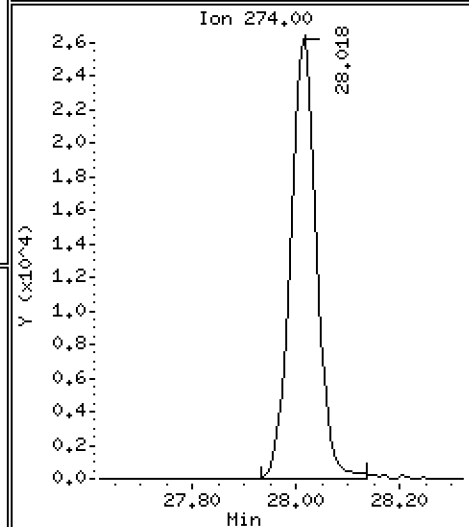
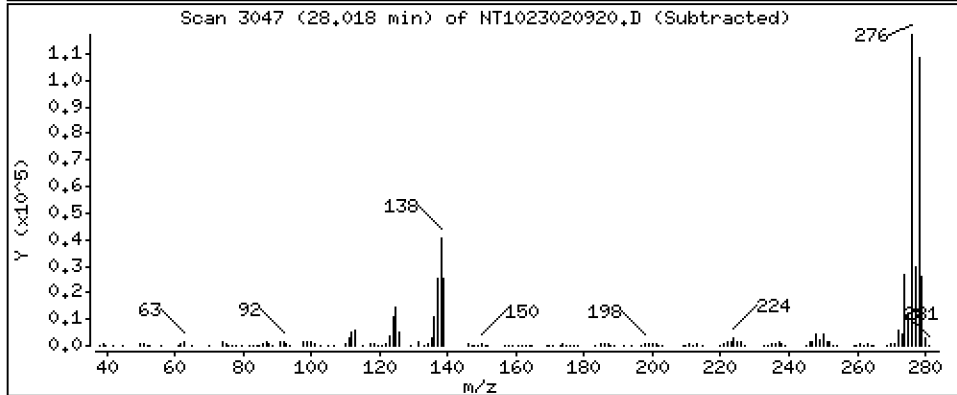
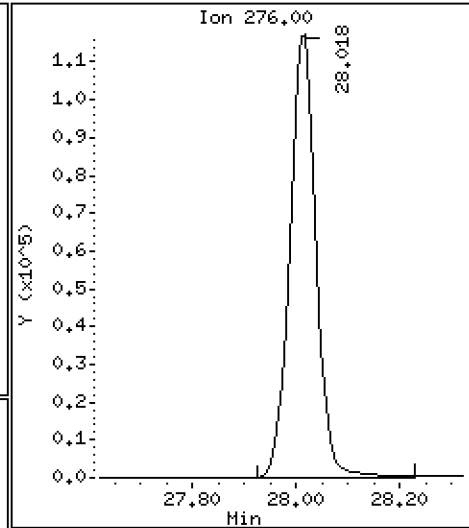
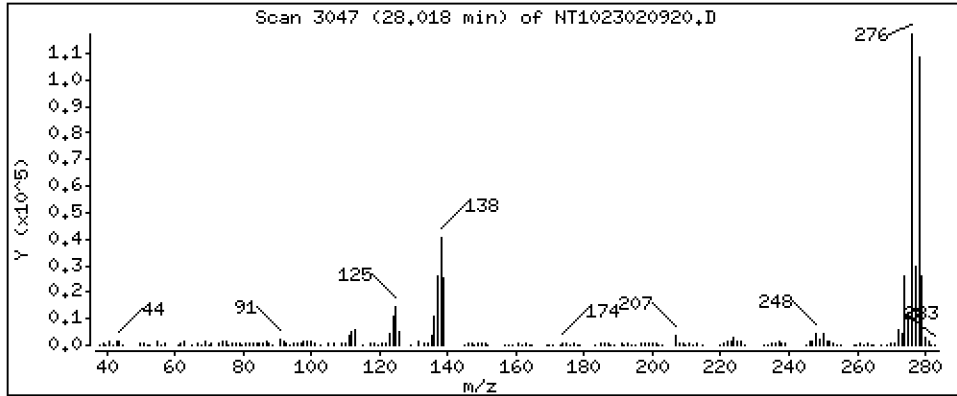
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 3,943 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

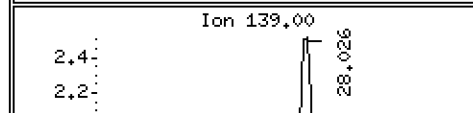
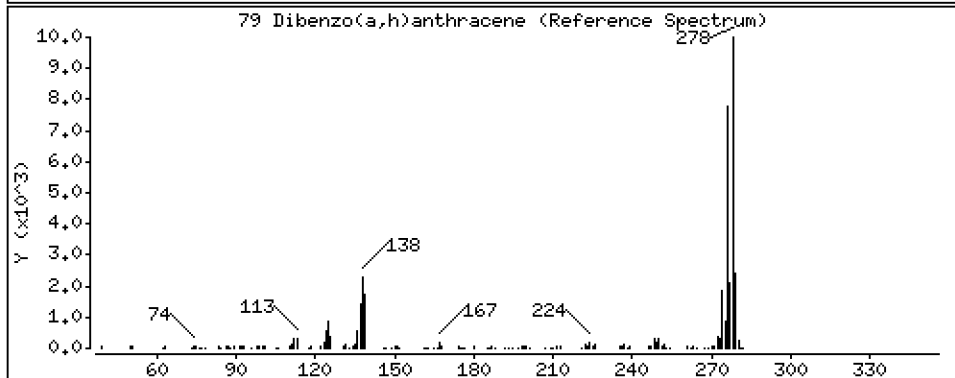
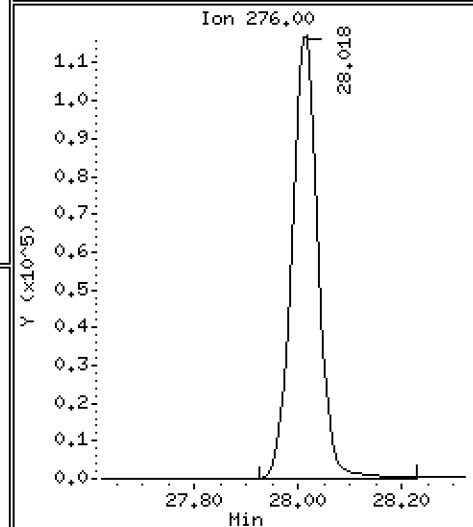
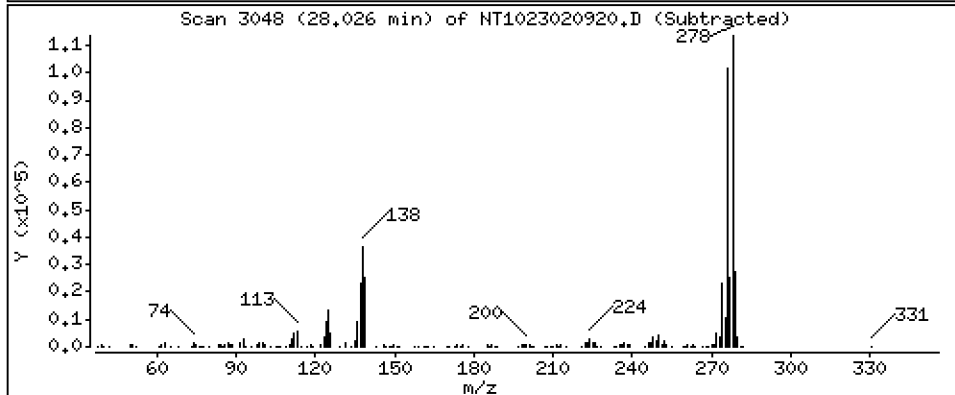
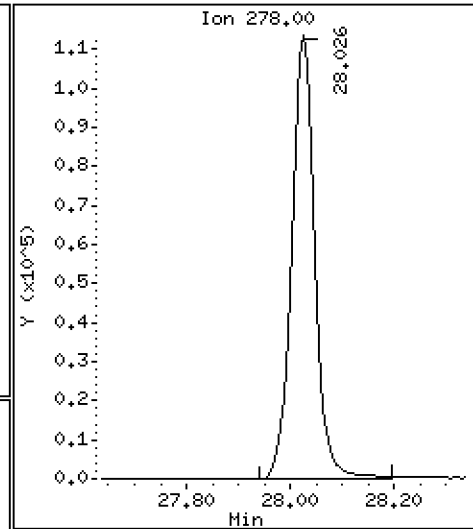
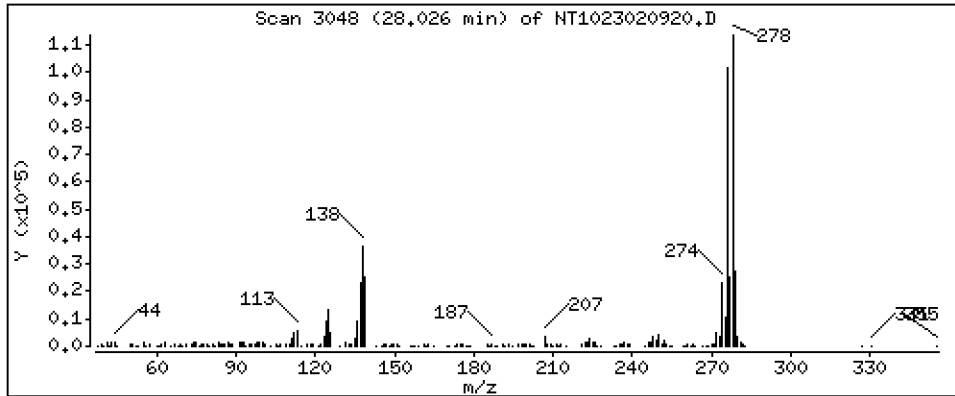
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,079 ug/mL



Date : 10-FEB-2023 01:09

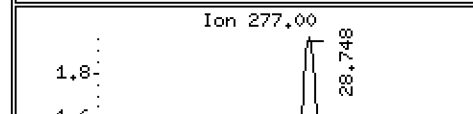
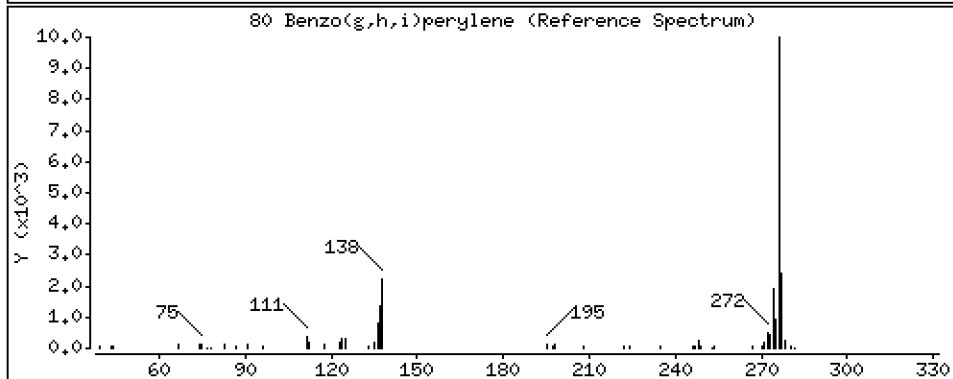
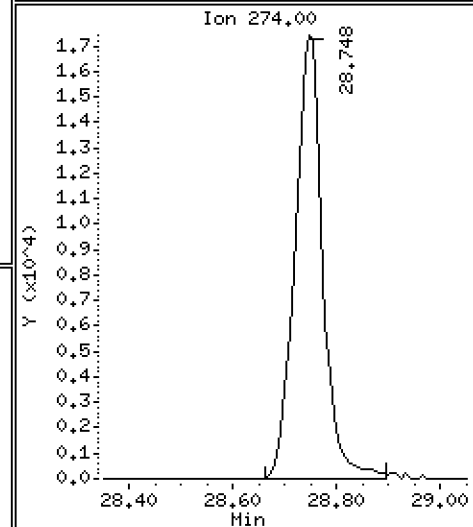
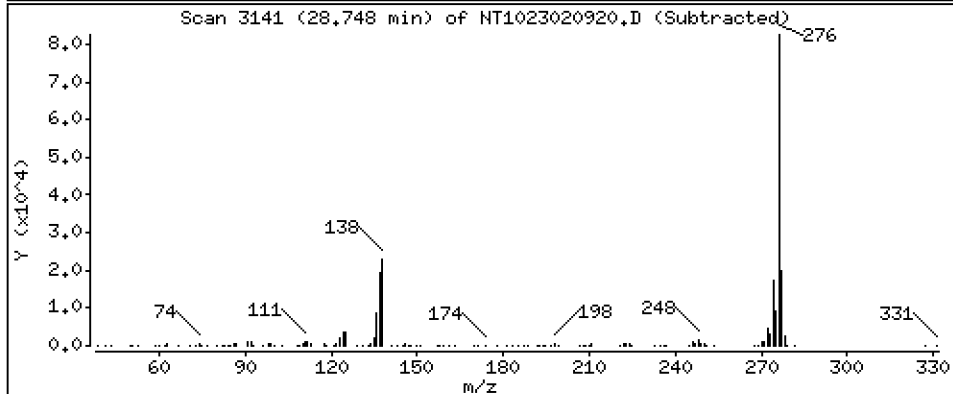
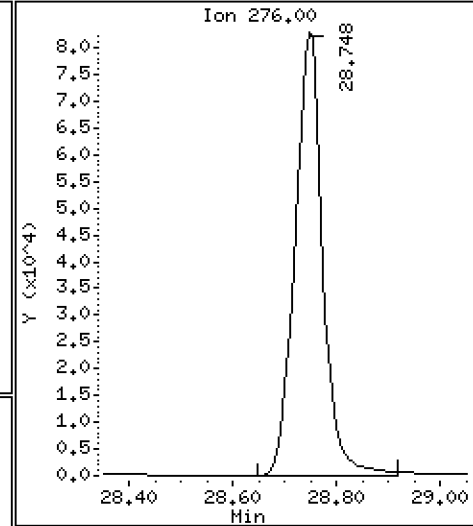
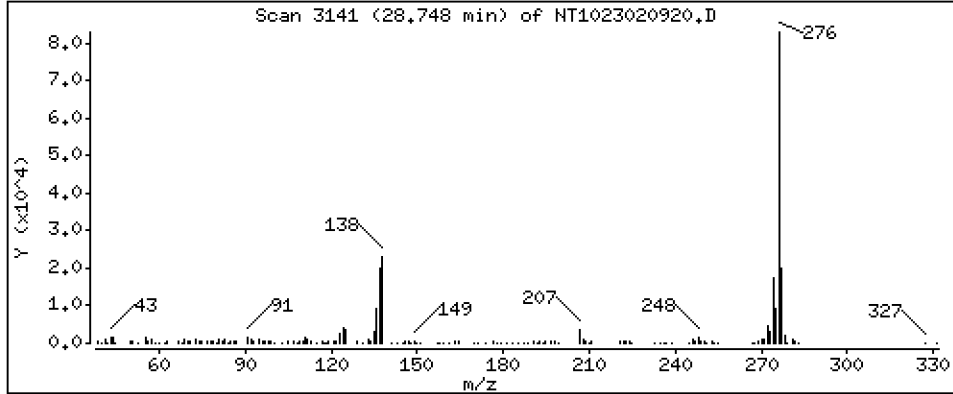
Client ID: Instrument: nt10.i

Sample Info: SLB0122-ICV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

80 Benzo(g,h,i)perylene Concentration: 3,403 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

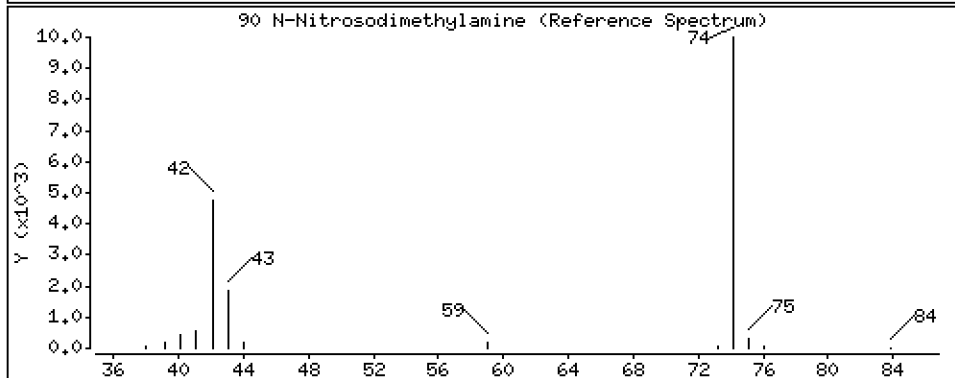
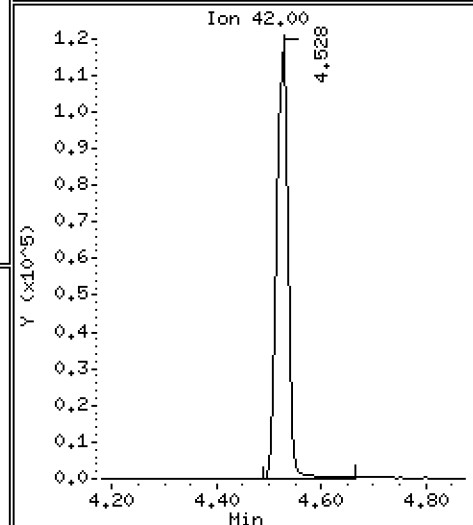
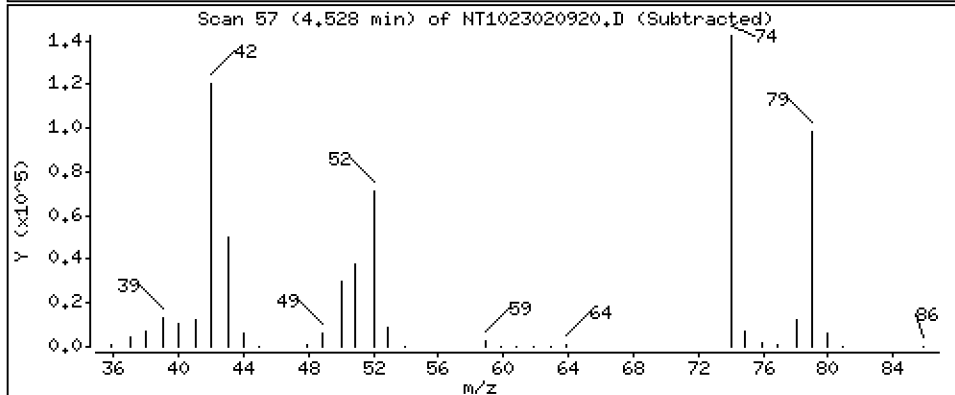
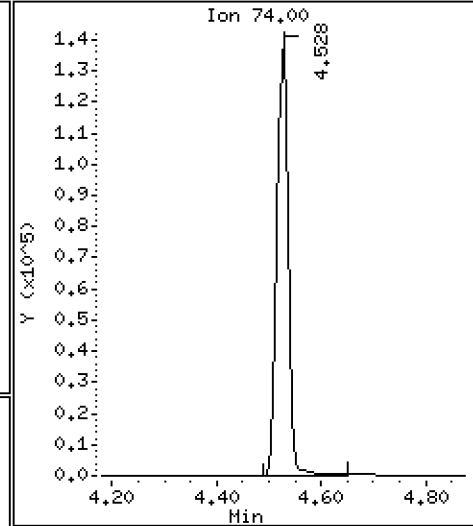
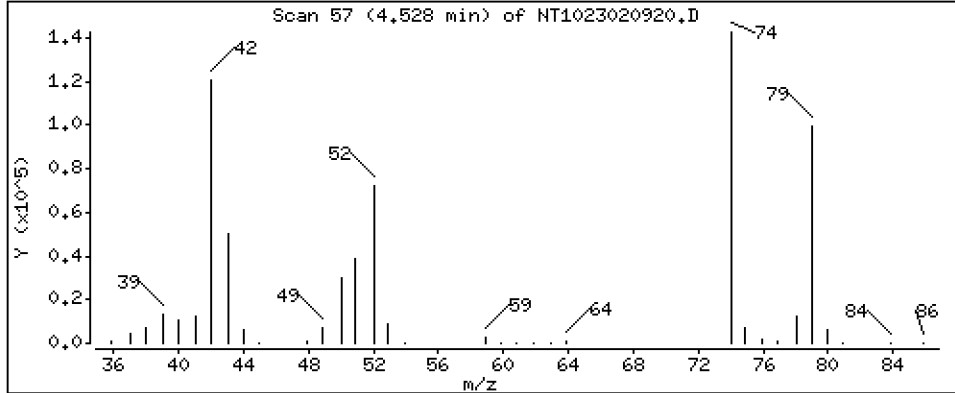
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 9,437 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

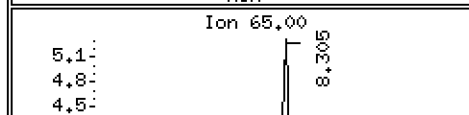
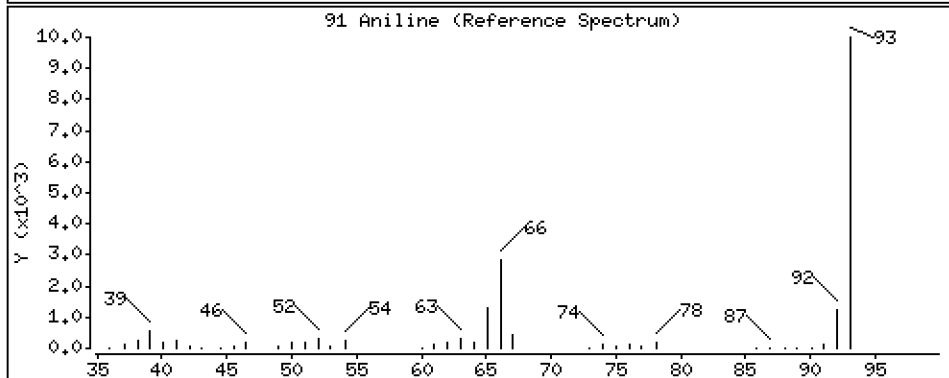
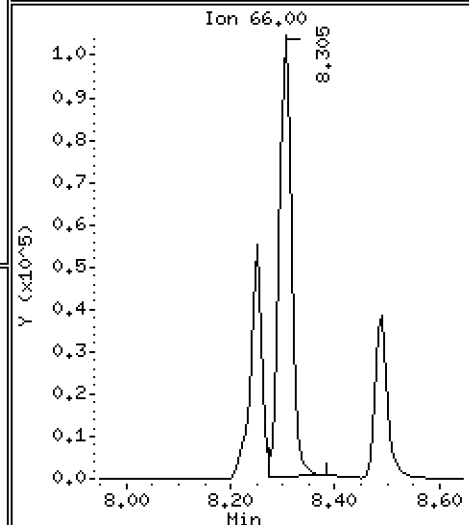
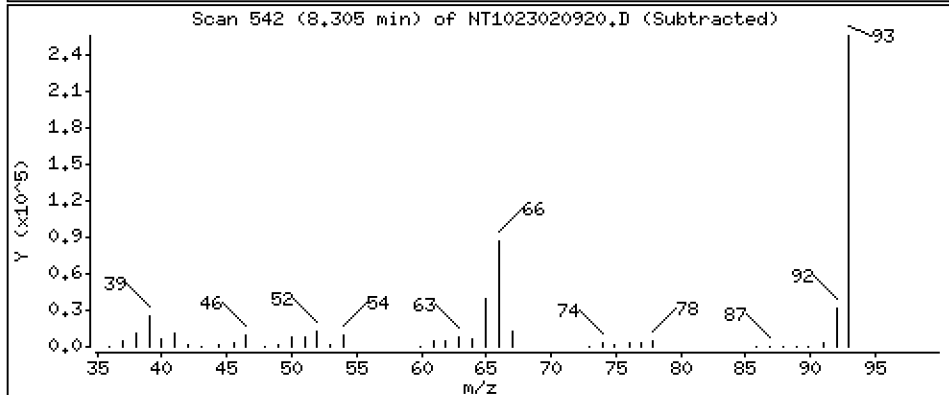
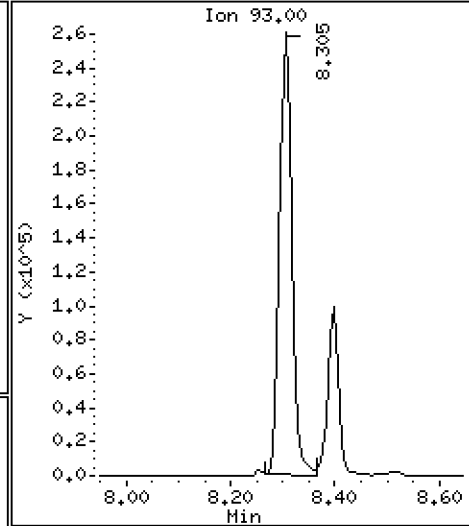
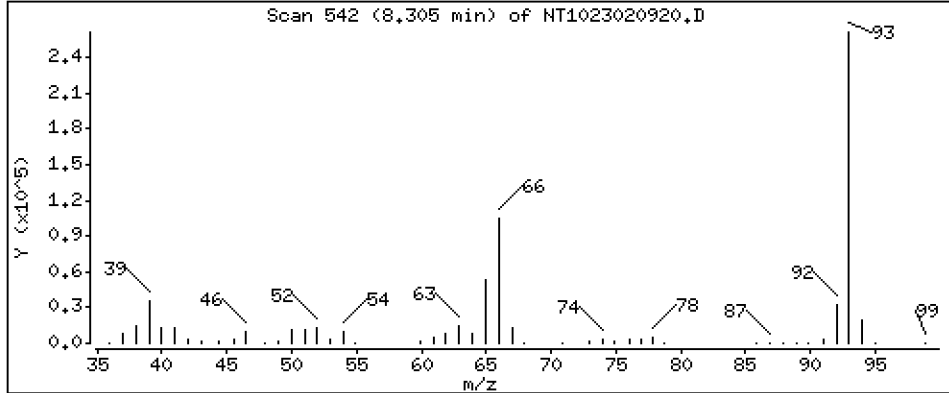
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 9,544 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

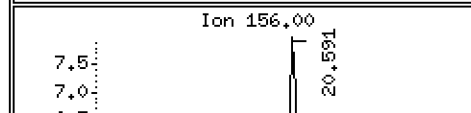
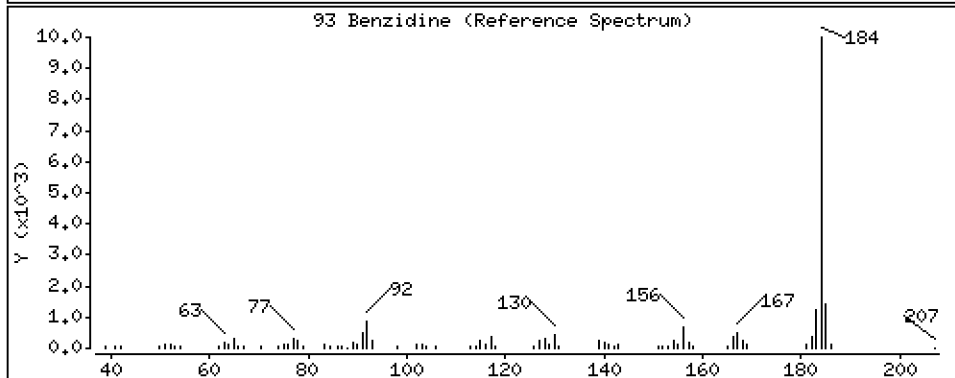
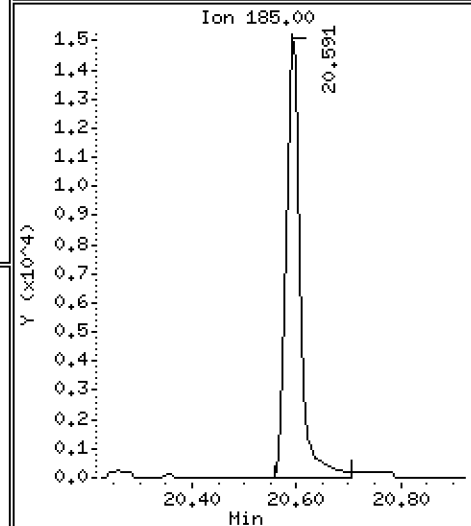
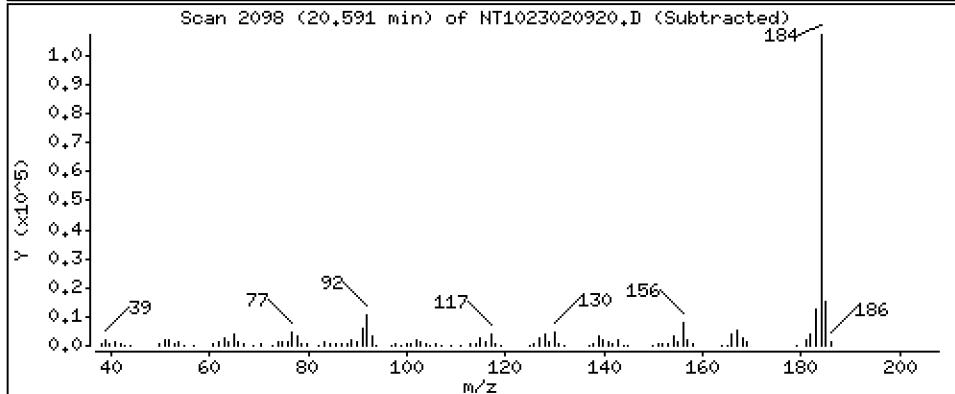
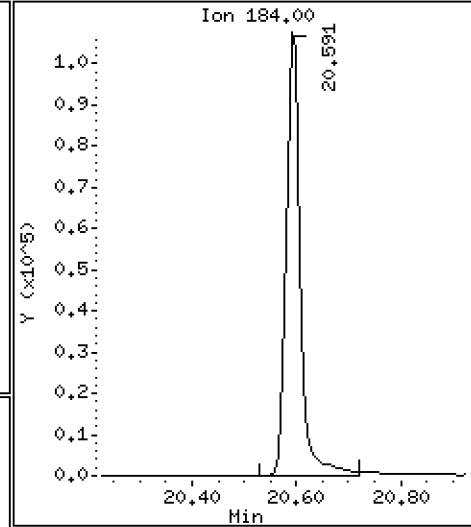
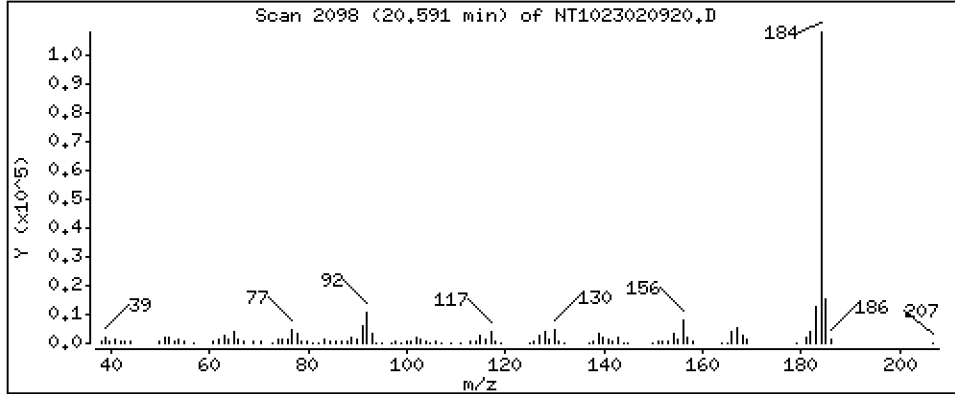
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 6,213 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

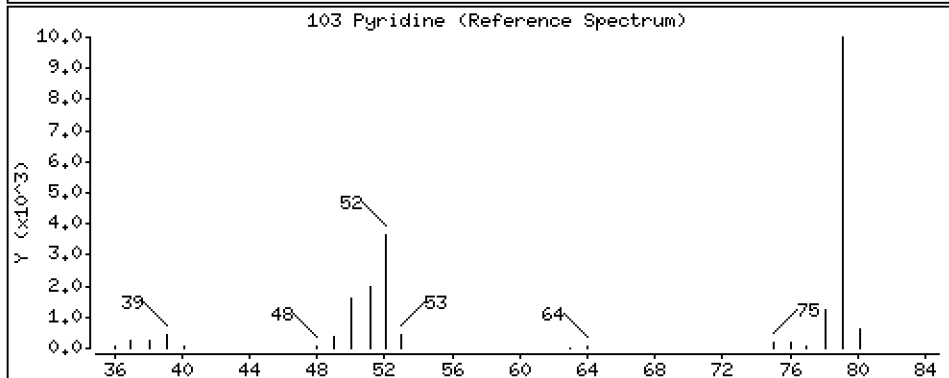
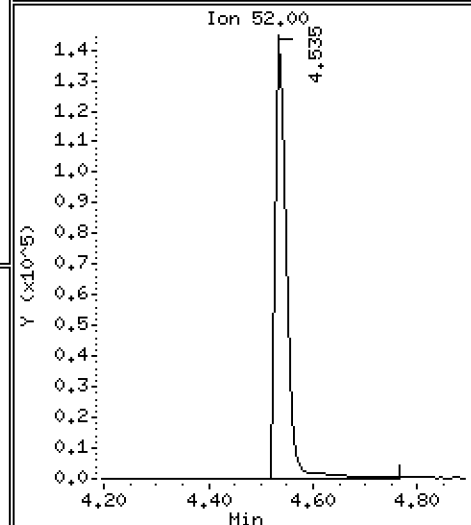
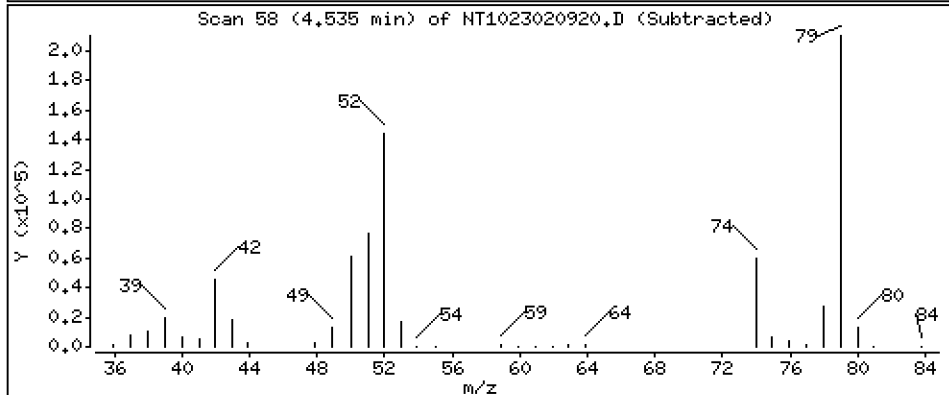
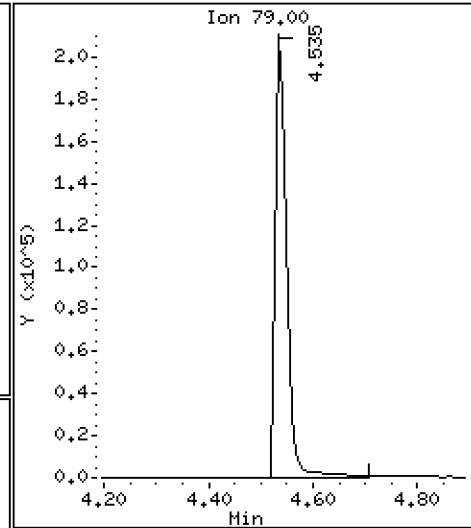
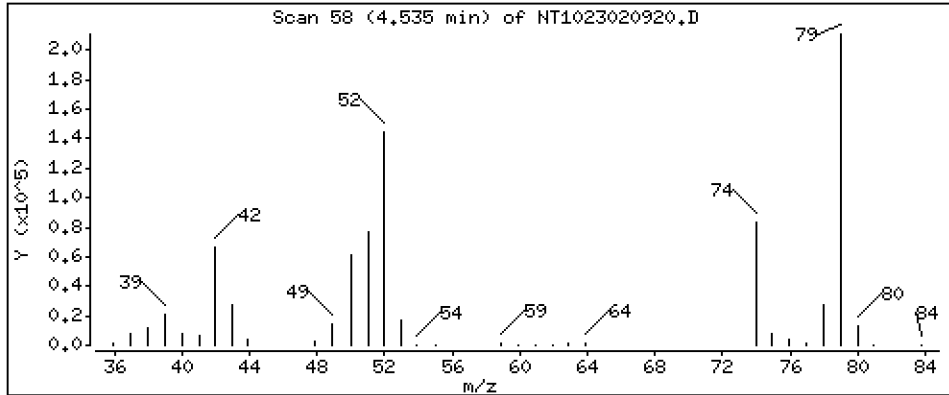
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 9,440 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

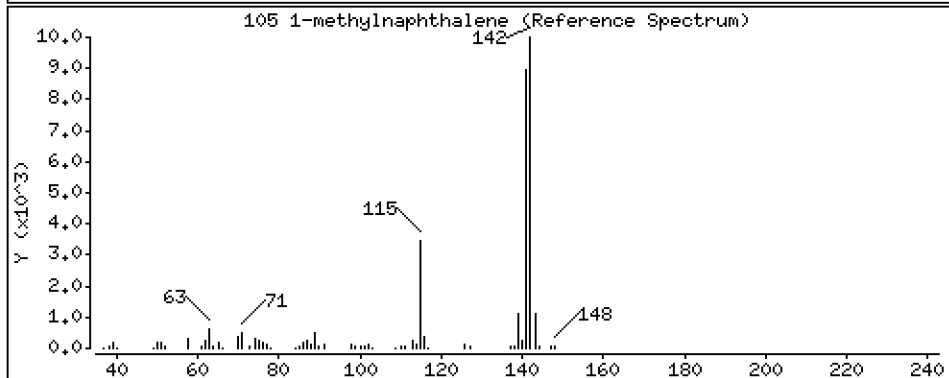
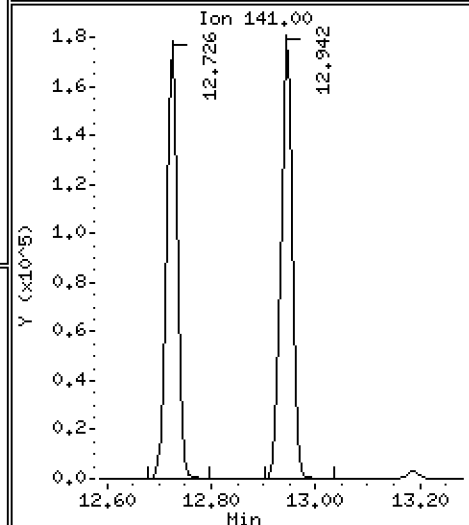
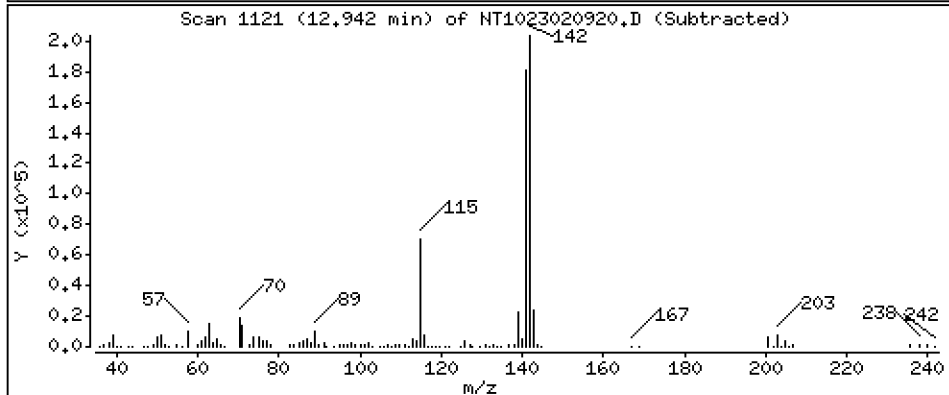
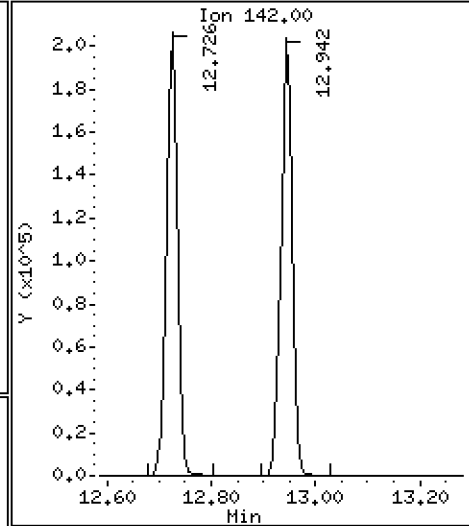
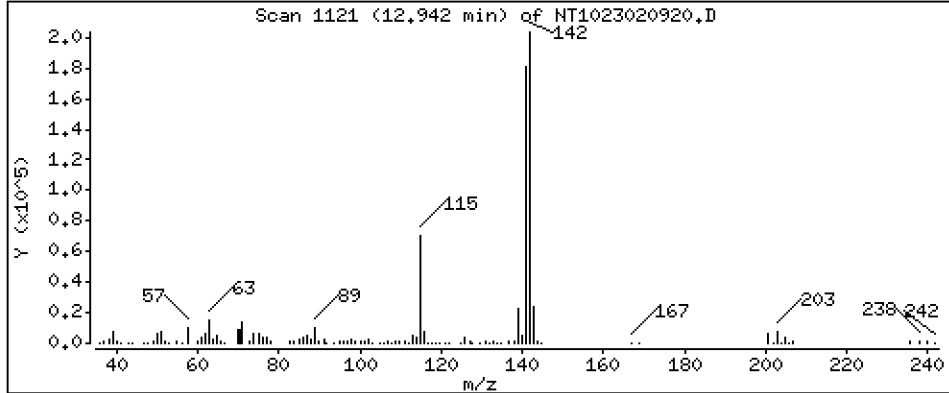
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 4,746 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

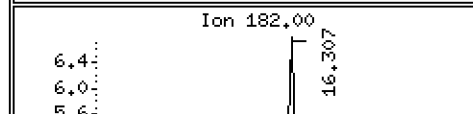
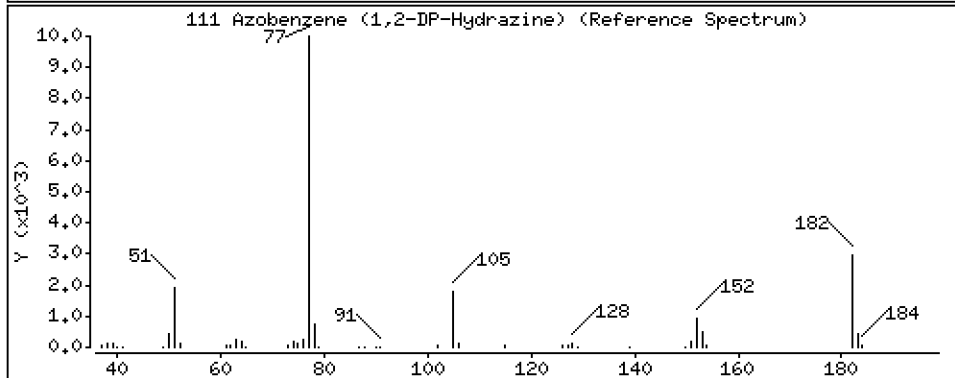
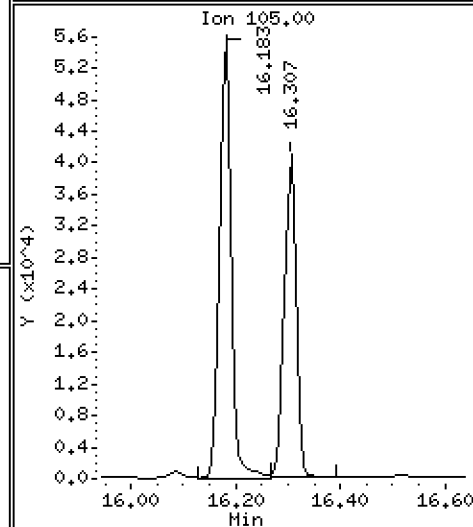
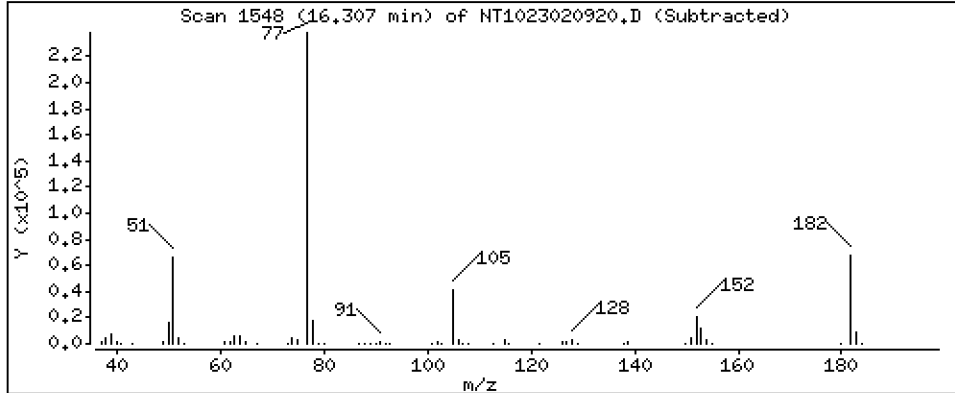
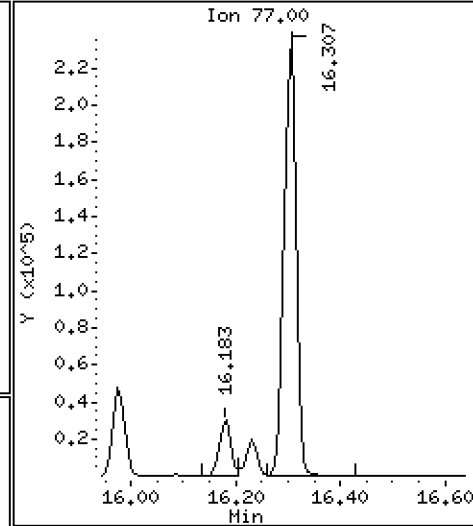
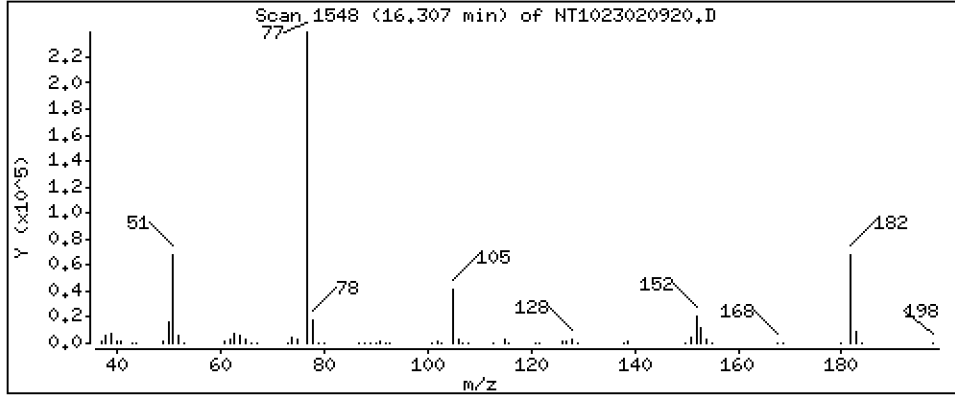
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 4,555 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

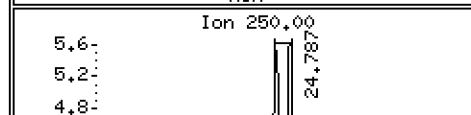
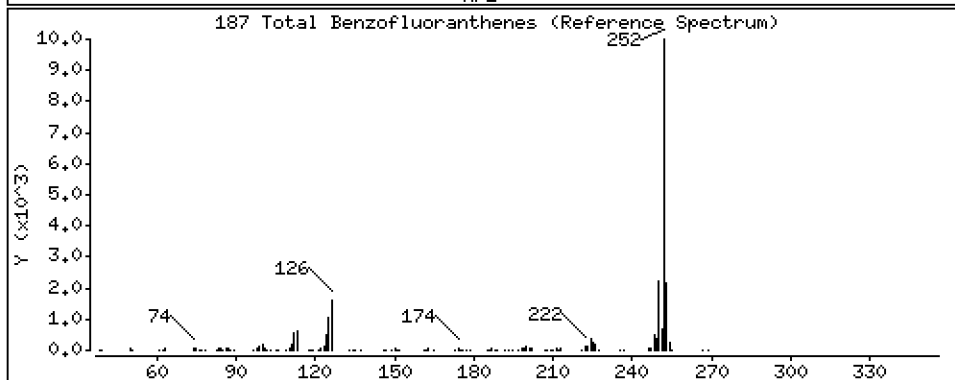
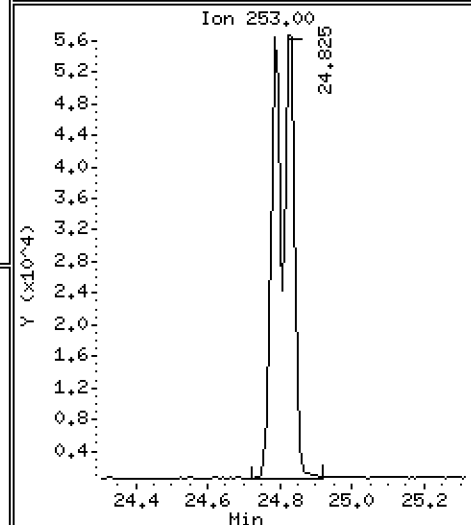
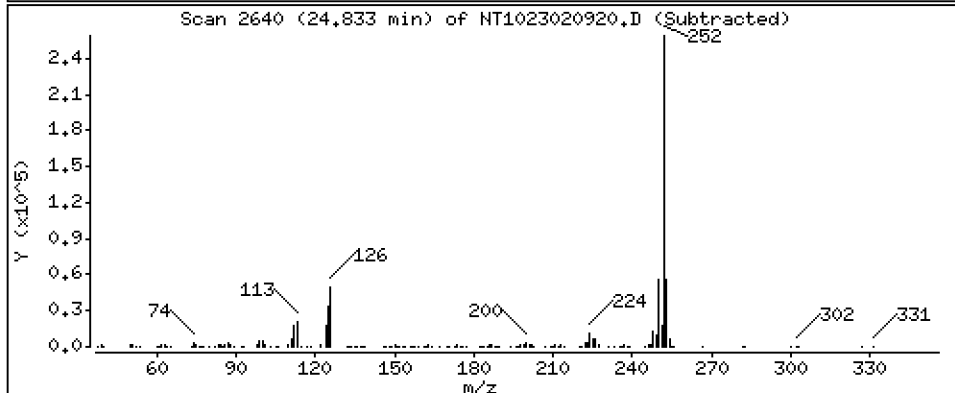
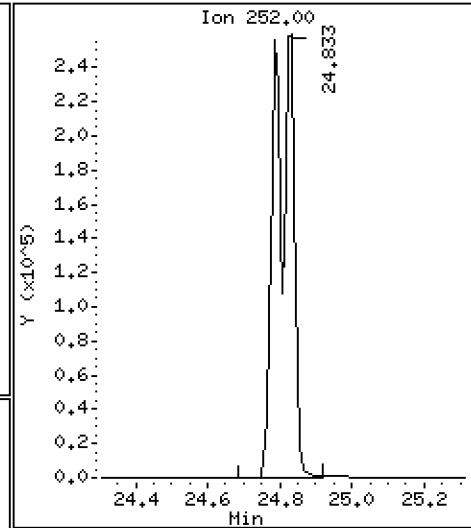
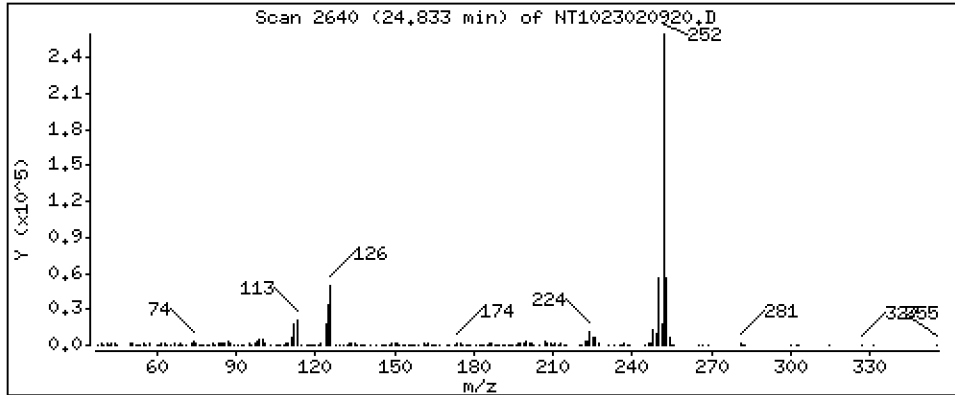
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 9,503 ug/mL



Date : 10-FEB-2023 01:09

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-ICV2

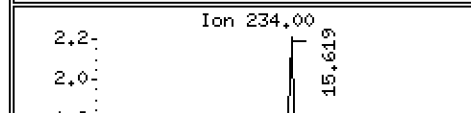
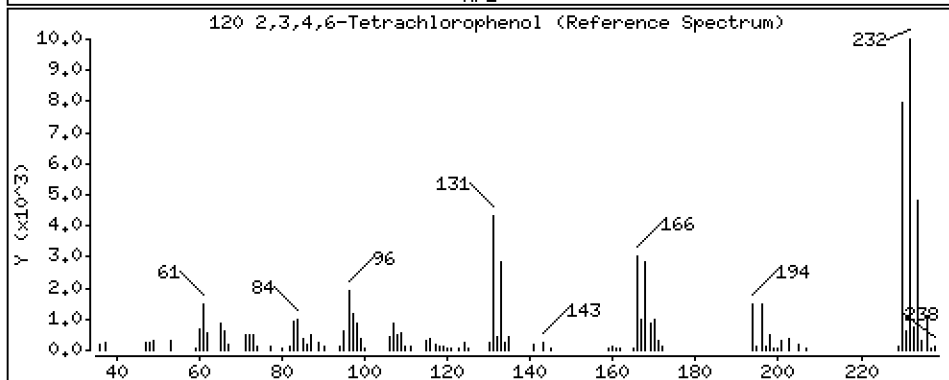
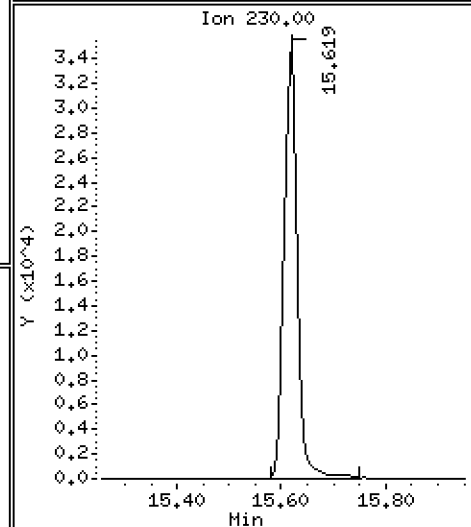
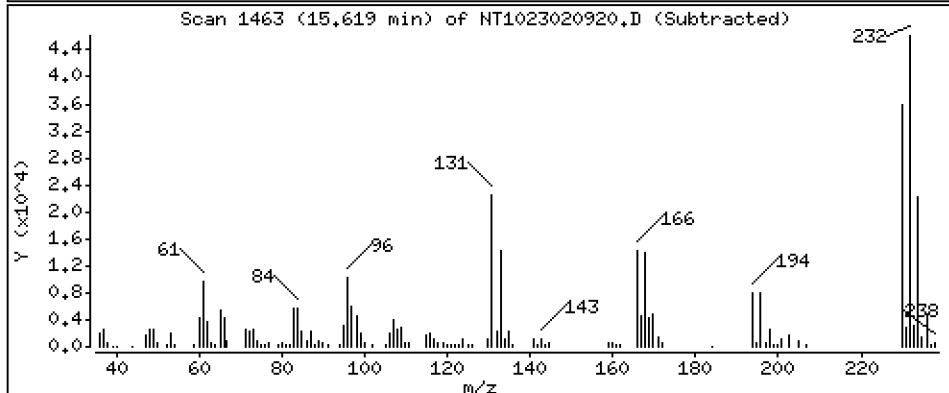
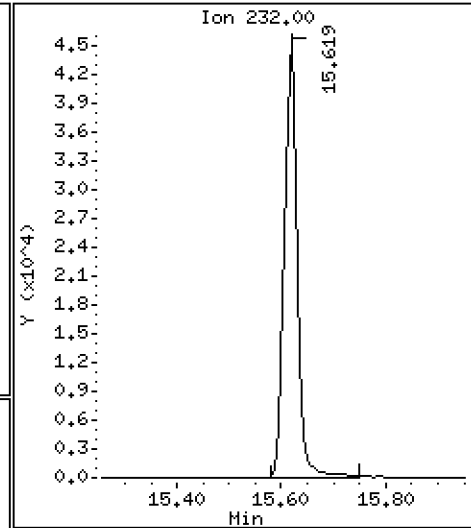
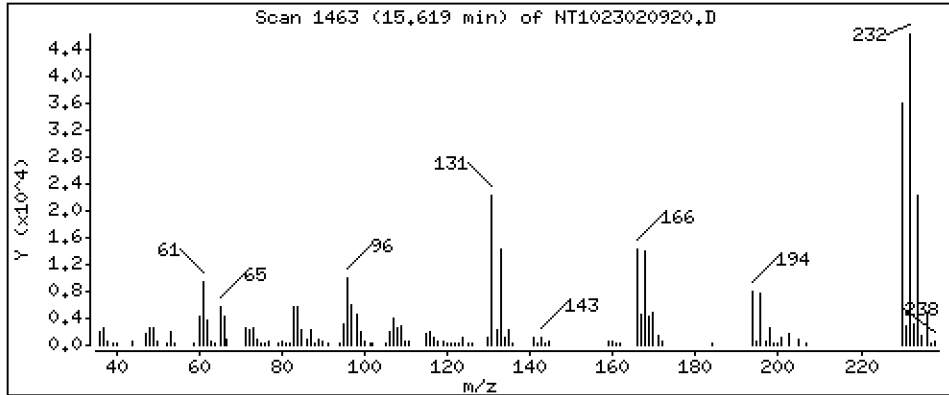
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 4,747 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230209A.b\NT1023020920.D
 Lab Smp Id: SLB0122-ICV2
 Inj Date : 10-FEB-2023 01:09
 Operator : VTS
 Smp Info : SLB0122-ICV2
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230209A.b\ABN.m
 Meth Date : 09-Feb-2023 14:46 deenayd
 Cal Date : 07-FEB-2023 16:09
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Quant Type: ISTD
 Cal File: NT1023020708.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		6.658	6.651	(0.753)	220967	7.38332	7.383
\$ 2 Phenol-d5	99		8.227	8.219	(0.931)	291839	7.22849	7.228
3 Phenol	94		8.250	8.242	(0.933)	201924	4.62353	4.624
\$ 5 2-Chlorophenol-d4	132		8.490	8.482	(0.961)	256660	7.83296	7.833
4 Bis(2-Chloroethyl)ether	93		8.397	8.389	(0.950)	144314	4.54400	4.544
6 2-Chlorophenol	128		8.513	8.505	(0.963)	187673	5.25842	5.258
7 1,3-Dichlorobenzene	146		8.776	8.768	(0.993)	173209	4.62334	4.623
* 8 1,4-Dichlorobenzene-d4	152		8.838	8.838	(1.000)	94137	4.00000	
9 1,4-Dichlorobenzene	146		8.869	8.861	(1.004)	168346	4.56221	4.562
\$ 10 1,2-Dichlorobenzene-d4	152		9.195	9.187	(1.040)	104617	4.66438	4.664
12 1,2-Dichlorobenzene	146		9.218	9.211	(1.043)	161819	4.54874	4.549
11 Benzyl alcohol	108		9.117	9.102	(1.032)	95483	4.93576	4.936
14 2,2'-oxybis(1-Chloropropane)	121		9.412	9.397	(1.065)	45760	4.47688	4.477 (M)
13 2-Methylphenol	108		9.343	9.335	(1.057)	159125	4.91292	4.913
17 Hexachloroethane	117		9.800	9.800	(1.109)	61807	4.36915	4.369
16 N-Nitroso-di-n-propylamine	70		9.661	9.653	(1.093)	114766	4.71199	4.712
15 4-Methylphenol	108		9.614	9.606	(1.088)	156120	4.55065	4.551
\$ 18 Nitrobenzene-d5	82		9.925	9.909	(0.878)	174342	4.95813	4.958
19 Nitrobenzene	77		9.956	9.948	(0.881)	167520	4.77754	4.778

20	Isophorone	82	10.398	10.390	(0.920)	233306	4.77815	4.778
21	2-Nitrophenol	139	10.583	10.574	(0.936)	90318	5.00078	5.001
22	2,4-Dimethylphenol	107	10.642	10.633	(0.942)	295352	9.14820	9.148
23	Bis(2-Chloroethoxy)methane	93	10.829	10.820	(0.958)	149915	4.72832	4.728
24	Benzoic acid	105	10.914	10.888	(0.966)	319255	16.8636	16.86
25	2,4-Dichlorophenol	162	11.041	11.024	(0.977)	248703	9.48176	9.482
26	1,2,4-Trichlorobenzene	180	11.217	11.209	(0.992)	133562	4.67360	4.674
* 27	Naphthalene-d8	136	11.302	11.286	(1.000)	355914	4.00000	
28	Naphthalene	128	11.340	11.333	(1.003)	434418	4.56758	4.568
29	4-Chloroaniline	127	11.472	11.464	(1.015)	415227	10.1844	10.18
30	Hexachlorobutadiene	225	11.704	11.688	(1.036)	72720	4.87929	4.879
31	4-Chloro-3-methylphenol	107	12.439	12.423	(1.101)	264881	9.23767	9.238
32	2-Methylnaphthalene	142	12.725	12.710	(1.126)	315441	4.77007	4.770
33	Hexachlorocyclopentadiene	237	13.189	13.174	(0.886)	38421	3.32402	3.324
34	2,4,6-Trichlorophenol	196	13.352	13.336	(0.897)	164695	9.77652	9.777

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====	=====	=====	=====	=====	=====	=====	=====	
35 2,4,5-Trichlorophenol	196		13.429	13.414	(0.902)	176051	9.69369	9.694	
\$ 36 2-Fluorobiphenyl	172		13.499	13.491	(0.907)	320675	4.76850	4.768	
37 2-Chloronaphthalene	162		13.708	13.700	(0.921)	274144	4.68982	4.690	
38 2-Nitroaniline	65		13.971	13.956	(0.939)	207473	11.2720	11.27	
39 Dimethylphthalate	163		14.397	14.389	(0.967)	289329	4.62637	4.626	
40 Acenaphthylene	152		14.575	14.559	(0.979)	431499	4.63424	4.634	
41 2,6-Dinitrotoluene	165		14.536	14.521	(0.977)	139320	9.40573	9.406	
* 42 Acenaphthene-d10	164		14.884	14.869	(1.000)	186612	4.00000		
43 3-Nitroaniline	138		14.823	14.807	(0.996)	166193	9.73103	9.731	
44 Acenaphthene	153		14.946	14.939	(1.004)	262173	4.59454	4.595	
45 2,4-Dinitrophenol	184		15.031	15.016	(1.010)	119701	15.1182	15.12	
46 Dibenzofuran	168		15.279	15.263	(1.026)	371614	4.52716	4.527	
47 4-Nitrophenol	109		15.163	15.147	(1.019)	56529	8.87914	8.879	
48 2,4-Dinitrotoluene	165		15.341	15.325	(1.031)	185086	9.05627	9.056	
50 Diethylphthalate	149		15.859	15.843	(1.065)	315735	5.25726	5.257	
49 Fluorene	166		15.982	15.967	(1.074)	355212	3.84981	3.850	
51 4-Chlorophenyl-phenylether	204		15.974	15.967	(1.073)	164141	3.64235	3.642	
52 4-Nitroaniline	138		16.082	16.067	(1.080)	166527	8.53244	8.532	
53 4,6-Dinitro-2-methylphenol	198		16.183	16.167	(0.904)	215099	19.8431	19.84	
54 N-Nitrosodiphenylamine	169		16.229	16.213	(0.906)	241866	4.71435	4.714	
\$ 55 2,4,6-Tribromophenol	330		16.522	16.506	(1.110)	60540	6.47878	6.479	
56 4-Bromophenyl-phenylether	248		16.977	16.961	(0.948)	93942	4.96915	4.969	
57 Hexachlorobenzene	284		17.286	17.278	(0.965)	101858	5.00282	5.003	
58 Pentachlorophenol	266		17.650	17.635	(0.986)	74957	9.46019	9.460	
* 59 Phenanthrene-d10	188		17.905	17.890	(1.000)	300124	4.00000		
60 Phenanthrene	178		17.952	17.936	(1.003)	380587	4.71185	4.712	
61 Anthracene	178		18.045	18.029	(1.008)	382054	4.77678	4.777	
62 Carbazole	167		18.377	18.362	(1.026)	359471	4.65985	4.660	
63 Di-n-butylphthalate	149		19.197	19.182	(1.072)	476510	5.18001	5.180	
64 Fluoranthene	202		20.350	20.335	(0.885)	416314	4.17160	4.172	
65 Pyrene	202		20.776	20.760	(0.904)	424701	4.12211	4.122	
\$ 66 Terphenyl-d14	244		21.070	21.054	(0.917)	311253	4.00642	4.006	
67 Butylbenzylphthalate	149		22.014	21.991	(0.958)	197840	4.44350	4.443	
68 Benzo(a)anthracene	228		22.951	22.936	(0.999)	417136	4.59831	4.598	
* 69 Chrysene-d12	240		22.982	22.959	(1.000)	272157	4.00000		
70 3,3'-Dichlorobenzidine	252		22.913	22.897	(0.997)	453562	14.7771	14.78	
71 Chrysene	228		23.029	23.006	(1.002)	393413	4.52202	4.522	
72 bis(2-Ethylhexyl)phthalate	149		23.052	23.037	(0.959)	283932	4.67055	4.671	
* 134 Di-n-octylphthalate-d4	153		24.035	24.020	(1.000)	446924	4.00000		
73 Di-n-octylphthalate	149		24.043	24.027	(1.000)	523834	4.63811	4.638	

74	Benzo(b)fluoranthene	252	24.786	24.763	(0.971)	486962	4.89666	4.897
75	Benzo(k)fluoranthene	252	24.833	24.809	(0.973)	490357	4.68343	4.683
76	Benzo(a)pyrene	252	25.406	25.375	(0.996)	433356	4.81931	4.819
* 77	Perylene-d12	264	25.514	25.483	(1.000)	314160	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.017	27.971	(1.098)	422020	3.94299	3.943
79	Dibenzo(a,h)anthracene	278	28.025	27.986	(1.098)	361691	4.07944	4.079
80	Benzo(g,h,i)perylene	276	28.747	28.701	(1.127)	312622	3.40338	3.403
90	N-Nitrosodimethylamine	74	4.527	4.527	(0.512)	196487	9.43671	9.437
91	Aniline	93	8.304	8.297	(0.940)	403441	9.54447	9.544
93	Benzidine	184	20.590	20.575	(0.896)	201203	6.21292	6.213
103	Pyridine	79	4.535	4.543	(0.513)	304216	9.43961	9.440
105	1-methylnaphthalene	142	12.942	12.934	(1.145)	302163	4.74601	4.746
111	Azobenzene (1,2-DP-Hydrazine)	77	16.306	16.291	(1.096)	364497	4.55501	4.555
187	Total Benzo(a)fluoranthenes	252	24.833	24.809	(0.973)	926452	9.50255	9.503

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
120 2,3,4,6-Tetrachlorophenol	232	15.619	15.603	(1.049)	83329	4.74705	4.747

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 09-FEB-2023
 Lab File ID: NT1023020920.D Calibration Time: 13:31
 Lab Smp Id: SLB0122-ICV2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230209A.b\ABN.m
 Misc Info:

Test Mode: Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	89503	44752	179006	94137	5.18
27 Naphthalene-d8	348104	174052	696208	355914	2.24
42 Acenaphthene-d10	183525	91763	367050	186612	1.68
59 Phenanthrene-d10	295489	147745	590978	300124	1.57
69 Chrysene-d12	239590	119795	479180	272157	13.59
134 Di-n-octylphthala	404293	202147	808586	446924	10.54
77 Perylene-d12	274336	137168	548672	314160	14.52

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	0.00
27 Naphthalene-d8	11.29	10.79	11.79	11.30	0.14
42 Acenaphthene-d10	14.87	14.37	15.37	14.88	0.10
59 Phenanthrene-d10	17.89	17.39	18.39	17.91	0.09
69 Chrysene-d12	22.96	22.46	23.46	22.98	0.10
134 Di-n-octylphthala	24.02	23.52	24.52	24.04	0.06
77 Perylene-d12	25.48	24.98	25.98	25.51	0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020920.D

Lab ID: SLB0122-ICV2
nt10.i, 20230209A.b\ABN.m, 10-FEB-2023 01:09

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

RRT check based on Ccal File: NT1023020902.D

On Column LOD for nt10.i, 20230209A.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

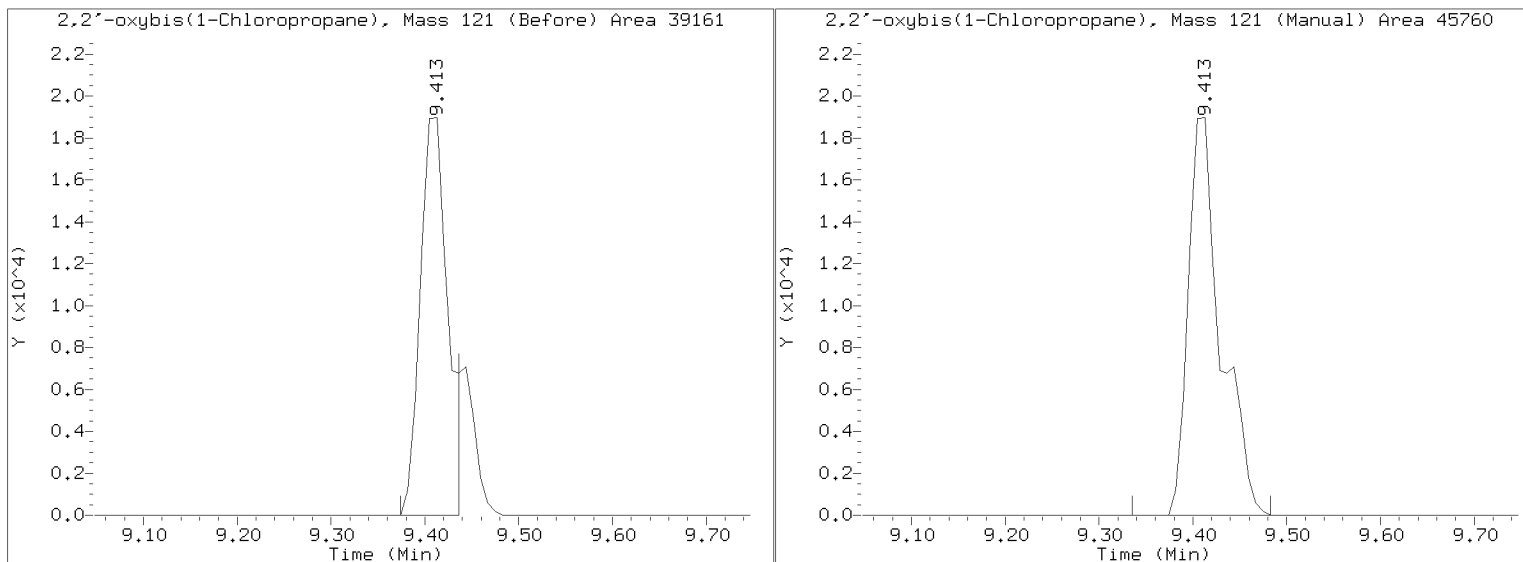
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209A.b/NT1023020920.D

Injection Date: 10-FEB-2023 01:09

Lab ID:SLB0122-ICV2 Client ID:

Report Date: 02/11/2023 10:01



APPROVED
By Deenay Dunmore at 10:06 am, Feb 11, 2023



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00018

Lab File ID: NT1023021002.D

Calibration Date: 02/07/2023

Sequence: SLB0154

Injection Date: 02/10/23

Lab Sample ID: SLB0154-ICV1

Injection Time: 16:04

Sequence Name: Initial Cal Check

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Phenol	A	5.0000	4.9	1.8557260	1.8059750		-2.7	+/-20
4-Methylphenol	A	5.0000	4.8	1.4577560	1.3951750		-4.3	+/-20
Naphthalene	A	5.0000	4.6	1.0689	0.9828272		-8.1	+/-20
2-Methylnaphthalene	A	5.0000	4.8	0.7432041	0.7149569		-3.8	+/-20
Acenaphthylene	A	5.0000	4.6	1.9958230	1.8432480		-7.6	+/-20
Dimethylphthalate	A	5.0000	4.7	1.3405170	1.2603160		-6.0	+/-20
Acenaphthene	A	5.0000	4.6	1.2231120	1.1303420		-7.6	+/-20
Dibenzofuran	A	5.0000	4.7	1.7594910	1.6379450		-6.9	+/-20
Fluorene	A	5.0000	4.5	1.9777380	1.7815110		-9.9	+/-20
Phenanthrene	A	5.0000	4.7	1.0765200	1.0135040		-5.9	+/-20
Anthracene	A	5.0000	4.9	1.0659800	1.0378630		-2.6	+/-20
Fluoranthene	A	5.0000	4.5	1.4667580	1.3280270		-9.5	+/-20
Pyrene	A	5.0000	4.4	1.5142740	1.3465970		-11.1	+/-20
Butylbenzylphthalate	A	5.0000	4.5	0.6543795	0.5947656		-9.1	+/-20
Benzo(a)anthracene	A	5.0000	4.5	1.3332750	1.2045200		-9.7	+/-20
Chrysene	A	5.0000	4.4	1.2786640	1.1370590		-11.1	+/-20
bis(2-Ethylhexyl)phthalate	A	5.0000	4.9	0.5440929	0.5290283		-2.8	+/-20
Benzo(a)fluoranthene, Total	A	10.0000	9.5	1.2413430	1.1803790		-4.9	+/-20
Benzo(a)pyrene	A	5.0000	4.8	1.1449040	1.0926790		-4.6	+/-20
Indeno(1,2,3-cd)pyrene	A	5.0000	4.9	1.3627520	1.3437840		-1.4	+/-20
Dibenzo(a,h)anthracene	A	5.0000	4.9	1.1288770	1.1157010		-1.2	+/-20
Benzo(g,h,i)perylene	A	5.0000	4.9	1.1695480	1.1554950		-1.2	+/-20
2-Fluorophenol	A	7.5000	7.43	1.2716740	1.2598330		-0.9	+/-20
Phenol-d5	A	7.5000	7.38	1.7155190	1.6874480		-1.6	+/-20
2-Chlorophenol-d4	A	7.5000	7.28	1.3922970	1.3509630		-3.0	+/-20
1,2-Dichlorobenzene-d4	A	5.0000	4.73	0.9530327	0.9009696		-5.5	+/-20
Nitrobenzene-d5	A	5.0000	4.86	0.3951837	0.3838452		-2.9	+/-20
2-Fluorobiphenyl	A	5.0000	4.59	1.4414640	1.3220780		-8.3	+/-20
2,4,6-Tribromophenol	A	7.5000	7.60	0.2002949	0.2029530		1.3	+/-20
p-Terphenyl-d14	A	5.0000	4.45	1.1418200	1.0156270		-11.1	+/-20

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GB00018</u>
Lab File ID:	<u>NT1023021002.D</u>	Calibration Date:	<u>02/07/2023</u>
Sequence:	<u>SLB0154</u>	Injection Date:	<u>02/10/23</u>
Lab Sample ID:	<u>SLB0154-ICV1</u>	Injection Time:	<u>16:04</u>
Sequence Name:	<u>Initial Cal Check</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene-d4	A	4.0000	4.0	27697.1100	1.0000		0.0	
Naphthalene-d8	A	4.0000	4.0	107855.1000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.0	57284.5700	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.0	101358.1000	1.0000		0.0	
Chrysene-d12	A	4.0000	4.0	77804.6800	1.0000		0.0	
Di-n-Octylphthalate-d4	A	4.0000	4.0	130651.7000	1.0000		0.0	
Perylene-d12	A	4.0000	4.0	82834.8600	1.0000		0.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230210.1\NT1023021002.D

Date: 10-FEB-2023 16:04

Client ID:

Sample Info: SLB0154-ICV1

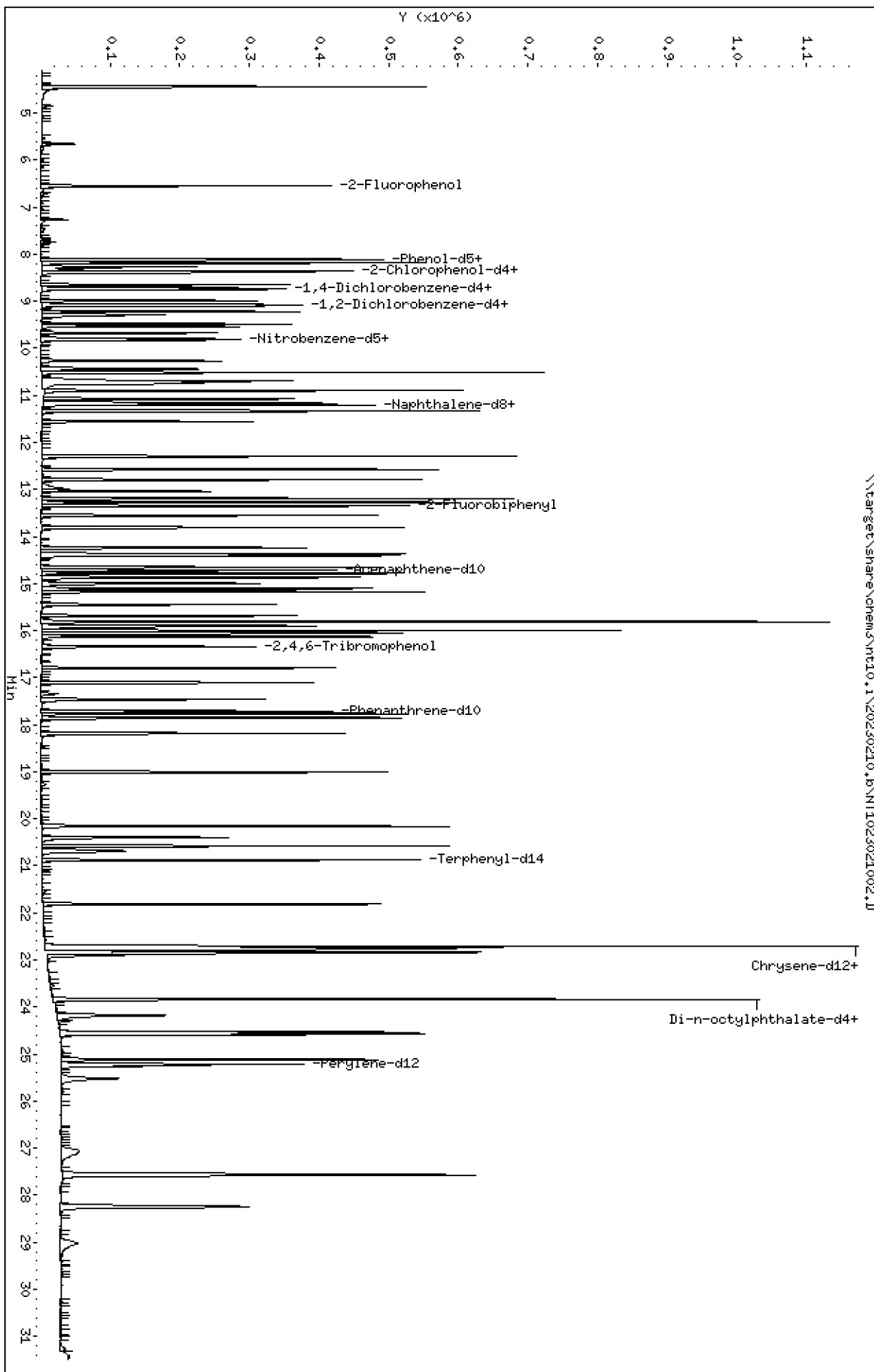
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt10.1\20230210.1\NT1023021002.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230210.b\NT1023021002.D
 Lab Smp Id: SLB0154-ICV1
 Inj Date : 10-FEB-2023 16:04
 Operator : VTS
 Smp Info : SLB0154-ICV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230210.b\ABN.m
 Meth Date : 11-Feb-2023 12:03 deenayd
 Cal Date : 07-FEB-2023 16:09
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i
 Quant Type: ISTD
 Cal File: NT1023020708.D
 Continuing Calibration Sample
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	AMOUNTS					
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		6.550	6.550	(0.752)	174190	7.50000	7.430
\$ 2 Phenol-d5	99		8.111	8.111	(0.931)	233314	7.50000	7.377
3 Phenol	94		8.126	8.126	(0.933)	166468	5.00000	4.866
\$ 5 2-Chlorophenol-d4	132		8.366	8.366	(0.960)	186790	7.50000	7.277
4 Bis(2-Chloroethyl)ether	93		8.273	8.273	(0.949)	114705	5.00000	4.611
6 2-Chlorophenol	128		8.389	8.389	(0.963)	145999	5.00000	5.222
7 1,3-Dichlorobenzene	146		8.652	8.652	(0.993)	137000	5.00000	4.668
* 8 1,4-Dichlorobenzene-d4	152		8.714	8.714	(1.000)	73741	4.00000	
9 1,4-Dichlorobenzene	146		8.745	8.745	(1.004)	134898	5.00000	4.667
\$ 10 1,2-Dichlorobenzene-d4	152		9.071	9.071	(1.041)	83048	5.00000	4.727
12 1,2-Dichlorobenzene	146		9.094	9.094	(1.044)	128737	5.00000	4.620
11 Benzyl alcohol	108		8.986	8.986	(1.031)	77702	5.00000	5.128
14 2,2'-oxybis(1-Chloropropane)	121		9.281	9.281	(1.065)	35063	5.00000	4.379
13 2-Methylphenol	108		9.219	9.219	(1.058)	131240	5.00000	5.173
17 Hexachloroethane	117		9.677	9.677	(1.110)	52427	5.00000	4.731
16 N-Nitroso-di-n-propylamine	70		9.537	9.537	(1.094)	93835	5.00000	4.918
15 4-Methylphenol	108		9.490	9.490	(1.089)	128602	5.00000	4.785
\$ 18 Nitrobenzene-d5	82		9.785	9.785	(0.877)	138191	5.00000	4.857
19 Nitrobenzene	77		9.824	9.824	(0.880)	135367	5.00000	4.771
20 Isophorone	82		10.266	10.266	(0.920)	181279	5.00000	4.588
21 2-Nitrophenol	139		10.447	10.447	(0.936)	80707	5.00000	5.522
22 2,4-Dimethylphenol	107		10.515	10.515	(0.942)	237020	10.00000	9.072
23 Bis(2-Chloroethoxy)methane	93		10.693	10.693	(0.958)	122913	5.00000	4.791
24 Benzoic acid	105		10.753	10.753	(0.963)	274771	20.00000	17.89
25 2,4-Dichlorophenol	162		10.897	10.897	(0.976)	220117	10.00000	10.37
26 1,2,4-Trichlorobenzene	180		11.075	11.075	(0.992)	108742	5.00000	4.702
* 27 Naphthalene-d8	136		11.160	11.160	(1.000)	288014	4.00000	
28 Naphthalene	128		11.199	11.199	(1.003)	353835	5.00000	4.597
29 4-Chloroaniline	127		11.330	11.330	(1.015)	330500	10.00000	10.02
30 Hexachlorobutadiene	225		11.562	11.562	(1.036)	58035	5.00000	4.812
31 4-Chloro-3-methylphenol	107		12.297	12.297	(1.102)	226479	10.00000	9.760
32 2-Methylnaphthalene	142		12.576	12.576	(1.127)	257397	5.00000	4.810
33 Hexachlorocyclopentadiene	237		13.040	13.040	(0.886)	58073	10.00000	5.847
34 2,4,6-Trichlorophenol	196		13.195	13.195	(0.896)	137605	10.00000	9.617

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
35 2,4,5-Trichlorophenol	196	13.272	13.272	(0.902)	149680	10.0000	9.703
\$ 36 2-Fluorobiphenyl	172	13.350	13.350	(0.907)	261945	5.00000	4.586
37 2-Chloronaphthalene	162	13.551	13.551	(0.921)	228238	5.00000	4.597
38 2-Nitroaniline	65	13.814	13.814	(0.938)	157503	10.0000	10.07
39 Dimethylphthalate	163	14.240	14.240	(0.967)	249708	5.00000	4.701
40 Acenaphthylene	152	14.410	14.410	(0.979)	365205	5.00000	4.618
41 2,6-Dinitrotoluene	165	14.379	14.379	(0.977)	119545	10.0000	9.502
* 42 Acenaphthene-d10	164	14.719	14.719	(1.000)	158505	4.00000	
43 3-Nitroaniline	138	14.650	14.650	(0.995)	137168	10.0000	9.456
44 Acenaphthene	153	14.781	14.781	(1.004)	223956	5.00000	4.621
45 2,4-Dinitrophenol	184	14.866	14.866	(1.010)	112666	20.0000	16.69
46 Dibenzofuran	168	15.106	15.106	(1.026)	324528	5.00000	4.655
47 4-Nitrophenol	109	14.998	14.998	(1.019)	55418	10.0000	10.25
48 2,4-Dinitrotoluene	165	15.175	15.175	(1.031)	166558	10.0000	9.595
50 Diethylphthalate	149	15.686	15.686	(1.066)	241856	5.00000	4.741
49 Fluorene	166	15.809	15.809	(1.074)	352973	5.00000	4.504
51 4-Chlorophenyl-phenylether	204	15.809	15.809	(1.074)	168613	5.00000	4.405
52 4-Nitroaniline	138	15.902	15.902	(1.080)	157824	10.0000	9.520
53 4,6-Dinitro-2-methylphenol	198	16.002	16.002	(0.903)	210996	20.0000	21.09
54 N-Nitrosodiphenylamine	169	16.056	16.056	(0.906)	217042	5.00000	4.583
\$ 55 2,4,6-Tribromophenol	330	16.341	16.341	(1.110)	60317	7.50000	7.600
56 4-Bromophenyl-phenylether	248	16.796	16.796	(0.948)	83188	5.00000	4.767
57 Hexachlorobenzene	284	17.106	17.106	(0.965)	91279	5.00000	4.857
58 Pentachlorophenol	266	17.462	17.462	(0.986)	65566	10.0000	8.981
* 59 Phenanthrene-d10	188	17.717	17.717	(1.000)	277023	4.00000	
60 Phenanthrene	178	17.764	17.764	(1.003)	350955	5.00000	4.707
61 Anthracene	178	17.857	17.857	(1.008)	359390	5.00000	4.868
62 Carbazole	167	18.181	18.181	(1.026)	337396	5.00000	4.738
63 Di-n-butylphthalate	149	19.009	19.009	(1.073)	429331	5.00000	5.056
64 Fluoranthene	202	20.154	20.154	(0.885)	389761	5.00000	4.527
65 Pyrene	202	20.580	20.580	(0.903)	395211	5.00000	4.446
\$ 66 Terphenyl-d14	244	20.882	20.882	(0.917)	298075	5.00000	4.447
67 Butylbenzylphthalate	149	21.811	21.811	(0.958)	174557	5.00000	4.545
68 Benzo(a)anthracene	228	22.748	22.748	(0.999)	353513	5.00000	4.517
* 69 Chrysene-d12	240	22.779	22.779	(1.000)	234791	4.00000	
70 3,3'-Dichlorobenzidine	252	22.709	22.709	(0.997)	363843	15.0000	13.74
71 Chrysene	228	22.817	22.817	(1.002)	333714	5.00000	4.446
72 bis(2-Ethylhexyl)phthalate	149	22.856	22.856	(0.959)	244132	5.00000	4.862
* 134 Di-n-octylphthalate-d4	153	23.832	23.832	(1.000)	369178	4.00000	
73 Di-n-octylphthalate	149	23.839	23.839	(1.000)	433724	5.00000	4.649
74 Benzo(b)fluoranthene	252	24.536	24.536	(0.973)	368091	5.00000	5.032
75 Benzo(k)fluoranthene	252	24.575	24.575	(0.975)	356763	5.00000	4.633 (H)
76 Benzo(a)pyrene	252	25.117	25.117	(0.996)	315612	5.00000	4.772
* 77 Perylene-d12	264	25.218	25.218	(1.000)	231074	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	27.565	27.565	(1.093)	388142	5.00000	4.930
79 Dibenzo(a,h)anthracene	278	27.565	27.565	(1.093)	322262	5.00000	4.942
80 Benzo(g,h,i)perylene	276	28.249	28.249	(1.120)	333756	5.00000	4.940
90 N-Nitrosodimethylamine	74	4.434	4.434	(0.509)	155691	10.0000	9.546
91 Aniline	93	8.180	8.180	(0.939)	325799	10.0000	9.839
93 Benzidine	184	20.394	20.394	(0.895)	181409	10.0000	6.504
103 Pyridine	79	4.450	4.450	(0.511)	240114	10.0000	9.511
105 1-methylnaphthalene	142	12.792	12.792	(1.146)	247502	5.00000	4.804
111 Azobenzene (1,2-DP-Hydrazine)	77	16.133	16.133	(1.096)	320863	5.00000	4.721
187 Total Benzofluoranthenes	252	24.575	24.575	(0.975)	681887	10.0000	9.509

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		15.446	15.446	(1.049)	66635	5.00000	4.474

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 09-FEB-2023
 Lab File ID: NT1023021002.D Calibration Time: 13:31
 Lab Smp Id: SLB0154-ICV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230210.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	73741	36871	147482	73741	0.00
27 Naphthalene-d8	288014	144007	576028	288014	0.00
42 Acenaphthene-d10	158505	79253	317010	158505	0.00
59 Phenanthrene-d10	277023	138512	554046	277023	0.00
69 Chrysene-d12	234791	117396	469582	234791	0.00
134 Di-n-octylphthala	369178	184589	738356	369178	0.00
77 Perylene-d12	231074	115537	462148	231074	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.71	8.21	9.21	8.71	0.00
27 Naphthalene-d8	11.16	10.66	11.66	11.16	0.00
42 Acenaphthene-d10	14.72	14.22	15.22	14.72	0.00
59 Phenanthrene-d10	17.72	17.22	18.22	17.72	0.00
69 Chrysene-d12	22.78	22.28	23.28	22.78	0.00
134 Di-n-octylphthala	23.83	23.33	24.33	23.83	0.00
77 Perylene-d12	25.22	24.72	25.72	25.22	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023021002.D

Lab ID: SLB0154-ICV1
nt10.i, 20230210.b\ABN.m, 10-FEB-2023 16:04

RT	CO-ELUTION COMPOUNDS
27.566	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
27.566	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND

NONE				

No RRT check. Ccal file.

On Column LOD for nt10.i, 20230210.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230210.b

Instrument: nt10.i Date: 10-FEB-2023 Method: 20230210.b\ABN.m

INITIAL CAL: 30-DEC-2022

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1023021002.D 10-FEB-2023 16:04

Compound	%D

Hexachlorocyclopentadiene	-41.5
Benzidine	-35.0



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT18

Calibration: GB00036

Lab File ID: NT1802172306.D

Calibration Date: 02/15/2023

Sequence: SLB0249

Injection Date: 02/17/23

Lab Sample ID: SLB0249-ICV1

Injection Time: 08:32

Sequence Name: Initial Cal Check

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Phenol	A	5.0000	4.8	1.7227030	1.6429870		-4.6	+/-20
4-Methylphenol	A	5.0000	5.2	1.2997430	1.4934260		3.5	+/-20
Naphthalene	A	5.0000	4.4	1.1498750	1.0012730		-12.9	+/-20
2-Methylnaphthalene	A	5.0000	4.4	0.7826405	0.6926253		-11.5	+/-20
Acenaphthylene	A	5.0000	4.6	2.0273730	1.8508150		-8.7	+/-20
Dimethylphthalate	A	5.0000	4.6	1.3989010	1.2874750		-8.0	+/-20
Acenaphthene	A	5.0000	4.4	1.3519230	1.1808560		-12.7	+/-20
Dibenzofuran	A	5.0000	4.4	1.9368720	1.6849980		-13.0	+/-20
Fluorene	A	5.0000	4.5	1.5320300	1.3770710		-10.1	+/-20
Phenanthrene	A	5.0000	4.3	1.2084800	1.0502310		-13.1	+/-20
Anthracene	A	5.0000	4.7	1.0808980	1.0243520		-5.2	+/-20
Fluoranthene	A	5.0000	4.6	1.2619890	1.1592070		-8.1	+/-20
Pyrene	A	5.0000	4.4	1.3415320	1.1885510		-11.4	+/-20
Butylbenzylphthalate	A	5.0000	4.5	0.4869766	0.5404071		-9.9	+/-20
Benzo(a)anthracene	A	5.0000	4.4	1.3218310	1.1541290		-12.7	+/-20
Chrysene	A	5.0000	4.3	1.3932010	1.1969930		-14.1	+/-20
bis(2-Ethylhexyl)phthalate	A	5.0000	4.8	0.6085941	0.5823138		-4.3	+/-20
Benzofluoranthenes, Total	A	10.0000	8.8	1.3988610	1.2273950		-12.3	+/-20
Benzo(a)pyrene	A	5.0000	4.8	1.1403750	1.0896730		-4.4	+/-20
Indeno(1,2,3-cd)pyrene	A	5.0000	5.8	0.8970203	1.3082410		15.8	+/-20
Dibenzo(a,h)anthracene	A	5.0000	5.8	0.7420695	1.0873450		16.4	+/-20
Benzo(g,h,i)perylene	A	5.0000	6.2	0.6977398	1.0487600		24.0	+/-20 *
2-Fluorophenol	A	7.5000	5.74	1.2188190	1.0623880		-23.5	+/-20 *
Phenol-d5	A	7.5000	7.27	1.7579030	1.7029530		-3.1	+/-20
2-Chlorophenol-d4	A	7.5000	7.14	1.5283160	1.4545440		-4.8	+/-20
1,2-Dichlorobenzene-d4	A	5.0000	4.48	1.1000200	0.9863239		-10.3	+/-20
Nitrobenzene-d5	A	5.0000	5.03	0.3936769	0.3959742		0.6	+/-20
2-Fluorobiphenyl	A	5.0000	4.26	1.7684190	1.5081380		-14.7	+/-20
2,4,6-Tribromophenol	A	7.5000	5.18	0.2335565	0.1790607		-31.0	+/-20 *
p-Terphenyl-d14	A	5.0000	4.33	1.2371420	1.0702690		-13.5	+/-20

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT18</u>	Calibration:	<u>GB00036</u>
Lab File ID:	<u>NT1802172306.D</u>	Calibration Date:	<u>02/15/2023</u>
Sequence:	<u>SLB0249</u>	Injection Date:	<u>02/17/23</u>
Lab Sample ID:	<u>SLB0249-ICV1</u>	Injection Time:	<u>08:32</u>
Sequence Name:	<u>Initial Cal Check</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene-d4	A	4.0000	4.0	27104.3600	1.0000		0.0	
Naphthalene-d8	A	4.0000	4.0	103765.9000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.0	54728.7900	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.0	96162.2900	1.0000		0.0	
Chrysene-d12	A	4.0000	4.0	97430.0400	1.0000		0.0	
Di-n-Octylphthalate-d4	A	4.0000	4.0	123024.4000	1.0000		0.0	
Perylene-d12	A	4.0000	4.0	90702.6800	1.0000		0.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt18.1\20230217.16\NT1802172306.D

Date: 17-FEB-2023 08:32

Client ID:

Sample Info: SLB0249-ICV1

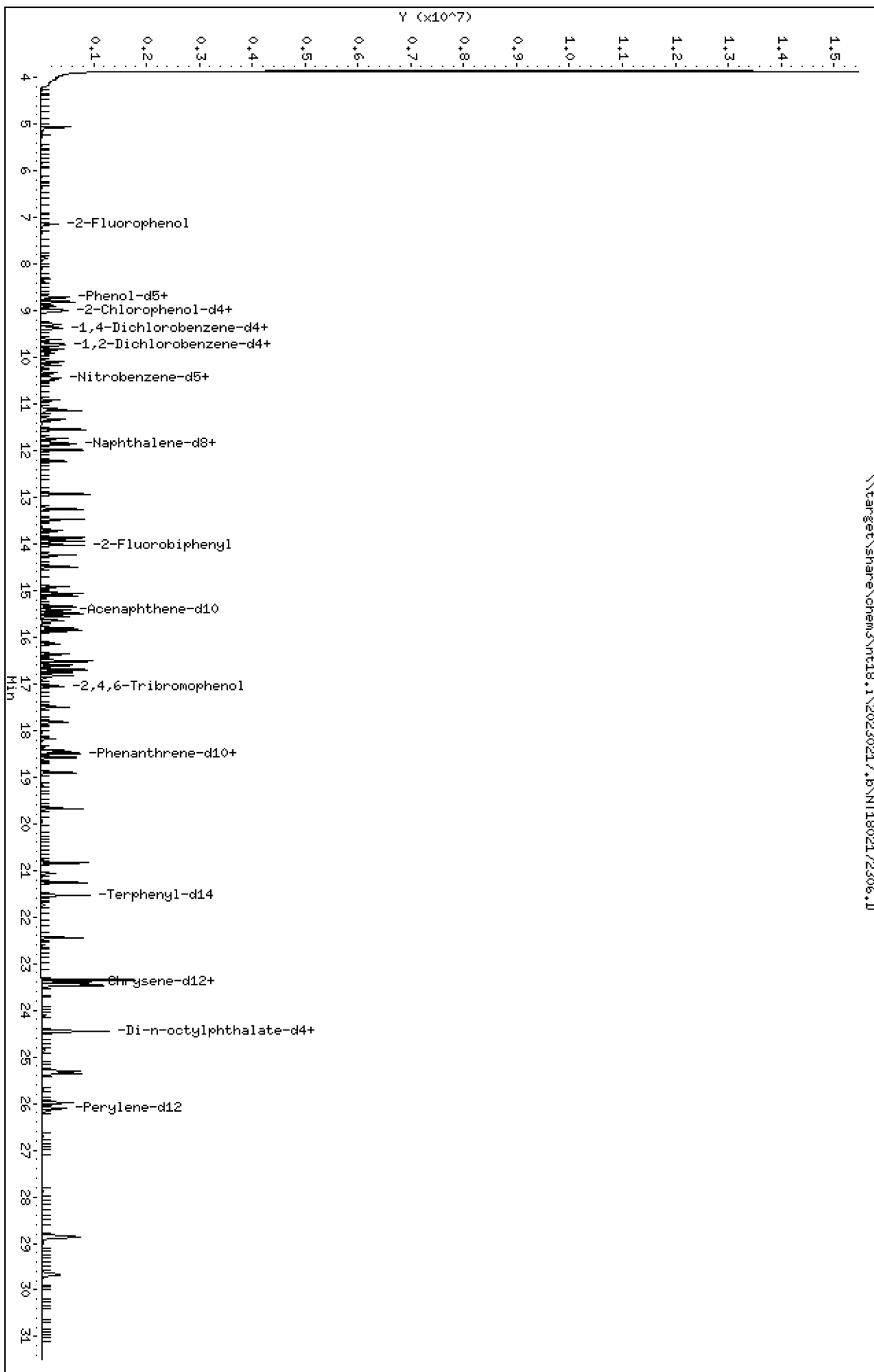
Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt18.1\20230217.16\NT1802172306.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230217.b\NT1802172306.D
 Lab Smp Id: SLB0249-ICV1
 Inj Date : 17-FEB-2023 08:32
 Operator : VTS
 Smp Info : SLB0249-ICV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230217.b\ABN.m
 Meth Date : 18-Feb-2023 10:52 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i
 Quant Type: ISTD
 Cal File: NT1802102308.D
 Continuing Calibration Sample
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.142	7.142	(0.764)	181019	7.50000	5.741
\$ 2 Phenol-d5	99		8.703	8.703	(0.931)	290164	7.50000	7.266
3 Phenol	94		8.719	8.719	(0.932)	186631	5.00000	4.769
\$ 5 2-Chlorophenol-d4	132		8.989	8.989	(0.961)	247838	7.50000	7.138
4 Bis(2-Chloroethyl)ether	93		8.896	8.896	(0.951)	146271	5.00000	4.938
6 2-Chlorophenol	128		9.020	9.020	(0.964)	155325	5.00000	4.616
7 1,3-Dichlorobenzene	146		9.290	9.290	(0.993)	161151	5.00000	4.395
* 8 1,4-Dichlorobenzene-d4	152		9.352	9.352	(1.000)	90874	4.00000	
9 1,4-Dichlorobenzene	146		9.383	9.383	(1.003)	165682	5.00000	4.212
\$ 10 1,2-Dichlorobenzene-d4	152		9.709	9.709	(1.038)	112039	5.00000	4.483
12 1,2-Dichlorobenzene	146		9.740	9.740	(1.041)	163613	5.00000	4.497 (M)
11 Benzyl alcohol	108		9.616	9.616	(1.028)	97534	5.00000	4.622
14 2,2'-oxybis(1-Chloropropane)	121		9.911	9.911	(1.060)	45705	5.00000	4.961 (M)
13 2-Methylphenol	108		9.834	9.834	(1.051)	141711	5.00000	4.996
17 Hexachloroethane	117		10.323	10.323	(1.104)	66794	5.00000	4.826
16 N-Nitroso-di-n-propylamine	70		10.167	10.167	(1.087)	123245	5.00000	5.750
15 4-Methylphenol	108		10.098	10.098	(1.080)	169642	5.00000	5.177
\$ 18 Nitrobenzene-d5	82		10.439	10.439	(0.883)	192786	5.00000	5.029
19 Nitrobenzene	77		10.478	10.478	(0.886)	181120	5.00000	4.940
20 Isophorone	82		10.912	10.912	(0.923)	233073	5.00000	4.091
21 2-Nitrophenol	139		11.097	11.097	(0.938)	83220	5.00000	4.102
22 2,4-Dimethylphenol	107		11.140	11.140	(0.942)	243516	10.0000	7.507
23 Bis(2-Chloroethoxy)methane	93		11.335	11.335	(0.958)	162433	5.00000	4.687
24 Benzoic acid	105		11.327	11.327	(0.958)	139738	20.0000	6.914
25 2,4-Dichlorophenol	162		11.547	11.547	(0.976)	278628	10.0000	8.719
26 1,2,4-Trichlorobenzene	180		11.735	11.735	(0.992)	147021	5.00000	4.125
* 27 Naphthalene-d8	136		11.827	11.827	(1.000)	389492	4.00000	
28 Naphthalene	128		11.866	11.866	(1.003)	487485	5.00000	4.354
29 4-Chloroaniline	127		11.989	11.989	(1.014)	382337	10.0000	7.955
30 Hexachlorobutadiene	225		12.221	12.221	(1.033)	85758	5.00000	4.185
31 4-Chloro-3-methylphenol	107		12.933	12.933	(1.093)	270487	10.0000	9.358
32 2-Methylnaphthalene	142		13.251	13.251	(1.120)	337215	5.00000	4.425
33 Hexachlorocyclopentadiene	237		13.715	13.715	(0.890)	94031	10.0000	4.238

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.862	13.862	(0.899)	173550	10.0000	8.404
35 2,4,5-Trichlorophenol	196	13.939	13.939	(0.904)	190696	10.0000	8.292
§ 36 2-Fluorobiphenyl	172	14.024	14.024	(0.910)	392640	5.00000	4.264
37 2-Chloronaphthalene	162	14.241	14.241	(0.924)	299450	5.00000	4.328
38 2-Nitroaniline	65	14.489	14.489	(0.940)	196666	10.0000	10.53
39 Dimethylphthalate	163	14.914	14.914	(0.967)	335191	5.00000	4.602
40 Acenaphthylene	152	15.108	15.108	(0.980)	481855	5.00000	4.565
41 2,6-Dinitrotoluene	165	15.054	15.054	(0.976)	152935	10.0000	9.081
* 42 Acenaphthene-d10	164	15.417	15.417	(1.000)	208278	4.00000	
43 3-Nitroaniline	138	15.340	15.340	(0.995)	166103	10.0000	8.987
44 Acenaphthene	153	15.487	15.487	(1.004)	307433	5.00000	4.367
45 2,4-Dinitrophenol	184	15.549	15.549	(1.009)	114813	20.0000	9.756
46 Dibenzofuran	168	15.812	15.812	(1.026)	438685	5.00000	4.350
47 4-Nitrophenol	109	15.649	15.649	(1.015)	85484	10.0000	8.395
48 2,4-Dinitrotoluene	165	15.858	15.858	(1.029)	211180	10.0000	9.235
50 Diethylphthalate	149	16.368	16.368	(1.062)	380352	5.00000	5.144
49 Fluorene	166	16.523	16.523	(1.072)	358517	5.00000	4.494
51 4-Chlorophenyl-phenylether	204	16.507	16.507	(1.071)	189933	5.00000	4.723
52 4-Nitroaniline	138	16.600	16.600	(1.077)	165106	10.0000	8.511
53 4,6-Dinitro-2-methylphenol	198	16.700	16.700	(0.905)	197102	20.0000	13.87
54 N-Nitrosodiphenylamine	169	16.754	16.754	(0.908)	236393	5.00000	4.338
§ 55 2,4,6-Tribromophenol	330	17.047	17.047	(1.106)	69927	7.50000	5.175
56 4-Bromophenyl-phenylether	248	17.502	17.502	(0.949)	96466	5.00000	4.244
57 Hexachlorobenzene	284	17.826	17.826	(0.966)	108164	5.00000	4.078
58 Pentachlorophenol	266	18.175	18.175	(0.985)	55689	10.0000	3.725
* 59 Phenanthrene-d10	188	18.446	18.446	(1.000)	368411	4.00000	
60 Phenanthrene	178	18.492	18.492	(1.002)	483646	5.00000	4.345
61 Anthracene	178	18.585	18.585	(1.008)	471728	5.00000	4.738
62 Carbazole	167	18.902	18.902	(1.025)	457371	5.00000	4.596
63 Di-n-butylphthalate	149	19.676	19.676	(1.067)	581624	5.00000	4.517
64 Fluoranthene	202	20.844	20.844	(0.890)	538220	5.00000	4.593
65 Pyrene	202	21.262	21.262	(0.907)	551844	5.00000	4.430
§ 66 Terphenyl-d14	244	21.541	21.541	(0.919)	496926	5.00000	4.326
67 Butylbenzylphthalate	149	22.447	22.447	(0.958)	250911	5.00000	4.505
68 Benzo(a)anthracene	228	23.399	23.399	(0.999)	535862	5.00000	4.366
* 69 Chrysene-d12	240	23.430	23.430	(1.000)	371440	4.00000	
70 3,3'-Dichlorobenzidine	252	23.353	23.353	(0.997)	582033	15.0000	10.69
71 Chrysene	228	23.476	23.476	(1.002)	555764	5.00000	4.296
72 bis(2-Ethylhexyl)phthalate	149	23.453	23.453	(0.959)	372857	5.00000	4.784
* 134 Di-n-octylphthalate-d4	153	24.444	24.444	(1.000)	512242	4.00000	
73 Di-n-octylphthalate	149	24.452	24.452	(1.000)	642075	5.00000	4.266
74 Benzo(b)fluoranthene	252	25.311	25.311	(0.970)	551554	5.00000	4.512
75 Benzo(k)fluoranthene	252	25.358	25.358	(0.972)	569707	5.00000	4.261 (H)
76 Benzo(a)pyrene	252	25.985	25.985	(0.996)	476958	5.00000	4.778
* 77 Perylene-d12	264	26.101	26.101	(1.000)	350166	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.861	28.861	(1.106)	572627	5.00000	5.792
79 Dibenzo(a,h)anthracene	278	28.869	28.869	(1.106)	475939	5.00000	5.820
80 Benzo(g,h,i)perylene	276	29.669	29.669	(1.137)	459050	5.00000	6.199
90 N-Nitrosodimethylamine	74	5.064	5.064	(0.541)	175772	10.0000	10.22
91 Aniline	93	8.811	8.811	(0.942)	400319	10.0000	9.412
93 Benzidine	184	21.061	21.061	(0.899)	171168	10.0000	3.166
103 Pyridine	79	5.064	5.064	(0.541)	194689	10.0000	7.700
105 1-methylnaphthalene	142	13.475	13.475	(1.139)	326934	5.00000	4.398
111 Azobenzene (1,2-DP-Hydrazine)	77	16.831	16.831	(1.092)	410987	5.00000	5.271

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	
187 Total Benzofluoranthenes	252		25.358	25.358	(0.972)	1074480	10.0000	8.774
120 2,3,4,6-Tetrachlorophenol	232		16.144	16.144	(1.047)	77171	5.00000	3.372

QC Flag Legend

- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 17-FEB-2023
 Lab File ID: NT1802172306.D Calibration Time: 06:06
 Lab Smp Id: SLB0249-ICV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230217.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	92531	46266	185062	90874	-1.79
27 Naphthalene-d8	396799	198400	793598	389492	-1.84
42 Acenaphthene-d10	215600	107800	431200	208278	-3.40
59 Phenanthrene-d10	382651	191326	765302	368411	-3.72
69 Chrysene-d12	361434	180717	722868	371440	2.77
134 Di-n-octylphthala	516572	258286	1033144	512242	-0.84
77 Perylene-d12	397888	198944	795776	350166	-11.99

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.35	8.85	9.85	9.35	-0.00
27 Naphthalene-d8	11.83	11.33	12.33	11.83	-0.00
42 Acenaphthene-d10	15.42	14.92	15.92	15.42	-0.00
59 Phenanthrene-d10	18.44	17.94	18.94	18.45	0.04
69 Chrysene-d12	23.43	22.93	23.93	23.43	-0.00
134 Di-n-octylphthala	24.44	23.94	24.94	24.44	-0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802172306.D

Lab ID: SLB0249-ICV1
nt18.i, ABN.m, 17-FEB-2023 08:32

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

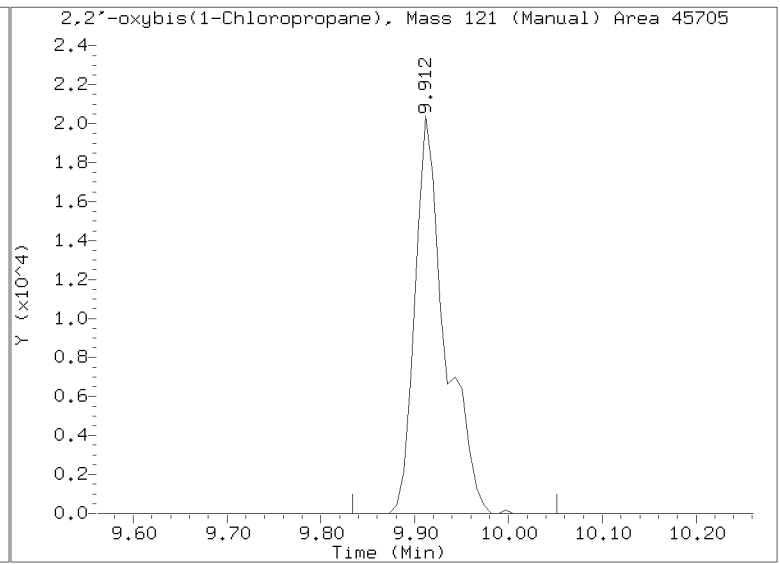
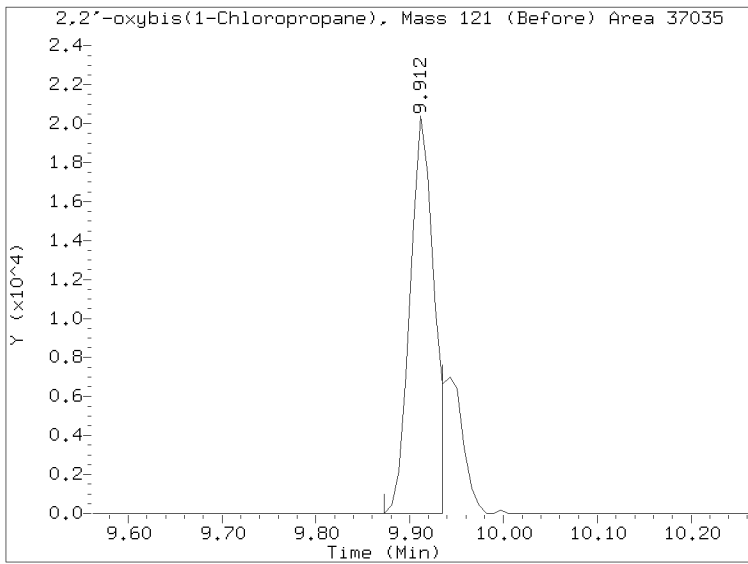
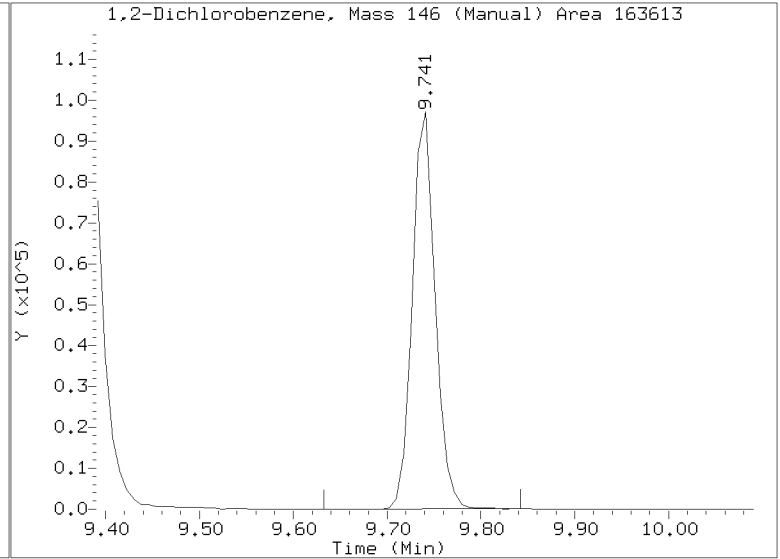
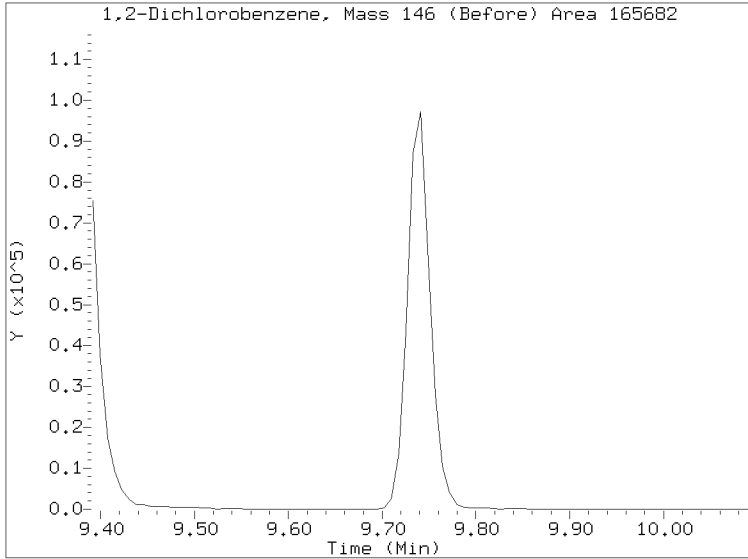
No RRT check. Ccal file.

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt18.i/20230217.b/NT1802172306.D
Injection Date: 17-FEB-2023 08:32
Lab ID:SLB0249-ICV1 Client ID:
Report Date: 02/18/2023 11:19



Instrument: nt18.i Date: 17-FEB-2023 Method: ABN.m

INITIAL CAL: 10-FEB-2023

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1802172306.D 17-FEB-2023 08:32

Compound	%D

2,4-Dimethylphenol	-24.93
Benzoic acid	-65.4
4-Chloroaniline	-20.45
Hexachlorocyclopentadiene	-57.6
2,4-Dinitrophenol	-51.2
4,6-Dinitro-2-methylphenol	-30.7
Pentachlorophenol	-62.7
3,3'-Dichlorobenzidine	-28.8
Benzo(g,h,i)perylene	24.0
Benzidine	-68.3
Pyridine	-23.00
2,3,4,6-Tetrachlorophenol	-32.6
2-Fluorophenol	-23.5
2,4,6-Tribromophenol	-31.0



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT18

Calibration: GB00036

Lab File ID: NT1802192303.D

Calibration Date: 02/15/2023

Sequence: SLC0060

Injection Date: 02/19/23

Lab Sample ID: SLC0060-ICV1

Injection Time: 12:57

Sequence Name: ABN 5

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Phenol	A	5.0000	5.1	1.7227030	1.7594400		2.1	+/-20
4-Methylphenol	A	5.0000	4.9	1.2997430	1.4259580		-1.2	+/-20
Naphthalene	A	5.0000	4.7	1.1498750	1.0817990		-5.9	+/-20
2-Methylnaphthalene	A	5.0000	4.9	0.7826405	0.7610244		-2.8	+/-20
Acenaphthylene	A	5.0000	5.1	2.0273730	2.0713120		2.2	+/-20
Dimethylphthalate	A	5.0000	4.8	1.3989010	1.3400950		-4.2	+/-20
Acenaphthene	A	5.0000	4.8	1.3519230	1.2907330		-4.5	+/-20
Dibenzofuran	A	5.0000	4.6	1.9368720	1.8004440		-7.0	+/-20
Fluorene	A	5.0000	5.0	1.5320300	1.5170950		-1.0	+/-20
Phenanthrene	A	5.0000	4.6	1.2084800	1.1199760		-7.3	+/-20
Anthracene	A	5.0000	5.3	1.0808980	1.1363080		5.1	+/-20
Fluoranthene	A	5.0000	5.1	1.2619890	1.2973150		2.8	+/-20
Pyrene	A	5.0000	5.0	1.3415320	1.3472640		0.4	+/-20
Butylbenzylphthalate	A	5.0000	5.1	0.4869766	0.6023792		1.1	+/-20
Benzo(a)anthracene	A	5.0000	5.1	1.3218310	1.3592180		2.8	+/-20
Chrysene	A	5.0000	4.8	1.3932010	1.3413890		-3.7	+/-20
bis(2-Ethylhexyl)phthalate	A	5.0000	4.7	0.6085941	0.5753353		-5.5	+/-20
Benzofluoranthenes, Total	A	10.0000	9.1	1.3988610	1.2728950		-9.0	+/-20
Benzo(a)pyrene	A	5.0000	5.2	1.1403750	1.1863350		4.0	+/-20
Indeno(1,2,3-cd)pyrene	A	5.0000	6.3	0.8970203	1.4208420		25.4	+/-20 *
Dibenzo(a,h)anthracene	A	5.0000	6.4	0.7420695	1.1961540		27.5	+/-20 *
Benzo(g,h,i)perylene	A	5.0000	6.6	0.6977398	1.1245140		32.6	+/-20 *
2-Fluorophenol	A	7.5000	7.24	1.2188190	1.3334420		-3.5	+/-20
Phenol-d5	A	7.5000	7.45	1.7579030	1.7460590		-0.7	+/-20
2-Chlorophenol-d4	A	7.5000	7.32	1.5283160	1.4912750		-2.4	+/-20
1,2-Dichlorobenzene-d4	A	5.0000	4.49	1.1000200	0.9887874		-10.1	+/-20
Nitrobenzene-d5	A	5.0000	5.41	0.3936769	0.4262831		8.3	+/-20
2-Fluorobiphenyl	A	5.0000	4.56	1.7684190	1.6121330		-8.8	+/-20
2,4,6-Tribromophenol	A	7.5000	6.02	0.2335565	0.2088821		-19.8	+/-20
p-Terphenyl-d14	A	5.0000	4.84	1.2371420	1.1978260		-3.2	+/-20

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT18</u>	Calibration:	<u>GB00036</u>
Lab File ID:	<u>NT1802192303.D</u>	Calibration Date:	<u>02/15/2023</u>
Sequence:	<u>SLC0060</u>	Injection Date:	<u>02/19/23</u>
Lab Sample ID:	<u>SLC0060-ICV1</u>	Injection Time:	<u>12:57</u>
Sequence Name:	<u>ABN 5</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene-d4	A	4.0000	4.0	27104.3600	1.0000		0.0	
Naphthalene-d8	A	4.0000	4.0	103765.9000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.0	54728.7900	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.0	96162.2900	1.0000		0.0	
Chrysene-d12	A	4.0000	4.0	97430.0400	1.0000		0.0	
Di-n-Octylphthalate-d4	A	4.0000	4.0	123024.4000	1.0000		0.0	
Perylene-d12	A	4.0000	4.0	90702.6800	1.0000		0.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt18.1\20230219.1\NT1802192303.D

Date: 19-FEB-2023 12:57

Client ID:

Sample Info: SLC0060-ICW1

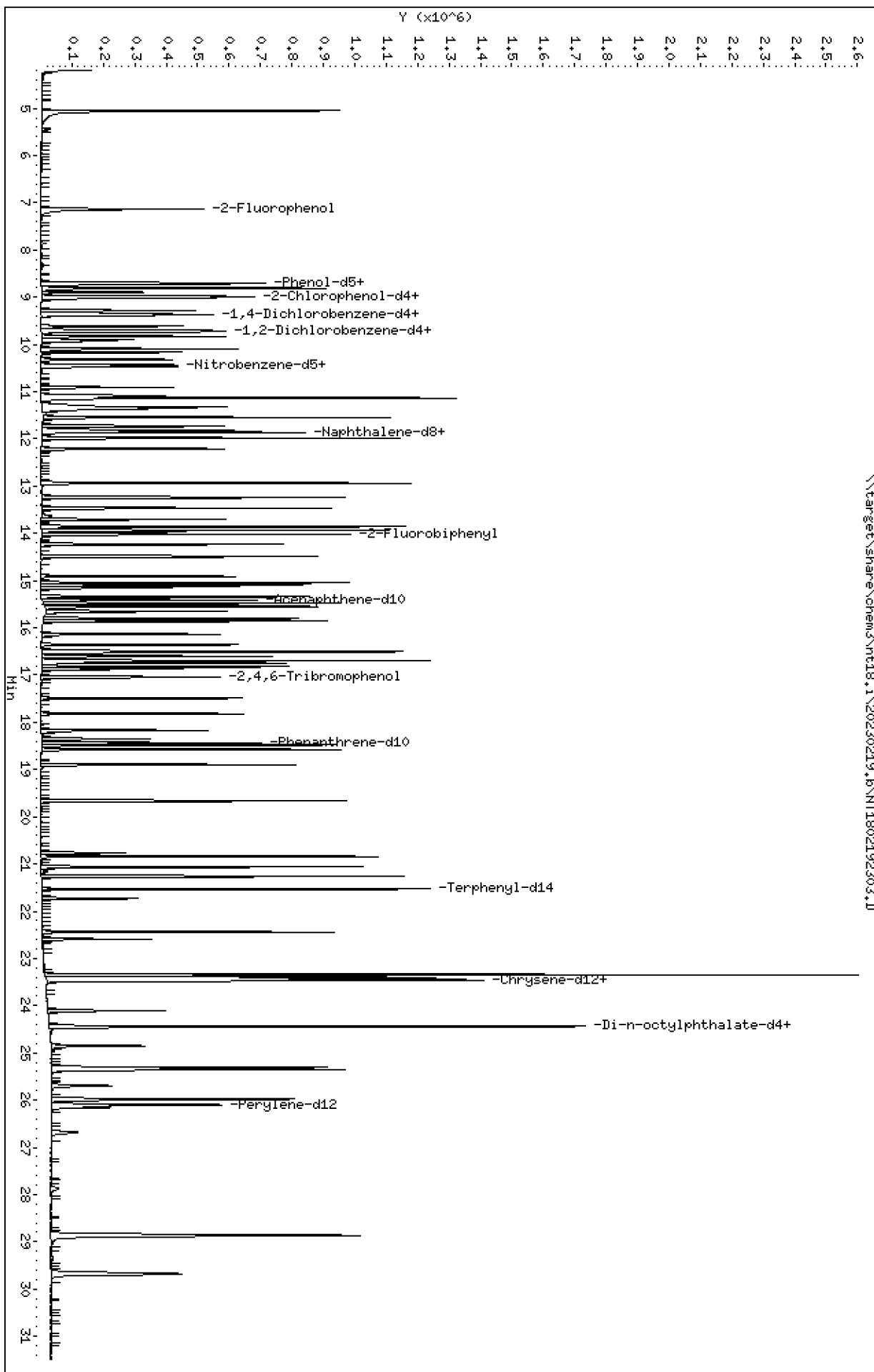
Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

Column phase: ZB-Smsi

\\target\share\chem3\nt18.1\20230219.1\NT1802192303.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230219.b\NT1802192303.D
 Lab Smp Id: SLC0060-ICV1
 Inj Date : 19-FEB-2023 12:57
 Operator : VTS
 Smp Info : SLC0060-ICV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230219.b\ABN.m
 Meth Date : 04-Mar-2023 07:29 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i
 Quant Type: ISTD
 Cal File: NT1802102308.D
 Continuing Calibration Sample
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		7.137	7.137	(0.764)	295584	7.50000	7.239
\$ 2 Phenol-d5	99		8.698	8.698	(0.931)	387049	7.50000	7.449
3 Phenol	94		8.721	8.721	(0.934)	260010	5.00000	5.107
\$ 5 2-Chlorophenol-d4	132		8.984	8.984	(0.962)	330571	7.50000	7.318
4 Bis(2-Chloroethyl)ether	93		8.883	8.883	(0.951)	180547	5.00000	4.685
6 2-Chlorophenol	128		9.015	9.015	(0.965)	221870	5.00000	5.068
7 1,3-Dichlorobenzene	146		9.278	9.278	(0.993)	218023	5.00000	4.570
* 8 1,4-Dichlorobenzene-d4	152		9.340	9.340	(1.000)	118224	4.00000	
9 1,4-Dichlorobenzene	146		9.371	9.371	(1.003)	217461	5.00000	4.250
\$ 10 1,2-Dichlorobenzene-d4	152		9.705	9.705	(1.039)	146123	5.00000	4.494
12 1,2-Dichlorobenzene	146		9.728	9.728	(1.042)	212918	5.00000	4.498
11 Benzyl alcohol	108		9.611	9.611	(1.029)	124042	5.00000	4.517
14 2,2'-oxybis(1-Chloropropane)	121		9.906	9.906	(1.061)	53262	5.00000	4.444
13 2-Methylphenol	108		9.829	9.829	(1.052)	197489	5.00000	5.352
17 Hexachloroethane	117		10.318	10.318	(1.105)	88681	5.00000	4.925
16 N-Nitroso-di-n-propylamine	70		10.163	10.163	(1.088)	149853	5.00000	5.374
15 4-Methylphenol	108		10.093	10.093	(1.081)	210728	5.00000	4.940
\$ 18 Nitrobenzene-d5	82		10.434	10.434	(0.883)	243713	5.00000	5.414
19 Nitrobenzene	77		10.465	10.465	(0.886)	222771	5.00000	5.174
20 Isophorone	82		10.908	10.908	(0.923)	319553	5.00000	4.792
21 2-Nitrophenol	139		11.093	11.093	(0.939)	116005	5.00000	4.877
22 2,4-Dimethylphenol	107		11.136	11.136	(0.942)	429416	10.0000	11.27
23 Bis(2-Chloroethoxy)methane	93		11.331	11.331	(0.959)	201517	5.00000	4.952
24 Benzoic acid	105		11.373	11.373	(0.963)	390406	20.0000	16.24
25 2,4-Dichlorophenol	162		11.543	11.543	(0.977)	377308	10.0000	10.06
26 1,2,4-Trichlorobenzene	180		11.731	11.731	(0.993)	180323	5.00000	4.309
* 27 Naphthalene-d8	136		11.816	11.816	(1.000)	457373	4.00000	
28 Naphthalene	128		11.855	11.855	(1.003)	618482	5.00000	4.704
29 4-Chloroaniline	127		11.978	11.978	(1.014)	554789	10.0000	9.830
30 Hexachlorobutadiene	225		12.210	12.210	(1.033)	105006	5.00000	4.363
31 4-Chloro-3-methylphenol	107		12.930	12.930	(1.094)	367343	10.0000	10.82
32 2-Methylnaphthalene	142		13.239	13.239	(1.120)	435090	5.00000	4.862
33 Hexachlorocyclopentadiene	237		13.704	13.704	(0.889)	137319	10.0000	5.332

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.859	13.859	(0.899)	243696	10.0000	10.18
35 2,4,5-Trichlorophenol	196	13.936	13.936	(0.904)	263874	10.0000	9.901
§ 36 2-Fluorobiphenyl	172	14.013	14.013	(0.909)	486429	5.00000	4.558
37 2-Chloronaphthalene	162	14.230	14.230	(0.923)	364637	5.00000	4.547
38 2-Nitroaniline	65	14.485	14.485	(0.940)	248598	10.0000	11.48
39 Dimethylphthalate	163	14.911	14.911	(0.967)	404347	5.00000	4.790
40 Acenaphthylene	152	15.105	15.105	(0.980)	624977	5.00000	5.108
41 2,6-Dinitrotoluene	165	15.051	15.051	(0.976)	192557	10.0000	9.866
* 42 Acenaphthene-d10	164	15.414	15.414	(1.000)	241384	4.00000	
43 3-Nitroaniline	138	15.337	15.337	(0.995)	213999	10.0000	9.990
44 Acenaphthene	153	15.476	15.476	(1.004)	389453	5.00000	4.774
45 2,4-Dinitrophenol	184	15.553	15.553	(1.009)	200414	20.0000	14.58
46 Dibenzofuran	168	15.801	15.801	(1.025)	543248	5.00000	4.648
47 4-Nitrophenol	109	15.654	15.654	(1.016)	113862	10.0000	9.662
48 2,4-Dinitrotoluene	165	15.855	15.855	(1.029)	260541	10.0000	9.831
50 Diethylphthalate	149	16.357	16.357	(1.061)	406511	5.00000	4.744
49 Fluorene	166	16.512	16.512	(1.071)	457753	5.00000	4.951
51 4-Chlorophenyl-phenylether	204	16.496	16.496	(1.070)	204014	5.00000	4.377
52 4-Nitroaniline	138	16.604	16.604	(1.077)	208182	10.0000	9.264
53 4,6-Dinitro-2-methylphenol	198	16.697	16.697	(0.906)	295943	20.0000	17.68
54 N-Nitrosodiphenylamine	169	16.743	16.743	(0.908)	288040	5.00000	4.510
§ 55 2,4,6-Tribromophenol	330	17.044	17.044	(1.106)	94539	7.50000	6.018
56 4-Bromophenyl-phenylether	248	17.491	17.491	(0.949)	118065	5.00000	4.431
57 Hexachlorobenzene	284	17.816	17.816	(0.966)	126746	5.00000	4.076
58 Pentachlorophenol	266	18.172	18.172	(0.986)	98080	10.0000	5.555
* 59 Phenanthrene-d10	188	18.435	18.435	(1.000)	431840	4.00000	
60 Phenanthrene	178	18.481	18.481	(1.003)	604563	5.00000	4.634
61 Anthracene	178	18.574	18.574	(1.008)	613379	5.00000	5.256
62 Carbazole	167	18.899	18.899	(1.025)	555370	5.00000	4.761
63 Di-n-butylphthalate	149	19.665	19.665	(1.067)	728299	5.00000	4.827
64 Fluoranthene	202	20.841	20.841	(0.890)	661141	5.00000	5.140
65 Pyrene	202	21.259	21.259	(0.907)	686596	5.00000	5.021
§ 66 Terphenyl-d14	244	21.530	21.530	(0.919)	610439	5.00000	4.841
67 Butylbenzylphthalate	149	22.436	22.436	(0.958)	306986	5.00000	5.054
68 Benzo(a)anthracene	228	23.396	23.396	(0.999)	692688	5.00000	5.141
* 69 Chrysene-d12	240	23.427	23.427	(1.000)	407698	4.00000	
70 3,3'-Dichlorobenzidine	252	23.349	23.349	(0.997)	800660	15.0000	13.70
71 Chrysene	228	23.473	23.473	(1.002)	683602	5.00000	4.814
72 bis(2-Ethylhexyl)phthalate	149	23.450	23.450	(0.959)	475465	5.00000	4.727
* 134 Di-n-octylphthalate-d4	153	24.441	24.441	(1.000)	661131	4.00000	
73 Di-n-octylphthalate	149	24.449	24.449	(1.000)	819037	5.00000	4.217
74 Benzo(b)fluoranthene	252	25.308	25.308	(0.969)	661477	5.00000	4.608
75 Benzo(k)fluoranthene	252	25.354	25.354	(0.971)	708143	5.00000	4.509
76 Benzo(a)pyrene	252	25.982	25.982	(0.995)	609889	5.00000	5.202
* 77 Perylene-d12	264	26.105	26.105	(1.000)	411276	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.865	28.865	(1.106)	730448	5.00000	6.269
79 Dibenzo(a,h)anthracene	278	28.873	28.873	(1.106)	614937	5.00000	6.373
80 Benzo(g,h,i)perylene	276	29.681	29.681	(1.137)	578107	5.00000	6.631
90 N-Nitrosodimethylamine	74	5.059	5.059	(0.542)	234378	10.0000	10.47
91 Aniline	93	8.806	8.806	(0.943)	587532	10.0000	10.62
93 Benzidine	184	21.058	21.058	(0.899)	594207	10.0000	13.67
103 Pyridine	79	5.051	5.051	(0.541)	388634	10.0000	11.81
105 1-methylnaphthalene	142	13.464	13.464	(1.139)	393465	5.00000	4.508
111 Azobenzene (1,2-DP-Hydrazine)	77	16.820	16.820	(1.091)	487191	5.00000	5.391

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	
187 Total Benzofluoranthenes	252		25.354	25.354	(0.971)	1308778	10.0000	9.100
120 2,3,4,6-Tetrachlorophenol	232		16.133	16.133	(1.047)	126504	5.00000	4.728

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 20-FEB-2023
 Lab File ID: NT1802192303.D Calibration Time: 01:01
 Lab Smp Id: SLC0060-ICV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230219.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	119934	59967	239868	118224	-1.43
27 Naphthalene-d8	470167	235084	940334	457373	-2.72
42 Acenaphthene-d10	247389	123695	494778	241384	-2.43
59 Phenanthrene-d10	450127	225064	900254	431840	-4.06
69 Chrysene-d12	425953	212977	851906	407698	-4.29
134 Di-n-octylphthala	675695	337848	1351390	661131	-2.16
77 Perylene-d12	300237	150119	600474	411276	36.98

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.35	8.85	9.85	9.34	-0.08
27 Naphthalene-d8	11.82	11.32	12.32	11.82	-0.00
42 Acenaphthene-d10	15.41	14.91	15.91	15.41	-0.00
59 Phenanthrene-d10	18.44	17.94	18.94	18.44	-0.00
69 Chrysene-d12	23.44	22.94	23.94	23.43	-0.03
134 Di-n-octylphthala	24.44	23.94	24.94	24.44	-0.00
77 Perylene-d12	26.10	25.60	26.60	26.11	0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802192303.D

Lab ID: SLC0060-ICV1
nt18.i, ABN.m, 19-FEB-2023 12:57

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt18.i\20230219.b

Instrument: nt18.i Date: 19-FEB-2023 Method: ABN.m

INITIAL CAL: 10-FEB-2023

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1802192303.D 19-FEB-2023 12:57

Compound	%D

Hexachlorocyclopentadiene	-46.7
2,4-Dinitrophenol	-27.1
Pentachlorophenol	-44.5
Indeno(1,2,3-cd)pyrene	25.4
Dibenzo(a,h)anthracene	27.5
Benzo(g,h,i)perylene	32.6
Benzidine	36.7



LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00018

Lab File ID: NT1023020713.D

Calibration Date: 02/07/2023

Sequence: SLB0102

Injection Date: 02/07/23

Lab Sample ID: SLB0102-LCV1

Injection Time: 19:20

Sequence Name: ABN 0.2

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	0.50000	0.5	1.8557260	1.9536400		5.3	+/-50
4-Methylphenol	A	0.50000	0.5	1.4577560	1.5242190		4.6	+/-50
Naphthalene	A	0.50000	0.5	1.0689000	1.1197690		4.8	+/-50
2-Methylnaphthalene	A	0.50000	0.5	0.7432041	0.7710991		3.8	+/-50
Acenaphthylene	A	0.50000	0.5	1.9958230	2.1191180		6.2	+/-50
Dimethylphthalate	A	0.50000	0.5	1.3405170	1.4215860		6.0	+/-50
Acenaphthene	A	0.50000	0.5	1.2231120	1.2754540		4.3	+/-50
Dibenzofuran	A	0.50000	0.5	1.7594910	1.8106960		2.9	+/-50
Fluorene	A	0.50000	0.6	1.9777380	2.1964700		11.1	+/-50
Phenanthrene	A	0.50000	0.5	1.0765200	1.1359400		5.5	+/-50
Anthracene	A	0.50000	0.5	1.0659800	1.1148240		4.6	+/-50
Fluoranthene	A	0.50000	0.5	1.4667580	1.5340360		4.6	+/-50
Pyrene	A	0.50000	0.5	1.5142740	1.5946970		5.3	+/-50
Butylbenzylphthalate	A	0.50000	0.5	0.6543795	0.6471717		-1.1	+/-50
Benzo(a)anthracene	A	0.50000	0.5	1.3332750	1.4586010		9.4	+/-50
Chrysene	A	0.50000	0.6	1.2786640	1.4075090		10.1	+/-50
bis(2-Ethylhexyl)phthalate	A	0.50000	0.5	0.5440929	0.5560418		2.2	+/-50
Benzo(a)fluoranthene, Total	A	1.00000	1.1	1.2413430	1.3192560		6.3	+/-50
Benzo(a)pyrene	A	0.50000	0.5	1.1449040	1.1605740		1.4	+/-50
Indeno(1,2,3-cd)pyrene	A	0.50000	0.5	1.3627520	1.3976870		2.6	+/-50
Dibenzo(a,h)anthracene	A	0.50000	0.5	1.1288770	1.1635100		3.1	+/-50
Benzo(g,h,i)perylene	A	0.50000	0.5	1.1695480	1.1791430		0.8	+/-50
2-Fluorophenol	A	0.75000	0.743	1.2716740	1.2600080		-0.9	+/-50
Phenol-d5	A	0.75000	0.779	1.7155190	1.7817430		3.9	+/-50
2-Chlorophenol-d4	A	0.75000	0.800	1.3922970	1.4853830		6.7	+/-50
1,2-Dichlorobenzene-d4	A	0.50000	0.535	0.9530327	1.0197760		7.0	+/-50
Nitrobenzene-d5	A	0.50000	0.528	0.3951837	0.4175935		5.7	+/-50
2-Fluorobiphenyl	A	0.50000	0.532	1.4414640	1.5350840		6.5	+/-50
2,4,6-Tribromophenol	A	0.75000	0.661	0.2002949	0.1765522		-11.9	+/-50
p-Terphenyl-d14	A	0.50000	0.546	1.1418200	1.2466250		9.2	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.16\NT1023020713.D

Date: 07-FEB-2023 19:20

Client ID:

Sample Info: SLB0102-LCW1

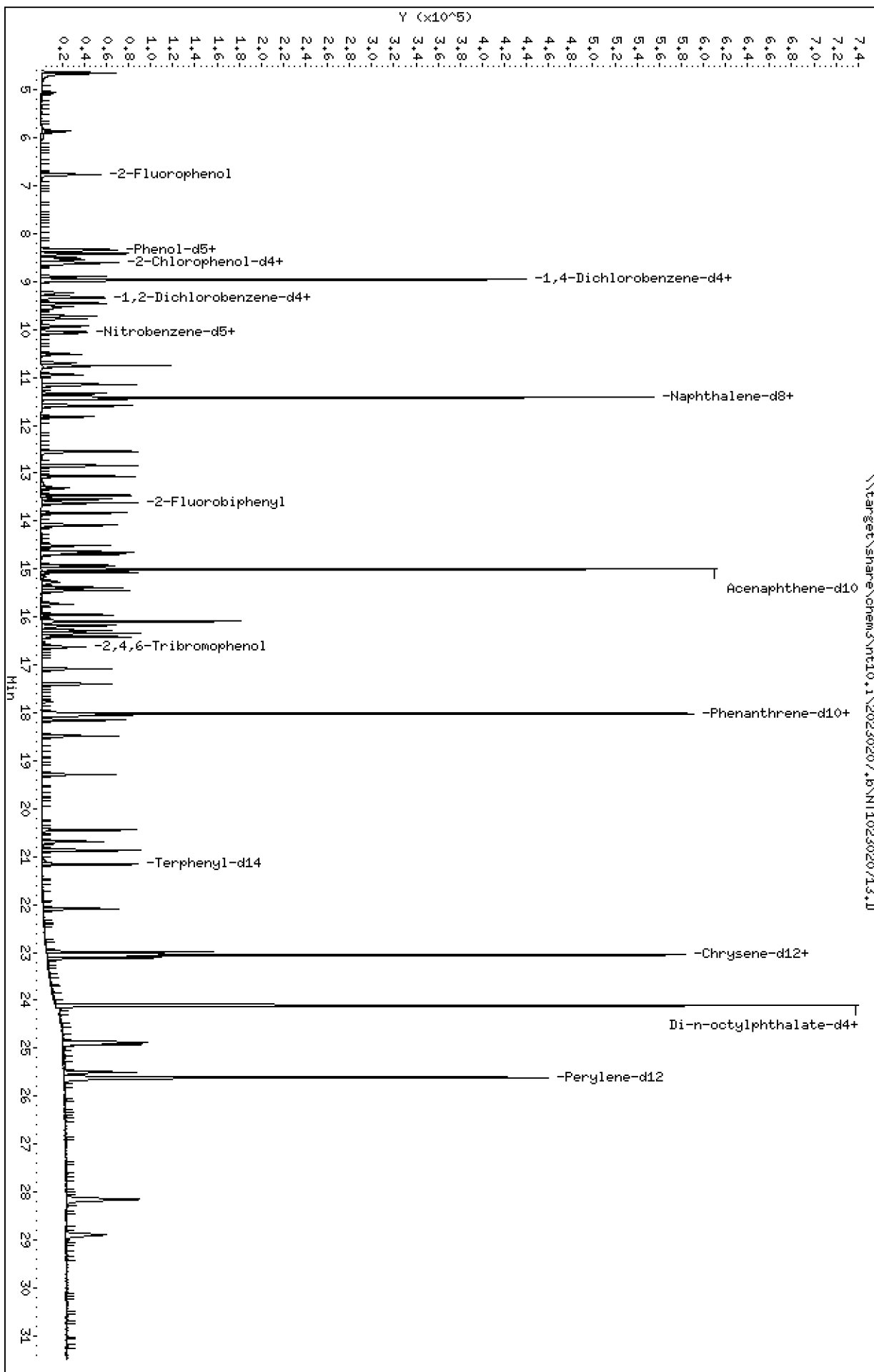
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

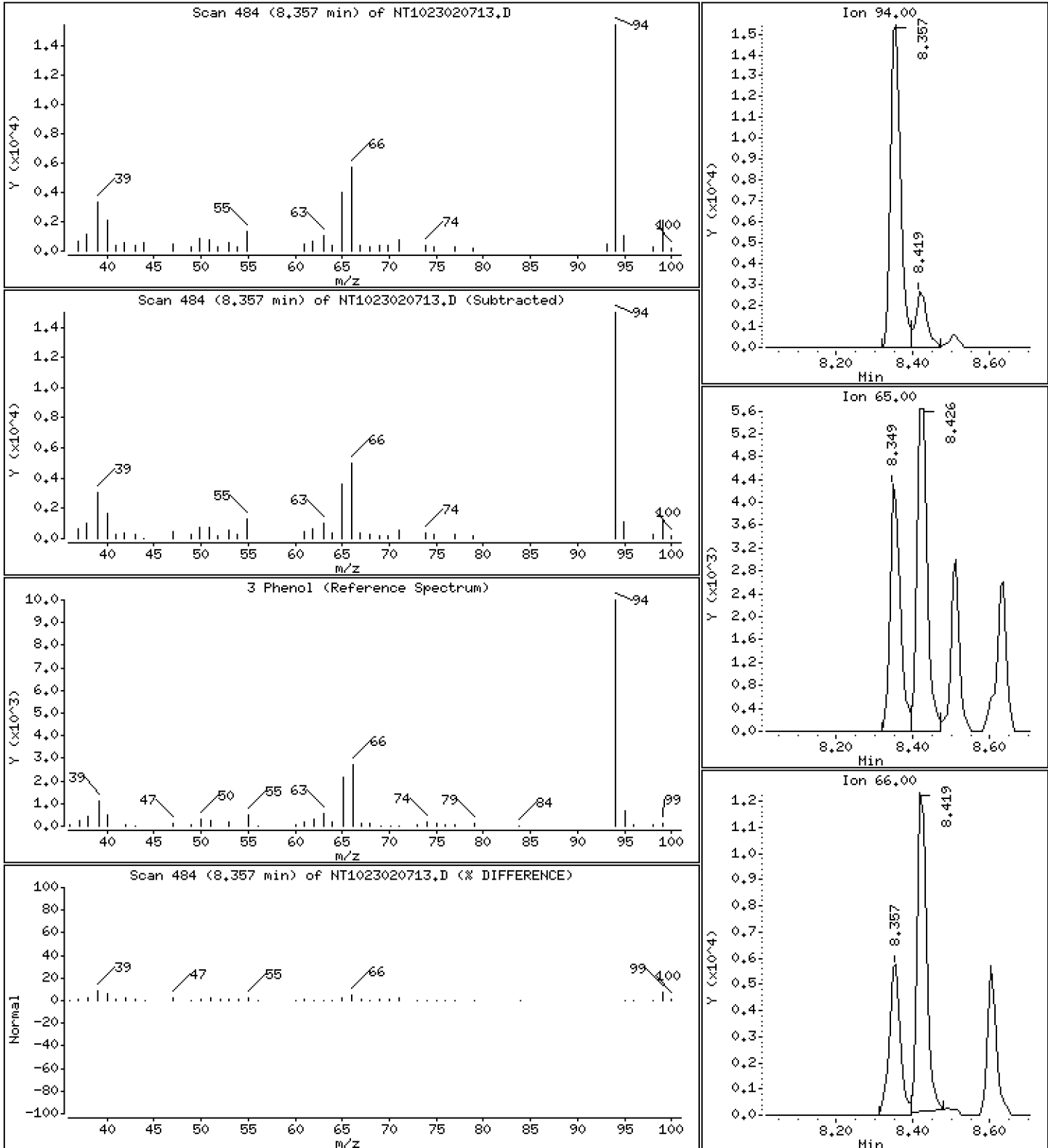
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,5264 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

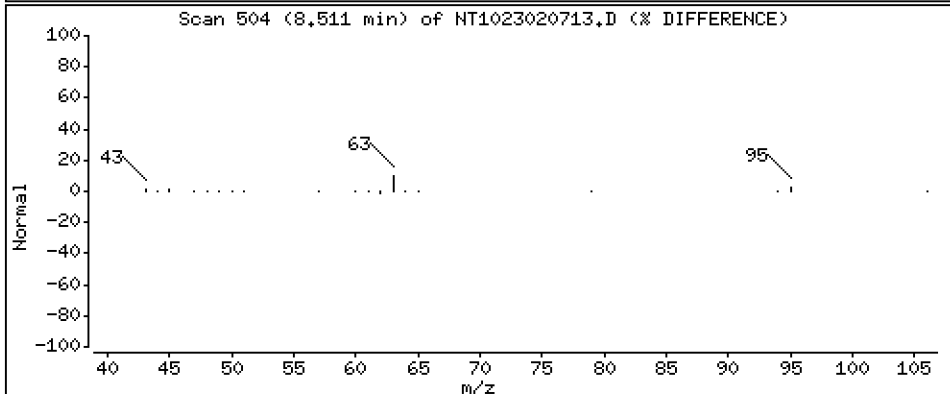
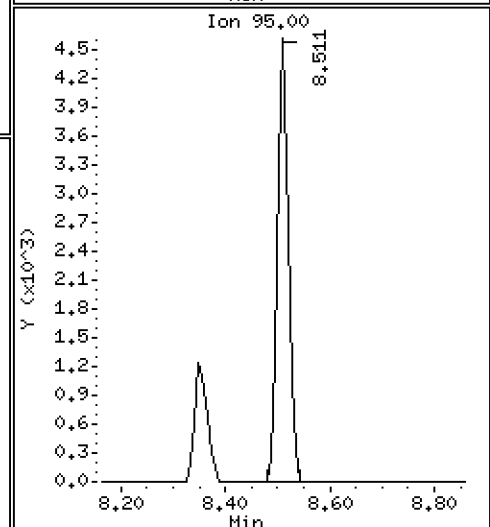
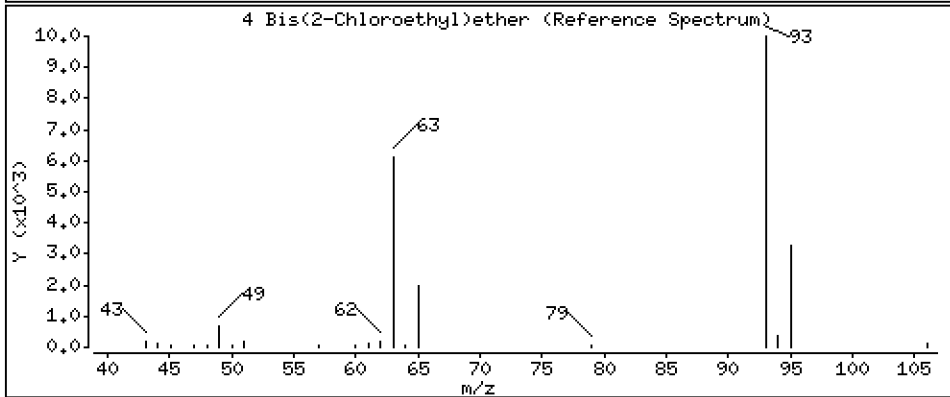
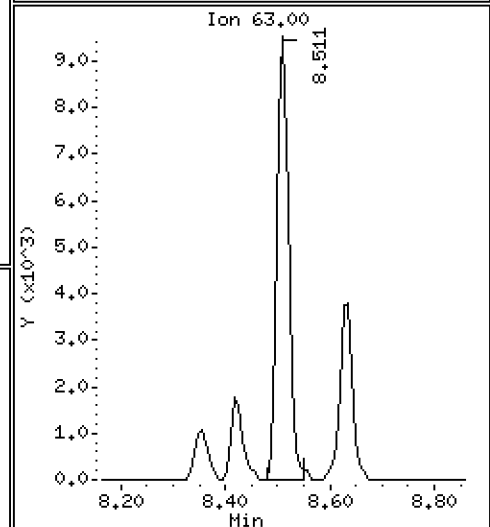
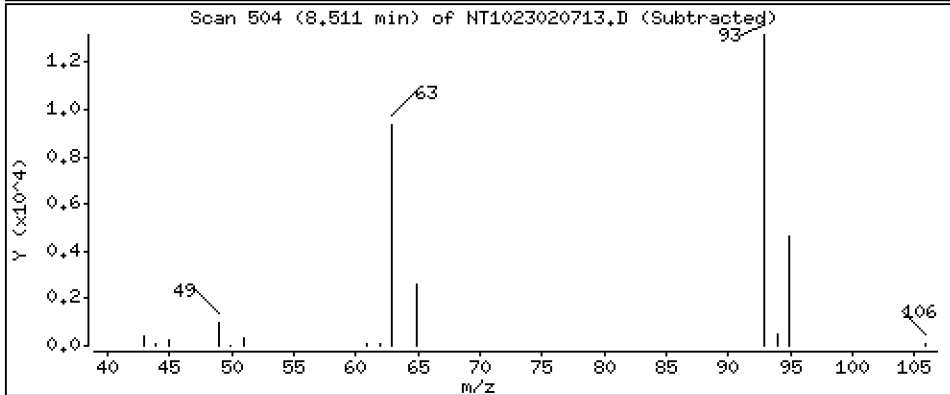
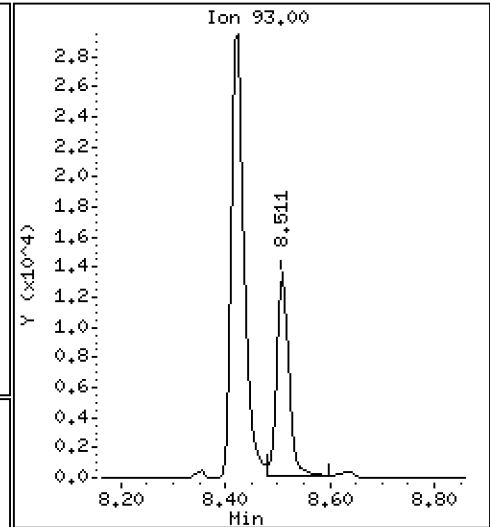
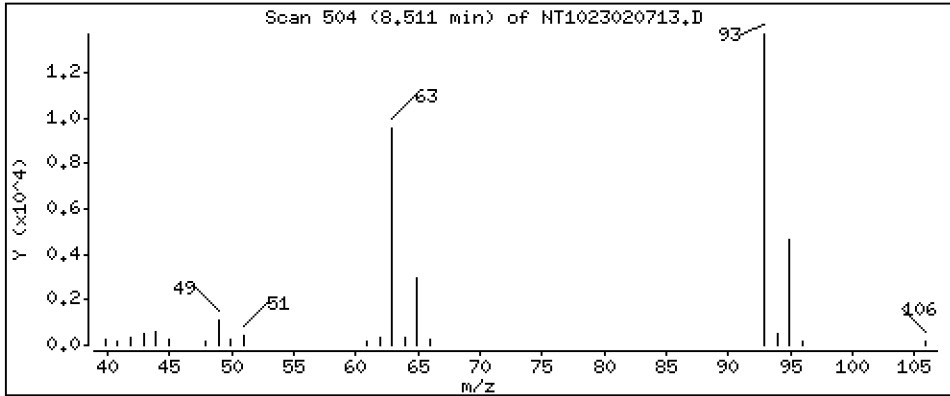
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,5444 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

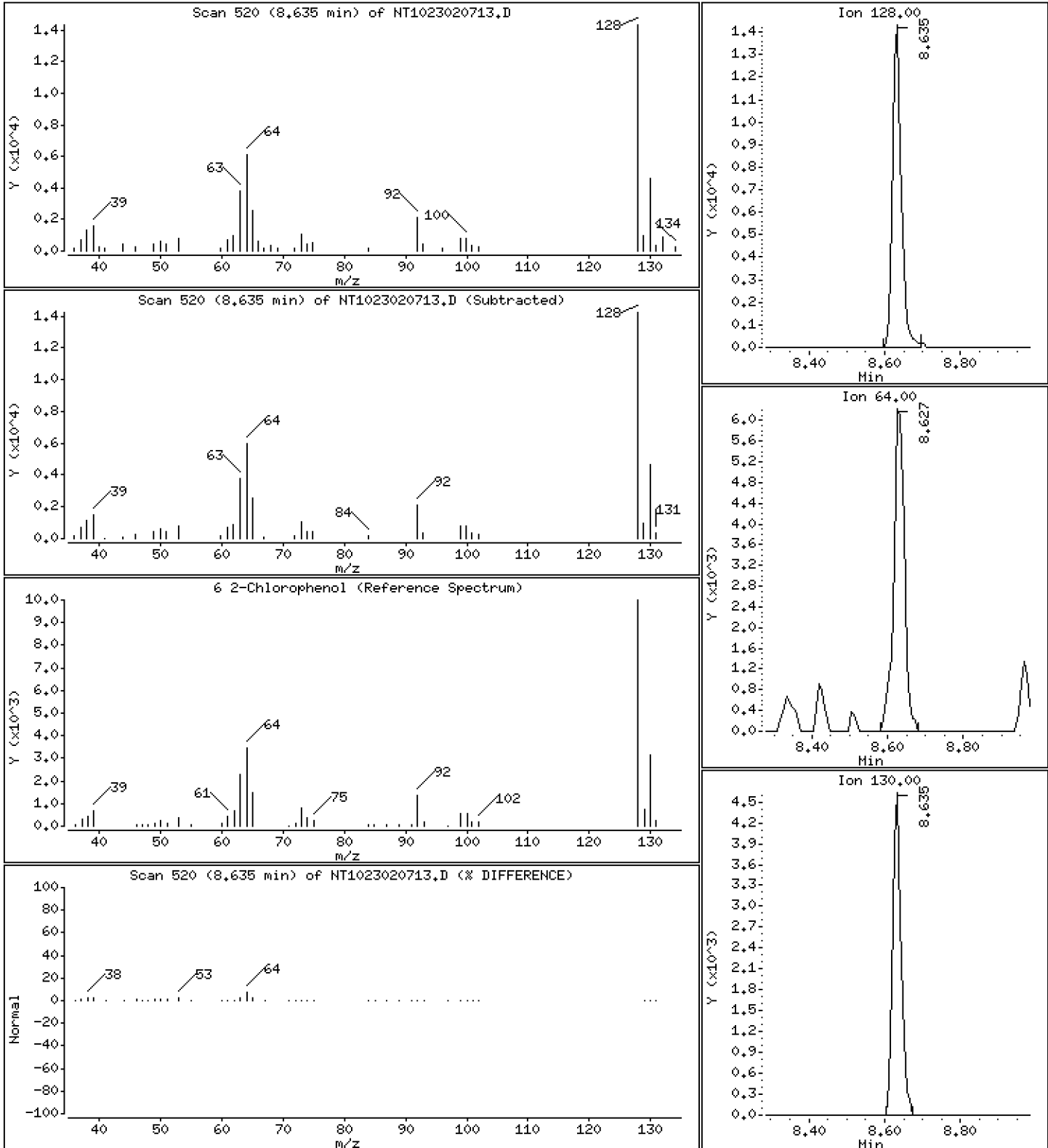
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 0,5367 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

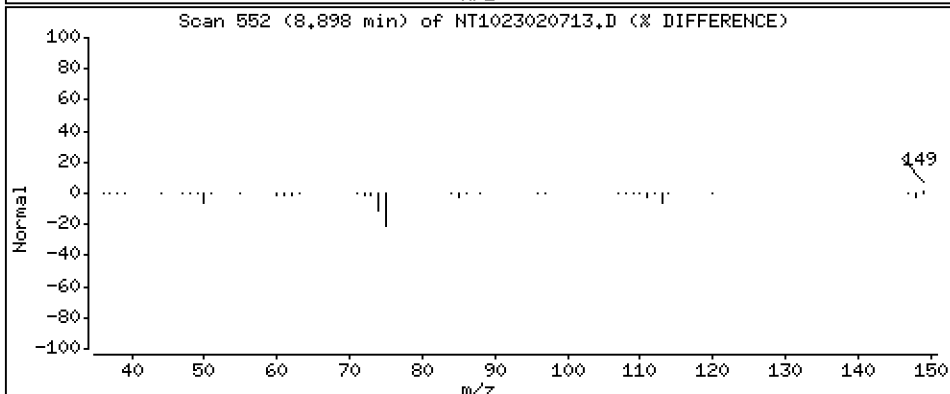
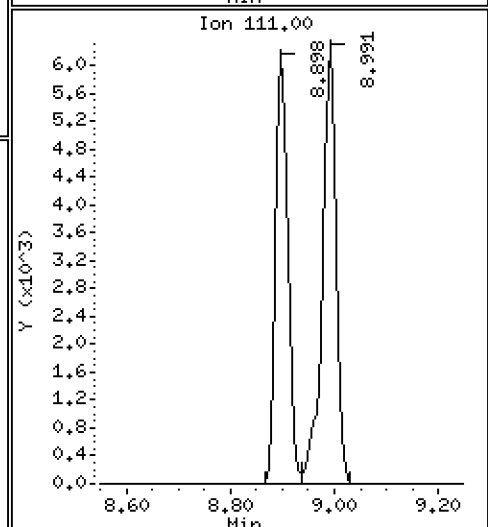
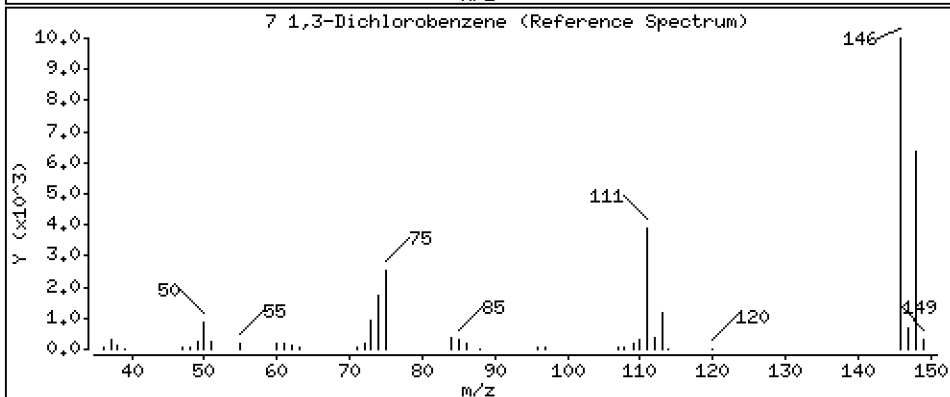
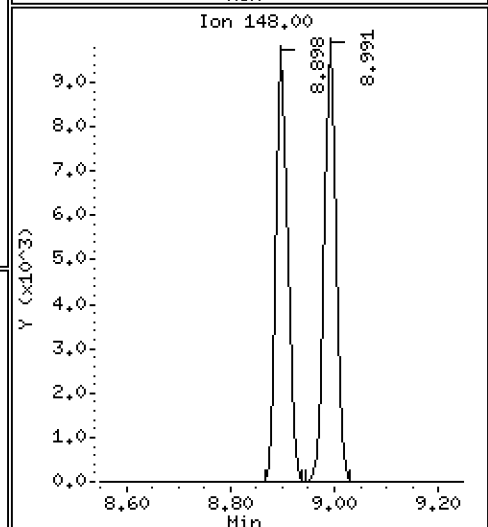
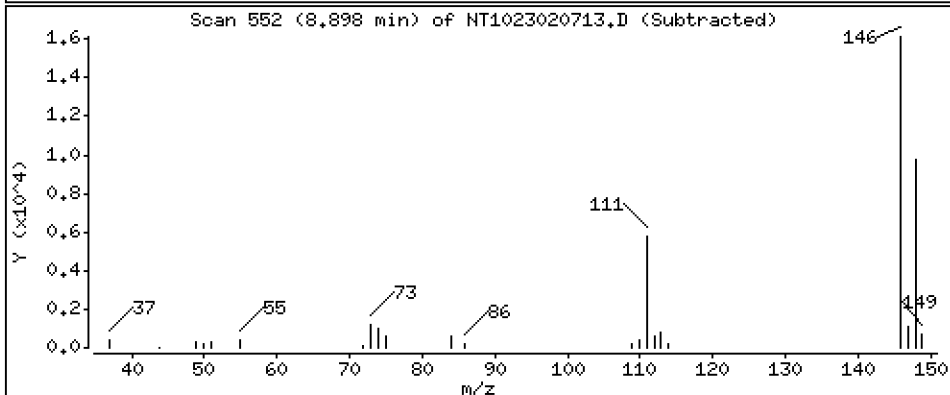
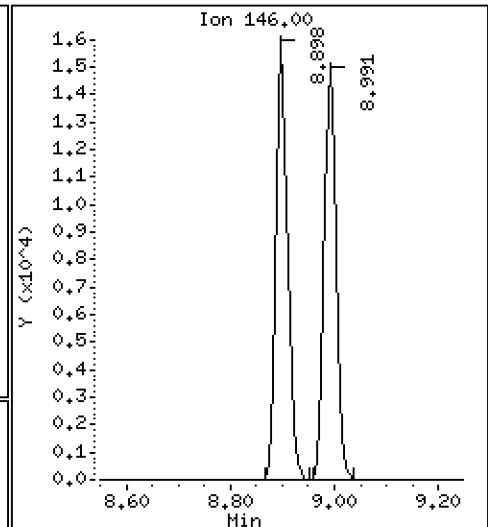
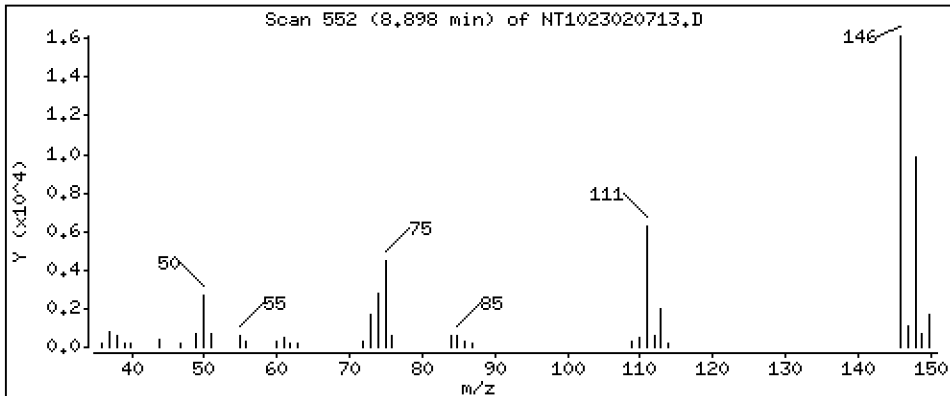
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.5413 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

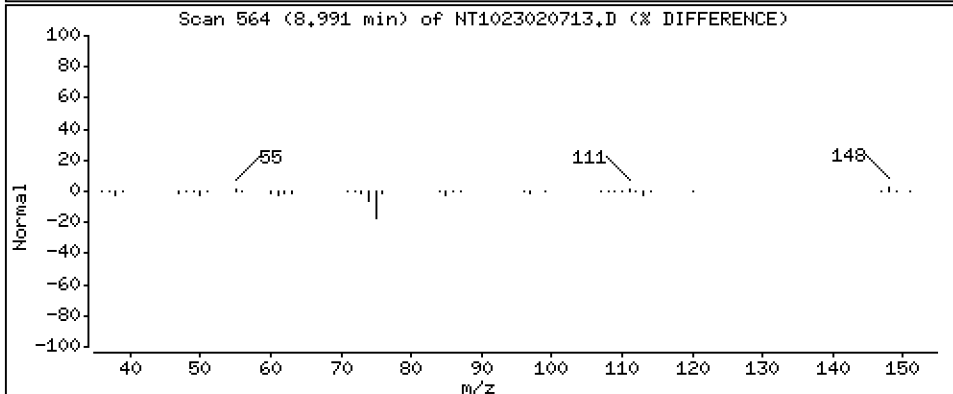
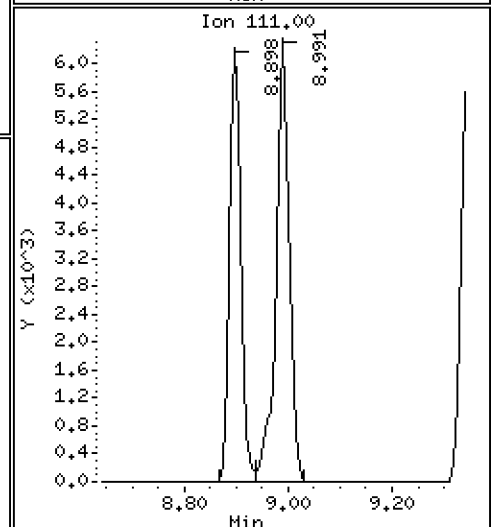
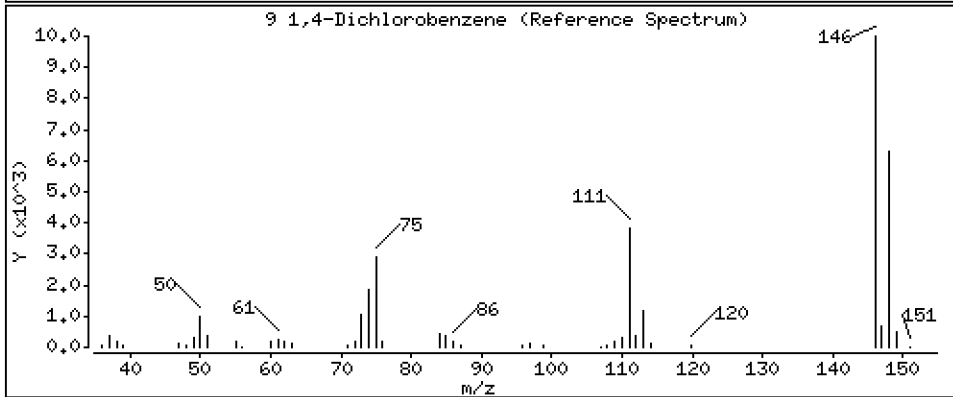
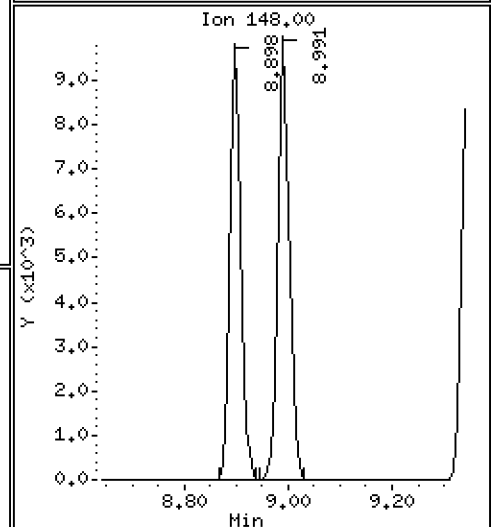
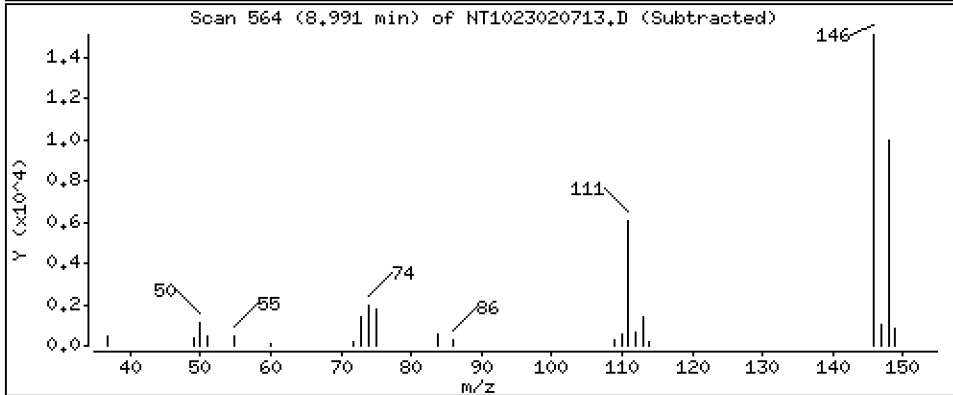
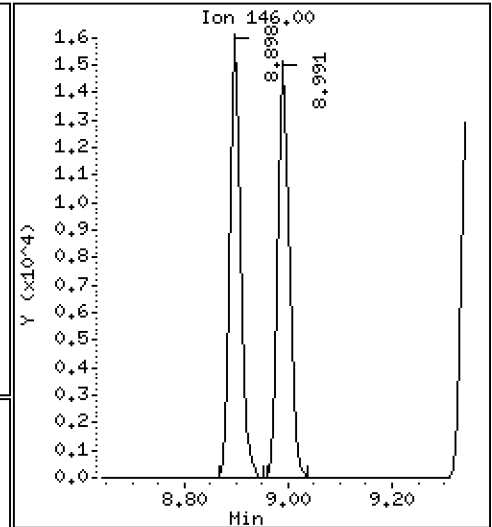
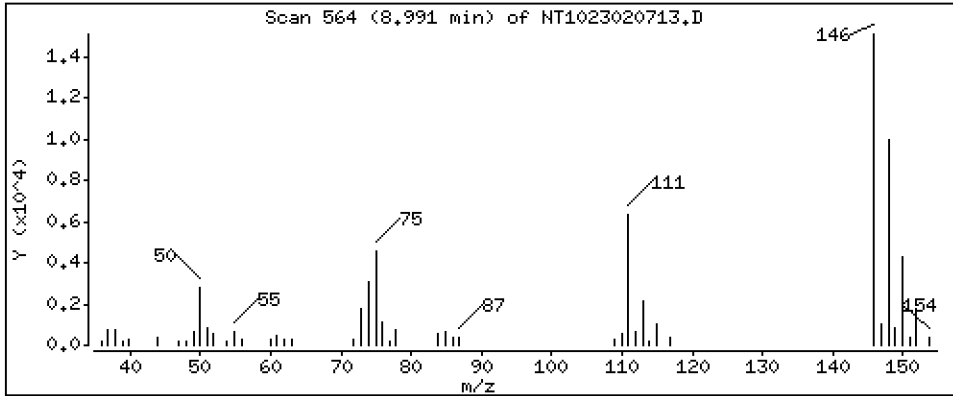
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,5183 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

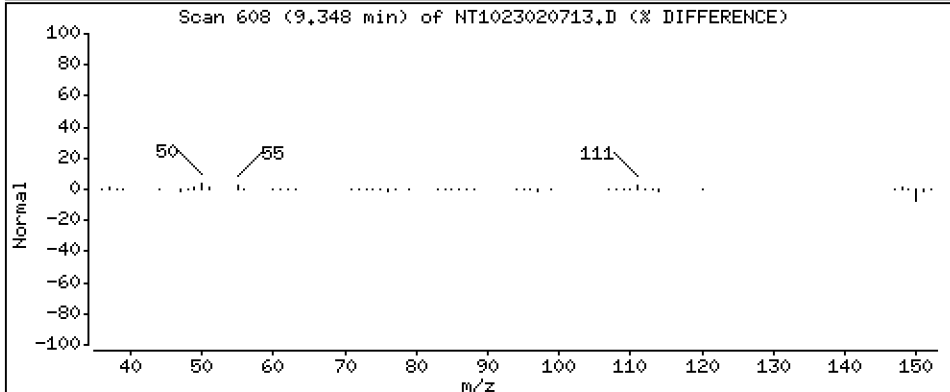
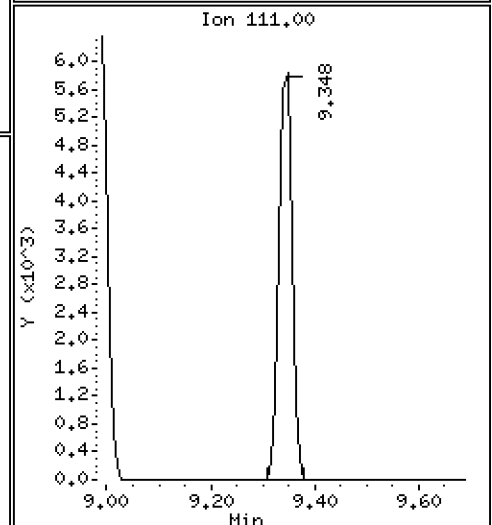
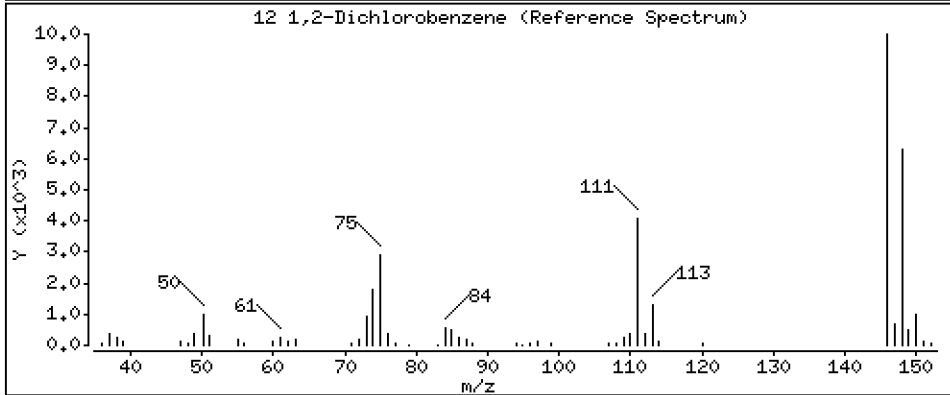
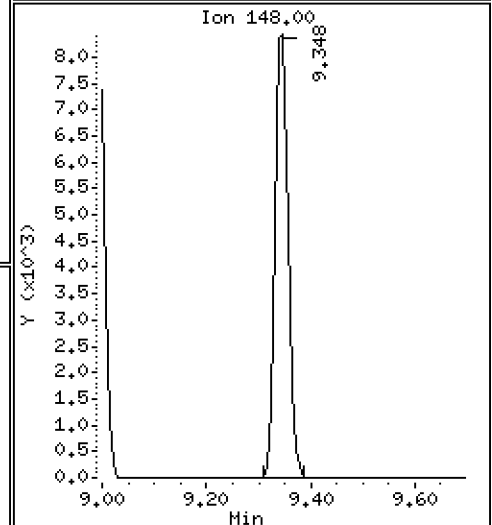
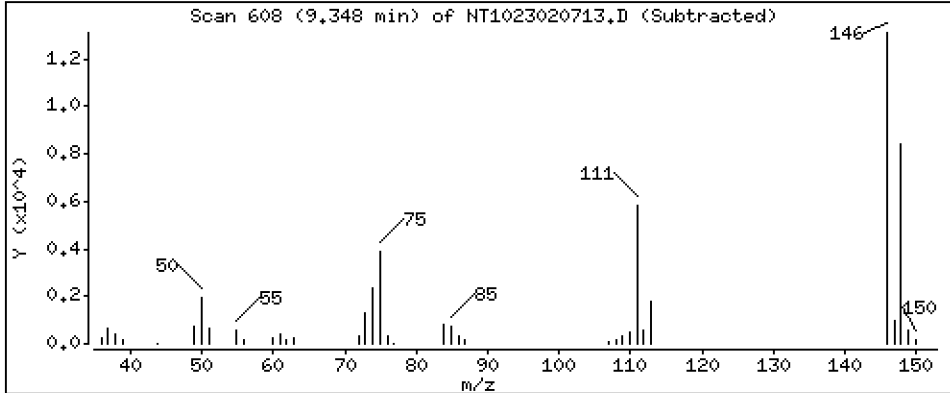
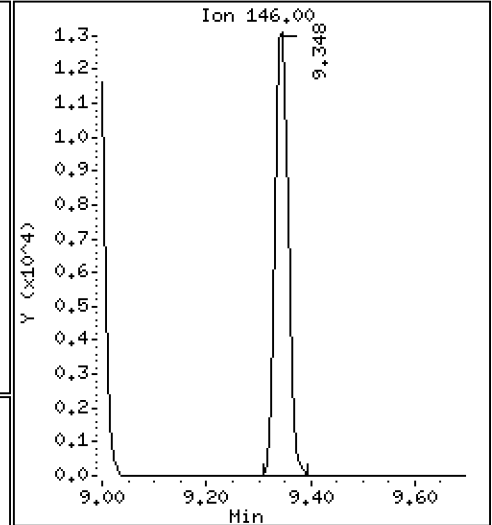
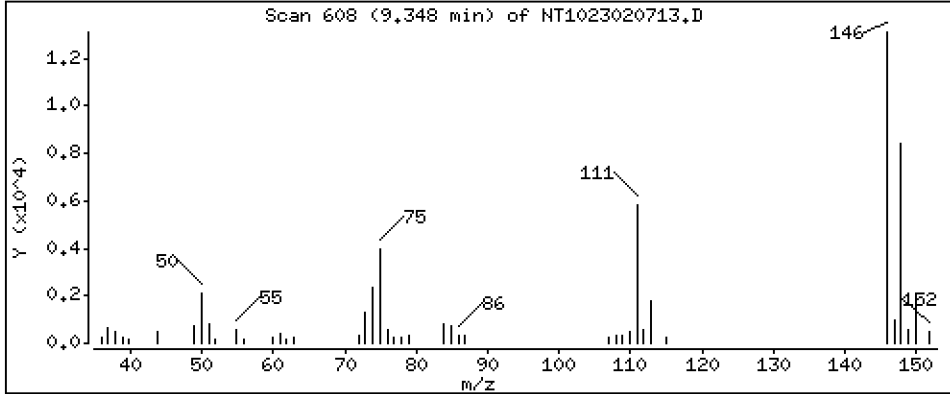
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.5316 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

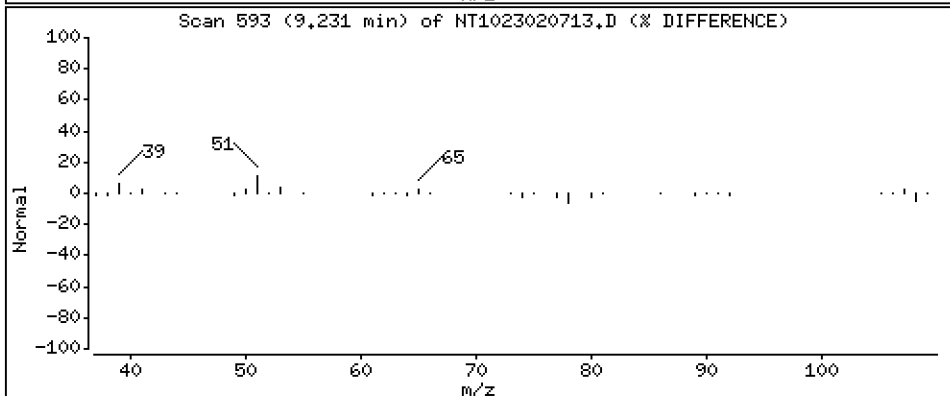
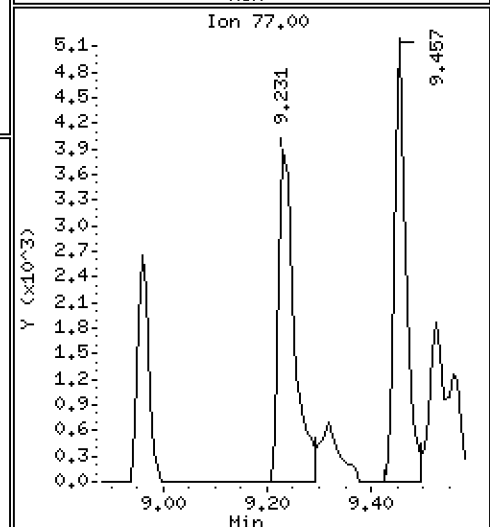
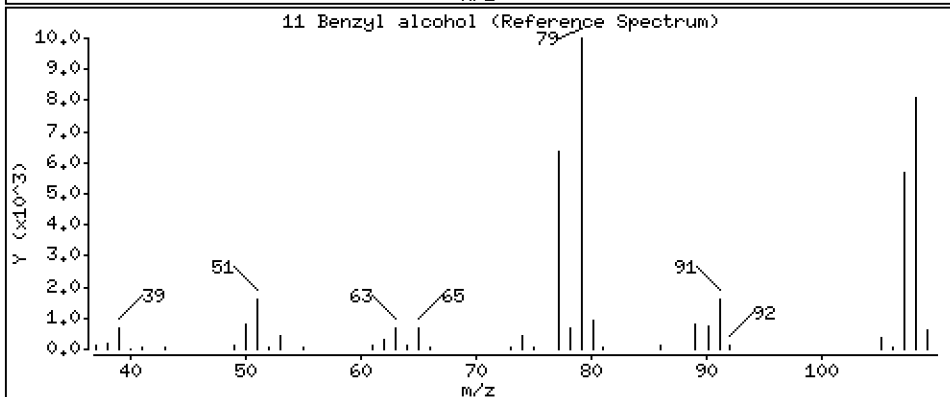
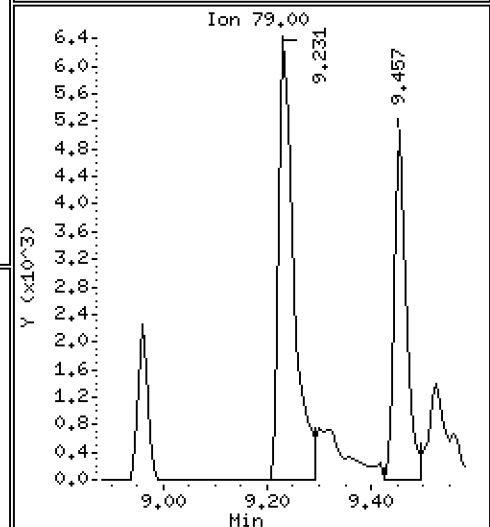
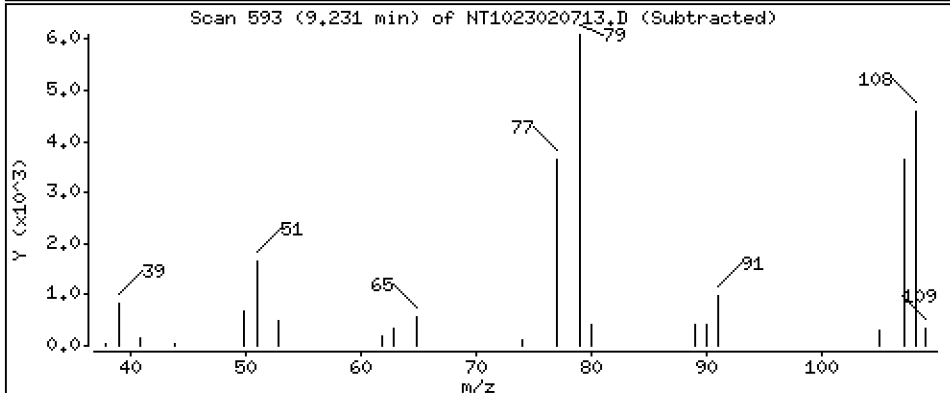
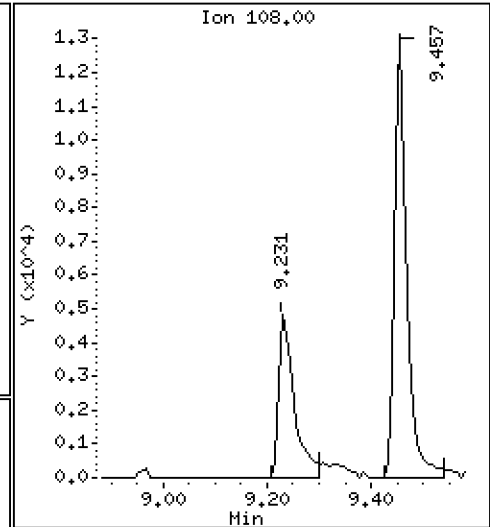
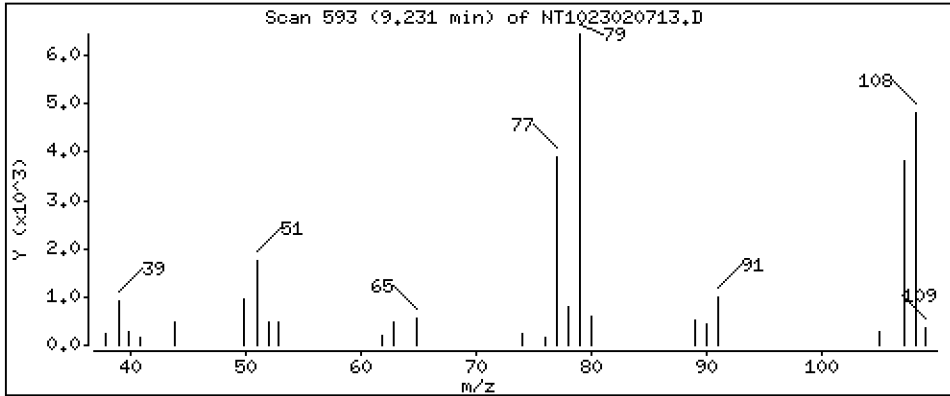
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.4184 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

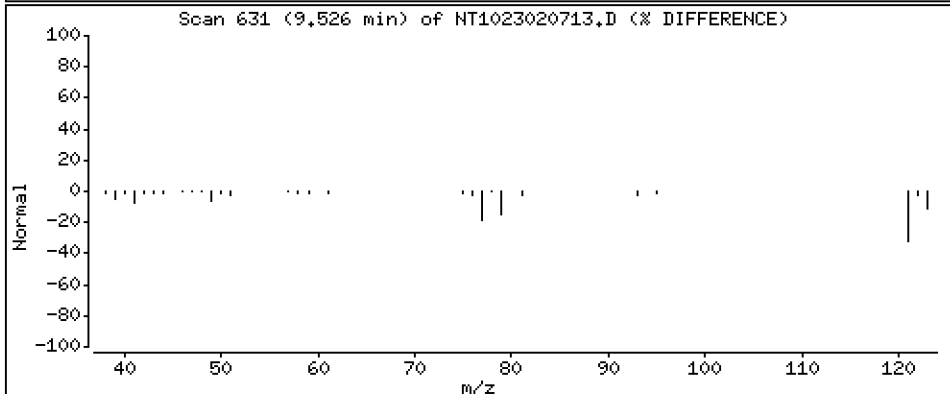
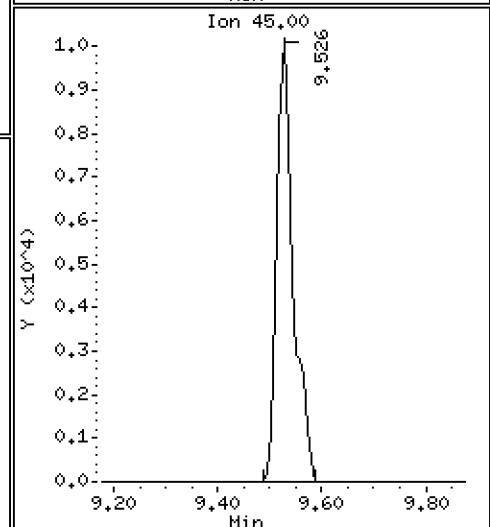
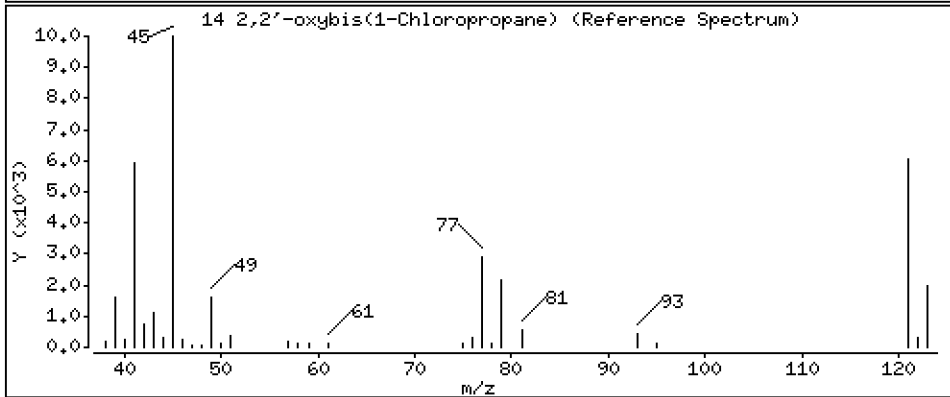
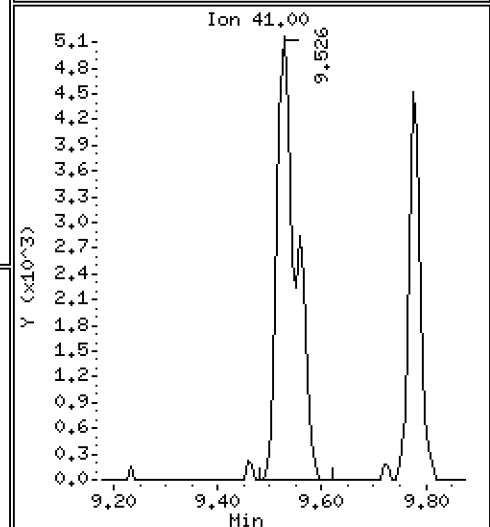
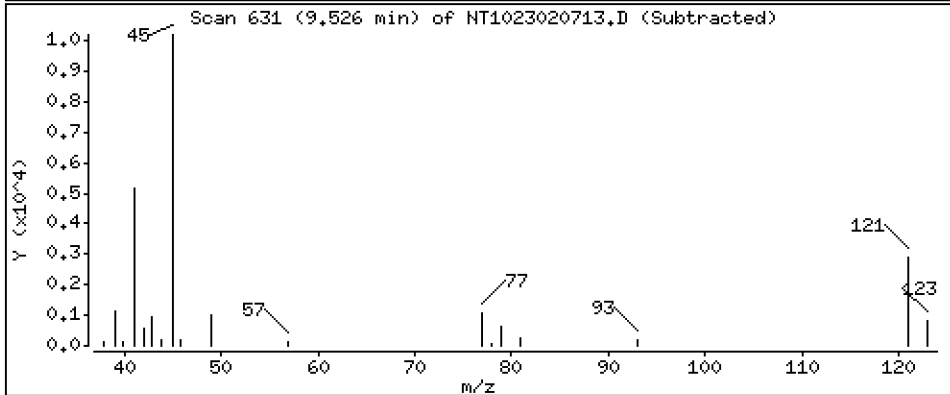
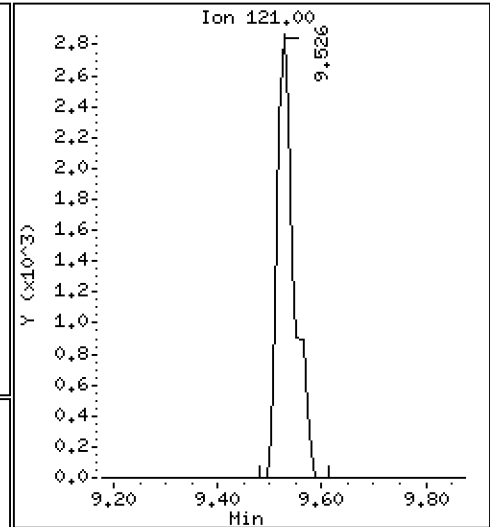
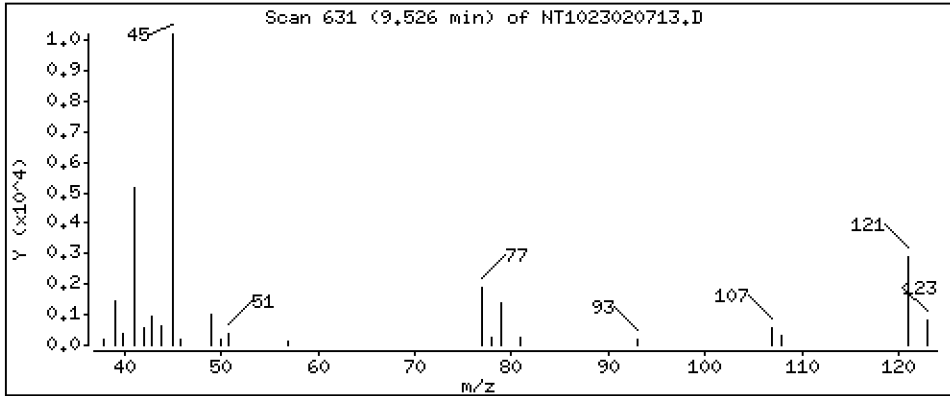
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 0.5215 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

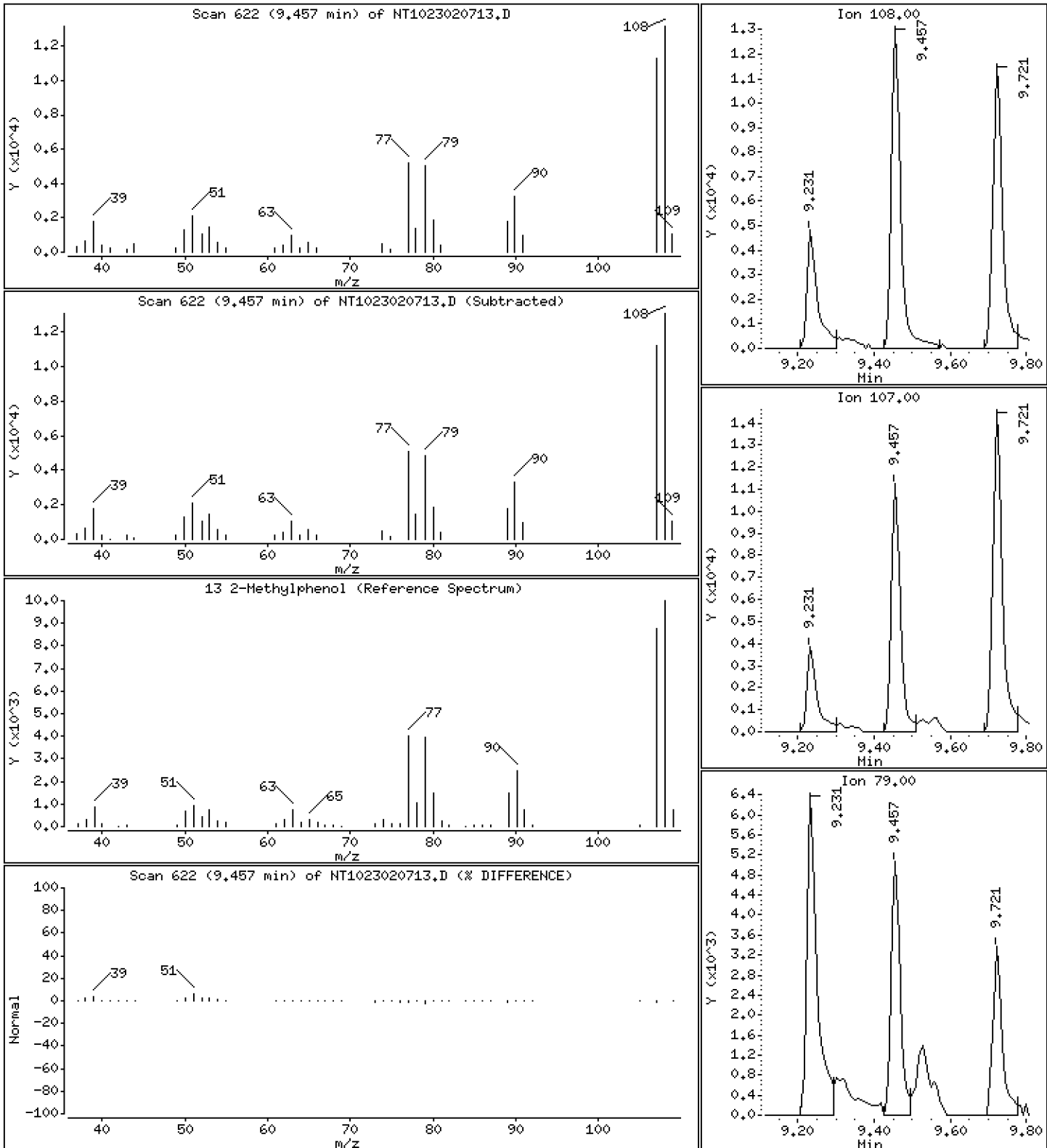
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.5516 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

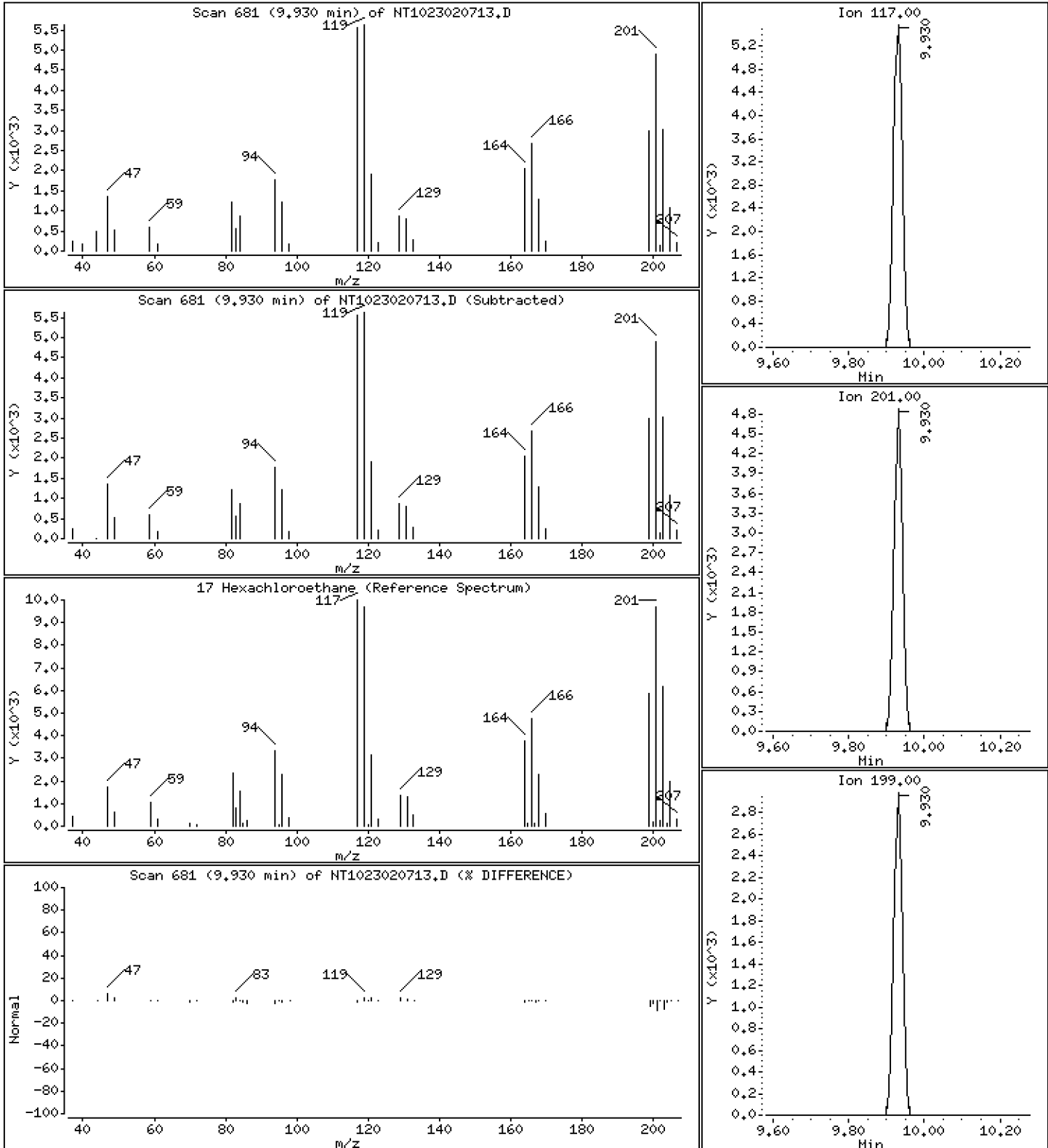
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

17 Hexachloroethane

Concentration: 0.5132 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

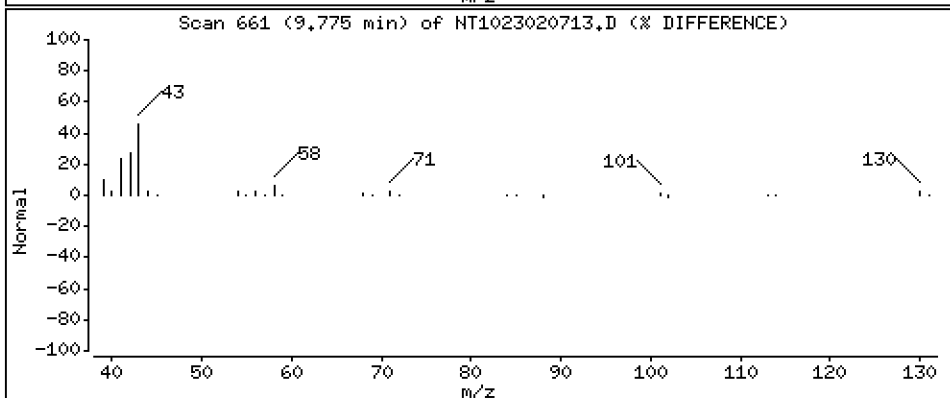
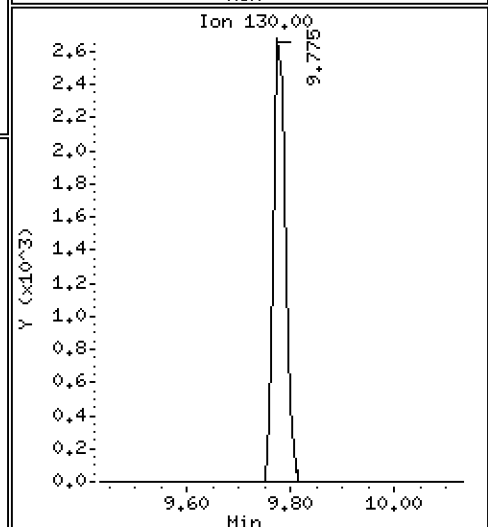
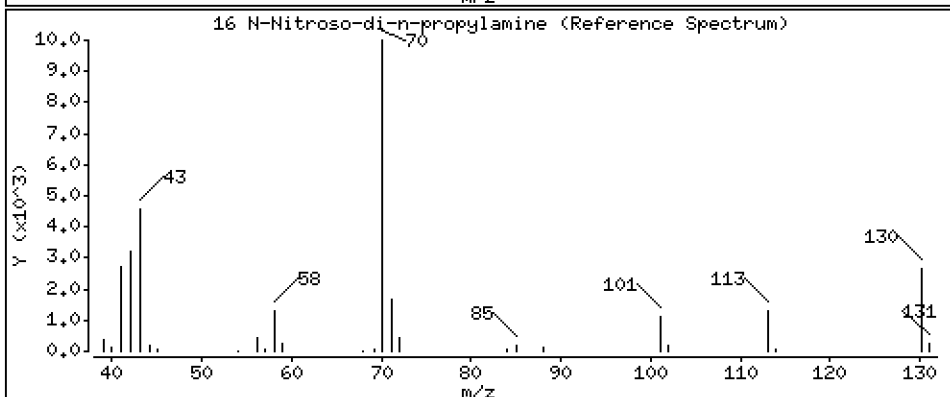
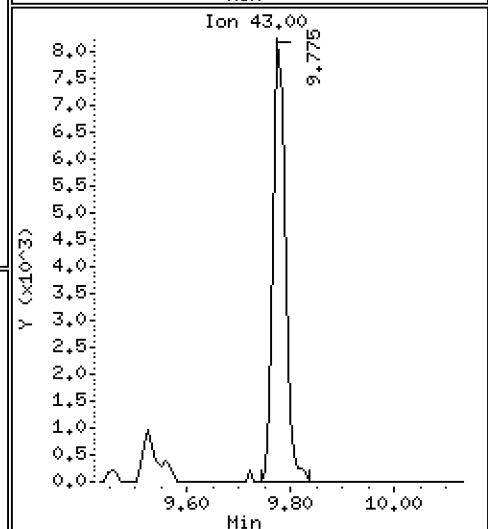
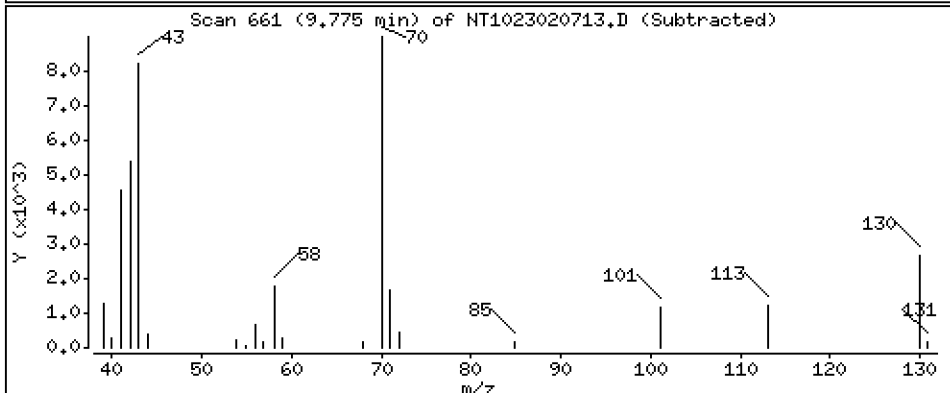
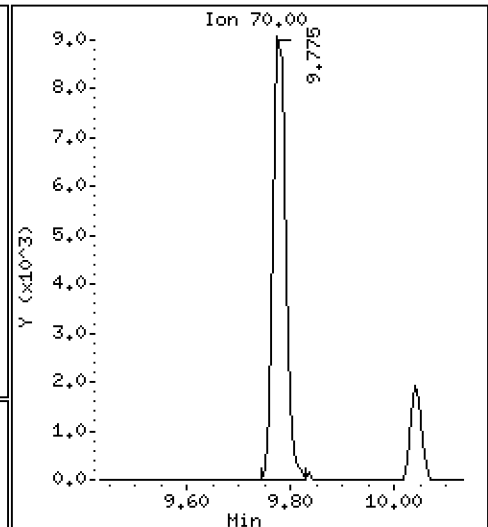
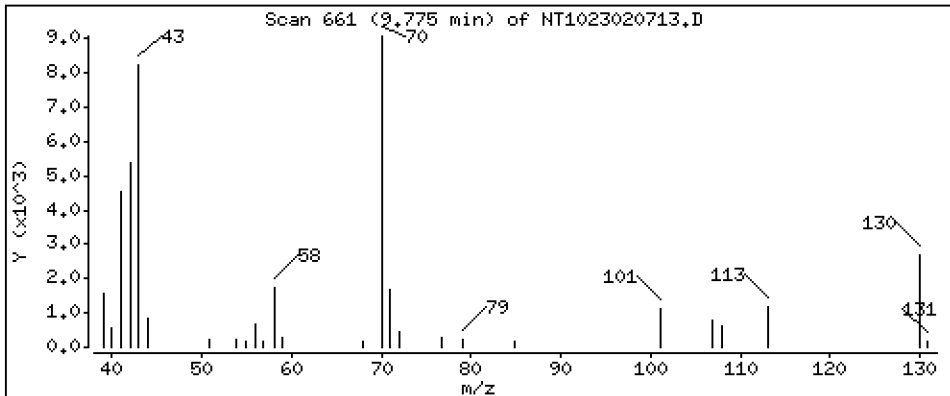
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 0,5047 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

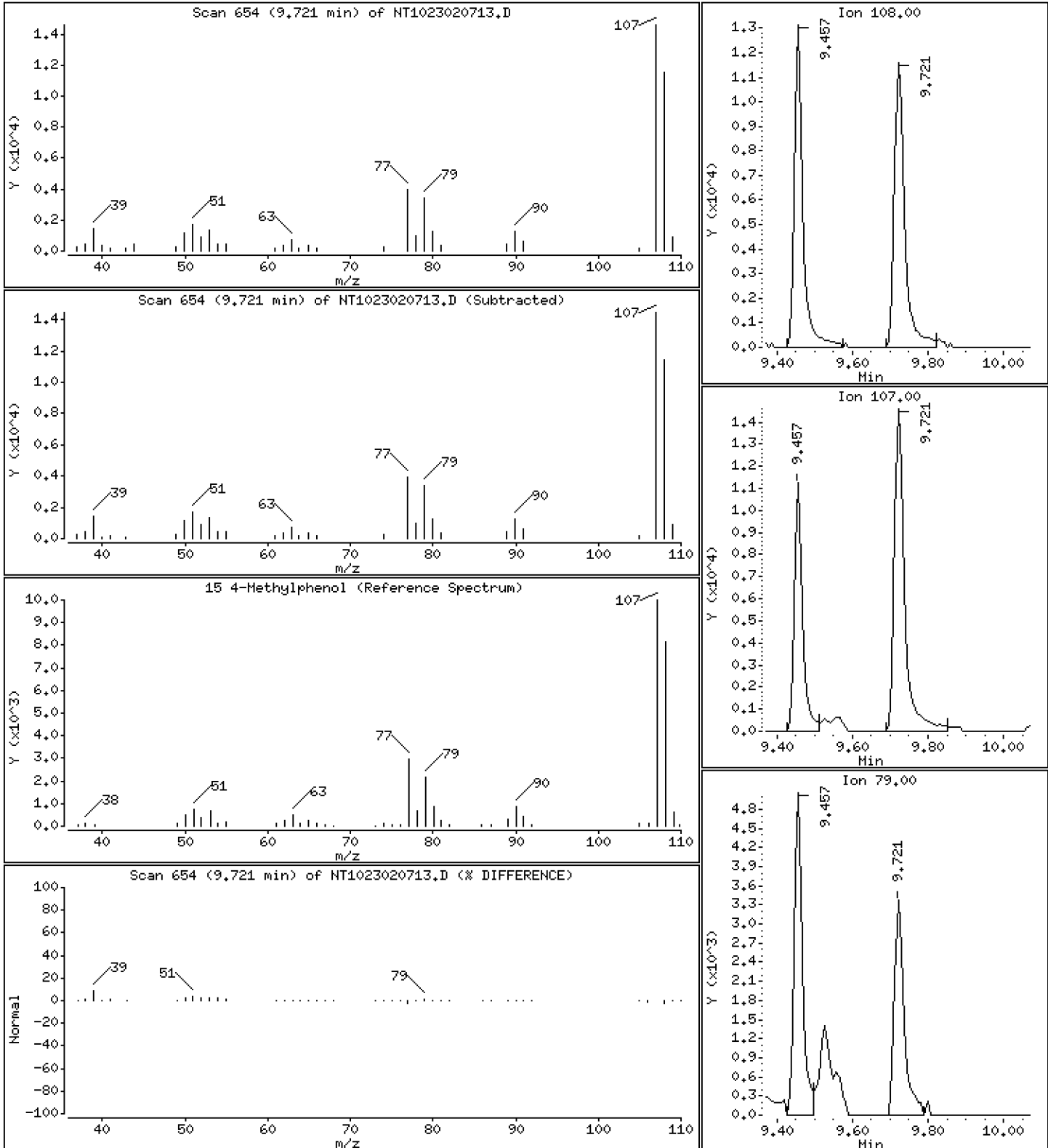
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.5228 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

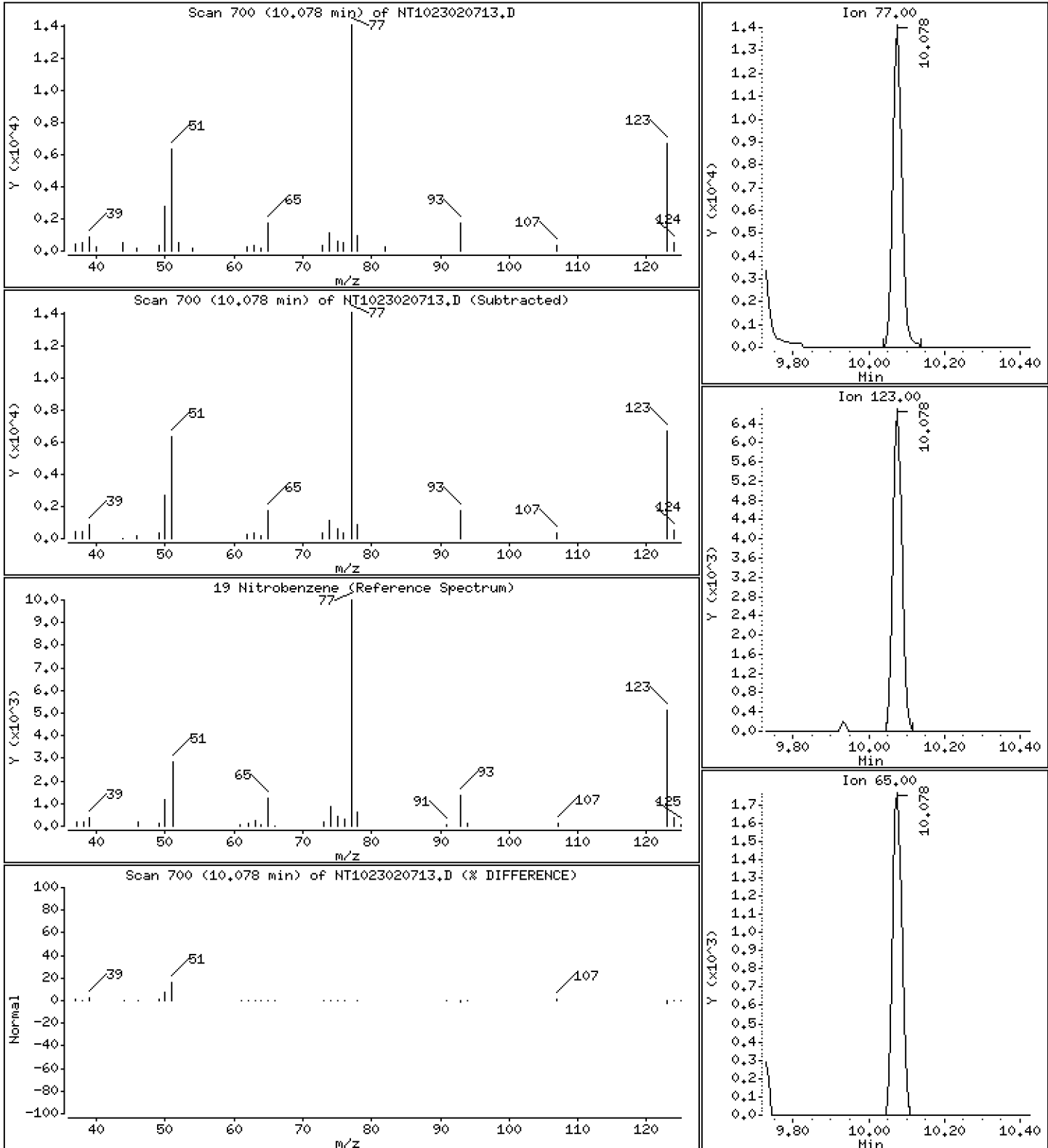
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 0,5221 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

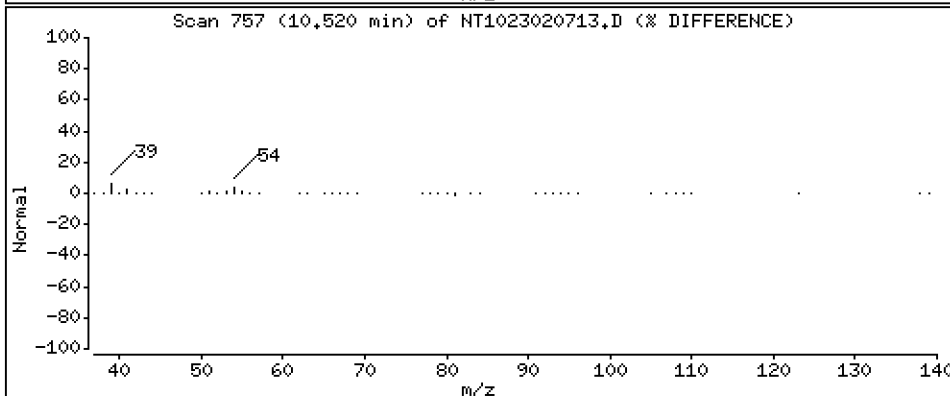
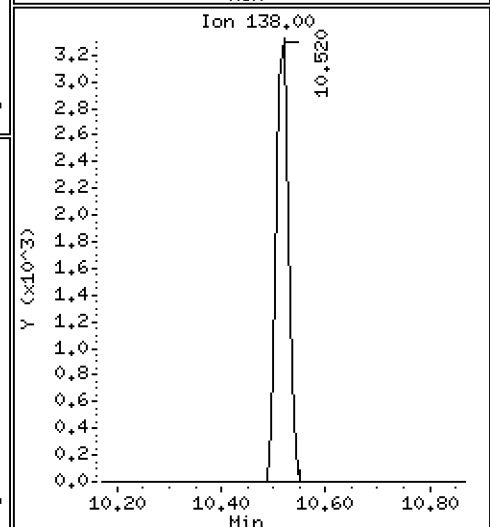
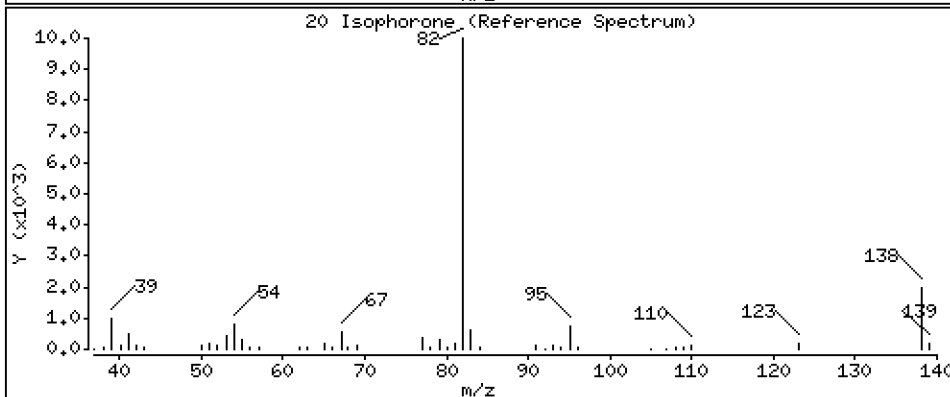
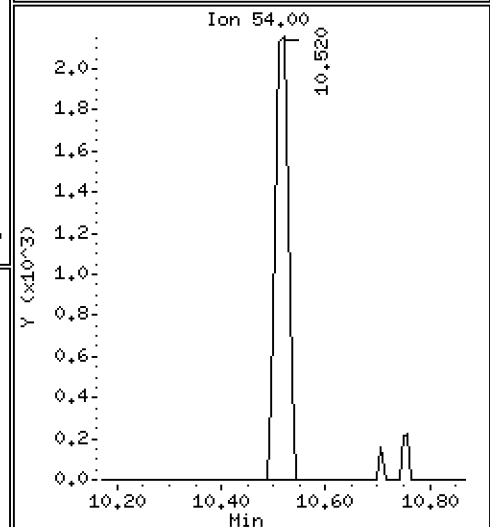
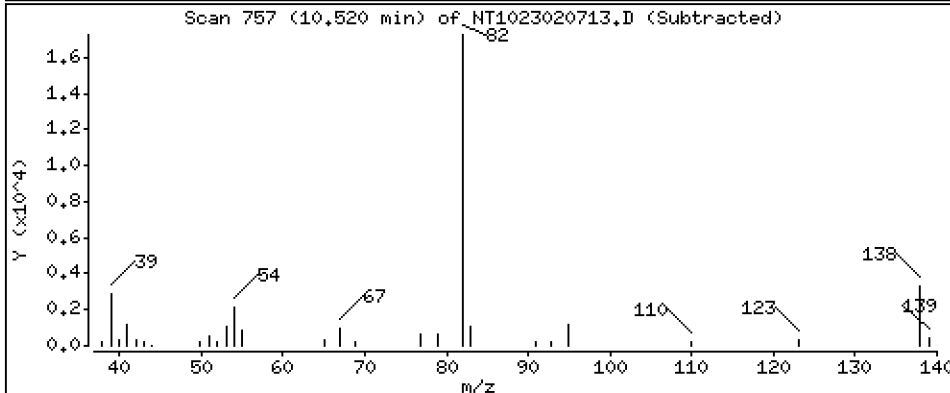
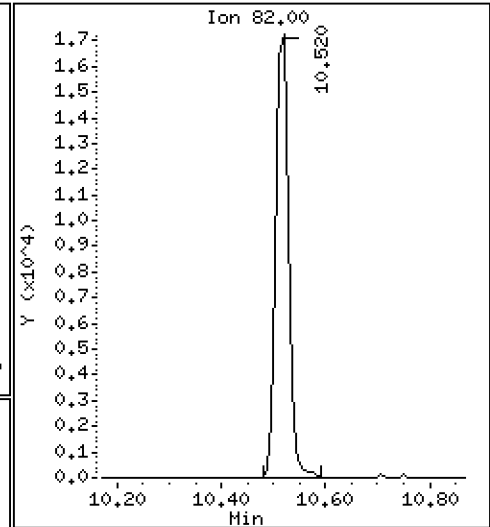
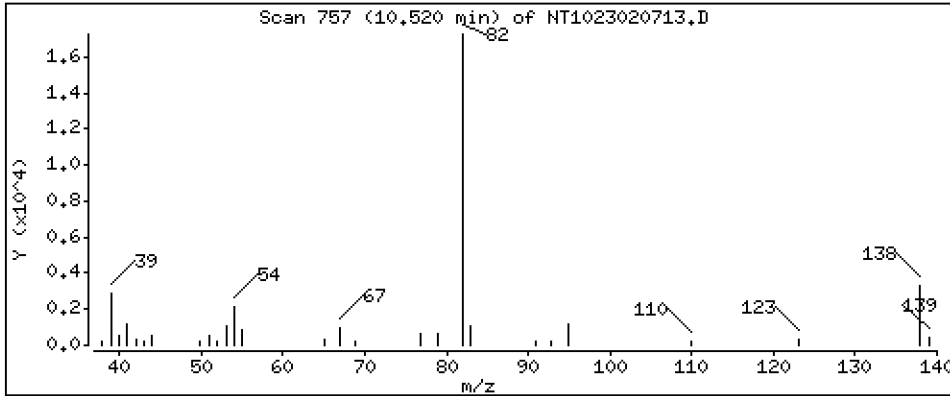
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 0,4765 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

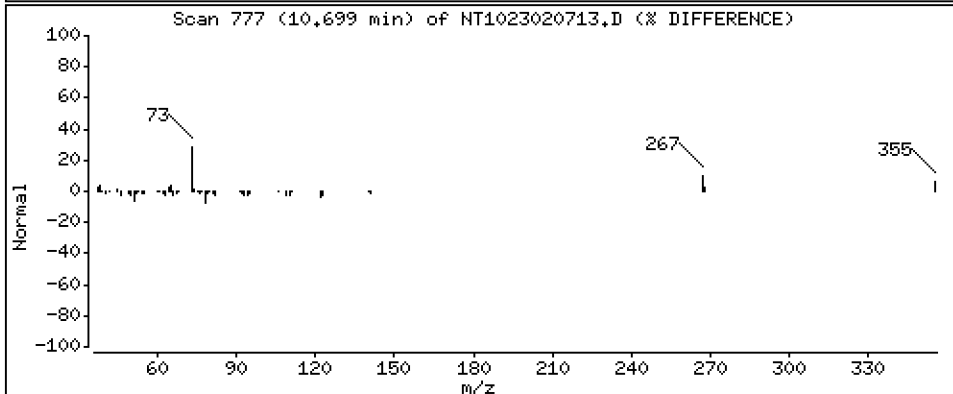
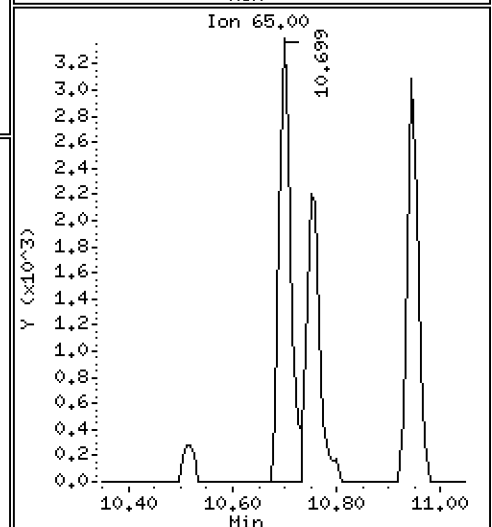
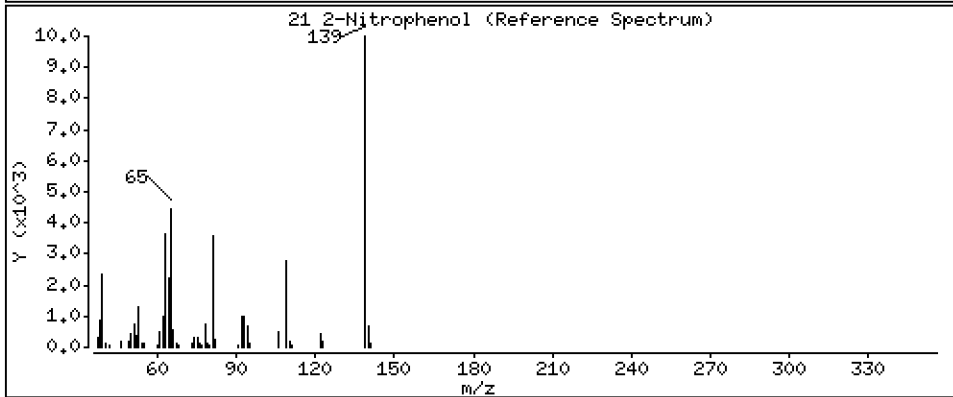
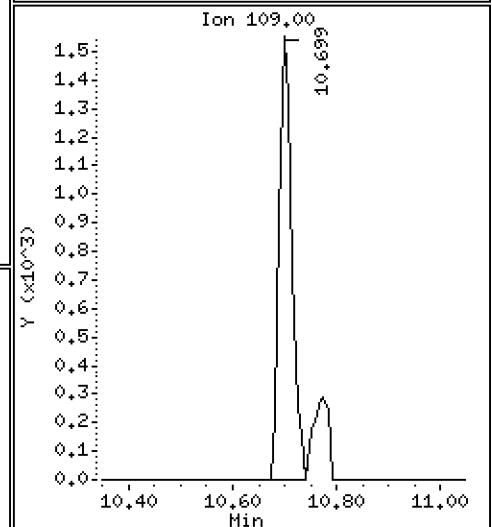
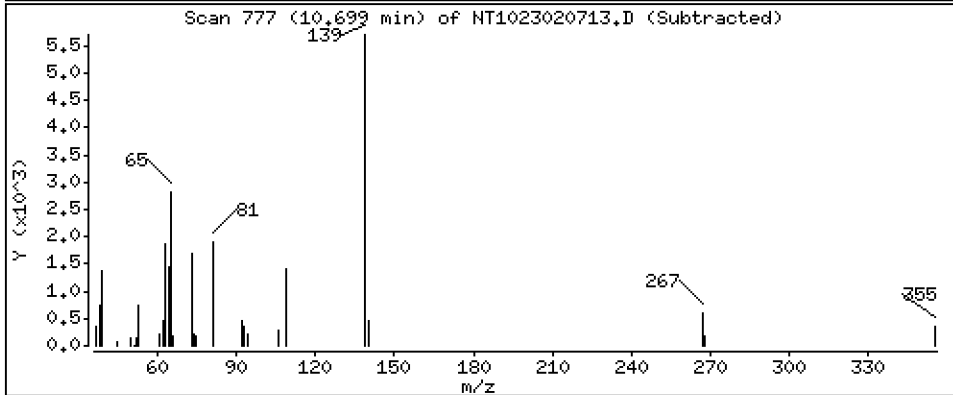
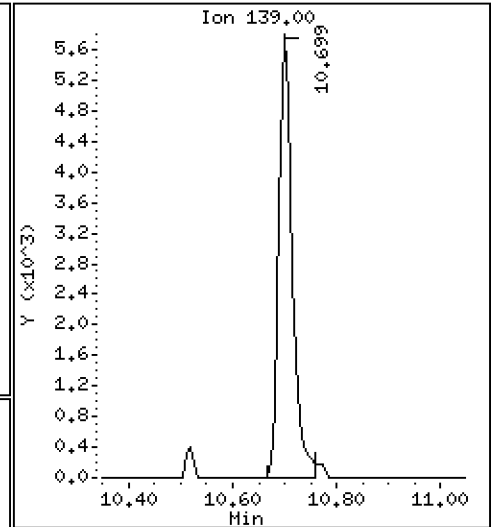
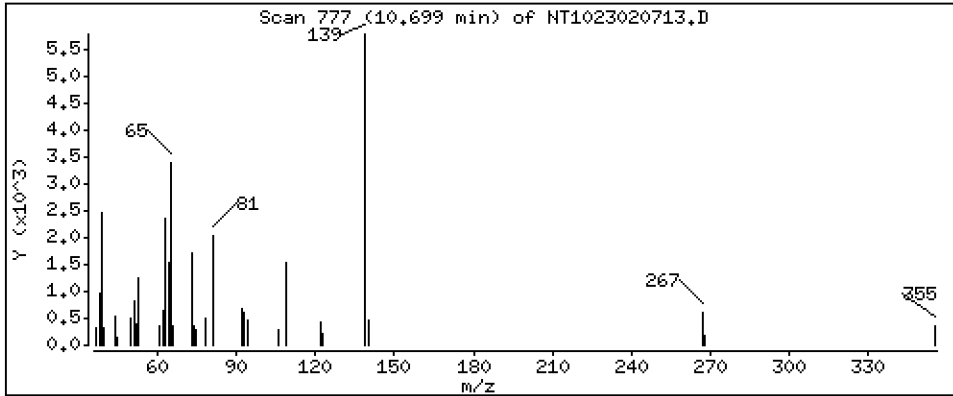
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,4771 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

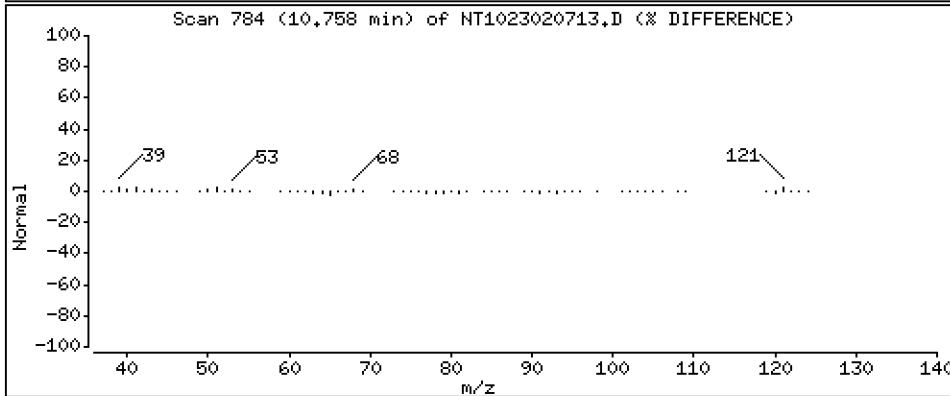
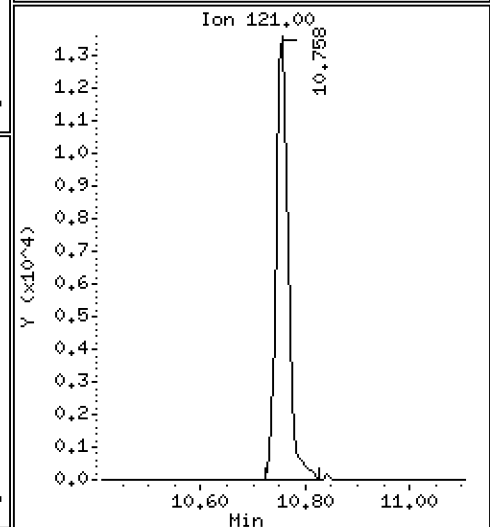
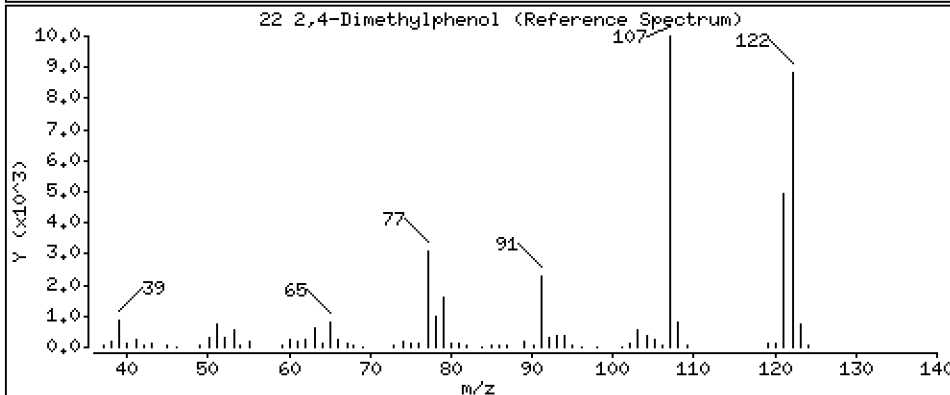
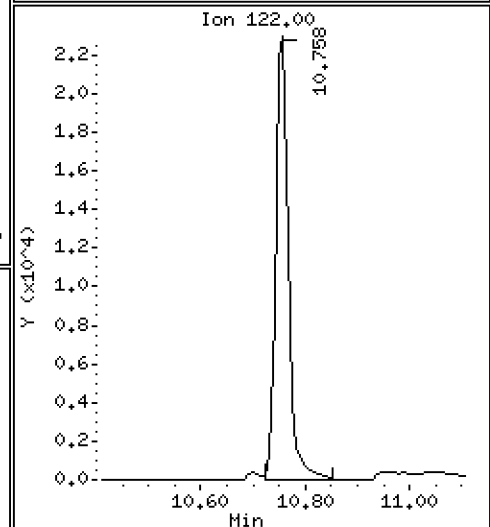
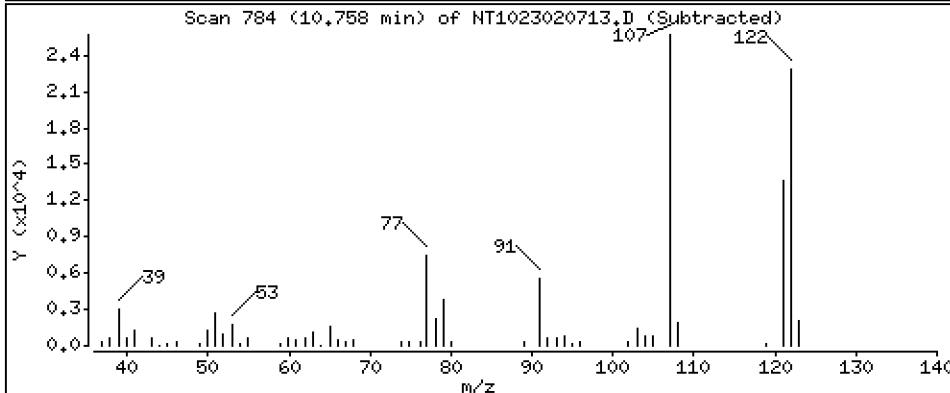
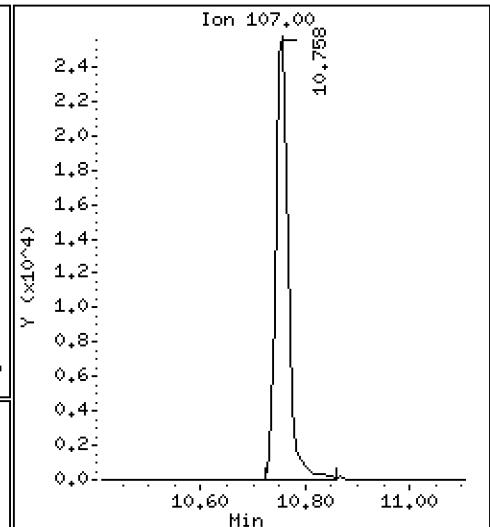
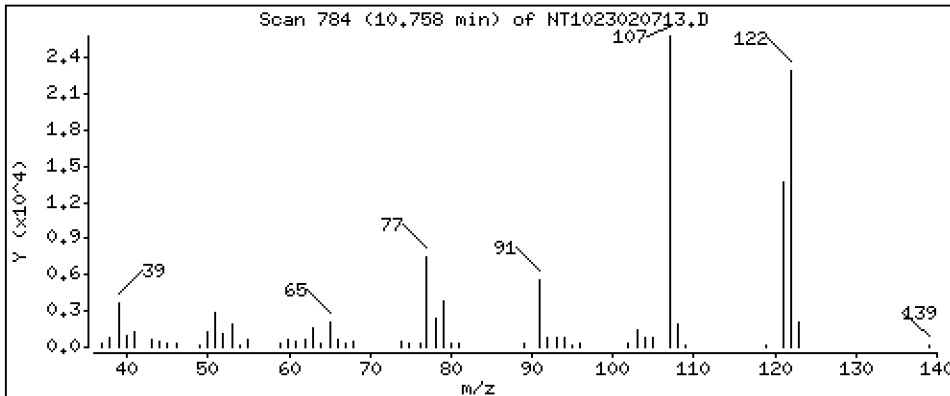
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 1,107 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

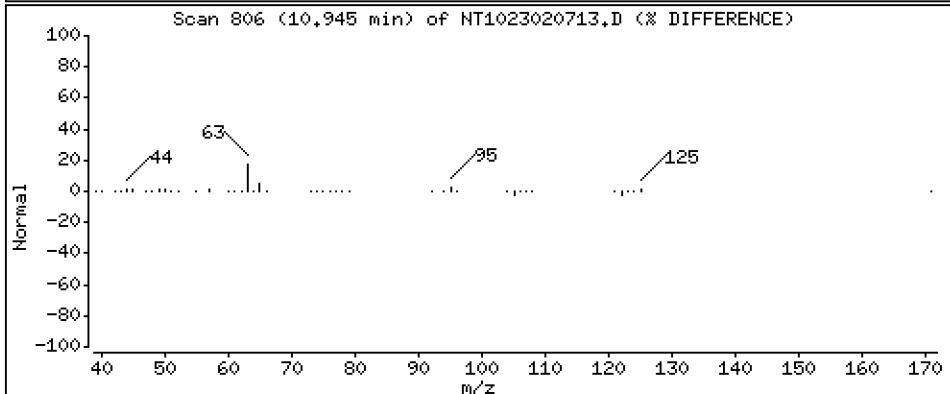
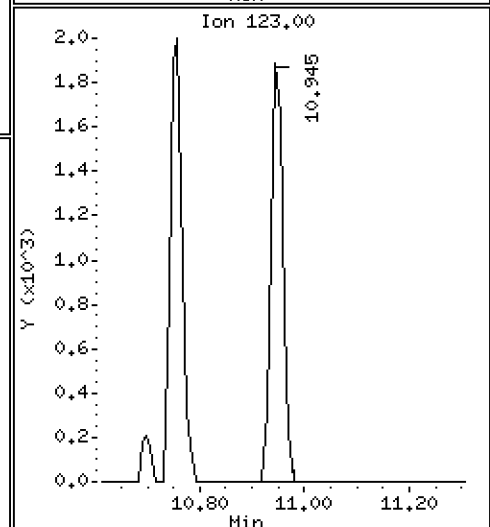
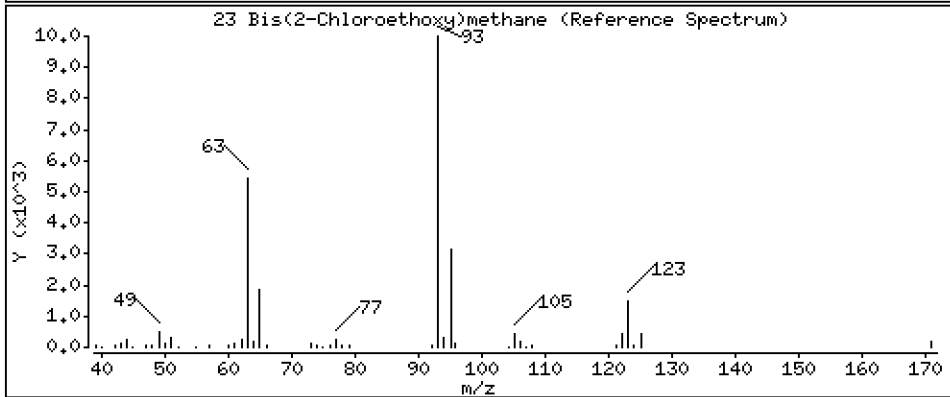
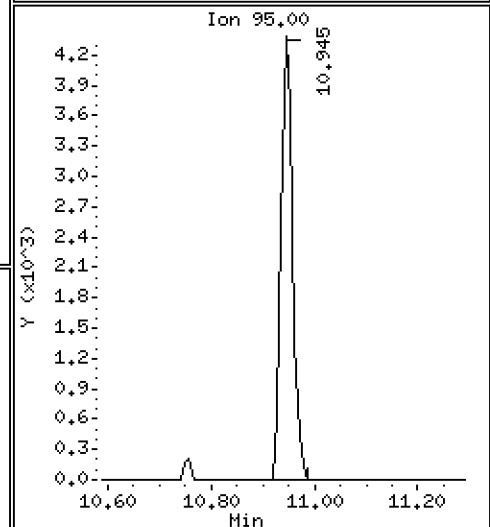
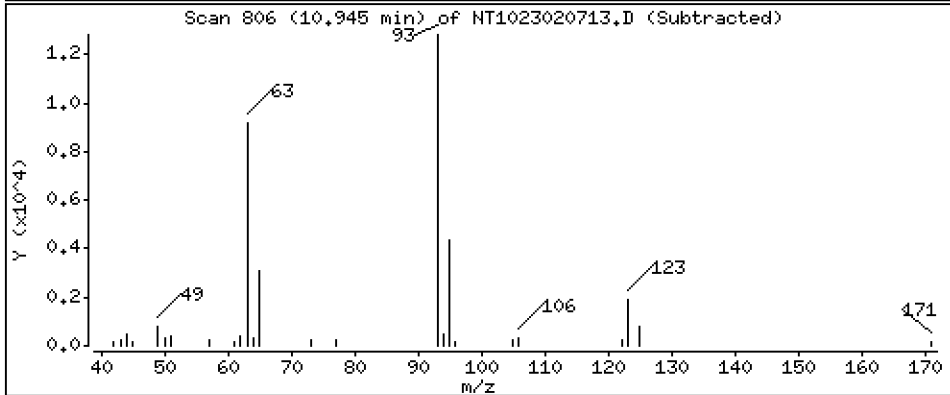
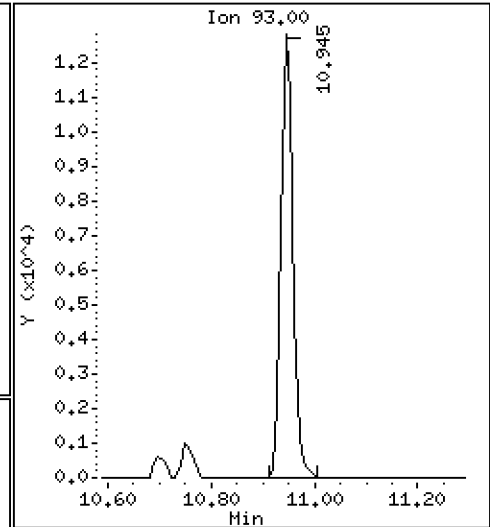
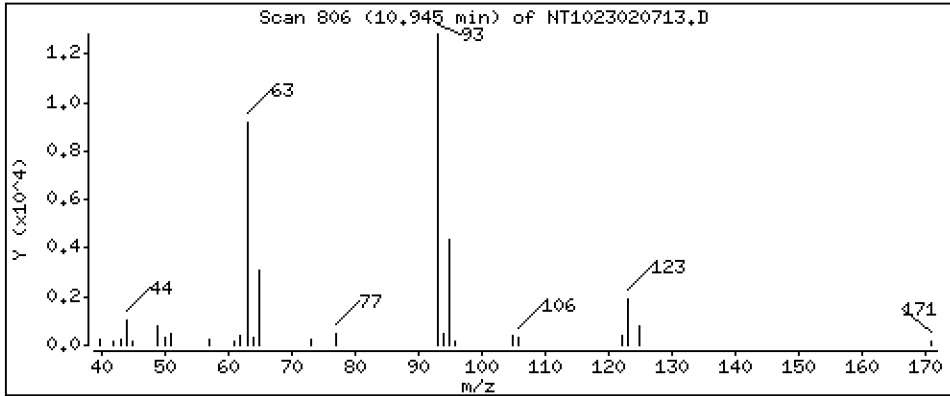
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 0,5343 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

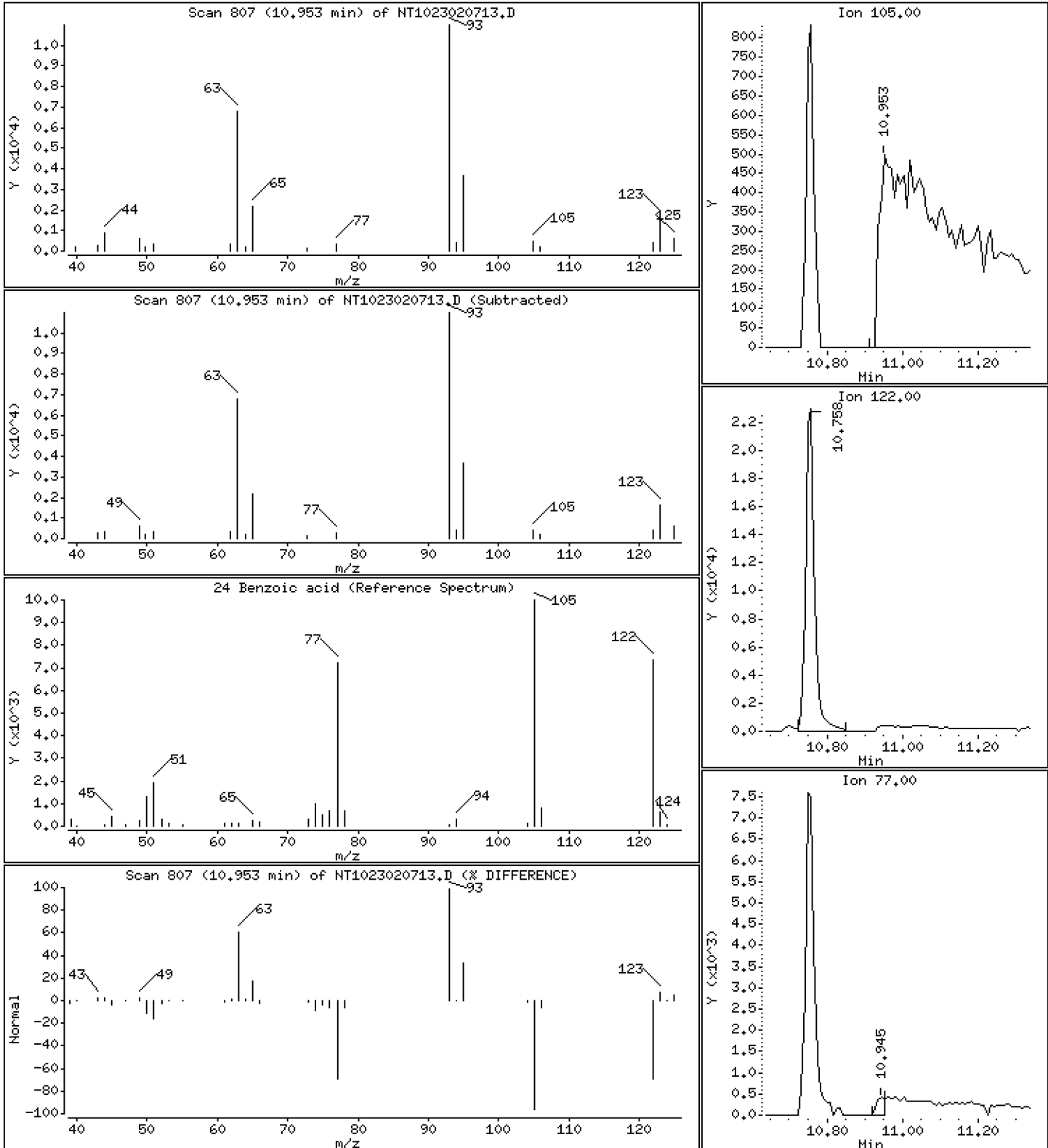
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.3586 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

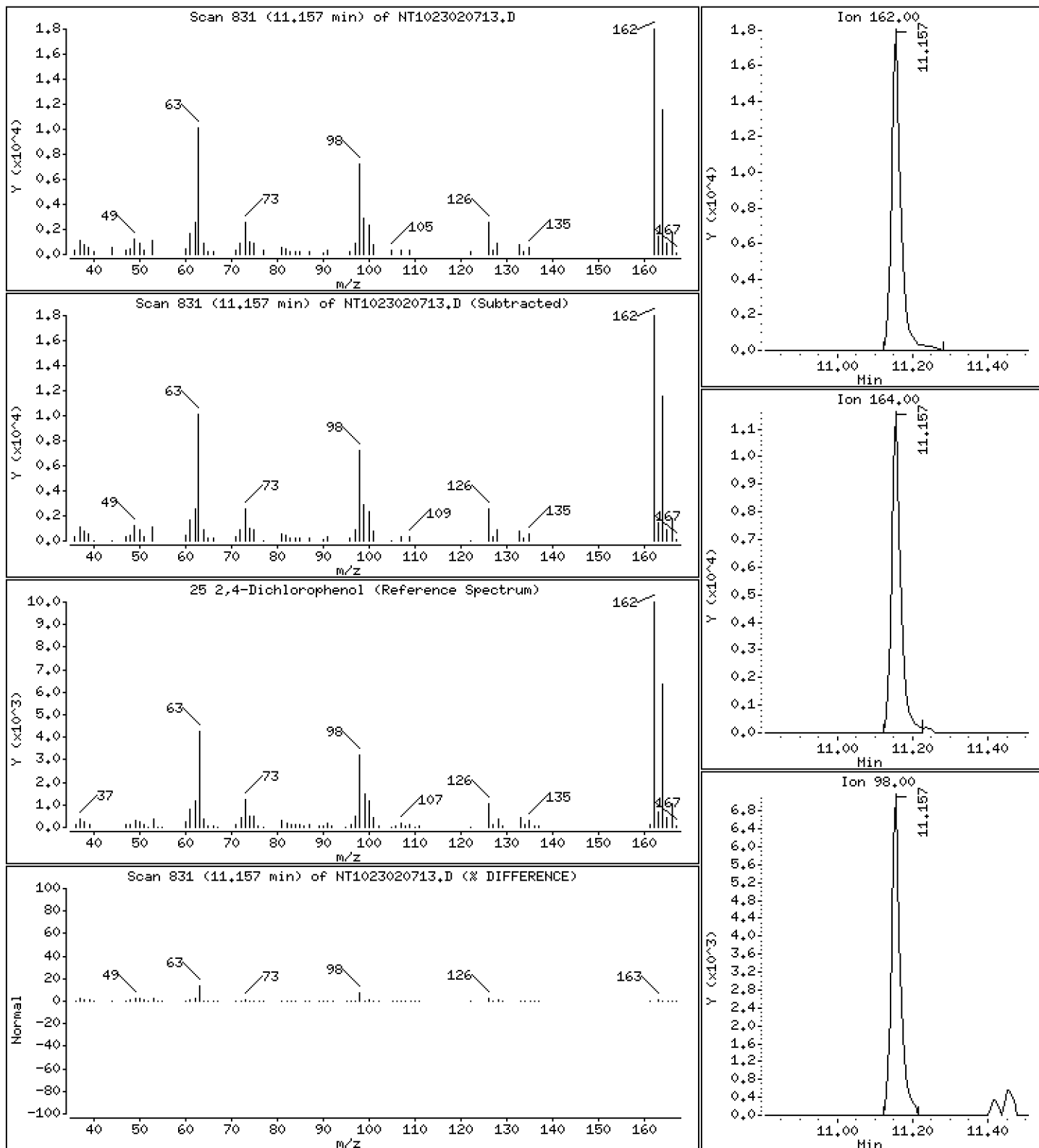
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

25 2,4-Dichlorophenol

Concentration: 1.104 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

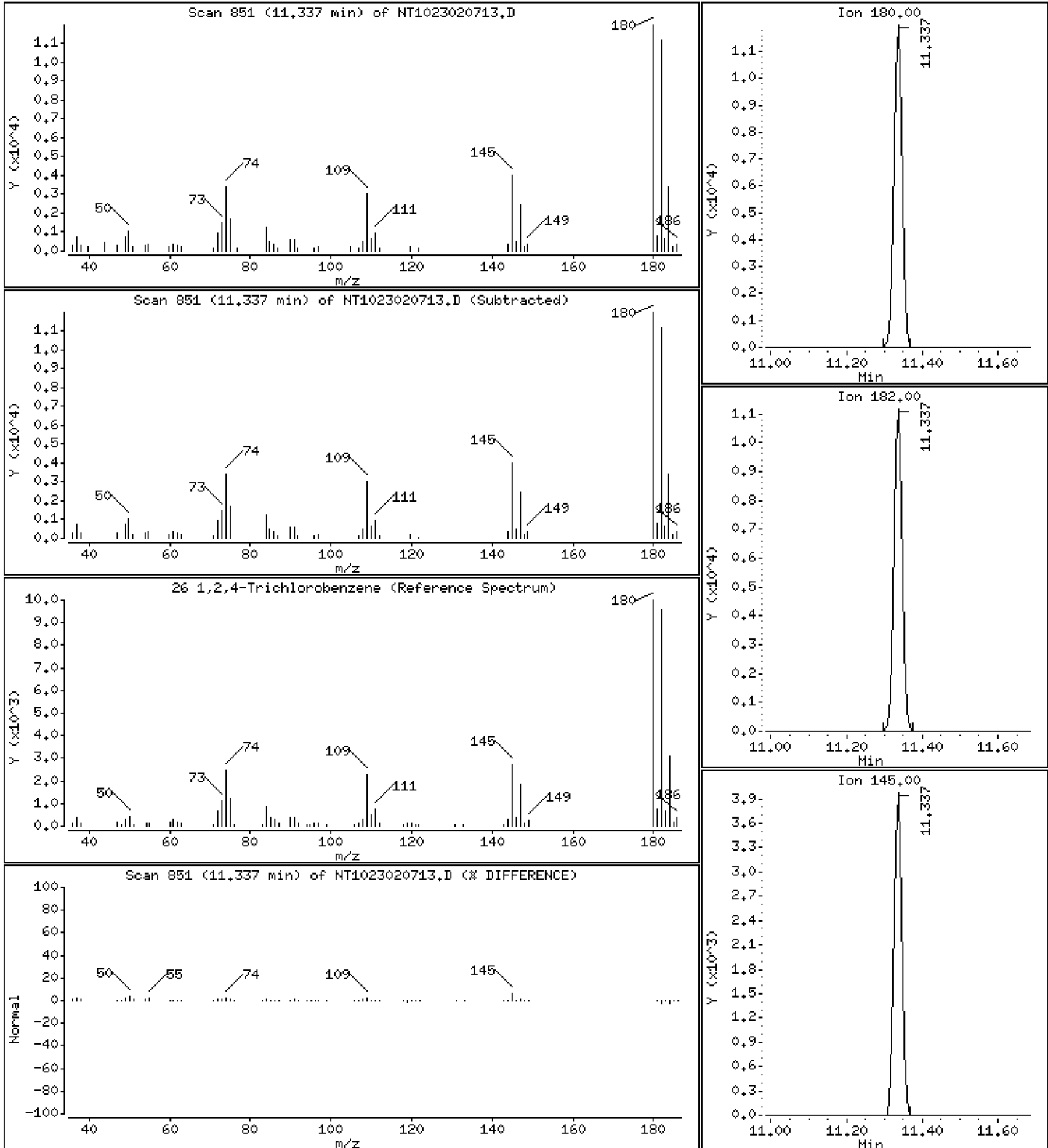
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,5428 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

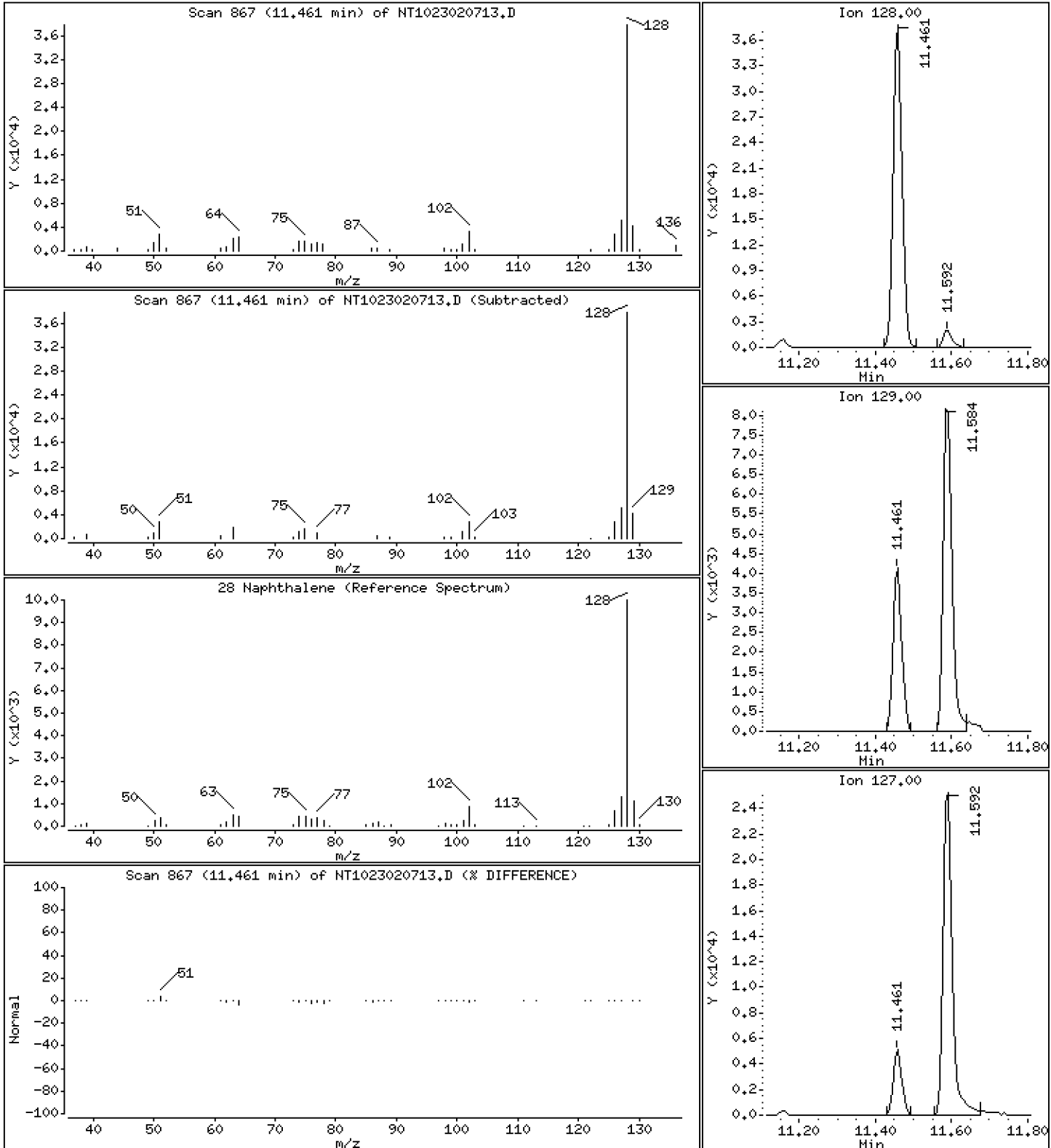
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,5238 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

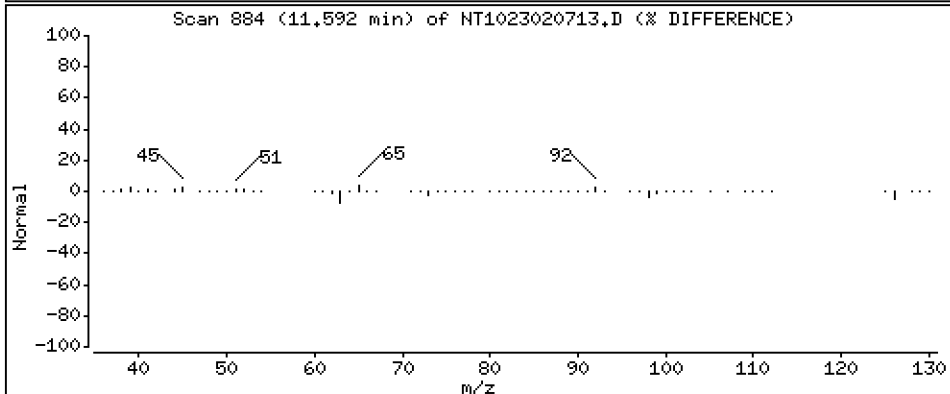
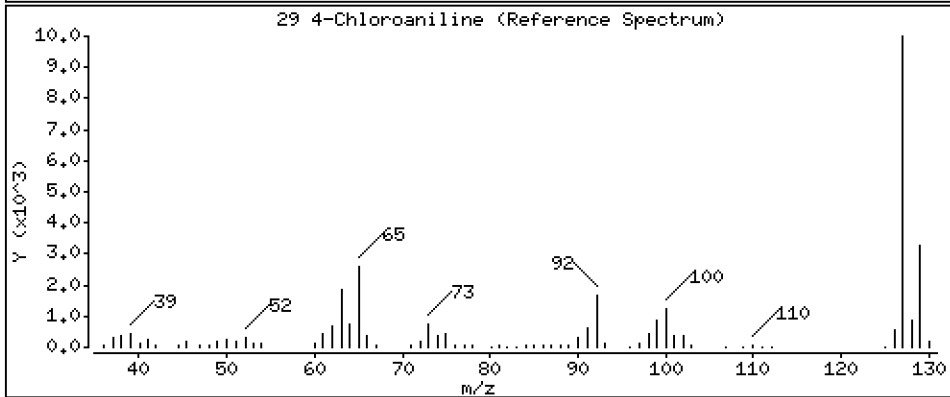
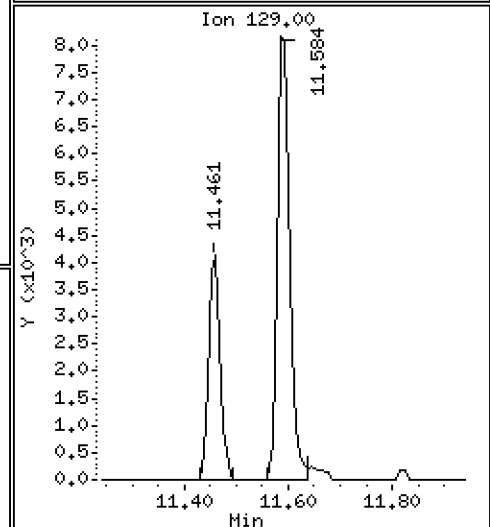
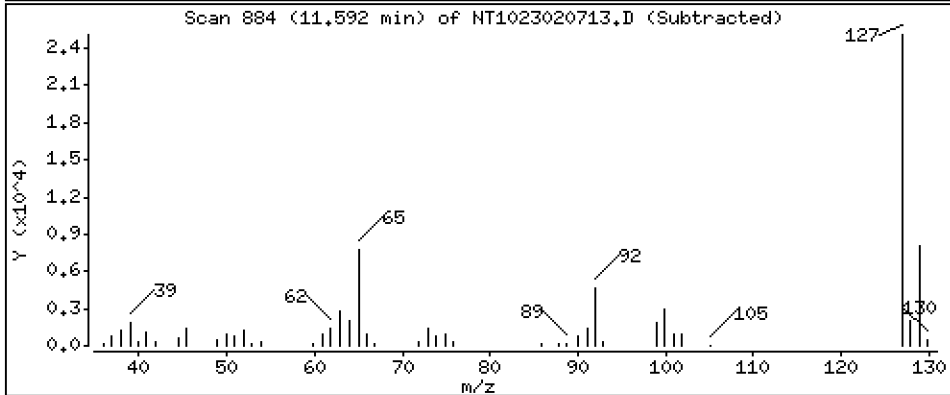
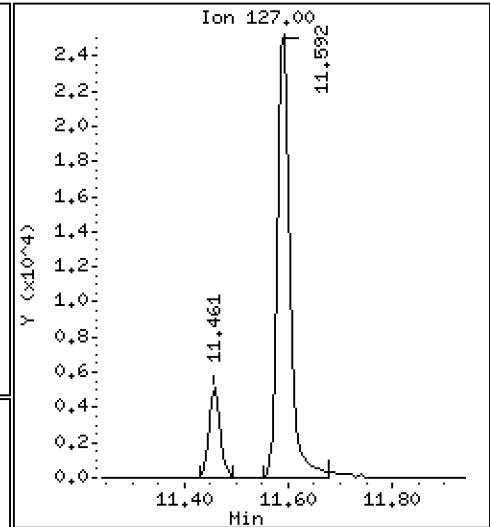
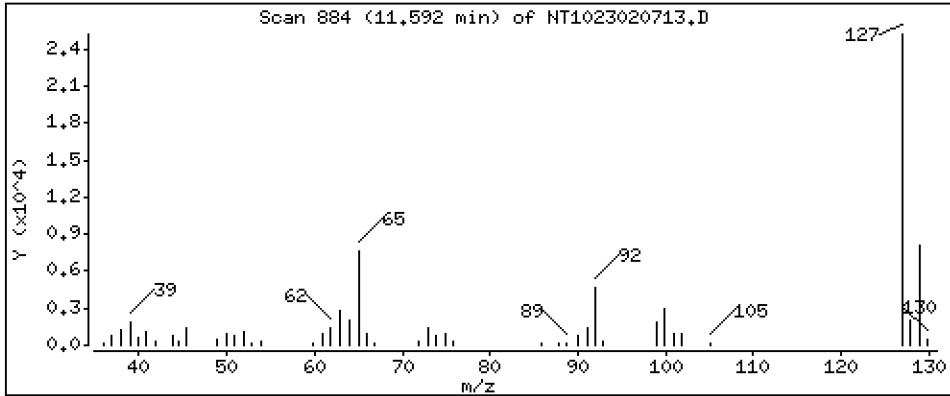
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 0,9037 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

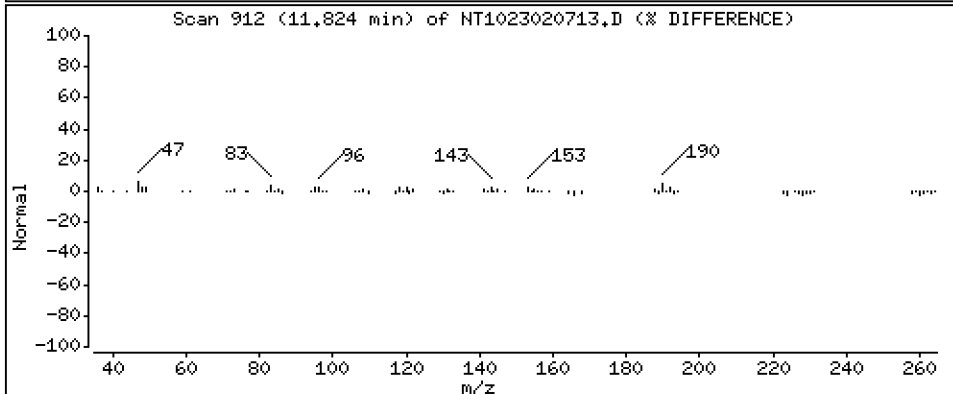
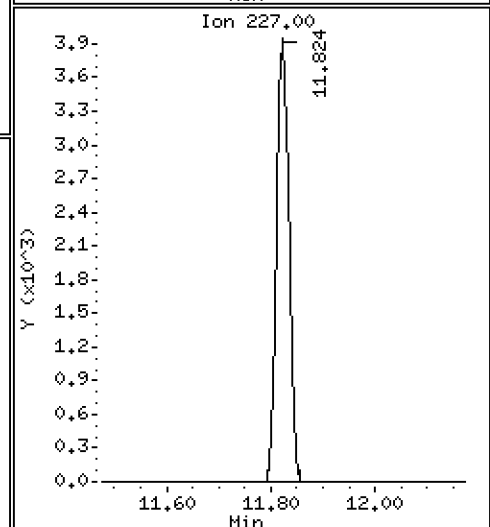
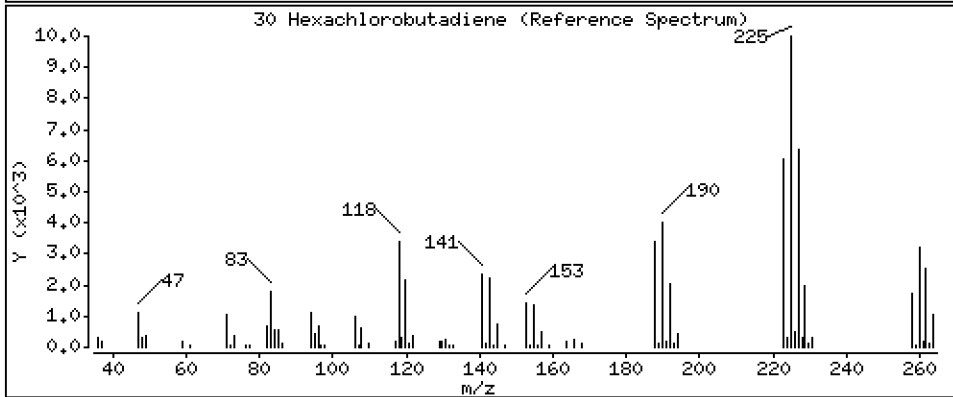
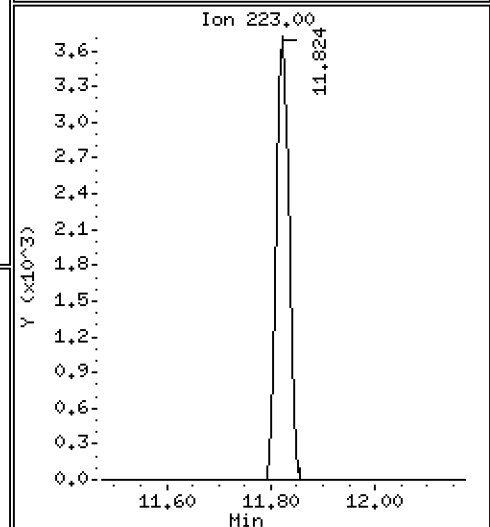
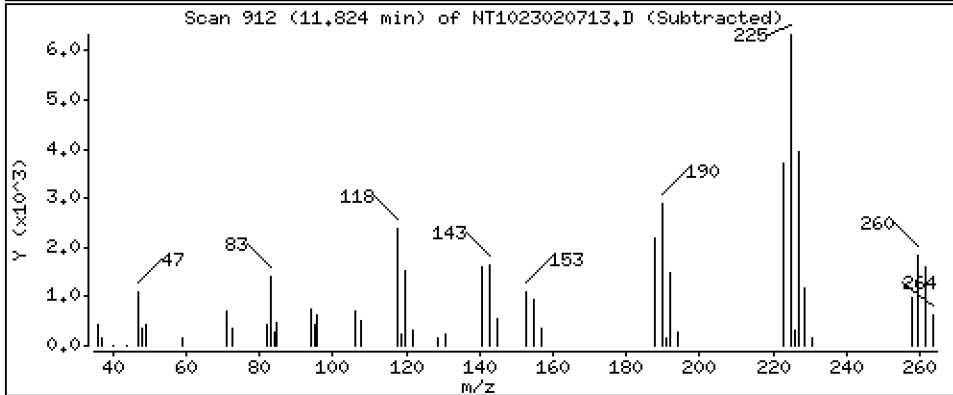
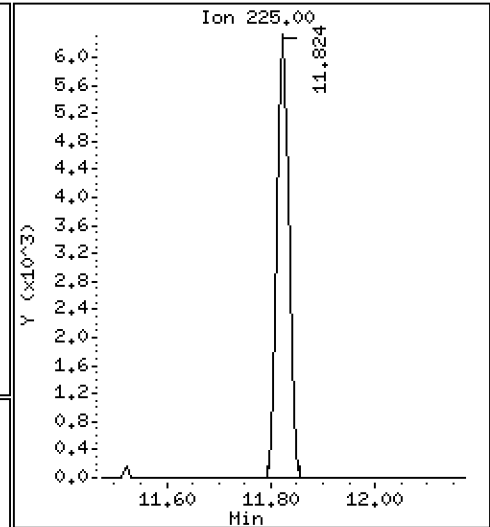
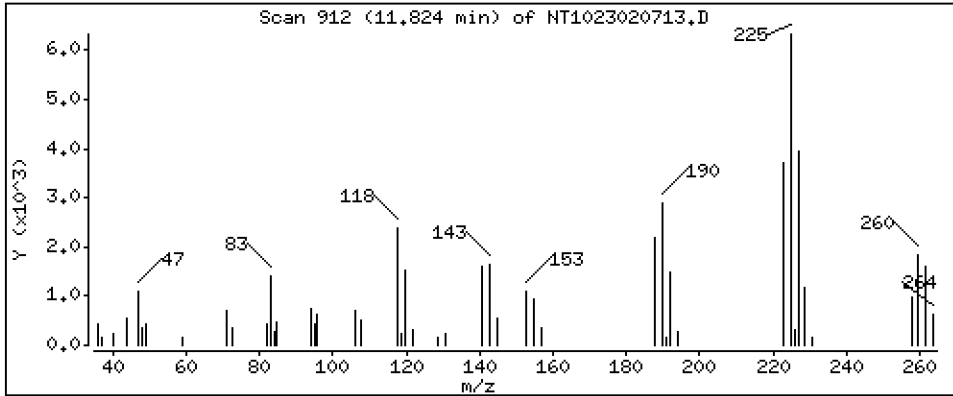
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,5253 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

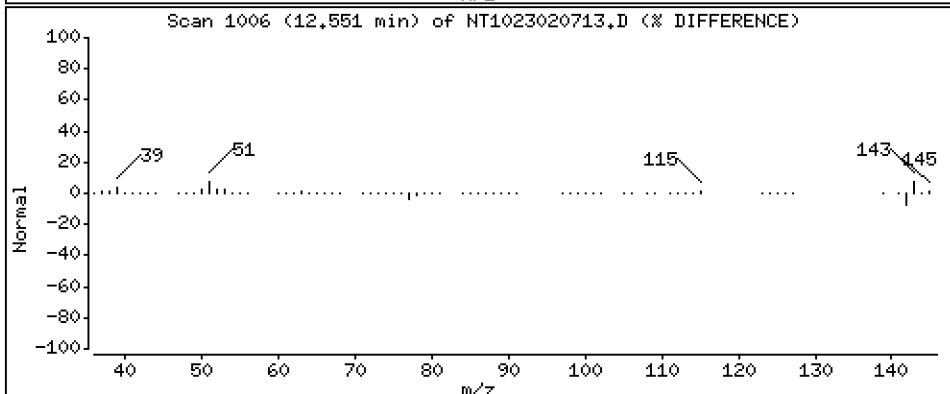
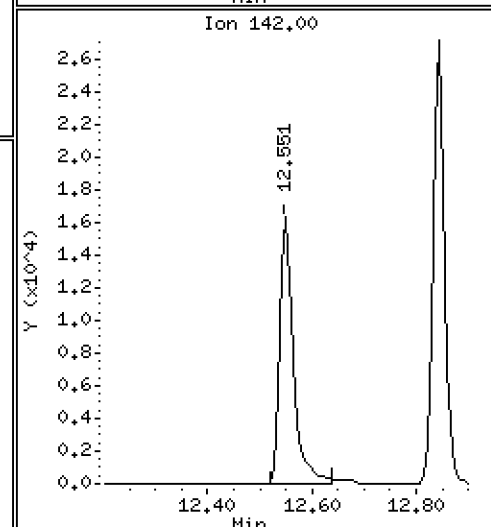
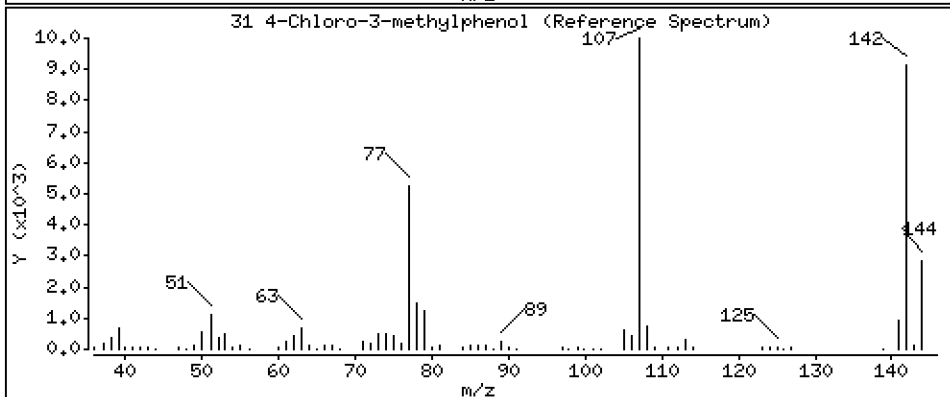
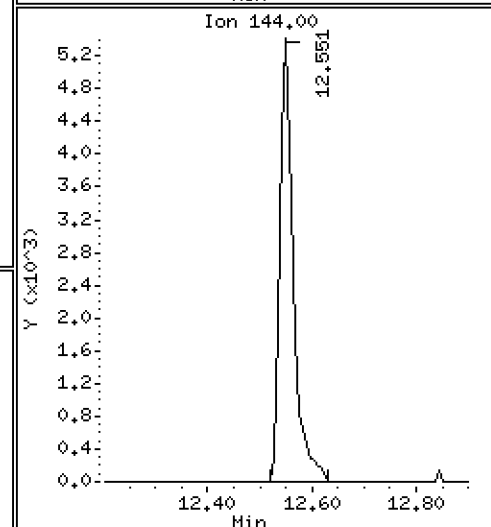
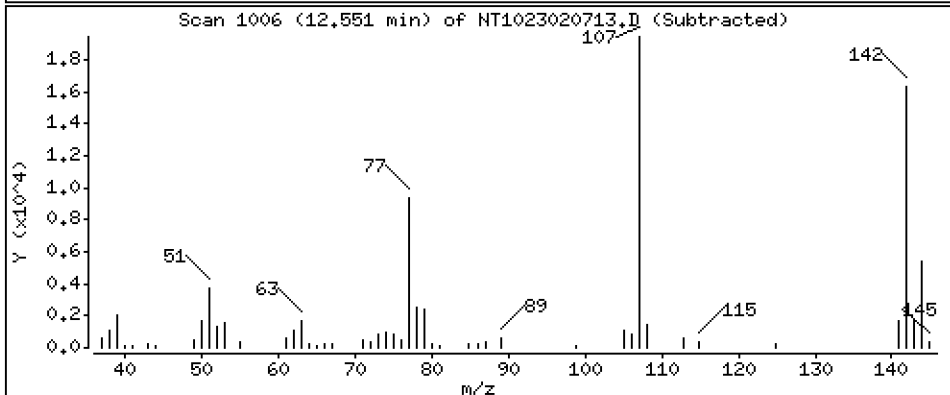
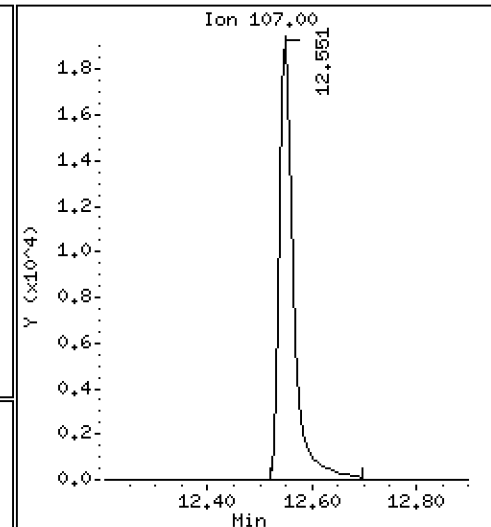
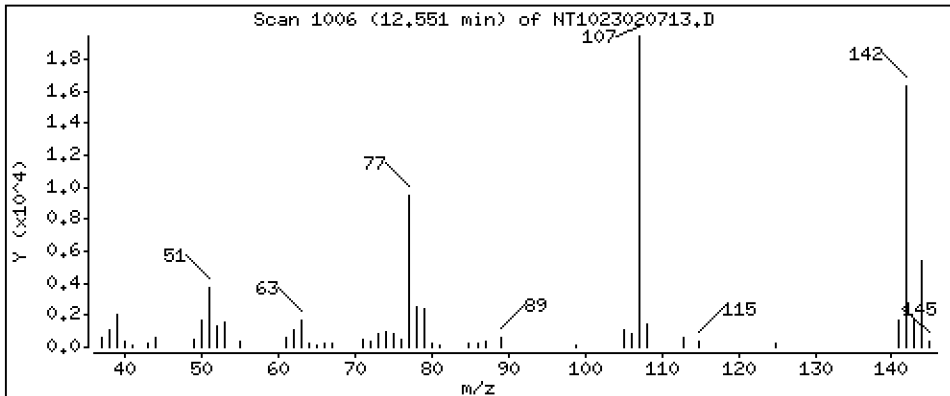
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

31 4-Chloro-3-methylphenol

Concentration: 1.021 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

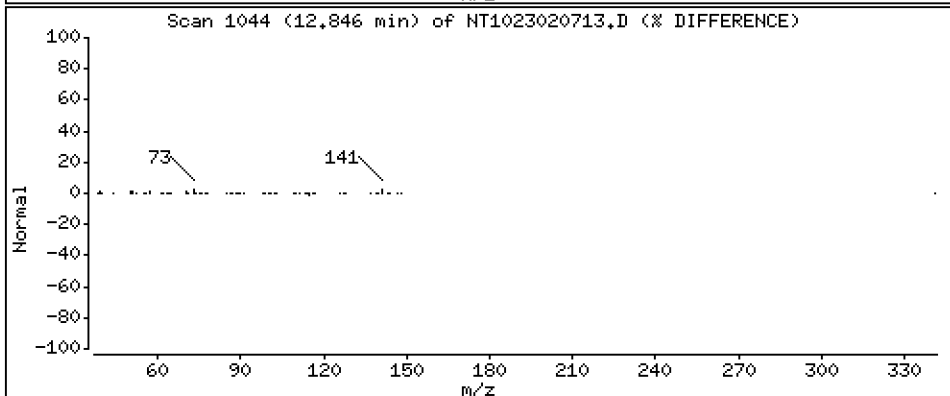
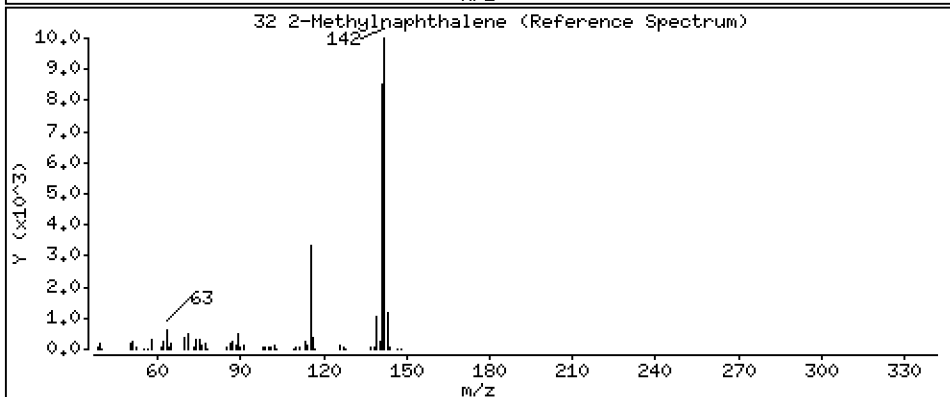
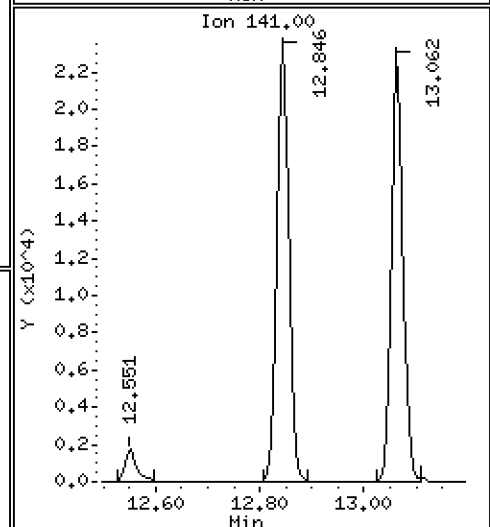
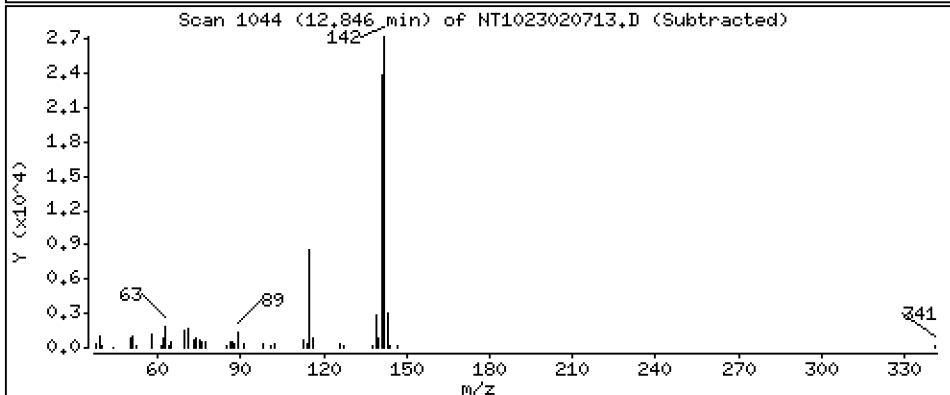
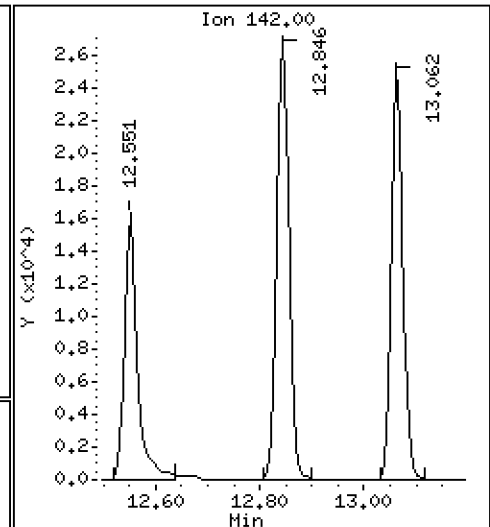
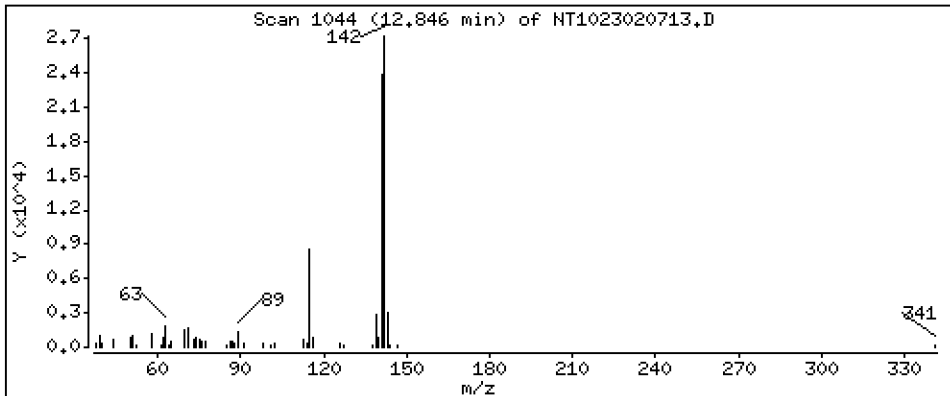
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

32 2-Methylnaphthalene

Concentration: 0.5188 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

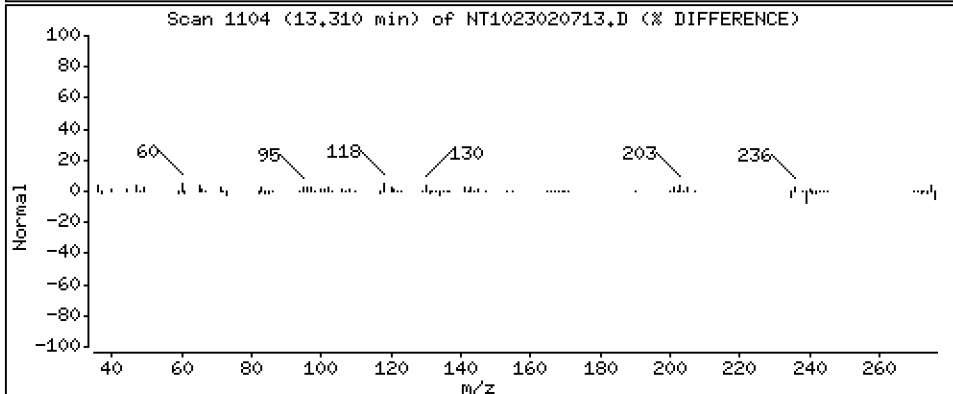
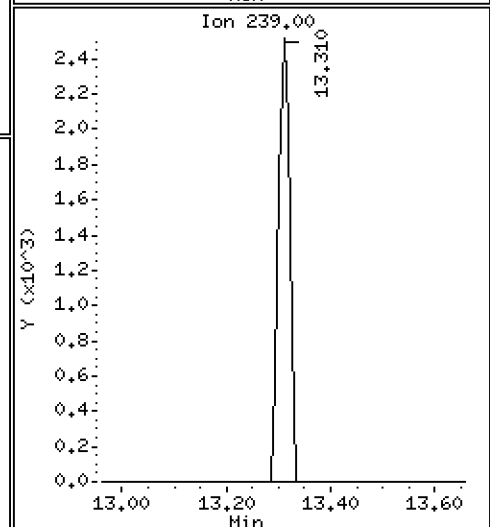
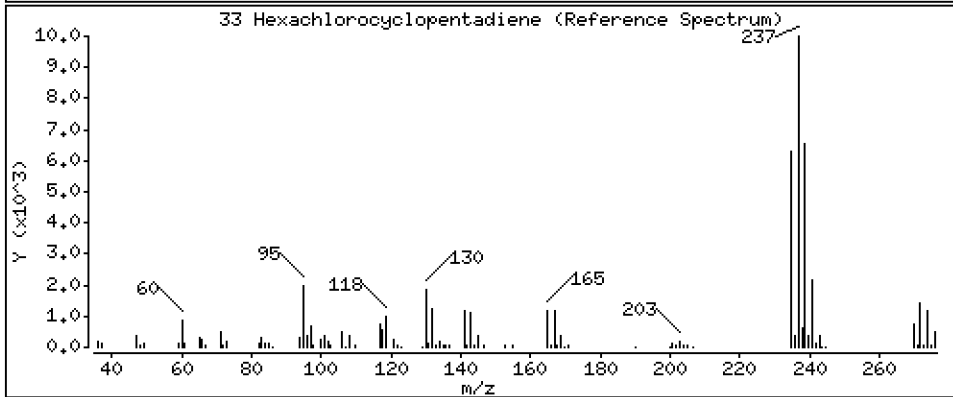
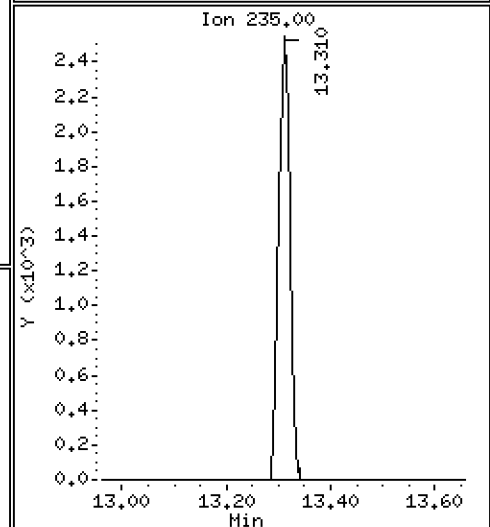
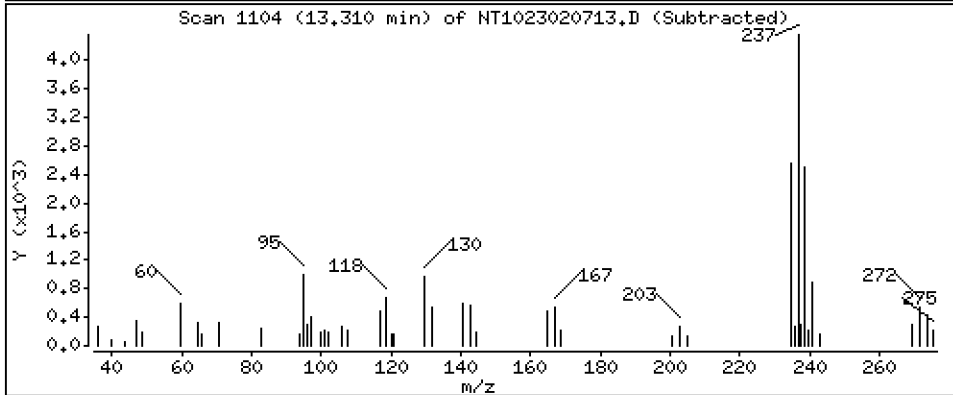
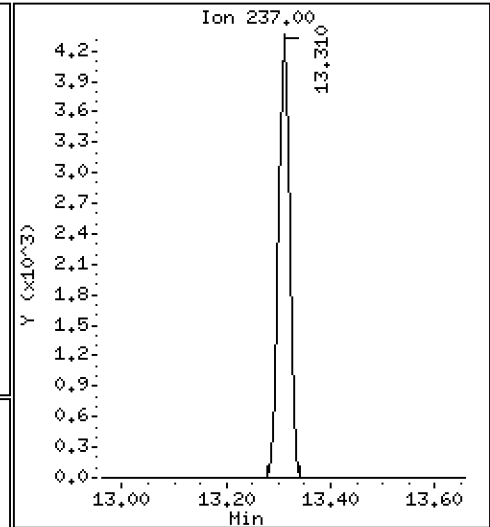
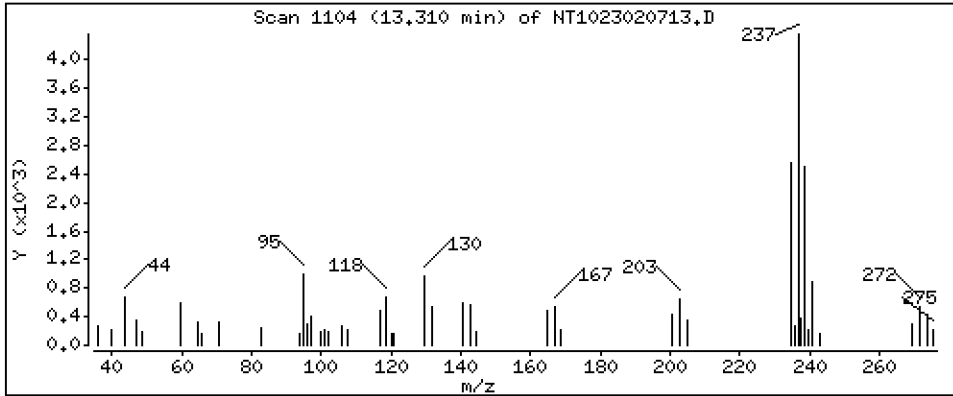
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 0,4331 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

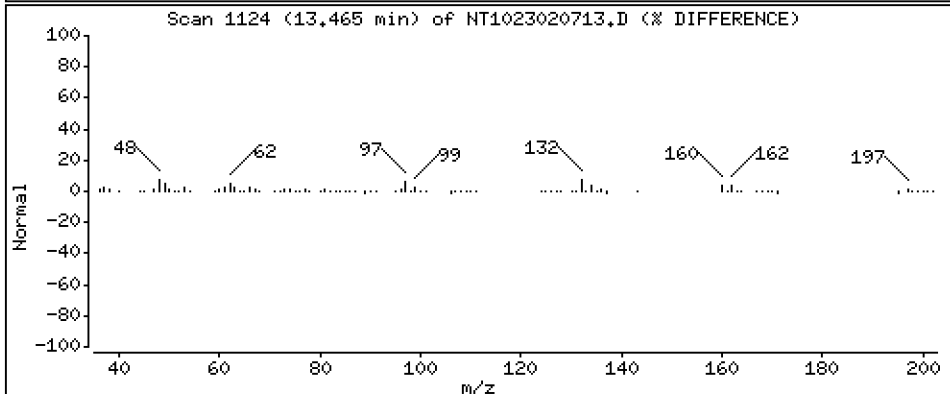
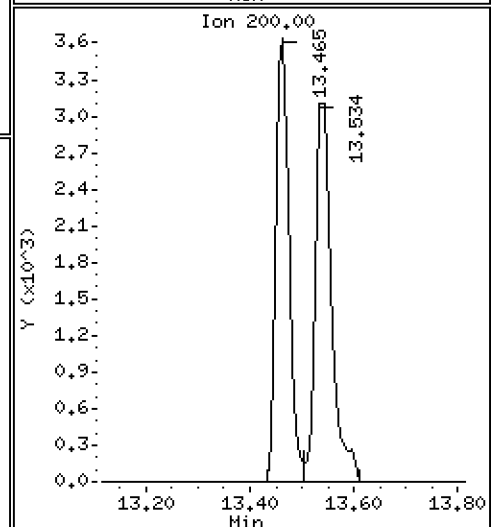
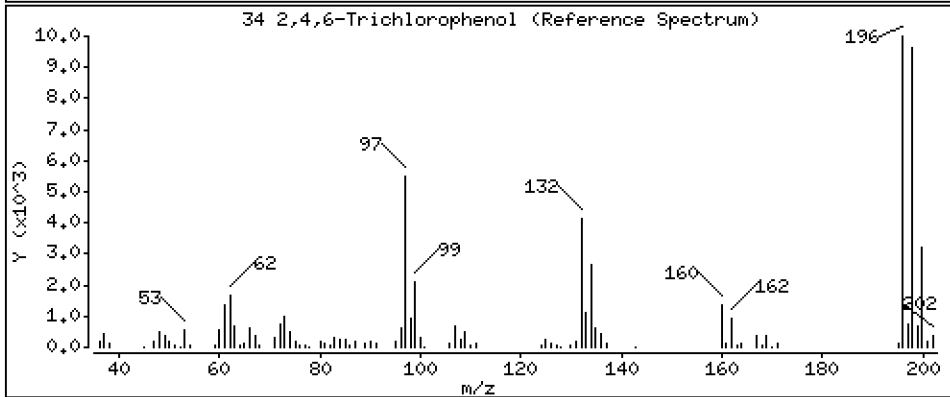
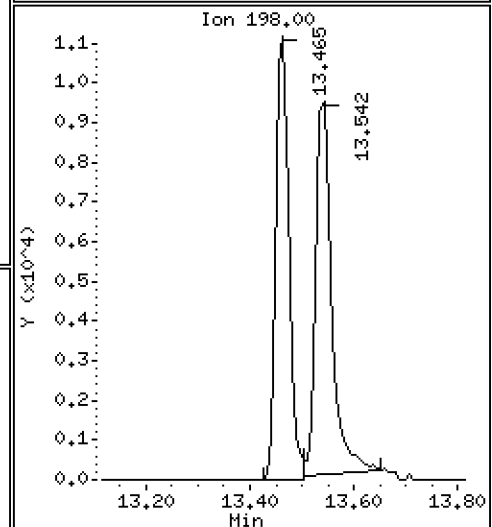
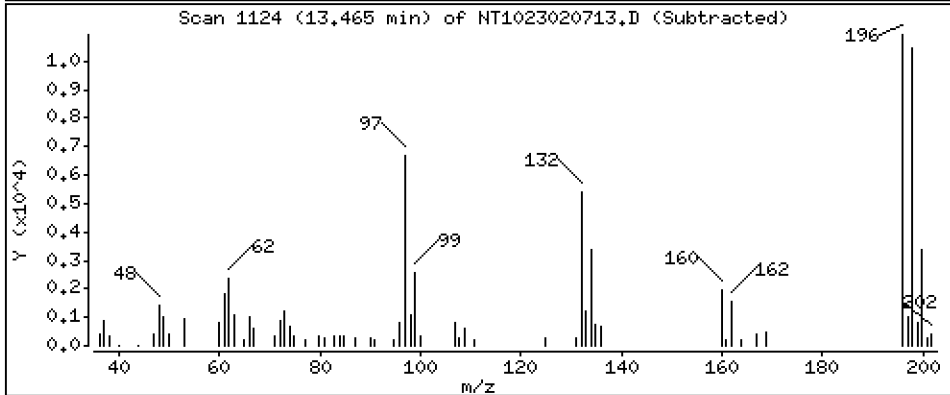
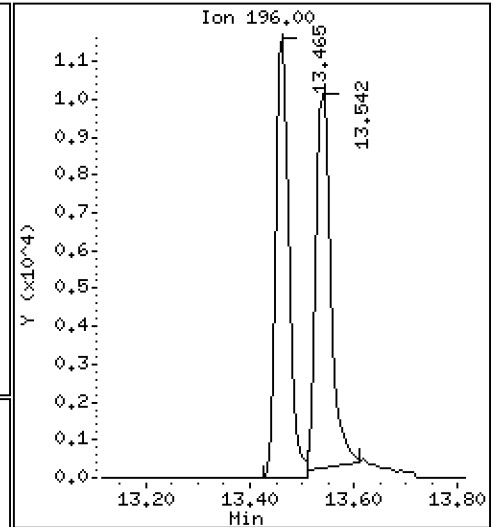
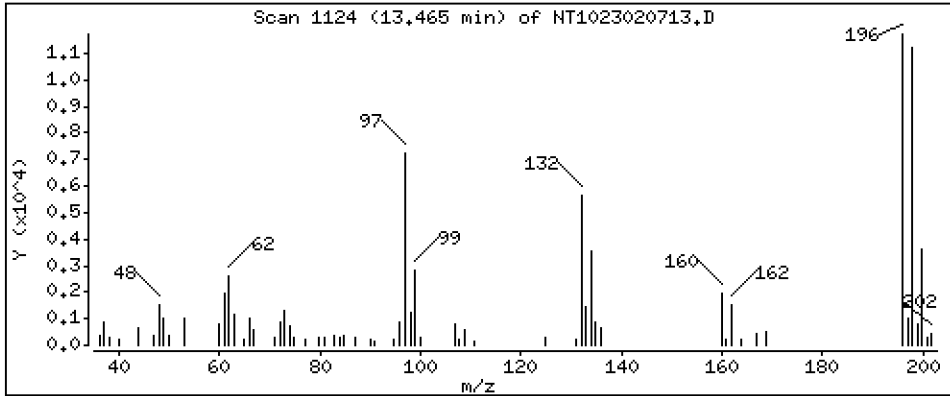
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

34 2,4,6-Trichlorophenol

Concentration: 0.9559 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

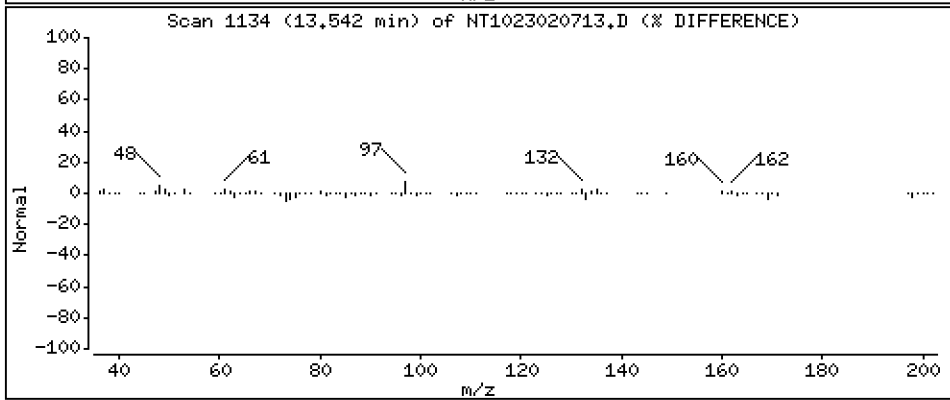
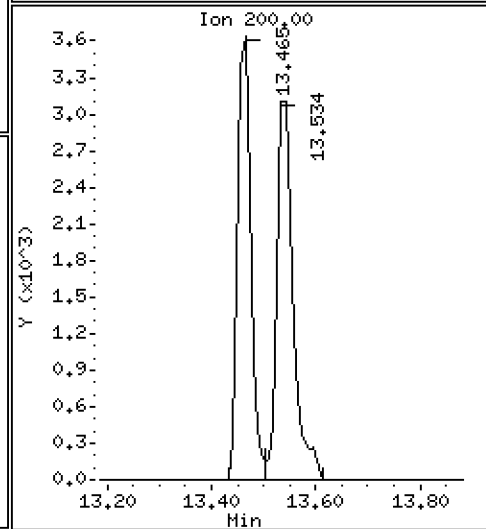
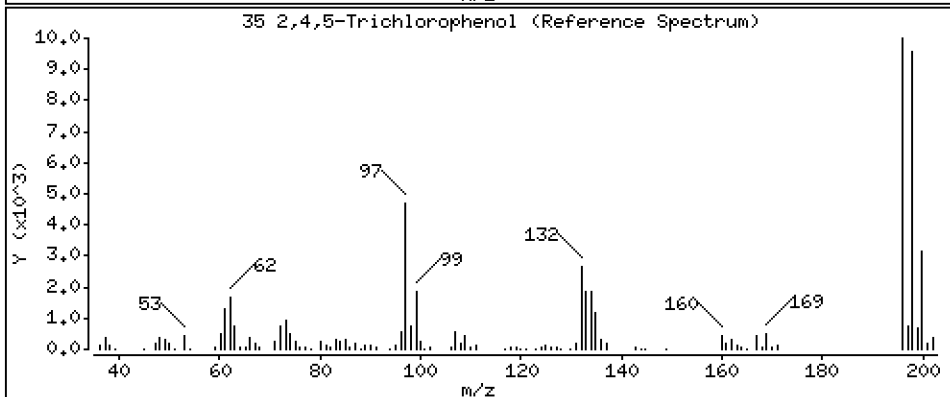
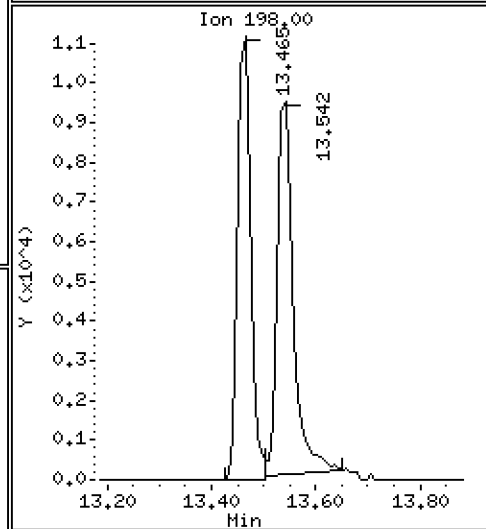
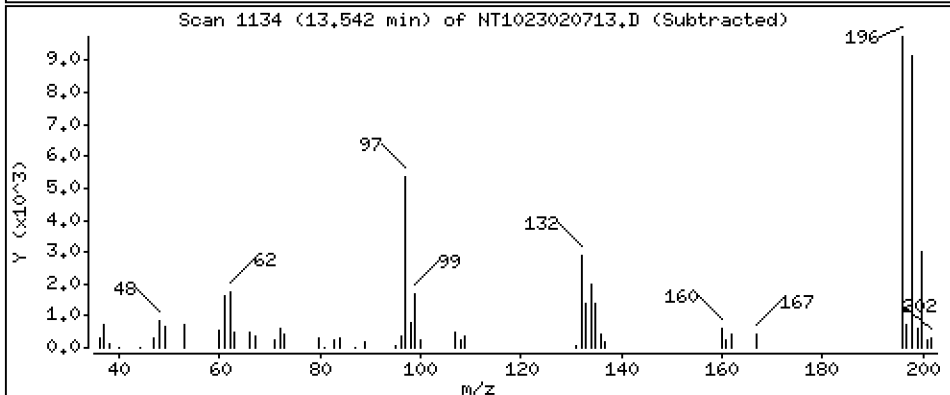
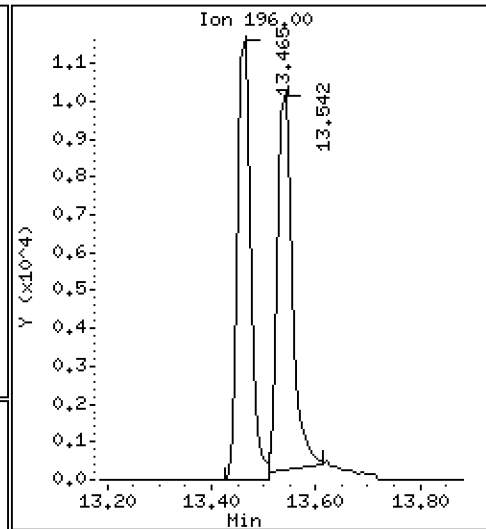
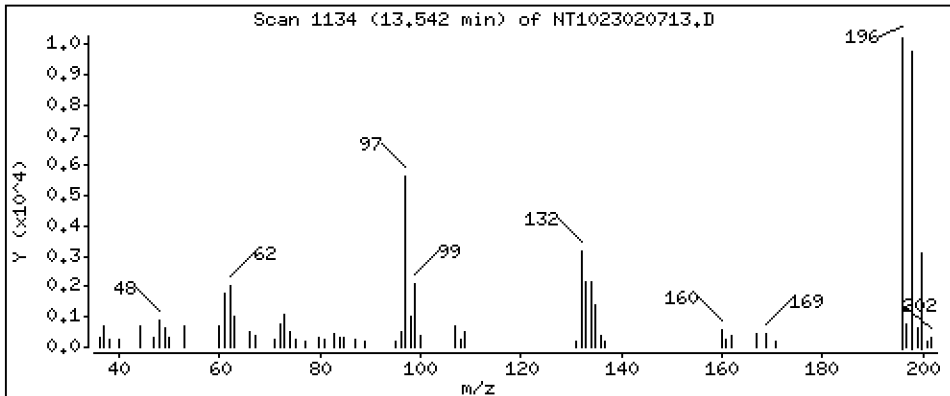
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 0,8507 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

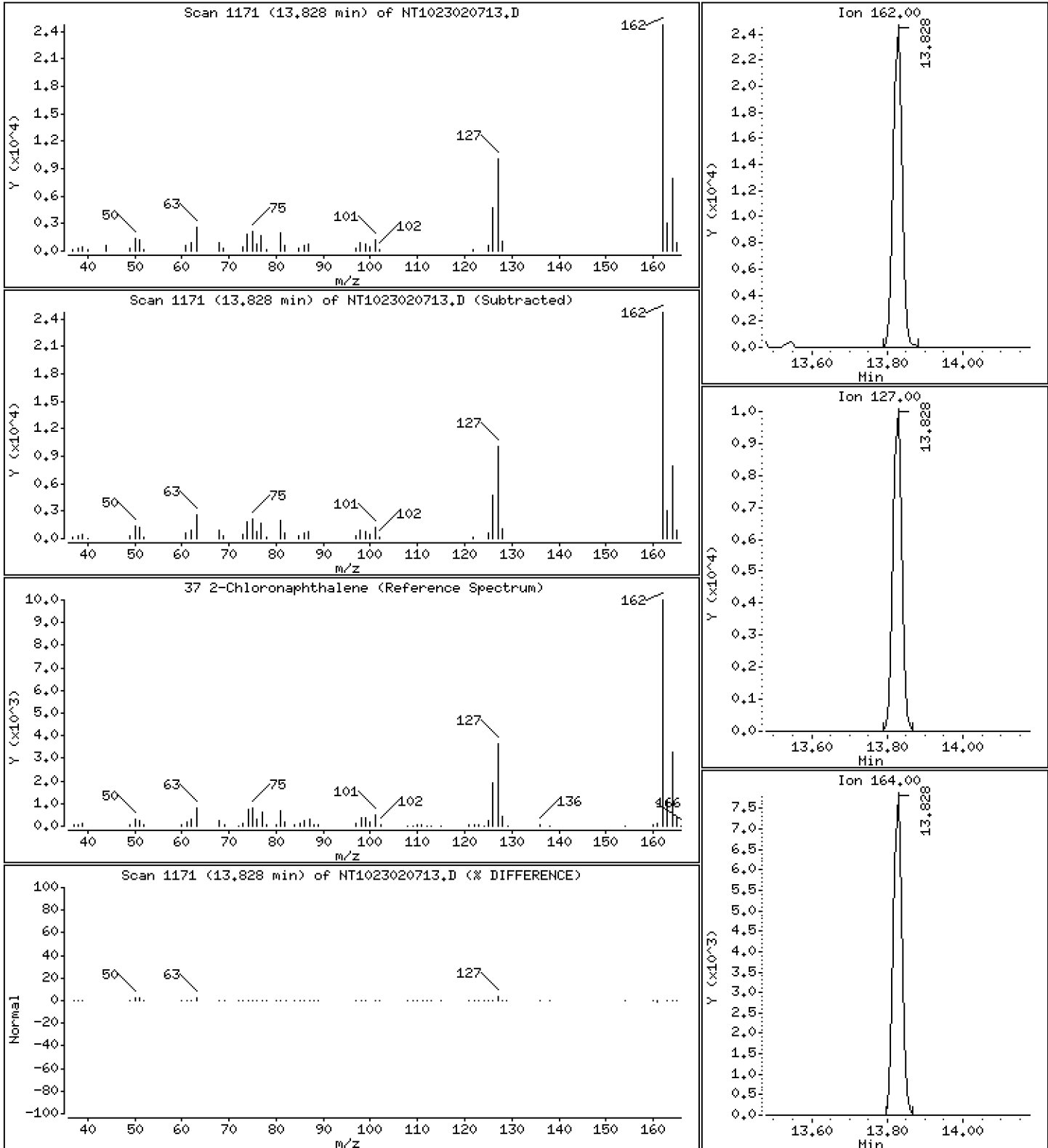
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 0,5257 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

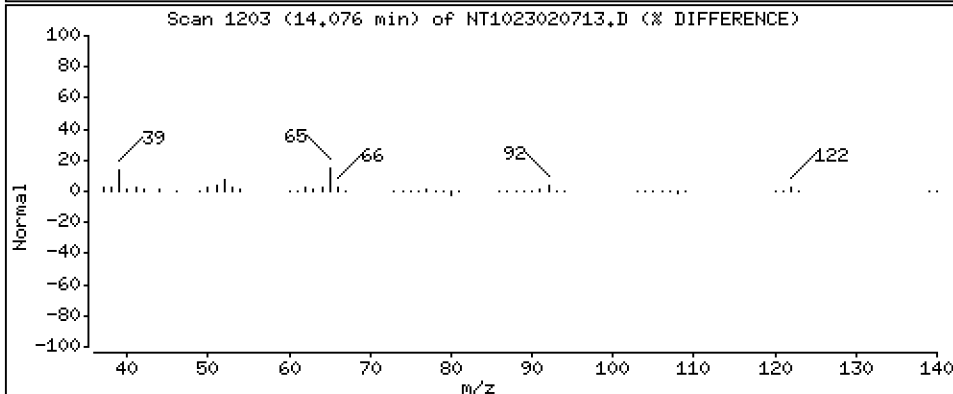
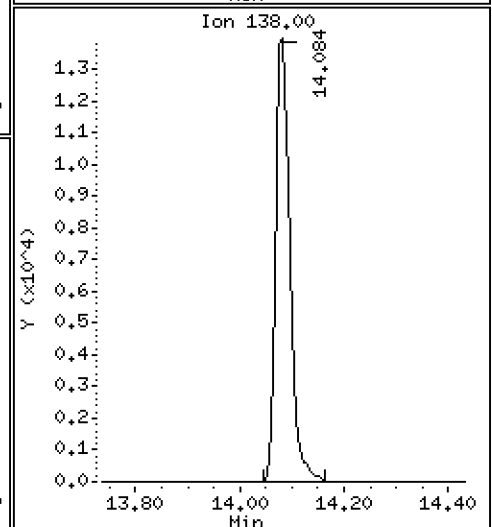
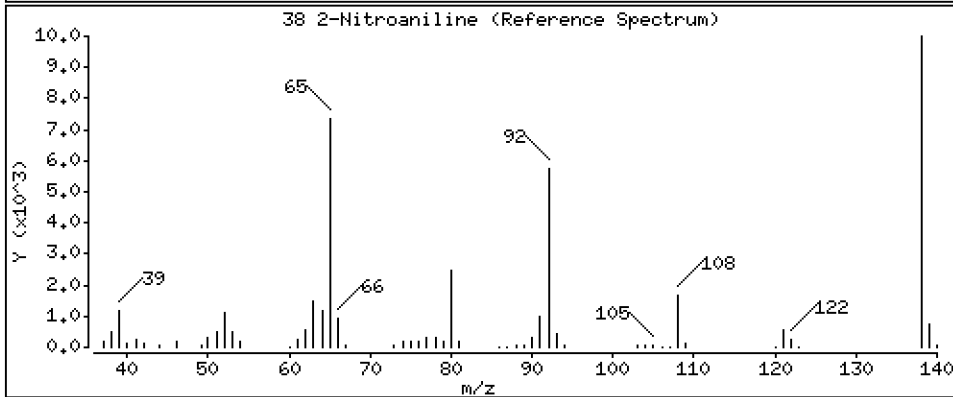
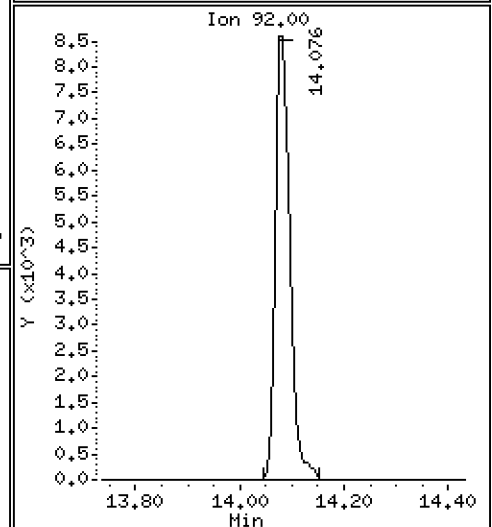
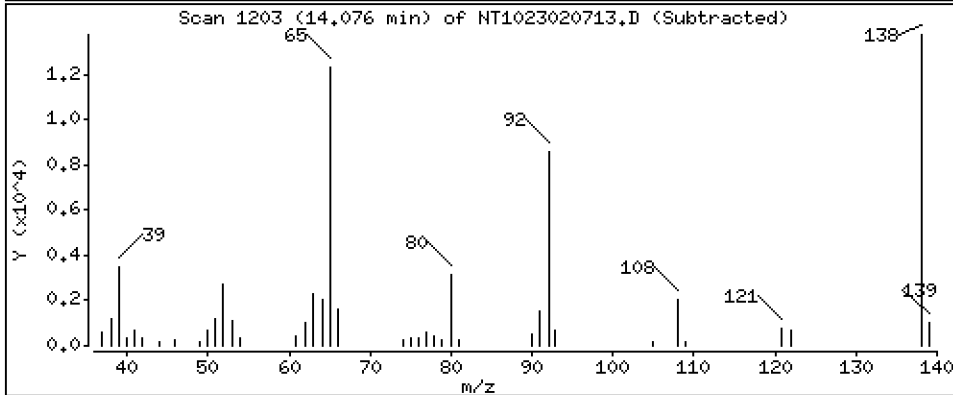
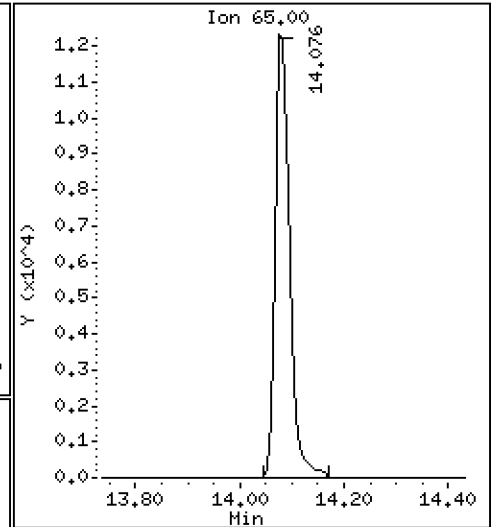
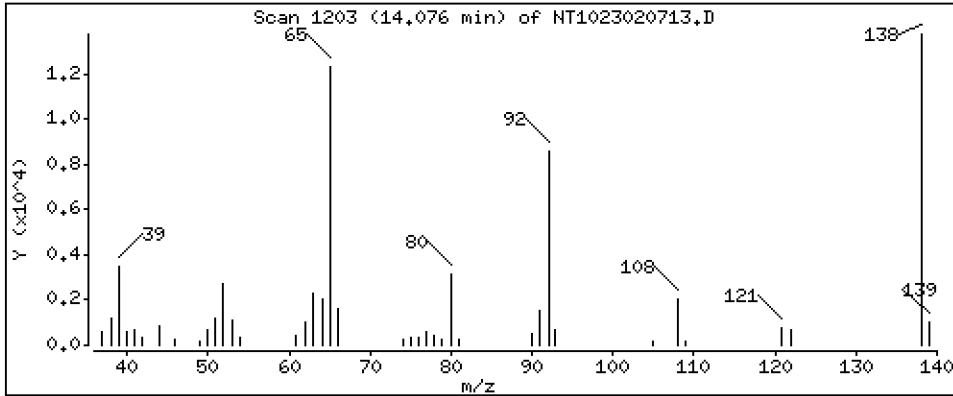
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 1,009 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

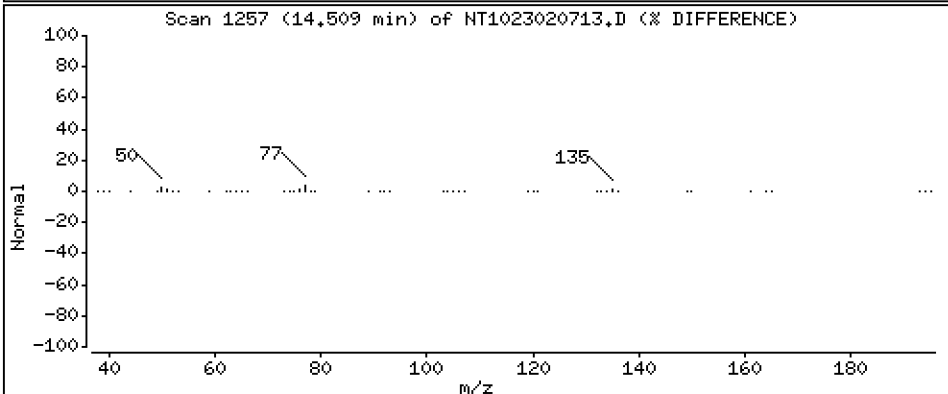
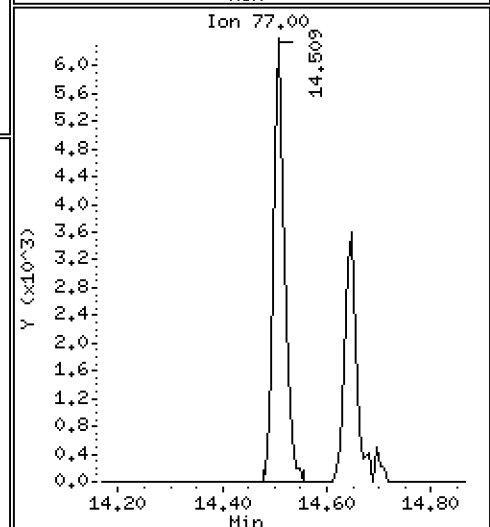
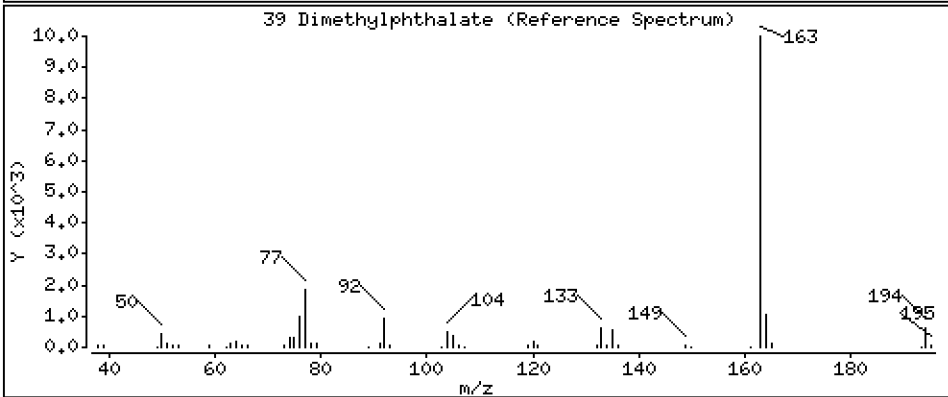
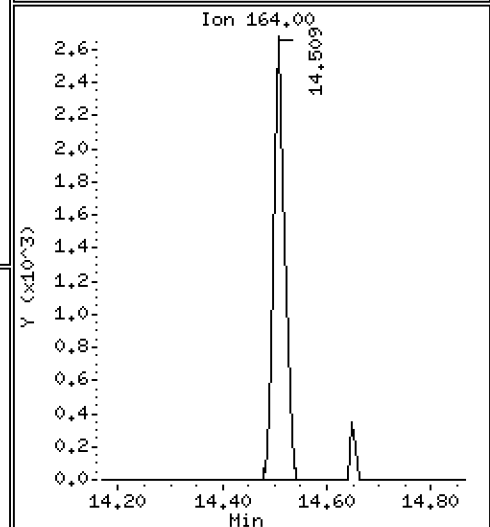
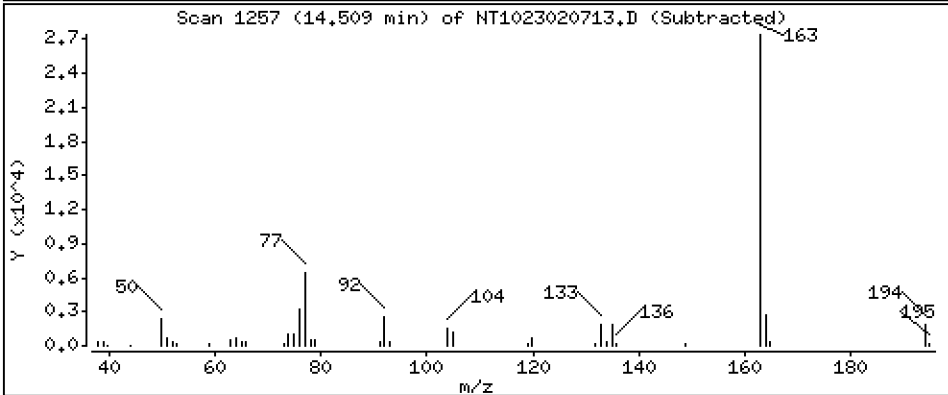
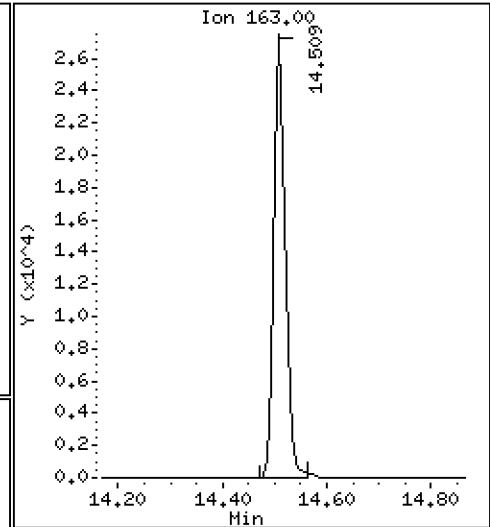
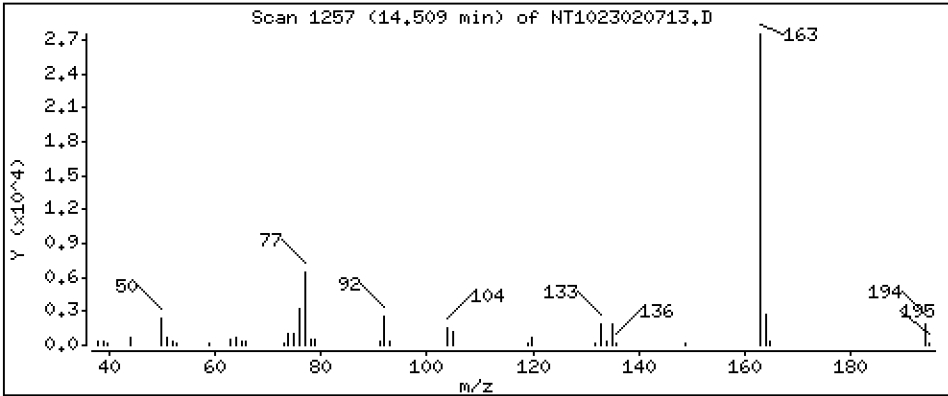
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 0.5302 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

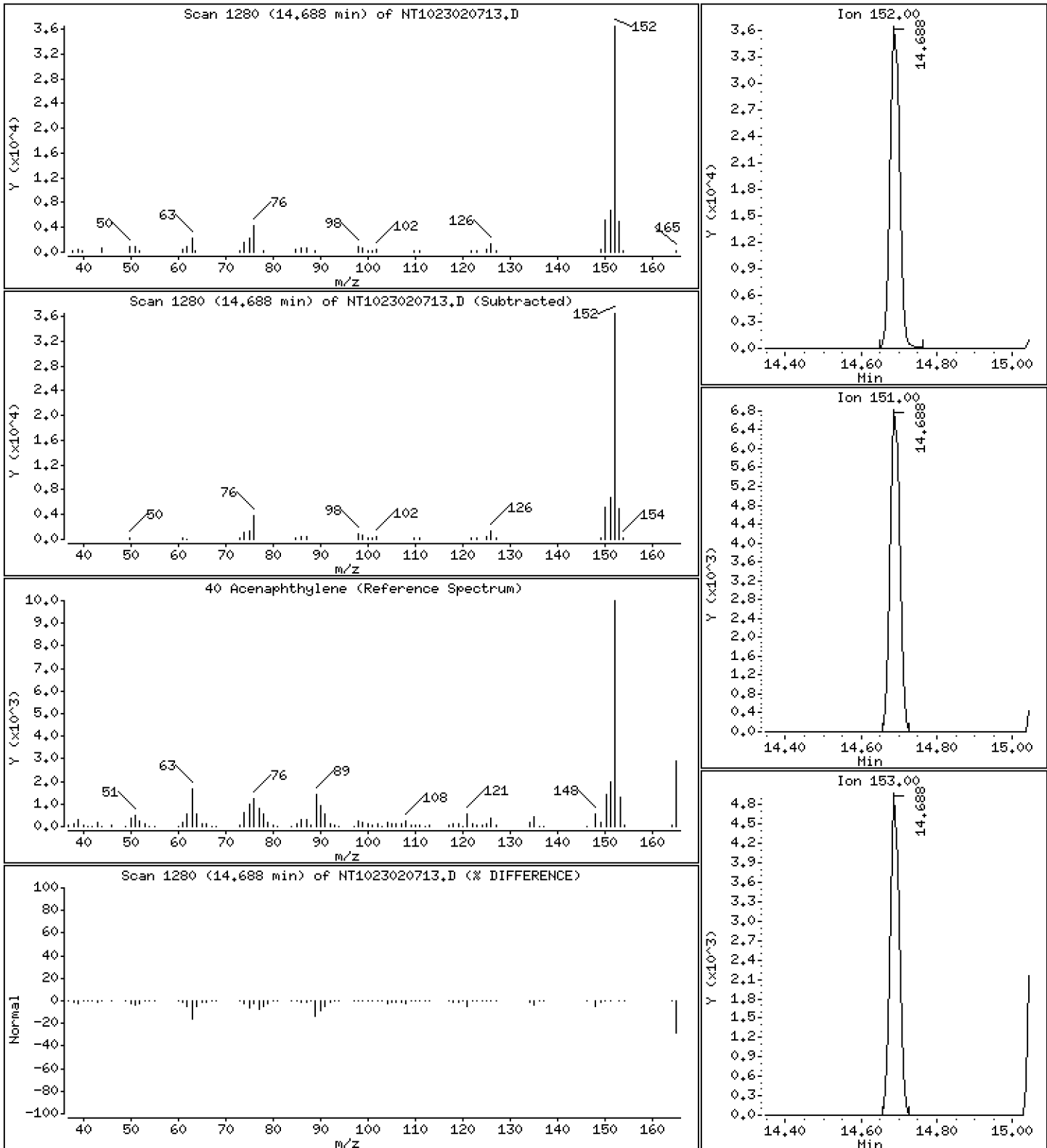
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

40 Acenaphthylene

Concentration: 0.5309 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

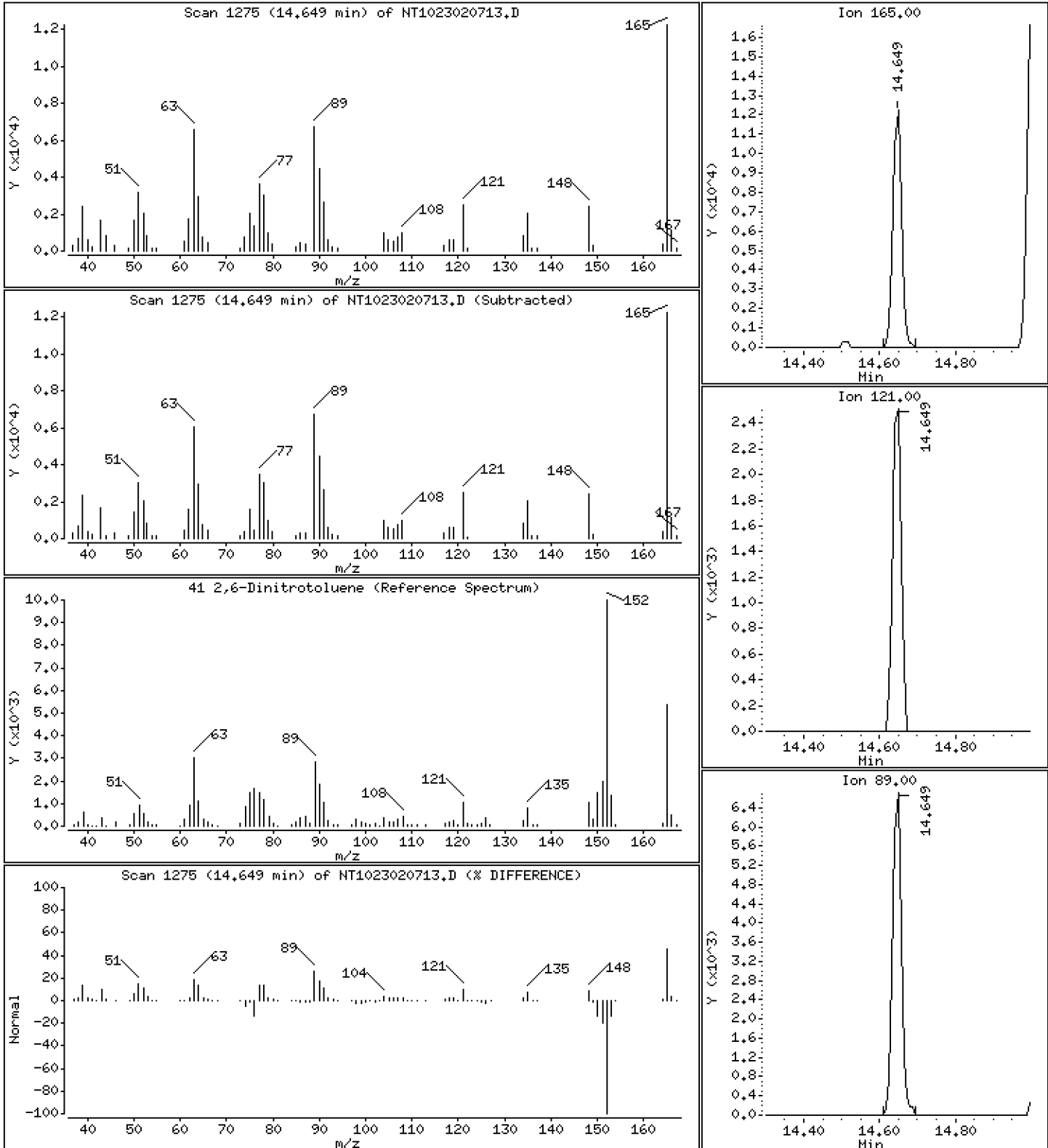
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 1.012 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

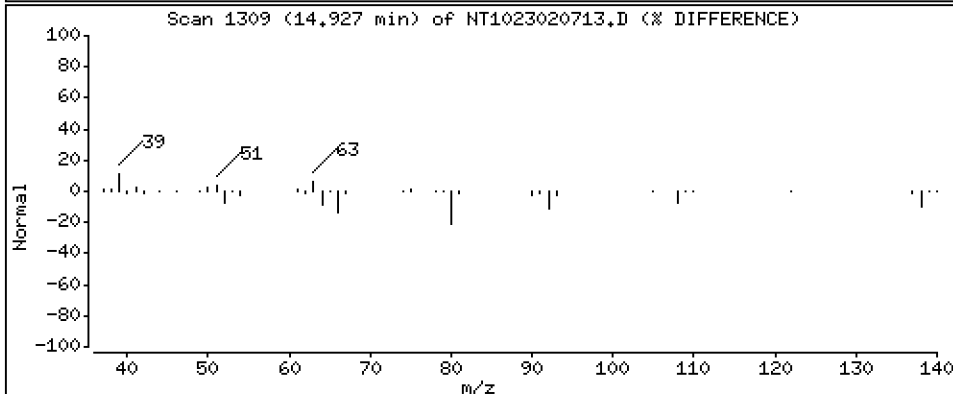
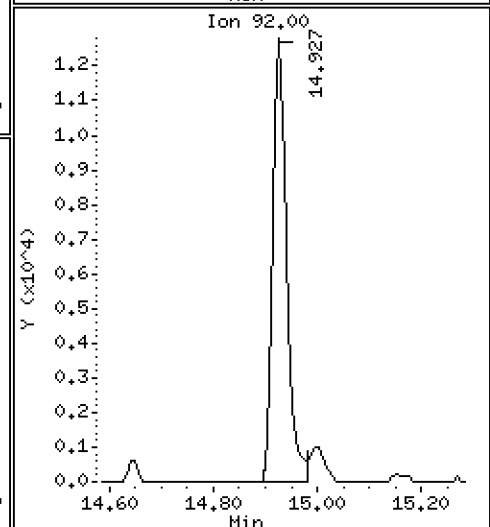
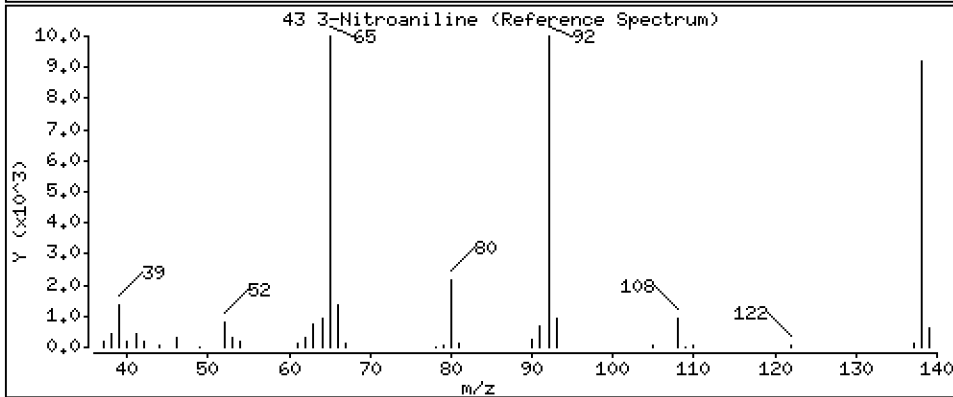
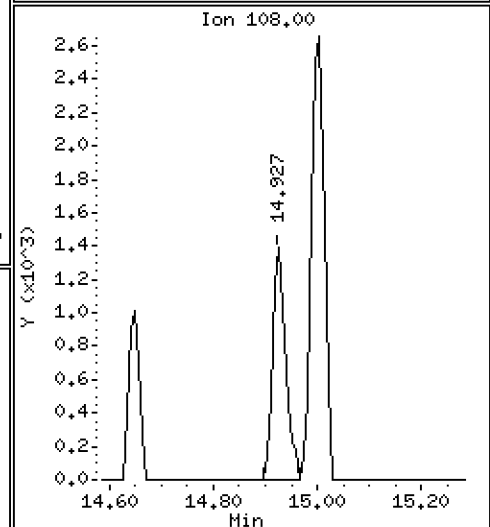
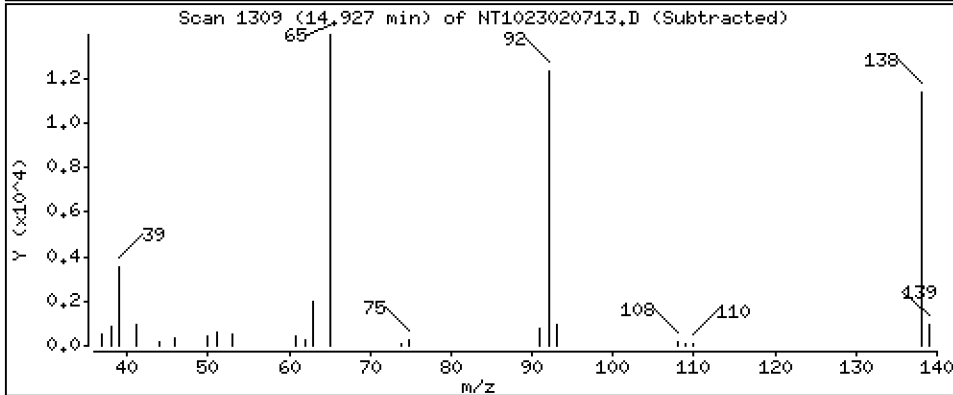
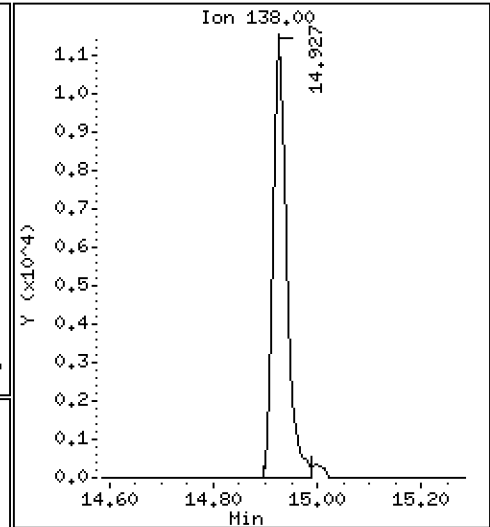
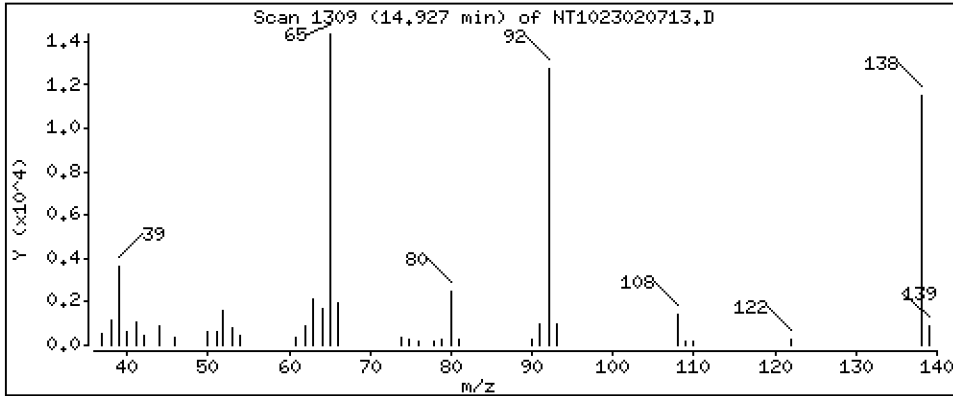
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 0,9486 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

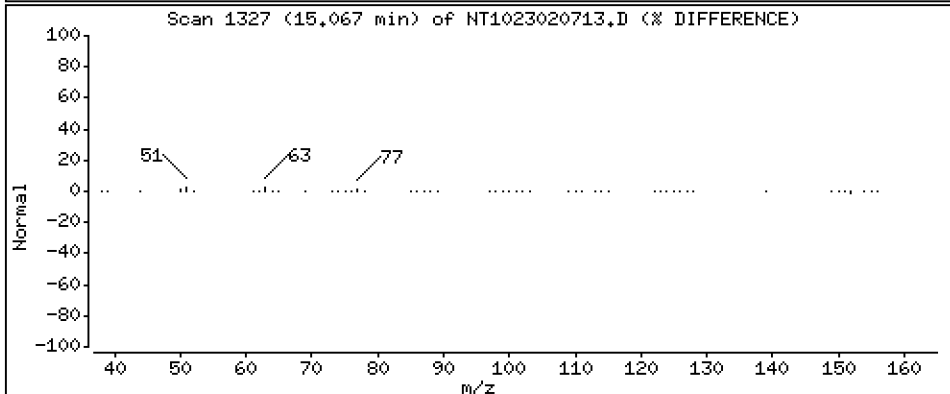
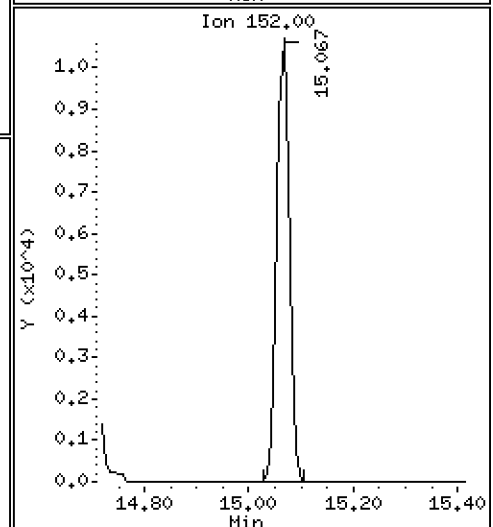
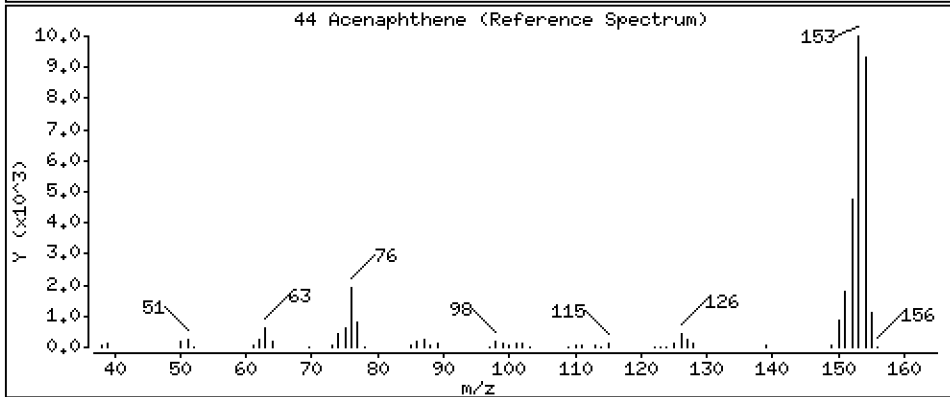
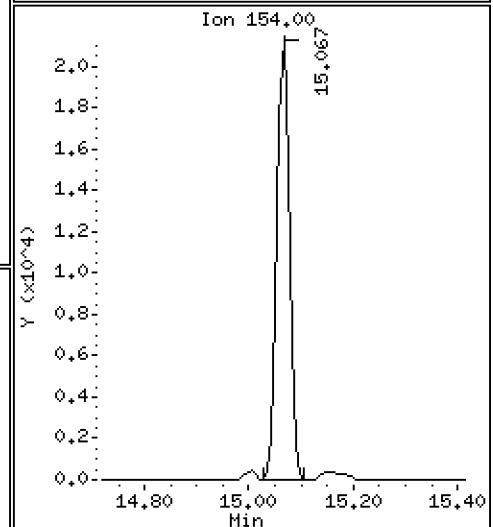
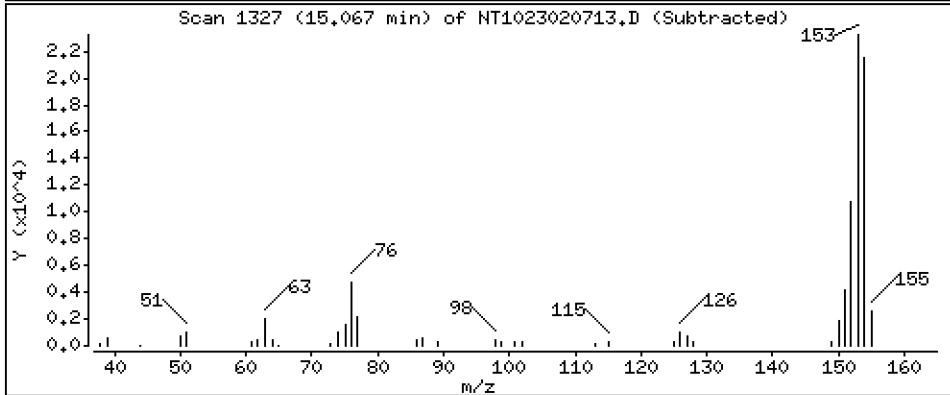
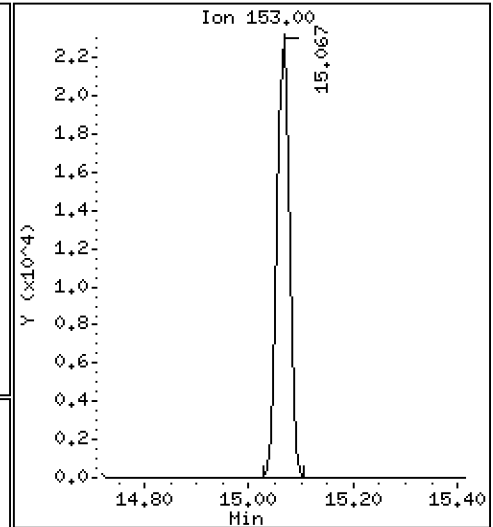
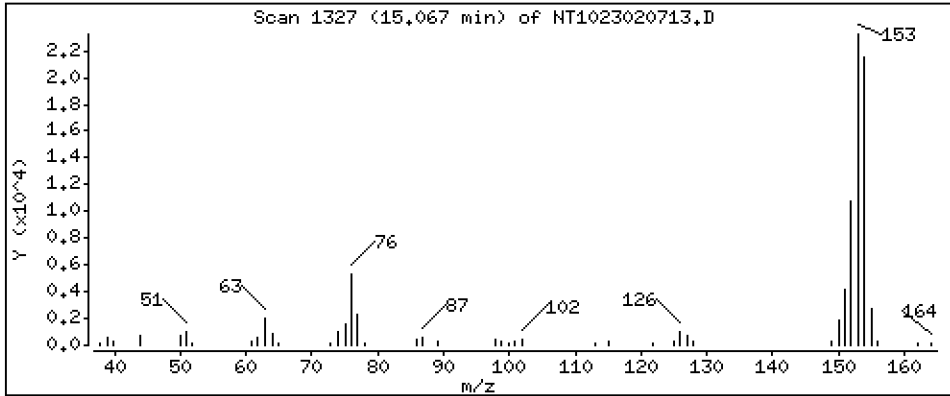
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,5214 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

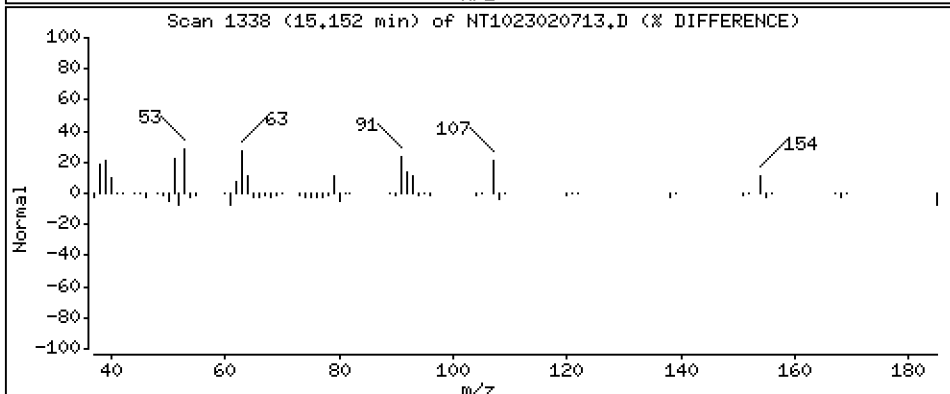
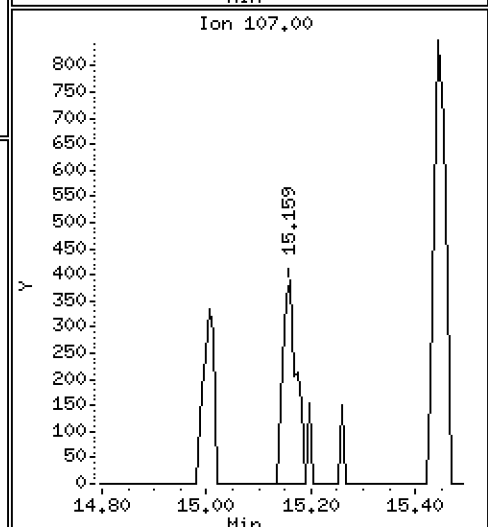
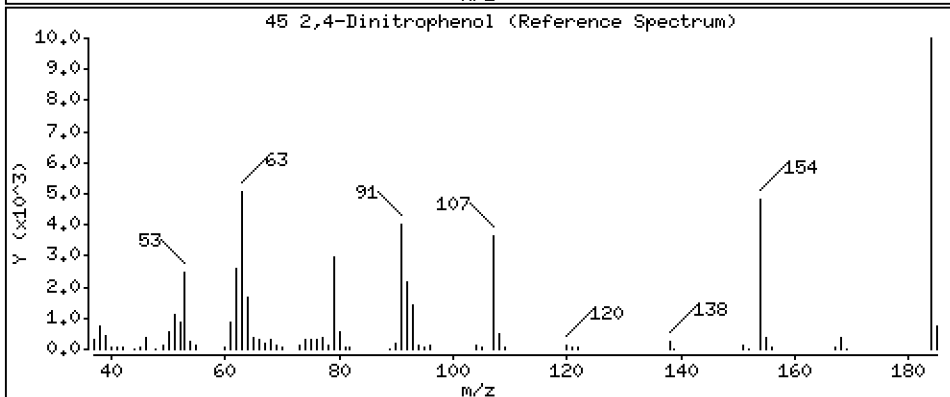
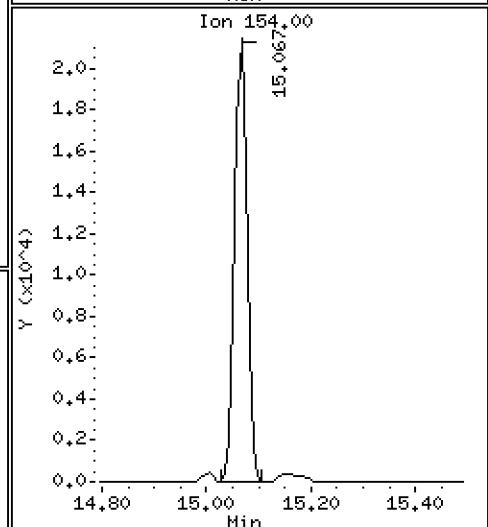
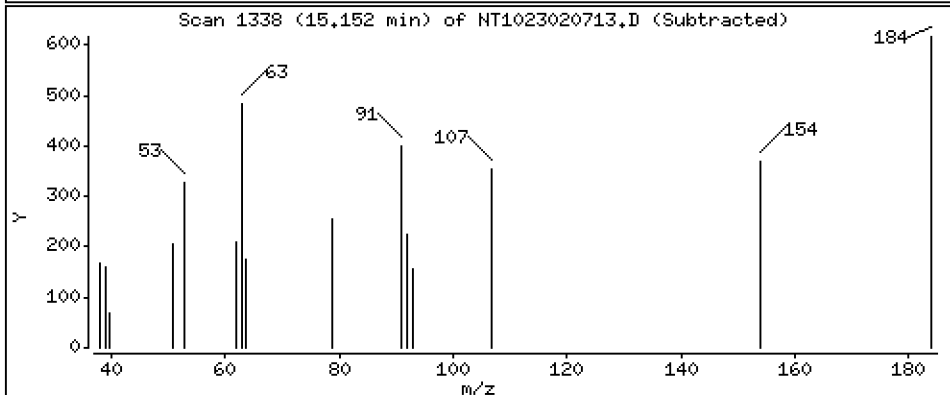
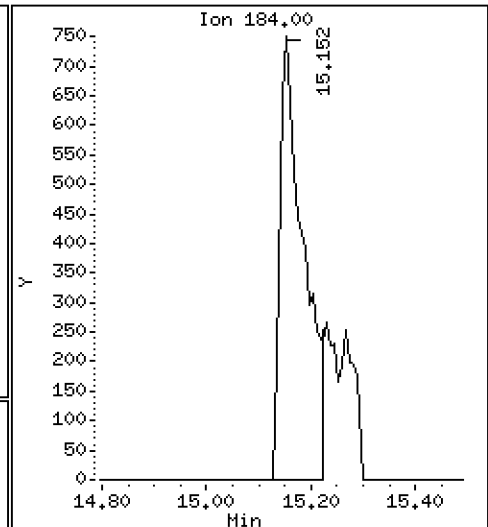
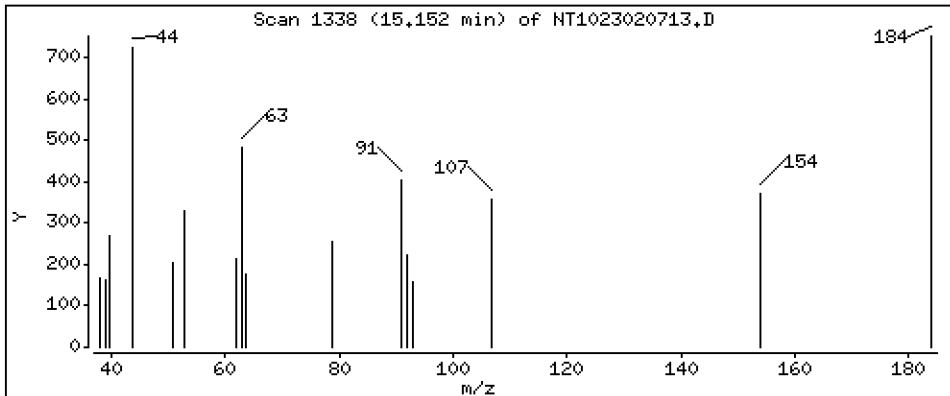
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,2542 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

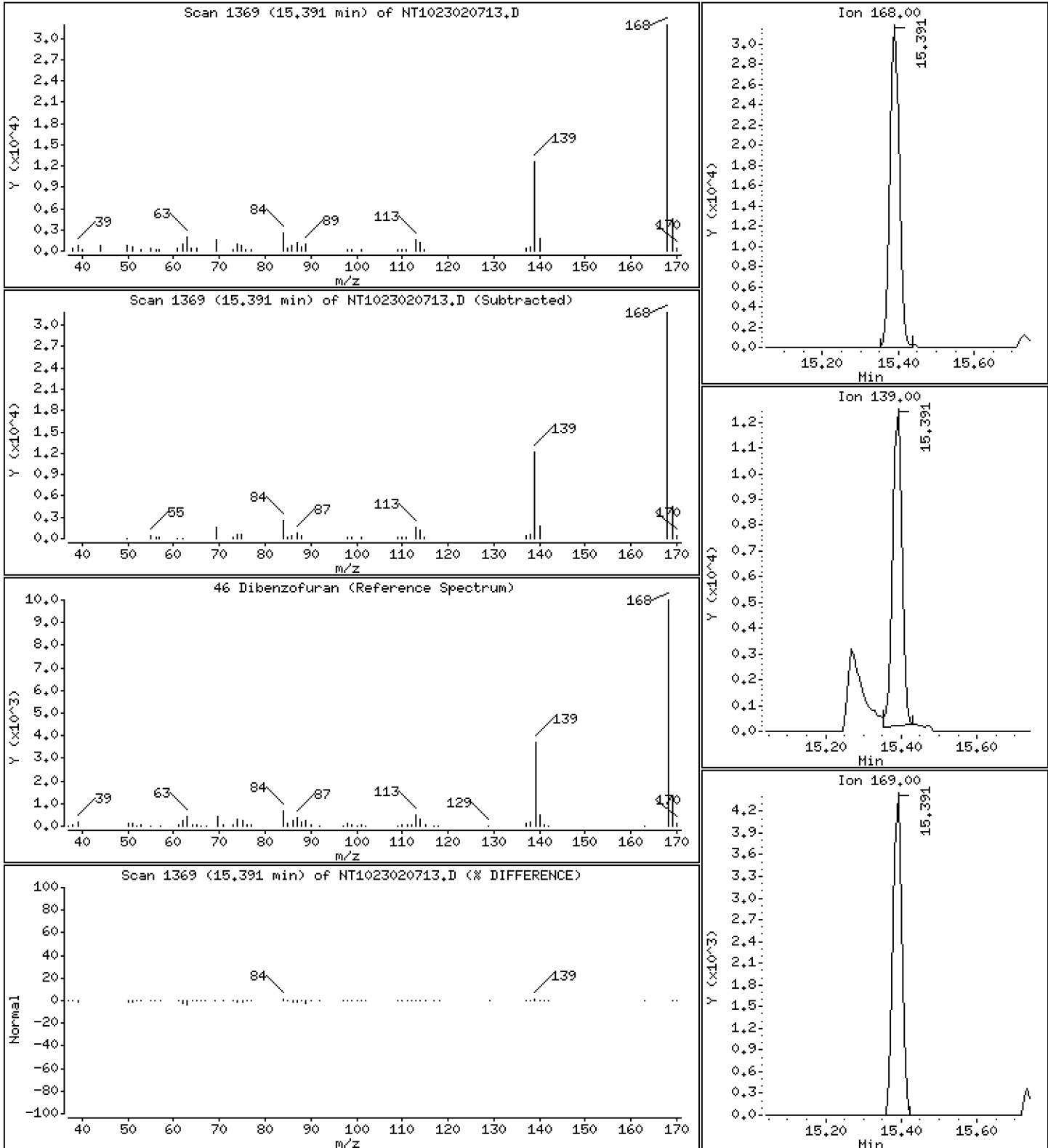
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,5146 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

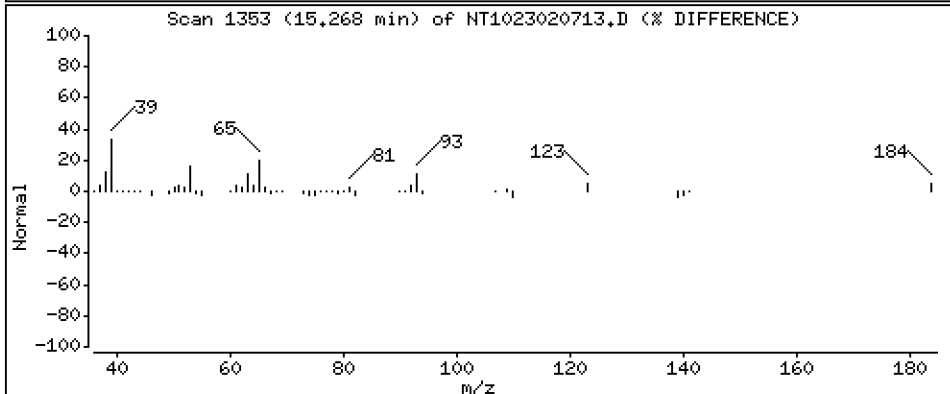
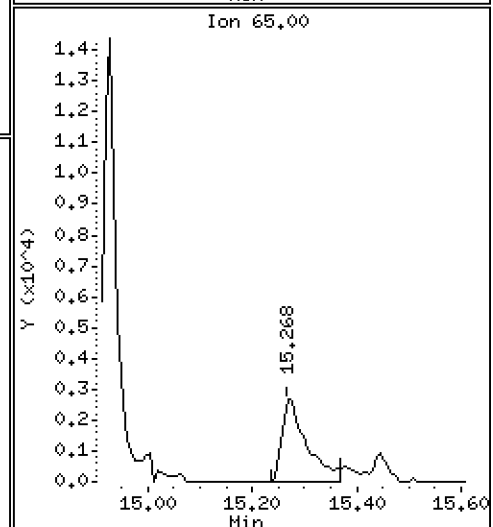
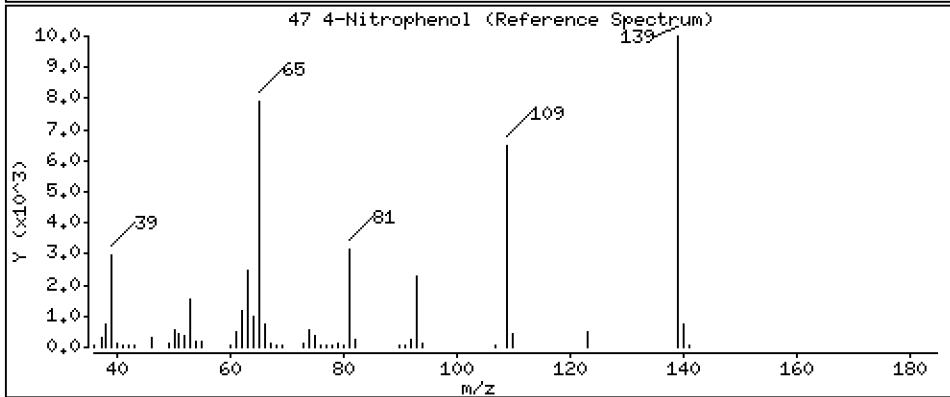
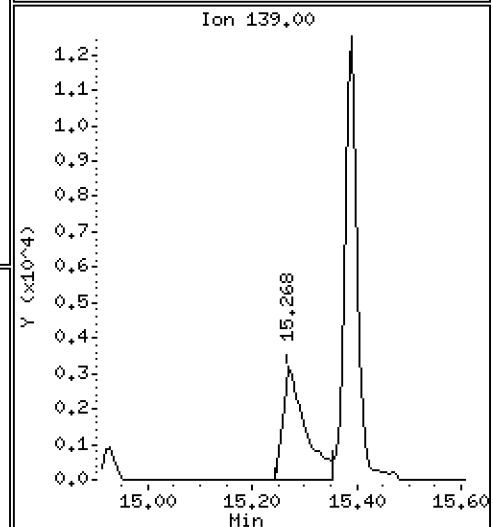
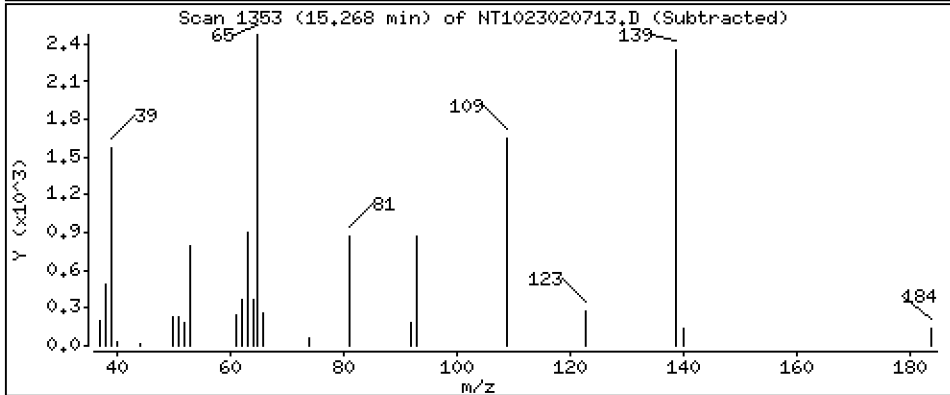
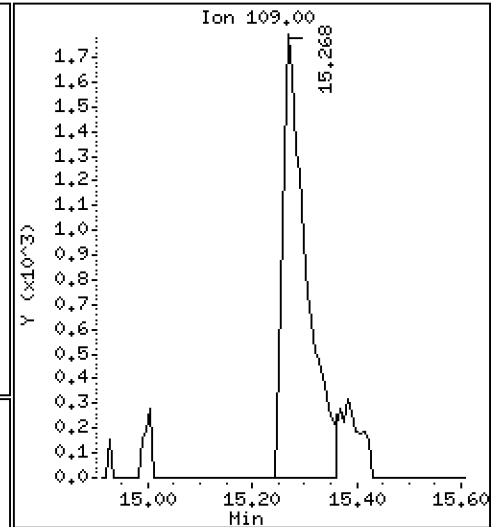
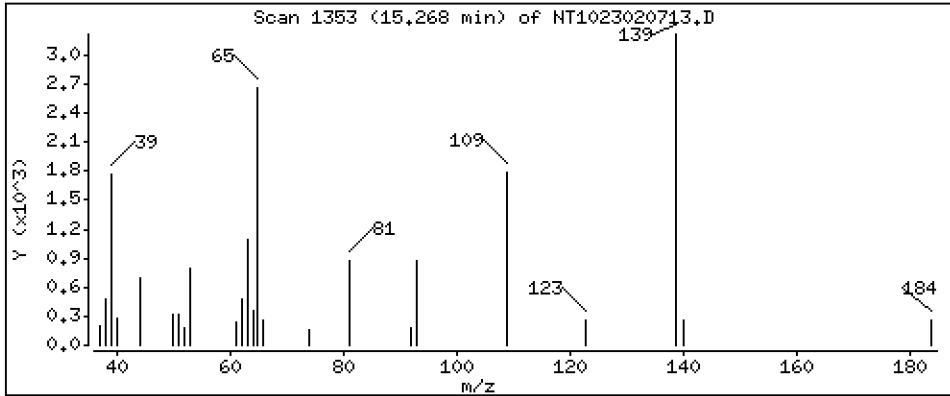
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 0,7280 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

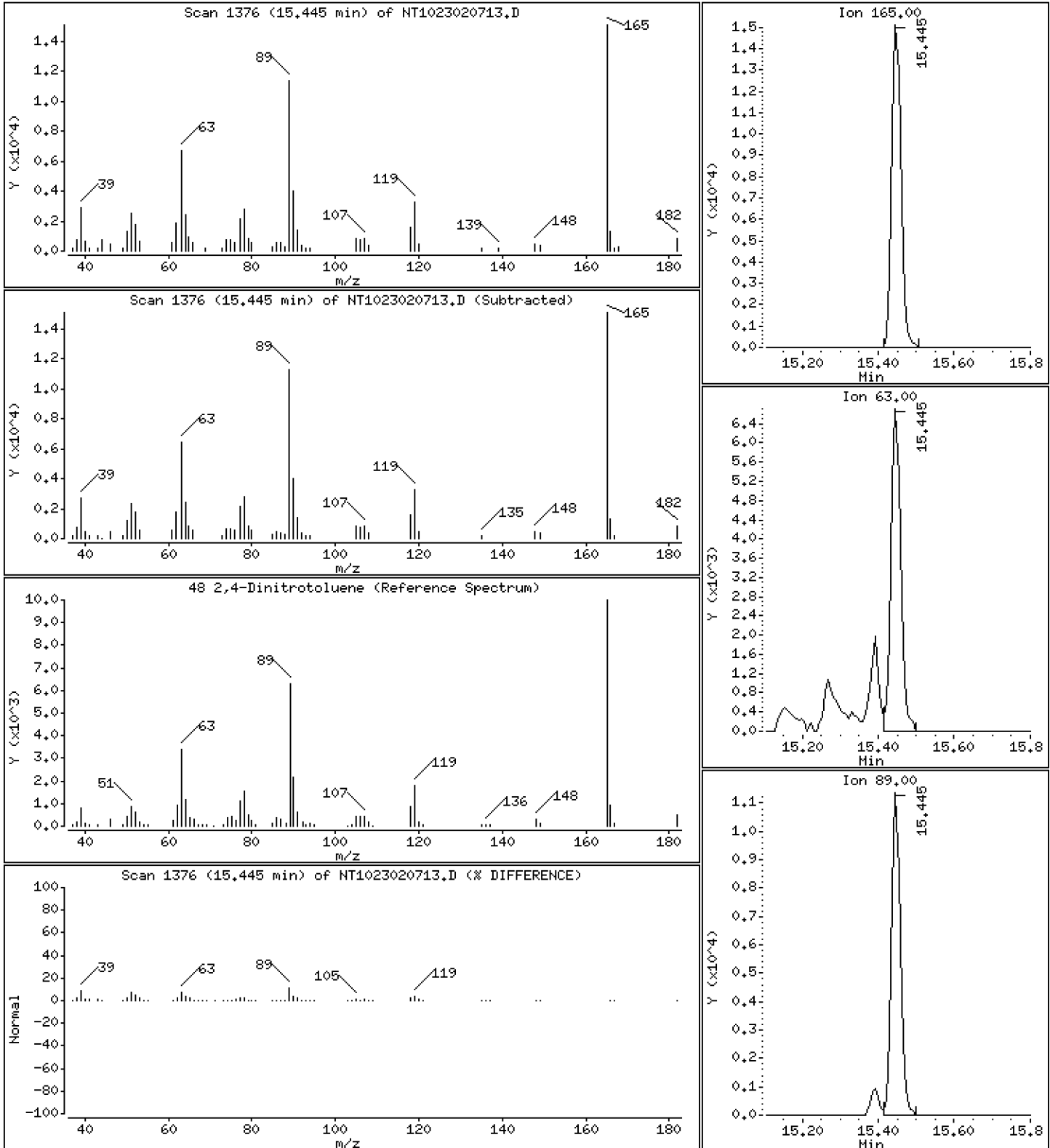
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

48 2,4-Dinitrotoluene

Concentration: 0.9819 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

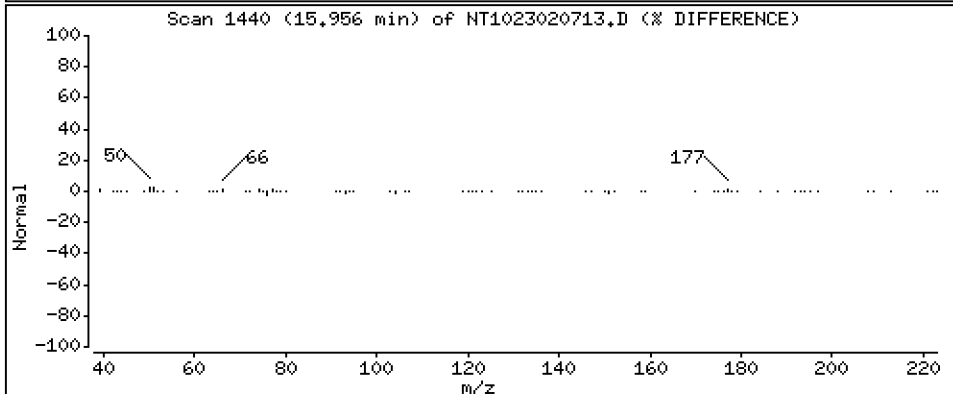
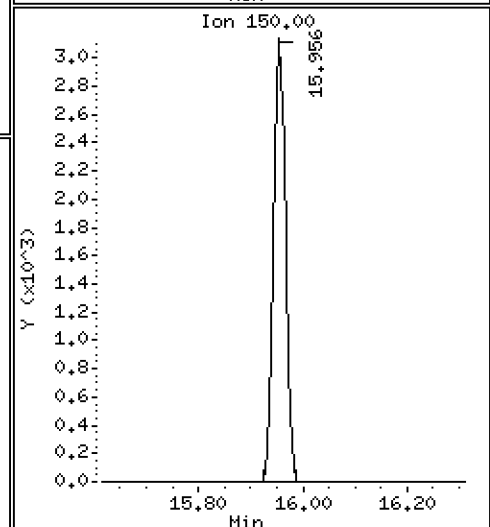
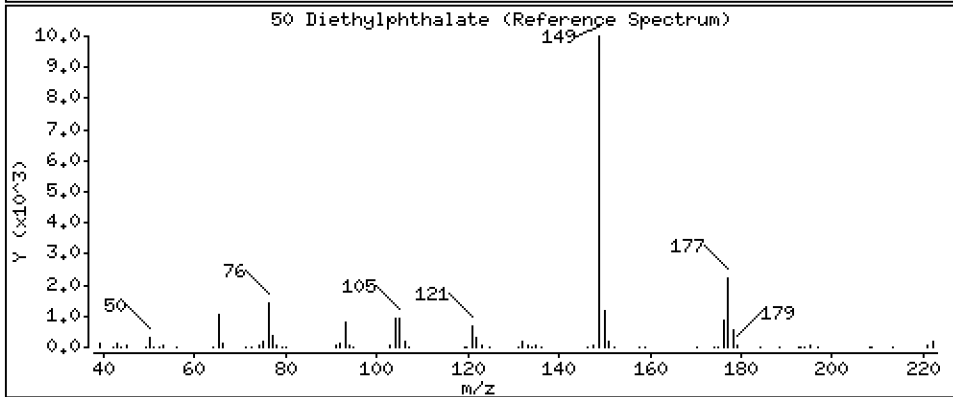
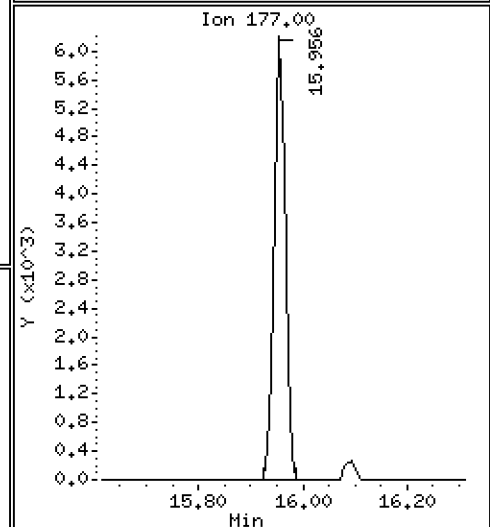
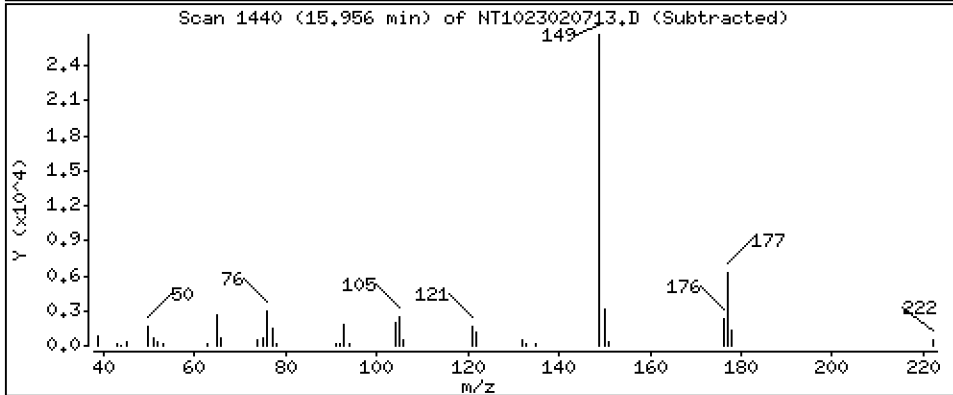
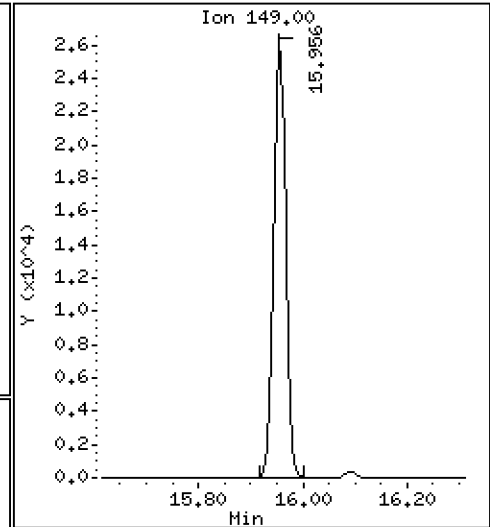
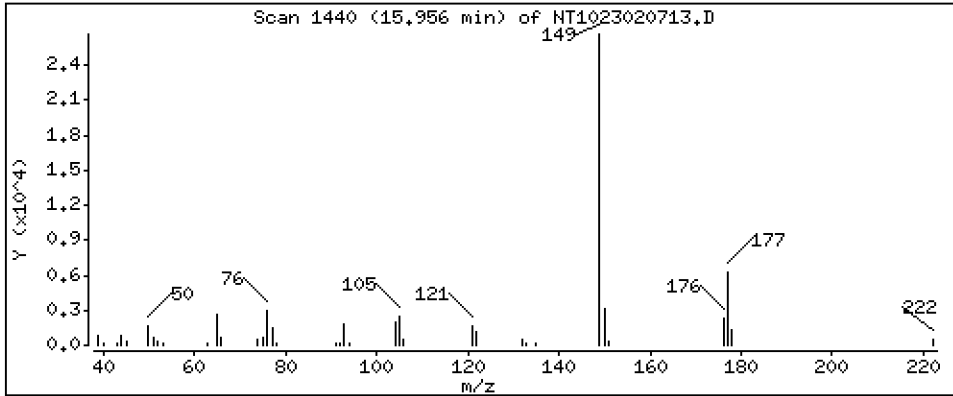
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.5351 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

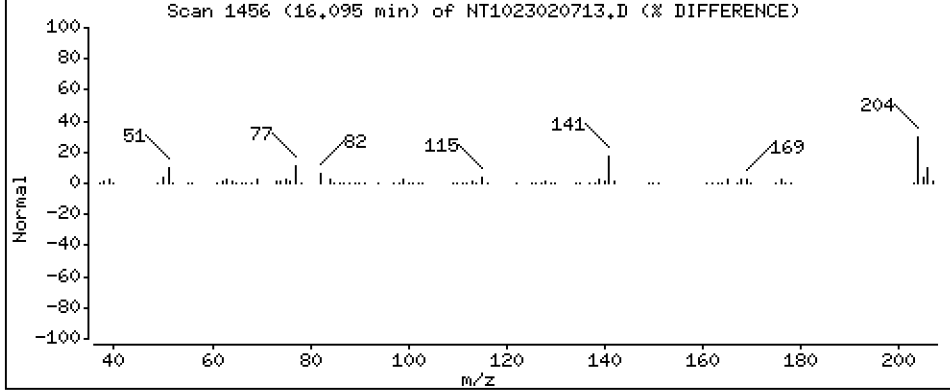
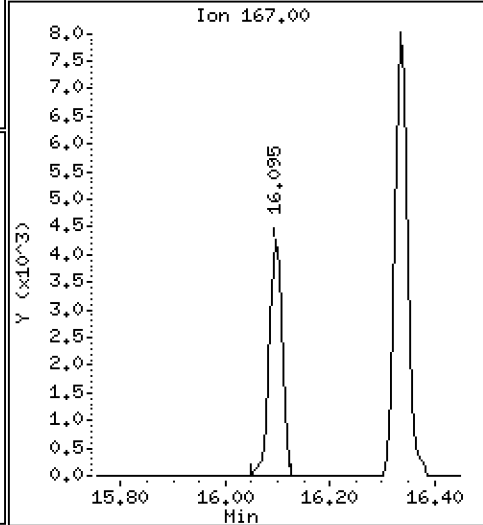
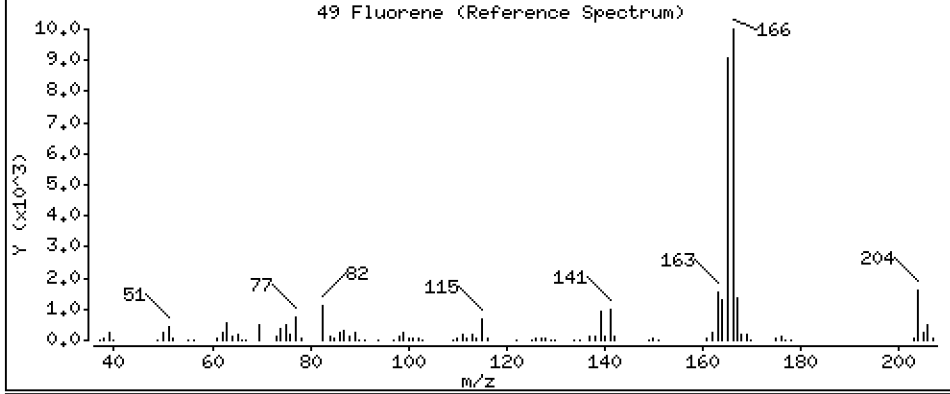
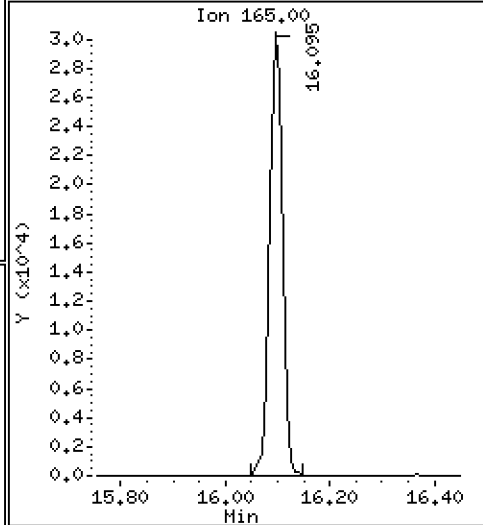
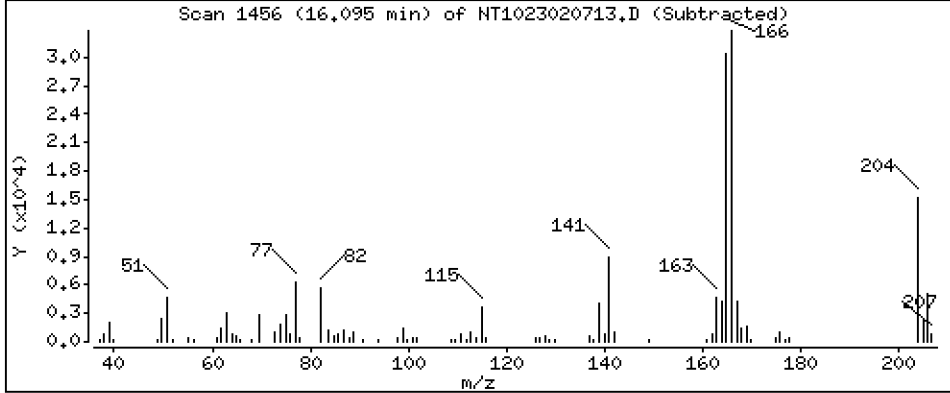
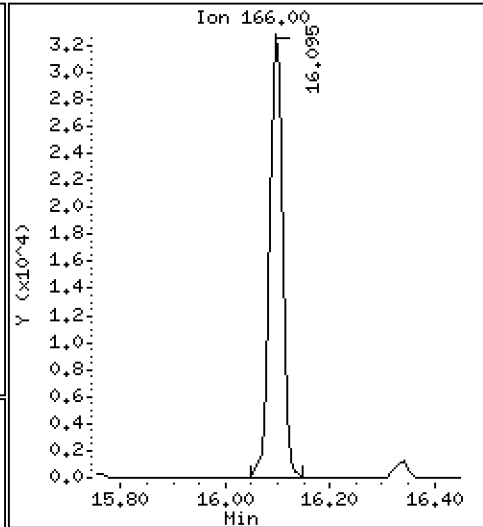
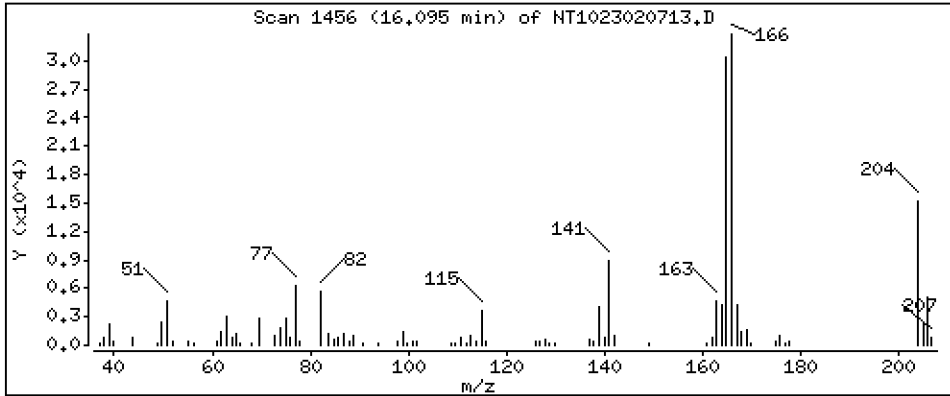
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,5553 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

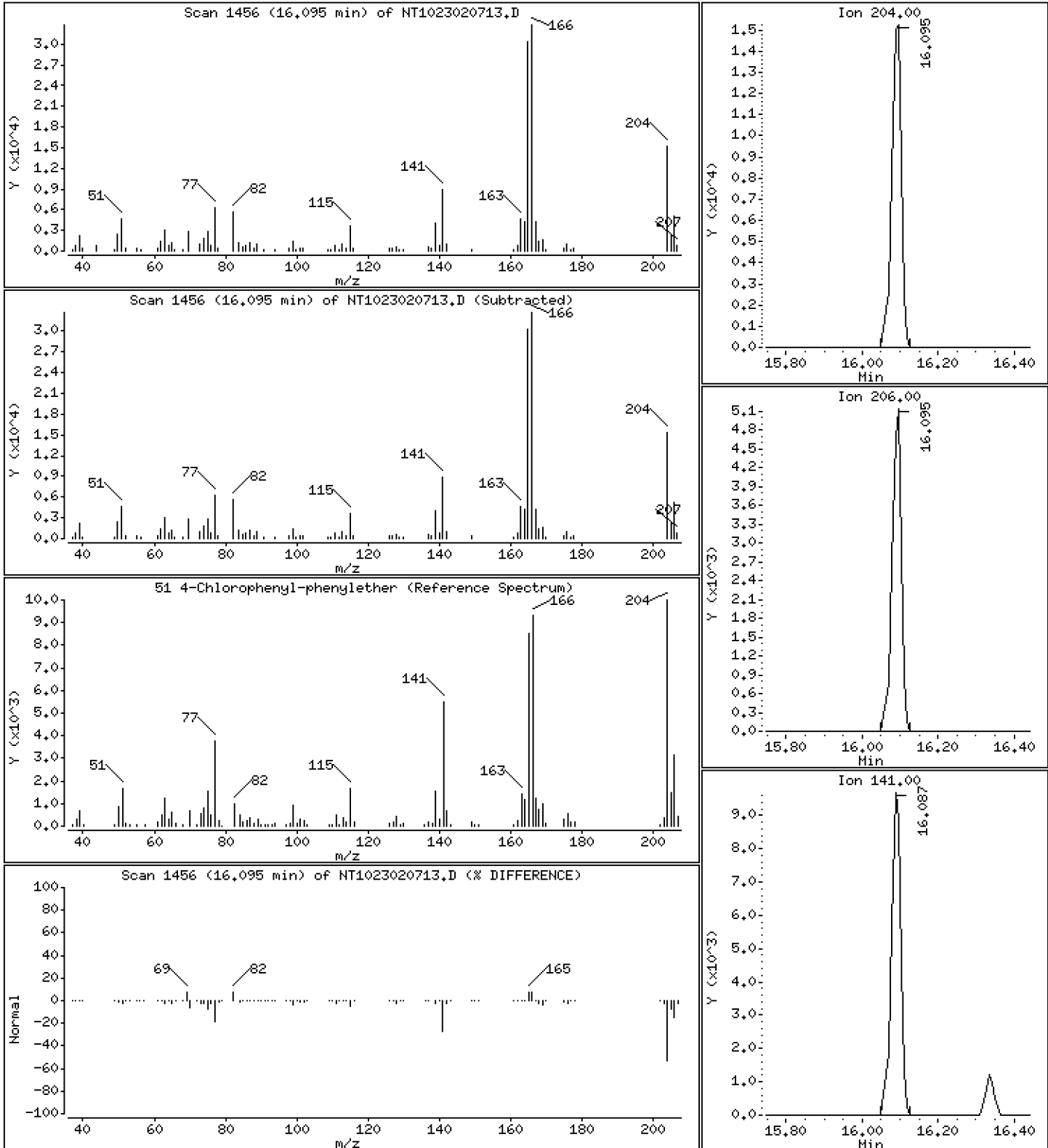
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

51 4-Chlorophenyl-phenylether

Concentration: 0.5552 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

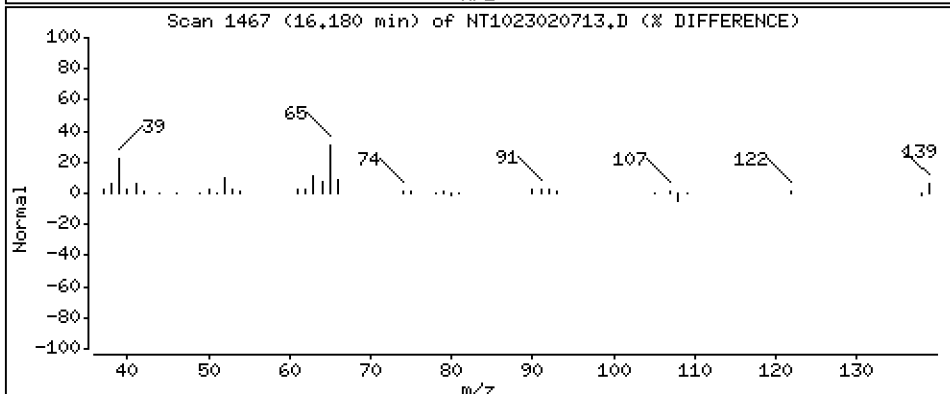
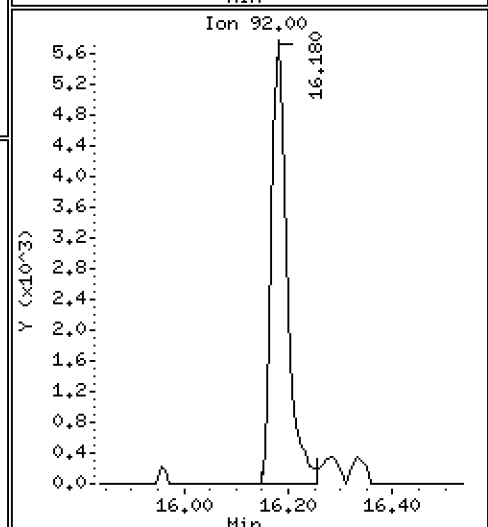
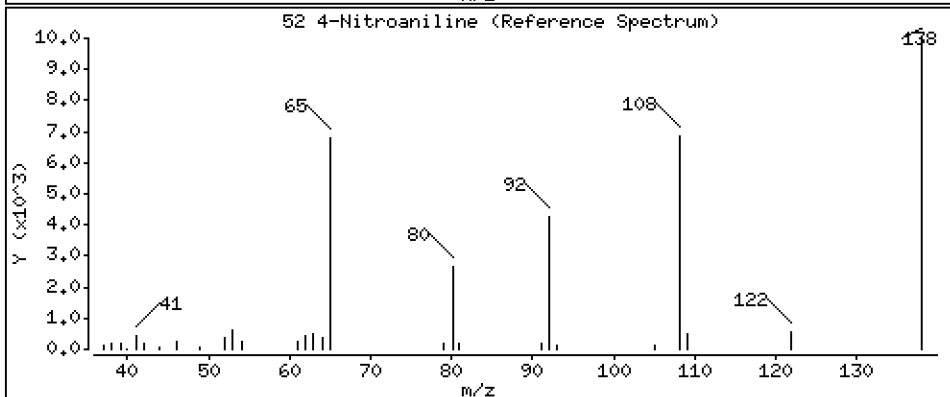
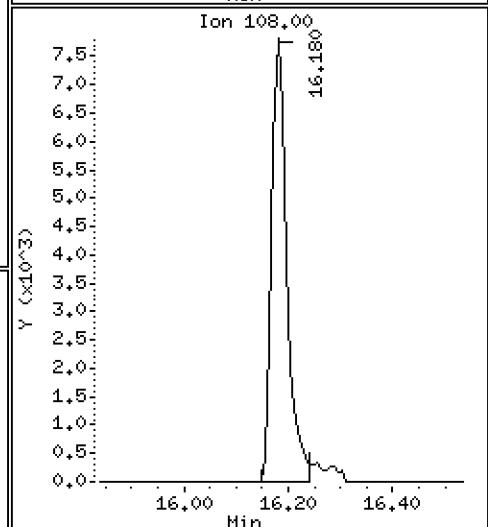
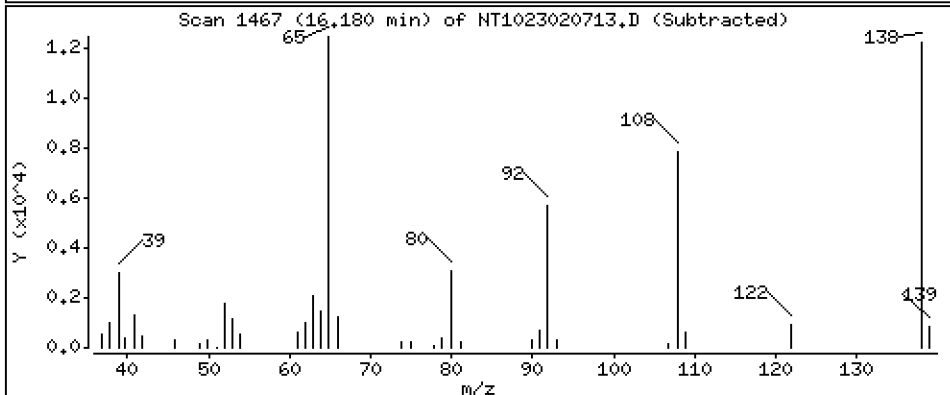
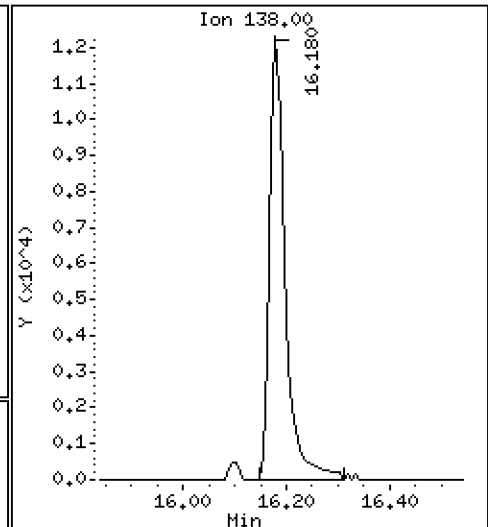
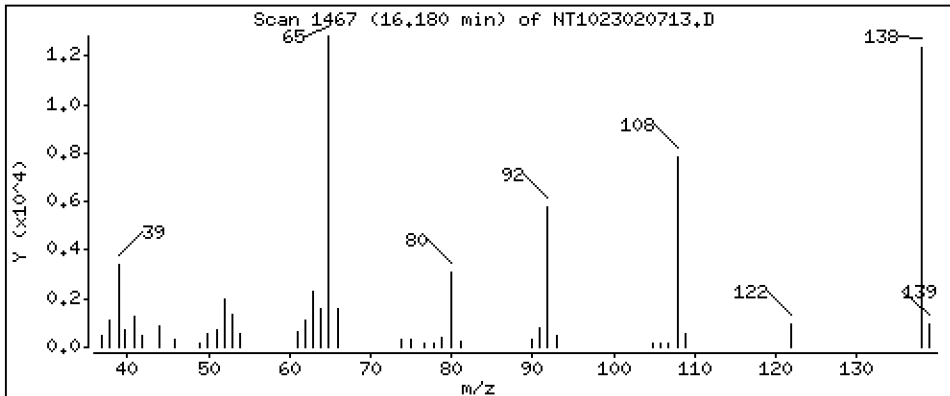
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 1,021 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

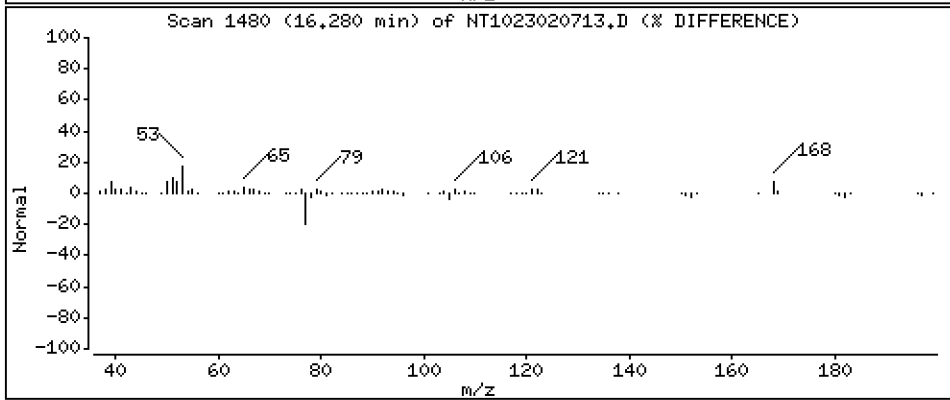
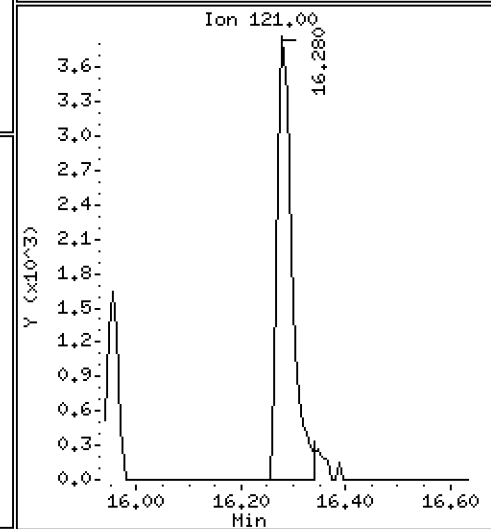
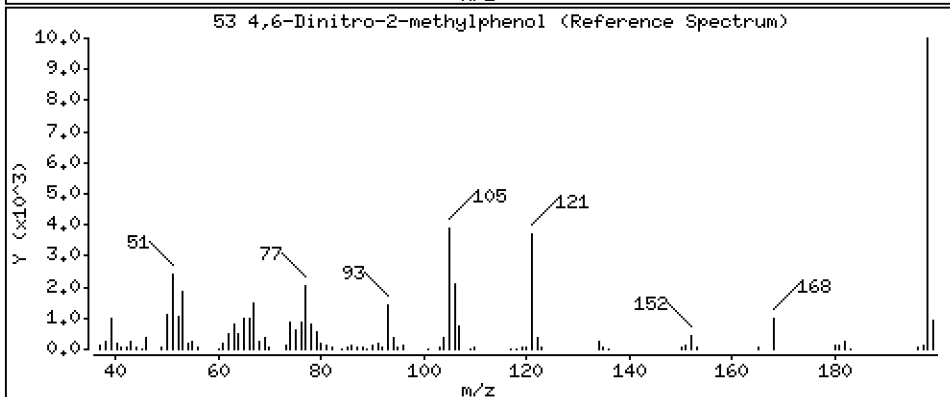
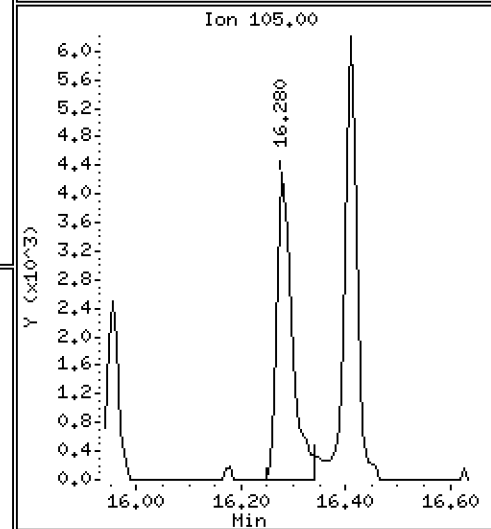
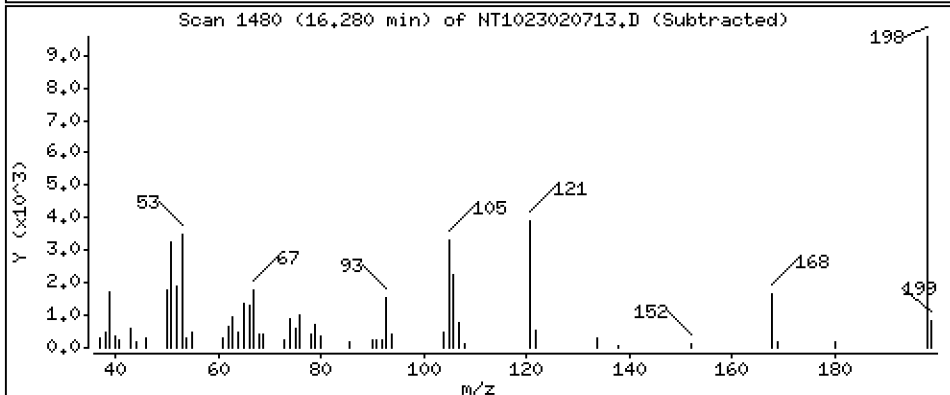
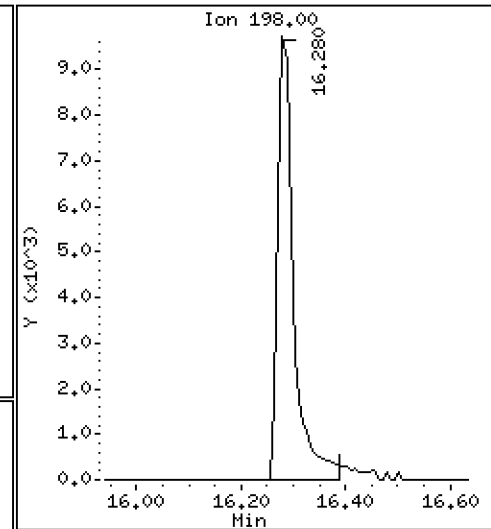
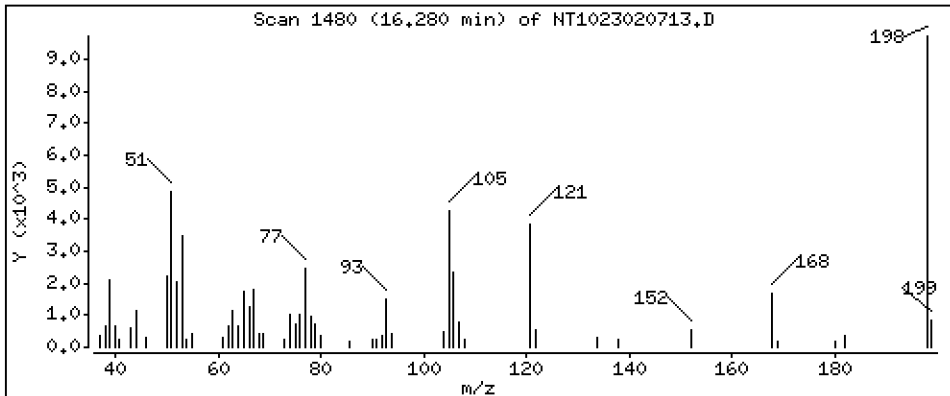
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

53 4,6-Dinitro-2-methylphenol

Concentration: 1.342 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

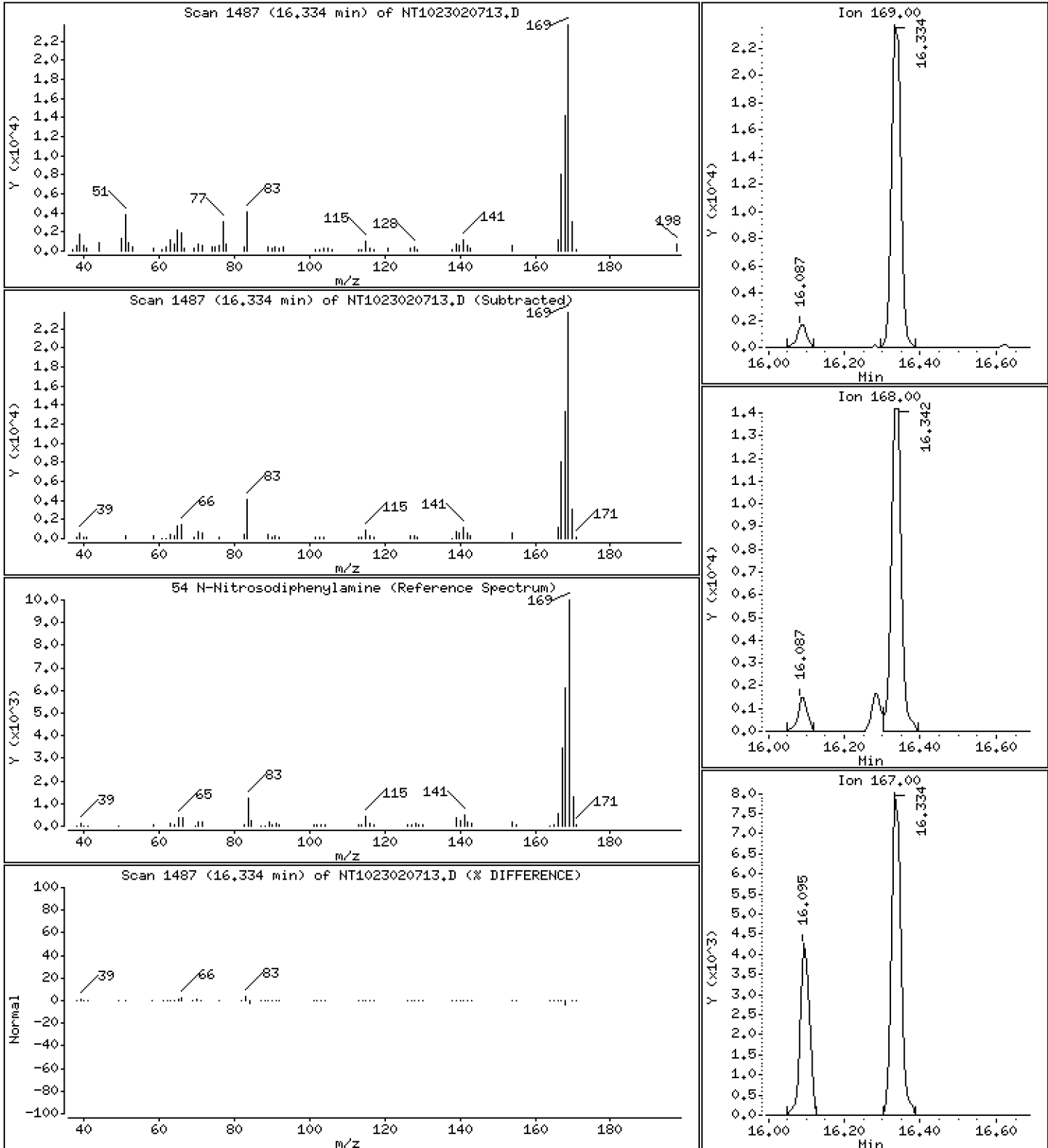
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 0,5398 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

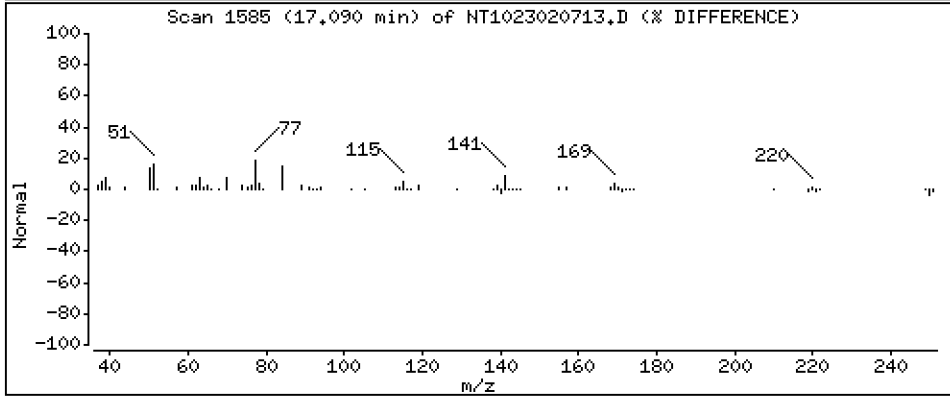
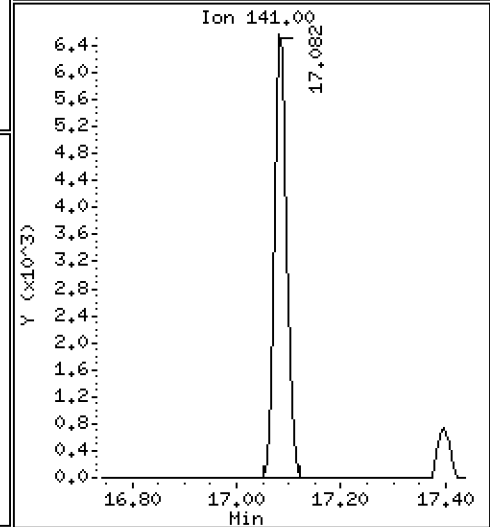
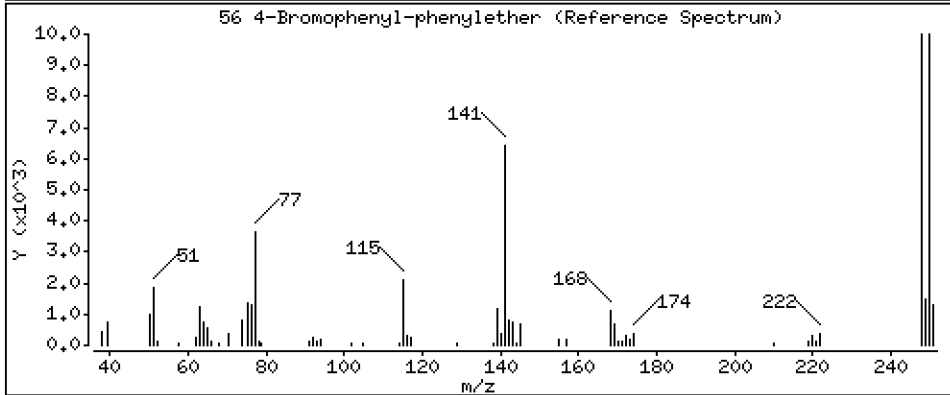
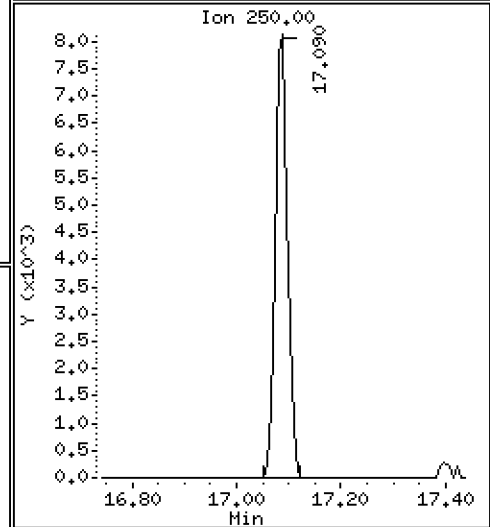
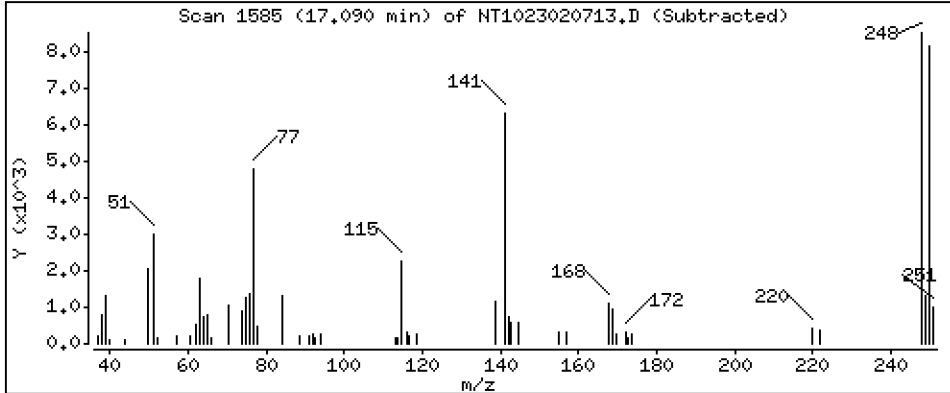
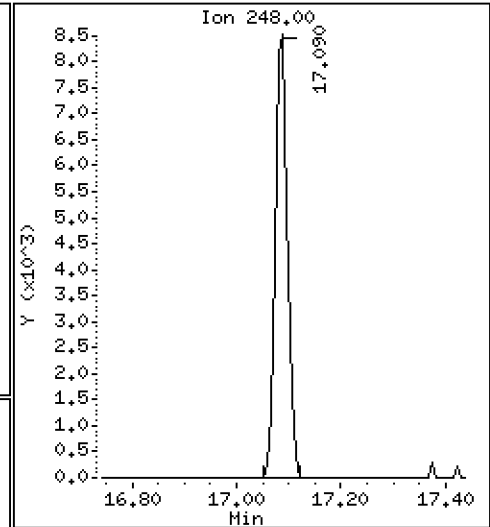
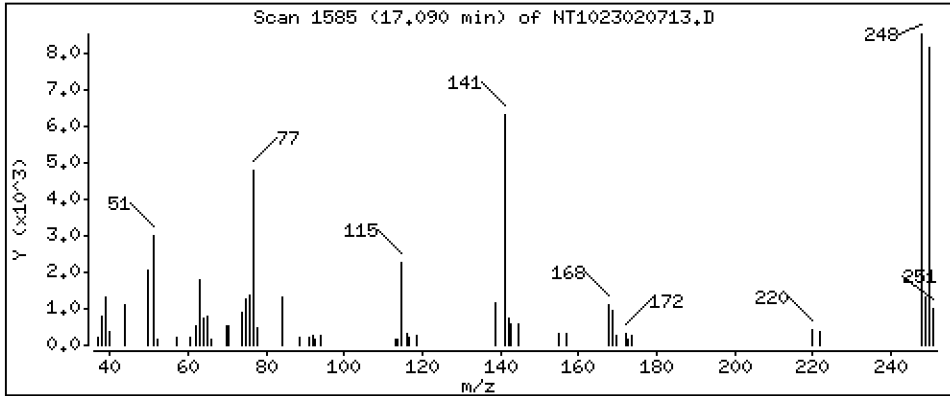
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 0,5301 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

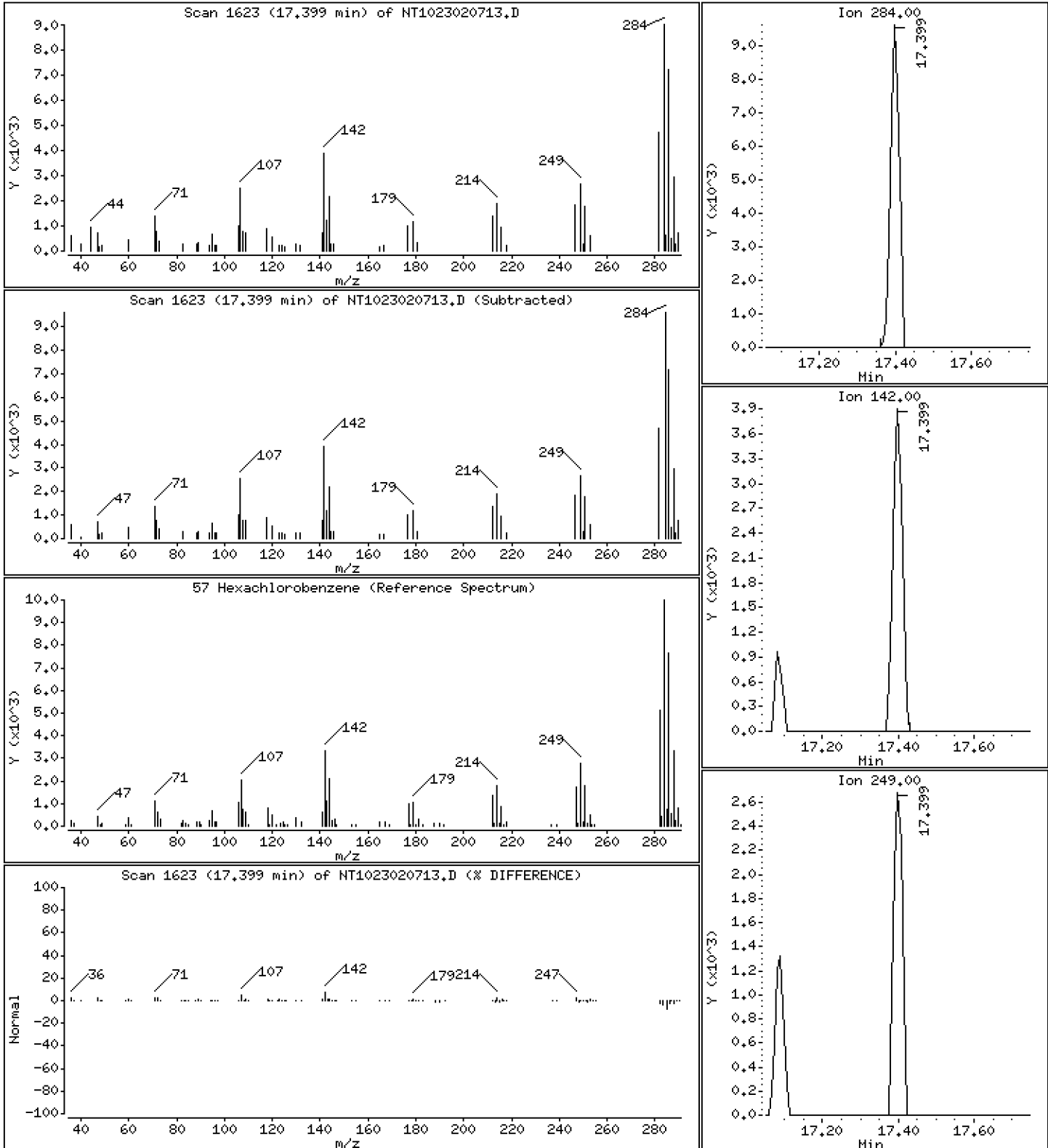
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,5377 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

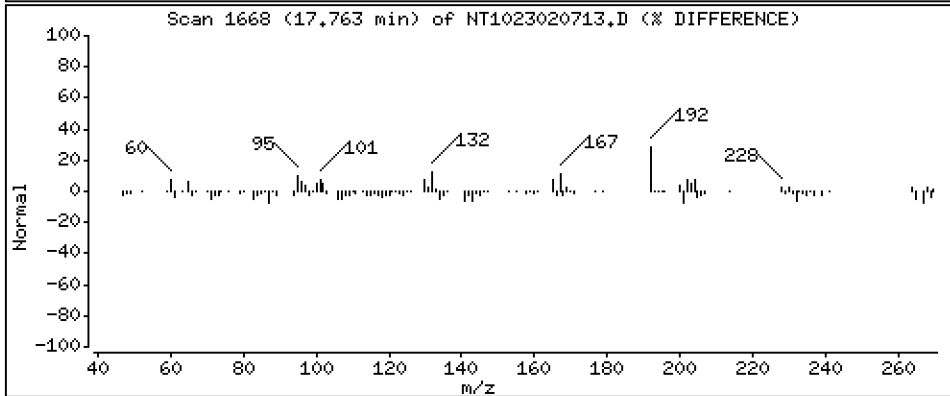
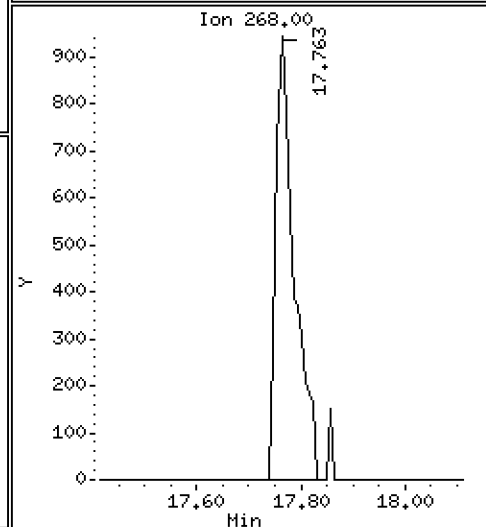
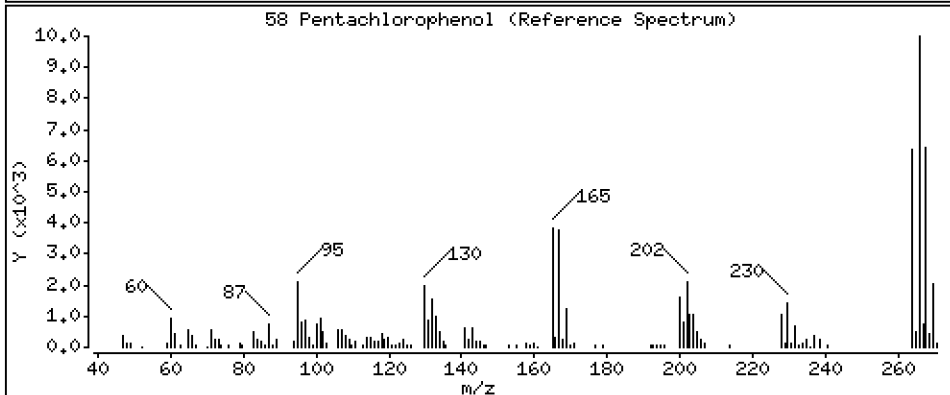
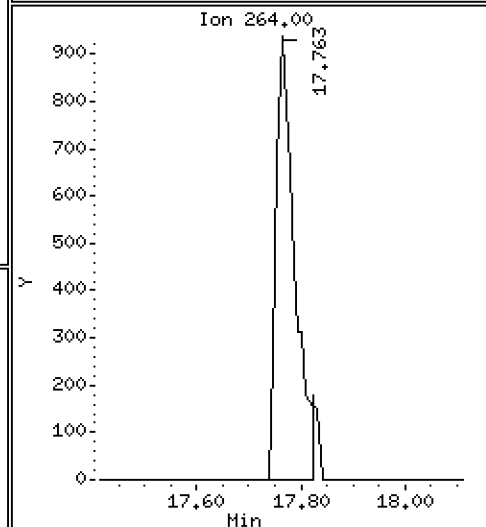
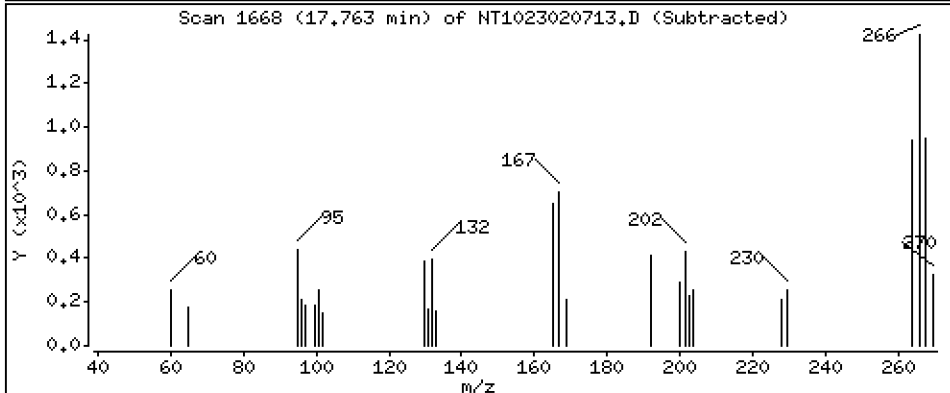
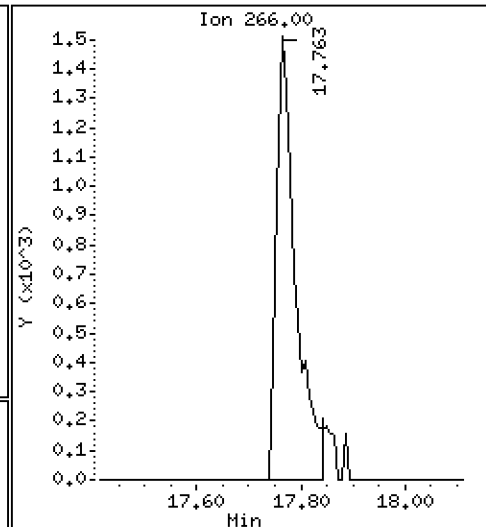
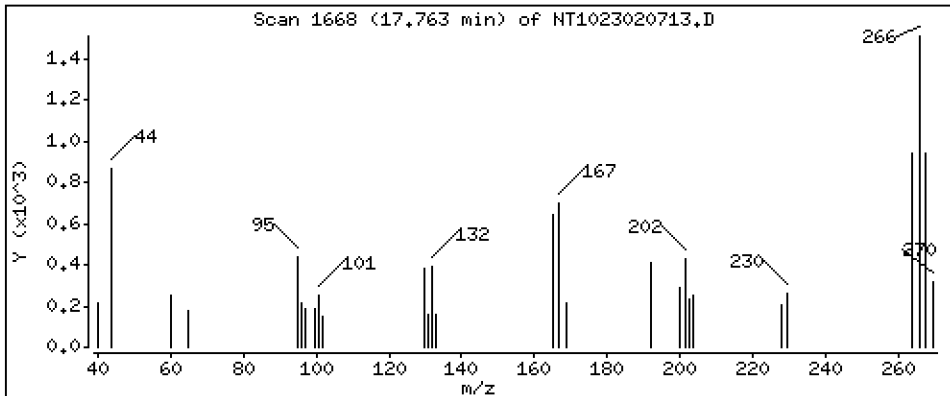
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,3622 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

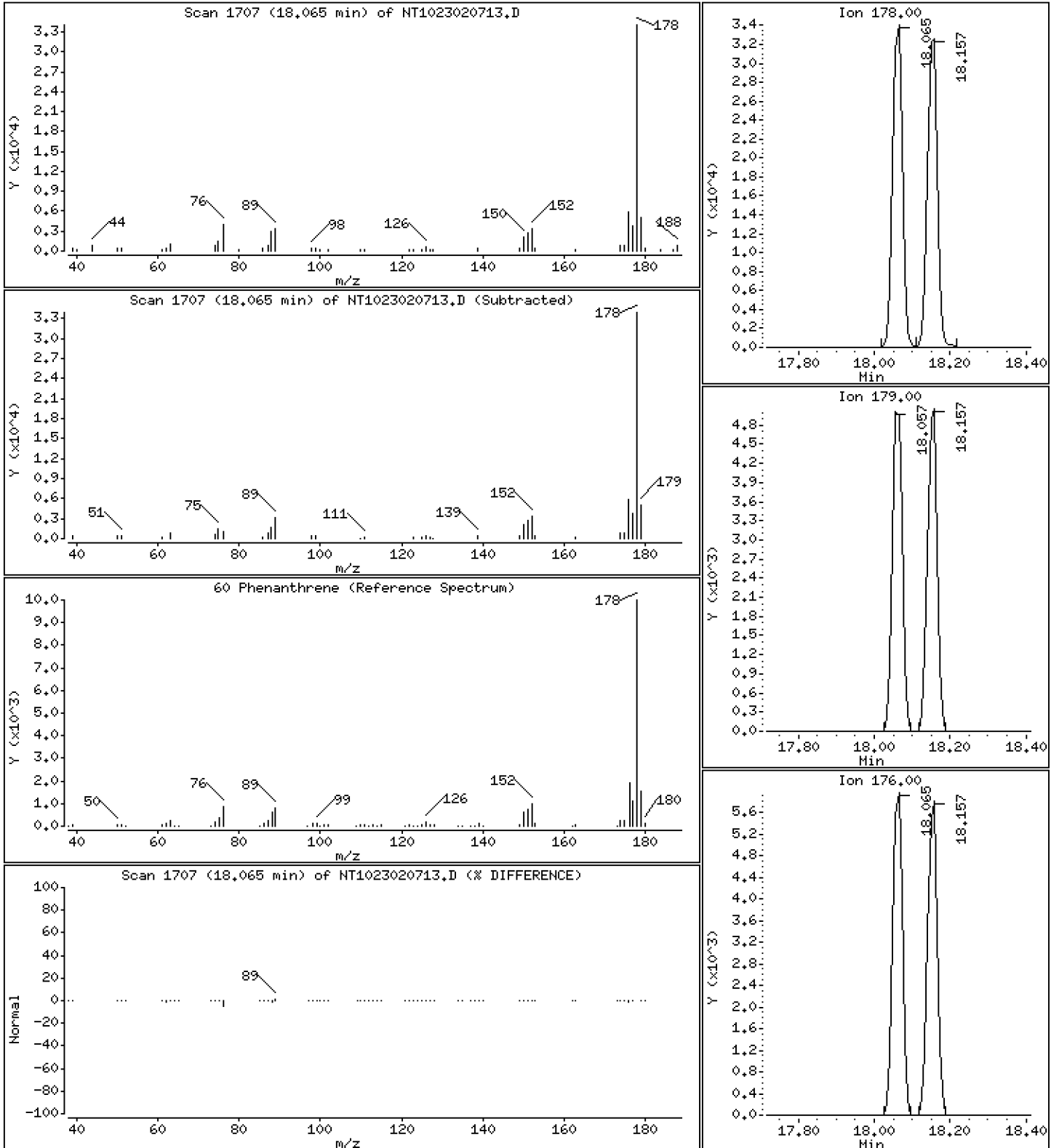
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

60 Phenanthrene

Concentration: 0.5276 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

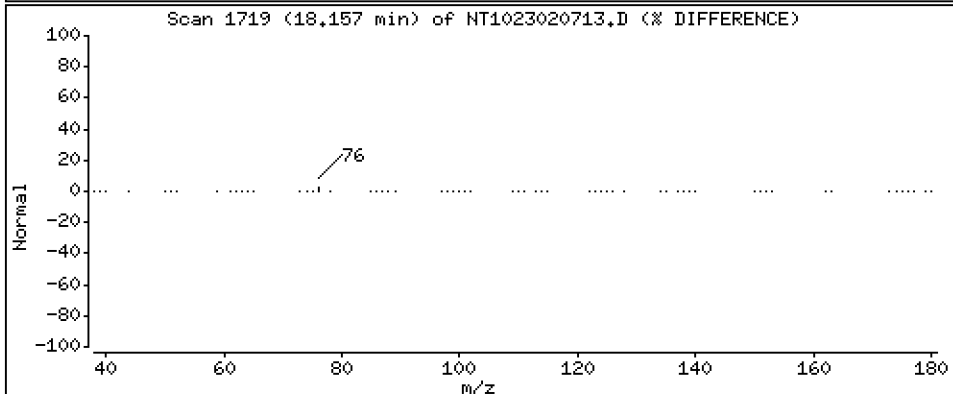
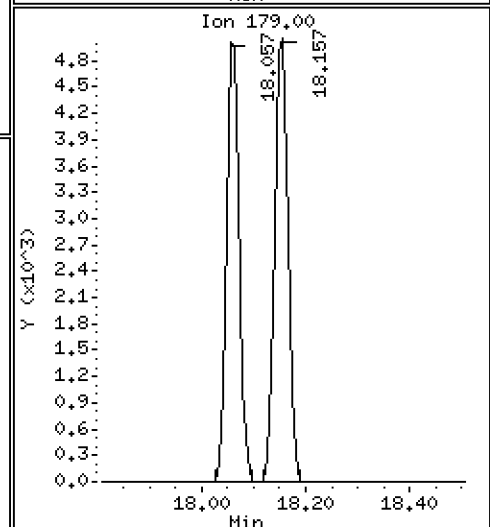
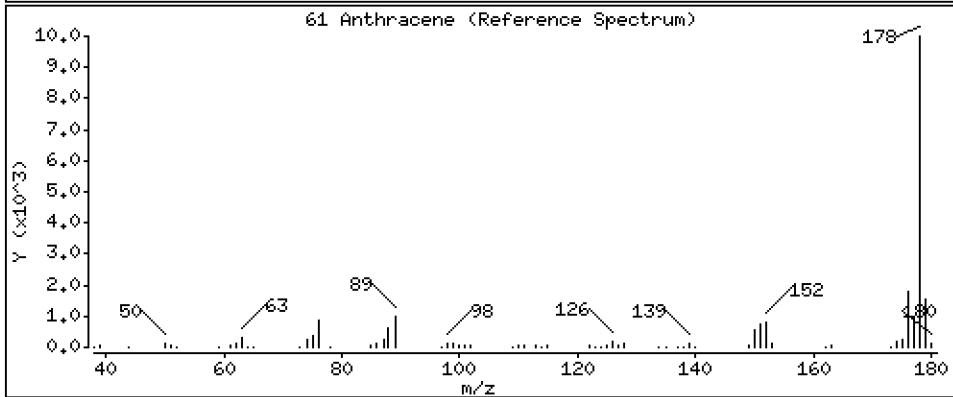
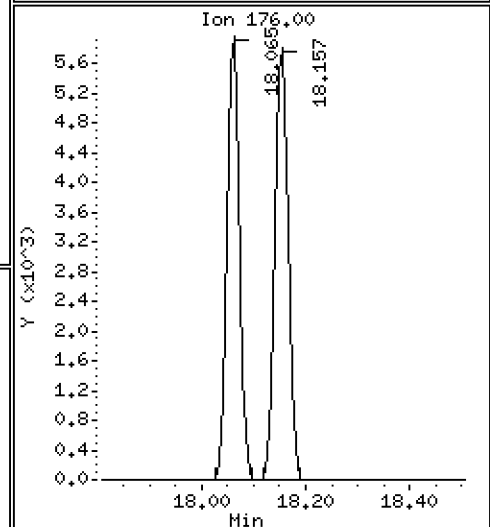
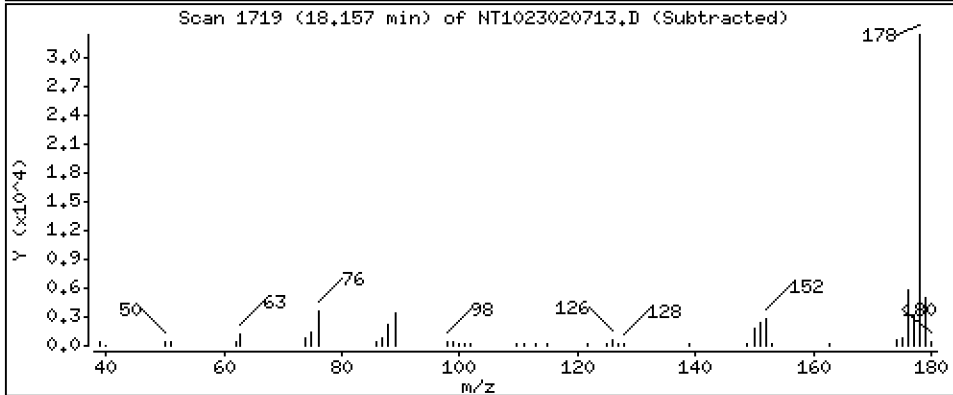
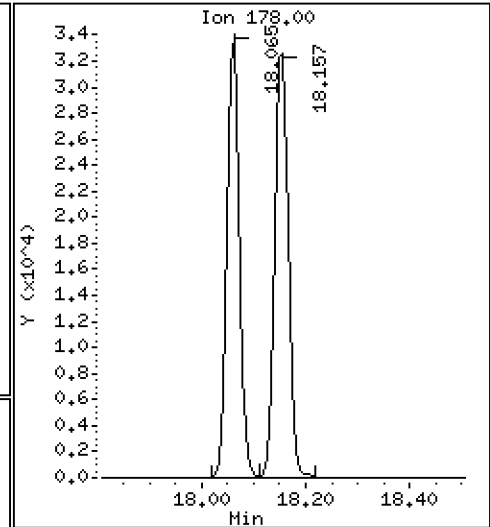
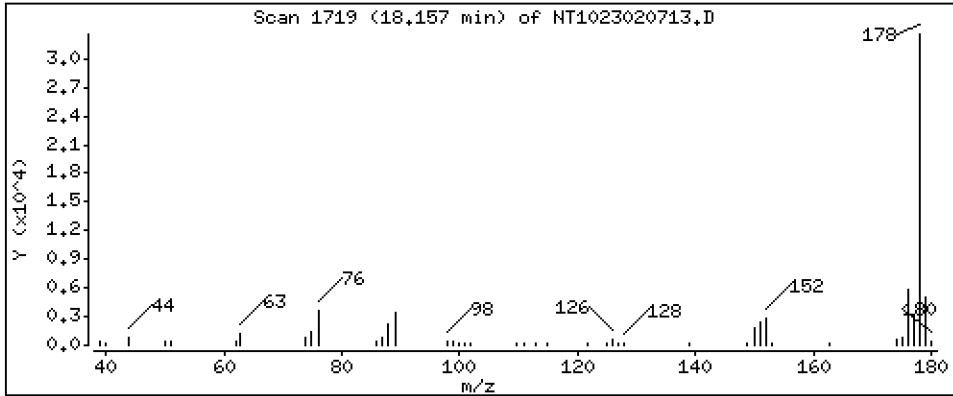
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,5229 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

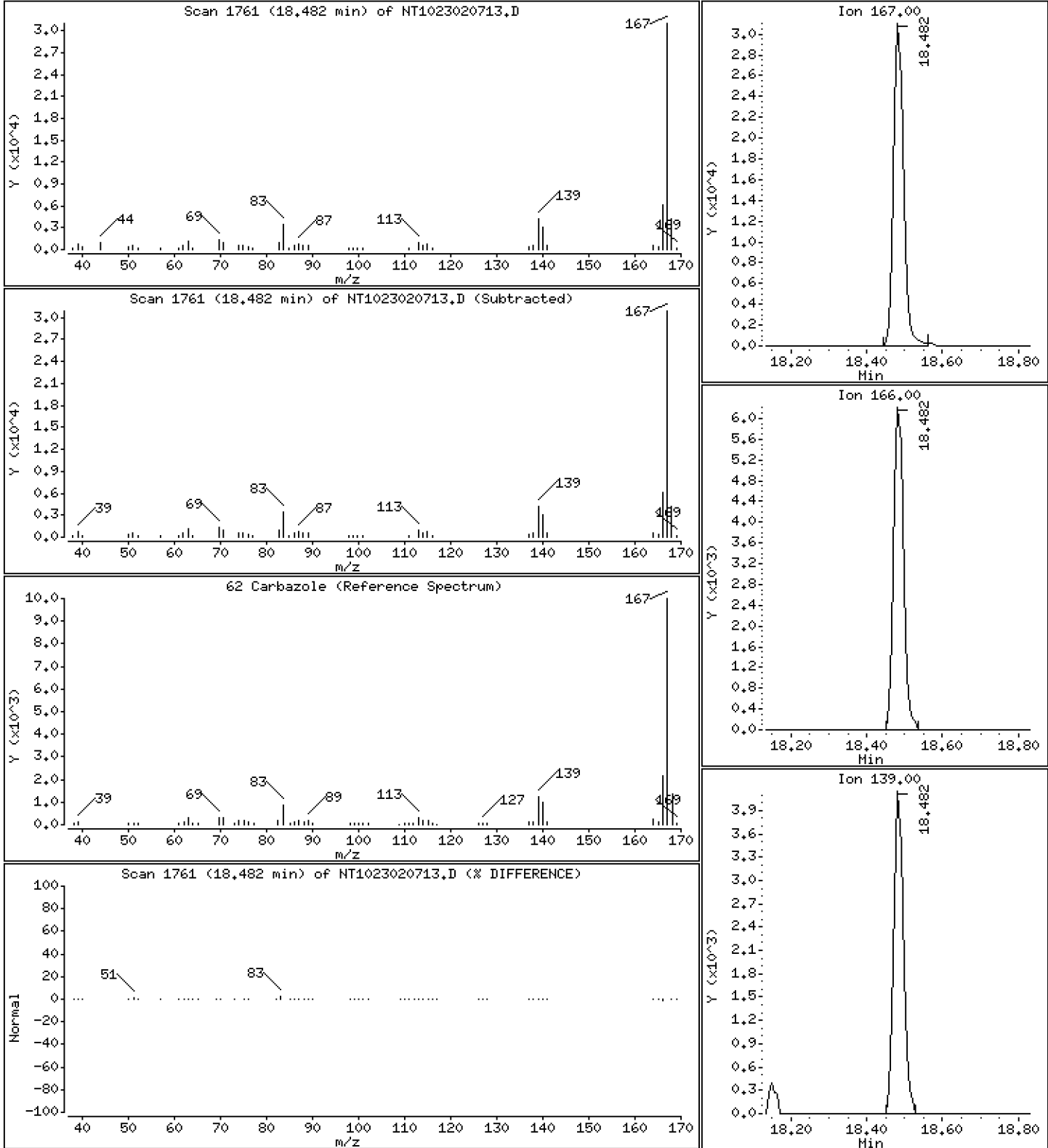
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

62 Carbazole

Concentration: 0.5133 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

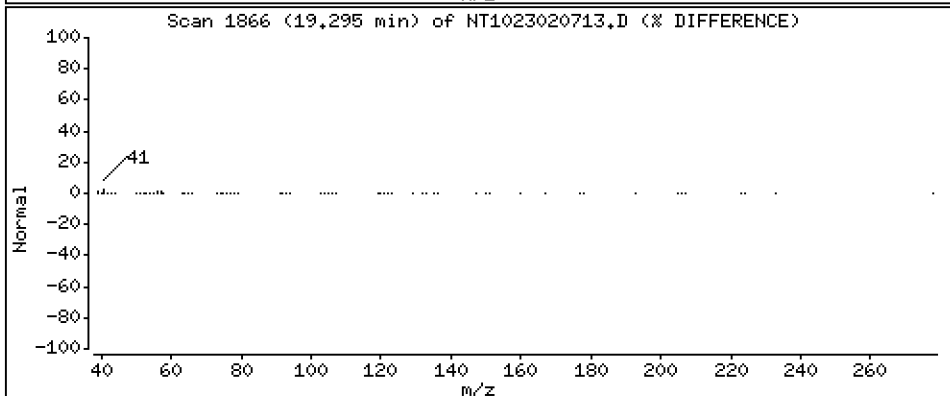
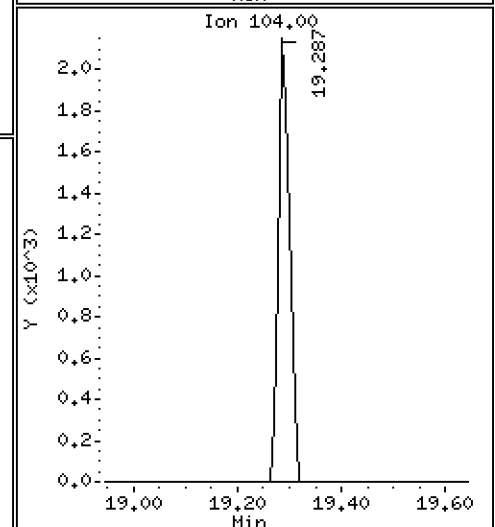
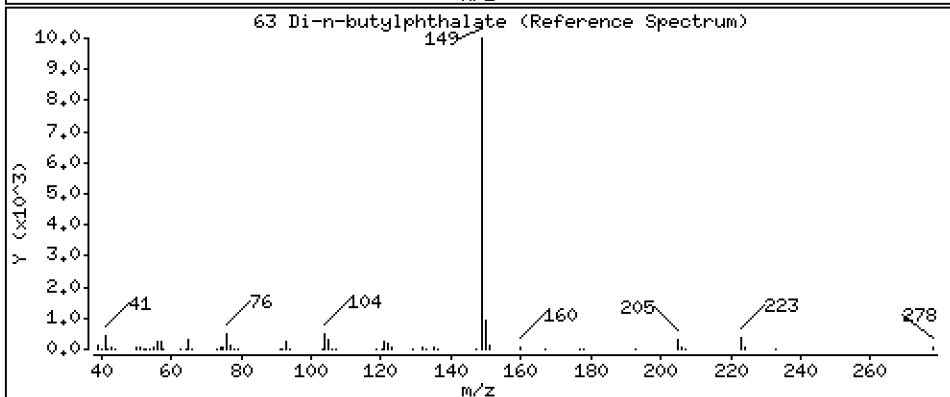
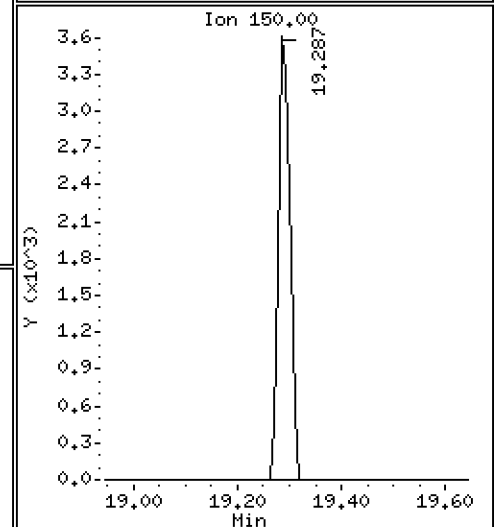
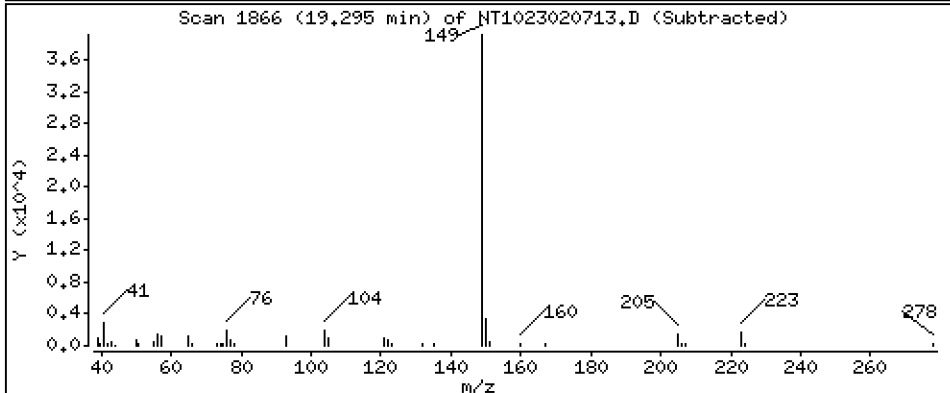
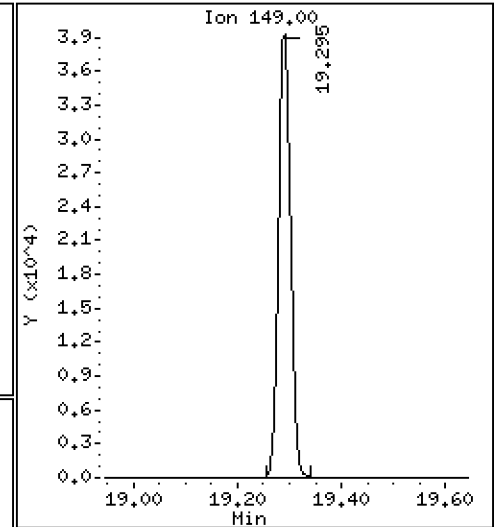
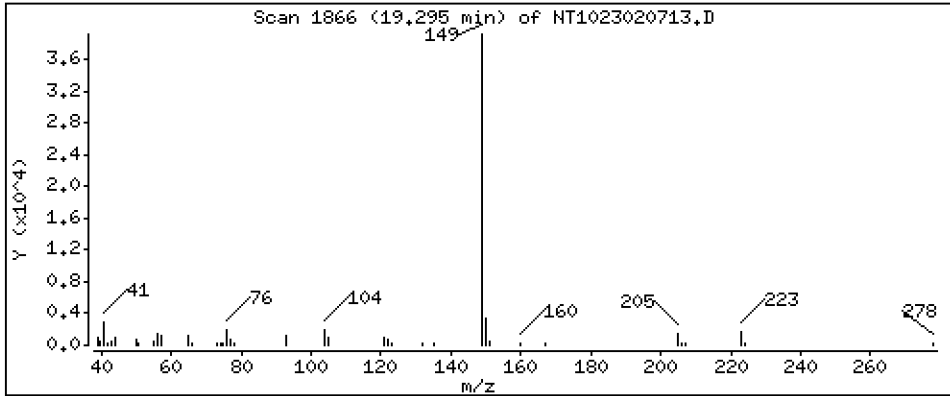
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

63 Di-n-butylphthalate

Concentration: 0.4795 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

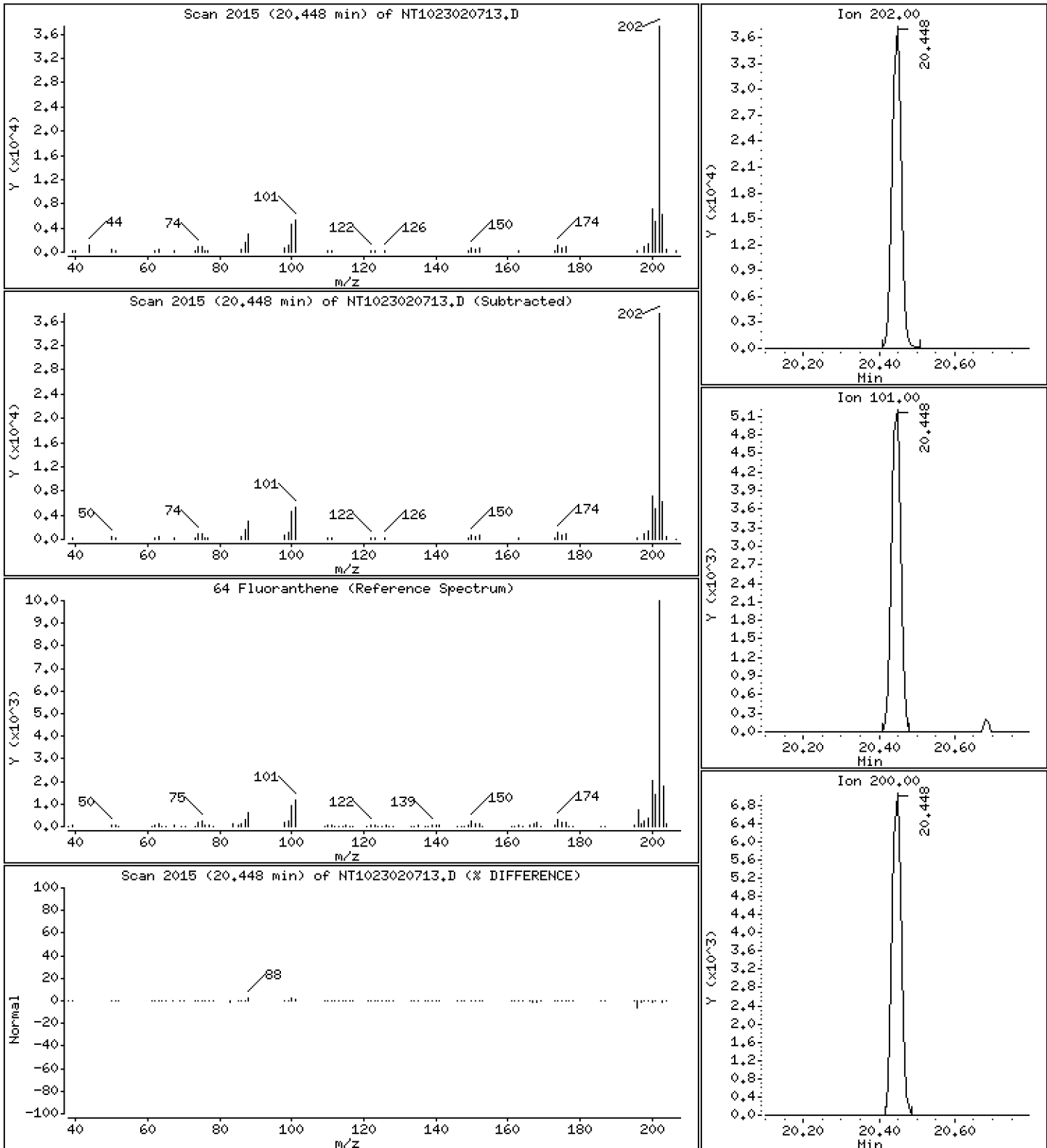
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,5229 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

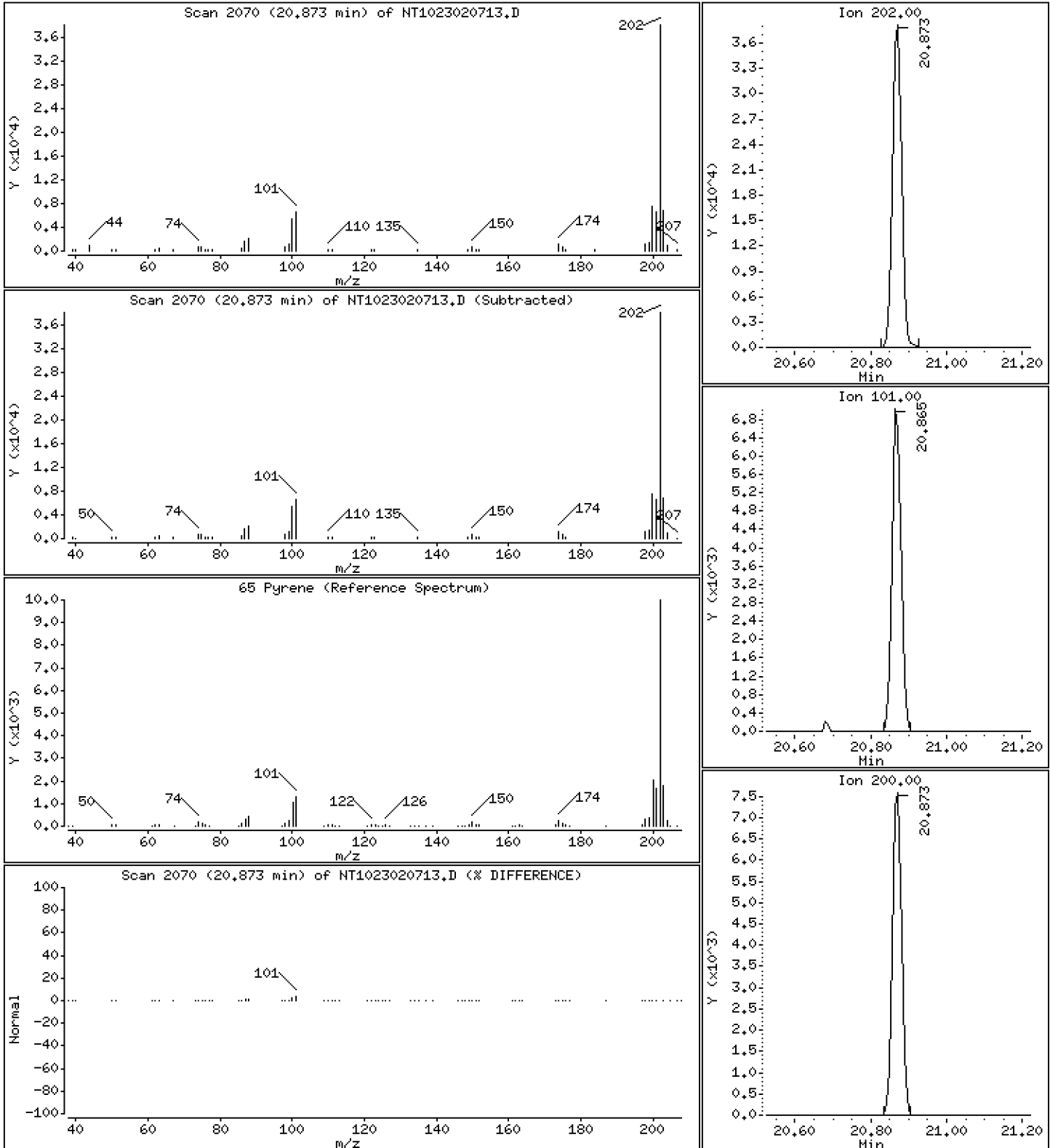
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 0,5266 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

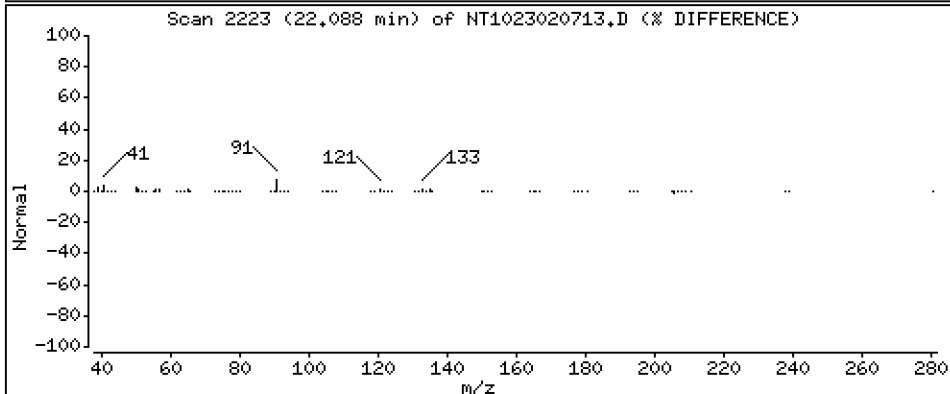
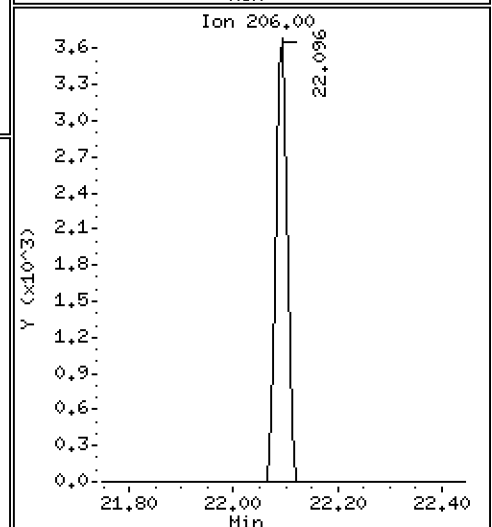
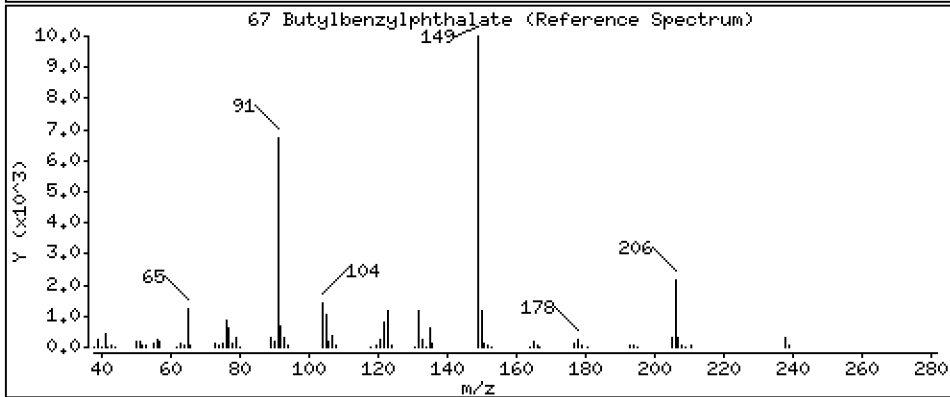
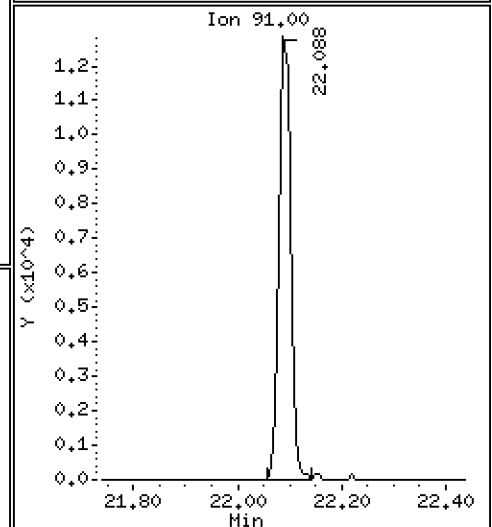
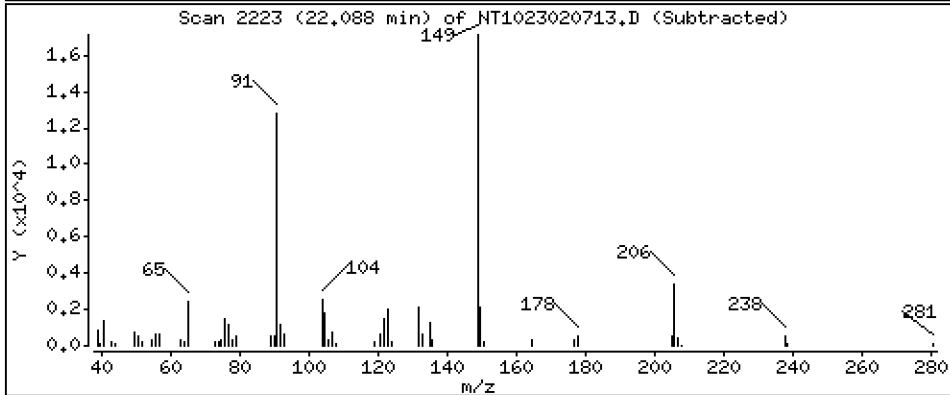
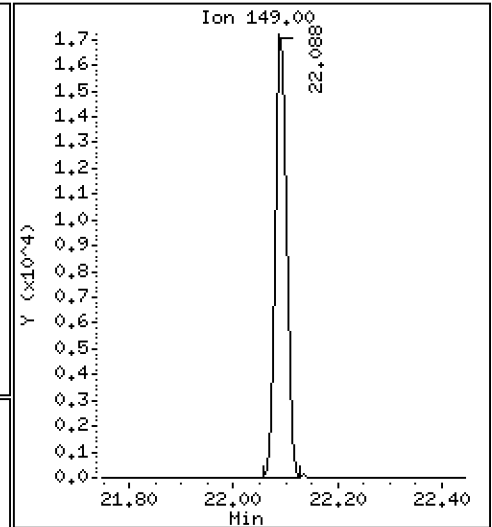
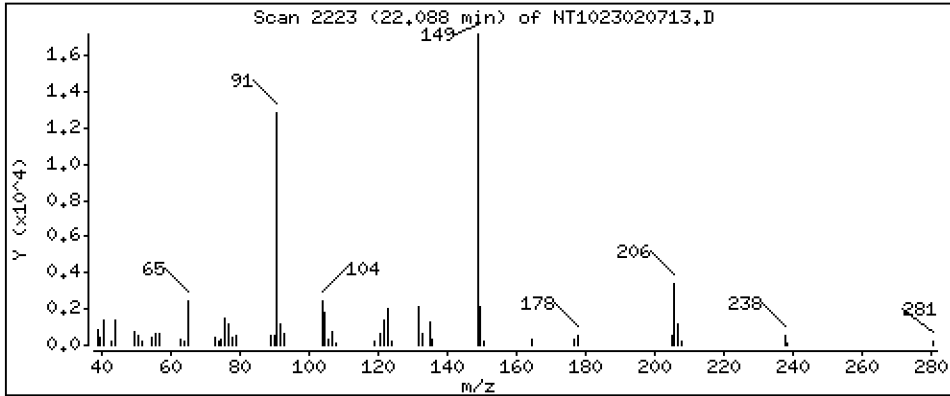
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.4945 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

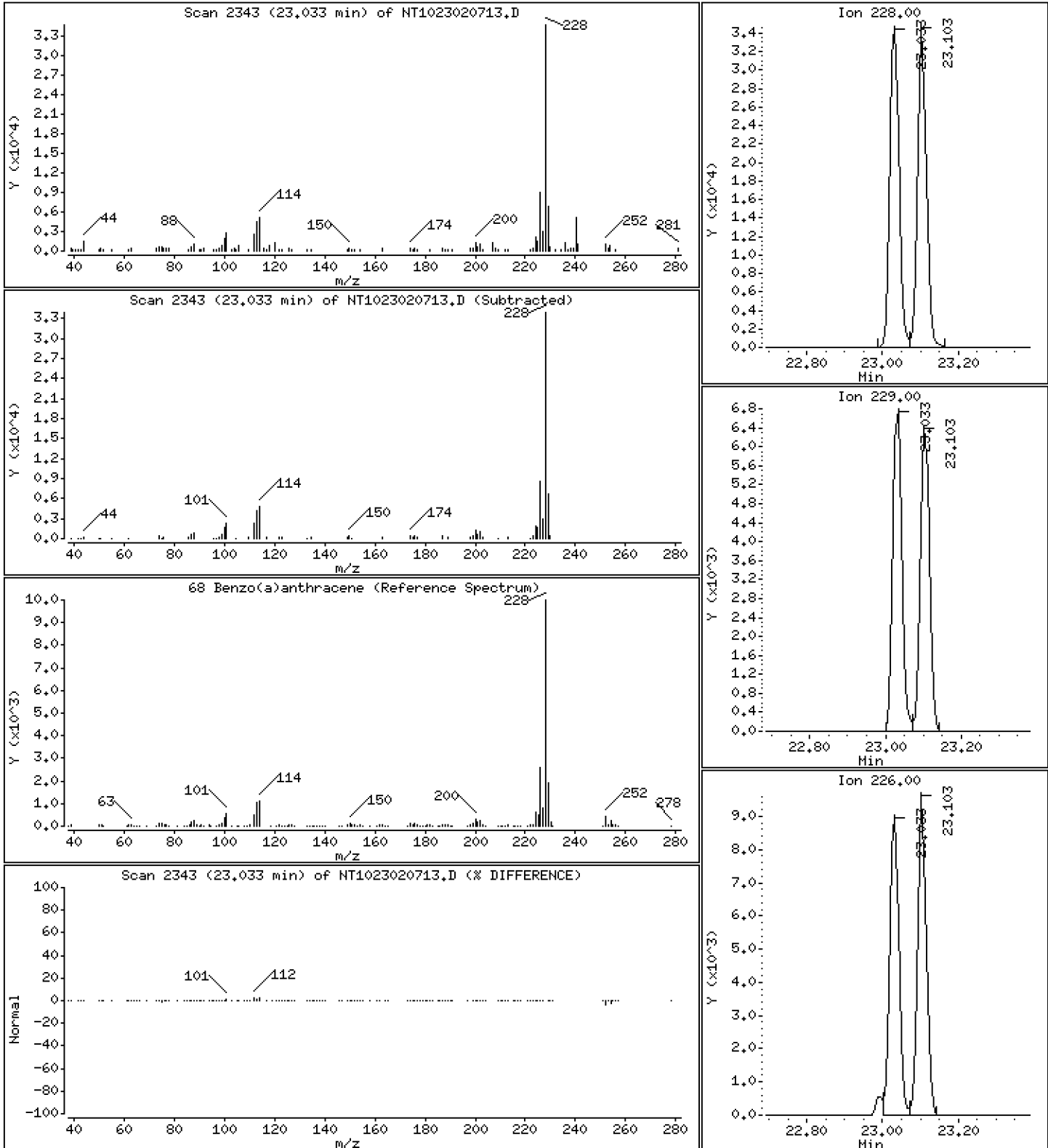
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

68 Benzo(a)anthracene

Concentration: 0.5470 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

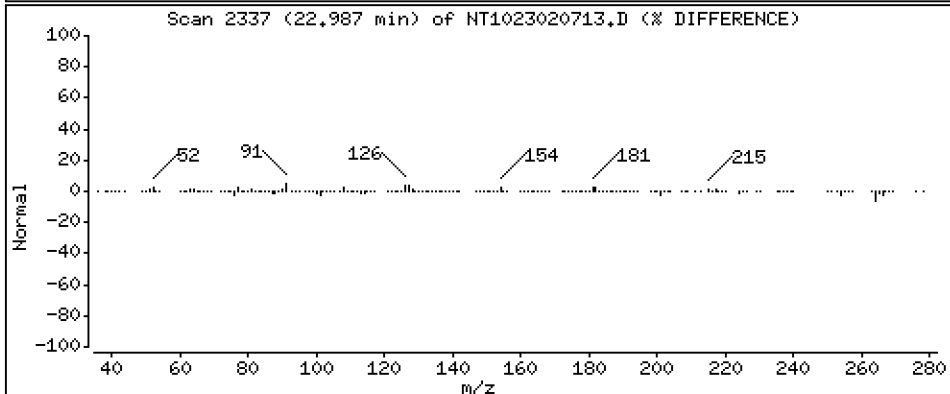
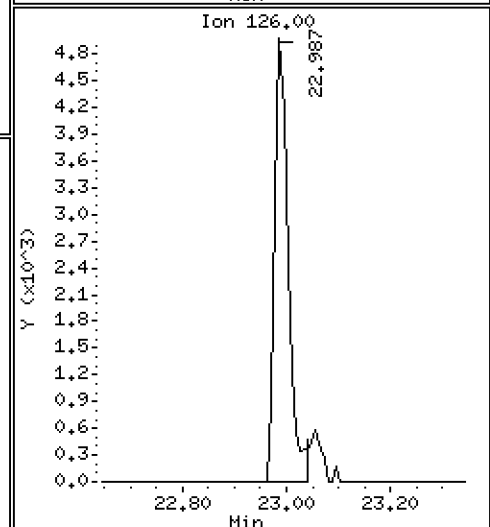
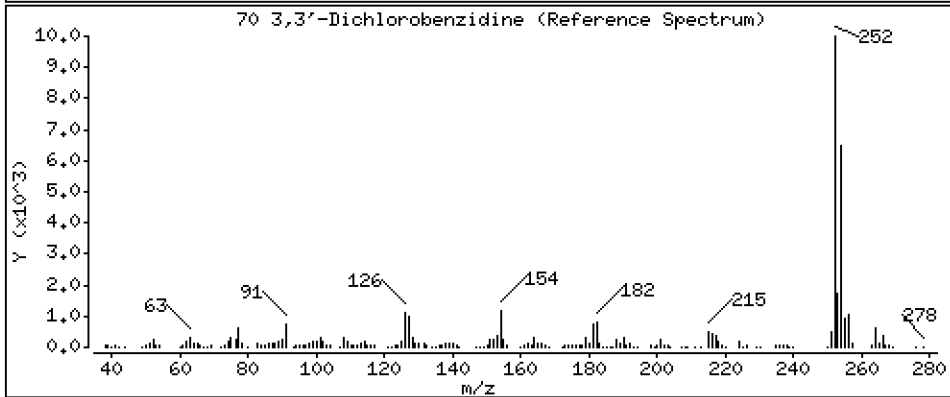
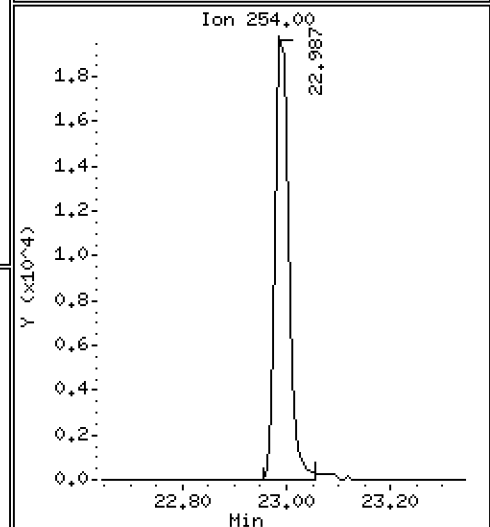
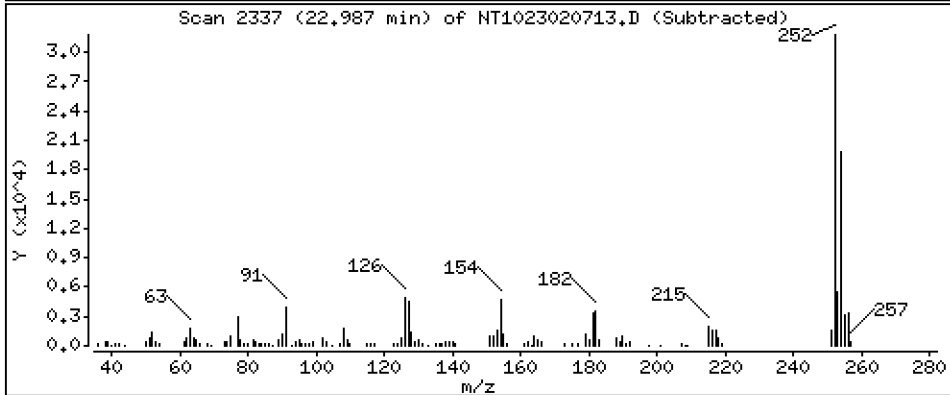
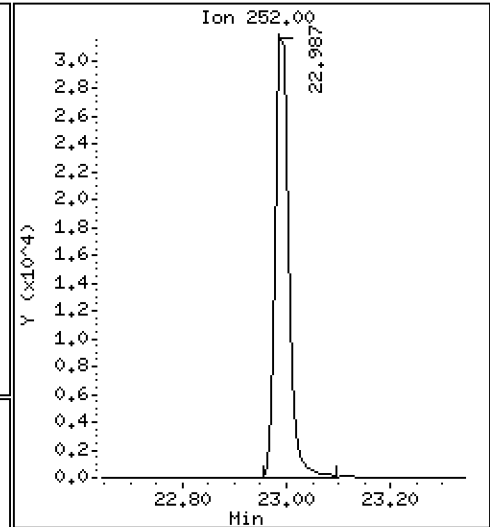
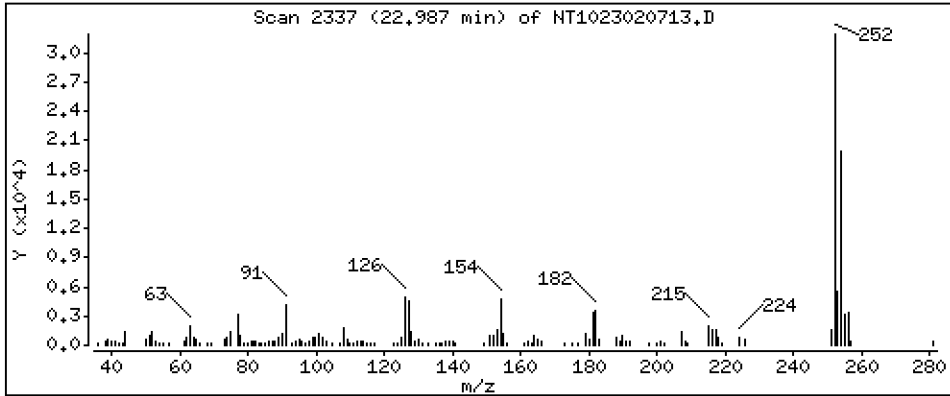
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 1,574 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

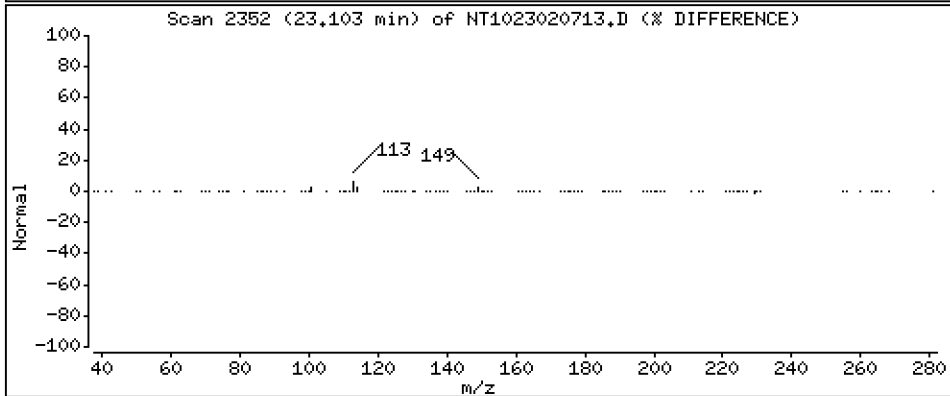
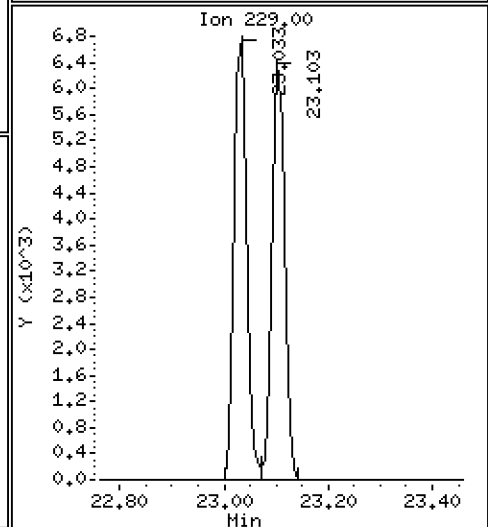
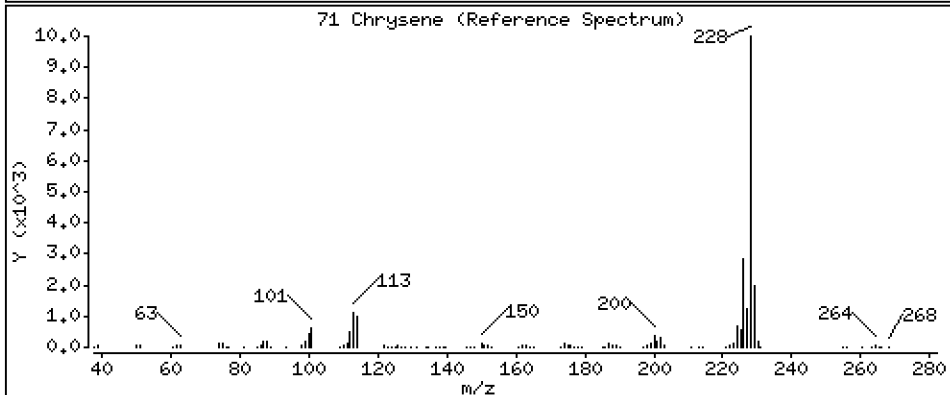
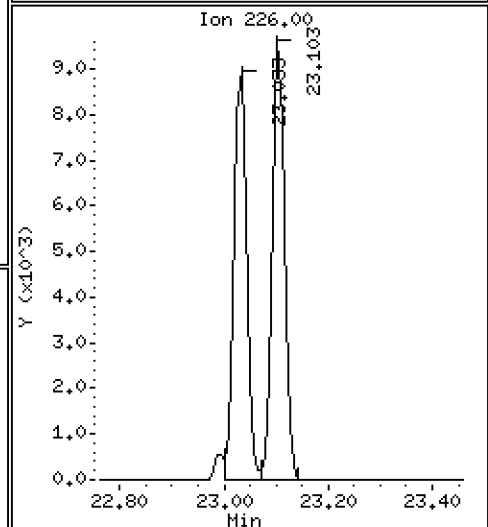
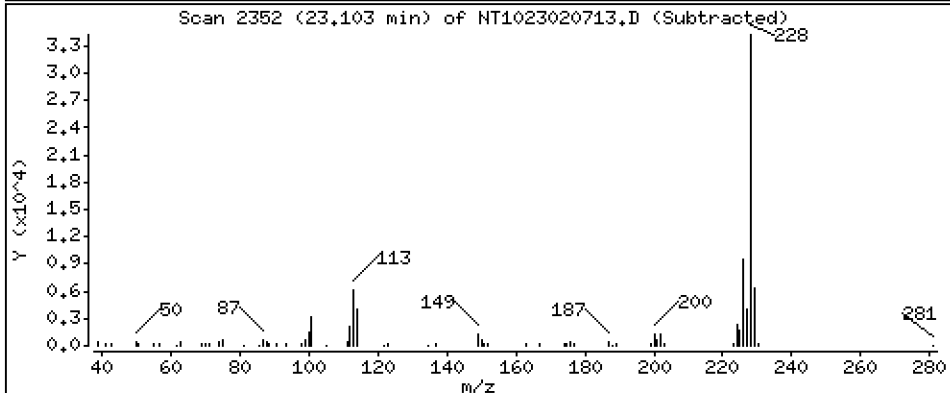
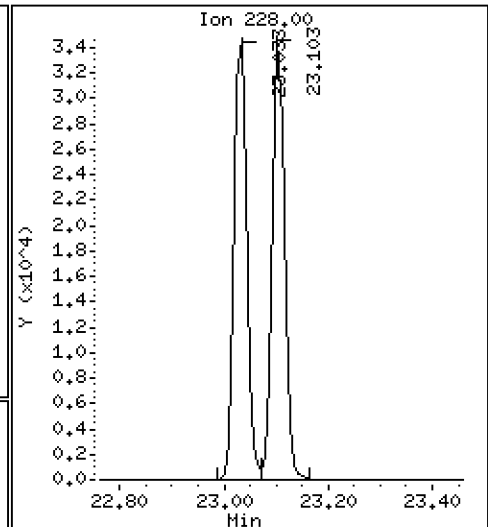
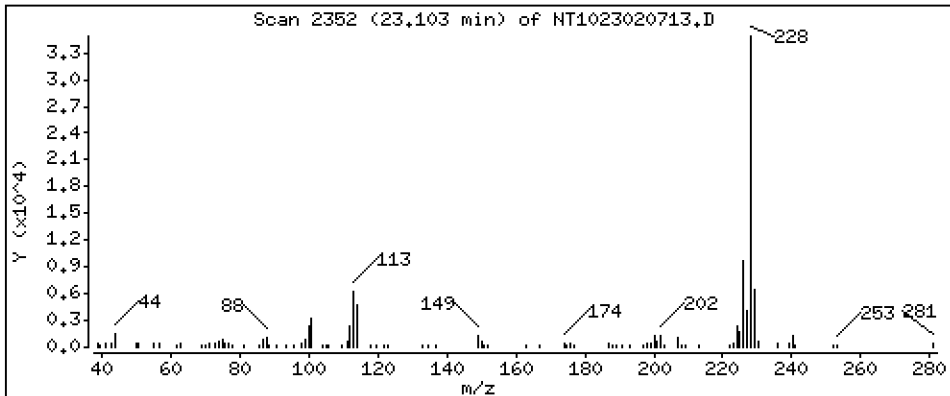
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,5504 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

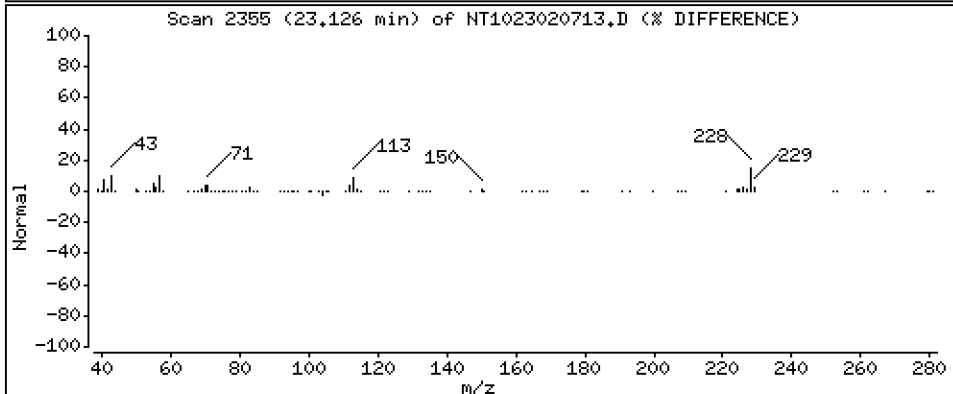
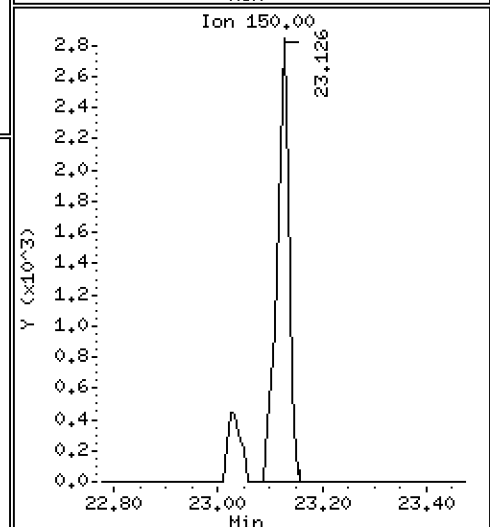
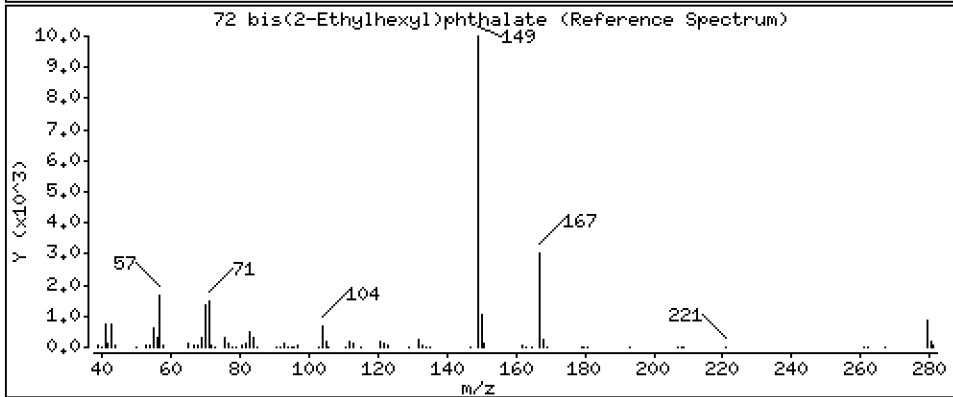
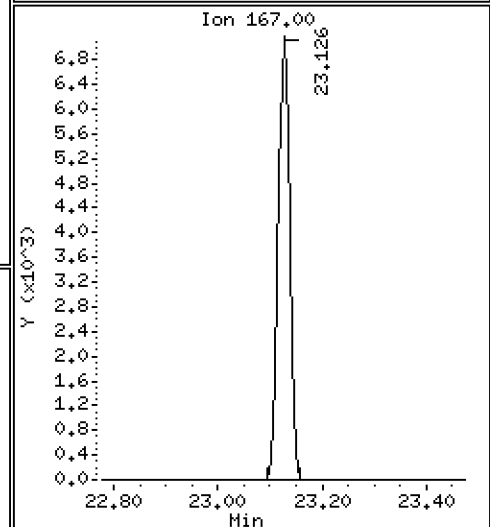
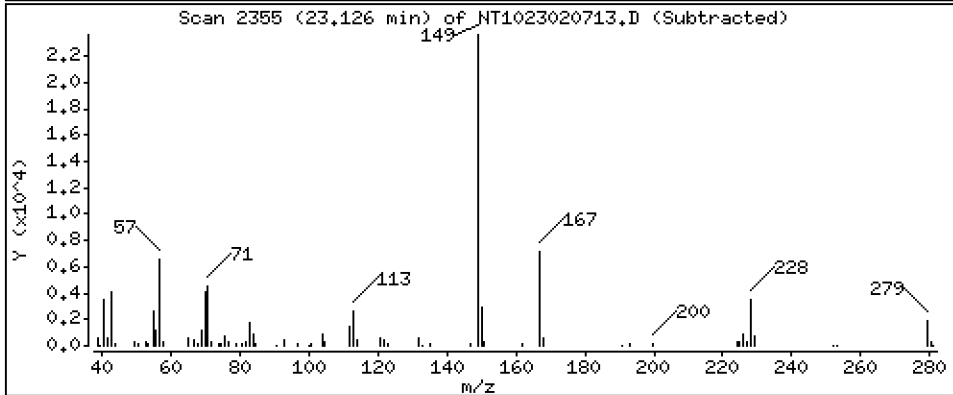
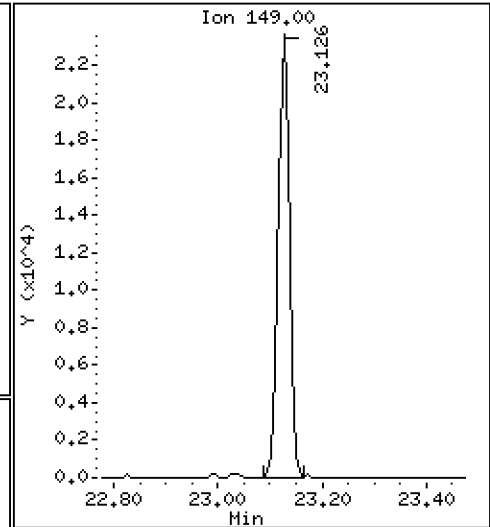
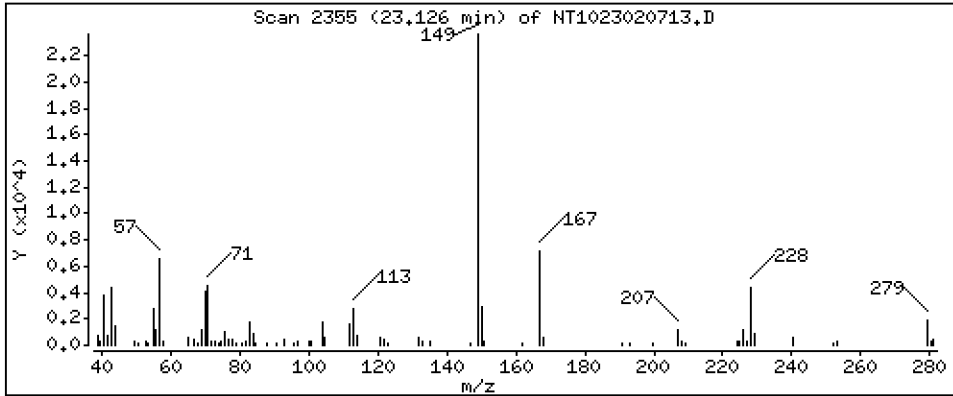
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,5110 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

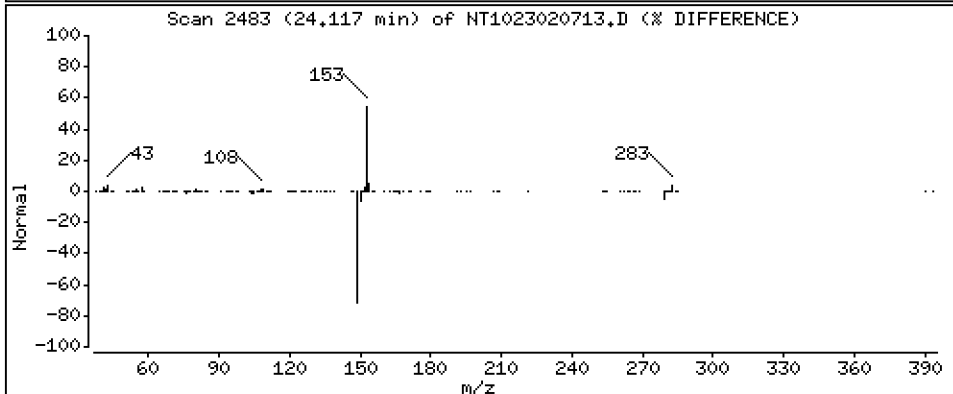
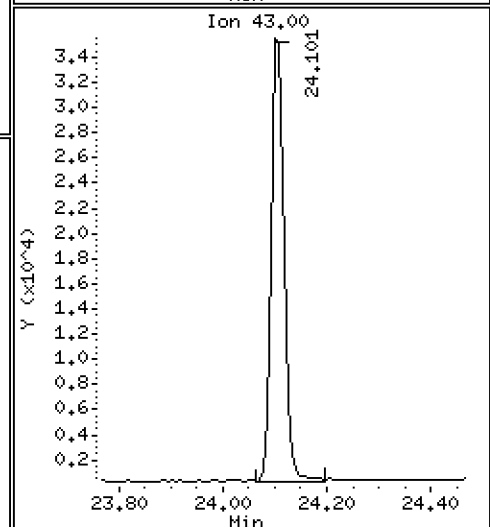
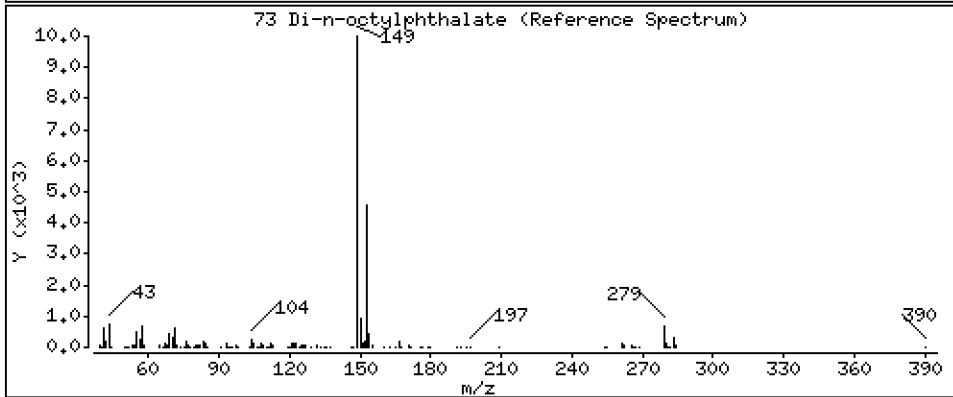
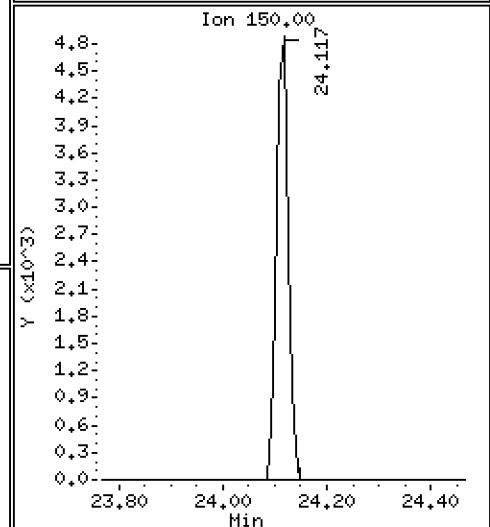
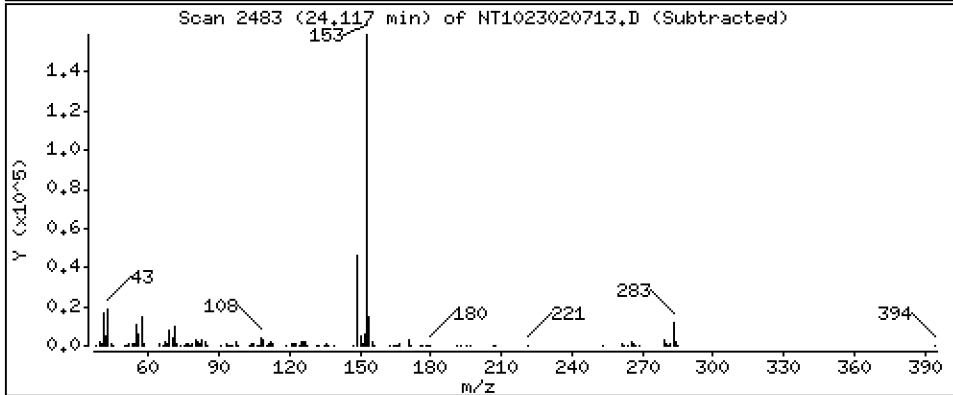
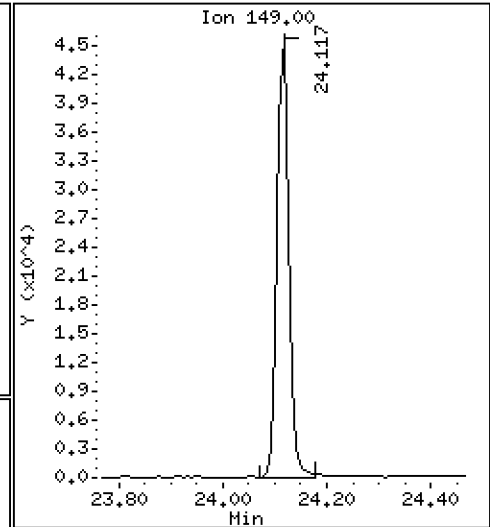
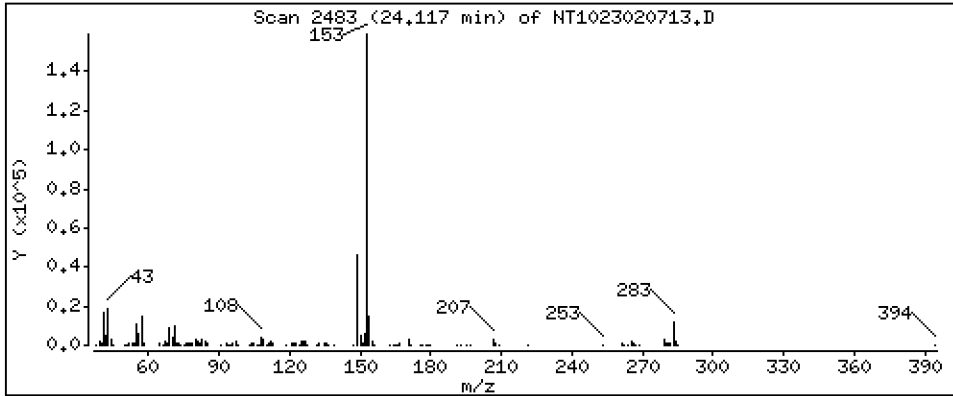
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,5523 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

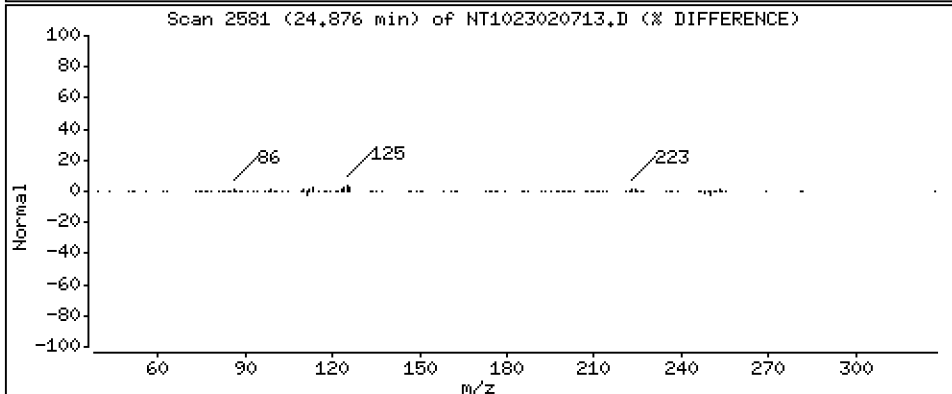
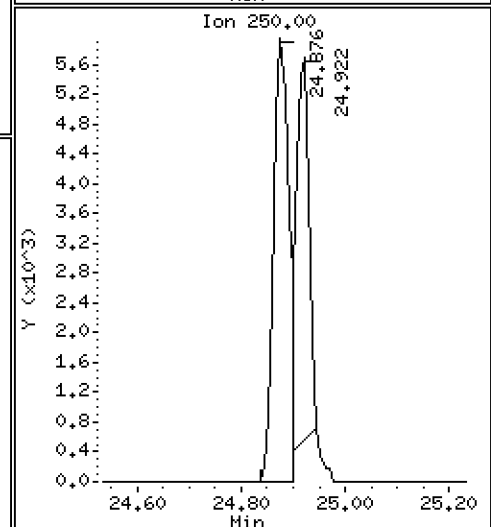
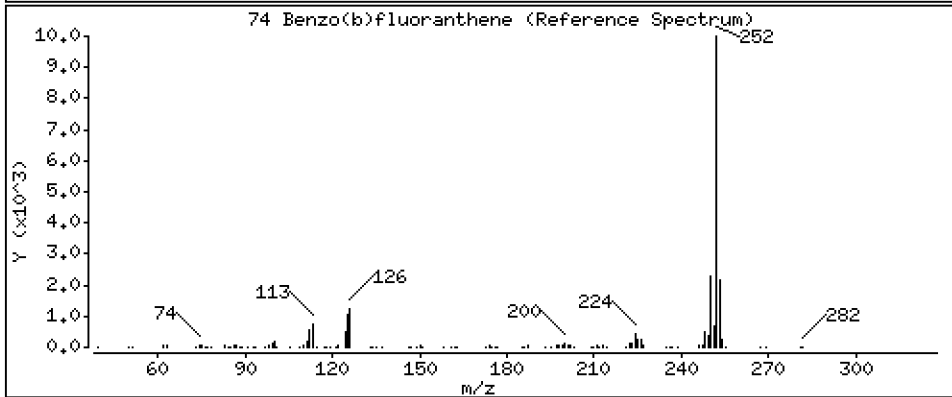
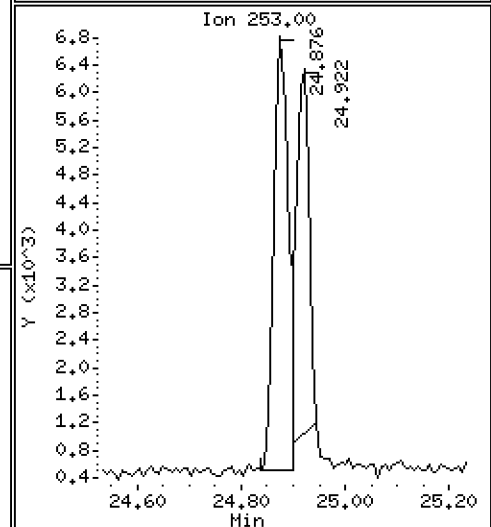
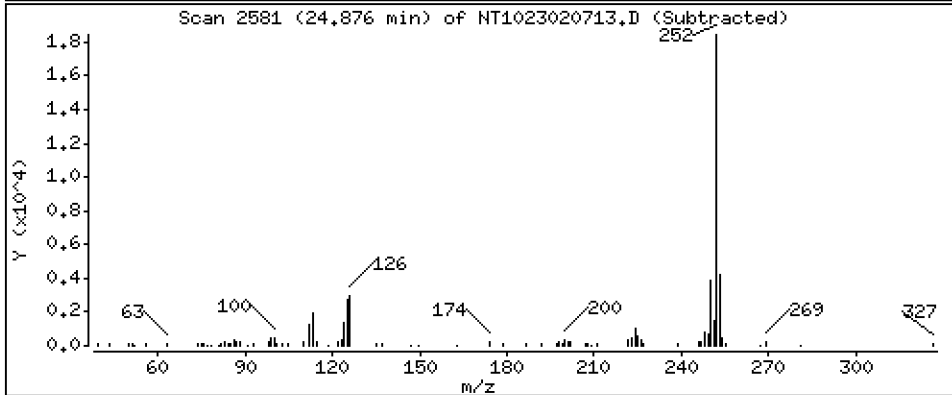
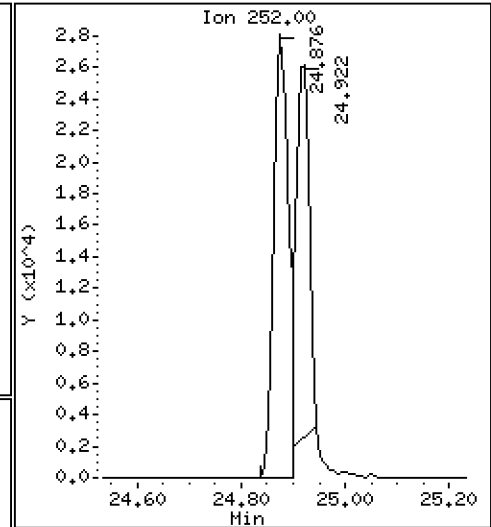
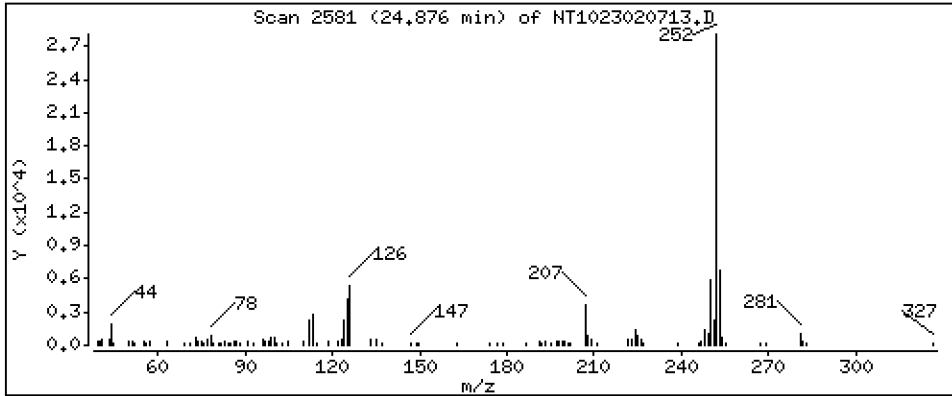
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,5428 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

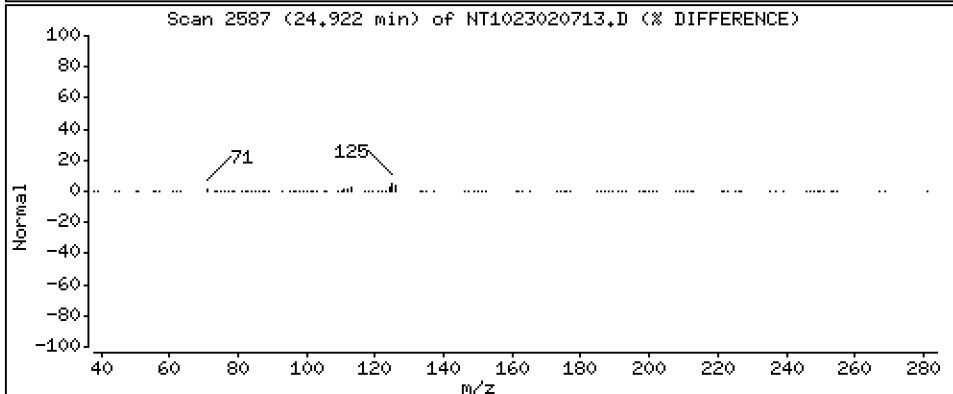
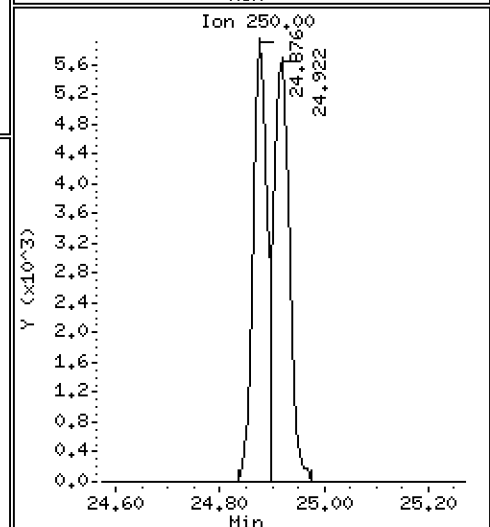
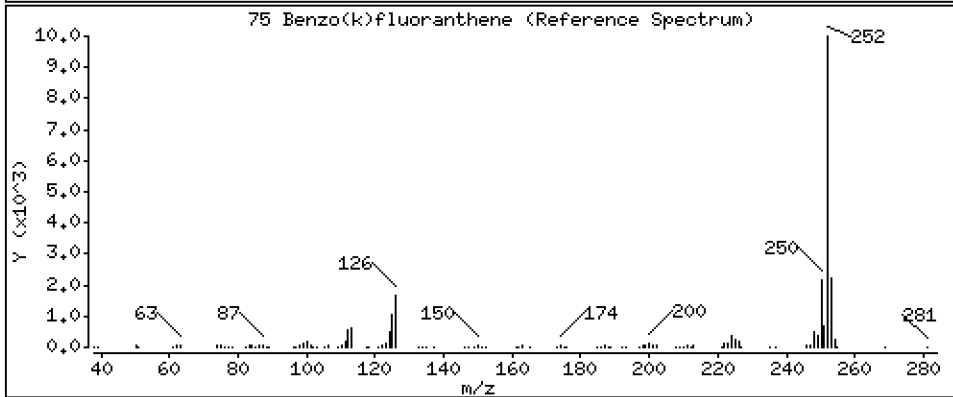
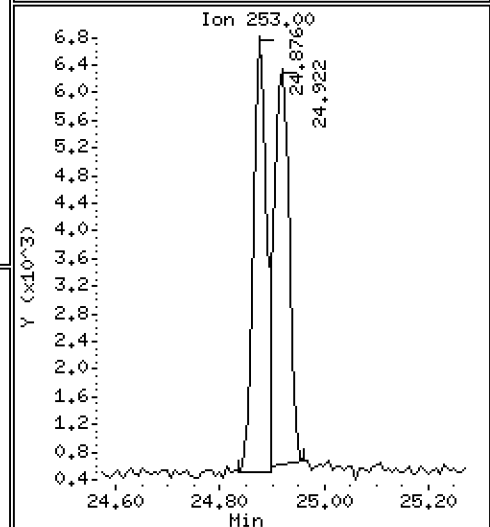
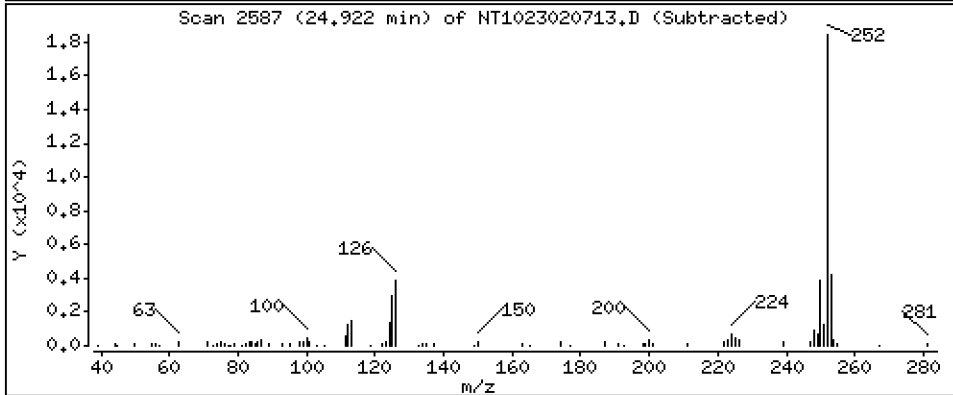
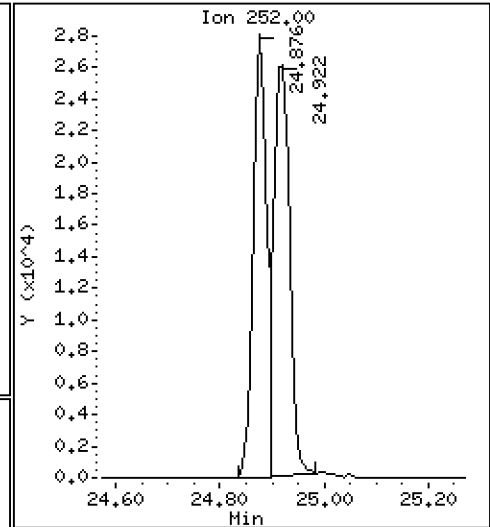
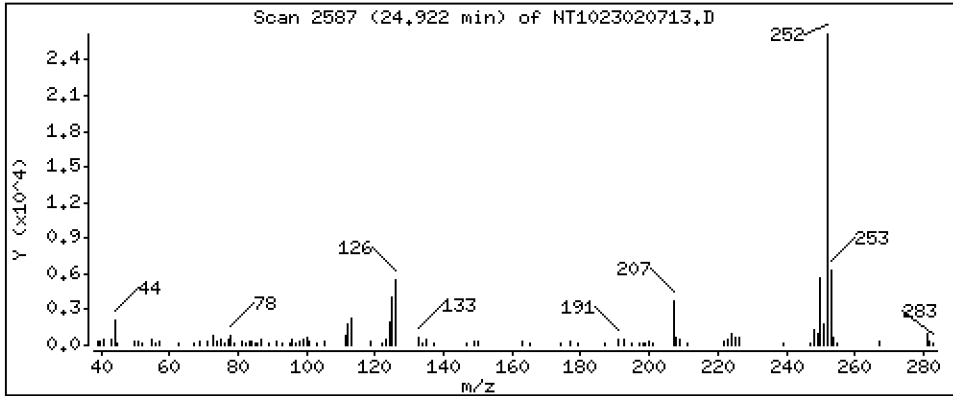
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,5129 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

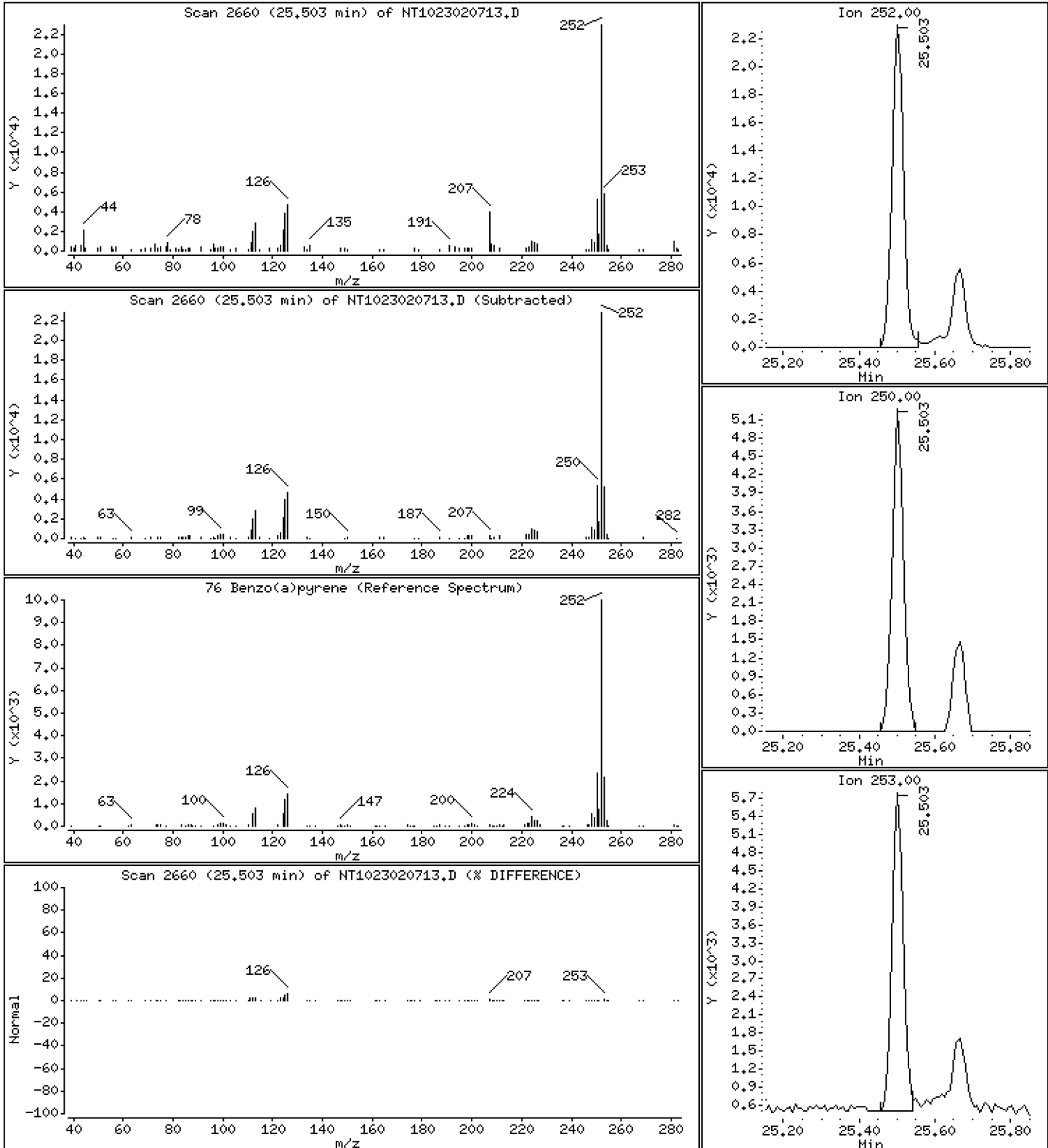
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,5068 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

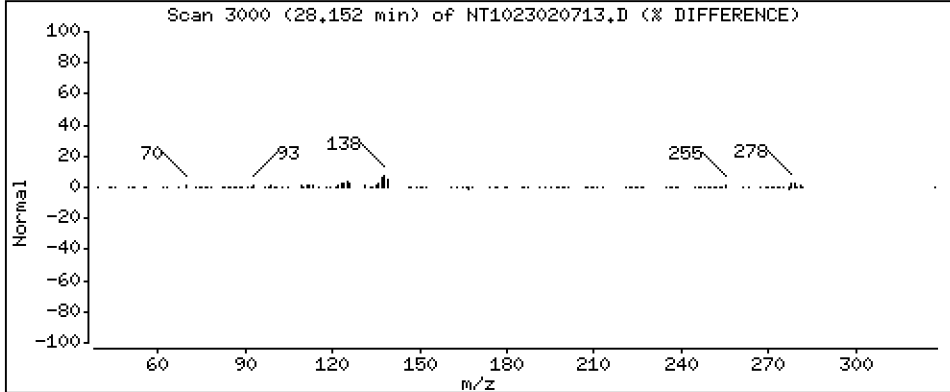
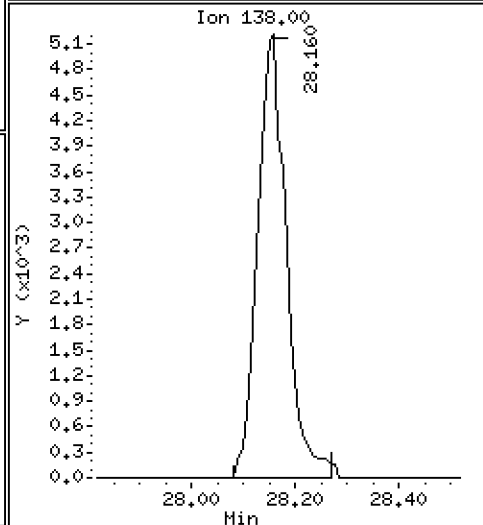
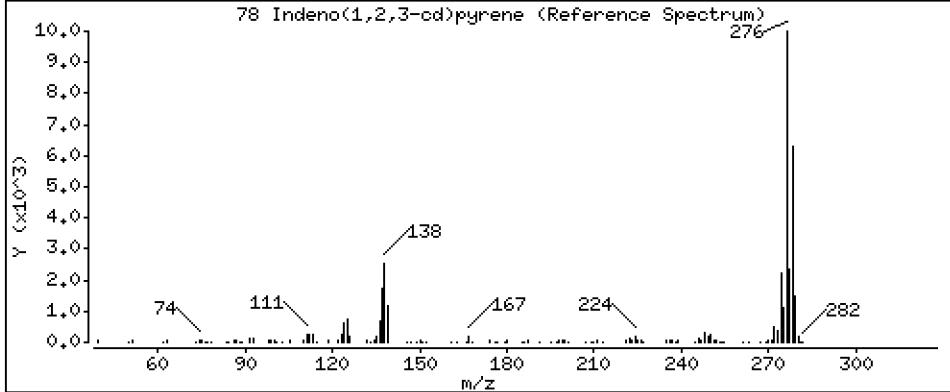
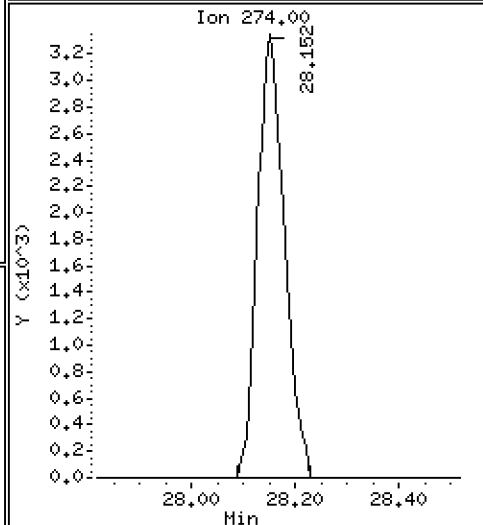
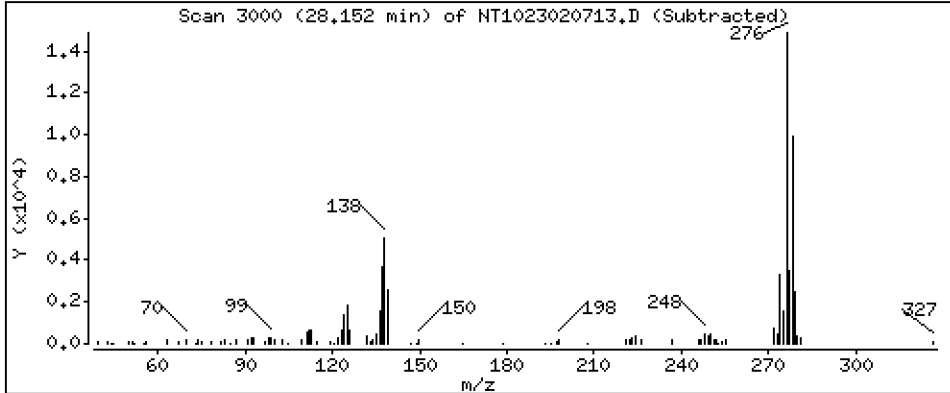
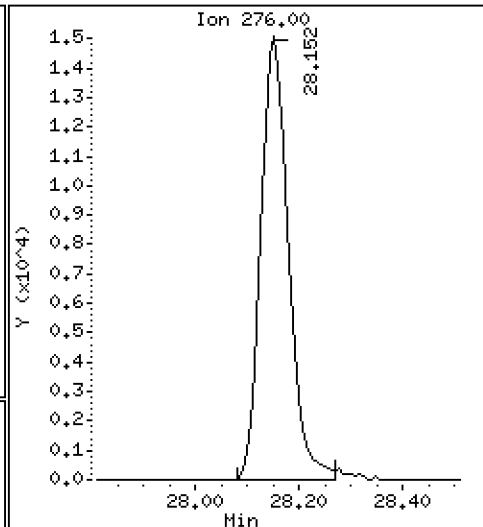
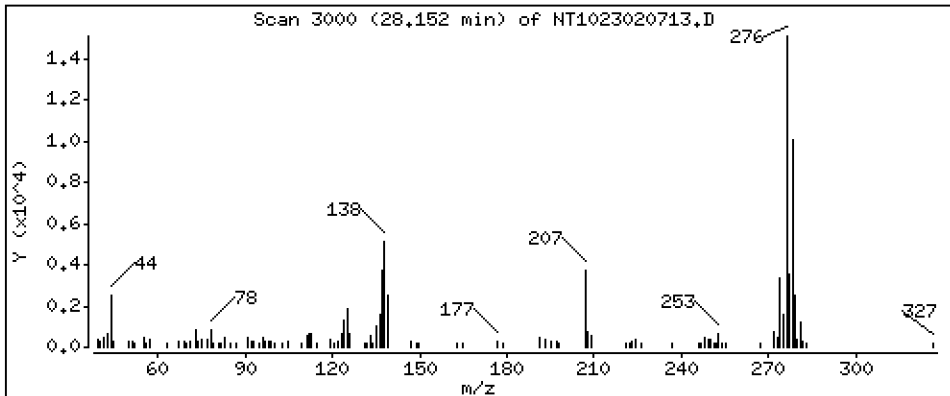
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 0,5128 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

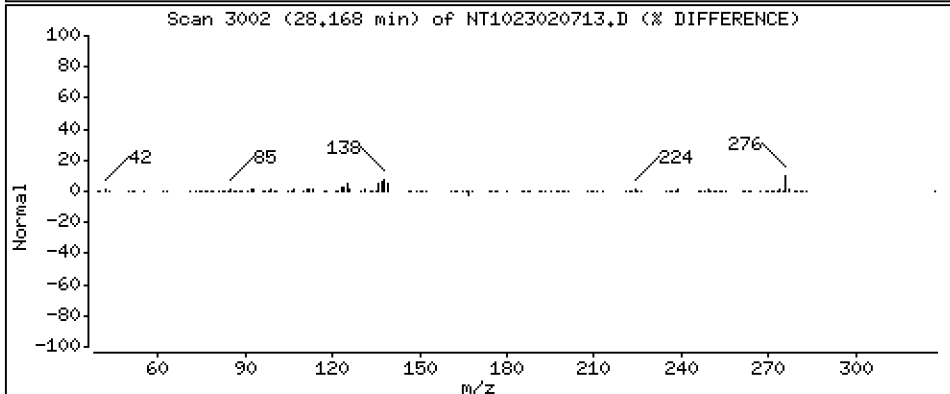
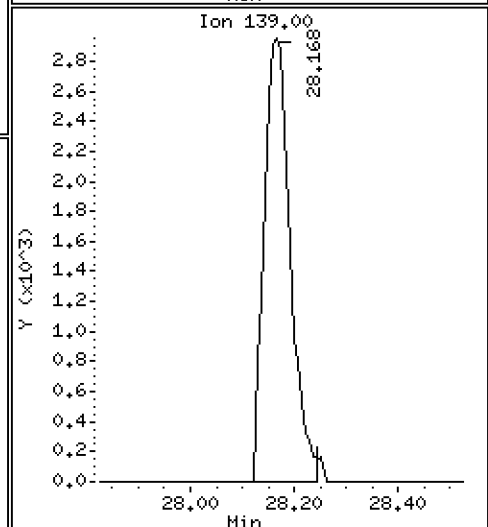
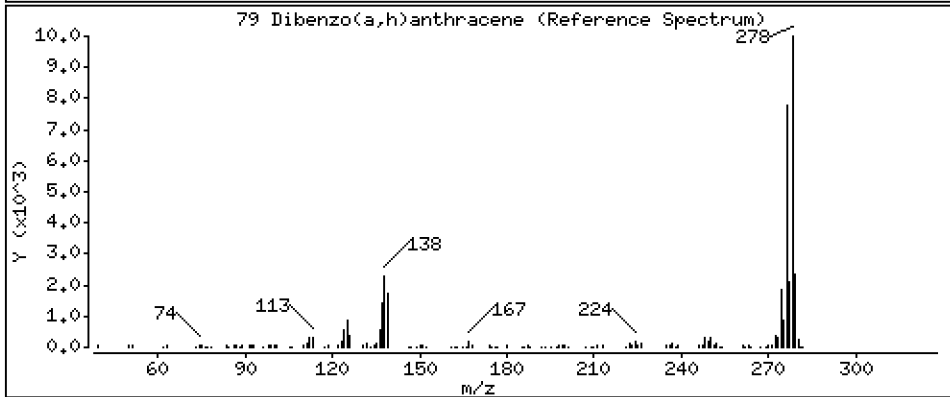
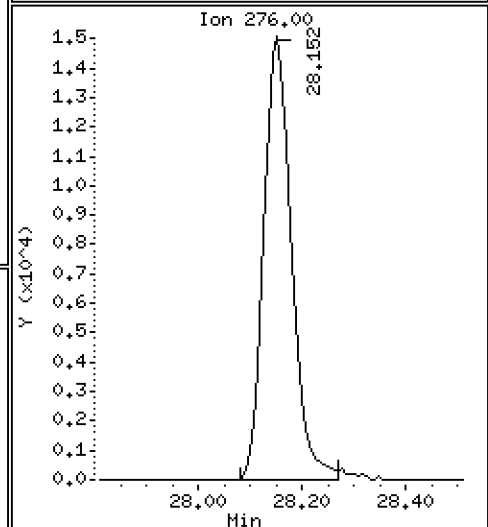
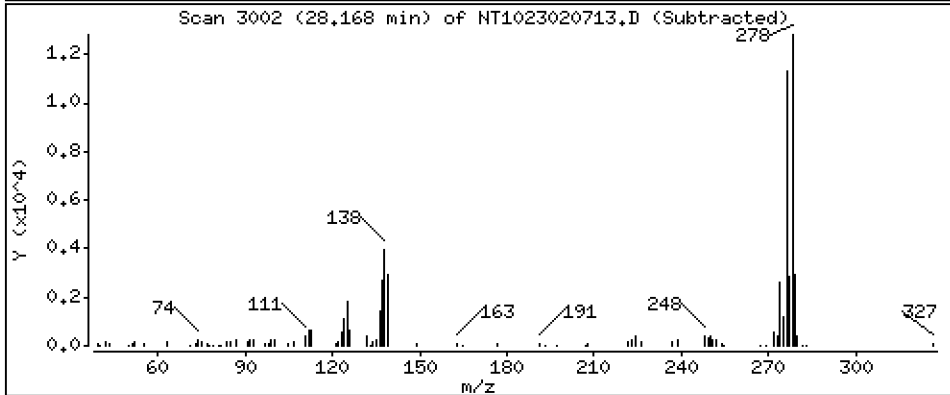
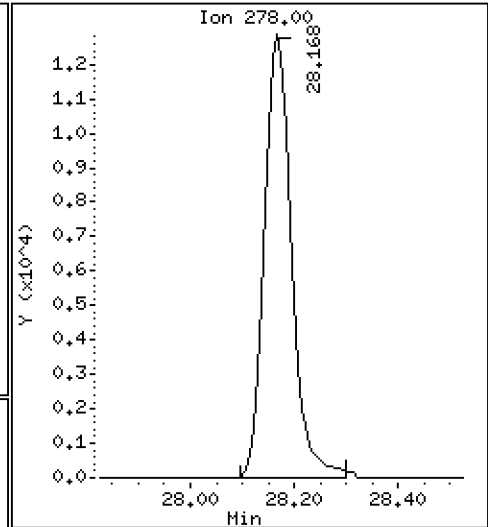
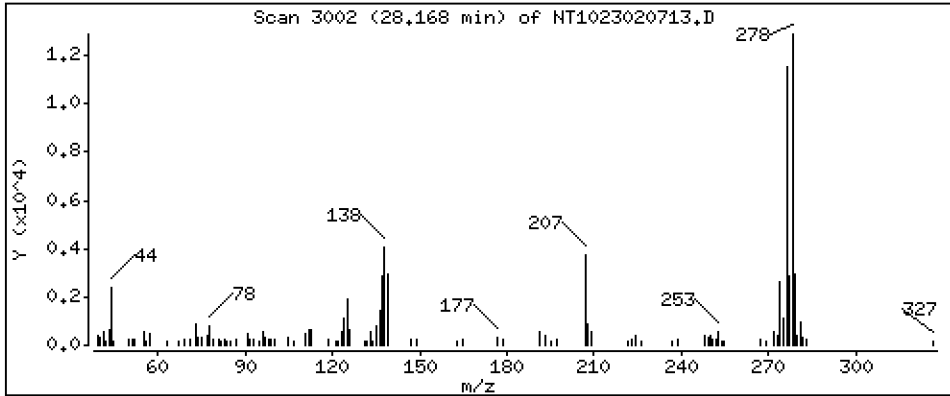
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,5153 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

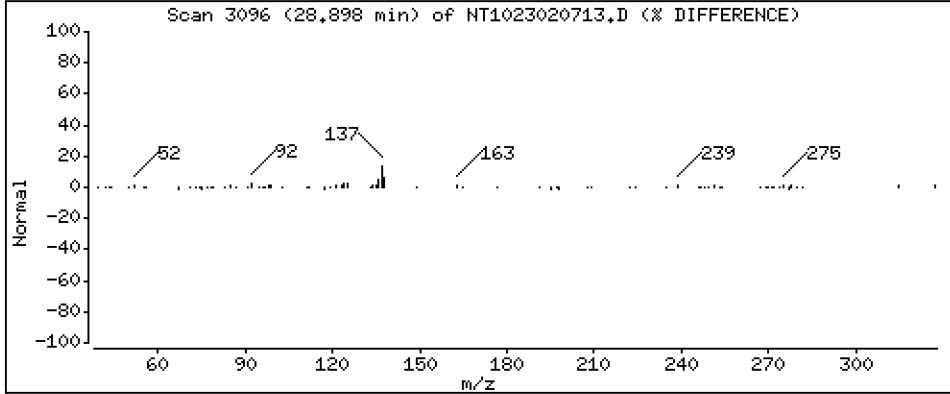
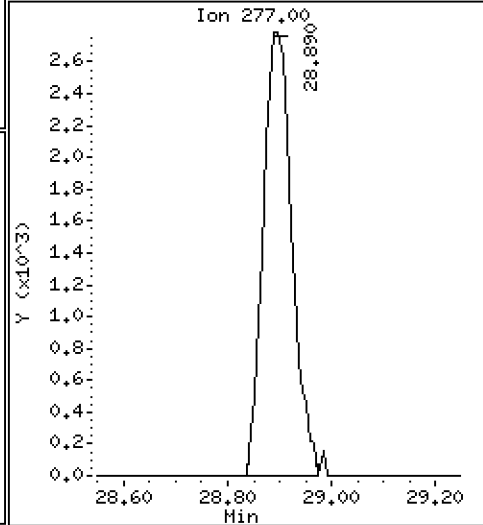
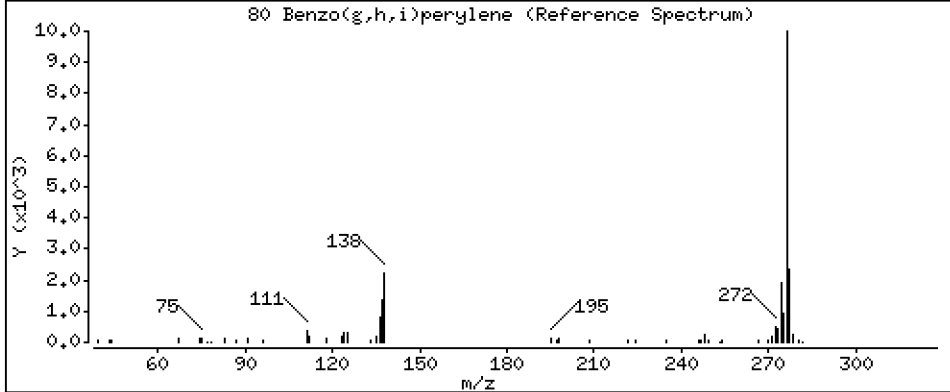
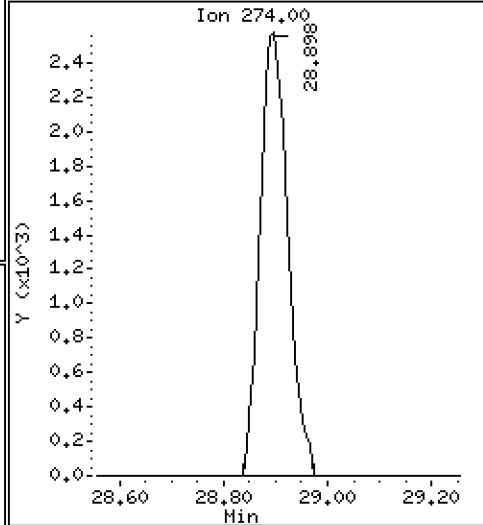
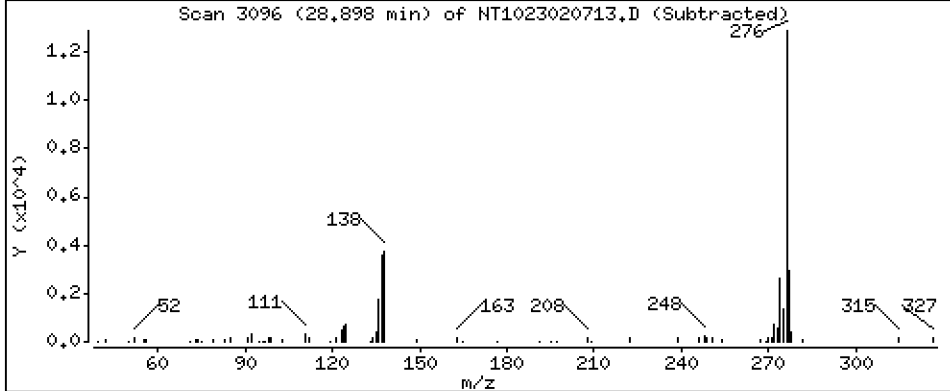
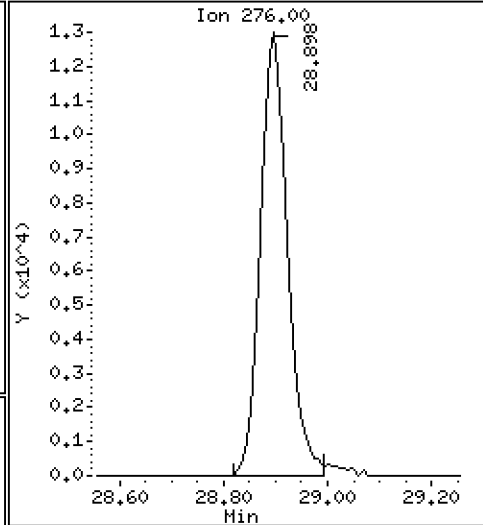
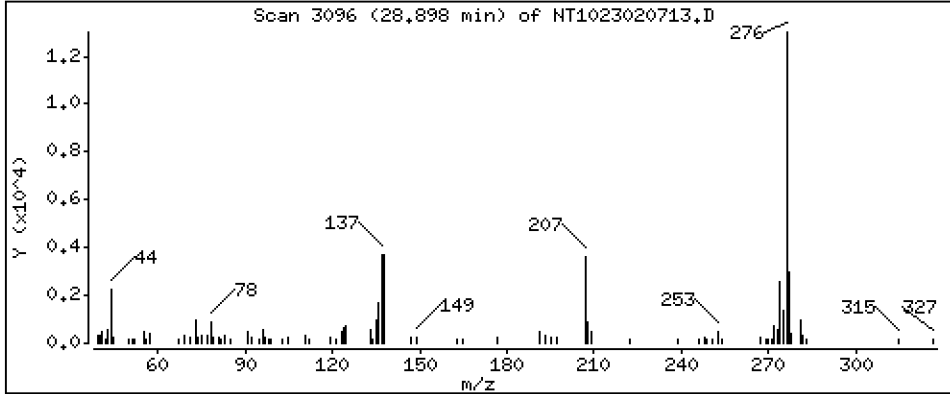
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,5041 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

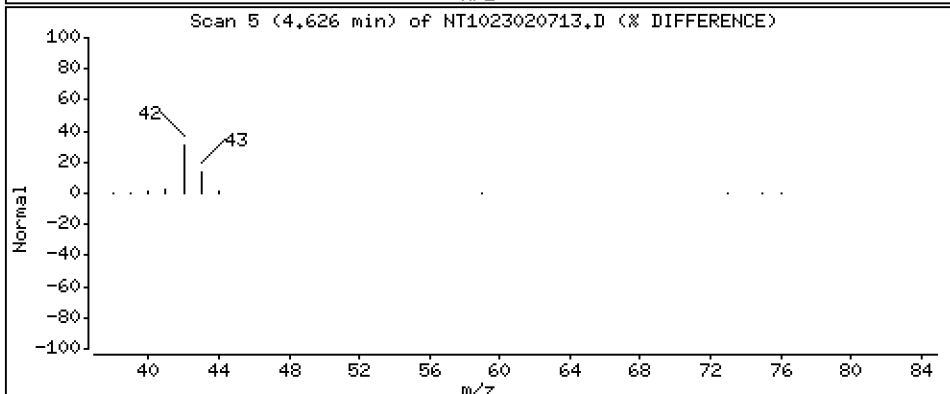
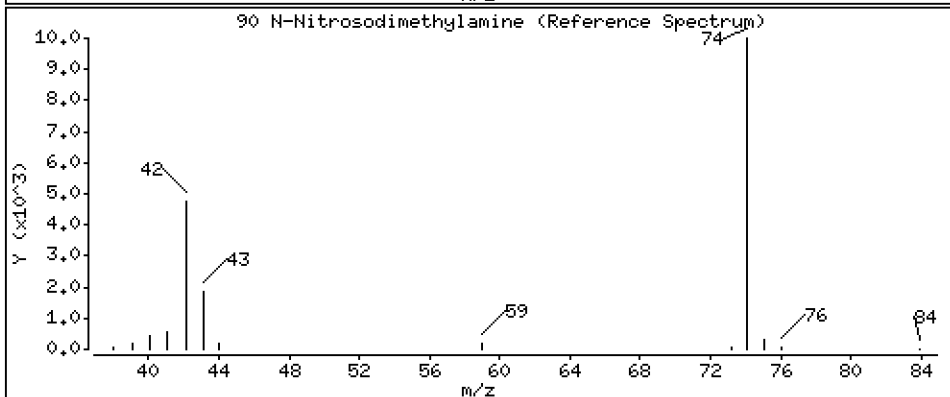
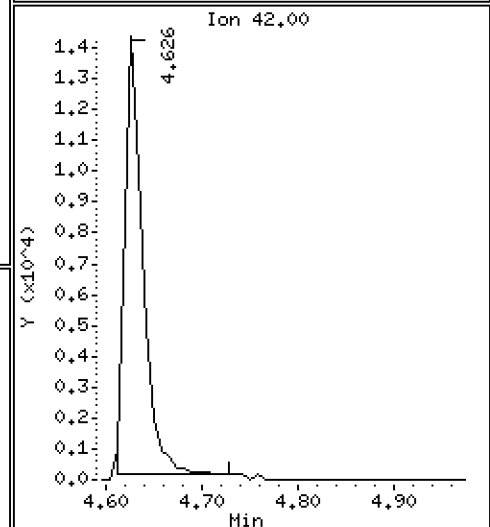
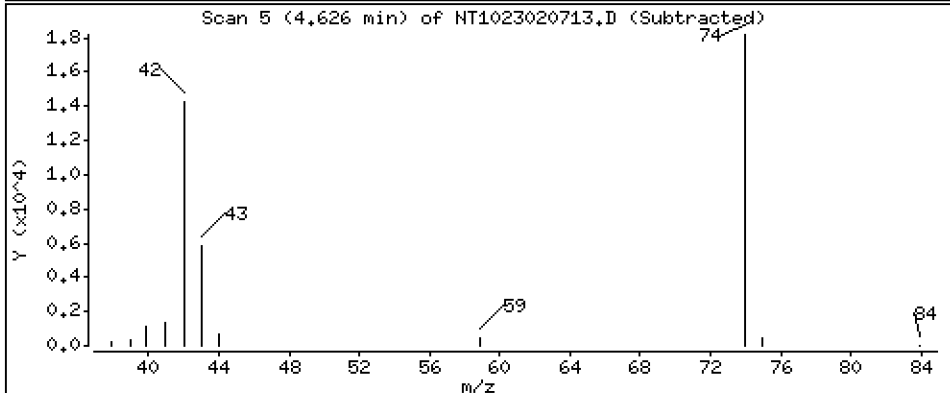
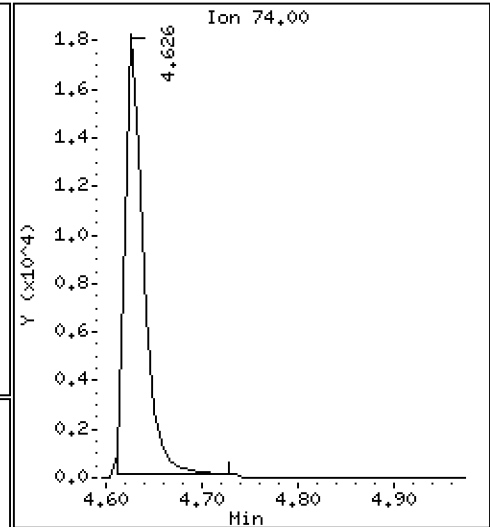
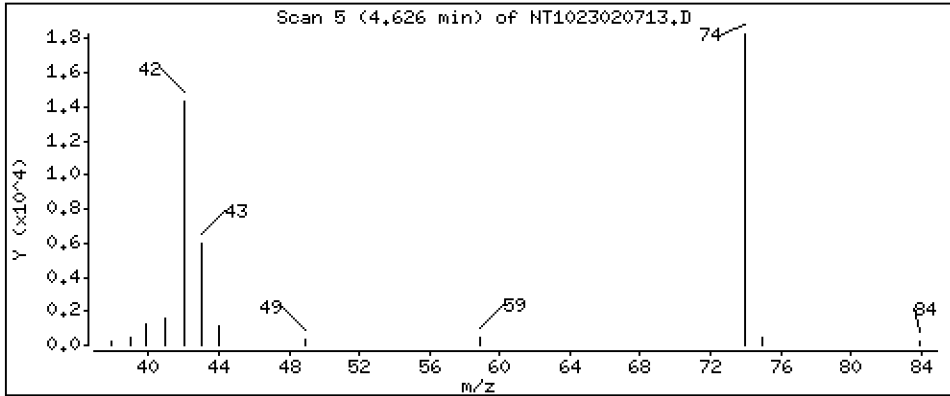
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 1,015 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

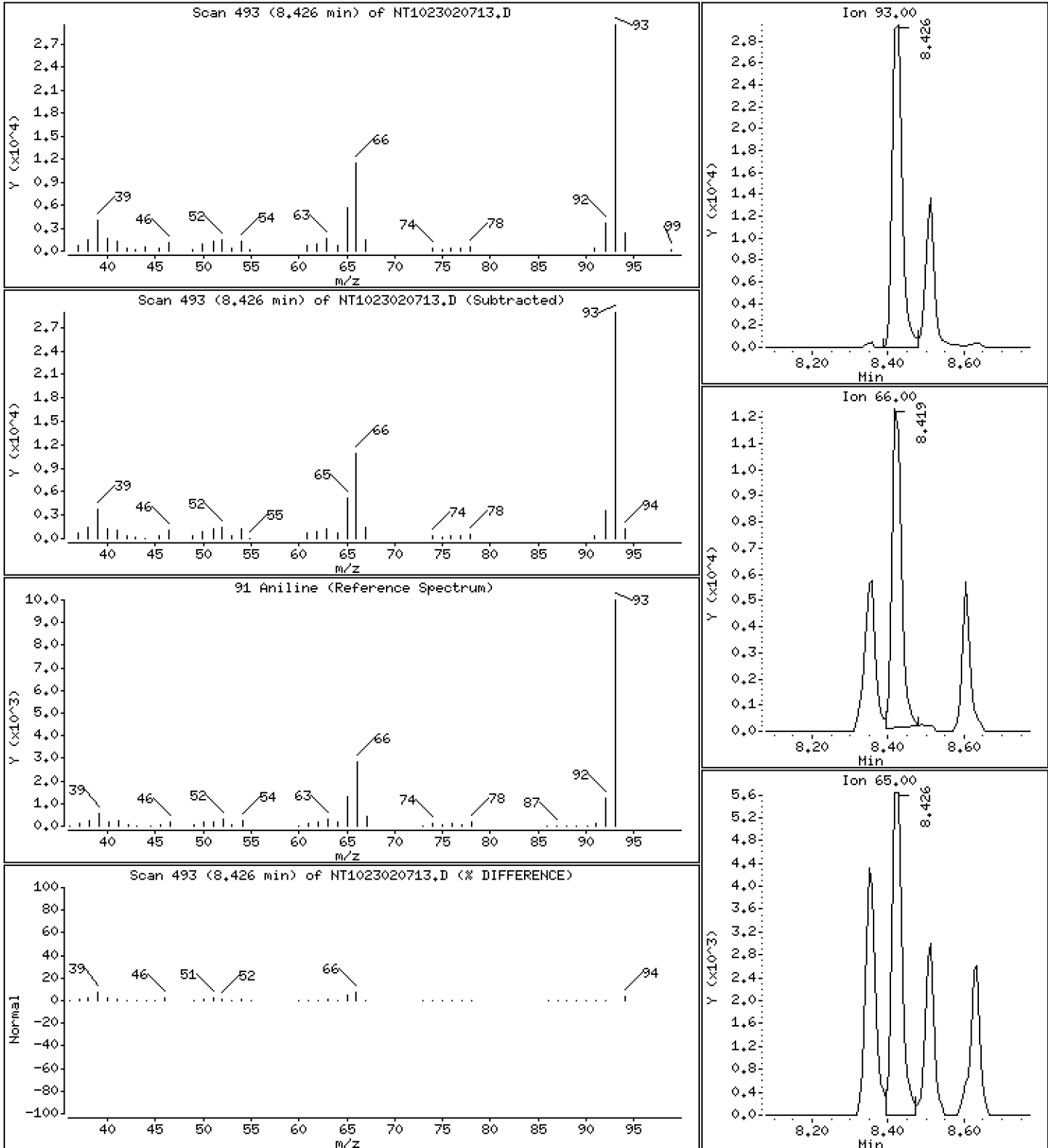
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

91 Aniline

Concentration: 1.020 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

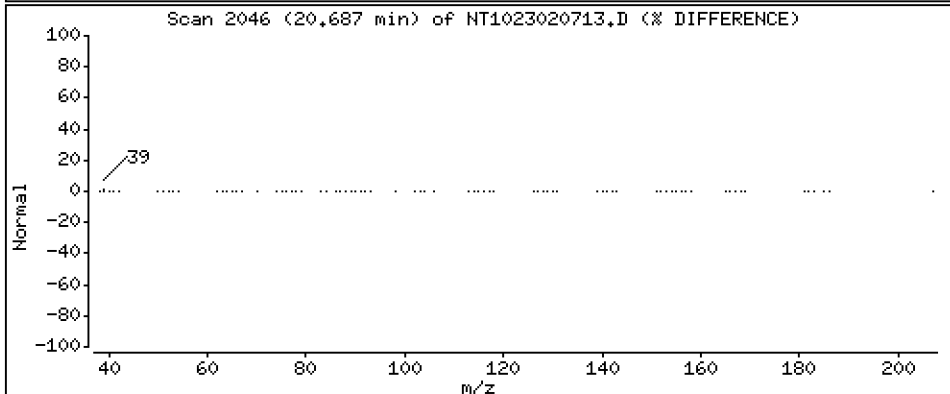
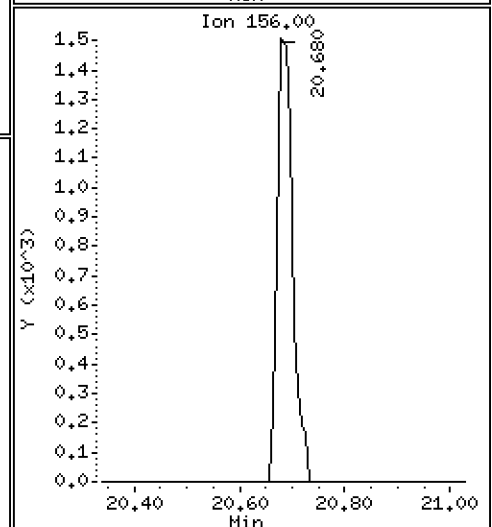
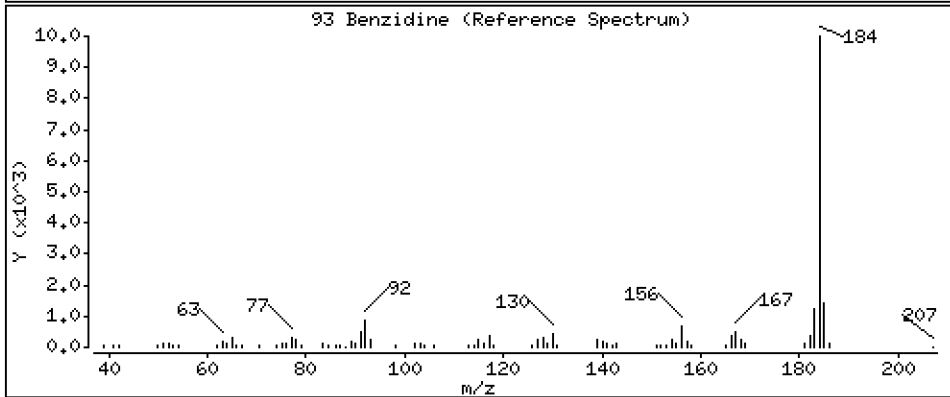
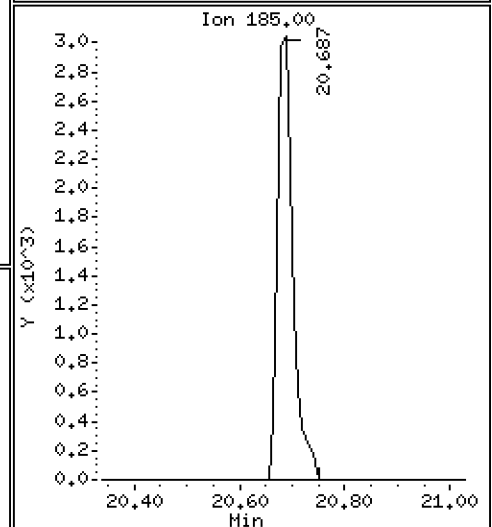
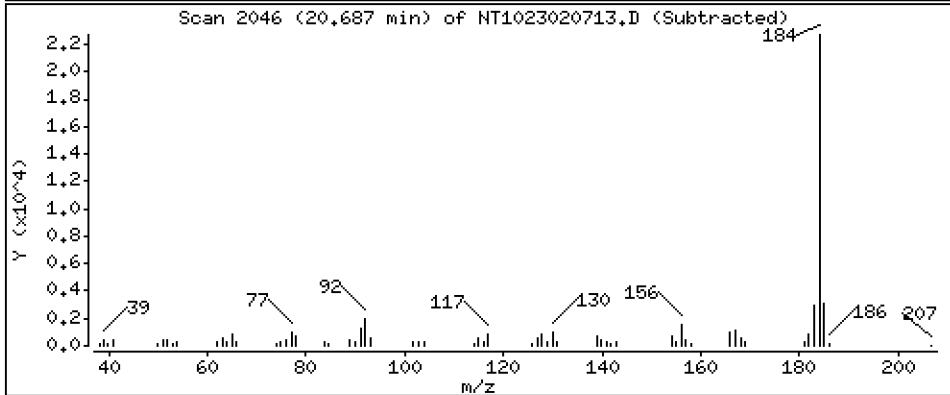
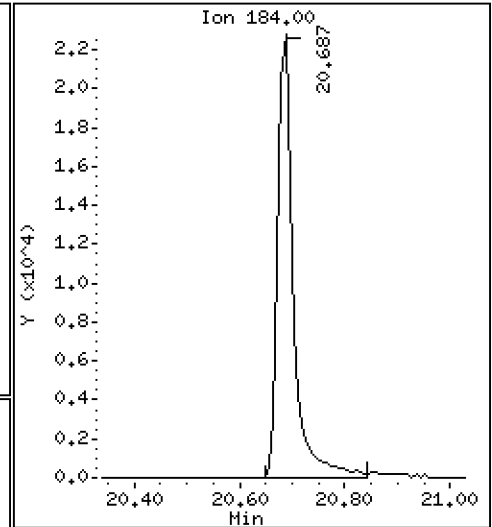
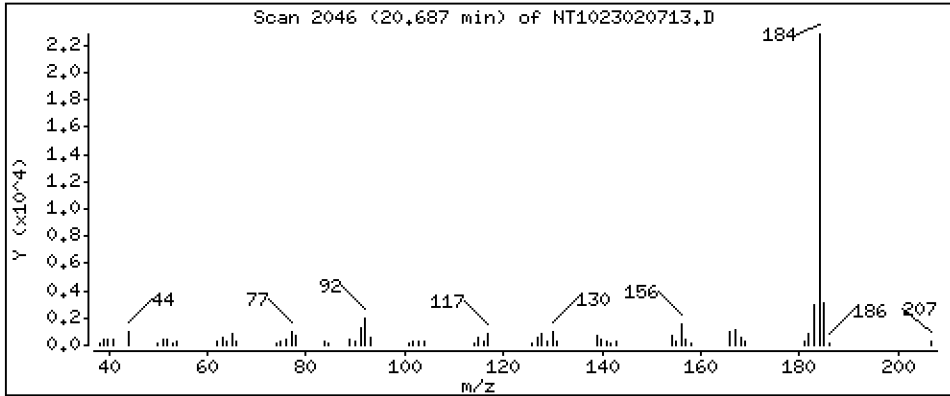
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 1,220 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

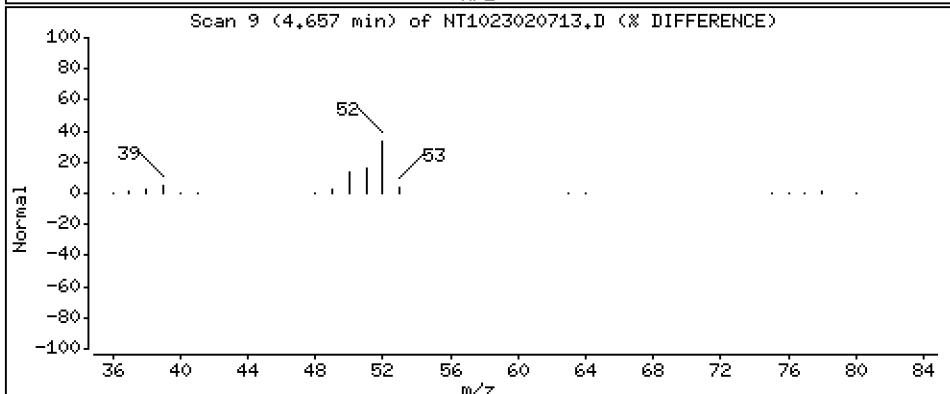
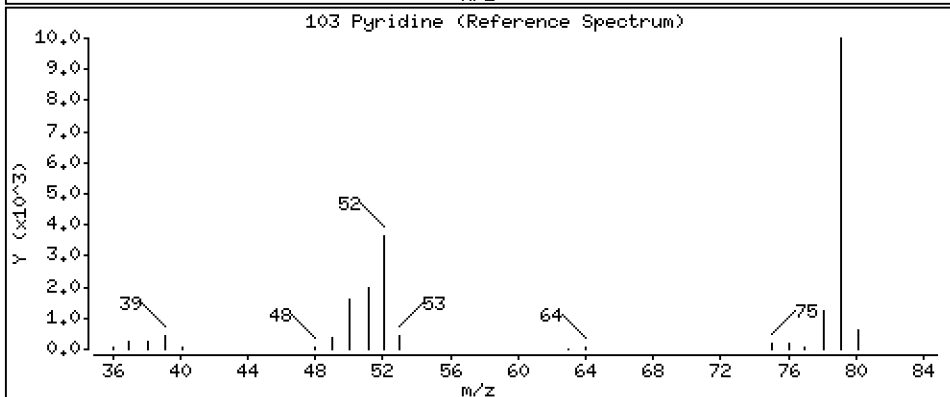
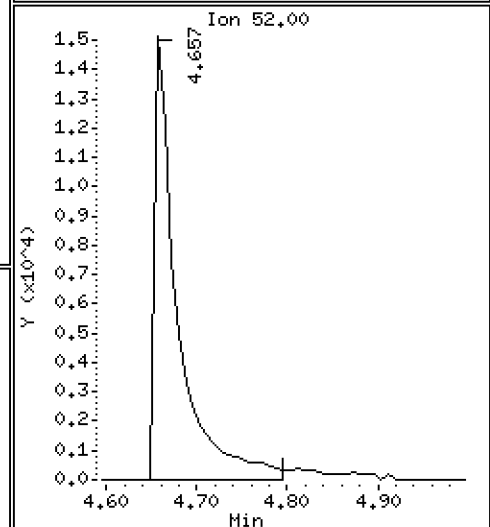
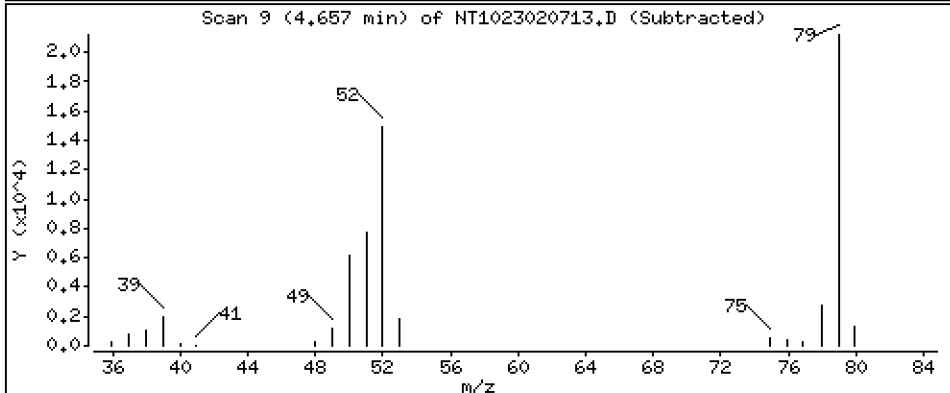
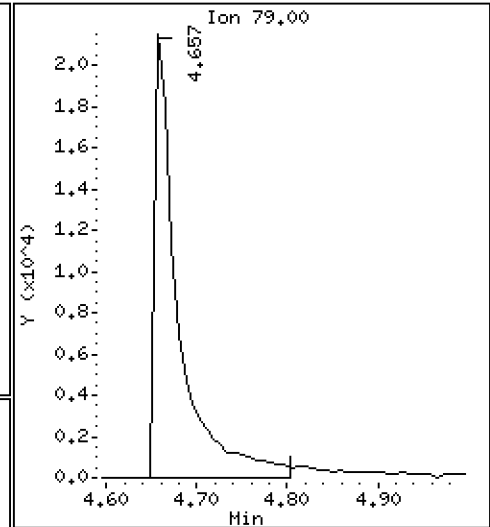
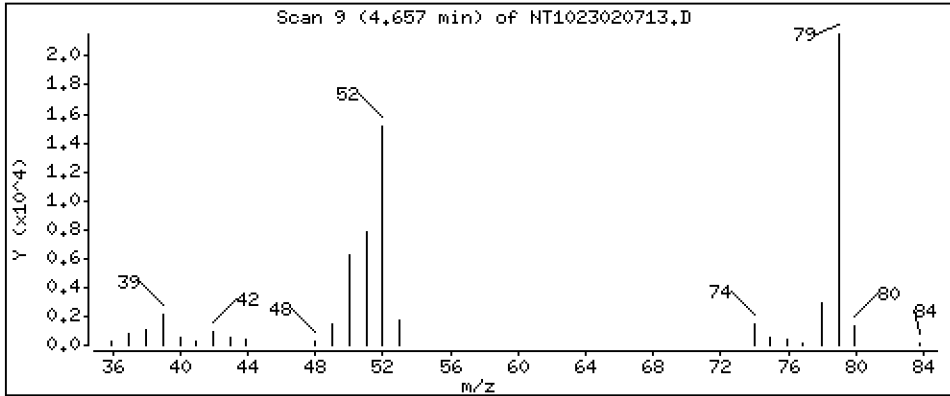
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 1,014 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

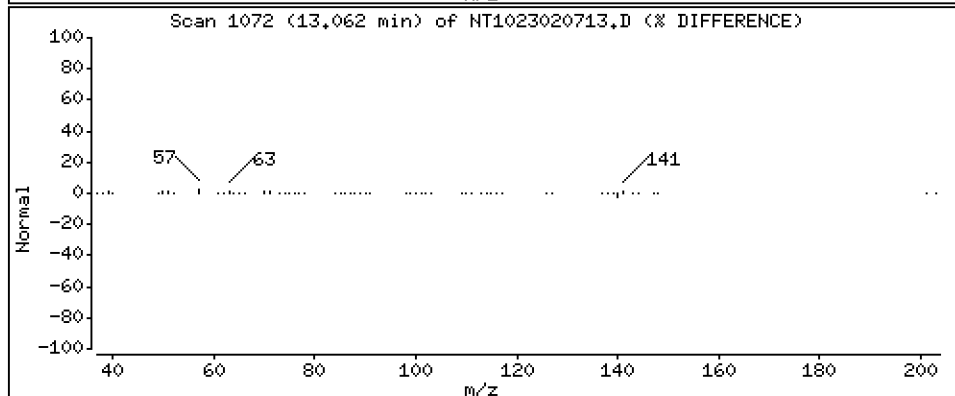
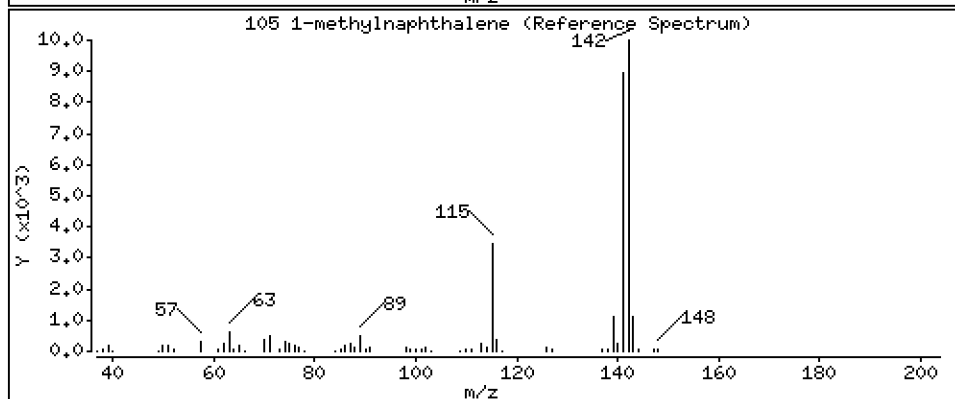
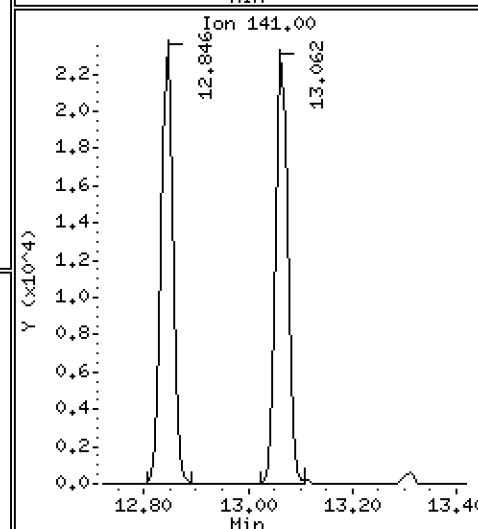
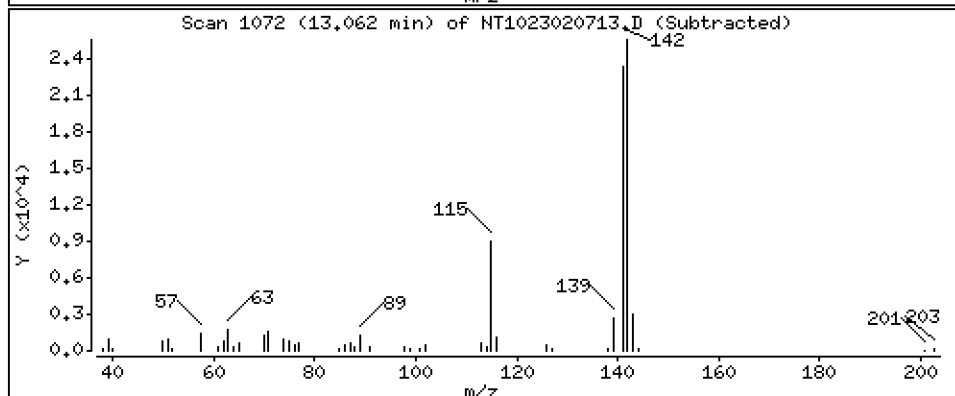
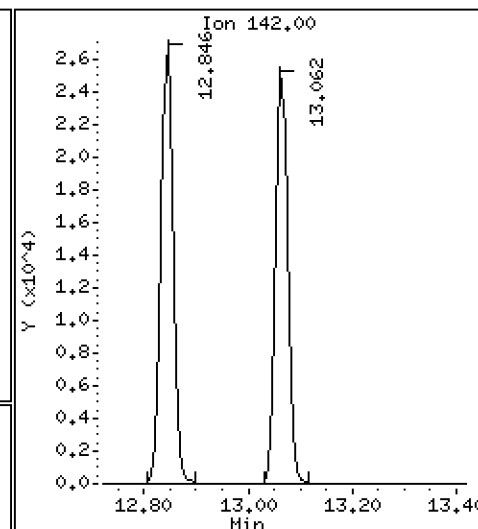
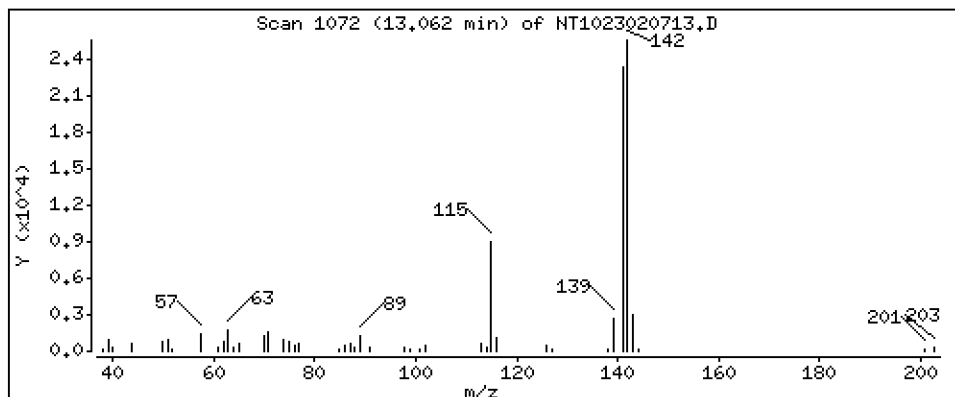
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,5061 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

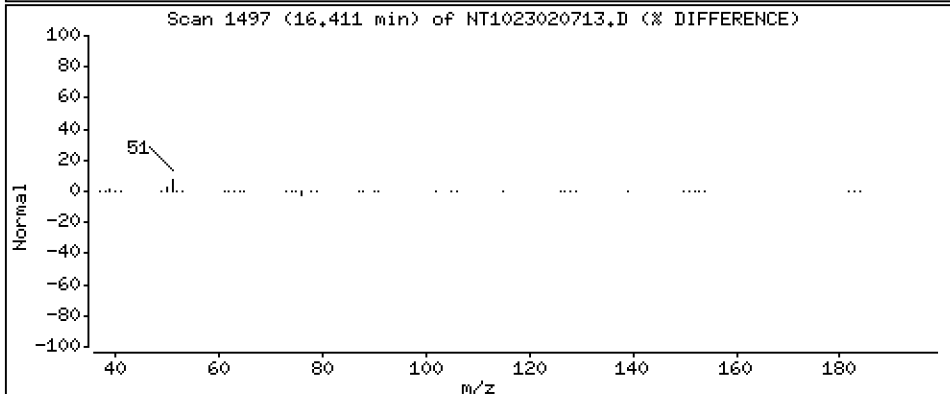
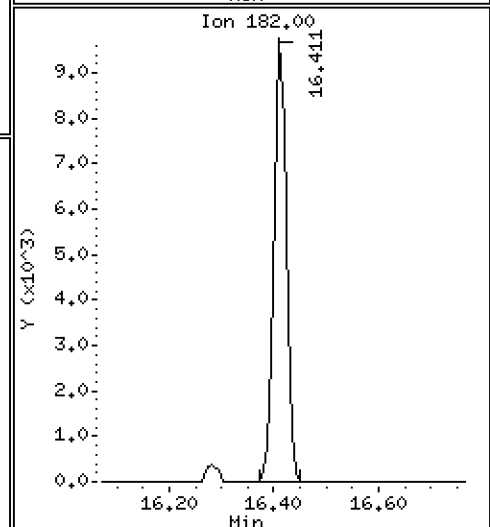
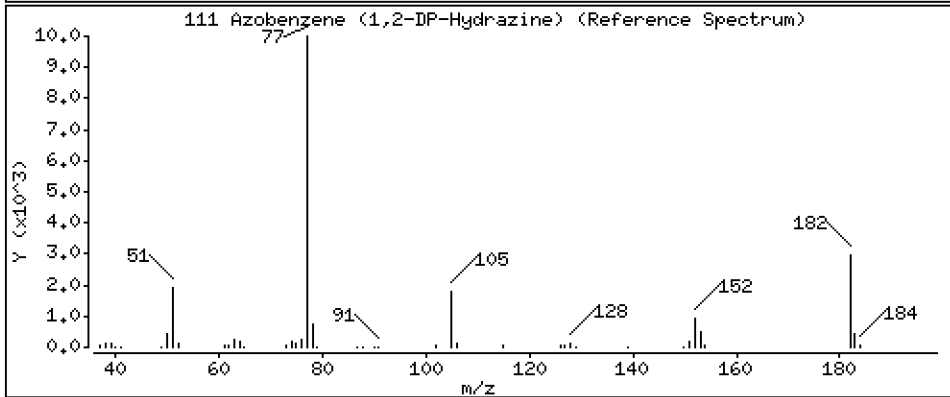
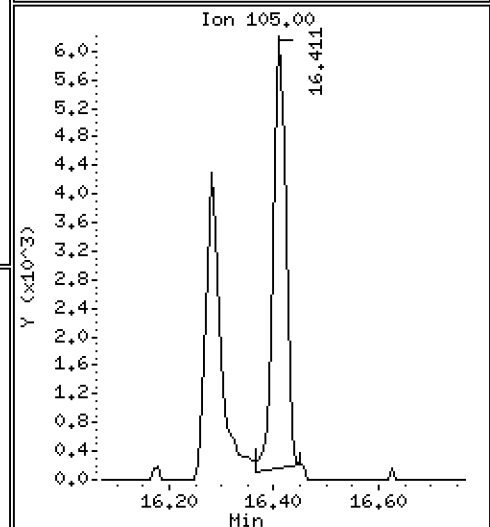
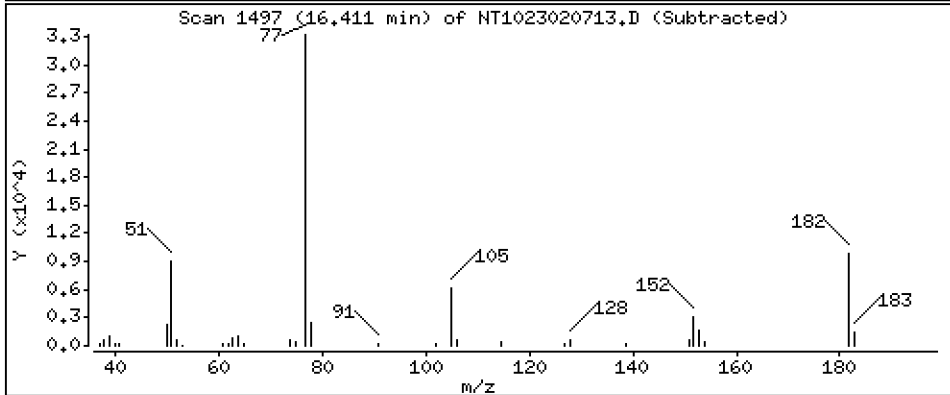
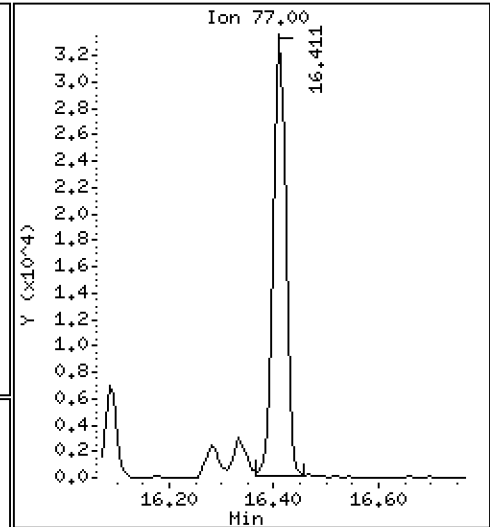
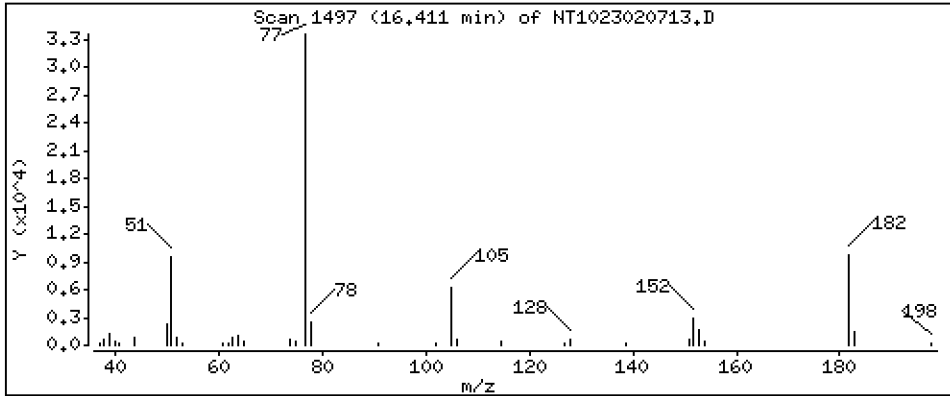
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0.5408 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

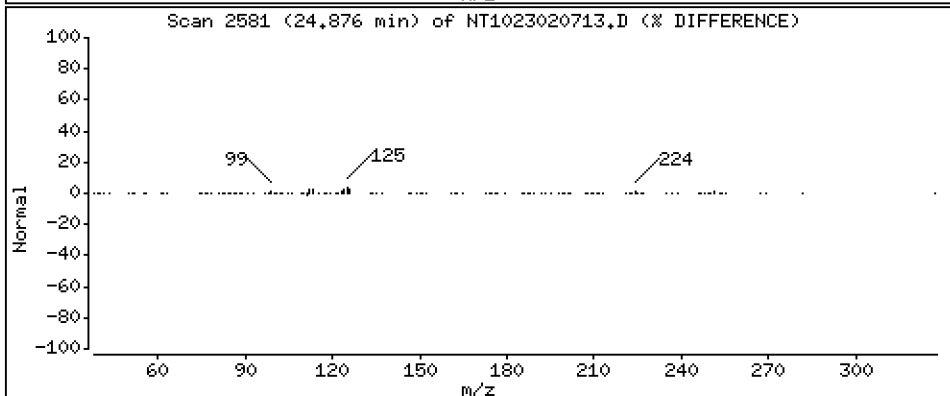
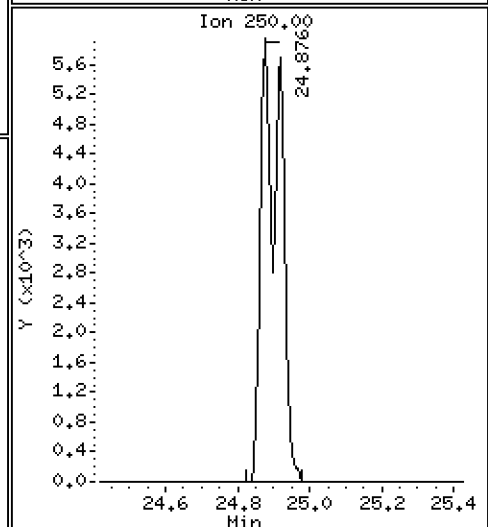
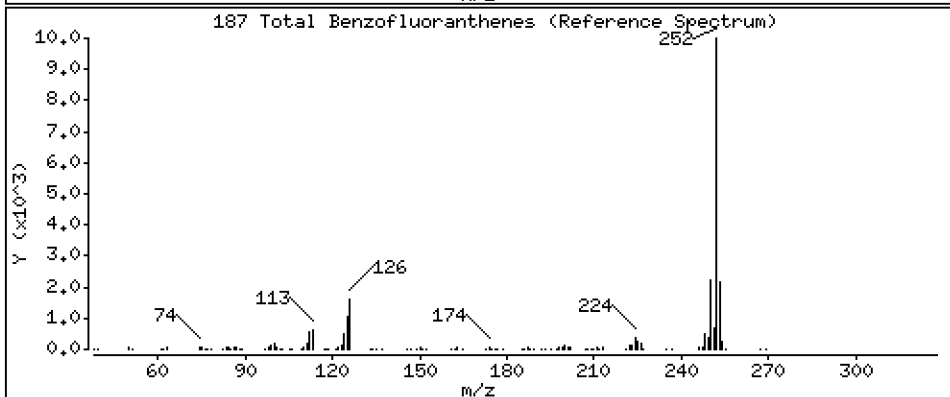
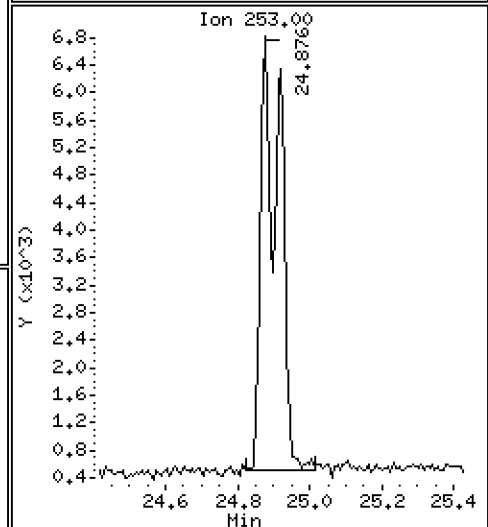
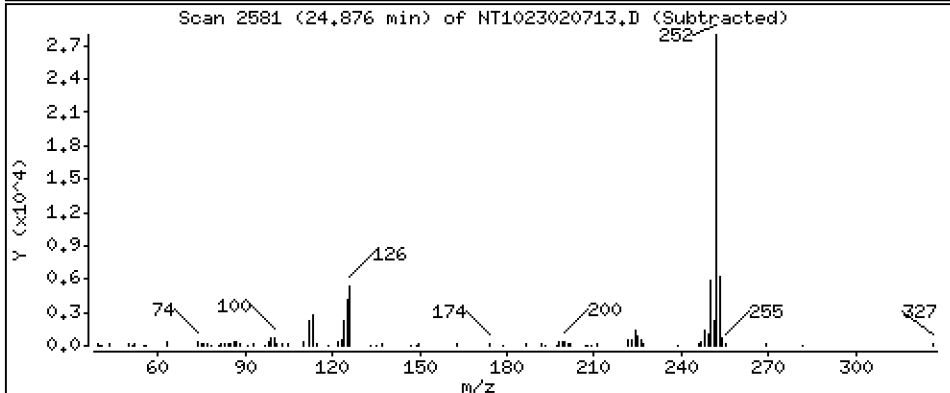
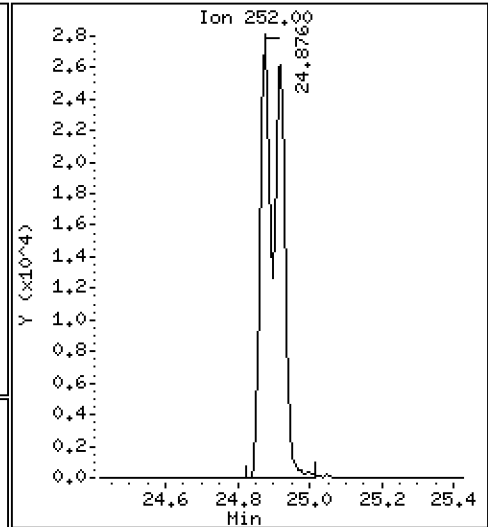
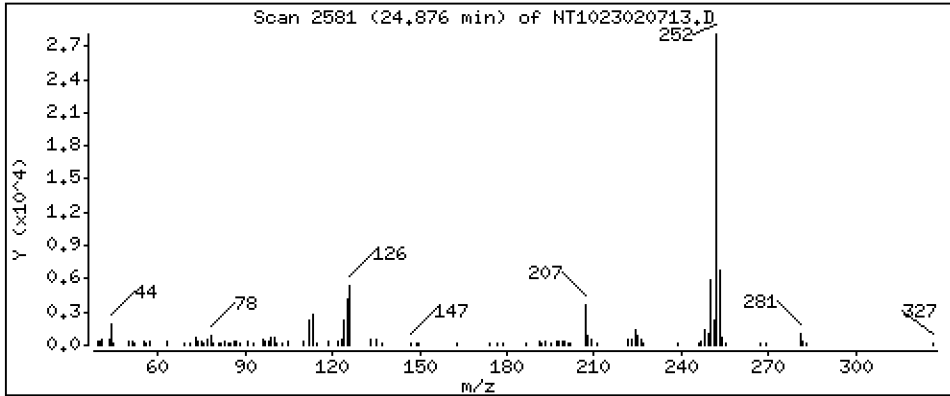
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 1,063 ug/mL



Date : 07-FEB-2023 19:20

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV1

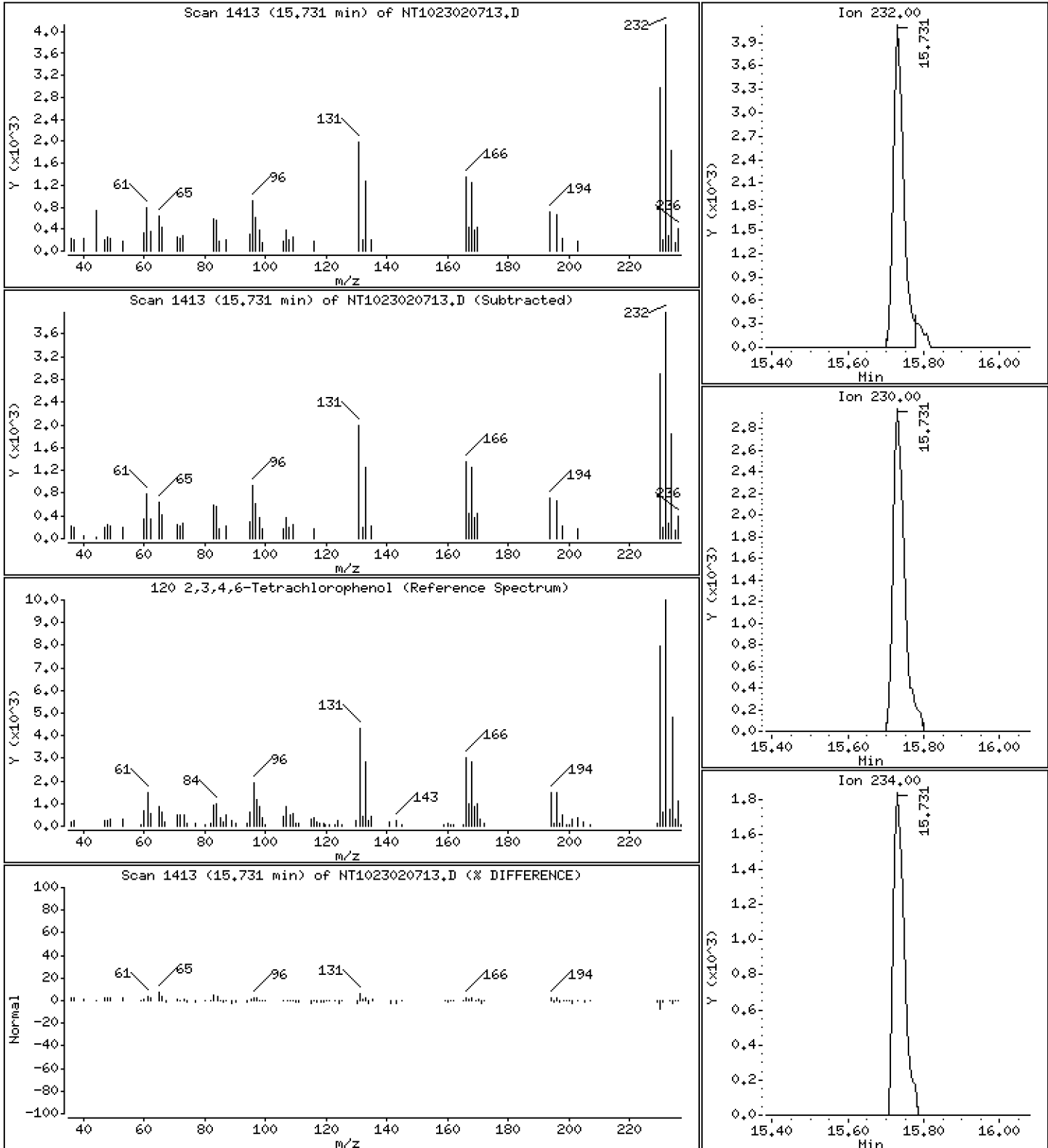
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0.3500 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020713.D
 Lab Smp Id: SLB0102-LCV1
 Inj Date : 07-FEB-2023 19:20
 Operator : VTS
 Smp Info : SLB0102-LCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 10-Feb-2023 11:37 van
 Cal Date : 07-FEB-2023 12:18
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt10.i

Quant Type: ISTD
 Cal File: NT1023020702.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		6.772	6.765	(0.756)	26377	0.74312	0.7431
\$ 2 Phenol-d5	99		8.333	8.333	(0.930)	37299	0.77895	0.7790
3 Phenol	94		8.356	8.356	(0.933)	27265	0.52638	0.5264
\$ 5 2-Chlorophenol-d4	132		8.603	8.604	(0.960)	31095	0.80014	0.8001
4 Bis(2-Chloroethyl)ether	93		8.511	8.511	(0.950)	20505	0.54438	0.5444
6 2-Chlorophenol	128		8.634	8.634	(0.964)	22720	0.53675	0.5367
7 1,3-Dichlorobenzene	146		8.897	8.897	(0.993)	24052	0.54131	0.5413
* 8 1,4-Dichlorobenzene-d4	152		8.959	8.959	(1.000)	111648	4.00000	
9 1,4-Dichlorobenzene	146		8.990	8.991	(1.003)	22685	0.51835	0.5183
\$ 10 1,2-Dichlorobenzene-d4	152		9.316	9.316	(1.040)	14232	0.53502	0.5350
12 1,2-Dichlorobenzene	146		9.347	9.348	(1.043)	22429	0.53159	0.5316
11 Benzyl alcohol	108		9.231	9.231	(1.030)	9600	0.41842	0.4184
14 2,2'-oxybis(1-Chloropropane)	121		9.526	9.526	(1.063)	6322	0.52150	0.5215 (M)
13 2-Methylphenol	108		9.456	9.456	(1.055)	21191	0.55165	0.5516
17 Hexachloroethane	117		9.930	9.930	(1.108)	8611	0.51324	0.5132
16 N-Nitroso-di-n-propylamine	70		9.774	9.782	(1.091)	14580	0.50473	0.5047
15 4-Methylphenol	108		9.720	9.720	(1.085)	21272	0.52280	0.5228
\$ 18 Nitrobenzene-d5	82		10.038	10.046	(0.879)	22454	0.52835	0.5284
19 Nitrobenzene	77		10.077	10.077	(0.882)	22124	0.52205	0.5221
20 Isophorone	82		10.519	10.520	(0.921)	28122	0.47654	0.4765
21 2-Nitrophenol	139		10.698	10.698	(0.937)	10414	0.47709	0.4771
22 2,4-Dimethylphenol	107		10.757	10.758	(0.942)	43201	1.10715	1.107
23 Bis(2-Chloroethoxy)methane	93		10.944	10.944	(0.958)	20473	0.53427	0.5343
24 Benzoic acid	105		10.953	10.987	(0.959)	7914	0.35862	0.3586 (M)
25 2,4-Dichlorophenol	162		11.156	11.156	(0.977)	35001	1.10409	1.104
26 1,2,4-Trichlorobenzene	180		11.337	11.337	(0.993)	18749	0.54283	0.5428
* 27 Naphthalene-d8	136		11.422	11.422	(1.000)	430160	4.00000	
28 Naphthalene	128		11.460	11.461	(1.003)	60210	0.52380	0.5238
29 4-Chloroaniline	127		11.592	11.592	(1.015)	44530	0.90369	0.9037
30 Hexachlorobutadiene	225		11.824	11.824	(1.035)	9462	0.52529	0.5253
31 4-Chloro-3-methylphenol	107		12.551	12.551	(1.099)	35394	1.02131	1.021
32 2-Methylnaphthalene	142		12.845	12.845	(1.125)	41462	0.51877	0.5188
33 Hexachlorocyclopentadiene	237		13.309	13.310	(0.887)	6031	0.43306	0.4331

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.464	13.464	(0.897)	19653	0.95594	0.9559
35 2,4,5-Trichlorophenol	196	13.542	13.534	(0.903)	18856	0.85075	0.8507
§ 36 2-Fluorobiphenyl	172	13.619	13.619	(0.908)	43700	0.53247	0.5325
37 2-Chloronaphthalene	162	13.828	13.828	(0.922)	37502	0.52569	0.5257
38 2-Nitroaniline	65	14.076	14.083	(0.938)	22657	1.00865	1.009
39 Dimethylphthalate	163	14.509	14.517	(0.967)	40469	0.53024	0.5302
40 Acenaphthylene	152	14.687	14.695	(0.979)	60326	0.53089	0.5309
41 2,6-Dinitrotoluene	165	14.648	14.649	(0.976)	18302	1.01246	1.012
* 42 Acenaphthene-d10	164	15.004	15.004	(1.000)	227740	4.00000	
43 3-Nitroaniline	138	14.927	14.935	(0.995)	19772	0.94863	0.9486
44 Acenaphthene	153	15.066	15.066	(1.004)	36309	0.52140	0.5214
45 2,4-Dinitrophenol	184	15.151	15.144	(1.010)	2370	0.25417	0.2542
46 Dibenzofuran	168	15.391	15.399	(1.026)	51546	0.51455	0.5146
47 4-Nitrophenol	109	15.267	15.259	(1.018)	5656	0.72796	0.7280
48 2,4-Dinitrotoluene	165	15.445	15.453	(1.029)	24489	0.98185	0.9819
50 Diethylphthalate	149	15.955	15.963	(1.063)	39220	0.53511	0.5351
49 Fluorene	166	16.094	16.102	(1.073)	62528	0.55530	0.5553
51 4-Chlorophenyl-phenylether	204	16.094	16.094	(1.073)	30534	0.55520	0.5552
52 4-Nitroaniline	138	16.179	16.195	(1.078)	24327	1.02136	1.021
53 4,6-Dinitro-2-methylphenol	198	16.279	16.287	(0.904)	19812	1.34186	1.342
54 N-Nitrosodiphenylamine	169	16.333	16.341	(0.907)	37722	0.53982	0.5398
§ 55 2,4,6-Tribromophenol	330	16.626	16.627	(1.108)	7539	0.66110	0.6611
56 4-Bromophenyl-phenylether	248	17.089	17.089	(0.948)	13649	0.53007	0.5301
57 Hexachlorobenzene	284	17.398	17.406	(0.966)	14912	0.53773	0.5377
58 Pentachlorophenol	266	17.762	17.762	(0.986)	3782	0.36219	0.3622
* 59 Phenanthrene-d10	188	18.018	18.018	(1.000)	408782	4.00000	
60 Phenanthrene	178	18.064	18.064	(1.003)	58044	0.52760	0.5276
61 Anthracene	178	18.157	18.157	(1.008)	56965	0.52291	0.5229
62 Carbazole	167	18.482	18.482	(1.026)	53938	0.51335	0.5133
63 Di-n-butylphthalate	149	19.294	19.294	(1.071)	60079	0.47950	0.4795
64 Fluoranthene	202	20.447	20.447	(0.887)	58669	0.52293	0.5229
65 Pyrene	202	20.873	20.873	(0.905)	60989	0.52656	0.5266
§ 66 Terphenyl-d14	244	21.159	21.167	(0.918)	47677	0.54589	0.5459
67 Butylbenzylphthalate	149	22.088	22.096	(0.958)	24751	0.49449	0.4945
68 Benzo(a)anthracene	228	23.033	23.041	(0.999)	55784	0.54700	0.5470
* 69 Chrysene-d12	240	23.056	23.064	(1.000)	305959	4.00000	
70 3,3'-Dichlorobenzidine	252	22.986	22.994	(0.997)	54308	1.57388	1.574
71 Chrysene	228	23.102	23.110	(1.002)	53830	0.55038	0.5504
72 bis(2-Ethylhexyl)phthalate	149	23.126	23.126	(0.959)	33404	0.51098	0.5110
* 134 Di-n-octylphthalate-d4	153	24.109	24.109	(1.000)	480597	4.00000	
73 Di-n-octylphthalate	149	24.116	24.117	(1.000)	67074	0.55227	0.5523
74 Benzo(b)fluoranthene	252	24.875	24.883	(0.971)	54777	0.54279	0.5428
75 Benzo(k)fluoranthene	252	24.922	24.922	(0.973)	54494	0.51290	0.5129
76 Benzo(a)pyrene	252	25.502	25.502	(0.996)	46249	0.50684	0.5068
* 77 Perylene-d12	264	25.611	25.619	(1.000)	318801	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.152	28.160	(1.099)	55698	0.51282	0.5128
79 Dibenzo(a,h)anthracene	278	28.167	28.175	(1.100)	46366	0.51534	0.5153
80 Benzo(g,h,i)perylene	276	28.897	28.905	(1.128)	46989	0.50410	0.5041
90 N-Nitrosodimethylamine	74	4.625	4.626	(0.516)	25066	1.01504	1.015
91 Aniline	93	8.426	8.426	(0.940)	51140	1.02010	1.020
93 Benzidine	184	20.687	20.687	(0.897)	45826	1.22026	1.220
103 Pyridine	79	4.656	4.649	(0.520)	38741	1.01357	1.014
105 1-methylnaphthalene	142	13.062	13.070	(1.144)	38942	0.50608	0.5061
111 Azobenzene (1,2-DP-Hydrazine)	77	16.410	16.418	(1.094)	52814	0.54081	0.5408

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252		24.875	24.922	(0.971)	105145	1.06276	1.063
120 2,3,4,6-Tetrachlorophenol	232		15.731	15.731	(1.048)	7362	0.35005	0.3500

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 07-FEB-2023
 Lab File ID: NT1023020713.D Calibration Time: 18:42
 Lab Smp Id: SLB0102-LCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	100731	50366	201462	111648	10.84
27 Naphthalene-d8	402059	201030	804118	430160	6.99
42 Acenaphthene-d10	222764	111382	445528	227740	2.23
59 Phenanthrene-d10	378593	189297	757186	408782	7.97
69 Chrysene-d12	296375	148188	592750	305959	3.23
134 Di-n-octylphthala	473500	236750	947000	480597	1.50
77 Perylene-d12	302737	151369	605474	318801	5.31

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.96	-0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	-0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.00	-0.00
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	-0.00
69 Chrysene-d12	23.06	22.56	23.56	23.06	-0.03
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	-0.00
77 Perylene-d12	25.62	25.12	26.12	25.61	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020713.D

Lab ID: SLB0102-LCV1
nt10.i, 20230207.b\ABN.m, 07-FEB-2023 19:20

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1023020712.D

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

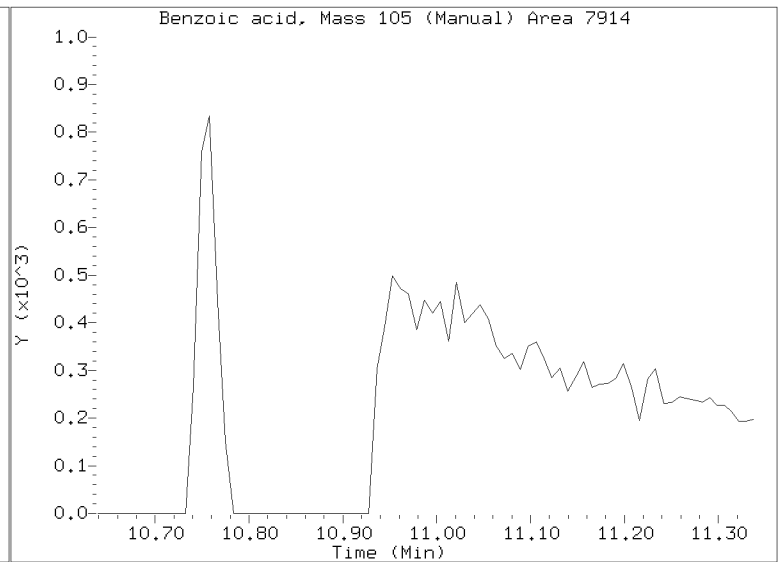
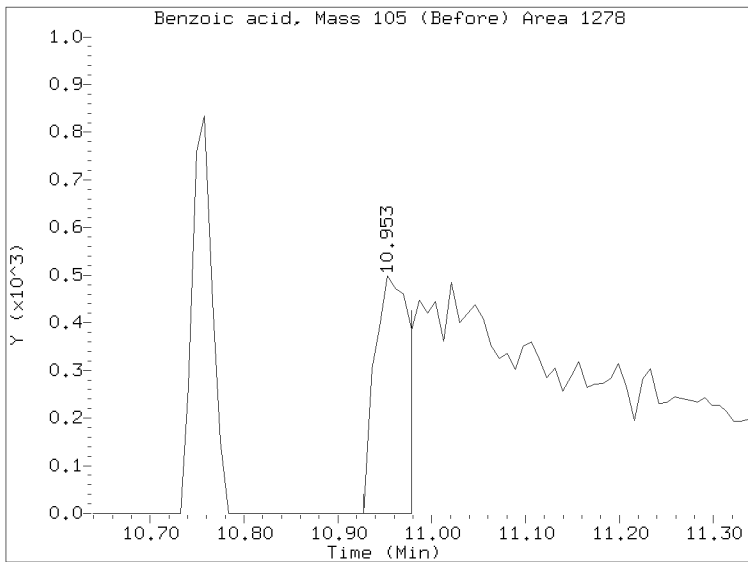
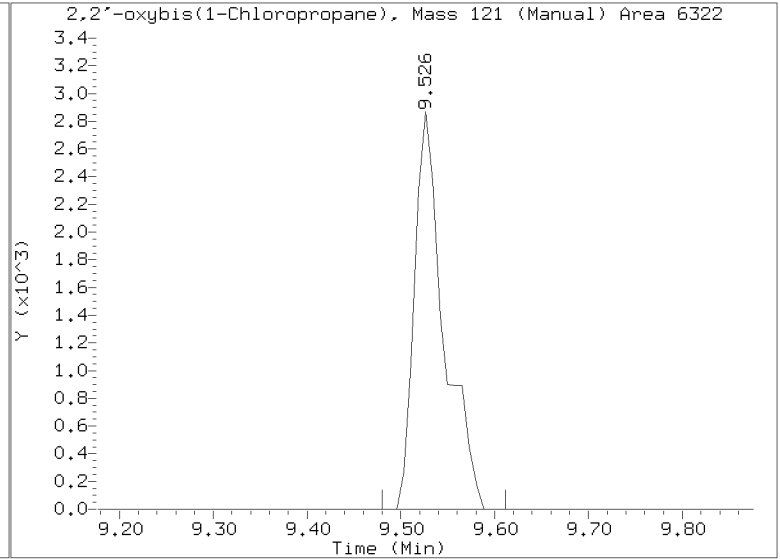
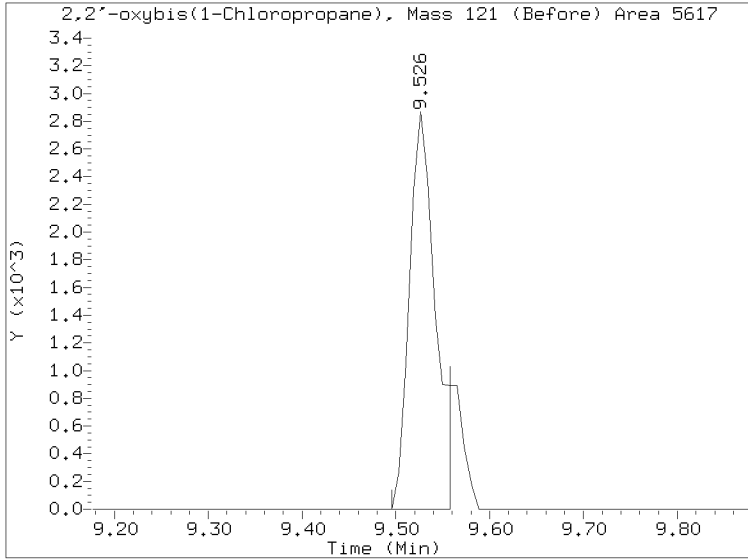
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020713.D

Injection Date: 07-FEB-2023 19:20

Lab ID:SLB0102-LCV1 Client ID:

Report Date: 02/10/2023 11:38





Analytical Resources, LLC
Analytical Chemists and Consultants

**LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00018

Lab File ID: NT1023020733.D

Calibration Date: 02/07/2023

Sequence: SLB0102

Injection Date: 02/08/23

Lab Sample ID: SLB0102-LCV2

Injection Time: 08:02

Sequence Name: ABN 0.5

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	0.50000	0.5	1.8557260	1.9367240		4.4	+/-50
4-Methylphenol	A	0.50000	0.5	1.4577560	1.5750950		8.1	+/-50
Naphthalene	A	0.50000	0.5	1.0689000	1.1143620		4.3	+/-50
2-Methylnaphthalene	A	0.50000	0.5	0.7432041	0.7790191		4.8	+/-50
Acenaphthylene	A	0.50000	0.6	1.9958230	2.2273720		11.6	+/-50
Dimethylphthalate	A	0.50000	0.6	1.3405170	1.4985760		11.8	+/-50
Acenaphthene	A	0.50000	0.5	1.2231120	1.3188760		7.8	+/-50
Dibenzofuran	A	0.50000	0.5	1.7594910	1.8388250		4.5	+/-50
Fluorene	A	0.50000	0.5	1.9777380	2.0906030		5.7	+/-50
Phenanthrene	A	0.50000	0.5	1.0765200	1.1359550		5.5	+/-50
Anthracene	A	0.50000	0.5	1.0659800	1.1609190		8.9	+/-50
Fluoranthene	A	0.50000	0.5	1.4667580	1.4632380		-0.2	+/-50
Pyrene	A	0.50000	0.5	1.5142740	1.5022180		-0.8	+/-50
Butylbenzylphthalate	A	0.50000	0.5	0.6543795	0.7121286		8.8	+/-50
Benzo(a)anthracene	A	0.50000	0.6	1.3332750	1.4884740		11.6	+/-50
Chrysene	A	0.50000	0.5	1.2786640	1.3882530		8.6	+/-50
bis(2-Ethylhexyl)phthalate	A	0.50000	0.5	0.5440929	0.5728750		5.3	+/-50
Benzofluoranthenes, Total	A	1.0000	1.1	1.2413430	1.3889500		11.9	+/-50
Benzo(a)pyrene	A	0.50000	0.6	1.1449040	1.2810400		11.9	+/-50
Indeno(1,2,3-cd)pyrene	A	0.50000	0.4	1.3627520	1.1686570		-14.2	+/-50
Dibenzo(a,h)anthracene	A	0.50000	0.5	1.1288770	1.0246170		-9.2	+/-50
Benzo(g,h,i)perylene	A	0.50000	0.4	1.1695480	0.8366081		-28.5	+/-50
2-Fluorophenol	A	0.75000	0.812	1.2716740	1.3763000		8.2	+/-50
Phenol-d5	A	0.75000	0.782	1.7155190	1.7891560		4.3	+/-50
2-Chlorophenol-d4	A	0.75000	0.801	1.3922970	1.4874790		6.8	+/-50
1,2-Dichlorobenzene-d4	A	0.50000	0.533	0.9530327	1.0153350		6.5	+/-50
Nitrobenzene-d5	A	0.50000	0.554	0.3951837	0.4378608		10.8	+/-50
2-Fluorobiphenyl	A	0.50000	0.554	1.4414640	1.5971180		10.8	+/-50
2,4,6-Tribromophenol	A	0.75000	0.746	0.2002949	0.1993396		-0.5	+/-50
p-Terphenyl-d14	A	0.50000	0.507	1.1418200	1.1570120		1.3	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.16\NT1023020733.D

Date: 08-FEB-2023 08:02

Client ID:

Sample Info: SLB0102-LCW2

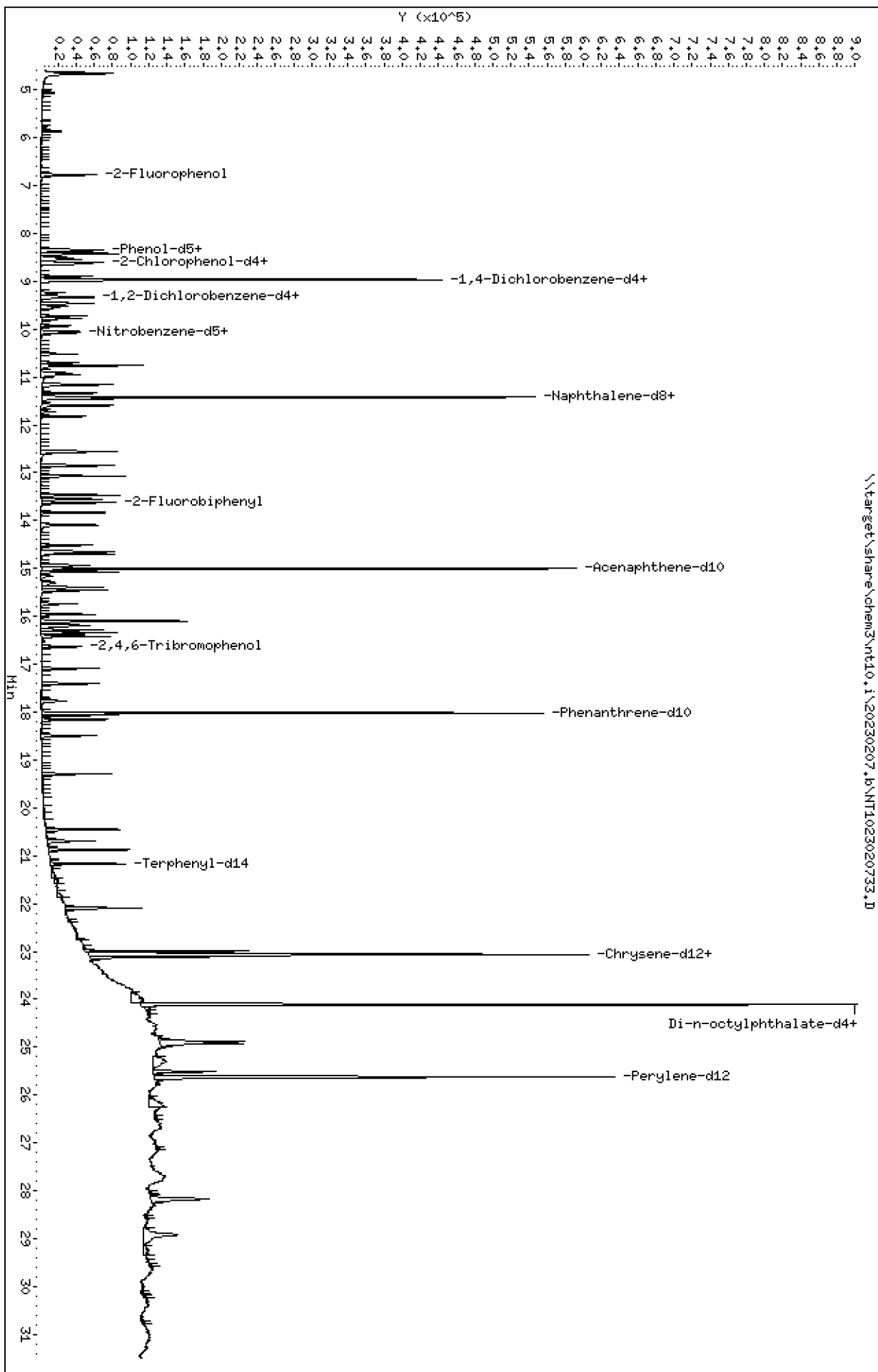
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

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Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

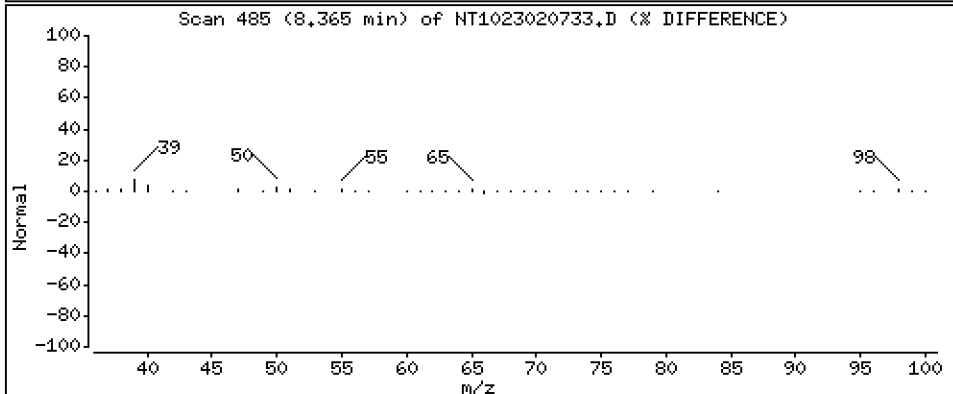
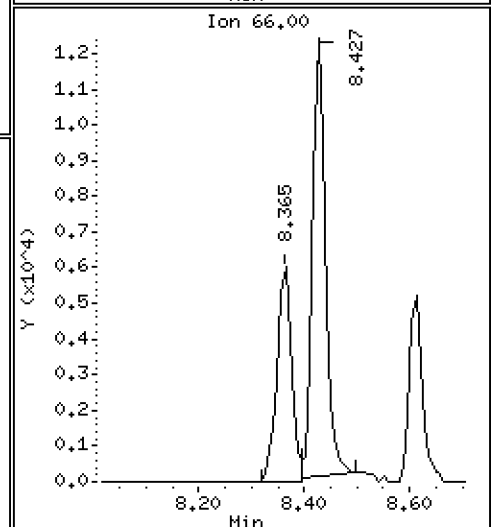
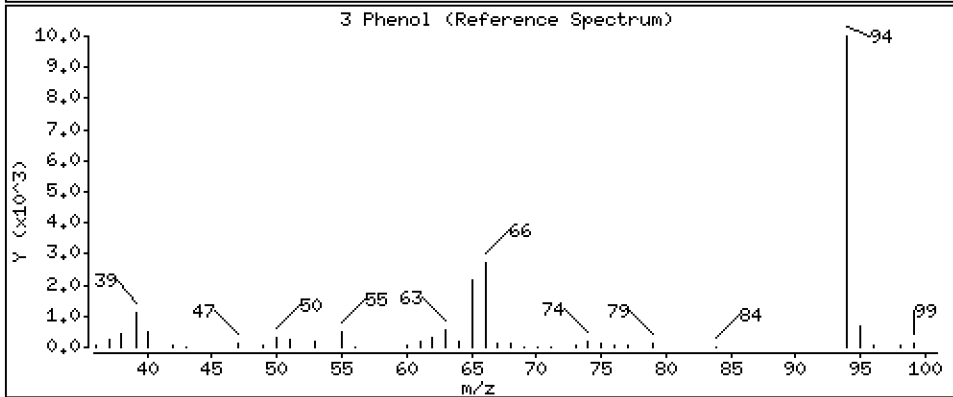
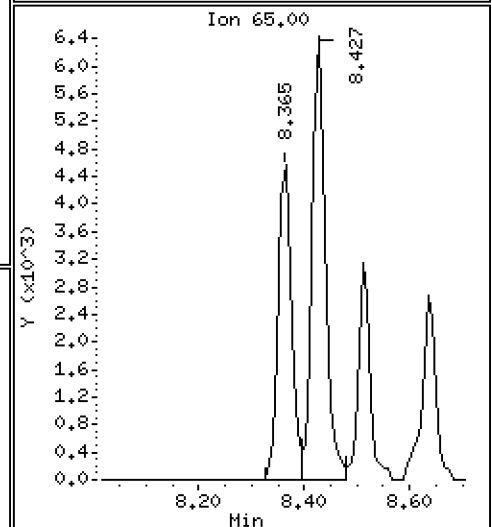
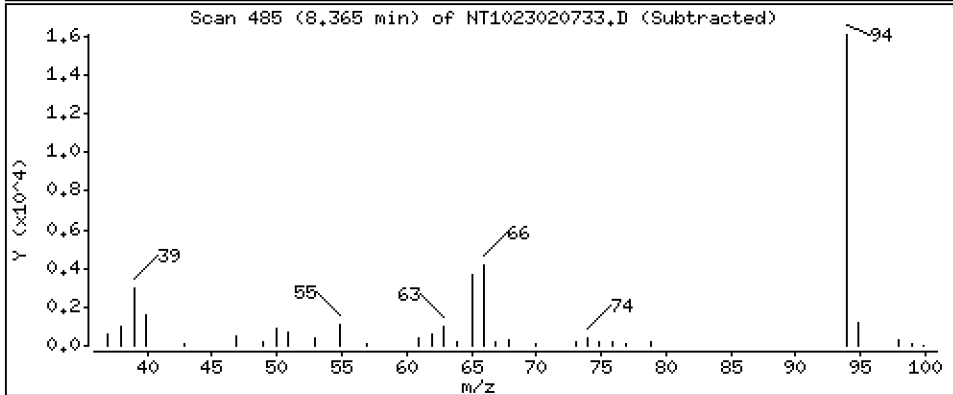
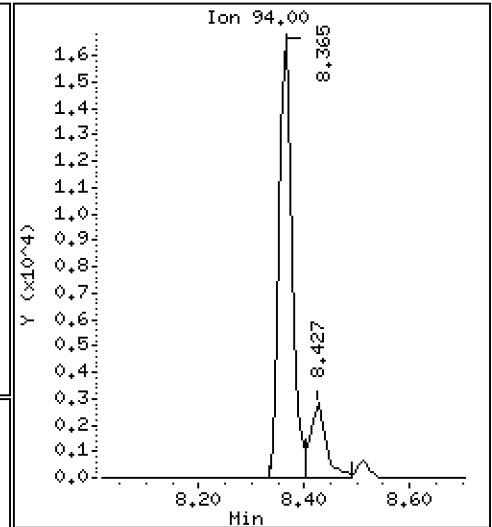
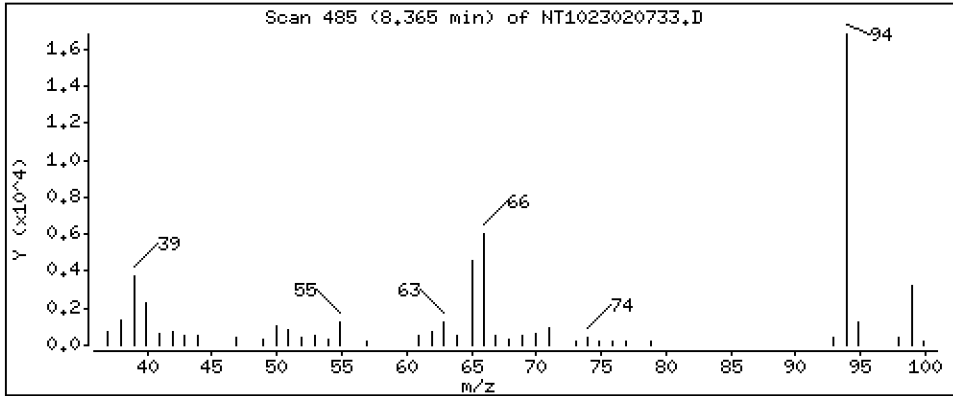
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,5218 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

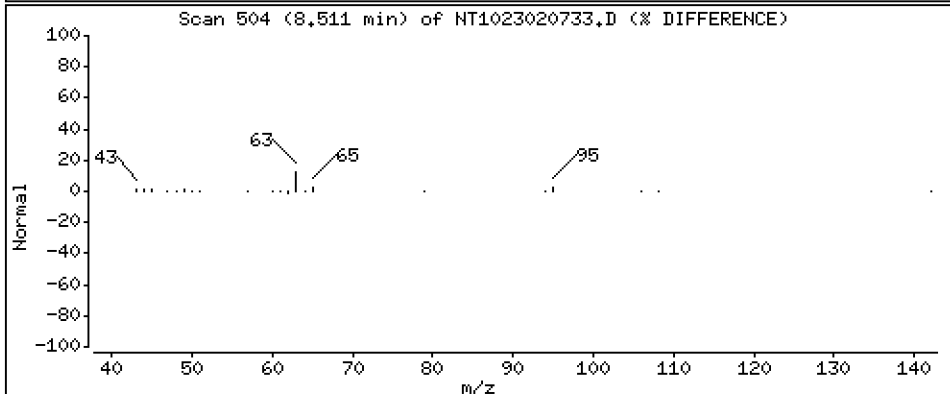
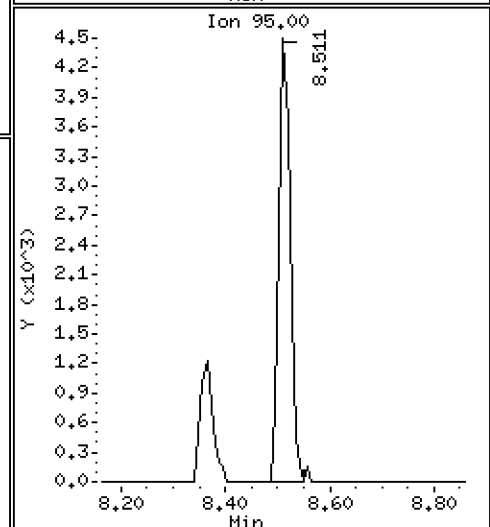
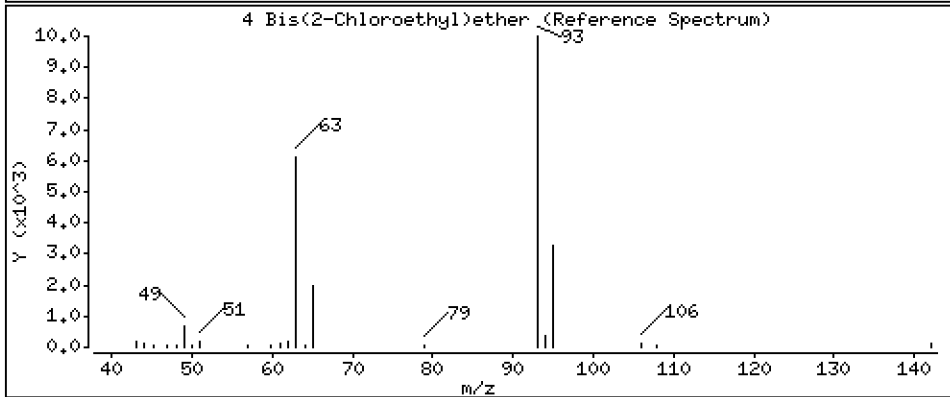
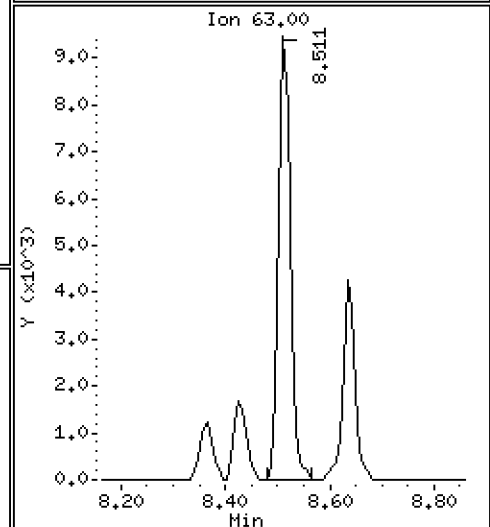
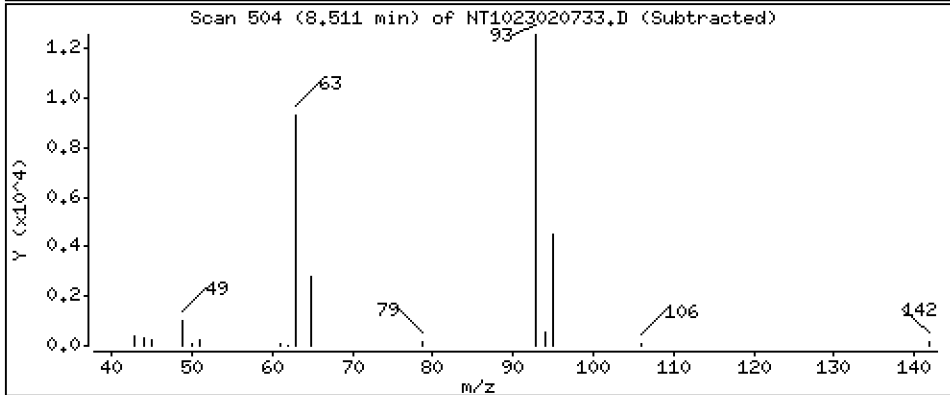
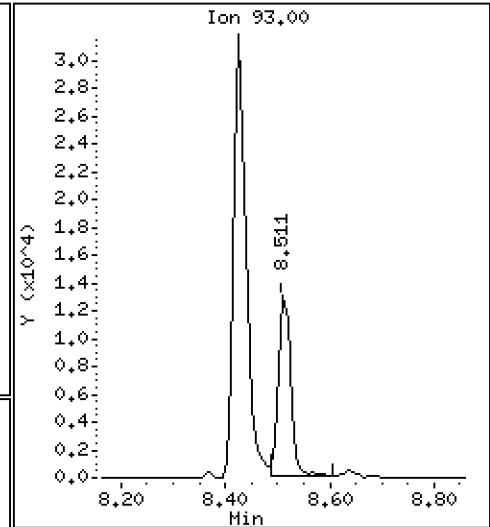
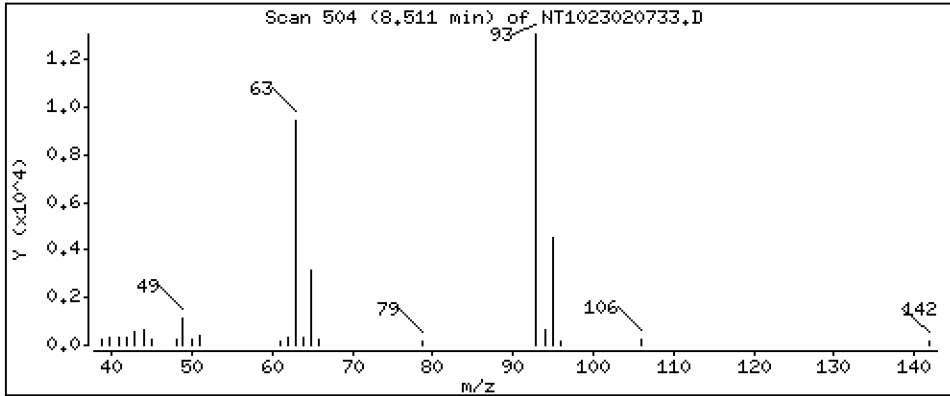
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,5302 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

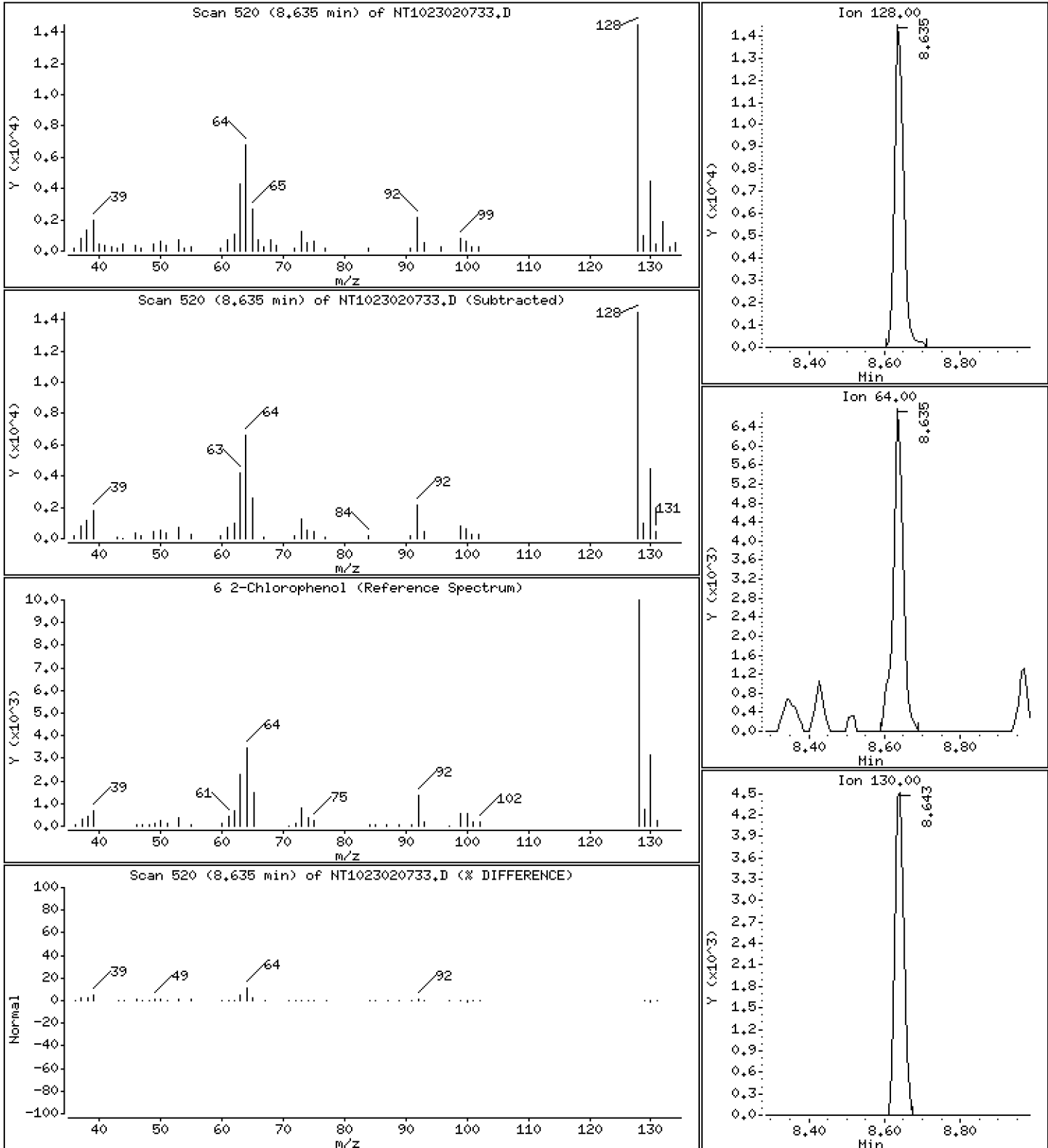
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

6 2-Chlorophenol

Concentration: 0.5348 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

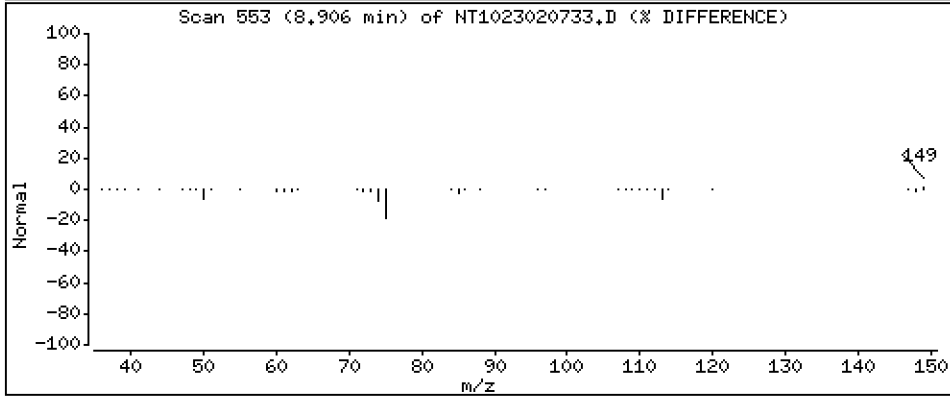
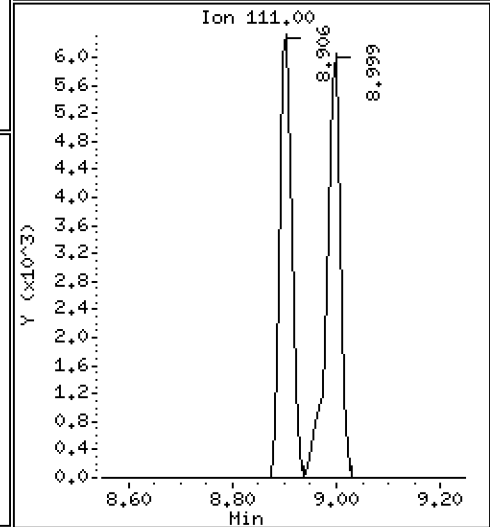
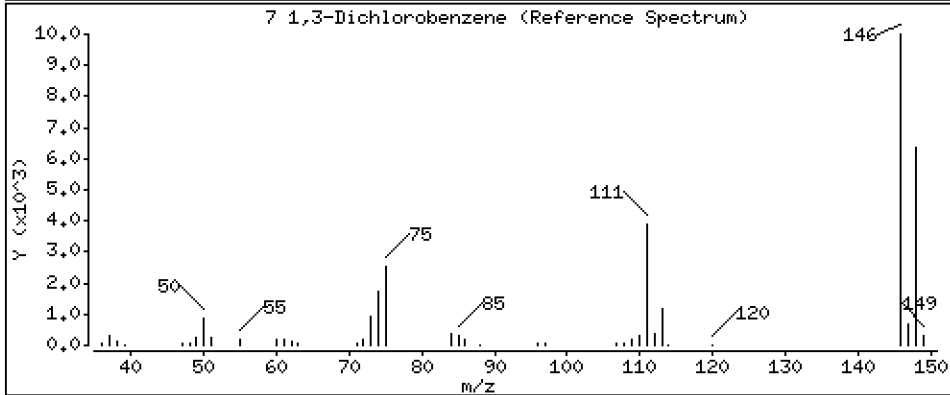
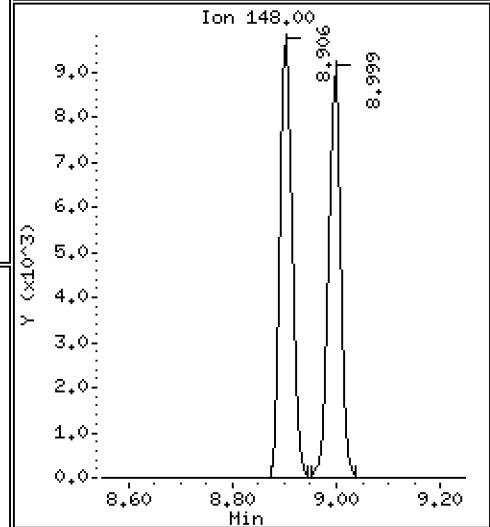
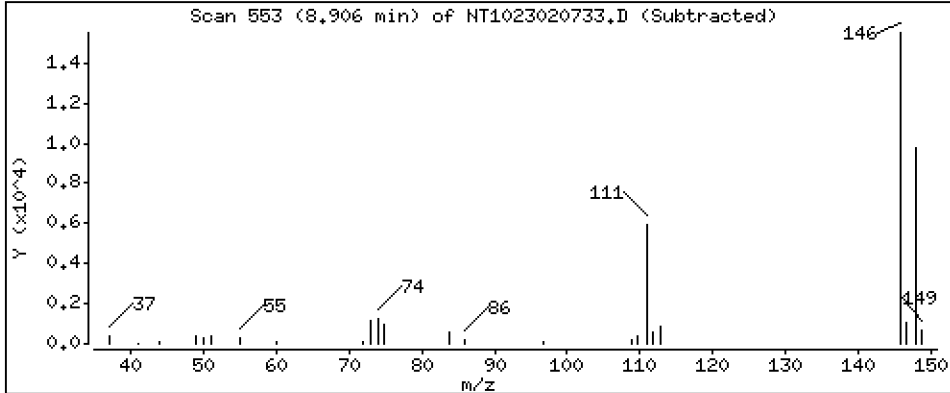
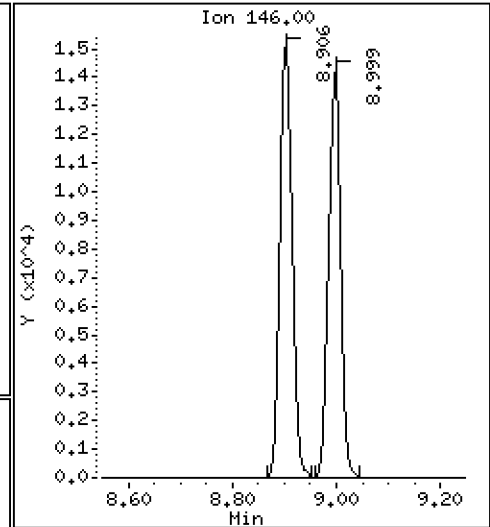
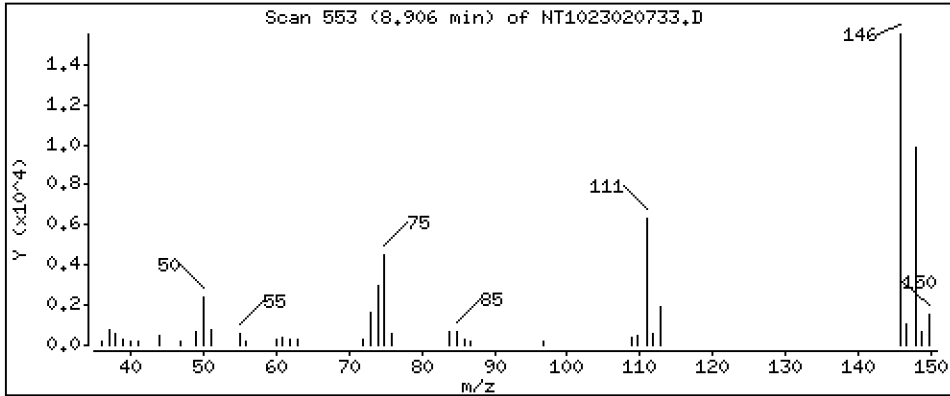
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,5273 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

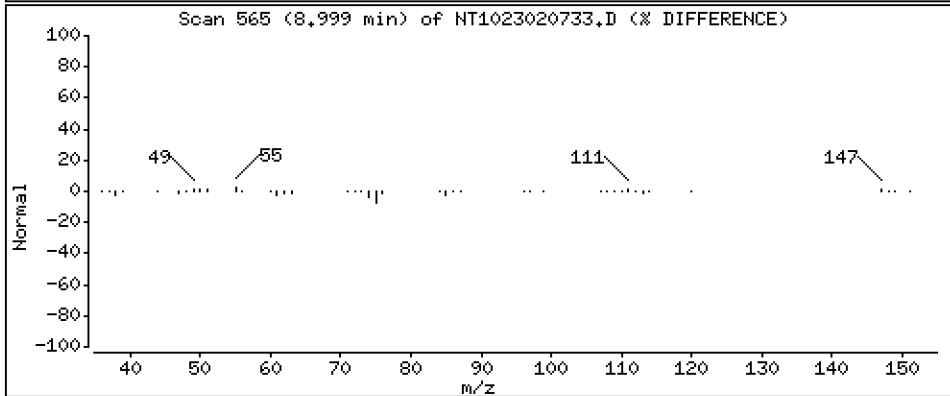
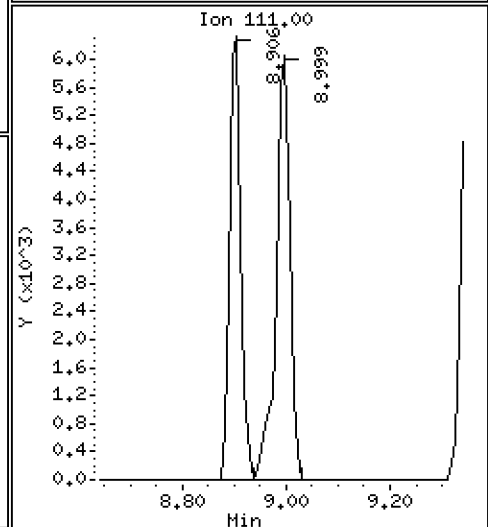
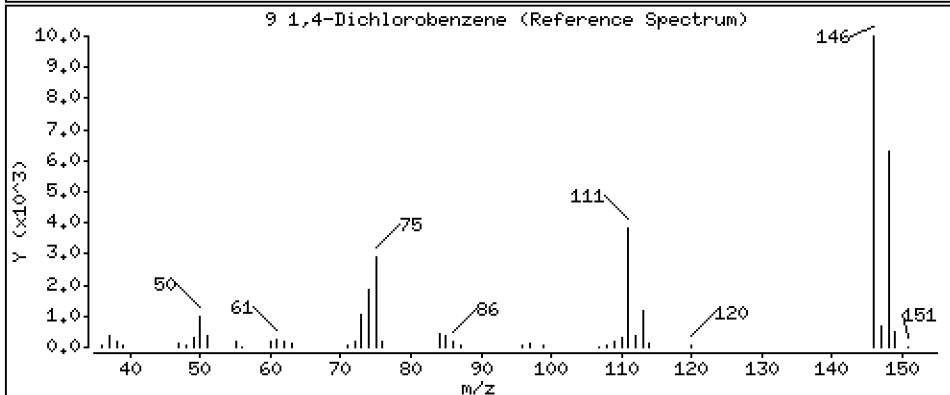
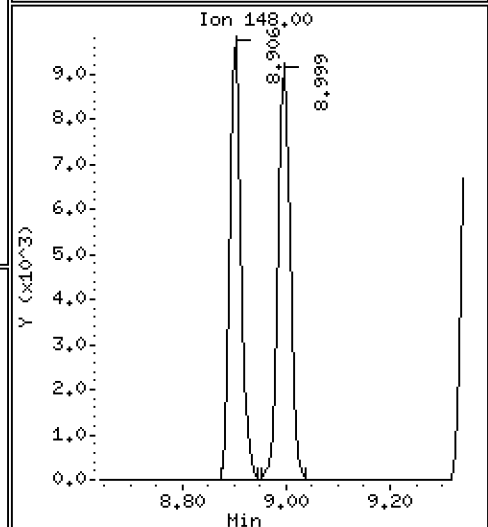
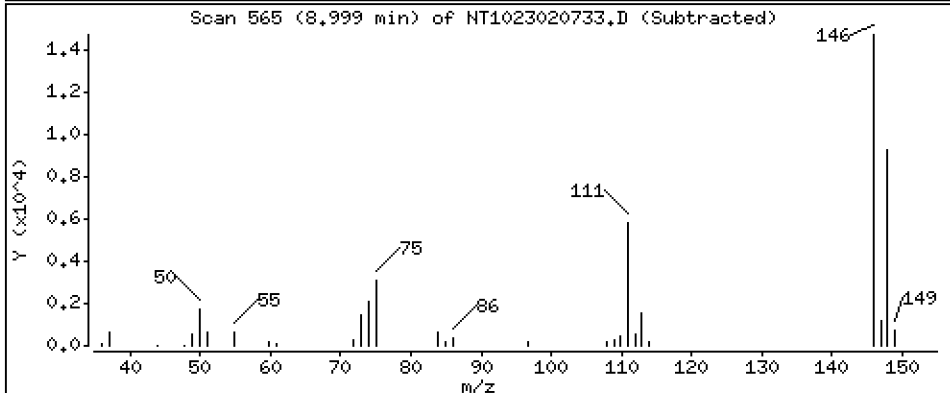
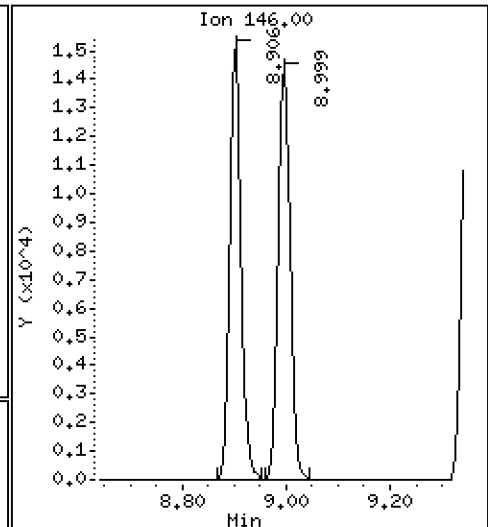
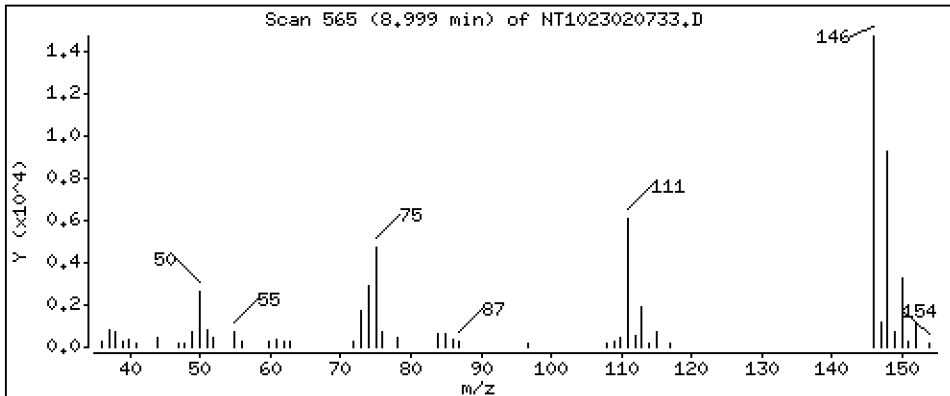
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,5024 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

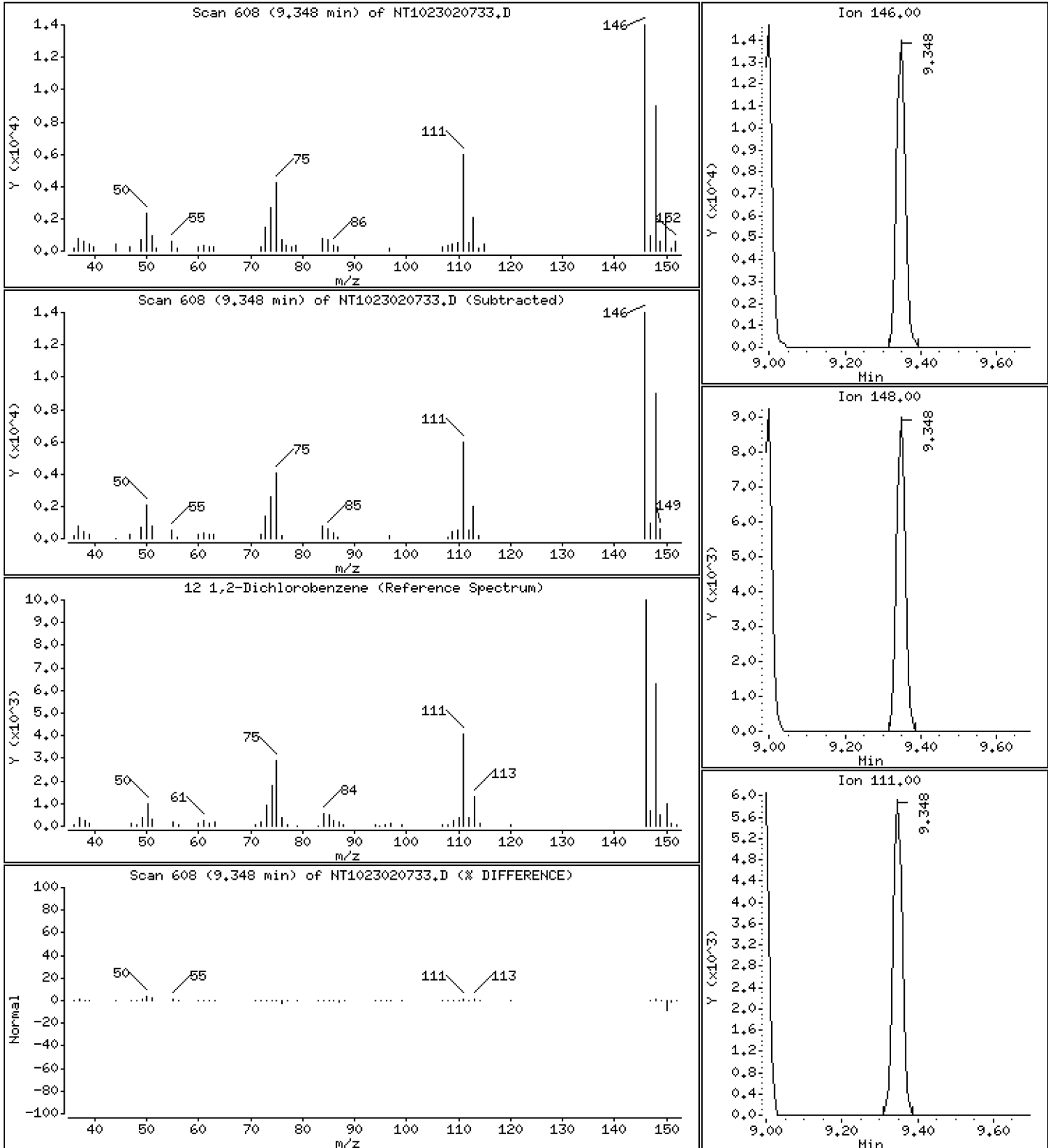
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,5089 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

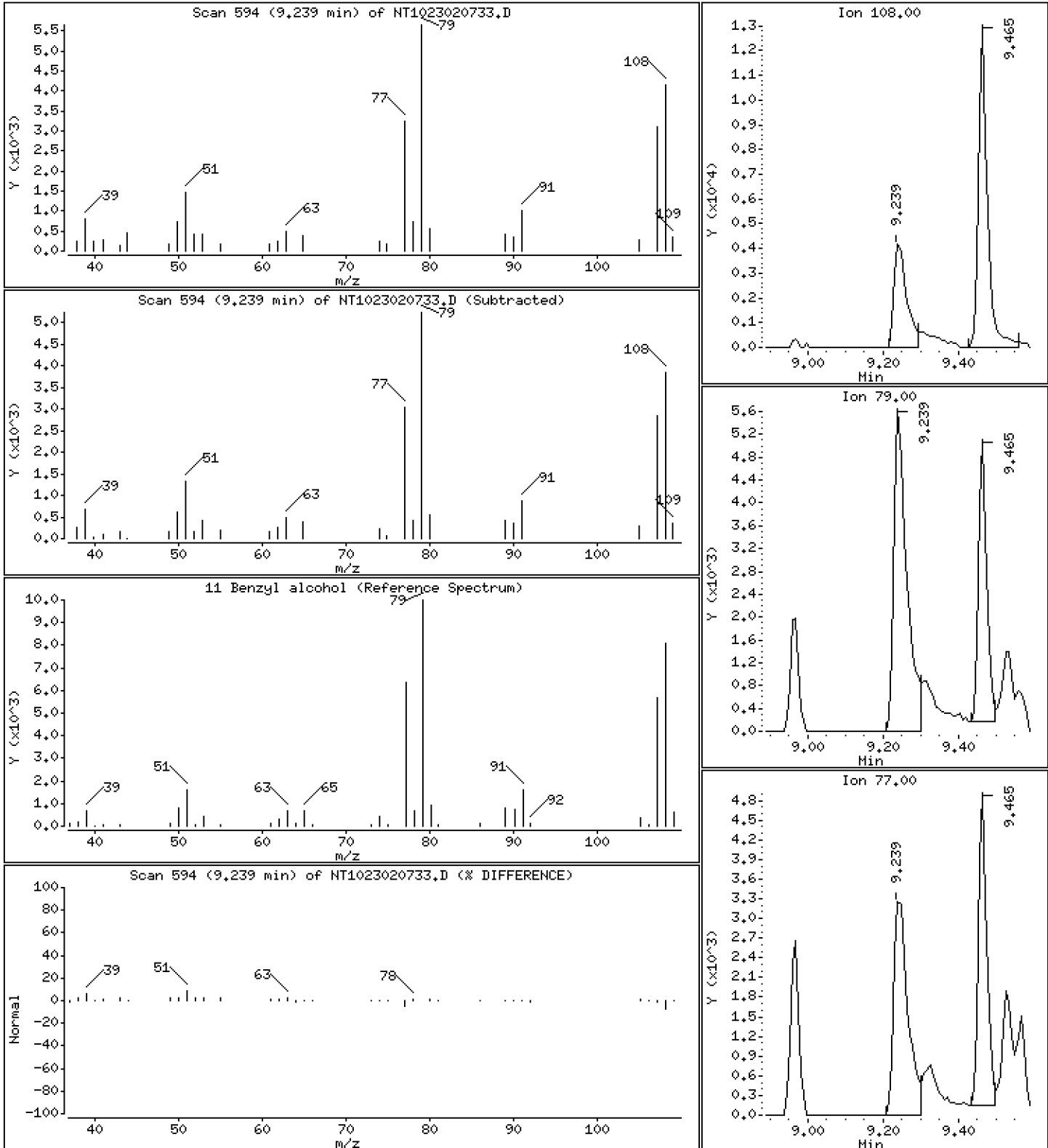
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.4138 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

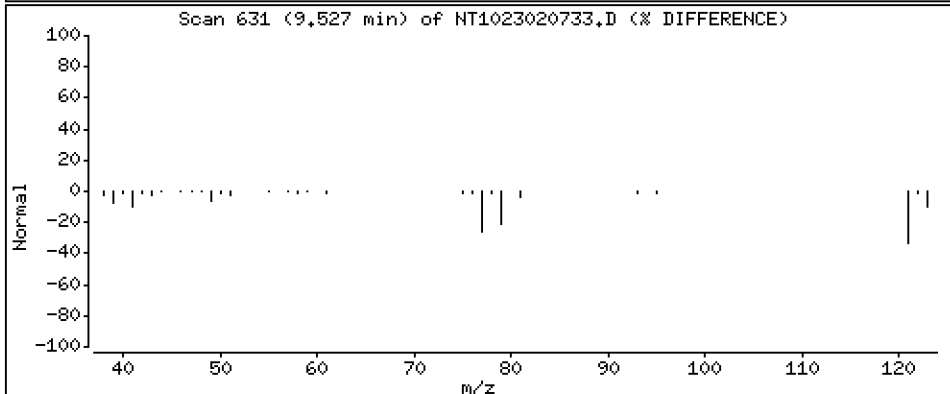
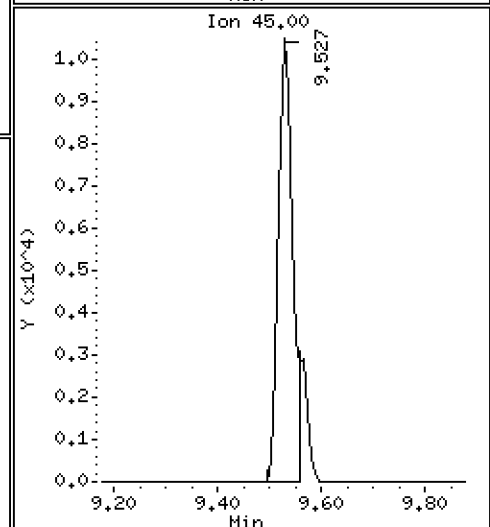
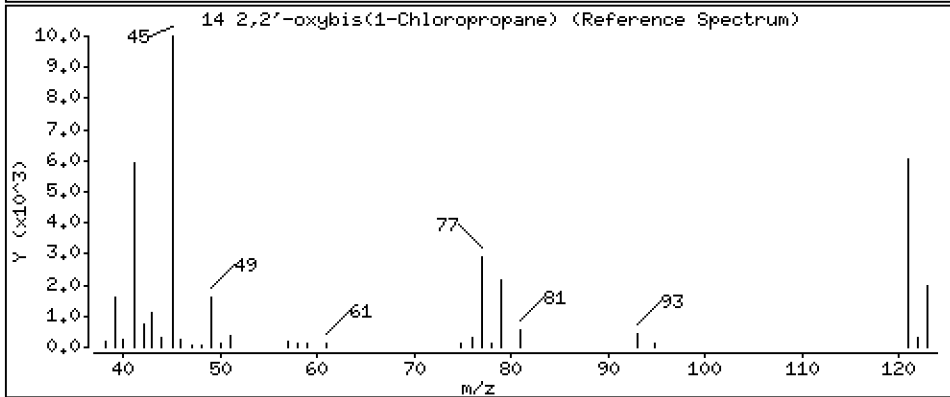
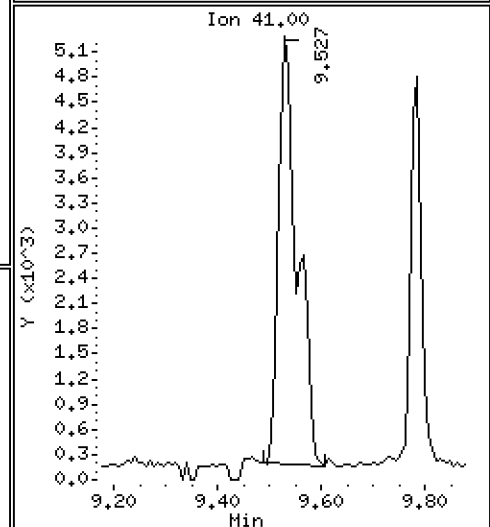
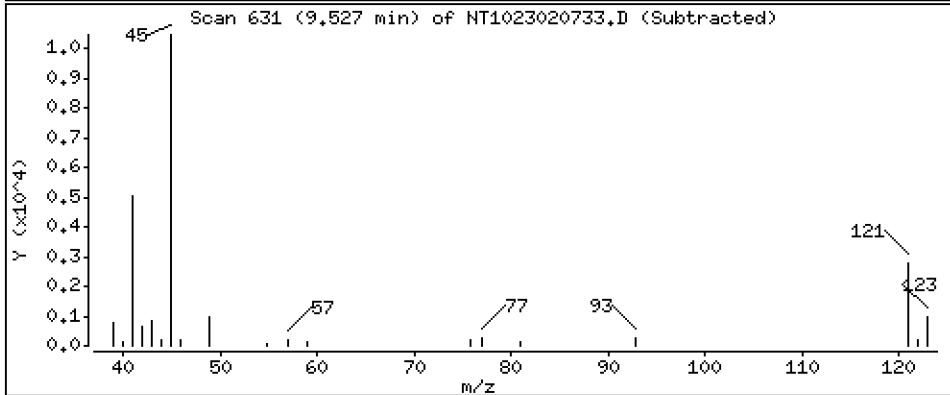
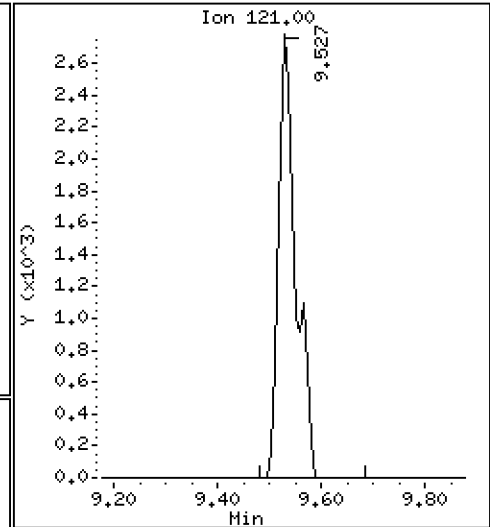
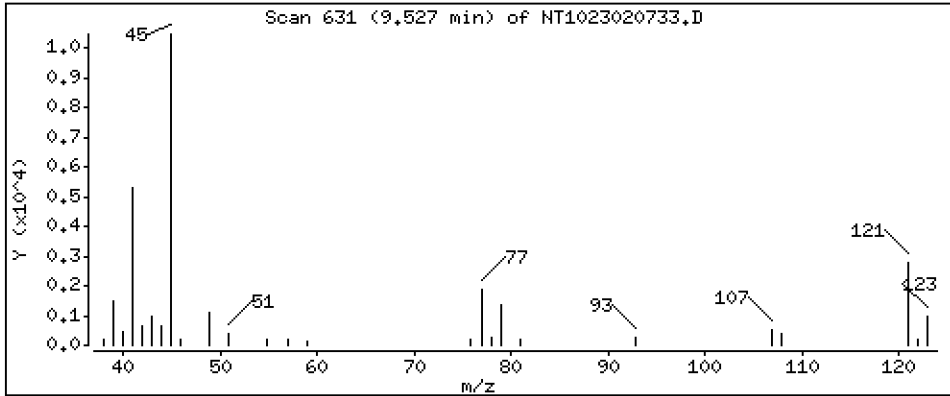
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 0,5562 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

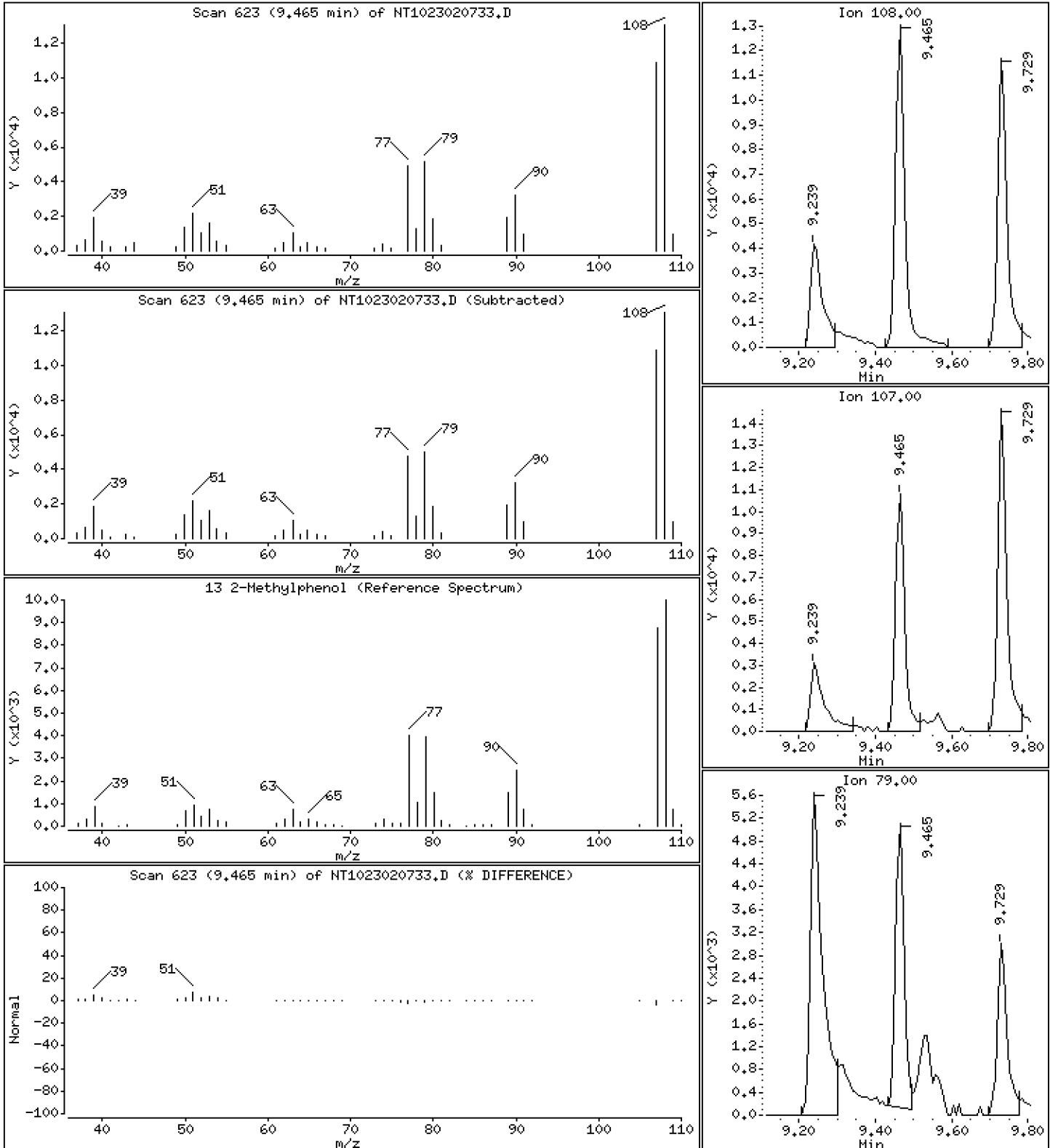
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.5449 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

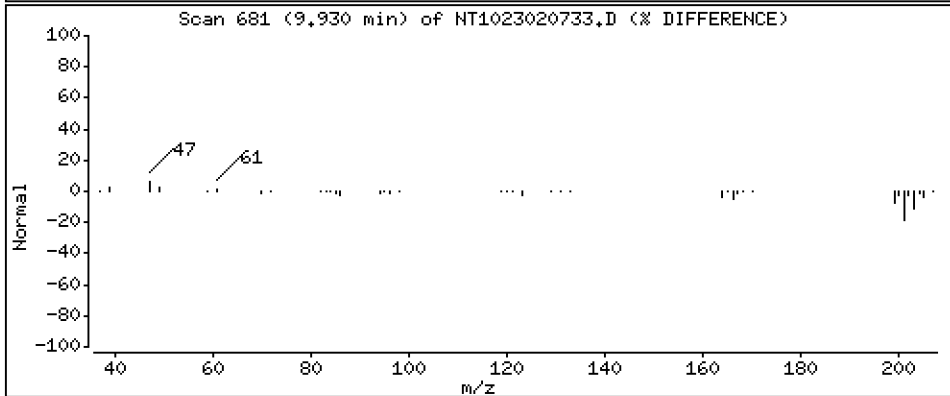
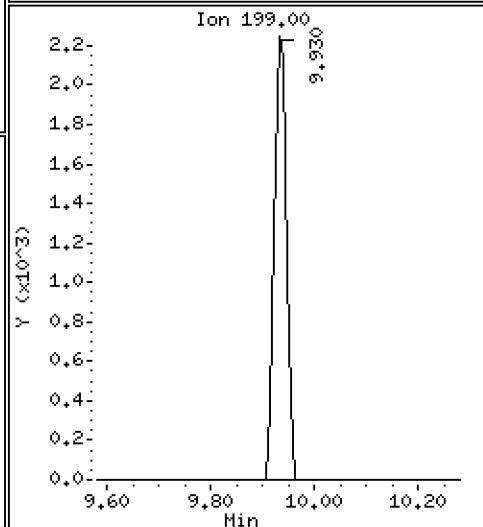
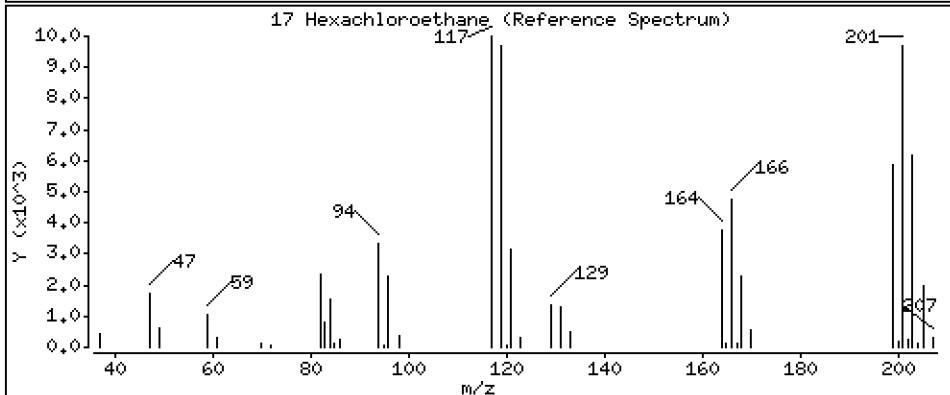
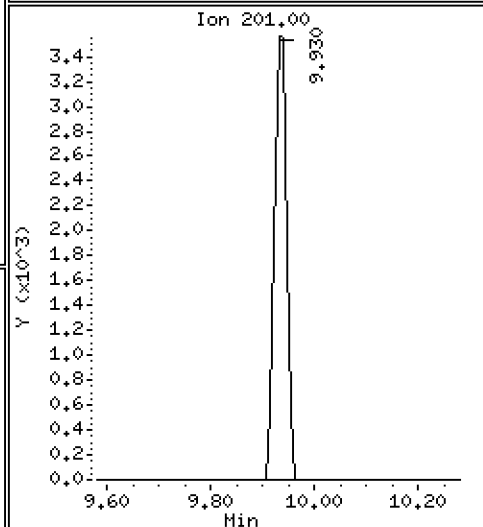
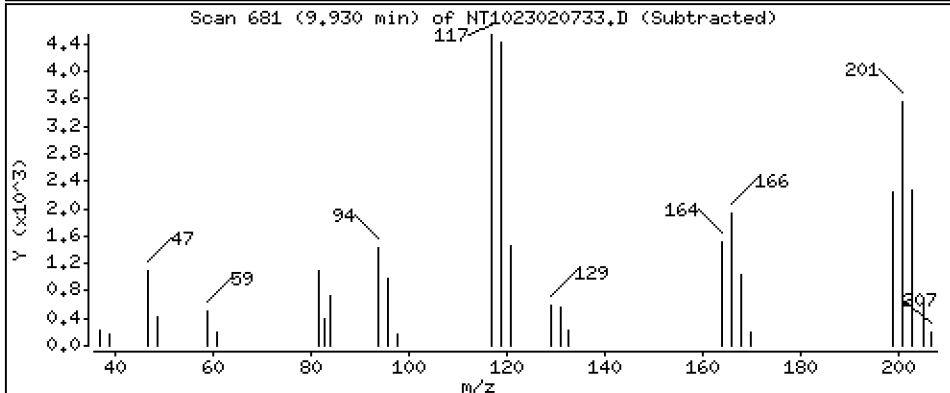
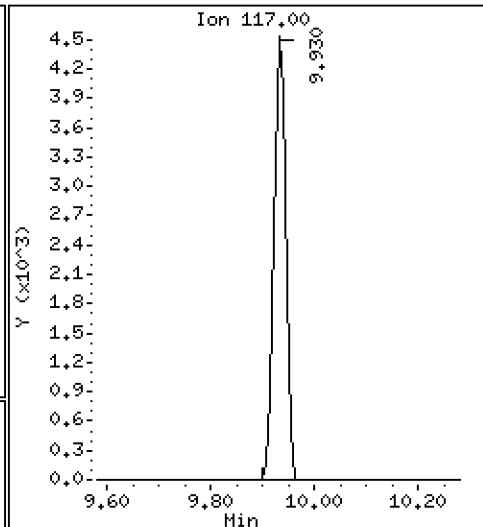
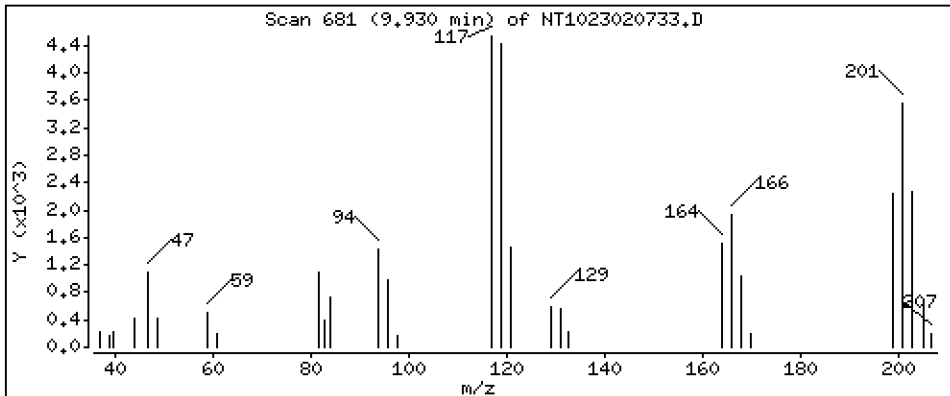
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 0,4022 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

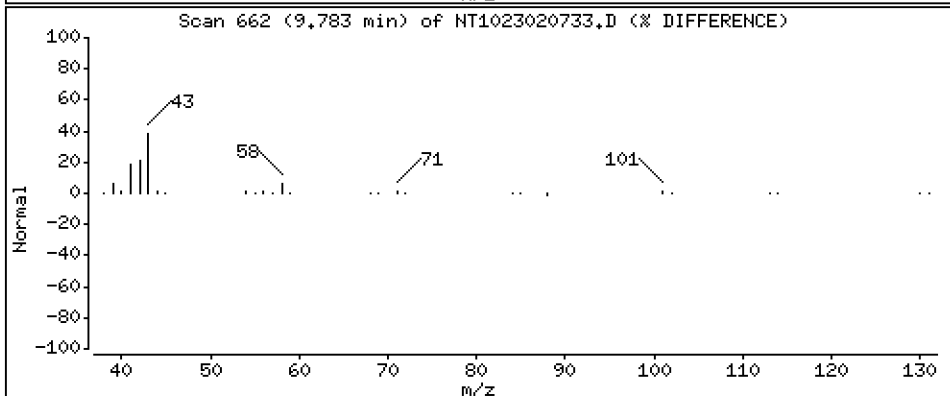
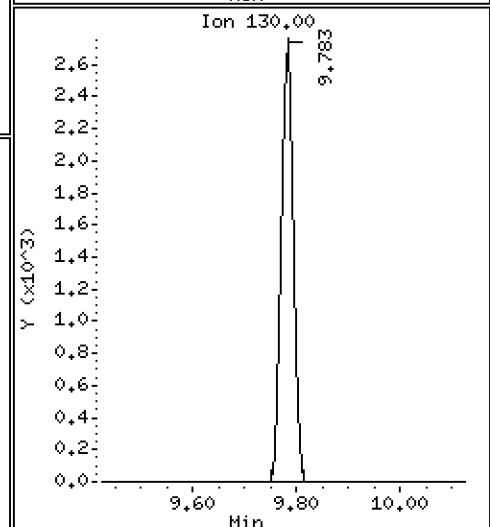
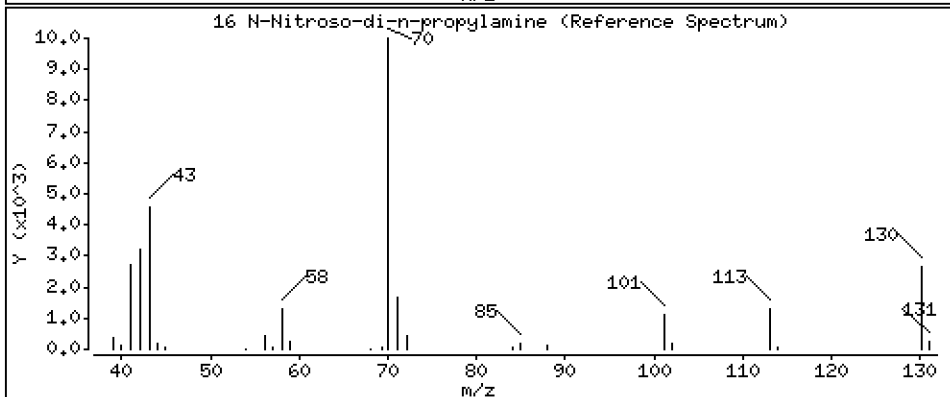
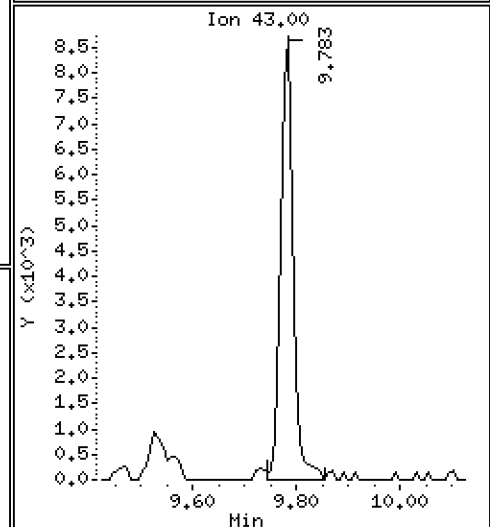
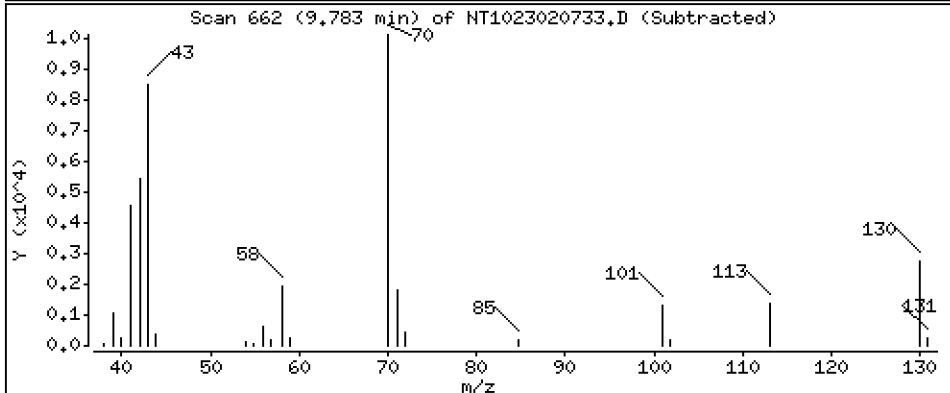
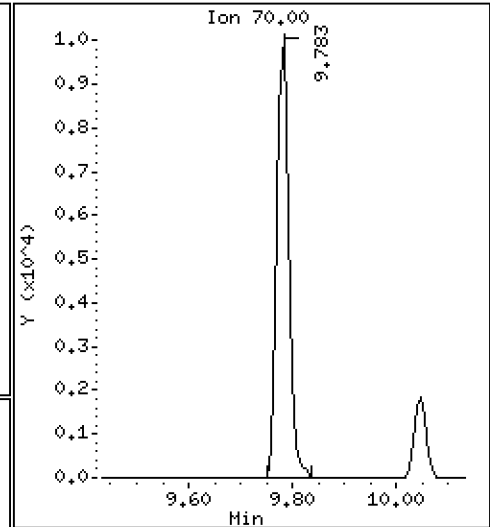
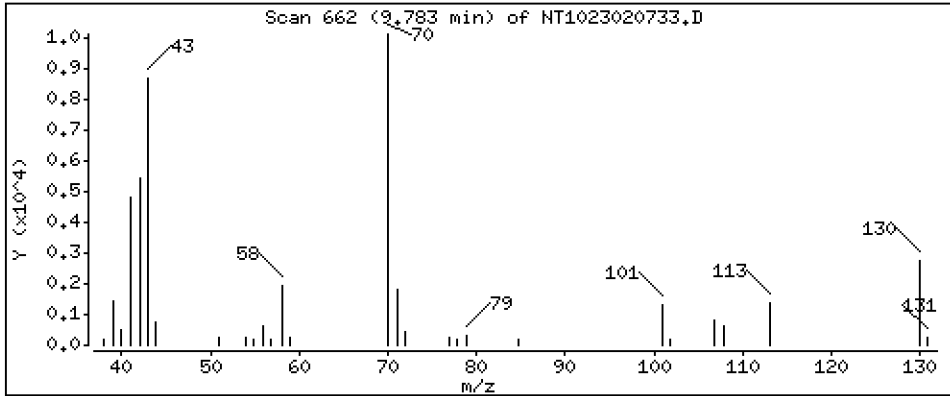
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 0,5220 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

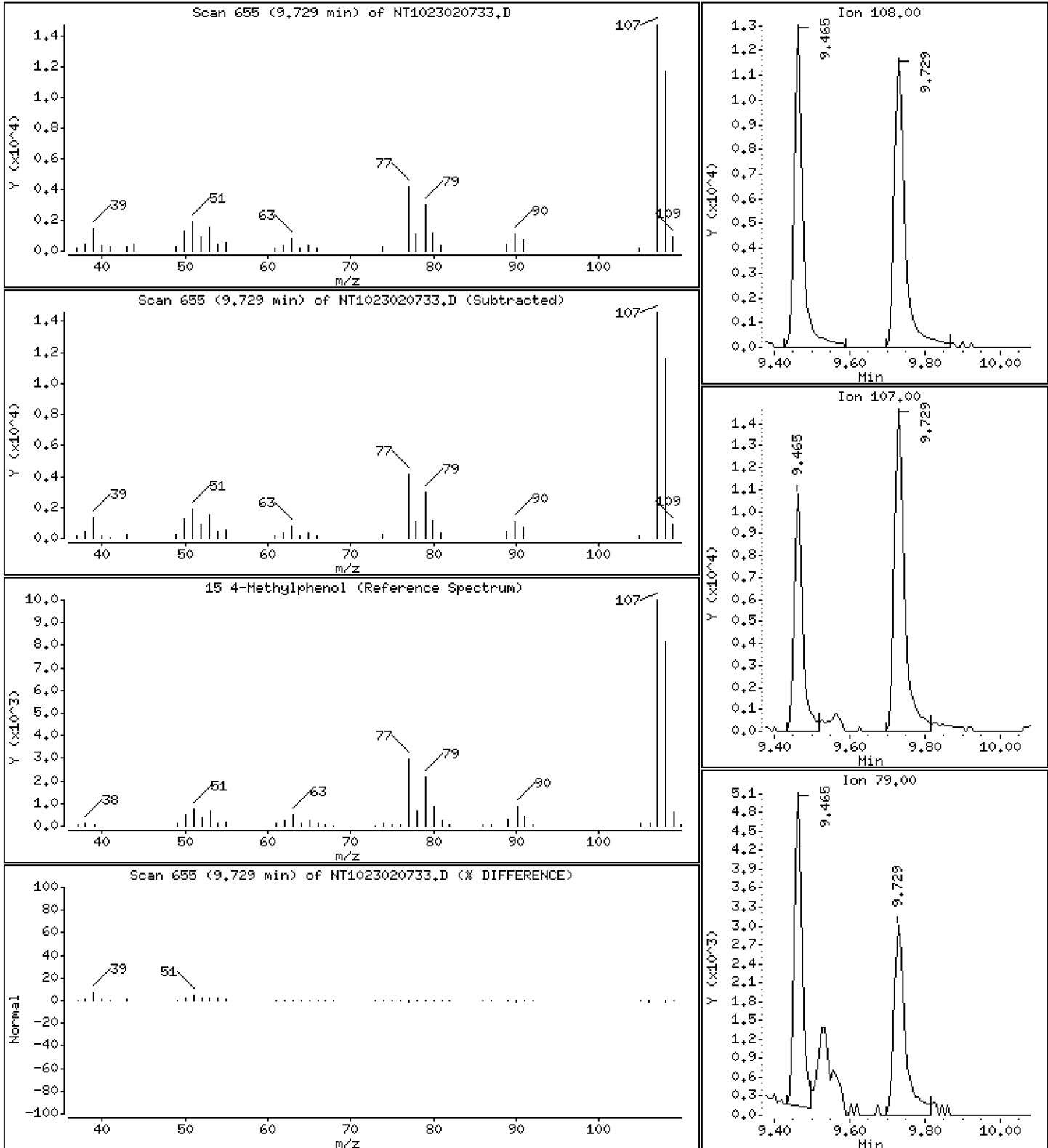
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.5402 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

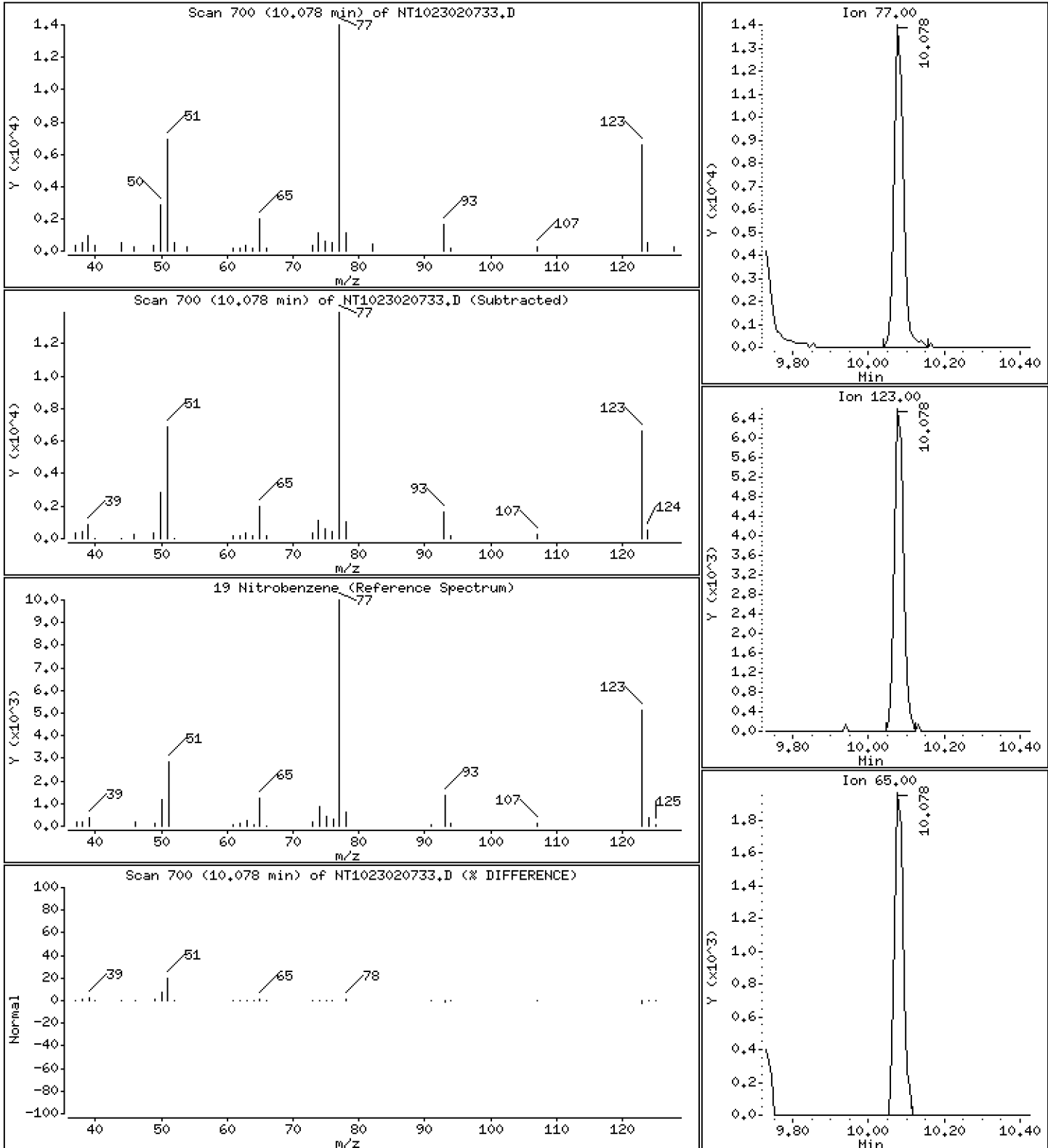
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

19 Nitrobenzene

Concentration: 0.5345 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

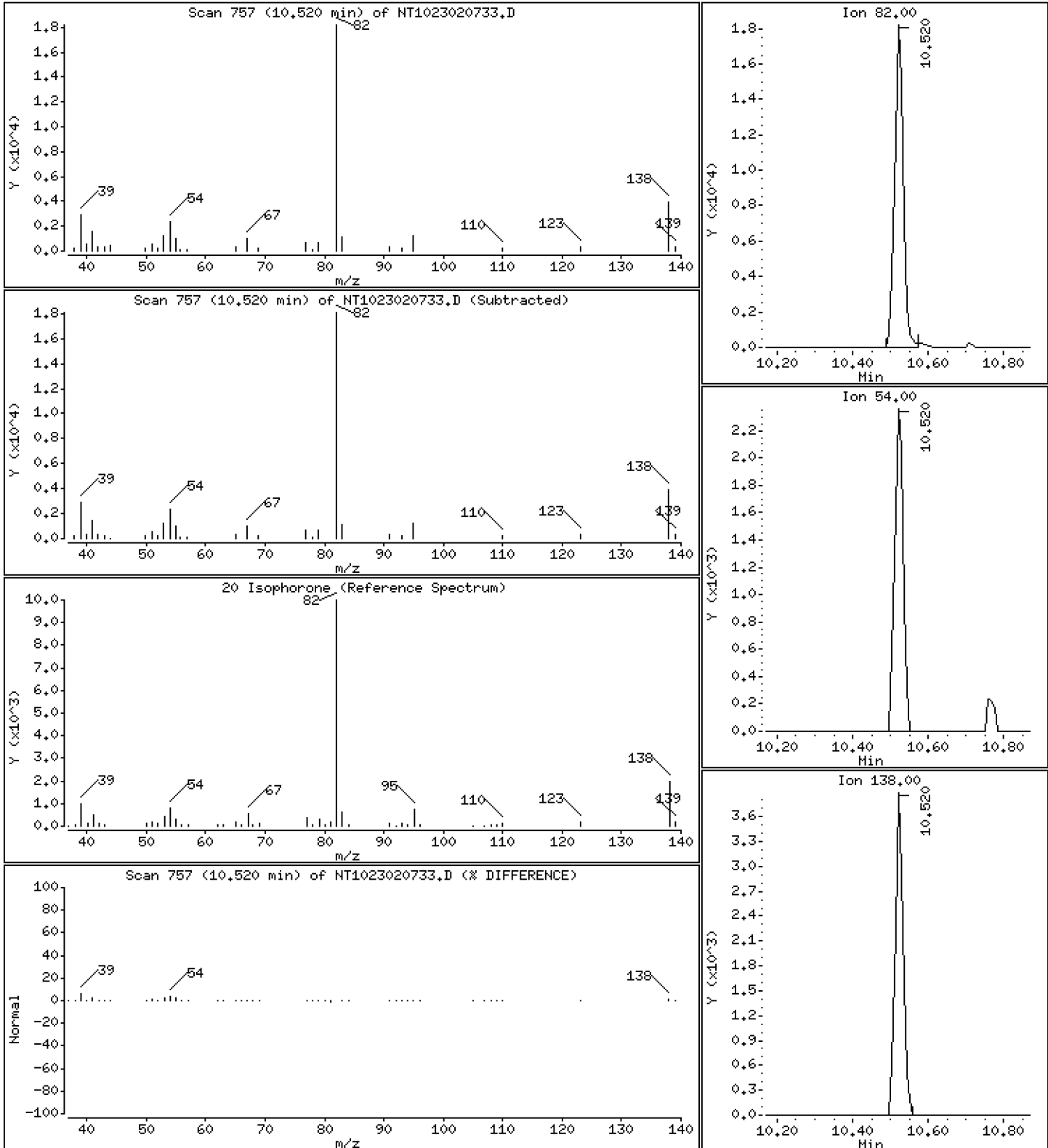
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 0,4893 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

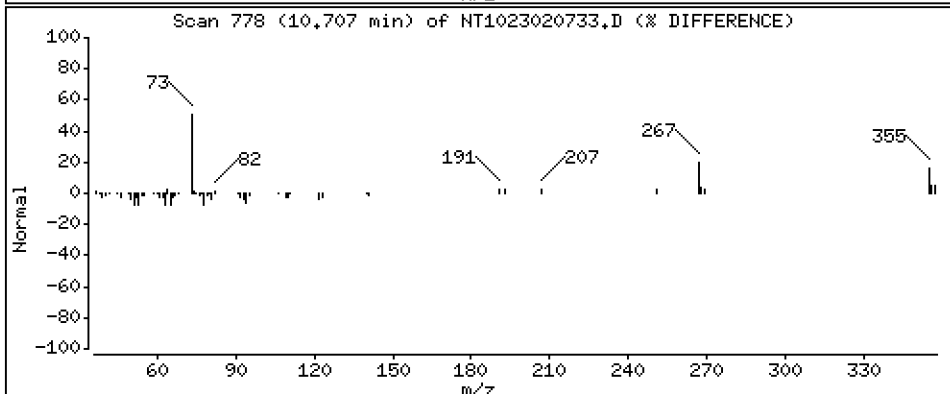
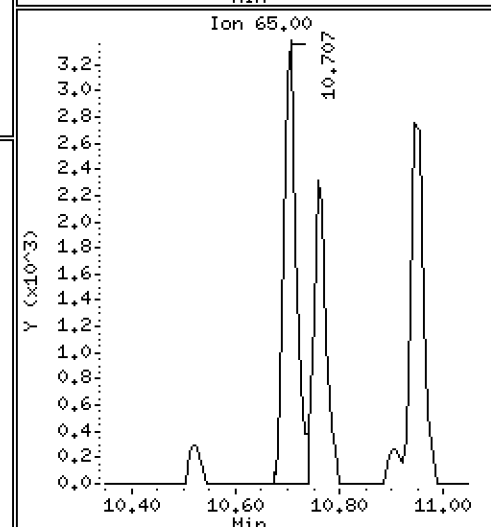
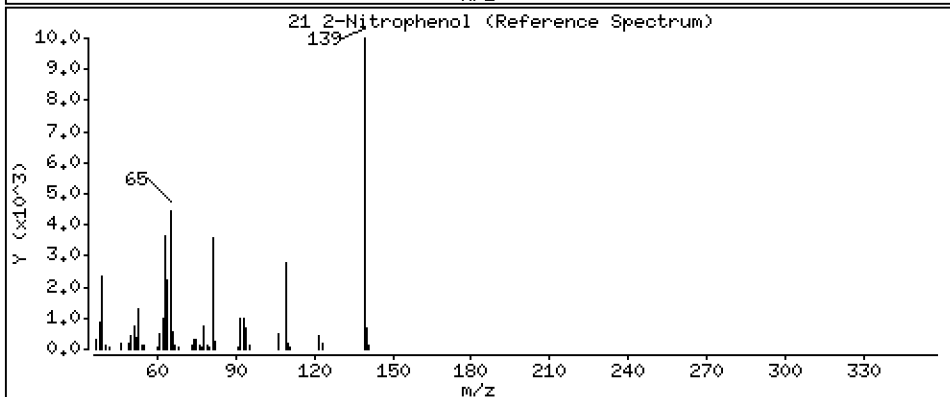
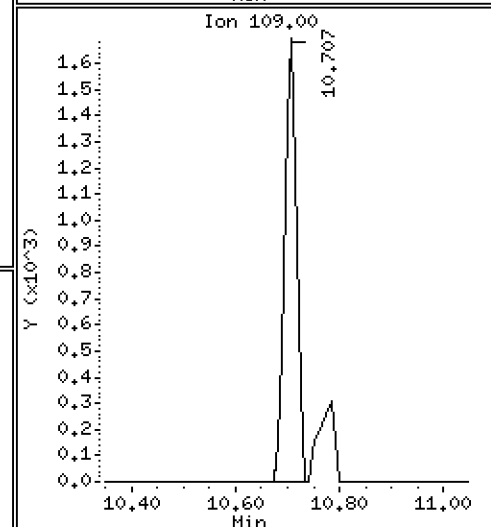
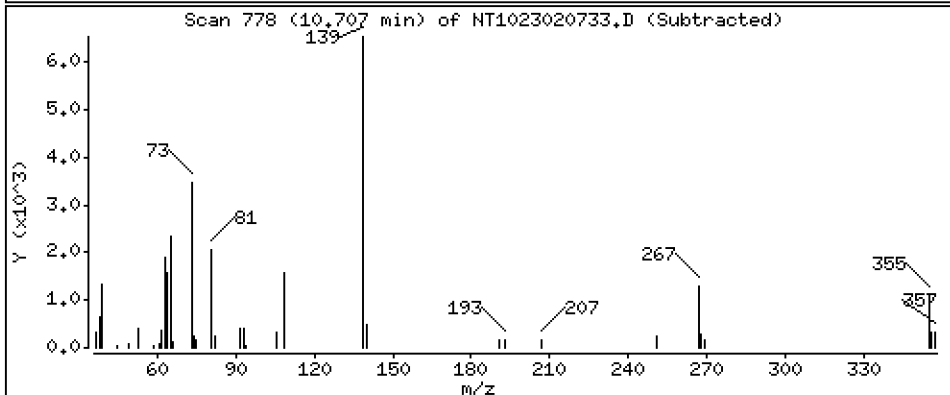
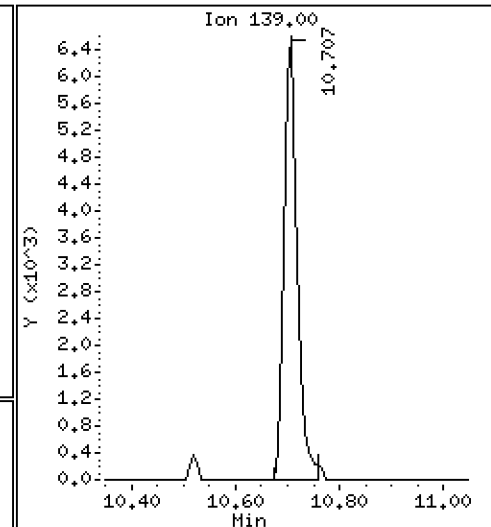
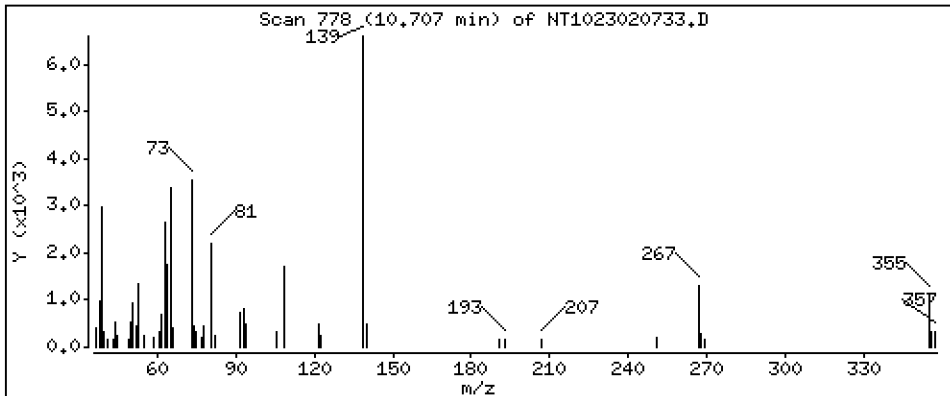
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,5365 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

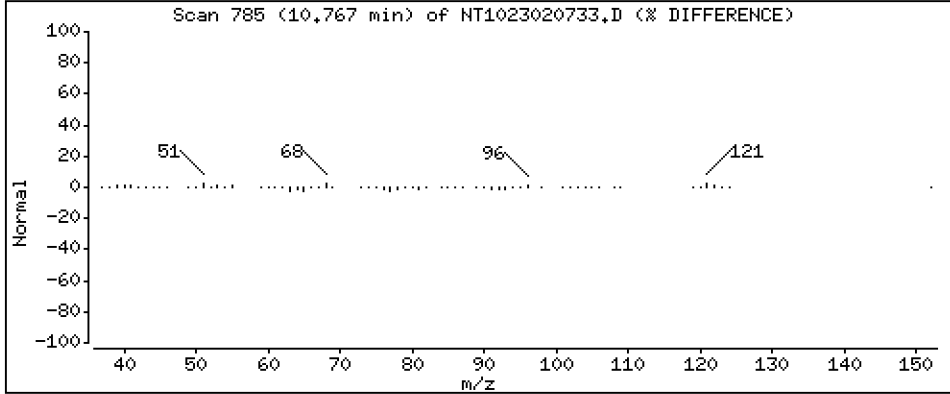
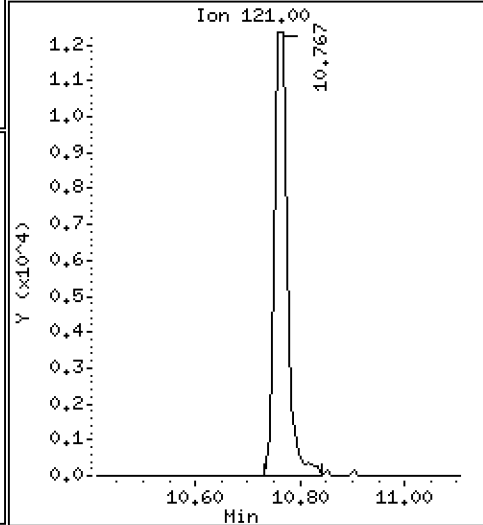
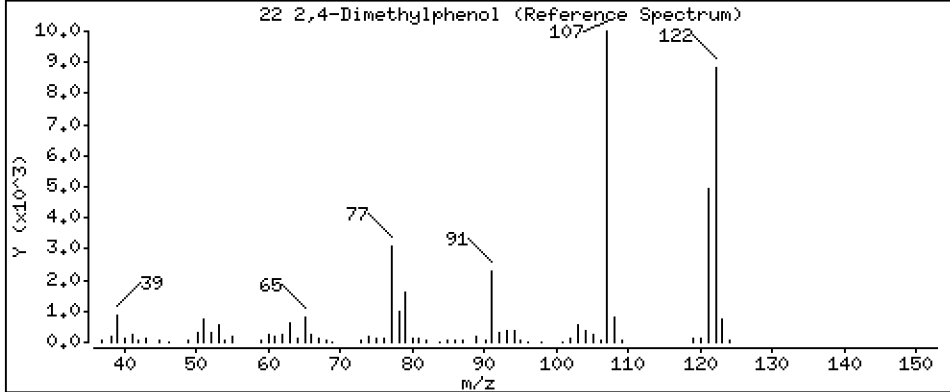
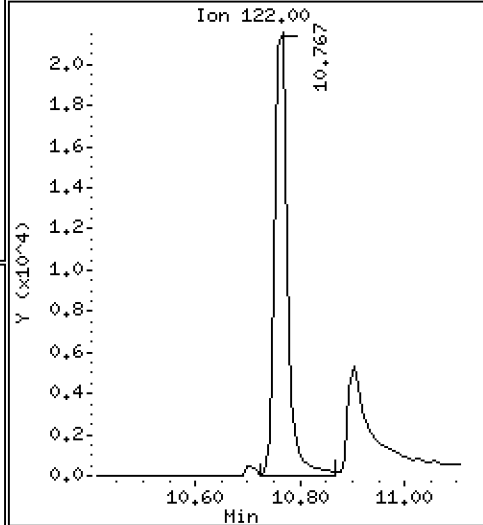
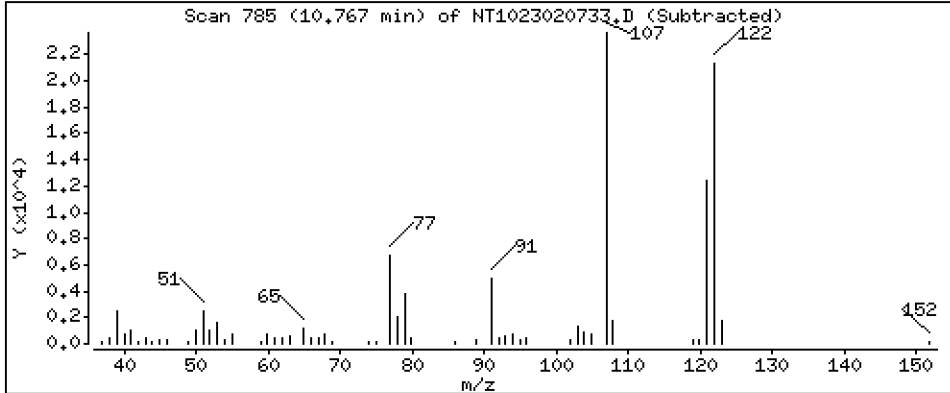
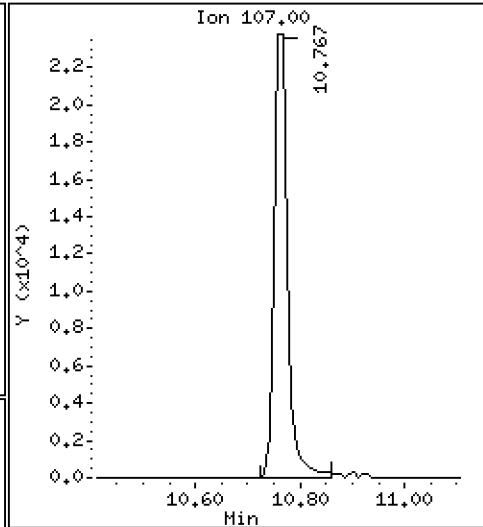
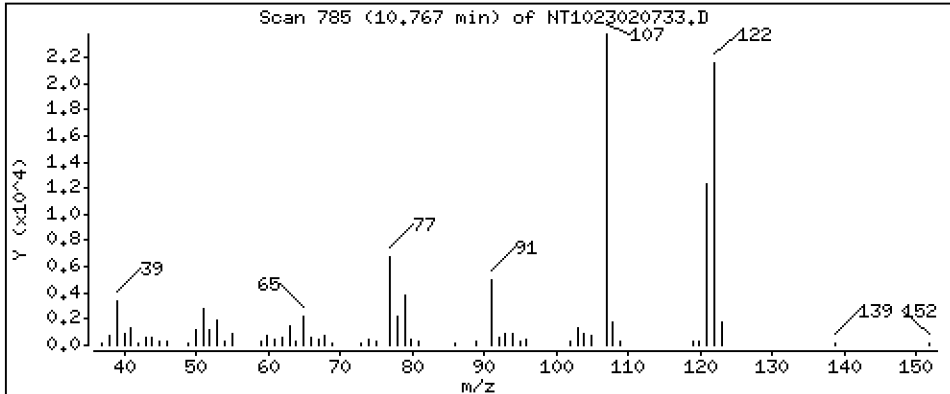
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 1,108 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

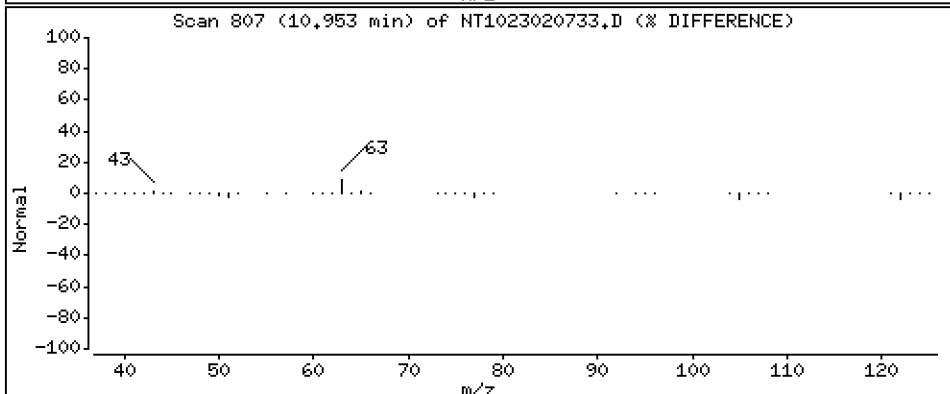
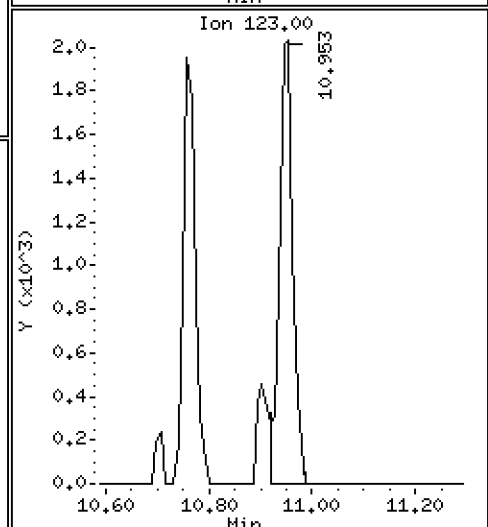
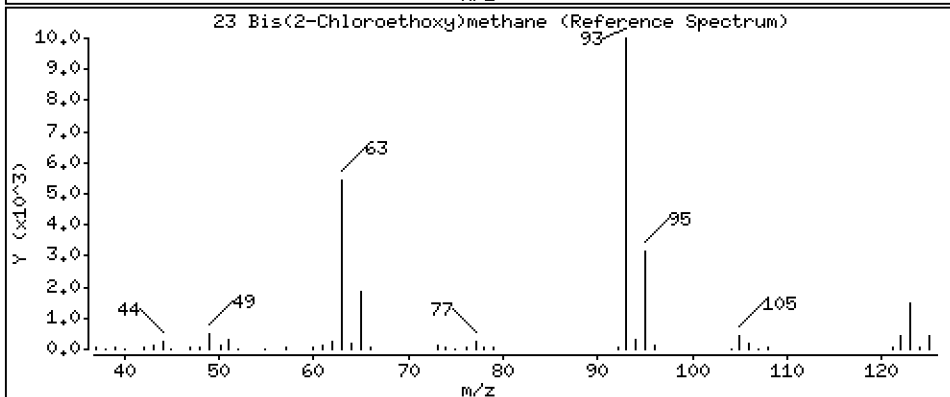
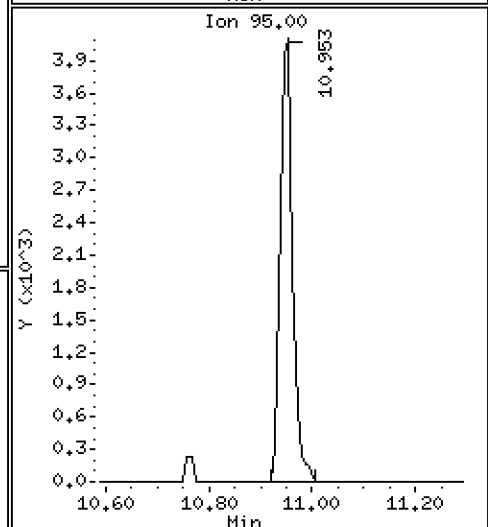
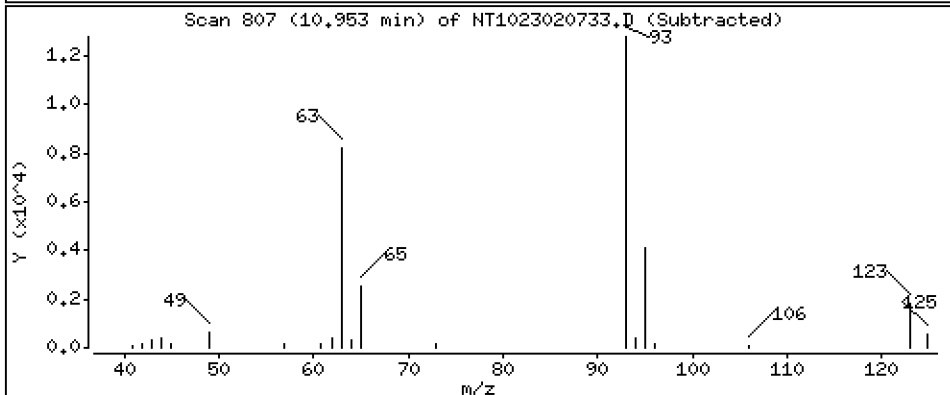
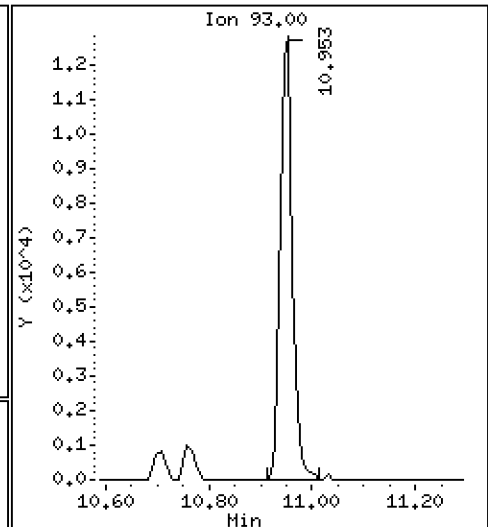
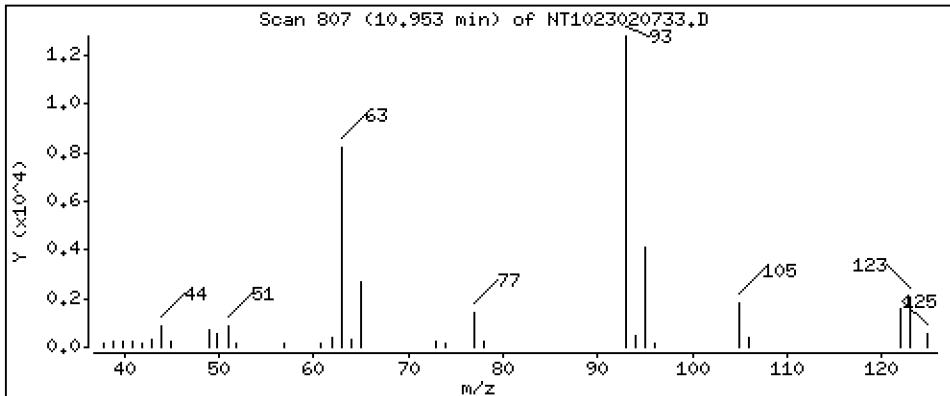
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 0,5528 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

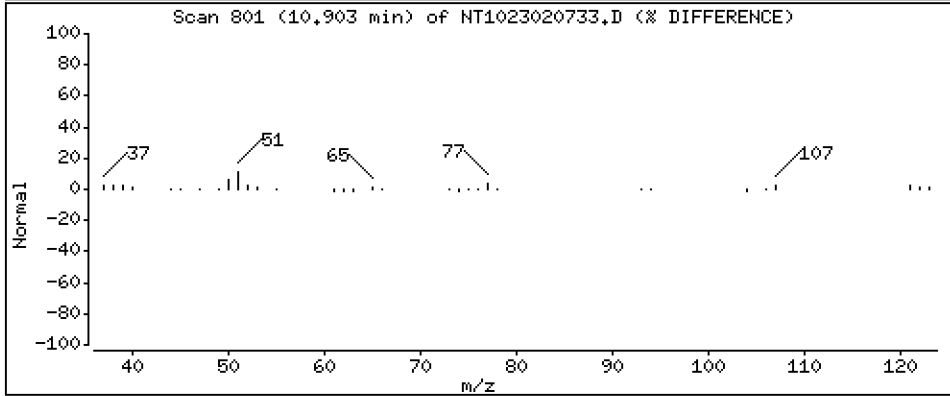
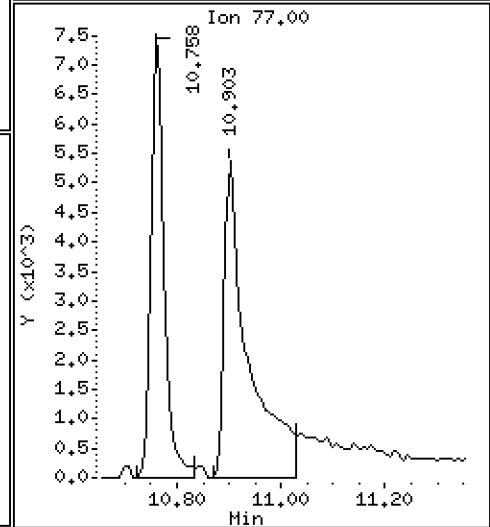
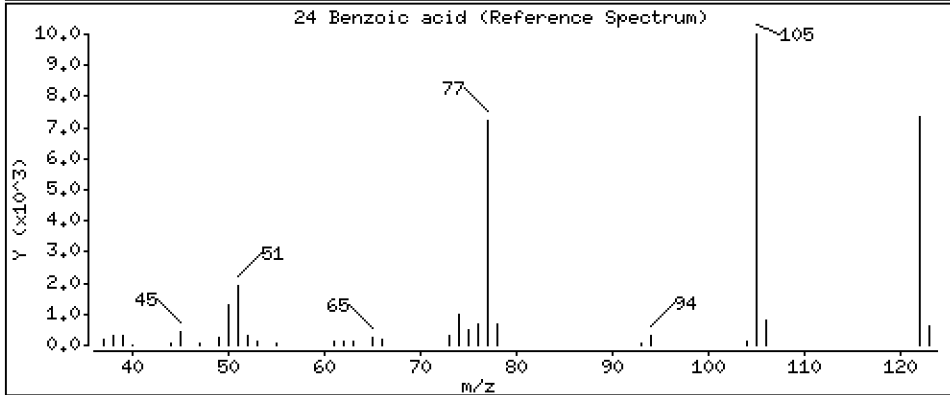
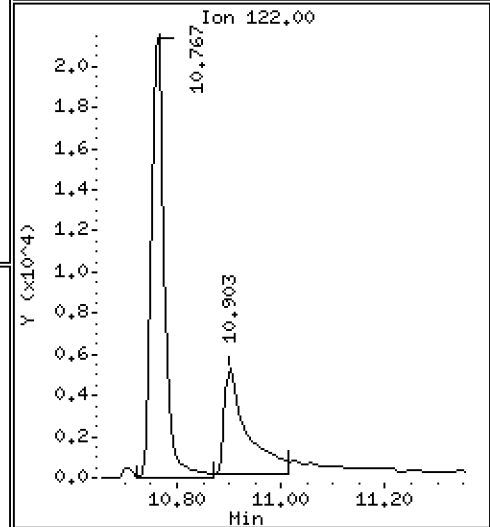
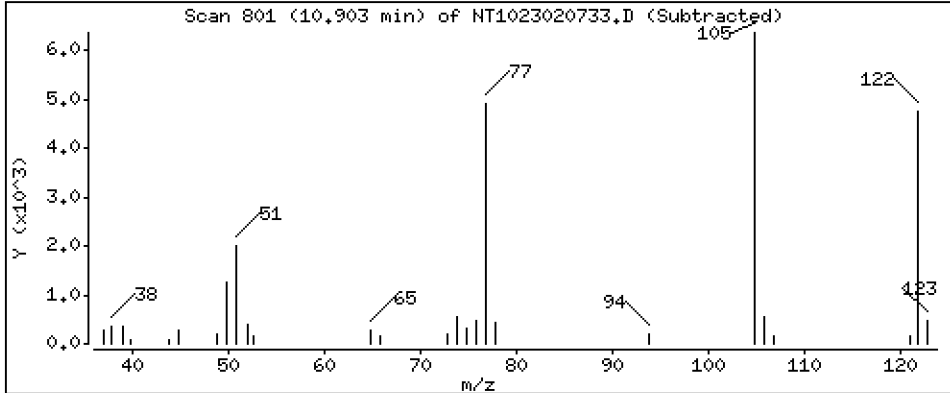
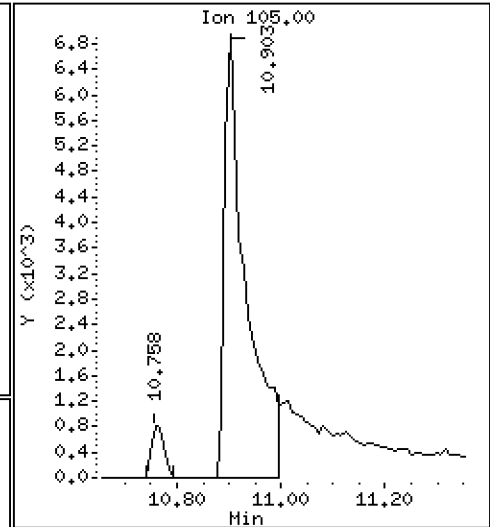
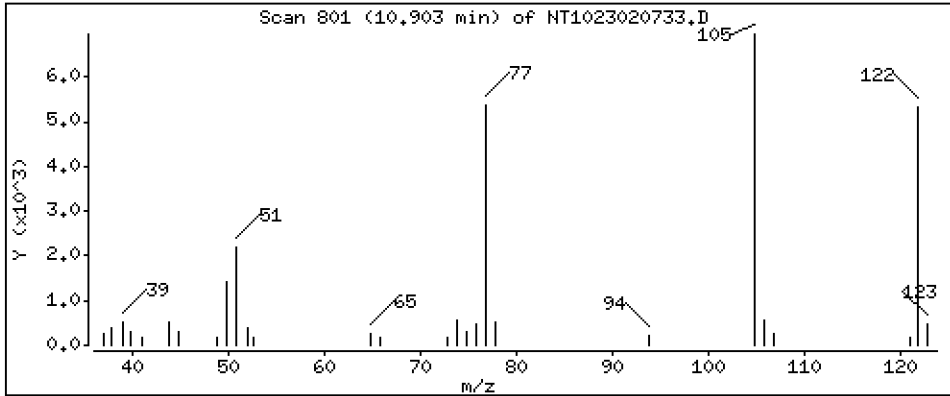
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 0,9261 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

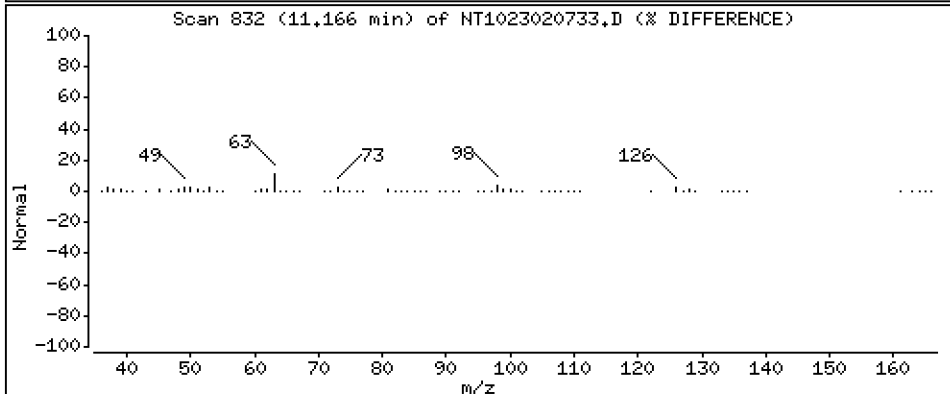
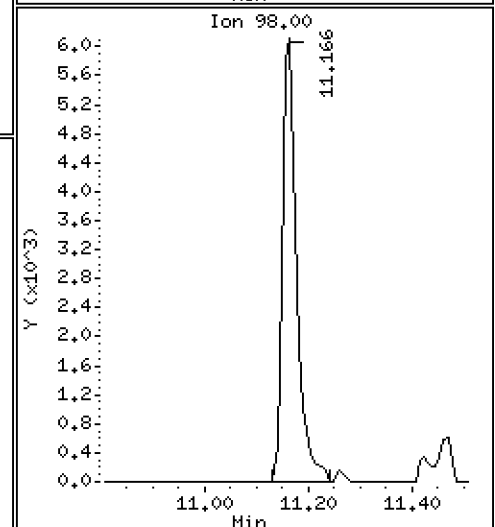
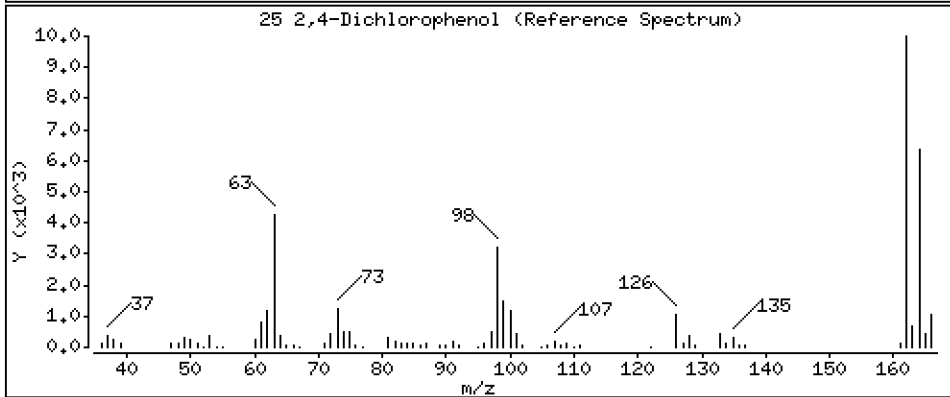
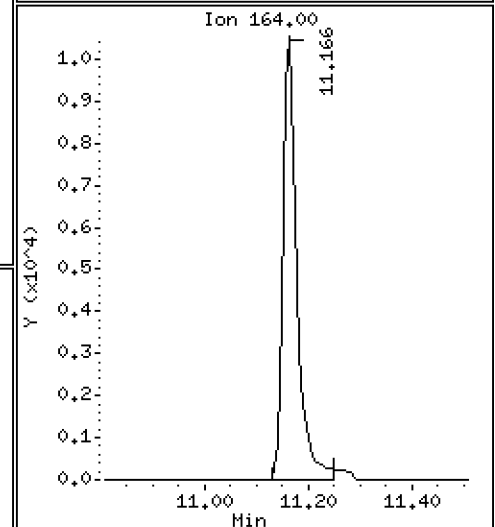
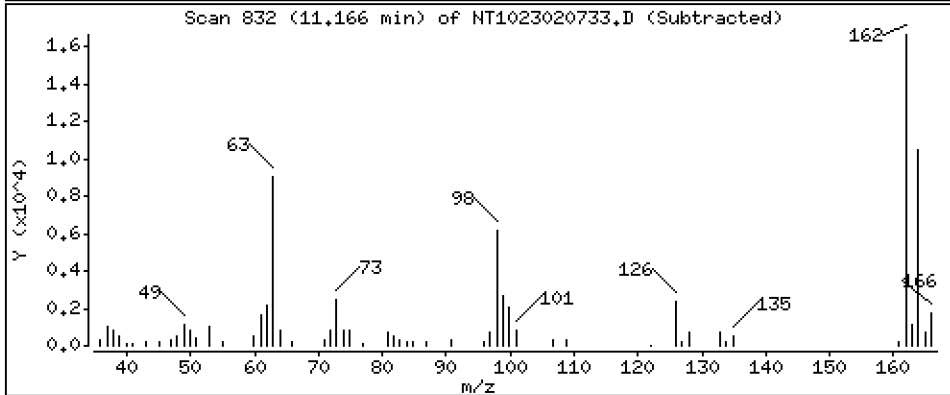
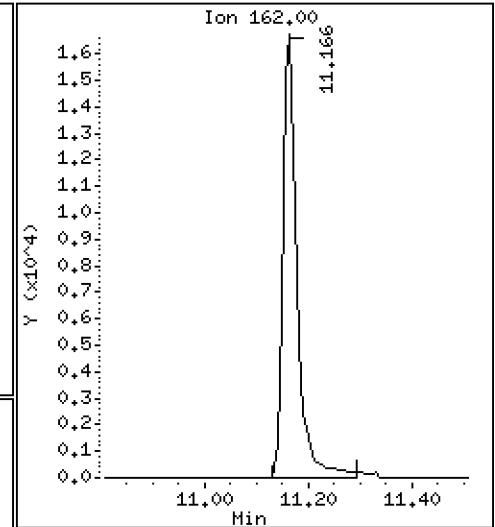
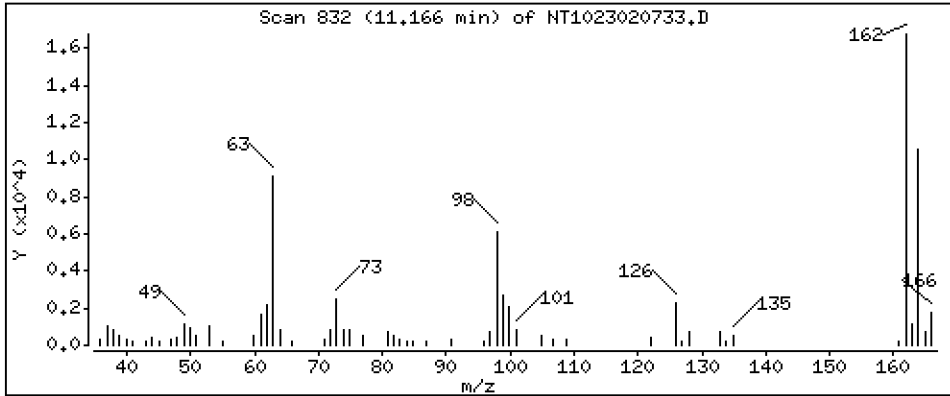
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 1,129 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

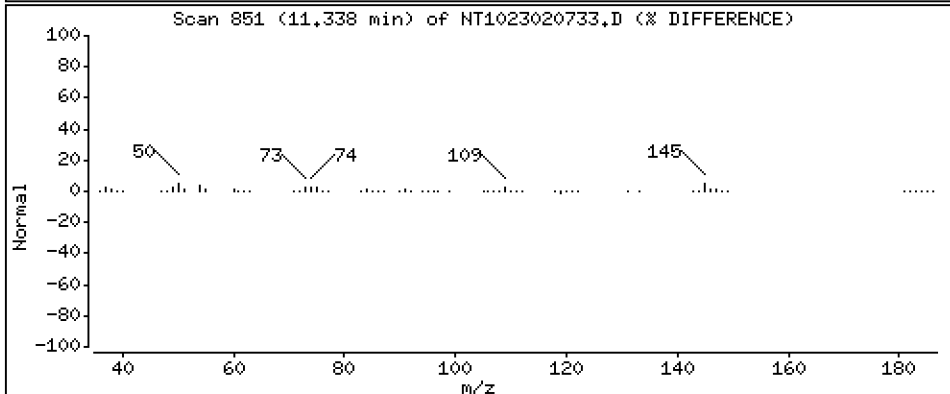
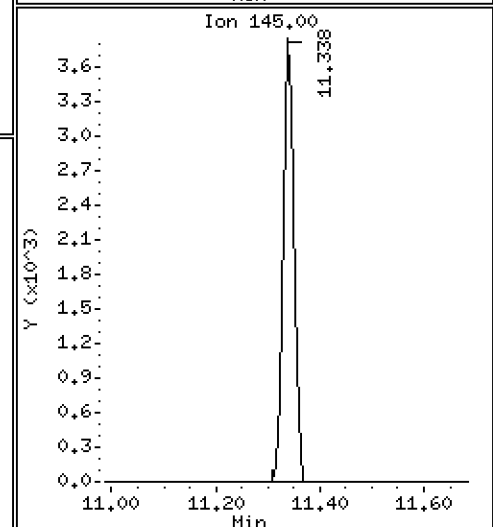
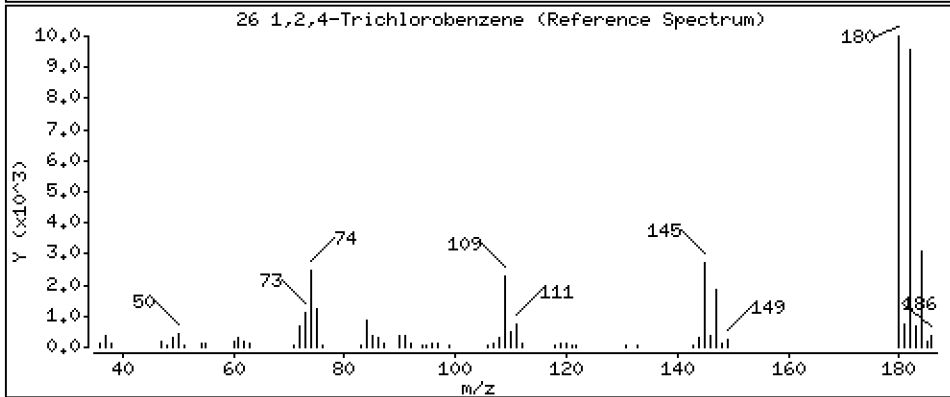
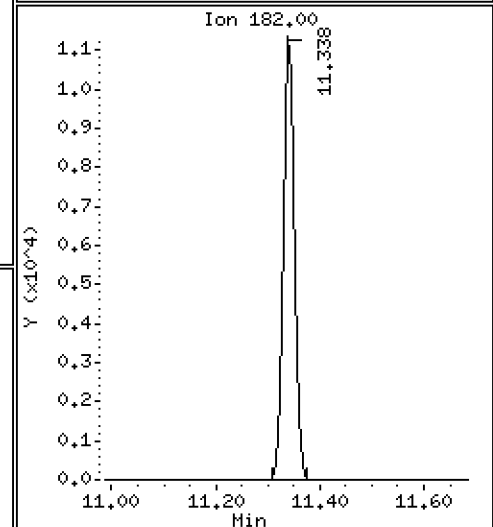
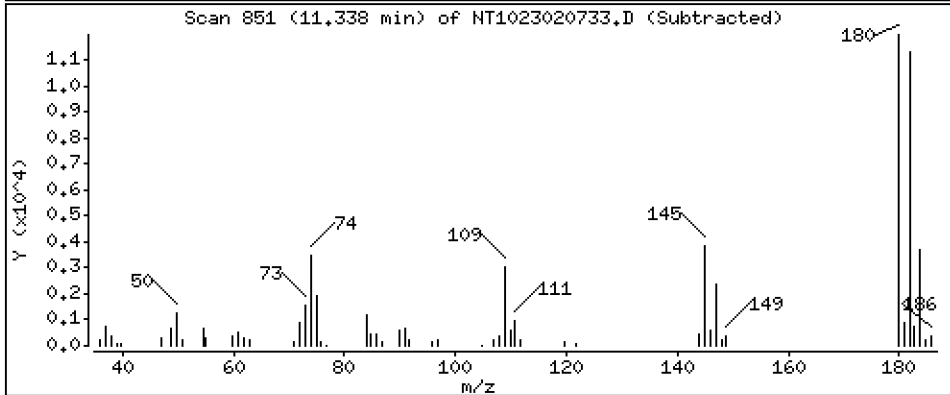
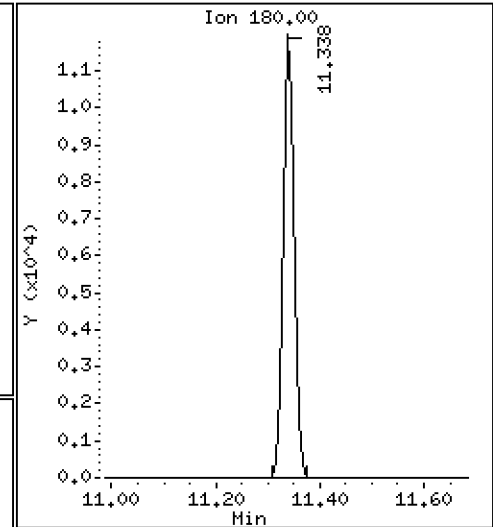
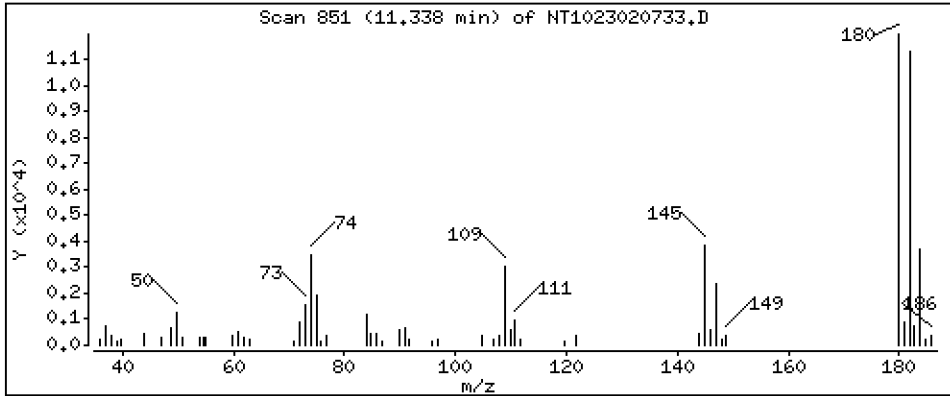
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 0.5364 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

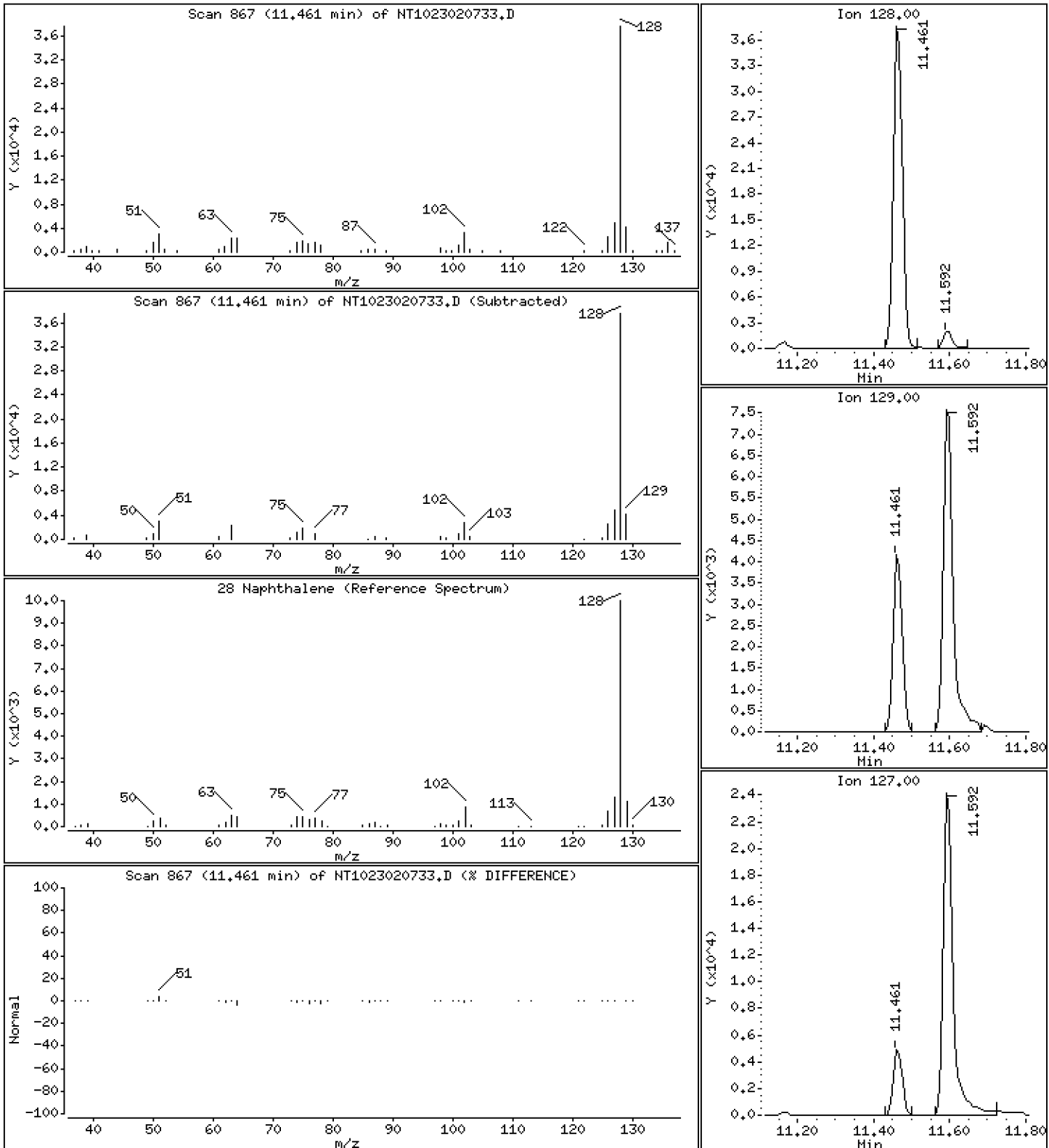
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,5213 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

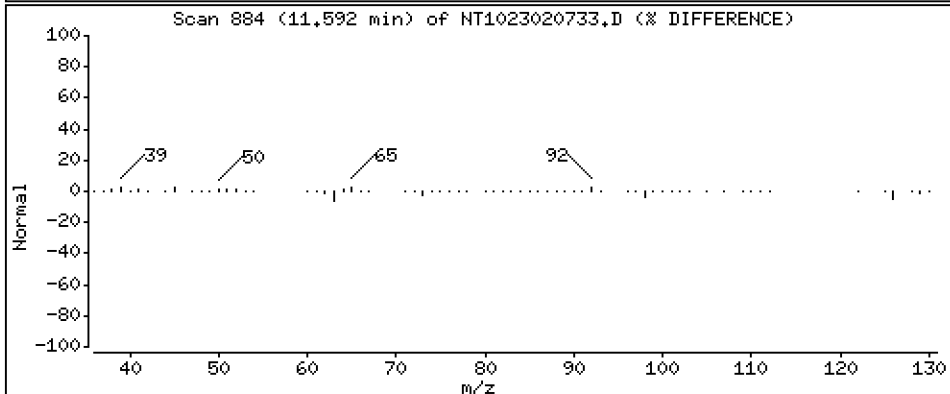
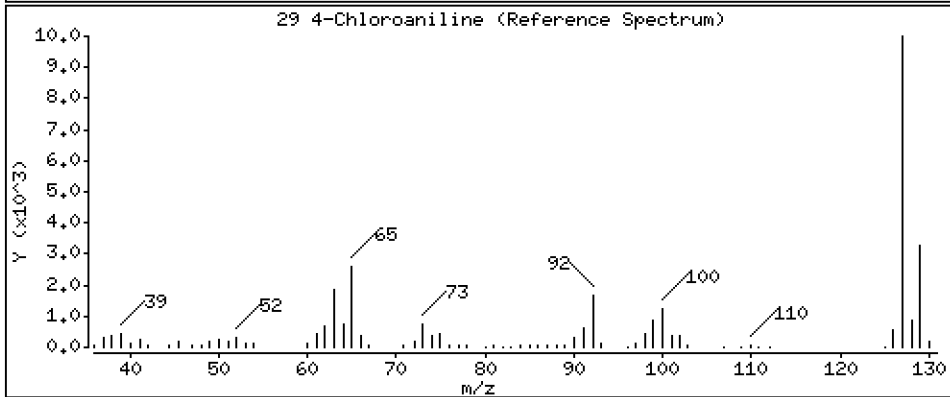
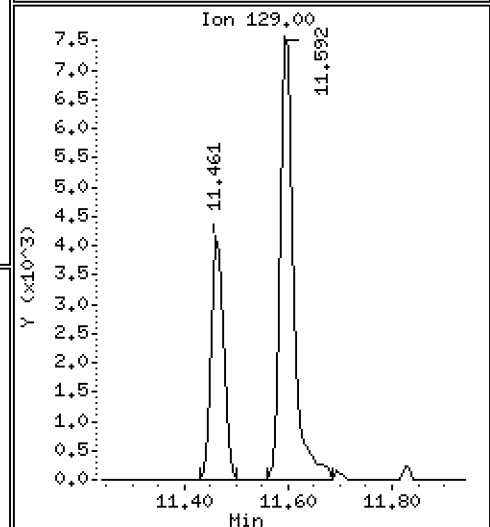
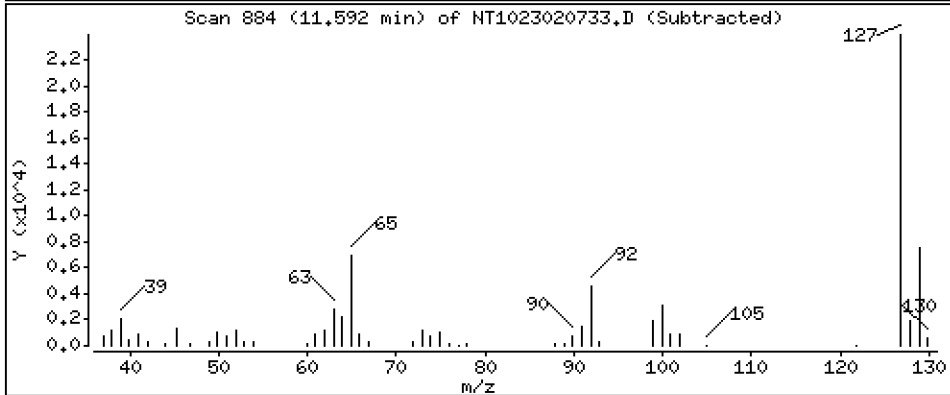
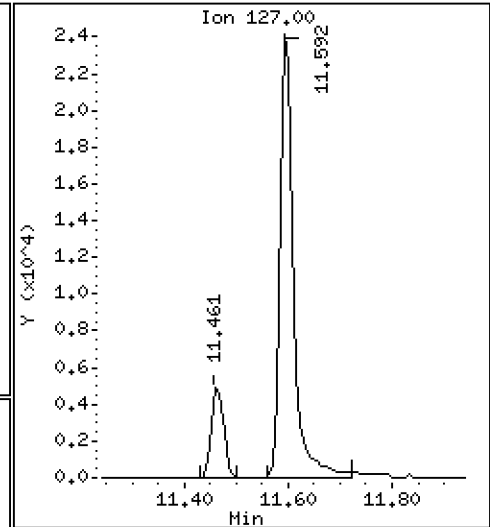
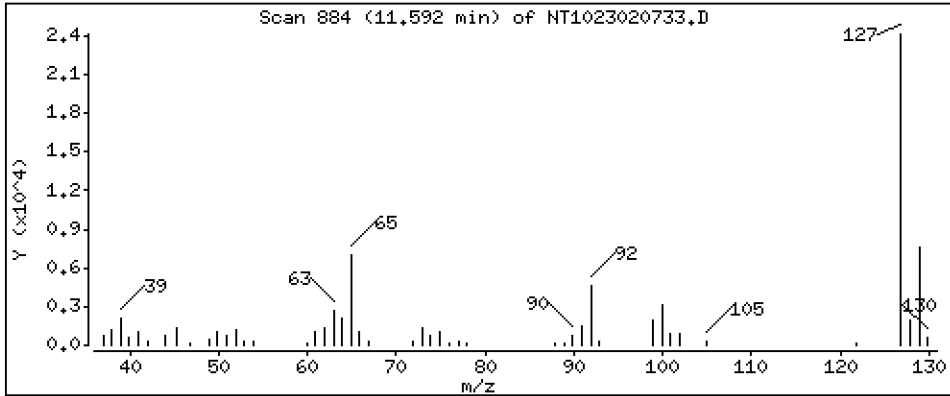
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 1,033 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

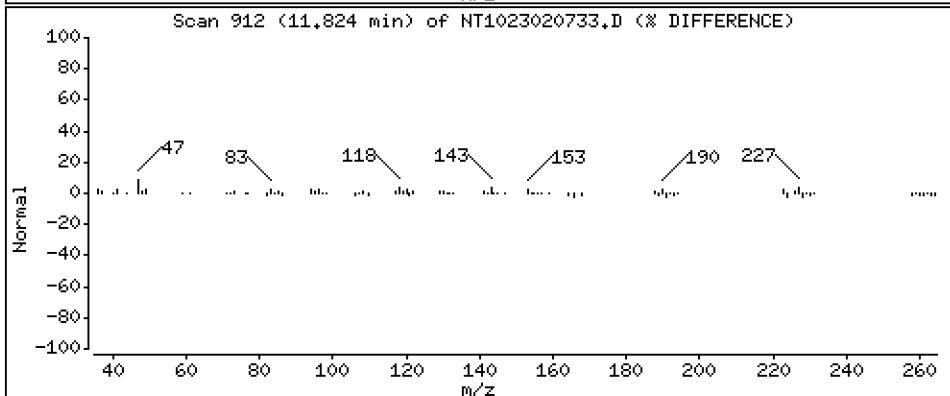
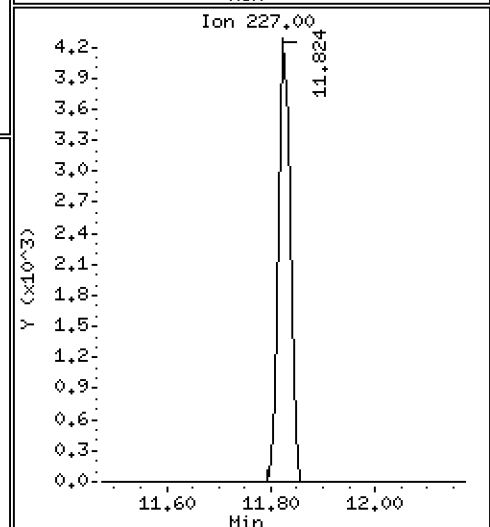
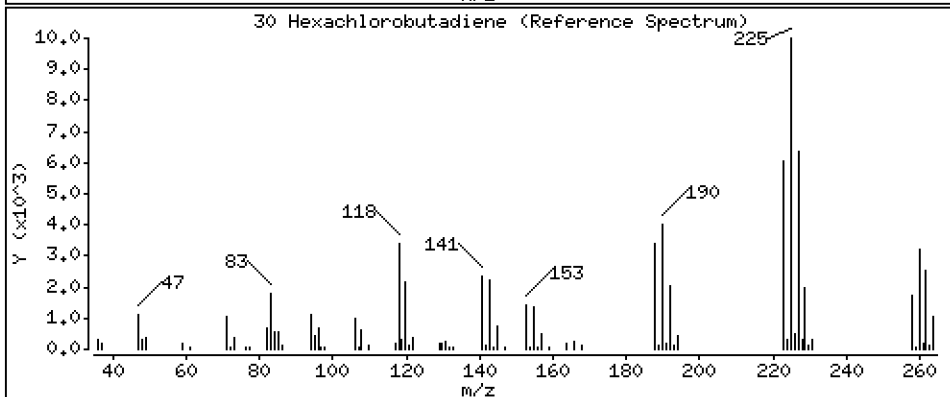
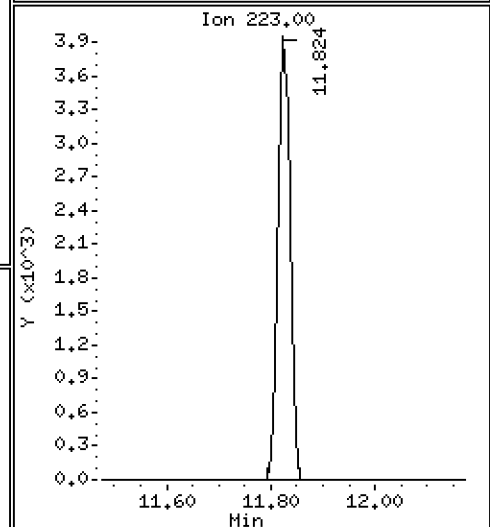
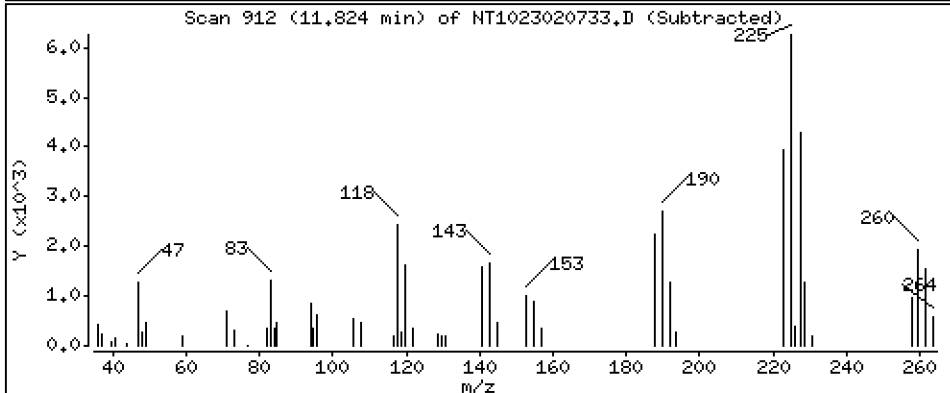
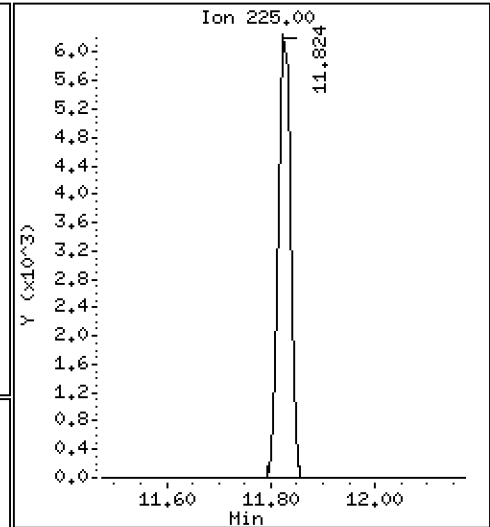
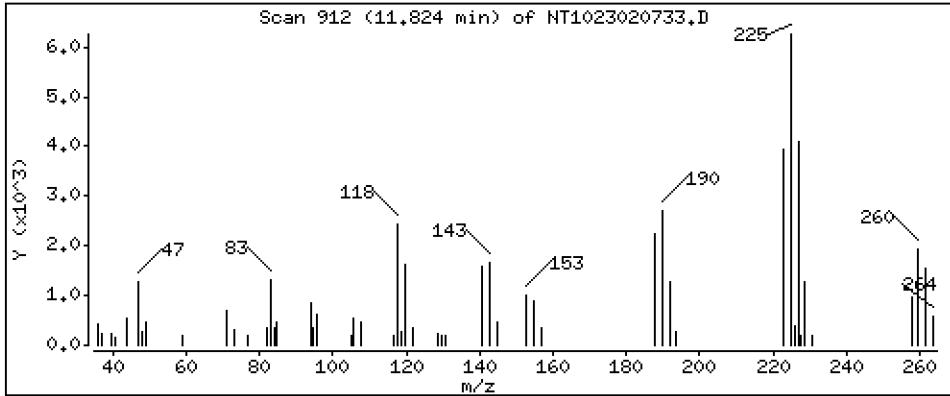
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,5411 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

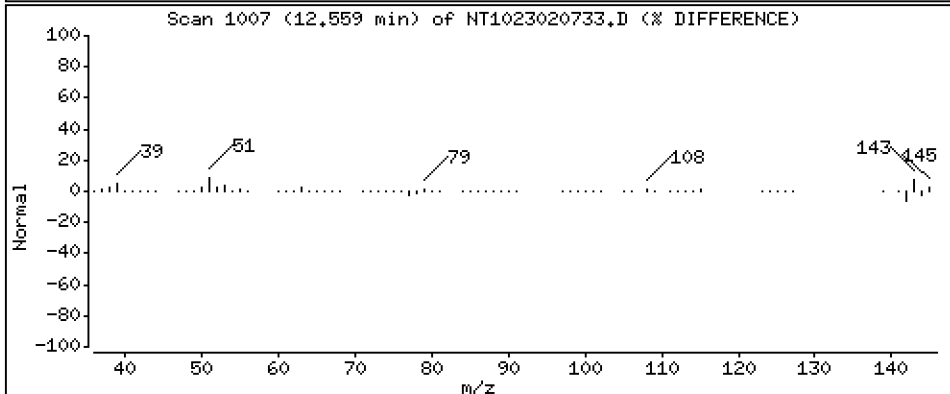
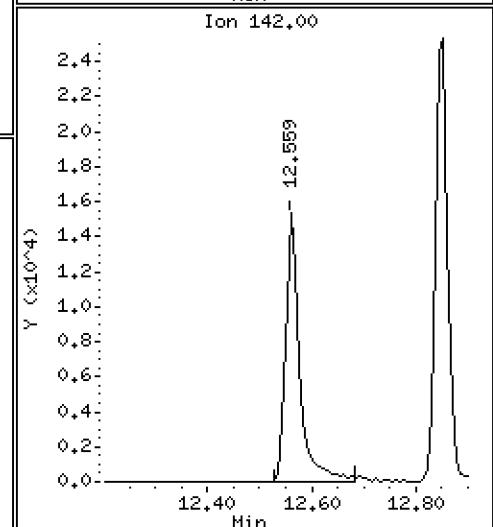
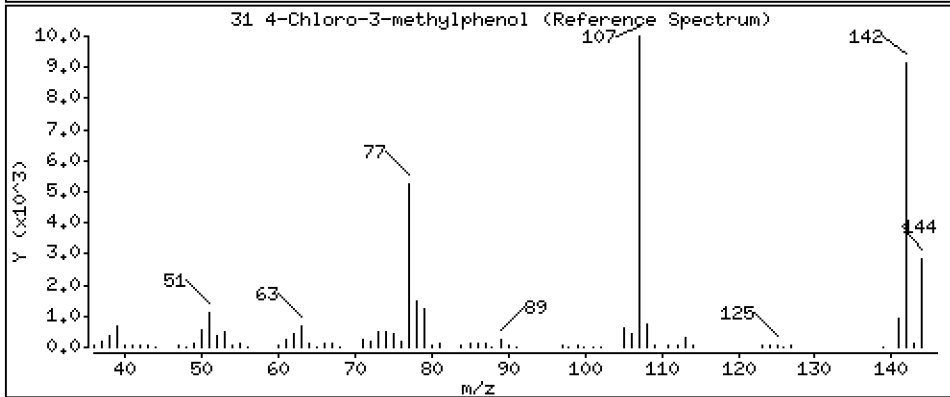
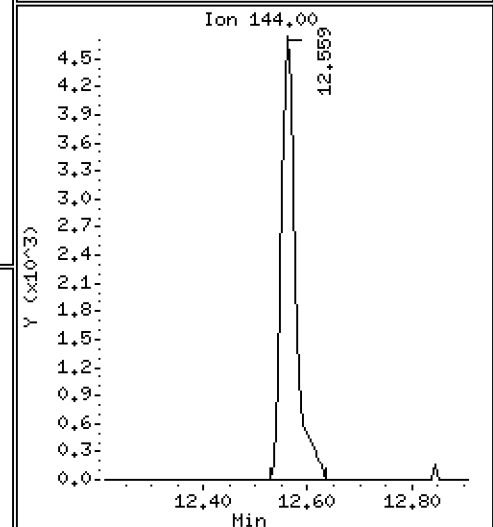
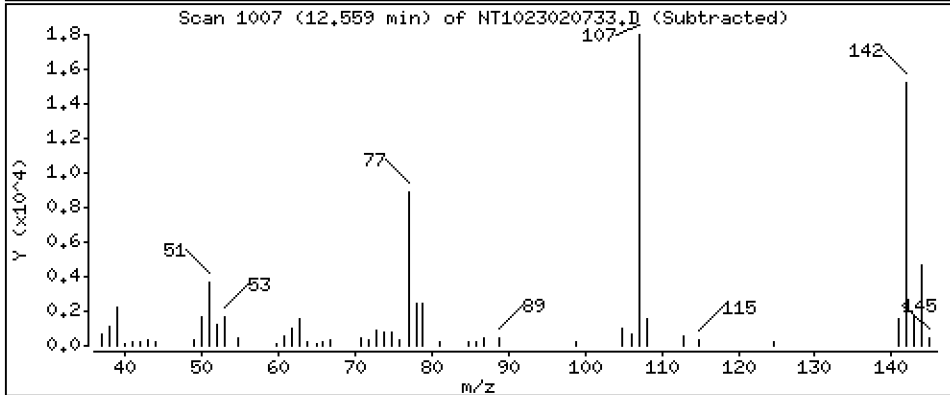
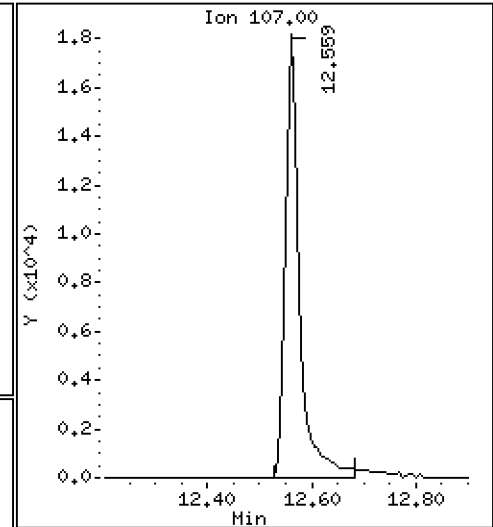
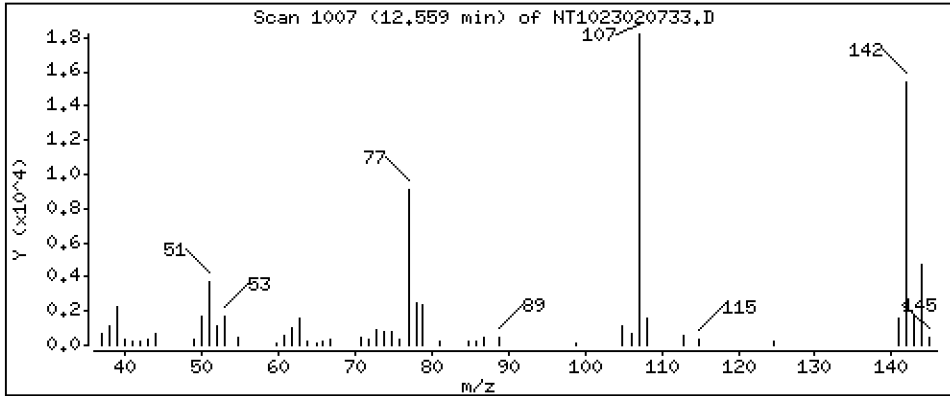
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 0,9992 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

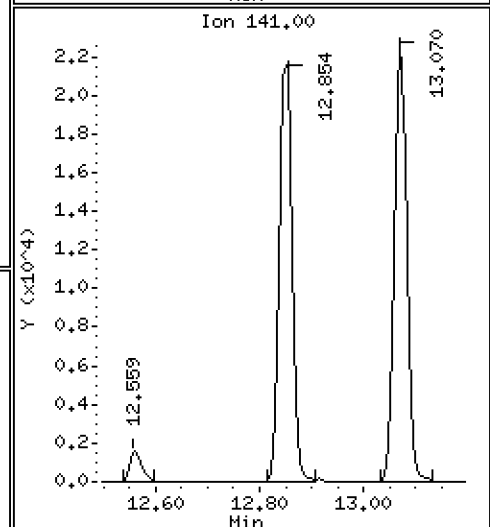
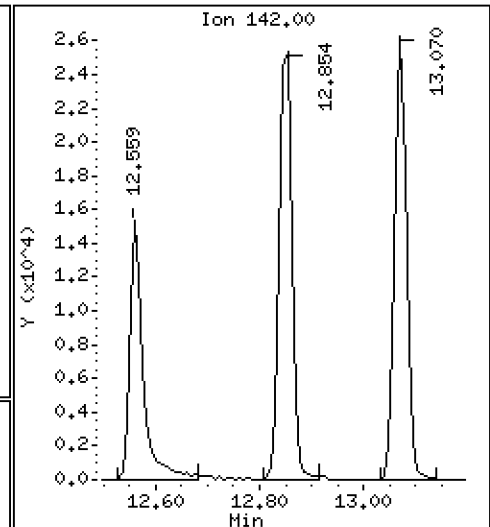
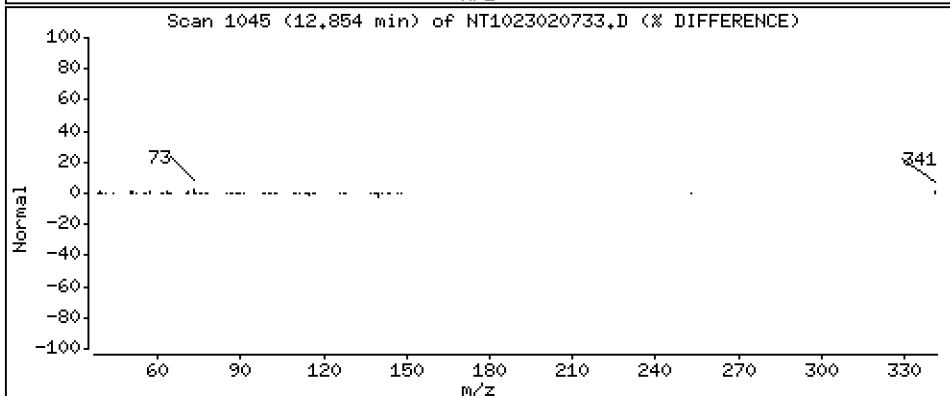
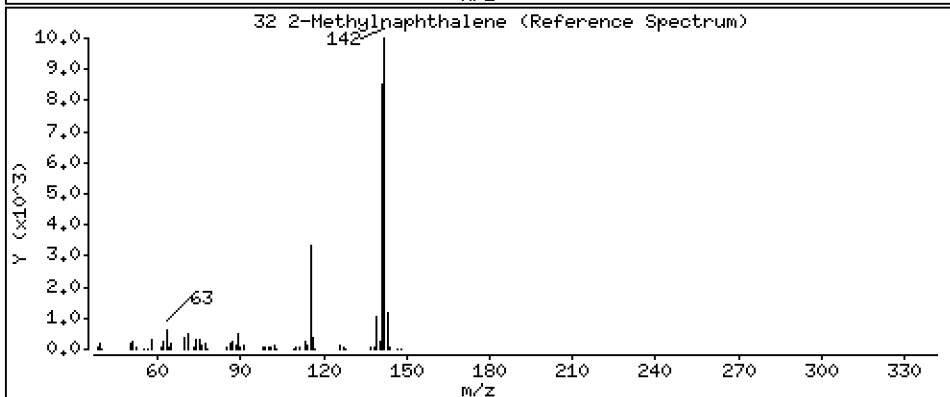
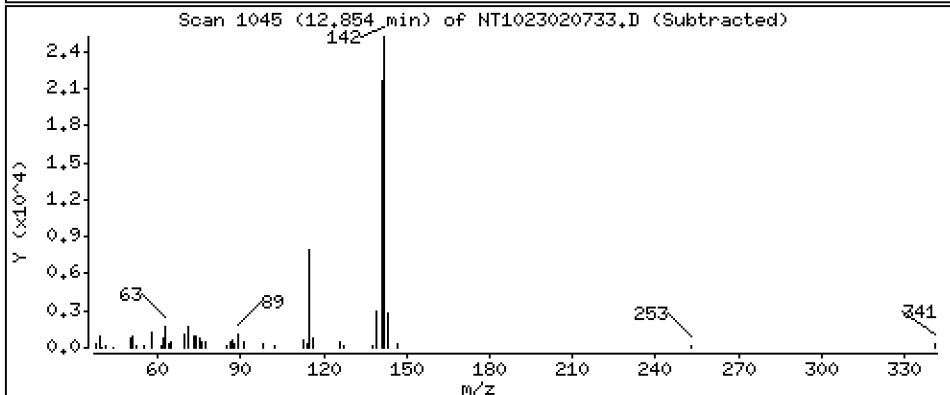
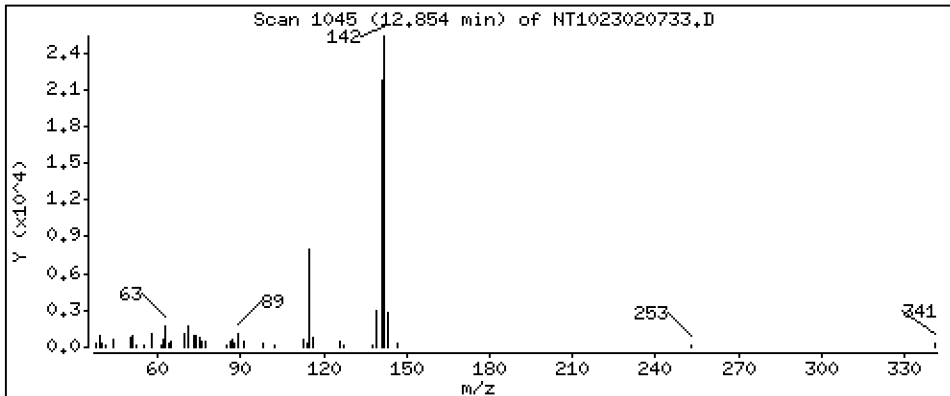
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

32 2-Methylnaphthalene

Concentration: 0.5241 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

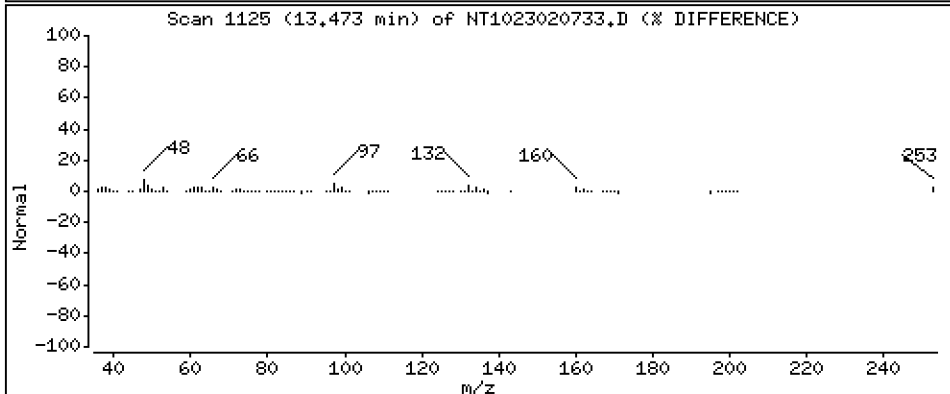
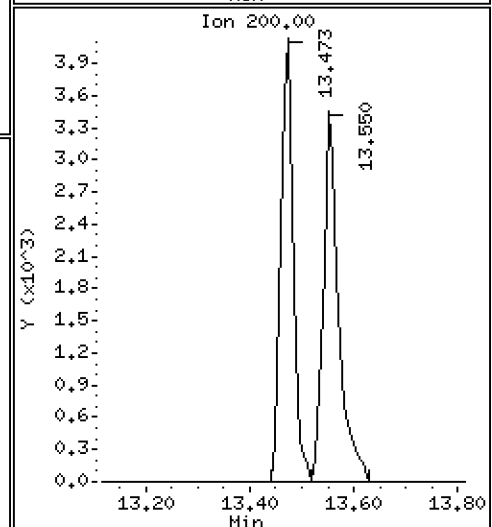
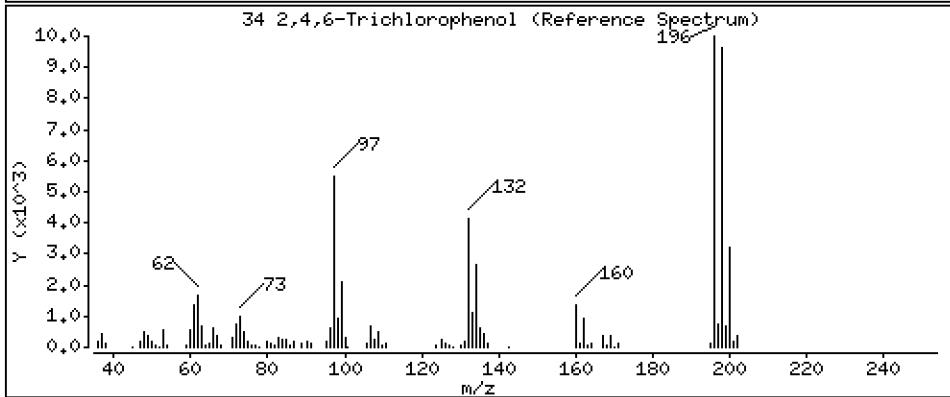
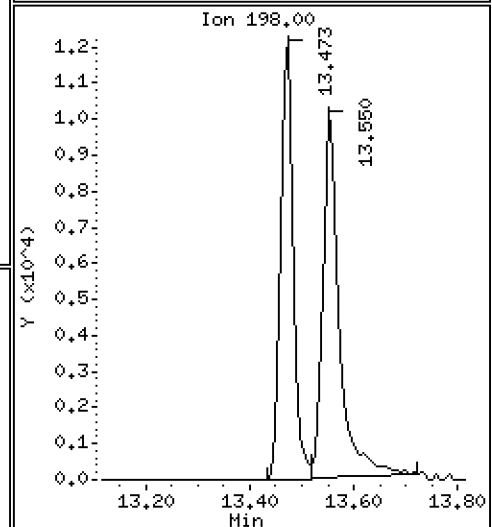
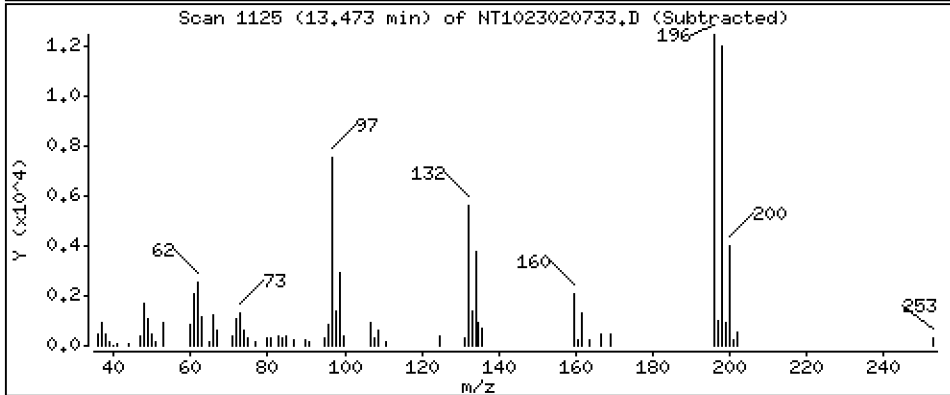
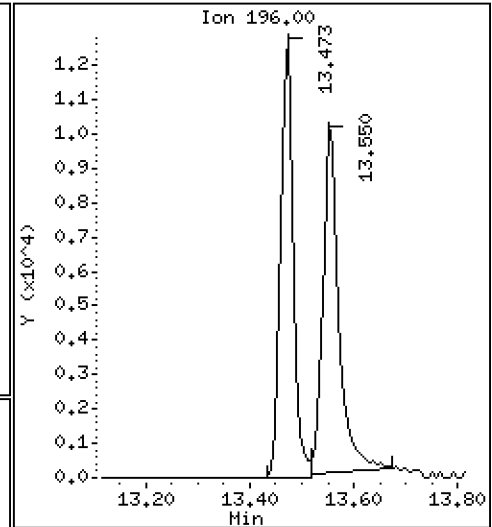
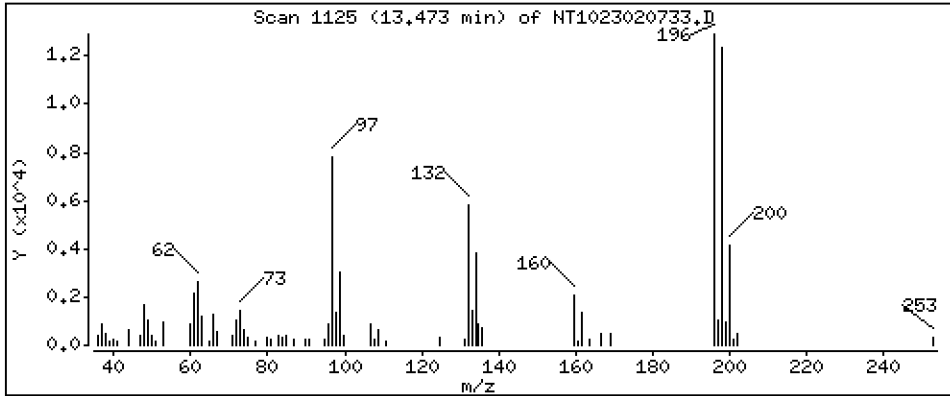
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

34 2,4,6-Trichlorophenol

Concentration: 1.069 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

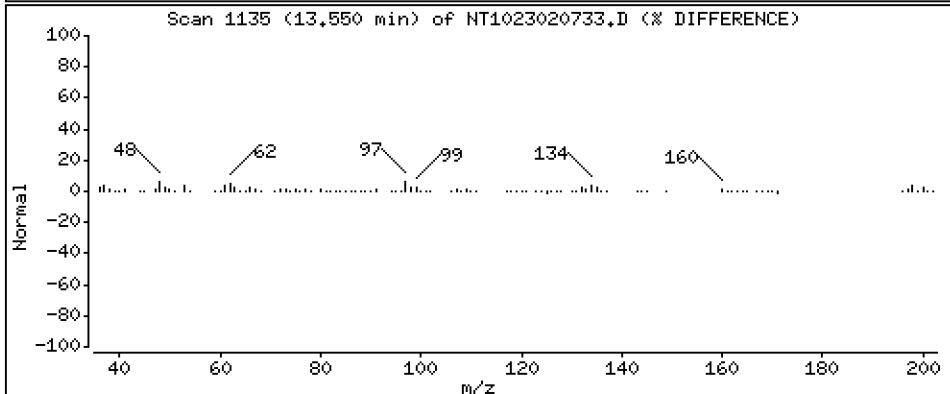
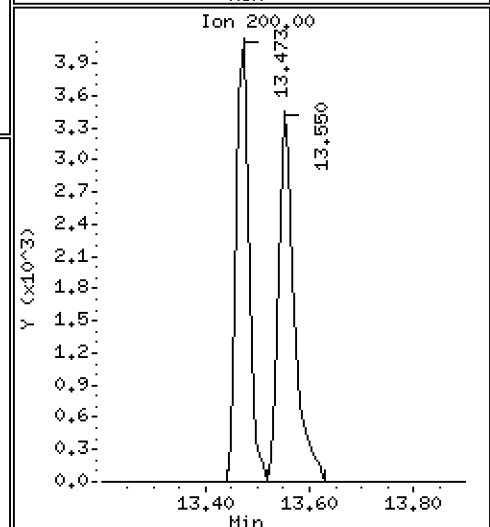
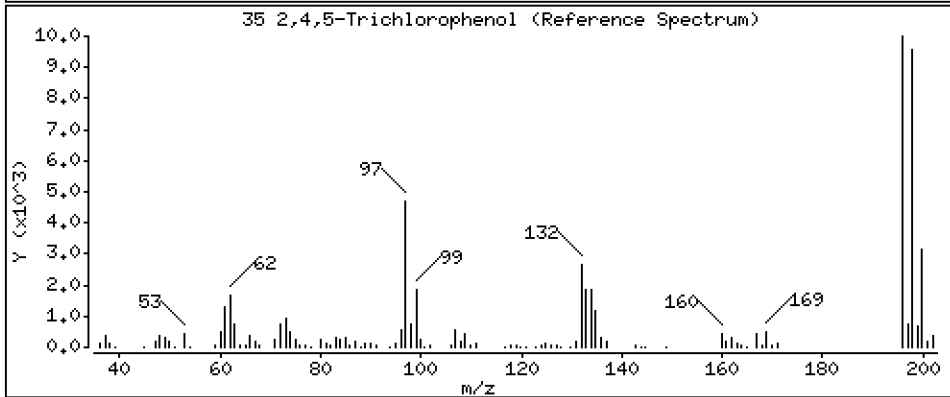
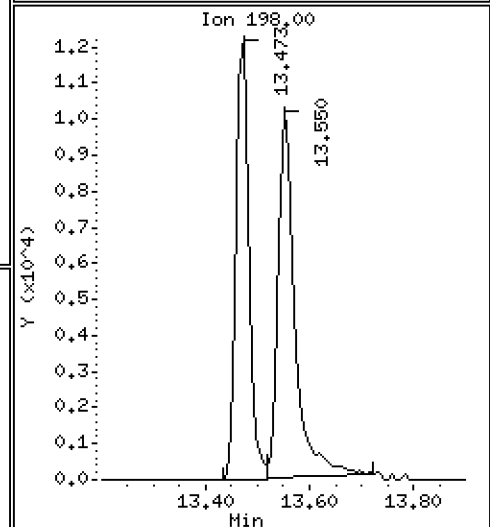
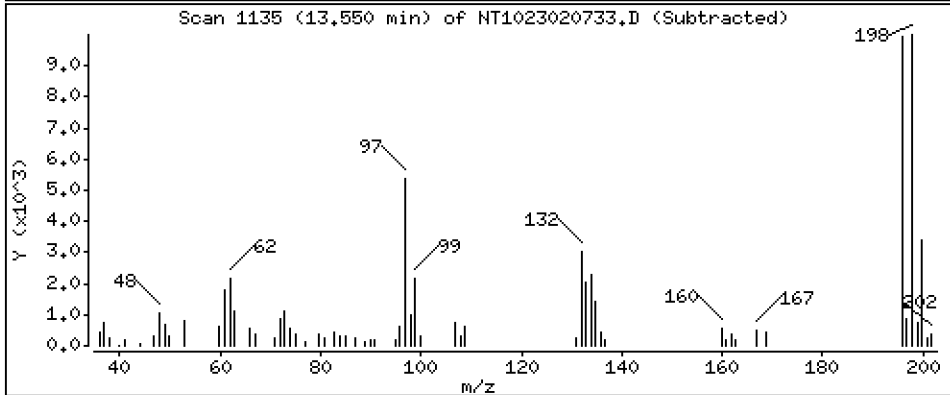
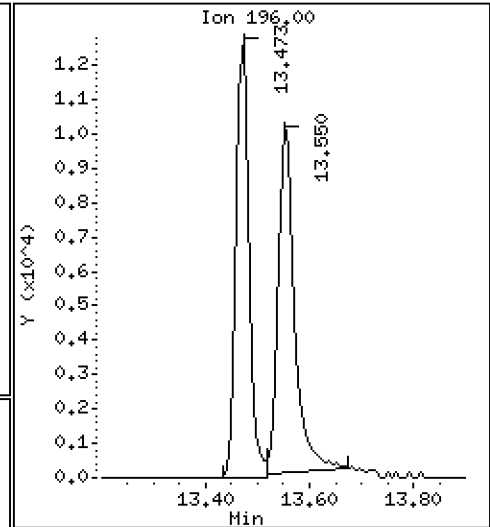
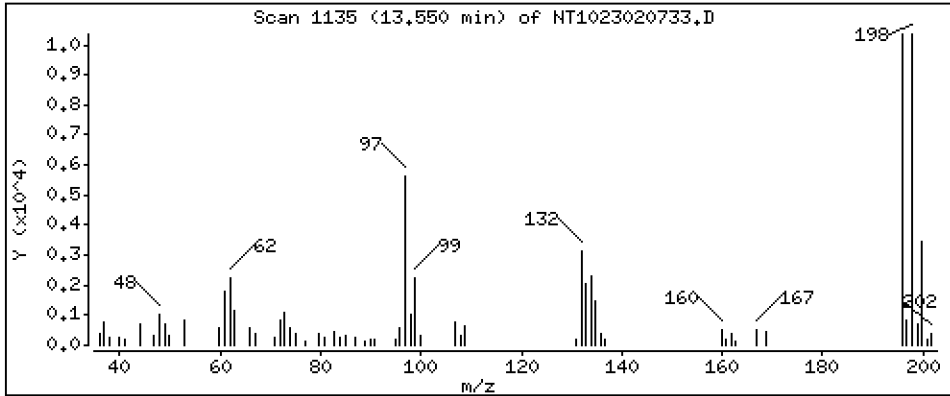
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 1,009 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

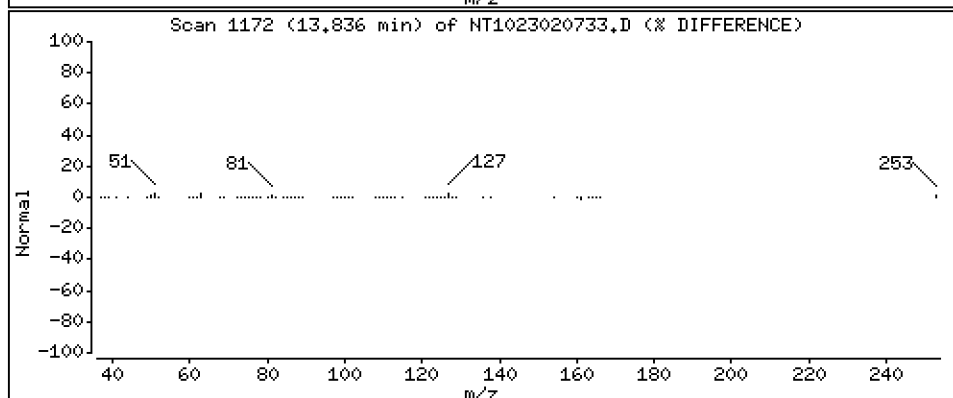
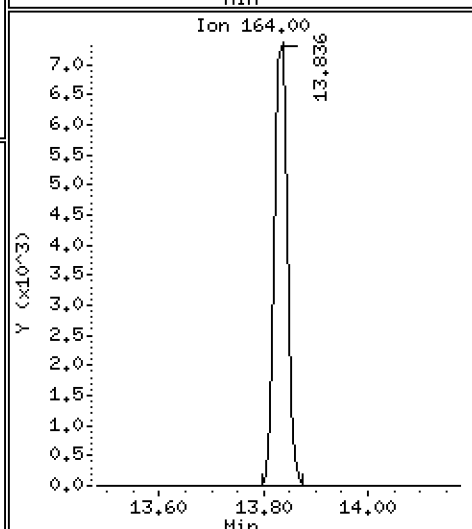
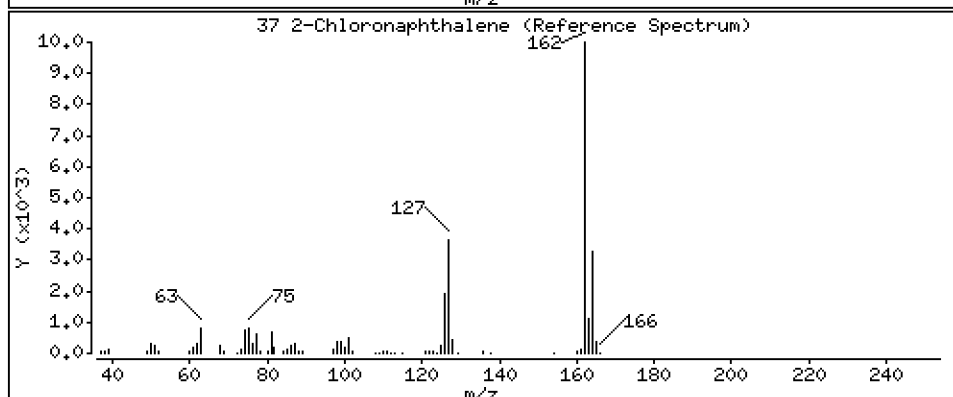
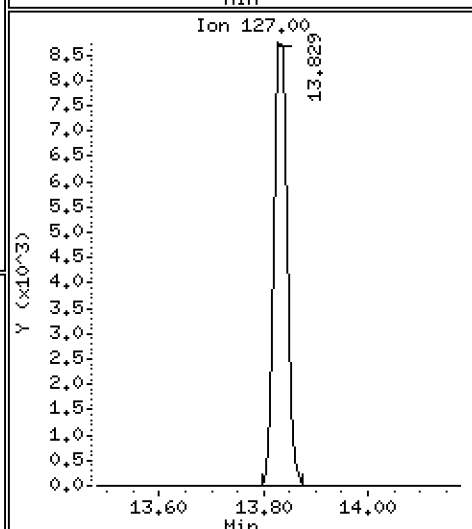
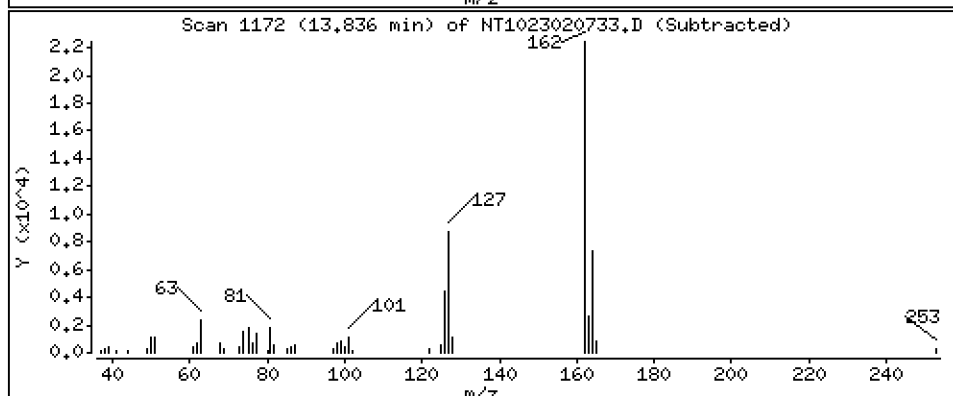
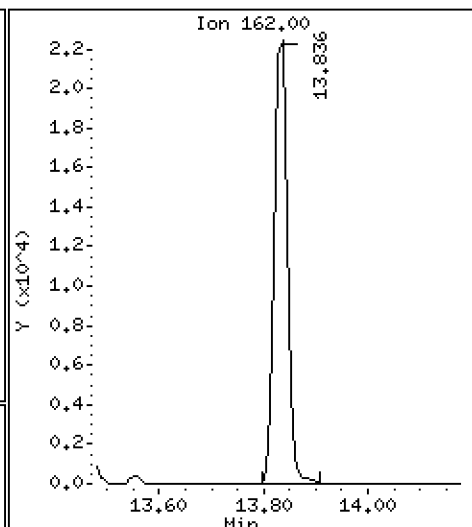
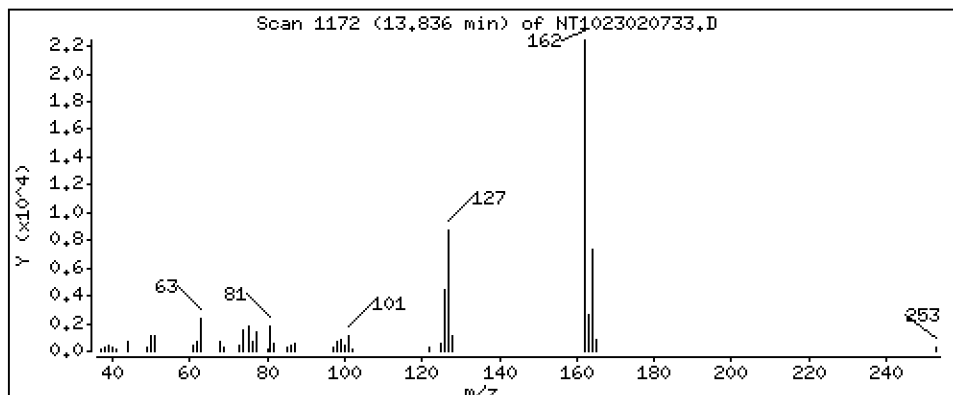
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 0,5451 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

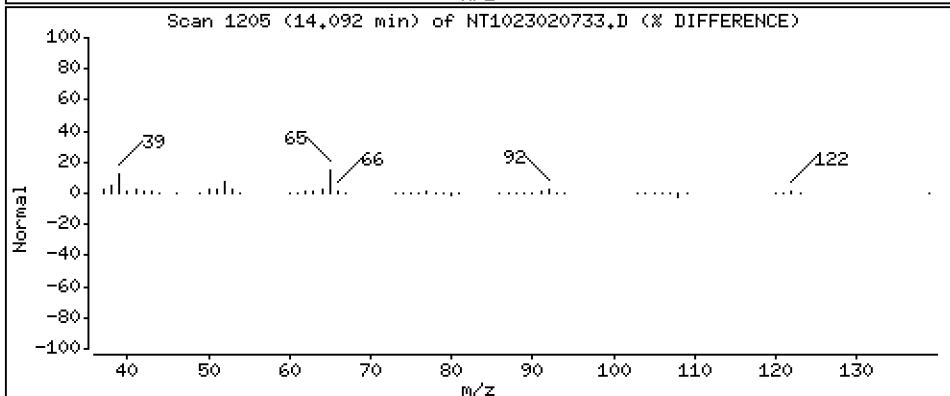
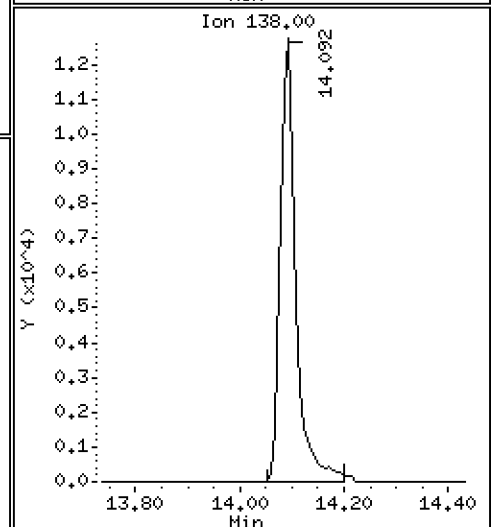
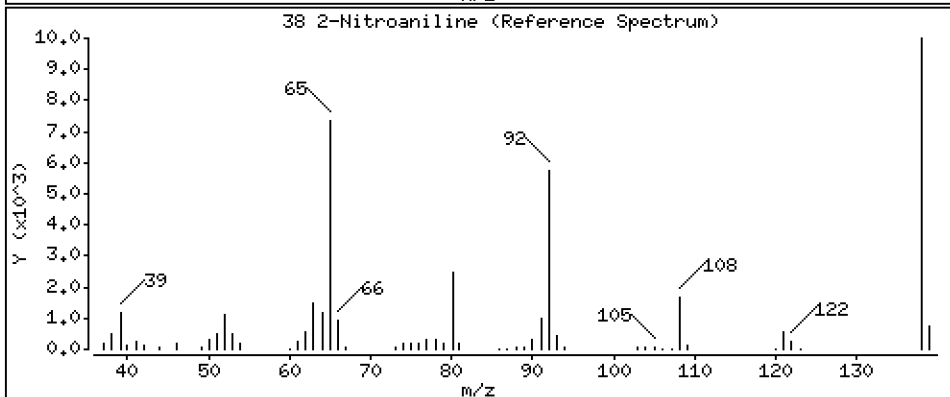
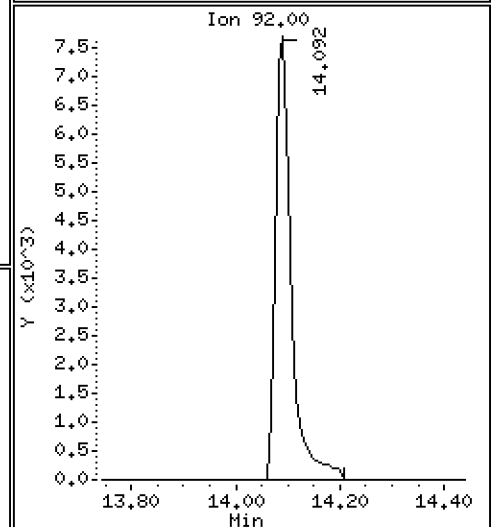
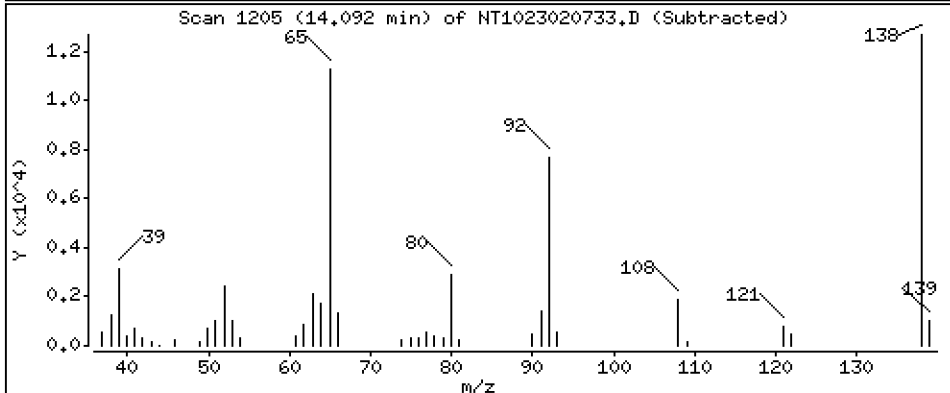
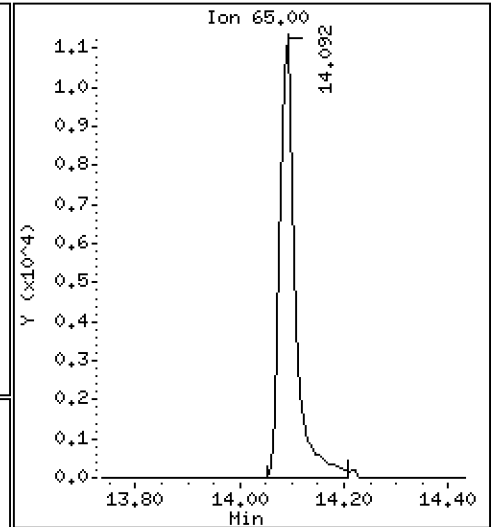
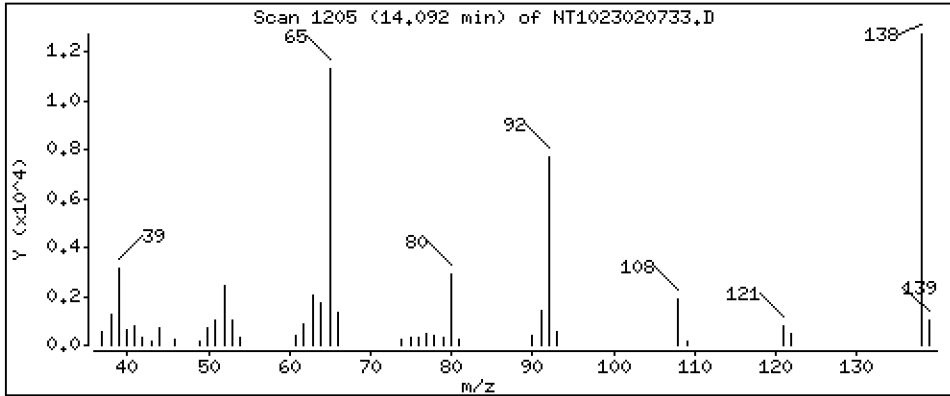
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 1,067 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

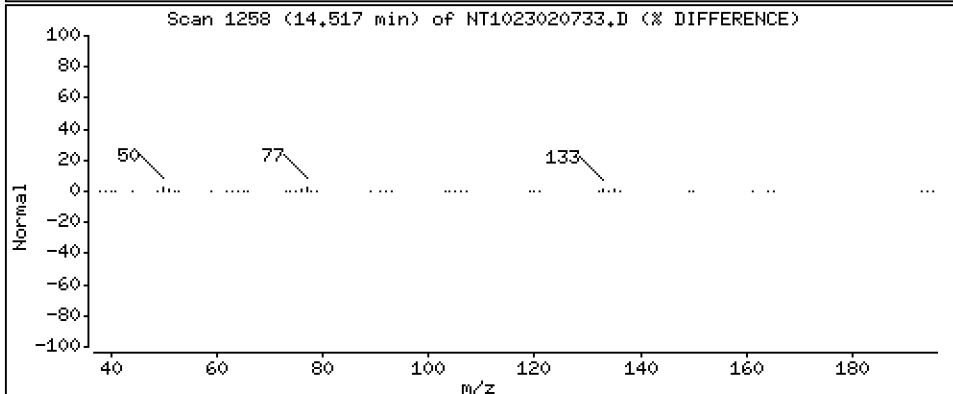
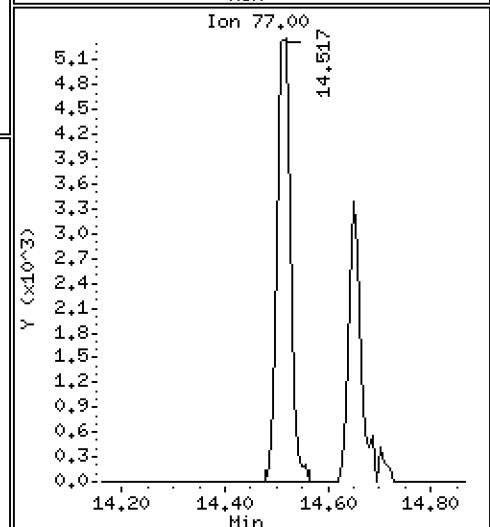
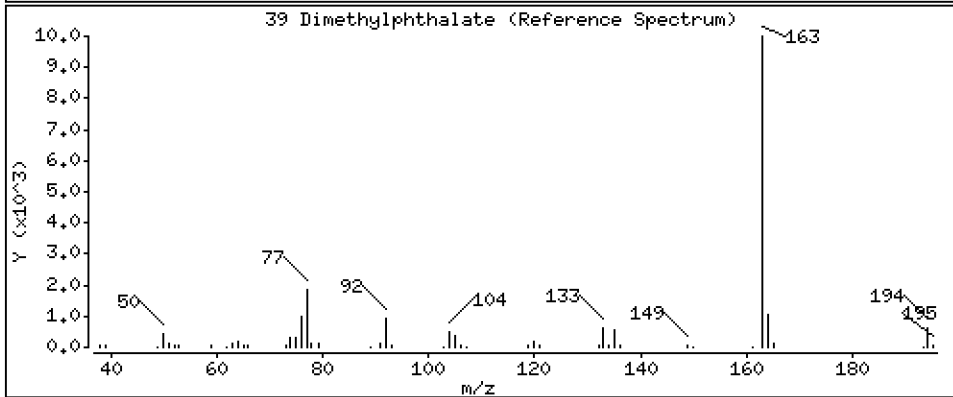
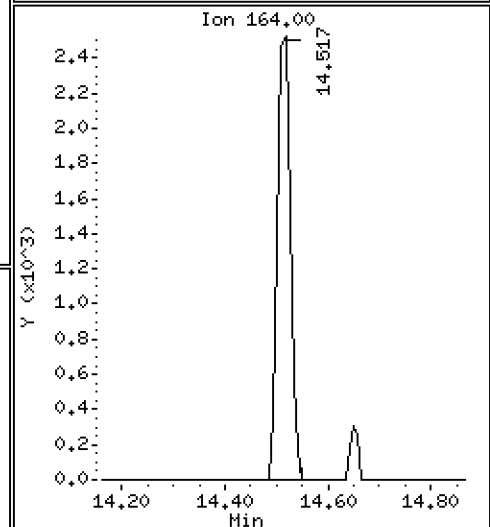
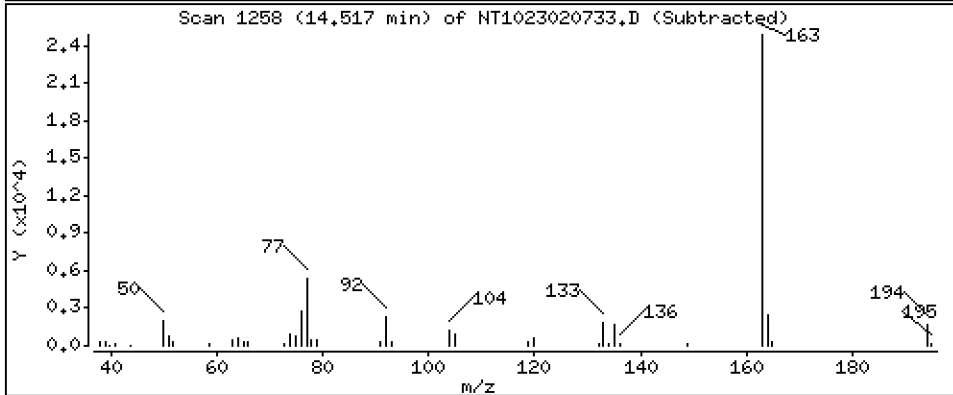
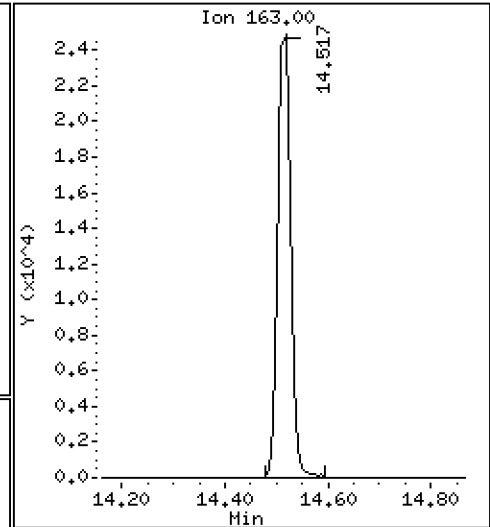
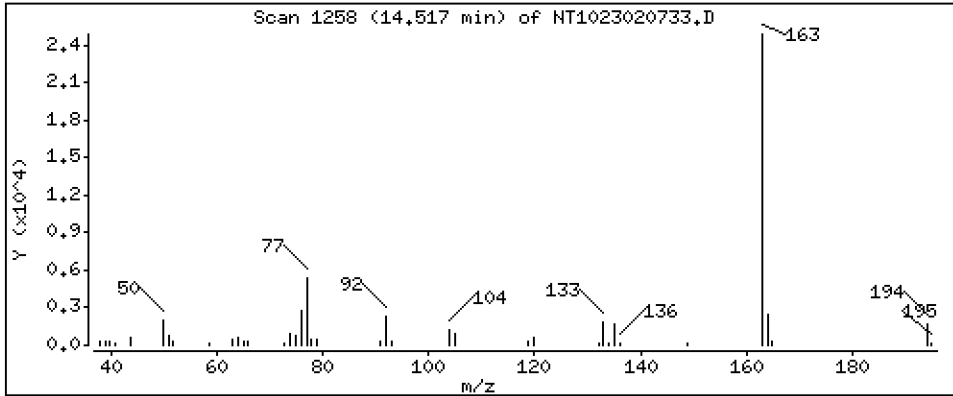
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,5590 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

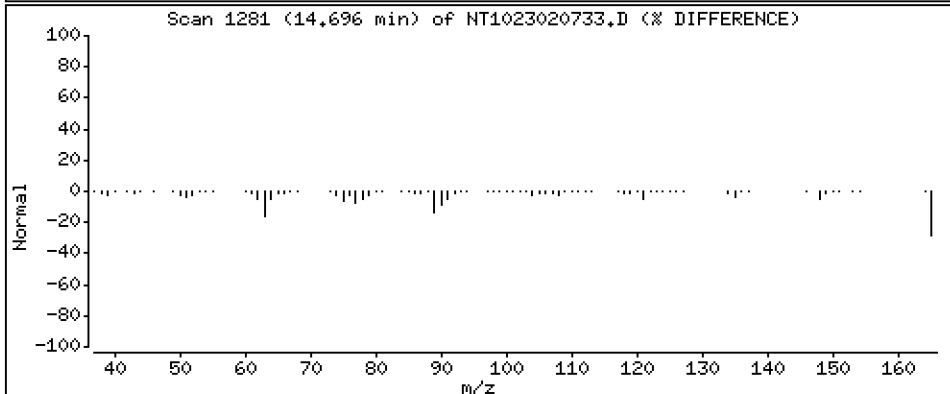
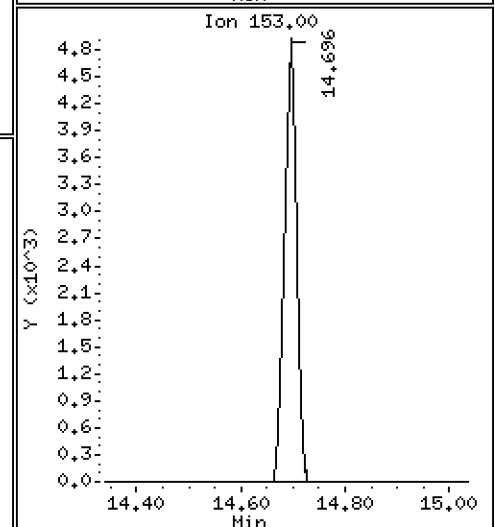
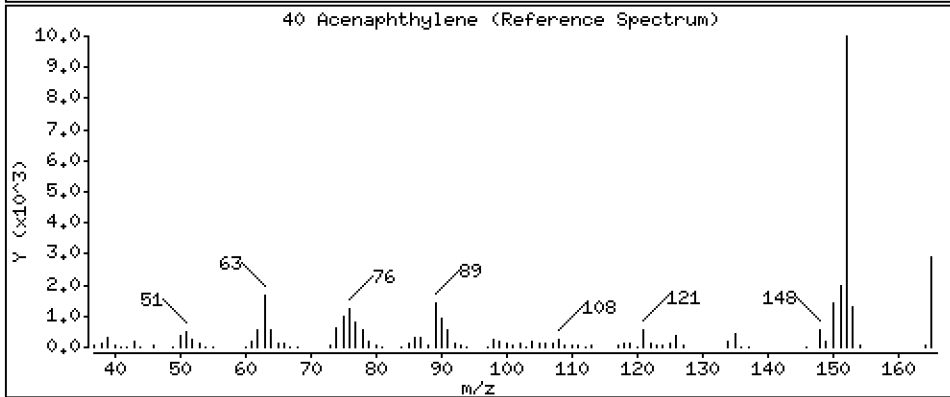
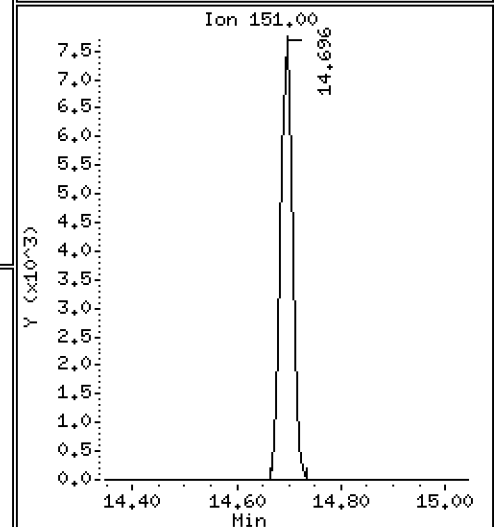
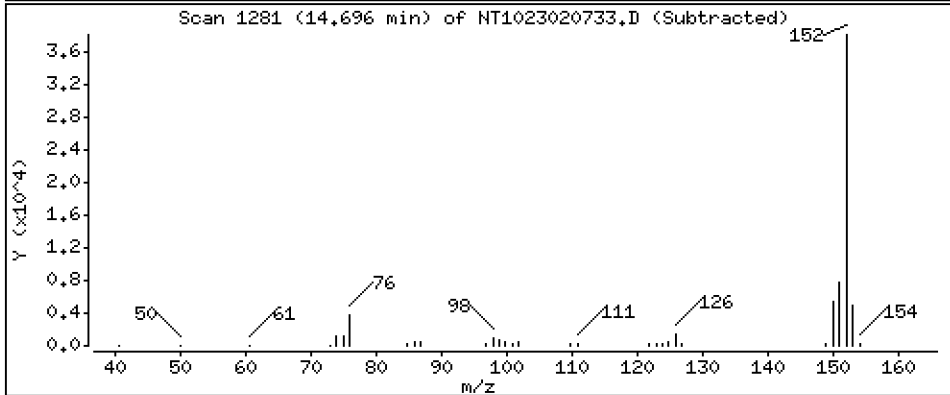
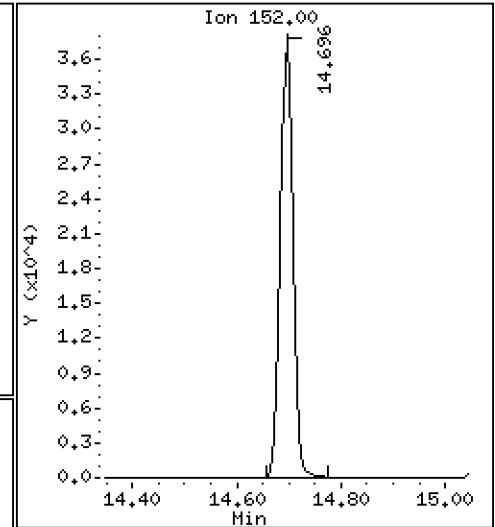
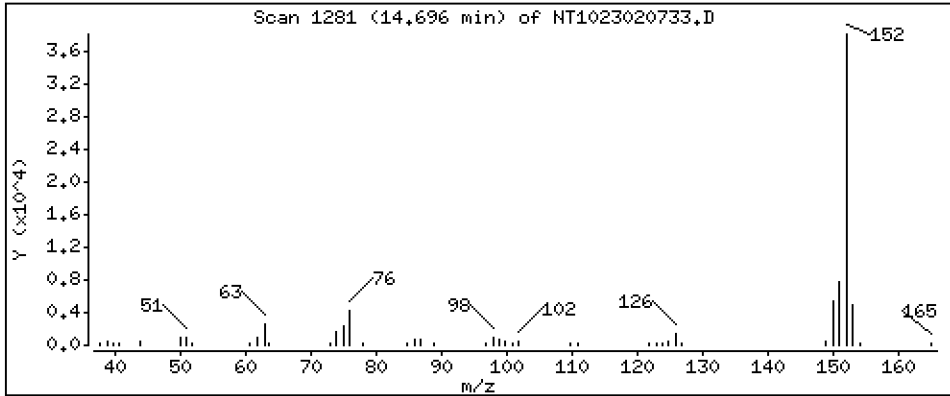
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,5580 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

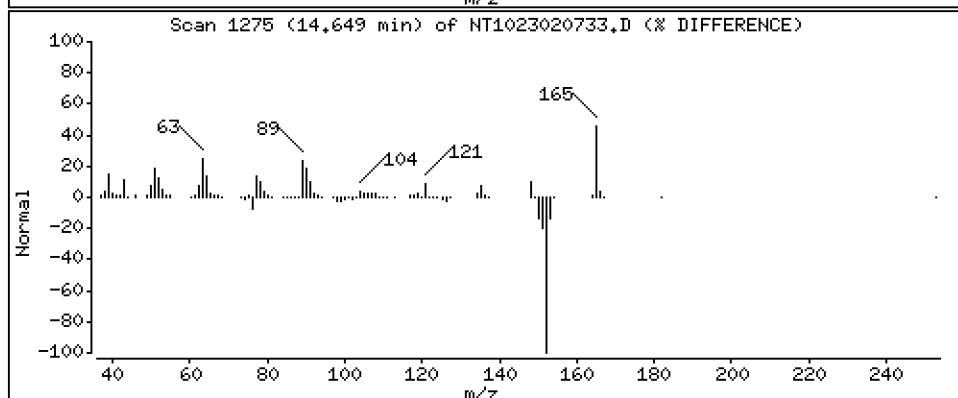
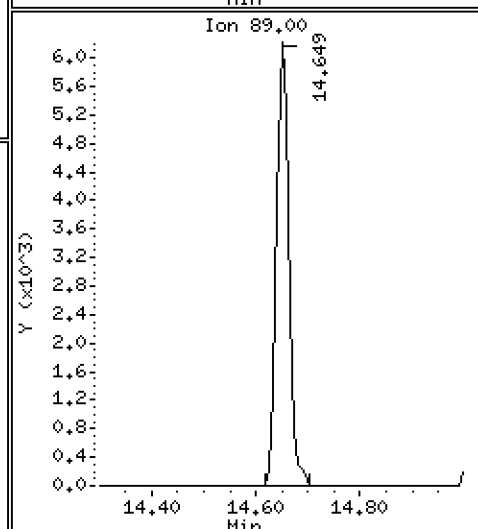
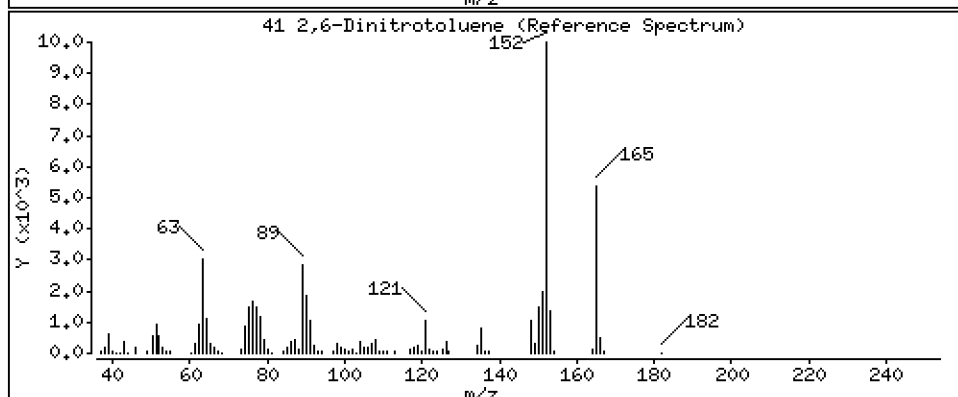
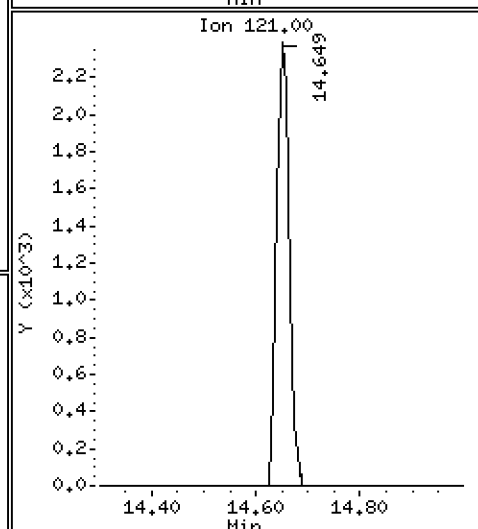
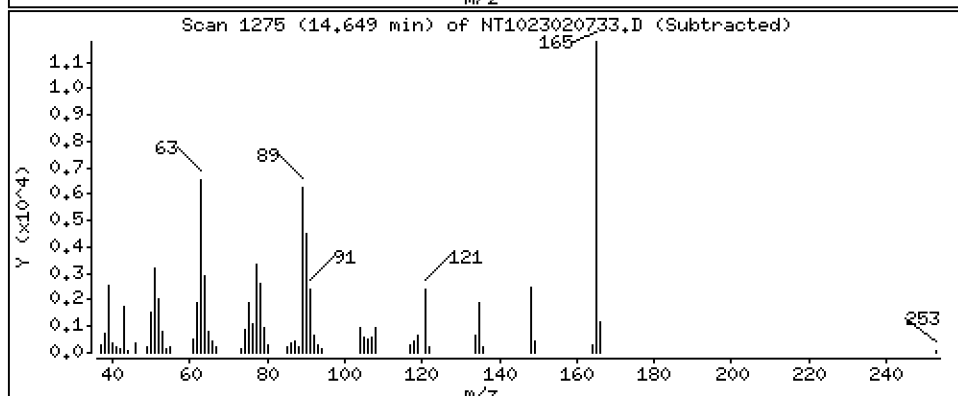
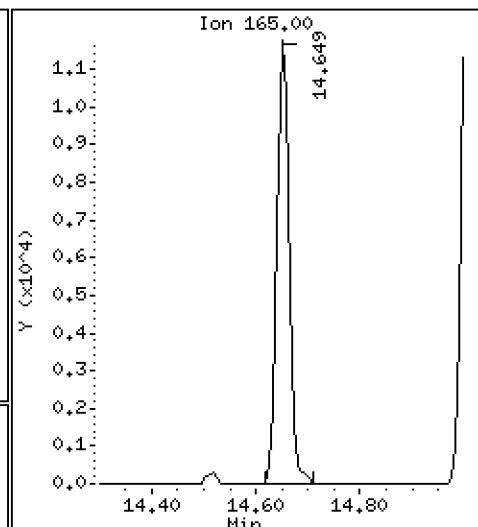
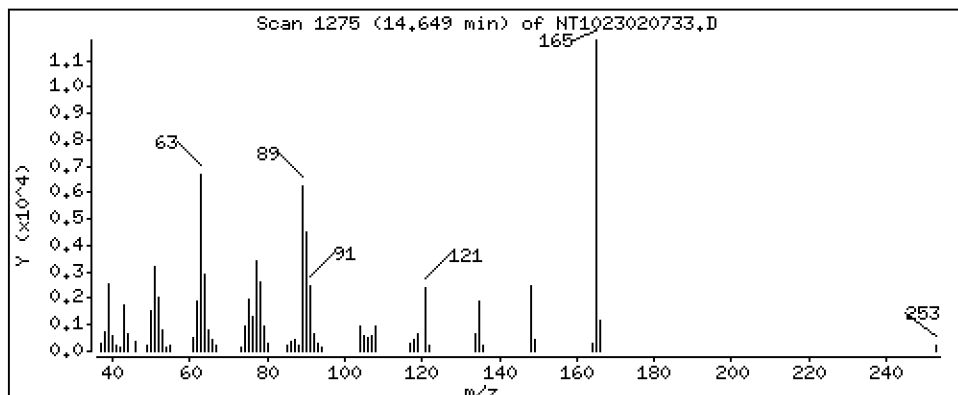
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 1.059 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

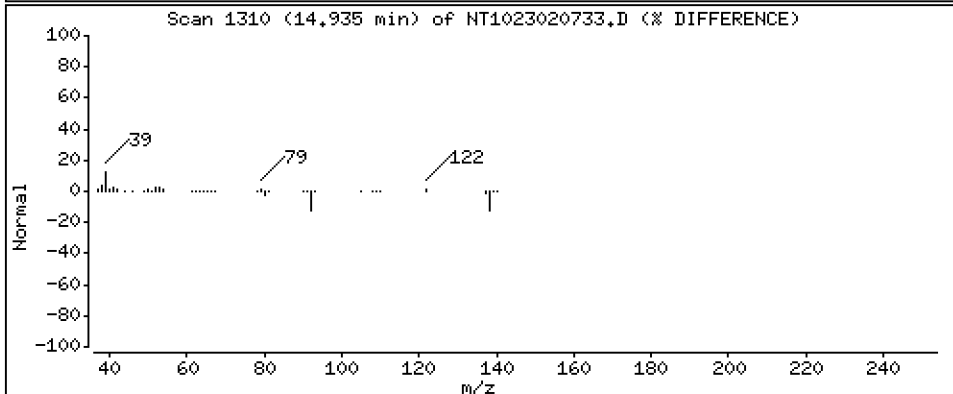
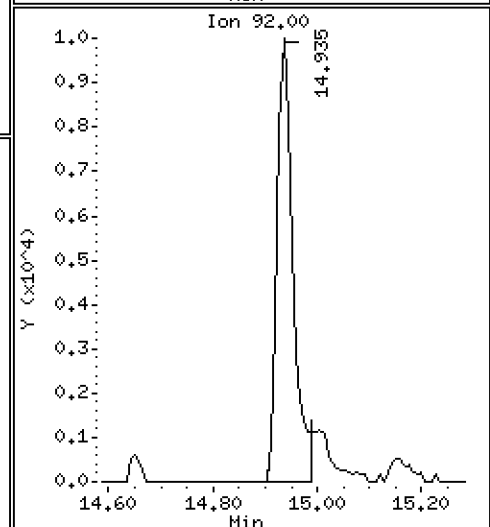
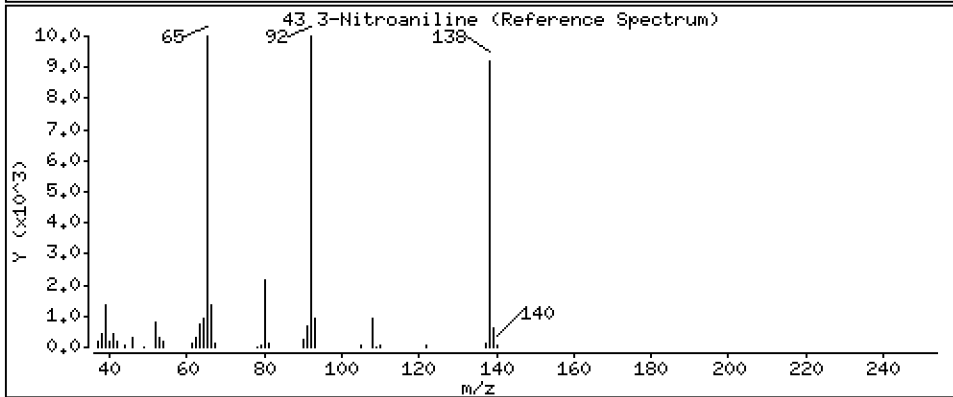
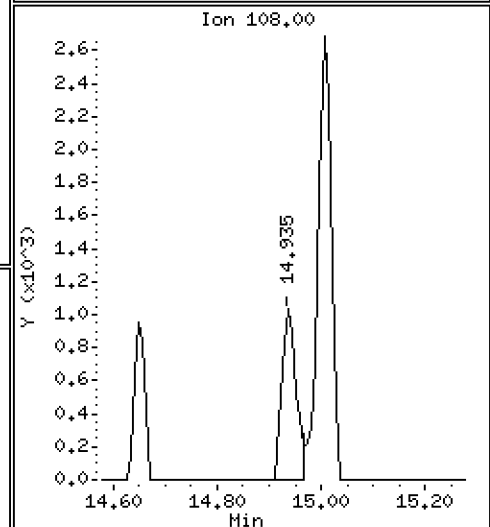
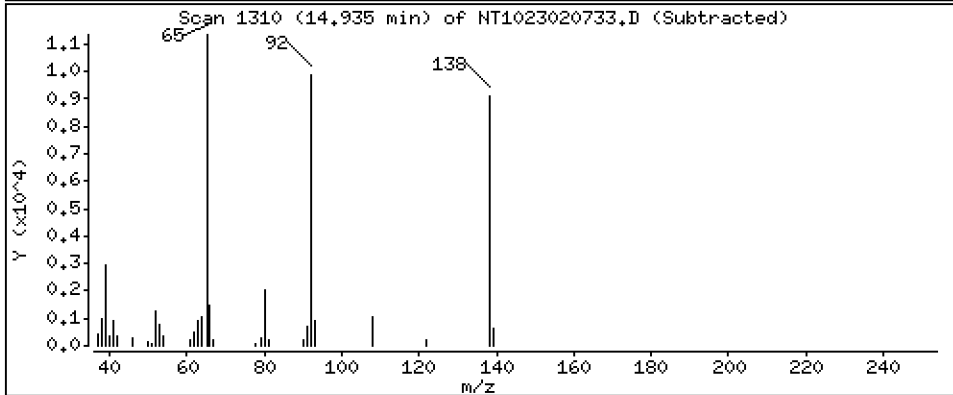
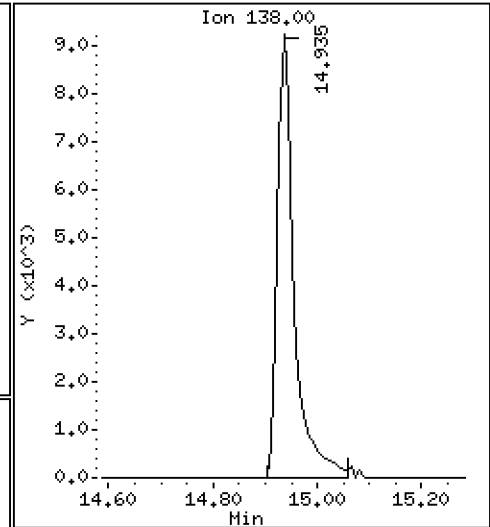
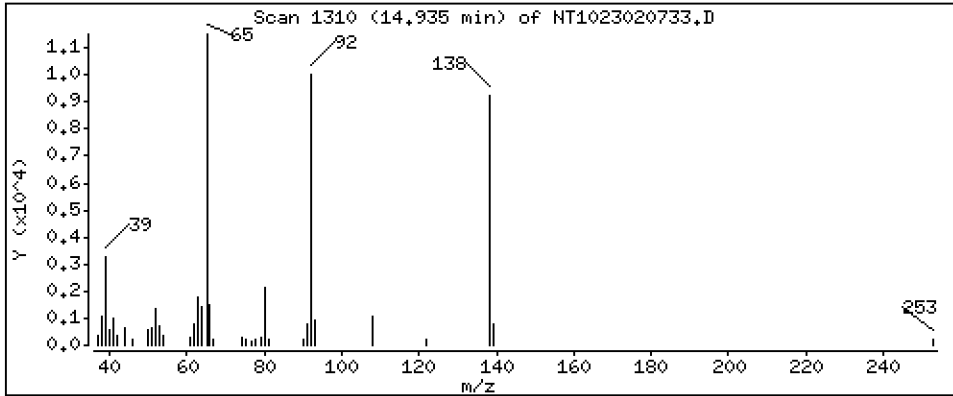
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 0,9990 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

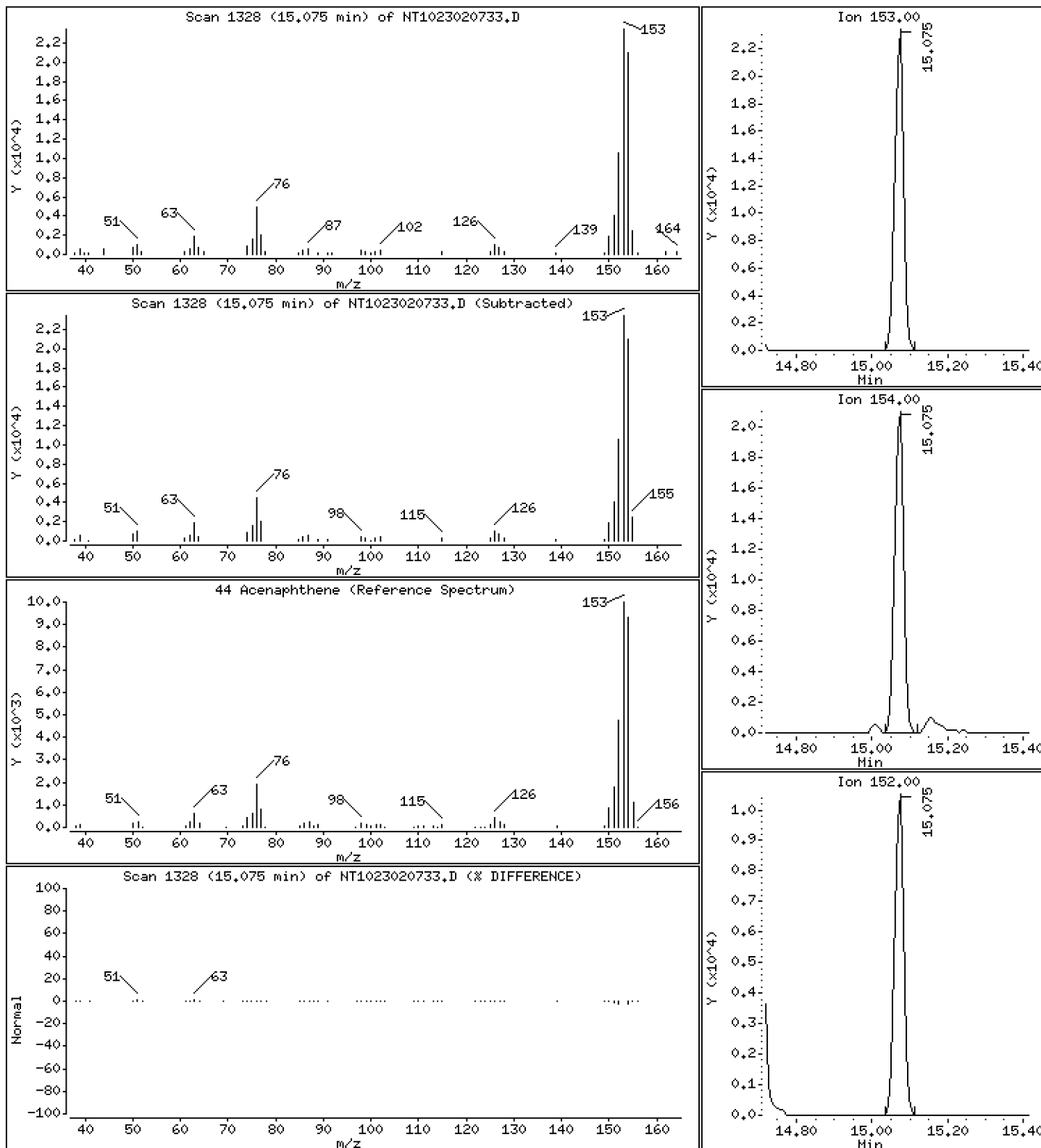
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,5391 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

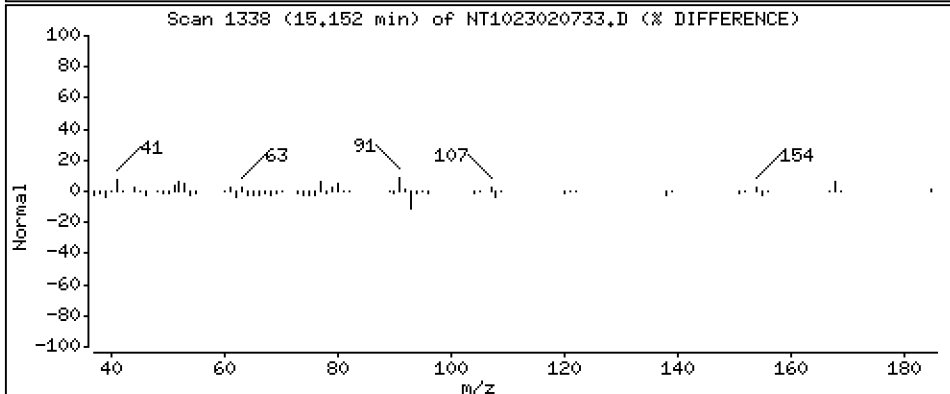
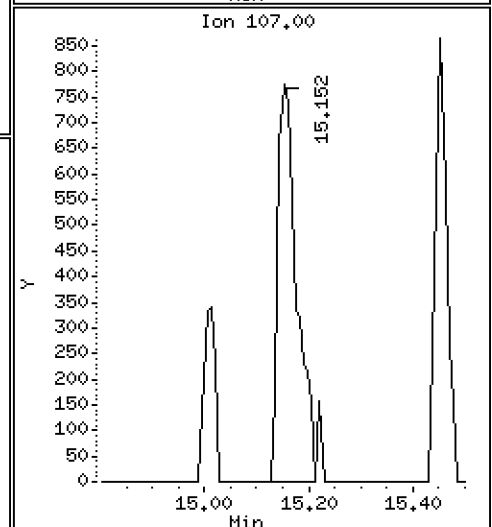
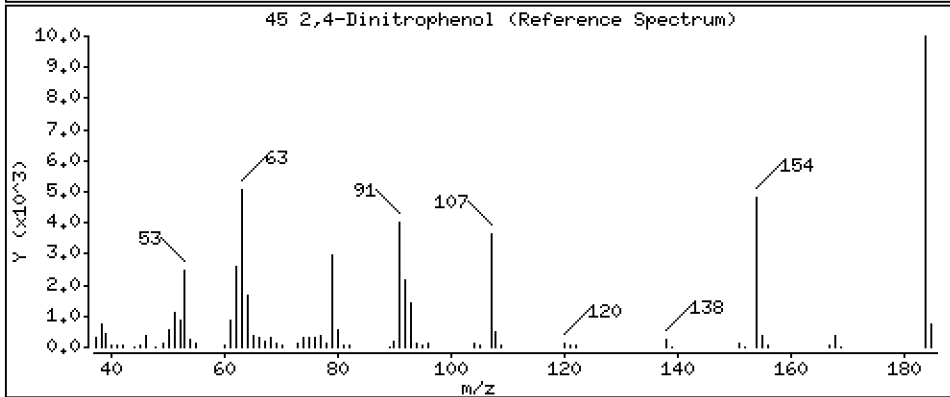
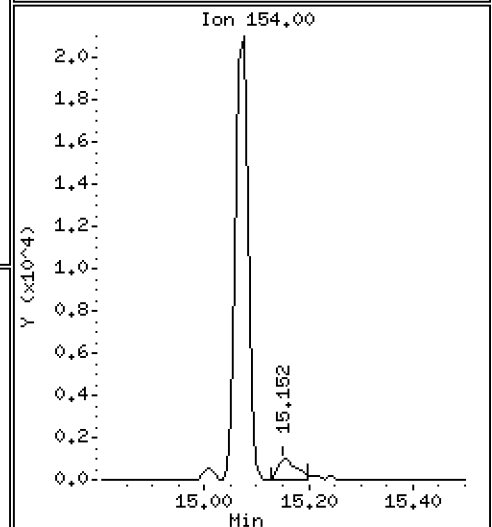
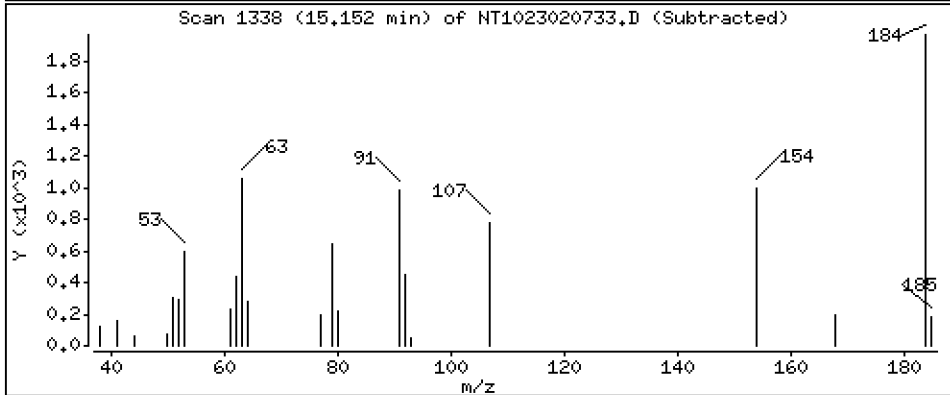
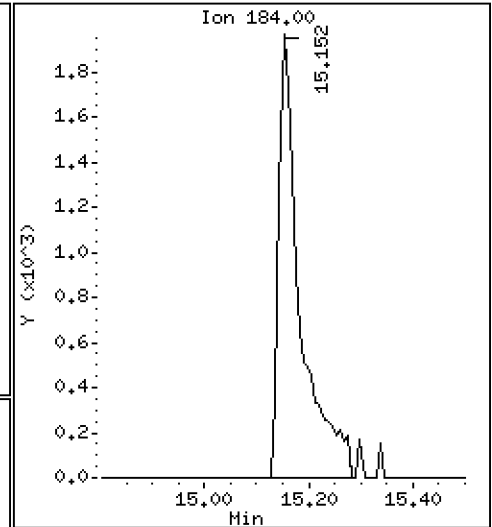
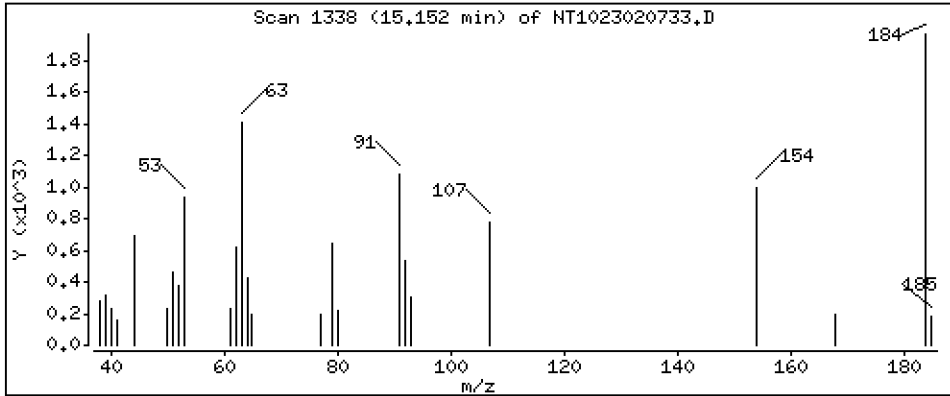
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,6156 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

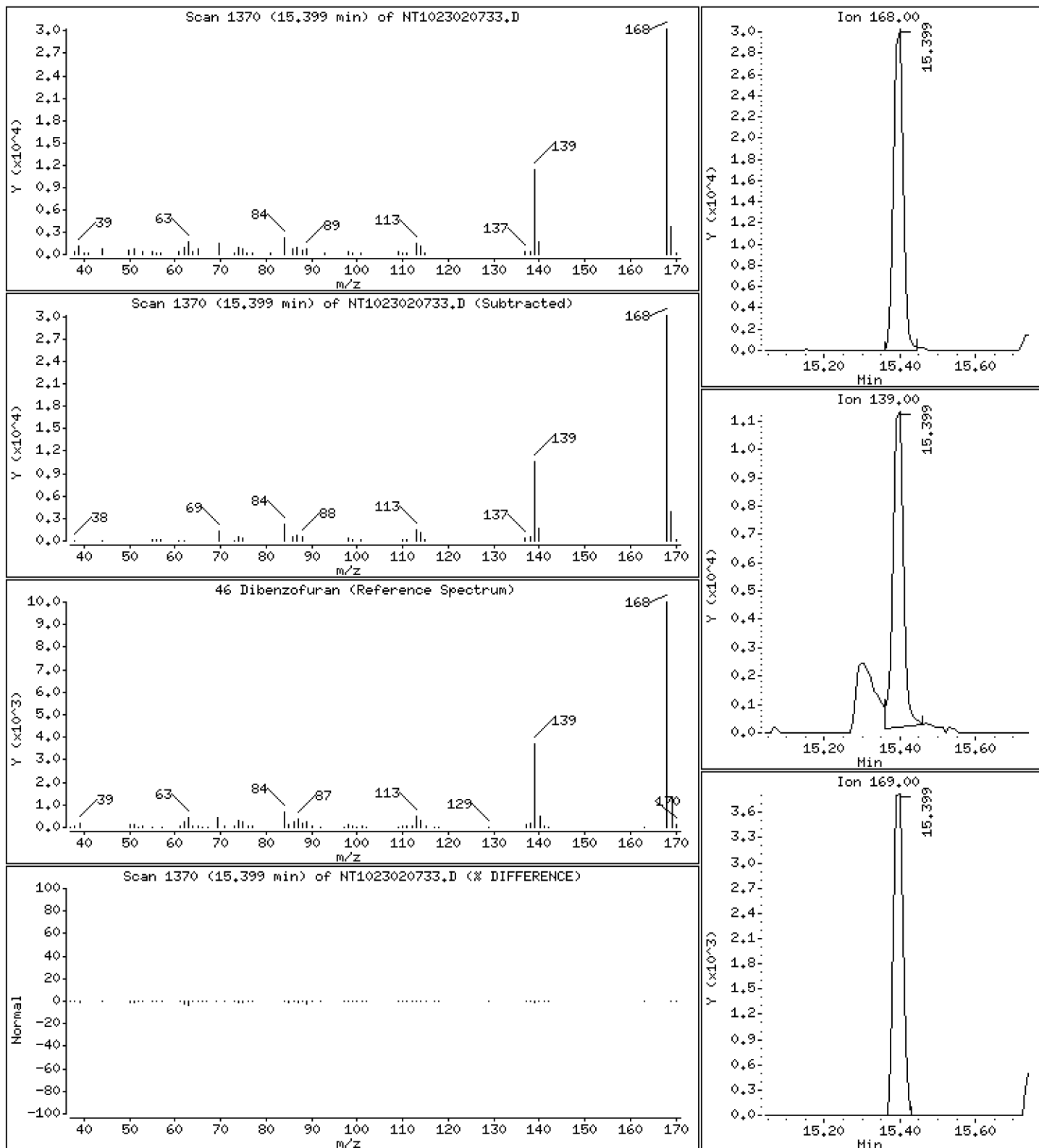
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,5225 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

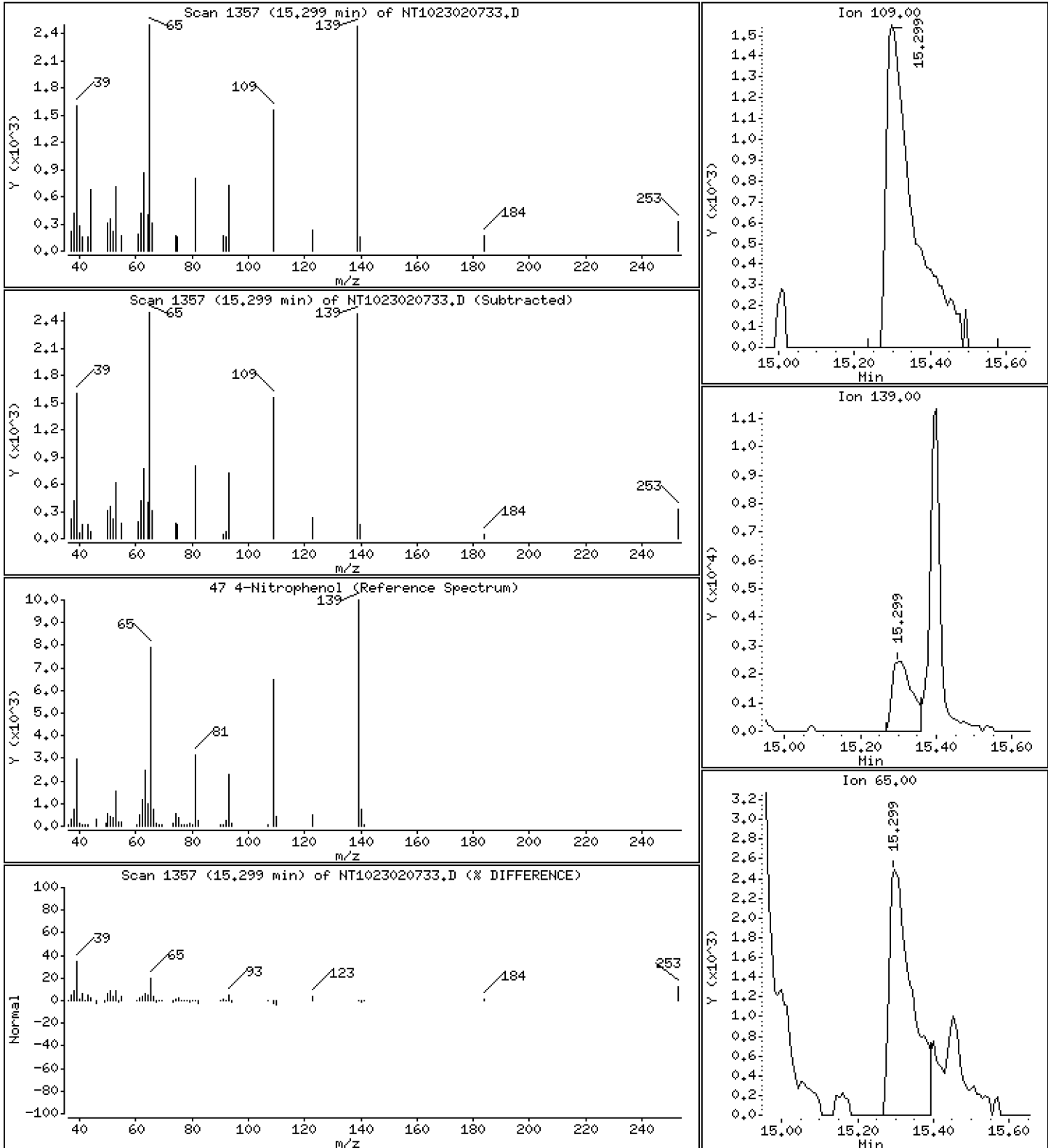
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 1,049 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

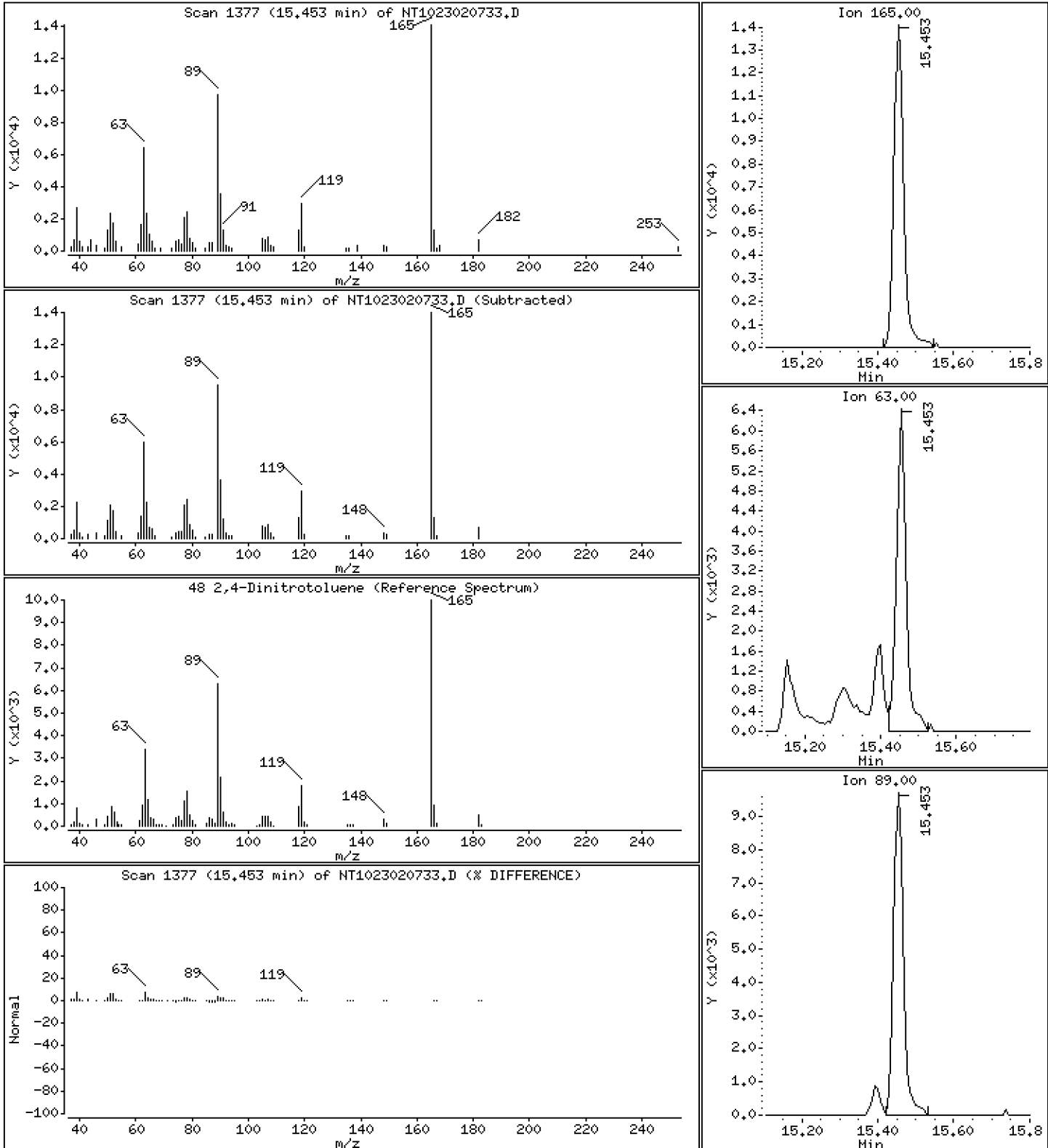
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 1,012 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

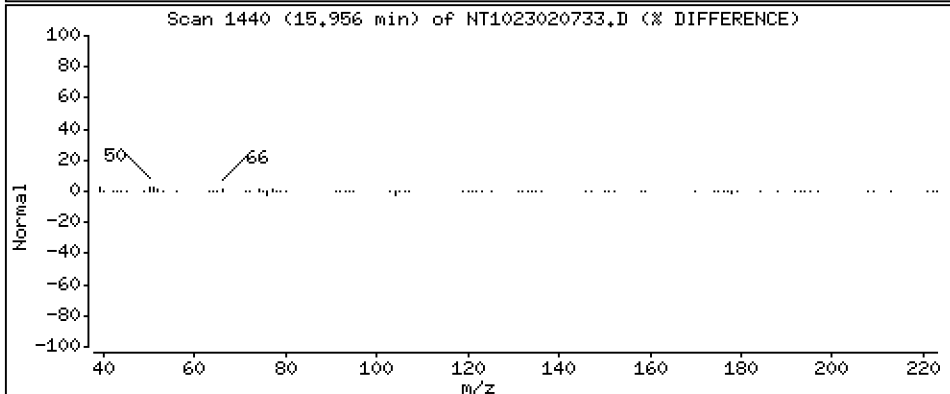
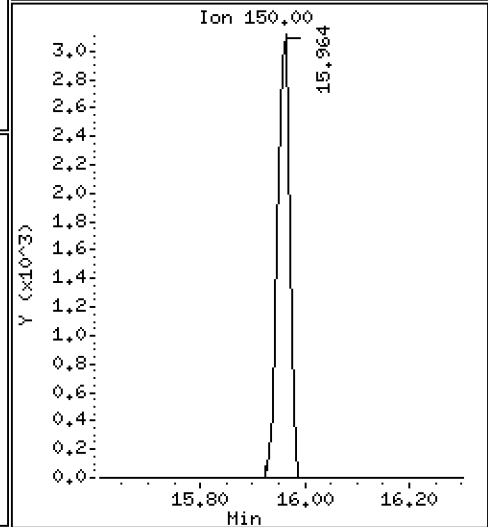
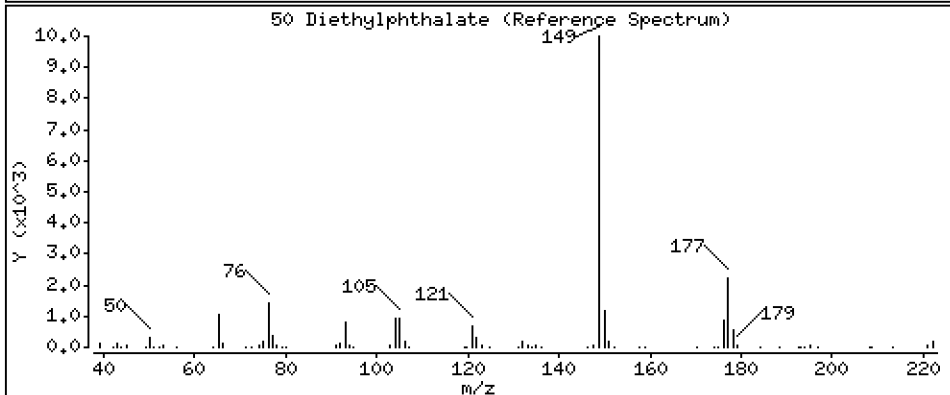
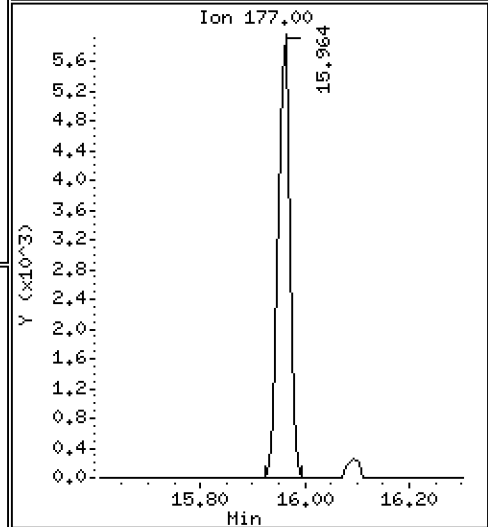
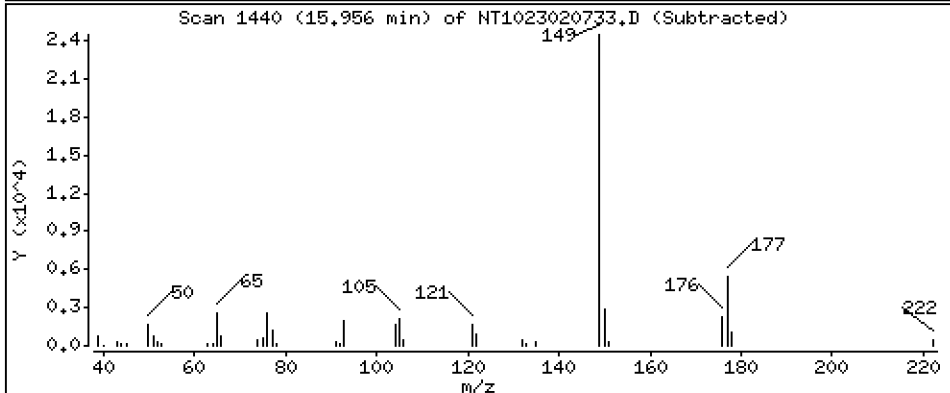
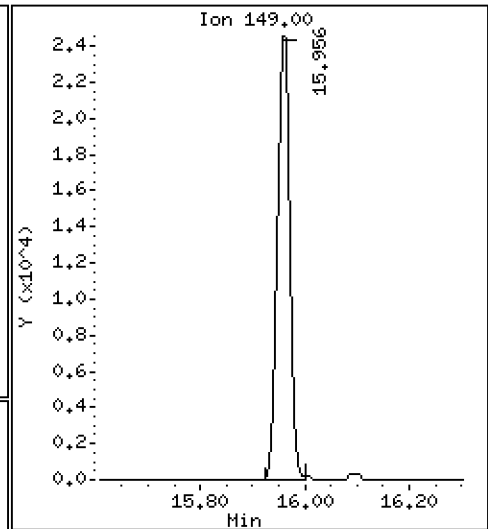
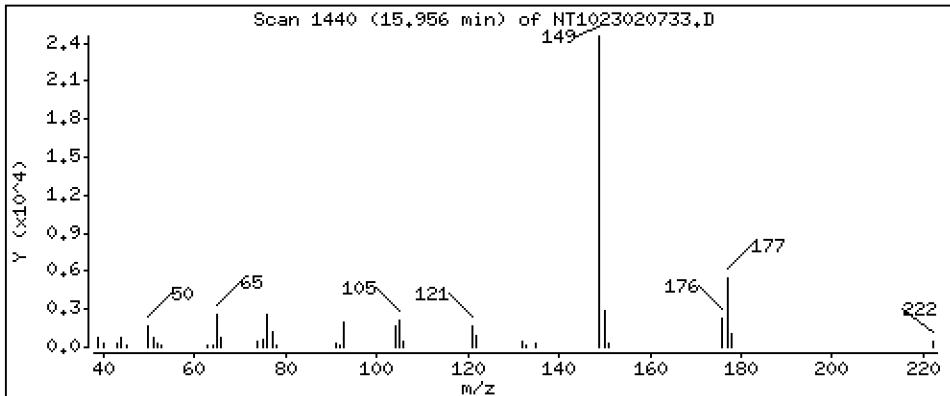
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,5541 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

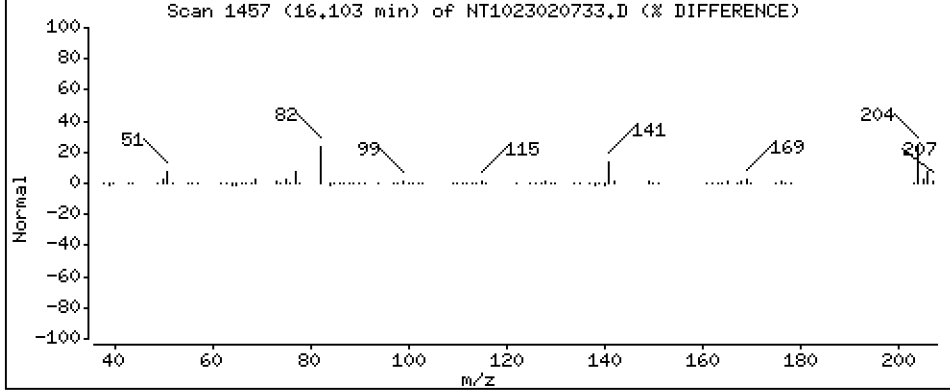
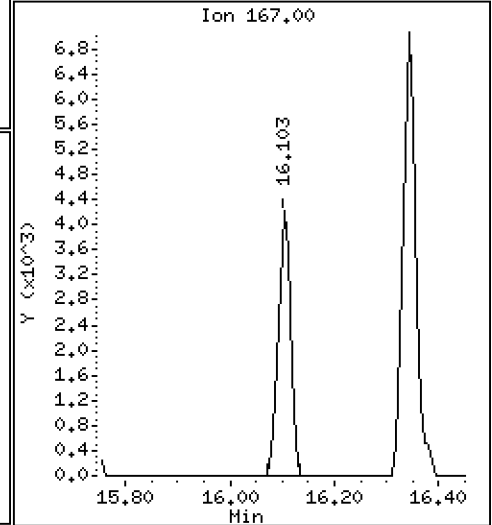
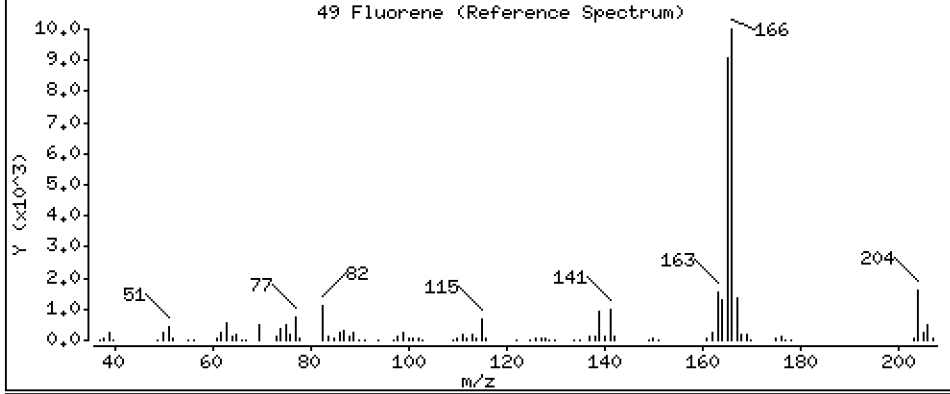
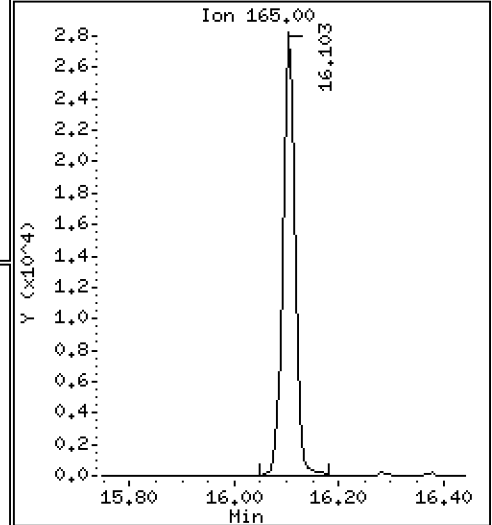
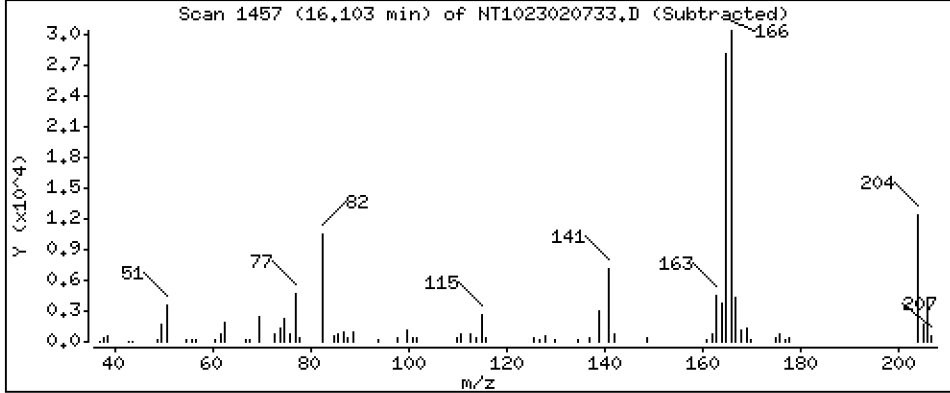
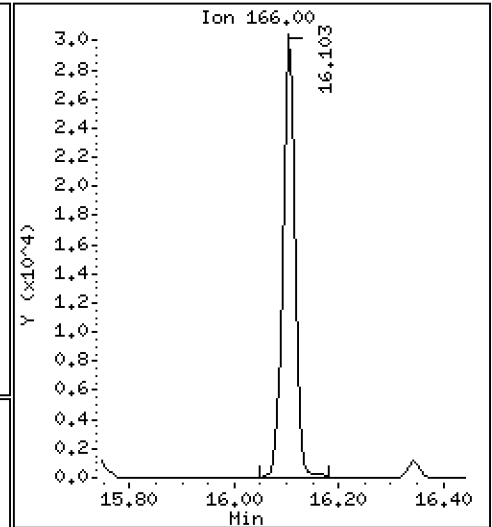
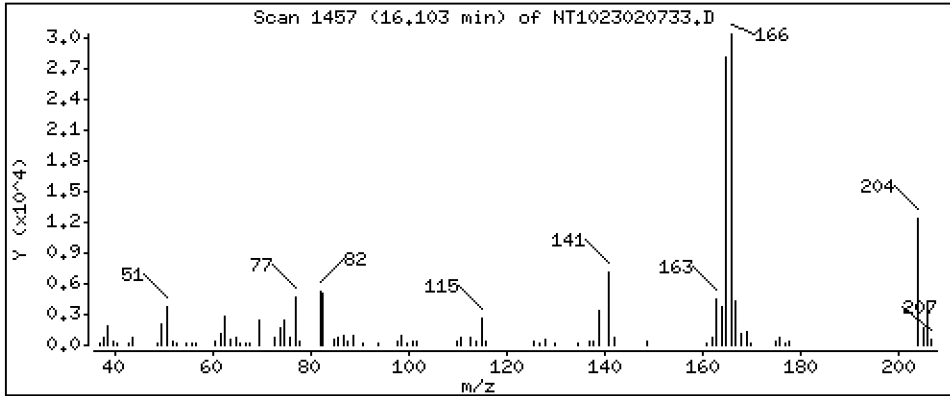
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

49 Fluorene

Concentration: 0.5285 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

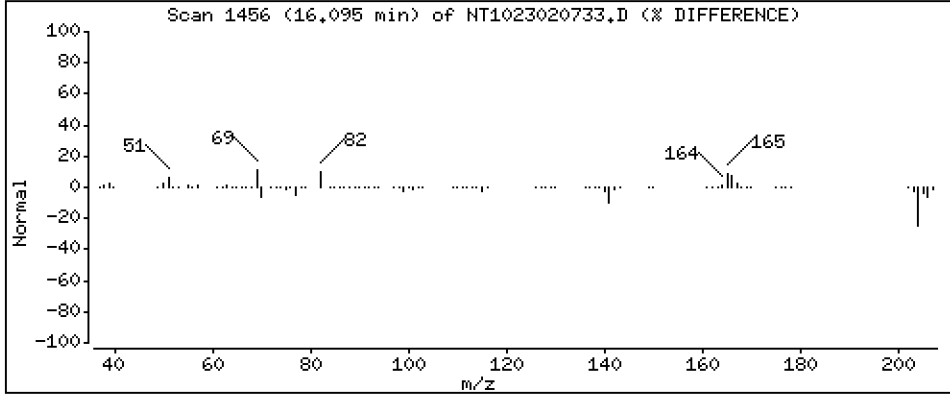
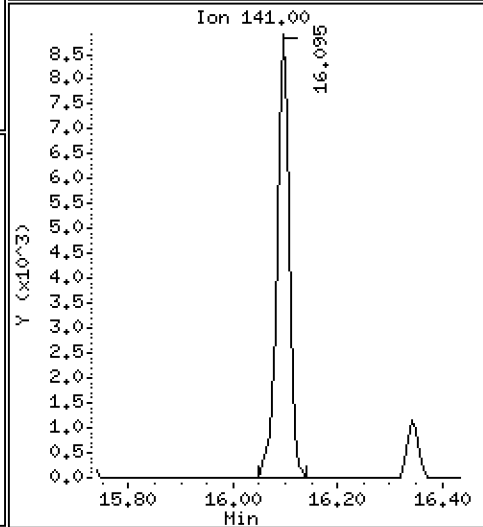
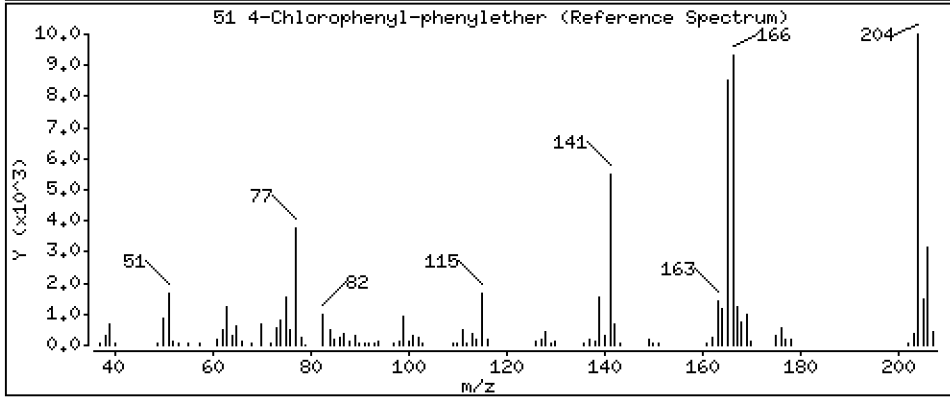
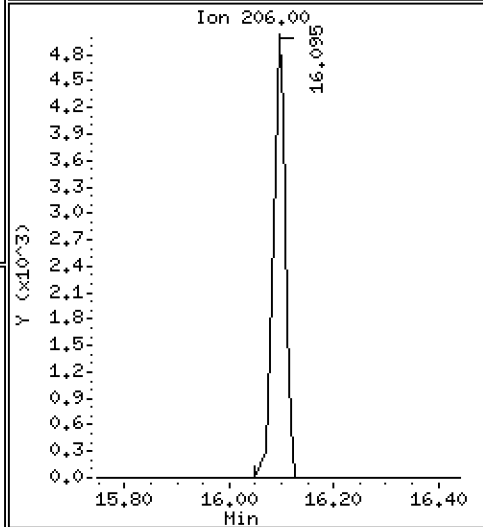
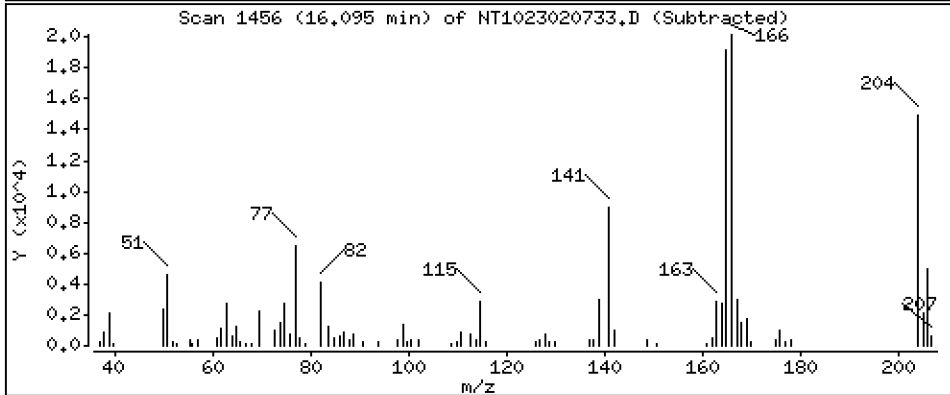
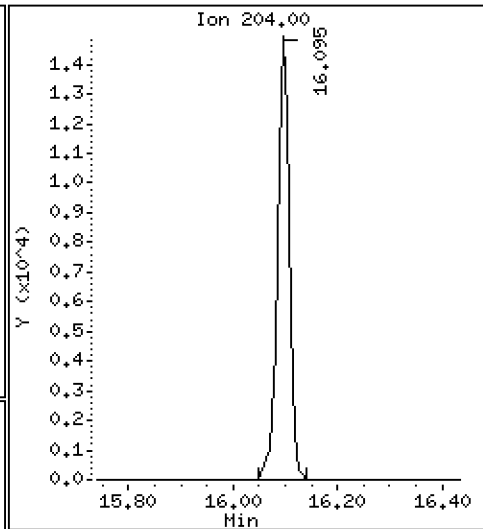
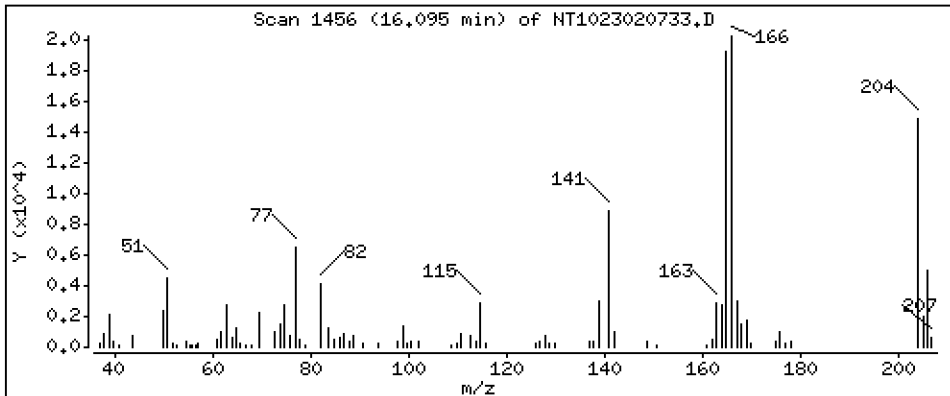
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

51 4-Chlorophenyl-phenylether

Concentration: 0.5399 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

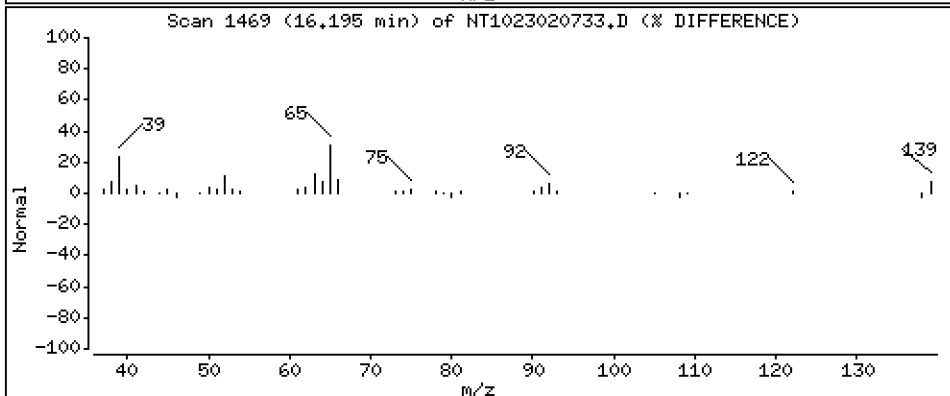
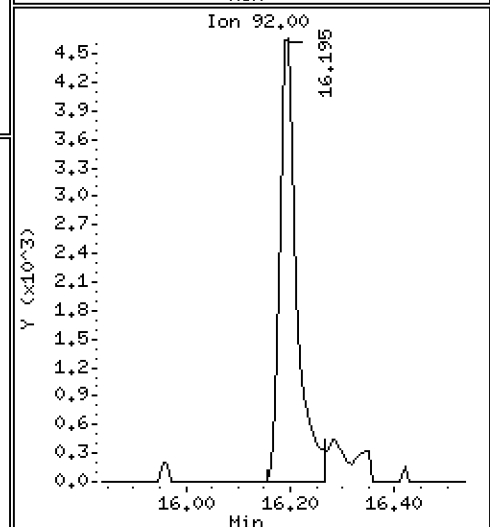
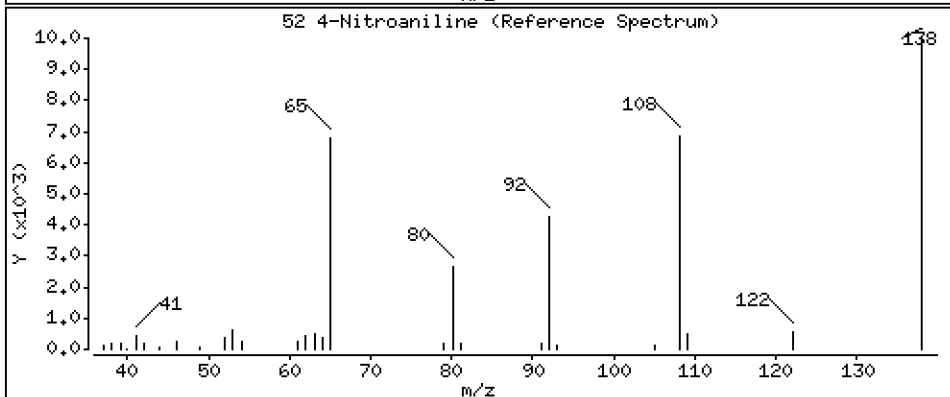
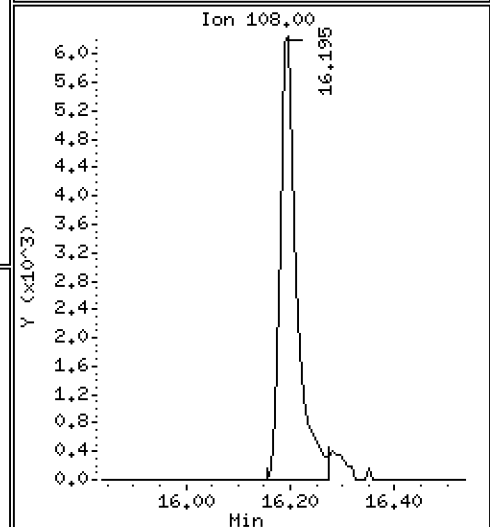
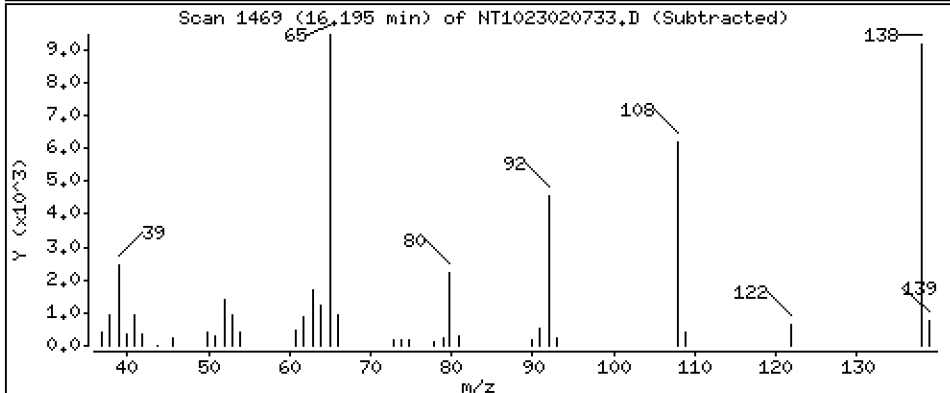
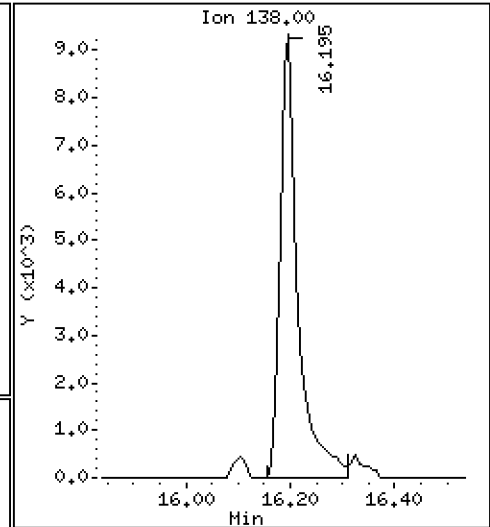
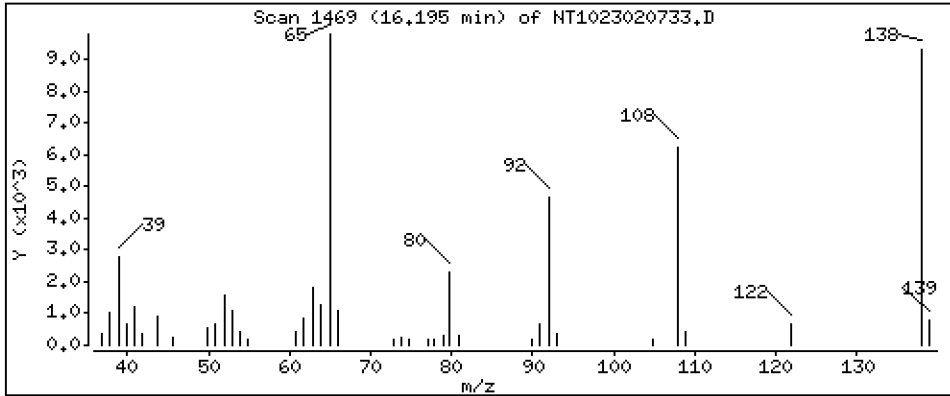
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 0,9729 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

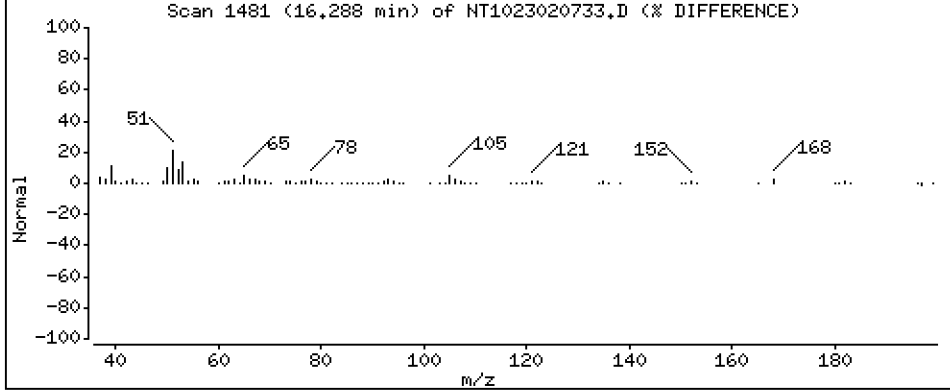
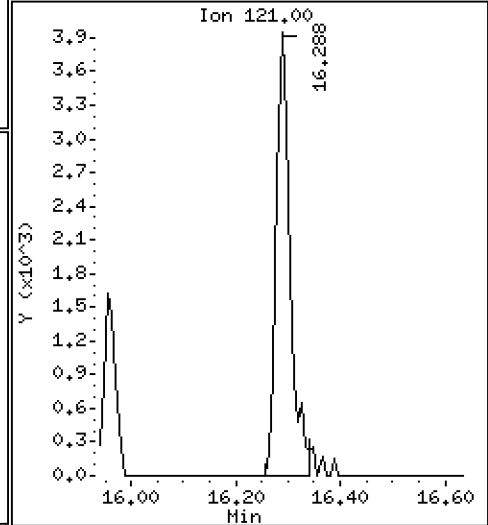
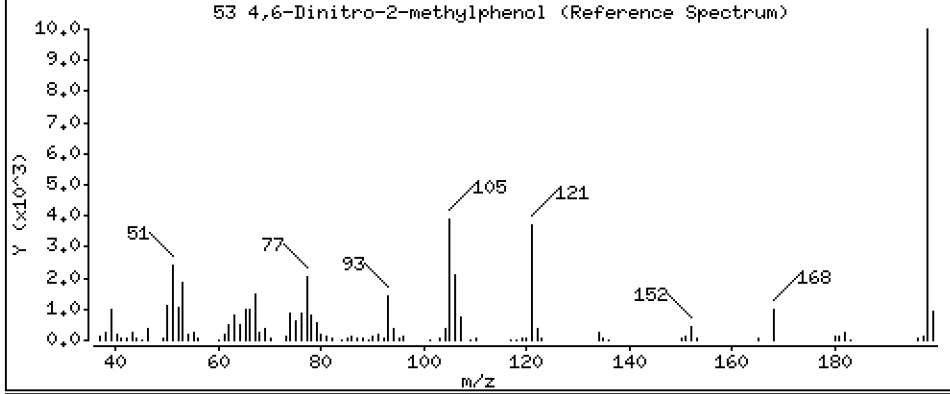
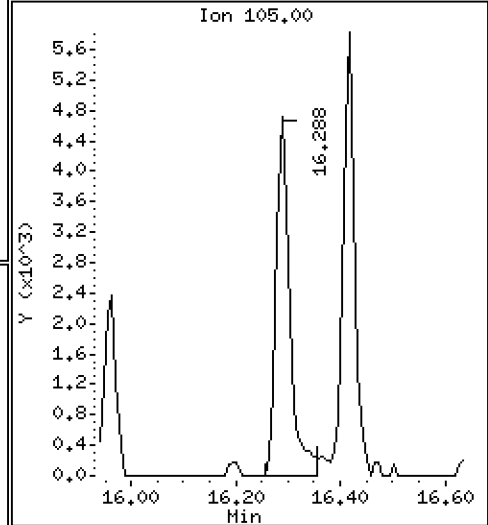
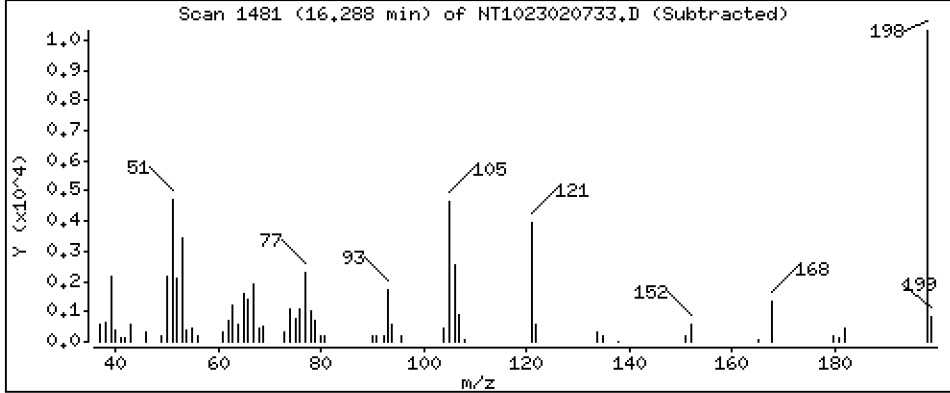
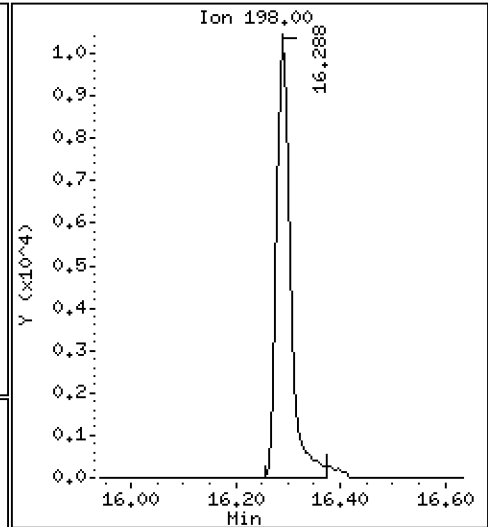
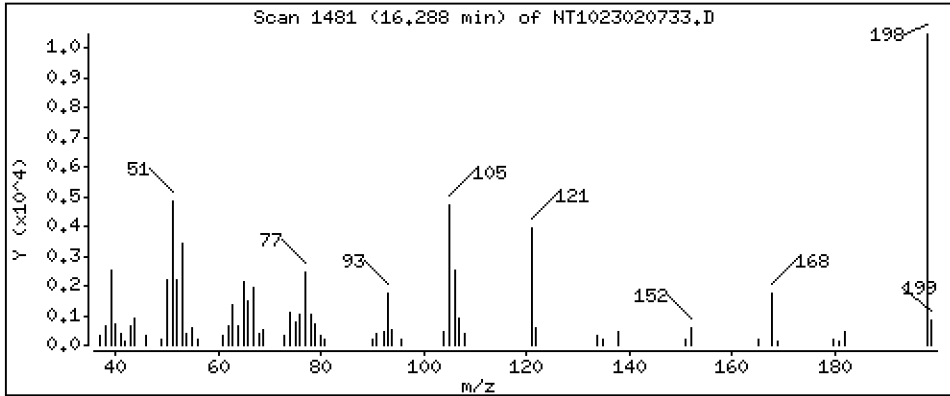
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

53 4,6-Dinitro-2-methylphenol

Concentration: 1.366 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

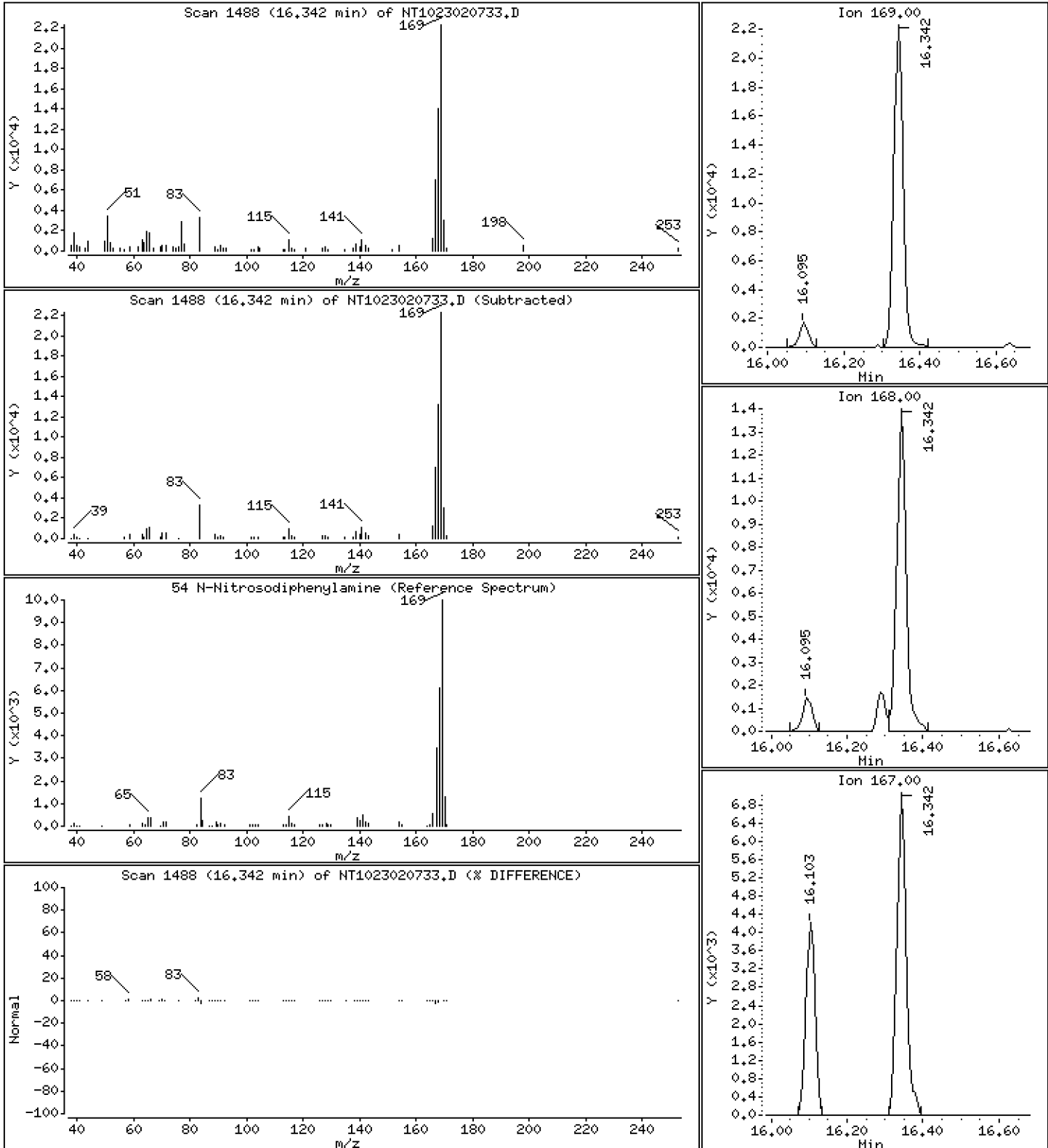
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 0,5610 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

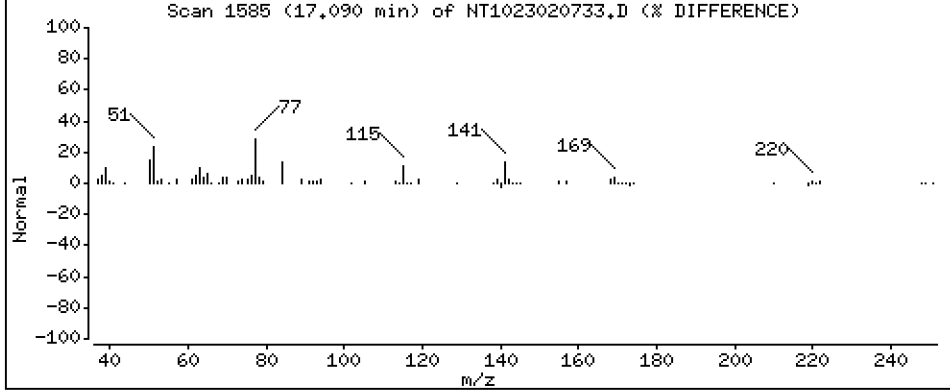
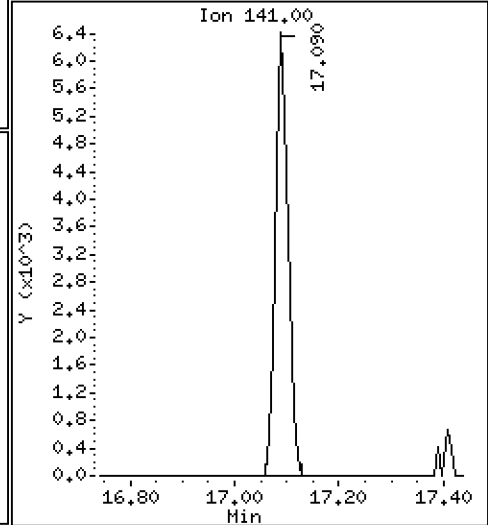
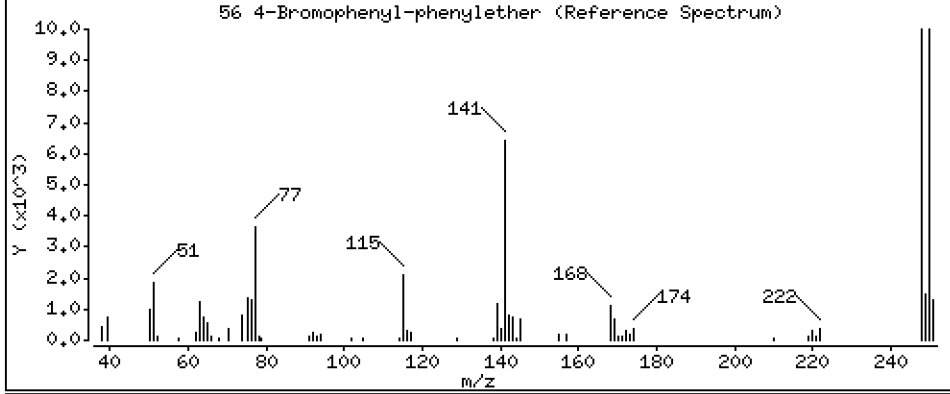
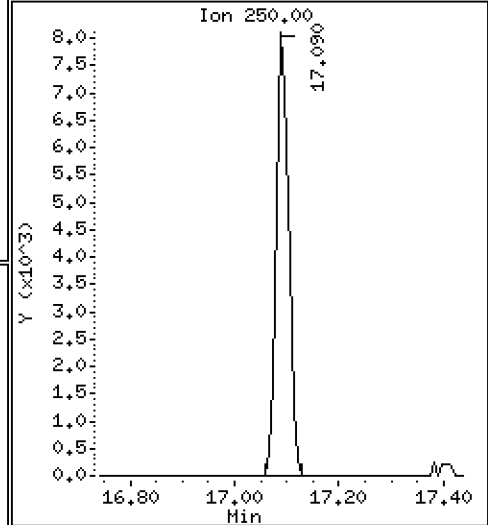
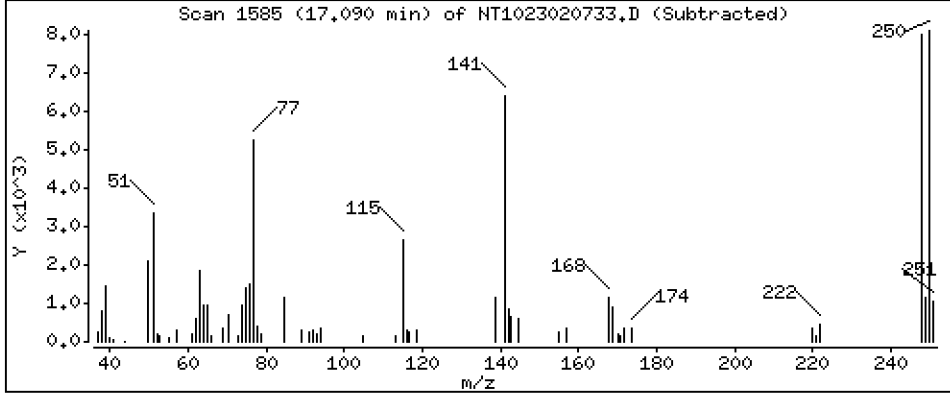
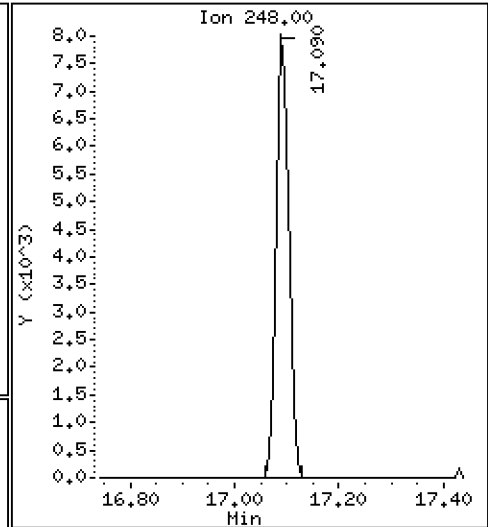
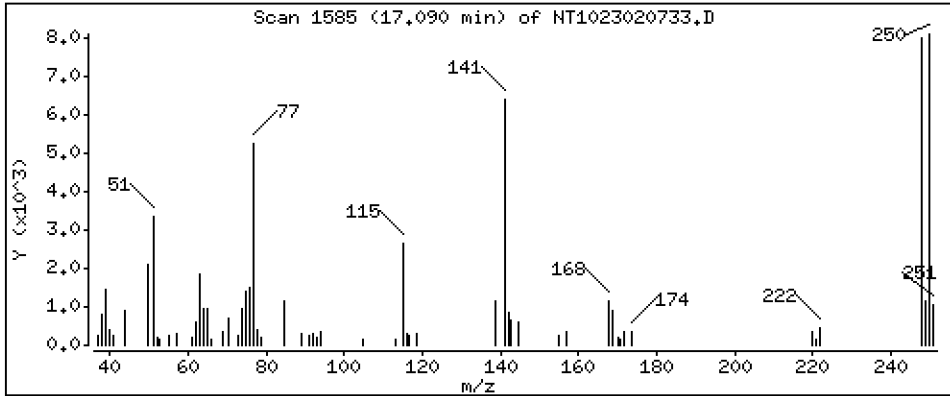
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 0,5458 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

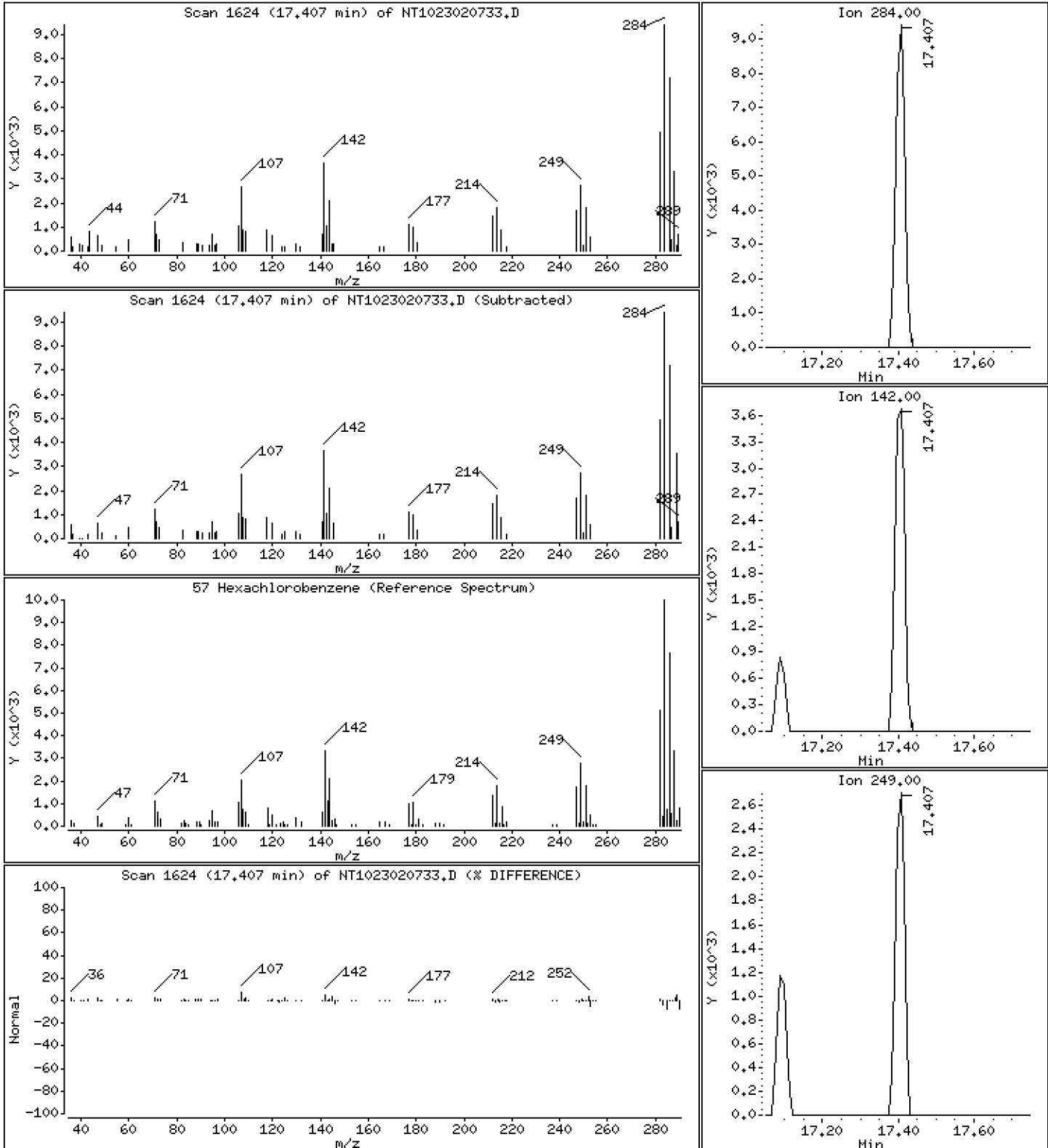
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,5720 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

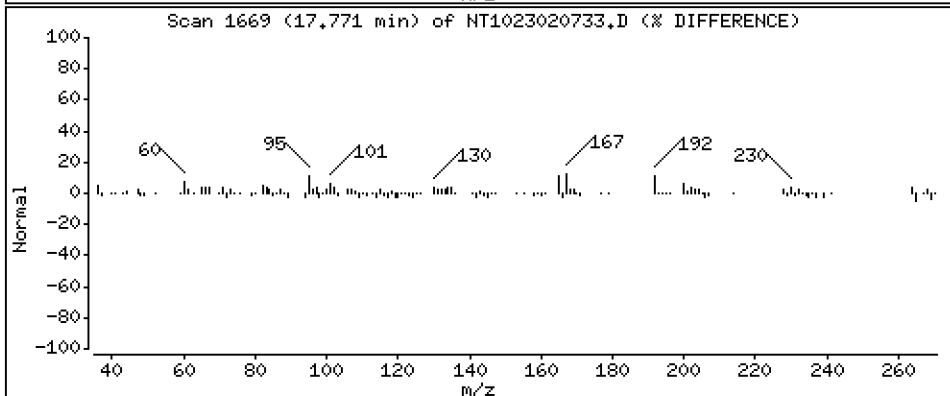
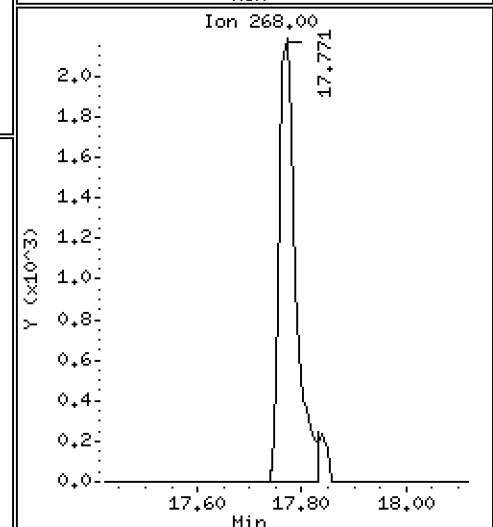
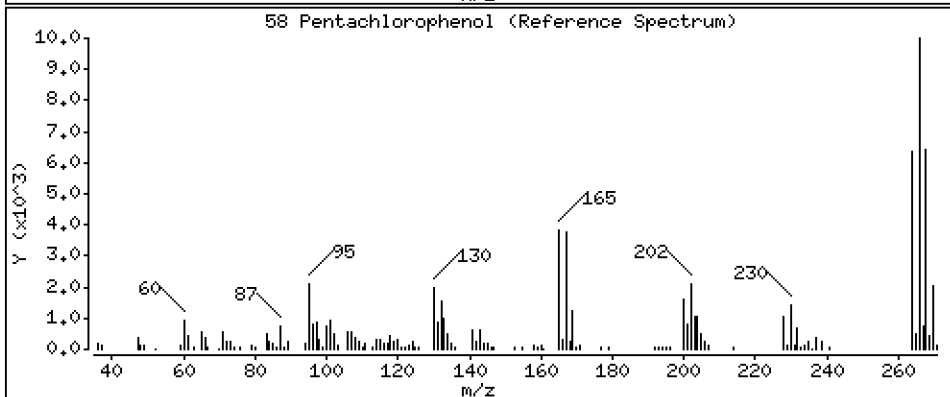
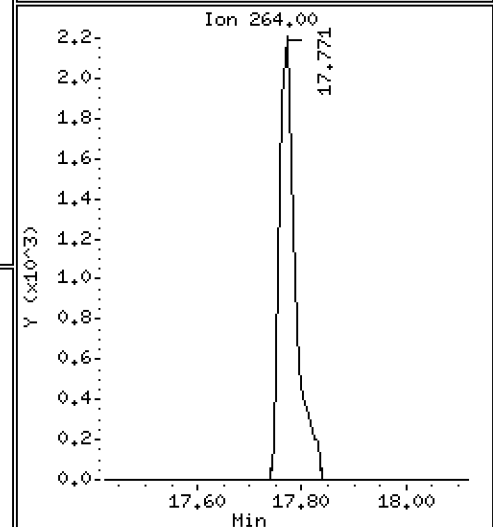
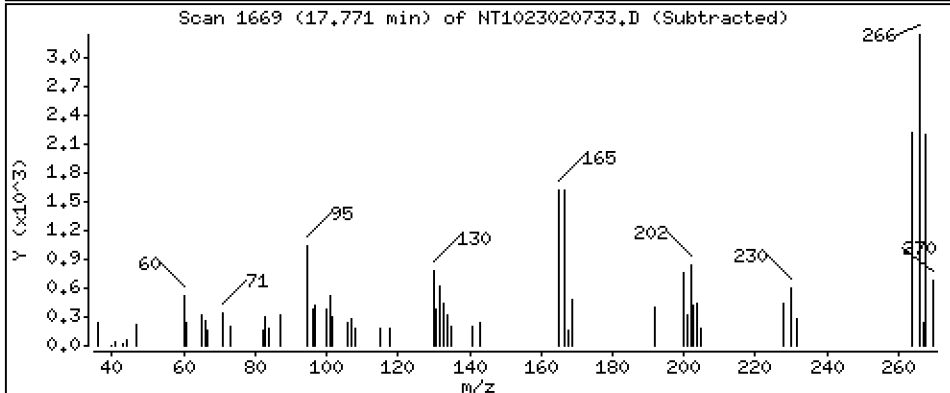
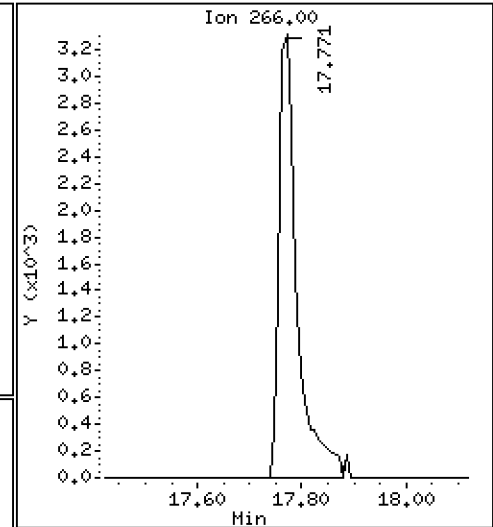
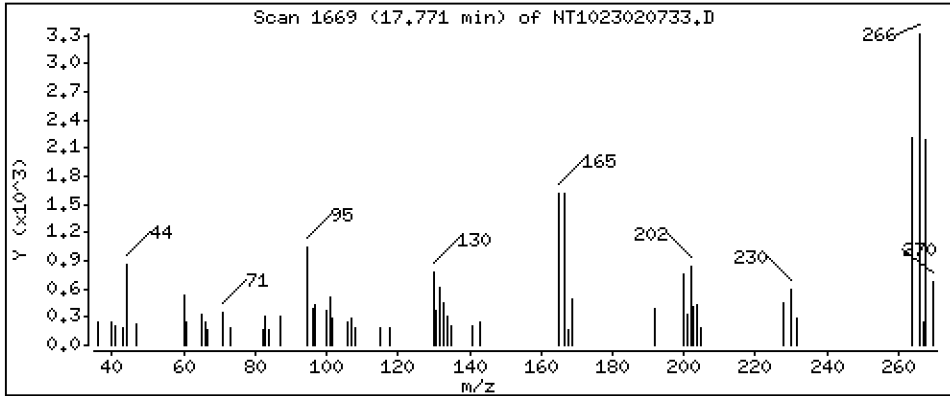
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,7960 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

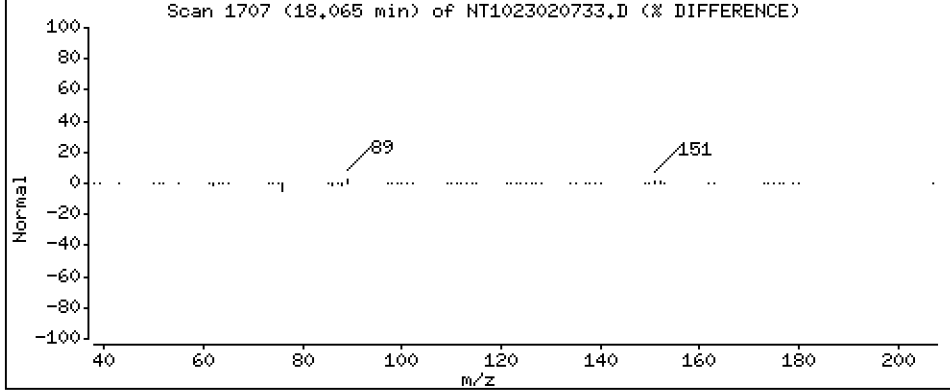
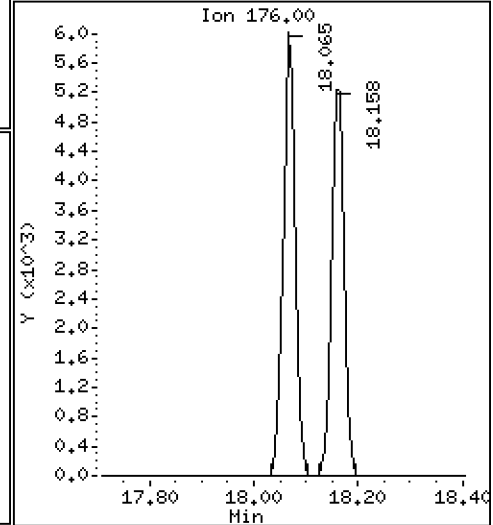
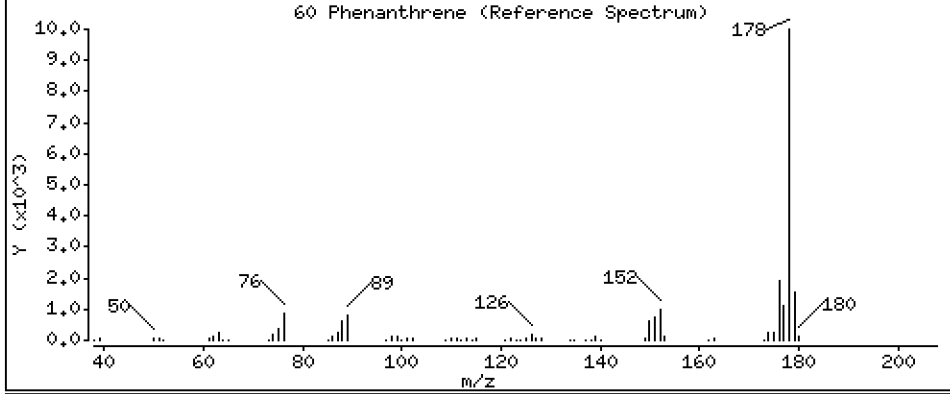
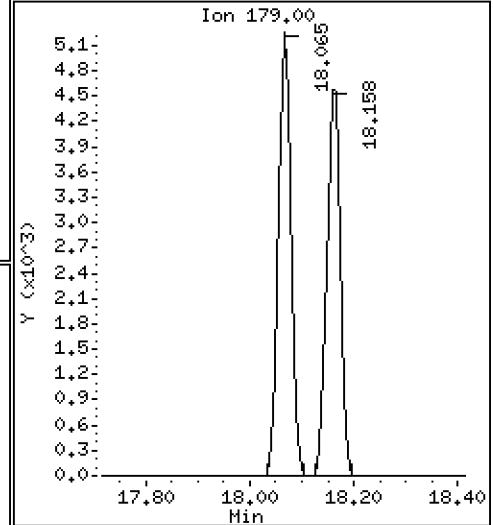
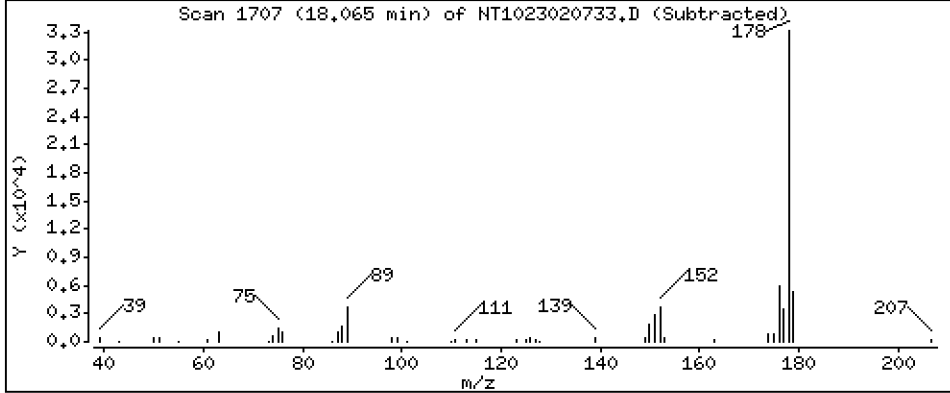
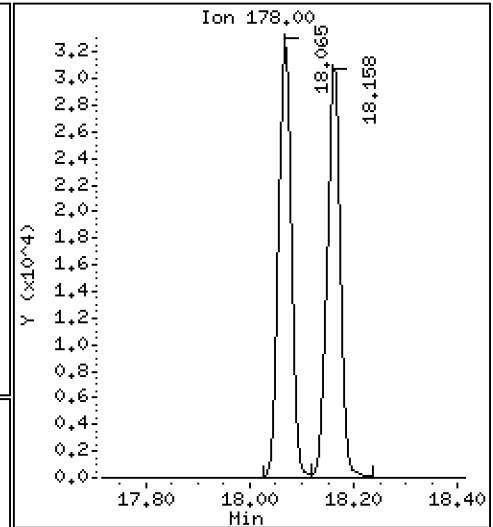
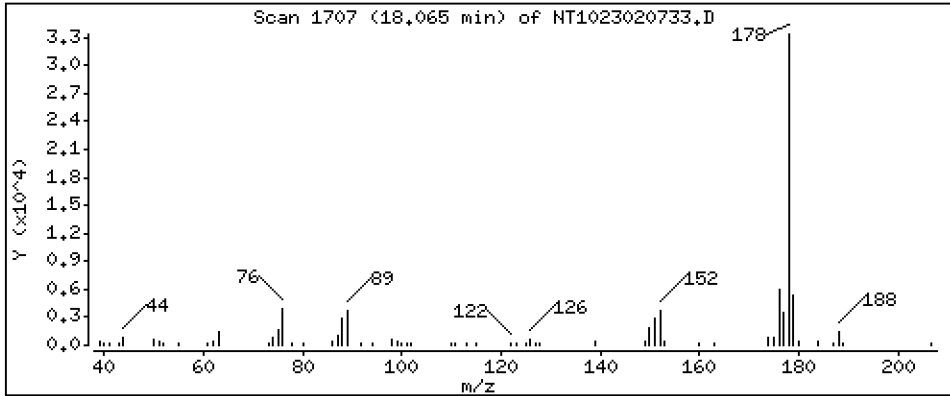
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,5276 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

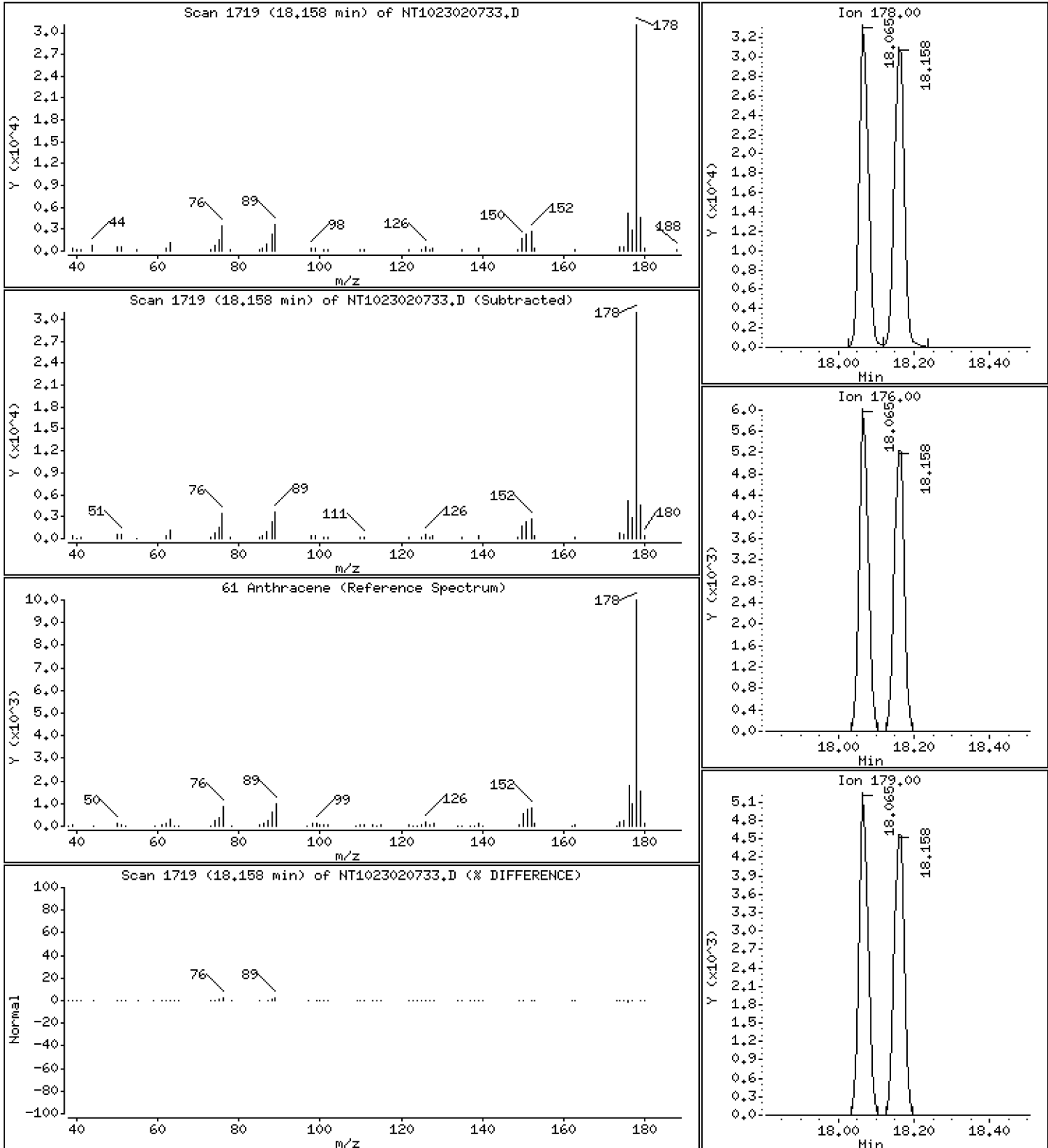
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,5445 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

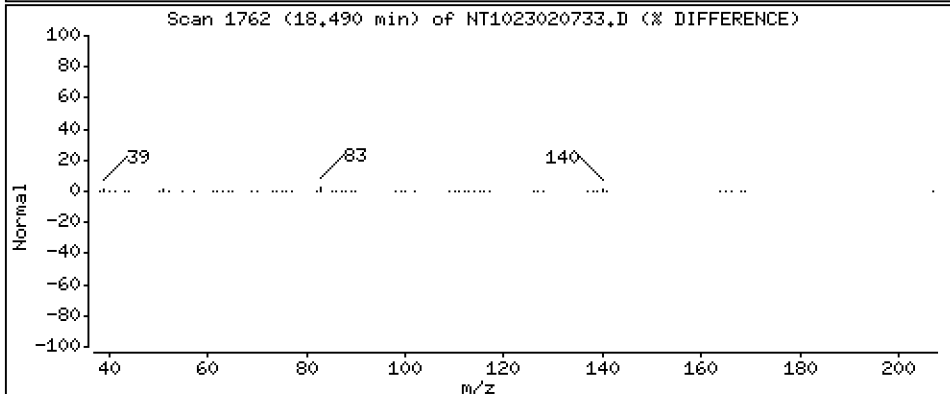
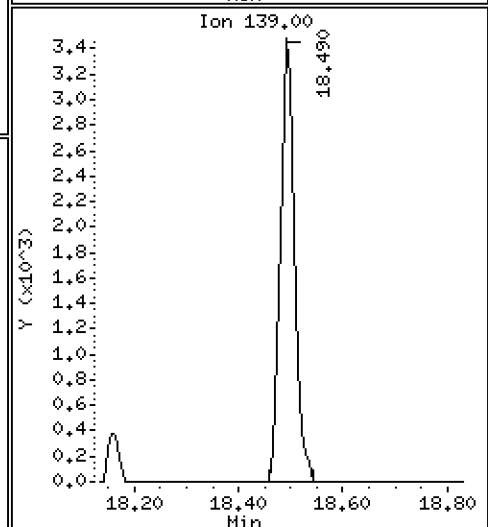
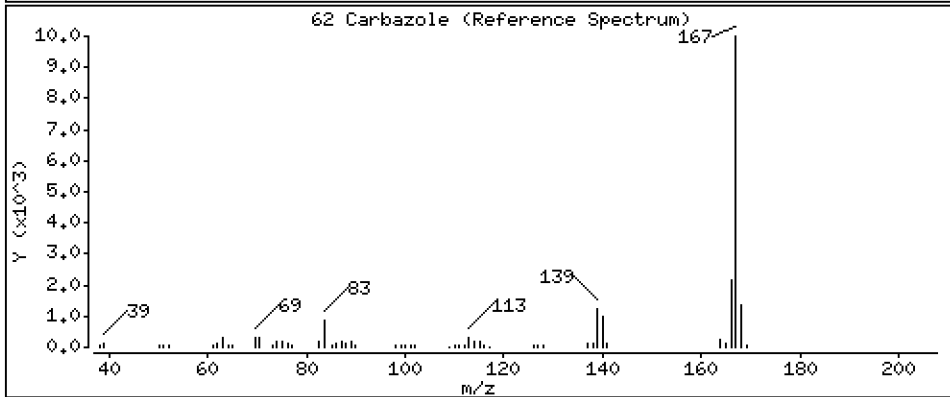
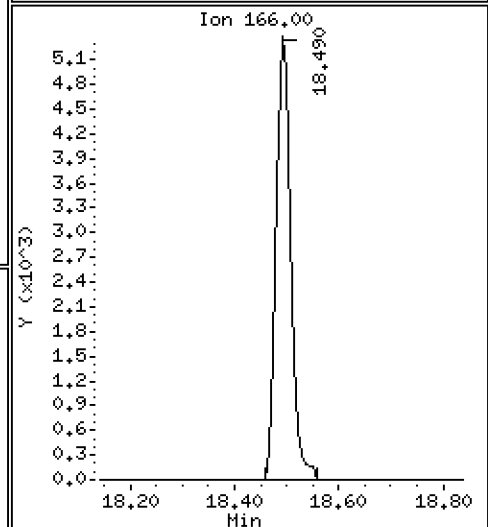
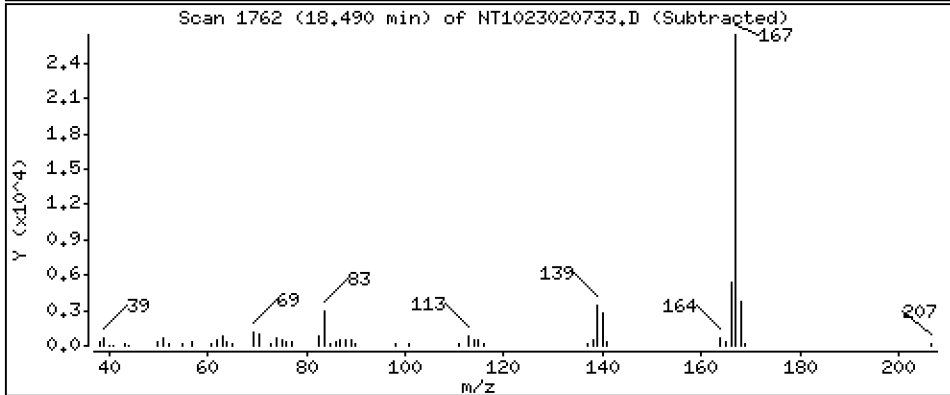
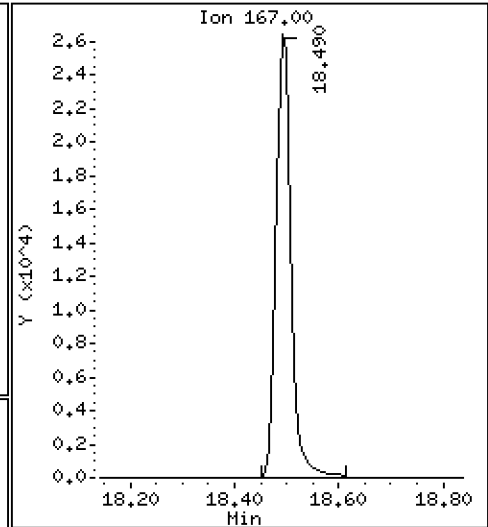
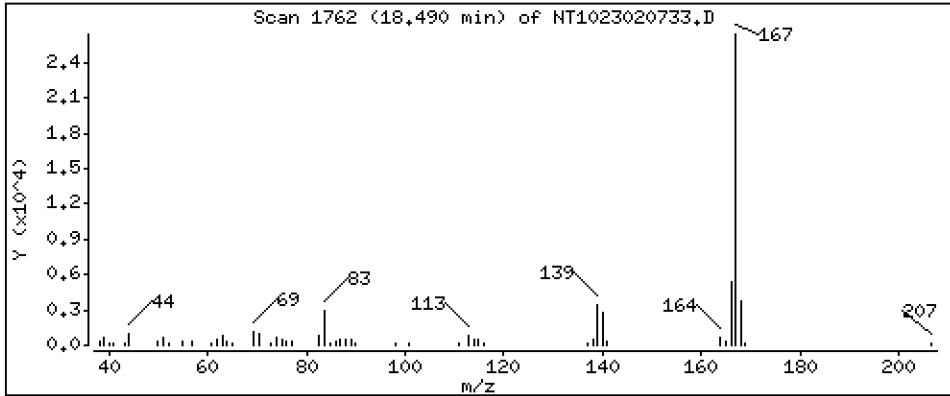
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,5250 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

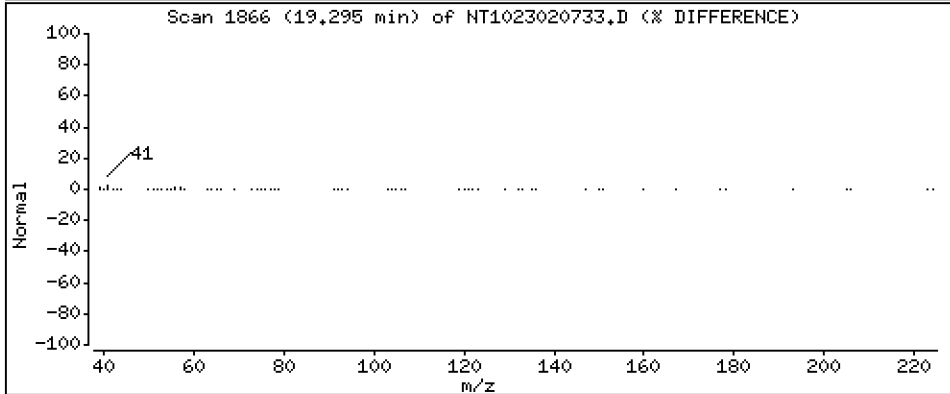
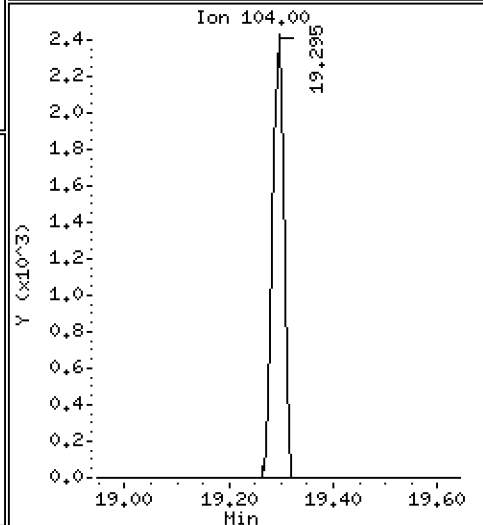
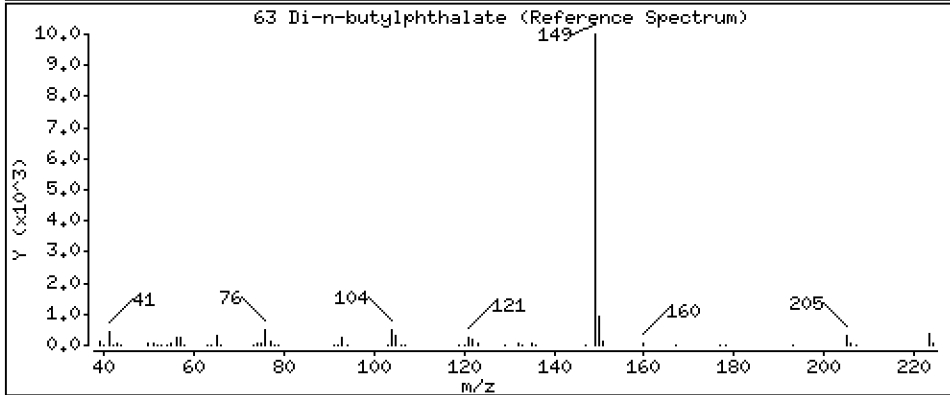
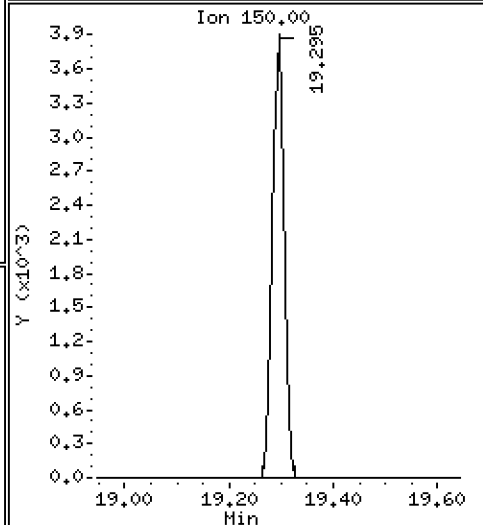
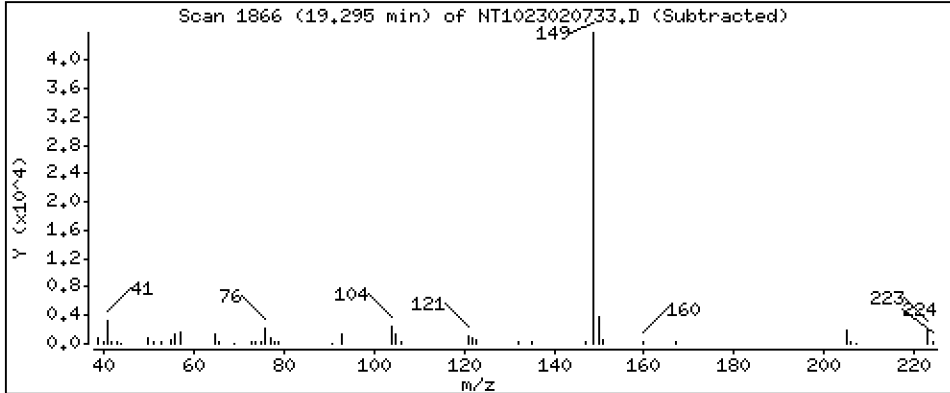
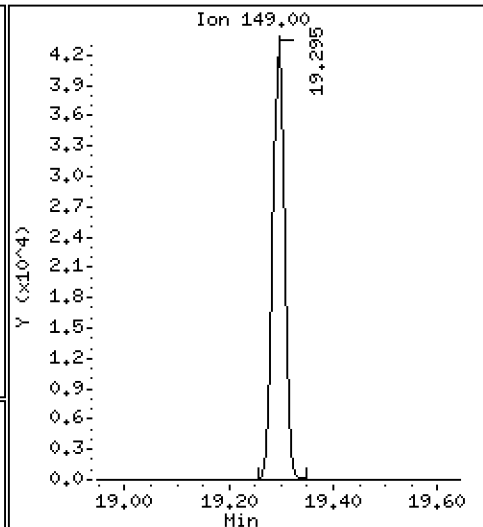
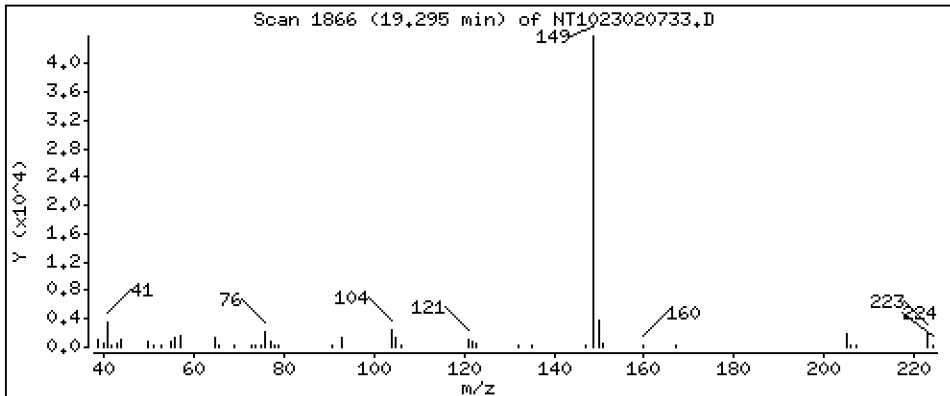
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

63 Di-n-butylphthalate

Concentration: 0.5534 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

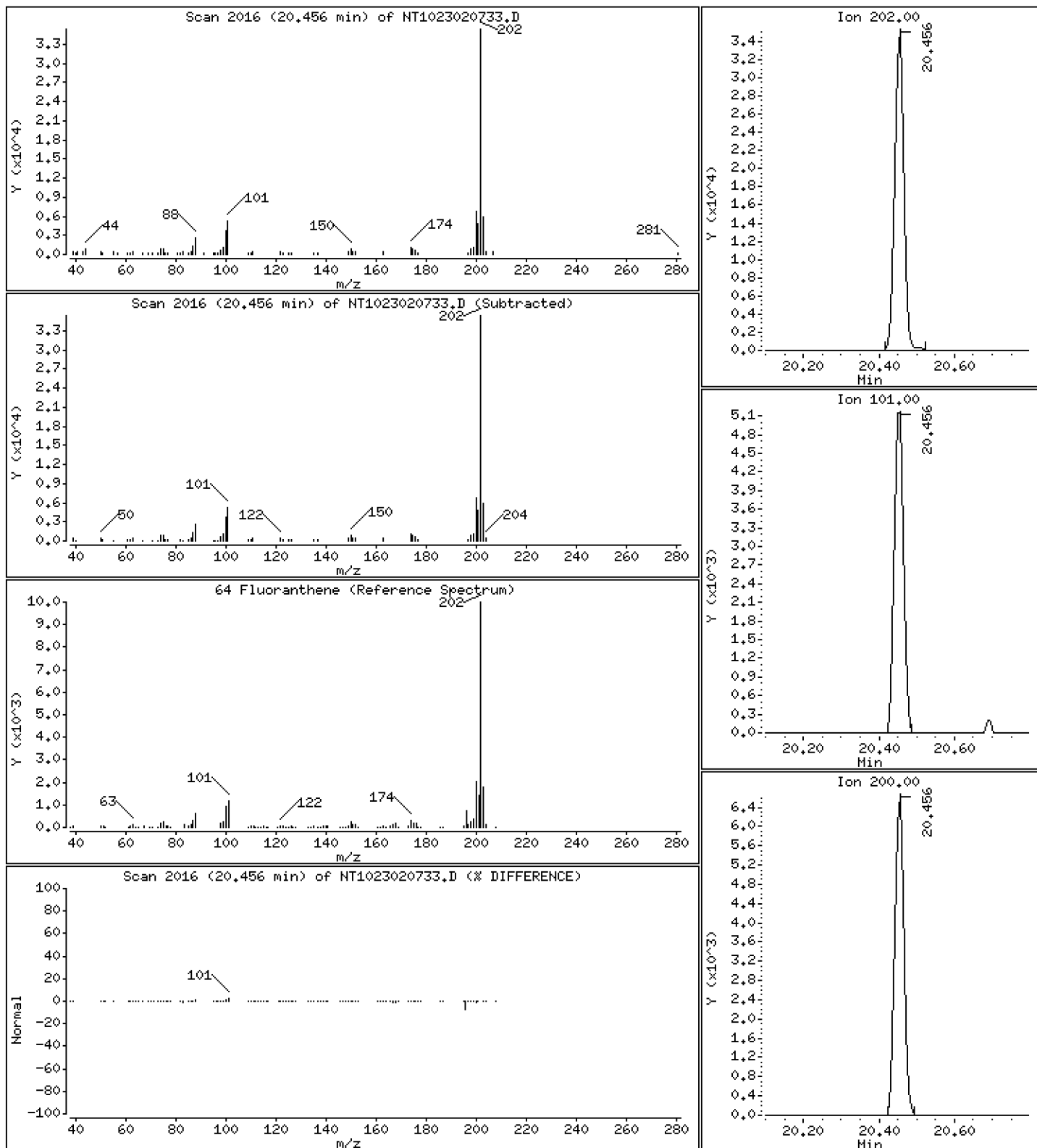
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,4988 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

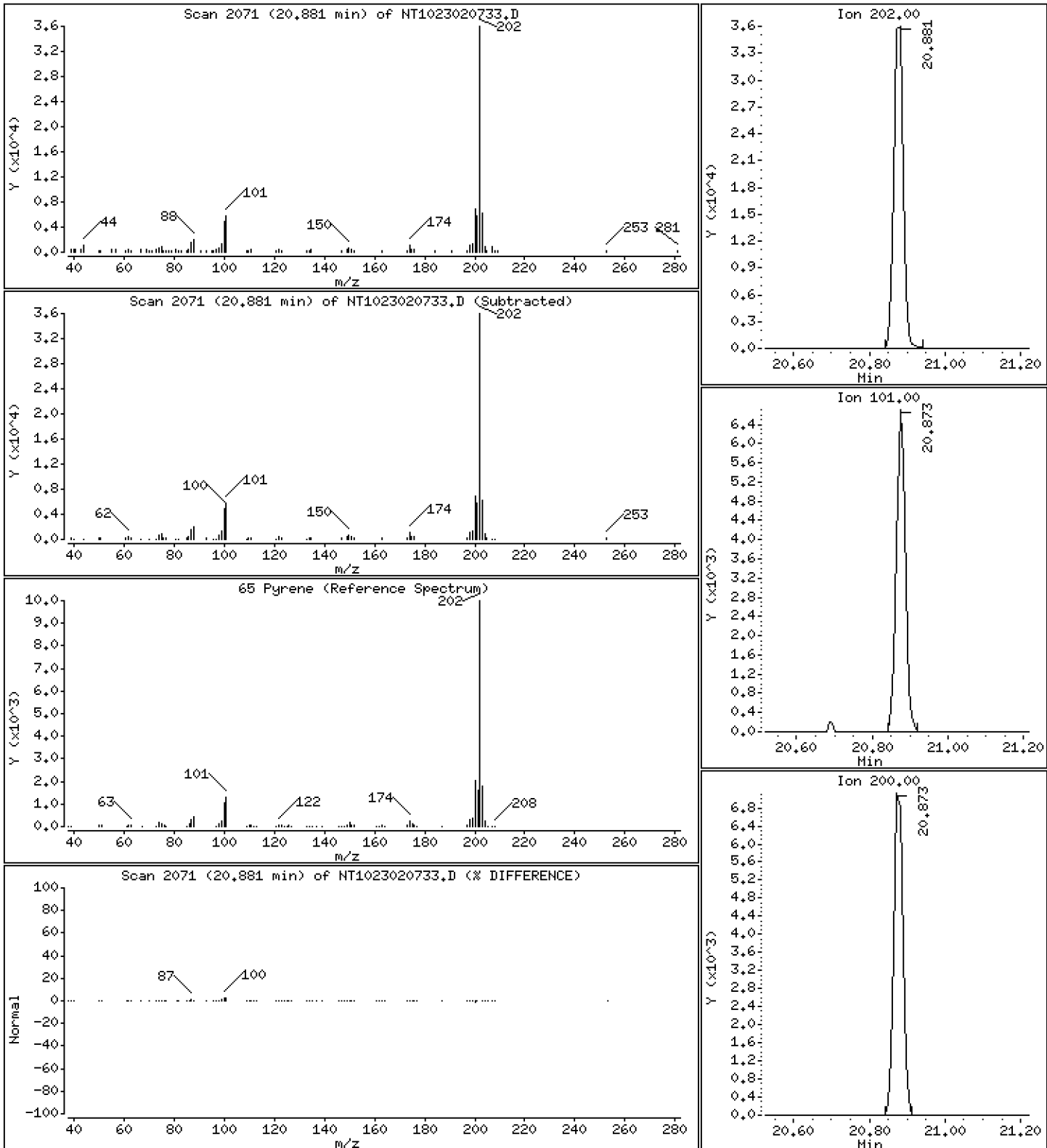
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 0,4960 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

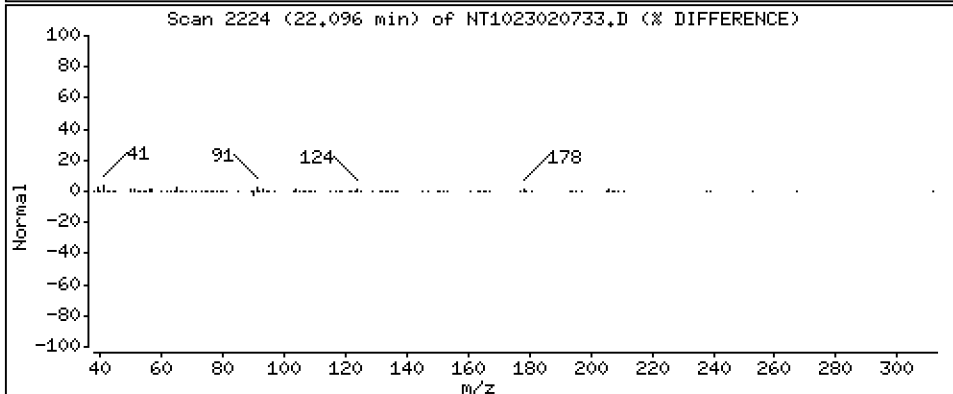
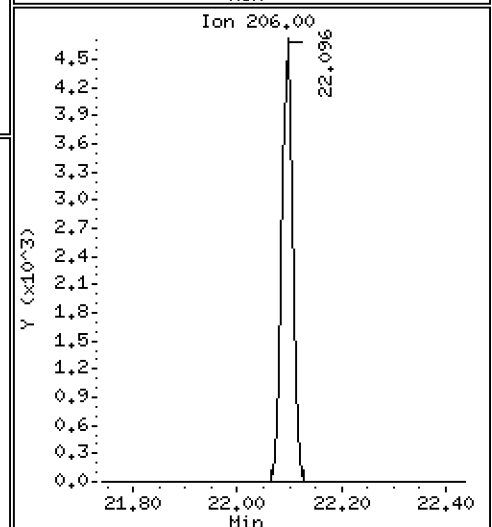
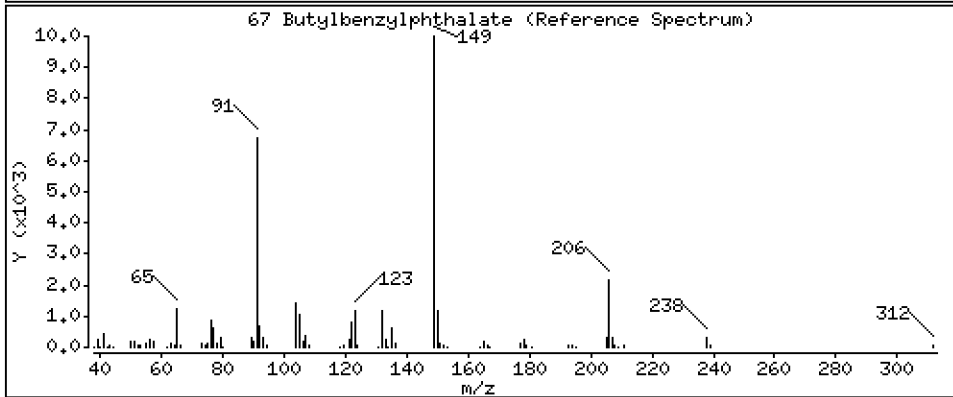
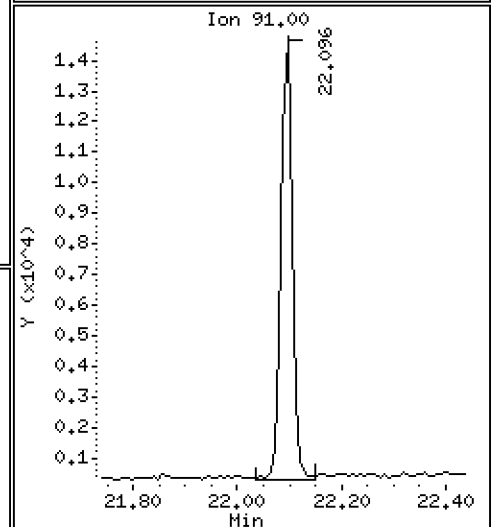
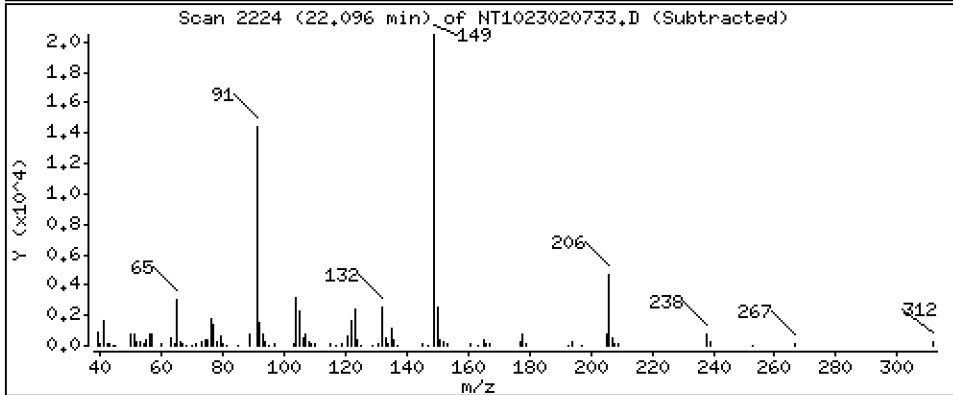
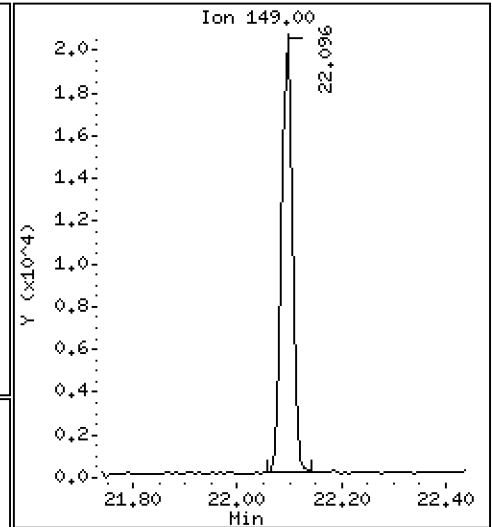
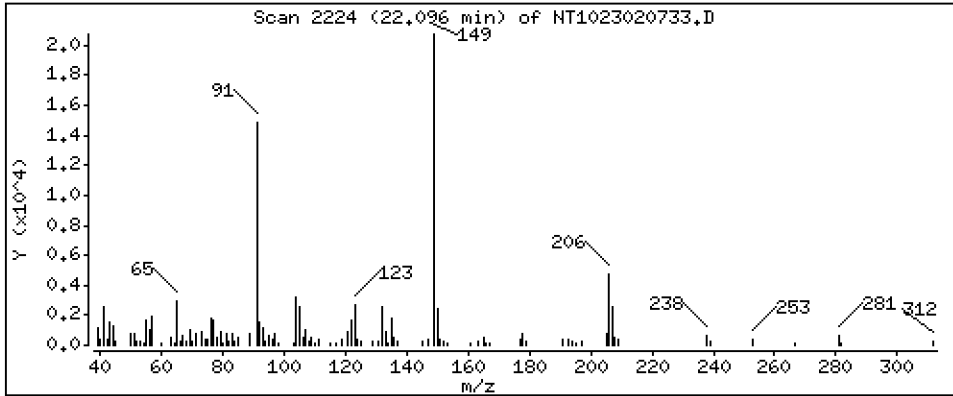
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 0,5441 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

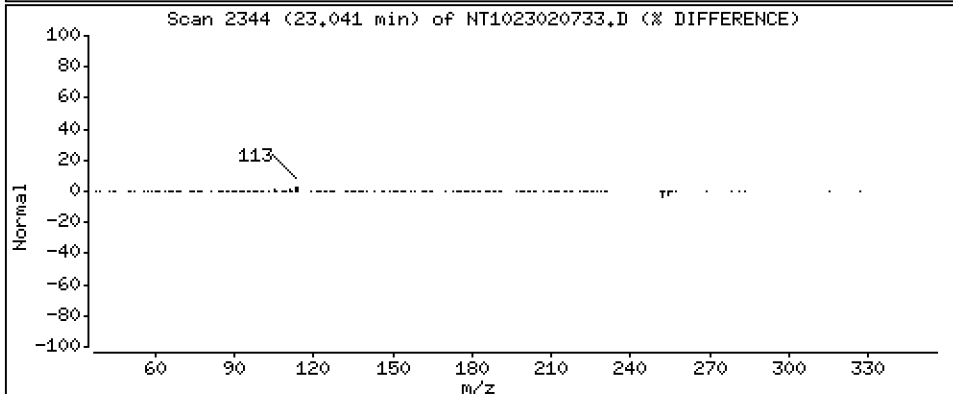
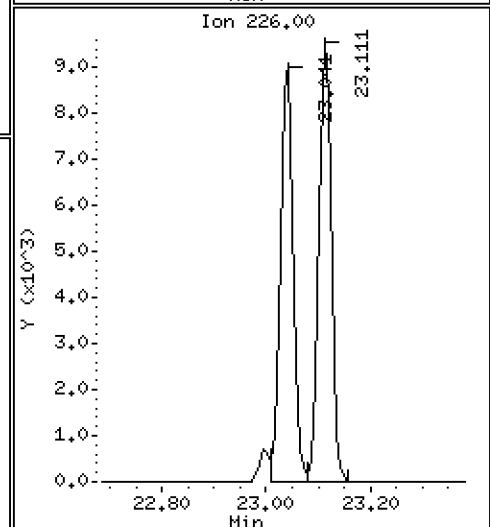
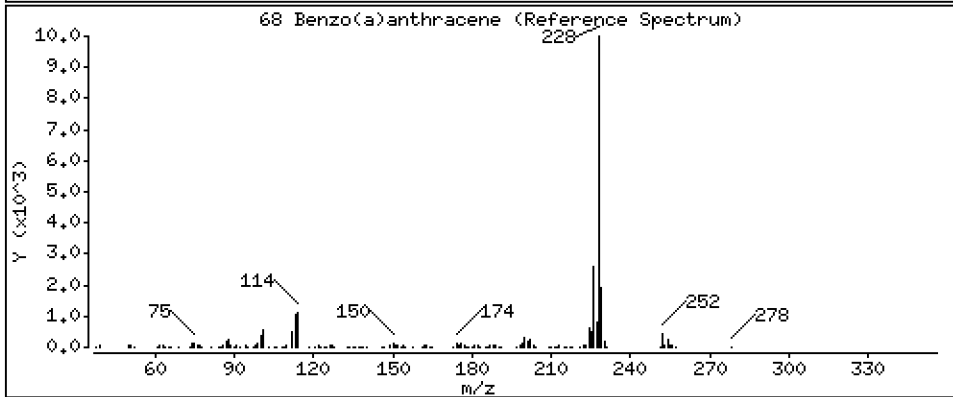
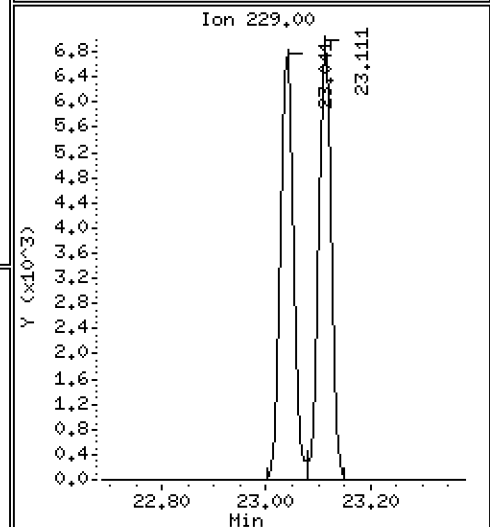
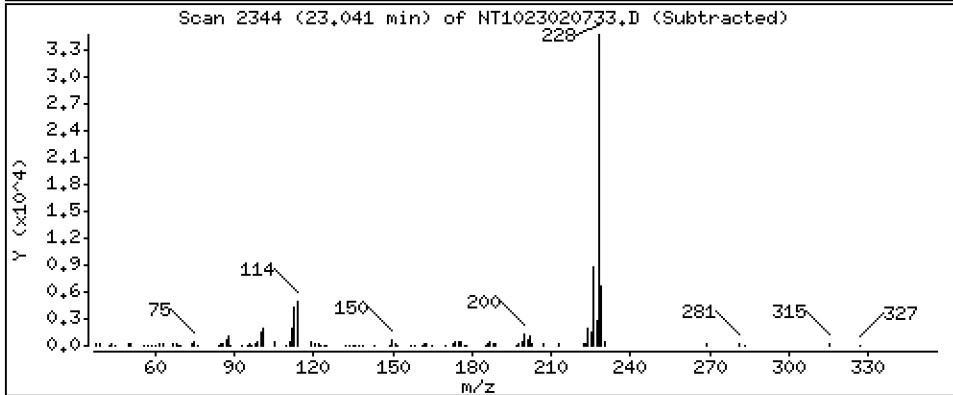
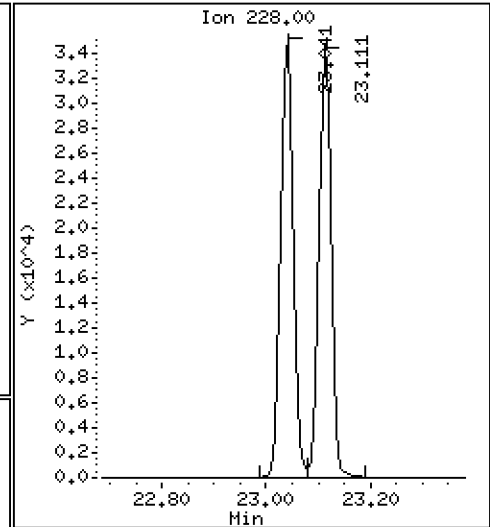
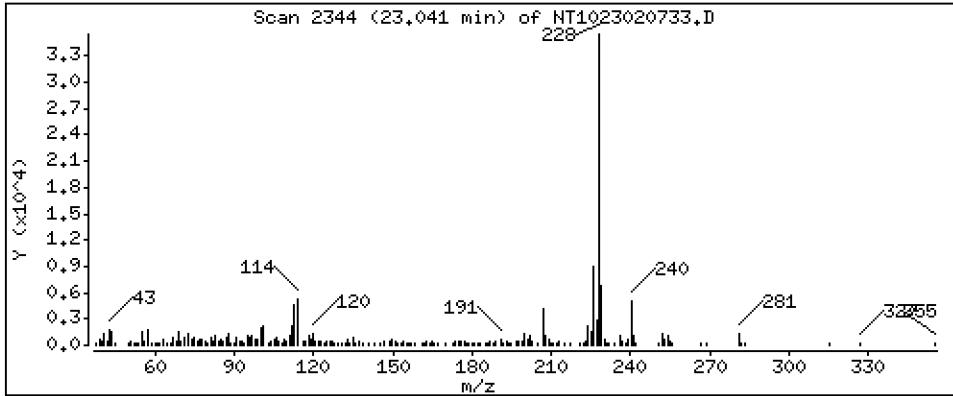
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,5582 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

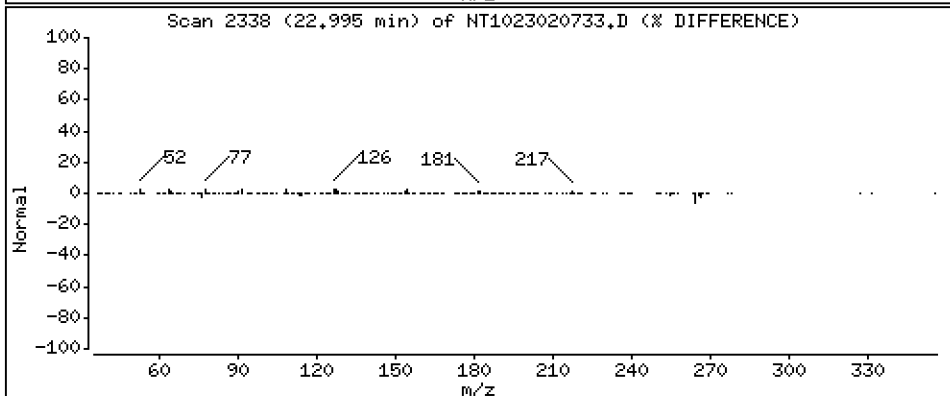
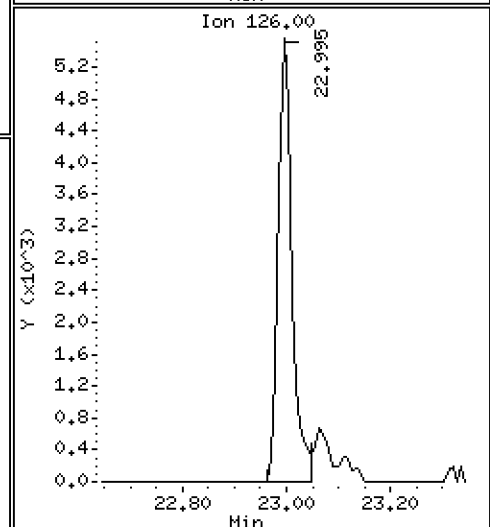
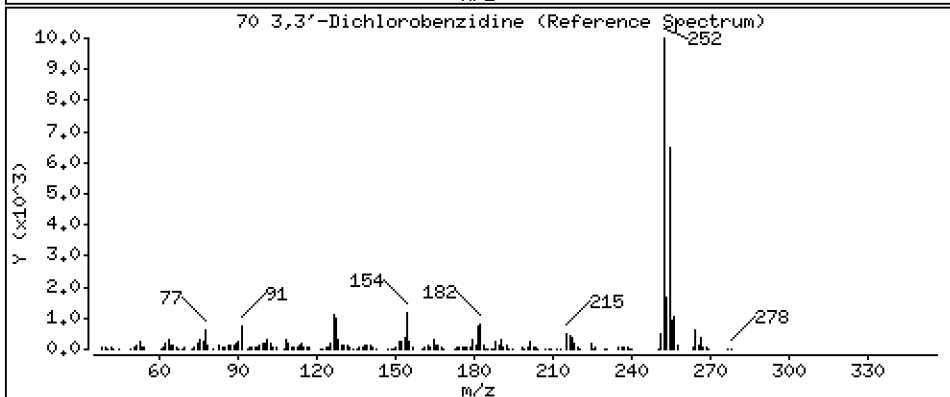
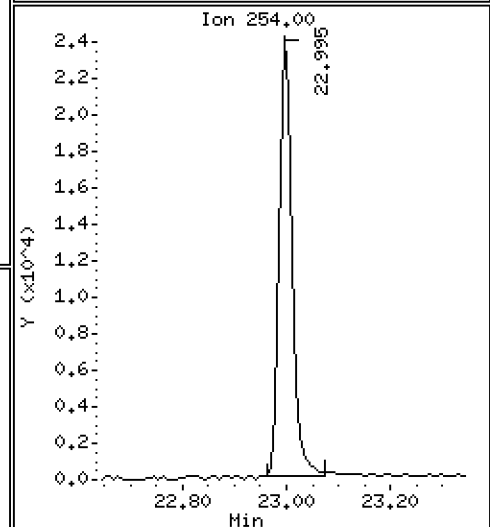
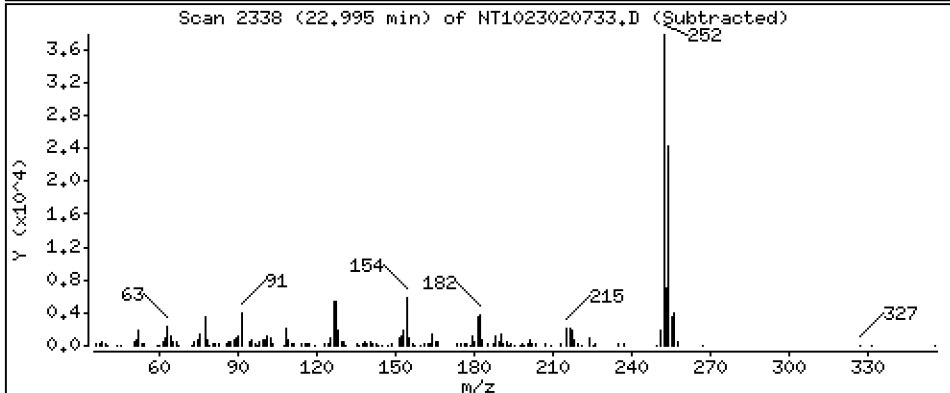
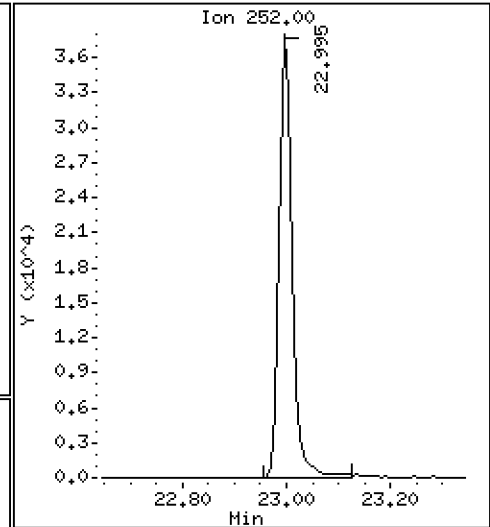
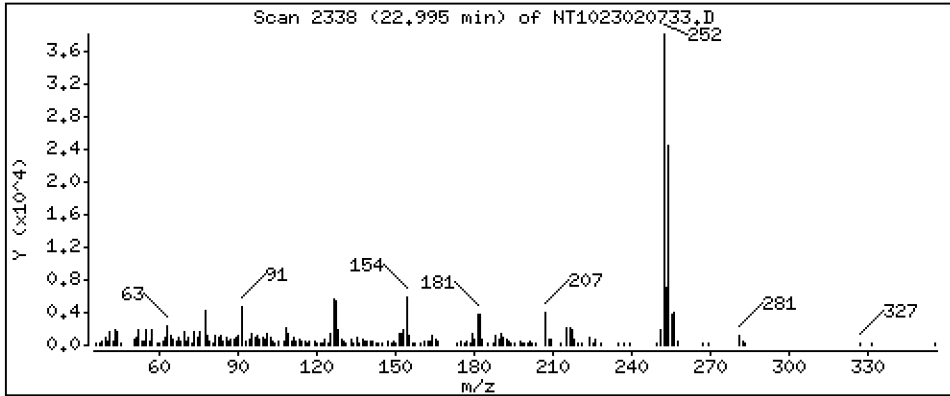
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 1,808 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

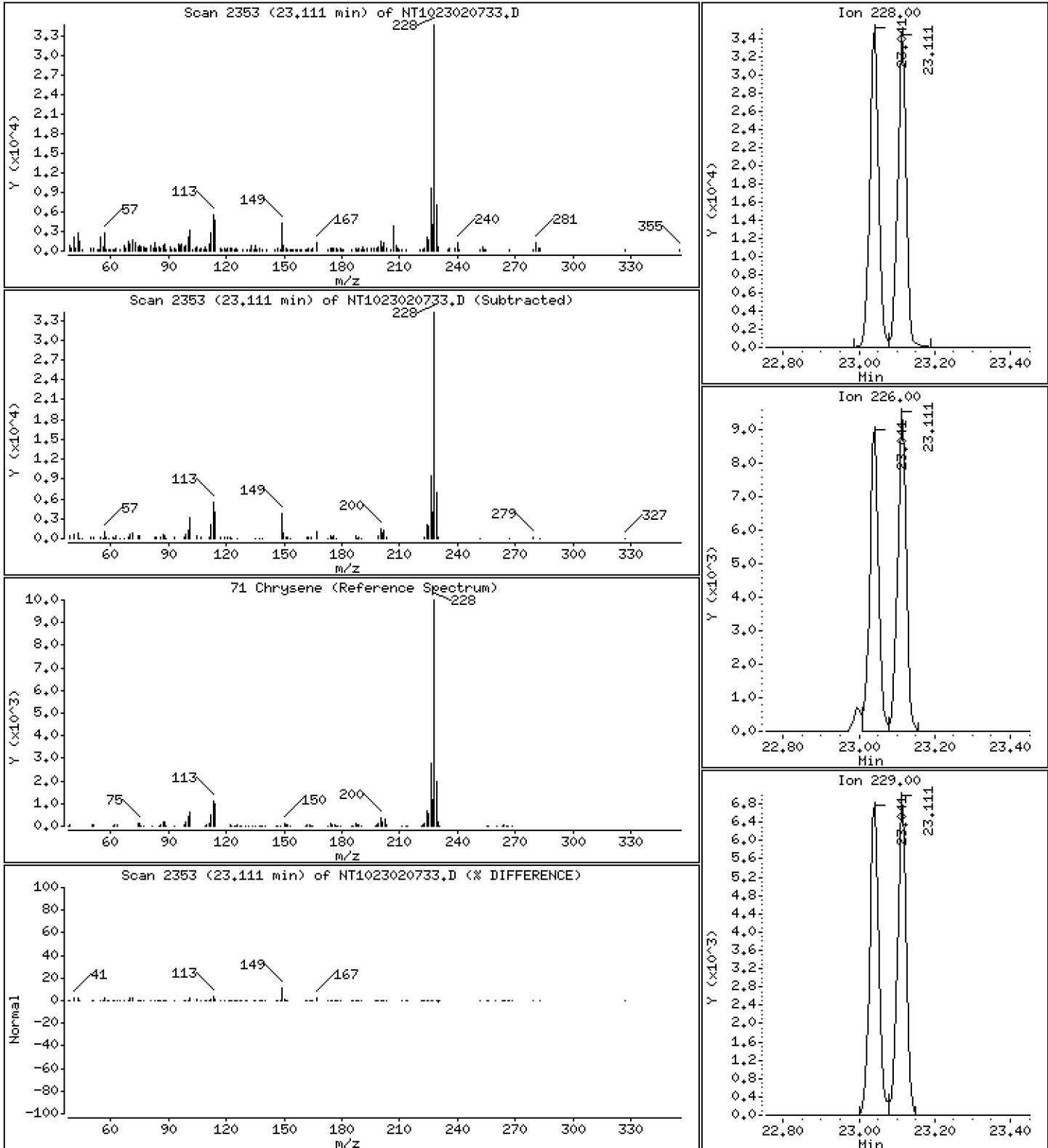
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,5429 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

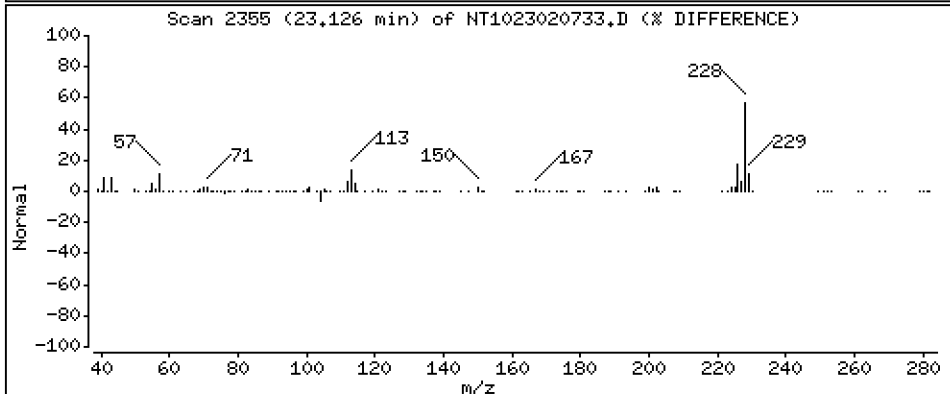
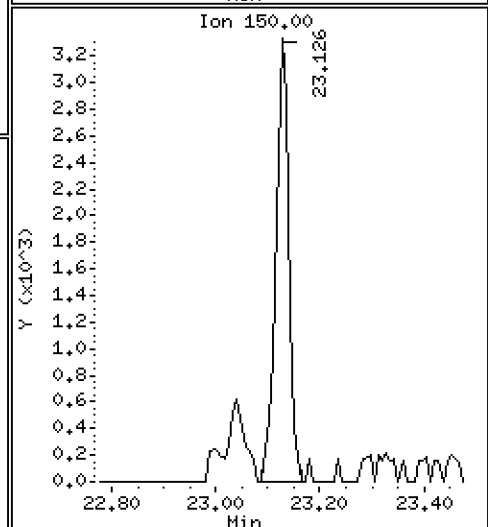
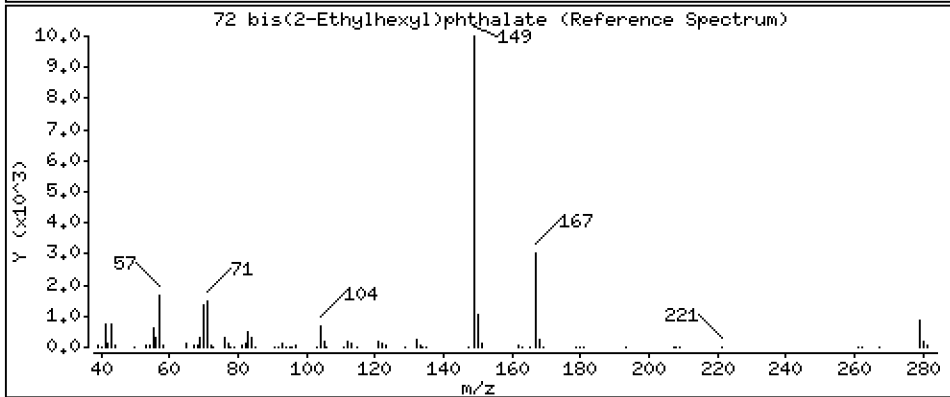
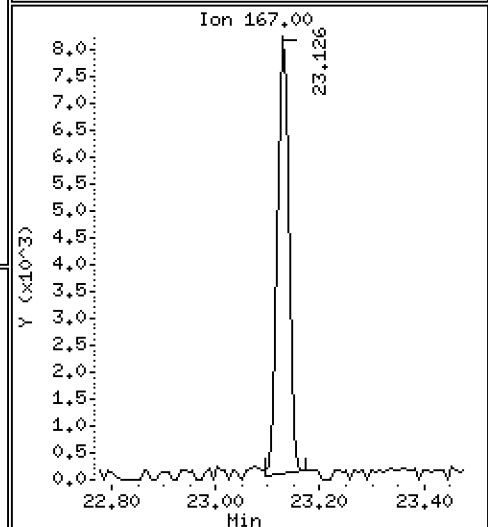
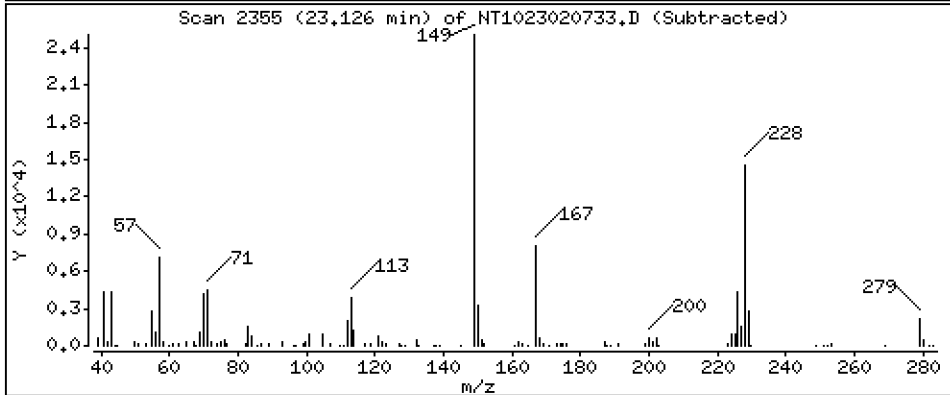
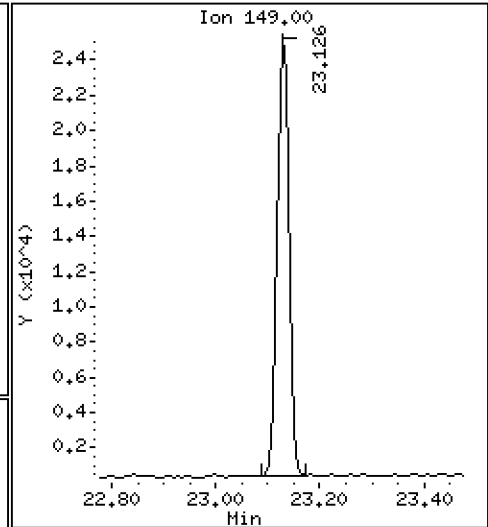
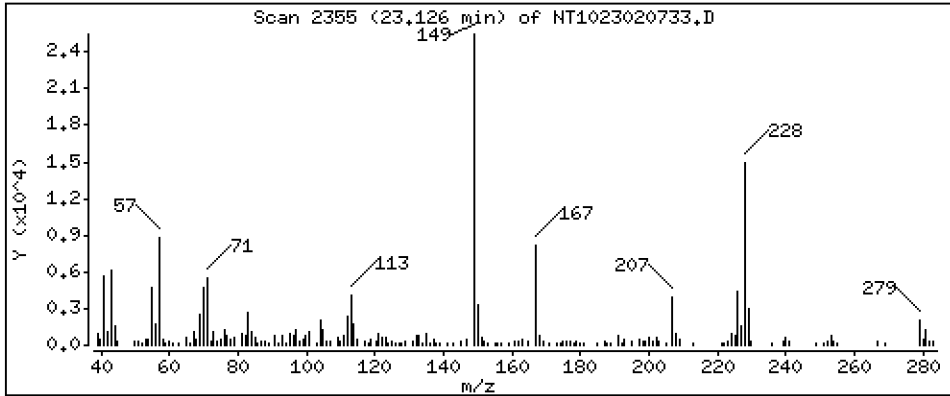
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0.5264 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

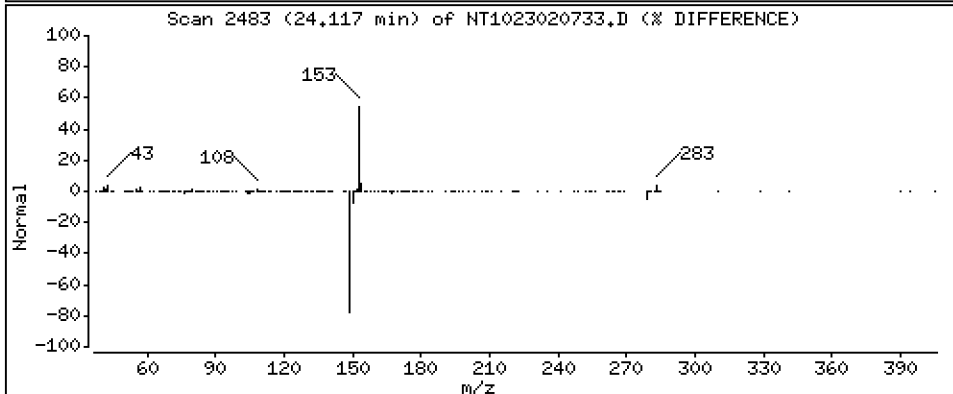
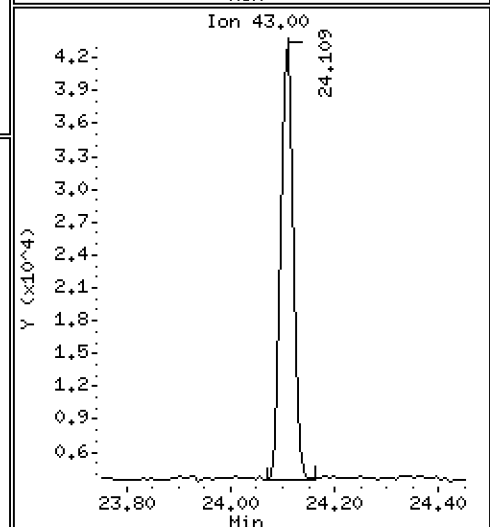
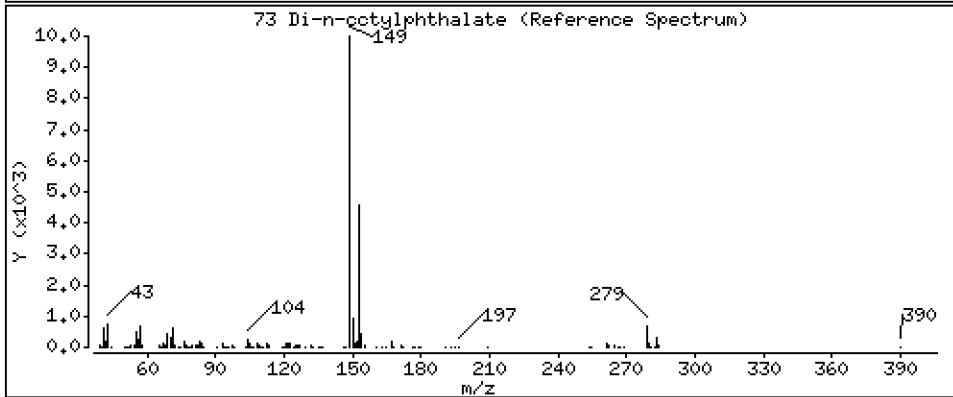
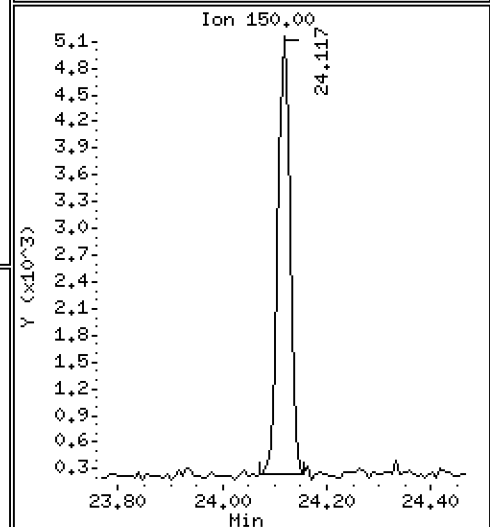
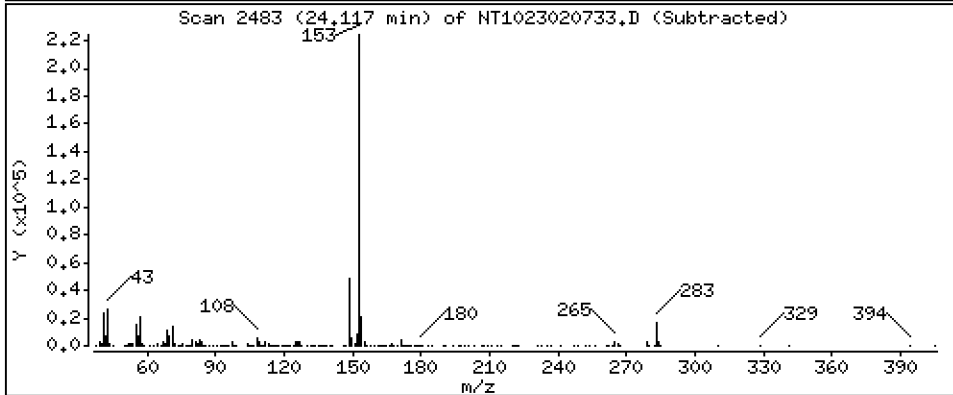
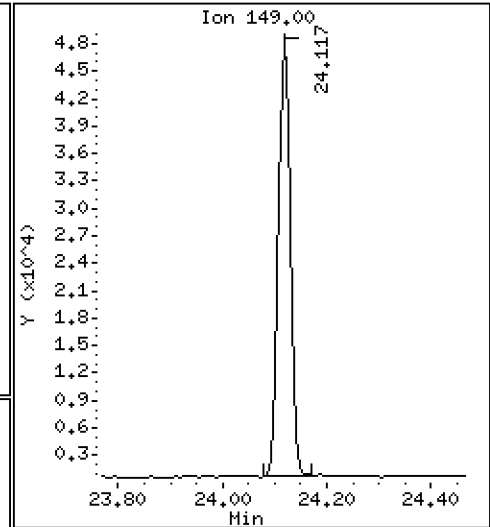
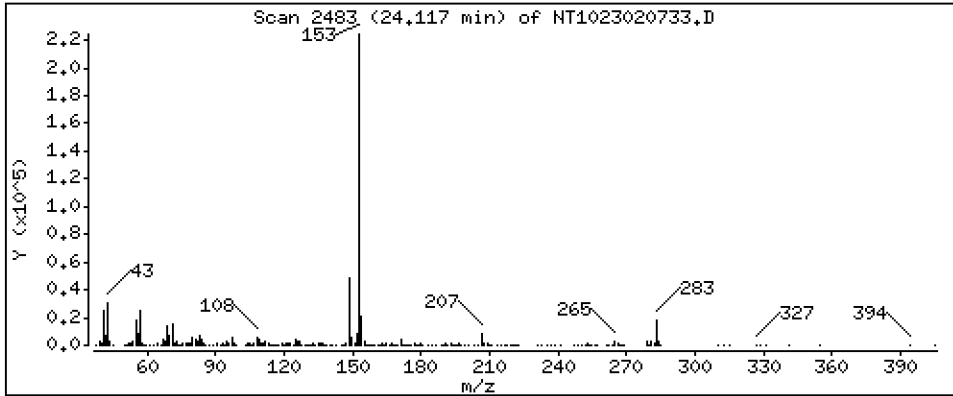
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,5489 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

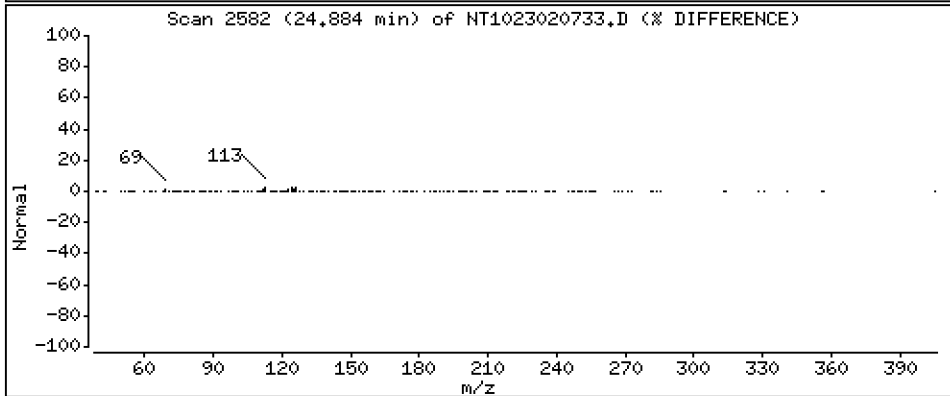
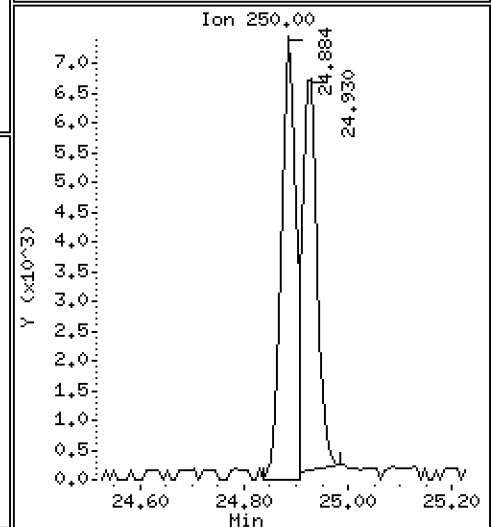
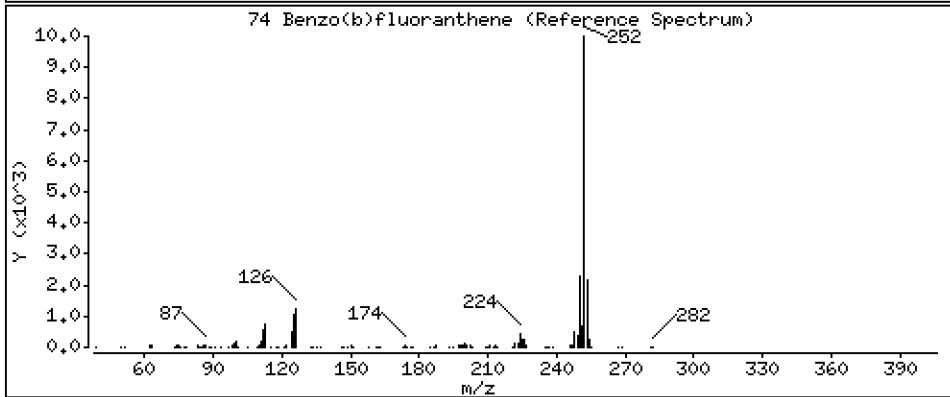
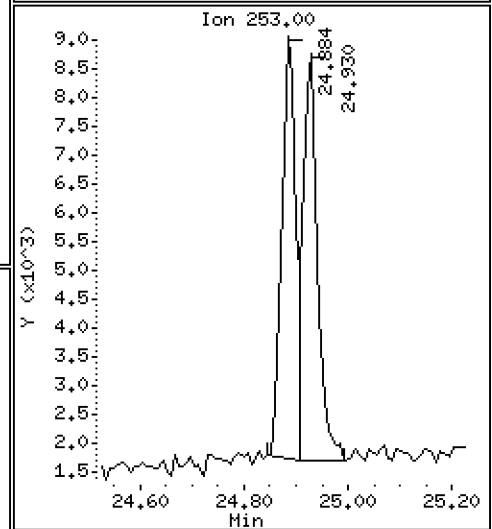
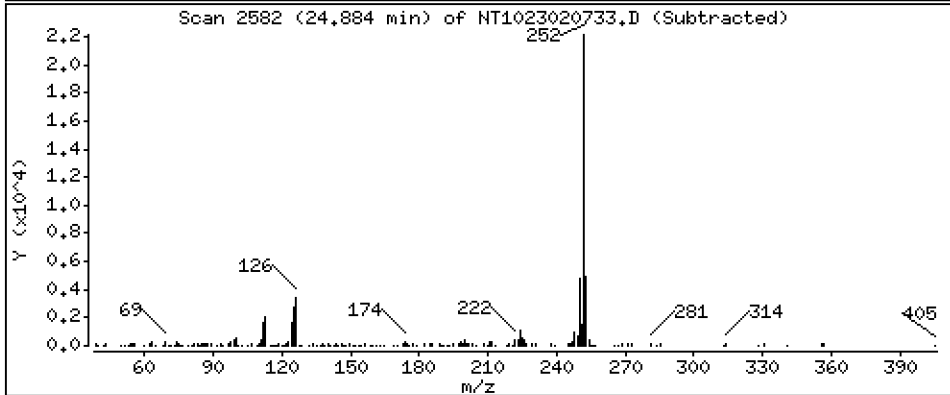
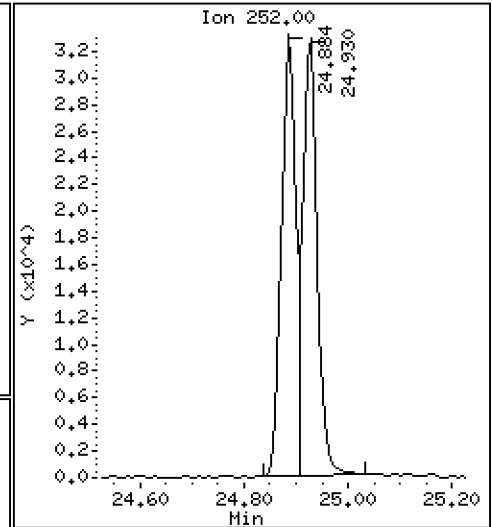
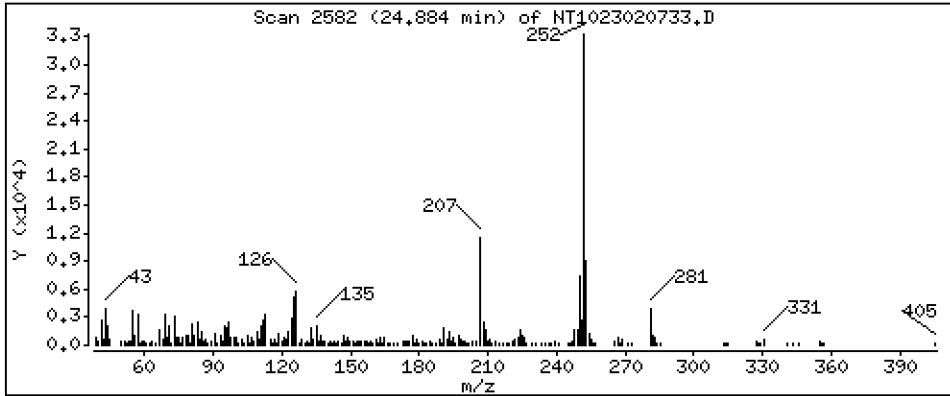
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,5634 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

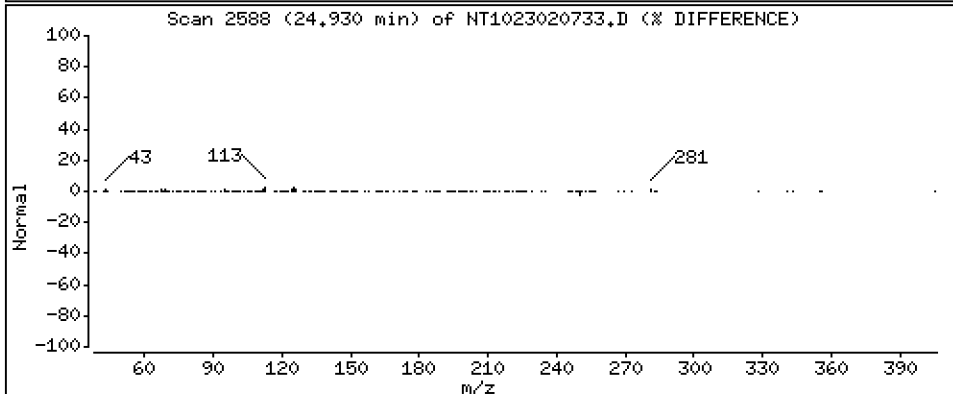
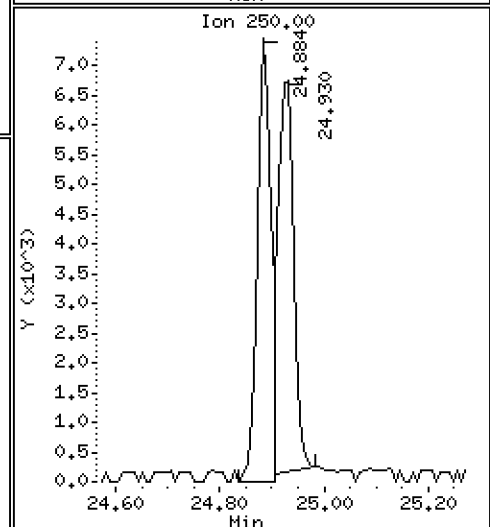
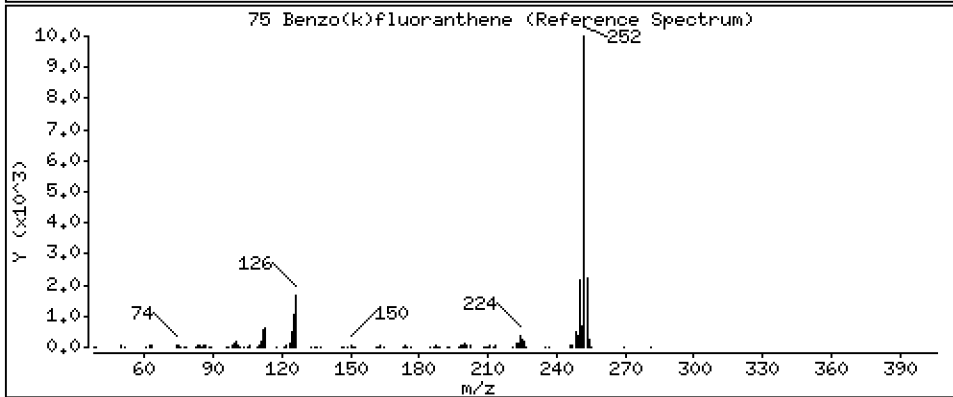
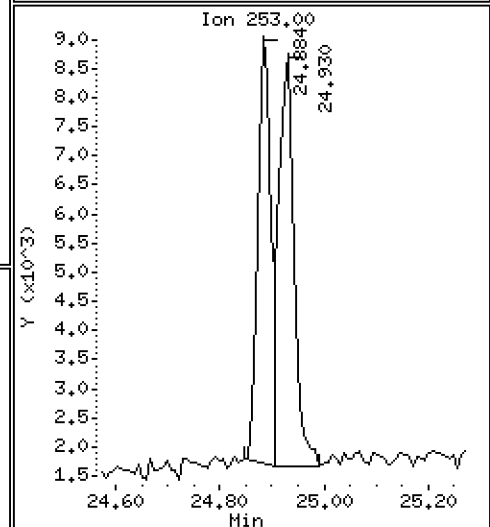
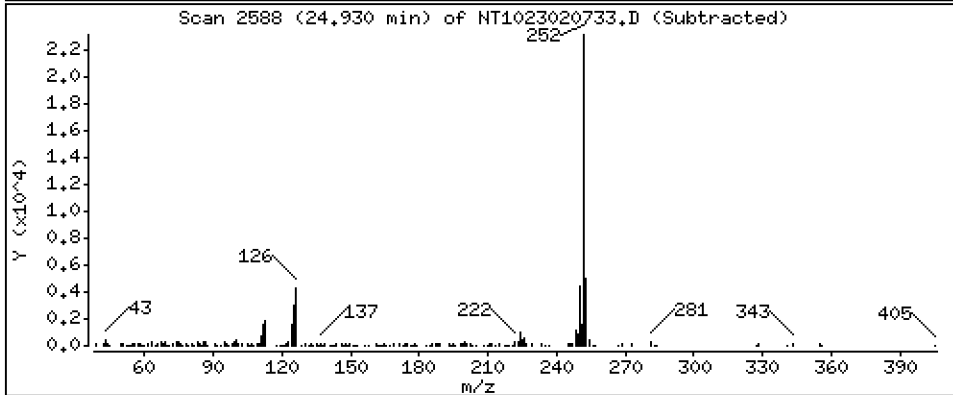
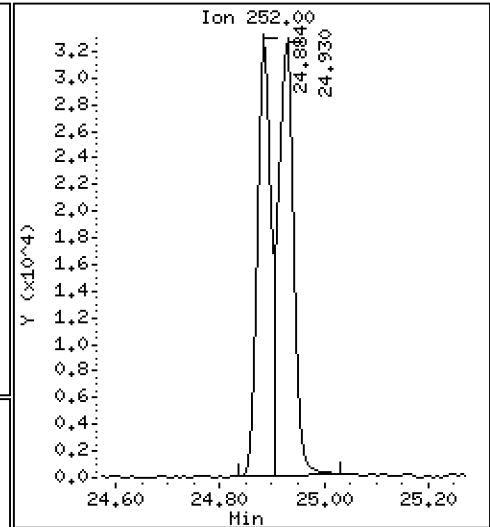
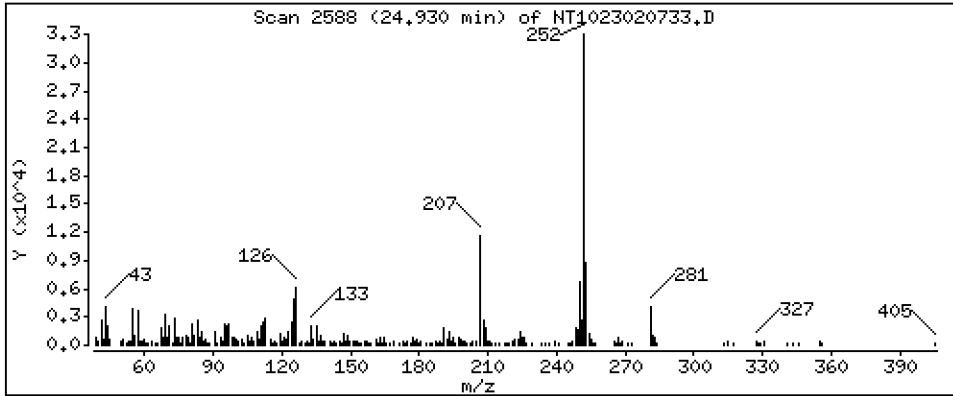
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,5467 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

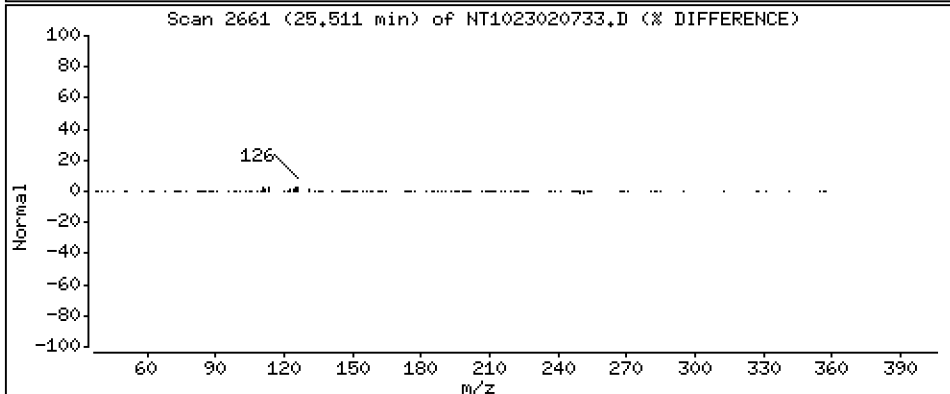
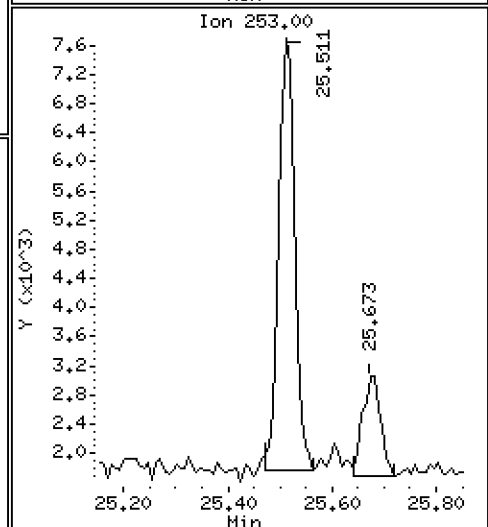
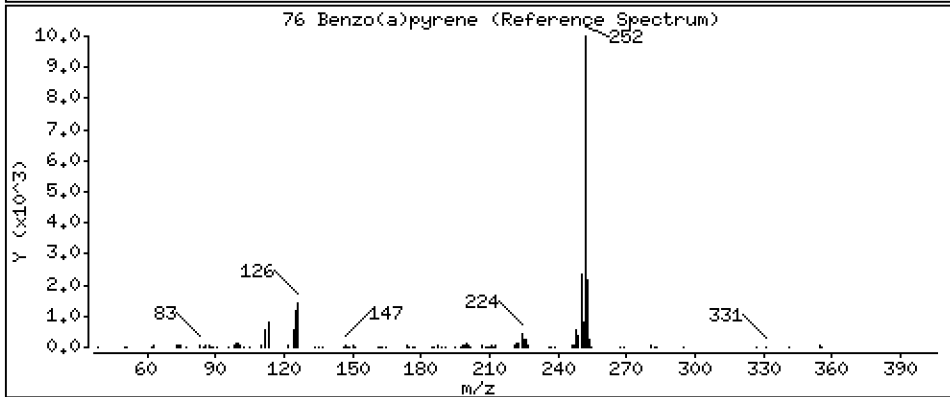
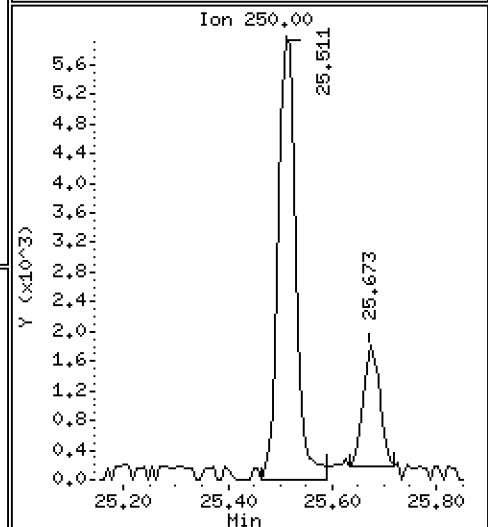
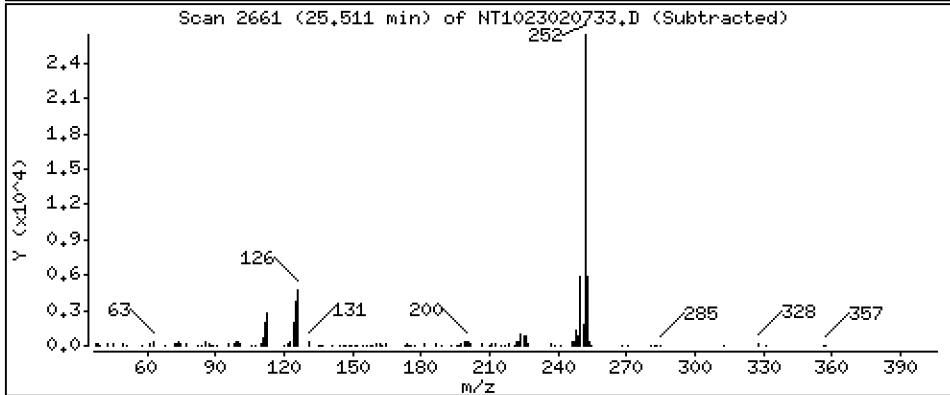
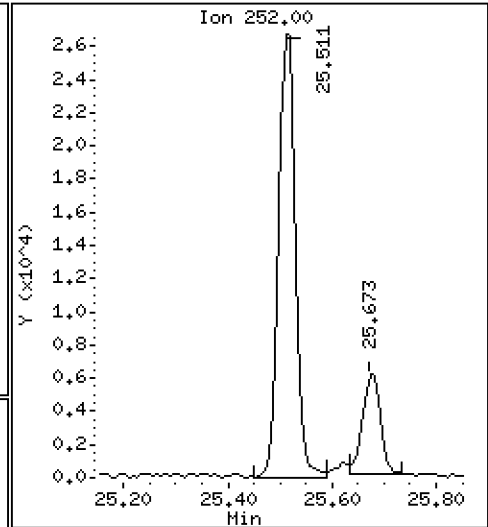
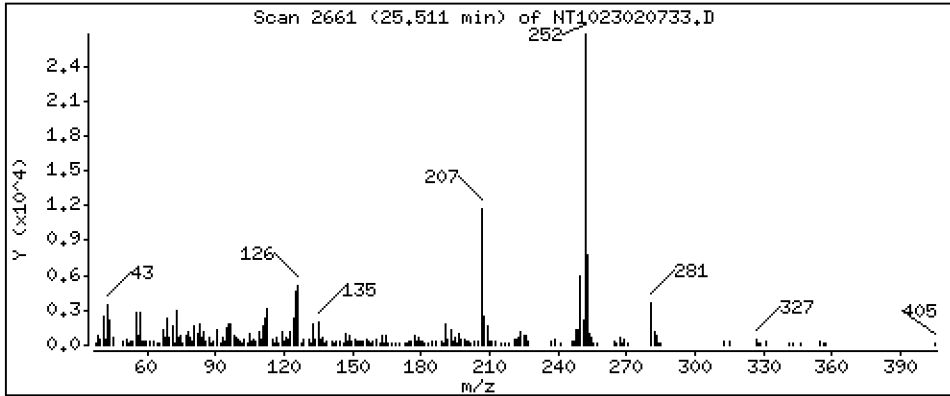
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,5595 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

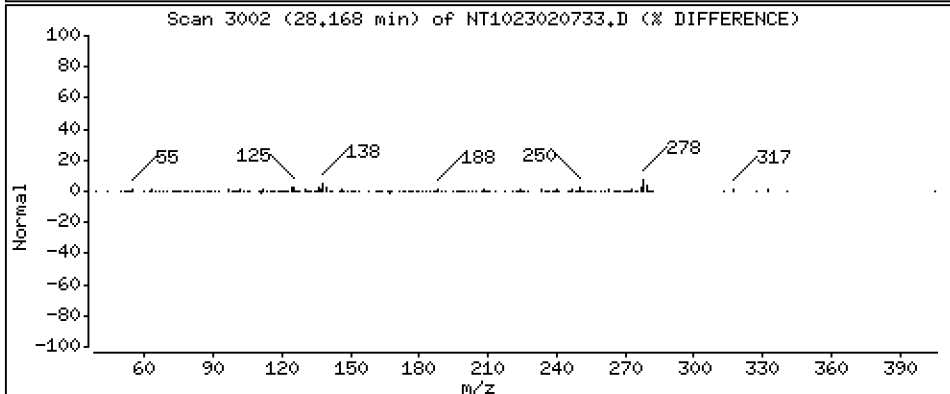
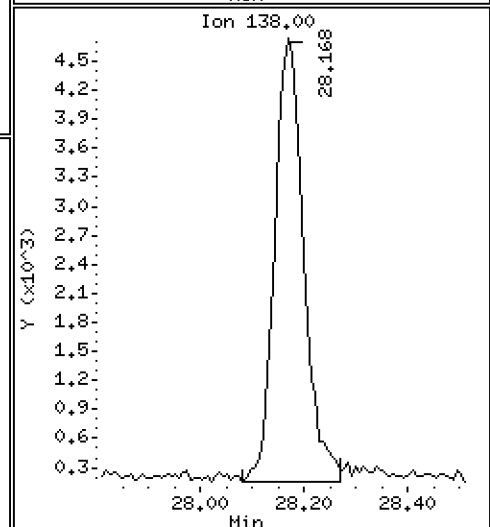
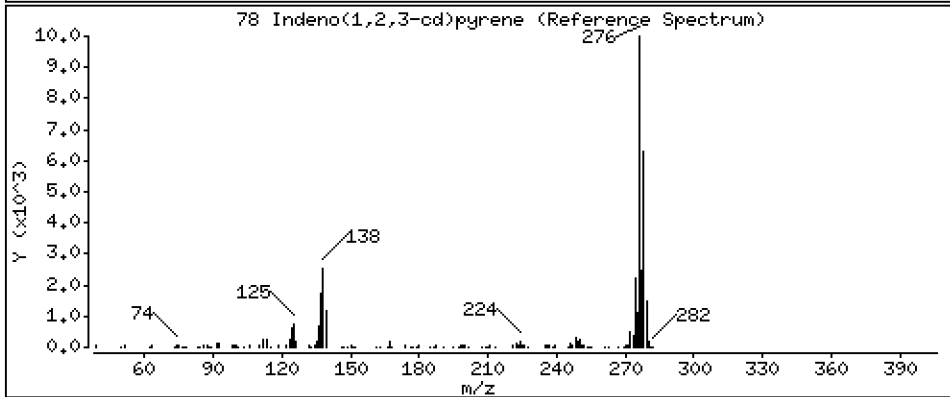
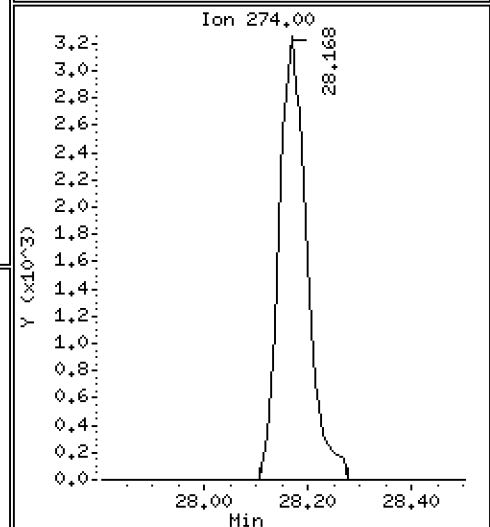
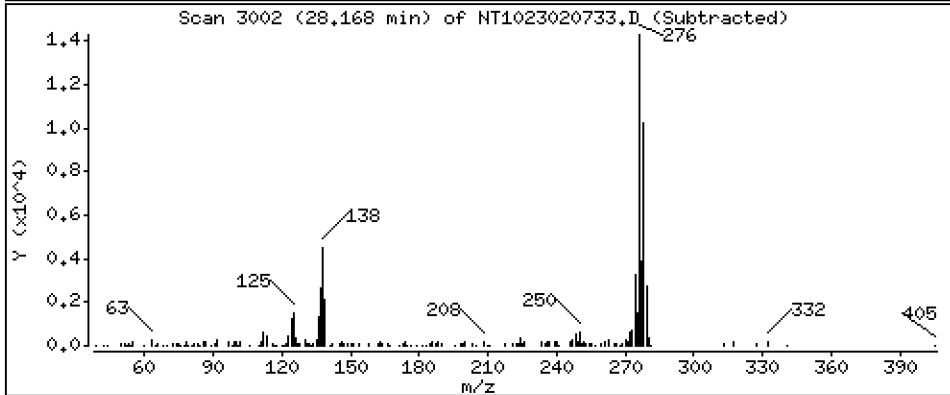
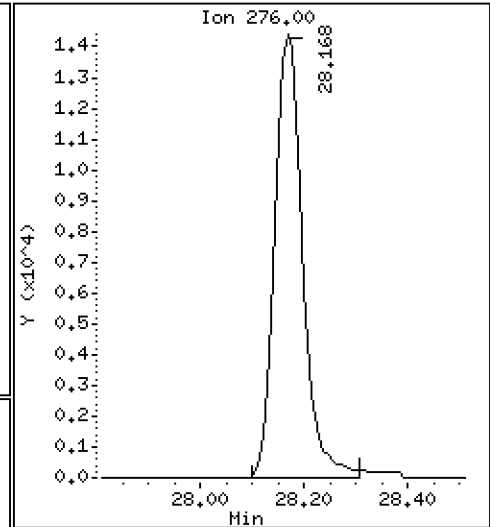
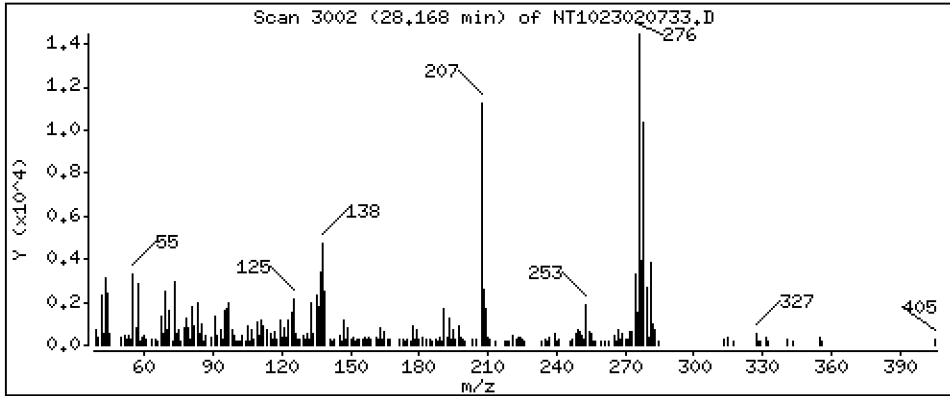
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 0,4288 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

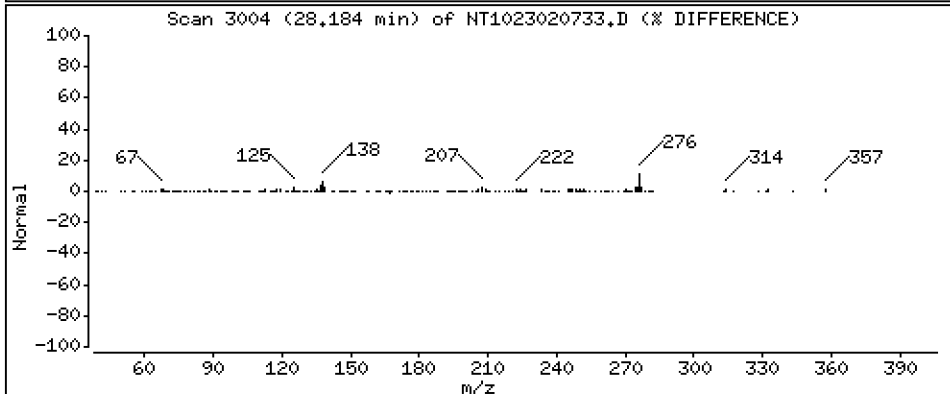
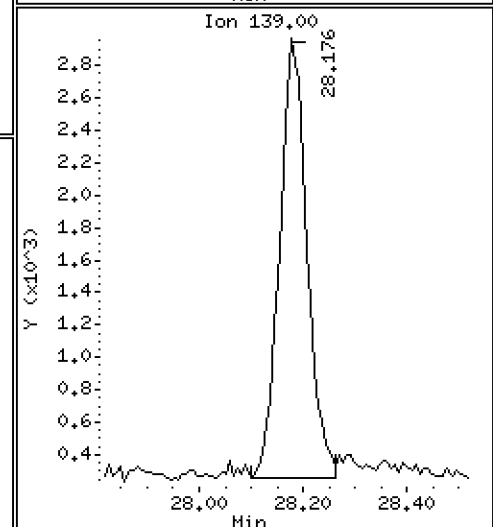
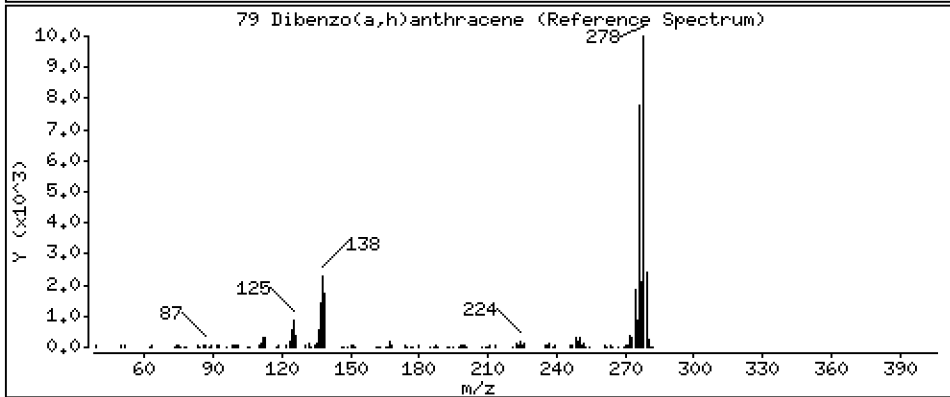
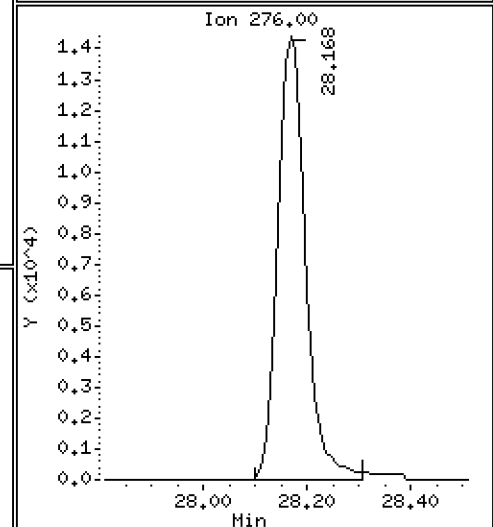
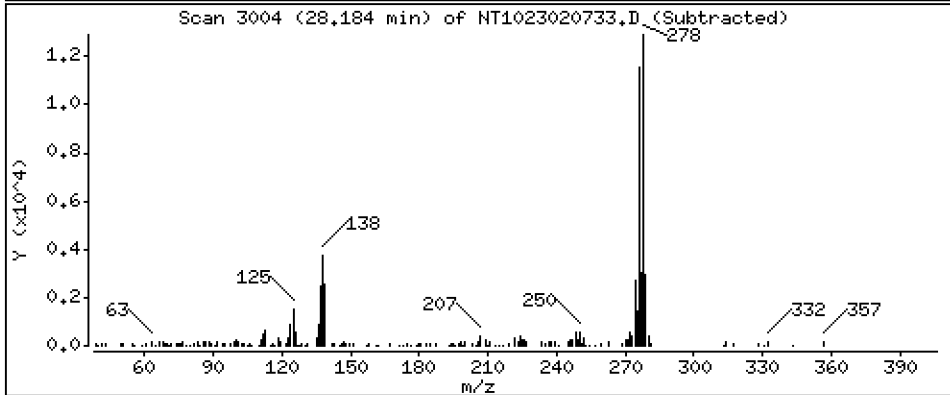
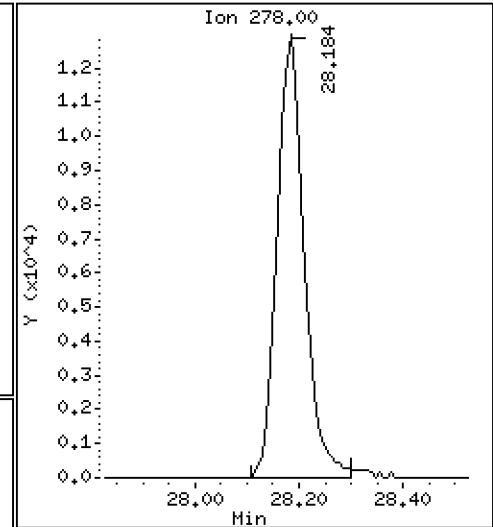
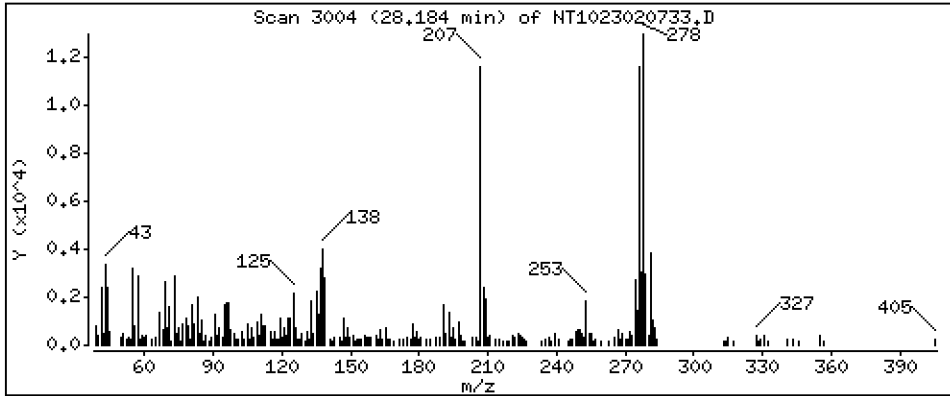
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,4538 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

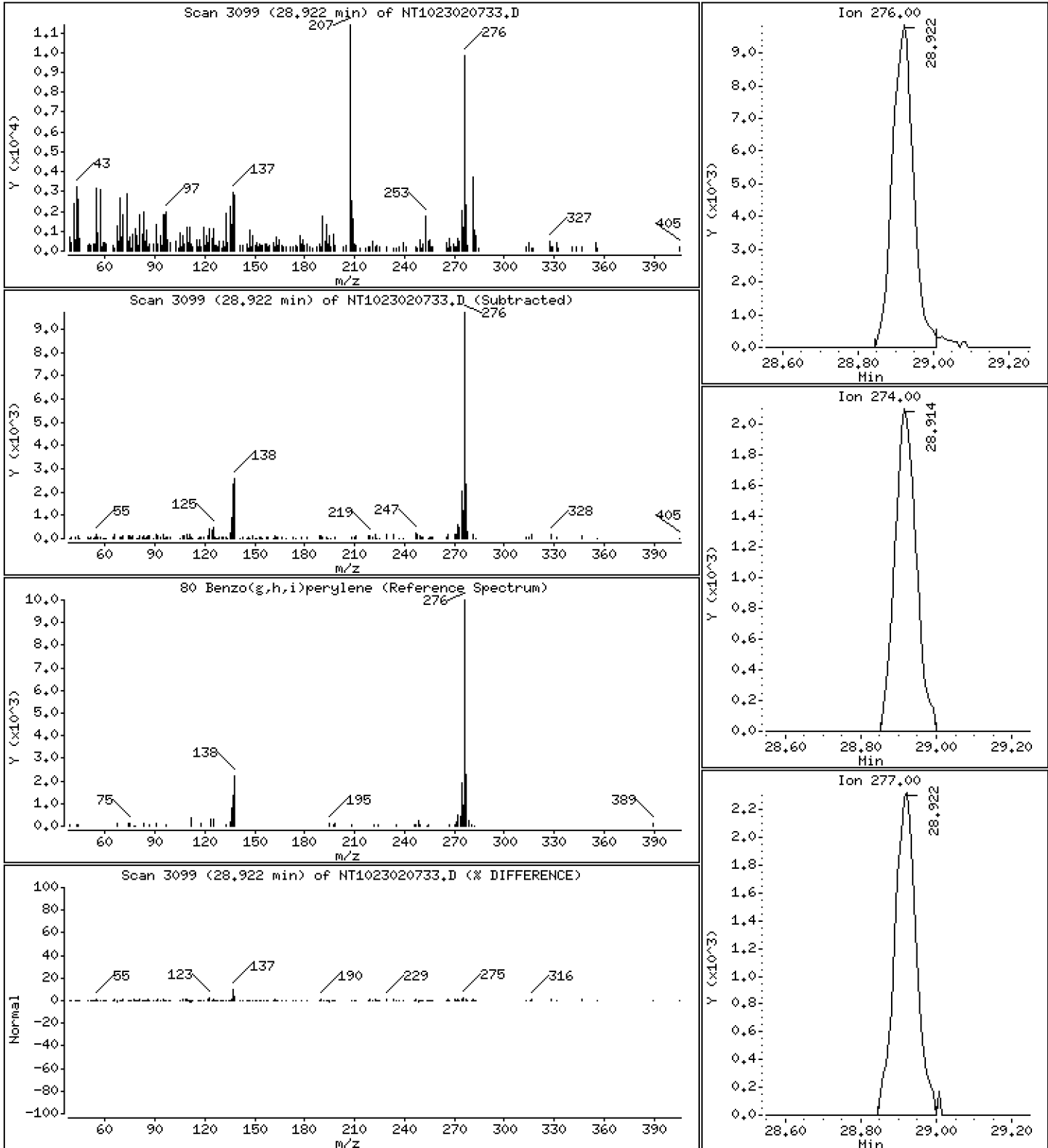
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,3577 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

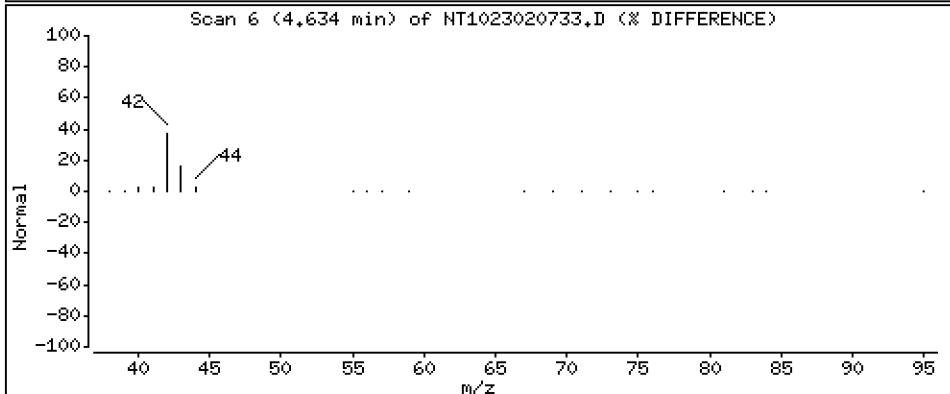
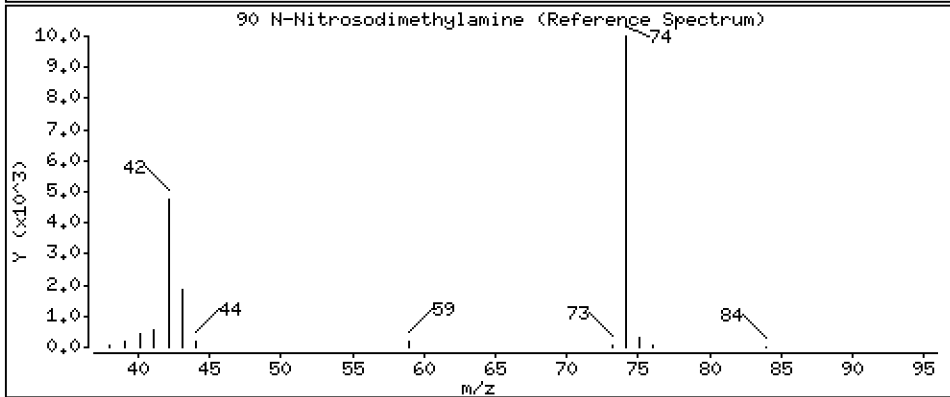
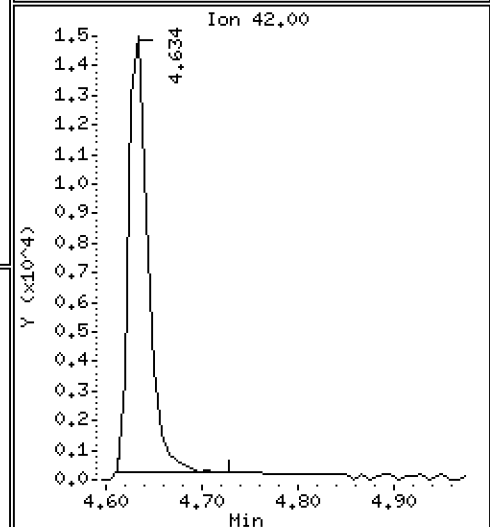
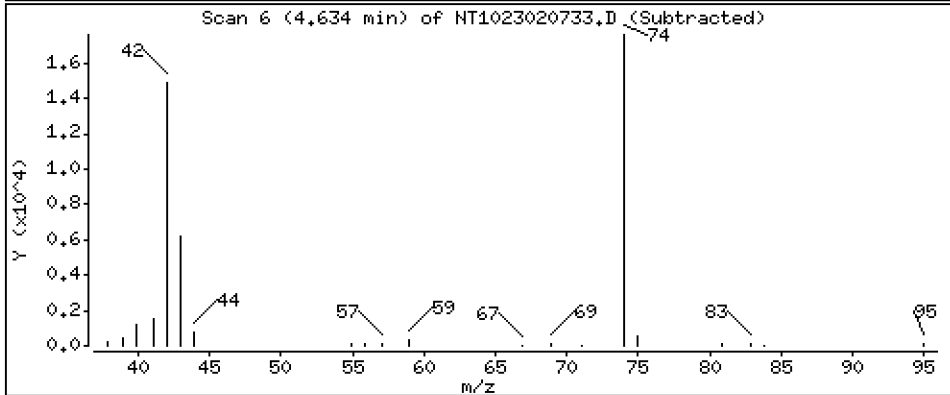
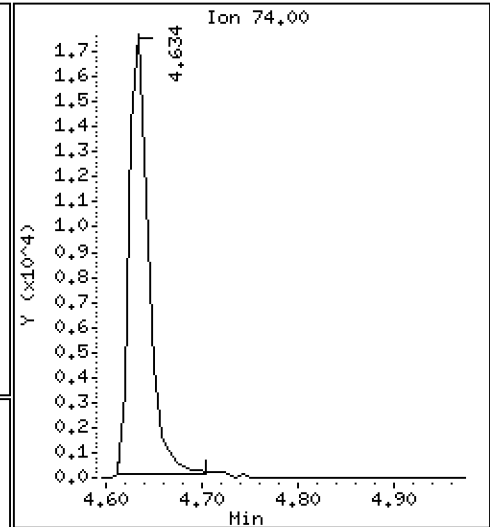
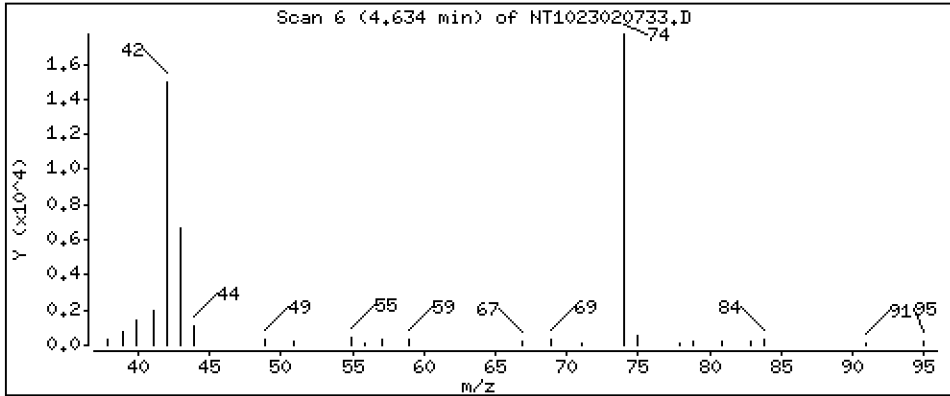
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 0.9973 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

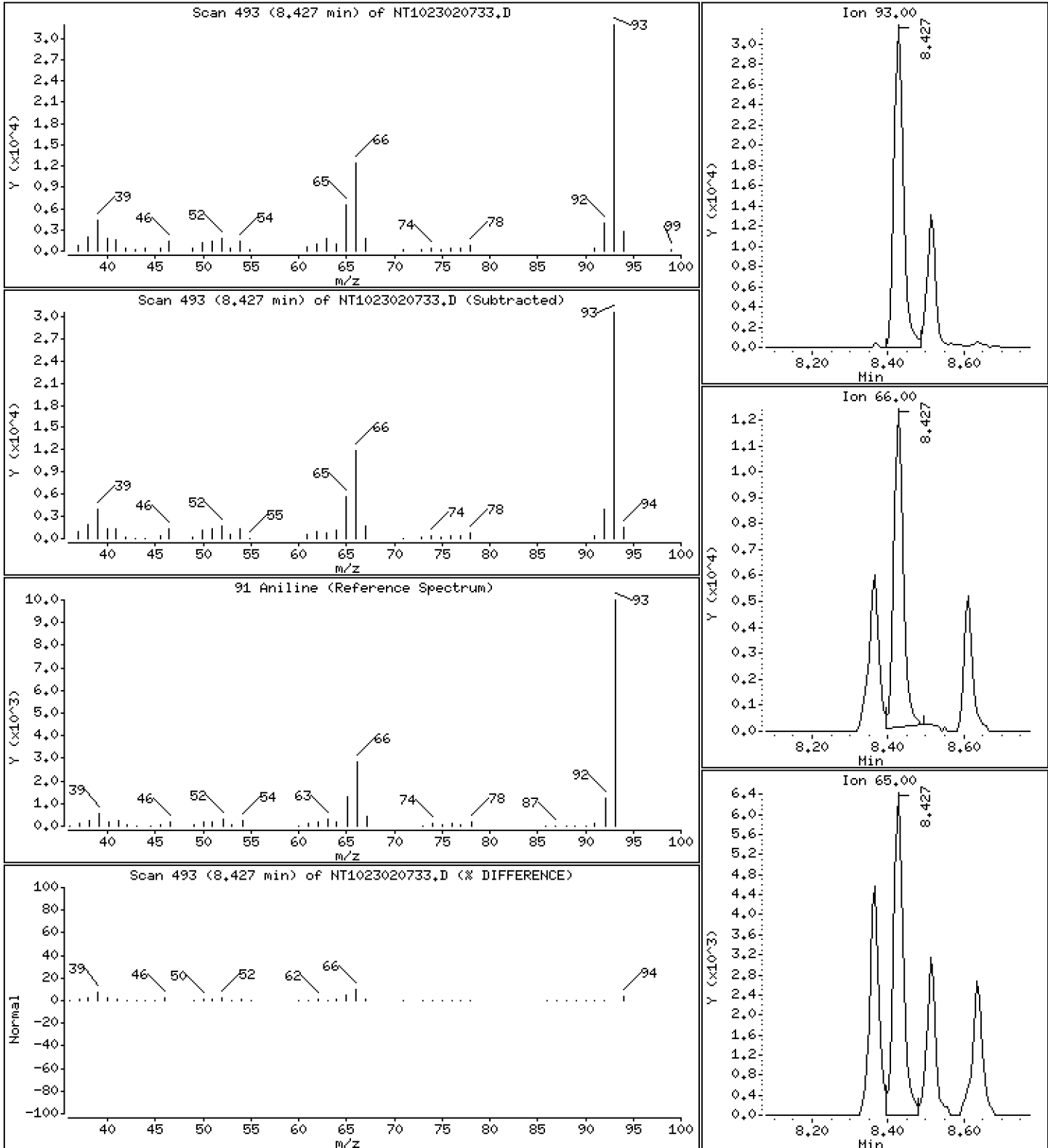
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 1,035 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

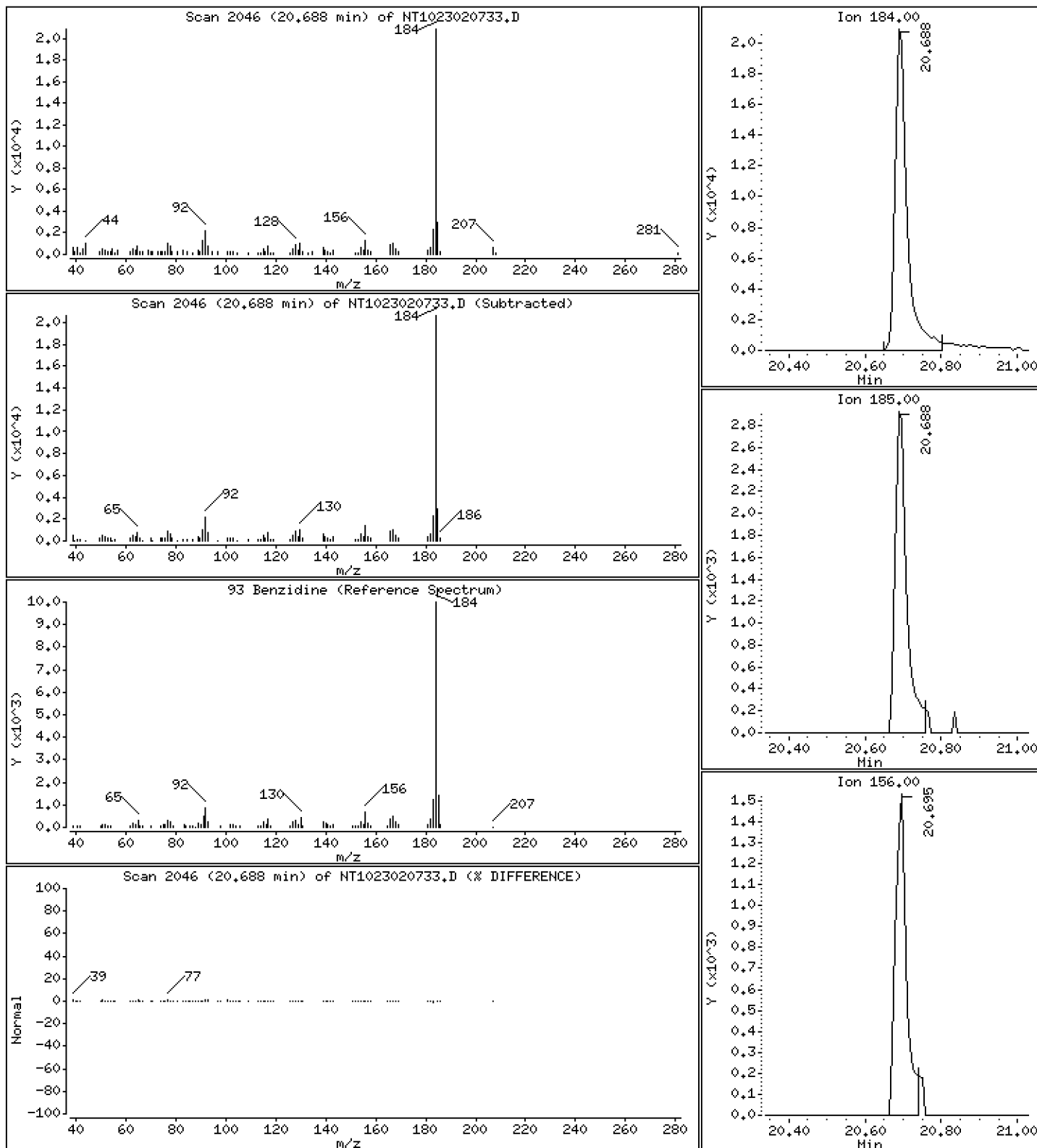
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 1,172 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

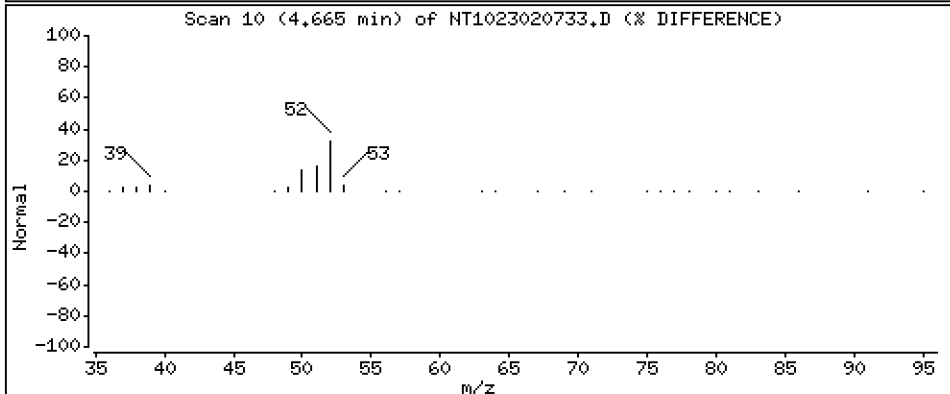
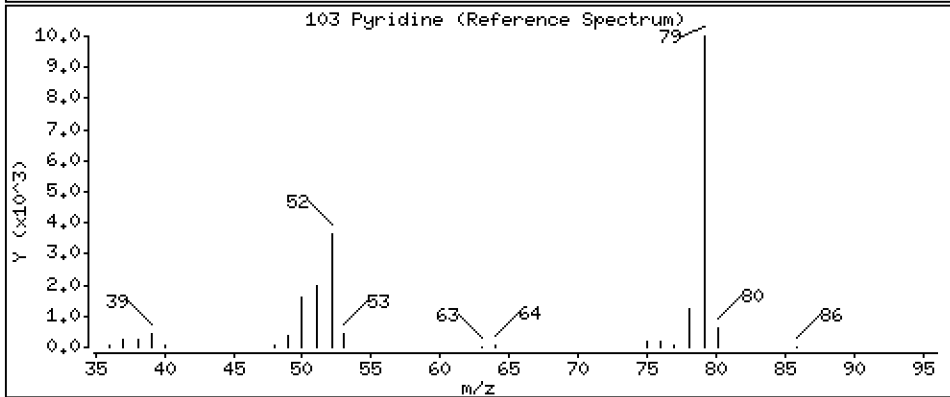
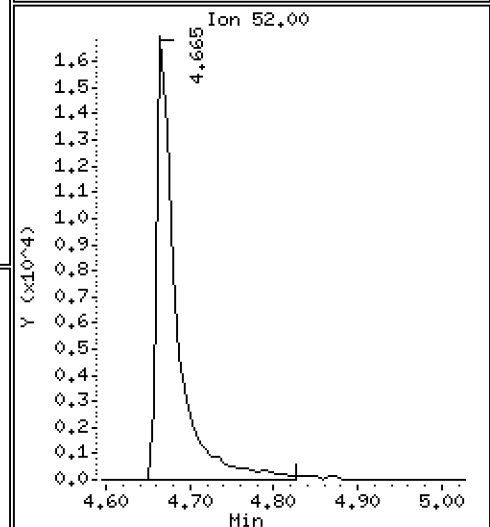
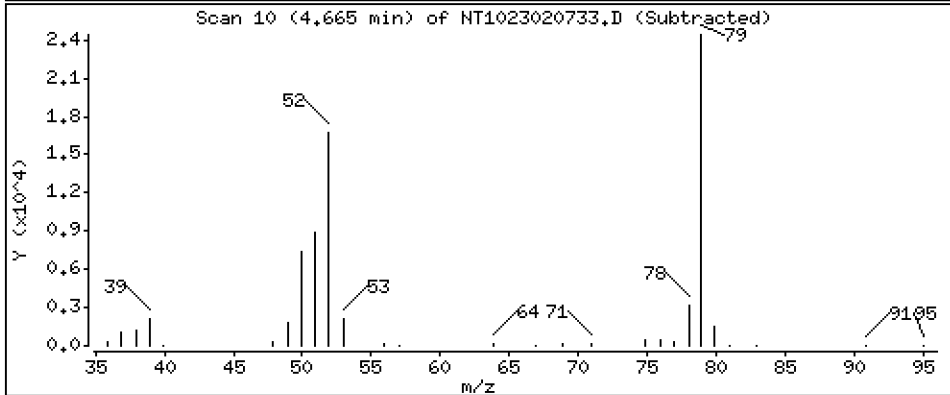
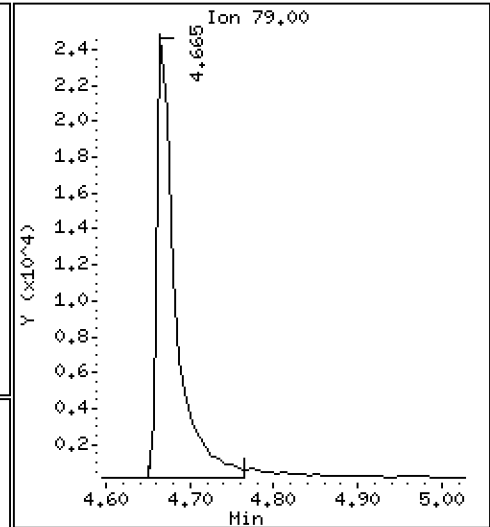
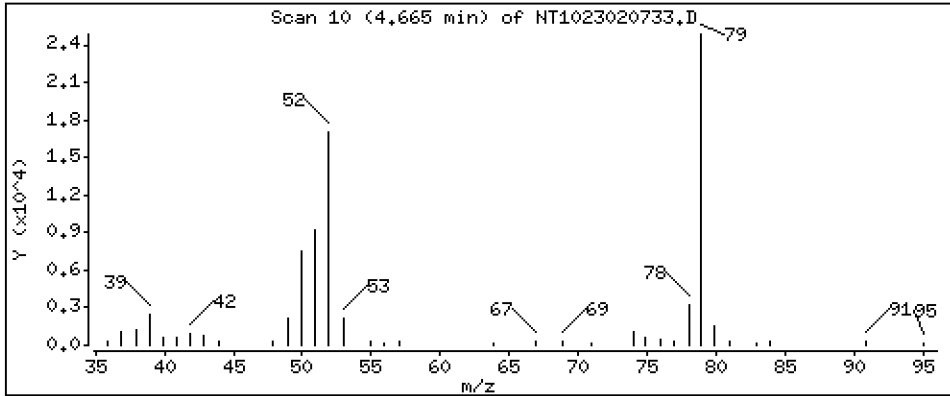
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,9801 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

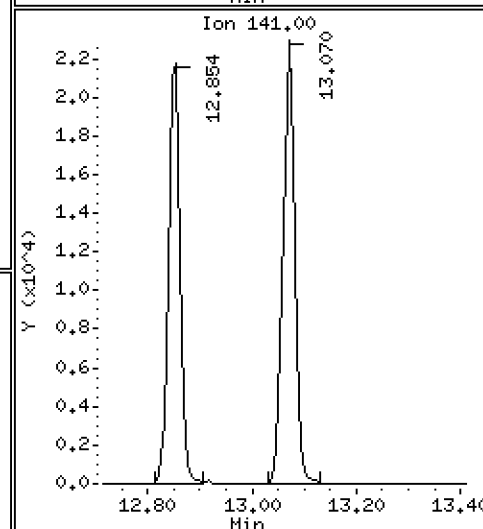
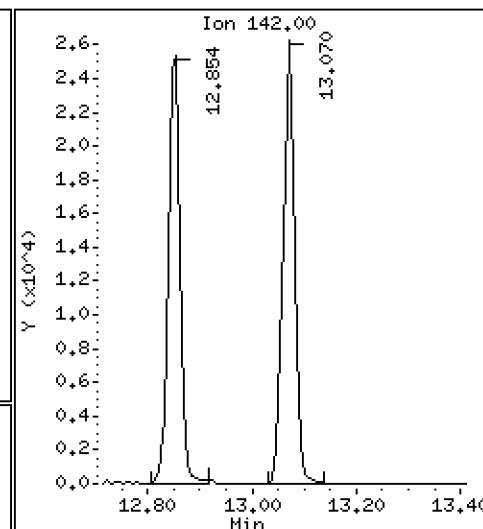
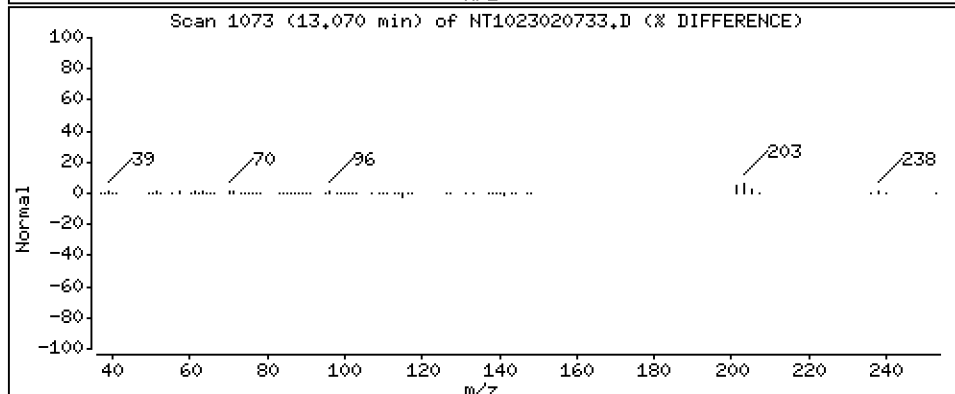
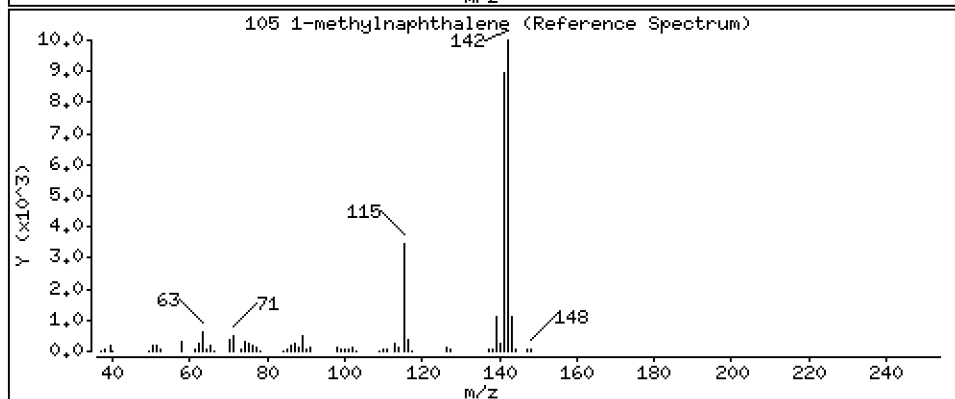
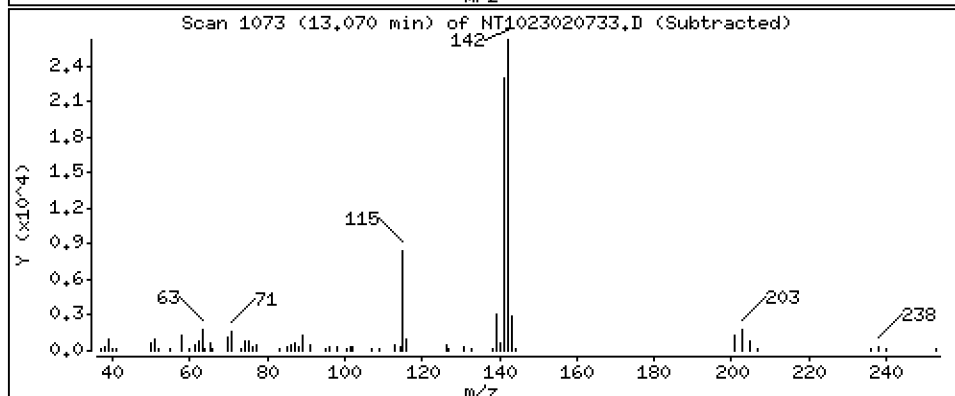
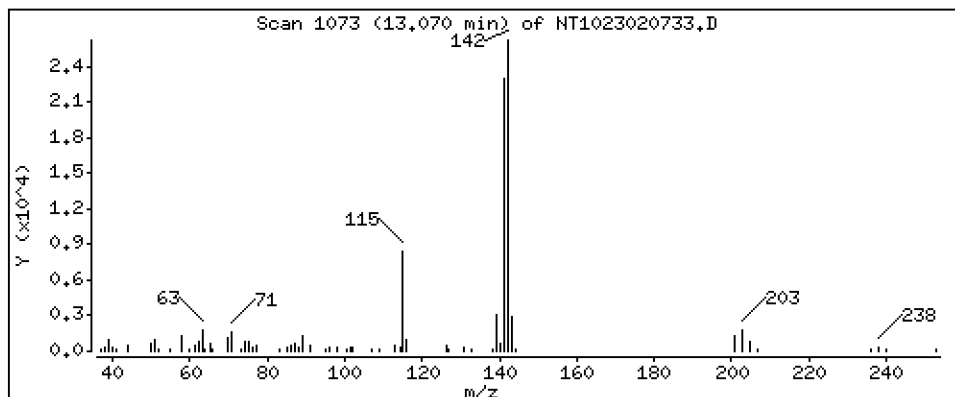
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,5253 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

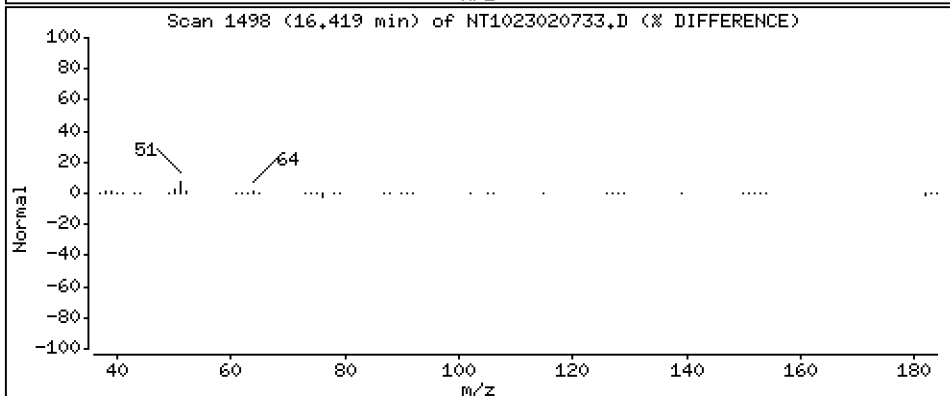
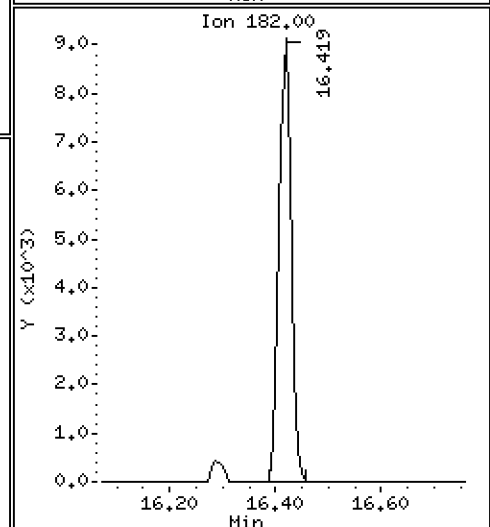
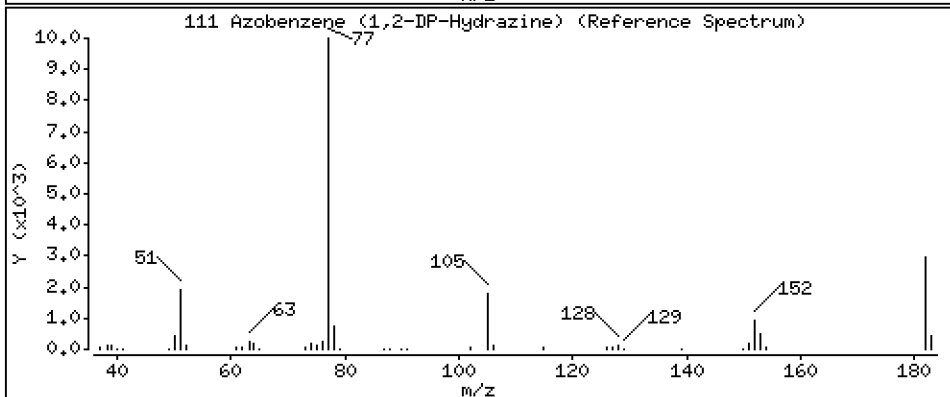
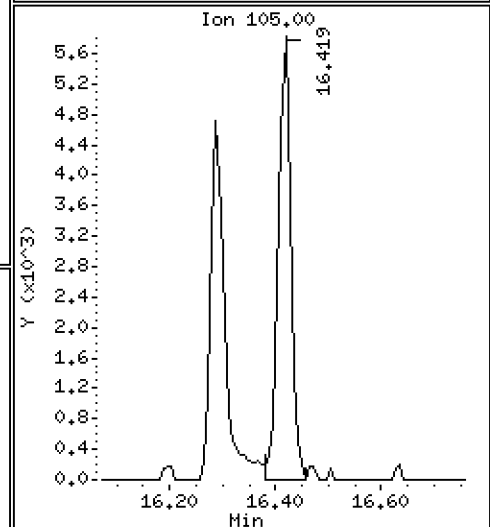
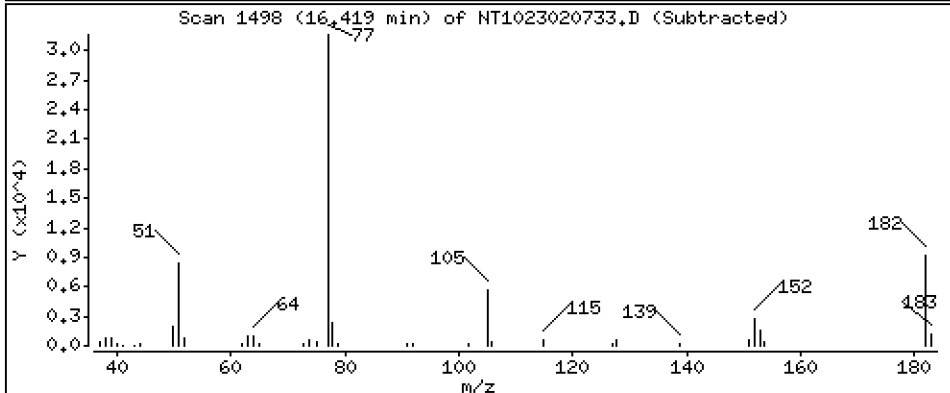
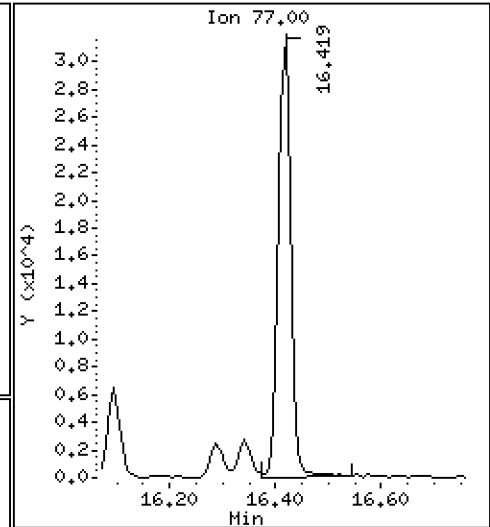
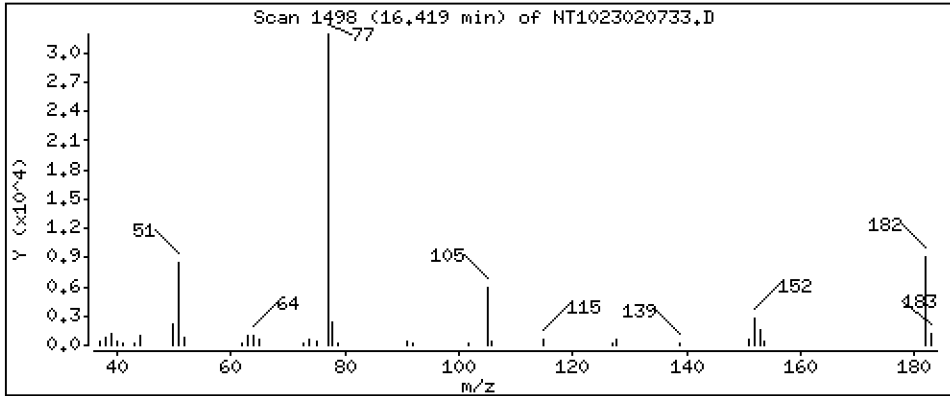
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0.5330 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

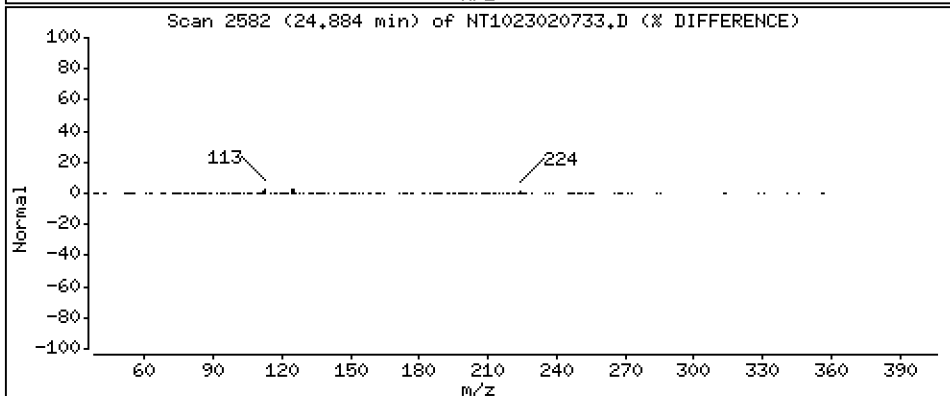
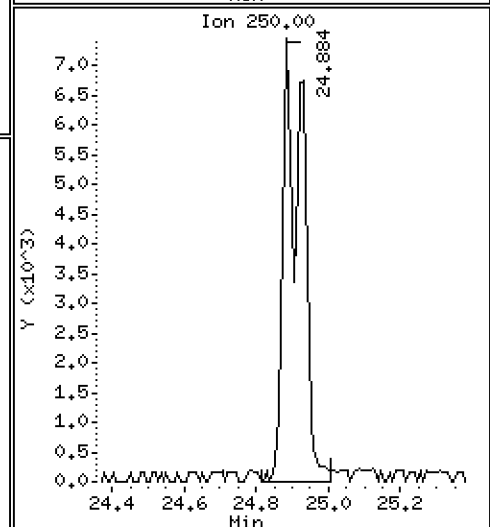
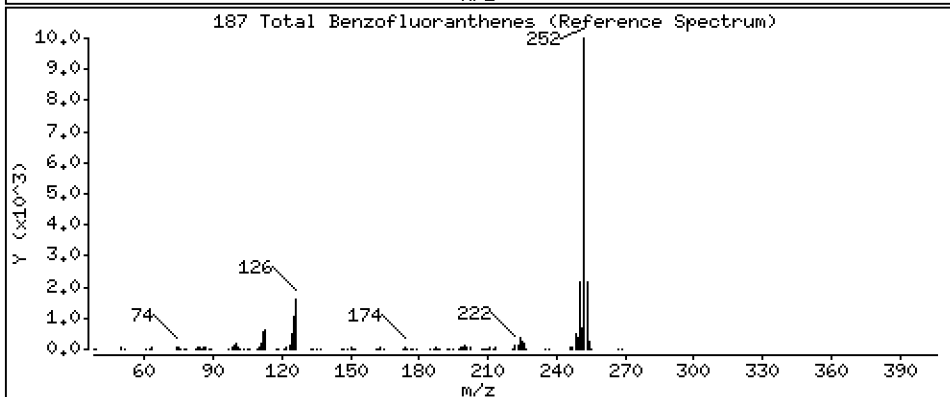
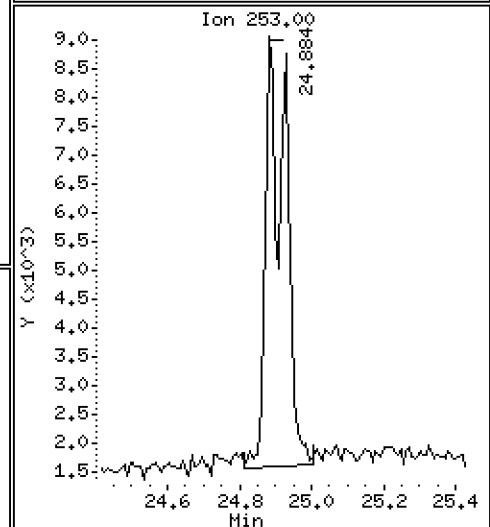
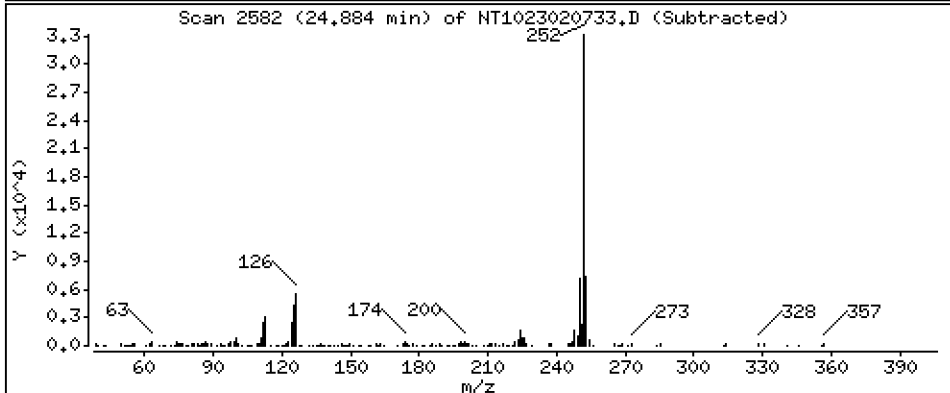
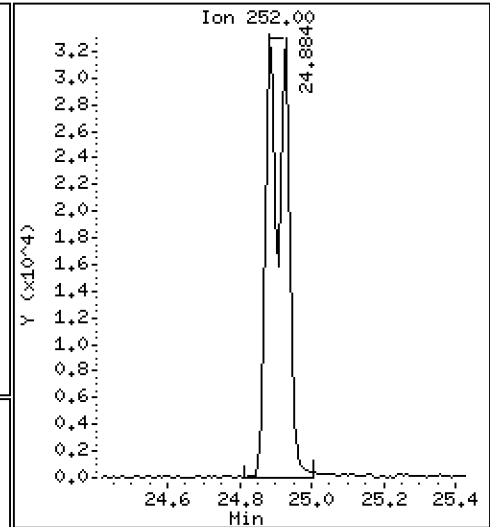
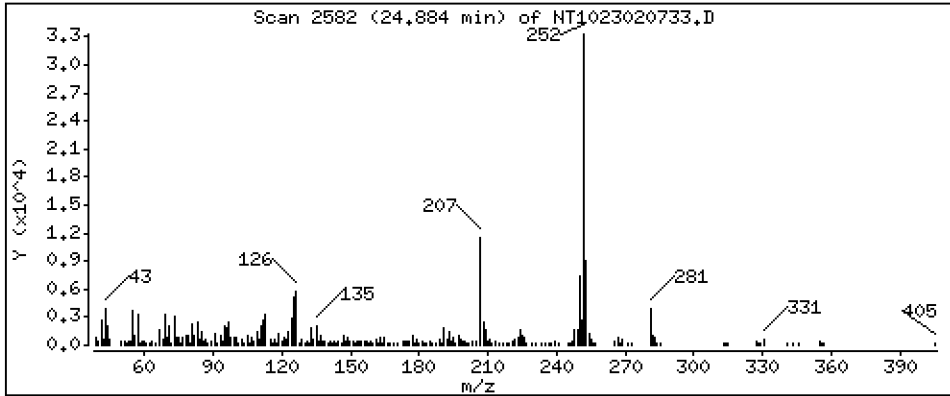
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 1,119 ug/mL



Date : 08-FEB-2023 08:02

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-LCV2

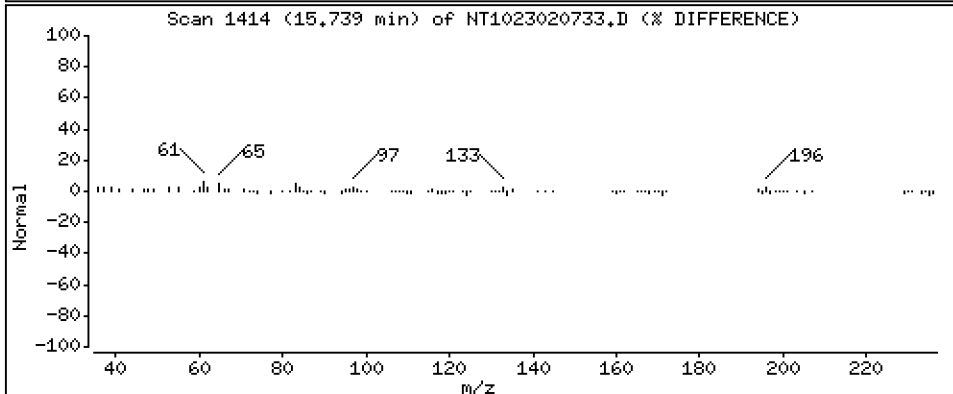
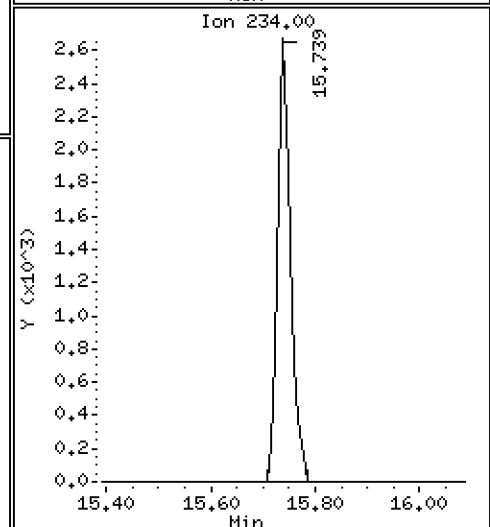
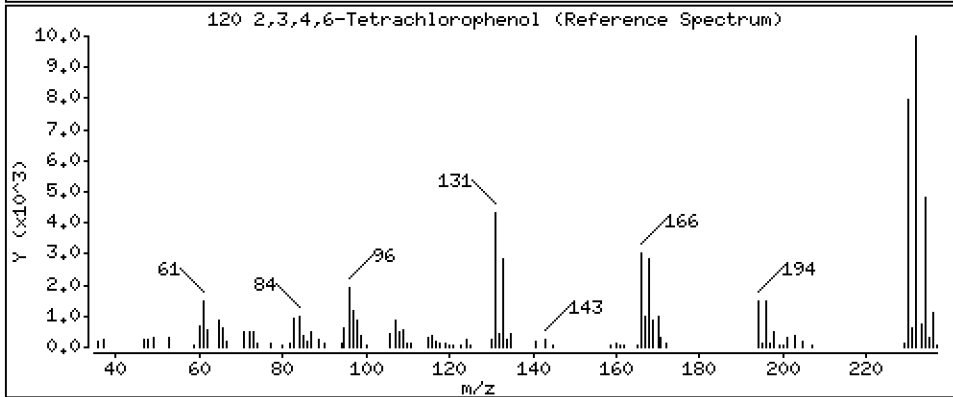
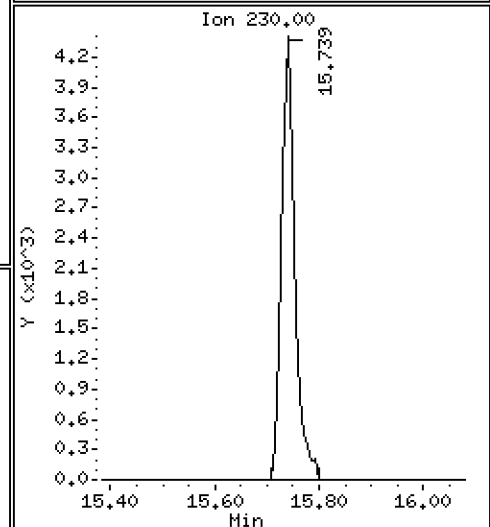
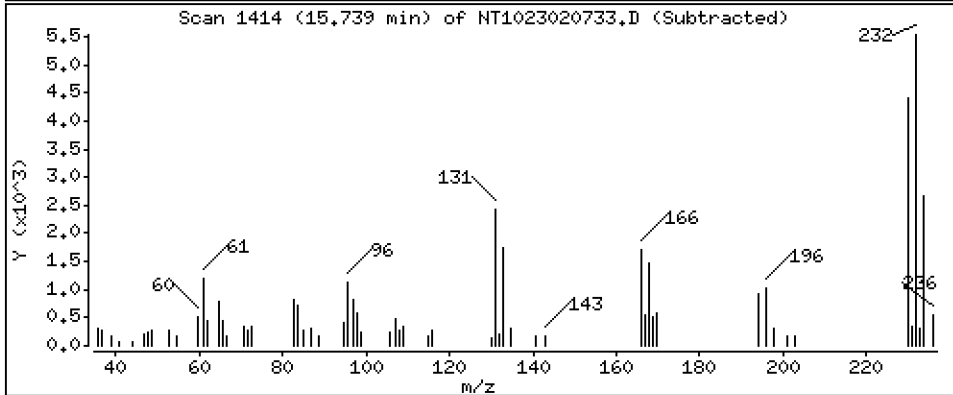
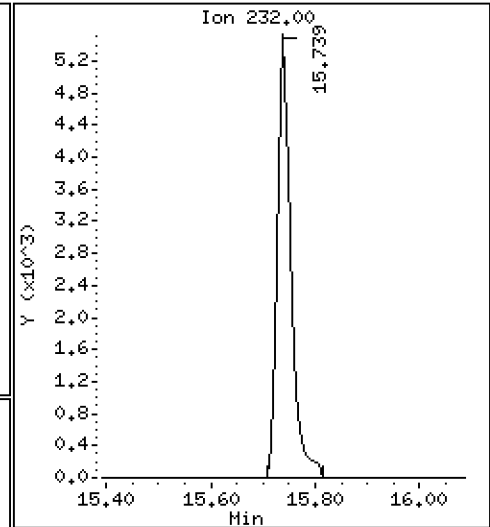
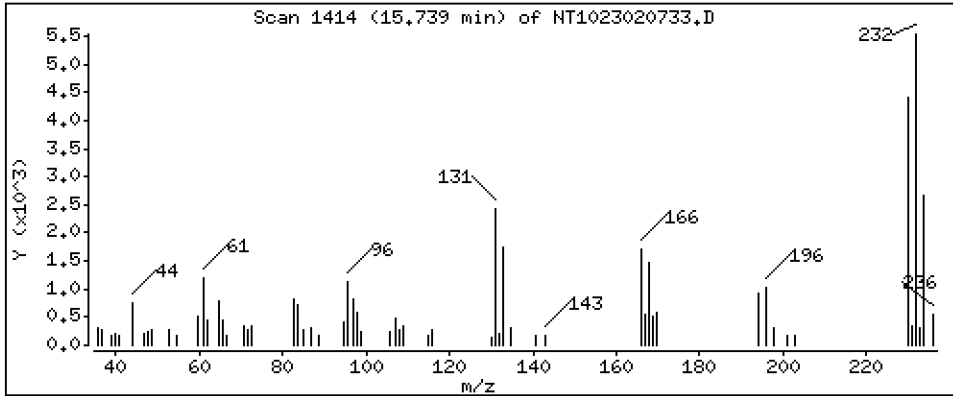
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0,4681 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020733.D
 Lab Smp Id: SLB0102-LCV2
 Inj Date : 08-FEB-2023 08:02
 Operator : VTS
 Smp Info : SLB0102-LCV2
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 08-Feb-2023 10:39 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		6.780	6.772	(0.756)	29029	0.81171	0.8117
\$ 2 Phenol-d5	99		8.341	8.333	(0.930)	37737	0.78219	0.7822
3 Phenol	94		8.364	8.356	(0.933)	27233	0.52182	0.5218
\$ 5 2-Chlorophenol-d4	132		8.611	8.603	(0.960)	31374	0.80127	0.8013
4 Bis(2-Chloroethyl)ether	93		8.511	8.511	(0.949)	20123	0.53023	0.5302
6 2-Chlorophenol	128		8.635	8.634	(0.963)	22809	0.53481	0.5348
7 1,3-Dichlorobenzene	146		8.905	8.897	(0.993)	23606	0.52729	0.5273
* 8 1,4-Dichlorobenzene-d4	152		8.967	8.959	(1.000)	112491	4.00000	
9 1,4-Dichlorobenzene	146		8.998	8.990	(1.003)	22155	0.50244	0.5024
\$ 10 1,2-Dichlorobenzene-d4	152		9.324	9.316	(1.040)	14277	0.53269	0.5327
12 1,2-Dichlorobenzene	146		9.348	9.340	(1.042)	21632	0.50886	0.5089
11 Benzyl alcohol	108		9.239	9.239	(1.030)	9565	0.41377	0.4138
14 2,2'-oxybis(1-Chloropropane)	121		9.526	9.526	(1.062)	6794	0.55623	0.5562 (M)
13 2-Methylphenol	108		9.464	9.456	(1.055)	21090	0.54490	0.5449
17 Hexachloroethane	117		9.930	9.929	(1.107)	6799	0.40220	0.4022
16 N-Nitroso-di-n-propylamine	70		9.782	9.782	(1.091)	15193	0.52201	0.5220
15 4-Methylphenol	108		9.728	9.728	(1.085)	22148	0.54025	0.5402
\$ 18 Nitrobenzene-d5	82		10.046	10.038	(0.880)	23115	0.55400	0.5540
19 Nitrobenzene	77		10.077	10.077	(0.882)	22238	0.53448	0.5345
20 Isophorone	82		10.520	10.519	(0.921)	28351	0.48933	0.4893
21 2-Nitrophenol	139		10.707	10.698	(0.937)	11497	0.53647	0.5365
22 2,4-Dimethylphenol	107		10.766	10.757	(0.943)	42454	1.10818	1.108
23 Bis(2-Chloroethoxy)methane	93		10.953	10.944	(0.959)	20796	0.55276	0.5528
24 Benzoic acid	105		10.902	11.003	(0.954)	20089	0.92612	0.9261
25 2,4-Dichlorophenol	162		11.165	11.156	(0.978)	35125	1.12855	1.129
26 1,2,4-Trichlorobenzene	180		11.337	11.337	(0.993)	18189	0.53638	0.5364
* 27 Naphthalene-d8	136		11.422	11.422	(1.000)	422326	4.00000	
28 Naphthalene	128		11.461	11.460	(1.003)	58828	0.52127	0.5213
29 4-Chloroaniline	127		11.592	11.592	(1.015)	49961	1.03271	1.033
30 Hexachlorobutadiene	225		11.824	11.823	(1.035)	9569	0.54109	0.5411
31 4-Chloro-3-methylphenol	107		12.559	12.551	(1.100)	33996	0.99916	0.9992
32 2-Methylnaphthalene	142		12.853	12.845	(1.125)	41125	0.52409	0.5241
33 Hexachlorocyclopentadiene	237		Compound Not Detected.					

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196		13.472	13.464	(0.898)	21012	1.06942	1.069	
35 2,4,5-Trichlorophenol	196		13.550	13.549	(0.903)	21364	1.00858	1.009	
§ 36 2-Fluorobiphenyl	172		13.627	13.619	(0.908)	43452	0.55399	0.5540	
37 2-Chloronaphthalene	162		13.836	13.828	(0.922)	37165	0.54512	0.5451	
38 2-Nitroaniline	65		14.091	14.083	(0.939)	22912	1.06728	1.067	
39 Dimethylphthalate	163		14.517	14.509	(0.968)	40771	0.55895	0.5590	
40 Acenaphthylene	152		14.695	14.695	(0.979)	60599	0.55801	0.5580	
41 2,6-Dinitrotoluene	165		14.649	14.648	(0.976)	18301	1.05933	1.059	
* 42 Acenaphthene-d10	164		15.005	15.004	(1.000)	217652	4.00000		
43 3-Nitroaniline	138		14.935	14.935	(0.995)	19899	0.99897	0.9990	
44 Acenaphthene	153		15.074	15.066	(1.005)	35882	0.53915	0.5391	
45 2,4-Dinitrophenol	184		15.151	15.151	(1.010)	5490	0.61555	0.6156	
46 Dibenzofuran	168		15.399	15.391	(1.026)	50028	0.52254	0.5225	
47 4-Nitrophenol	109		15.298	15.313	(1.020)	7791	1.04923	1.049 (M)	
48 2,4-Dinitrotoluene	165		15.453	15.452	(1.030)	24111	1.01150	1.012	
50 Diethylphthalate	149		15.955	15.955	(1.063)	38815	0.55413	0.5541	
49 Fluorene	166		16.102	16.094	(1.073)	56878	0.52853	0.5285	
51 4-Chlorophenyl-phenylether	204		16.095	16.087	(1.073)	28378	0.53991	0.5399	
52 4-Nitroaniline	138		16.195	16.187	(1.079)	22147	0.97293	0.9729	
53 4,6-Dinitro-2-methylphenol	198		16.287	16.287	(0.904)	18574	1.36570	1.366	
54 N-Nitrosodiphenylamine	169		16.341	16.341	(0.907)	36112	0.56102	0.5610	
§ 55 2,4,6-Tribromophenol	330		16.634	16.619	(1.109)	8135	0.74642	0.7464	
56 4-Bromophenyl-phenylether	248		17.089	17.089	(0.948)	12946	0.54580	0.5458	
57 Hexachlorobenzene	284		17.406	17.398	(0.966)	14611	0.57198	0.5720	
58 Pentachlorophenol	266		17.770	17.770	(0.986)	7668	0.79601	0.7960	
* 59 Phenanthrene-d10	188		18.018	18.018	(1.000)	376550	4.00000		
60 Phenanthrene	178		18.064	18.064	(1.003)	53468	0.52761	0.5276	
61 Anthracene	178		18.157	18.157	(1.008)	54643	0.54453	0.5445	
62 Carbazole	167		18.490	18.489	(1.026)	50813	0.52500	0.5250	
63 Di-n-butylphthalate	149		19.294	19.294	(1.071)	63876	0.55344	0.5534	
64 Fluoranthene	202		20.455	20.447	(0.887)	56532	0.49880	0.4988	
65 Pyrene	202		20.881	20.872	(0.905)	58038	0.49602	0.4960	
§ 66 Terphenyl-d14	244		21.167	21.167	(0.917)	44701	0.50665	0.5067	
67 Butylbenzylphthalate	149		22.096	22.088	(0.958)	27513	0.54413	0.5441	
68 Benzo(a)anthracene	228		23.041	23.033	(0.999)	57507	0.55820	0.5582	
* 69 Chrysene-d12	240		23.072	23.064	(1.000)	309079	4.00000		
70 3,3'-Dichlorobenzidine	252		22.994	22.994	(0.997)	63008	1.80758	1.808	
71 Chrysene	228		23.110	23.102	(1.002)	53635	0.54285	0.5429	
72 bis(2-Ethylhexyl)phthalate	149		23.126	23.125	(0.959)	37172	0.52645	0.5264	
* 134 Di-n-octylphthalate-d4	153		24.109	24.109	(1.000)	519094	4.00000		
73 Di-n-octylphthalate	149		24.117	24.116	(1.000)	72002	0.54888	0.5489	
74 Benzo(b)fluoranthene	252		24.883	24.875	(0.971)	64902	0.56342	0.5634	
75 Benzo(k)fluoranthene	252		24.930	24.922	(0.973)	66297	0.54666	0.5467	
76 Benzo(a)pyrene	252		25.510	25.502	(0.995)	58271	0.55945	0.5595	
* 77 Perylene-d12	264		25.626	25.611	(1.000)	363898	4.00000		
78 Indeno(1,2,3-cd)pyrene	276		28.168	28.159	(1.099)	53159	0.42879	0.4288	
79 Dibenzo(a,h)anthracene	278		28.183	28.175	(1.100)	46607	0.45382	0.4538	
80 Benzo(g,h,i)perylene	276		28.921	28.905	(1.129)	38055	0.35766	0.3577	
90 N-Nitrosodimethylamine	74		4.633	4.625	(0.517)	24813	0.99726	0.9973	
91 Aniline	93		8.426	8.426	(0.940)	52266	1.03475	1.035	
93 Benzidine	184		20.687	20.687	(0.897)	44488	1.17231	1.172	
103 Pyridine	79		4.664	4.679	(0.520)	37744	0.98008	0.9801	
105 1-methylnaphthalene	142		13.070	13.062	(1.144)	39682	0.52526	0.5253	
111 Azobenzene (1,2-DP-Hydrazine)	77		16.418	16.410	(1.094)	49744	0.53298	0.5330	

Compounds	QUANT SIG							CONCENTRATIONS	
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)	
=====	=====		=====	=====	=====	=====	=====	=====	
187 Total Benzofluoranthenes	252		24.883	24.922	(0.971)	126359	1.11891	1.119	
120 2,3,4,6-Tetrachlorophenol	232		15.739	15.738	(1.049)	9413	0.46809	0.4681	

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 08-FEB-2023
 Lab File ID: NT1023020733.D Calibration Time: 07:24
 Lab Smp Id: SLB0102-LCV2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	110702	55351	221404	112491	1.62
27 Naphthalene-d8	429852	214926	859704	422326	-1.75
42 Acenaphthene-d10	233715	116858	467430	217652	-6.87
59 Phenanthrene-d10	388662	194331	777324	376550	-3.12
69 Chrysene-d12	345176	172588	690352	309079	-10.46
134 Di-n-octylphthala	579750	289875	1159500	519094	-10.46
77 Perylene-d12	378227	189114	756454	363898	-3.79

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.97	0.01
27 Naphthalene-d8	11.43	10.93	11.93	11.42	-0.06
42 Acenaphthene-d10	15.01	14.51	15.51	15.01	-0.05
59 Phenanthrene-d10	18.03	17.53	18.53	18.02	-0.04
69 Chrysene-d12	23.07	22.57	23.57	23.07	0.00
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	0.00
77 Perylene-d12	25.63	25.13	26.13	25.63	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020733.D

Lab ID: SLB0102-LCV2
nt10.i, 20230207.b\ABN.m, 08-FEB-2023 08:02

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.954	0.000	0.9545	Benzoic acid
1.010	0.000	1.0098	2,4-Dinitrophenol

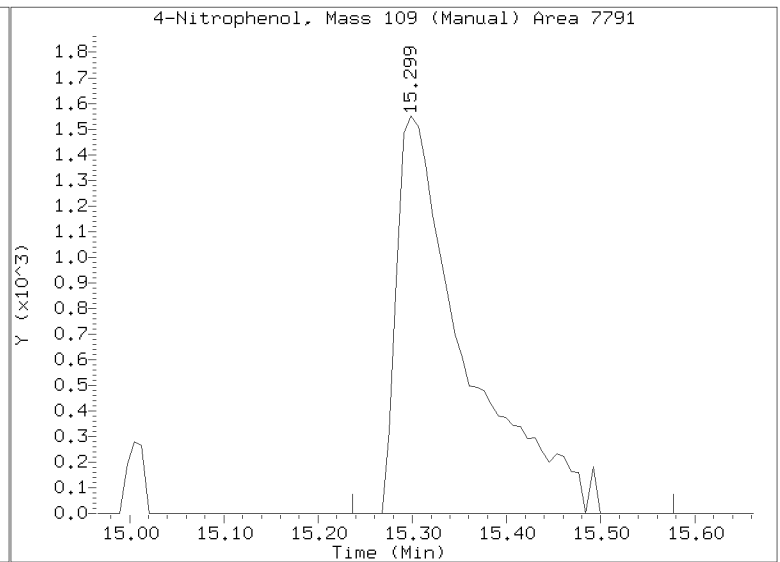
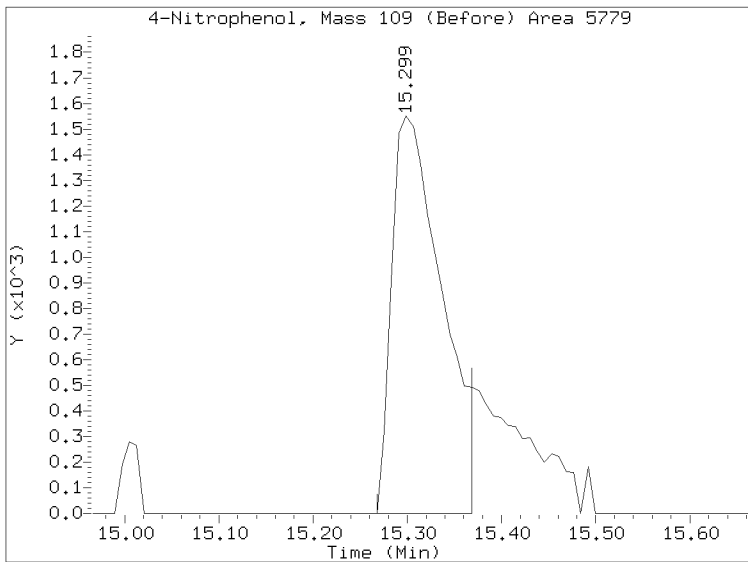
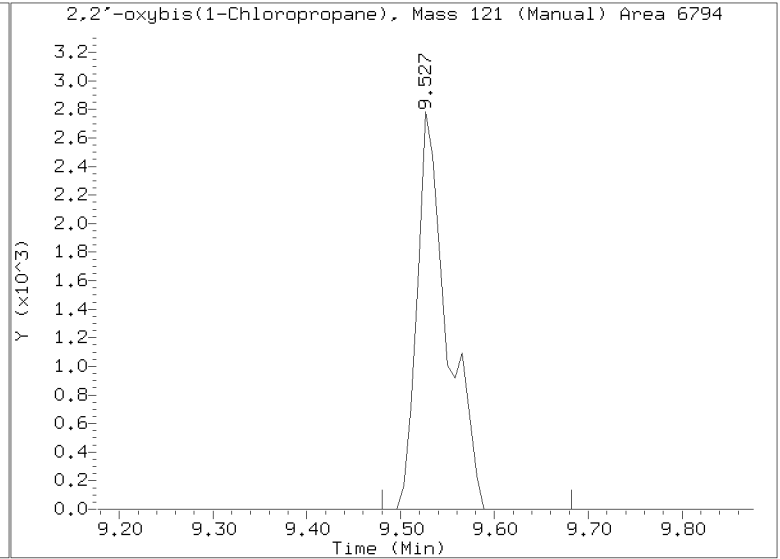
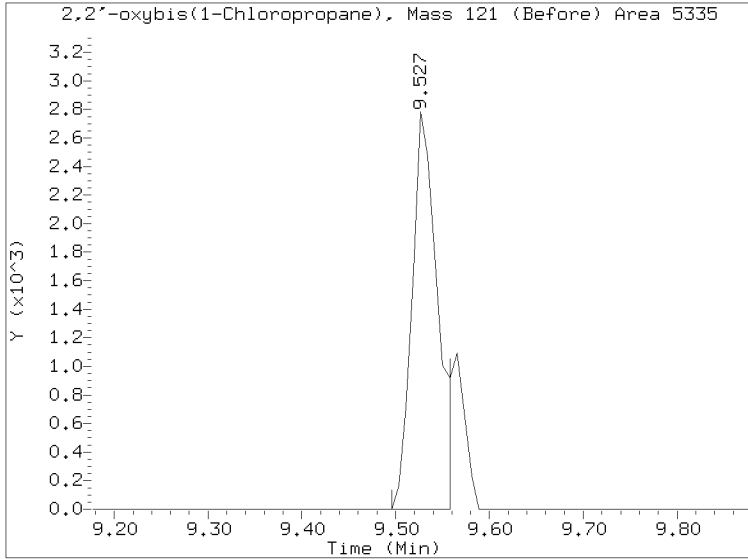
RRT check based on Ccal File: NT1023020708.D

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020733.D
Injection Date: 08-FEB-2023 08:02
Lab ID:SLB0102-LCV2 Client ID:
Report Date: 02/09/2023 11:27



APPROVED

By Deenay Dunmore at 11:33 am, Feb 09, 2023



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00018

Lab File ID: NT1023020711.D

Calibration Date: 02/07/2023

Sequence: SLB0102

Injection Date: 02/07/23

Lab Sample ID: SLB0102-SCV1

Injection Time: 18:04

Sequence Name: SCV 5.0

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	5.0000	4.1	1.8557260	1.5241700		-17.9	+/-20
4-Methylphenol	A	5.0000	3.9	1.4577560	1.1511110		-21.0	+/-20 *
Naphthalene	A	5.0000	4.4	1.0689000	0.9484401		-11.3	+/-20
2-Methylnaphthalene	A	5.0000	4.2	0.7432041	0.6281924		-15.5	+/-20
Acenaphthylene	A	5.0000	4.3	1.9958230	1.7250720		-13.6	+/-20
Dimethylphthalate	A	5.0000	4.3	1.3405170	1.1475610		-14.4	+/-20
Acenaphthene	A	5.0000	4.2	1.2231120	1.0353750		-15.3	+/-20
Dibenzofuran	A	5.0000	4.2	1.7594910	1.4721150		-16.3	+/-20
Fluorene	A	5.0000	4.1	1.9777380	1.6369880		-17.2	+/-20
Phenanthrene	A	5.0000	4.3	1.0765200	0.9267246		-13.9	+/-20
Anthracene	A	5.0000	3.9	1.0659800	0.8313768		-22.0	+/-20 *
Fluoranthene	A	5.0000	4.3	1.4667580	1.2731930		-13.2	+/-20
Pyrene	A	5.0000	4.3	1.5142740	1.2949890		-14.5	+/-20
Butylbenzylphthalate	A	5.0000	4.4	0.6543795	0.5738551		-12.3	+/-20
Benzo(a)anthracene	A	5.0000	4.1	1.3332750	1.0925900		-18.1	+/-20
Chrysene	A	5.0000	4.0	1.2786640	1.0276320		-19.6	+/-20
bis(2-Ethylhexyl)phthalate	A	5.0000	4.7	0.5440929	0.5106077		-6.2	+/-20
Benzo(a)fluoranthene, Total	A	10.0000	8.6	1.2413430	1.0659110		-14.1	+/-20
Benzo(a)pyrene	A	5.0000	4.4	1.1449040	1.0020340		-12.5	+/-20
Indeno(1,2,3-cd)pyrene	A	5.0000	4.4	1.3627520	1.1875730		-12.9	+/-20
Dibenzo(a,h)anthracene	A	5.0000	4.4	1.1288770	0.9825989		-13.0	+/-20
Benzo(g,h,i)perylene	A	5.0000	4.3	1.1695480	1.0163090		-13.1	+/-20
2-Fluorophenol	A	7.5000	7.42	1.2716740	1.2582100		-1.1	+/-20
Phenol-d5	A	7.5000	7.24	1.7155190	1.6560850		-3.5	+/-20
2-Chlorophenol-d4	A	7.5000	7.22	1.3922970	1.3408020		-3.7	+/-20
1,2-Dichlorobenzene-d4	A	5.0000	4.68	0.9530327	0.8914284		-6.5	+/-20
Nitrobenzene-d5	A	5.0000	4.75	0.3951837	0.3753016		-5.0	+/-20
2-Fluorobiphenyl	A	5.0000	4.50	1.4414640	1.2985440		-9.9	+/-20
2,4,6-Tribromophenol	A	7.5000	7.11	0.2002949	0.1899704		-5.2	+/-20
p-Terphenyl-d14	A	5.0000	4.52	1.1418200	1.0322110		-9.6	+/-20

* Values outside of QC limits

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Date: 07-FEB-2023 18:04

Client ID:

Sample Info: SLB0102-SCW1

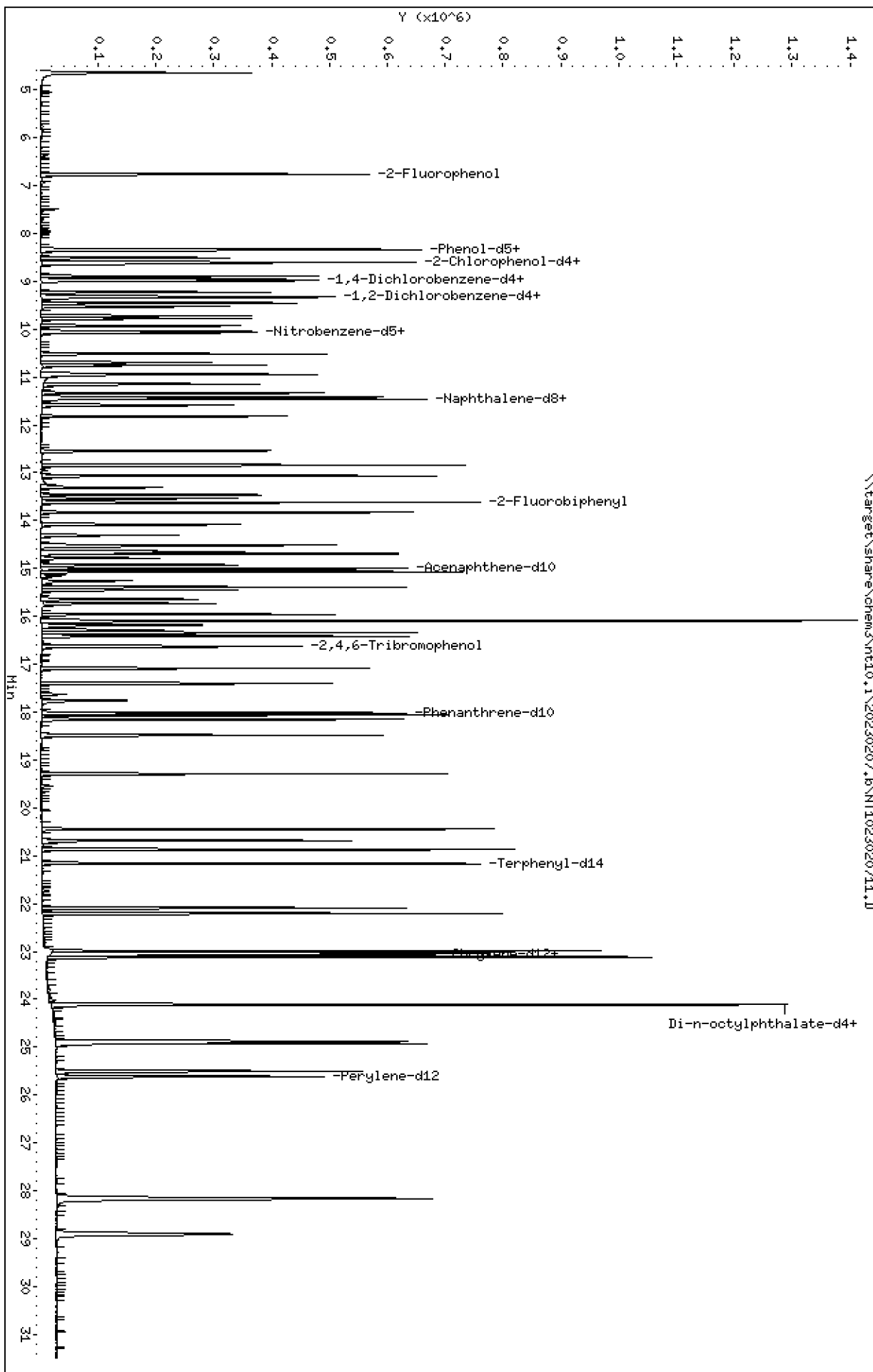
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

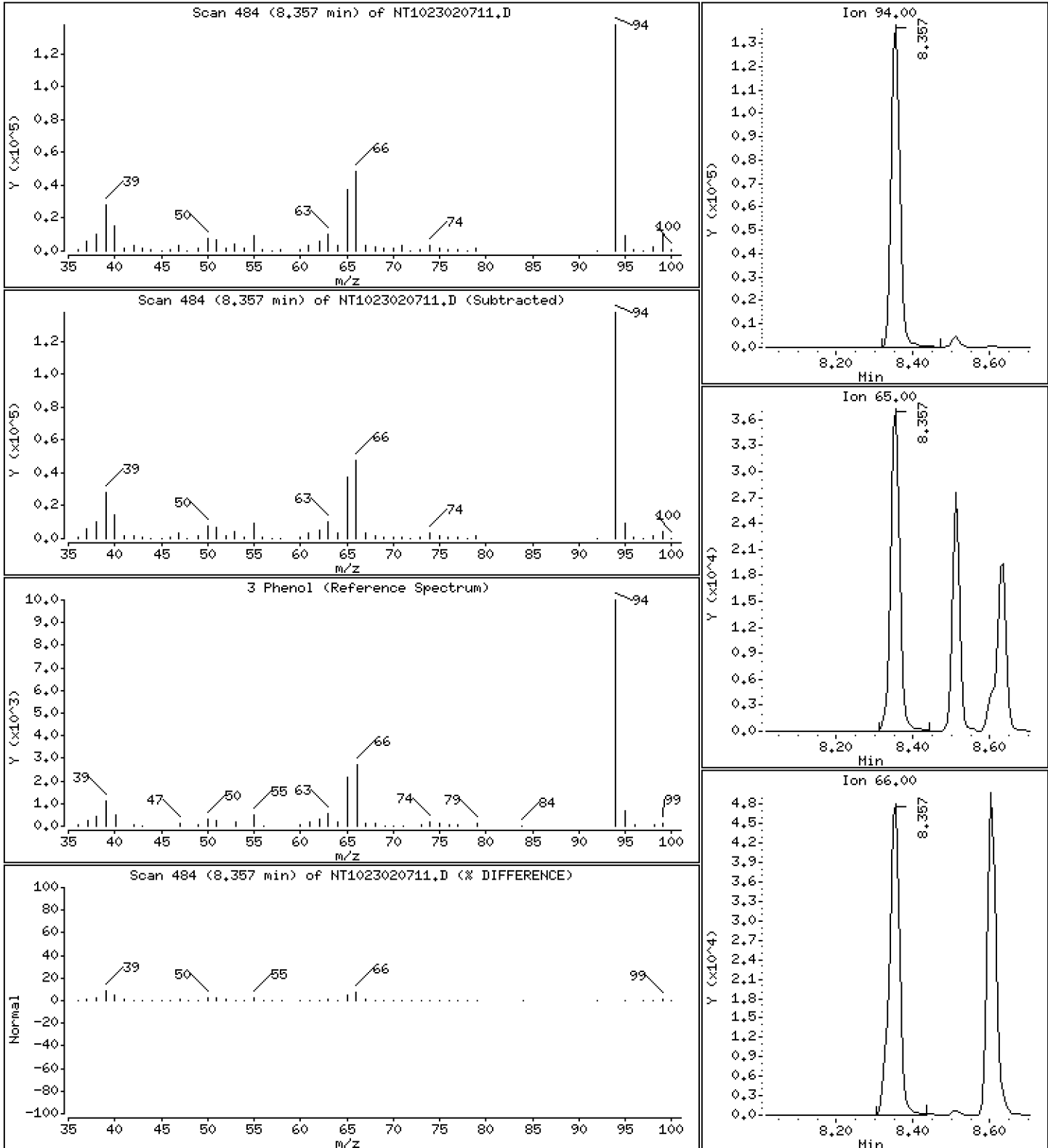
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 4,107 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

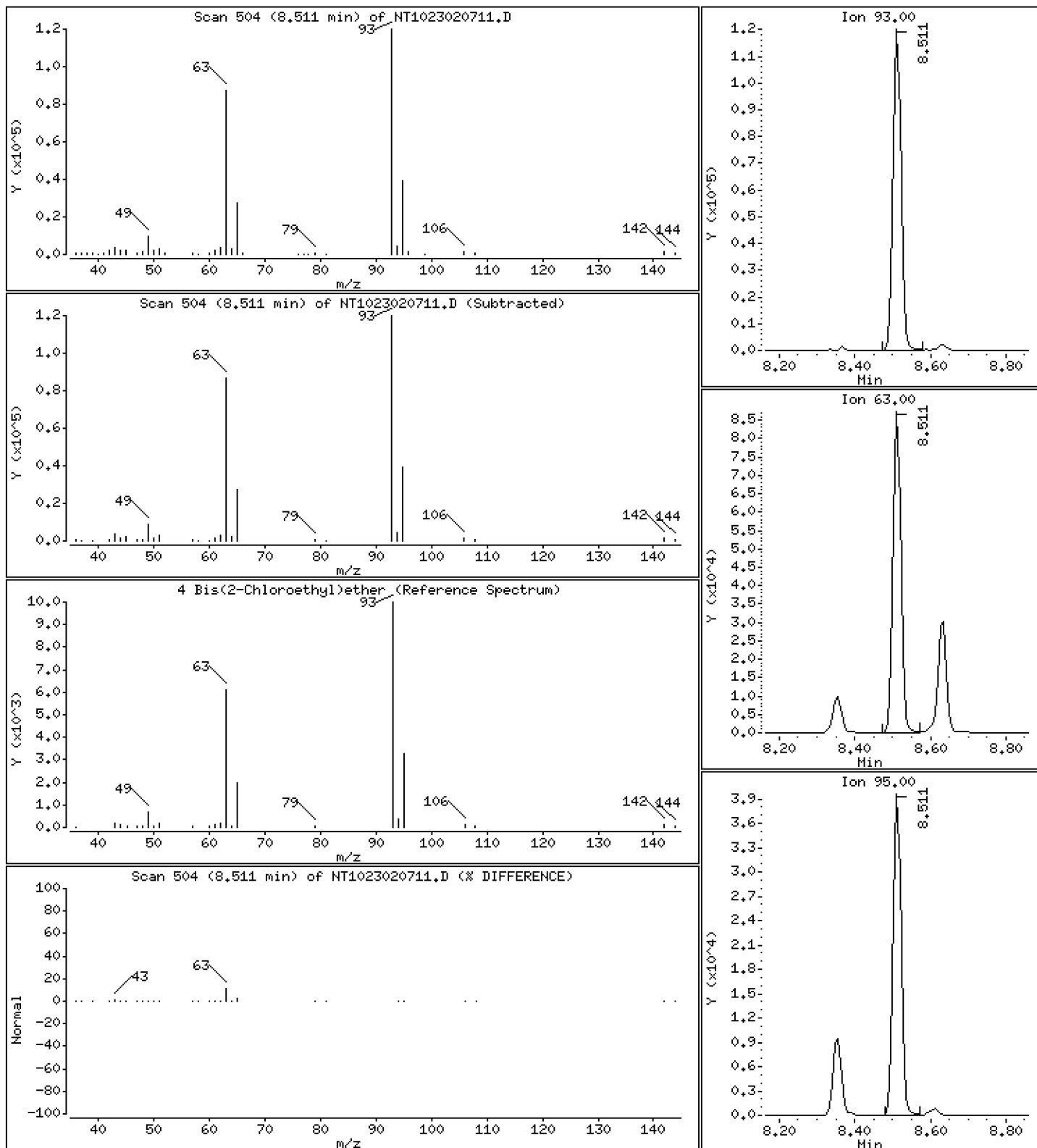
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 4,555 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

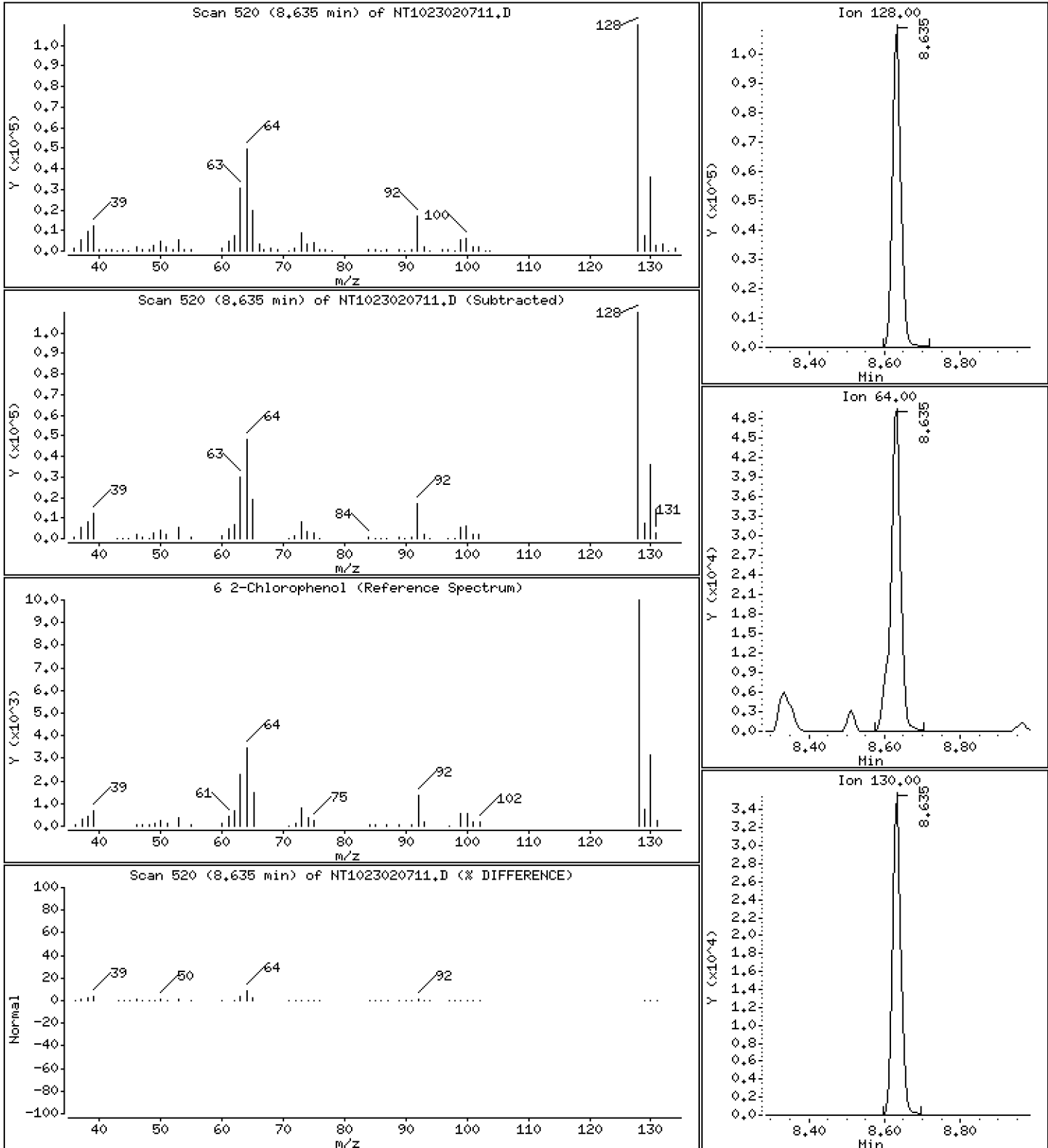
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

6 2-Chlorophenol

Concentration: 4.054 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

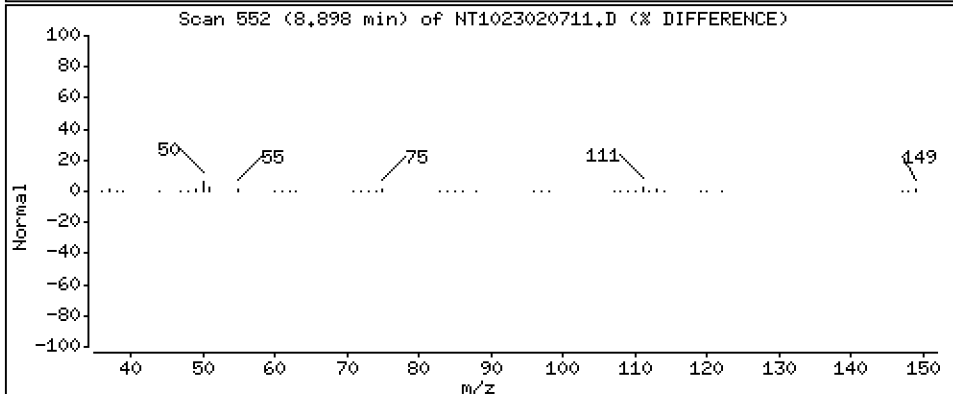
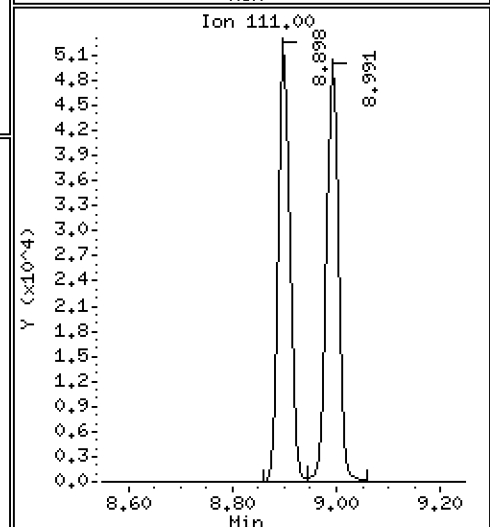
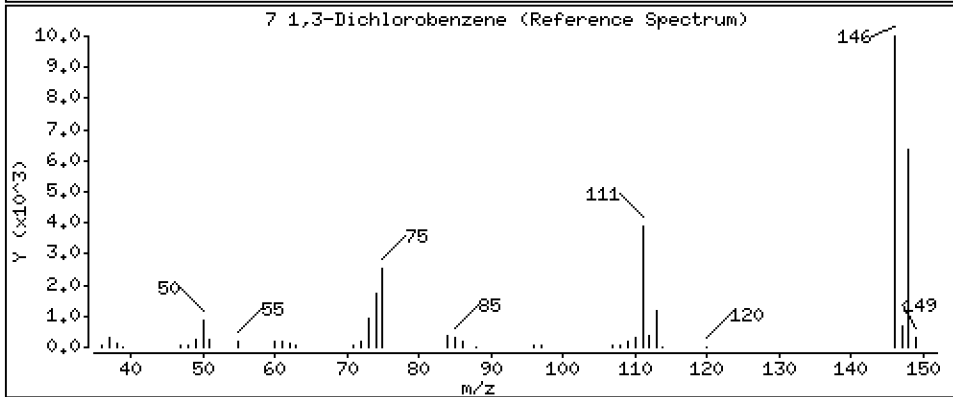
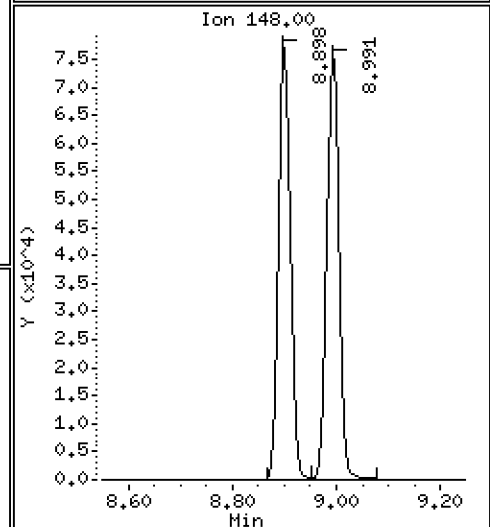
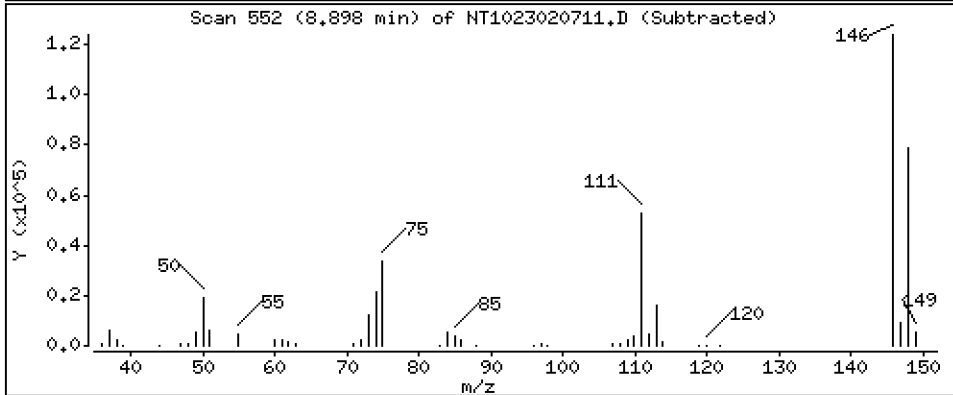
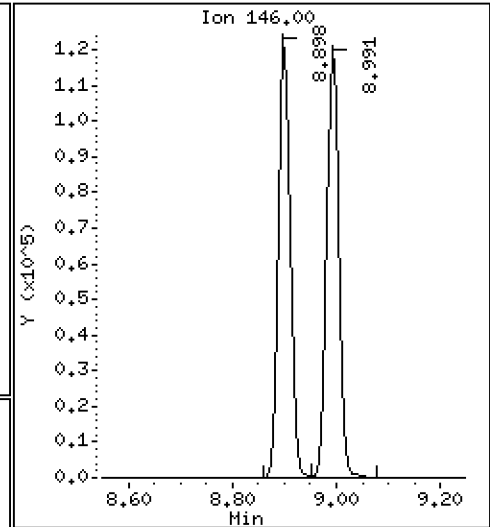
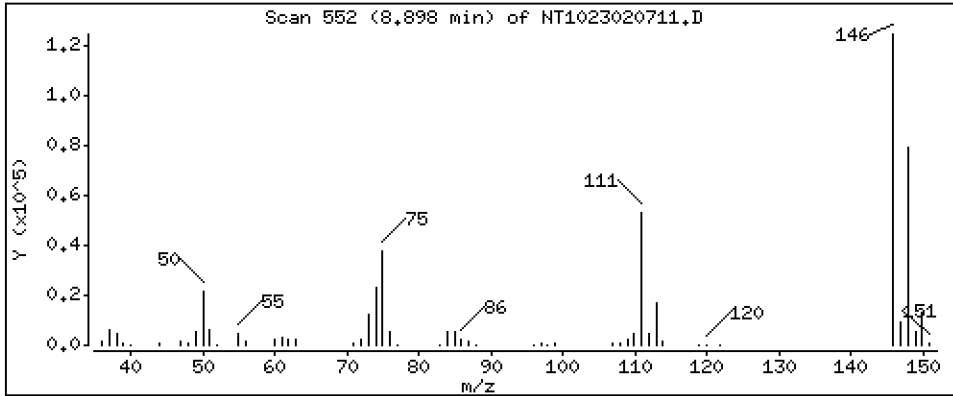
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 4,338 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

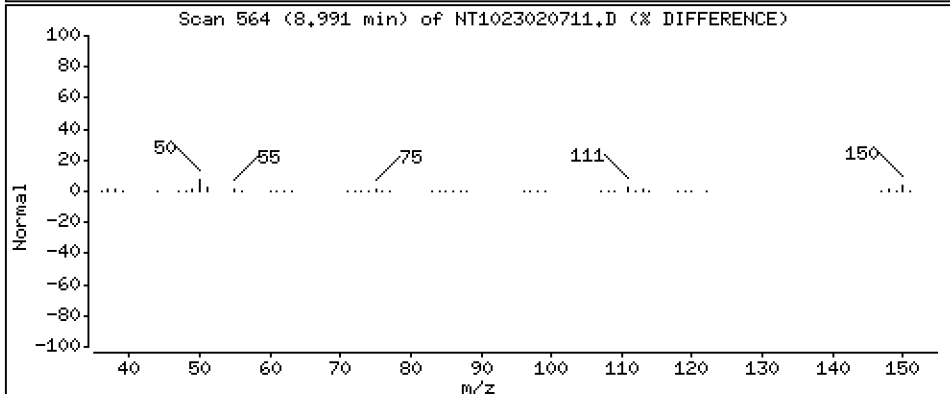
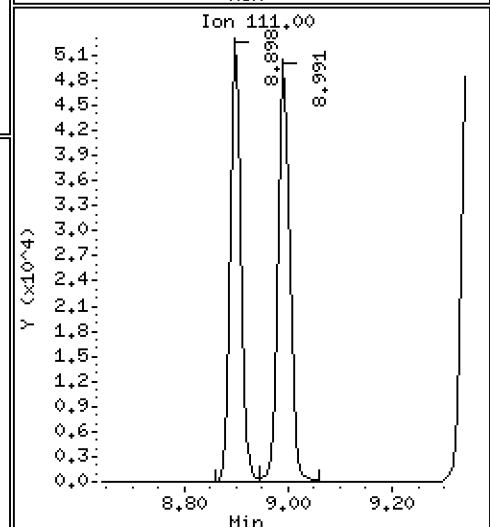
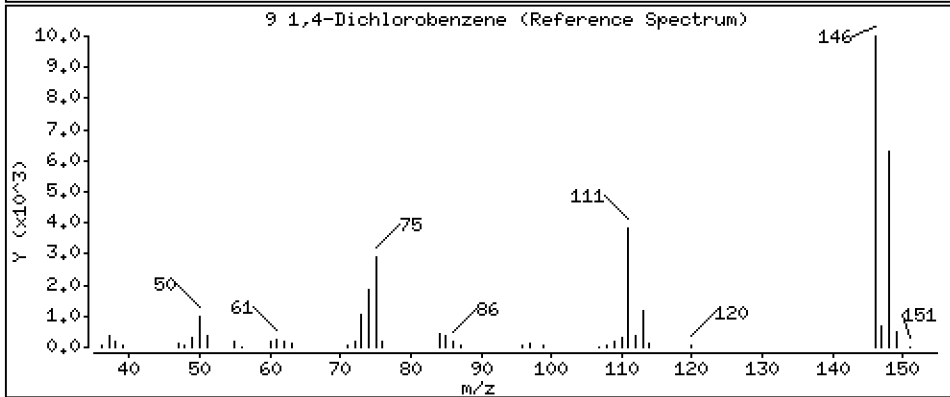
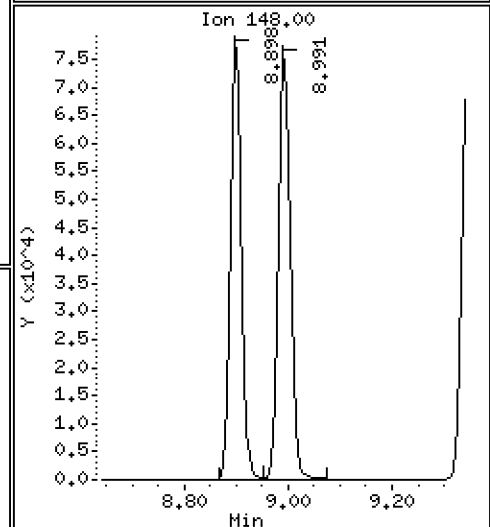
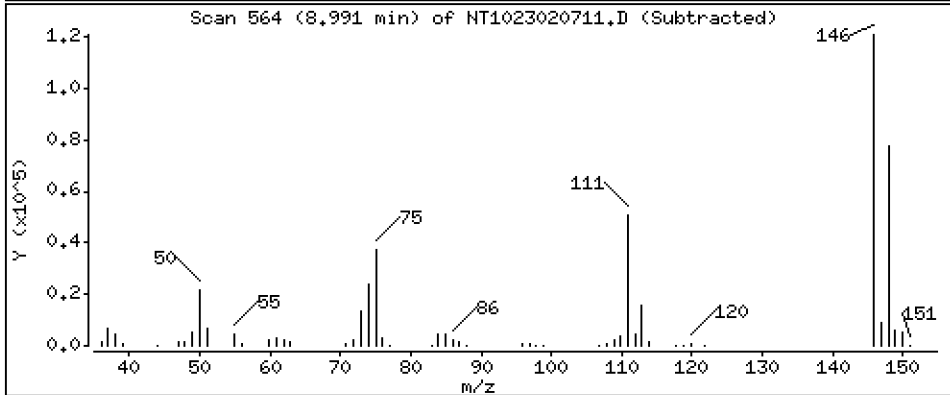
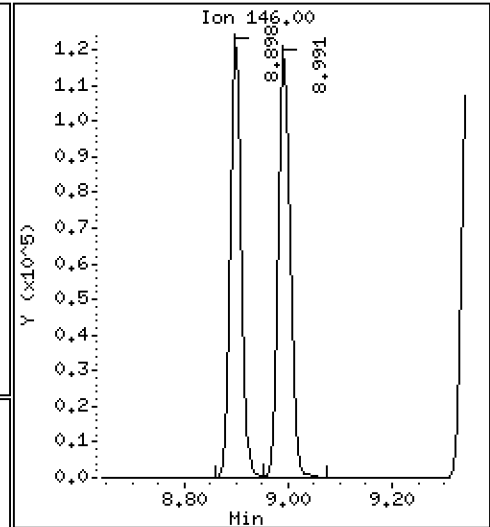
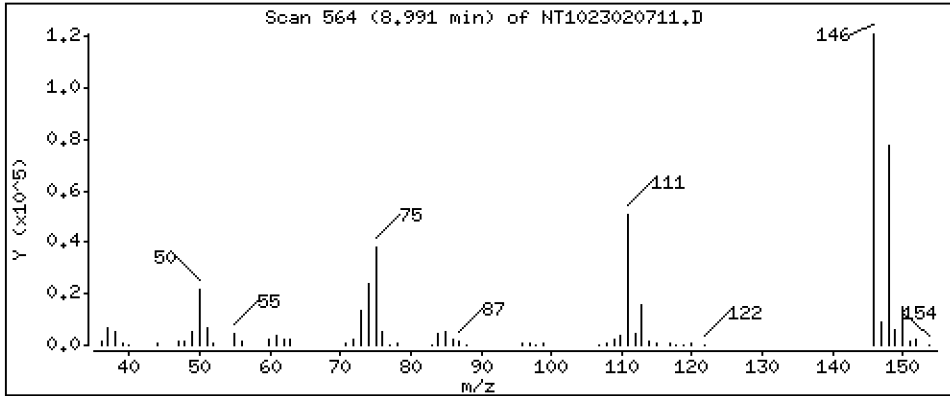
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 4,349 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

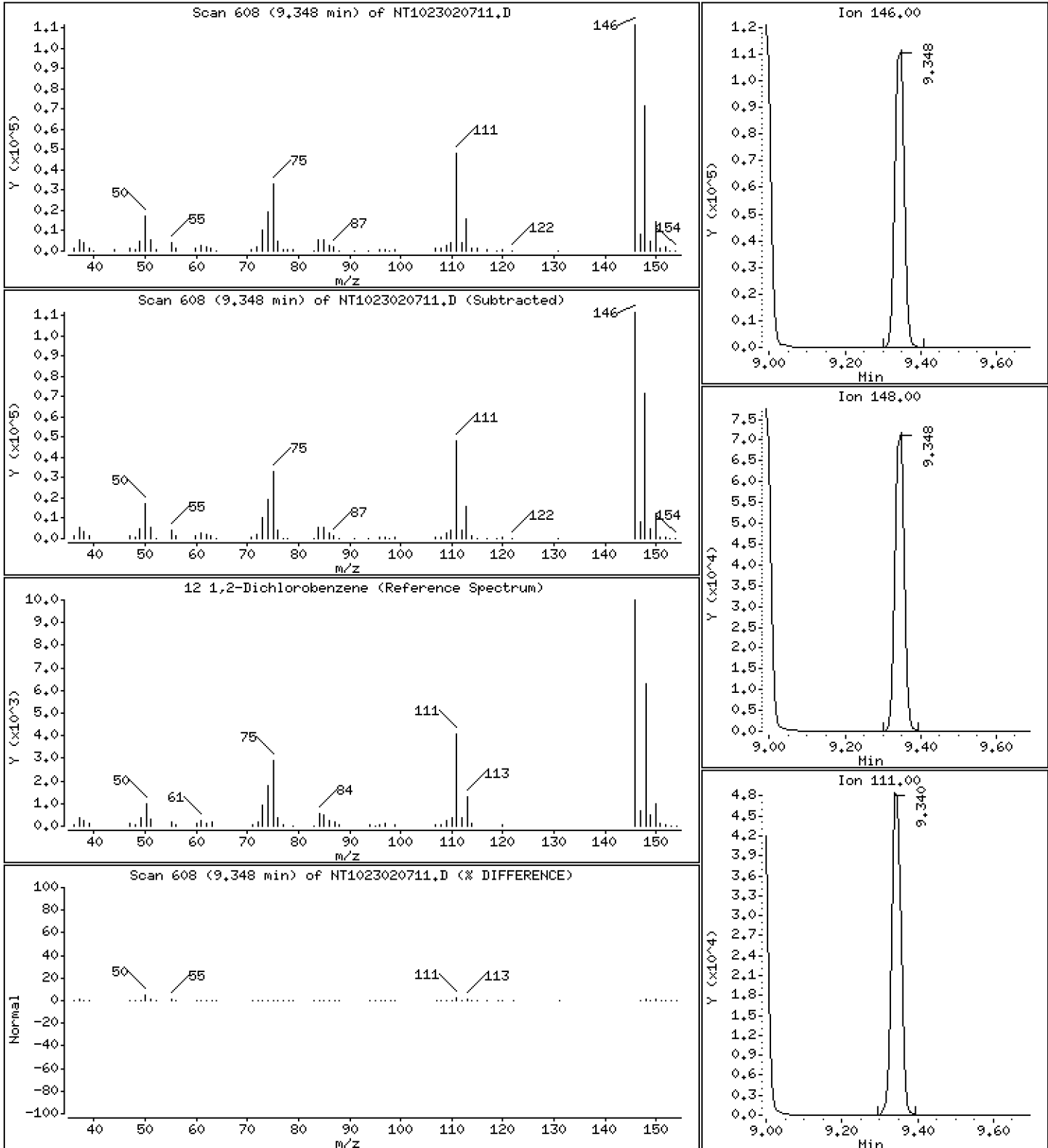
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 4,379 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

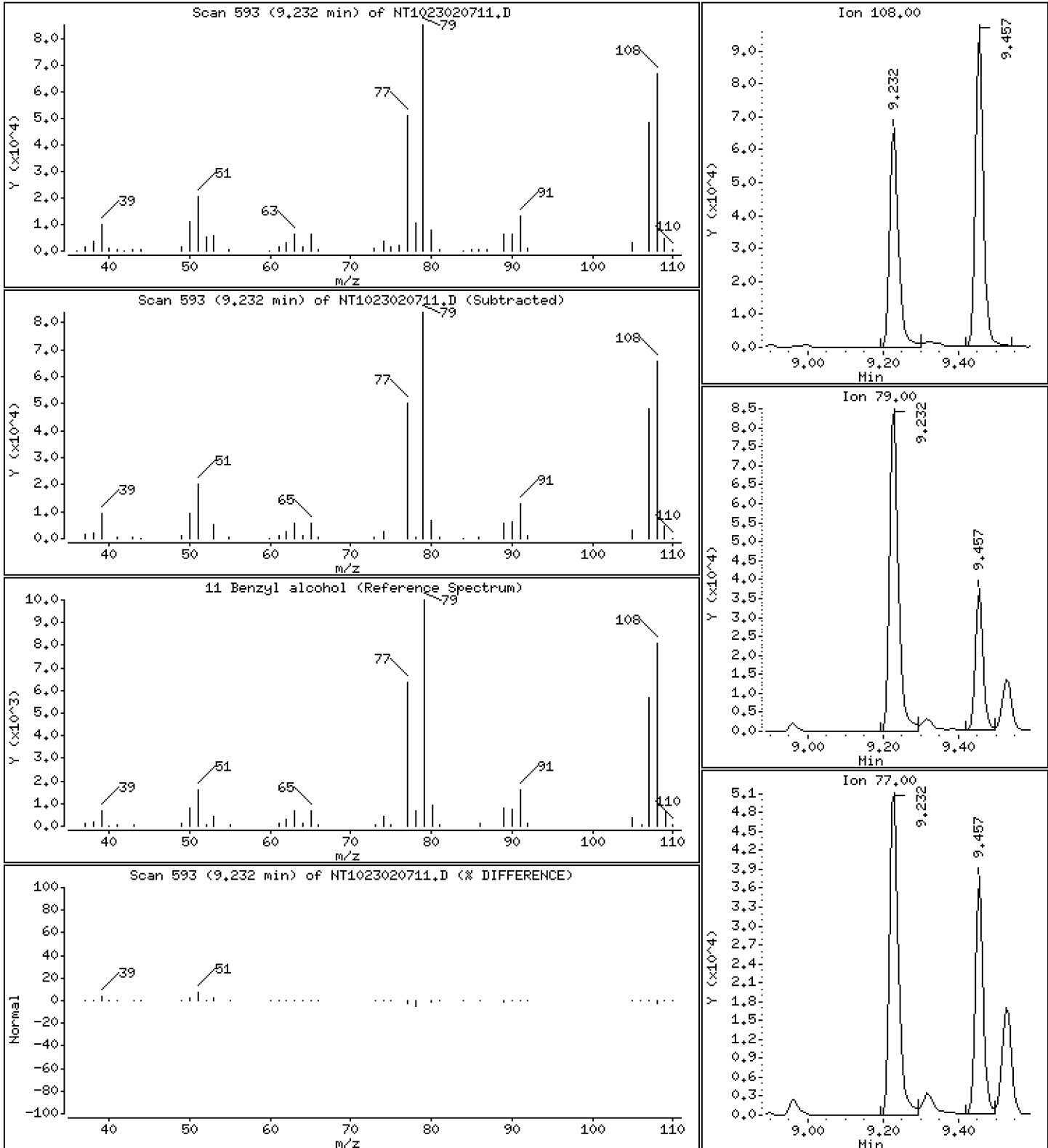
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 4.837 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

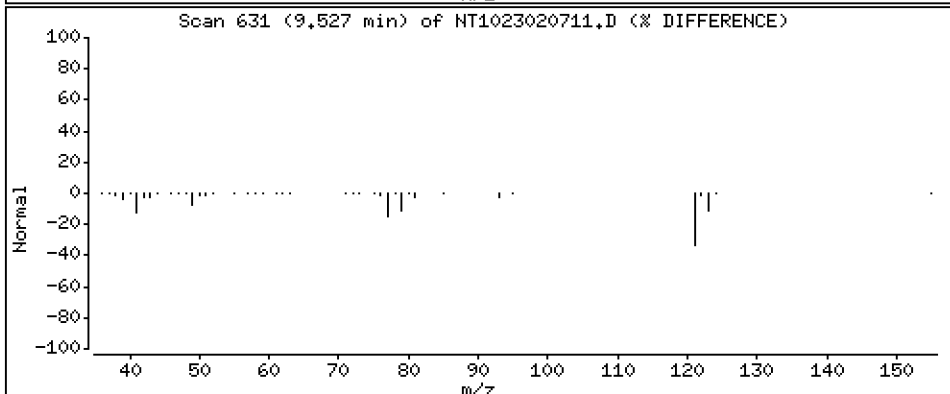
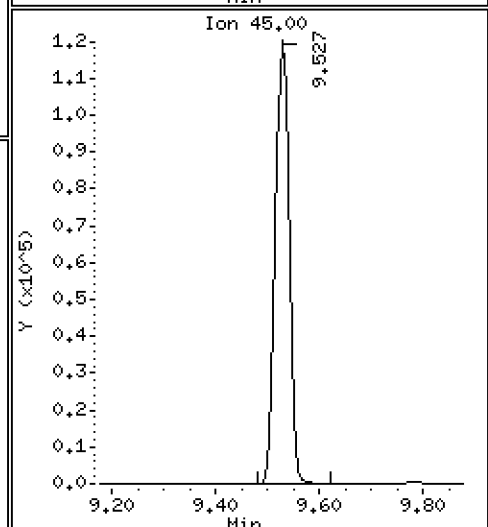
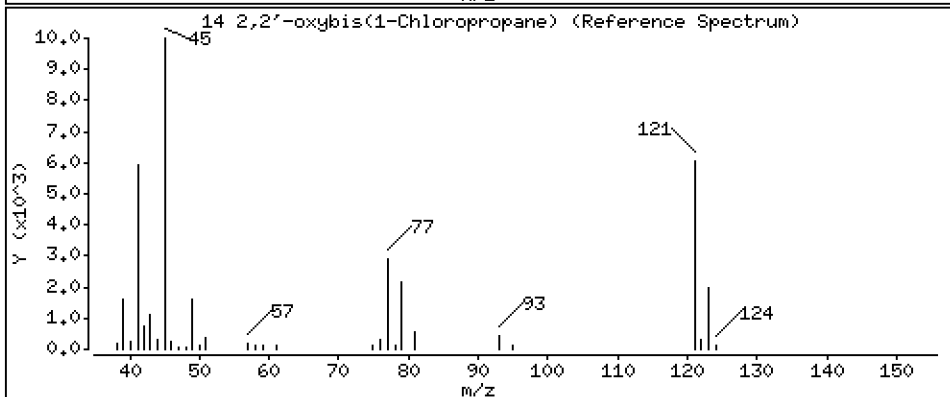
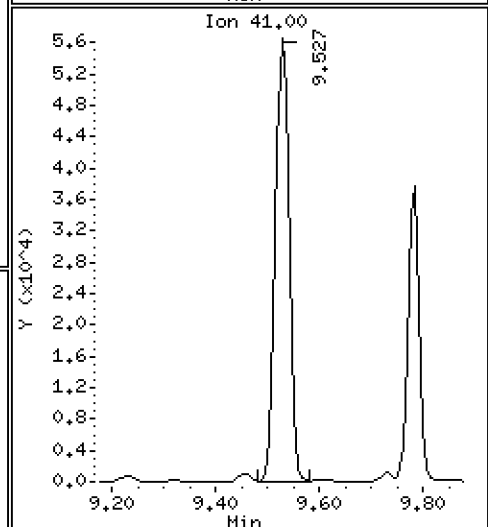
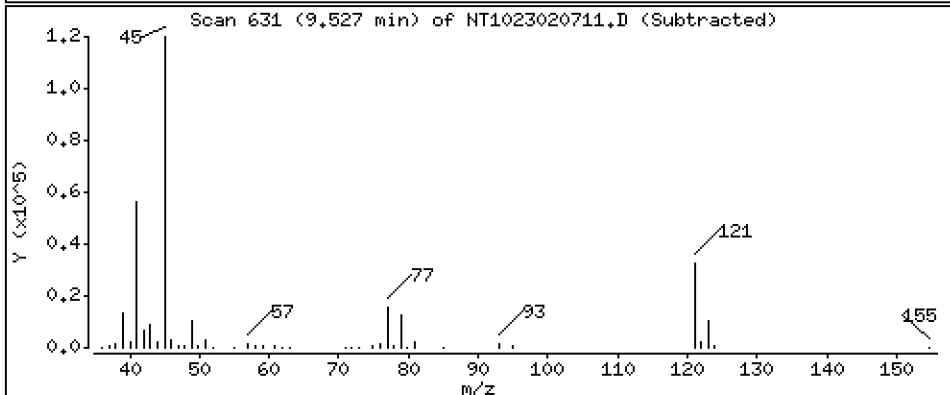
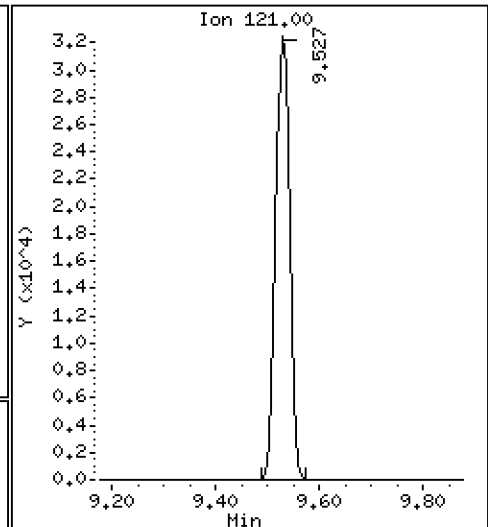
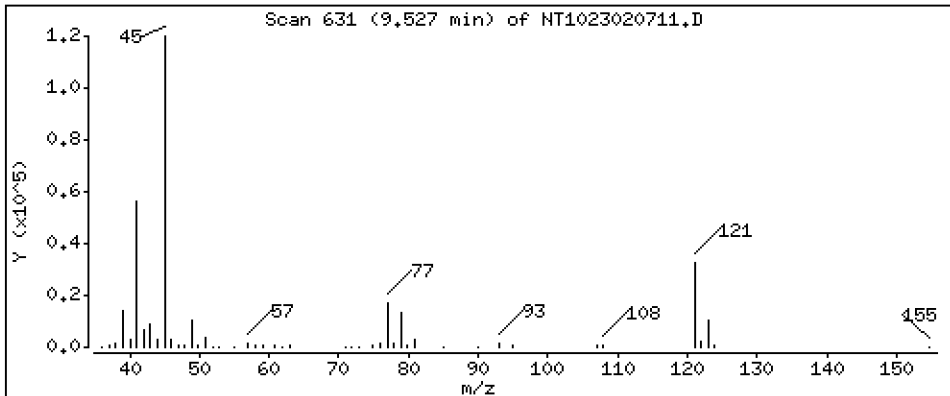
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 5.002 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

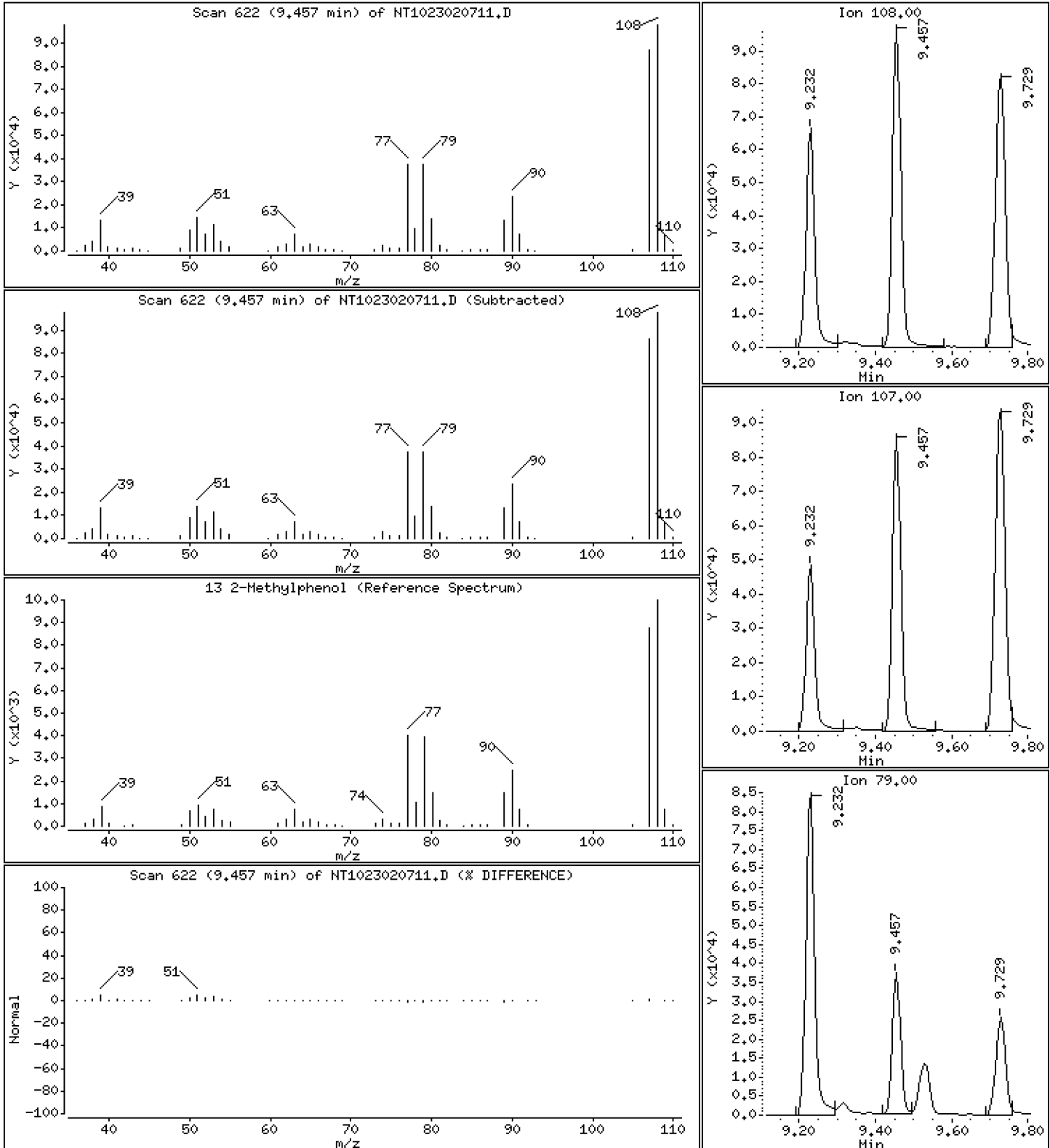
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 3.829 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

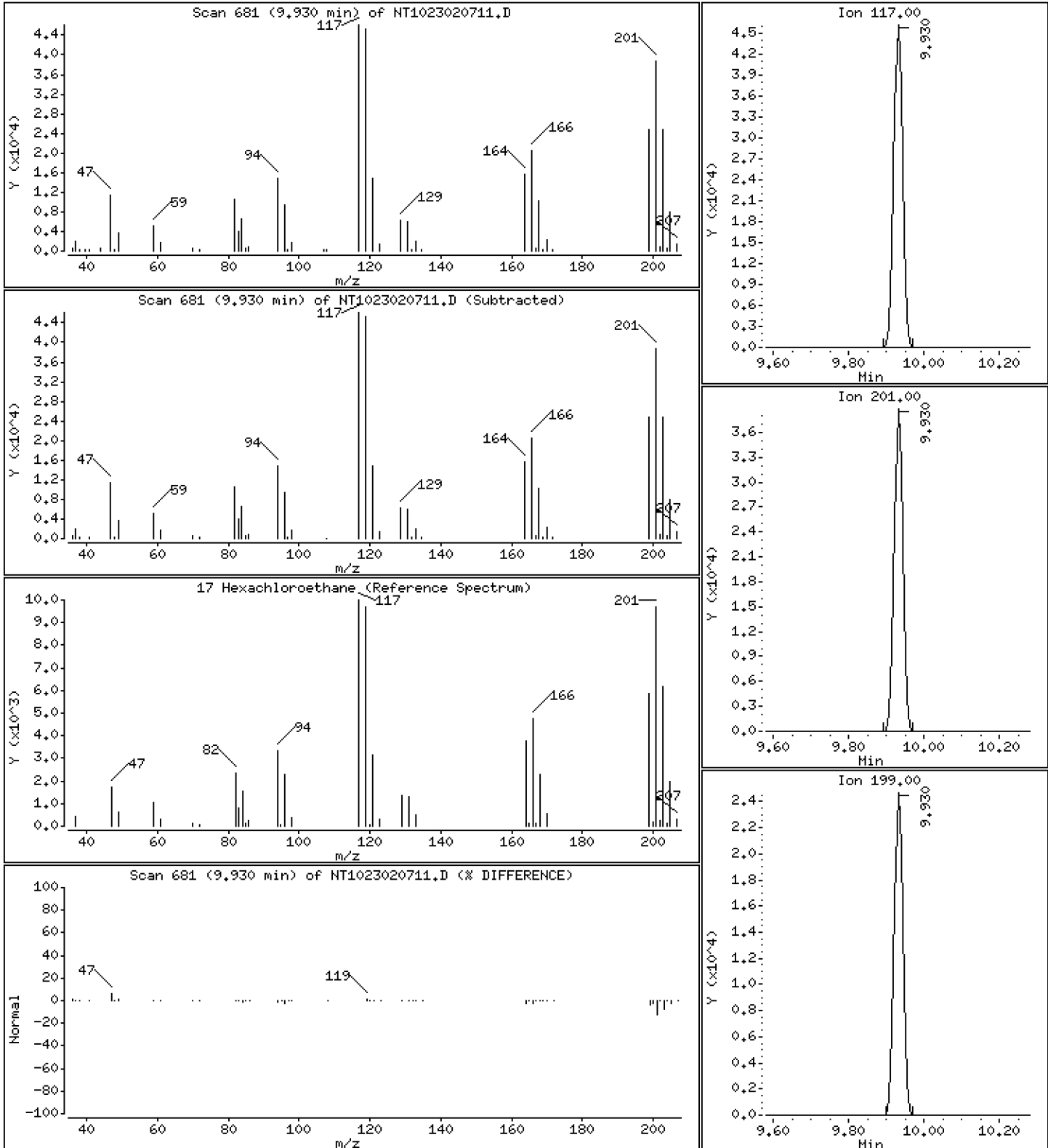
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

17 Hexachloroethane

Concentration: 4.438 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

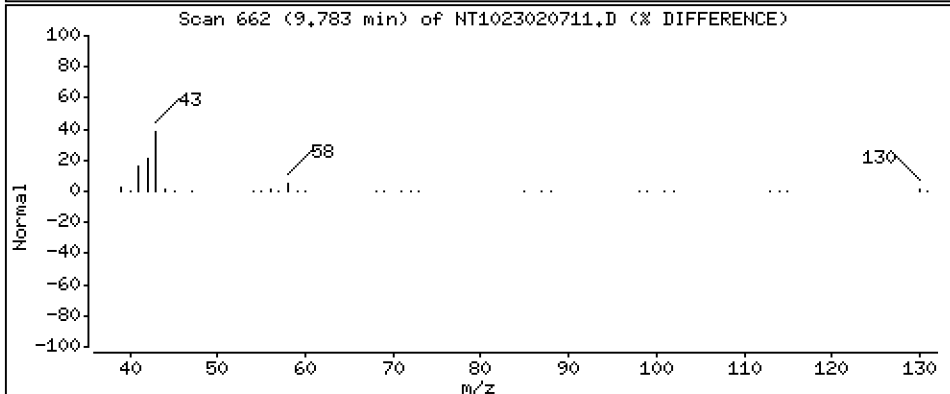
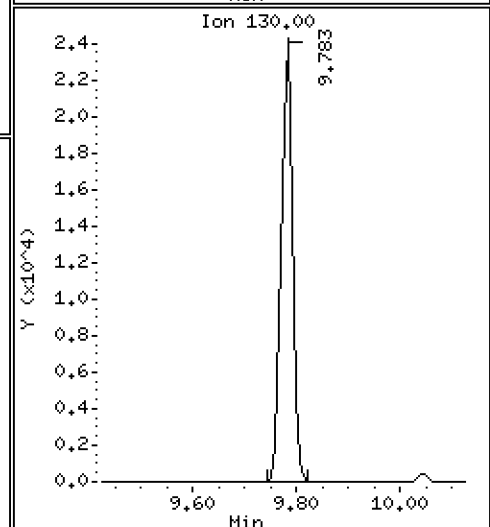
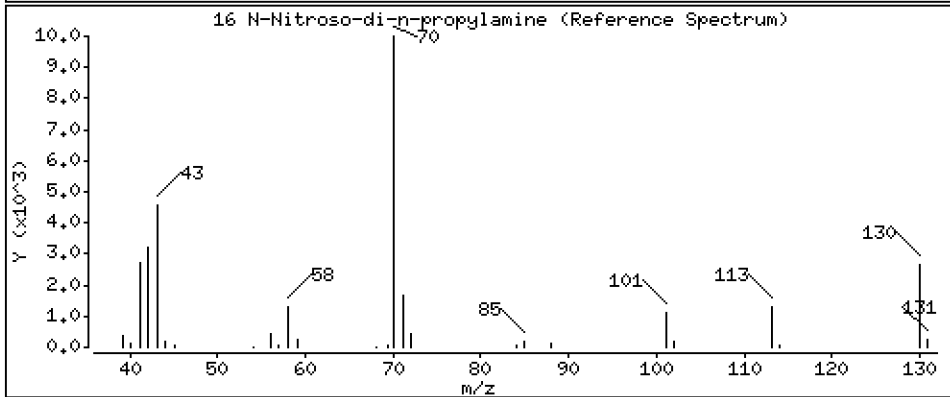
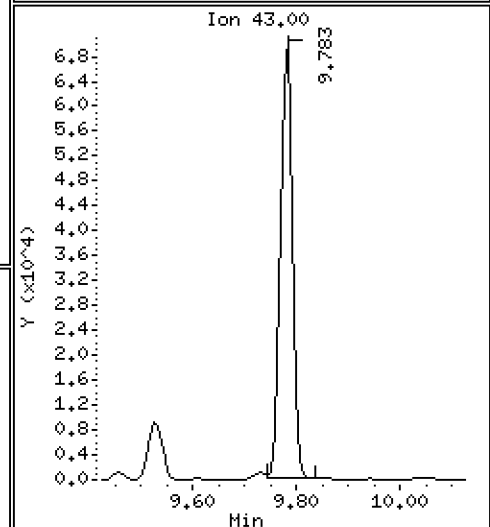
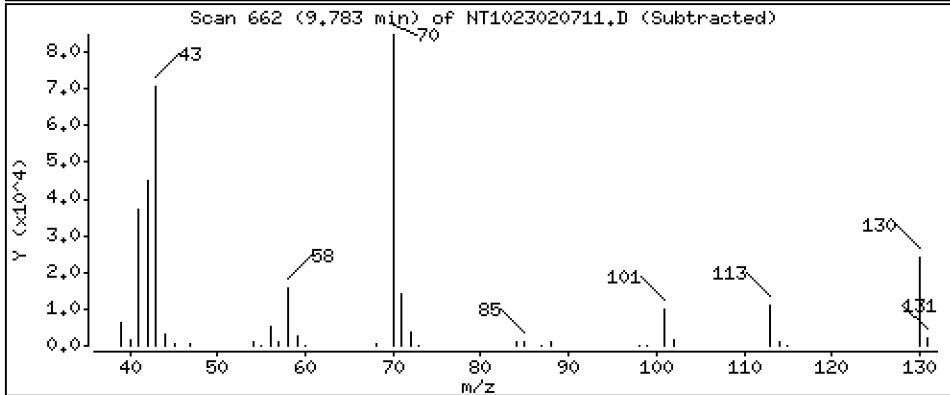
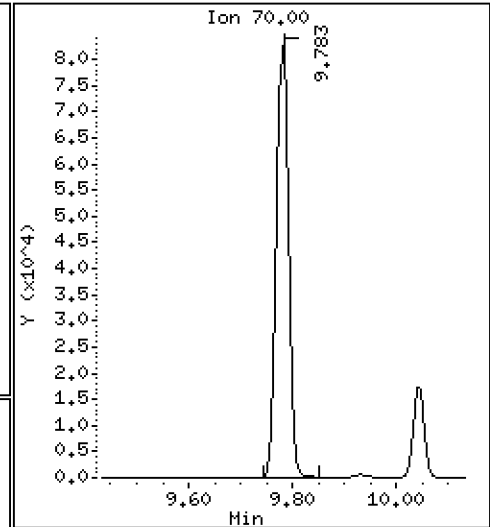
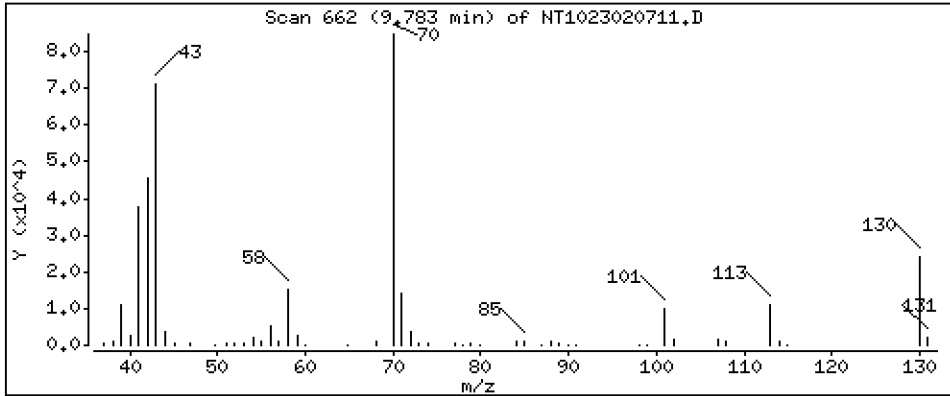
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 4.562 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

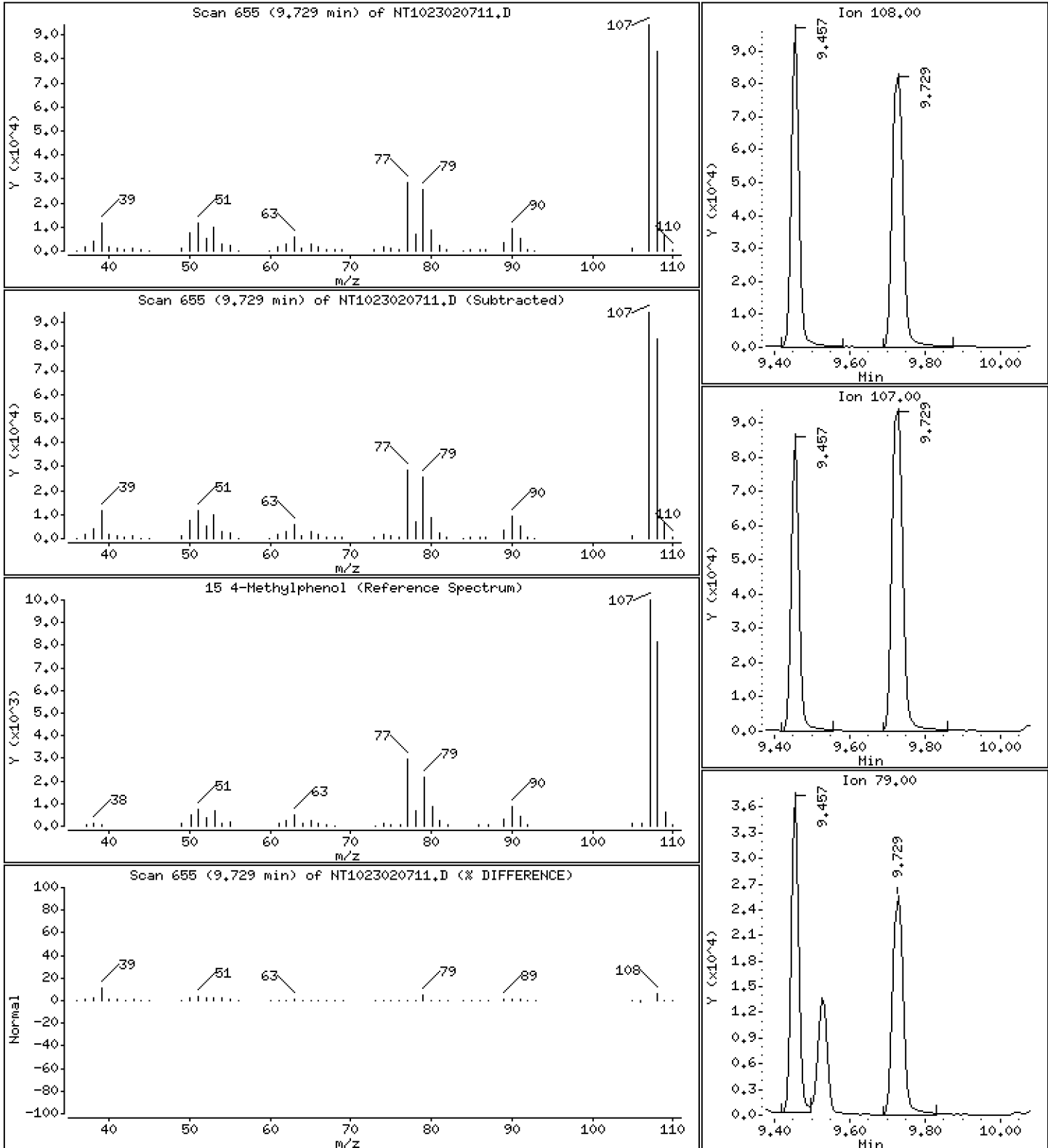
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,948 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

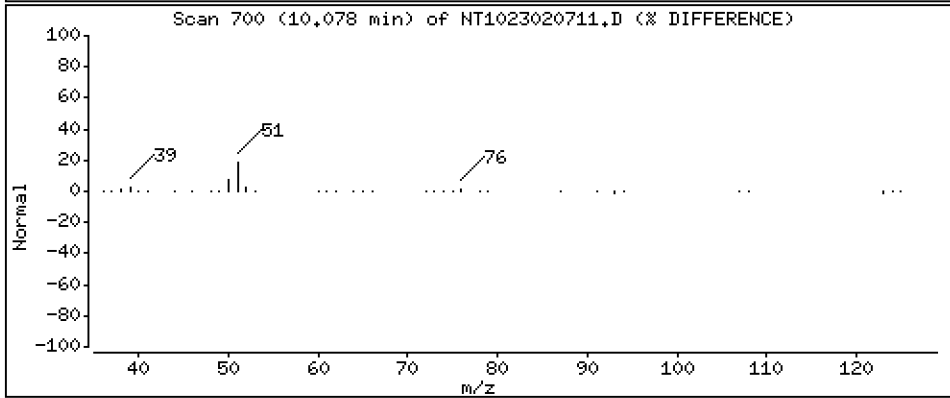
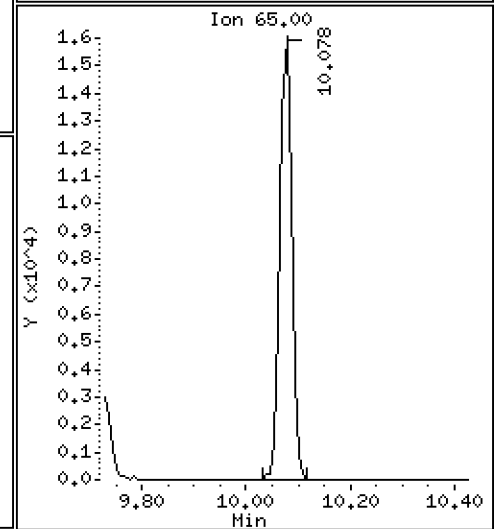
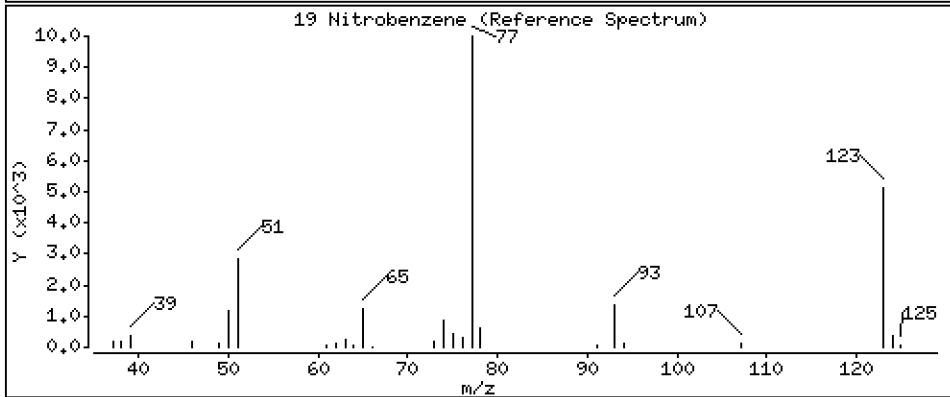
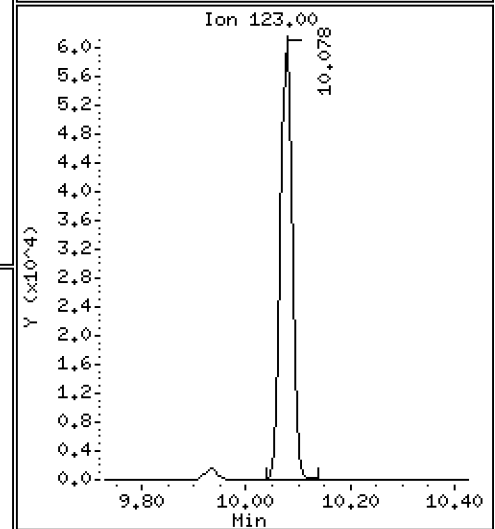
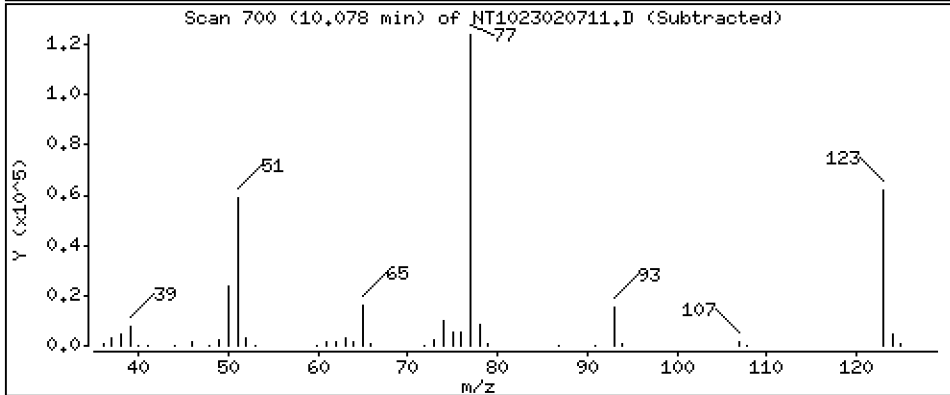
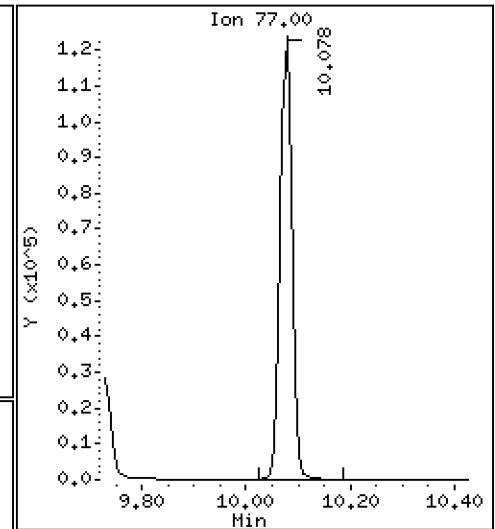
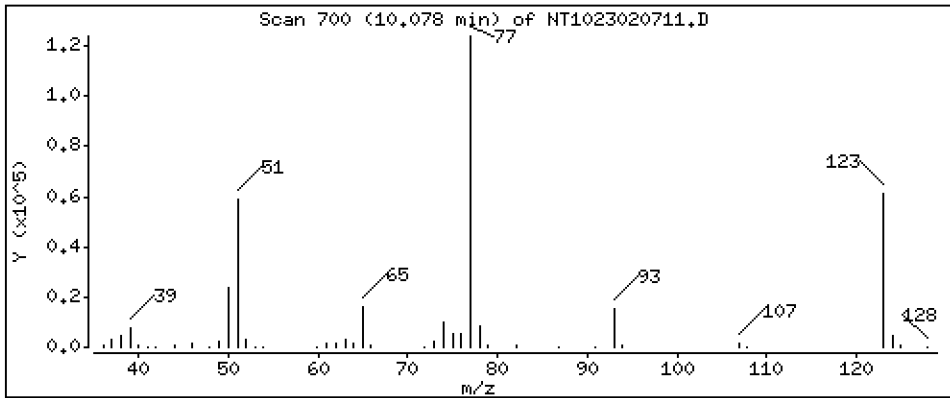
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 4,399 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

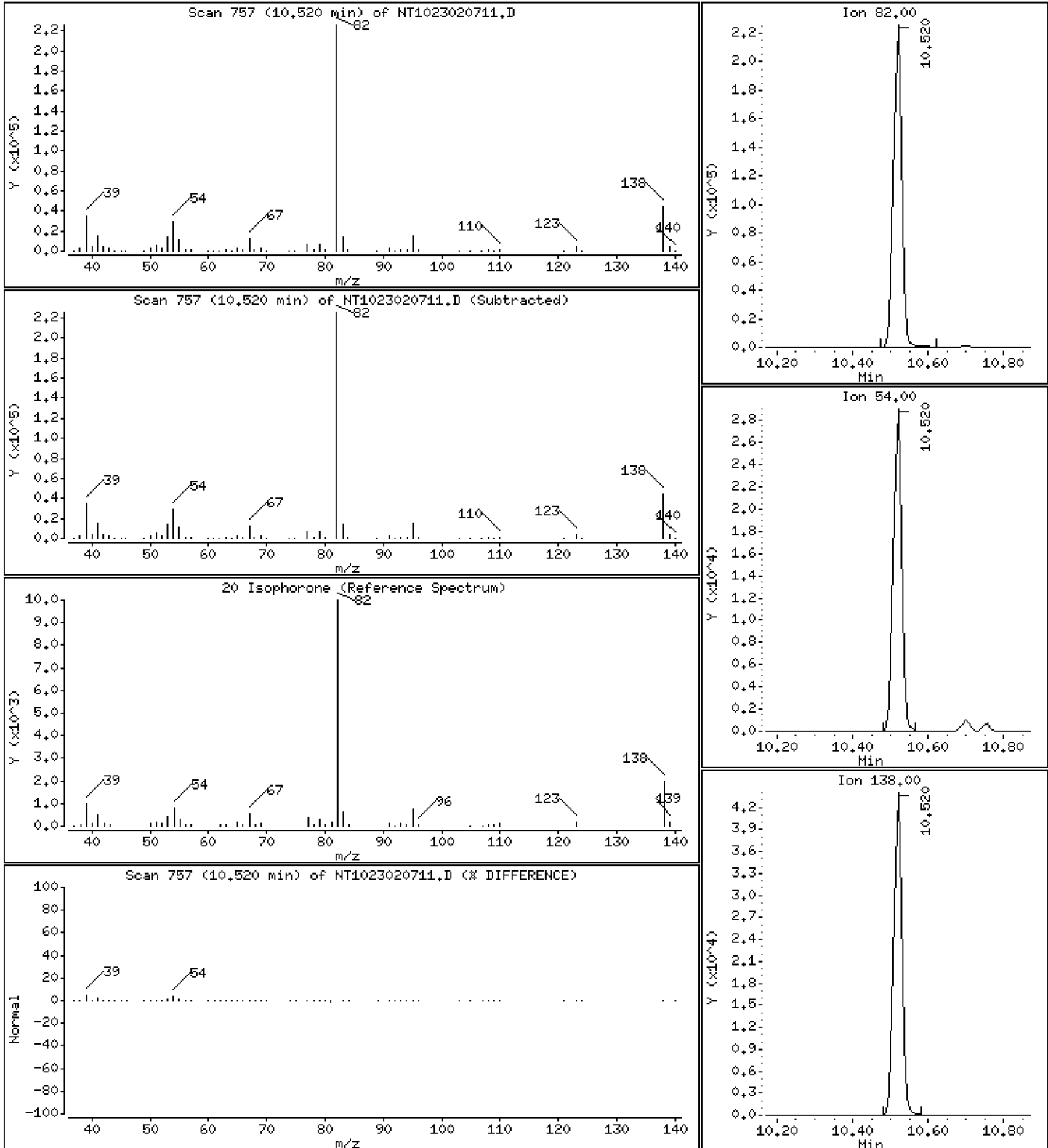
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

20 Isophorone

Concentration: 6.405 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

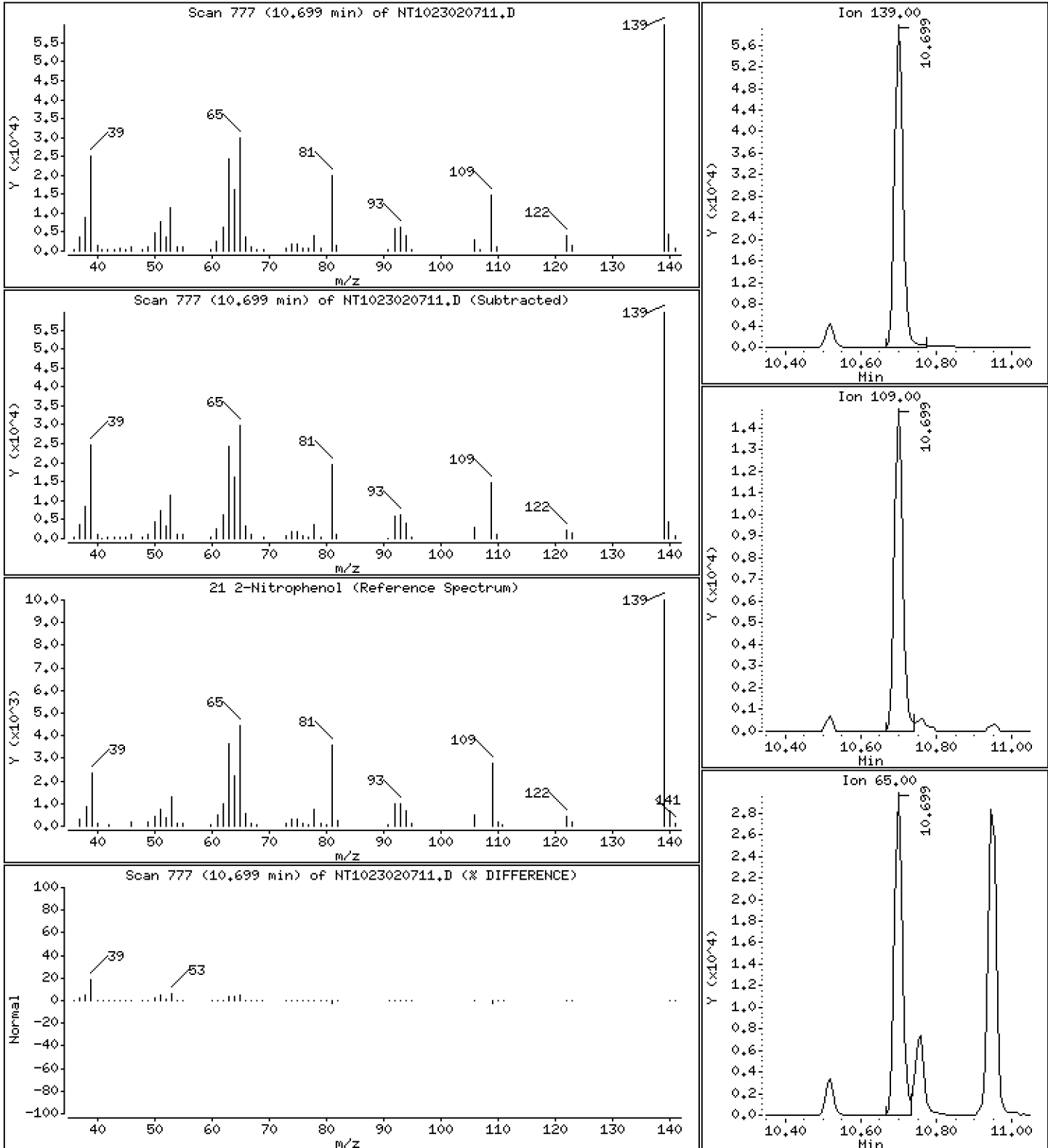
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 4,242 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

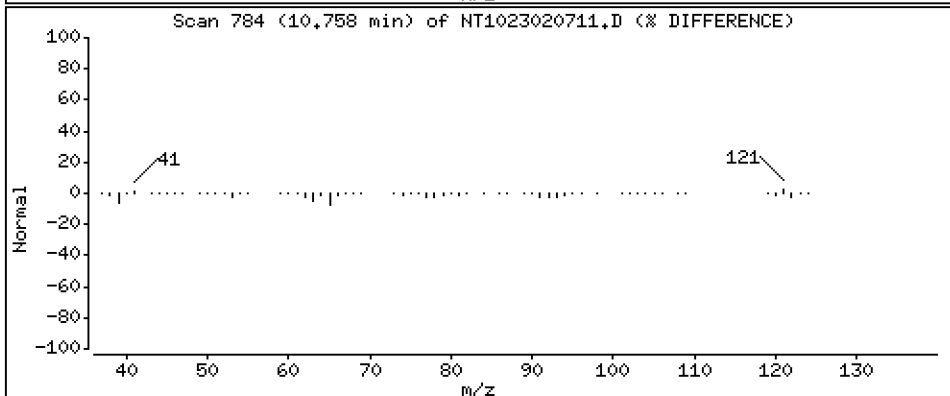
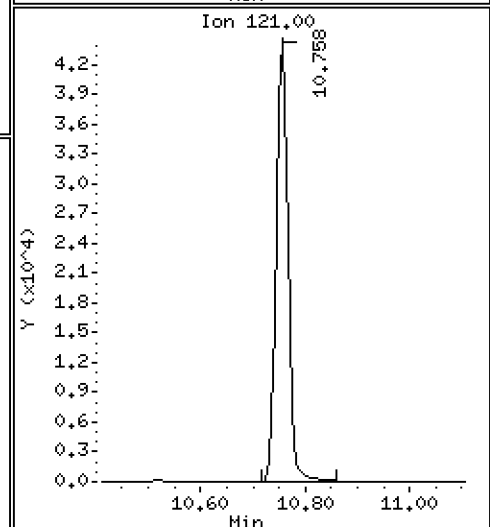
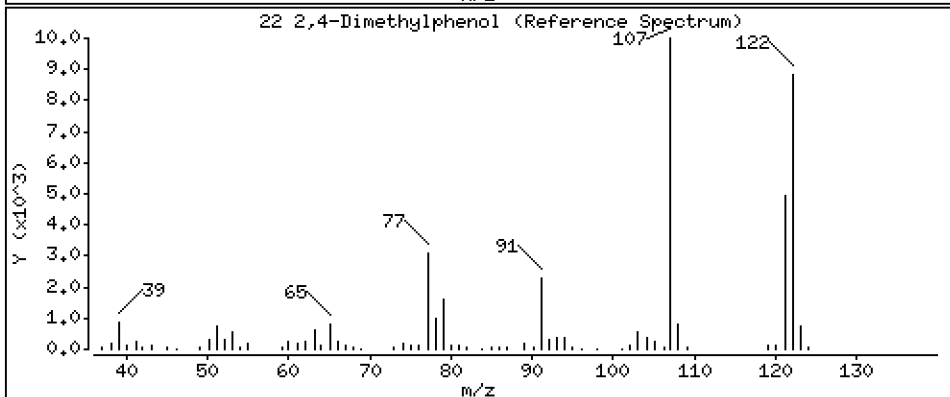
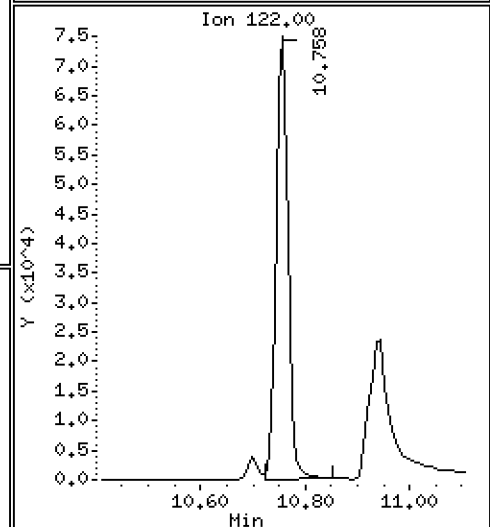
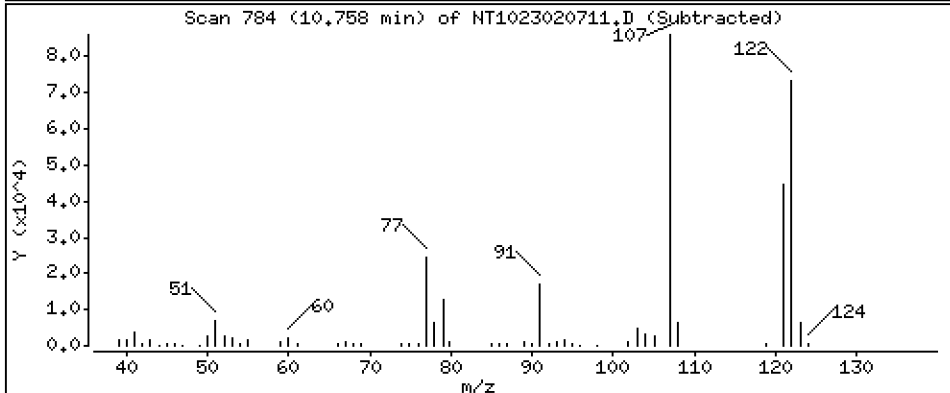
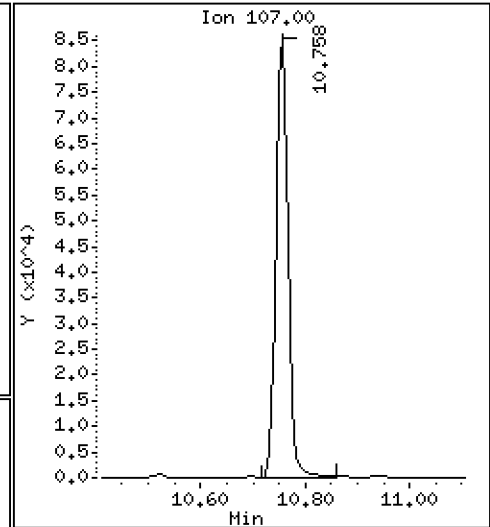
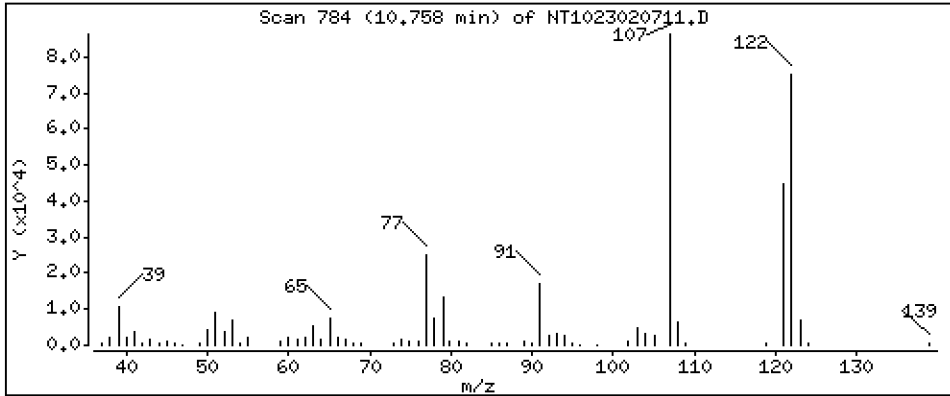
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,536 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

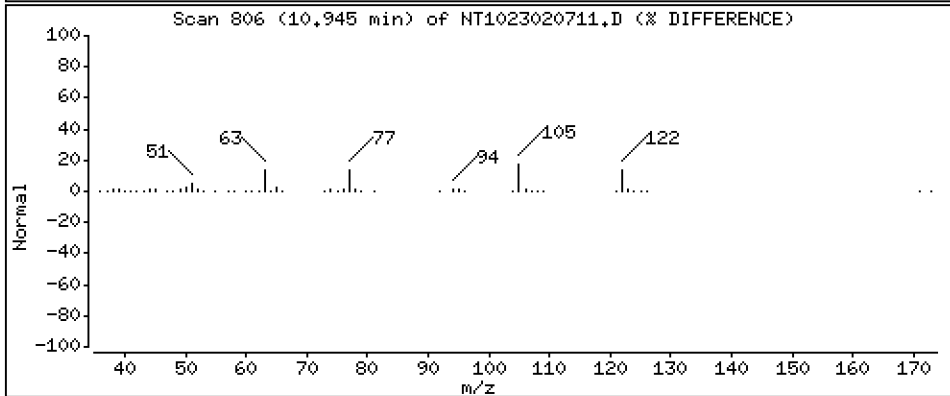
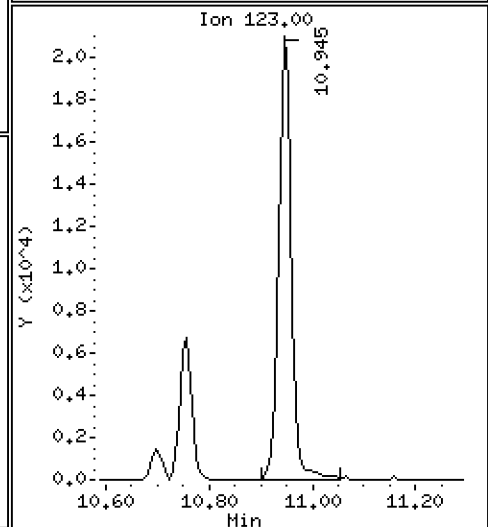
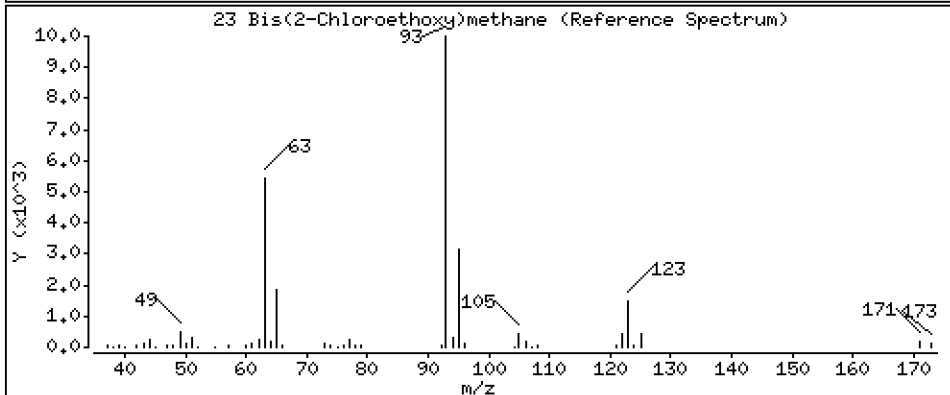
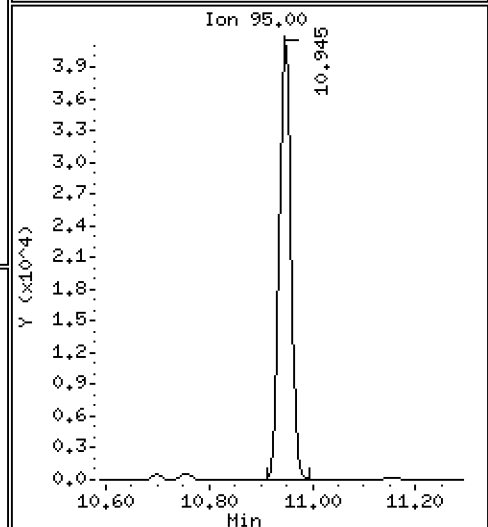
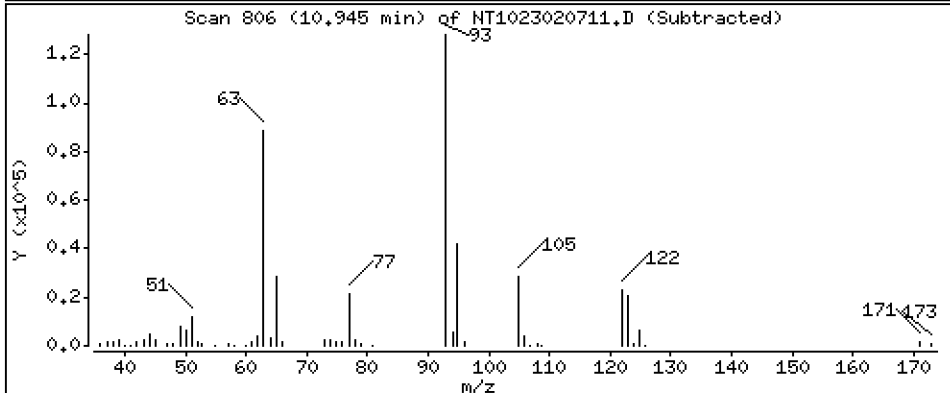
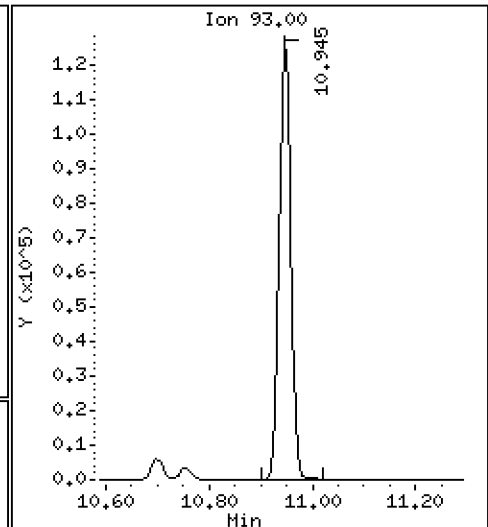
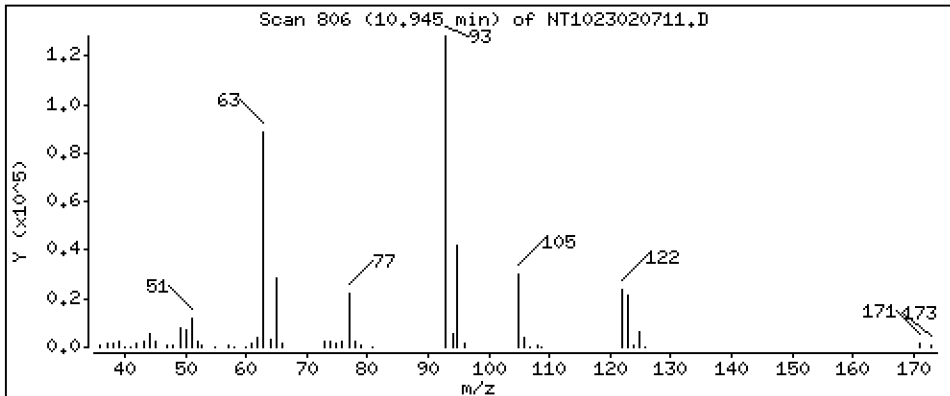
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 5,106 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

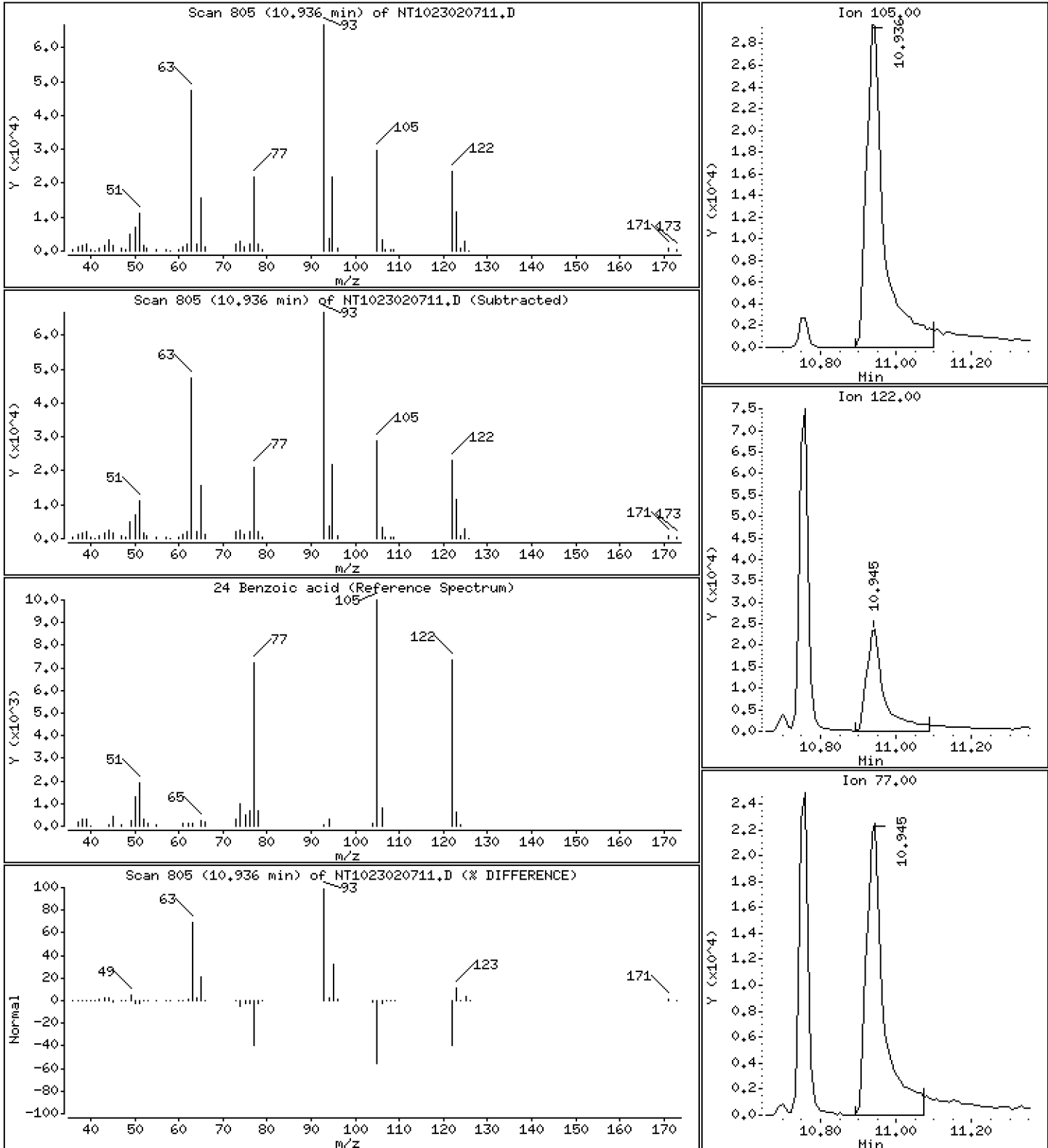
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 4.410 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

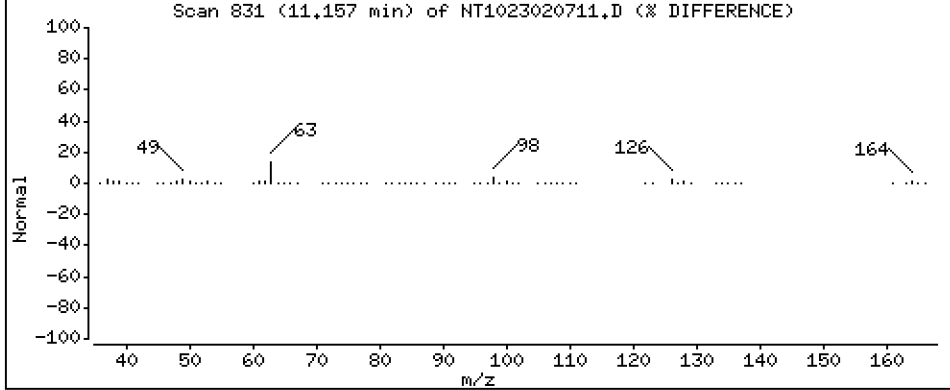
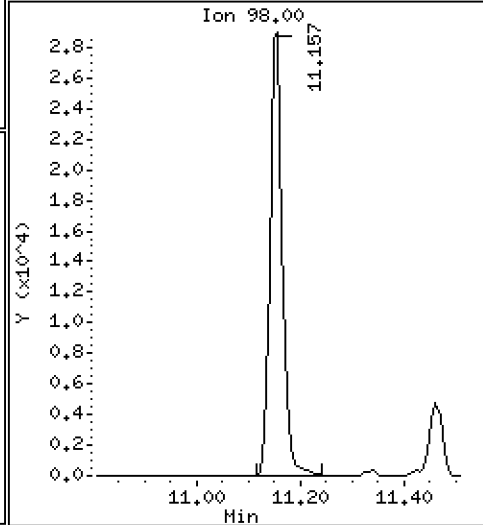
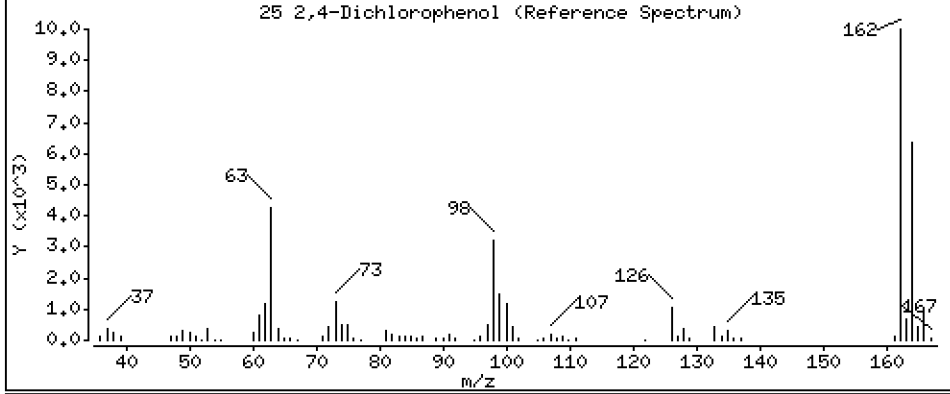
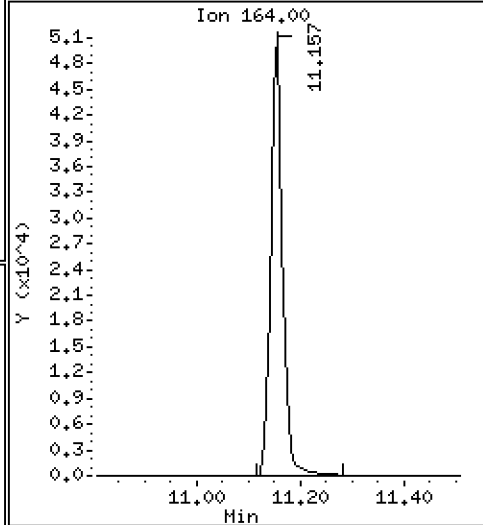
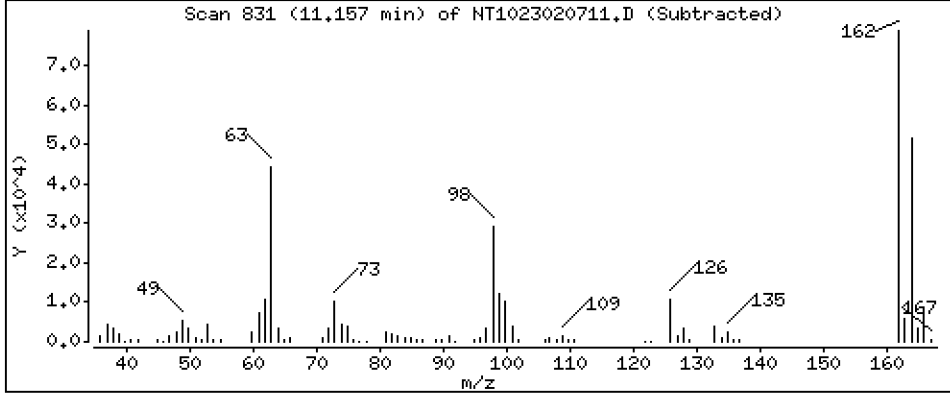
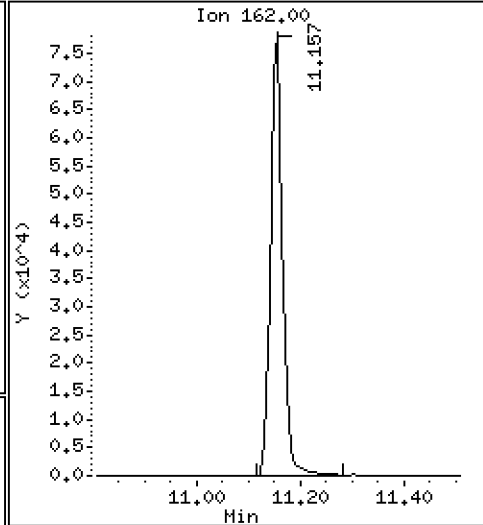
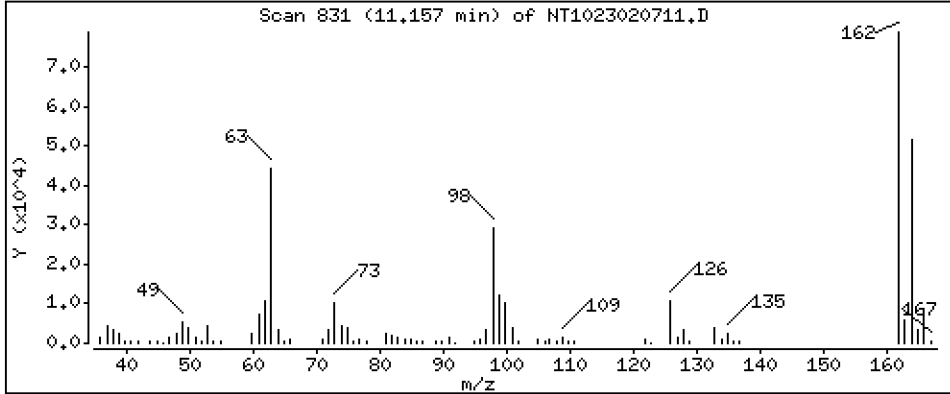
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,574 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

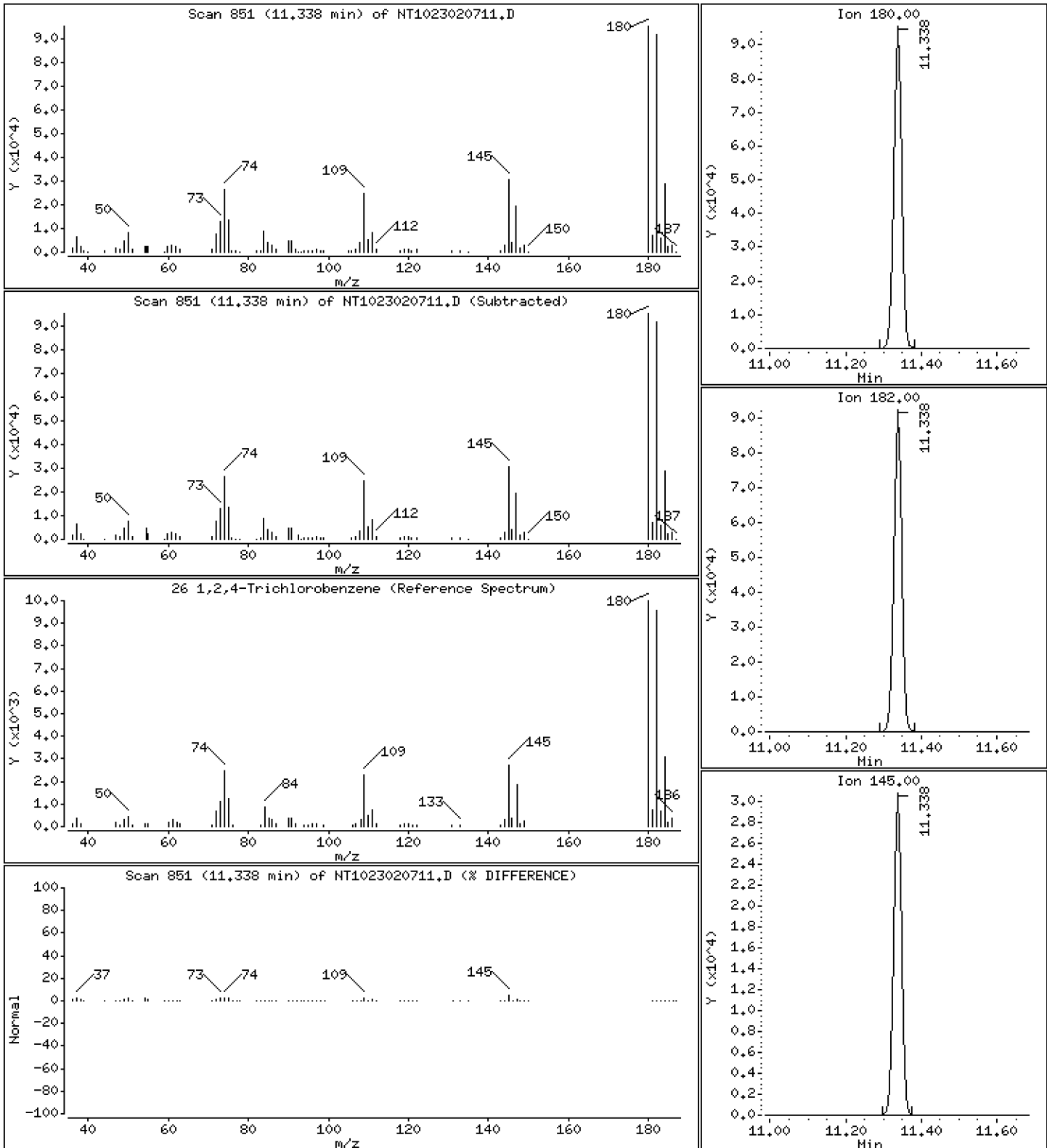
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 4,191 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

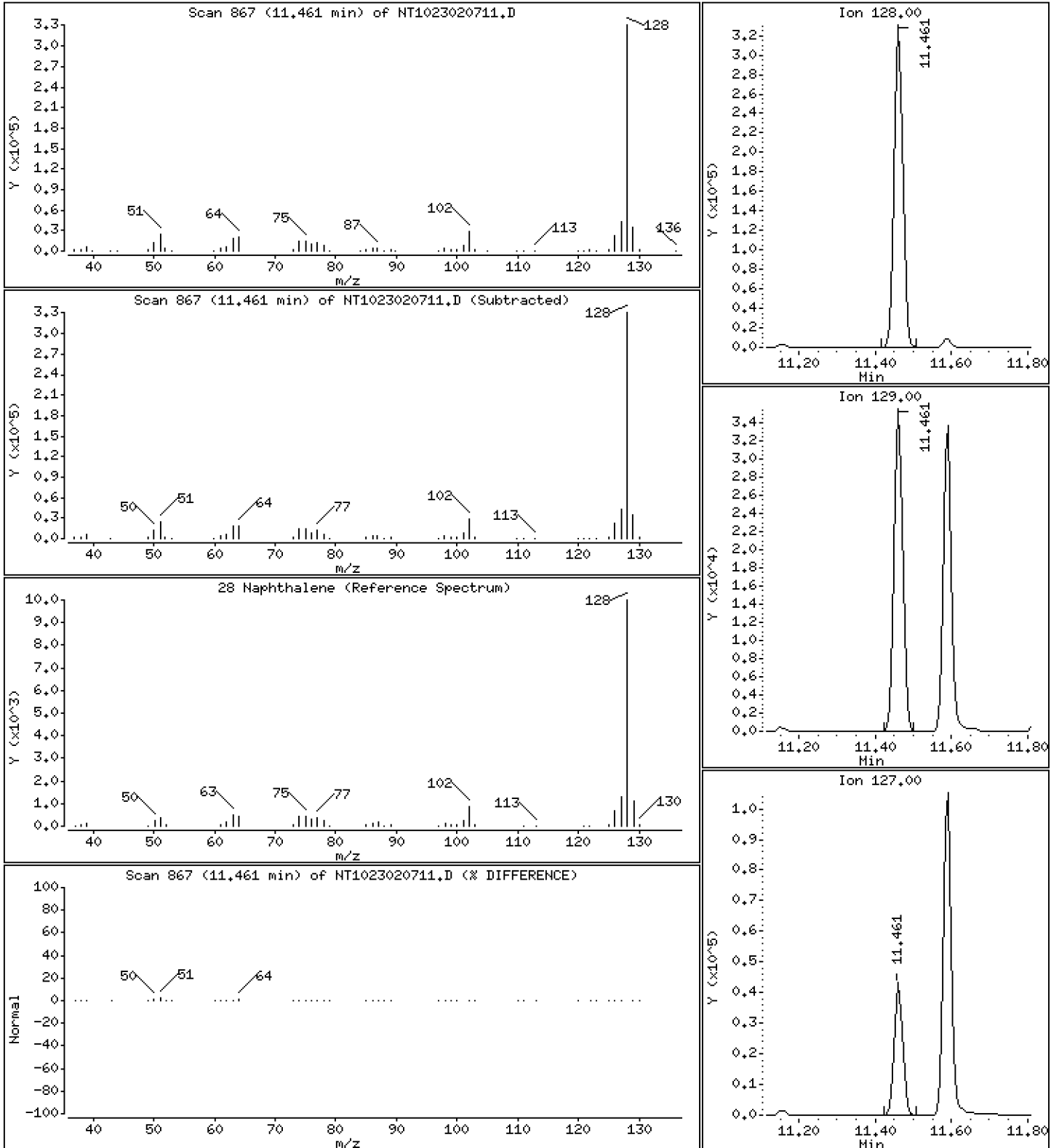
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

28 Naphthalene

Concentration: 4.437 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

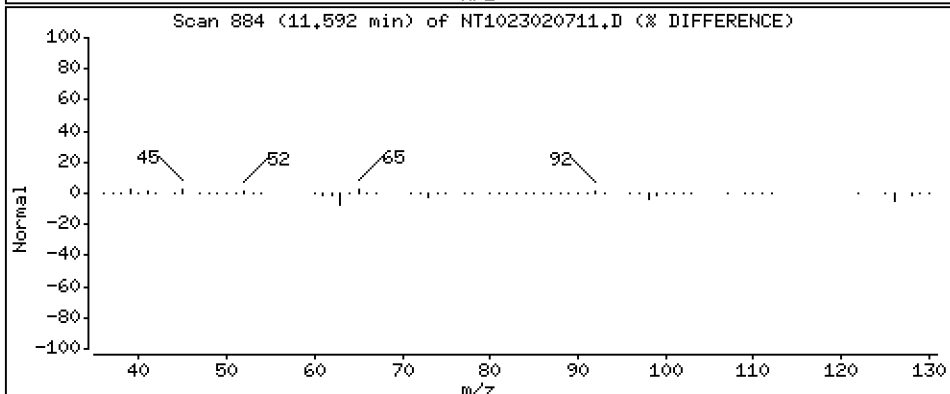
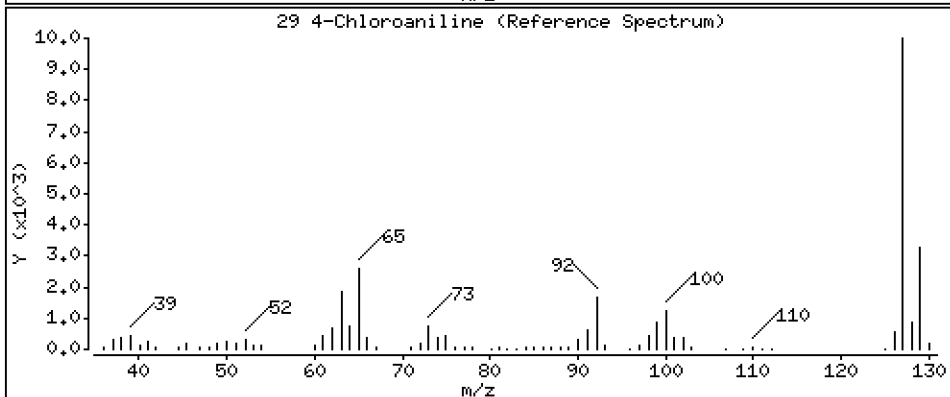
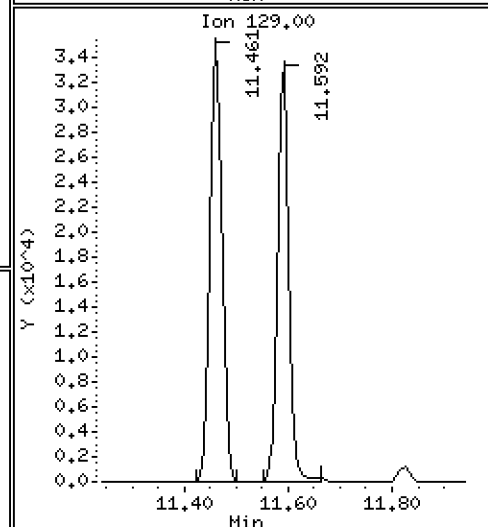
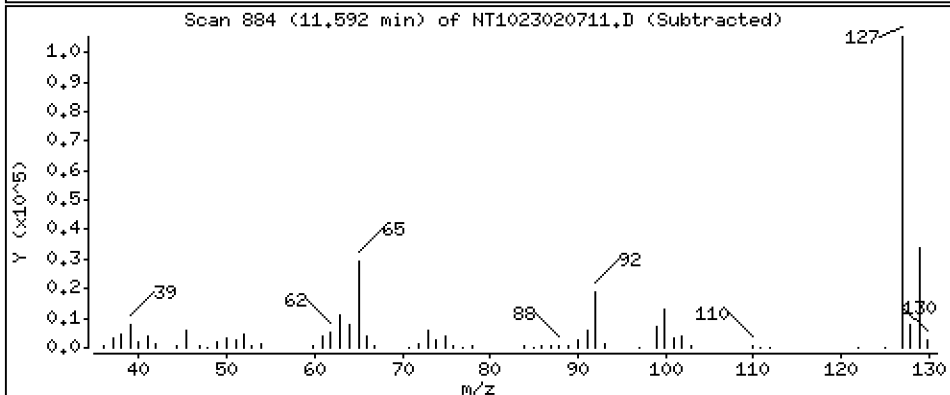
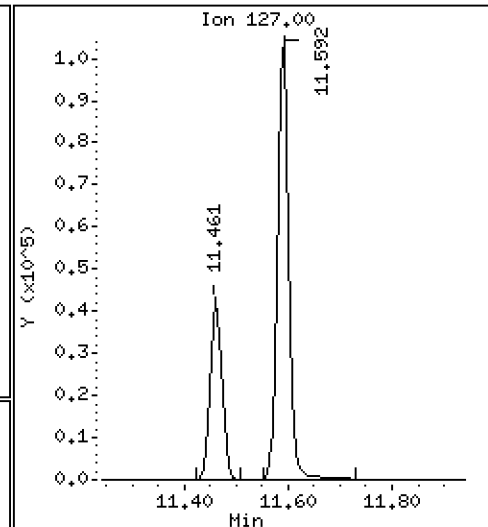
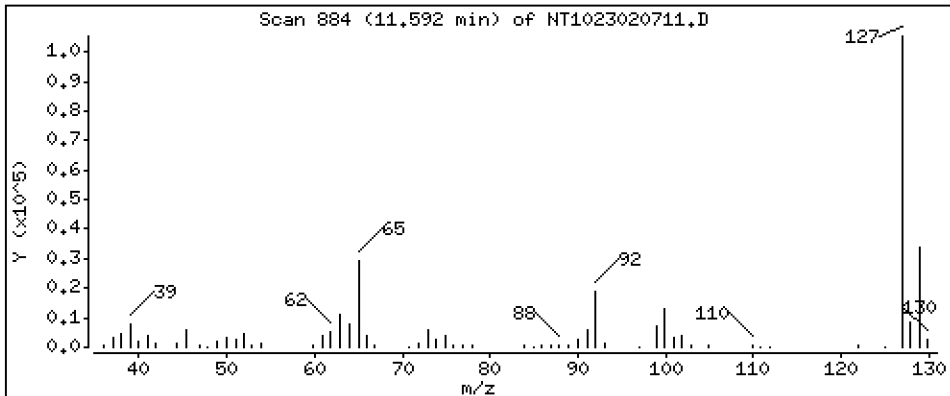
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 3,623 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

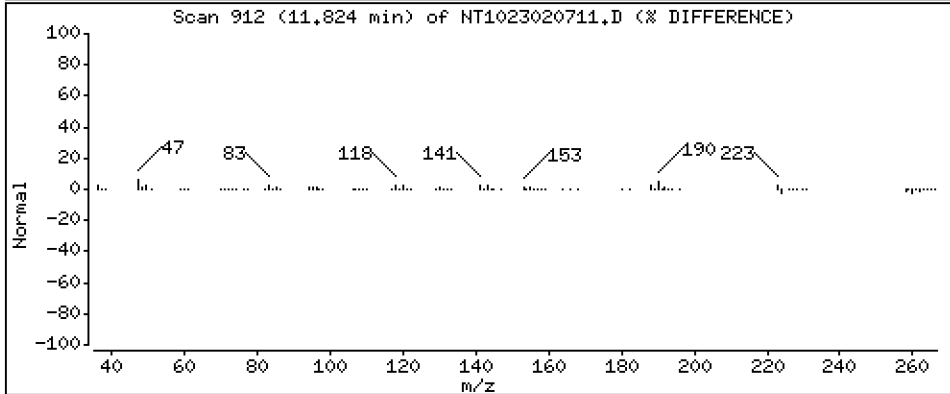
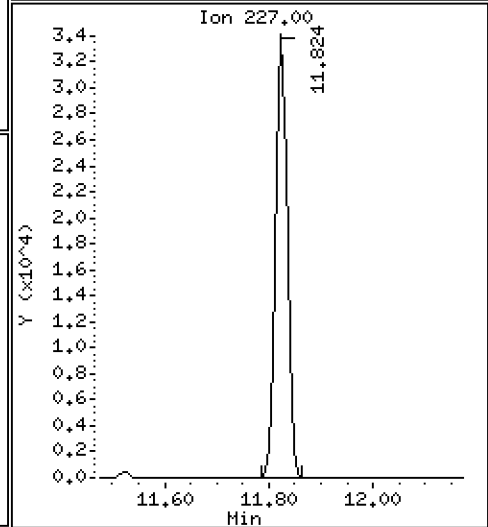
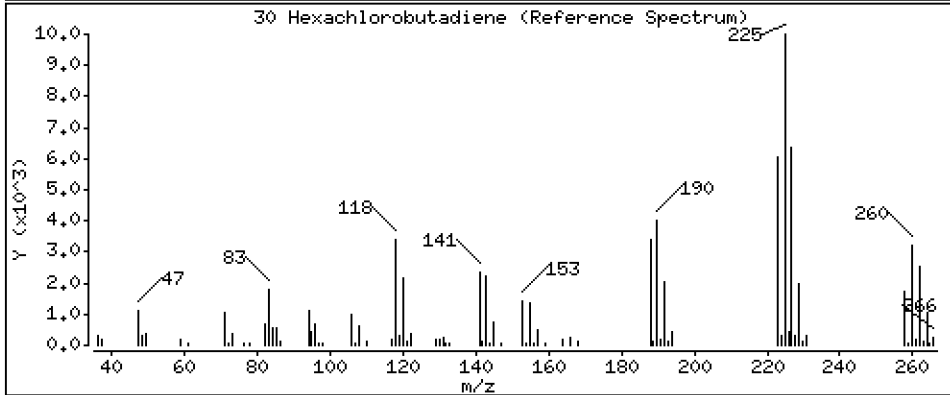
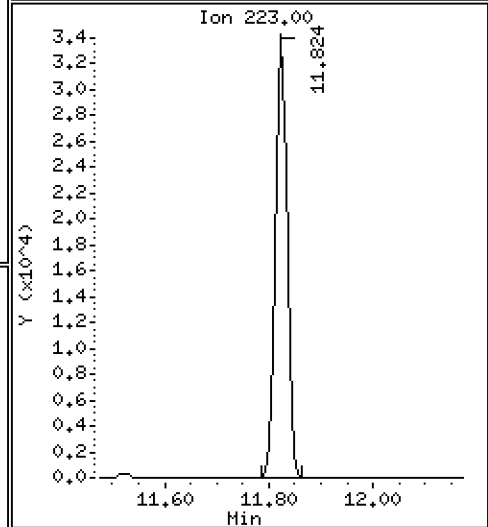
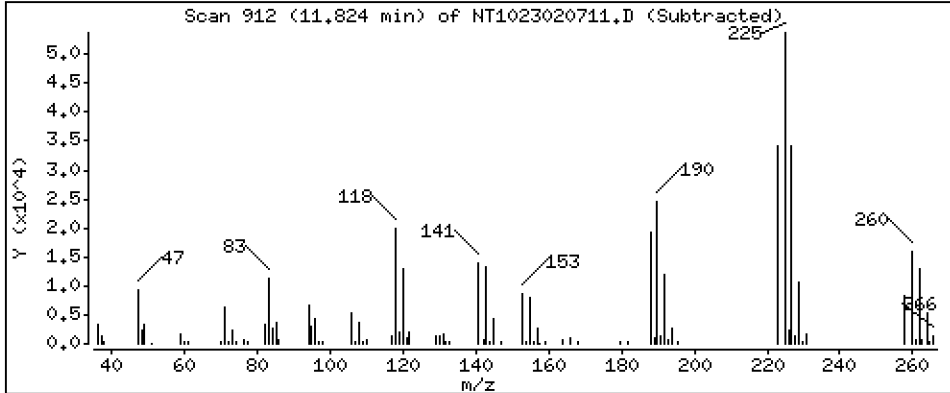
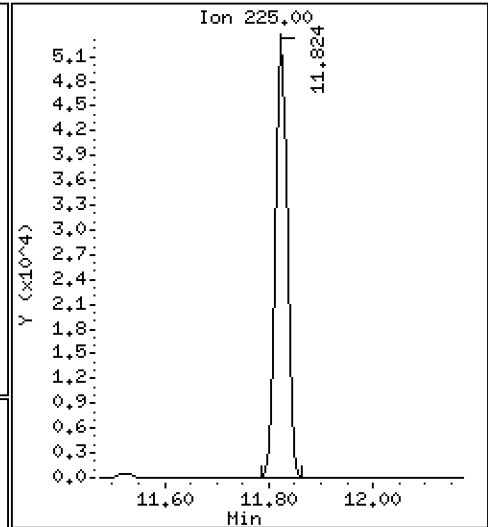
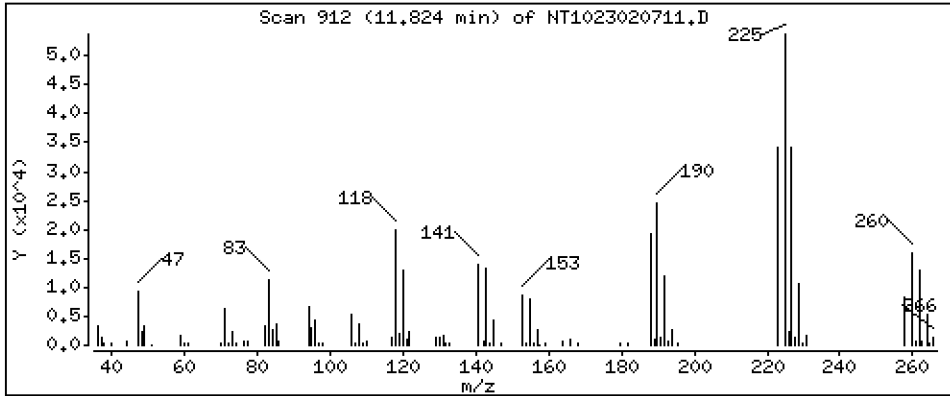
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,364 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

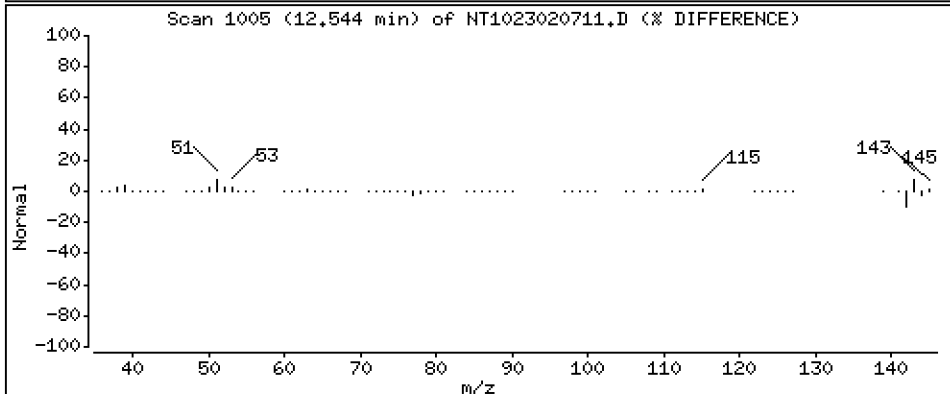
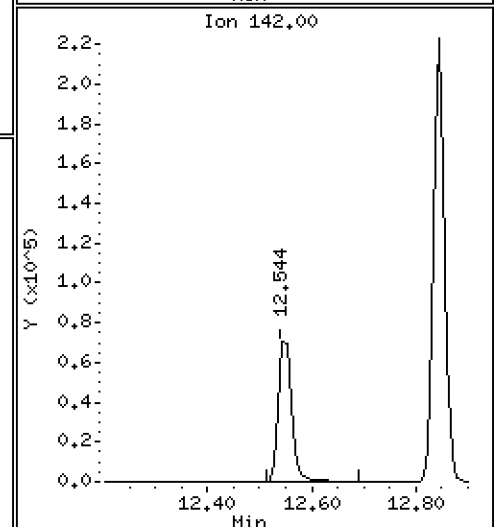
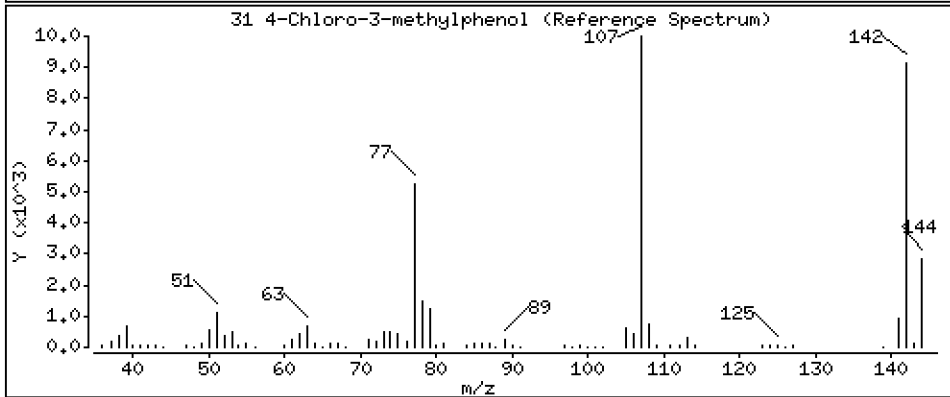
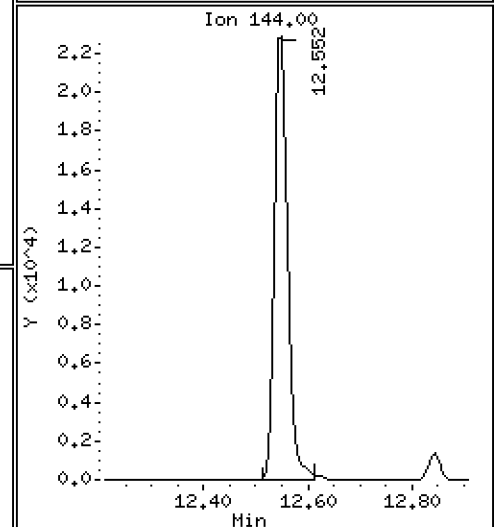
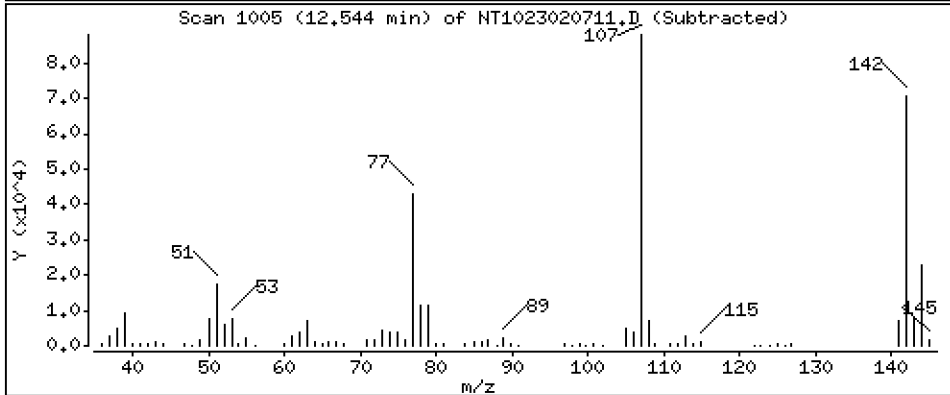
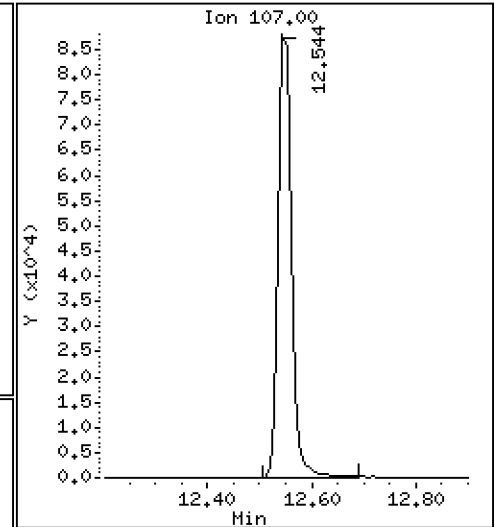
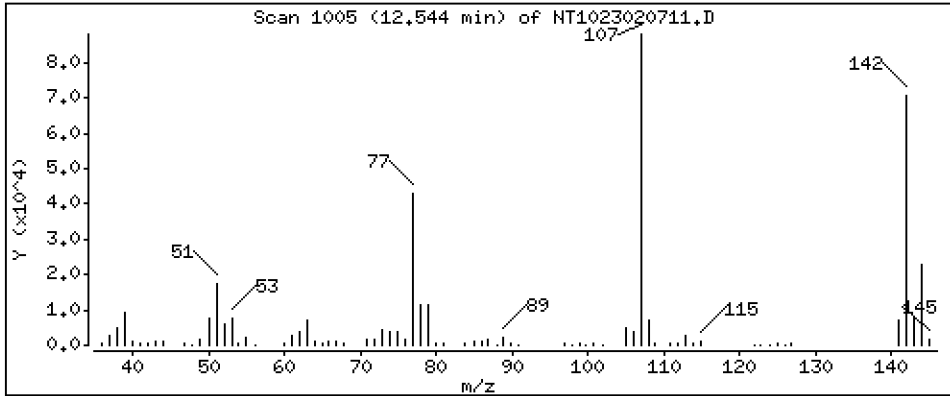
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

31 4-Chloro-3-methylphenol

Concentration: 4.308 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

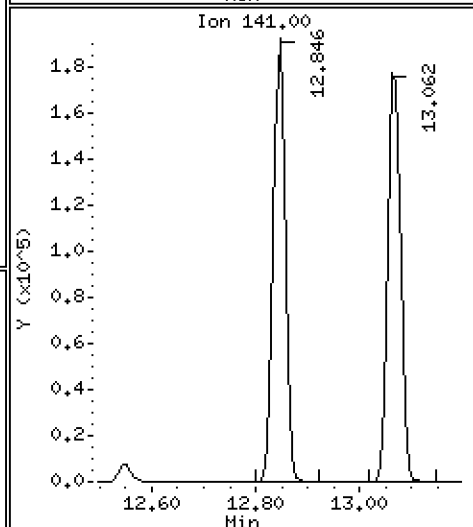
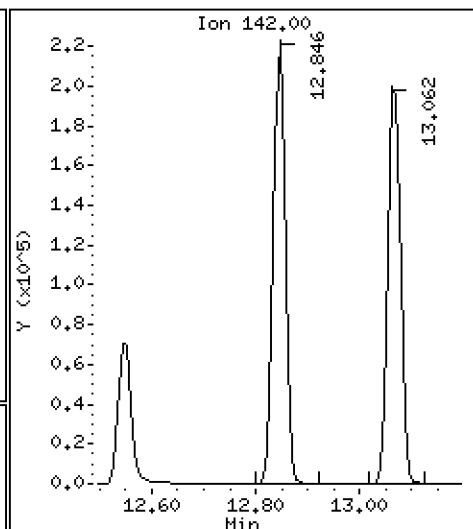
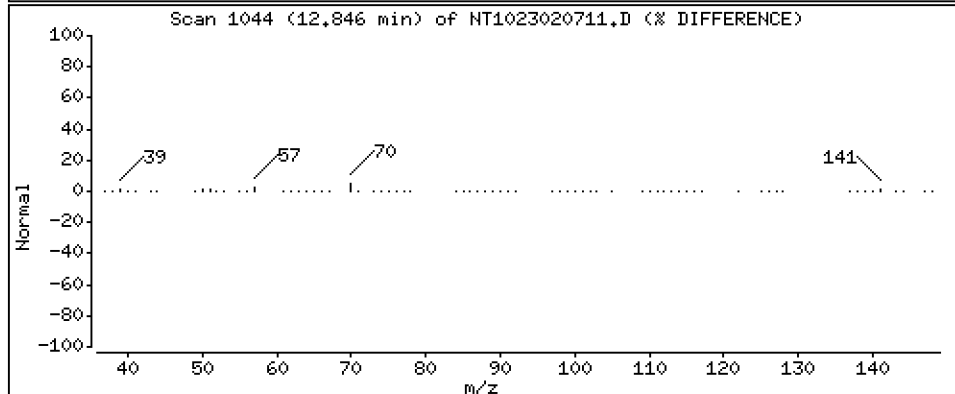
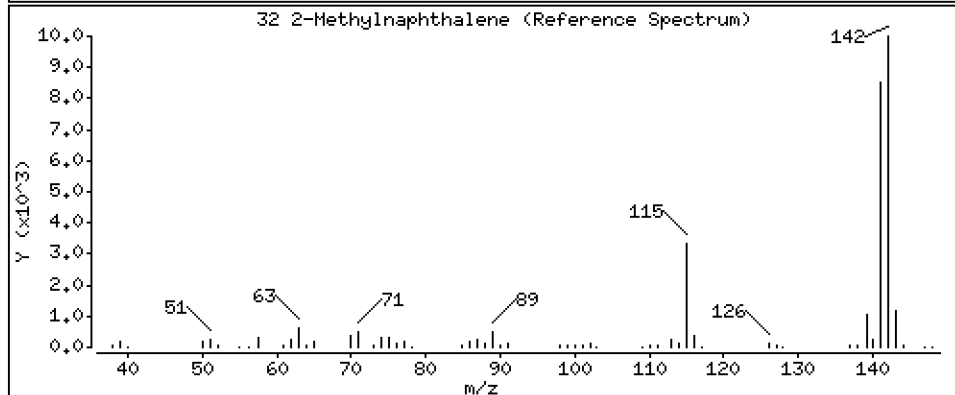
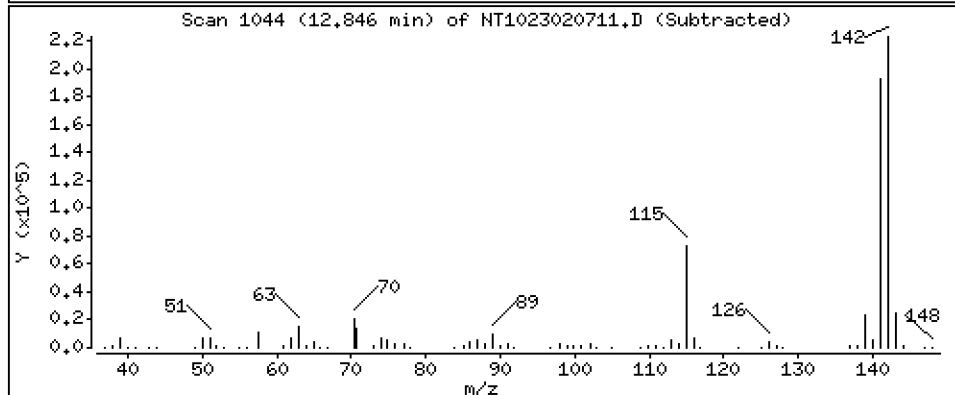
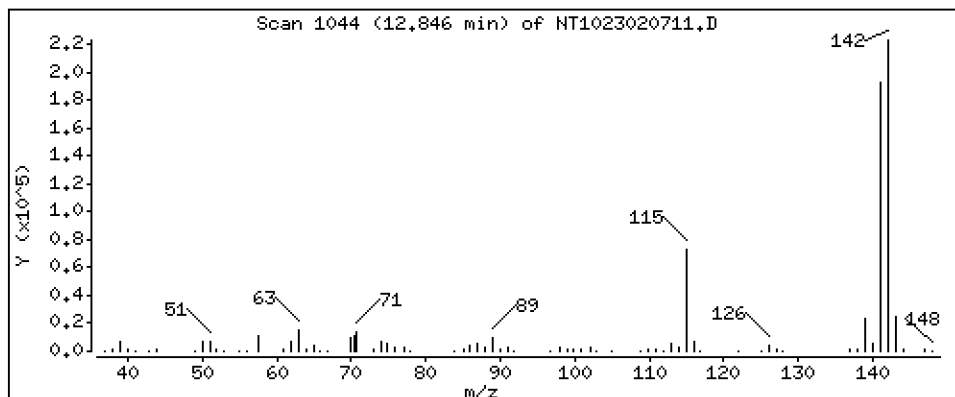
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 4,226 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

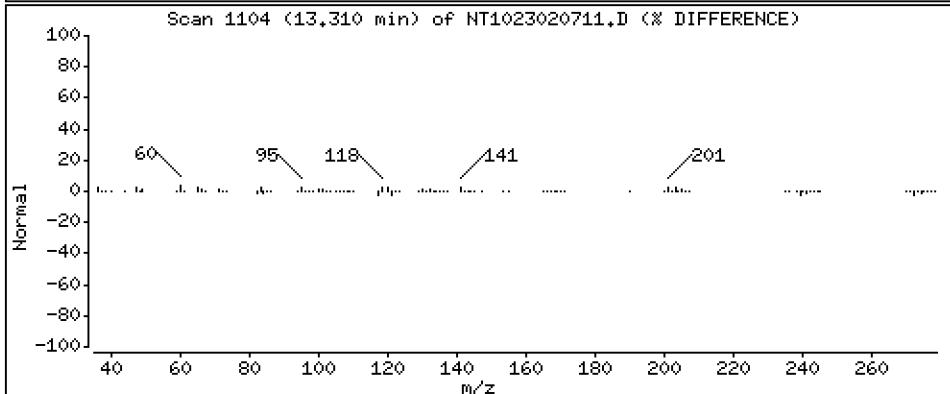
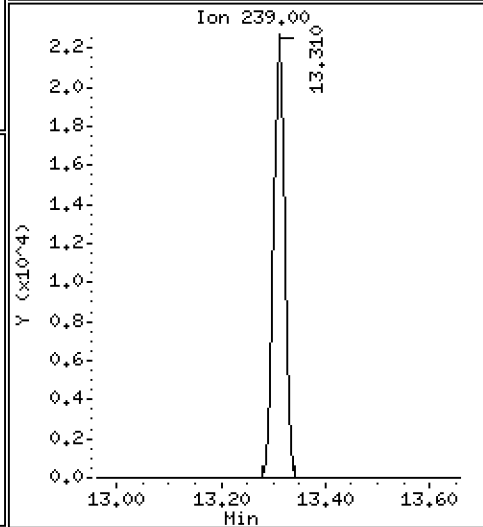
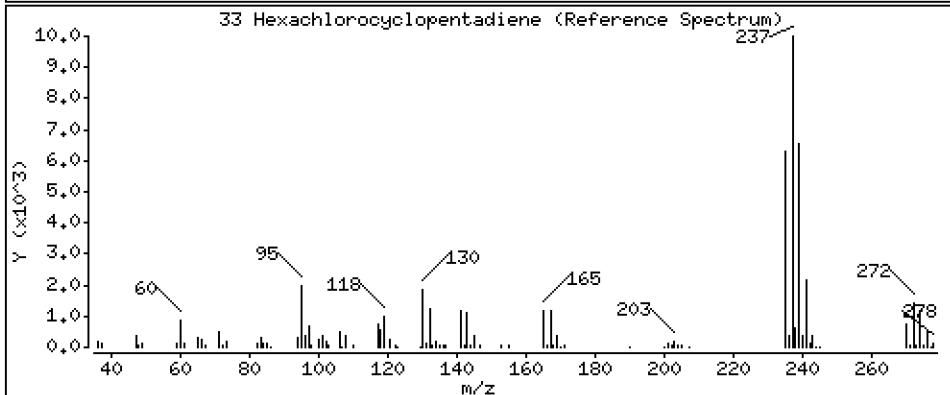
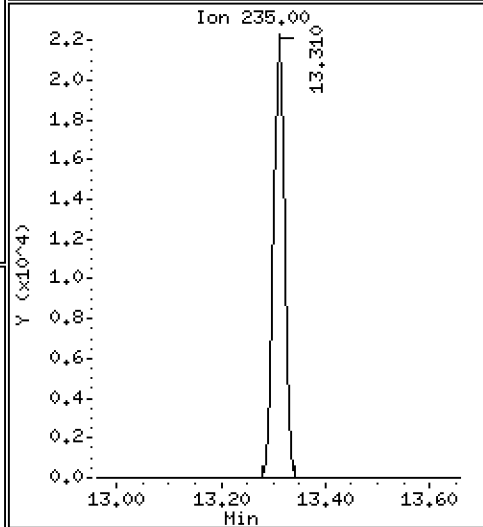
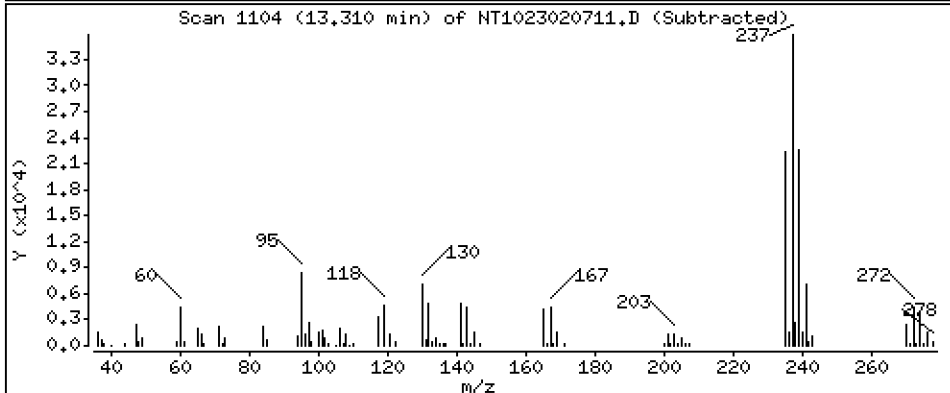
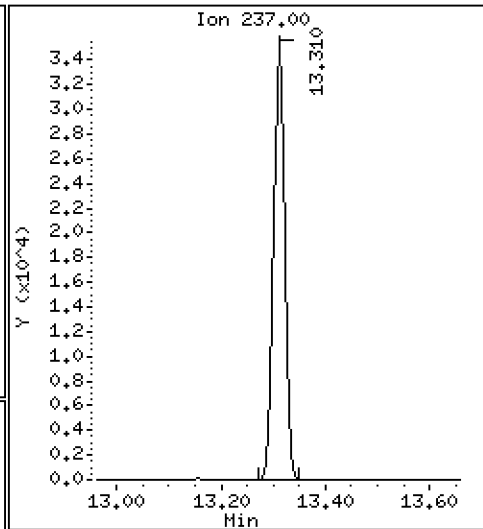
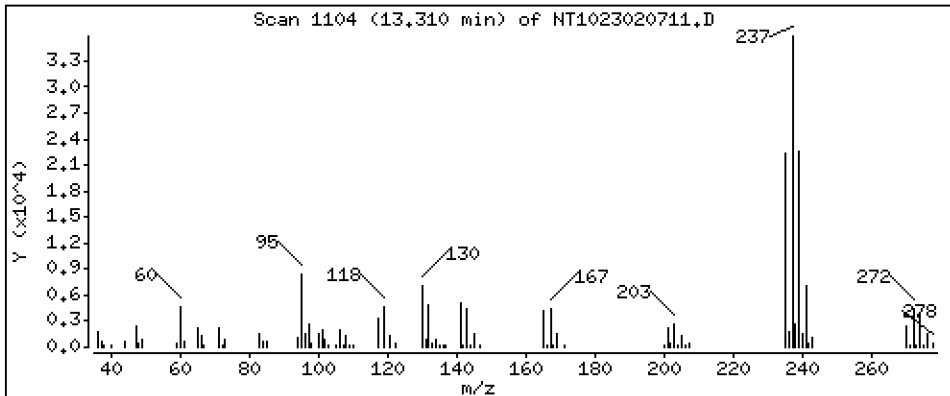
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

33 Hexachlorocyclopentadiene

Concentration: 3.355 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

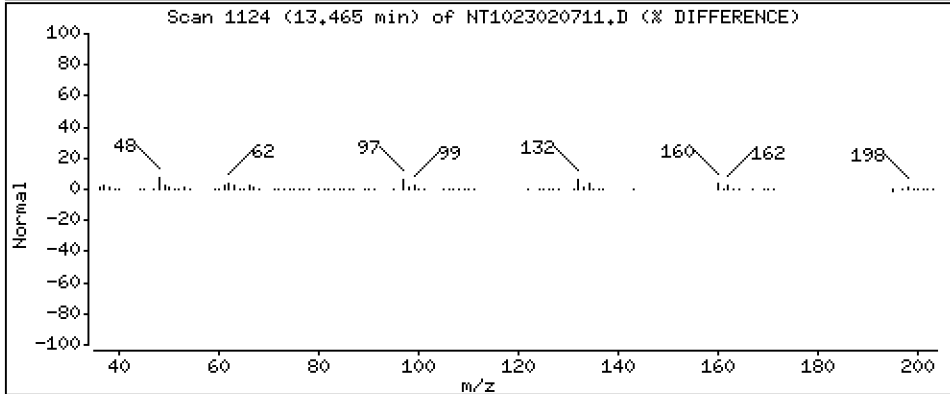
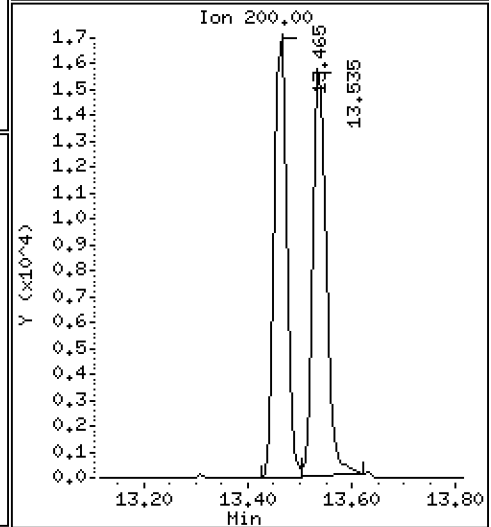
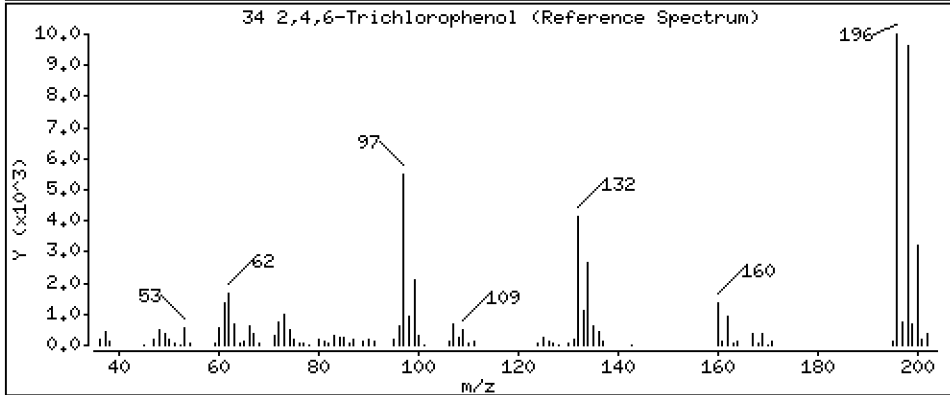
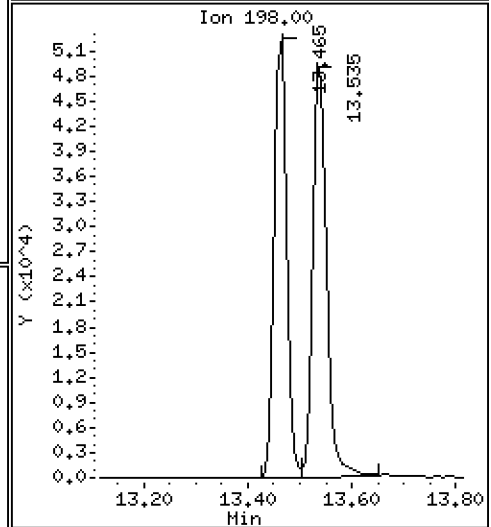
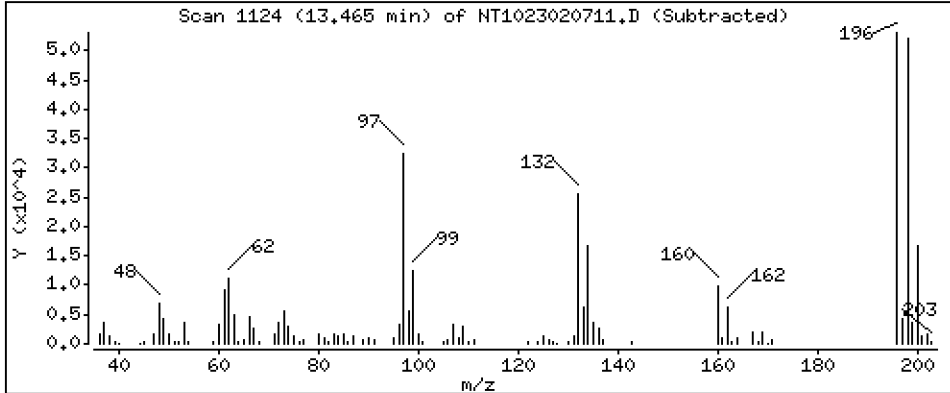
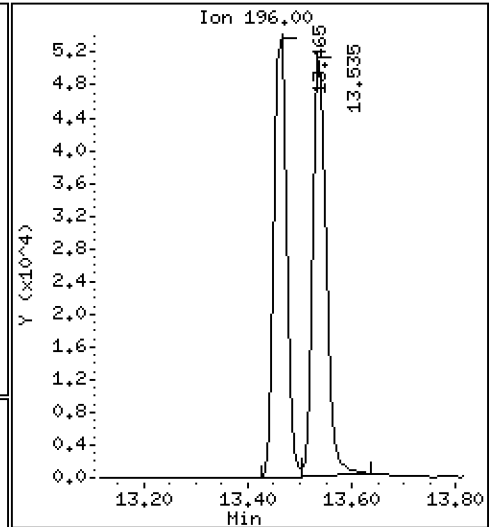
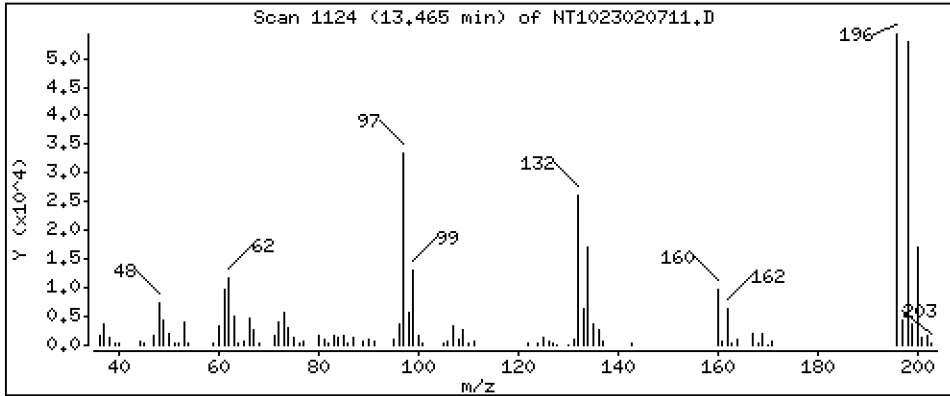
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 4,079 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

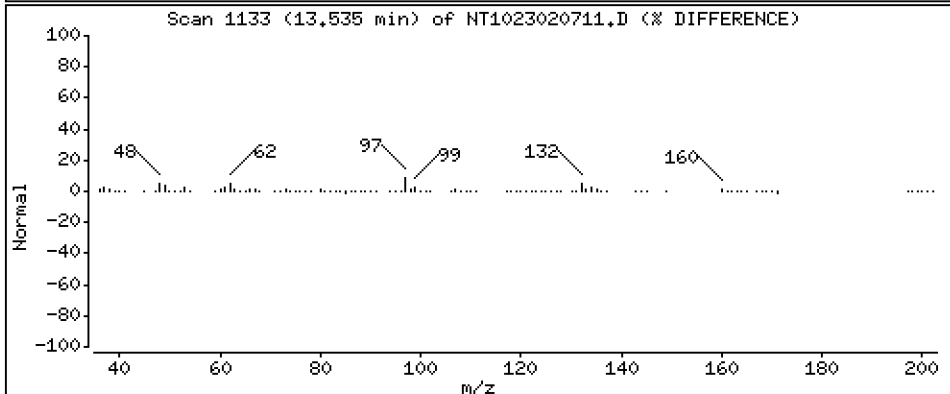
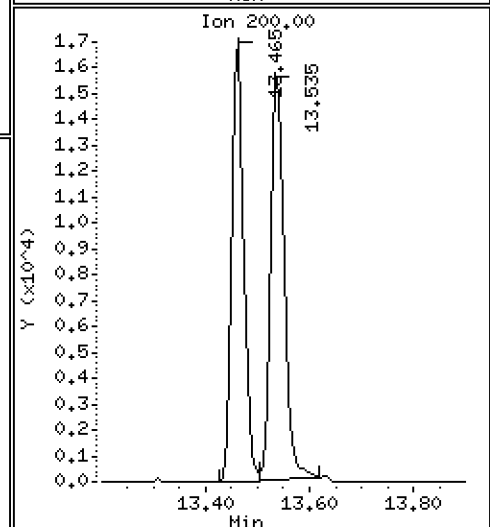
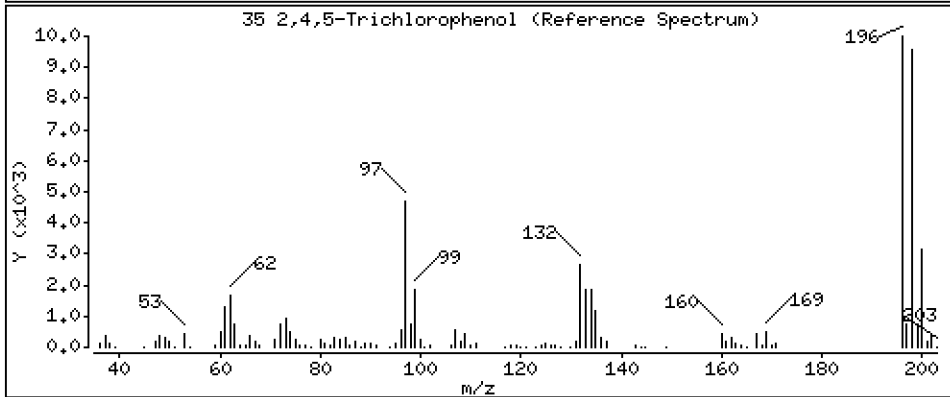
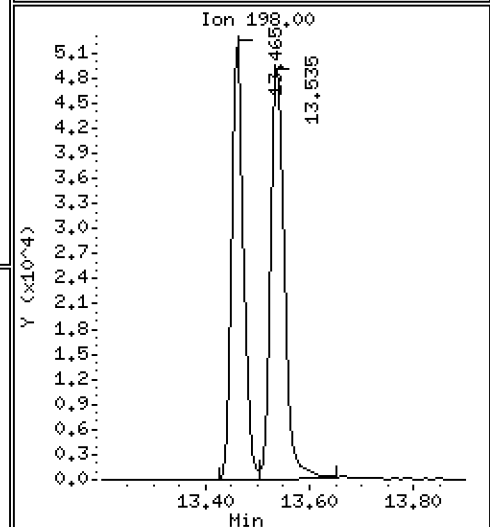
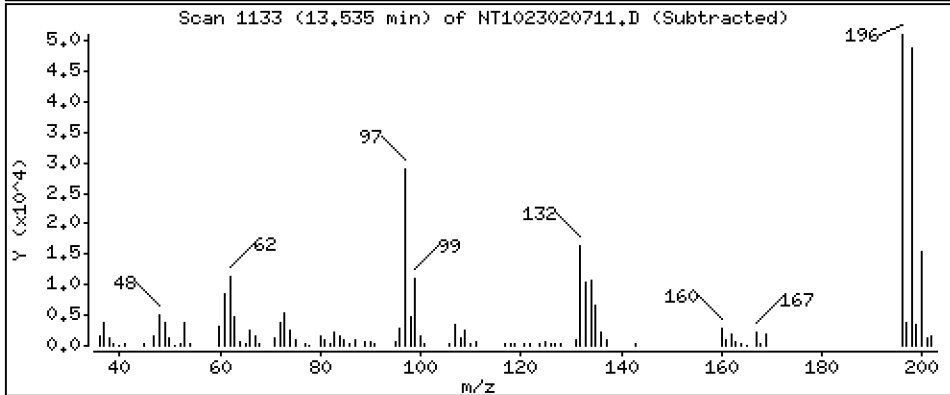
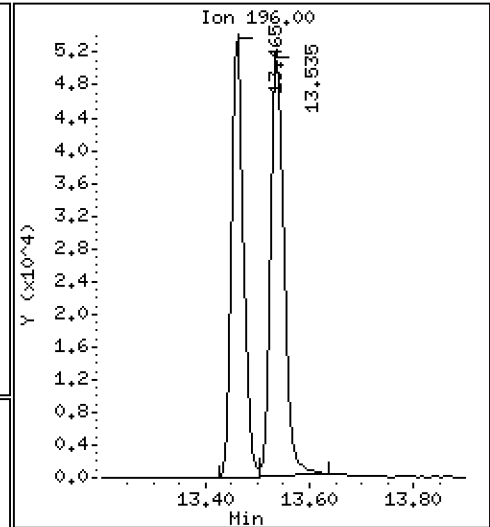
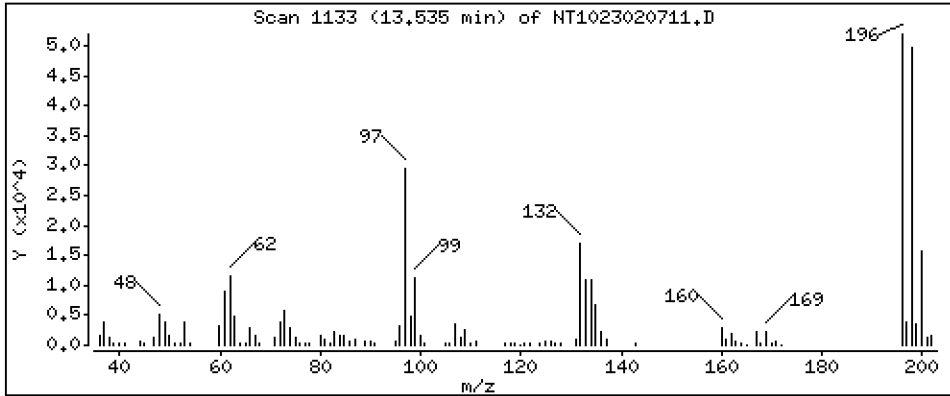
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 3,913 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

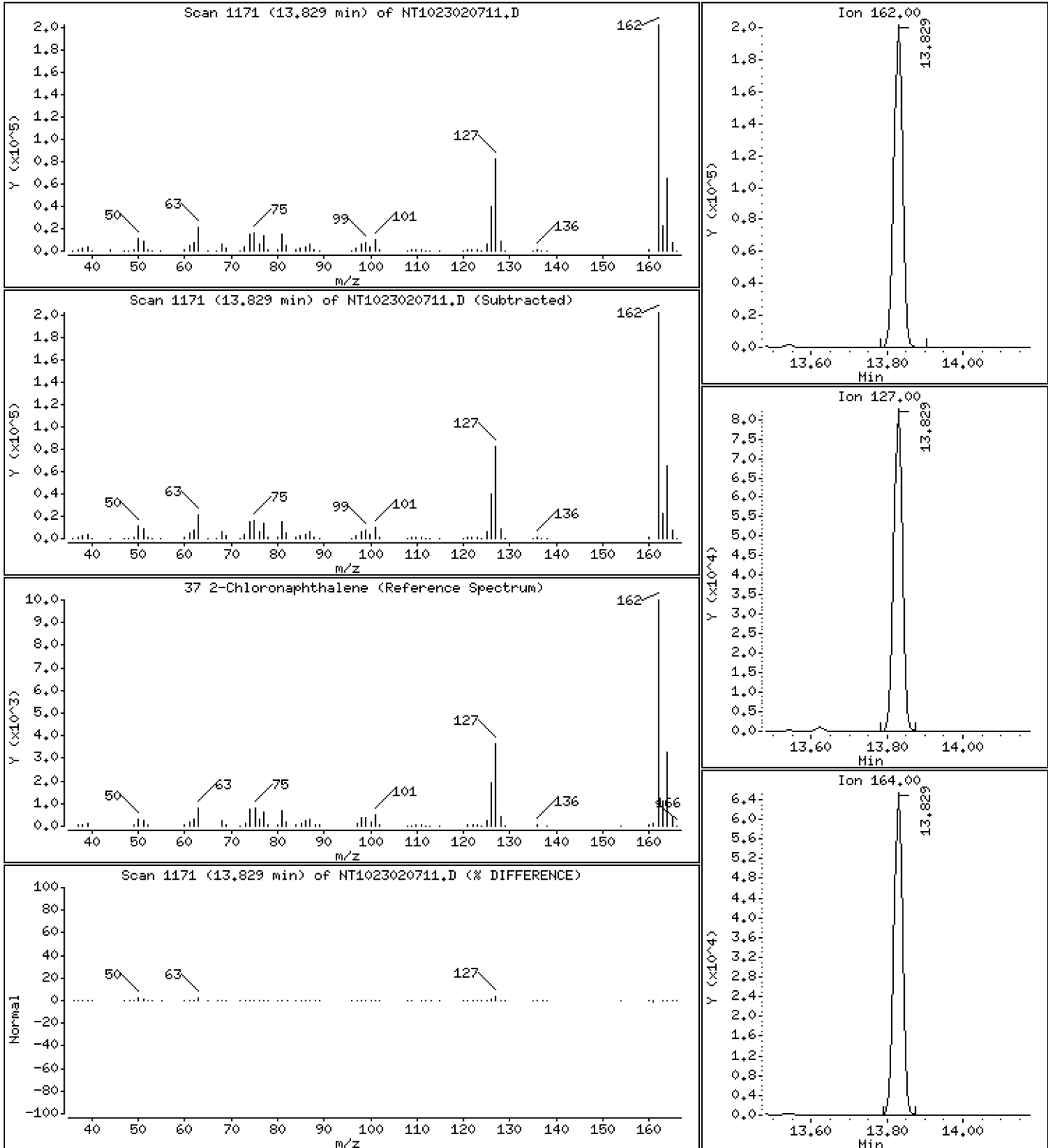
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 4,155 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

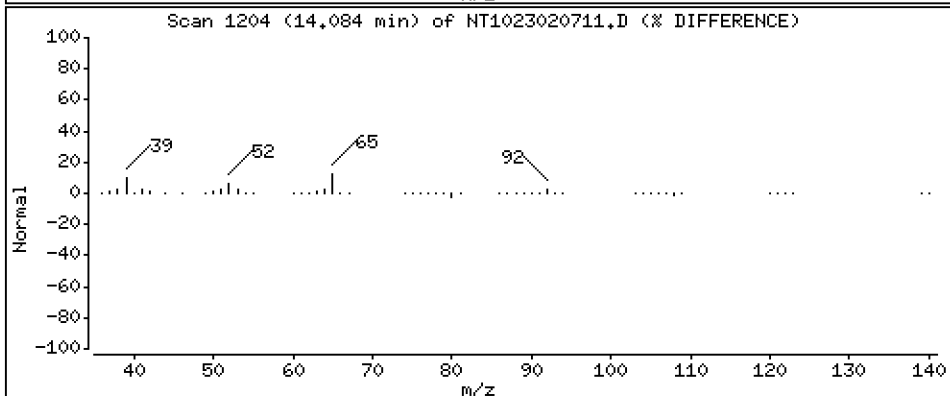
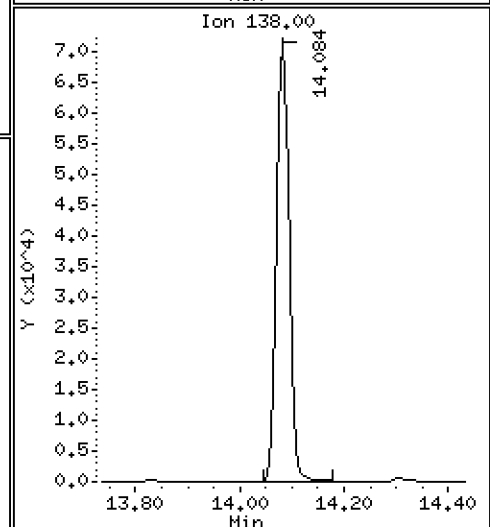
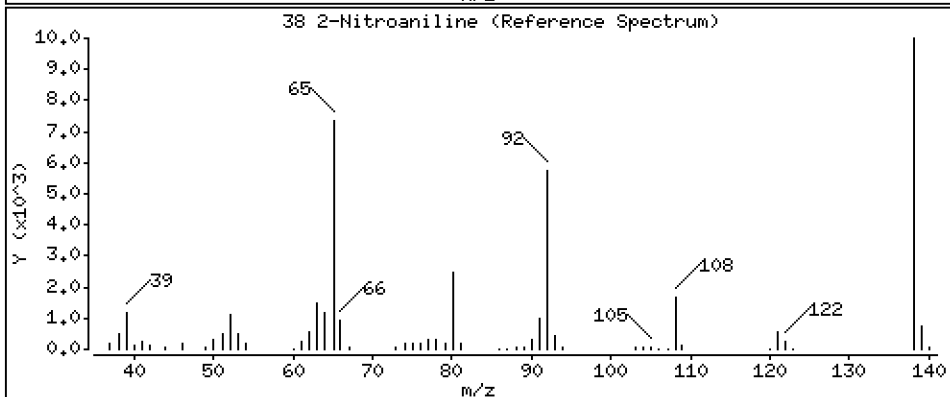
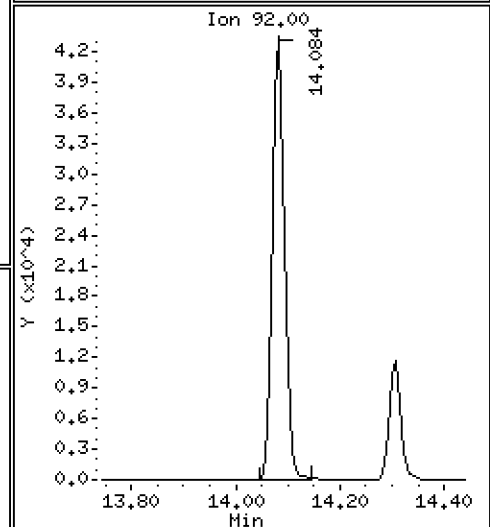
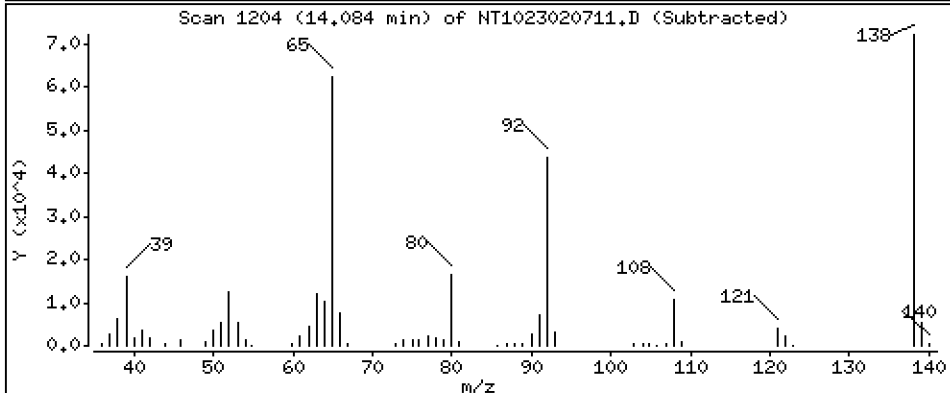
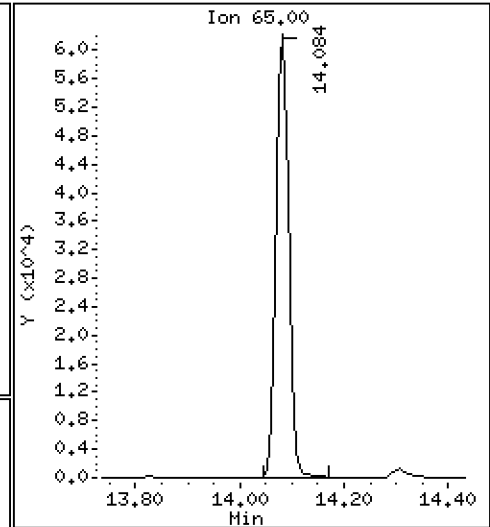
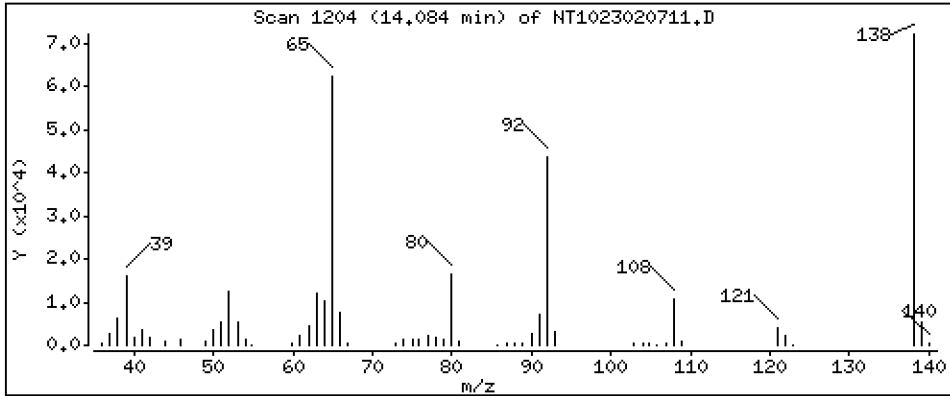
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 4,336 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

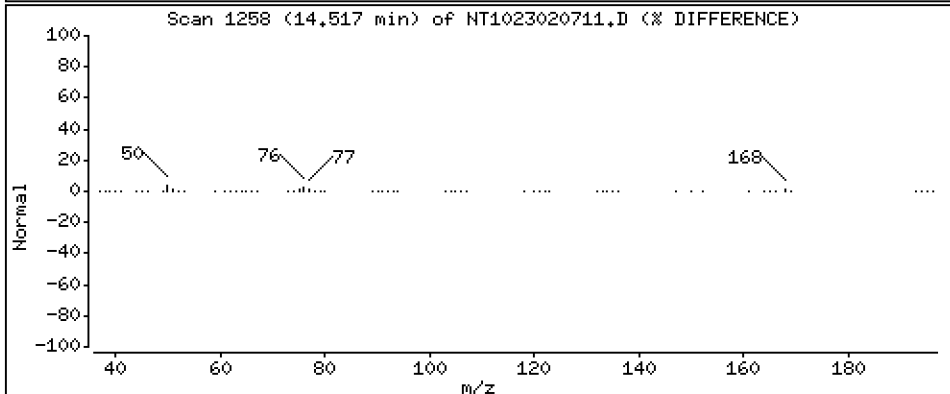
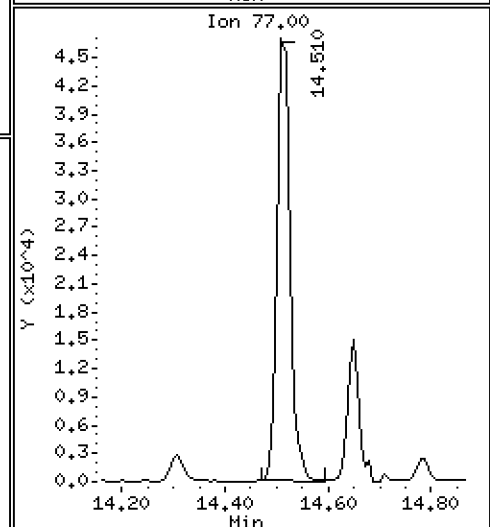
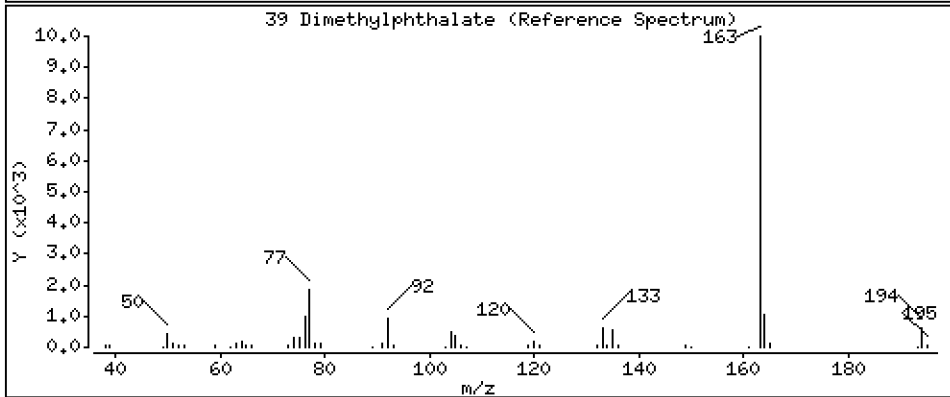
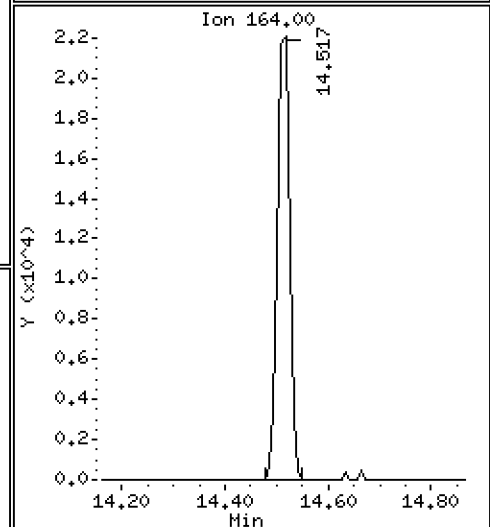
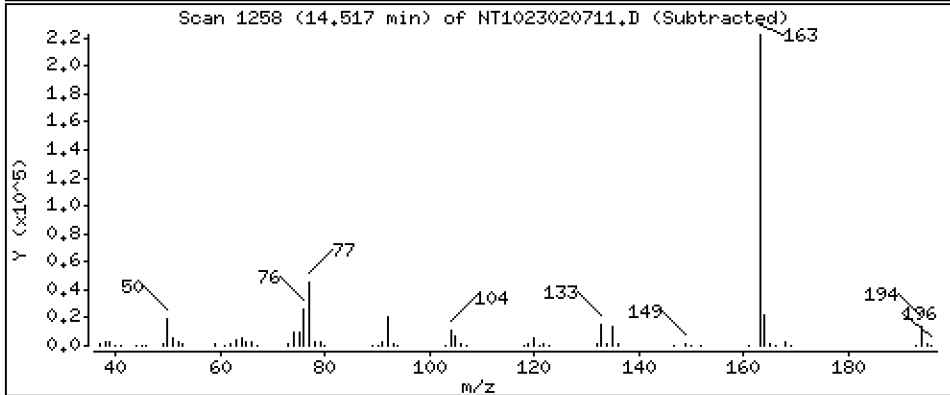
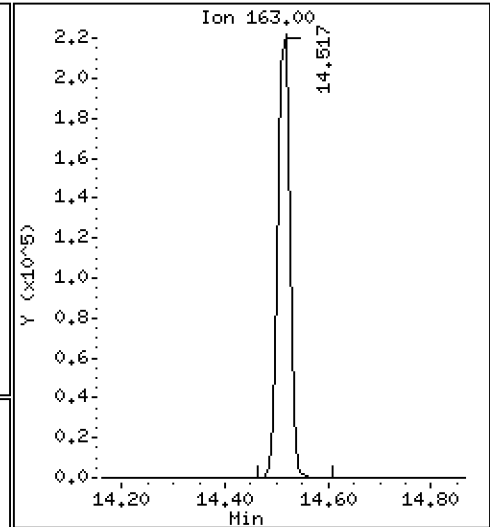
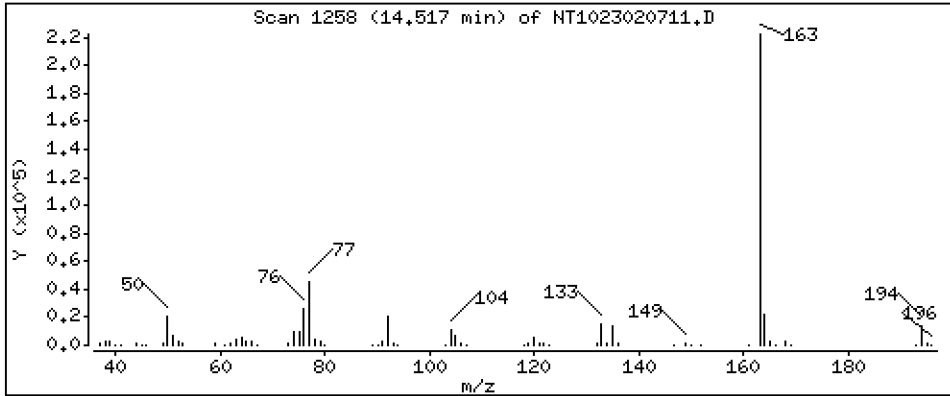
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,280 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

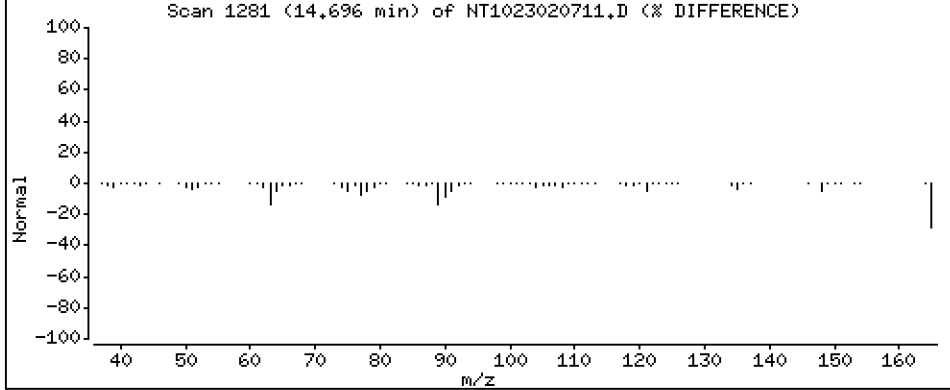
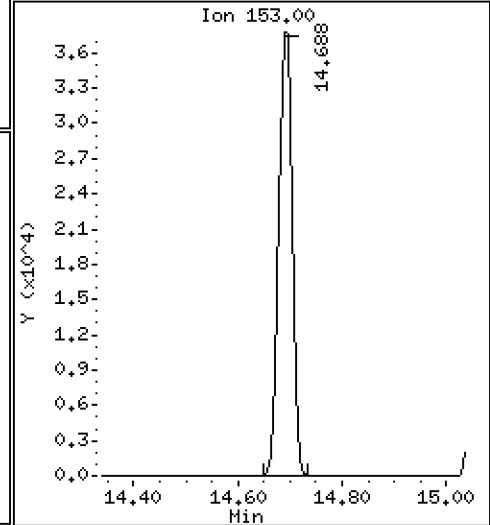
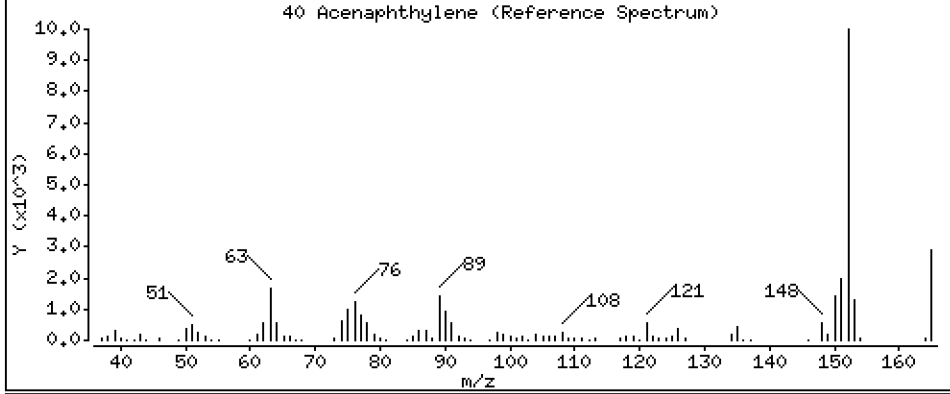
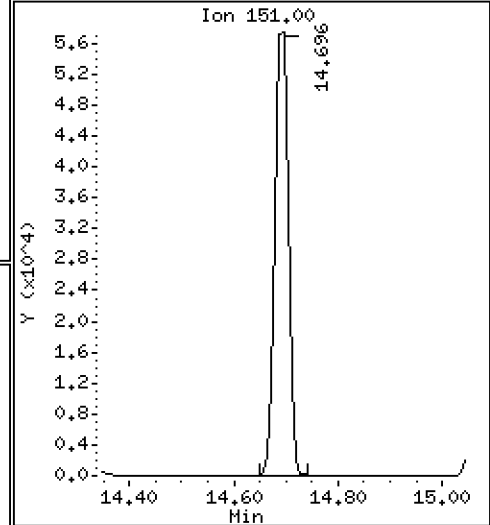
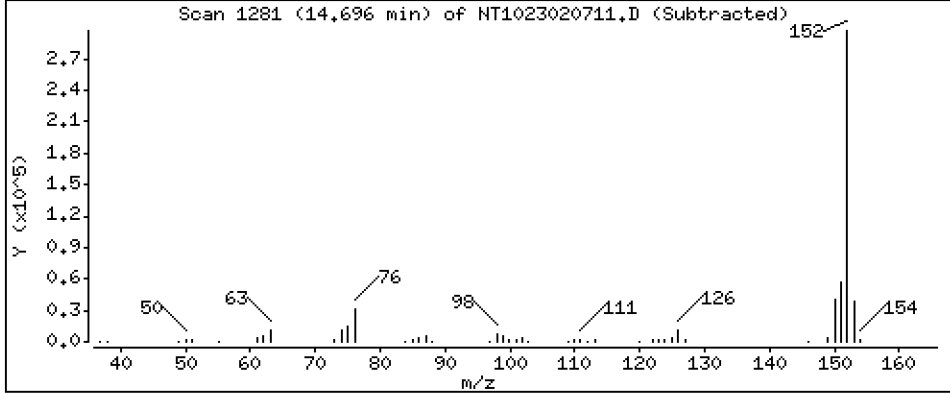
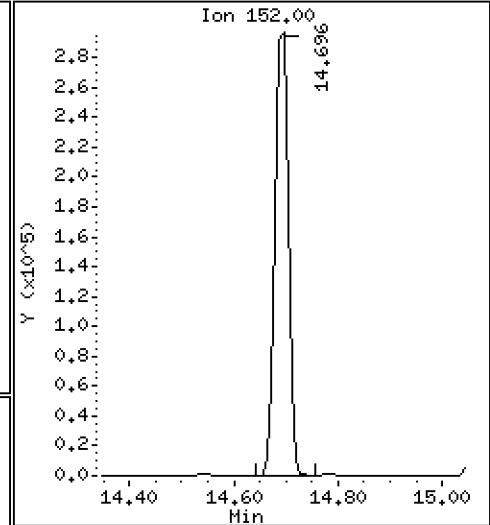
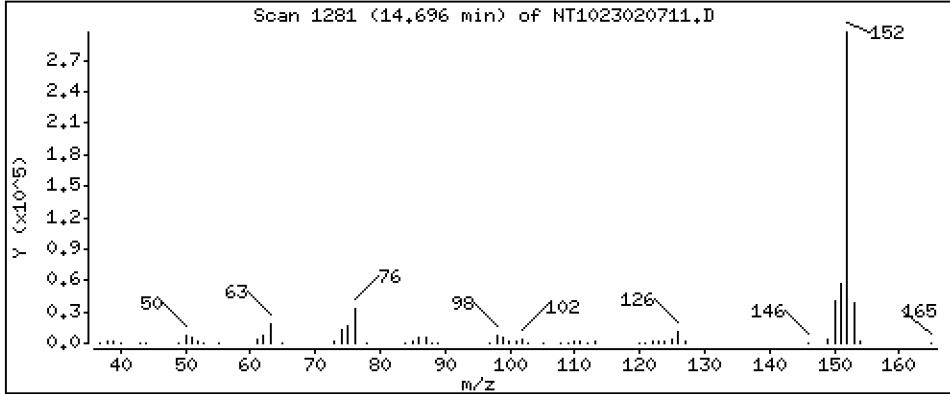
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 4,322 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

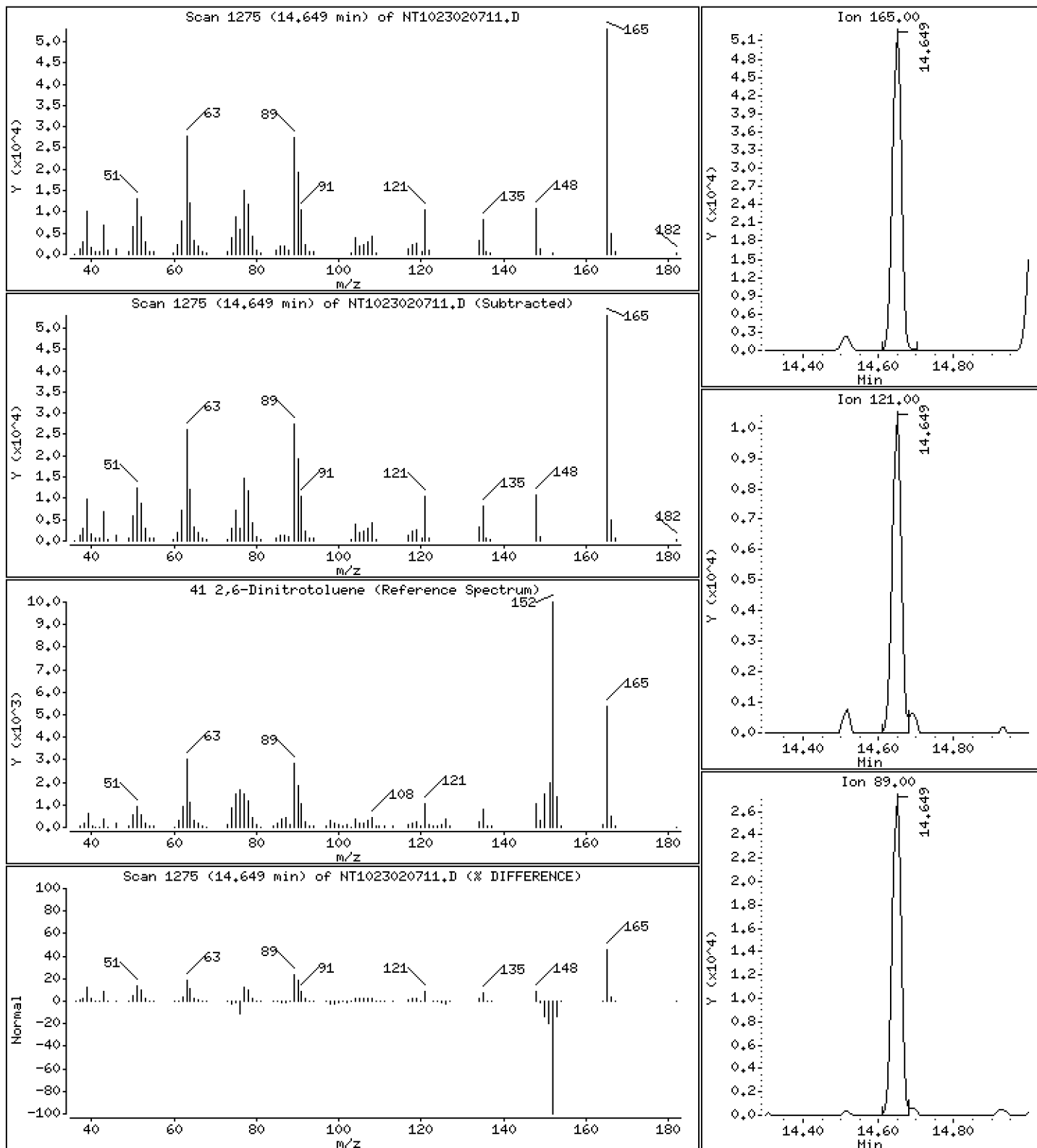
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 4.377 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

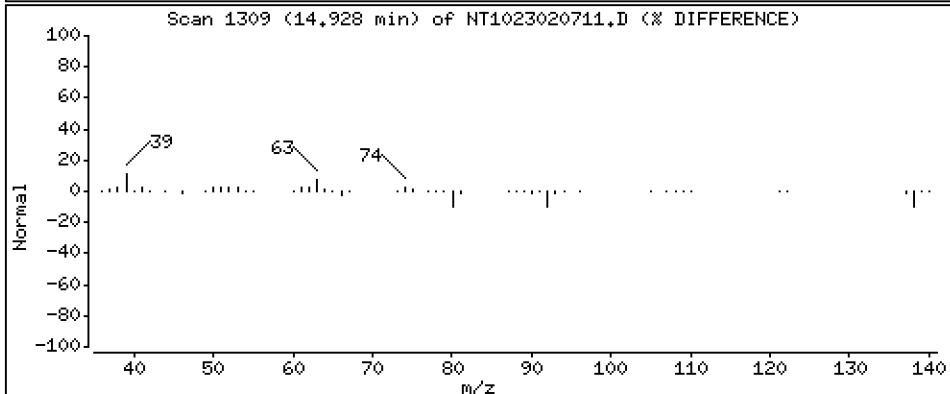
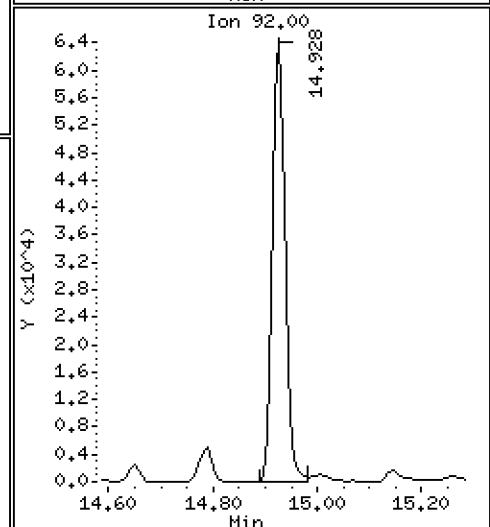
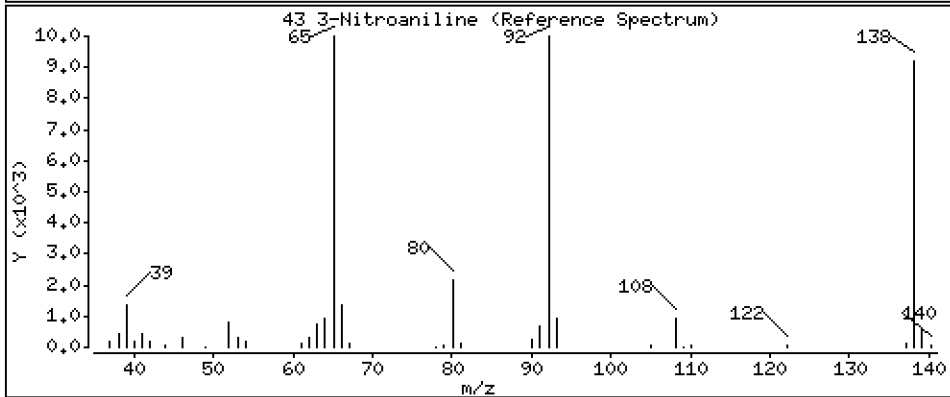
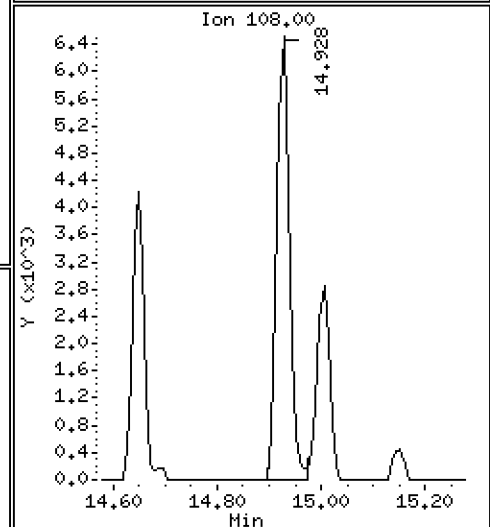
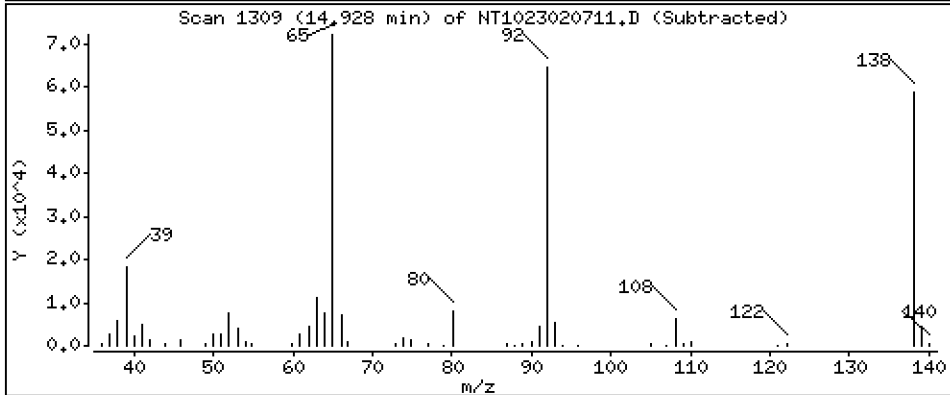
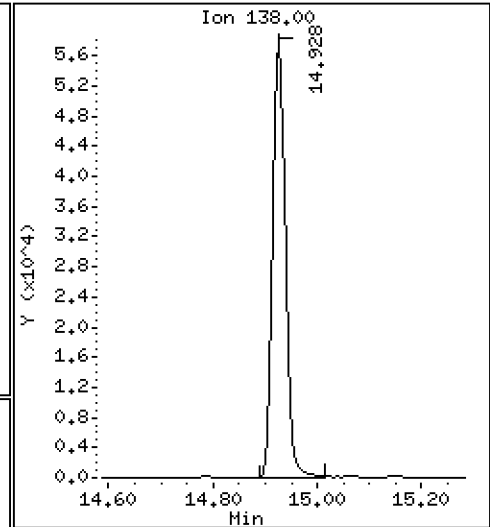
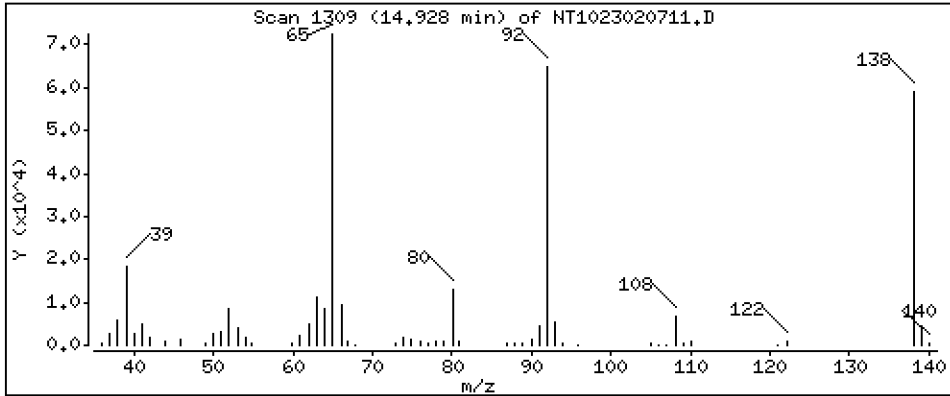
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 4,362 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

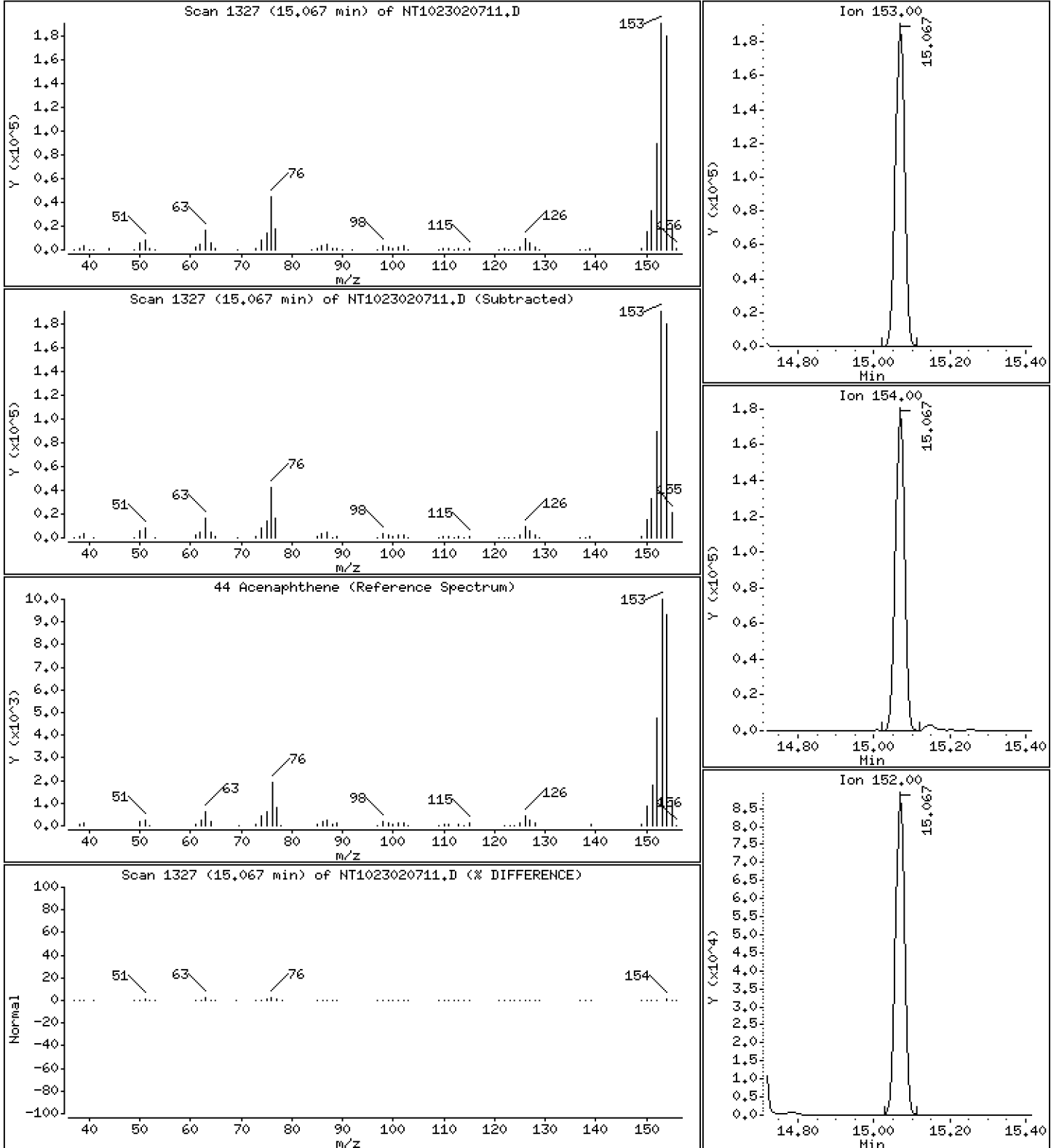
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,233 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

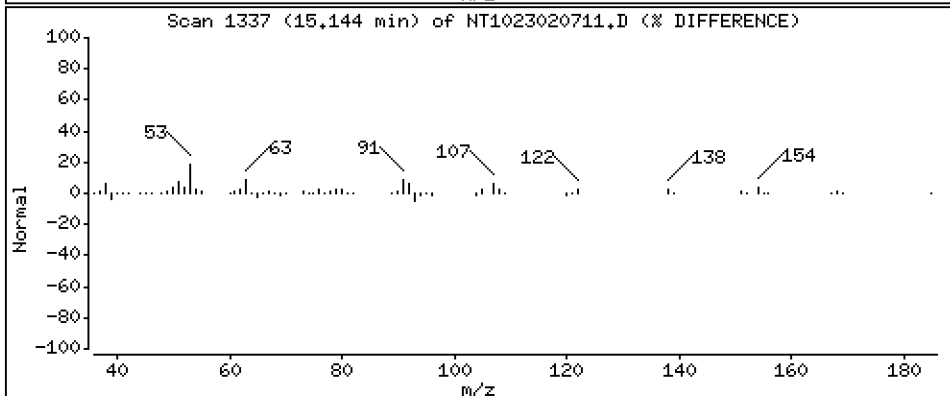
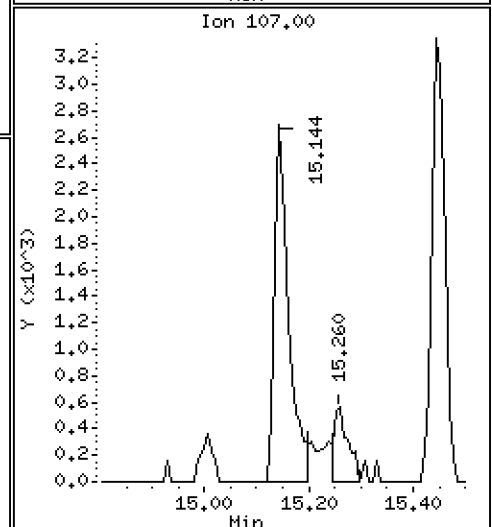
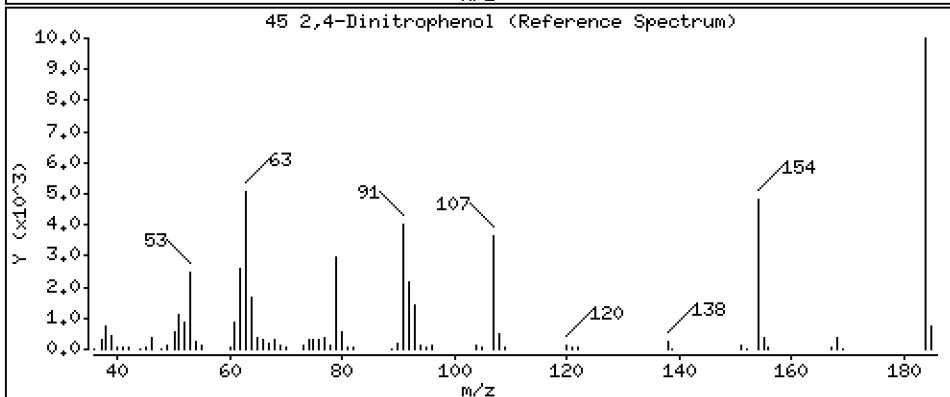
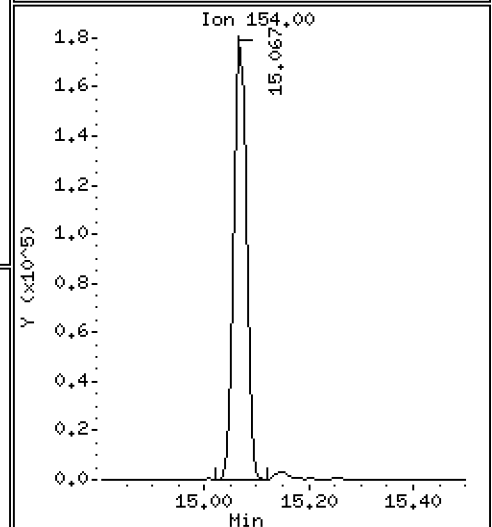
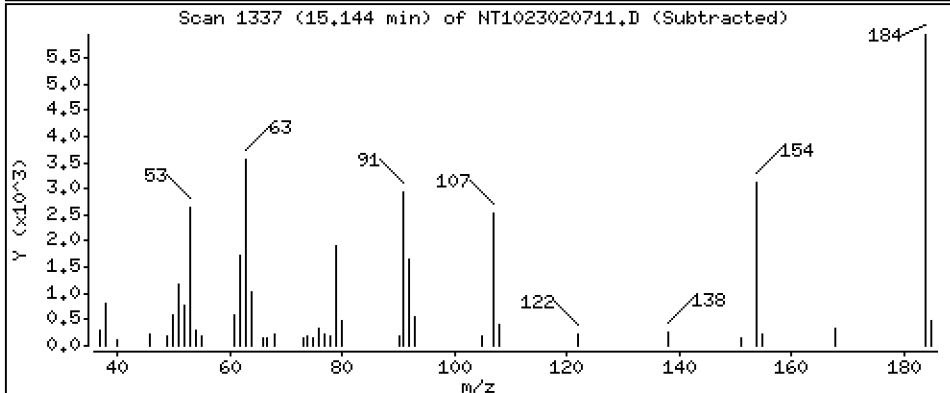
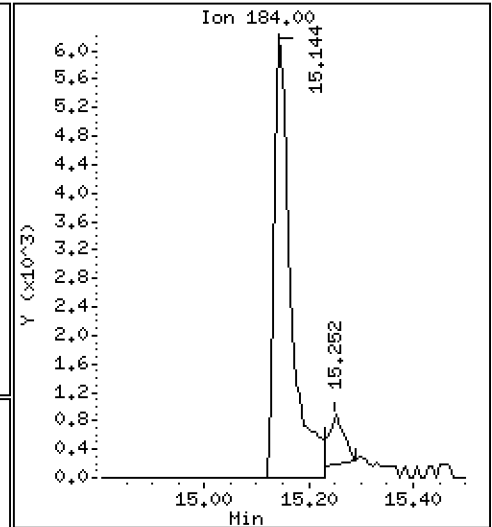
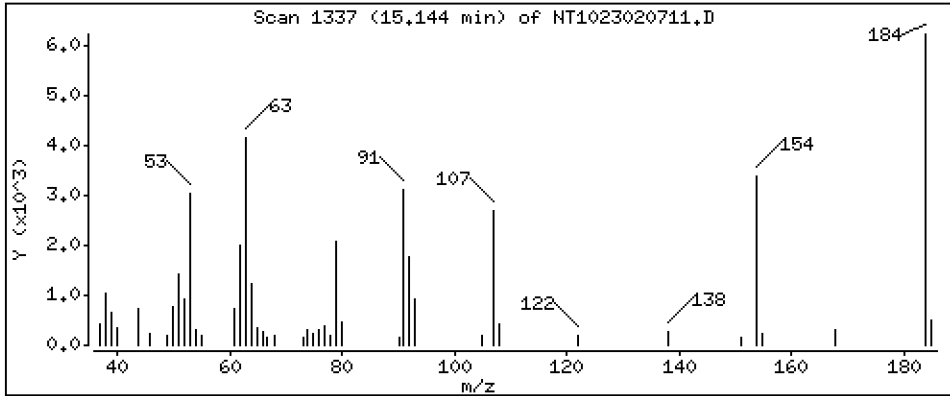
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 1,385 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

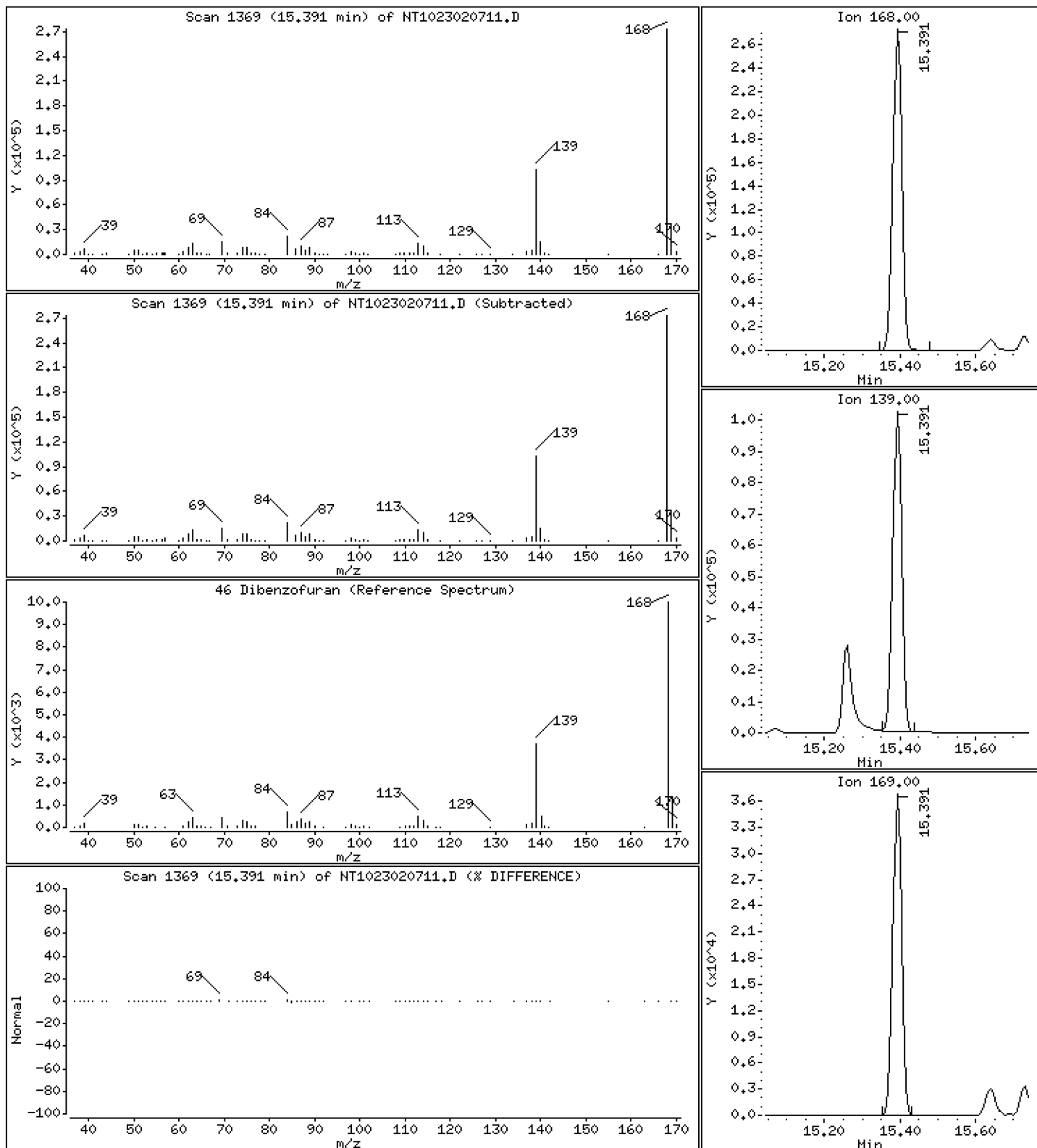
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 4,183 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

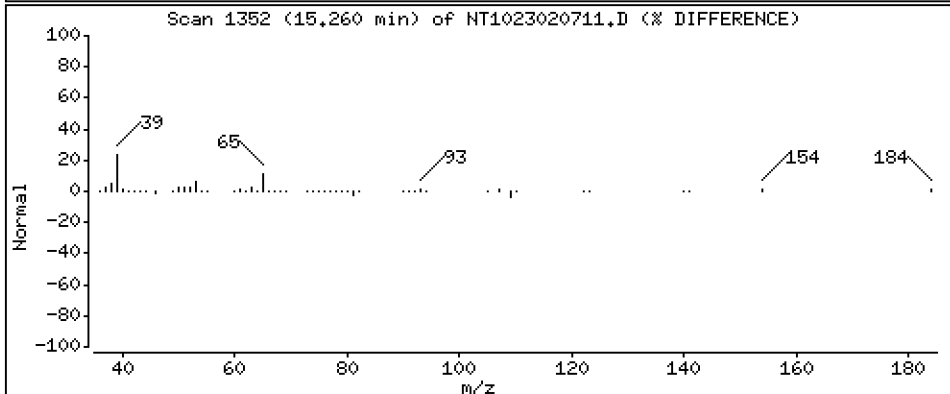
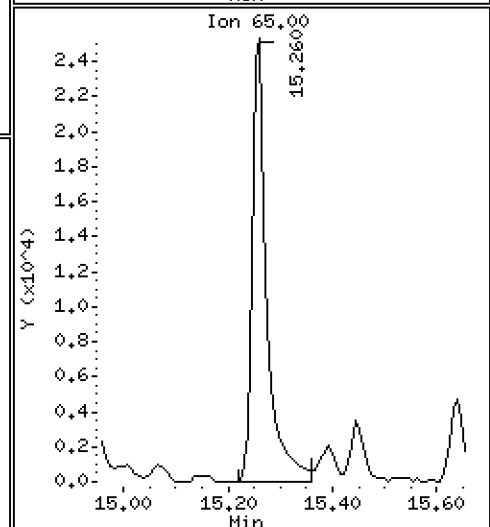
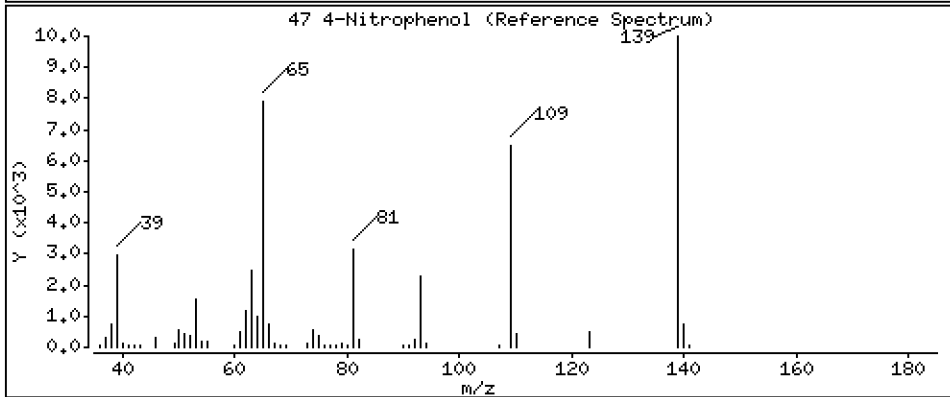
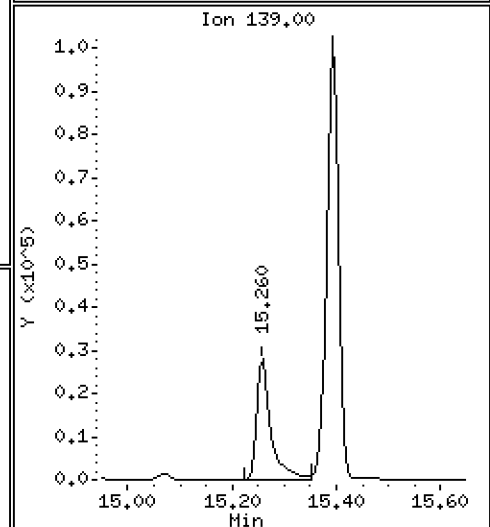
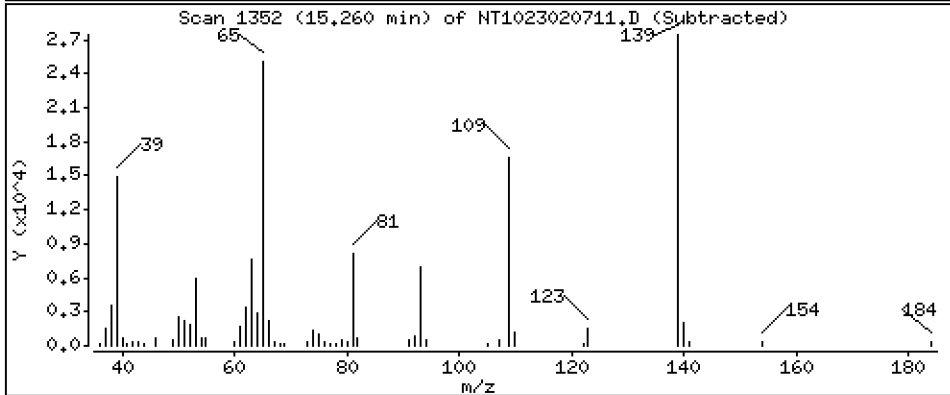
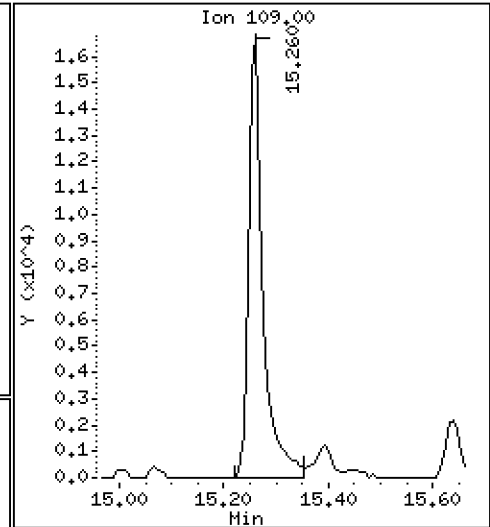
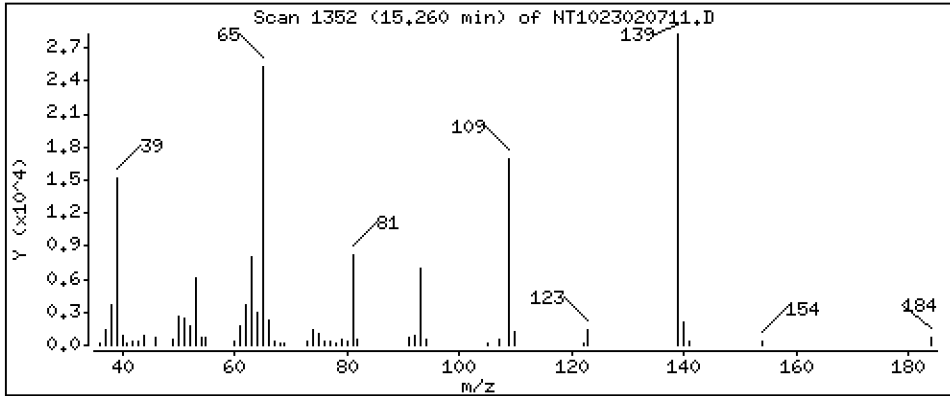
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 4,116 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

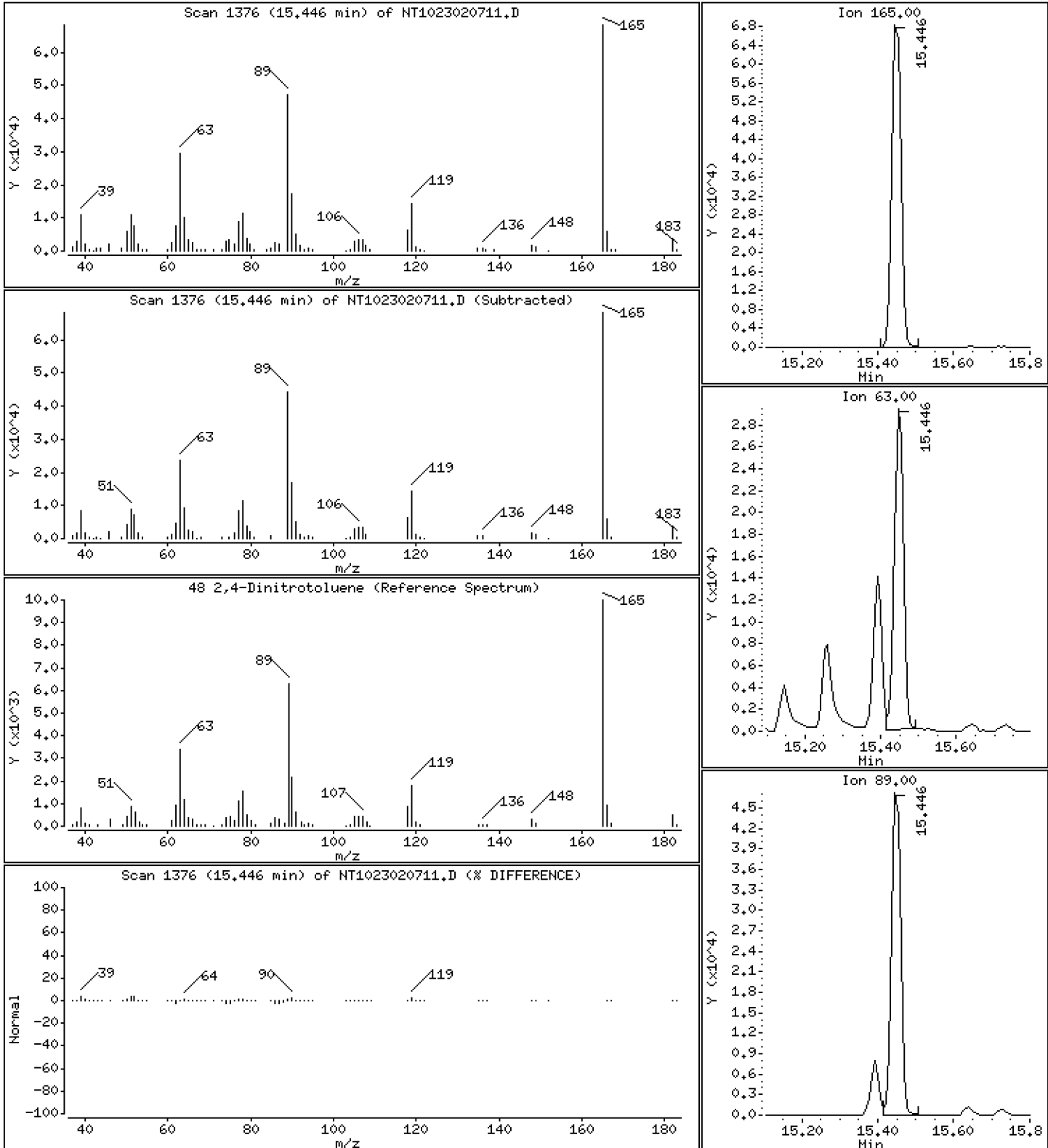
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

48 2,4-Dinitrotoluene

Concentration: 4.265 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

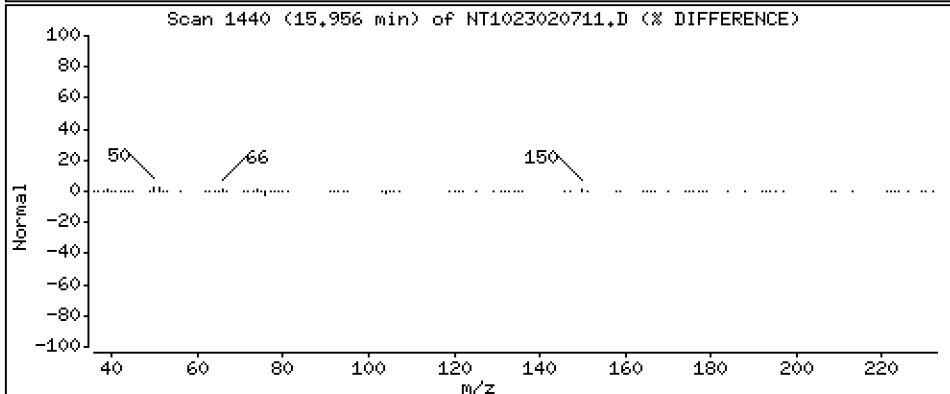
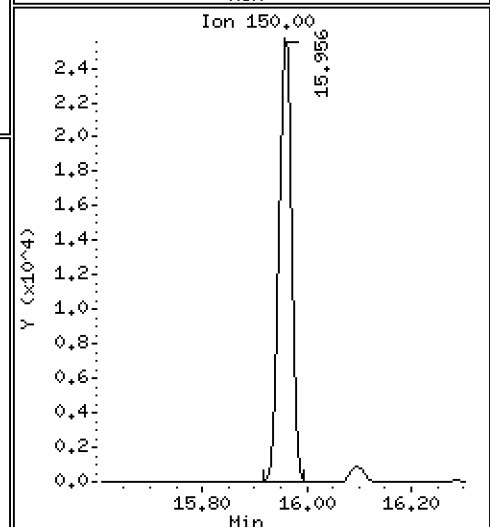
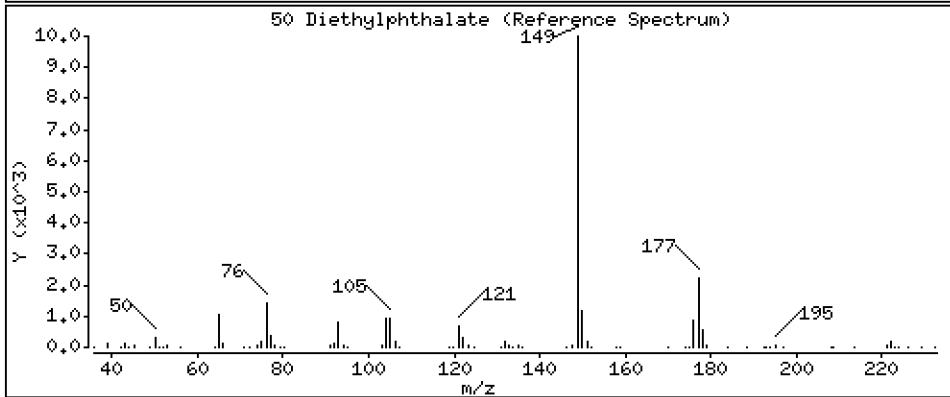
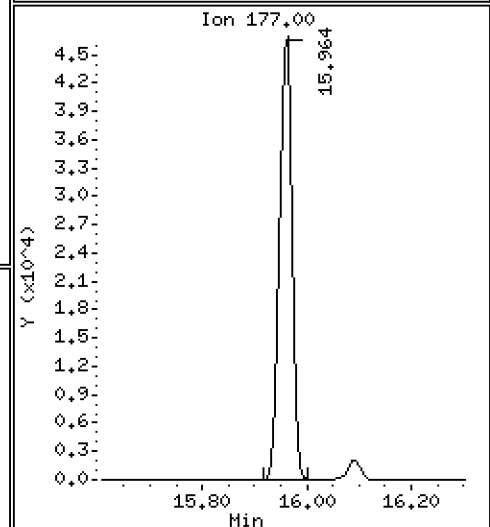
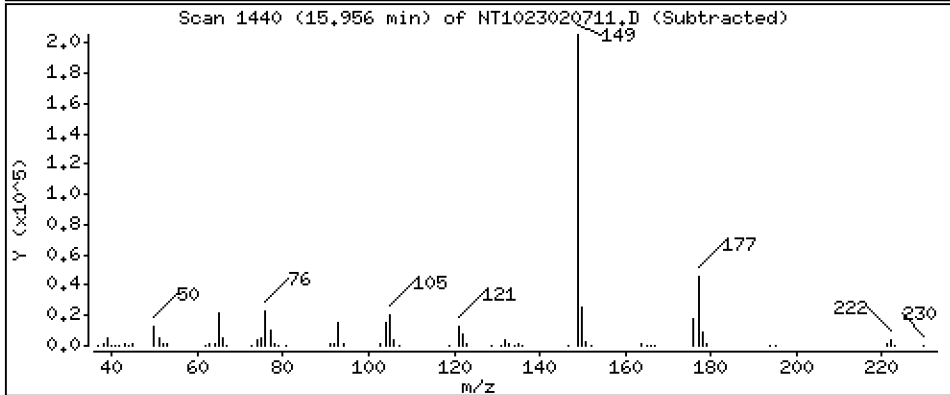
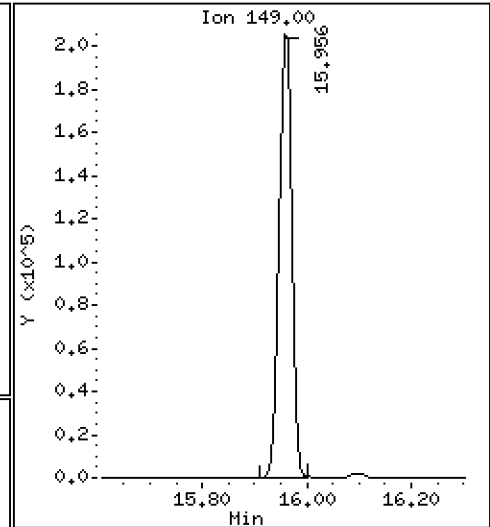
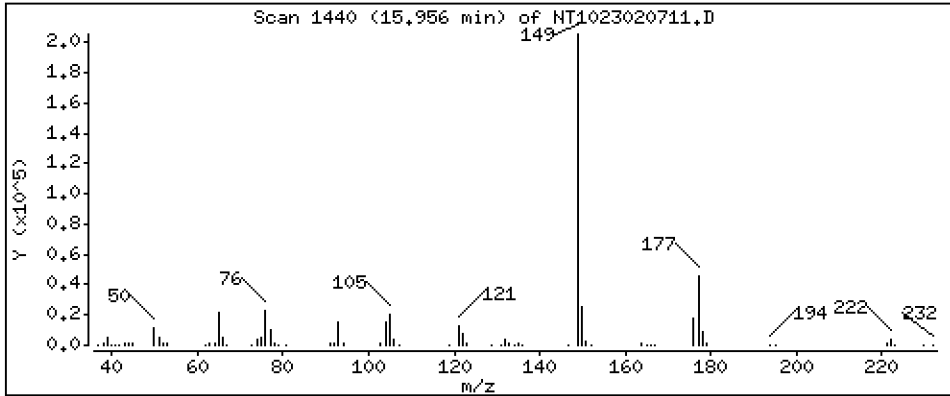
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 4.422 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

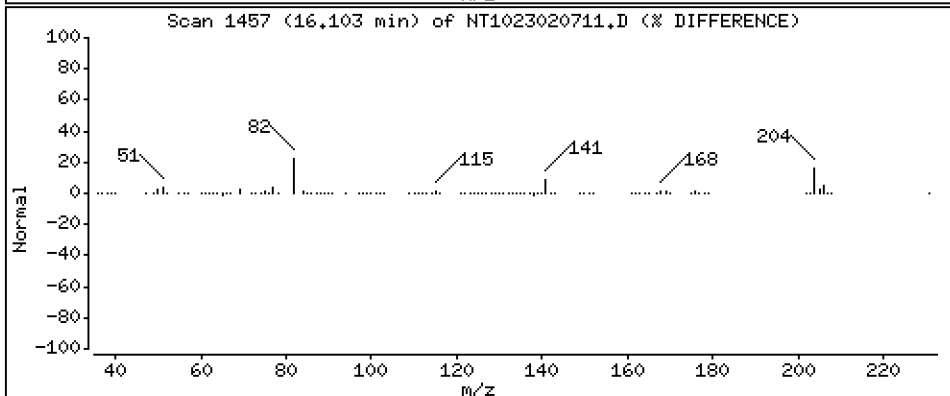
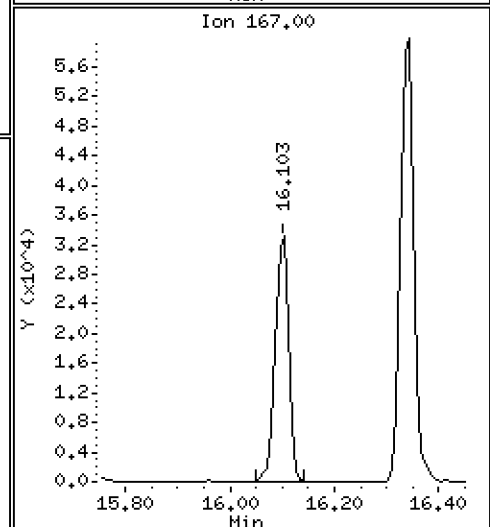
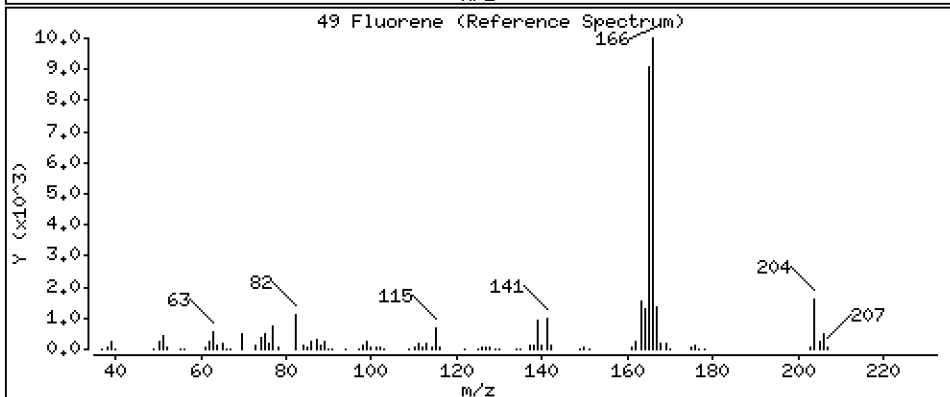
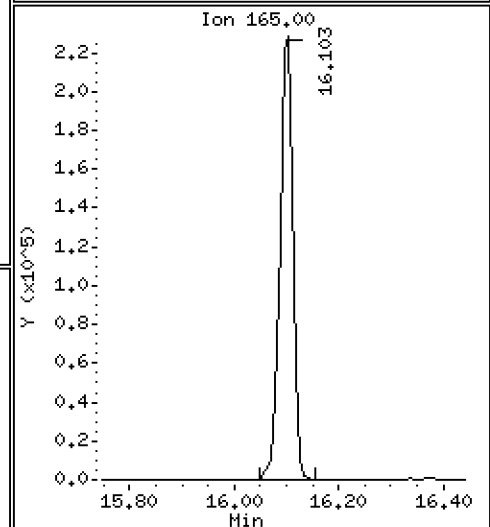
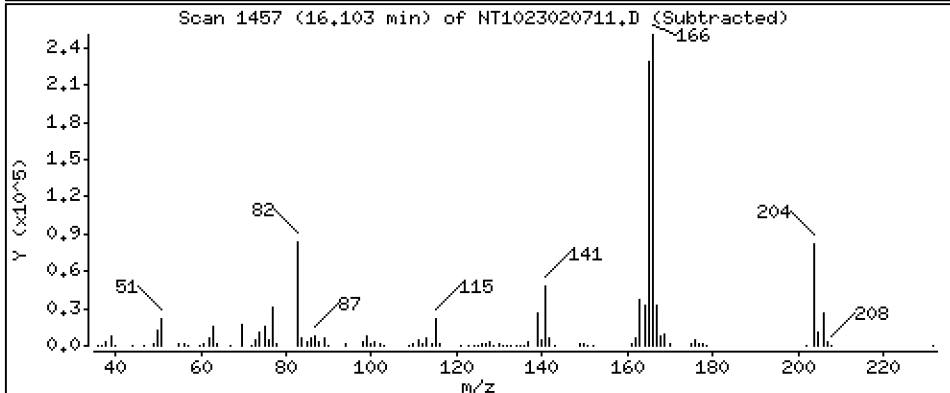
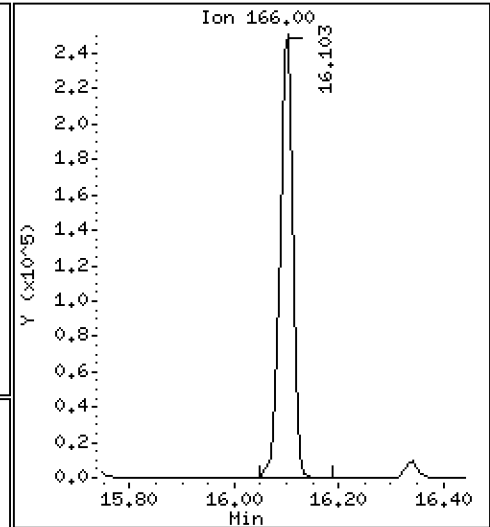
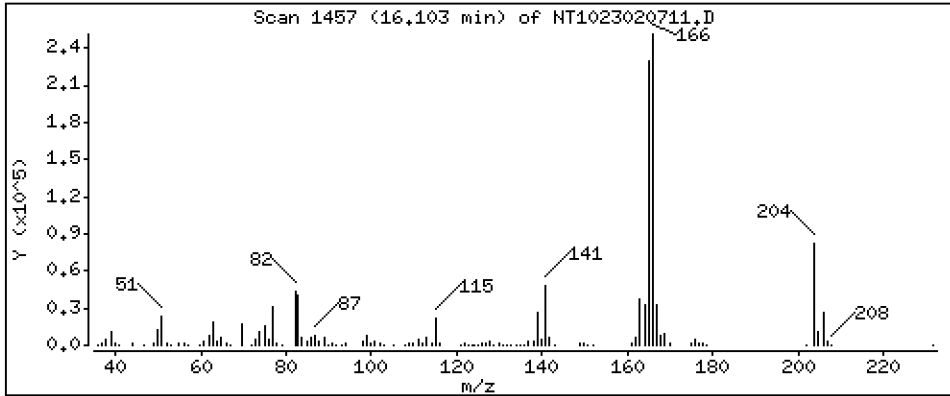
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 4,139 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

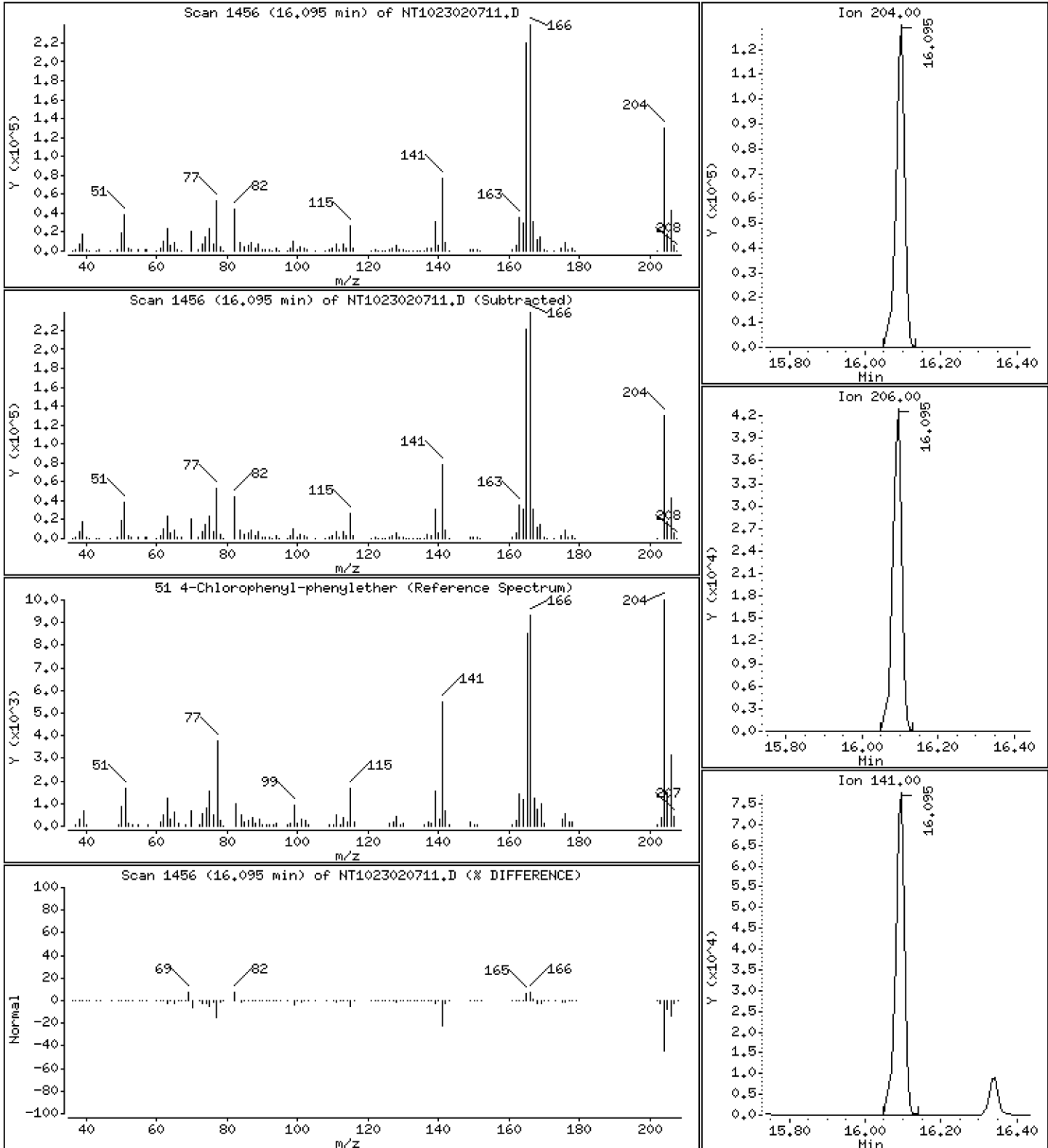
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,315 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

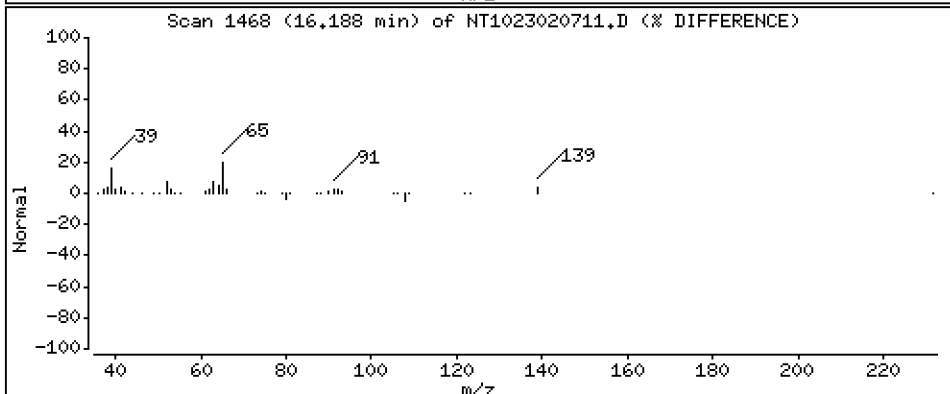
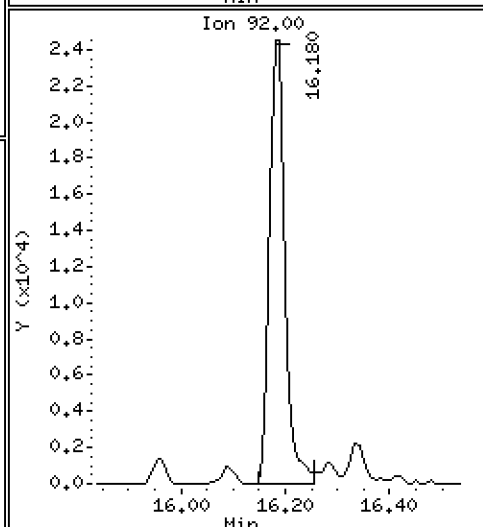
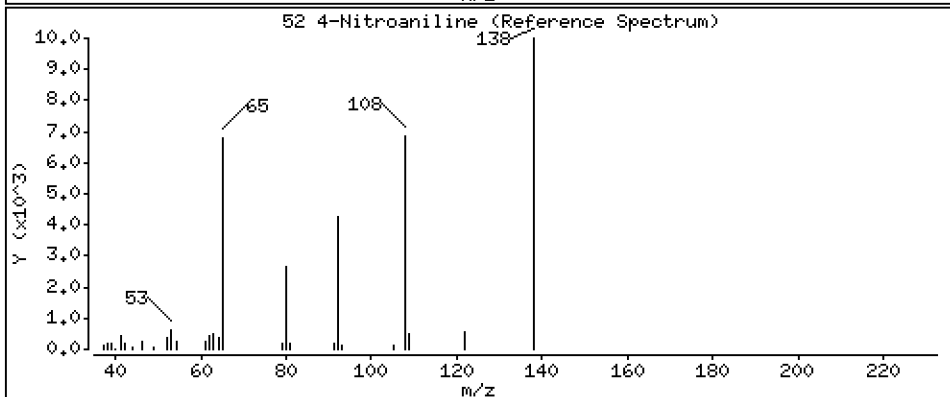
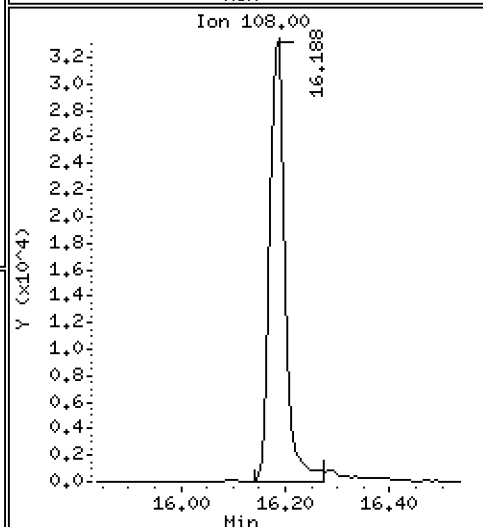
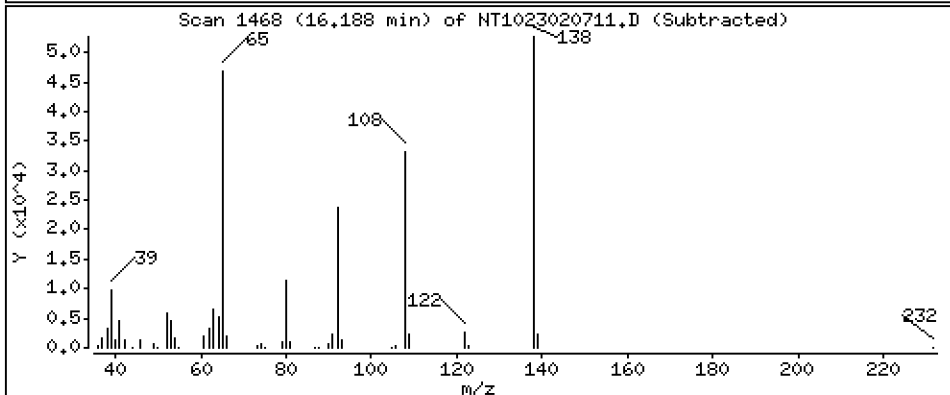
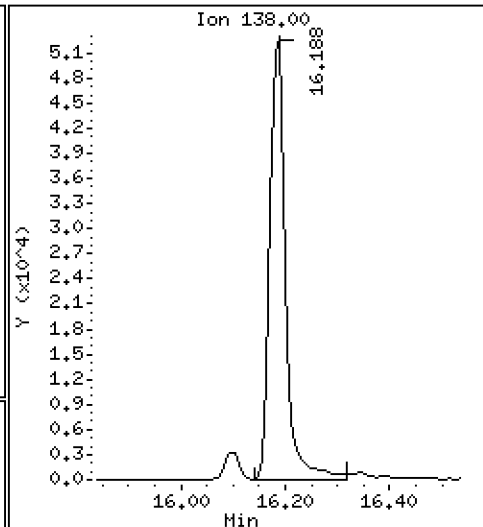
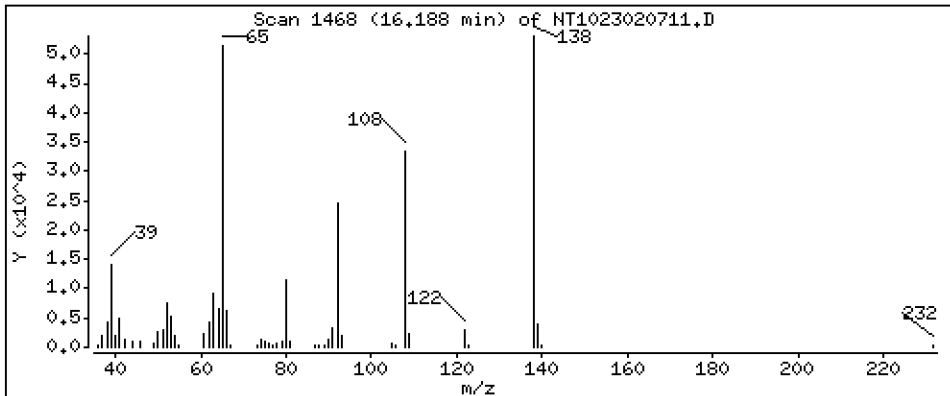
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 4,340 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

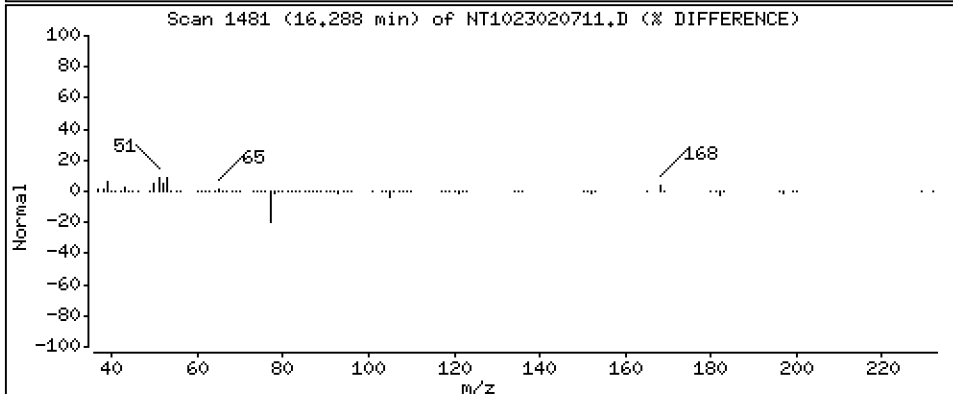
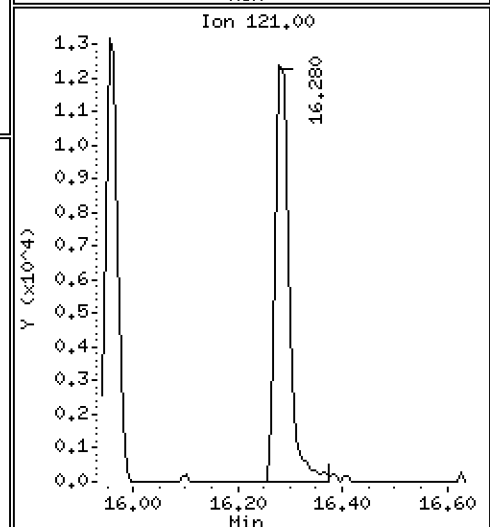
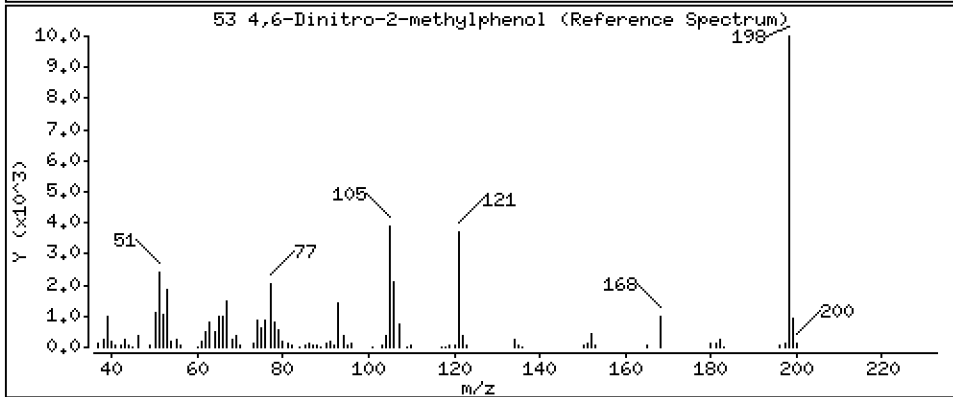
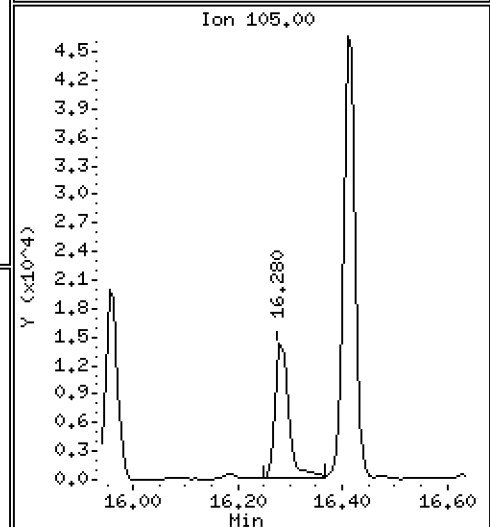
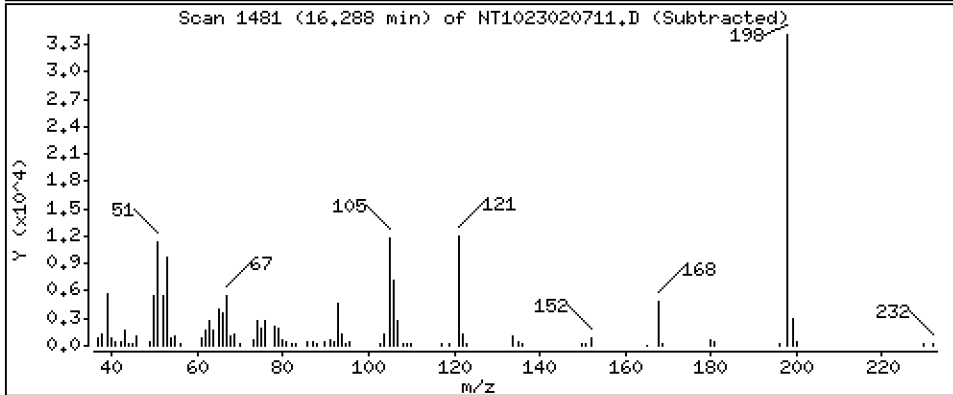
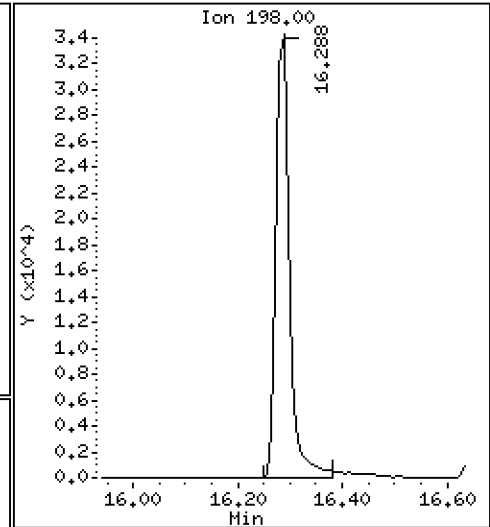
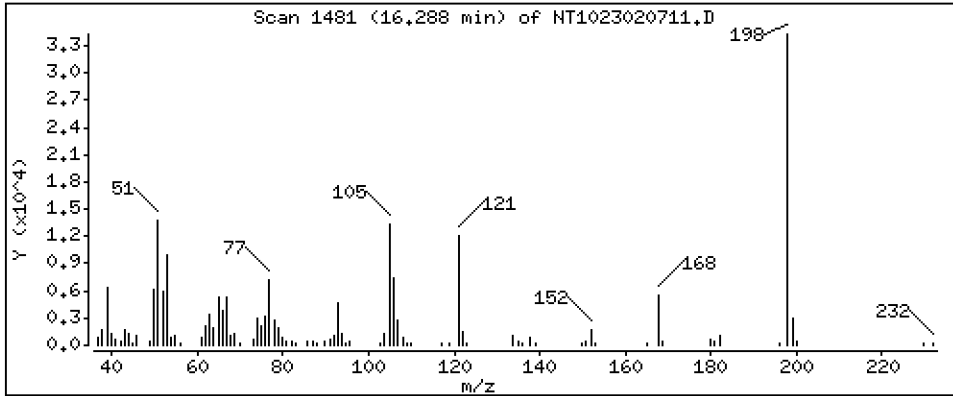
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,995 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

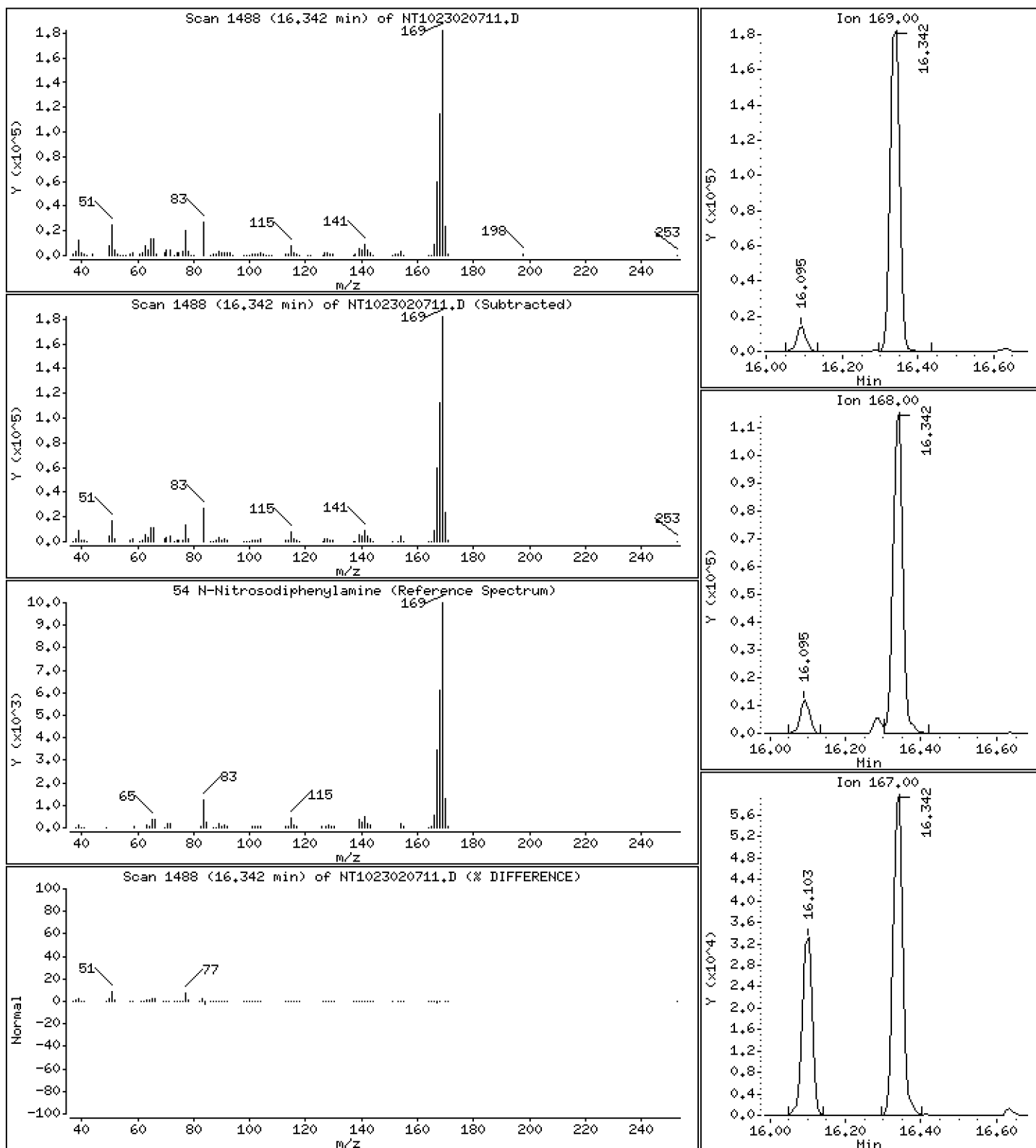
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 4,384 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

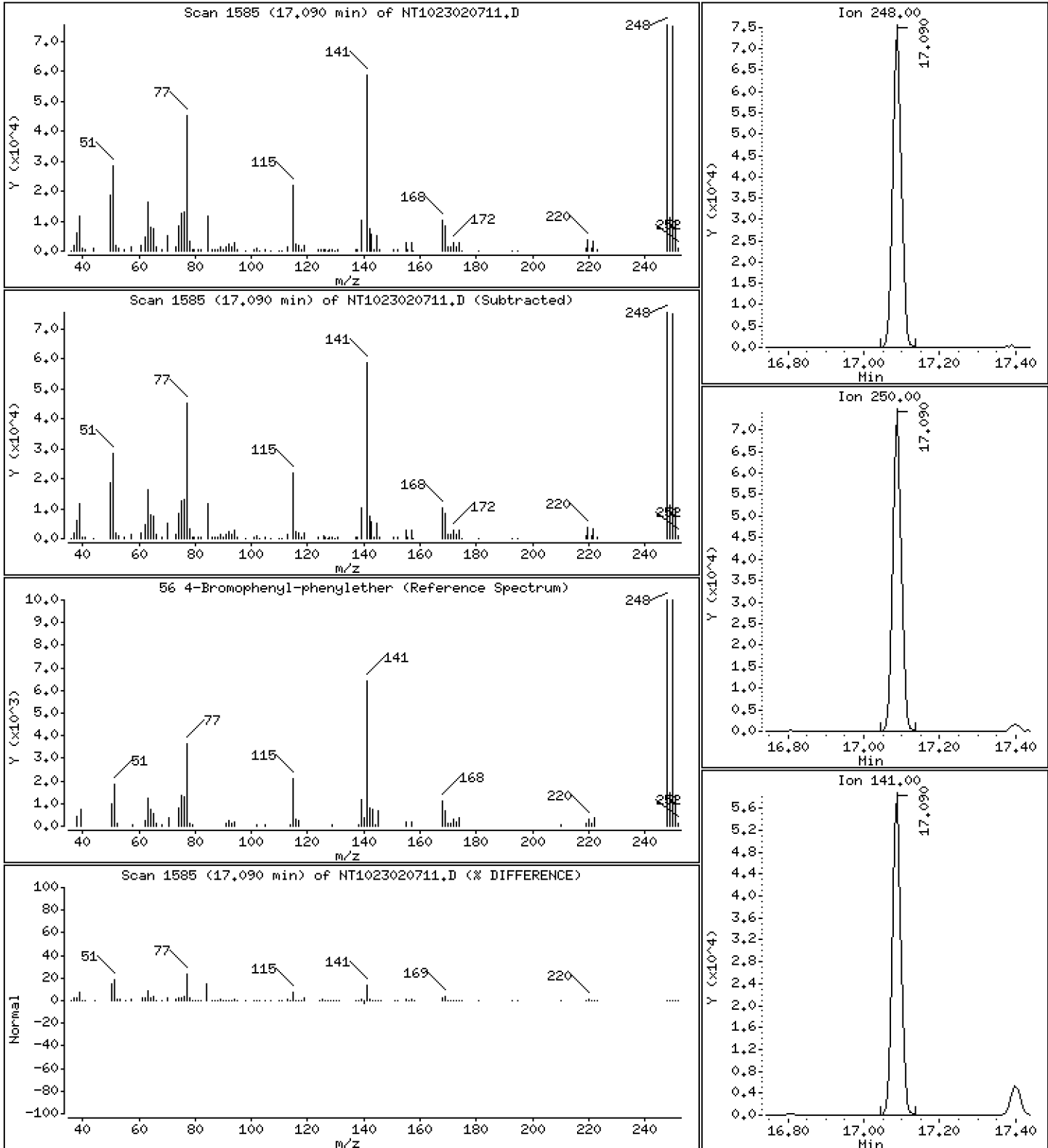
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,550 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

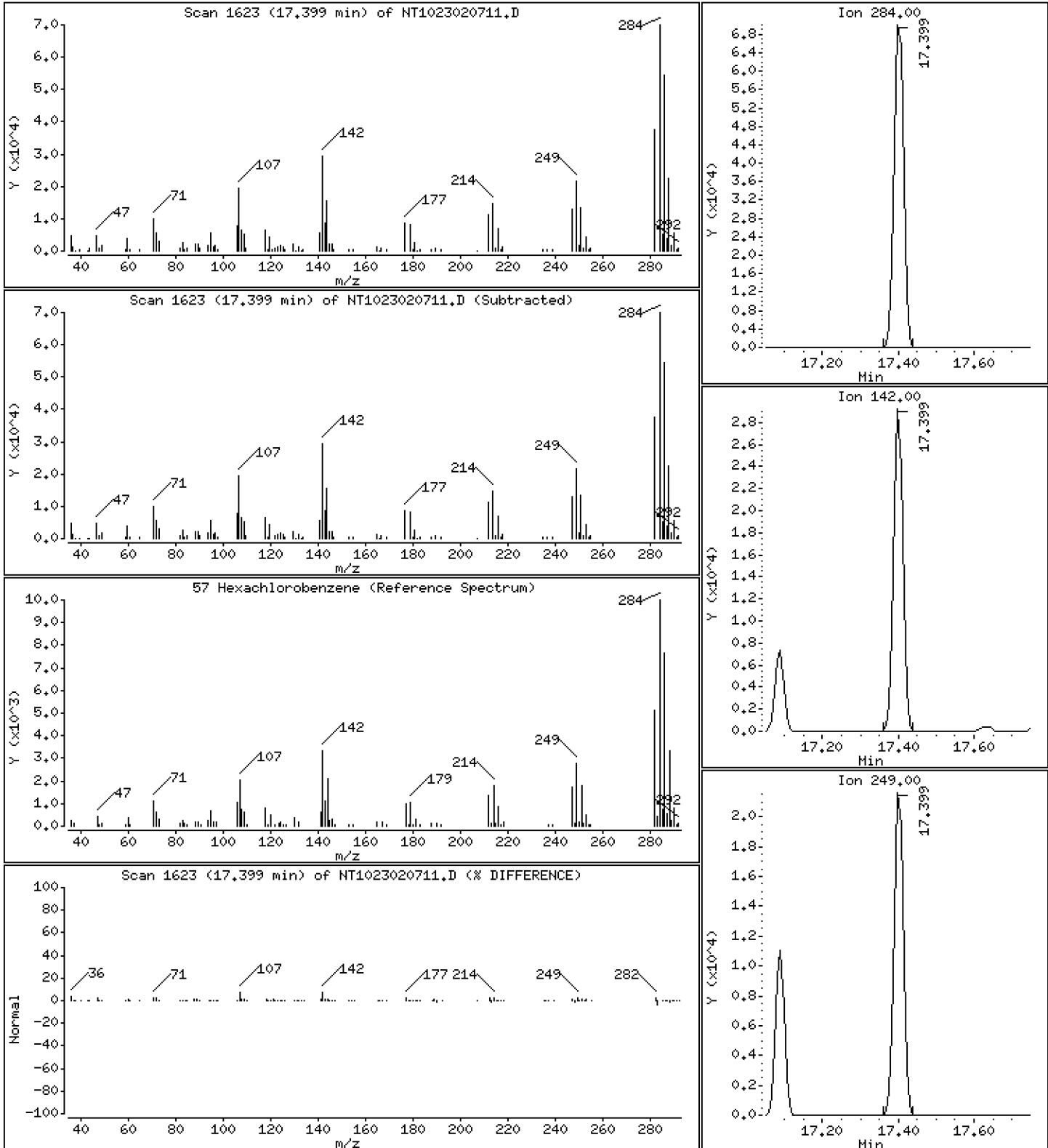
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 4.289 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

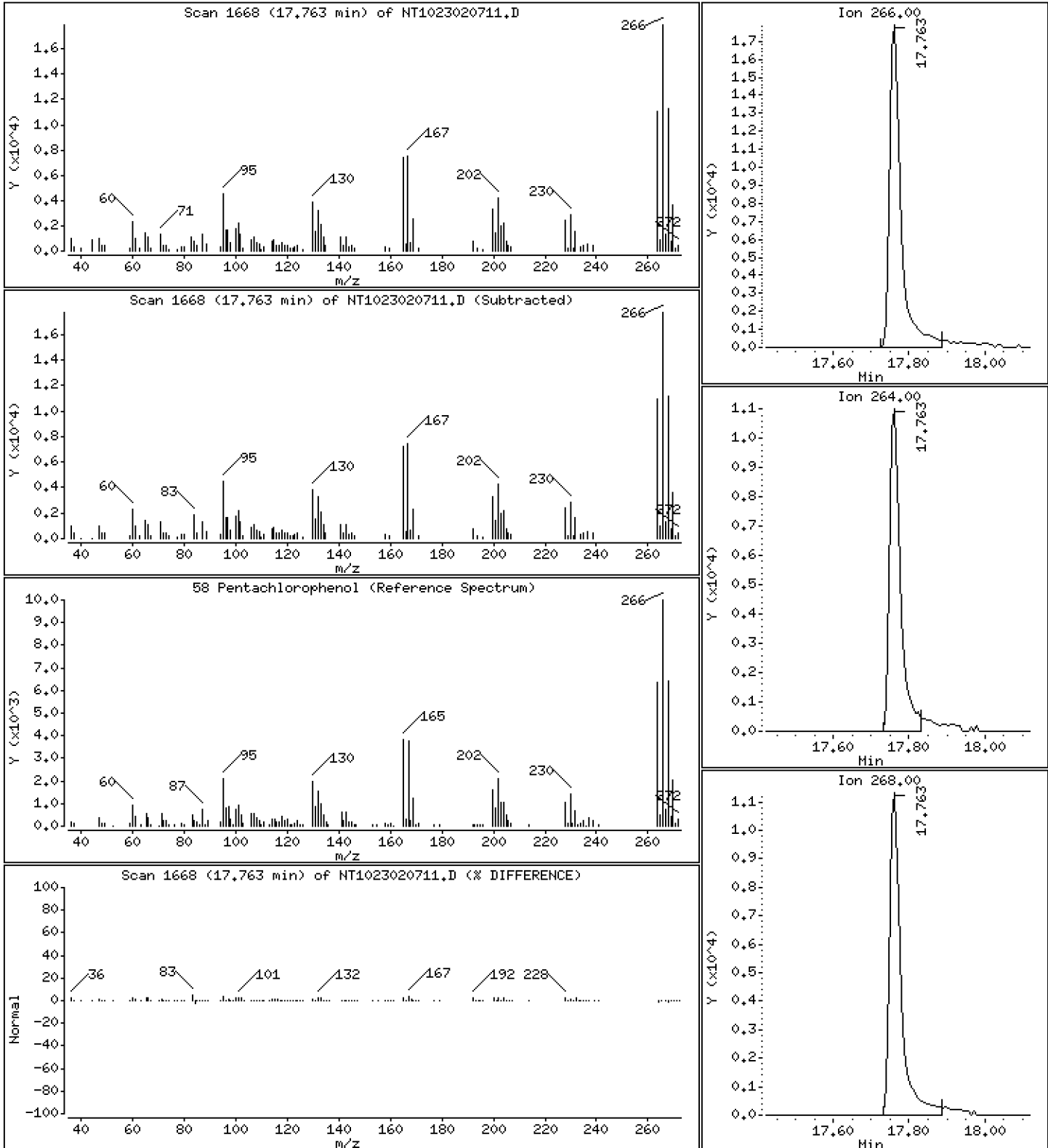
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,453 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

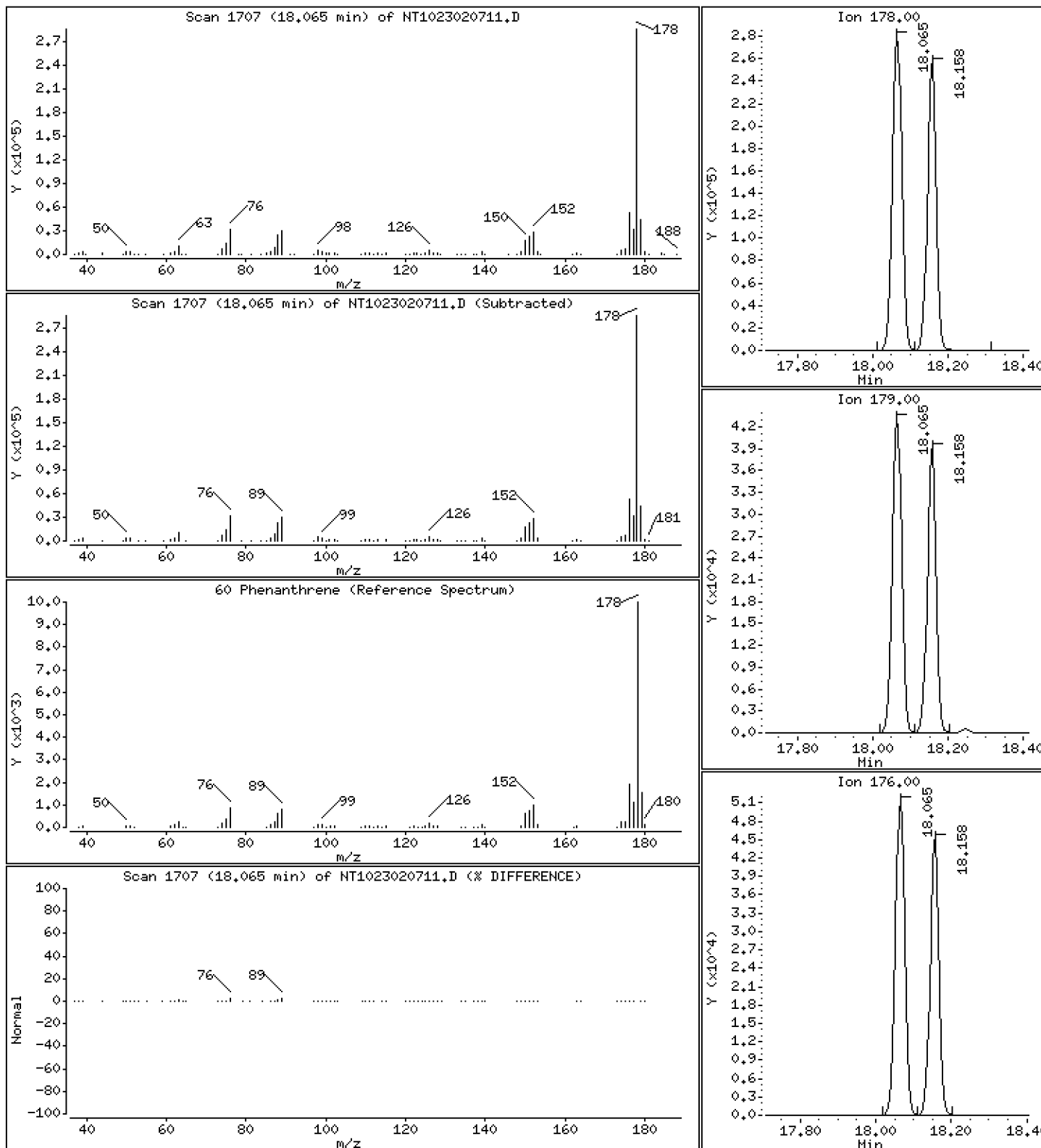
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,304 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

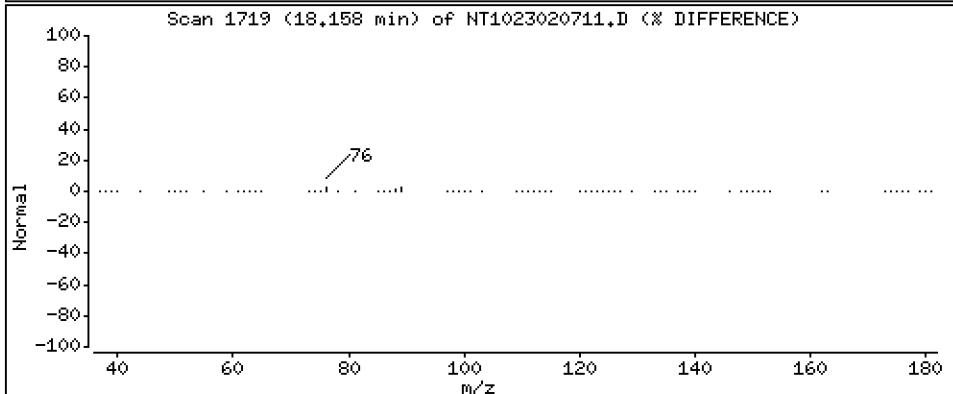
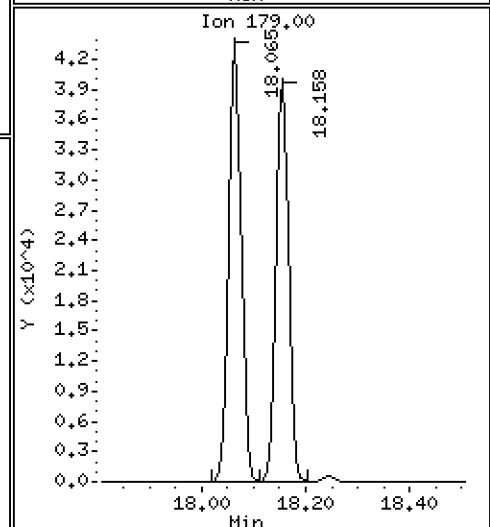
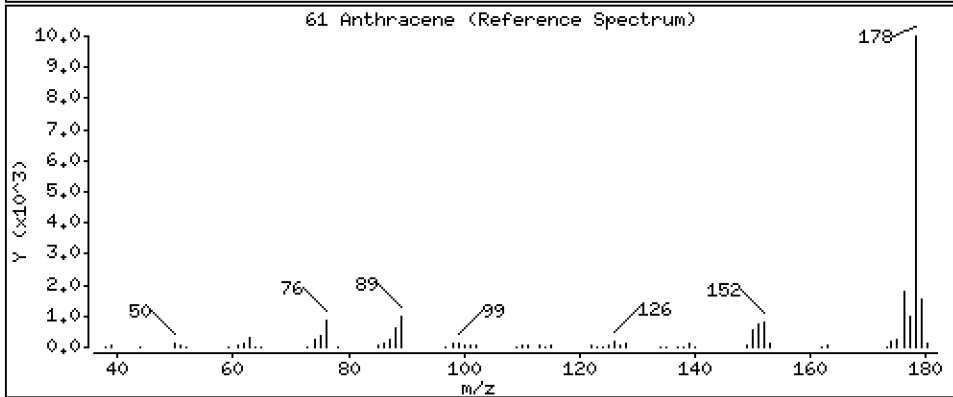
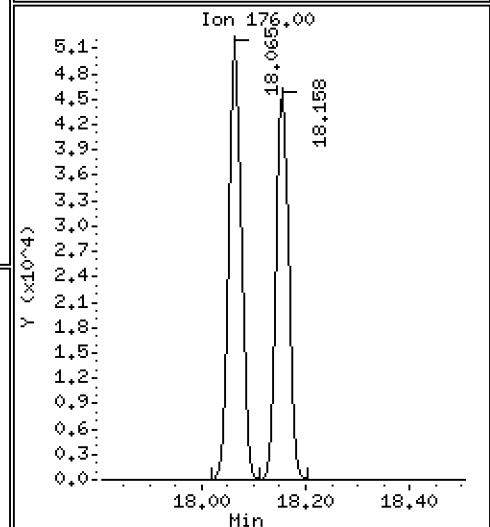
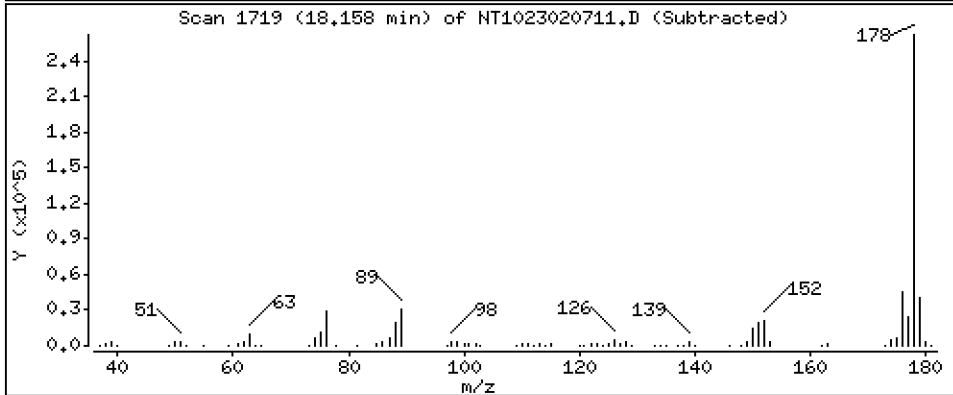
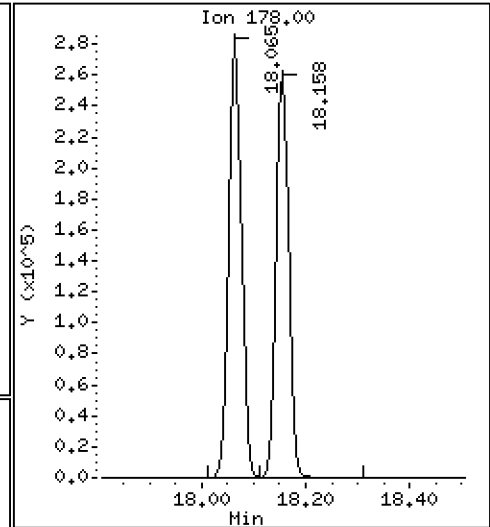
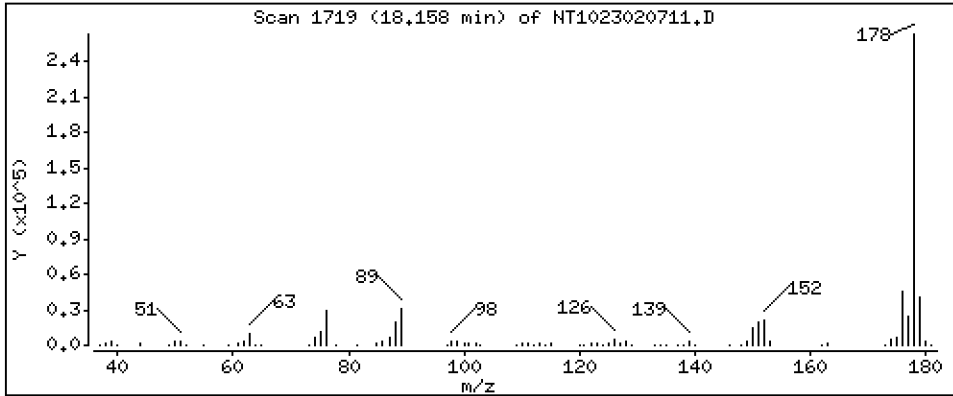
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 3,900 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

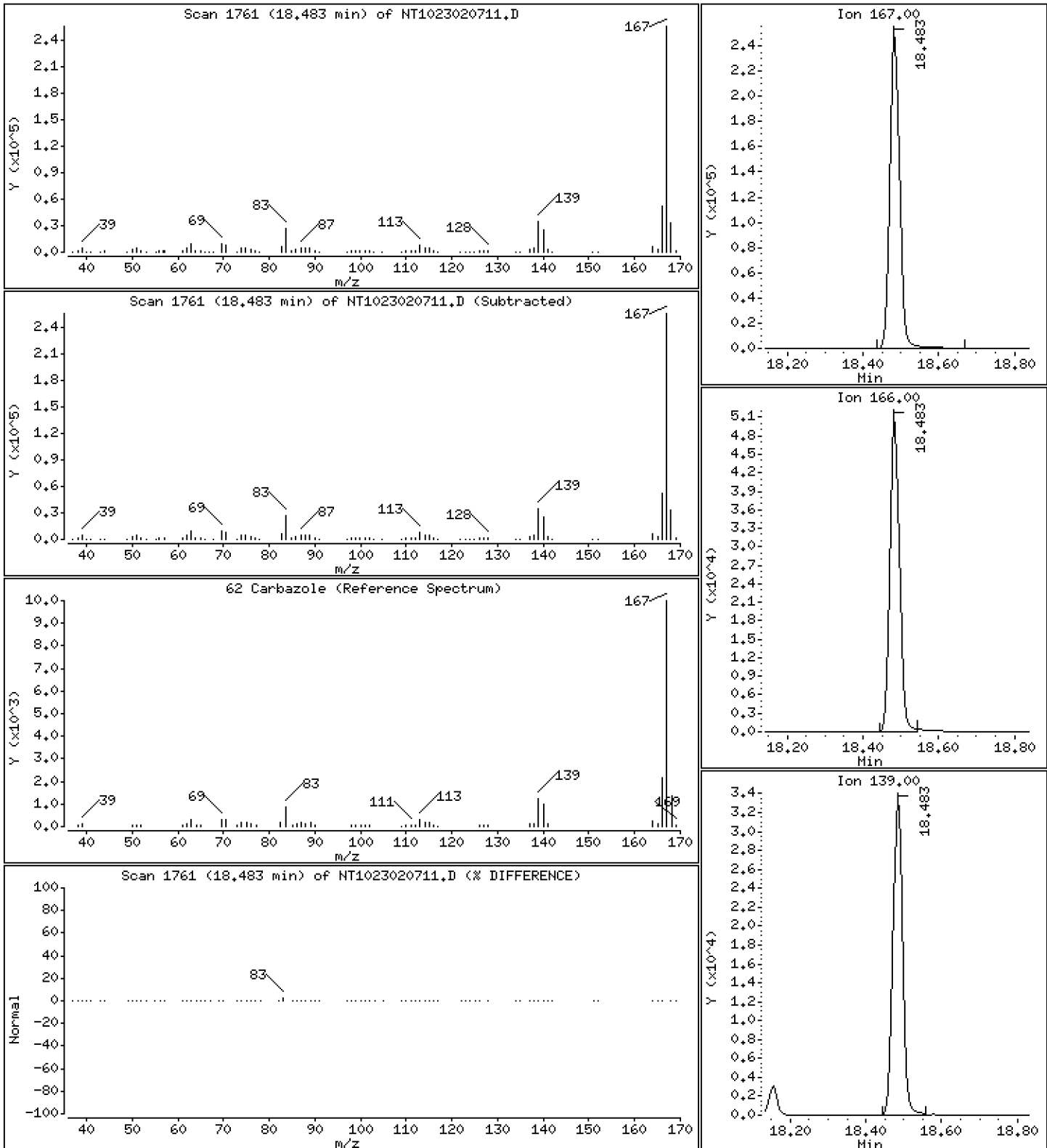
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 4,166 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

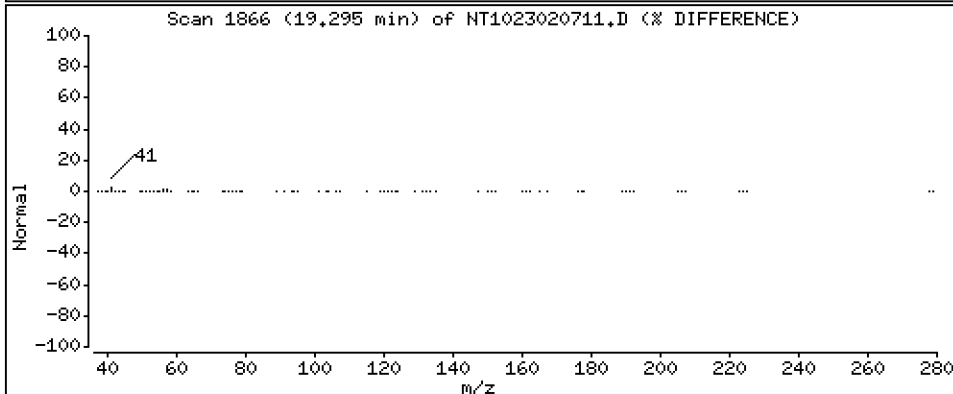
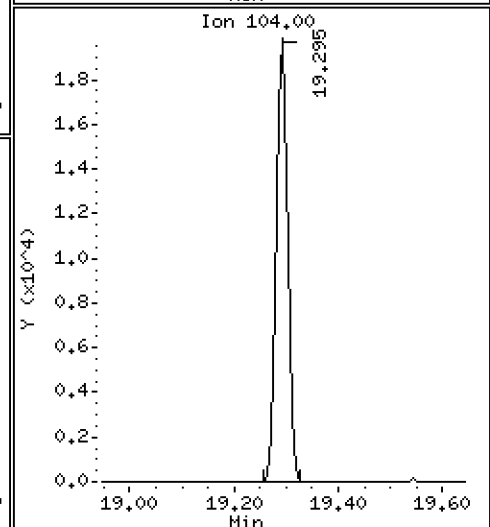
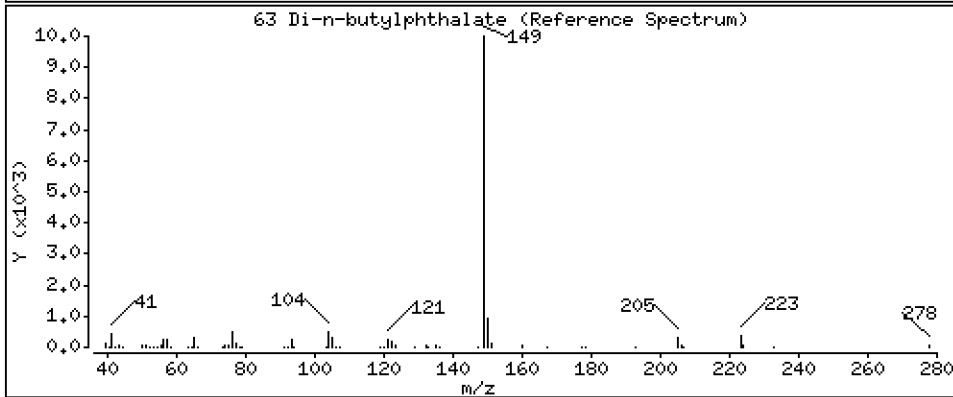
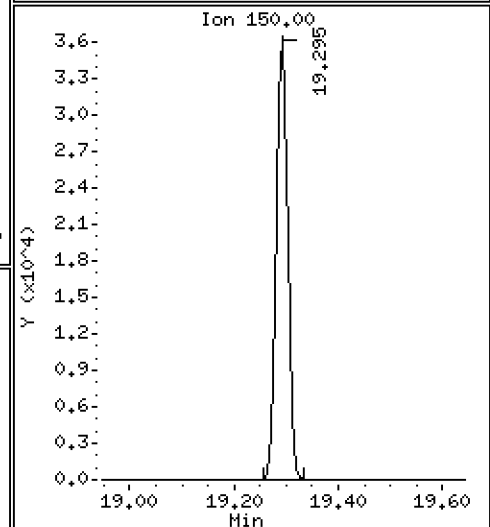
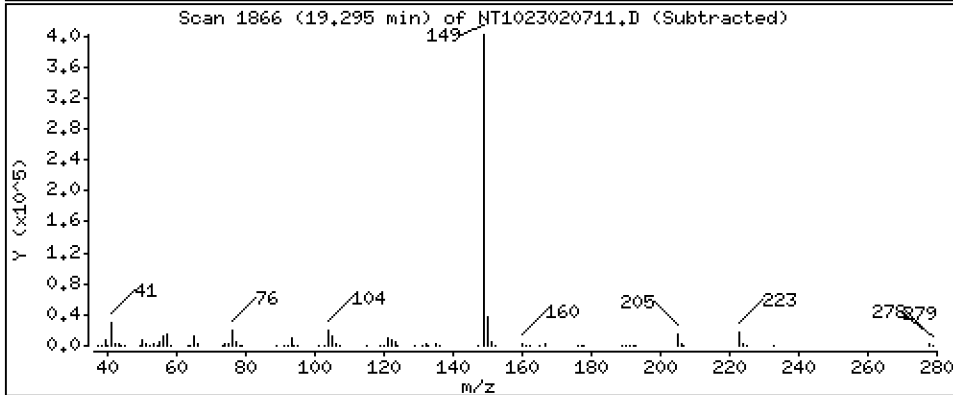
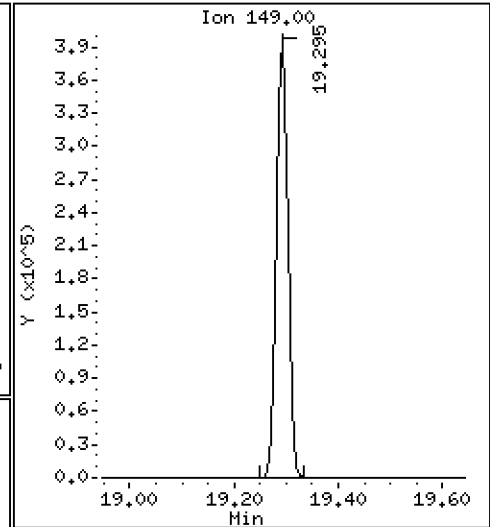
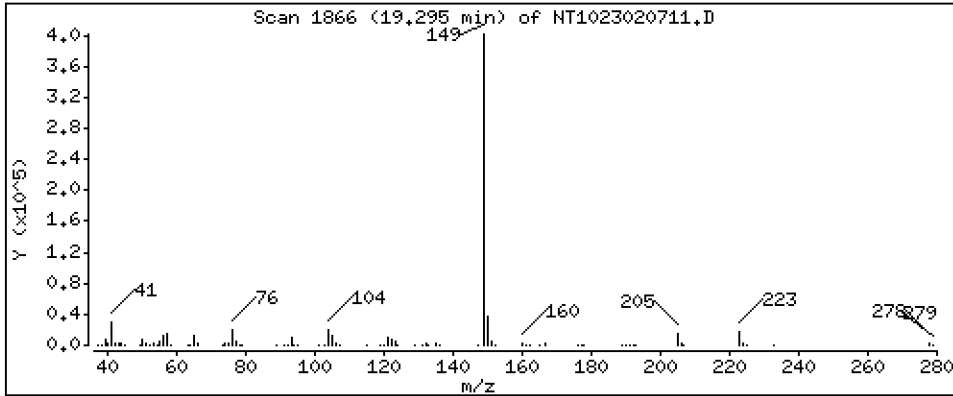
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

63 Di-n-butylphthalate

Concentration: 4.611 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

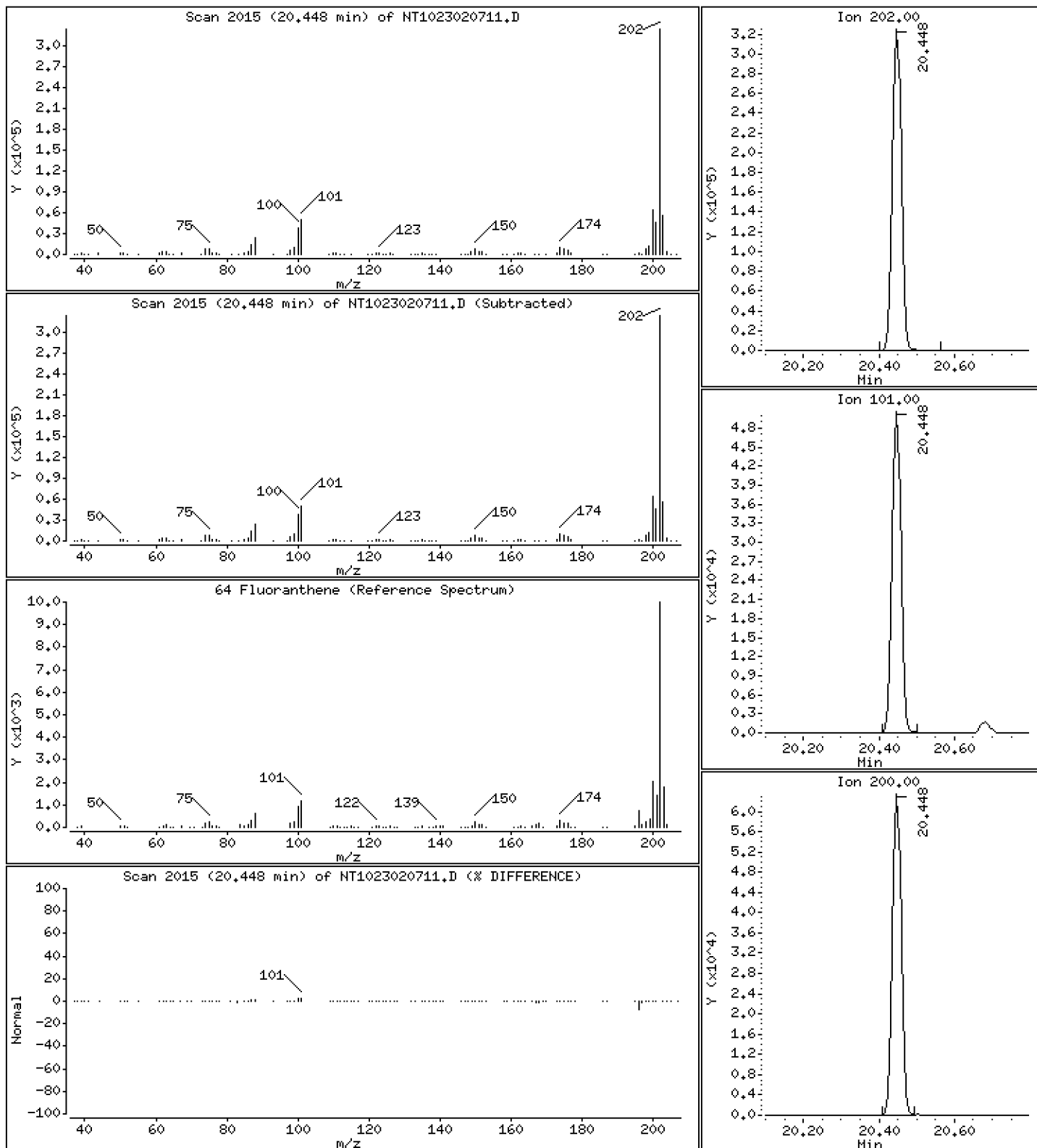
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,340 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

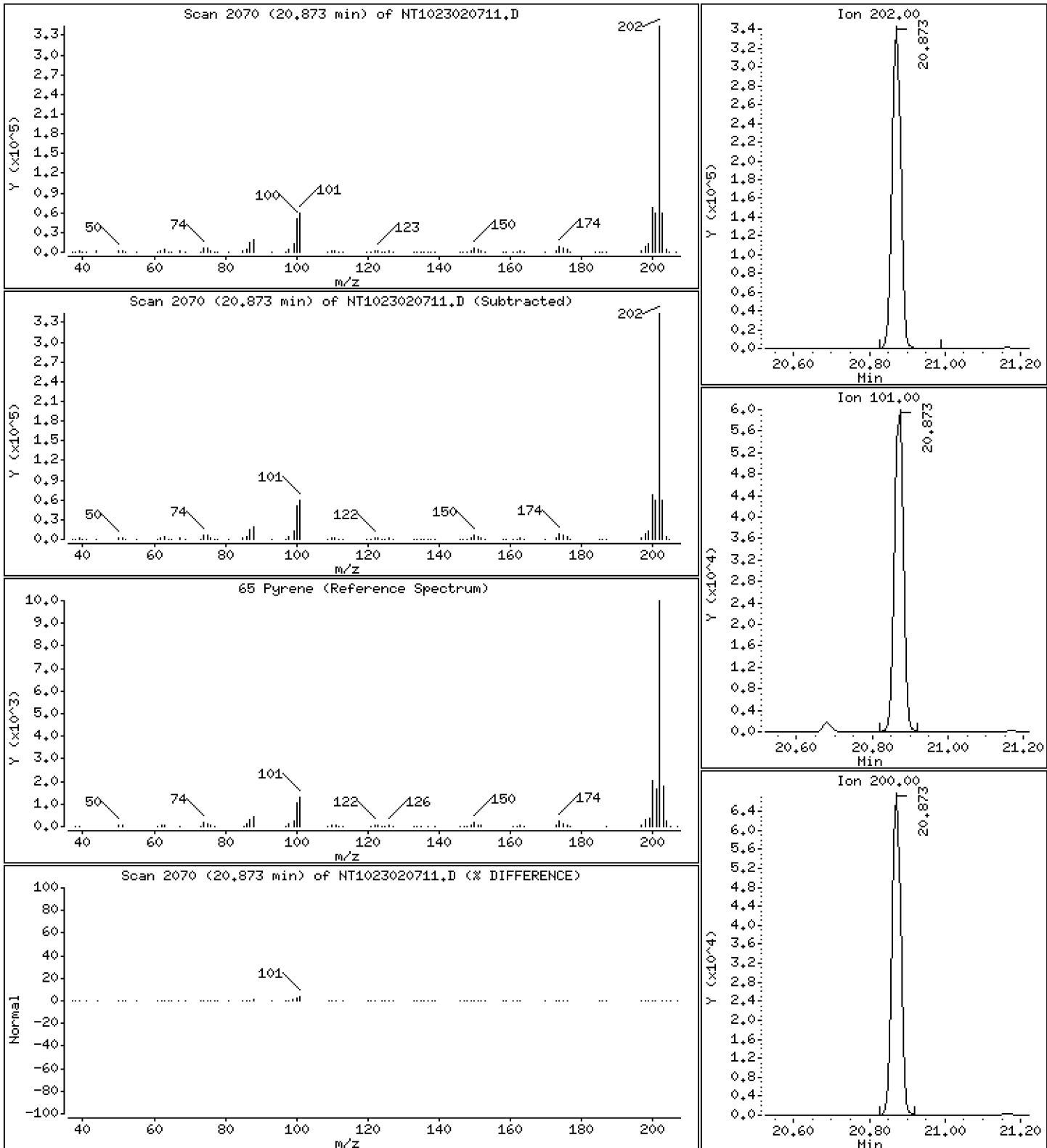
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 4,276 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

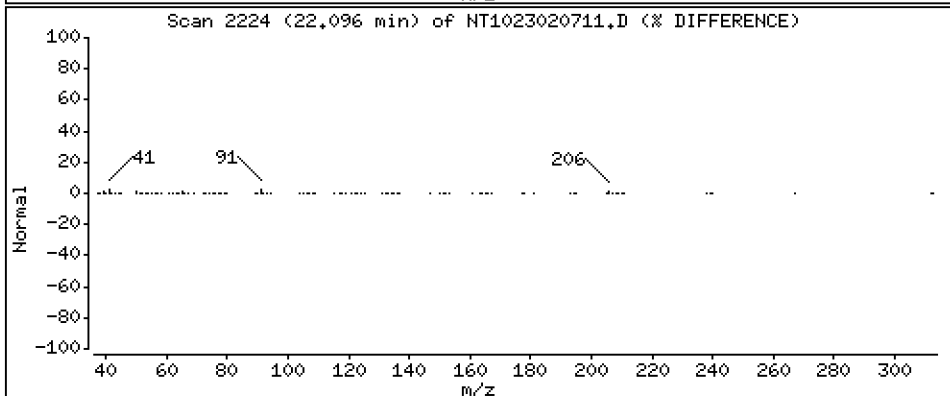
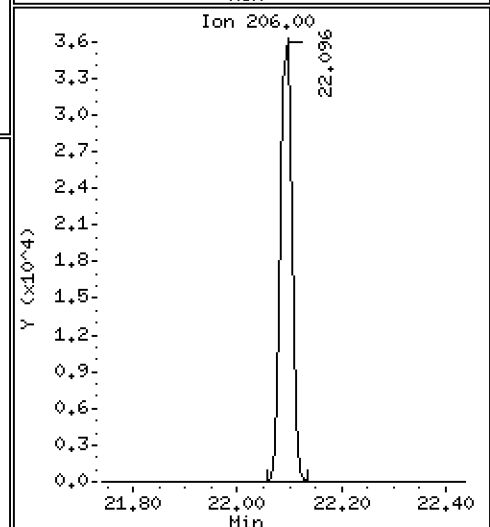
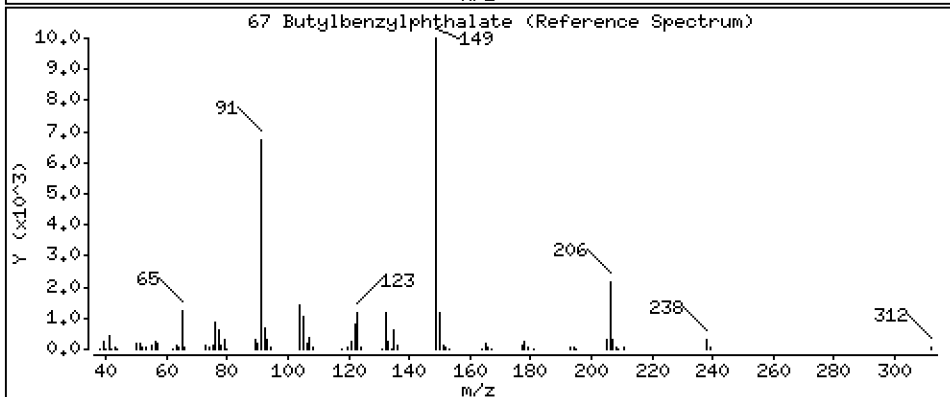
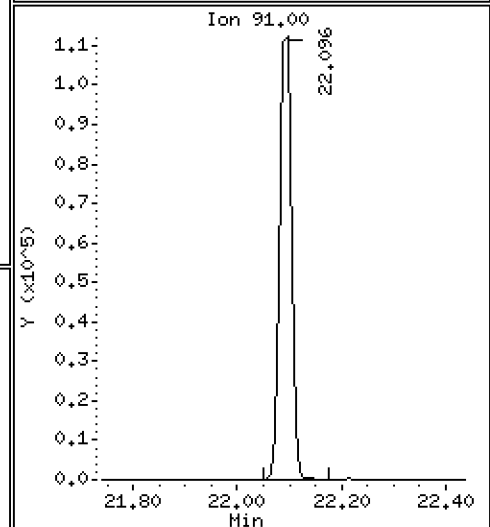
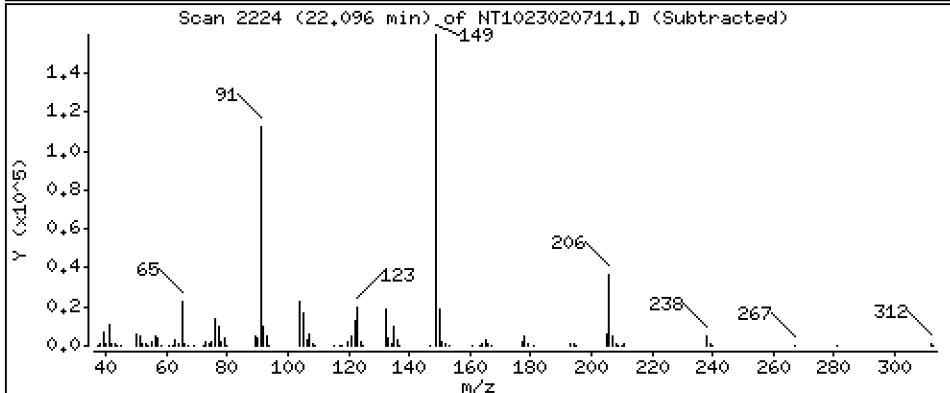
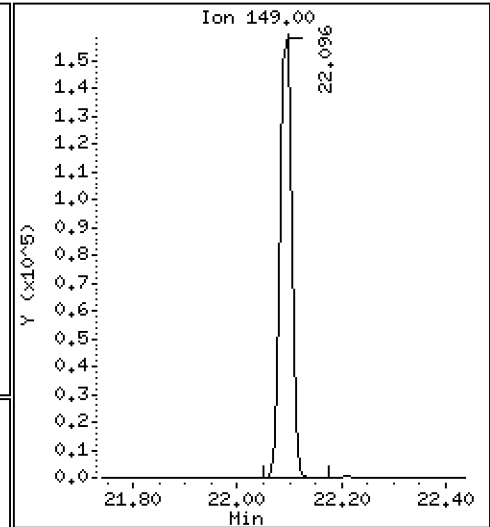
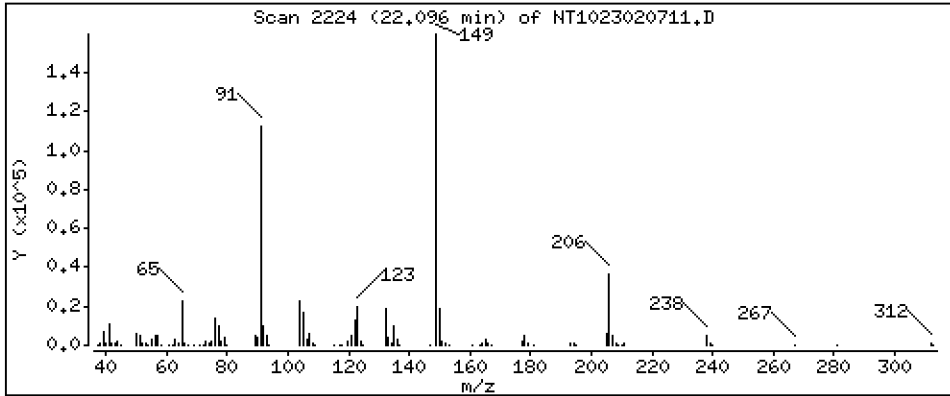
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,385 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

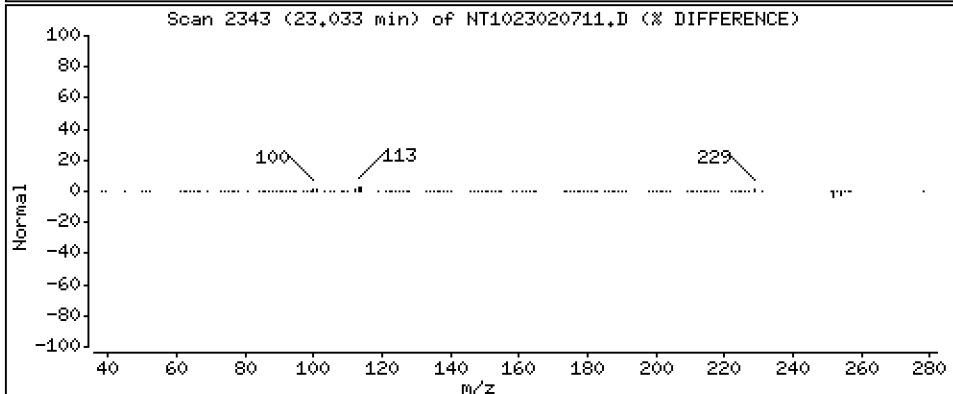
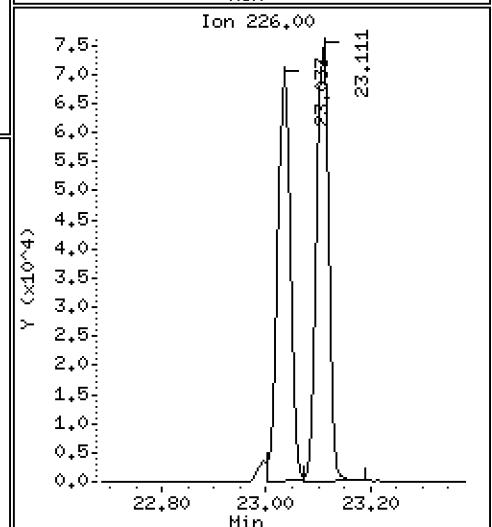
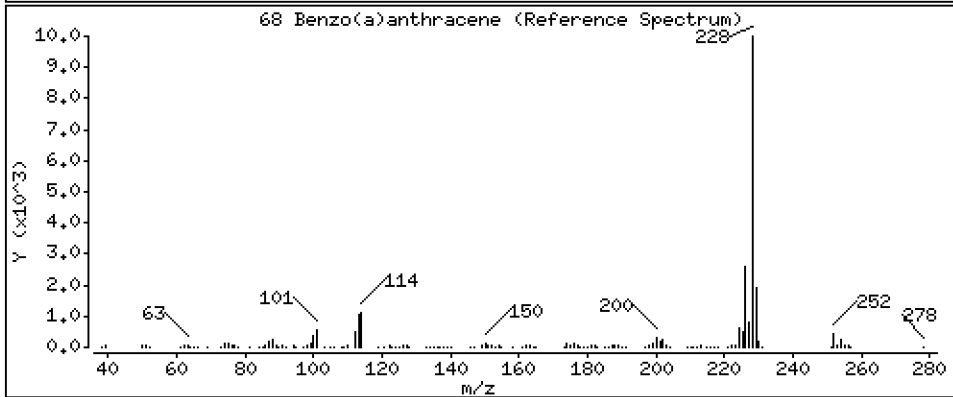
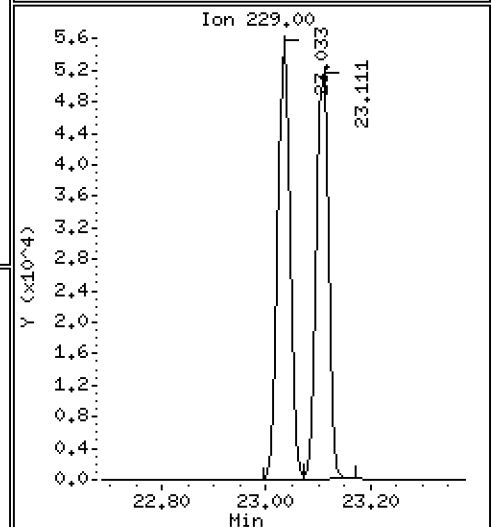
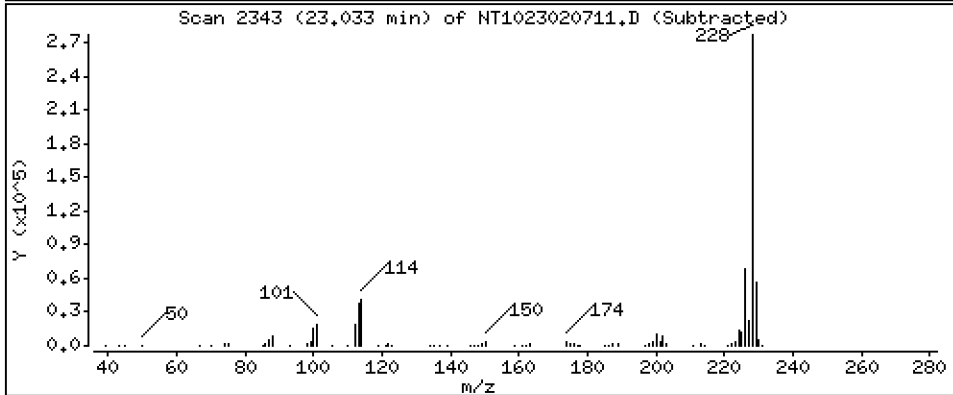
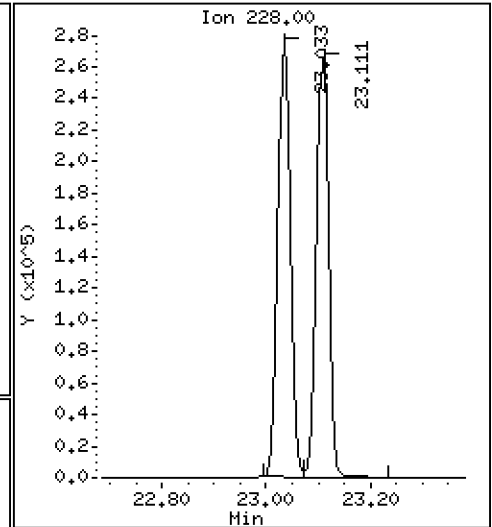
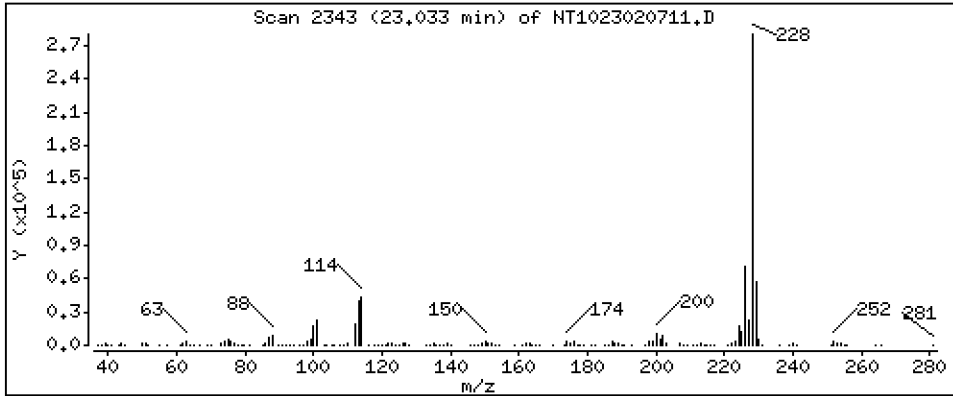
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 4,097 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

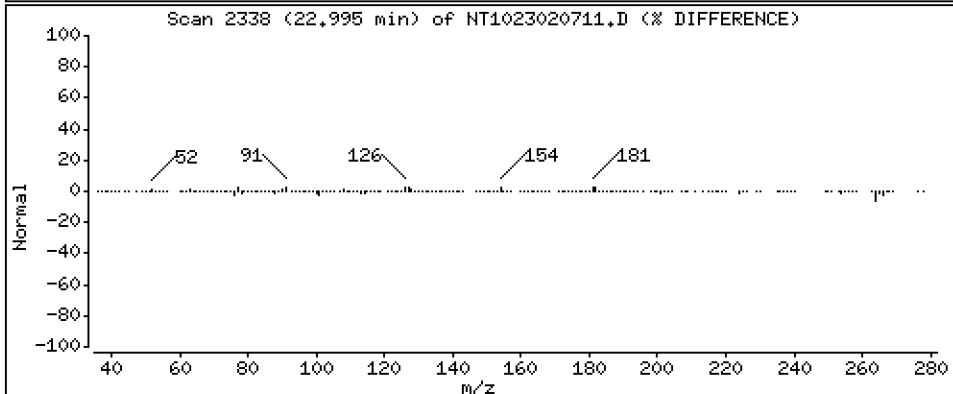
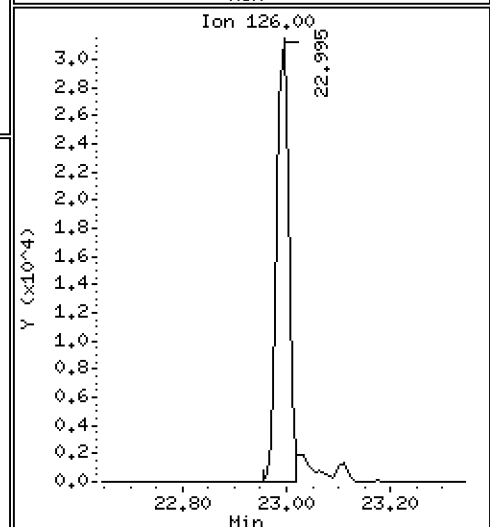
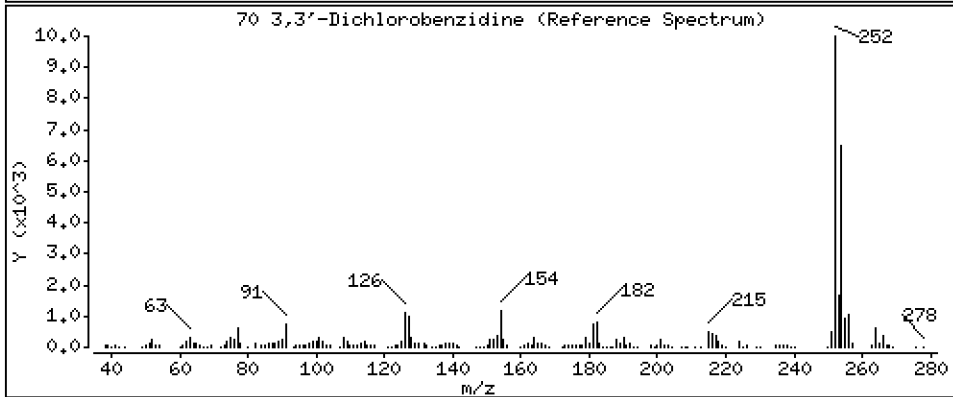
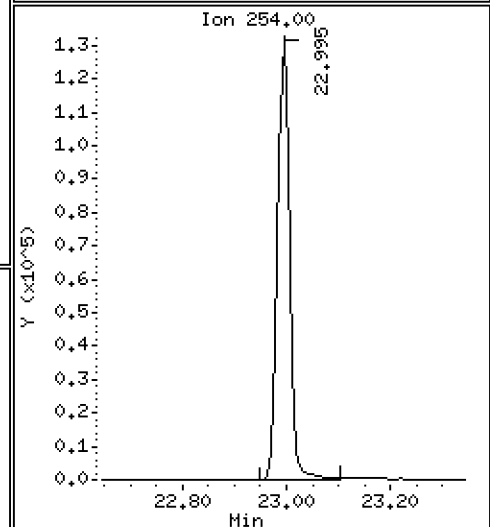
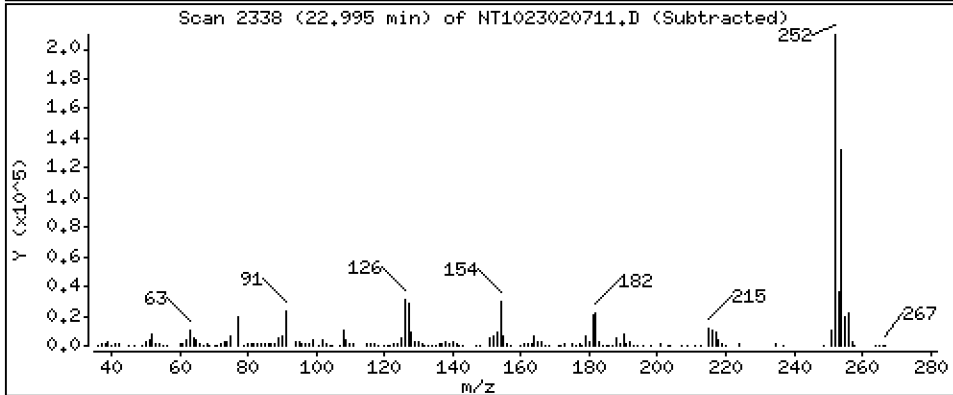
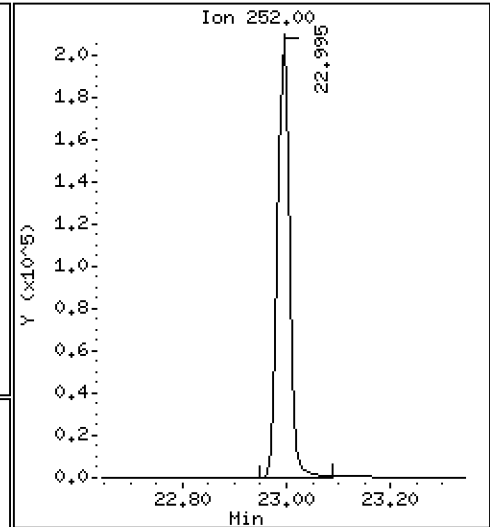
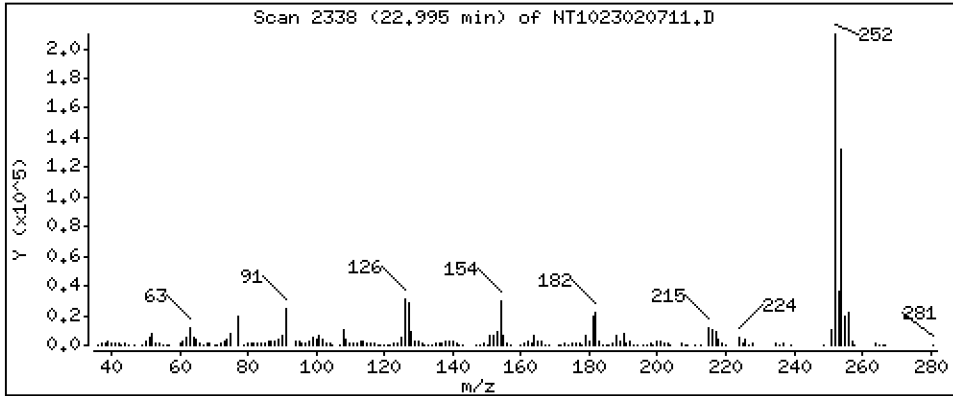
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 8,645 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

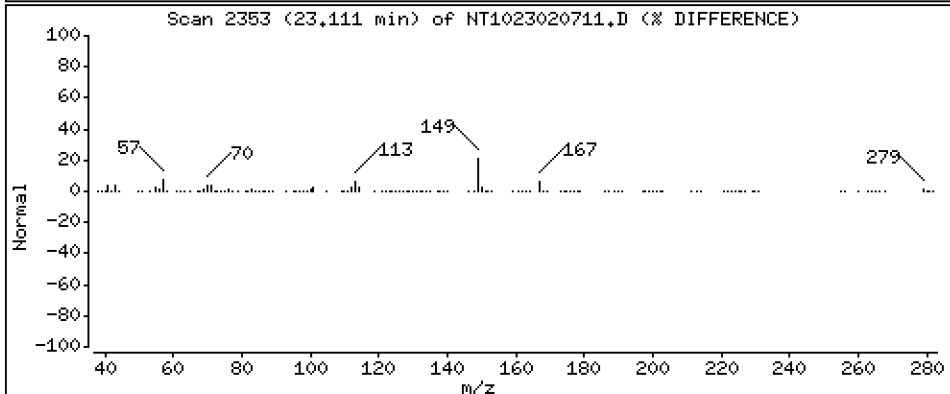
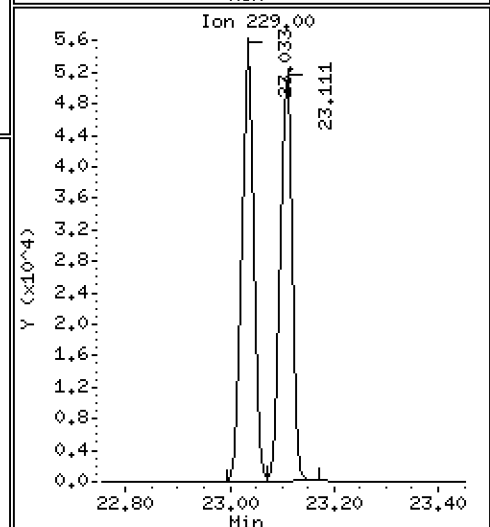
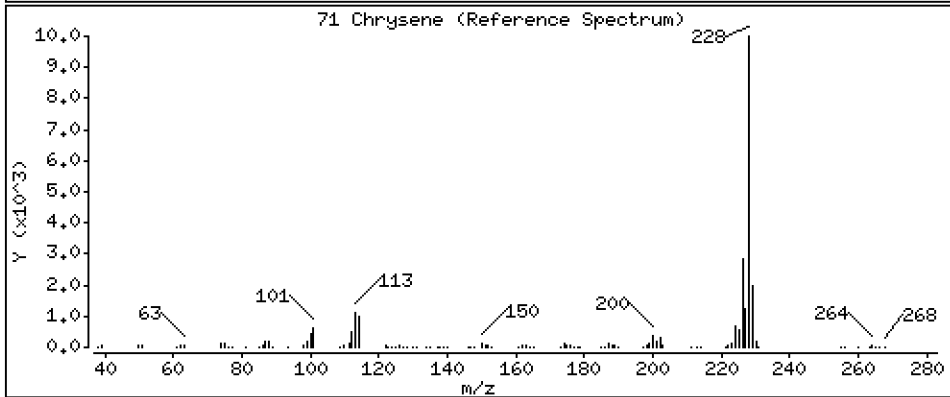
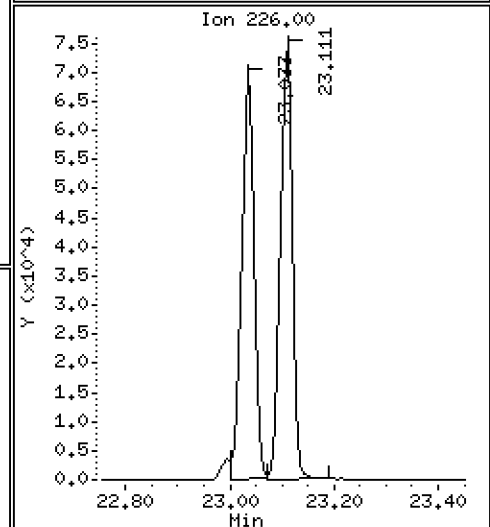
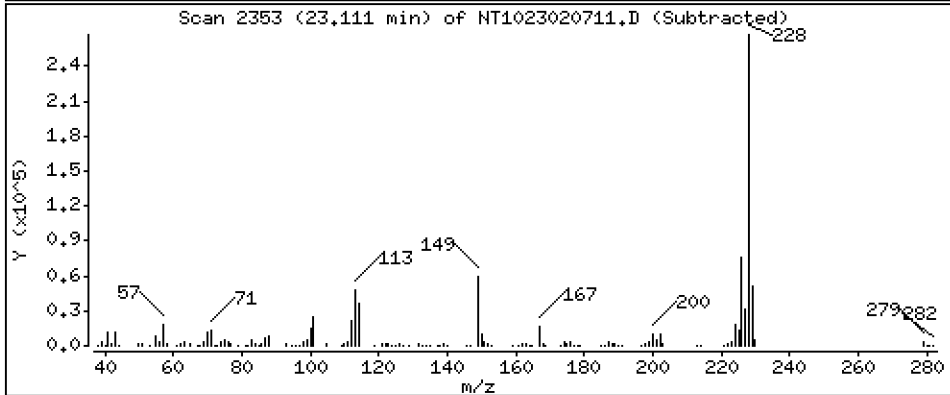
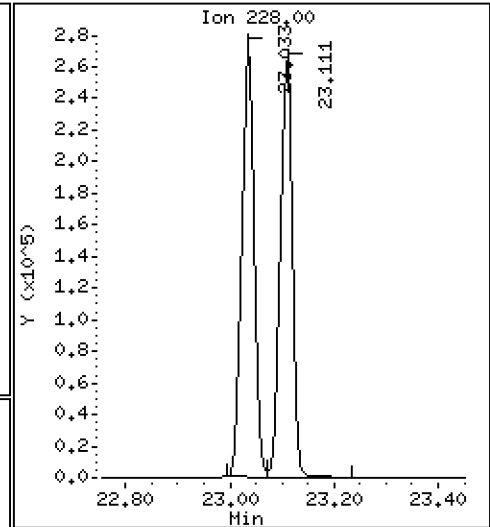
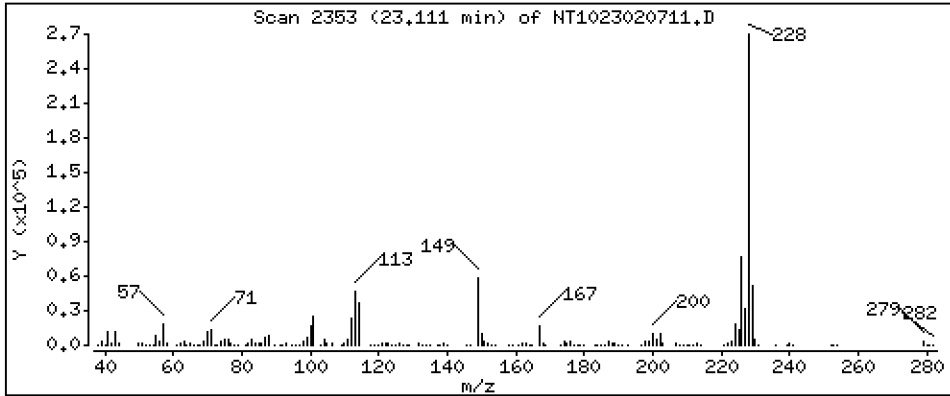
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,018 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

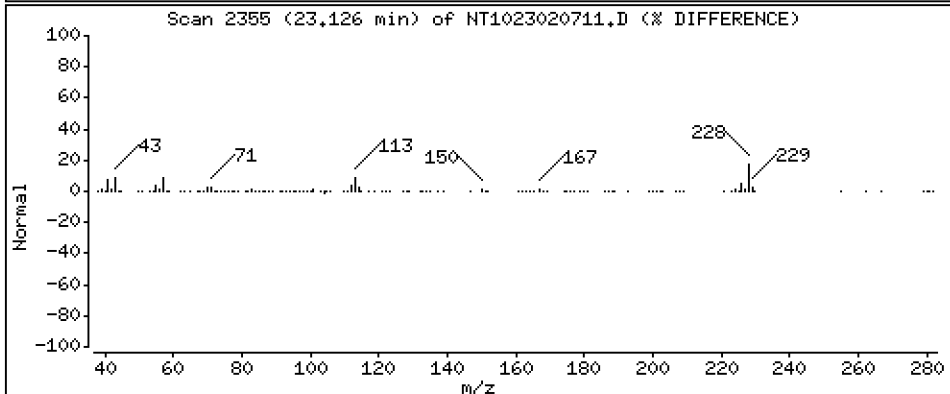
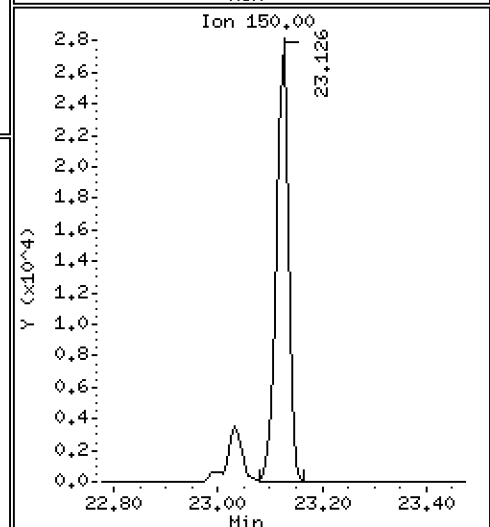
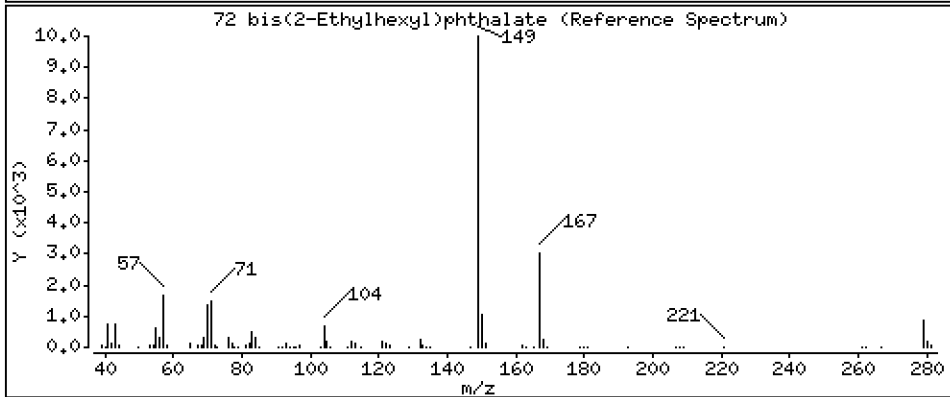
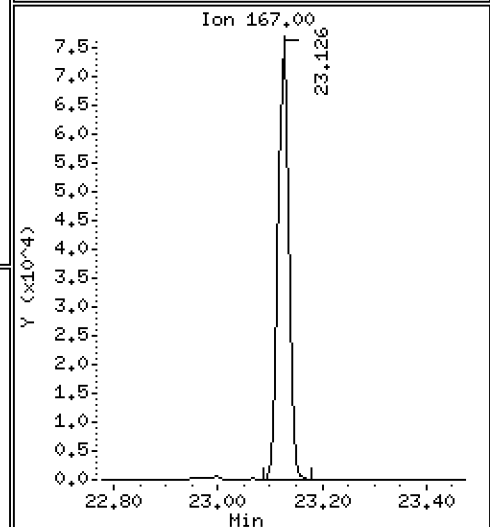
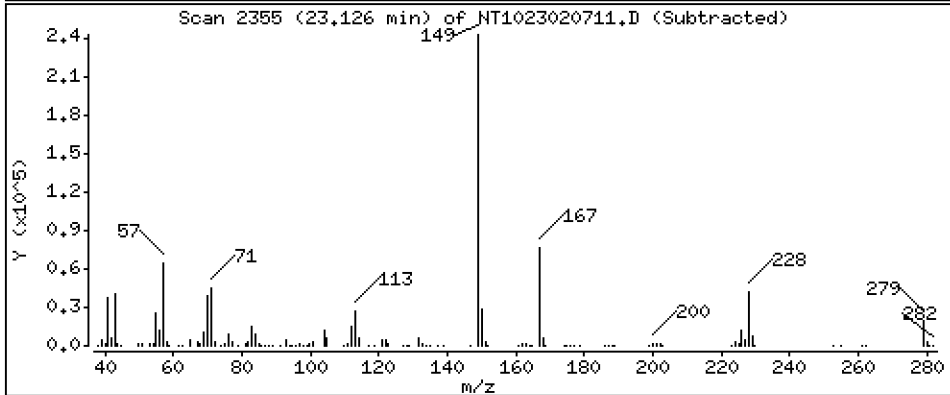
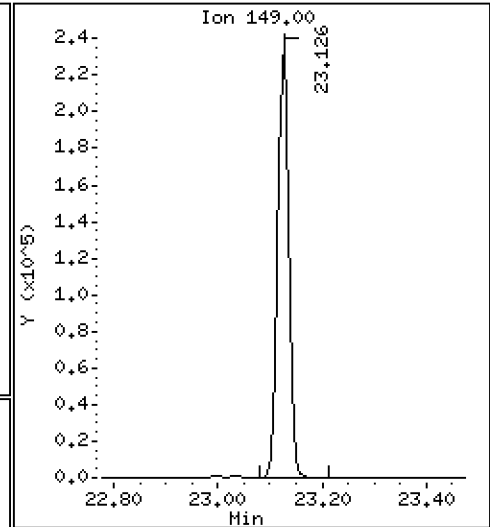
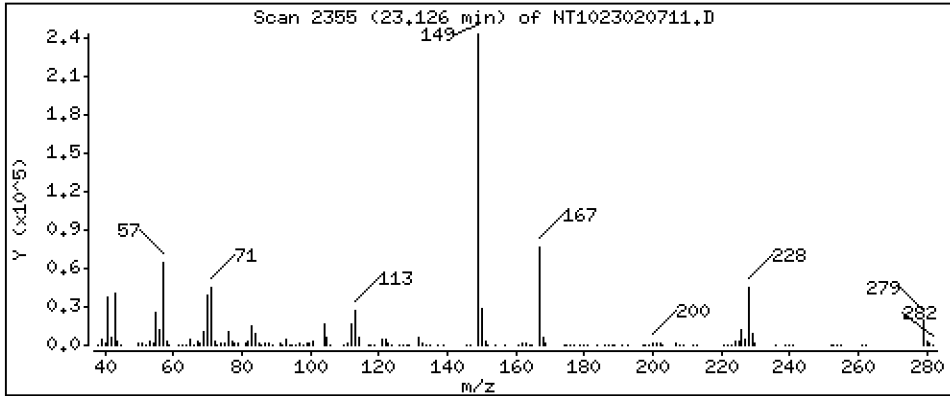
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 4,692 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

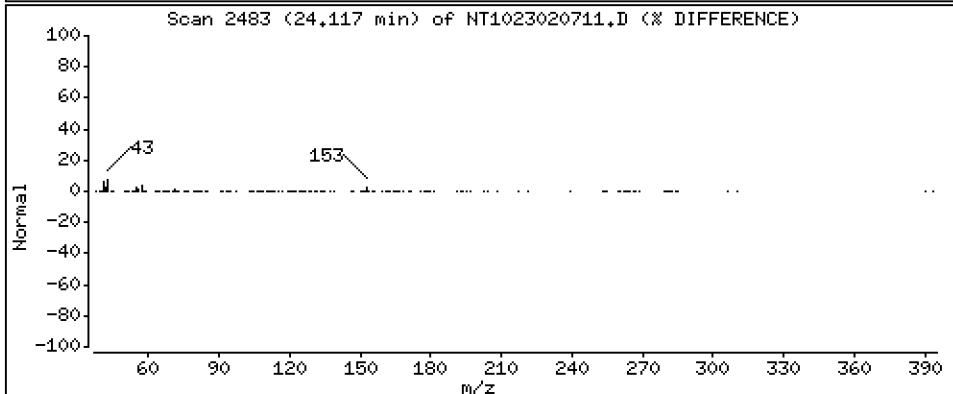
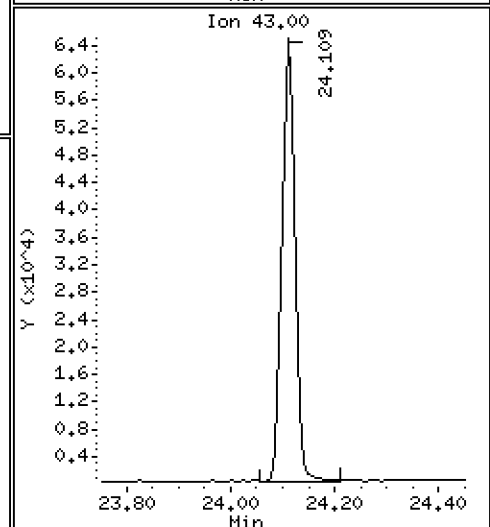
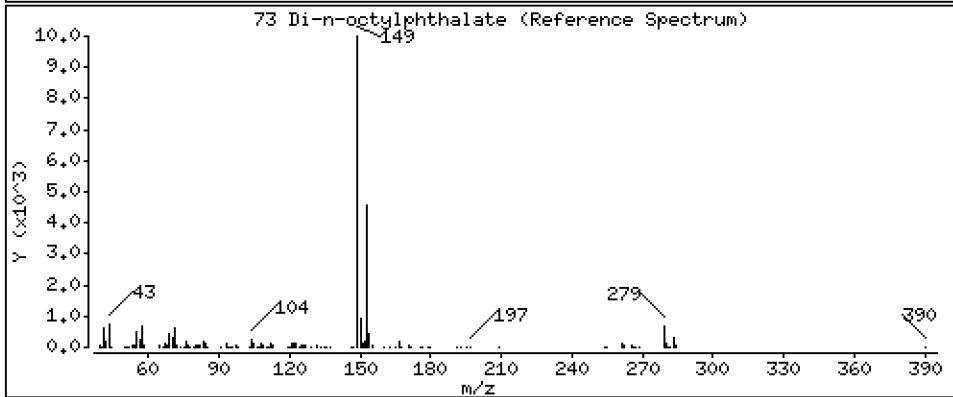
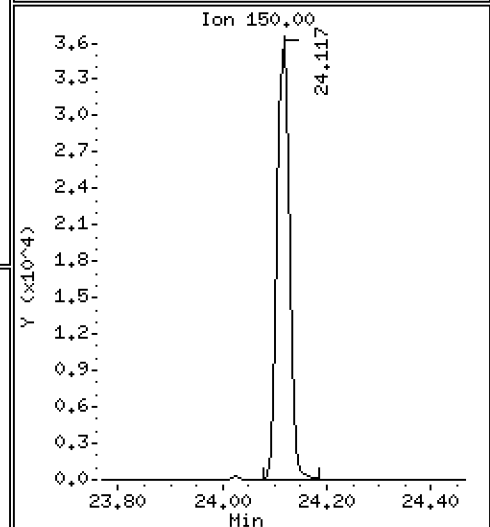
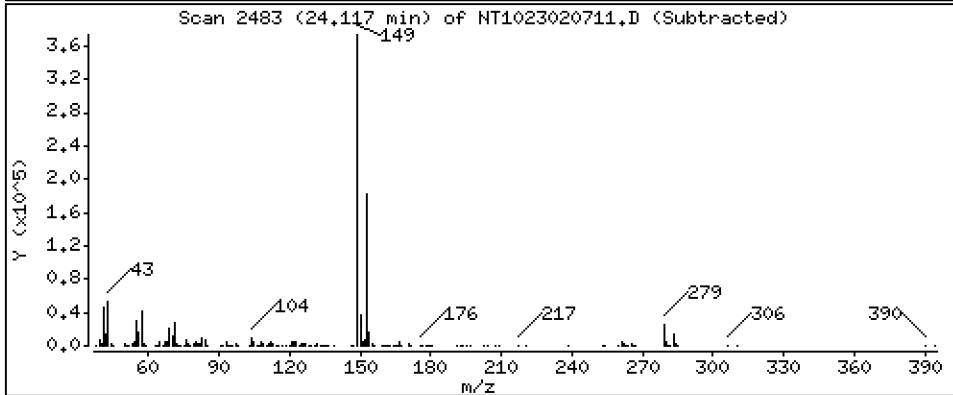
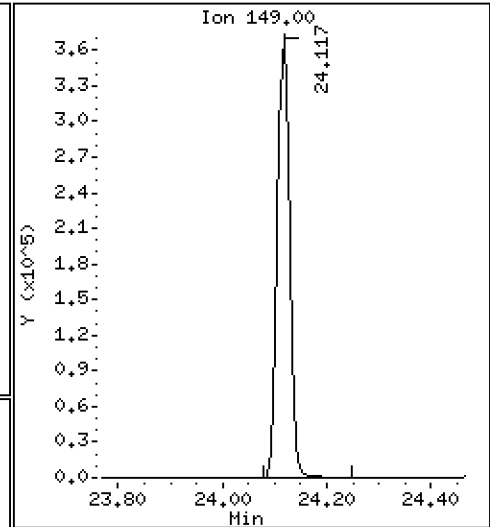
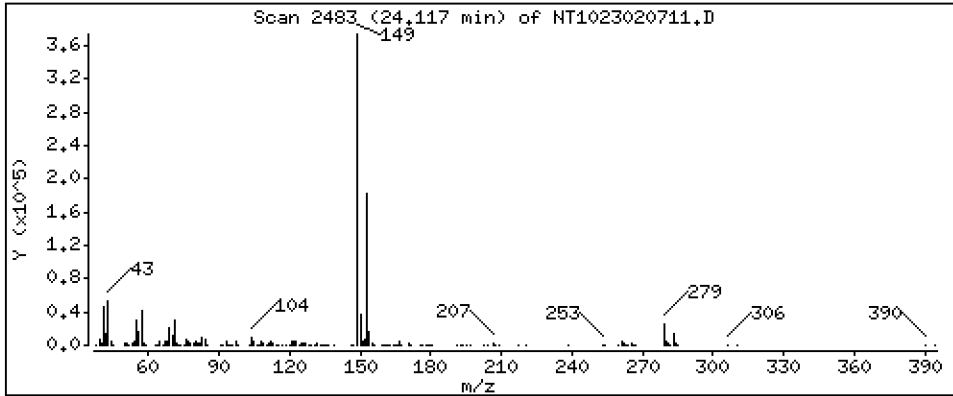
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 4,483 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

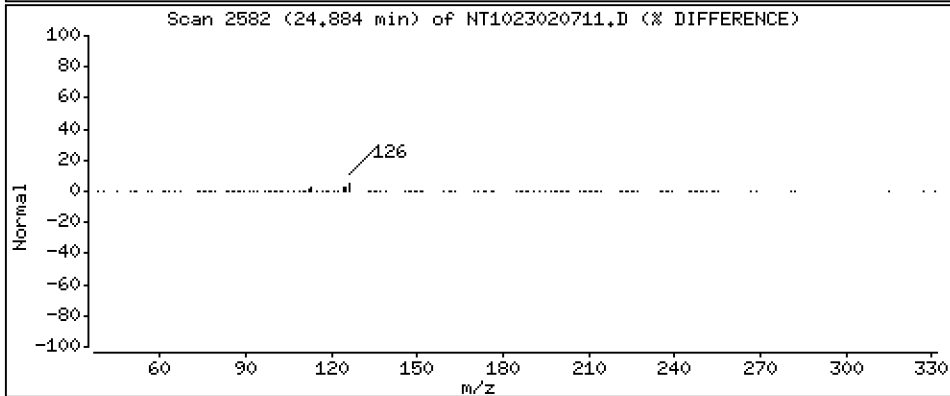
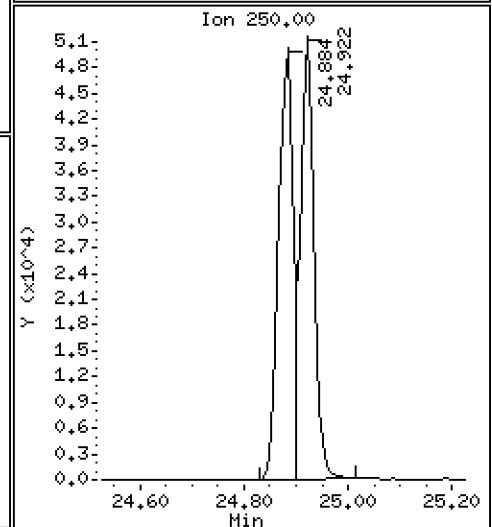
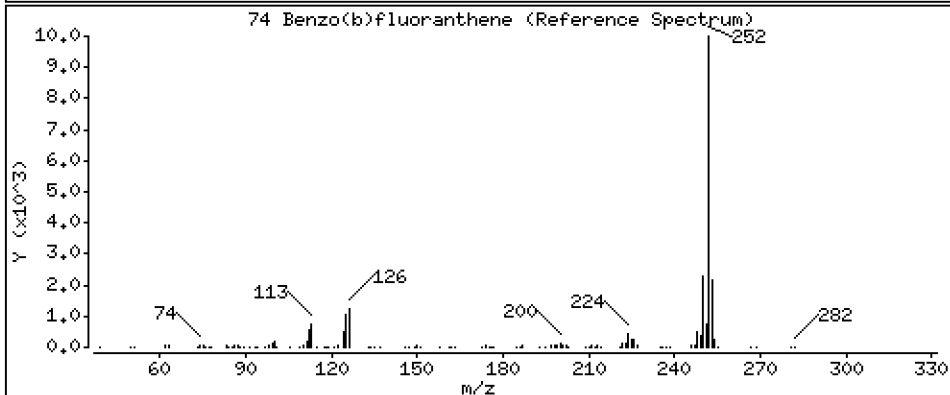
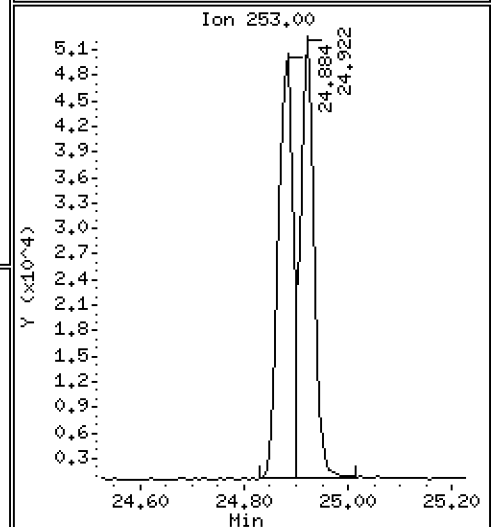
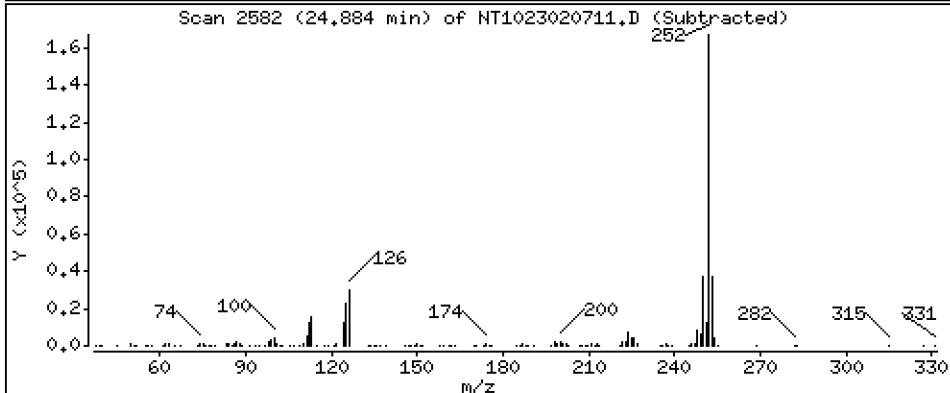
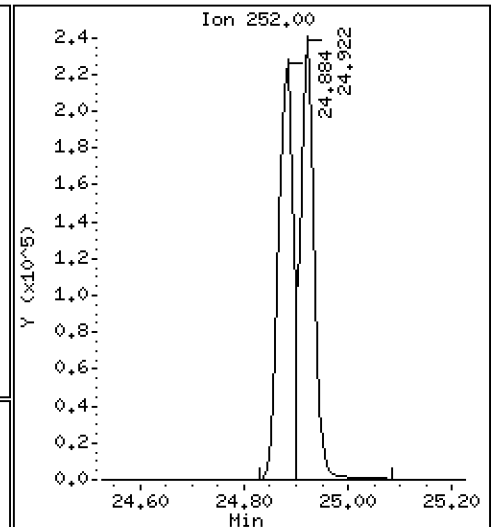
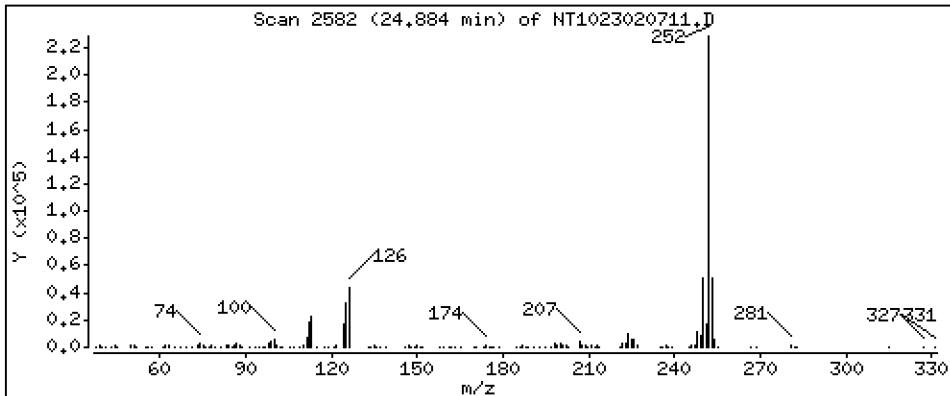
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,235 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

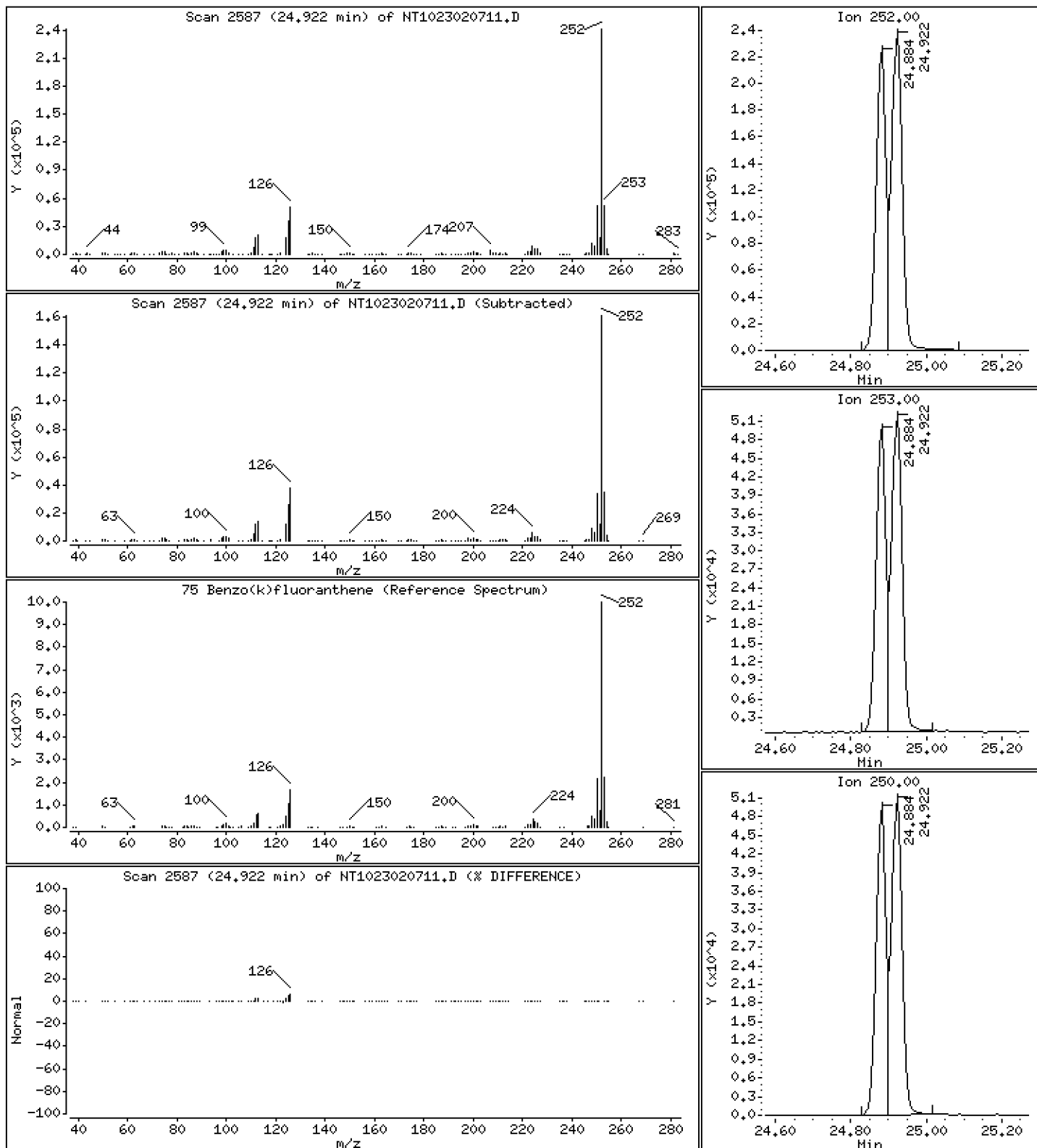
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,389 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

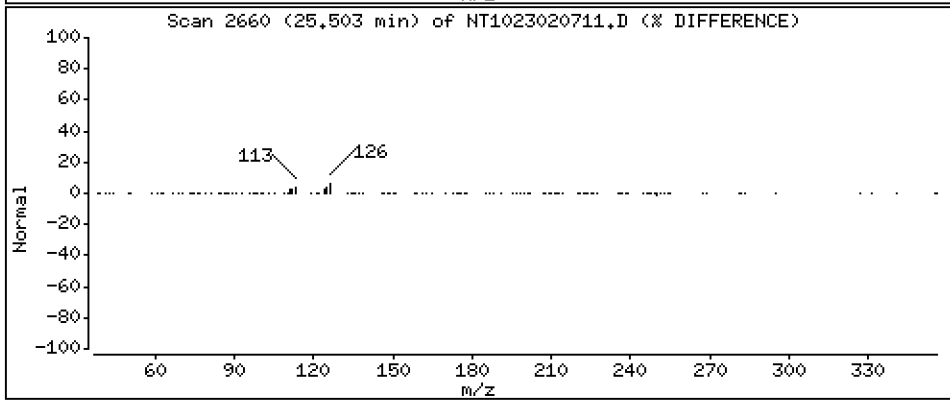
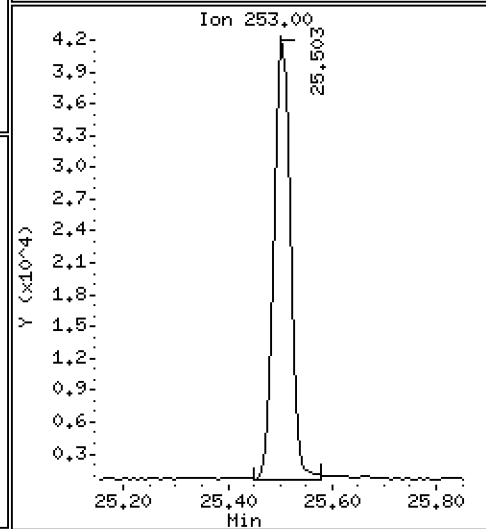
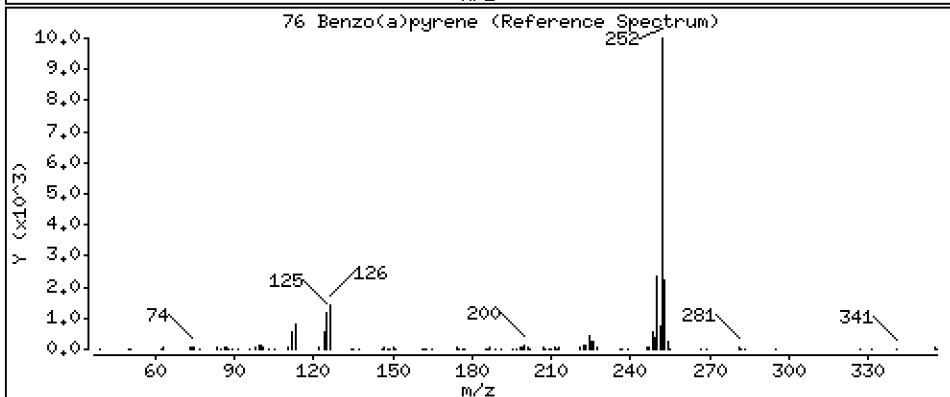
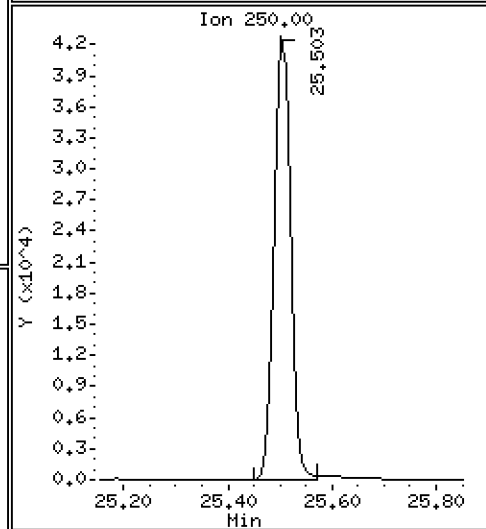
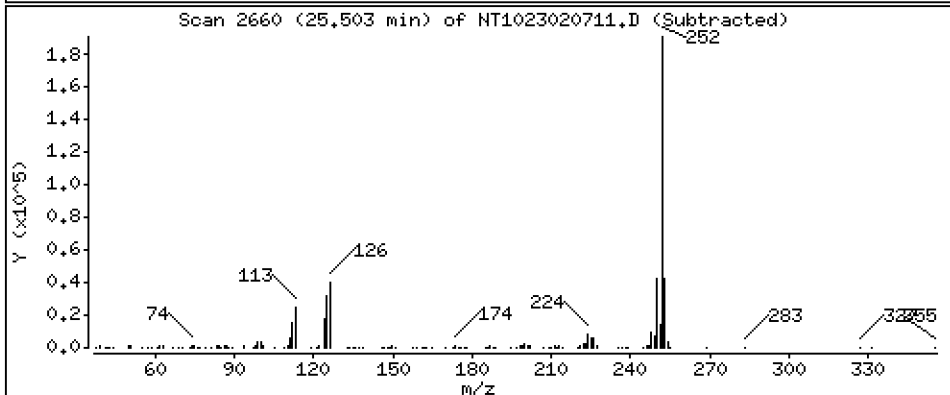
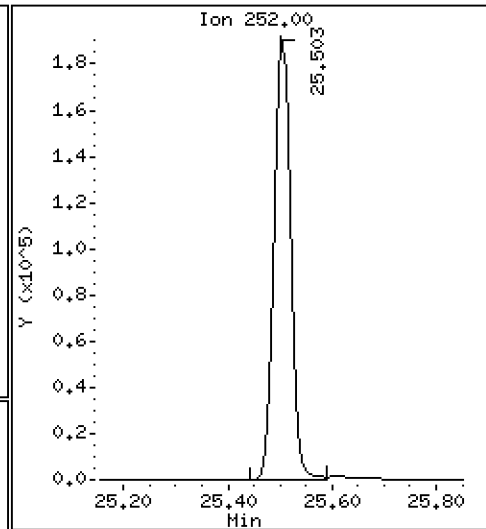
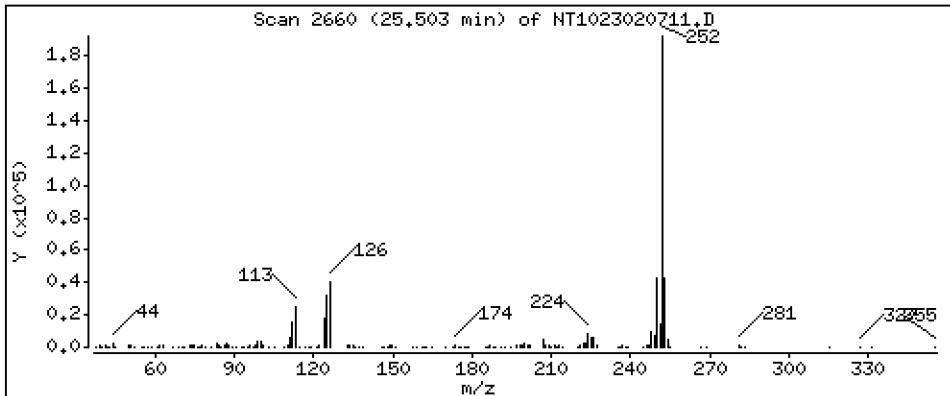
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,376 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

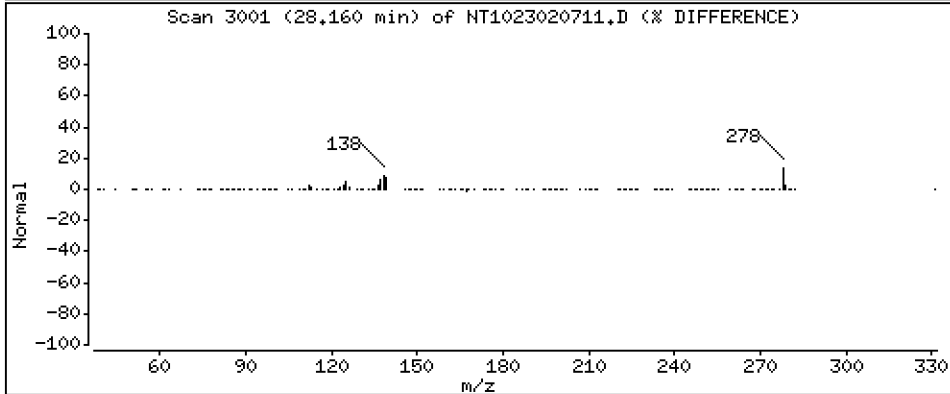
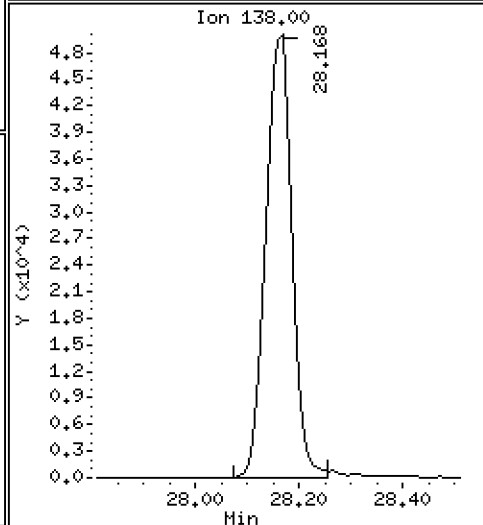
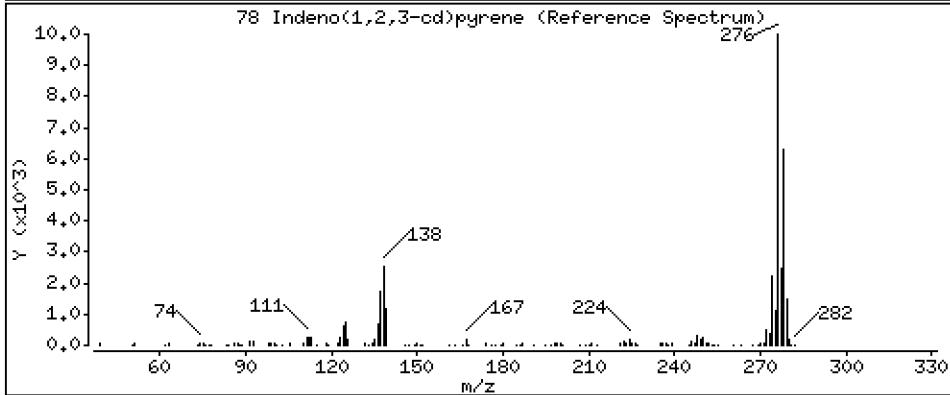
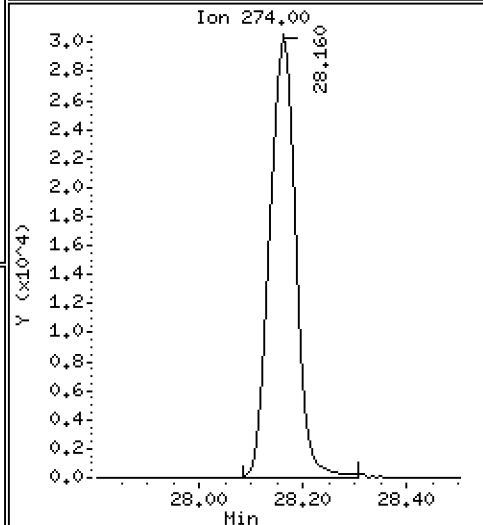
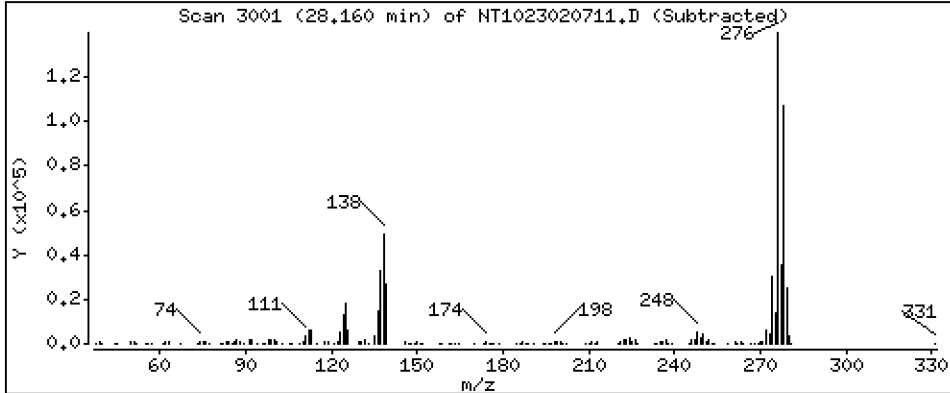
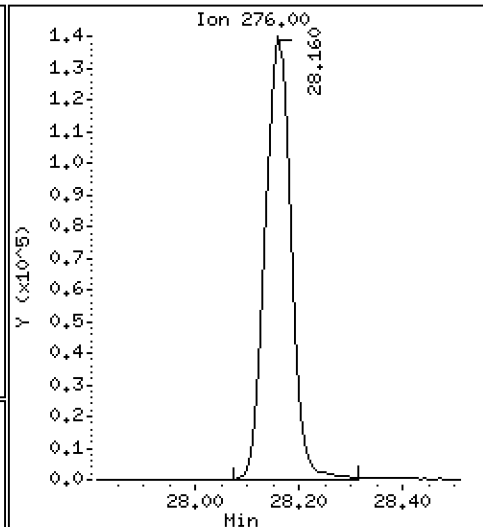
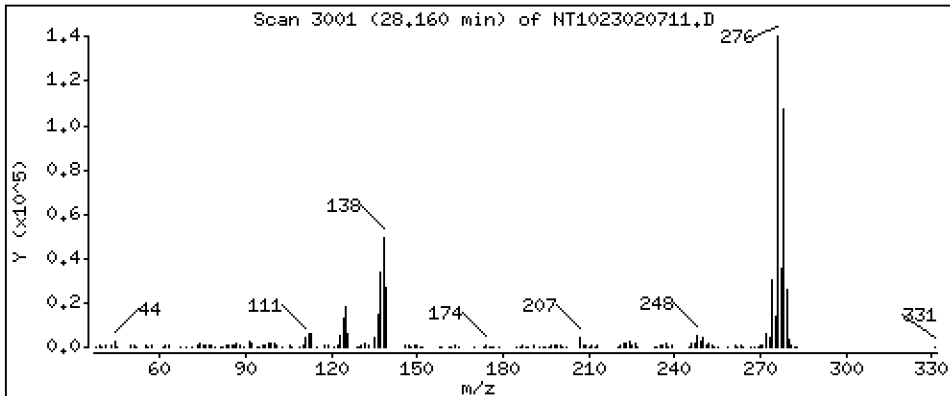
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 4,357 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

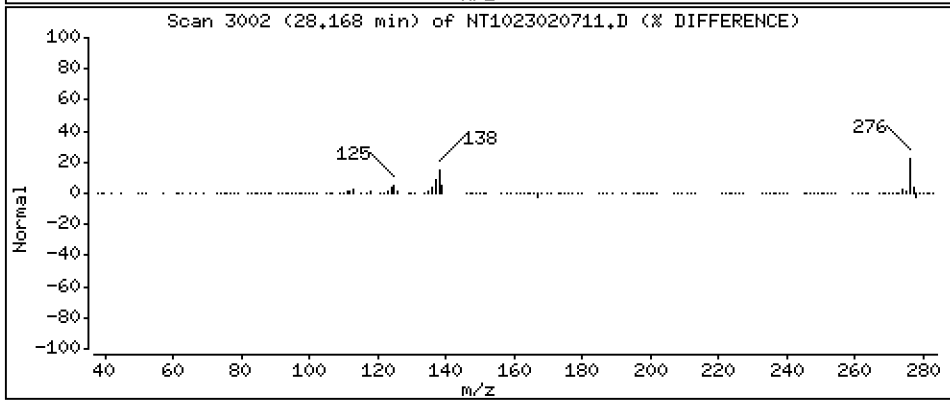
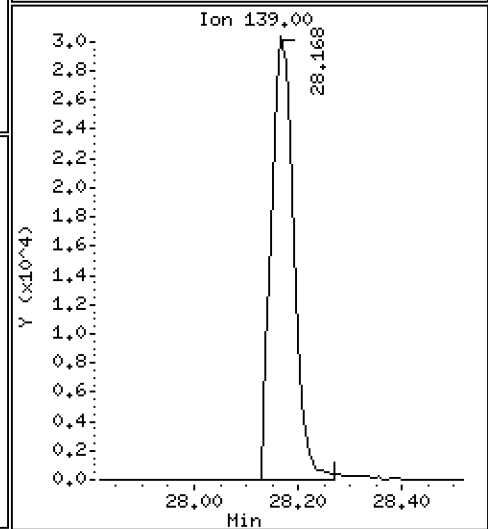
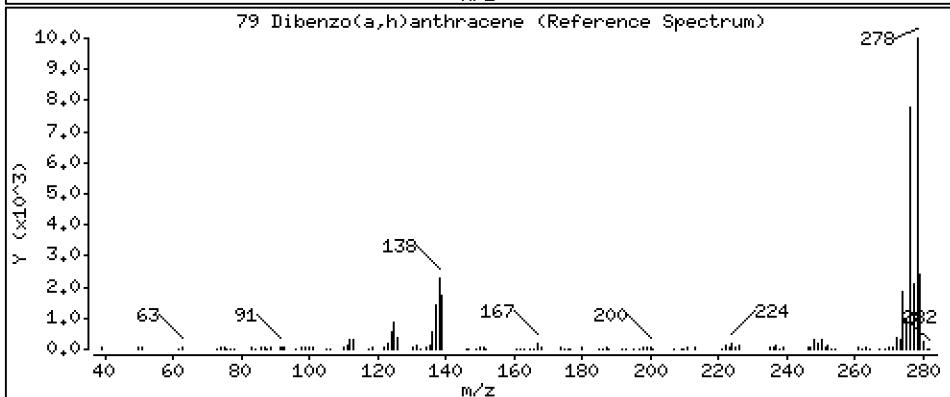
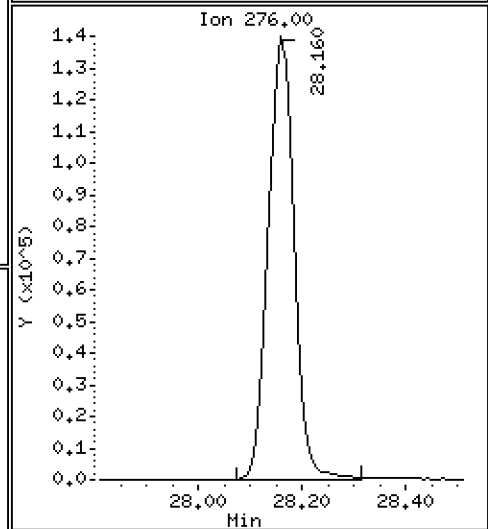
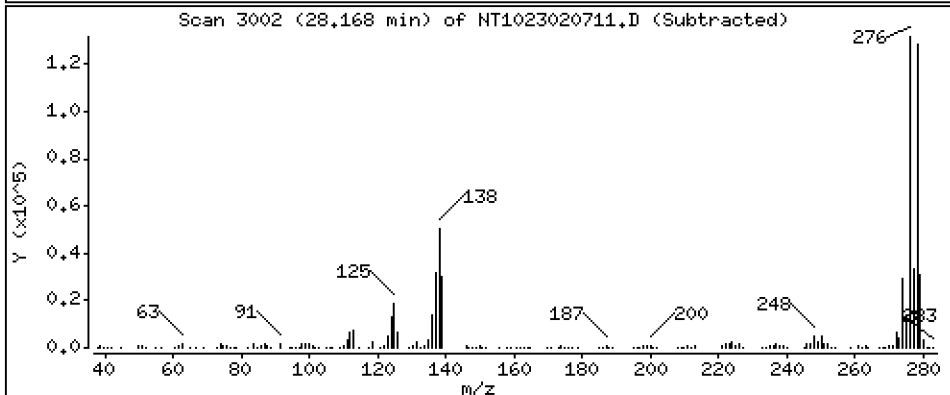
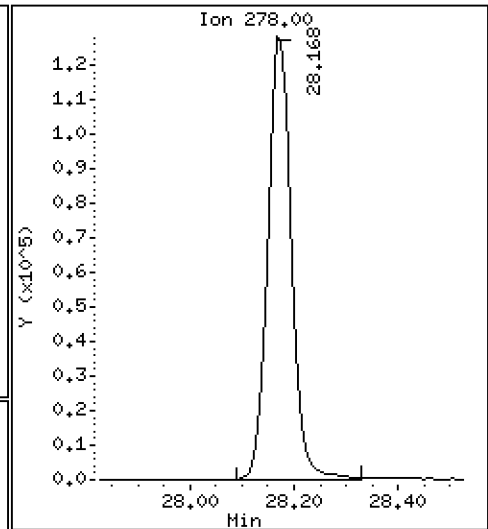
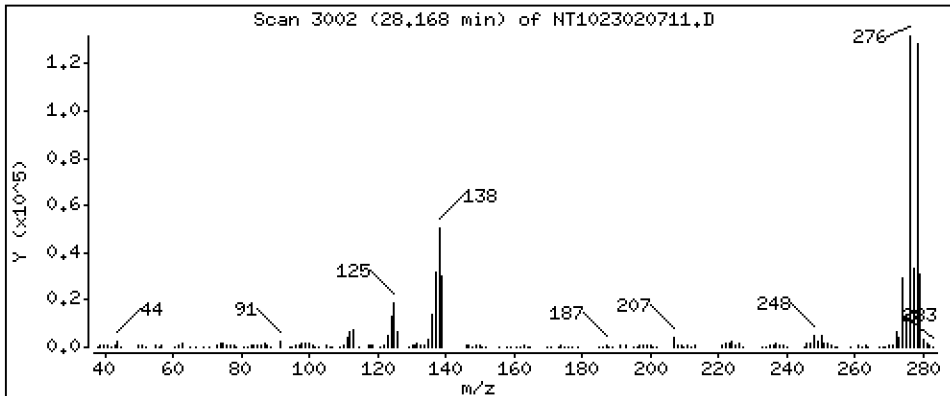
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,352 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

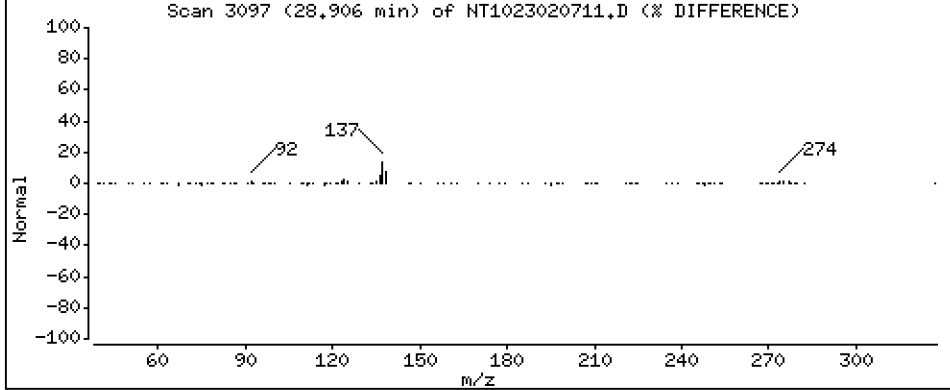
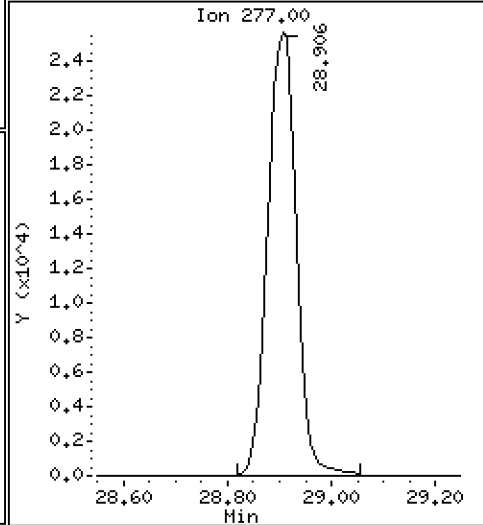
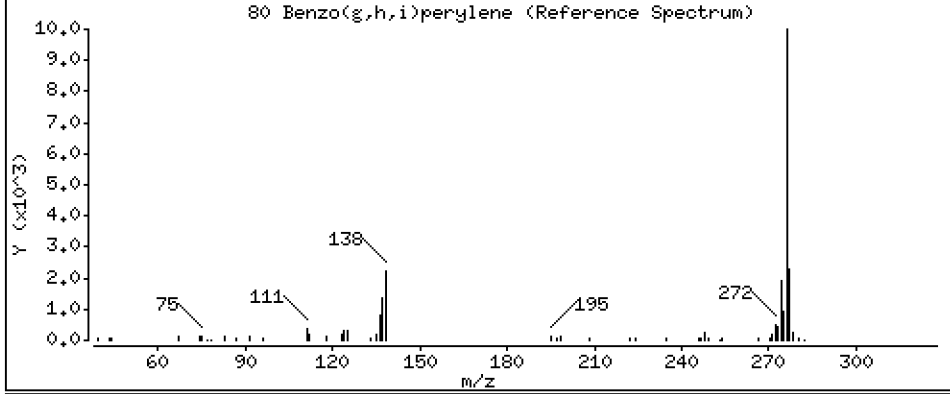
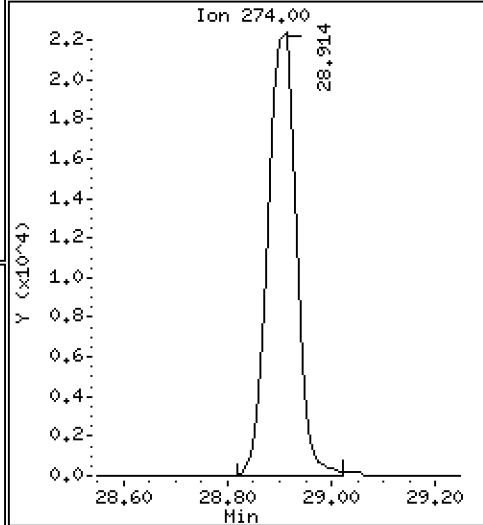
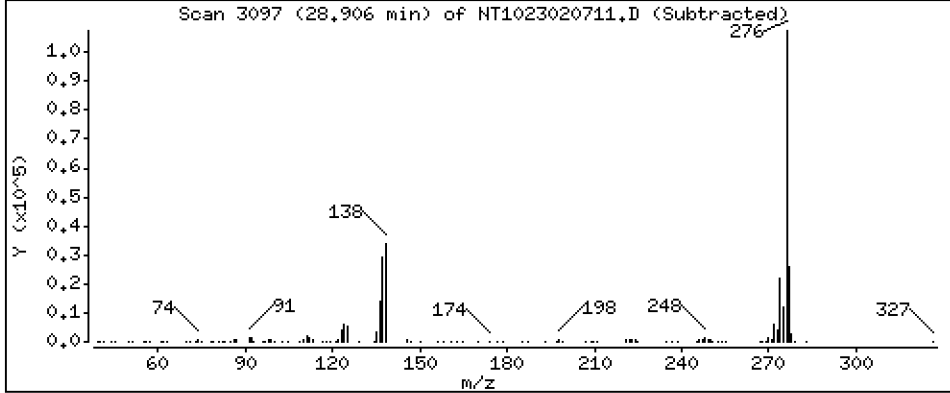
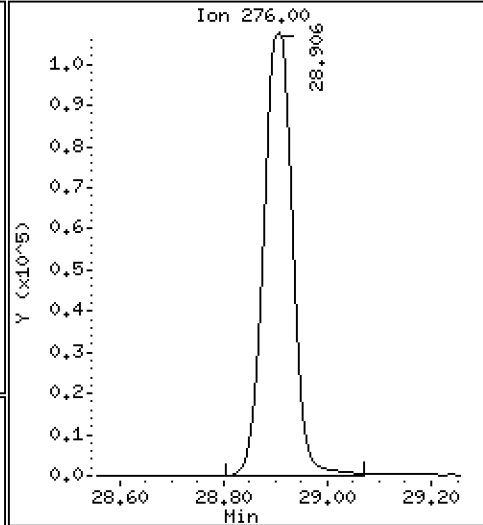
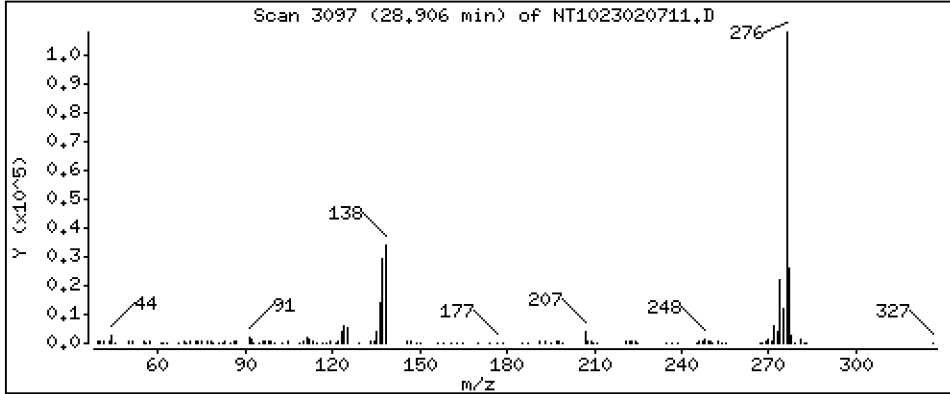
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 4,345 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

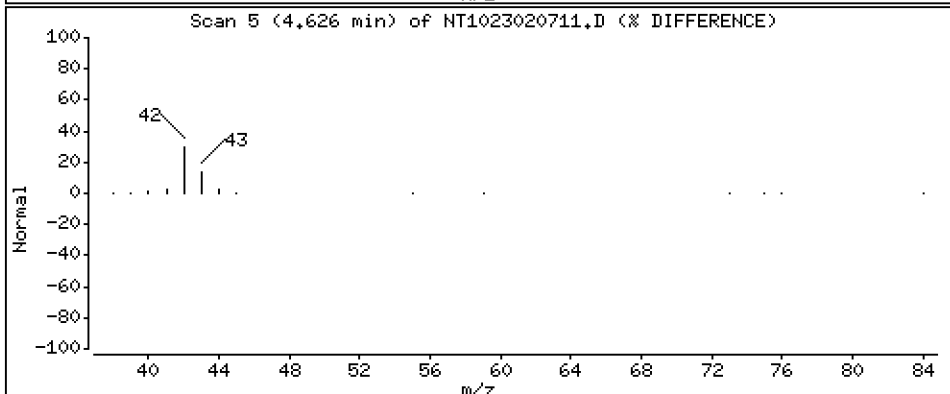
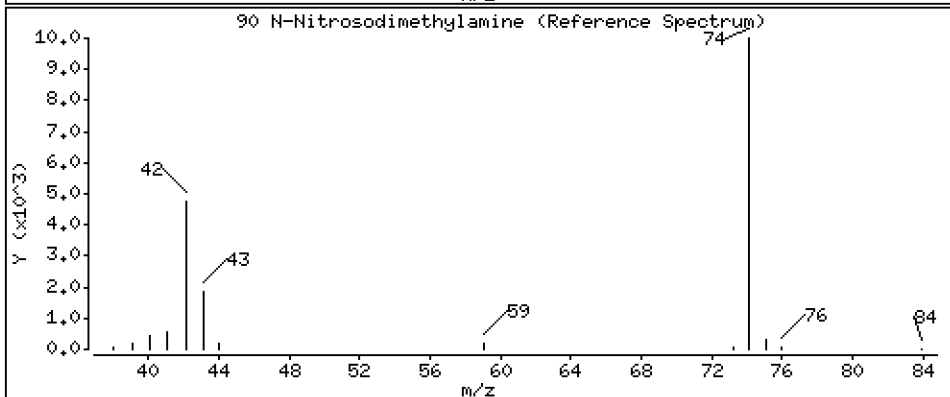
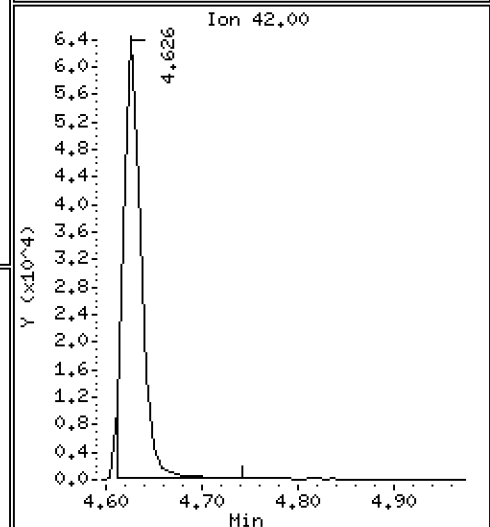
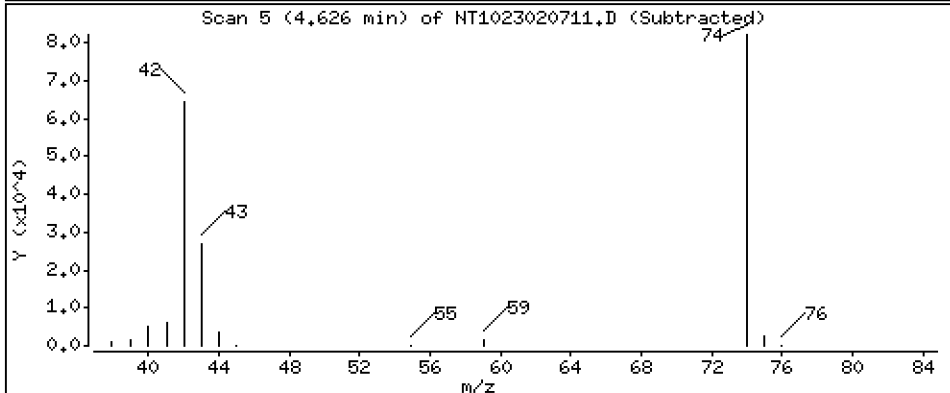
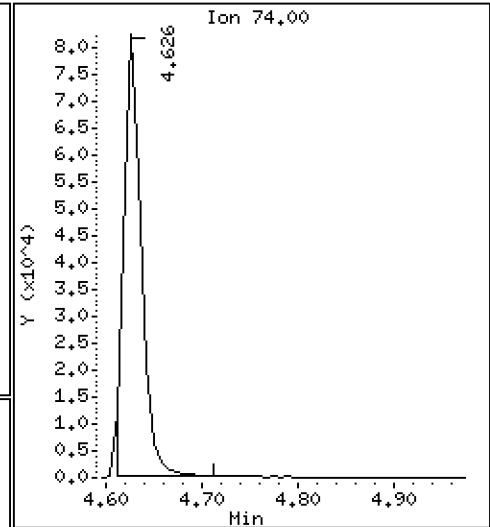
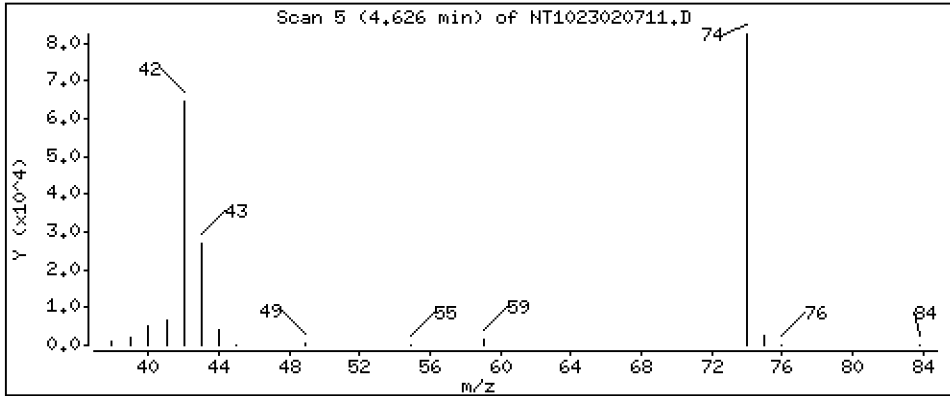
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 4,555 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

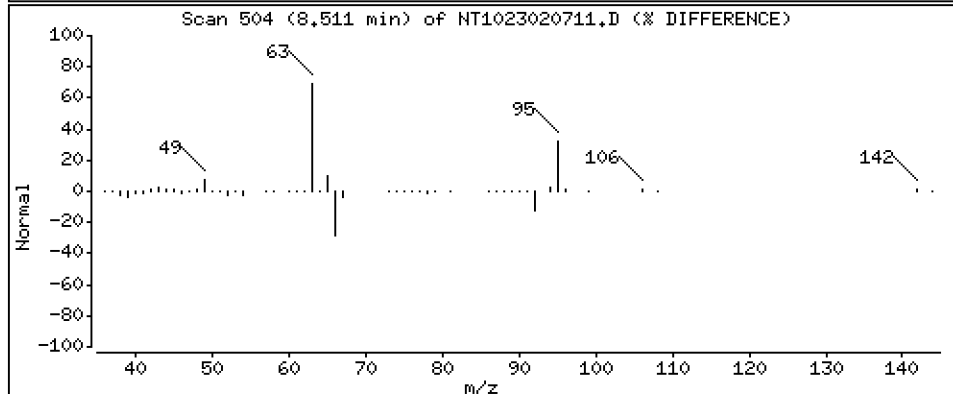
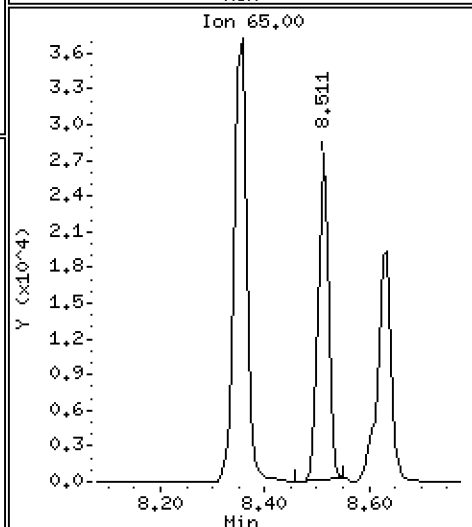
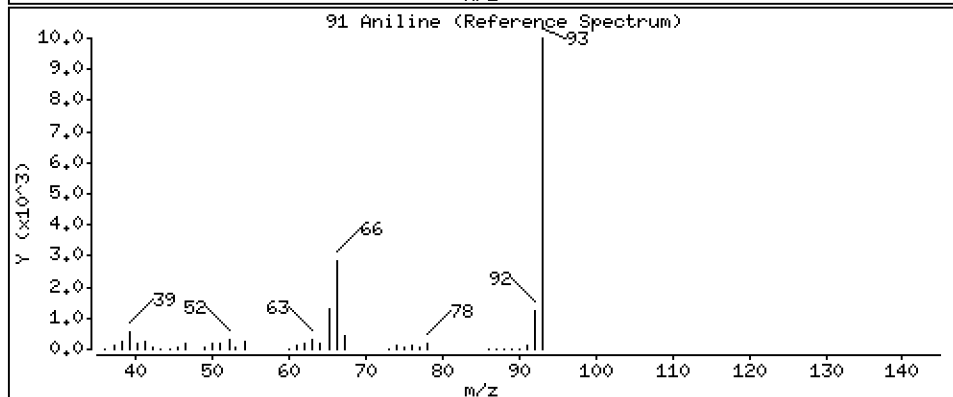
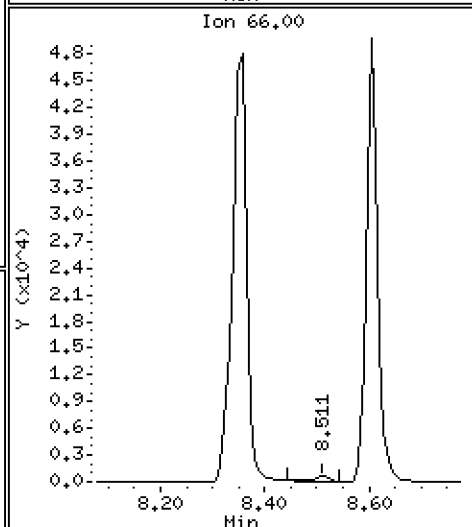
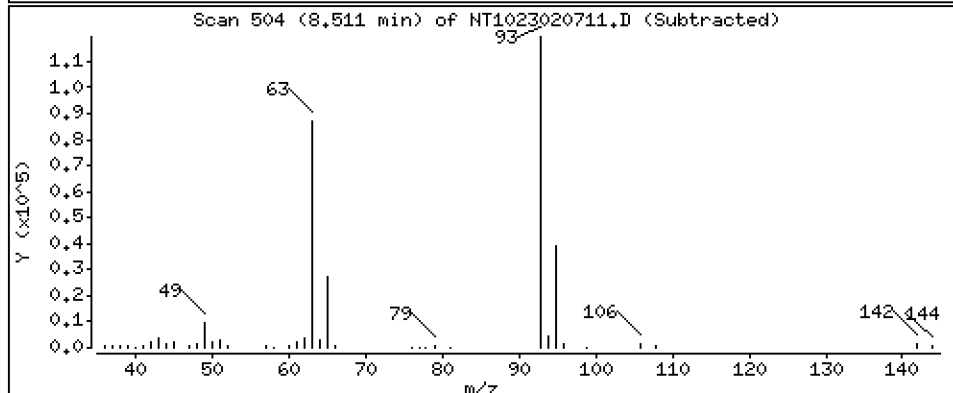
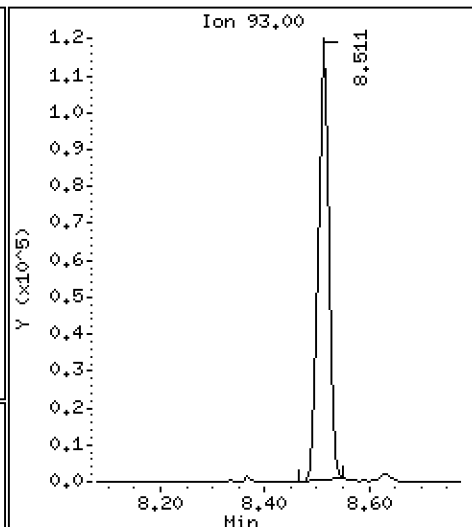
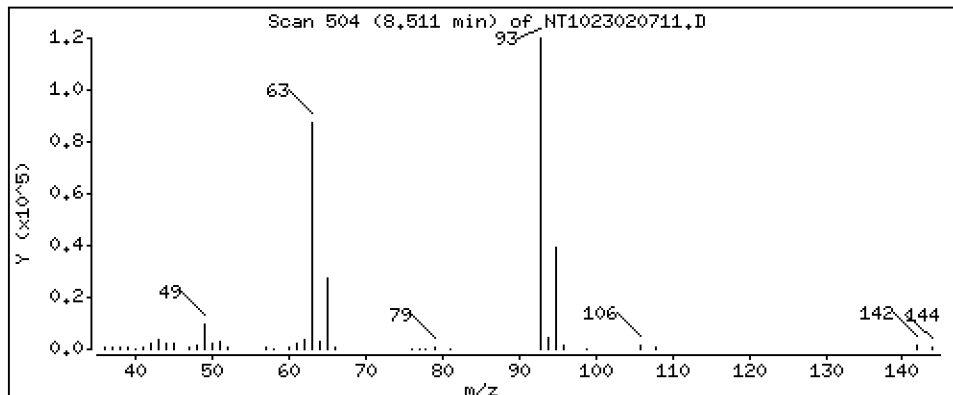
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

91 Aniline

Concentration: 3,348 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

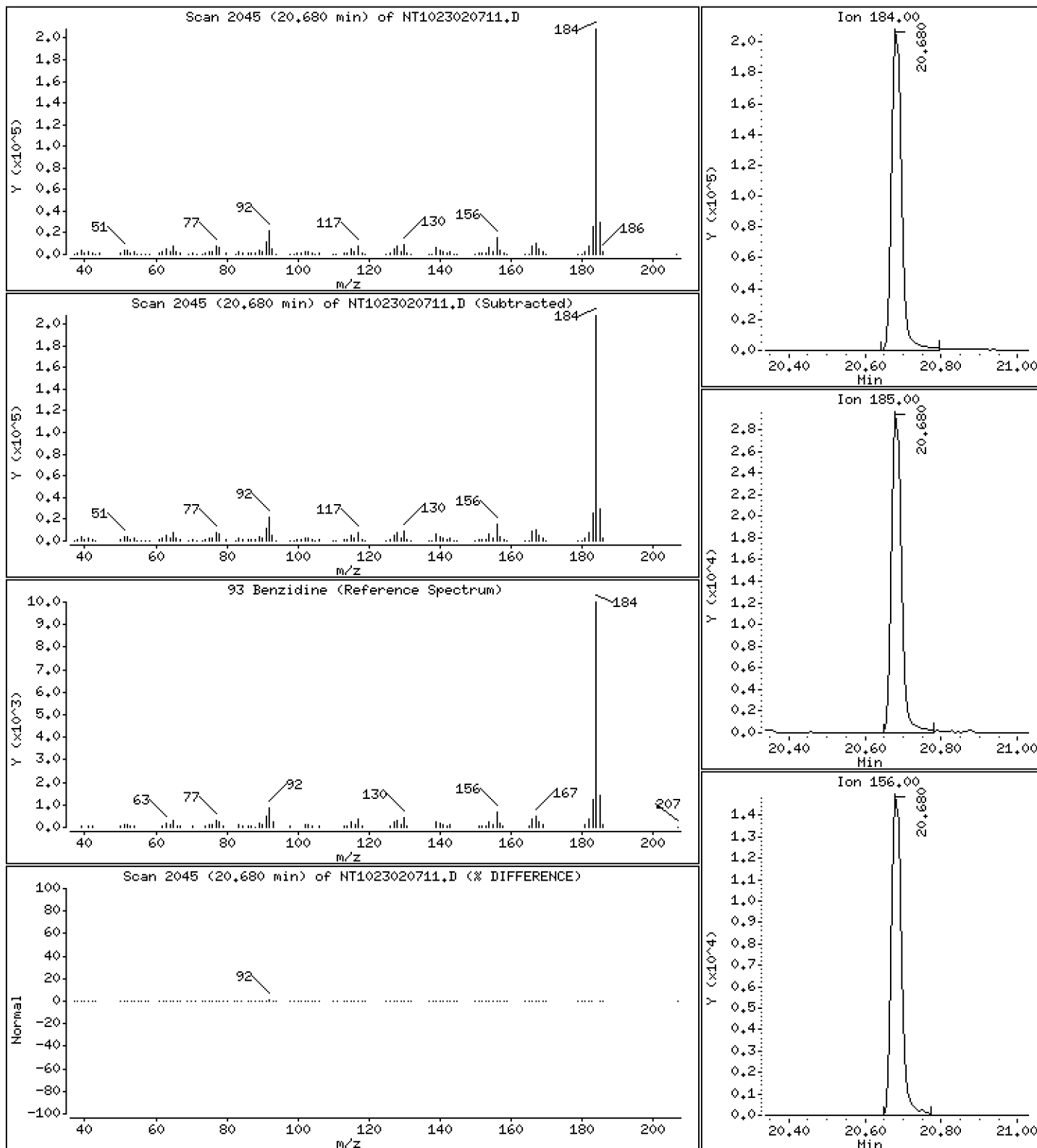
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 9,500 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

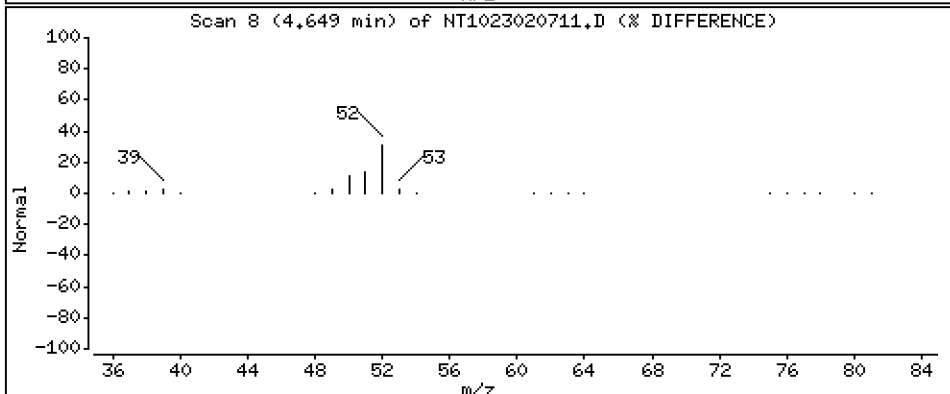
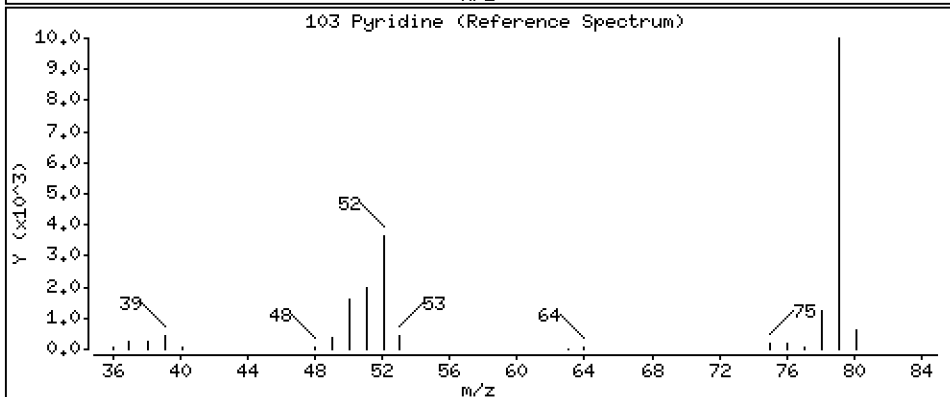
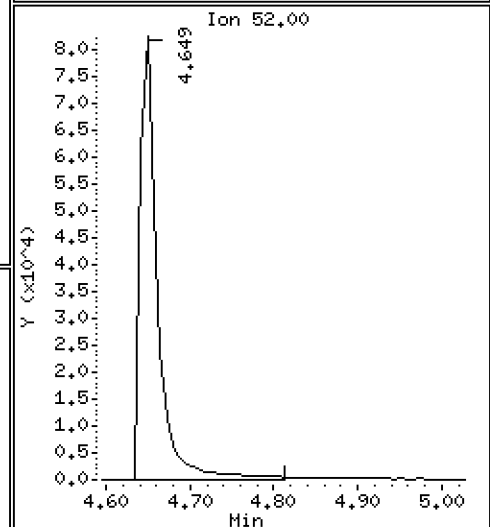
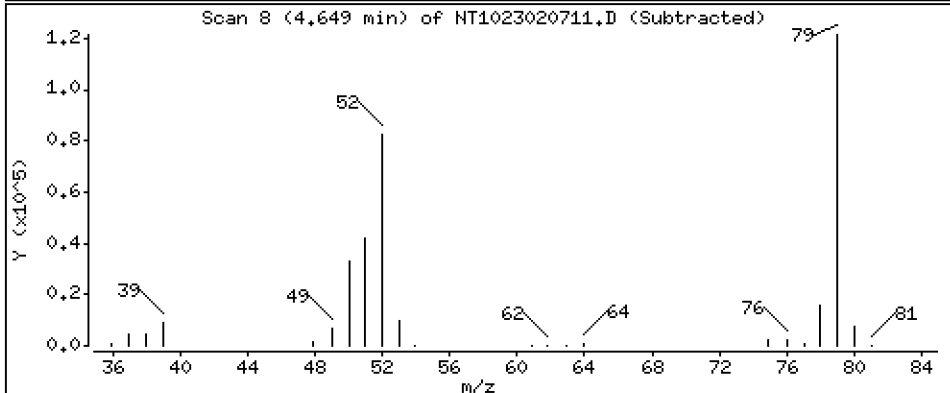
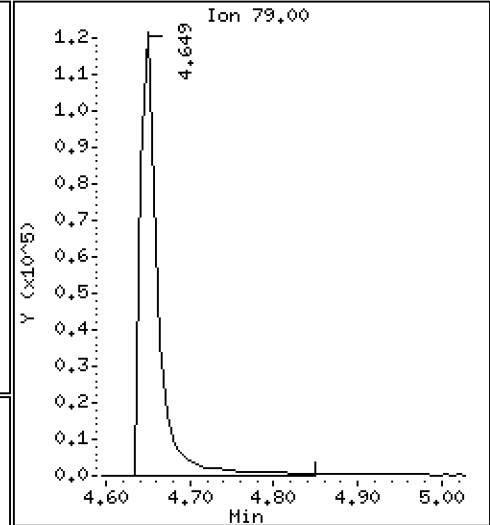
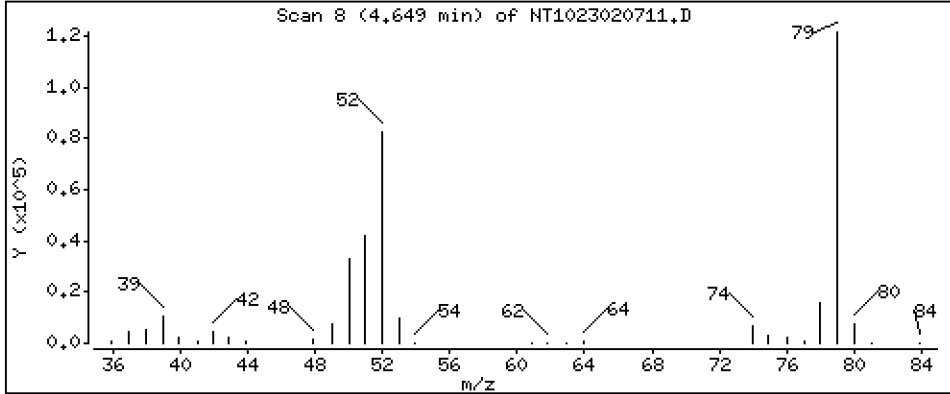
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 4,802 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

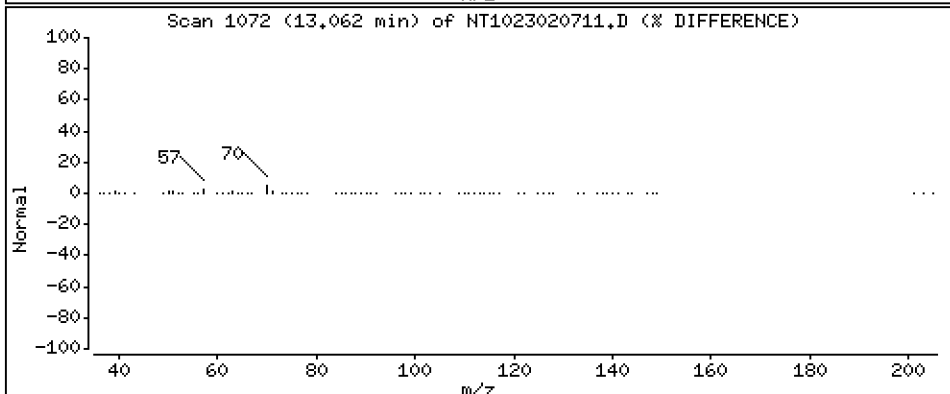
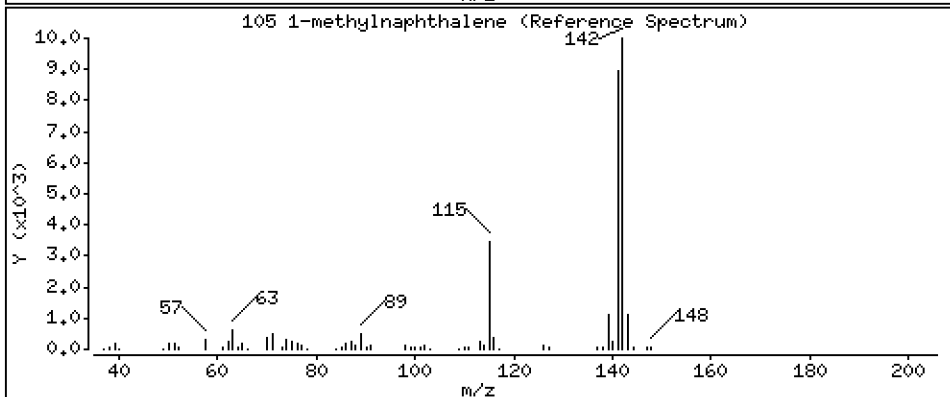
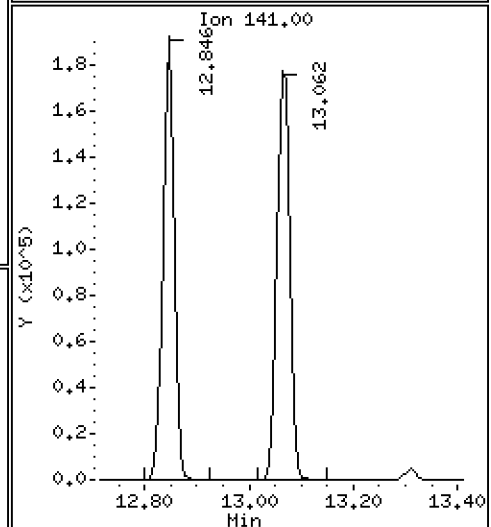
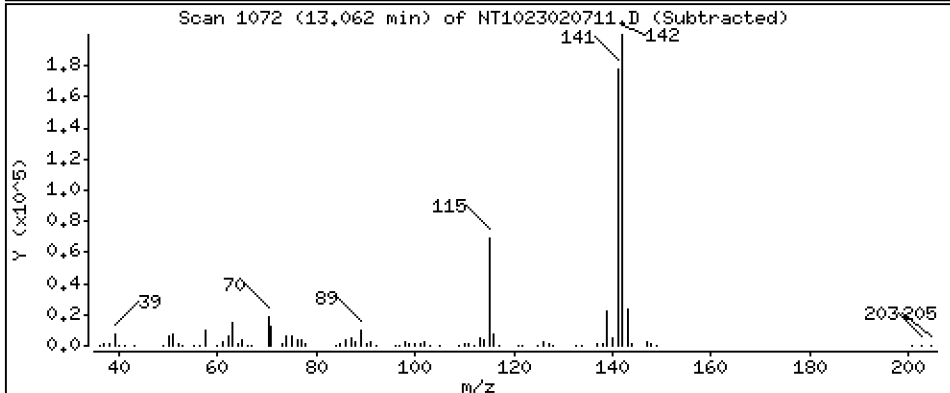
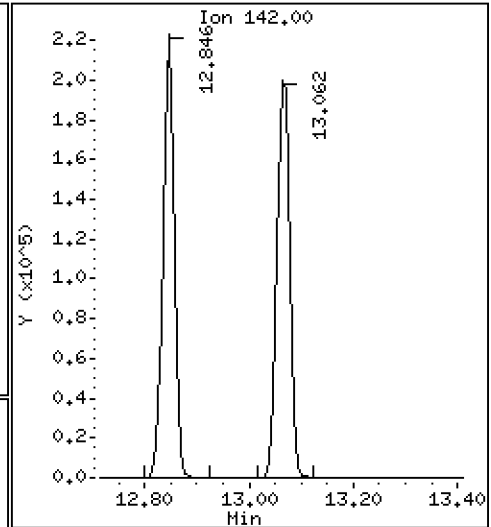
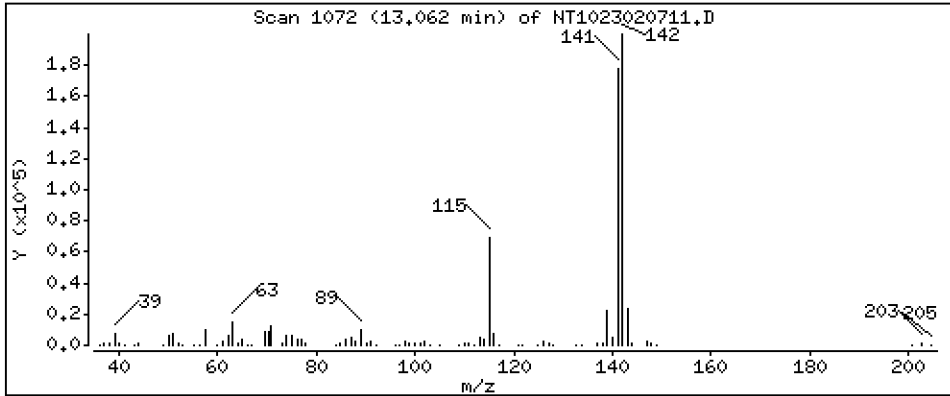
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 4,286 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

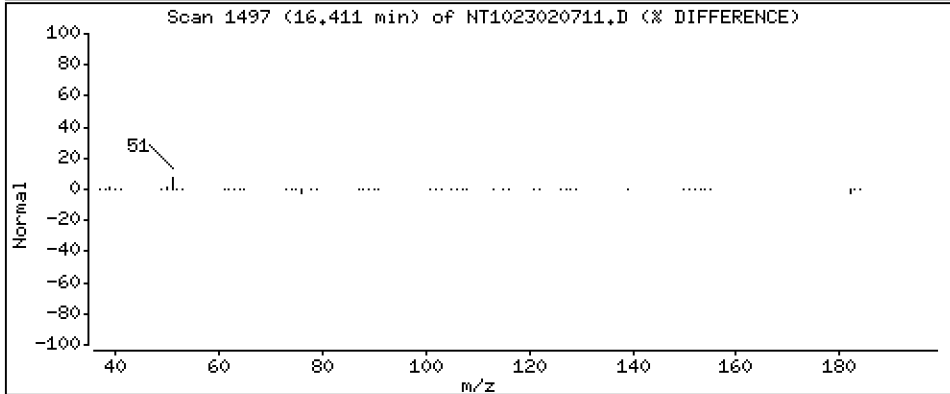
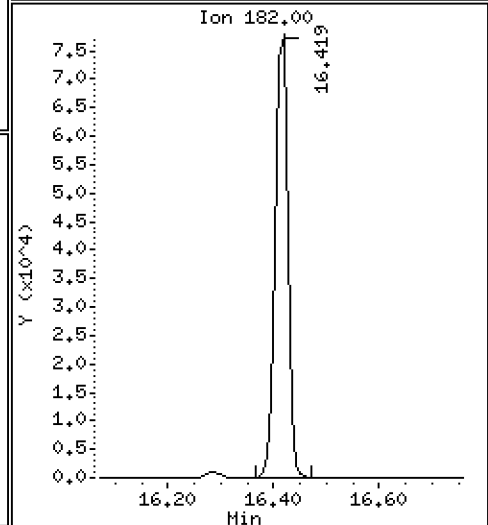
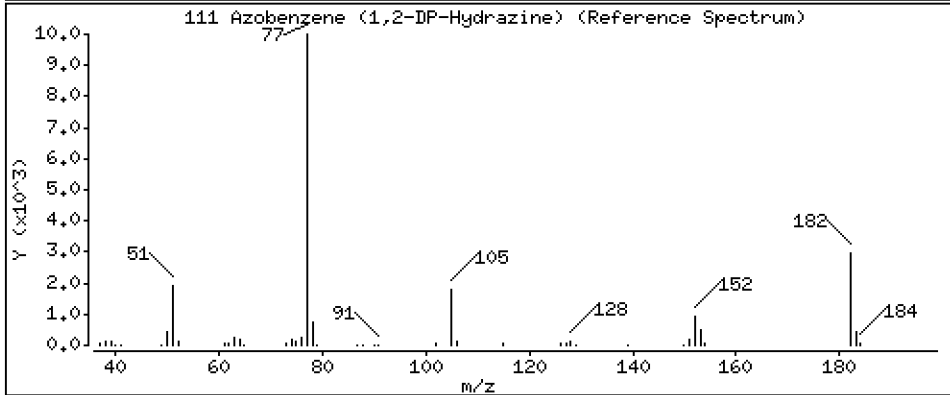
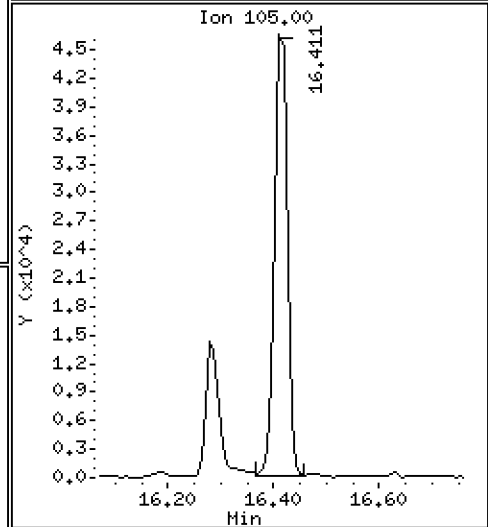
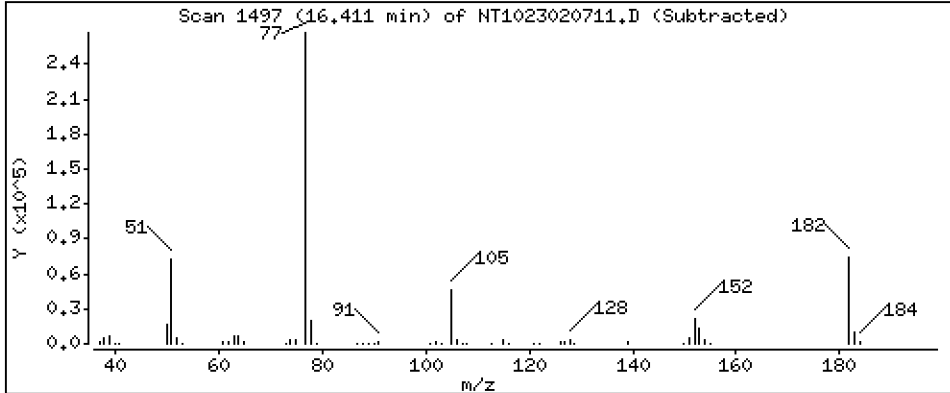
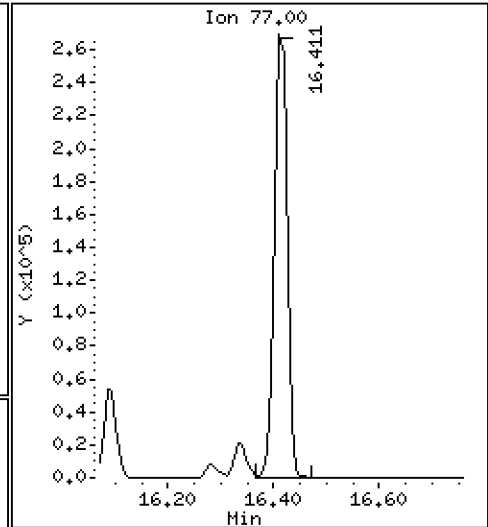
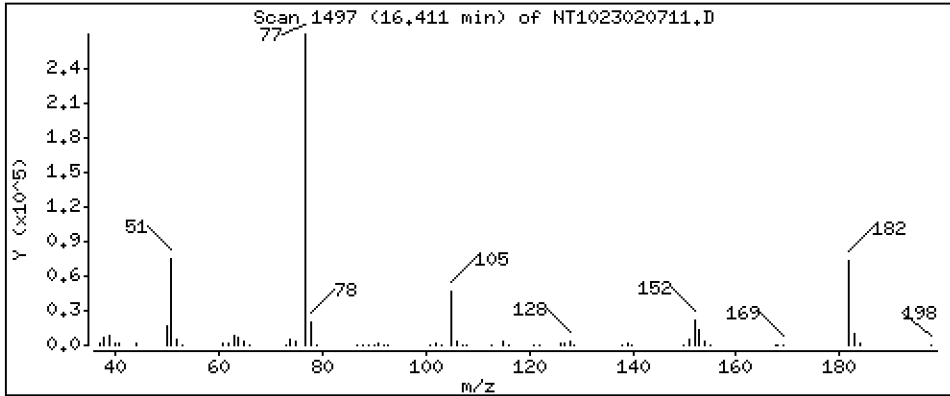
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 4.292 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

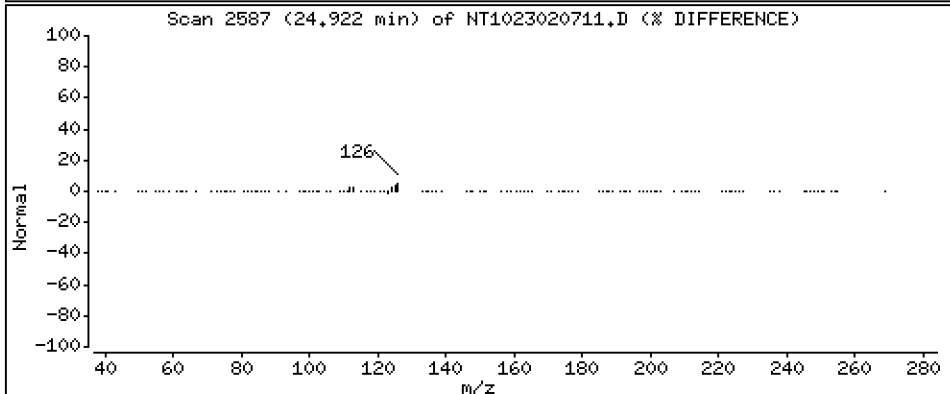
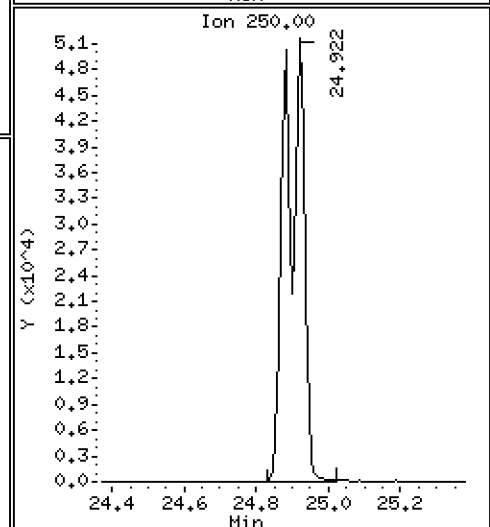
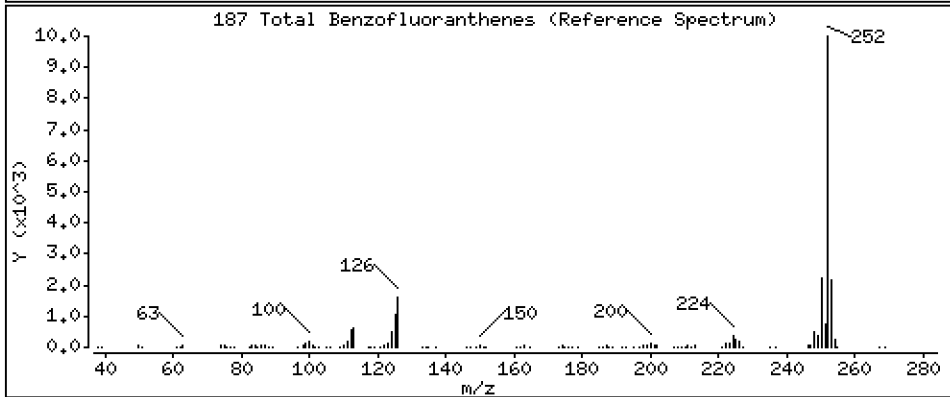
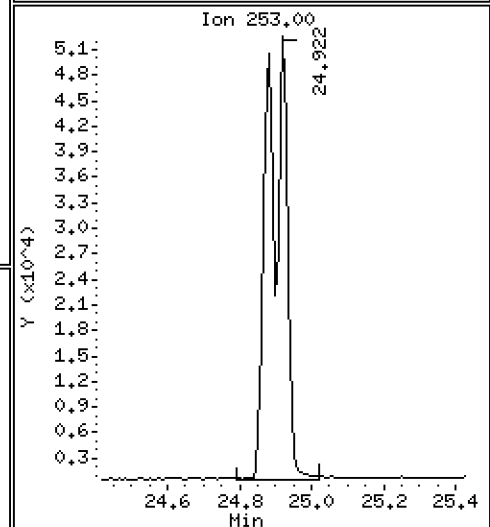
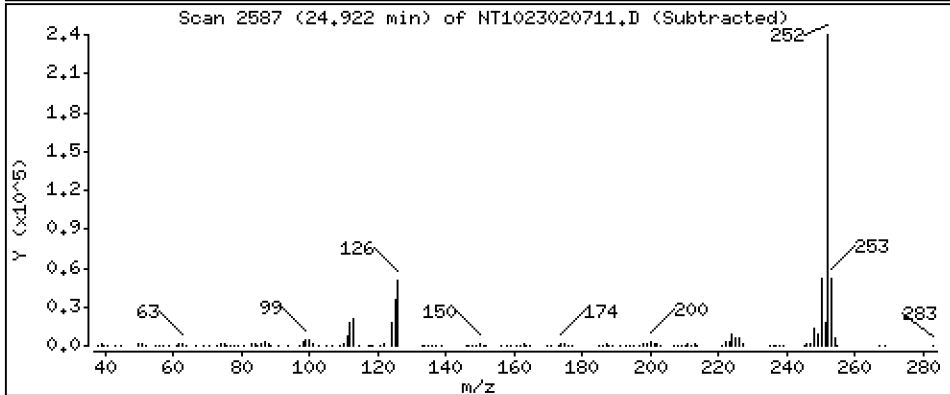
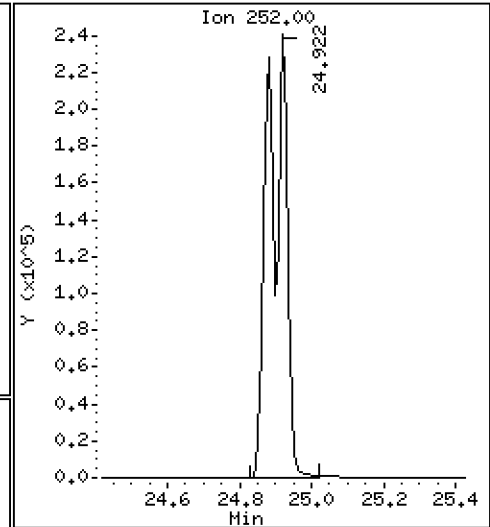
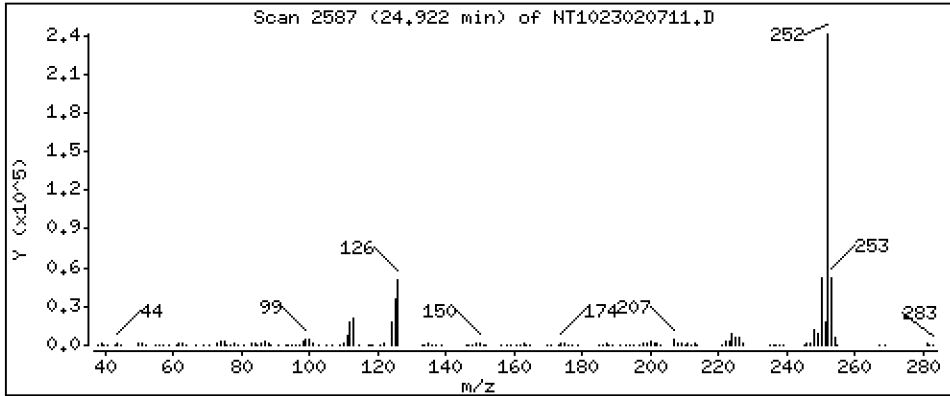
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 8,587 ug/mL



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0102-SCV1

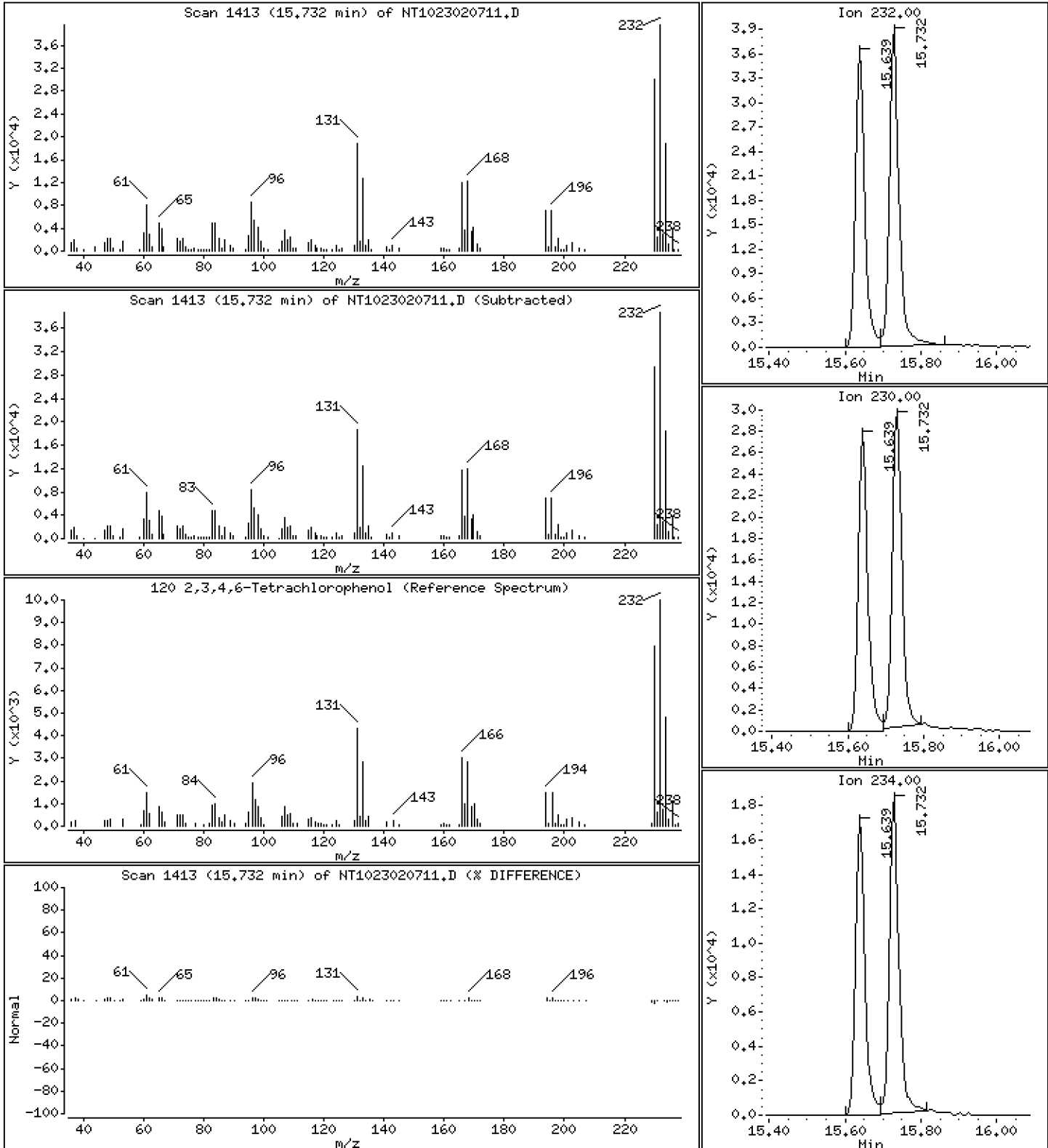
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,363 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230207.b\NT1023020711.D
 Lab Smp Id: SLB0102-SCV1
 Inj Date : 07-FEB-2023 18:04
 Operator : VTS
 Smp Info : SLB0102-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Meth Date : 08-Feb-2023 10:39 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		6.765	6.772	(0.755)	255658	7.42059	7.421
\$ 2 Phenol-d5	99		8.333	8.333	(0.930)	336503	7.24016	7.240
3 Phenol	94		8.356	8.356	(0.933)	206466	4.10667	4.107
\$ 5 2-Chlorophenol-d4	132		8.604	8.603	(0.960)	272440	7.22261	7.223
4 Bis(2-Chloroethyl)ether	93		8.511	8.511	(0.950)	166519	4.55458	4.555
6 2-Chlorophenol	128		8.635	8.634	(0.964)	166557	4.05388	4.054
7 1,3-Dichlorobenzene	146		8.898	8.897	(0.993)	187090	4.33802	4.338
* 8 1,4-Dichlorobenzene-d4	152		8.960	8.959	(1.000)	108369	4.00000	
9 1,4-Dichlorobenzene	146		8.991	8.990	(1.003)	184757	4.34939	4.349
\$ 10 1,2-Dichlorobenzene-d4	152		9.317	9.316	(1.040)	120754	4.67680	4.677
12 1,2-Dichlorobenzene	146		9.348	9.340	(1.043)	179325	4.37882	4.379
11 Benzyl alcohol	108		9.231	9.239	(1.030)	107713	4.83673	4.837
14 2,2'-oxybis(1-Chloropropane)	121		9.526	9.526	(1.063)	58854	5.00174	5.002
13 2-Methylphenol	108		9.456	9.456	(1.055)	142781	3.82937	3.829
17 Hexachloroethane	117		9.930	9.929	(1.108)	72276	4.43822	4.438
16 N-Nitroso-di-n-propylamine	70		9.782	9.782	(1.092)	127909	4.56192	4.562
15 4-Methylphenol	108		9.728	9.728	(1.086)	155931	3.94823	3.948
\$ 18 Nitrobenzene-d5	82		10.038	10.038	(0.879)	201210	4.74845	4.748
19 Nitrobenzene	77		10.077	10.077	(0.882)	185871	4.39881	4.399
20 Isophorone	82		10.520	10.519	(0.921)	376895	6.40531	6.405
21 2-Nitrophenol	139		10.698	10.698	(0.937)	92330	4.24221	4.242
22 2,4-Dimethylphenol	107		10.758	10.757	(0.942)	137587	3.53638	3.536
23 Bis(2-Chloroethoxy)methane	93		10.944	10.944	(0.958)	195103	5.10637	5.106
24 Benzoic acid	105		10.936	11.003	(0.957)	97860	4.40978	4.410
25 2,4-Dichlorophenol	162		11.157	11.156	(0.977)	144593	4.57448	4.574
26 1,2,4-Trichlorobenzene	180		11.337	11.337	(0.993)	144321	4.19068	4.191
* 27 Naphthalene-d8	136		11.422	11.422	(1.000)	428903	4.00000	
28 Naphthalene	128		11.461	11.460	(1.003)	508486	4.43653	4.437
29 4-Chloroaniline	127		11.592	11.592	(1.015)	178023	3.62338	3.623
30 Hexachlorobutadiene	225		11.824	11.823	(1.035)	78384	4.36431	4.364
31 4-Chloro-3-methylphenol	107		12.543	12.551	(1.098)	148870	4.30829	4.308
32 2-Methylnaphthalene	142		12.845	12.845	(1.125)	336792	4.22624	4.226
33 Hexachlorocyclopentadiene	237		13.310	13.309	(0.887)	48748	3.35488	3.355
34 2,4,6-Trichlorophenol	196		13.464	13.464	(0.897)	86379	4.07941	4.079

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
35 2,4,5-Trichlorophenol	196	13.534	13.549	(0.902)	89332	3.91330	3.913
\$ 36 2-Fluorobiphenyl	172	13.619	13.619	(0.908)	380733	4.50425	4.504
37 2-Chloronaphthalene	162	13.828	13.828	(0.922)	305322	4.15548	4.155
38 2-Nitroaniline	65	14.084	14.083	(0.939)	100324	4.33640	4.336
39 Dimethylphthalate	163	14.517	14.509	(0.968)	336465	4.28029	4.280
40 Acenaphthylene	152	14.695	14.695	(0.979)	505791	4.32170	4.322
41 2,6-Dinitrotoluene	165	14.649	14.648	(0.976)	81495	4.37719	4.377
* 42 Acenaphthene-d10	164	15.004	15.004	(1.000)	234560	4.00000	
43 3-Nitroaniline	138	14.927	14.935	(0.995)	93629	4.36156	4.362
44 Acenaphthene	153	15.066	15.066	(1.004)	303572	4.23254	4.233
45 2,4-Dinitrophenol	184	15.144	15.151	(1.009)	13332	1.38463	1.385
46 Dibenzofuran	168	15.391	15.391	(1.026)	431624	4.18335	4.183
47 4-Nitrophenol	109	15.260	15.313	(1.017)	32938	4.11607	4.116
48 2,4-Dinitrotoluene	165	15.445	15.452	(1.029)	109550	4.26455	4.265
50 Diethylphthalate	149	15.955	15.955	(1.063)	333844	4.42248	4.422
49 Fluorene	166	16.102	16.094	(1.073)	479965	4.13854	4.139
51 4-Chlorophenyl-phenylether	204	16.095	16.087	(1.073)	244410	4.31488	4.315
52 4-Nitroaniline	138	16.187	16.187	(1.079)	106457	4.33959	4.340
53 4,6-Dinitro-2-methylphenol	198	16.287	16.287	(0.904)	58398	3.99461	3.995
54 N-Nitrosodiphenylamine	169	16.341	16.341	(0.907)	303362	4.38443	4.384
\$ 55 2,4,6-Tribromophenol	330	16.627	16.619	(1.108)	83549	7.11340	7.113
56 4-Bromophenyl-phenylether	248	17.089	17.089	(0.948)	116005	4.54993	4.550
57 Hexachlorobenzene	284	17.399	17.398	(0.966)	117771	4.28908	4.289
58 Pentachlorophenol	266	17.763	17.770	(0.986)	36088	3.45281	3.453
* 59 Phenanthrene-d10	188	18.018	18.018	(1.000)	404758	4.00000	
60 Phenanthrene	178	18.064	18.064	(1.003)	468874	4.30426	4.304
61 Anthracene	178	18.157	18.157	(1.008)	420633	3.89959	3.900
62 Carbazole	167	18.482	18.489	(1.026)	433438	4.16620	4.166
63 Di-n-butylphthalate	149	19.294	19.294	(1.071)	572045	4.61099	4.611
64 Fluoranthene	202	20.447	20.447	(0.887)	512115	4.34016	4.340
65 Pyrene	202	20.873	20.872	(0.905)	520882	4.27594	4.276
\$ 66 Terphenyl-d14	244	21.167	21.167	(0.918)	415185	4.52003	4.520
67 Butylbenzylphthalate	149	22.096	22.088	(0.958)	230821	4.38473	4.385
68 Benzo(a)anthracene	228	23.033	23.033	(0.999)	439471	4.09739	4.097
* 69 Chrysene-d12	240	23.064	23.064	(1.000)	321783	4.00000	
70 3,3'-Dichlorobenzidine	252	22.994	22.994	(0.997)	313735	8.64513	8.645
71 Chrysene	228	23.110	23.102	(1.002)	413343	4.01838	4.018
72 bis(2-Ethylhexyl)phthalate	149	23.126	23.125	(0.959)	322683	4.69228	4.692
* 134 Di-n-octylphthalate-d4	153	24.109	24.109	(1.000)	505567	4.00000	
73 Di-n-octylphthalate	149	24.117	24.116	(1.000)	572730	4.48283	4.483
74 Benzo(b)fluoranthene	252	24.883	24.875	(0.971)	435974	4.23486	4.235
75 Benzo(k)fluoranthene	252	24.922	24.922	(0.973)	475700	4.38893	4.389
76 Benzo(a)pyrene	252	25.502	25.502	(0.995)	407352	4.37606	4.376
* 77 Perylene-d12	264	25.619	25.611	(1.000)	325220	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.160	28.159	(1.099)	482778	4.35726	4.357
79 Dibenzo(a,h)anthracene	278	28.168	28.175	(1.099)	399451	4.35211	4.352
80 Benzo(g,h,i)perylene	276	28.905	28.905	(1.128)	413155	4.34488	4.345
90 N-Nitrosodimethylamine	74	4.626	4.625	(0.516)	109183	4.55509	4.555
91 Aniline	93	8.511	8.426	(0.950)	162935	3.34843	3.348 (M)
93 Benzidine	184	20.679	20.687	(0.897)	356906	9.49988	9.500
103 Pyridine	79	4.649	4.679	(0.519)	178138	4.80158	4.802
105 1-methylnaphthalene	142	13.062	13.062	(1.144)	328833	4.28597	4.286
111 Azobenzene (1,2-DP-Hydrazine)	77	16.411	16.410	(1.094)	431713	4.29217	4.292
187 Total Benzofluoranthenes	252	24.922	24.922	(0.973)	866639	8.58675	8.587

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====	=====	=====	=====	=====	=====	
120 2,3,4,6-Tetrachlorophenol	232	15.731	15.738	(1.048)	73774	3.36344	3.363

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 08-FEB-2023
 Lab File ID: NT1023020711.D Calibration Time: 07:24
 Lab Smp Id: SLB0102-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230207.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	110702	55351	221404	108369	-2.11
27 Naphthalene-d8	429852	214926	859704	428903	-0.22
42 Acenaphthene-d10	233715	116858	467430	234560	0.36
59 Phenanthrene-d10	388662	194331	777324	404758	4.14
69 Chrysene-d12	345176	172588	690352	321783	-6.78
134 Di-n-octylphthala	579750	289875	1159500	505567	-12.80
77 Perylene-d12	378227	189114	756454	325220	-14.01

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.96	-0.08
27 Naphthalene-d8	11.43	10.93	11.93	11.42	-0.06
42 Acenaphthene-d10	15.01	14.51	15.51	15.00	-0.05
59 Phenanthrene-d10	18.03	17.53	18.53	18.02	-0.04
69 Chrysene-d12	23.07	22.57	23.57	23.06	-0.03
134 Di-n-octylphthala	24.11	23.61	24.61	24.11	0.00
77 Perylene-d12	25.63	25.13	26.13	25.62	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020711.D

Lab ID: SLB0102-SCV1
nt10.i, 20230207.b\ABN.m, 07-FEB-2023 18:04

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.957	0.000	0.9574	Benzoic acid
1.009	0.000	1.0093	2,4-Dinitrophenol
0.950	0.940	0.0095	Aniline

RRT check based on Ccal File: NT1023020708.D

On Column LOD for nt10.i, 20230207.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

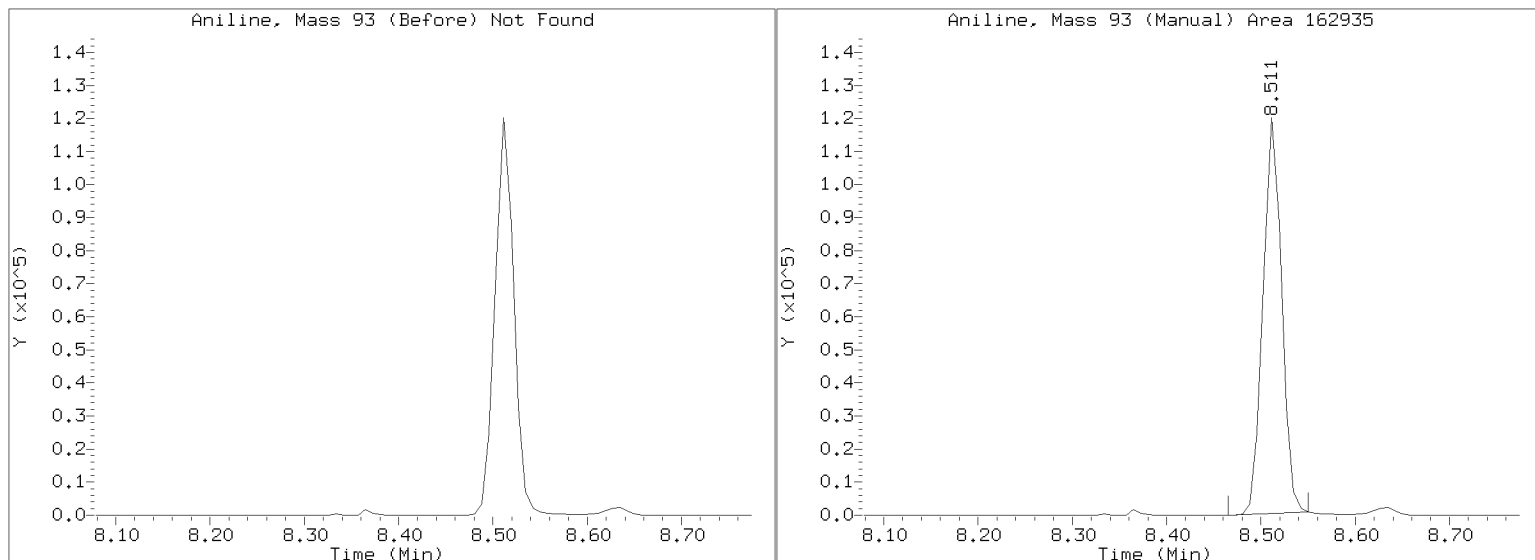
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/NT1023020711.D

Injection Date: 07-FEB-2023 18:04

Lab ID: SLB0102-SCV1 Client ID:

Report Date: 02/09/2023 11:24



APPROVED

By Deenay Dunmore at 11:30 am, Feb 09, 2023



LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00018

Lab File ID: NT1023020903.D

Calibration Date: 02/07/2023

Sequence: SLB0122

Injection Date: 02/09/23

Lab Sample ID: SLB0122-LCV1

Injection Time: 14:10

Sequence Name: ABN 0.2

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	0.50000	0.5	1.8557260	1.9172390		3.3	+/-50
4-Methylphenol	A	0.50000	0.5	1.4577560	1.4687440		0.8	+/-50
Naphthalene	A	0.50000	0.5	1.0689000	1.1016790		3.1	+/-50
2-Methylnaphthalene	A	0.50000	0.5	0.7432041	0.7553564		1.6	+/-50
Acenaphthylene	A	0.50000	0.5	1.9958230	2.1227160		6.4	+/-50
Dimethylphthalate	A	0.50000	0.5	1.3405170	1.3866800		3.4	+/-50
Acenaphthene	A	0.50000	0.5	1.2231120	1.2882300		5.3	+/-50
Dibenzofuran	A	0.50000	0.5	1.7594910	1.7895320		1.7	+/-50
Fluorene	A	0.50000	0.4	1.9777380	1.7539830		-11.3	+/-50
Phenanthrene	A	0.50000	0.5	1.0765200	1.1133190		3.4	+/-50
Anthracene	A	0.50000	0.5	1.0659800	1.0956620		2.8	+/-50
Fluoranthene	A	0.50000	0.5	1.4667580	1.5198060		3.6	+/-50
Pyrene	A	0.50000	0.5	1.5142740	1.5971710		5.5	+/-50
Butylbenzylphthalate	A	0.50000	0.5	0.6543795	0.6152156		-6.0	+/-50
Benzo(a)anthracene	A	0.50000	0.6	1.3332750	1.4668810		10.0	+/-50
Chrysene	A	0.50000	0.5	1.2786640	1.3626490		6.6	+/-50
bis(2-Ethylhexyl)phthalate	A	0.50000	0.5	0.5440929	0.5422190		-0.3	+/-50
Benzo(a)fluoranthene, Total	A	1.00000	1.0	1.2413430	1.2907730		4.0	+/-50
Benzo(a)pyrene	A	0.50000	0.5	1.1449040	1.2342560		7.8	+/-50
Indeno(1,2,3-cd)pyrene	A	0.50000	0.6	1.3627520	1.5627040		14.7	+/-50
Dibenzo(a,h)anthracene	A	0.50000	0.6	1.1288770	1.2646890		12.0	+/-50
Benzo(g,h,i)perylene	A	0.50000	0.6	1.1695480	1.3288150		13.6	+/-50
2-Fluorophenol	A	0.75000	0.758	1.2716740	1.2856570		1.1	+/-50
Phenol-d5	A	0.75000	0.762	1.7155190	1.7419220		1.5	+/-50
2-Chlorophenol-d4	A	0.75000	0.795	1.3922970	1.4749110		5.9	+/-50
1,2-Dichlorobenzene-d4	A	0.50000	0.520	0.9530327	0.9910437		4.0	+/-50
Nitrobenzene-d5	A	0.50000	0.531	0.3951837	0.4197617		6.2	+/-50
2-Fluorobiphenyl	A	0.50000	0.560	1.4414640	1.6132190		11.9	+/-50
2,4,6-Tribromophenol	A	0.75000	0.678	0.2002949	0.1811103		-9.6	+/-50
p-Terphenyl-d14	A	0.50000	0.538	1.1418200	1.2291590		7.7	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230209.1\NT1023020903.D

Date: 09-FEB-2023 14:10

Client ID:

Sample Info: SLB0122-LCW1

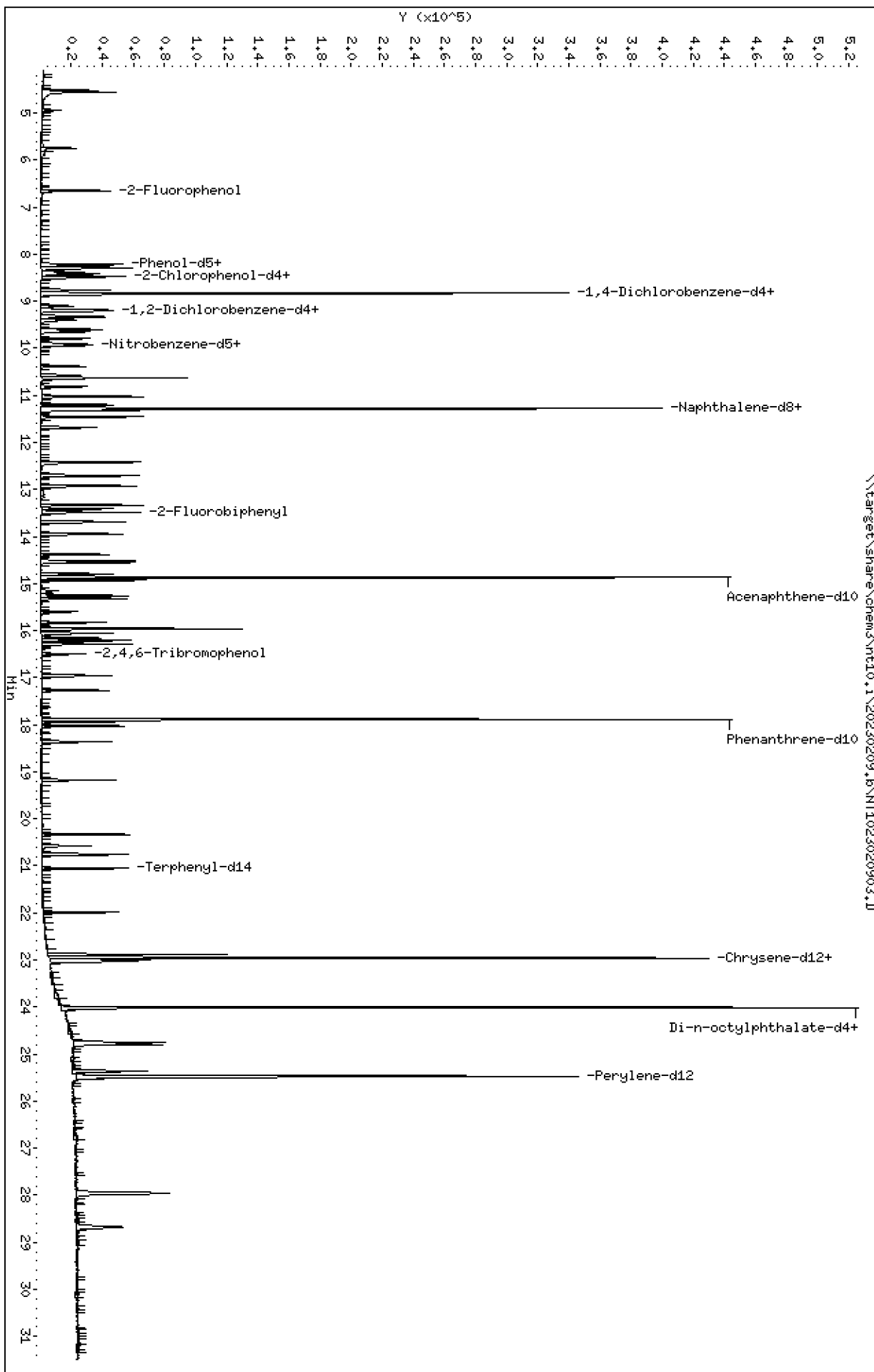
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

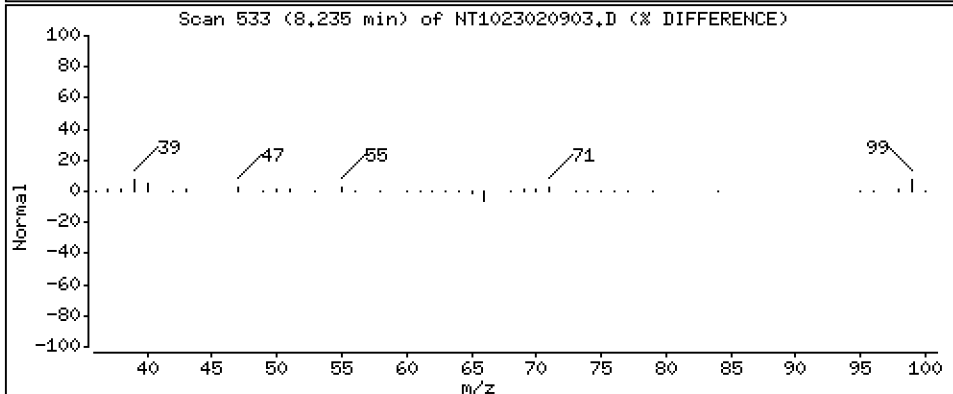
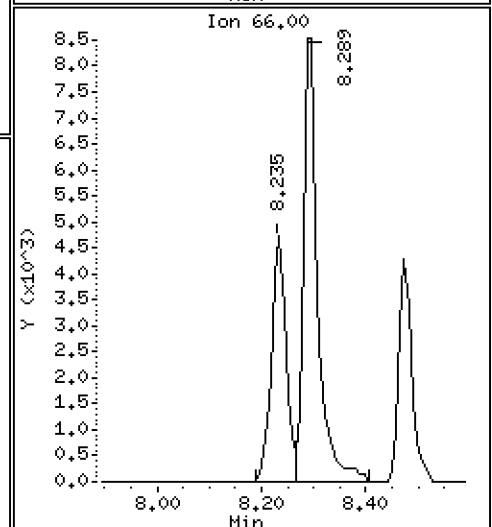
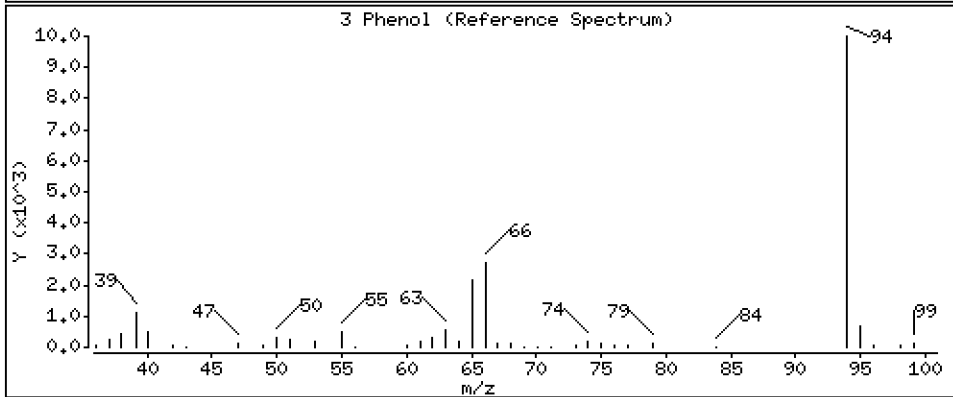
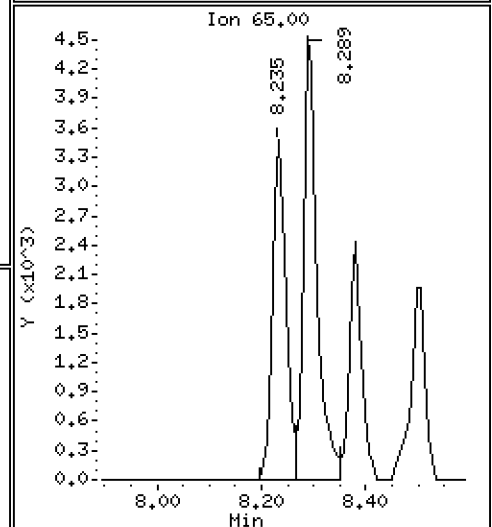
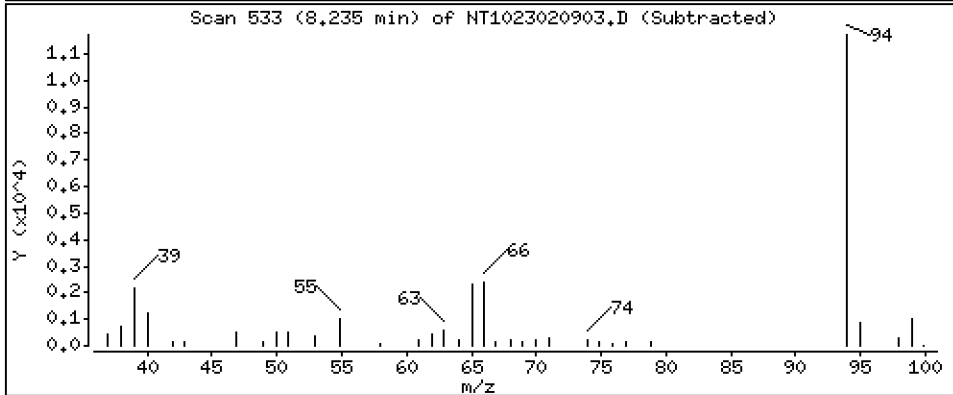
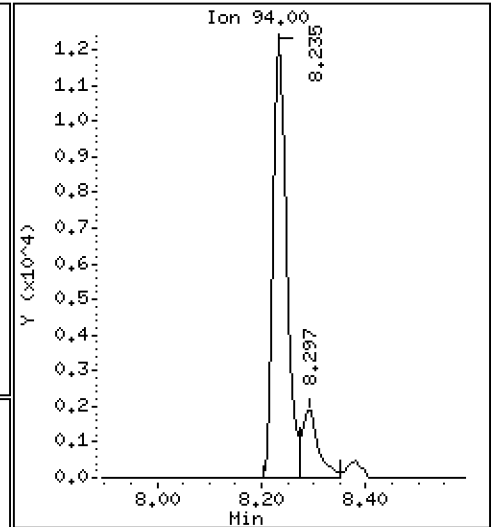
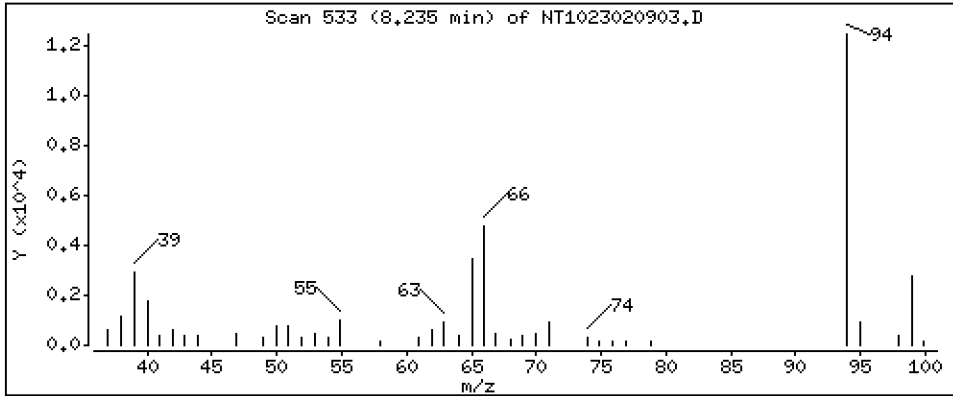
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 0.5166 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

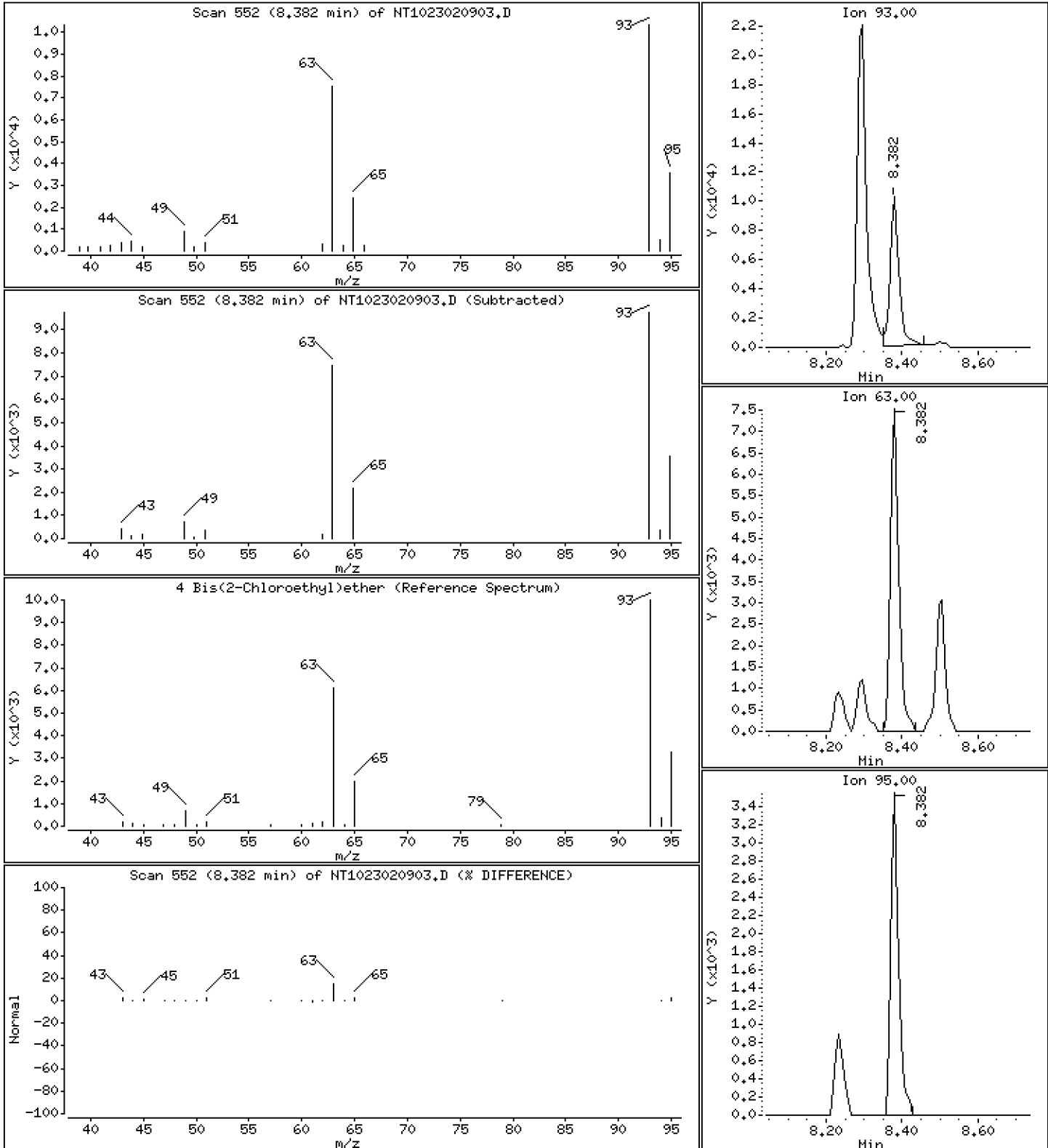
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,5392 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

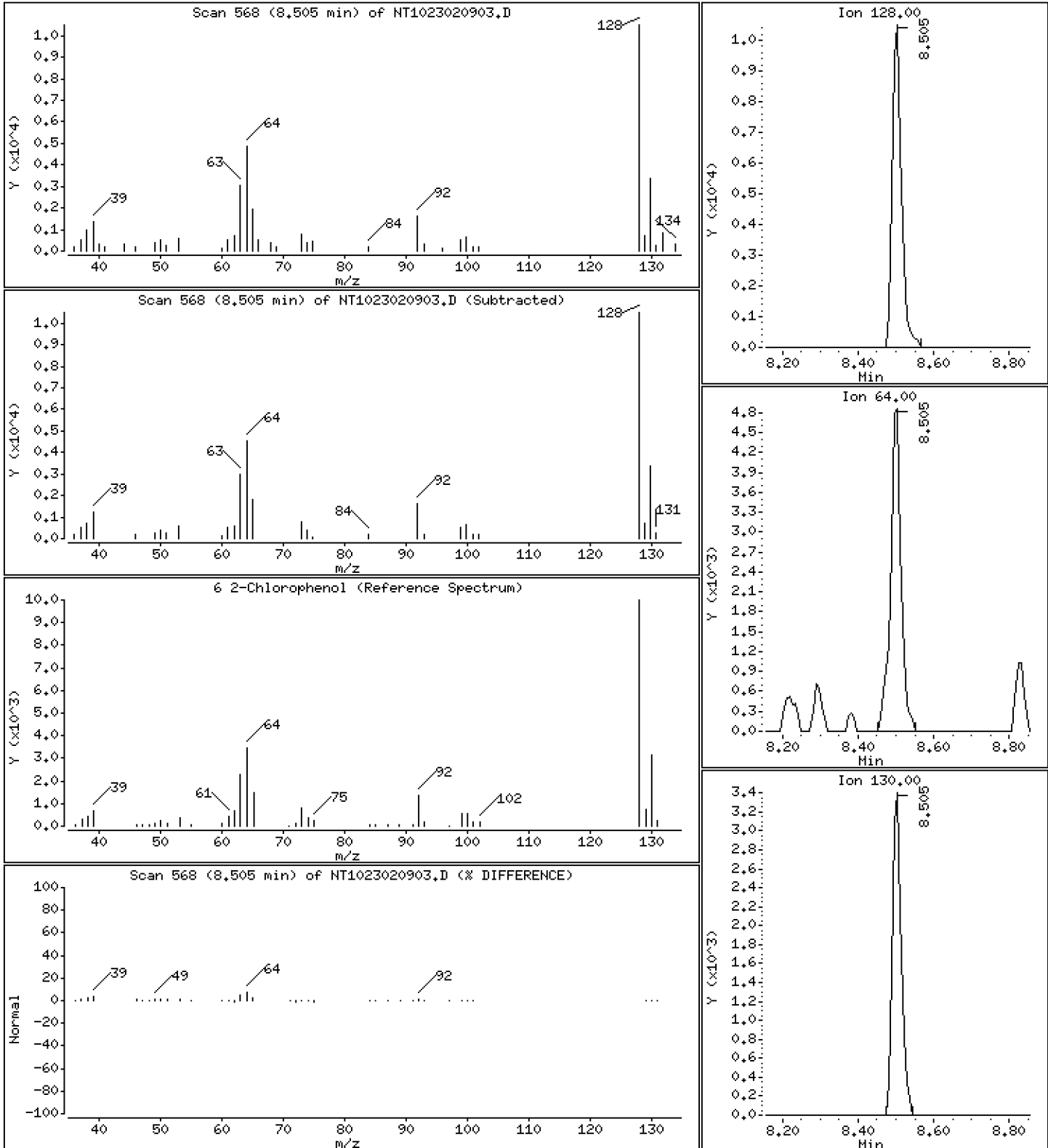
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 0,5220 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

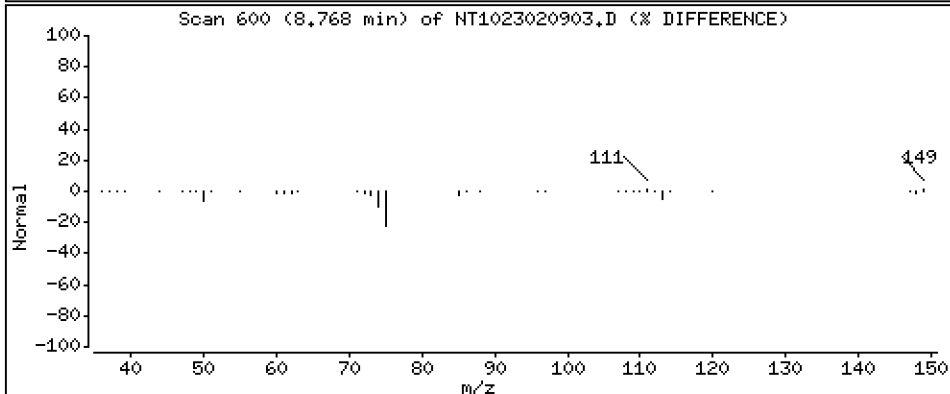
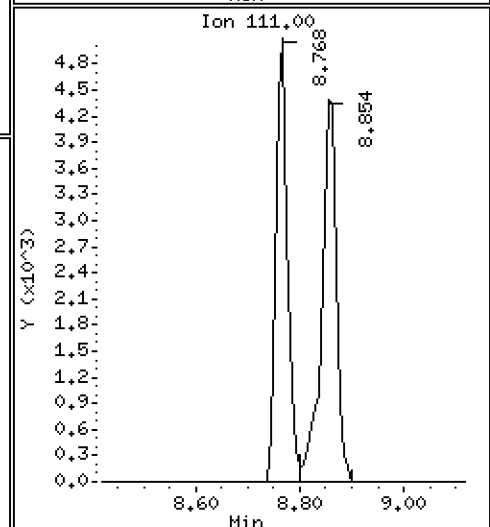
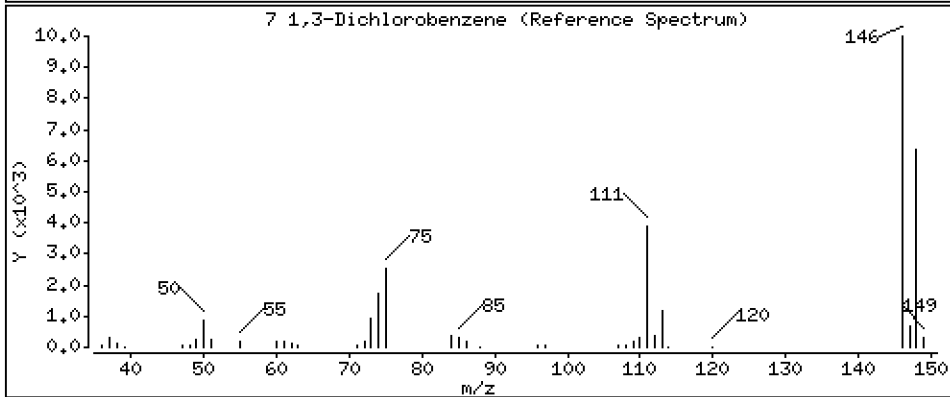
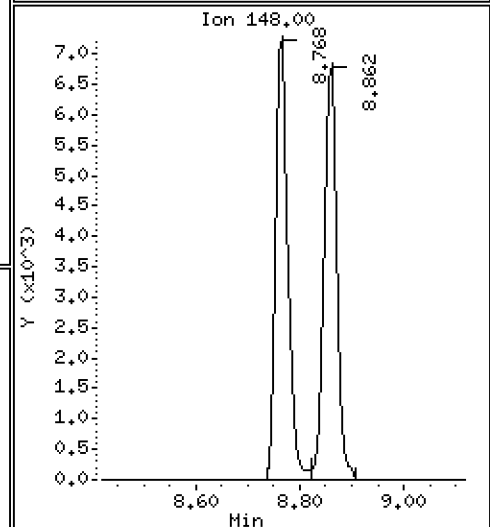
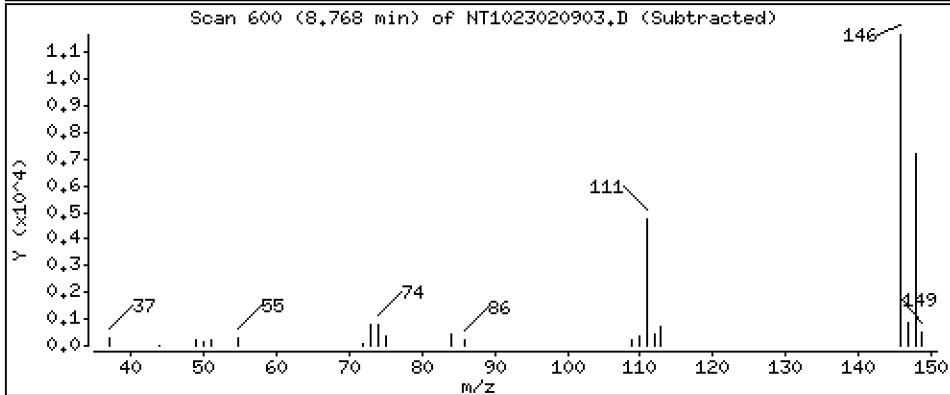
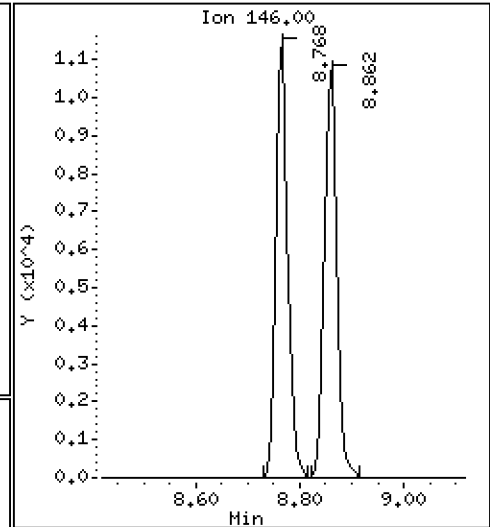
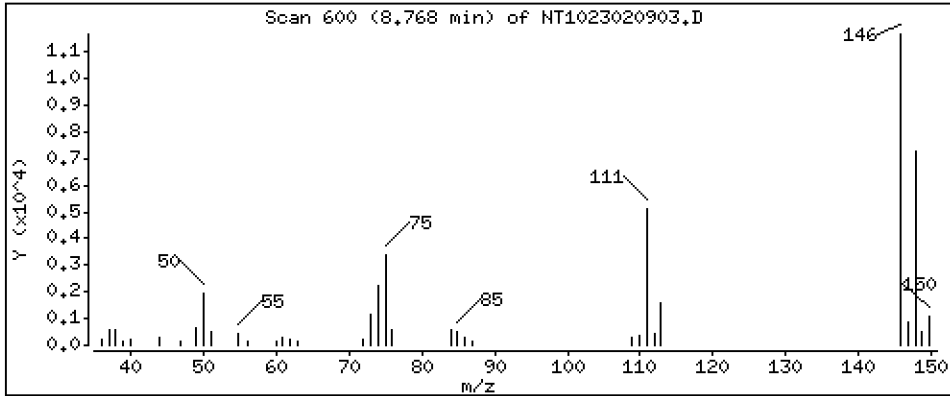
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.5160 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

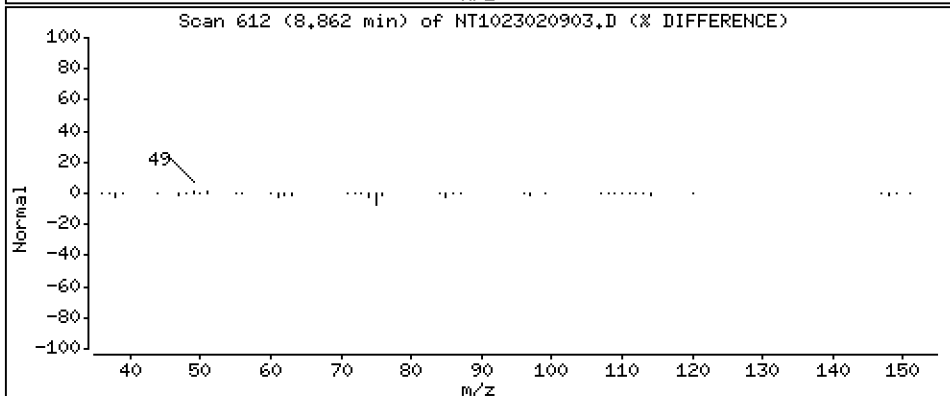
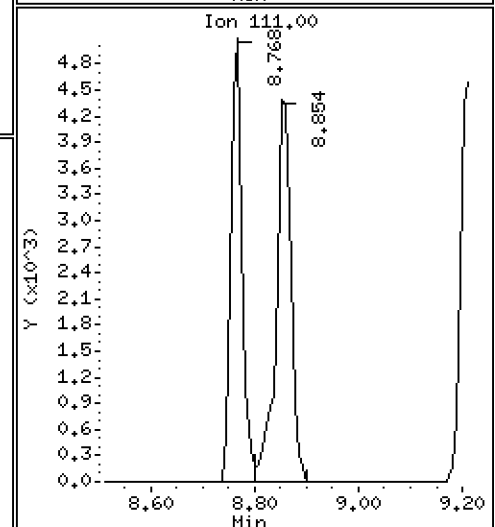
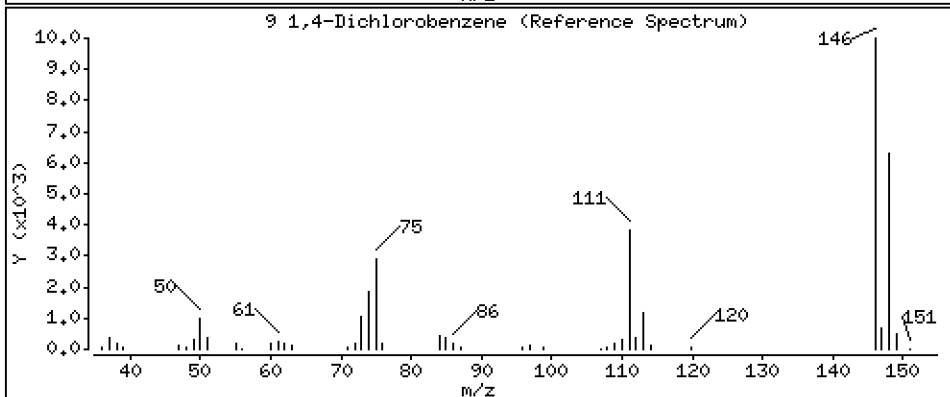
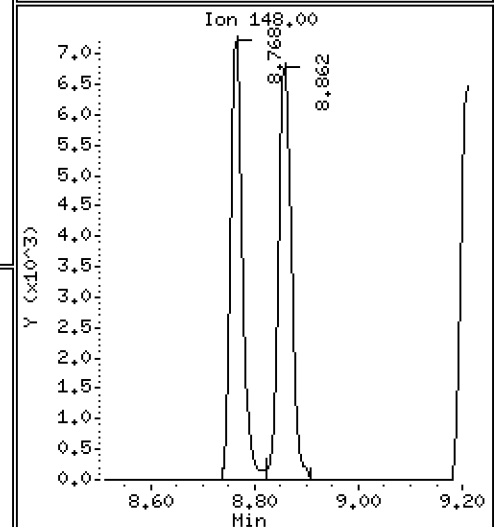
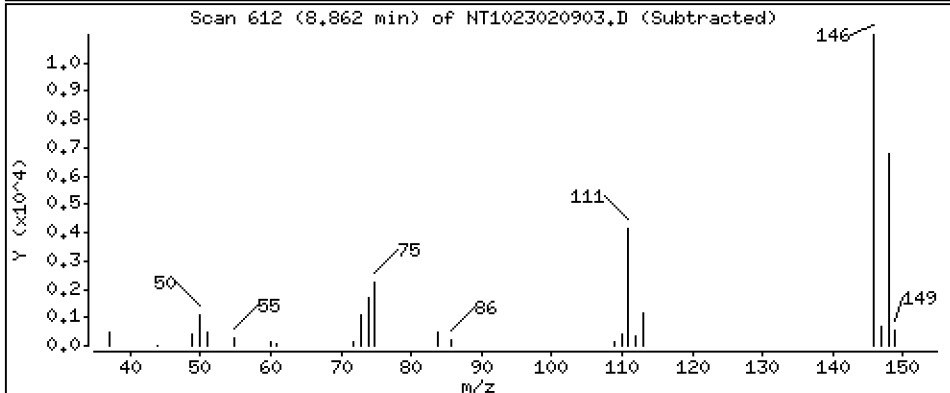
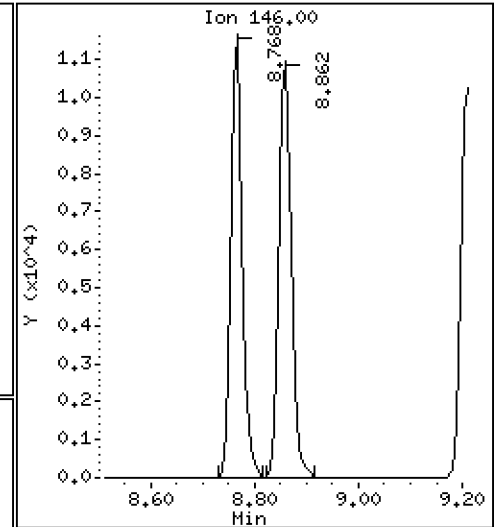
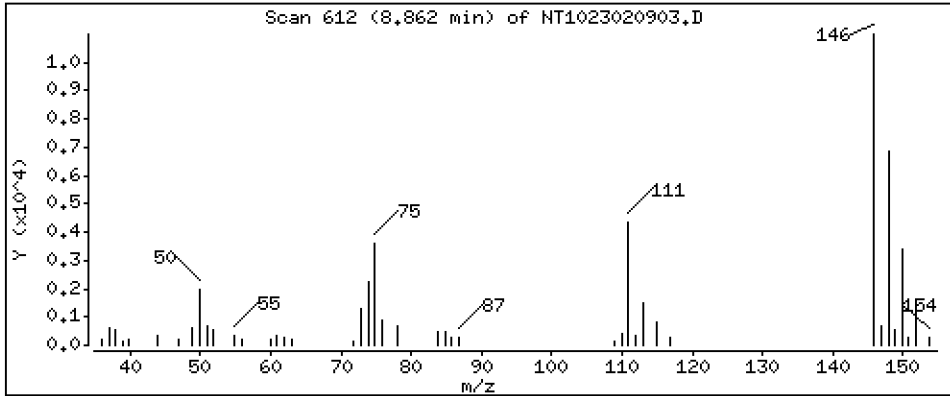
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,5063 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

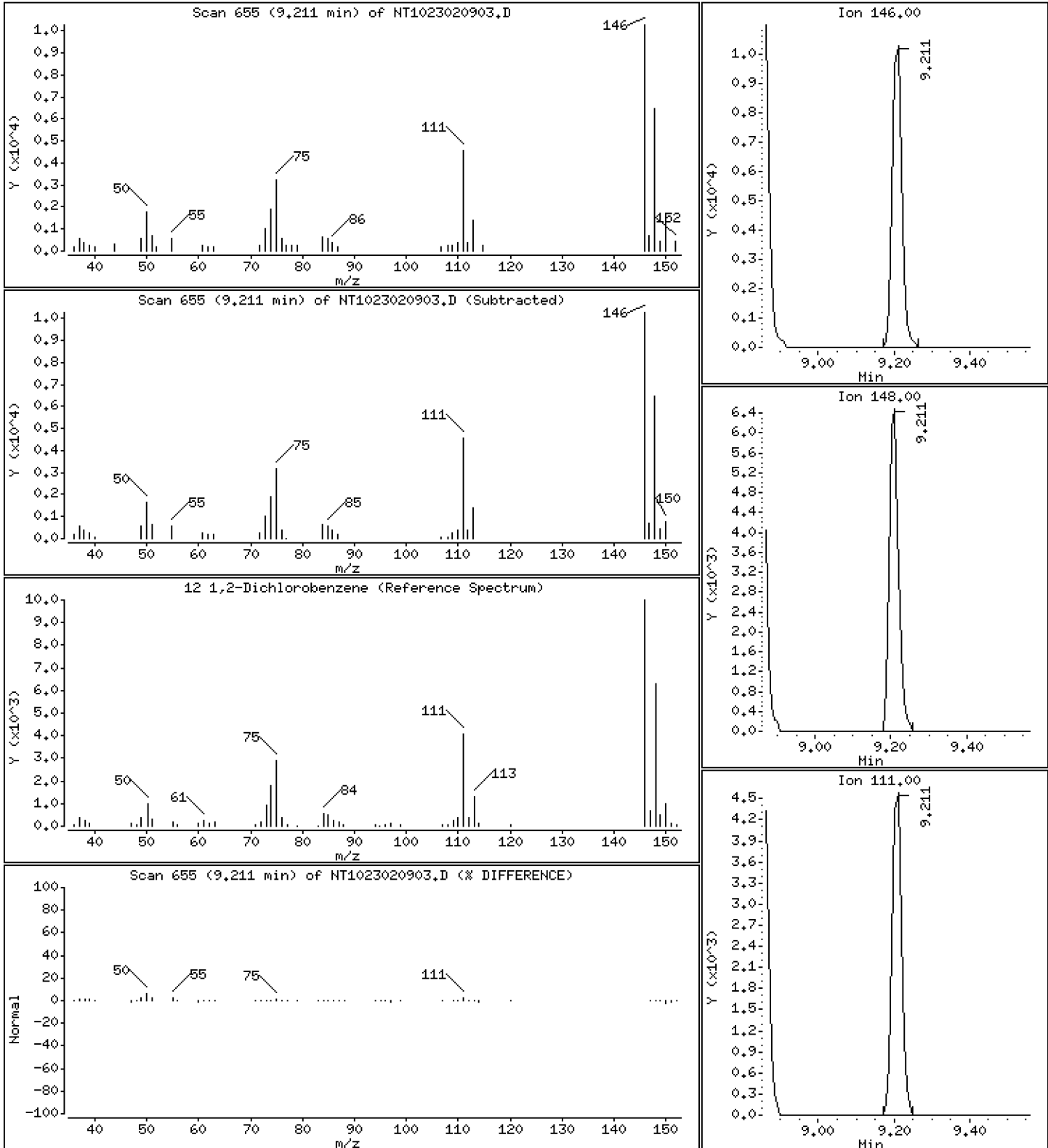
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.5149 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

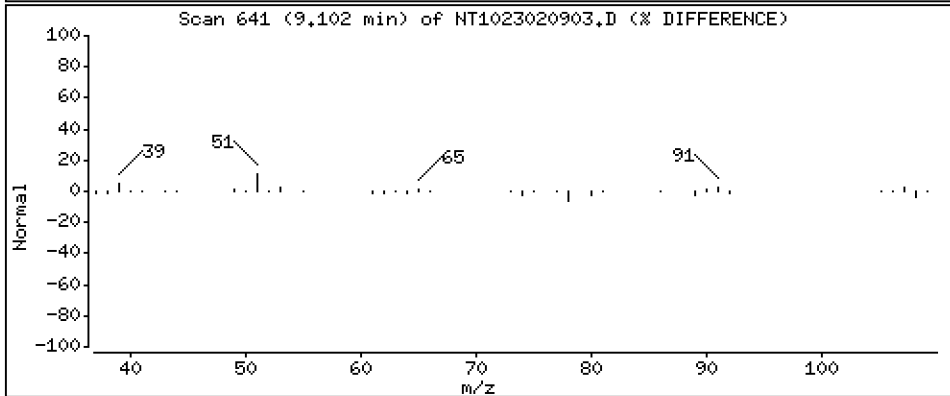
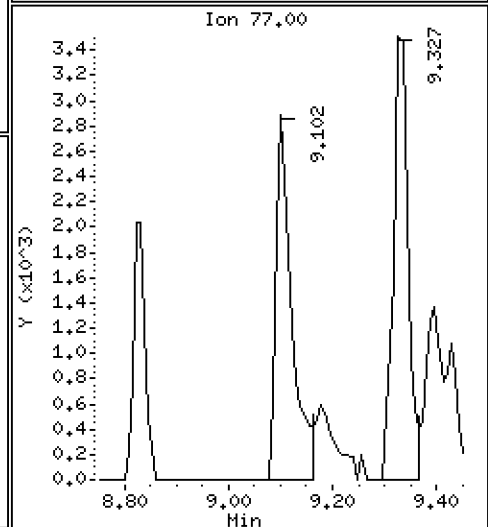
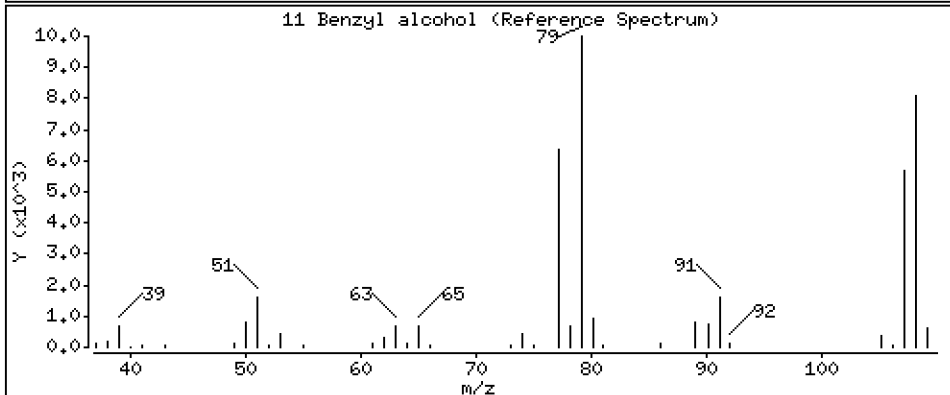
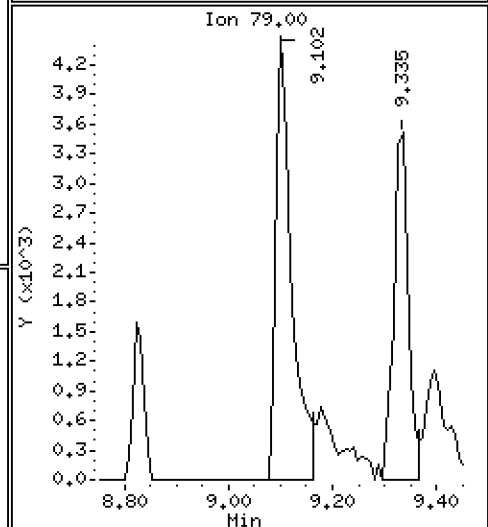
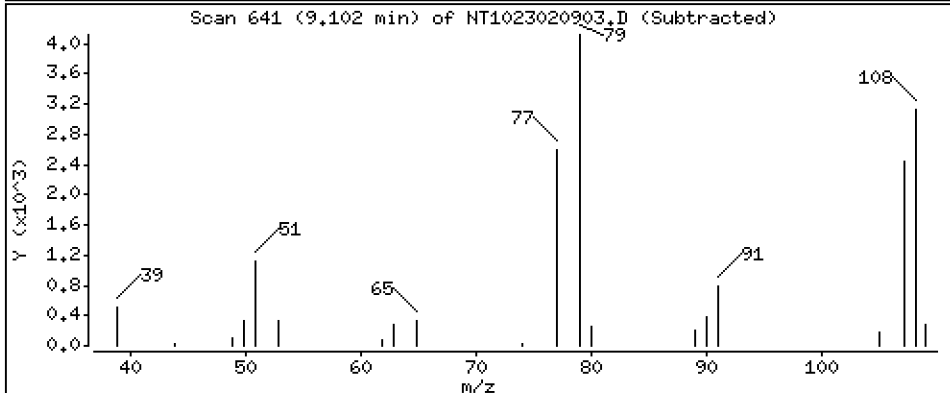
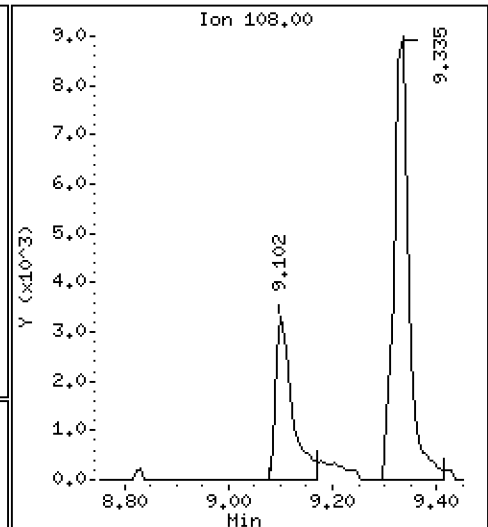
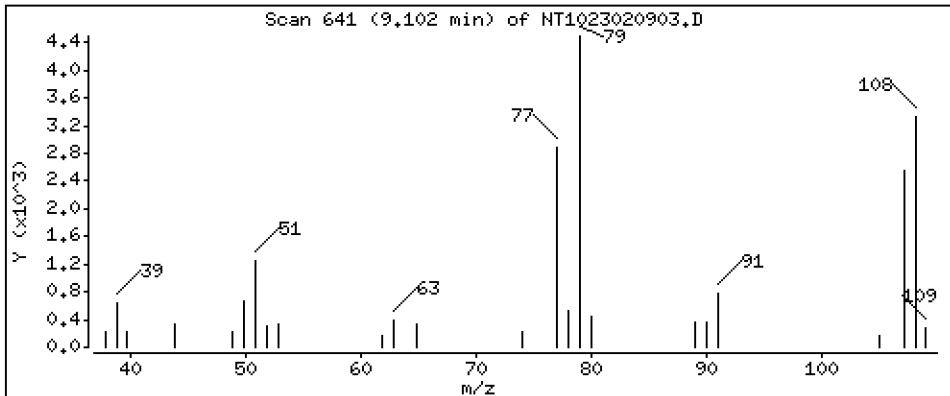
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.3892 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

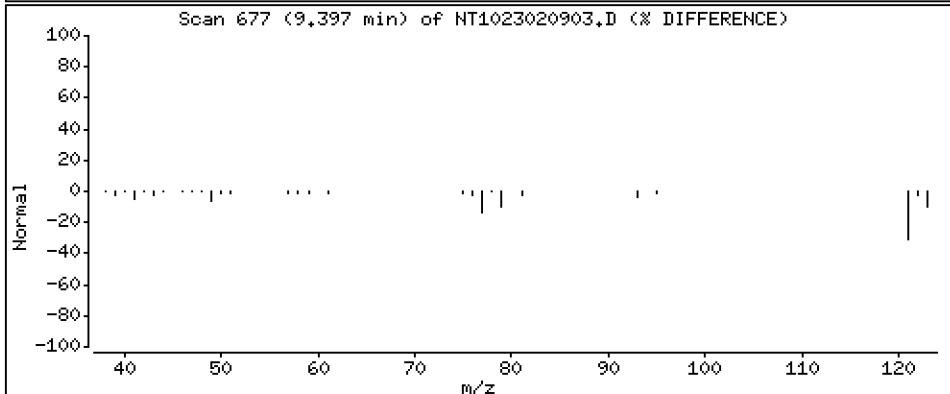
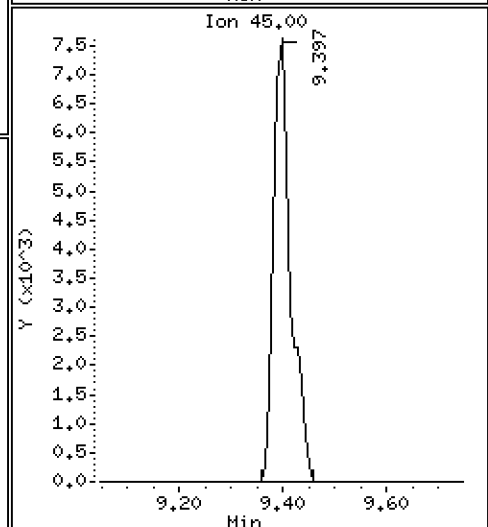
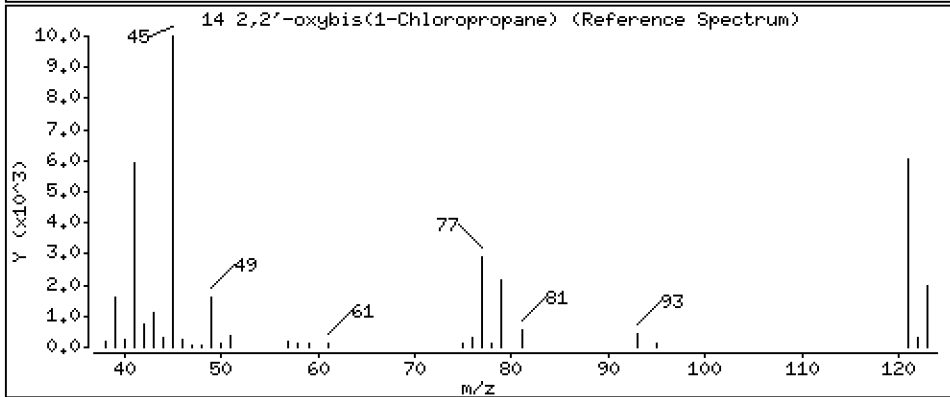
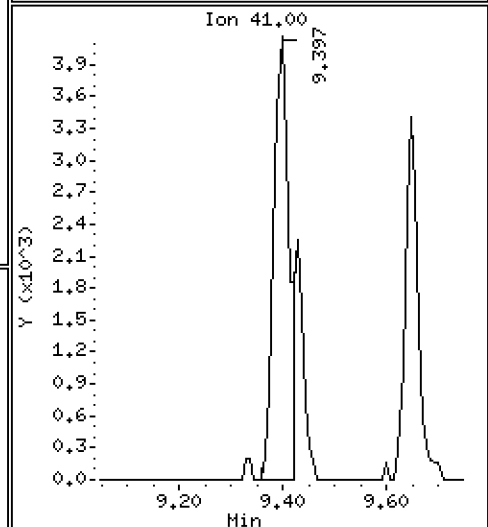
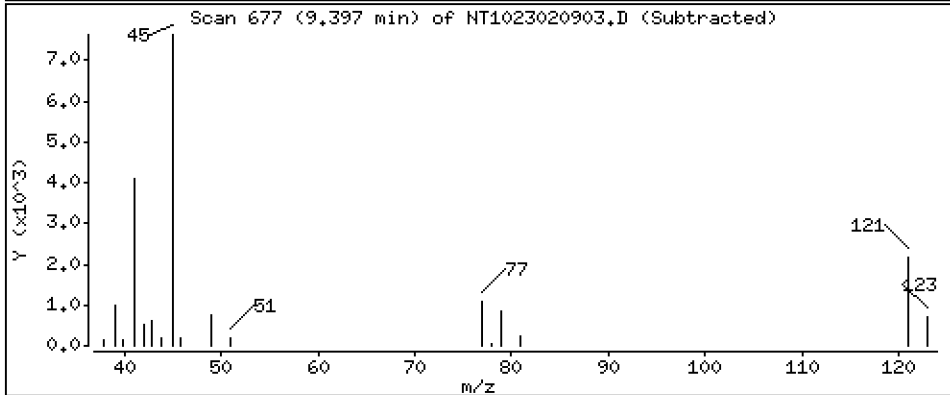
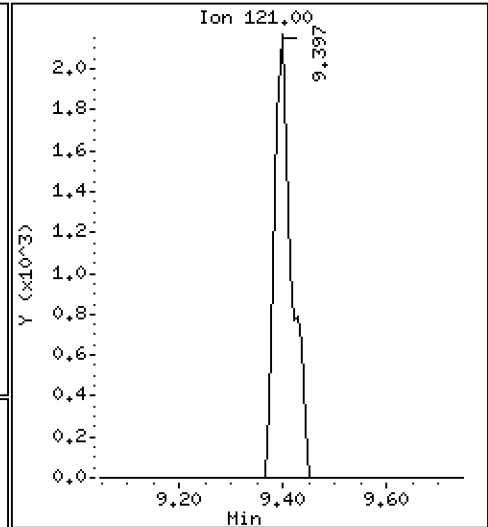
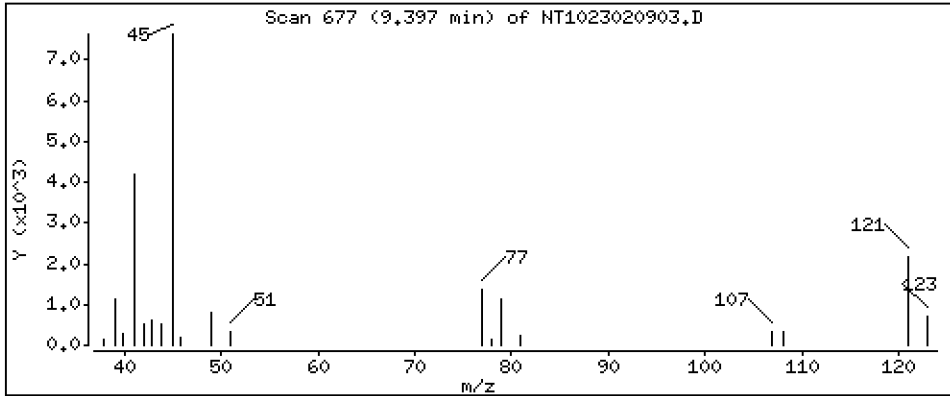
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 0.5054 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

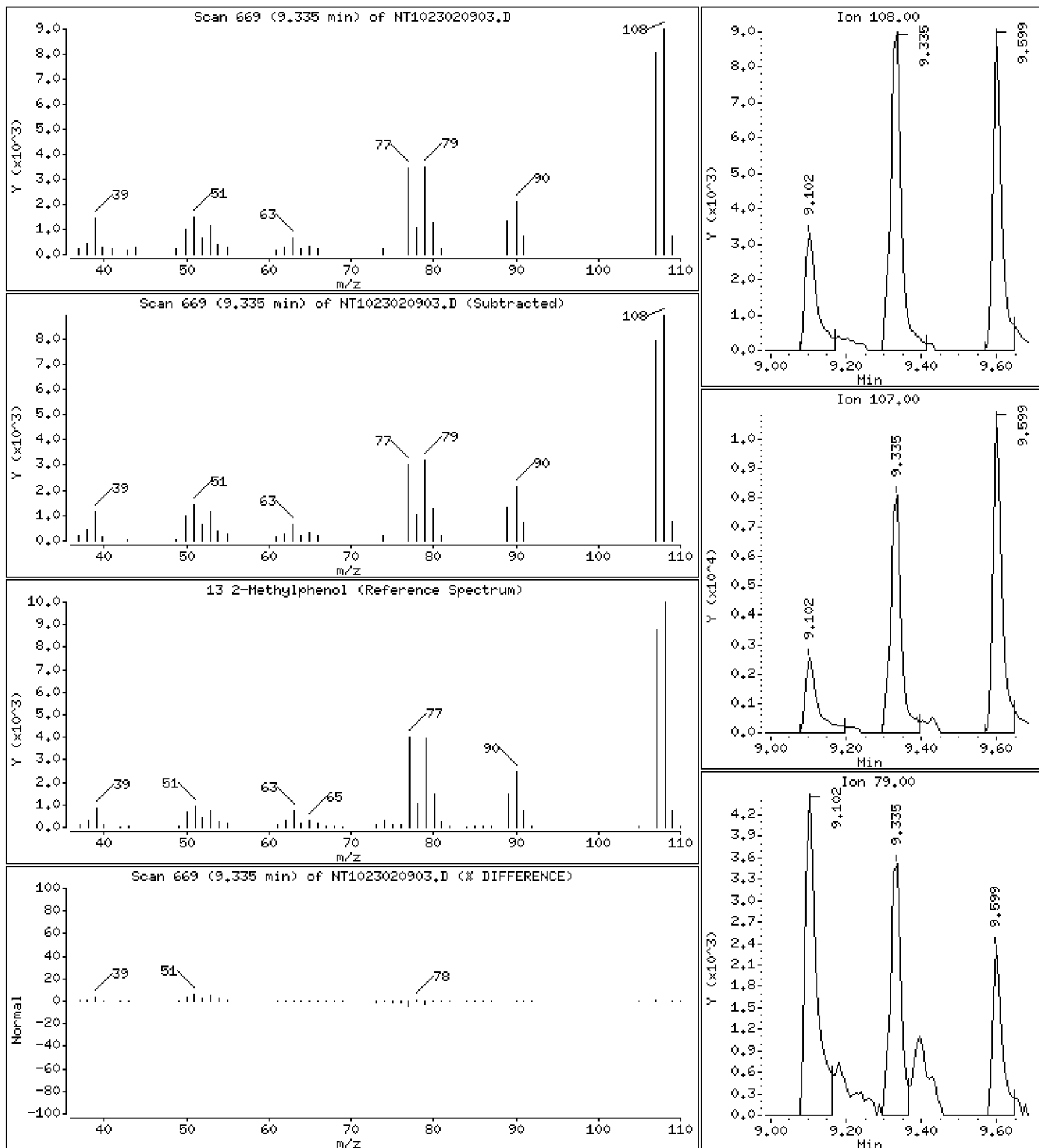
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 0,5874 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

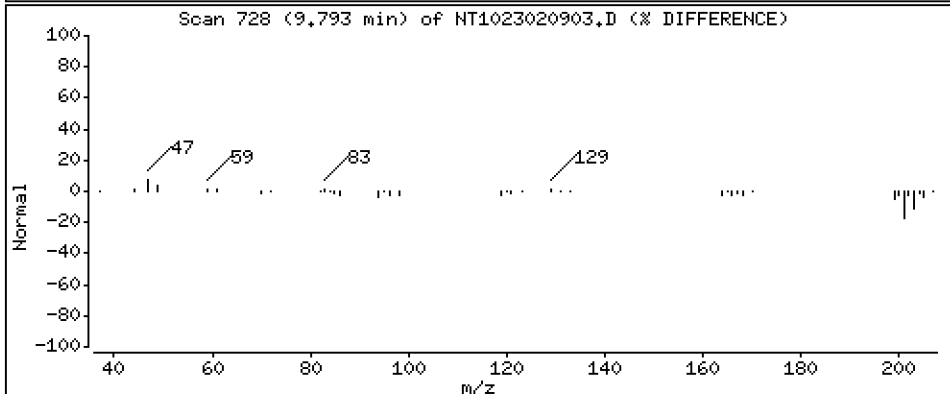
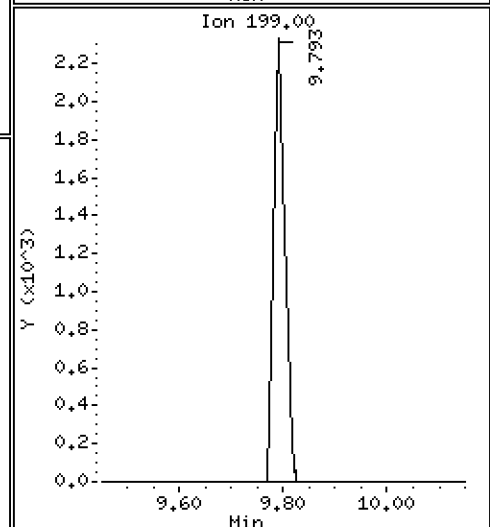
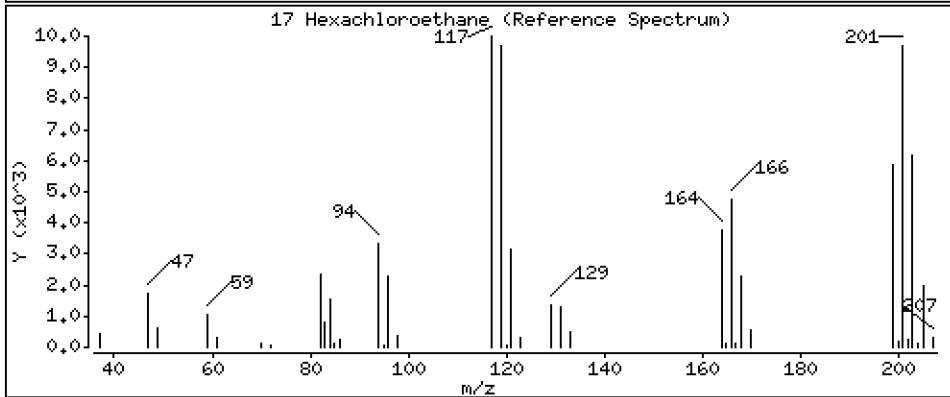
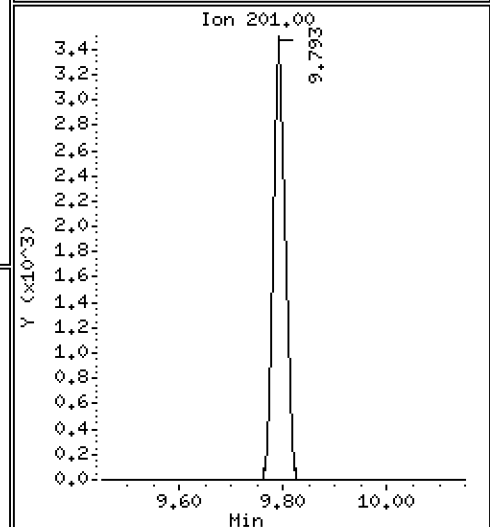
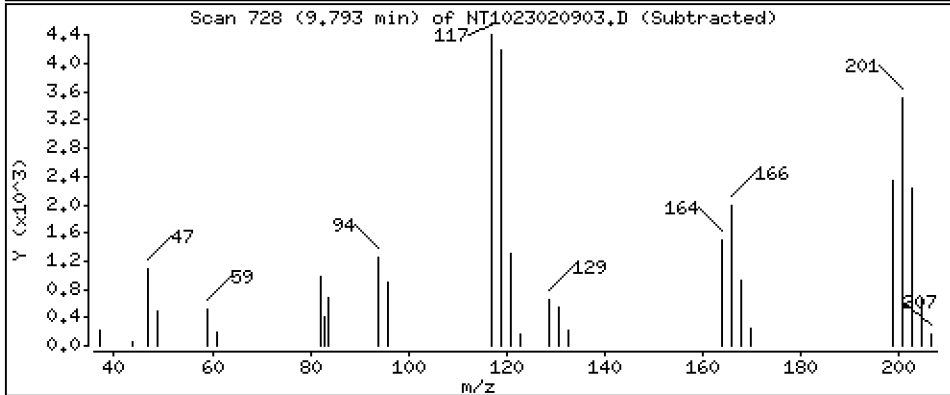
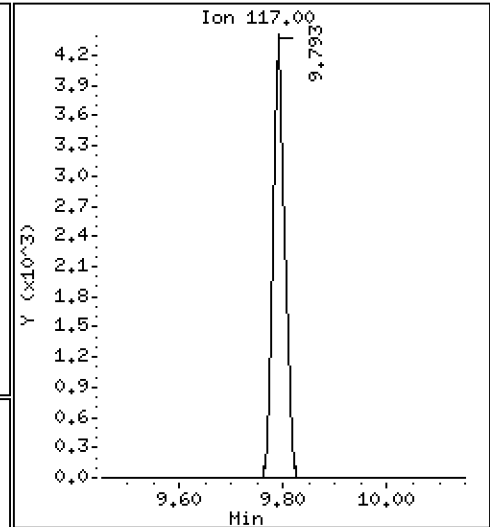
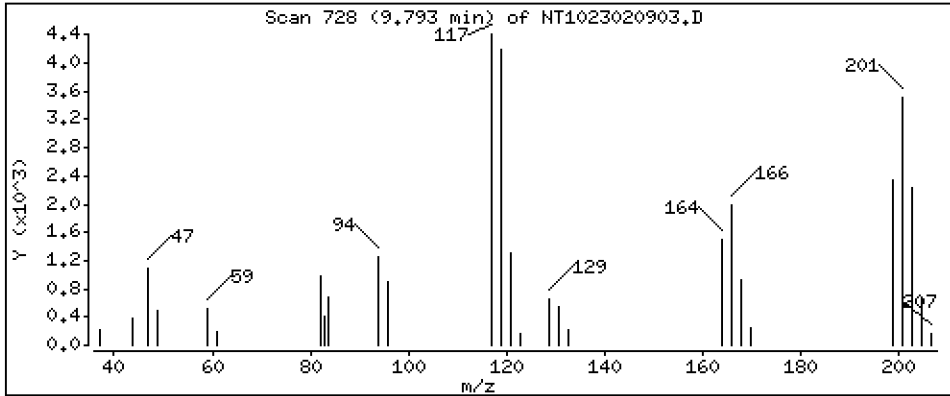
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 0,5021 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

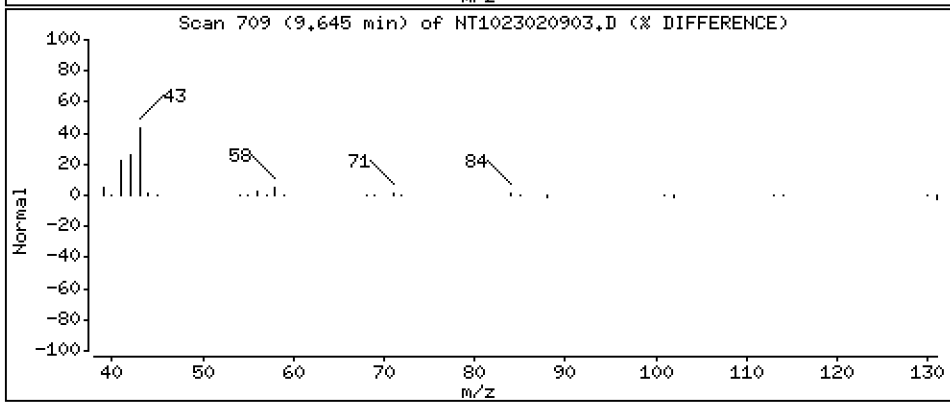
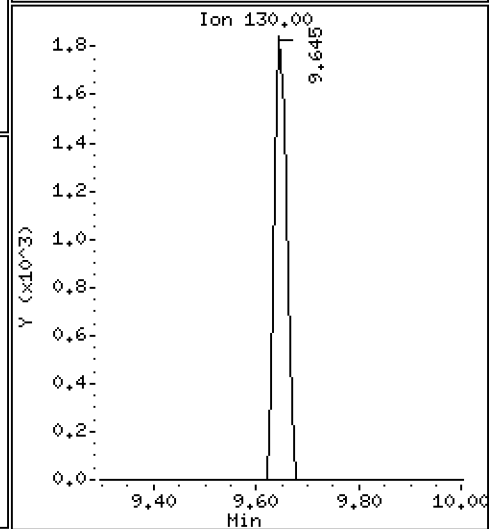
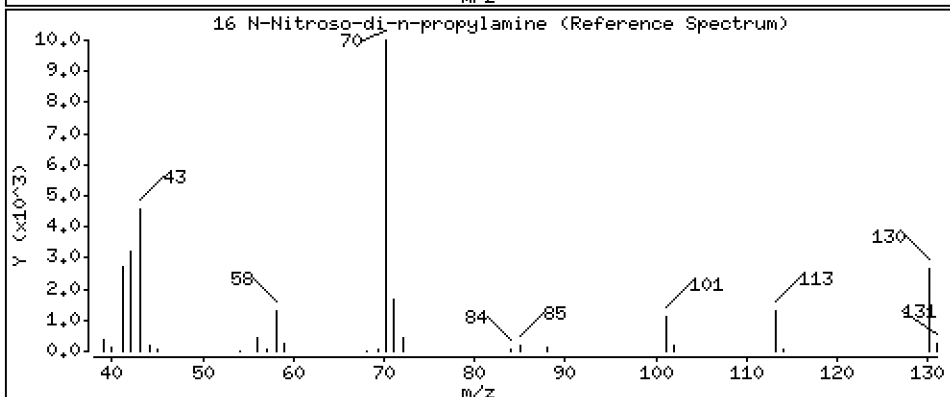
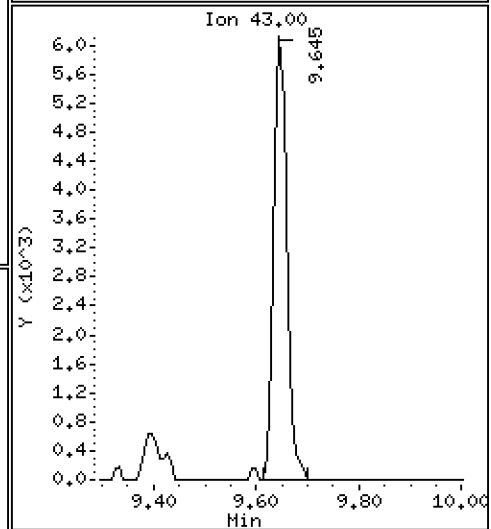
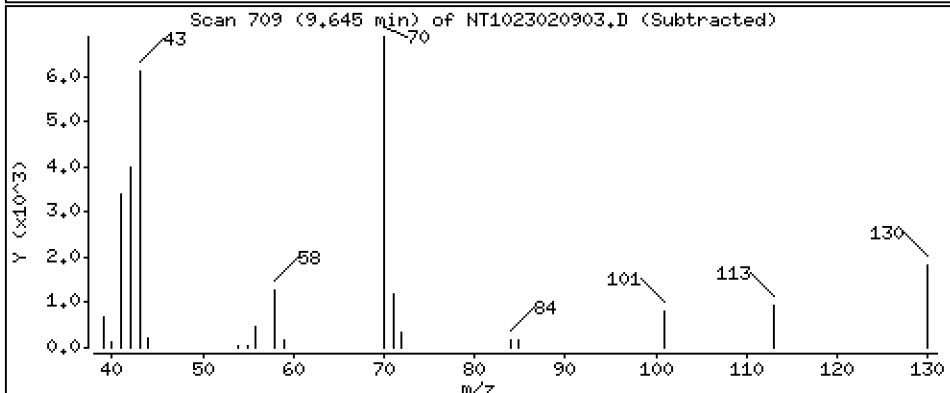
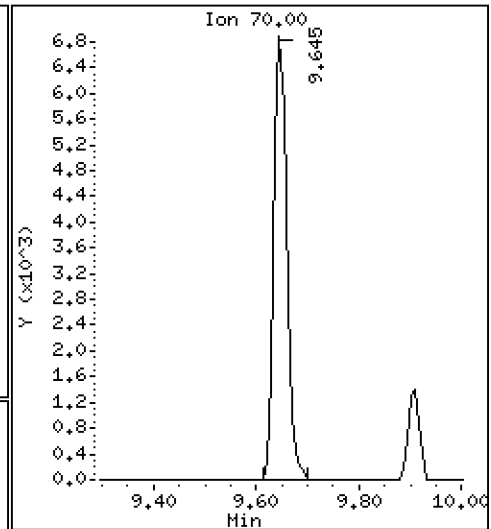
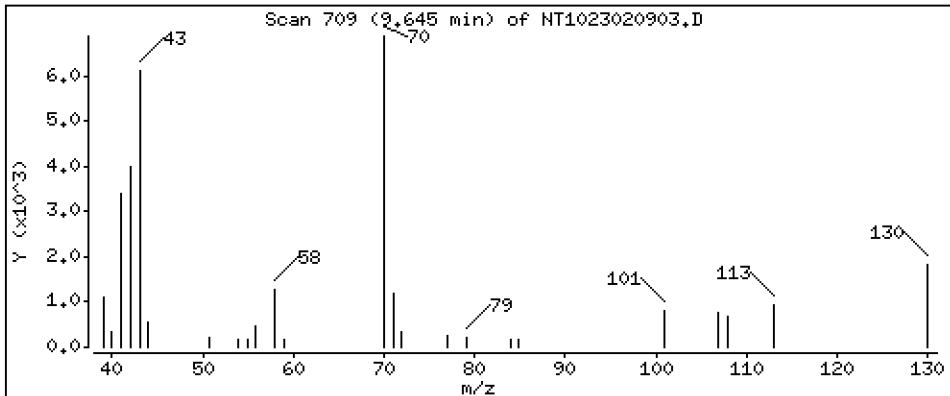
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 0.4985 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

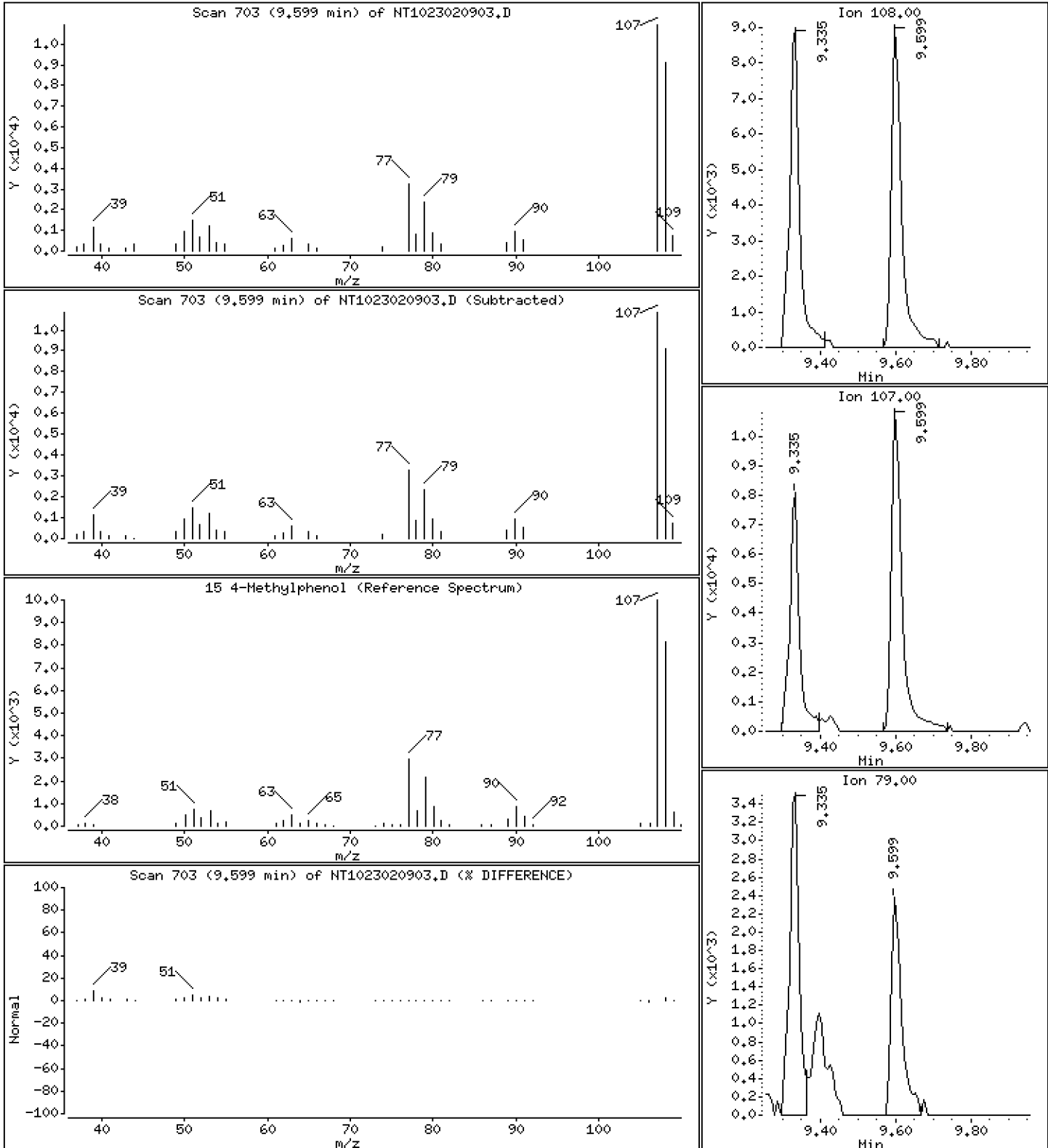
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.5038 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

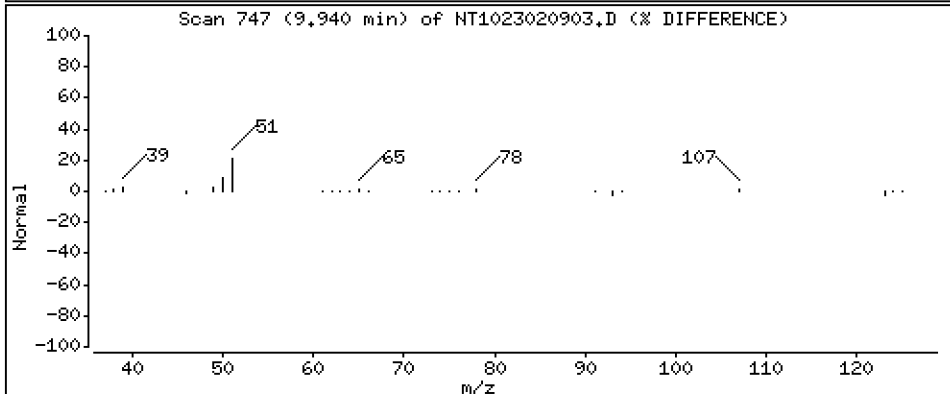
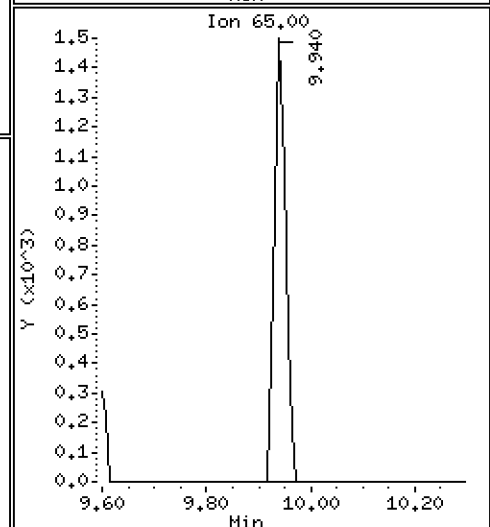
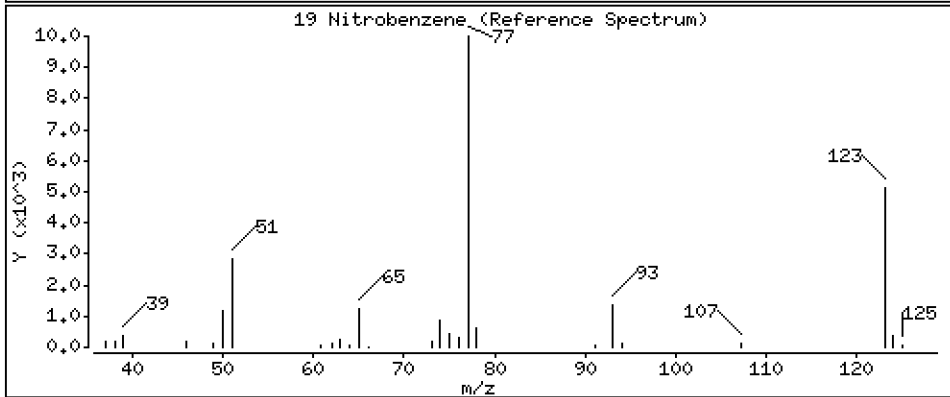
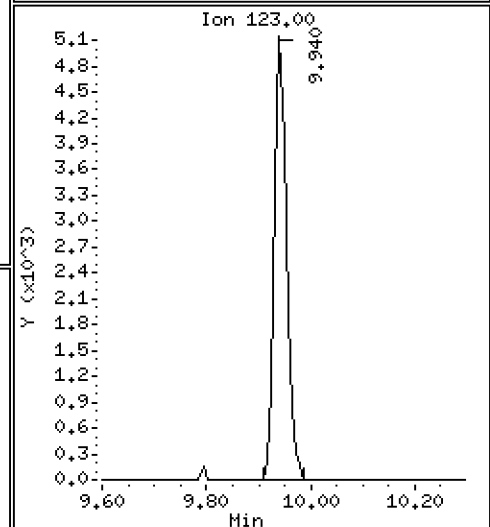
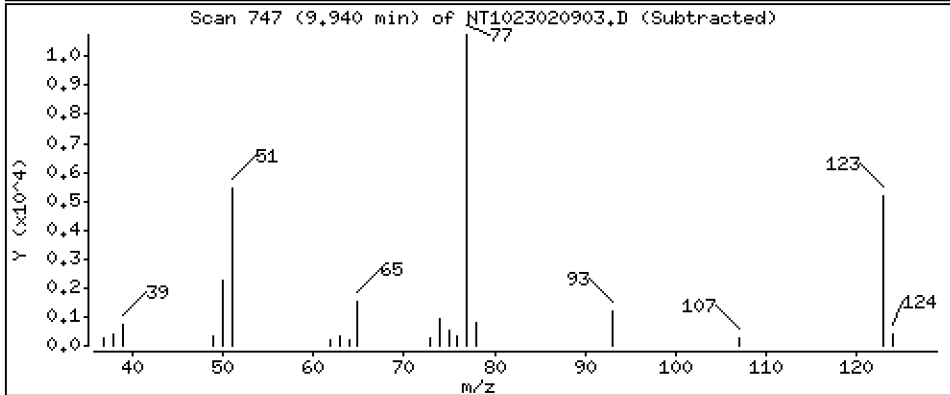
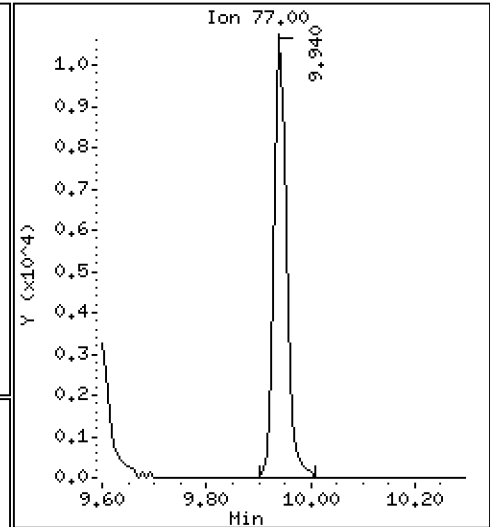
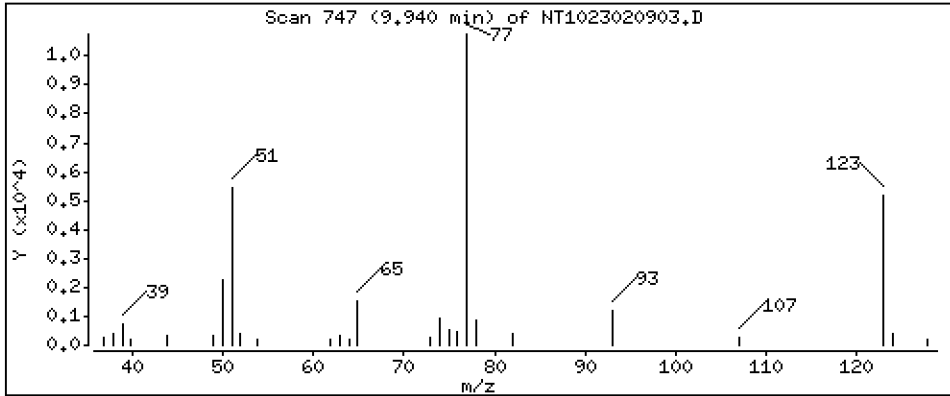
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Concentration: 0.5269 ug/mL

19 Nitrobenzene



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

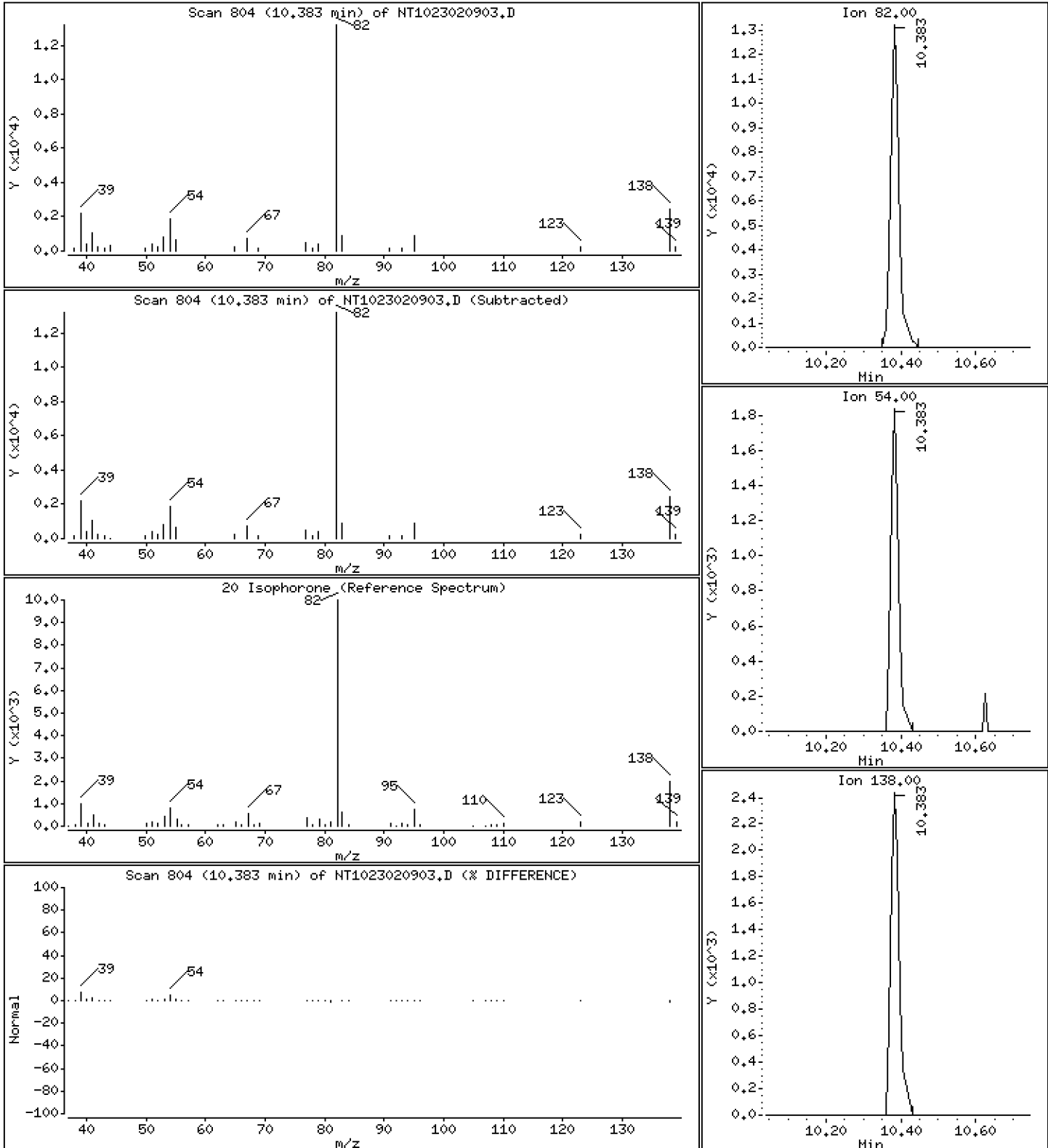
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

20 Isophorone

Concentration: 0.5517 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

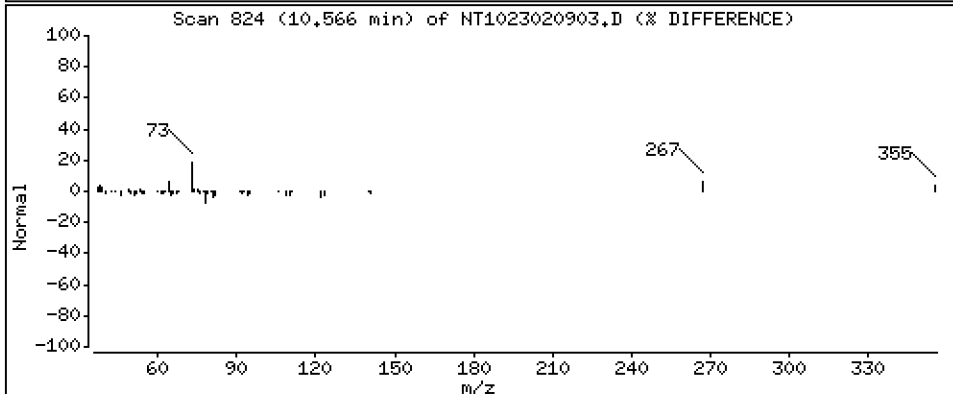
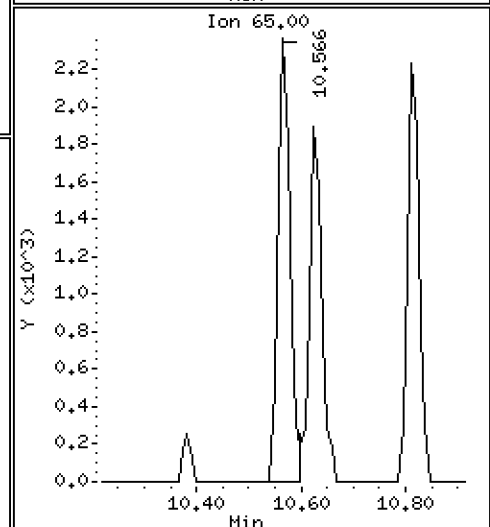
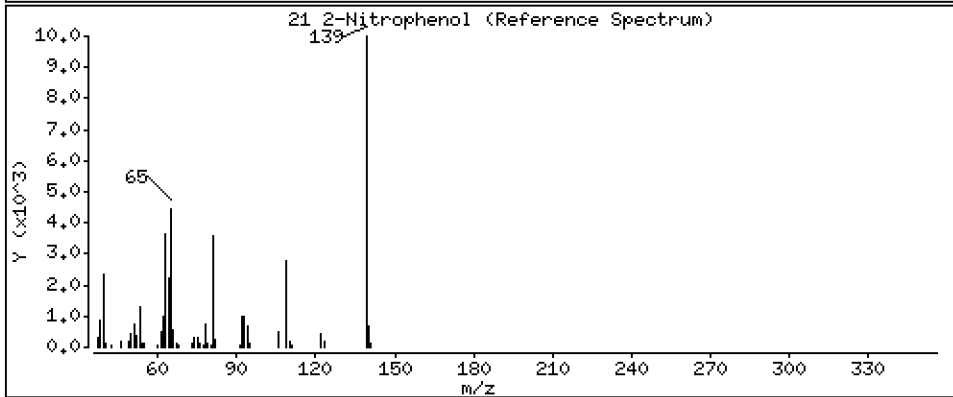
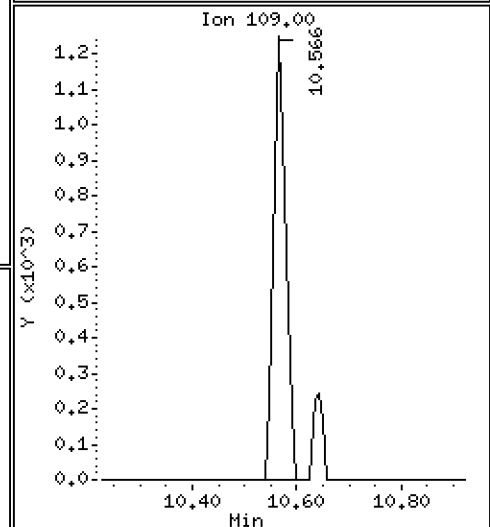
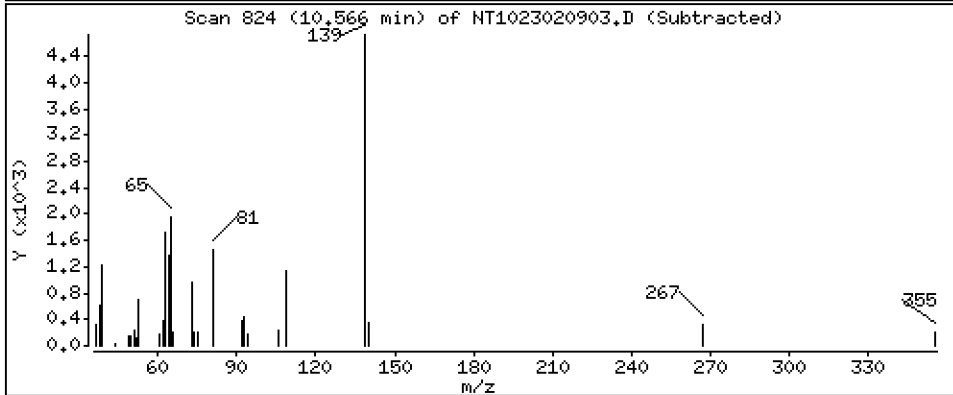
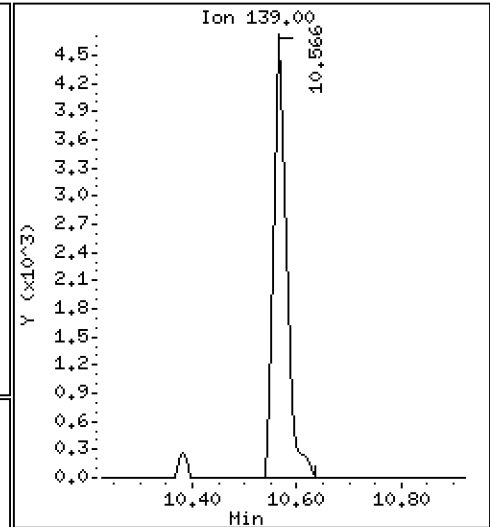
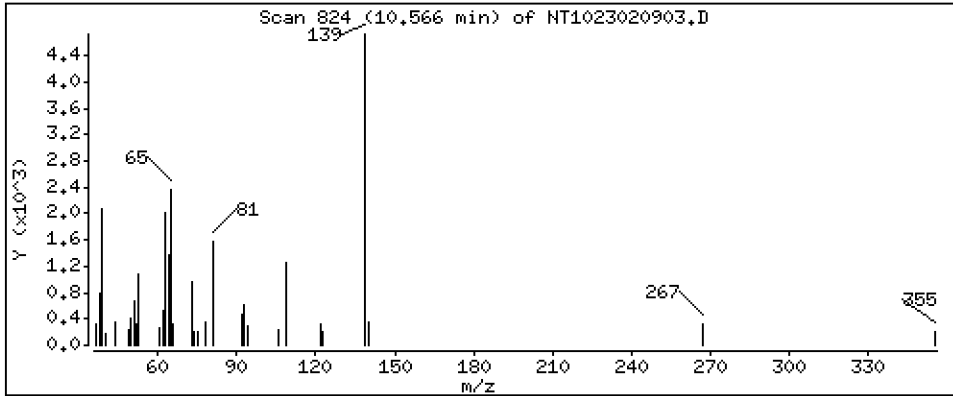
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,4857 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

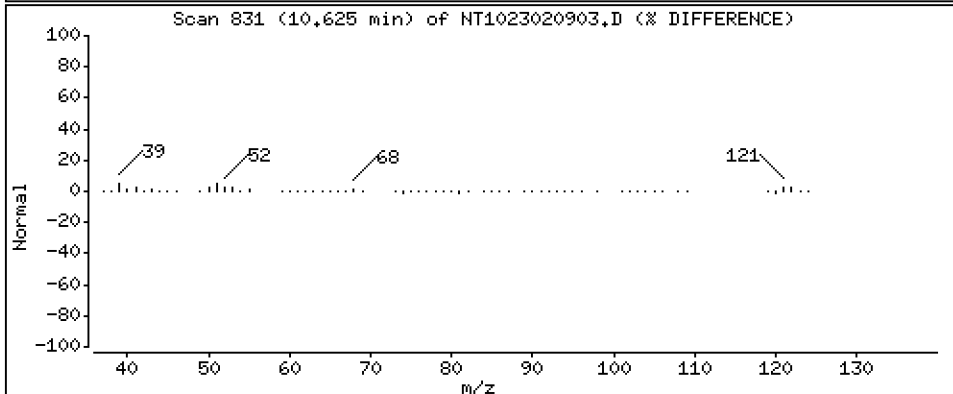
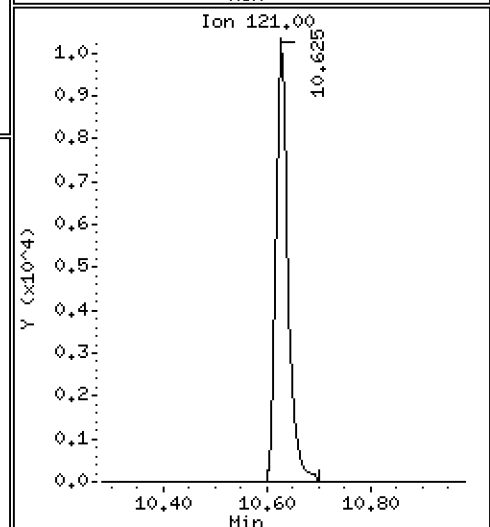
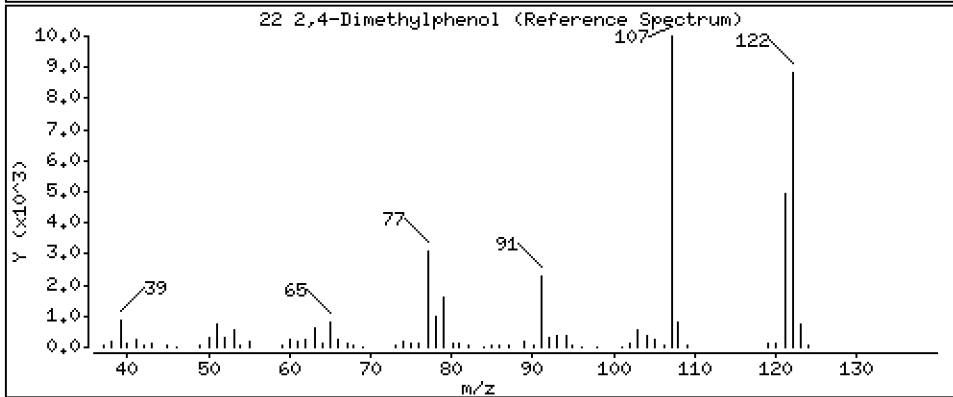
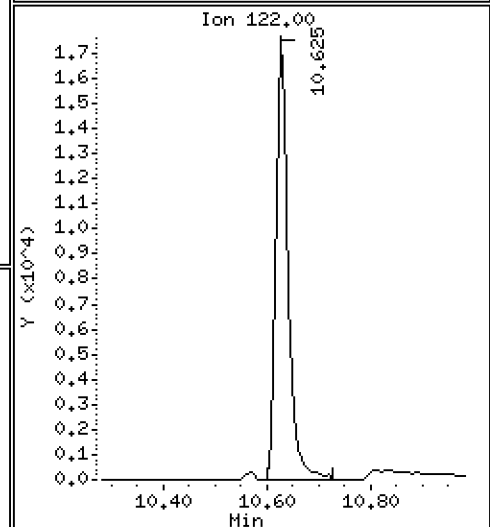
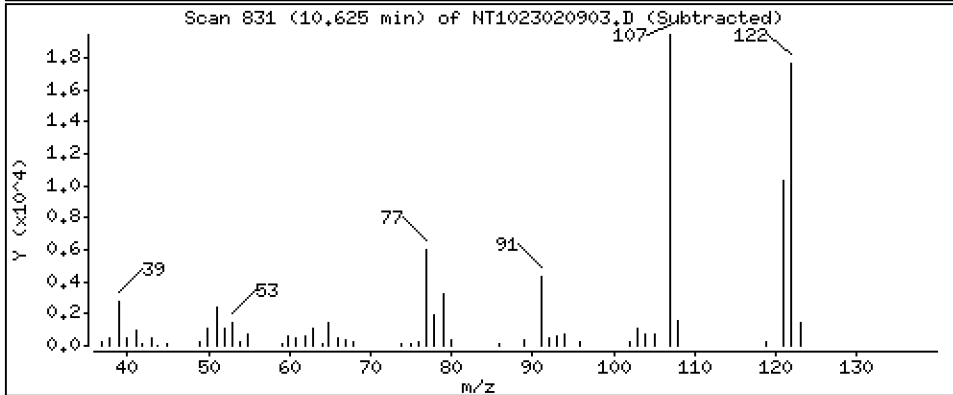
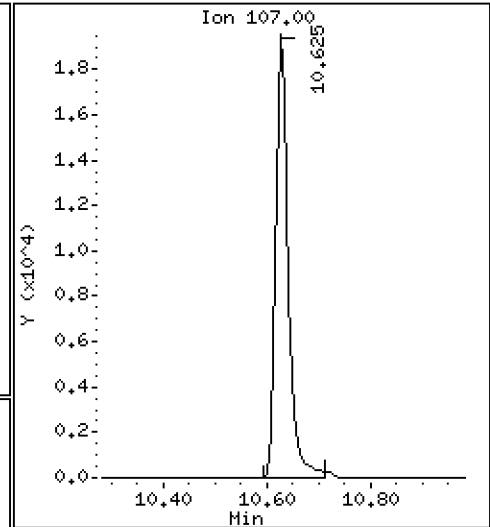
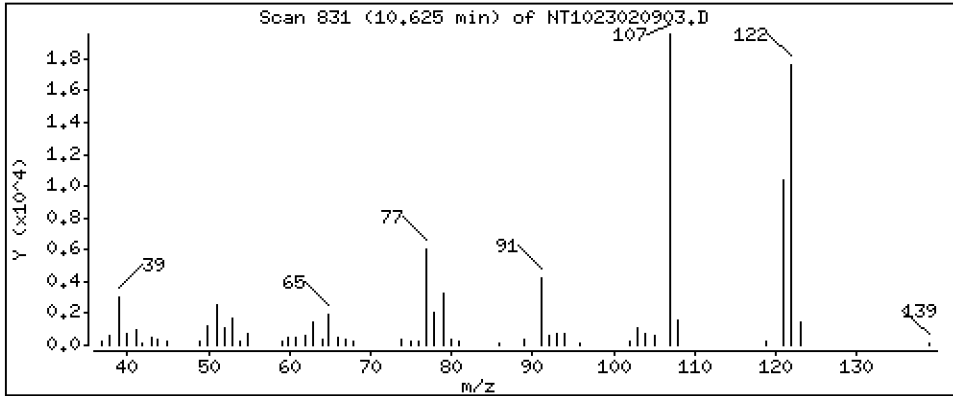
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 1,082 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

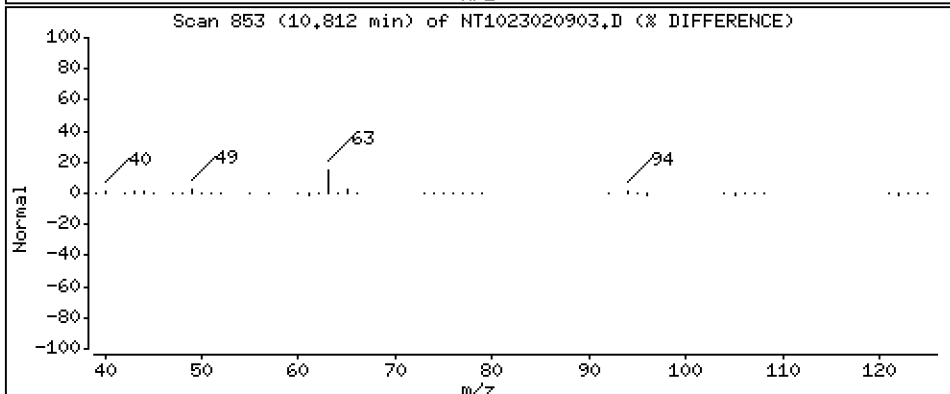
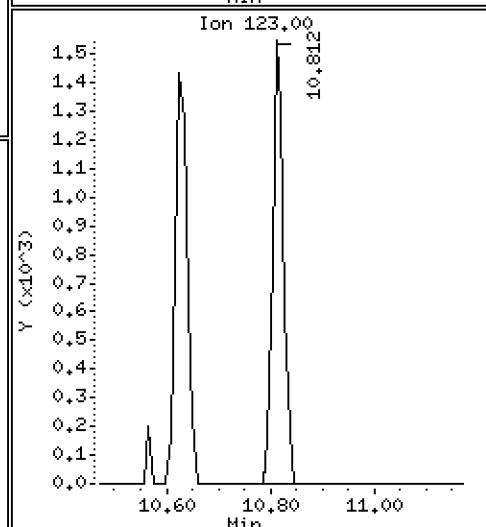
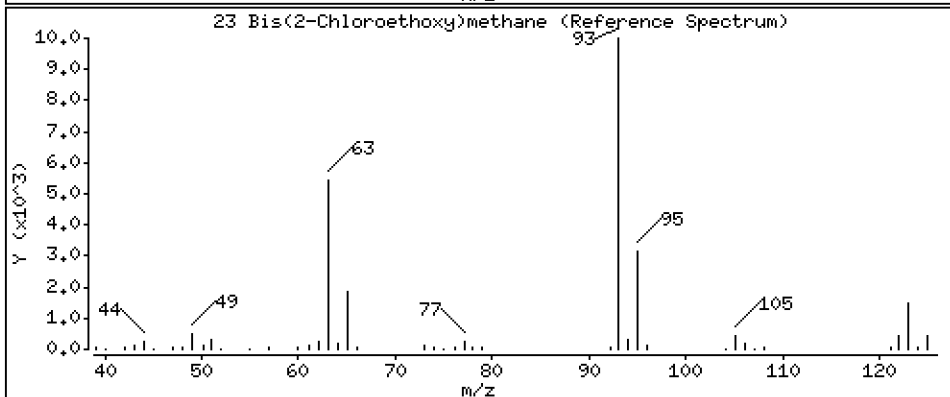
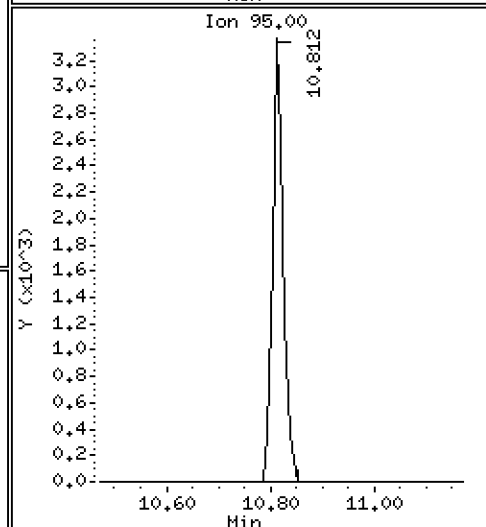
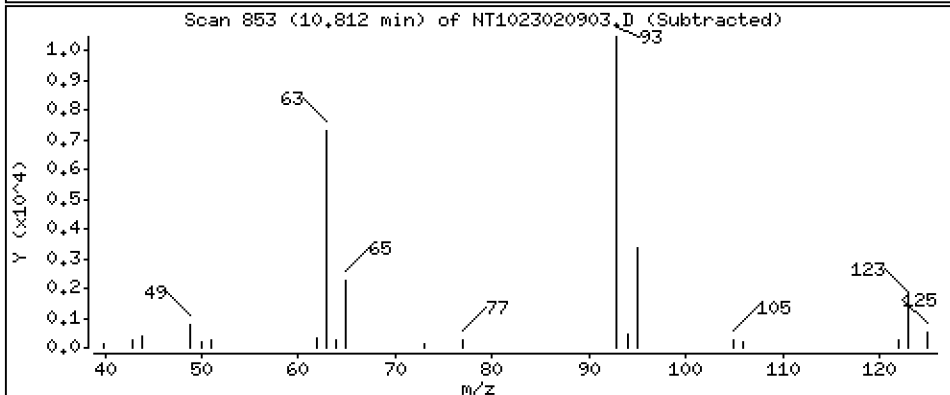
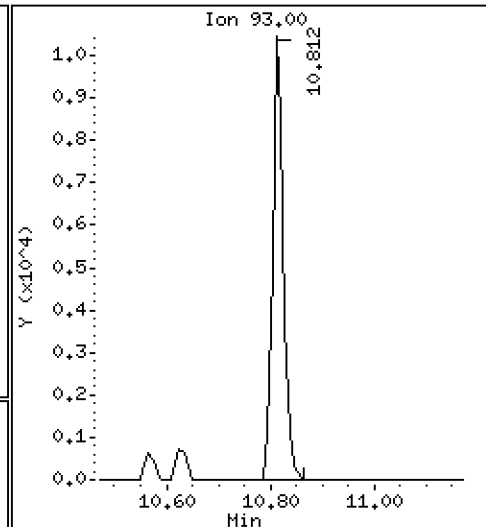
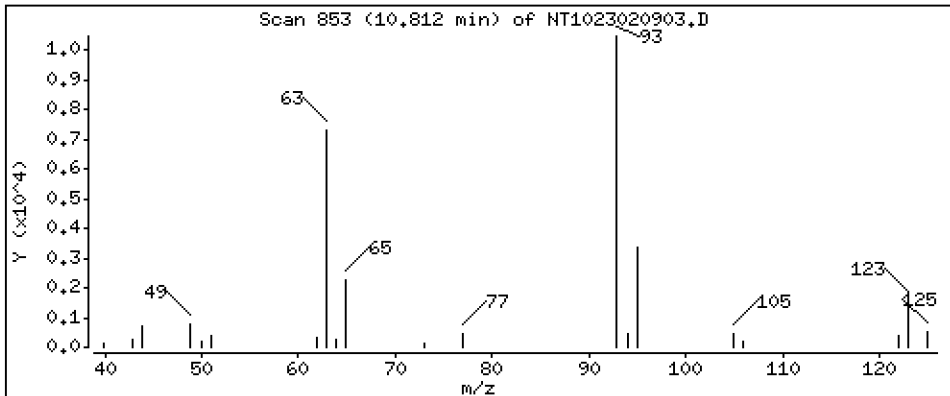
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 0,5302 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

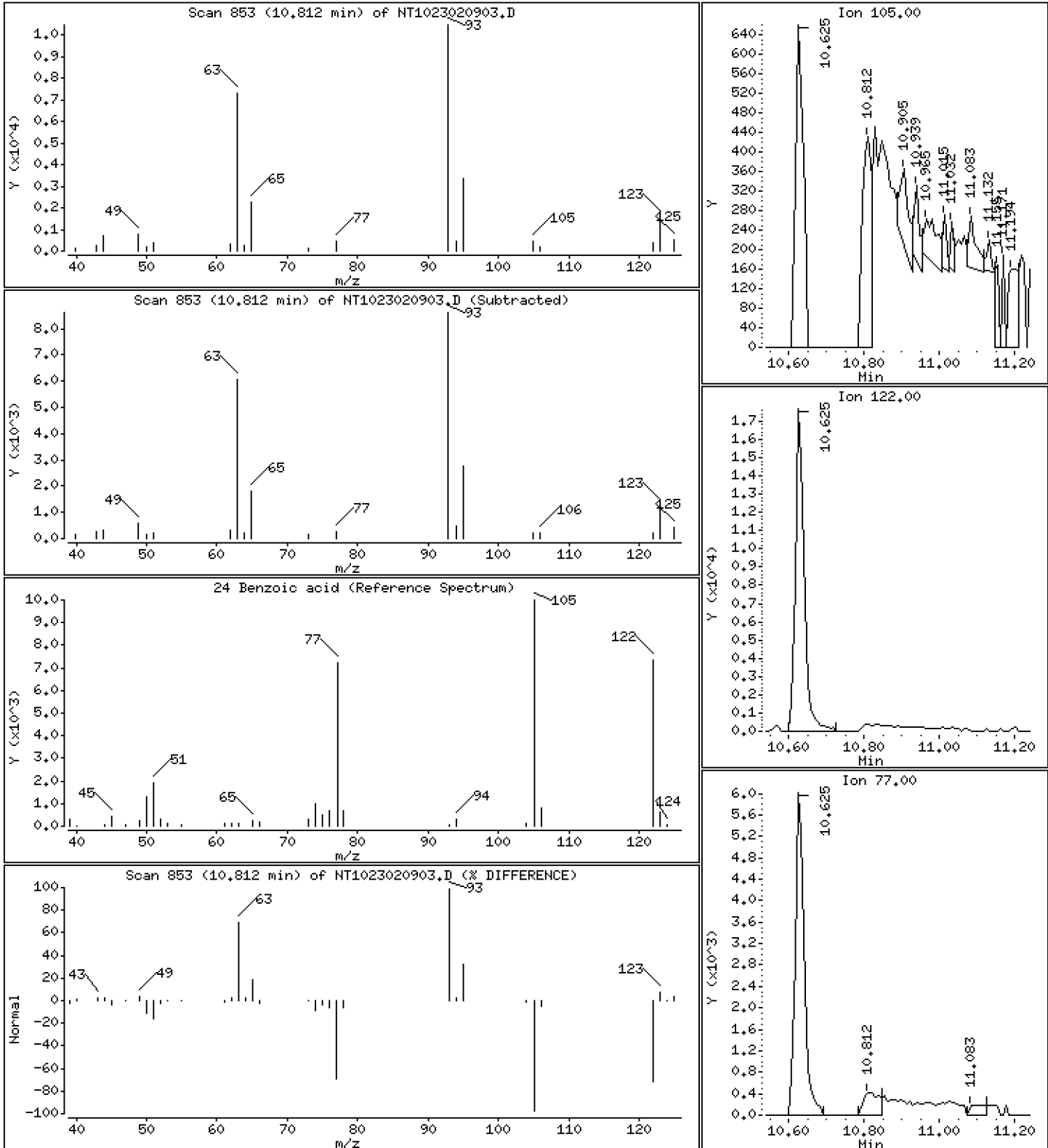
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.04465 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

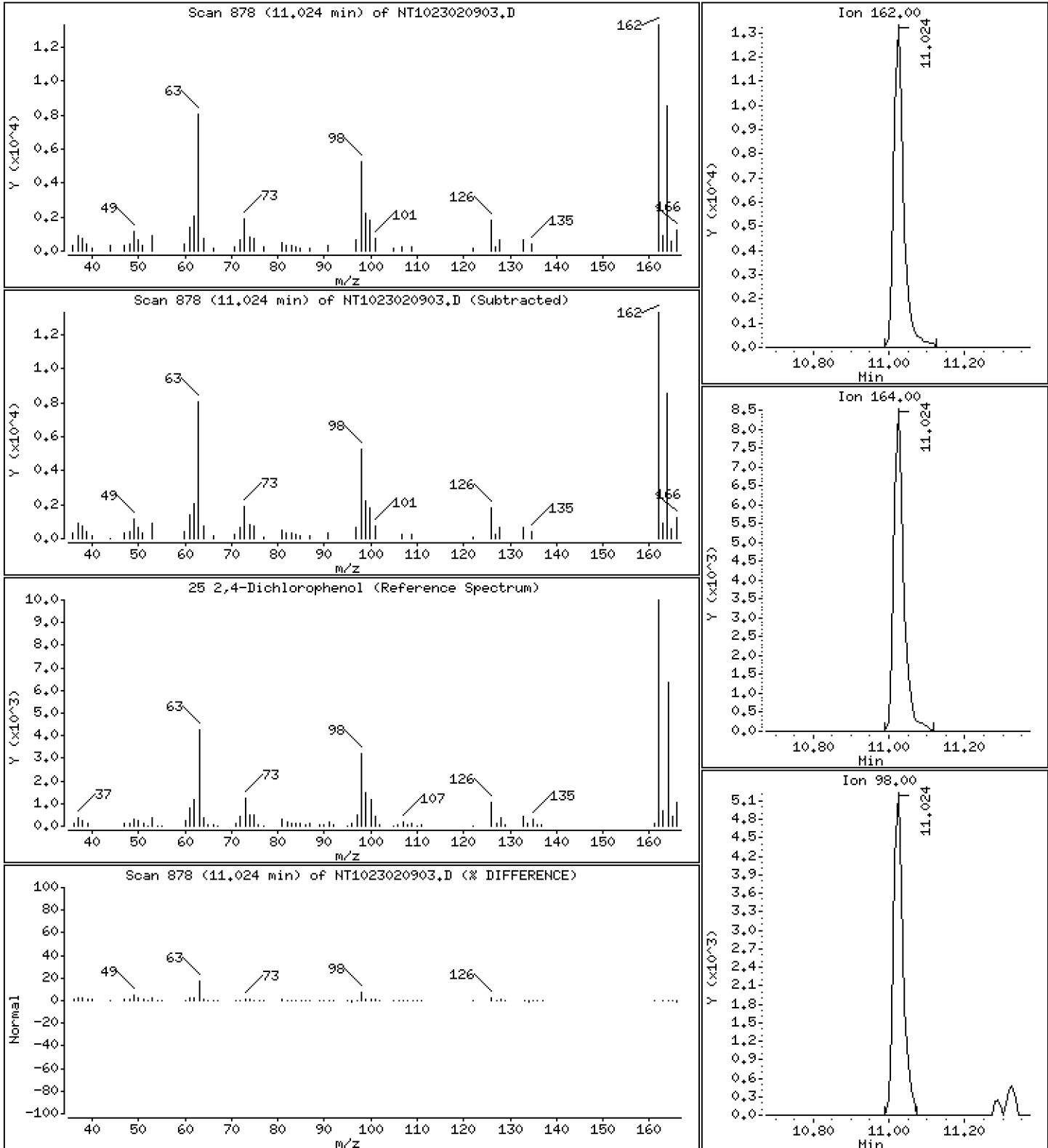
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 1,110 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

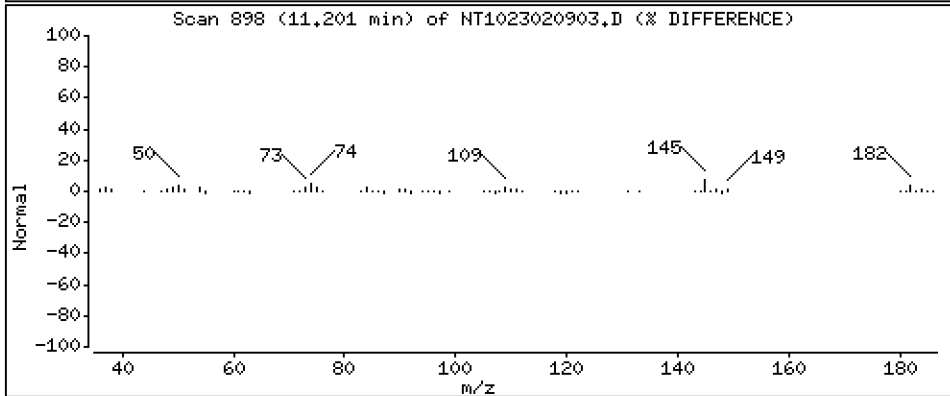
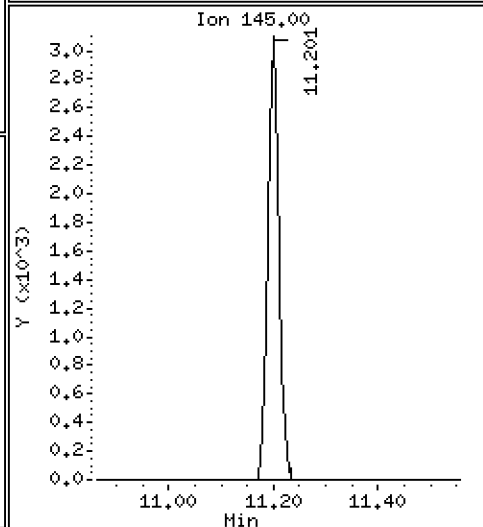
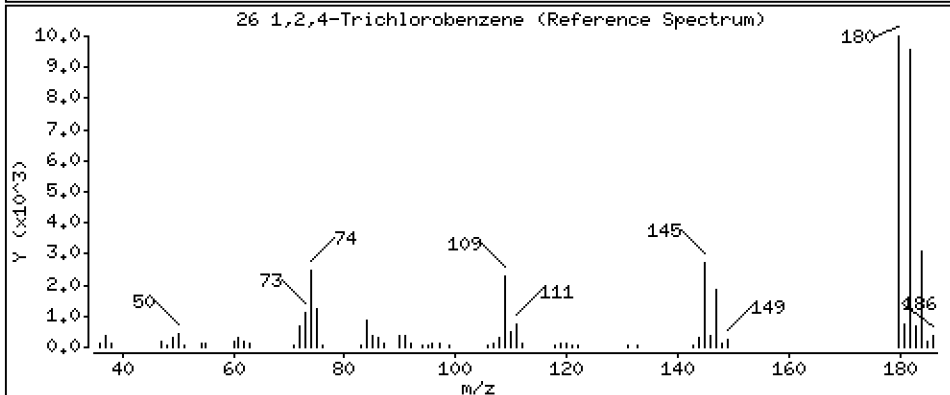
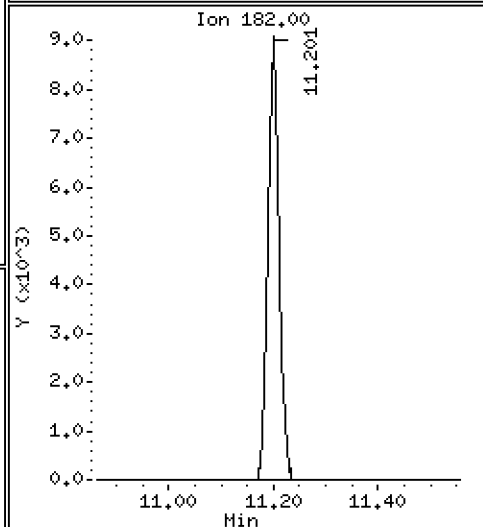
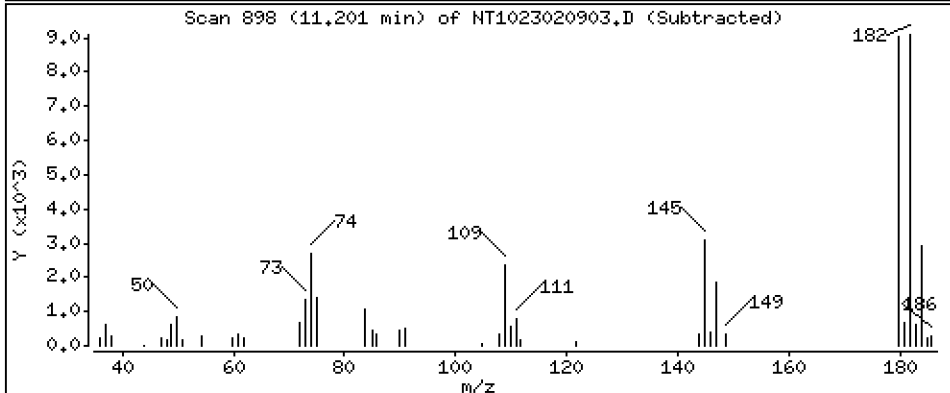
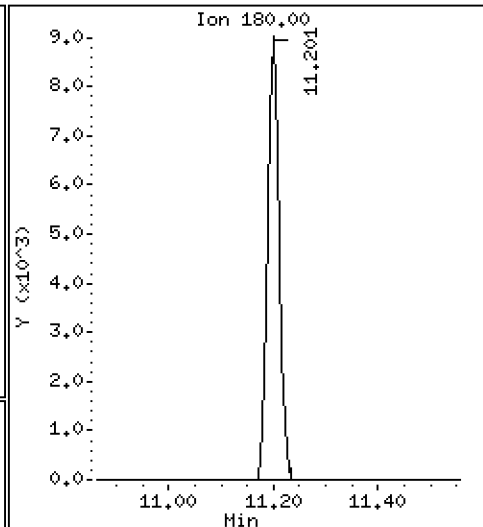
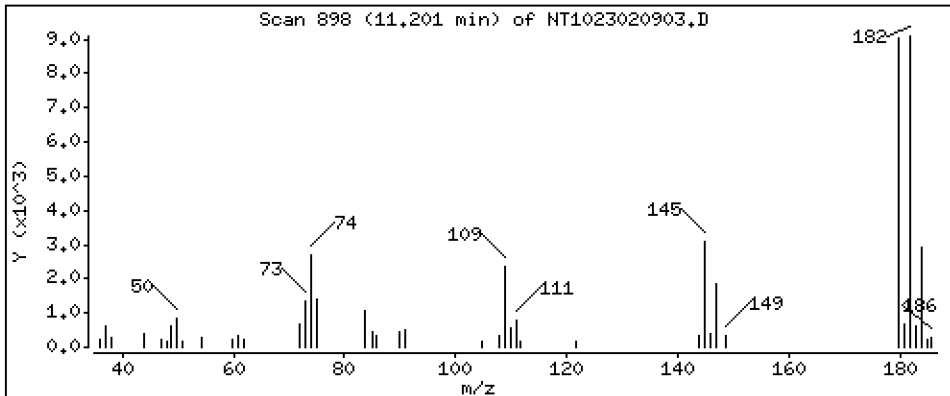
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,5385 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

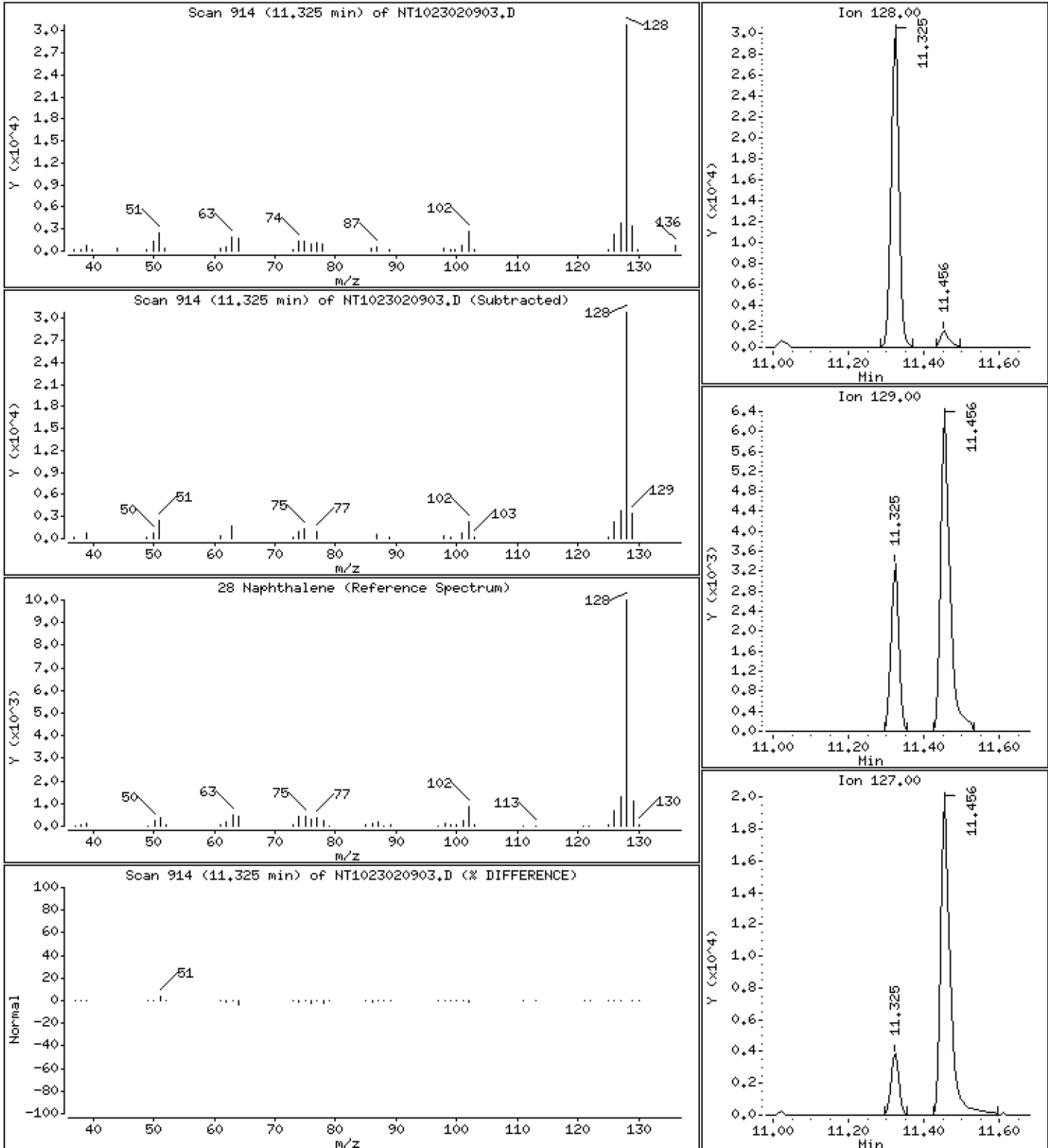
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,5153 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

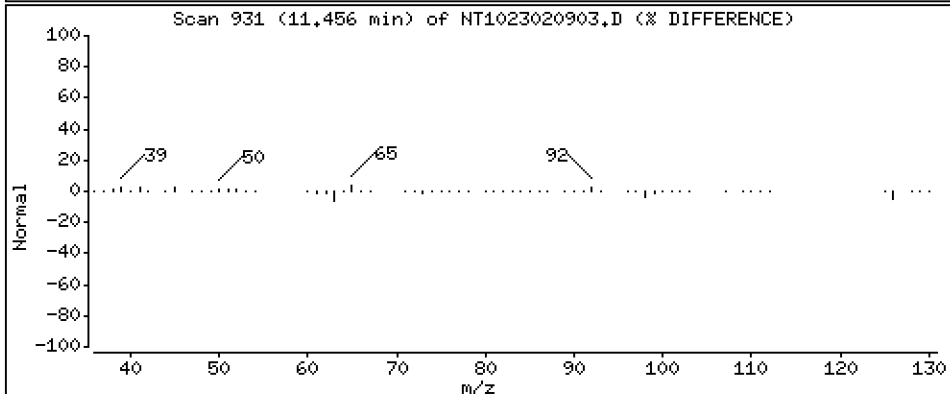
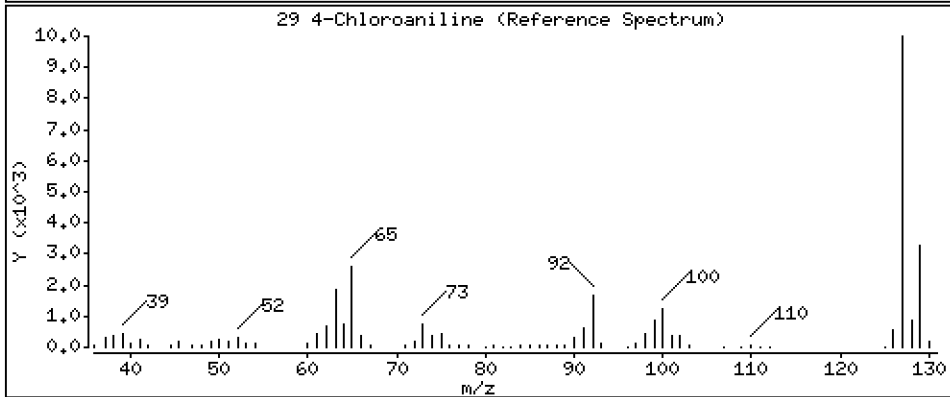
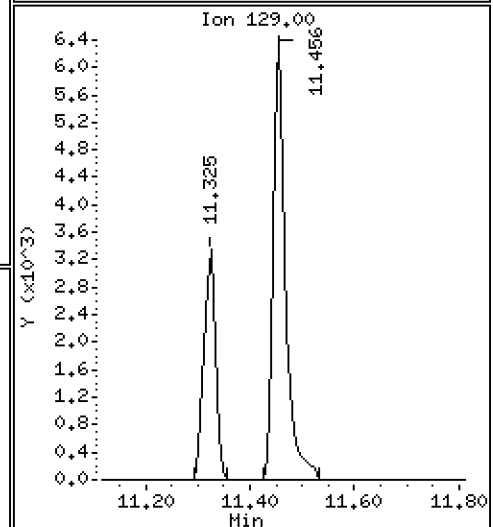
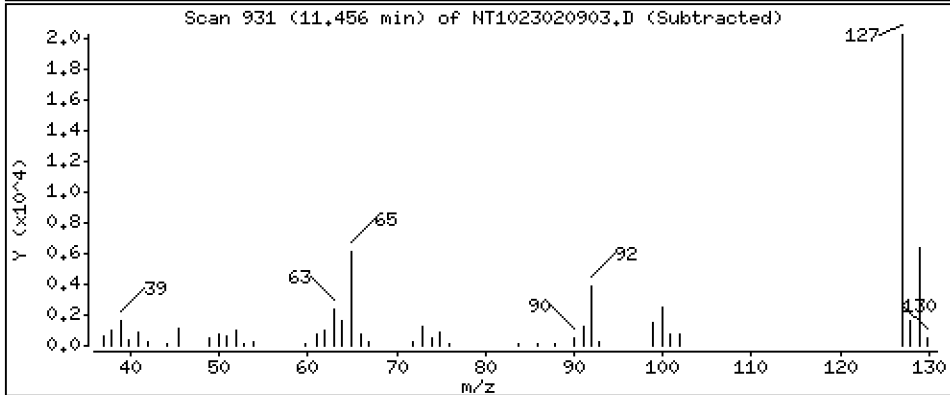
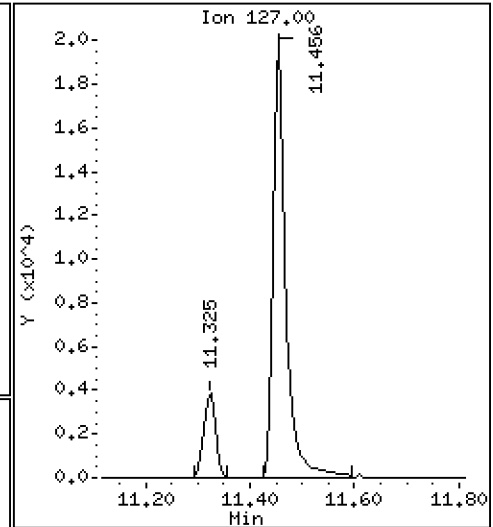
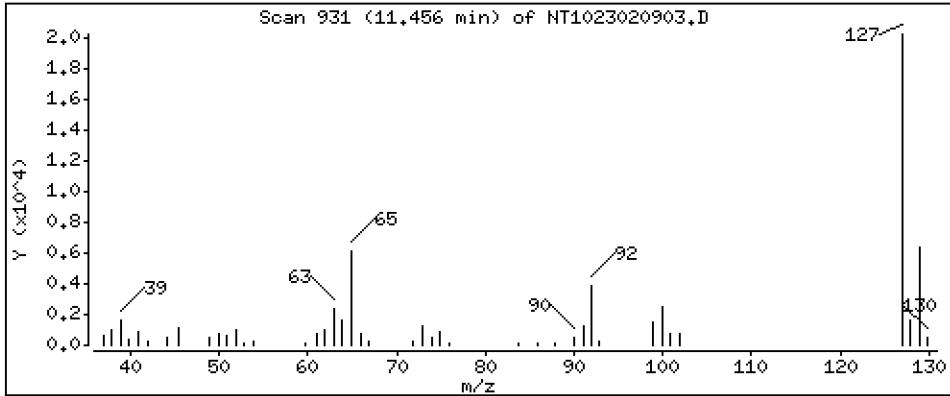
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 0,9814 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

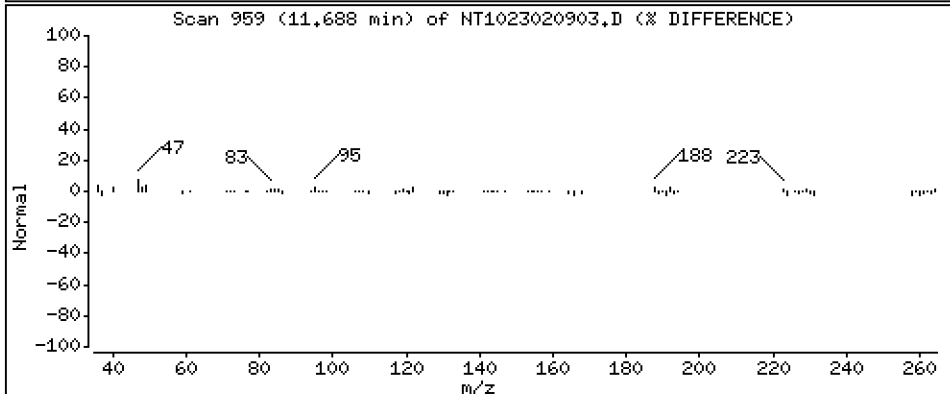
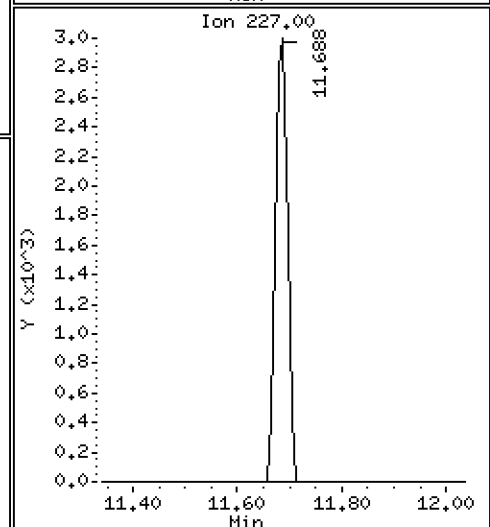
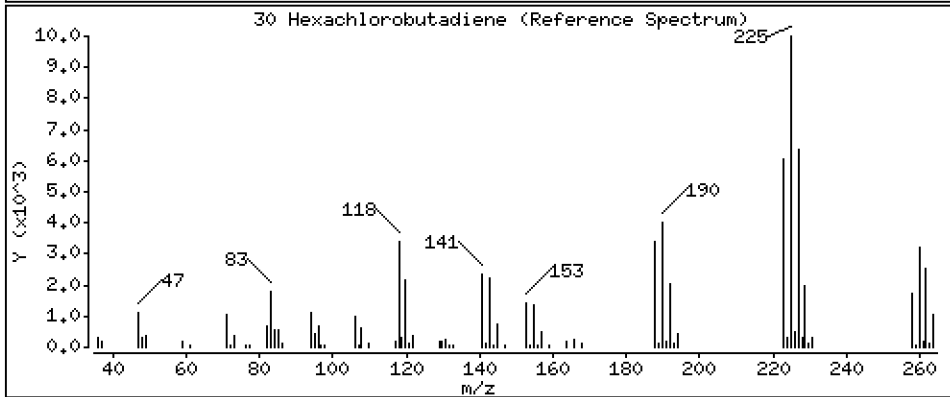
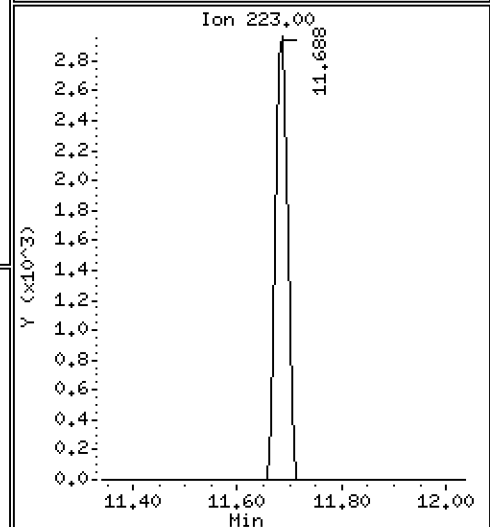
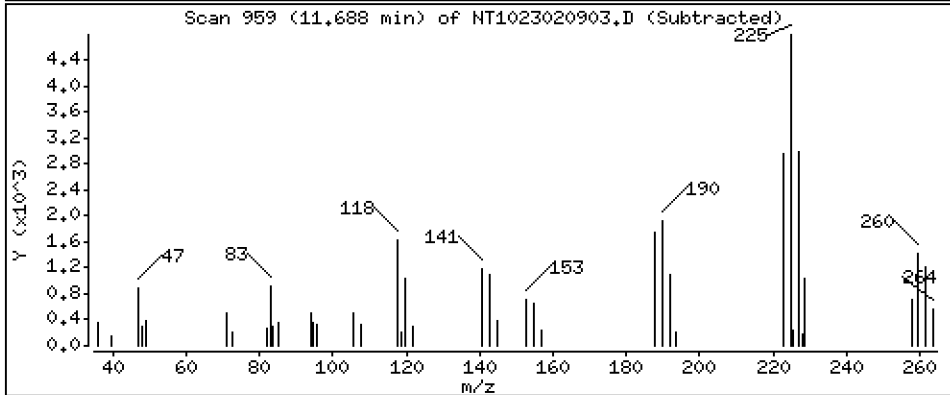
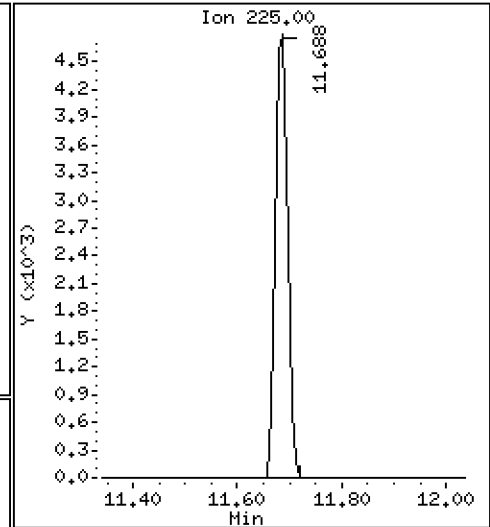
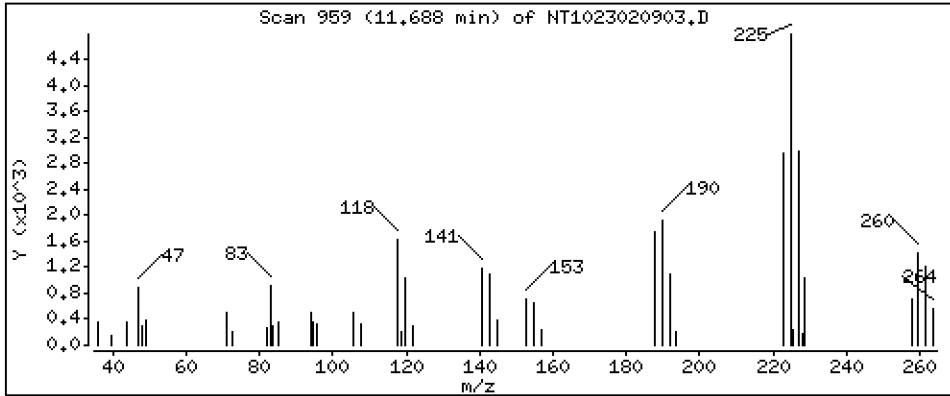
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,5447 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

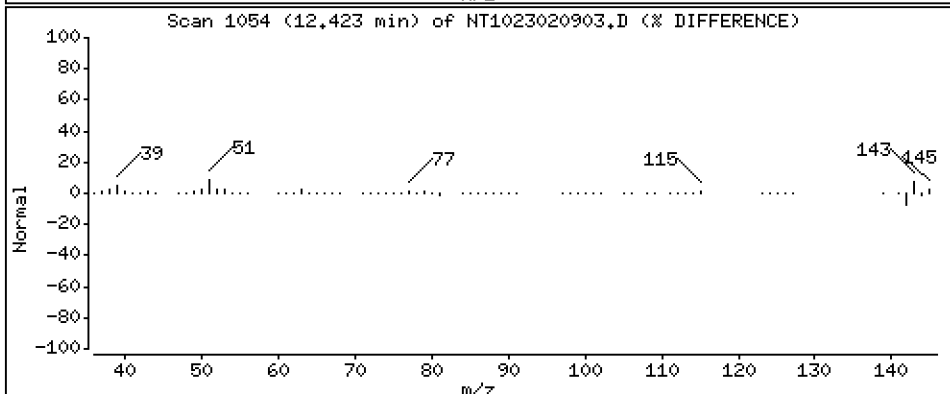
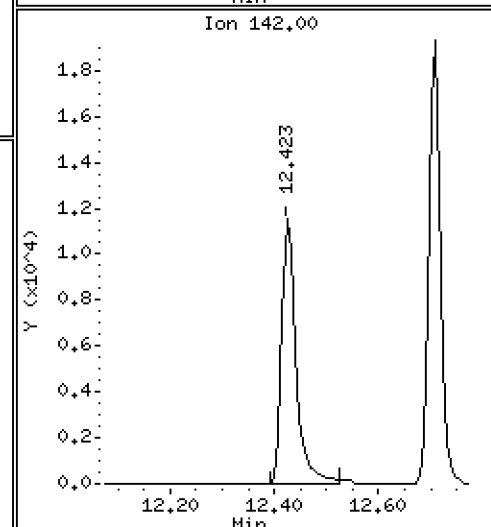
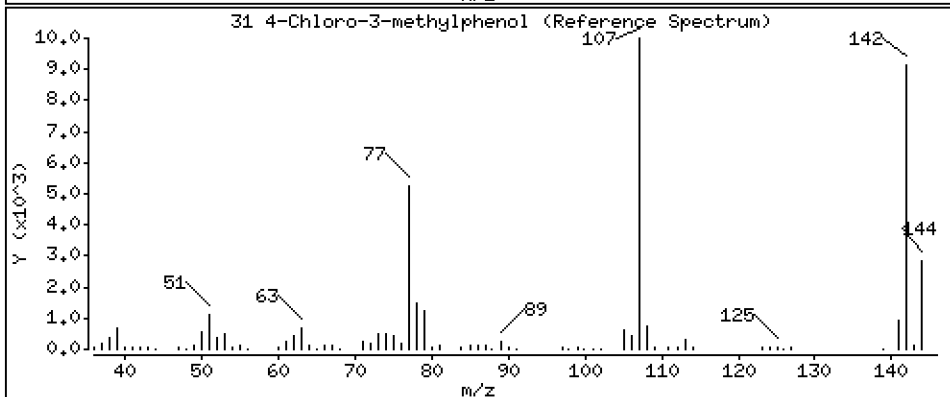
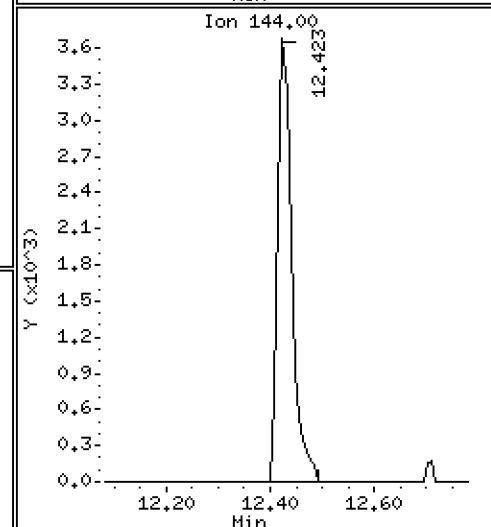
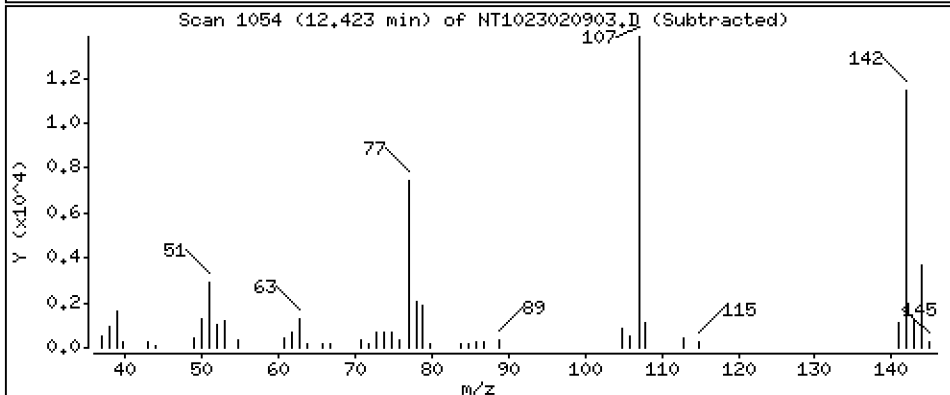
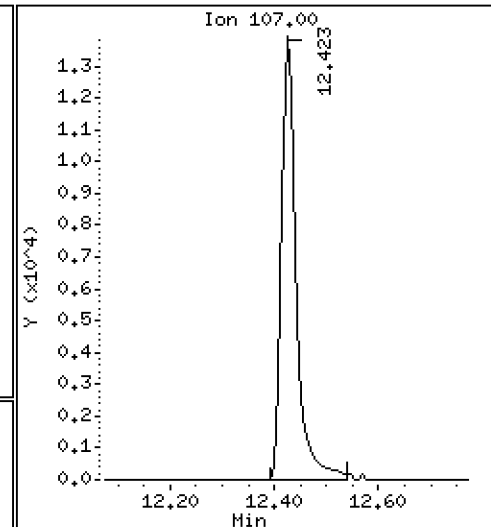
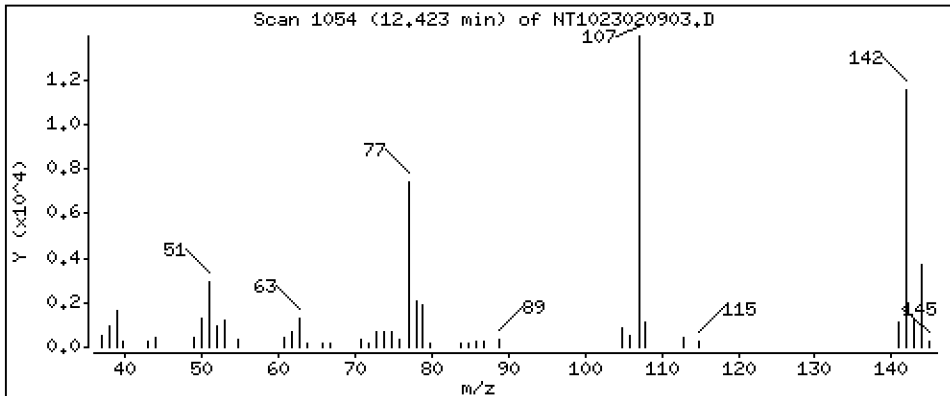
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 0,9950 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

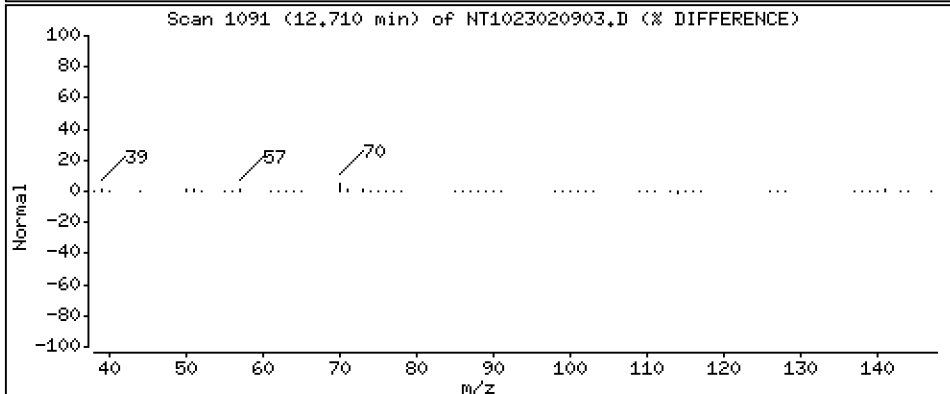
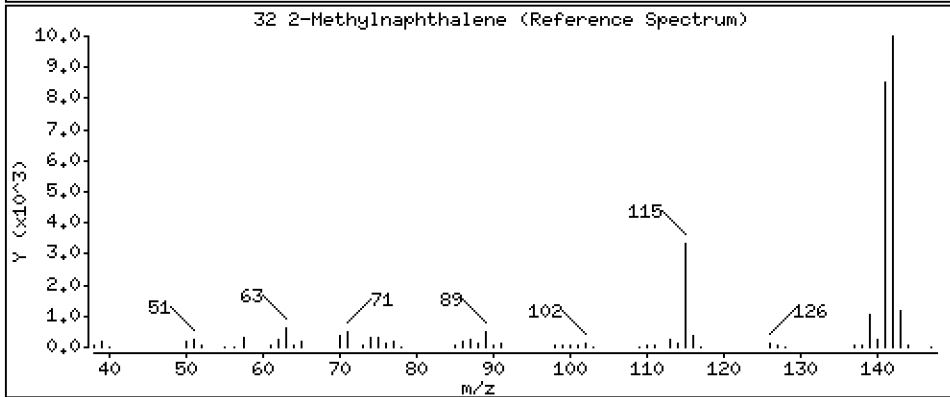
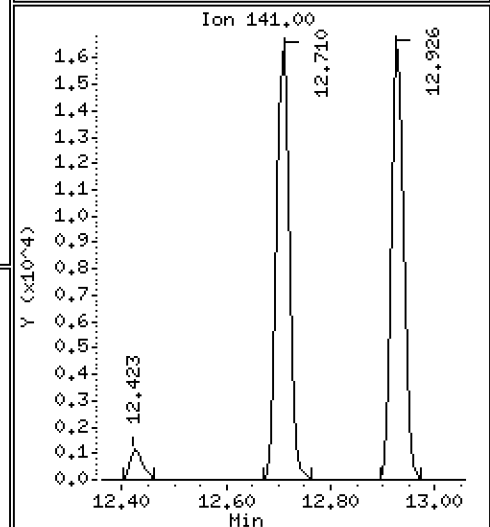
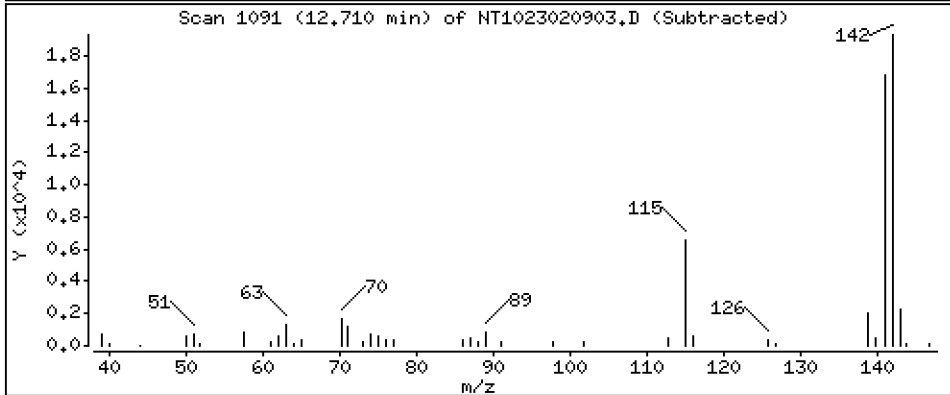
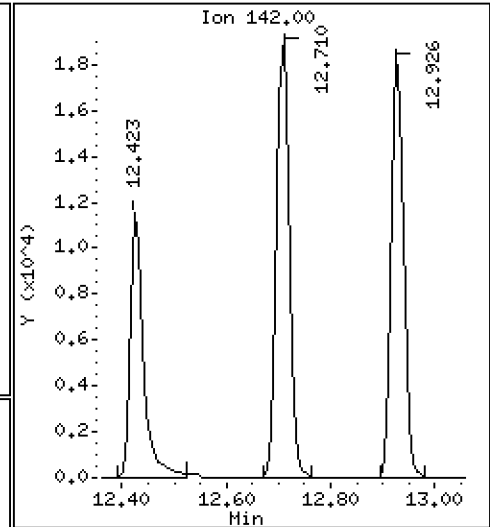
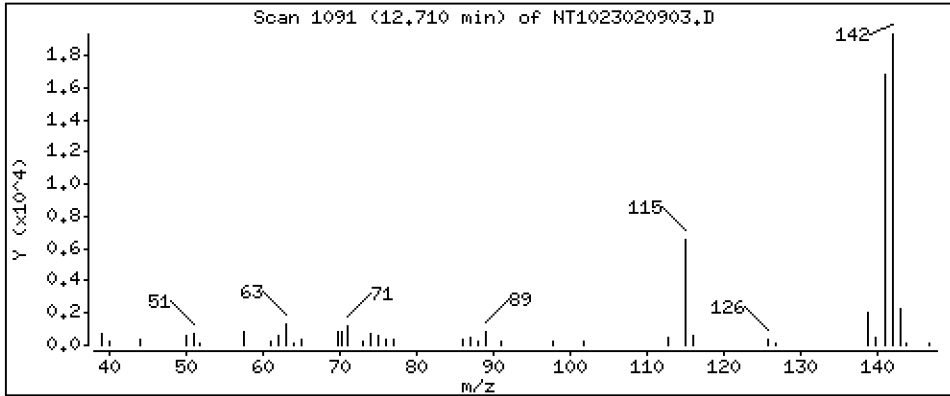
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,5082 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

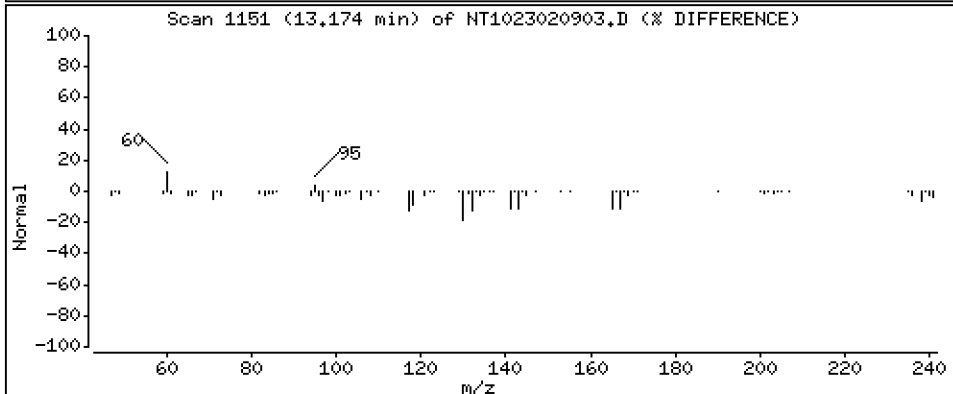
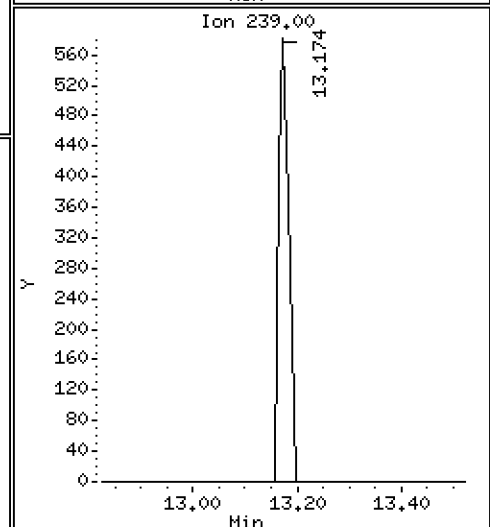
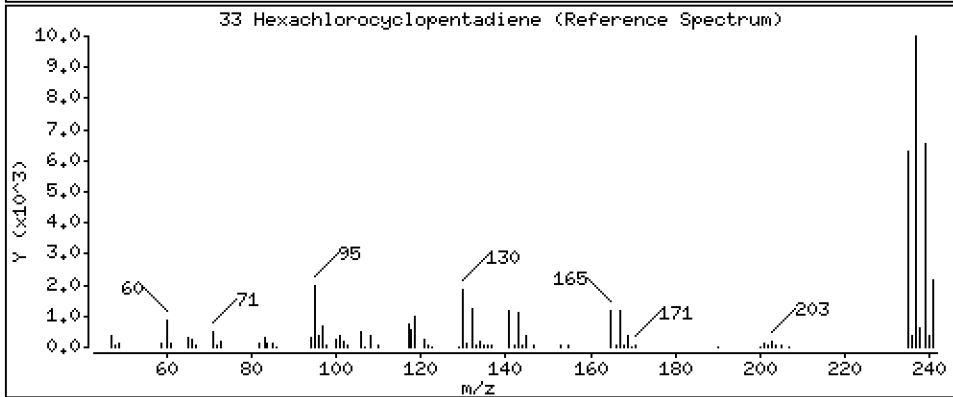
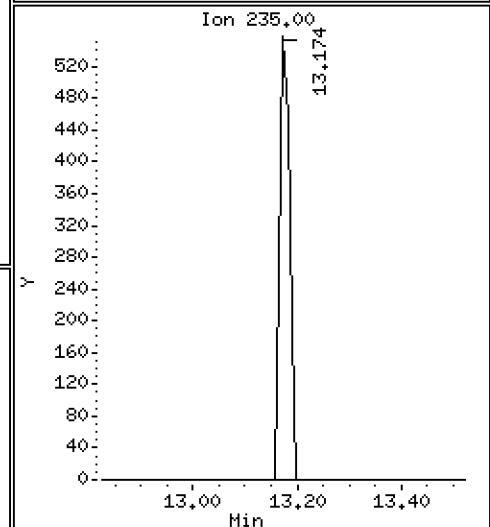
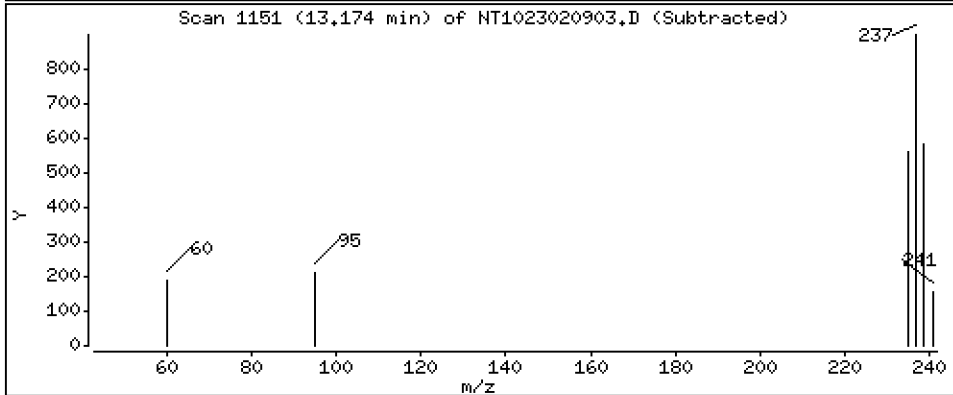
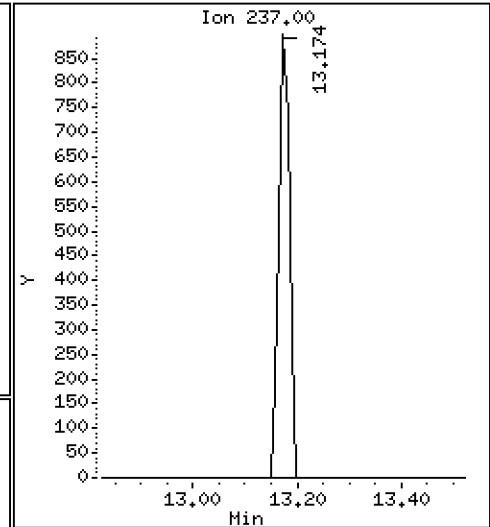
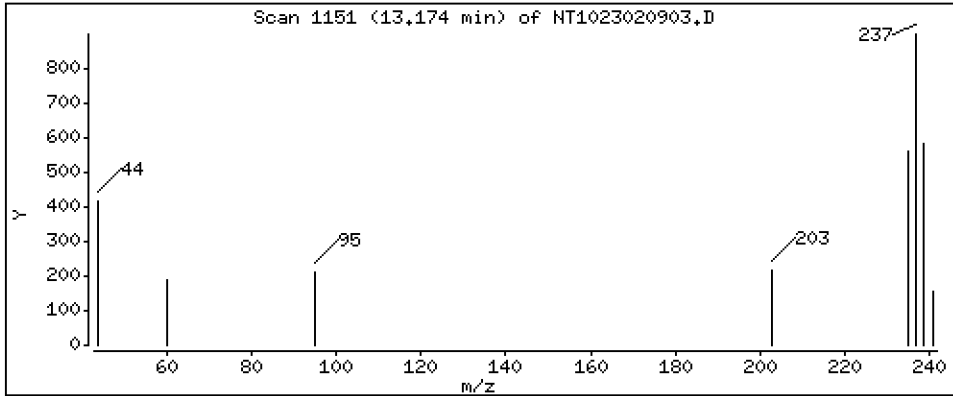
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 0,1175 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

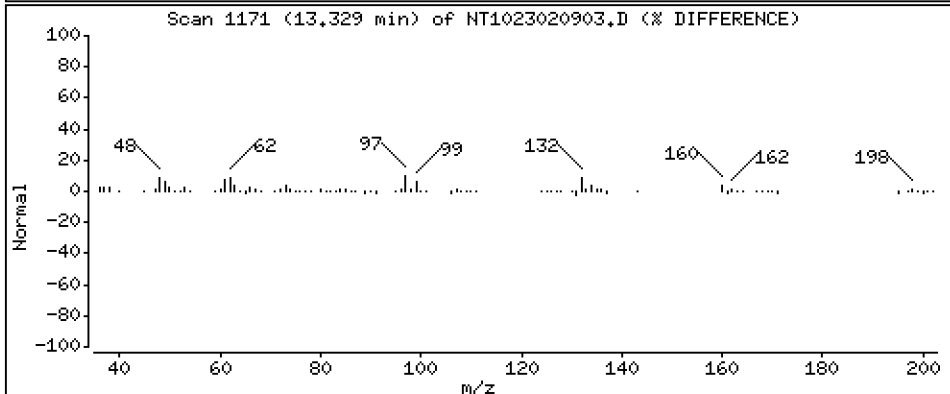
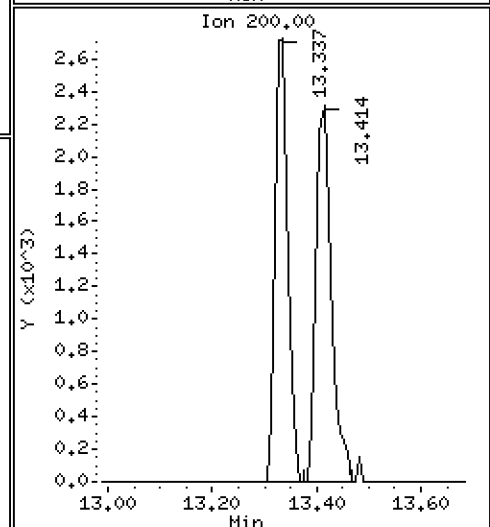
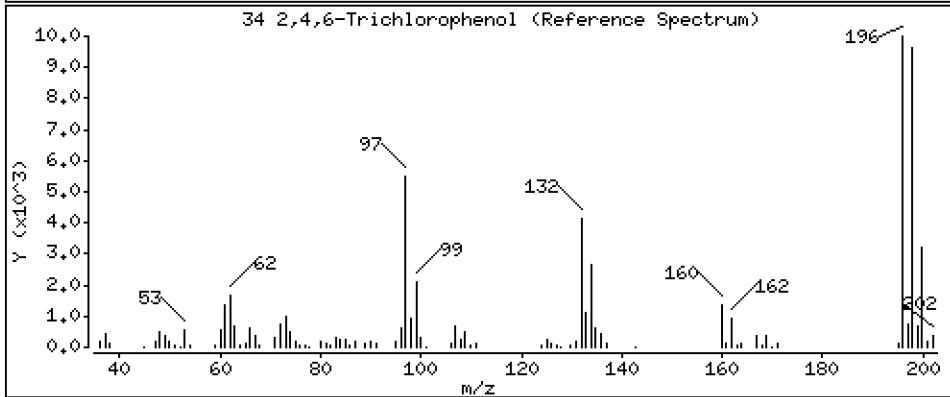
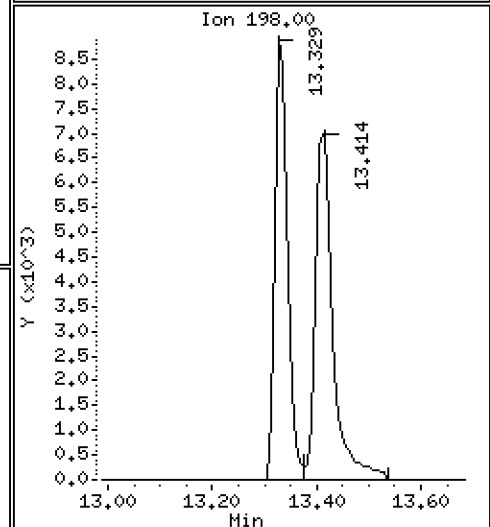
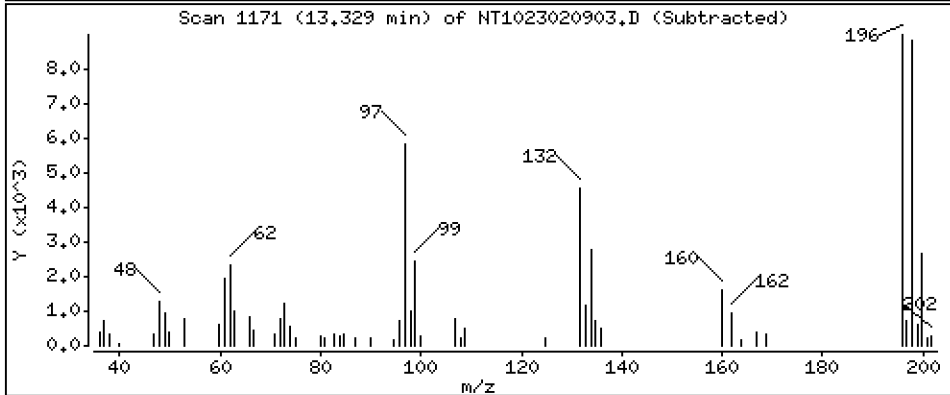
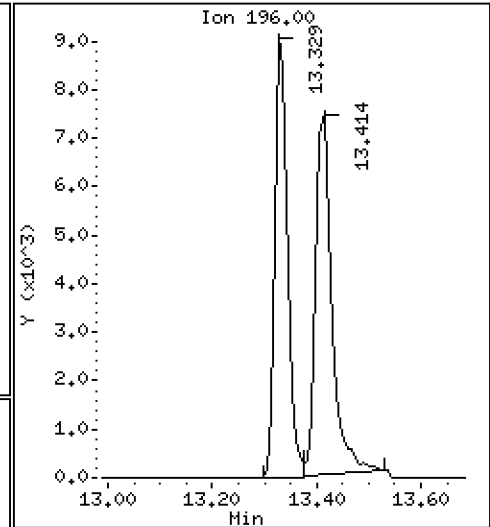
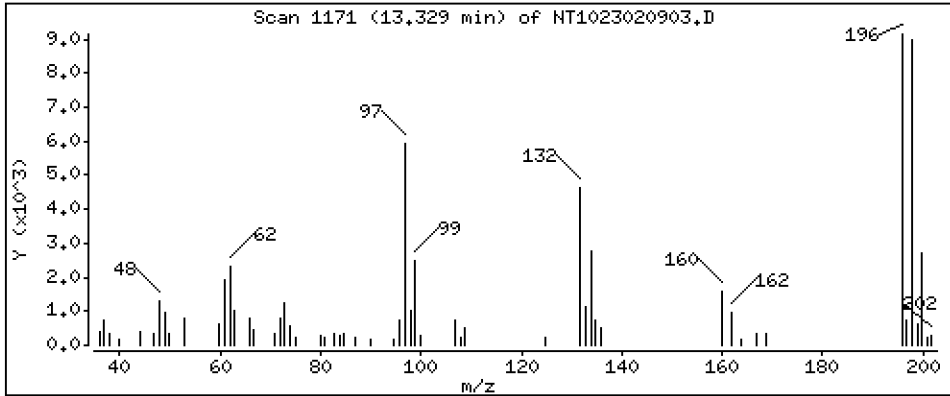
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 0,9718 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

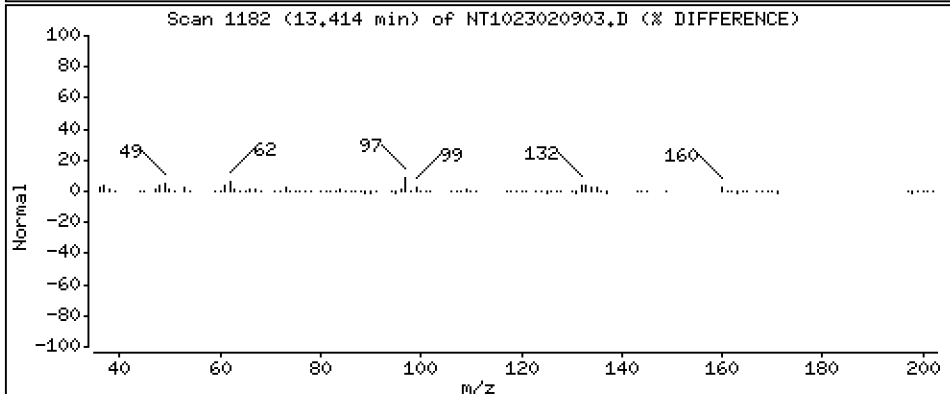
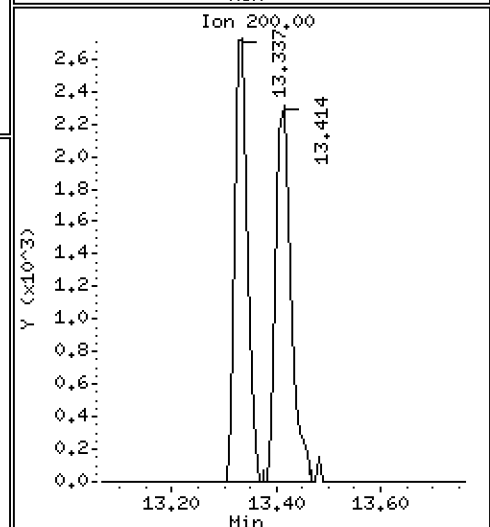
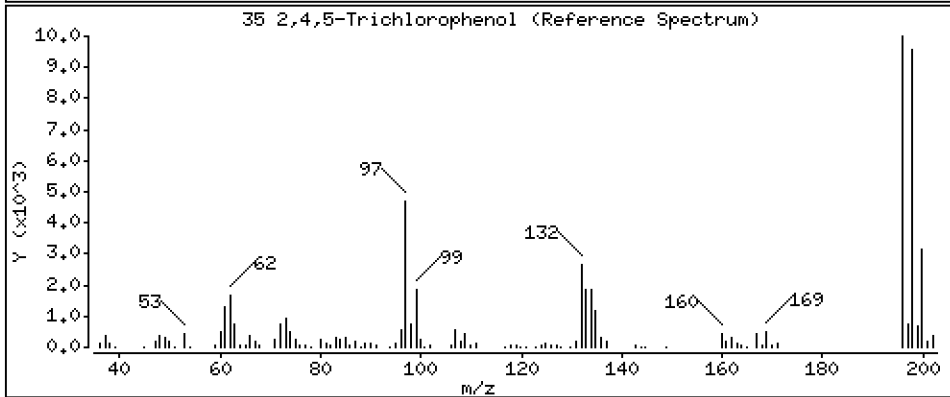
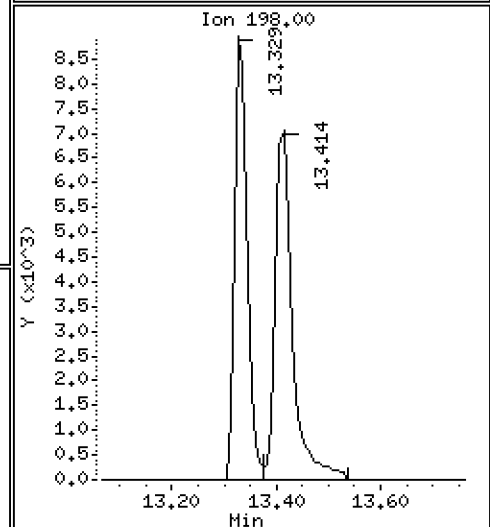
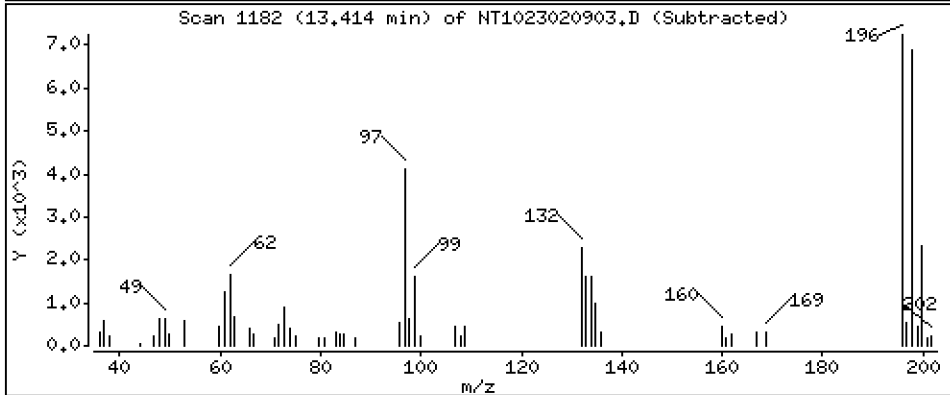
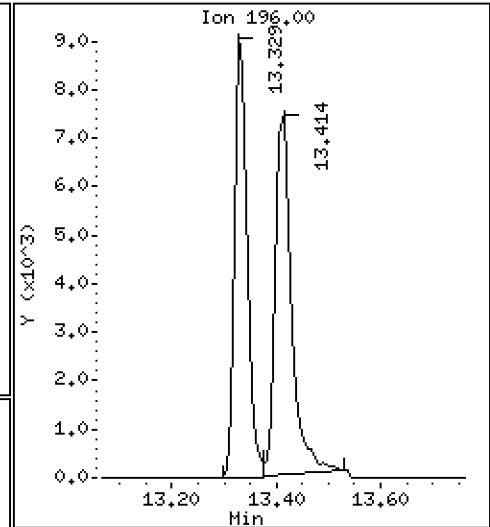
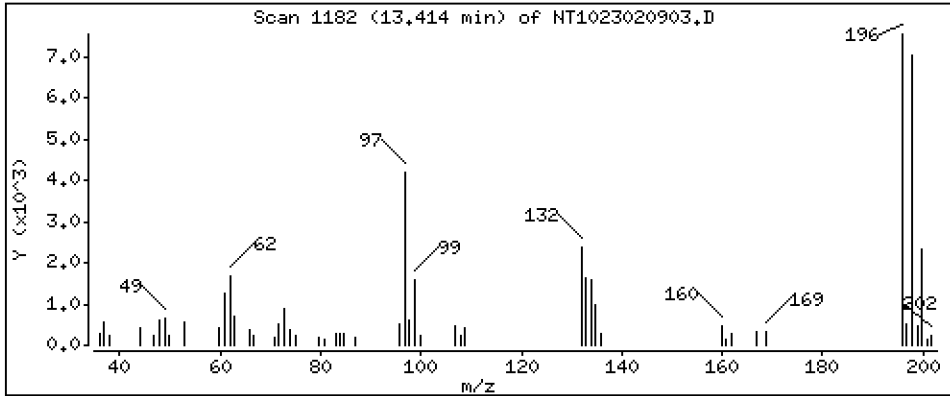
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 0,9448 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

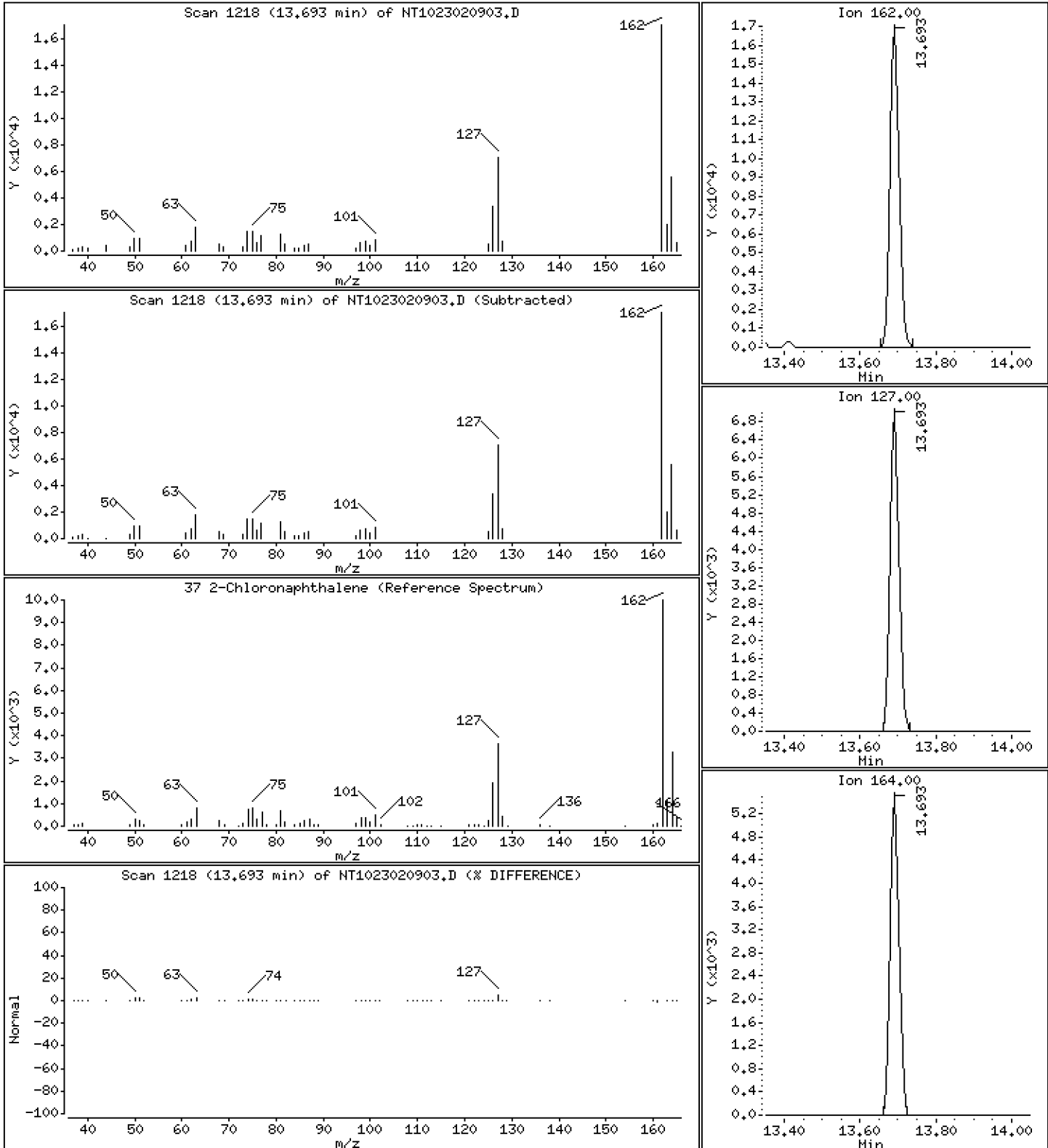
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 0,5301 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

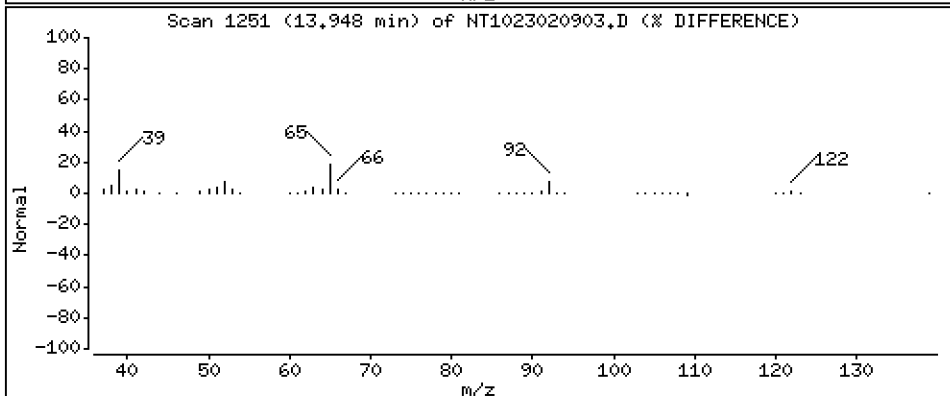
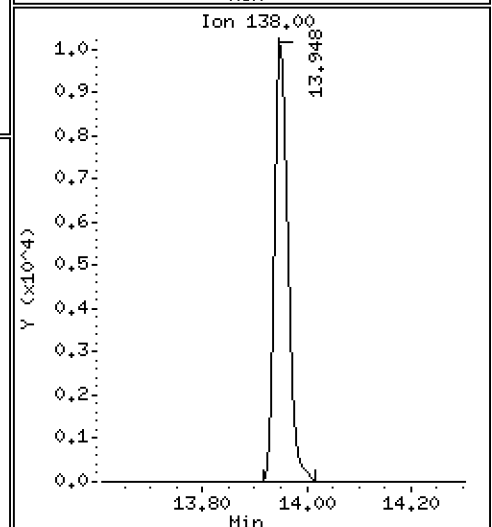
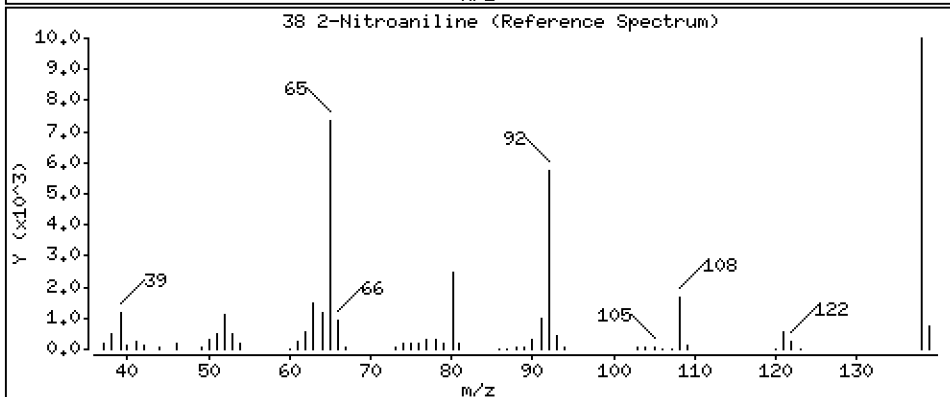
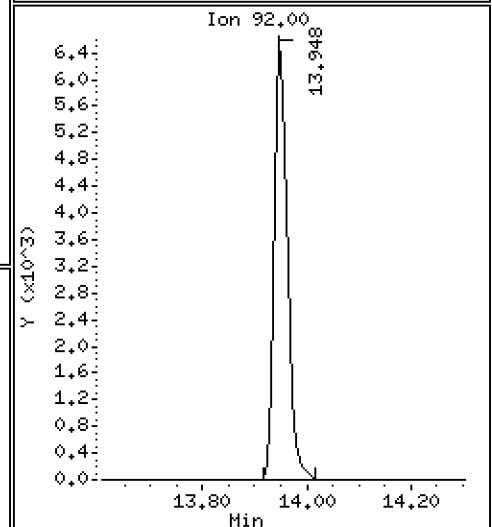
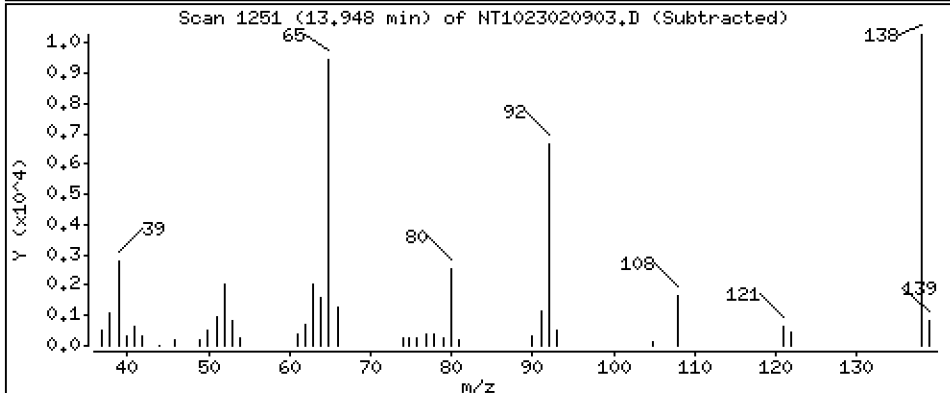
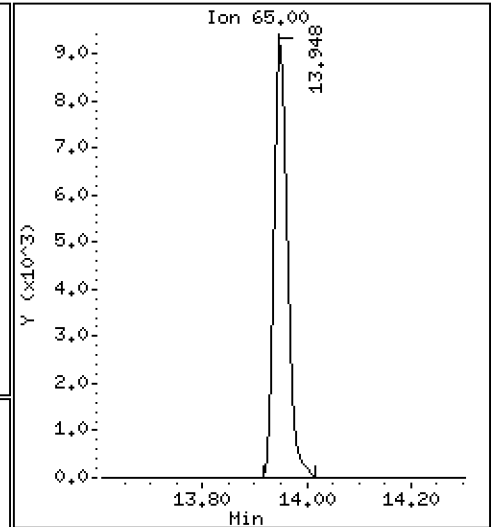
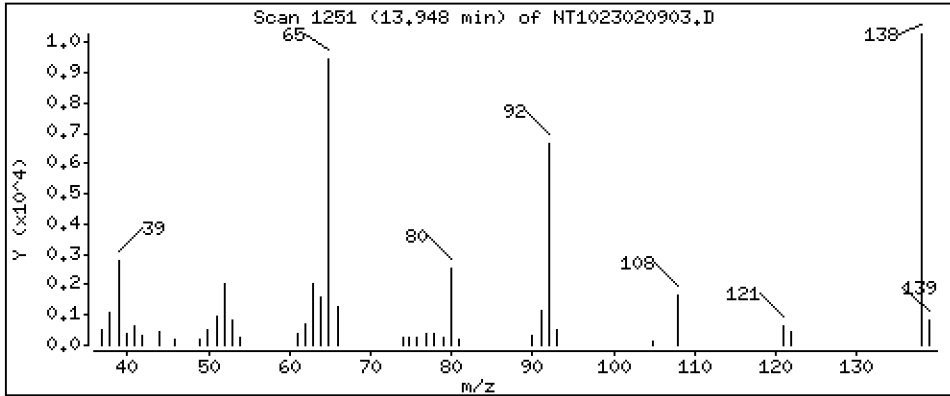
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

38 2-Nitroaniline

Concentration: 1.142 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

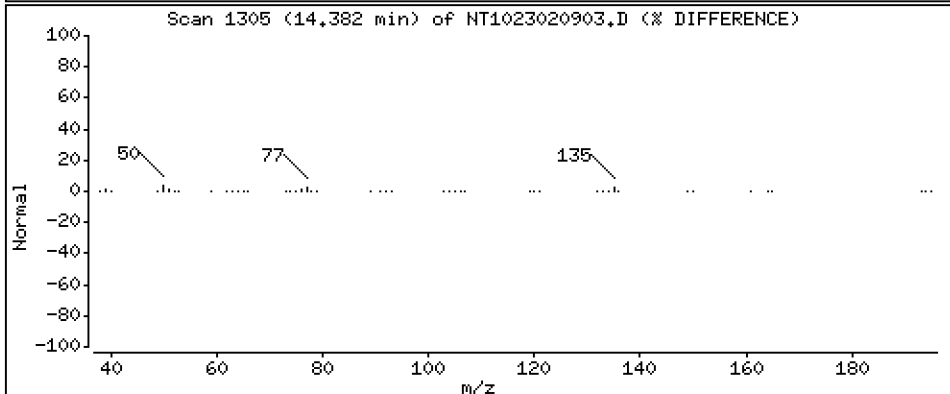
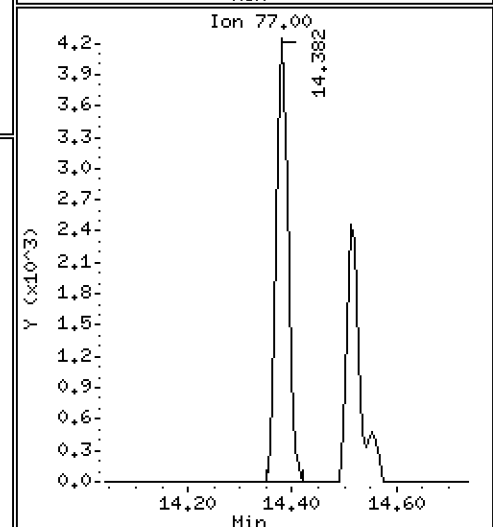
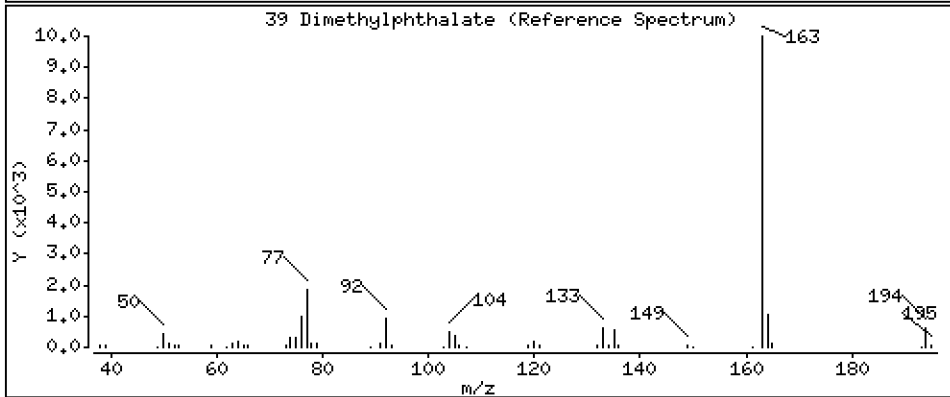
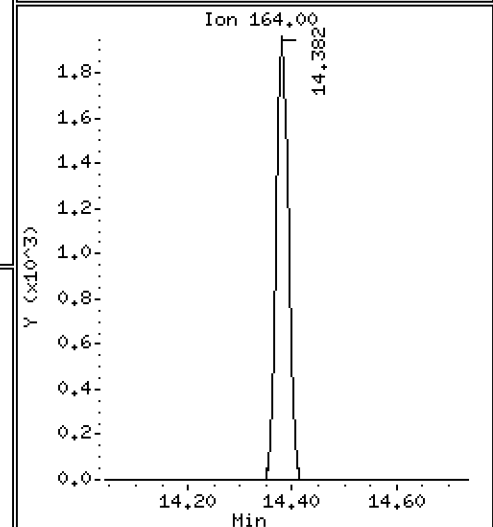
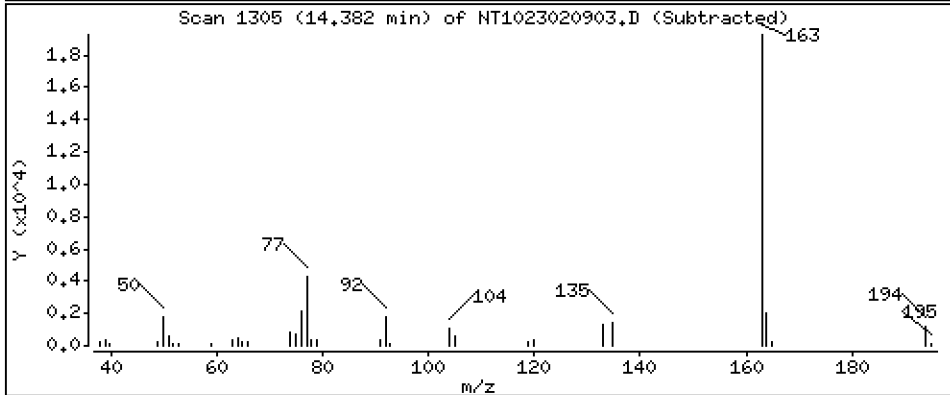
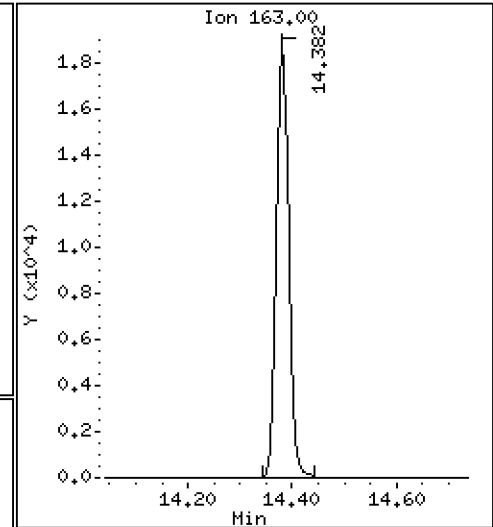
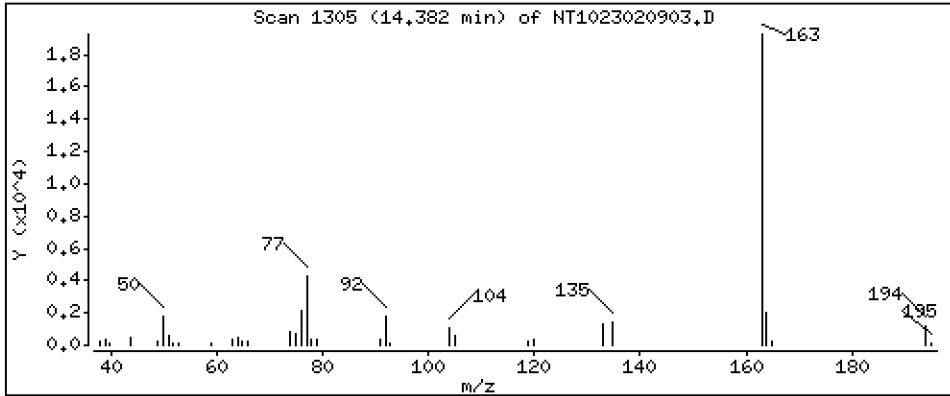
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,5172 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

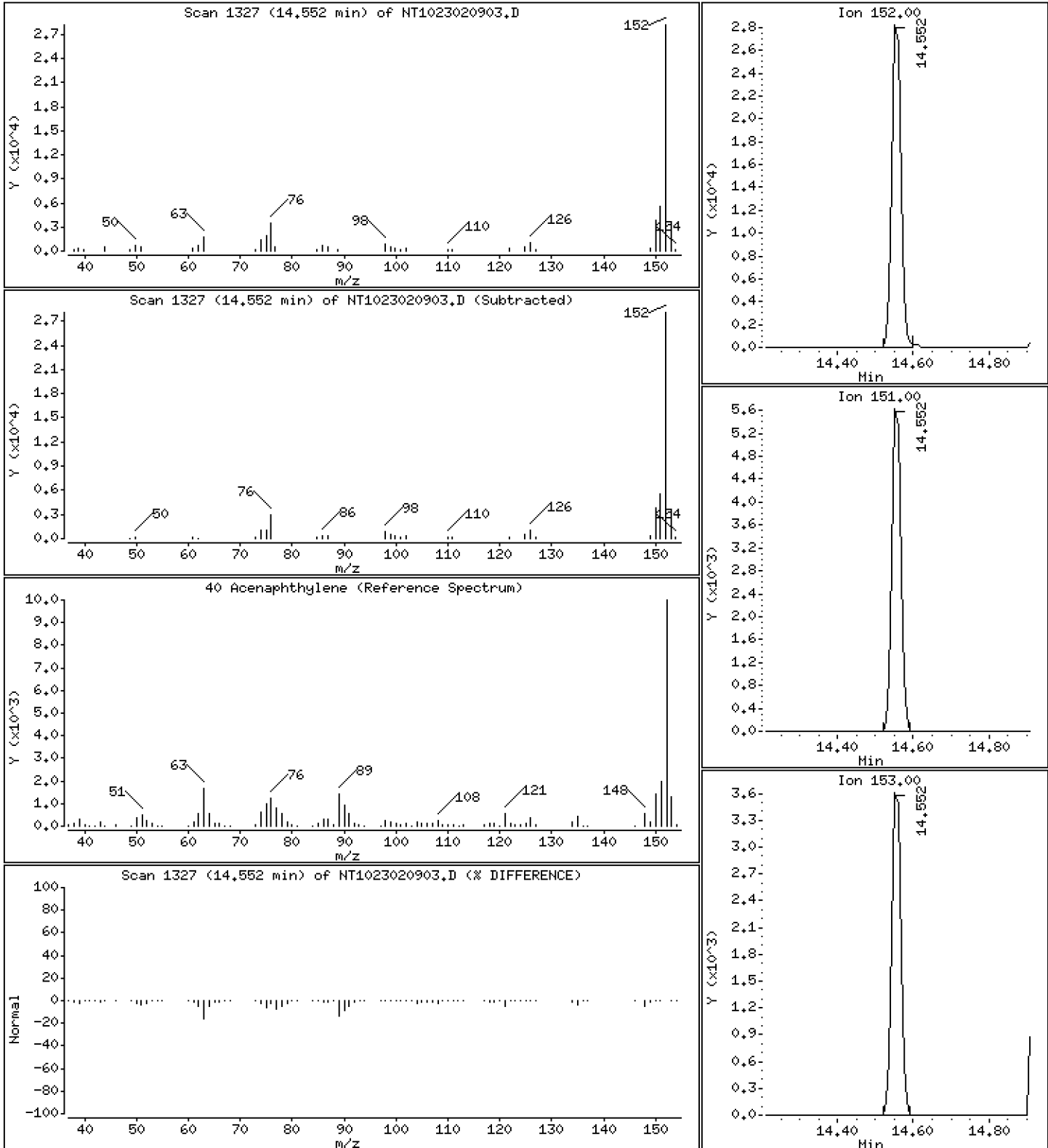
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

40 Acenaphthylene

Concentration: 0.5318 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

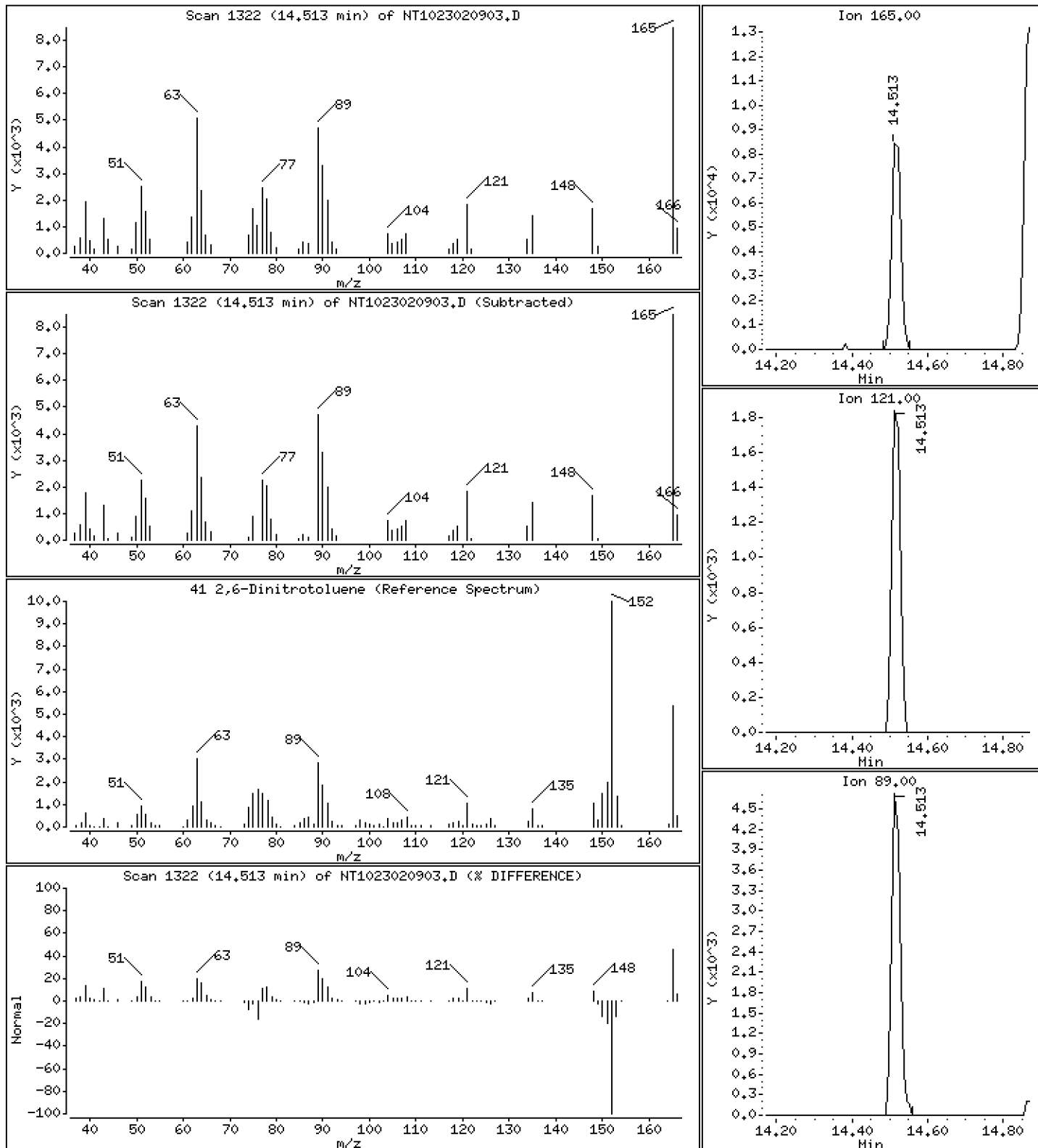
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 0.9980 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

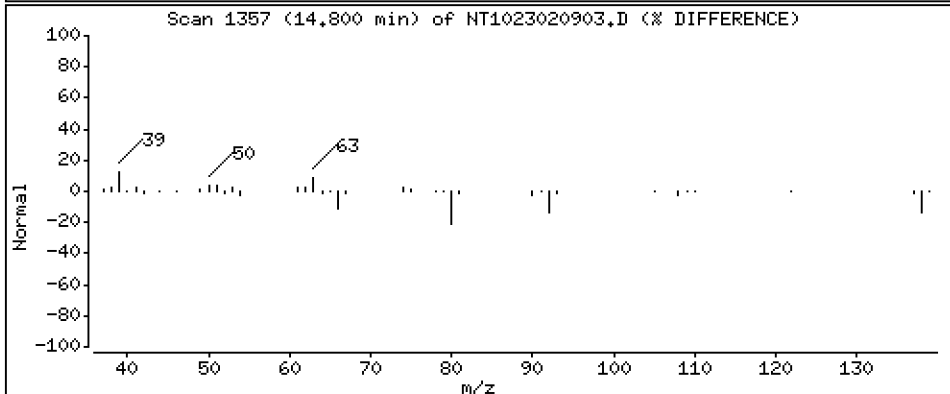
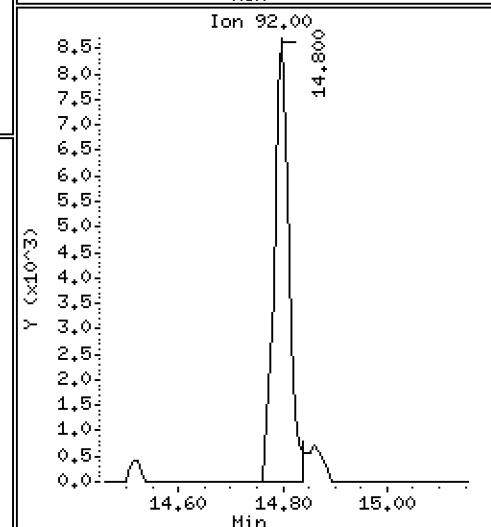
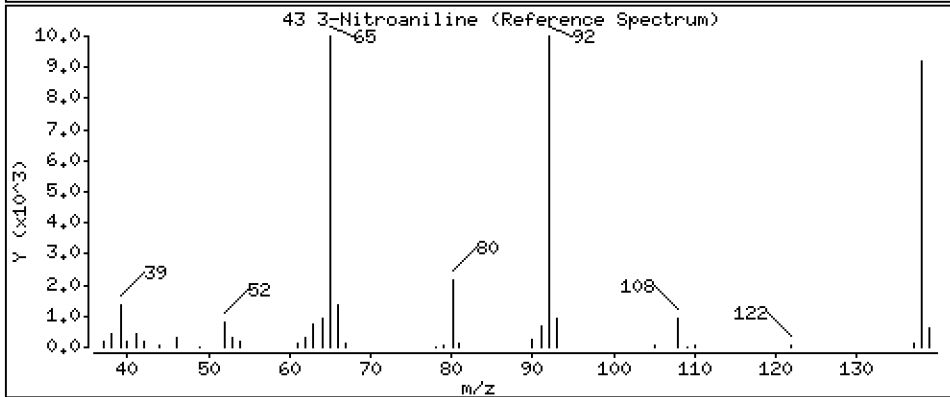
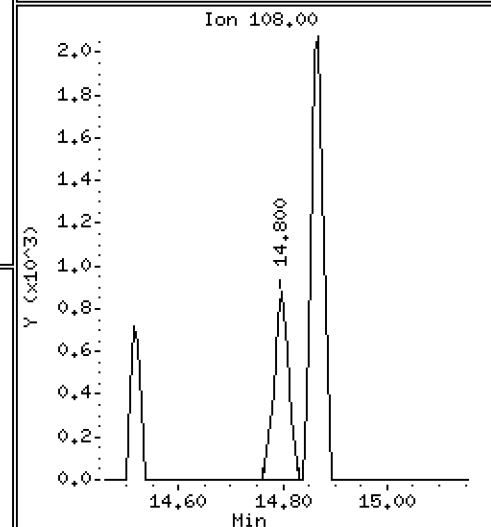
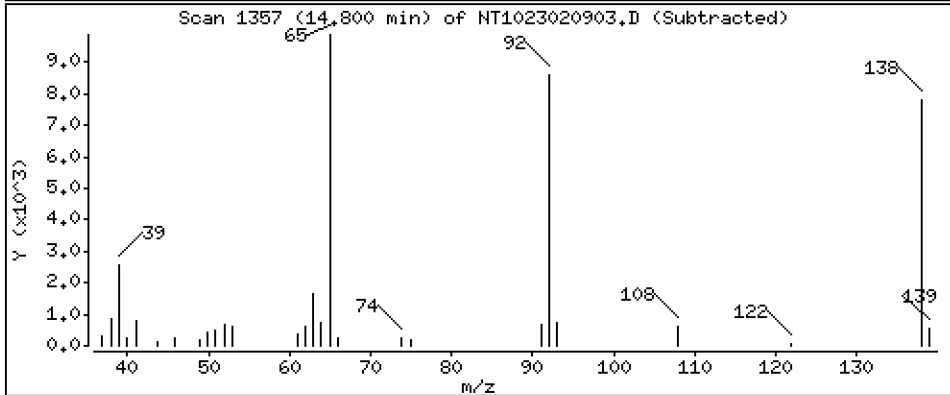
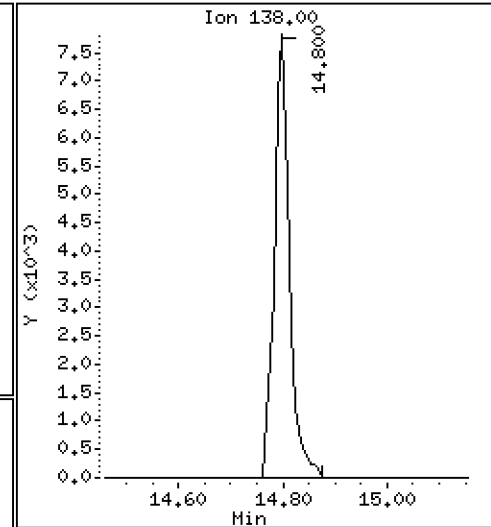
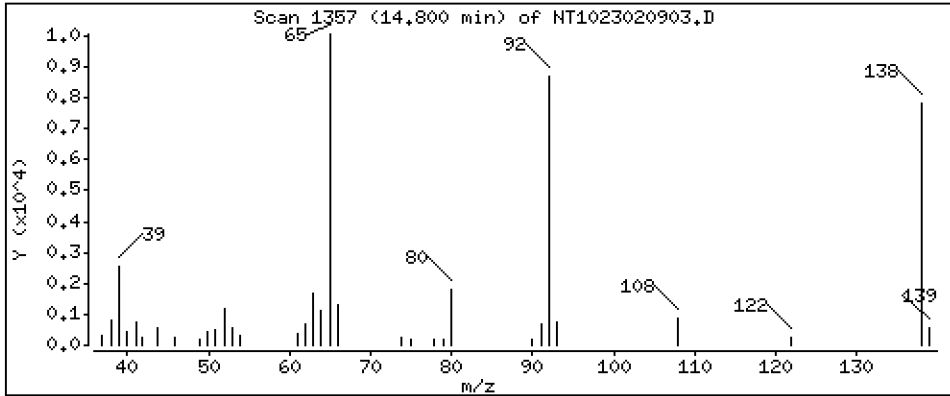
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 1,017 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

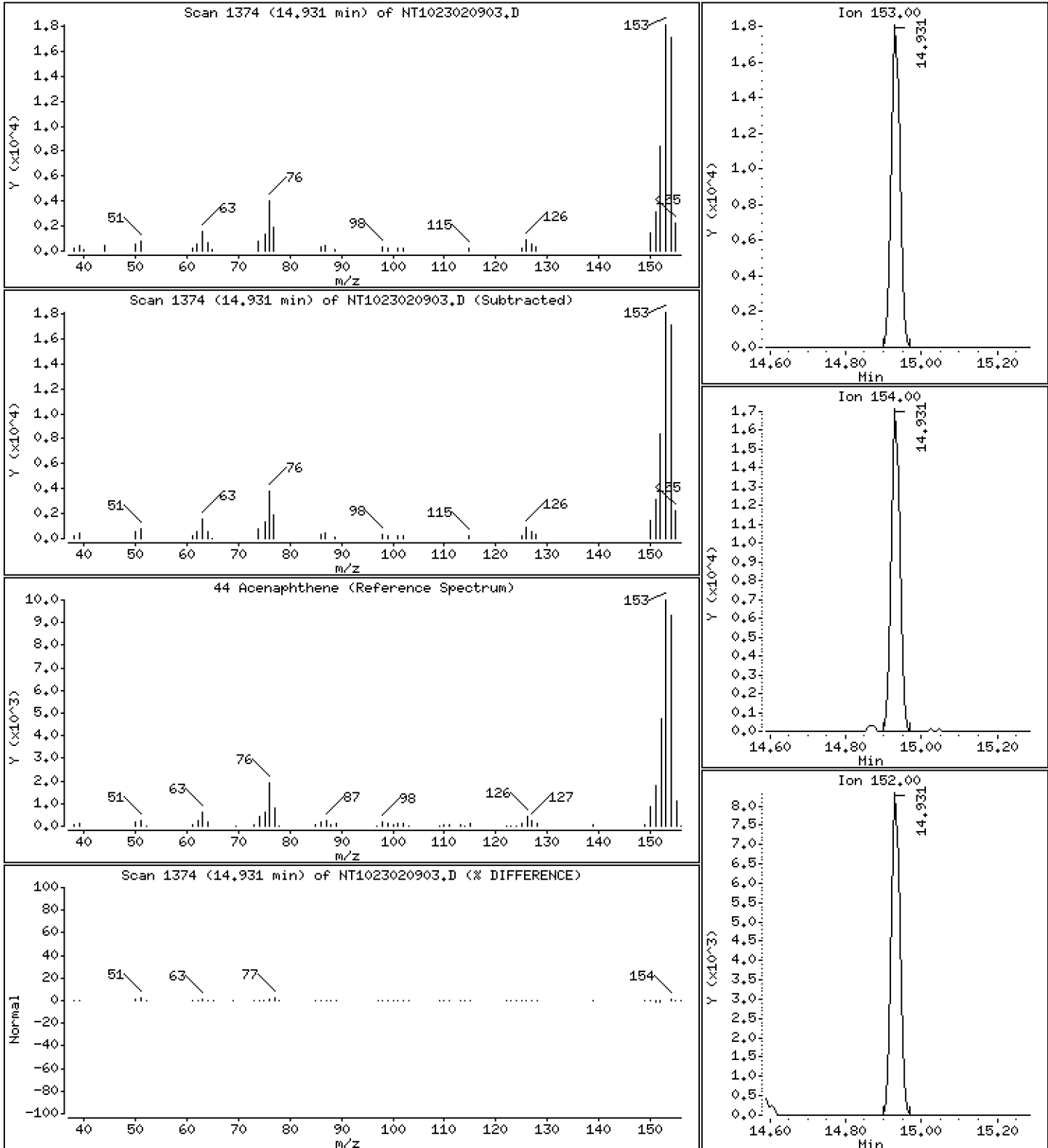
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

44 Acenaphthene

Concentration: 0.5266 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

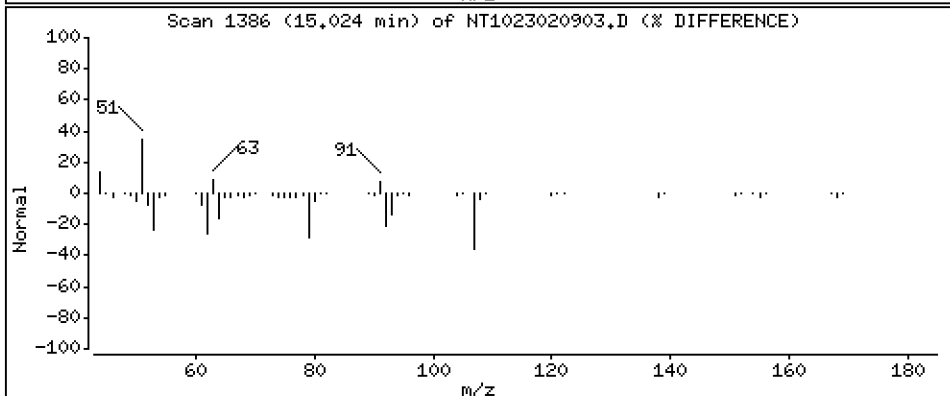
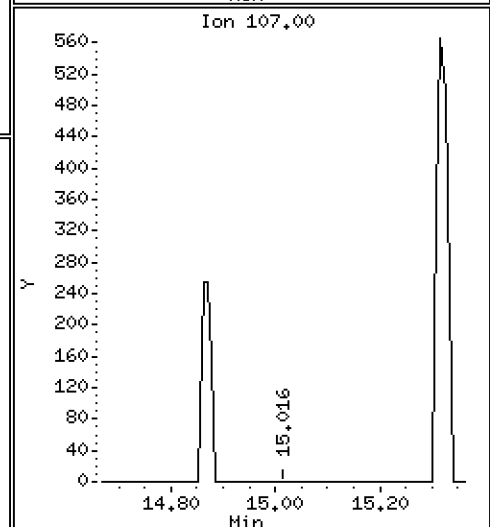
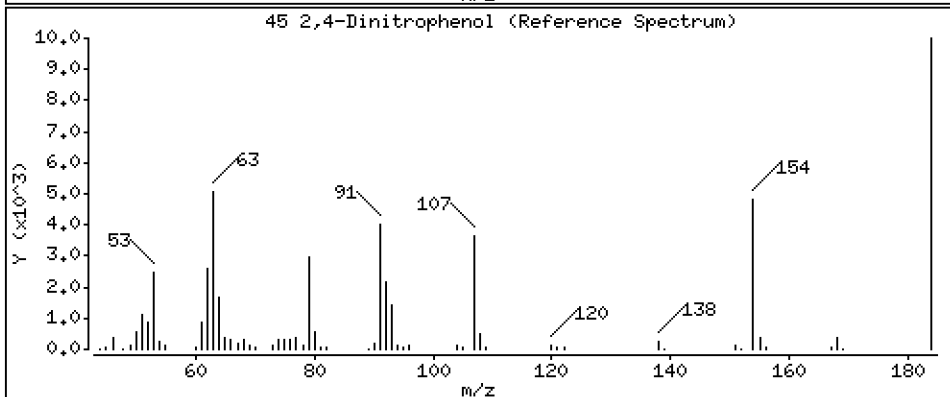
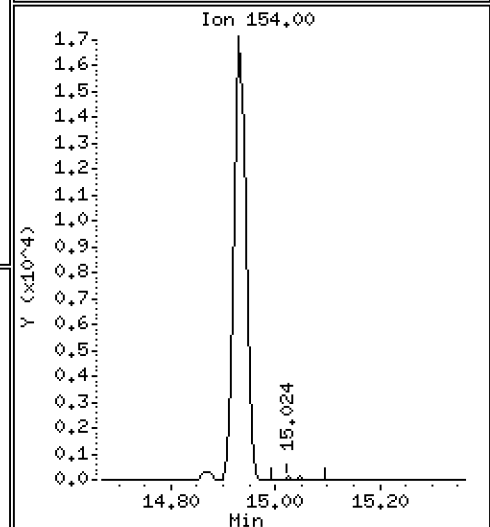
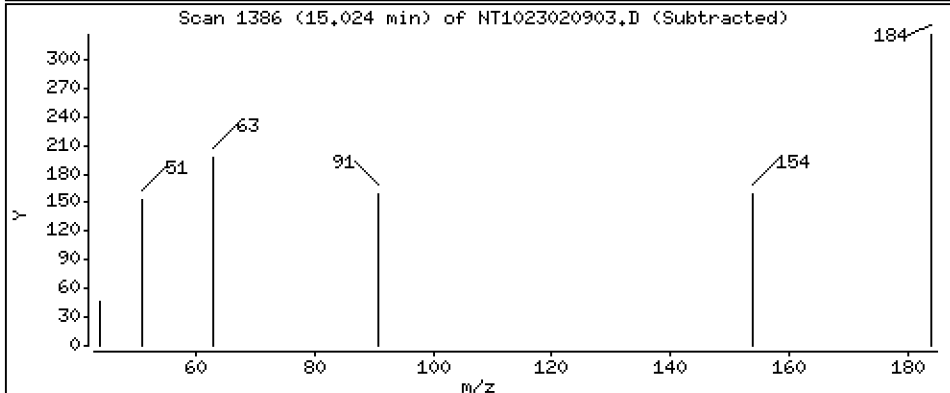
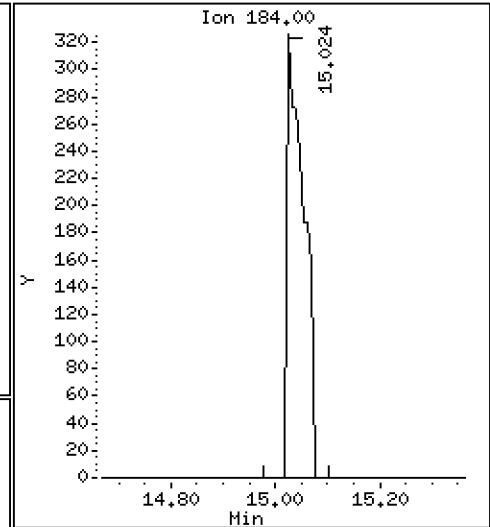
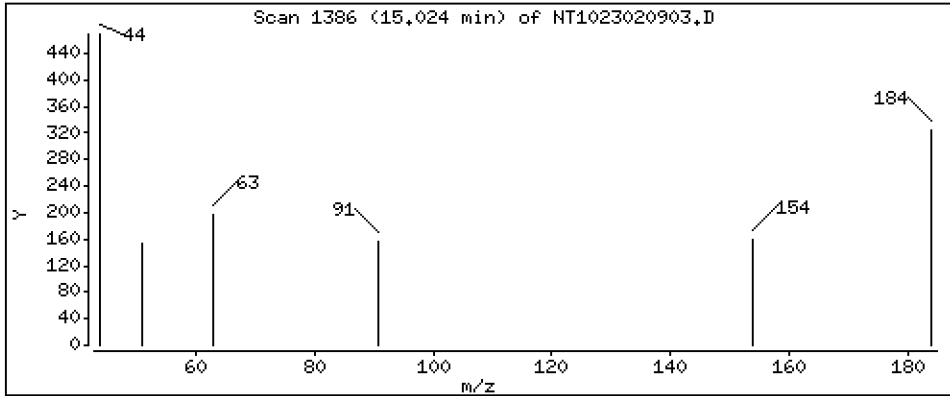
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,1105 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

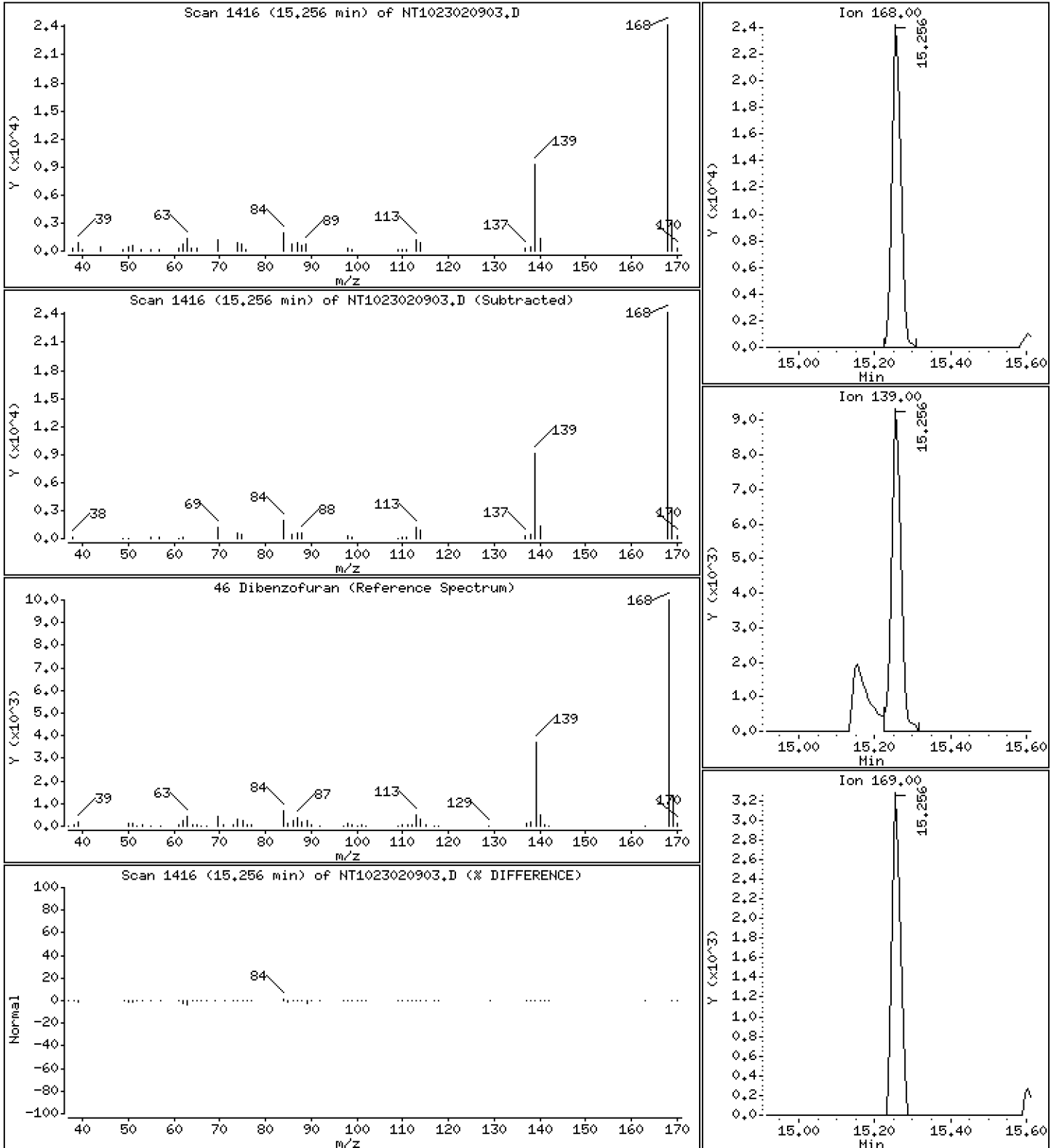
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 0,5085 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

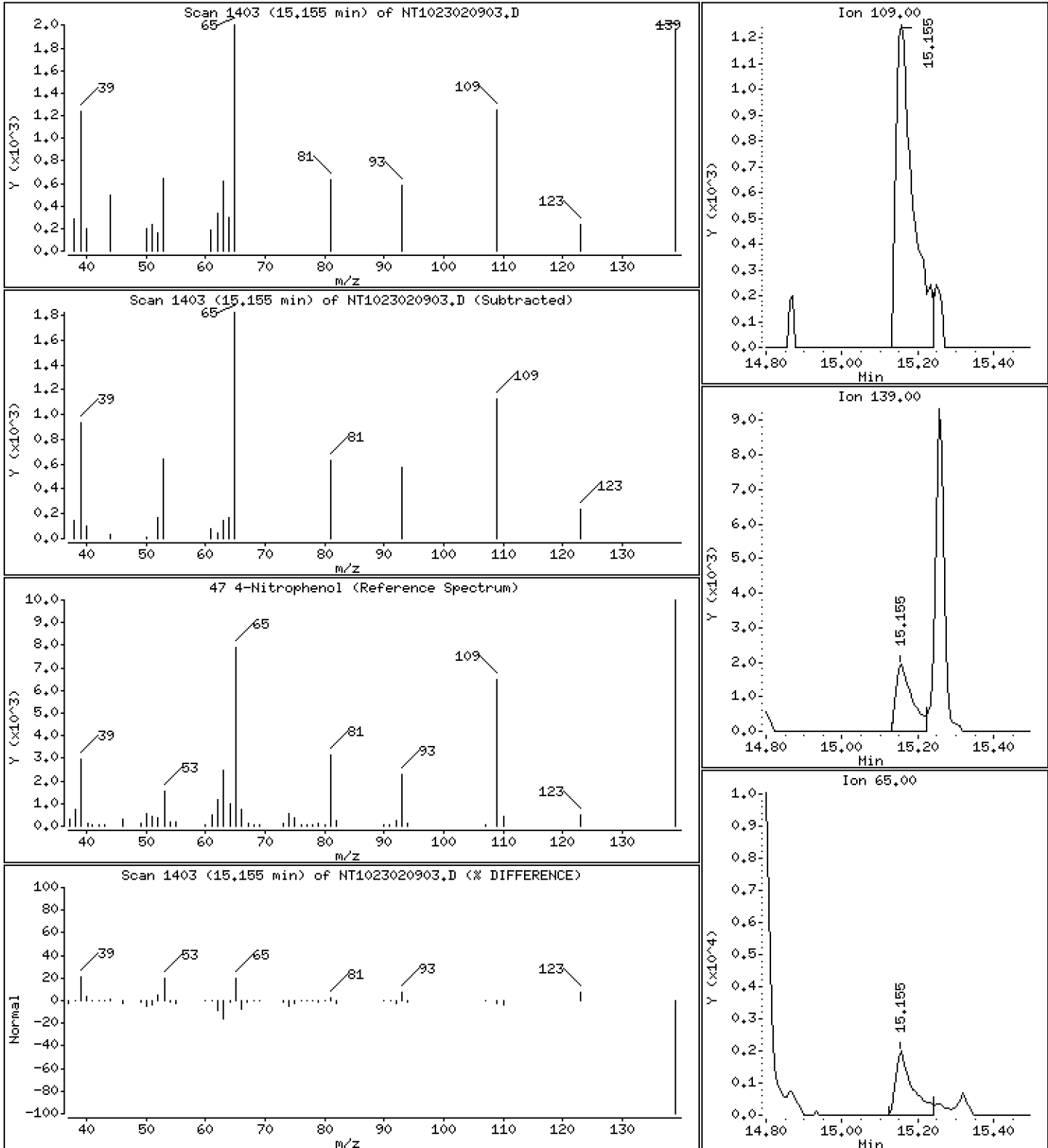
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 0,6858 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

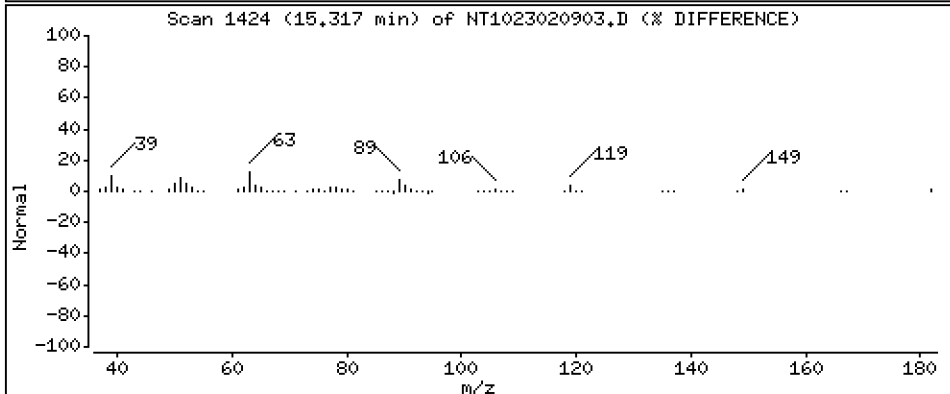
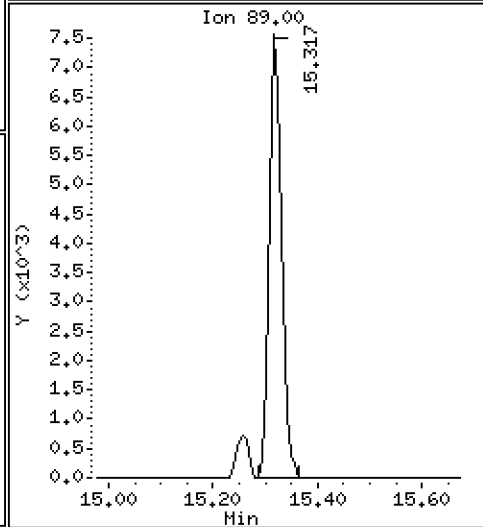
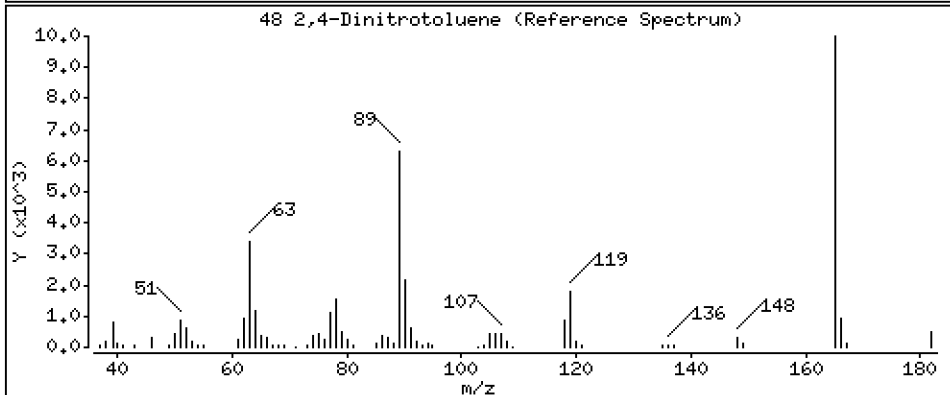
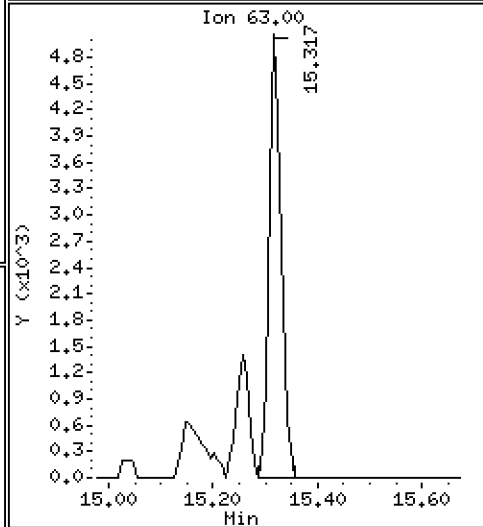
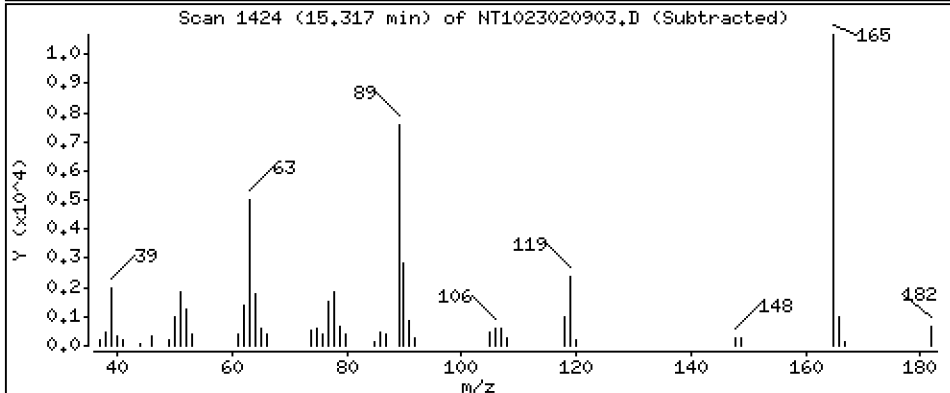
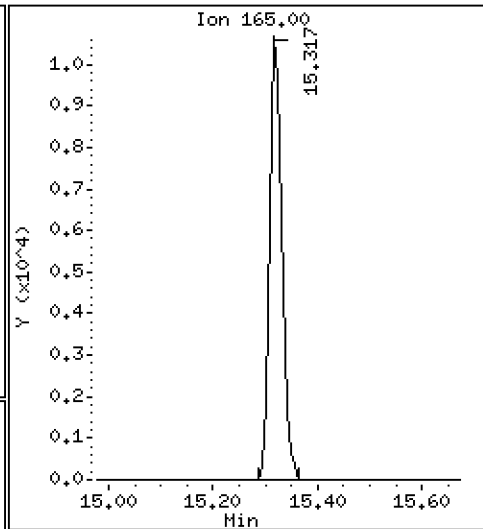
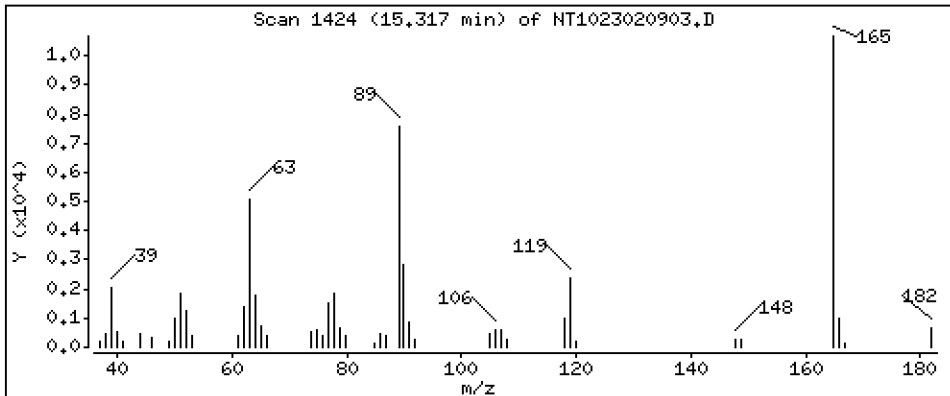
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

48 2,4-Dinitrotoluene

Concentration: 0.9124 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

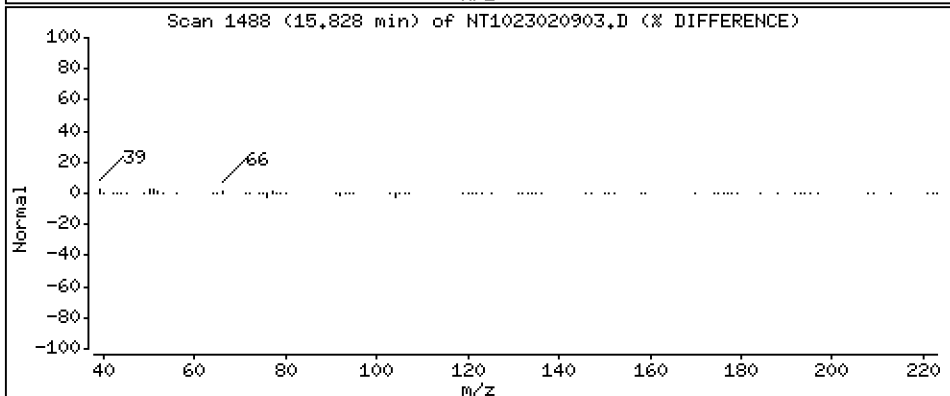
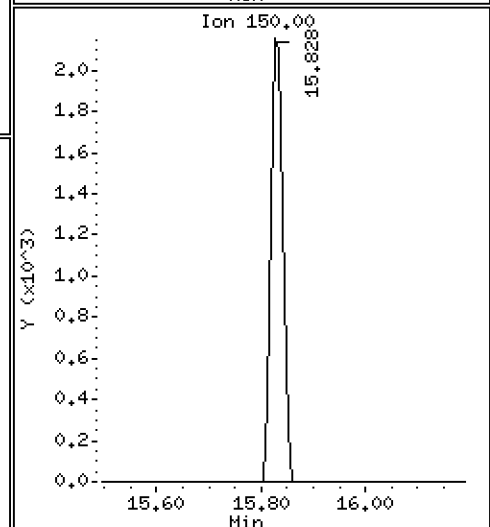
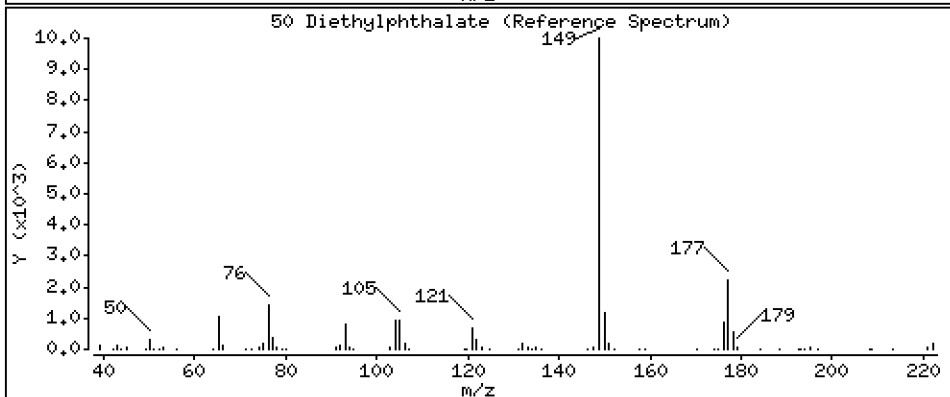
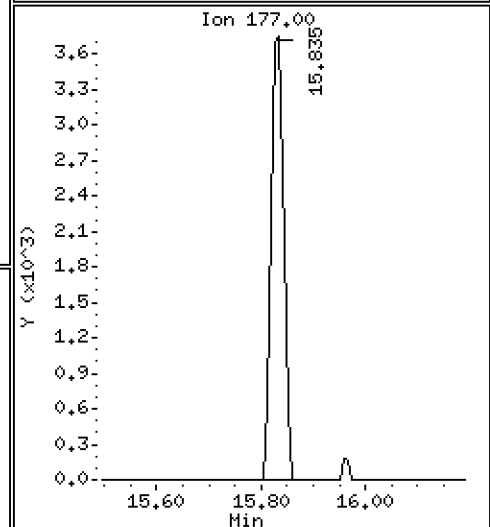
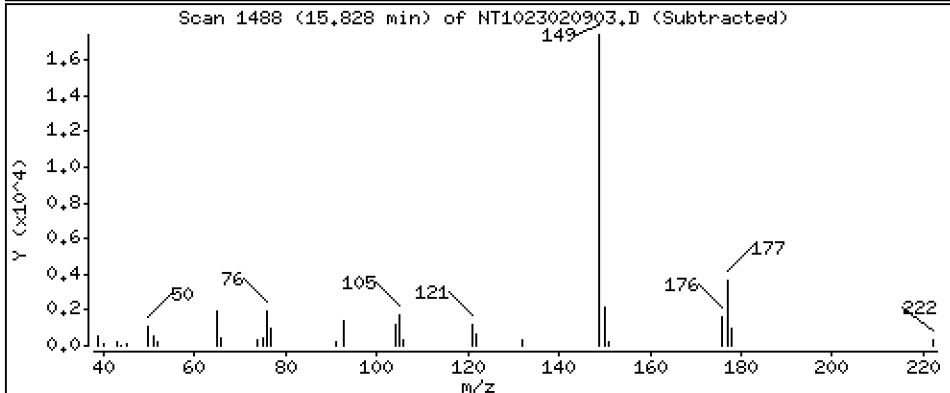
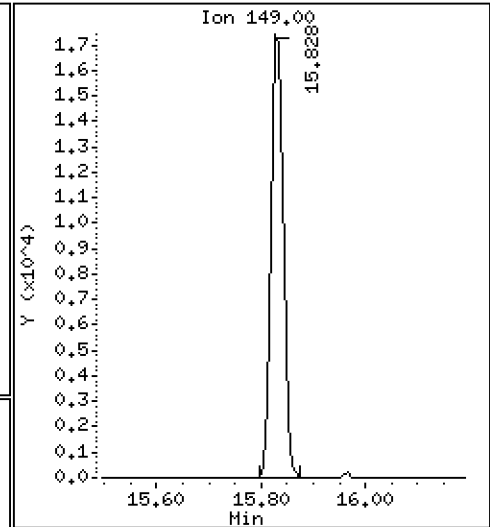
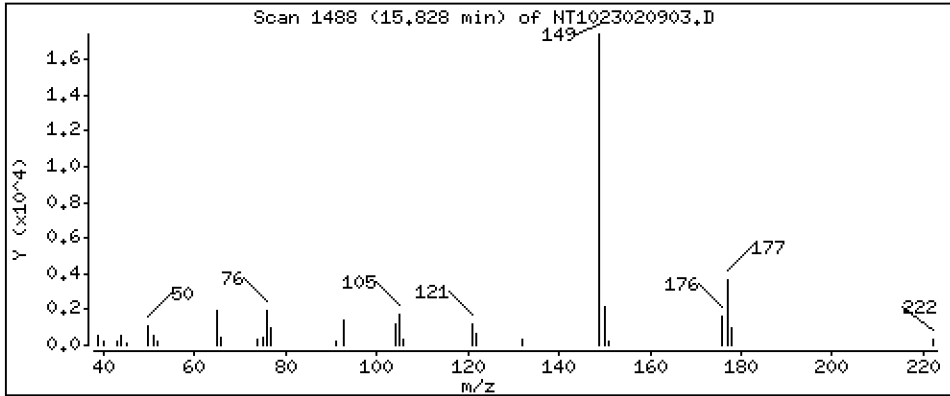
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,5065 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

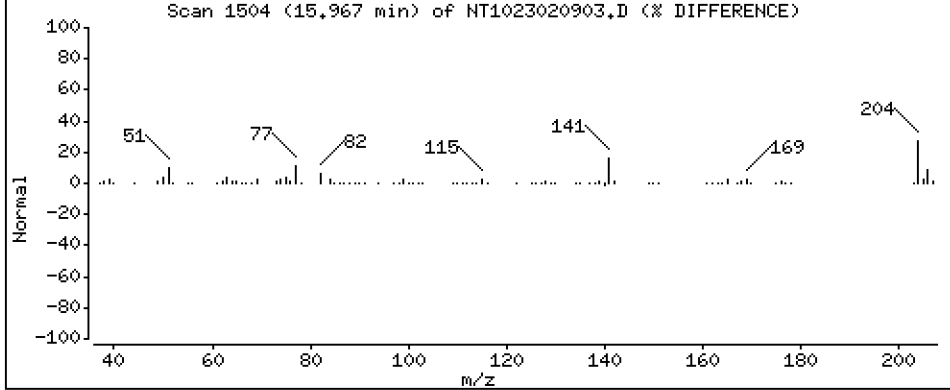
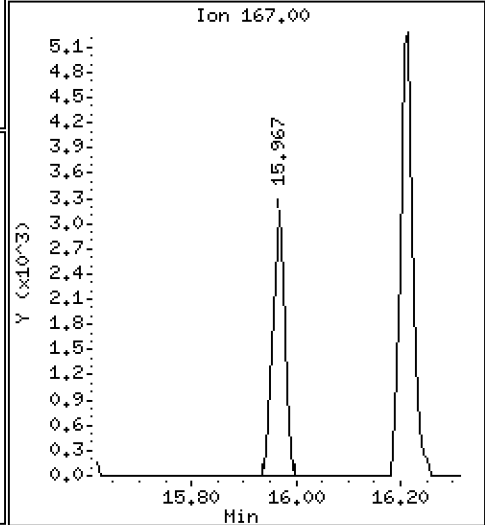
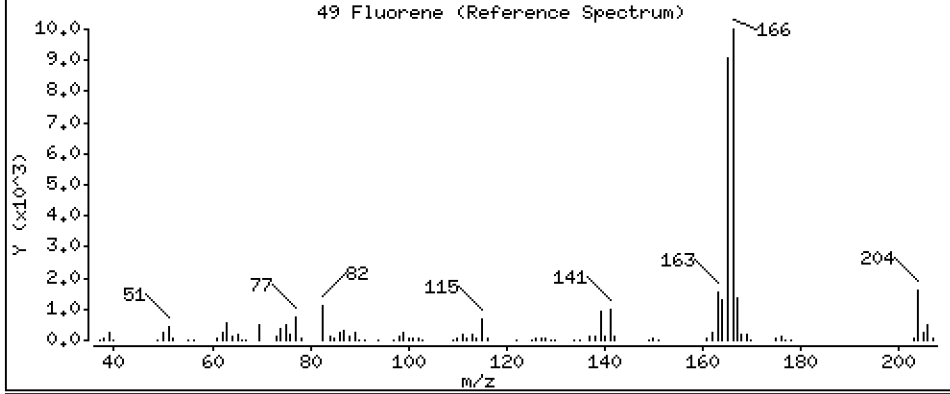
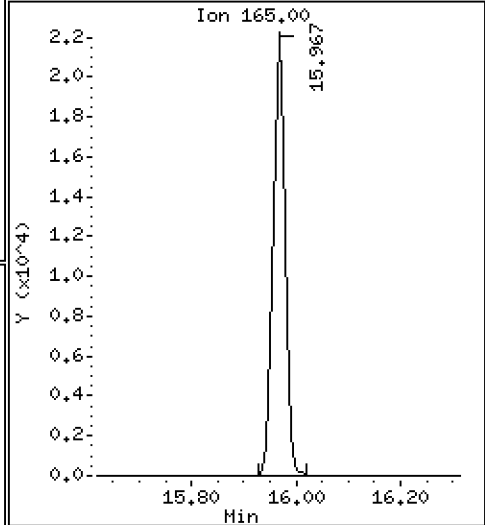
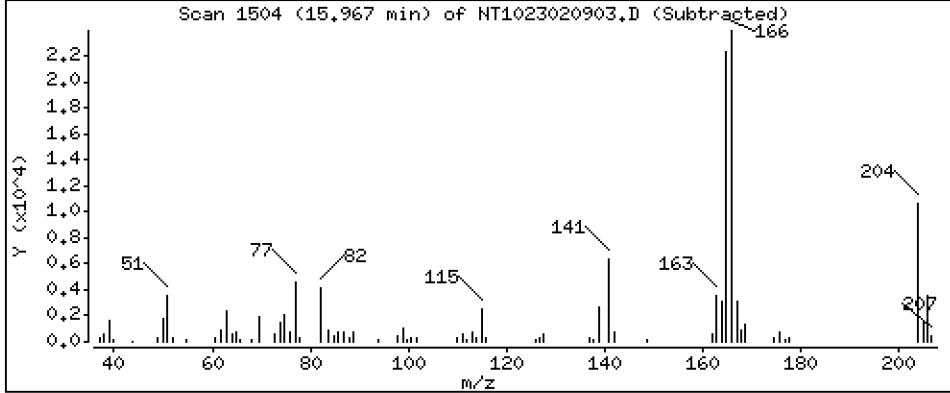
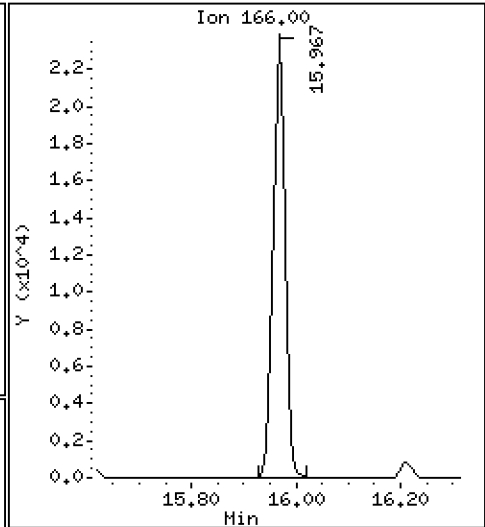
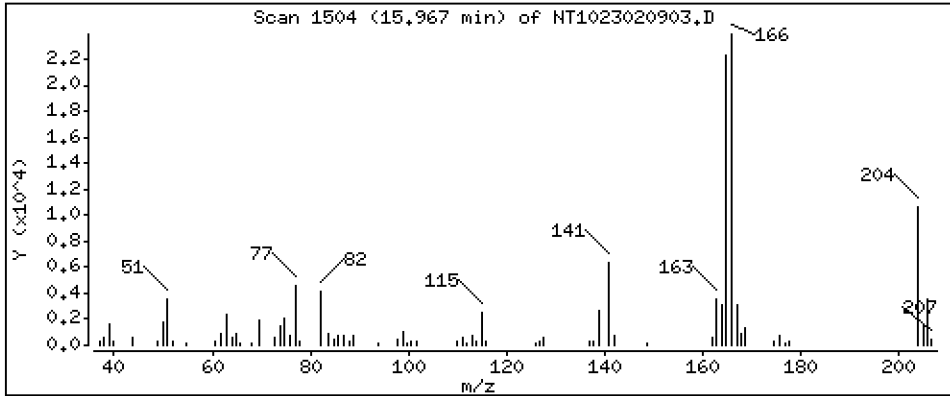
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

49 Fluorene

Concentration: 0.4434 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

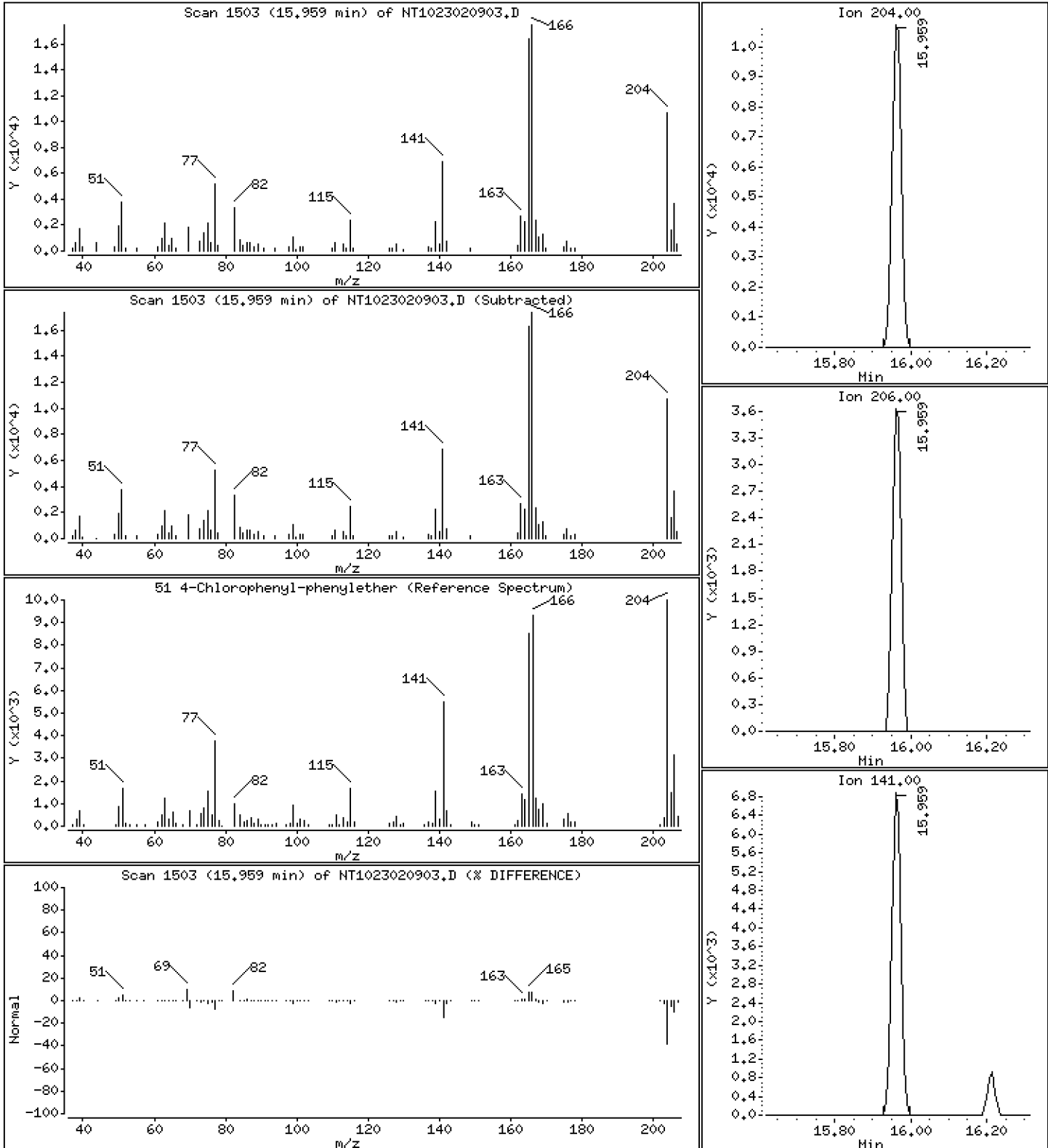
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 0,4289 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

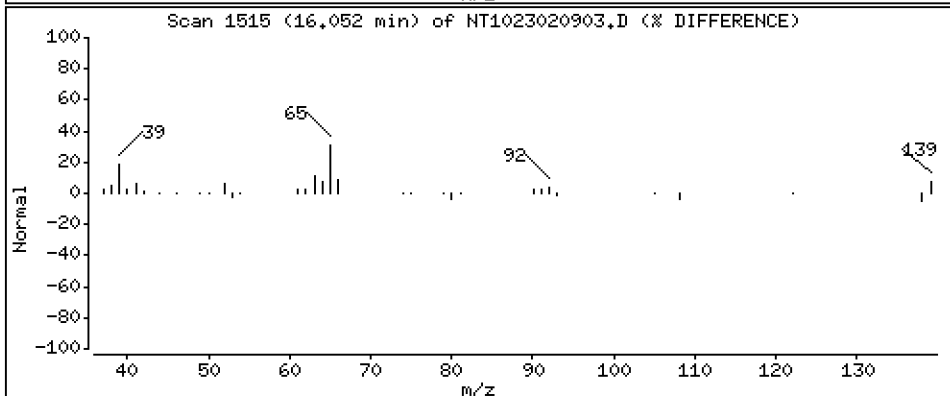
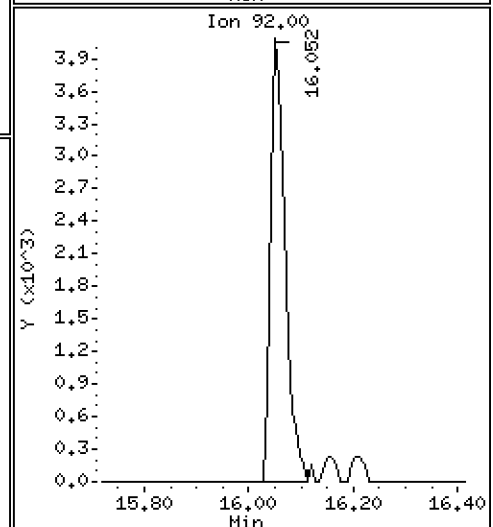
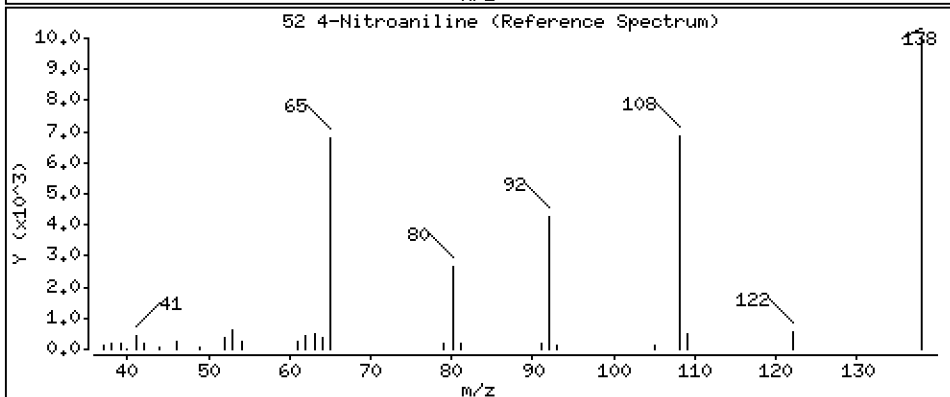
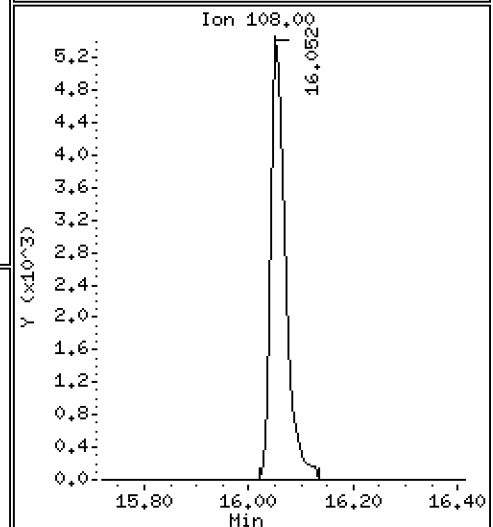
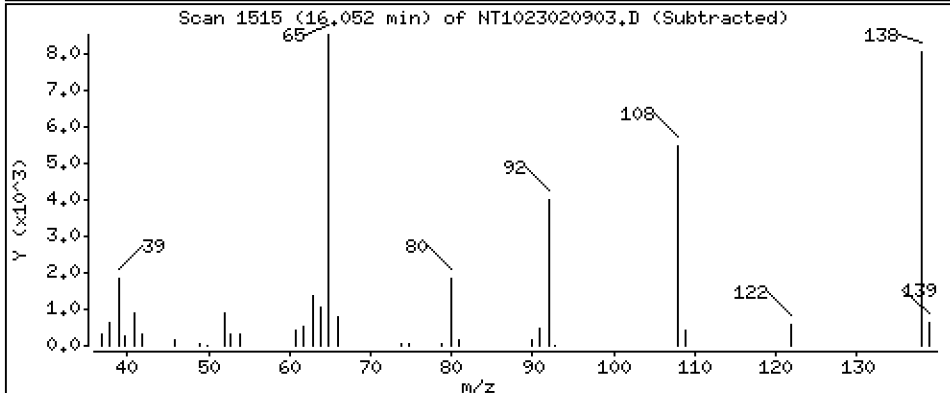
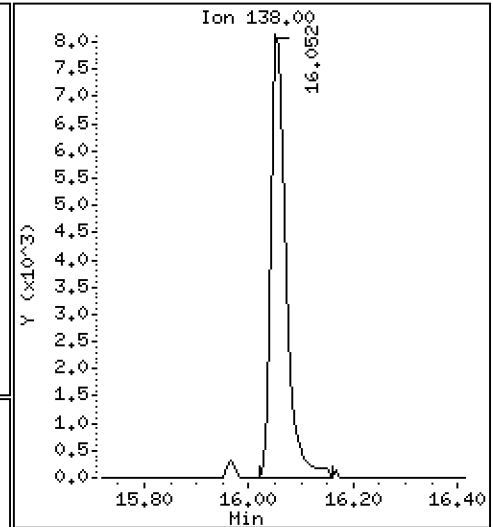
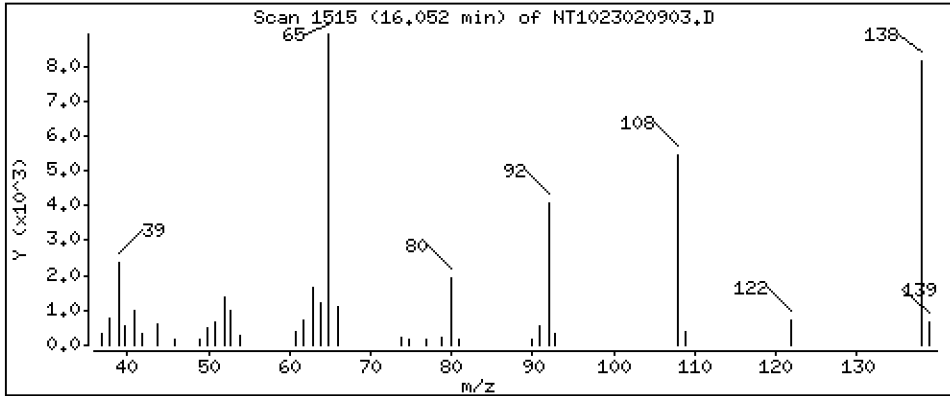
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 0,9006 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

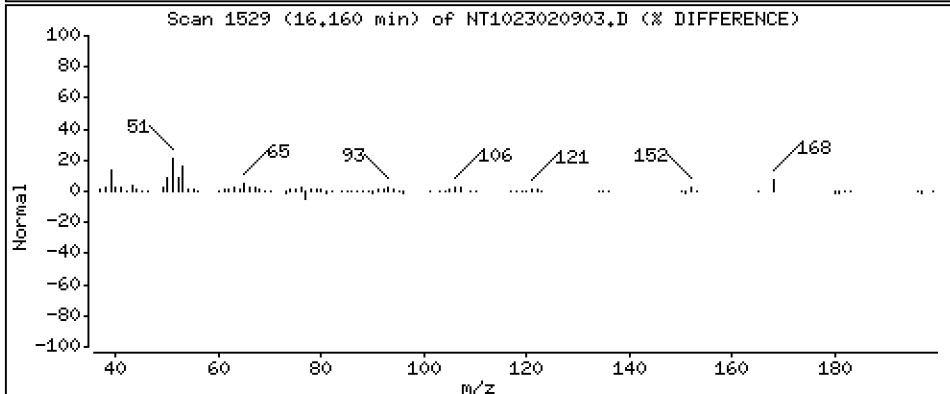
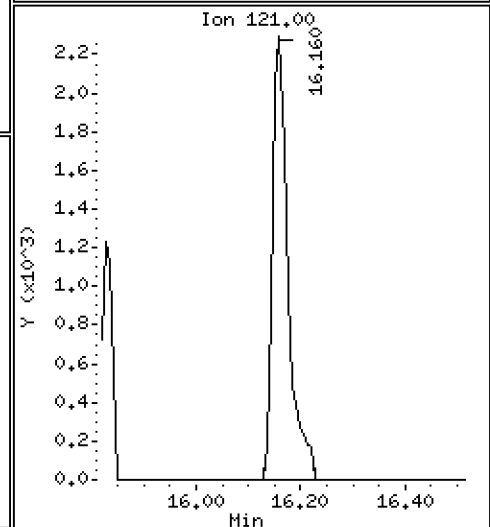
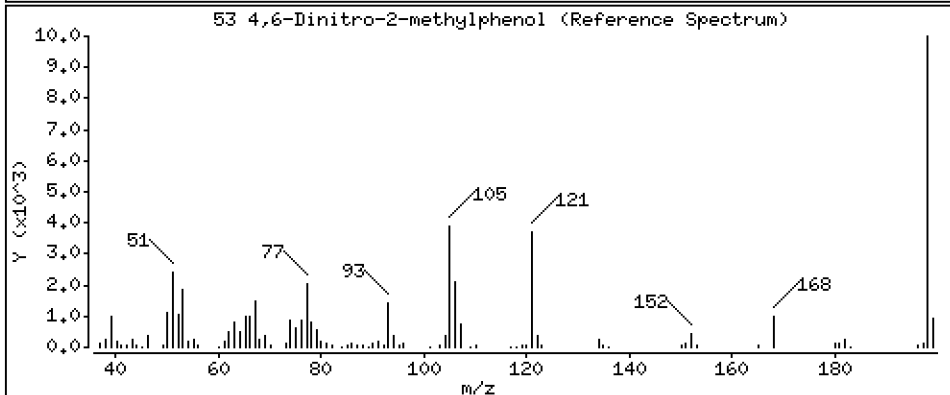
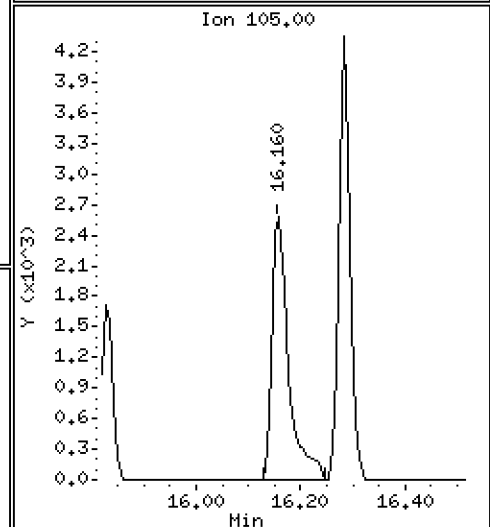
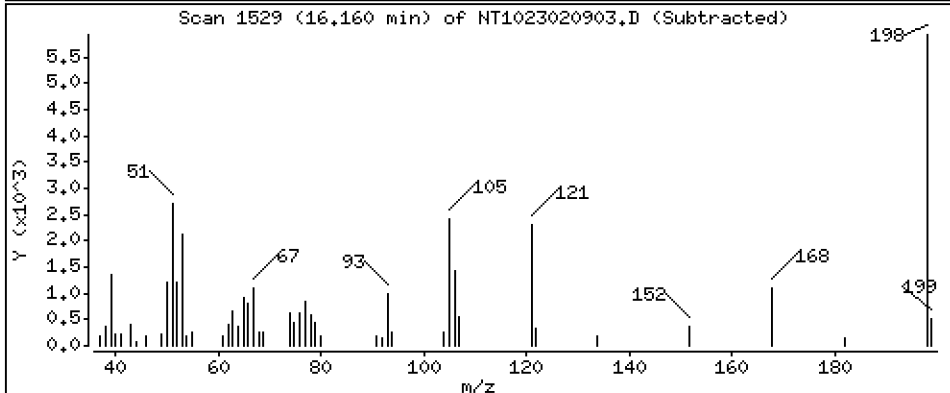
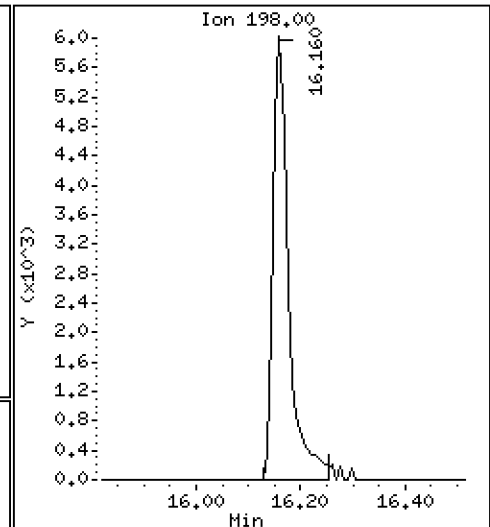
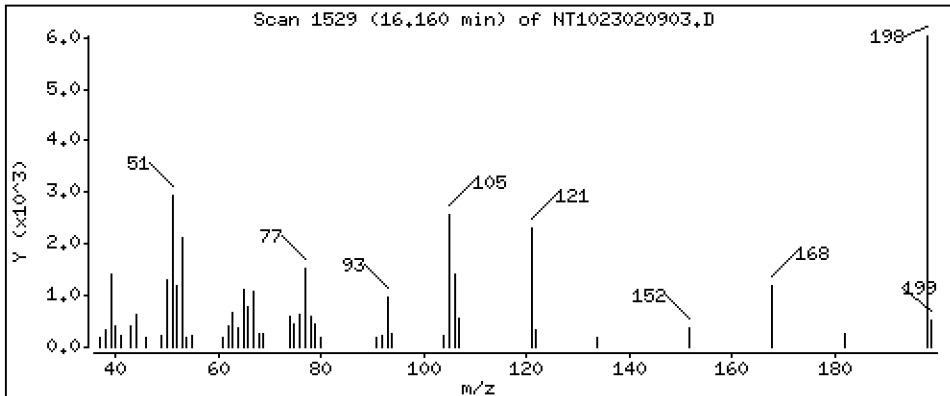
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 1,167 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

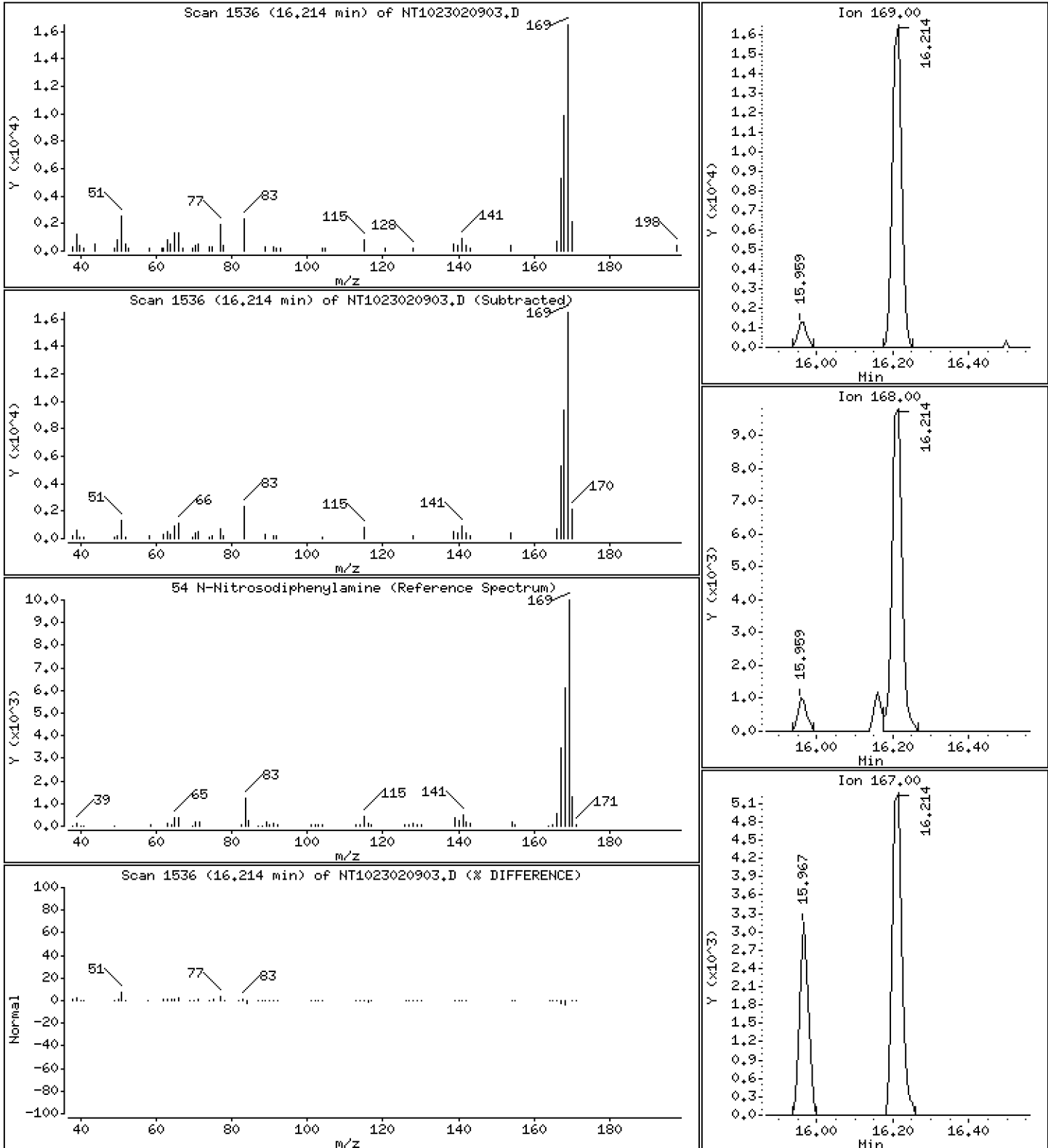
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 0,5385 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

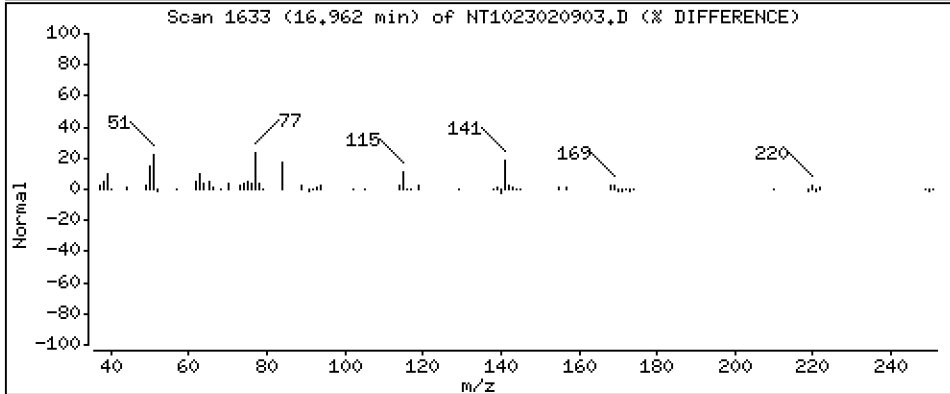
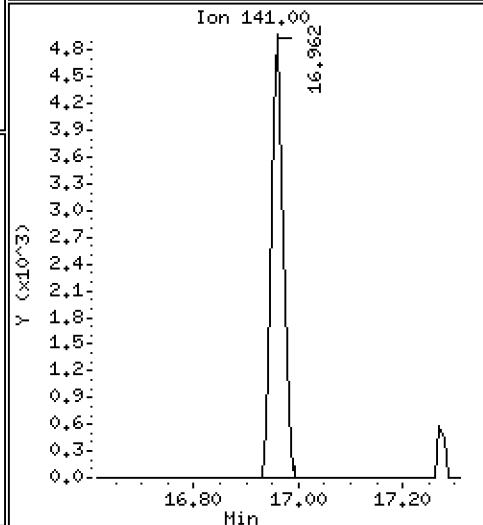
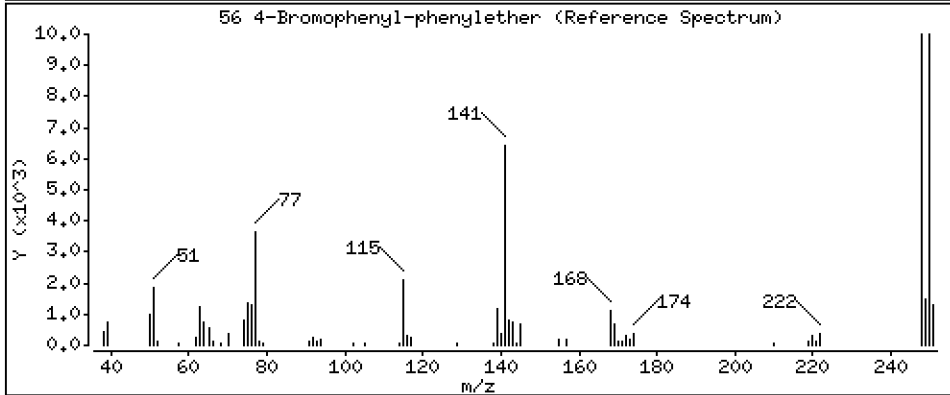
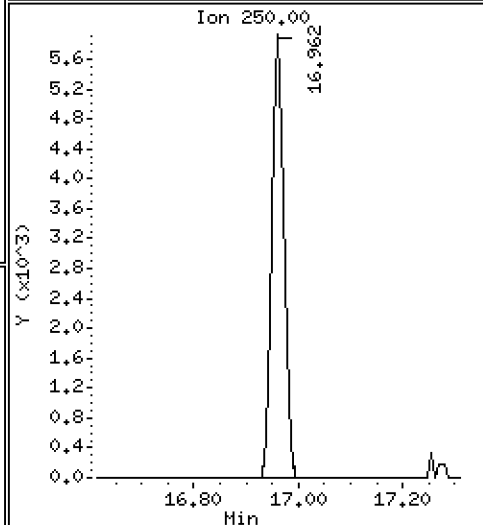
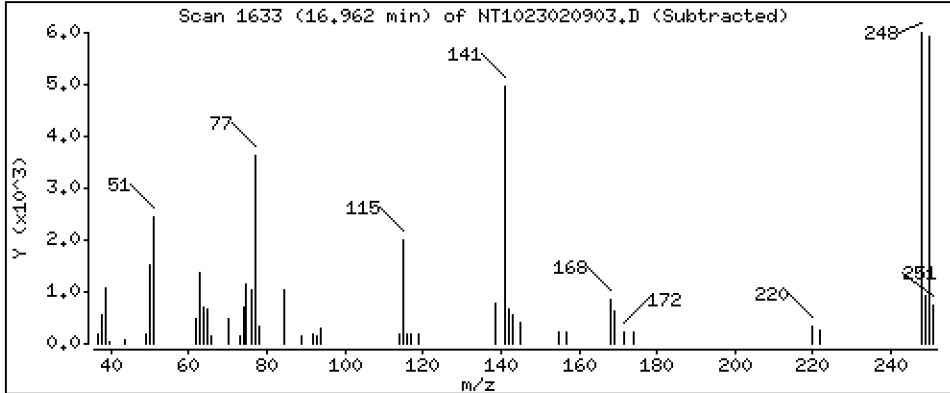
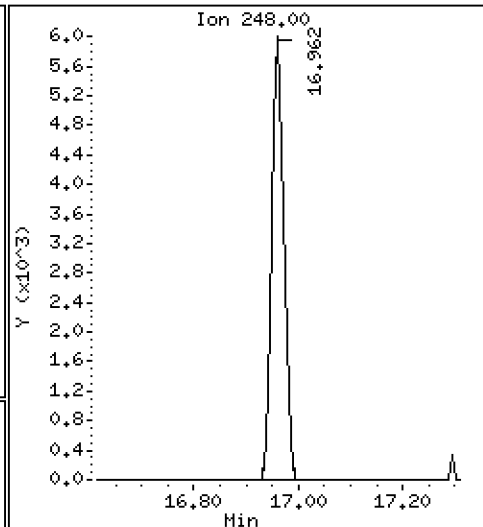
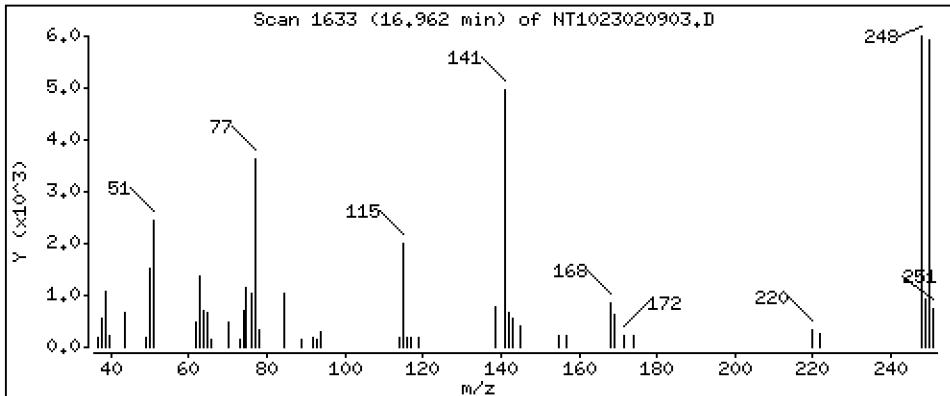
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 0,5294 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

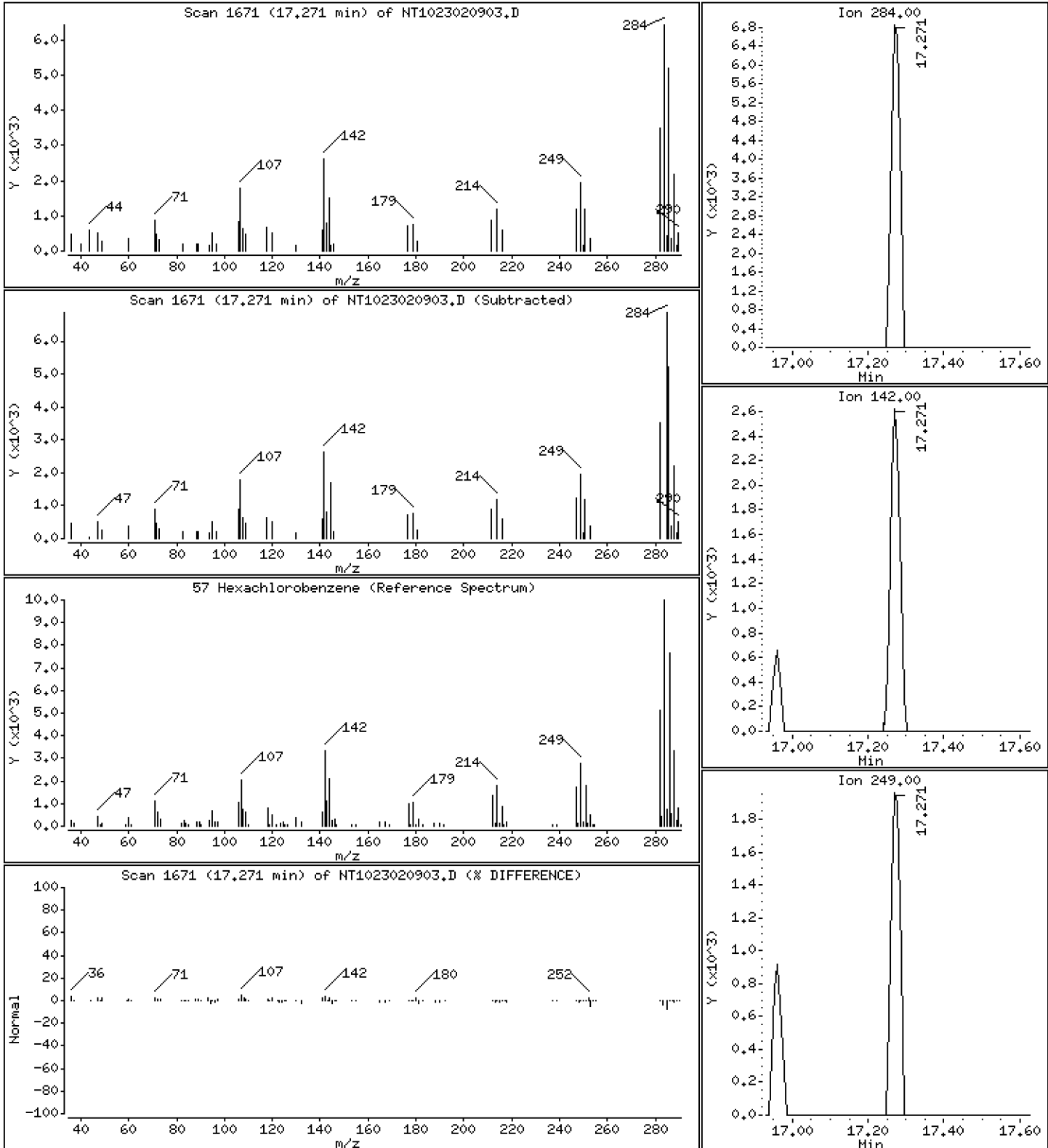
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,5528 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

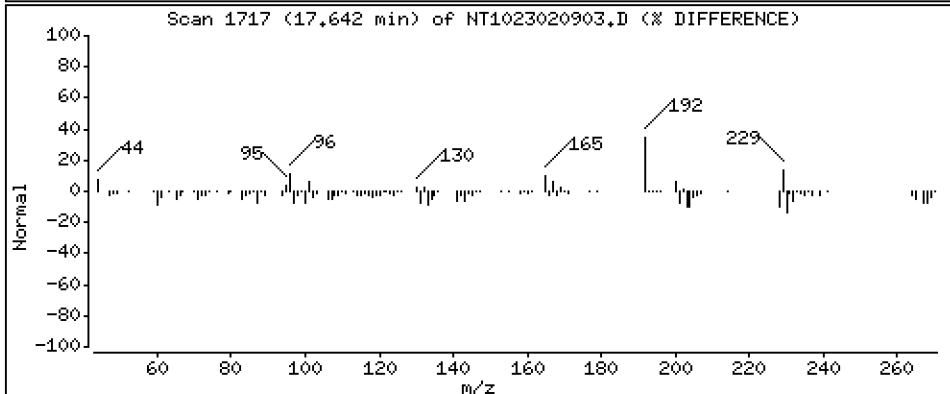
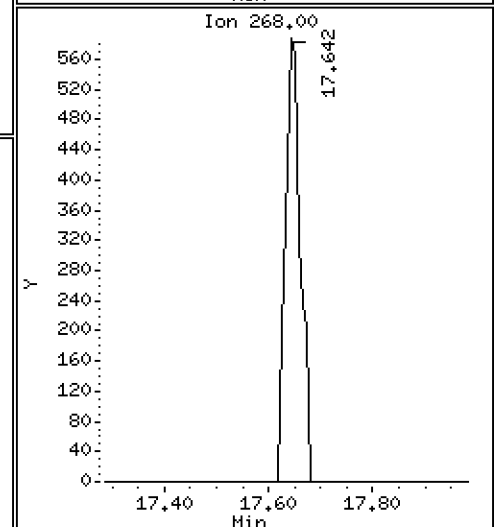
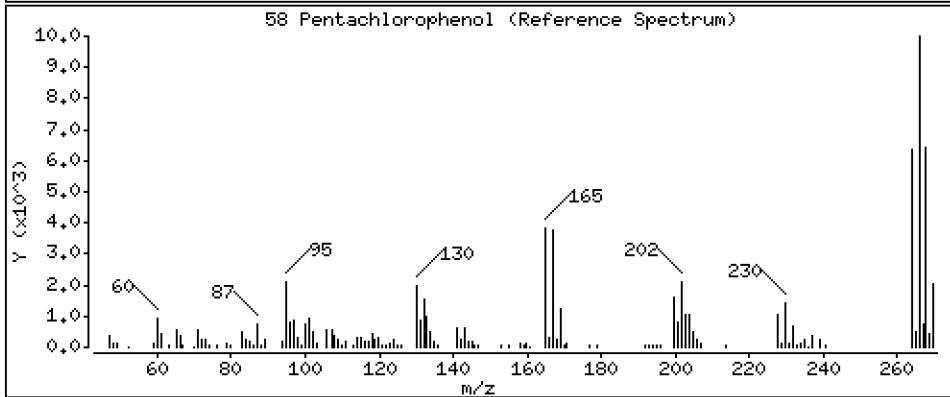
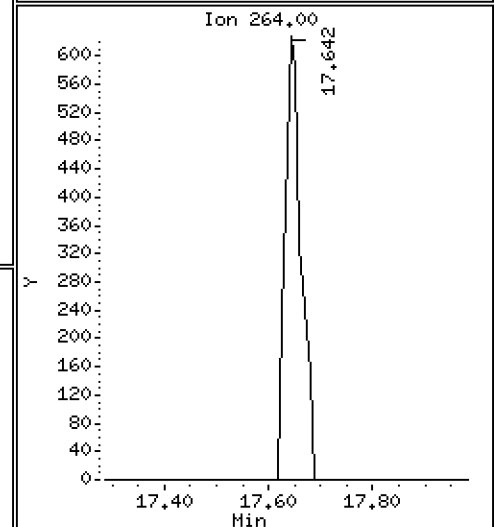
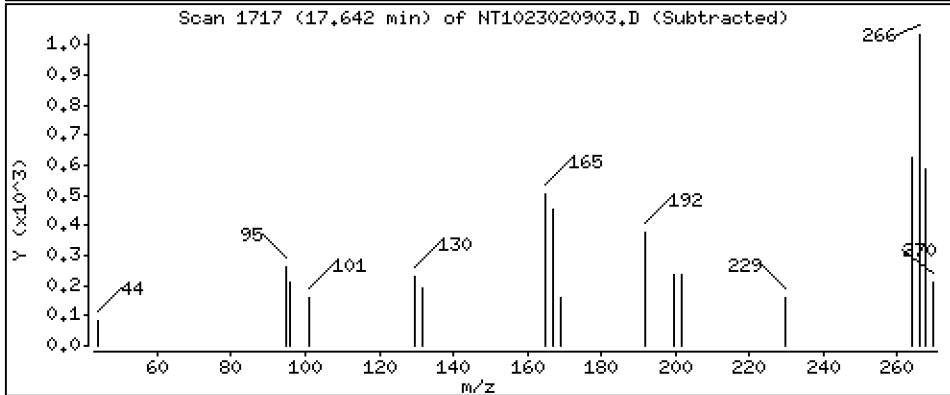
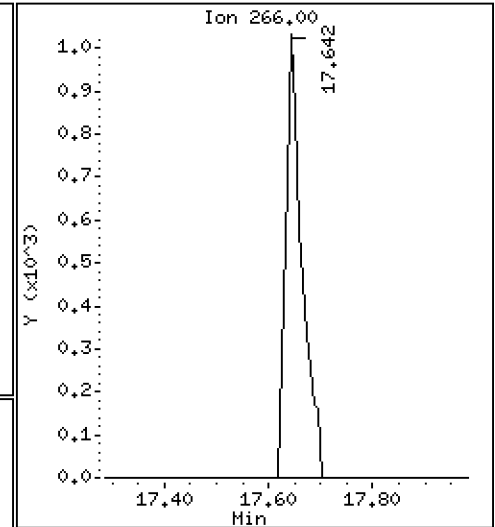
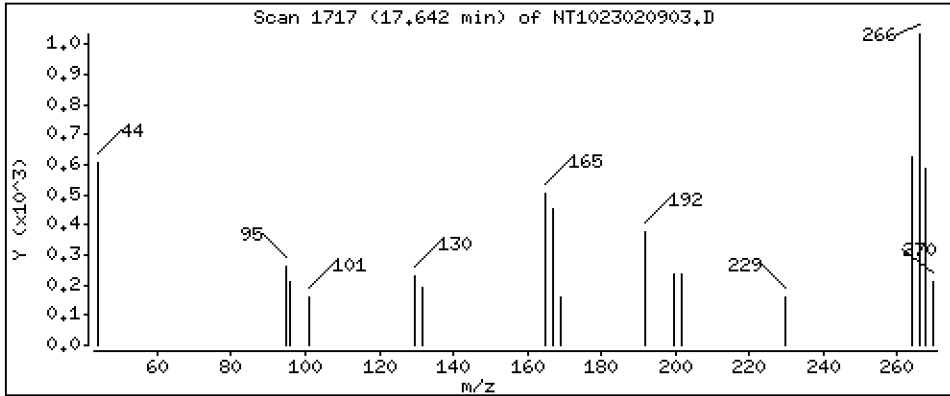
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,3088 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

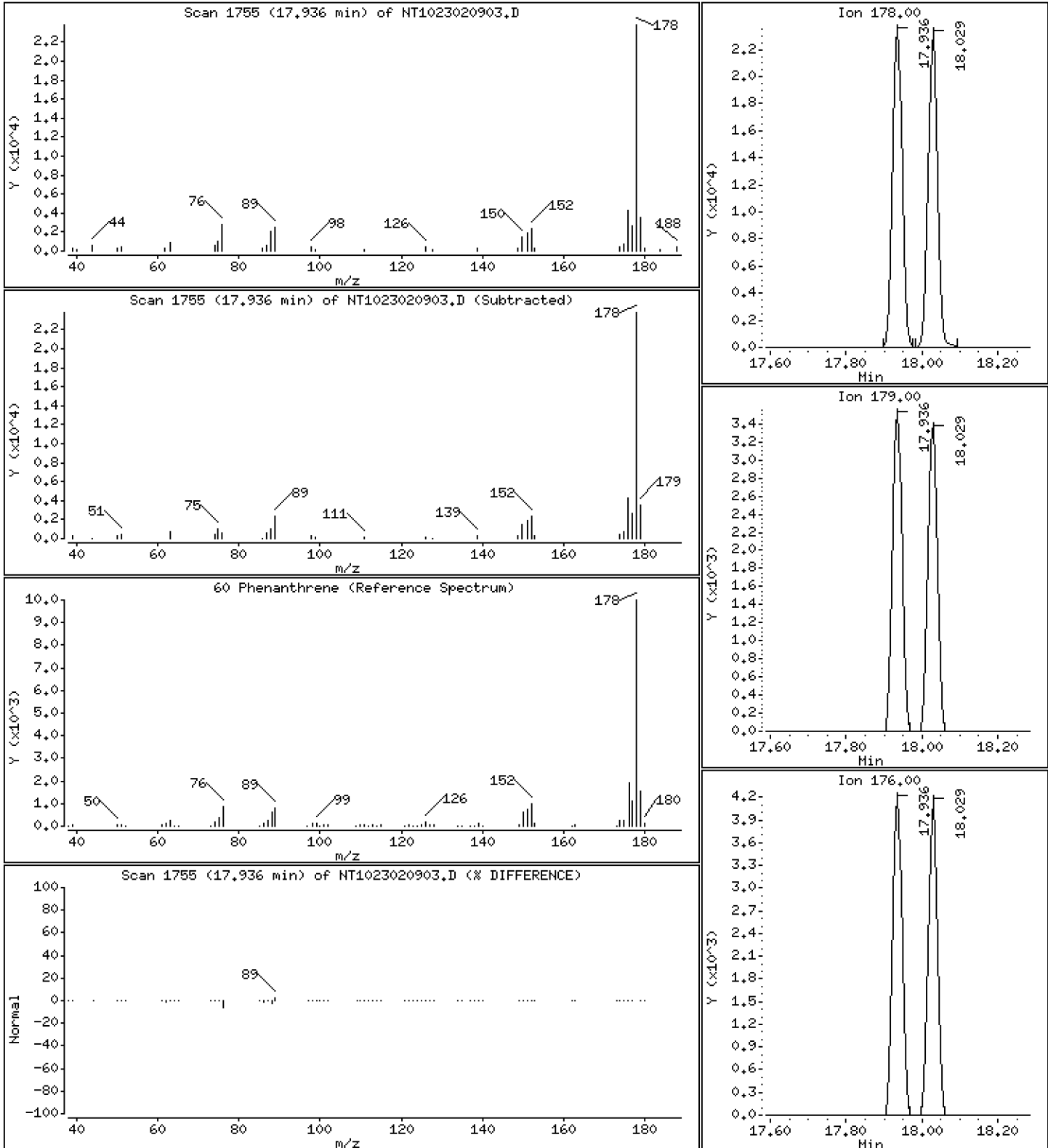
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

60 Phenanthrene

Concentration: 0.5171 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

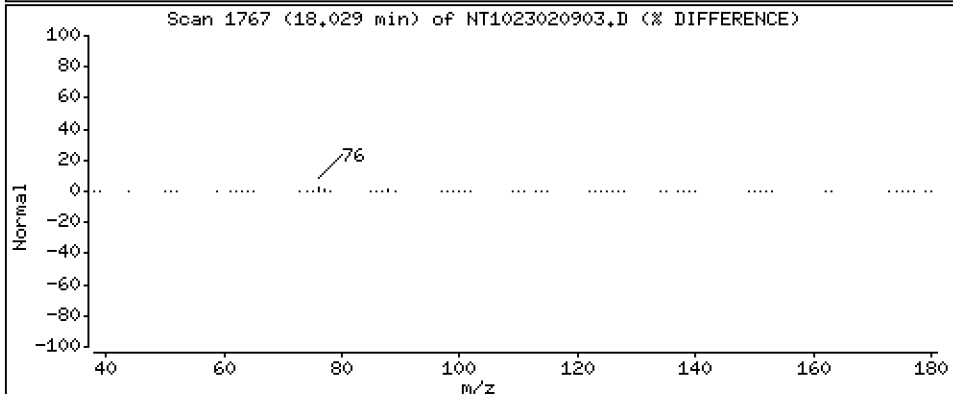
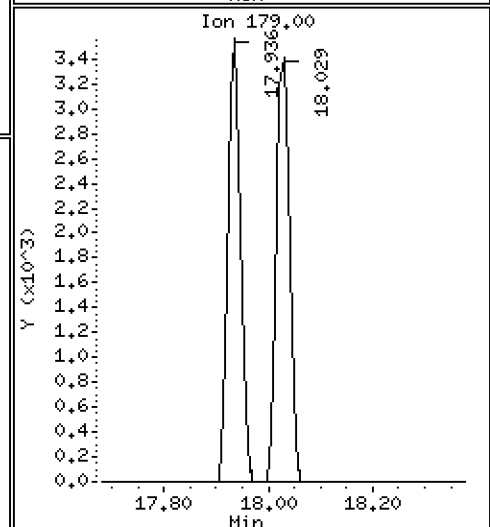
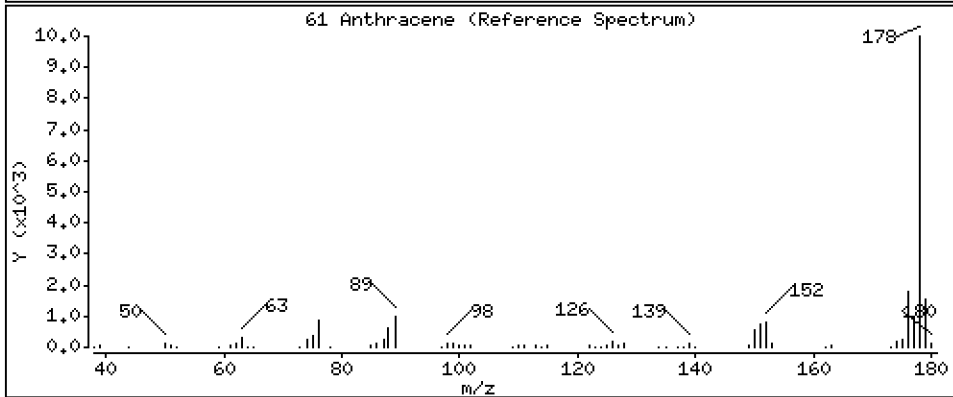
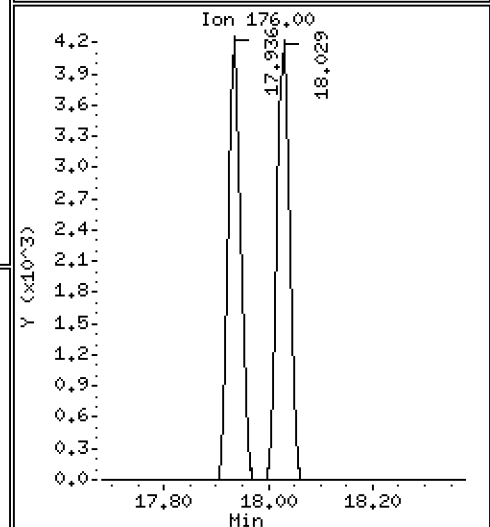
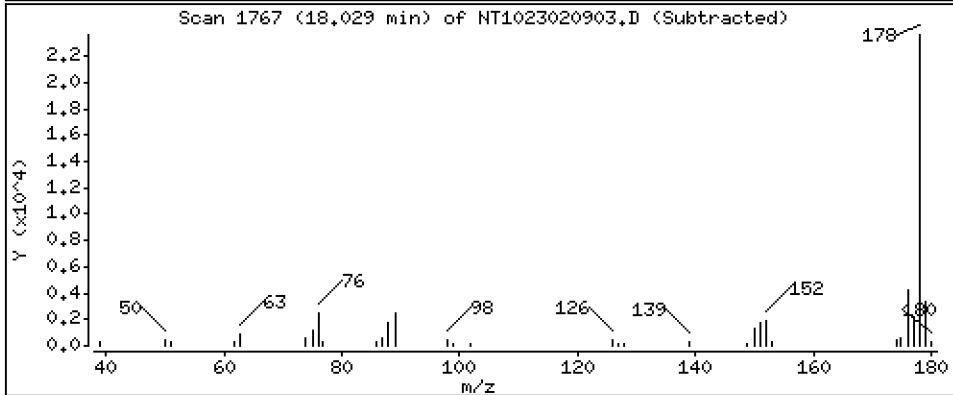
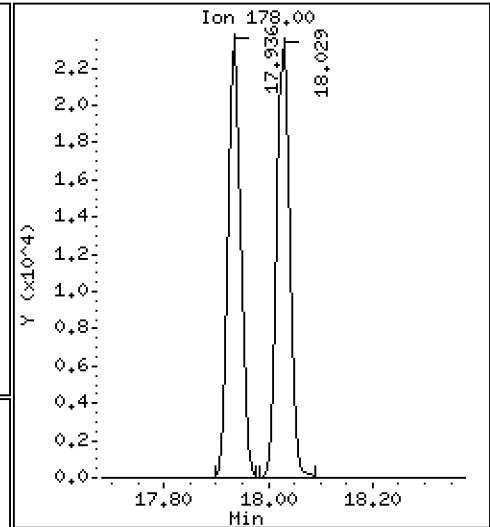
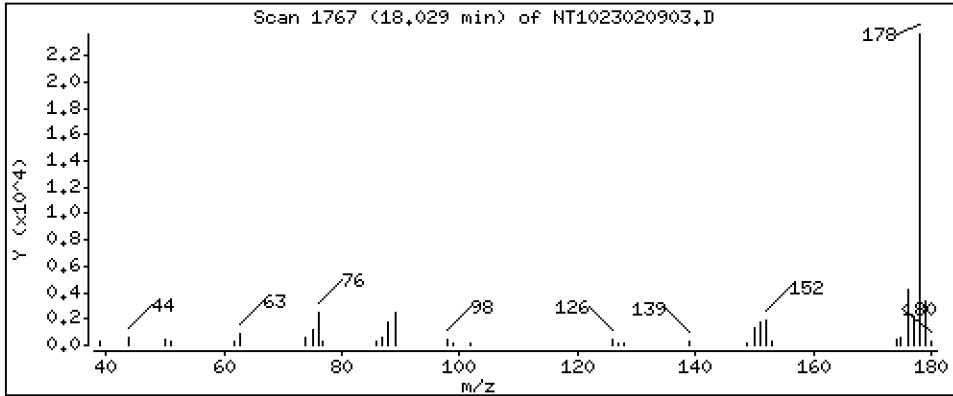
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,5139 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

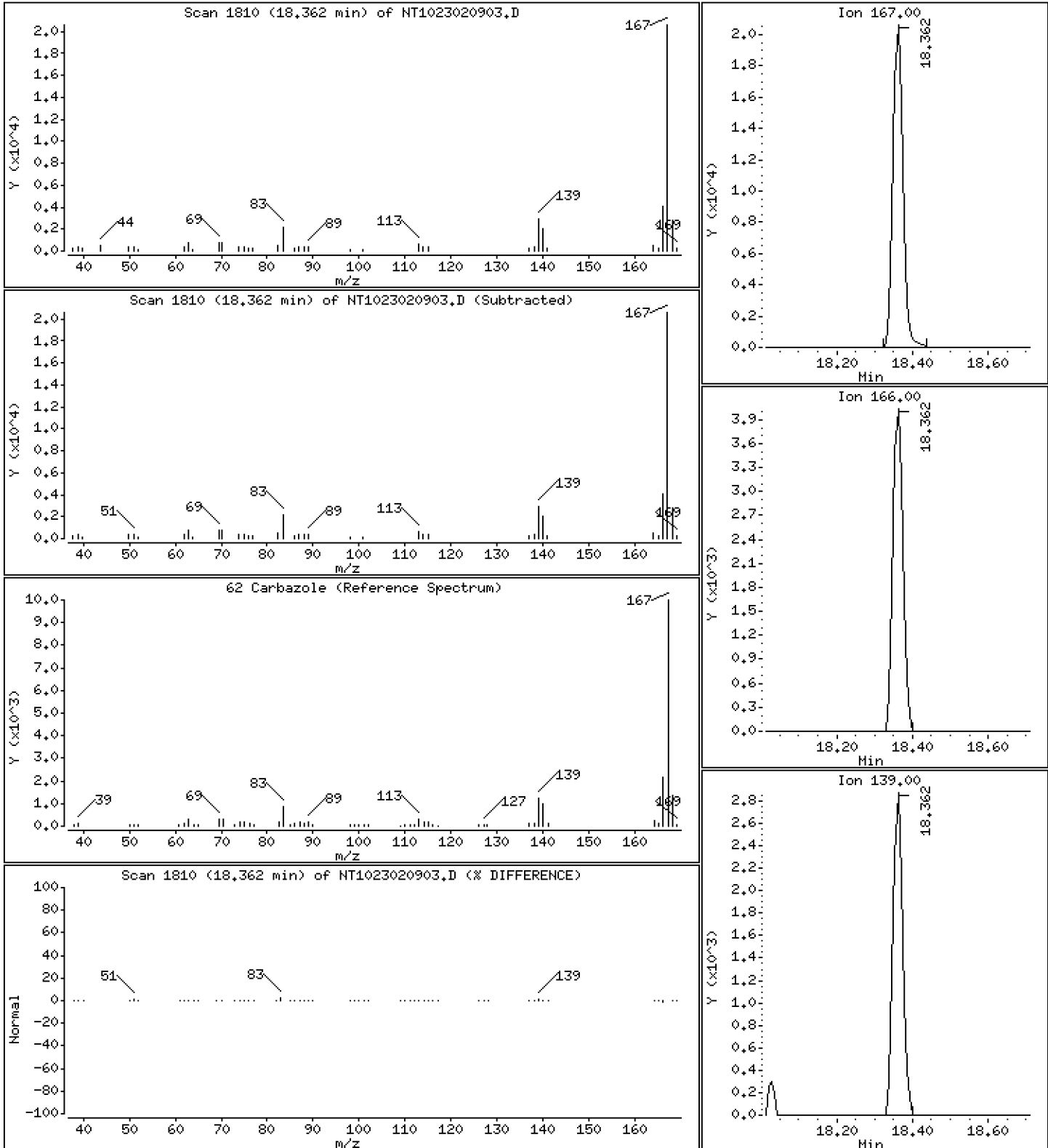
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,4961 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

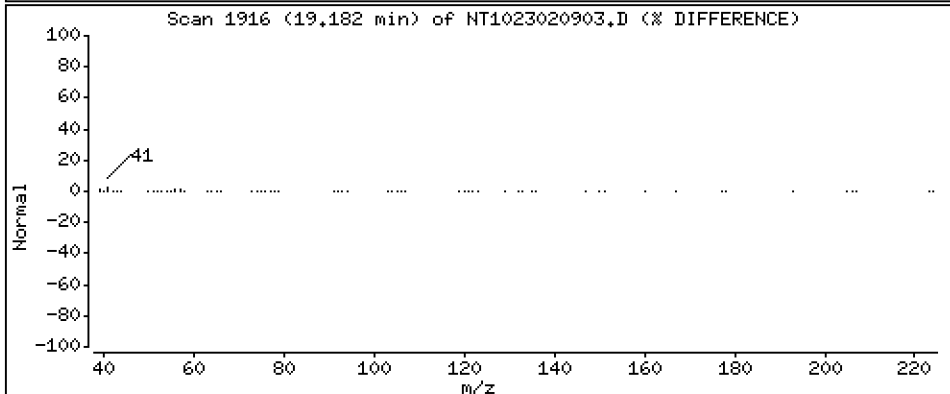
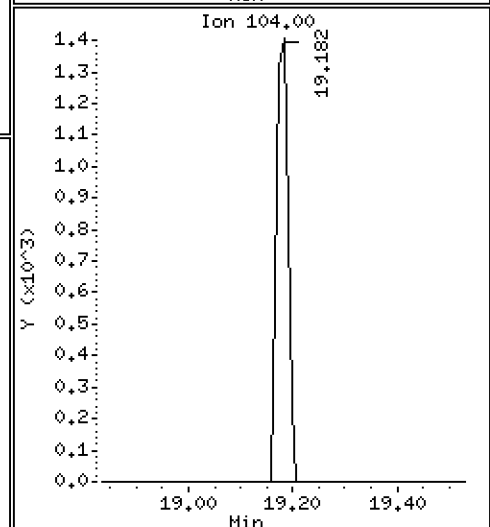
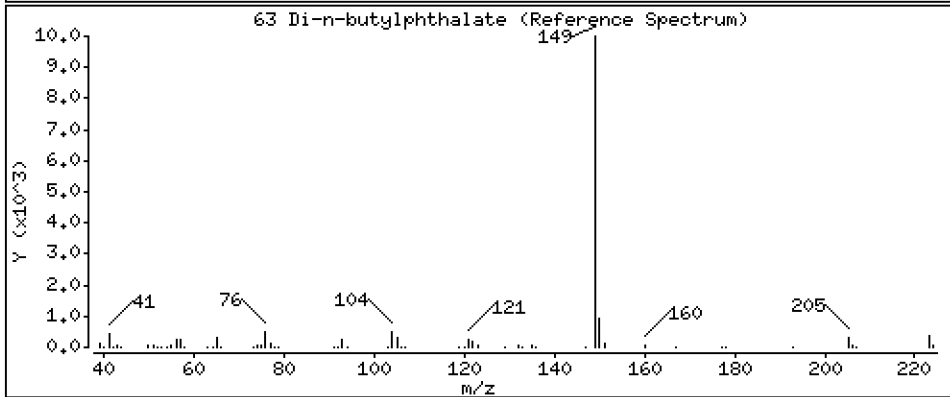
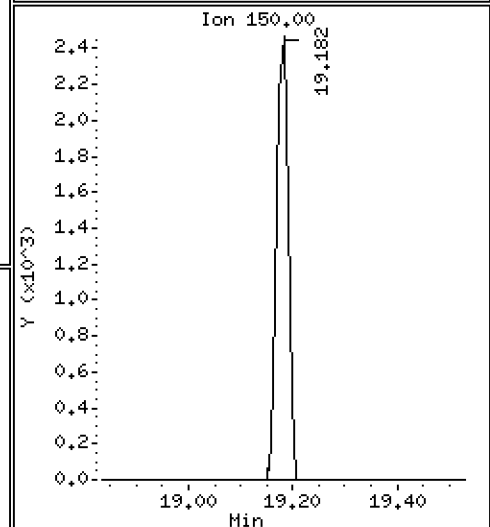
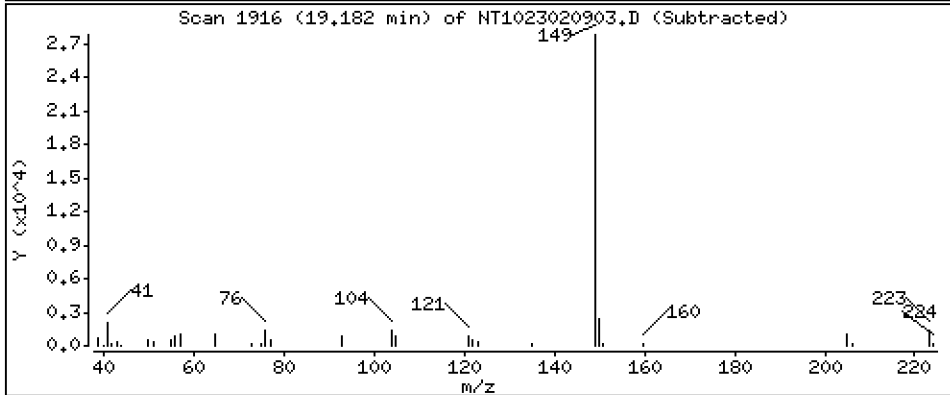
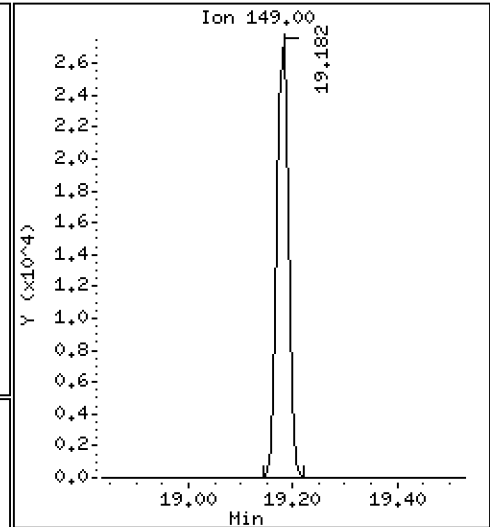
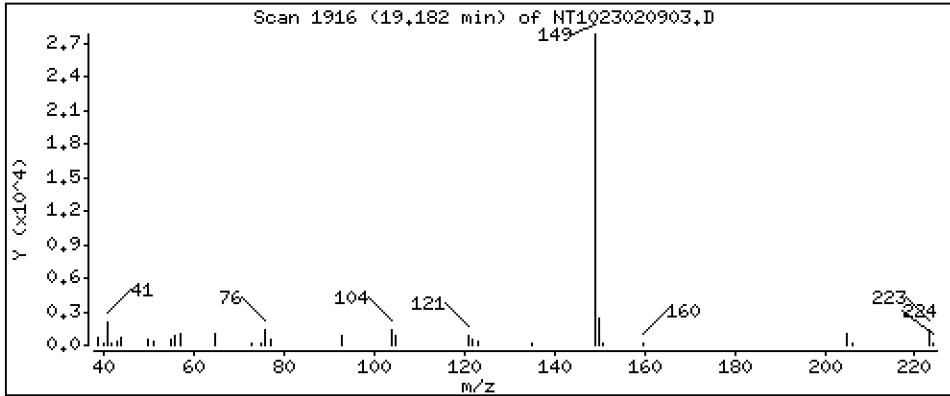
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 0,4607 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

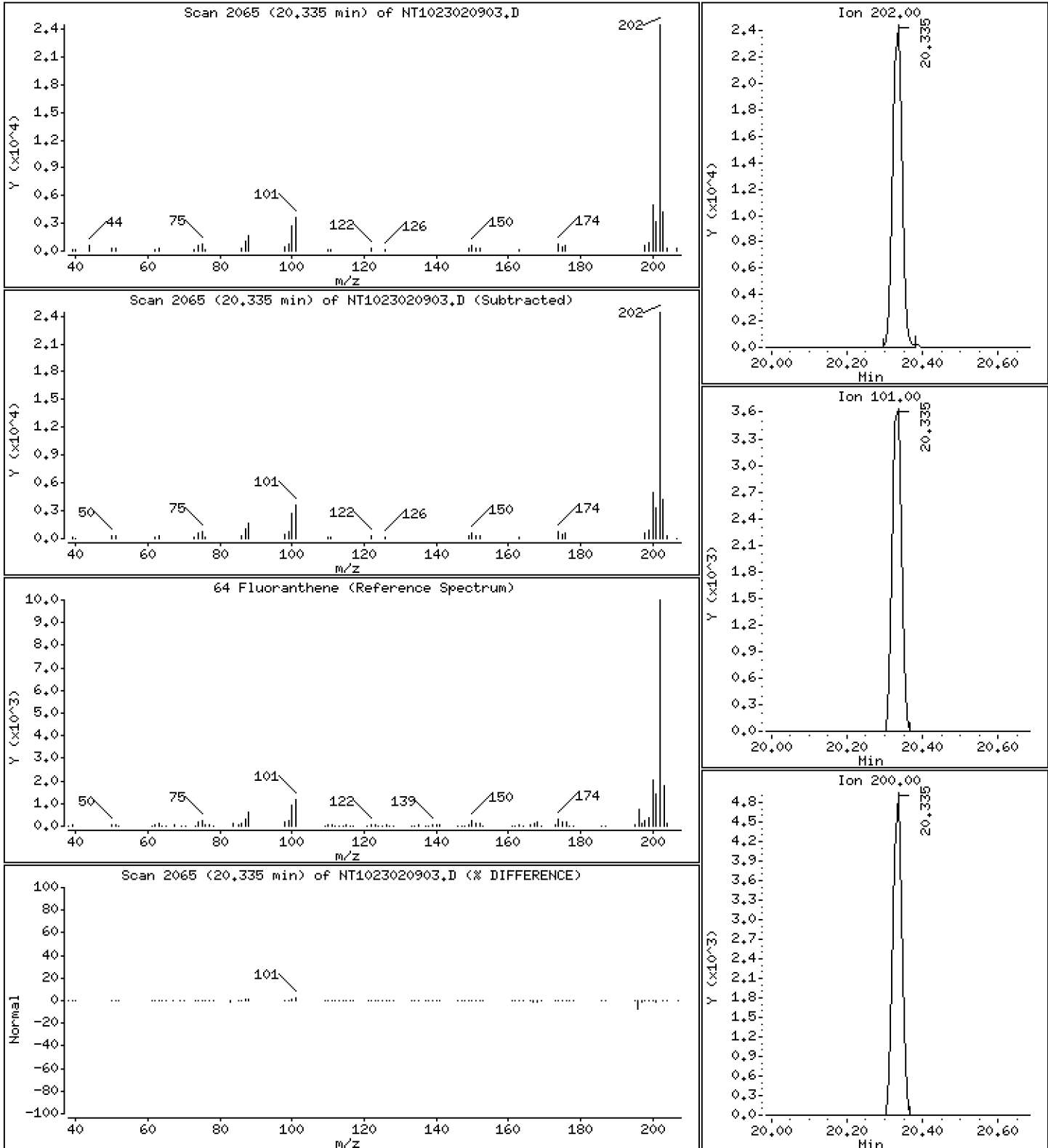
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,5181 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

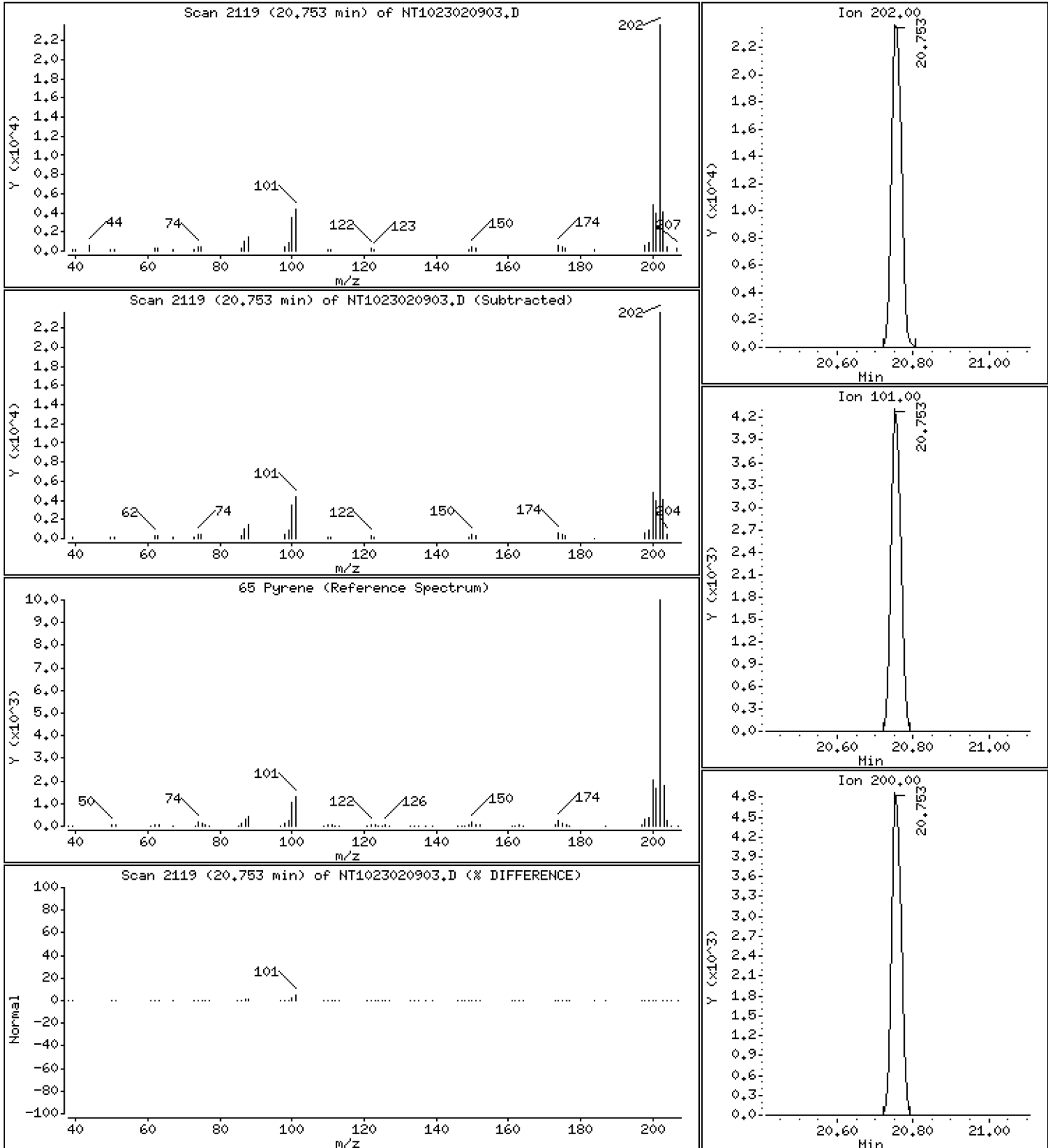
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 0,5274 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

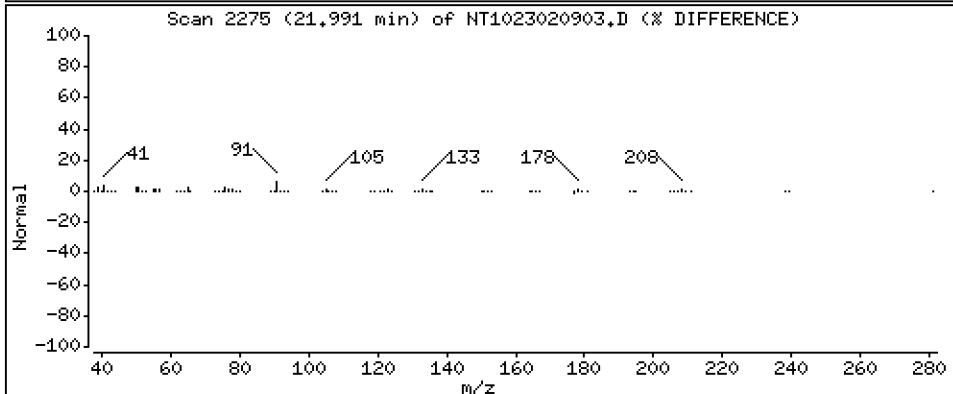
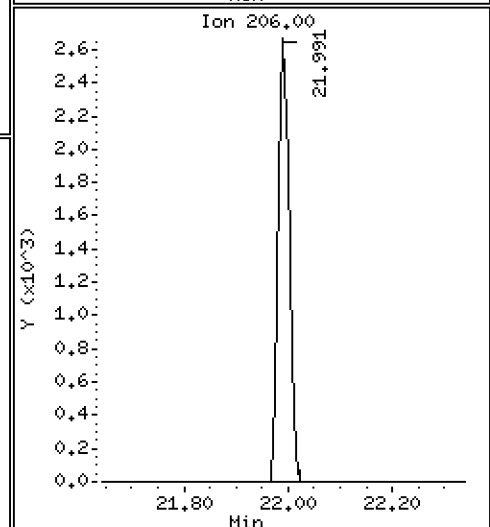
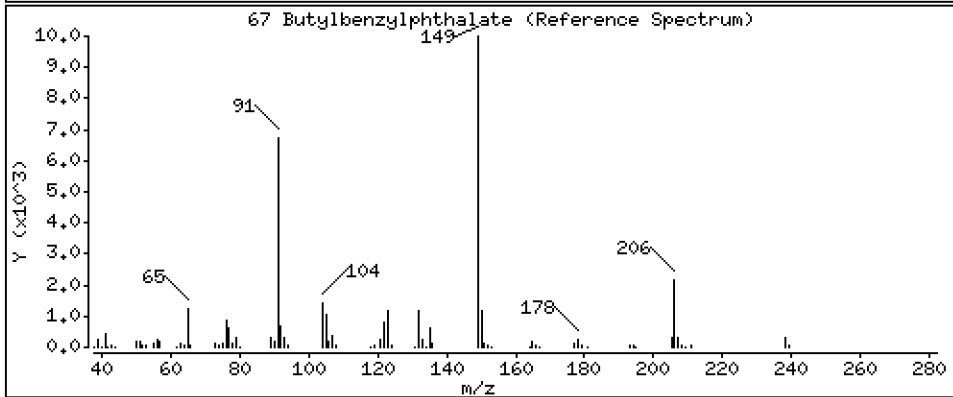
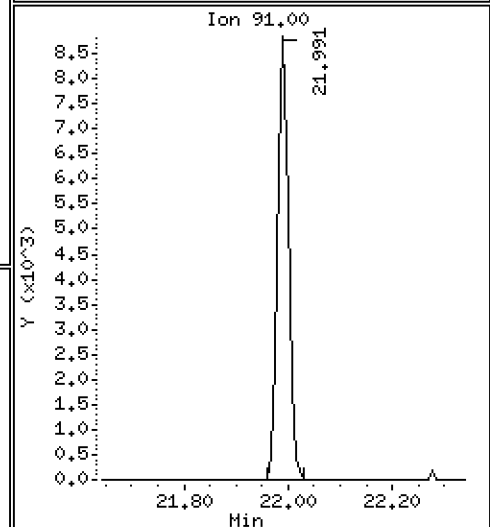
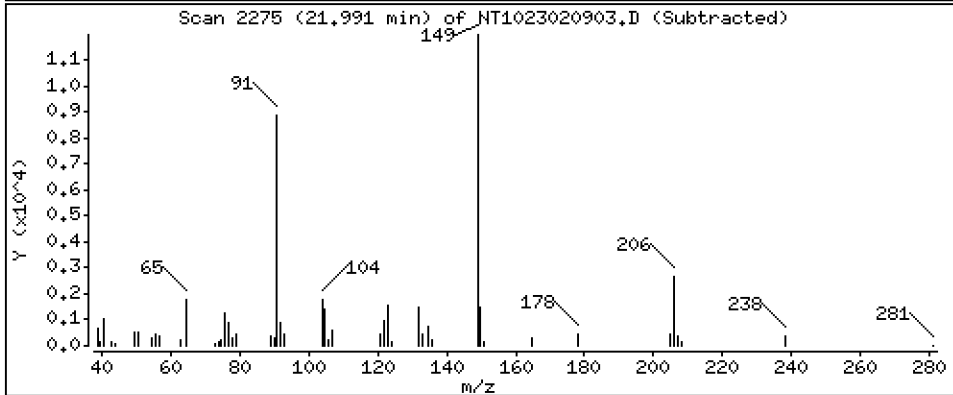
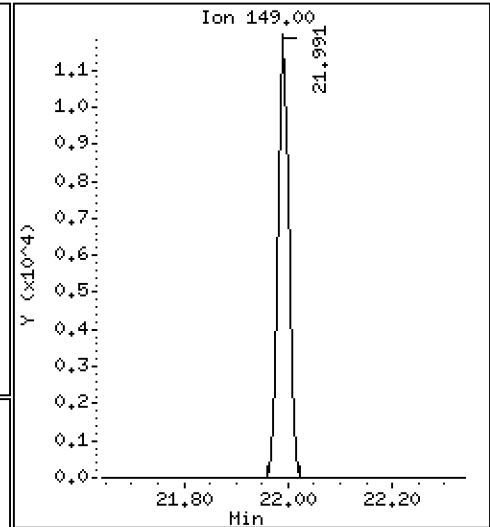
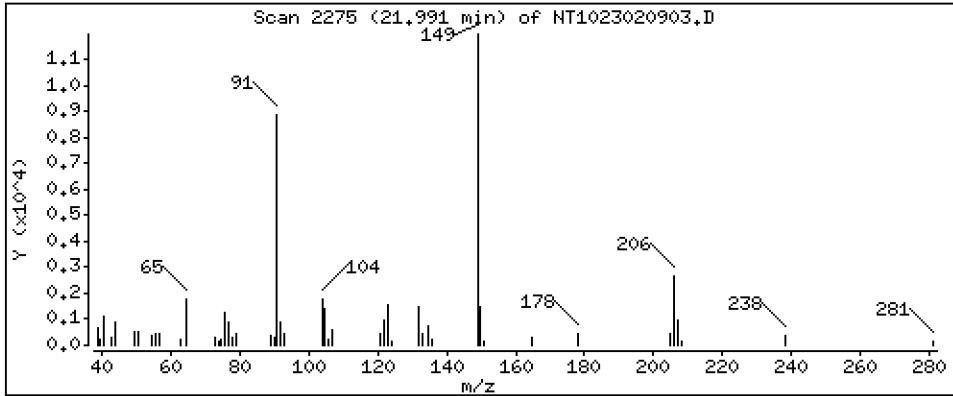
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 0,4701 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

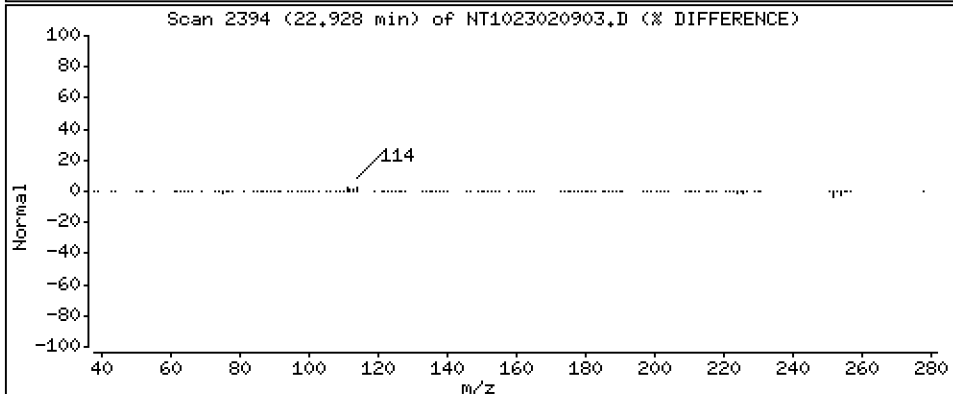
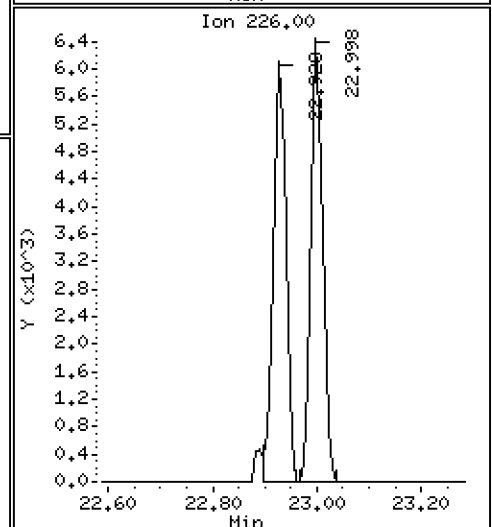
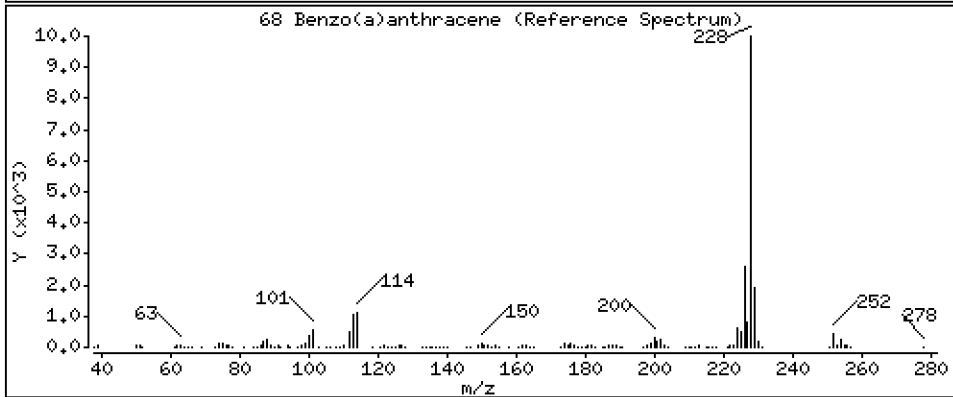
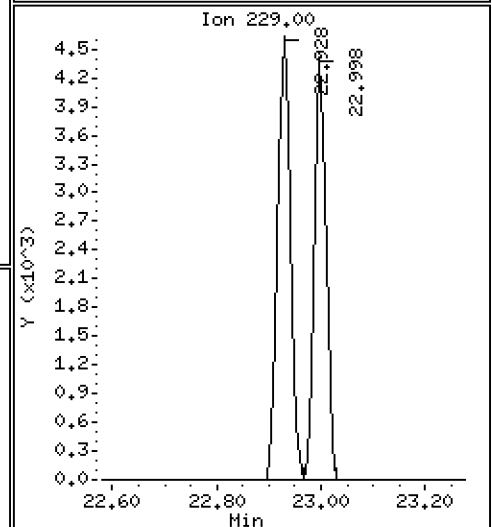
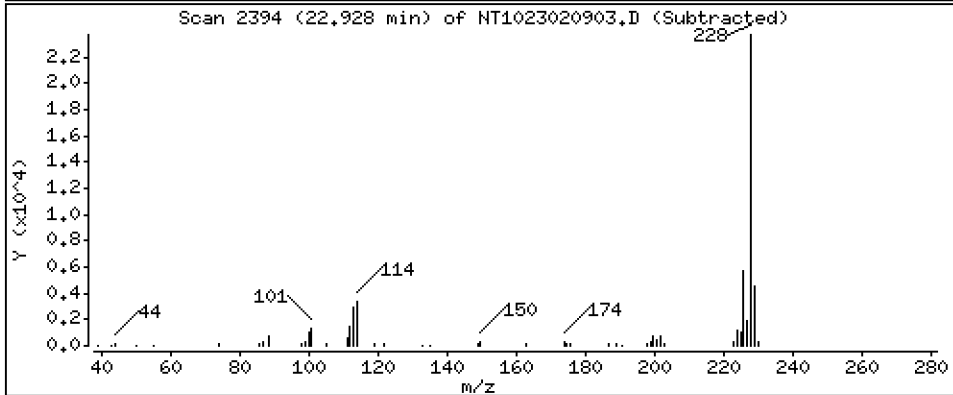
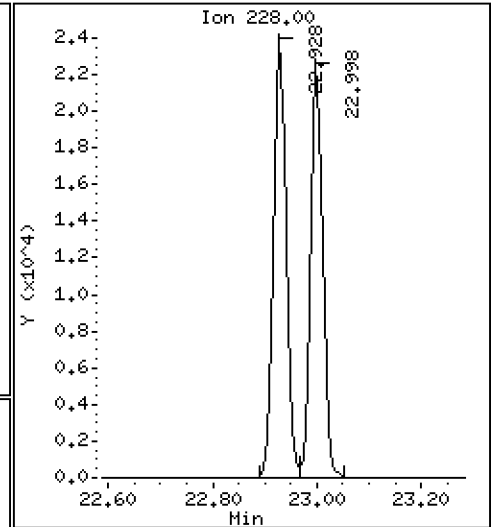
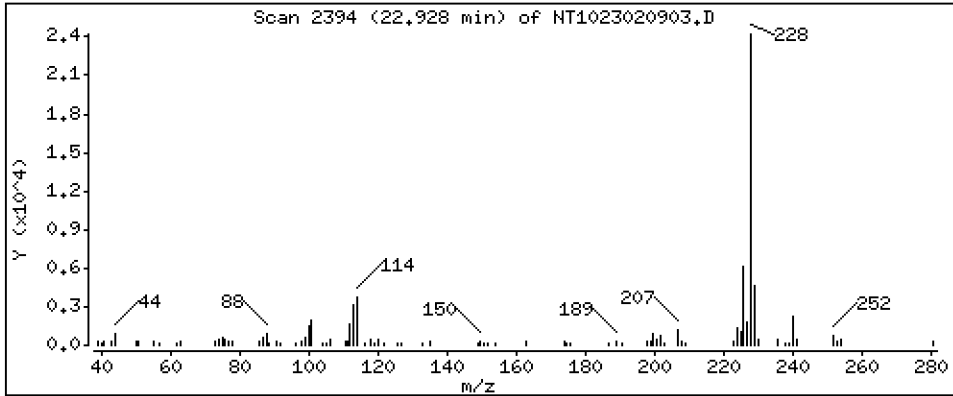
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,5501 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

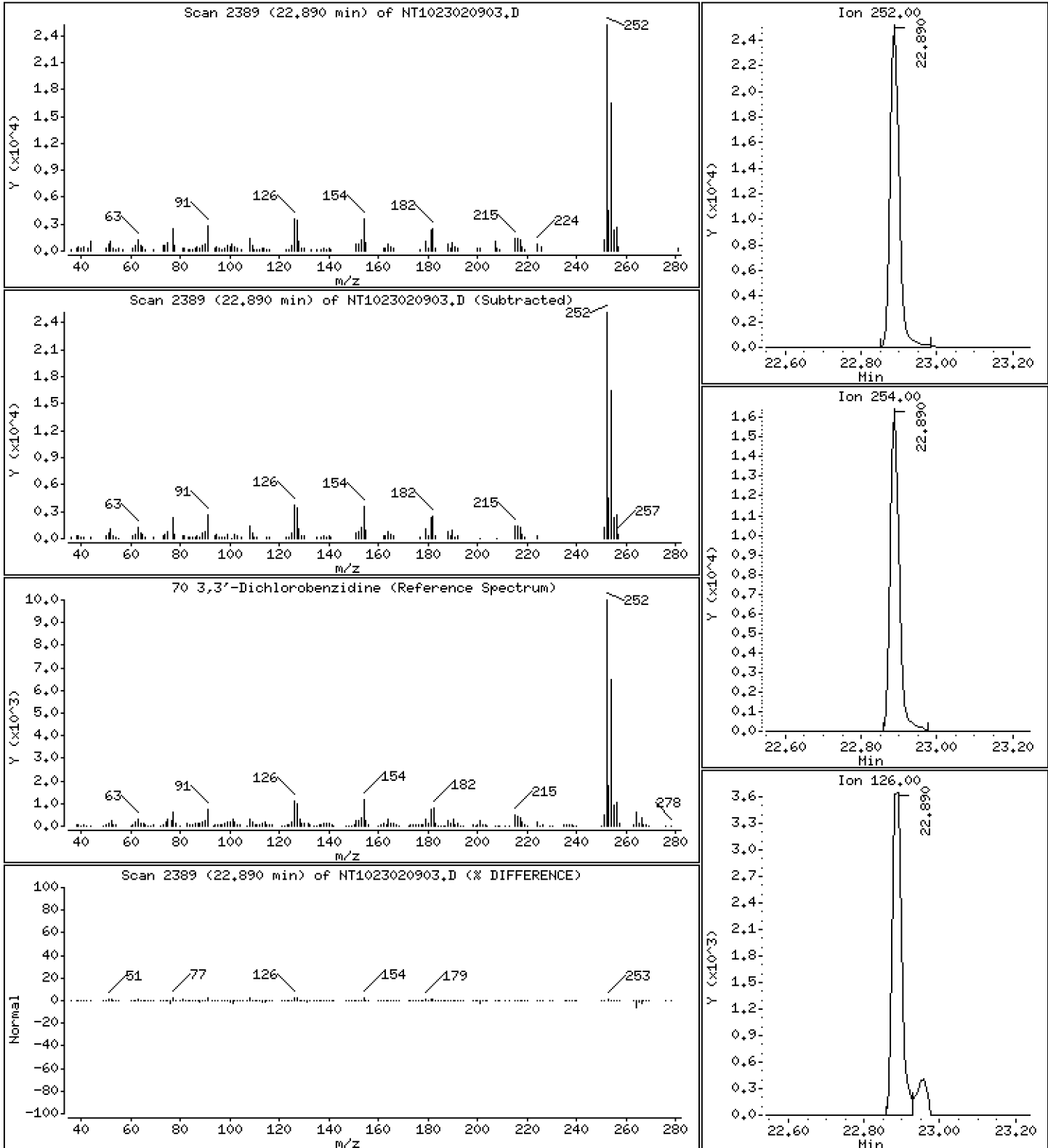
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 1,682 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

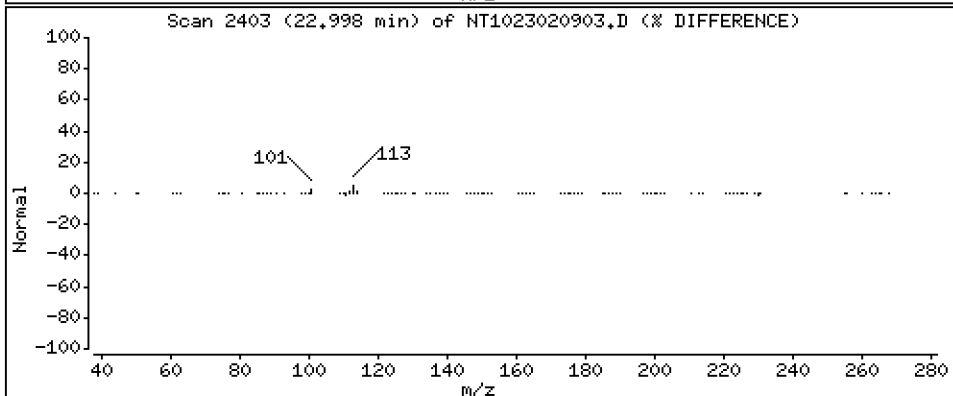
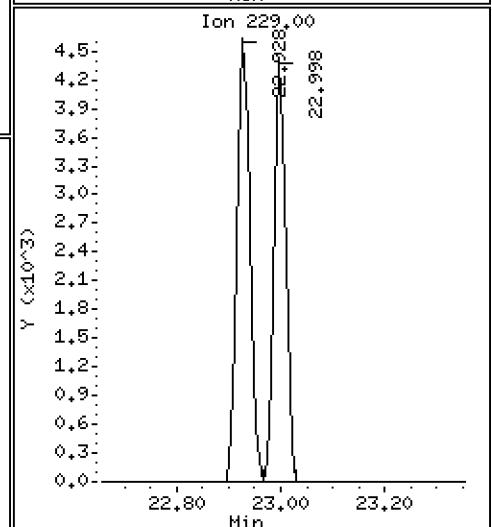
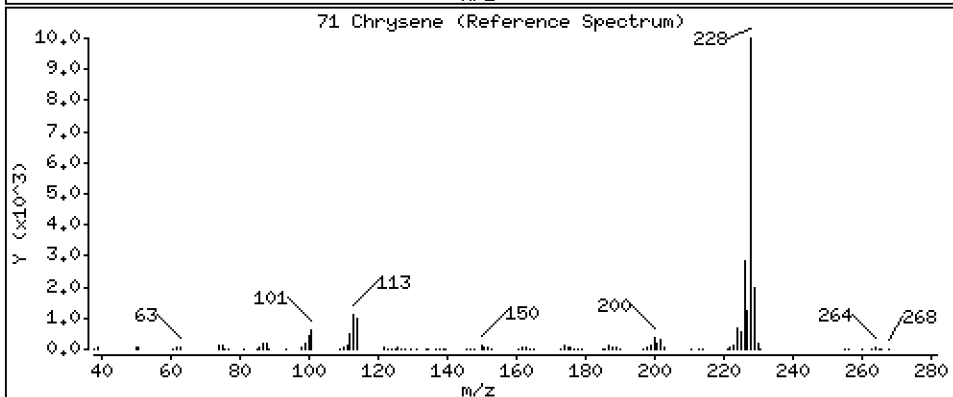
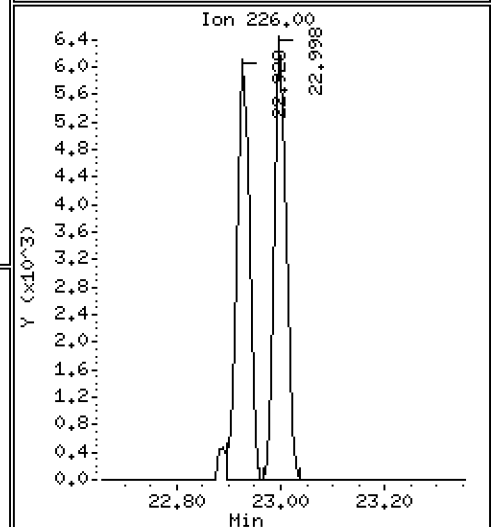
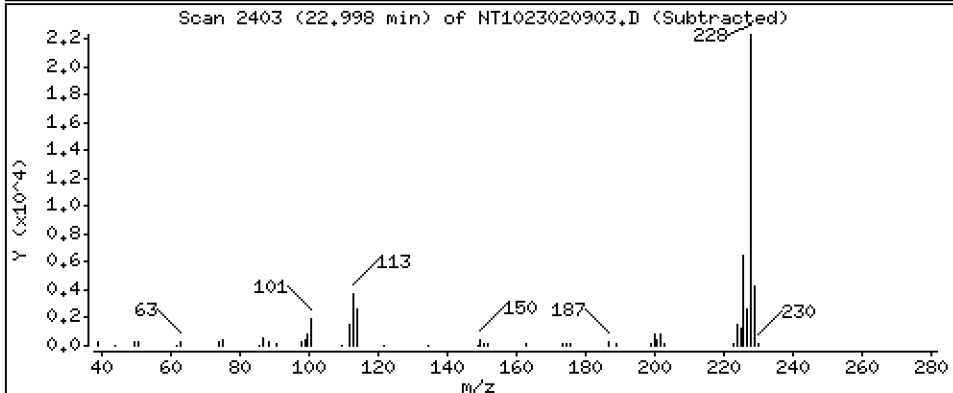
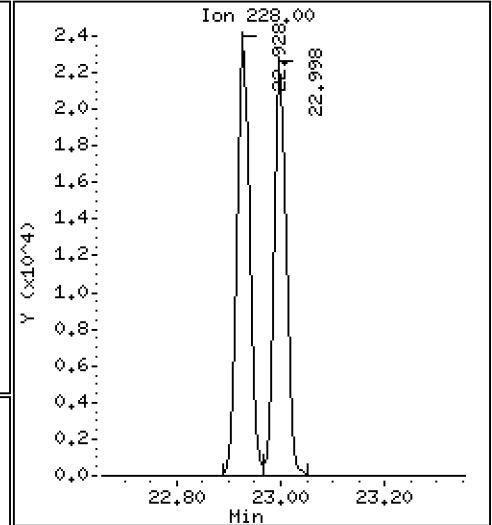
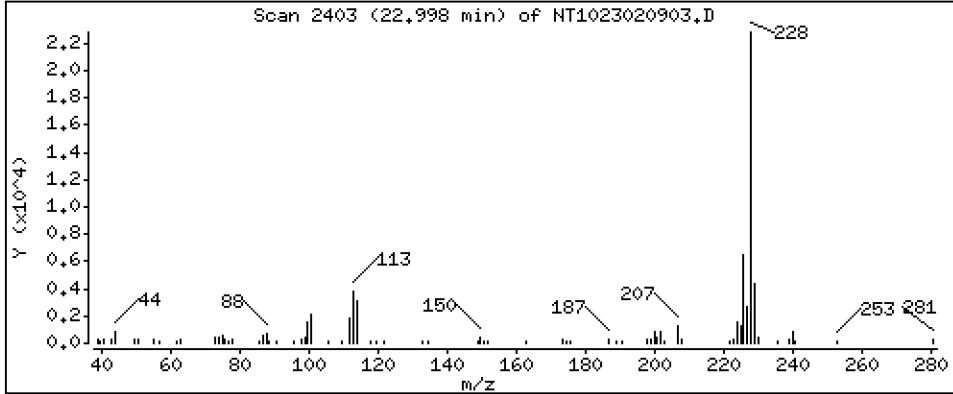
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,5328 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

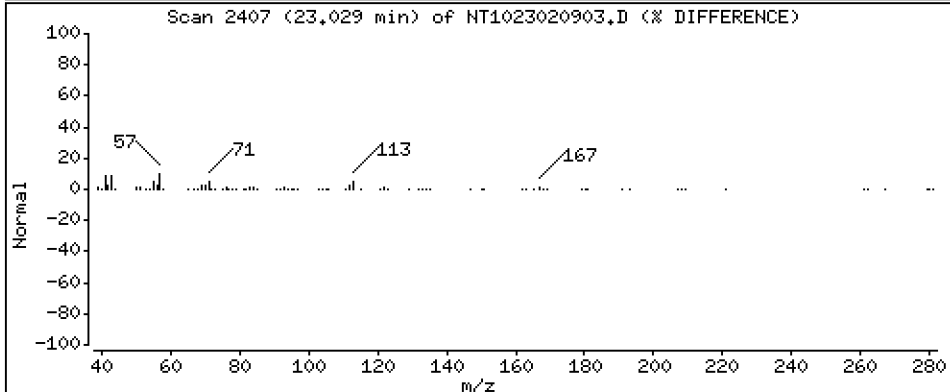
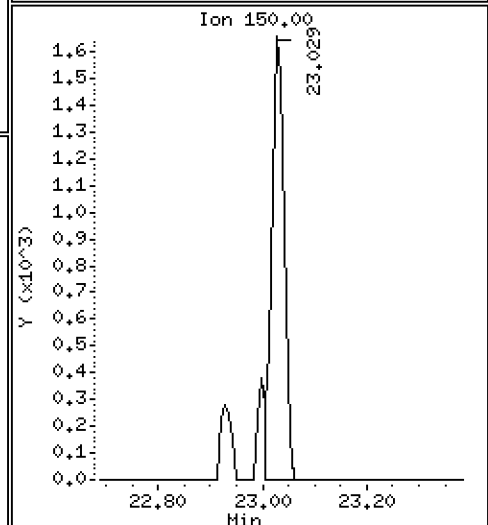
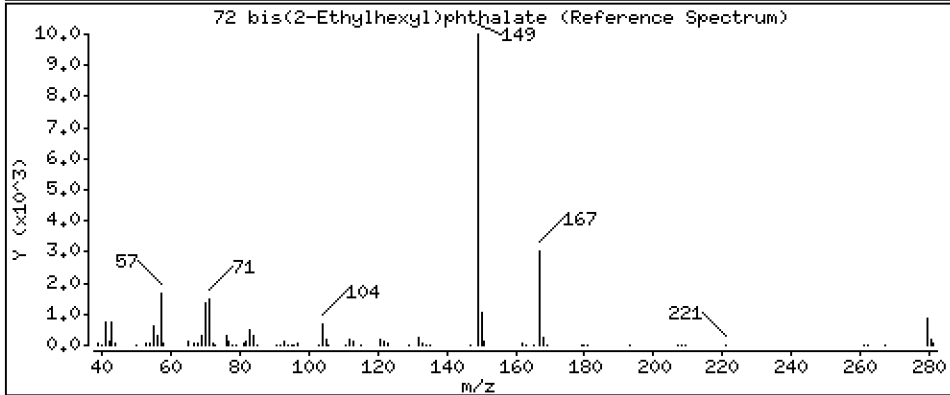
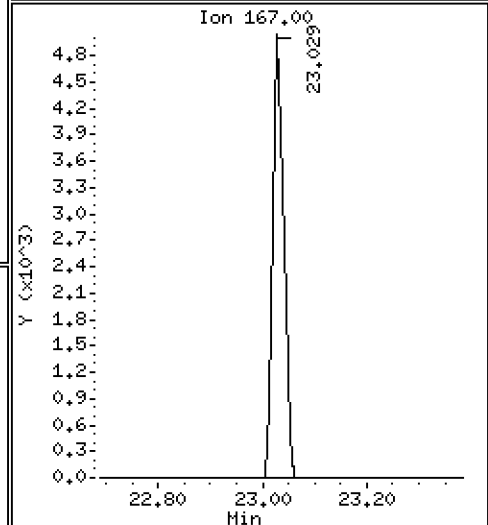
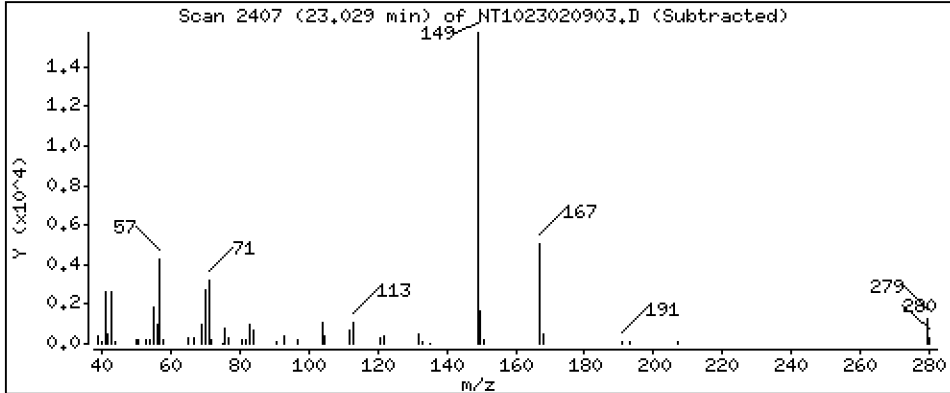
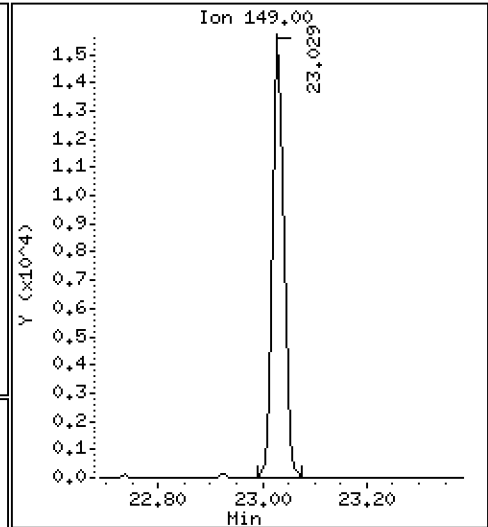
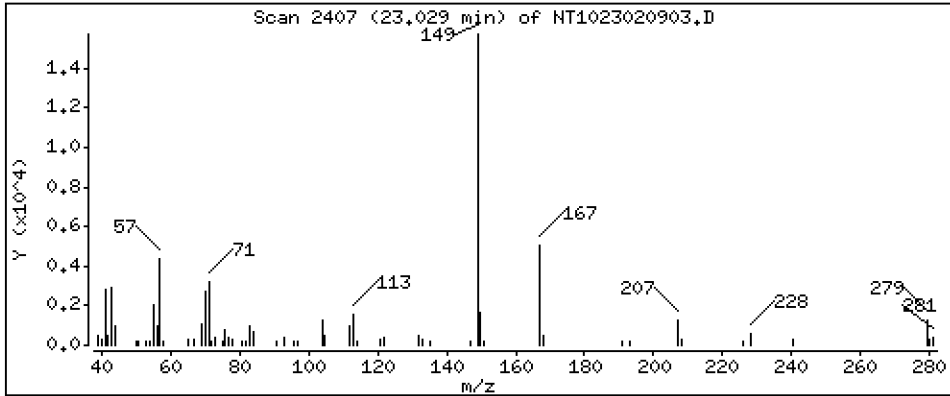
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,4983 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

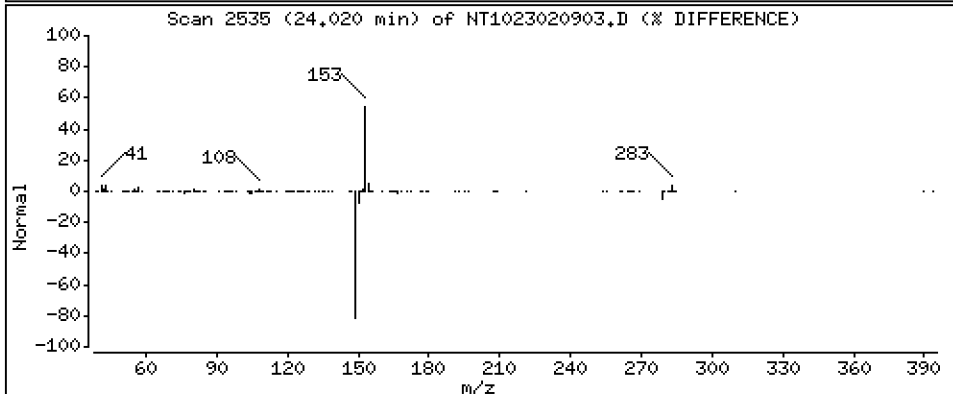
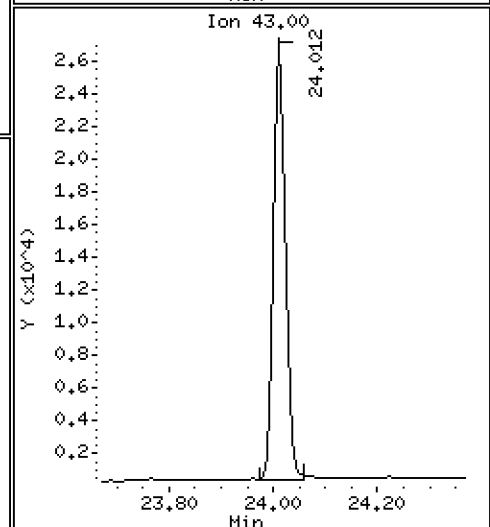
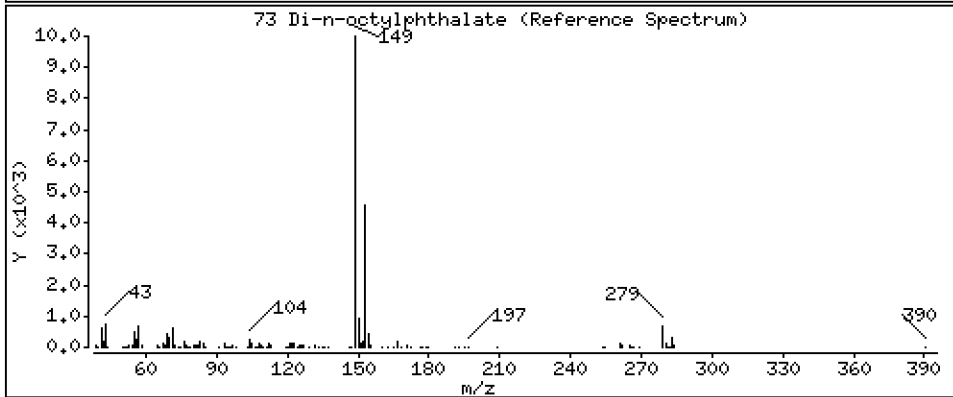
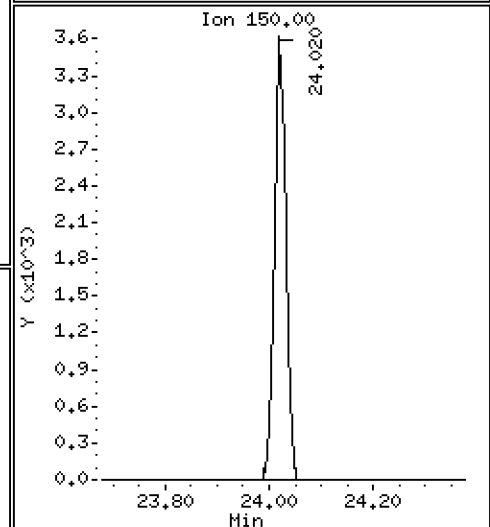
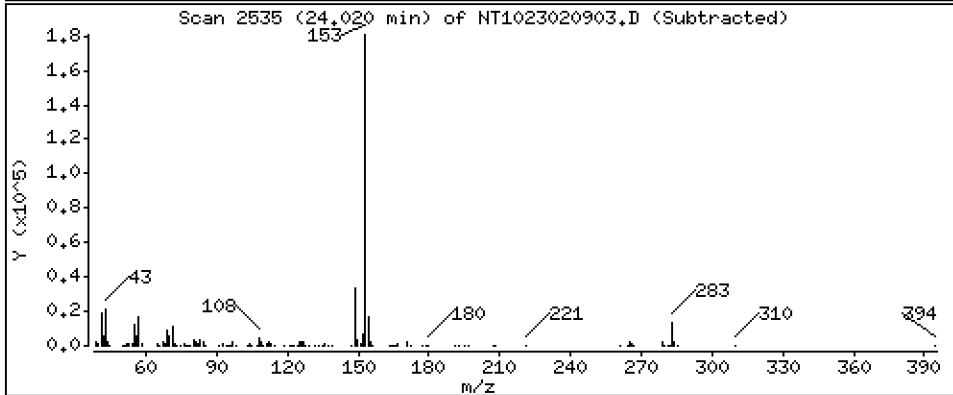
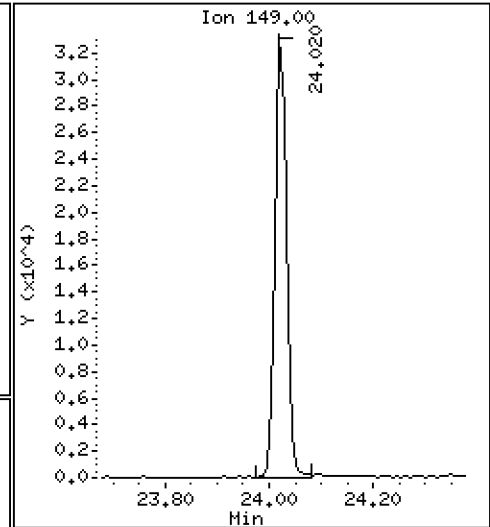
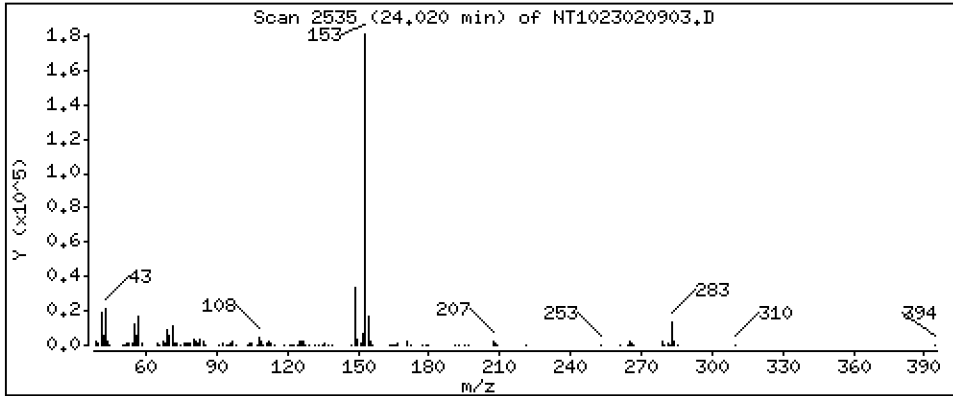
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,5612 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

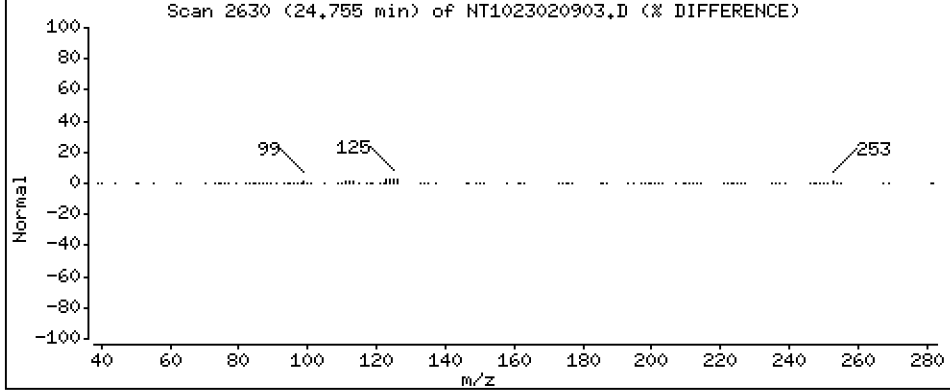
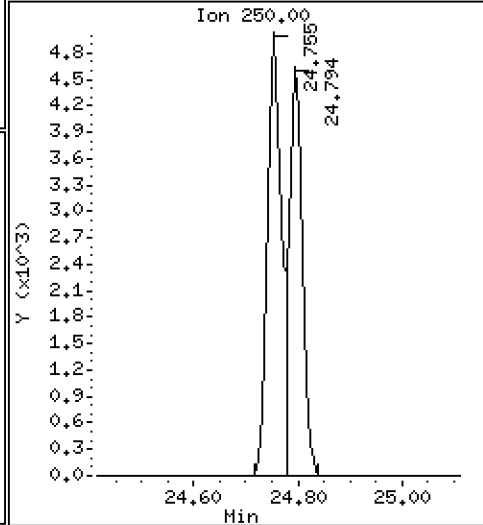
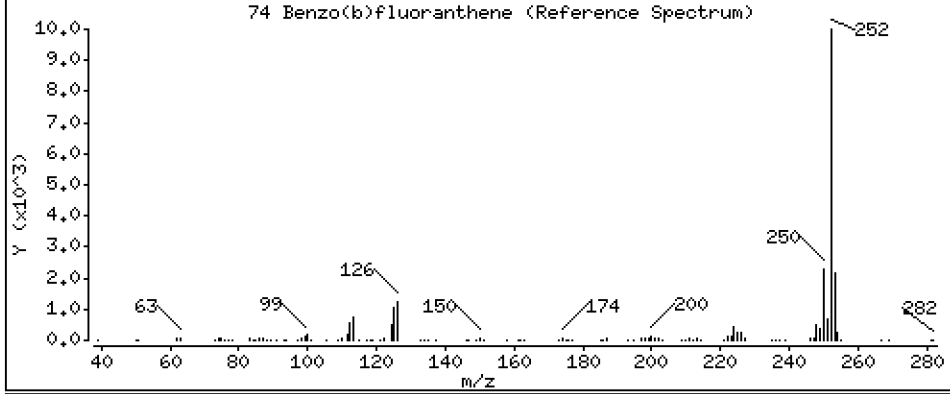
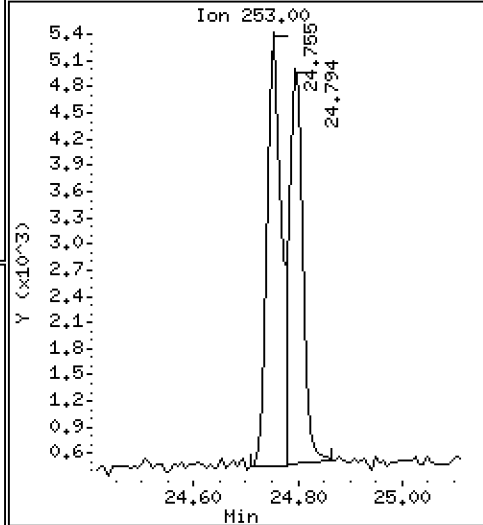
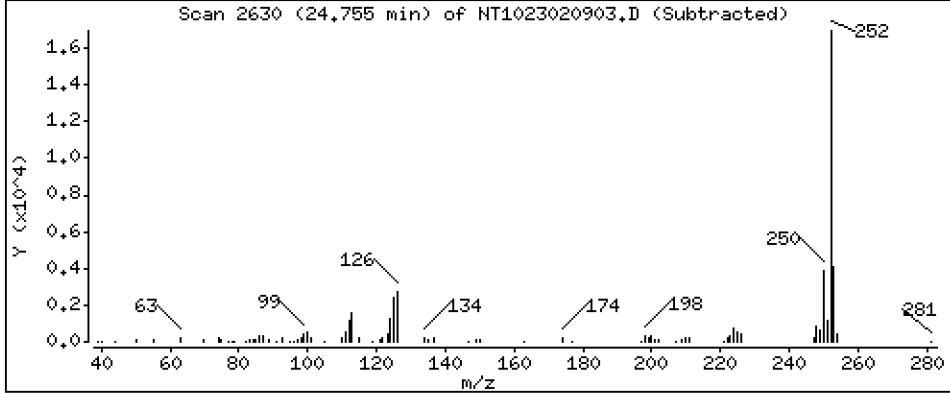
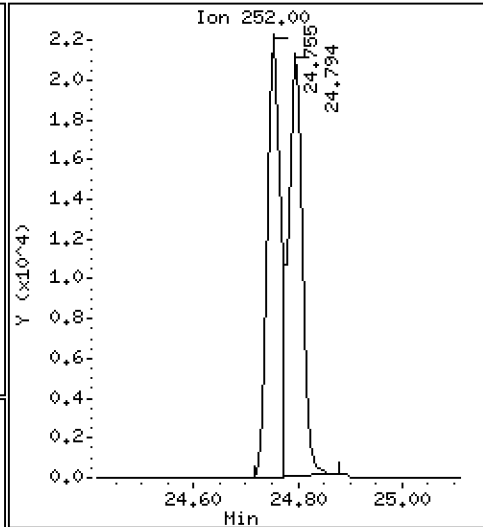
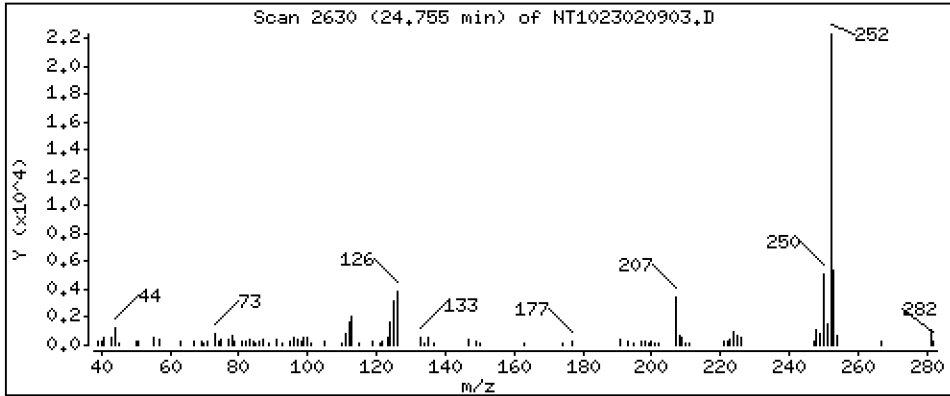
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,4936 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

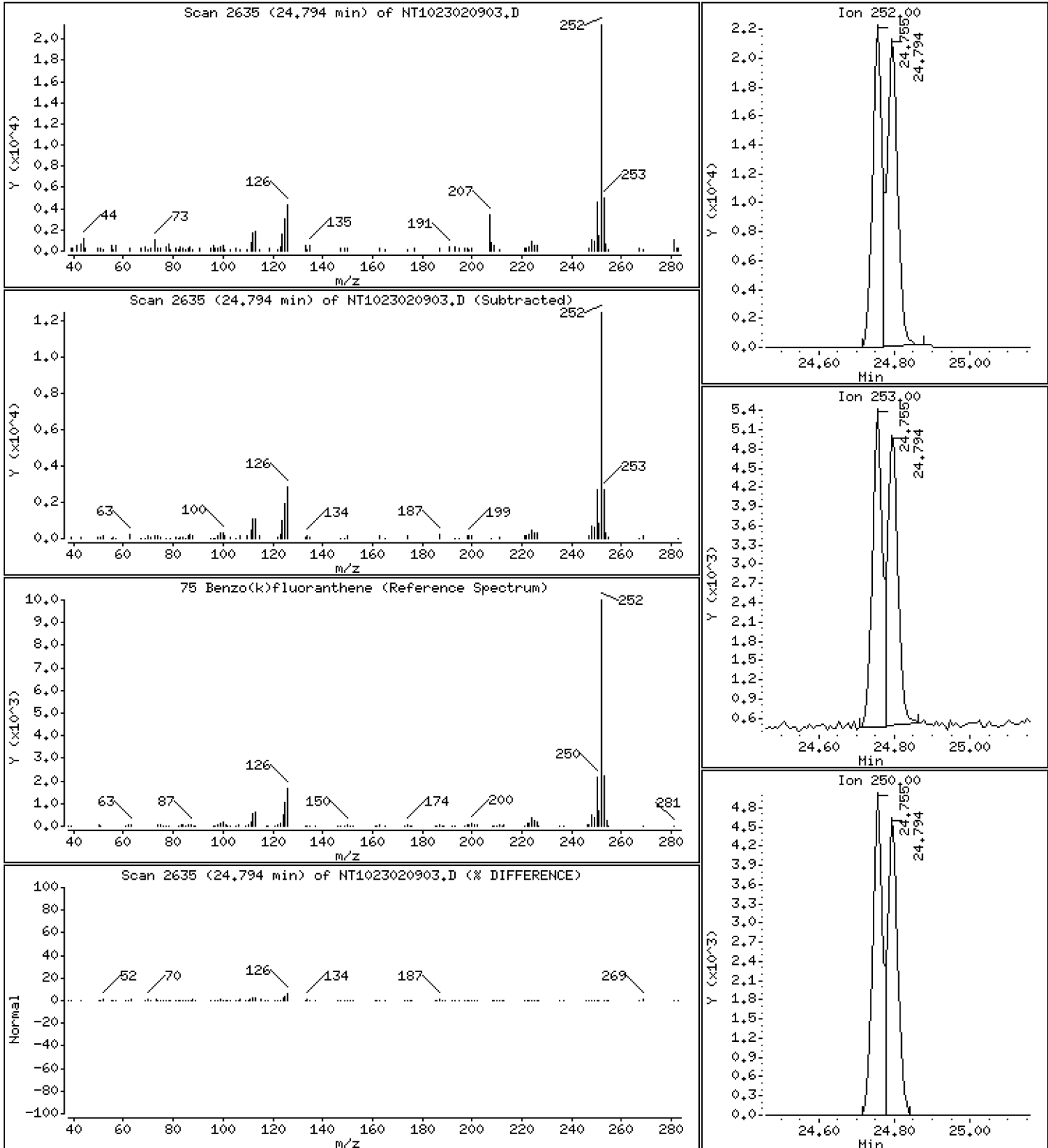
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,5498 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

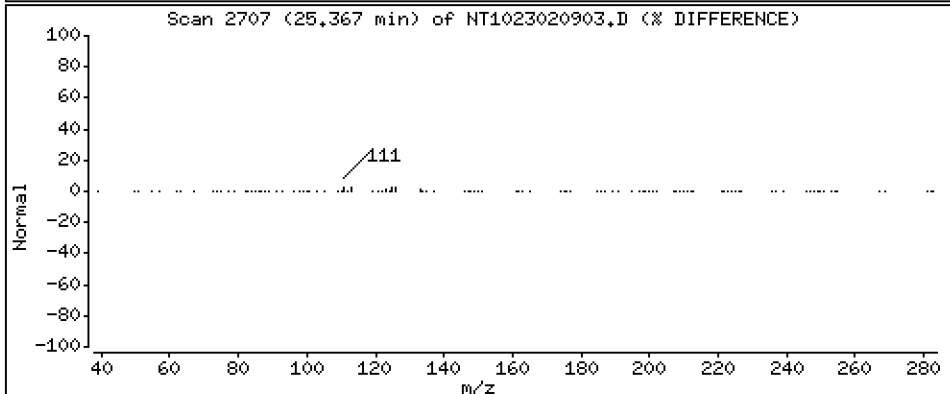
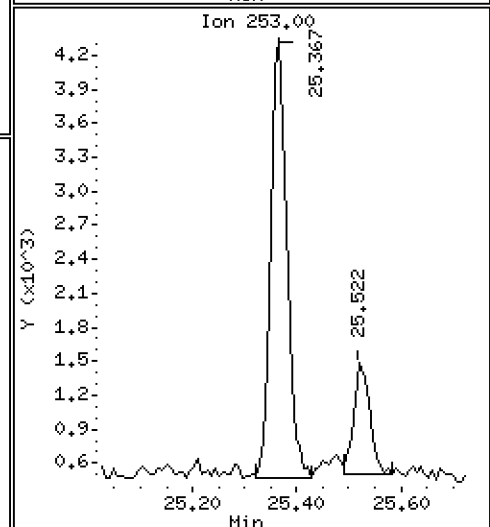
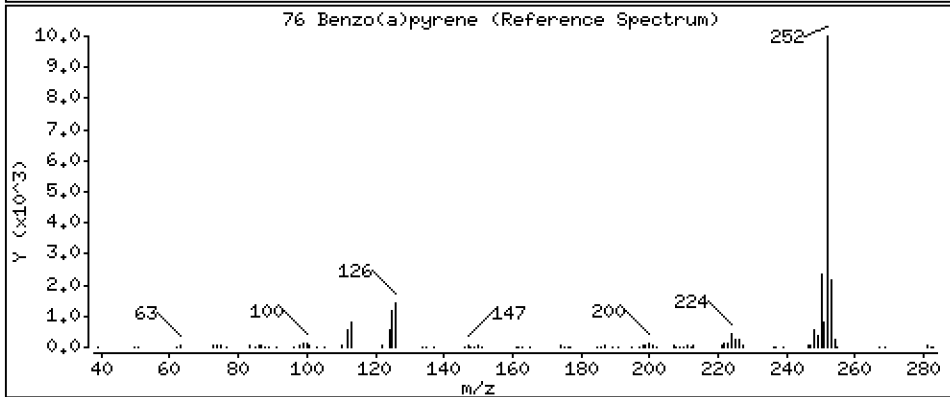
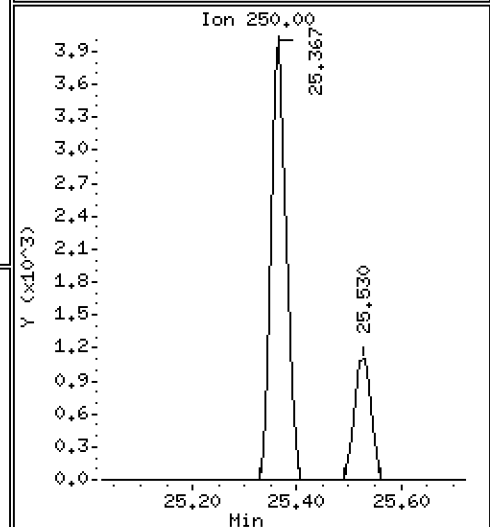
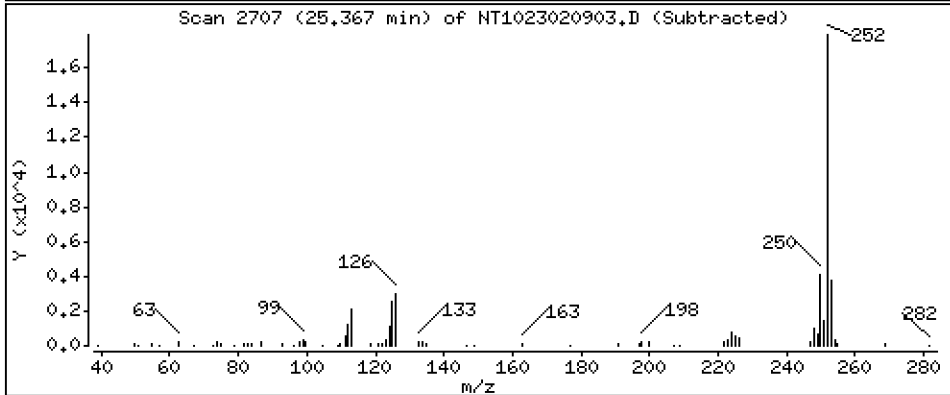
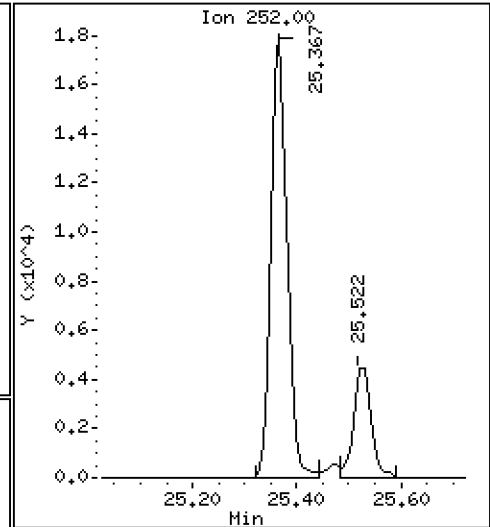
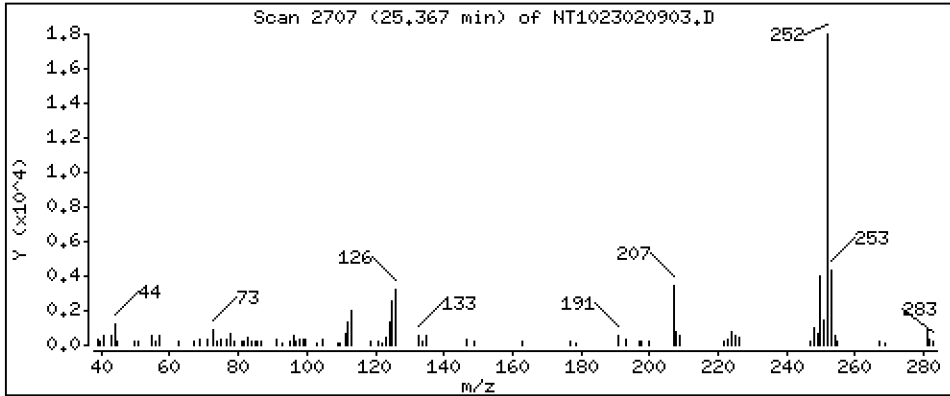
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,5390 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

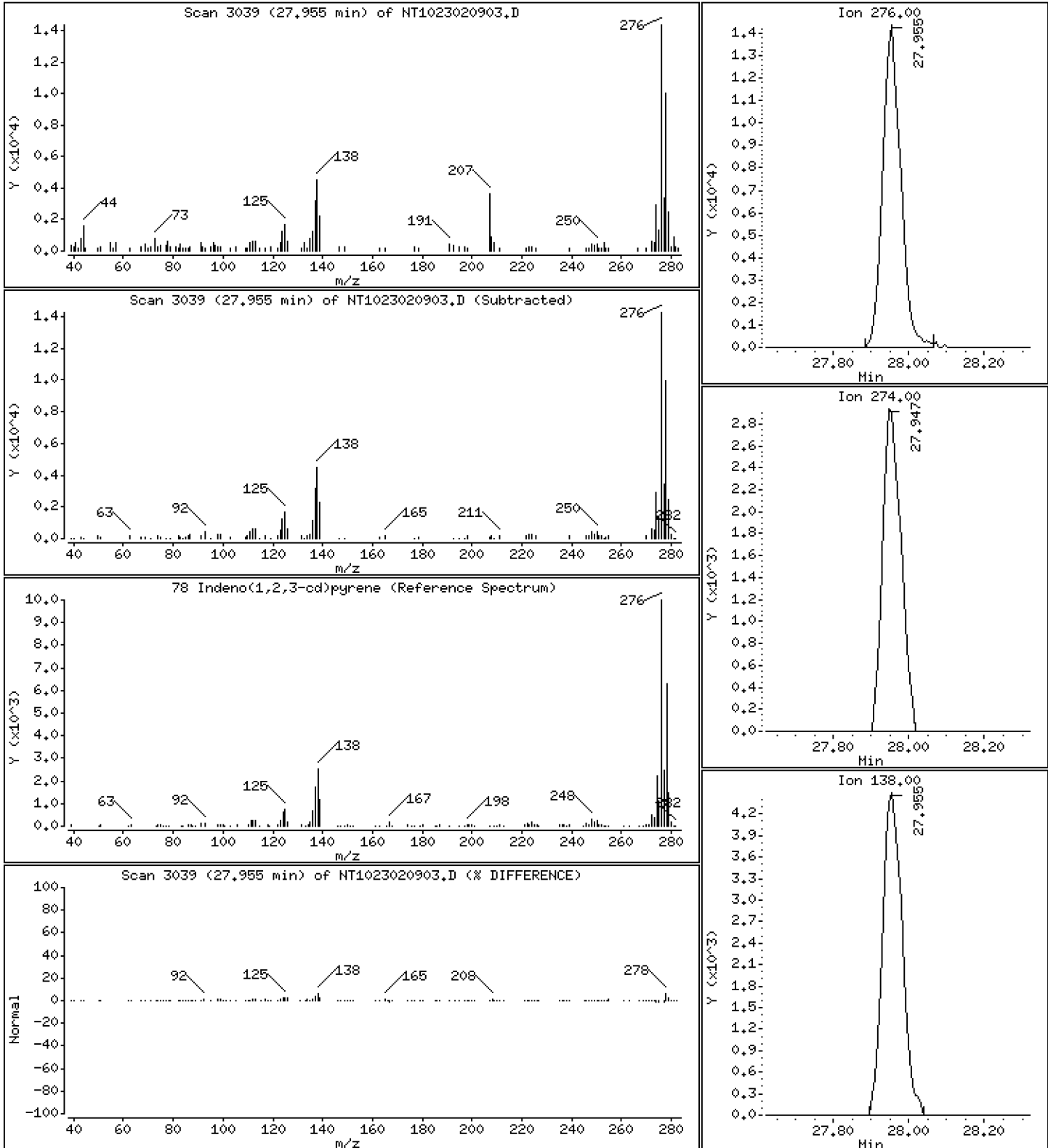
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 0,5734 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

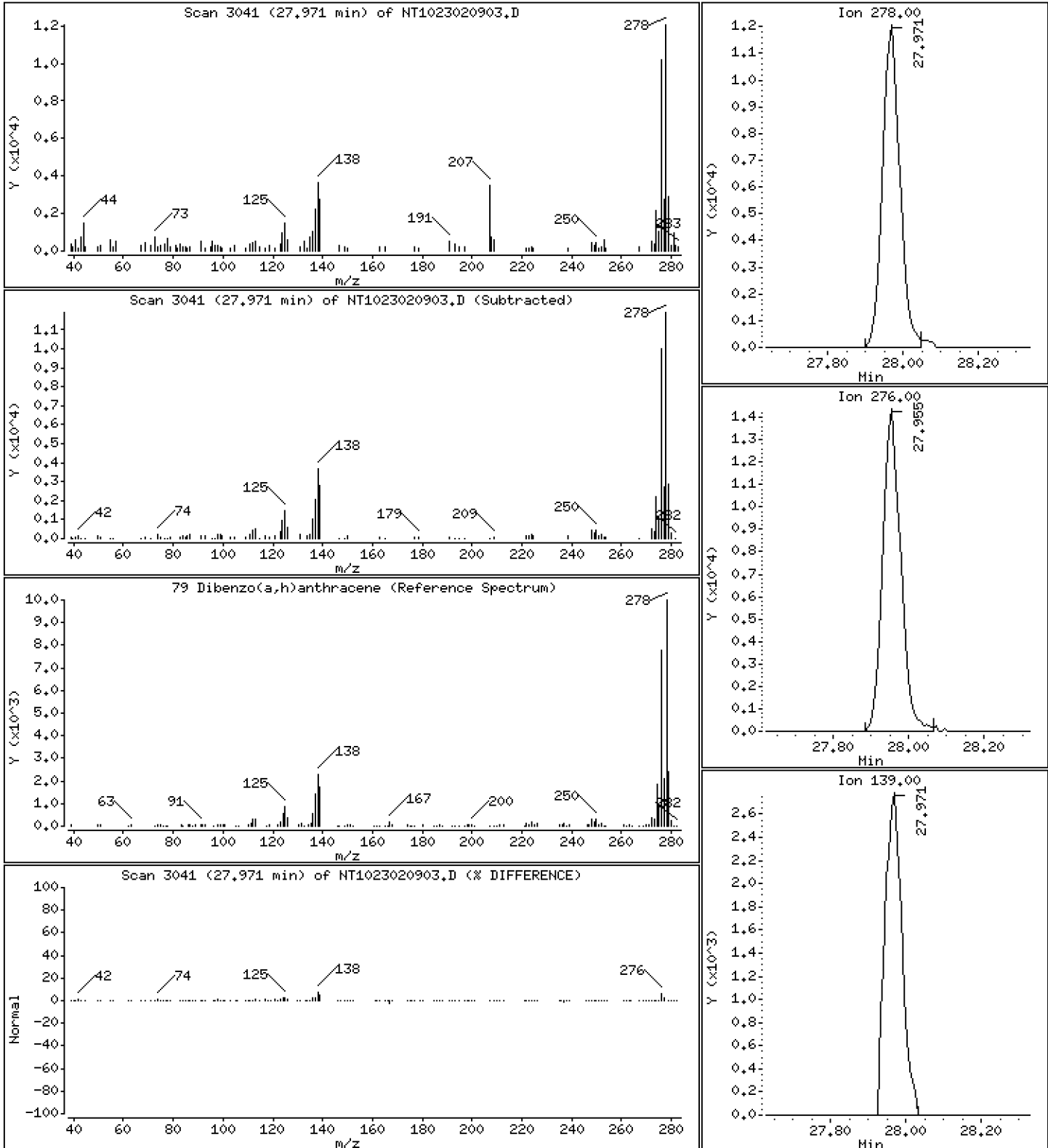
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,5602 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

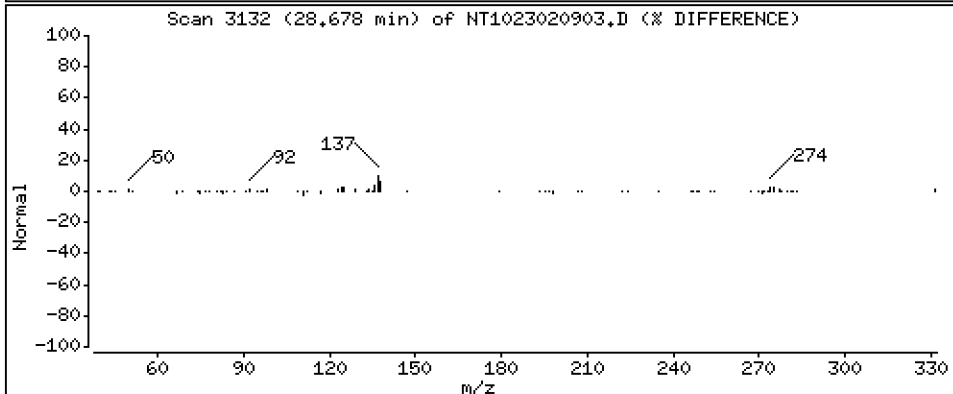
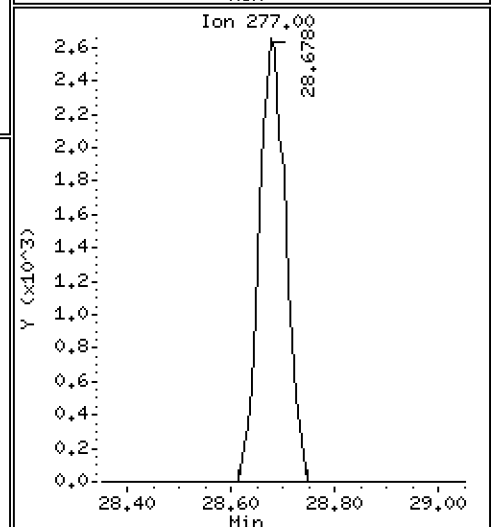
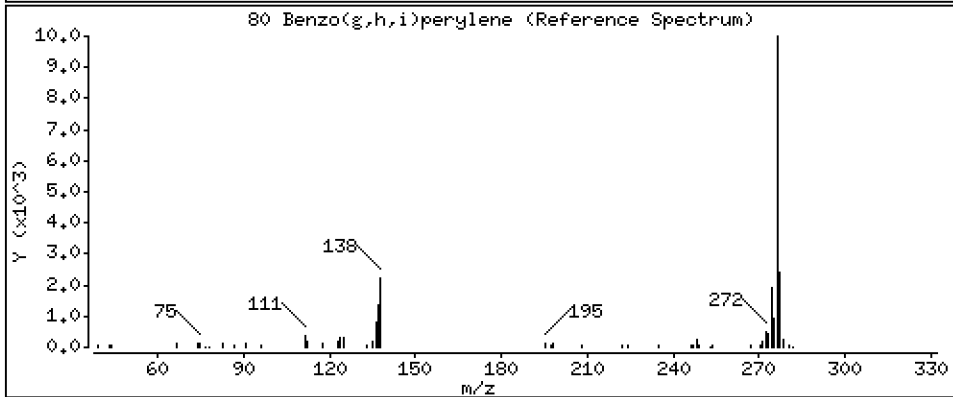
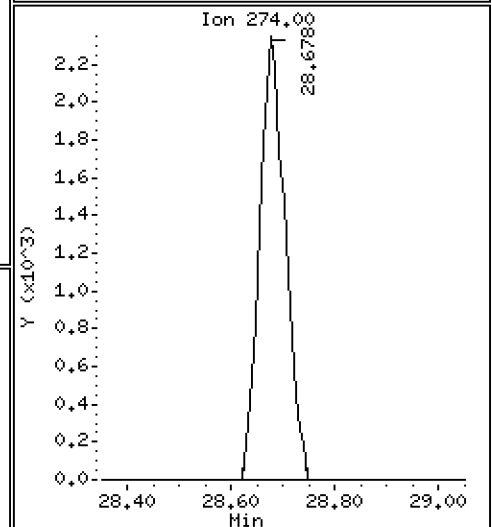
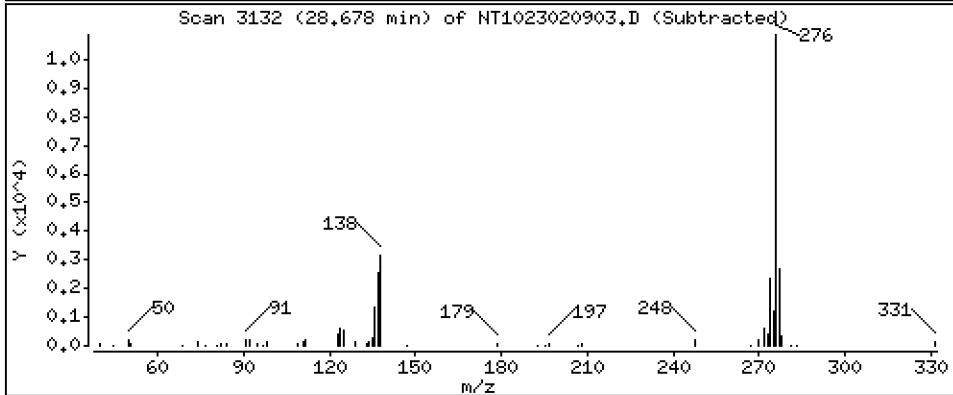
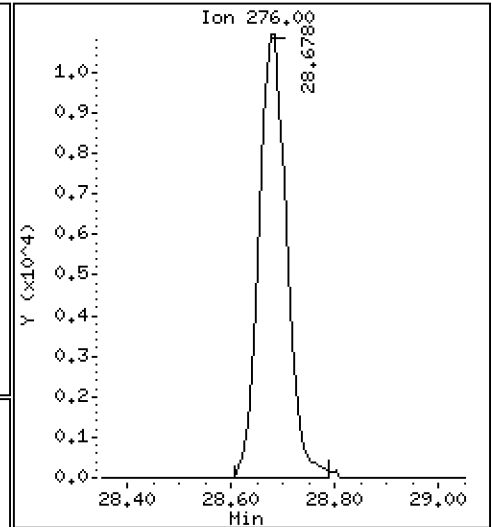
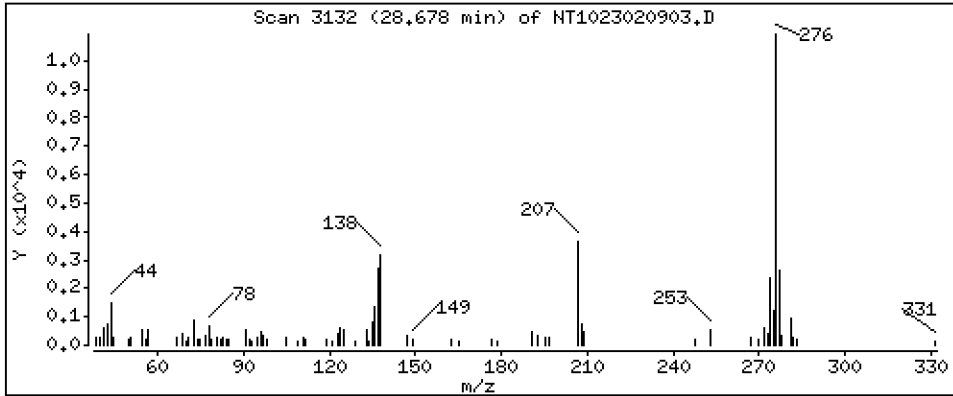
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,5681 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

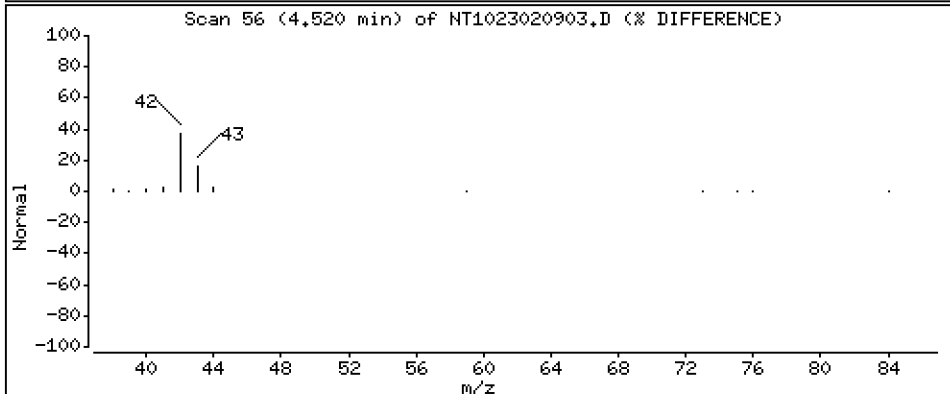
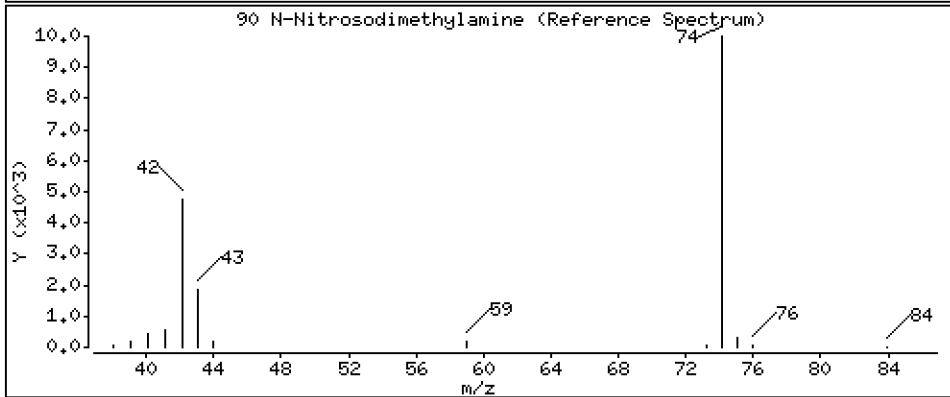
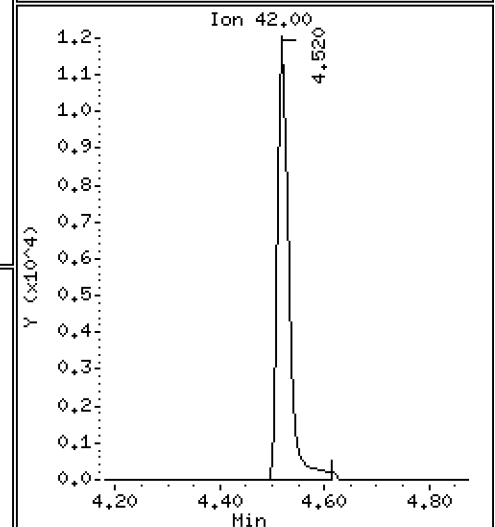
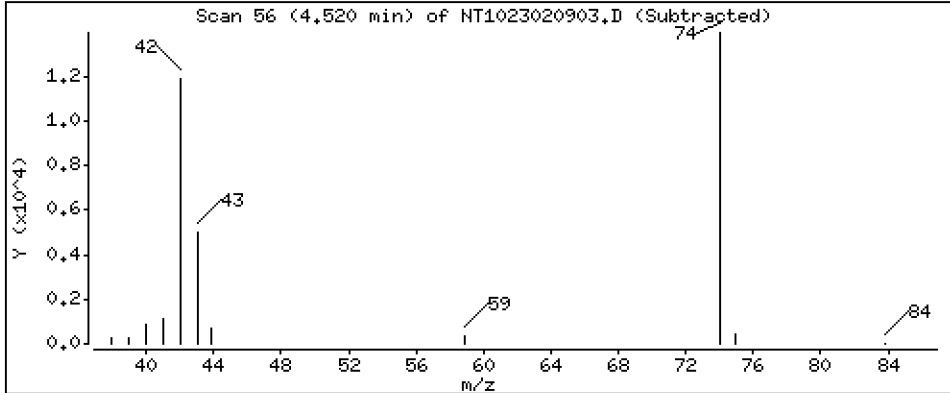
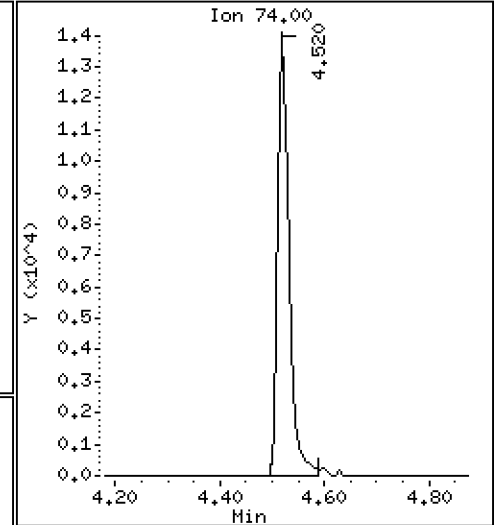
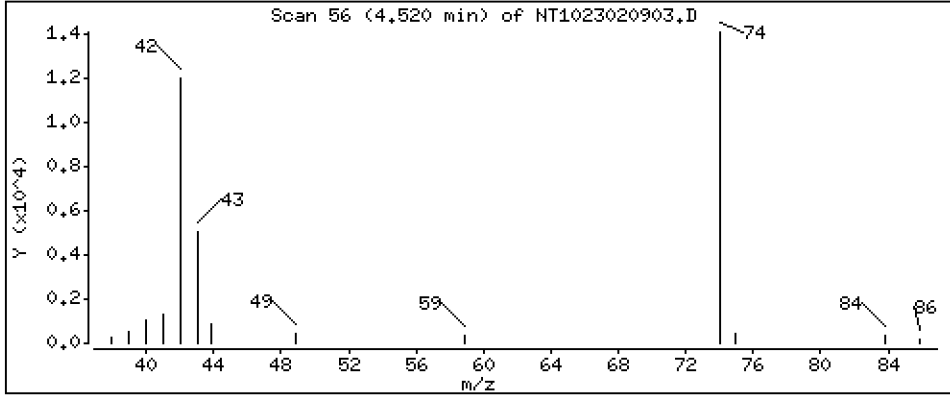
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 1.013 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

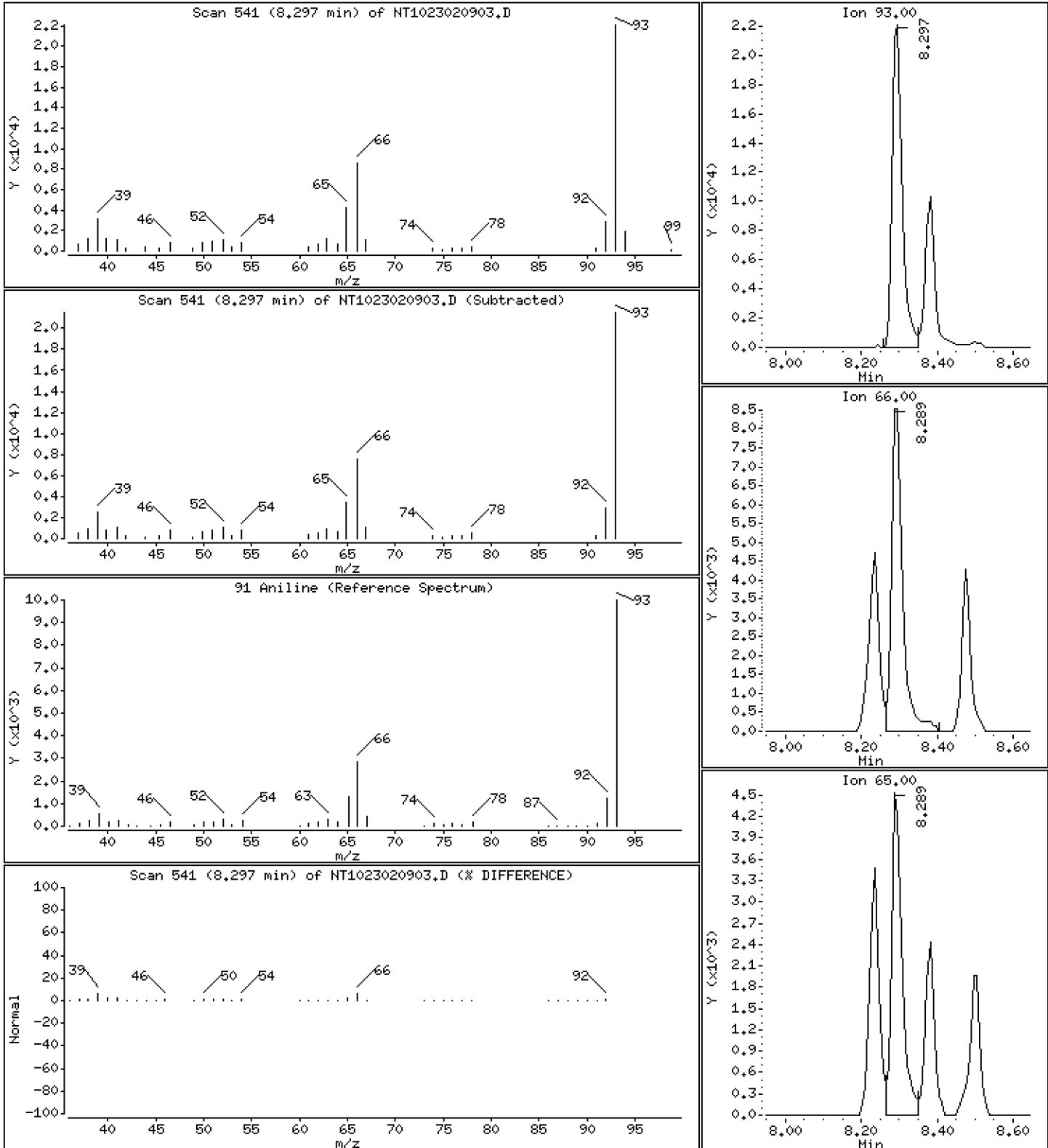
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

91 Aniline

Concentration: 0.9849 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

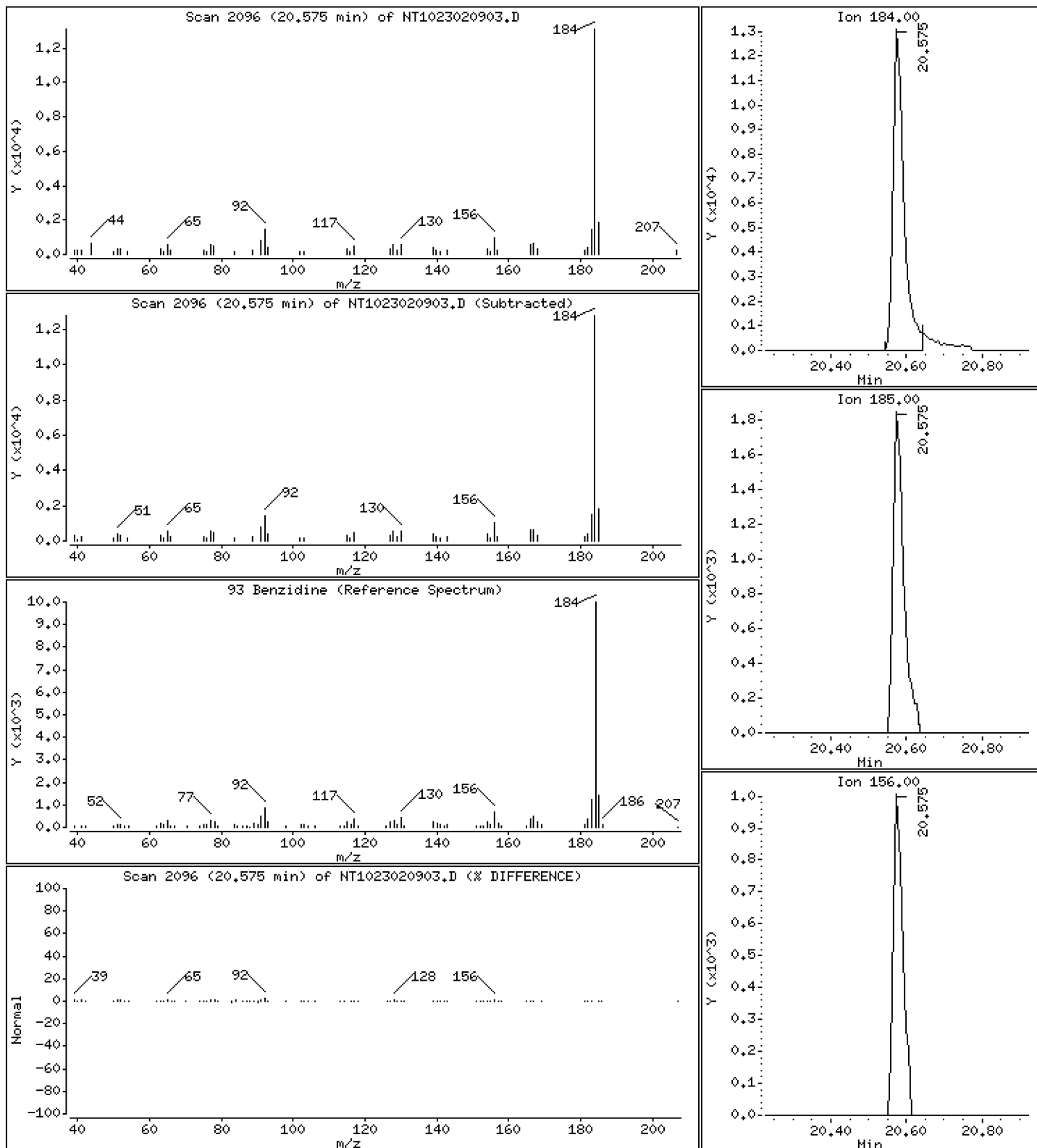
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 0,9700 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

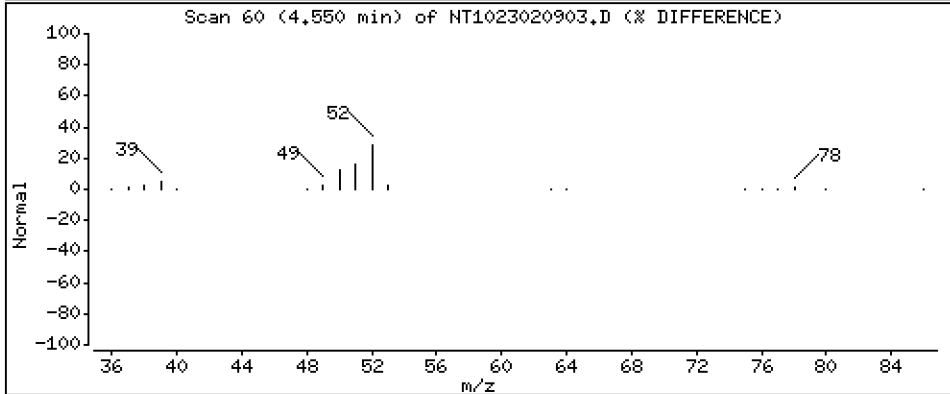
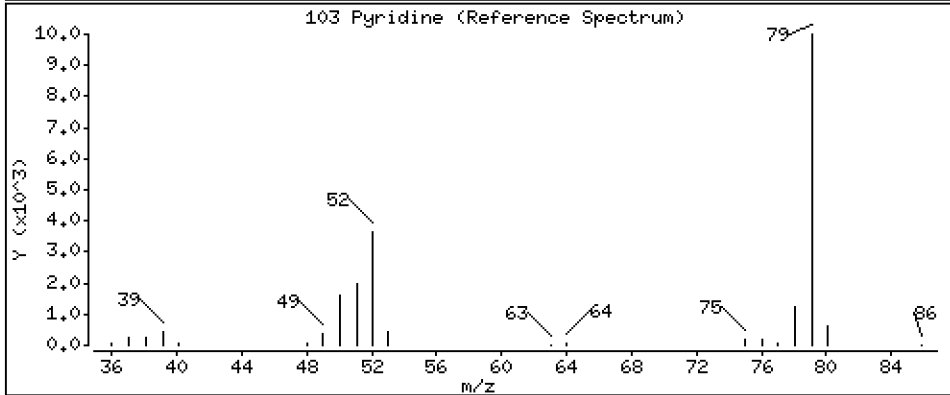
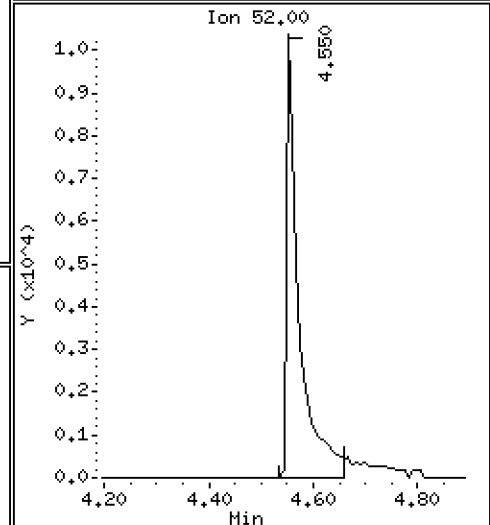
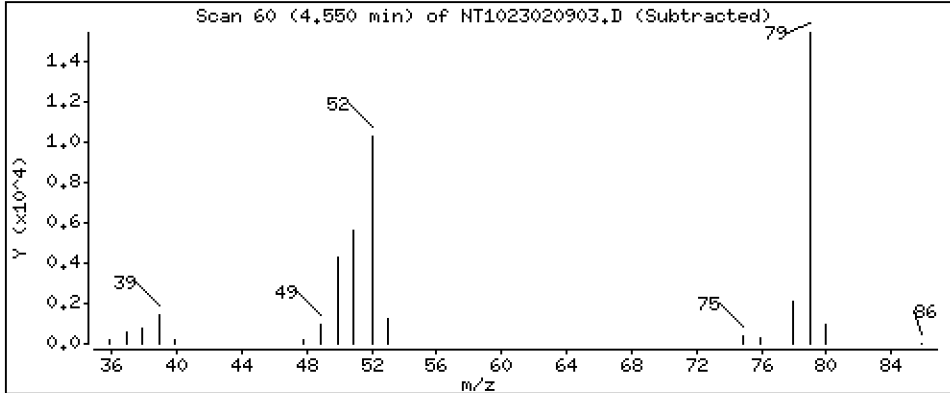
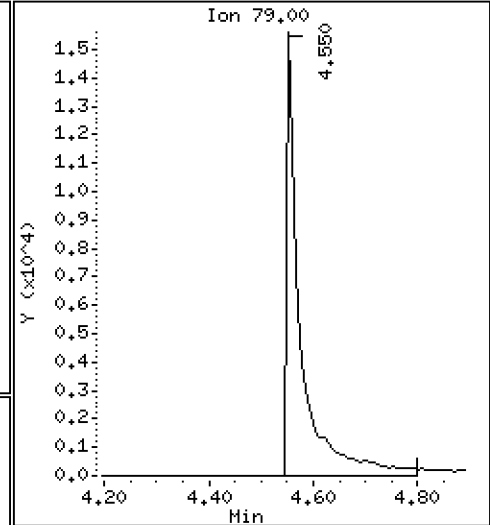
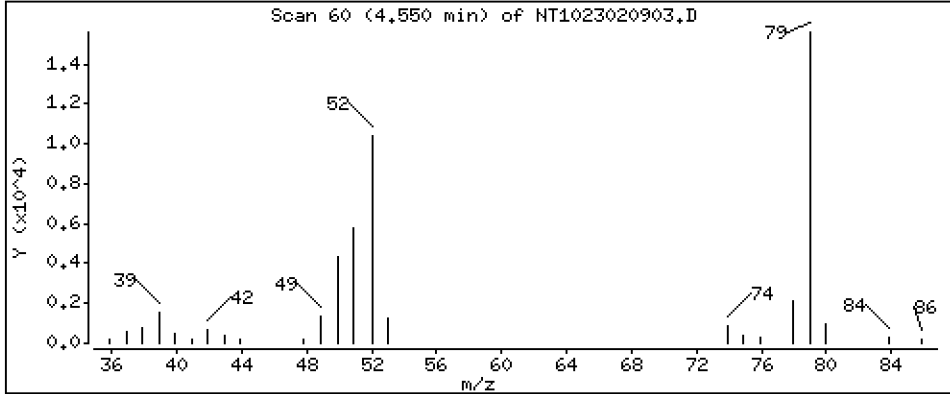
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,9682 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

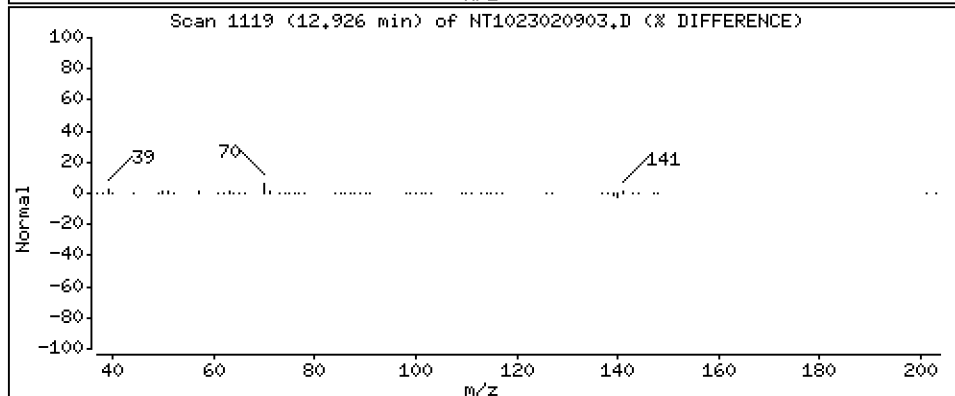
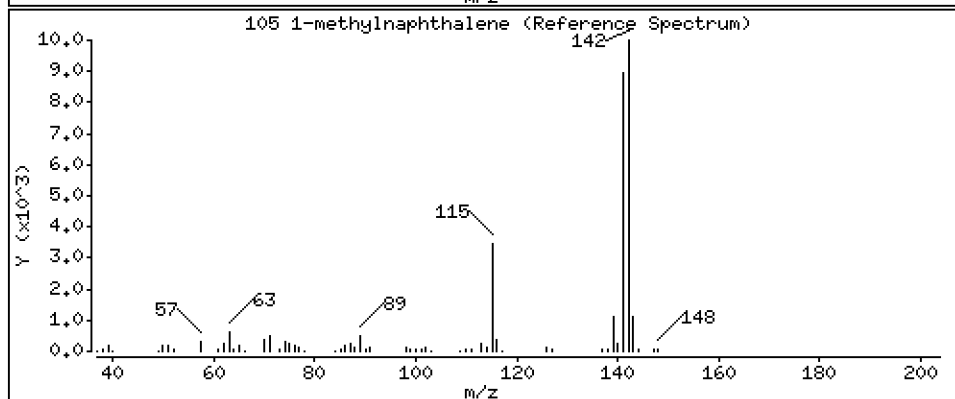
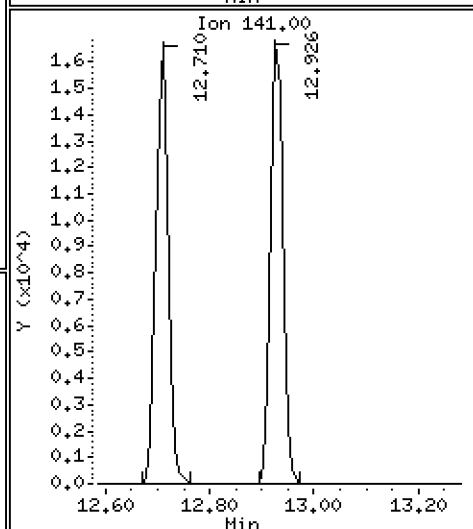
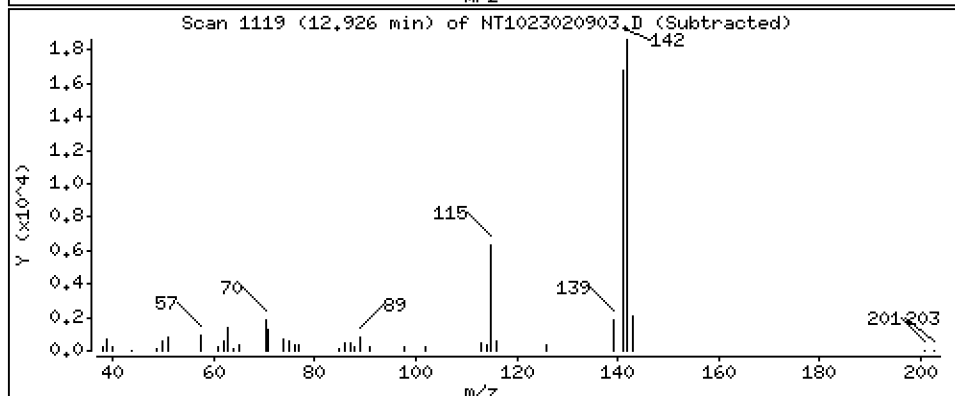
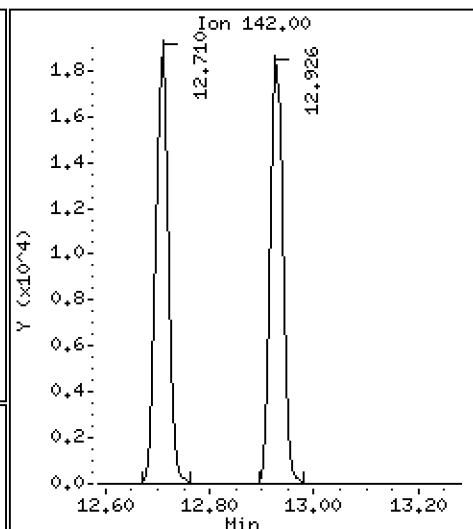
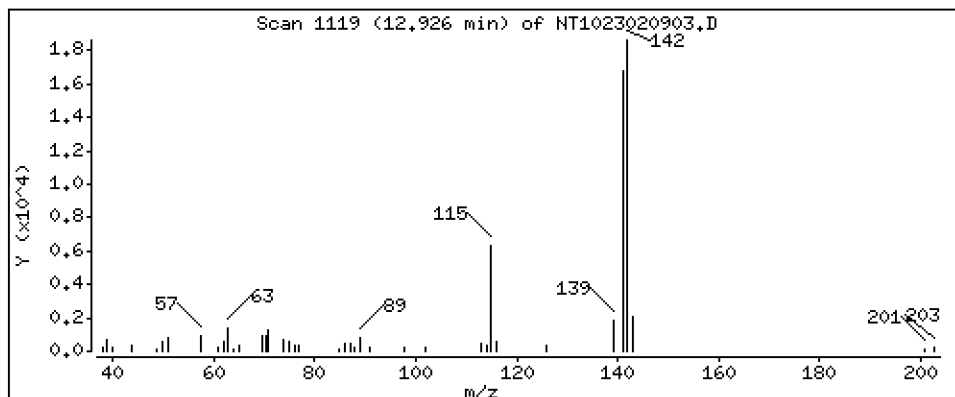
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,5024 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

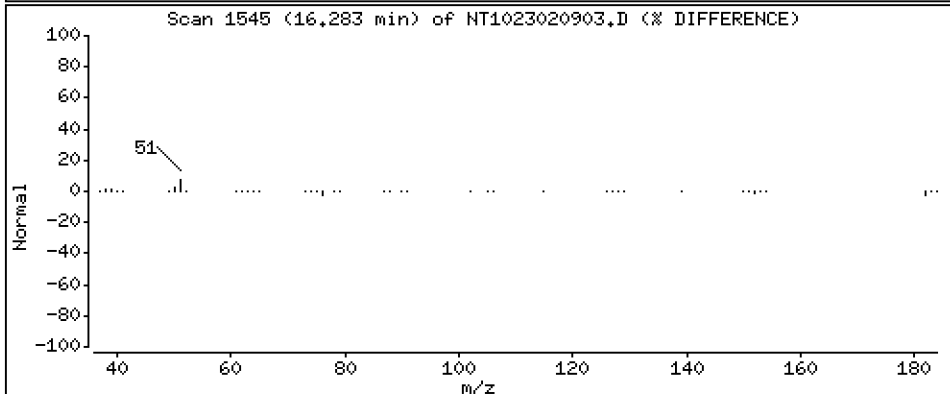
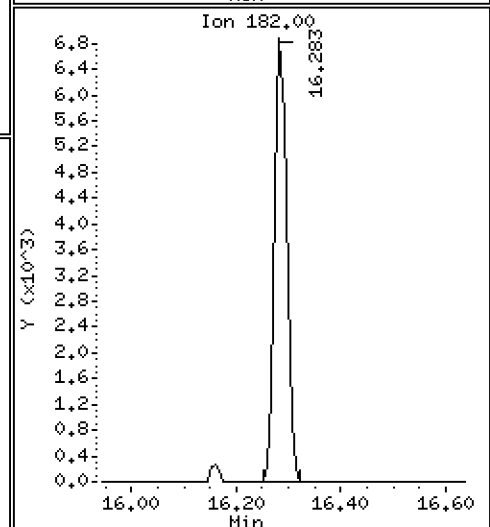
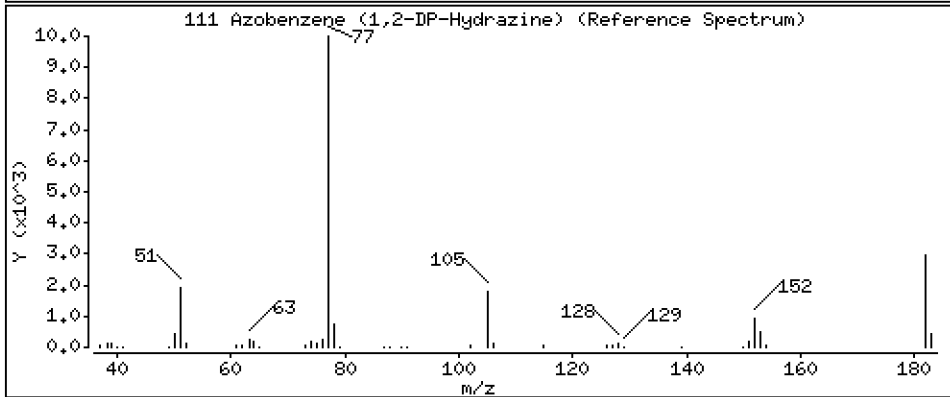
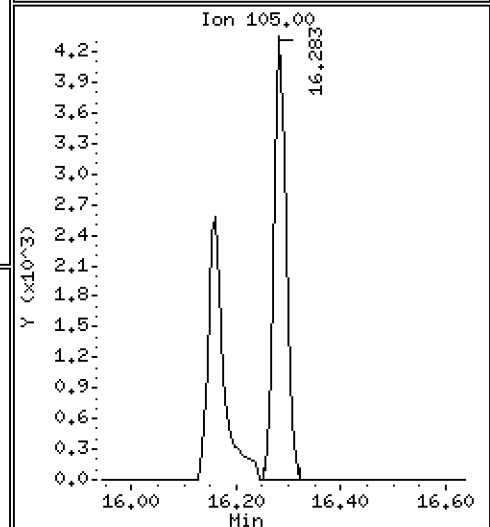
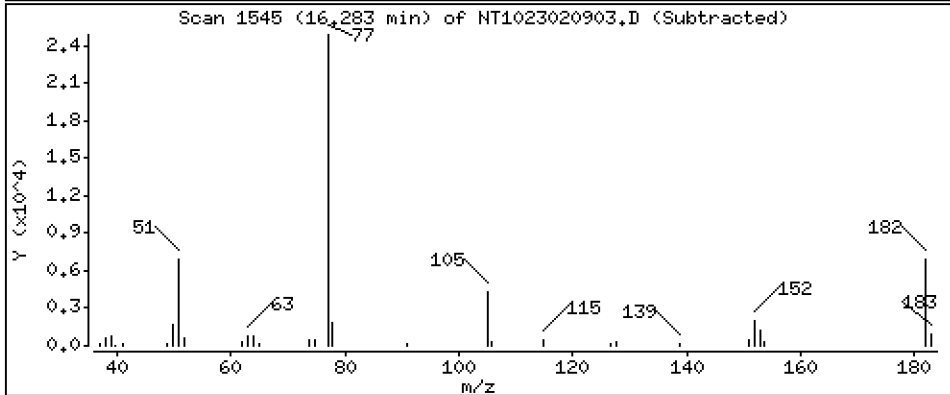
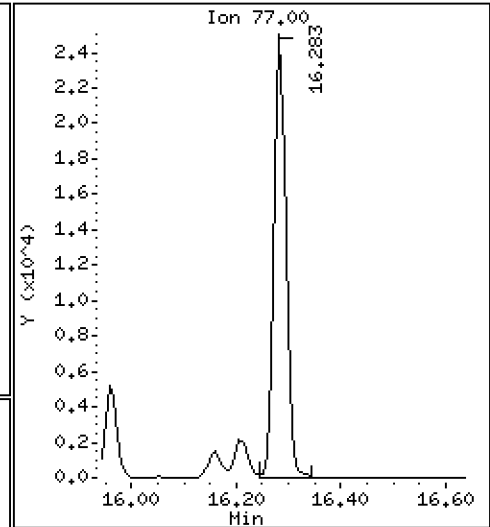
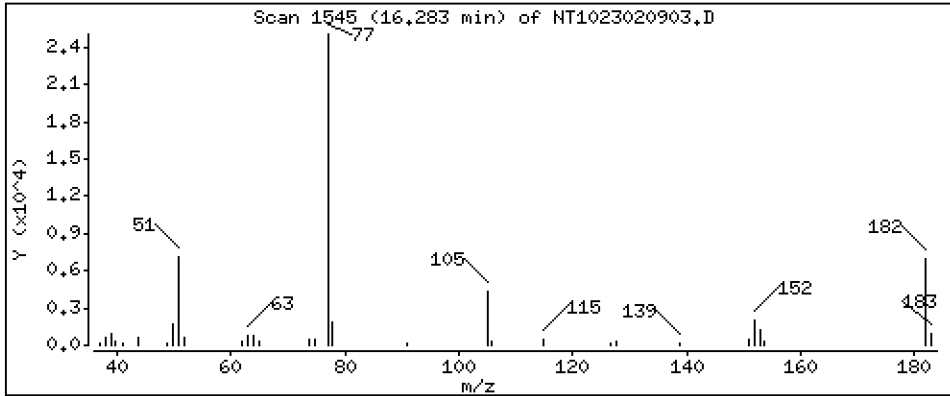
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0,5204 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

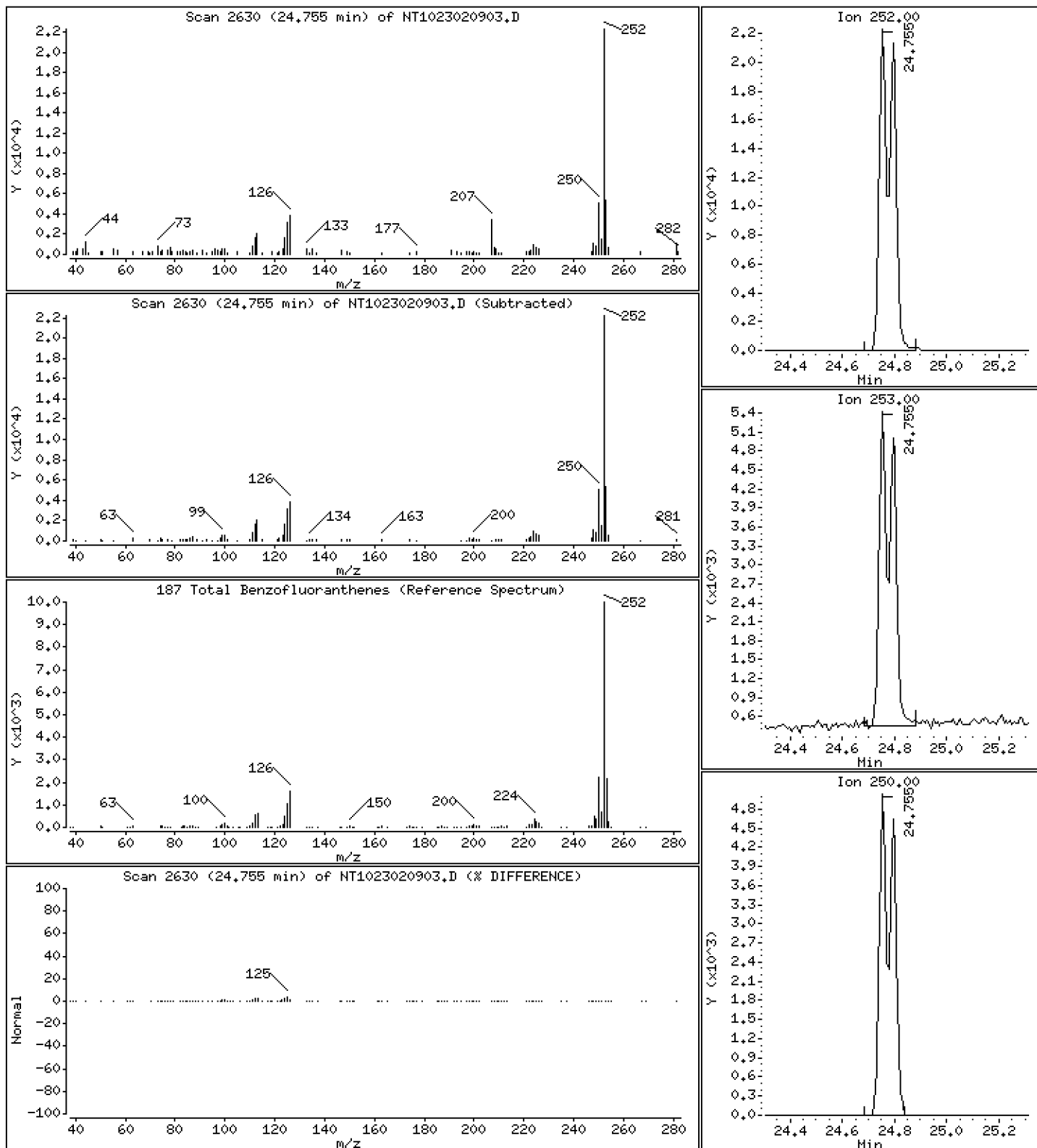
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 1,040 ug/mL



Date : 09-FEB-2023 14:10

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV1

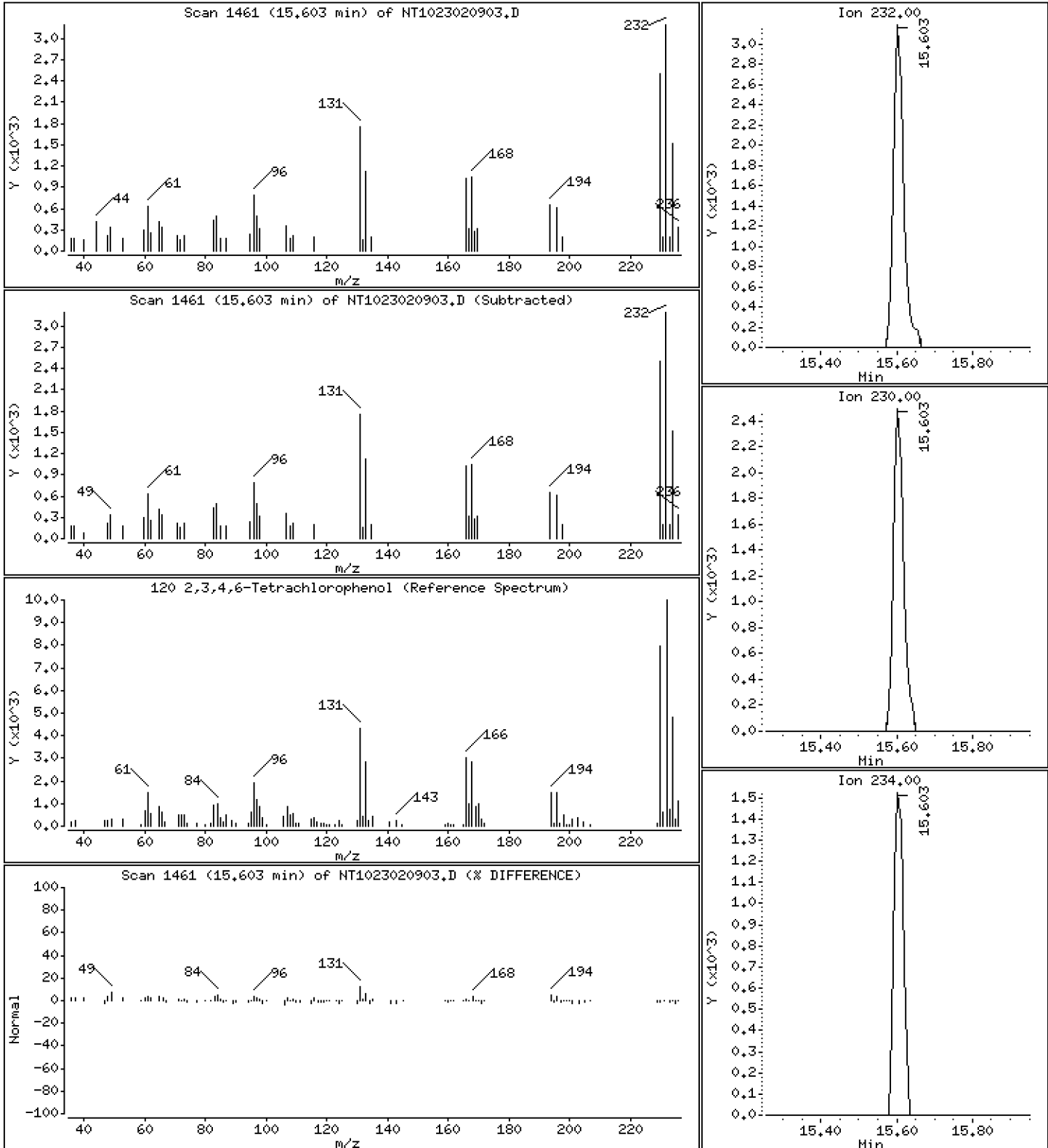
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0.3645 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230209.b\NT1023020903.D
 Lab Smp Id: SLB0122-LCV1
 Inj Date : 09-FEB-2023 14:10
 Operator : VTS
 Smp Info : SLB0122-LCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230209.b\ABN.m
 Meth Date : 09-Feb-2023 14:46 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		6.650	6.651	(0.753)	21263	0.75825	0.7582
\$ 2 Phenol-d5	99		8.211	8.219	(0.930)	28809	0.76154	0.7615
3 Phenol	94		8.234	8.242	(0.933)	21139	0.51657	0.5166
\$ 5 2-Chlorophenol-d4	132		8.474	8.482	(0.960)	24393	0.79450	0.7945
4 Bis(2-Chloroethyl)ether	93		8.381	8.389	(0.949)	16046	0.53921	0.5392
6 2-Chlorophenol	128		8.505	8.505	(0.963)	17455	0.52196	0.5220
7 1,3-Dichlorobenzene	146		8.768	8.768	(0.993)	18112	0.51596	0.5160
* 8 1,4-Dichlorobenzene-d4	152		8.830	8.838	(1.000)	88206	4.00000	
9 1,4-Dichlorobenzene	146		8.861	8.861	(1.004)	17504	0.50626	0.5063
\$ 10 1,2-Dichlorobenzene-d4	152		9.179	9.187	(1.040)	10927	0.51994	0.5199
12 1,2-Dichlorobenzene	146		9.210	9.211	(1.043)	17164	0.51492	0.5149
11 Benzyl alcohol	108		9.102	9.102	(1.031)	7055	0.38921	0.3892
14 2,2'-oxybis(1-Chloropropane)	121		9.397	9.397	(1.064)	4840	0.50536	0.5054
13 2-Methylphenol	108		9.334	9.335	(1.057)	17828	0.58744	0.5874
17 Hexachloroethane	117		9.792	9.800	(1.109)	6655	0.50208	0.5021
16 N-Nitroso-di-n-propylamine	70		9.645	9.653	(1.092)	11376	0.49847	0.4985
15 4-Methylphenol	108		9.598	9.606	(1.087)	16194	0.50377	0.5038
\$ 18 Nitrobenzene-d5	82		9.909	9.909	(0.878)	17216	0.53110	0.5311
19 Nitrobenzene	77		9.940	9.948	(0.881)	17031	0.52687	0.5269
20 Isophorone	82		10.382	10.390	(0.920)	24832	0.55166	0.5517
21 2-Nitrophenol	139		10.565	10.574	(0.936)	8087	0.48571	0.4857
22 2,4-Dimethylphenol	107		10.625	10.633	(0.941)	32195	1.08171	1.082
23 Bis(2-Chloroethoxy)methane	93		10.811	10.820	(0.958)	15496	0.53016	0.5302
24 Benzoic acid	105		10.811	10.888	(0.958)	751	0.04465	0.04465 (H)
25 2,4-Dichlorophenol	162		11.023	11.024	(0.977)	26835	1.10978	1.110
26 1,2,4-Trichlorobenzene	180		11.201	11.209	(0.992)	14188	0.53854	0.5385
* 27 Naphthalene-d8	136		11.286	11.286	(1.000)	328110	4.00000	
28 Naphthalene	128		11.324	11.333	(1.003)	45184	0.51533	0.5153
29 4-Chloroaniline	127		11.456	11.464	(1.015)	36886	0.98138	0.9814
30 Hexachlorobutadiene	225		11.688	11.688	(1.036)	7484	0.54471	0.5447
31 4-Chloro-3-methylphenol	107		12.423	12.423	(1.101)	26302	0.99501	0.9950
32 2-Methylnaphthalene	142		12.709	12.710	(1.126)	30980	0.50818	0.5082
33 Hexachlorocyclopentadiene	237		13.174	13.174	(0.886)	1205	0.11754	0.1175

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.328	13.336	(0.896)	14728	0.97181	0.9718
35 2,4,5-Trichlorophenol	196	13.413	13.414	(0.902)	15437	0.94481	0.9448
§ 36 2-Fluorobiphenyl	172	13.483	13.491	(0.907)	33854	0.55958	0.5596
37 2-Chloronaphthalene	162	13.692	13.700	(0.921)	27875	0.53006	0.5301
38 2-Nitroaniline	65	13.947	13.956	(0.938)	18912	1.14211	1.142
39 Dimethylphthalate	163	14.381	14.389	(0.967)	29100	0.51722	0.5172
40 Acenaphthylene	152	14.551	14.559	(0.979)	44546	0.53179	0.5318
41 2,6-Dinitrotoluene	165	14.513	14.521	(0.976)	13299	0.99800	0.9980
* 42 Acenaphthene-d10	164	14.869	14.869	(1.000)	167883	4.00000	
43 3-Nitroaniline	138	14.799	14.807	(0.995)	15627	1.01708	1.017
44 Acenaphthene	153	14.930	14.939	(1.004)	27034	0.52662	0.5266
45 2,4-Dinitrophenol	184	15.023	15.016	(1.010)	759	0.11046	0.1105 (M)
46 Dibenzofuran	168	15.255	15.263	(1.026)	37554	0.50854	0.5085
47 4-Nitrophenol	109	15.155	15.147	(1.019)	3928	0.68581	0.6858
48 2,4-Dinitrotoluene	165	15.317	15.325	(1.030)	16776	0.91242	0.9124
50 Diethylphthalate	149	15.827	15.843	(1.064)	27364	0.50646	0.5065
49 Fluorene	166	15.966	15.967	(1.074)	36808	0.44343	0.4434
51 4-Chlorophenyl-phenylether	204	15.959	15.967	(1.073)	17388	0.42889	0.4289
52 4-Nitroaniline	138	16.051	16.067	(1.080)	15812	0.90055	0.9006
53 4,6-Dinitro-2-methylphenol	198	16.159	16.167	(0.903)	11935	1.16692	1.167
54 N-Nitrosodiphenylamine	169	16.213	16.213	(0.906)	26068	0.53852	0.5385
§ 55 2,4,6-Tribromophenol	330	16.498	16.506	(1.110)	5701	0.67816	0.6782
56 4-Bromophenyl-phenylether	248	16.961	16.961	(0.948)	9443	0.52939	0.5294
57 Hexachlorobenzene	284	17.270	17.278	(0.965)	10620	0.55283	0.5528
58 Pentachlorophenol	266	17.642	17.635	(0.986)	2233	0.30876	0.3088
* 59 Phenanthrene-d10	188	17.890	17.890	(1.000)	283175	4.00000	
60 Phenanthrene	178	17.936	17.936	(1.003)	39408	0.51709	0.5171
61 Anthracene	178	18.029	18.029	(1.008)	38783	0.51392	0.5139
62 Carbazole	167	18.362	18.362	(1.026)	36107	0.49607	0.4961
63 Di-n-butylphthalate	149	19.182	19.182	(1.072)	39988	0.46072	0.4607
64 Fluoranthene	202	20.334	20.335	(0.886)	39427	0.51808	0.5181
65 Pyrene	202	20.752	20.760	(0.904)	41434	0.52737	0.5274
§ 66 Terphenyl-d14	244	21.054	21.054	(0.917)	31887	0.53825	0.5382
67 Butylbenzylphthalate	149	21.991	21.991	(0.958)	15960	0.47008	0.4701
68 Benzo(a)anthracene	228	22.928	22.936	(0.999)	38054	0.55010	0.5501
* 69 Chrysene-d12	240	22.959	22.959	(1.000)	207537	4.00000	
70 3,3'-Dichlorobenzidine	252	22.889	22.897	(0.997)	39365	1.68185	1.682
71 Chrysene	228	22.997	23.006	(1.002)	35350	0.53284	0.5328
72 bis(2-Ethylhexyl)phthalate	149	23.028	23.037	(0.959)	22814	0.49828	0.4983
* 134 Di-n-octylphthalate-d4	153	24.012	24.020	(1.000)	336602	4.00000	
73 Di-n-octylphthalate	149	24.019	24.027	(1.000)	47738	0.56121	0.5612
74 Benzo(b)fluoranthene	252	24.755	24.763	(0.972)	38362	0.49360	0.4936
75 Benzo(k)fluoranthene	252	24.793	24.809	(0.973)	44984	0.54977	0.5498
76 Benzo(a)pyrene	252	25.367	25.375	(0.996)	37879	0.53902	0.5390
* 77 Perylene-d12	264	25.475	25.483	(1.000)	245518	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	27.955	27.971	(1.097)	47959	0.57336	0.5734
79 Dibenzo(a,h)anthracene	278	27.970	27.986	(1.098)	38813	0.56015	0.5602
80 Benzo(g,h,i)perylene	276	28.677	28.701	(1.126)	40781	0.56809	0.5681
90 N-Nitrosodimethylamine	74	4.519	4.527	(0.512)	19769	1.01329	1.013
91 Aniline	93	8.296	8.297	(0.940)	39009	0.98491	0.9849
93 Benzidine	184	20.574	20.575	(0.896)	24749	0.96997	0.9700
103 Pyridine	79	4.550	4.543	(0.515)	29238	0.96824	0.9682
105 1-methylnaphthalene	142	12.926	12.934	(1.145)	29489	0.50243	0.5024
111 Azobenzene (1,2-DP-Hydrazine)	77	16.282	16.291	(1.095)	37460	0.52035	0.5204

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252		24.755	24.809	(0.972)	79227	1.03982	1.040
120 2,3,4,6-Tetrachlorophenol	232		15.603	15.603	(1.049)	5652	0.36454	0.3645

QC Flag Legend

- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 09-FEB-2023
 Lab File ID: NT1023020903.D Calibration Time: 13:31
 Lab Smp Id: SLB0122-LCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230209.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	89503	44752	179006	88206	-1.45
27 Naphthalene-d8	348104	174052	696208	328110	-5.74
42 Acenaphthene-d10	183525	91763	367050	167883	-8.52
59 Phenanthrene-d10	295489	147745	590978	283175	-4.17
69 Chrysene-d12	239590	119795	479180	207537	-13.38
134 Di-n-octylphthala	404293	202147	808586	336602	-16.74
77 Perylene-d12	274336	137168	548672	245518	-10.50

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.83	-0.09
27 Naphthalene-d8	11.29	10.79	11.79	11.29	-0.00
42 Acenaphthene-d10	14.87	14.37	15.37	14.87	-0.00
59 Phenanthrene-d10	17.89	17.39	18.39	17.89	-0.00
69 Chrysene-d12	22.96	22.46	23.46	22.96	-0.00
134 Di-n-octylphthala	24.02	23.52	24.52	24.01	-0.03
77 Perylene-d12	25.48	24.98	25.98	25.48	-0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020903.D

Lab ID: SLB0122-LCV1
nt10.i, 20230209.b\ABN.m, 09-FEB-2023 14:10

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.958	0.965	-0.0068	Benzoic acid

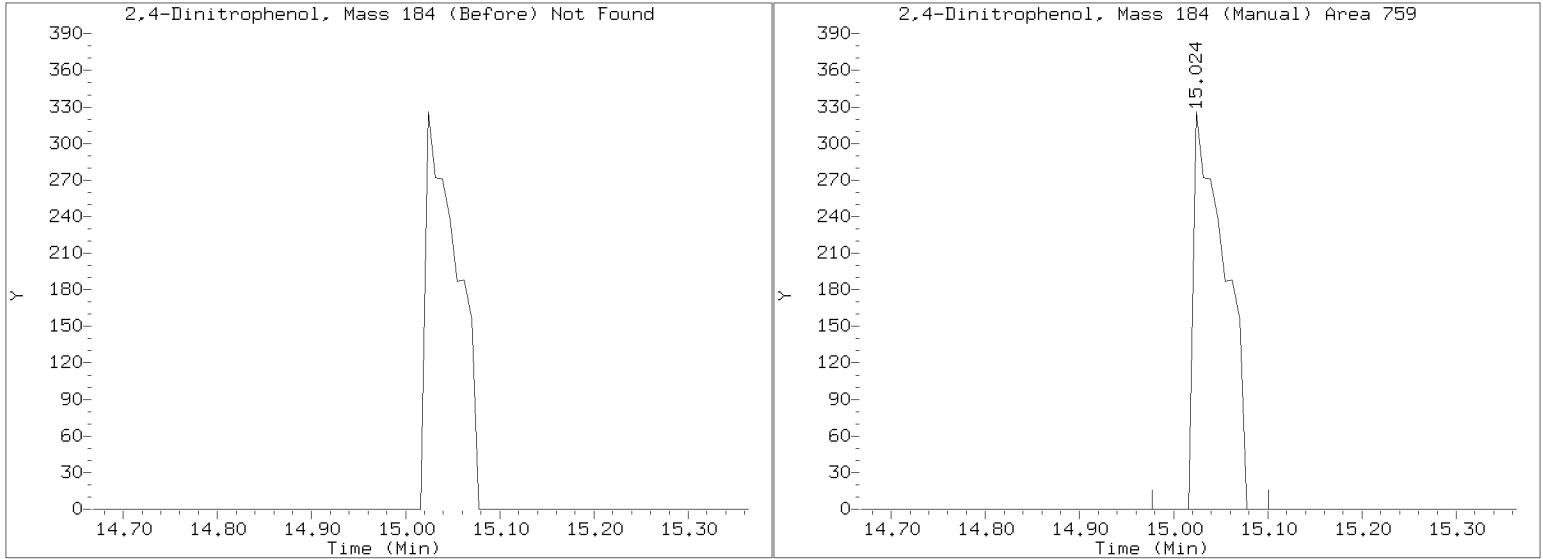
RRT check based on Ccal File: NT1023020902.D

On Column LOD for nt10.i, 20230209.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209.b/NT1023020903.D
Injection Date: 09-FEB-2023 14:10
Lab ID:SLB0122-LCV1 Client ID:
Report Date: 02/10/2023 17:18



APPROVED

By Deenay Dunmore at 9:41 am, Feb 11, 2023



**LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GB00018</u>
Lab File ID:	<u>NT1023020921.D</u>	Calibration Date:	<u>02/07/2023</u>
Sequence:	<u>SLB0122</u>	Injection Date:	<u>02/10/23</u>
Lab Sample ID:	<u>SLB0122-LCV2</u>	Injection Time:	<u>01:47</u>
Sequence Name:	<u>ABN 0.5</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	0.50000	0.5	1.8557260	1.8407580		-0.8	+/-50
4-Methylphenol	A	0.50000	0.5	1.4577560	1.4699030		0.8	+/-50
Naphthalene	A	0.50000	0.5	1.0689000	1.1133540		4.2	+/-50
2-Methylnaphthalene	A	0.50000	0.5	0.7432041	0.7483940		0.7	+/-50
Acenaphthylene	A	0.50000	0.5	1.9958230	2.1604930		8.3	+/-50
Dimethylphthalate	A	0.50000	0.5	1.3405170	1.4302140		6.7	+/-50
Acenaphthene	A	0.50000	0.5	1.2231120	1.2782840		4.5	+/-50
Dibenzofuran	A	0.50000	0.5	1.7594910	1.7945560		2.0	+/-50
Fluorene	A	0.50000	0.5	1.9777380	1.7905440		-9.5	+/-50
Phenanthrene	A	0.50000	0.5	1.0765200	1.1175020		3.8	+/-50
Anthracene	A	0.50000	0.5	1.0659800	1.1023380		3.4	+/-50
Fluoranthene	A	0.50000	0.5	1.4667580	1.3804970		-5.9	+/-50
Pyrene	A	0.50000	0.5	1.5142740	1.4447880		-4.6	+/-50
Butylbenzylphthalate	A	0.50000	0.5	0.6543795	0.6761101		3.3	+/-50
Benzo(a)anthracene	A	0.50000	0.6	1.3332750	1.4983820		12.4	+/-50
Chrysene	A	0.50000	0.5	1.2786640	1.3791060		7.9	+/-50
bis(2-Ethylhexyl)phthalate	A	0.50000	0.5	0.5440929	0.5663472		4.1	+/-50
Benzofluoranthenes, Total	A	1.0000	1.1	1.2413430	1.3537860		9.1	+/-50
Benzo(a)pyrene	A	0.50000	0.5	1.1449040	1.2388940		8.2	+/-50
Indeno(1,2,3-cd)pyrene	A	0.50000	0.4	1.3627520	1.1728700		-13.9	+/-50
Dibenzo(a,h)anthracene	A	0.50000	0.4	1.1288770	0.9990222		-11.5	+/-50
Benzo(g,h,i)perylene	A	0.50000	0.4	1.1695480	0.8606324		-26.4	+/-50
2-Fluorophenol	A	0.75000	0.771	1.2716740	1.3067690		2.8	+/-50
Phenol-d5	A	0.75000	0.762	1.7155190	1.7429470		1.6	+/-50
2-Chlorophenol-d4	A	0.75000	0.781	1.3922970	1.4491370		4.1	+/-50
1,2-Dichlorobenzene-d4	A	0.50000	0.518	0.9530327	0.9880651		3.7	+/-50
Nitrobenzene-d5	A	0.50000	0.543	0.3951837	0.4295030		8.7	+/-50
2-Fluorobiphenyl	A	0.50000	0.549	1.4414640	1.5829140		9.8	+/-50
2,4,6-Tribromophenol	A	0.75000	0.610	0.2002949	0.1629357		-18.7	+/-50
p-Terphenyl-d14	A	0.50000	0.477	1.1418200	1.0890650		-4.6	+/-50

* Values outside of QC limits

Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

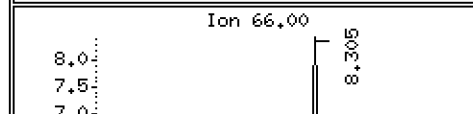
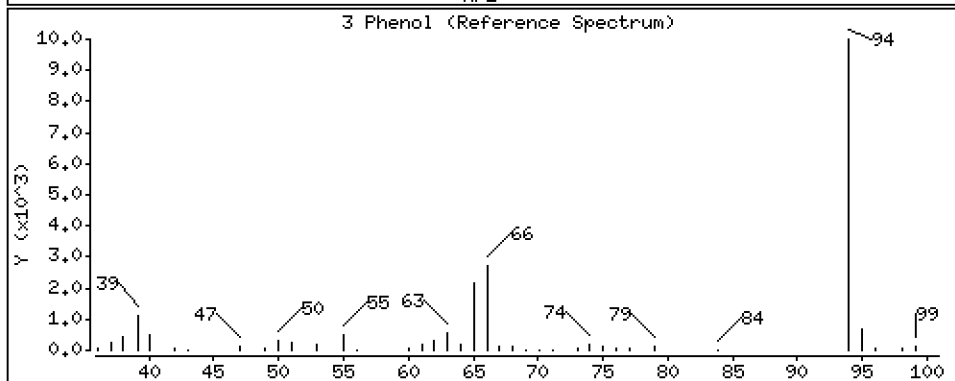
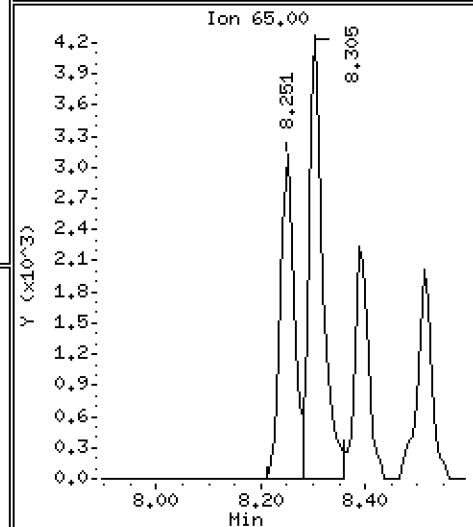
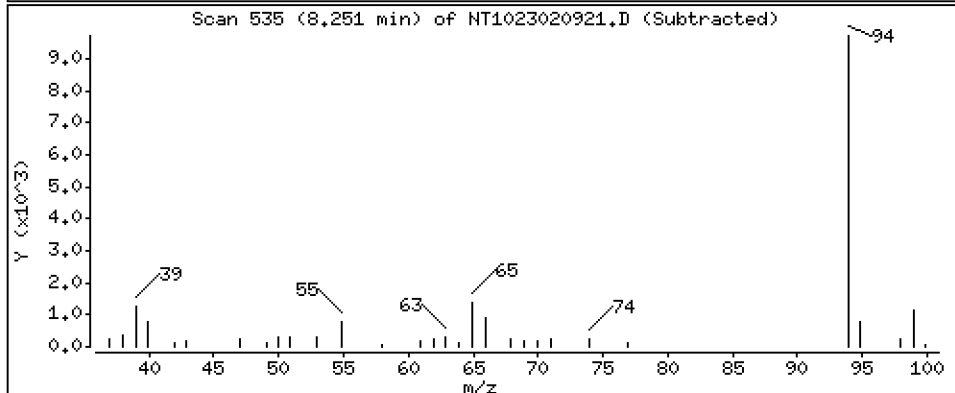
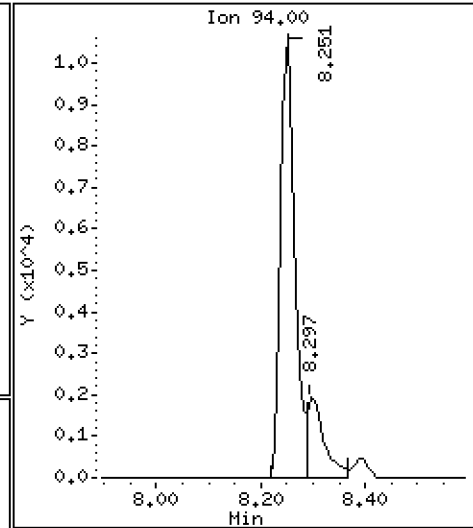
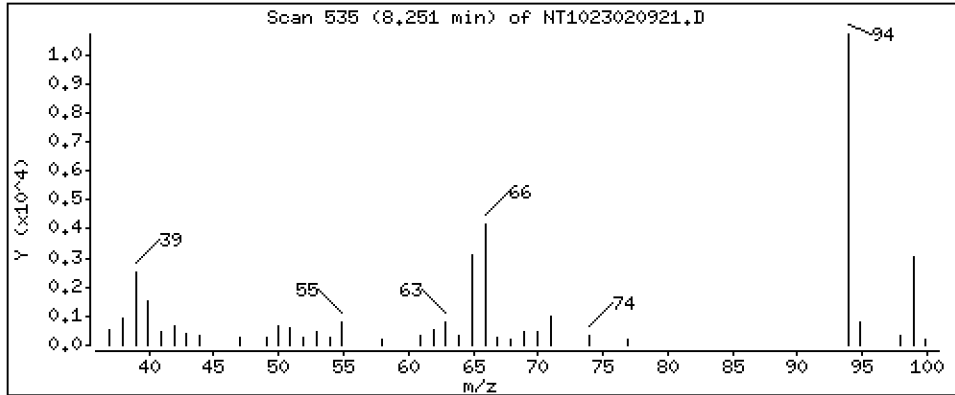
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,4960 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

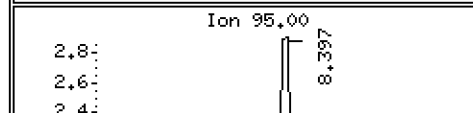
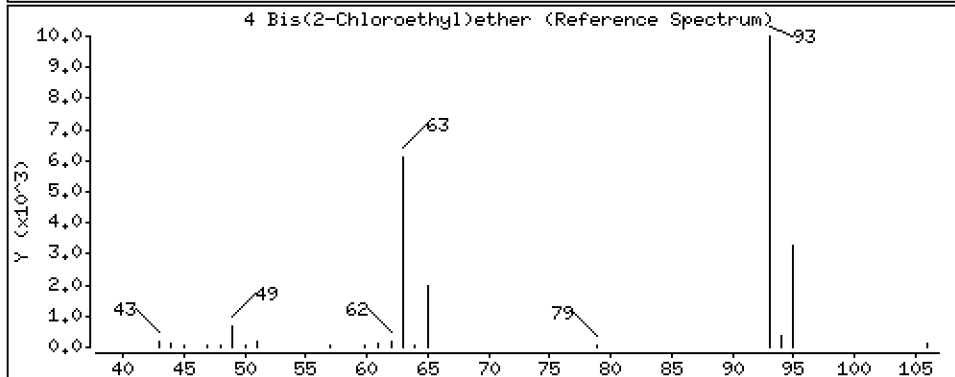
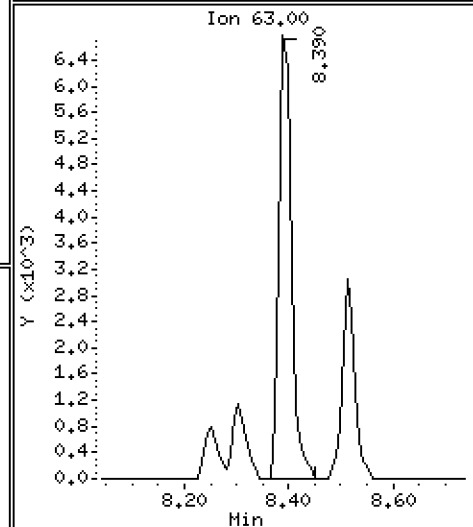
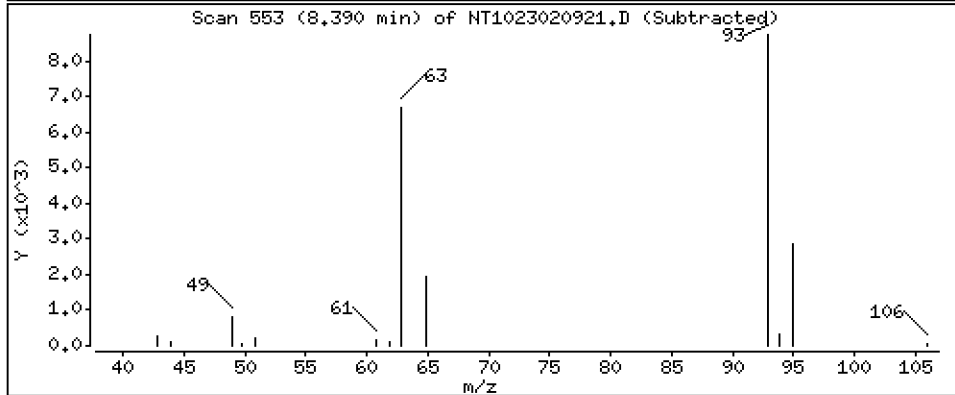
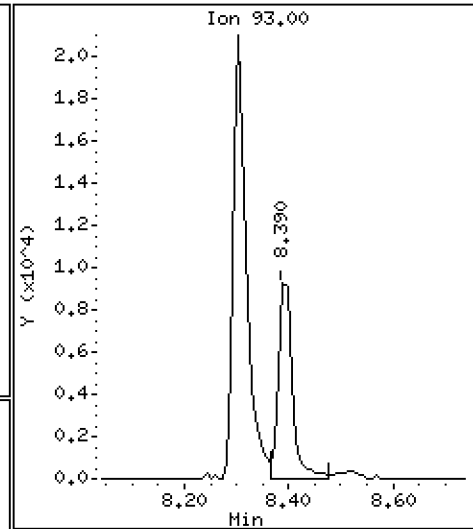
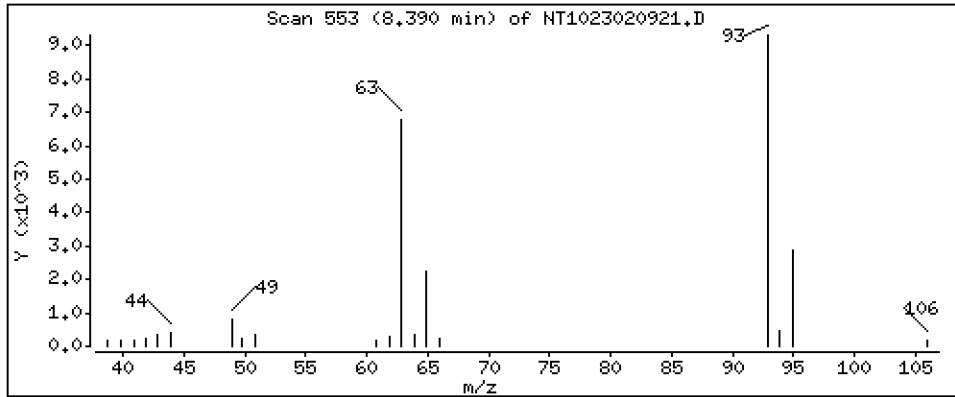
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,5819 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

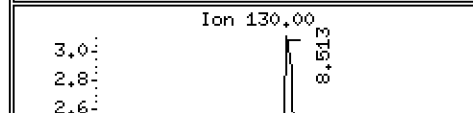
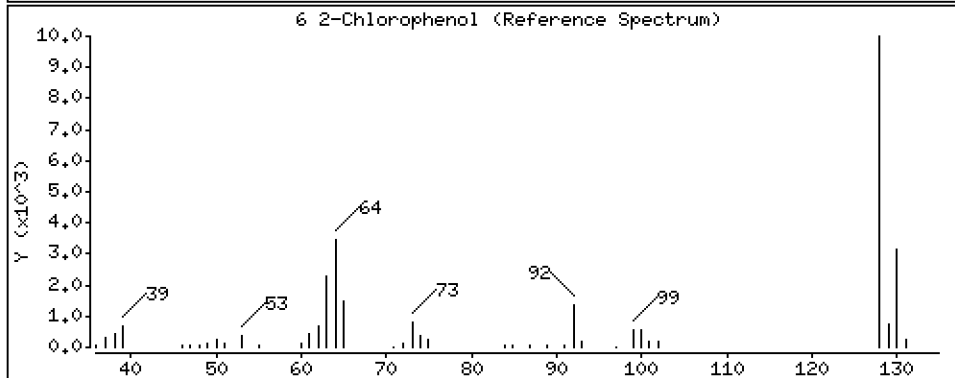
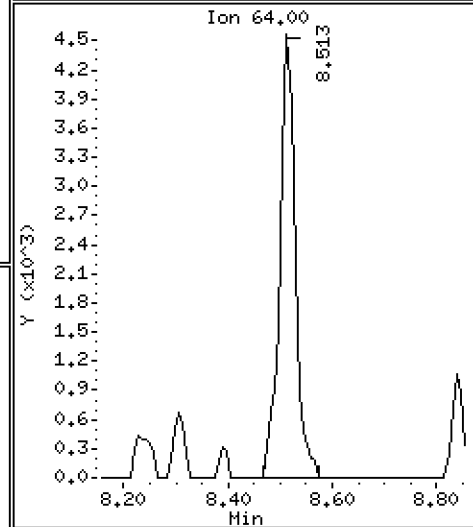
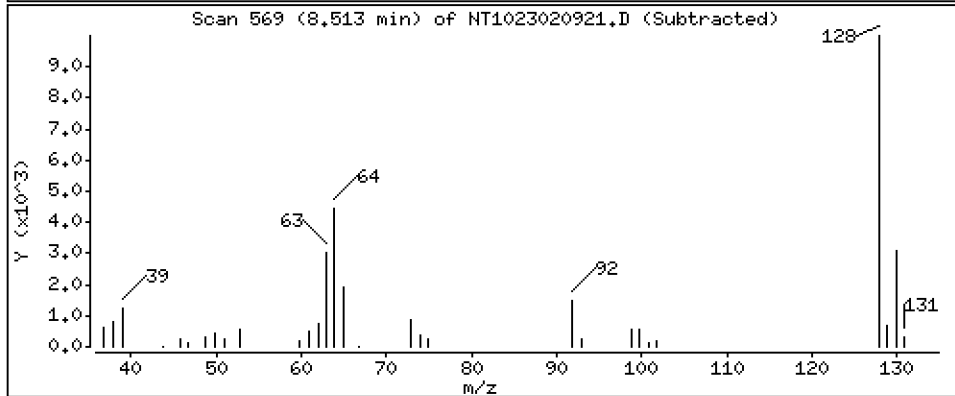
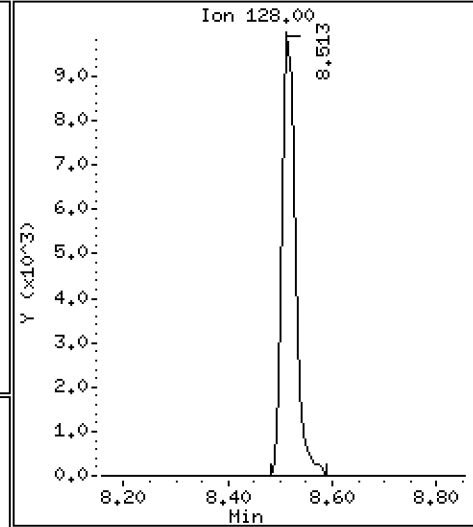
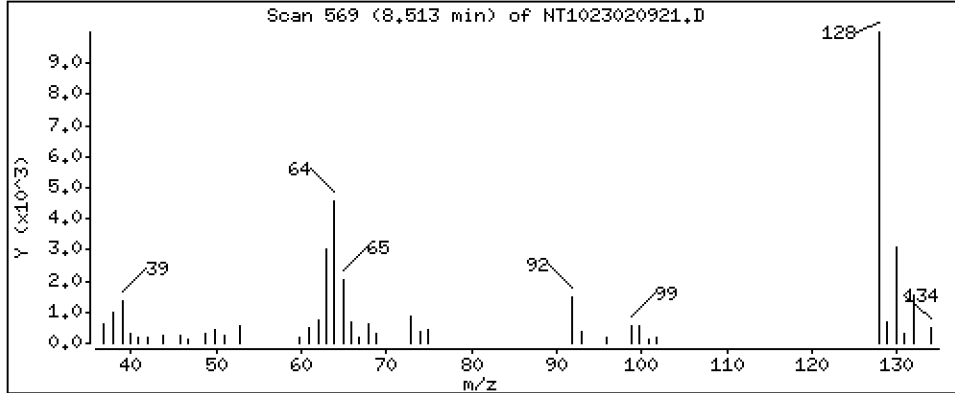
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 0,5308 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

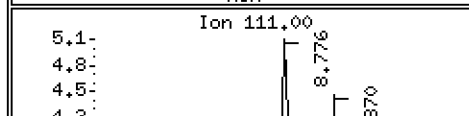
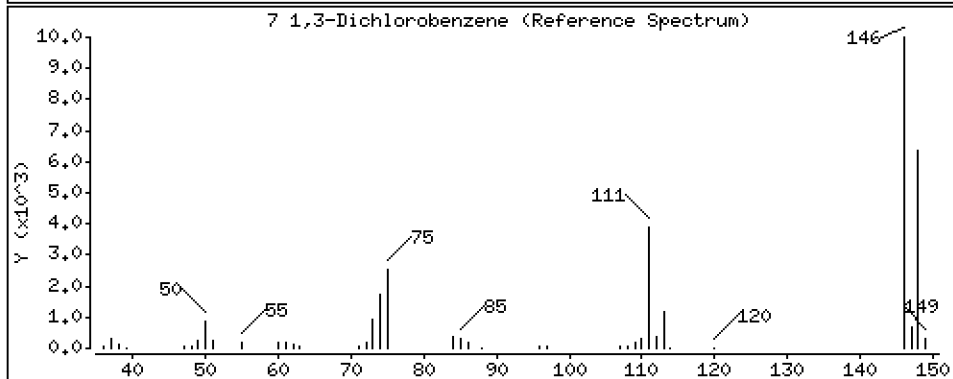
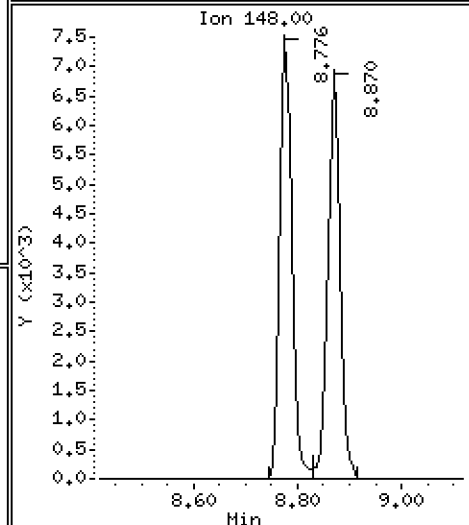
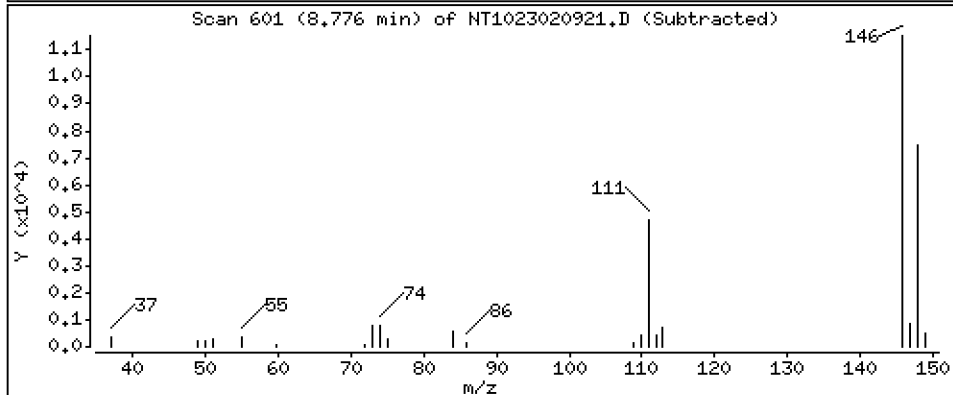
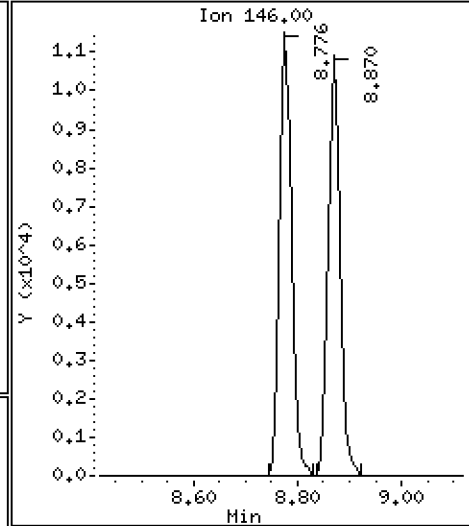
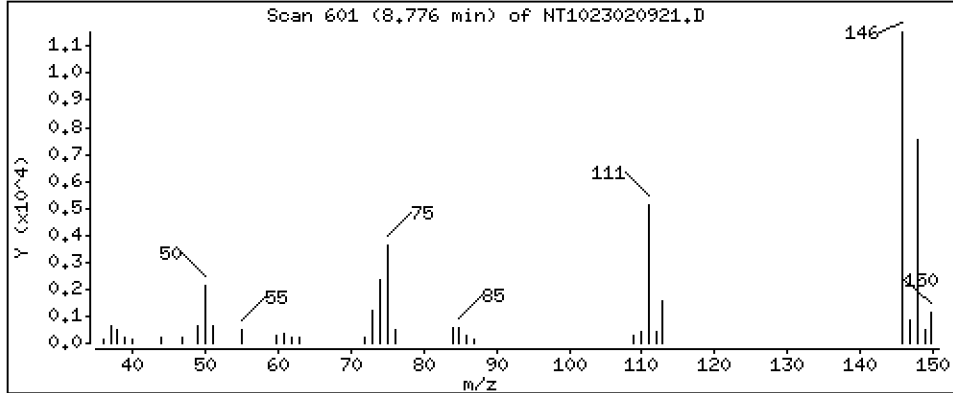
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,5188 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

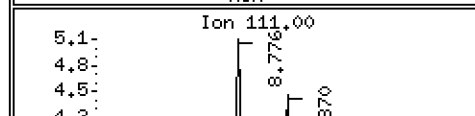
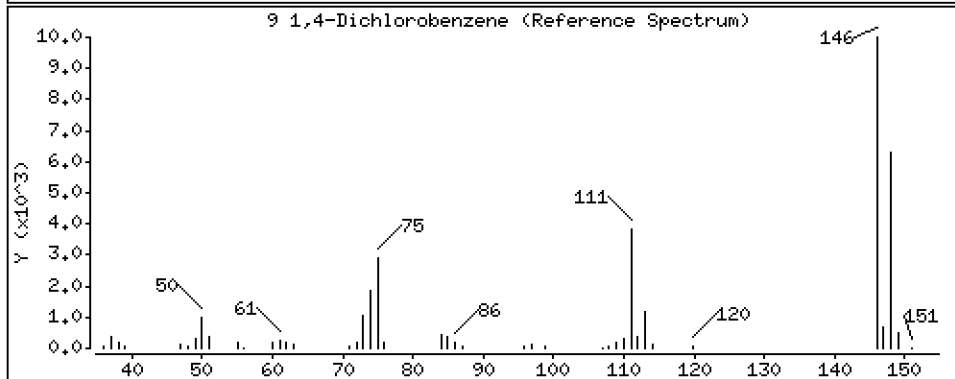
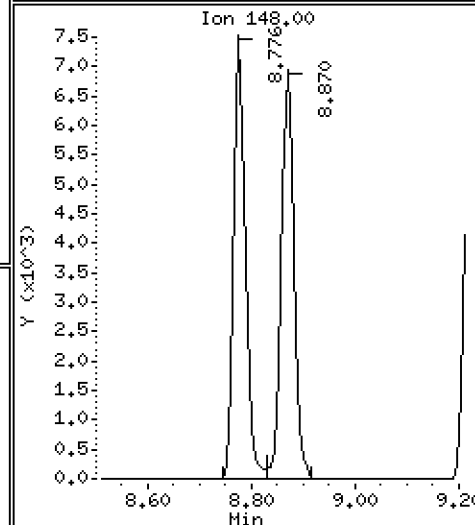
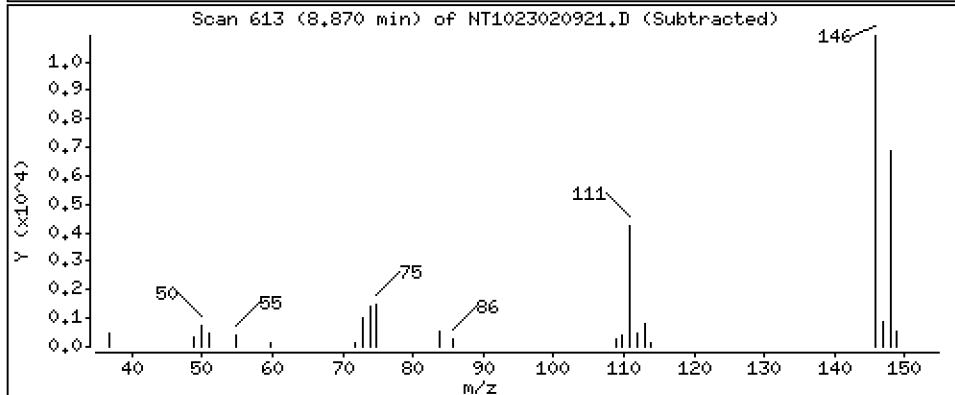
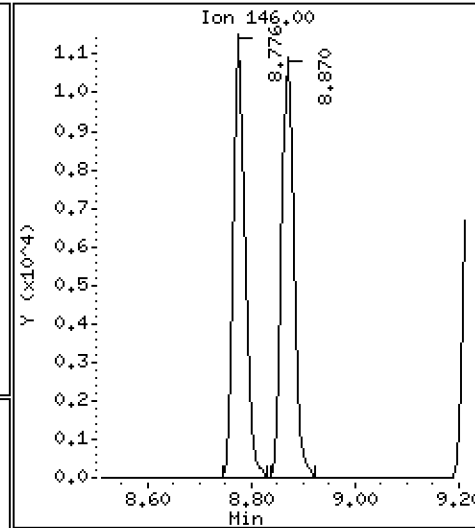
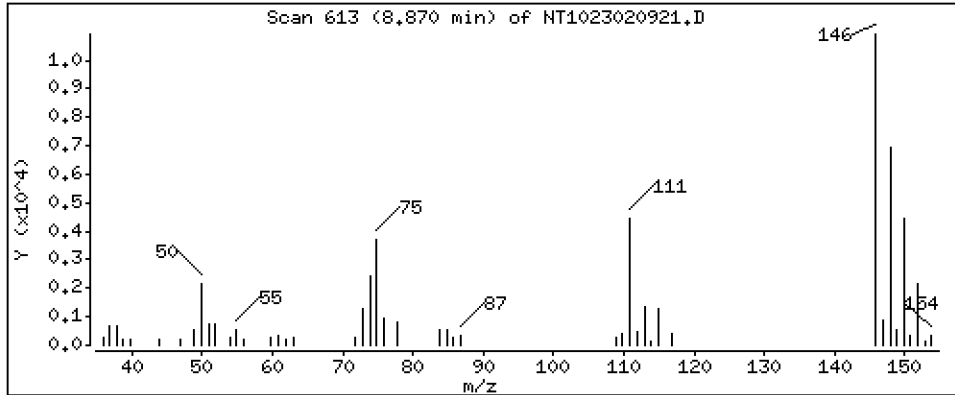
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,5164 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

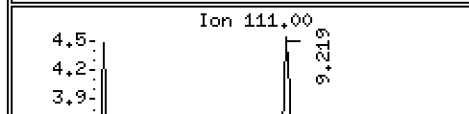
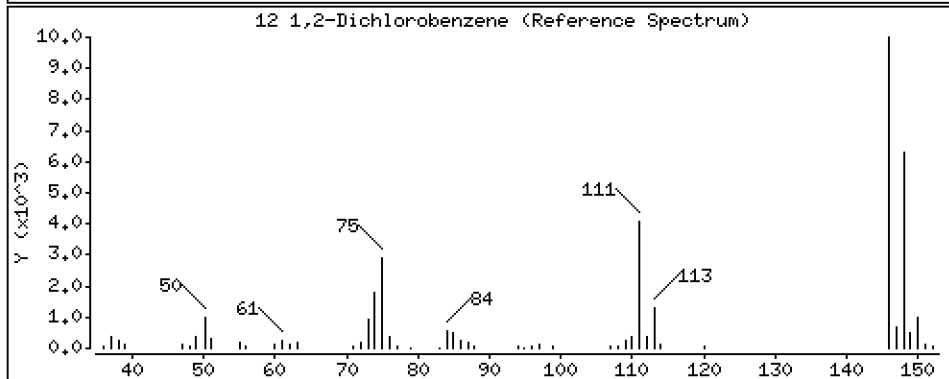
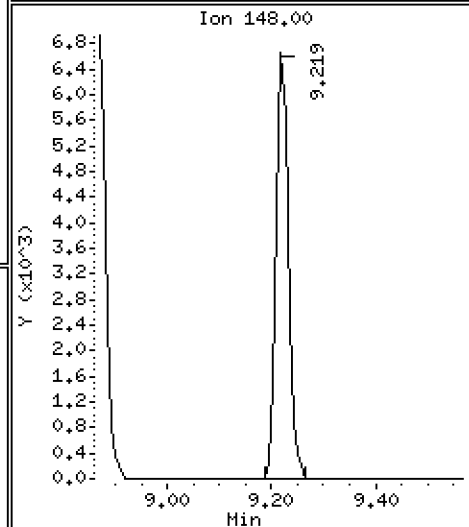
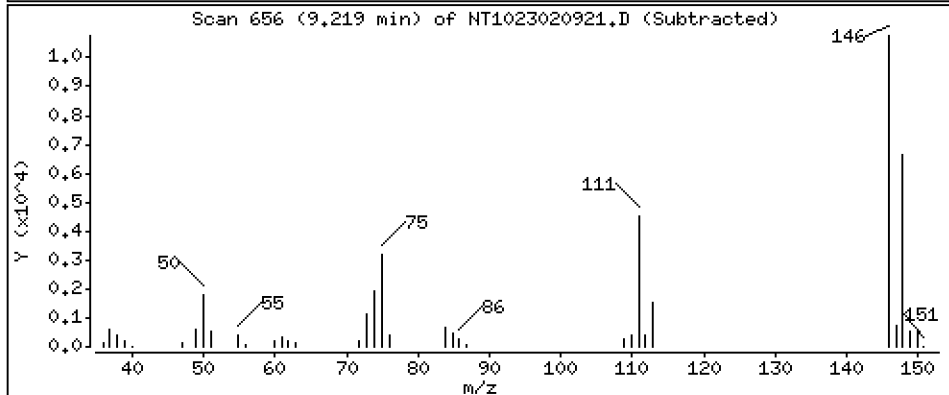
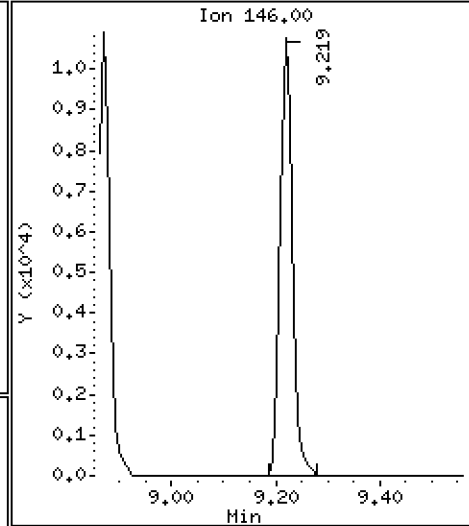
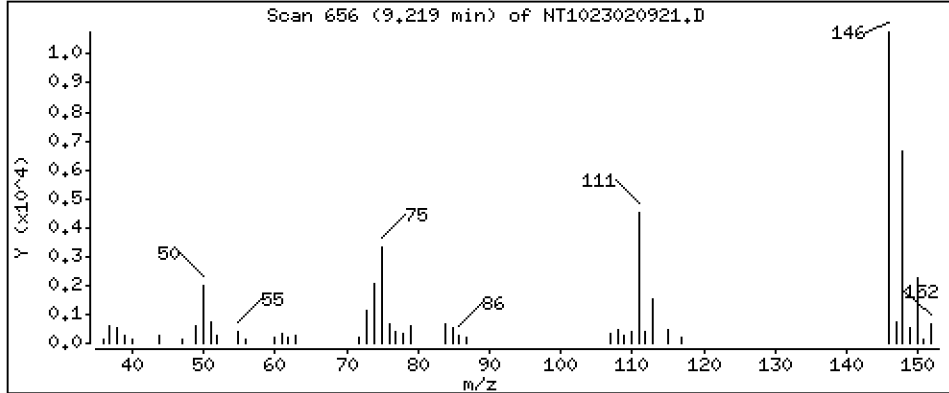
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,5261 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

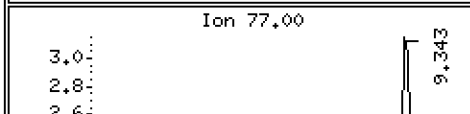
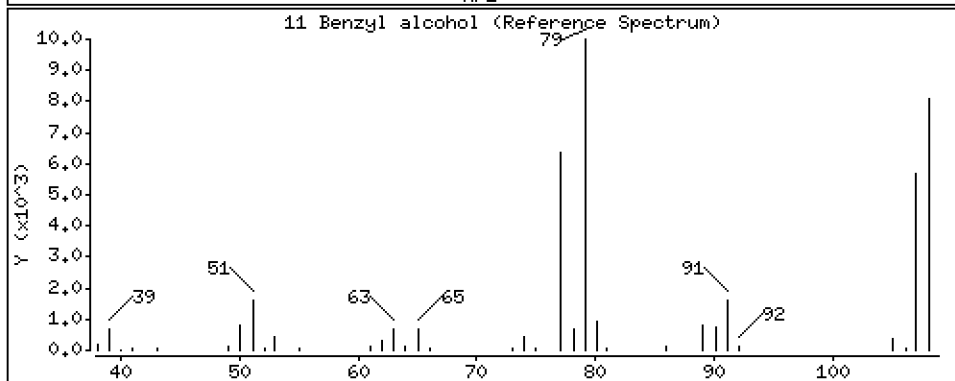
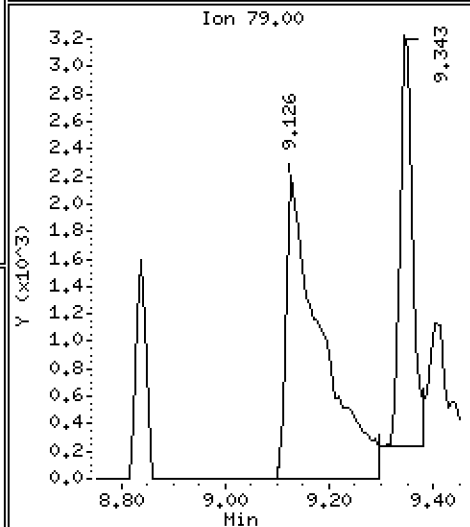
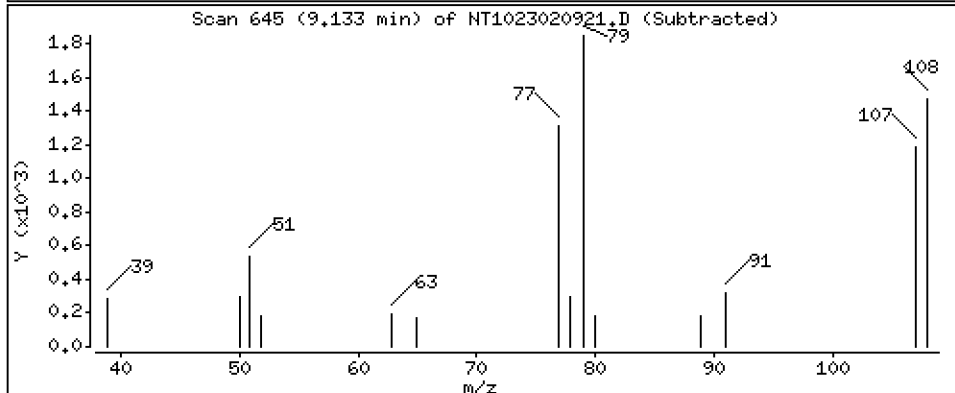
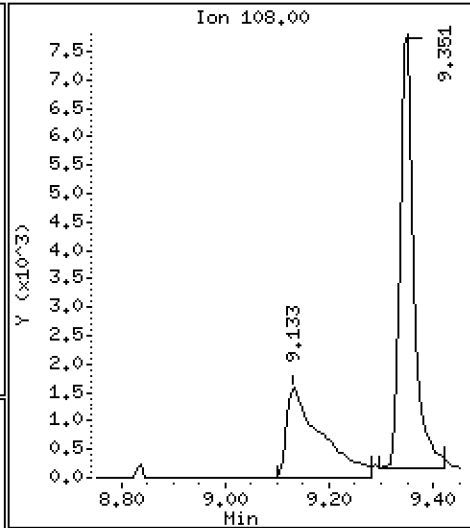
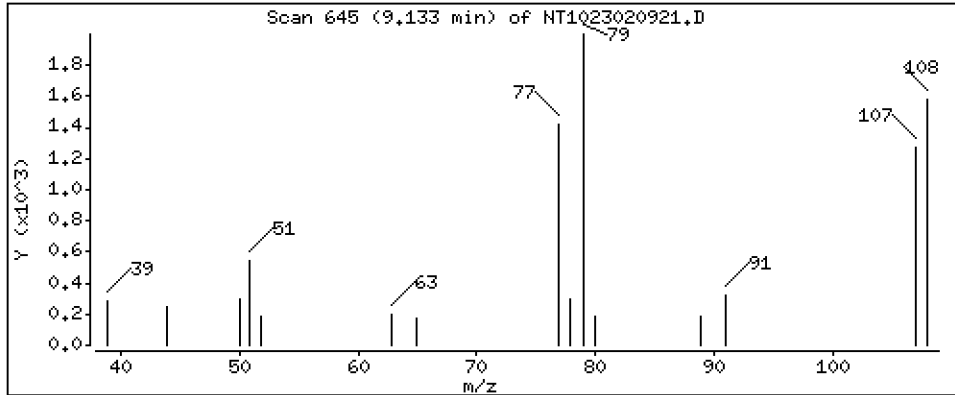
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 0,4284 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

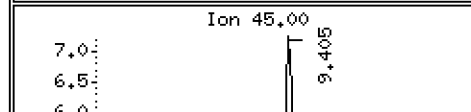
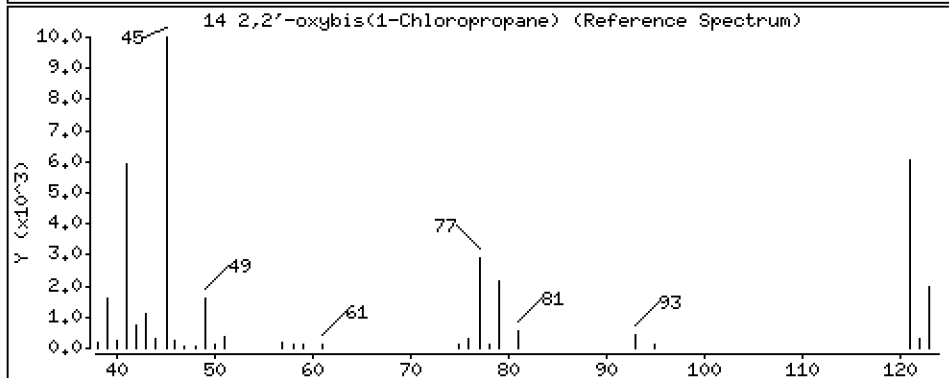
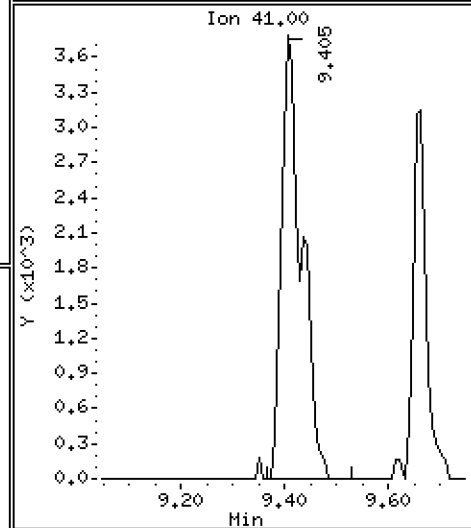
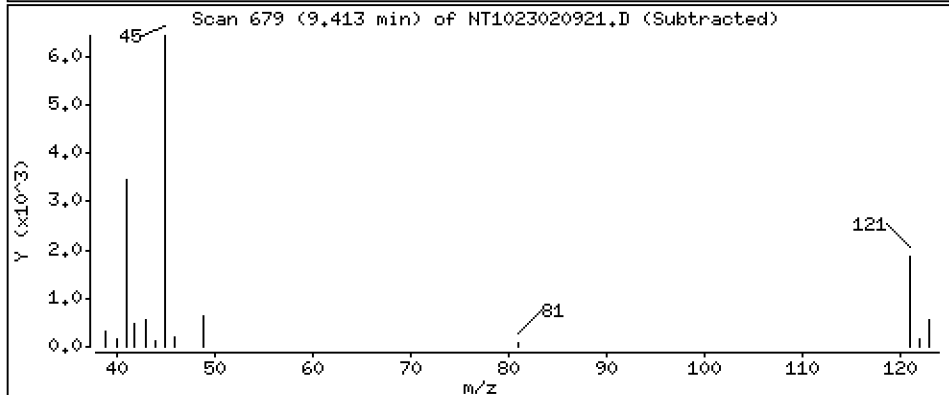
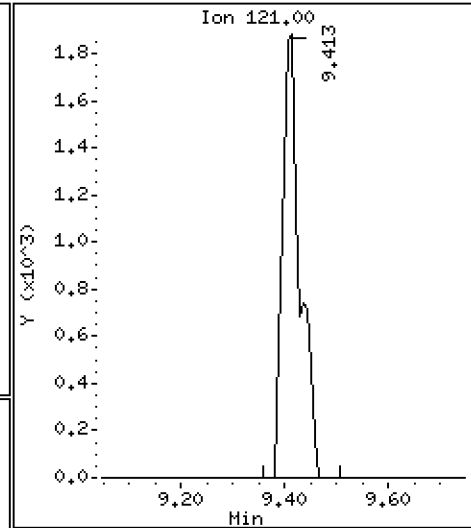
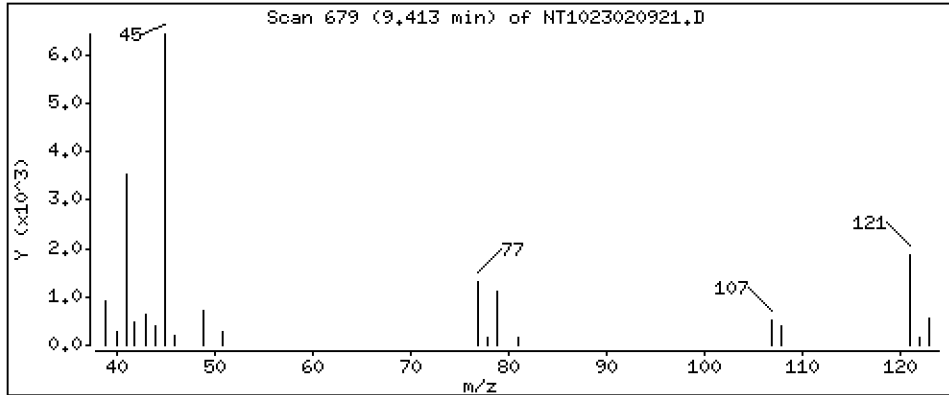
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 0,4844 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

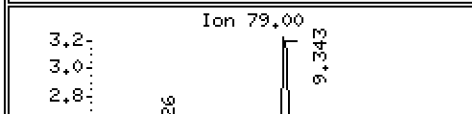
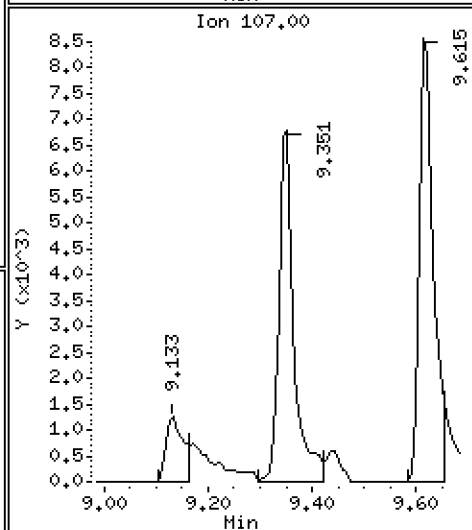
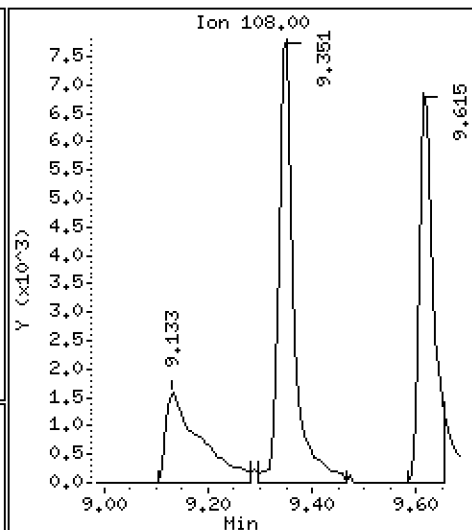
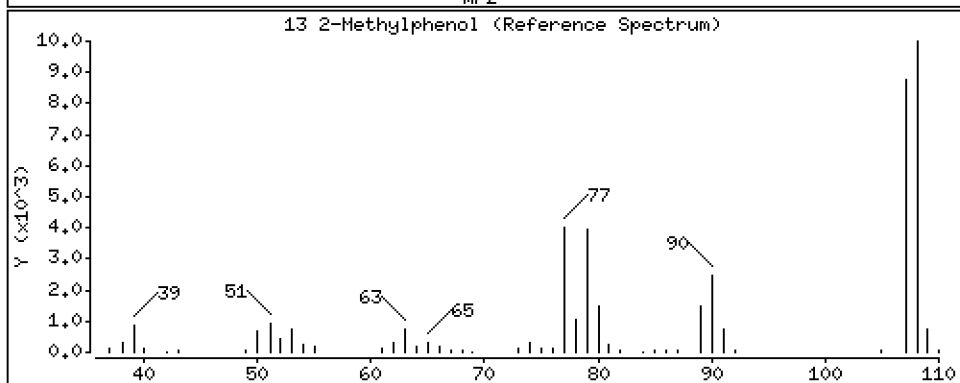
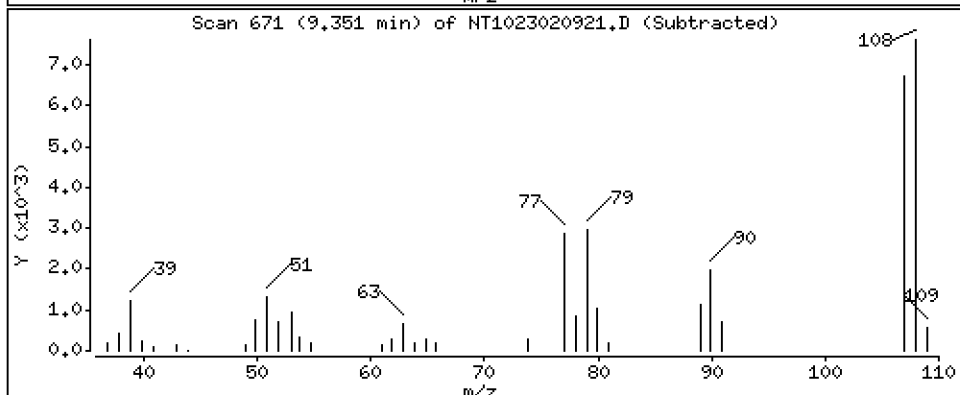
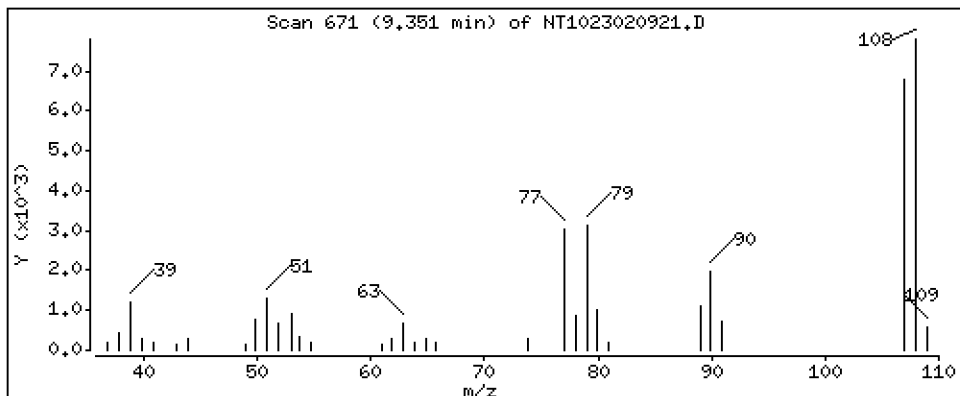
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 0,5986 ug/mL



Date : 10-FEB-2023 01:47

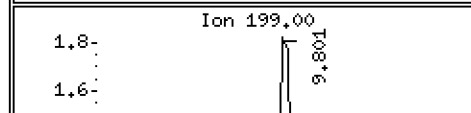
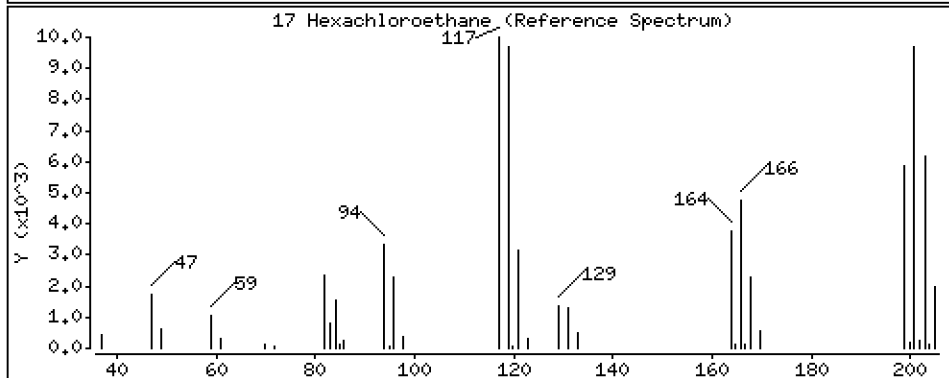
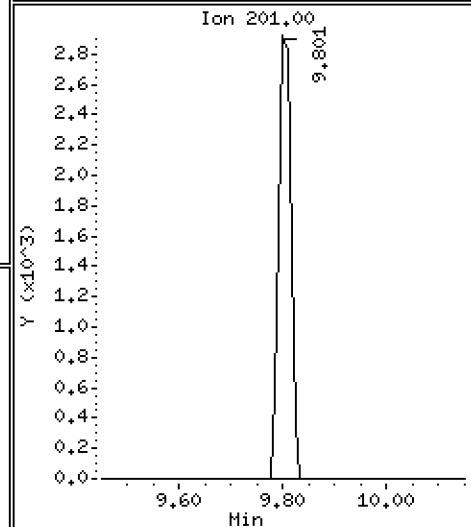
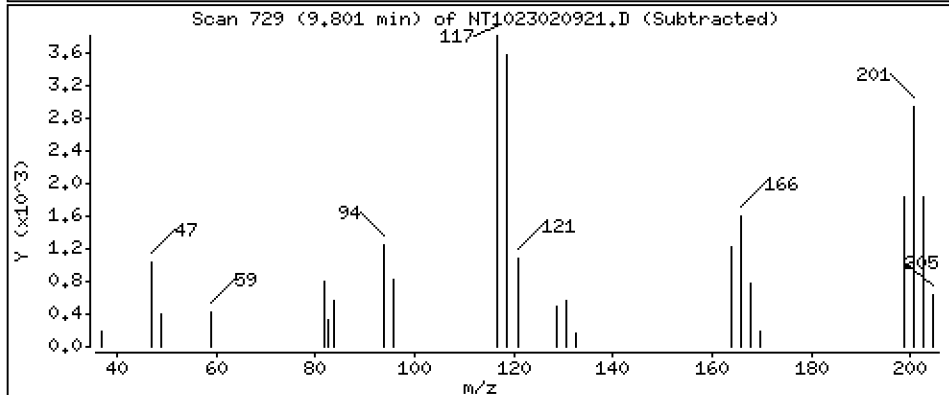
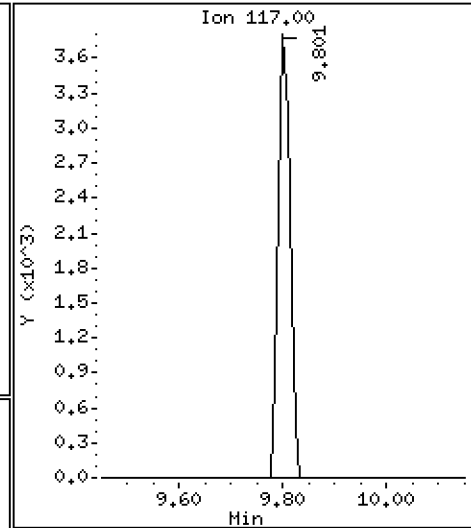
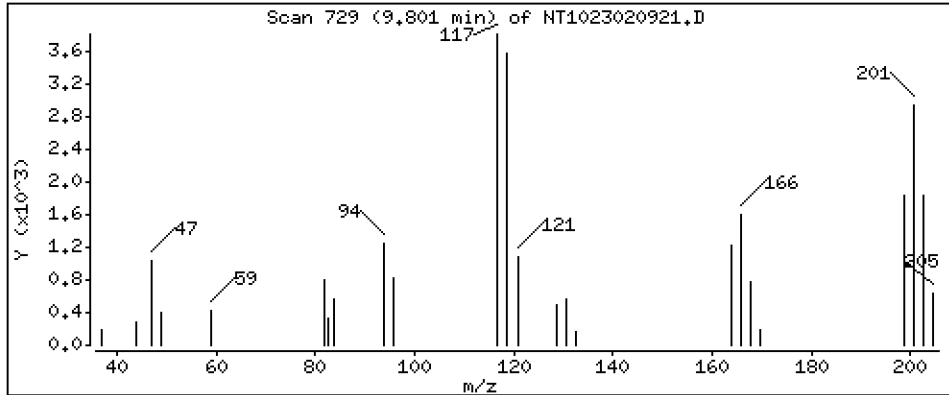
Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

17 Hexachloroethane Concentration: 0,4459 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

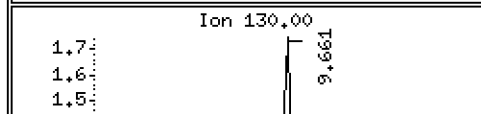
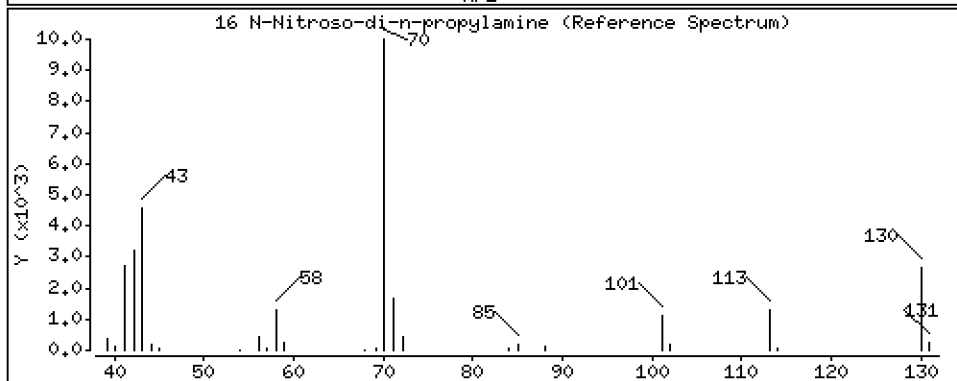
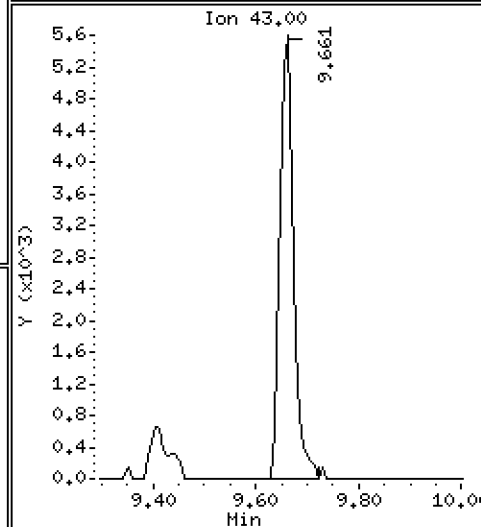
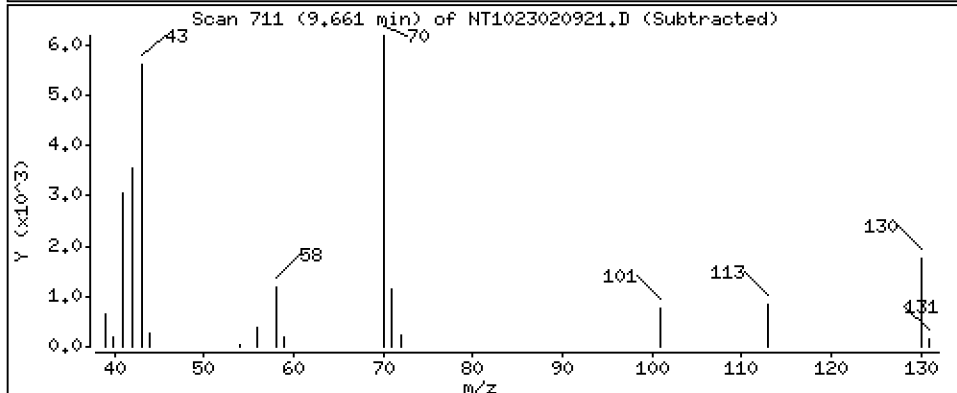
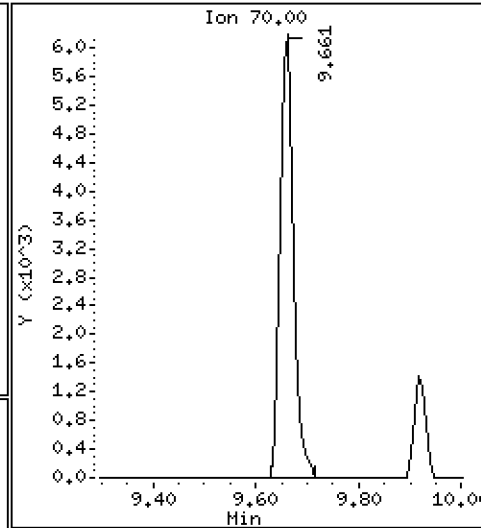
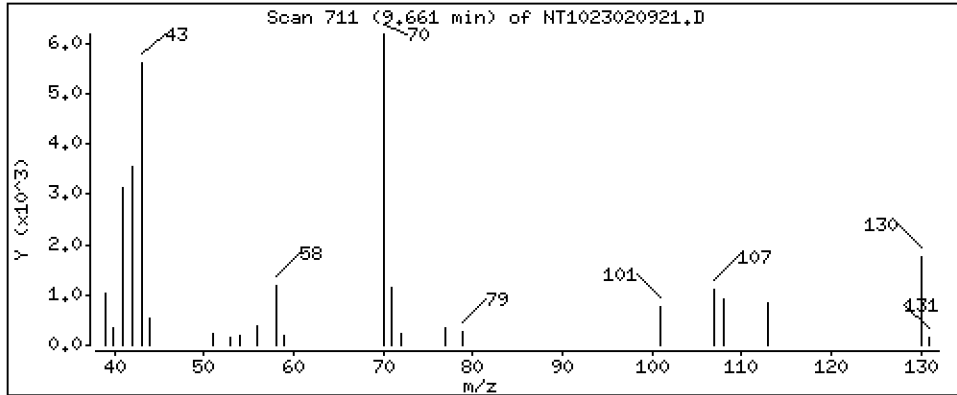
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 0,4872 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

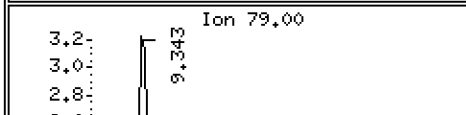
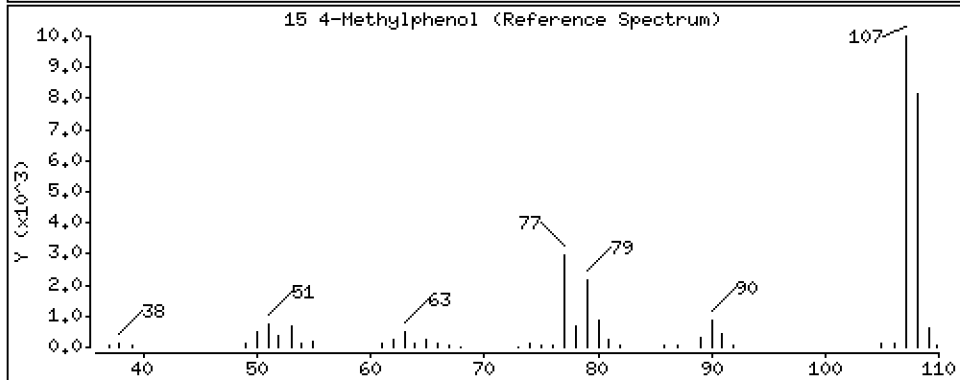
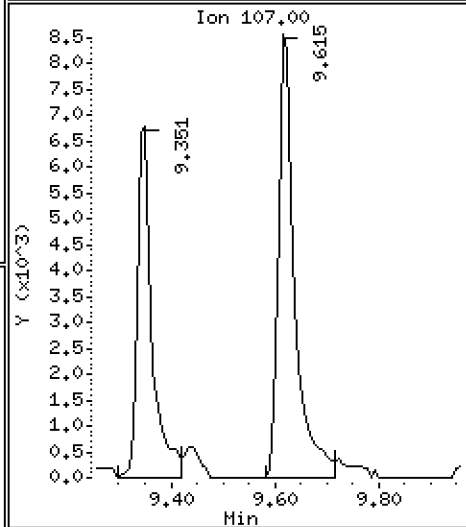
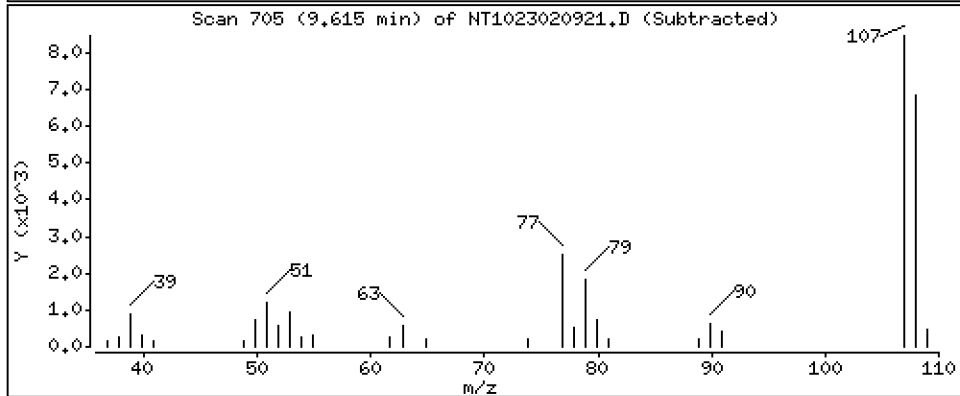
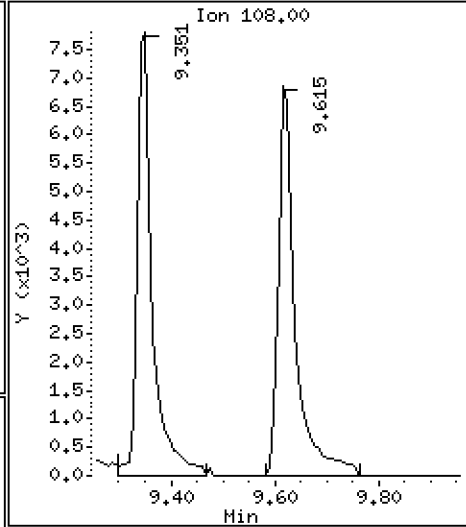
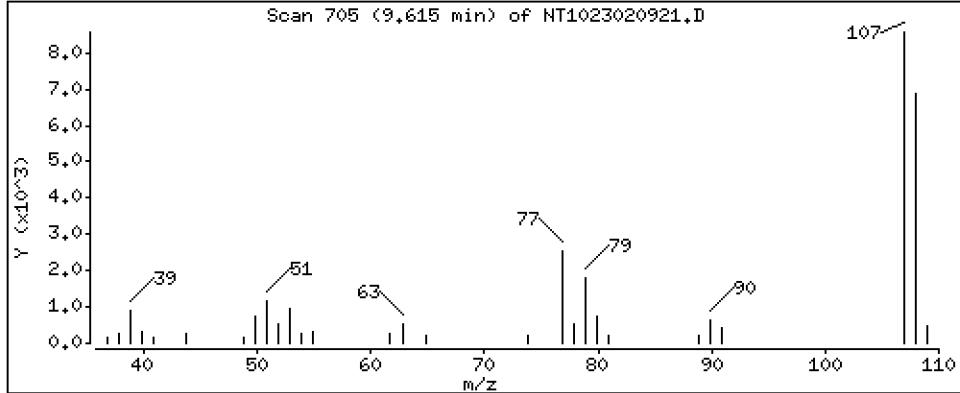
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 0,5042 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

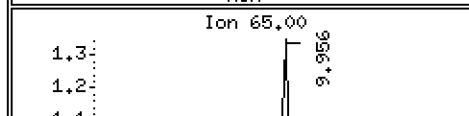
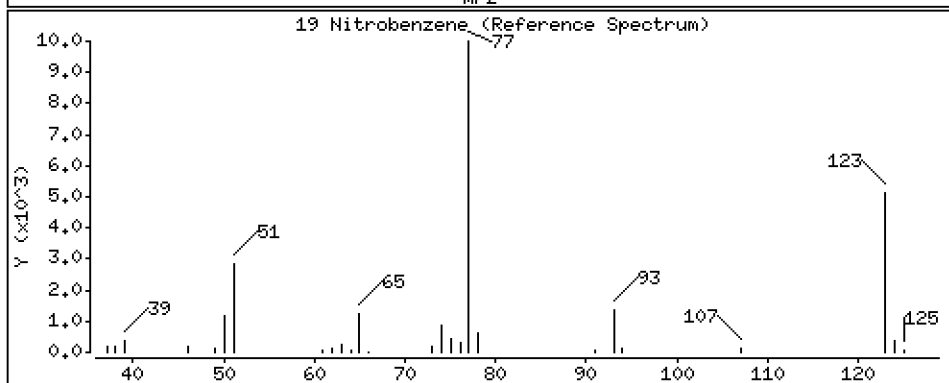
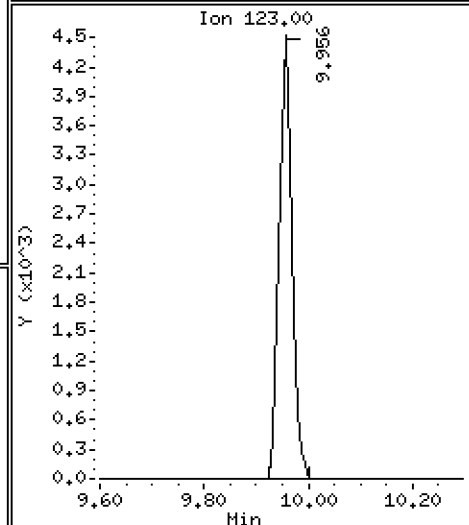
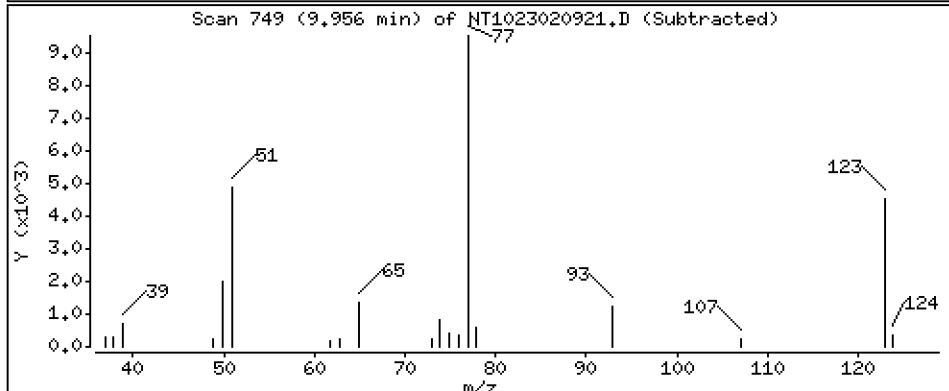
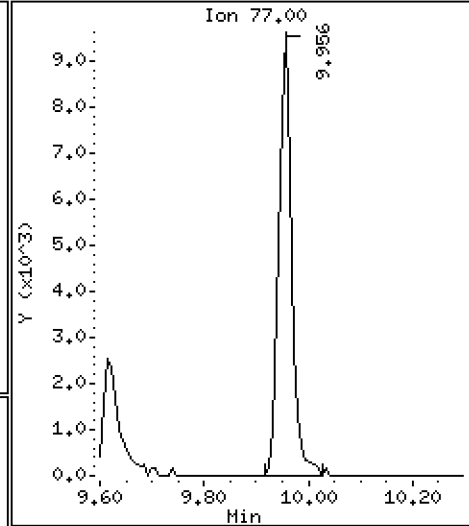
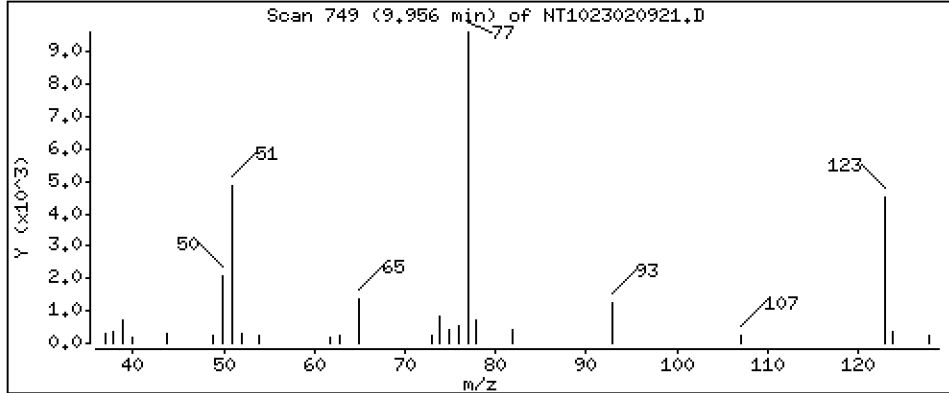
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 0,5285 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

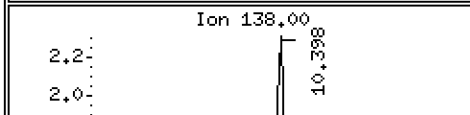
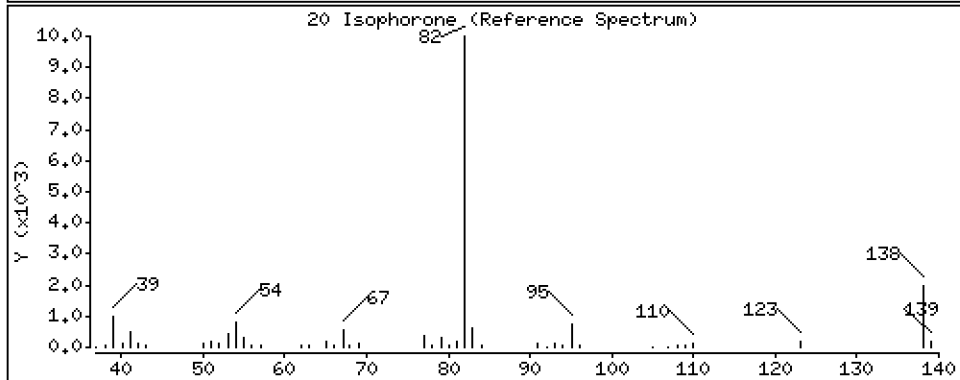
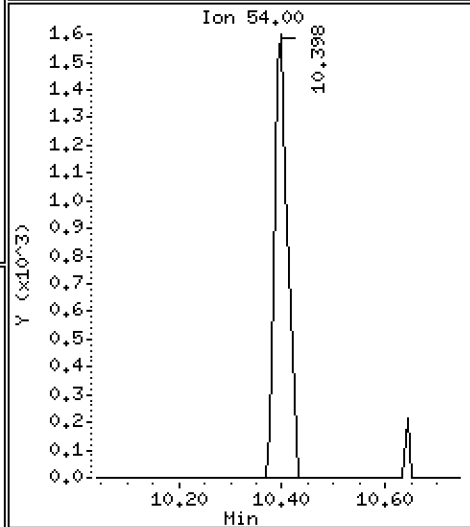
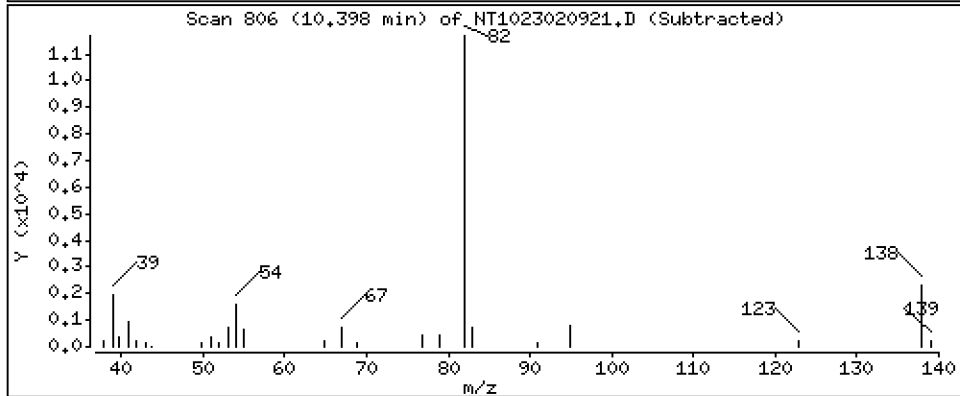
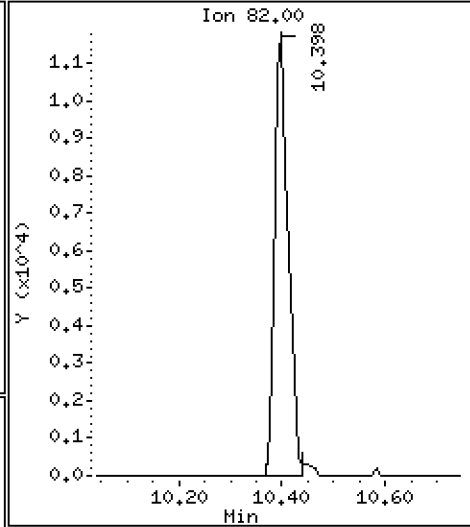
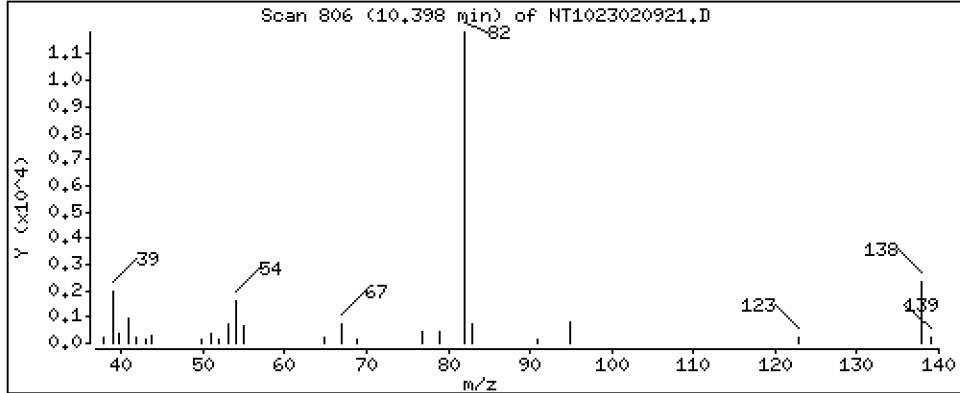
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 0,5413 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

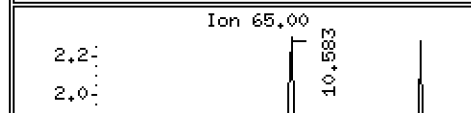
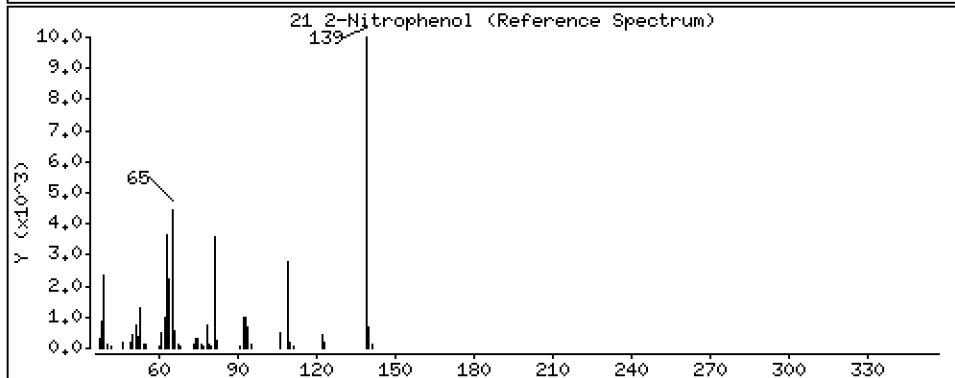
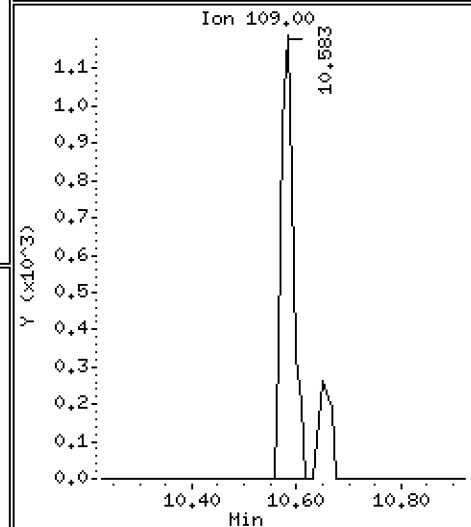
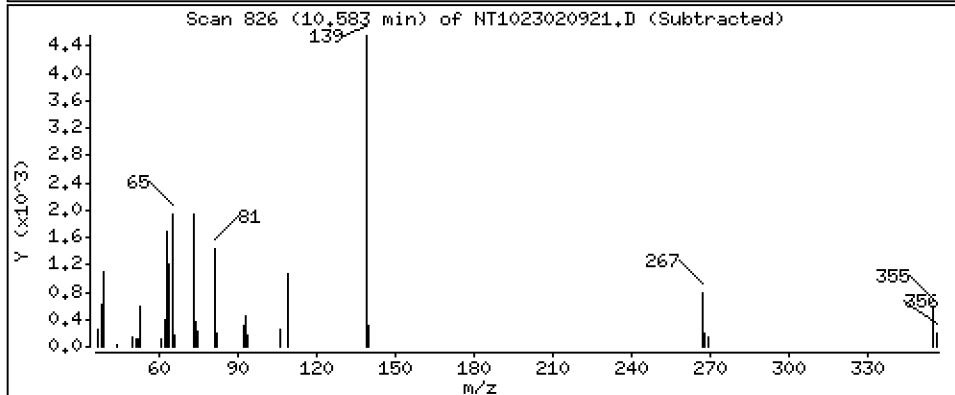
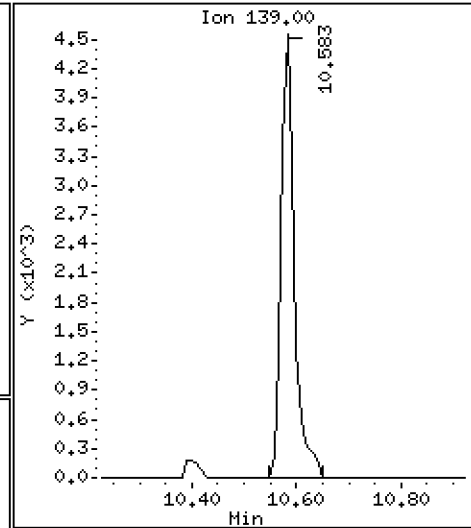
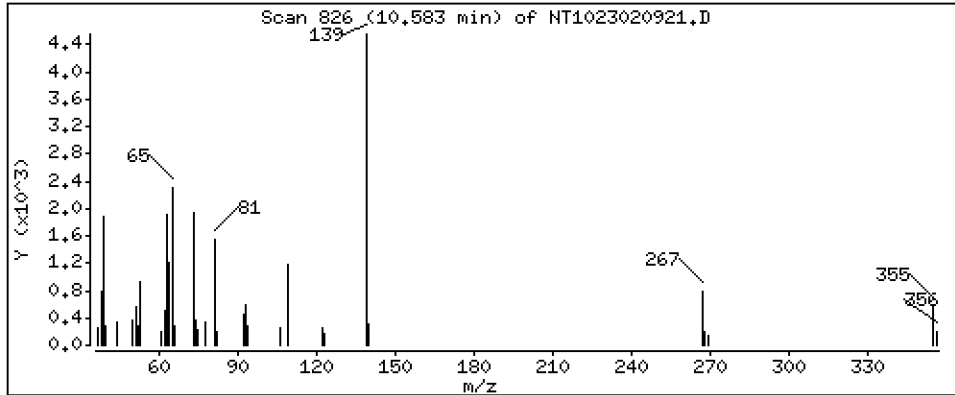
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,5089 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

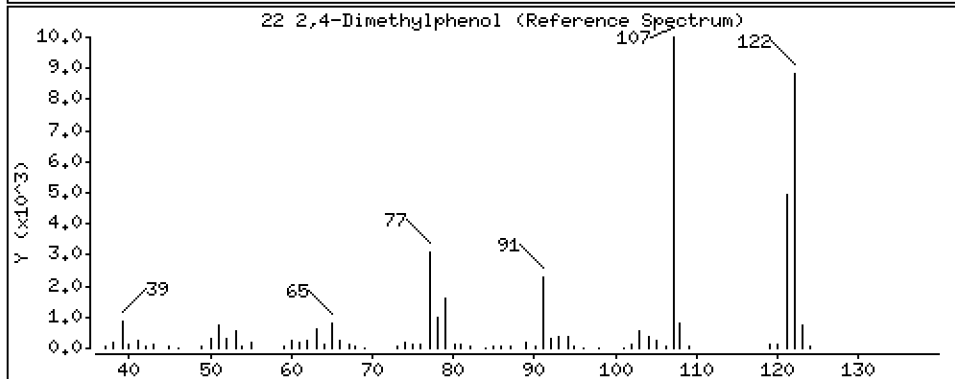
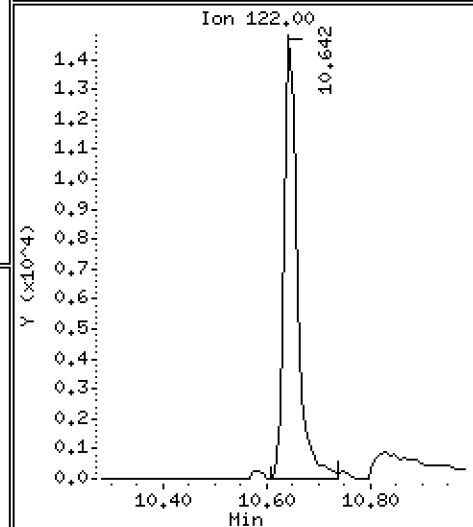
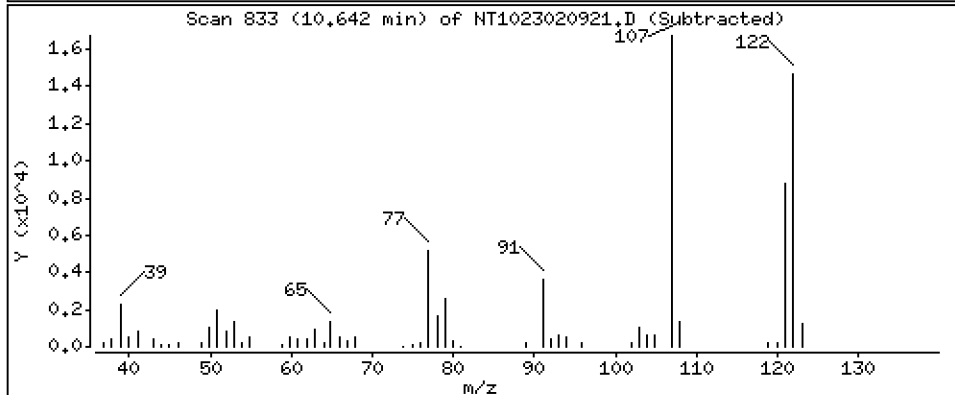
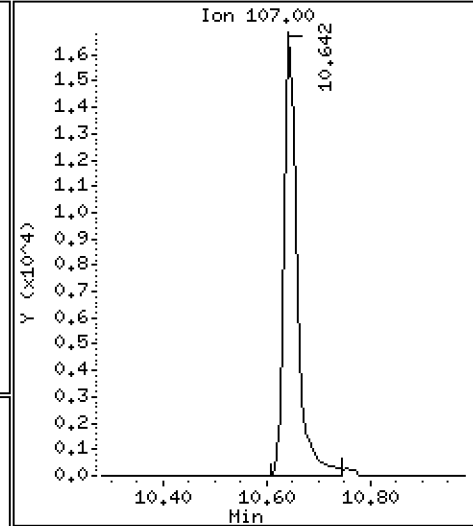
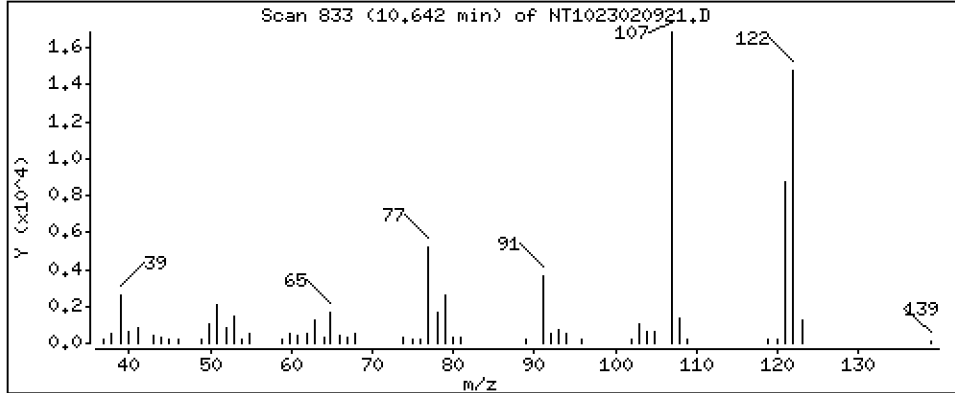
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 1,057 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

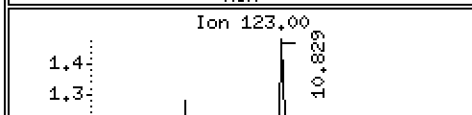
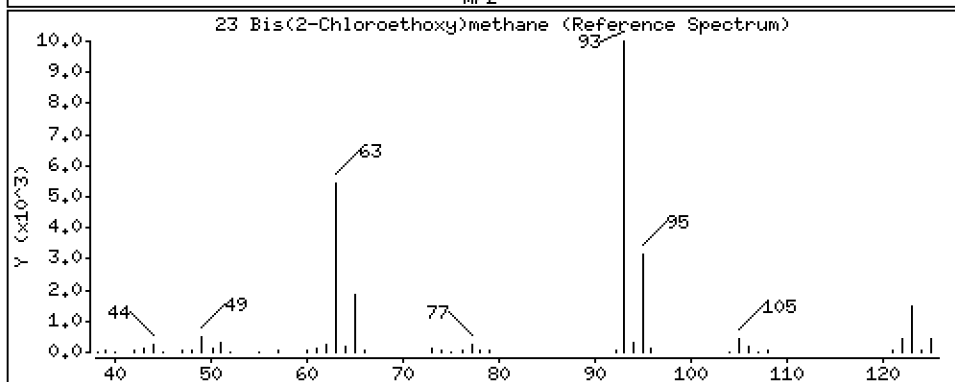
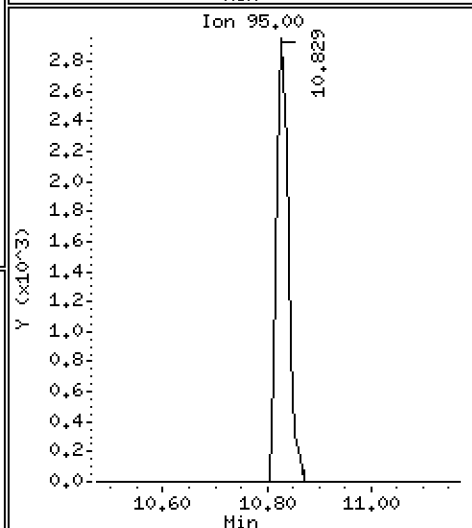
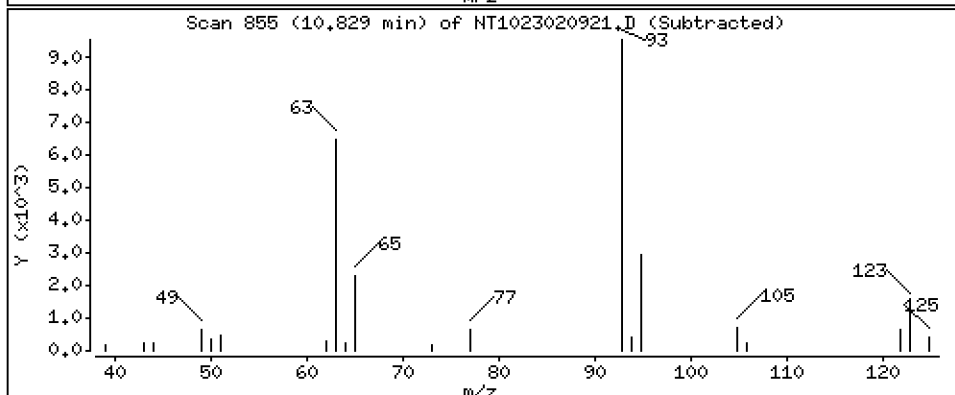
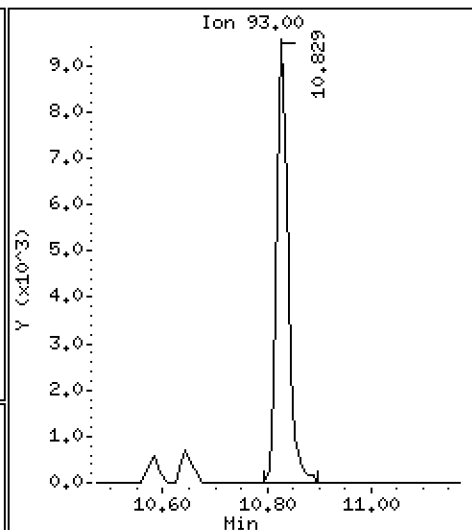
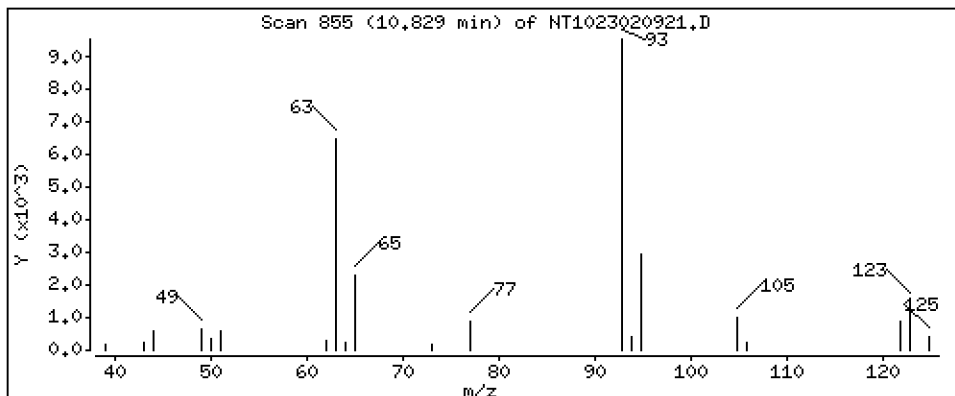
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 0,5347 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

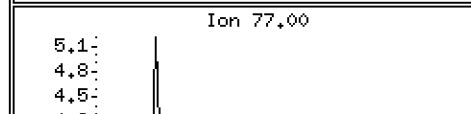
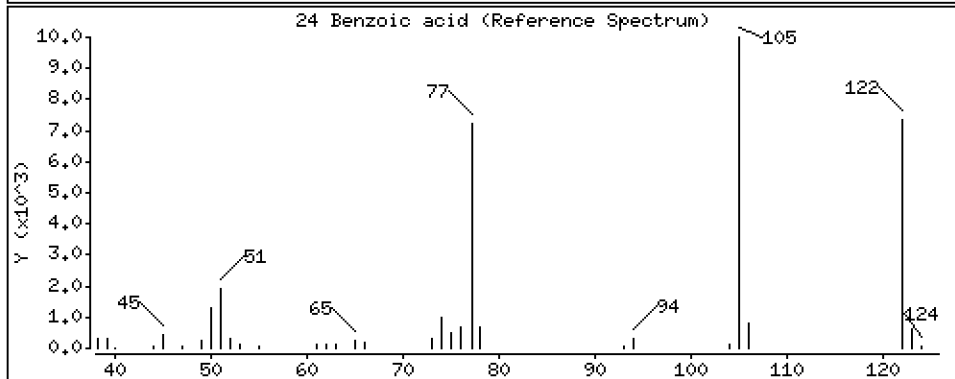
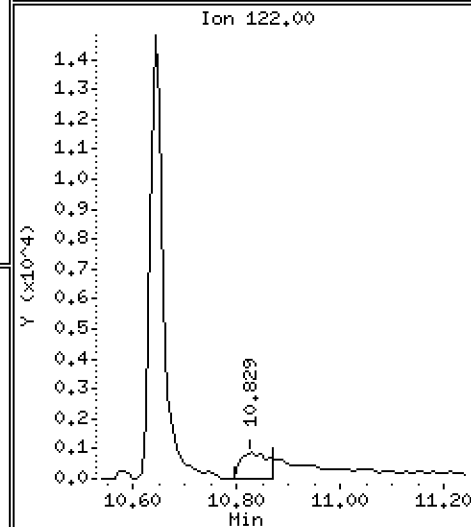
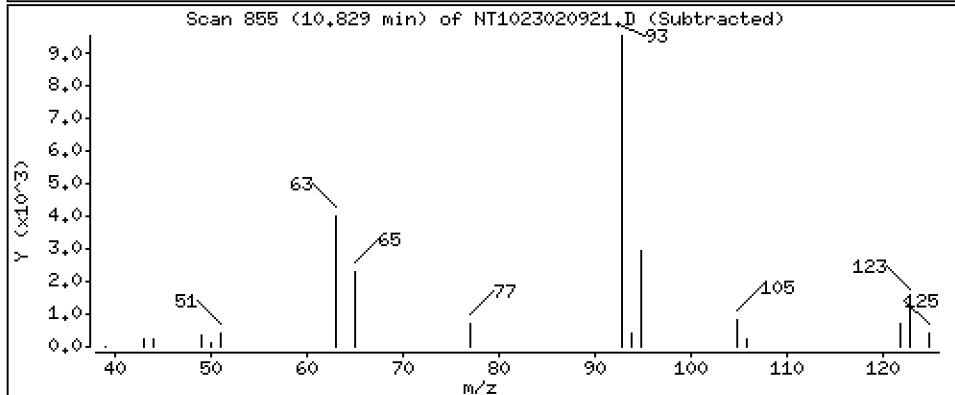
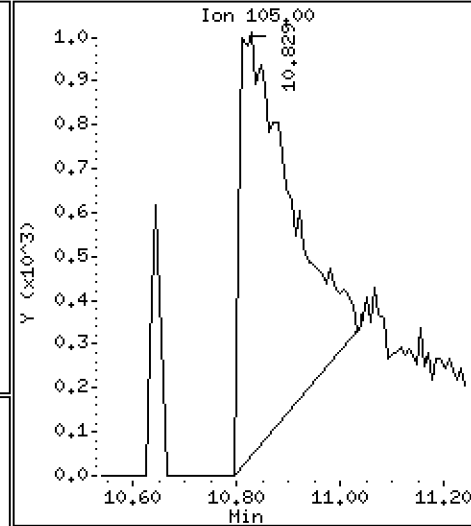
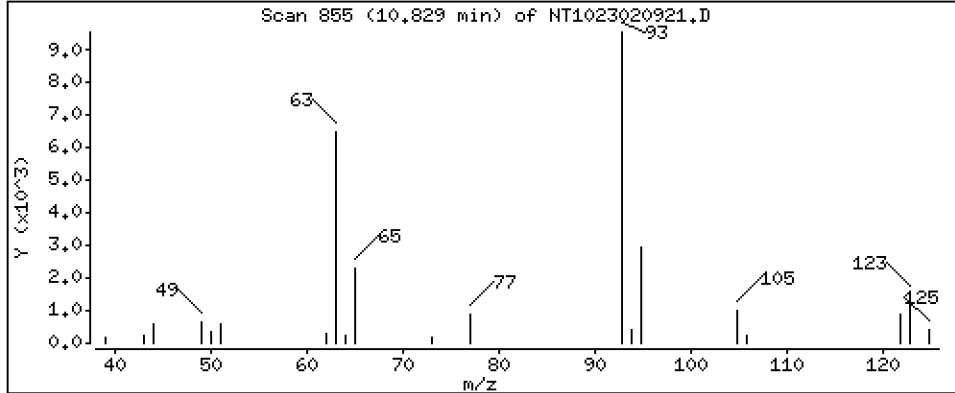
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 0,4094 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

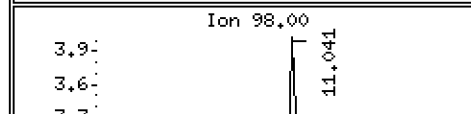
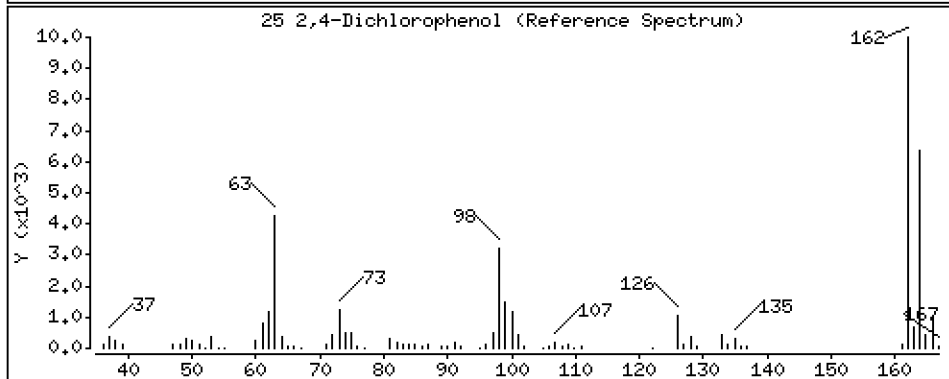
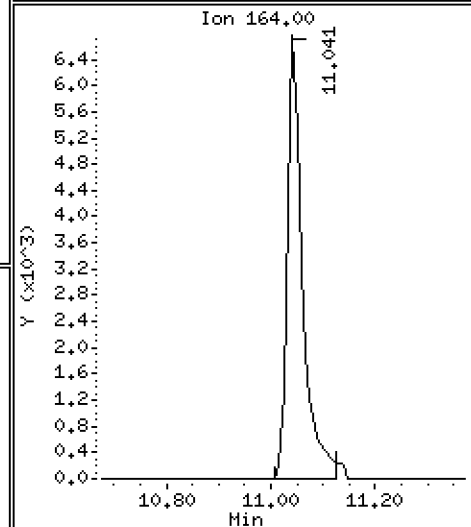
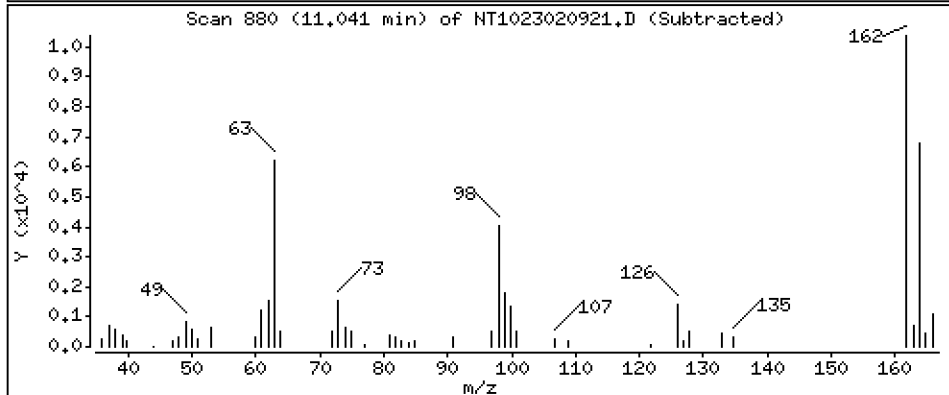
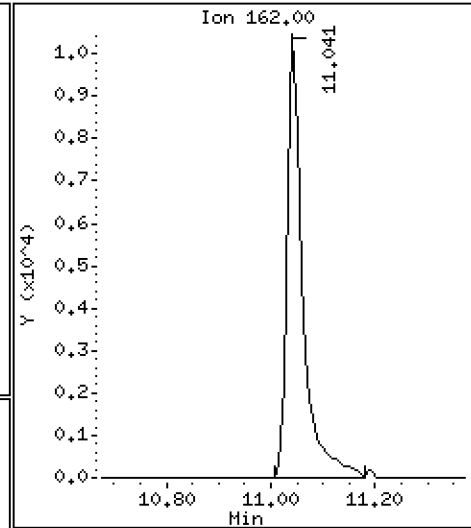
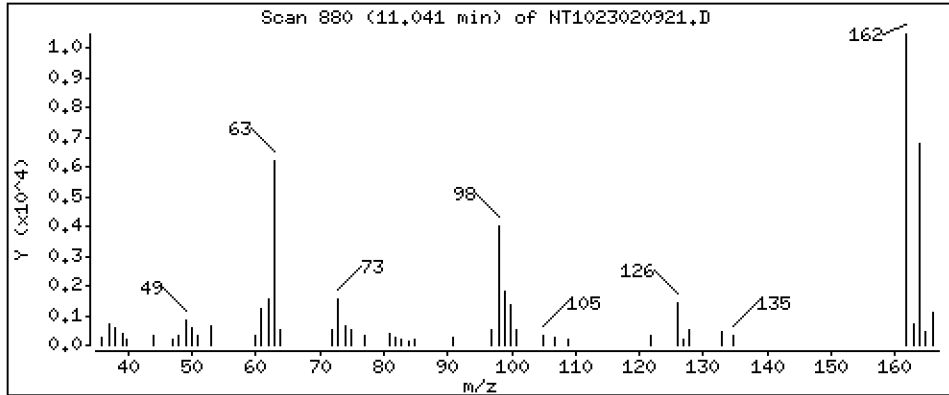
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 0,9918 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

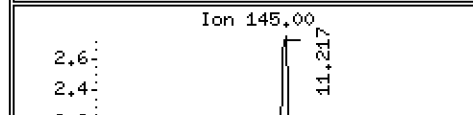
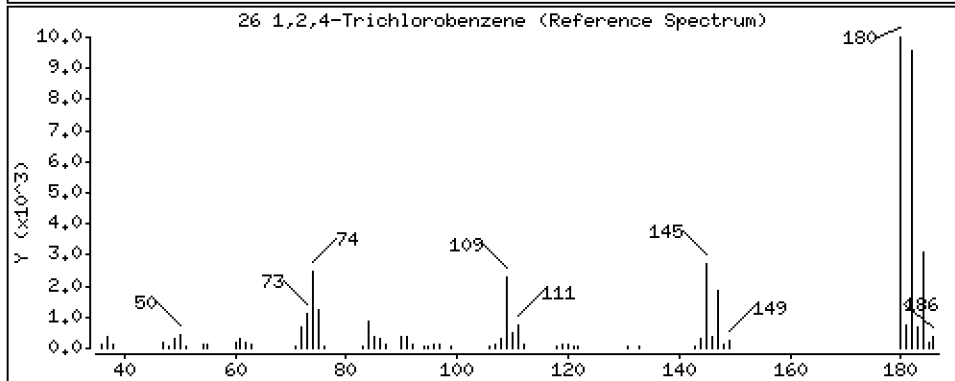
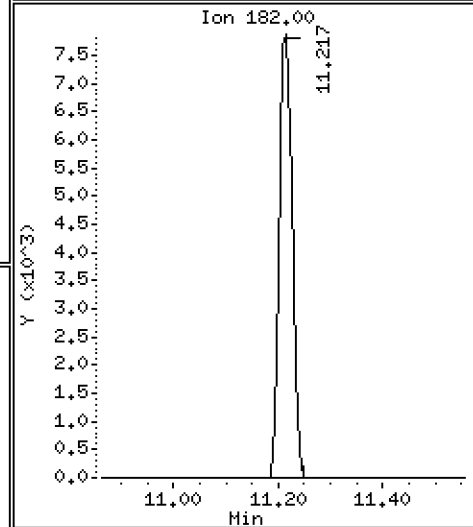
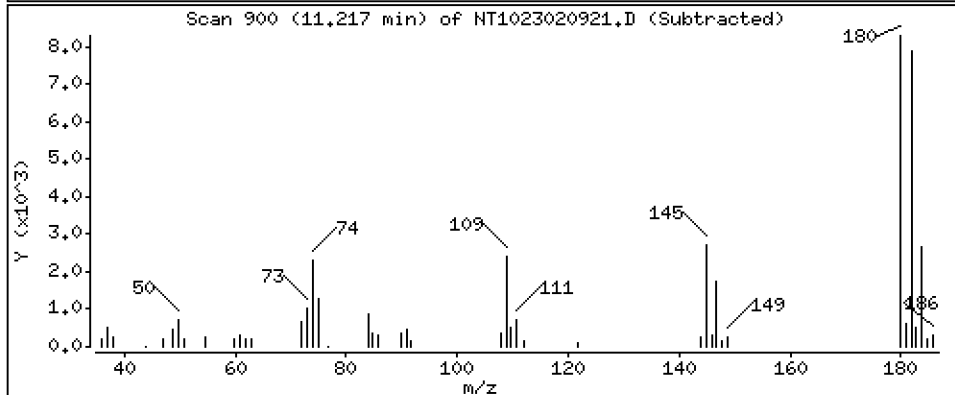
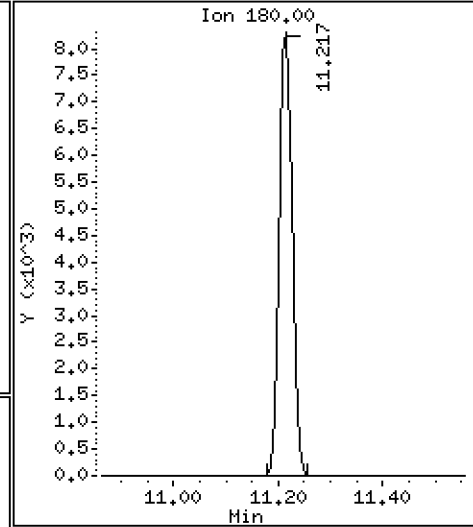
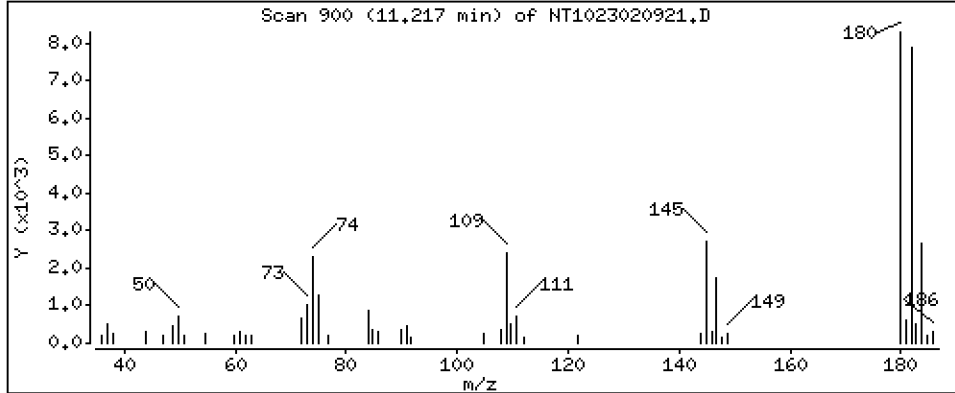
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,5482 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

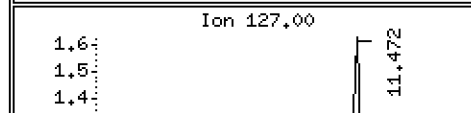
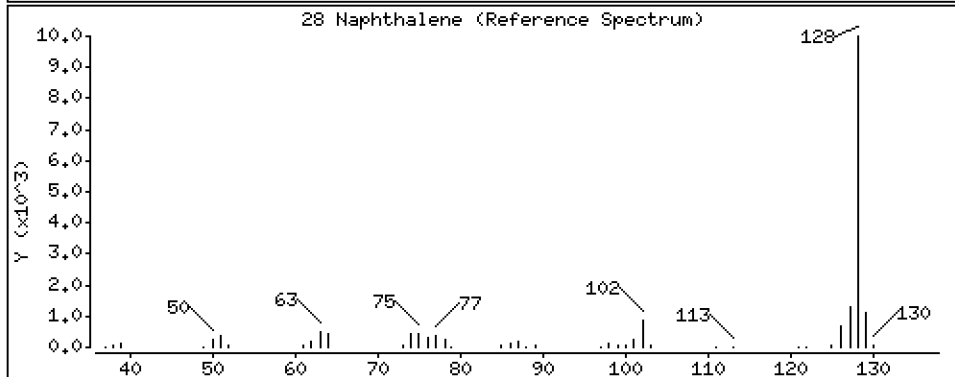
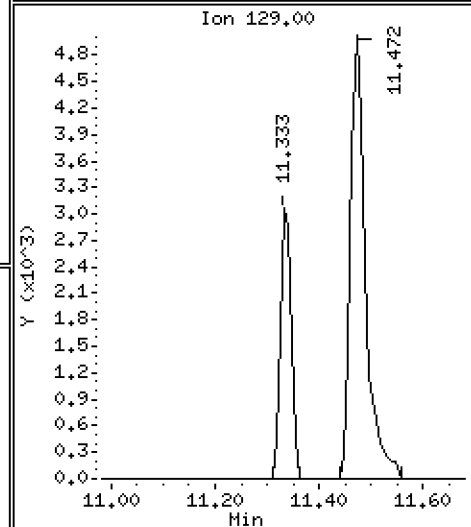
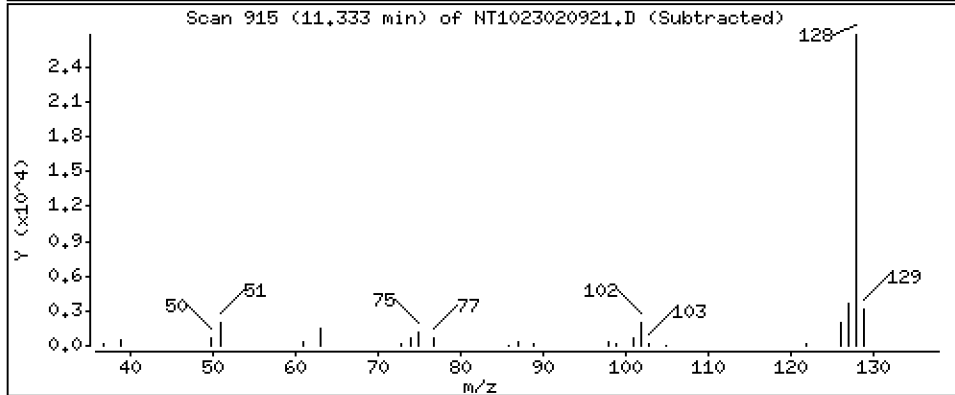
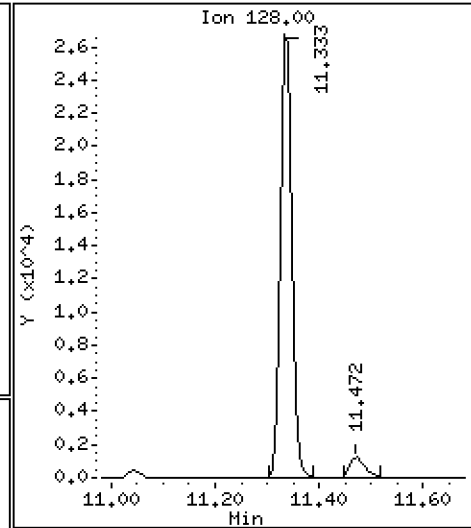
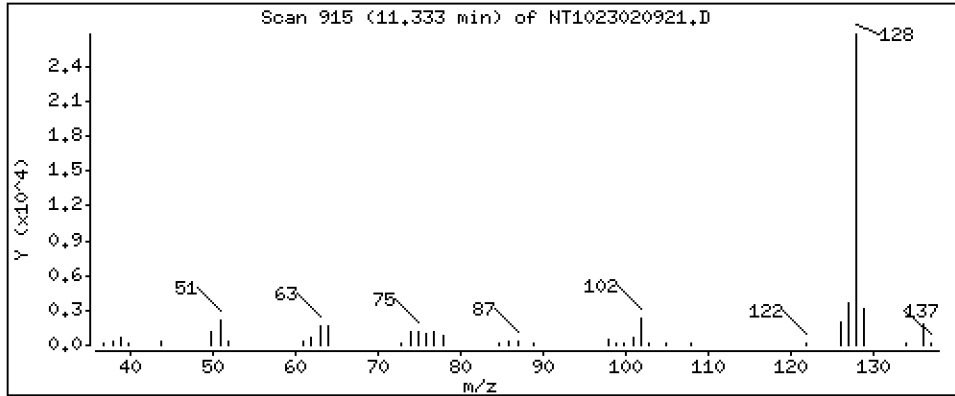
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 0,5208 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

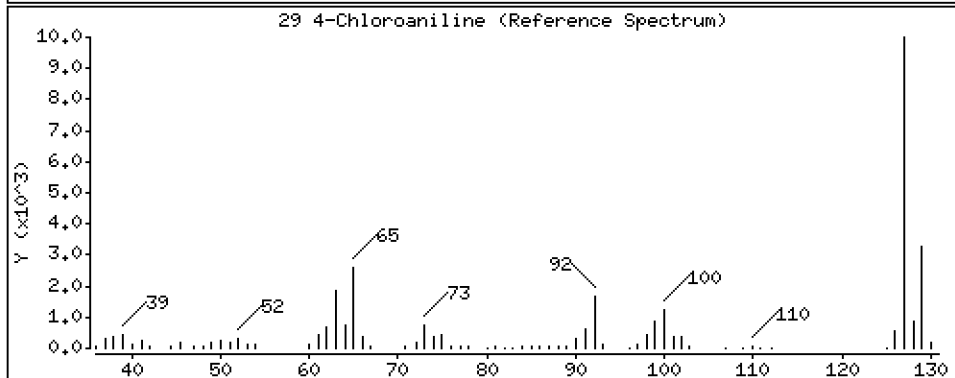
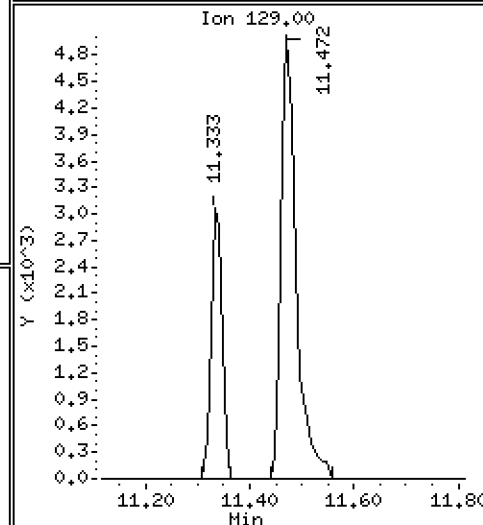
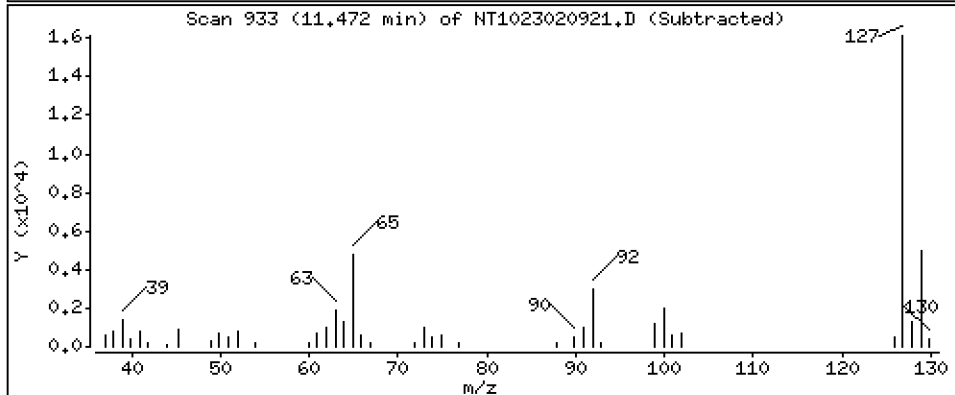
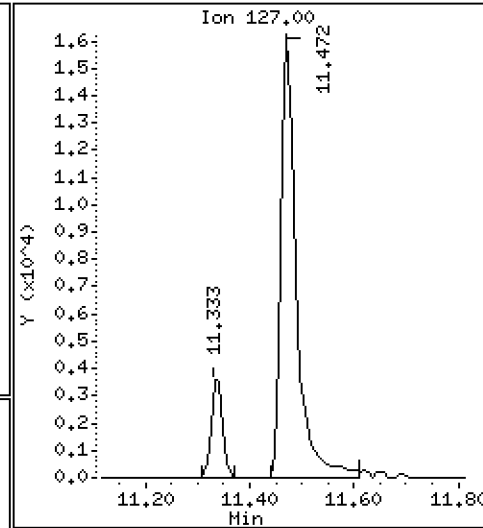
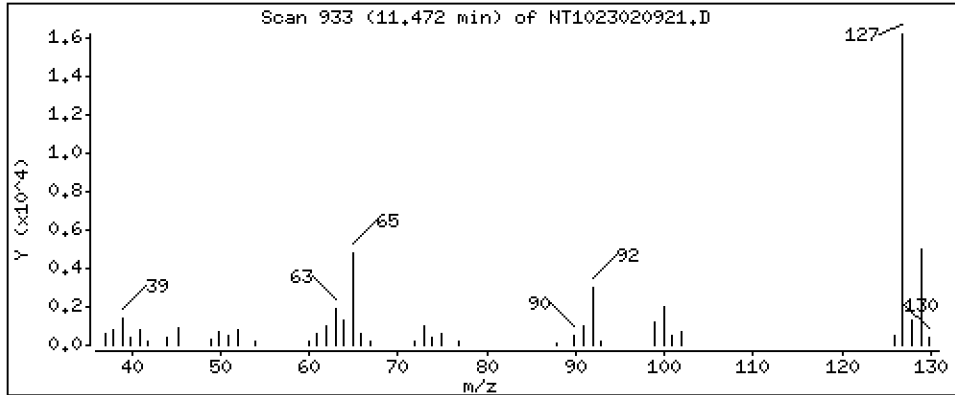
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 0,9254 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

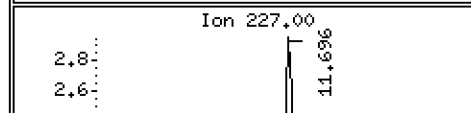
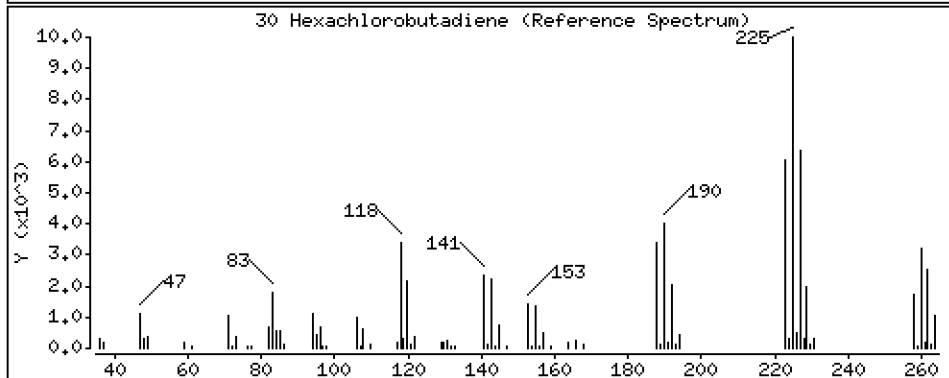
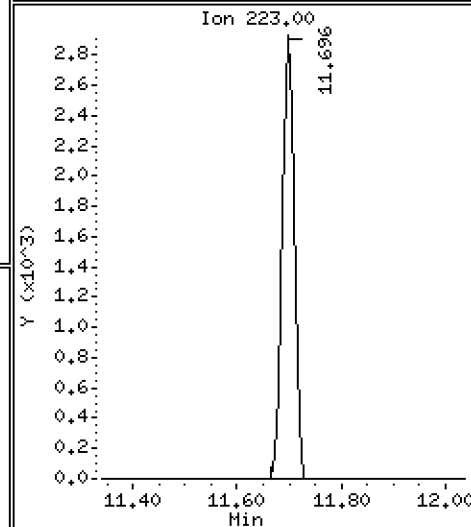
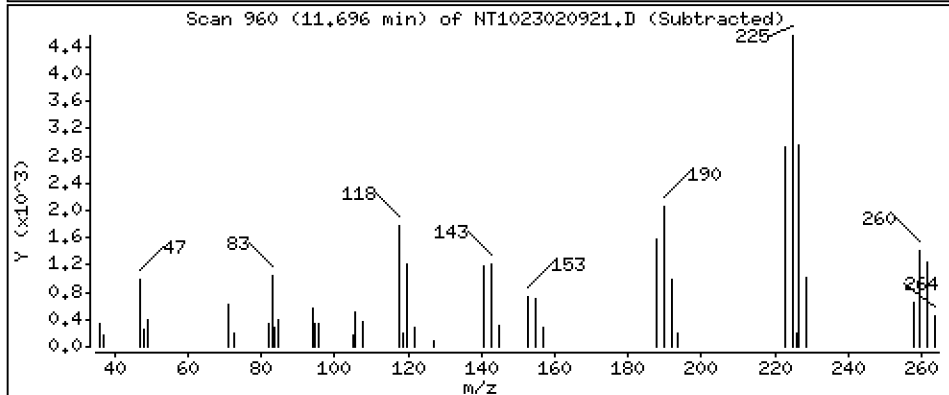
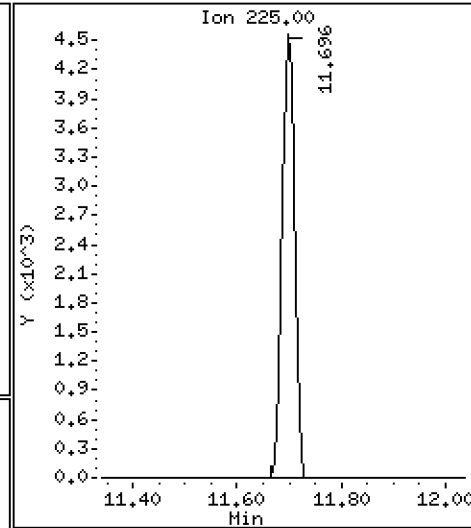
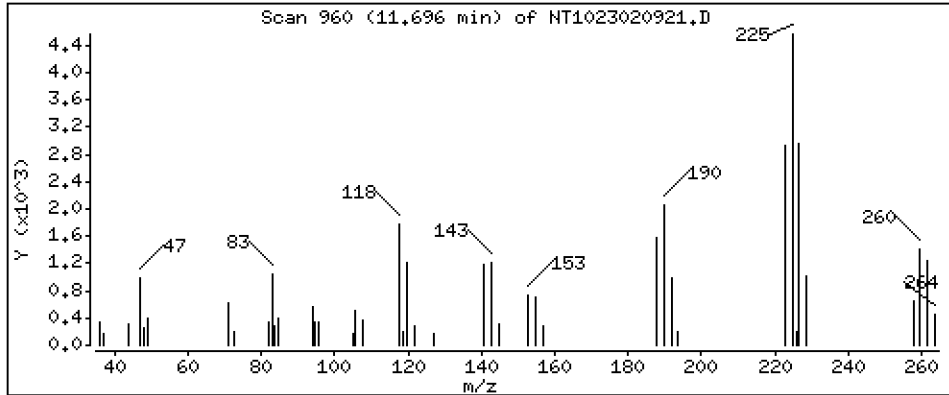
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,5539 ug/mL



Date : 10-FEB-2023 01:47

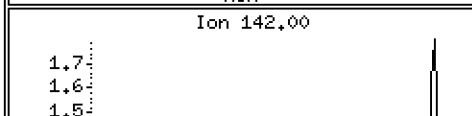
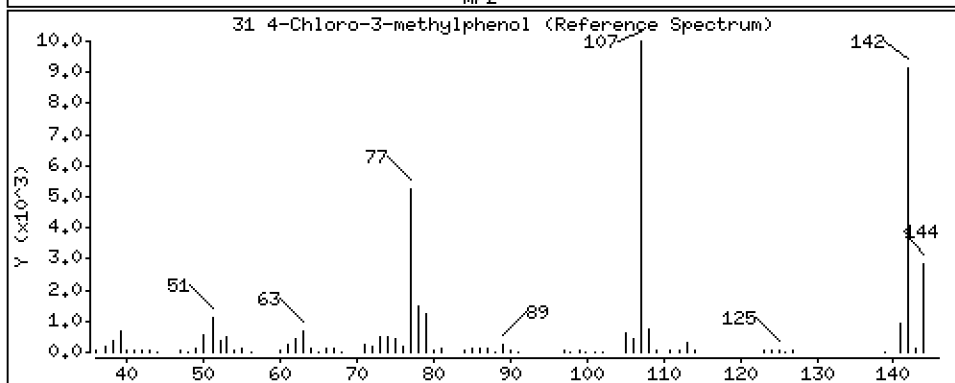
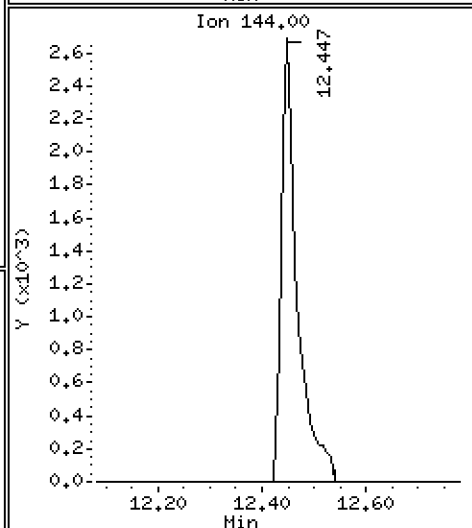
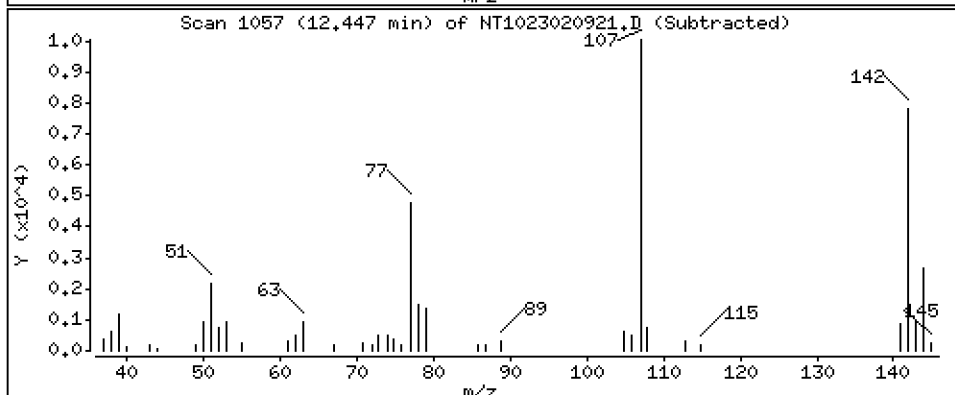
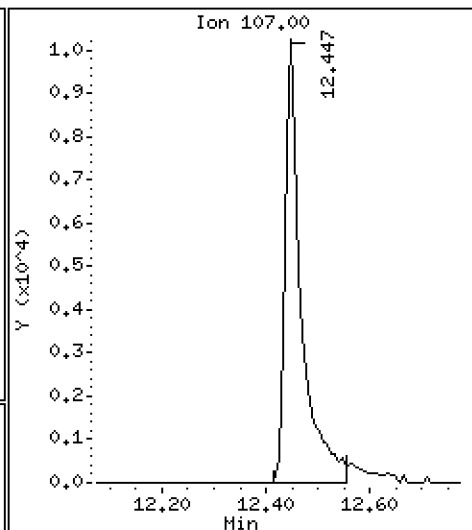
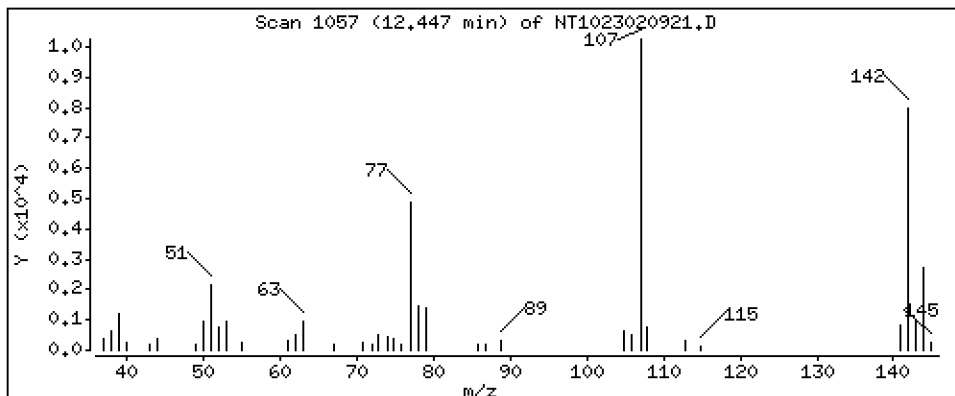
Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

31 4-Chloro-3-methylphenol Concentration: 0,9240 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

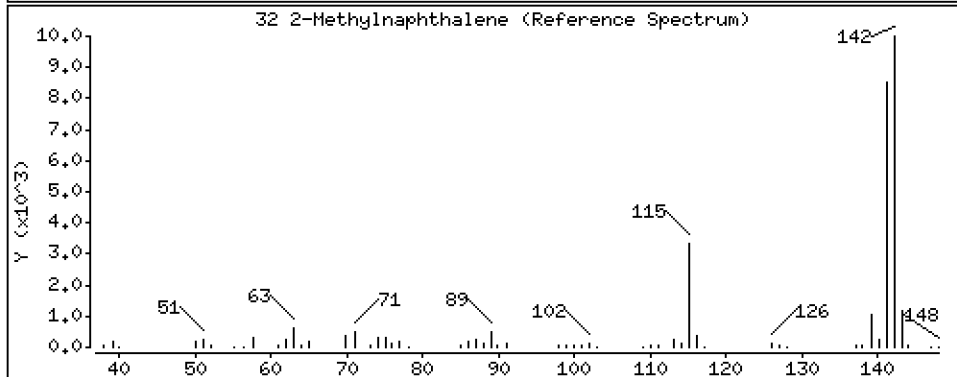
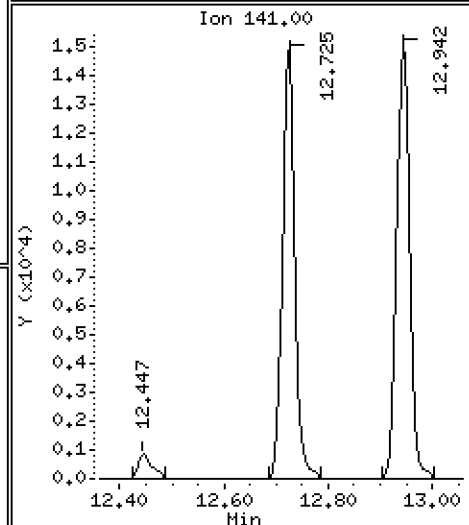
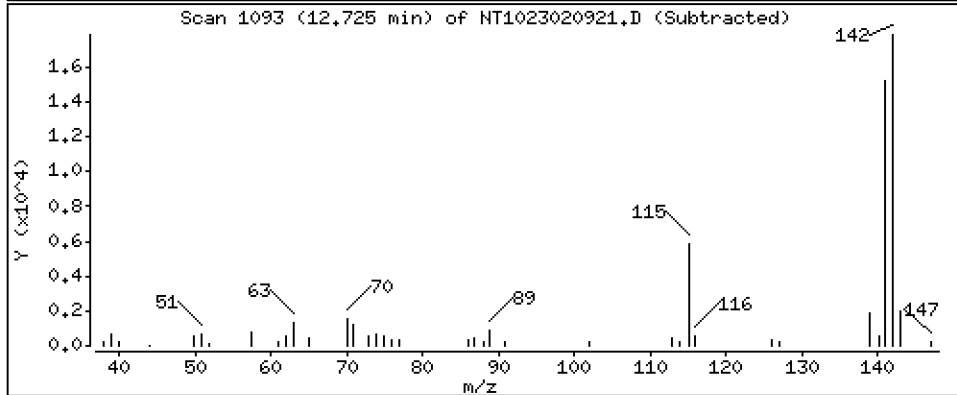
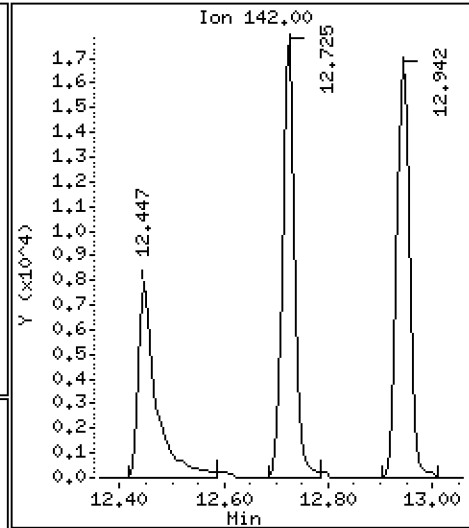
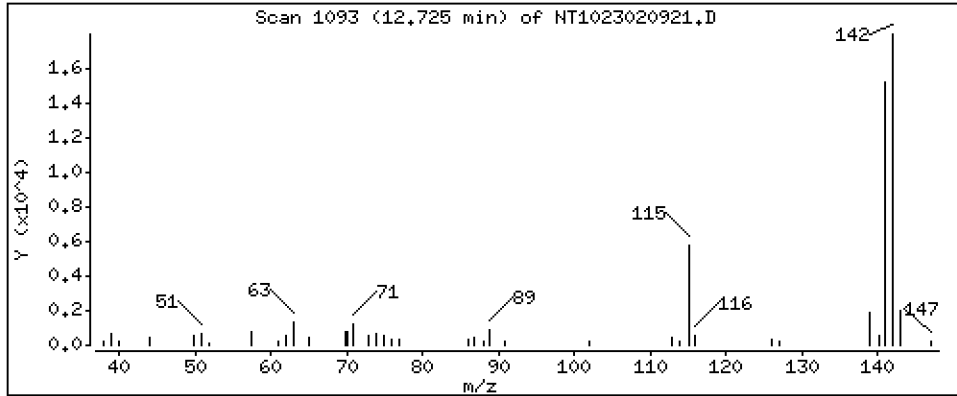
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,5035 ug/mL



Date : 10-FEB-2023 01:47

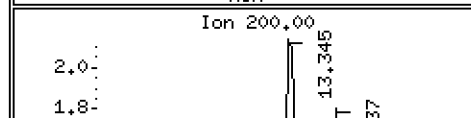
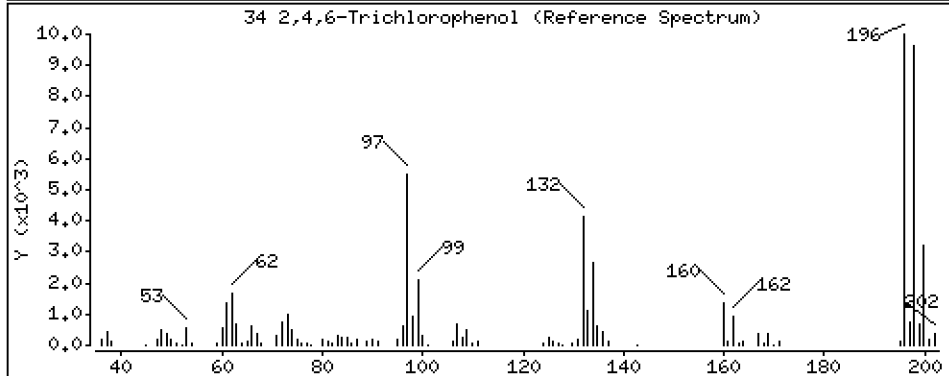
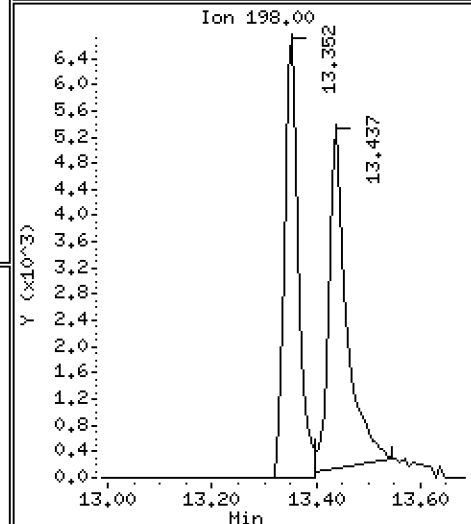
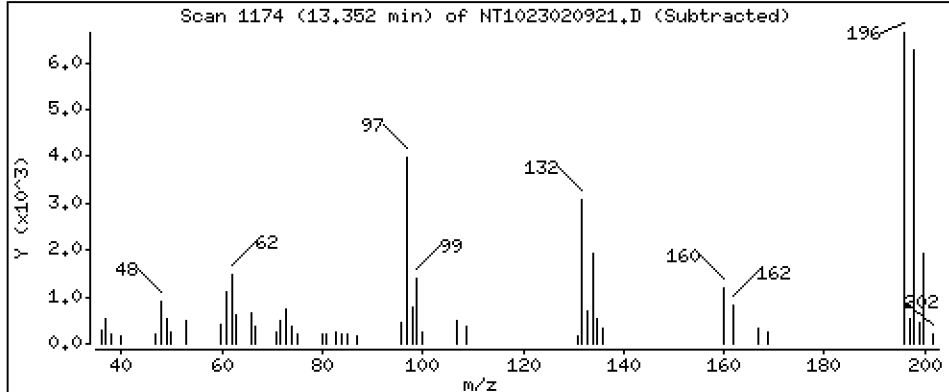
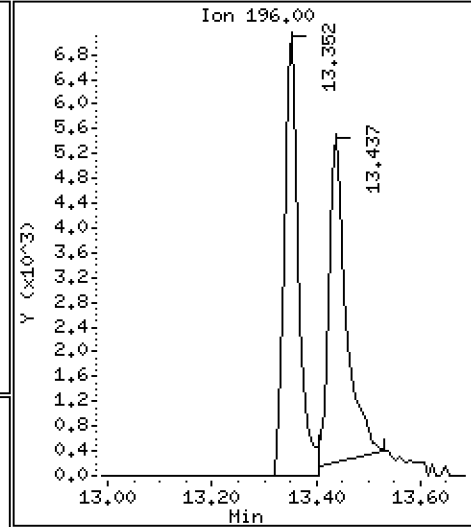
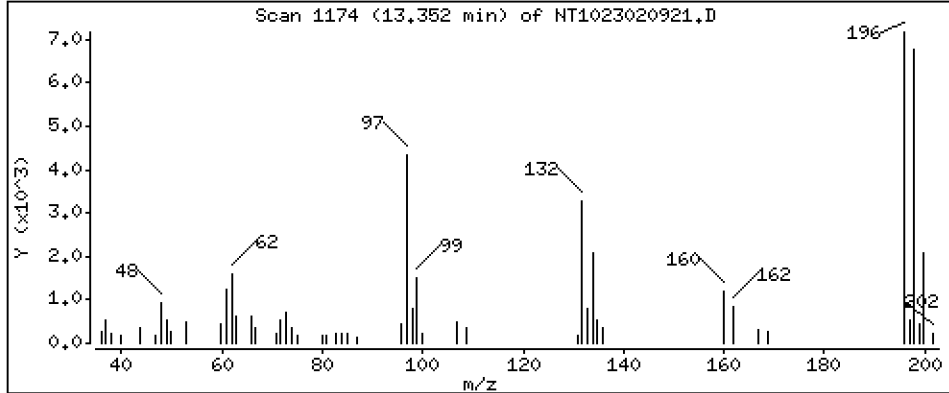
Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

34 2,4,6-Trichlorophenol Concentration: 0,9743 ug/mL



Date : 10-FEB-2023 01:47

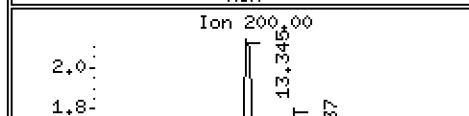
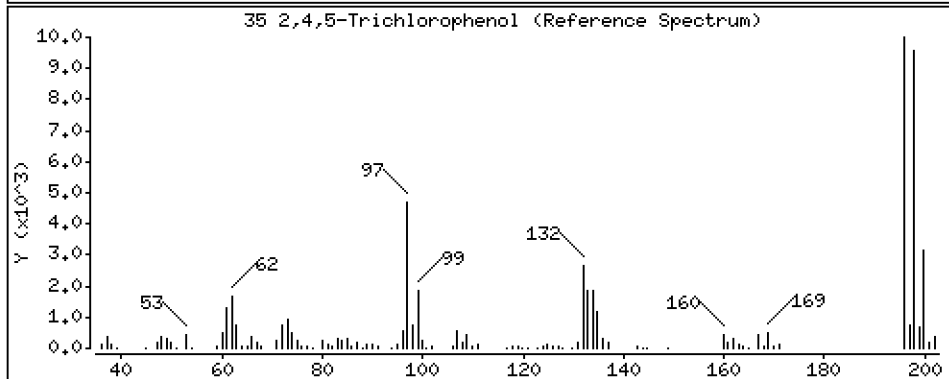
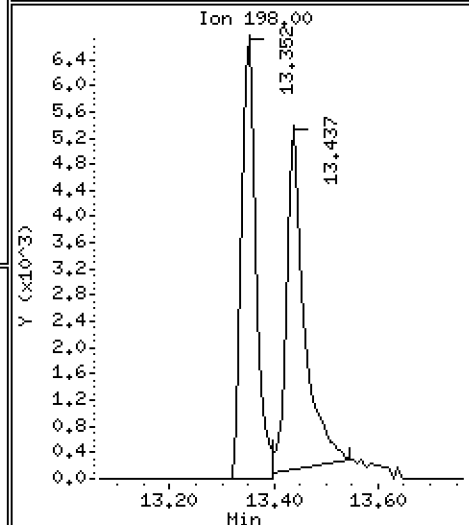
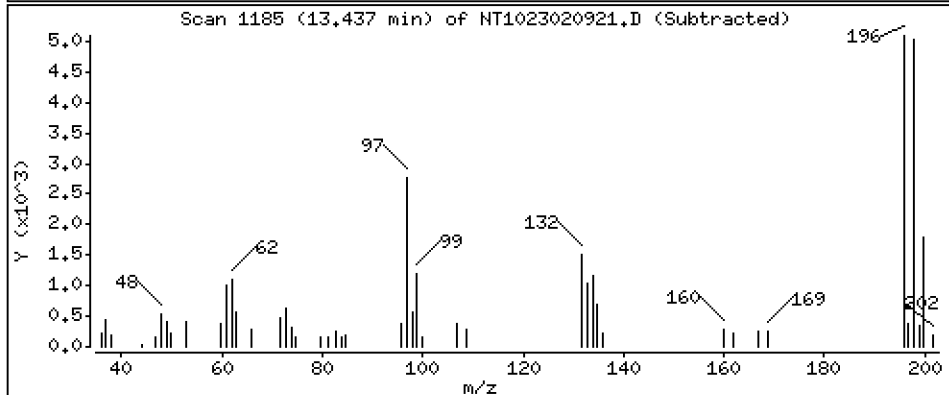
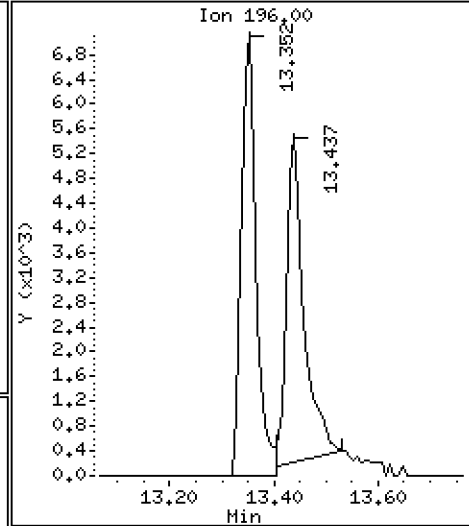
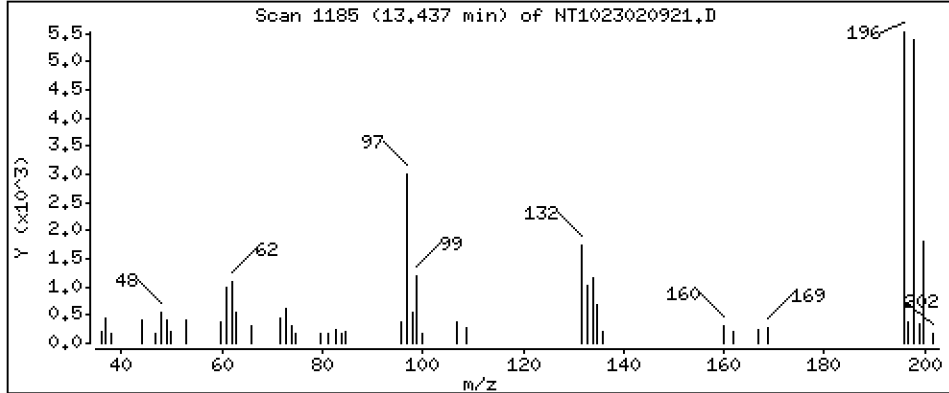
Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

35 2,4,5-Trichlorophenol Concentration: 0,8255 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

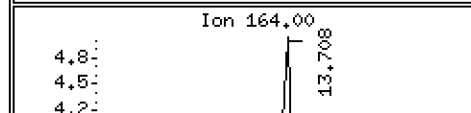
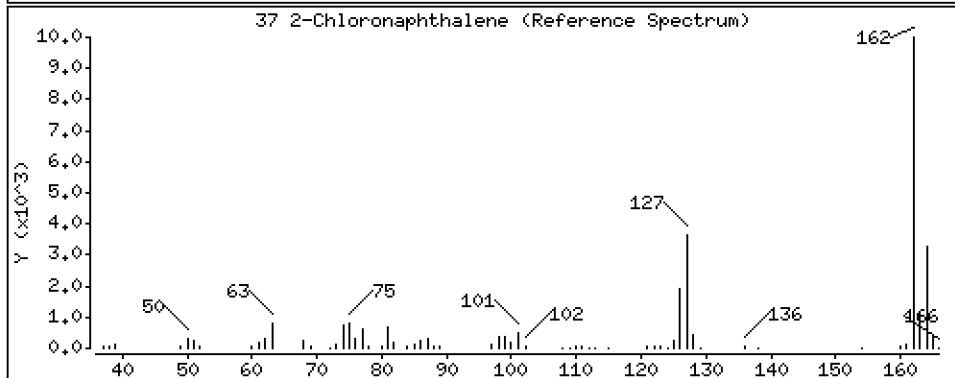
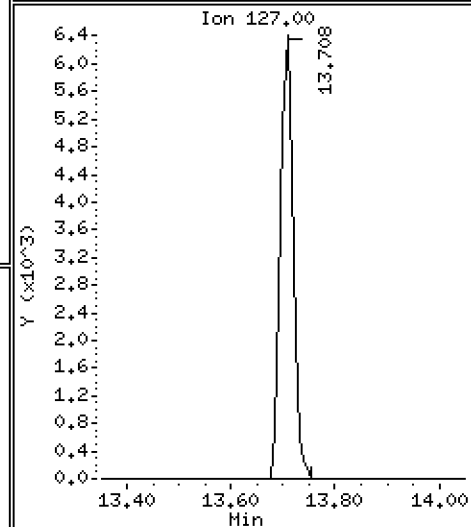
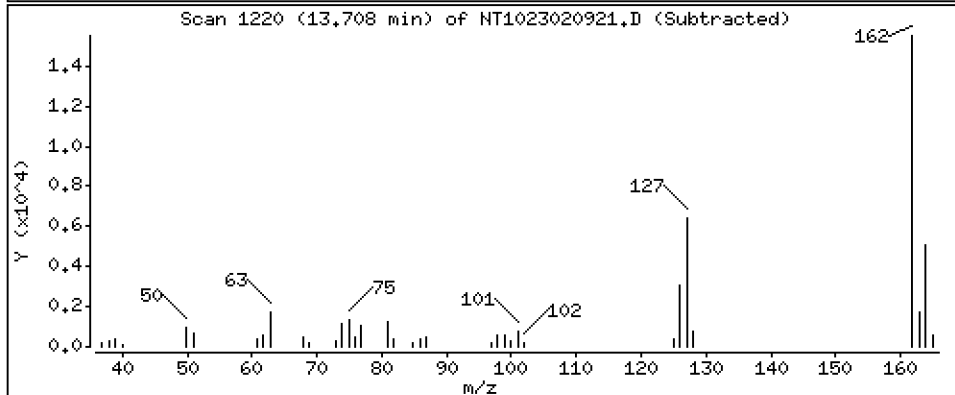
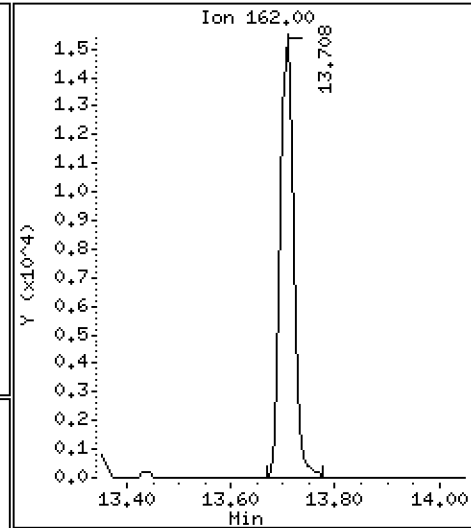
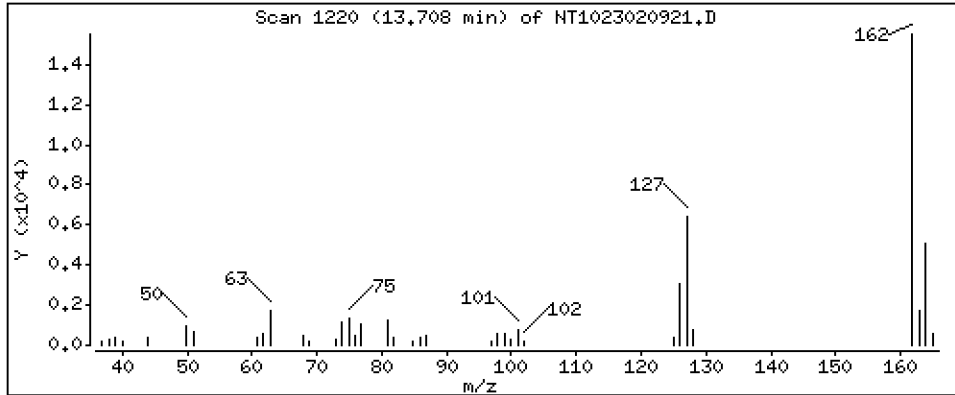
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 0,5402 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

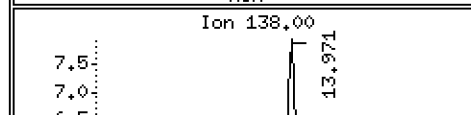
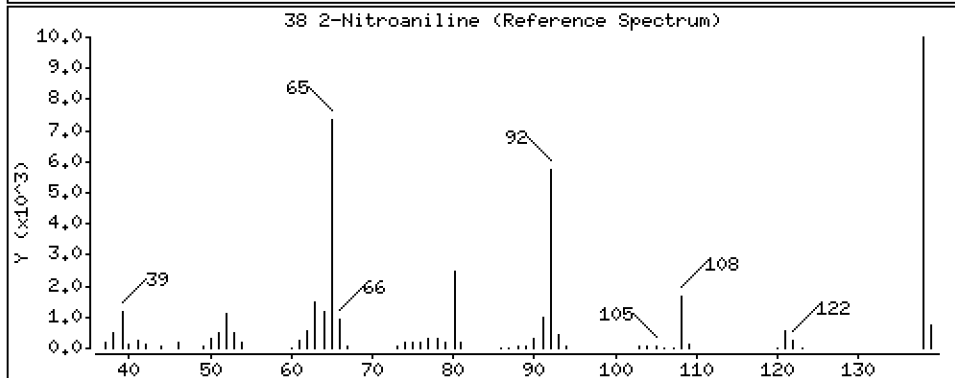
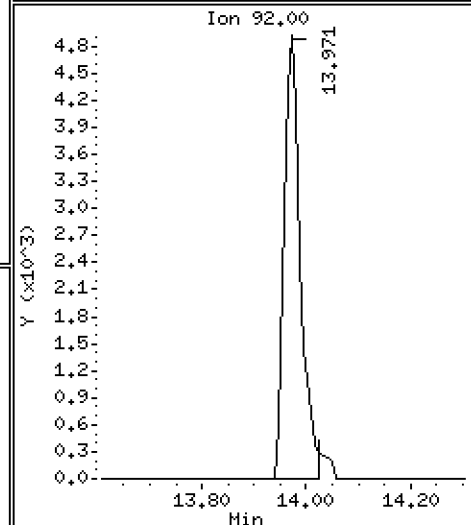
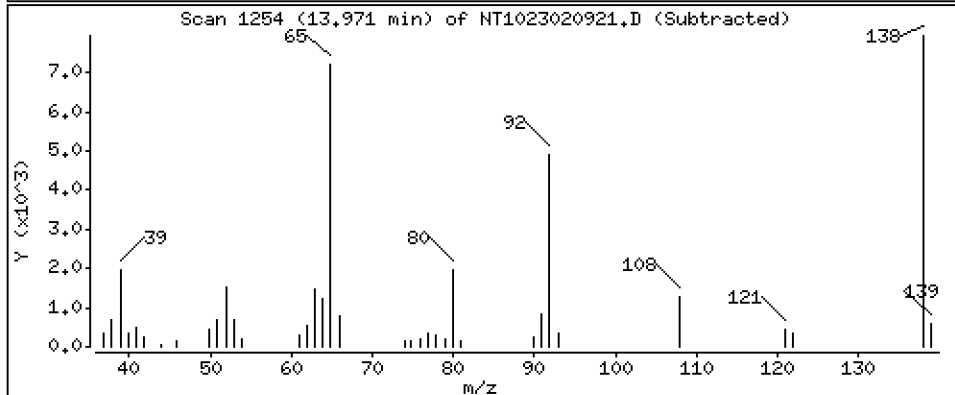
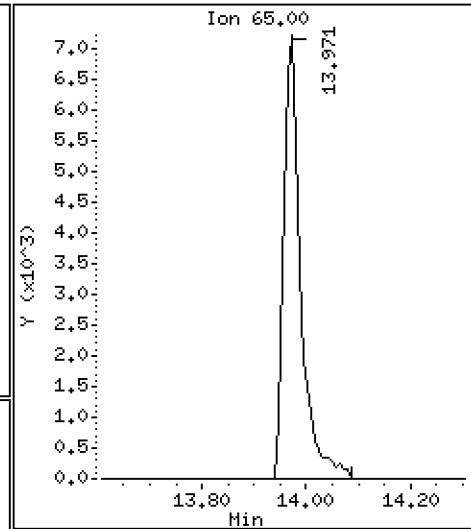
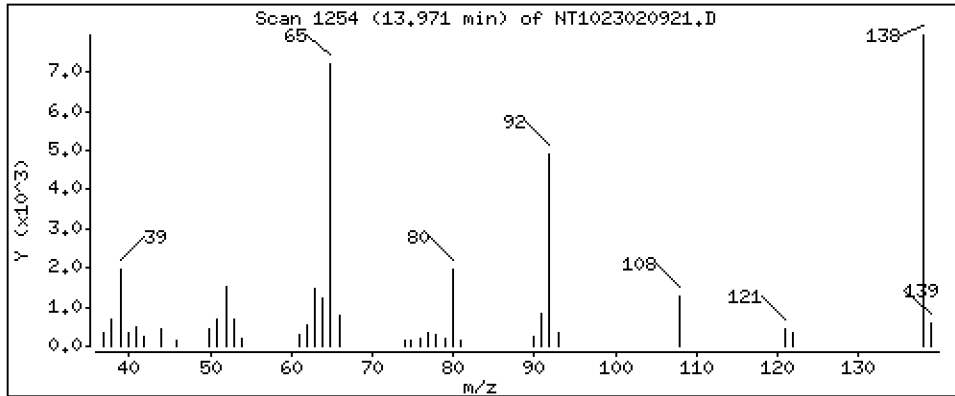
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

38 2-Nitroaniline

Concentration: 1,073 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

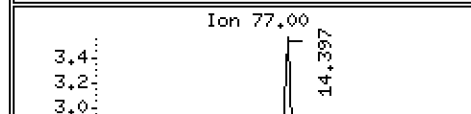
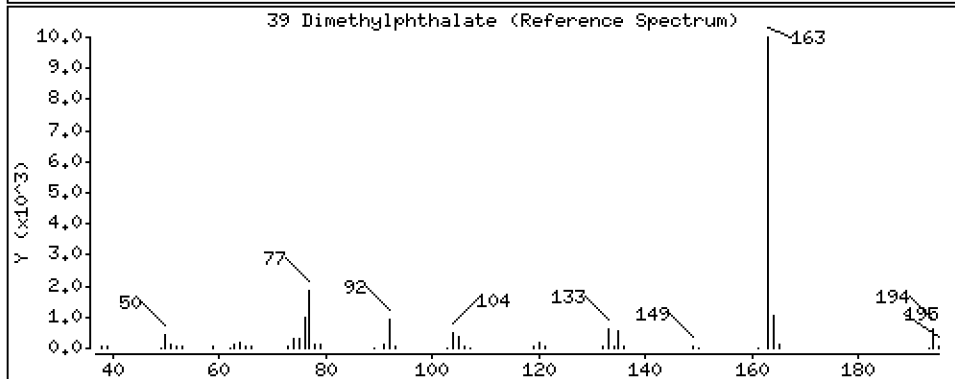
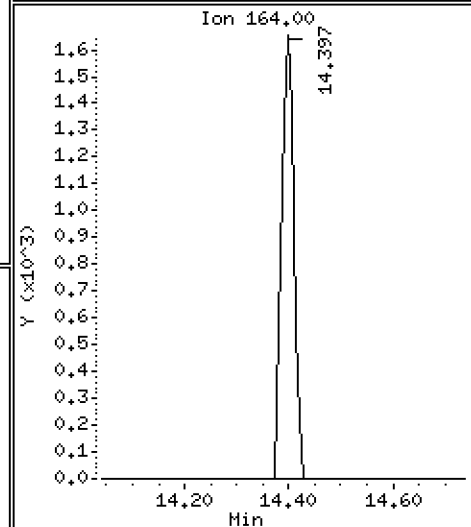
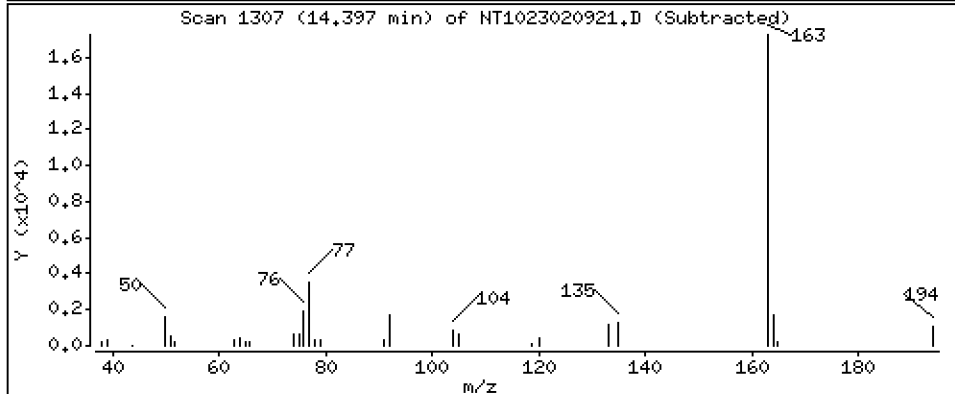
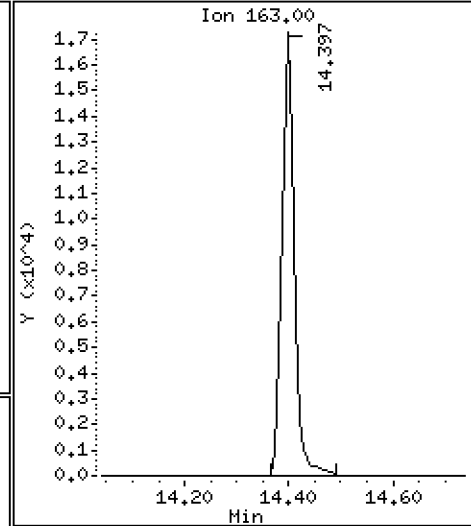
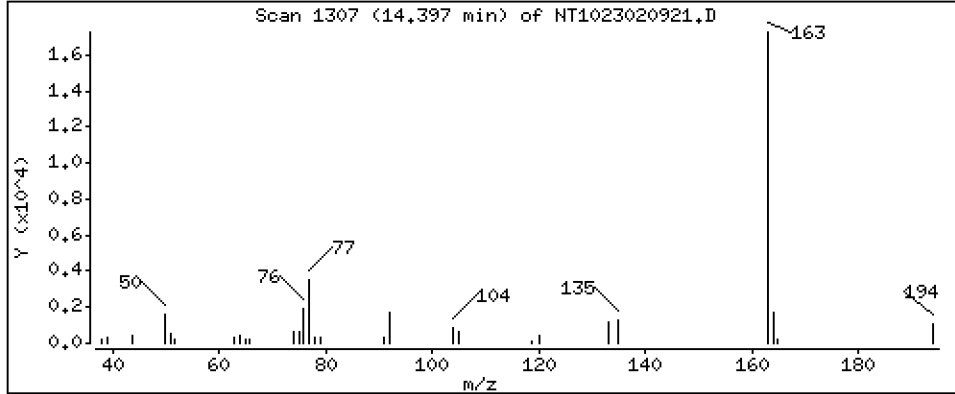
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,5335 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

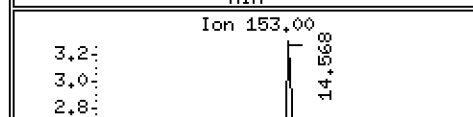
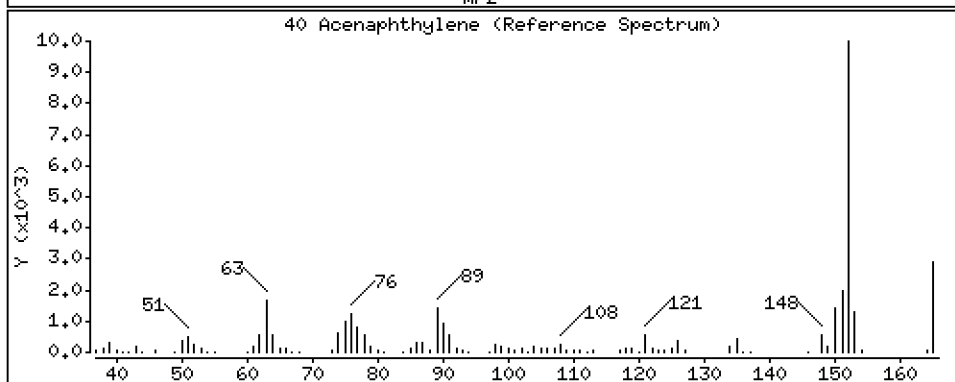
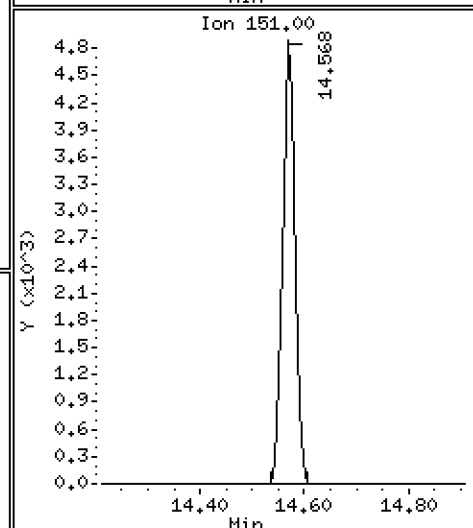
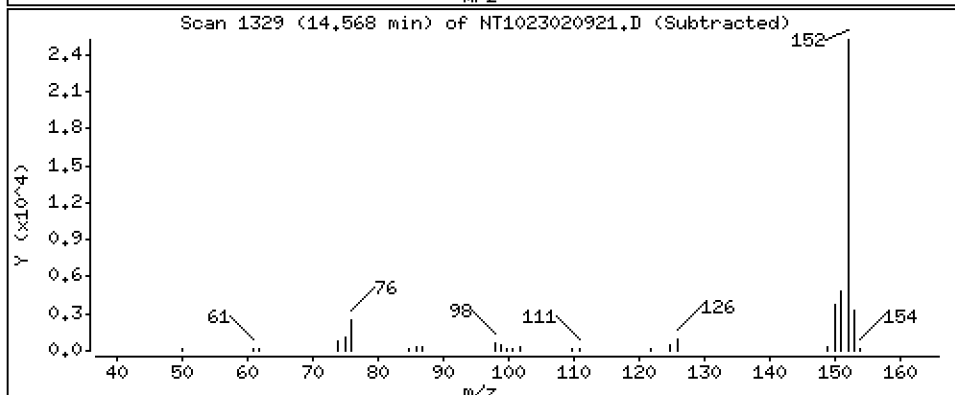
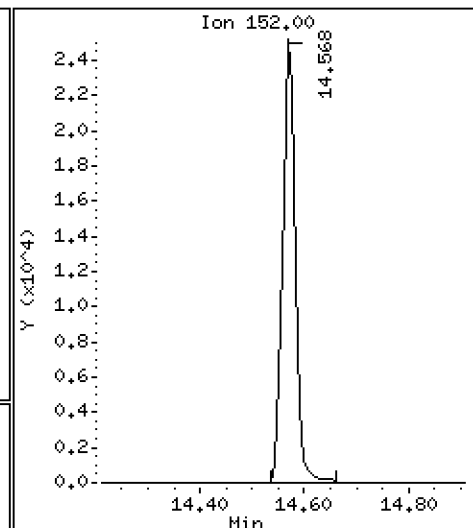
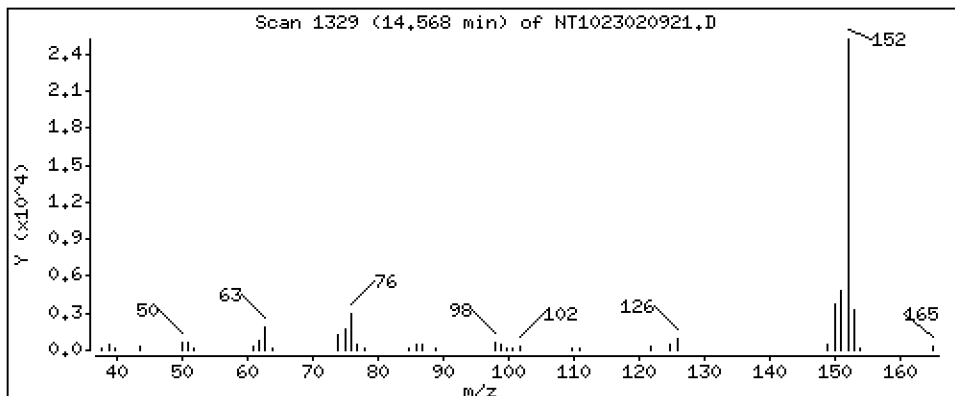
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,5413 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

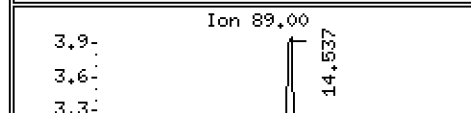
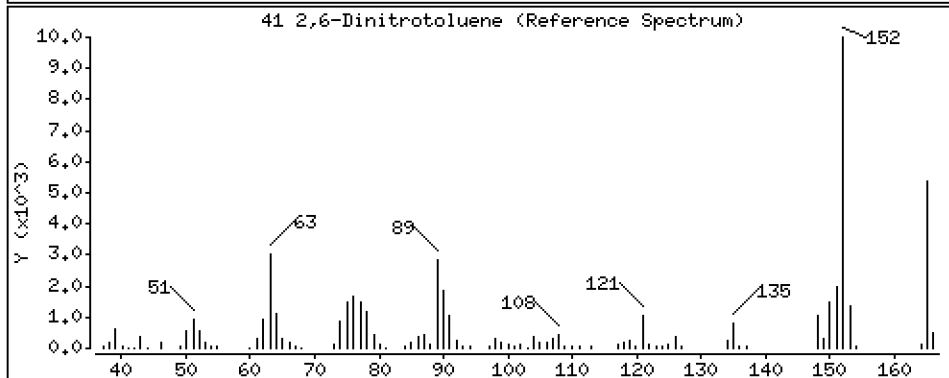
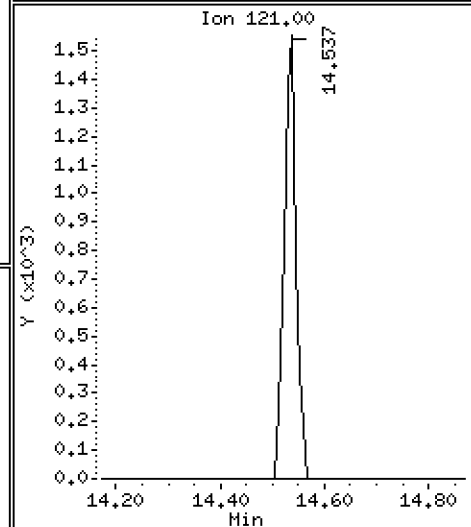
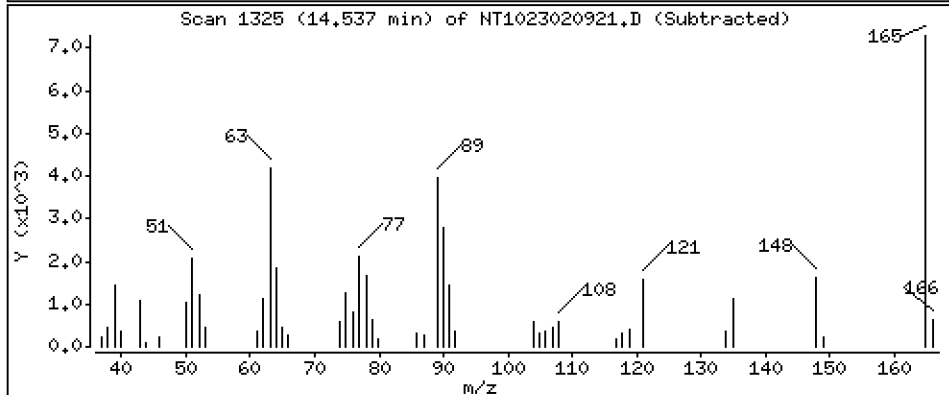
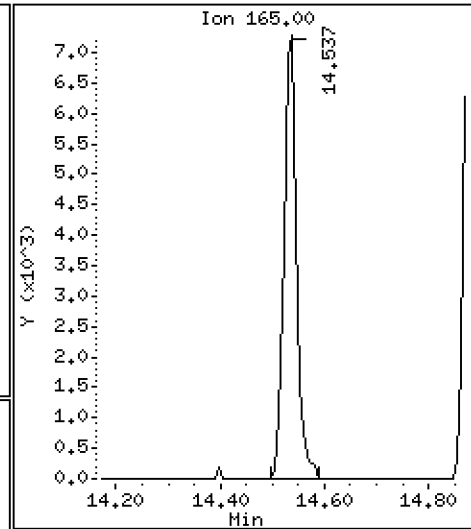
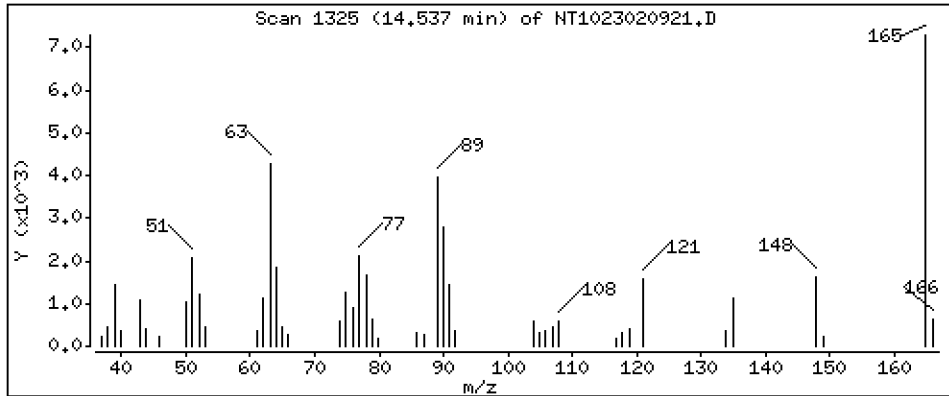
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 0,9945 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

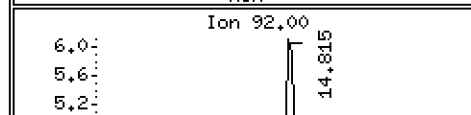
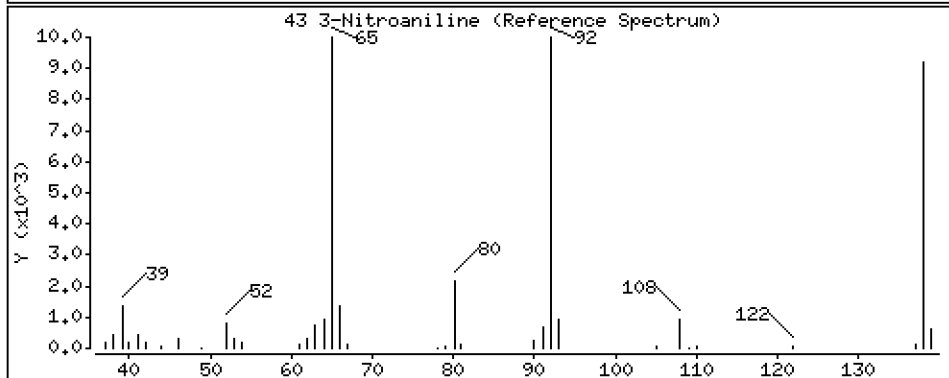
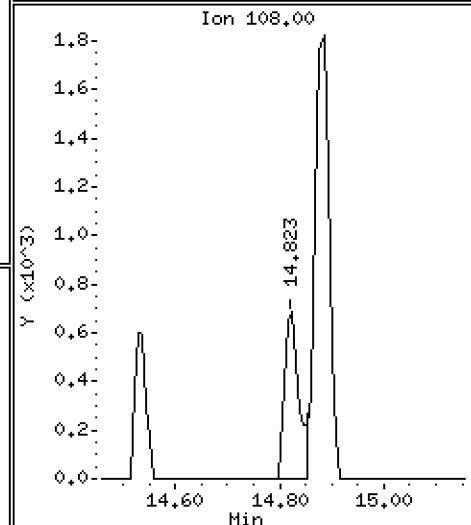
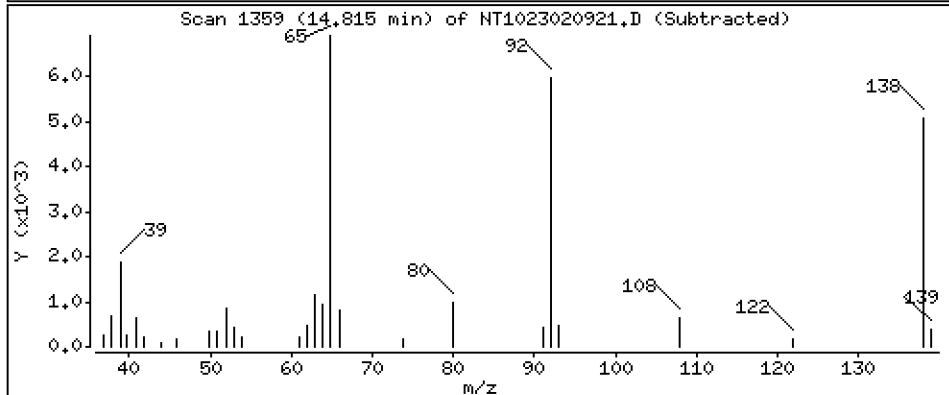
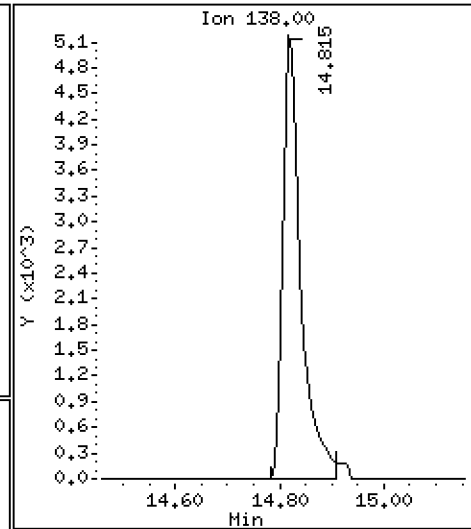
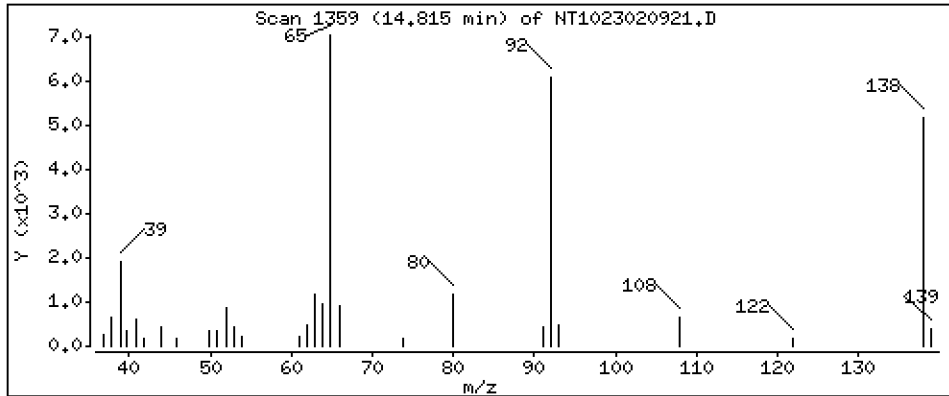
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 0,8791 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

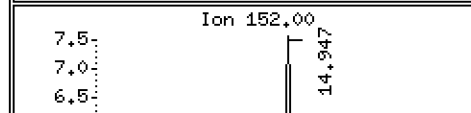
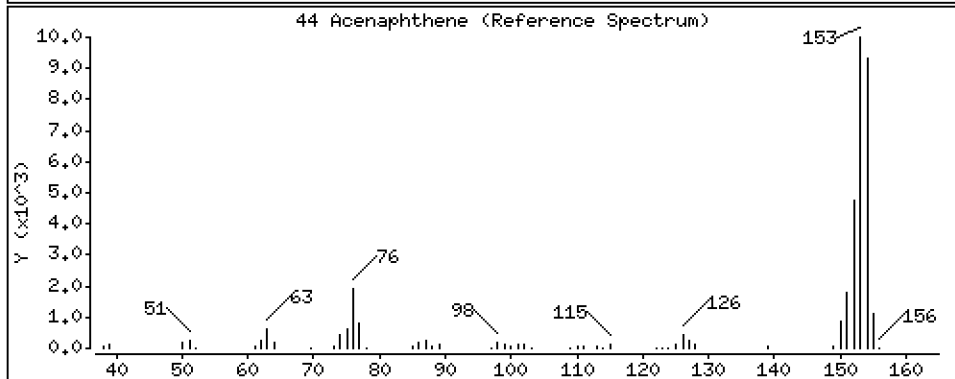
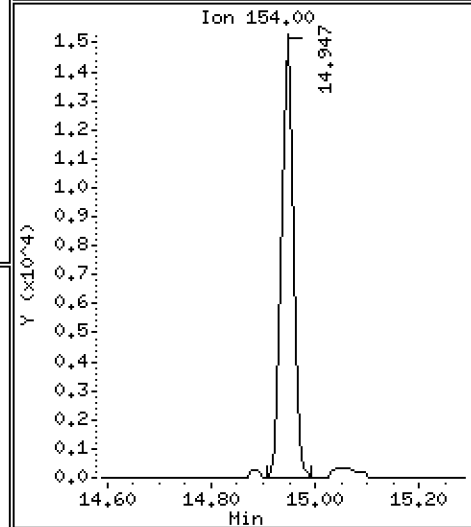
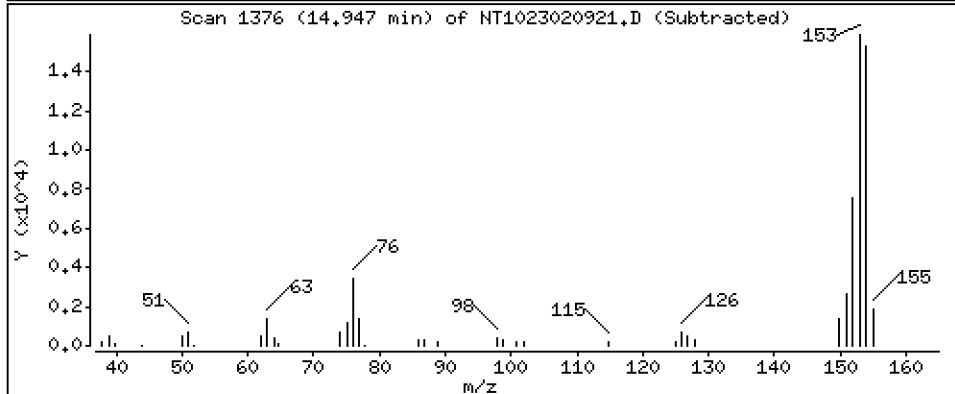
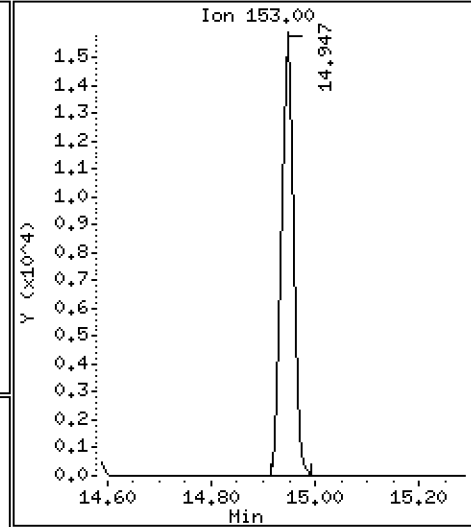
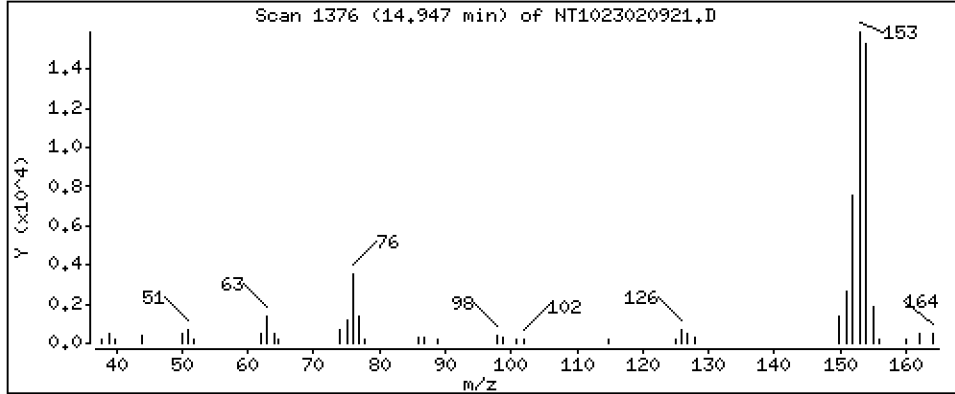
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,5226 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

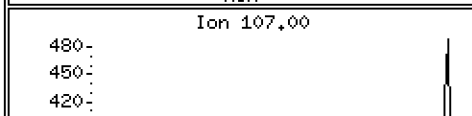
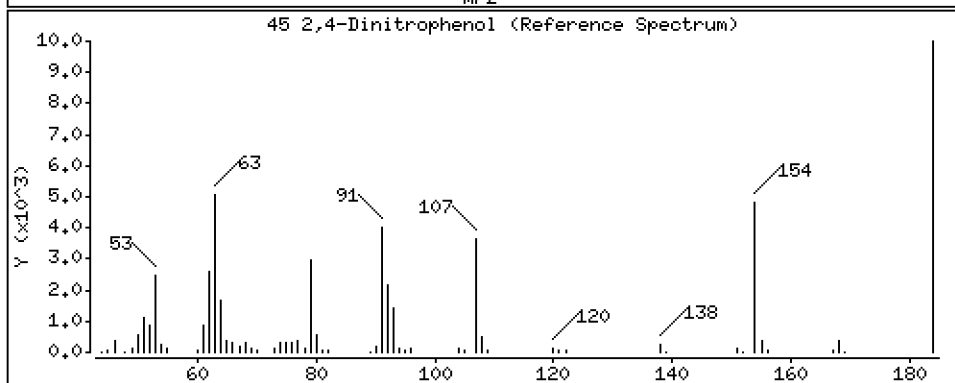
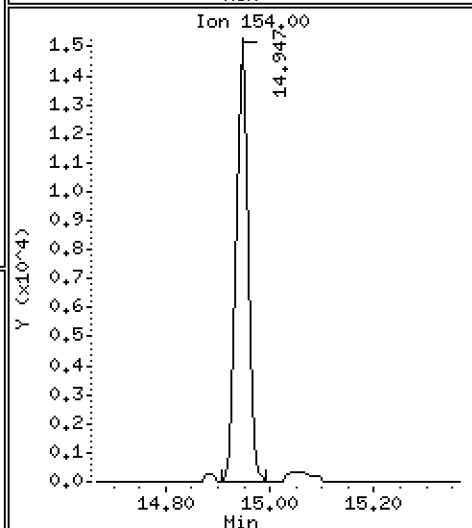
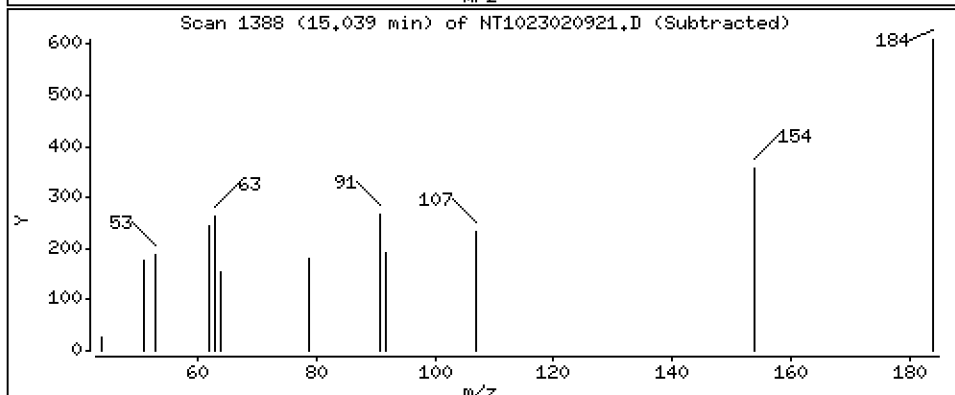
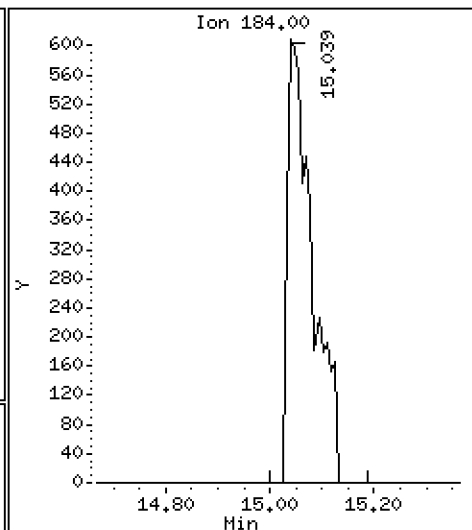
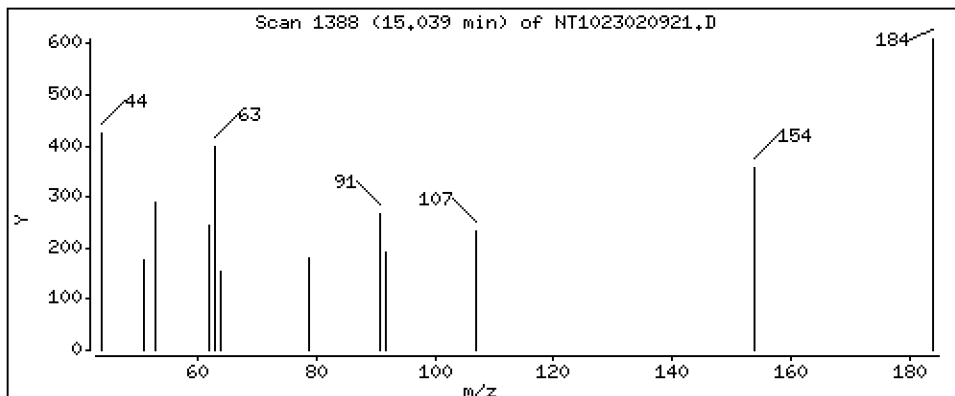
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,3258 ug/mL



Date : 10-FEB-2023 01:47

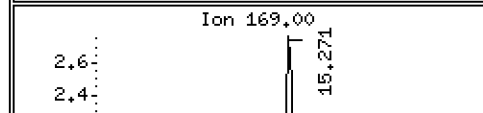
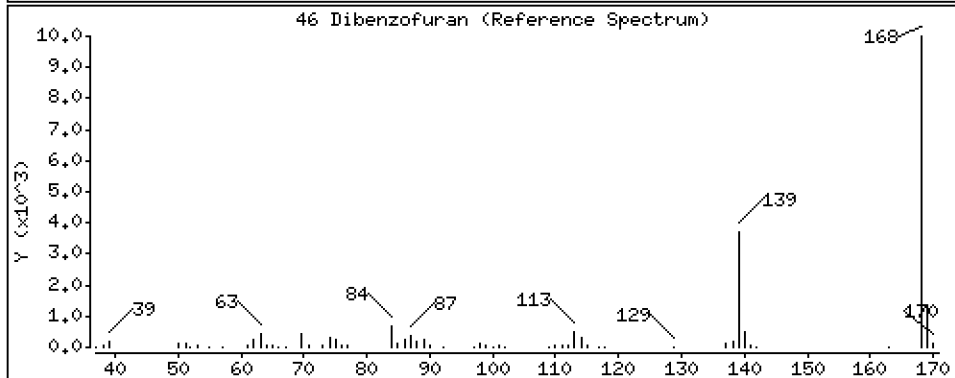
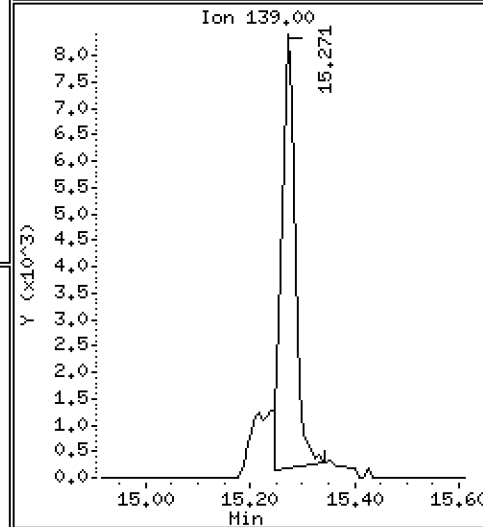
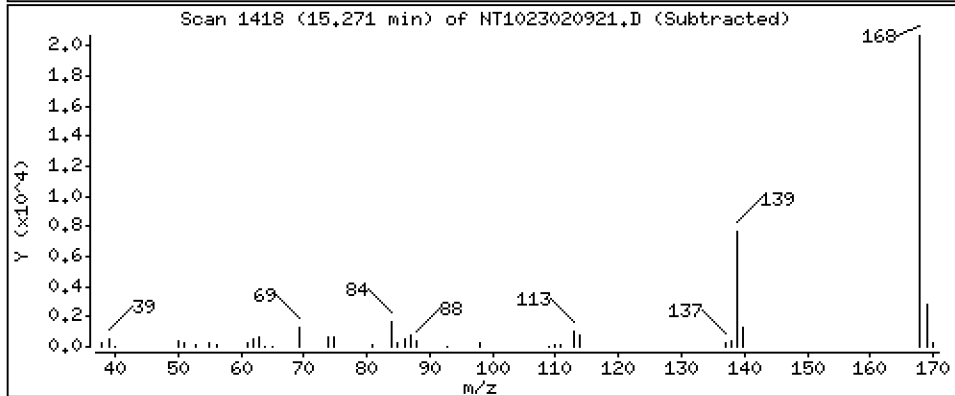
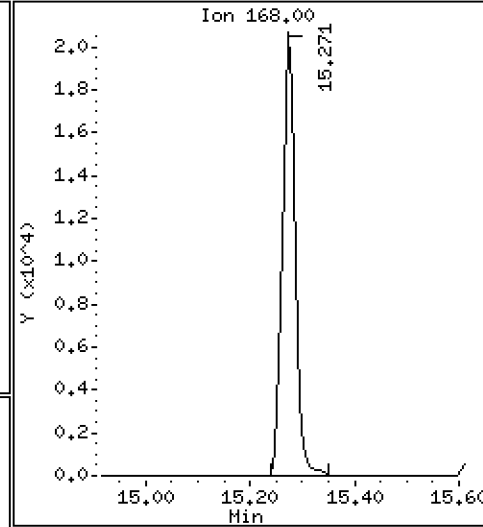
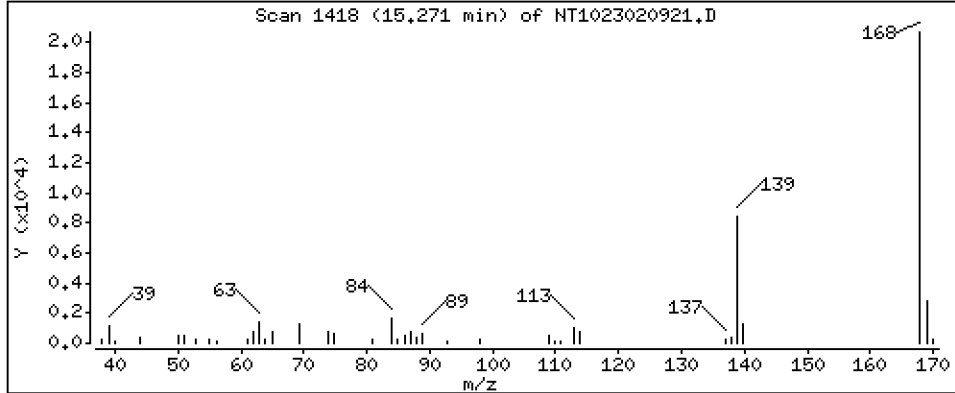
Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

46 Dibenzofuran Concentration: 0,5100 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

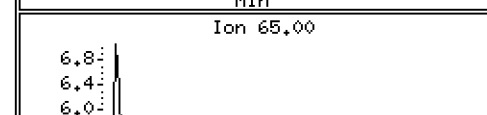
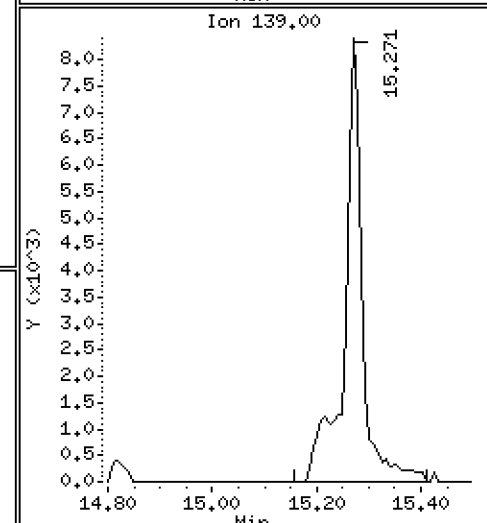
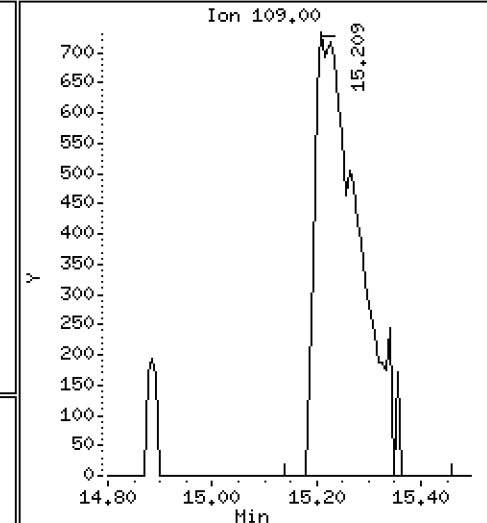
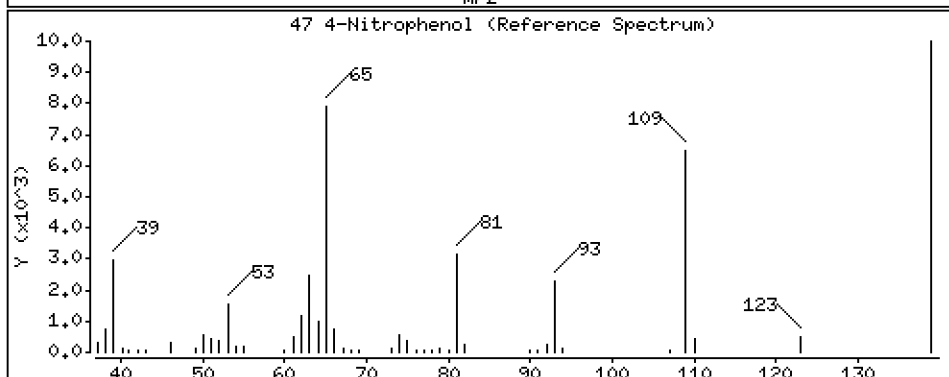
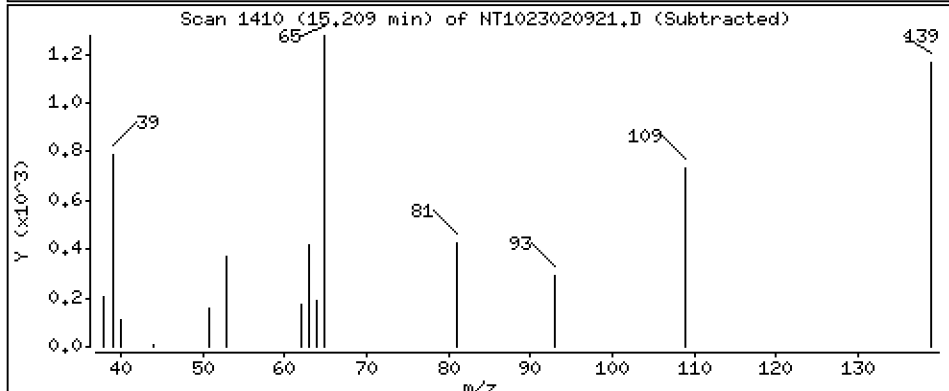
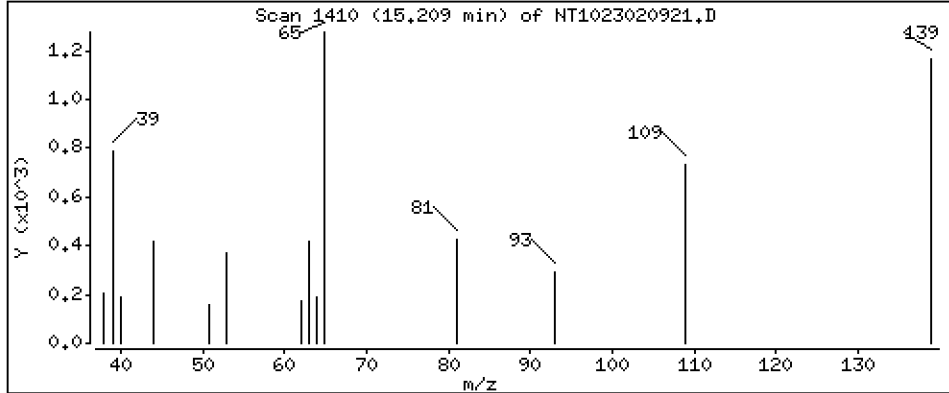
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 0,8069 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

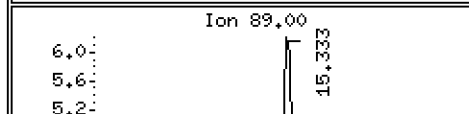
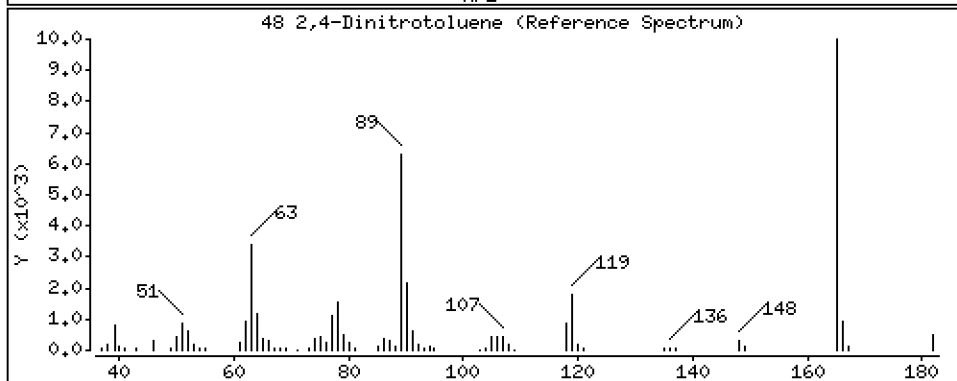
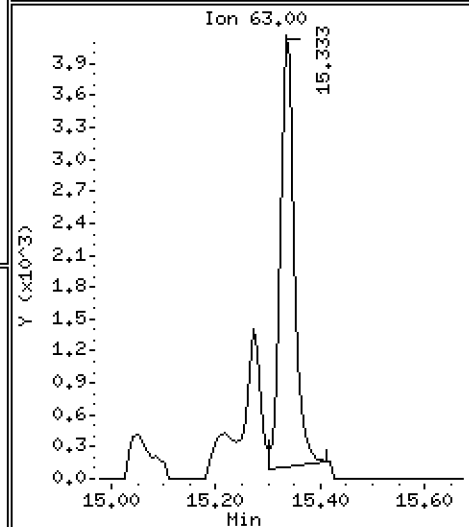
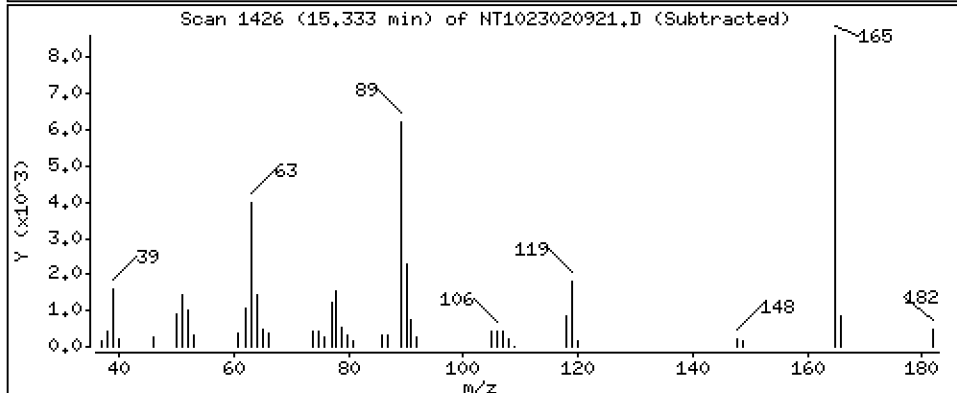
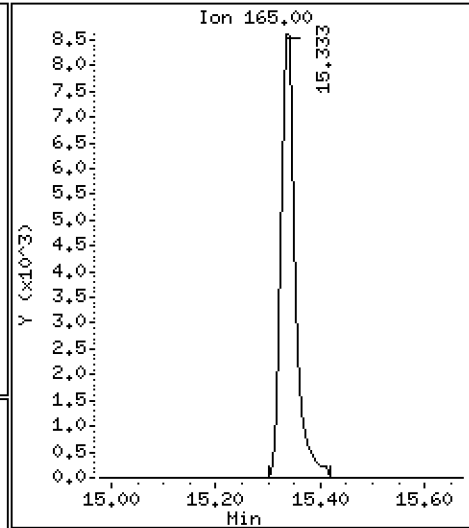
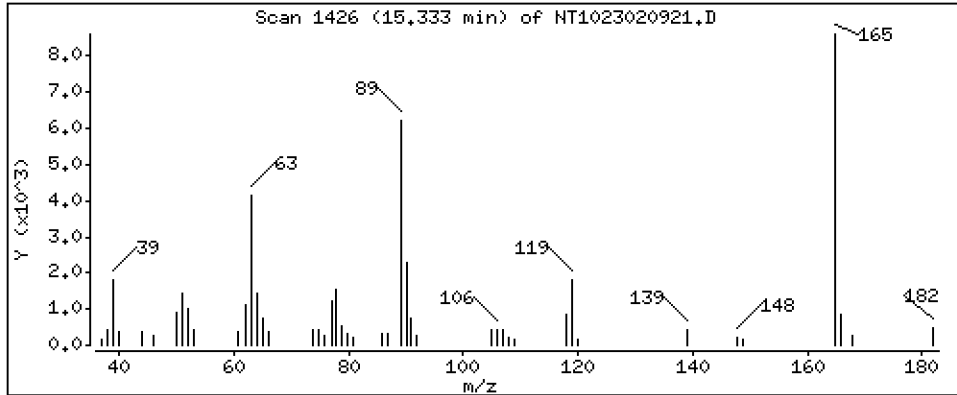
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 0,9327 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

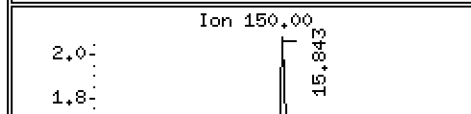
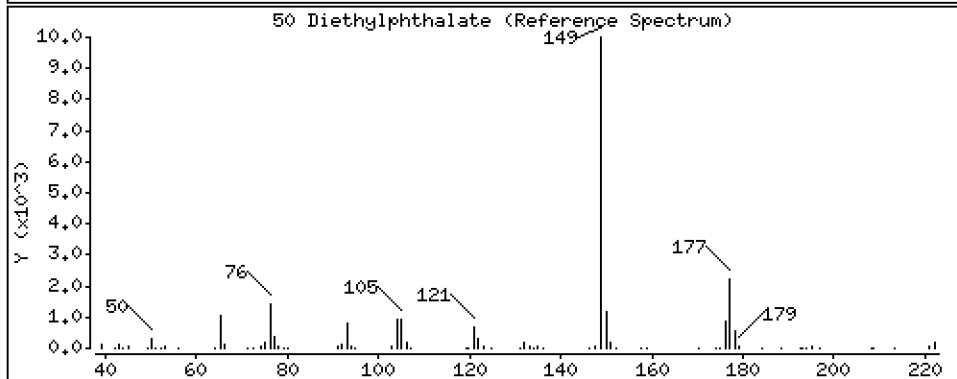
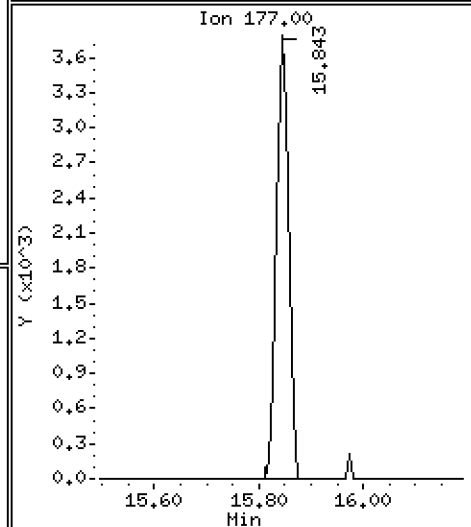
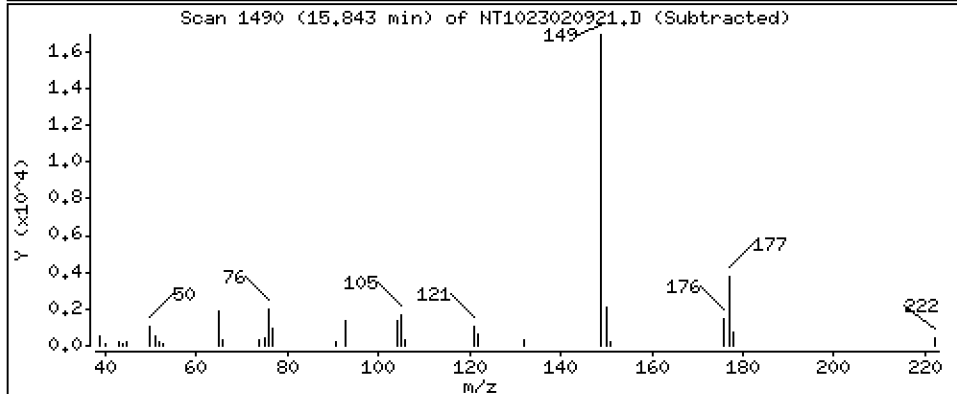
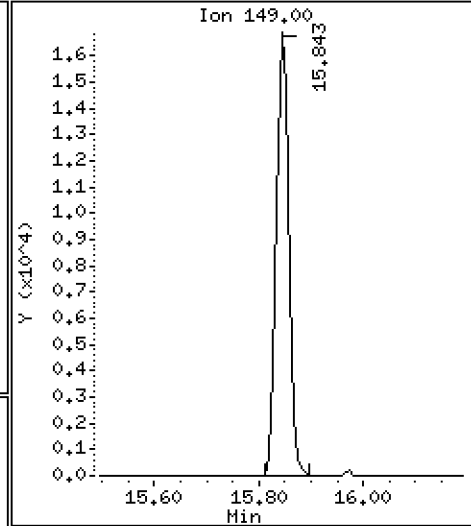
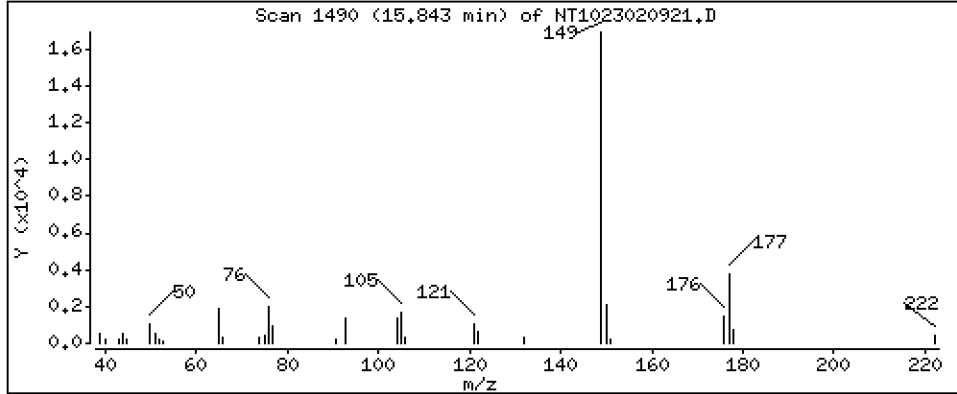
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,5331 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

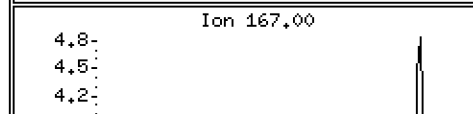
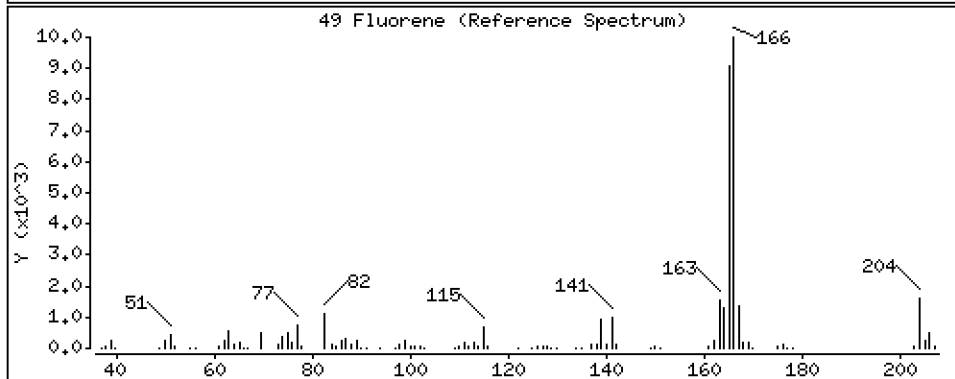
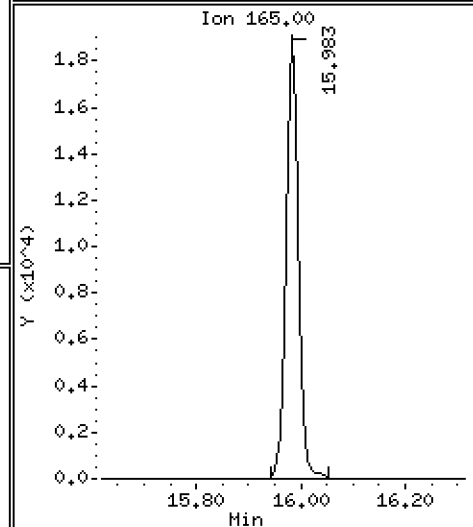
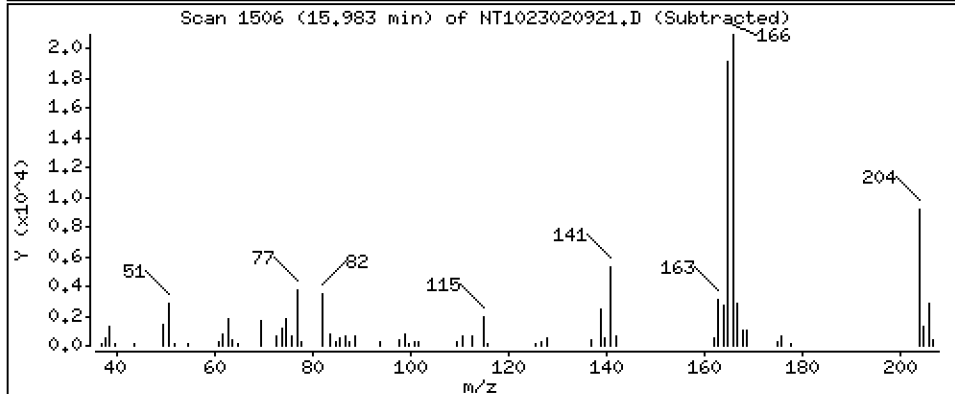
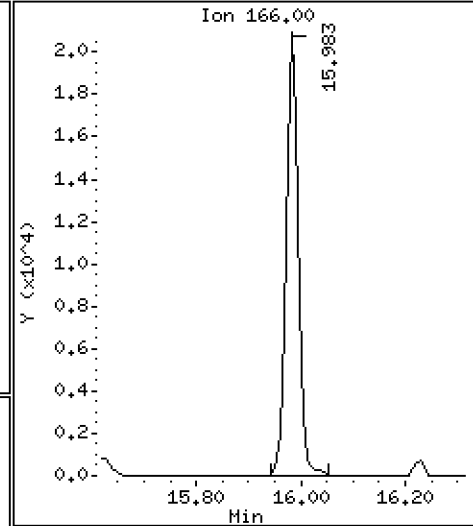
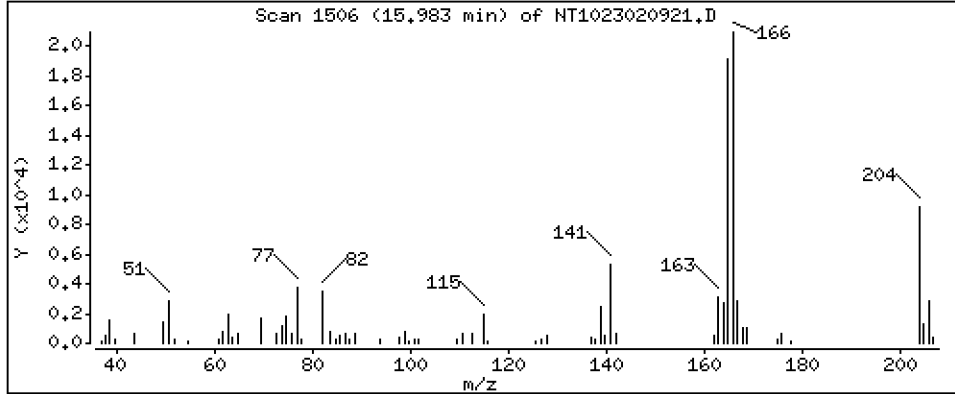
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,4527 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

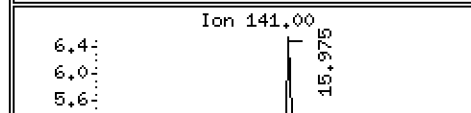
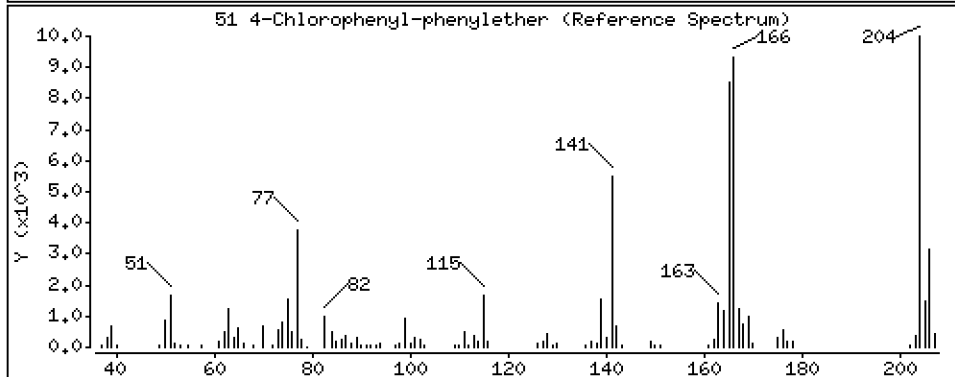
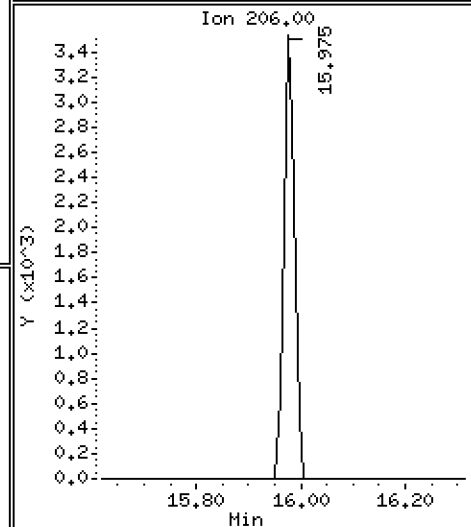
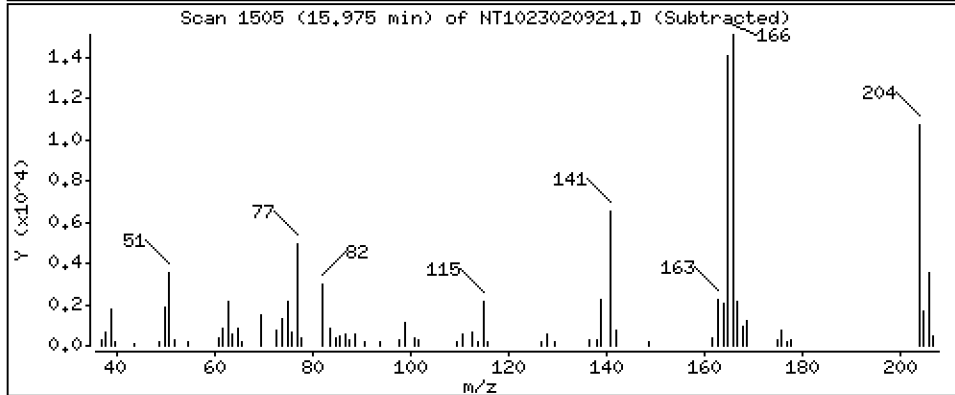
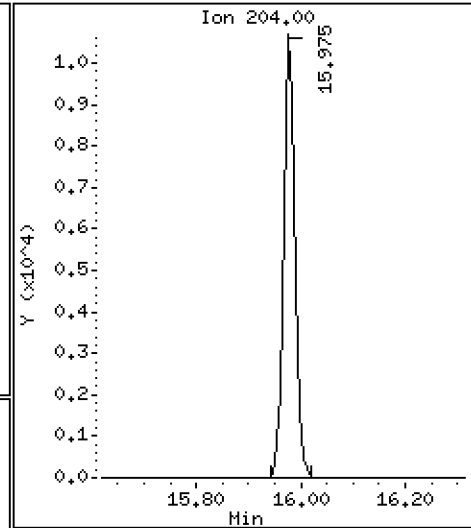
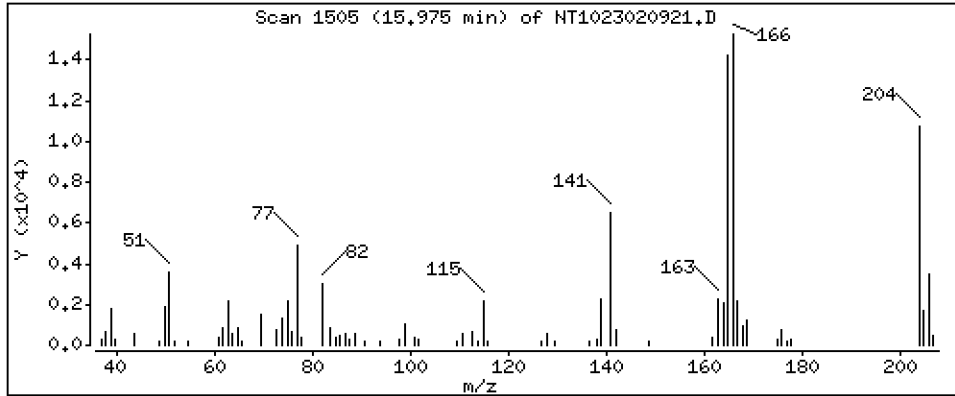
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 0,4379 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

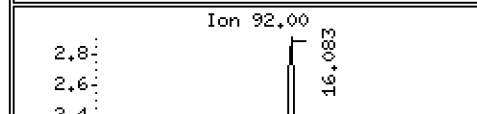
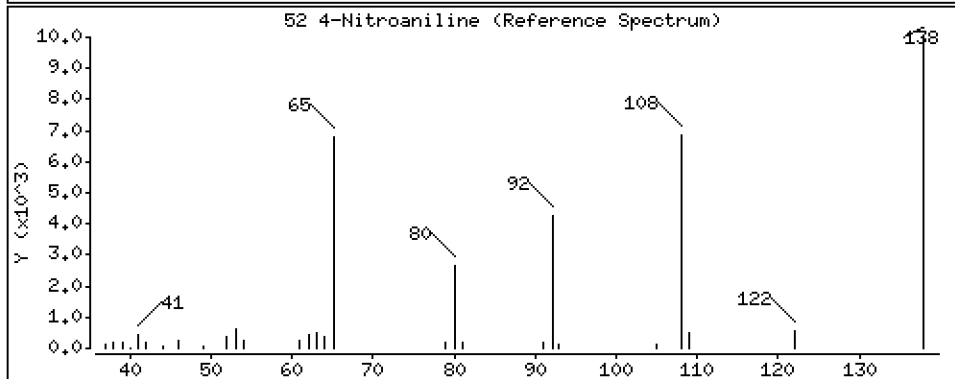
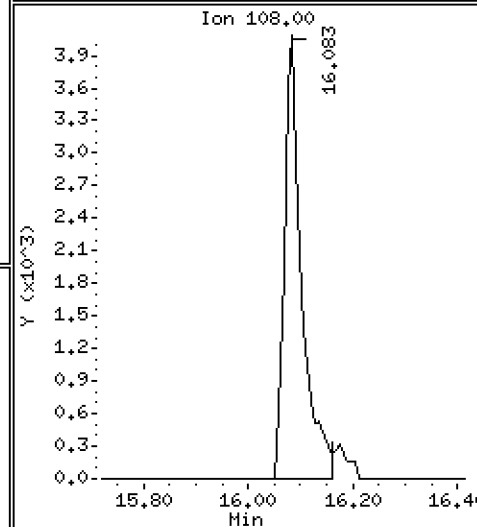
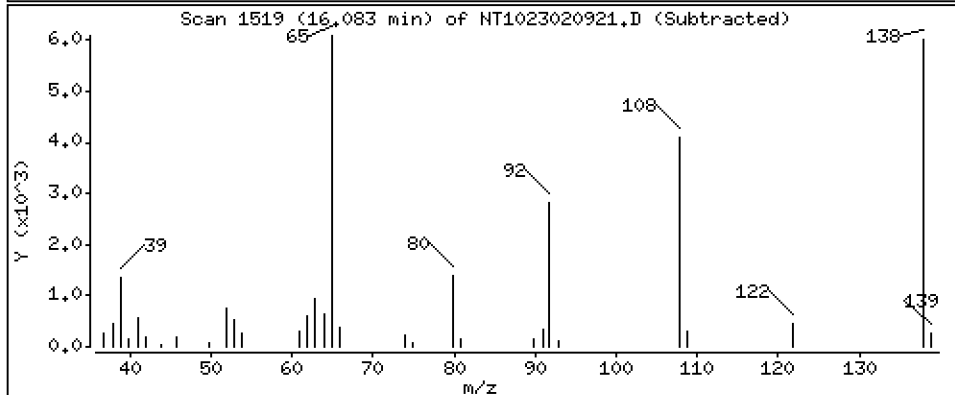
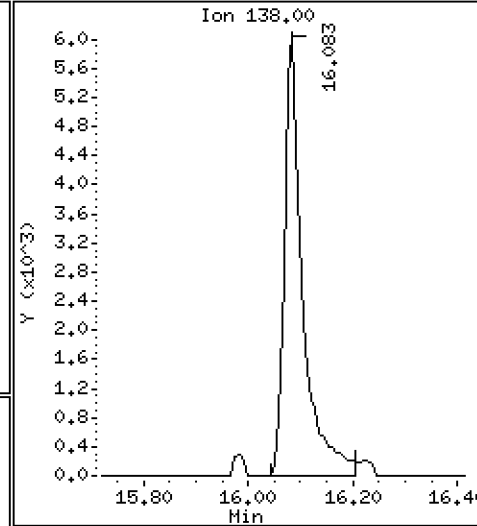
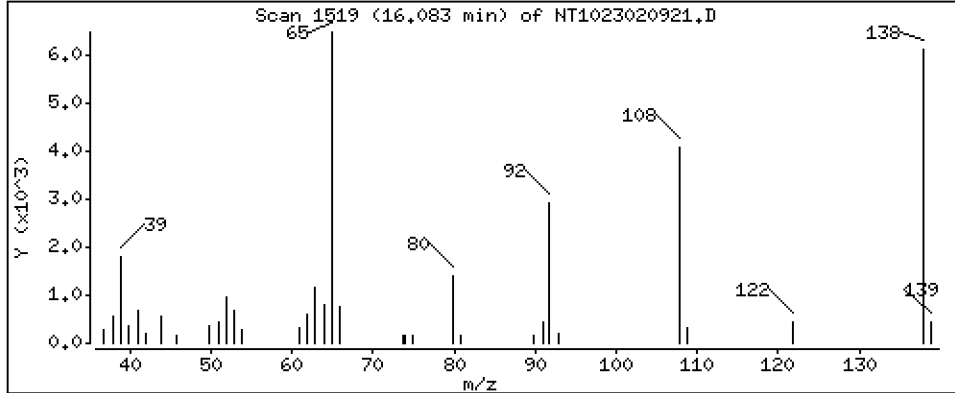
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 0,9095 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

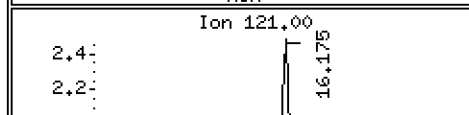
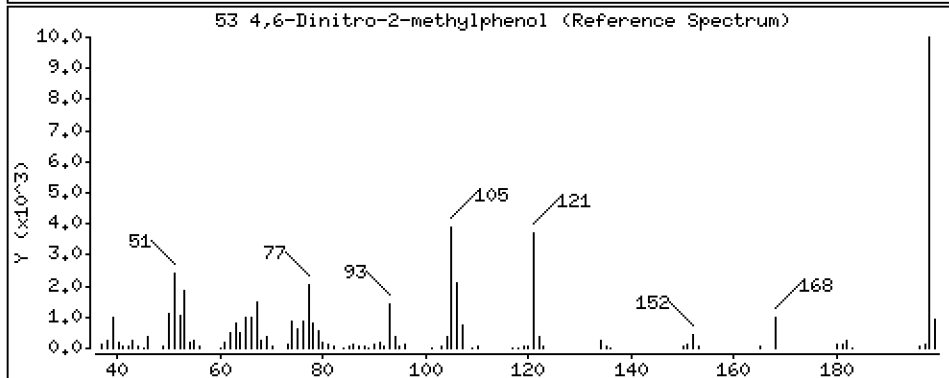
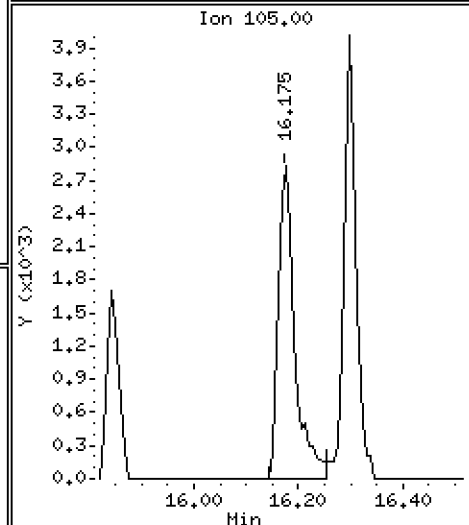
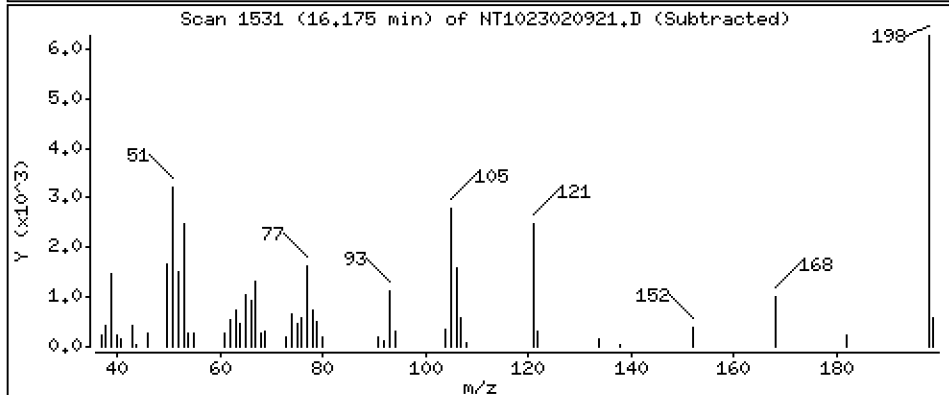
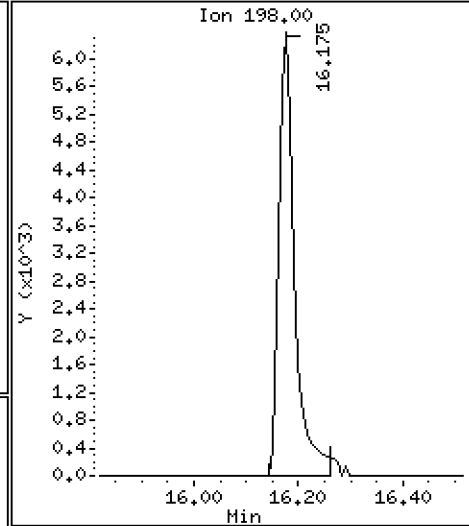
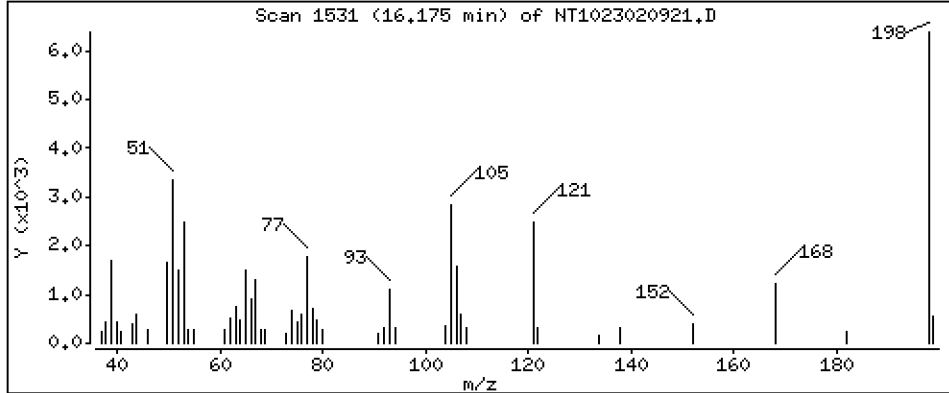
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 1,397 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

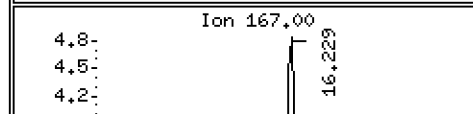
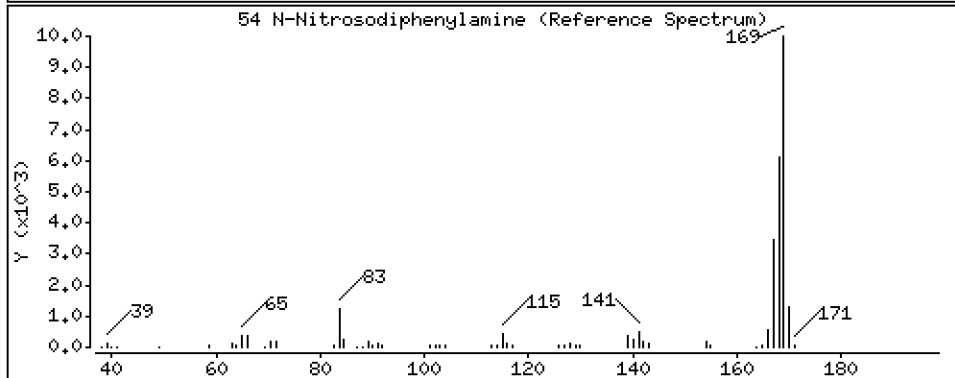
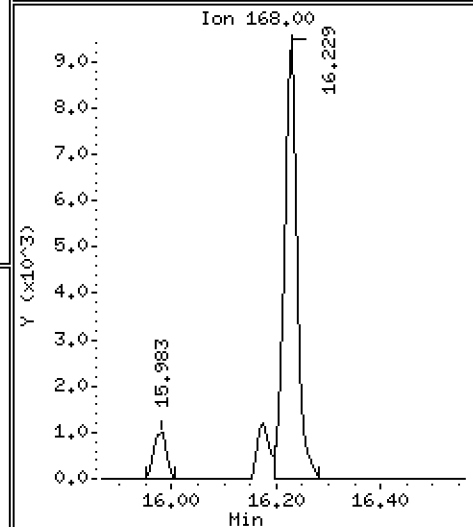
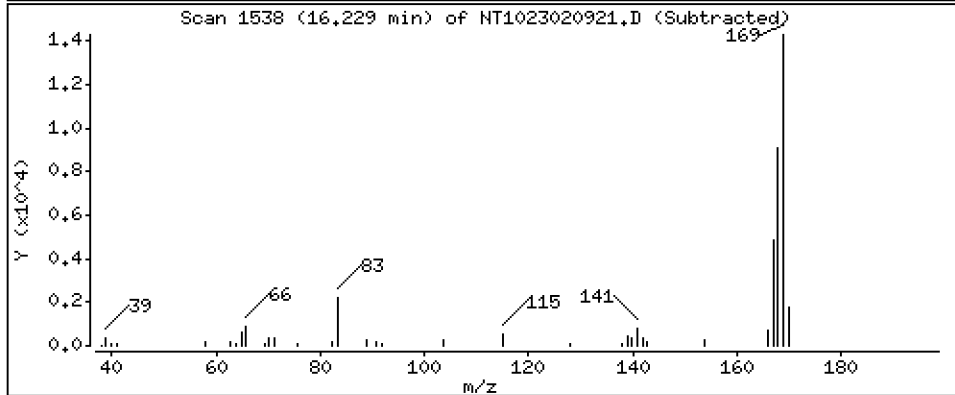
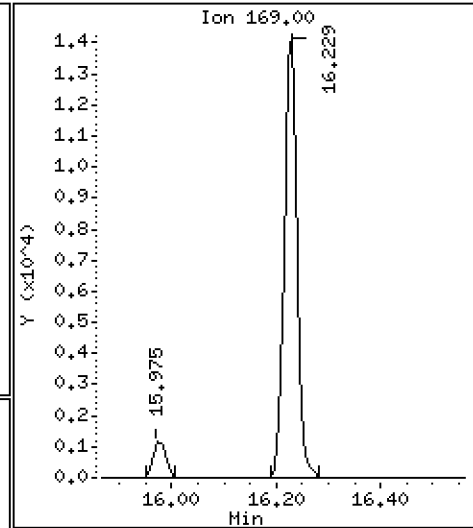
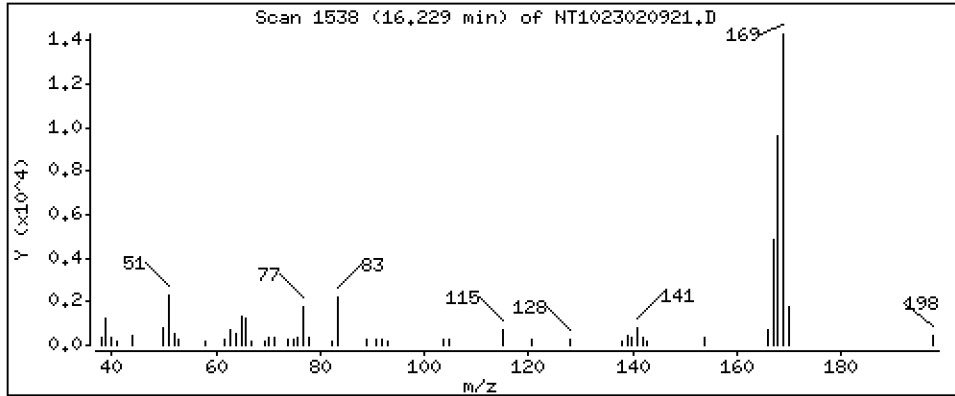
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 0,5441 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

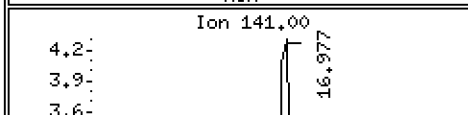
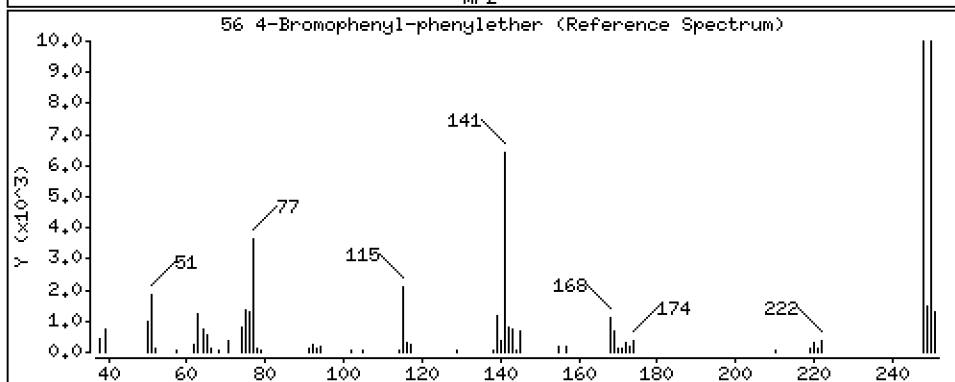
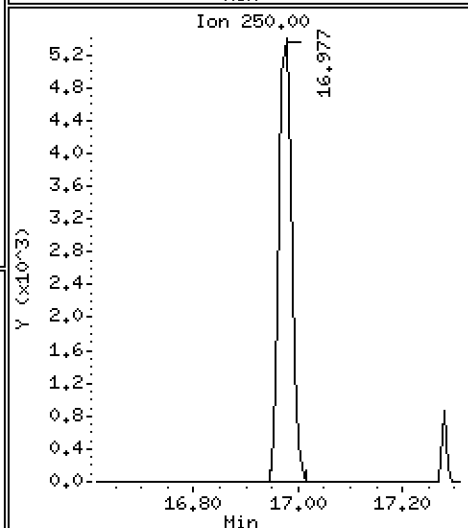
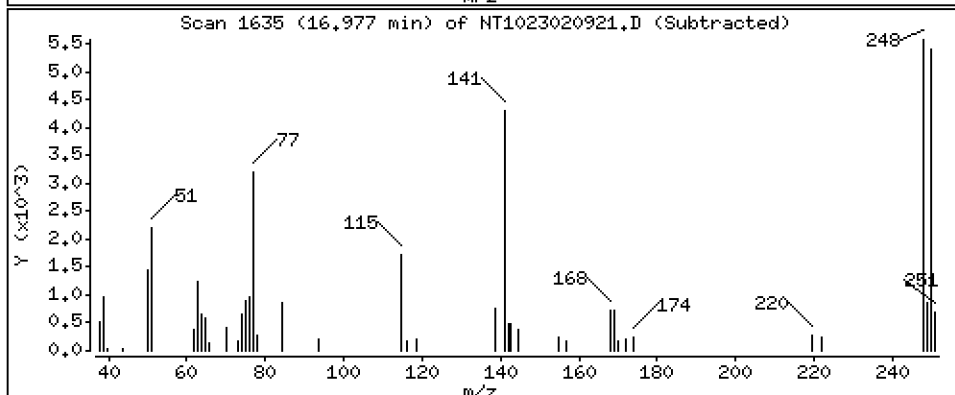
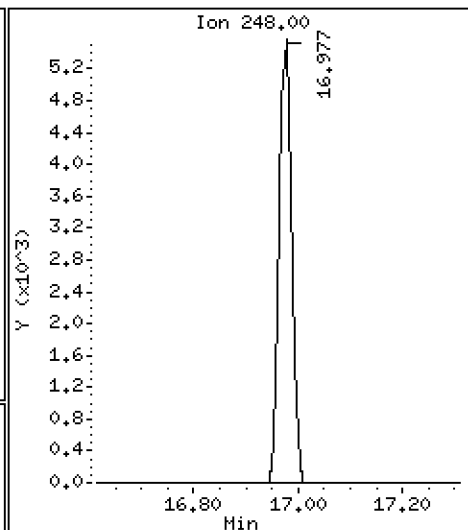
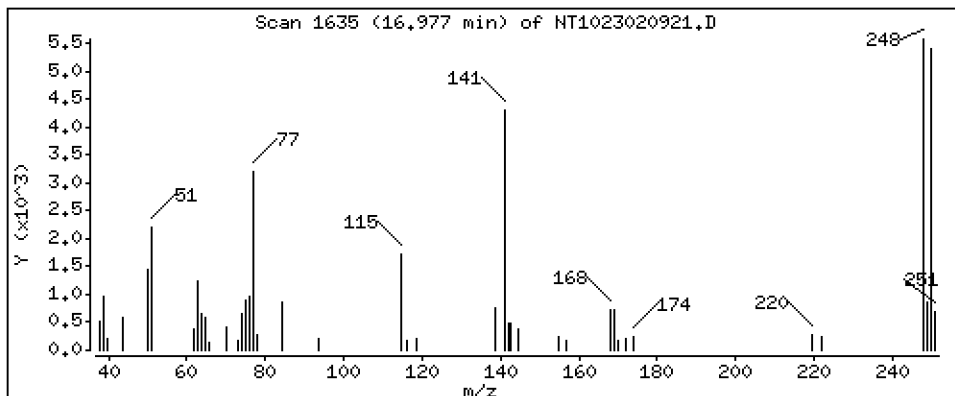
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 0,5310 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

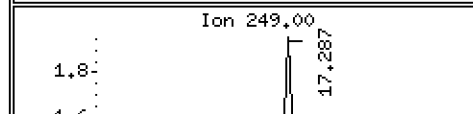
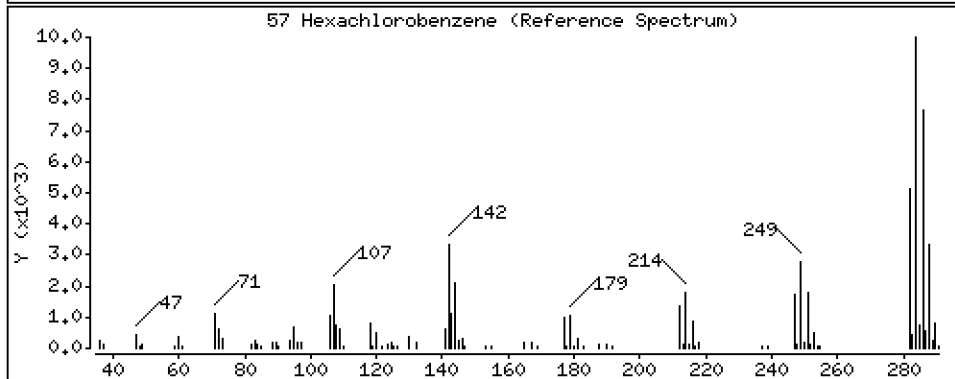
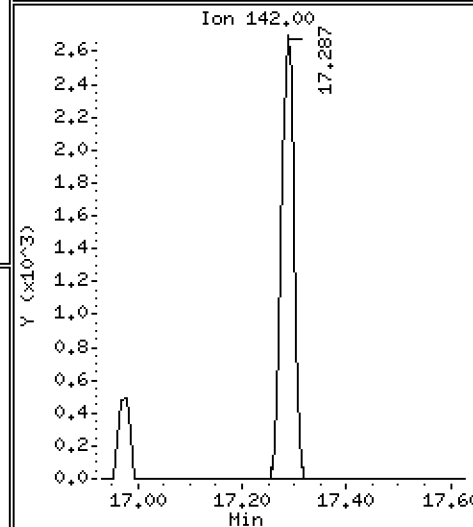
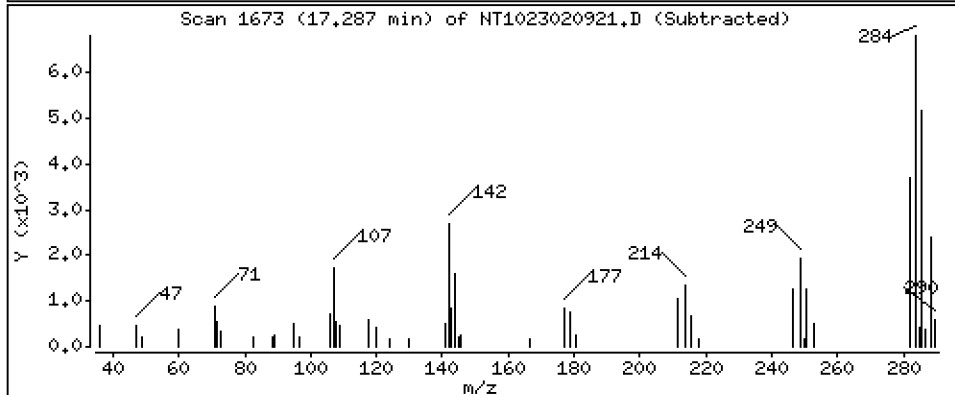
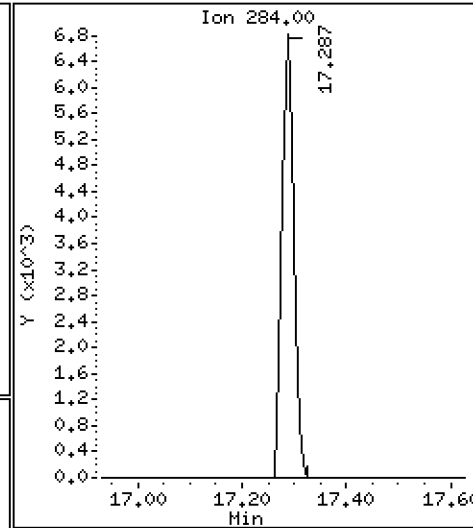
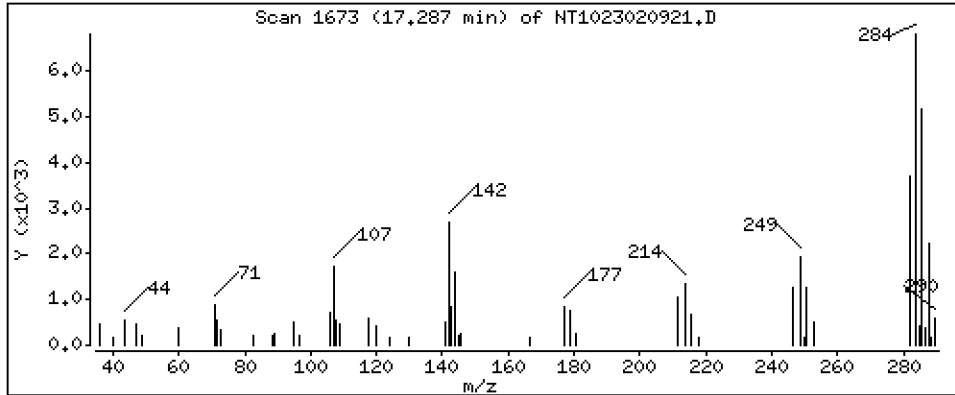
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,5719 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

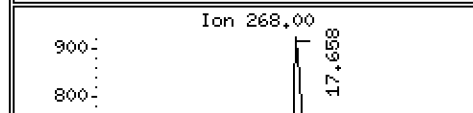
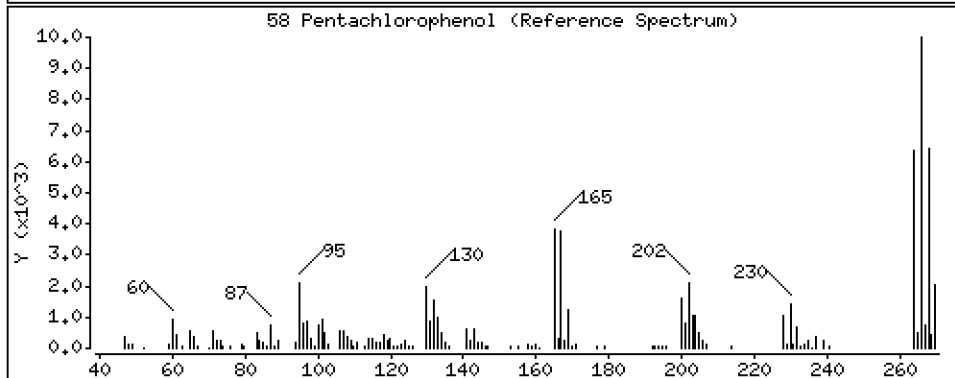
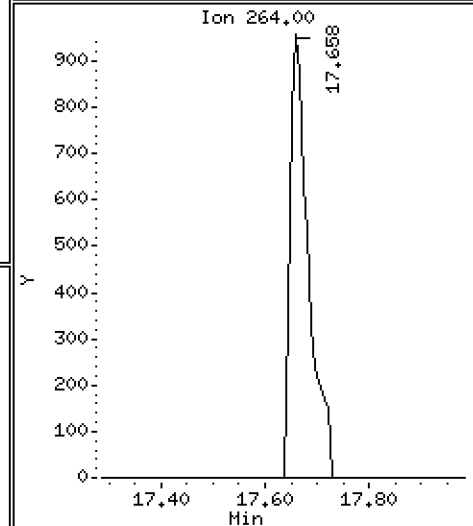
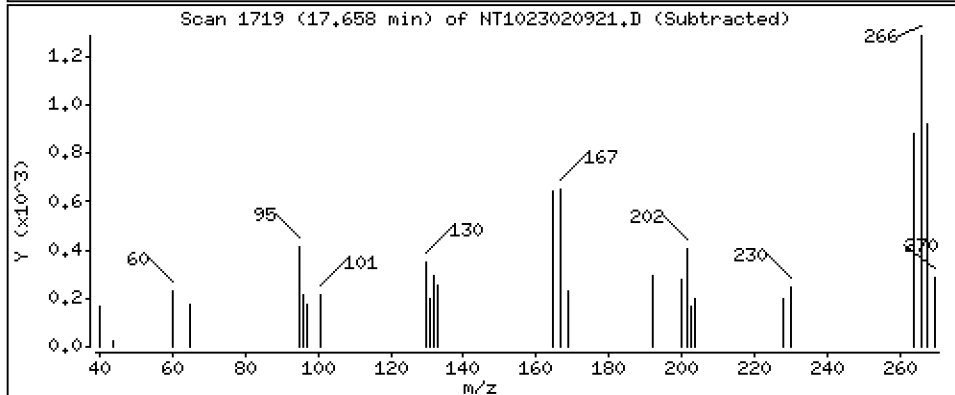
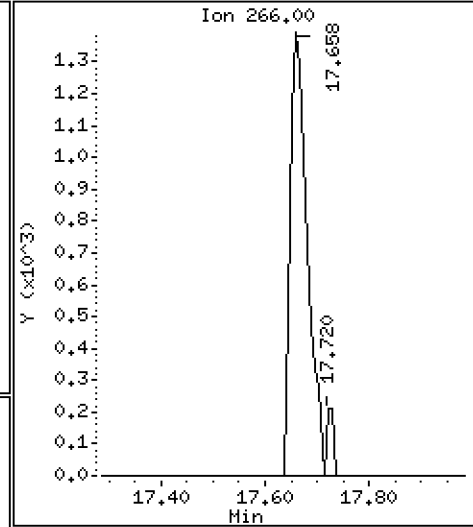
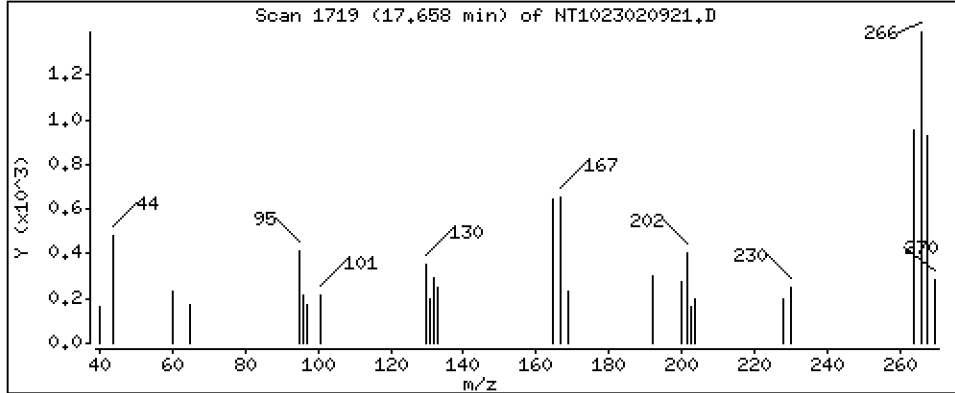
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,4982 ug/mL



Date : 10-FEB-2023 01:47

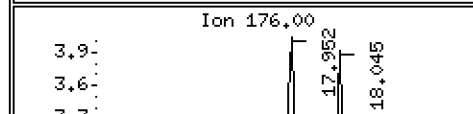
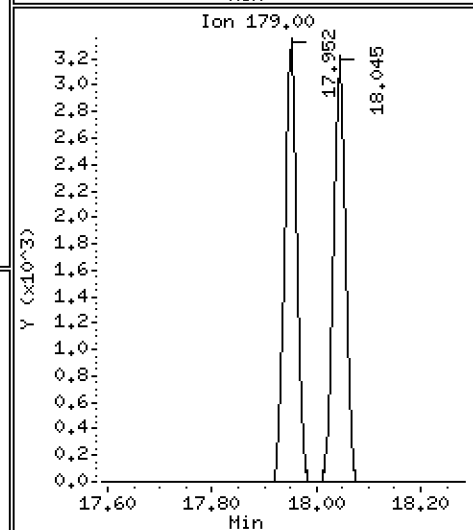
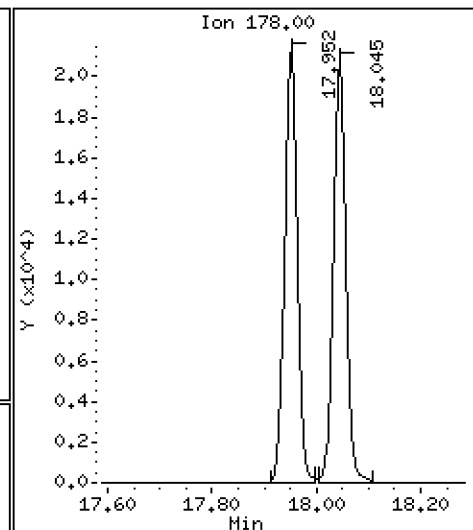
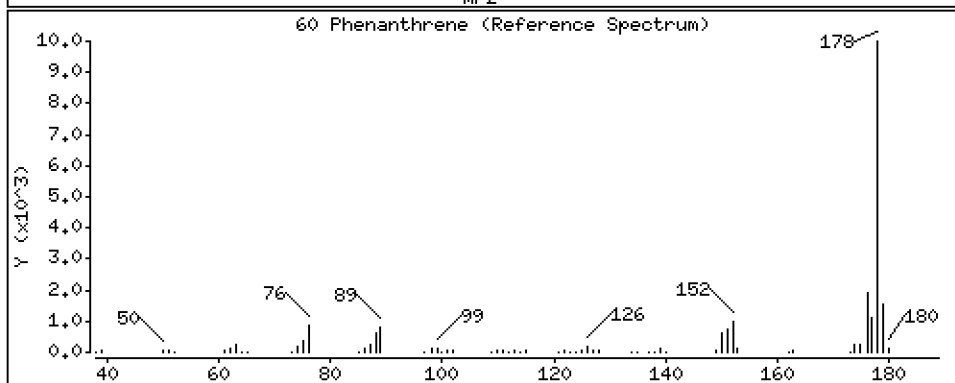
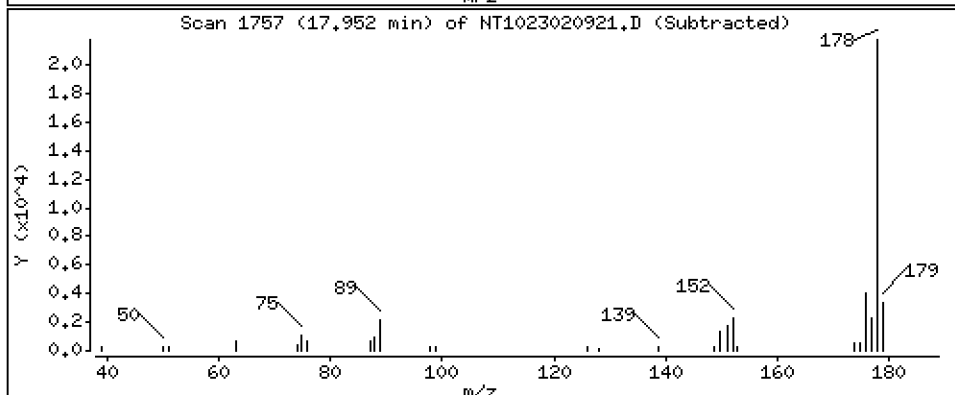
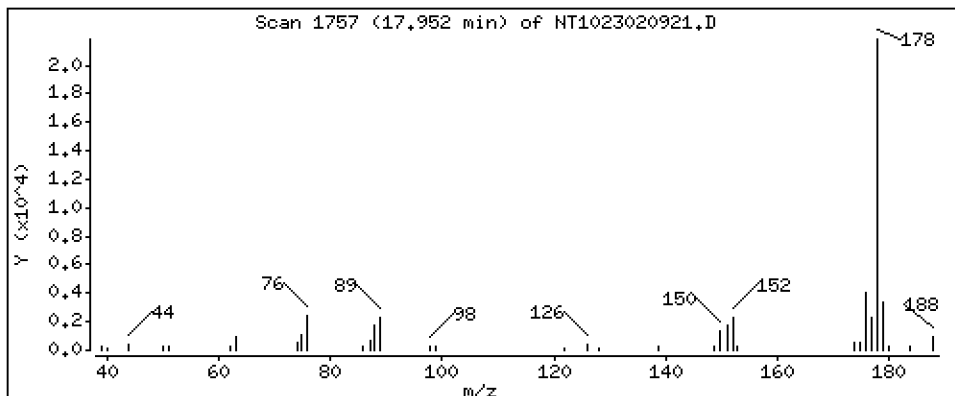
Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

60 Phenanthrene Concentration: 0,5190 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

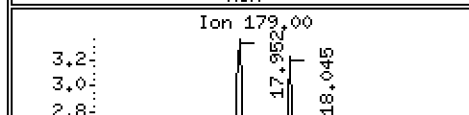
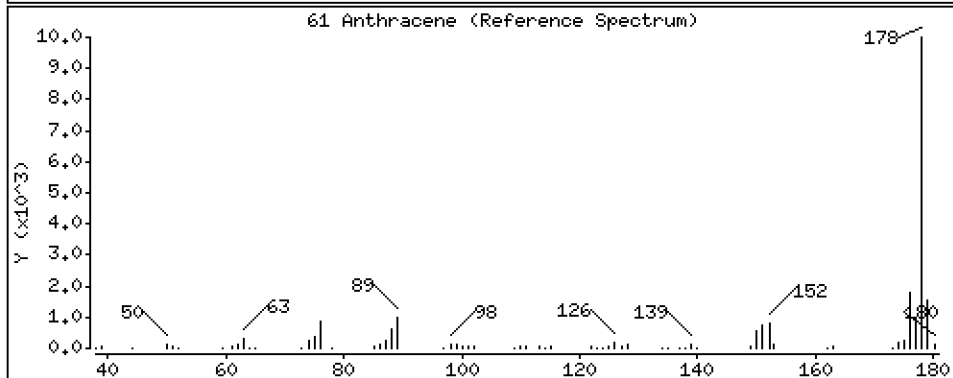
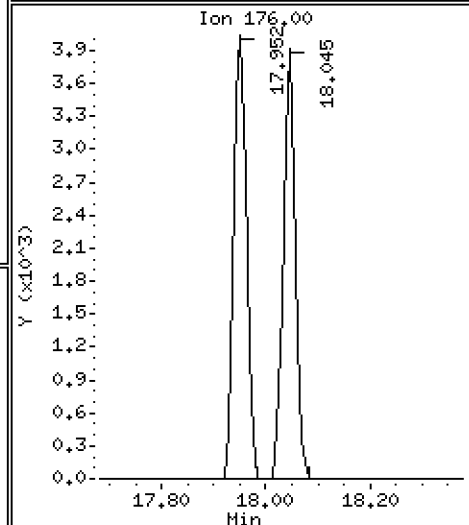
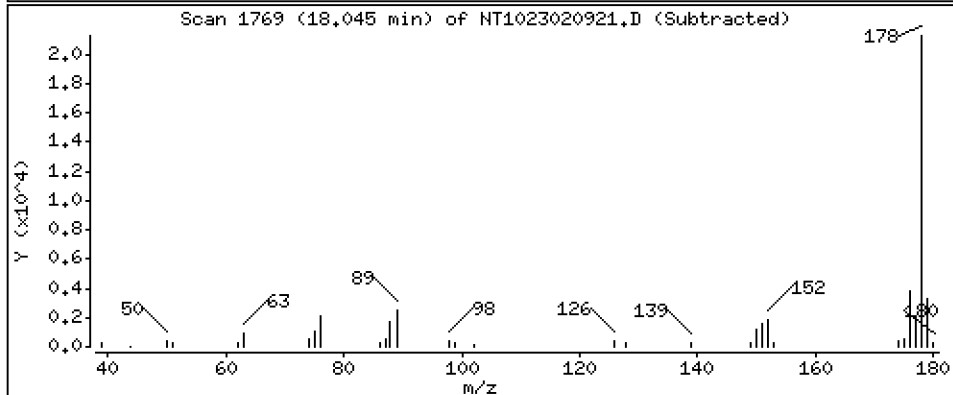
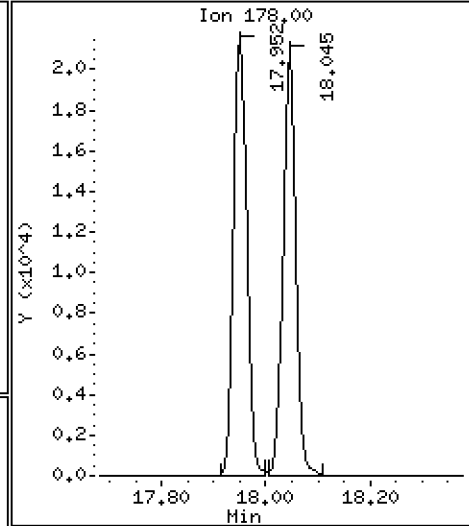
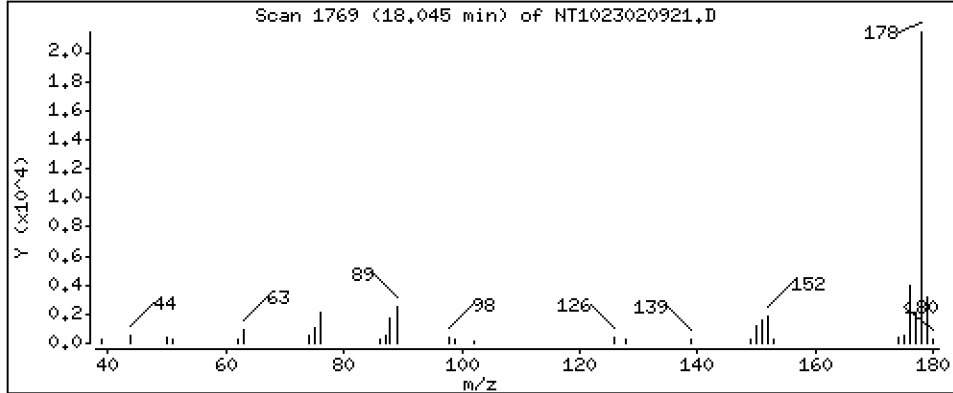
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,5171 ug/mL



Date : 10-FEB-2023 01:47

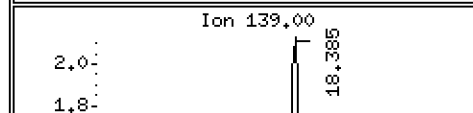
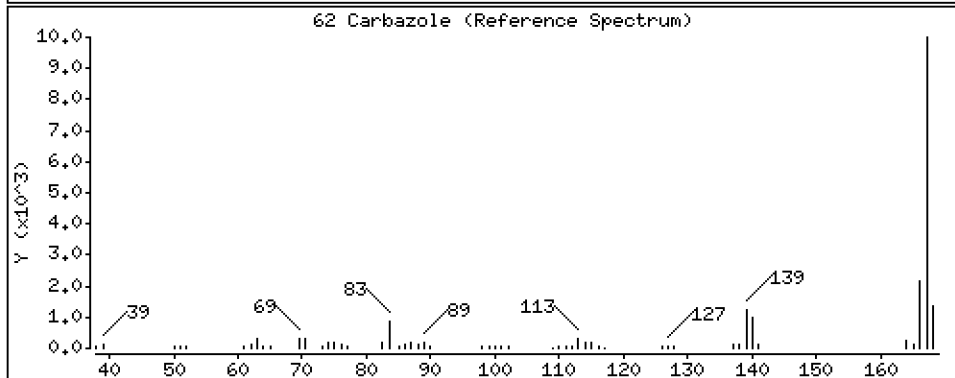
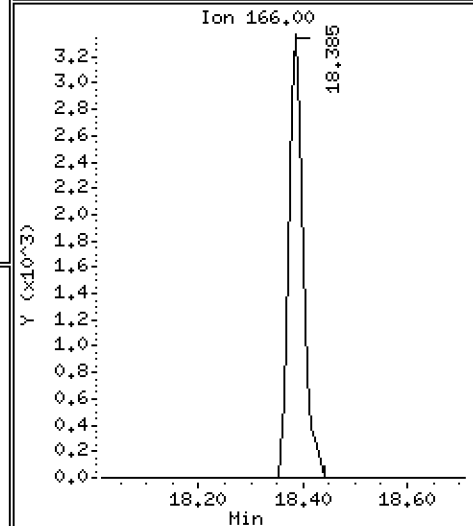
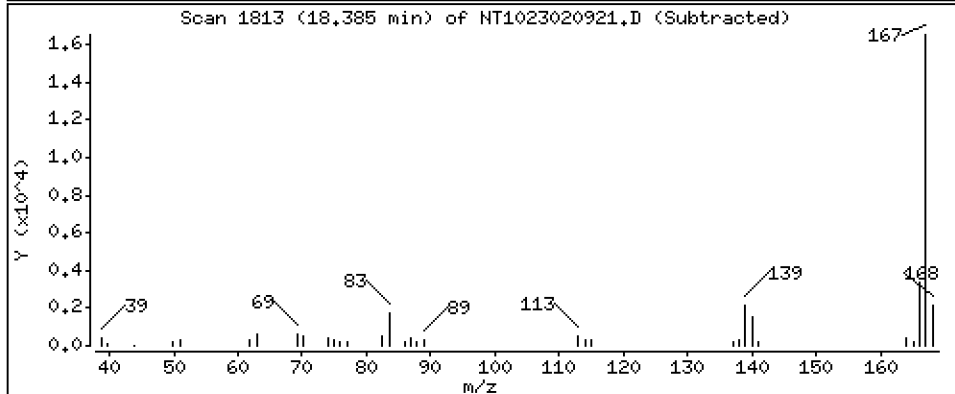
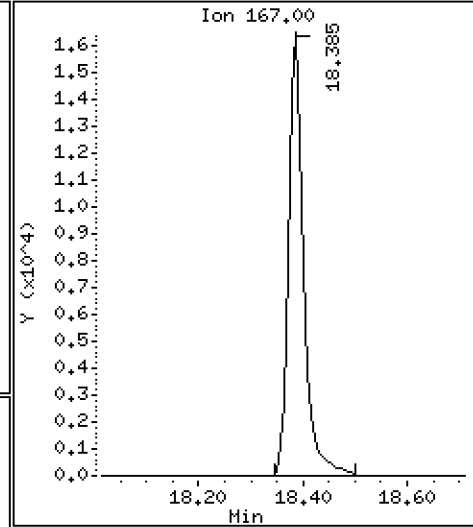
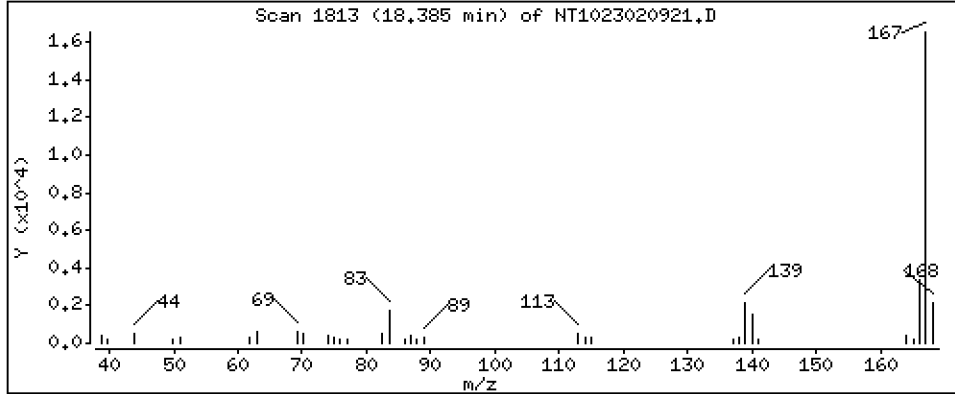
Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

62 Carbazole Concentration: 0,5073 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

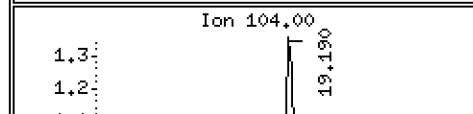
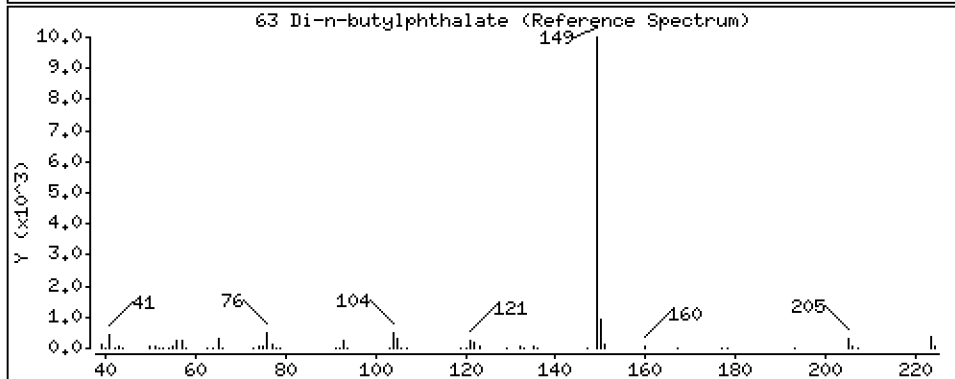
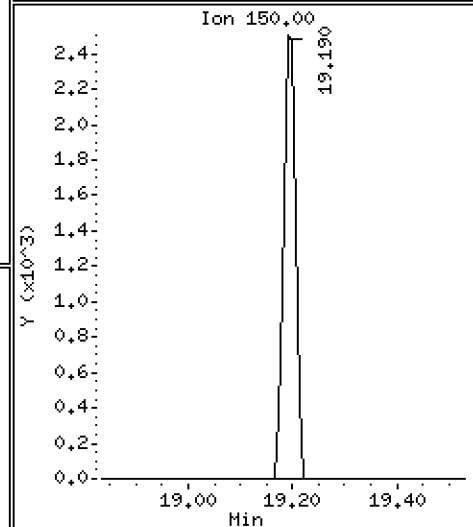
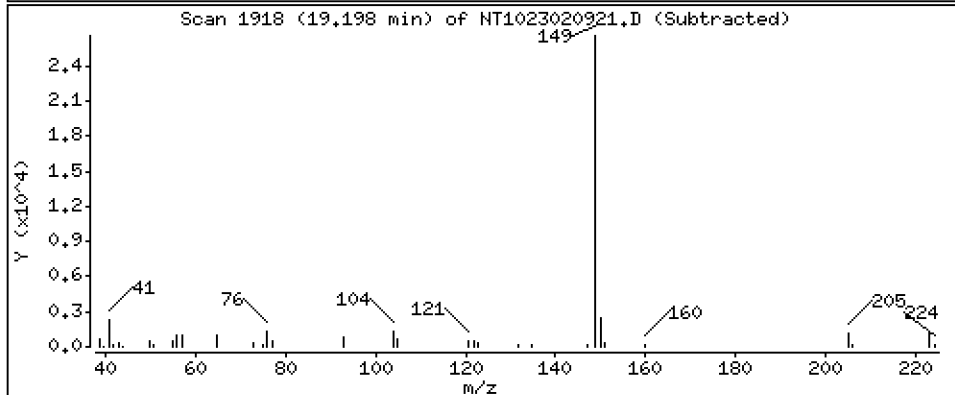
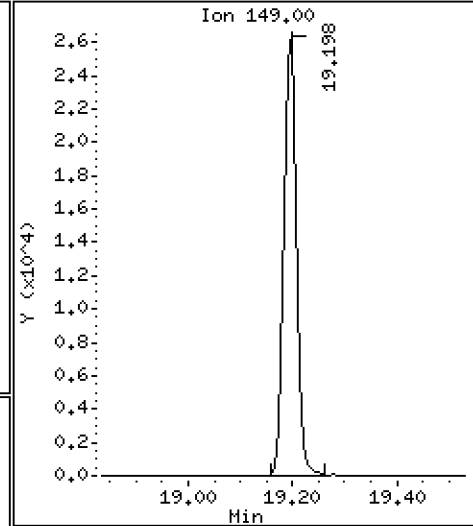
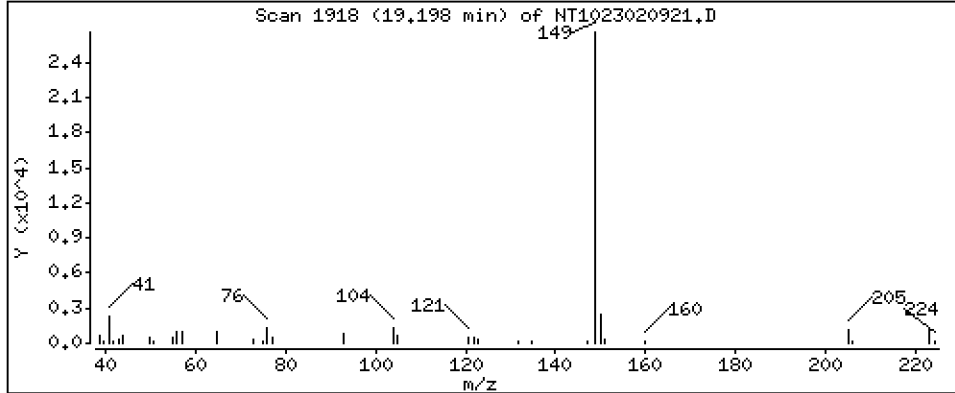
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 0,5311 ug/mL



Date : 10-FEB-2023 01:47

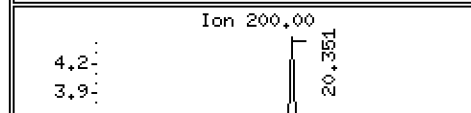
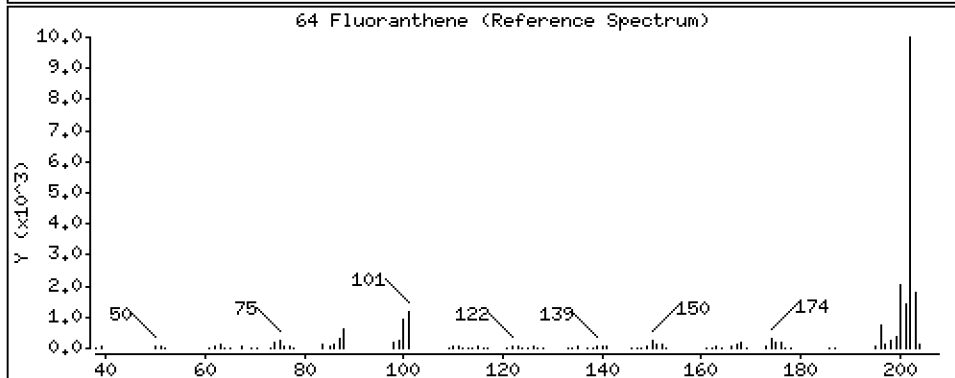
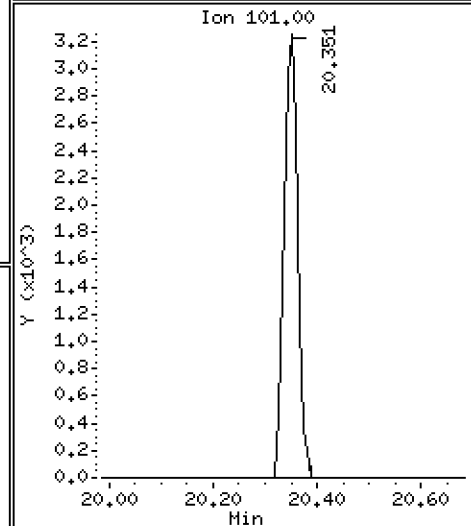
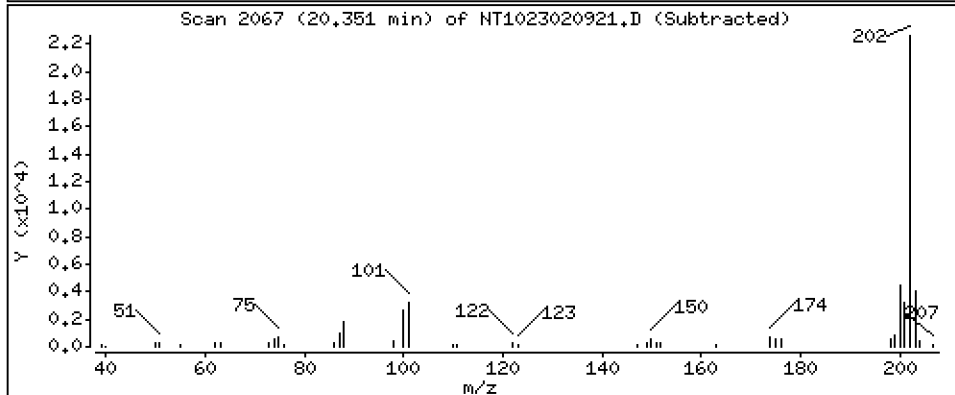
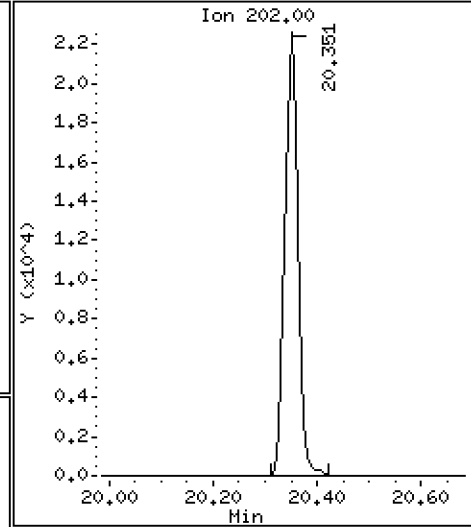
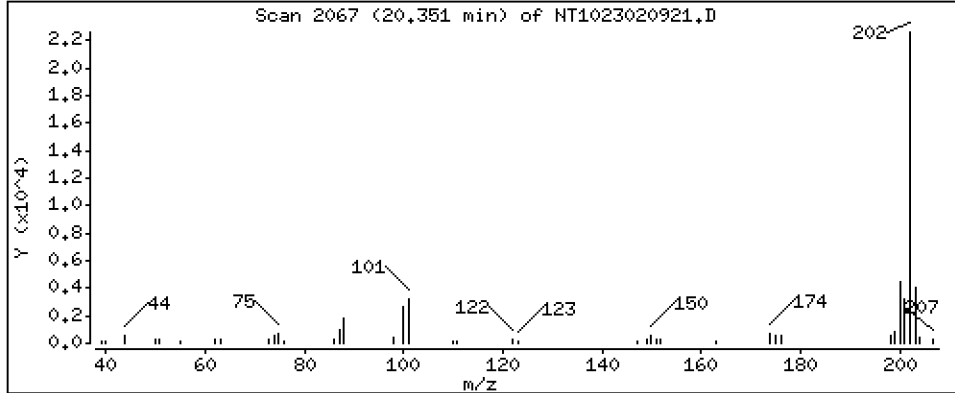
Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

64 Fluoranthene Concentration: 0,4706 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

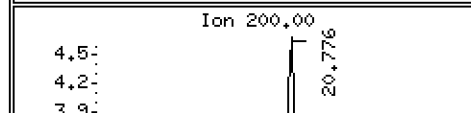
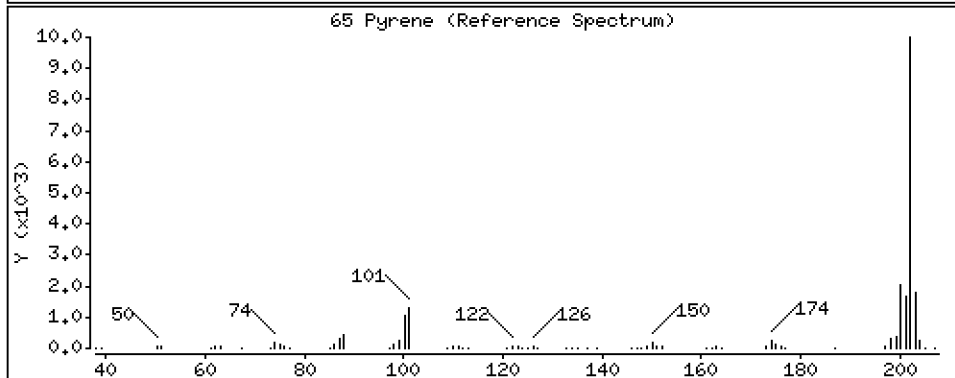
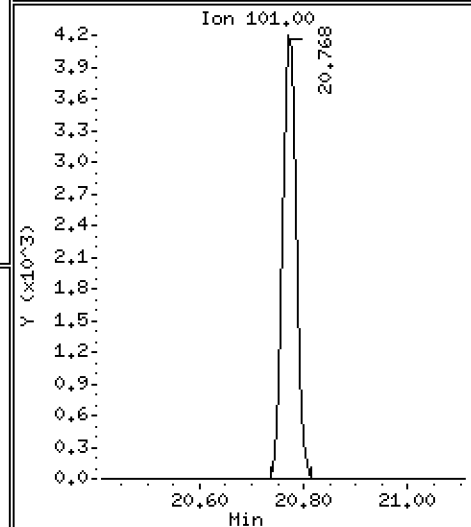
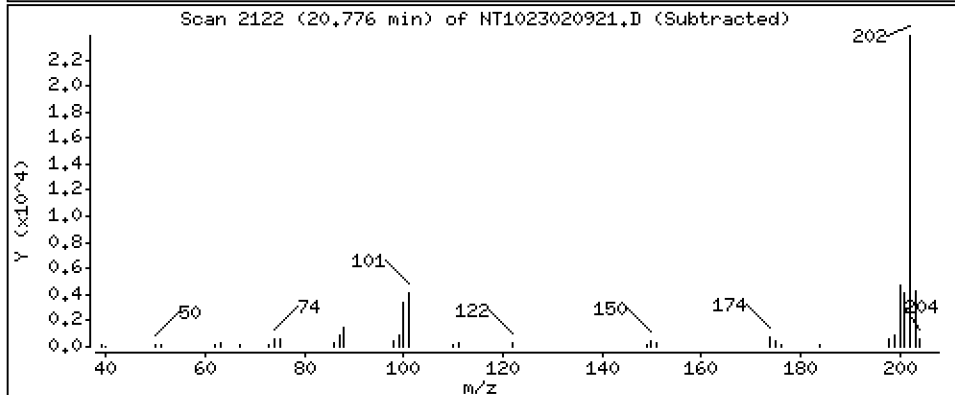
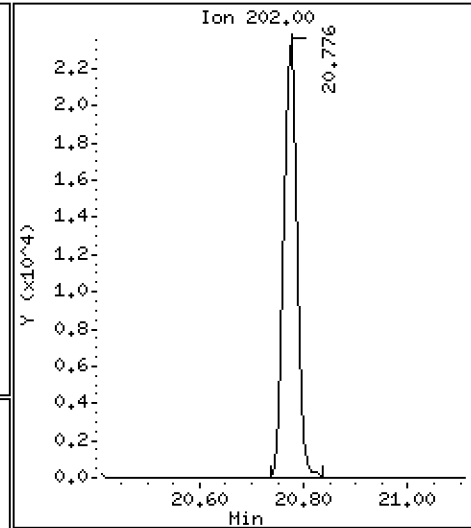
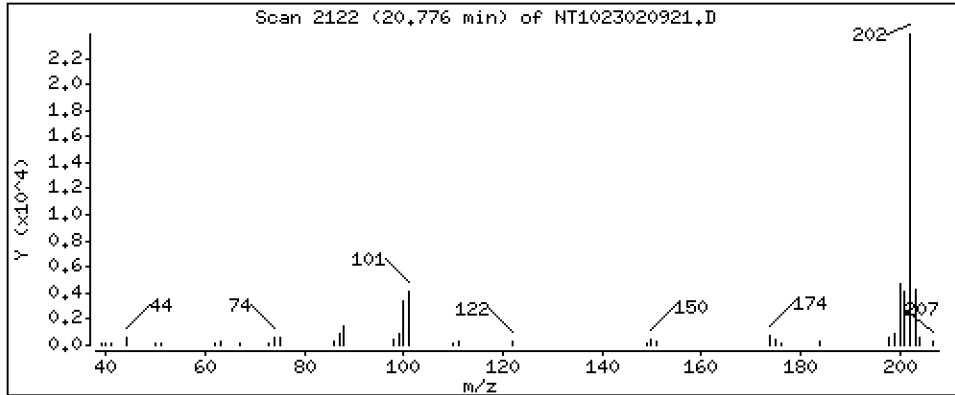
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 0,4771 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

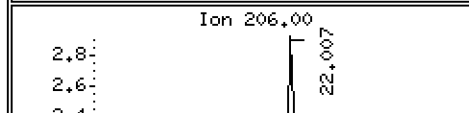
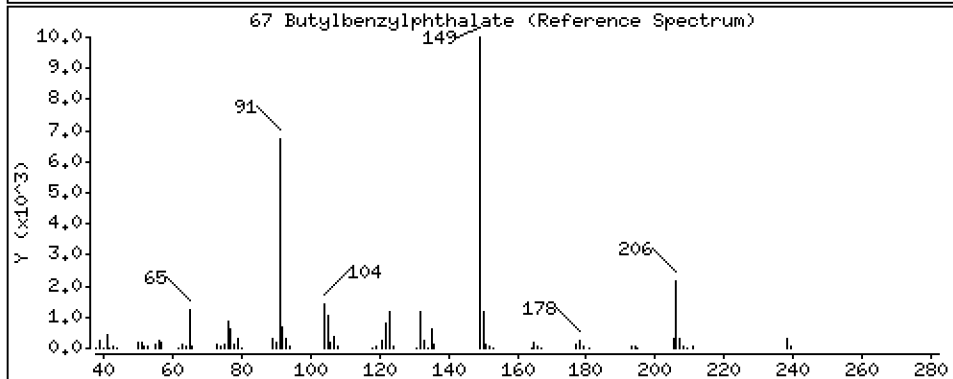
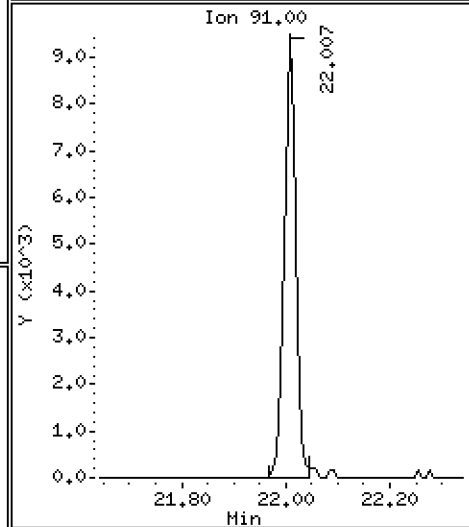
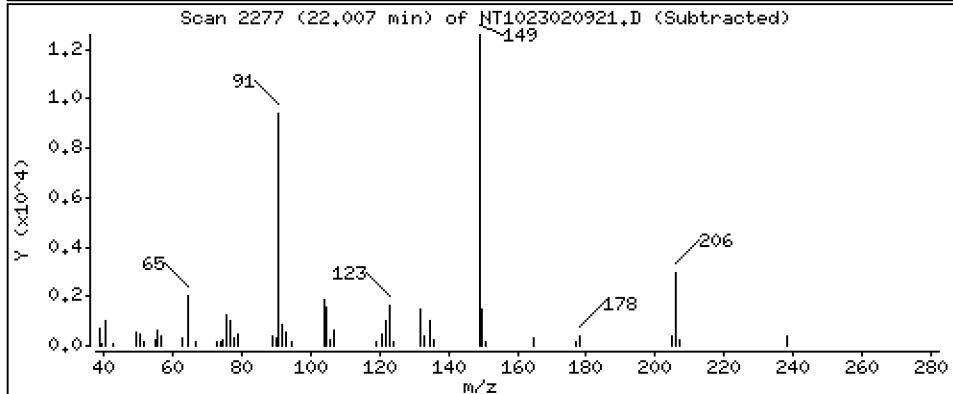
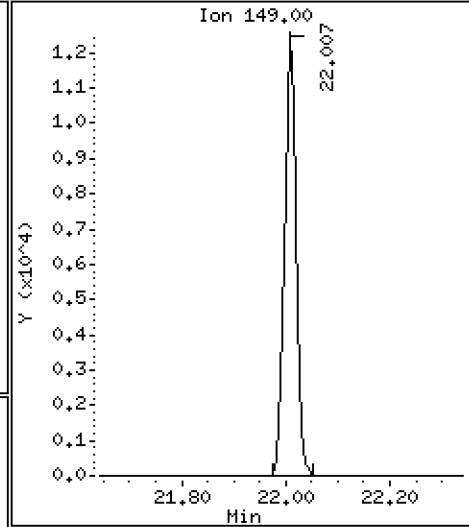
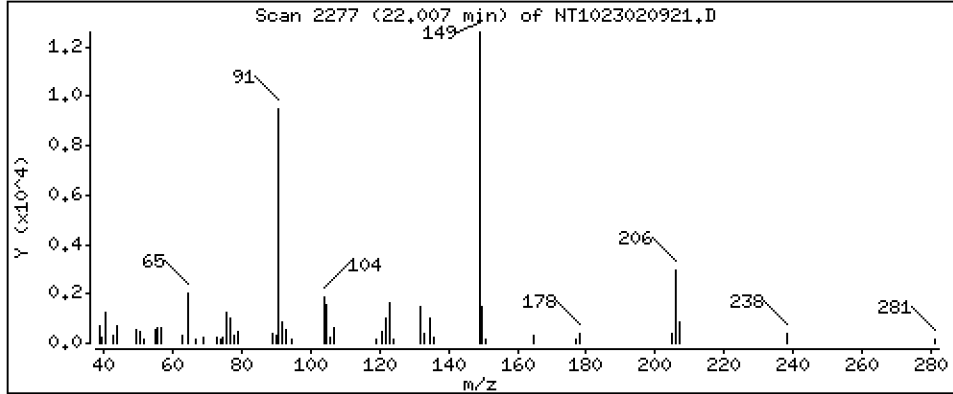
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 0,5166 ug/mL



Date : 10-FEB-2023 01:47

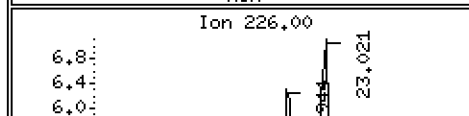
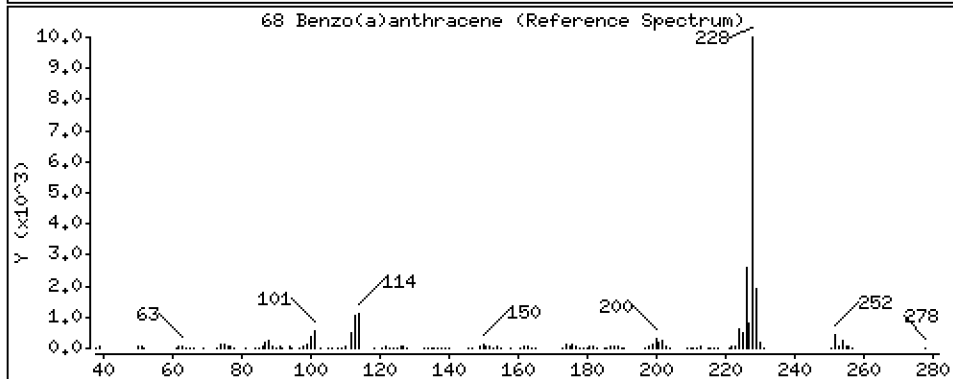
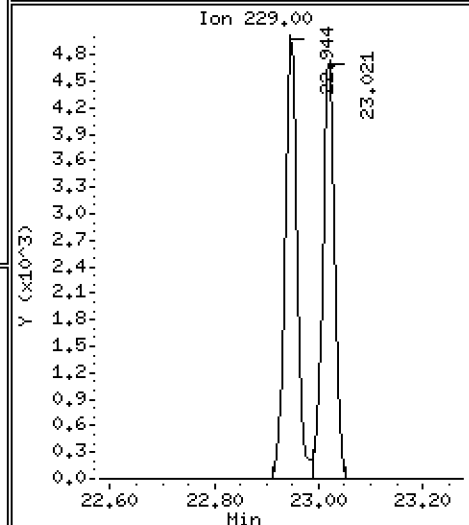
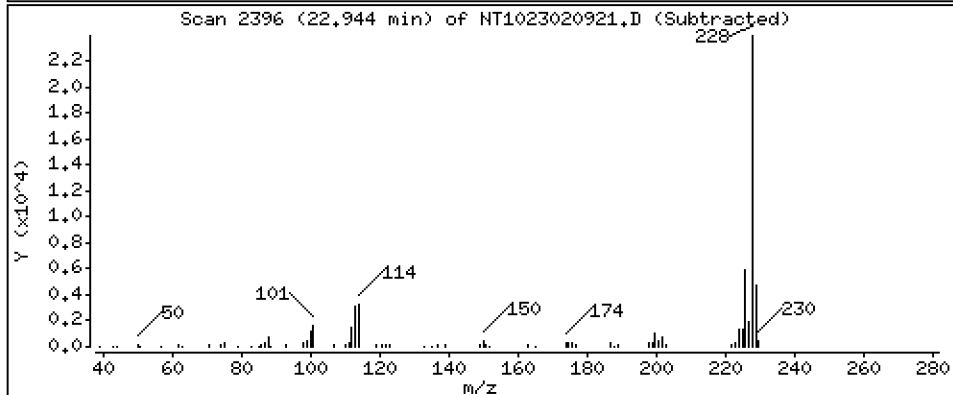
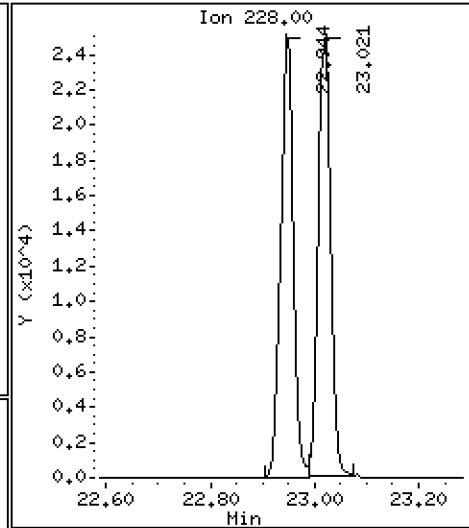
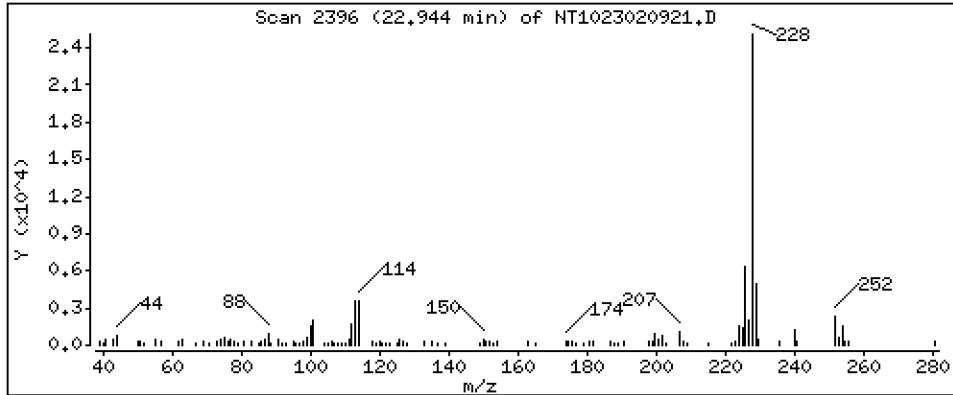
Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

68 Benzo(a)anthracene Concentration: 0,5619 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

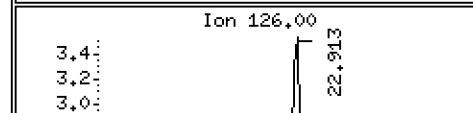
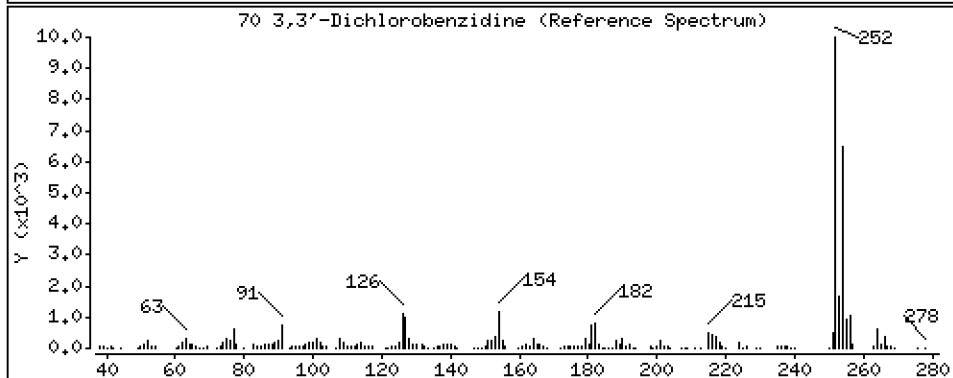
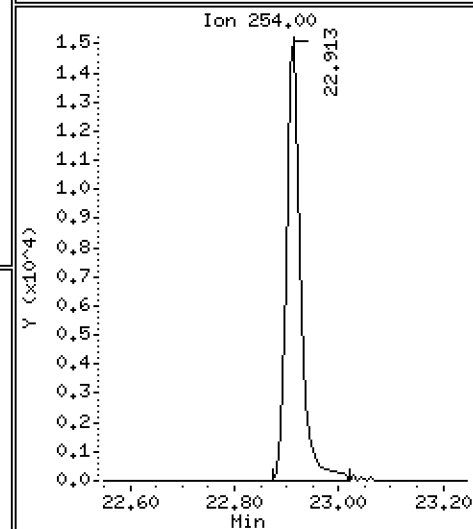
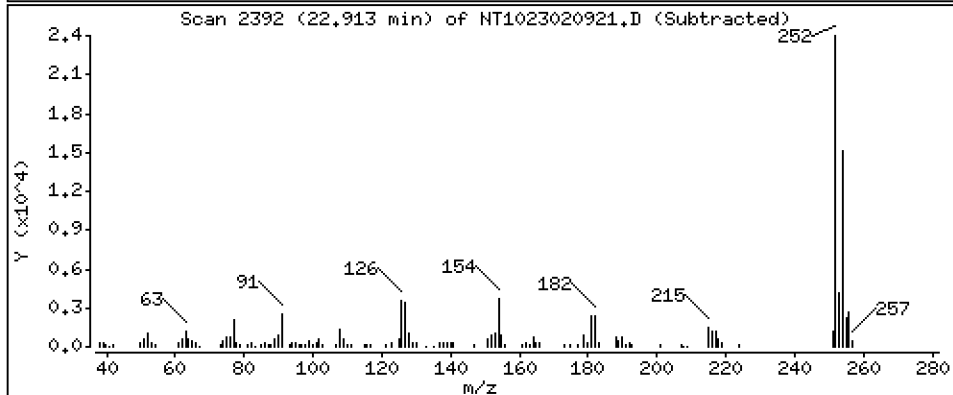
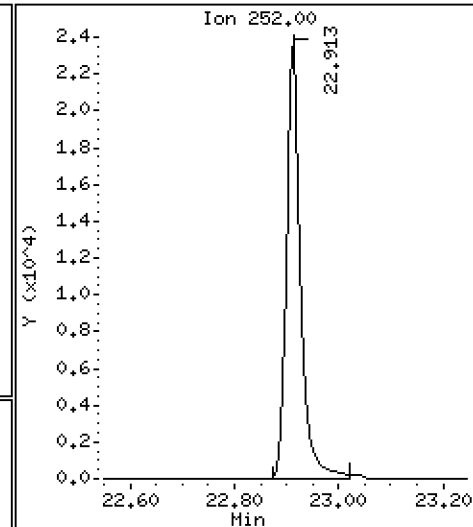
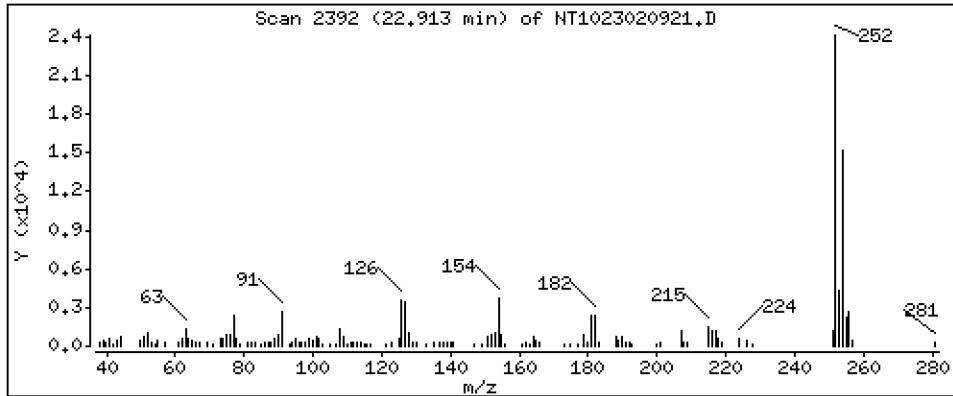
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 1,772 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

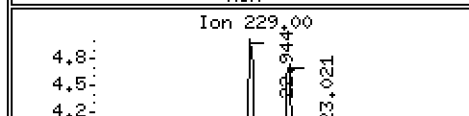
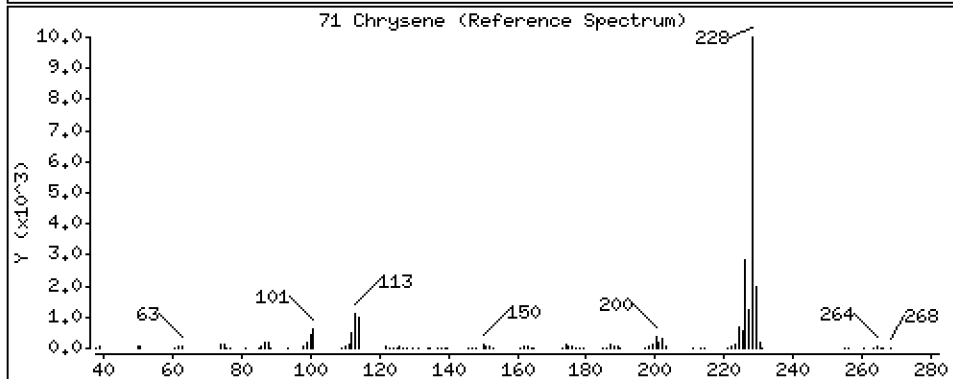
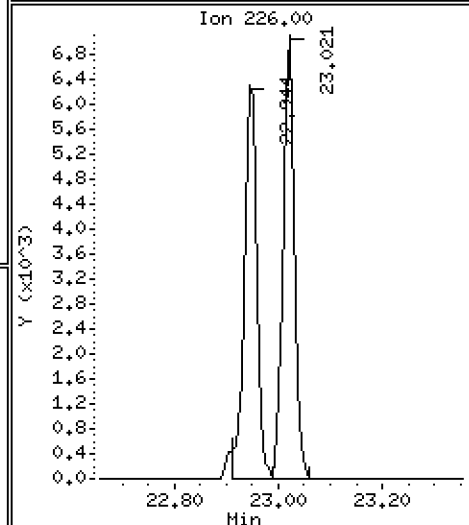
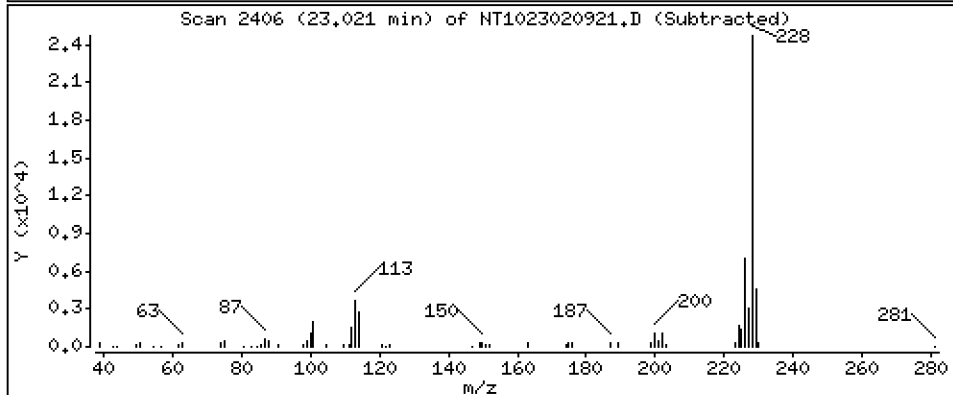
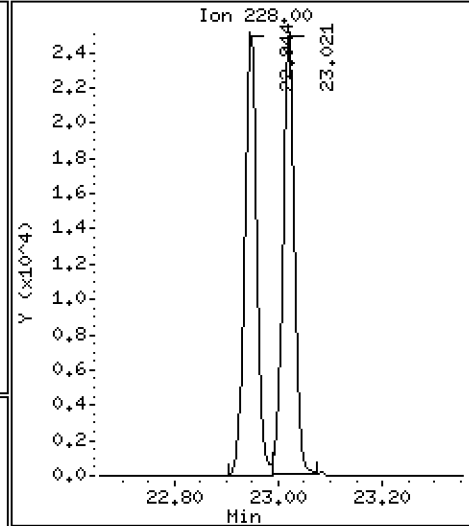
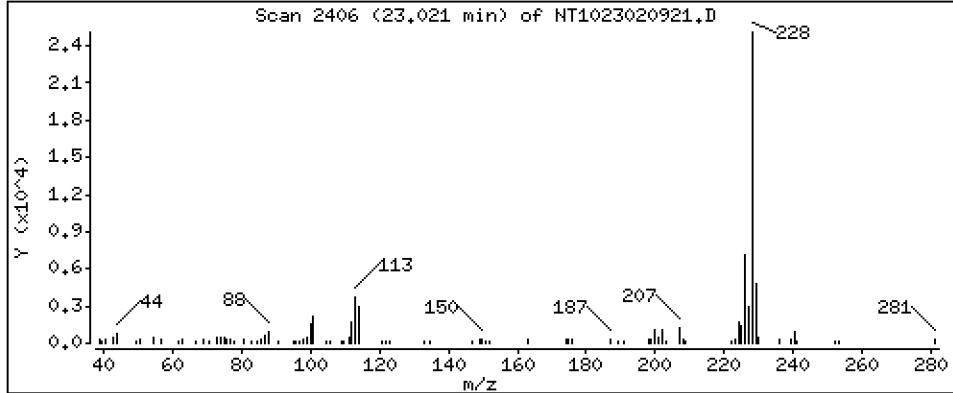
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,5393 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

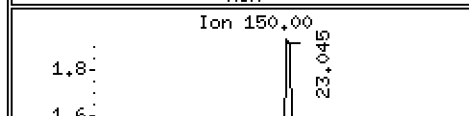
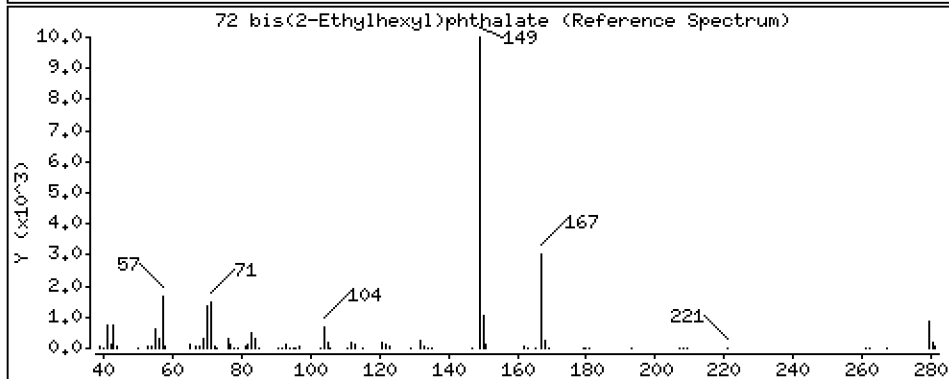
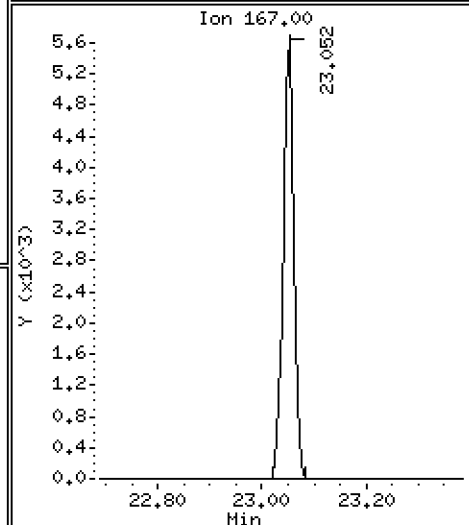
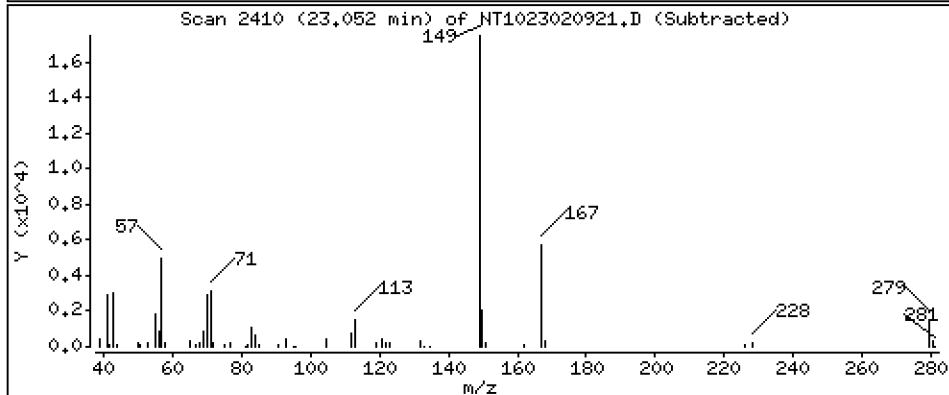
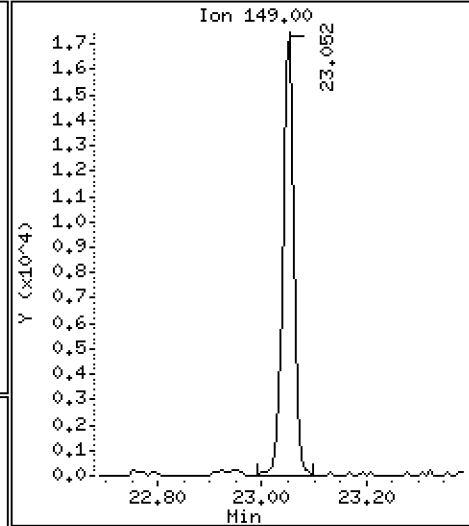
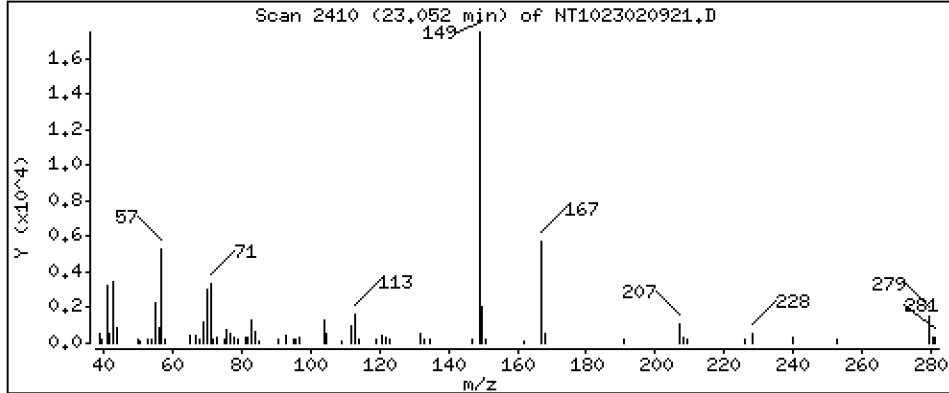
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,5205 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

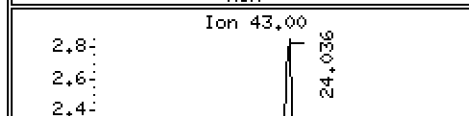
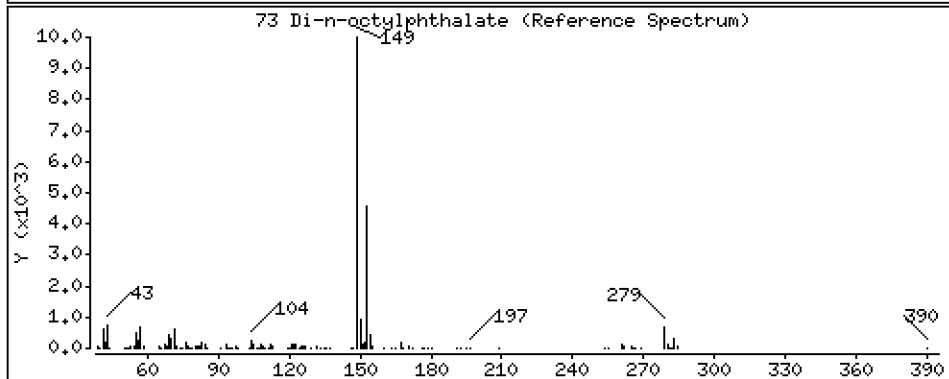
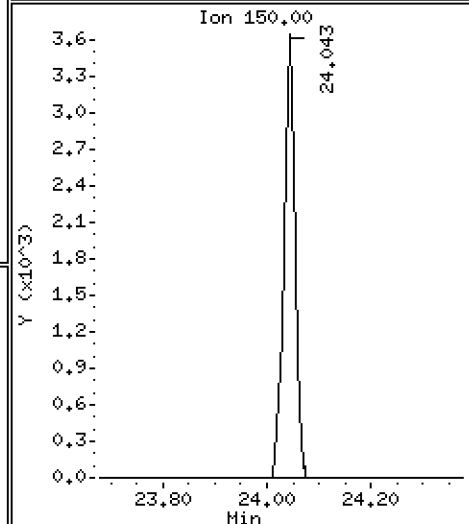
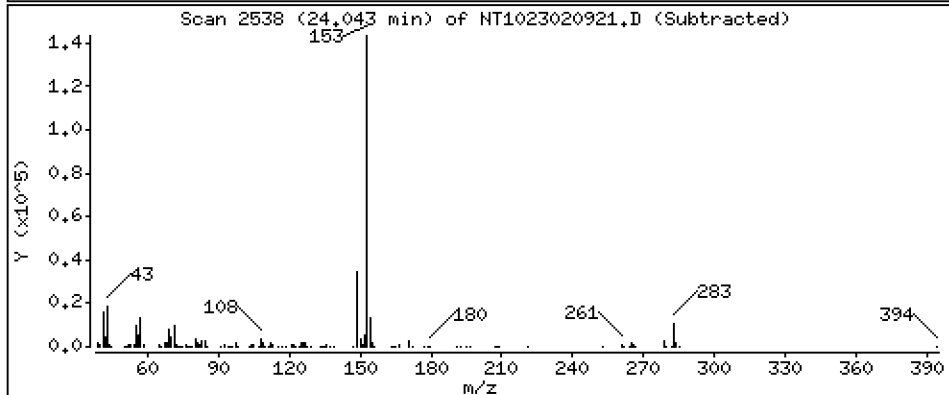
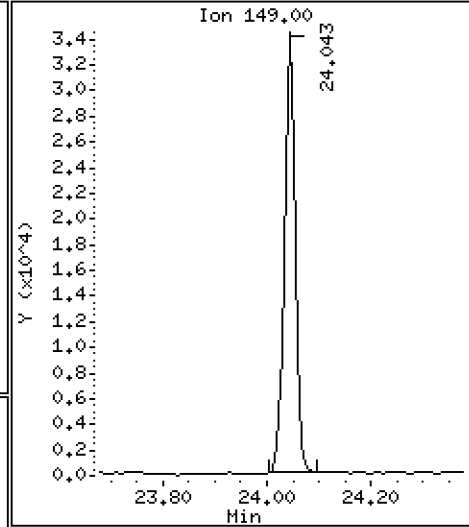
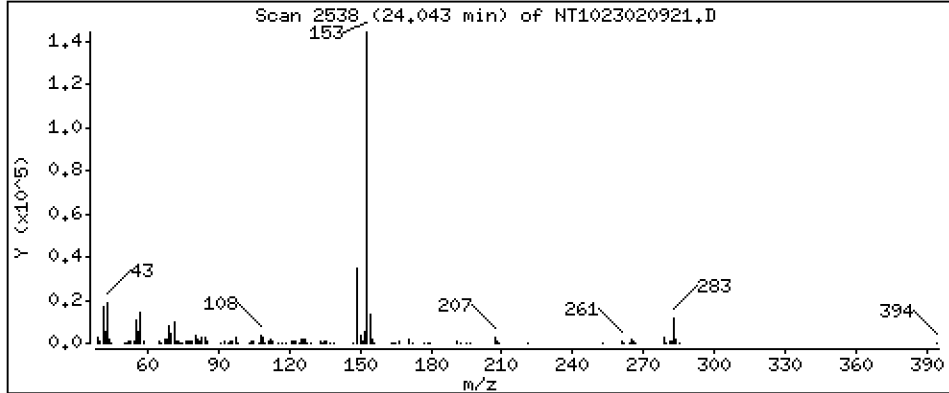
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 0,5365 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

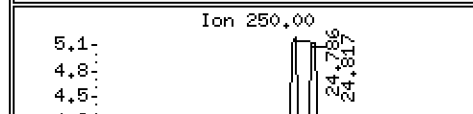
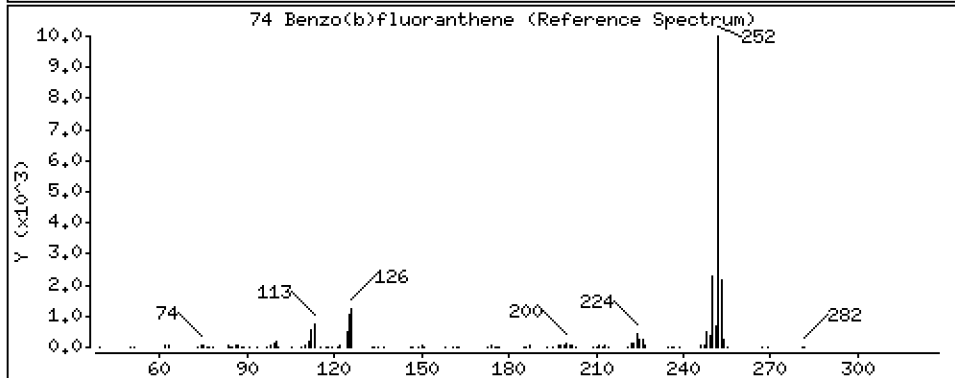
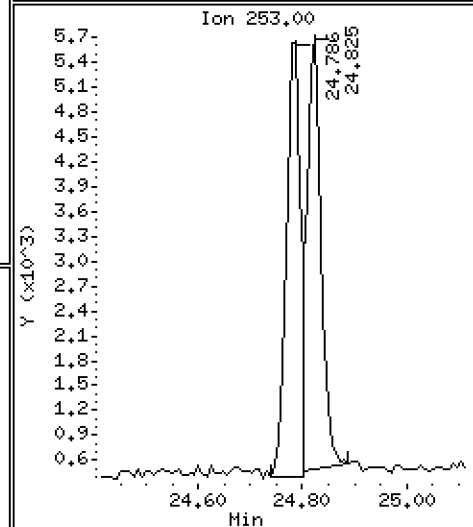
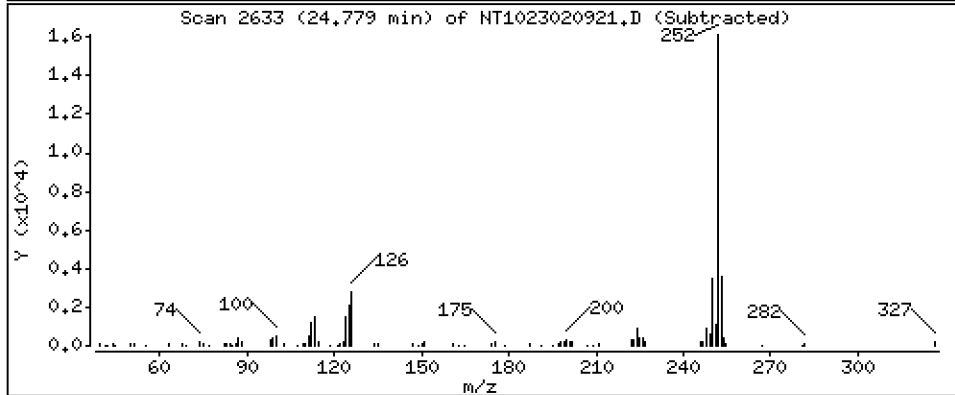
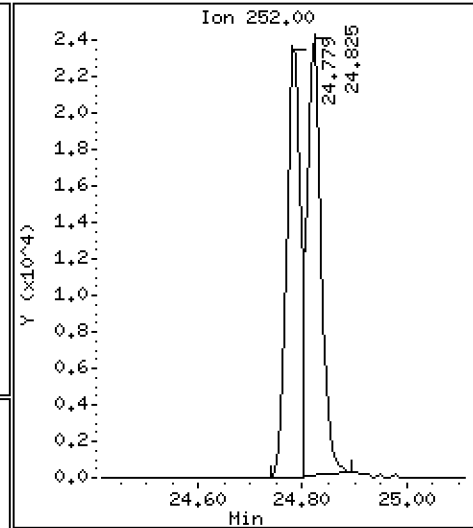
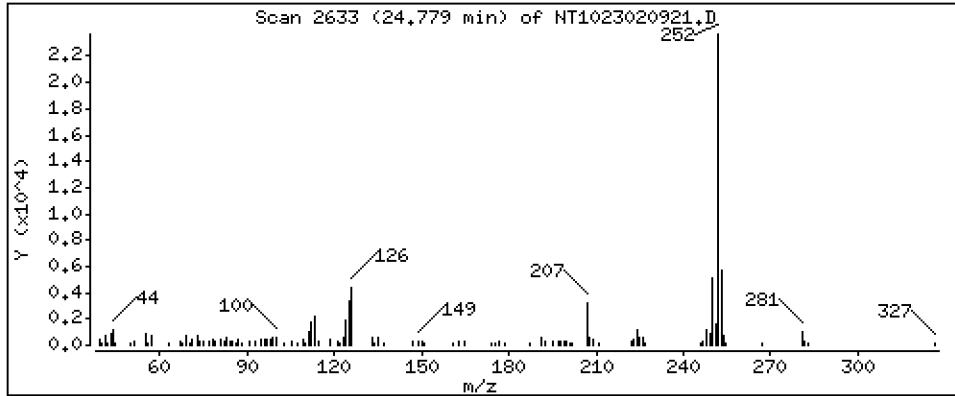
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,5348 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

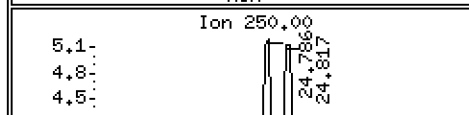
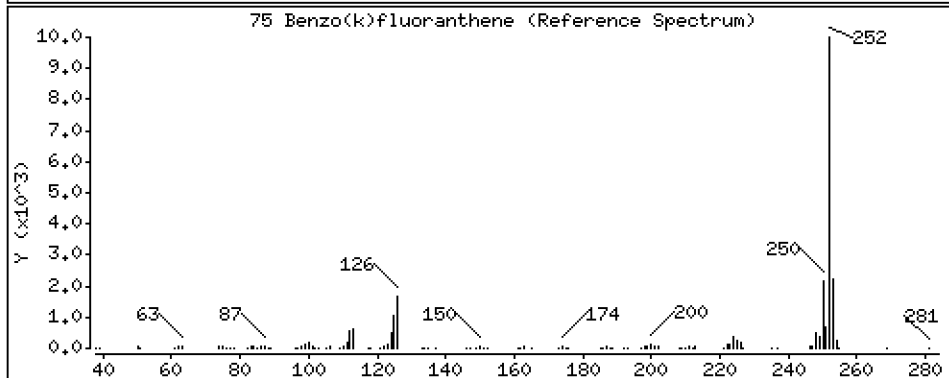
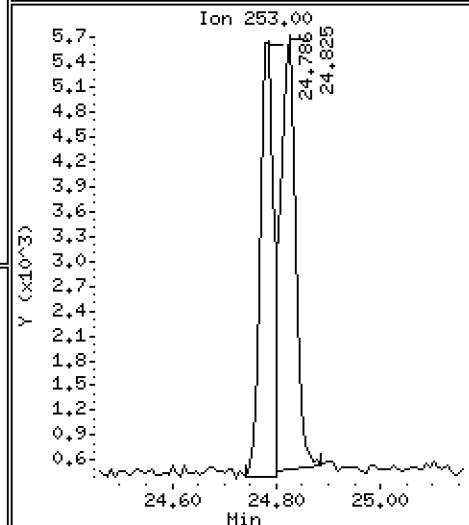
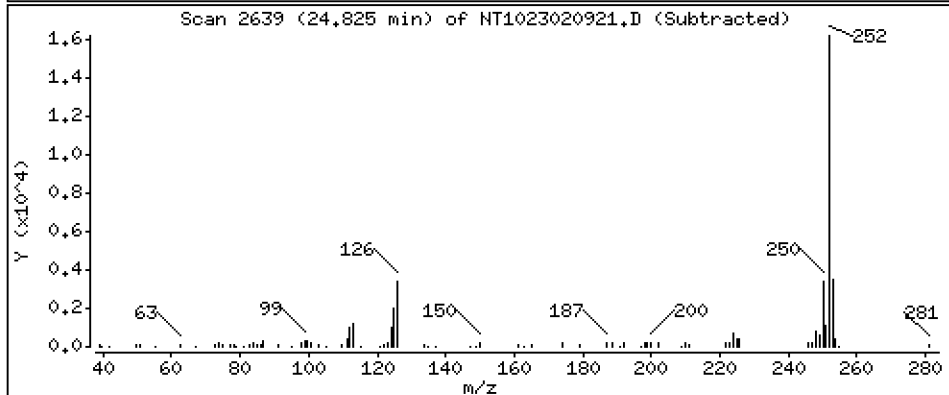
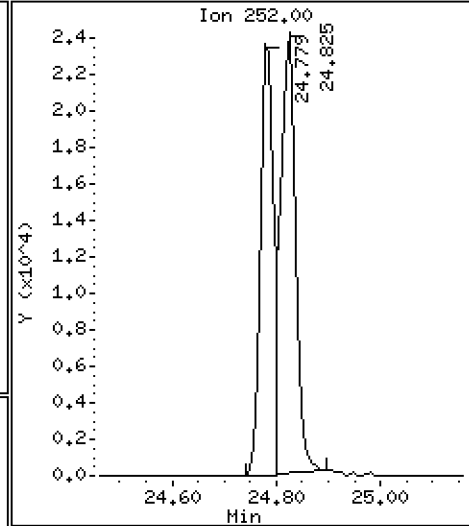
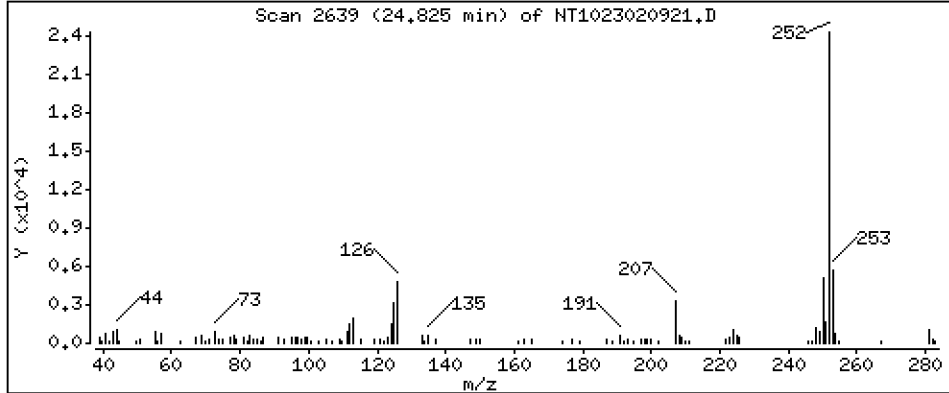
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,5514 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

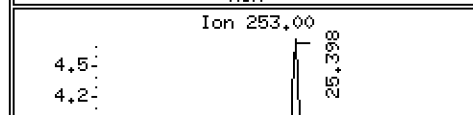
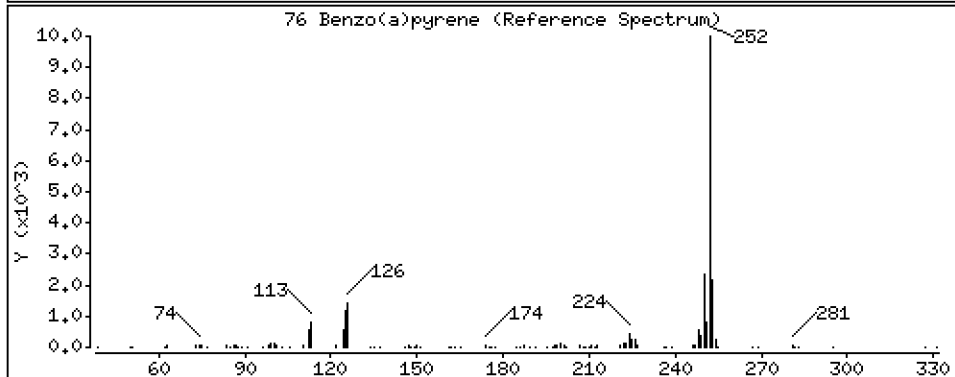
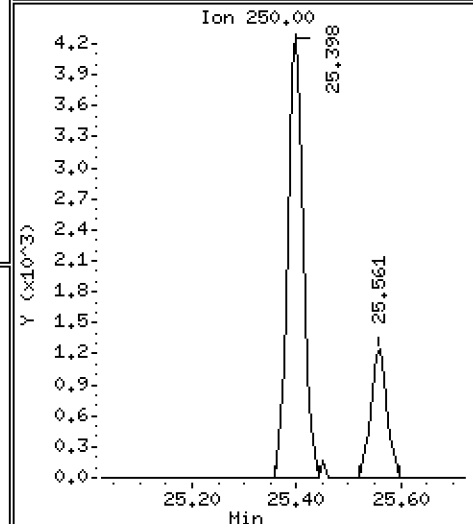
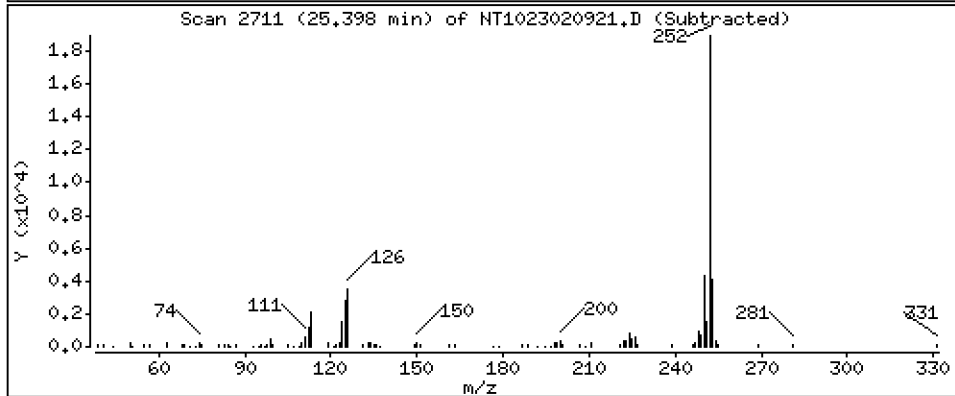
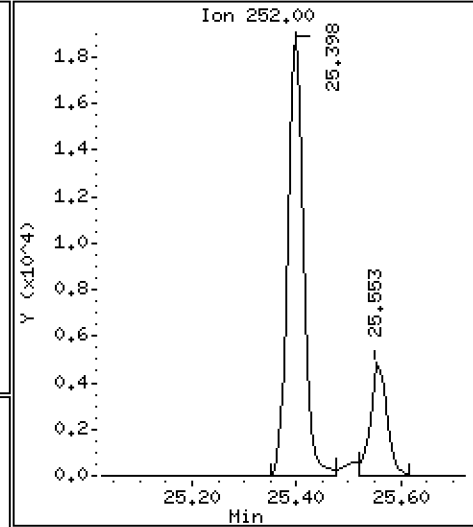
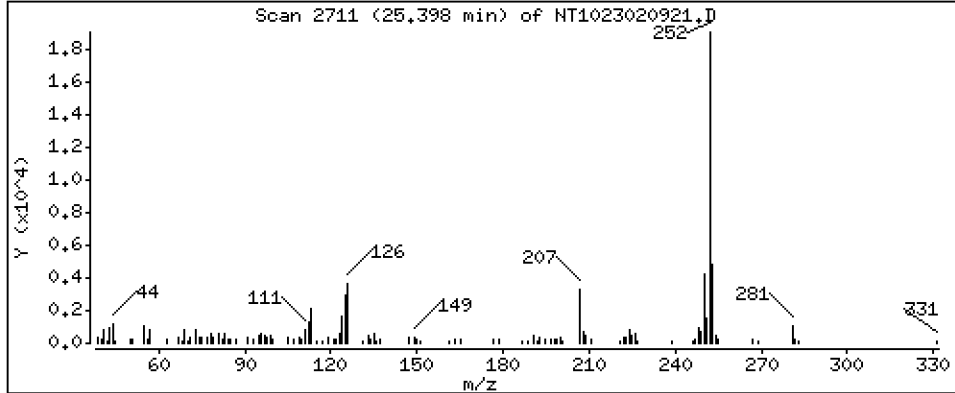
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,5410 ug/mL



Date : 10-FEB-2023 01:47

Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

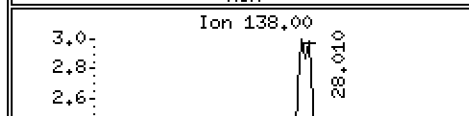
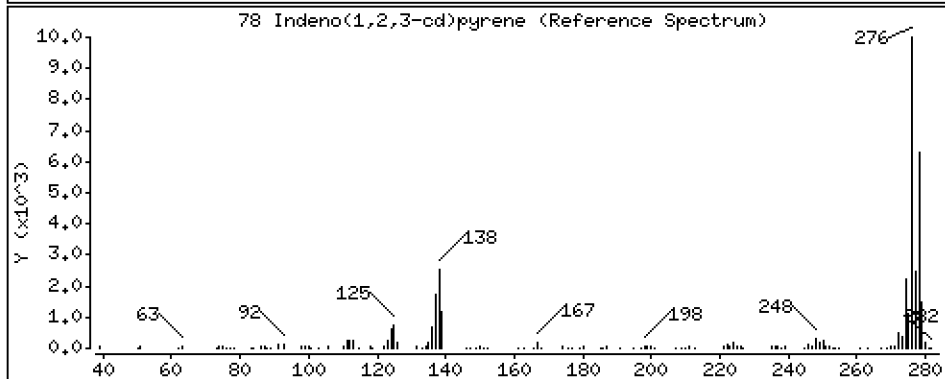
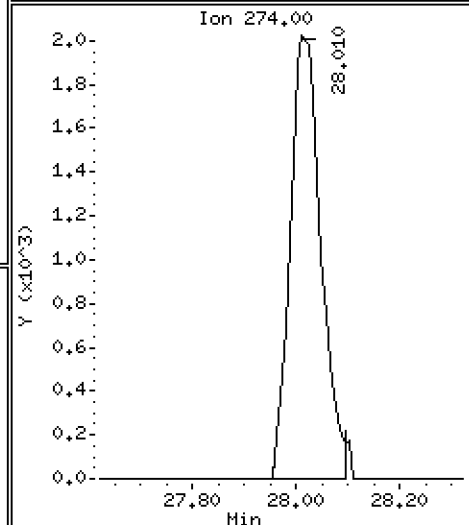
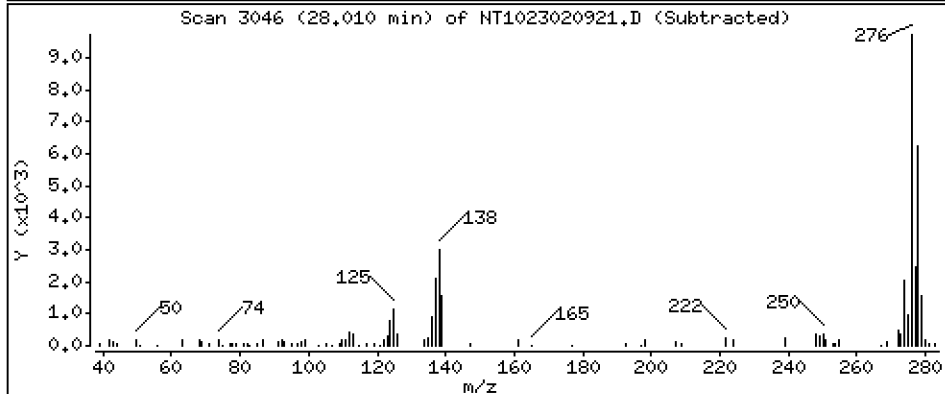
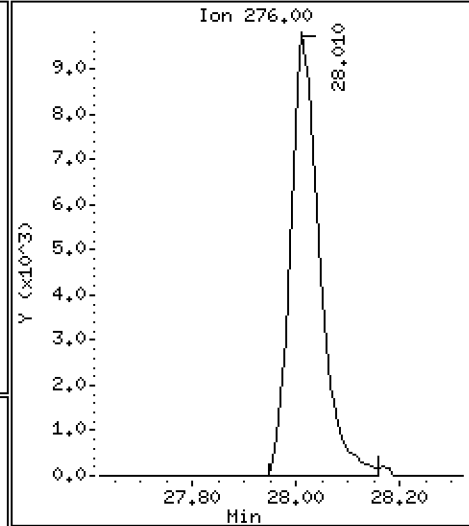
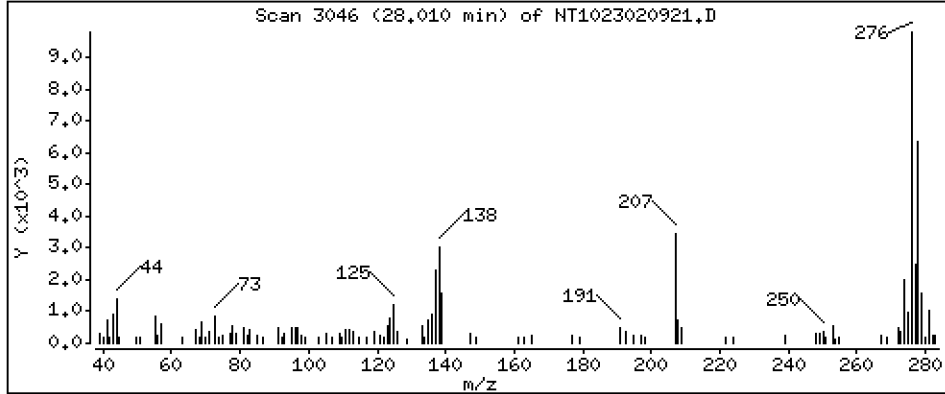
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 0,4303 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

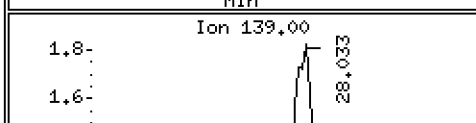
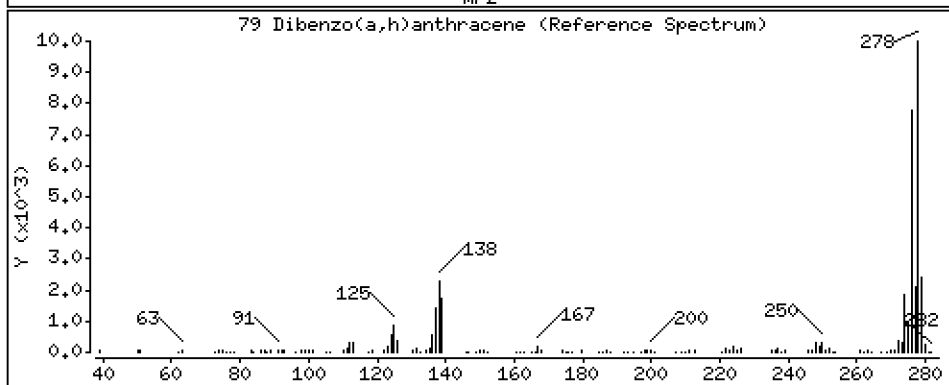
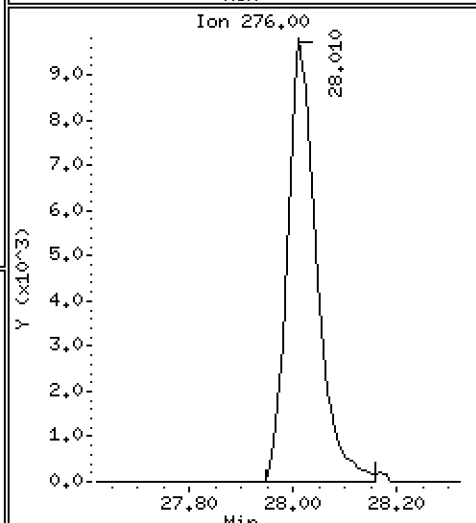
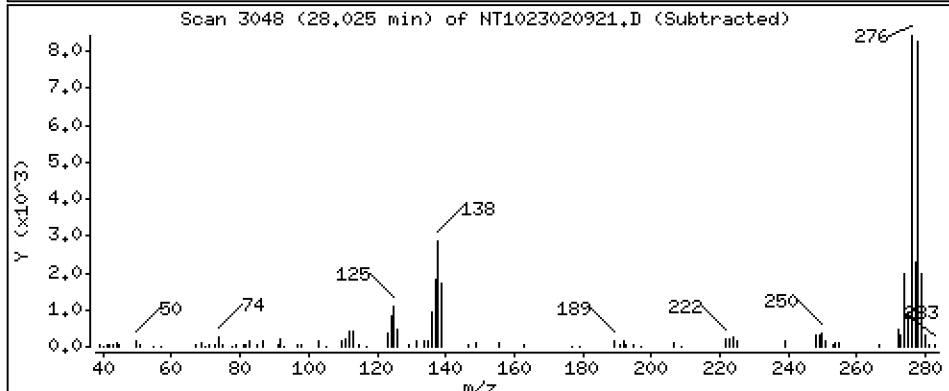
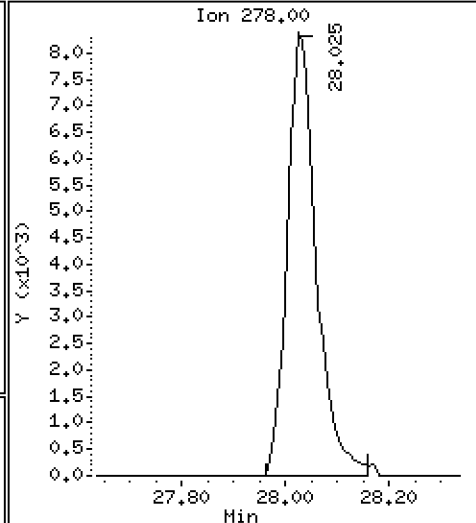
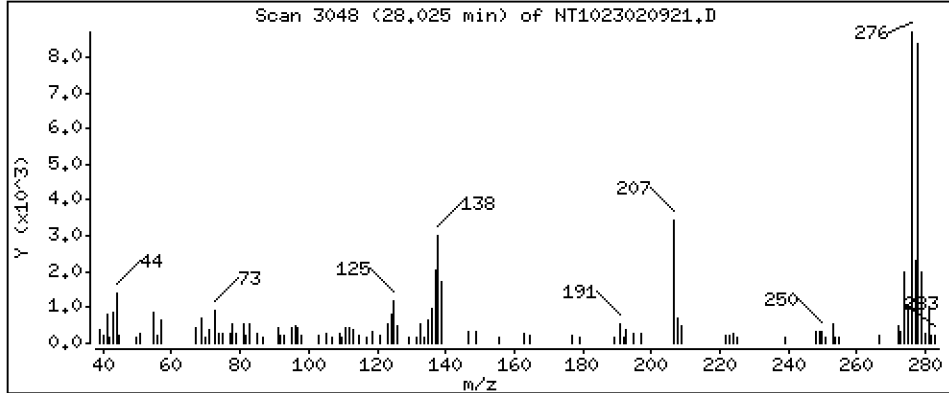
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,4425 ug/mL



Date : 10-FEB-2023 01:47

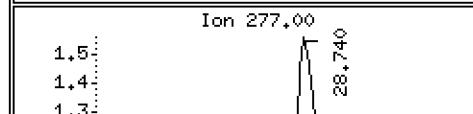
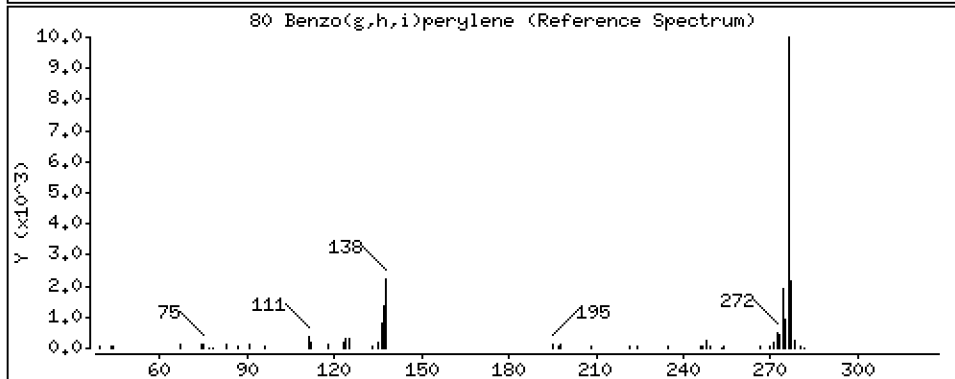
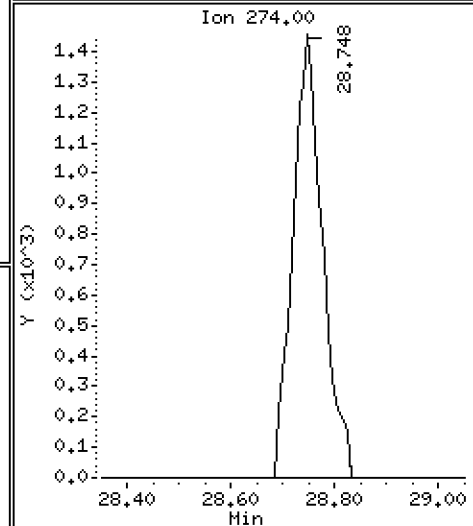
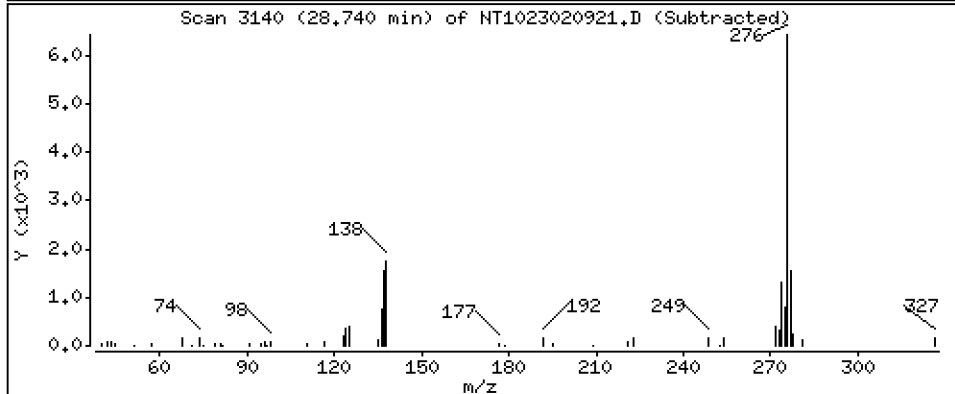
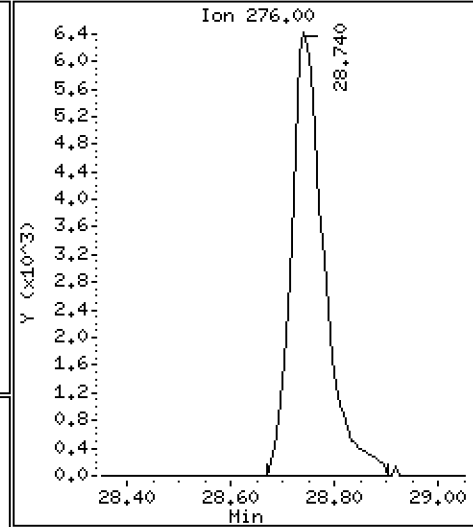
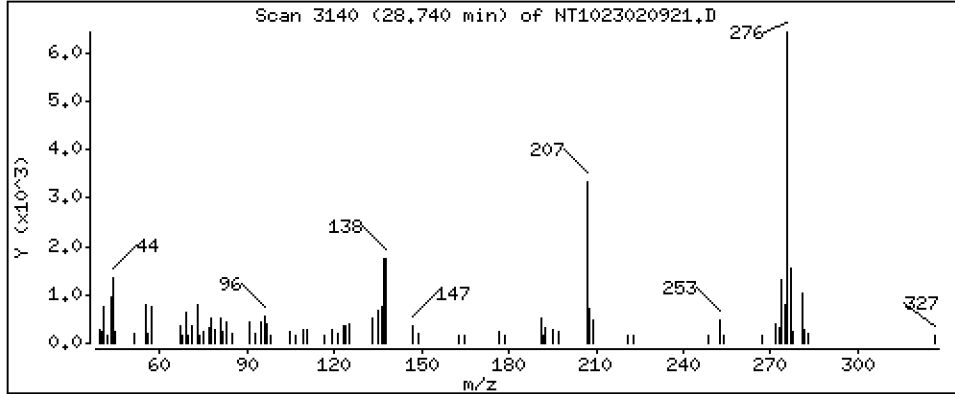
Client ID: Instrument: nt10.i

Sample Info: SLB0122-LCV2

Operator: VTS

Column phase: ZB-5msi Column diameter: 0,25

80 Benzo(g,h,i)perylene Concentration: 0,3679 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

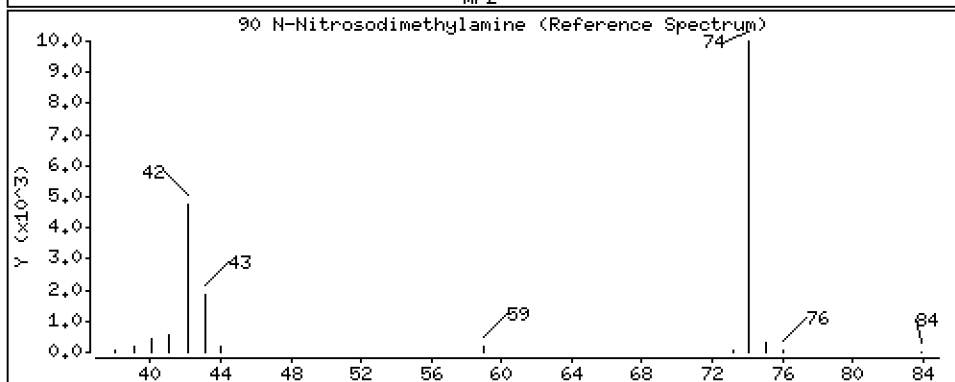
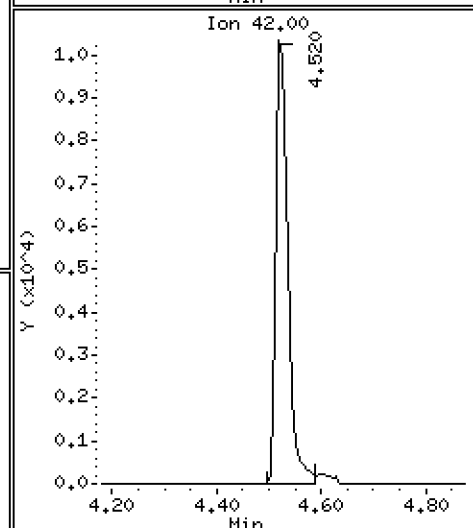
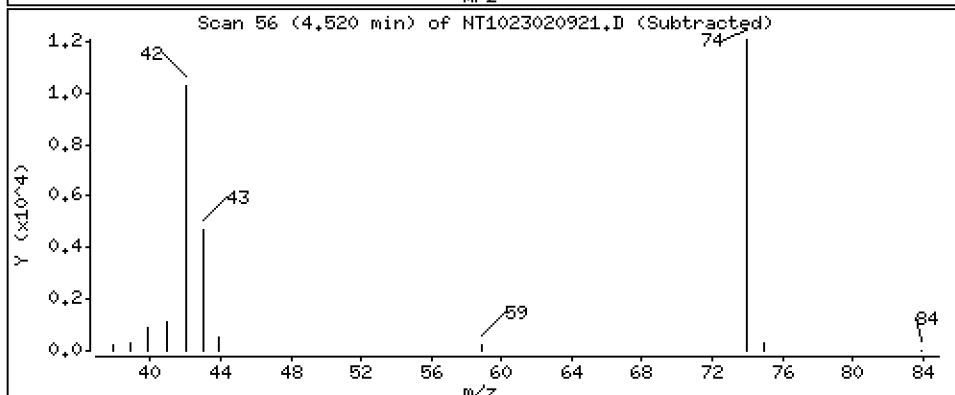
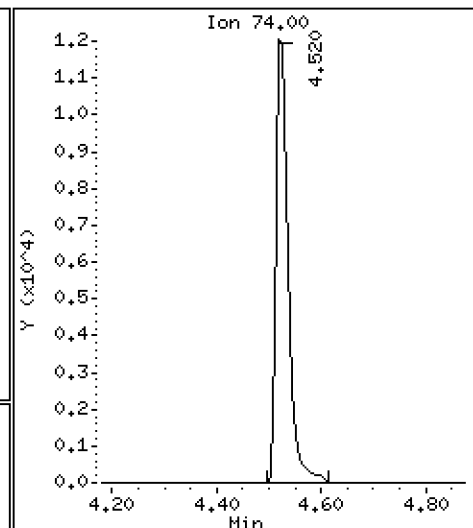
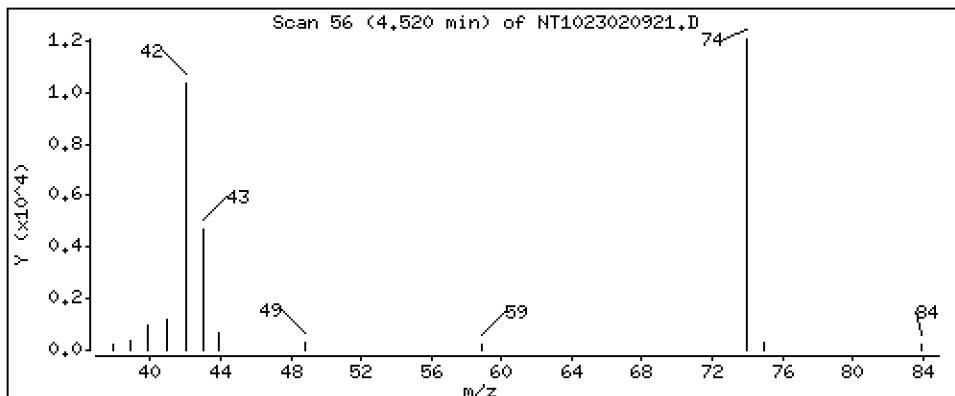
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 0,9990 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

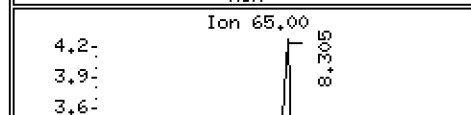
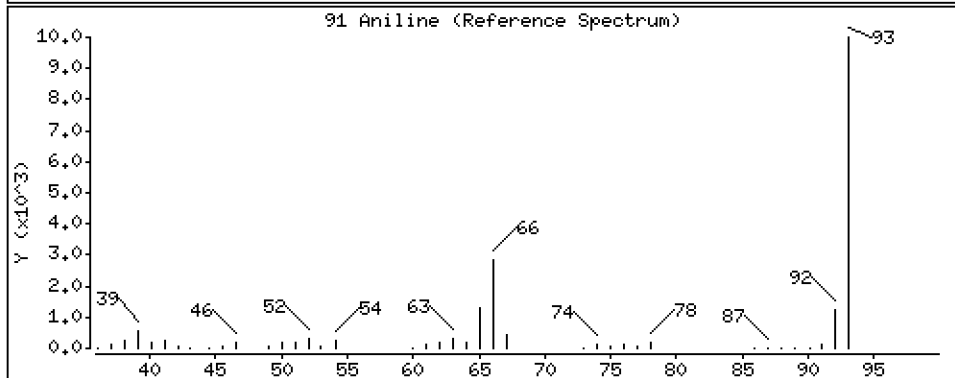
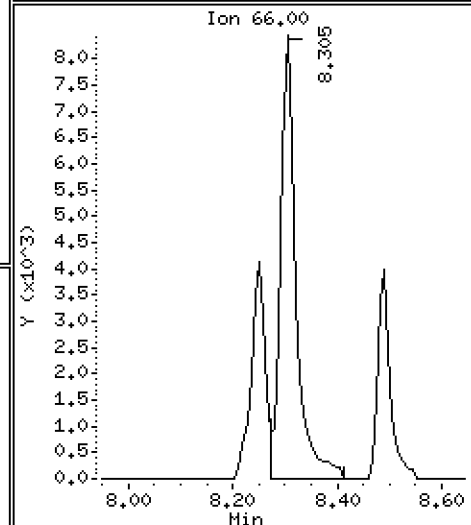
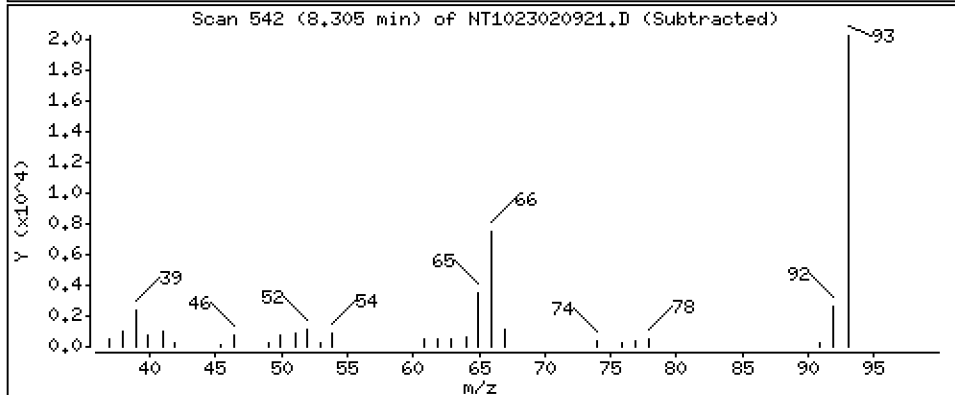
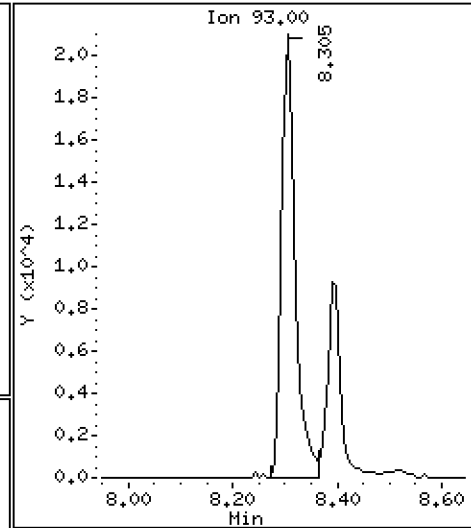
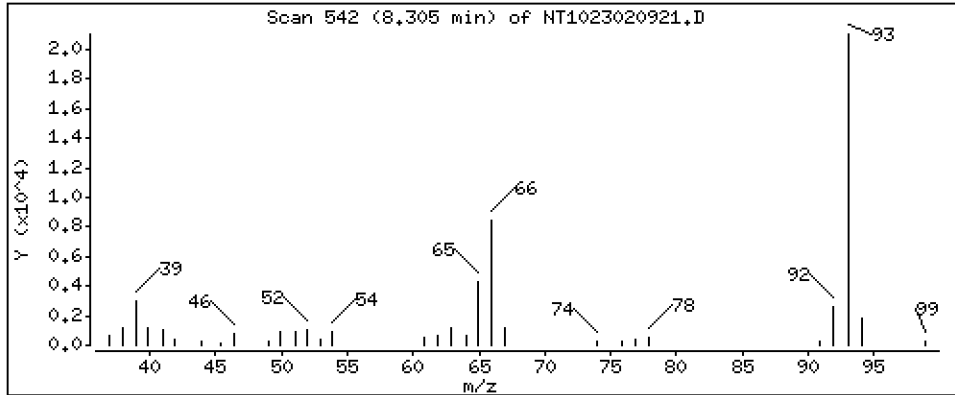
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

91 Aniline

Concentration: 0,9653 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

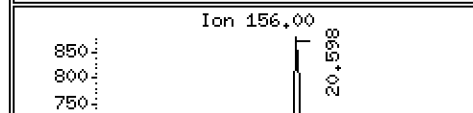
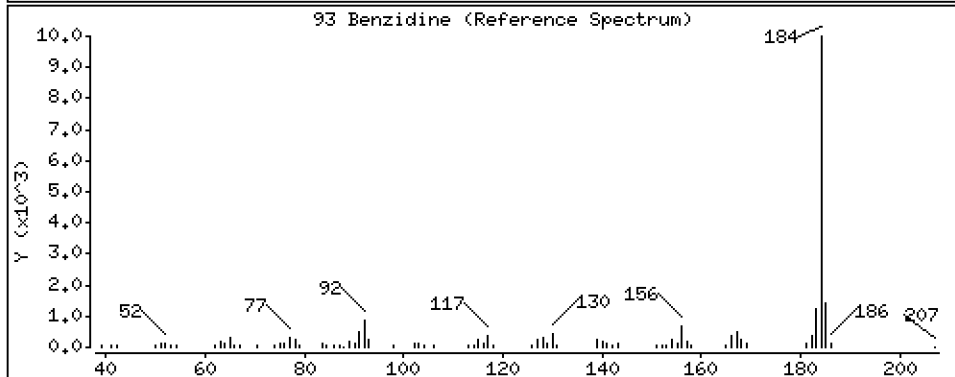
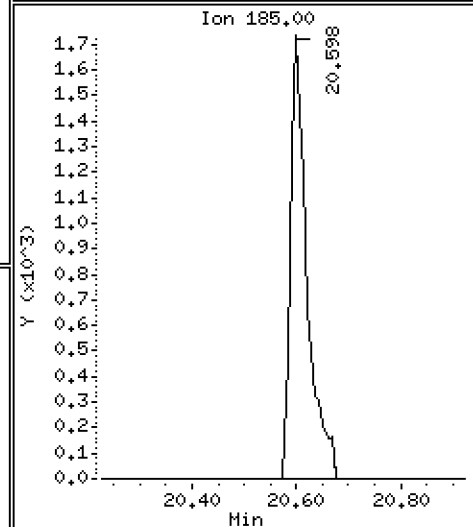
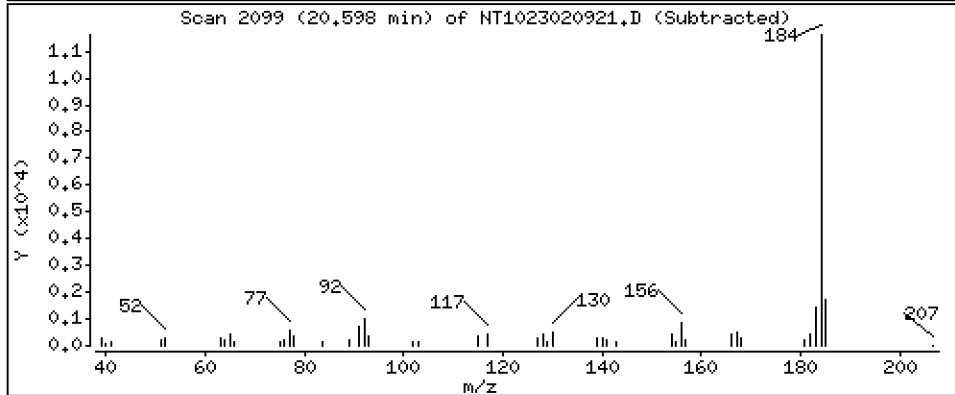
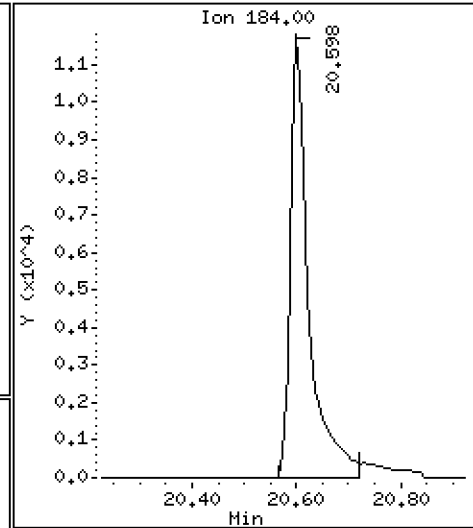
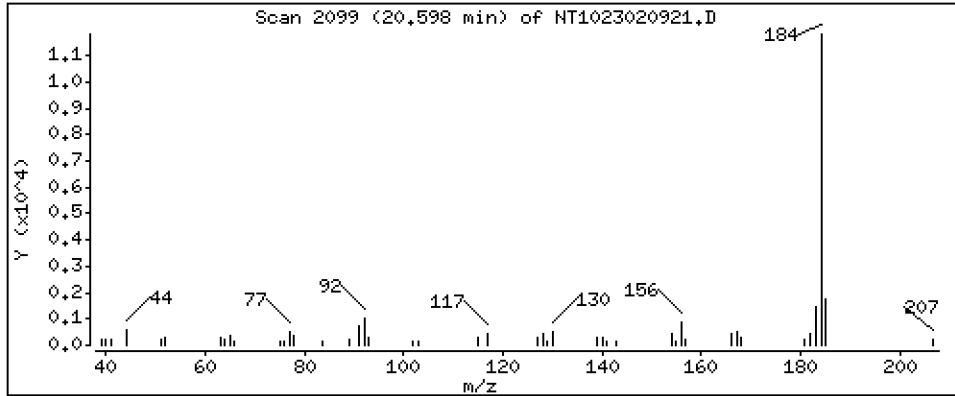
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 1,071 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

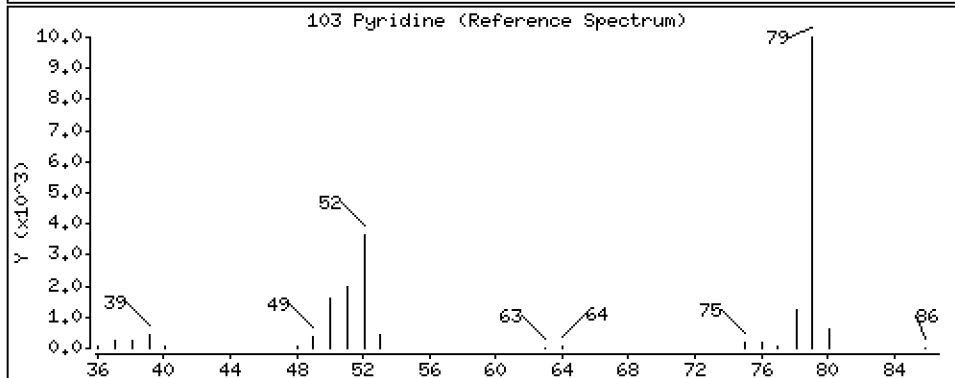
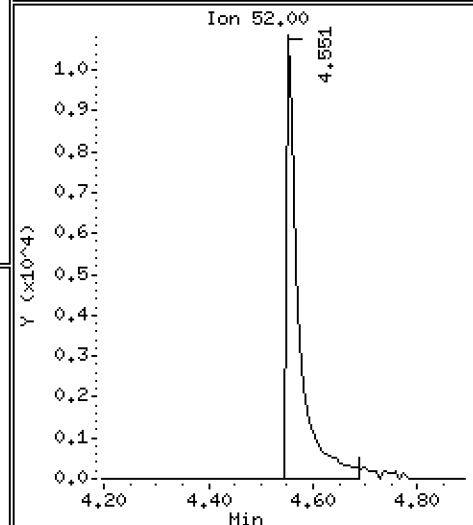
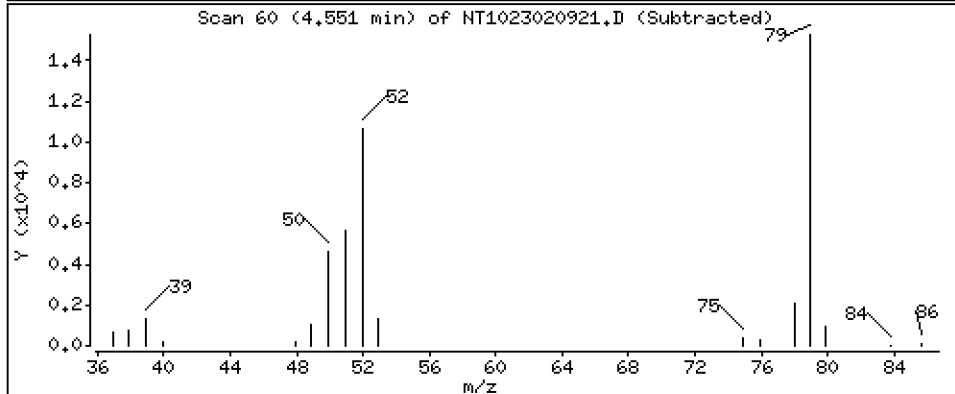
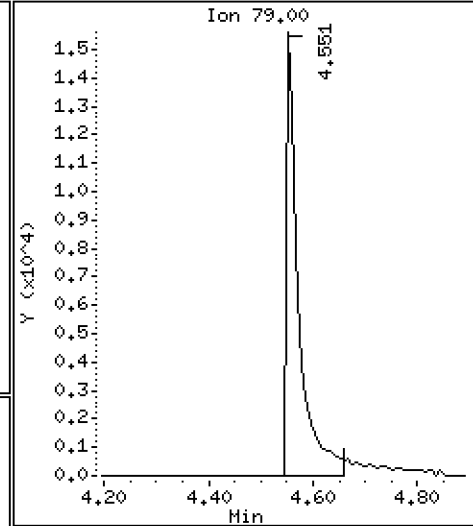
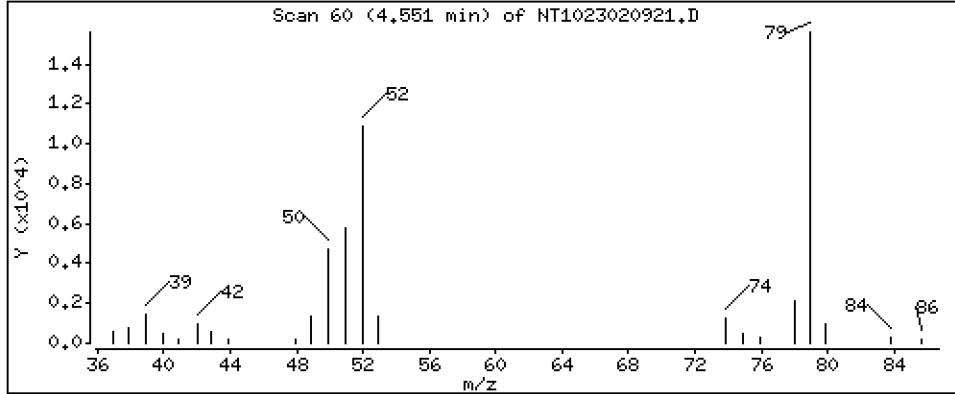
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,8961 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

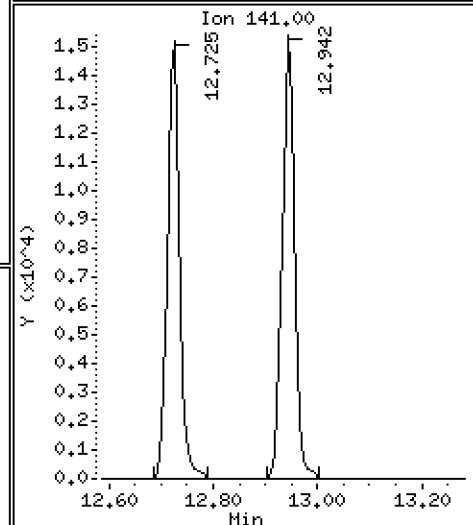
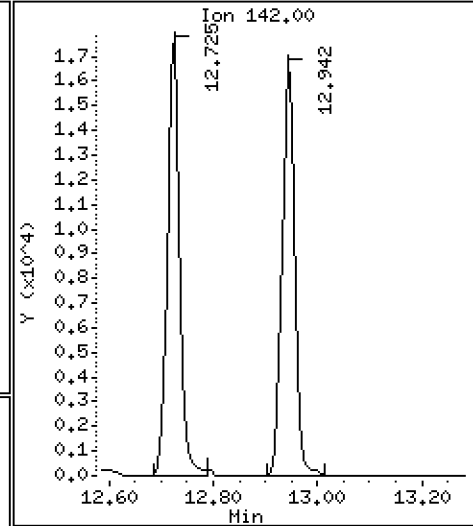
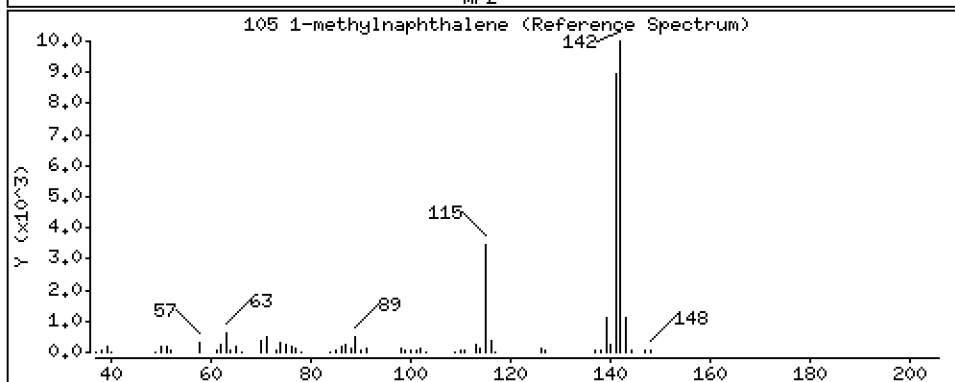
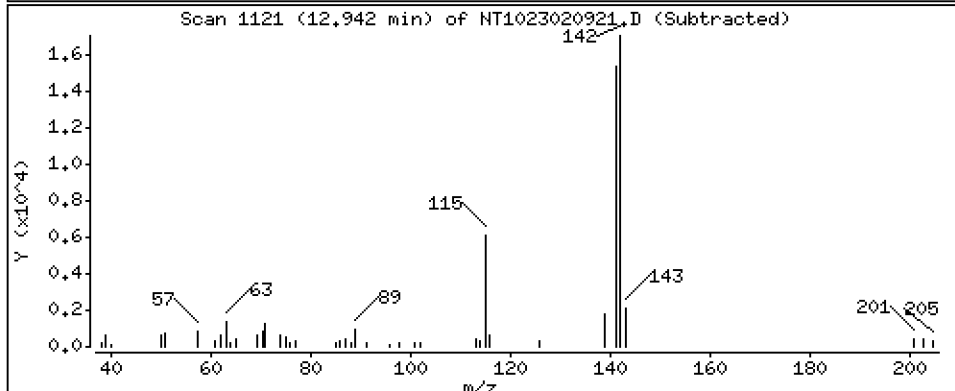
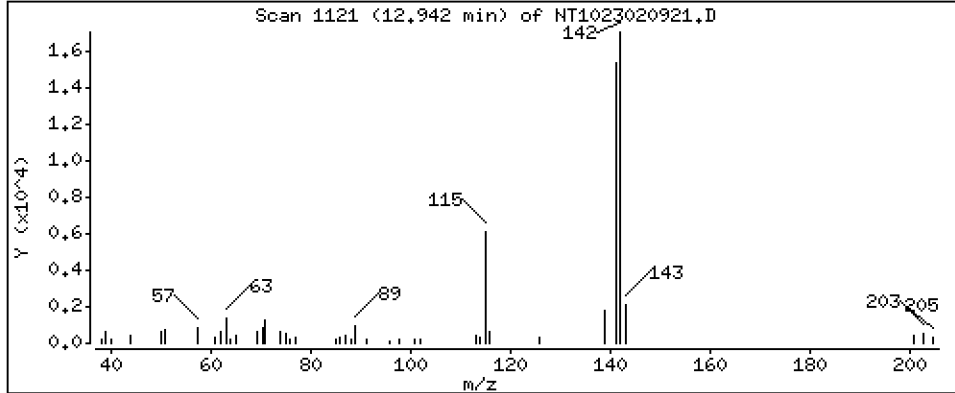
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,5033 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

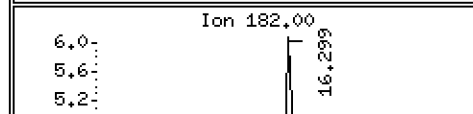
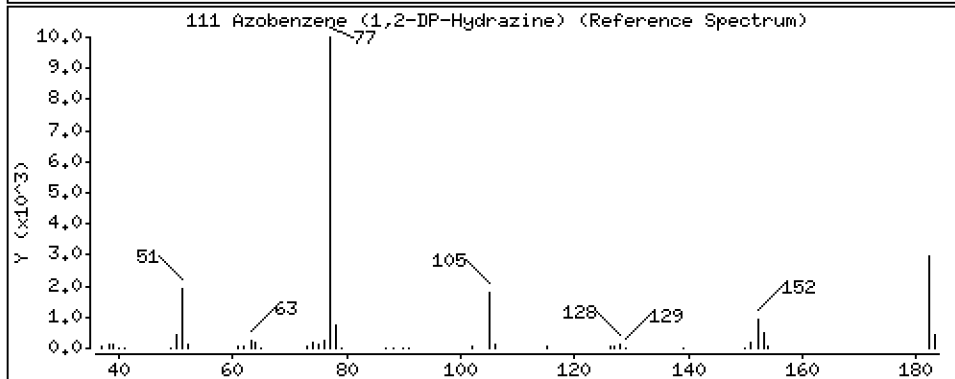
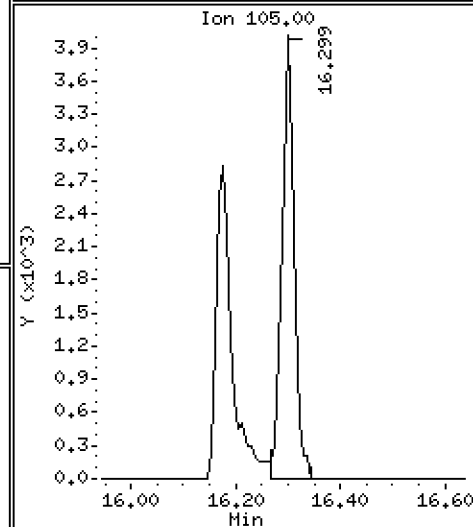
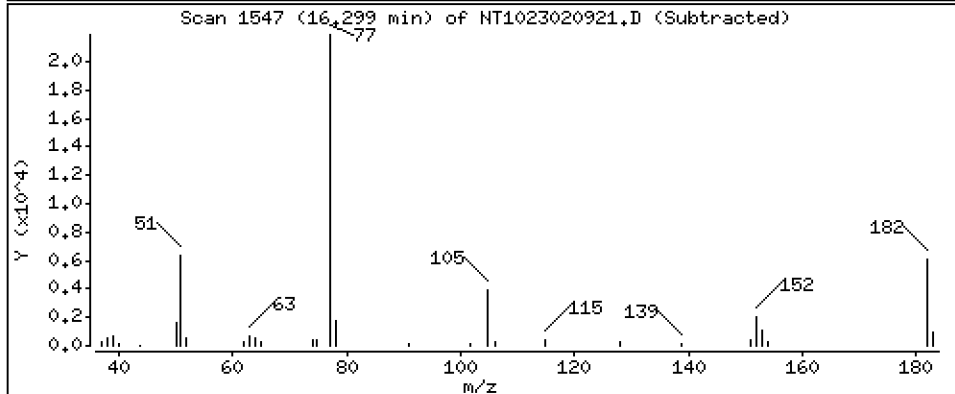
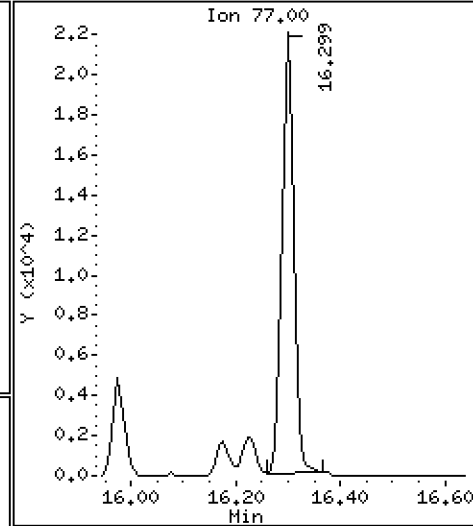
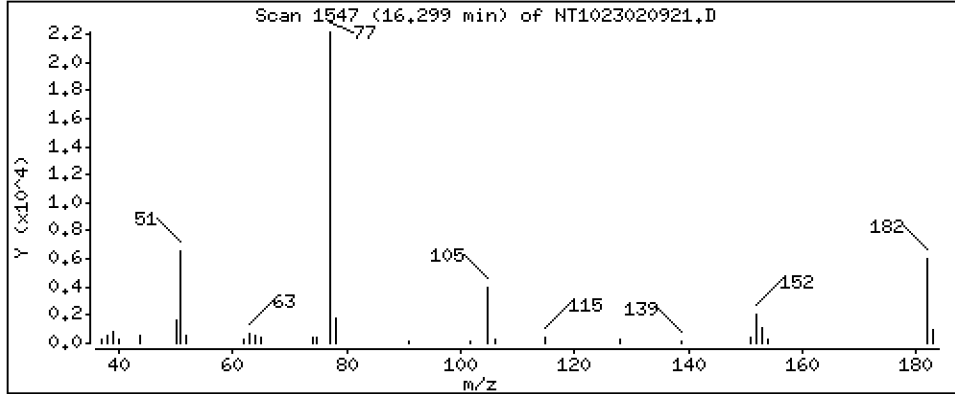
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0,5108 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

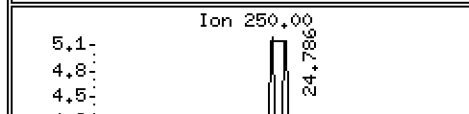
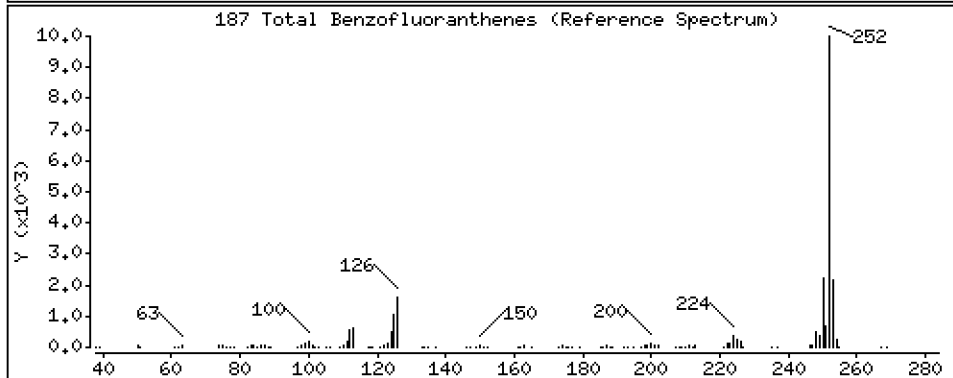
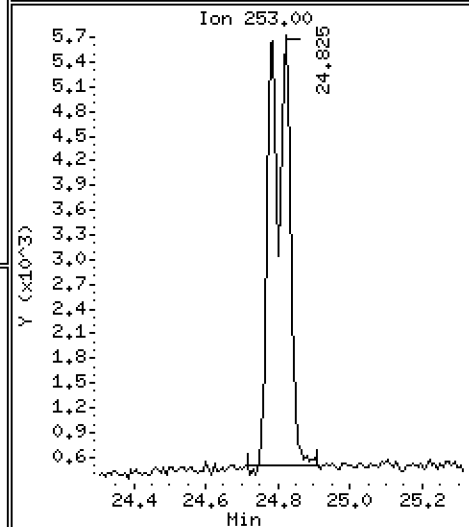
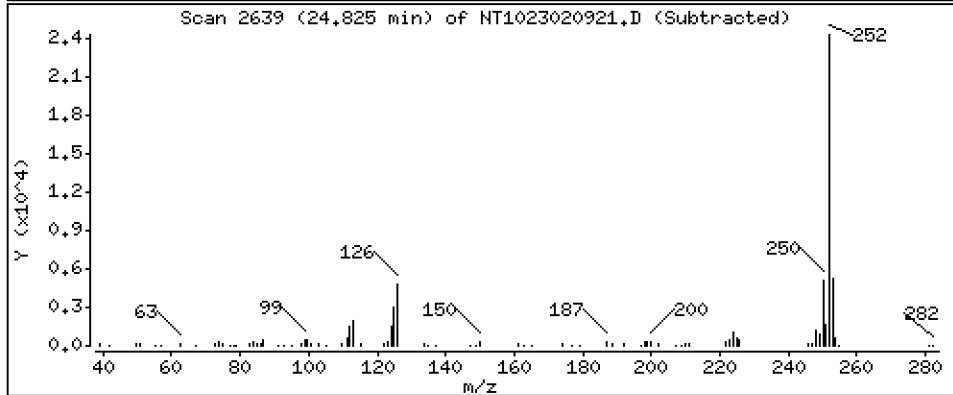
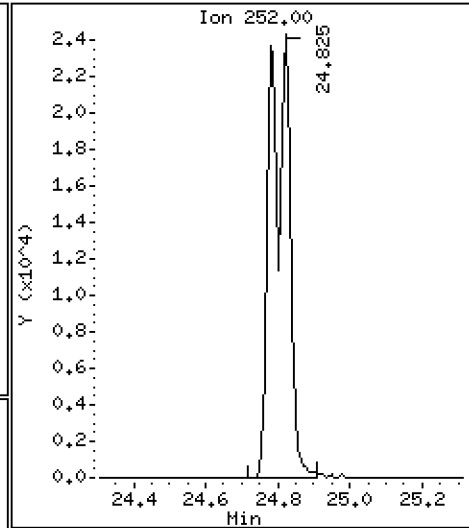
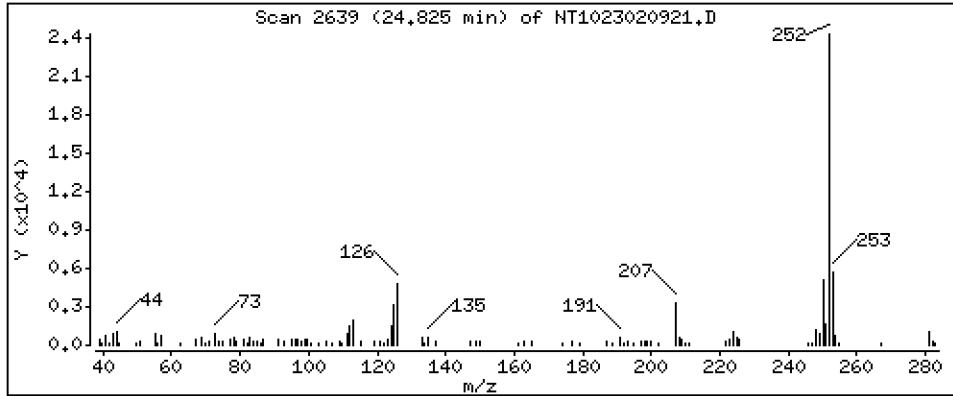
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 1,091 ug/mL



Date : 10-FEB-2023 01:47

Client ID:

Instrument: nt10.i

Sample Info: SLB0122-LCV2

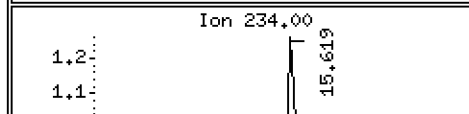
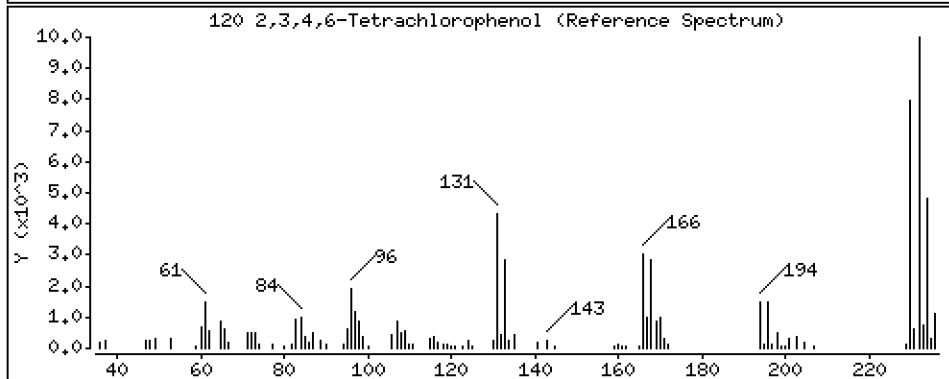
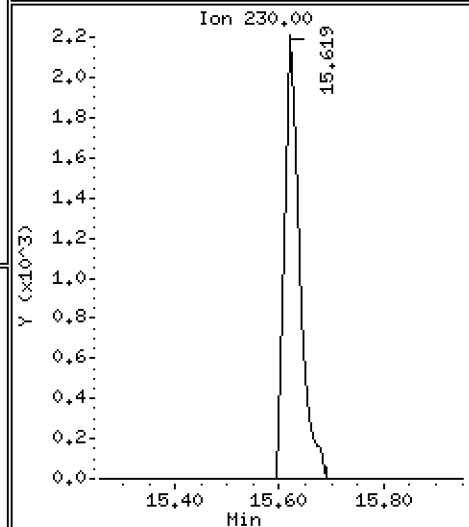
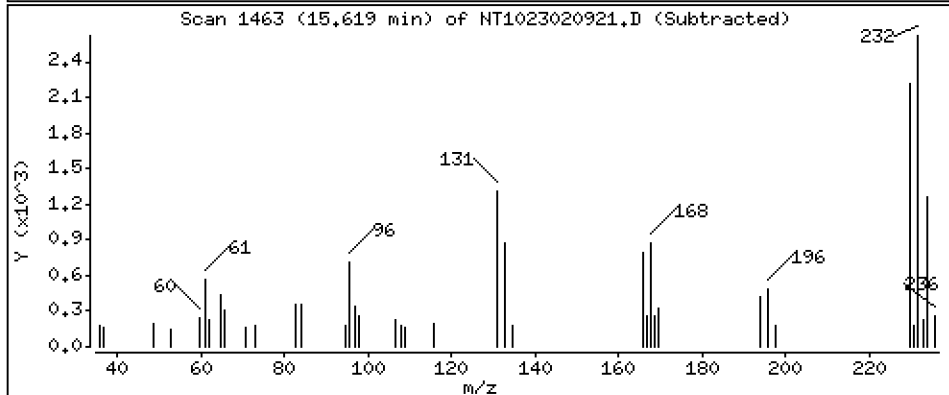
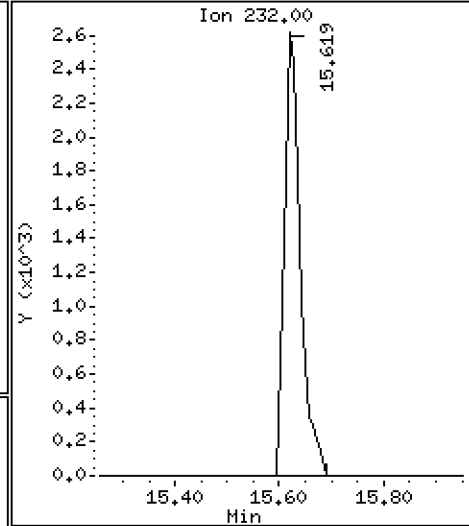
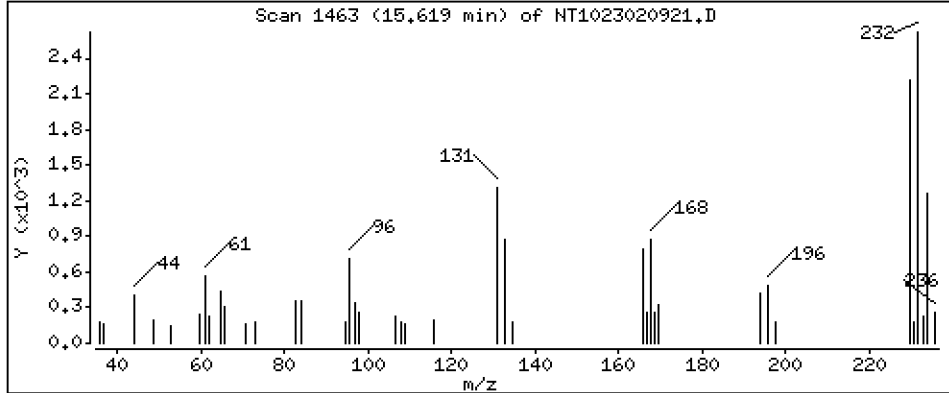
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0,3869 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230209A.b\NT1023020921.D
 Lab Smp Id: SLB0122-LCV2
 Inj Date : 10-FEB-2023 01:47
 Operator : VTS
 Smp Info : SLB0122-LCV2
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230209A.b\ABN.m
 Meth Date : 09-Feb-2023 14:46 deenayd
 Cal Date : 07-FEB-2023 16:09
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Quant Type: ISTD
 Cal File: NT1023020708.D

Compound Sublist: ICAL.sub

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112	6.658	6.651 (0.753)		20735	0.77070	0.7707
\$ 2 Phenol-d5	99	8.227	8.219 (0.931)		27656	0.76199	0.7620
3 Phenol	94	8.250	8.242 (0.933)		19472	0.49597	0.4960
\$ 5 2-Chlorophenol-d4	132	8.489	8.482 (0.961)		22994	0.78062	0.7806
4 Bis(2-Chloroethyl)ether	93	8.389	8.389 (0.949)		16614	0.58192	0.5819
6 2-Chlorophenol	128	8.513	8.505 (0.963)		17030	0.53079	0.5308
7 1,3-Dichlorobenzene	146	8.776	8.768 (0.993)		17471	0.51875	0.5188
* 8 1,4-Dichlorobenzene-d4	152	8.838	8.838 (1.000)		84626	4.00000	
9 1,4-Dichlorobenzene	146	8.869	8.861 (1.004)		17130	0.51640	0.5164
\$ 10 1,2-Dichlorobenzene-d4	152	9.195	9.187 (1.040)		10452	0.51838	0.5184
12 1,2-Dichlorobenzene	146	9.218	9.211 (1.043)		16824	0.52607	0.5261
11 Benzyl alcohol	108	9.133	9.102 (1.033)		7450	0.42839	0.4284
14 2,2'-oxybis(1-Chloropropane)	121	9.412	9.397 (1.065)		4451	0.48440	0.4844 (M)
13 2-Methylphenol	108	9.350	9.335 (1.058)		17428	0.59856	0.5986
17 Hexachloroethane	117	9.800	9.800 (1.109)		5670	0.44586	0.4459
16 N-Nitroso-di-n-propylamine	70	9.661	9.653 (1.093)		10667	0.48718	0.4872
15 4-Methylphenol	108	9.614	9.606 (1.088)		15549	0.50417	0.5042
\$ 18 Nitrobenzene-d5	82	9.917	9.909 (0.878)		16623	0.54342	0.5434
19 Nitrobenzene	77	9.956	9.948 (0.882)		16122	0.52853	0.5285

20	Isophorone	82	10.398	10.390	(0.921)	22994	0.54133	0.5413
21	2-Nitrophenol	139	10.582	10.574	(0.937)	7996	0.50892	0.5089
22	2,4-Dimethylphenol	107	10.642	10.633	(0.942)	29675	1.05657	1.057
23	Bis(2-Chloroethoxy)methane	93	10.828	10.820	(0.959)	14749	0.53473	0.5347
24	Benzoic acid	105	10.828	10.888	(0.959)	6503	0.40936	0.4094 (M)
25	2,4-Dichlorophenol	162	11.041	11.024	(0.978)	22632	0.99184	0.9918
26	1,2,4-Trichlorobenzene	180	11.217	11.209	(0.993)	13628	0.54817	0.5482
* 27	Naphthalene-d8	136	11.294	11.286	(1.000)	309623	4.00000	
28	Naphthalene	128	11.332	11.333	(1.003)	43090	0.52079	0.5208
29	4-Chloroaniline	127	11.471	11.464	(1.016)	32821	0.92537	0.9254
30	Hexachlorobutadiene	225	11.696	11.688	(1.036)	7181	0.55386	0.5539
31	4-Chloro-3-methylphenol	107	12.446	12.423	(1.102)	23049	0.92401	0.9240
32	2-Methylnaphthalene	142	12.725	12.710	(1.127)	28965	0.50349	0.5035
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					
34	2,4,6-Trichlorophenol	196	13.352	13.336	(0.897)	13681	0.97432	0.9743

Compounds	QUANT	SIG	CONCENTRATIONS				
			ON-COLUMN	FINAL			
	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
=====	=====	=====	=====	=====	=====	=====	=====
35 2,4,5-Trichlorophenol	196	13.437	13.414	(0.903)	12497	0.82554	0.8255
\$ 36 2-Fluorobiphenyl	172	13.499	13.491	(0.907)	30777	0.54906	0.5491
37 2-Chloronaphthalene	162	13.708	13.700	(0.921)	26319	0.54017	0.5402
38 2-Nitroaniline	65	13.971	13.956	(0.939)	16467	1.07333	1.073
39 Dimethylphthalate	163	14.397	14.389	(0.967)	27808	0.53346	0.5335
40 Acenaphthylene	152	14.567	14.559	(0.979)	42007	0.54125	0.5413
41 2,6-Dinitrotoluene	165	14.536	14.521	(0.977)	12278	0.99446	0.9945
* 42 Acenaphthene-d10	164	14.884	14.869	(1.000)	155546	4.00000	
43 3-Nitroaniline	138	14.815	14.807	(0.995)	12515	0.87914	0.8791
44 Acenaphthene	153	14.946	14.939	(1.004)	24854	0.52255	0.5226
45 2,4-Dinitrophenol	184	15.039	15.016	(1.010)	2075	0.32576	0.3258 (M)
46 Dibenzofuran	168	15.271	15.263	(1.026)	34892	0.50996	0.5100
47 4-Nitrophenol	109	15.209	15.147	(1.022)	4282	0.80691	0.8069 (M)
48 2,4-Dinitrotoluene	165	15.333	15.325	(1.030)	15888	0.93266	0.9327
50 Diethylphthalate	149	15.843	15.843	(1.064)	26685	0.53307	0.5331
49 Fluorene	166	15.982	15.967	(1.074)	34814	0.45267	0.4527
51 4-Chlorophenyl-phenylether	204	15.974	15.967	(1.073)	16448	0.43788	0.4379
52 4-Nitroaniline	138	16.082	16.067	(1.080)	14795	0.90946	0.9095
53 4,6-Dinitro-2-methylphenol	198	16.175	16.167	(0.903)	13152	1.39721	1.397
54 N-Nitrosodiphenylamine	169	16.229	16.213	(0.906)	24240	0.54410	0.5441
\$ 55 2,4,6-Tribromophenol	330	16.522	16.506	(1.110)	4752	0.61011	0.6101
56 4-Bromophenyl-phenylether	248	16.977	16.961	(0.948)	8717	0.53099	0.5310
57 Hexachlorobenzene	284	17.286	17.278	(0.965)	10111	0.57189	0.5719
58 Pentachlorophenol	266	17.658	17.635	(0.986)	3318	0.49818	0.4982
* 59 Phenanthrene-d10	188	17.905	17.890	(1.000)	260617	4.00000	
60 Phenanthrene	178	17.952	17.936	(1.003)	36405	0.51903	0.5190
61 Anthracene	178	18.045	18.029	(1.008)	35911	0.51705	0.5171
62 Carbazole	167	18.385	18.362	(1.027)	33982	0.50729	0.5073
63 Di-n-butylphthalate	149	19.197	19.182	(1.072)	42424	0.53109	0.5311
64 Fluoranthene	202	20.350	20.335	(0.886)	38715	0.47059	0.4706
65 Pyrene	202	20.776	20.760	(0.904)	40518	0.47706	0.4771
\$ 66 Terphenyl-d14	244	21.070	21.054	(0.917)	30542	0.47690	0.4769
67 Butylbenzylphthalate	149	22.007	21.991	(0.958)	18961	0.51660	0.5166
68 Benzo(a)anthracene	228	22.943	22.936	(0.999)	42021	0.56192	0.5619
* 69 Chrysene-d12	240	22.974	22.959	(1.000)	224354	4.00000	
70 3,3'-Dichlorobenzidine	252	22.913	22.897	(0.997)	44827	1.77165	1.772
71 Chrysene	228	23.021	23.006	(1.002)	38676	0.53928	0.5393
72 bis(2-Ethylhexyl)phthalate	149	23.052	23.037	(0.959)	25953	0.52045	0.5205
* 134 Di-n-octylphthalate-d4	153	24.035	24.020	(1.000)	366602	4.00000	
73 Di-n-octylphthalate	149	24.043	24.027	(1.000)	49703	0.53650	0.5365

74	Benzo(b)fluoranthene	252	24.778	24.763	(0.971)	44841	0.53480	0.5348
75	Benzo(k)fluoranthene	252	24.825	24.809	(0.973)	48679	0.55145	0.5514
76	Benzo(a)pyrene	252	25.398	25.375	(0.996)	41019	0.54105	0.5410
* 77	Perylene-d12	264	25.506	25.483	(1.000)	264875	4.00000	
78	Indeno(1,2,3-cd)pyrene	276	28.009	27.971	(1.098)	38833	0.43033	0.4303
79	Dibenzo(a,h)anthracene	278	28.025	27.986	(1.099)	33077	0.44248	0.4425
80	Benzo(g,h,i)perylene	276	28.739	28.701	(1.127)	28495	0.36793	0.3679
90	N-Nitrosodimethylamine	74	4.519	4.527	(0.511)	18700	0.99905	0.9990
91	Aniline	93	8.304	8.297	(0.940)	36680	0.96529	0.9653
93	Benzidine	184	20.598	20.575	(0.897)	29513	1.07068	1.071
103	Pyridine	79	4.550	4.543	(0.515)	25961	0.89609	0.8961
105	1-methylnaphthalene	142	12.942	12.934	(1.146)	27875	0.50329	0.5033
111	Azobenzene (1,2-DP-Hydrazine)	77	16.298	16.291	(1.095)	34068	0.51077	0.5108
187	Total Benzo(a)fluoranthenes	252	24.825	24.809	(0.973)	89646	1.09058	1.091

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
120 2,3,4,6-Tetrachlorophenol	232	15.619	15.603	(1.049)	5558	0.38687	0.3869

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 09-FEB-2023
 Lab File ID: NT1023020921.D Calibration Time: 13:31
 Lab Smp Id: SLB0122-LCV2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230209A.b\ABN.m
 Misc Info:

Test Mode: Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	89503	44752	179006	84626	-5.45
27 Naphthalene-d8	348104	174052	696208	309623	-11.05
42 Acenaphthene-d10	183525	91763	367050	155546	-15.25
59 Phenanthrene-d10	295489	147745	590978	260617	-11.80
69 Chrysene-d12	239590	119795	479180	224354	-6.36
134 Di-n-octylphthala	404293	202147	808586	366602	-9.32
77 Perylene-d12	274336	137168	548672	264875	-3.45

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	-0.00
27 Naphthalene-d8	11.29	10.79	11.79	11.29	0.07
42 Acenaphthene-d10	14.87	14.37	15.37	14.88	0.10
59 Phenanthrene-d10	17.89	17.39	18.39	17.91	0.09
69 Chrysene-d12	22.96	22.46	23.46	22.97	0.07
134 Di-n-octylphthala	24.02	23.52	24.52	24.04	0.06
77 Perylene-d12	25.48	24.98	25.98	25.51	0.09

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020921.D

Lab ID: SLB0122-LCV2
nt10.i, 20230209A.b\ABN.m, 10-FEB-2023 01:47

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.959	0.965	-0.0059	Benzoic acid

RRT check based on Ccal File: NT1023020902.D

On Column LOD for nt10.i, 20230209A.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

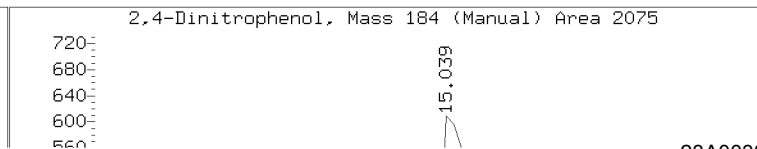
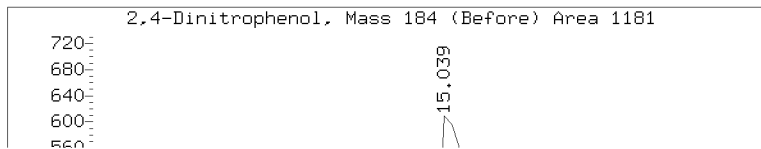
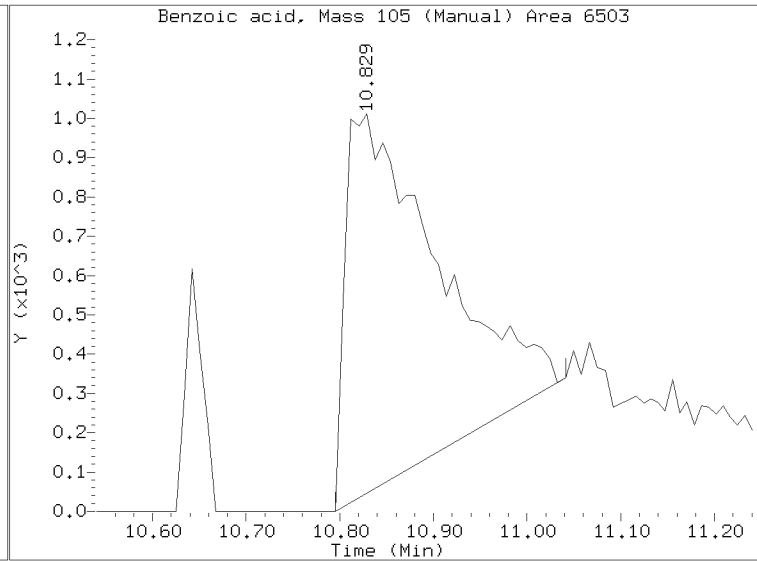
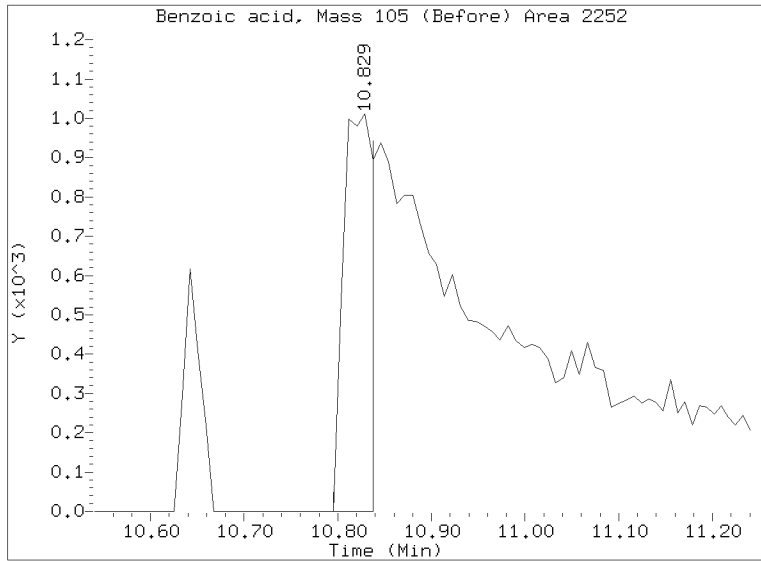
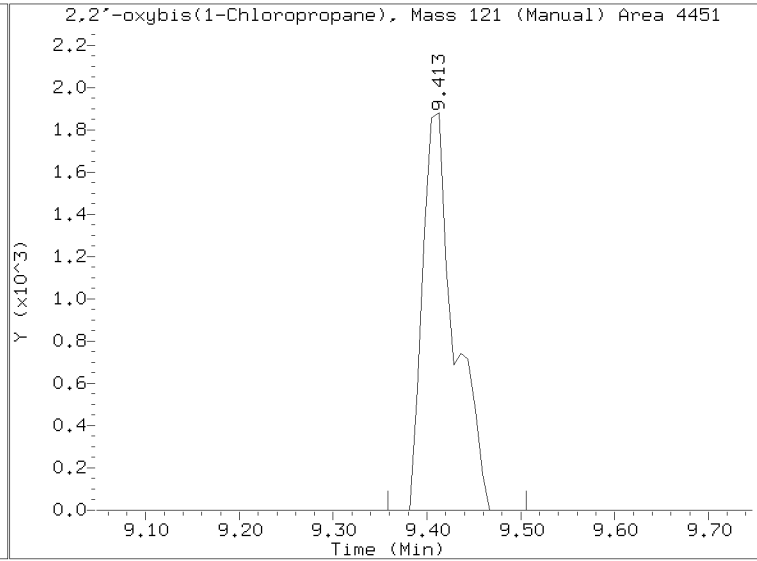
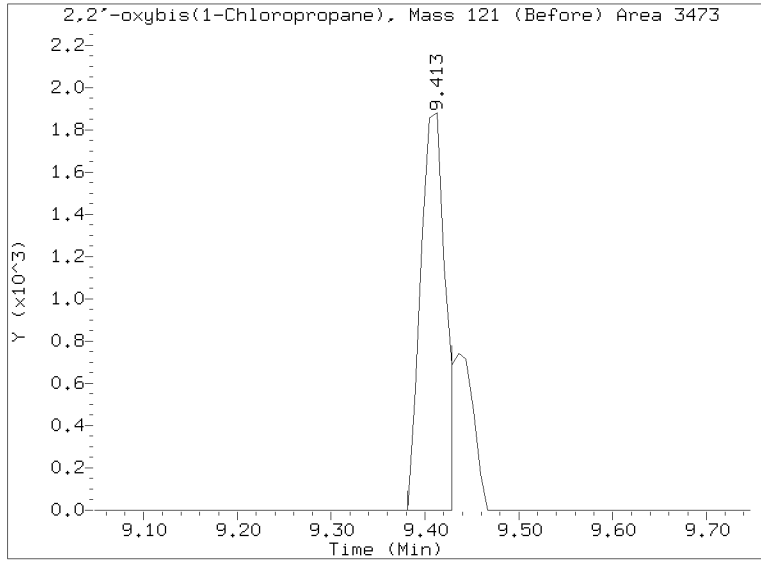
Quant Ion Manual Peak Adjustment Report

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Injection Date: 10-FEB-2023 01:47

Lab ID:SLB0122-LCV2 Client ID:

Report Date: 02/11/2023 10:02



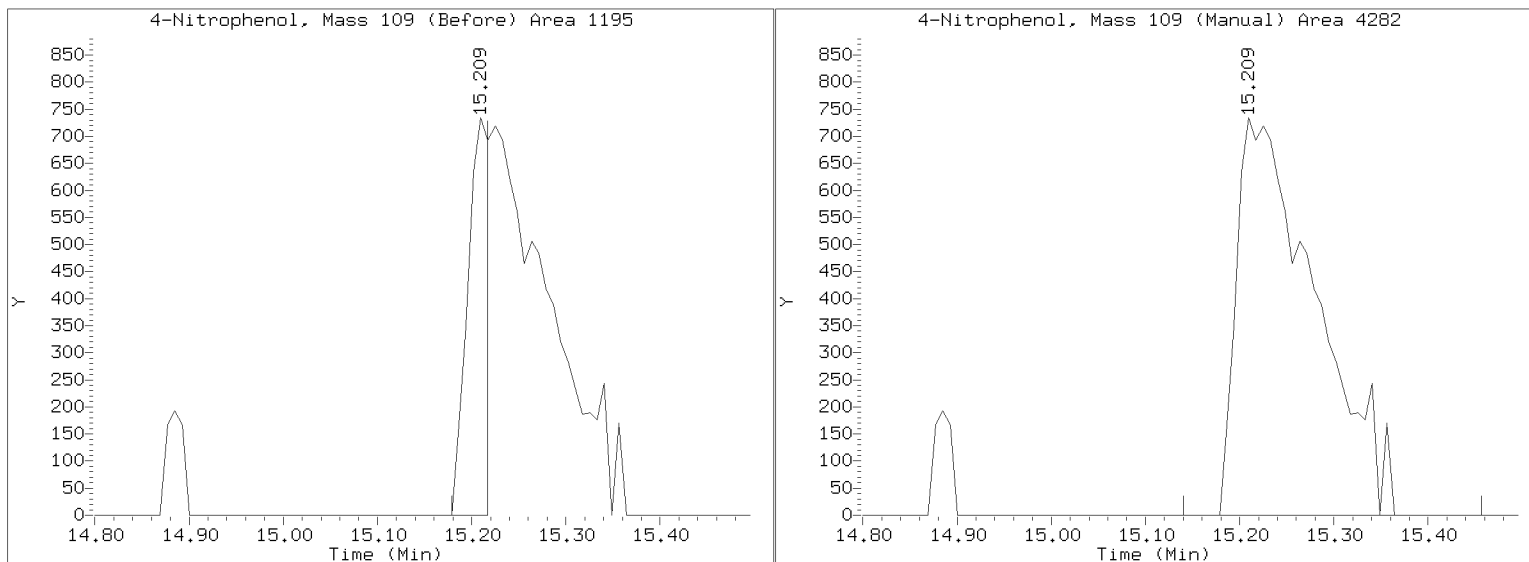
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209A.b/NT1023020921.D

Injection Date: 10-FEB-2023 01:47

Lab ID:SLB0122-LCV2 Client ID:

Report Date: 02/11/2023 10:02



APPROVED

By Deenay Dunmore at 10:06 am, Feb 11, 2023



CONTINUING CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00018

Lab File ID: NT1023021019.D

Calibration Date: 02/07/2023

Sequence: SLB0154

Injection Date: 02/11/23

Lab Sample ID: SLB0154-CCV1

Injection Time: 02:59

Sequence Name: Calibration Check

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	5.0000	4.9	1.8557260	1.8111140		-2.4	+/-50
4-Methylphenol	A	5.0000	4.7	1.4577560	1.3694460		-6.1	+/-50
Naphthalene	A	5.0000	4.5	1.0689000	0.9592325		-10.3	+/-50
2-Methylnaphthalene	A	5.0000	4.8	0.7432041	0.7139087		-3.9	+/-50
Acenaphthylene	A	5.0000	4.5	1.9958230	1.8131520		-9.2	+/-50
Dimethylphthalate	A	5.0000	4.7	1.3405170	1.2578550		-6.2	+/-50
Acenaphthene	A	5.0000	4.5	1.2231120	1.1044010		-9.7	+/-50
Dibenzofuran	A	5.0000	4.5	1.7594910	1.5873750		-9.8	+/-50
Fluorene	A	5.0000	4.4	1.9777380	1.7277980		-12.6	+/-50
Phenanthrene	A	5.0000	4.7	1.0765200	1.0119530		-6.0	+/-50
Anthracene	A	5.0000	4.8	1.0659800	1.0256720		-3.8	+/-50
Fluoranthene	A	5.0000	4.4	1.4667580	1.2951100		-11.7	+/-50
Pyrene	A	5.0000	4.4	1.5142740	1.3380710		-11.6	+/-50
Butylbenzylphthalate	A	5.0000	4.8	0.6543795	0.6222958		-4.9	+/-50
Benzo(a)anthracene	A	5.0000	4.6	1.3332750	1.2372510		-7.2	+/-50
Chrysene	A	5.0000	4.5	1.2786640	1.1630670		-9.0	+/-50
bis(2-Ethylhexyl)phthalate	A	5.0000	4.7	0.5440929	0.5137200		-5.6	+/-50
Benzo(a)fluoranthene, Total	A	10.0000	9.5	1.2413430	1.1783890		-5.1	+/-50
Benzo(a)pyrene	A	5.0000	4.8	1.1449040	1.1002730		-3.9	+/-50
Indeno(1,2,3-cd)pyrene	A	5.0000	4.5	1.3627520	1.2247350		-10.1	+/-50
Dibenzo(a,h)anthracene	A	5.0000	4.7	1.1288770	1.0625950		-5.9	+/-50
Benzo(g,h,i)perylene	A	5.0000	3.9	1.1695480	0.9116539		-22.1	+/-50
2-Fluorophenol	A	7.5000	7.42	1.2716740	1.2577320		-1.1	+/-50
Phenol-d5	A	7.5000	7.43	1.7155190	1.6997730		-0.9	+/-50
2-Chlorophenol-d4	A	7.5000	7.38	1.3922970	1.3704880		-1.6	+/-50
1,2-Dichlorobenzene-d4	A	5.0000	4.72	0.9530327	0.8991438		-5.7	+/-50
Nitrobenzene-d5	A	5.0000	4.93	0.3951837	0.3897980		-1.4	+/-50
2-Fluorobiphenyl	A	5.0000	4.61	1.4414640	1.3277210		-7.9	+/-50
2,4,6-Tribromophenol	A	7.5000	3.86	0.2002949	0.1030374		-48.6	+/-50
p-Terphenyl-d14	A	5.0000	4.42	1.1418200	1.0088670		-11.6	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\202302109.1\NT1023021019.D

Date: 11-FEB-2023 02:59

Client ID:

Sample Info: SLB0155-ICV1

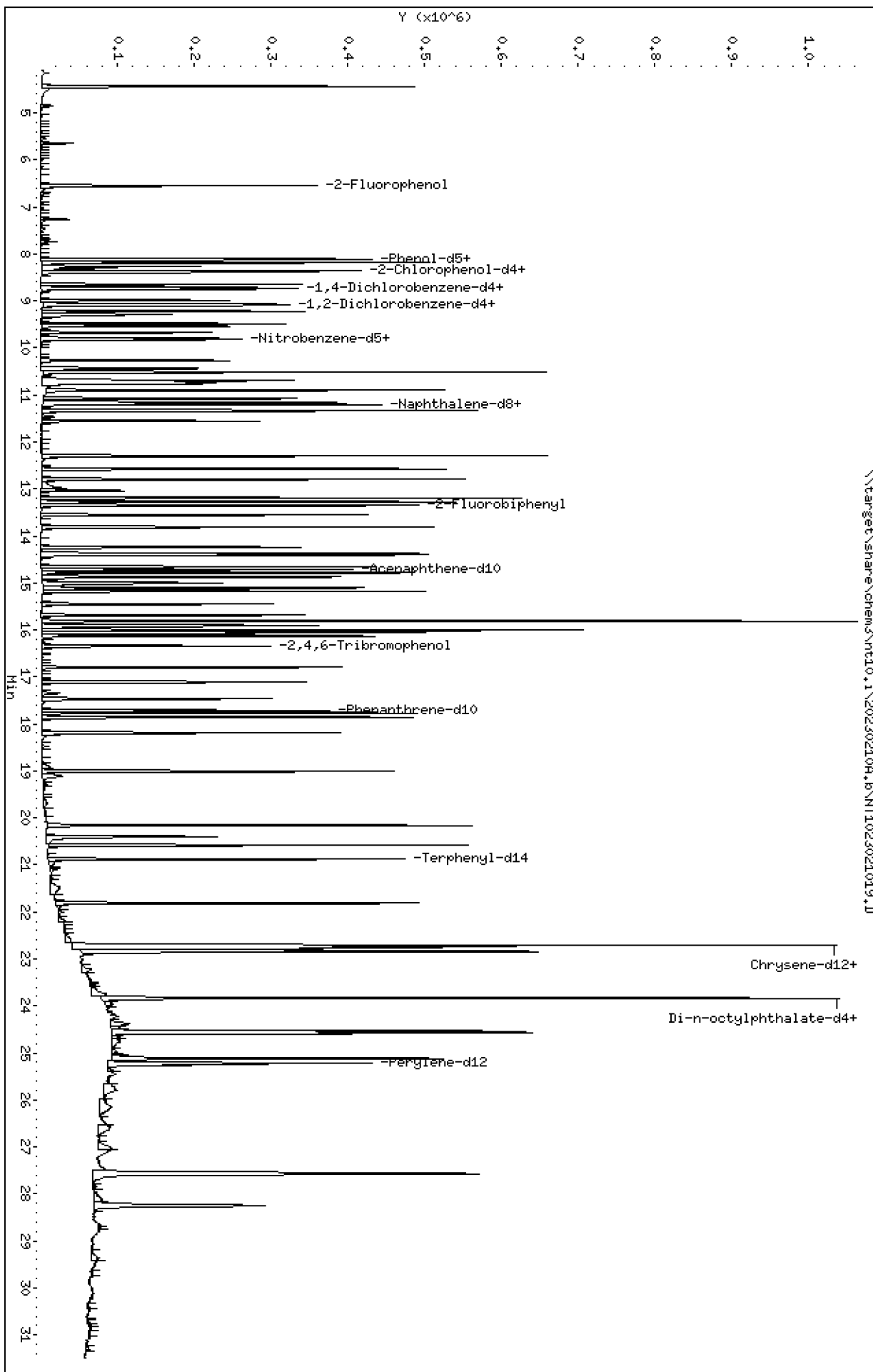
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230210A.b\NT1023021019.D
 Lab Smp Id: SLB0155-ICV1
 Inj Date : 11-FEB-2023 02:59
 Operator : VTS
 Smp Info : SLB0155-ICV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230210A.b\ABN.m
 Meth Date : 13-Feb-2023 07:48 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 2 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: DEENAY-201905

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		6.550	6.550	(0.752)	160033	7.50000	7.418
\$ 2 Phenol-d5	99		8.111	8.111	(0.931)	216278	7.50000	7.431
3 Phenol	94		8.134	8.134	(0.933)	153630	5.00000	4.880
\$ 5 2-Chlorophenol-d4	132		8.366	8.366	(0.960)	174380	7.50000	7.383
4 Bis(2-Chloroethyl)ether	93		8.273	8.273	(0.949)	106033	5.00000	4.631
6 2-Chlorophenol	128		8.389	8.389	(0.963)	136057	5.00000	5.288
7 1,3-Dichlorobenzene	146		8.652	8.652	(0.993)	126661	5.00000	4.690
* 8 1,4-Dichlorobenzene-d4	152		8.714	8.714	(1.000)	67861	4.00000	
9 1,4-Dichlorobenzene	146		8.745	8.745	(1.004)	124150	5.00000	4.667
\$ 10 1,2-Dichlorobenzene-d4	152		9.071	9.071	(1.041)	76271	5.00000	4.717
12 1,2-Dichlorobenzene	146		9.095	9.095	(1.044)	119915	5.00000	4.676
11 Benzyl alcohol	108		8.986	8.986	(1.031)	75826	5.00000	5.437
14 2,2'-oxybis(1-Chloropropane)	121		9.281	9.281	(1.065)	32983	5.00000	4.476
13 2-Methylphenol	108		9.219	9.219	(1.058)	120518	5.00000	5.162
17 Hexachloroethane	117		9.677	9.677	(1.110)	47849	5.00000	4.692
16 N-Nitroso-di-n-propylamine	70		9.537	9.537	(1.094)	85509	5.00000	4.870
15 4-Methylphenol	108		9.491	9.491	(1.089)	116165	5.00000	4.697
\$ 18 Nitrobenzene-d5	82		9.786	9.786	(0.877)	130213	5.00000	4.932
19 Nitrobenzene	77		9.824	9.824	(0.880)	126437	5.00000	4.802
20 Isophorone	82		10.267	10.267	(0.920)	168019	5.00000	4.583
21 2-Nitrophenol	139		10.447	10.447	(0.936)	75791	5.00000	5.589
22 2,4-Dimethylphenol	107		10.515	10.515	(0.942)	215412	10.0000	8.886
23 Bis(2-Chloroethoxy)methane	93		10.693	10.693	(0.958)	113045	5.00000	4.748
24 Benzoic acid	105		10.753	10.753	(0.963)	264524	20.0000	18.54
25 2,4-Dichlorophenol	162		10.897	10.897	(0.976)	189888	10.0000	9.642
26 1,2,4-Trichlorobenzene	180		11.075	11.075	(0.992)	100506	5.00000	4.684
* 27 Naphthalene-d8	136		11.160	11.160	(1.000)	267242	4.00000	
28 Naphthalene	128		11.199	11.199	(1.003)	320434	5.00000	4.487
29 4-Chloroaniline	127		11.330	11.330	(1.015)	303593	10.0000	9.917
30 Hexachlorobutadiene	225		11.562	11.562	(1.036)	53938	5.00000	4.820
31 4-Chloro-3-methylphenol	107		12.297	12.297	(1.102)	203615	10.0000	9.457
32 2-Methylnaphthalene	142		12.576	12.576	(1.127)	238483	5.00000	4.803
33 Hexachlorocyclopentadiene	237		13.040	13.040	(0.886)	25513	10.0000	2.830

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.195	13.195	(0.896)	127573	10.0000	9.688
35 2,4,5-Trichlorophenol	196	13.272	13.272	(0.902)	138297	10.0000	9.742
§ 36 2-Fluorobiphenyl	172	13.350	13.350	(0.907)	242090	5.00000	4.605
37 2-Chloronaphthalene	162	13.551	13.551	(0.921)	211451	5.00000	4.628
38 2-Nitroaniline	65	13.814	13.814	(0.938)	146221	10.0000	10.16
39 Dimethylphthalate	163	14.240	14.240	(0.967)	229351	5.00000	4.692
40 Acenaphthylene	152	14.410	14.410	(0.979)	330601	5.00000	4.542
41 2,6-Dinitrotoluene	165	14.379	14.379	(0.977)	111740	10.0000	9.651
* 42 Acenaphthene-d10	164	14.720	14.720	(1.000)	145868	4.00000	
43 3-Nitroaniline	138	14.658	14.658	(0.996)	121951	10.0000	9.135
44 Acenaphthene	153	14.781	14.781	(1.004)	201371	5.00000	4.515
45 2,4-Dinitrophenol	184	14.874	14.874	(1.011)	104882	20.0000	16.87
46 Dibenzofuran	168	15.106	15.106	(1.026)	289434	5.00000	4.511
47 4-Nitrophenol	109	15.006	15.006	(1.019)	50475	10.0000	10.14
48 2,4-Dinitrotoluene	165	15.176	15.176	(1.031)	151262	10.0000	9.469
50 Diethylphthalate	149	15.686	15.686	(1.066)	249771	5.00000	5.321
49 Fluorene	166	15.810	15.810	(1.074)	315038	5.00000	4.368
51 4-Chlorophenyl-phenylether	204	15.810	15.810	(1.074)	148896	5.00000	4.227
52 4-Nitroaniline	138	15.910	15.910	(1.081)	136699	10.0000	8.961
53 4,6-Dinitro-2-methylphenol	198	16.010	16.010	(0.904)	182705	20.0000	20.43
54 N-Nitrosodiphenylamine	169	16.056	16.056	(0.906)	195177	5.00000	4.611
§ 55 2,4,6-Tribromophenol	330	16.342	16.342	(1.110)	28181	7.50000	3.858
56 4-Bromophenyl-phenylether	248	16.797	16.797	(0.948)	75120	5.00000	4.816
57 Hexachlorobenzene	284	17.106	17.106	(0.965)	80721	5.00000	4.805
58 Pentachlorophenol	266	17.462	17.462	(0.986)	65354	10.0000	9.976
* 59 Phenanthrene-d10	188	17.717	17.717	(1.000)	247644	4.00000	
60 Phenanthrene	178	17.764	17.764	(1.003)	313255	5.00000	4.700
61 Anthracene	178	17.857	17.857	(1.008)	317502	5.00000	4.811
62 Carbazole	167	18.189	18.189	(1.027)	302171	5.00000	4.747
63 Di-n-butylphthalate	149	19.002	19.002	(1.072)	391125	5.00000	5.153
64 Fluoranthene	202	20.155	20.155	(0.885)	346319	5.00000	4.415
65 Pyrene	202	20.580	20.580	(0.904)	357807	5.00000	4.418
§ 66 Terphenyl-d14	244	20.882	20.882	(0.917)	269776	5.00000	4.418
67 Butylbenzylphthalate	149	21.811	21.811	(0.958)	166405	5.00000	4.755
68 Benzo(a)anthracene	228	22.740	22.740	(0.999)	330847	5.00000	4.640
* 69 Chrysene-d12	240	22.771	22.771	(1.000)	213924	4.00000	
70 3,3'-Dichlorobenzidine	252	22.709	22.709	(0.997)	346818	15.0000	14.38
71 Chrysene	228	22.818	22.818	(1.002)	311010	5.00000	4.548
72 bis(2-Ethylhexyl)phthalate	149	22.849	22.849	(0.959)	232091	5.00000	4.721
* 134 Di-n-octylphthalate-d4	153	23.824	23.824	(1.000)	361428	4.00000	
73 Di-n-octylphthalate	149	23.840	23.840	(1.001)	422764	5.00000	4.629
74 Benzo(b)fluoranthene	252	24.536	24.536	(0.973)	385633	5.00000	5.179 (H)
75 Benzo(k)fluoranthene	252	24.575	24.575	(0.975)	350312	5.00000	4.468 (H)
76 Benzo(a)pyrene	252	25.117	25.117	(0.996)	323527	5.00000	4.805
* 77 Perylene-d12	264	25.218	25.218	(1.000)	235234	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	27.565	27.565	(1.093)	360124	5.00000	4.494
79 Dibenzo(a,h)anthracene	278	27.573	27.573	(1.093)	312448	5.00000	4.706
80 Benzo(g,h,i)perylene	276	28.249	28.249	(1.120)	268065	5.00000	3.897
90 N-Nitrosodimethylamine	74	4.427	4.427	(0.508)	139730	10.0000	9.309
91 Aniline	93	8.181	8.181	(0.939)	299738	10.0000	9.837
93 Benzidine	184	20.394	20.394	(0.896)	161341	10.0000	6.343
103 Pyridine	79	4.442	4.442	(0.510)	215608	10.0000	9.281
105 1-methylnaphthalene	142	12.793	12.793	(1.146)	227053	5.00000	4.750
111 Azobenzene (1,2-DP-Hydrazine)	77	16.133	16.133	(1.096)	286790	5.00000	4.585

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	
187 Total Benzofluoranthenes	252		24.575	24.575	(0.975)	692993	10.0000	9.493
120 2,3,4,6-Tetrachlorophenol	232		15.446	15.446	(1.049)	61957	5.00000	4.520

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 10-FEB-2023
 Lab File ID: NT1023021019.D Calibration Time: 16:04
 Lab Smp Id: SLB0155-ICV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230210A.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	67861	33931	135722	67861	0.00
27 Naphthalene-d8	267242	133621	534484	267242	0.00
42 Acenaphthene-d10	145868	72934	291736	145868	0.00
59 Phenanthrene-d10	247644	123822	495288	247644	0.00
69 Chrysene-d12	213924	106962	427848	213924	0.00
134 Di-n-octylphthala	361428	180714	722856	361428	0.00
77 Perylene-d12	235234	117617	470468	235234	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.71	8.21	9.21	8.71	0.00
27 Naphthalene-d8	11.16	10.66	11.66	11.16	0.00
42 Acenaphthene-d10	14.72	14.22	15.22	14.72	0.00
59 Phenanthrene-d10	17.72	17.22	18.22	17.72	0.00
69 Chrysene-d12	22.77	22.27	23.27	22.77	0.00
134 Di-n-octylphthala	23.82	23.32	24.32	23.82	0.00
77 Perylene-d12	25.22	24.72	25.72	25.22	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023021019.D

Lab ID: SLB0155-ICV1
nt10.i, 20230210A.b\ABN.m, 11-FEB-2023 02:59

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

No RRT check. Ccal file.

On Column LOD for nt10.i, 20230210A.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230210A.b

Instrument: nt10.i Date: 11-FEB-2023 Method: 20230210A.b\ABN.m

INITIAL CAL: 30-DEC-2022

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1023021019.D 11-FEB-2023 02:59

Compound	%D

Hexachlorocyclopentadiene	-71.7
Benzo(g,h,i)perylene	-22.1
Benzidine	-36.6
2,4,6-Tribromophenol	-48.6



LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00018

Lab File ID: NT1023021003.D

Calibration Date: 02/07/2023

Sequence: SLB0154

Injection Date: 02/10/23

Lab Sample ID: SLB0154-LCV1

Injection Time: 16:43

Sequence Name: ABN 0.2

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	0.50000	0.5	1.8557260	1.9492890		5.0	+/-50
4-Methylphenol	A	0.50000	0.5	1.4577560	1.4968590		2.7	+/-50
Naphthalene	A	0.50000	0.5	1.0689000	1.1210830		4.9	+/-50
2-Methylnaphthalene	A	0.50000	0.5	0.7432041	0.7627703		2.6	+/-50
Acenaphthylene	A	0.50000	0.5	1.9958230	2.1573510		8.1	+/-50
Dimethylphthalate	A	0.50000	0.5	1.3405170	1.4688830		9.6	+/-50
Acenaphthene	A	0.50000	0.5	1.2231120	1.2752140		4.3	+/-50
Dibenzofuran	A	0.50000	0.5	1.7594910	1.8300030		4.0	+/-50
Fluorene	A	0.50000	0.5	1.9777380	1.8577390		-6.1	+/-50
Phenanthrene	A	0.50000	0.5	1.0765200	1.1396550		5.9	+/-50
Anthracene	A	0.50000	0.5	1.0659800	1.1177750		4.9	+/-50
Fluoranthene	A	0.50000	0.5	1.4667580	1.5201720		3.6	+/-50
Pyrene	A	0.50000	0.5	1.5142740	1.6130840		6.5	+/-50
Butylbenzylphthalate	A	0.50000	0.5	0.6543795	0.6962706		6.4	+/-50
Benzo(a)anthracene	A	0.50000	0.6	1.3332750	1.4810490		11.1	+/-50
Chrysene	A	0.50000	0.5	1.2786640	1.3660360		6.8	+/-50
bis(2-Ethylhexyl)phthalate	A	0.50000	0.5	0.5440929	0.5593922		2.8	+/-50
Benzo(a)fluoranthene, Total	A	1.00000	1.1	1.2413430	1.3297350		7.1	+/-50
Benzo(a)pyrene	A	0.50000	0.5	1.1449040	1.2243410		6.9	+/-50
Indeno(1,2,3-cd)pyrene	A	0.50000	0.6	1.3627520	1.5094880		10.8	+/-50
Dibenzo(a,h)anthracene	A	0.50000	0.6	1.1288770	1.2672830		12.3	+/-50
Benzo(g,h,i)perylene	A	0.50000	0.5	1.1695480	1.2689090		8.5	+/-50
2-Fluorophenol	A	0.75000	0.731	1.2716740	1.2398360		-2.5	+/-50
Phenol-d5	A	0.75000	0.775	1.7155190	1.7722180		3.3	+/-50
2-Chlorophenol-d4	A	0.75000	0.787	1.3922970	1.4612840		5.0	+/-50
1,2-Dichlorobenzene-d4	A	0.50000	0.519	0.9530327	0.9886161		3.7	+/-50
Nitrobenzene-d5	A	0.50000	0.536	0.3951837	0.4235706		7.2	+/-50
2-Fluorobiphenyl	A	0.50000	0.546	1.4414640	1.5739750		9.2	+/-50
2,4,6-Tribromophenol	A	0.75000	0.672	0.2002949	0.1794491		-10.4	+/-50
p-Terphenyl-d14	A	0.50000	0.556	1.1418200	1.2704030		11.3	+/-50

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230210.1\NT1023021003.D

Date: 10-FEB-2023 16:43

Client ID:

Sample Info: SLB0154-LCW1

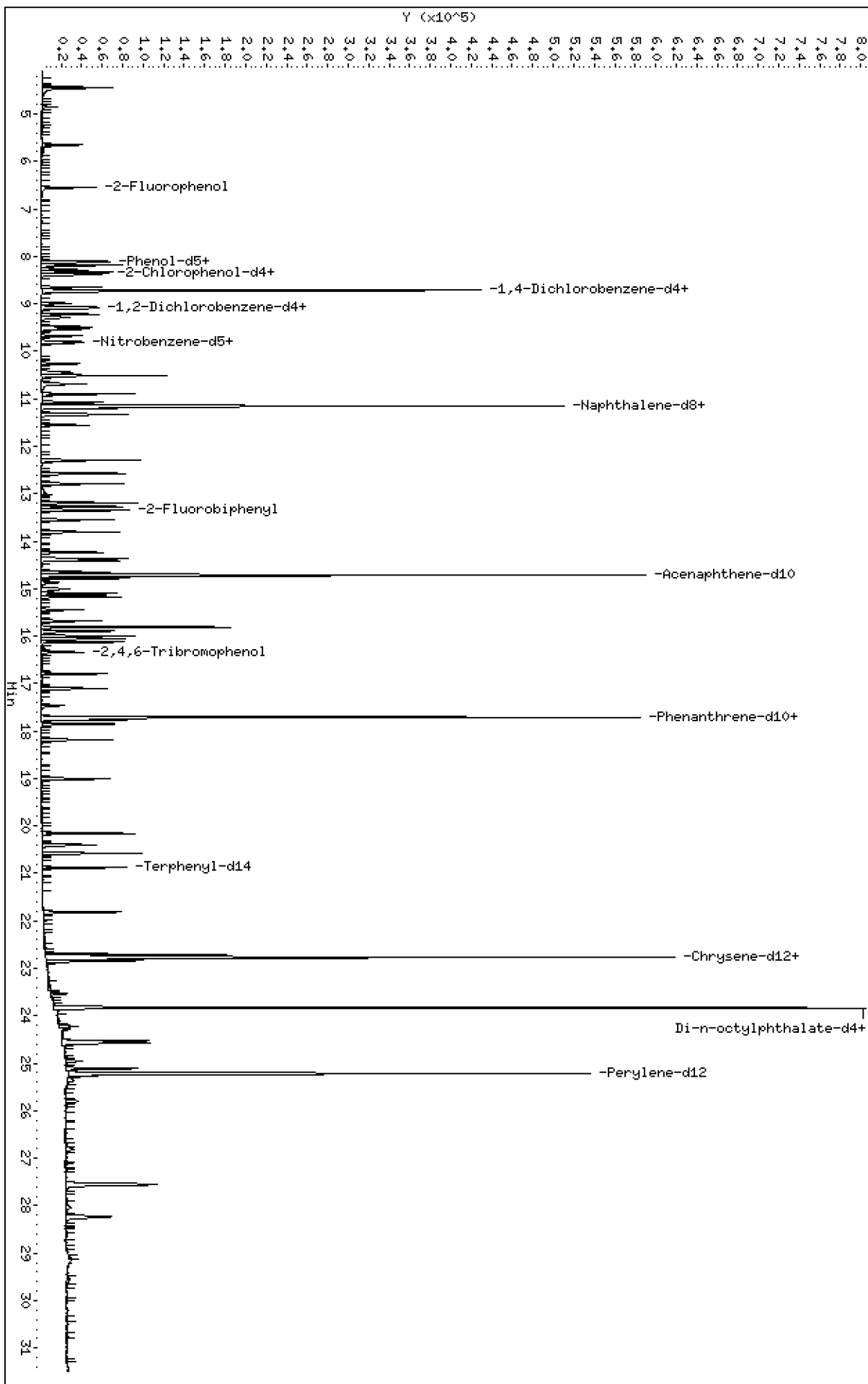
Column phase: ZB-5msi

Instrument: nt10.1

Operator: VTS

Column diameter: 0.25

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Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

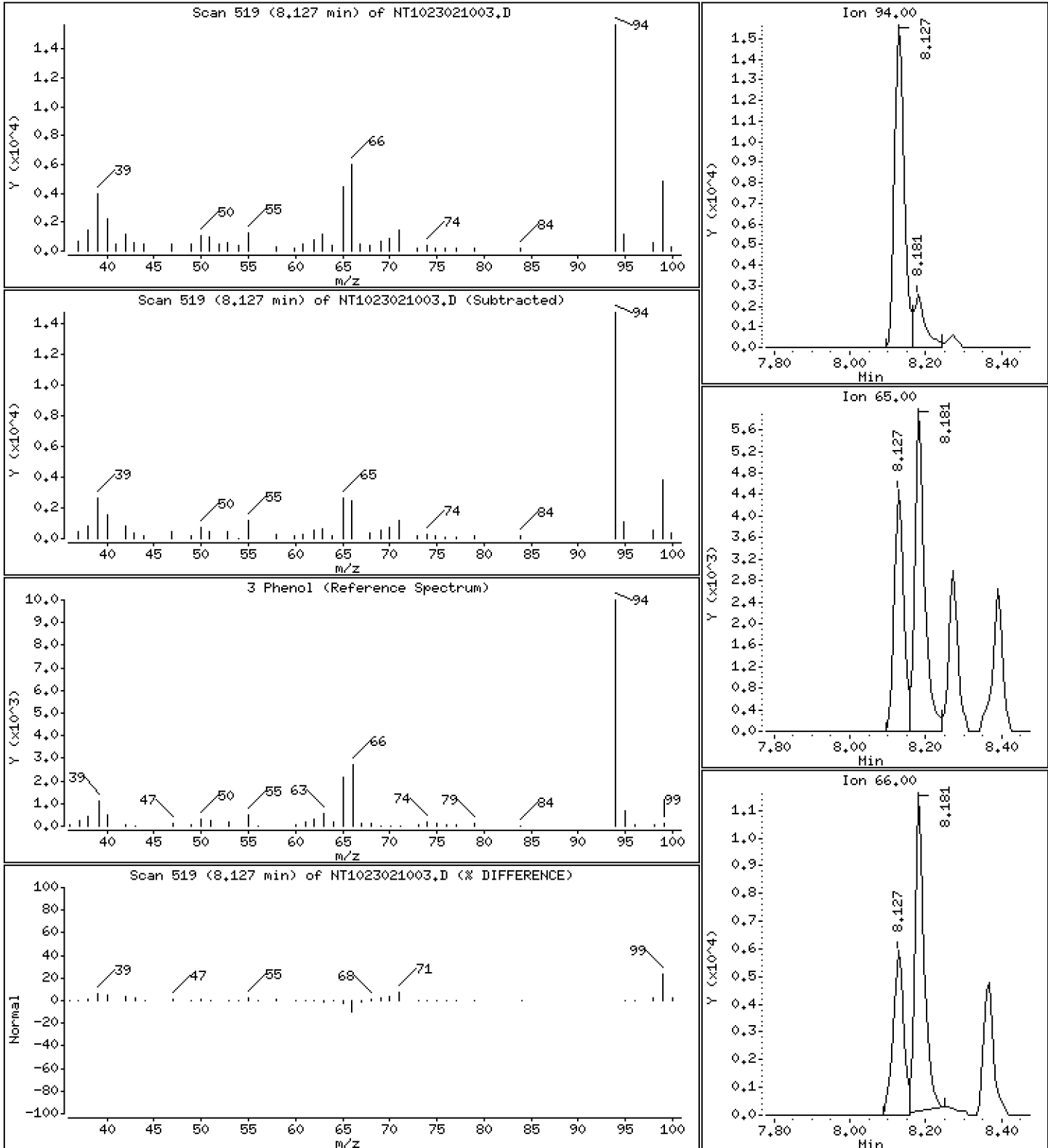
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 0,5252 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

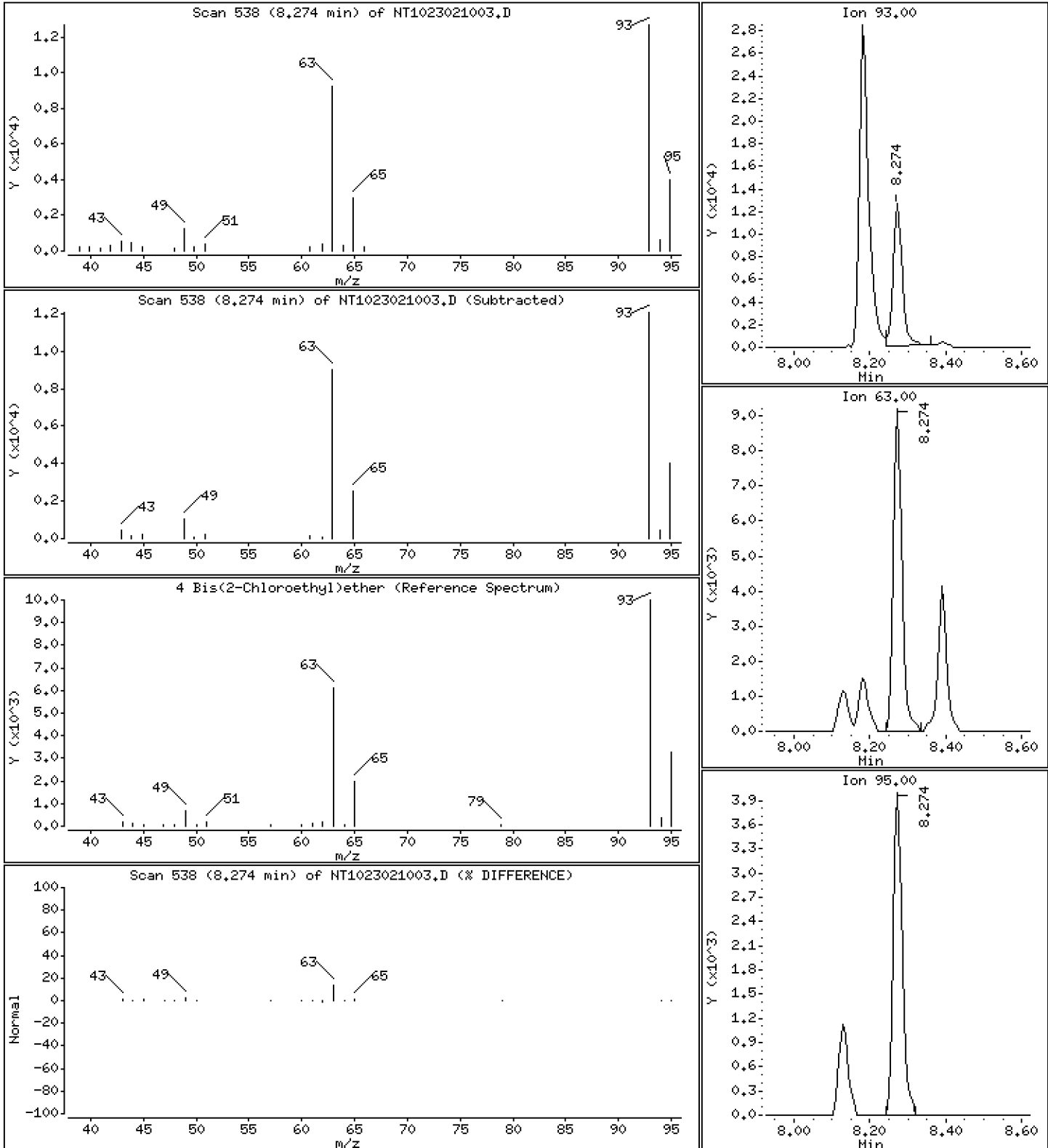
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 0,5343 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

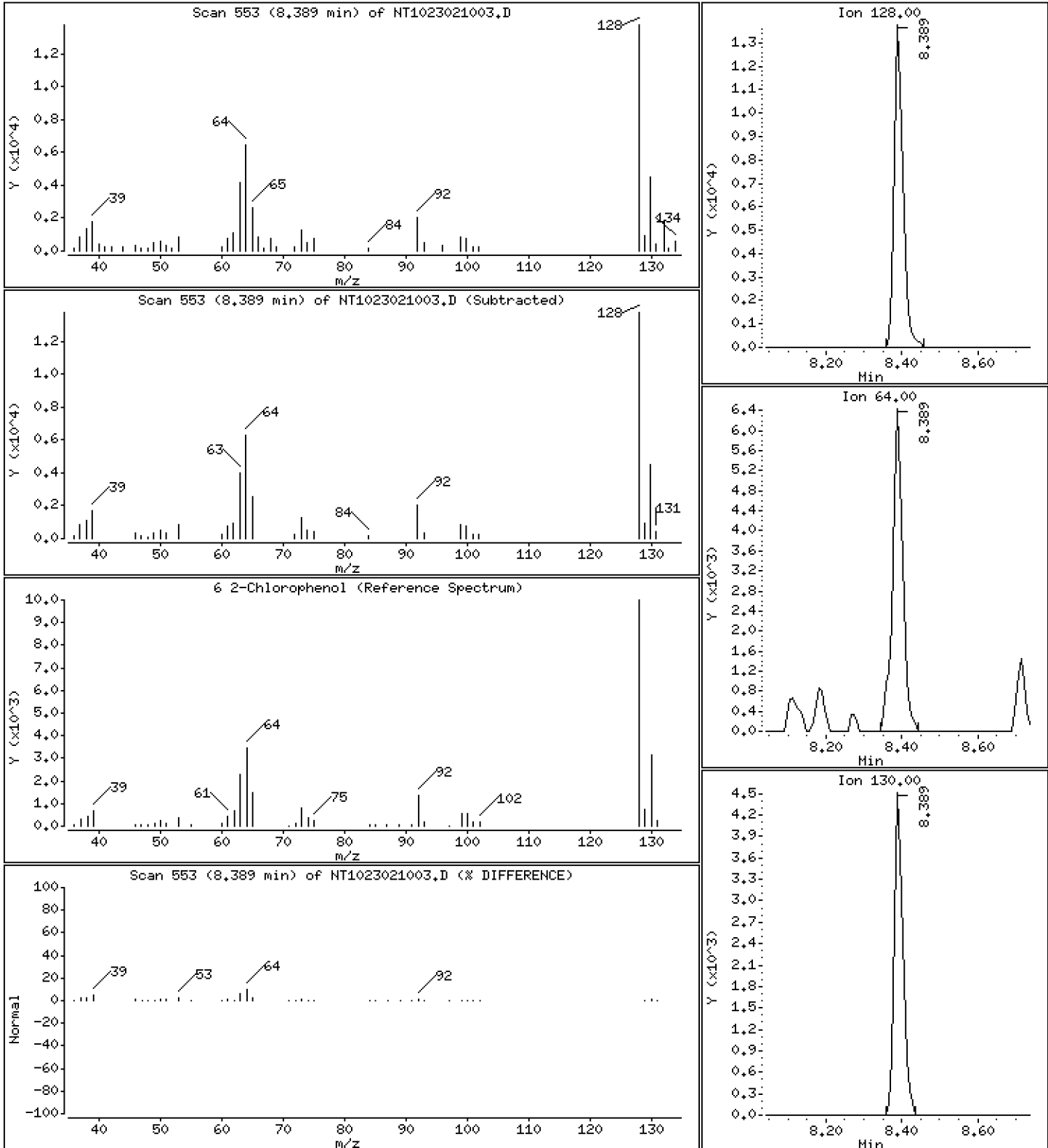
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 0,5238 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

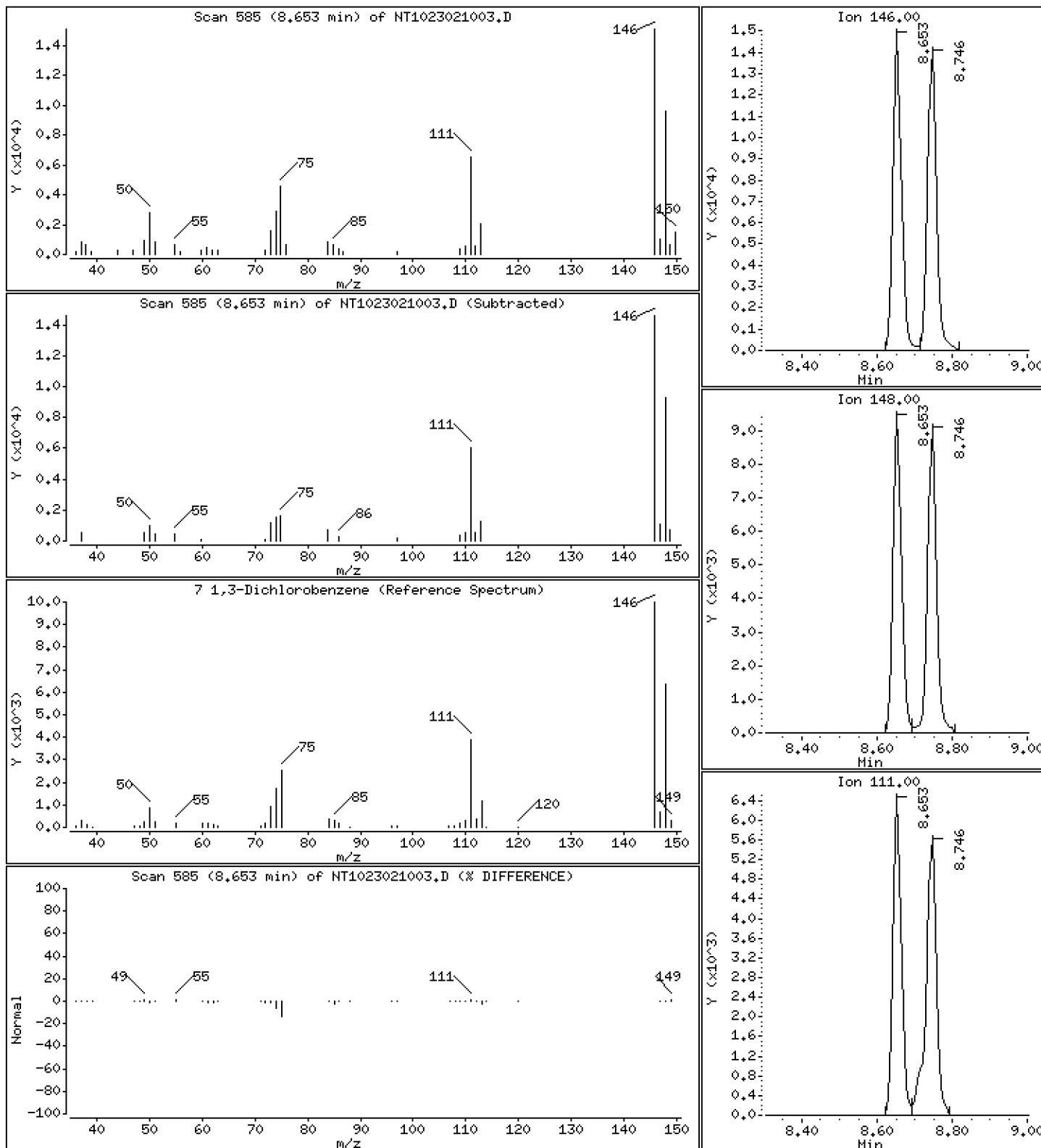
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.5238 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

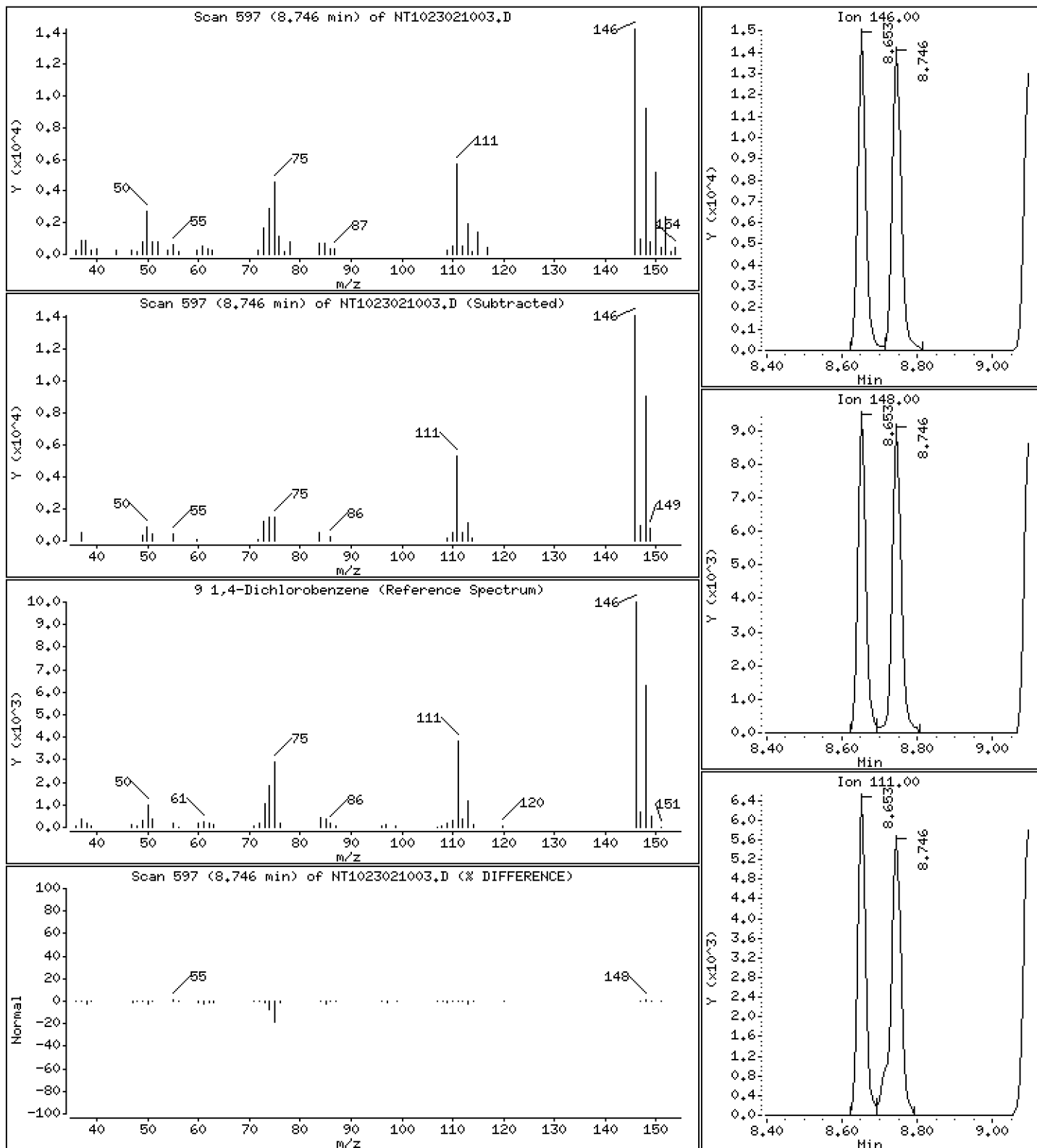
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,5156 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

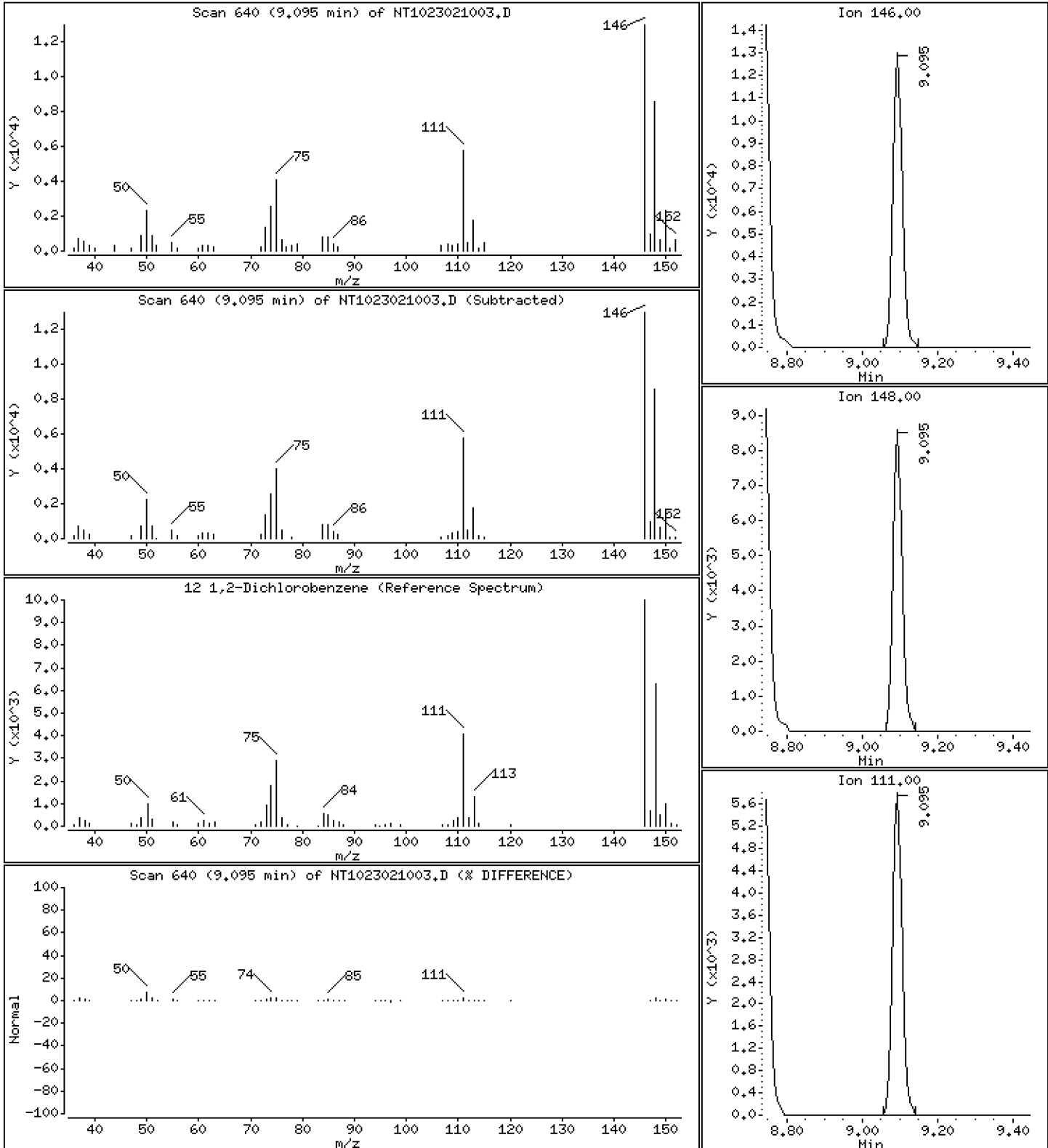
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,5117 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

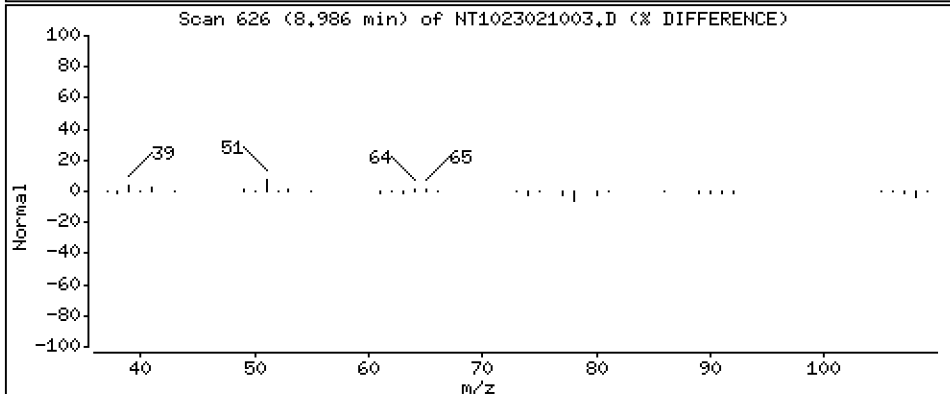
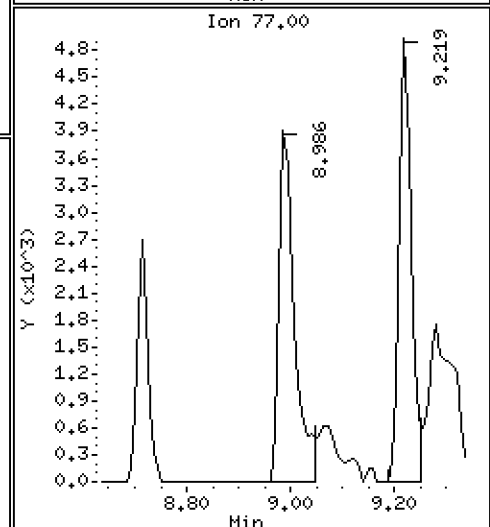
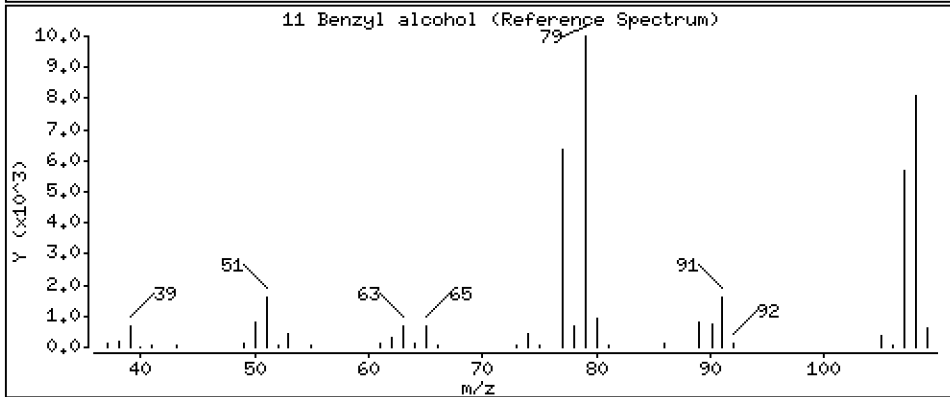
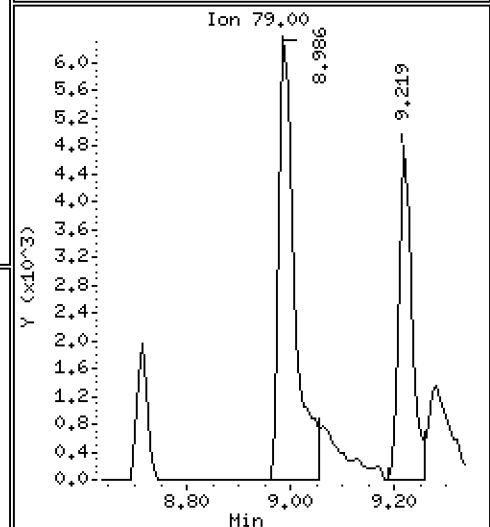
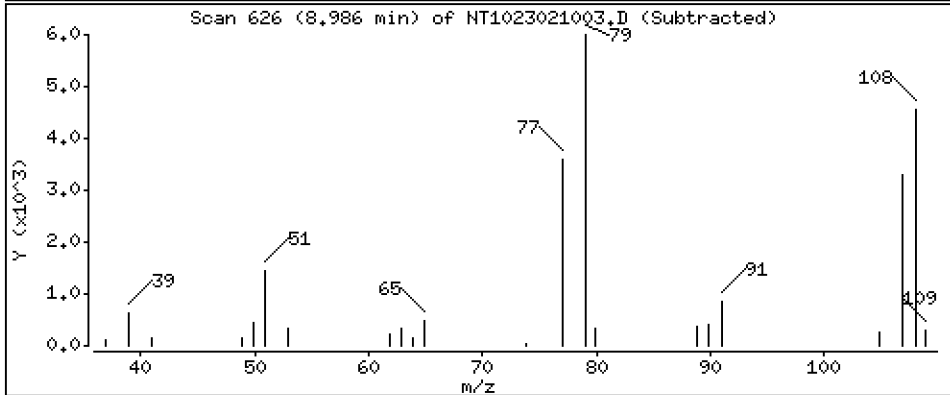
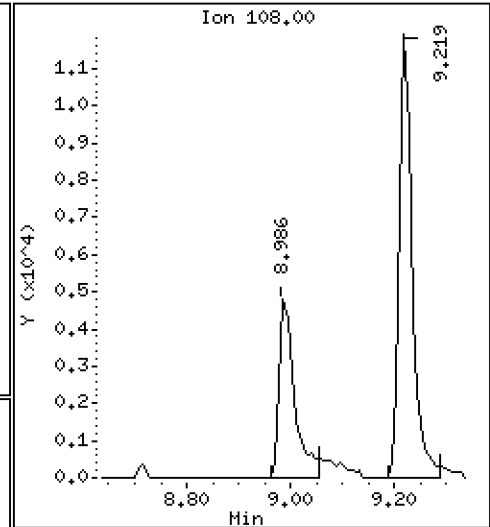
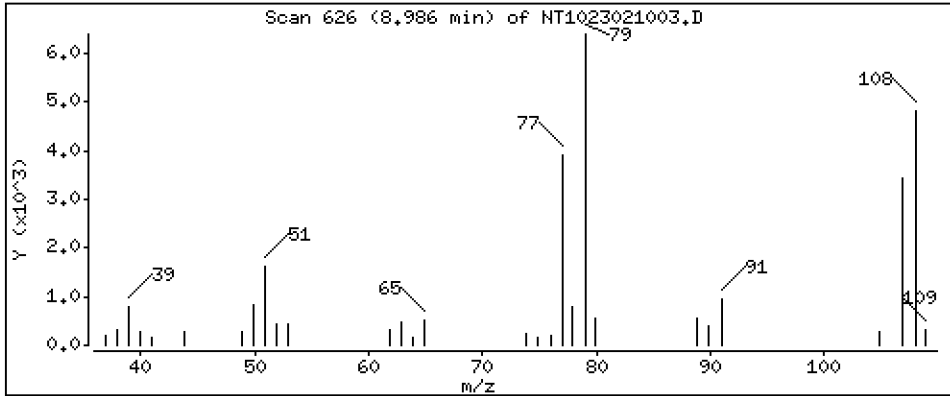
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

11 Benzyl alcohol

Concentration: 0,4299 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

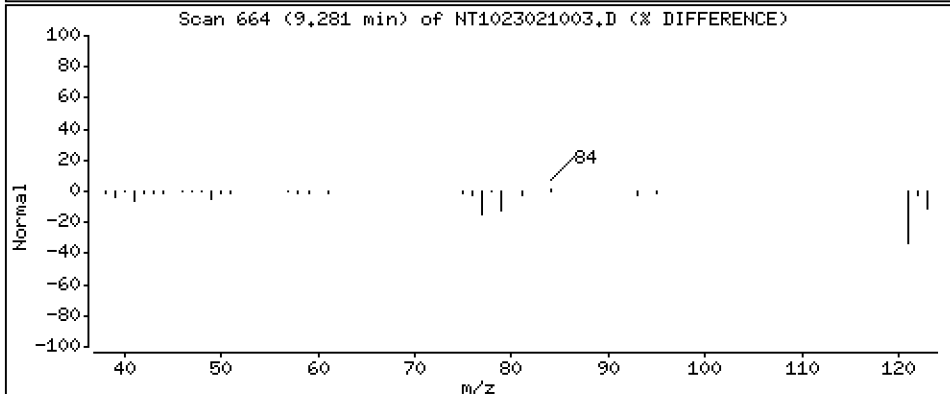
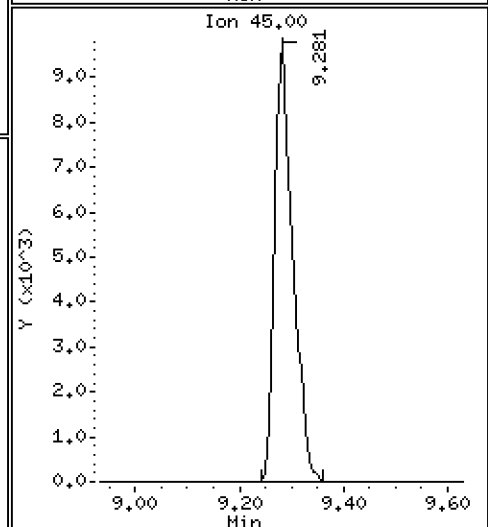
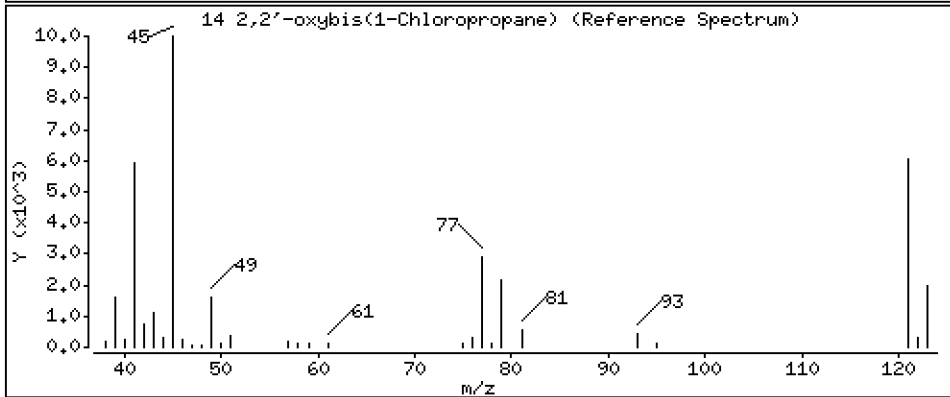
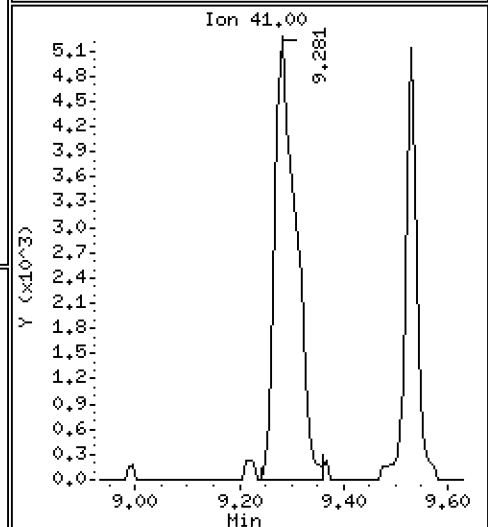
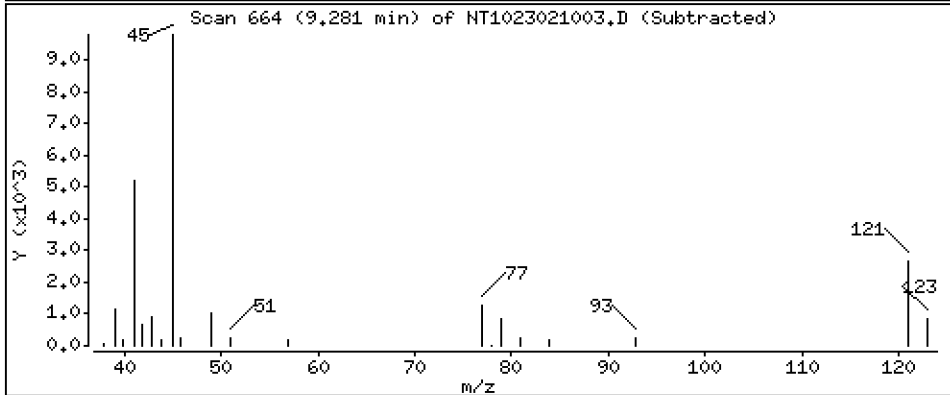
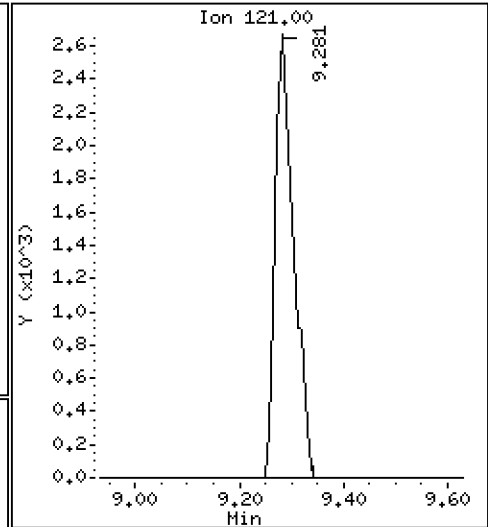
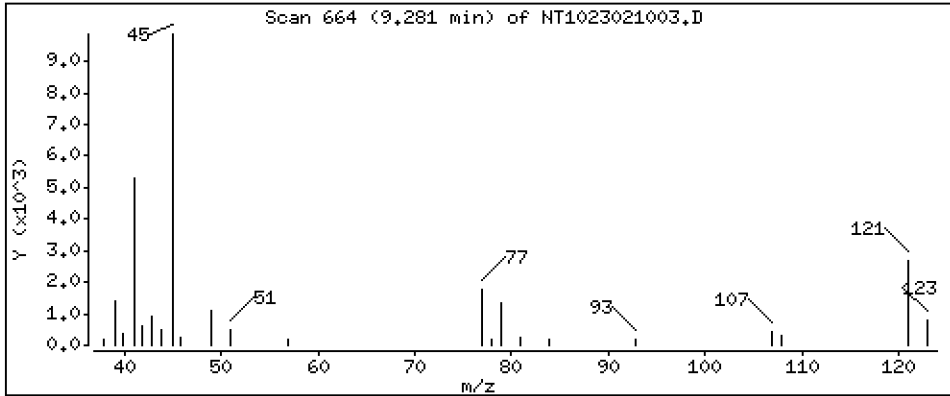
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 0.5027 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

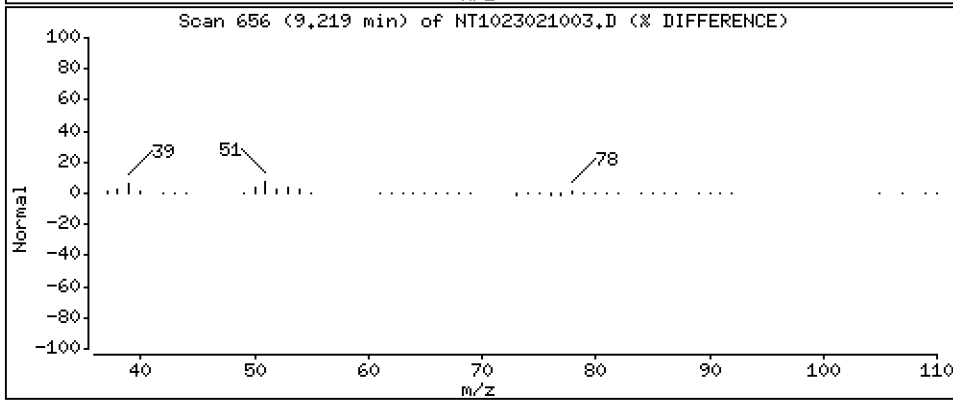
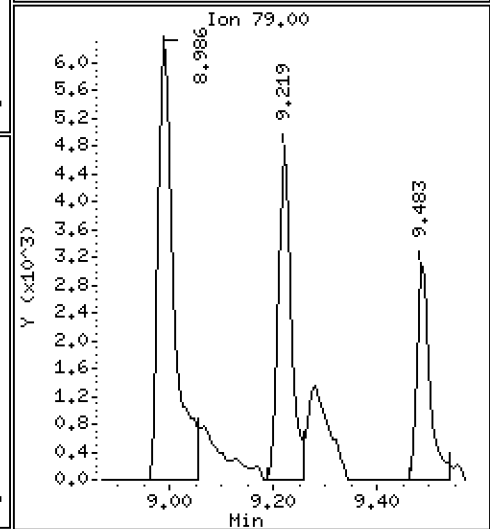
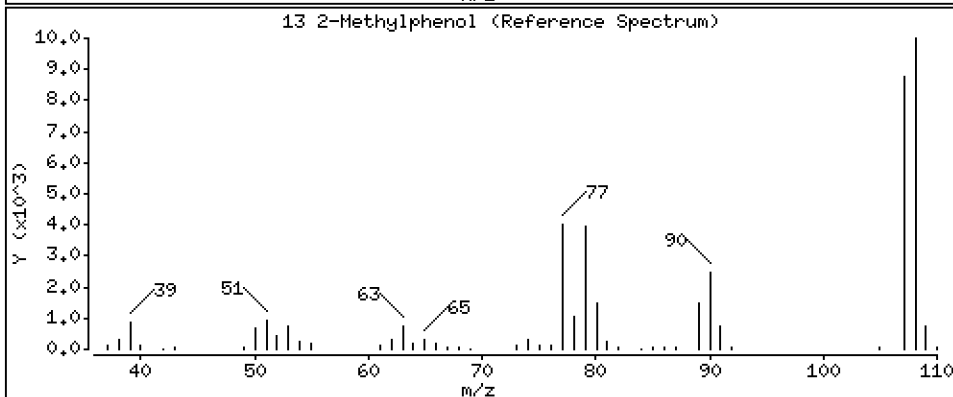
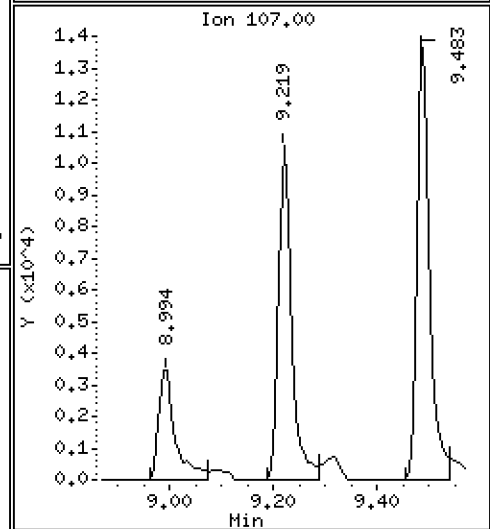
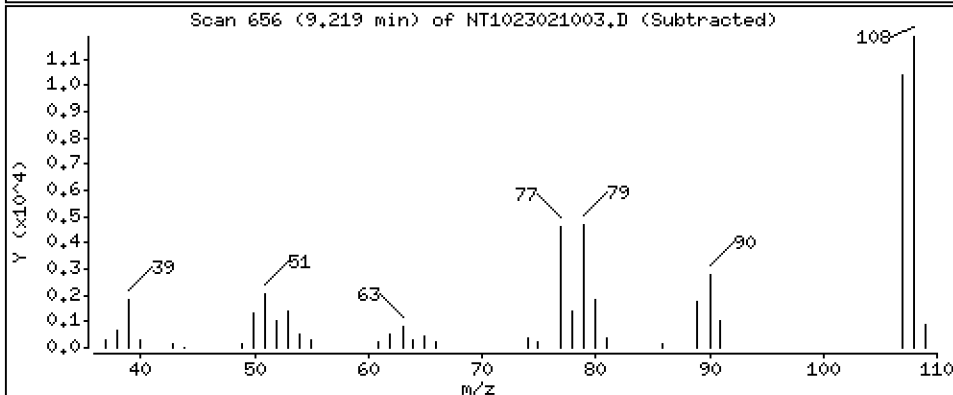
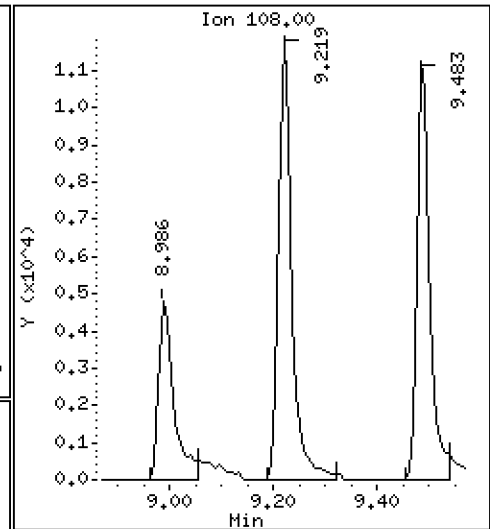
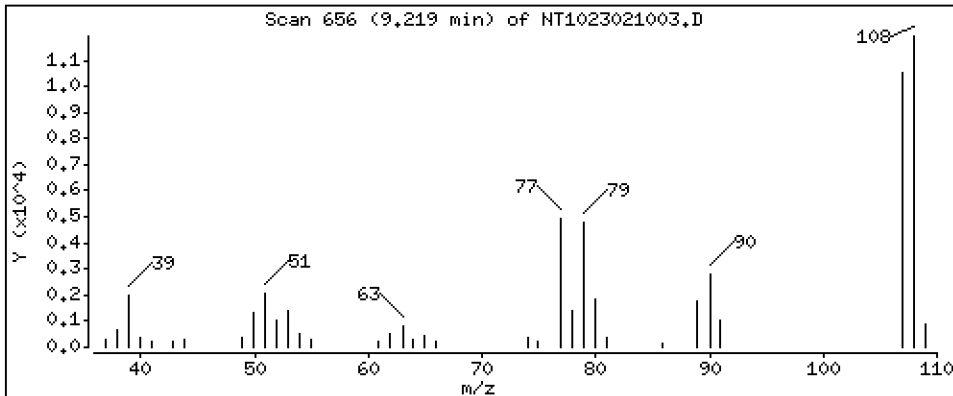
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 0,5952 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

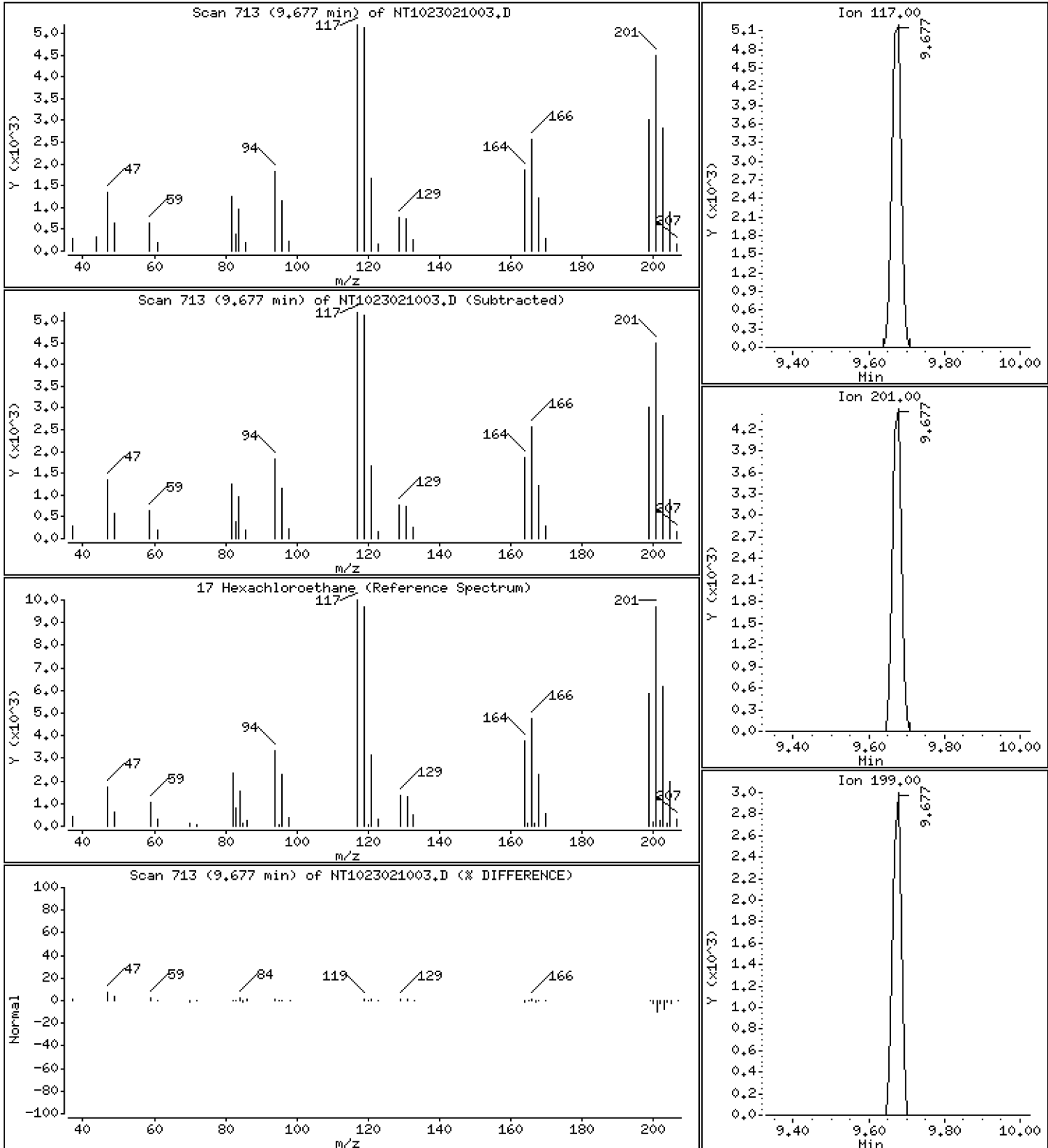
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

17 Hexachloroethane

Concentration: 0.5101 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

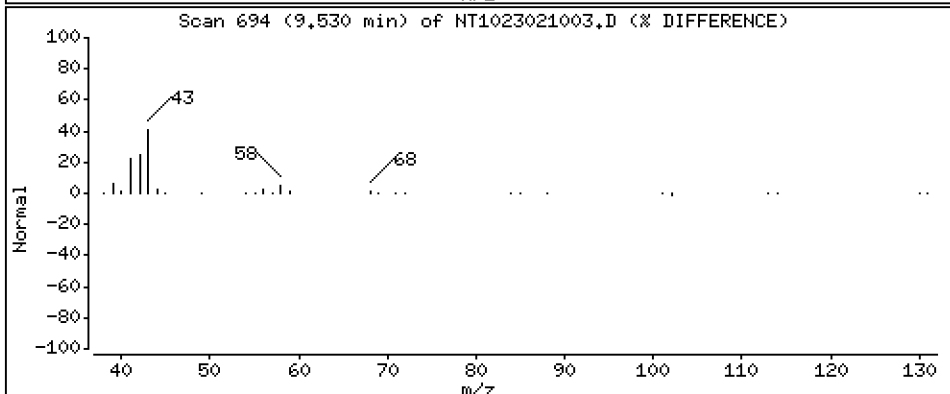
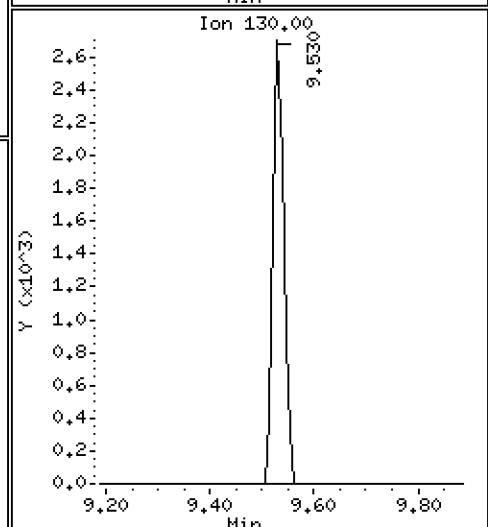
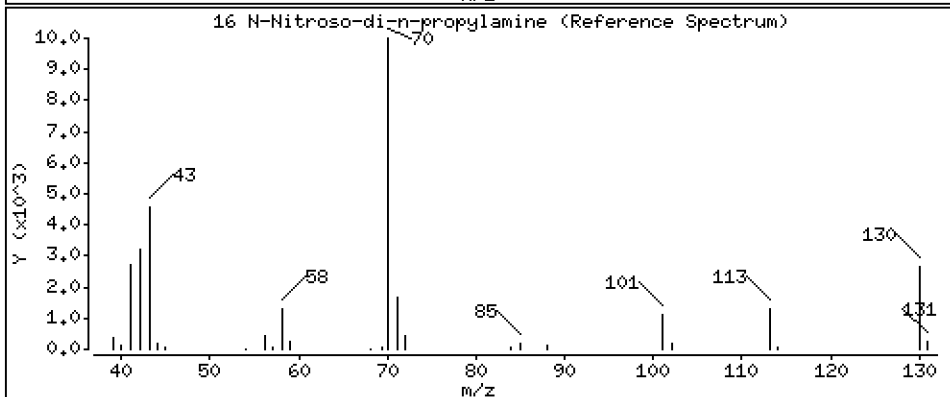
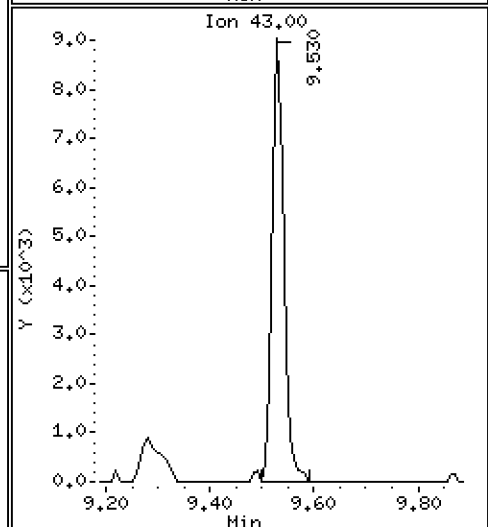
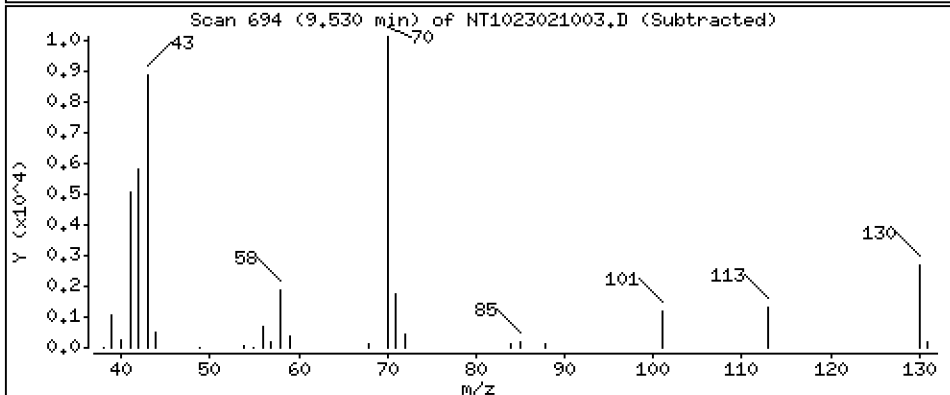
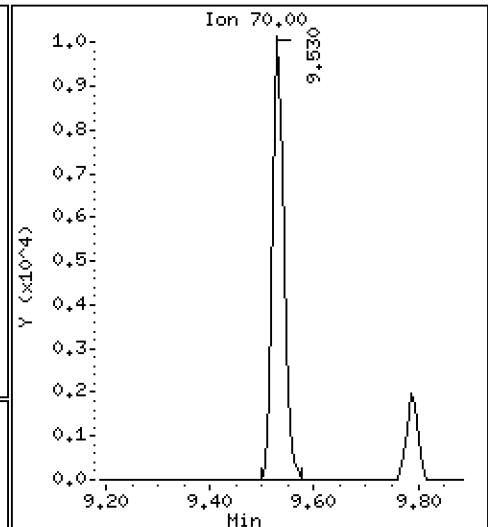
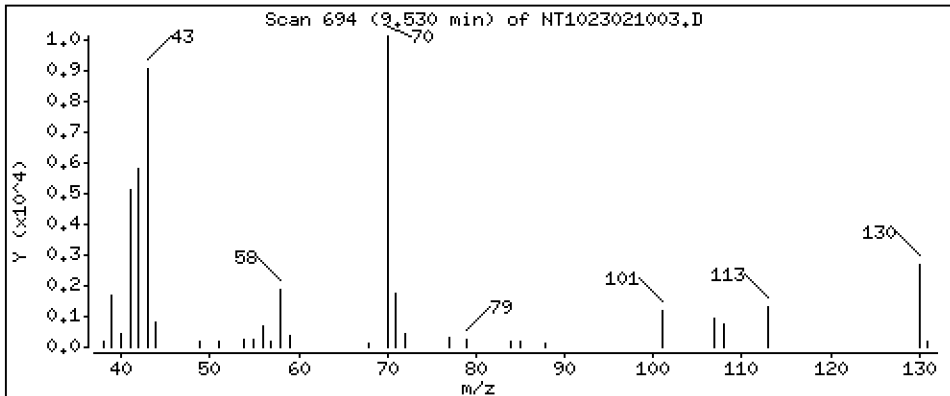
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 0.5099 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

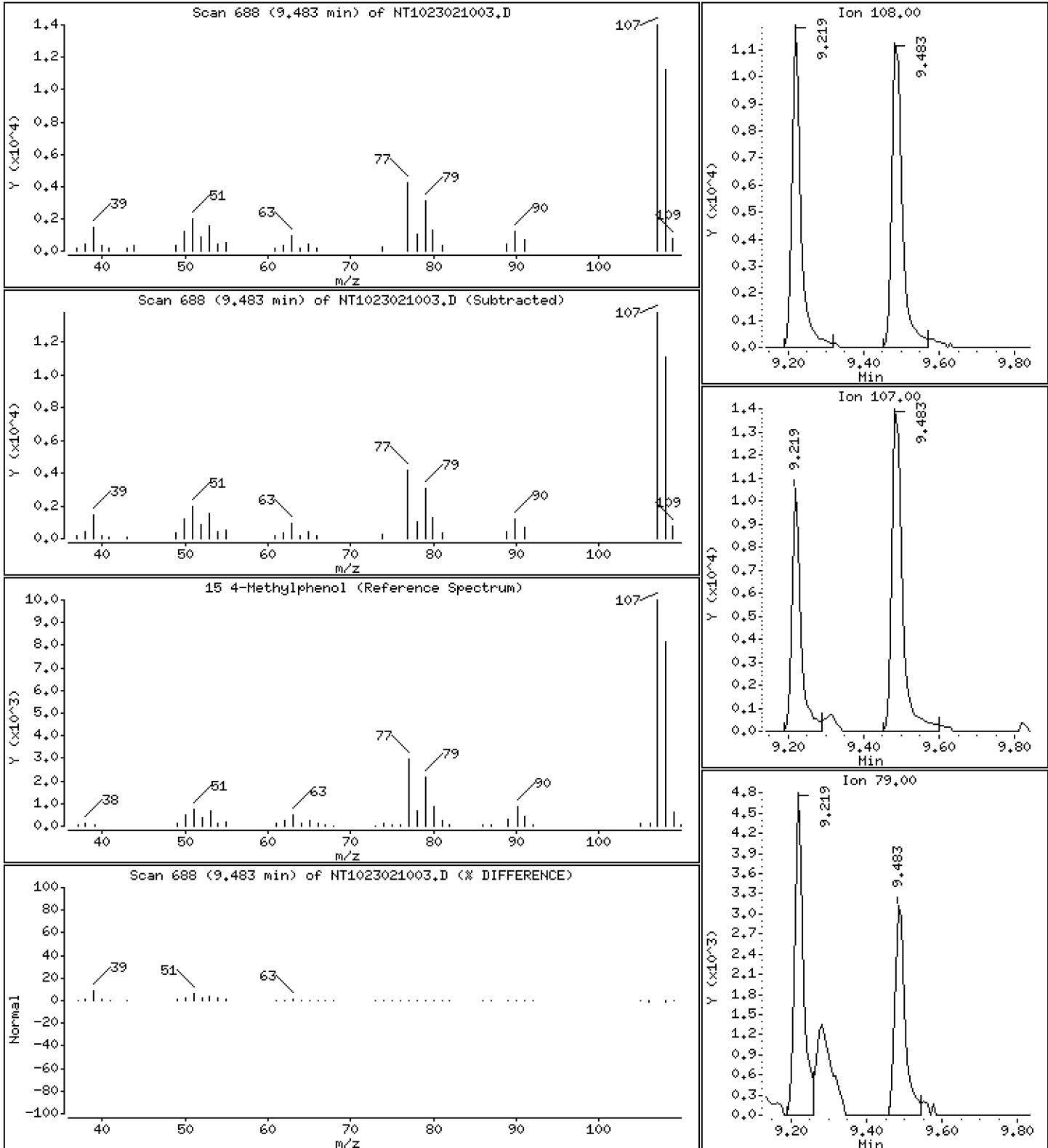
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.5134 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

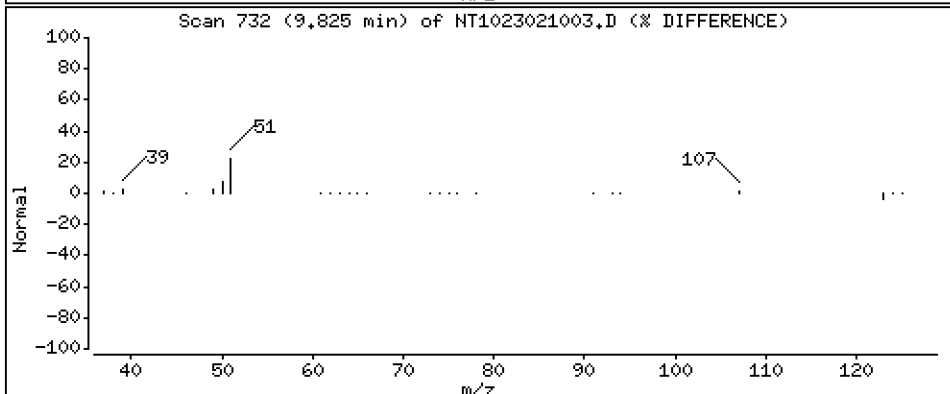
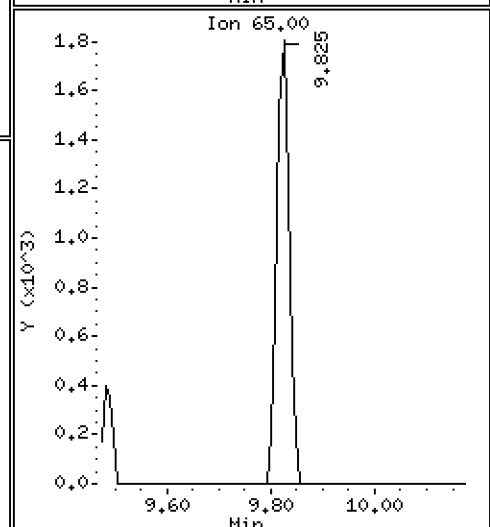
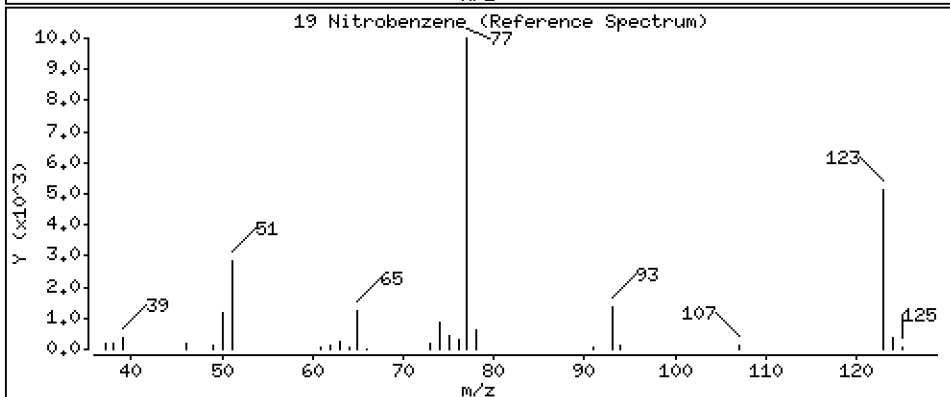
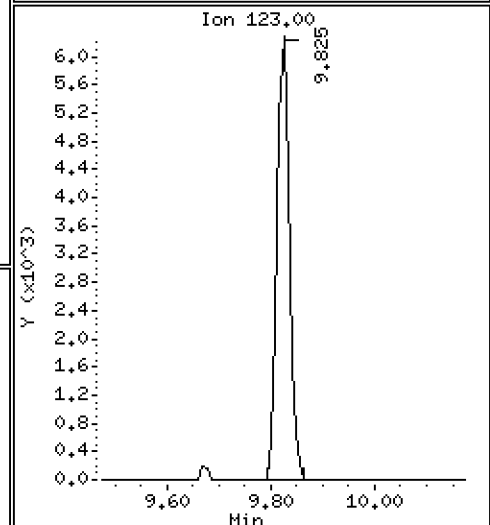
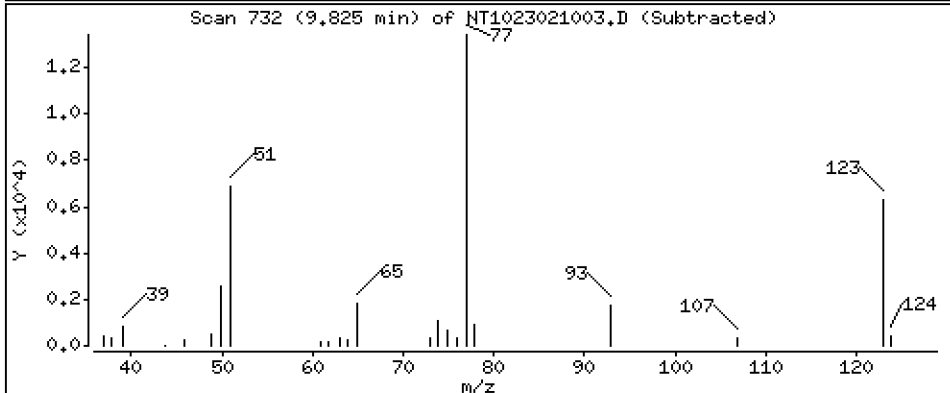
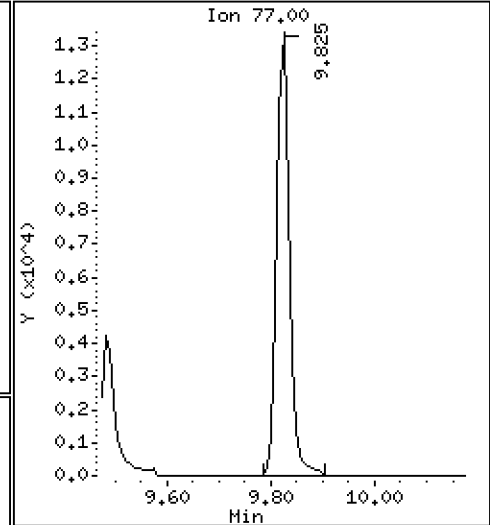
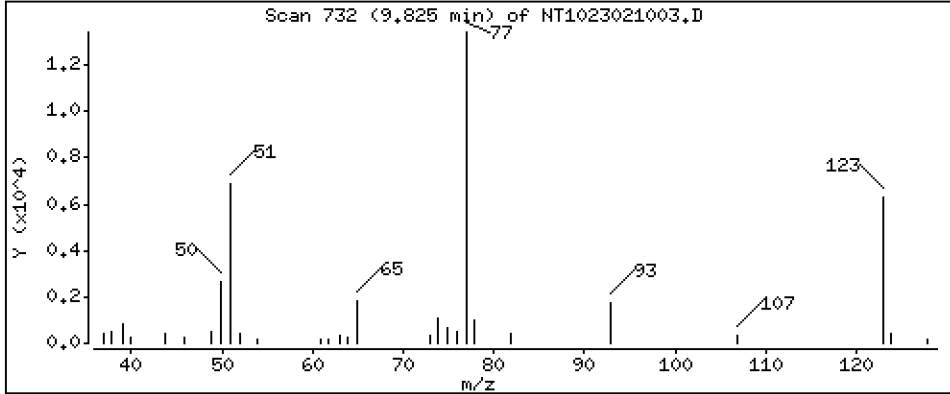
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

19 Nitrobenzene

Concentration: 0.5324 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

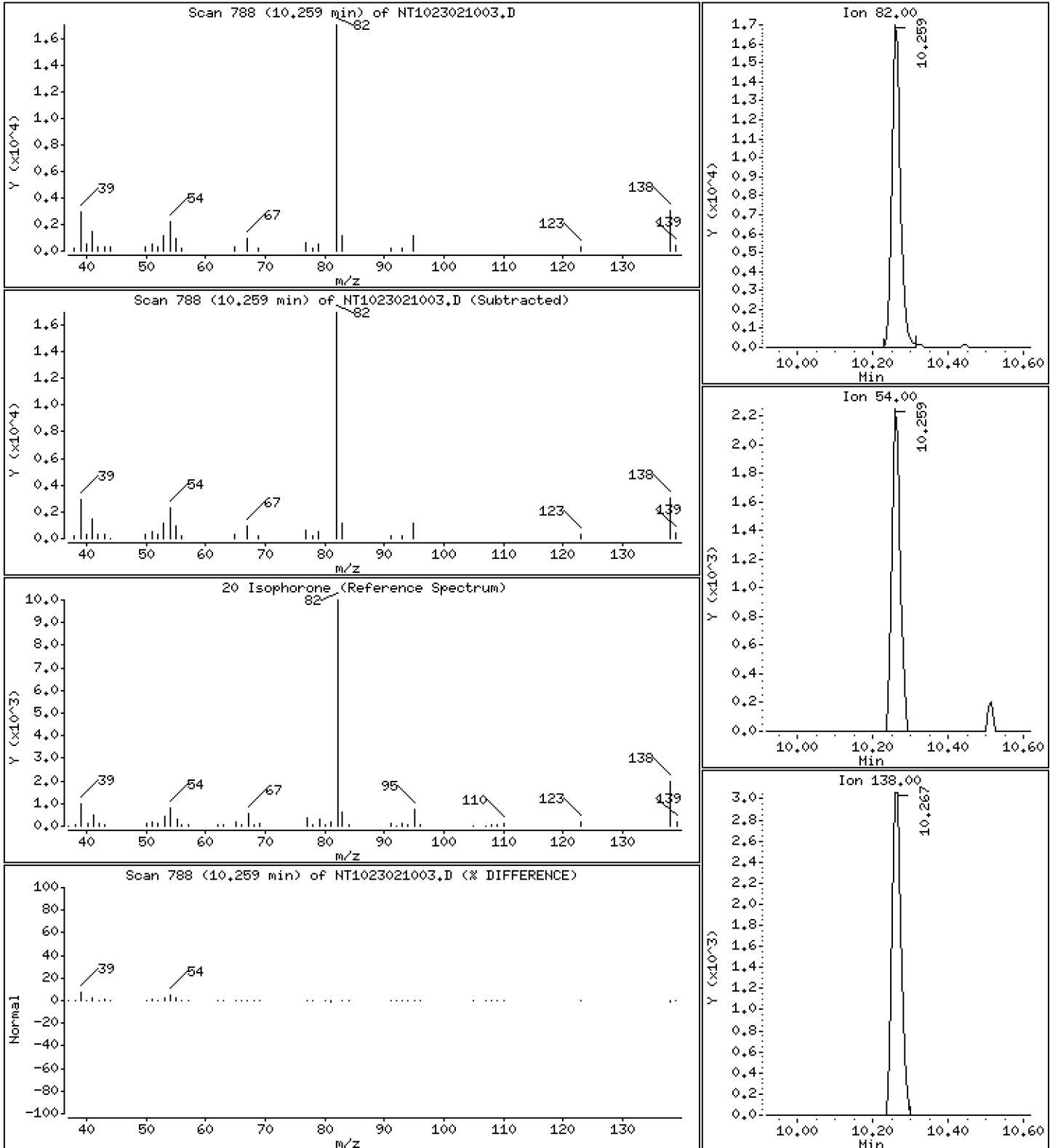
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

20 Isophorone

Concentration: 0,4776 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

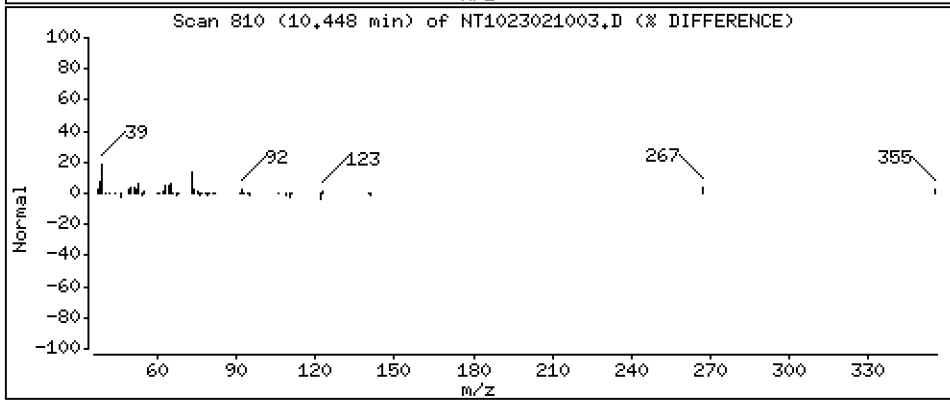
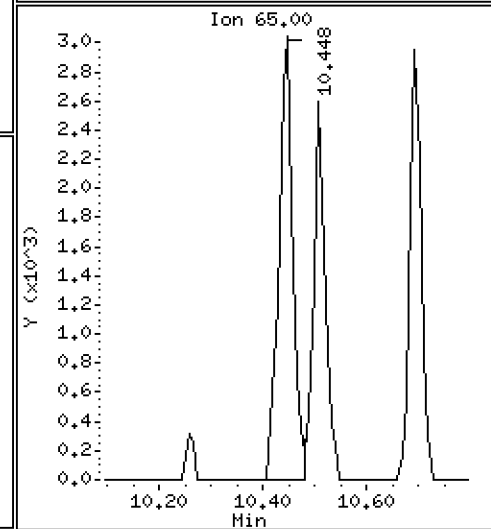
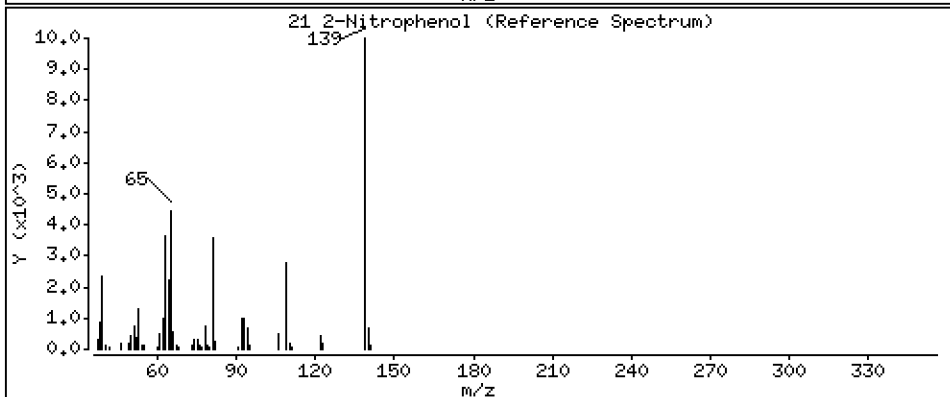
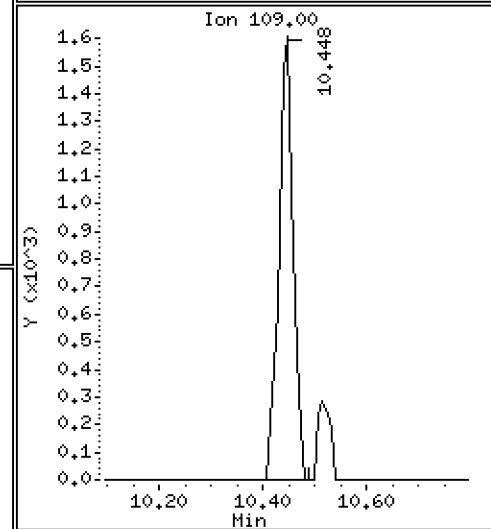
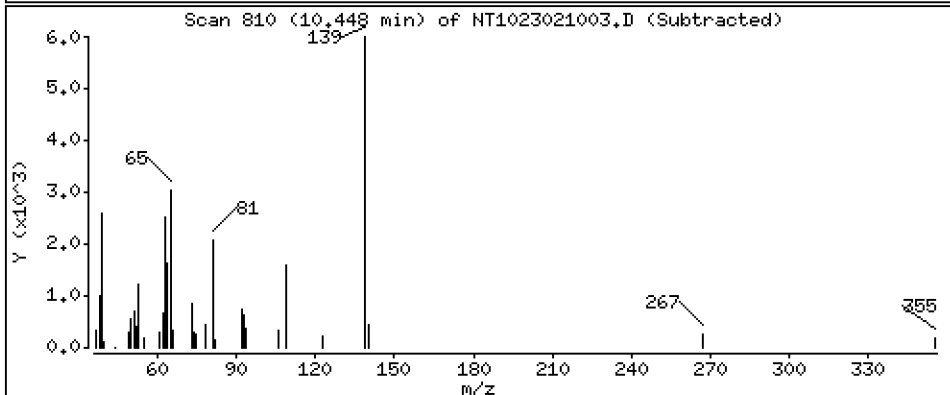
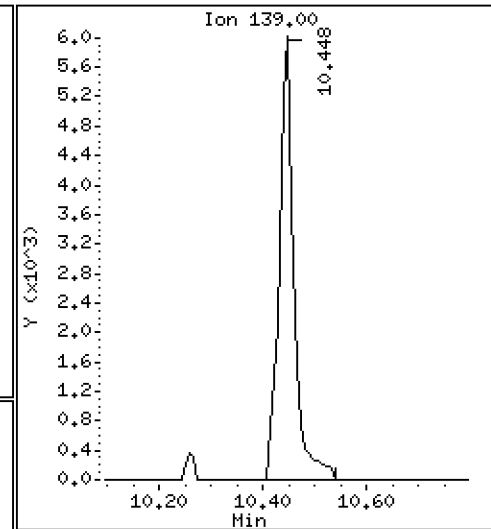
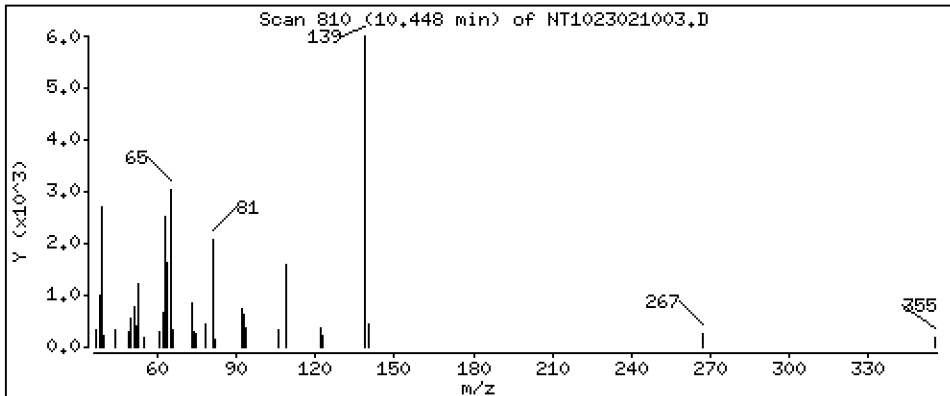
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 0,5842 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

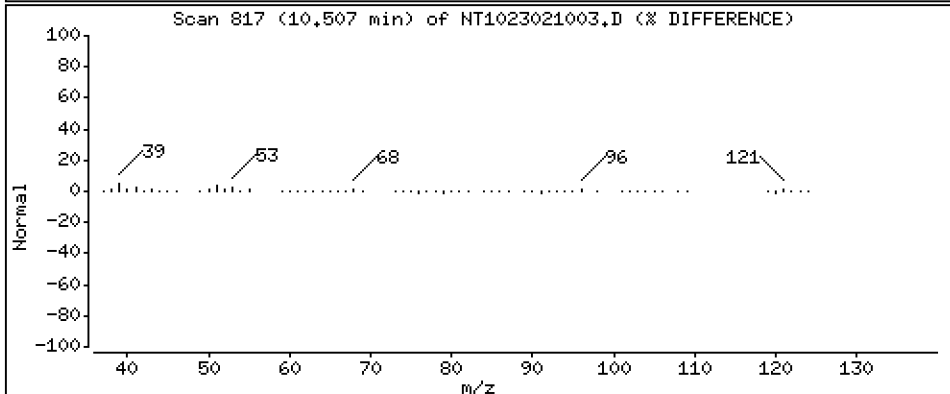
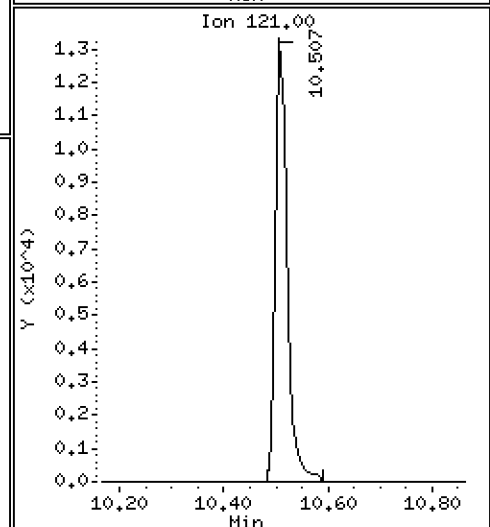
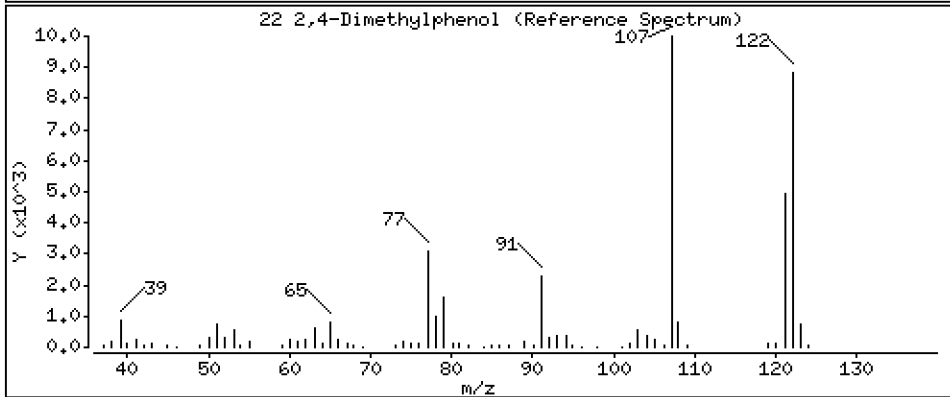
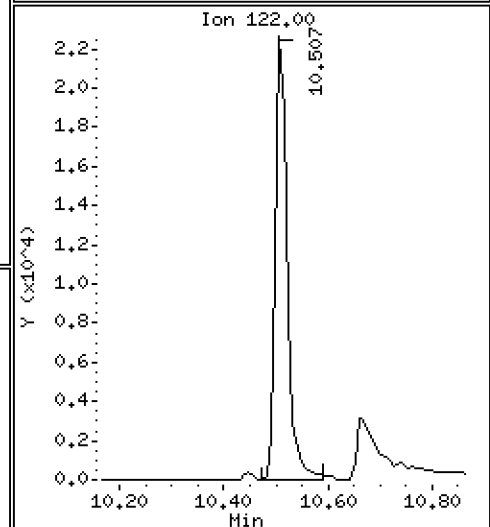
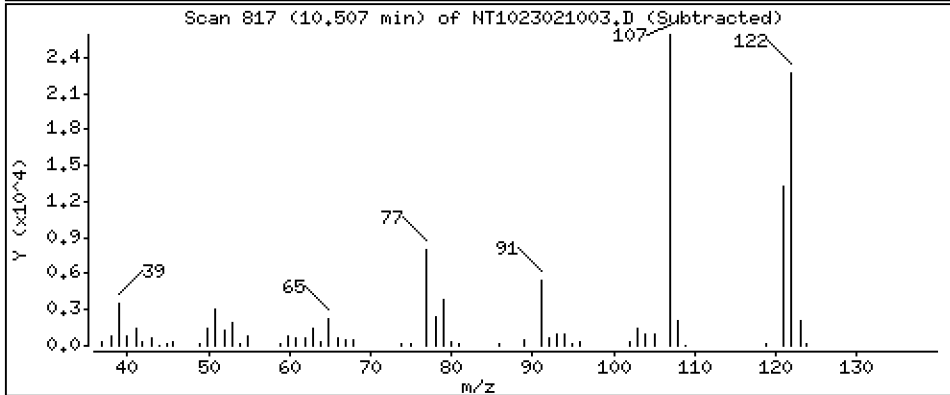
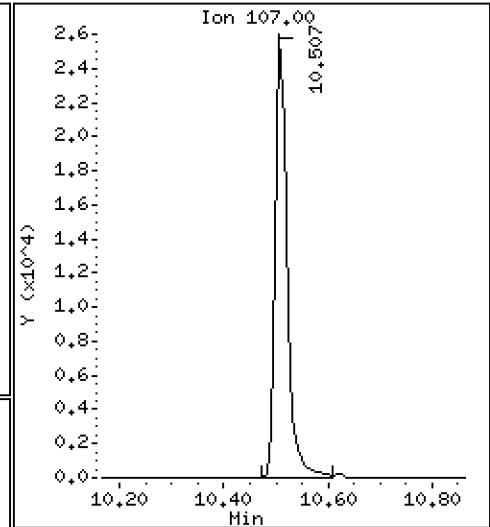
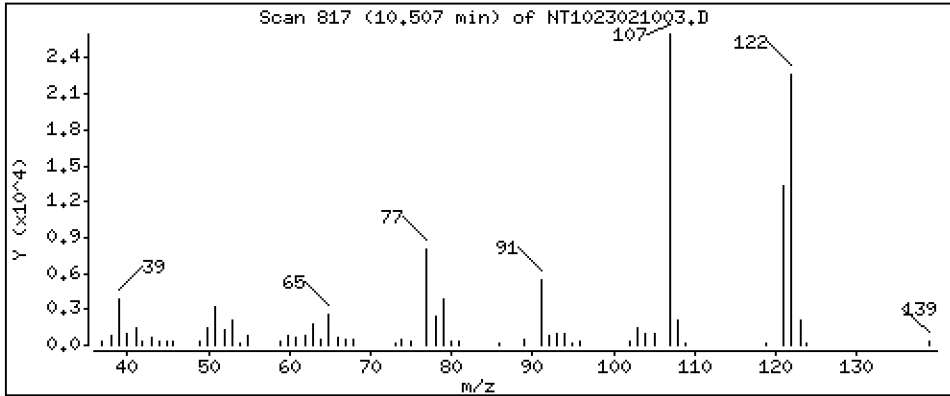
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 1.105 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

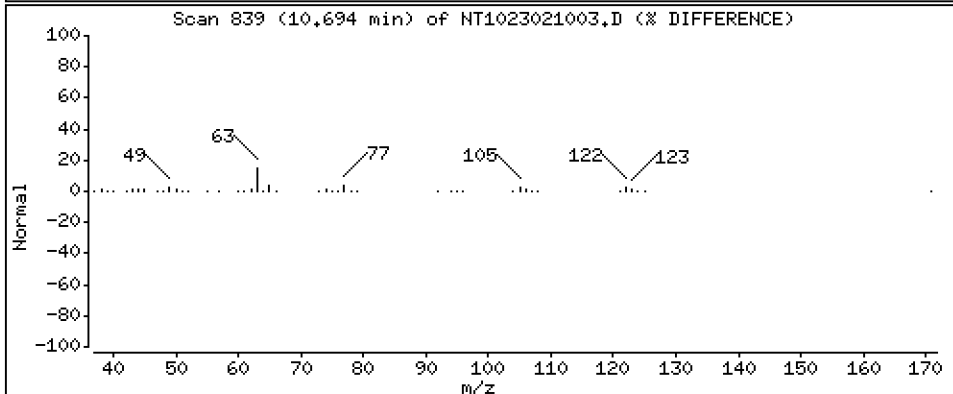
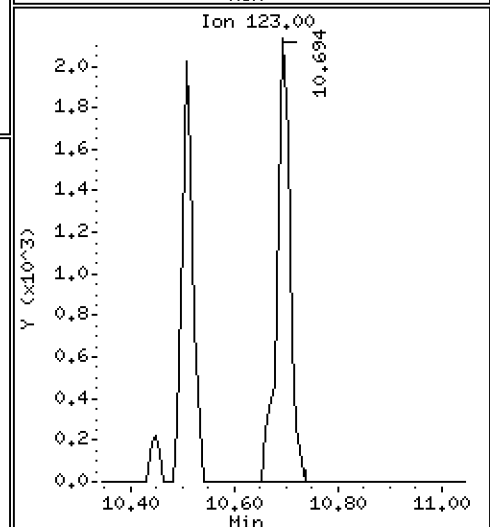
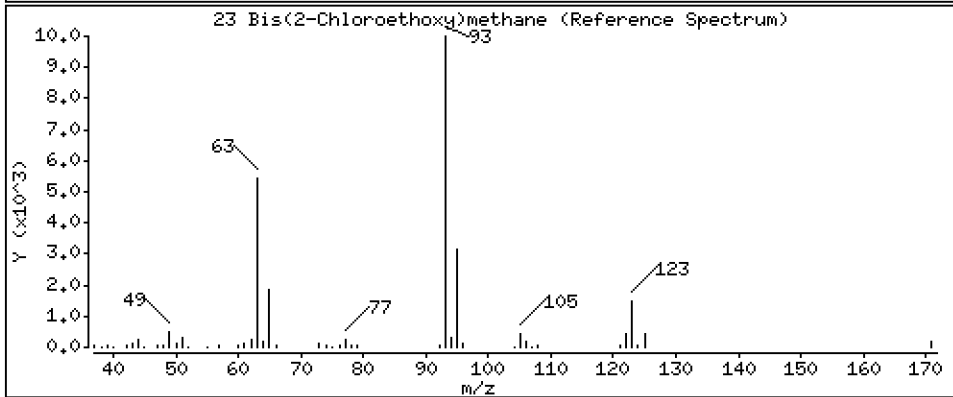
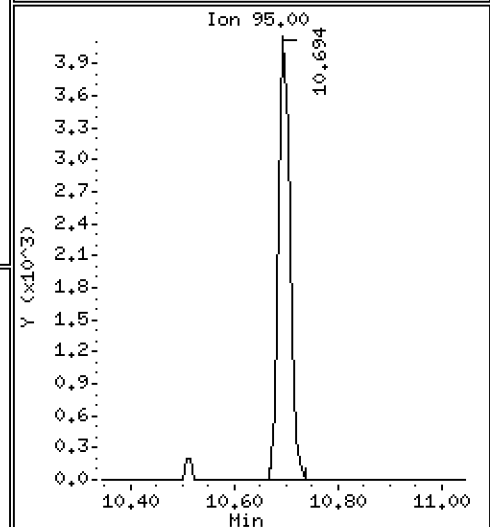
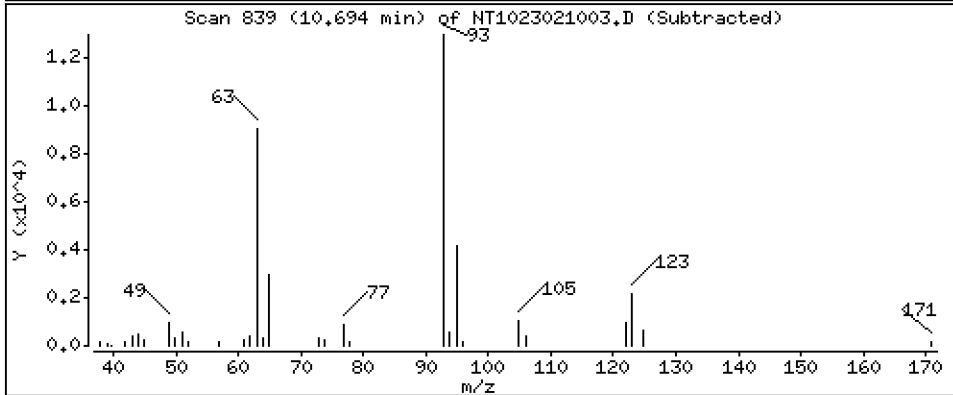
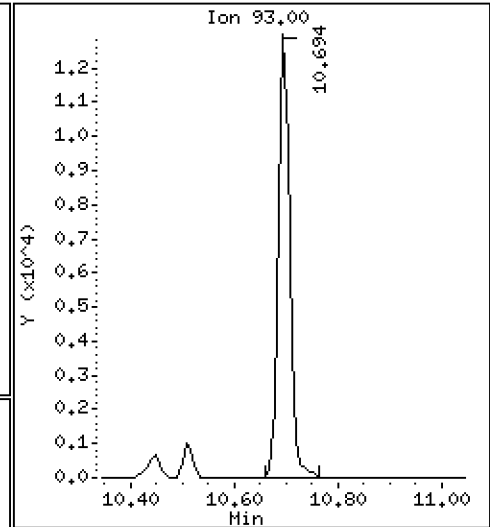
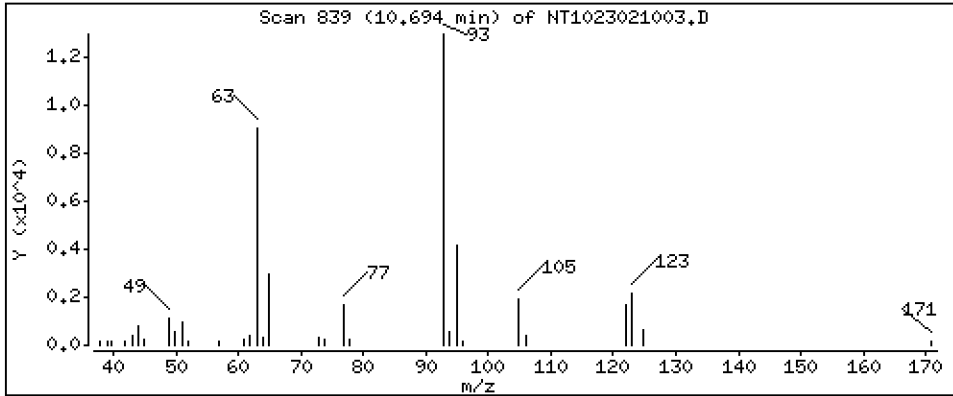
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

23 Bis(2-Chloroethoxy)methane

Concentration: 0,5431 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

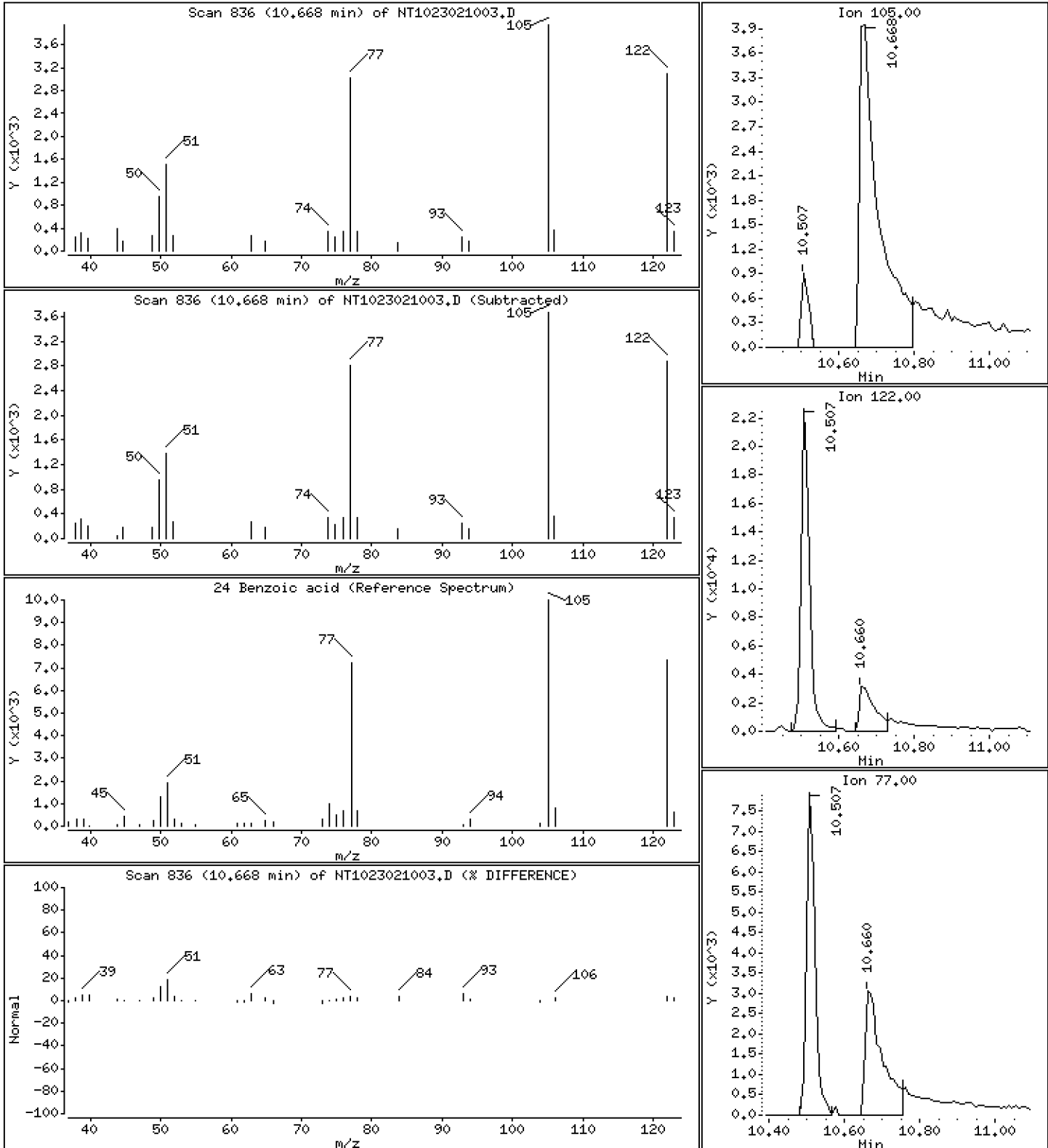
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 0,6729 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

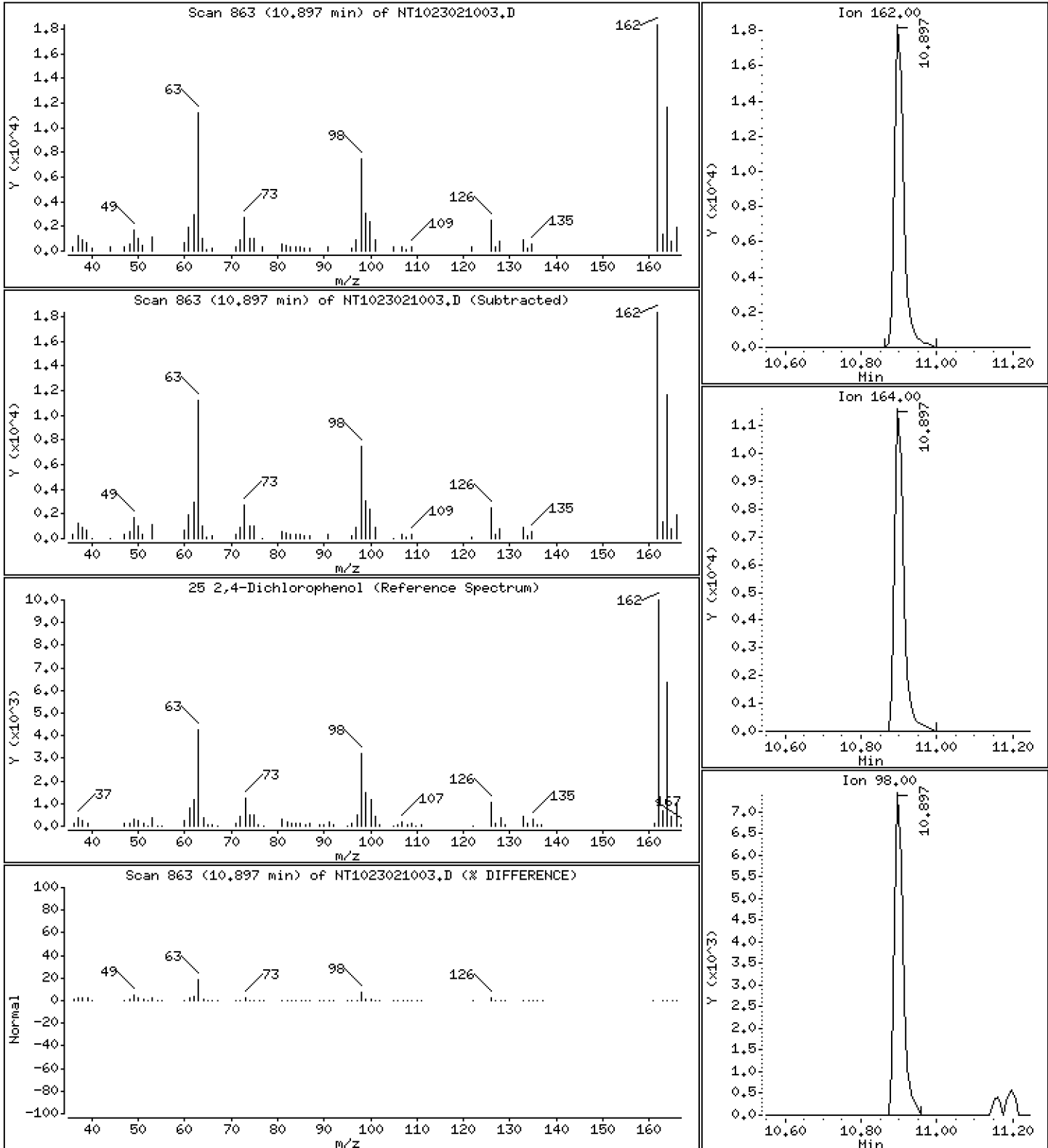
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 1,167 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

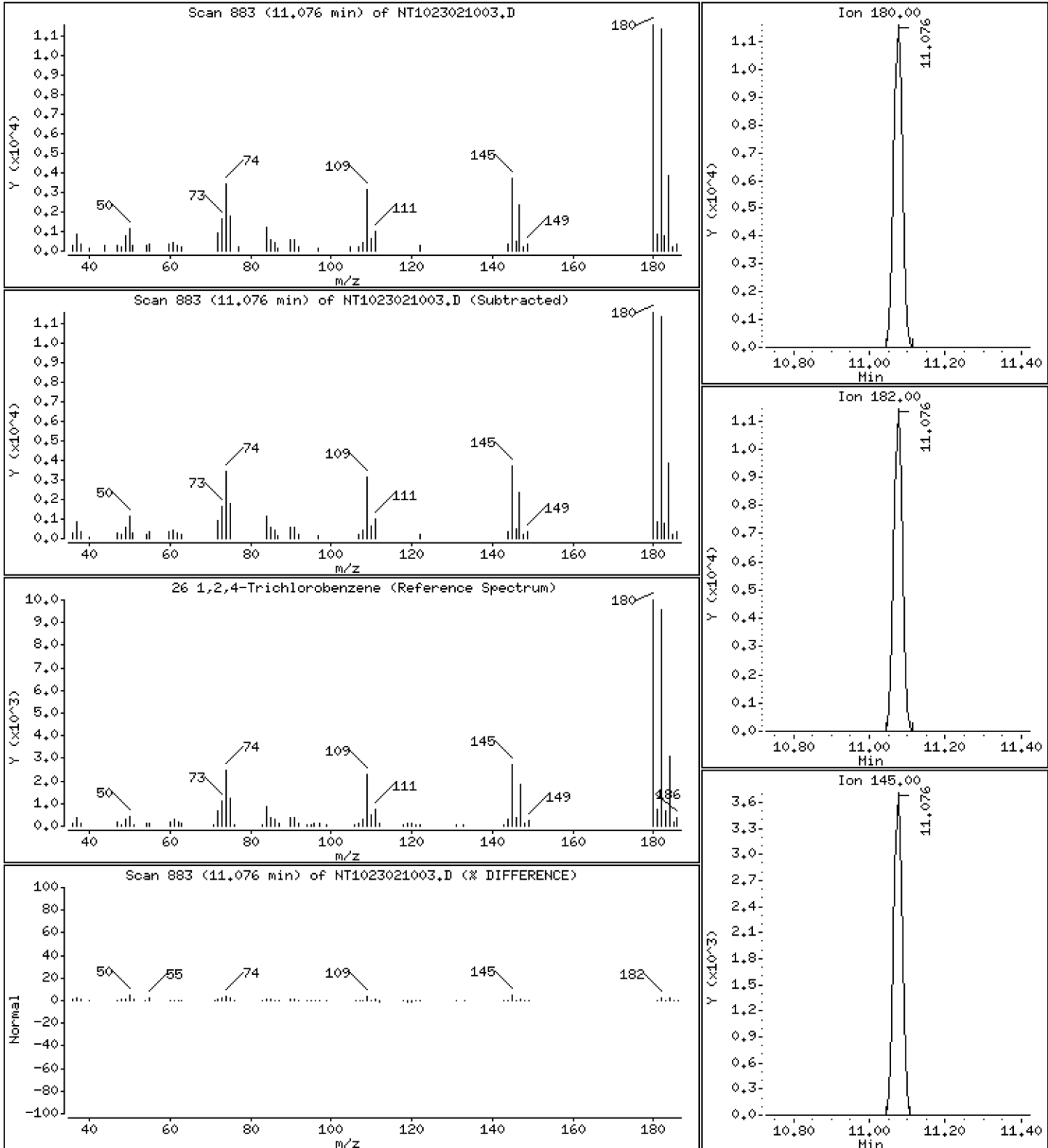
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 0.5378 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

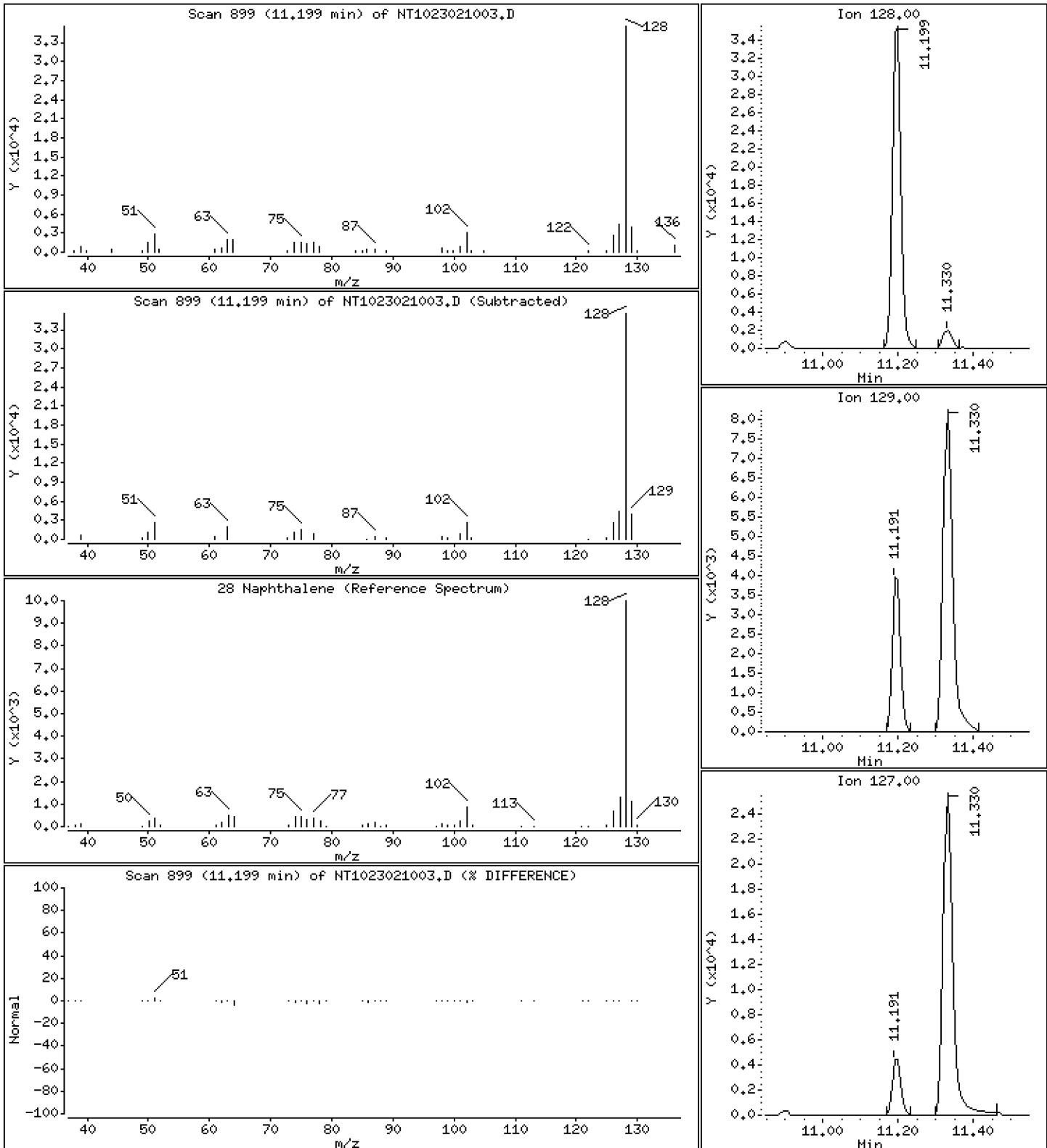
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

28 Naphthalene

Concentration: 0.5244 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

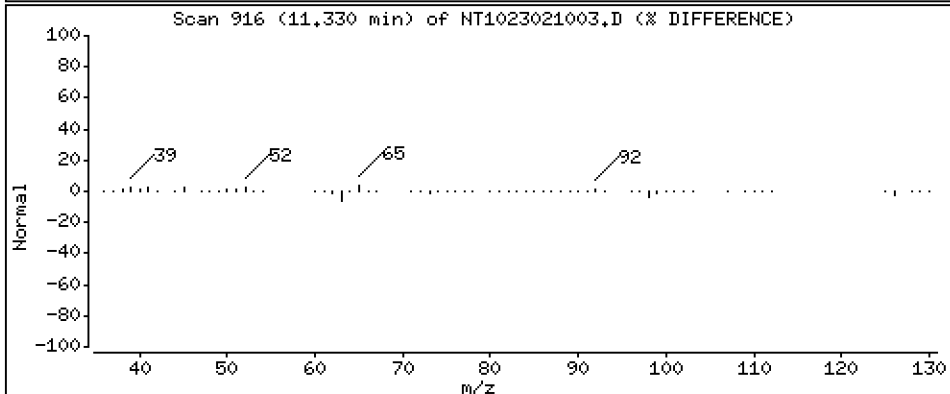
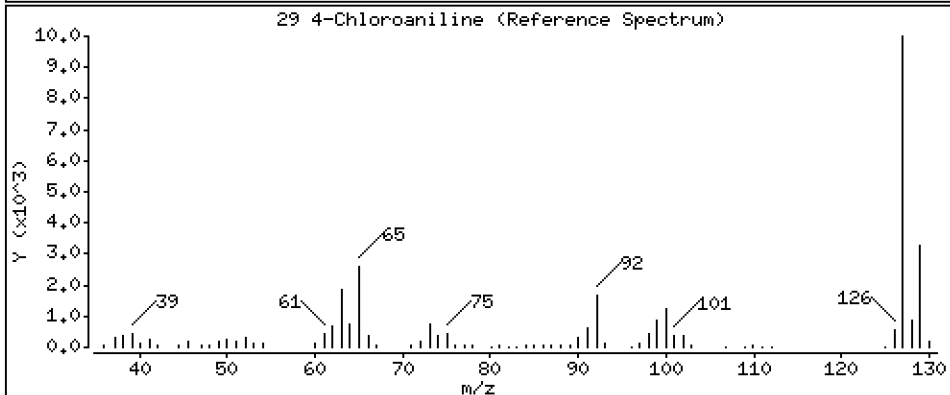
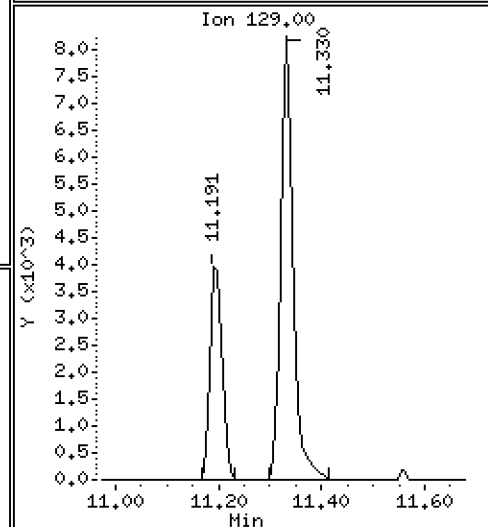
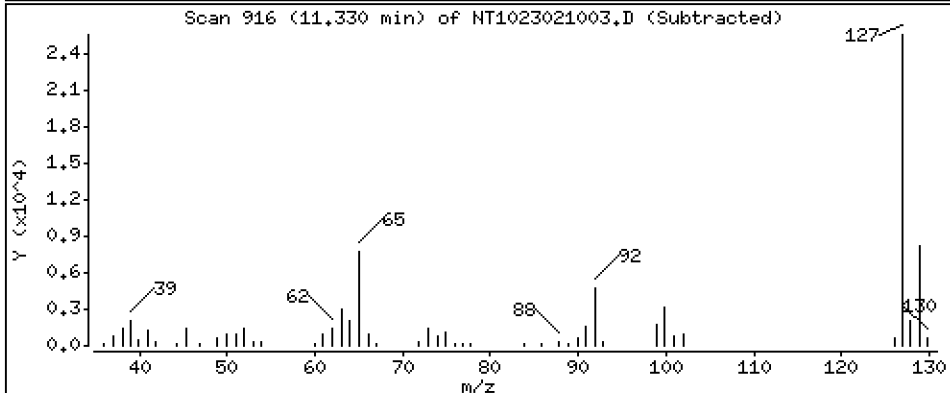
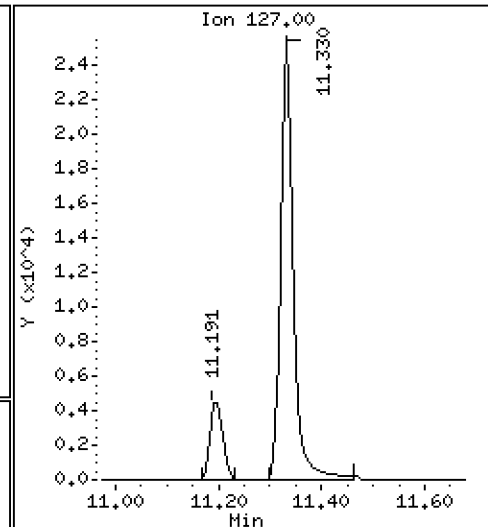
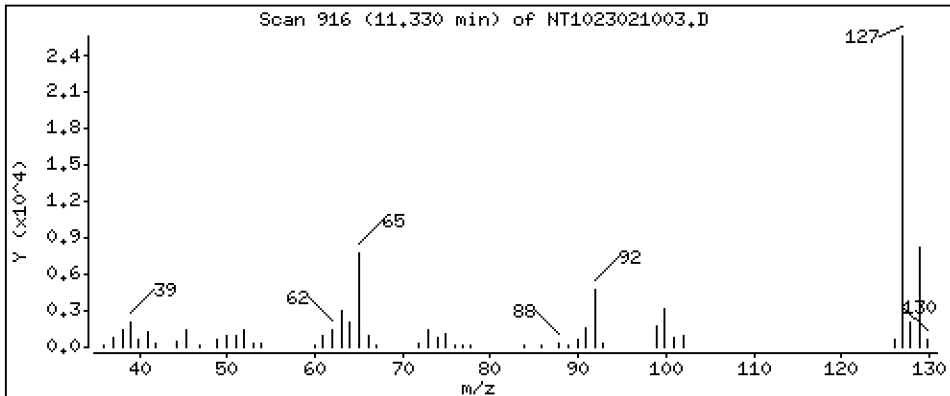
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 1,022 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

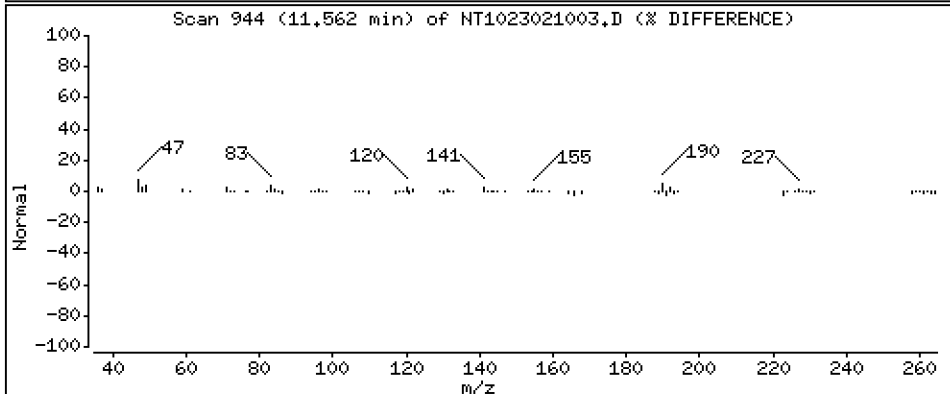
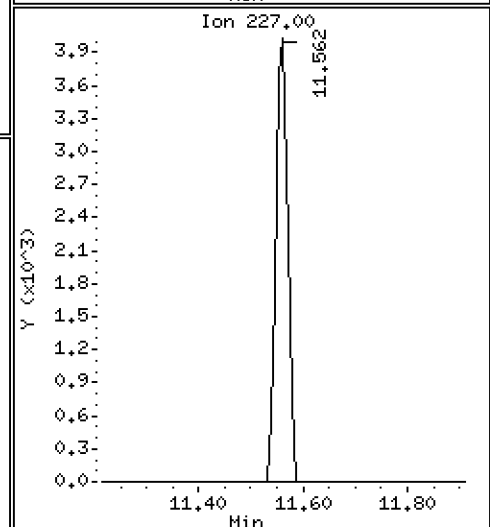
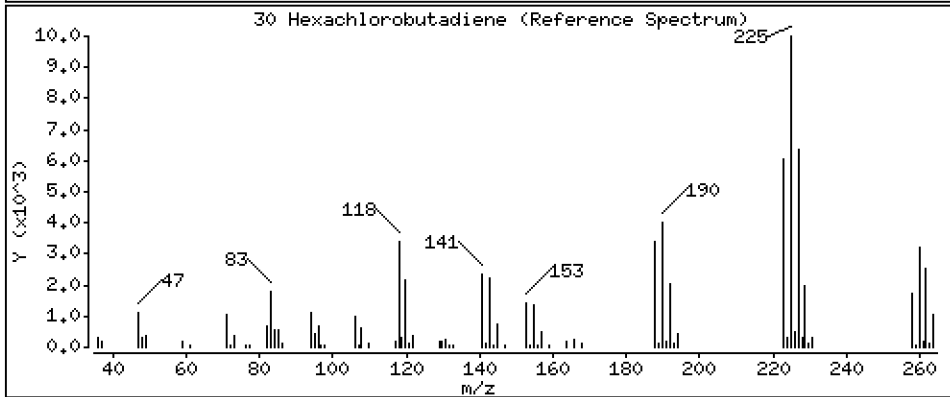
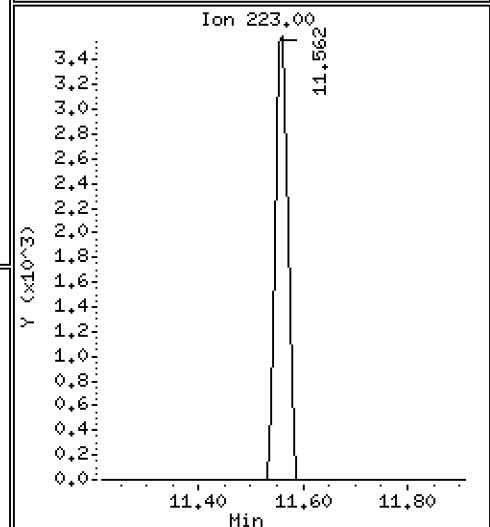
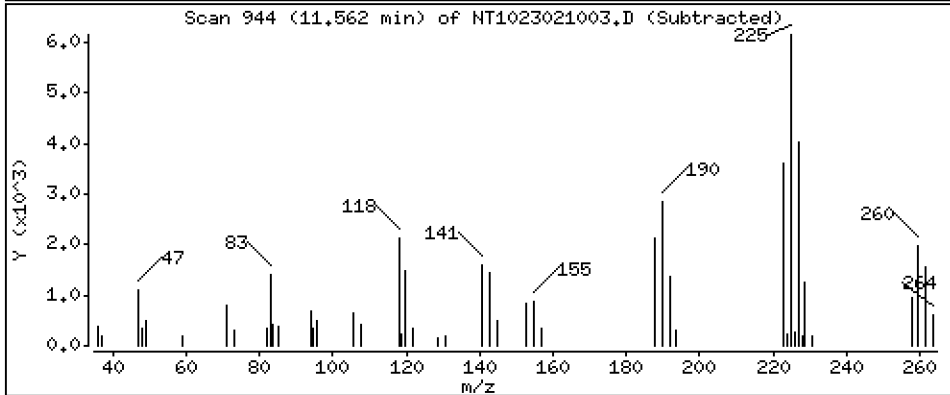
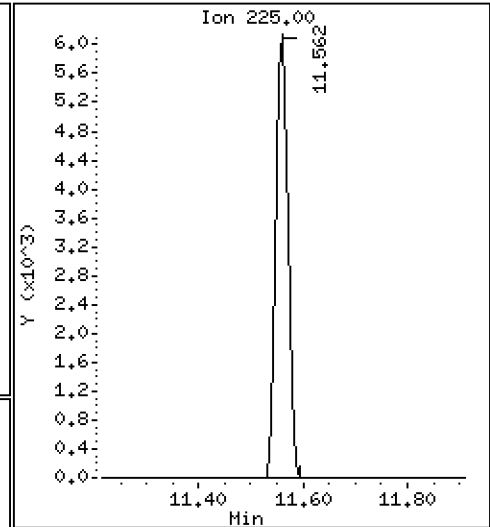
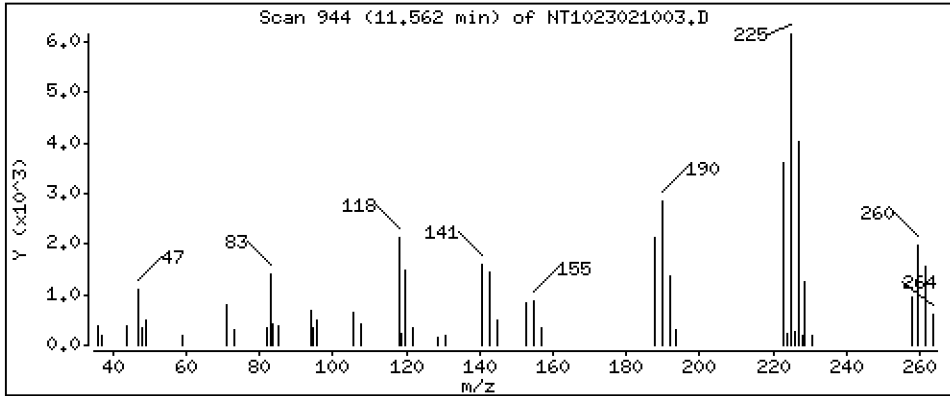
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,5489 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

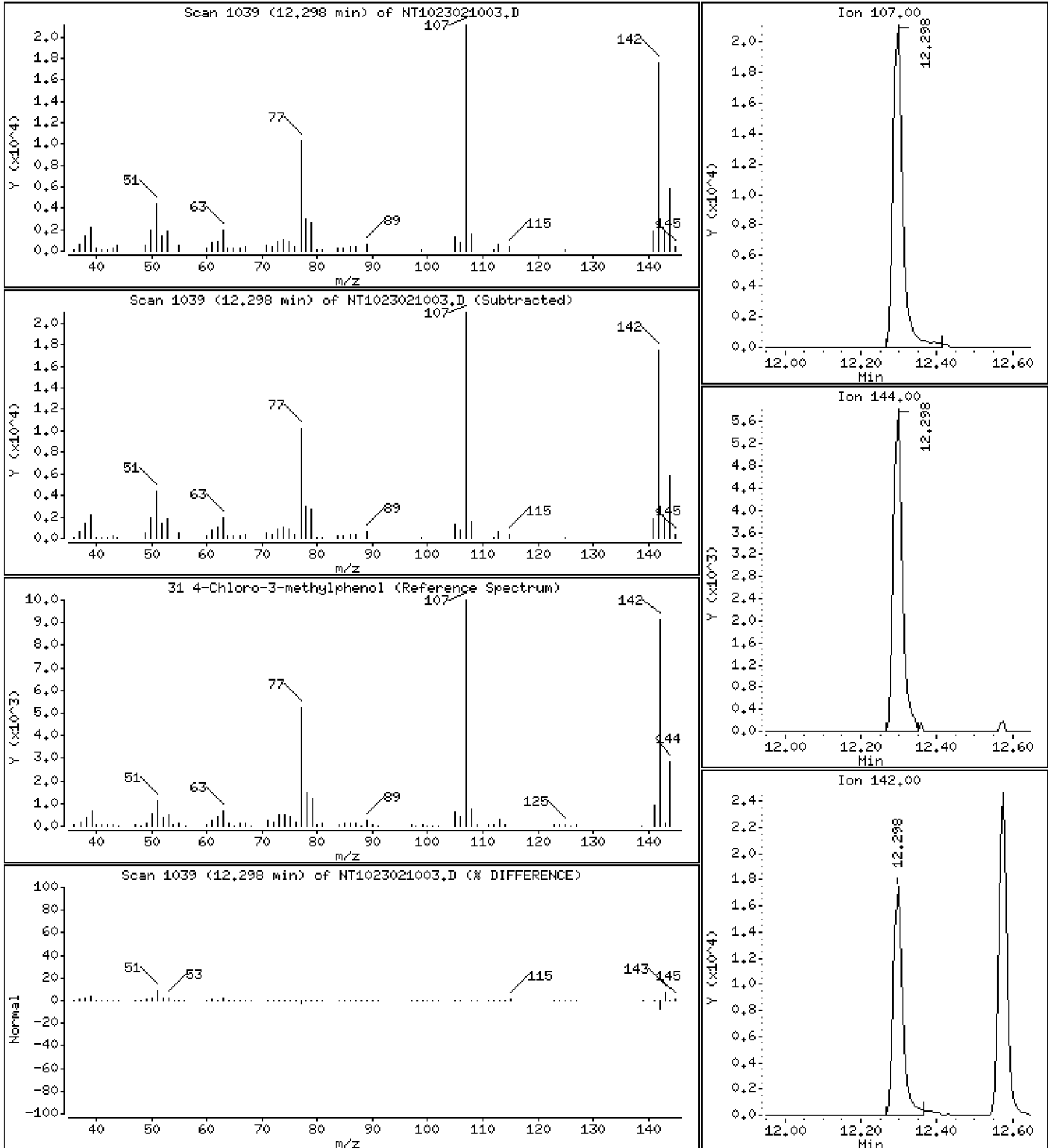
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

31 4-Chloro-3-methylphenol

Concentration: 1.071 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

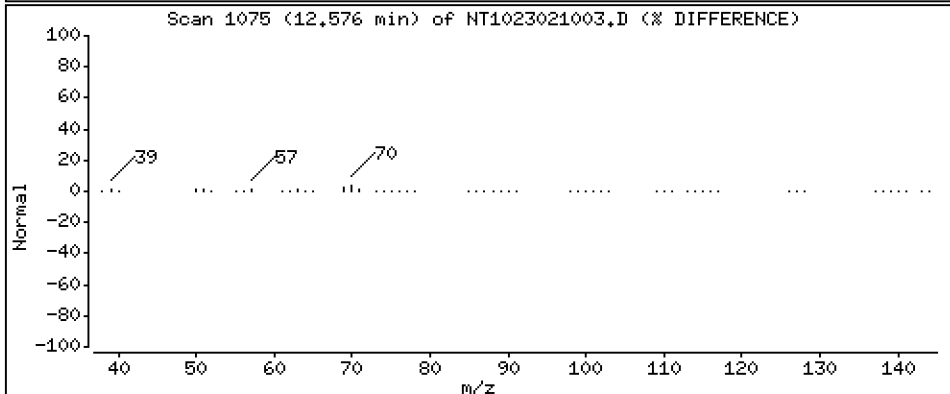
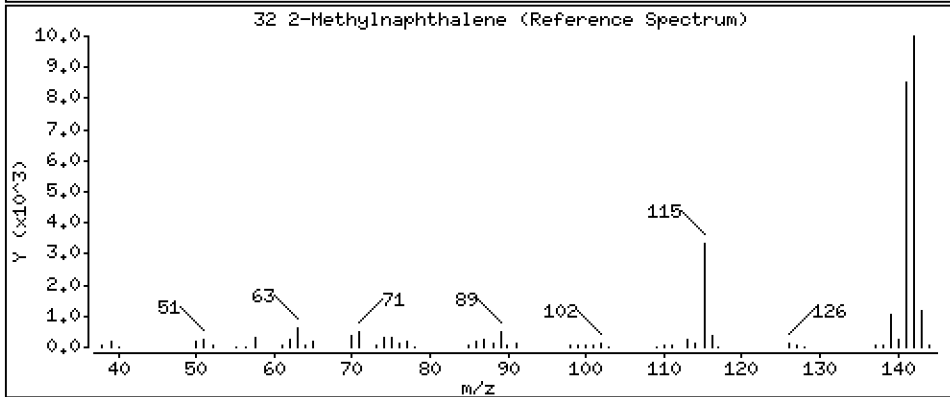
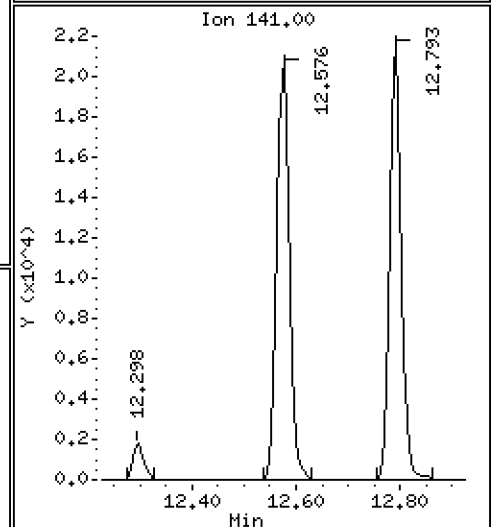
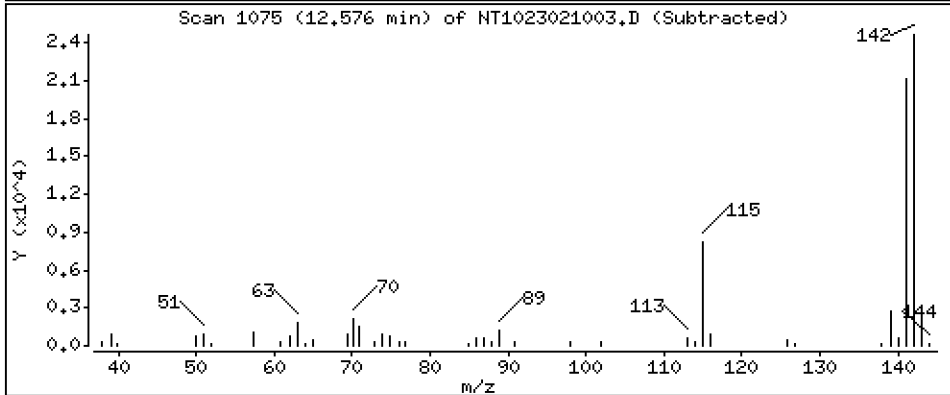
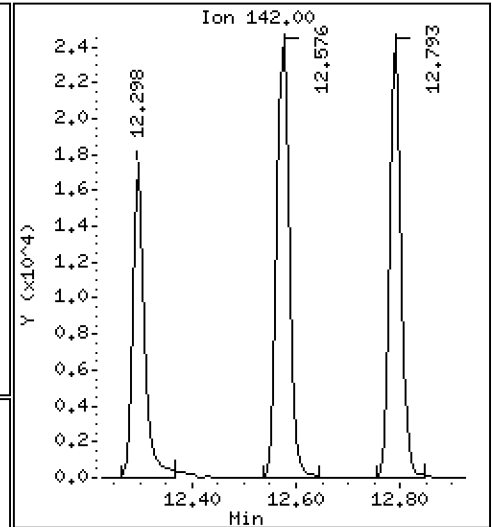
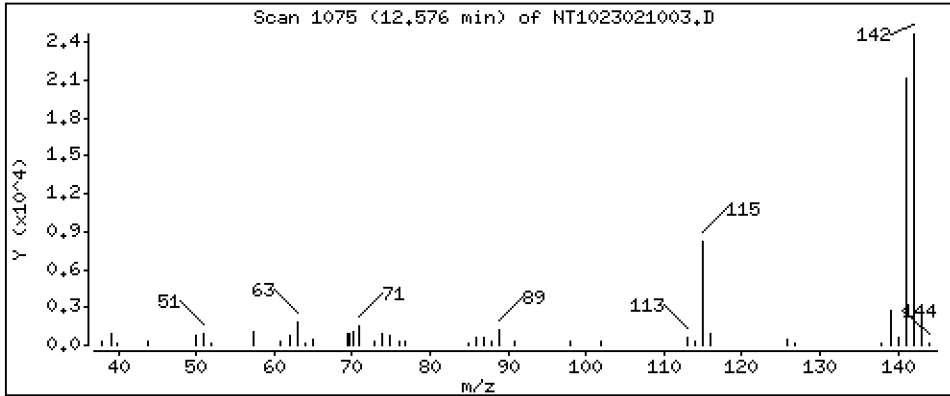
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 0,5132 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

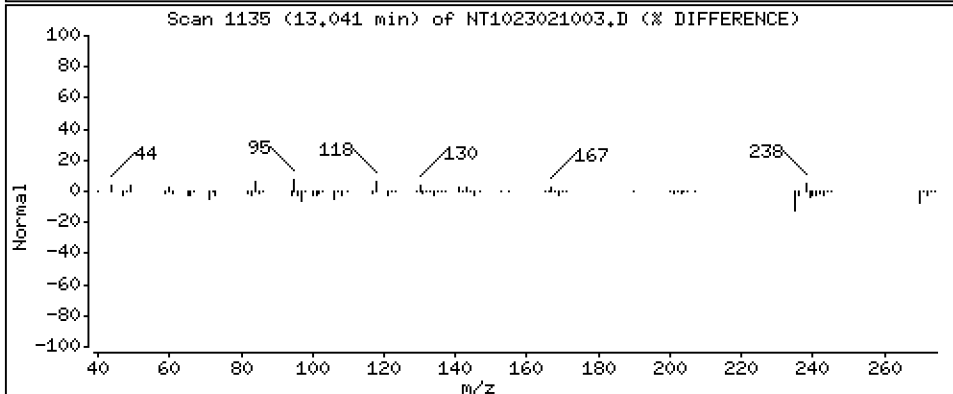
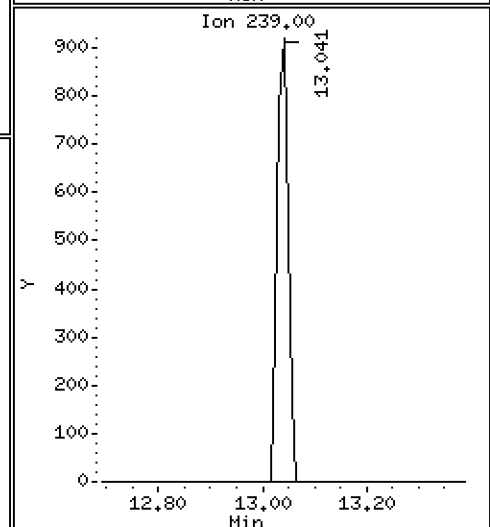
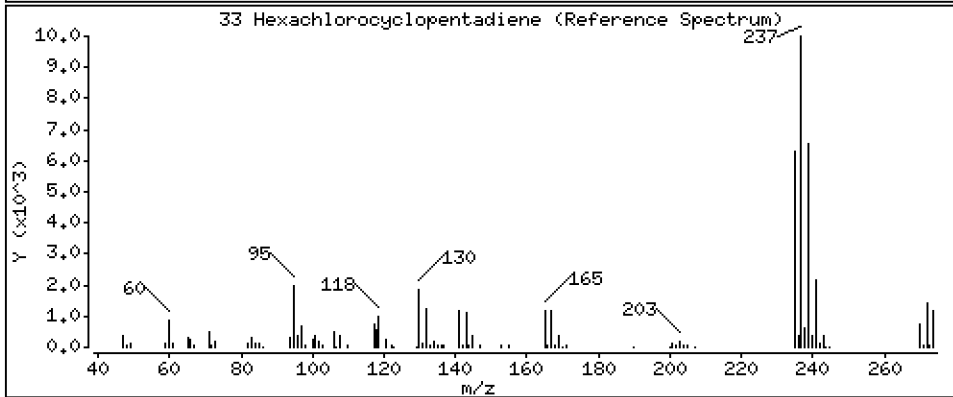
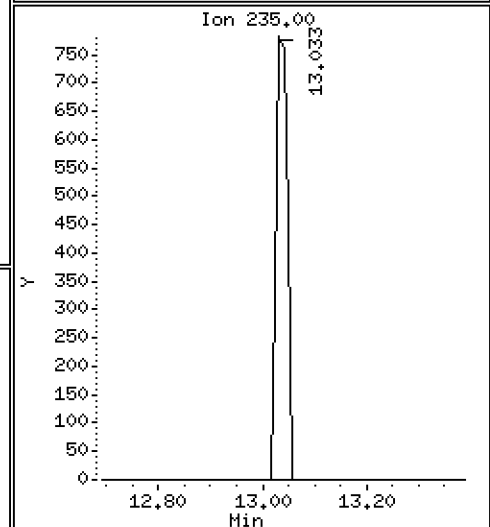
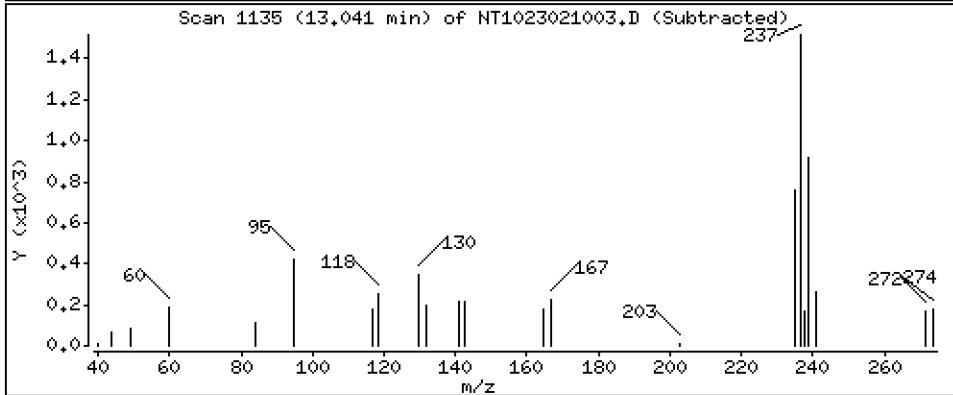
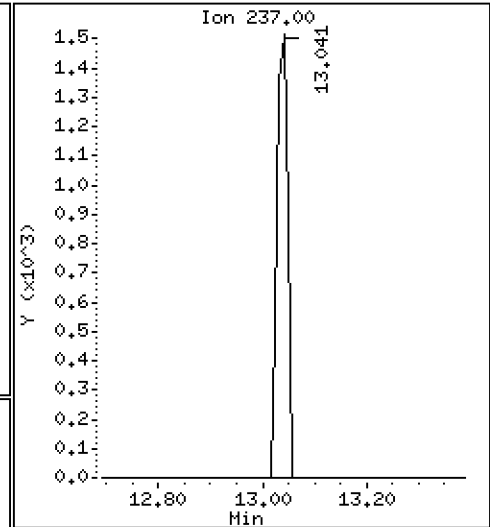
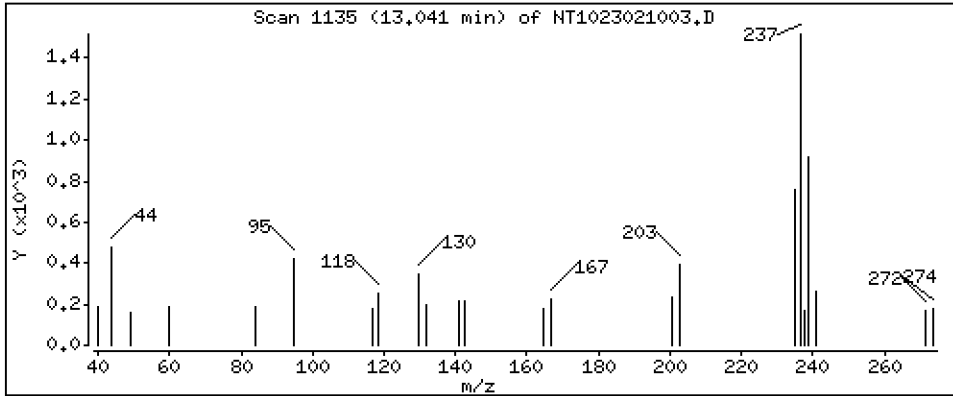
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 0,1502 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

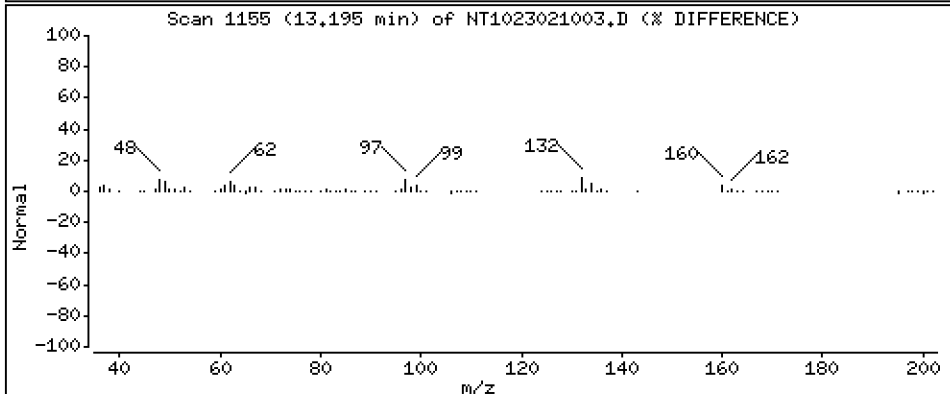
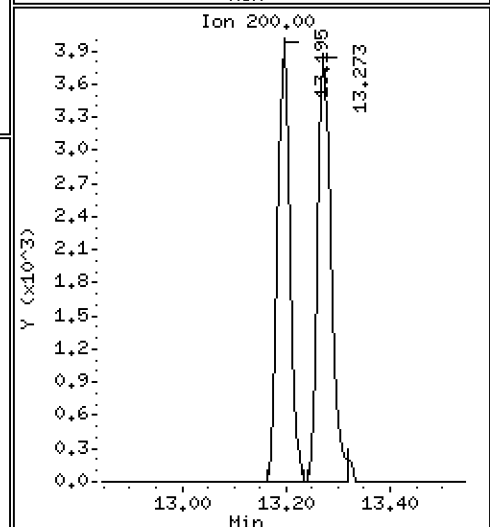
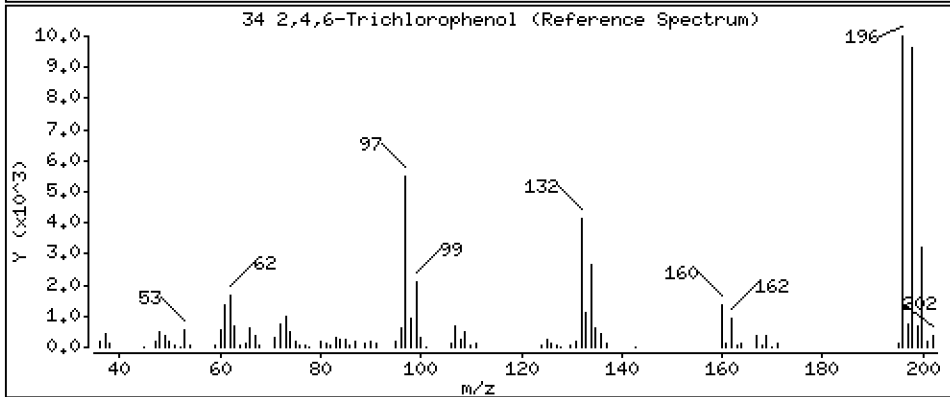
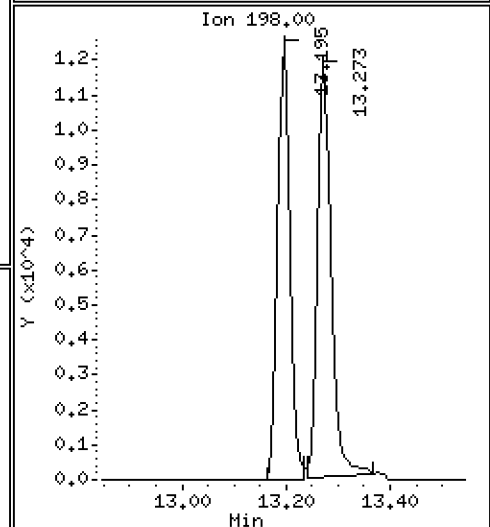
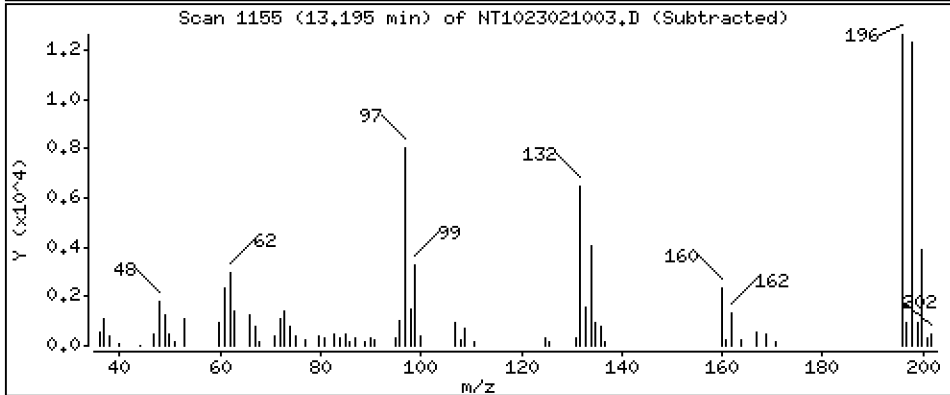
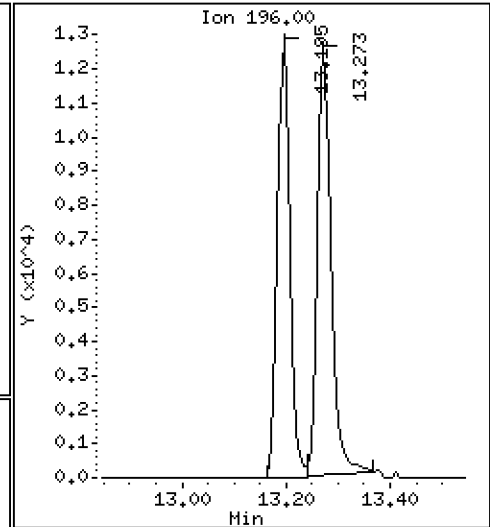
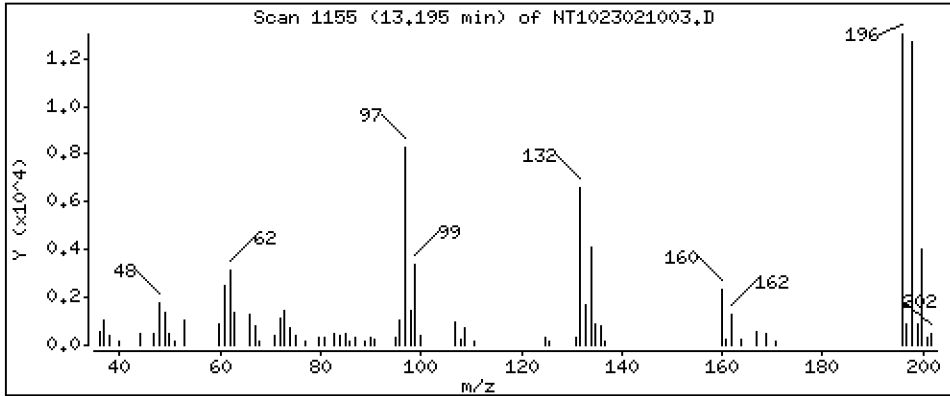
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 1,048 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

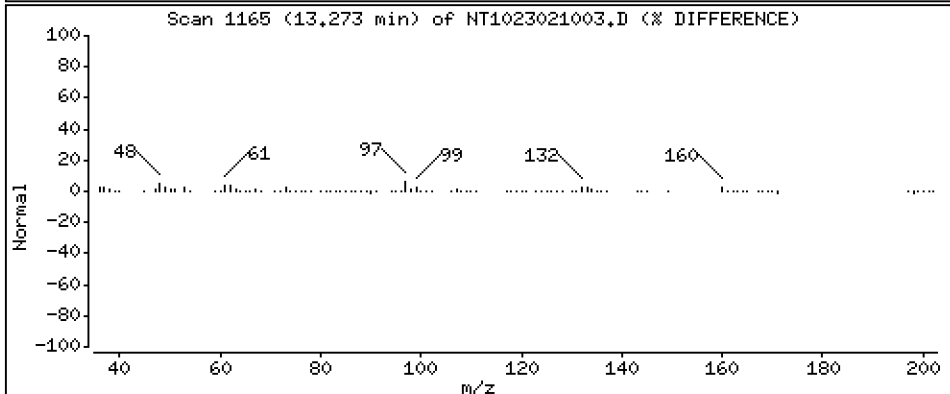
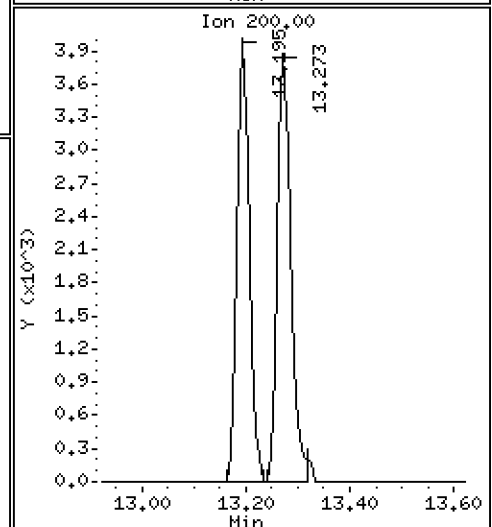
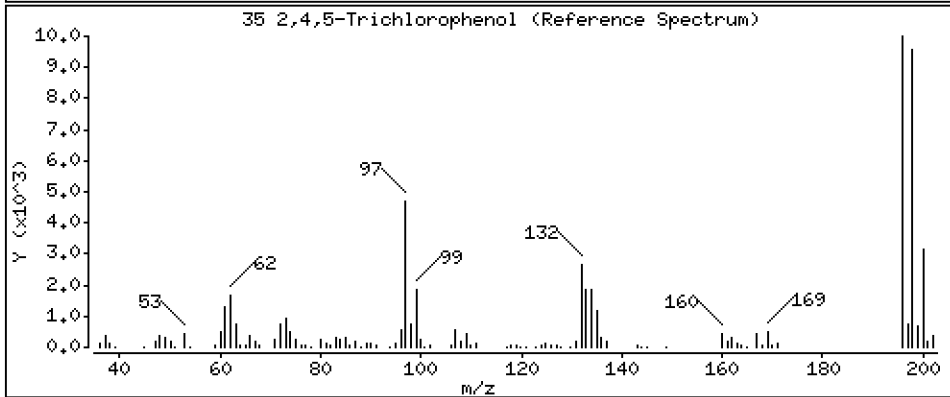
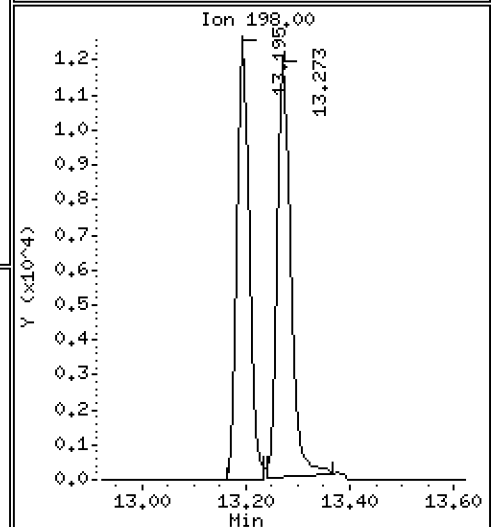
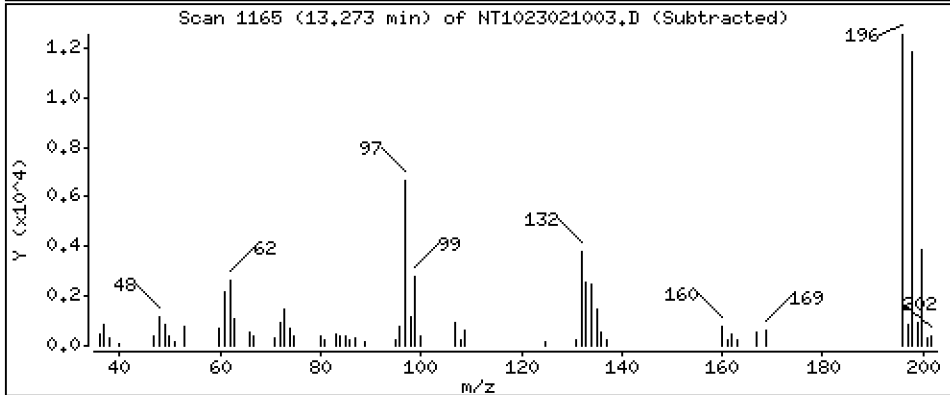
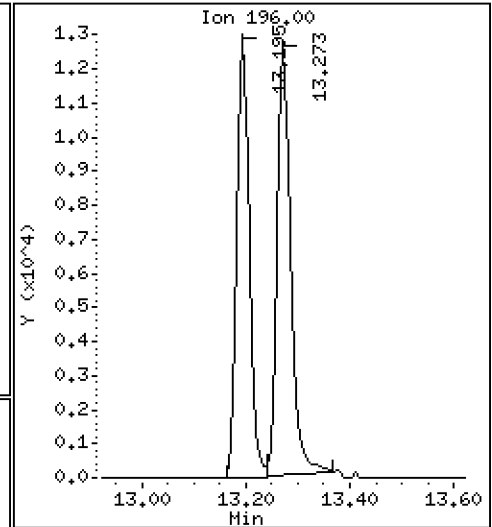
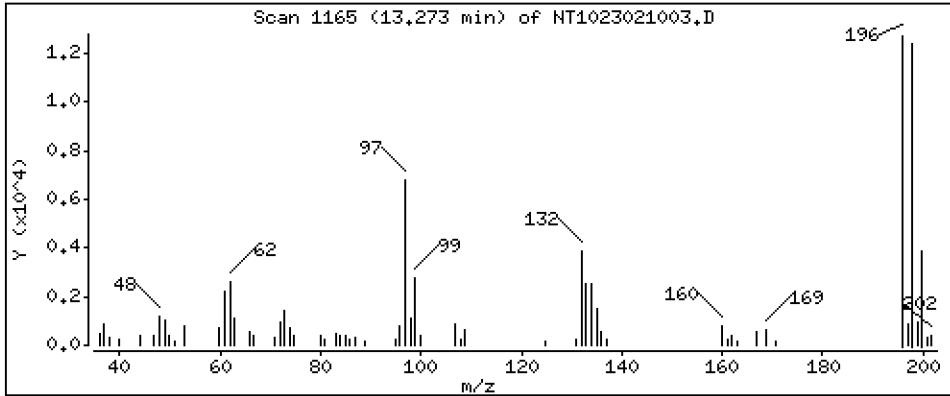
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 1,021 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

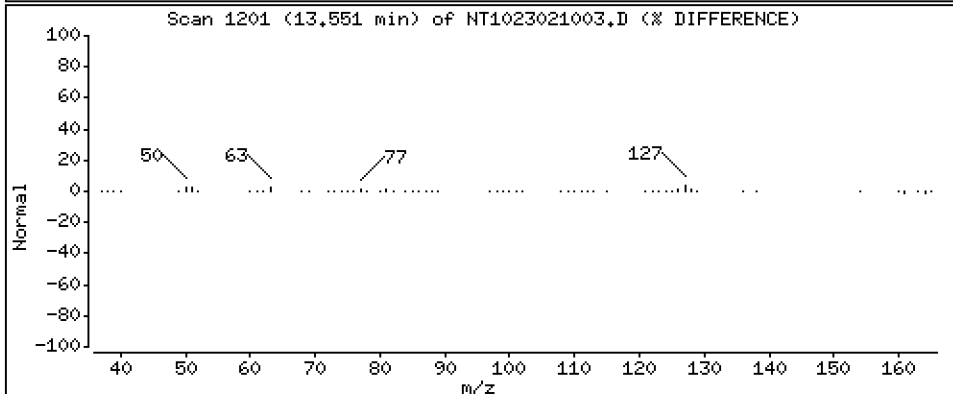
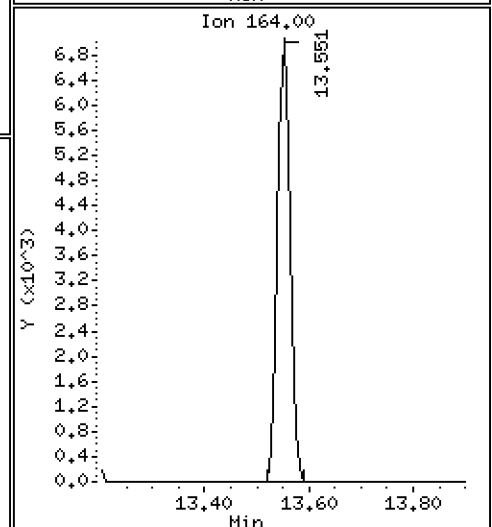
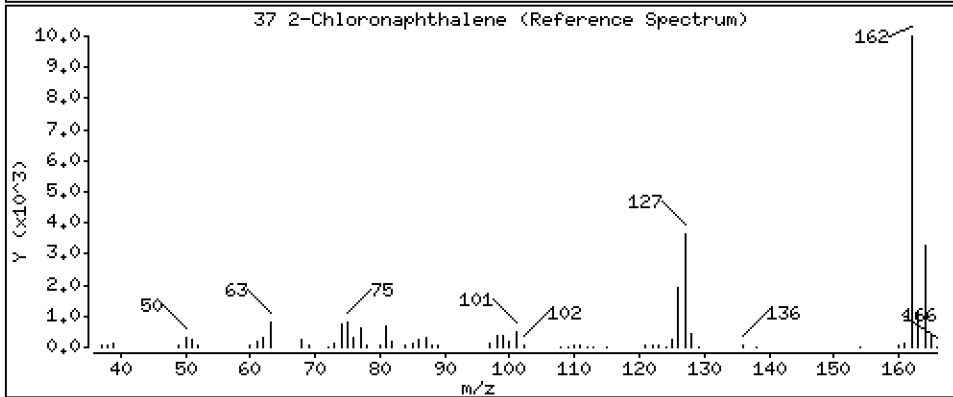
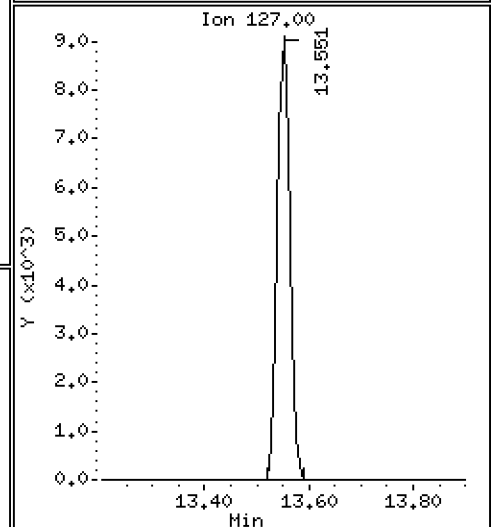
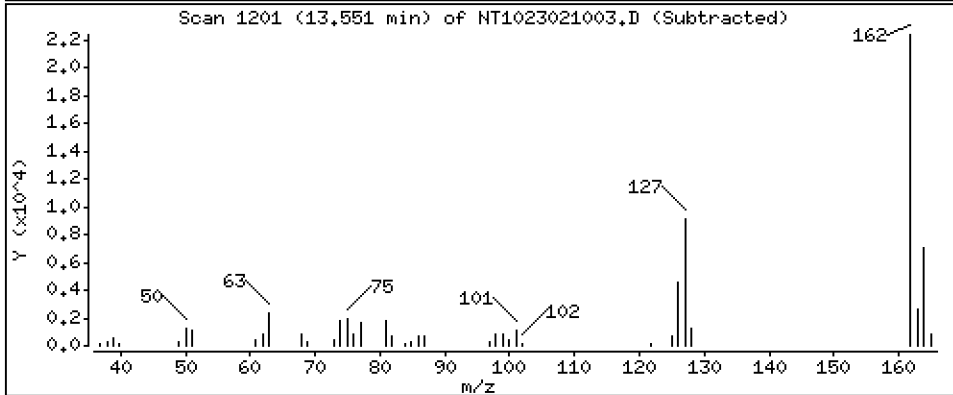
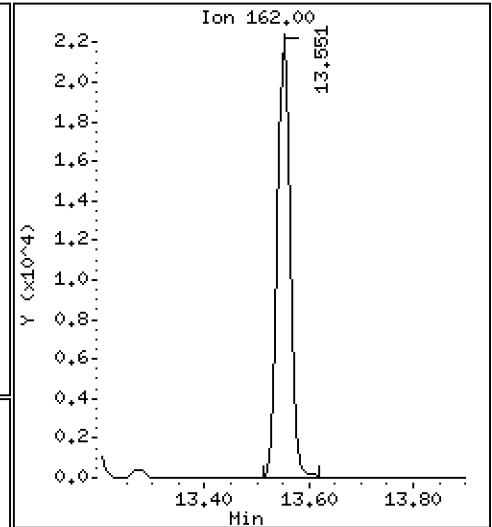
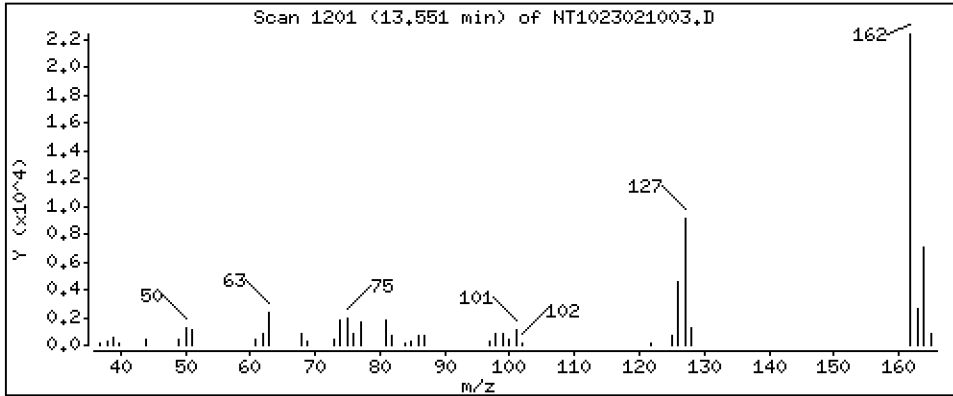
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

37 2-Chloronaphthalene

Concentration: 0,5336 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

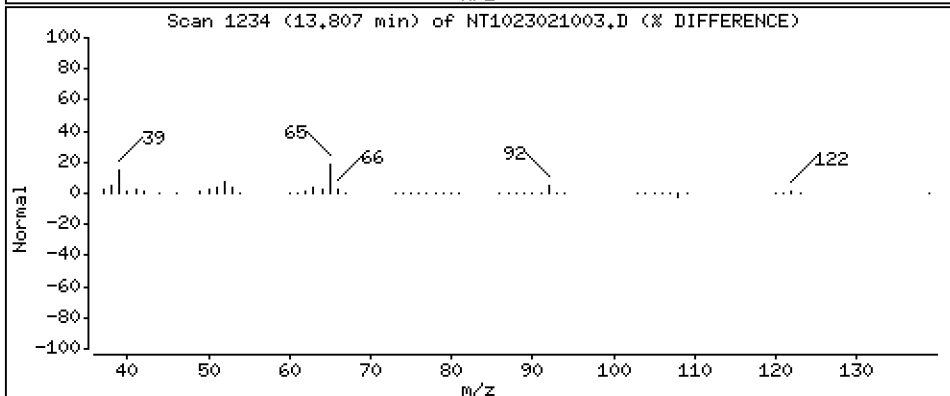
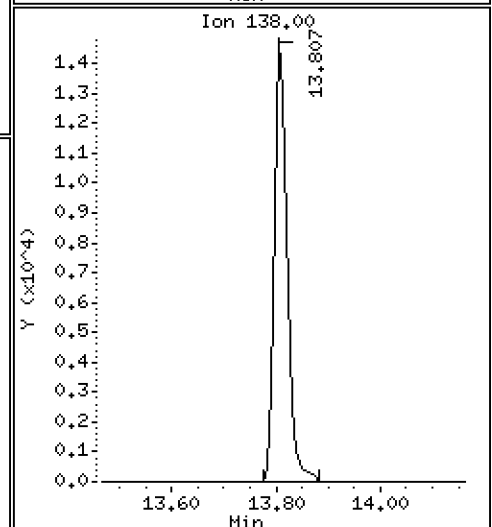
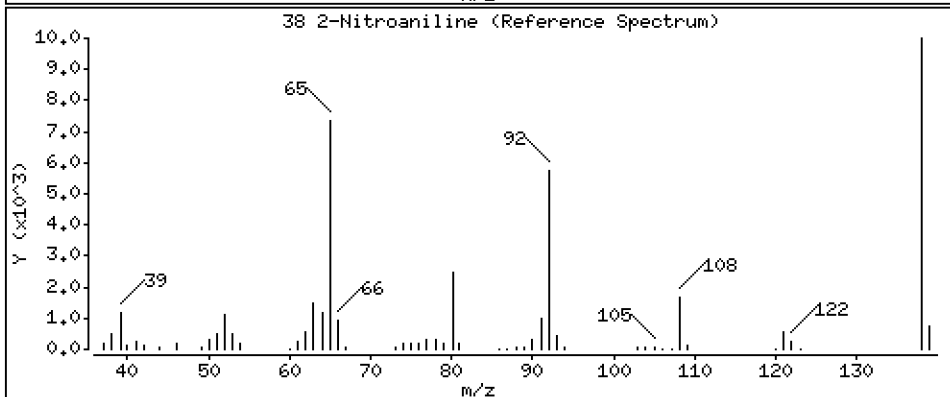
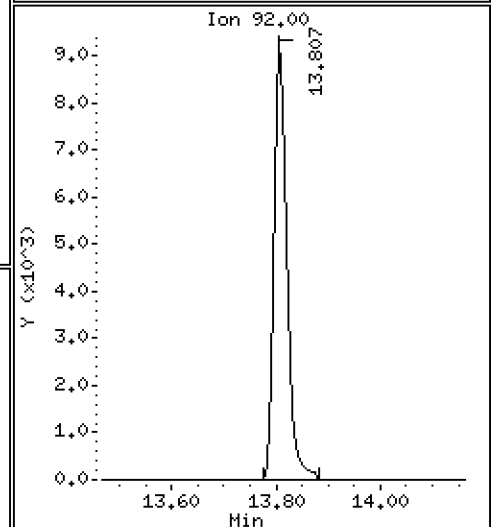
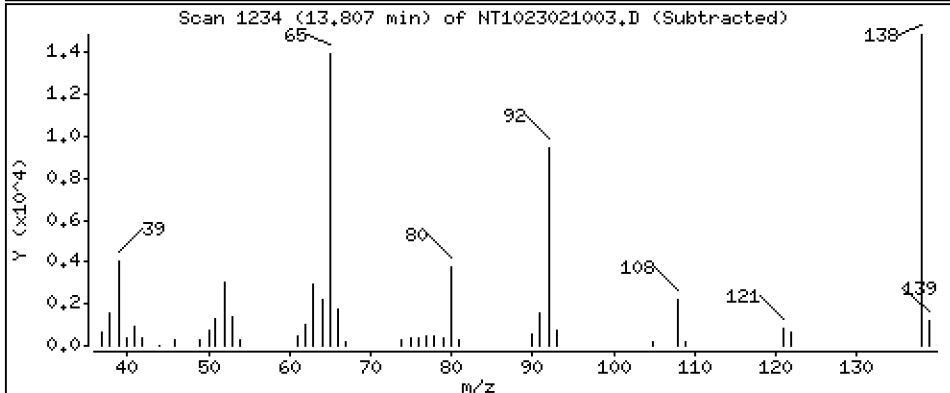
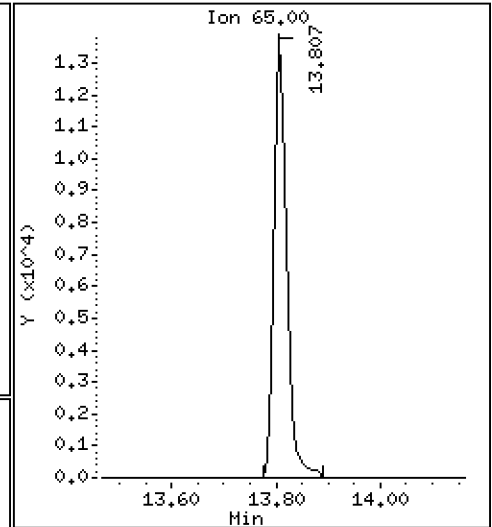
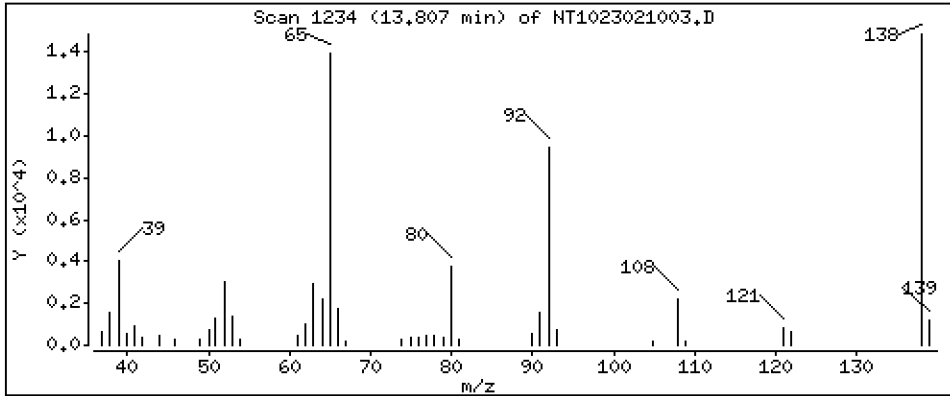
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

38 2-Nitroaniline

Concentration: 1.065 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

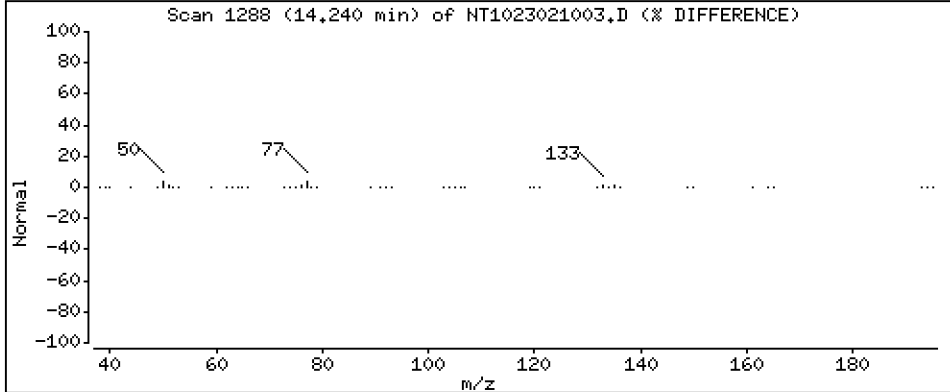
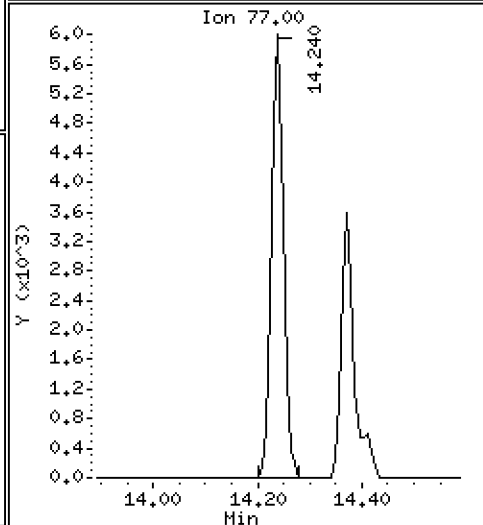
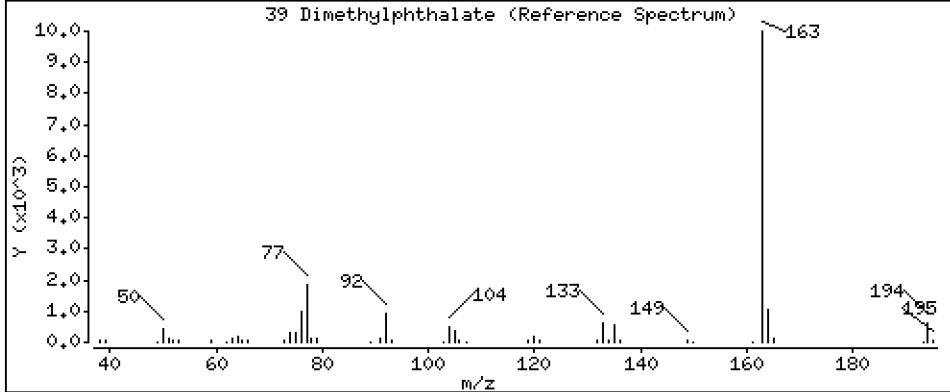
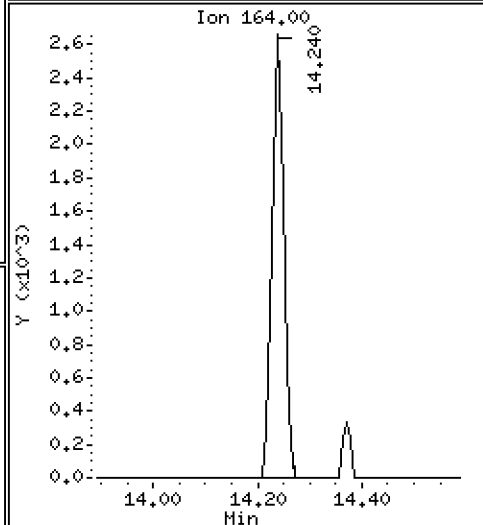
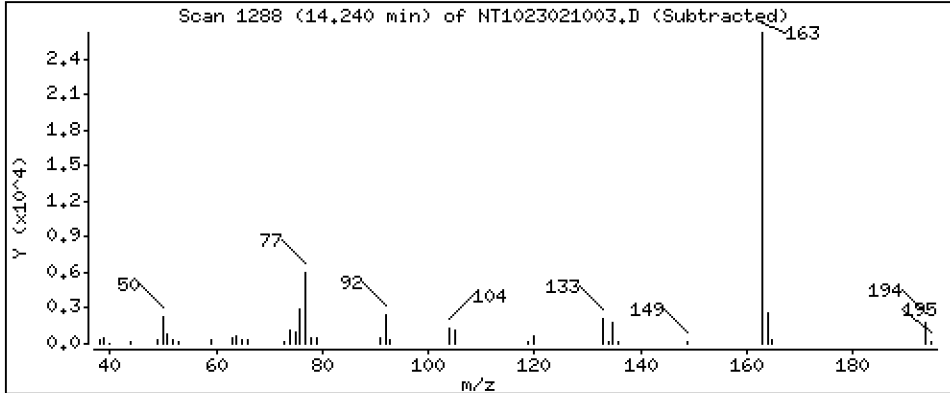
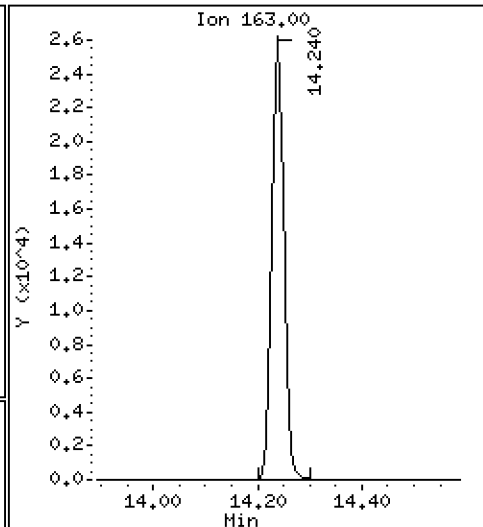
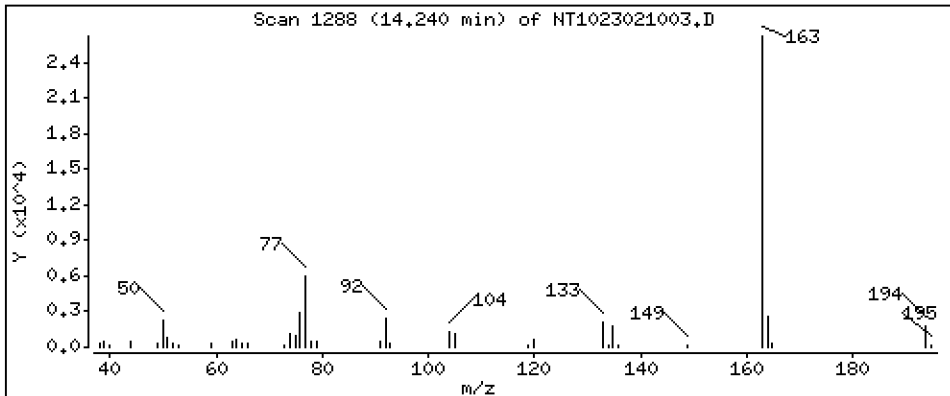
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,5479 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

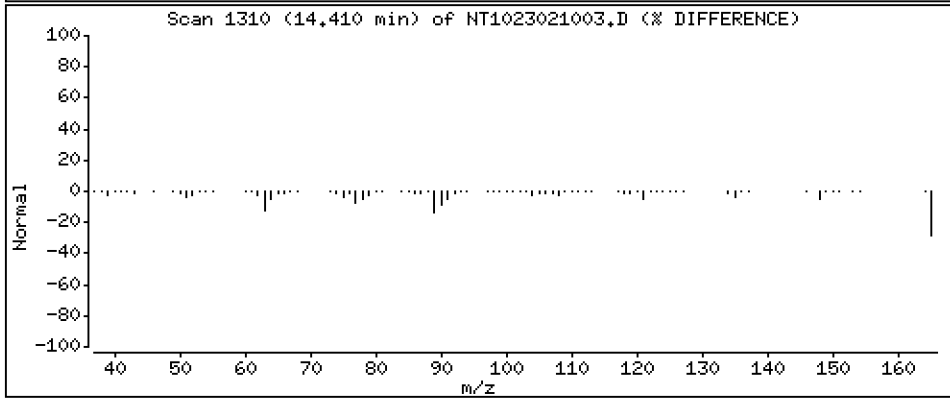
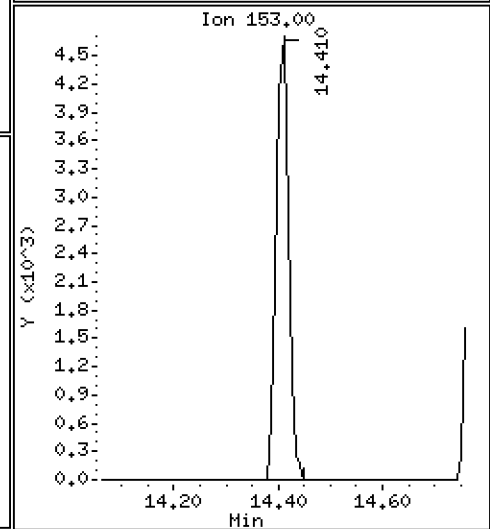
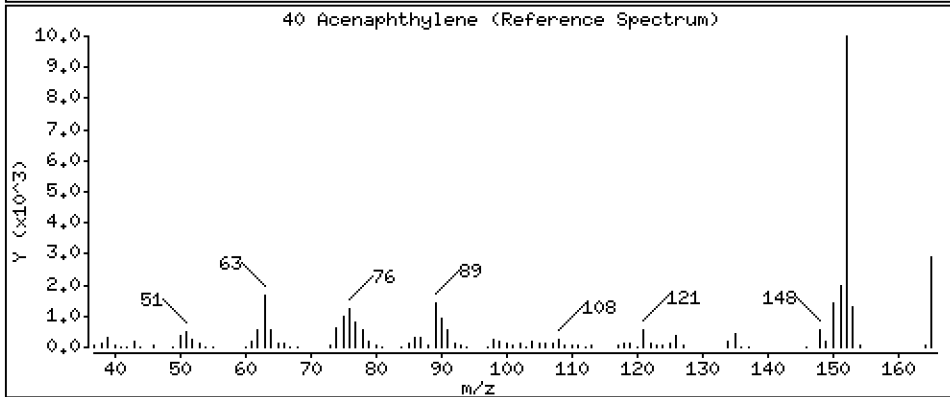
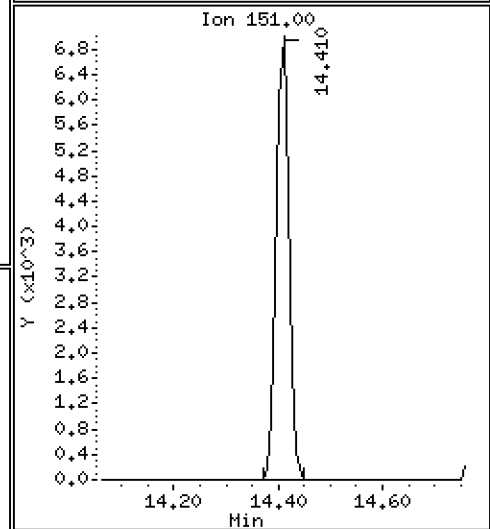
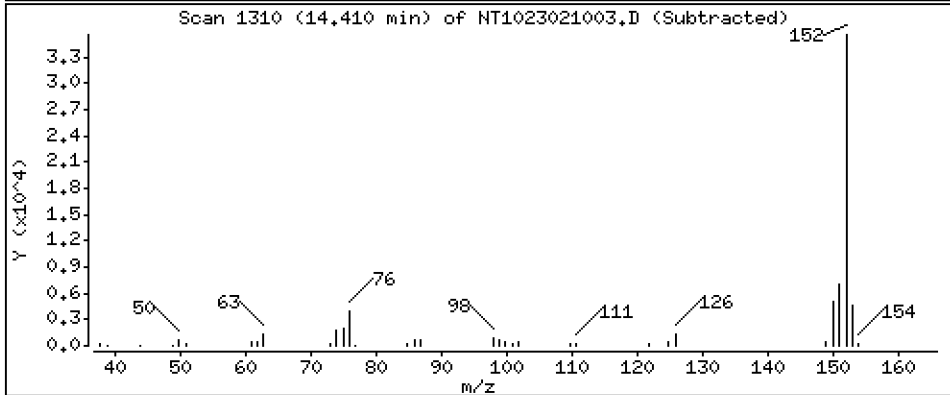
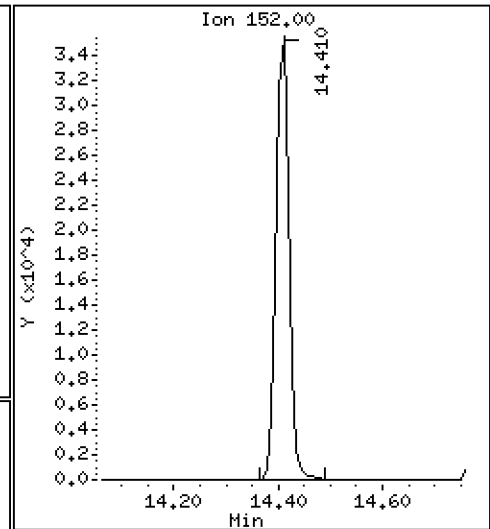
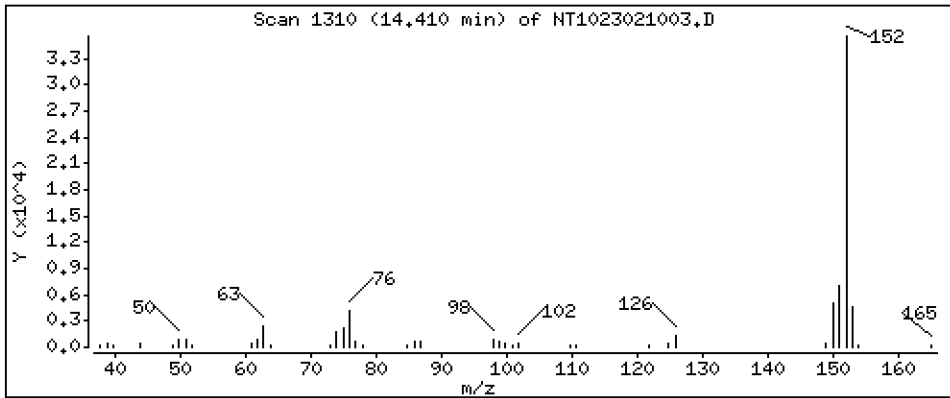
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 0,5405 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

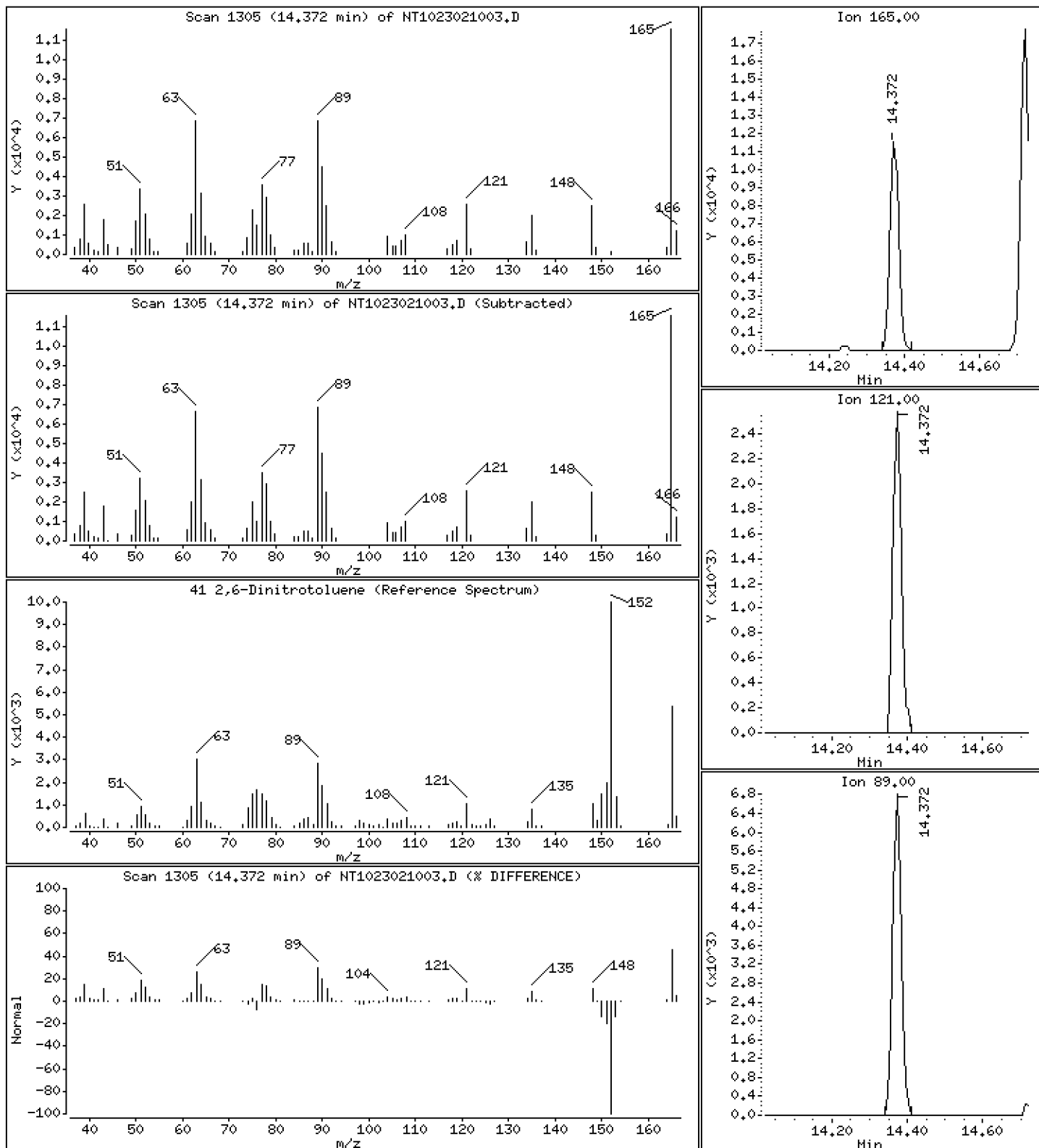
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

41 2,6-Dinitrotoluene

Concentration: 1.038 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

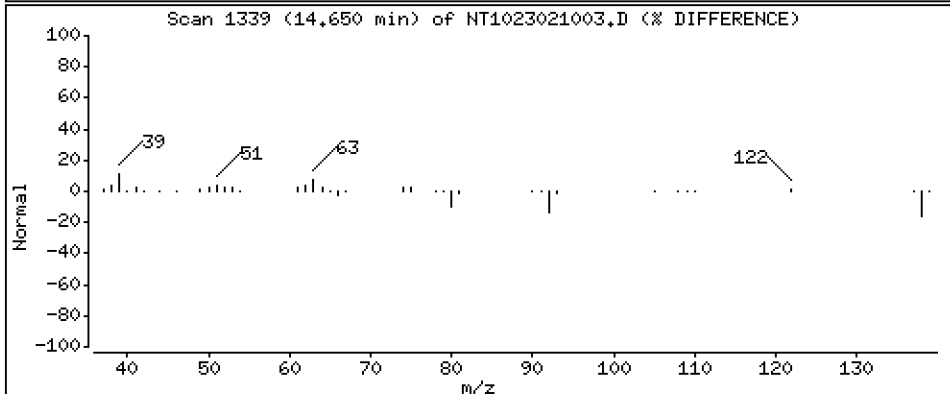
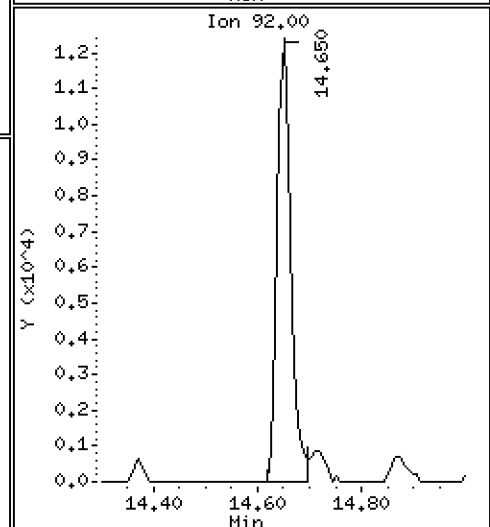
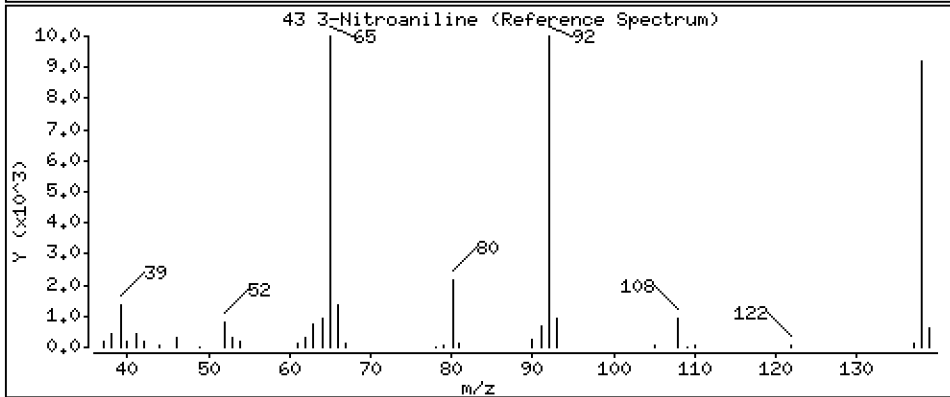
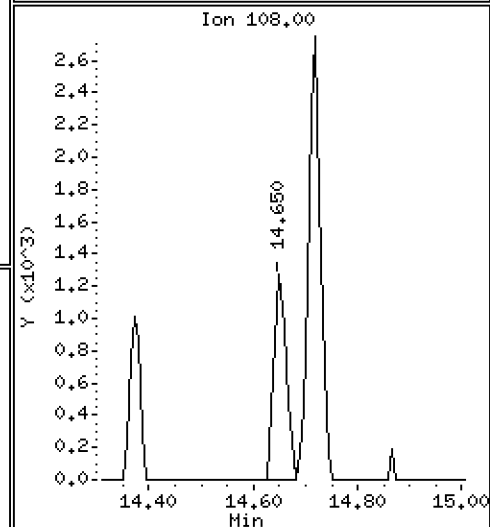
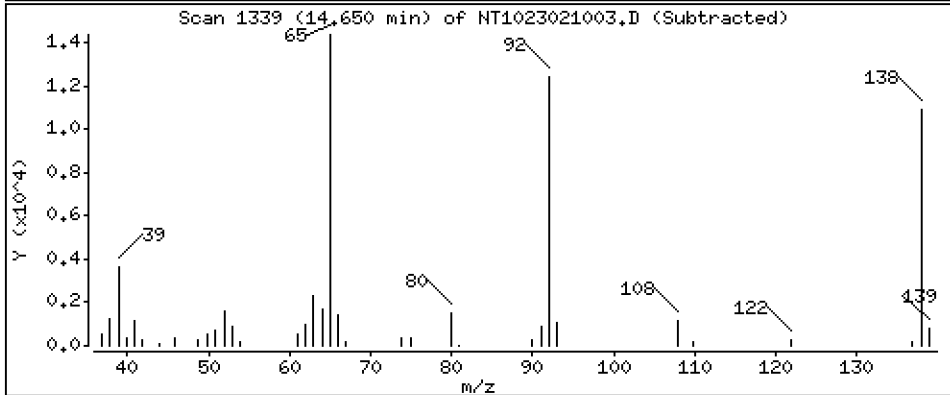
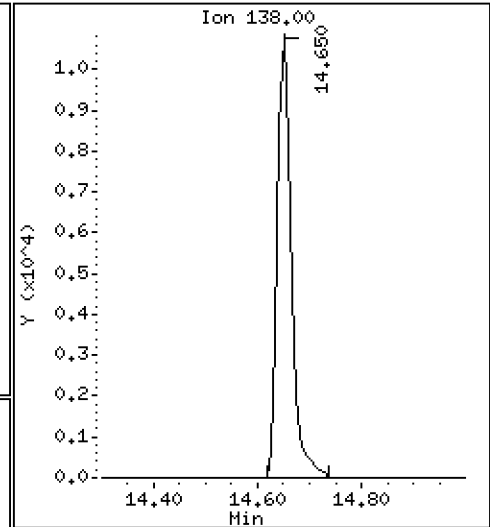
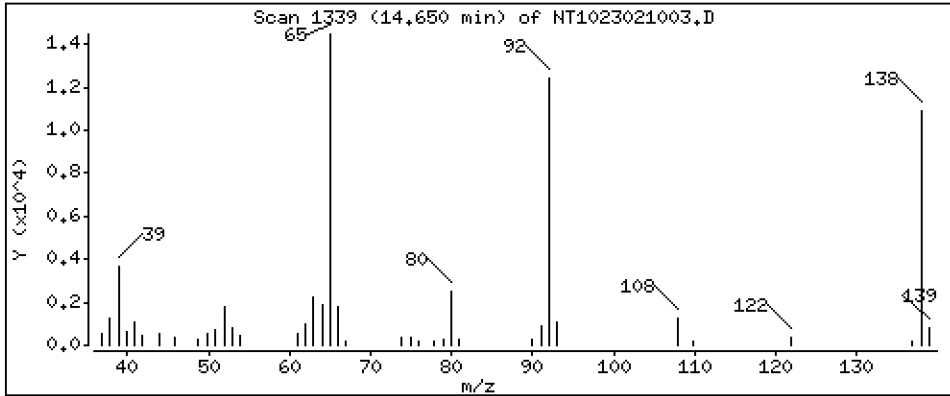
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

43 3-Nitroaniline

Concentration: 0.9747 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

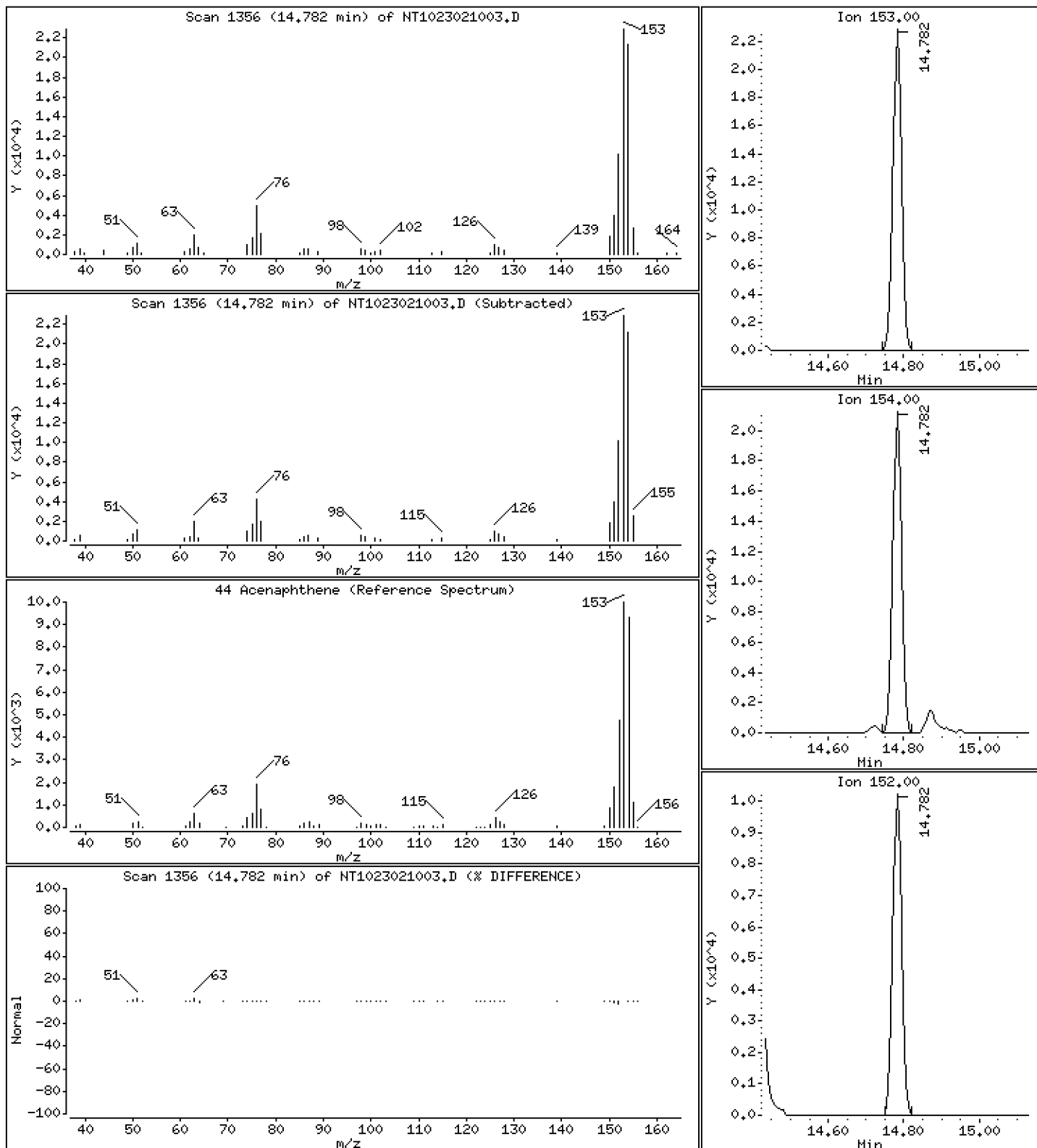
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 0,5213 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

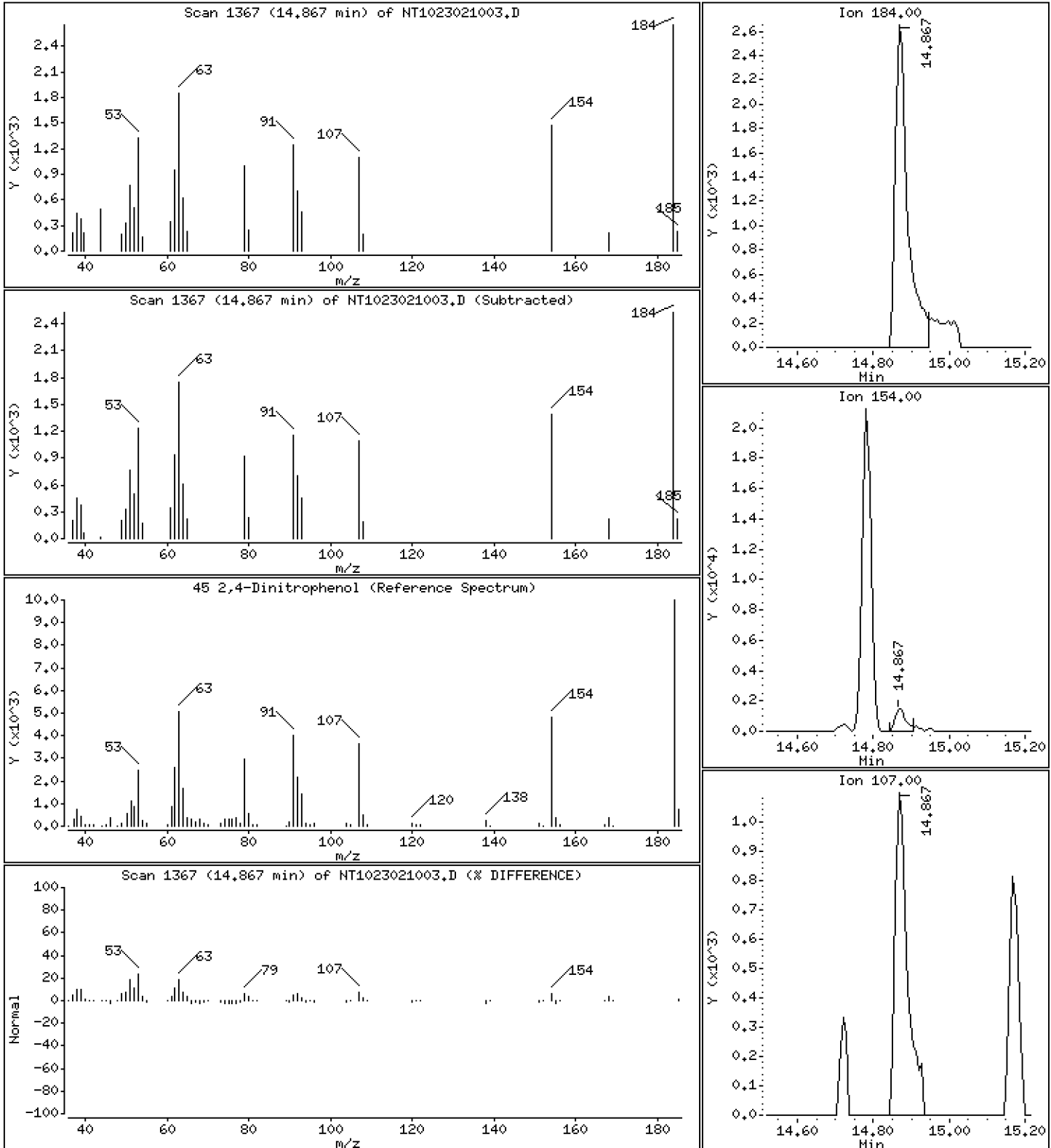
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 0,6690 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

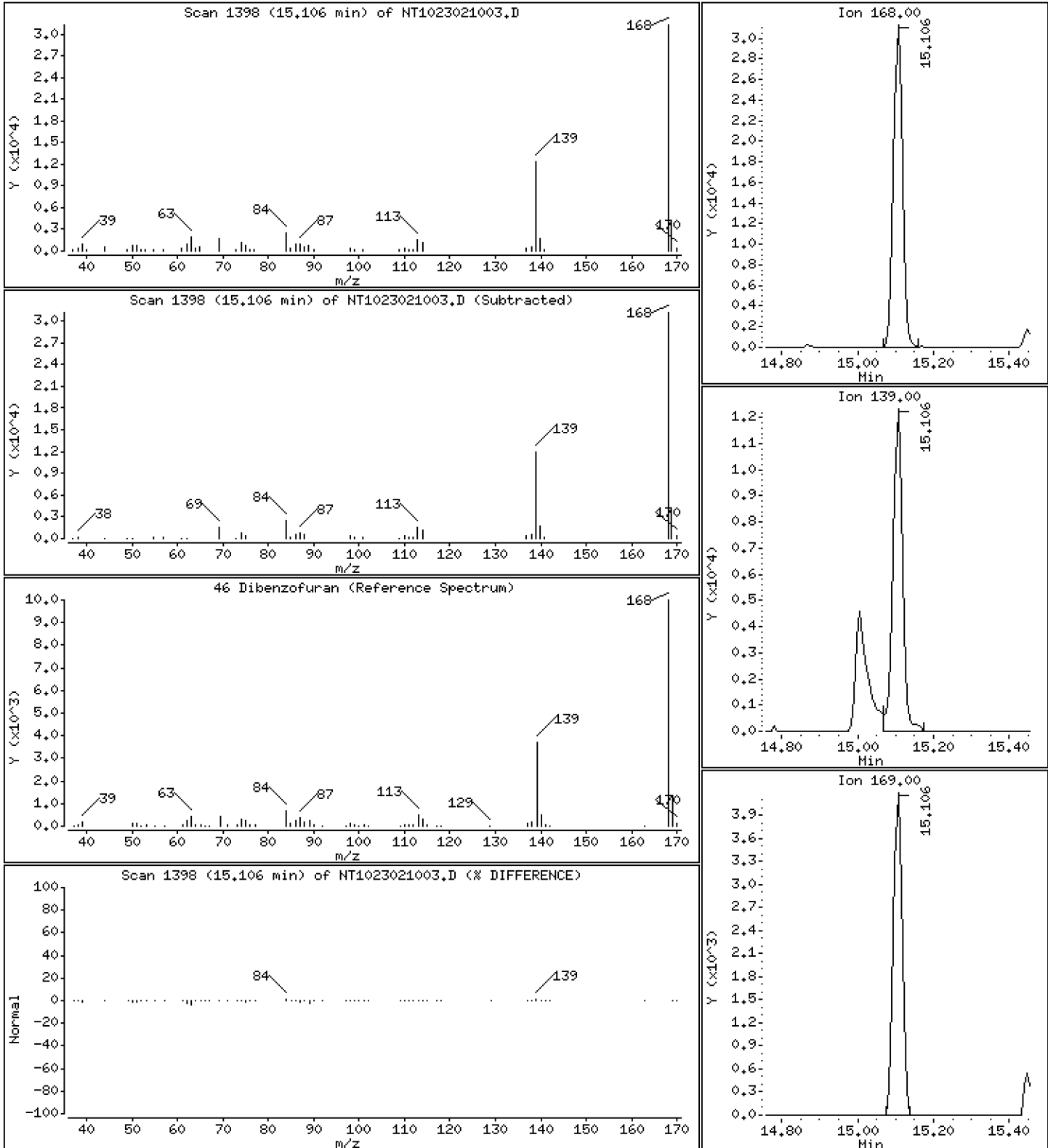
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

46 Dibenzofuran

Concentration: 0.5200 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

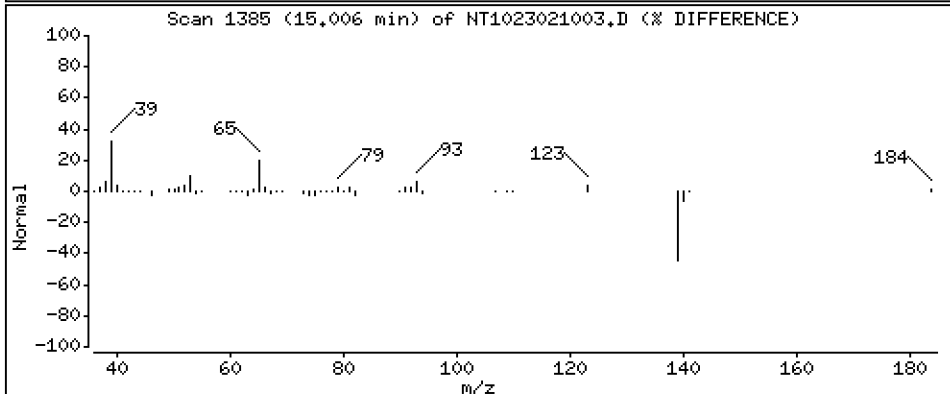
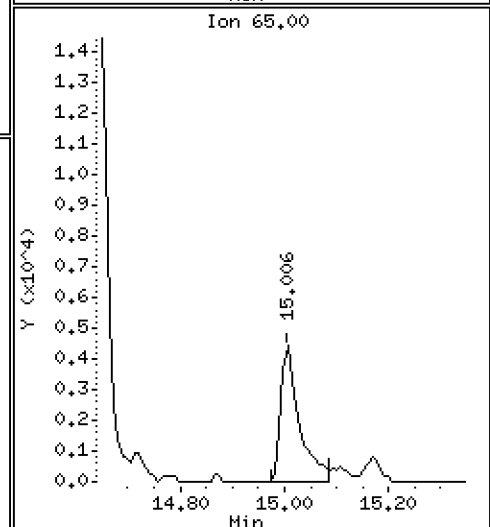
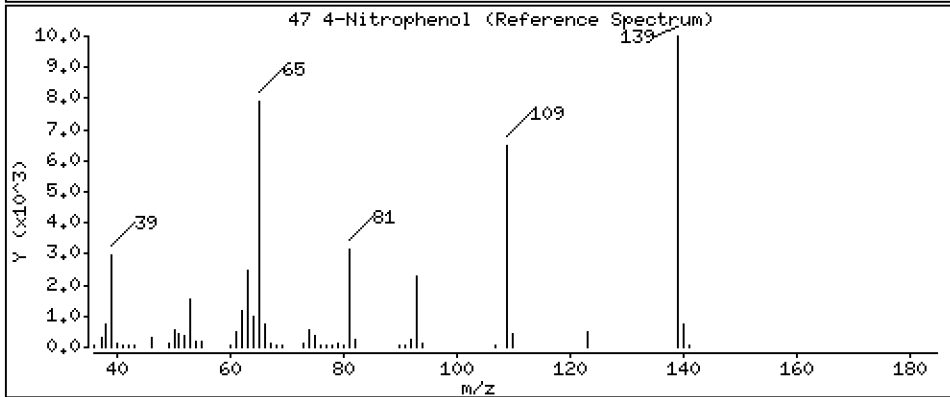
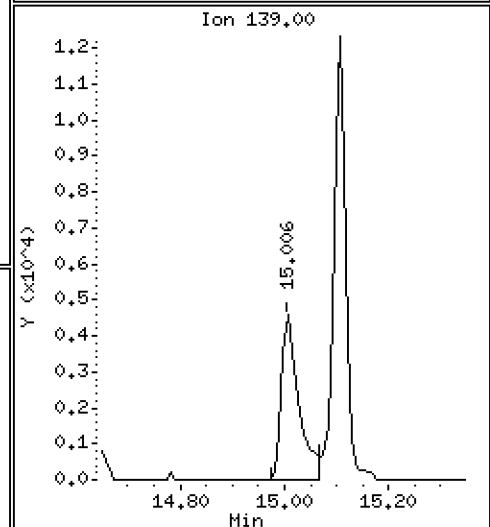
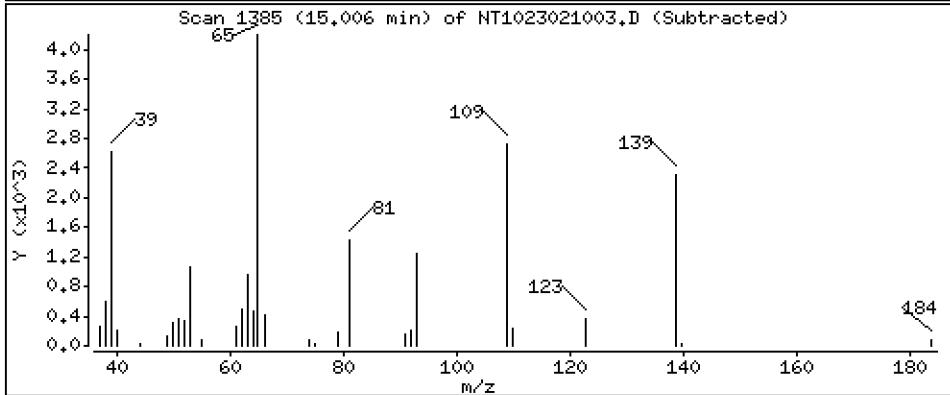
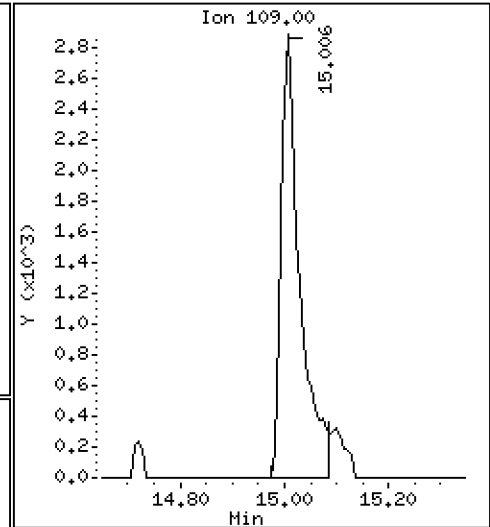
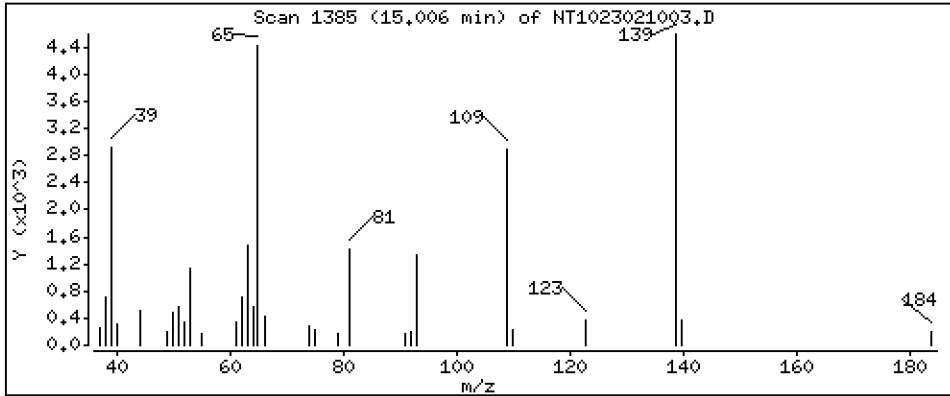
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 0,9466 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

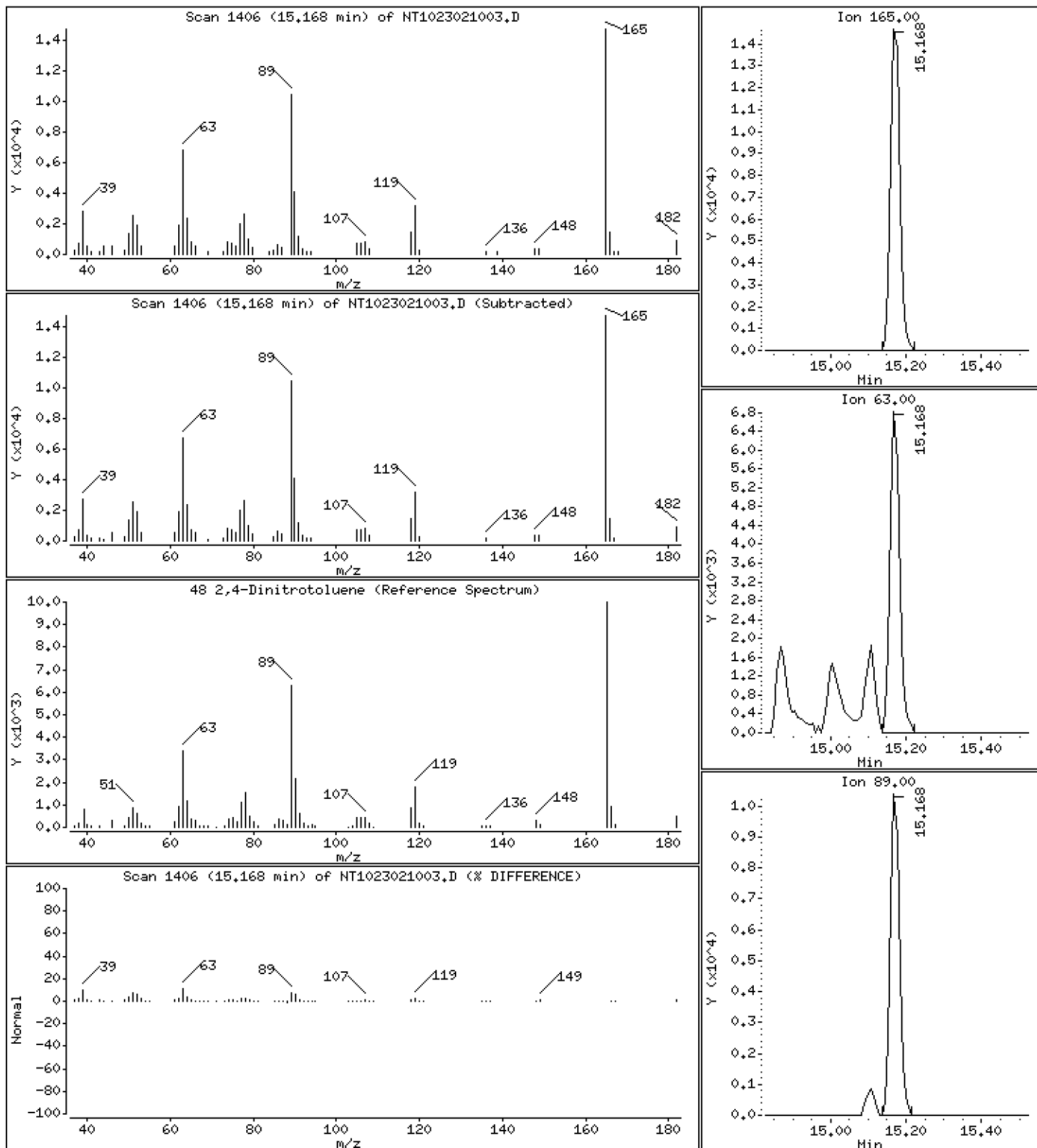
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 1,013 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

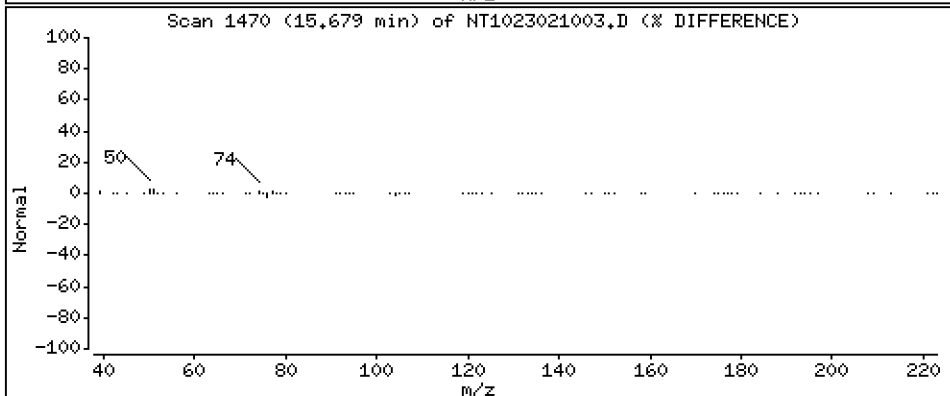
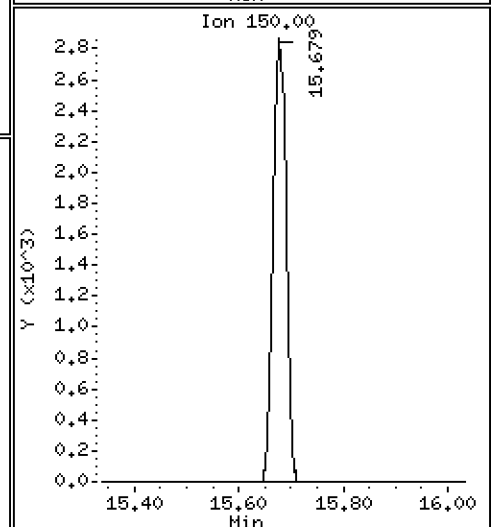
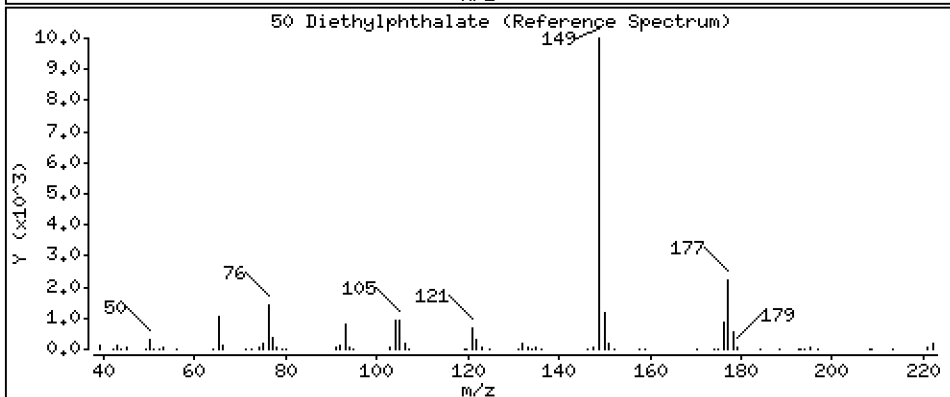
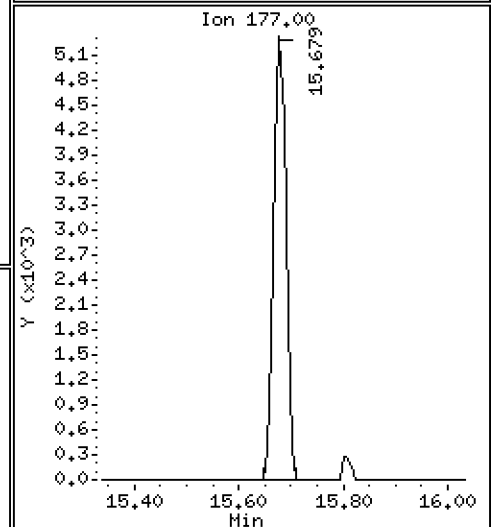
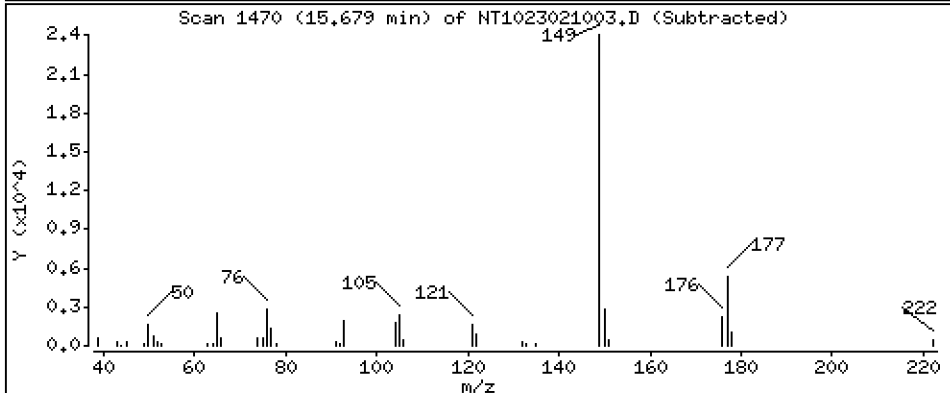
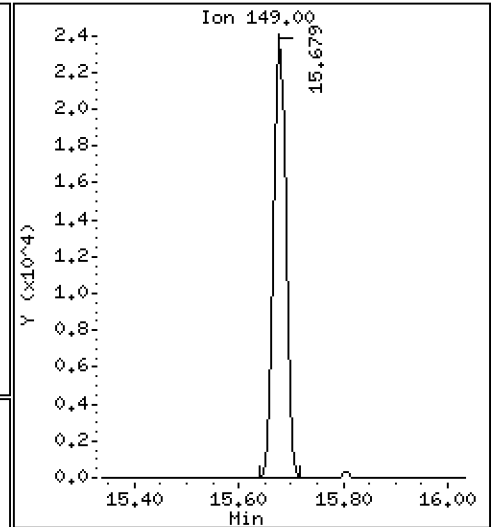
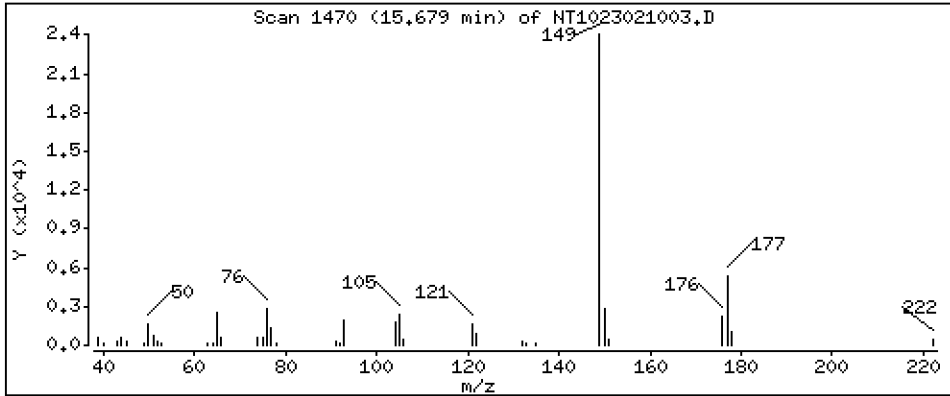
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,5344 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

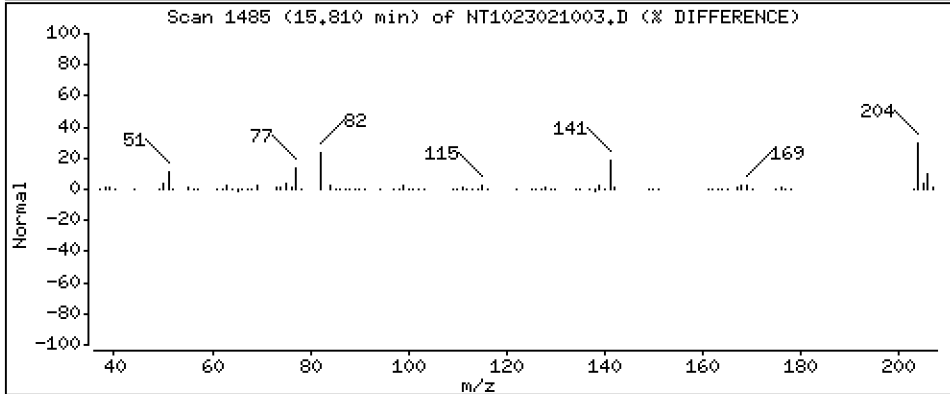
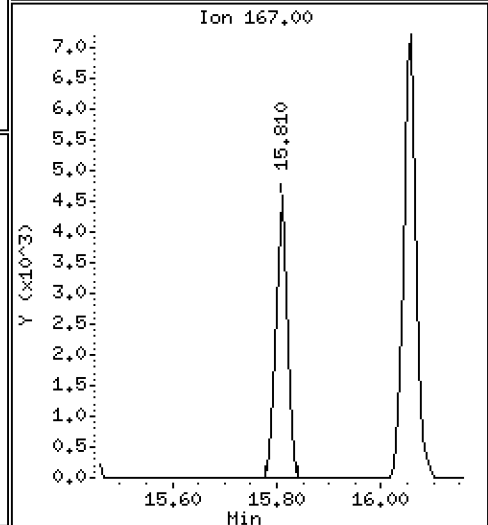
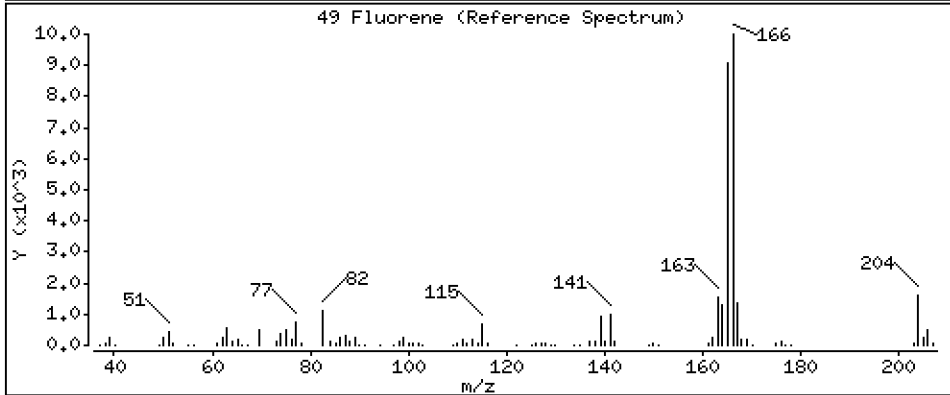
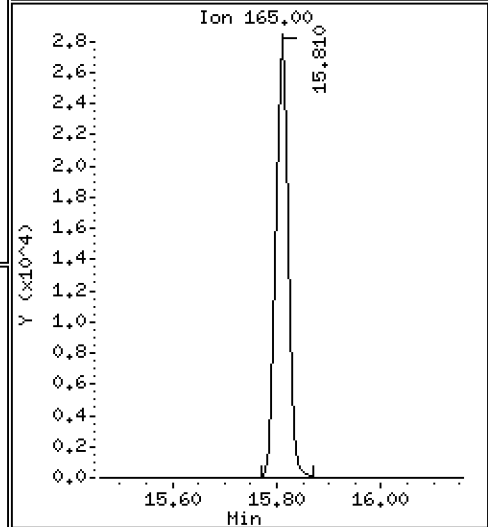
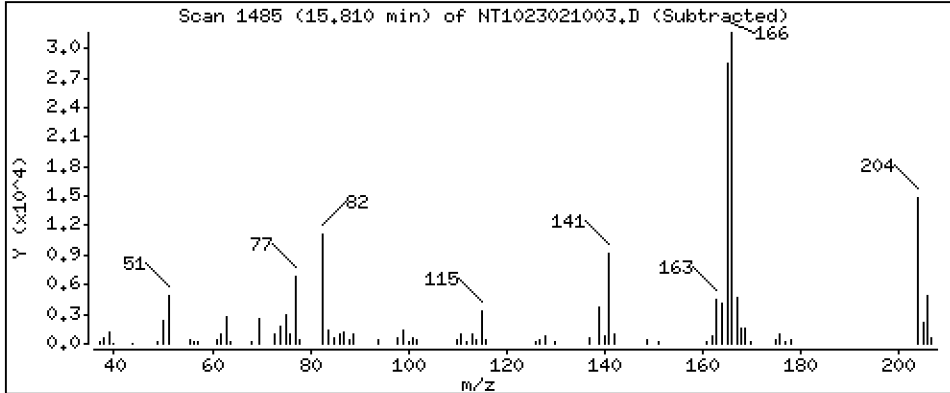
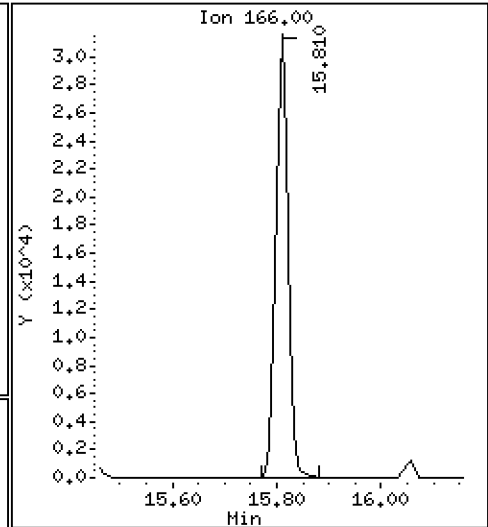
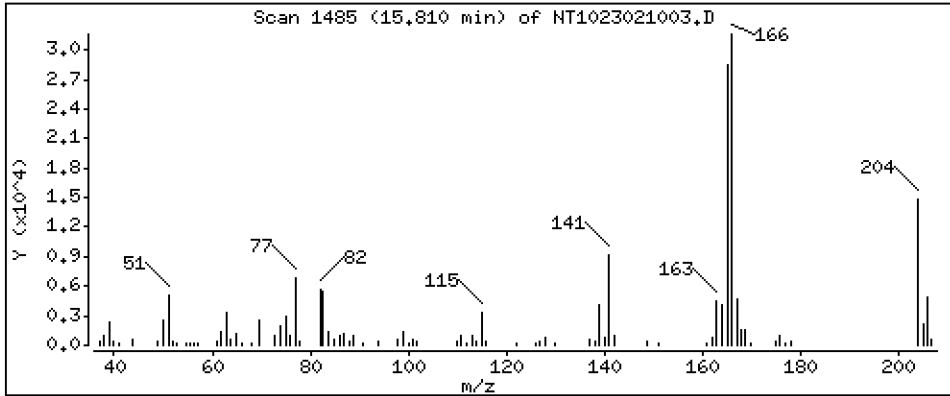
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 0,4697 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

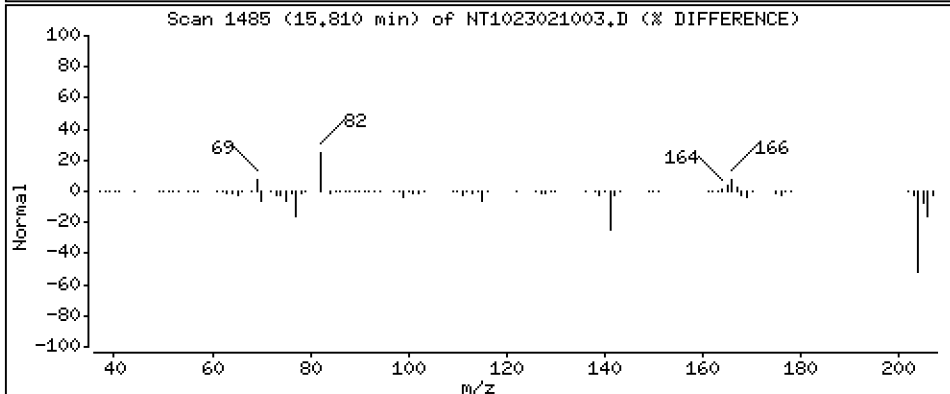
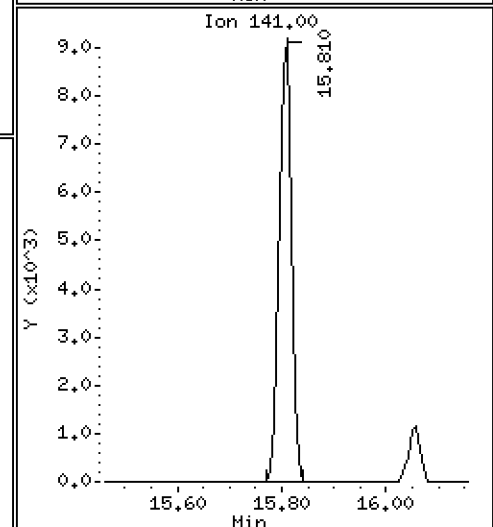
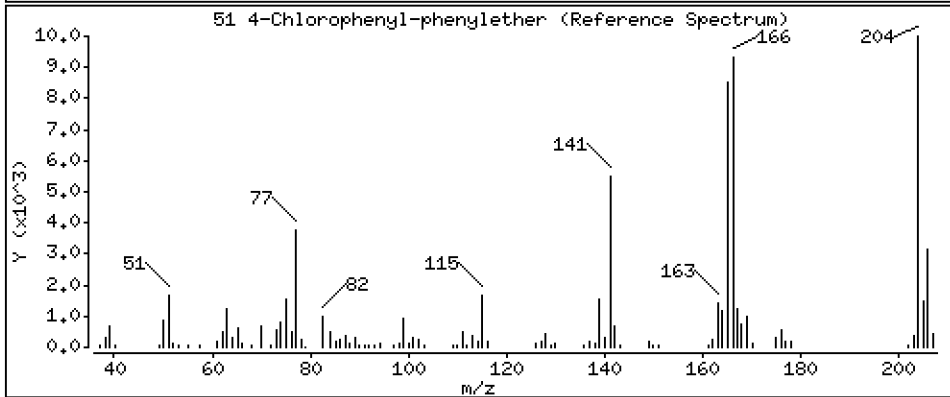
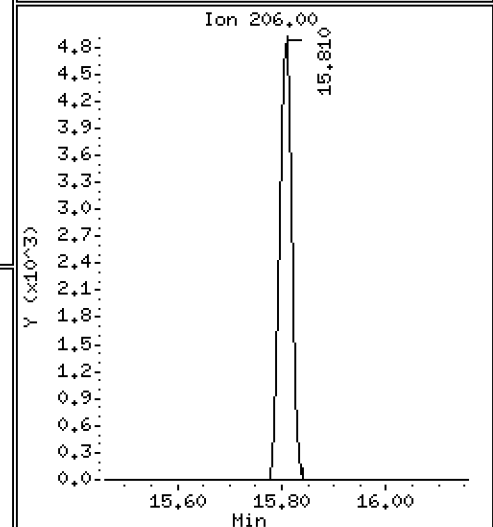
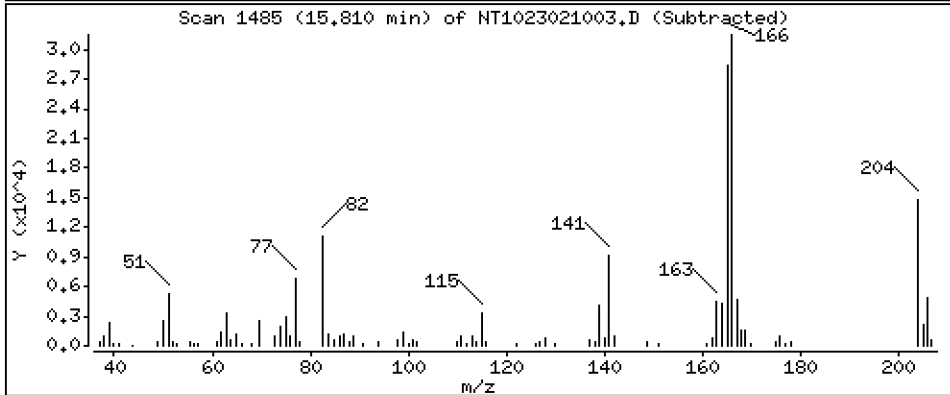
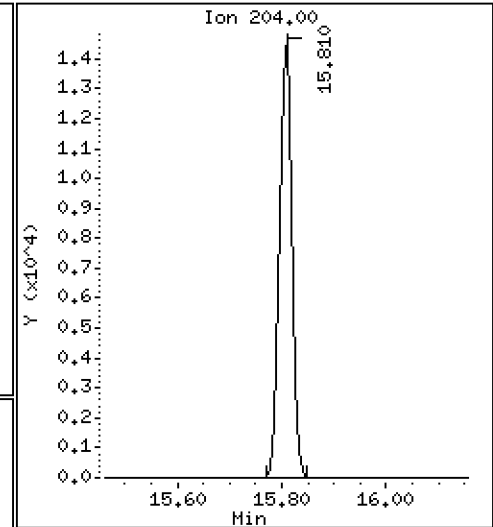
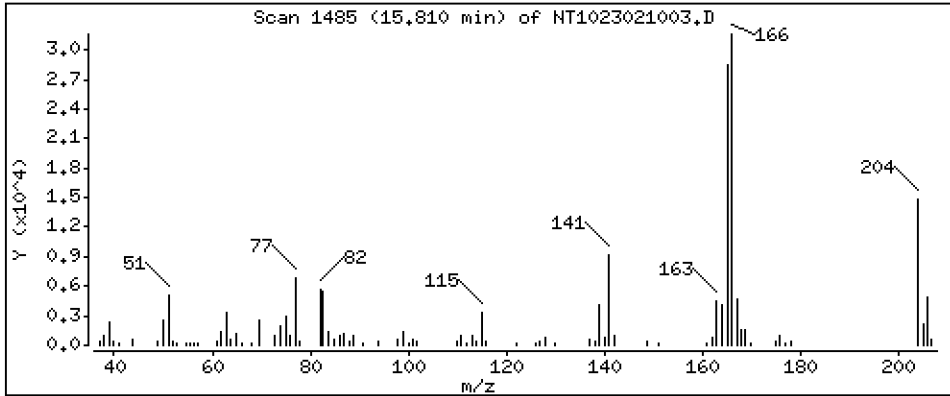
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

51 4-Chlorophenyl-phenylether

Concentration: 0.4434 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

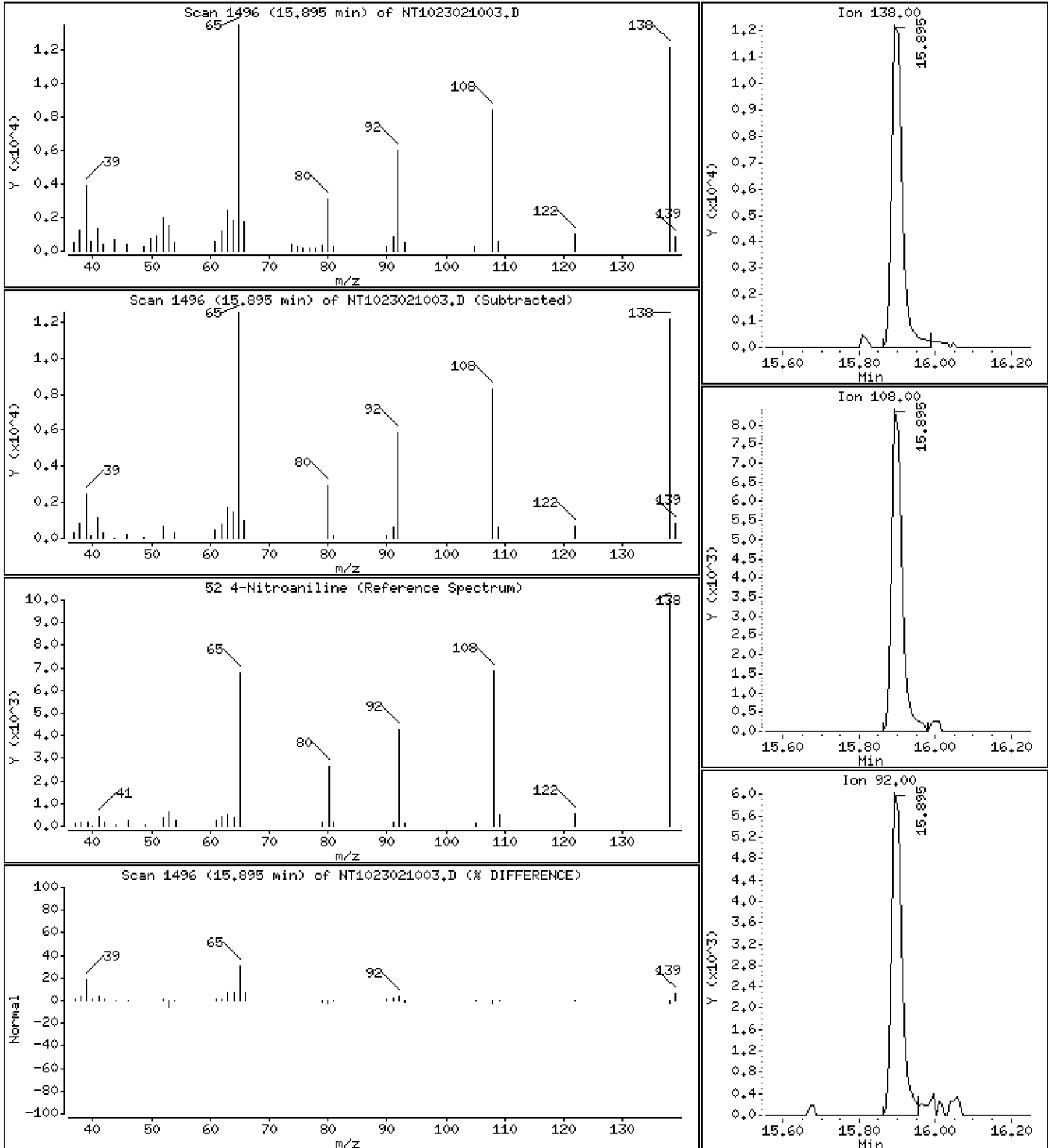
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

52 4-Nitroaniline

Concentration: 1,003 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

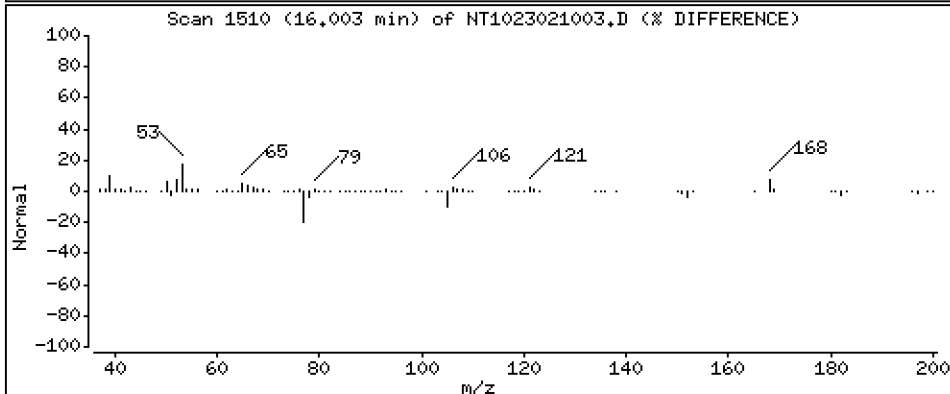
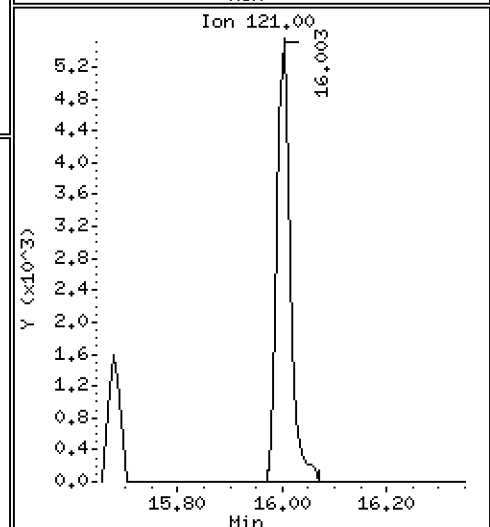
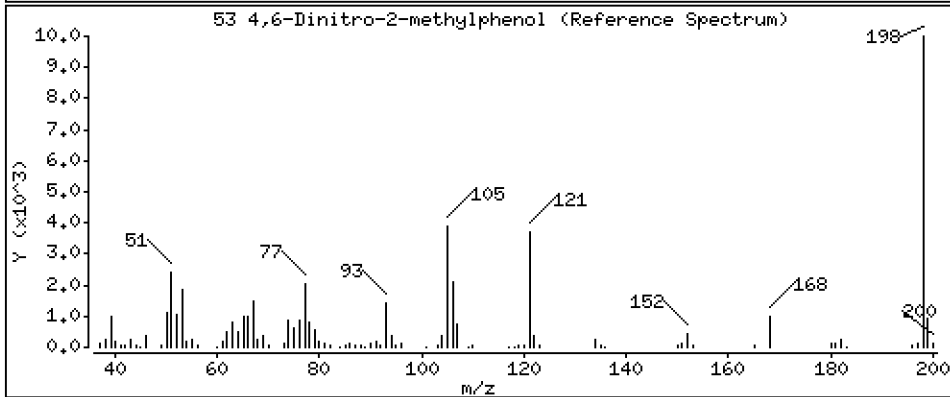
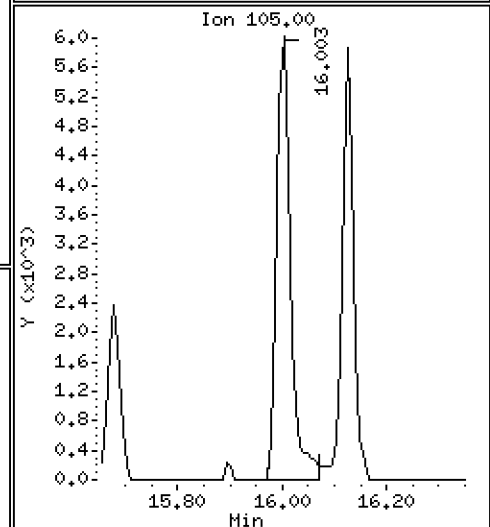
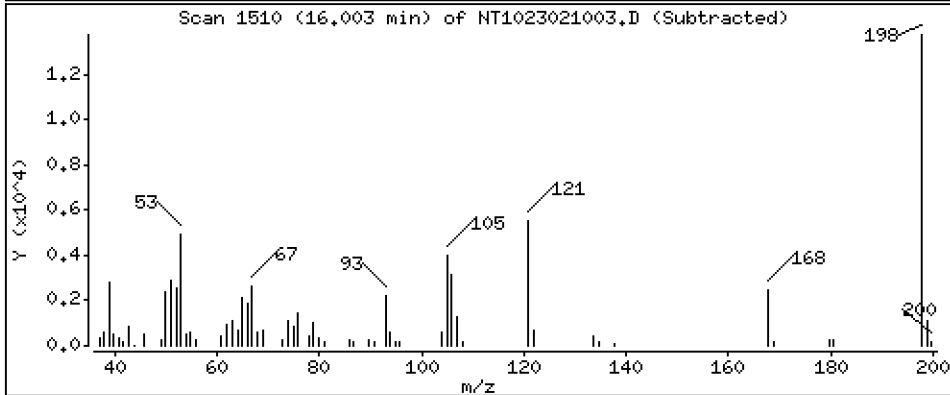
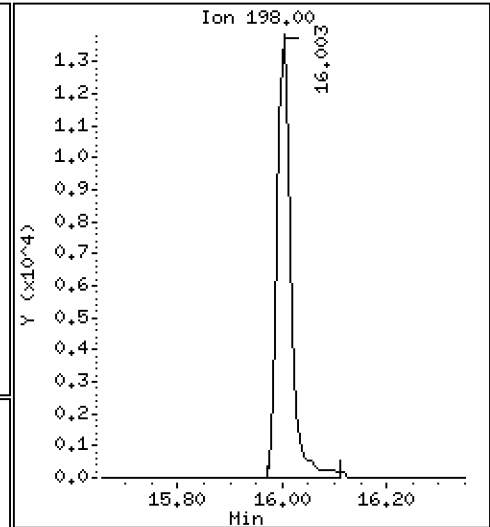
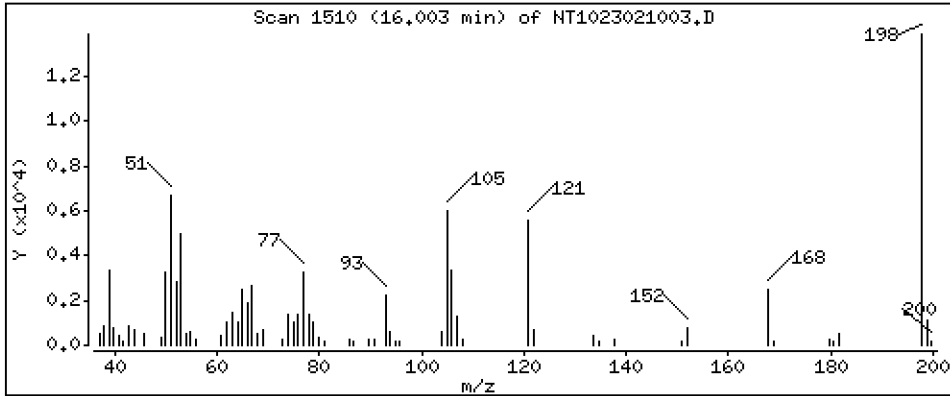
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

53 4,6-Dinitro-2-methylphenol

Concentration: 1.723 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

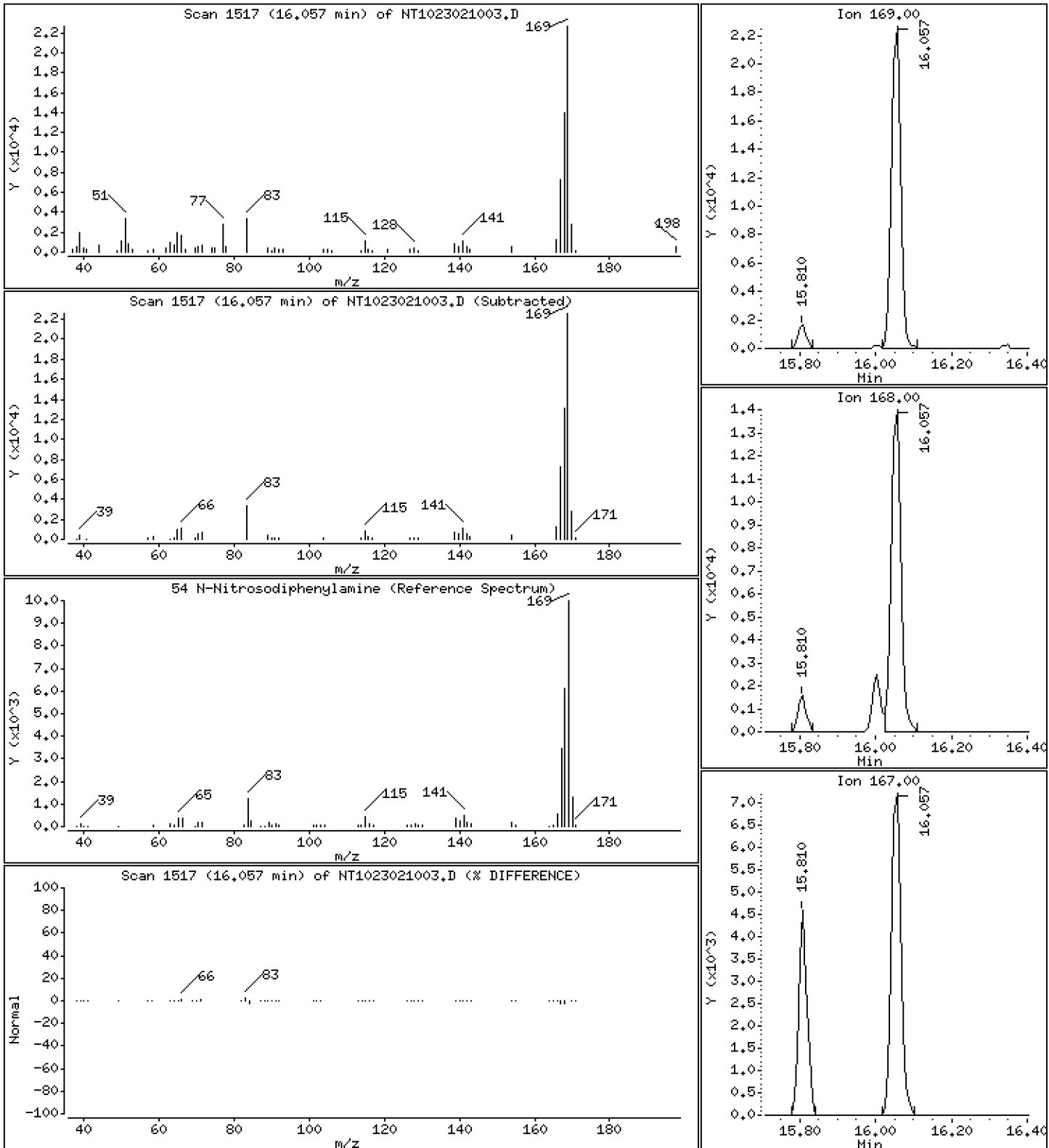
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 0.5381 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

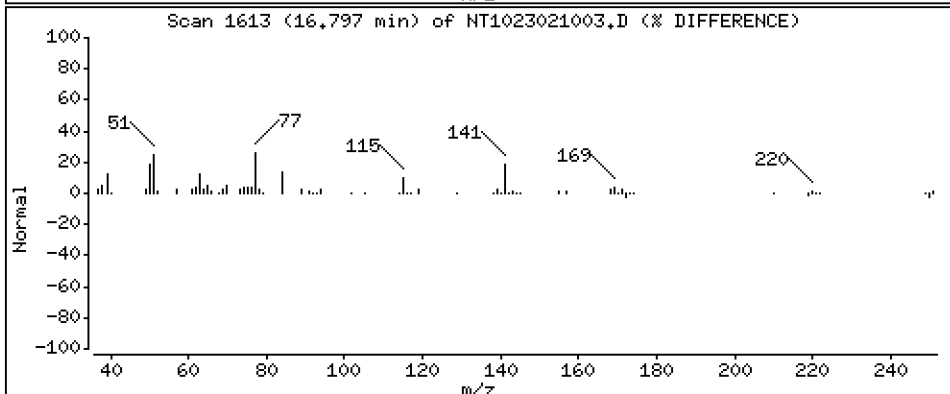
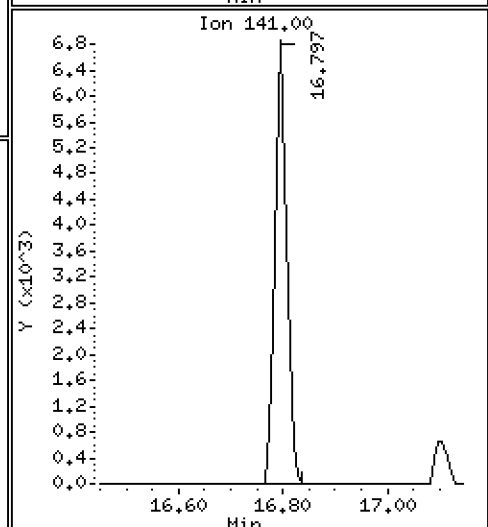
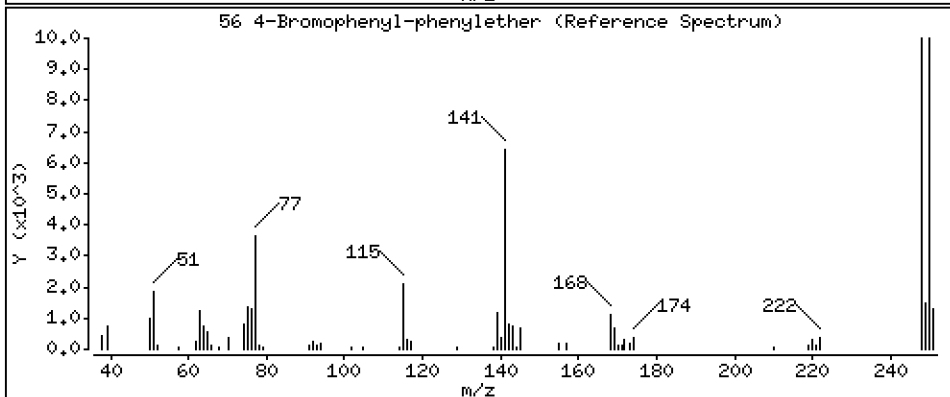
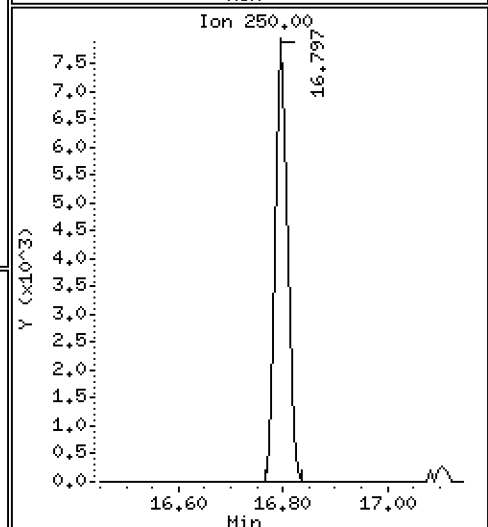
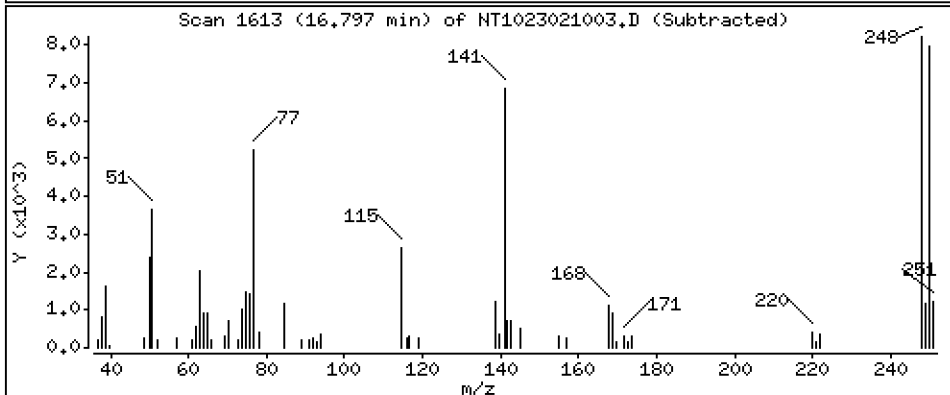
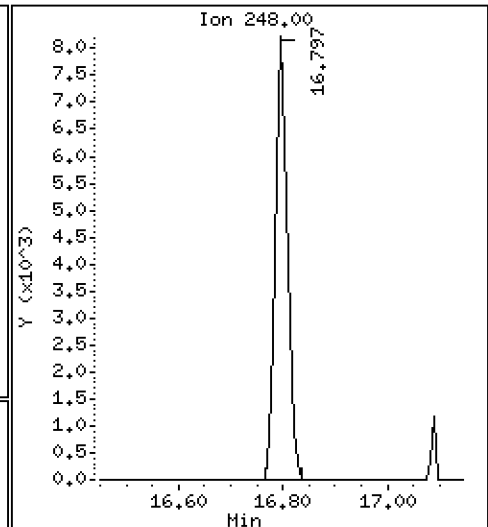
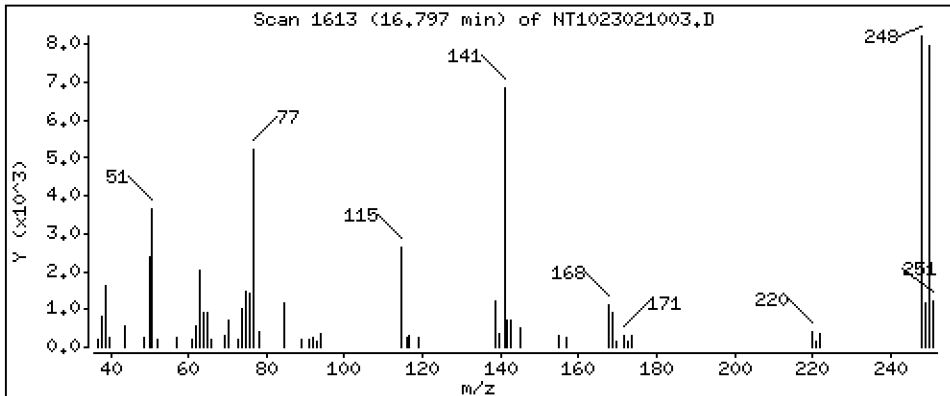
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 0,5252 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

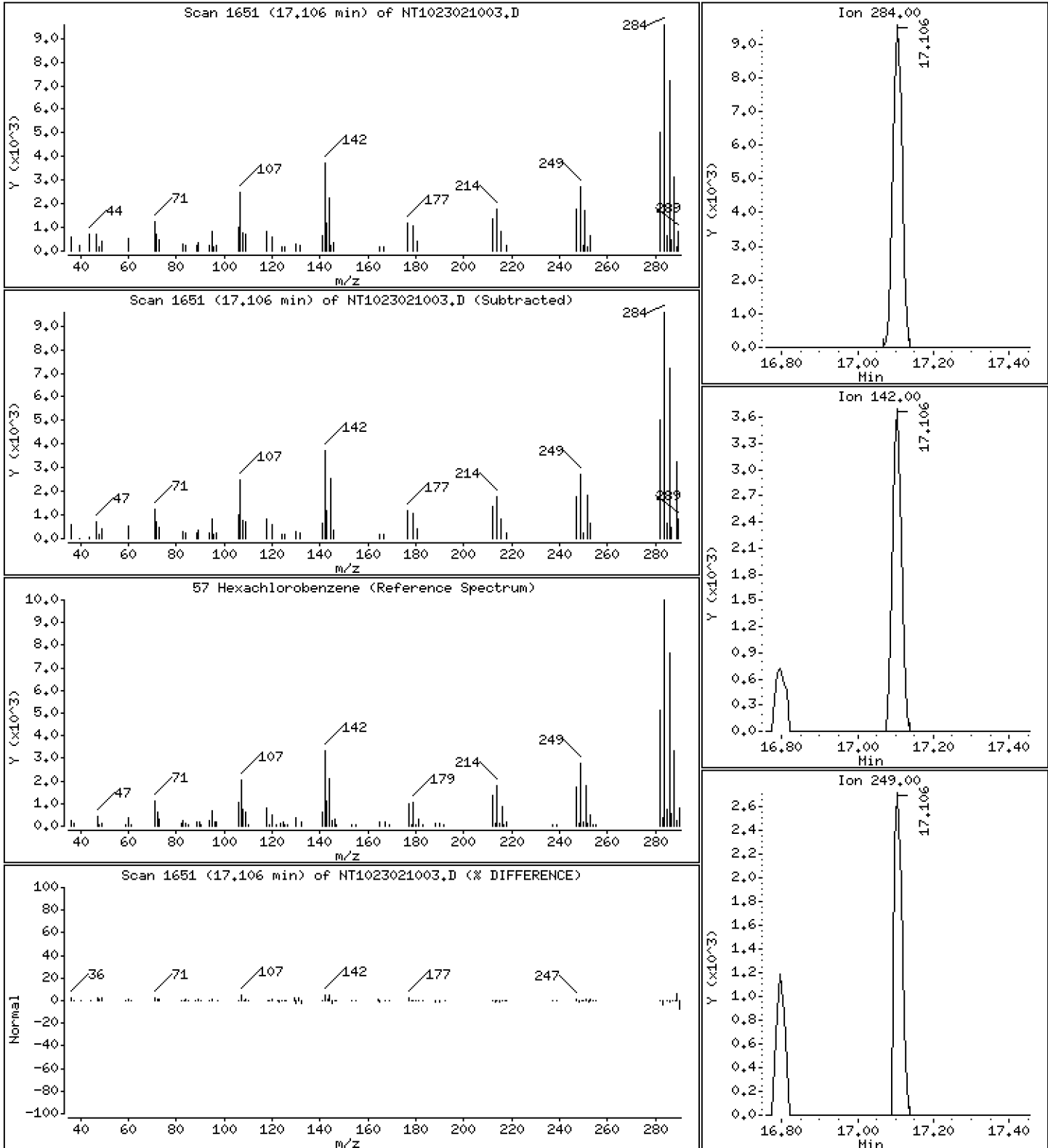
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 0,5776 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

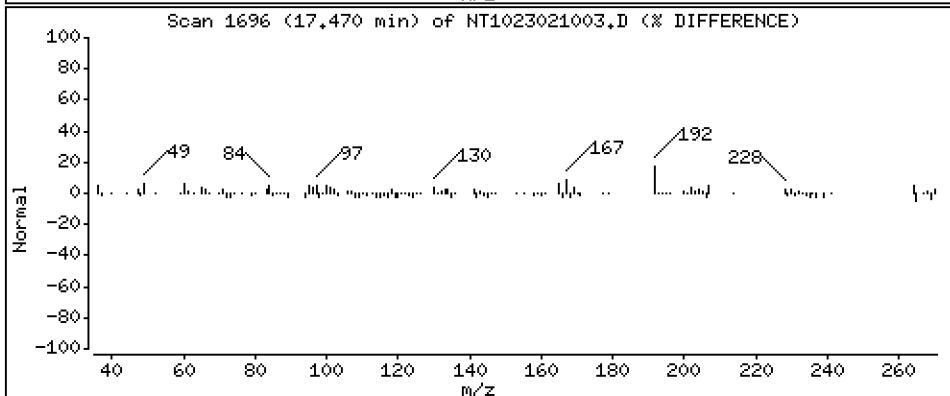
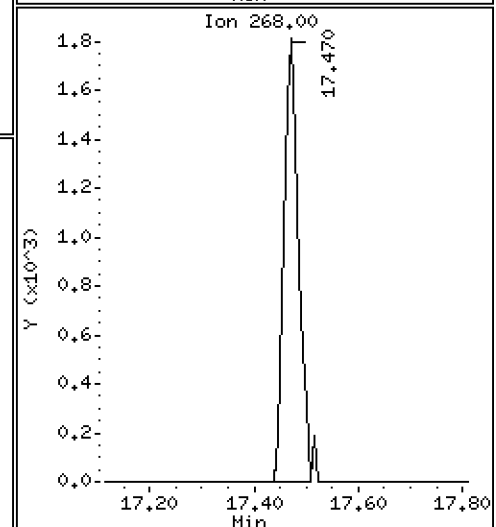
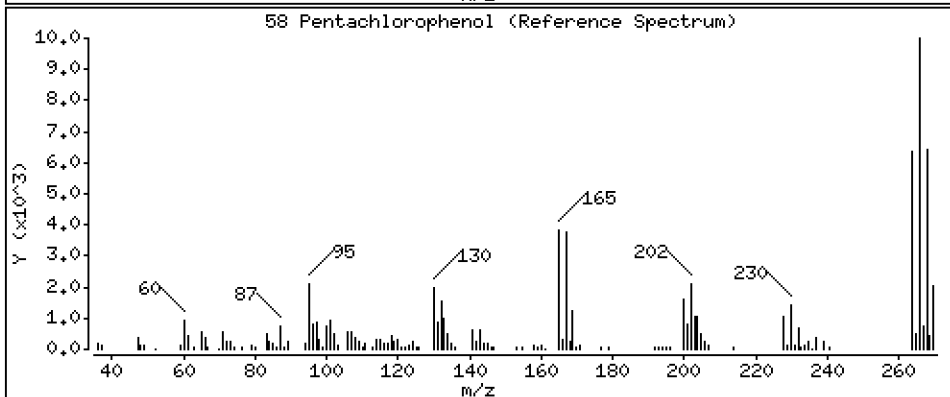
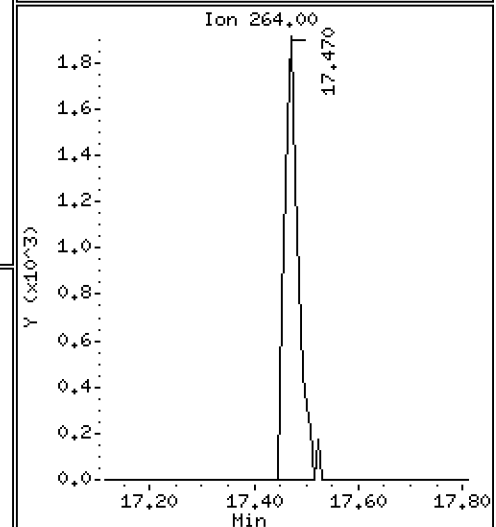
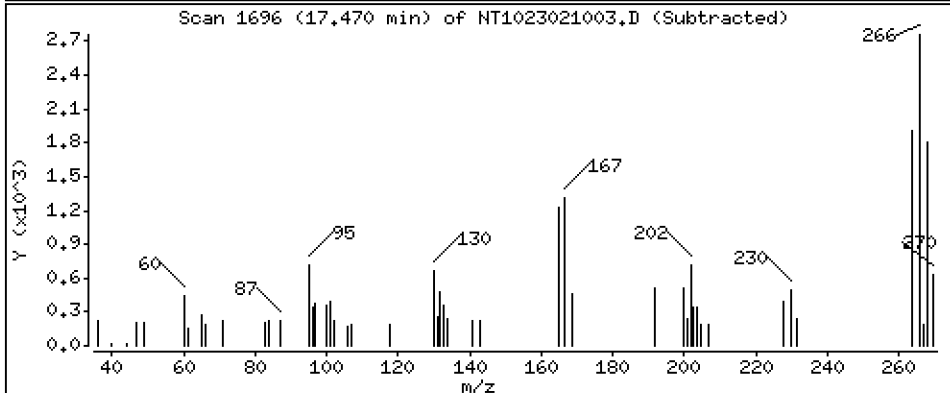
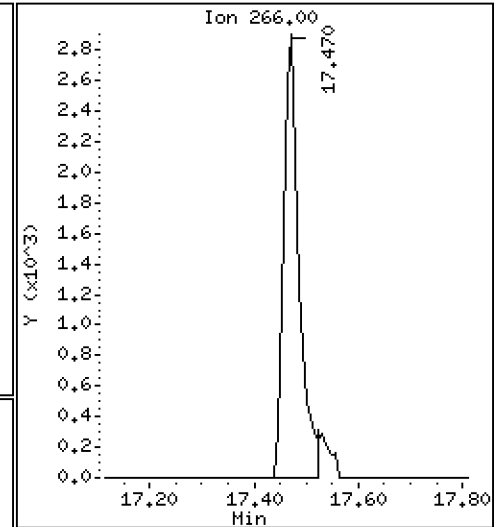
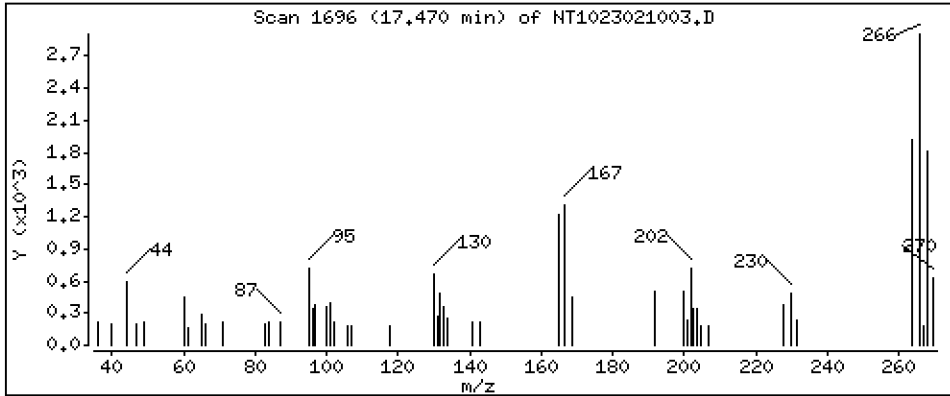
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,5895 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

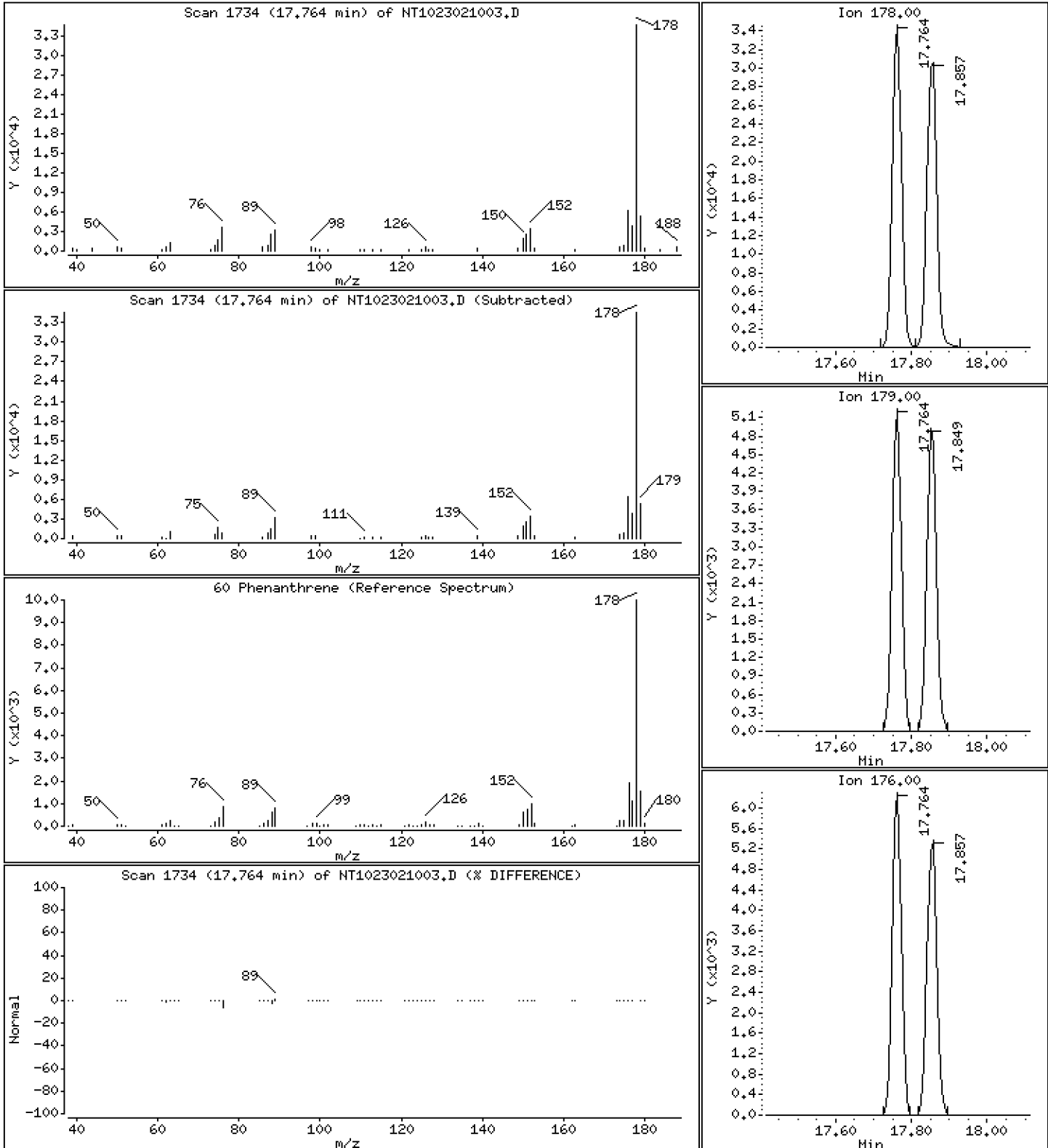
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 0,5293 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

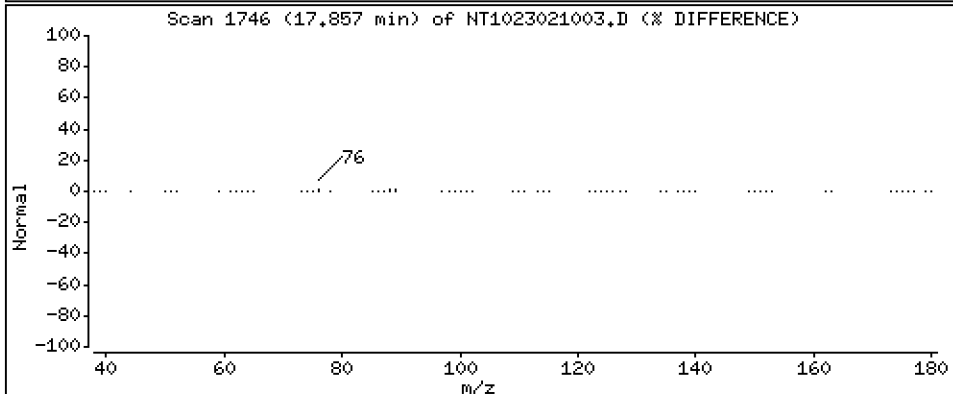
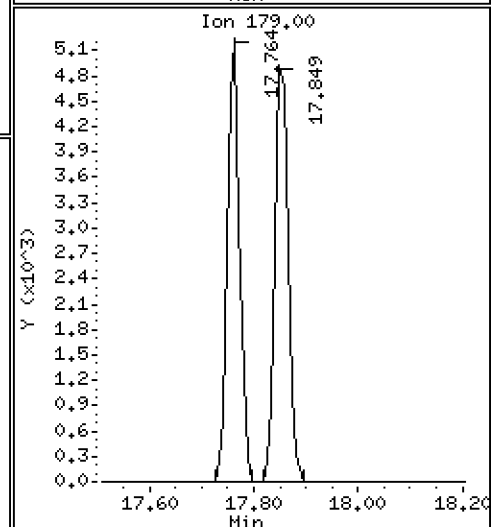
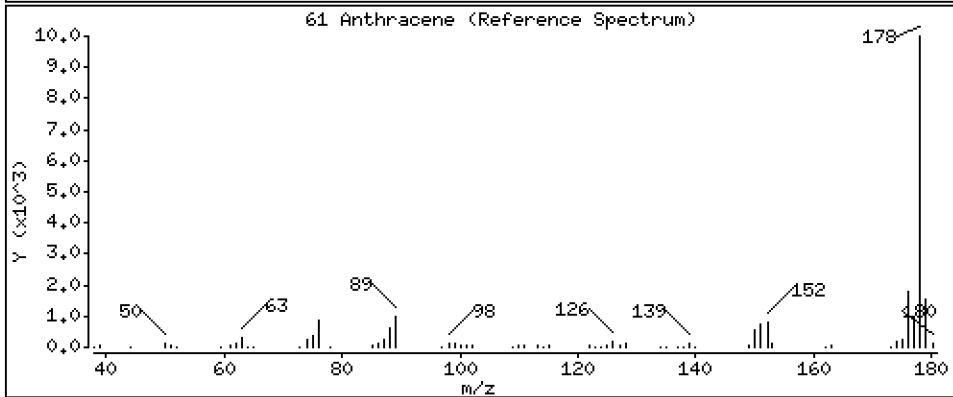
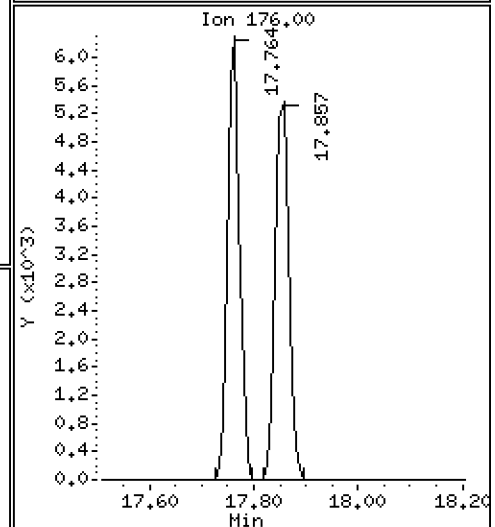
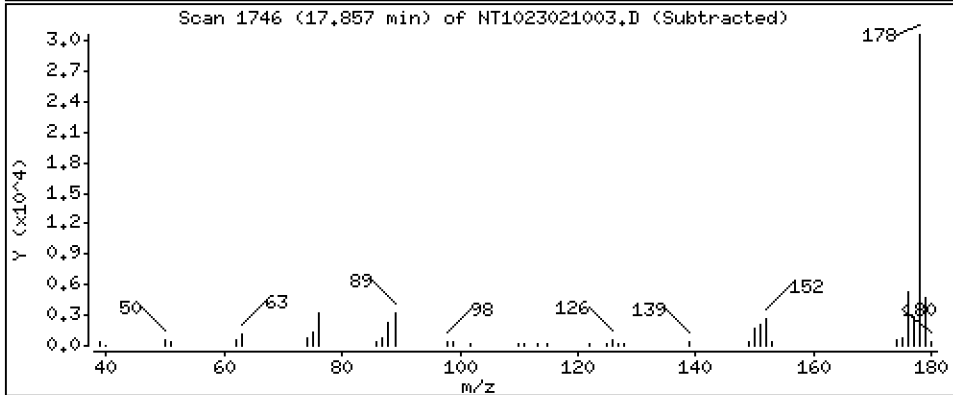
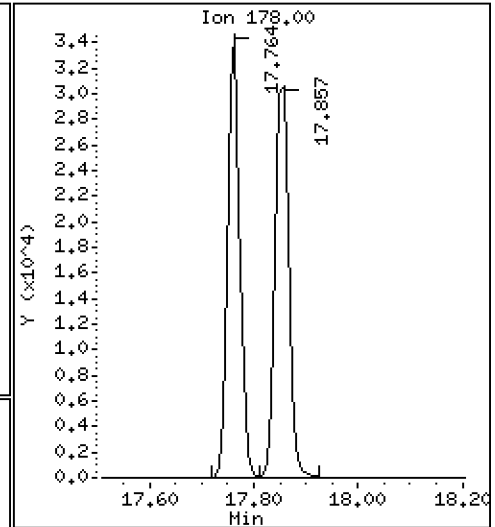
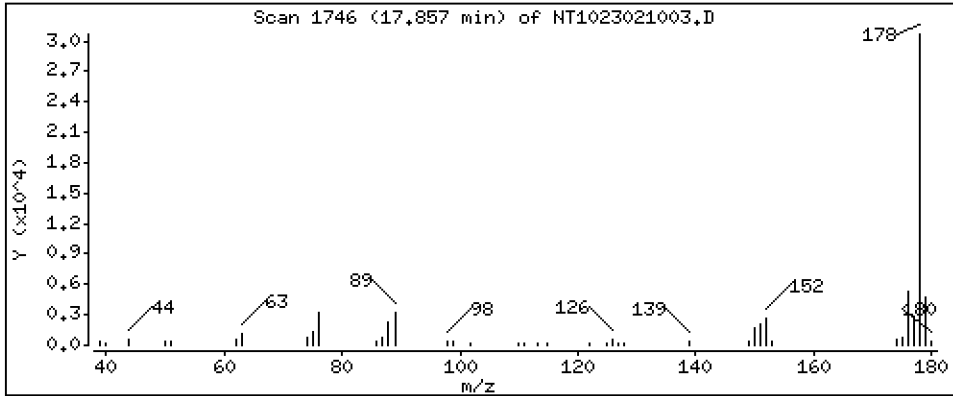
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 0,5243 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

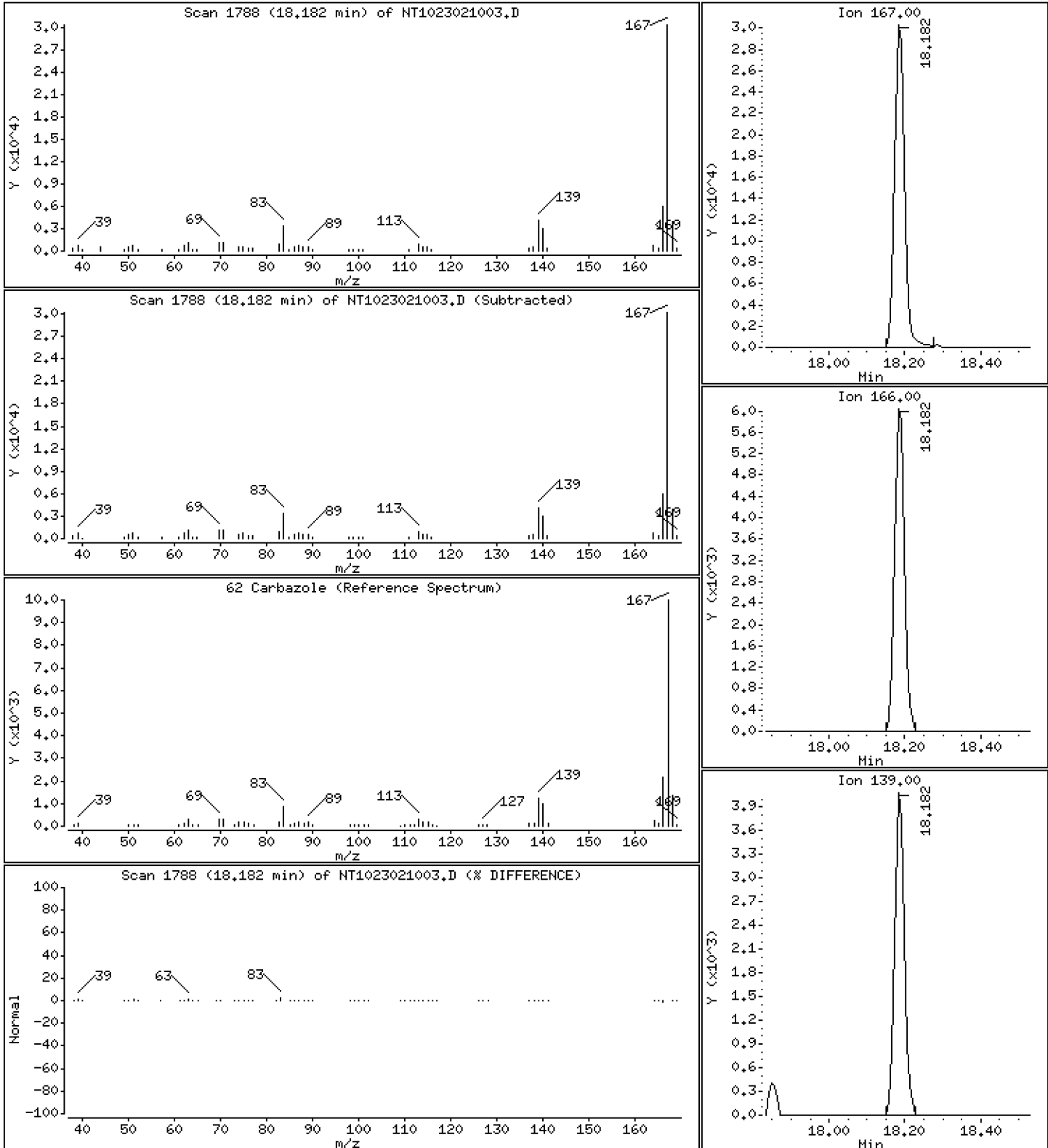
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

62 Carbazole

Concentration: 0,5293 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

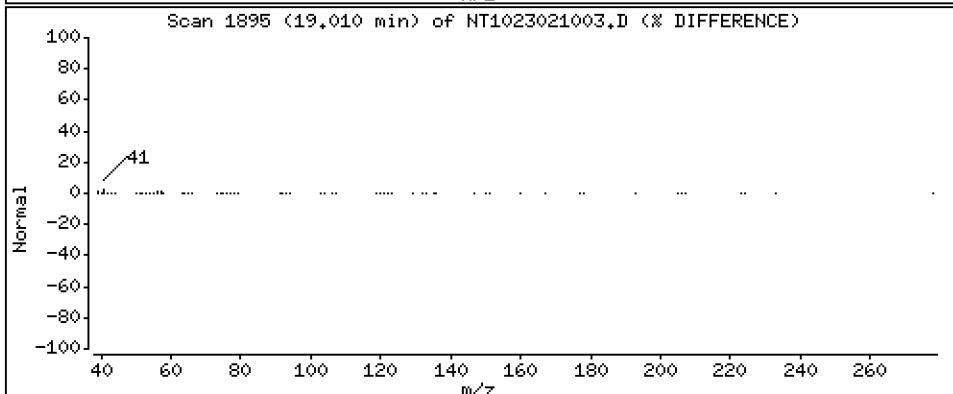
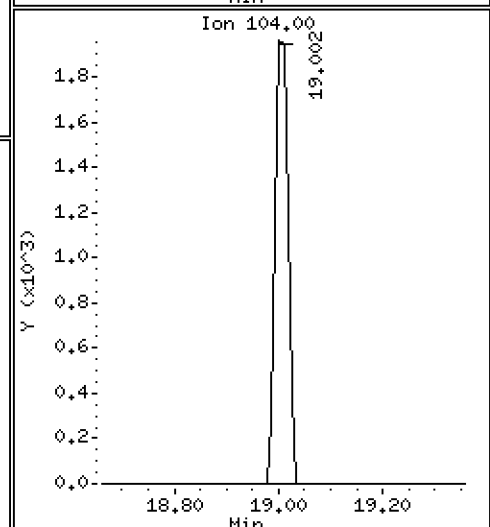
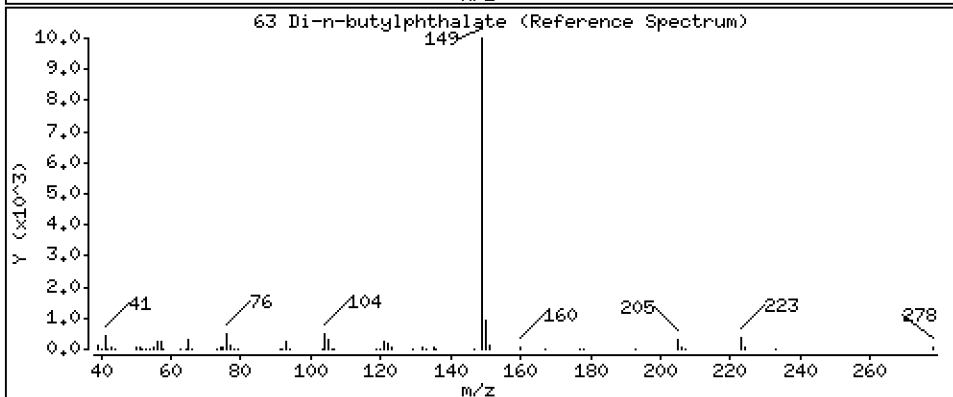
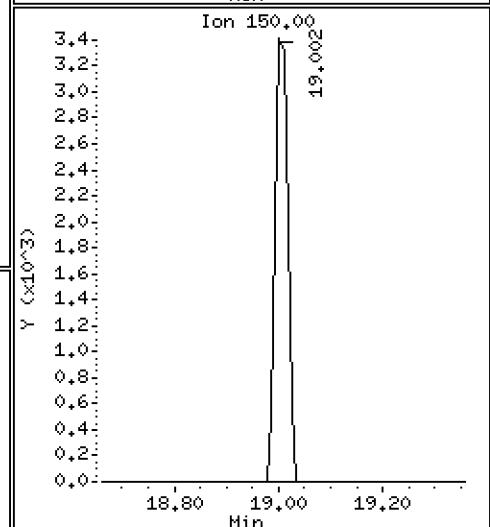
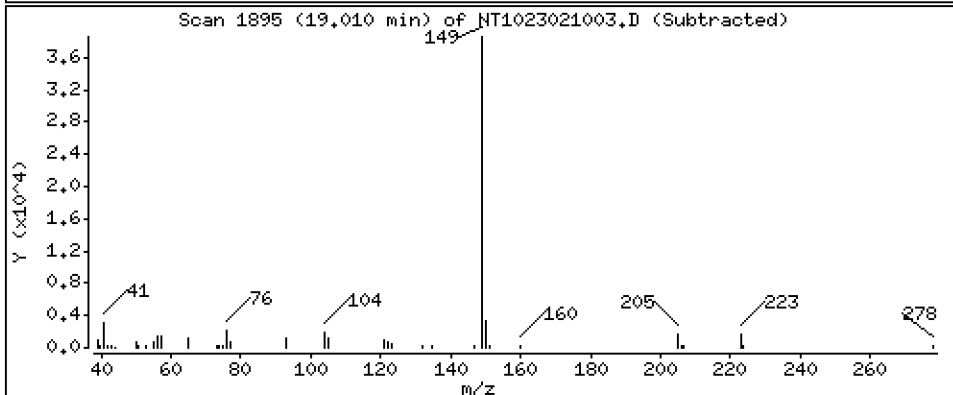
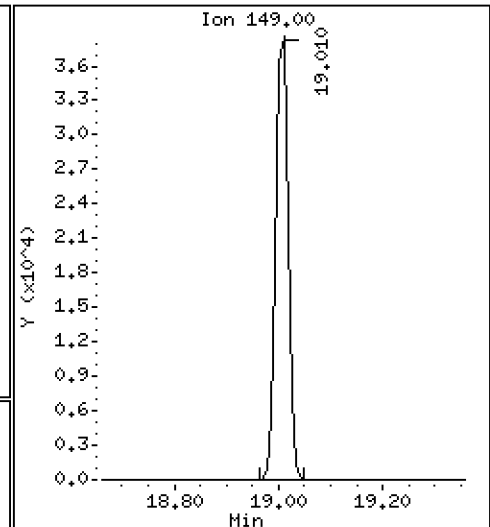
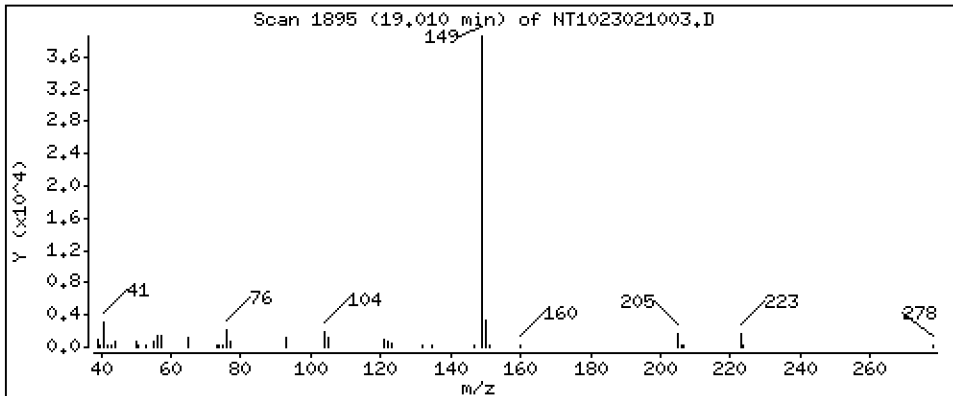
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 0,5094 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

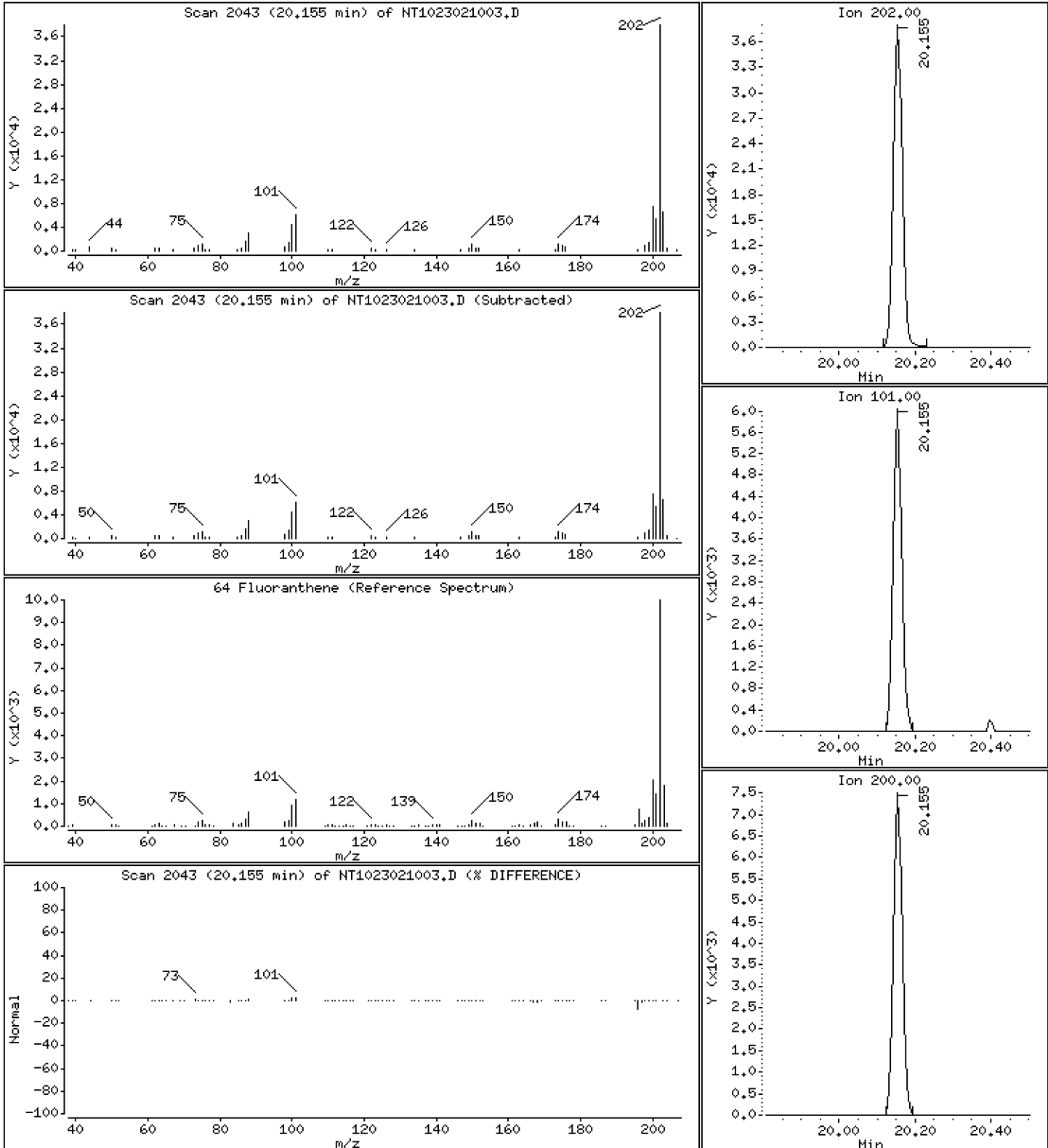
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 0,5182 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

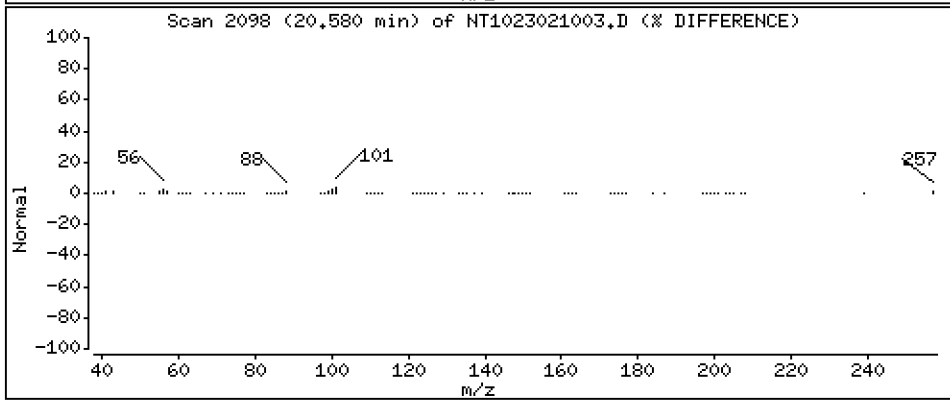
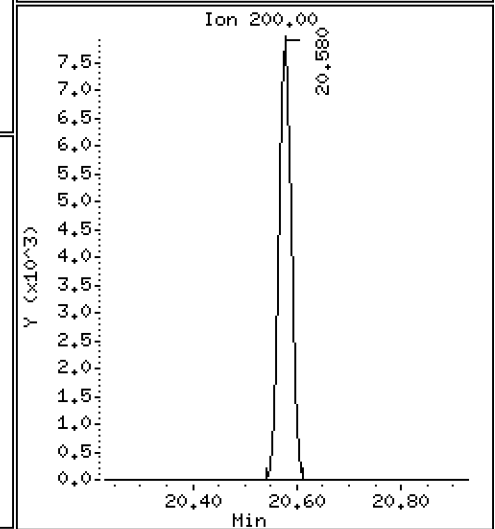
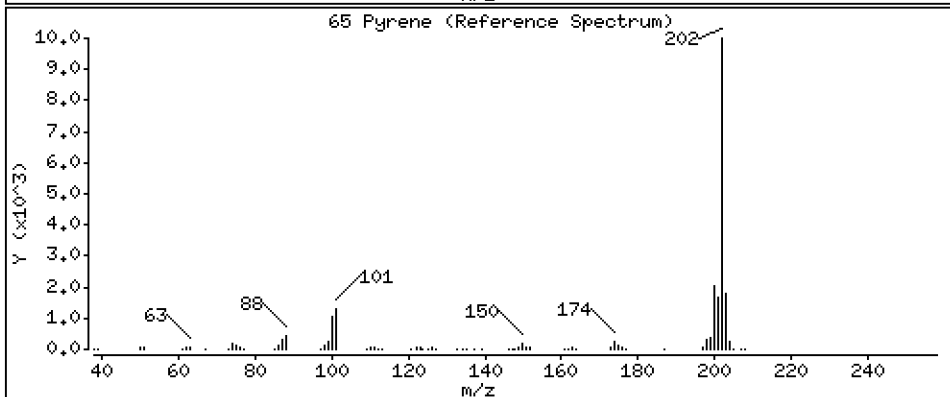
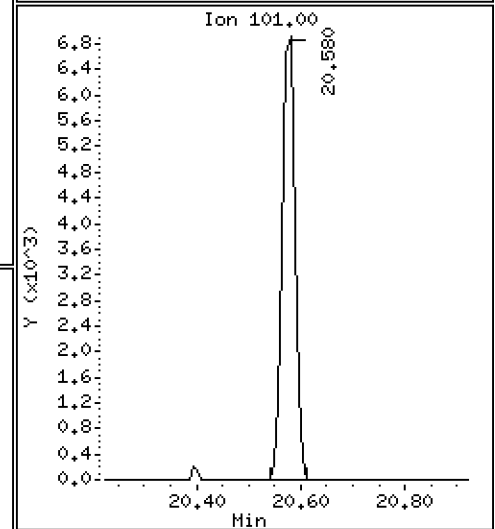
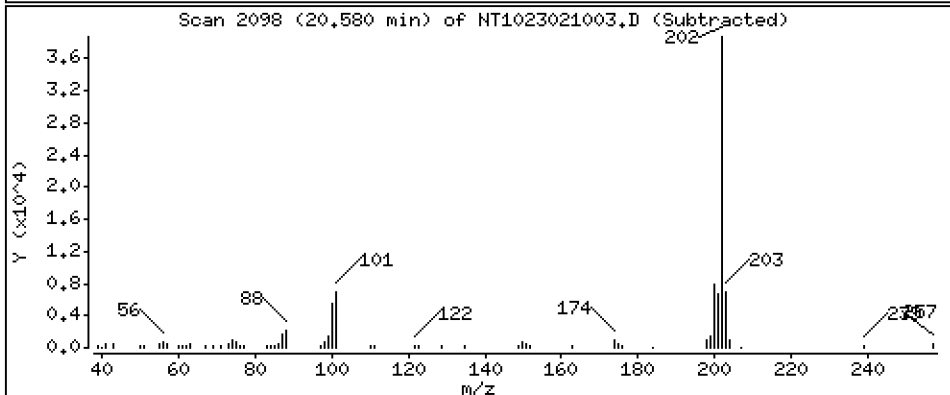
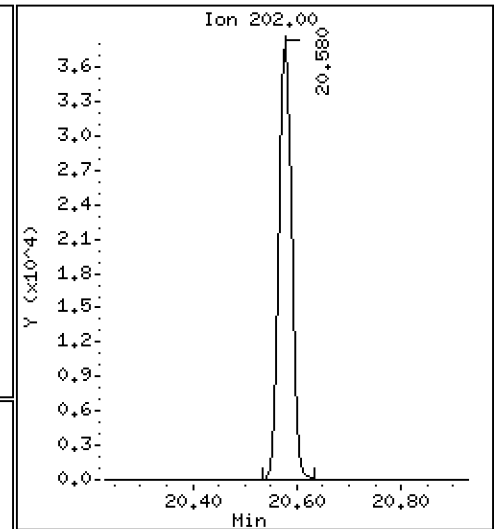
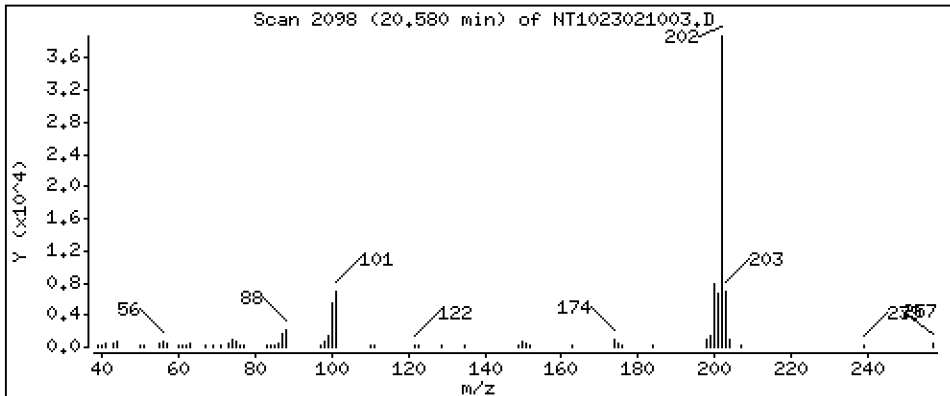
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 0,5326 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

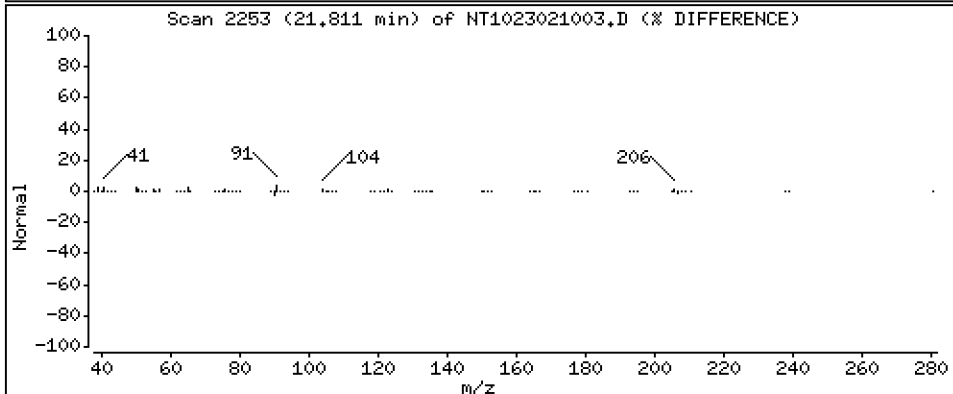
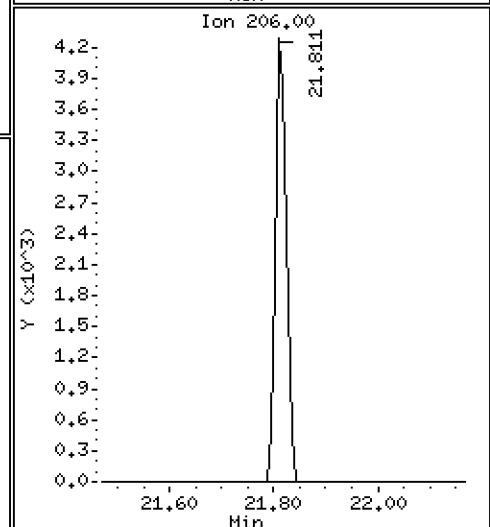
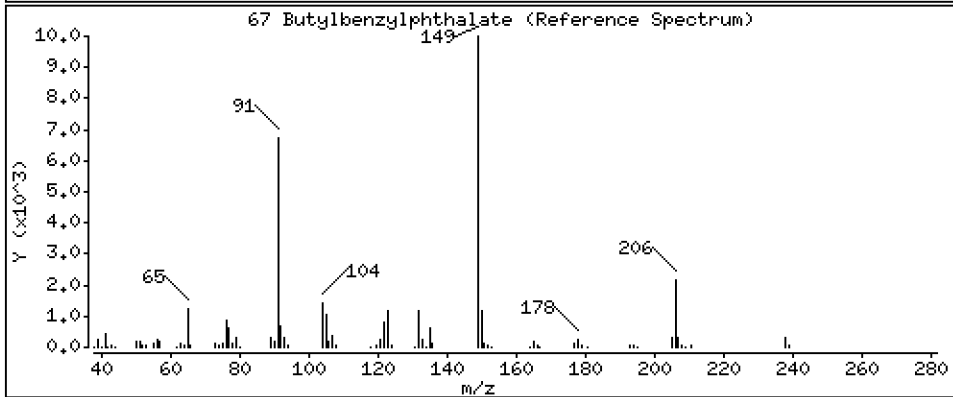
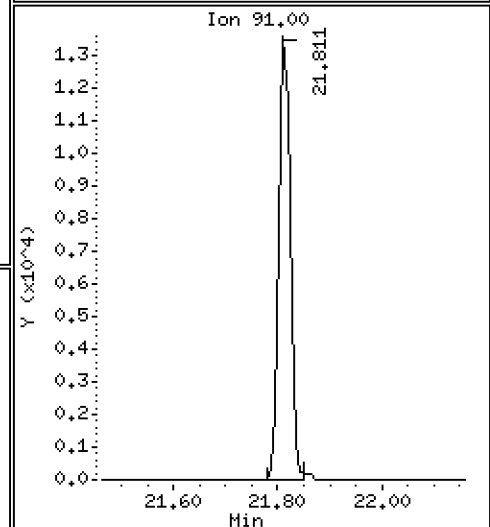
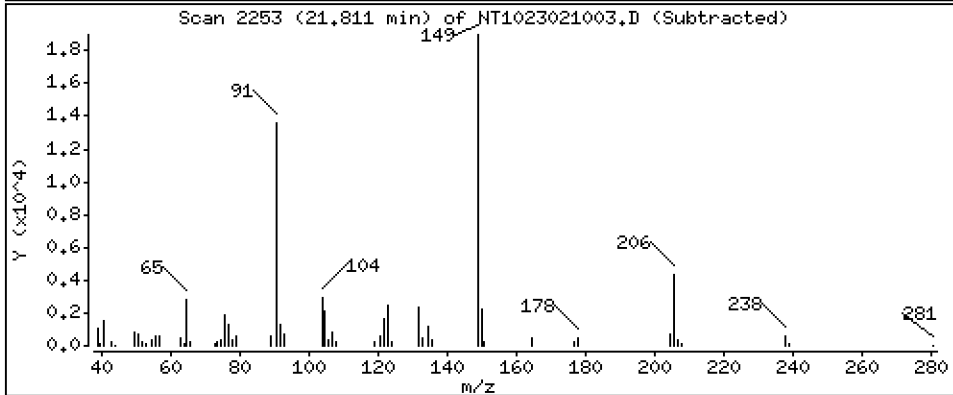
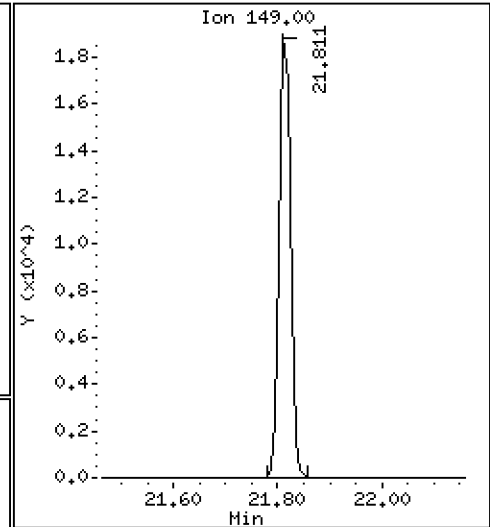
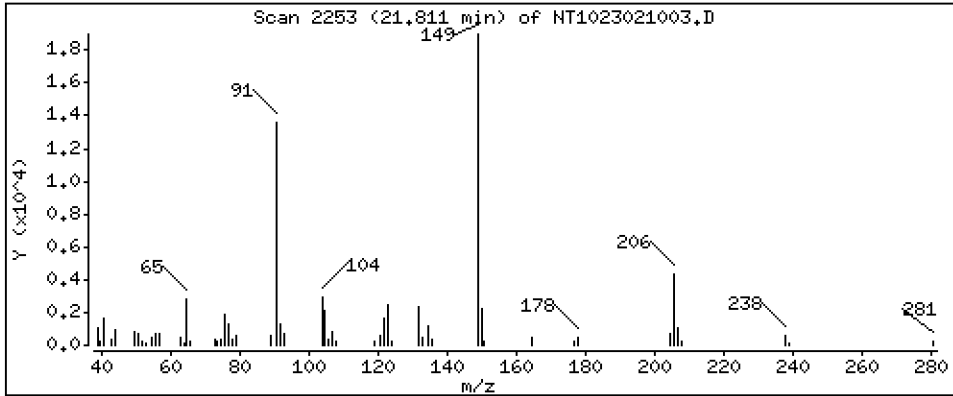
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.5320 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

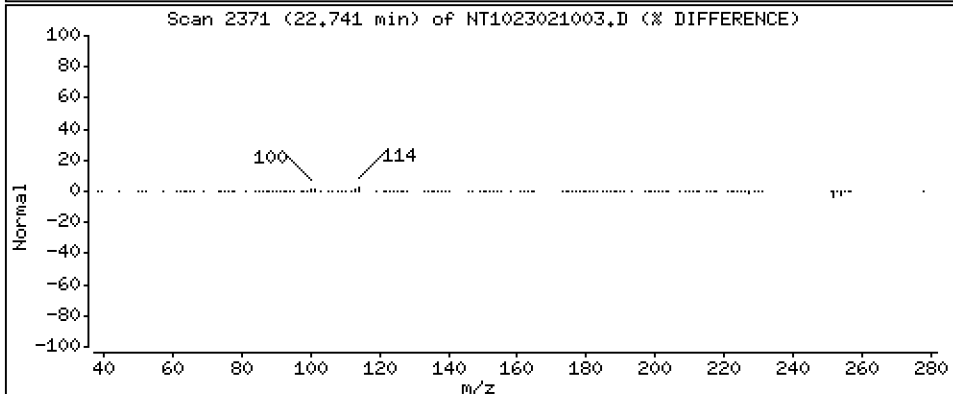
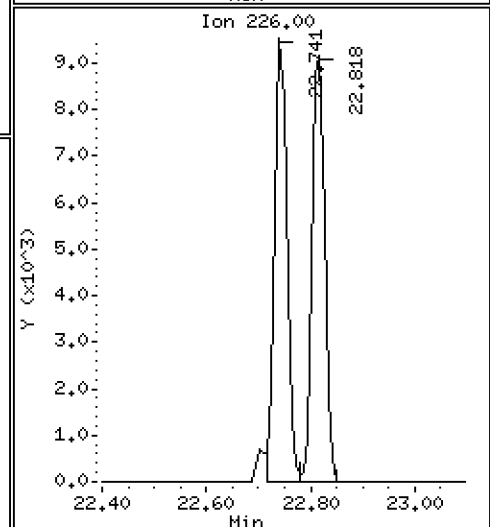
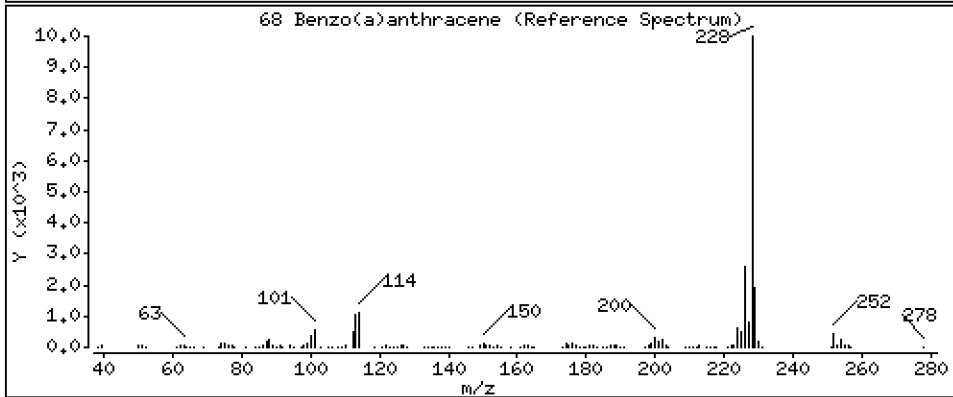
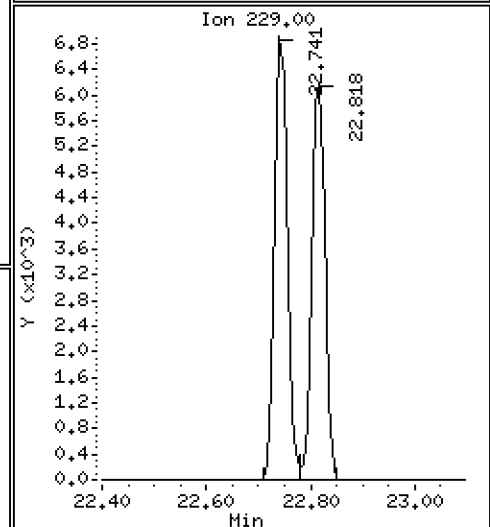
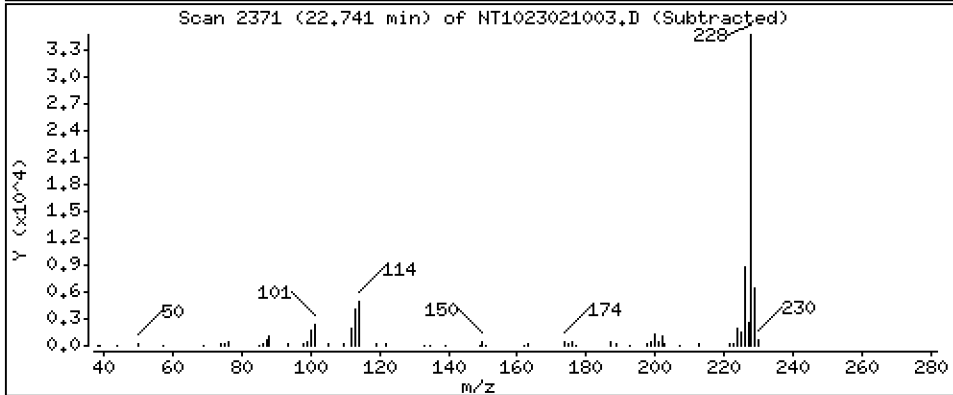
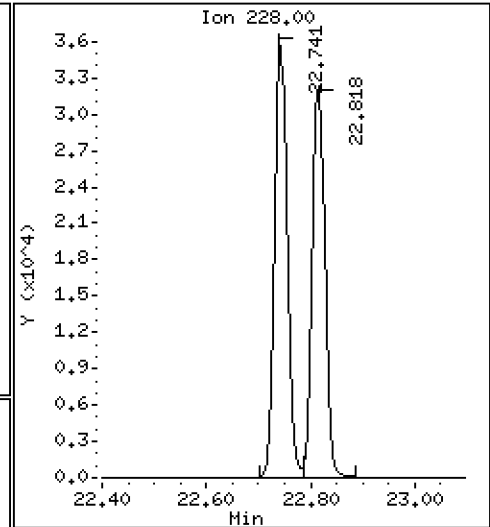
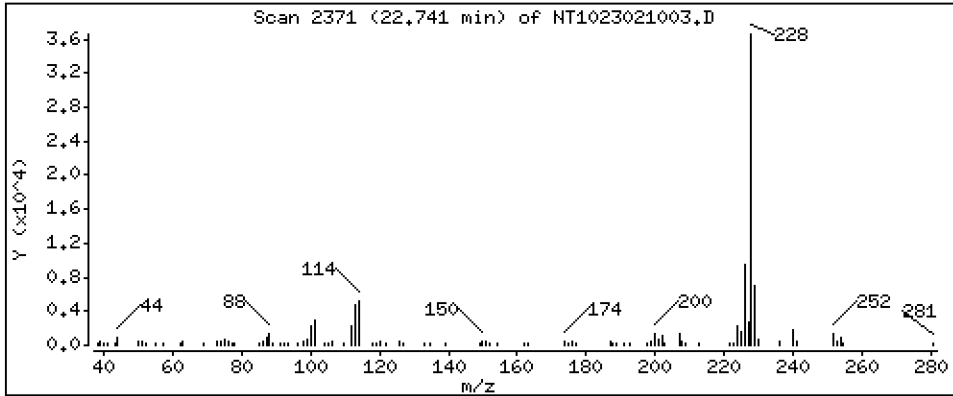
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

68 Benzo(a)anthracene

Concentration: 0,5554 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

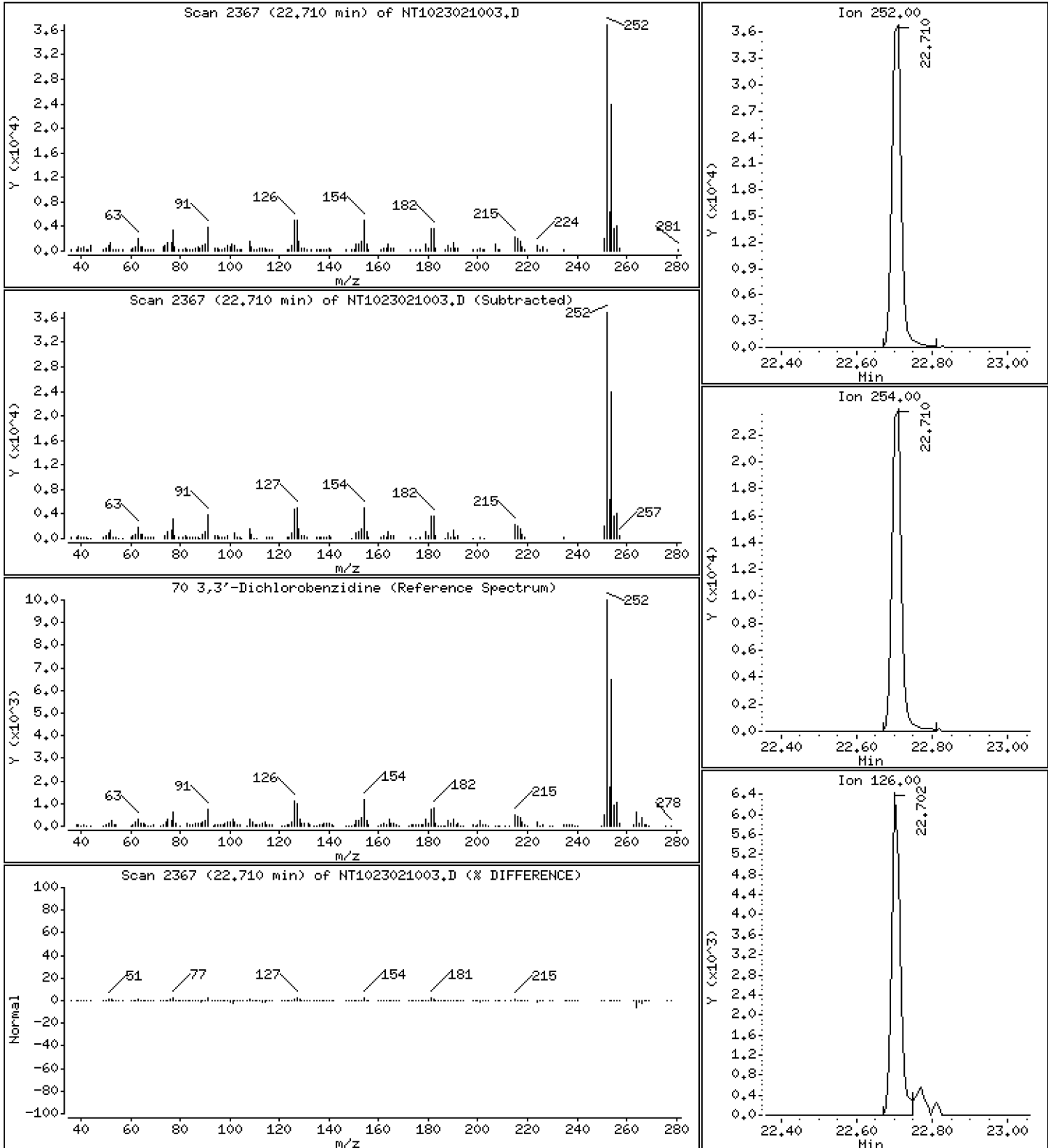
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 1,694 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

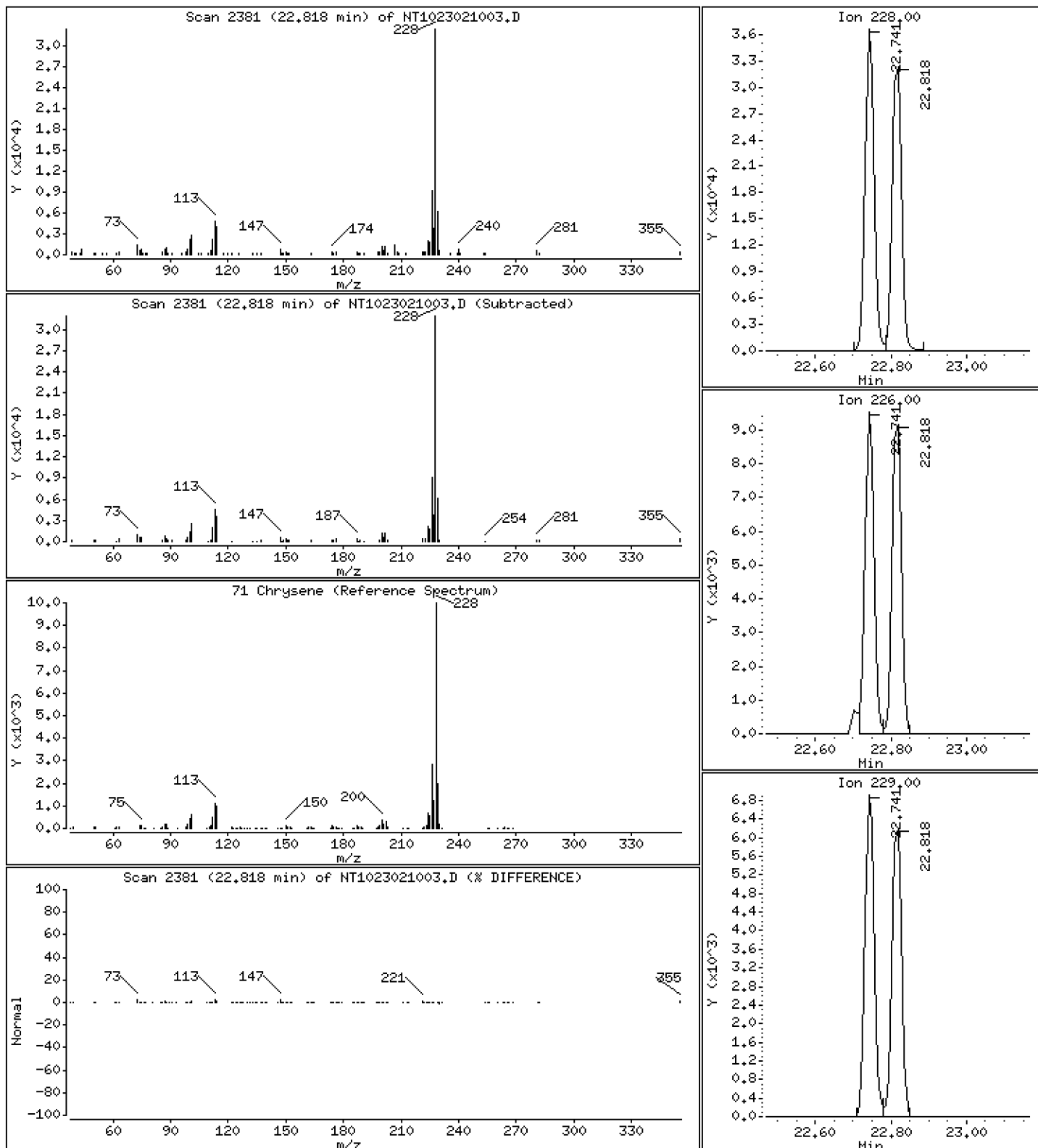
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 0,5342 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

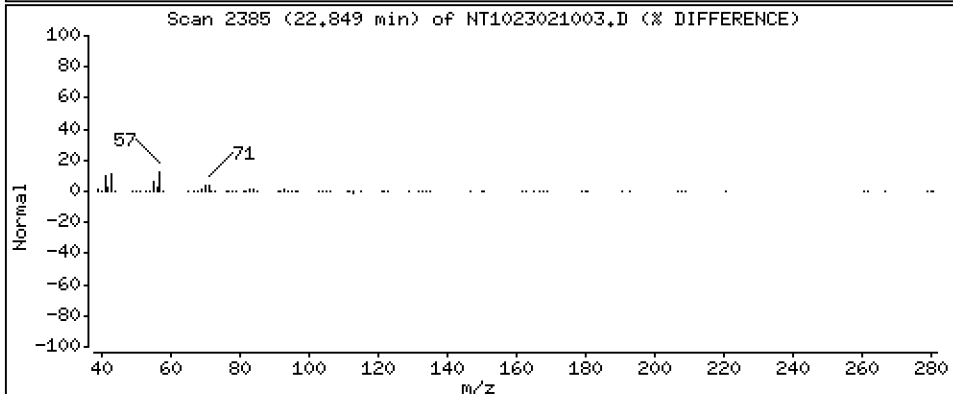
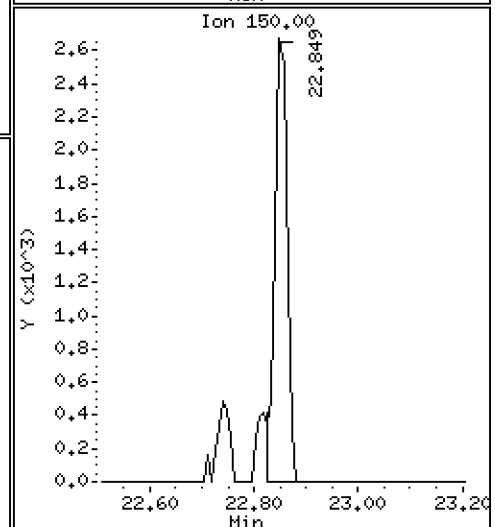
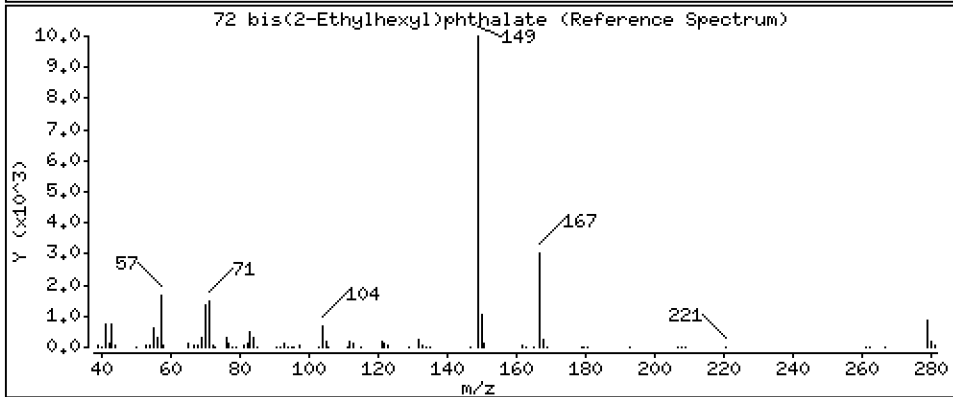
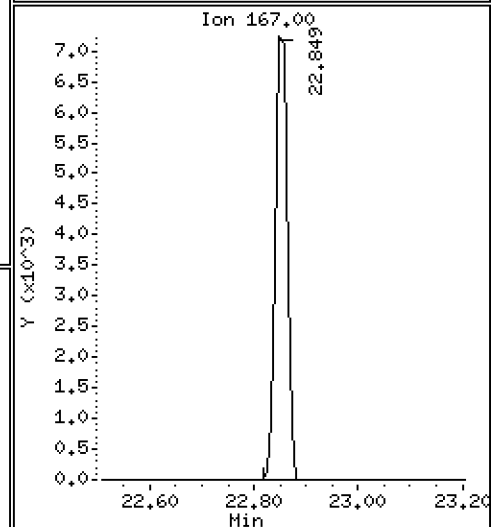
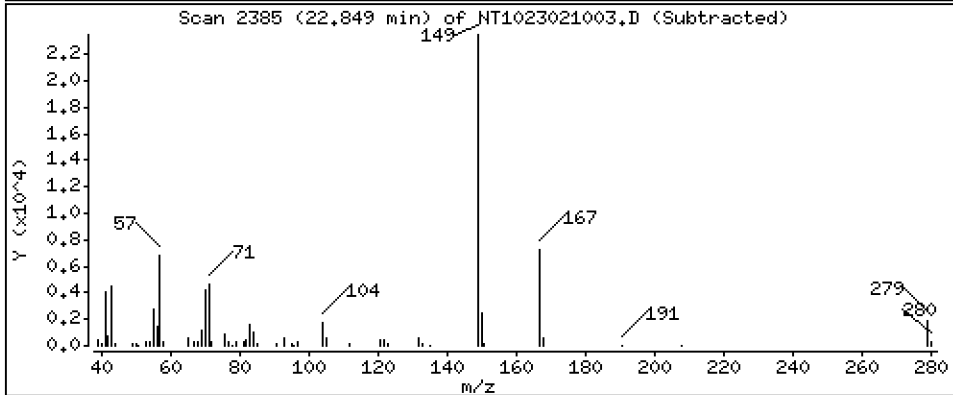
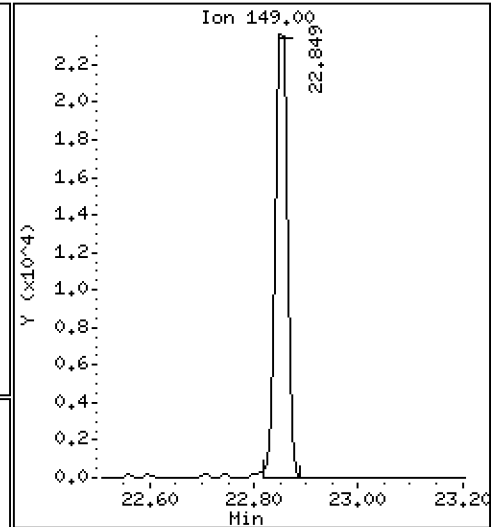
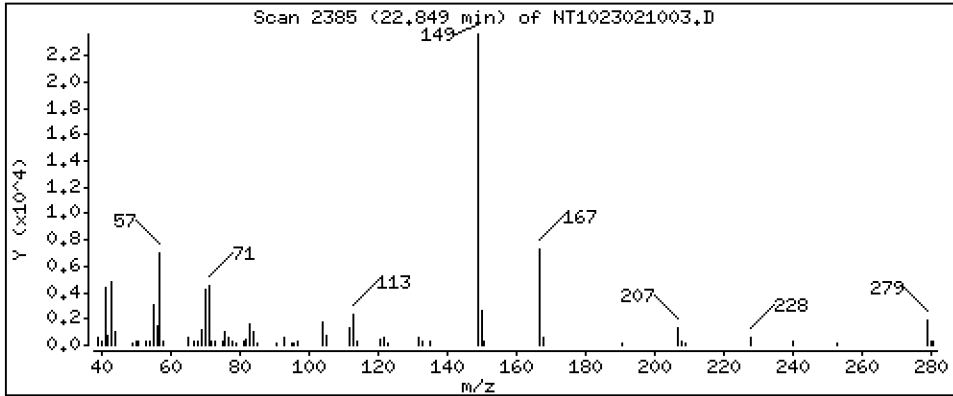
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 0,5141 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

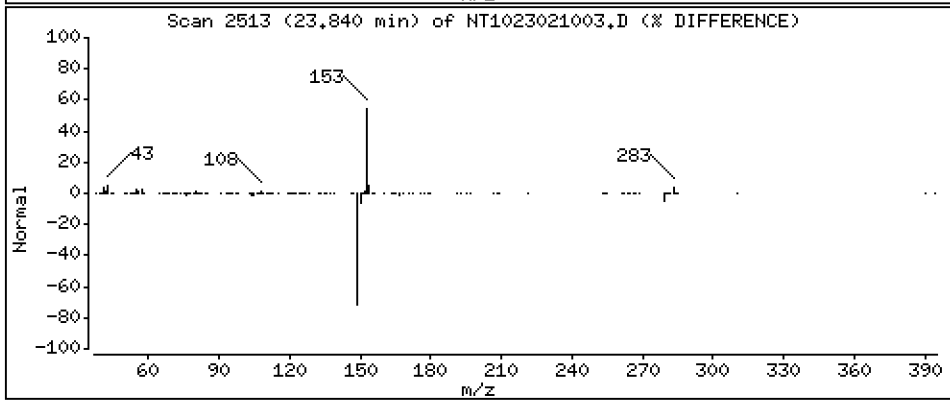
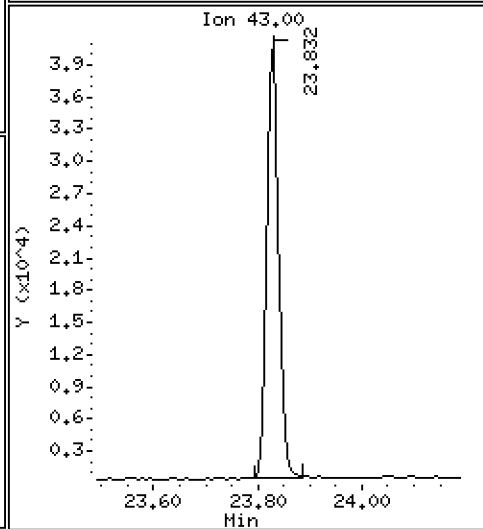
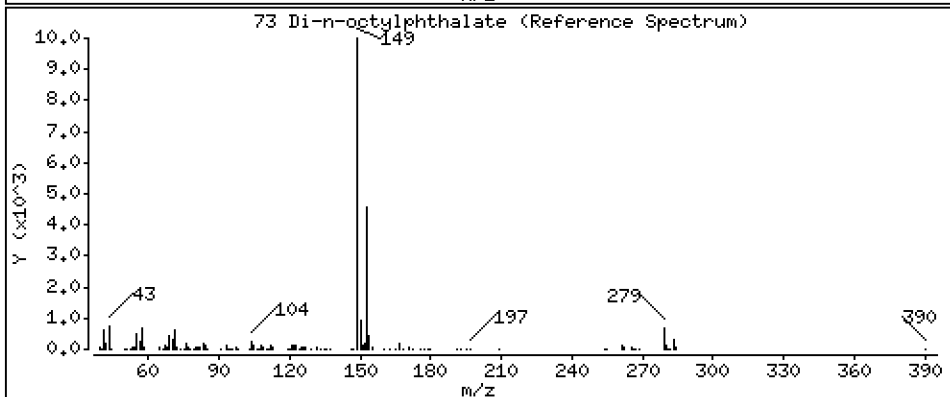
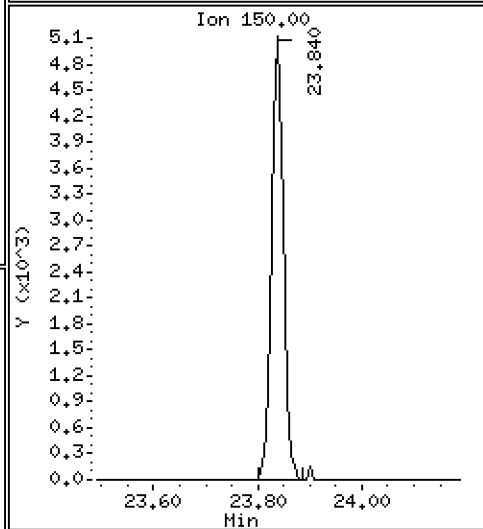
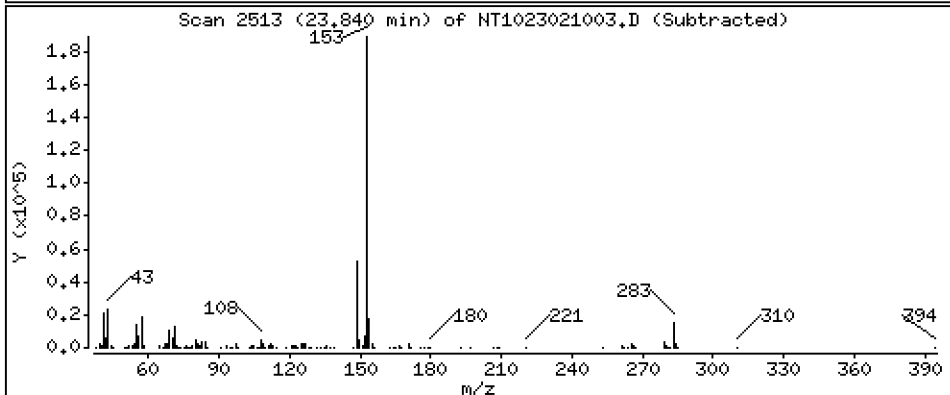
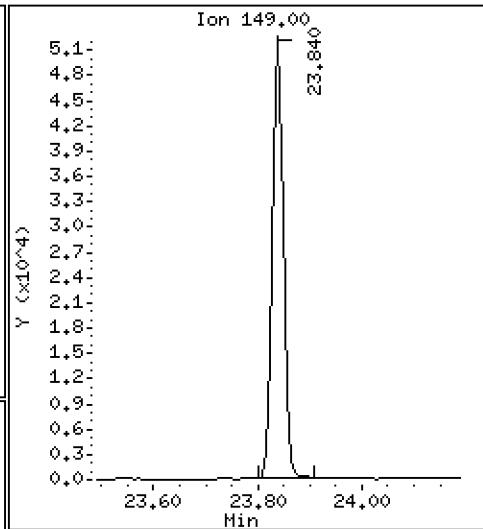
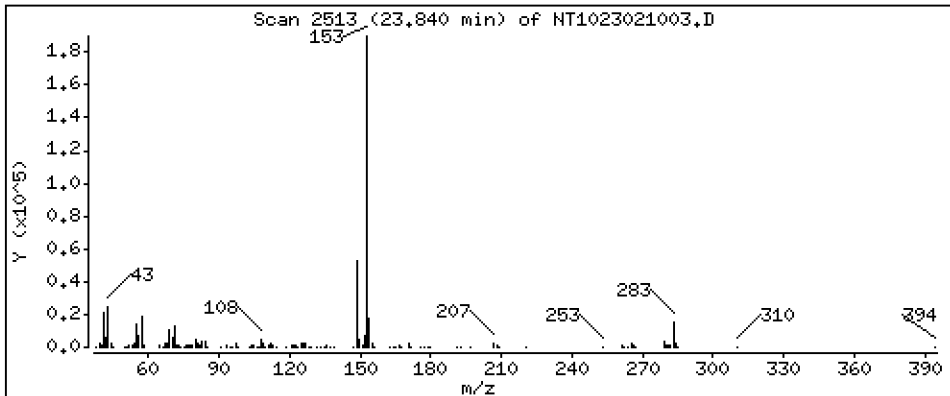
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

73 Di-n-octylphthalate

Concentration: 0.5539 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

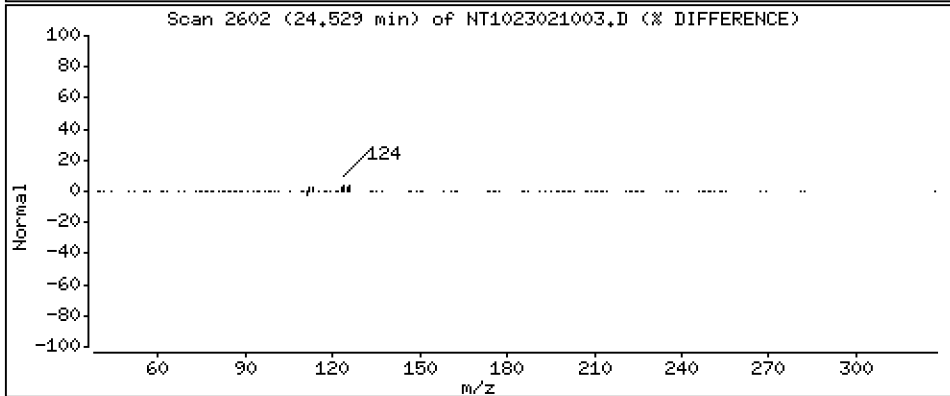
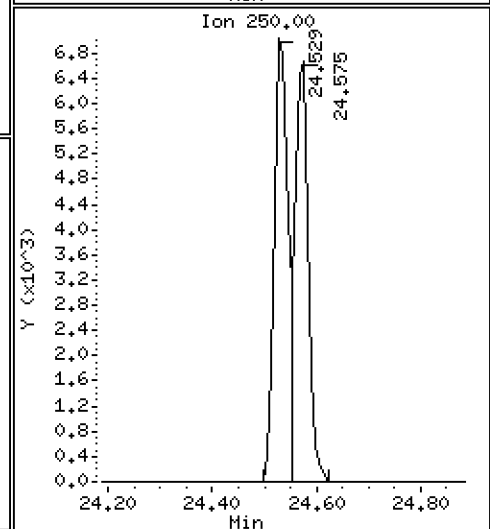
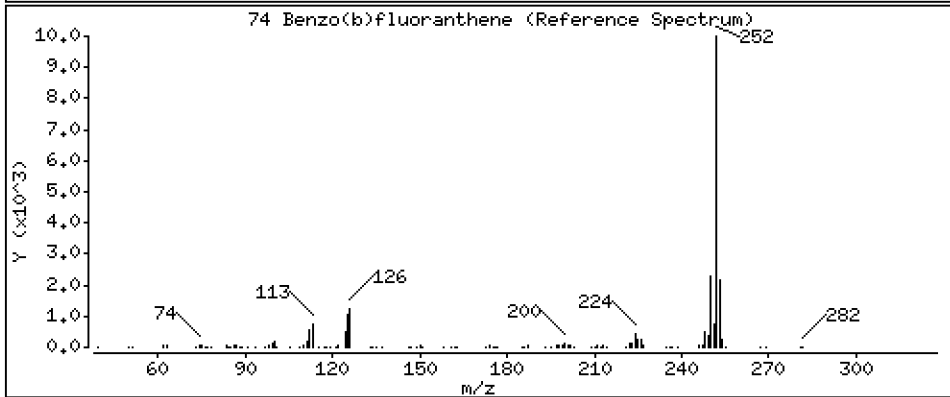
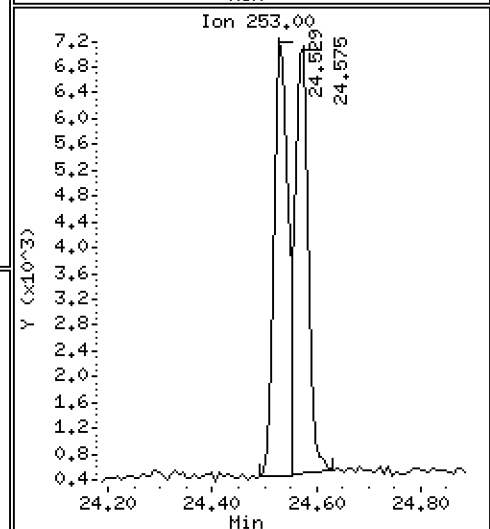
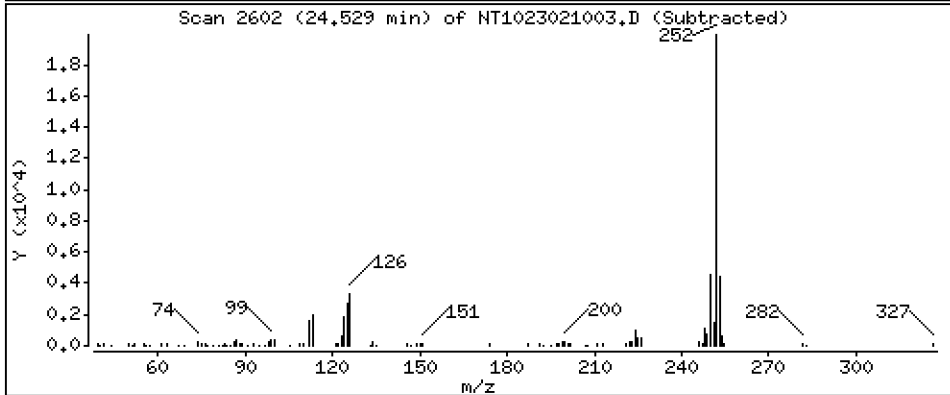
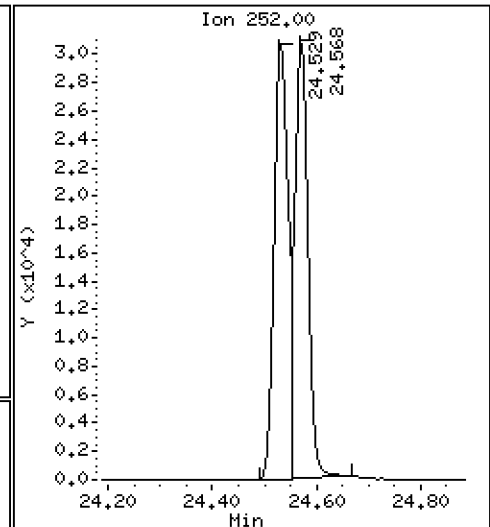
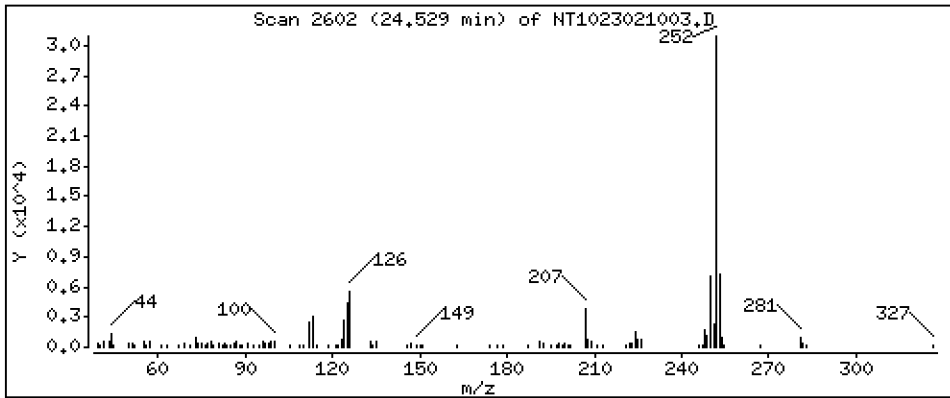
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 0,5457 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

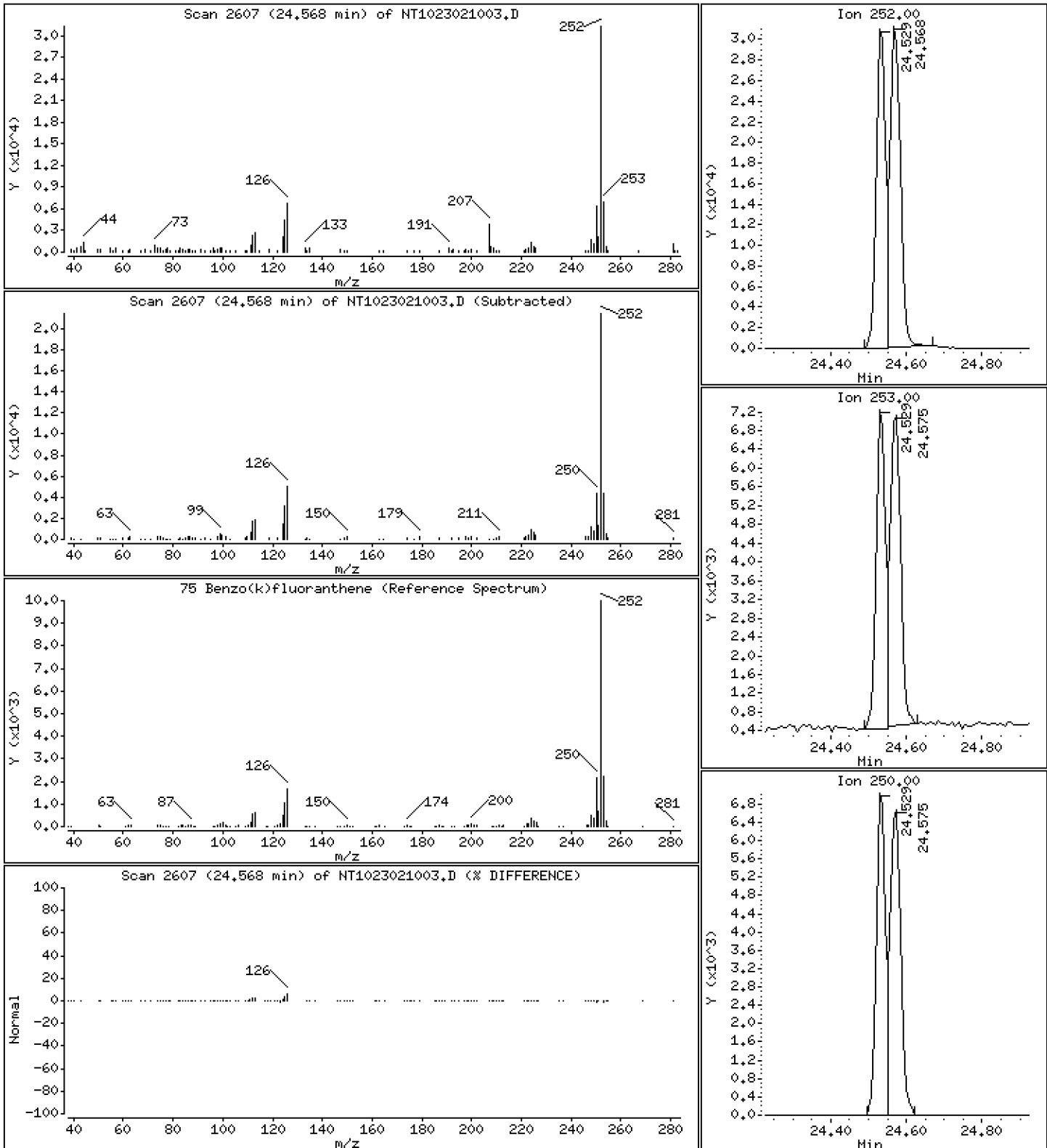
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 0,5314 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

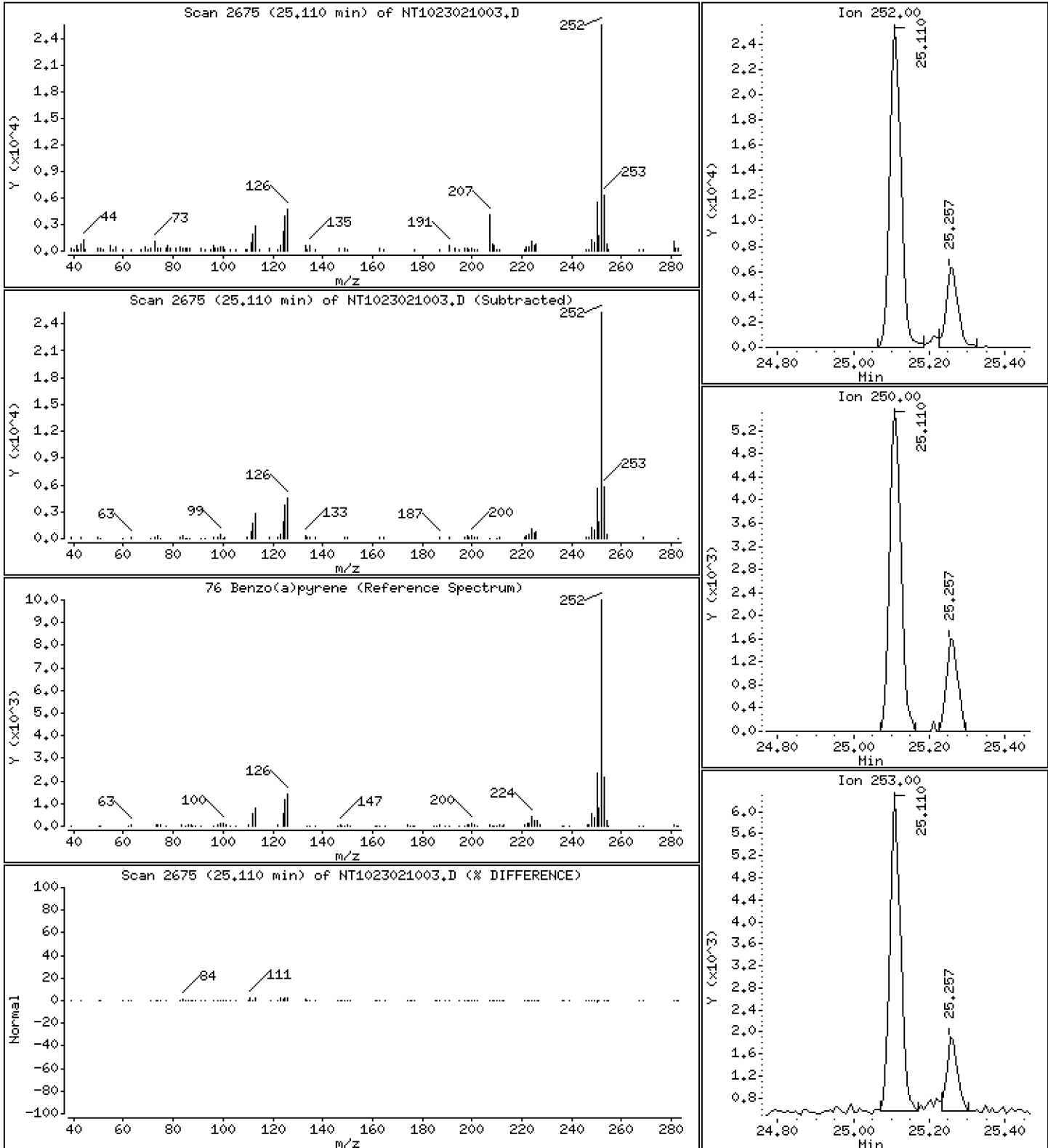
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 0,5347 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

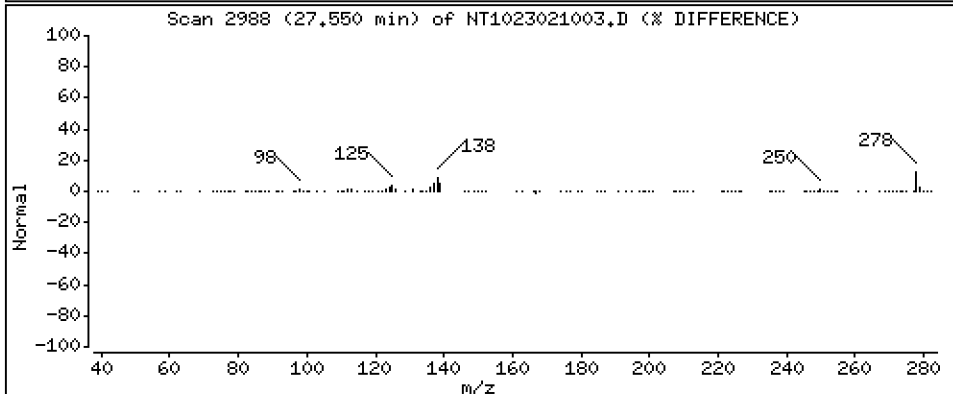
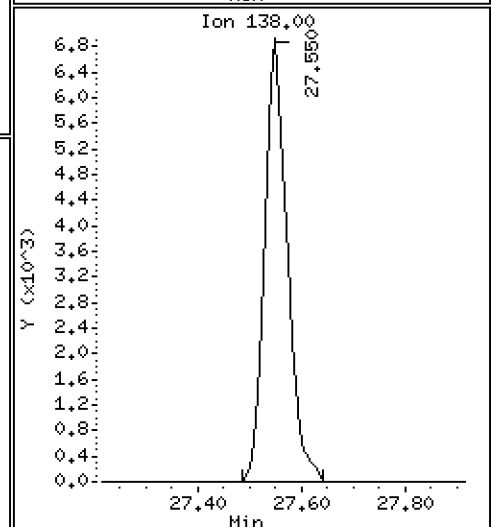
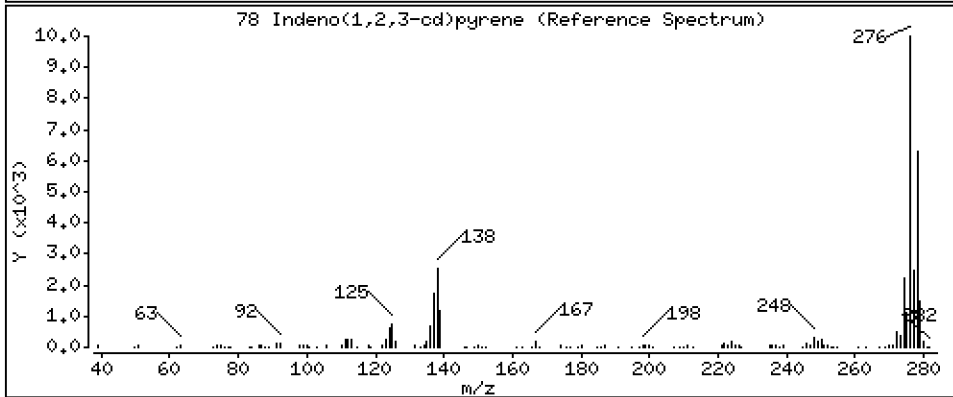
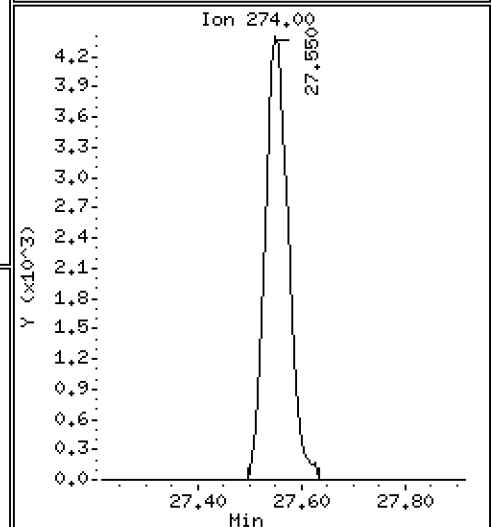
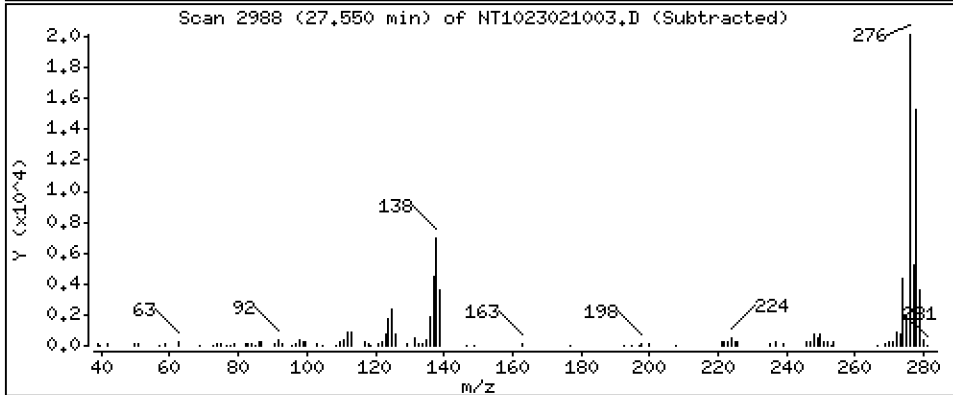
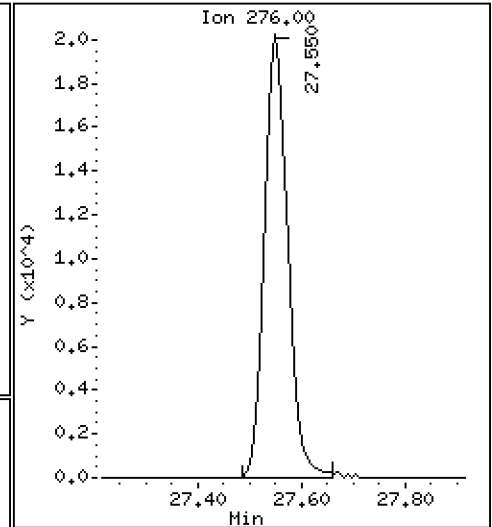
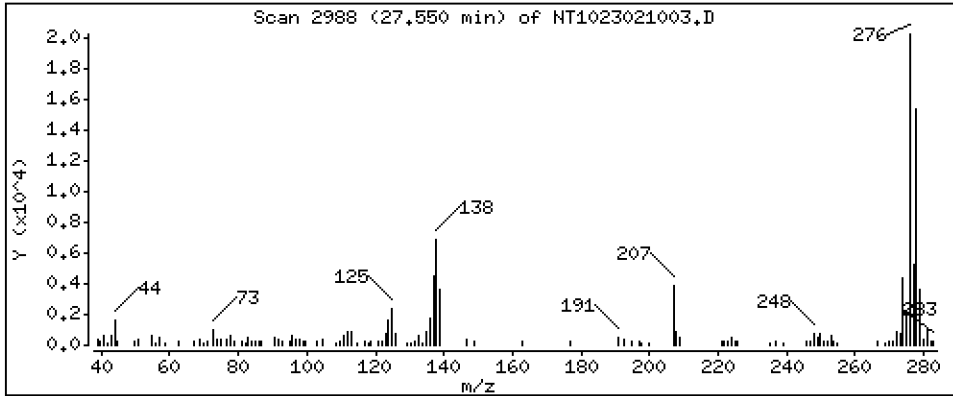
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

78 Indeno(1,2,3-cd)pyrene

Concentration: 0.5538 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

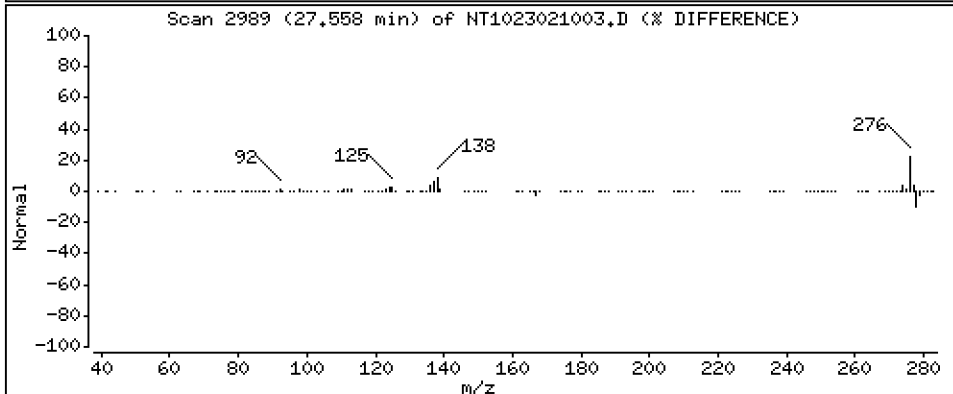
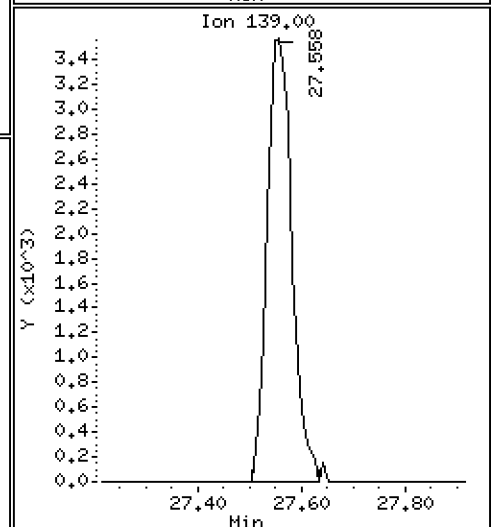
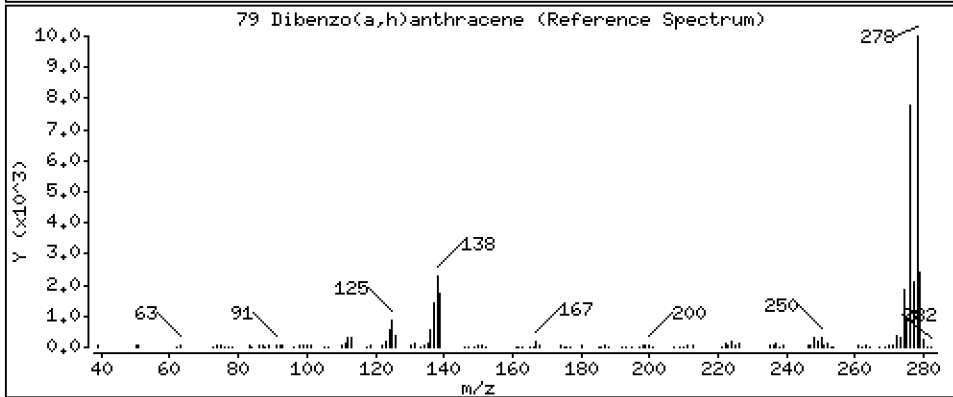
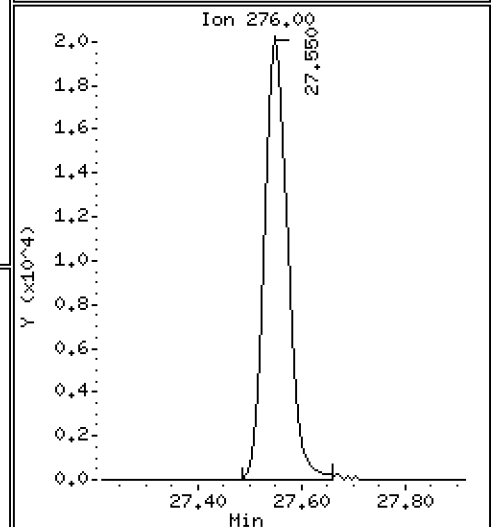
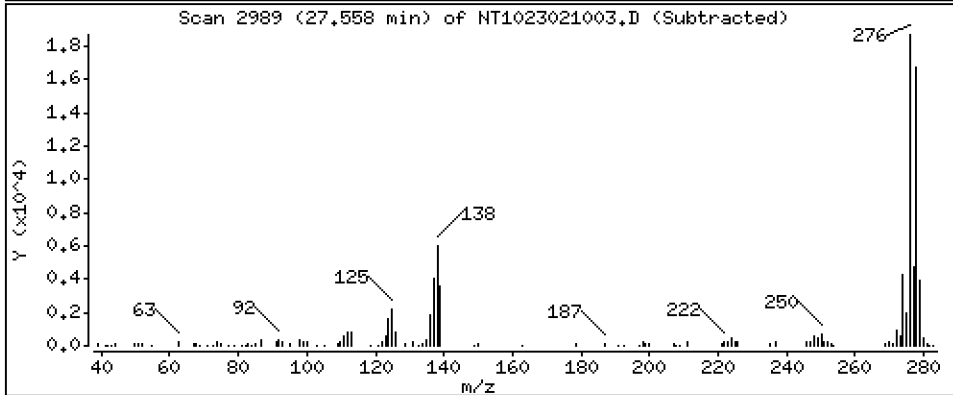
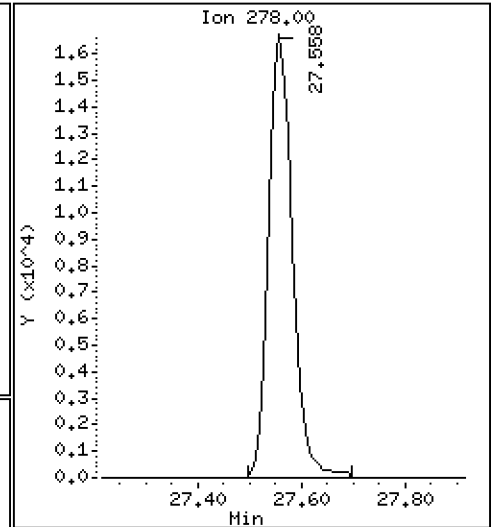
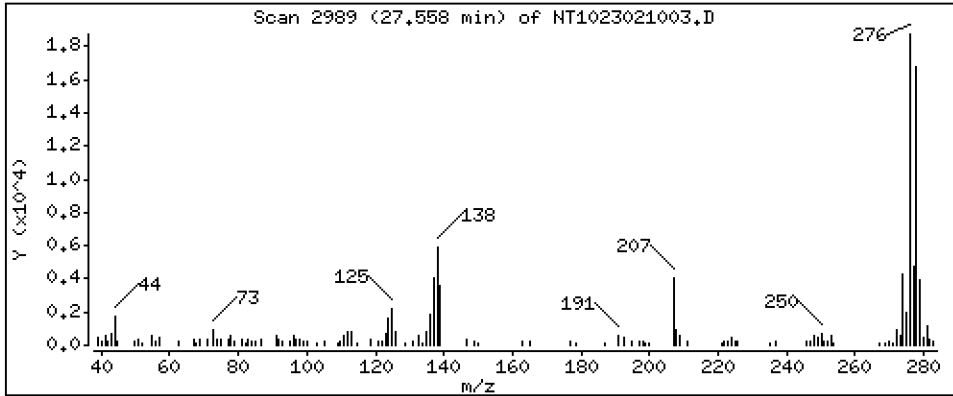
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,5613 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

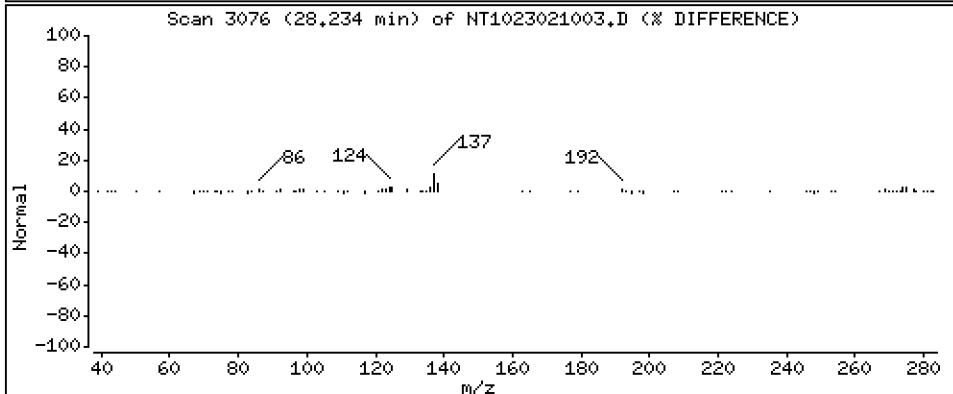
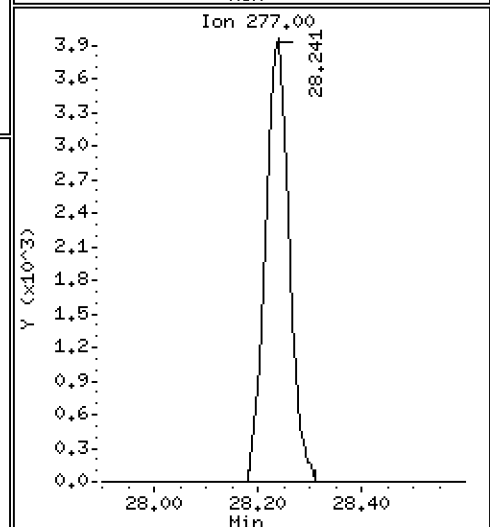
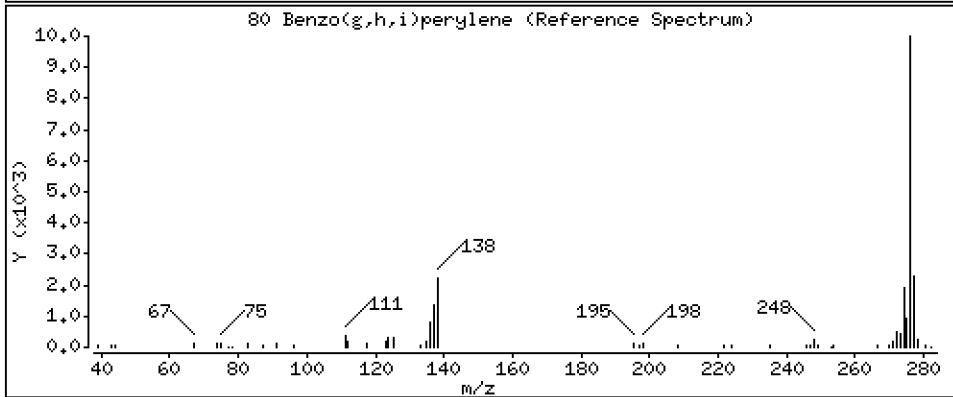
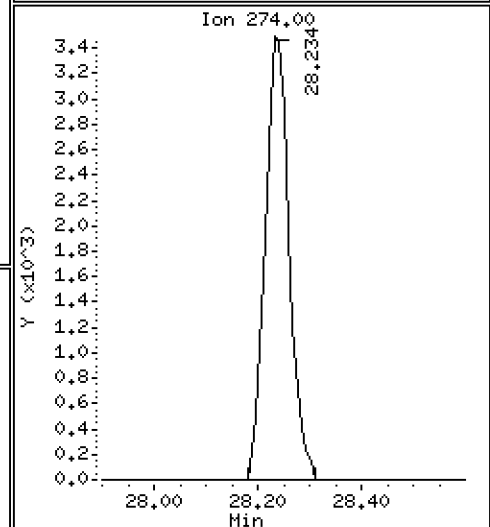
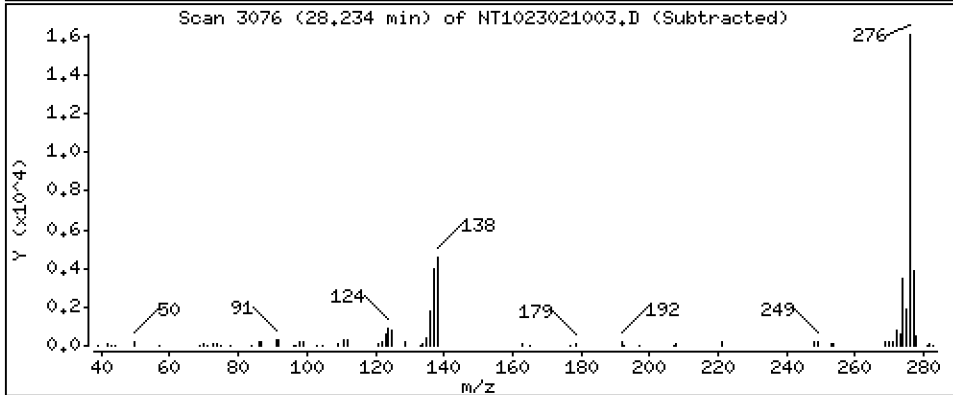
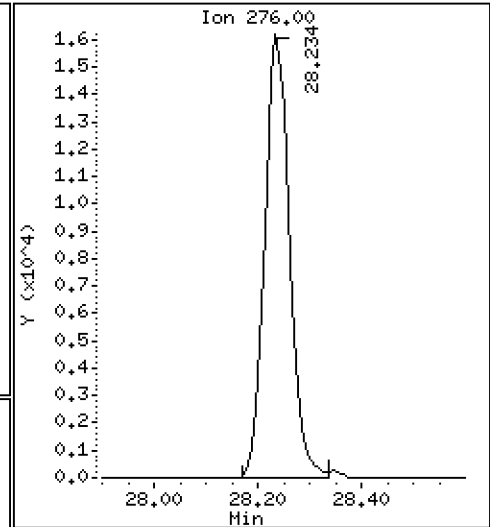
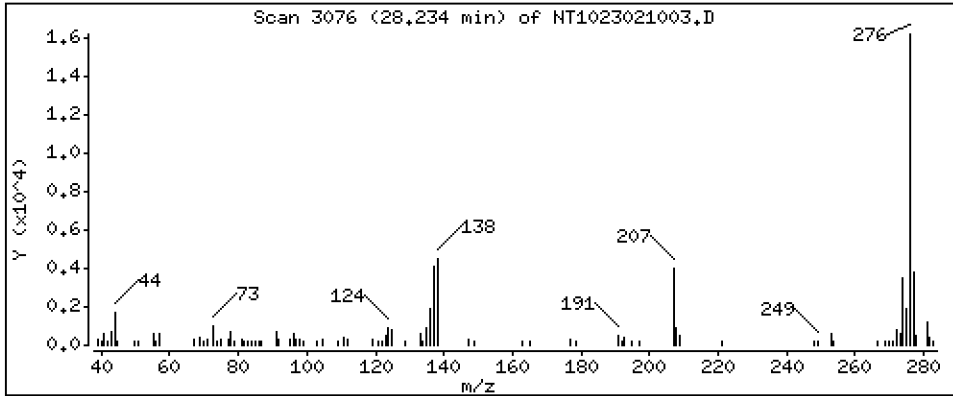
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 0,5425 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

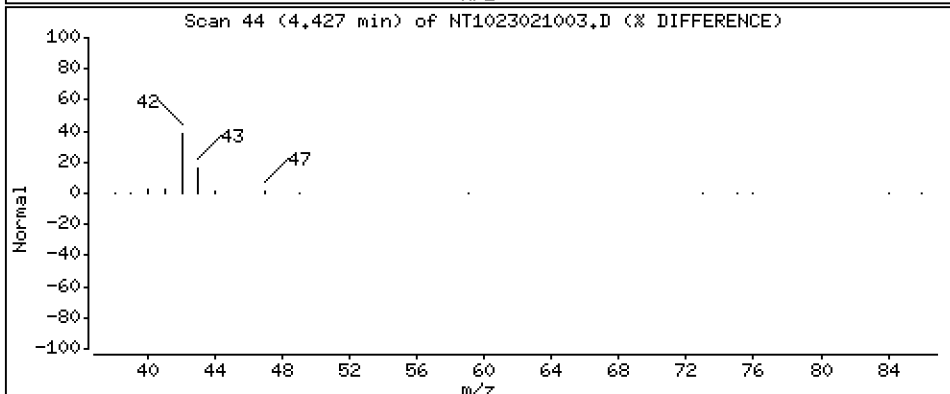
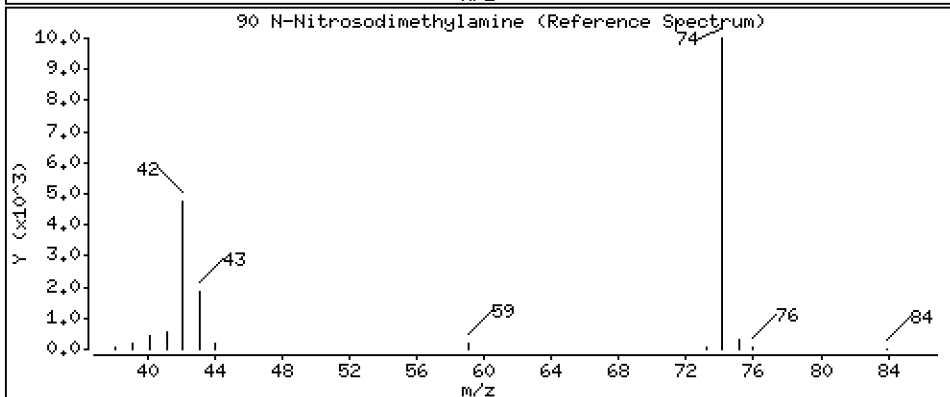
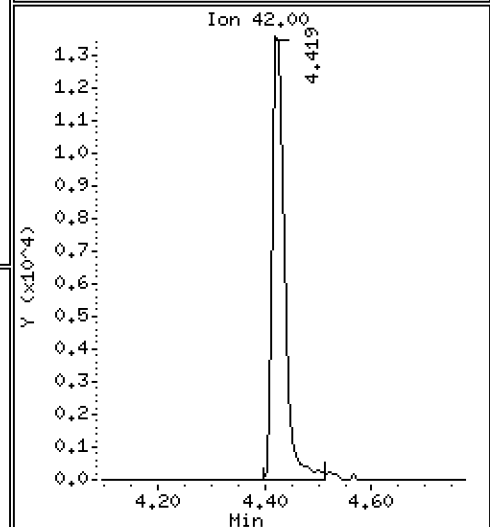
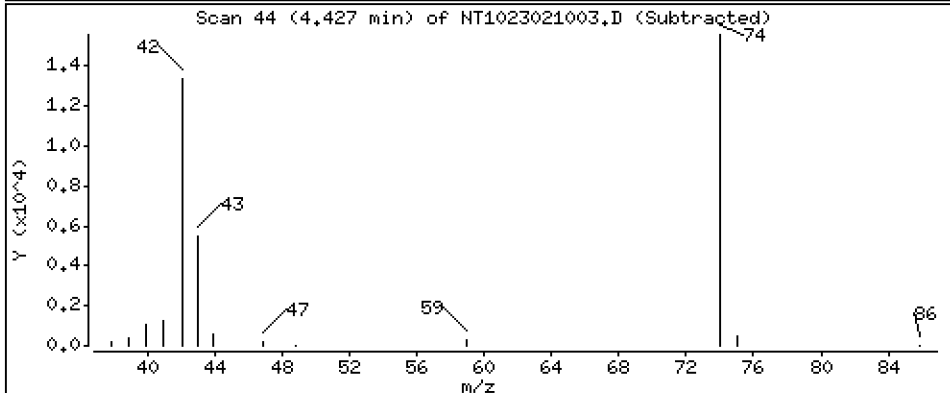
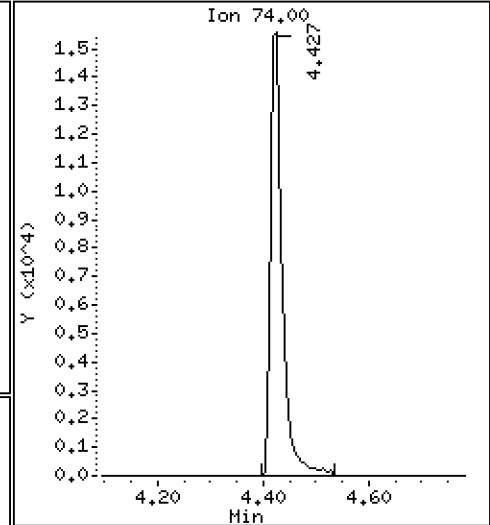
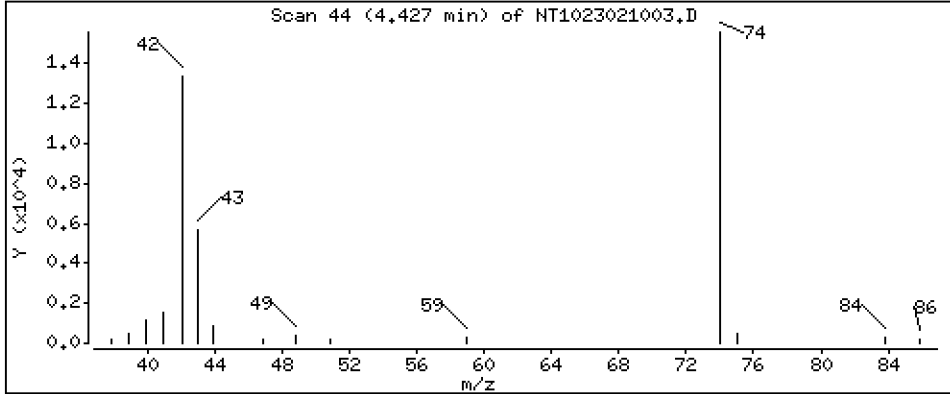
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 1.010 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

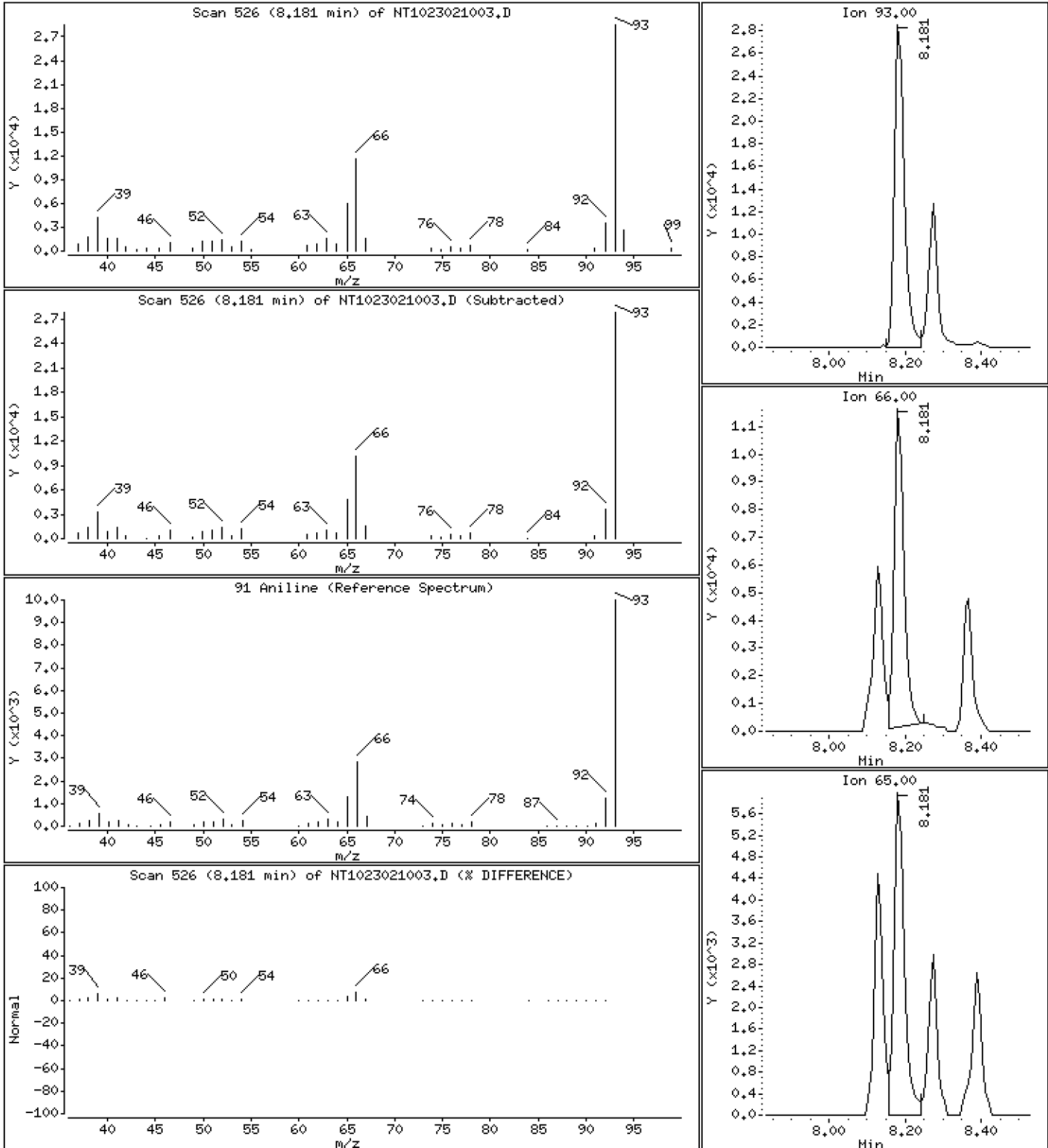
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

91 Aniline

Concentration: 0.9990 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

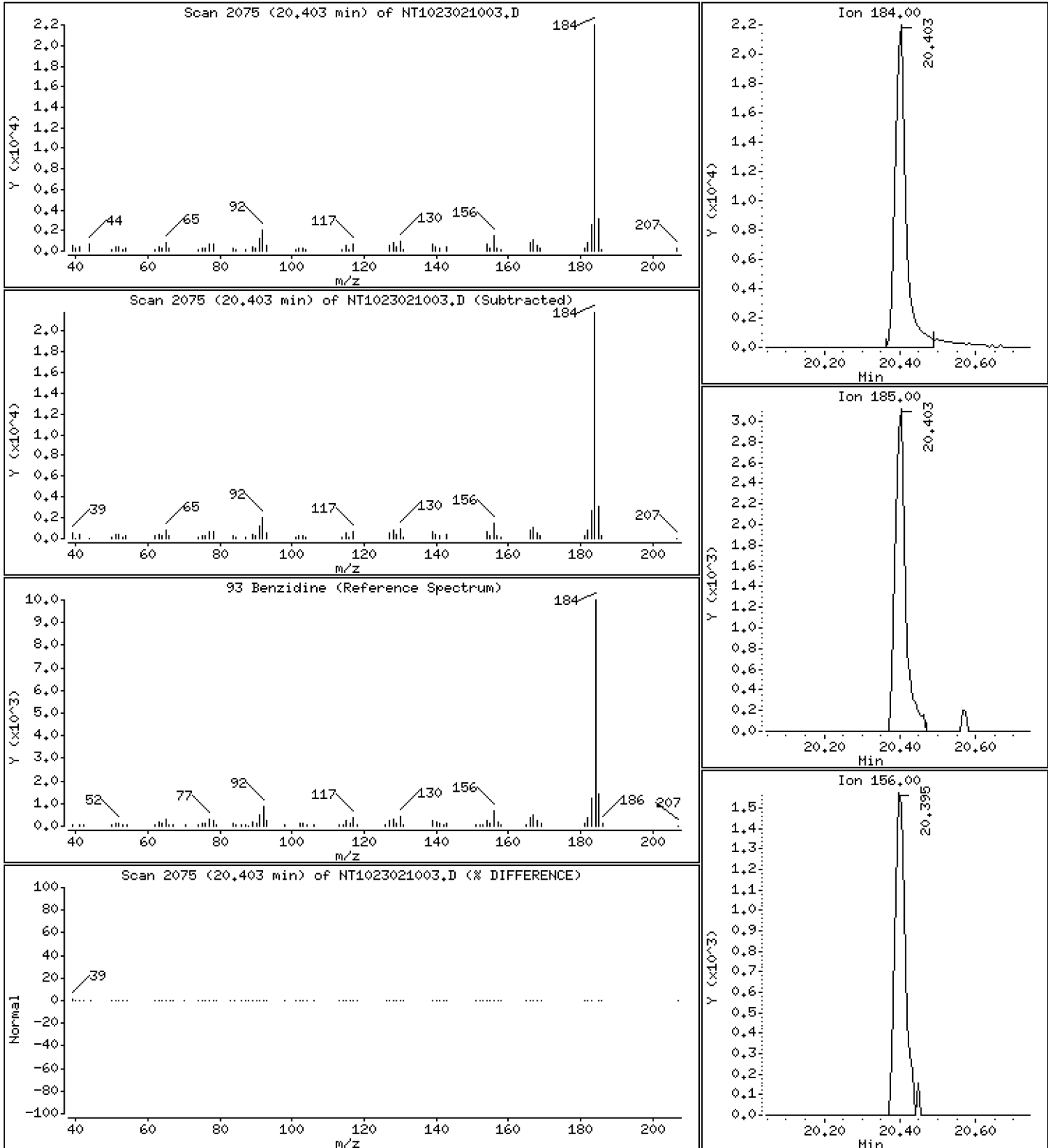
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 1,108 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

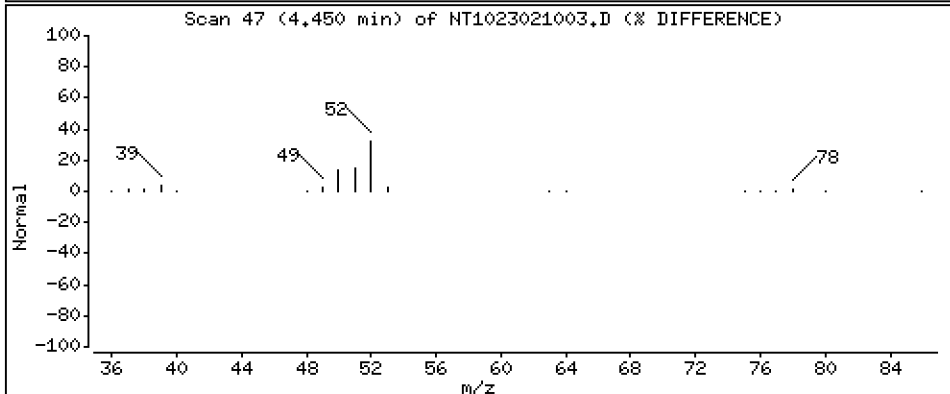
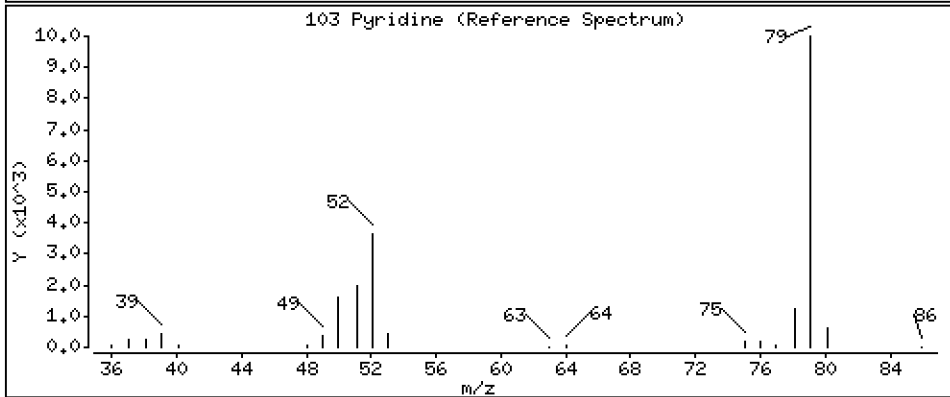
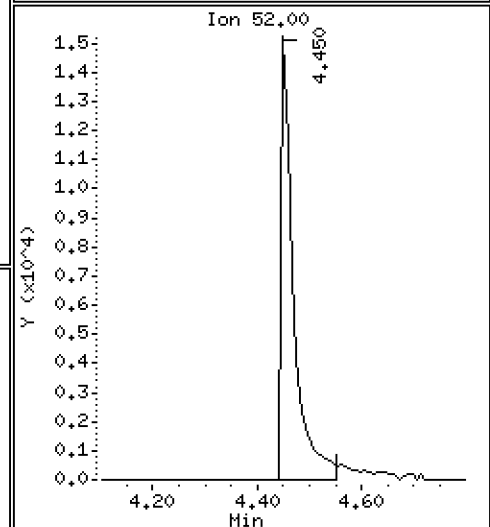
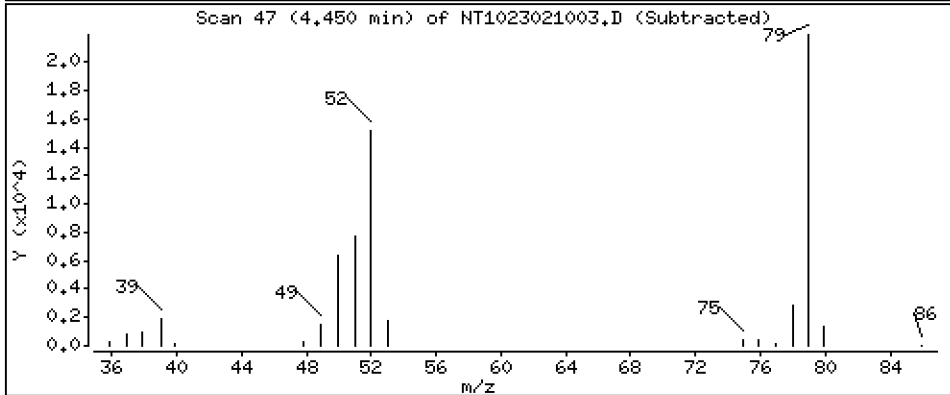
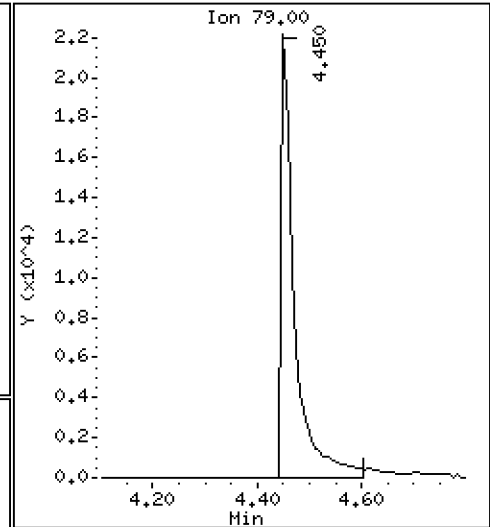
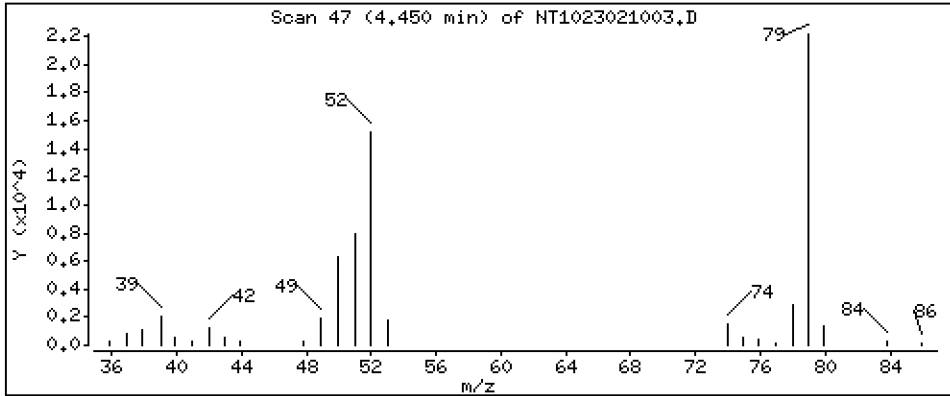
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

103 Pyridine

Concentration: 0,9776 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

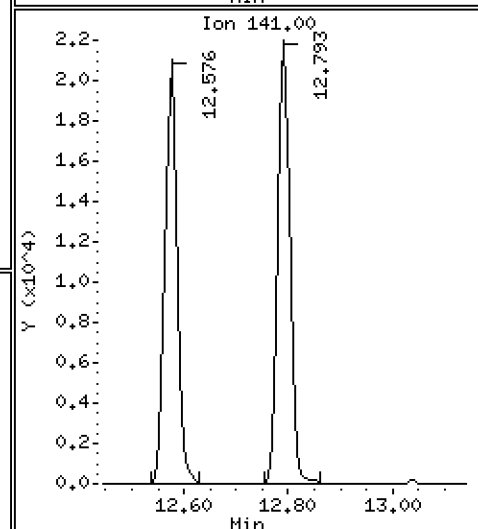
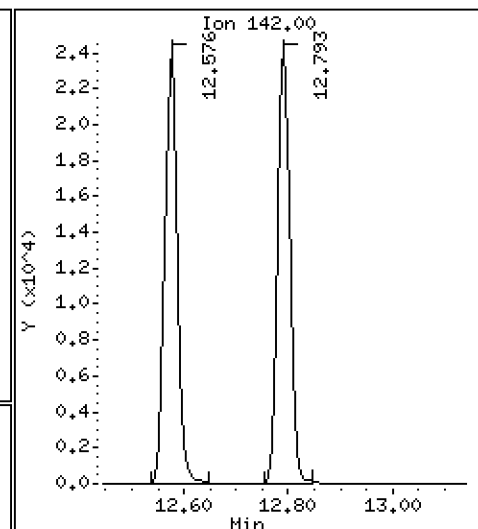
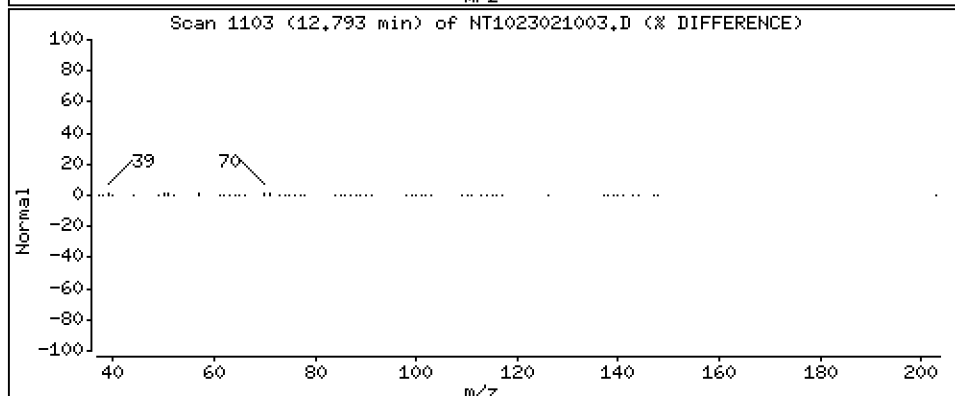
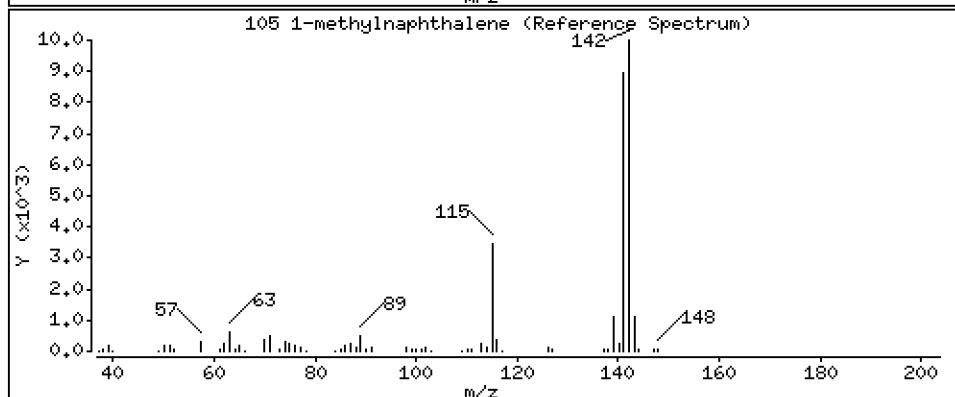
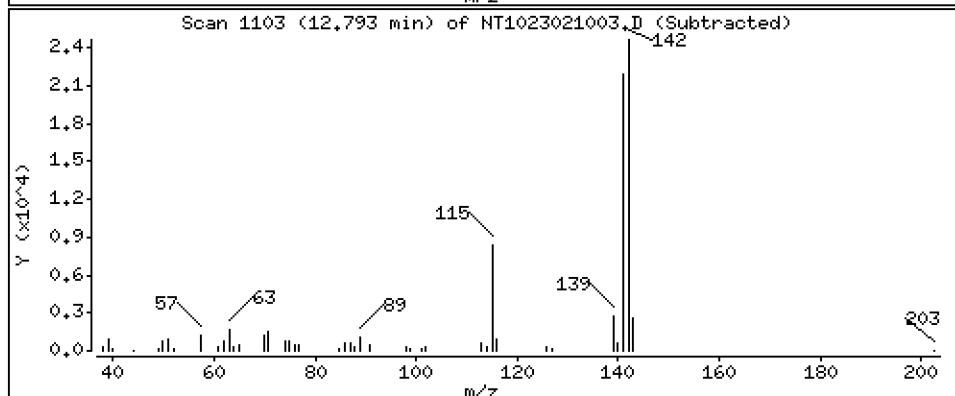
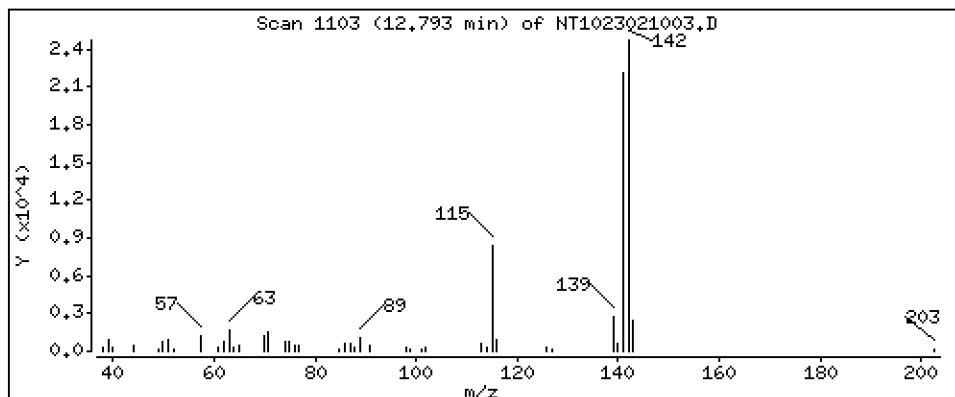
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 0,5167 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

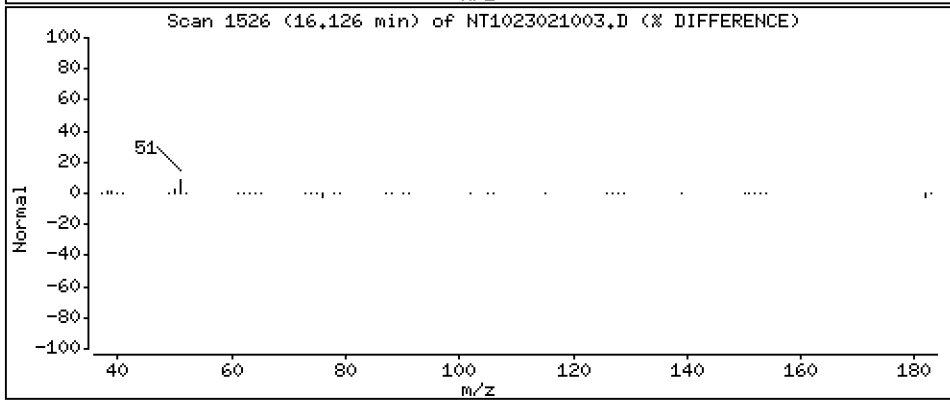
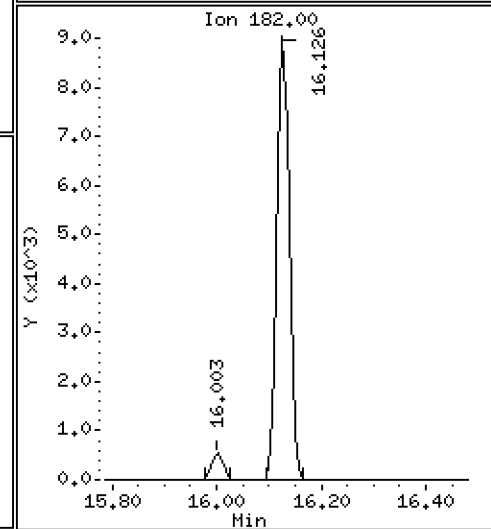
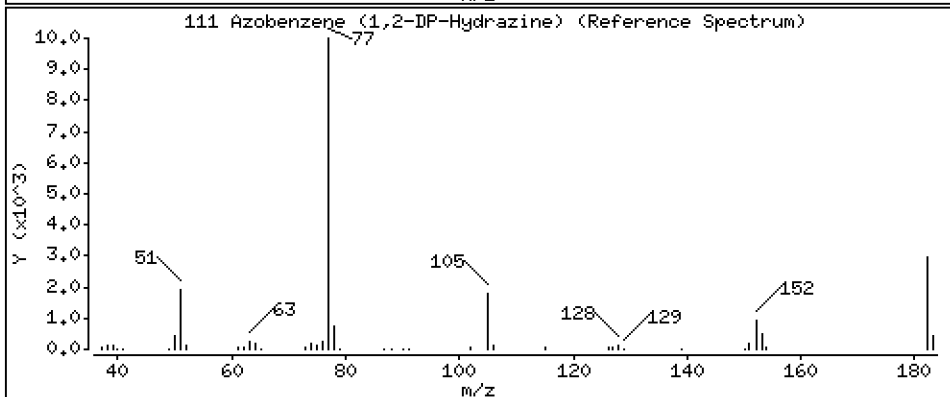
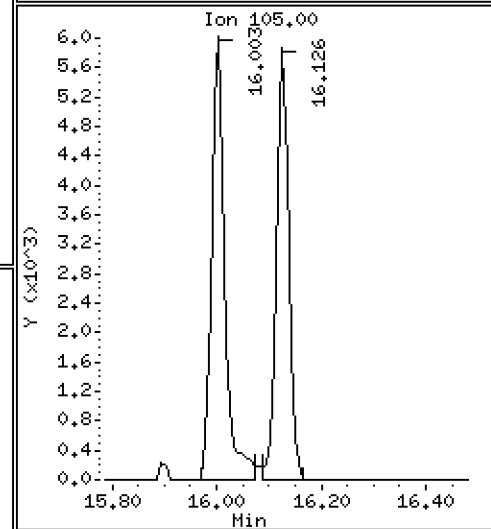
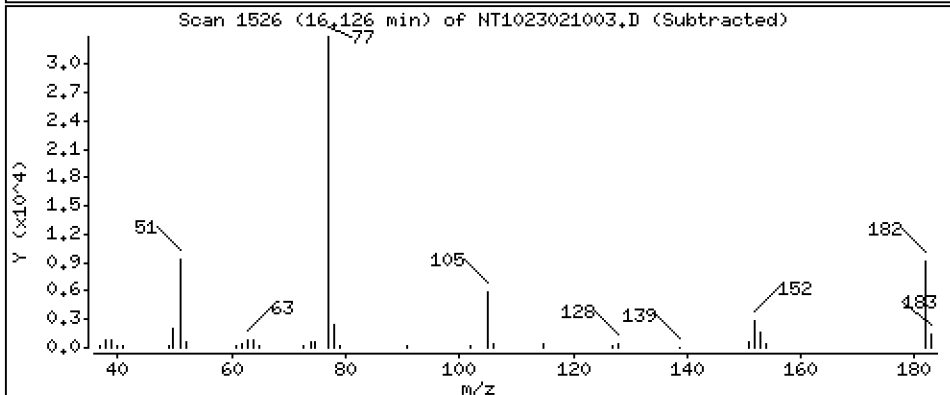
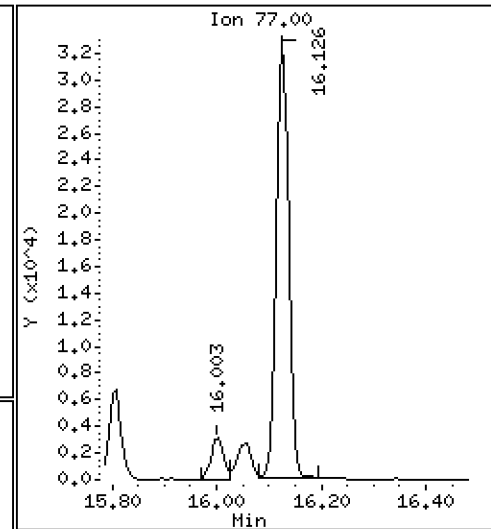
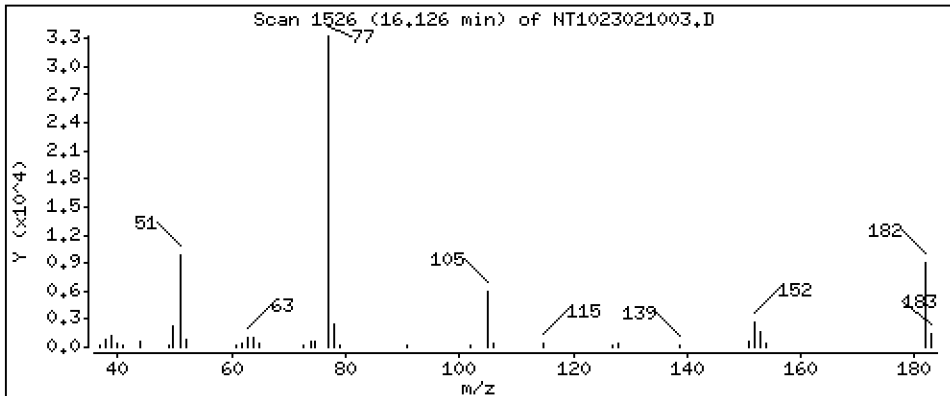
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 0.5459 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

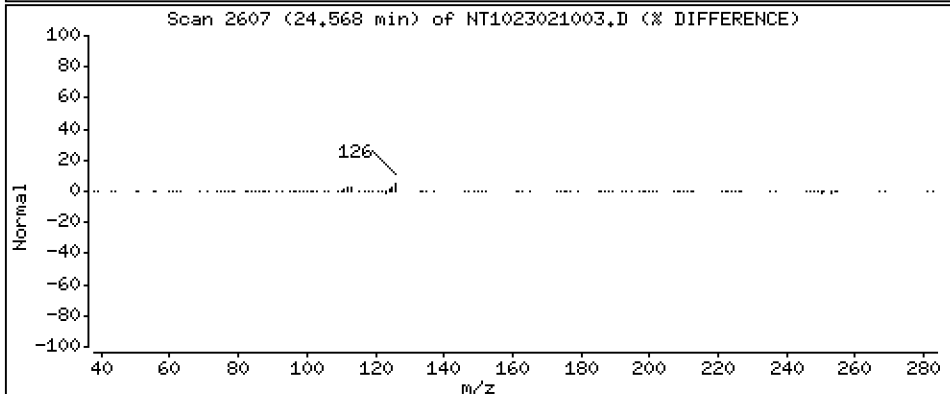
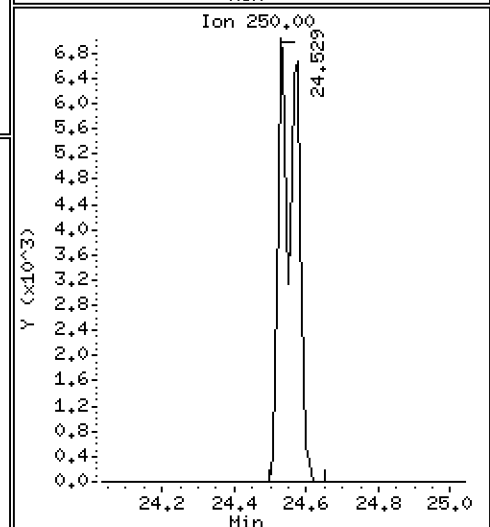
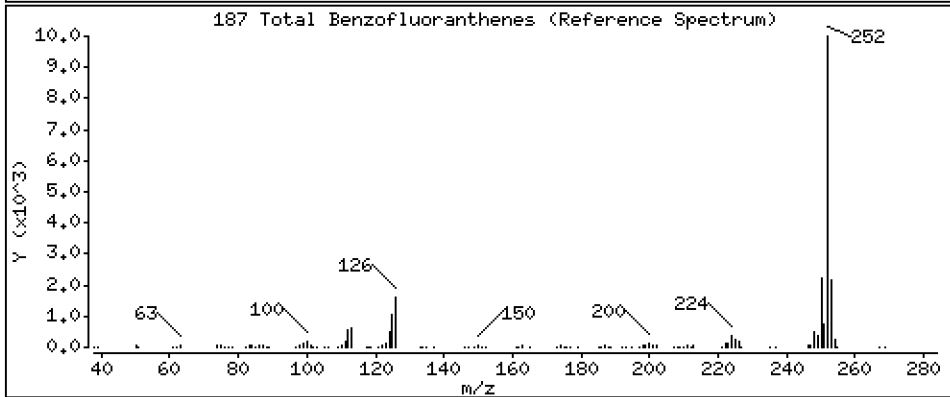
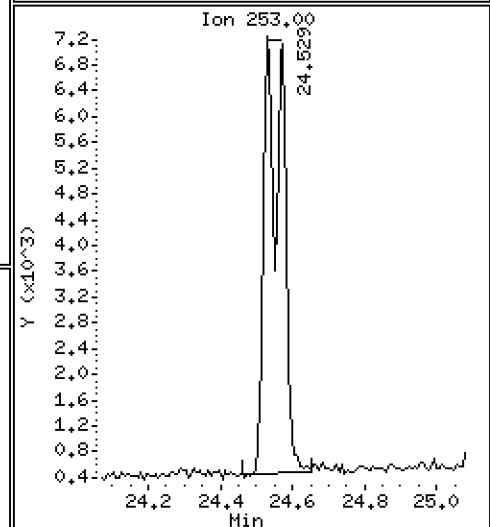
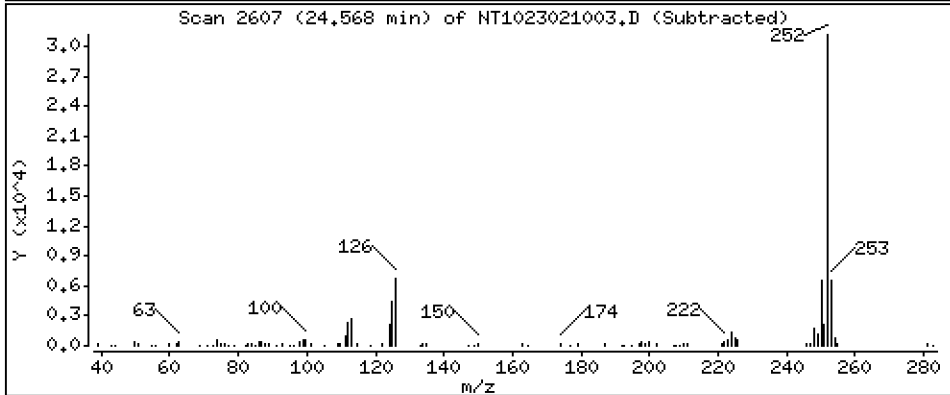
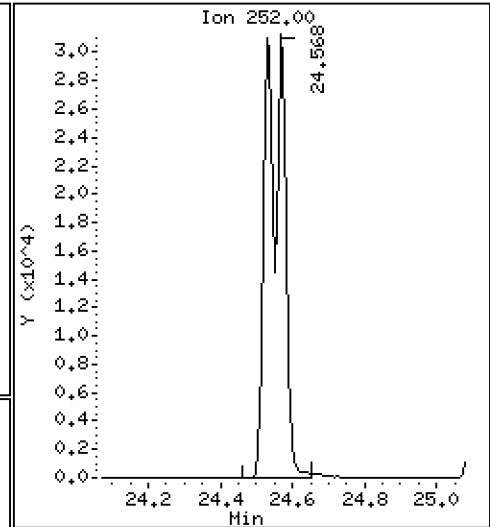
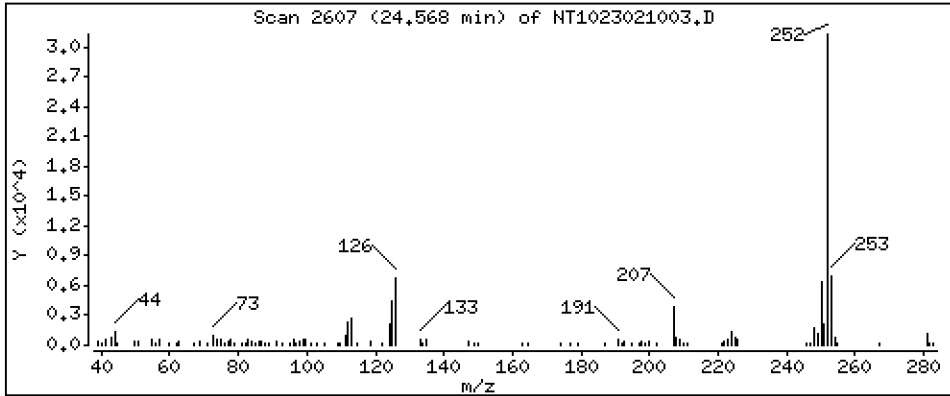
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 1,071 ug/mL



Date : 10-FEB-2023 16:43

Client ID:

Instrument: nt10.i

Sample Info: SLB0154-LCV1

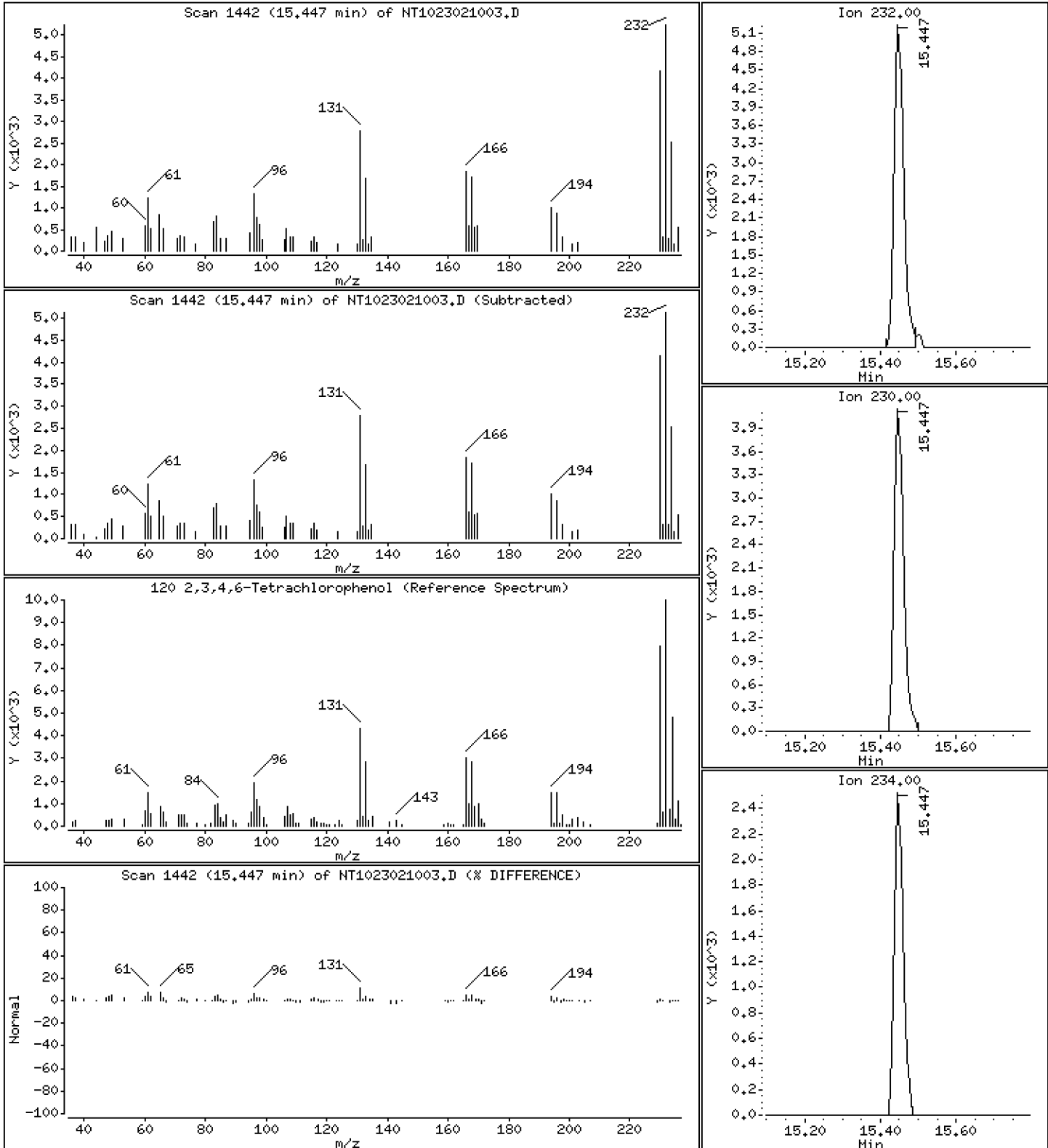
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 0,4342 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt10.i\20230210.b\NT1023021003.D
 Lab Smp Id: SLB0154-LCV1
 Inj Date : 10-FEB-2023 16:43
 Operator : VTS
 Smp Info : SLB0154-LCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt10.i\20230210.b\ABN.m
 Meth Date : 11-Feb-2023 12:03 deenayd Quant Type: ISTD
 Cal Date : 07-FEB-2023 16:09 Cal File: NT1023020708.D
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14

Inst ID: nt10.i

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		6.550	6.550	(0.752)	25424	0.73122	0.7312
\$ 2 Phenol-d5	99		8.103	8.111	(0.930)	36341	0.77479	0.7748
3 Phenol	94		8.126	8.126	(0.933)	26648	0.52521	0.5252
\$ 5 2-Chlorophenol-d4	132		8.366	8.366	(0.960)	29965	0.78716	0.7872
4 Bis(2-Chloroethyl)ether	93		8.273	8.273	(0.949)	19713	0.53427	0.5343
6 2-Chlorophenol	128		8.389	8.389	(0.963)	21717	0.52376	0.5238
7 1,3-Dichlorobenzene	146		8.652	8.652	(0.993)	22798	0.52380	0.5238
* 8 1,4-Dichlorobenzene-d4	152		8.714	8.714	(1.000)	109365	4.00000	
9 1,4-Dichlorobenzene	146		8.745	8.745	(1.004)	22103	0.51559	0.5156
\$ 10 1,2-Dichlorobenzene-d4	152		9.063	9.071	(1.040)	13515	0.51867	0.5187
12 1,2-Dichlorobenzene	146		9.095	9.094	(1.044)	21148	0.51170	0.5117
11 Benzyl alcohol	108		8.986	8.986	(1.031)	9661	0.42987	0.4299
14 2,2'-oxybis(1-Chloropropane)	121		9.281	9.281	(1.065)	5970	0.50274	0.5027
13 2-Methylphenol	108		9.219	9.219	(1.058)	22396	0.59519	0.5952
17 Hexachloroethane	117		9.677	9.677	(1.110)	8384	0.51014	0.5101
16 N-Nitroso-di-n-propylamine	70		9.529	9.537	(1.094)	14429	0.50993	0.5099
15 4-Methylphenol	108		9.483	9.490	(1.088)	20463	0.51341	0.5134
\$ 18 Nitrobenzene-d5	82		9.785	9.785	(0.877)	21718	0.53592	0.5359
19 Nitrobenzene	77		9.824	9.824	(0.880)	21516	0.53243	0.5324
20 Isophorone	82		10.259	10.266	(0.919)	26876	0.47759	0.4776
21 2-Nitrophenol	139		10.447	10.447	(0.936)	12161	0.58424	0.5842
22 2,4-Dimethylphenol	107		10.507	10.515	(0.941)	41122	1.10518	1.105
23 Bis(2-Chloroethoxy)methane	93		10.693	10.693	(0.958)	19846	0.54312	0.5431
24 Benzoic acid	105		10.668	10.753	(0.956)	14170	0.67294	0.6729
25 2,4-Dichlorophenol	162		10.897	10.897	(0.976)	35287	1.16730	1.167
26 1,2,4-Trichlorobenzene	180		11.075	11.075	(0.992)	17713	0.53780	0.5378
* 27 Naphthalene-d8	136		11.160	11.160	(1.000)	410189	4.00000	
28 Naphthalene	128		11.199	11.199	(1.003)	57482	0.52441	0.5244
29 4-Chloroaniline	127		11.330	11.330	(1.015)	48031	1.02220	1.022
30 Hexachlorobutadiene	225		11.562	11.562	(1.036)	9429	0.54895	0.5489
31 4-Chloro-3-methylphenol	107		12.297	12.297	(1.102)	35398	1.07115	1.071
32 2-Methylnaphthalene	142		12.576	12.576	(1.127)	39110	0.51316	0.5132
33 Hexachlorocyclopentadiene	237		13.040	13.040	(0.886)	1982	0.15021	0.1502
34 2,4,6-Trichlorophenol	196		13.195	13.195	(0.896)	20444	1.04828	1.048

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
35 2,4,5-Trichlorophenol	196		13.272	13.272	(0.902)	21457	1.02053	1.021	
\$ 36 2-Fluorobiphenyl	172		13.350	13.350	(0.907)	42505	0.54596	0.5460	
37 2-Chloronaphthalene	162		13.551	13.551	(0.921)	36110	0.53360	0.5336	
38 2-Nitroaniline	65		13.806	13.814	(0.938)	22699	1.06525	1.065	
39 Dimethylphthalate	163		14.240	14.240	(0.967)	39667	0.54788	0.5479	
40 Acenaphthylene	152		14.410	14.410	(0.979)	58259	0.54047	0.5405	
41 2,6-Dinitrotoluene	165		14.371	14.379	(0.976)	17808	1.03849	1.038	
* 42 Acenaphthene-d10	164		14.719	14.719	(1.000)	216039	4.00000		
43 3-Nitroaniline	138		14.650	14.650	(0.995)	19271	0.97467	0.9747	
44 Acenaphthene	153		14.781	14.781	(1.004)	34437	0.52130	0.5213	
45 2,4-Dinitrophenol	184		14.866	14.866	(1.010)	5923	0.66898	0.6690	
46 Dibenzofuran	168		15.106	15.106	(1.026)	49419	0.52004	0.5200	
47 4-Nitrophenol	109		15.005	14.998	(1.019)	6977	0.94662	0.9466	
48 2,4-Dinitrotoluene	165		15.168	15.175	(1.030)	23978	1.01344	1.013	
50 Diethylphthalate	149		15.678	15.686	(1.065)	37152	0.53435	0.5344	
49 Fluorene	166		15.809	15.809	(1.074)	50168	0.46966	0.4697	
51 4-Chlorophenyl-phenylether	204		15.809	15.809	(1.074)	23132	0.44339	0.4434	
52 4-Nitroaniline	138		15.894	15.902	(1.080)	22661	1.00294	1.003	
53 4,6-Dinitro-2-methylphenol	198		16.002	16.002	(0.903)	24140	1.72283	1.723	
54 N-Nitrosodiphenylamine	169		16.056	16.056	(0.906)	35684	0.53809	0.5381	
\$ 55 2,4,6-Tribromophenol	330		16.341	16.341	(1.110)	7269	0.67194	0.6719	
56 4-Bromophenyl-phenylether	248		16.796	16.796	(0.948)	12834	0.52519	0.5252	
57 Hexachlorobenzene	284		17.106	17.106	(0.965)	15201	0.57760	0.5776	
58 Pentachlorophenol	266		17.470	17.462	(0.986)	5846	0.58947	0.5895	
* 59 Phenanthrene-d10	188		17.717	17.717	(1.000)	387942	4.00000		
60 Phenanthrene	178		17.764	17.764	(1.003)	55265	0.52932	0.5293	
61 Anthracene	178		17.857	17.857	(1.008)	54204	0.52429	0.5243	
62 Carbazole	167		18.182	18.181	(1.026)	52779	0.52930	0.5293	
63 Di-n-butylphthalate	149		19.009	19.009	(1.073)	60575	0.50943	0.5094	
64 Fluoranthene	202		20.154	20.154	(0.885)	58672	0.51821	0.5182	
65 Pyrene	202		20.580	20.580	(0.904)	62258	0.53263	0.5326	
\$ 66 Terphenyl-d14	244		20.882	20.882	(0.917)	49032	0.55631	0.5563	
67 Butylbenzylphthalate	149		21.811	21.811	(0.958)	26873	0.53201	0.5320	
68 Benzo(a)anthracene	228		22.740	22.748	(0.999)	57162	0.55542	0.5554	
* 69 Chrysene-d12	240		22.771	22.779	(1.000)	308765	4.00000		
70 3,3'-Dichlorobenzidine	252		22.709	22.709	(0.997)	59003	1.69441	1.694	
71 Chrysene	228		22.818	22.817	(1.002)	52723	0.53417	0.5342	
72 bis(2-Ethylhexyl)phthalate	149		22.848	22.856	(0.959)	35643	0.51406	0.5141	
* 134 Di-n-octylphthalate-d4	153		23.832	23.832	(1.000)	509739	4.00000		
73 Di-n-octylphthalate	149		23.839	23.839	(1.000)	71349	0.55389	0.5539	
74 Benzo(b)fluoranthene	252		24.528	24.536	(0.973)	57801	0.54573	0.5457	
75 Benzo(k)fluoranthene	252		24.567	24.575	(0.974)	59254	0.53138	0.5314 (H)	
76 Benzo(a)pyrene	252		25.109	25.117	(0.996)	51207	0.53469	0.5347	
* 77 Perylene-d12	264		25.218	25.218	(1.000)	334593	4.00000		
78 Indeno(1,2,3-cd)pyrene	276		27.550	27.565	(1.092)	63133	0.55384	0.5538	
79 Dibenzo(a,h)anthracene	278		27.557	27.565	(1.093)	53003	0.56130	0.5613	
80 Benzo(g,h,i)perylene	276		28.233	28.249	(1.120)	53071	0.54248	0.5425	
90 N-Nitrosodimethylamine	74		4.427	4.434	(0.508)	24425	1.00973	1.010	
91 Aniline	93		8.180	8.180	(0.939)	49056	0.99895	0.9990	
93 Benzidine	184		20.402	20.394	(0.896)	42036	1.10836	1.108	
103 Pyridine	79		4.450	4.450	(0.511)	36603	0.97762	0.9776	
105 1-methylnaphthalene	142		12.792	12.792	(1.146)	37911	0.51667	0.5167	
111 Azobenzene (1,2-DP-Hydrazine)	77		16.126	16.133	(1.096)	50568	0.54586	0.5459	
187 Total Benzofluoranthenes	252		24.567	24.575	(0.974)	111230	1.07121	1.071	

Compounds	QUANT SIG						CONCENTRATIONS	
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
120 2,3,4,6-Tetrachlorophenol	232		15.446	15.446	(1.049)	8666	0.43422	0.4342

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i Calibration Date: 10-FEB-2023
 Lab File ID: NT1023021003.D Calibration Time: 16:04
 Lab Smp Id: SLB0154-LCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt10.i\20230210.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	73741	36871	147482	109365	48.31
27 Naphthalene-d8	288014	144007	576028	410189	42.42
42 Acenaphthene-d10	158505	79253	317010	216039	36.30
59 Phenanthrene-d10	277023	138512	554046	387942	40.04
69 Chrysene-d12	234791	117396	469582	308765	31.51
134 Di-n-octylphthala	369178	184589	738356	509739	38.07
77 Perylene-d12	231074	115537	462148	334593	44.80

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.71	8.21	9.21	8.71	0.00
27 Naphthalene-d8	11.16	10.66	11.66	11.16	0.00
42 Acenaphthene-d10	14.72	14.22	15.22	14.72	0.00
59 Phenanthrene-d10	17.72	17.22	18.22	17.72	0.00
69 Chrysene-d12	22.78	22.28	23.28	22.77	-0.03
134 Di-n-octylphthala	23.83	23.33	24.33	23.83	0.00
77 Perylene-d12	25.22	24.72	25.72	25.22	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023021003.D

Lab ID: SLB0154-LCV1
nt10.i, 20230210.b\ABN.m, 10-FEB-2023 16:43

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.956	0.963	-0.0076	Benzoic acid

RRT check based on Ccal File: NT1023021002.D

On Column LOD for nt10.i, 20230210.b\ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *



SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT18

Calibration: GB00036

Lab File ID: NT1802102311.D

Calibration Date: 02/15/2023

Sequence: SLB0195

Injection Date: 02/10/23

Lab Sample ID: SLB0195-SCV1

Injection Time: 23:06

Sequence Name: SCV 5.0

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	5.0000	4.3	1.7227030	1.4766260		-14.3	+/-20
bis(2-chloroethyl) ether	A	5.0000	4.7	1.3037900	1.2153800		-6.8	+/-20
2-Chlorophenol	A	5.0000	4.3	1.4811340	1.2791490		-13.6	+/-20
1,3-Dichlorobenzene	A	5.0000	4.4	1.6140910	1.4351300		-11.1	+/-20
1,4-Dichlorobenzene	A	5.0000	4.6	1.7313690	1.6030530		-7.4	+/-20
1,2-Dichlorobenzene	A	5.0000	4.4	1.6016240	1.4028740		-12.4	+/-20
Benzyl Alcohol	A	5.0000	4.1	0.7970959	0.7686299		-17.3	+/-20
2,2'-Oxybis(1-chloropropane)	A	5.0000	4.9	0.4054890	0.3999890		-1.4	+/-20
2-Methylphenol	A	5.0000	4.1	1.2484780	1.0260210		-17.8	+/-20
Hexachloroethane	A	5.0000	4.7	0.6092306	0.5760035		-5.5	+/-20
N-Nitroso-di-n-Propylamine	A	5.0000	4.8	0.9434311	0.9008595		-4.5	+/-20
4-Methylphenol	A	5.0000	3.9	1.2997430	1.1414350		-21.1	+/-20 *
Nitrobenzene	A	5.0000	4.7	0.3765281	0.3564419		-5.3	+/-20
Isophorone	A	5.0000	6.0	0.5016936	0.7006471		20.8	+/-20 *
2-Nitrophenol	A	5.0000	4.0	0.1821859	0.1680467		-19.3	+/-20
2,4-Dimethylphenol	A	5.0000	3.7	0.3331319	0.2487697		-25.3	+/-20 *
Bis(2-Chloroethoxy)methane	A	5.0000	5.3	0.3558790	0.3762648		5.7	+/-20
2,4-Dichlorophenol	A	5.0000	4.5	0.3281687	0.2972444		-9.4	+/-20
1,2,4-Trichlorobenzene	A	5.0000	4.2	0.3660269	0.3107756		-15.1	+/-20
Naphthalene	A	5.0000	4.5	1.1498750	1.0453530		-9.1	+/-20
Benzoic acid	A	10.0000	4.3	0.1343981	0.0879378		-57.5	+/-20 *
4-Chloroaniline	A	5.0000	3.5	0.4935778	0.3460921		-29.9	+/-20 *
Hexachlorobutadiene	A	5.0000	4.4	0.2104624	0.1858015		-11.7	+/-20
4-Chloro-3-Methylphenol	A	5.0000	4.5	0.2968462	0.2662574		-10.3	+/-20
2-Methylnaphthalene	A	5.0000	4.3	0.7826405	0.6697269		-14.4	+/-20
Hexachlorocyclopentadiene	A	5.0000	4.1	0.3803371	0.3519692		-17.4	+/-20
2,4,6-Trichlorophenol	A	5.0000	4.3	0.3965903	0.3437302		-13.3	+/-20
2,4,5-Trichlorophenol	A	5.0000	4.2	0.4416507	0.3732077		-15.5	+/-20
2-Chloronaphthalene	A	5.0000	4.3	1.3289020	1.1425000		-14.0	+/-20
2-Nitroaniline	A	5.0000	4.4	0.3587266	0.3179142		-11.4	+/-20
Acenaphthylene	A	5.0000	4.7	2.0273730	1.8966510		-6.4	+/-20
Dimethylphthalate	A	5.0000	4.5	1.3989010	1.2718560		-9.1	+/-20
2,6-Dinitrotoluene	A	5.0000	4.6	0.3234375	0.2949884		-8.8	+/-20

* Values outside of QC limits



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT18

Calibration: GB00036

Lab File ID: NT1802102311.D

Calibration Date: 02/15/2023

Sequence: SLB0195

Injection Date: 02/10/23

Lab Sample ID: SLB0195-SCV1

Injection Time: 23:06

Sequence Name: SCV 5.0

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Acenaphthene	A	5.0000	4.4	1.3519230	1.1901860		-12.0	+/-20
3-Nitroaniline	A	5.0000	4.7	0.3549587	0.3301919		-7.0	+/-20
2,4-Dinitrophenol	A	5.0000	1.9	0.1590550	0.0865020		-61.3	+/-20 *
Dibenzofuran	A	5.0000	4.2	1.9368720	1.6450500		-15.1	+/-20
4-Nitrophenol	A	5.0000	4.0	0.1628476	0.1563156		-20.5	+/-20 *
2,4-Dinitrotoluene	A	5.0000	4.4	0.4391829	0.3905306		-11.1	+/-20
Fluorene	A	5.0000	4.5	1.5320300	1.3917840		-9.2	+/-20
4-Chlorophenylphenyl ether	A	5.0000	4.3	0.7723202	0.6702306		-13.2	+/-20
Diethyl phthalate	A	5.0000	5.1	1.4201080	1.4377780		1.2	+/-20
4-Nitroaniline	A	5.0000	4.1	0.3334960	0.3085568		-17.4	+/-20
4,6-Dinitro-2-methylphenol	A	5.0000	3.3	0.1218072	0.1006066		-34.0	+/-20 *
N-Nitrosodiphenylamine	A	5.0000	4.4	0.5916126	0.5153840		-12.9	+/-20
4-Bromophenyl phenyl ether	A	5.0000	4.5	0.2468113	0.2203454		-10.7	+/-20
Hexachlorobenzene	A	5.0000	4.1	0.2880124	0.2353339		-18.3	+/-20
Pentachlorophenol	A	5.0000	3.5	0.1307075	0.1137456		-29.9	+/-20 *
Phenanthrene	A	5.0000	4.2	1.2084800	1.0219030		-15.4	+/-20
Anthracene	A	5.0000	4.0	1.0808980	0.8705447		-19.5	+/-20
Carbazole	A	5.0000	4.1	1.0805910	0.8788278		-18.7	+/-20
Di-n-Butylphthalate	A	5.0000	4.1	1.1801340	1.1577910		-17.2	+/-20
Fluoranthene	A	5.0000	4.6	1.2619890	1.1497430		-8.9	+/-20
Pyrene	A	5.0000	4.3	1.3415320	1.1613480		-13.4	+/-20
Butylbenzylphthalate	A	5.0000	4.2	0.4869766	0.5061039		-15.9	+/-20
Benzo(a)anthracene	A	5.0000	4.2	1.3218310	1.1227540		-15.1	+/-20
3,3'-Dichlorobenzidine	A	10.000	7.6	0.4675420	0.4560049		-24.2	+/-20 *
Chrysene	A	5.0000	4.1	1.3932010	1.1317110		-18.8	+/-20
bis(2-Ethylhexyl)phthalate	A	5.0000	4.9	0.6085941	0.5911387		-2.9	+/-20
Di-n-Octylphthalate	A	5.0000	4.3	1.1751880	1.0122080		-13.9	+/-20
Benzofluoranthenes, Total	A	10.000	8.4	1.3988610	1.1701310		-16.4	+/-20
Benzo(a)pyrene	A	5.0000	4.6	1.1403750	1.0401280		-8.8	+/-20
Indeno(1,2,3-cd)pyrene	A	5.0000	3.9	0.8970203	0.8601577		-22.8	+/-20 *
Dibenzo(a,h)anthracene	A	5.0000	3.9	0.7420695	0.7234083		-21.3	+/-20 *
Benzo(g,h,i)perylene	A	5.0000	3.9	0.6977398	0.6593845		-21.1	+/-20 *
1-Methylnaphthalene	A	5.0000	4.2	0.7633413	0.6482247		-15.1	+/-20
2-Fluorophenol	A	7.5000	6.55	1.2188190	1.2082560		-12.7	+/-20

* Values outside of QC limits

Data File: \\target\share\chem3\nt18.1\20230210.1\NT1802102311.D

Date: 10-FEB-2023 23:06

Client ID:

Sample Info: SLB0195-SCV1

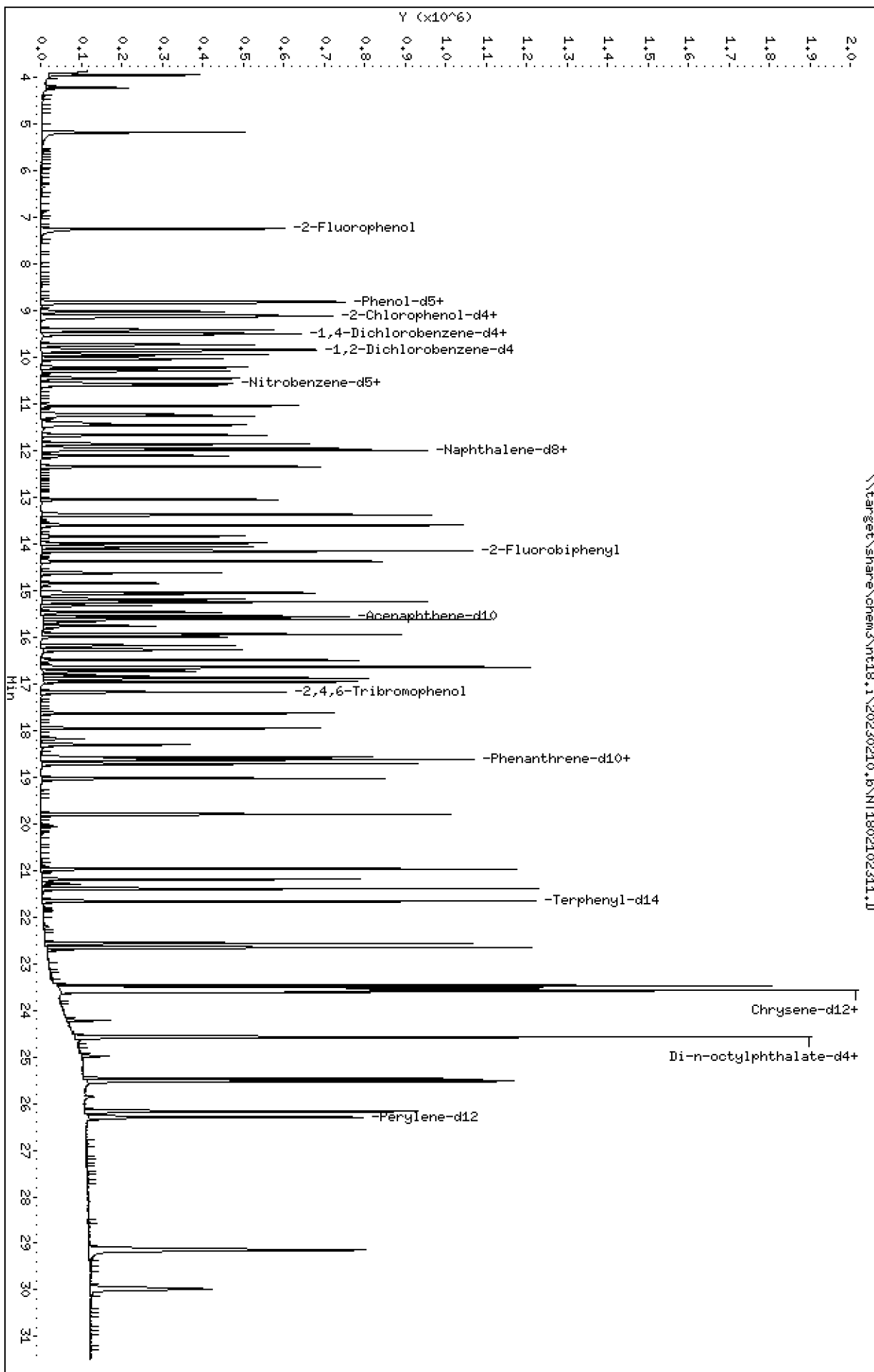
Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

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Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

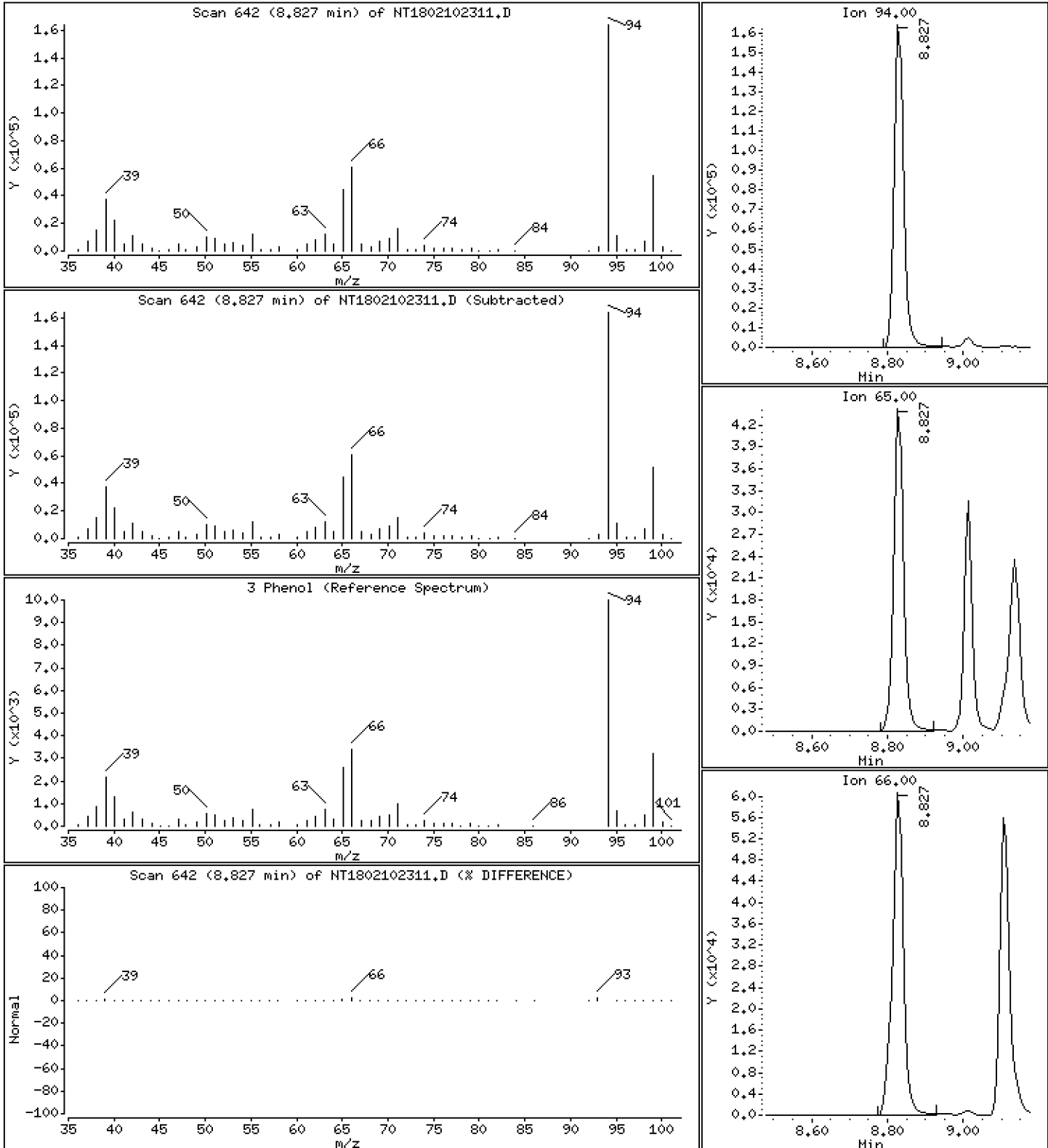
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 4.286 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

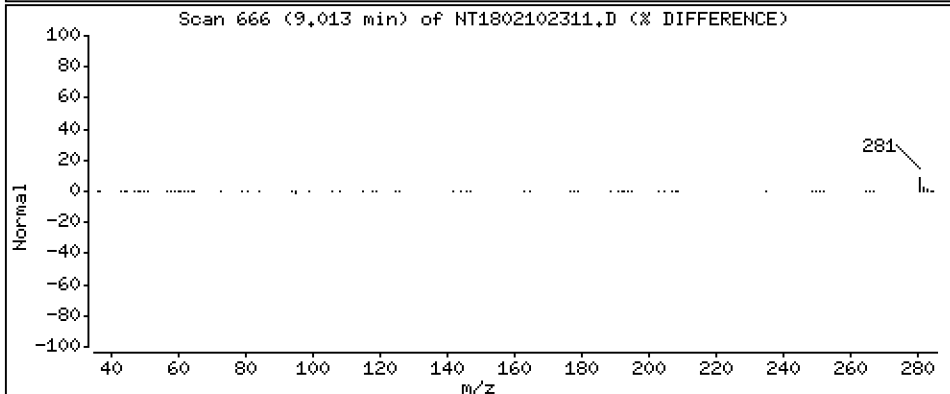
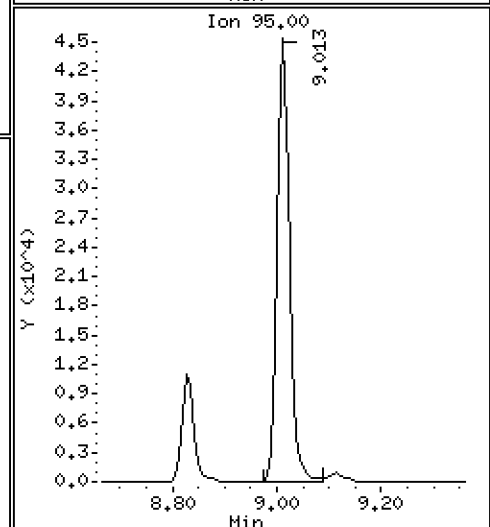
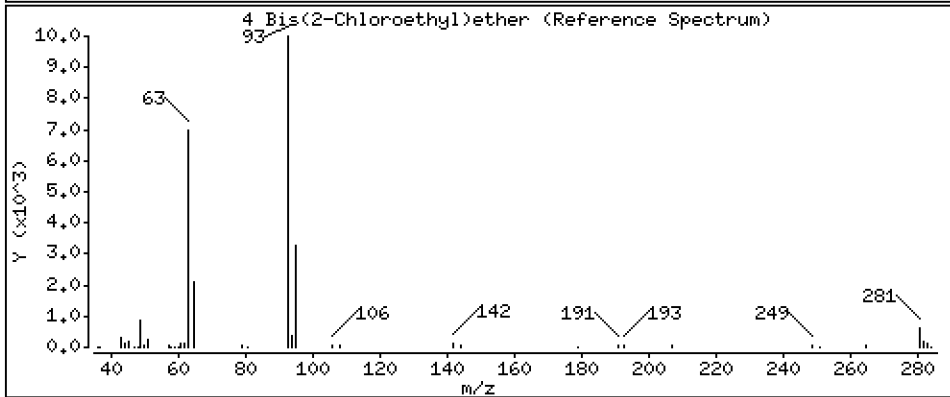
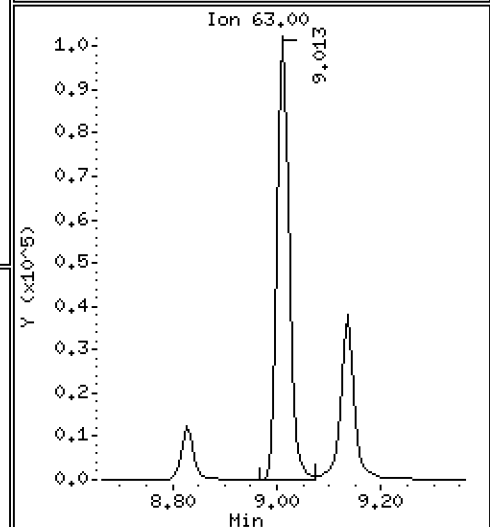
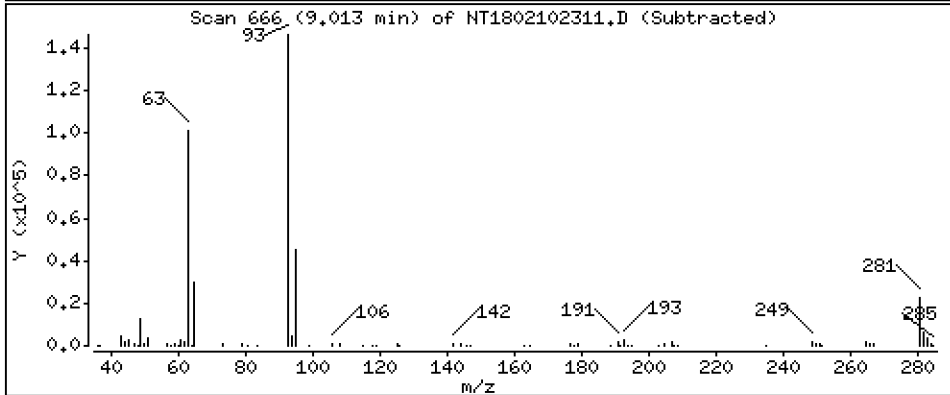
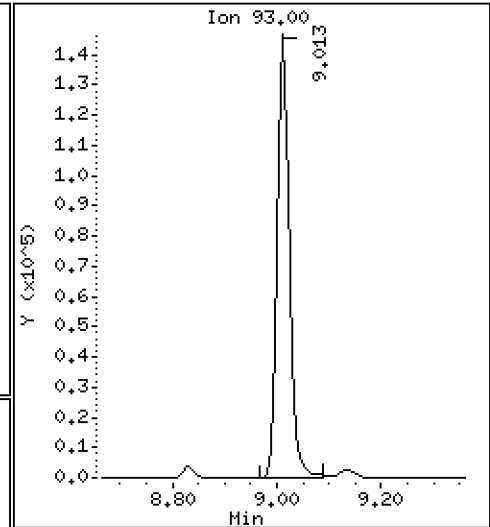
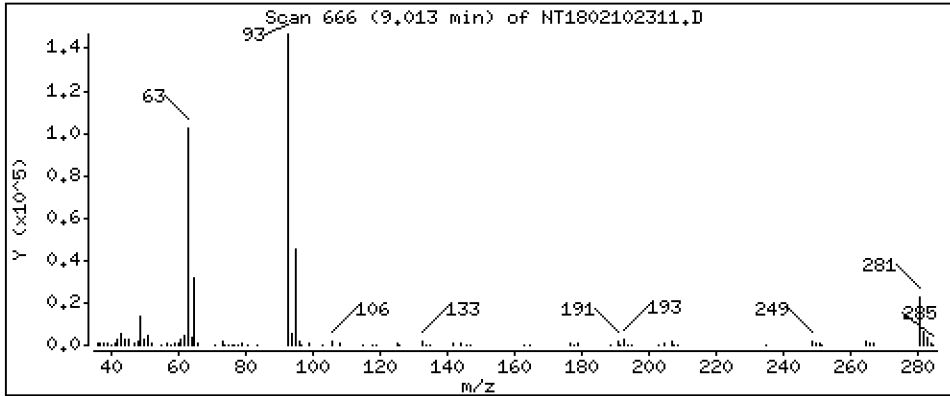
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

4 Bis(2-Chloroethyl)ether

Concentration: 4,661 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

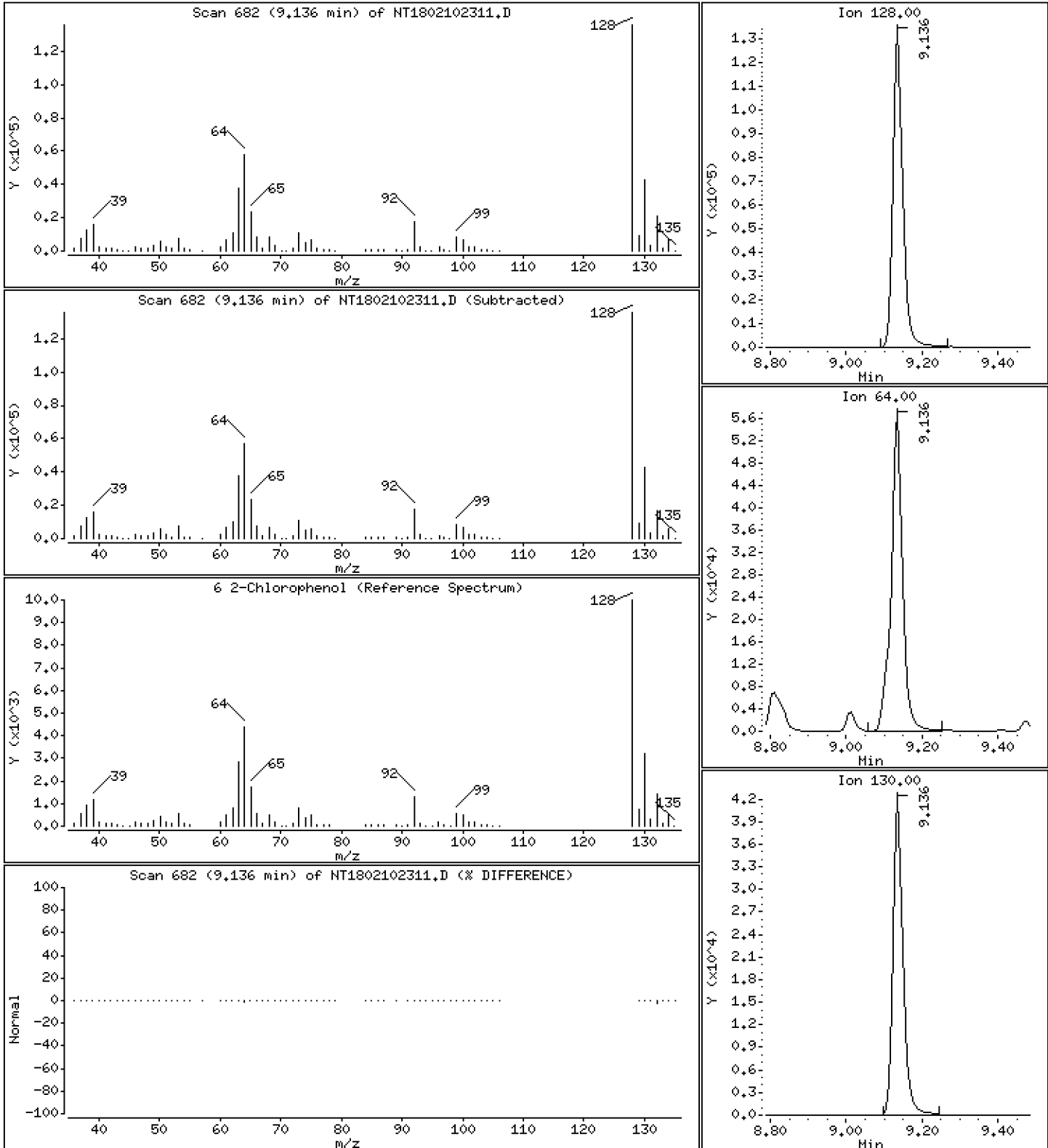
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

6 2-Chlorophenol

Concentration: 4,318 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

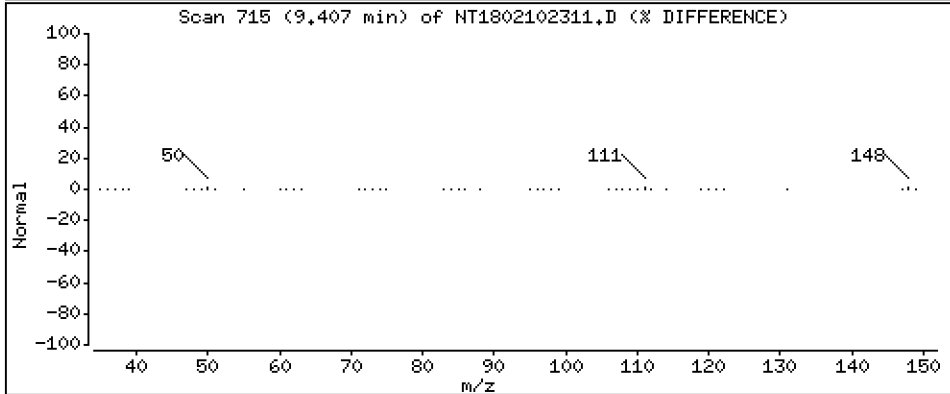
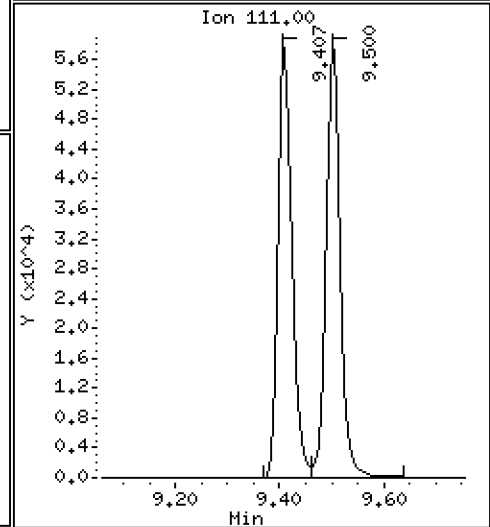
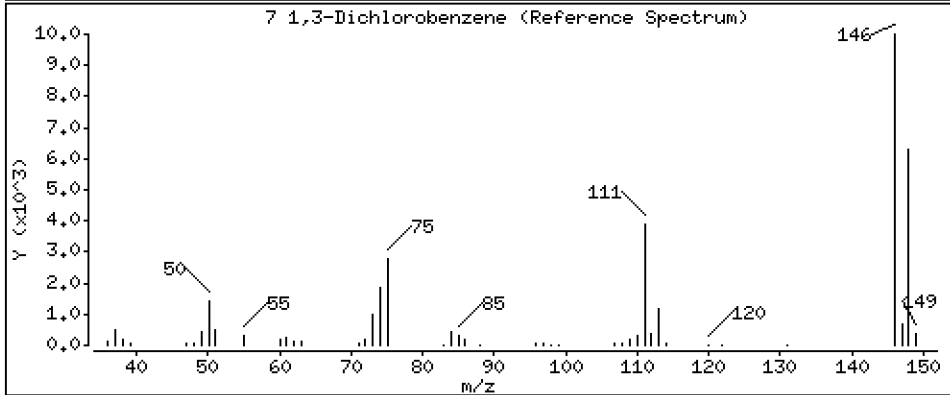
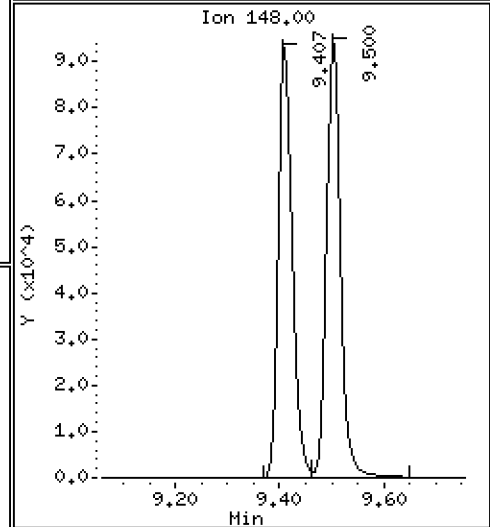
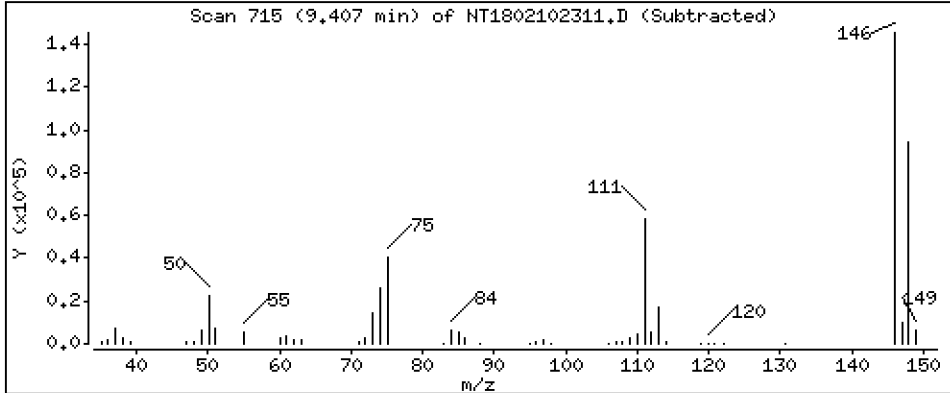
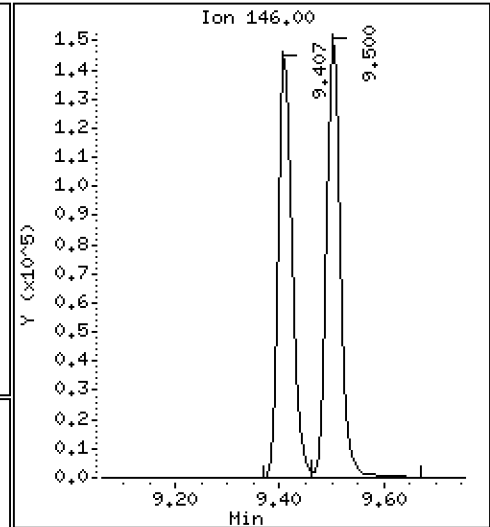
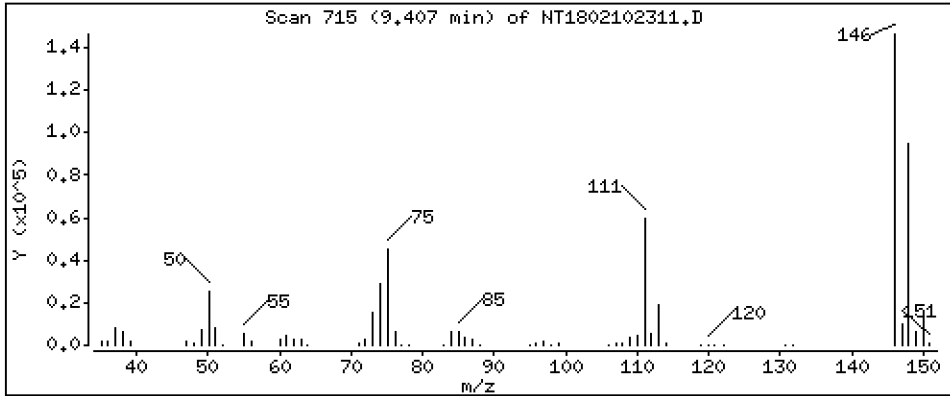
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 4.446 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

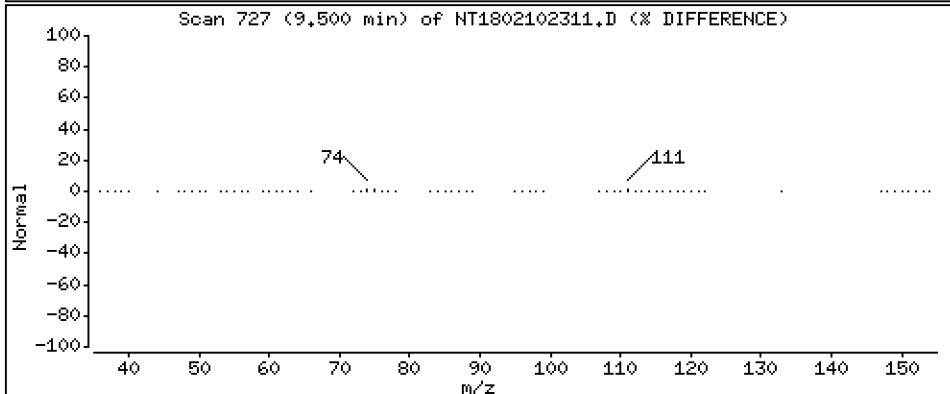
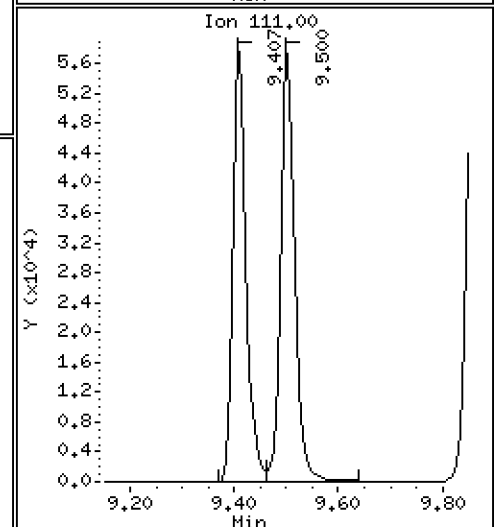
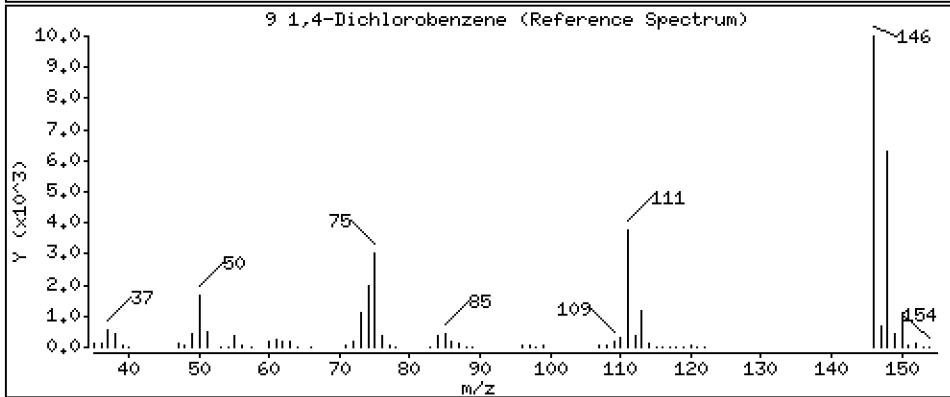
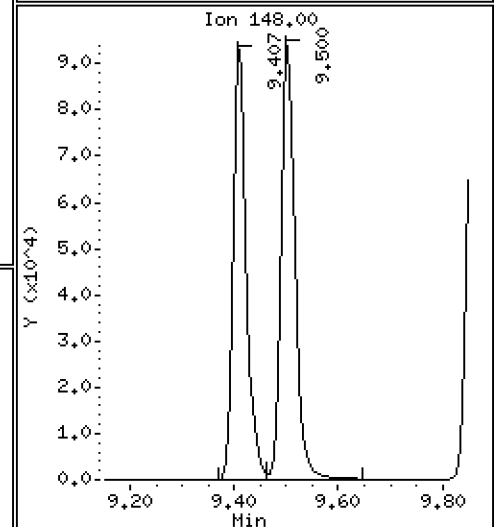
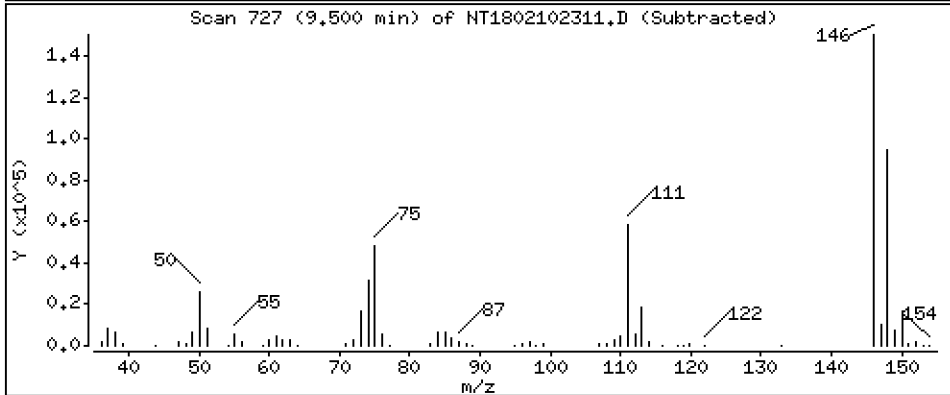
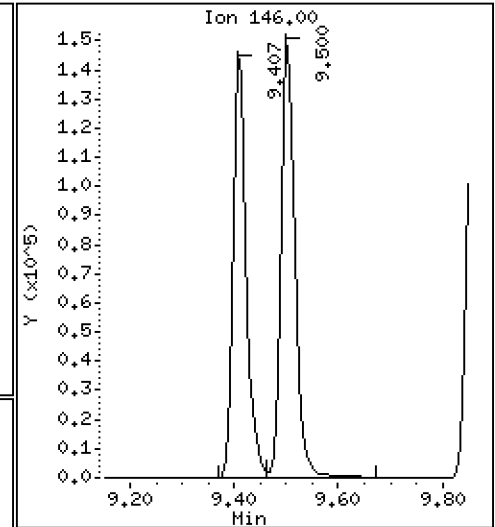
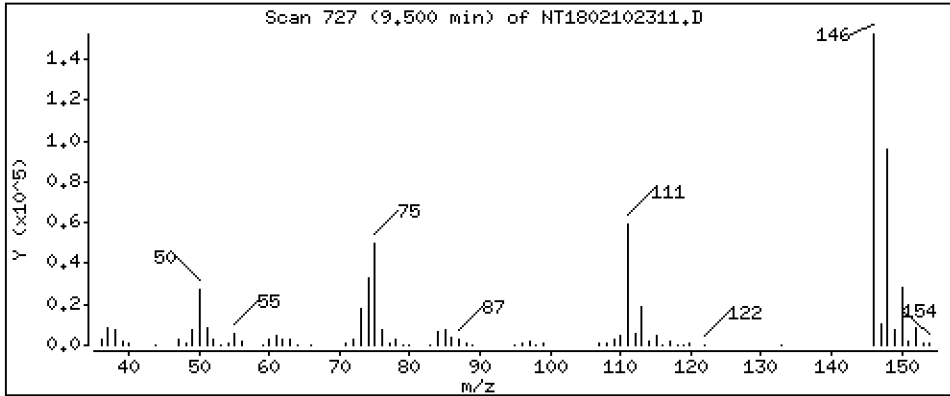
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 4,629 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

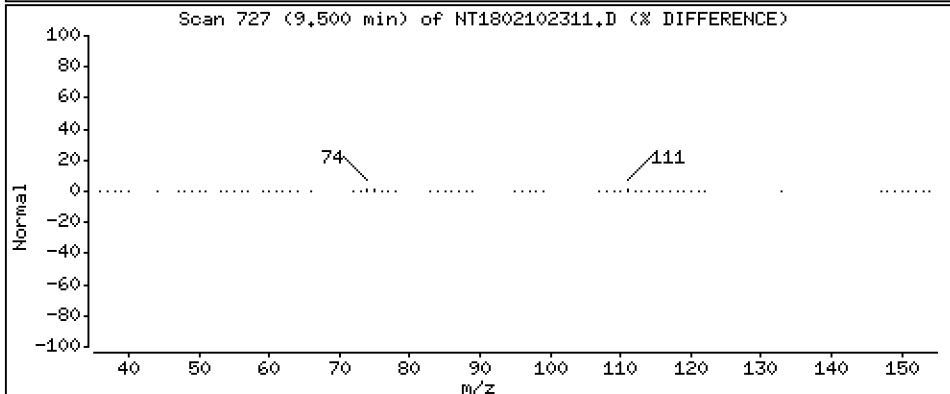
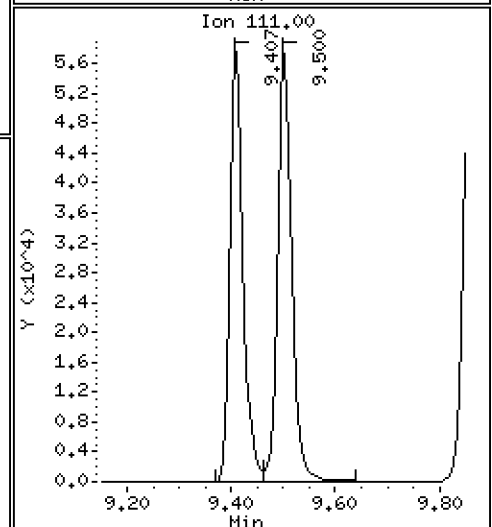
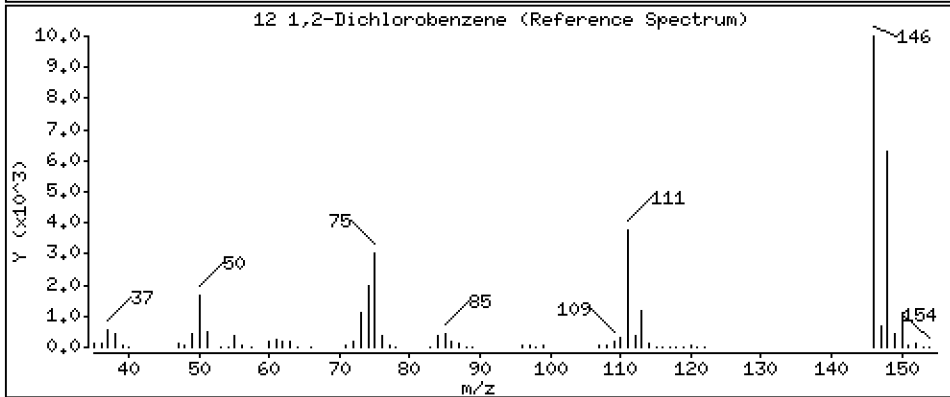
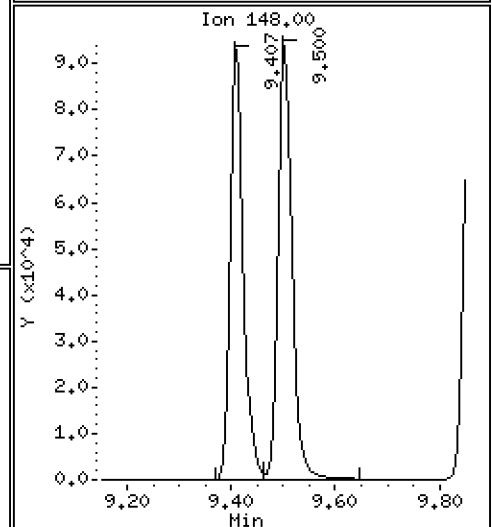
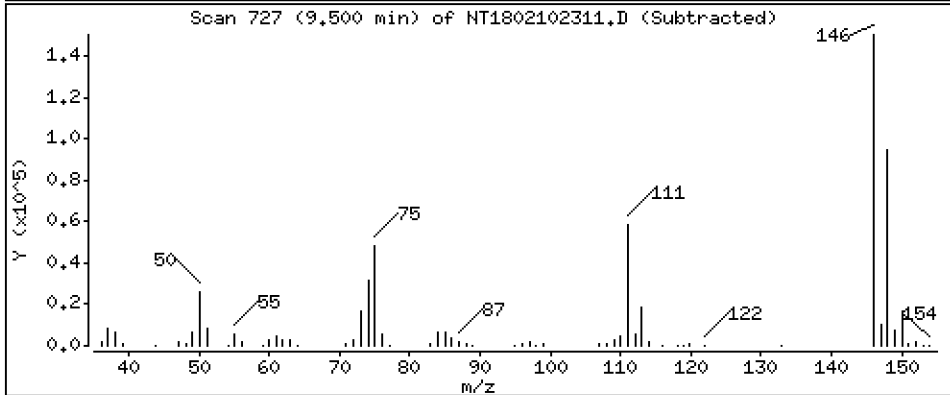
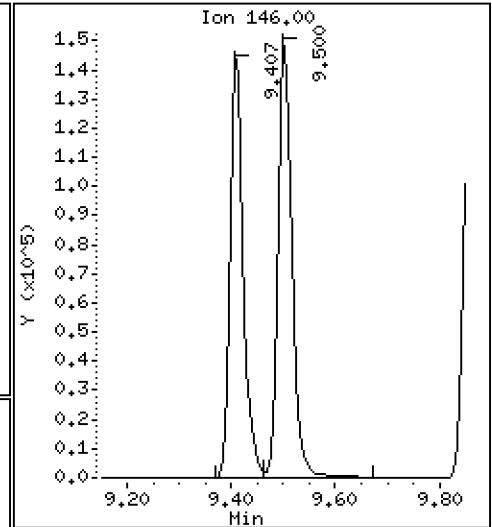
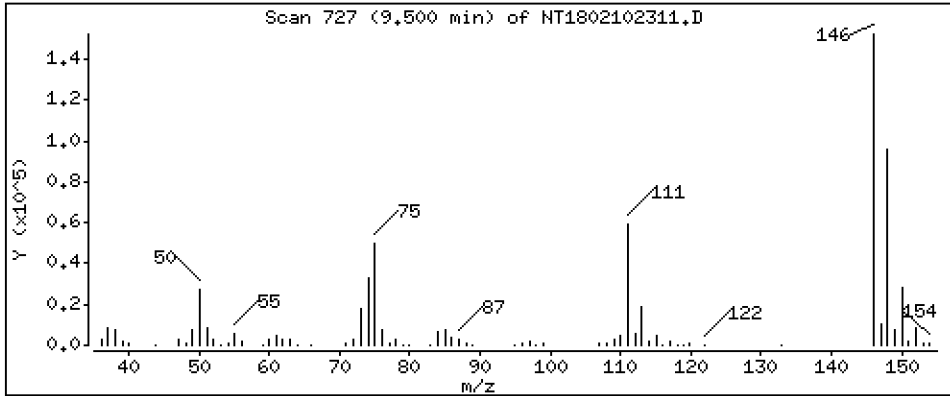
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 4,629 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

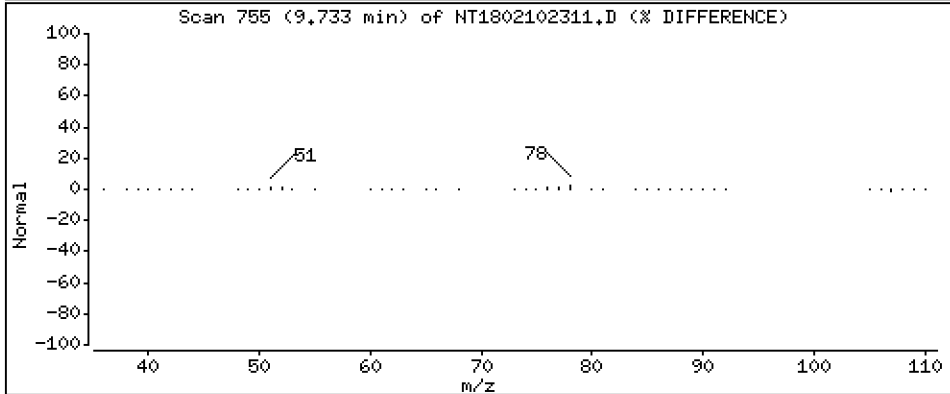
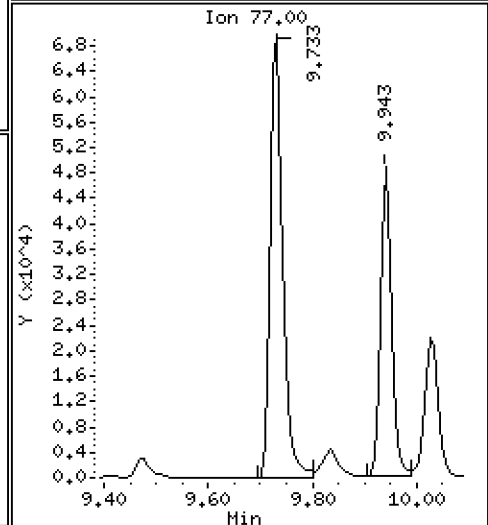
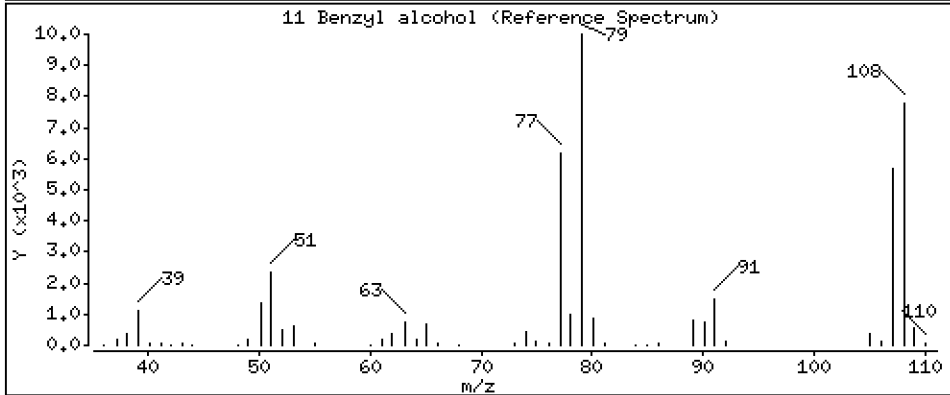
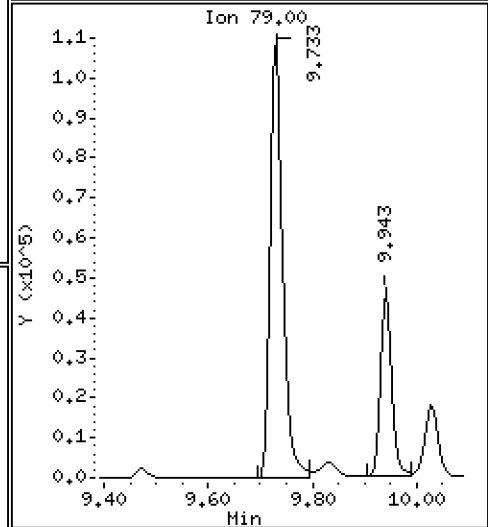
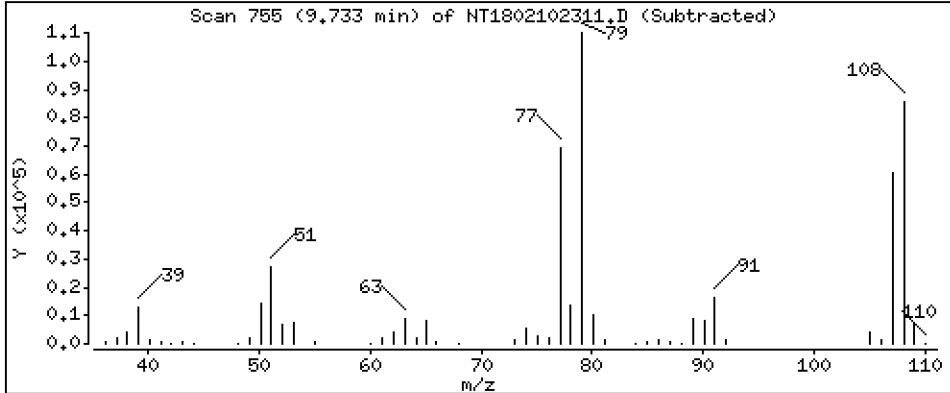
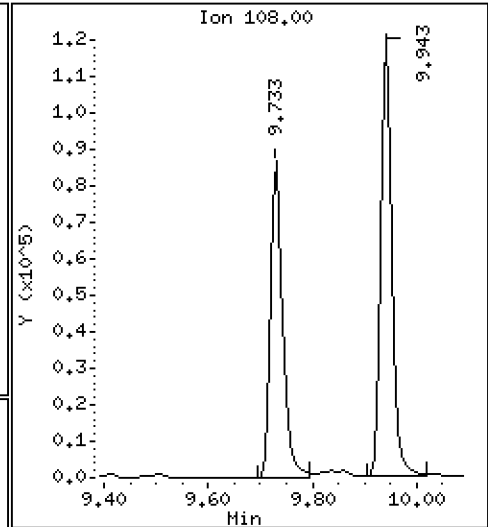
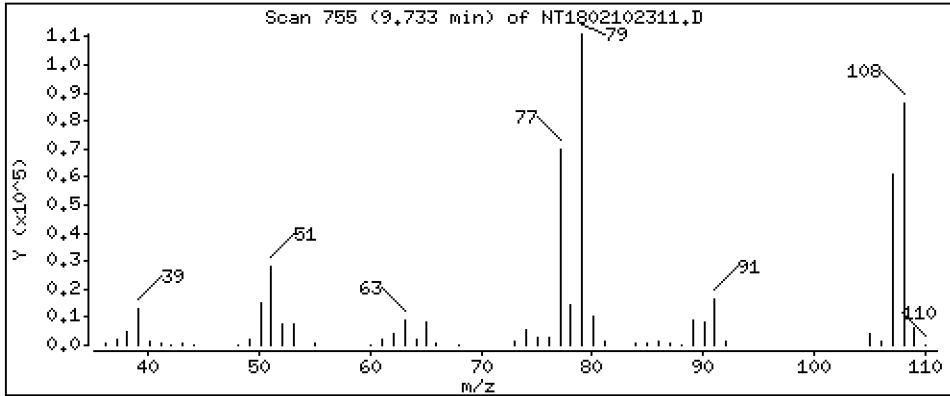
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 4.135 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

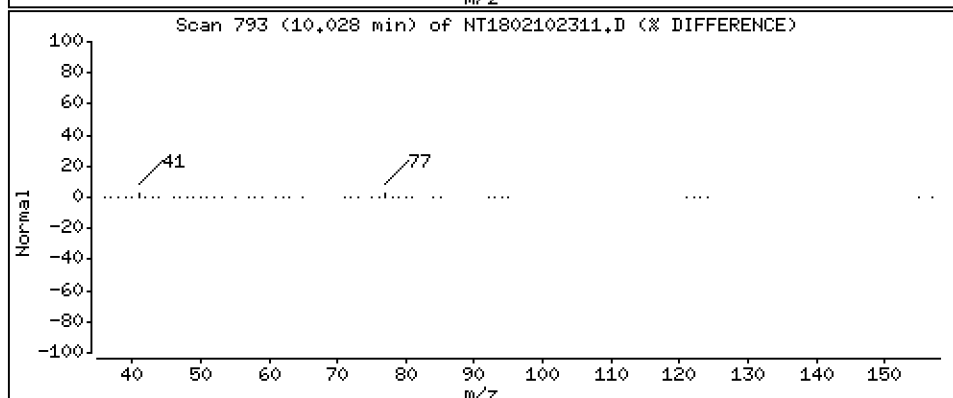
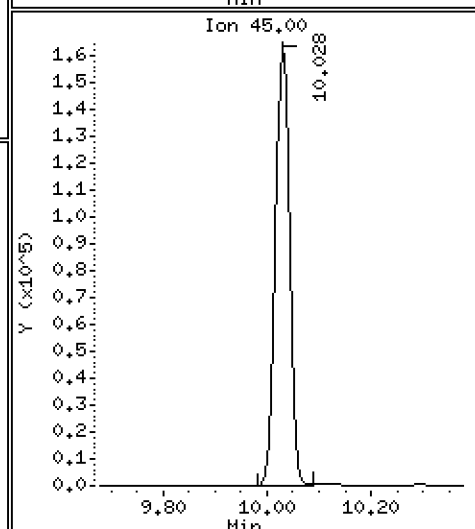
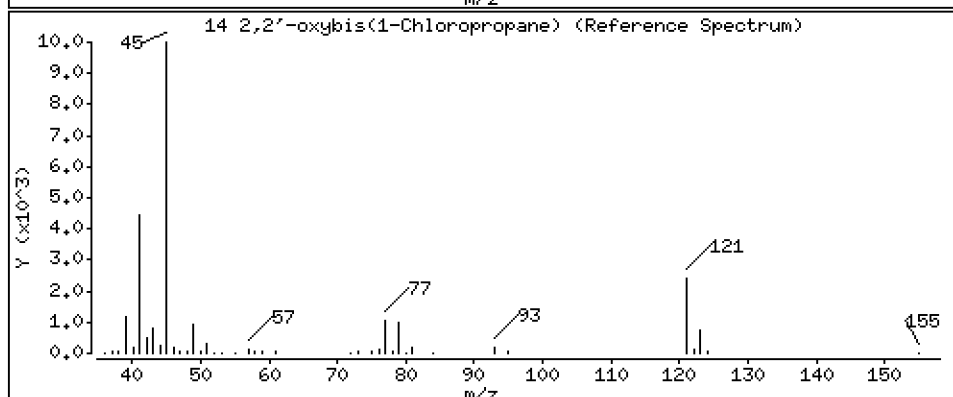
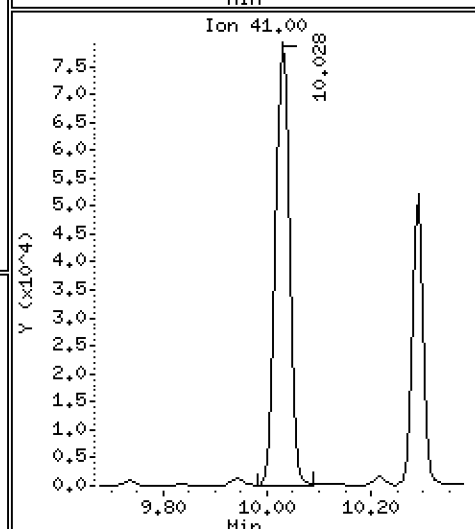
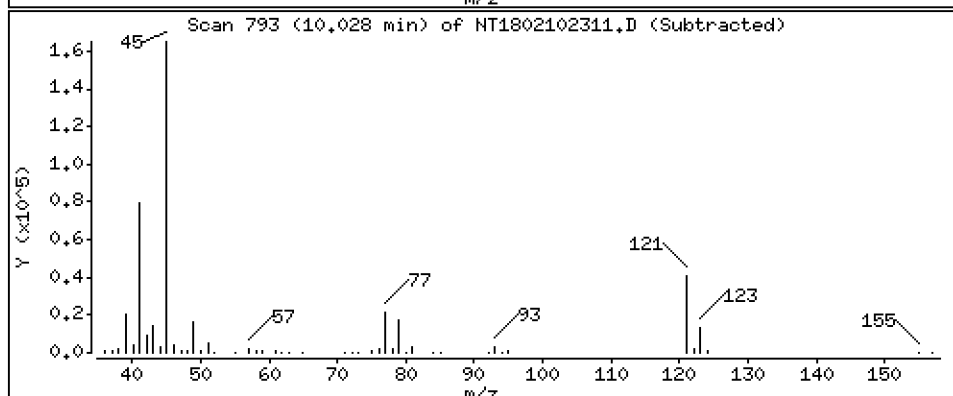
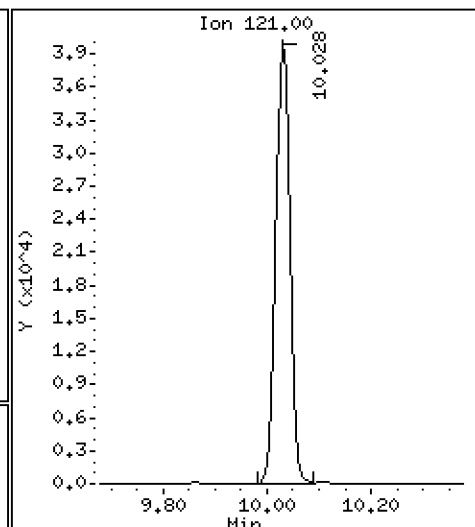
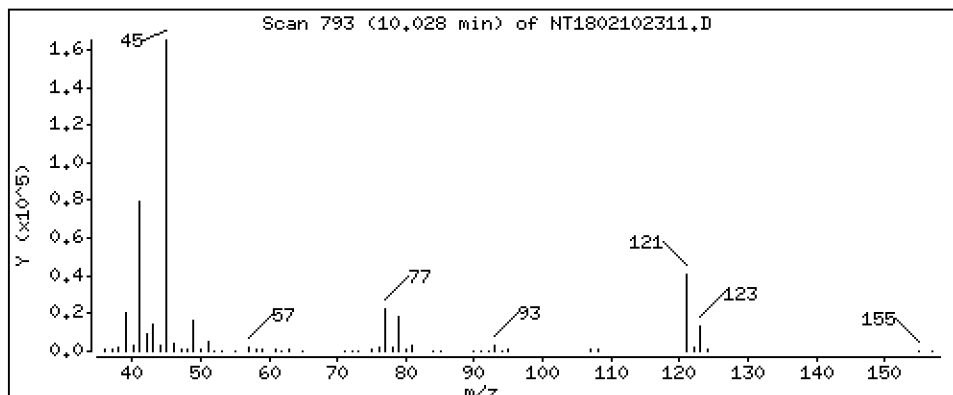
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

14 2,2'-oxybis(1-Chloropropane)

Concentration: 4,932 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

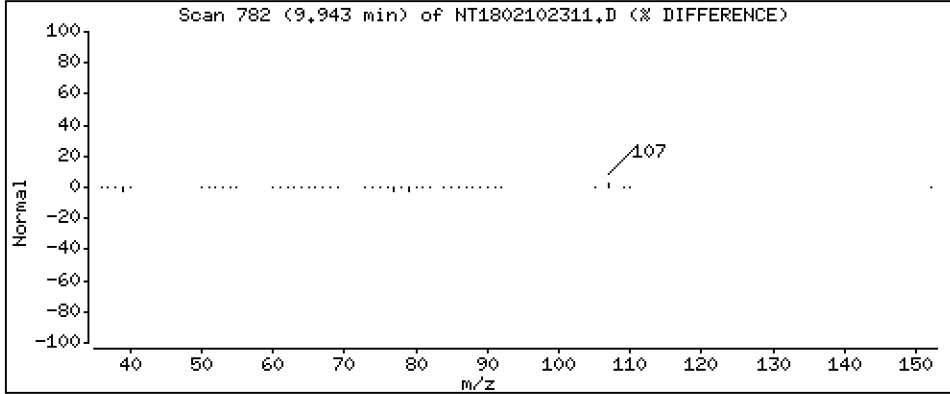
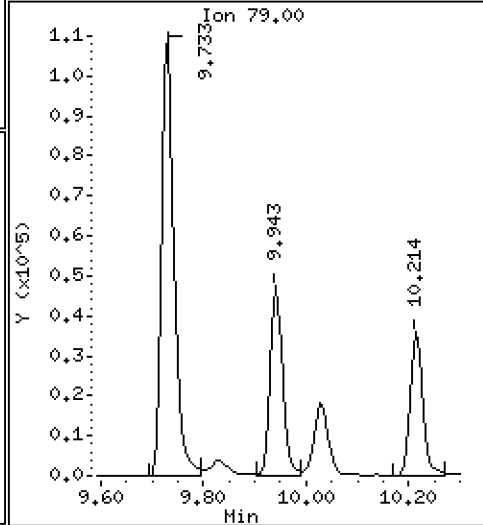
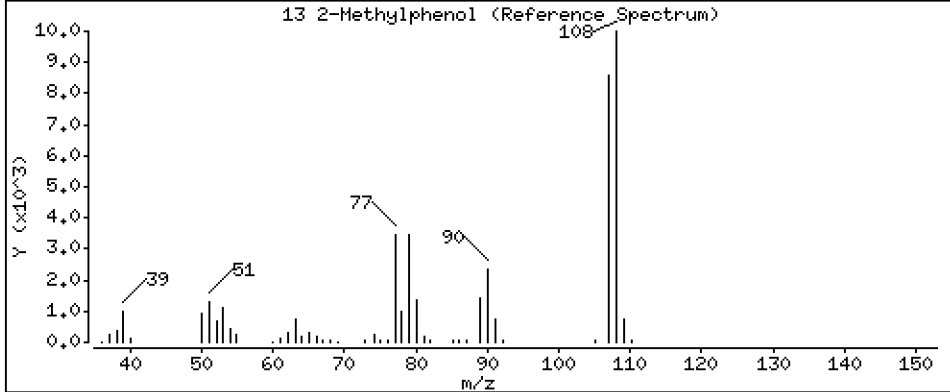
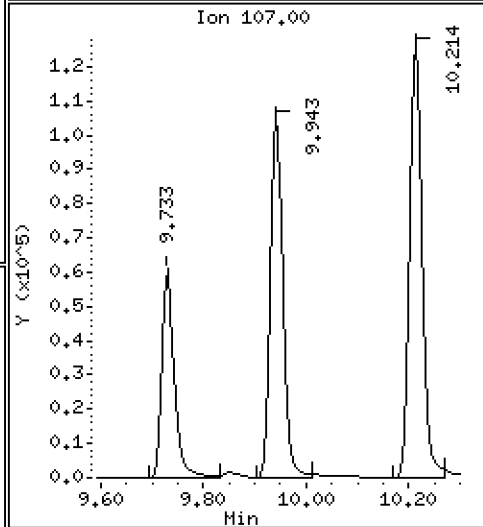
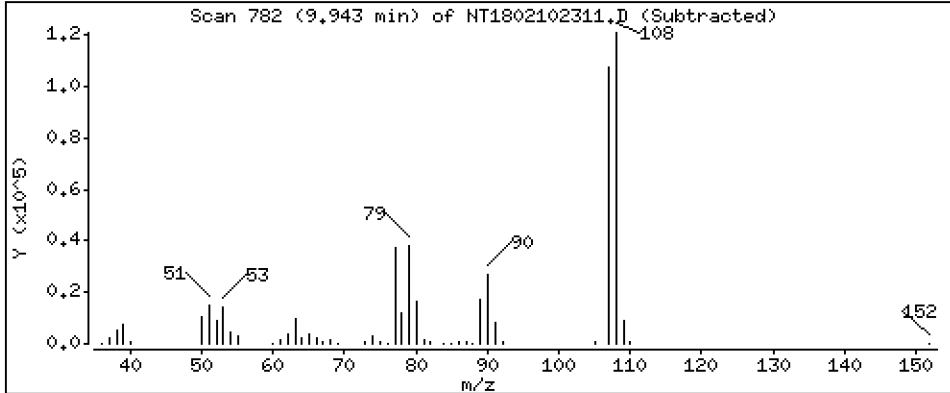
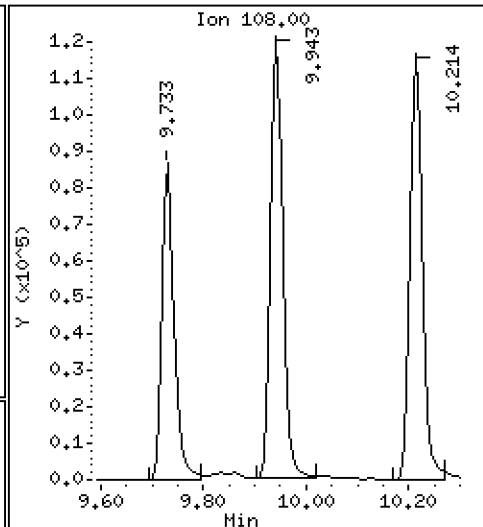
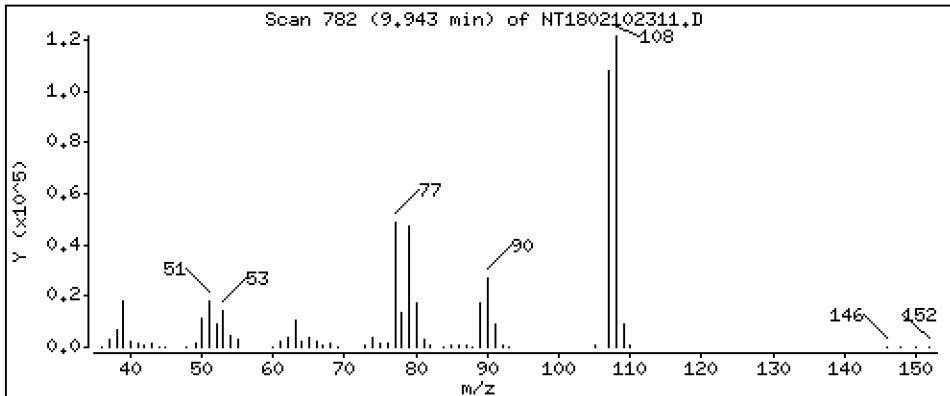
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 4.109 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

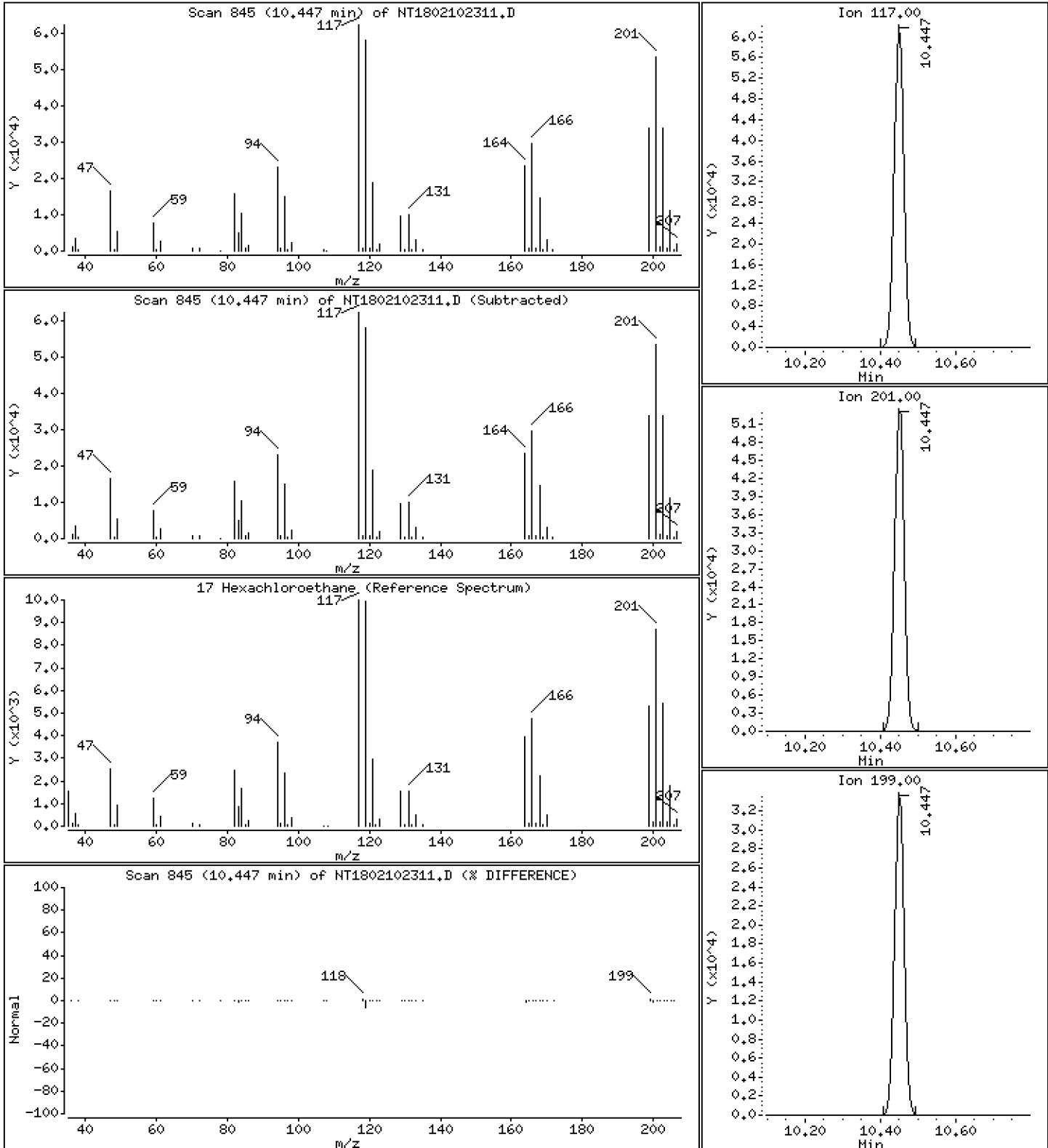
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

17 Hexachloroethane

Concentration: 4,727 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

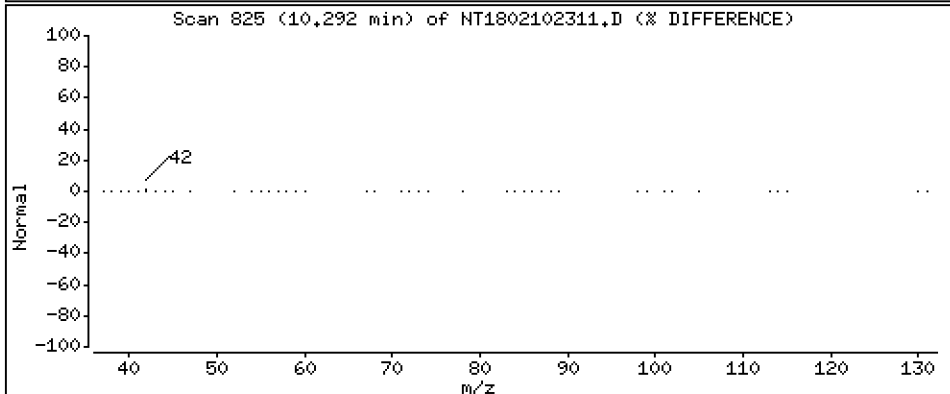
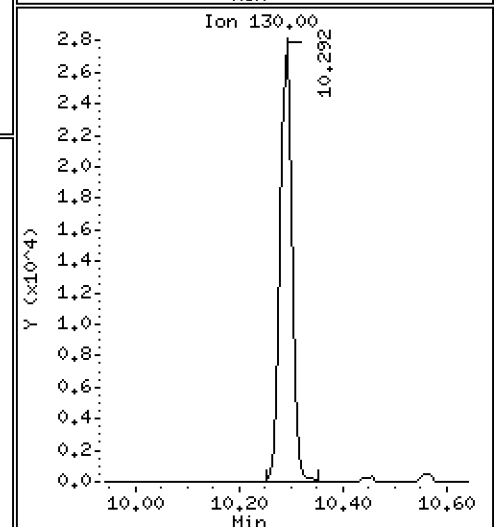
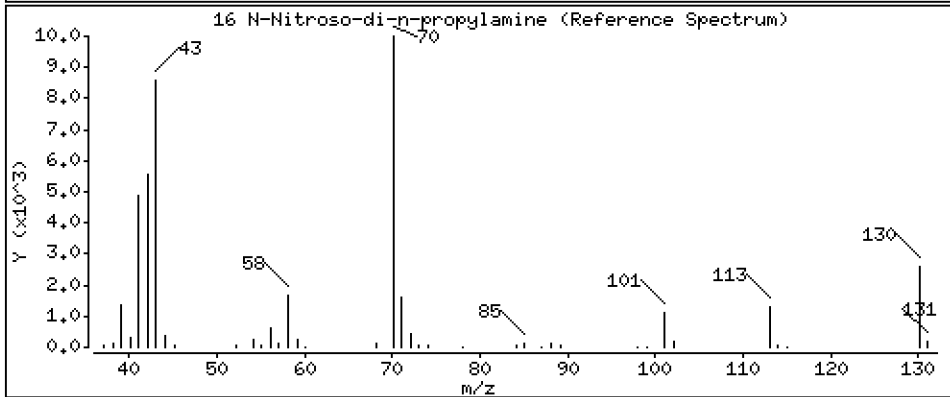
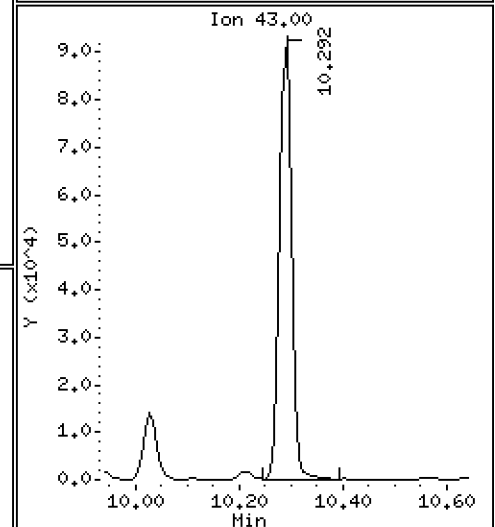
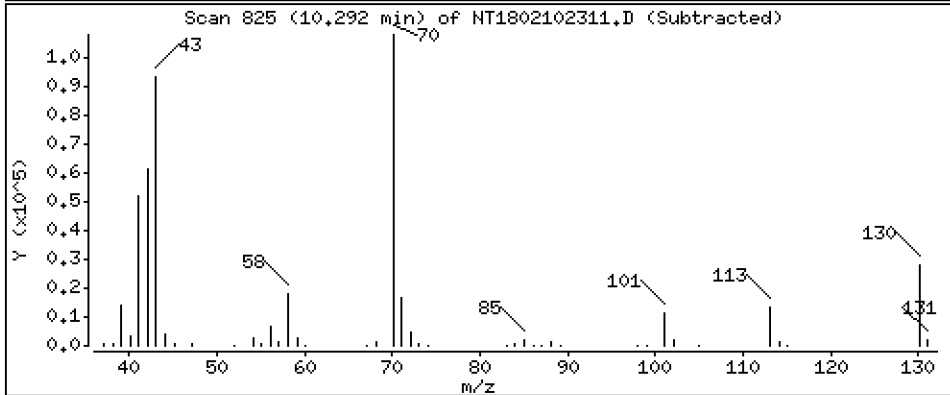
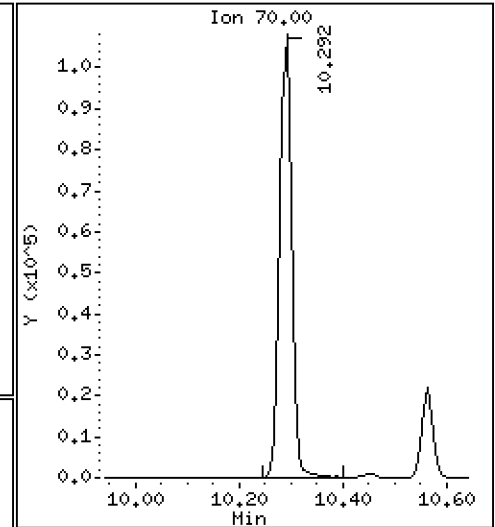
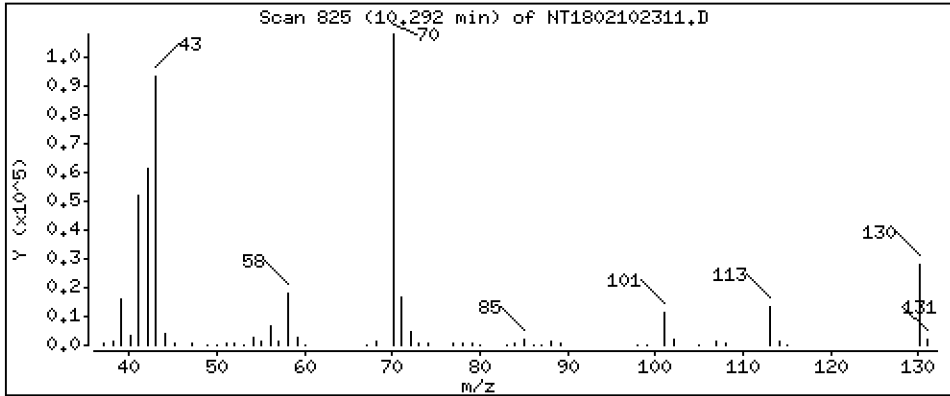
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 4,774 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

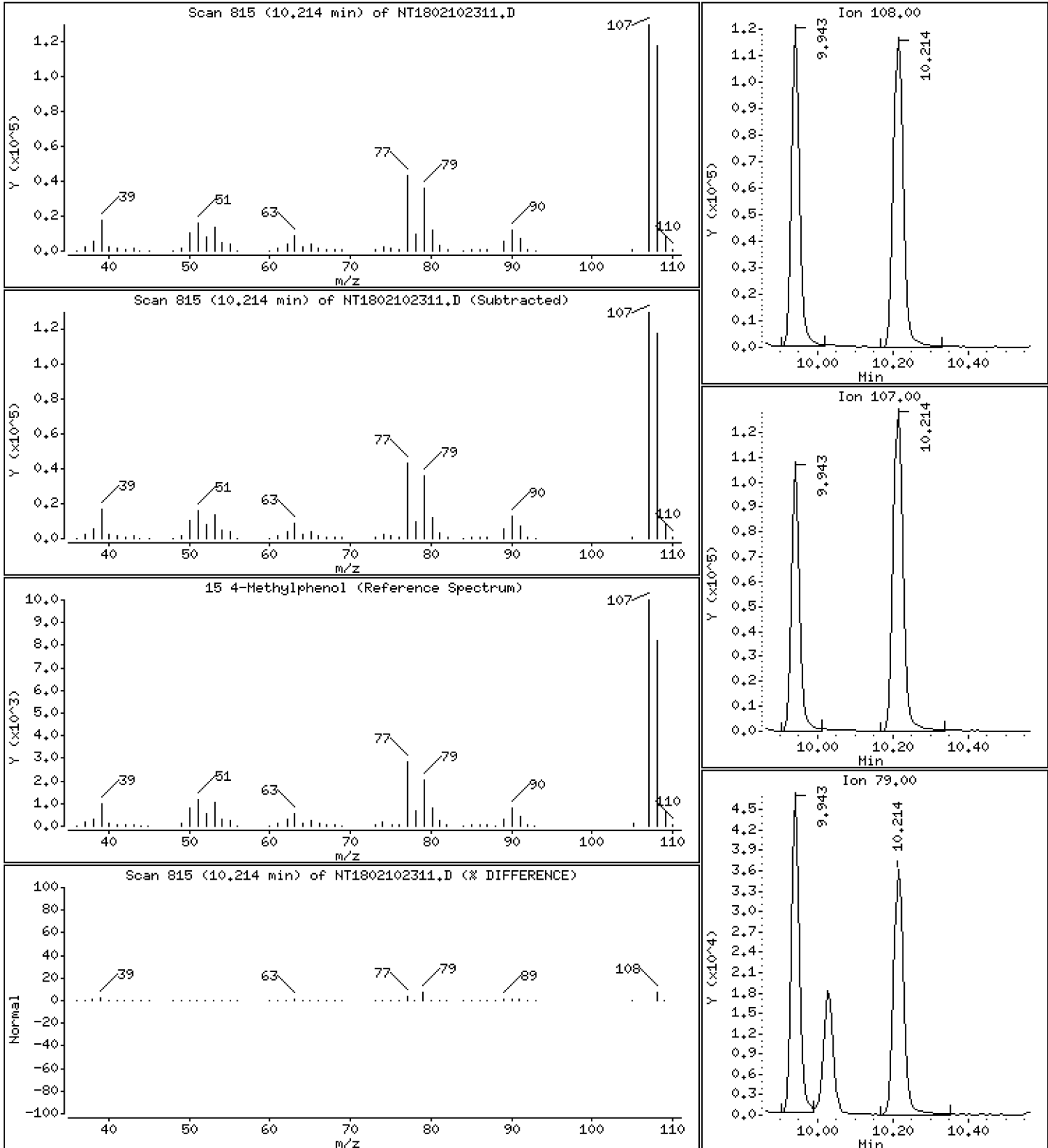
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,945 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

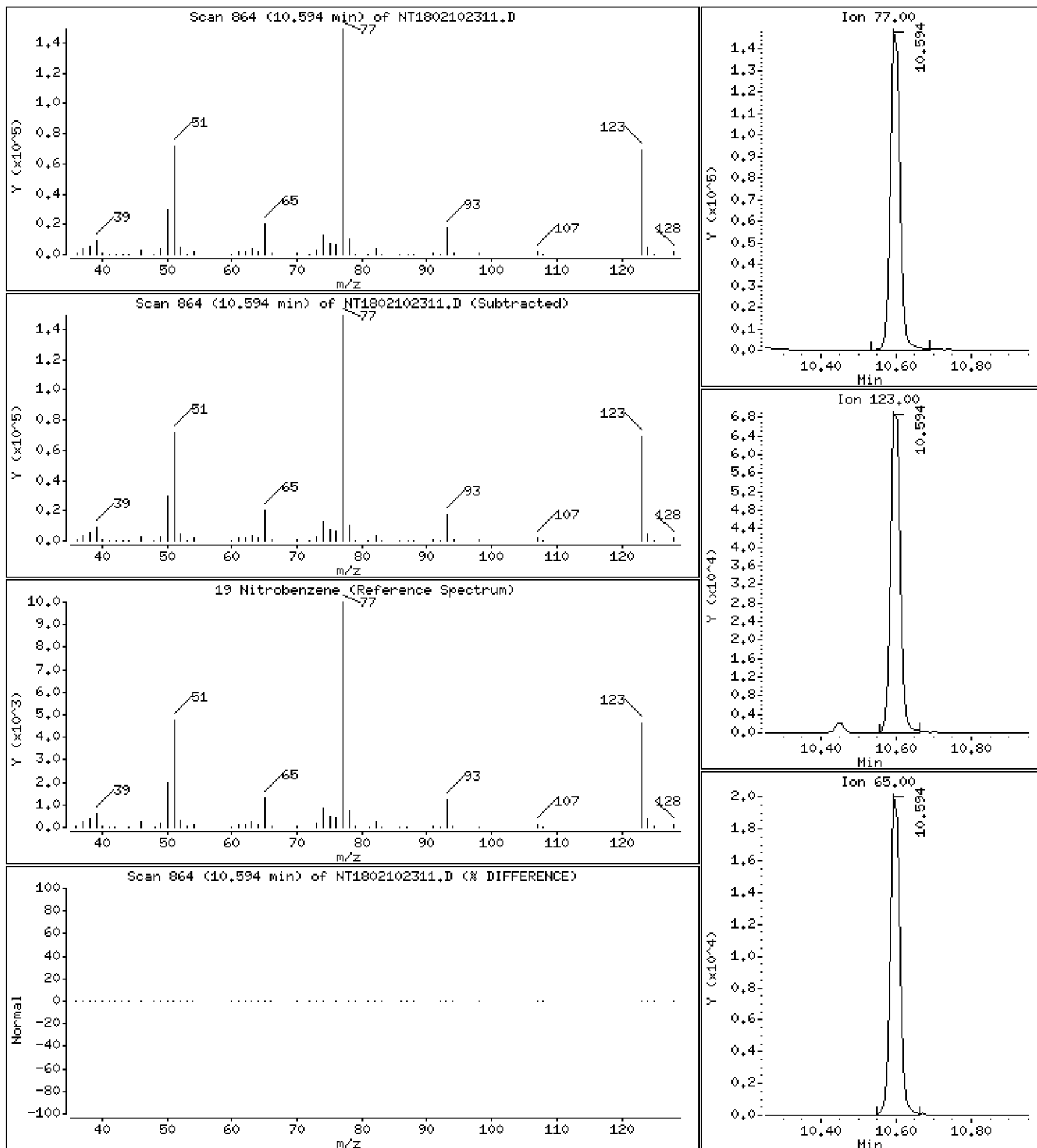
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

19 Nitrobenzene

Concentration: 4,733 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

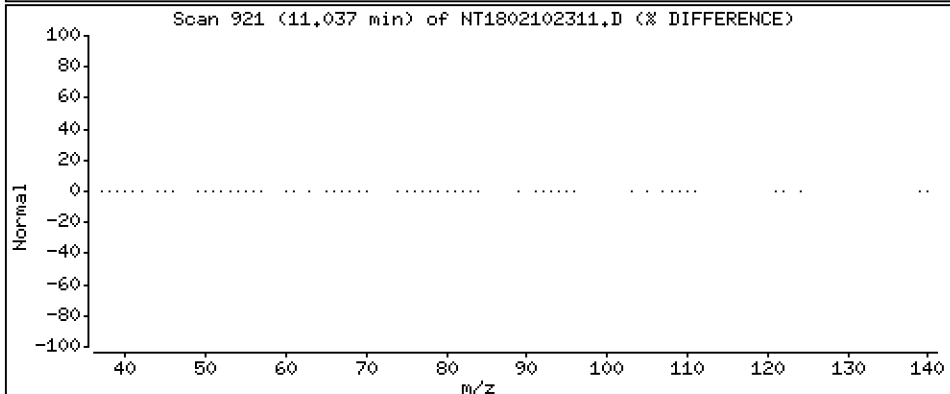
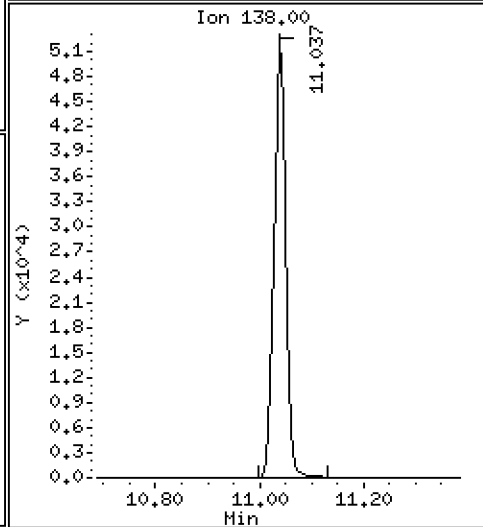
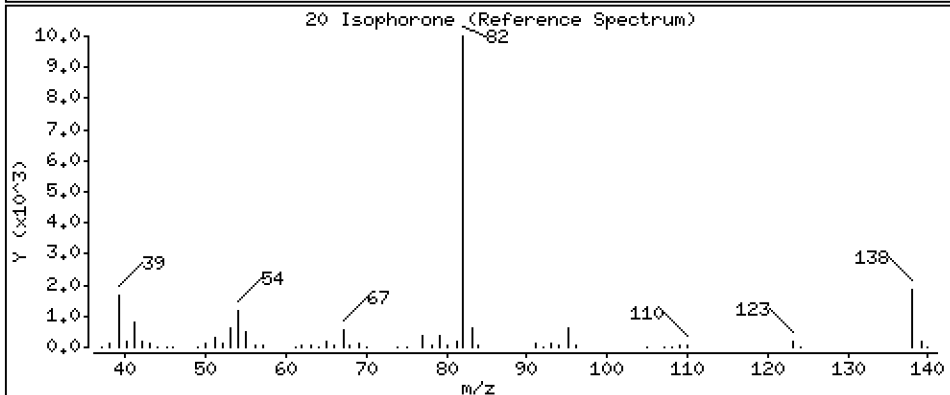
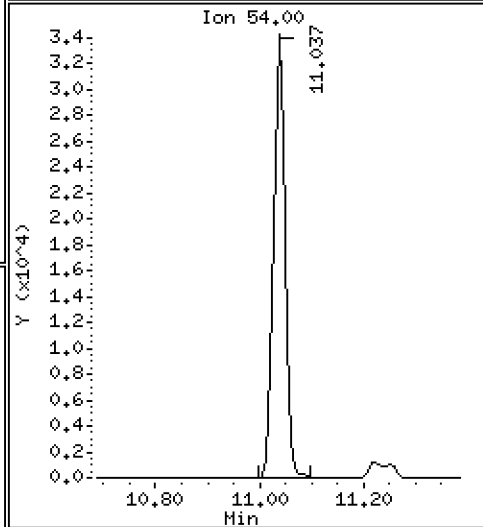
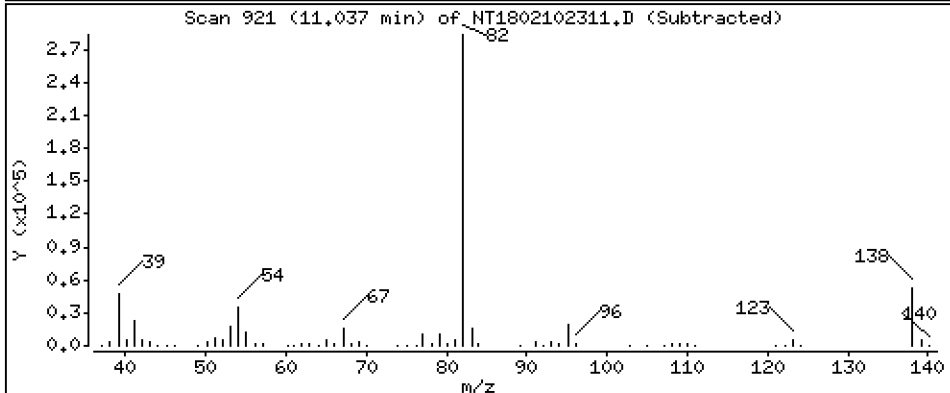
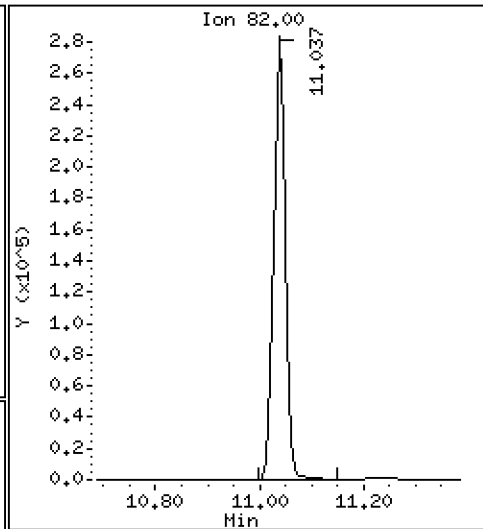
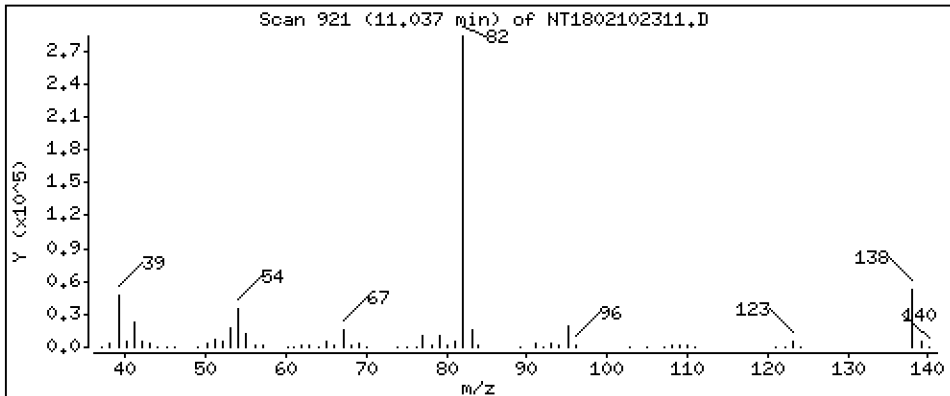
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

20 Isophorone

Concentration: 6.042 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

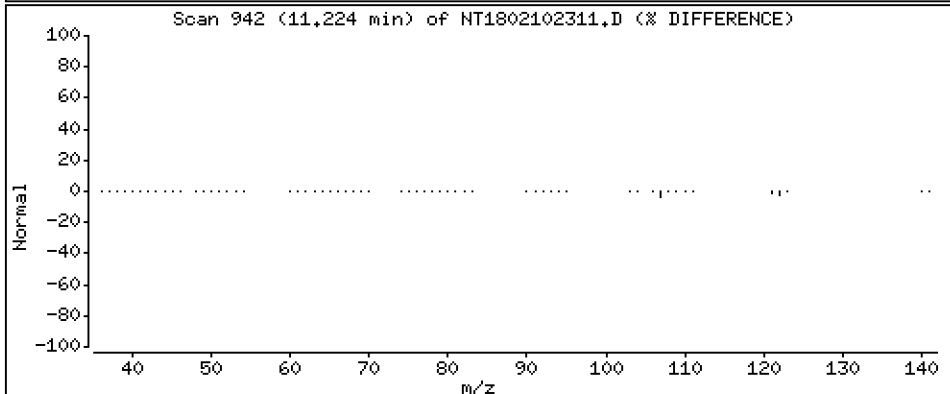
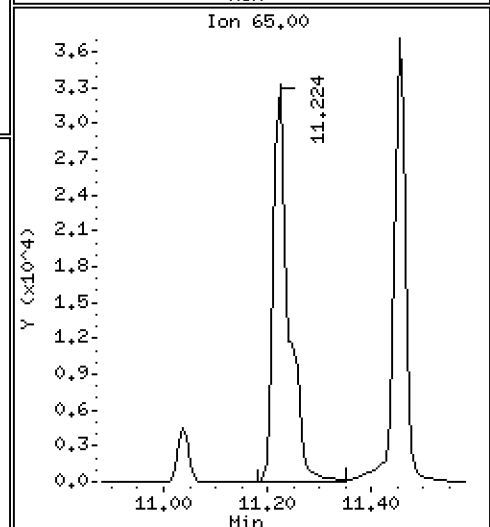
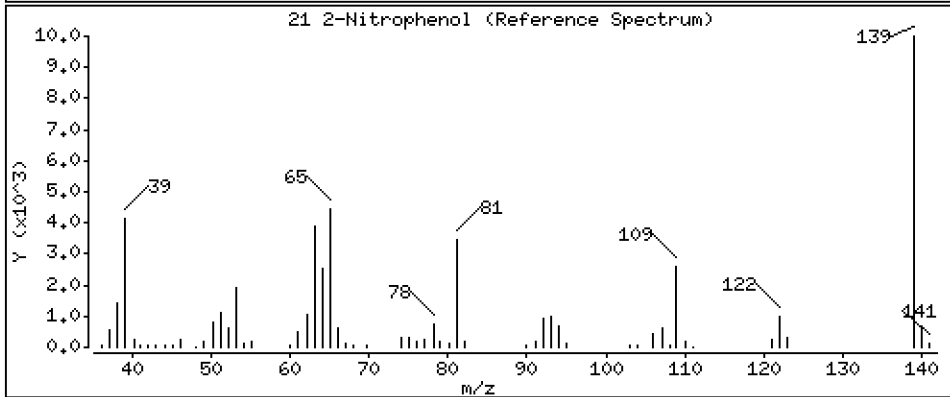
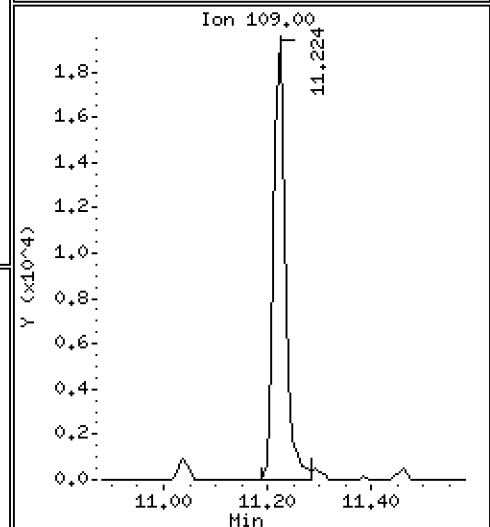
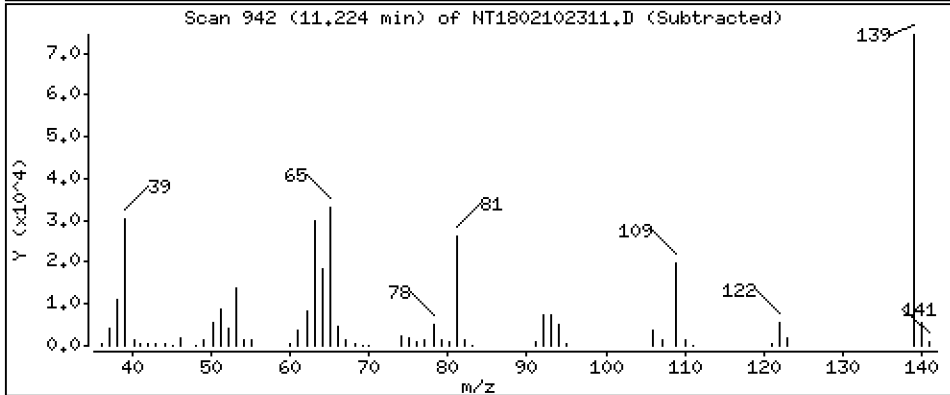
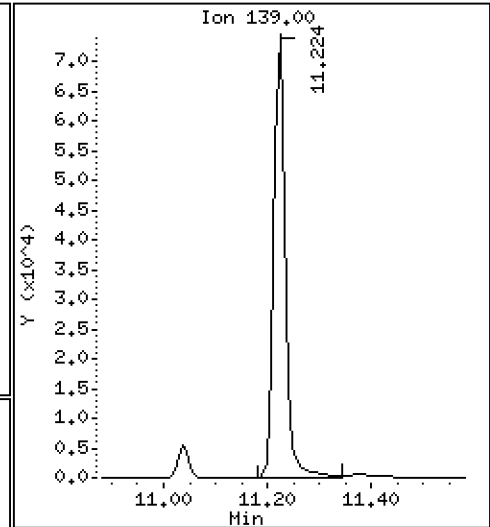
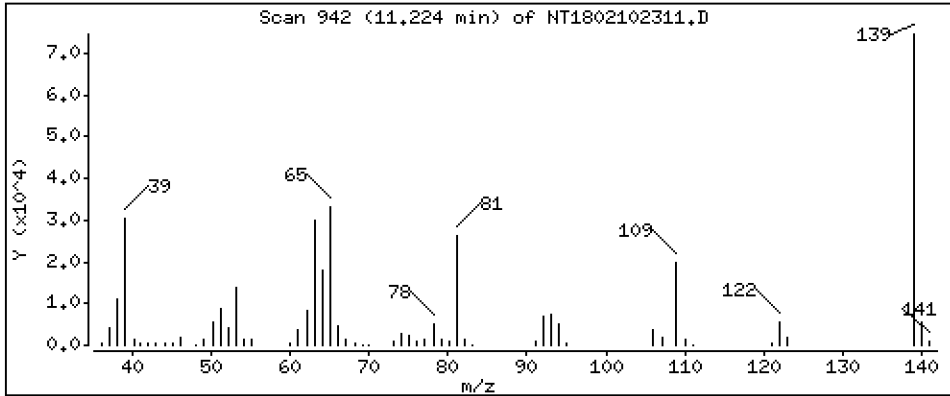
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

21 2-Nitrophenol

Concentration: 4,033 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

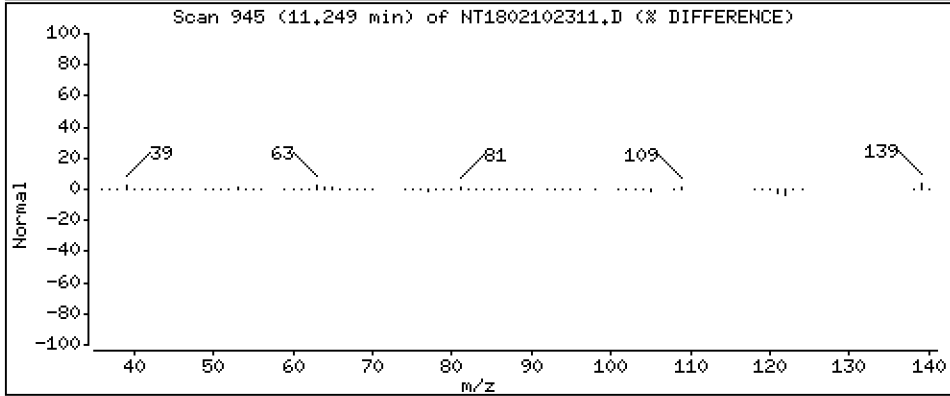
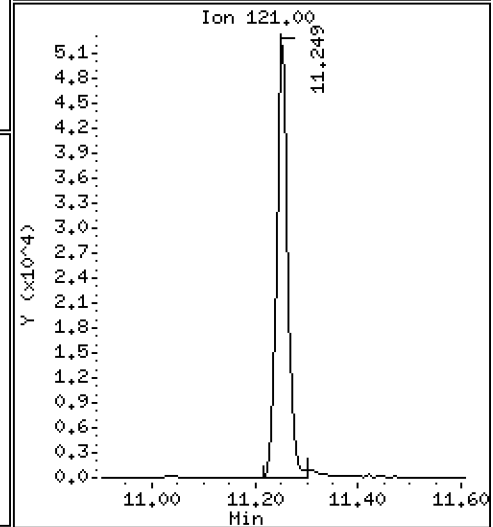
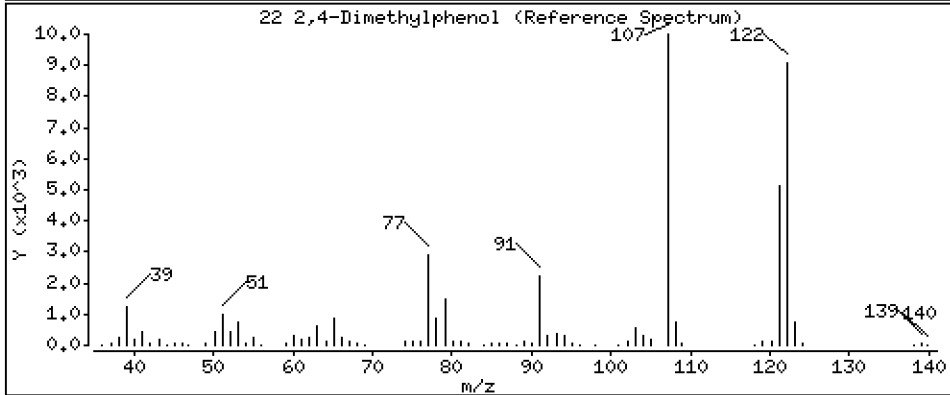
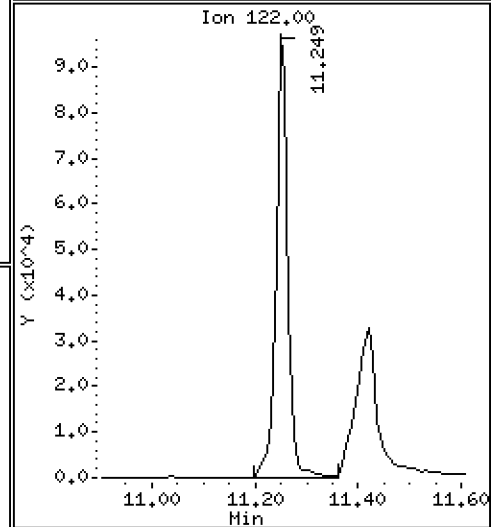
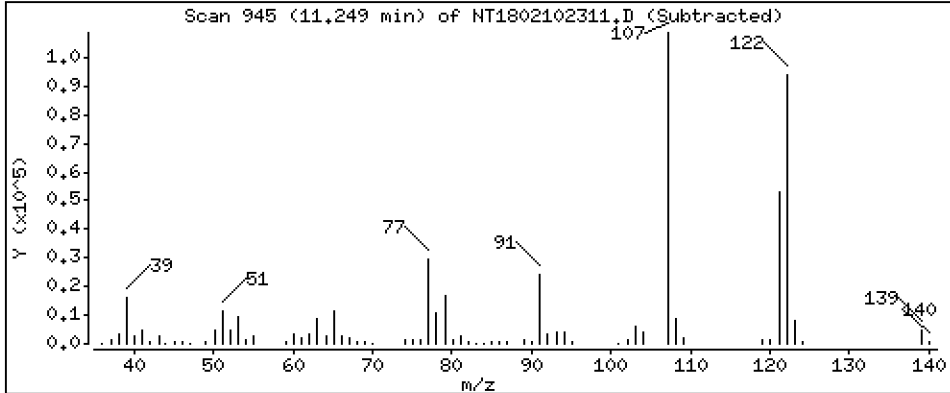
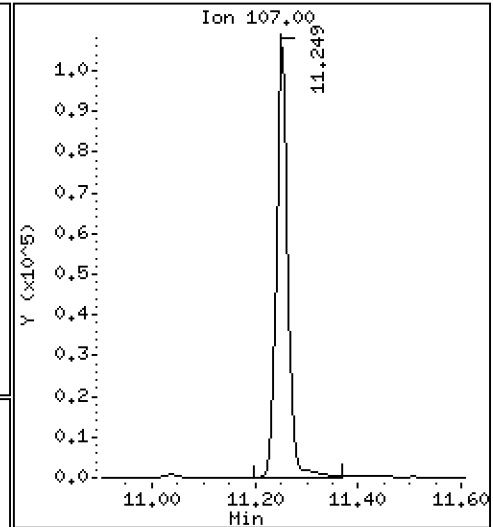
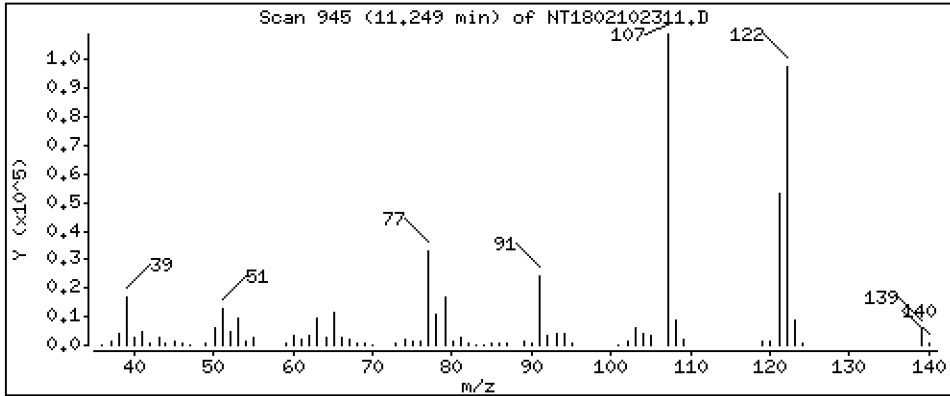
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,734 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

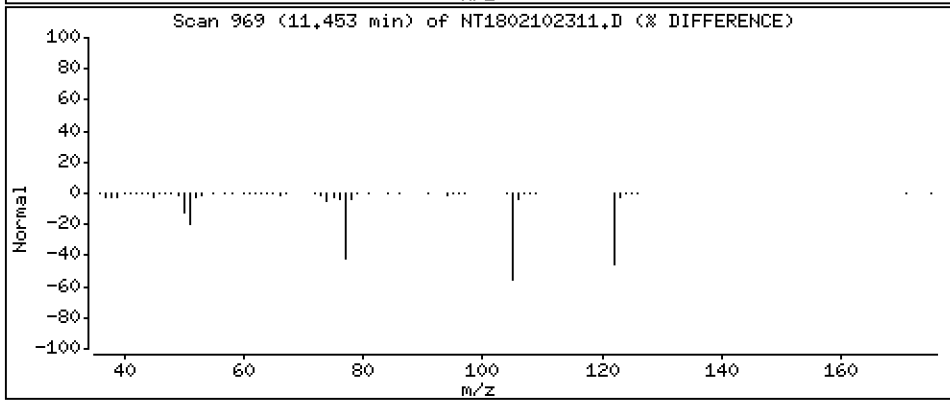
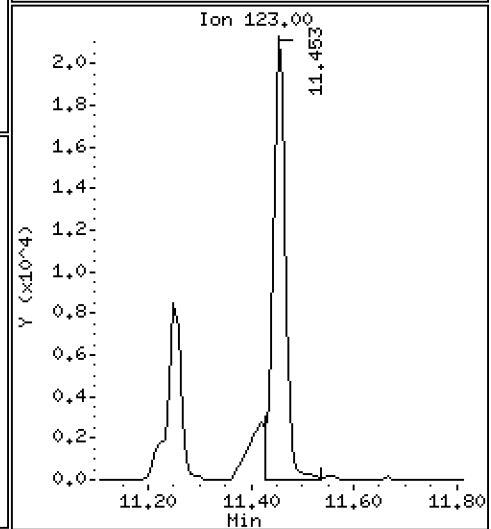
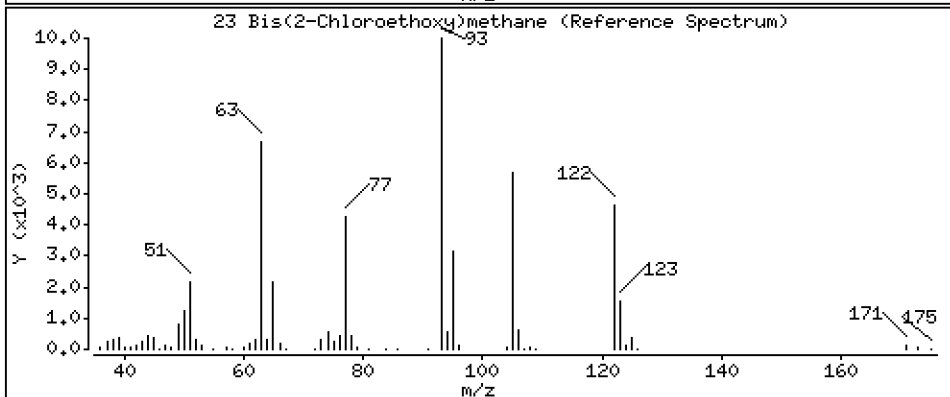
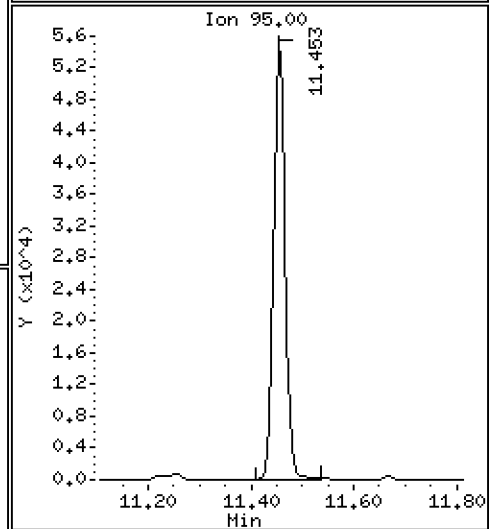
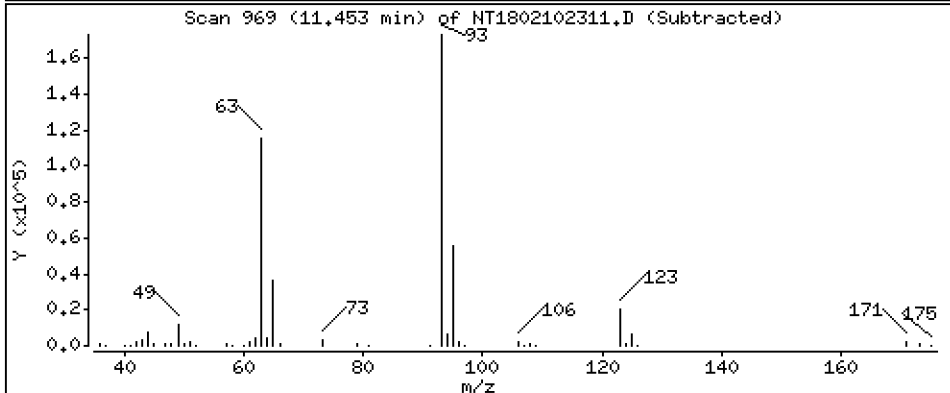
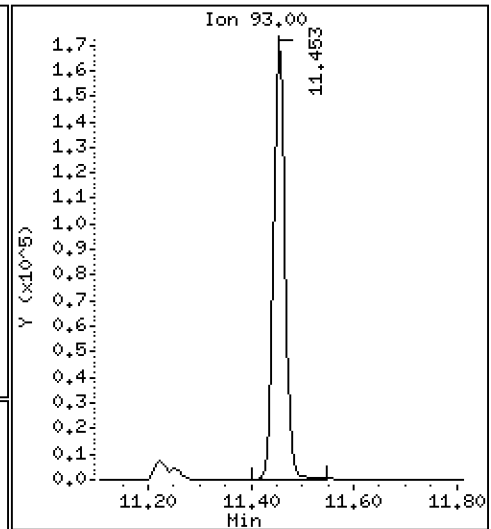
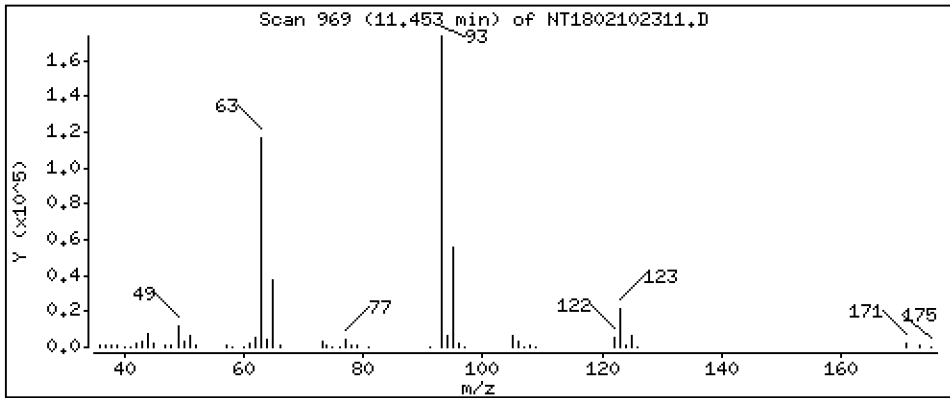
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

23 Bis(2-Chloroethoxy)methane

Concentration: 5.286 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

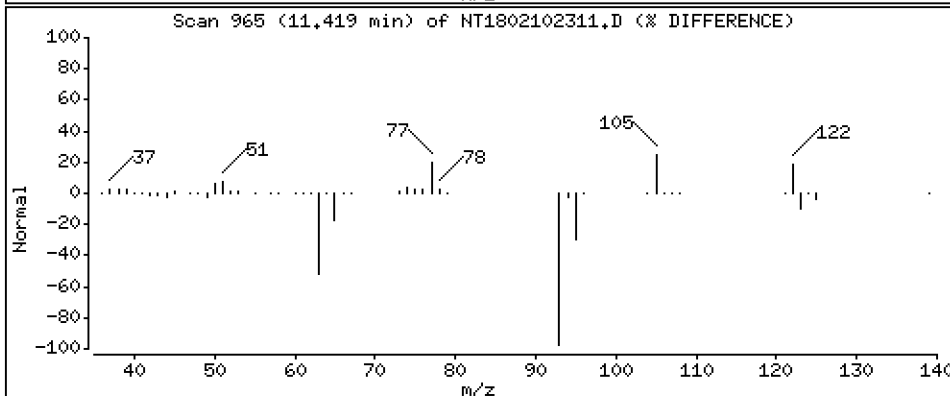
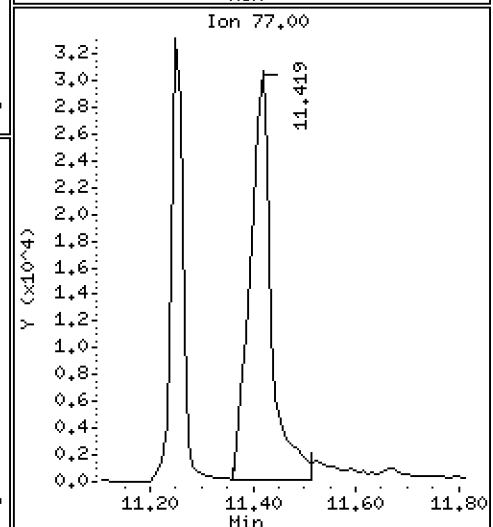
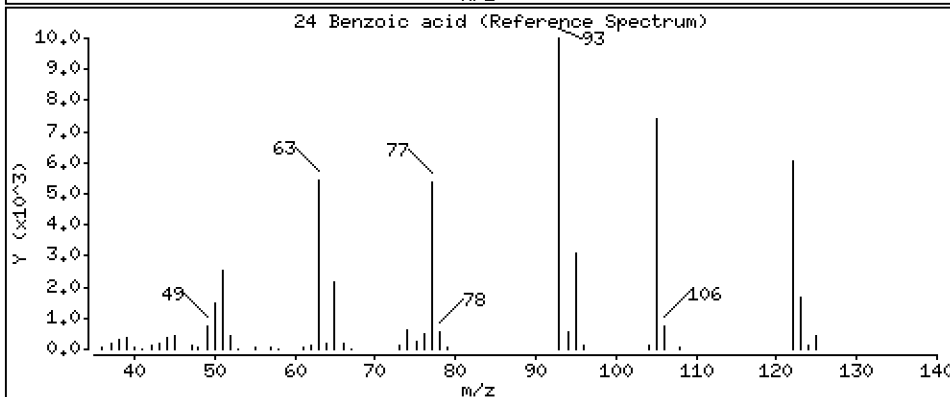
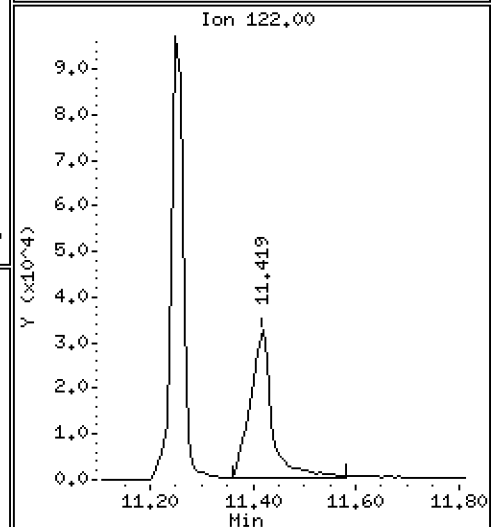
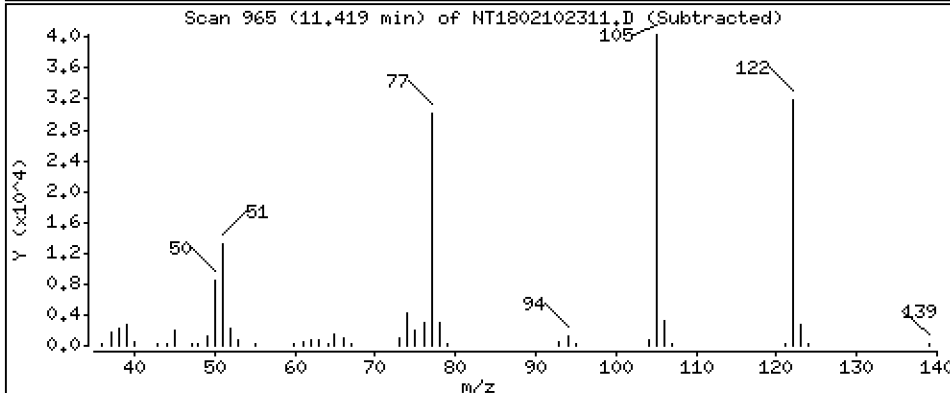
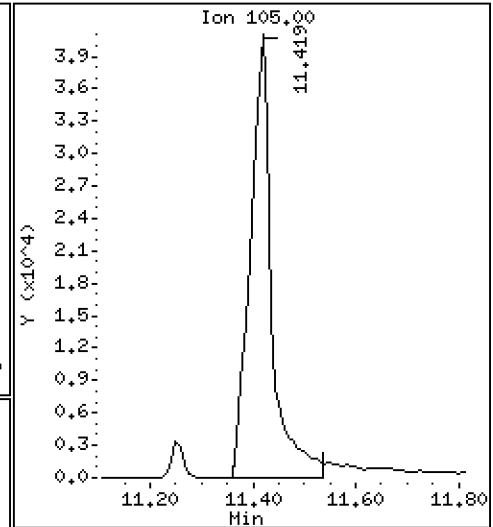
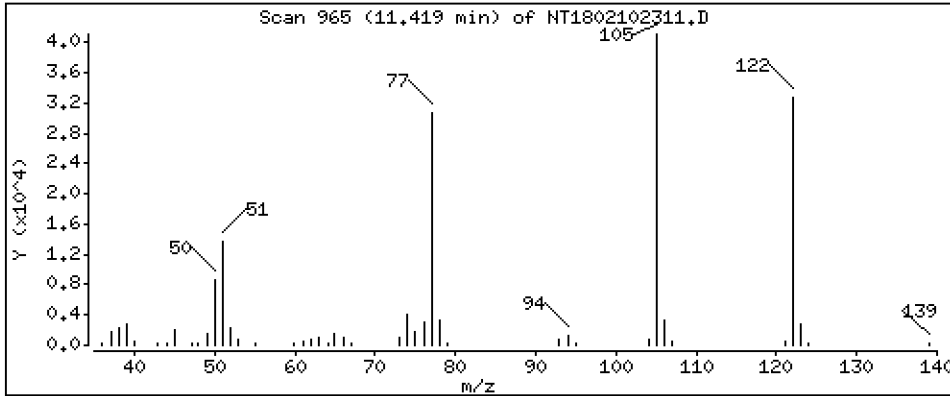
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 4,252 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

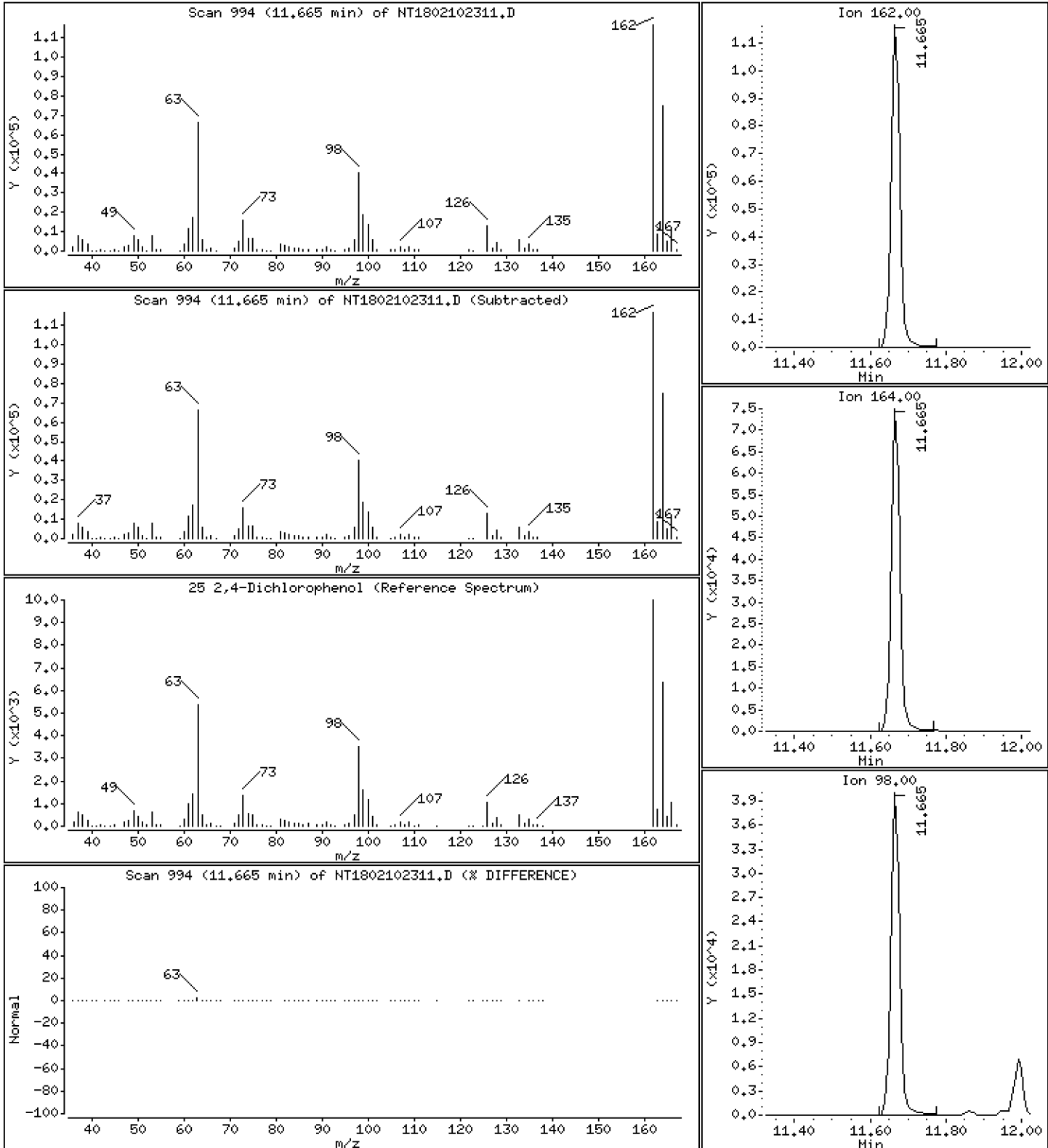
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

25 2,4-Dichlorophenol

Concentration: 4,529 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

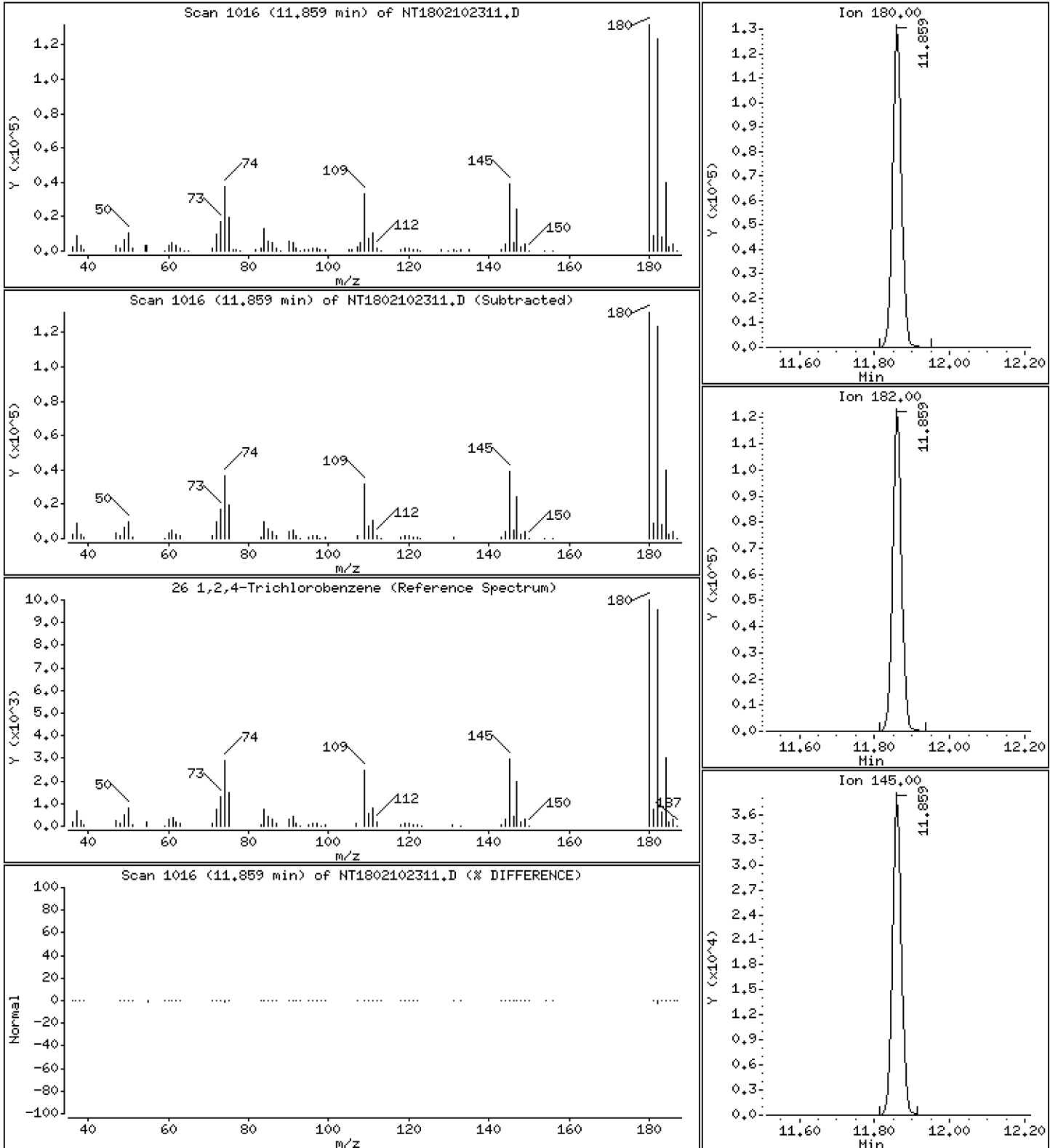
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 4.245 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

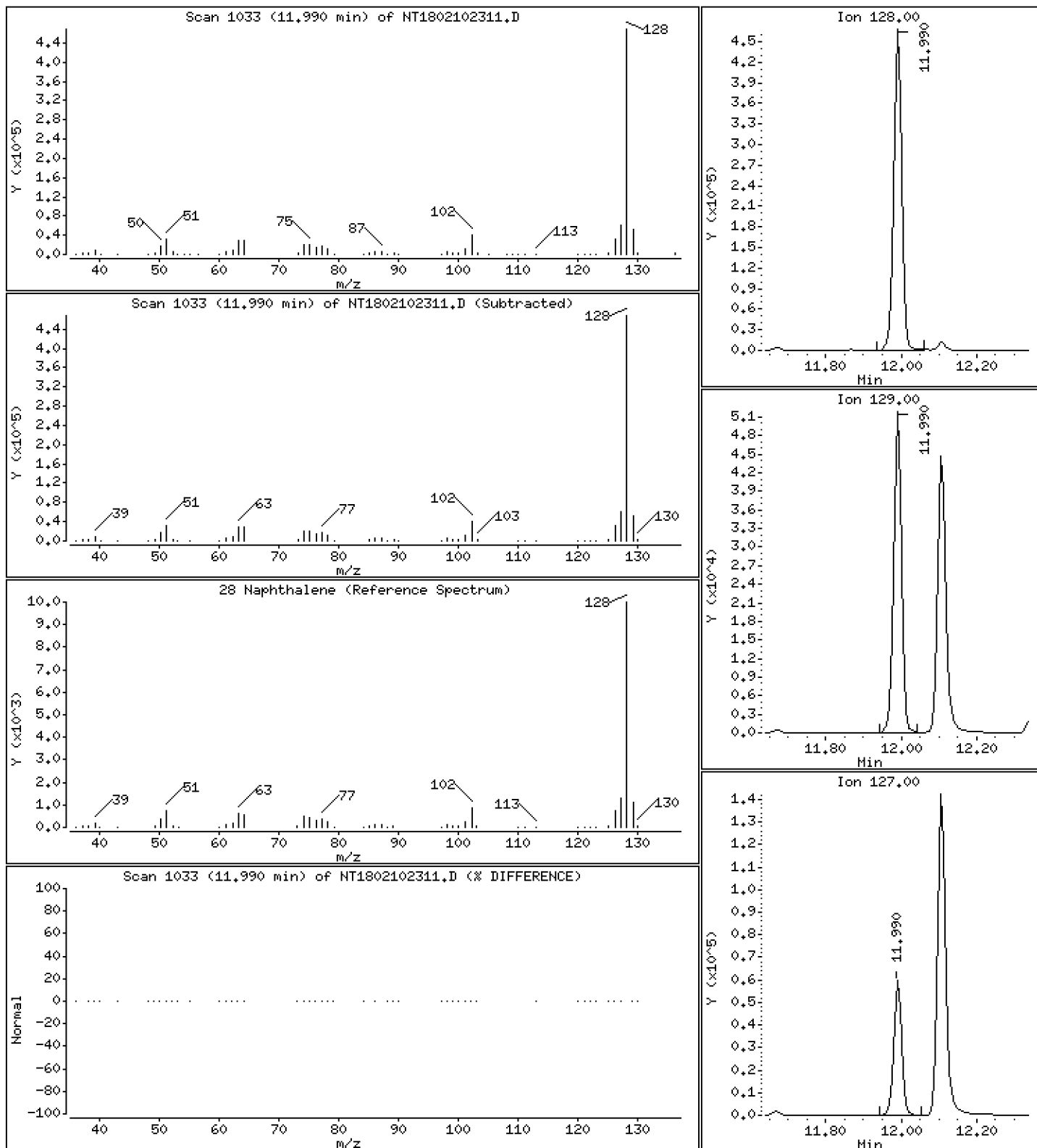
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

28 Naphthalene

Concentration: 4,546 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

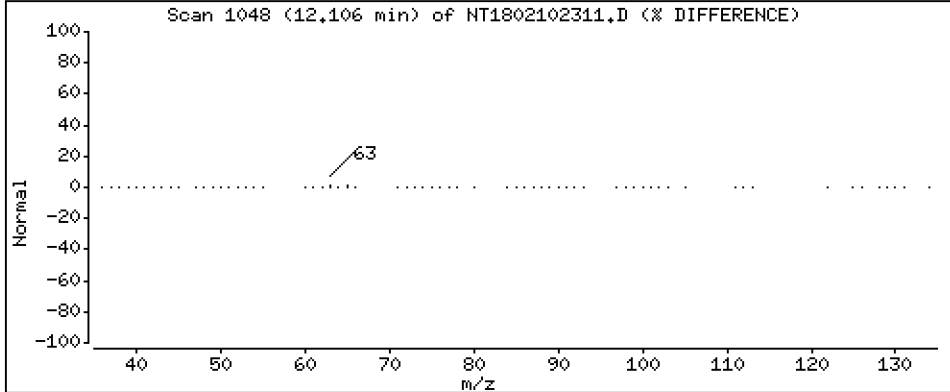
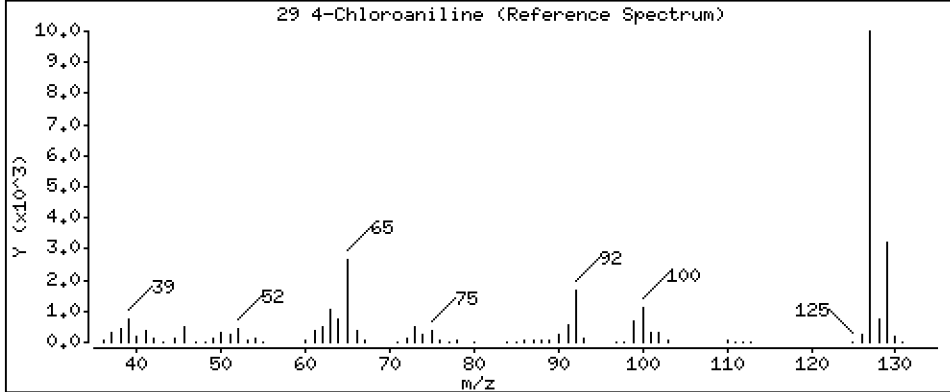
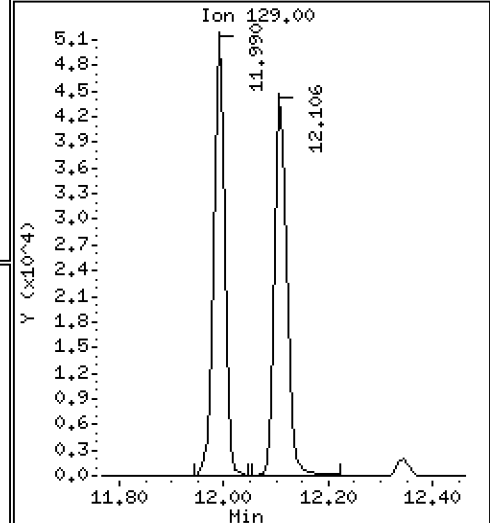
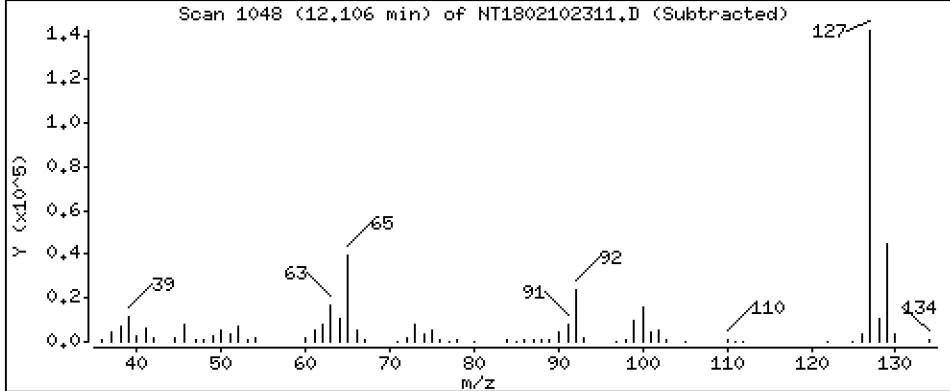
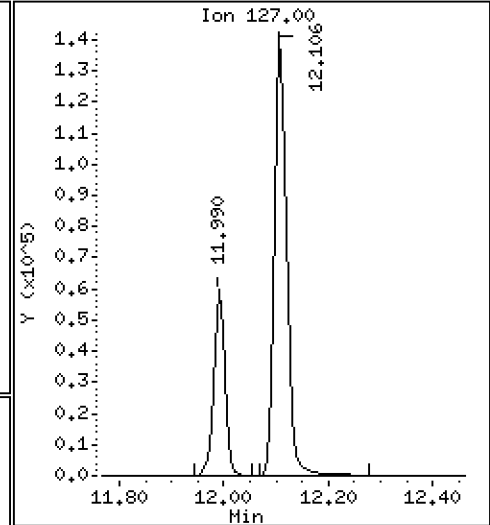
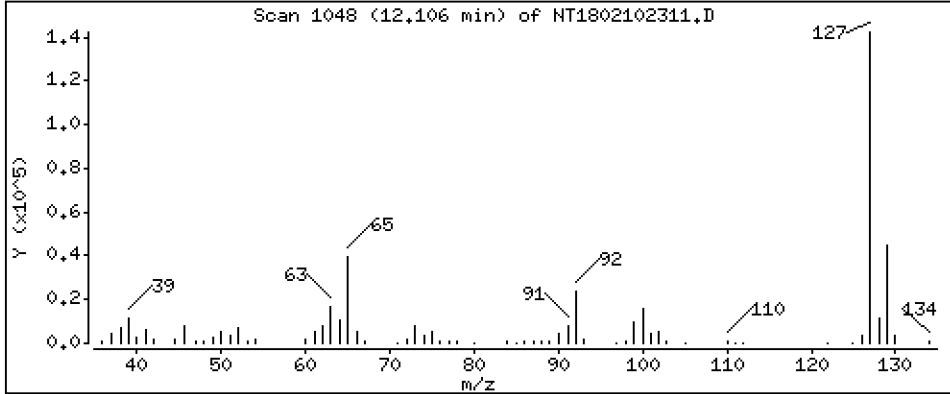
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

29 4-Chloroaniline

Concentration: 3,506 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

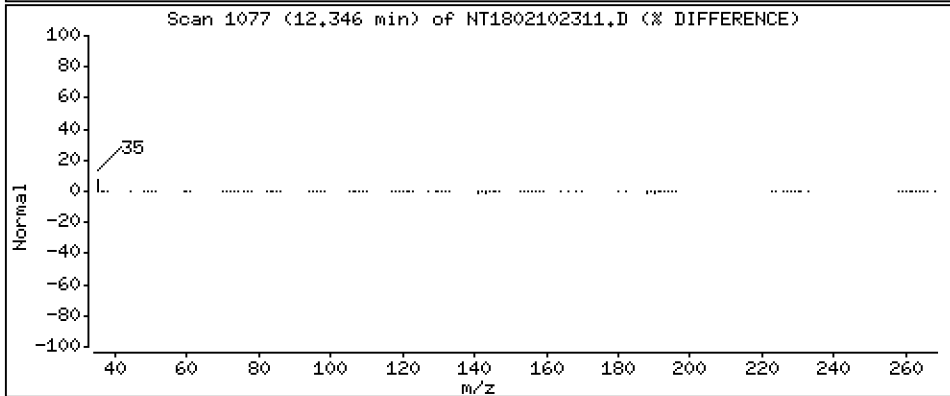
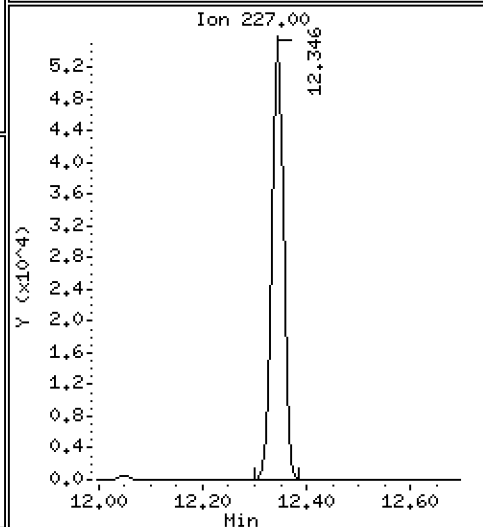
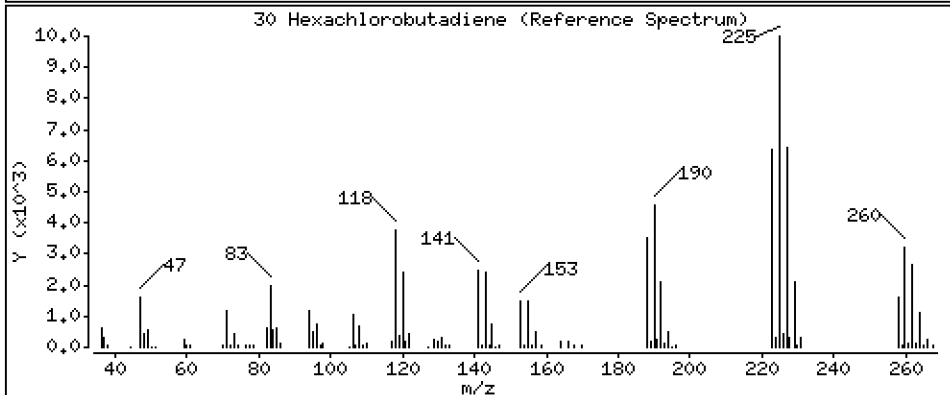
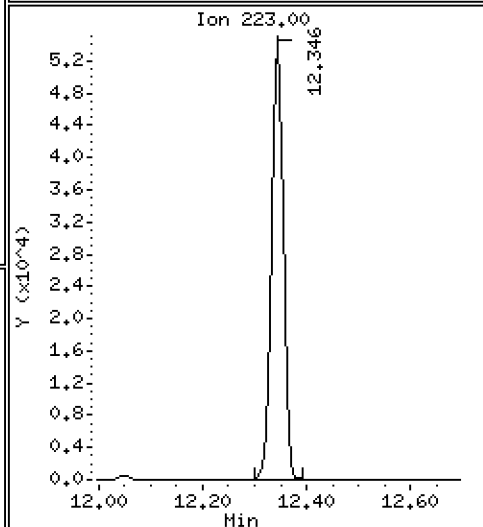
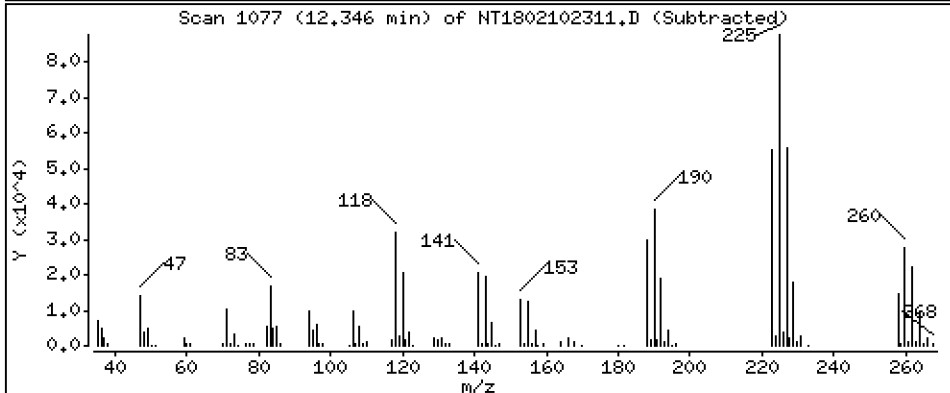
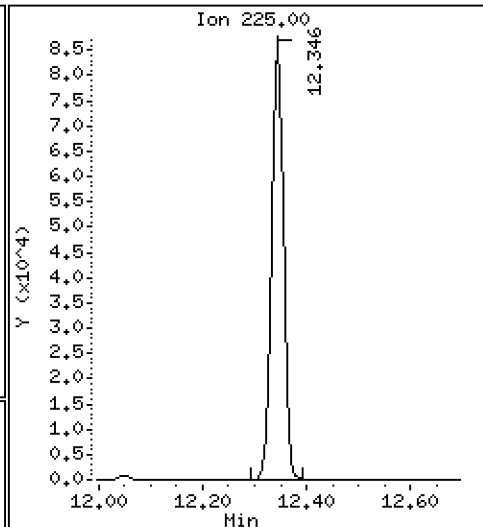
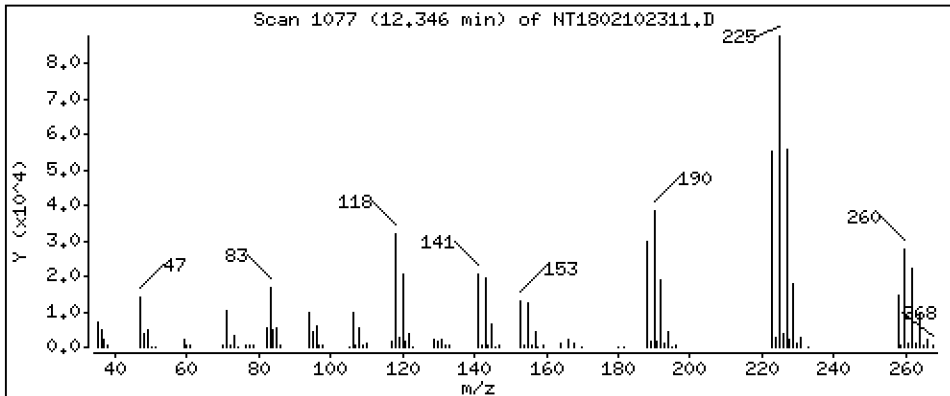
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,414 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

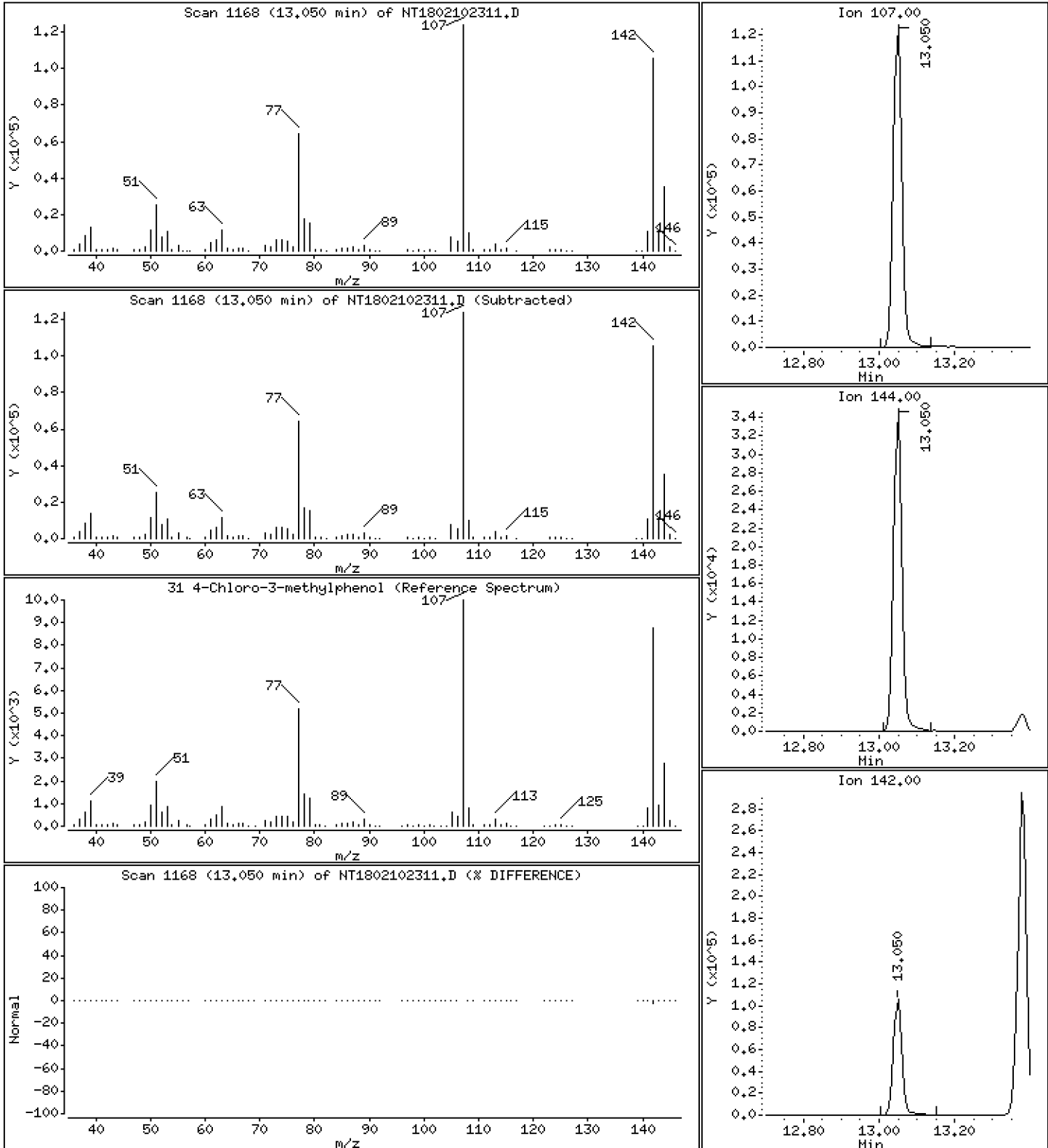
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

31 4-Chloro-3-methylphenol

Concentration: 4,485 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

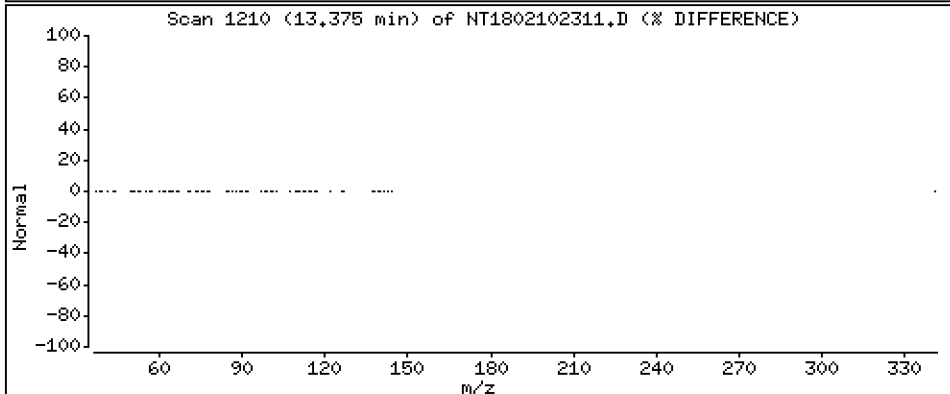
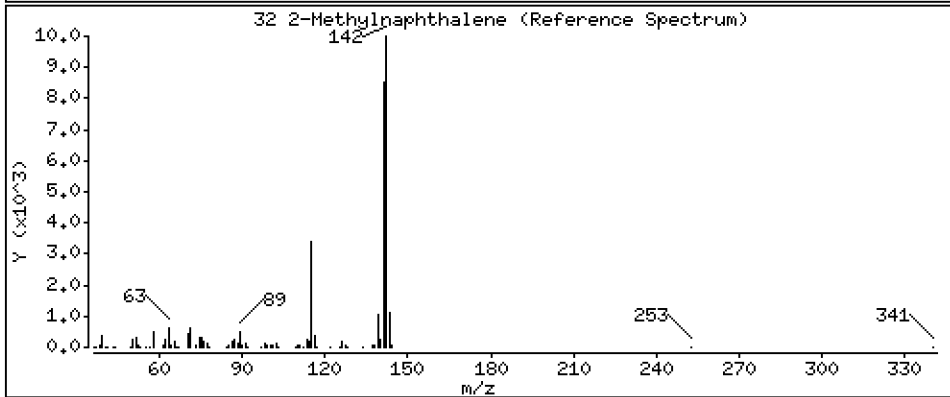
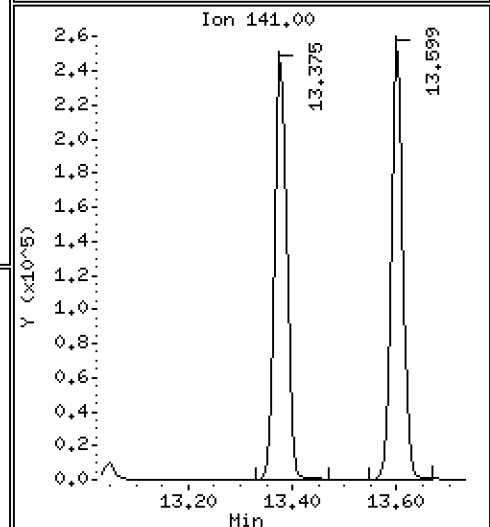
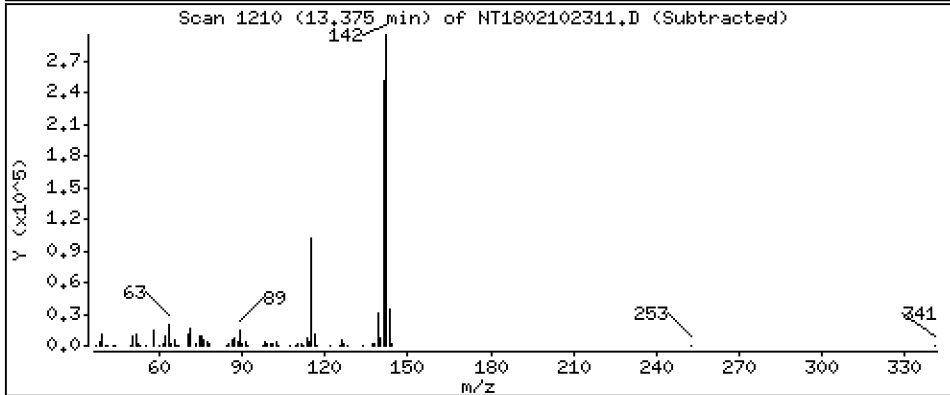
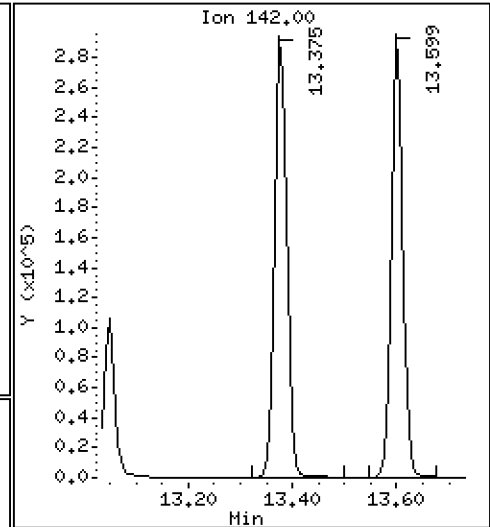
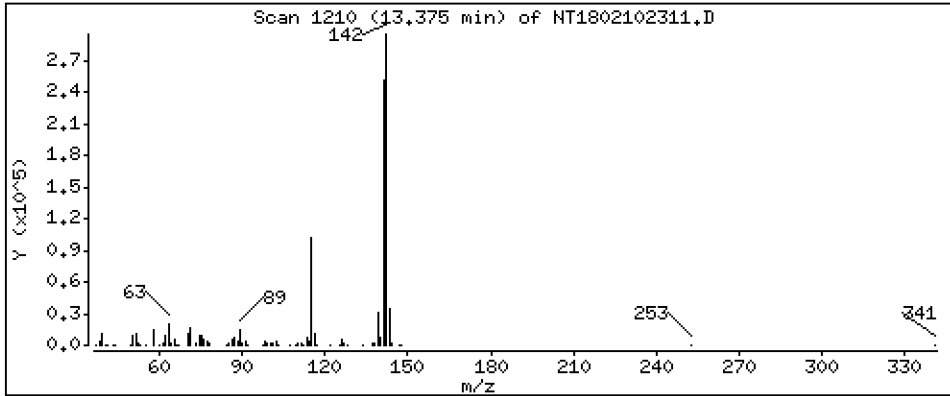
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

32 2-Methylnaphthalene

Concentration: 4,279 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

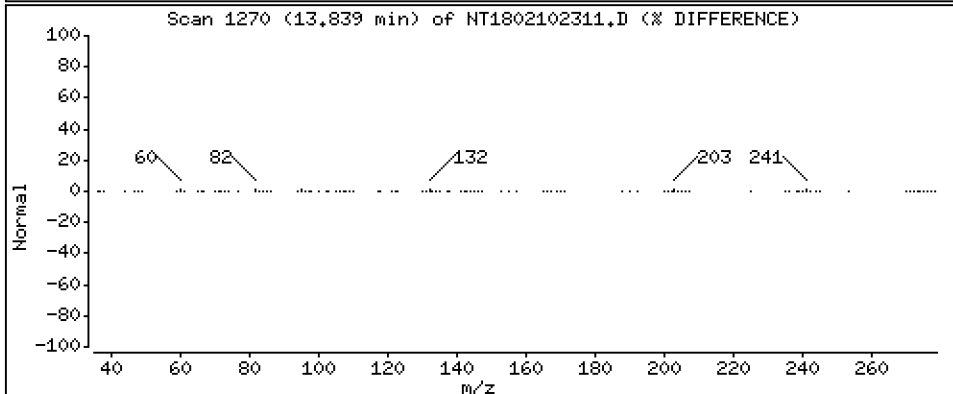
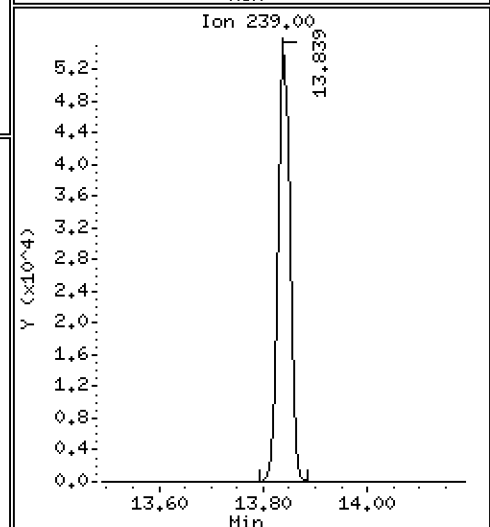
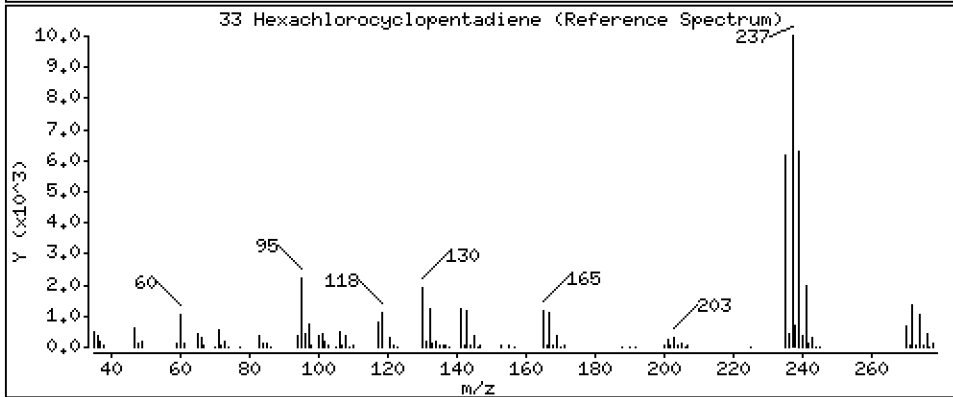
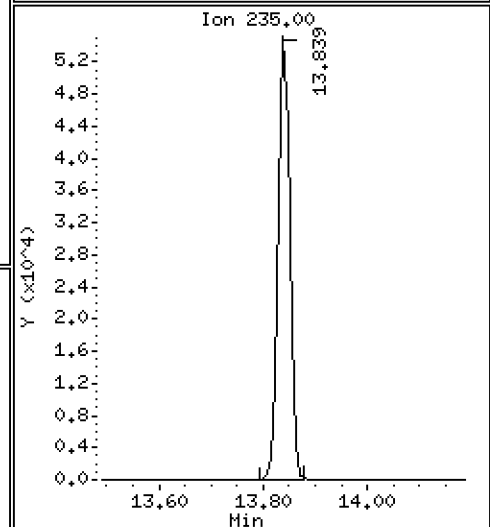
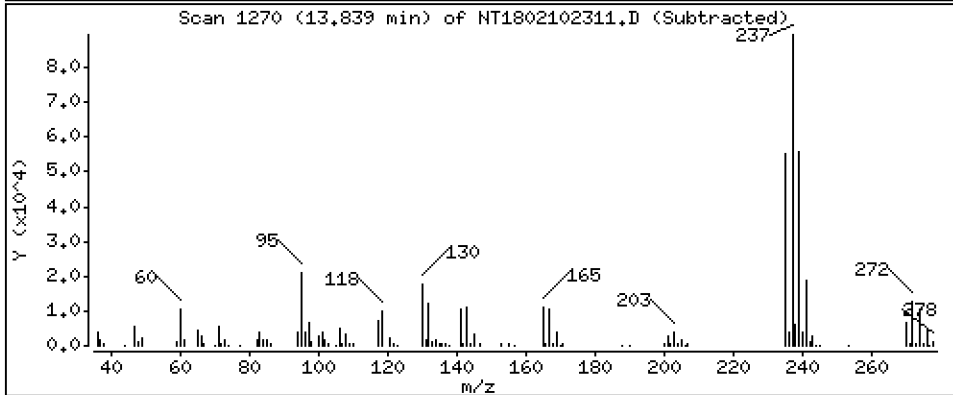
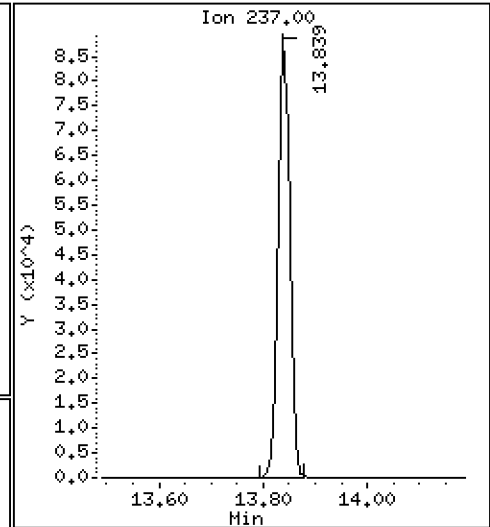
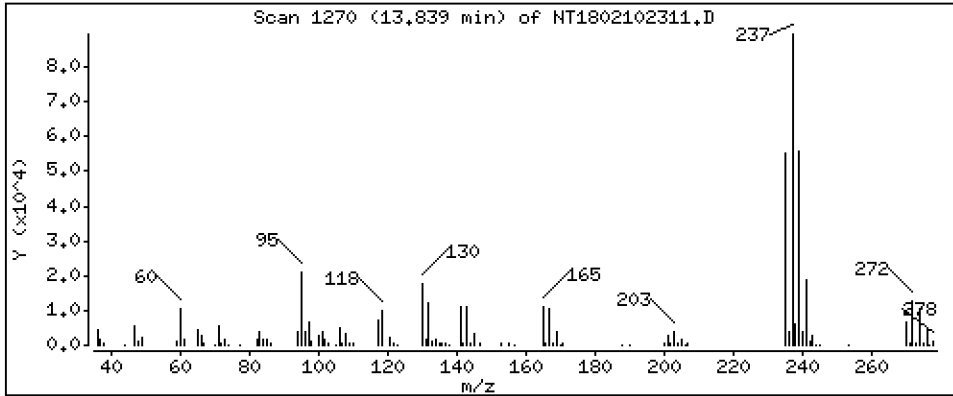
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

33 Hexachlorocyclopentadiene

Concentration: 4,130 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

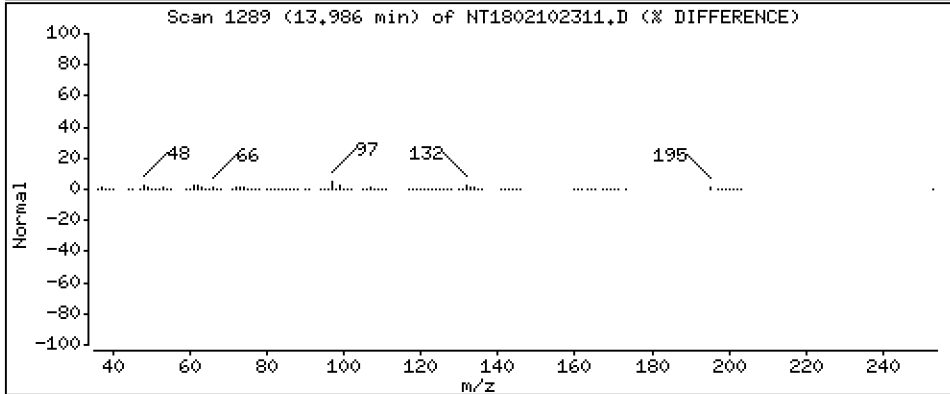
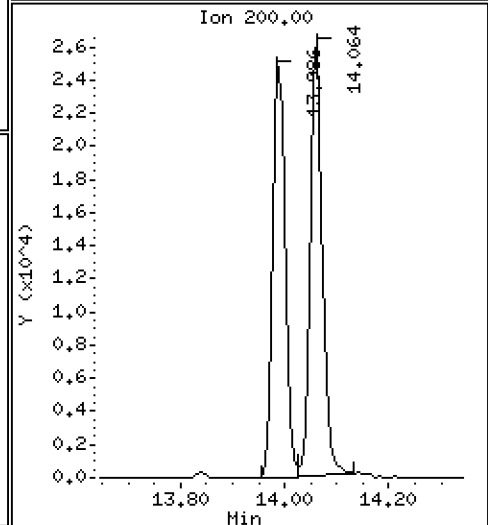
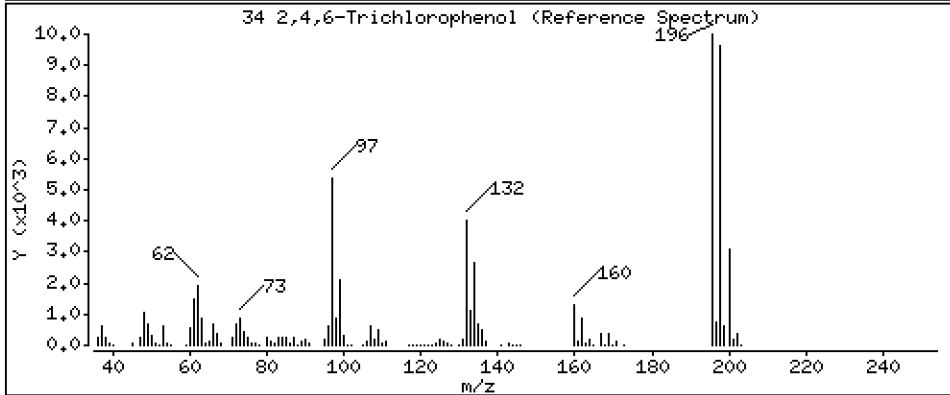
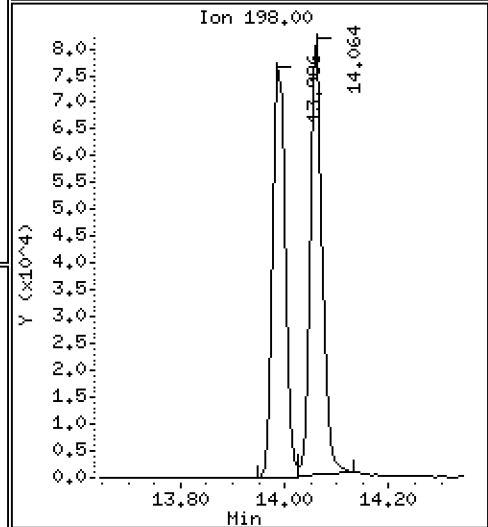
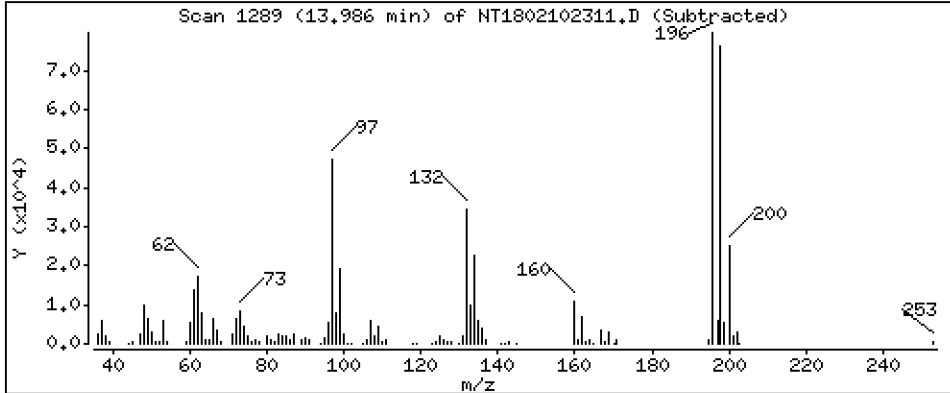
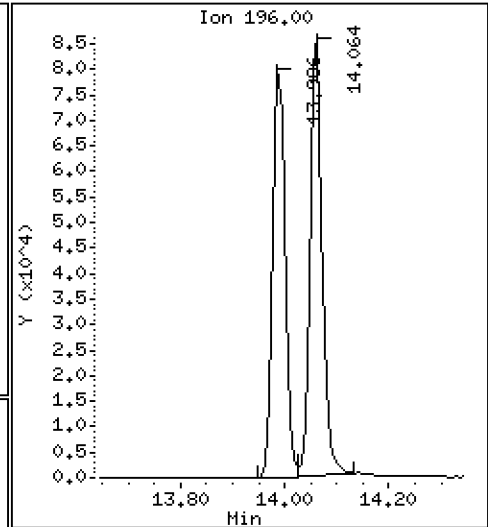
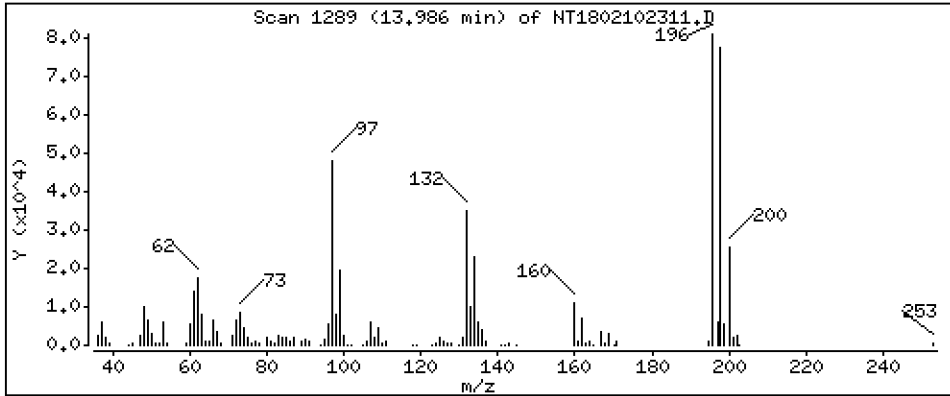
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

34 2,4,6-Trichlorophenol

Concentration: 4,334 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

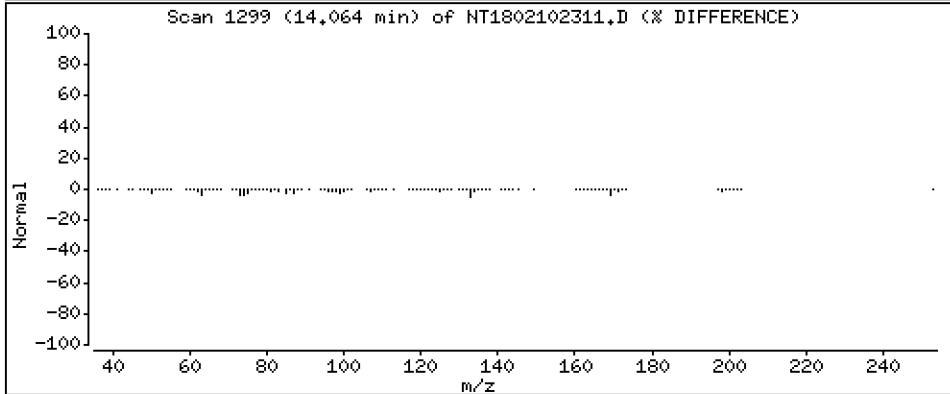
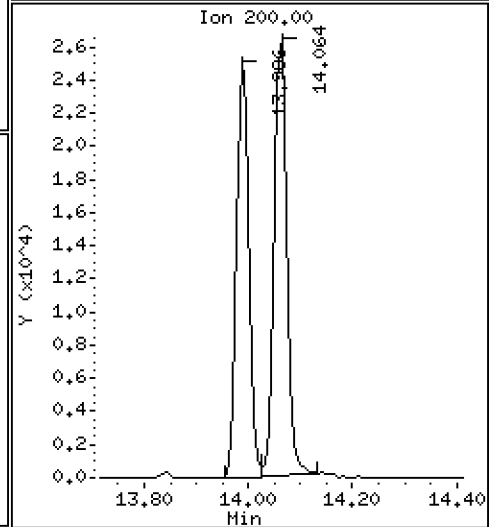
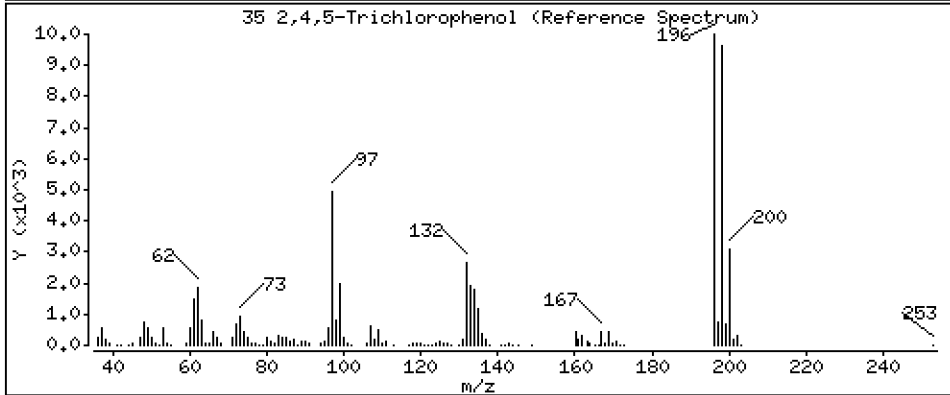
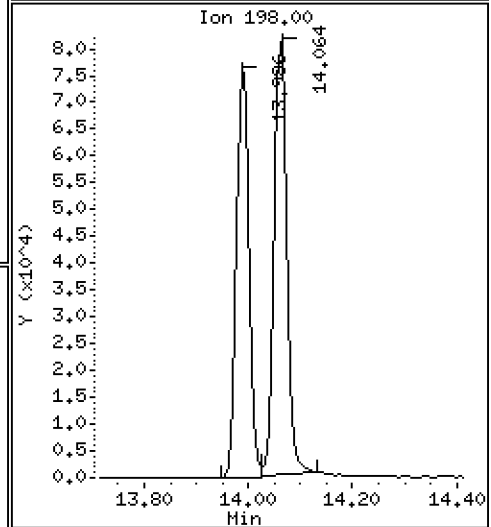
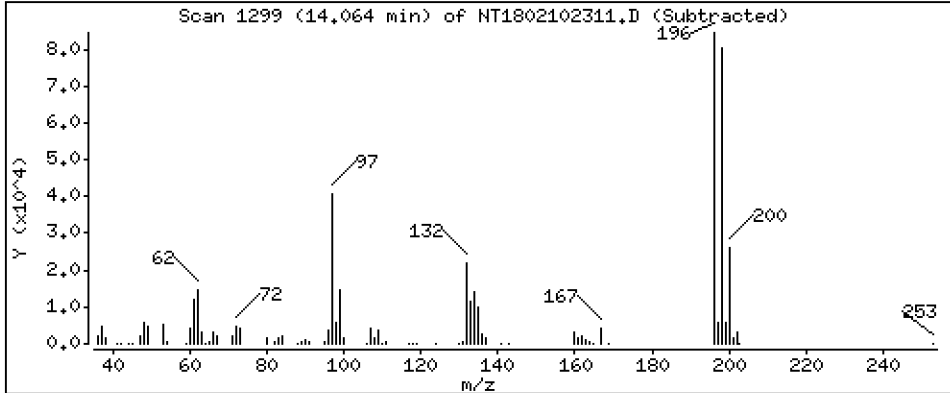
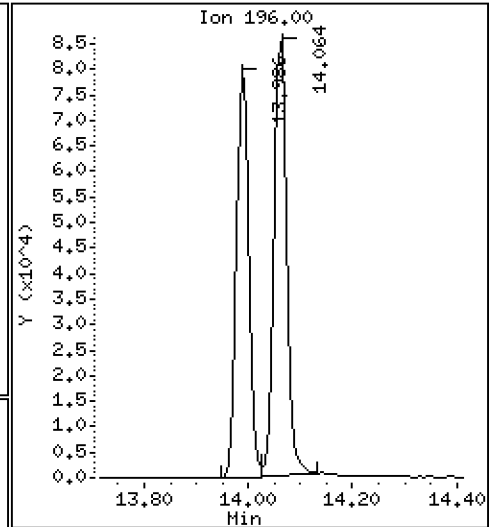
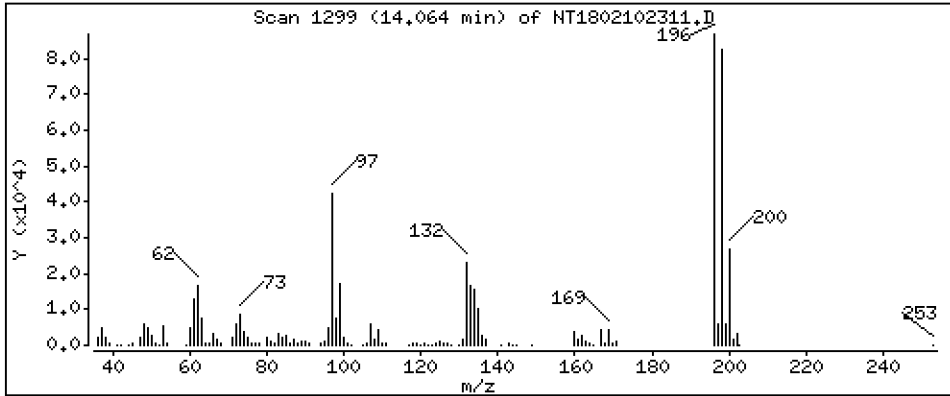
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

35 2,4,5-Trichlorophenol

Concentration: 4,225 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

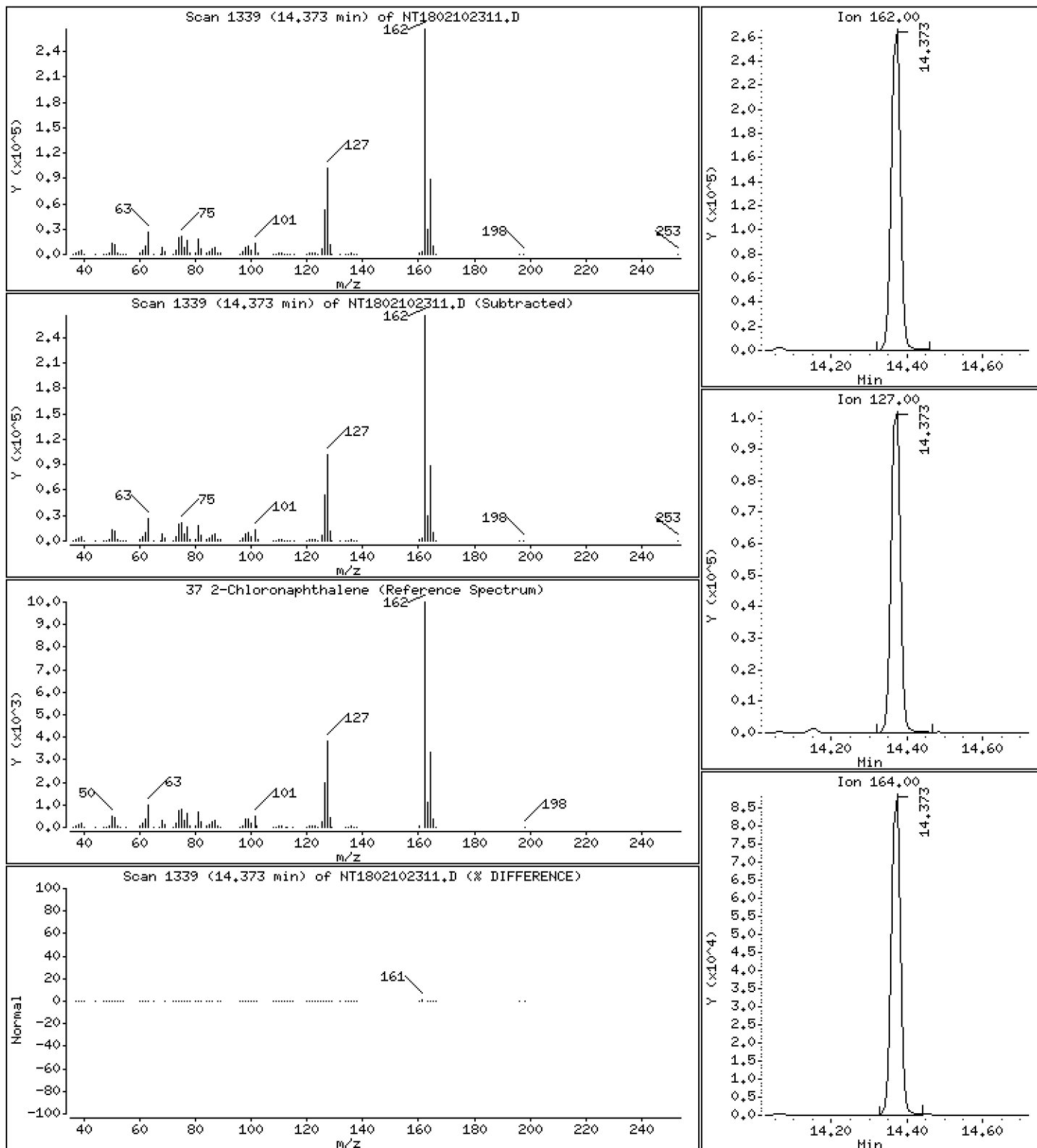
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

37 2-Chloronaphthalene

Concentration: 4.299 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

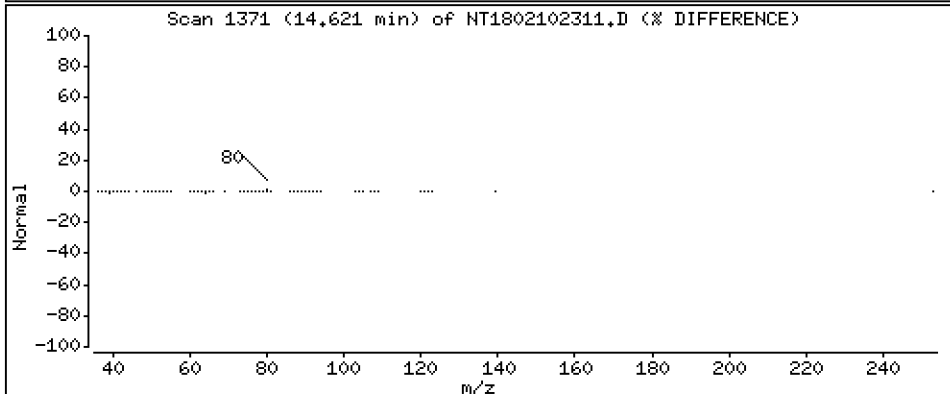
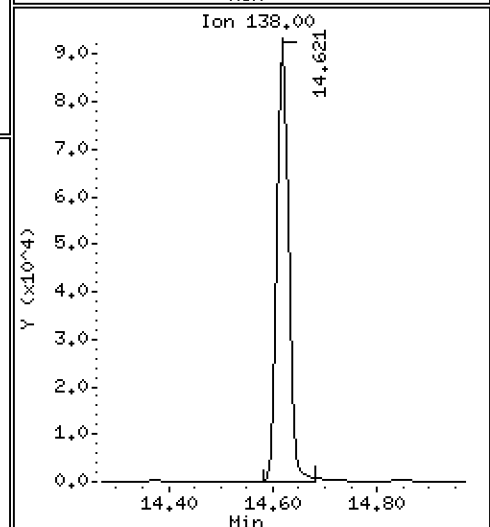
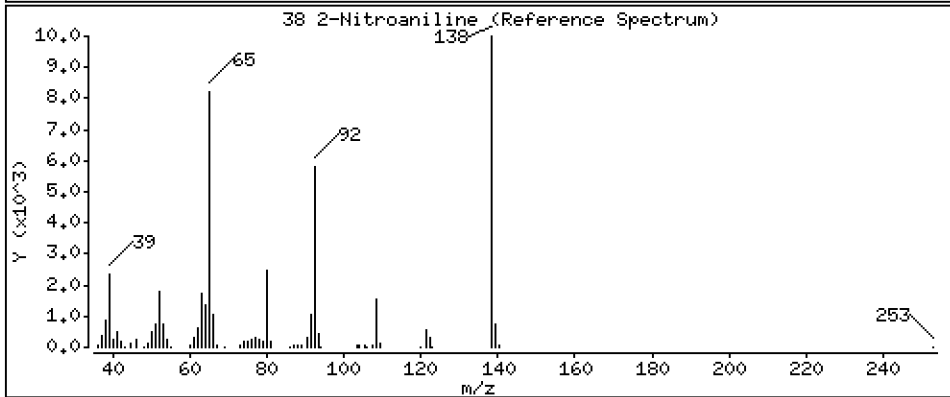
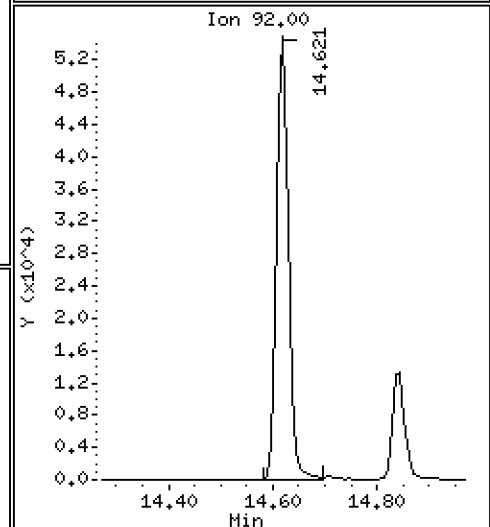
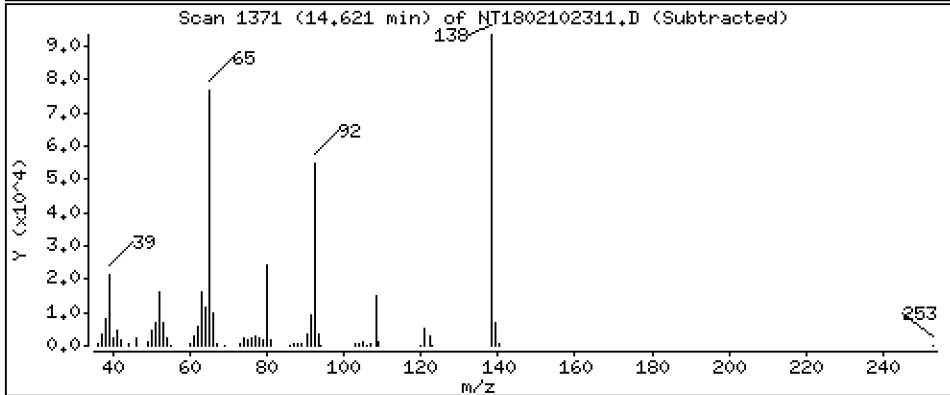
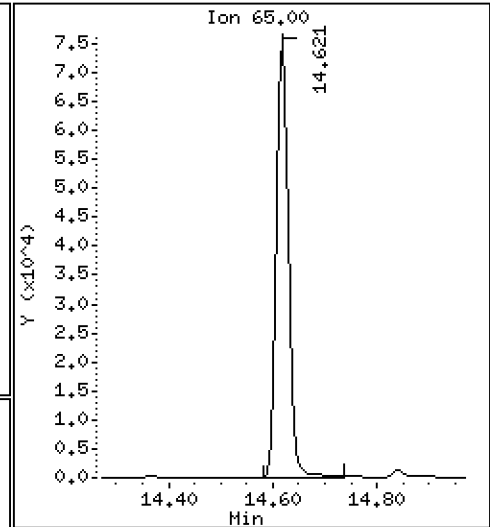
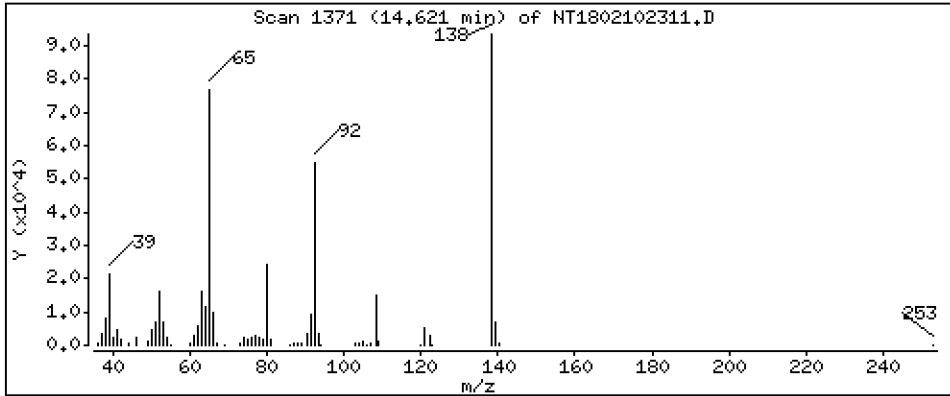
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

38 2-Nitroaniline

Concentration: 4.431 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

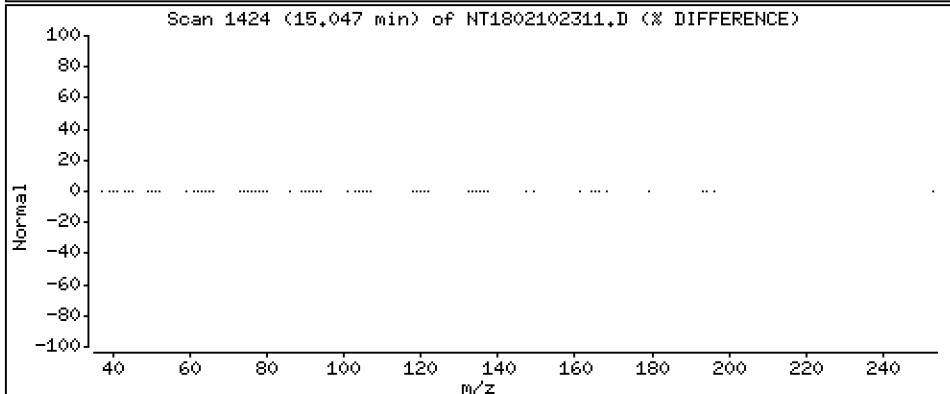
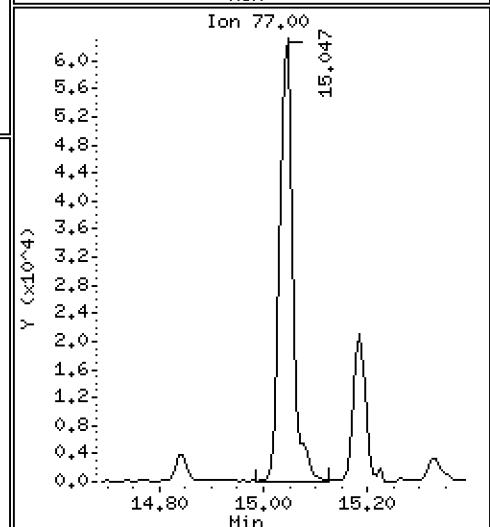
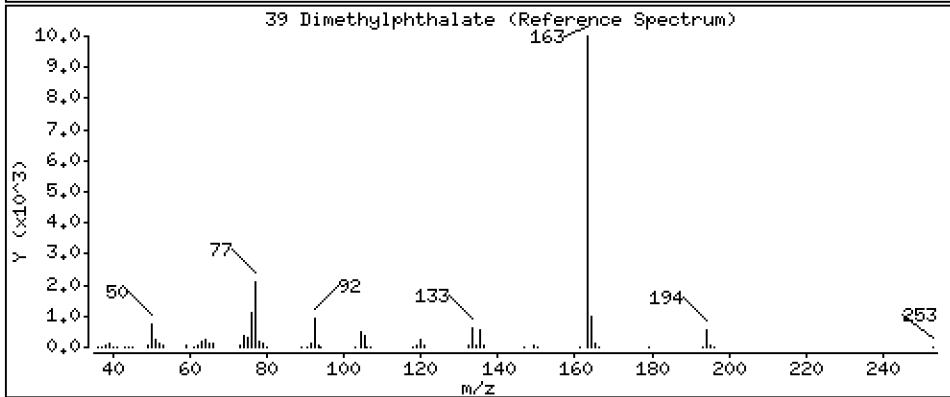
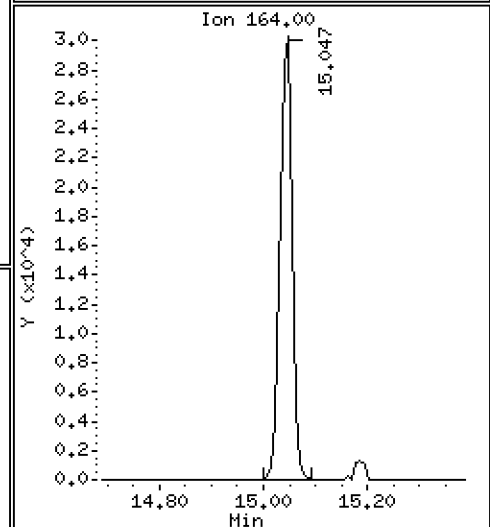
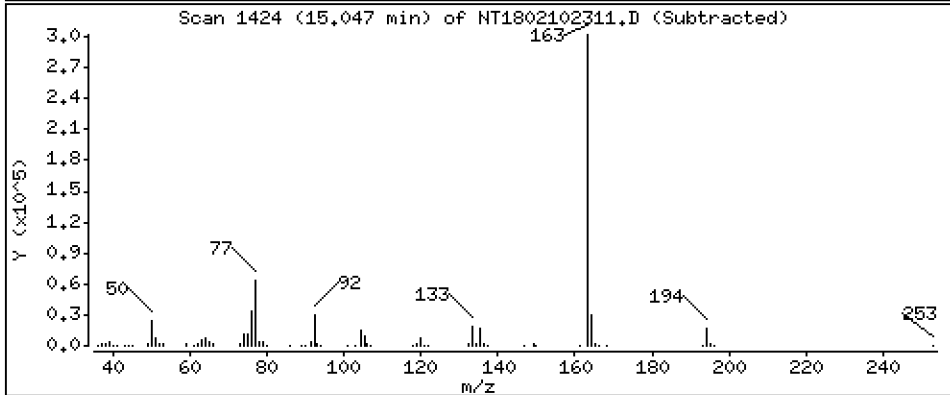
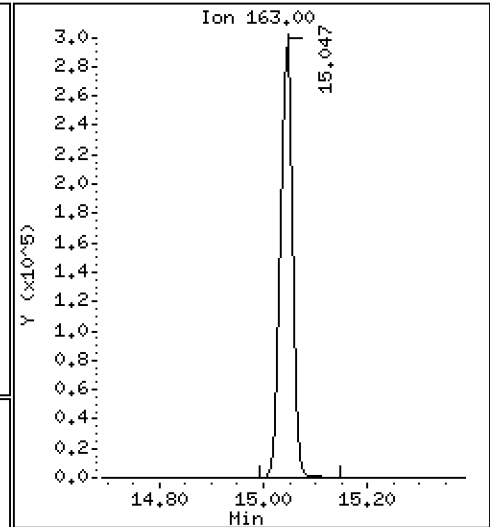
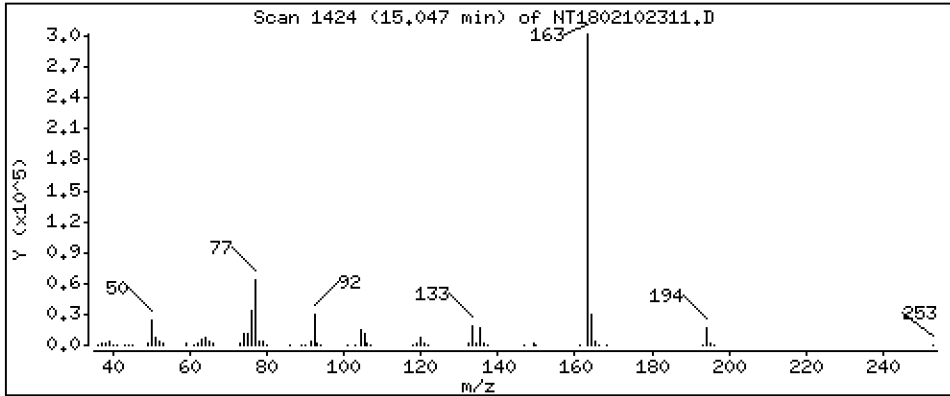
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,546 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

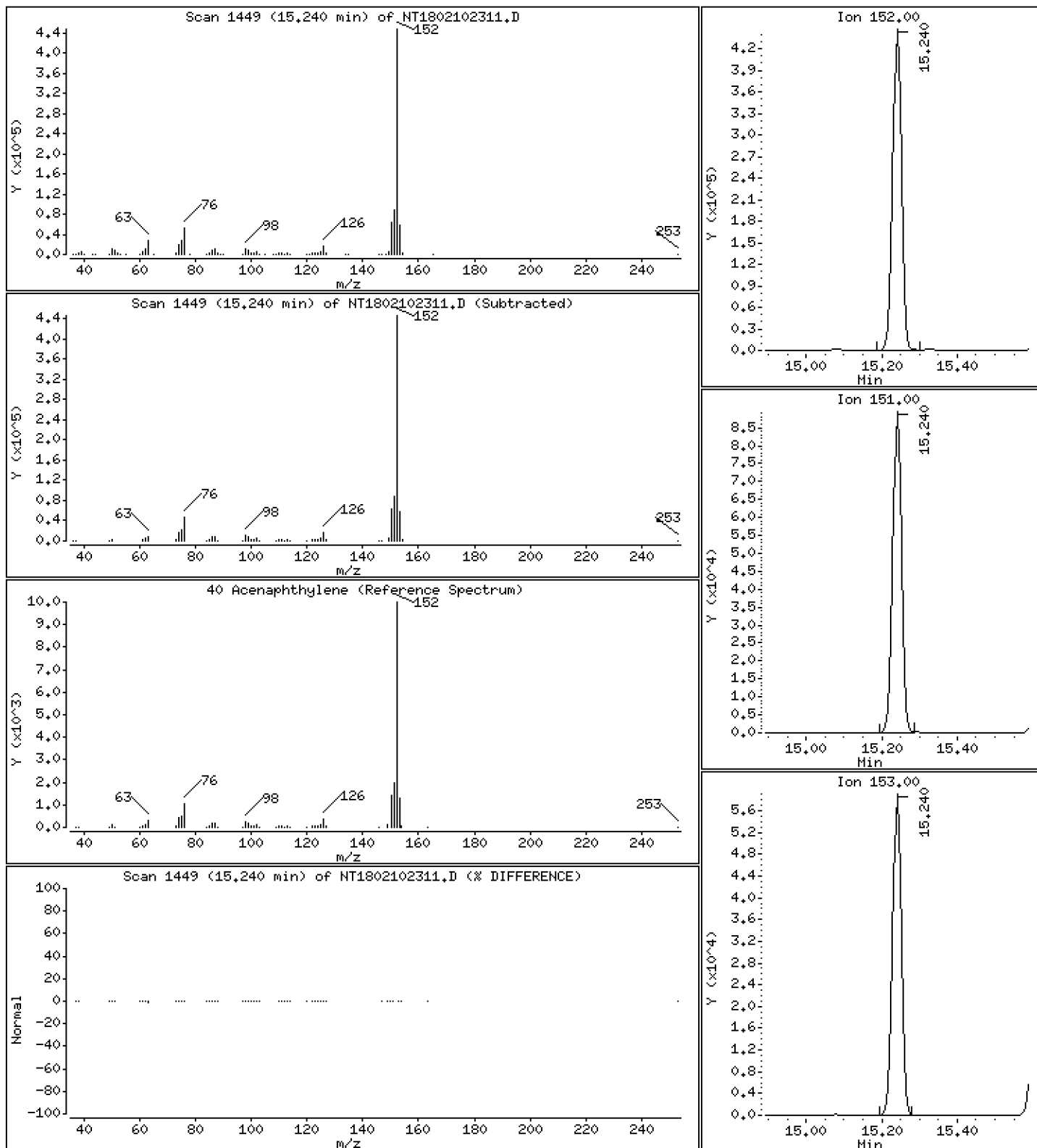
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

40 Acenaphthylene

Concentration: 4,678 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

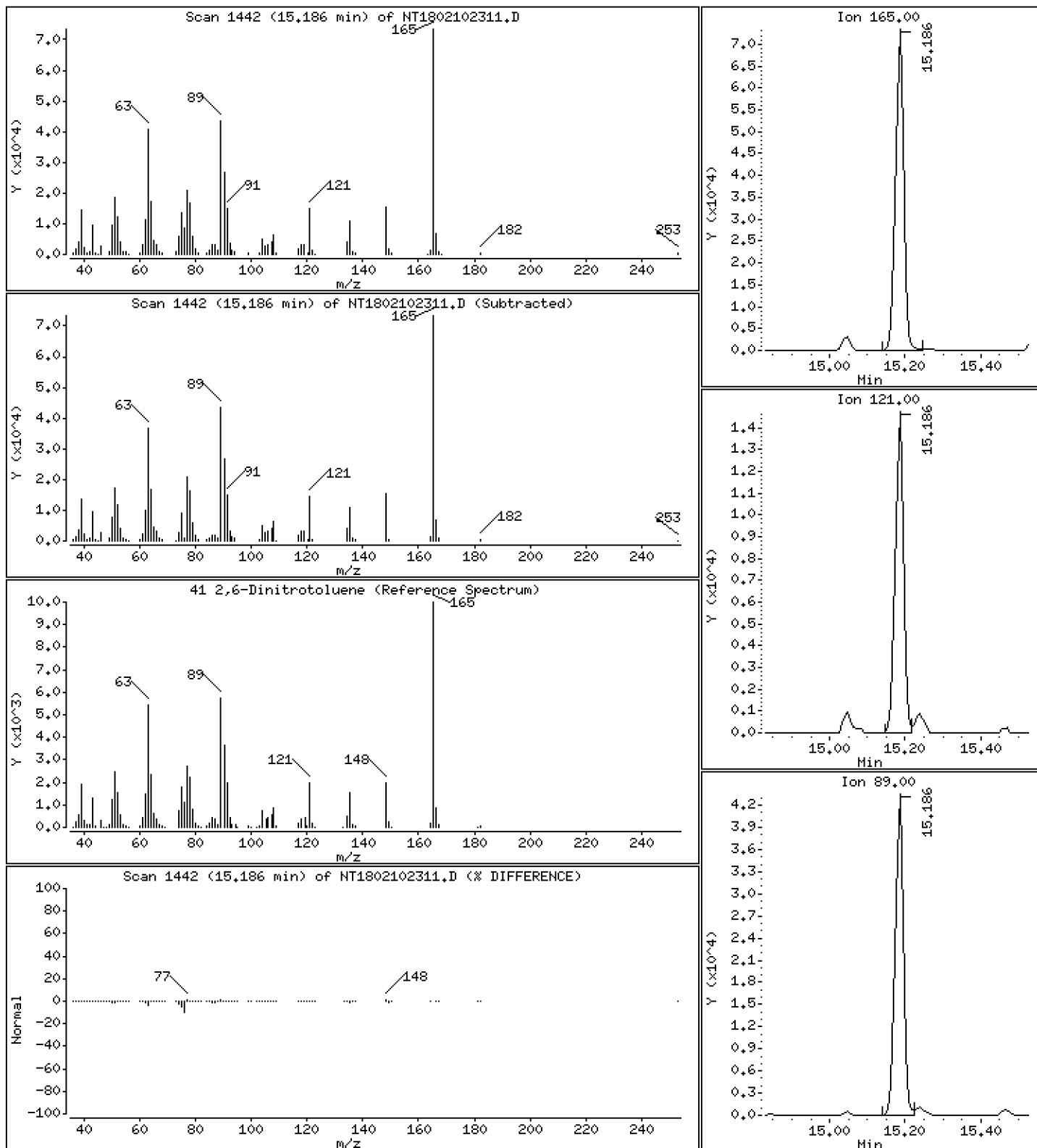
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

41 2,6-Dinitrotoluene

Concentration: 4,560 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

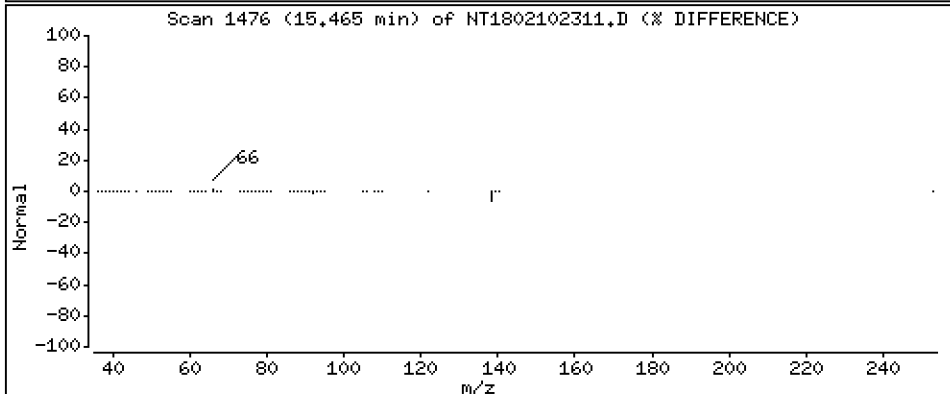
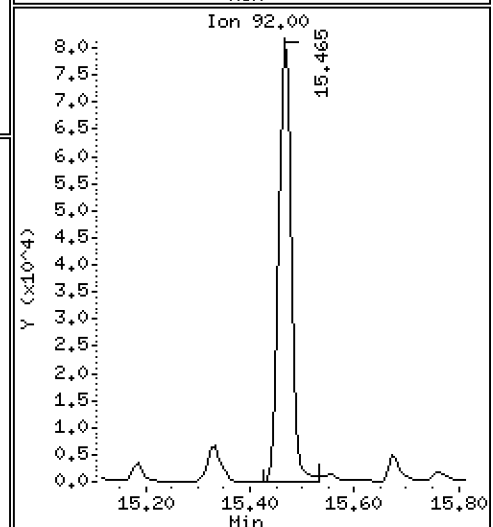
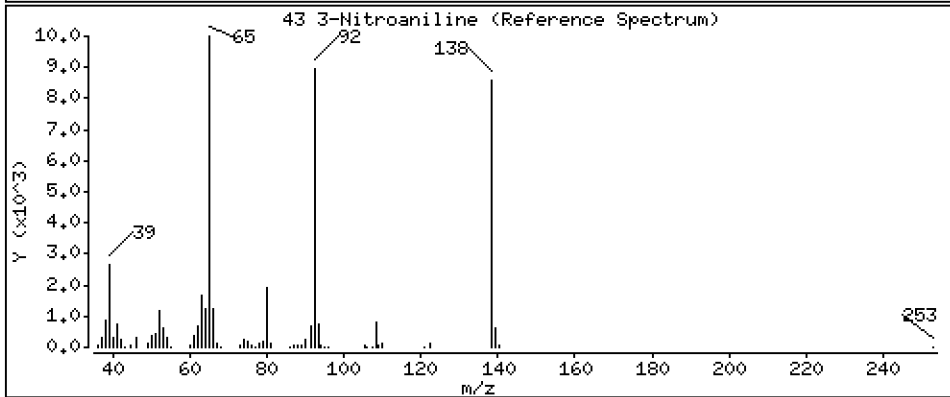
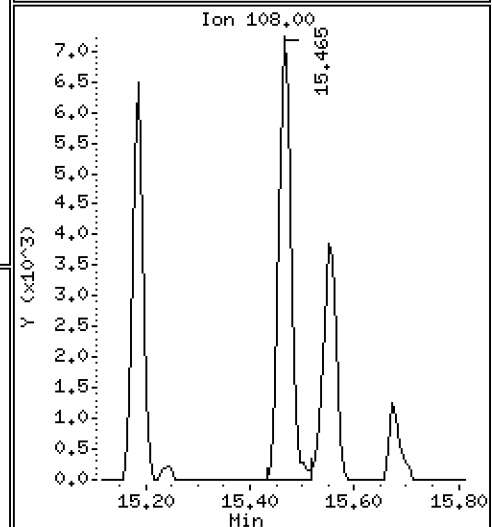
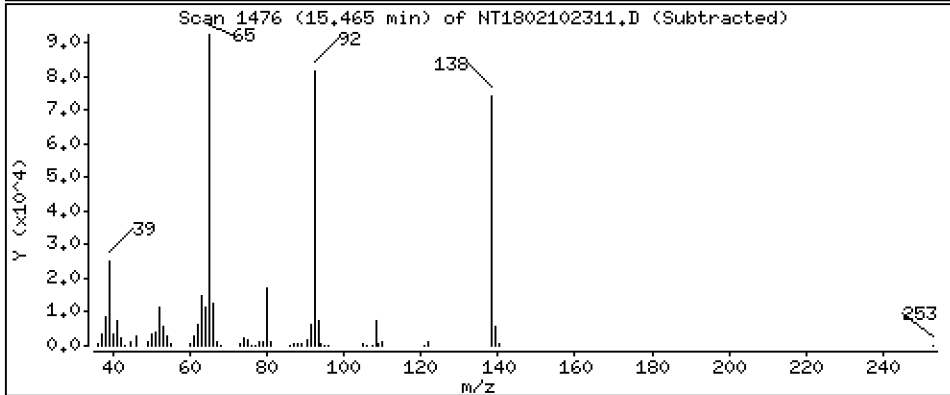
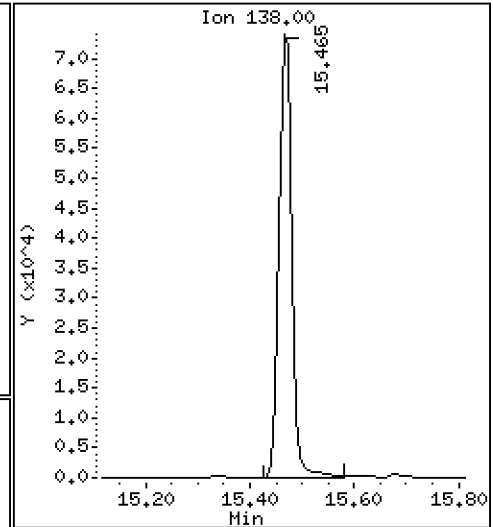
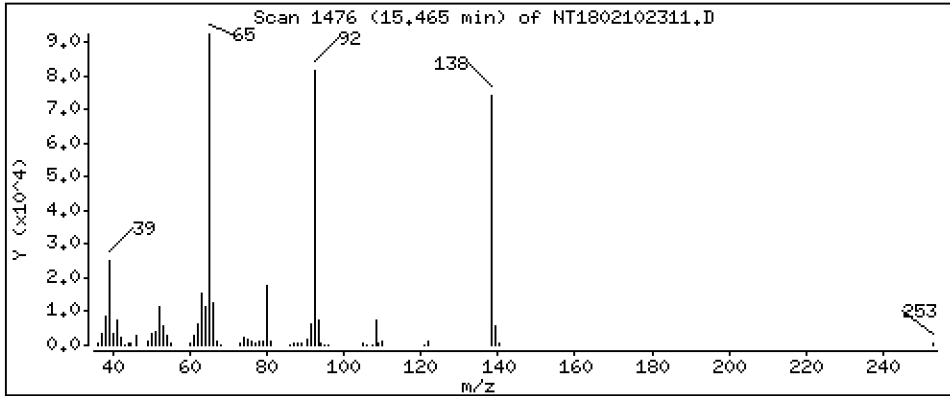
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

43 3-Nitroaniline

Concentration: 4,651 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

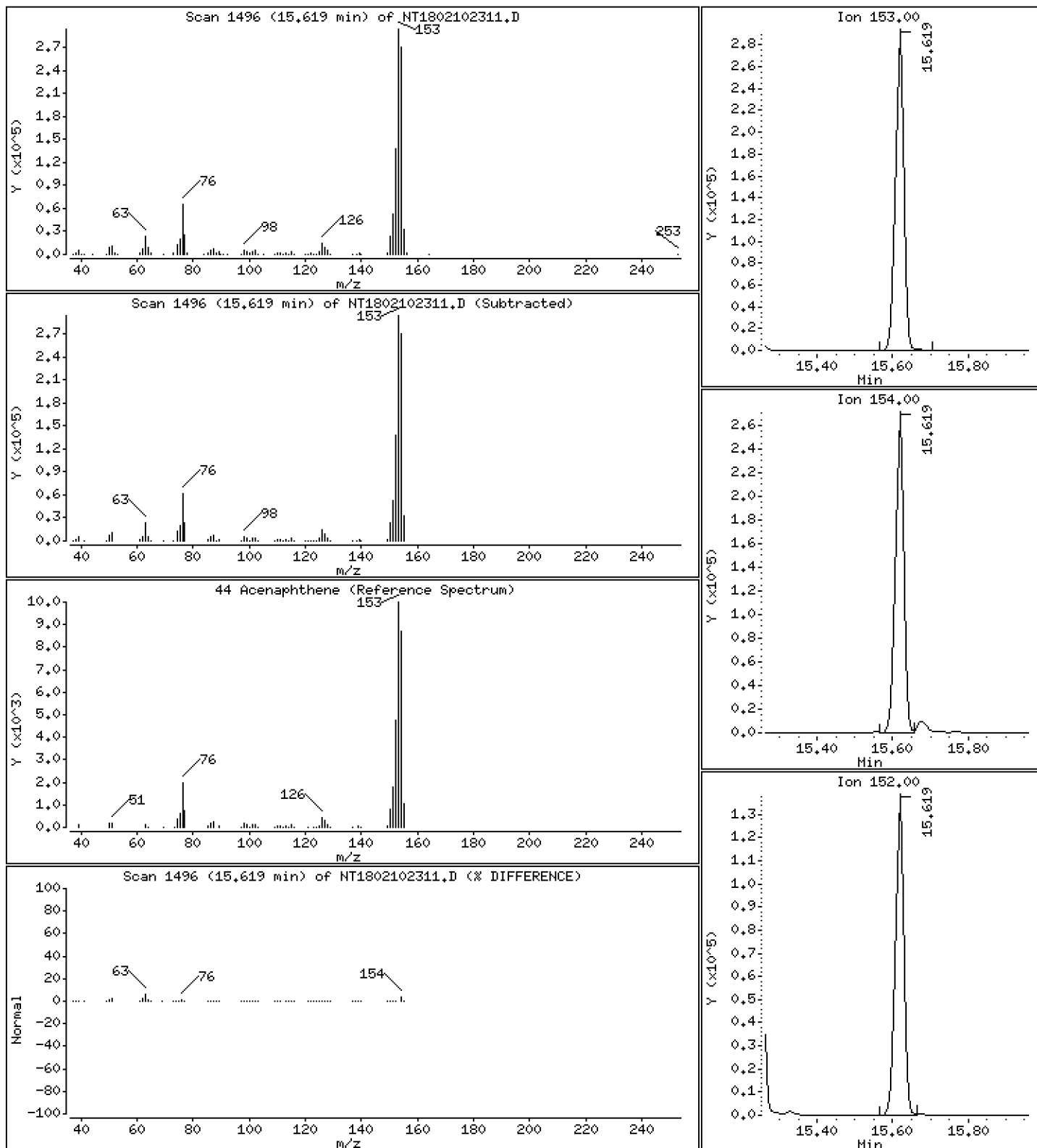
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

44 Acenaphthene

Concentration: 4,402 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

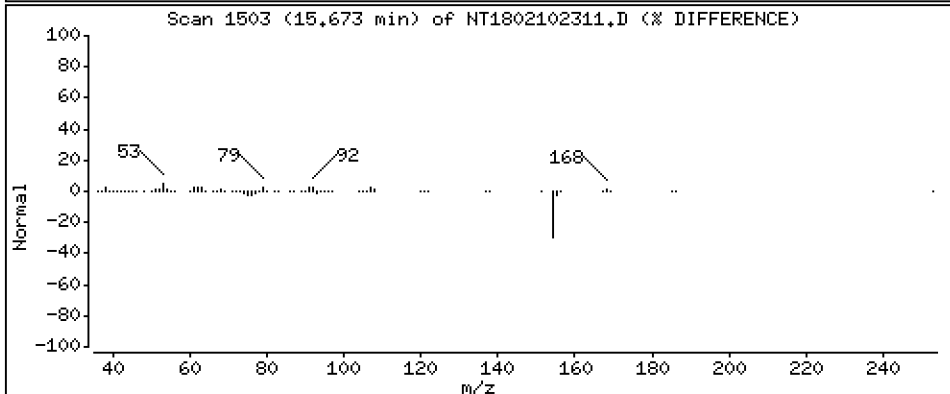
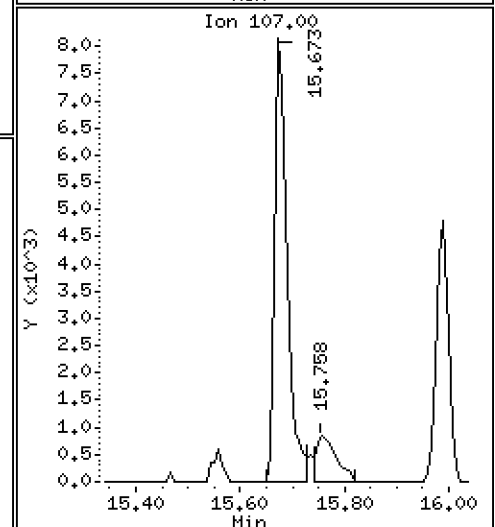
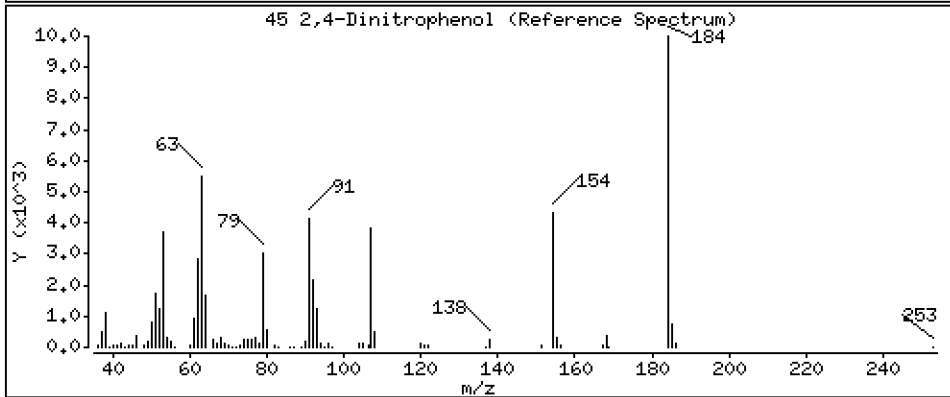
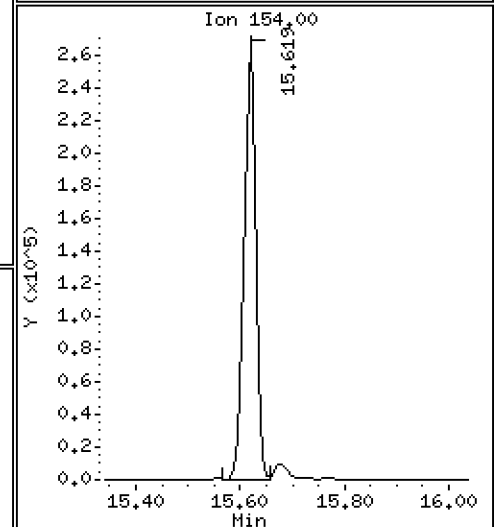
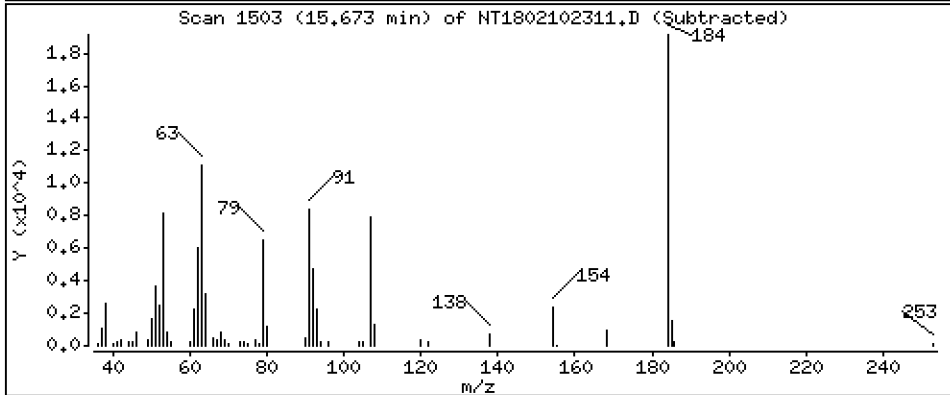
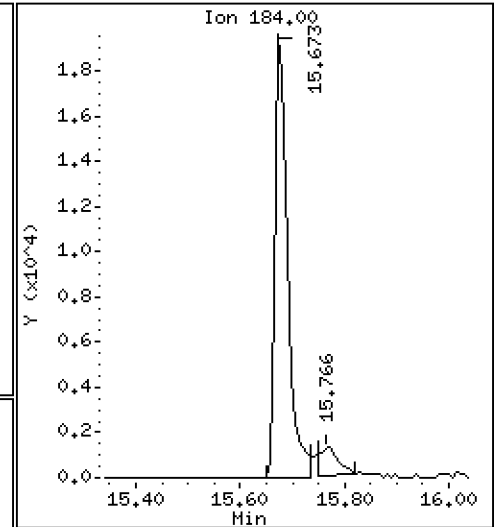
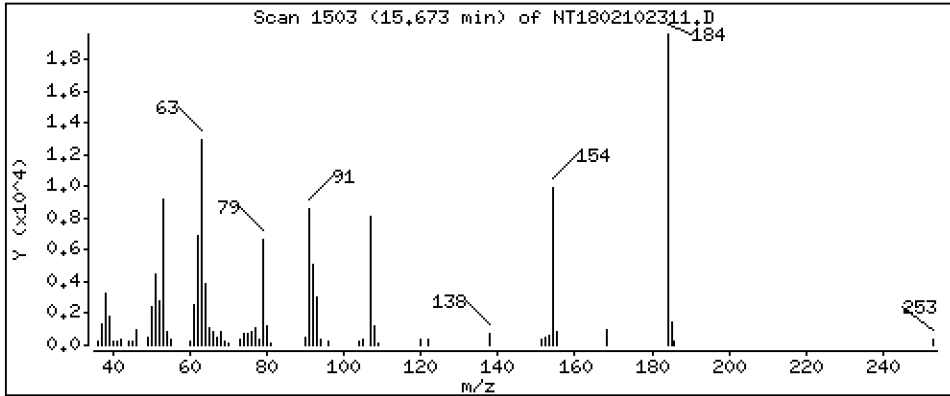
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

45 2,4-Dinitrophenol

Concentration: 1,936 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

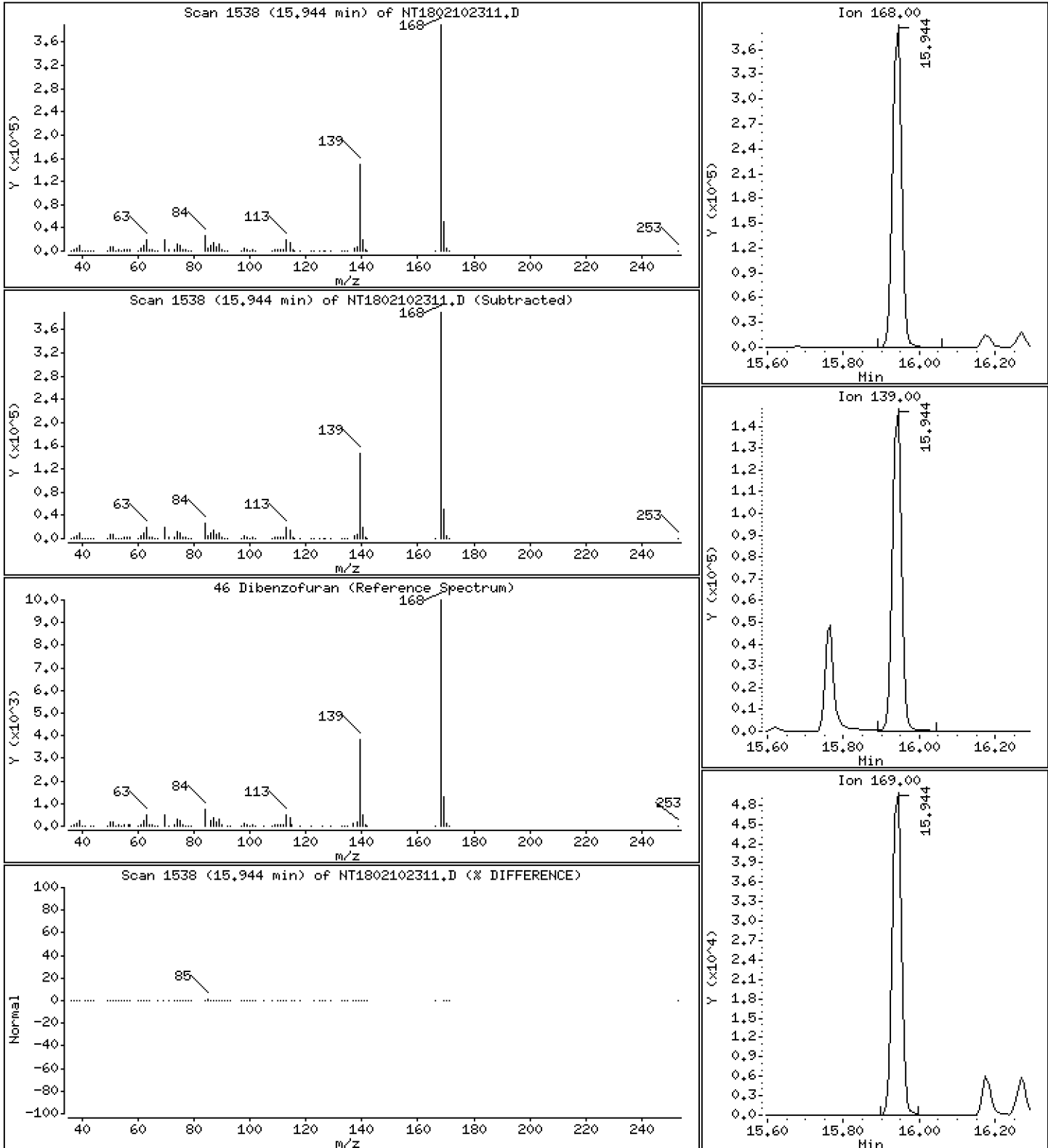
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

46 Dibenzofuran

Concentration: 4,247 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

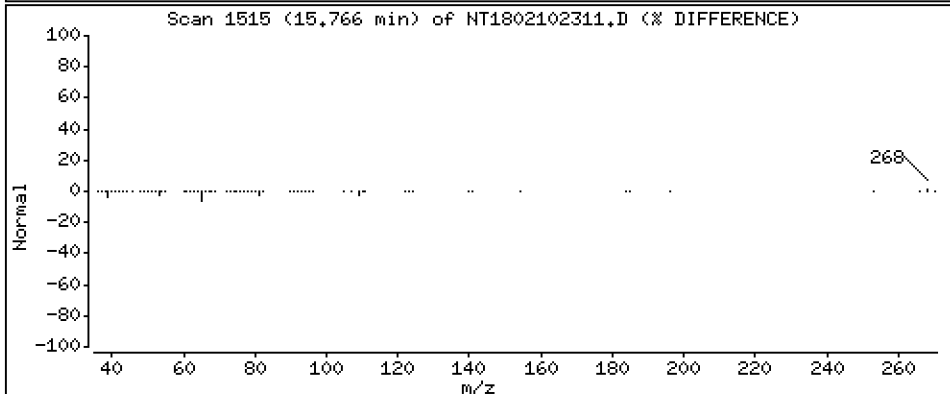
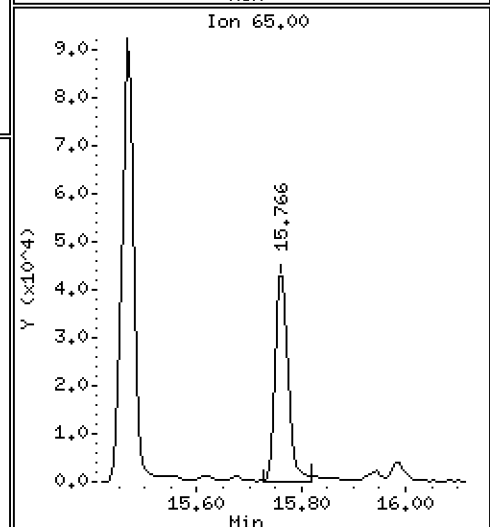
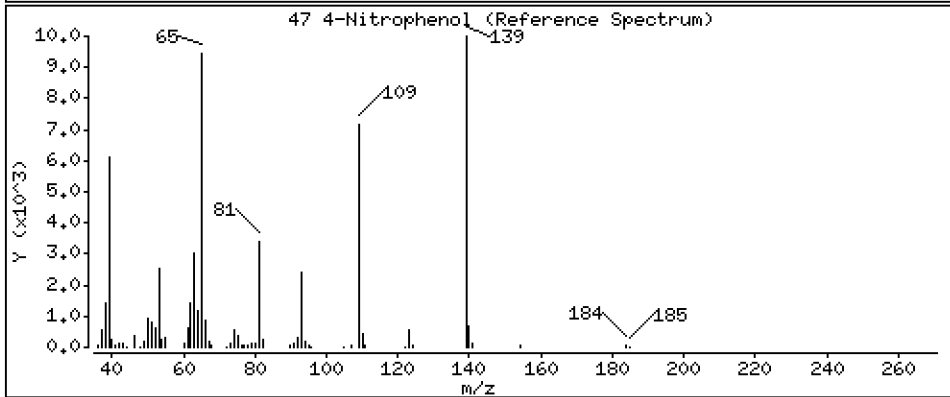
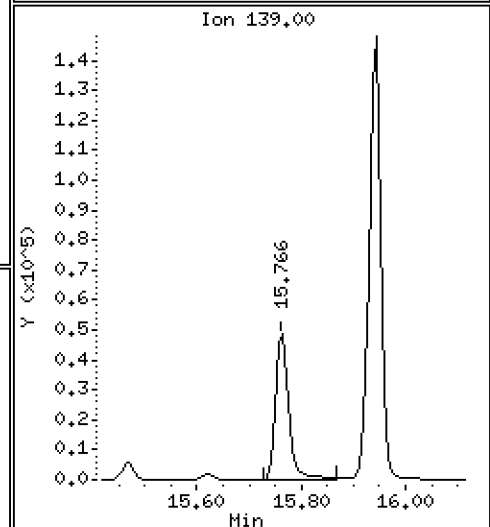
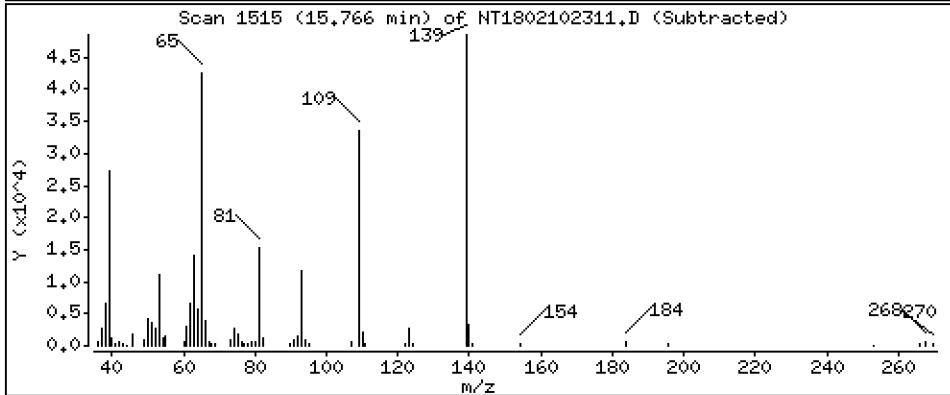
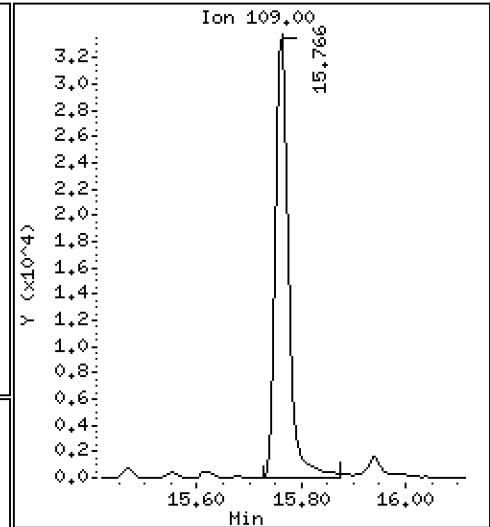
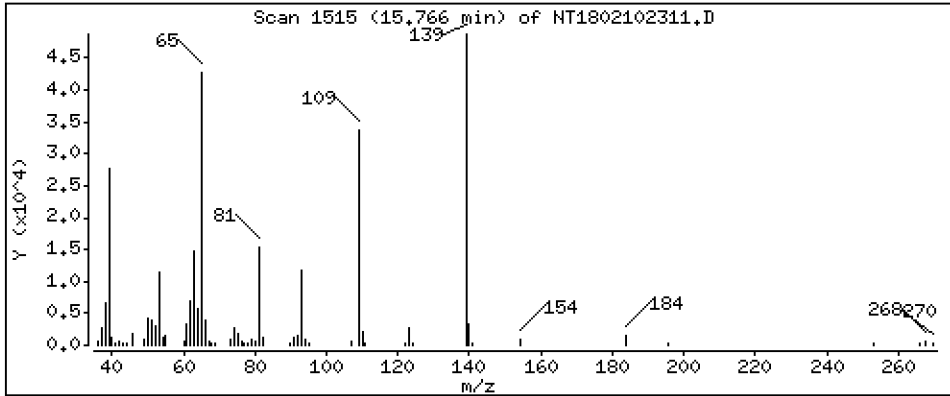
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

47 4-Nitrophenol

Concentration: 3,976 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

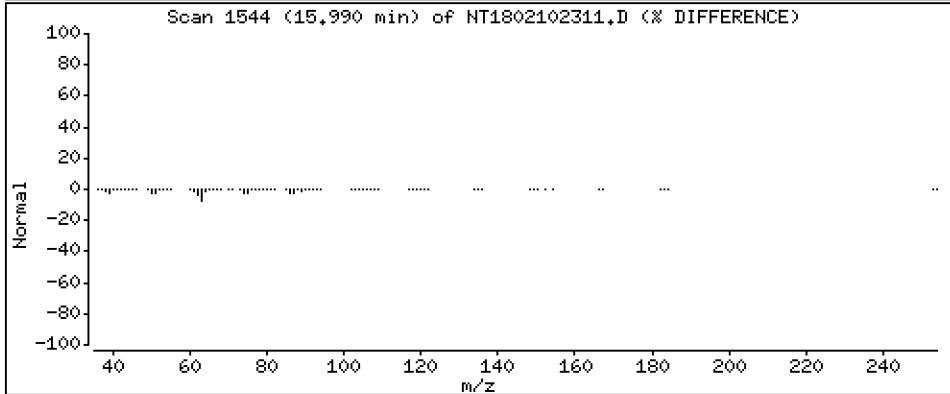
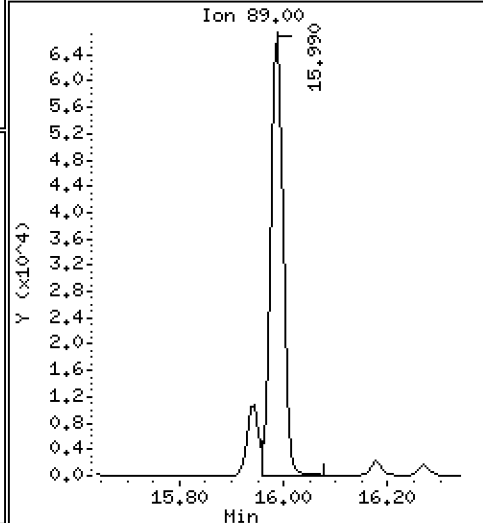
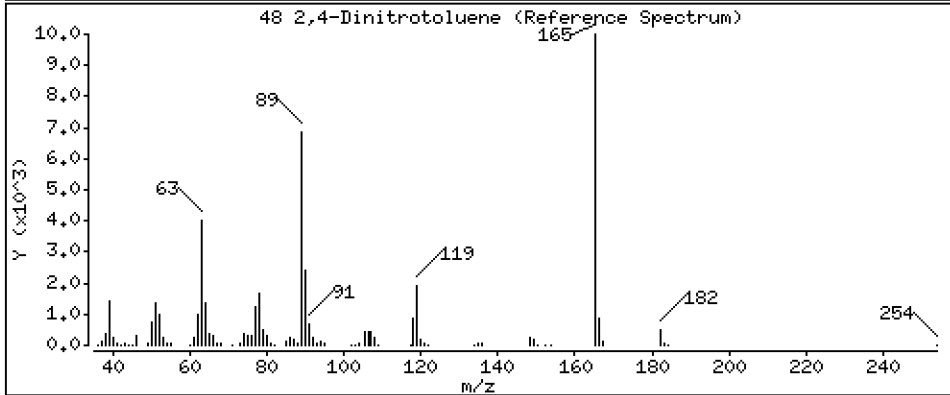
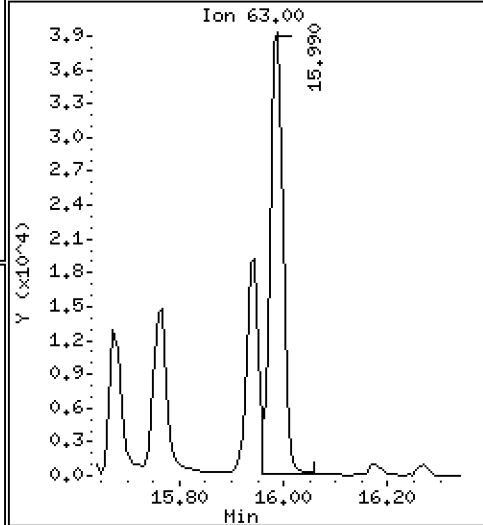
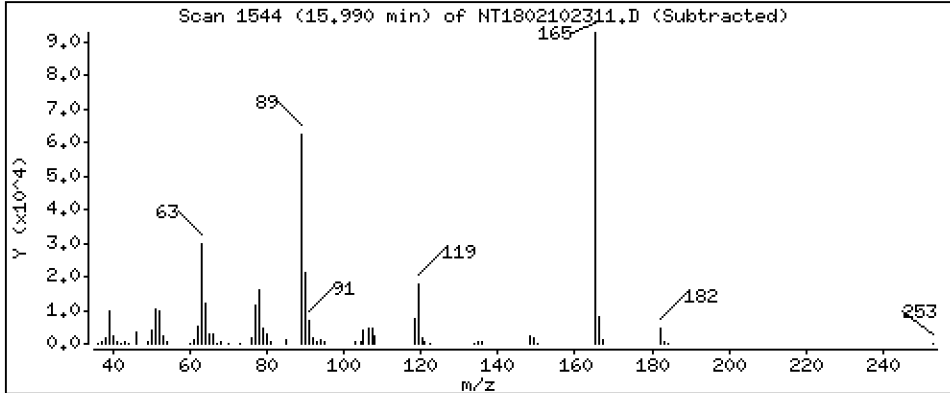
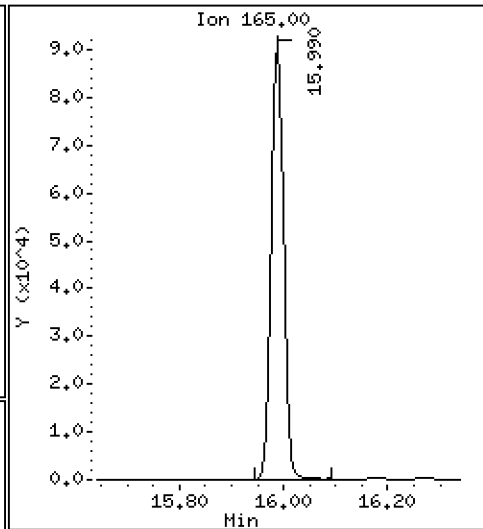
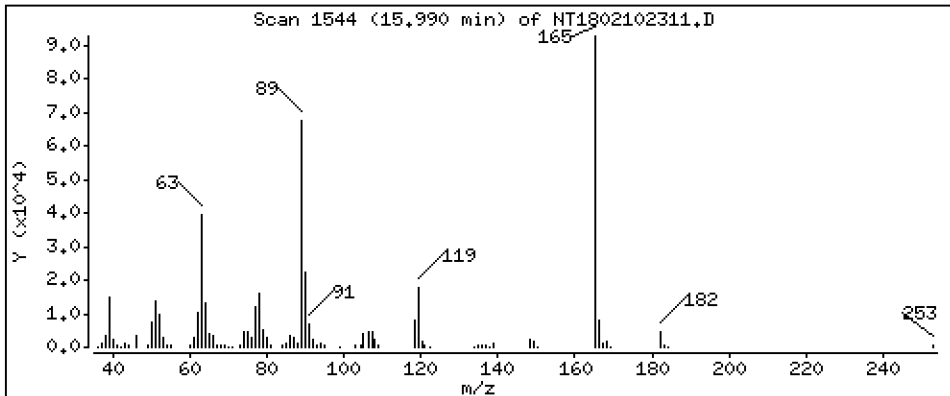
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

48 2,4-Dinitrotoluene

Concentration: 4,446 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

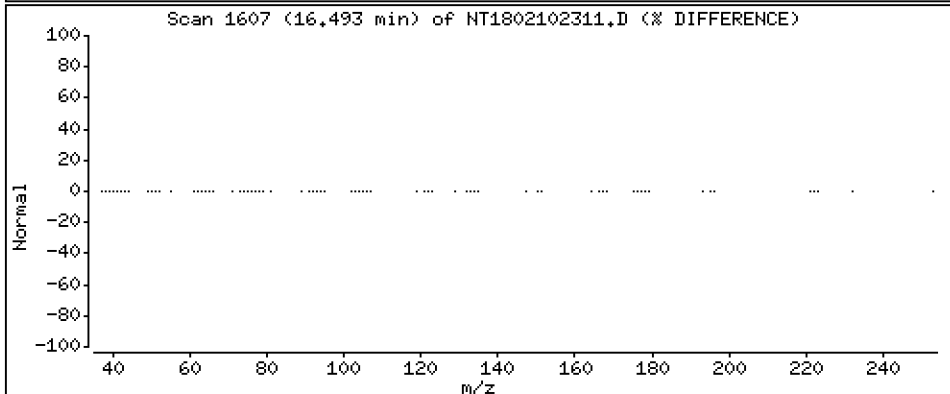
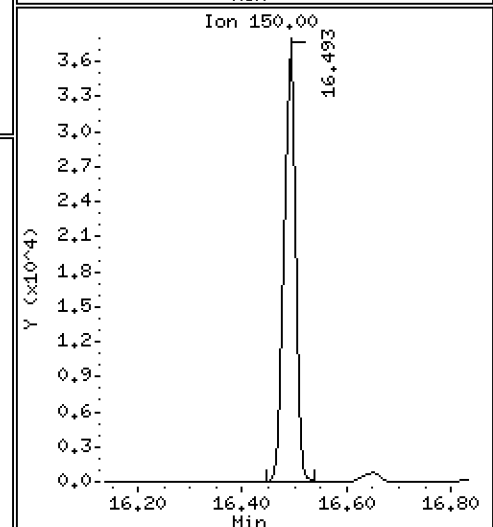
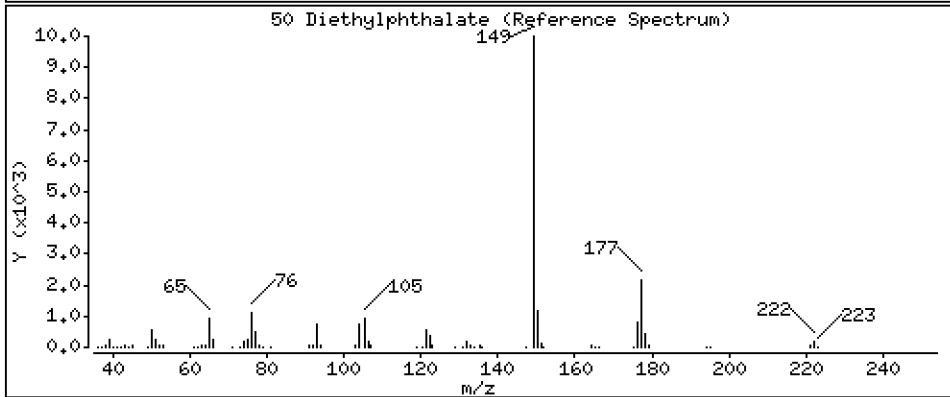
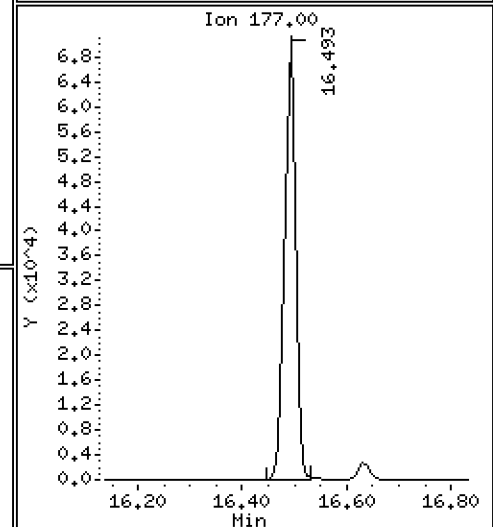
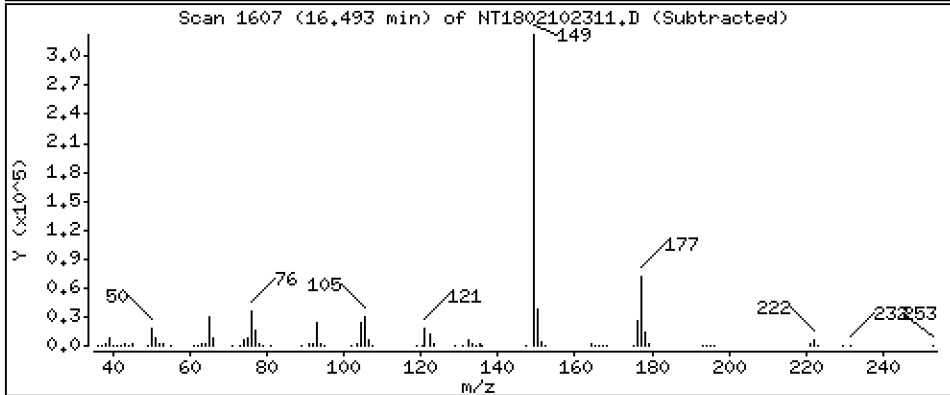
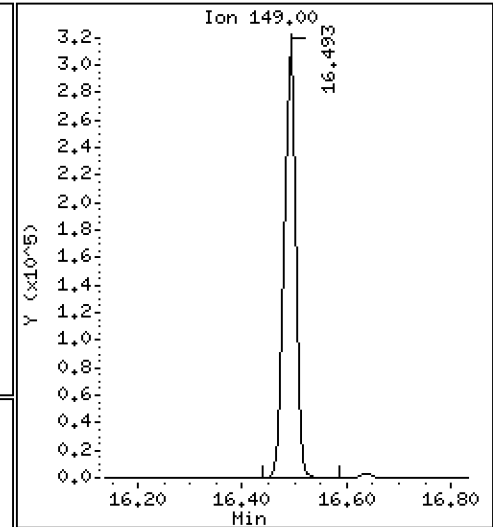
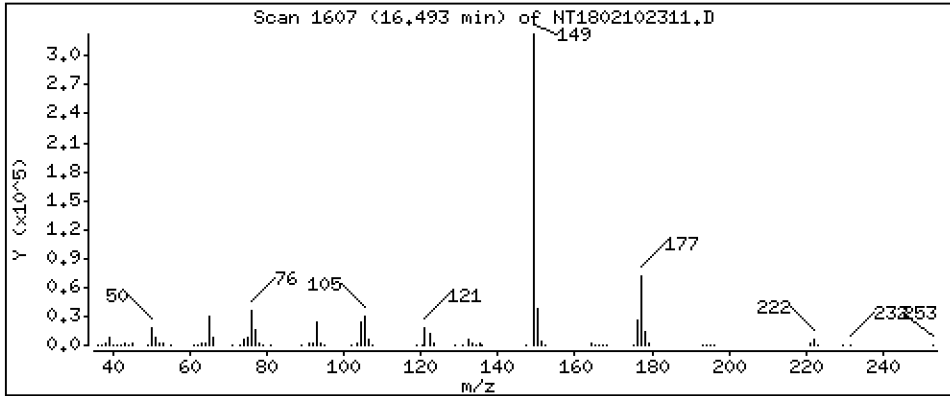
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 5,062 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

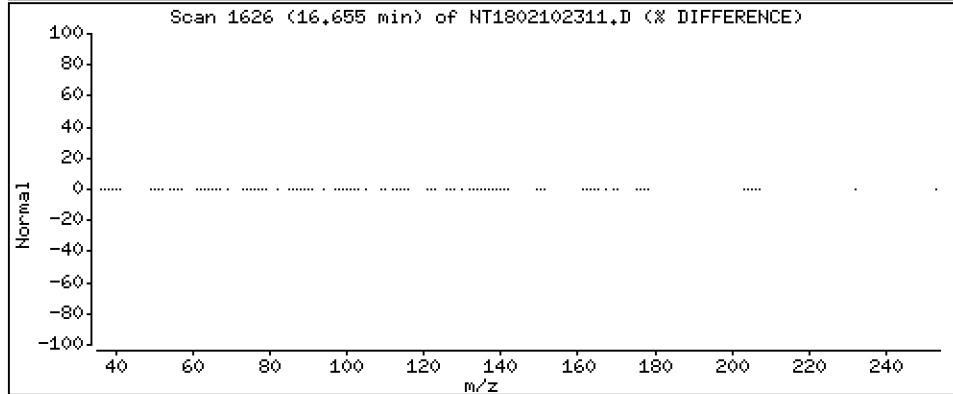
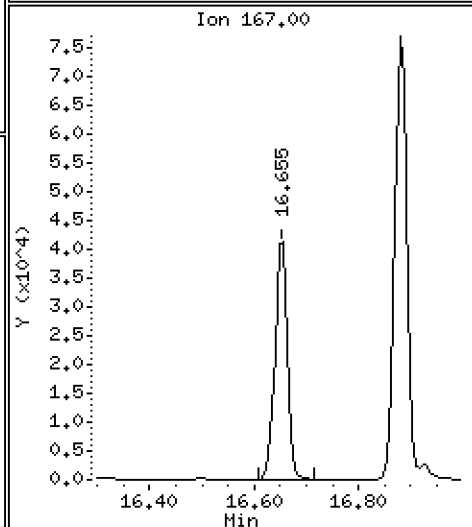
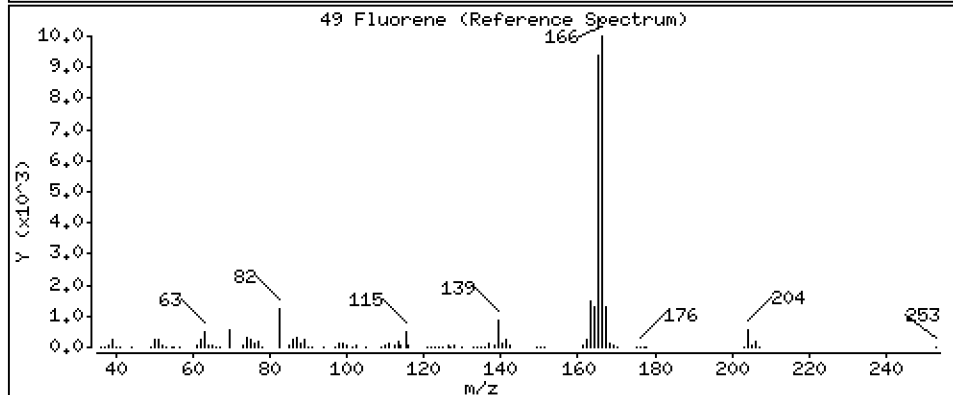
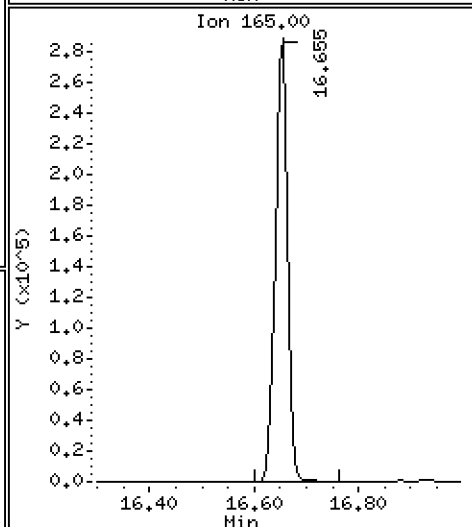
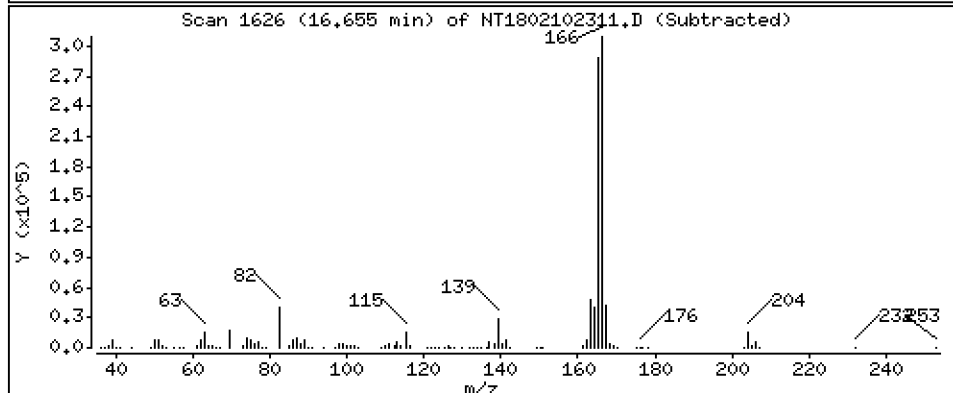
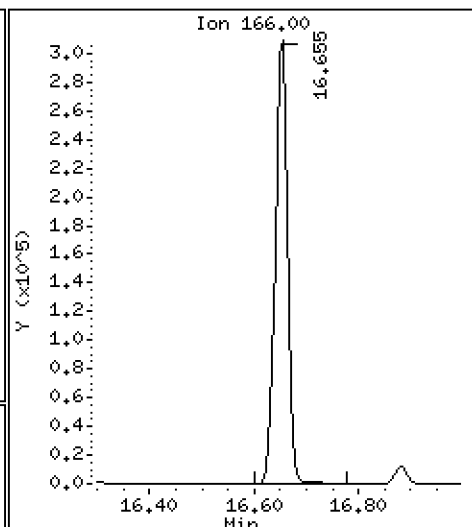
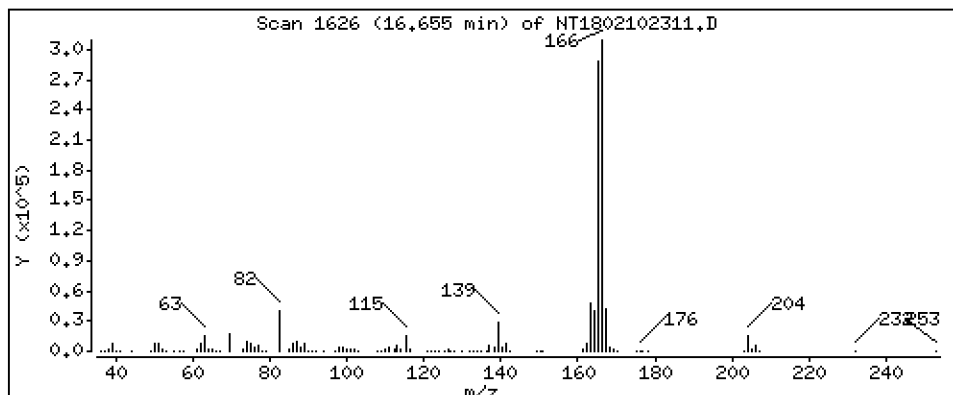
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

49 Fluorene

Concentration: 4,542 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

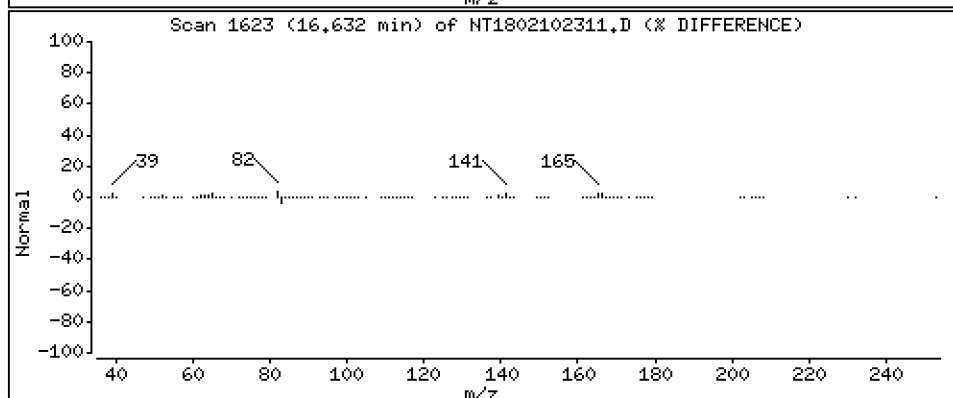
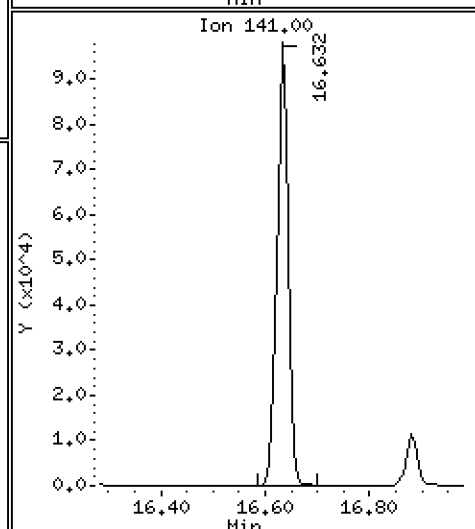
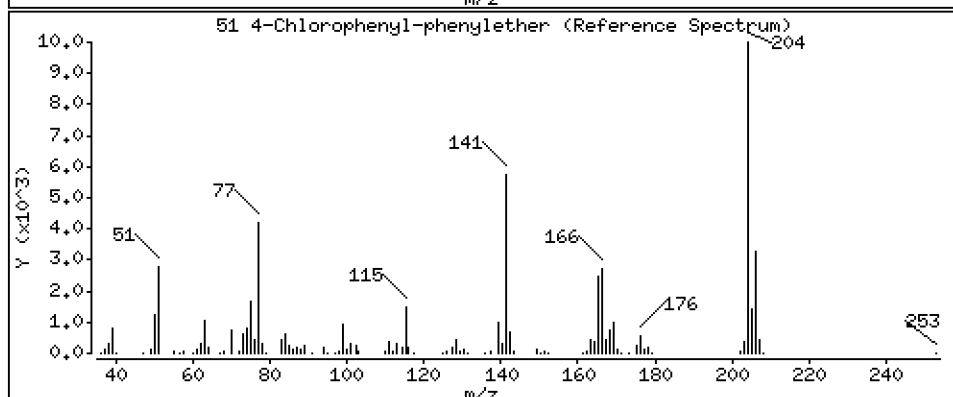
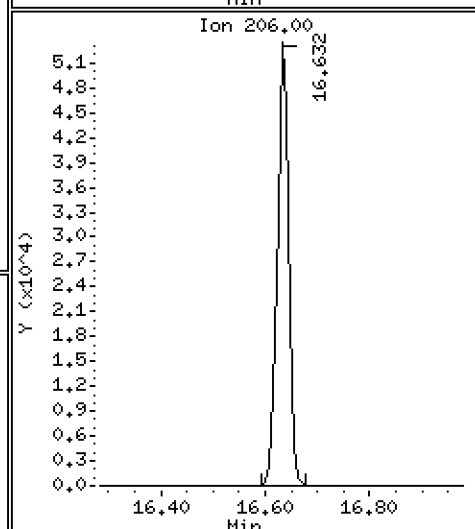
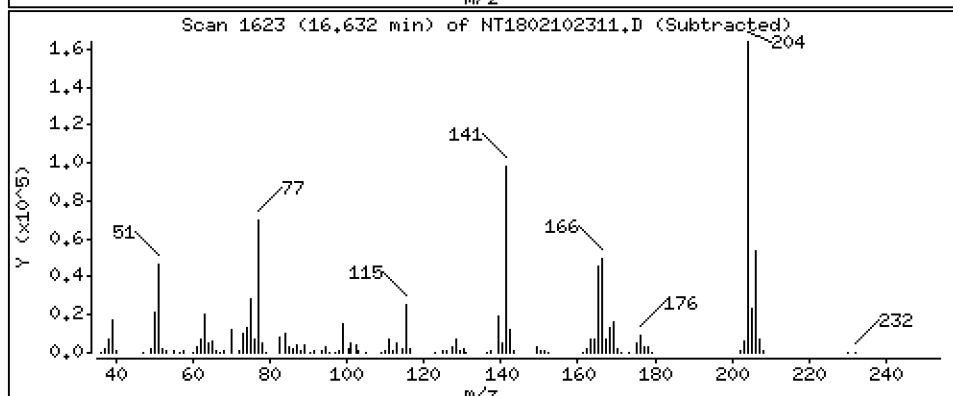
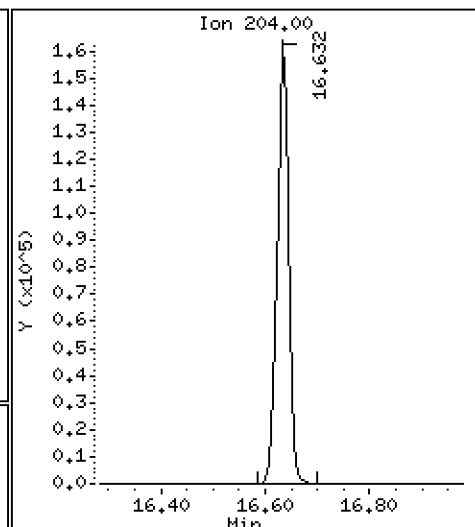
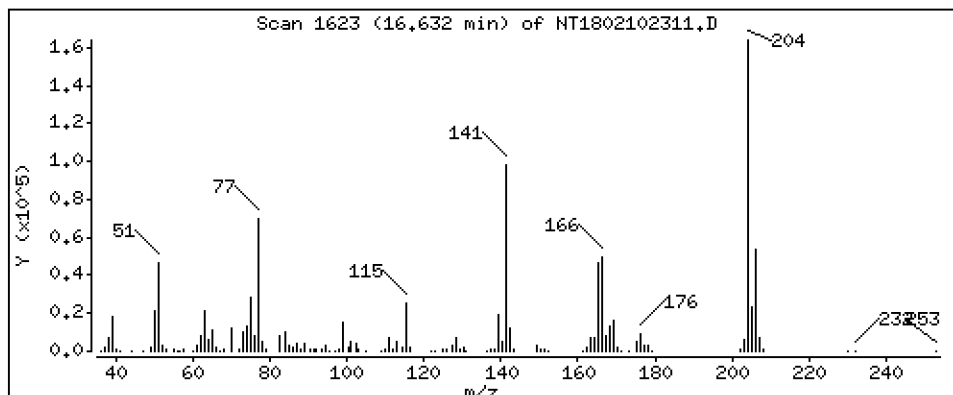
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

51 4-Chlorophenyl-phenylether

Concentration: 4,339 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

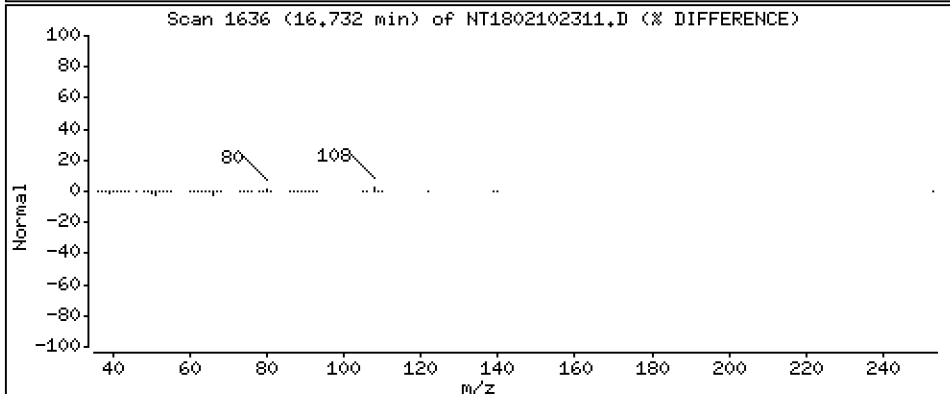
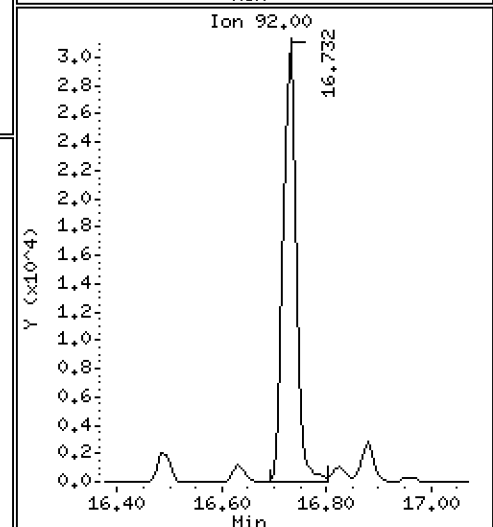
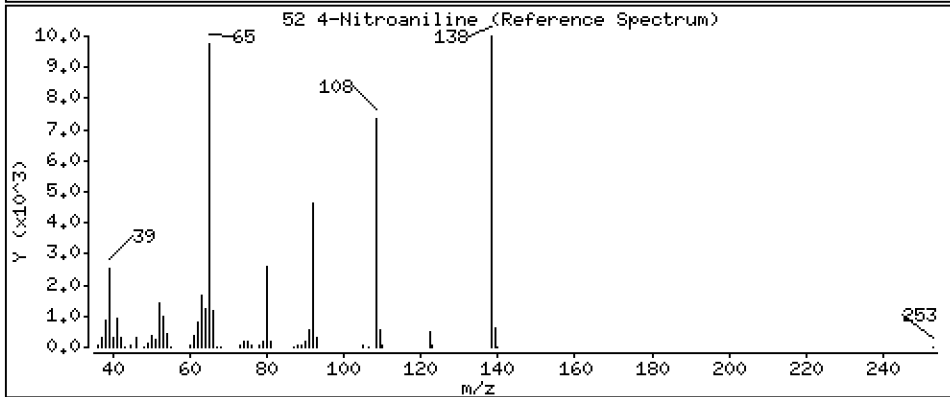
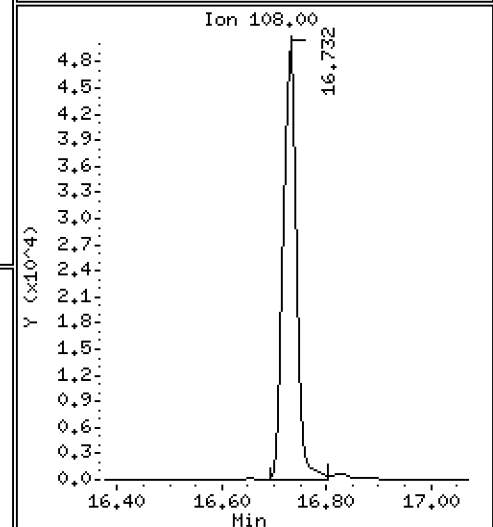
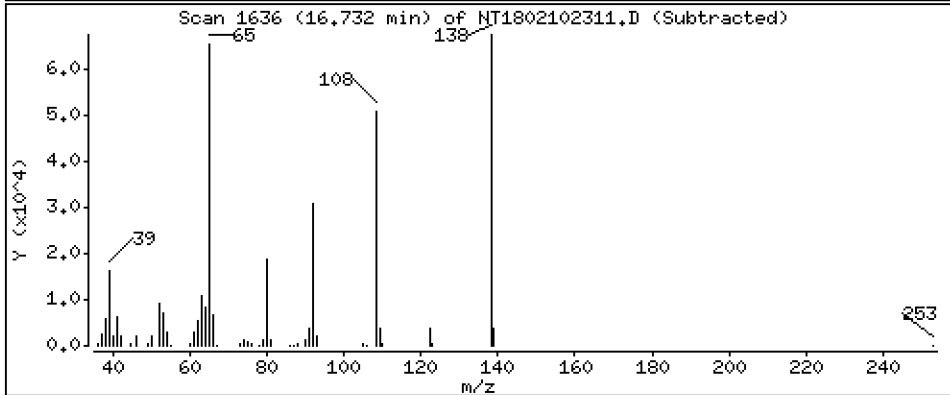
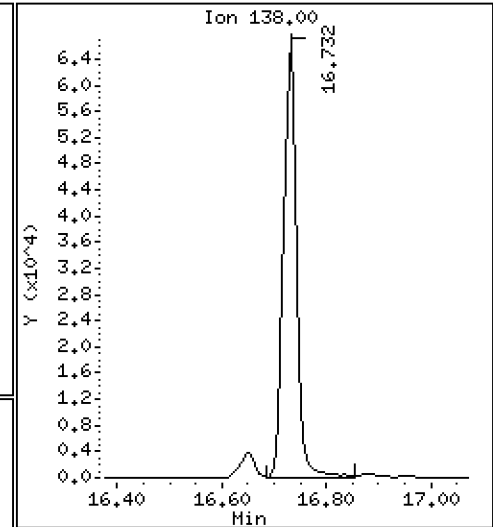
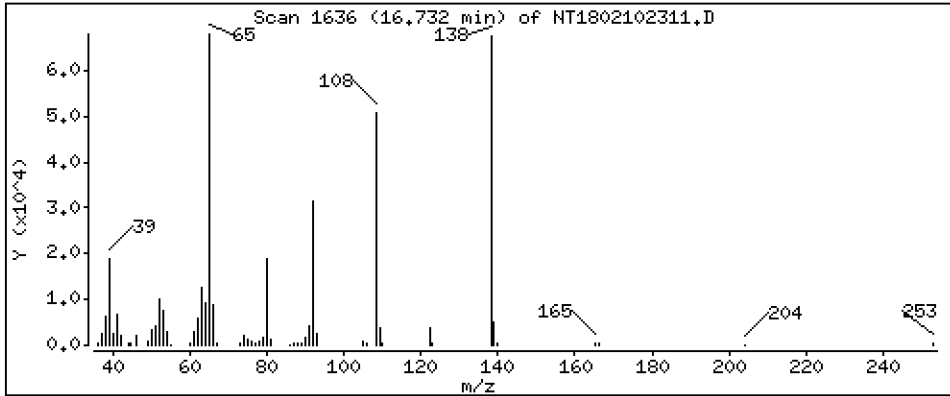
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

52 4-Nitroaniline

Concentration: 4.131 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

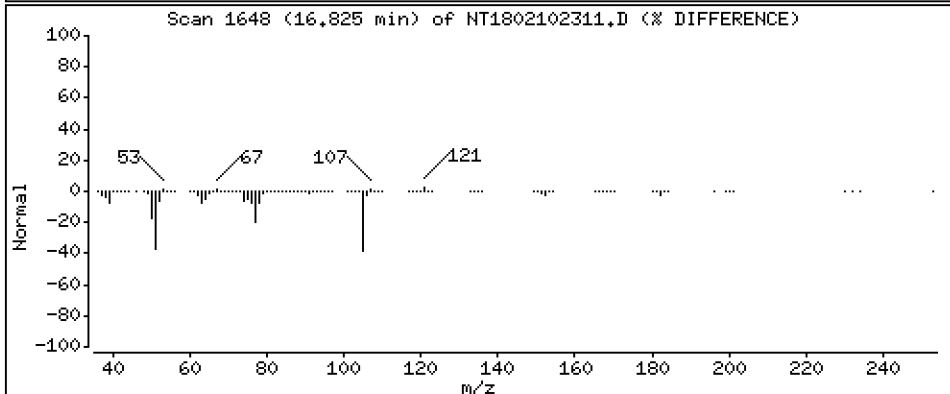
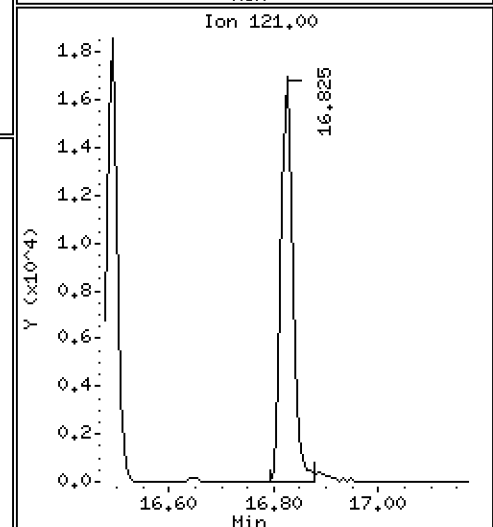
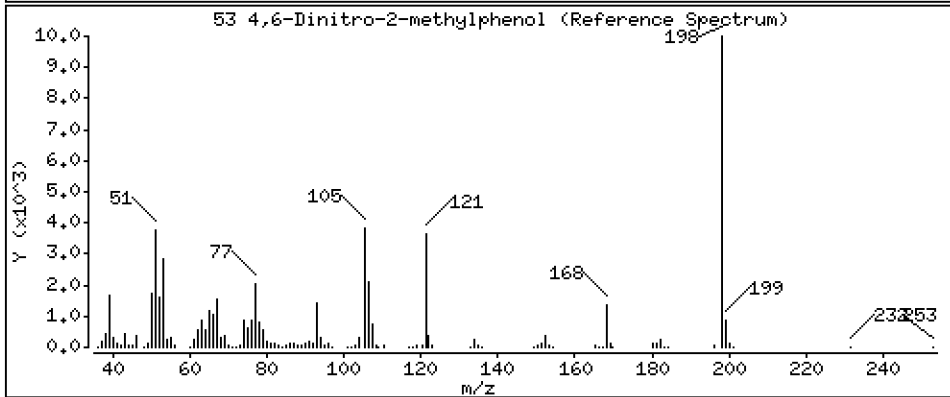
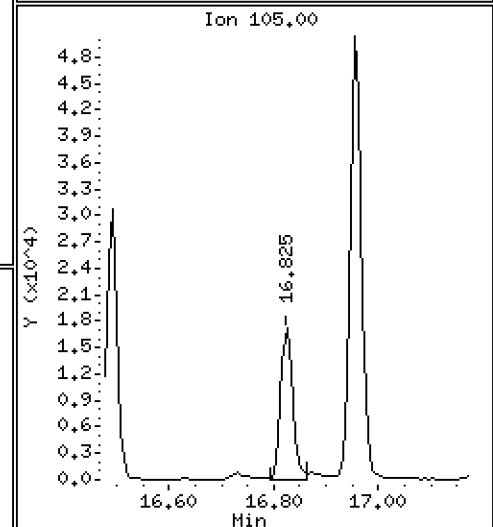
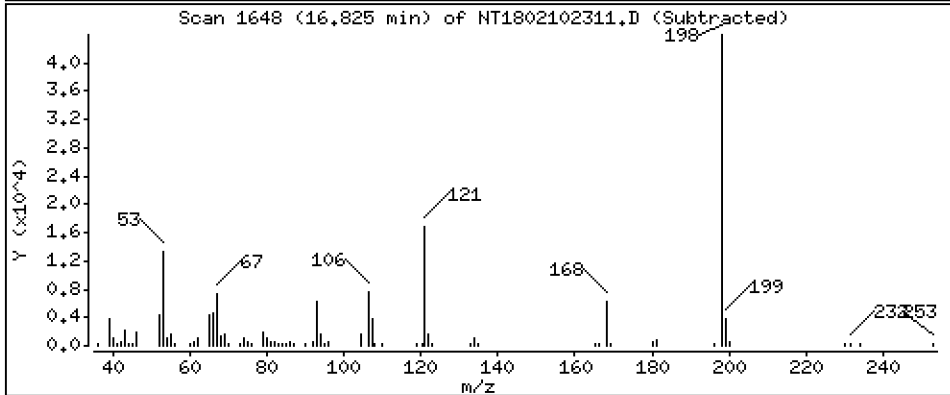
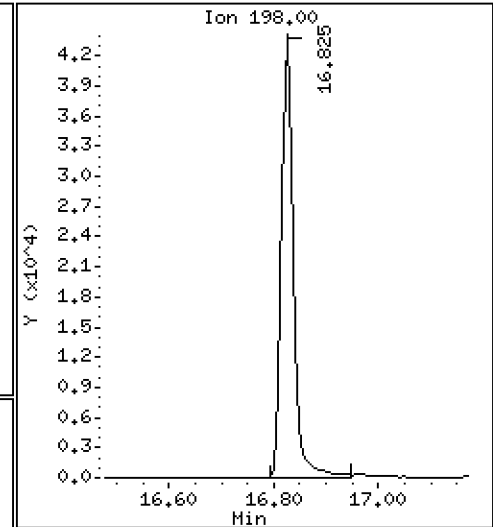
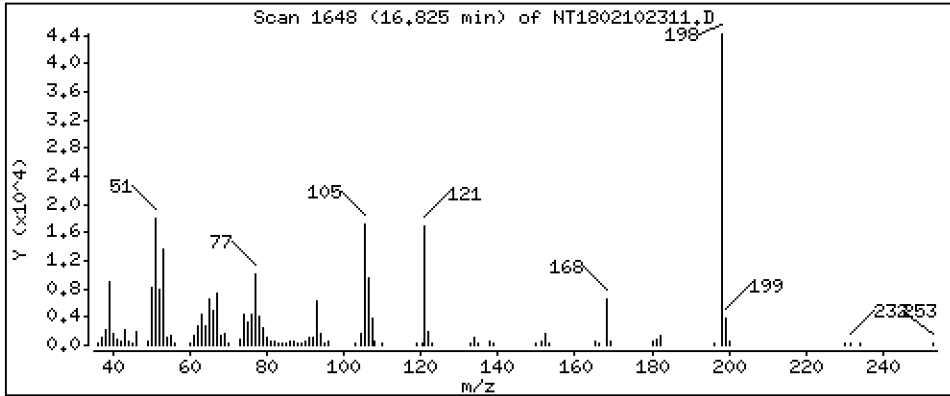
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

53 4,6-Dinitro-2-methylphenol

Concentration: 3,301 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

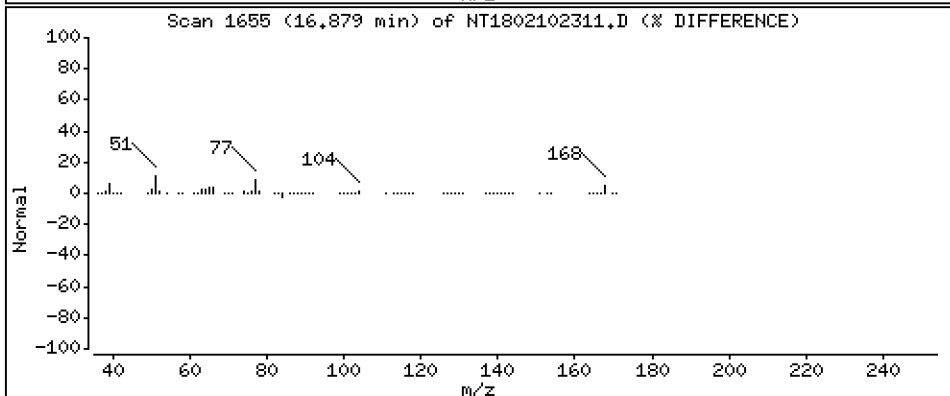
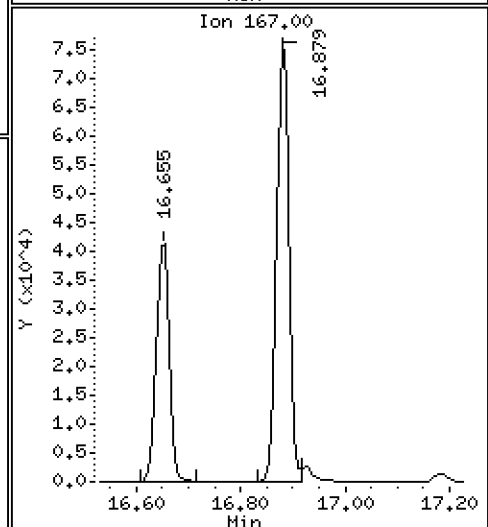
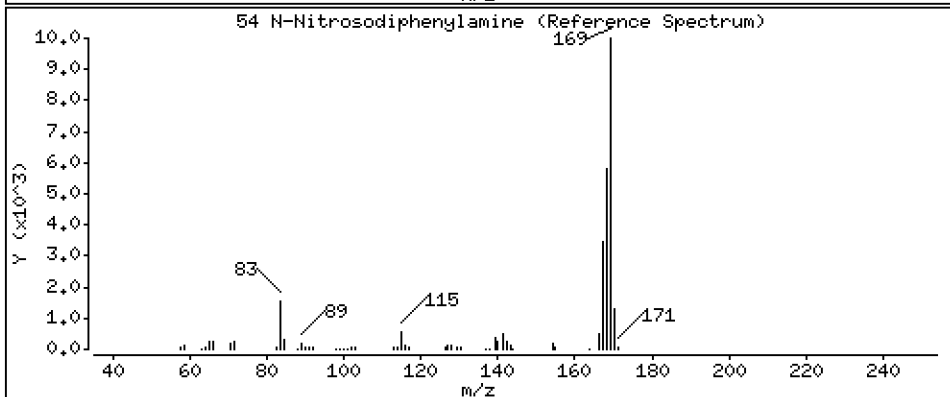
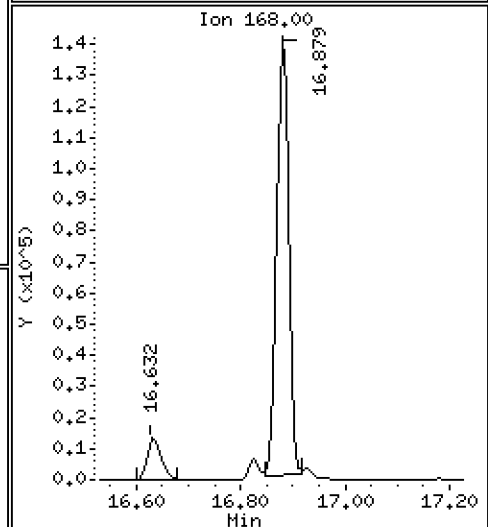
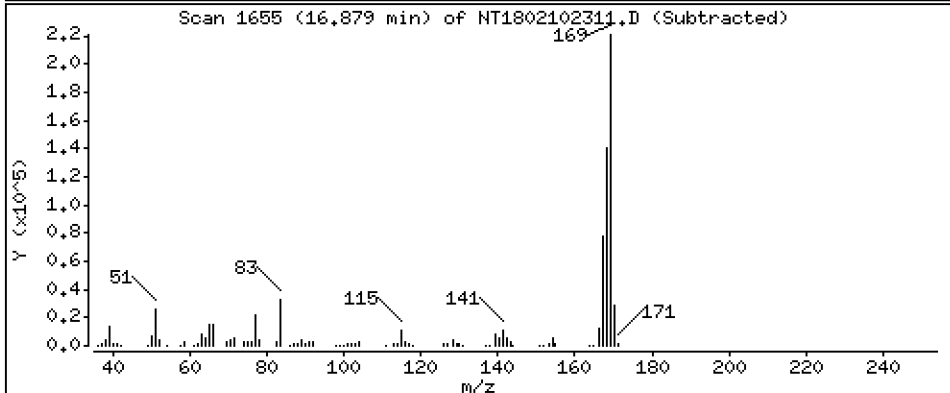
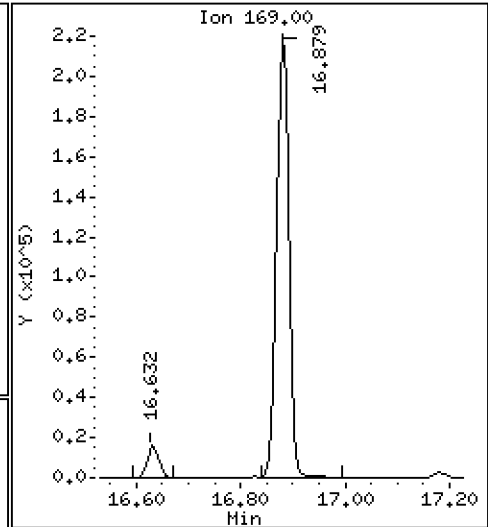
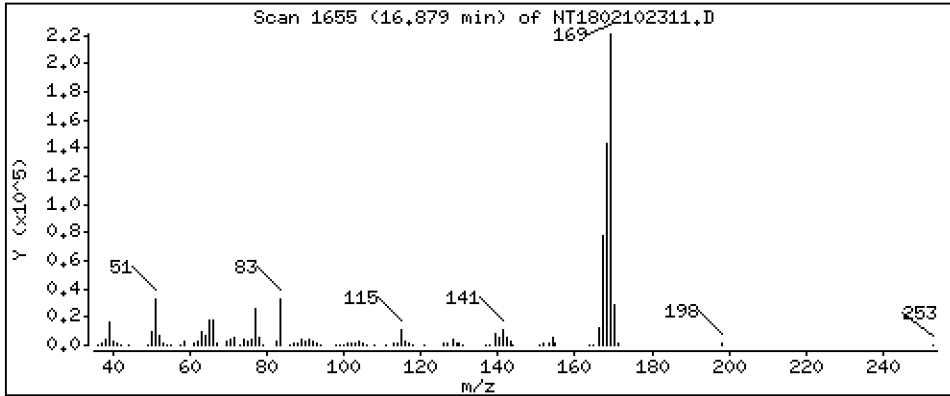
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 4,356 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

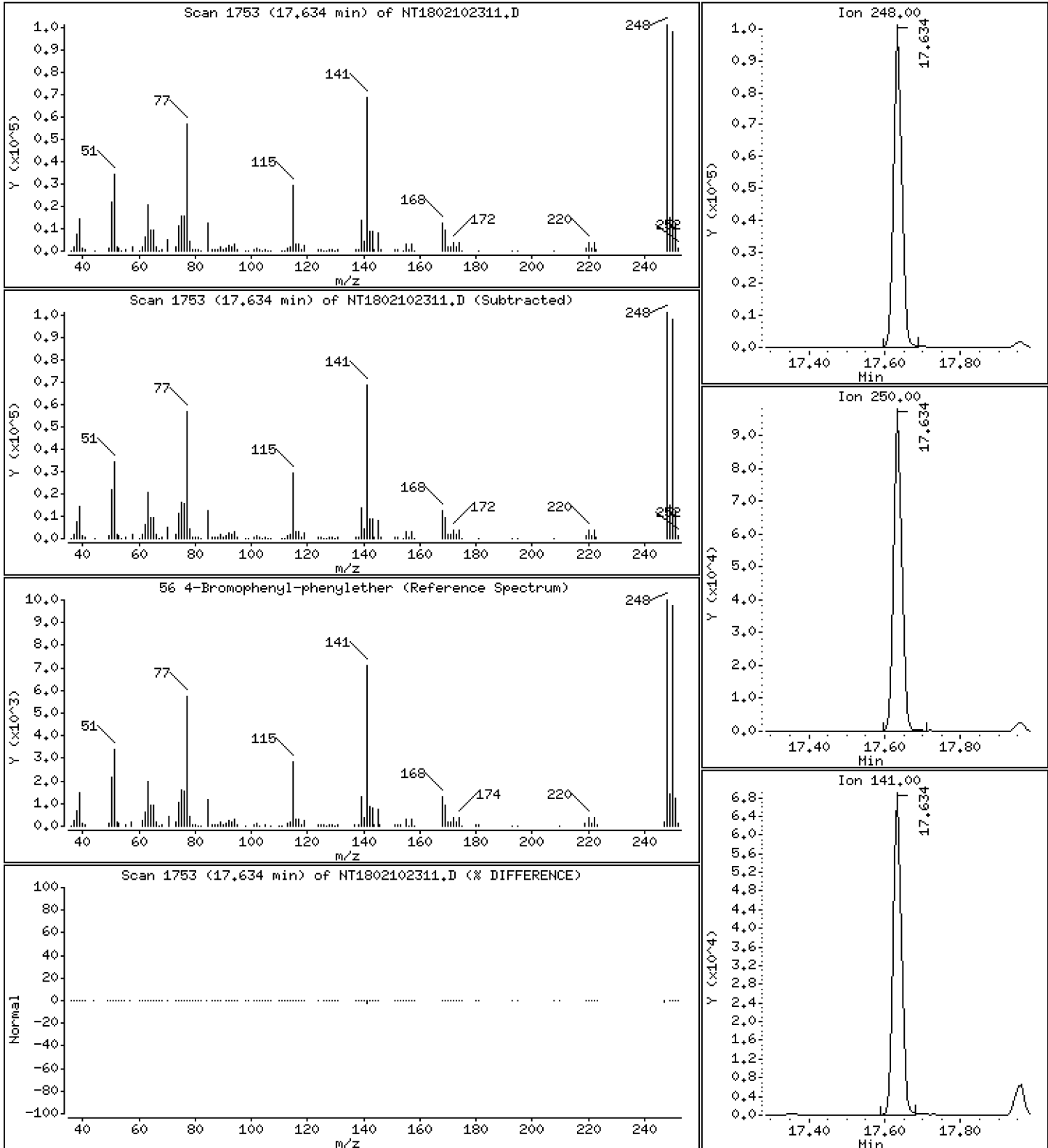
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

56 4-Bromophenyl-phenylether

Concentration: 4,464 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

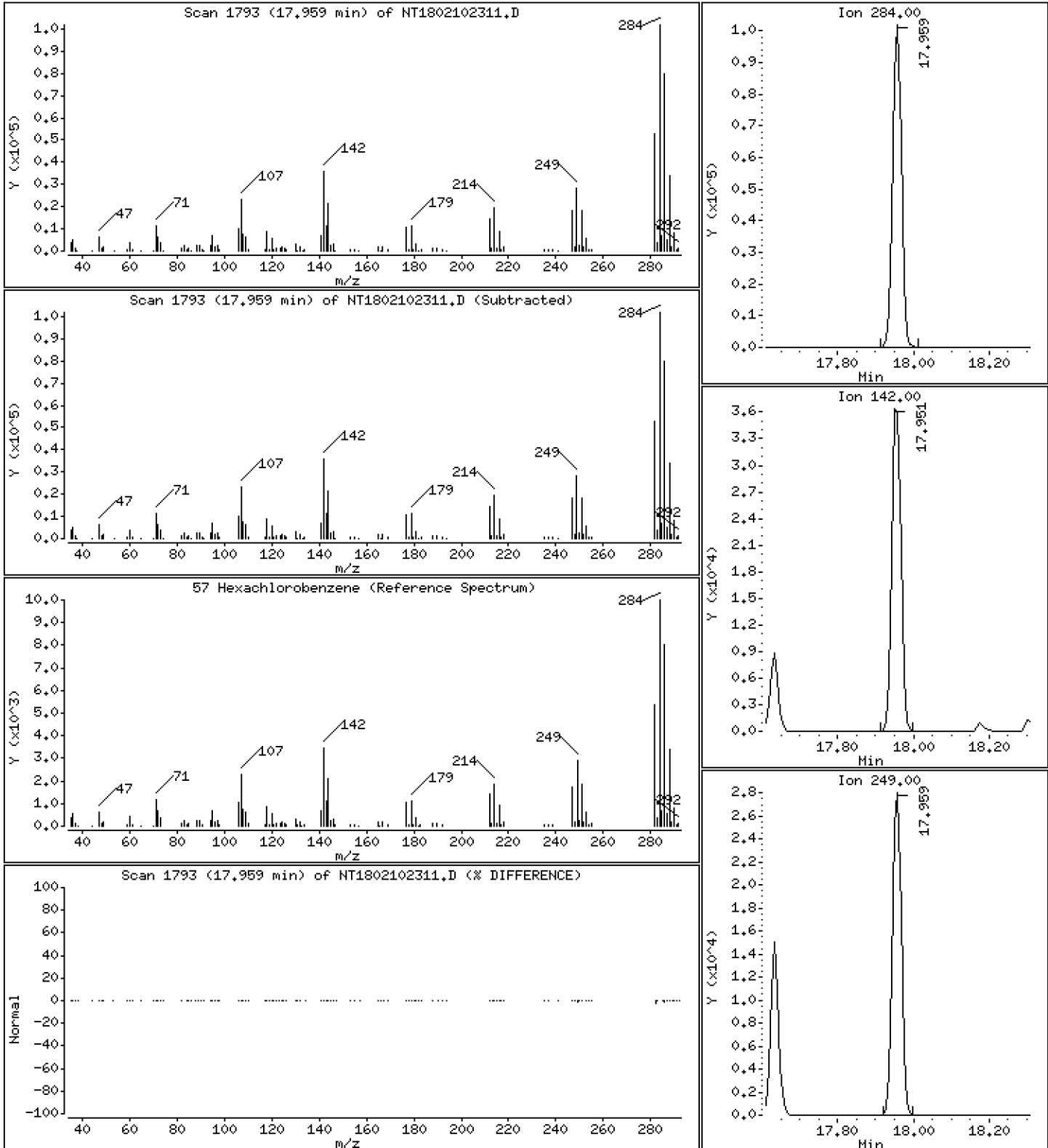
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,085 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

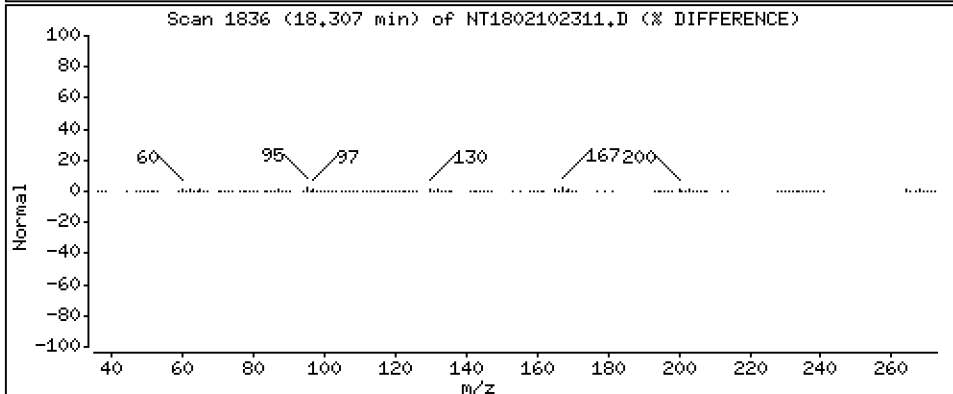
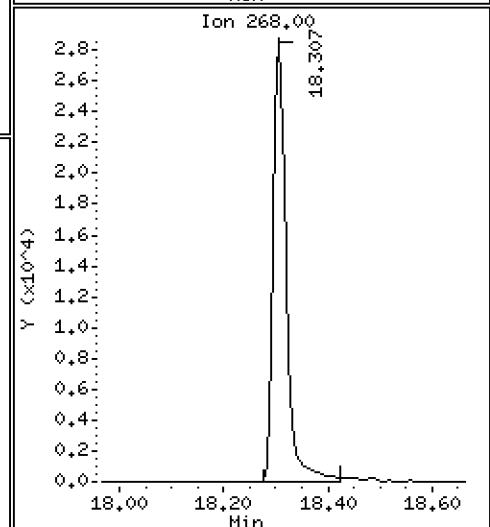
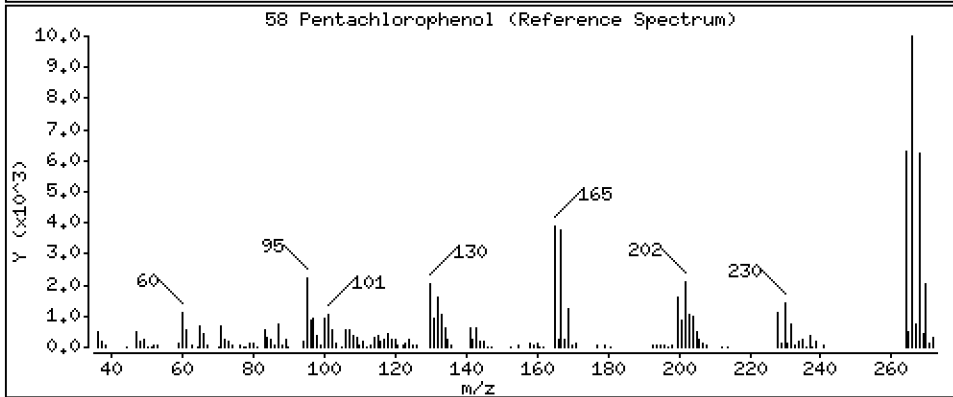
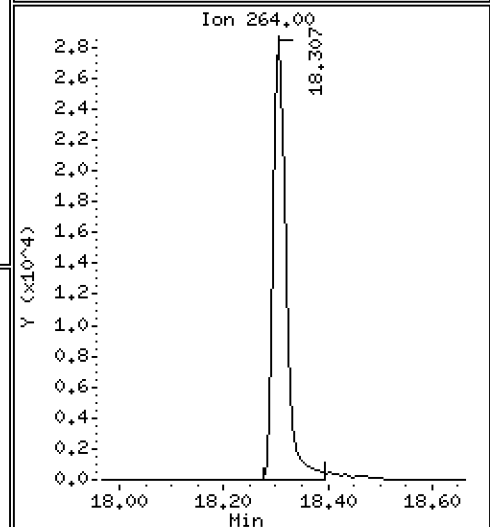
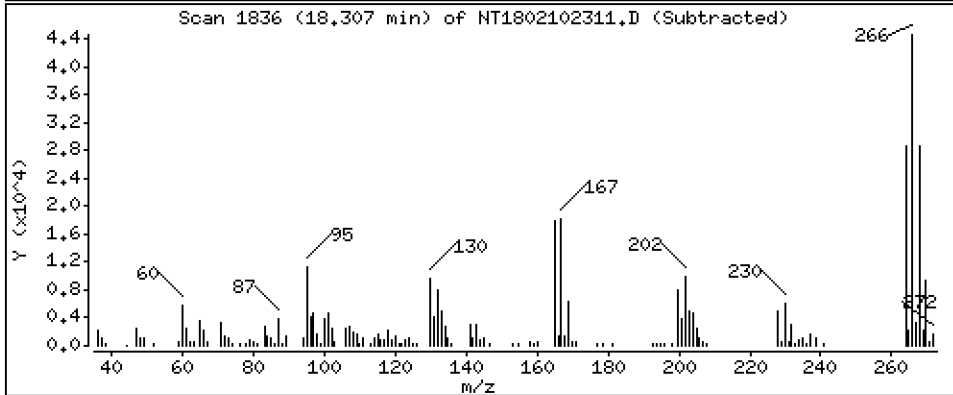
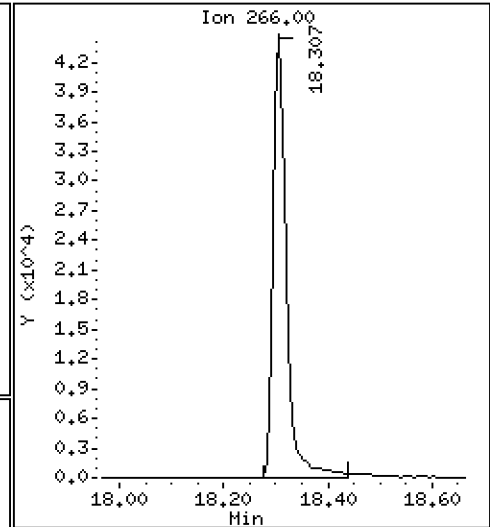
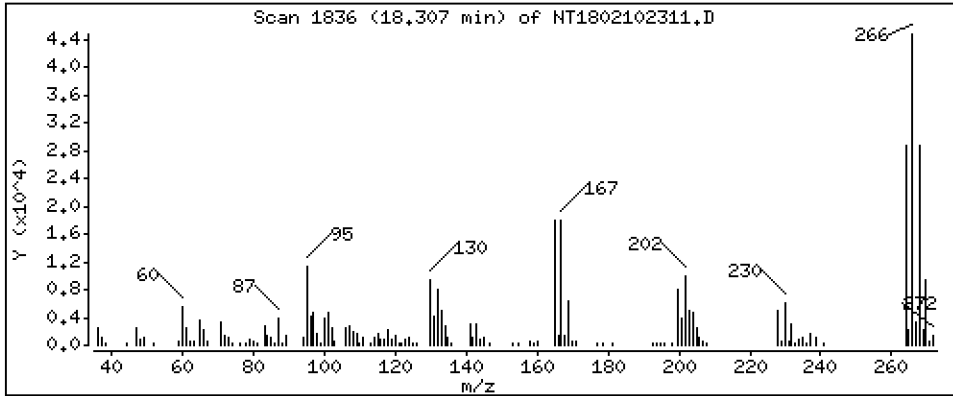
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,507 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

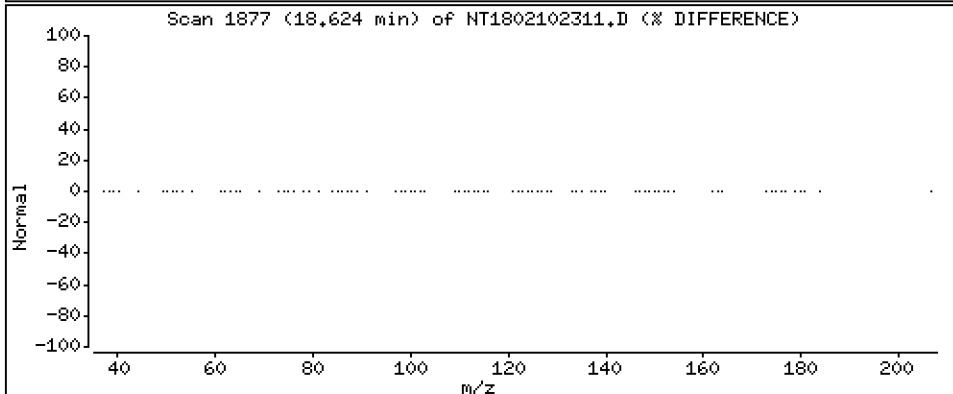
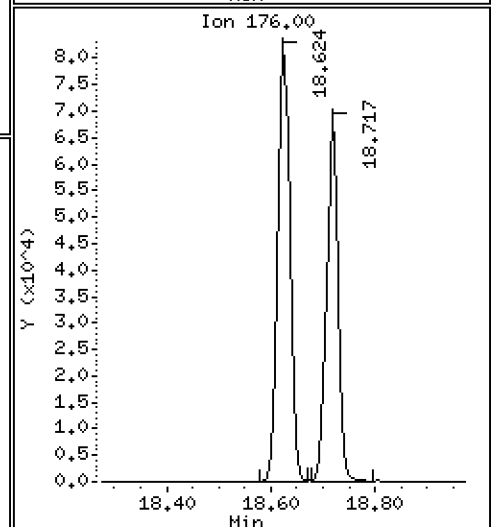
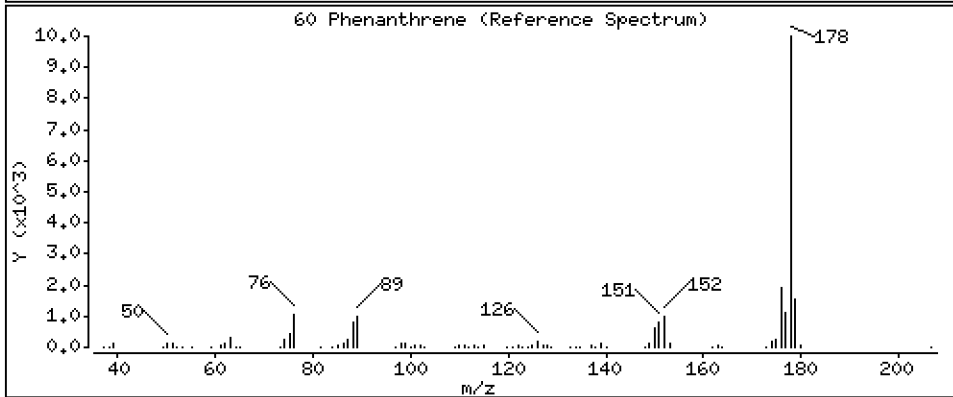
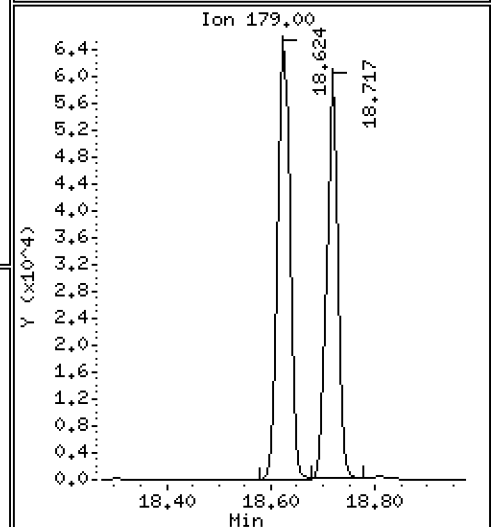
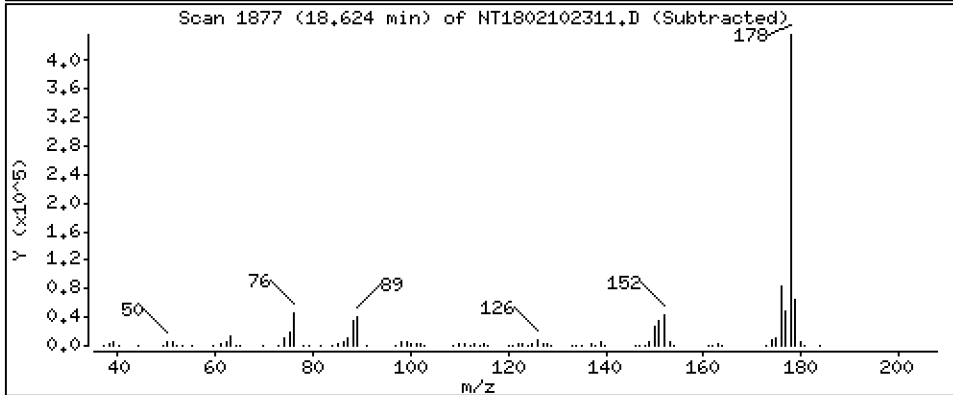
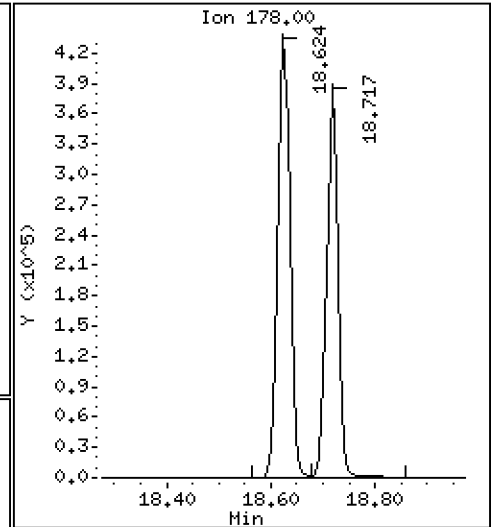
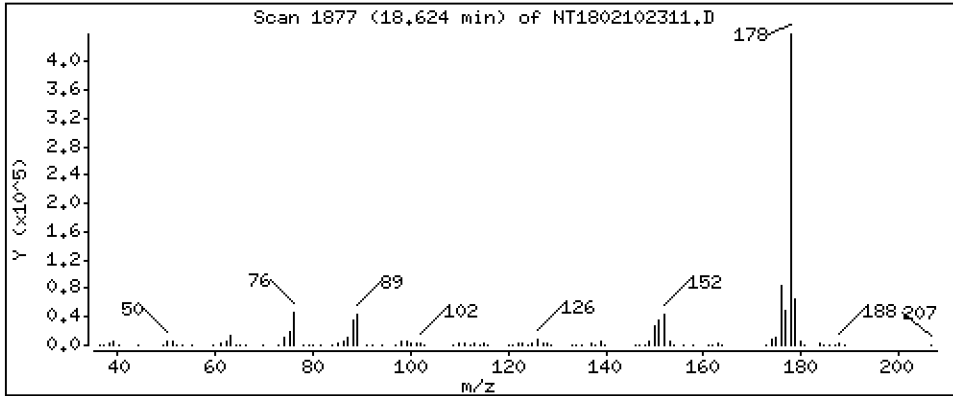
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

60 Phenanthrene

Concentration: 4,228 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

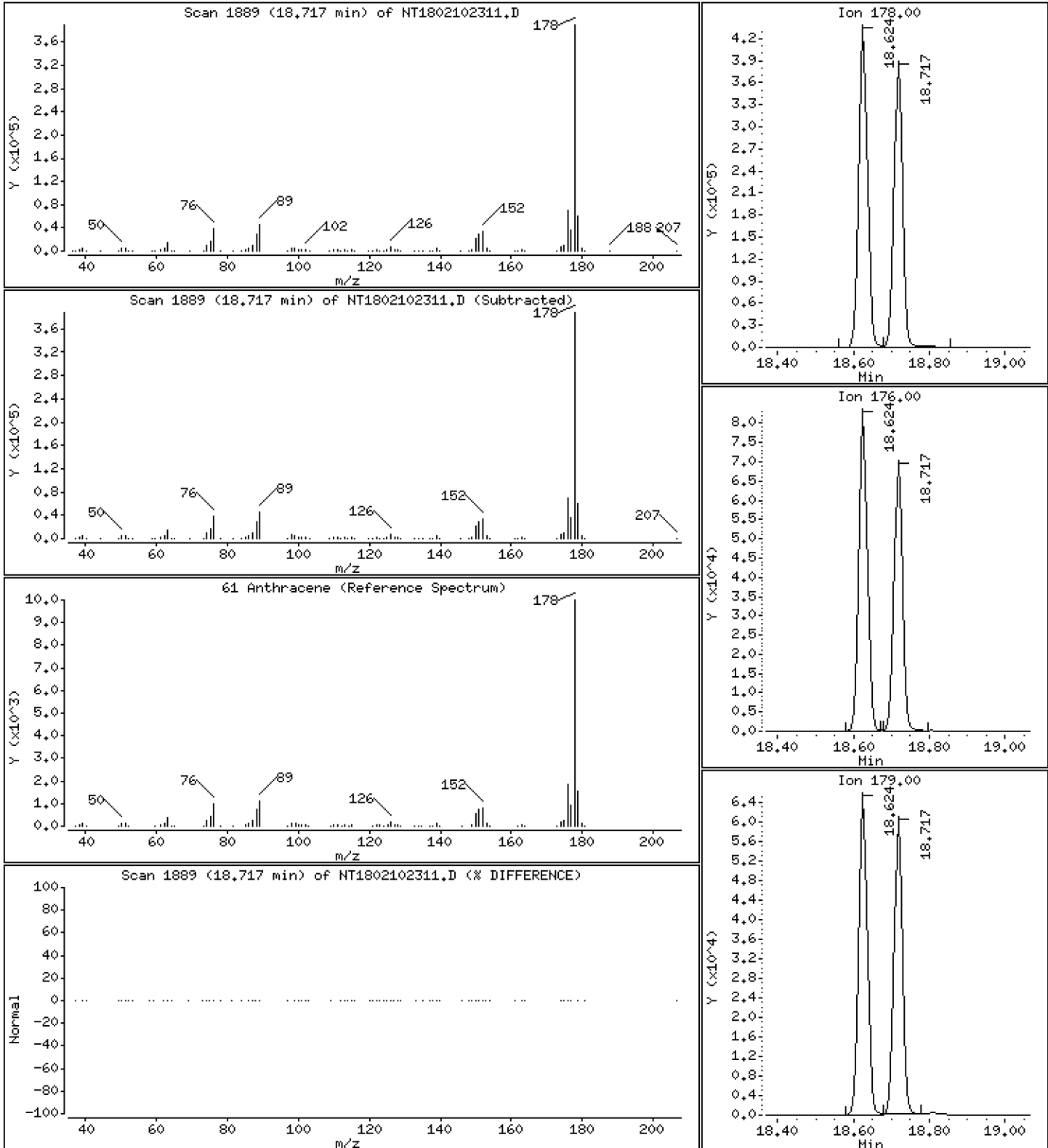
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

61 Anthracene

Concentration: 4,027 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

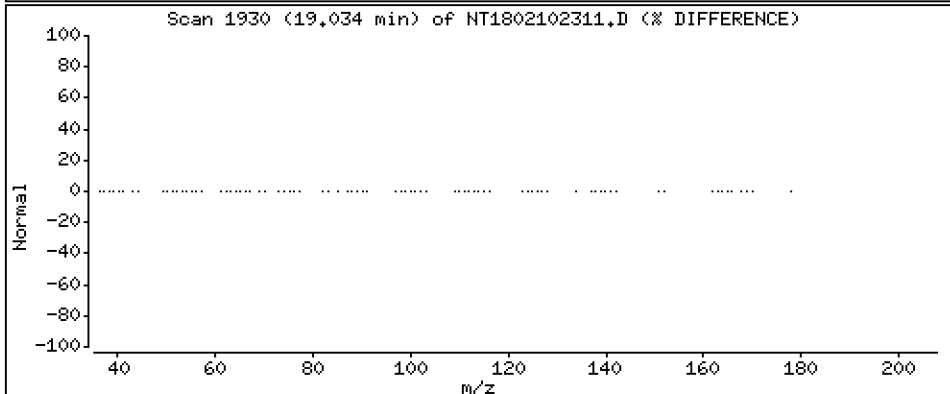
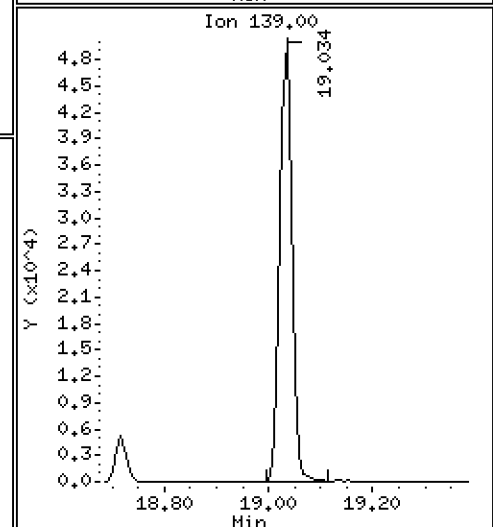
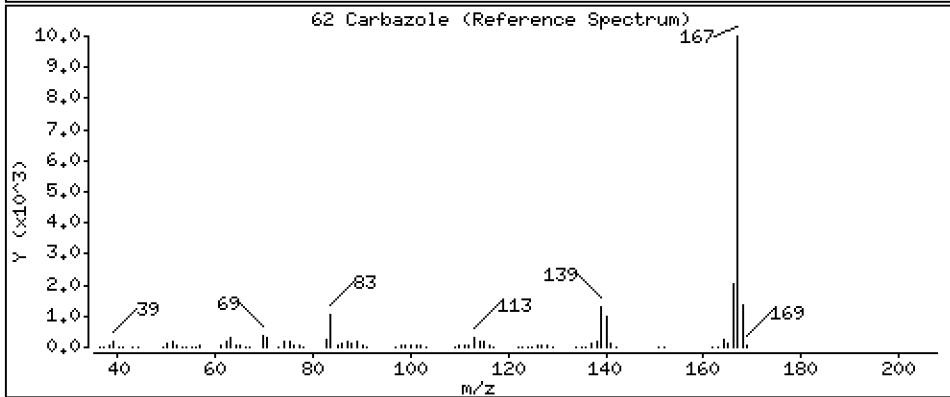
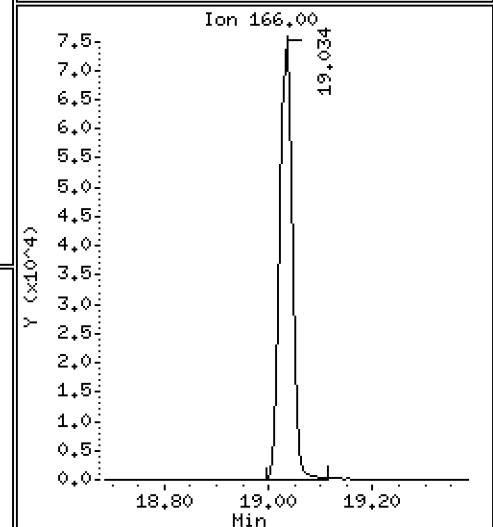
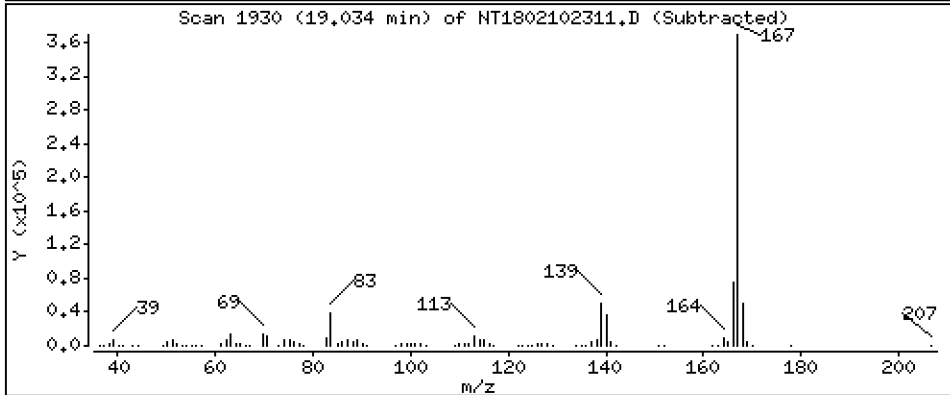
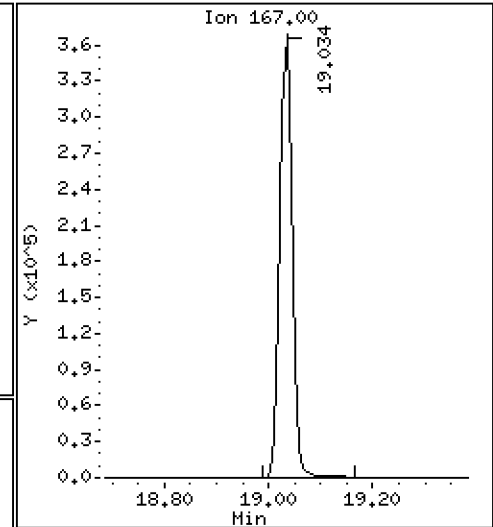
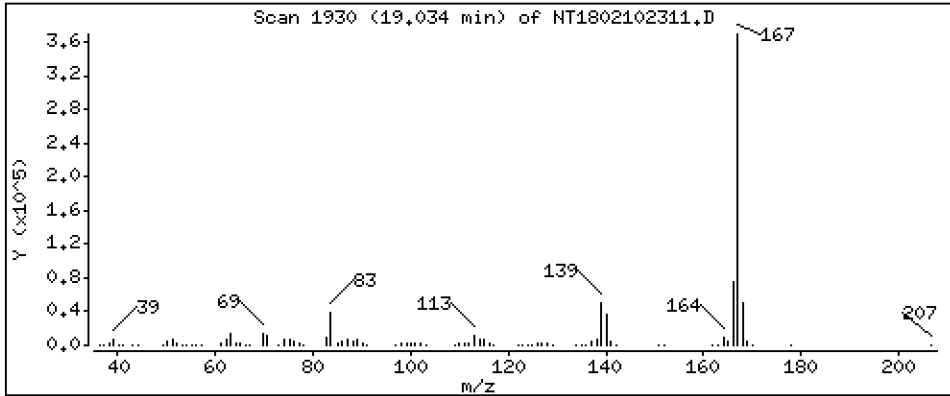
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

62 Carbazole

Concentration: 4.066 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

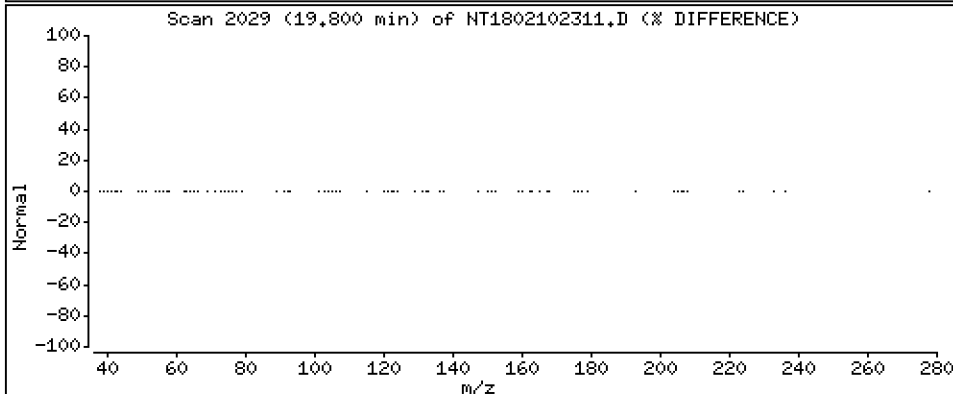
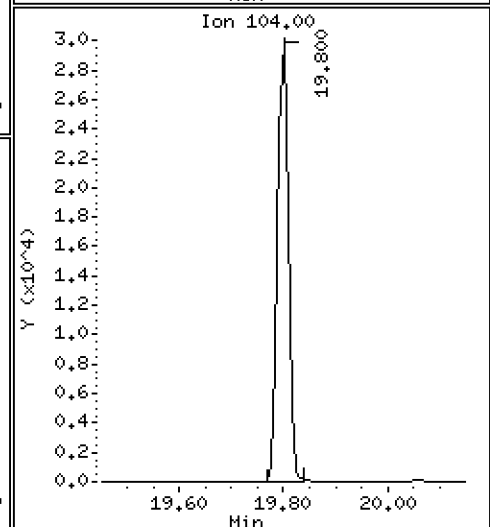
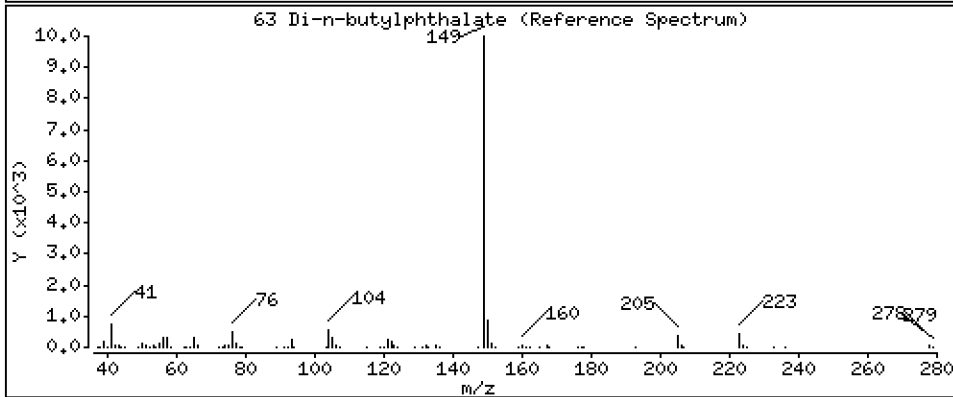
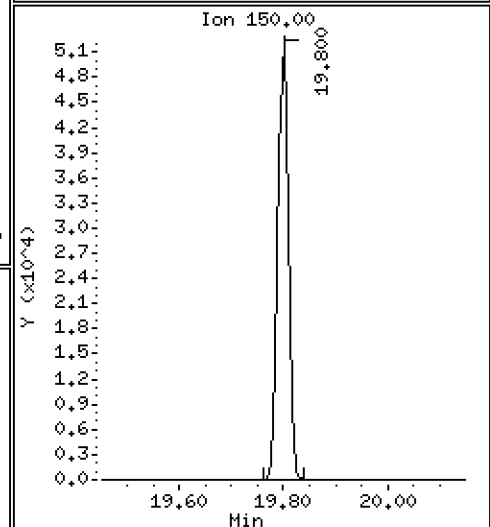
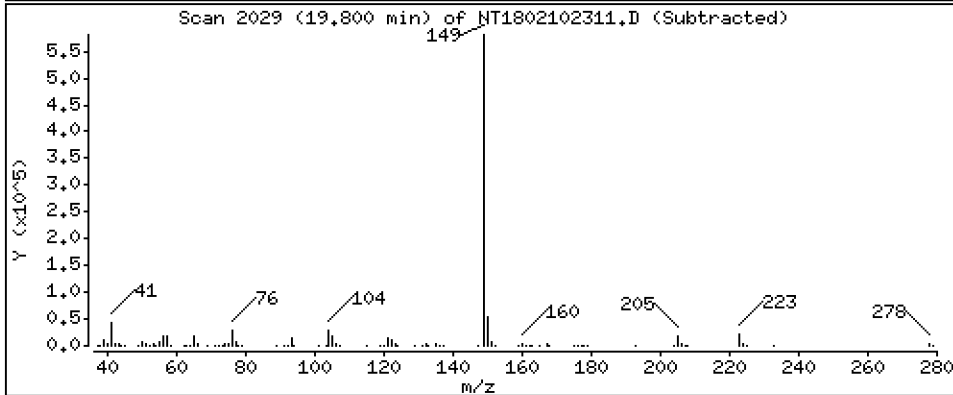
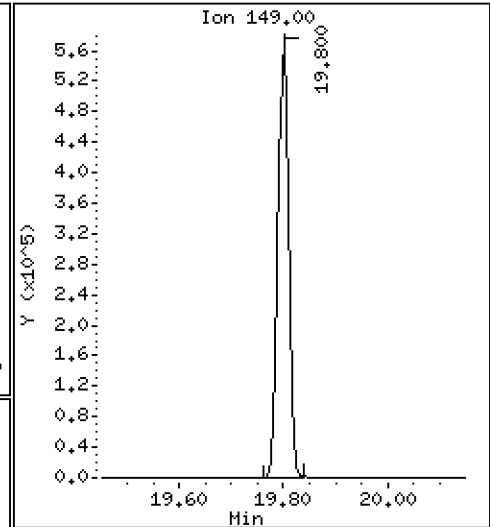
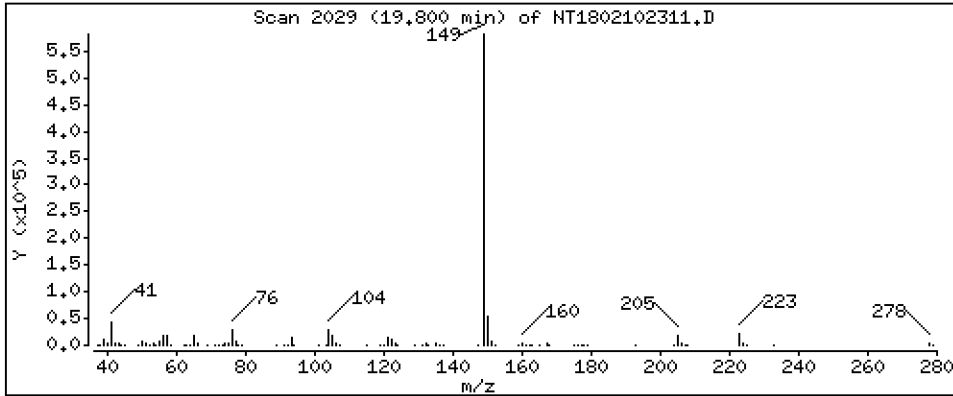
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

63 Di-n-butylphthalate

Concentration: 4,139 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

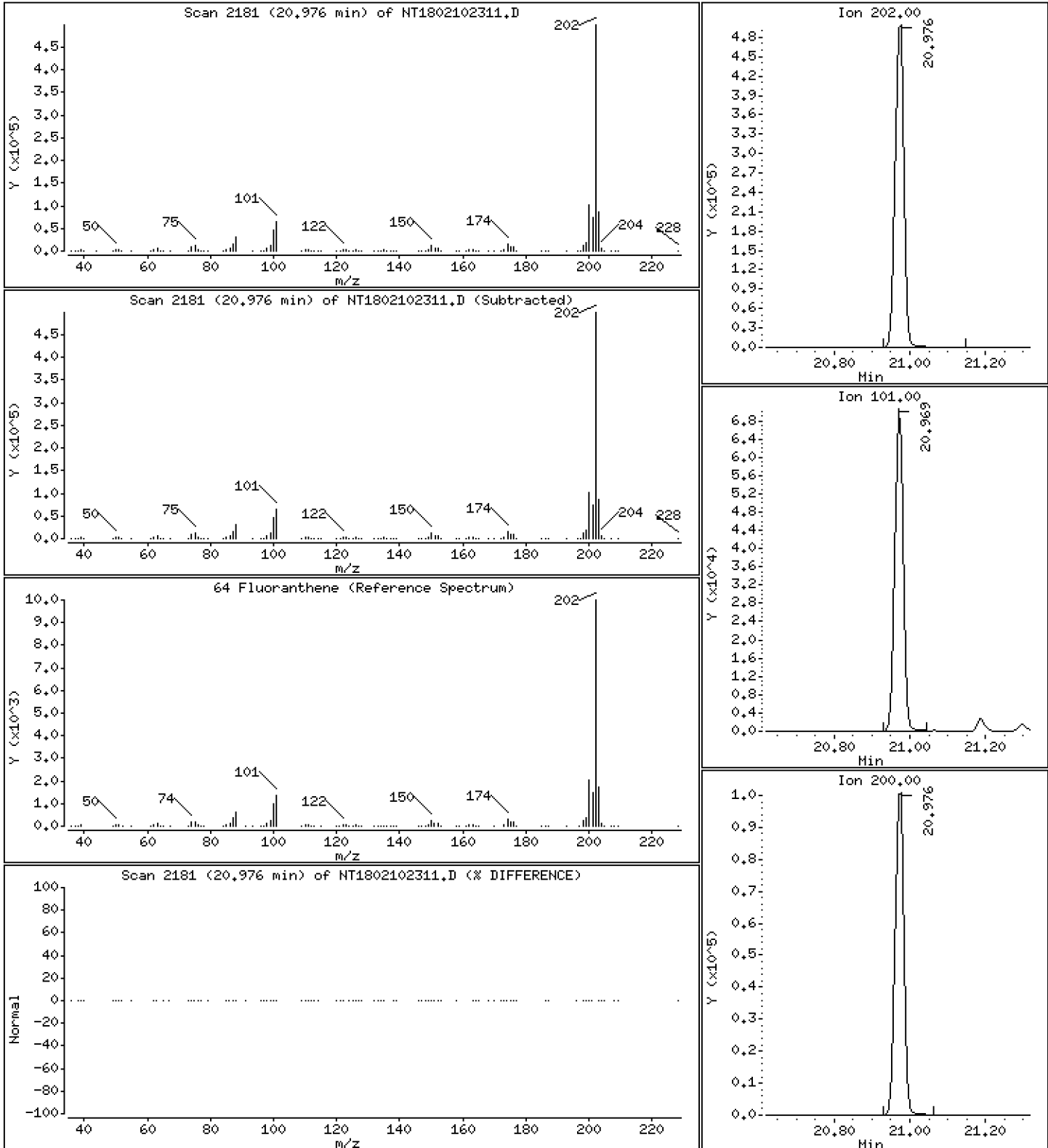
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

64 Fluoranthene

Concentration: 4,555 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

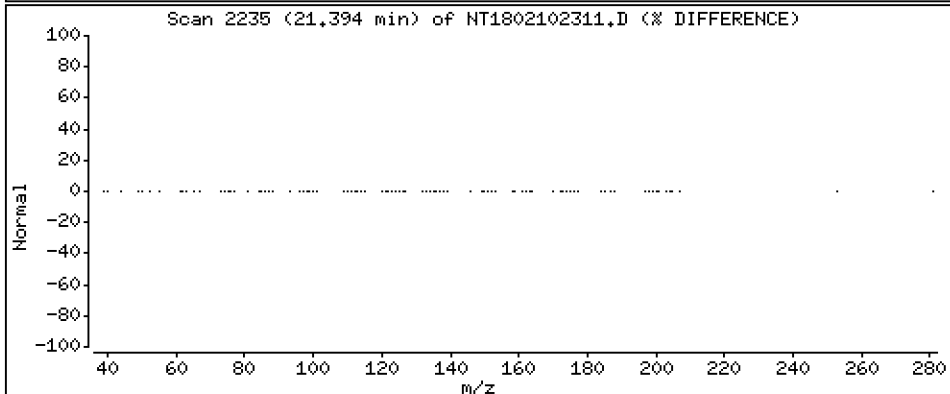
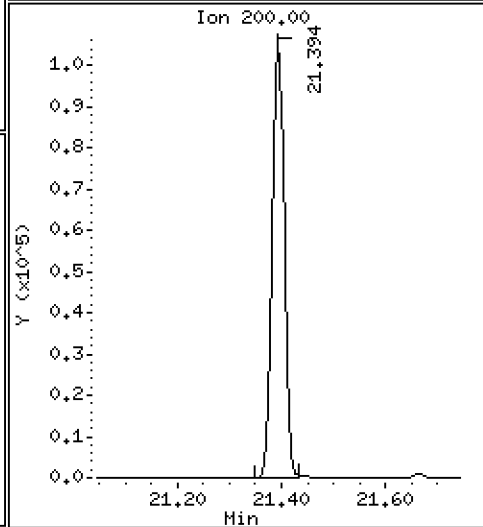
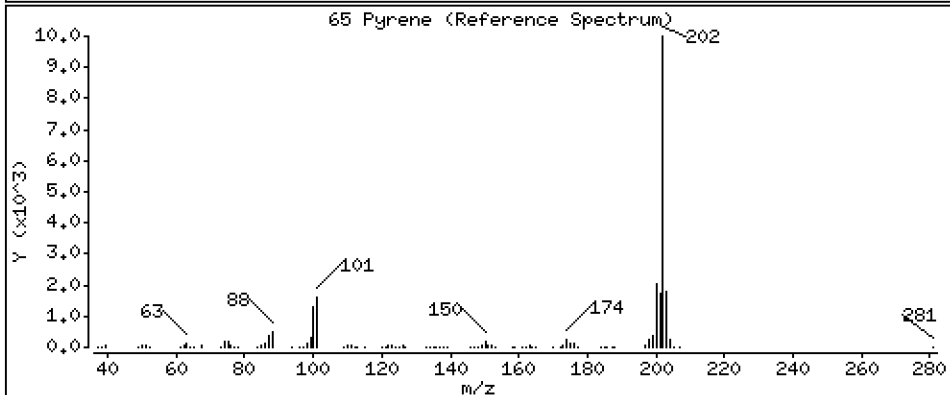
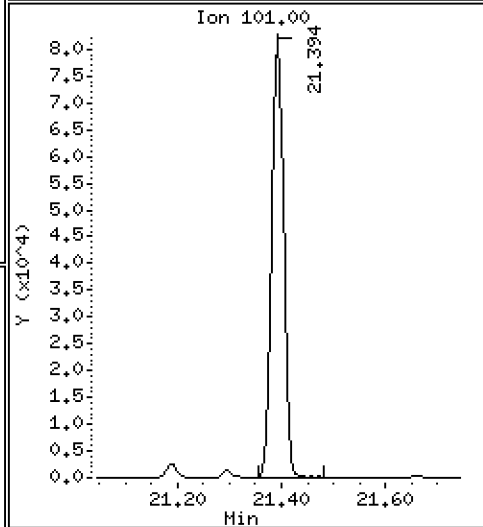
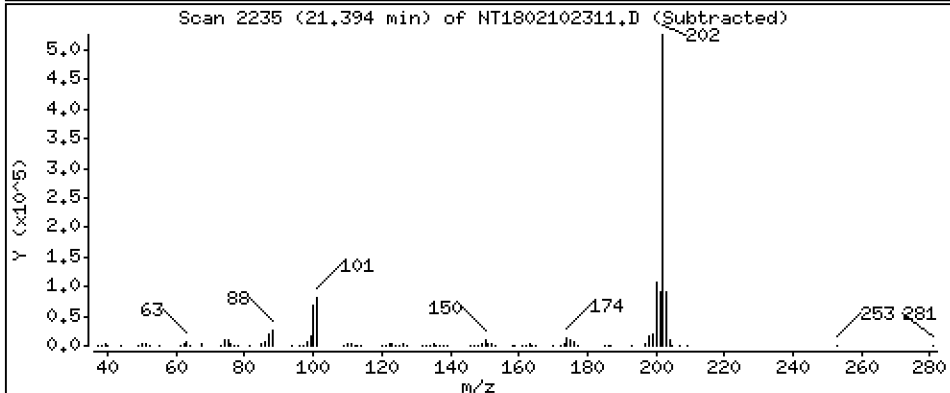
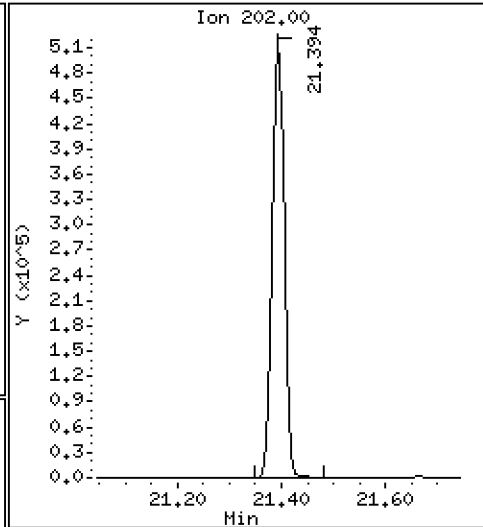
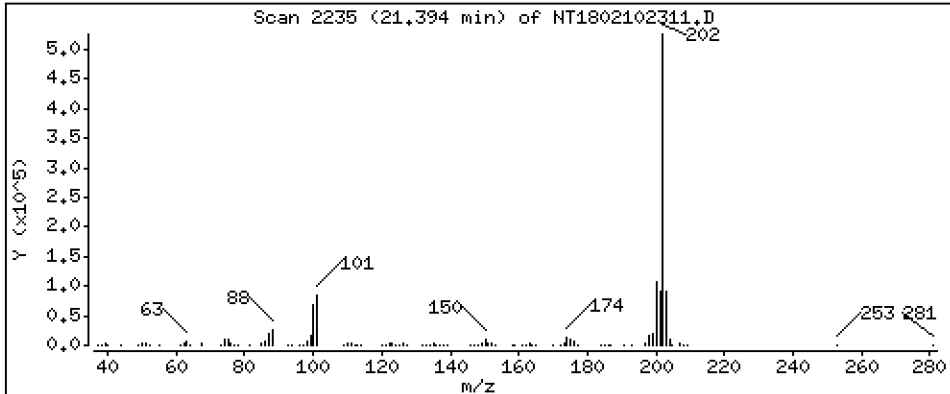
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

65 Pyrene

Concentration: 4,328 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

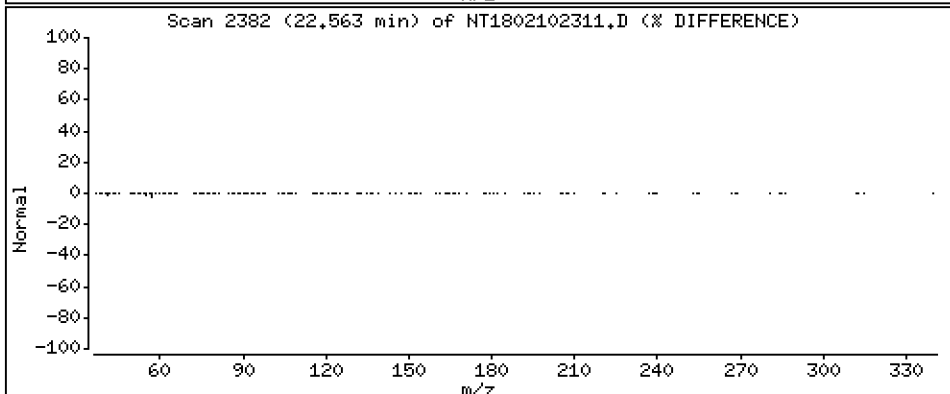
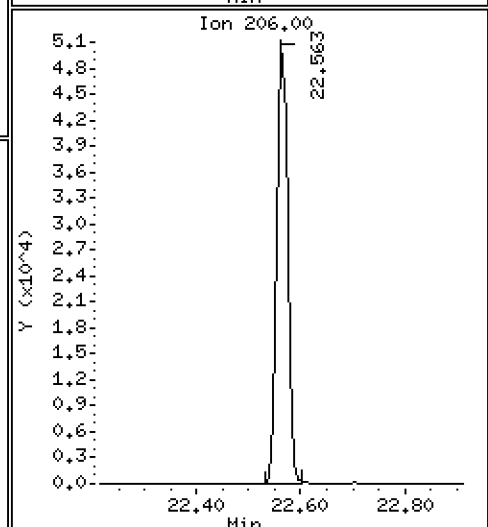
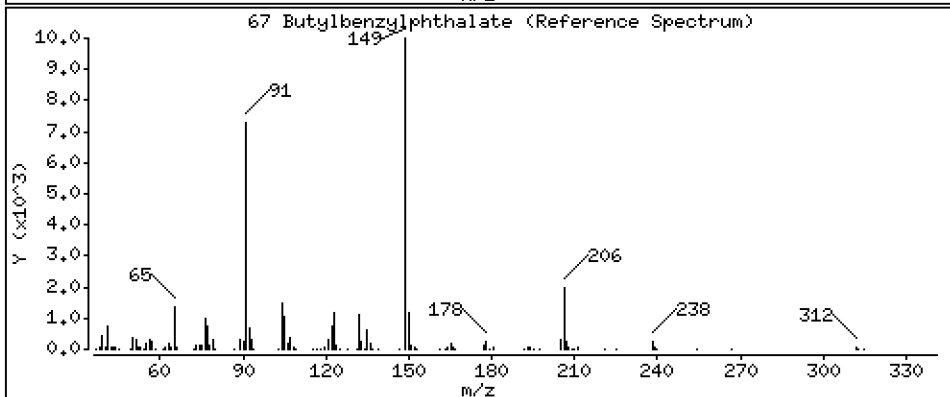
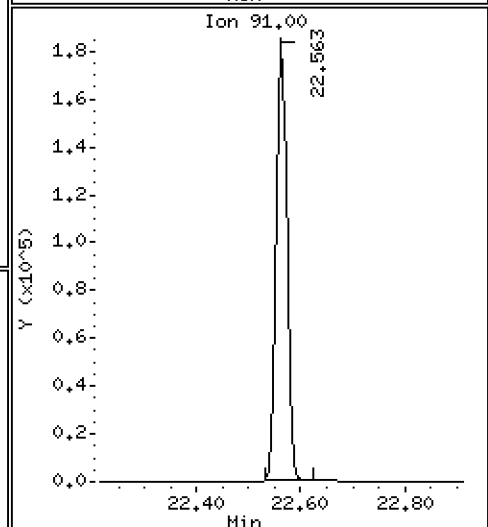
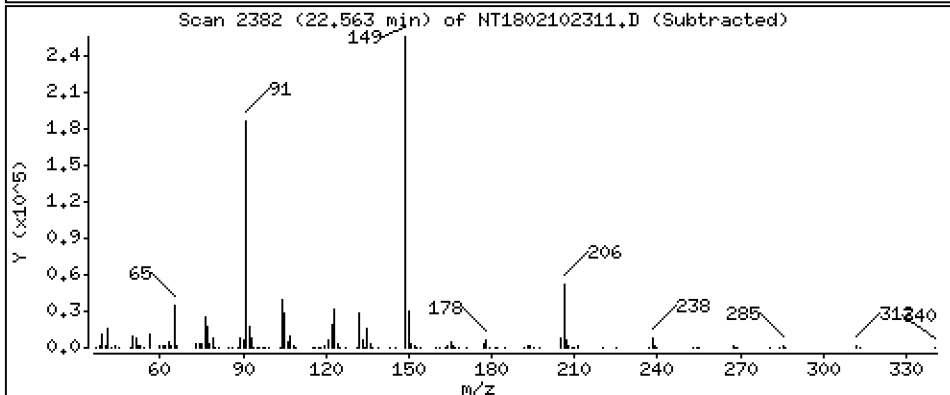
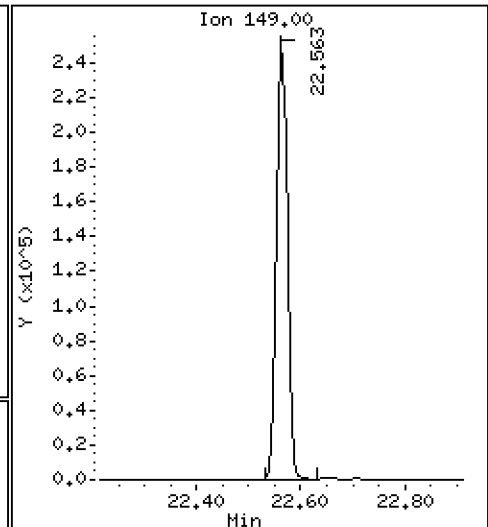
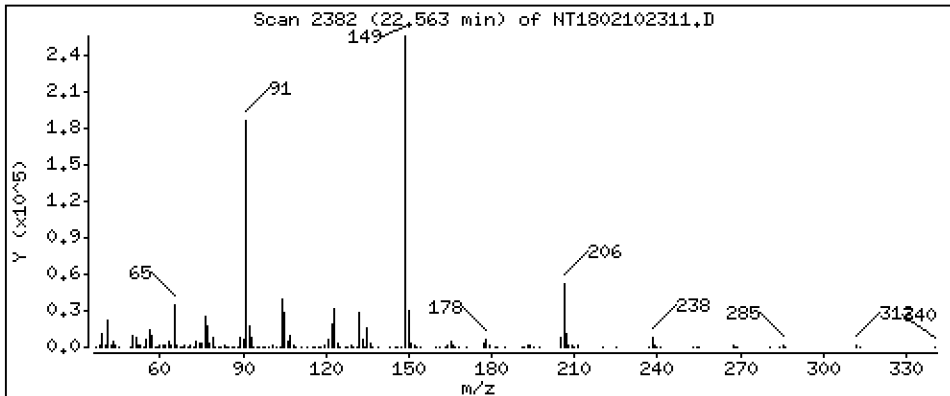
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,203 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

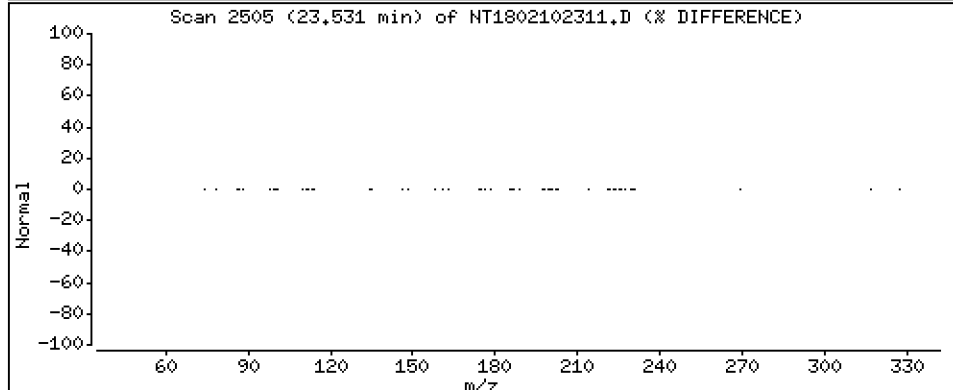
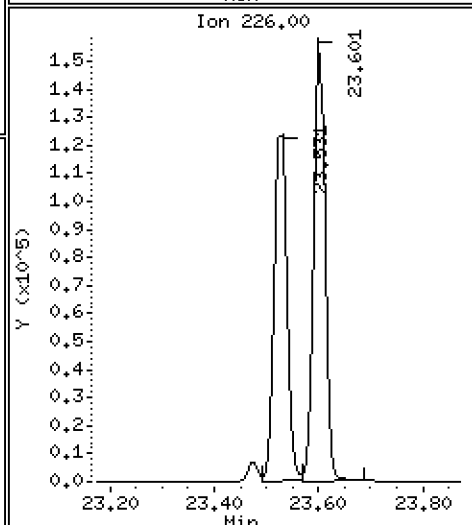
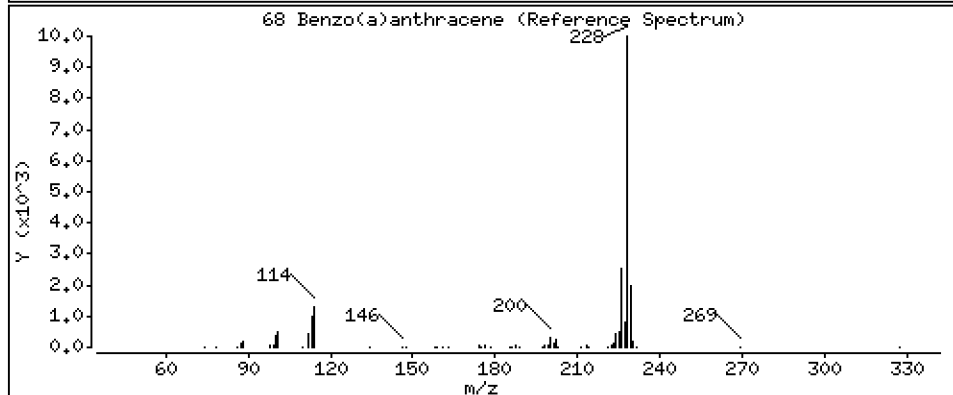
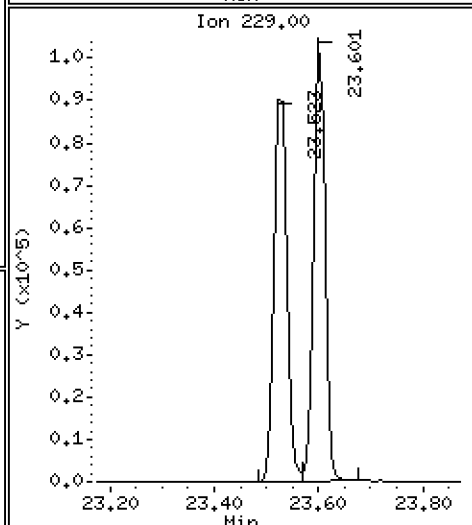
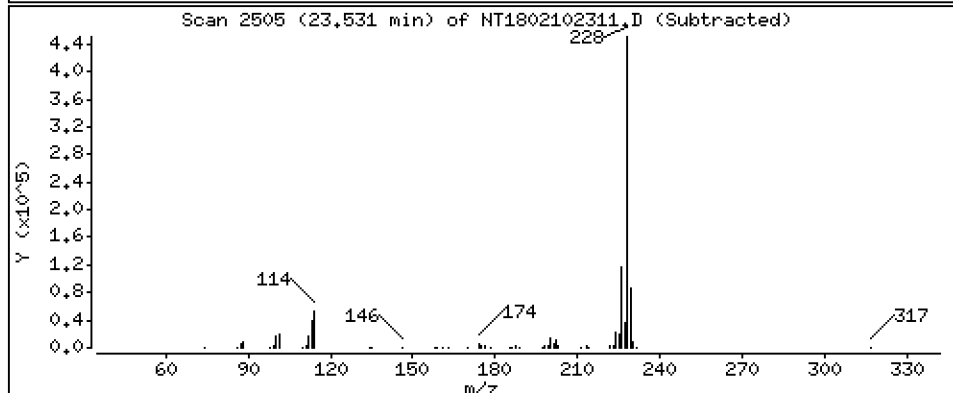
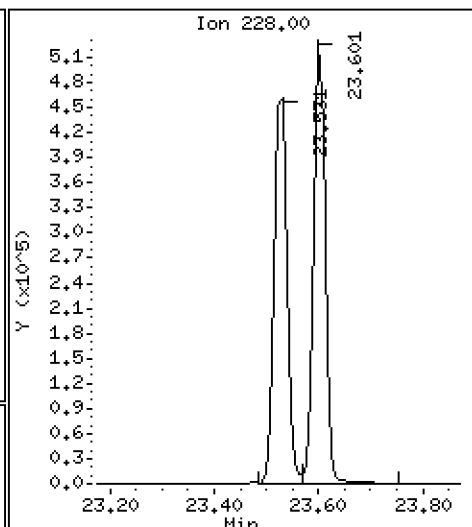
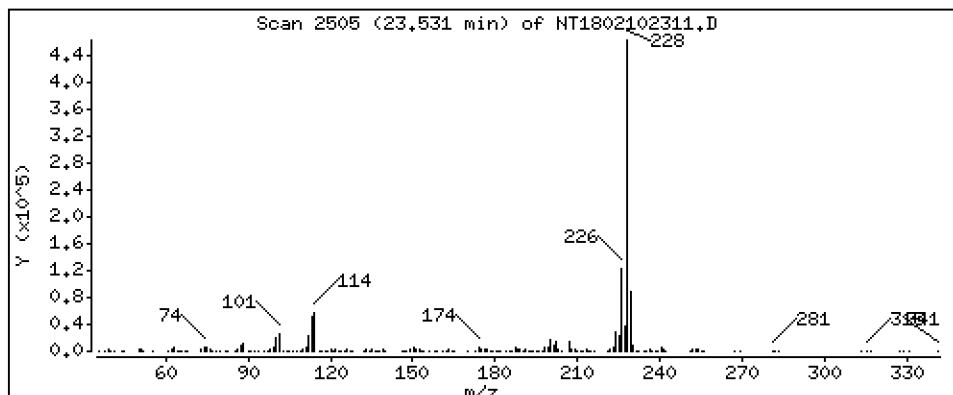
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

68 Benzo(a)anthracene

Concentration: 4.247 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

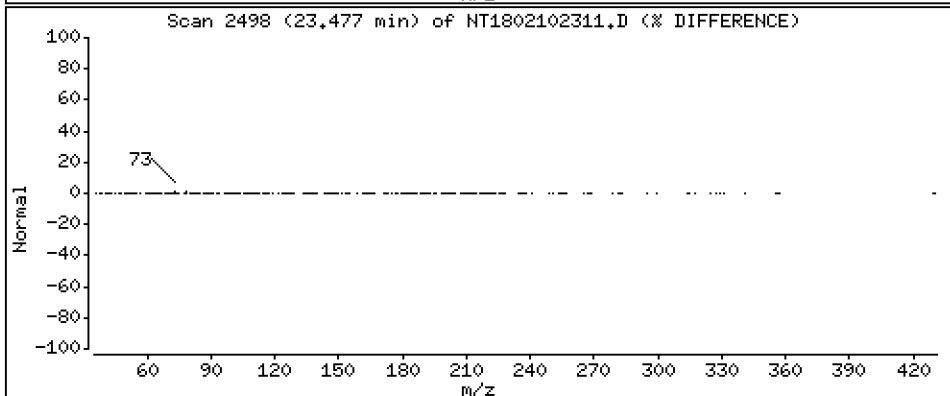
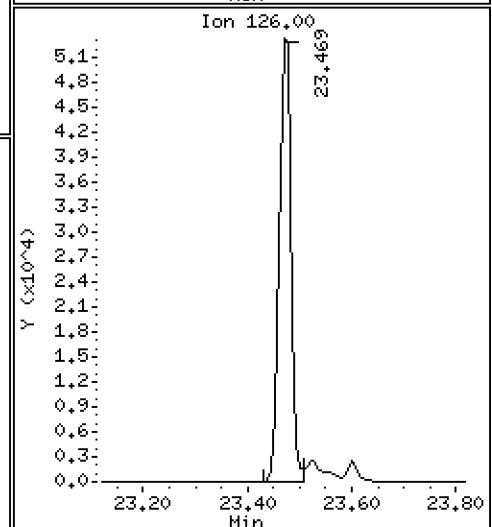
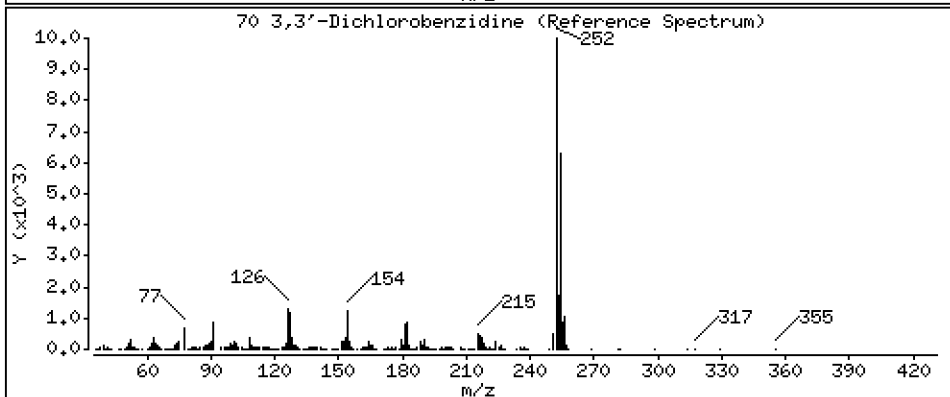
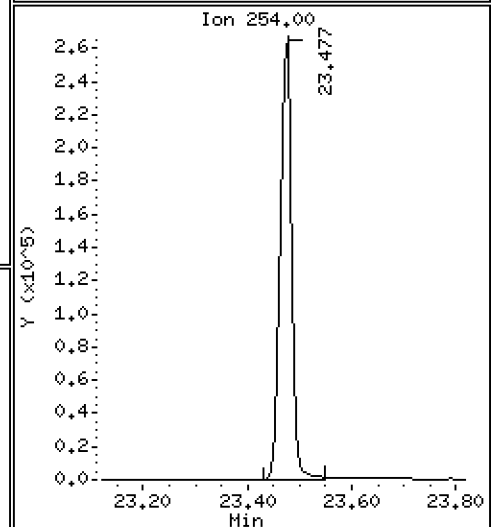
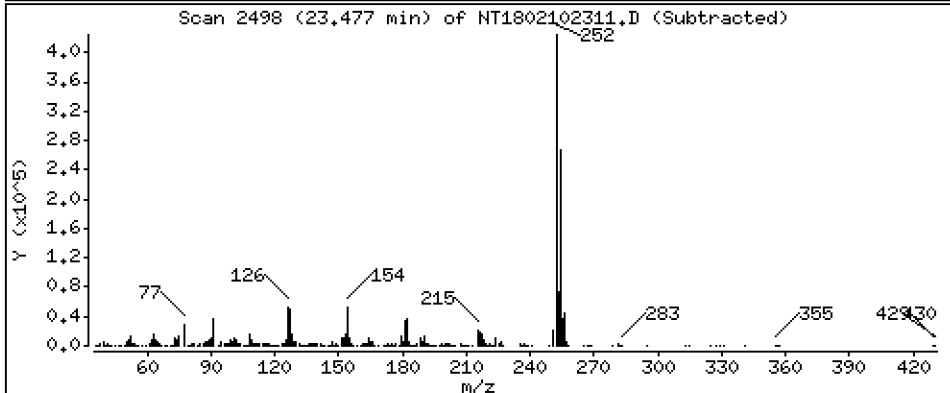
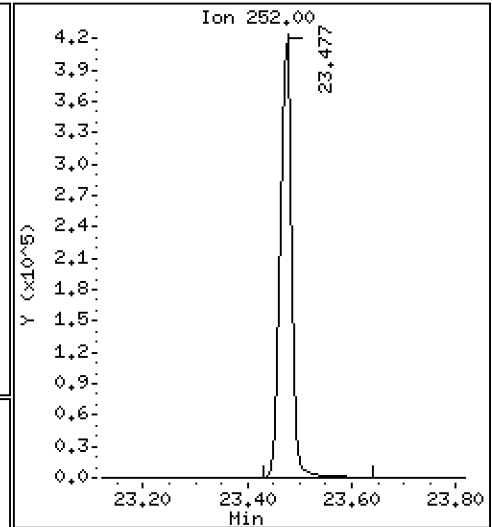
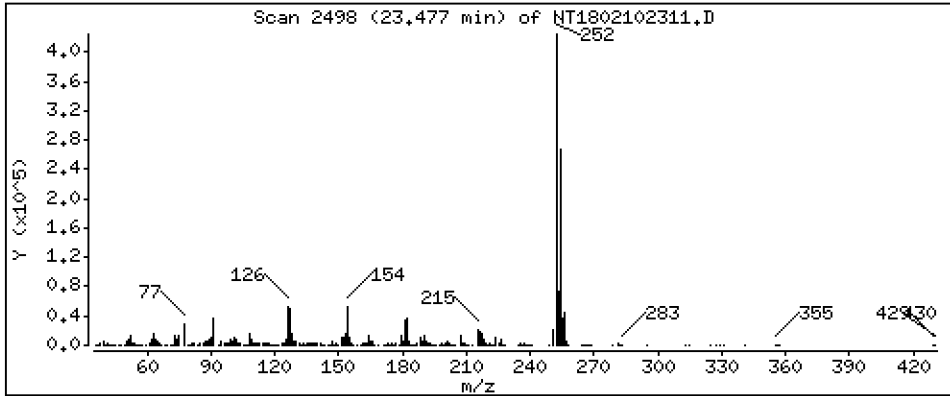
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

70 3,3'-Dichlorobenzidine

Concentration: 7,582 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

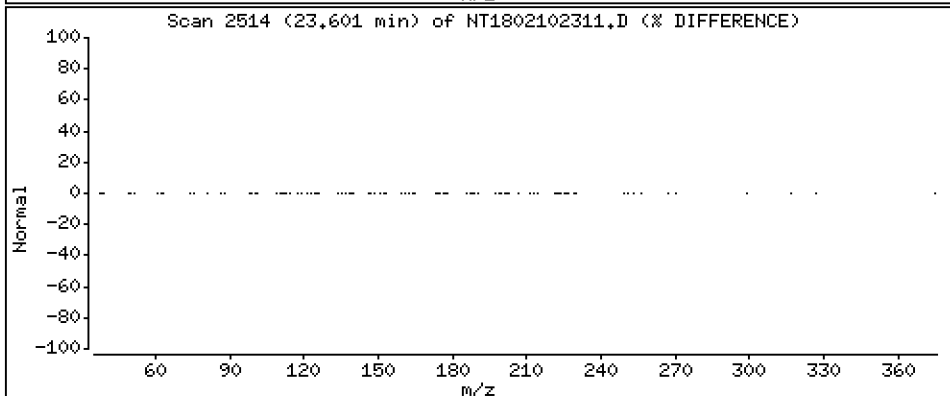
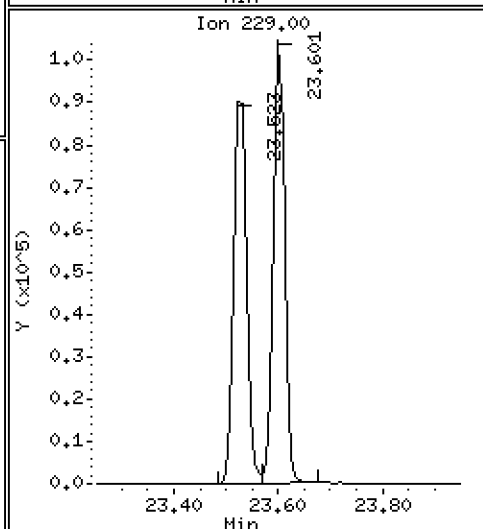
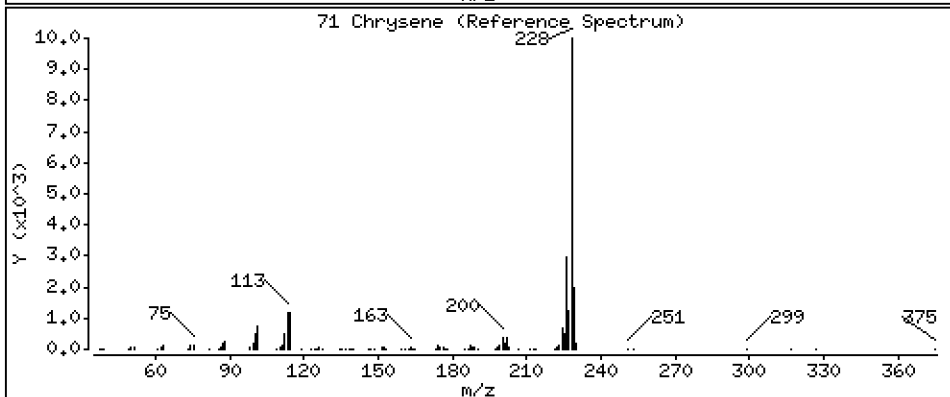
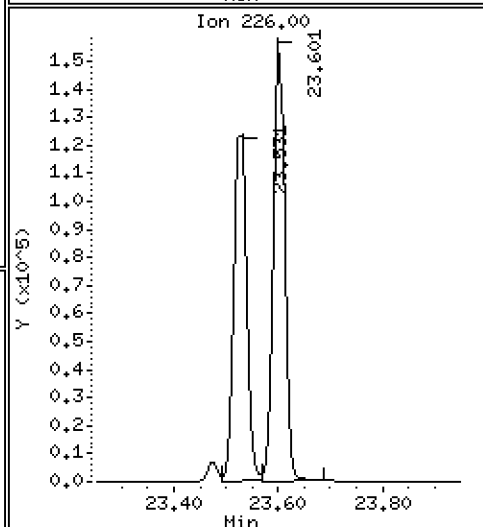
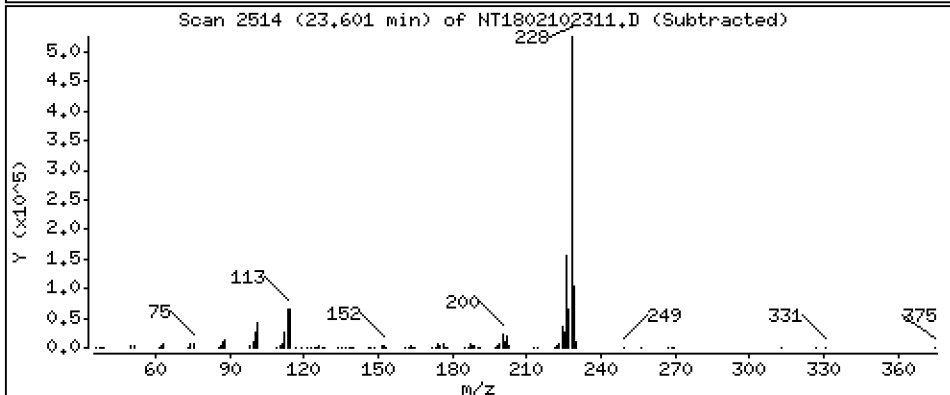
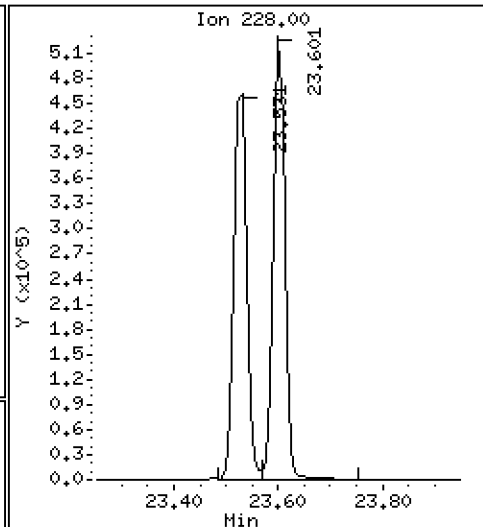
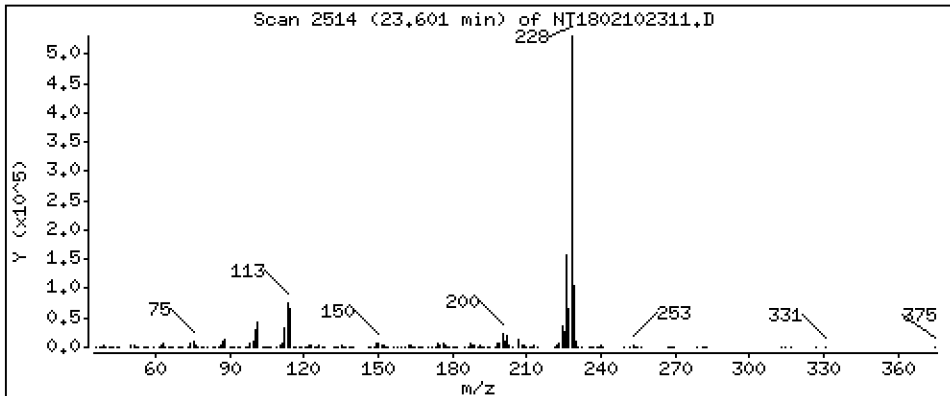
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

71 Chrysene

Concentration: 4,062 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

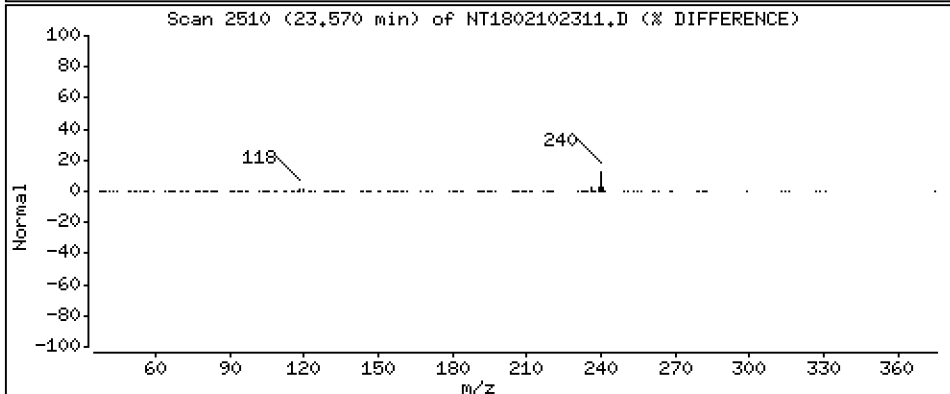
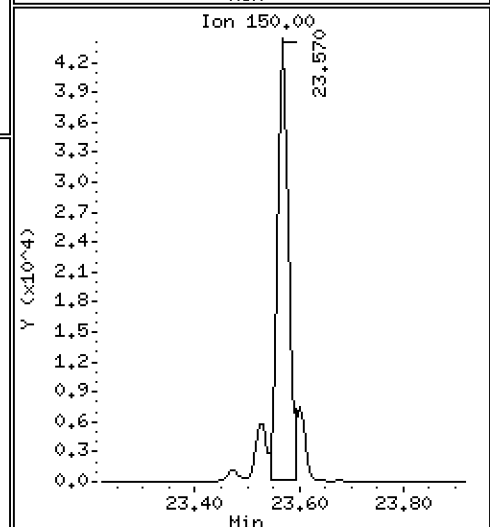
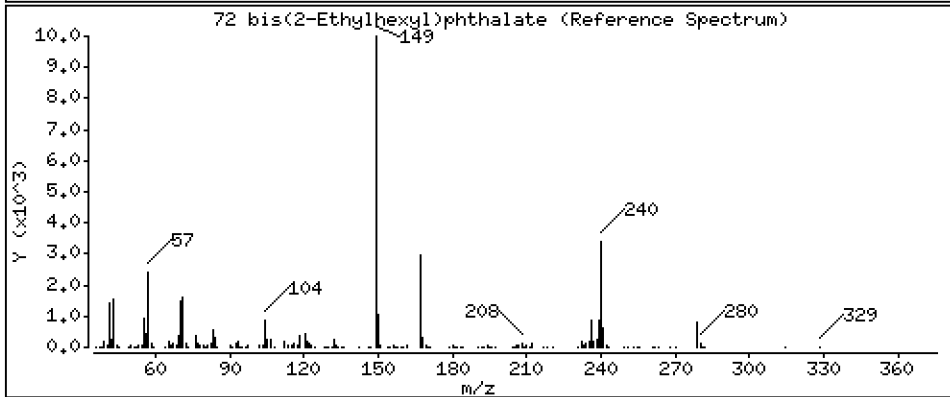
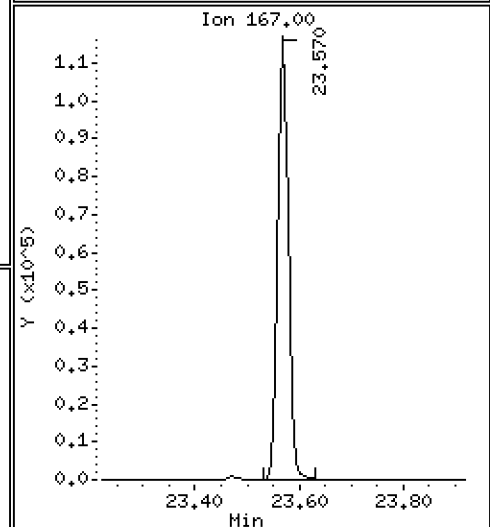
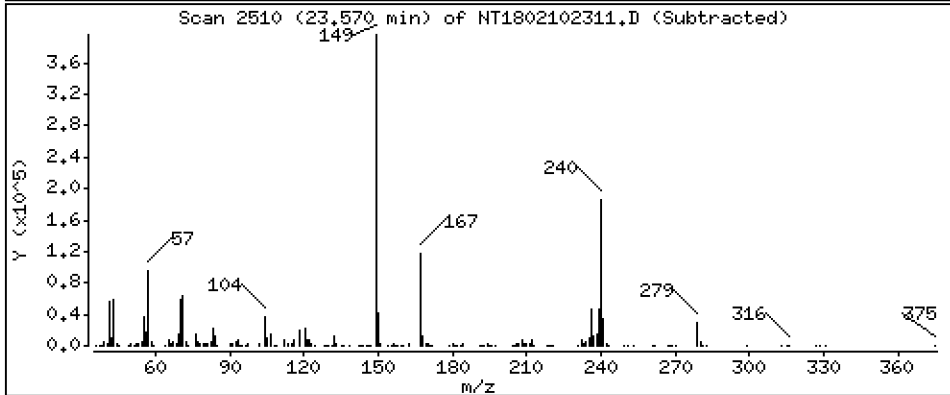
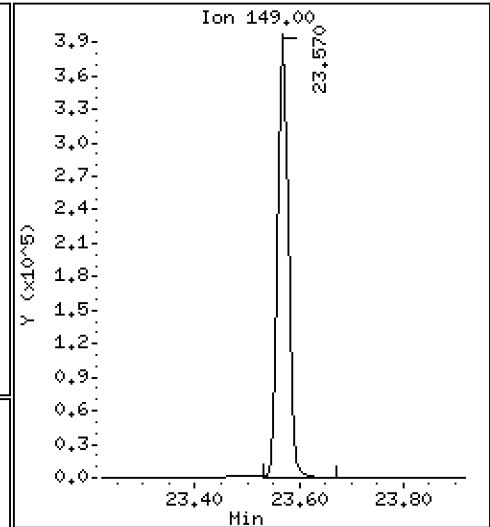
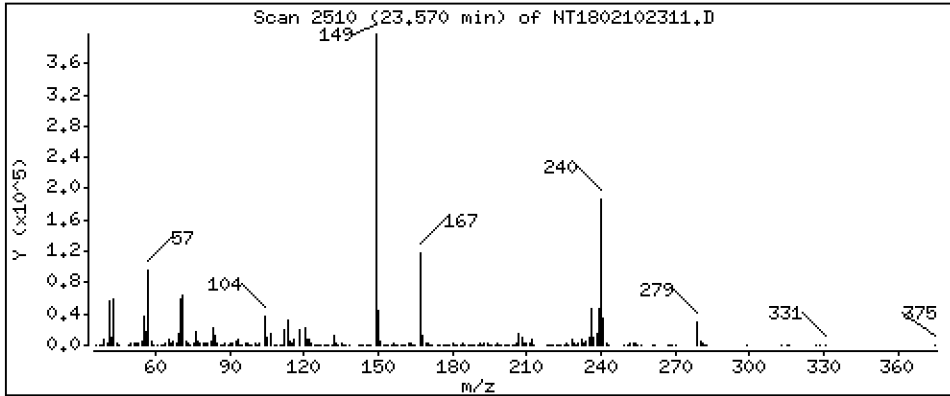
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

72 bis(2-Ethylhexyl)phthalate

Concentration: 4,857 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

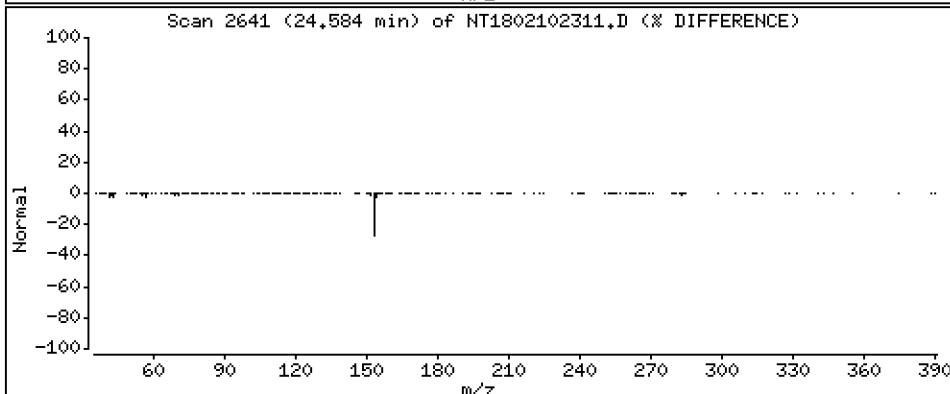
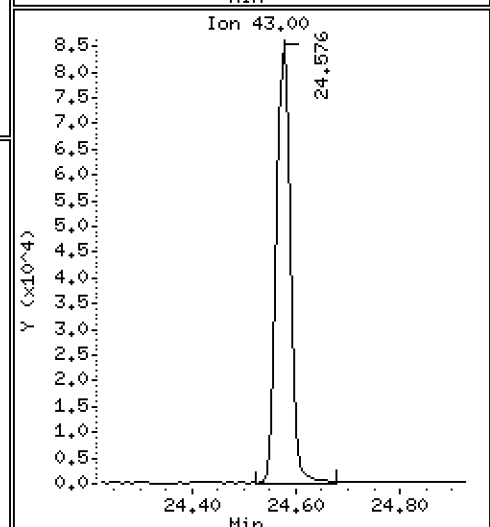
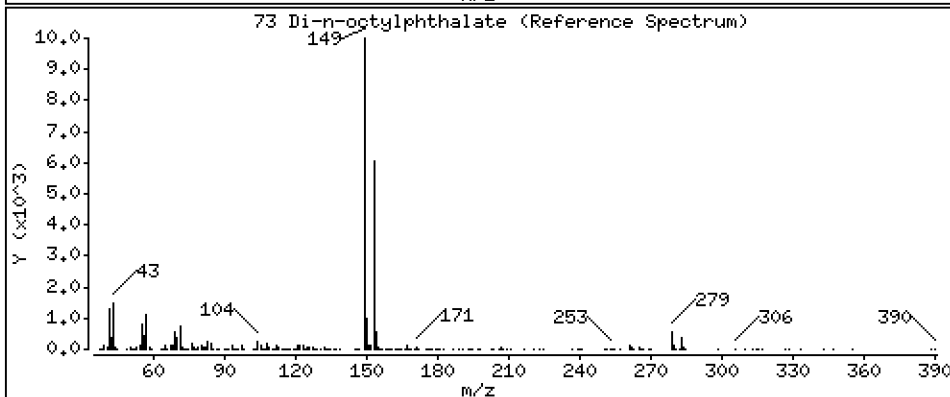
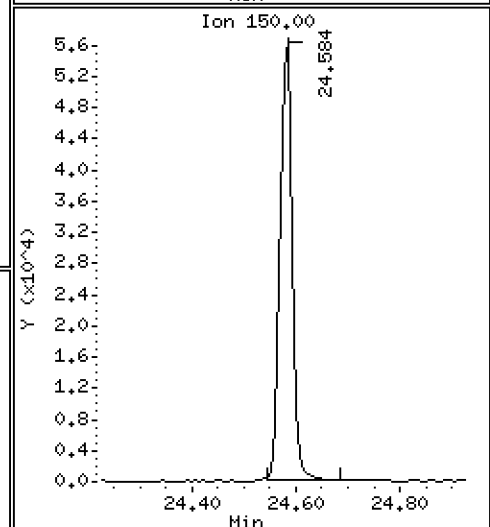
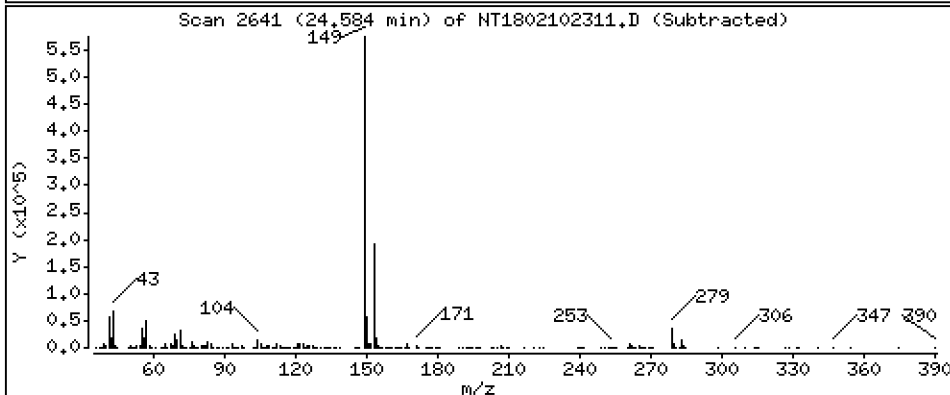
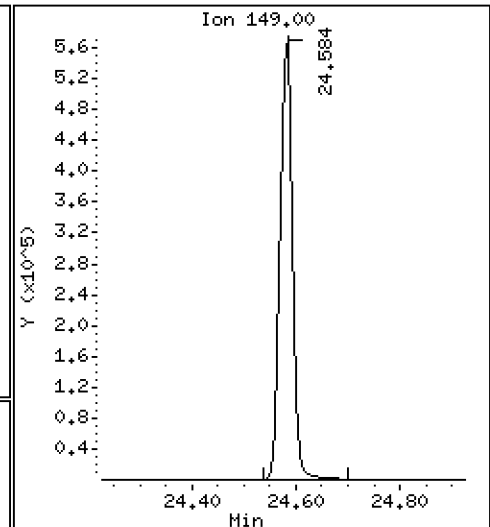
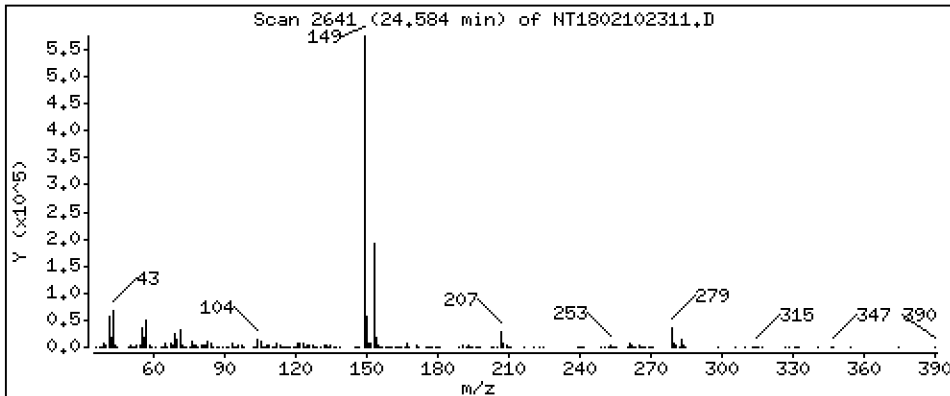
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

73 Di-n-octylphthalate

Concentration: 4,307 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

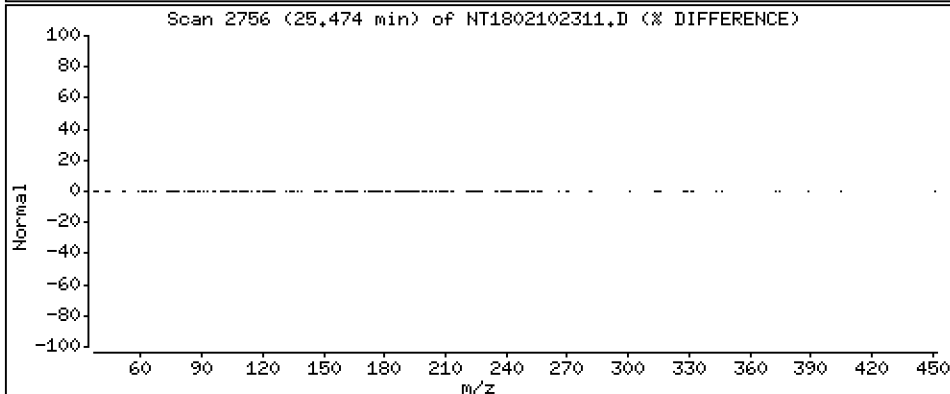
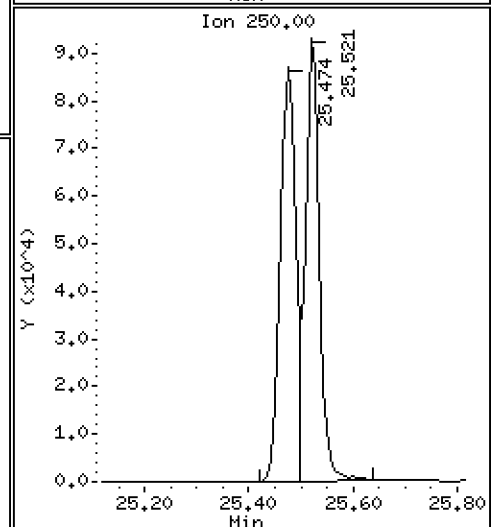
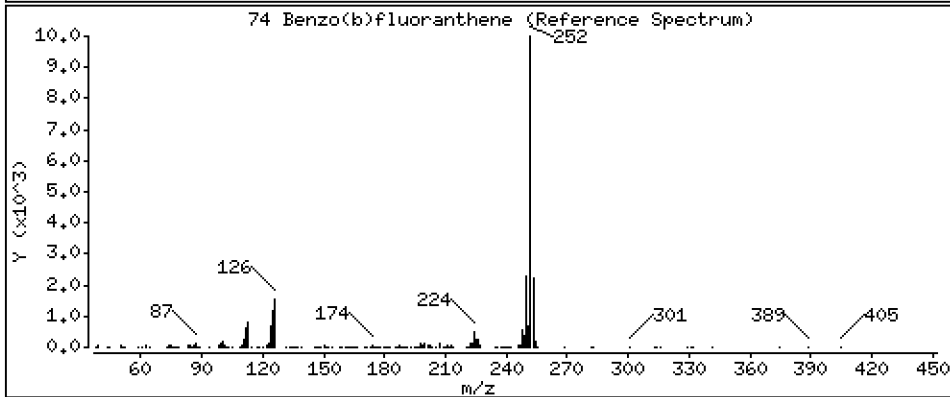
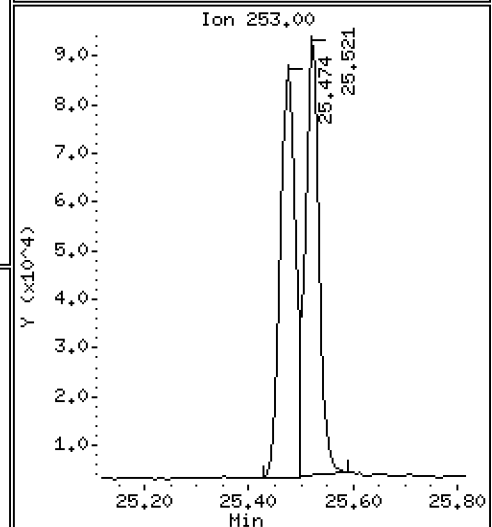
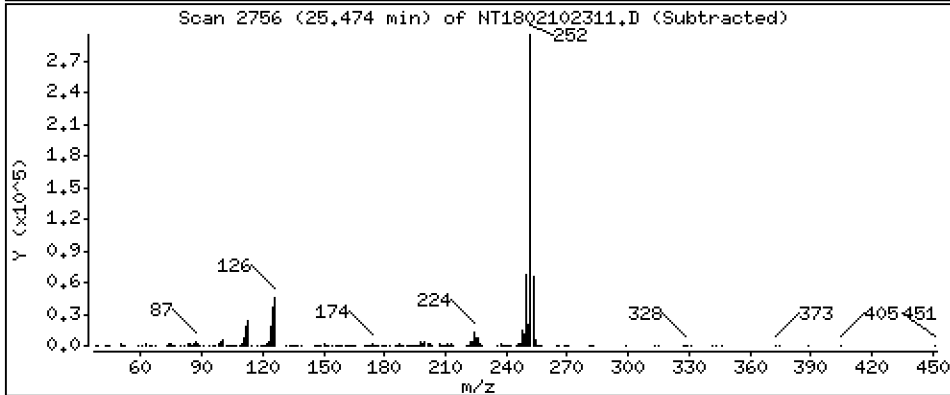
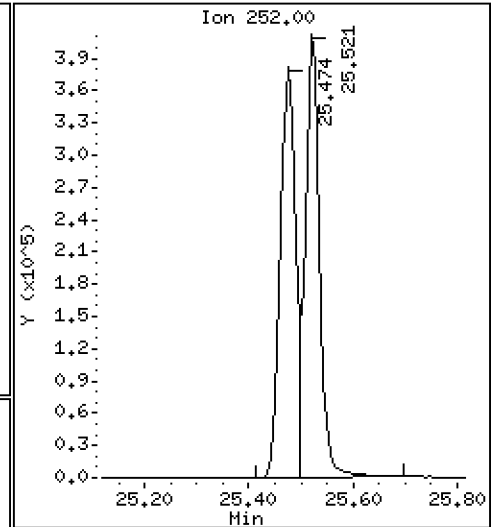
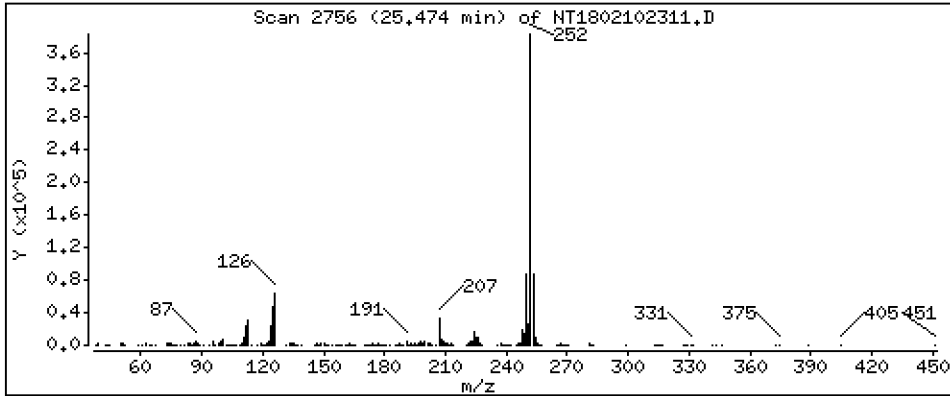
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

74 Benzo(b)fluoranthene

Concentration: 4,173 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

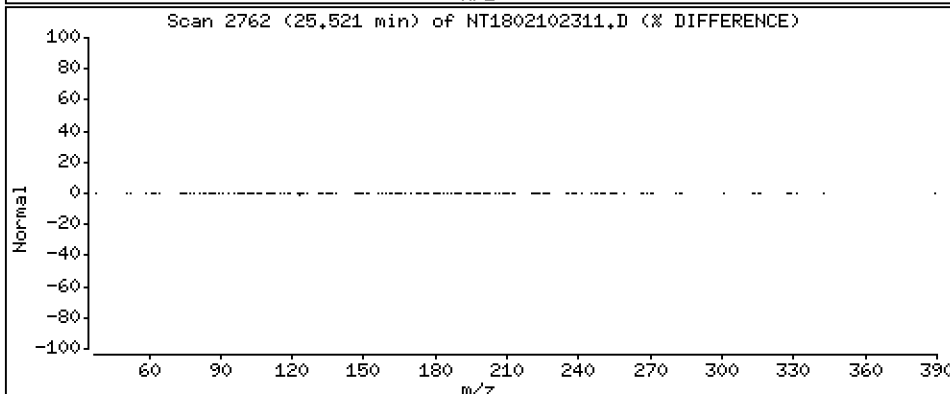
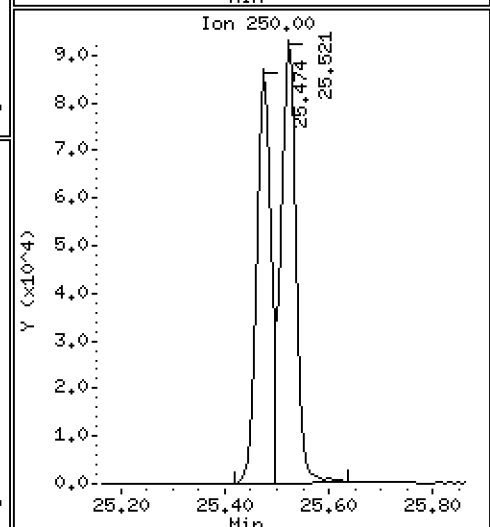
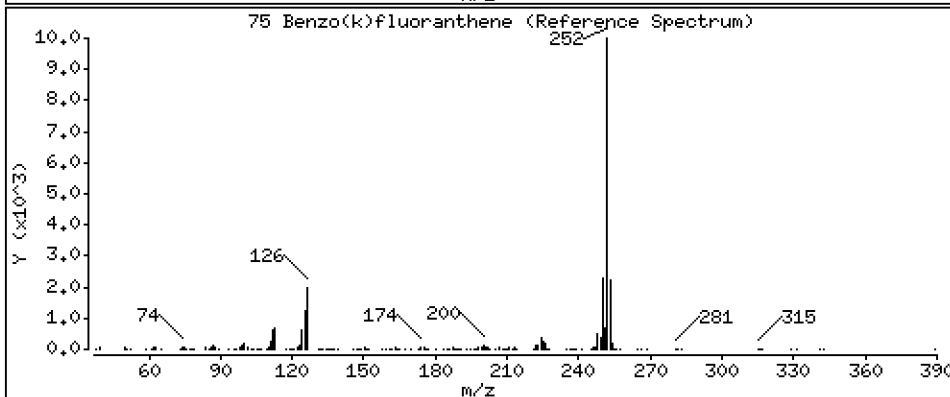
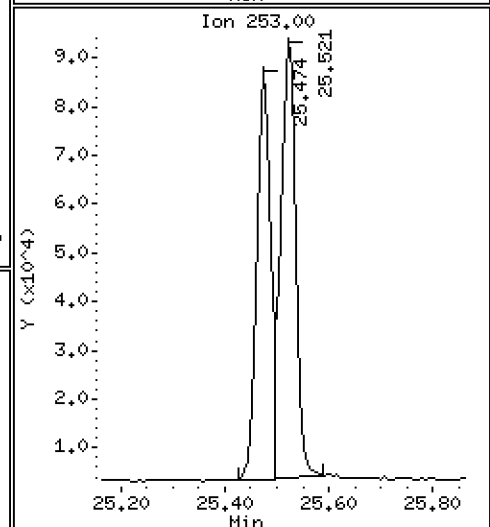
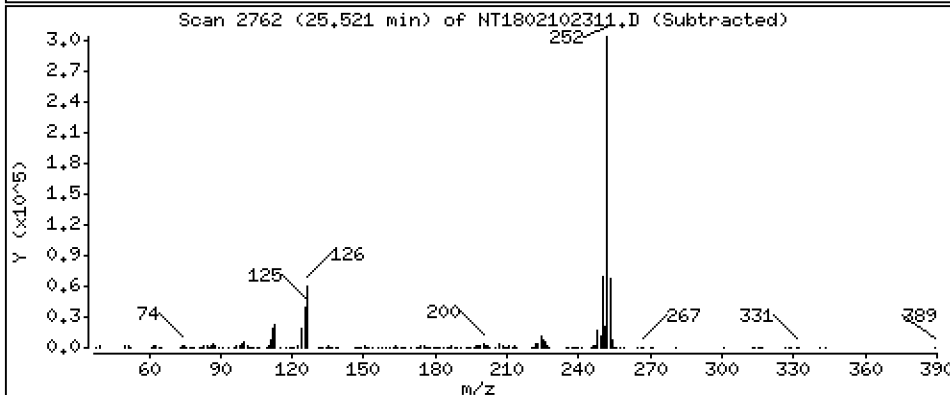
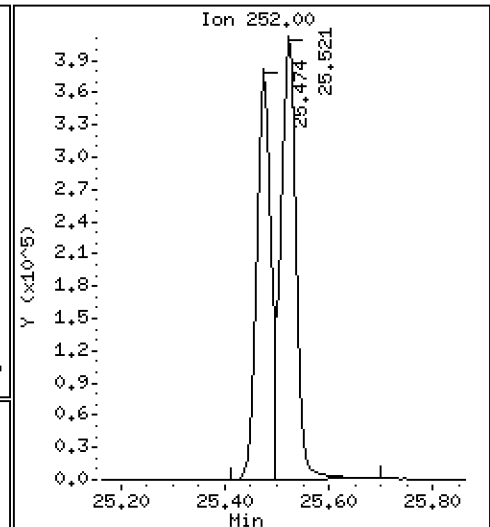
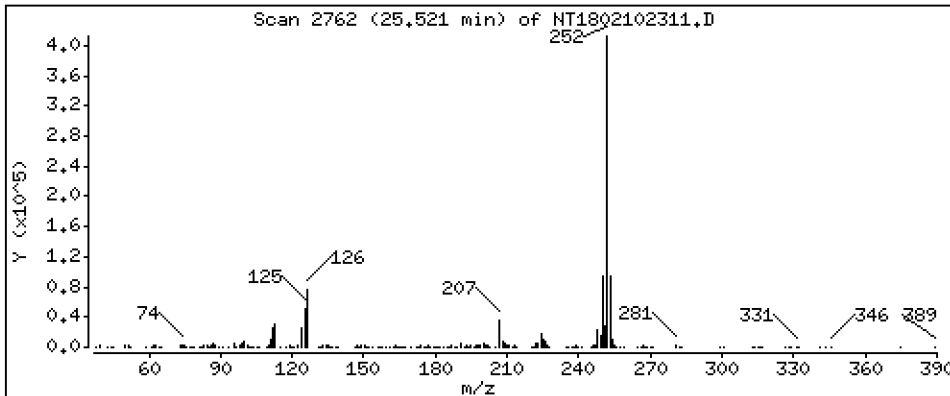
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

75 Benzo(k)fluoranthene

Concentration: 4,199 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

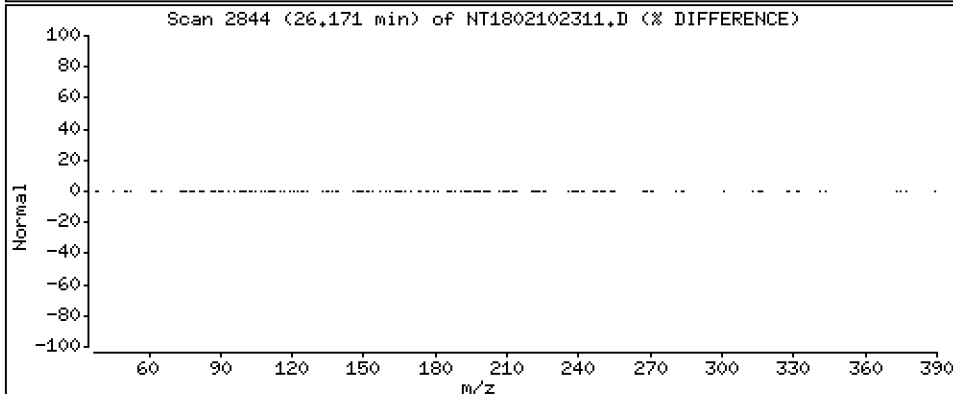
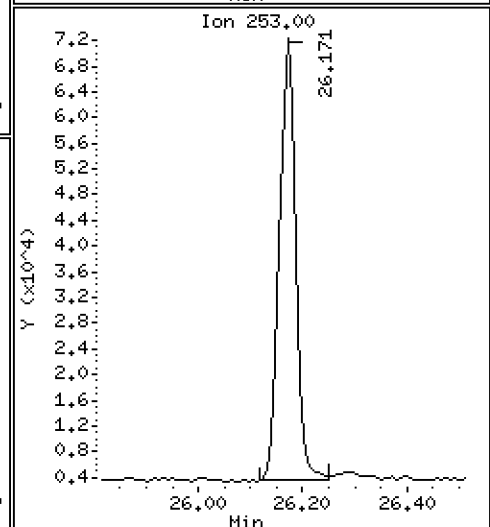
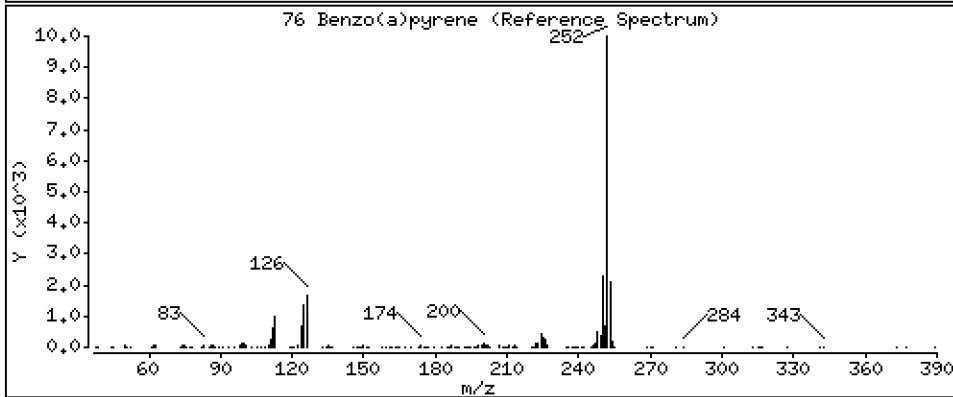
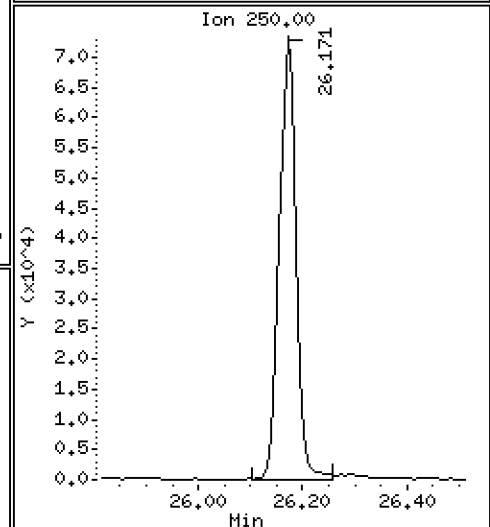
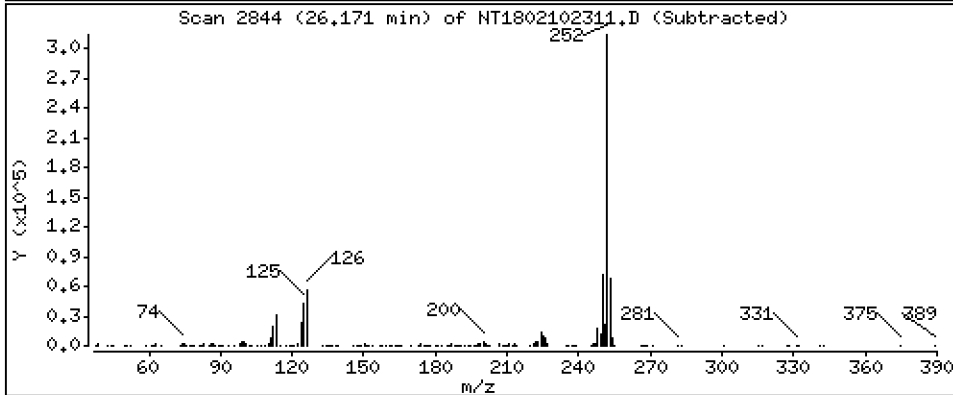
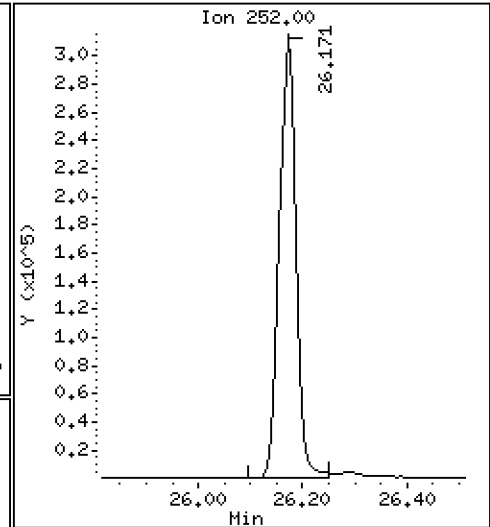
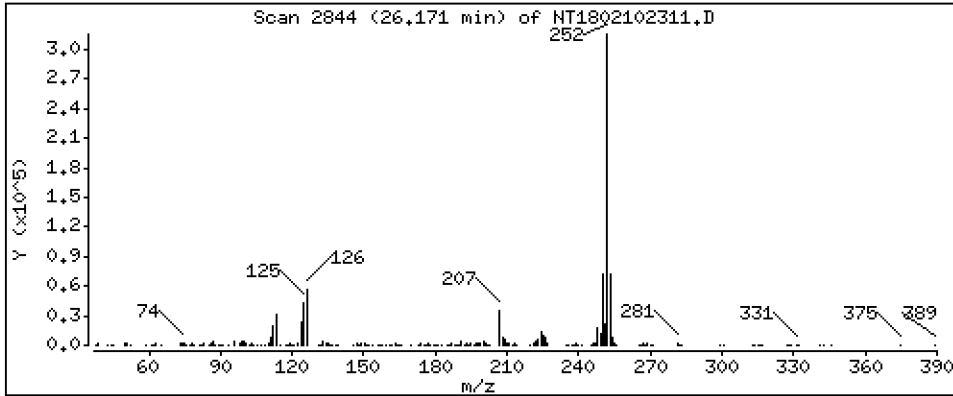
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

76 Benzo(a)pyrene

Concentration: 4,560 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

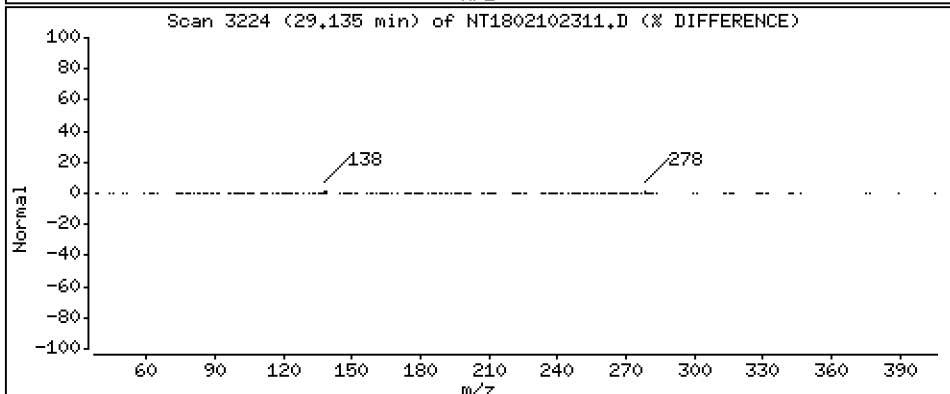
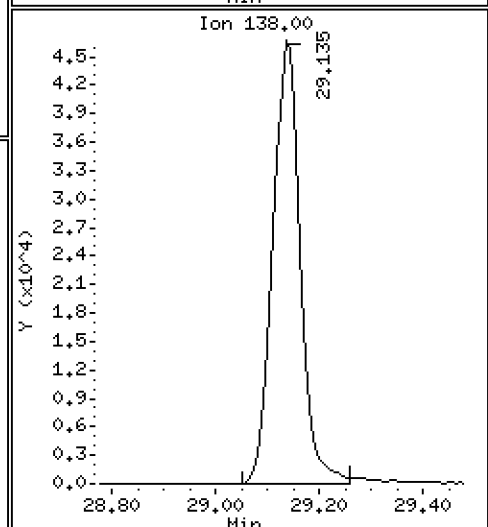
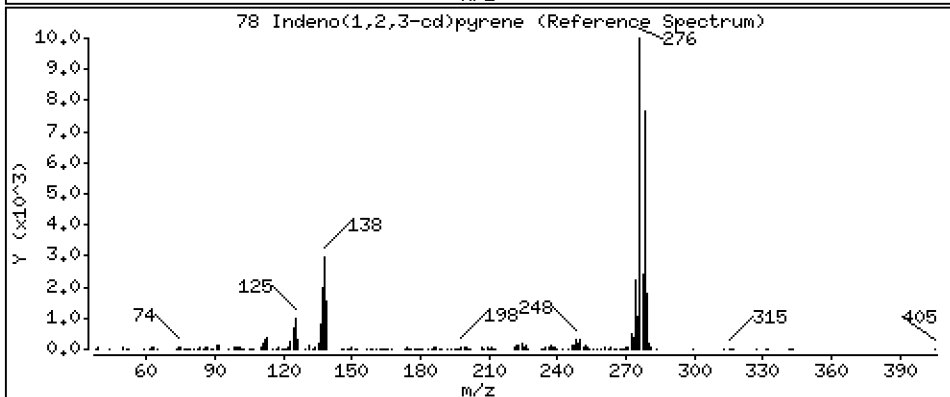
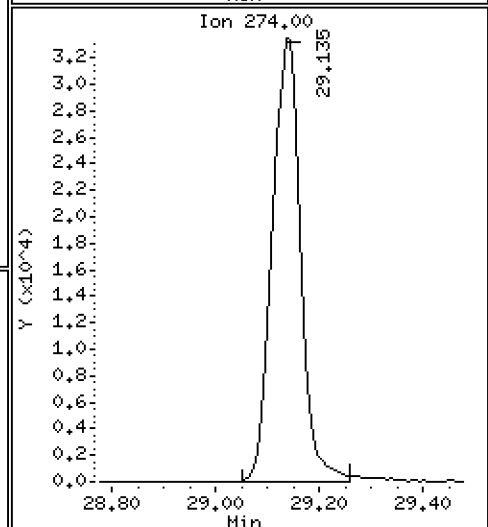
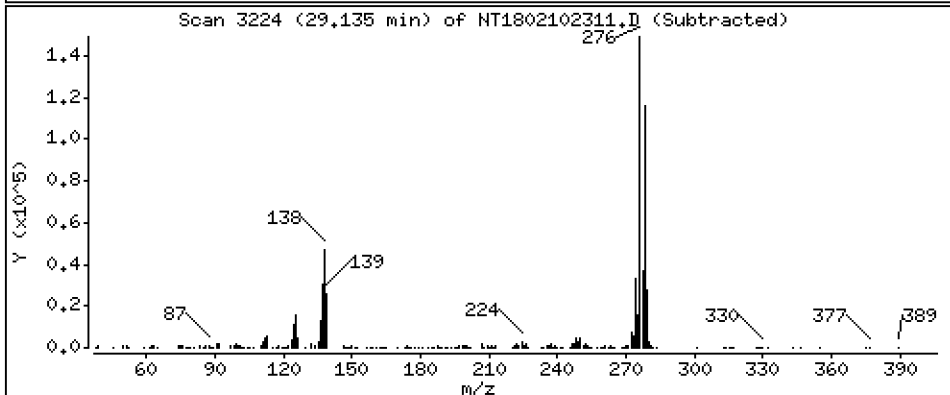
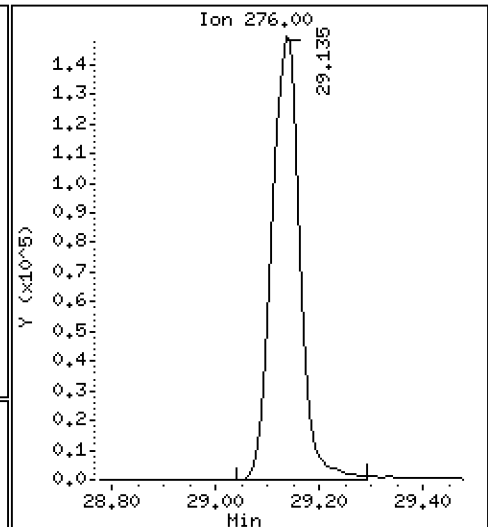
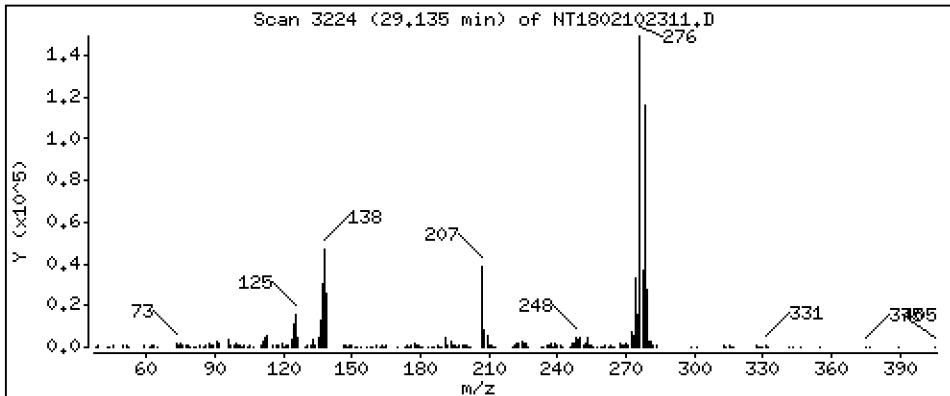
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

78 Indeno(1,2,3-cd)pyrene

Concentration: 3,859 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

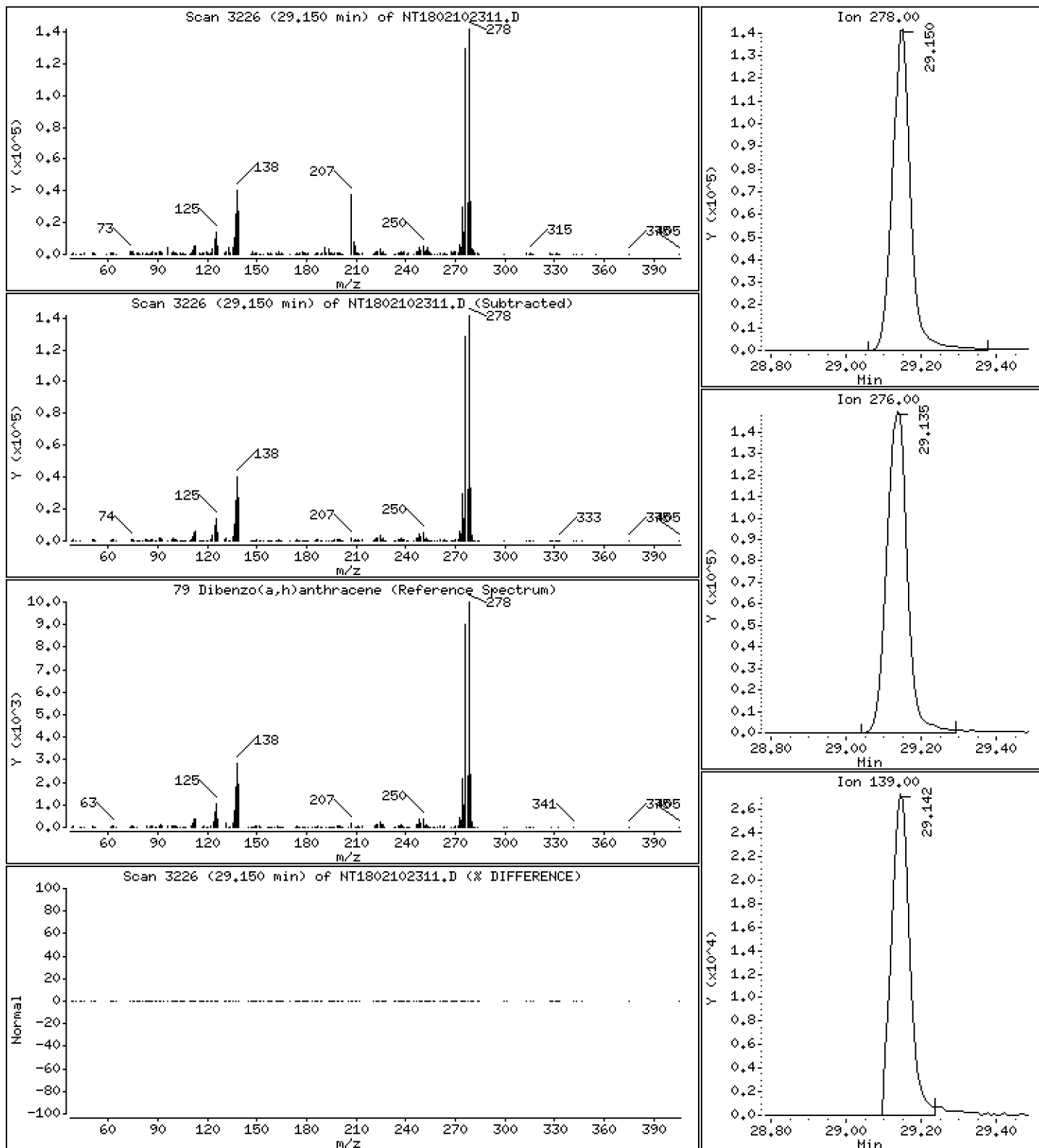
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 3,933 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

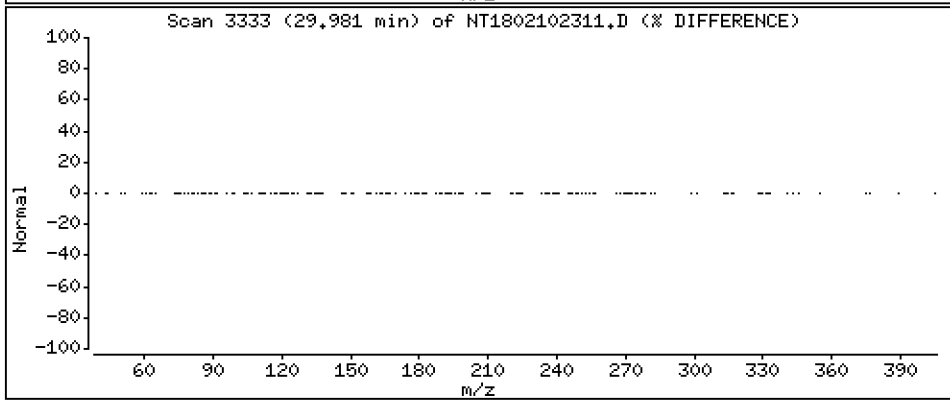
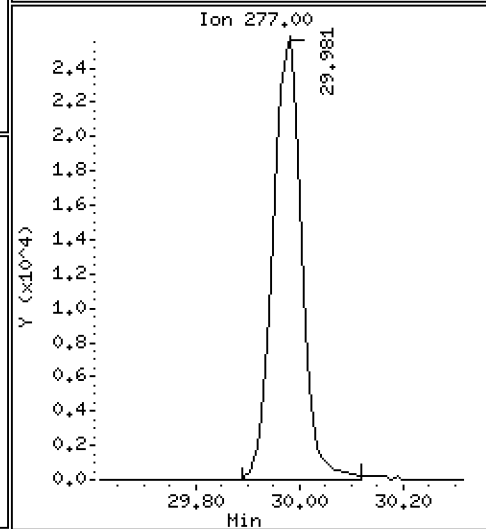
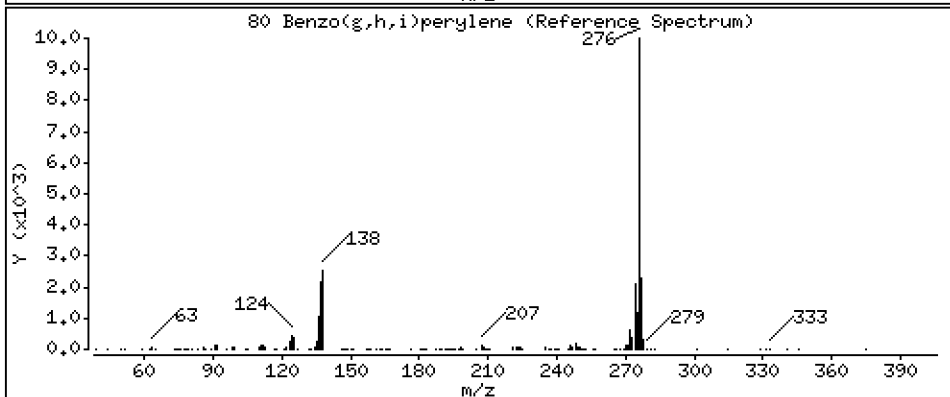
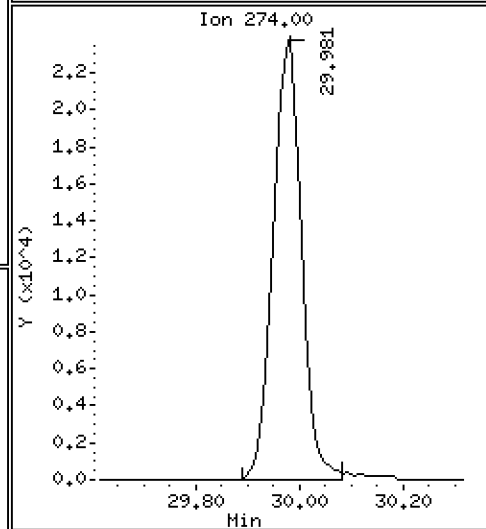
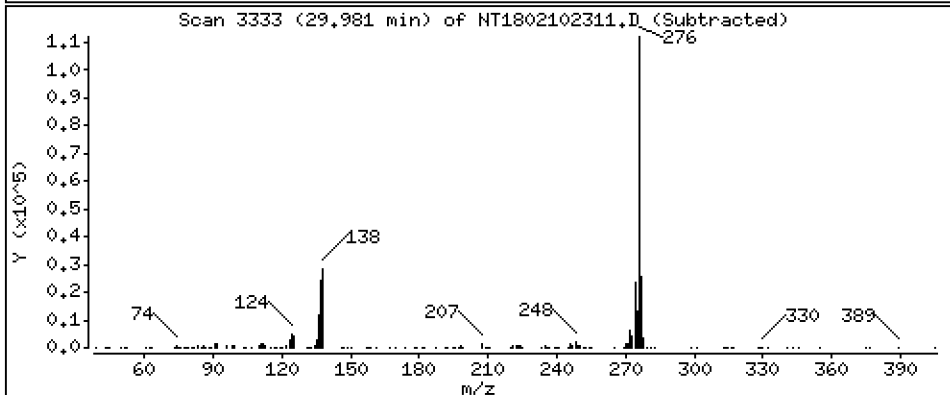
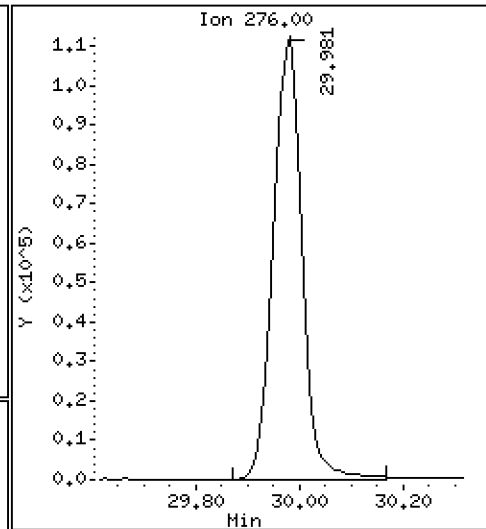
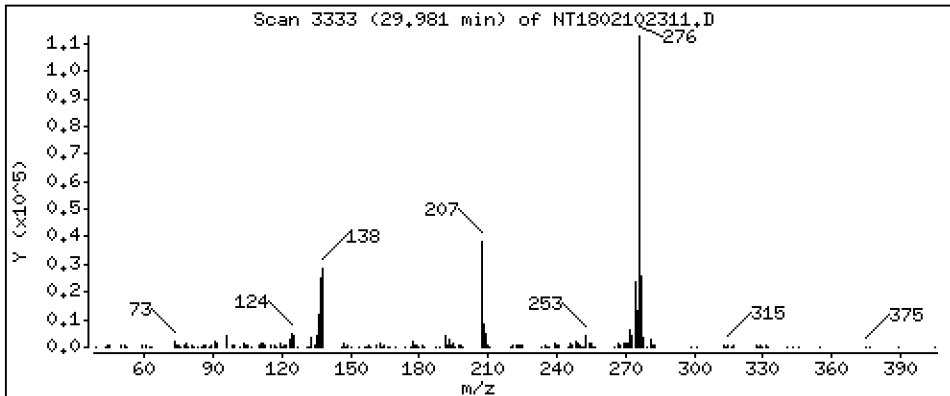
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

80 Benzo(g,h,i)perylene

Concentration: 3,943 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

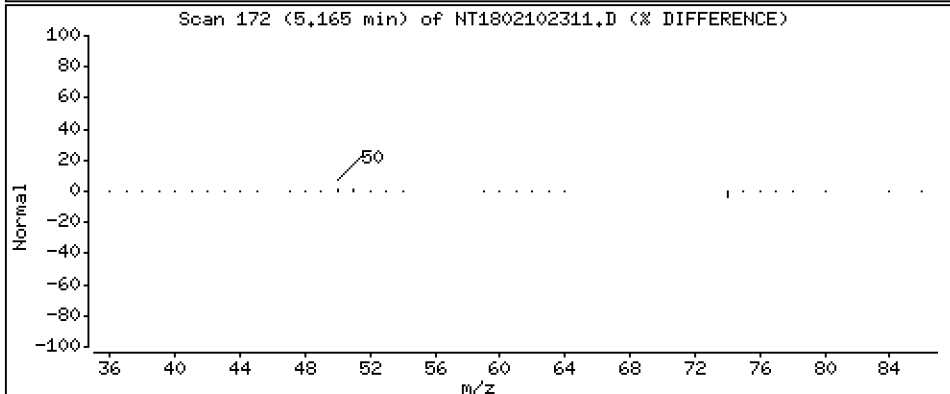
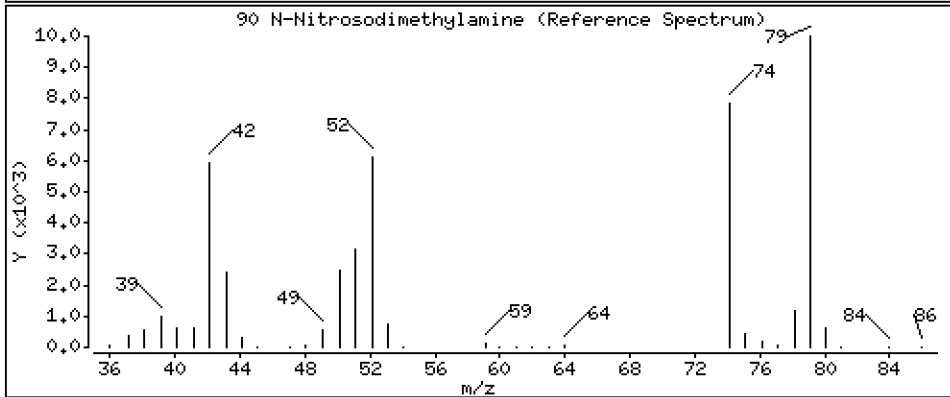
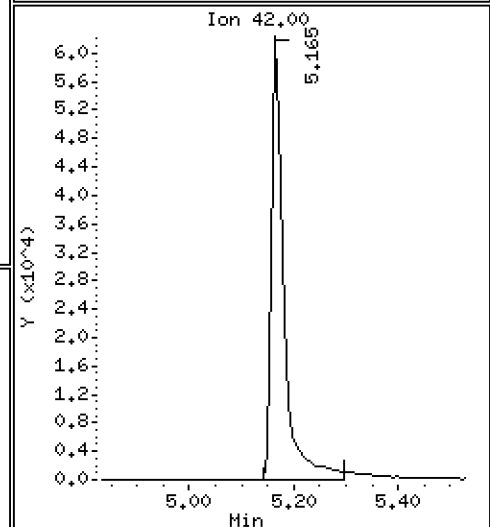
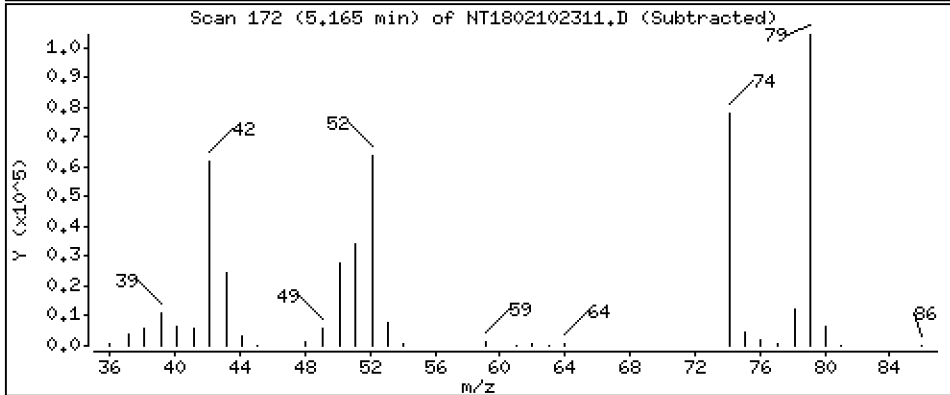
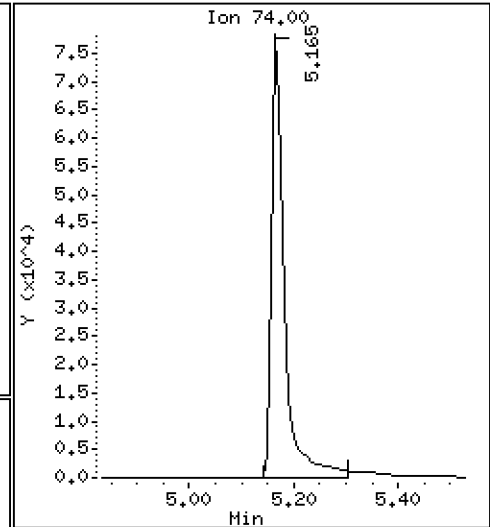
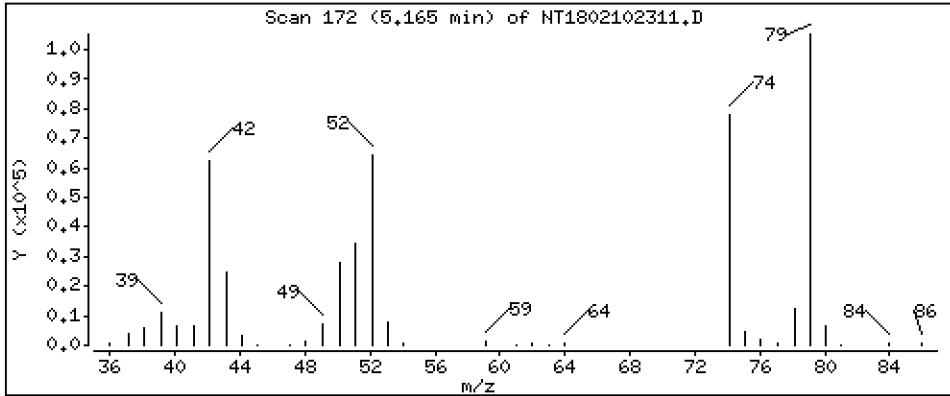
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 4,665 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

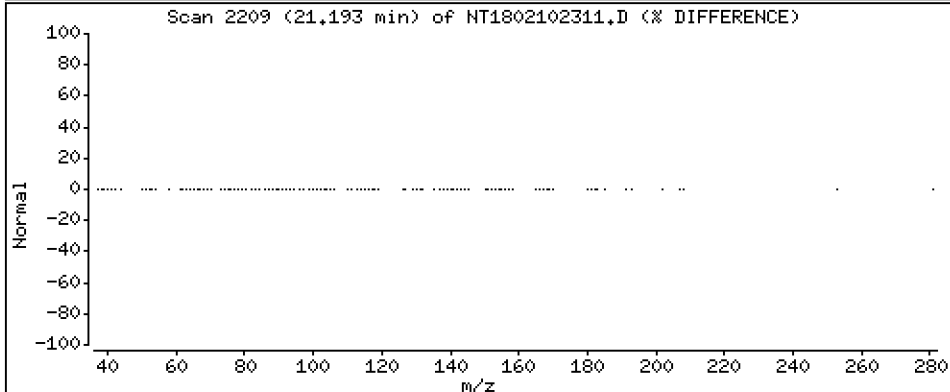
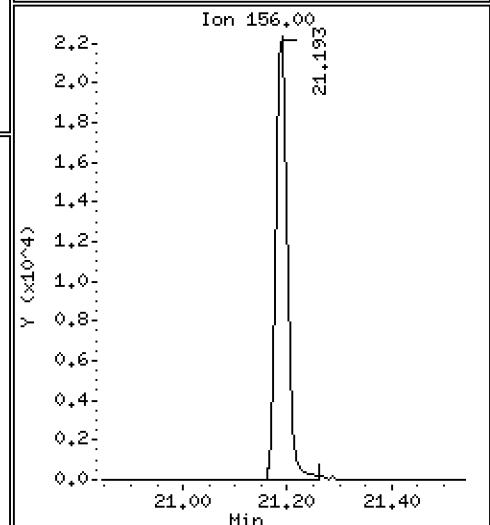
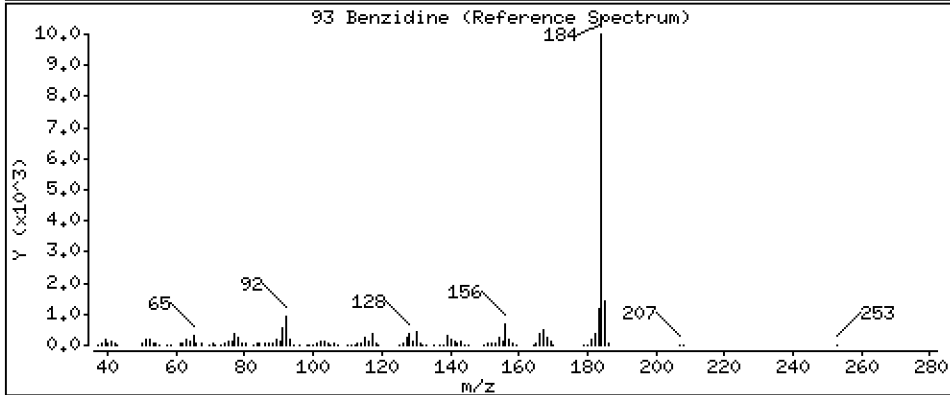
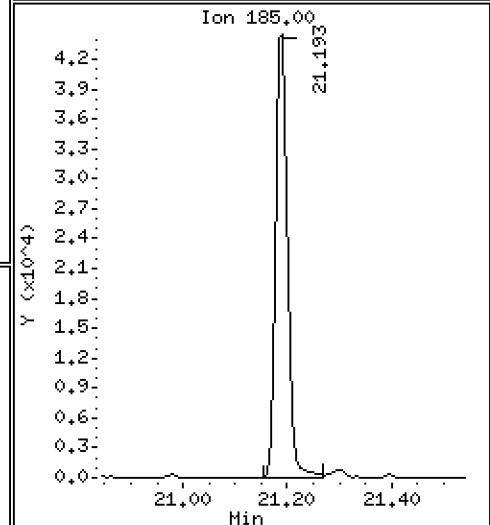
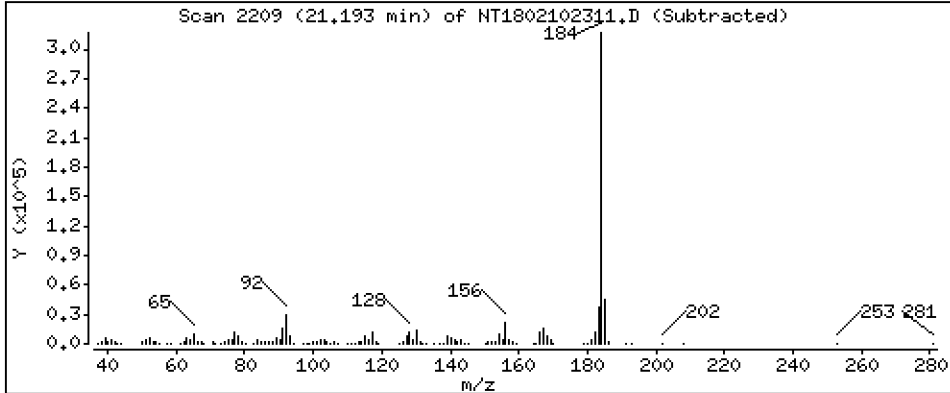
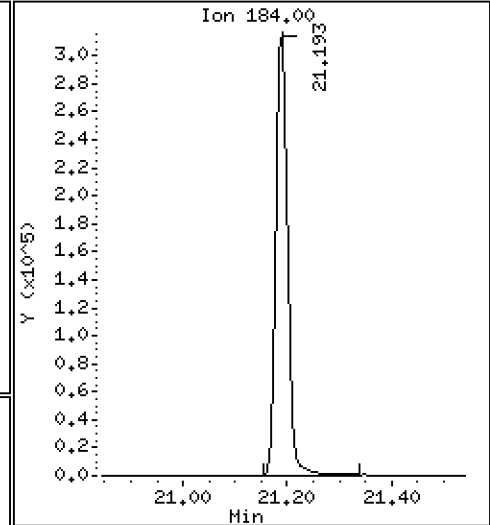
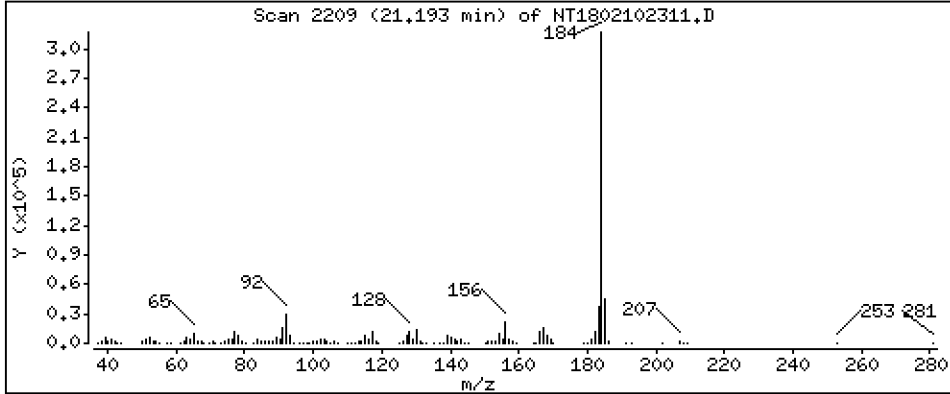
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

93 Benzidine

Concentration: 6,981 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

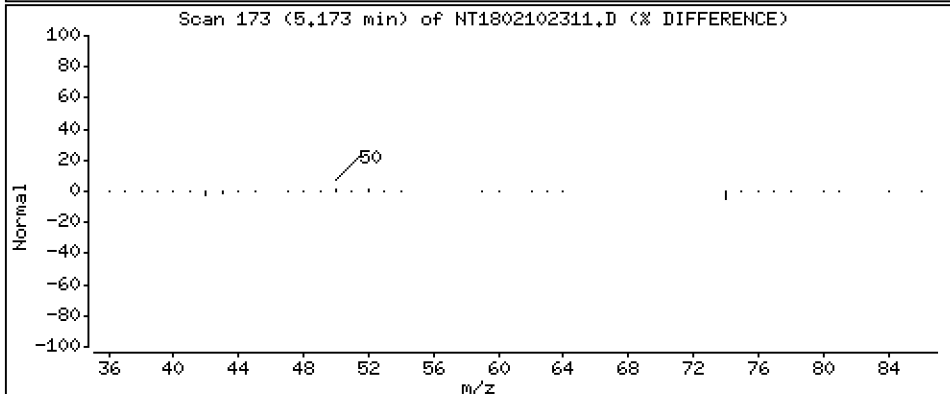
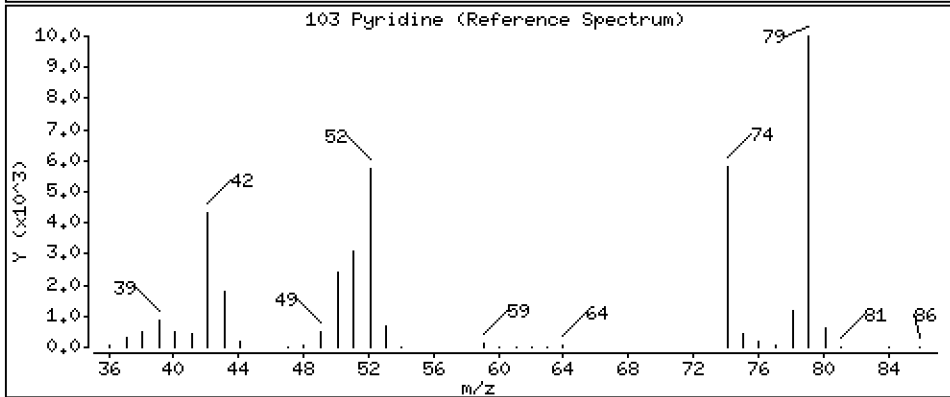
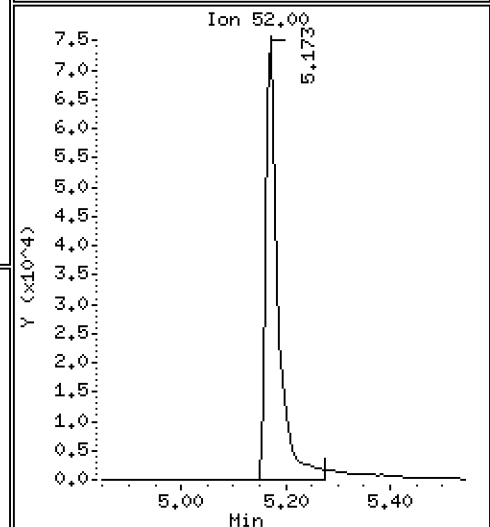
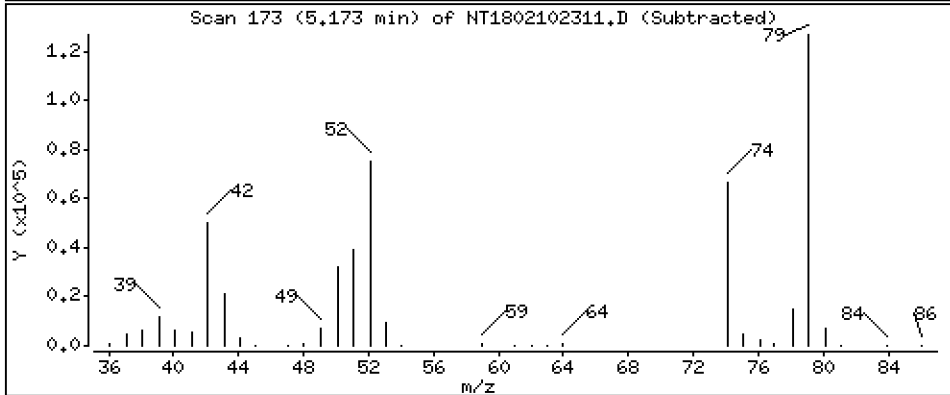
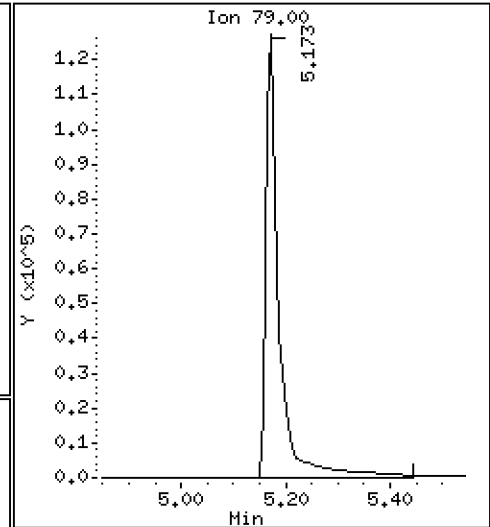
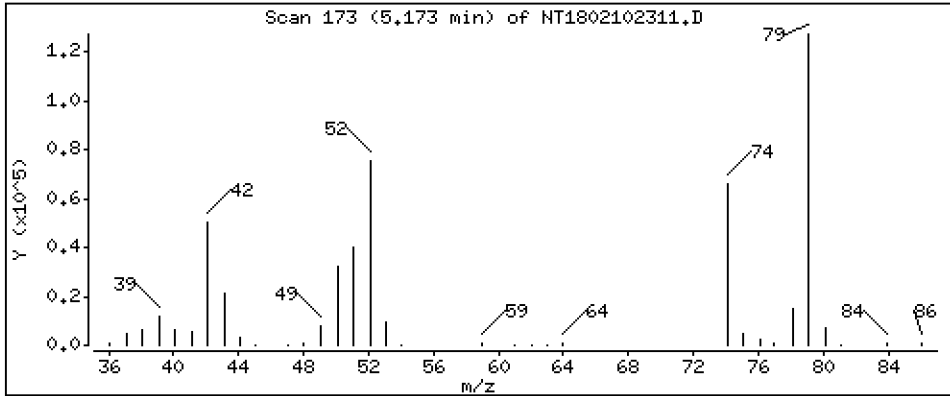
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

103 Pyridine

Concentration: 5,560 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

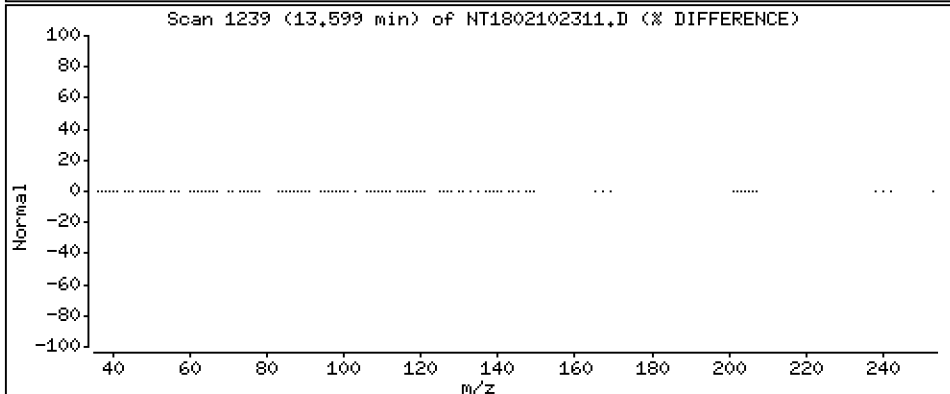
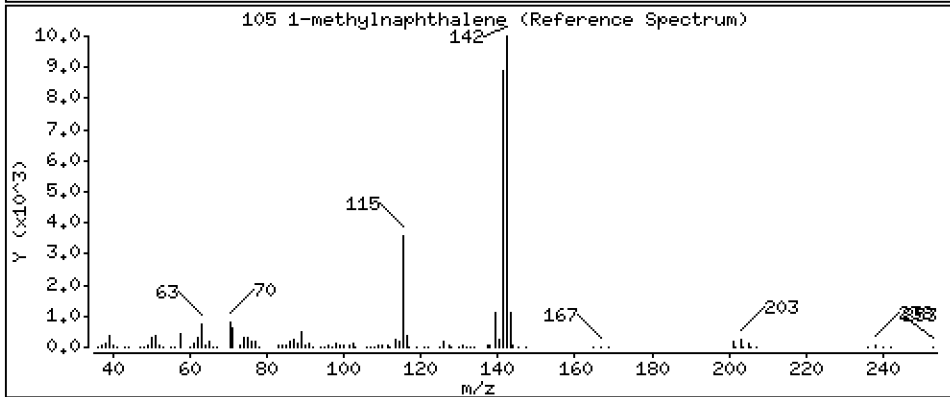
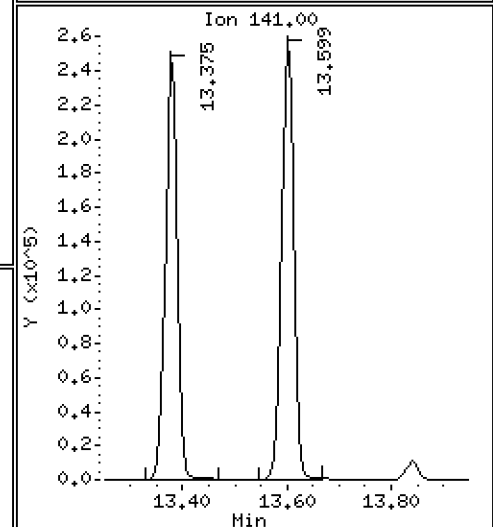
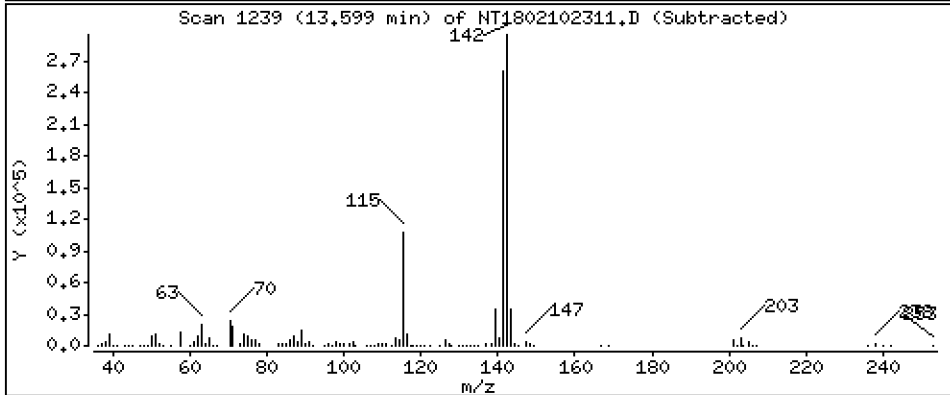
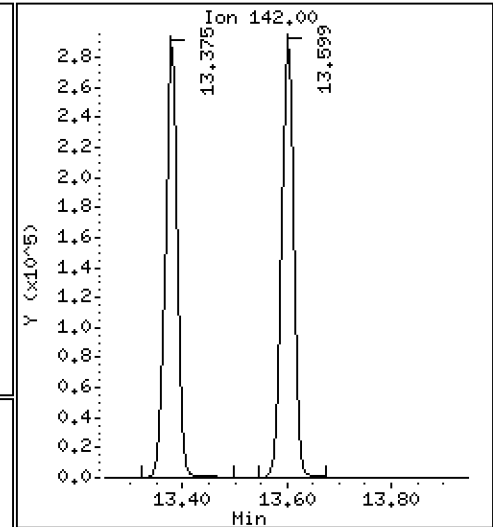
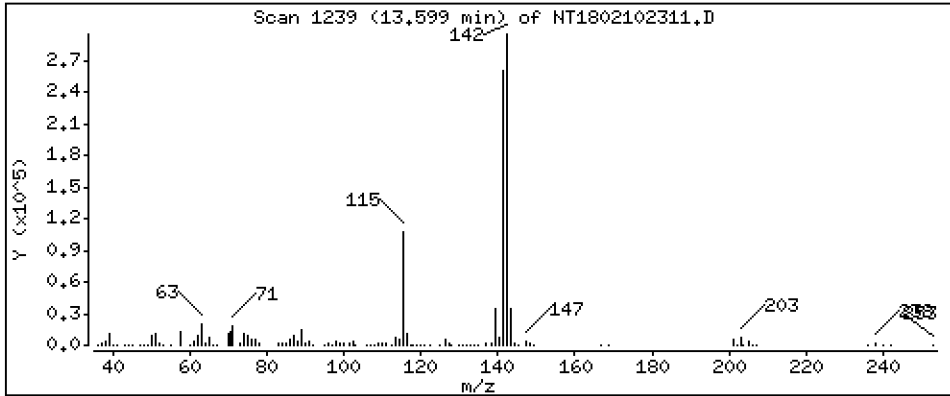
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

105 1-methylnaphthalene

Concentration: 4,246 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

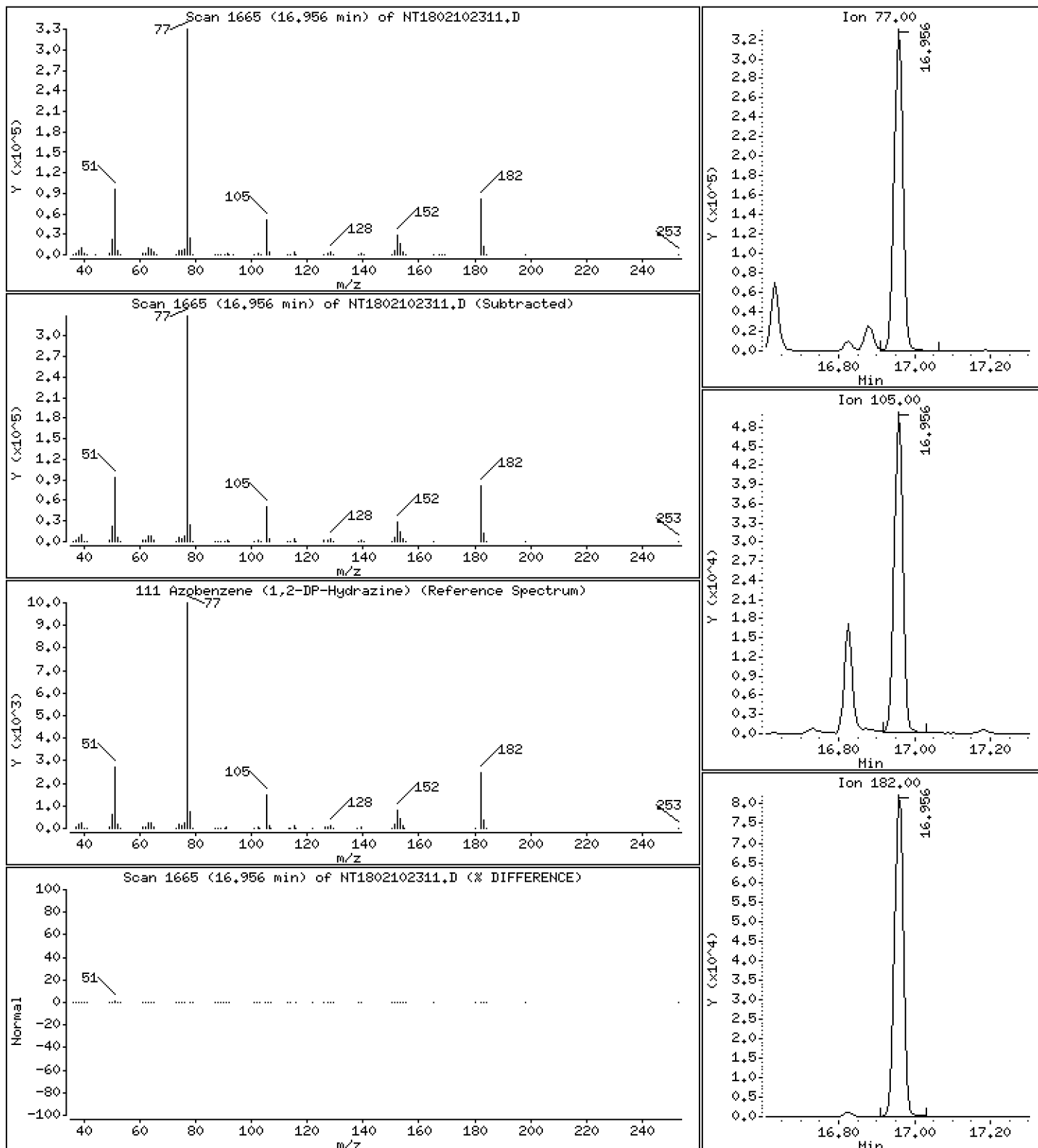
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

111 Azobenzene (1,2-DP-Hydrazine)

Concentration: 4,599 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

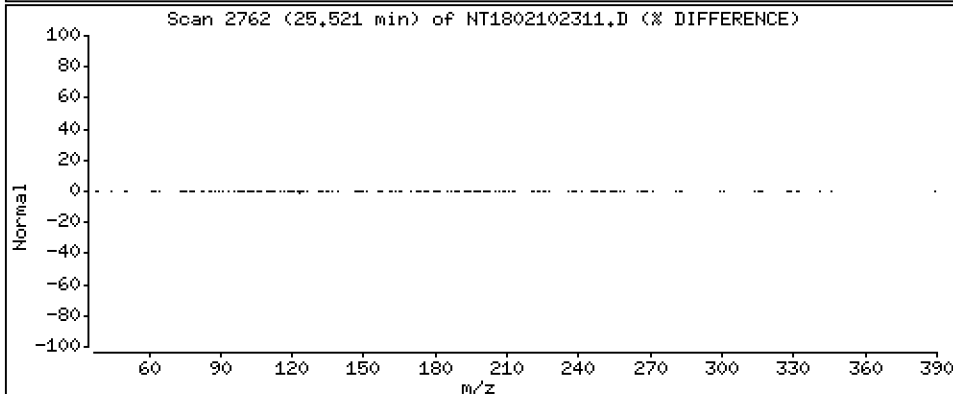
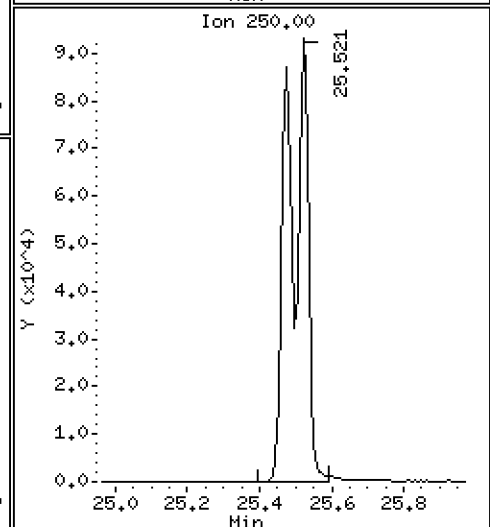
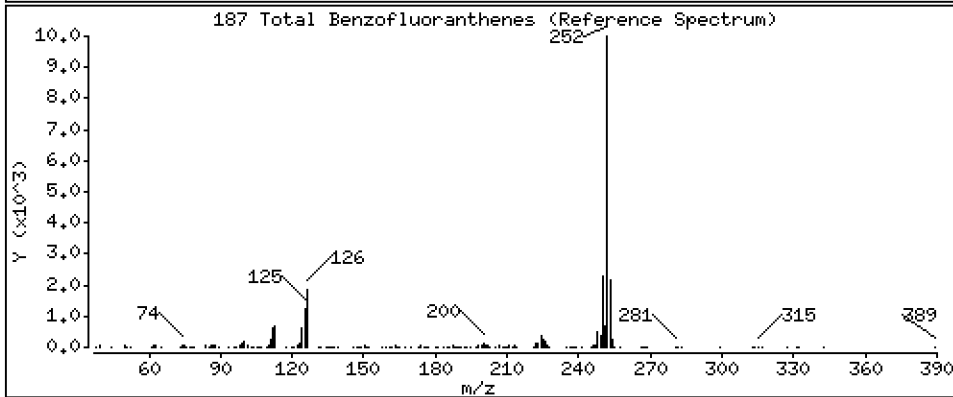
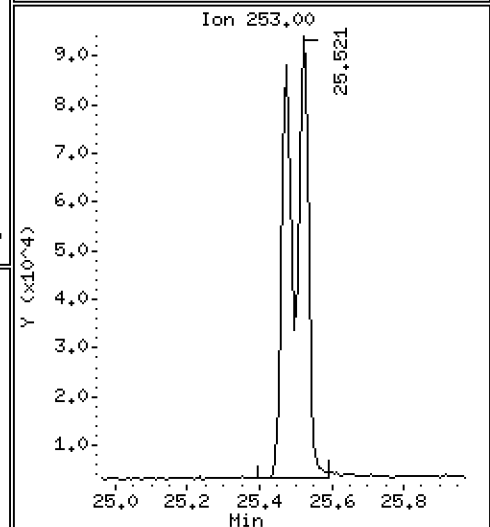
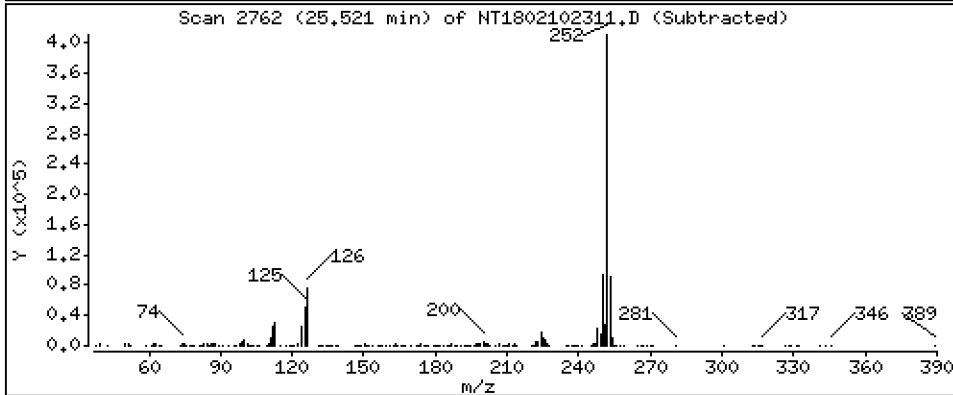
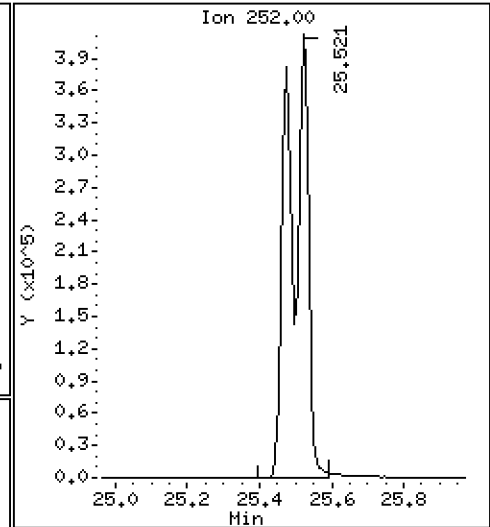
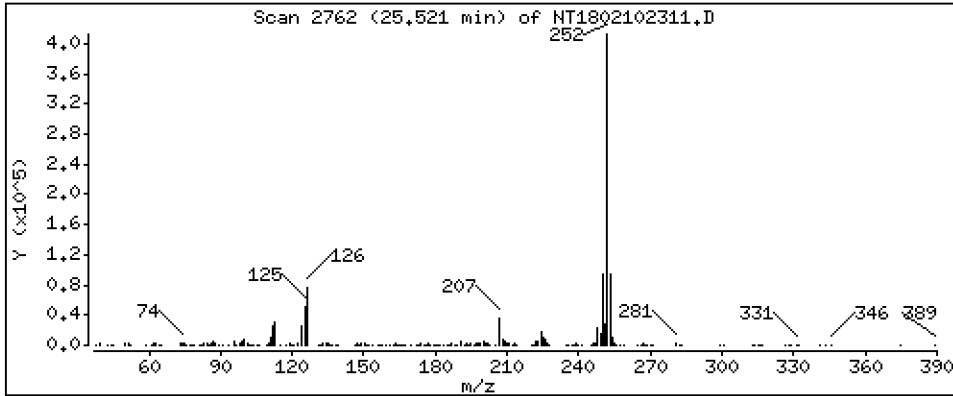
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

187 Total Benzofluoranthenes

Concentration: 8,365 ug/mL



Date : 10-FEB-2023 23:06

Client ID:

Instrument: nt18.i

Sample Info: SLB0195-SCV1

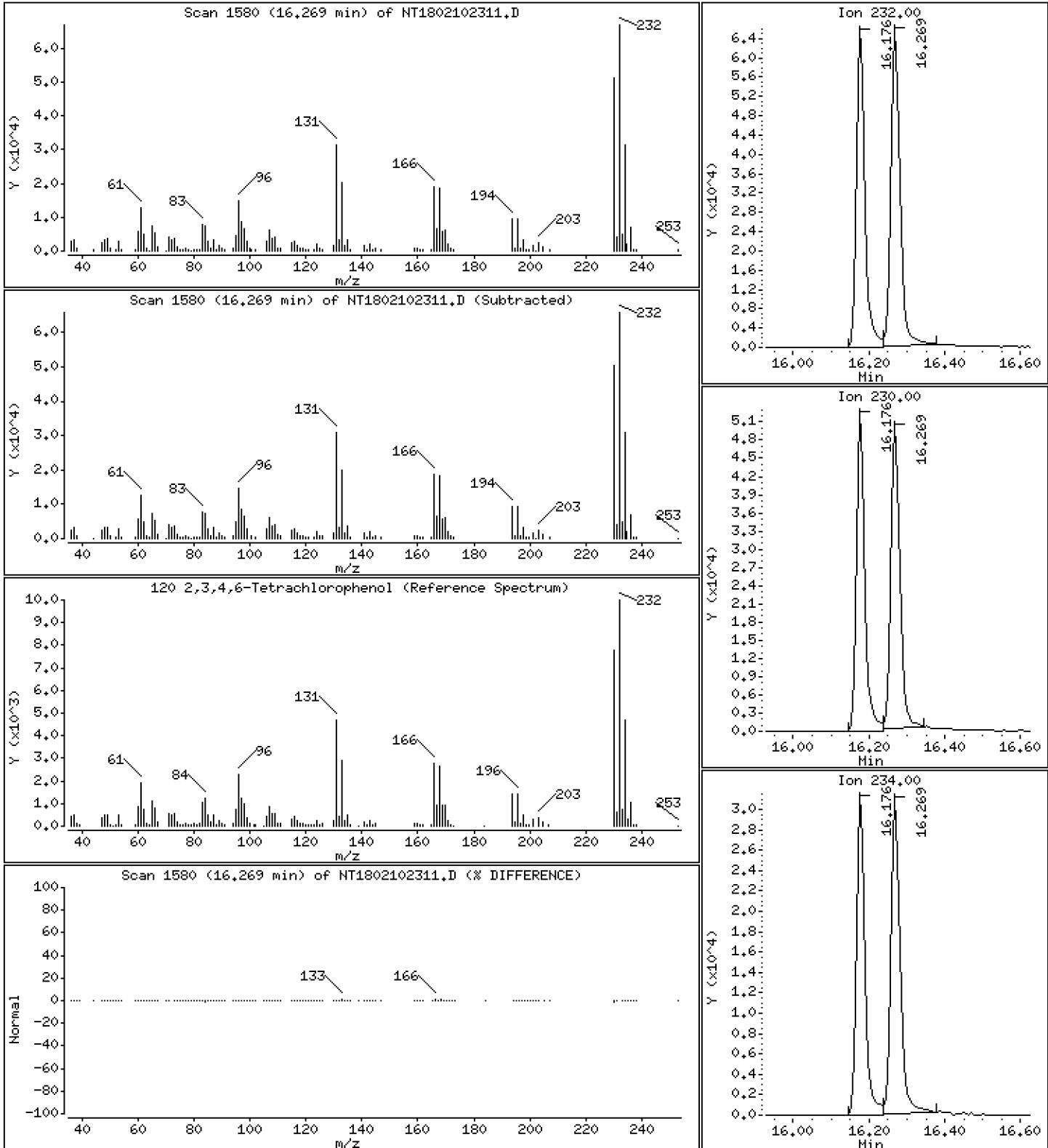
Operator: VTS

Column phase: ZB-5msi

Column diameter: 0,25

120 2,3,4,6-Tetrachlorophenol

Concentration: 3,293 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230210.b\NT1802102311.D
 Lab Smp Id: SLB0195-SCV1
 Inj Date : 10-FEB-2023 23:06
 Operator : VTS
 Smp Info : SLB0195-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Meth Date : 15-Feb-2023 08:10 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-201906

Inst ID: nt18.i

Quant Type: ISTD
 Cal File: NT1802102308.D

Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 1 2-Fluorophenol	112		7.243	7.258	(0.765)	329487	6.54515	6.545
\$ 2 Phenol-d5	99		8.804	8.811	(0.930)	430038	6.72812	6.728
3 Phenol	94		8.827	8.827	(0.932)	268447	4.28578	4.286
\$ 5 2-Chlorophenol-d4	132		9.105	9.113	(0.962)	370890	6.67443	6.674
4 Bis(2-Chloroethyl)ether	93		9.012	9.012	(0.952)	220953	4.66095	4.661
6 2-Chlorophenol	128		9.136	9.136	(0.965)	232546	4.31814	4.318
7 1,3-Dichlorobenzene	146		9.406	9.406	(0.993)	260903	4.44563	4.446
* 8 1,4-Dichlorobenzene-d4	152		9.469	9.469	(1.000)	145438	4.00000	
9 1,4-Dichlorobenzene	146		9.500	9.500	(1.003)	291431	4.62944	4.629
\$ 10 1,2-Dichlorobenzene-d4	152		9.833	9.833	(1.039)	170712	4.26821	4.268
12 1,2-Dichlorobenzene	146		9.500	9.500	(1.003)	291431	4.62944	4.629
11 Benzyl alcohol	108		9.732	9.740	(1.028)	139735	4.13477	4.135
14 2,2'-oxybis(1-Chloropropane)	121		10.027	10.027	(1.059)	72717	4.93218	4.932
13 2-Methylphenol	108		9.942	9.950	(1.050)	186528	4.10909	4.109
17 Hexachloroethane	117		10.447	10.447	(1.103)	104716	4.72730	4.727
16 N-Nitroso-di-n-propylamine	70		10.291	10.291	(1.087)	163774	4.77438	4.774
15 4-Methylphenol	108		10.214	10.214	(1.079)	207510	3.94467	3.945
\$ 18 Nitrobenzene-d5	82		10.563	10.563	(0.884)	253399	4.67107	4.671
19 Nitrobenzene	77		10.594	10.602	(0.886)	245588	4.73327	4.733
20 Isophorone	82		11.036	11.036	(0.923)	482745	6.04164	6.042
21 2-Nitrophenol	139		11.224	11.232	(0.939)	115784	4.03252	4.033
22 2,4-Dimethylphenol	107		11.249	11.257	(0.941)	171402	3.73380	3.734
23 Bis(2-Chloroethoxy)methane	93		11.453	11.461	(0.958)	259246	5.28642	5.286
24 Benzoic acid	105		11.419	11.461	(0.955)	121178	4.25160	4.252
25 2,4-Dichlorophenol	162		11.665	11.673	(0.976)	204801	4.52884	4.529
26 1,2,4-Trichlorobenzene	180		11.859	11.858	(0.992)	214124	4.24526	4.245
* 27 Naphthalene-d8	136		11.951	11.951	(1.000)	551199	4.00000	
28 Naphthalene	128		11.990	11.990	(1.003)	720247	4.54551	4.546
29 4-Chloroaniline	127		12.106	12.113	(1.013)	238457	3.50595	3.506
30 Hexachlorobutadiene	225		12.345	12.345	(1.033)	128017	4.41413	4.414
31 4-Chloro-3-methylphenol	107		13.049	13.049	(1.092)	183451	4.48477	4.485
32 2-Methylnaphthalene	142		13.374	13.382	(1.119)	461441	4.27864	4.279
33 Hexachlorocyclopentadiene	237		13.839	13.839	(0.890)	128716	4.13030	4.130

Compounds	QUANT SIG					CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)	
34 2,4,6-Trichlorophenol	196	13.986	13.994	(0.899)	125703	4.33357	4.334	
35 2,4,5-Trichlorophenol	196	14.063	14.063	(0.904)	136483	4.22515	4.225	
§ 36 2-Fluorobiphenyl	172	14.148	14.148	(0.909)	548612	4.24153	4.242	
37 2-Chloronaphthalene	162	14.373	14.373	(0.924)	417815	4.29866	4.299	
38 2-Nitroaniline	65	14.620	14.620	(0.940)	116262	4.43115	4.431	
39 Dimethylphthalate	163	15.046	15.038	(0.967)	465121	4.54591	4.546	
40 Acenaphthylene	152	15.240	15.240	(0.980)	693610	4.67761	4.678	
41 2,6-Dinitrotoluene	165	15.186	15.178	(0.976)	107878	4.56021	4.560	
* 42 Acenaphthene-d10	164	15.557	15.549	(1.000)	292562	4.00000		
43 3-Nitroaniline	138	15.464	15.464	(0.994)	120752	4.65113	4.651	
44 Acenaphthene	153	15.619	15.611	(1.004)	435254	4.40183	4.402	
45 2,4-Dinitrophenol	184	15.673	15.688	(1.007)	31634	1.93630	1.936	
46 Dibenzofuran	168	15.943	15.943	(1.025)	601599	4.24667	4.247	
47 4-Nitrophenol	109	15.766	15.766	(1.013)	57165	3.97553	3.976	
48 2,4-Dinitrotoluene	165	15.990	15.990	(1.028)	142818	4.44610	4.446	
50 Diethylphthalate	149	16.492	16.484	(1.060)	525799	5.06221	5.062	
49 Fluorene	166	16.654	16.647	(1.071)	508979	4.54229	4.542	
51 4-Chlorophenyl-phenylether	204	16.631	16.631	(1.069)	245105	4.33907	4.339	
52 4-Nitroaniline	138	16.732	16.724	(1.076)	112840	4.13087	4.131	
53 4,6-Dinitro-2-methylphenol	198	16.824	16.824	(0.906)	66257	3.30084	3.301	
54 N-Nitrosodiphenylamine	169	16.878	16.878	(0.909)	339419	4.35576	4.356	
§ 55 2,4,6-Tribromophenol	330	17.179	17.179	(1.104)	114426	6.00954	6.010	
56 4-Bromophenyl-phenylether	248	17.634	17.634	(0.949)	145114	4.46384	4.464	
57 Hexachlorobenzene	284	17.958	17.958	(0.967)	154985	4.08548	4.085	
58 Pentachlorophenol	266	18.307	18.314	(0.985)	74910	3.50720	3.507	
* 59 Phenanthrene-d10	188	18.577	18.577	(1.000)	526860	4.00000		
60 Phenanthrene	178	18.624	18.624	(1.002)	673000	4.22805	4.228	
61 Anthracene	178	18.717	18.717	(1.007)	573319	4.02695	4.027	
62 Carbazole	167	19.034	19.034	(1.025)	578774	4.06642	4.066	
63 Di-n-butylphthalate	149	19.800	19.800	(1.066)	762492	4.13897	4.139	
64 Fluoranthene	202	20.976	20.968	(0.890)	769747	4.55528	4.555	
65 Pyrene	202	21.394	21.394	(0.908)	777517	4.32844	4.328	
§ 66 Terphenyl-d14	244	21.665	21.657	(0.919)	687413	4.14974	4.150	
67 Butylbenzylphthalate	149	22.563	22.563	(0.958)	338834	4.20350	4.203	
68 Benzo(a)anthracene	228	23.531	23.523	(0.999)	751678	4.24696	4.247	
* 69 Chrysene-d12	240	23.562	23.554	(1.000)	535596	4.00000		
70 3,3'-Dichlorobenzidine	252	23.476	23.469	(0.996)	610586	7.58242	7.582	
71 Chrysene	228	23.600	23.600	(1.002)	757675	4.06155	4.062	
72 bis(2-Ethylhexyl)phthalate	149	23.569	23.569	(0.959)	527963	4.85659	4.857	
* 134 Di-n-octylphthalate-d4	153	24.568	24.568	(1.000)	714503	4.00000		
73 Di-n-octylphthalate	149	24.584	24.576	(1.001)	904032	4.30658	4.307	
74 Benzo(b)fluoranthene	252	25.474	25.466	(0.969)	762201	4.17262	4.173	
75 Benzo(k)fluoranthene	252	25.520	25.513	(0.971)	838953	4.19851	4.199	
76 Benzo(a)pyrene	252	26.171	26.163	(0.995)	680380	4.56046	4.560	
* 77 Perylene-d12	264	26.295	26.287	(1.000)	523305	4.00000		
78 Indeno(1,2,3-cd)pyrene	276	29.134	29.126	(1.108)	562656	3.85904	3.859	
79 Dibenzo(a,h)anthracene	278	29.150	29.134	(1.109)	473204	3.93269	3.933	
80 Benzo(g,h,i)perylene	276	29.981	29.965	(1.140)	431324	3.94280	3.943	
90 N-Nitrosodimethylamine	74	5.165	5.180	(0.545)	128409	4.66507	4.665	
91 Aniline	93	Compound Not Detected.						
93 Benzidine	184	21.193	21.193	(0.899)	471681	6.98064	6.981	
103 Pyridine	79	5.173	5.196	(0.546)	224983	5.55984	5.560	
105 1-methylnaphthalene	142	13.599	13.599	(1.138)	446626	4.24597	4.246	
111 Azobenzene (1,2-DP-Hydrazine)	77	16.955	16.955	(1.090)	503784	4.59932	4.599	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	25.520	25.466	(0.971)	1530839	8.36489	8.365
120 2,3,4,6-Tetrachlorophenol	232	16.268	16.276	(1.046)	105822	3.29329	3.293

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 10-FEB-2023
 Lab File ID: NT1802102311.D Calibration Time: 18:25
 Lab Smp Id: SLB0195-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230210.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	102093	51047	204186	145438	42.46
27 Naphthalene-d8	389769	194885	779538	551199	41.42
42 Acenaphthene-d10	207438	103719	414876	292562	41.04
59 Phenanthrene-d10	358643	179322	717286	526860	46.90
69 Chrysene-d12	349501	174751	699002	535596	53.25
134 Di-n-octylphthala	468622	234311	937244	714503	52.47
77 Perylene-d12	343443	171722	686886	523305	52.37

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.48	8.98	9.98	9.47	-0.08
27 Naphthalene-d8	11.95	11.45	12.45	11.95	0.00
42 Acenaphthene-d10	15.55	15.05	16.05	15.56	0.05
59 Phenanthrene-d10	18.58	18.08	19.08	18.58	0.00
69 Chrysene-d12	23.55	23.05	24.05	23.56	0.03
134 Di-n-octylphthala	24.57	24.07	25.07	24.57	0.00
77 Perylene-d12	26.30	25.80	26.80	26.30	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802102311.D

Lab ID: SLB0195-SCV1
nt18.i, ABN.m, 10-FEB-2023 23:06

RT	CO-ELUTION COMPOUNDS
9.500	1,2-Dichlorobenzene and 1,4-Dichlorobenzene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.955	0.000	0.9555	Benzoic acid
1.007	0.000	1.0075	2,4-Dinitrophenol

RRT check based on Ccal File: NT1802102308.D

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *



CONTINUING CALIBRATION CHECK
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT18

Calibration: GB00036

Lab File ID: NT1802192325K.D

Calibration Date: 02/15/2023

Sequence: SLC0060

Injection Date: 02/20/23

Lab Sample ID: SLC0060-CCV1

Injection Time: 01:01

Sequence Name: ABN 5

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	5.0000	5.2	1.7227030	1.7816200		3.4	+/-50
4-Methylphenol	A	5.0000	5.0	1.2997430	1.4398390		-0.2	+/-50
Naphthalene	A	5.0000	4.7	1.1498750	1.0902580		-5.2	+/-50
2-Methylnaphthalene	A	5.0000	4.9	0.7826405	0.7617787		-2.7	+/-50
Acenaphthylene	A	5.0000	5.7	2.0273730	2.2977350		13.3	+/-50
Dimethylphthalate	A	5.0000	4.9	1.3989010	1.3569820		-3.0	+/-50
Acenaphthene	A	5.0000	4.8	1.3519230	1.2879830		-4.7	+/-50
Dibenzofuran	A	5.0000	4.7	1.9368720	1.8182640		-6.1	+/-50
Fluorene	A	5.0000	5.0	1.5320300	1.5212710		-0.7	+/-50
Phenanthrene	A	5.0000	4.7	1.2084800	1.1276750		-6.7	+/-50
Anthracene	A	5.0000	5.3	1.0808980	1.1539290		6.8	+/-50
Fluoranthene	A	5.0000	5.3	1.2619890	1.3269500		5.1	+/-50
Pyrene	A	5.0000	5.1	1.3415320	1.3625520		1.6	+/-50
Butylbenzylphthalate	A	5.0000	5.2	0.4869766	0.6138536		3.1	+/-50
Benzo(a)anthracene	A	5.0000	5.1	1.3218310	1.3405070		1.4	+/-50
Chrysene	A	5.0000	4.7	1.3932010	1.3087420		-6.1	+/-50
bis(2-Ethylhexyl)phthalate	A	5.0000	4.7	0.6085941	0.5721433		-6.0	+/-50
Benzofluoranthenes, Total	A	10.000	10.7	1.3988610	1.4965140		7.0	+/-50
Benzo(a)pyrene	A	5.0000	5.3	1.1403750	1.2034490		5.5	+/-50
Indeno(1,2,3-cd)pyrene	A	5.0000	3.0	0.8970203	0.6737957		-39.2	+/-50
Dibenzo(a,h)anthracene	A	5.0000	3.2	0.7420695	0.5887109		-35.6	+/-50
Benzo(g,h,i)perylene	A	5.0000	2.6	0.6977398	0.4297858		-48.3	+/-50
2-Fluorophenol	A	7.5000	7.18	1.2188190	1.3220780		-4.3	+/-50
Phenol-d5	A	7.5000	7.60	1.7579030	1.7809570		1.3	+/-50
2-Chlorophenol-d4	A	7.5000	7.35	1.5283160	1.4983400		-2.0	+/-50
1,2-Dichlorobenzene-d4	A	5.0000	4.48	1.1000200	0.9858556		-10.4	+/-50
Nitrobenzene-d5	A	5.0000	5.57	0.3936769	0.4387820		11.5	+/-50
2-Fluorobiphenyl	A	5.0000	4.55	1.7684190	1.6088280		-9.0	+/-50
2,4,6-Tribromophenol	A	7.5000	5.89	0.2335565	0.2041783		-21.5	+/-50
p-Terphenyl-d14	A	5.0000	4.86	1.2371420	1.2012970		-2.9	+/-50

* Values outside of QC limits

Data File: \\target\share\chem3\nt18.1\20230219.1\NT1802192325.D

Date: 20-FEB-2023 01:01

Client ID:

Sample Info: SEQ-CCV2FULL

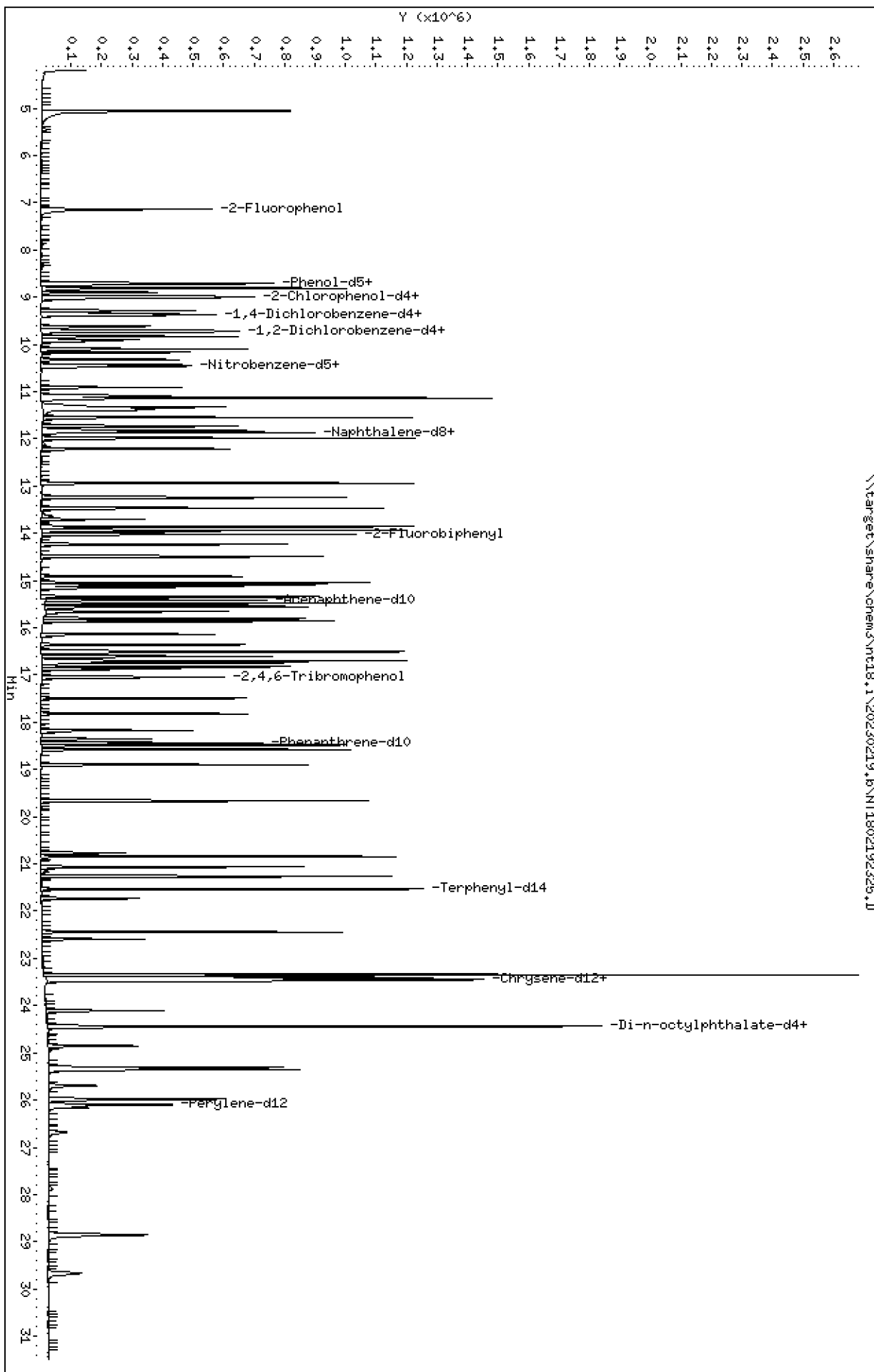
Column phase: ZB-5msi

Instrument: nt18.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt18.1\20230219.1\NT1802192325.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt18.i\20230219.b\NT1802192325.D
 Lab Smp Id: SLB0323-ICV1
 Inj Date : 20-FEB-2023 01:01
 Operator : VTS
 Smp Info : SEQ-CCV2FULL
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt18.i\20230219.b\ABN.m
 Meth Date : 04-Mar-2023 07:29 van
 Cal Date : 10-FEB-2023 21:05
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: ORGDATA102

Inst ID: nt18.i
 Quant Type: ISTD
 Cal File: NT1802102308.D
 Continuing Calibration Sample
 Compound Sublist: ICAL.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
1 2-Fluorophenol	112		7.137	7.137	(0.764)	297304	7.50000	7.176
2 Phenol-d5	99		8.698	8.698	(0.931)	400495	7.50000	7.598
3 Phenol	94		8.721	8.721	(0.933)	267096	5.00000	5.171
5 2-Chlorophenol-d4	132		8.984	8.984	(0.961)	336941	7.50000	7.353
4 Bis(2-Chloroethyl)ether	93		8.891	8.883	(0.951)	184809	5.00000	4.728
6 2-Chlorophenol	128		9.015	9.015	(0.964)	224856	5.00000	5.063
7 1,3-Dichlorobenzene	146		9.286	9.278	(0.993)	221053	5.00000	4.568
* 8 1,4-Dichlorobenzene-d4	152		9.348	9.340	(1.000)	119934	4.00000	
9 1,4-Dichlorobenzene	146		9.371	9.371	(1.002)	217552	5.00000	4.191
\$ 10 1,2-Dichlorobenzene-d4	152		9.705	9.705	(1.038)	147797	5.00000	4.481
12 1,2-Dichlorobenzene	146		9.728	9.728	(1.041)	214342	5.00000	4.463
11 Benzyl alcohol	108		9.611	9.611	(1.028)	122469	5.00000	4.396
14 2,2'-oxybis(1-Chloropropane)	121		9.906	9.906	(1.060)	46883	5.00000	3.856
13 2-Methylphenol	108		9.829	9.829	(1.051)	205296	5.00000	5.484
17 Hexachloroethane	117		10.318	10.318	(1.104)	89407	5.00000	4.894
16 N-Nitroso-di-n-propylamine	70		10.163	10.163	(1.087)	157564	5.00000	5.570
15 4-Methylphenol	108		10.093	10.093	(1.080)	215857	5.00000	4.989
\$ 18 Nitrobenzene-d5	82		10.434	10.434	(0.883)	257876	5.00000	5.573
19 Nitrobenzene	77		10.465	10.465	(0.886)	236554	5.00000	5.345
20 Isophorone	82		10.908	10.908	(0.923)	300904	5.00000	4.381
21 2-Nitrophenol	139		11.093	11.093	(0.939)	121651	5.00000	4.976
22 2,4-Dimethylphenol	107		11.136	11.136	(0.942)	445557	10.0000	11.38
23 Bis(2-Chloroethoxy)methane	93		11.331	11.331	(0.959)	202737	5.00000	4.847
24 Benzoic acid	105		11.382	11.373	(0.963)	424894	20.0000	17.18
25 2,4-Dichlorophenol	162		11.543	11.543	(0.977)	354398	10.0000	9.188
26 1,2,4-Trichlorobenzene	180		11.731	11.731	(0.993)	182614	5.00000	4.245
* 27 Naphthalene-d8	136		11.816	11.816	(1.000)	470167	4.00000	
28 Naphthalene	128		11.855	11.855	(1.003)	640754	5.00000	4.741
29 4-Chloroaniline	127		11.978	11.978	(1.014)	571413	10.0000	9.849
30 Hexachlorobutadiene	225		12.210	12.210	(1.033)	107200	5.00000	4.333
31 4-Chloro-3-methylphenol	107		12.930	12.930	(1.094)	381974	10.0000	10.95
32 2-Methylnaphthalene	142		13.240	13.239	(1.120)	447704	5.00000	4.867
33 Hexachlorocyclopentadiene	237		13.704	13.704	(0.889)	70406	10.0000	2.677

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
34 2,4,6-Trichlorophenol	196	13.859	13.859	(0.899)	247544	10.0000	10.09
35 2,4,5-Trichlorophenol	196	13.936	13.936	(0.904)	273816	10.0000	10.02
§ 36 2-Fluorobiphenyl	172	14.013	14.013	(0.909)	497508	5.00000	4.549
37 2-Chloronaphthalene	162	14.230	14.230	(0.923)	379586	5.00000	4.618
38 2-Nitroaniline	65	14.493	14.485	(0.940)	265704	10.0000	11.98
39 Dimethylphthalate	163	14.911	14.911	(0.967)	419628	5.00000	4.850
40 Acenaphthylene	152	15.097	15.105	(0.979)	710543	5.00000	5.667
41 2,6-Dinitrotoluene	165	15.051	15.051	(0.976)	200281	10.0000	10.01
* 42 Acenaphthene-d10	164	15.414	15.414	(1.000)	247389	4.00000	
43 3-Nitroaniline	138	15.337	15.337	(0.995)	223839	10.0000	10.20
44 Acenaphthene	153	15.476	15.476	(1.004)	398291	5.00000	4.764
45 2,4-Dinitrophenol	184	15.553	15.553	(1.009)	176632	20.0000	12.58
46 Dibenzofuran	168	15.801	15.801	(1.025)	562273	5.00000	4.694
47 4-Nitrophenol	109	15.654	15.654	(1.016)	116728	10.0000	9.665
48 2,4-Dinitrotoluene	165	15.863	15.855	(1.029)	272135	10.0000	10.02
50 Diethylphthalate	149	16.357	16.357	(1.061)	473965	5.00000	5.396
49 Fluorene	166	16.512	16.512	(1.071)	470432	5.00000	4.965
51 4-Chlorophenyl-phenylether	204	16.496	16.496	(1.070)	209425	5.00000	4.384
52 4-Nitroaniline	138	16.612	16.604	(1.078)	219807	10.0000	9.545
53 4,6-Dinitro-2-methylphenol	198	16.705	16.697	(0.906)	285142	20.0000	16.37
54 N-Nitrosodiphenylamine	169	16.743	16.743	(0.908)	300976	5.00000	4.521
§ 55 2,4,6-Tribromophenol	330	17.044	17.044	(1.106)	94709	7.50000	5.885
56 4-Bromophenyl-phenylether	248	17.499	17.491	(0.949)	120028	5.00000	4.322
57 Hexachlorobenzene	284	17.816	17.816	(0.966)	133347	5.00000	4.114
58 Pentachlorophenol	266	18.172	18.172	(0.986)	90070	10.0000	4.907
* 59 Phenanthrene-d10	188	18.435	18.435	(1.000)	450127	4.00000	
60 Phenanthrene	178	18.489	18.481	(1.003)	634496	5.00000	4.666
61 Anthracene	178	18.574	18.574	(1.008)	649268	5.00000	5.338
62 Carbazole	167	18.899	18.899	(1.025)	575910	5.00000	4.736
63 Di-n-butylphthalate	149	19.665	19.665	(1.067)	763855	5.00000	4.857
64 Fluoranthene	202	20.841	20.841	(0.889)	706523	5.00000	5.257
65 Pyrene	202	21.259	21.259	(0.907)	725479	5.00000	5.078
§ 66 Terphenyl-d14	244	21.530	21.530	(0.919)	639620	5.00000	4.855
67 Butylbenzylphthalate	149	22.436	22.436	(0.957)	326841	5.00000	5.157
68 Benzo(a)anthracene	228	23.404	23.396	(0.999)	713741	5.00000	5.071
* 69 Chrysene-d12	240	23.435	23.427	(1.000)	425953	4.00000	
70 3,3'-Dichlorobenzidine	252	23.349	23.349	(0.996)	806438	15.0000	13.16
71 Chrysene	228	23.473	23.473	(1.002)	696828	5.00000	4.697
72 bis(2-Ethylhexyl)phthalate	149	23.450	23.450	(0.959)	483243	5.00000	4.701
* 134 Di-n-octylphthalate-d4	153	24.441	24.441	(1.000)	675695	4.00000	
73 Di-n-octylphthalate	149	24.449	24.449	(1.000)	840710	5.00000	4.235
74 Benzo(b)fluoranthene	252	25.308	25.308	(0.970)	561814	5.00000	5.361
75 Benzo(k)fluoranthene	252	25.354	25.354	(0.972)	614594	5.00000	5.361
76 Benzo(a)pyrene	252	25.982	25.982	(0.996)	451650	5.00000	5.277
* 77 Perylene-d12	264	26.098	26.105	(1.000)	300237	4.00000	
78 Indeno(1,2,3-cd)pyrene	276	28.858	28.865	(1.106)	252873	5.00000	3.040
79 Dibenzo(a,h)anthracene	278	28.865	28.873	(1.106)	220941	5.00000	3.219
80 Benzo(g,h,i)perylene	276	29.673	29.681	(1.137)	161297	5.00000	2.587
90 N-Nitrosodimethylamine	74	5.059	5.059	(0.541)	238494	10.0000	10.51
91 Aniline	93	8.806	8.806	(0.942)	606184	10.0000	10.80
93 Benzidine	184	21.065	21.058	(0.899)	508759	10.0000	10.41
103 Pyridine	79	5.052	5.051	(0.540)	400740	10.0000	12.01
105 1-methylnaphthalene	142	13.464	13.464	(1.139)	408812	5.00000	4.556
111 Azobenzene (1,2-DP-Hydrazine)	77	16.820	16.820	(1.091)	513155	5.00000	5.540

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
187 Total Benzofluoranthenes	252		25.354	25.354	(0.972)	1123272	10.0000	10.70
120 2,3,4,6-Tetrachlorophenol	232		16.141	16.133	(1.047)	115697	5.00000	4.233

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt18.i Calibration Date: 17-FEB-2023
 Lab File ID: NT1802192325.D Calibration Time: 21:02
 Lab Smp Id: SLB0323-ICV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt18.i\20230219.b\ABN.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	119934	59967	239868	119934	0.00
27 Naphthalene-d8	470167	235084	940334	470167	0.00
42 Acenaphthene-d10	247389	123695	494778	247389	0.00
59 Phenanthrene-d10	450127	225064	900254	450127	0.00
69 Chrysene-d12	425953	212977	851906	425953	0.00
134 Di-n-octylphthala	675695	337848	1351390	675695	0.00
77 Perylene-d12	300237	150119	600474	300237	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	9.35	8.85	9.85	9.35	0.00
27 Naphthalene-d8	11.82	11.32	12.32	11.82	0.00
42 Acenaphthene-d10	15.41	14.91	15.91	15.41	0.00
59 Phenanthrene-d10	18.44	17.94	18.94	18.44	0.00
69 Chrysene-d12	23.44	22.94	23.94	23.44	0.00
134 Di-n-octylphthala	24.44	23.94	24.94	24.44	0.00
77 Perylene-d12	26.10	25.60	26.60	26.10	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1802192325.D

Lab ID: SLB0323-ICV1
nt18.i, ABN.m, 20-FEB-2023 01:01

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

On Column LOD for nt18.i, ABN.m, ICAL.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLB0102</u>	Instrument:	<u>NT10</u>
		Calibration:	<u>GB00018</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLB0102-TUN1	NT1023020701.D	NA	02/07/23 11:54
Cal Standard	SLB0102-CAL7	NT1023020702.D	NA	02/07/23 12:18
Cal Standard	SLB0102-CAL6	NT1023020703.D	NA	02/07/23 12:57
Cal Standard	SLB0102-CAL5	NT1023020704.D	NA	02/07/23 13:35
Cal Standard	SLB0102-CAL4	NT1023020705.D	NA	02/07/23 14:14
Cal Standard	SLB0102-CAL3	NT1023020706.D	NA	02/07/23 14:52
Cal Standard	SLB0102-CAL2	NT1023020707.D	NA	02/07/23 15:30
Cal Standard	SLB0102-CAL1	NT1023020708.D	NA	02/07/23 16:09
SCV 5.0	SLB0102-SCV1	NT1023020711.D	NA	02/07/23 18:04
Initial Cal Check	SLB0102-ICV1	NT1023020712.D	NA	02/07/23 18:42
ABN 0.2	SLB0102-LCV1	NT1023020713.D	NA	02/07/23 19:20
ZZZZZ	BLA0160-BLK1	NT1023020716.D	Solid	02/07/23 21:14
ZZZZZ	BLA0160-BS1	NT1023020717.D	Solid	02/07/23 21:52
ZZZZZ	BLA0160-BSD1	NT1023020718.D	Solid	02/07/23 22:30
ZZZZZ	BLA0160-SRM1	NT1023020719.D	Solid	02/07/23 23:09
ZZZZZ	23A0031-01	NT1023020720.D	Solid	02/07/23 23:47
ZZZZZ	23A0031-02	NT1023020721.D	Solid	02/08/23 00:25
ZZZZZ	23A0031-03	NT1023020722.D	Solid	02/08/23 01:03
ZZZZZ	23A0031-04	NT1023020723.D	Solid	02/08/23 01:41
ZZZZZ	23A0031-05	NT1023020724.D	Solid	02/08/23 02:18
ZZZZZ	23A0031-06	NT1023020725.D	Solid	02/08/23 02:57
ZZZZZ	23A0031-07	NT1023020726.D	Solid	02/08/23 03:34
ZZZZZ	23A0031-08	NT1023020727.D	Solid	02/08/23 04:13
ZZZZZ	23A0031-09	NT1023020728.D	Solid	02/08/23 04:51
ZZZZZ	23A0031-10	NT1023020729.D	Solid	02/08/23 05:29
ZZZZZ	23A0031-11	NT1023020730.D	Solid	02/08/23 06:07
SSTD005	SLB0102-ICV2	NT1023020732.D	NA	02/08/23 07:24
ABN 0.5	SLB0102-LCV2	NT1023020733.D	NA	02/08/23 08:02



ANALYSIS SEQUENCE

SLB0102

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GB00018 GCMS Column ID: ZB-5MSi
MS EM Level: EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLB0102-TUN1	MS Tune	QC		1	K008469		02/07/2023 11:54	NT1023020701.D	DSD	
SLB0102-CAL7	Cal Standard	QC		2	K011111	K010831	02/07/2023 12:18	NT1023020702.D	VTS	
SLB0102-CAL6	Cal Standard	QC		3	K011110	K010831	02/07/2023 12:57	NT1023020703.D	VTS	
SLB0102-CAL5	Cal Standard	QC		4	K011109	K010831	02/07/2023 13:35	NT1023020704.D	VTS	
SLB0102-CAL4	Cal Standard	QC		5	K011108	K010831	02/07/2023 14:14	NT1023020705.D	VTS	
SLB0102-CAL3	Cal Standard	QC		6	K011107	K010831	02/07/2023 14:52	NT1023020706.D	VTS	
SLB0102-CAL2	Cal Standard	QC		7	K011106	K010831	02/07/2023 15:30	NT1023020707.D	VTS	
SLB0102-CAL1	Cal Standard	QC		8	K011105	K010831	02/07/2023 16:09	NT1023020708.D	VTS	
SLB0102-SCV1	SCV 5.0	QC		9	K010066	K010831	02/07/2023 18:04	NT1023020711.D	VTS	
SLB0102-ICV1	Initial Cal Check	QC		10	K011109	K010831	02/07/2023 18:42	NT1023020712.D	VTS	
SLB0102-LCV1	ABN 0.2	QC		11	K011106	K010831	02/07/2023 19:20	NT1023020713.D	VTS	
BLA0160-BLK1	Blank	QC		12		K010831	02/07/2023 21:14	NT1023020716.D	VTS	
BLA0160-BS1	LCS	QC		13		K010831	02/07/2023 21:52	NT1023020717.D	VTS	
BLA0160-BSD1	LCS Dup	QC		14		K010831	02/07/2023 22:30	NT1023020718.D	VTS	
BLA0160-SRM1	Reference	QC		15		K010831	02/07/2023 23:09	NT1023020719.D	VTS	
23A0031-01	LDW23-SS1002	20ug/kg solid or 0.2ug/L l	A 01	16		K010831	02/07/2023 23:47	NT1023020720.D	VTS	
23A0031-02	LDW23-SS1001	20ug/kg solid or 0.2ug/L l	A 01	17		K010831	02/08/2023 00:25	NT1023020721.D	VTS	
23A0031-03	LDW23-SS1199	20ug/kg solid or 0.2ug/L l	A 01	18		K010831	02/08/2023 01:03	NT1023020722.D	VTS	
23A0031-04	LDW23-SS1199-FD	20ug/kg solid or 0.2ug/L l	A 01	19		K010831	02/08/2023 01:41	NT1023020723.D	VTS	
23A0031-05	LDW23-SS1191	20ug/kg solid or 0.2ug/L l	A 01	20		K010831	02/08/2023 02:18	NT1023020724.D	VTS	
23A0031-06	LDW23-SS1191-FD	20ug/kg solid or 0.2ug/L l	A 01	21		K010831	02/08/2023 02:57	NT1023020725.D	VTS	
23A0031-07	LDW23-SS1177	20ug/kg solid or 0.2ug/L l	A 01	22		K010831	02/08/2023 03:34	NT1023020726.D	VTS	



ANALYSIS SEQUENCE

SLB0102

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GB00018 GCMS Column ID: ZB-5MSi
MS EM Level: EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
23A0031-08	LDW23-SS1177-FD	20ug/kg solid or 0.2ug/L l	A 01	23		K010831	02/08/2023 04:13	NT1023020727.D	VTS	
23A0031-09	LDW23-SS1156	20ug/kg solid or 0.2ug/L l	A 01	24		K010831	02/08/2023 04:51	NT1023020728.D	VTS	
23A0031-10	LDW23-SS1156-FD	20ug/kg solid or 0.2ug/L l	A 01	25		K010831	02/08/2023 05:29	NT1023020729.D	VTS	
23A0031-11	LDW23-SS1143	20ug/kg solid or 0.2ug/L l	A 01	26		K010831	02/08/2023 06:07	NT1023020730.D	VTS	
SLB0102-ICV2	SSTD005	QC		27	K011109	K010831	02/08/2023 07:24	NT1023020732.D	VTS	
SLB0102-LCV2	ABN 0.5	QC		28	K011106	K010831	02/08/2023 08:02	NT1023020733.D	VTS	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b

Time	Filename	LabID	ClientId	DF										
1	1154	NT1023020701.D	SLB0102-TUN1		1	|NO ISTDs FOUND|								
2	1218	NT1023020702.D	SLB0102-CAL7		1	| 8.97	110959||11.43	441660||15.01	227315||18.03	397284||23.07	287319||25.63	326201||24.11	528280|	
3	1257	NT1023020703.D	SLB0102-CAL6		1	| 8.96	116961||11.42	456974||15.00	240178||18.02	424108||23.07	320333||25.62	344073||24.11	555443|	
4	1335	NT1023020704.D	SLB0102-CAL5		1	| 8.96	105928||11.42	423616||15.00	230743||18.02	394375||23.06	320650||25.61	332844||24.11	529382|	
5	1414	NT1023020705.D	SLB0102-CAL4		1	| 8.96	108648||11.42	427713||15.00	232494||18.02	403045||23.06	328824||25.62	336318||24.11	528993|	
6	1452	NT1023020706.D	SLB0102-CAL3		1	| 8.96	114531||11.42	440001||15.00	234461||18.02	425518||23.06	322154||25.62	344648||24.10	539698|	
7	1530	NT1023020707.D	SLB0102-CAL2		1	| 8.96	119962||11.42	456081||15.01	242691||18.02	438853||23.06	336320||25.62	354991||24.11	553821|	
8	1609	NT1023020708.D	SLB0102-CAL1		1	| 8.96	98530||11.42	373897||15.00	196086||18.02	354843||23.06	262931||25.61	280301||24.11	422631|	
9	1804	NT1023020711.D	SLB0102-SCV1		1	| 8.96	108369||11.42	428903||15.00	234560||18.02	404758||23.06	321783||25.62	325220||24.11	505567|	
10	1842	NT1023020712.D	SLB0102-ICV1		1	| 8.96	100731||11.42	402059||15.00	222764||18.02	378593||23.06	296375||25.62	302737||24.11	473500|	
11	1920	NT1023020713.D	SLB0102-LCV1		1	| 8.96	111648||11.42	430160||15.00	227740||18.02	408782||23.06	305959||25.61	318801||24.11	480597|	
12	2114	NT1023020716.D	BLA0160-BLK1		1	| 8.96	101648||11.42	381984||15.00	198098||18.02	359424||23.06	266277||25.61	252903||24.11	420656|	
13	2152	NT1023020717.D	BLA0160-BS1		1	| 8.96	100952||11.42	381819||15.00	203815||18.02	363002||23.06	280537||25.62	282480||24.11	461409|	
14	2230	NT1023020718.D	BLA0160-BSD1		1	| 8.97	104802||11.42	393288||15.00	208952||18.02	372320||23.06	281164||25.62	277402||24.11	459342|	
15	2309	NT1023020719.D	BLA0160-SRM1		1	| 8.97	104440||11.42	389649||15.00	207931||18.02	376355||23.06	273207||25.62	270403||24.11	453728|	
16	2347	NT1023020720.D	23A0031-01		1	| 8.96	100680||11.42	380246||15.00	197196||18.02	343957||23.06	257612||25.63	317582||24.11	473741|	
17	0025	NT1023020721.D	23A0031-02		1	| 8.96	106060||11.42	401524||15.00	209589||18.02	377087||23.07	279455||25.63	333910||24.11	513668|	
18	0103	NT1023020722.D	23A0031-03		1	| 8.97	94987||11.42	359501||15.00	187516||18.02	320619||23.07	239395||25.63	296460||24.11	441780|	
19	0141	NT1023020723.D	23A0031-04		1	| 8.97	105312||11.42	402157||15.00	210524||18.03	364201||23.07	278201||25.63	321281||24.11	506465|	
20	0218	NT1023020724.D	23A0031-05		1	| 8.97	97473||11.42	375178||15.01	194851||18.02	336686||23.07	252528||25.63	309558||24.11	461033|	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b

Time	Filename	LabID	ClientId	DF										
21	0257	NT1023020725.D	23A0031-06	1	|	8.97	99673||11.42	378945||15.00	197614||18.02	351141||23.07	265906||25.63	308179||24.11	478667|	
22	0334	NT1023020726.D	23A0031-07	1	|	8.97	95757||11.42	364411||15.00	187486||18.03	330595||23.07	254972||25.63	294677||24.12	462625|	
23	0413	NT1023020727.D	23A0031-08	1	|	8.97	101213||11.42	388831||15.00	198168||18.03	350218||23.08	275281||25.64	306401||24.12	507974|	
24	0451	NT1023020728.D	23A0031-09	1	|	8.97	100941||11.42	383073||15.00	201508||18.03	350047||23.08	273815||25.64	298008||24.12	513850|	
25	0529	NT1023020729.D	23A0031-10	1	|	8.97	104396||11.42	393527||15.01	204153||18.03	353825||23.08	281571||25.64	293143||24.12	537611|	
26	0607	NT1023020730.D	23A0031-11	1	|	8.97	90470||11.42	343922||15.00	179603||18.03	302833||23.07	247164||25.63	276074||24.11	433238|	
27	0645	NT1023020731.D	23A0031-12	1	|	8.97	86937||11.42	331584||15.01	170658||18.02	292161||23.07	238956||25.63	258742||24.11	427528|	
28	0724	NT1023020732.D	SLB0102-ICV2	1	|	8.97	110702||11.43	429852||15.01	233715||18.03	388662||23.07	345176||25.63	378227||24.11	579750|	
29	0802	NT1023020733.D	SLB0102-LCV2	1	|	8.97	112491||11.42	422326||15.01	217652||18.02	376550||23.07	309079||25.63	363898||24.11	519094|	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b

ARI Job No.: SLB0 Method: DFTPP8270E.m Instrument: nt10.i Date: 07-FEB-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1154	NT1023020701.D	SLB0102-TUN1		1	NO MANUAL INTEGRATION
1218	NT1023020702.D	SLB0102-CAL7		1	2,2'-oxybis(1-Chloropropane),
1257	NT1023020703.D	SLB0102-CAL6		1	2,2'-oxybis(1-Chloropropane),
1335	NT1023020704.D	SLB0102-CAL5		1	2,2'-oxybis(1-Chloropropane),
1414	NT1023020705.D	SLB0102-CAL4		1	2,2'-oxybis(1-Chloropropane),
1452	NT1023020706.D	SLB0102-CAL3		1	2,2'-oxybis(1-Chloropropane),
1530	NT1023020707.D	SLB0102-CAL2		1	2,2'-oxybis(1-Chloropropane), Benzoic acid, 2,4-Dinitrophenol,
1609	NT1023020708.D	SLB0102-CAL1		1	2,2'-oxybis(1-Chloropropane),
1647	NT1023020709.D	SIM 0.1		1	NO MANUAL INTEGRATION
1725	NT1023020710.D	SIM 0.05		1	NO MANUAL INTEGRATION
1804	NT1023020711.D	SLB0102-SCV1		1	Aniline,
1842	NT1023020712.D	SLB0102-ICV1		1	2,2'-oxybis(1-Chloropropane),
1920	NT1023020713.D	SLB0102-LCV1		1	2,2'-oxybis(1-Chloropropane), Benzoic acid,
1958	NT1023020714.D	SIM-ICV1		1	NO MANUAL INTEGRATION
2036	NT1023020715.D	SIM-LCV1		1	Benzyl alcohol, 4-Methylphenol,
2114	NT1023020716.D	BLA0160-BLK1		1	NO MANUAL INTEGRATION
2152	NT1023020717.D	BLA0160-BS1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2230	NT1023020718.D	BLA0160-BSD1		1	NO MANUAL INTEGRATION
2309	NT1023020719.D	BLA0160-SRM1		1	NO MANUAL INTEGRATION
2347	NT1023020720.D	23A0031-01		1	Phenol, 4-Methylphenol,
0025	NT1023020721.D	23A0031-02		1	4-Methylphenol,
0103	NT1023020722.D	23A0031-03		1	4-Methylphenol, Dibenzo(a,h)anthracene,
0141	NT1023020723.D	23A0031-04		1	Dibenzo(a,h)anthracene,
0218	NT1023020724.D	23A0031-05		1	NO MANUAL INTEGRATION
0257	NT1023020725.D	23A0031-06		1	NO MANUAL INTEGRATION
0334	NT1023020726.D	23A0031-07		1	Dibenzo(a,h)anthracene,
0413	NT1023020727.D	23A0031-08		1	NO MANUAL INTEGRATION
0451	NT1023020728.D	23A0031-09		1	Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,
0529	NT1023020729.D	23A0031-10		1	Phenol, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,
0607	NT1023020730.D	23A0031-11		1	Phenol, Dibenzo(a,h)anthracene,
0645	NT1023020731.D	23A0031-12		1	Dibenzo(a,h)anthracene,
0724	NT1023020732.D	SLB0102-ICV2		1	2,2'-oxybis(1-Chloropropane),
0802	NT1023020733.D	SLB0102-LCV2		1	2,2'-oxybis(1-Chloropropane), 4-Nitrophenol,
0840	NT1023020734.D	SIM-ICV2		1	NO MANUAL INTEGRATION
0918	NT1023020735.D	SIM-LCV2		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0956	NT1023020736.D	BLA0064-BLK1		1	NO MANUAL INTEGRATION
1035	NT1023020737.D	BLA0064-BS1		1	NO MANUAL INTEGRATION
1113	NT1023020738.D	BLA0064-BSD1		1	NO MANUAL INTEGRATION
1151	NT1023020739.D	22L0459-01		1	NO MANUAL INTEGRATION
1229	NT1023020740.D	BLA0064-MS1		1	NO MANUAL INTEGRATION
1308	NT1023020741.D	BLA0064-MSD1		1	NO MANUAL INTEGRATION
1346	NT1023020742.D	22L0459-02		1	NO MANUAL INTEGRATION
1425	NT1023020743.D	22L0459-03		1	NO MANUAL INTEGRATION
1503	NT1023020744.D	22L0459-04		1	NO MANUAL INTEGRATION
1541	NT1023020745.D	22L0459-05		1	NO MANUAL INTEGRATION
1620	NT1023020746.D	22L0459-06		1	NO MANUAL INTEGRATION
1658	NT1023020747.D	22L0459-07		1	NO MANUAL INTEGRATION
1736	NT1023020748.D	SEQ-ICV3		1	NO MANUAL INTEGRATION
1814	NT1023020749.D	SEQ-LCV3		1	NO MANUAL INTEGRATION
1852	NT1023020750.D	SIM-ICV1		1	NO MANUAL INTEGRATION
1931	NT1023020751.D	SIM-LCV1		1	NO MANUAL INTEGRATION
2008	NT1023020752.D	BLA0160-BLK2		1	NO MANUAL INTEGRATION
2047	NT1023020753.D	23A0031-12		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2125	NT1023020754.D	23A0031-13		1	NO MANUAL INTEGRATION
2203	NT1023020755.D	23A0031-14		1	NO MANUAL INTEGRATION
2241	NT1023020756.D	BLA0160-MS1		1	NO MANUAL INTEGRATION
2319	NT1023020757.D	BLA0160-MSD1		1	NO MANUAL INTEGRATION
2357	NT1023020758.D	SEQ-CCV1		1	NO MANUAL INTEGRATION
0035	NT1023020759.D	SEQ-LCV1		1	NO MANUAL INTEGRATION
0113	NT1023020760.D	SIM-CCV1		1	NO MANUAL INTEGRATION
0151	NT1023020761.D	SIM-LCV1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 09-Feb-2023 11:54

NT1023020701.D	Data Locked	deenayd, 09-
NT1023020702.D	Data Locked	deenayd, 09-
NT1023020703.D	Data Locked	deenayd, 09-
NT1023020704.D	Data Locked	deenayd, 09-
NT1023020705.D	Data Locked	deenayd, 09-
NT1023020706.D	Data Locked	deenayd, 09-
NT1023020707.D	Data Locked	deenayd, 09-
NT1023020708.D	Data Locked	deenayd, 09-
NT1023020709.D	Data Locked	deenayd, 09-
NT1023020710.D	Data Locked	deenayd, 09-
NT1023020711.D	Data Locked	deenayd, 09-
NT1023020712.D	Data Locked	deenayd, 09-
NT1023020713.D	Data Locked	deenayd, 09-
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NT1023020718.D	Data Locked	deenayd, 09-
NT1023020719.D	Data Locked	deenayd, 09-
NT1023020720.D	Data Locked	deenayd, 09-
NT1023020721.D	Data Locked	deenayd, 09-
NT1023020722.D	Data Locked	deenayd, 09-
NT1023020723.D	Data Locked	deenayd, 09-
NT1023020724.D	Data Locked	deenayd, 09-
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NT1023020726.D	Data Locked	deenayd, 09-
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NT1023020728.D	Data Locked	deenayd, 09-
NT1023020729.D	Data Locked	deenayd, 09-
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NT1023020732.D	Data Locked	deenayd, 09-
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NT1023020734.D	Data Locked	deenayd, 09-
NT1023020735.D	Data Locked	deenayd, 09-
NT1023020736.D	Data Locked	deenayd, 09-
NT1023020737.D	Data Locked	deenayd, 09-
NT1023020738.D	Data Locked	deenayd, 09-
NT1023020739.D	Data Locked	deenayd, 09-
NT1023020740.D	Data Locked	deenayd, 09-
NT1023020741.D	Data Locked	deenayd, 09-
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NT1023020743.D	Data Locked	deenayd, 09-
NT1023020744.D	Data Locked	deenayd, 09-
NT1023020745.D	Data Locked	deenayd, 09-
NT1023020746.D	Data Locked	deenayd, 09-
NT1023020747.D	Data Locked	deenayd, 09-
NT1023020748.D	Data Locked	deenayd, 09-
NT1023020749.D	Data Locked	deenayd, 09-
NT1023020750.D	Data Locked	deenayd, 09-
NT1023020751.D	Data Locked	deenayd, 09-
NT1023020752.D	Data Locked	deenayd, 09-
NT1023020753.D	Data Locked	deenayd, 09-
NT1023020754.D	Data Locked	deenayd, 09-
NT1023020755.D	Data Locked	deenayd, 09-
NT1023020756.D	Data Locked	deenayd, 09-
NT1023020757.D	Data Locked	deenayd, 09-
NT1023020758.D	Data Locked	deenayd, 09-
NT1023020759.D	Data Locked	deenayd, 09-
NT1023020760.D	Data Locked	deenayd, 09-
NT1023020761.D	Data Locked	deenayd, 09-

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ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0122

Instrument: NT10

Calibration: GB00018

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLB0122-TUN1	NT1023020901.D	NA	02/09/23 13:09
Initial Cal Check	SLB0122-ICV1	NT1023020902.D	NA	02/09/23 13:31
ABN 0.2	SLB0122-LCV1	NT1023020903.D	NA	02/09/23 14:10
ZZZZZ	BLA0160-BLK5	NT1023020906.D	Solid	02/09/23 16:07
ZZZZZ	23A0031-15	NT1023020907.D	Solid	02/09/23 16:46
ZZZZZ	23A0031-16	NT1023020908.D	Solid	02/09/23 17:25
ZZZZZ	23A0031-17	NT1023020909.D	Solid	02/09/23 18:04
ZZZZZ	23A0031-18	NT1023020910.D	Solid	02/09/23 18:43
ZZZZZ	23A0031-19	NT1023020911.D	Solid	02/09/23 19:21
ZZZZZ	23A0031-20	NT1023020912.D	Solid	02/09/23 20:00
Blank	BLA0163-BLK1	NT1023020913.D	Solid	02/09/23 20:39
LCS	BLA0163-BS1	NT1023020914.D	Solid	02/09/23 21:17
LCS Dup	BLA0163-BSD1	NT1023020915.D	Solid	02/09/23 21:56
Reference	BLA0163-SRM1	NT1023020916.D	Solid	02/09/23 22:35
SSTD005	SLB0122-ICV2	NT1023020920.D	NA	02/10/23 01:09
ABN 0.5	SLB0122-LCV2	NT1023020921.D	NA	02/10/23 01:47



ANALYSIS SEQUENCE

SLB0122

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GB00018 GCMS Column ID: ZB-5MSi
MS EM Level: EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLB0122-TUN1	MS Tune	QC		1	K008469		02/09/2023 13:09	NT1023020901.D	DSD	
SLB0122-ICV1	Initial Cal Check	QC		2	K011109	K010831	02/09/2023 13:31	NT1023020902.D	VTS	
SLB0122-LCV1	ABN 0.2	QC		3	K011106	K010831	02/09/2023 14:10	NT1023020903.D	VTS	
BLA0160-BLK5	Blank	QC		4		K010831	02/09/2023 16:07	NT1023020906.D	VTS	
23A0031-15	LDW23-SS1144	20ug/kg solid or 0.2ug/L l	A 04	5		K010831	02/09/2023 16:46	NT1023020907.D	VTS	
23A0031-16	LDW23-SS1157	20ug/kg solid or 0.2ug/L l	A 01	6		K010831	02/09/2023 17:25	NT1023020908.D	VTS	
23A0031-17	LDW23-SS1163	20ug/kg solid or 0.2ug/L l	A 01	7		K010831	02/09/2023 18:04	NT1023020909.D	VTS	
23A0031-18	LDW23-SS1166	20ug/kg solid or 0.2ug/L l	A 01	8		K010831	02/09/2023 18:43	NT1023020910.D	VTS	
23A0031-19	LDW23-SS1172	20ug/kg solid or 0.2ug/L l	A 01	9		K010831	02/09/2023 19:21	NT1023020911.D	VTS	
23A0031-20	LDW23-SS1174	20ug/kg solid or 0.2ug/L l	A 01	10		K010831	02/09/2023 20:00	NT1023020912.D	VTS	
BLA0163-BLK1	Blank	QC		11		K010831	02/09/2023 20:39	NT1023020913.D	VTS	
BLA0163-BS1	LCS	QC		12		K010831	02/09/2023 21:17	NT1023020914.D	VTS	
BLA0163-BSD1	LCS Dup	QC		13		K010831	02/09/2023 21:56	NT1023020915.D	VTS	
BLA0163-SRM1	Reference	QC		14		K010831	02/09/2023 22:35	NT1023020916.D	VTS	
SLB0122-ICV2	SSTD005	QC		15	K011109	K010831	02/10/2023 01:09	NT1023020920.D	VTS	
SLB0122-LCV2	ABN 0.5	QC		16	K011106	K010831	02/10/2023 01:47	NT1023020921.D	VTS	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230209.b

Time	Filename	LabID	ClientId	DF																					
1	1309	NT1023020901.D	SLB0122-TUN1	1	|NO	ISTDS	FOUND																		
2	1331	NT1023020902.D	SLB0122-ICV1	1	|	8.84	89503	|	11.29	348104	|	14.87	183525	|	17.89	295489	|	22.96	239590	|	25.48	274336	|	24.02	404293
3	1410	NT1023020903.D	SLB0122-LCV1	1	|	8.83	88206	|	11.29	328110	|	14.87	167883	|	17.89	283175	|	22.96	207537	|	25.48	245518	|	24.01	336602
4	1607	NT1023020906.D	BLA0160-BLK5	1	|	8.83	73552	|	11.29	274175	|	14.87	140144	|	17.89	237620	|	22.96	172037	|	25.48	170804	|	24.02	267072
5	1646	NT1023020907.D	23A0031-15	1	|	8.83	58781	|	11.29	218464	|	14.88	108849	|	17.90	178385	|	22.97	145257	|	25.49	180819	|	24.02	261370
6	1725	NT1023020908.D	23A0031-16	1	|	8.84	58124	|	11.29	215568	|	14.88	109026	|	17.90	183013	|	22.98	156402	|	25.51	181445	|	24.04	289353
7	1804	NT1023020909.D	23A0031-17	1	|	8.84	61451	|	11.29	229876	|	14.88	112565	|	17.90	191842	|	22.97	163145	|	25.51	191515	|	24.03	300332
8	1843	NT1023020910.D	23A0031-18	1	|	8.84	59804	|	11.29	223569	|	14.88	112476	|	17.90	188601	|	22.98	164375	|	25.51	187399	|	24.04	302461
9	1921	NT1023020911.D	23A0031-19	1	|	8.84	59701	|	11.29	222198	|	14.88	109789	|	17.91	186754	|	22.97	159092	|	25.51	185423	|	24.04	300701
10	2000	NT1023020912.D	23A0031-20	1	|	8.84	54001	|	11.29	201279	|	14.88	97967	|	17.91	166327	|	22.98	147653	|	25.51	167491	|	24.04	264850
11	2039	NT1023020913.D	BLA0163-BLK1	1	|	8.84	59802	|	11.29	220806	|	14.88	107566	|	17.91	179972	|	22.97	155797	|	25.51	184534	|	24.04	260415
12	2117	NT1023020914.D	BLA0163-BS1	1	|	8.84	57963	|	11.29	213576	|	14.88	106174	|	17.91	174132	|	22.97	151446	|	25.51	182858	|	24.04	245924
13	2156	NT1023020915.D	BLA0163-BSD1	1	|	8.84	58184	|	11.29	216318	|	14.88	108027	|	17.91	175838	|	22.97	152764	|	25.51	180505	|	24.04	243767
14	2235	NT1023020916.D	BLA0163-SRM1	1	|	8.84	59830	|	11.29	217988	|	14.88	108933	|	17.91	180704	|	22.98	151159	|	25.51	181537	|	24.03	245257
15	2313	NT1023020917.D	23A0087-09	1	|	8.84	56440	|	11.29	205294	|	14.88	102472	|	17.91	166513	|	22.98	145190	|	25.51	175422	|	24.04	231050
16	2352	NT1023020918.D	BLA0163-MS1	1	|	8.84	51701	|	11.29	191722	|	14.88	96284	|	17.91	157567	|	22.98	138628	|	25.51	168067	|	24.04	222922
17	0030	NT1023020919.D	BLA0163-MSD1	1	|	8.84	52913	|	11.29	195843	|	14.88	95274	|	17.91	160826	|	22.97	143221	|	25.51	171234	|	24.04	238963
18	0109	NT1023020920.D	SLB0122-ICV2	1	|	8.84	94137	|	11.30	355914	|	14.88	186612	|	17.91	300124	|	22.98	272157	|	25.51	314160	|	24.04	446924
19	0147	NT1023020921.D	SLB0122-LCV2	1	|	8.84	84626	|	11.29	309623	|	14.88	155546	|	17.91	260617	|	22.97	224354	|	25.51	264875	|	24.04	366602

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230209.b

ARI Job No.: SLB0 Method: DFTPP8270E.m Instrument: nt10.i Date: 09-FEB-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1309	NT1023020901.D	SLB0122-TUN1		1	NO MANUAL INTEGRATION
1331	NT1023020902.D	SLB0122-ICV1		1	2,2'-oxybis(1-Chloropropane),
1410	NT1023020903.D	SLB0122-LCV1		1	2,4-Dinitrophenol,
1449	NT1023020904.D	SIM-ICV1		1	NO MANUAL INTEGRATION
1528	NT1023020905.D	SIM-LCV1		1	NO MANUAL INTEGRATION
1607	NT1023020906.D	BLA0160-BLK5		1	NO MANUAL INTEGRATION
1646	NT1023020907.D	23A0031-15		1	Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,
1725	NT1023020908.D	23A0031-16		1	1-methylnaphthalene,
1804	NT1023020909.D	23A0031-17		1	NO MANUAL INTEGRATION
1843	NT1023020910.D	23A0031-18		1	NO MANUAL INTEGRATION
1921	NT1023020911.D	23A0031-19		1	NO MANUAL INTEGRATION
2000	NT1023020912.D	23A0031-20		1	NO MANUAL INTEGRATION
2039	NT1023020913.D	BLA0163-BLK1		1	NO MANUAL INTEGRATION
2117	NT1023020914.D	BLA0163-BS1		1	NO MANUAL INTEGRATION
2156	NT1023020915.D	BLA0163-BSD1		1	NO MANUAL INTEGRATION
2235	NT1023020916.D	BLA0163-SRM1		1	NO MANUAL INTEGRATION
2313	NT1023020917.D	23A0087-09		1	Benzo(k)fluoranthene,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230209.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2352	NT1023020918.D	BLA0163-MS1		1	NO MANUAL INTEGRATION
0030	NT1023020919.D	BLA0163-MSD1		1	NO MANUAL INTEGRATION
0109	NT1023020920.D	SLB0122-ICV2		1	2,2'-oxybis(1-Chloropropane),
0147	NT1023020921.D	SLB0122-LCV2		1	2,2'-oxybis(1-Chloropropane), Benzoic acid, 2,4-Dinitrophenol, 4-Nitrophenol,
0226	NT1023020922.D	SIM-ICV2		1	NO MANUAL INTEGRATION
0304	NT1023020923.D	SIM-LCV2		1	NO MANUAL INTEGRATION
0342	NT1023020924.D	23A0031-21		1	NO MANUAL INTEGRATION
0421	NT1023020925.D	23A0032-05		1	NO MANUAL INTEGRATION
0459	NT1023020926.D	23A0032-08		1	Benzo(k)fluoranthene,
0537	NT1023020927.D	23A0032-11		1	NO MANUAL INTEGRATION
0616	NT1023020928.D	23A0087-01		1	NO MANUAL INTEGRATION
0655	NT1023020929.D	23A0087-02		1	NO MANUAL INTEGRATION
0733	NT1023020930.D	23A0087-03		1	NO MANUAL INTEGRATION
0812	NT1023020931.D	23A0087-04		1	NO MANUAL INTEGRATION
0851	NT1023020932.D	BLA0163-BLK2		1	NO MANUAL INTEGRATION
0929	NT1023020933.D	SEQ-ICV3		1	NO MANUAL INTEGRATION
1008	NT1023020934.D	SEQ-LCV3		1	NO MANUAL INTEGRATION
1047	NT1023020935.D	SIM-ICV3		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230209.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1126	NT1023020936.D	SIM-LCV3		1	NO MANUAL INTEGRATION

Security Status Report

Date: 10-Feb-2023 17:16

NT1023020901.D	Data Locked	deenayd, 10-
NT1023020902.D	Data Locked	deenayd, 10-
NT1023020903.D	Data Locked	deenayd, 10-
NT1023020904.D	Data Locked	deenayd, 10-
NT1023020905.D	Data Locked	deenayd, 10-
NT1023020906.D	Data Locked	deenayd, 10-
NT1023020907.D	Data Locked	deenayd, 10-
NT1023020908.D	Data Locked	deenayd, 10-
NT1023020909.D	Data Locked	deenayd, 10-
NT1023020910.D	Data Locked	deenayd, 10-
NT1023020911.D	Data Locked	deenayd, 10-
NT1023020912.D	Data Locked	deenayd, 10-
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NT1023020934.D	Data Locked	deenayd, 10-
NT1023020935.D	Data Locked	deenayd, 10-
NT1023020936.D	Data Locked	deenayd, 10-



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0154

Instrument: NT10

Calibration: GB00018

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLB0154-TUN1	NT1023021001.D	NA	02/10/23 15:44
Initial Cal Check	SLB0154-ICV1	NT1023021002.D	NA	02/10/23 16:04
ABN 0.2	SLB0154-LCV1	NT1023021003.D	NA	02/10/23 16:43
Initial Cal Blank	SLB0154-ICB1	NT1023021006.D	NA	02/10/23 18:39
ZZZZZ	23A0087-09	NT1023021007.D	Solid	02/10/23 19:18
ZZZZZ	23A0087-04	NT1023021010.D	Solid	02/10/23 21:13
ZZZZZ	23A0031-20RE1	NT1023021011.D	Solid	02/10/23 21:52
ZZZZZ	23A0087-05	NT1023021012.D	Solid	02/10/23 22:30
ZZZZZ	23A0087-06	NT1023021013.D	Solid	02/10/23 23:09
ZZZZZ	23A0087-07	NT1023021014.D	Solid	02/10/23 23:47
ZZZZZ	23A0087-08	NT1023021015.D	Solid	02/11/23 00:25
ZZZZZ	23A0087-10	NT1023021016.D	Solid	02/11/23 01:04
ZZZZZ	23A0087-11	NT1023021017.D	Solid	02/11/23 01:42
ZZZZZ	23A0087-12	NT1023021018.D	Solid	02/11/23 02:20
Calibration Check	SLB0154-CCV1	NT1023021019.D	NA	02/11/23 02:59



ANALYSIS SEQUENCE

SLB0154

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GB00018 GCMS Column ID: ZB-5MSi
MS EM Level: EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLB0154-TUN1	MS Tune	QC		1	K008469		02/10/2023 15:44	NT1023021001.D	DSD	
SLB0154-ICV1	Initial Cal Check	QC		2	K011109	K010831	02/10/2023 16:04	NT1023021002.D	VTS	
SLB0154-LCV1	ABN 0.2	QC		3	K011106	K010831	02/10/2023 16:43	NT1023021003.D	VTS	
SLB0154-ICB1	Initial Cal Blank	QC		4	K005156	K010831	02/10/2023 18:39	NT1023021006.D	VTS	
23A0087-09	LDW23-SS1189	20ug/kg solid or 0.2ug/L l	A 01	5		K010831	02/10/2023 19:18	NT1023021007.D	VTS	
BLA0163-MS1	Matrix Spike	QC		6		K010831	02/10/2023 19:56	NT1023021008.D	VTS	
BLA0163-MSD1	Matrix Spike Dup	QC		7		K010831	02/10/2023 20:35	NT1023021009.D	VTS	
23A0087-04	LDW23-SS1224	20ug/kg solid or 0.2ug/L l	A 01	8		K010831	02/10/2023 21:13	NT1023021010.D	VTS	
23A0031-20RE1	LDW23-SS1174	20ug/kg solid or 0.2ug/L l	A 01	9		K010831	02/10/2023 21:52	NT1023021011.D	VTS	Added 2/11/2023 by VTS
23A0087-05	LDW23-SS1212	20ug/kg solid or 0.2ug/L l	A 01	10		K010831	02/10/2023 22:30	NT1023021012.D	VTS	
23A0087-06	LDW23-SS1212-FD	20ug/kg solid or 0.2ug/L l	A 01	11		K010831	02/10/2023 23:09	NT1023021013.D	VTS	
23A0087-07	LDW23-SS1211	20ug/kg solid or 0.2ug/L l	A 01	12		K010831	02/10/2023 23:47	NT1023021014.D	VTS	
23A0087-08	LDW23-SS1203	20ug/kg solid or 0.2ug/L l	A 01	13		K010831	02/11/2023 00:25	NT1023021015.D	VTS	
23A0087-10	LDW23-SS1267	20ug/kg solid or 0.2ug/L l	A 01	14		K010831	02/11/2023 01:04	NT1023021016.D	VTS	
23A0087-11	LDW23-SS1267-FD	20ug/kg solid or 0.2ug/L l	A 01	15		K010831	02/11/2023 01:42	NT1023021017.D	VTS	
23A0087-12	LDW23-SS1251	20ug/kg solid or 0.2ug/L l	A 01	16		K010831	02/11/2023 02:20	NT1023021018.D	VTS	
SLB0154-CCV1	Calibration Check	QC		17	K011109	K010831	02/11/2023 02:59	NT1023021019.D	VTS	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230210.b

Time	Filename	LabID	ClientId	DF														
1	1544	NT1023021001.D	SLB0154-TUN1	1	|NO ISTDs FOUND|													
2	1604	NT1023021002.D	SLB0154-ICV1	1	| 8.71	73741|	11.16	288014|	14.72	158505|	17.72	277023|	22.78	234791|	25.22	231074|	23.83	369178|
3	1643	NT1023021003.D	SLB0154-LCV1	1	| 8.71	109365|	11.16	410189|	14.72	216039|	17.72	387942|	22.77	308765|	25.22	334593|	23.83	509739|
4	1722	NT1023021004.D	SIM-ICV1	1	| 8.71	56537|	11.15	215473|	14.72	113882|	17.71	205741|	22.77	166018|	25.21	171121|	23.82	251803|
5	1800	NT1023021005.D	SIM-LCV1	1	| 8.71	62609|	11.15	239511|	14.72	123083|	17.72	226229|	22.77	179058|	25.22	185265|	23.82	265320|
6	1839	NT1023021006.D	SLB0154-ICB1	1	| 8.71	83260|	11.15	316599|	14.72	164014|	17.72	303006|	22.77	236049|	25.21	248190|	23.83	363497|
7	1918	NT1023021007.D	23A0087-09	1	| 8.71	82094|	11.15	306832|	14.72	158976|	17.72	288273|	22.78	221993|	25.23	246598|	23.83	367249|
8	1956	NT1023021008.D	BLA0163-MS1	1	| 8.71	75774|	11.16	283926|	14.72	147771|	17.72	267375|	22.77	216611|	25.22	224308|	23.83	361427|
9	2035	NT1023021009.D	BLA0163-MSD1	1	| 8.71	74476|	11.16	279049|	14.72	144226|	17.72	259618|	22.77	213353|	25.22	227196|	23.82	368095|
10	2113	NT1023021010.D	23A0087-04	20	| 8.71	68037|	11.15	252996|	14.71	131543|	17.71	237422|	22.77	186891|	25.21	207013|	23.82	304622|
11	2152	NT1023021011.D	23A0031-20	3	| 8.71	66505|	11.15	251024|	14.72	129302|	17.71	229312|	22.77	180248|	25.22	208813|	23.82	303547|
12	2230	NT1023021012.D	23A0087-05	1	| 8.71	73686|	11.15	276264|	14.72	142795|	17.72	262553|	22.79	201483|	25.23	219787|	23.84	371389|
13	2309	NT1023021013.D	23A0087-06	1	| 8.71	71904|	11.15	277258|	14.72	140165|	17.73	252534|	22.79	189825|	25.24	210365|	23.84	348582|
14	2347	NT1023021014.D	23A0087-07	1	| 8.71	67885|	11.15	257007|	14.72	131780|	17.72	235490|	22.79	168835|	25.23	190122|	23.84	319842|
15	0025	NT1023021015.D	23A0087-08	1	| 8.71	66157|	11.16	252434|	14.72	127598|	17.73	225291|	22.79	157179|	25.23	179769|	23.83	293058|
16	0104	NT1023021016.D	23A0087-10	1	| 8.71	61106|	11.15	232812|	14.72	119517|	17.72	216205|	22.77	154793|	25.22	177707|	23.83	270926|
17	0142	NT1023021017.D	23A0087-11	1	| 8.71	62004|	11.15	236675|	14.72	121432|	17.72	221533|	22.77	161065|	25.23	184899|	23.82	277905|
18	0220	NT1023021018.D	23A0087-12	1	| 8.71	62632|	11.16	239024|	14.72	122125|	17.72	221440|	22.78	152967|	25.23	175894|	23.83	276722|
19	0259	NT1023021019.D	SLB0154-CCV1	1	| 8.71	67861|	11.16	267242|	14.72	145868|	17.72	247644|	22.77	213924|	25.22	235234|	23.82	361428|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230210.b

ARI Job No.: SLB0 Method: DFTPP8270E.m Instrument: nt10.i Date: 10-FEB-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1544	NT1023021001.D	SLB0154-TUN1		1	NO MANUAL INTEGRATION
1604	NT1023021002.D	SLB0154-ICV1		1	NO MANUAL INTEGRATION
1643	NT1023021003.D	SLB0154-LCV1		1	NO MANUAL INTEGRATION
1722	NT1023021004.D	SIM-ICV1		1	NO MANUAL INTEGRATION
1800	NT1023021005.D	SIM-LCV1		1	NO MANUAL INTEGRATION
1839	NT1023021006.D	SLB0154-ICB1		1	NO MANUAL INTEGRATION
1918	NT1023021007.D	23A0087-09		1	1,4-Dichlorobenzene,
1956	NT1023021008.D	BLA0163-MS1		1	NO MANUAL INTEGRATION
2035	NT1023021009.D	BLA0163-MSD1		1	NO MANUAL INTEGRATION
2113	NT1023021010.D	23A0087-04		20	NO MANUAL INTEGRATION
2152	NT1023021011.D	23A0031-20RE1		3	1,4-Dichlorobenzene, 4-Methylphenol,
2230	NT1023021012.D	23A0087-05		1	1,4-Dichlorobenzene, 2-Methylphenol, Benzoic acid,
2309	NT1023021013.D	23A0087-06		1	Benzoic acid,
2347	NT1023021014.D	23A0087-07		1	Benzoic acid, Benzo(k)fluoranthene,
0025	NT1023021015.D	23A0087-08		1	NO MANUAL INTEGRATION
0104	NT1023021016.D	23A0087-10		1	NO MANUAL INTEGRATION
0142	NT1023021017.D	23A0087-11		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230210.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0220	NT1023021018.D	23A0087-12		1	Dimethylphthalate,
0259	NT1023021019.D	SLB0154-CCV1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 11-Feb-2023 12:20

NT1023021001.D	Data Locked	deenayd, 11-
NT1023021002.D	Data Locked	deenayd, 11-
NT1023021003.D	Data Locked	deenayd, 11-
NT1023021004.D	Data Locked	deenayd, 11-
NT1023021005.D	Data Locked	deenayd, 11-
NT1023021006.D	Data Locked	deenayd, 11-
NT1023021007.D	Data Locked	deenayd, 11-
NT1023021008.D	Data Locked	deenayd, 11-
NT1023021009.D	Data Locked	deenayd, 11-
NT1023021010.D	Data Locked	deenayd, 11-
NT1023021011.D	Data Locked	deenayd, 11-
NT1023021012.D	Data Locked	deenayd, 11-
NT1023021013.D	Data Locked	deenayd, 11-
NT1023021014.D	Data Locked	deenayd, 11-
NT1023021015.D	Data Locked	deenayd, 11-
NT1023021016.D	Data Locked	deenayd, 11-
NT1023021017.D	Data Locked	deenayd, 11-
NT1023021018.D	Data Locked	deenayd, 11-
NT1023021019.D	Data Locked	deenayd, 11-



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0195

Instrument: NT18

Calibration: GB00036

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLB0195-TUN1	NT1802102301.D	NA	02/10/23 16:46
ABN 20	SLB0195-CAL7	NT1802102302.D	NA	02/10/23 17:04
ABN 10	SLB0195-CAL6	NT1802102303.D	NA	02/10/23 17:44
ABN 5	SLB0195-CAL5	NT1802102304.D	NA	02/10/23 18:25
ABN 2.5	SLB0195-CAL4	NT1802102305.D	NA	02/10/23 19:05
ABN 1.0	SLB0195-CAL3	NT1802102306.D	NA	02/10/23 19:45
ABN 0.5	SLB0195-CAL2	NT1802102307.D	NA	02/10/23 20:25
ABN 0.2	SLB0195-CAL1	NT1802102308.D	NA	02/10/23 21:05
SCV 5.0	SLB0195-SCV1	NT1802102311.D	NA	02/10/23 23:06
Initial Cal Blank	SLB0195-ICB1	NT1802102312.D	NA	02/10/23 23:46



ANALYSIS SEQUENCE

SLB0195

Instrument ID: NT18 GCMS Description: Agilent 6890N/5975
Calibration ID: GB00036 GCMS Column ID: L001046
MS EM Level: 1047 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLB0195-TUN1	MS Tune	QC		1	K004775		02/10/2023 16:46	NT1802102301.D	VTS	
SLB0195-CAL7	ABN 20	QC		2	K011111	K010831	02/10/2023 17:04	NT1802102302.D	VTS	
SLB0195-CAL6	ABN 10	QC		3	K011110	K010831	02/10/2023 17:44	NT1802102303.D	VTS	
SLB0195-CAL5	ABN 5	QC		4	K011109	K010831	02/10/2023 18:25	NT1802102304.D	VTS	
SLB0195-CAL4	ABN 2.5	QC		5	K011108	K010831	02/10/2023 19:05	NT1802102305.D	VTS	
SLB0195-CAL3	ABN 1.0	QC		6	K011107	K010831	02/10/2023 19:45	NT1802102306.D	VTS	
SLB0195-CAL2	ABN 0.5	QC		7	K011106	K010831	02/10/2023 20:25	NT1802102307.D	VTS	
SLB0195-CAL1	ABN 0.2	QC		8	K011105	K010831	02/10/2023 21:05	NT1802102308.D	VTS	
SLB0195-SCV1	SCV 5.0	QC		9	K010066	K010831	02/10/2023 23:06	NT1802102311.D	VTS	
SLB0195-ICB1	Initial Cal Blank	QC		10	K005156	K010831	02/10/2023 23:46	NT1802102312.D	VTS	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt18.i\20230210.b

Time	Filename	LabID	ClientId	DF																
1	1646	NT1802102301.D			1	|	NO ISTDs FOUND|													
2	1704	NT1802102302.D	SLB0195-CAL7		1	|	9.48	109487|	11.96	426922|	15.56	222329|	18.59	382827|	23.57	456277|	26.30	383529|	24.58	582435|
3	1744	NT1802102303.D	SLB0195-CAL6		1	|	9.48	131192|	11.95	503545|	15.56	263535|	18.59	459378|	23.56	502236|	26.30	460430|	24.58	675744|
4	1825	NT1802102304.D	SLB0195-CAL5		1	|	9.48	102093|	11.95	389769|	15.55	207438|	18.58	358643|	23.55	349501|	26.30	343443|	24.57	468622|
5	1905	NT1802102305.D	SLB0195-CAL4		1	|	9.48	117469|	11.95	450578|	15.55	237285|	18.58	411752|	23.55	401542|	26.29	390891|	24.57	525604|
6	1945	NT1802102306.D	SLB0195-CAL3		1	|	9.47	108764|	11.95	426299|	15.55	227355|	18.58	406669|	23.55	387171|	26.30	377958|	24.57	477632|
7	2025	NT1802102307.D	SLB0195-CAL2		1	|	9.47	83431|	11.95	323877|	15.55	172288|	18.58	308906|	23.55	287673|	26.29	265848|	24.57	327402|
8	2105	NT1802102308.D	SLB0195-CAL1		1	|	9.47	106486|	11.95	384455|	15.55	202176|	18.58	364369|	23.55	343641|	26.29	317576|	24.57	387244|
9	2146	NT1802102309.D	SIM CAL		1	|	9.47	86886|	11.95	349395|	15.55	181603|	18.58	329403|	23.55	297110|	26.29	271976|	24.57	307252|
10	2226	NT1802102310.D	SIM CAL		1	|	9.47	113514|	11.95	429697|	15.55	226337|	18.58	414261|	23.55	379818|	26.29	354720|	24.57	407787|
11	2306	NT1802102311.D	SLB0195-SCV1		1	|	9.47	145438|	11.95	551199|	15.56	292562|	18.58	526860|	23.56	535596|	26.30	523305|	24.57	714503|
12	2346	NT1802102312.D	SLB0195-ICB1		1	|	9.47	122636|	11.95	450392|	15.55	236606|	18.58	430289|	23.55	396088|	26.29	360657|	24.57	416002|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt18.i\20230210.b

Instrument: nt18.i Date: 10-FEB-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
1646	NT1802102301.D		1	NO MANUAL INTEGRATION
1704	NT1802102302.D	SLB0195-CAL7	1	2,2'-oxybis(1-Chloropropane), 1,2-Dichlorobenzene-d4,
1744	NT1802102303.D	SLB0195-CAL6	1	2,2'-oxybis(1-Chloropropane), 1,2-Dichlorobenzene-d4,
1825	NT1802102304.D	SLB0195-CAL5	1	1,2-Dichlorobenzene-d4,
1905	NT1802102305.D	SLB0195-CAL4	1	2,2'-oxybis(1-Chloropropane), 1,2-Dichlorobenzene-d4,
1945	NT1802102306.D	SLB0195-CAL3	1	2,2'-oxybis(1-Chloropropane), Benzoic acid, 1,2-Dichlorobenzene-d4,
2025	NT1802102307.D	SLB0195-CAL2	1	2,2'-oxybis(1-Chloropropane), 2,4-Dinitrophenol, 4-Nitrophenol, 1,2-Dichlorobenzene-d4,
2105	NT1802102308.D	SLB0195-CAL1	1	2,2'-oxybis(1-Chloropropane), 2,4,5-Trichlorophenol, 3-Nitroaniline, 4-Nitrophenol, Pentachlorophenol, N-Nitrosodimethylamine, 1,2-Dichlorobenzene-d4, Benzo(k
2146	NT1802102309.D	SIM CAL	1	NO MANUAL INTEGRATION
2226	NT1802102310.D	SIM CAL	1	NO MANUAL INTEGRATION
2306	NT1802102311.D	SLB0195-SCV1	1	NO MANUAL INTEGRATION
2346	NT1802102312.D	SLB0195-ICB1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 15-Feb-2023 08:50

NT1802102301.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102302.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102303.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102304.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102305.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102306.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102307.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102308.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102309.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102310.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102311.D	Data Locked	van, 15-Feb-2023 08:50
NT1802102312.D	Data Locked	van, 15-Feb-2023 08:50



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0249

Instrument: NT18

Calibration: GB00036

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLB0249-TUN1	NT1802172302.D	NA	02/17/23 05:50
Initial Cal Check	SLB0249-ICV1	NT1802172306.D	NA	02/17/23 08:32
<i>ZZZZZ</i>	23A0031-21	NT1802172312.D	Solid	02/17/23 13:38
LDW23-IT1224	23A0032-05	NT1802172313.D	Solid	02/17/23 14:18
LDW23-SC1226B	23A0032-08	NT1802172314.D	Solid	02/17/23 14:59
LDW23-SC1212	23A0032-11	NT1802172315.D	Solid	02/17/23 15:39
<i>ZZZZZ</i>	23A0087-01	NT1802172317.D	Solid	02/17/23 17:00
<i>ZZZZZ</i>	23A0087-02	NT1802172318.D	Solid	02/17/23 17:41
<i>ZZZZZ</i>	23A0087-03	NT1802172319.D	Solid	02/17/23 18:21
<i>ZZZZZ</i>	23A0099-07RE1	NT1802172321.D	Solid	02/17/23 19:41



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0060

Instrument: NT18

Calibration: GB00036

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLC0060-TUN1	NT1802192301K.D	NA	02/19/23 11:59
ABN 5	SLC0060-ICV1	NT1802192303.D	NA	02/19/23 12:57
ZZZZZ	23A0031-21RE1	NT1802192310.D	Solid	02/19/23 14:58
LDW23-IT1224	23A0032-05RE1	NT1802192311.D	Solid	02/19/23 15:38
LDW23-SC1226B	23A0032-08RE1	NT1802192313.D	Solid	02/19/23 16:58
LDW23-SC1212	23A0032-11RE1	NT1802192314.D	Solid	02/19/23 17:39
LDW23-SC1212	23A0032-11RE2	NT1802192315.D	Solid	02/19/23 18:19
ZZZZZ	23A0087-01RE1	NT1802192316.D	Solid	02/19/23 18:59
ZZZZZ	23A0087-02RE1	NT1802192317.D	Solid	02/19/23 19:39
ZZZZZ	23A0087-03RE1	NT1802192318.D	Solid	02/19/23 20:19
ABN 5	SLC0060-CCV1	NT1802192325K.D	NA	02/20/23 01:01



ANALYSIS SEQUENCE

SLC0060

Instrument ID: NT18 GCMS Description: Agilent 6890N/5975
 Calibration ID: GB00036 GCMS Column ID: L001046
 MS EM Level: 1071 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLC0060-TUN1	MS Tune	QC		1	K004775		02/19/2023 11:59	NT1802192301K.D	JGR	
SLC0060-ICV1	ABN 5	QC		2	K011109	K010831	02/19/2023 12:57	NT1802192303.D	VTS	
23A0031-21RE1	LDW23-SS1232	20ug/kg solid or 0.2ug/L l	A 01	3		K010831	02/19/2023 14:58	NT1802192310.D	VTS	Added 2/18/2023 by VTS
23A0032-05RE1	LDW23-IT1224	20ug/kg solid or 0.2ug/L l	A 01	4		K010831	02/19/2023 15:38	NT1802192311.D	VTS	Added 2/18/2023 by VTS
23A0032-08RE1	LDW23-SC1226B	20ug/kg solid or 0.2ug/L l	A 01	5		K010831	02/19/2023 16:58	NT1802192313.D	VTS	Added 2/18/2023 by VTS
23A0032-11RE1	LDW23-SC1212	20ug/kg solid or 0.2ug/L l	A 01	6		K010831	02/19/2023 17:39	NT1802192314.D	VTS	Added 2/18/2023 by VTS
23A0032-11RE2	LDW23-SC1212	20ug/kg solid or 0.2ug/L l	A 01	7		K010831	02/19/2023 18:19	NT1802192315.D	VTS	Added 3/4/2023 by VTS
23A0087-01RE1	LDW23-SS1264	20ug/kg solid or 0.2ug/L l	A 01	8		K010831	02/19/2023 18:59	NT1802192316.D	VTS	Added 2/18/2023 by VTS
23A0087-02RE1	LDW23-SS1272	20ug/kg solid or 0.2ug/L l	A 01	9		K010831	02/19/2023 19:39	NT1802192317.D	VTS	Added 2/18/2023 by VTS
23A0087-03RE1	LDW23-SS1235	20ug/kg solid or 0.2ug/L l	A 01	10		K010831	02/19/2023 20:19	NT1802192318.D	VTS	Added 2/18/2023 by VTS
BLB0278-BLK2	Blank	QC		11		K010831				
SLC0060-CCV1	ABN 5	QC		12	K011109	K010831	02/20/2023 01:01	NT1802192325K.D	VTS	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt18.i\20230219.b

Time	Filename	LabID	ClientId	DF																					
1	1159	NT1802192301.D	SLB0323-TUN1	1	|	NO ISTDs FOUND																			
2	1217	NT1802192302.D	SEQ-ICV1SIM	1	|	9.34	114208	|	11.82	446373	|	15.41	236030	|	18.44	428124	|	23.43	377144	|	26.10	421901	|	24.43	629893
3	1257	NT1802192303.D	SLC0060-ICV1	1	|	9.34	118224	|	11.82	457373	|	15.41	241384	|	18.44	431840	|	23.43	407698	|	26.11	411276	|	24.44	661131
4	1337	NT1802192304.D	SEQ-LCV1	1	|	9.34	113321	|	11.82	437857	|	15.41	229976	|	18.44	411327	|	23.43	359692	|	26.10	393125	|	24.43	581658
5	1417	NT1802192305.D	SEQ-LCV2	1	|	9.34	106724	|	11.82	419377	|	15.41	217963	|	18.44	389490	|	23.43	336547	|	26.10	369961	|	24.43	550765
6	1458	NT1802192310.D	23A0031-21RE1	1	|	9.34	101283	|	11.82	393550	|	15.41	206740	|	18.44	385671	|	23.43	363884	|	26.11	372287	|	24.44	612014
7	1538	NT1802192311.D	23A0032-05RE1	1	|	9.35	110970	|	11.82	424927	|	15.41	226461	|	18.44	427003	|	23.43	452613	|	26.12	430259	|	24.44	731113
8	1618	NT1802192312.D	SEQ-LCV3	1	|	9.35	108815	|	11.82	426679	|	15.41	225493	|	18.44	411269	|	23.43	368252	|	26.10	385340	|	24.43	630363
9	1658	NT1802192313.D	23A0032-08RE1	1	|	9.35	110742	|	11.82	437574	|	15.41	240957	|	18.44	473792	|	23.44	456709	|	26.13	397988	|	24.44	738505
10	1739	NT1802192314.D	23A0032-11RE1	1	|	9.35	104776	|	11.82	410263	|	15.41	233156	|	18.44	474860	|	23.46	576410	|	26.14	324801	|	24.46	815803
11	1819	NT1802192315.D	23A0032-11RE2	5	|	9.34	113789	|	11.82	446021	|	15.41	234976	|	18.44	448299	|	23.43	428544	|	26.11	403893	|	24.44	723574
12	1859	NT1802192316.D	23A0087-01RE1	1	|	9.35	103116	|	11.82	399943	|	15.41	210939	|	18.44	402288	|	23.43	394360	|	26.12	344242	|	24.44	687085
13	1939	NT1802192317.D	23A0087-02RE1	1	|	9.34	95730	|	11.82	366552	|	15.41	192193	|	18.44	355132	|	23.44	343504	|	26.11	310862	|	24.44	603806
14	2019	NT1802192318.D	23A0087-03RE1	1	|	9.34	94557	|	11.82	375370	|	15.41	194139	|	18.44	358273	|	23.44	355036	|	26.11	307986	|	24.44	612634
15	2100	NT1802192319.D	23A0099-07RE1	4	|	9.34	109205	|	11.82	416661	|	15.41	221303	|	18.44	413974	|	23.44	377497	|	26.11	325657	|	24.44	656013
16	2140	NT1802192320.D	BLB0278-BLK2	1	|	9.34	110085	|	11.82	422152	|	15.41	220788	|	18.44	412502	|	23.43	339759	|	26.10	257130	|	24.43	594394
17	2220	NT1802192321.D	23B0196-01	1	|	9.34	99592	|	11.82	379278	|	15.41	198328	|	18.44	358718	|	23.43	310038	|	26.10	212838	|	24.43	512031
18	2300	NT1802192322.D	23B0196-02	1	|	9.34	103229	|	11.82	399191	|	15.41	209485	|	18.44	379912	|	23.43	318942	|	26.10	214985	|	24.43	528913
19	2340	NT1802192323.D	23B0196-03	1	|	9.35	109313	|	11.82	413888	|	15.41	215200	|	18.44	394757	|	23.43	339918	|	26.10	221958	|	24.43	547424
20	0021	NT1802192324.D	SEQ-CCV1SIM	1	|	9.34	112637	|	11.82	438955	|	15.41	229464	|	18.44	418708	|	23.43	358489	|	26.10	239224	|	24.43	577063

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt18.i\20230219.b

Time	Filename	LabID	ClientId	DF																						
21	0101	NT1802192325.D	SLB0323-ICV1		1	|	9.35	119934	|	11.82	470167	|	15.41	247389	|	18.44	450127	|	23.44	425953	|	26.10	300237	|	24.44	675695

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt18.i\20230219.b

Instrument: nt18.i Date: 19-FEB-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
1159	NT1802192301.D	SLB0323-TUN1	1	NO MANUAL INTEGRATION
1217	NT1802192302.D	SEQ-ICV1SIM	1	NO MANUAL INTEGRATION
1257	NT1802192303.D	SLC0060-ICV1	1	NO MANUAL INTEGRATION
1337	NT1802192304.D	SEQ-LCV1	1	3-Nitroaniline, 2-Fluorophenol,
1417	NT1802192305.D	SEQ-LCV2	1	3-Nitroaniline, 4-Nitrophenol, 2-Fluorophenol,
1458	NT1802192310.D	23A0031-21RE1	1	2-Methylphenol, 4-Methylphenol, Butylbenzylphthalate,
1538	NT1802192311.D	23A0032-05RE1	1	Phenol, Benzoic acid,
1618	NT1802192312.D	SEQ-LCV3	1	2,2'-oxybis(1-Chloropropane), Benzoic acid,
1658	NT1802192313.D	23A0032-08RE1	1	Benzoic acid, Acenaphthylene,
1739	NT1802192314.D	23A0032-11RE1	1	2-Methylphenol,
1819	NT1802192315.D	23A0032-11RE2	5	NO MANUAL INTEGRATION
1859	NT1802192316.D	23A0087-01RE1	1	Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,
1939	NT1802192317.D	23A0087-02RE1	1	Phenol, Benzoic acid, Anthracene,
2019	NT1802192318.D	23A0087-03RE1	1	Benzyl alcohol, Benzoic acid,
2100	NT1802192319.D	23A0099-07RE1	4	NO MANUAL INTEGRATION
2140	NT1802192320.D	BLB0278-BLK2	1	NO MANUAL INTEGRATION
2220	NT1802192321.D	23B0196-01	1	1,2-Dichlorobenzene, Bis(2-Chloroethoxy)methane, Anthracene, Dibenzo(a,h)anthracene,

Instrument: nt18.i Date: 19-FEB-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
2300	NT1802192322.D	23B0196-02	1	2-Chlorophenol,
2340	NT1802192323.D	23B0196-03	1	1,2-Dichlorobenzene, Bis(2-Chloroethoxy)methane, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene,
0021	NT1802192324.D	SEQ-CCV1SIM	1	NO MANUAL INTEGRATION
0101	NT1802192325.D	SLB0323-ICV1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 04-Mar-2023 12:06

NT1802192301.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192302.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192303.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192304.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192305.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192310.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192311.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192312.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192313.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192314.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192315.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192316.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192317.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192318.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192319.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192320.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192321.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192322.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192323.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192324.D	Data Locked	van, 04-Mar-2023 12:02
NT1802192325.D	Data Locked	van, 04-Mar-2023 12:02



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG/WO: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0102

Instrument: NT10

Calibration: GB00018

Calibration Date: 02/07/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLB0102-ICV2 (Solid)		Lab File ID: NT1023020732.D			Analyzed: 02/08/23 07:24			
2-Fluorophenol	7.5000	100	80 - 120	6.78	6.772	0.0080	N/A	
Phenol-d5	7.5000	97.7	80 - 120	8.341	8.336286	0.0047	N/A	
2-Chlorophenol-d4	7.5000	97.7	80 - 120	8.611	8.605571	0.0054	N/A	
1,2-Dichlorobenzene-d4	5.0000	93.8	80 - 120	9.324	9.318429	0.0056	N/A	
Nitrobenzene-d5	5.0000	96.7	80 - 120	10.046	10.04143	0.0046	N/A	
2-Fluorobiphenyl	5.0000	92.8	80 - 120	13.626	13.62129	0.0047	N/A	
2,4,6-Tribromophenol	7.5000	94.8	80 - 120	16.642	16.63133	0.0107	N/A	
p-Terphenyl-d14	5.0000	82.7	80 - 120	21.166	21.16457	0.0014	N/A	
SLB0102-LCV2 (Solid)		Lab File ID: NT1023020733.D			Analyzed: 02/08/23 08:02			
2-Fluorophenol	0.75000	108	50 - 150	6.78	6.772	0.0080	N/A	
Phenol-d5	0.75000	104	50 - 150	8.341	8.336286	0.0047	N/A	
2-Chlorophenol-d4	0.75000	107	50 - 150	8.611	8.605571	0.0054	N/A	
1,2-Dichlorobenzene-d4	0.50000	107	50 - 150	9.324	9.318429	0.0056	N/A	
Nitrobenzene-d5	0.50000	111	50 - 150	10.046	10.04143	0.0046	N/A	
2-Fluorobiphenyl	0.50000	111	50 - 150	13.627	13.62129	0.0057	N/A	
2,4,6-Tribromophenol	0.75000	99.5	50 - 150	16.634	16.63133	0.0027	N/A	
p-Terphenyl-d14	0.50000	101	50 - 150	21.167	21.16457	0.0024	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG/WO: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0122

Instrument: NT10

Calibration: GB00018

Calibration Date: 02/07/2023

Surrogate Compound	Spike Level ug/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BLA0163-BS1 (Solid)		Lab File ID: NT1023020914.D			Analyzed: 02/09/23 21:17			
2-Fluorophenol	750.00	80.7	27 - 120	6.666	6.772	-0.1060	N/A	
Phenol-d5	750.00	81.5	29 - 120	8.227	8.336286	-0.1093	N/A	
2-Chlorophenol-d4	750.00	80.9	31 - 120	8.489	8.605571	-0.1166	N/A	
1,2-Dichlorobenzene-d4	500.00	76.0	32 - 120	9.195	9.318429	-0.1234	N/A	
Nitrobenzene-d5	500.00	85.8	30 - 120	9.917	10.04143	-0.1244	N/A	
2-Fluorobiphenyl	500.00	87.6	35 - 120	13.499	13.62129	-0.1223	N/A	
2,4,6-Tribromophenol	750.00	82.7	24 - 134	16.514	16.63133	-0.1173	N/A	
p-Terphenyl-d14	500.00	81.7	37 - 120	21.07	21.16457	-0.0946	N/A	
BLA0163-BSD1 (Solid)		Lab File ID: NT1023020915.D			Analyzed: 02/09/23 21:56			
2-Fluorophenol	750.00	79.8	27 - 120	6.666	6.772	-0.1060	N/A	
Phenol-d5	750.00	80.2	29 - 120	8.227	8.336286	-0.1093	N/A	
2-Chlorophenol-d4	750.00	80.6	31 - 120	8.489	8.605571	-0.1166	N/A	
1,2-Dichlorobenzene-d4	500.00	77.0	32 - 120	9.195	9.318429	-0.1234	N/A	
Nitrobenzene-d5	500.00	85.0	30 - 120	9.917	10.04143	-0.1244	N/A	
2-Fluorobiphenyl	500.00	86.6	35 - 120	13.499	13.62129	-0.1223	N/A	
2,4,6-Tribromophenol	750.00	83.2	24 - 134	16.514	16.63133	-0.1173	N/A	
p-Terphenyl-d14	500.00	80.5	37 - 120	21.07	21.16457	-0.0946	N/A	
BLA0163-SRM1 (Solid)		Lab File ID: NT1023020916.D			Analyzed: 02/09/23 22:35			
2-Fluorophenol	7500.0	83.3	27 - 120	6.666	6.772	-0.1060	N/A	
Phenol-d5	7500.0	82.1	29 - 120	8.227	8.336286	-0.1093	N/A	
2-Chlorophenol-d4	7500.0	84.5	31 - 120	8.49	8.605571	-0.1156	N/A	
1,2-Dichlorobenzene-d4	5000.0	78.9	32 - 120	9.195	9.318429	-0.1234	N/A	
Nitrobenzene-d5	5000.0	89.4	30 - 120	9.917	10.04143	-0.1244	N/A	
2-Fluorobiphenyl	5000.0	91.4	35 - 120	13.499	13.62129	-0.1223	N/A	
2,4,6-Tribromophenol	7500.0	92.4	24 - 134	16.514	16.63133	-0.1173	N/A	
p-Terphenyl-d14	5000.0	86.1	37 - 120	21.07	21.16457	-0.0946	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG/WO: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0122

Instrument: NT10

Calibration: GB00018

Calibration Date: 02/07/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLB0122-ICV2 (Solid)		Lab File ID: NT1023020920.D			Analyzed: 02/10/23 01:09			
2-Fluorophenol	7.5000	98.4	80 - 120	6.658	6.772	-0.1140	N/A	
Phenol-d5	7.5000	96.4	80 - 120	8.227	8.336286	-0.1093	N/A	
2-Chlorophenol-d4	7.5000	104	80 - 120	8.49	8.605571	-0.1156	N/A	
1,2-Dichlorobenzene-d4	5.0000	93.3	80 - 120	9.195	9.318429	-0.1234	N/A	
Nitrobenzene-d5	5.0000	99.2	80 - 120	9.925	10.04143	-0.1164	N/A	
2-Fluorobiphenyl	5.0000	95.4	80 - 120	13.499	13.62129	-0.1223	N/A	
2,4,6-Tribromophenol	7.5000	86.4	80 - 120	16.522	16.63133	-0.1093	N/A	
p-Terphenyl-d14	5.0000	80.1	80 - 120	21.07	21.16457	-0.0946	N/A	
SLB0122-LCV2 (Solid)		Lab File ID: NT1023020921.D			Analyzed: 02/10/23 01:47			
2-Fluorophenol	0.75000	103	50 - 150	6.658	6.772	-0.1140	N/A	
Phenol-d5	0.75000	102	50 - 150	8.227	8.336286	-0.1093	N/A	
2-Chlorophenol-d4	0.75000	104	50 - 150	8.489	8.605571	-0.1166	N/A	
1,2-Dichlorobenzene-d4	0.50000	104	50 - 150	9.195	9.318429	-0.1234	N/A	
Nitrobenzene-d5	0.50000	109	50 - 150	9.917	10.04143	-0.1244	N/A	
2-Fluorobiphenyl	0.50000	110	50 - 150	13.499	13.62129	-0.1223	N/A	
2,4,6-Tribromophenol	0.75000	81.3	50 - 150	16.522	16.63133	-0.1093	N/A	
p-Terphenyl-d14	0.50000	95.4	50 - 150	21.07	21.16457	-0.0946	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG/WO: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0154

Instrument: NT10

Calibration: GB00018

Calibration Date: 02/07/2023

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLB0154-CCV1 (Solid)		Lab File ID: NT1023021019.D			Analyzed: 02/11/23 02:59			
2-Fluorophenol	7.5000	98.9	50 - 150	6.55	6.772	-0.2220	N/A	
Phenol-d5	7.5000	99.1	50 - 150	8.111	8.336286	-0.2253	N/A	
2-Chlorophenol-d4	7.5000	98.4	50 - 150	8.366	8.605571	-0.2396	N/A	
1,2-Dichlorobenzene-d4	5.0000	94.3	50 - 150	9.071	9.318429	-0.2474	N/A	
Nitrobenzene-d5	5.0000	98.6	50 - 150	9.786	10.04143	-0.2554	N/A	
2-Fluorobiphenyl	5.0000	92.1	50 - 150	13.35	13.62129	-0.2713	N/A	
2,4,6-Tribromophenol	7.5000	51.4	50 - 150	16.342	16.63133	-0.2893	N/A	
p-Terphenyl-d14	5.0000	88.4	50 - 150	20.882	21.16457	-0.2826	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG/WO:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLB0195</u>	Instrument:	<u>NT18</u>
Calibration:	<u>GB00036</u>	Calibration Date:	<u>02/10/2023</u>

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLB0195-SCV1 (Water)		Lab File ID: NT1802102311.D			Analyzed: 02/10/23 23:06			
2-Fluorophenol	7.5000	87.3	80 - 120	7.243	7.249714	-0.0067	N/A	
Phenol-d5	7.5000	89.7	80 - 120	8.804	8.809143	-0.0051	N/A	
2-Chlorophenol-d4	7.5000	89.0	80 - 120	9.105	9.109285	-0.0043	N/A	
1,2-Dichlorobenzene-d4	5.0000	85.4	80 - 120	9.833	9.834143	-0.0011	N/A	
Nitrobenzene-d5	5.0000	93.4	80 - 120	10.563	10.56529	-0.0023	N/A	
2-Fluorobiphenyl	5.0000	84.8	80 - 120	14.148	14.15143	-0.0034	N/A	
2,4,6-Tribromophenol	7.5000	80.1	80 - 120	17.179	17.18517	-0.0062	N/A	
p-Terphenyl-d14	5.0000	83.0	80 - 120	21.665	21.66129	0.0037	N/A	
SLB0195-ICB1 (Water)		Lab File ID: NT1802102312.D			Analyzed: 02/10/23 23:46			
2-Fluorophenol	7.5000	95.9	30 - 160	7.243	7.249714	-0.0067	N/A	
Phenol-d5	7.5000	97.9	30 - 160	8.803	8.809143	-0.0061	N/A	
2-Chlorophenol-d4	7.5000	98.5	30 - 160	9.105	9.109285	-0.0043	N/A	
1,2-Dichlorobenzene-d4	5.0000	72.7	30 - 160	9.468	9.834143	-0.3661	N/A	
Nitrobenzene-d5	5.0000	101	30 - 160	10.563	10.56529	-0.0023	N/A	
2-Fluorobiphenyl	5.0000	96.4	30 - 160	14.148	14.15143	-0.0034	N/A	
2,4,6-Tribromophenol	7.5000	72.3	30 - 160	17.179	17.18517	-0.0062	N/A	
p-Terphenyl-d14	5.0000	105	30 - 160	21.657	21.66129	-0.0043	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory:	<u>Analytical Resources, LLC</u>	SDG/WO:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLB0249</u>	Instrument:	<u>NT18</u>
Calibration:	<u>GB00036</u>	Calibration Date:	<u>02/10/2023</u>

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
23A0032-11 (Solid)		Lab File ID: NT1802172315.D			Analyzed: 02/17/23 15:39			
2-Fluorophenol	747.88	69.8	27 - 120	7.165	7.249714	-0.0847	N/A	
Phenol-d5	747.88	73.1	29 - 120	8.711	8.809143	-0.0981	N/A	
2-Chlorophenol-d4	747.88	70.4	31 - 120	8.996	9.109285	-0.1133	N/A	
1,2-Dichlorobenzene-d4	498.59	58.7	32 - 120	9.717	9.834143	-0.1171	N/A	
Nitrobenzene-d5	498.59	78.4	30 - 120	10.439	10.56529	-0.1263	N/A	
2-Fluorobiphenyl	498.59	61.5	35 - 120	14.024	14.15143	-0.1274	N/A	
2,4,6-Tribromophenol	747.88	66.1	24 - 134	17.055	17.18517	-0.1302	N/A	
p-Terphenyl-d14	498.59	55.0	37 - 120	21.571	21.66129	-0.0903	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG/WO: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0060

Instrument: NT18

Calibration: GB00036

Calibration Date: 02/10/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
23A0032-11RE1 (Solid) Lab File ID: NT1802192314.D Analyzed: 02/19/23 17:39								
2-Fluorophenol	747.88	70.4	27 - 120	7.153	7.249714	-0.0967	N/A	
Phenol-d5	747.88	74.7	29 - 120	8.706	8.809143	-0.1031	N/A	
2-Chlorophenol-d4	747.88	72.3	31 - 120	8.991	9.109285	-0.1183	N/A	
1,2-Dichlorobenzene-d4	498.59	59.2	32 - 120	9.704	9.834143	-0.1301	N/A	
Nitrobenzene-d5	498.59	79.9	30 - 120	10.426	10.56529	-0.1393	N/A	
2-Fluorobiphenyl	498.59	62.7	35 - 120	14.013	14.15143	-0.1384	N/A	
2,4,6-Tribromophenol	747.88	65.9	24 - 134	17.044	17.18517	-0.1412	N/A	
p-Terphenyl-d14	498.59	56.6	37 - 120	21.568	21.66129	-0.0933	N/A	
23A0032-11RE2 (Solid) Lab File ID: NT1802192315.D Analyzed: 02/19/23 18:19								
2-Fluorophenol	747.88	64.3	27 - 120	7.145	7.249714	-0.1047	N/A	
Phenol-d5	747.88	68.8	29 - 120	8.698	8.809143	-0.1111	N/A	
2-Chlorophenol-d4	747.88	67.3	31 - 120	8.984	9.109285	-0.1253	N/A	
1,2-Dichlorobenzene-d4	498.59	55.6	32 - 120	9.704	9.834143	-0.1301	N/A	
Nitrobenzene-d5	498.59	74.7	30 - 120	10.426	10.56529	-0.1393	N/A	
2-Fluorobiphenyl	498.59	62.6	35 - 120	14.013	14.15143	-0.1384	N/A	
2,4,6-Tribromophenol	747.88	56.6	24 - 134	17.044	17.18517	-0.1412	N/A	
p-Terphenyl-d14	498.59	58.6	37 - 120	21.537	21.66129	-0.1243	N/A	
SLC0060-CCV1 (Solid) Lab File ID: NT1802192325K.D Analyzed: 02/20/23 01:01								
2-Fluorophenol	7.5000	95.7	50 - 150	7.137	7.249714	-0.1127	N/A	
Phenol-d5	7.5000	101	50 - 150	8.698	8.809143	-0.1111	N/A	
2-Chlorophenol-d4	7.5000	98.0	50 - 150	8.984	9.109285	-0.1253	N/A	
1,2-Dichlorobenzene-d4	5.0000	89.6	50 - 150	9.705	9.834143	-0.1291	N/A	
Nitrobenzene-d5	5.0000	111	50 - 150	10.434	10.56529	-0.1313	N/A	
2-Fluorobiphenyl	5.0000	91.0	50 - 150	14.013	14.15143	-0.1384	N/A	
2,4,6-Tribromophenol	7.5000	78.5	50 - 150	17.044	17.18517	-0.1412	N/A	
p-Terphenyl-d14	5.0000	97.1	50 - 150	21.53	21.66129	-0.1313	N/A	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0102

Instrument: NT10

Calibration: GB00018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SLB0102-SCV1)		(Solid)	Lab File ID: NT1023020711.D			Analyzed: 02/07/23 18:04			
1,4-Dichlorobenzene-d4	108369	8.96	105928	8.959	102	50 - 200	0.001	+/-0.50	
Naphthalene-d8	428903	11.422	423616	11.422	101	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	234560	15.004	230743	15.004	102	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	404758	18.018	394375	18.017	103	50 - 200	0.001	+/-0.50	
Chrysene-d12	321783	23.064	320650	23.063	100	50 - 200	0.001	+/-0.50	
Di-n-Octylphthalate-d4	505567	24.109	529382	24.109	96	50 - 200	0.000	+/-0.50	
Perylene-d12	325220	25.619	332844	25.61	98	50 - 200	0.009	+/-0.50	
Initial Cal Check (SLB0102-ICV1)		(Solid)	Lab File ID: NT1023020712.D			Analyzed: 02/07/23 18:42			
1,4-Dichlorobenzene-d4	100731	8.959	105928	8.959	95	50 - 200	0.000	+/-0.50	
Naphthalene-d8	402059	11.422	423616	11.422	95	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	222764	15.004	230743	15.004	97	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	378593	18.018	394375	18.017	96	50 - 200	0.001	+/-0.50	
Chrysene-d12	296375	23.064	320650	23.063	92	50 - 200	0.001	+/-0.50	
Di-n-Octylphthalate-d4	473500	24.109	529382	24.109	89	50 - 200	0.000	+/-0.50	
Perylene-d12	302737	25.619	332844	25.61	91	50 - 200	0.009	+/-0.50	
Low Cal Check (SLB0102-LCV1)		(Solid)	Lab File ID: NT1023020713.D			Analyzed: 02/07/23 19:20			
1,4-Dichlorobenzene-d4	111648	8.959	105928	8.959	105	50 - 200	0.000	+/-0.50	
Naphthalene-d8	430160	11.422	423616	11.422	102	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	227740	15.004	230743	15.004	99	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	408782	18.018	394375	18.017	104	50 - 200	0.001	+/-0.50	
Chrysene-d12	305959	23.056	320650	23.063	95	50 - 200	-0.007	+/-0.50	
Di-n-Octylphthalate-d4	480597	24.109	529382	24.109	91	50 - 200	0.000	+/-0.50	
Perylene-d12	318801	25.611	332844	25.61	96	50 - 200	0.001	+/-0.50	
Initial Cal Check (SLB0102-ICV2)		(Solid)	Lab File ID: NT1023020732.D			Analyzed: 02/08/23 07:24			
1,4-Dichlorobenzene-d4	110702	8.967	105928	8.959	105	50 - 200	0.008	+/-0.50	
Naphthalene-d8	429852	11.429	423616	11.422	101	50 - 200	0.007	+/-0.50	
Acenaphthene-d10	233715	15.012	230743	15.004	101	50 - 200	0.008	+/-0.50	
Phenanthrene-d10	388662	18.025	394375	18.017	99	50 - 200	0.008	+/-0.50	
Chrysene-d12	345176	23.071	320650	23.063	108	50 - 200	0.008	+/-0.50	
Di-n-Octylphthalate-d4	579750	24.109	529382	24.109	110	50 - 200	0.000	+/-0.50	
Perylene-d12	378227	25.626	332844	25.61	114	50 - 200	0.016	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0102

Instrument: NT10

Calibration: GB00018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Low Cal Check (SLB0102-LCV2)		(Solid)	Lab File ID: NT1023020733.D			Analyzed: 02/08/23 08:02			
1,4-Dichlorobenzene-d4	112491	8.967	105928	8.959	106	50 - 200	0.008	+/-0.50	
Naphthalene-d8	422326	11.422	423616	11.422	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	217652	15.005	230743	15.004	94	50 - 200	0.001	+/-0.50	
Phenanthrene-d10	376550	18.018	394375	18.017	95	50 - 200	0.001	+/-0.50	
Chrysene-d12	309079	23.072	320650	23.063	96	50 - 200	0.009	+/-0.50	
Di-n-Octylphthalate-d4	519094	24.109	529382	24.109	98	50 - 200	0.000	+/-0.50	
Perylene-d12	363898	25.626	332844	25.61	109	50 - 200	0.016	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLB0122

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: NT10
Calibration: GB00018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLB0122-ICV1)		(Solid)	Lab File ID: NT1023020902.D			Analyzed: 02/09/23 13:31			
1,4-Dichlorobenzene-d4	89503	8.838	94137	8.838	95	50 - 200	0.000	+/-0.50	
Naphthalene-d8	348104	11.286	355914	11.302	98	50 - 200	-0.016	+/-0.50	
Acenaphthene-d10	183525	14.869	186612	14.884	98	50 - 200	-0.015	+/-0.50	
Phenanthrene-d10	295489	17.89	300124	17.905	98	50 - 200	-0.015	+/-0.50	
Chrysene-d12	239590	22.959	272157	22.982	88	50 - 200	-0.023	+/-0.50	
Di-n-Octylphthalate-d4	404293	24.02	446924	24.035	90	50 - 200	-0.015	+/-0.50	
Perylene-d12	274336	25.483	314160	25.514	87	50 - 200	-0.031	+/-0.50	
Low Cal Check (SLB0122-LCV1)		(Solid)	Lab File ID: NT1023020903.D			Analyzed: 02/09/23 14:10			
1,4-Dichlorobenzene-d4	88206	8.83	94137	8.838	94	50 - 200	-0.008	+/-0.50	
Naphthalene-d8	328110	11.286	355914	11.302	92	50 - 200	-0.016	+/-0.50	
Acenaphthene-d10	167883	14.869	186612	14.884	90	50 - 200	-0.015	+/-0.50	
Phenanthrene-d10	283175	17.89	300124	17.905	94	50 - 200	-0.015	+/-0.50	
Chrysene-d12	207537	22.959	272157	22.982	76	50 - 200	-0.023	+/-0.50	
Di-n-Octylphthalate-d4	336602	24.012	446924	24.035	75	50 - 200	-0.023	+/-0.50	
Perylene-d12	245518	25.475	314160	25.514	78	50 - 200	-0.039	+/-0.50	
Blank (BLA0163-BLK1)		(Solid)	Lab File ID: NT1023020913.D			Analyzed: 02/09/23 20:39			
1,4-Dichlorobenzene-d4	59802	8.838	94137	8.838	64	50 - 200	0.000	+/-0.50	
Naphthalene-d8	220806	11.293	355914	11.302	62	50 - 200	-0.009	+/-0.50	
Acenaphthene-d10	107566	14.884	186612	14.884	58	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	179972	17.905	300124	17.905	60	50 - 200	0.000	+/-0.50	
Chrysene-d12	155797	22.974	272157	22.982	57	50 - 200	-0.008	+/-0.50	
Di-n-Octylphthalate-d4	260415	24.035	446924	24.035	58	50 - 200	0.000	+/-0.50	
Perylene-d12	184534	25.506	314160	25.514	59	50 - 200	-0.008	+/-0.50	
LCS (BLA0163-BS1)		(Solid)	Lab File ID: NT1023020914.D			Analyzed: 02/09/23 21:17			
1,4-Dichlorobenzene-d4	57963	8.838	94137	8.838	62	50 - 200	0.000	+/-0.50	
Naphthalene-d8	213576	11.294	355914	11.302	60	50 - 200	-0.008	+/-0.50	
Acenaphthene-d10	106174	14.884	186612	14.884	57	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	174132	17.905	300124	17.905	58	50 - 200	0.000	+/-0.50	
Chrysene-d12	151446	22.974	272157	22.982	56	50 - 200	-0.008	+/-0.50	
Di-n-Octylphthalate-d4	245924	24.035	446924	24.035	55	50 - 200	0.000	+/-0.50	
Perylene-d12	182858	25.506	314160	25.514	58	50 - 200	-0.008	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
Client: Anchor OEA, LLC
Sequence: SLB0122

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: NT10
Calibration: GB00018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS Dup (BLA0163-BSD1)		(Solid)	Lab File ID: NT1023020915.D			Analyzed: 02/09/23 21:56			
1,4-Dichlorobenzene-d4	58184	8.838	94137	8.838	62	50 - 200	0.000	+/-0.50	
Naphthalene-d8	216318	11.294	355914	11.302	61	50 - 200	-0.008	+/-0.50	
Acenaphthene-d10	108027	14.884	186612	14.884	58	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	175838	17.905	300124	17.905	59	50 - 200	0.000	+/-0.50	
Chrysene-d12	152764	22.974	272157	22.982	56	50 - 200	-0.008	+/-0.50	
Di-n-Octylphthalate-d4	243767	24.035	446924	24.035	55	50 - 200	0.000	+/-0.50	
Perylene-d12	180505	25.506	314160	25.514	57	50 - 200	-0.008	+/-0.50	
Reference (BLA0163-SRM1)		(Solid)	Lab File ID: NT1023020916.D			Analyzed: 02/09/23 22:35			
1,4-Dichlorobenzene-d4	59830	8.838	94137	8.838	64	50 - 200	0.000	+/-0.50	
Naphthalene-d8	217988	11.294	355914	11.302	61	50 - 200	-0.008	+/-0.50	
Acenaphthene-d10	108933	14.884	186612	14.884	58	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	180704	17.905	300124	17.905	60	50 - 200	0.000	+/-0.50	
Chrysene-d12	151159	22.975	272157	22.982	56	50 - 200	-0.007	+/-0.50	
Di-n-Octylphthalate-d4	245257	24.027	446924	24.035	55	50 - 200	-0.008	+/-0.50	
Perylene-d12	181537	25.506	314160	25.514	58	50 - 200	-0.008	+/-0.50	
Initial Cal Check (SLB0122-ICV2)		(Solid)	Lab File ID: NT1023020920.D			Analyzed: 02/10/23 01:09			
1,4-Dichlorobenzene-d4	94137	8.838	94137	8.838	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	355914	11.302	355914	11.302	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	186612	14.884	186612	14.884	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	300124	17.905	300124	17.905	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	272157	22.982	272157	22.982	100	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	446924	24.035	446924	24.035	100	50 - 200	0.000	+/-0.50	
Perylene-d12	314160	25.514	314160	25.514	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SLB0122-LCV2)		(Solid)	Lab File ID: NT1023020921.D			Analyzed: 02/10/23 01:47			
1,4-Dichlorobenzene-d4	84626	8.838	94137	8.838	90	50 - 200	0.000	+/-0.50	
Naphthalene-d8	309623	11.294	355914	11.302	87	50 - 200	-0.008	+/-0.50	
Acenaphthene-d10	155546	14.884	186612	14.884	83	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	260617	17.905	300124	17.905	87	50 - 200	0.000	+/-0.50	
Chrysene-d12	224354	22.974	272157	22.982	82	50 - 200	-0.008	+/-0.50	
Di-n-Octylphthalate-d4	366602	24.035	446924	24.035	82	50 - 200	0.000	+/-0.50	
Perylene-d12	264875	25.506	314160	25.514	84	50 - 200	-0.008	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLB0154

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: NT10
Calibration: GB00018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLB0154-ICV1)		(Solid)	Lab File ID: NT1023021002.D			Analyzed: 02/10/23 16:04			
1,4-Dichlorobenzene-d4	73741	8.714	73741	8.714	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	288014	11.16	288014	11.16	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	158505	14.719	158505	14.719	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	277023	17.717	277023	17.717	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	234791	22.779	234791	22.779	100	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	369178	23.832	369178	23.832	100	50 - 200	0.000	+/-0.50	
Perylene-d12	231074	25.218	231074	25.218	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SLB0154-LCV1)		(Solid)	Lab File ID: NT1023021003.D			Analyzed: 02/10/23 16:43			
1,4-Dichlorobenzene-d4	109365	8.714	73741	8.714	148	50 - 200	0.000	+/-0.50	
Naphthalene-d8	410189	11.16	288014	11.16	142	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	216039	14.719	158505	14.719	136	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	387942	17.717	277023	17.717	140	50 - 200	0.000	+/-0.50	
Chrysene-d12	308765	22.771	234791	22.779	132	50 - 200	-0.008	+/-0.50	
Di-n-Octylphthalate-d4	509739	23.832	369178	23.832	138	50 - 200	0.000	+/-0.50	
Perylene-d12	334593	25.218	231074	25.218	145	50 - 200	0.000	+/-0.50	
Initial Cal Blank (SLB0154-ICB1)		(Solid)	Lab File ID: NT1023021006.D			Analyzed: 02/10/23 18:39			
1,4-Dichlorobenzene-d4	83260	8.714	73741	8.714	113	50 - 200	0.000	+/-0.50	
Naphthalene-d8	316599	11.152	288014	11.16	110	50 - 200	-0.008	+/-0.50	
Acenaphthene-d10	164014	14.72	158505	14.719	103	50 - 200	0.001	+/-0.50	
Phenanthrene-d10	303006	17.717	277023	17.717	109	50 - 200	0.000	+/-0.50	
Chrysene-d12	236049	22.771	234791	22.779	101	50 - 200	-0.008	+/-0.50	
Di-n-Octylphthalate-d4	363497	23.832	369178	23.832	98	50 - 200	0.000	+/-0.50	
Perylene-d12	248190	25.21	231074	25.218	107	50 - 200	-0.008	+/-0.50	
Calibration Check (SLB0154-CCV1)		(Solid)	Lab File ID: NT1023021019.D			Analyzed: 02/11/23 02:59			
1,4-Dichlorobenzene-d4	67861	8.714	73741	8.714	92	50 - 200	0.000	+/-0.50	
Naphthalene-d8	267242	11.16	288014	11.16	93	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	145868	14.72	158505	14.719	92	50 - 200	0.001	+/-0.50	
Phenanthrene-d10	247644	17.717	277023	17.717	89	50 - 200	0.000	+/-0.50	
Chrysene-d12	213924	22.771	234791	22.779	91	50 - 200	-0.008	+/-0.50	
Di-n-Octylphthalate-d4	361428	23.824	369178	23.832	98	50 - 200	-0.008	+/-0.50	
Perylene-d12	235234	25.218	231074	25.218	102	50 - 200	0.000	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0195

Instrument: NT18

Calibration: GB00036

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SLB0195-SCV1)		(Water)	Lab File ID: NT1802102311.D			Analyzed: 02/10/23 23:06			
1,4-Dichlorobenzene-d4	145438	9.469	108764	9.469	134	50 - 200	0.000	+/-0.50	
Naphthalene-d8	551199	11.951	426299	11.951	129	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	292562	15.557	227355	15.549	129	50 - 200	0.008	+/-0.50	
Phenanthrene-d10	526860	18.577	406669	18.578	130	50 - 200	-0.001	+/-0.50	
Chrysene-d12	535596	23.562	387171	23.554	138	50 - 200	0.008	+/-0.50	
Di-n-Octylphthalate-d4	714503	24.568	477632	24.568	150	50 - 200	0.000	+/-0.50	
Perylene-d12	523305	26.295	377958	26.295	138	50 - 200	0.000	+/-0.50	
Initial Cal Blank (SLB0195-ICB1)		(Water)	Lab File ID: NT1802102312.D			Analyzed: 02/10/23 23:46			
1,4-Dichlorobenzene-d4	122636	9.468	108764	9.469	113	50 - 200	-0.001	+/-0.50	
Naphthalene-d8	450392	11.951	426299	11.951	106	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	236606	15.549	227355	15.549	104	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	430289	18.577	406669	18.578	106	50 - 200	-0.001	+/-0.50	
Chrysene-d12	396088	23.554	387171	23.554	102	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	416002	24.568	477632	24.568	87	50 - 200	0.000	+/-0.50	
Perylene-d12	360657	26.287	377958	26.295	95	50 - 200	-0.008	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLB0249

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: NT18
Calibration: GB00036

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLB0249-ICV1)		(Solid)	Lab File ID: NT1802172306.D			Analyzed: 02/17/23 08:32			
1,4-Dichlorobenzene-d4	90874	9.352	90874	9.352	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	389492	11.827	389492	11.827	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	208278	15.417	208278	15.417	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	368411	18.446	368411	18.446	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	371440	23.43	371440	23.43	100	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	512242	24.444	512242	24.444	100	50 - 200	0.000	+/-0.50	
Perylene-d12	350166	26.101	350166	26.101	100	50 - 200	0.000	+/-0.50	
LDW23-IT1224 (23A0032-05)		(Solid)	Lab File ID: NT1802172313.D			Analyzed: 02/17/23 14:18			
1,4-Dichlorobenzene-d4	198562	9.353	90874	9.352	219	50 - 200	0.001	+/-0.50	*
Naphthalene-d8	750760	11.828	389492	11.827	193	50 - 200	0.001	+/-0.50	
Acenaphthene-d10	407188	15.418	208278	15.417	196	50 - 200	0.001	+/-0.50	
Phenanthrene-d10	770722	18.446	368411	18.446	209	50 - 200	0.000	+/-0.50	*
Chrysene-d12	852076	23.438	371440	23.43	229	50 - 200	0.008	+/-0.50	*
Di-n-Octylphthalate-d4	1335362	24.452	512242	24.444	261	50 - 200	0.008	+/-0.50	*
Perylene-d12	868065	26.124	350166	26.101	248	50 - 200	0.023	+/-0.50	*
LDW23-SC1226B (23A0032-08)		(Solid)	Lab File ID: NT1802172314.D			Analyzed: 02/17/23 14:59			
1,4-Dichlorobenzene-d4	197079	9.352	90874	9.352	217	50 - 200	0.000	+/-0.50	*
Naphthalene-d8	757687	11.827	389492	11.827	195	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	431371	15.425	208278	15.417	207	50 - 200	0.008	+/-0.50	*
Phenanthrene-d10	883440	18.454	368411	18.446	240	50 - 200	0.008	+/-0.50	*
Chrysene-d12	855856	23.445	371440	23.43	230	50 - 200	0.015	+/-0.50	*
Di-n-Octylphthalate-d4	1344753	24.452	512242	24.444	263	50 - 200	0.008	+/-0.50	*
Perylene-d12	855423	26.14	350166	26.101	244	50 - 200	0.039	+/-0.50	*
LDW23-SC1212 (23A0032-11)		(Solid)	Lab File ID: NT1802172315.D			Analyzed: 02/17/23 15:39			
1,4-Dichlorobenzene-d4	184653	9.352	90874	9.352	203	50 - 200	0.000	+/-0.50	*
Naphthalene-d8	710300	11.827	389492	11.827	182	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	408175	15.425	208278	15.417	196	50 - 200	0.008	+/-0.50	
Phenanthrene-d10	848771	18.453	368411	18.446	230	50 - 200	0.007	+/-0.50	*
Chrysene-d12	1058444	23.469	371440	23.43	285	50 - 200	0.039	+/-0.50	*
Di-n-Octylphthalate-d4	1495586	24.467	512242	24.444	292	50 - 200	0.023	+/-0.50	*
Perylene-d12	796243	26.163	350166	26.101	227	50 - 200	0.062	+/-0.50	*



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLC0060

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: NT18
Calibration: GB00036

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLC0060-ICV1)		(Solid)	Lab File ID: NT1802192303.D			Analyzed: 02/19/23 12:57			
1,4-Dichlorobenzene-d4	118224	9.34	118224	9.34	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	457373	11.816	457373	11.816	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	241384	15.414	241384	15.414	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	431840	18.435	431840	18.435	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	407698	23.427	407698	23.427	100	50 - 200	0.000	+/-0.50	
Di-n-Octylphthalate-d4	661131	24.441	661131	24.441	100	50 - 200	0.000	+/-0.50	
Perylene-d12	411276	26.105	411276	26.105	100	50 - 200	0.000	+/-0.50	
LDW23-IT1224 (23A0032-05RE1)		(Solid)	Lab File ID: NT1802192311.D			Analyzed: 02/19/23 15:38			
1,4-Dichlorobenzene-d4	110970	9.348	118224	9.34	94	50 - 200	0.008	+/-0.50	
Naphthalene-d8	424927	11.816	457373	11.816	93	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	226461	15.414	241384	15.414	94	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	427003	18.435	431840	18.435	99	50 - 200	0.000	+/-0.50	
Chrysene-d12	452613	23.434	407698	23.427	111	50 - 200	0.007	+/-0.50	
Di-n-Octylphthalate-d4	731113	24.441	661131	24.441	111	50 - 200	0.000	+/-0.50	
Perylene-d12	430259	26.121	411276	26.105	105	50 - 200	0.016	+/-0.50	
LDW23-SC1226B (23A0032-08RE1)		(Solid)	Lab File ID: NT1802192313.D			Analyzed: 02/19/23 16:58			
1,4-Dichlorobenzene-d4	110742	9.348	118224	9.34	94	50 - 200	0.008	+/-0.50	
Naphthalene-d8	437574	11.816	457373	11.816	96	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	240957	15.414	241384	15.414	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	473792	18.443	431840	18.435	110	50 - 200	0.008	+/-0.50	
Chrysene-d12	456709	23.442	407698	23.427	112	50 - 200	0.015	+/-0.50	
Di-n-Octylphthalate-d4	738505	24.441	661131	24.441	112	50 - 200	0.000	+/-0.50	
Perylene-d12	397988	26.129	411276	26.105	97	50 - 200	0.024	+/-0.50	
LDW23-SC1212 (23A0032-11RE1)		(Solid)	Lab File ID: NT1802192314.D			Analyzed: 02/19/23 17:39			
1,4-Dichlorobenzene-d4	104776	9.347	118224	9.34	89	50 - 200	0.007	+/-0.50	
Naphthalene-d8	410263	11.816	457373	11.816	90	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	233156	15.414	241384	15.414	97	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	474860	18.442	431840	18.435	110	50 - 200	0.007	+/-0.50	
Chrysene-d12	576410	23.458	407698	23.427	141	50 - 200	0.031	+/-0.50	
Di-n-Octylphthalate-d4	815803	24.456	661131	24.441	123	50 - 200	0.015	+/-0.50	
Perylene-d12	324801	26.144	411276	26.105	79	50 - 200	0.039	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E

Laboratory: Analytical Resources, LLC
Client: Anchor OEA, LLC
Sequence: SLC0060

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: NT18
Calibration: GB00036

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-SC1212 (23A0032-11RE2)		(Solid)	Lab File ID: NT1802192315.D			Analyzed: 02/19/23 18:19			
1,4-Dichlorobenzene-d4	113789	9.34	118224	9.34	96	50 - 200	0.000	+/-0.50	
Naphthalene-d8	446021	11.816	457373	11.816	98	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	234976	15.414	241384	15.414	97	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	448299	18.435	431840	18.435	104	50 - 200	0.000	+/-0.50	
Chrysene-d12	428544	23.434	407698	23.427	105	50 - 200	0.007	+/-0.50	
Di-n-Octylphthalate-d4	723574	24.441	661131	24.441	109	50 - 200	0.000	+/-0.50	
Perylene-d12	403893	26.113	411276	26.105	98	50 - 200	0.008	+/-0.50	
Calibration Check (SLC0060-CCV1)		(Water)	Lab File ID: NT1802192325K.D			Analyzed: 02/20/23 01:01			
1,4-Dichlorobenzene-d4	119934	9.348	118224	9.34	101	50 - 200	0.008	+/-0.50	
Naphthalene-d8	470167	11.816	457373	11.816	103	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	247389	15.414	241384	15.414	102	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	450127	18.435	431840	18.435	104	50 - 200	0.000	+/-0.50	
Chrysene-d12	425953	23.435	407698	23.427	104	50 - 200	0.008	+/-0.50	
Di-n-Octylphthalate-d4	675695	24.441	661131	24.441	102	50 - 200	0.000	+/-0.50	
Perylene-d12	300237	26.098	411276	26.105	73	50 - 200	-0.007	+/-0.50	



HOLDING TIME SUMMARY

Analysis: EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-IT1224 23A0032-05	01/03/23 13:21	01/03/23 16:57	01/10/23 11:20	6	365	02/17/23 14:18	38	40	
LDW23-IT1224 23A0032-05RE1	01/03/23 13:21	01/03/23 16:57	01/10/23 11:20	6	365	02/19/23 15:38	40	40	
LDW23-SC1226B 23A0032-08	01/03/23 12:35	01/03/23 16:57	01/10/23 11:20	6	365	02/17/23 14:59	38	40	
LDW23-SC1226B 23A0032-08RE1	01/03/23 12:35	01/03/23 16:57	01/10/23 11:20	6	365	02/19/23 16:58	40	40	
LDW23-SC1212 23A0032-11	01/03/23 14:01	01/03/23 16:57	01/10/23 11:20	6	365	02/17/23 15:39	38	40	
LDW23-SC1212 23A0032-11RE1	01/03/23 14:01	01/03/23 16:57	01/10/23 11:20	6	365	02/19/23 17:39	40	40	
LDW23-SC1212 23A0032-11RE2	01/03/23 14:01	01/03/23 16:57	01/10/23 11:20	6	365	02/19/23 18:19	40	40	

* Indicates hold time exceedance.



METHOD DETECTION AND REPORTING LIMITS

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: NT10

Analyte	MDL	RL	Units
Phenol	4.4	20.0	ug/kg
4-Methylphenol	7.4	20.0	ug/kg
Naphthalene	4.2	20.0	ug/kg
2-Methylnaphthalene	4.5	20.0	ug/kg
Acenaphthylene	6.2	20.0	ug/kg
Dimethylphthalate	4.4	20.0	ug/kg
Acenaphthene	5.2	20.0	ug/kg
Dibenzofuran	14.1	20.0	ug/kg
Fluorene	14.6	20.0	ug/kg
Phenanthrene	8.7	20.0	ug/kg
Anthracene	7.2	20.0	ug/kg
Fluoranthene	6.1	20.0	ug/kg
Pyrene	5.7	20.0	ug/kg
Butylbenzylphthalate	9.4	20.0	ug/kg
Benzo(a)anthracene	6.0	20.0	ug/kg
Chrysene	6.1	20.0	ug/kg
bis(2-Ethylhexyl)phthalate	5.5	50.0	ug/kg
Benzo(a)fluoranthene, Total	10.0	40.0	ug/kg
Benzo(a)pyrene	4.2	20.0	ug/kg
Indeno(1,2,3-cd)pyrene	14.7	20.0	ug/kg
Dibenzo(a,h)anthracene	17.2	20.0	ug/kg
Benzo(g,h,i)perylene	13.6	20.0	ug/kg



METHOD DETECTION AND REPORTING LIMITS

EPA 8270E

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: NT18

Analyte	MDL	RL	Units
Phenol	4.4	20.0	ug/kg
4-Methylphenol	7.4	20.0	ug/kg
Naphthalene	4.2	20.0	ug/kg
2-Methylnaphthalene	4.5	20.0	ug/kg
Acenaphthylene	6.2	20.0	ug/kg
Dimethylphthalate	4.4	20.0	ug/kg
Acenaphthene	5.2	20.0	ug/kg
Dibenzofuran	14.1	20.0	ug/kg
Fluorene	14.6	20.0	ug/kg
Phenanthrene	8.7	20.0	ug/kg
Anthracene	7.2	20.0	ug/kg
Fluoranthene	6.1	20.0	ug/kg
Pyrene	5.7	20.0	ug/kg
Butylbenzylphthalate	9.4	20.0	ug/kg
Benzo(a)anthracene	6.0	20.0	ug/kg
Chrysene	6.1	20.0	ug/kg
bis(2-Ethylhexyl)phthalate	5.5	50.0	ug/kg
Benzo(a)fluoranthenes, Total	10.0	40.0	ug/kg
Benzo(a)pyrene	4.2	20.0	ug/kg
Indeno(1,2,3-cd)pyrene	14.7	20.0	ug/kg
Dibenzo(a,h)anthracene	17.2	20.0	ug/kg
Benzo(g,h,i)perylene	13.6	20.0	ug/kg



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: NA

Chemical: Tributyl Phosphate

Manufacturer: Chemservice

Product #: 0-916

Lot #: 59-57A

Purity: 99%

Analyst: VFB

Element: B000954



Description: SVOC 4,4 DDT Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 23-Sep-13
Solvent: N/A Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 11:46 by JZ
Vendor: Chem Service Lot #: 198-128A
Vendor Catalog #:

Comments

Neat, Purity @ 99.2%. (ARI#: 790A)

Analyte	CAS Number	Concentration	Units
4,4'-DDT	50-29-3	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 4,4' DDT

Manufacturer: Chem Service

Product #: _____

Lot #: 198-128A

Purity: 99.2%

Analyst: AS



Description: SVOC alpha-Terpineol Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: N/A Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 12:13 by JZ
Vendor: ACROS Organics Lot #: AD16481201
Vendor Catalog #:

Comments

Neat, Purity @ 98%. (ARI#: I1582A)

Analyte	CAS Number	Concentration	Units
alpha-Terpineol	98-55-5	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: alpha-Terpineol

Manufacturer: Acros Organics

Product #: _____

Lot #: AD6481201

Purity: 98%

Analyst: 12



Description: SVOA Dibutyl Phenyl phosphate Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: NA Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 15:45 by JZ
Vendor: Monsanto Lot #: N/A
Vendor Catalog #:

Comments

Neat, Purity @ 98.9%.

Analyte	CAS Number	Concentration	Units
Dibutyl Phenyl Phosphate	2528-36-1	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Dibutyl Phenyl Phosphate

Manufacturer: Monsanto

Product #: N/A

Lot #: N/A

Purity: 98.9%

Analyst: AD



Description: SVOC Triphenyl Phosphate Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: NA Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 15:59 by JZ
Vendor: Aldrich Lot #: 04902CM
Vendor Catalog #:

Comments

Neat, Purity @ 99%.

Analyte	CAS Number	Concentration	Units
Triphenyl Phosphate	115-86-6	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Triphenyl phosphate

Manufacturer: Aldrich

Product #: _____

Lot #: 04902CM

Purity: 99%

Analyst: [Signature]



Description:	SVOC Butylated Hydroxytoluene	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 16:18 by JZ
Vendor:	SIGMA	Lot #:	39F-0197
Vendor Catalog #:			

Comments

neat,Purity @ 99.9%.

Analyte	CAS Number	Concentration	Units
Butylated Hydroxytoluene	128-37-0	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Bulkyated Hydroxytoluene

Manufacturer: Sigma

Product #: _____

Lot #: 39F-0197

Purity: 99.8%

Analyst: AB



Description: SVOC Butyl Diphenyl Phosphate Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: NA Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 17:02 by JZ
Vendor: Monsanto Lot #: N/A
Vendor Catalog #:

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Butyl Diphenyl Phosphate	2752-95-6	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Butyl Diphenyl Phosphate

Manufacturer: Monsanto

Product #: NA

Lot #: NA

Purity: 99%

Analyst: [Signature]



Description: SVOC 2,4-Dinitrophenol
 Standard Type: Calibration Stan
 Solvent: NA
 Final Volume (mls): 1
 Vials: 1
 Vendor: SIGMA
 Vendor Catalog #:

Expires: 31-Dec-29
 Prepared: 25-Sep-13
 Prepared By: Jianqing Zhou
 Department: Organics
 Last Edit: 25-Sep-13 13:45 by JZ
 Lot #: 65H5021

Comments

Neat, Purity @ 90-95%. (ARI#: 0466)

Analyte	CAS Number	Concentration	Units
2,4-Dinitrophenol	51-28-5	1000000	ug/mL

B001941

SVOA 2,4-Dinitrophenol
 Expires 12/31/2029
 Prepared By Jianqing Zhou 9/25/2013



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 2,4-Dinitrophenol

Manufacturer: Sigma

Product #: _____

Lot #: 644 5021

Purity: 90.29%

Analyst: AB



Description:	SVOC Benzoic Acid	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:23 by JZ
Vendor:	ACROS Organics	Lot #:	A0224339
Vendor Catalog #:			

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Benzoic acid	65-85-0	1000000	ug/mL

B001945

SVOC Benzoic Acid
Expires 12/31/2029

Prepared By Jianqing Zhou 12/31/2012

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Benzoic Acid

Manufacturer: ACROS Organics

Product #: _____

Lot #: A0224339

Purity: 98%

Analyst: AB



Description:	SVOC 4,6-Dinitro-2-Methylphenol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	25-Sep-13
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:37 by JZ
Vendor:	Chem Service	Lot #:	179-31A
Vendor Catalog #:			

Comments

Neat, Purity @ 99%. (ARI#: 009A)

Analyte	CAS Number	Concentration	Units
4,6-Dinitro-2-methylphenol	534-52-1	1000000	ug/mL

B001948

SVOA 4,6-Dinitro-2-Methylphenol
Expires 12/31/2029
Prepared By Jianqing Zhou 9/25/2013

Reviewed By _____ Date _____



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 4,6-Dinitro-2-Methylphenol

Manufacturer: Chem Service

Product #: _____

Lot #: 179-31A

Purity: 99%

Analyst: RB



Description:	SVOA 1-Methylnaphthalene	Expires:	02-Apr-14
Standard Type:	Analyte Spike	Prepared:	13-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	04-Oct-13 18:32 by JZ
Vendor:	Chem Service	Lot #:	62-5B
Vendor Catalog #:			

Comments

Neat, Purity @ 99%

Analyte	CAS Number	Concentration	Units
1-Methylnaphthalene	90-12-0	1000000	ug/mL



B002054
SVOA 1-Methylnaphthalene
Solvent / Lot: NA
Prep: 12/13/2012 by JZ
Exp: 12/31/2029
Location:



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 1-Methyl naphthalene

Manufacturer: Chem Service

Product #: 0787

Lot #: 62-53

Purity: 99%

Analyst: AB



Description:	SVOA Benzidine	Expires:	31-Dec-29
Standard Type:	Analyte Spike	Prepared:	15-Oct-13
Solvent:	N/A	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	15-Oct-13 12:07 by JZ
Vendor:	SIGMA	Lot #:	18C0024
Vendor Catalog #:			

Comments

Purity @ 95%. ARI#: 0467.

Analyte	CAS Number	Concentration	Units
Benzidine	92-87-5	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Benzidine

Manufacturer: Sigma

Product #: B-3503

Lot #: 18C0024

Purity: 95%

Analyst: B.

Certificate of Analysis

Product Name: 1,2,4,5-Tetrachlorobenzene
Product Description: 98%
Product Brand: Sigma-Aldrich
Product Number: 131857
Molecular Weight: 215.89
CAS Number: 95-94-3

TEST

APPEARANCE
INFRARED SPECTRUM

GAS LIQUID

QUALITY CONTROL

SPECIFICATION

WHITE POWDER, CHIPS OR CRYSTALS
CONFORMS TO STRUCTURE.

97.5% (MINIMUM)

LOT 19309JR RESULTS

WHITE CHIPS
CONFORMS TO STRUCTURE AND
STANDARD AS
ILLUSTRATED ON PAGE 1011C OF EDITION
I,
VOLUME 1 OF "THE ALDRICH LIBRARY OF
FT-IR
SPECTRA".
99.9 %
JULY 1997



Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

F09172

SVOC 1,2,4,5-Tetrachlorobenzene
Expires 12/31/2079
Prepared By Joshua Rains 10/6/2017

Certificate of Composition - Analytical Standard

BASE STOCK

Product no.: 22523051
Lot no.: LRAC9813
Expiry Date: May 2023
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: Dichloromethane
Certificate version: LRAC9813.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

J005199

SVOA-ABN BASE STOCK-200-800ug/ml
 Expires 5/31/2023
 Prepared By Jiangqing Zhou 5/18/2021

Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
3,3'-DICHLOROBENZIDINE CAS# 91-94-1	802	µg/mL	99.9	LC27068
2,4-DINITROTOLUENE CAS# 121-14-2	802	µg/mL	97.8	LB46632
2,6-DINITROTOLUENE CAS# 606-20-2	801	µg/mL	99.9	LB79891
HEXACHLOROCYCLOPENTADIENE CAS# 77-47-4	802	µg/mL	96.0	LB95525
N-NITROSODIMETHYLAMINE CAS# 62-75-9	801	µg/mL	95.0	2019-030598 5
PERYLENE CAS# 198-55-0	201	µg/mL	99.6	04101PG
ANILINE CAS# 62-53-3	803	µg/mL	100.0	10126MG
4-CHLOROANILINE CAS# 106-47-8	803	µg/mL	100.0	MKBZ6909V
2-NITROANILINE CAS# 88-74-4	802	µg/mL	99.9	LC05068
3-NITROANILINE CAS# 99-09-2	802	µg/mL	99.9	LC09264
4-NITROANILINE CAS# 100-01-6	802	µg/mL	99.9	LC11400
PYRIDINE (LOW WATER) CAS# 110-86-1	802	µg/mL	100.0	SHBJ9218

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.



Health and safety information:

All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Certificate issue date:

12-May-2021



Andy Ommen - QC Manager



Mark Pooler - QA Supervisor

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAC9813.01	12-May-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.



Certificate of Composition - Analytical Standard

ACID STOCK

Product no.: 22523046
Lot no.: LRAC9812
Expiry Date: May 2023
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: Dichloromethane
Certificate version: LRAC9812.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

J005200
 SVOA-ABN ACID STOCK-200-800ug/ml
 Solvent / Lot: DCM
 Prep: 5/18/2021 by JZ
 Exp: 5/31/2023
 Location:

 5/18/21

Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
2,4-DIMETHYLPHENOL CAS# 105-67-9	802	µg/mL	99.9	LB88935
2,4-DICHLOROPHENOL CAS# 120-83-2	802	µg/mL	100.0	BCBZ6787
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	802	µg/mL	99.9	JS00008
2,4-DINITROPHENOL CAS# 51-28-5	1806	µg/mL	75.9	MKBP5833V
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	803	µg/mL	98.7	LB82983
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	801	µg/mL	99.9	JS00013
4-NITROPHENOL CAS# 100-02-7	801	µg/mL	99.9	LC10889
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	1804	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	803	µg/mL	98.7	MKCK8156
BENZOIC ACID CAS# 65-85-0	1805	µg/mL	99.9	LC16514

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.





CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31493 **Lot No.:** A0167617

Description : CLP 04.1 BNA Surrogate Mix
CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2024 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

J005610

CLP 04.1 BNA SURR MIX
Expires 9/30/2024
Prepared By Jianqing Zhou 5/26/2021

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	2-Fluorophenol	1,506.0 µg/mL	+/-	8.9452	µg/mL	Gravimetric
	CAS # 367-12-4 (Lot STBF3761V)		+/-	43.9882	µg/mL	Unstressed
	Purity 99%		+/-	53.3632	µg/mL	Stressed
2	Phenol-d6	1,512.0 µg/mL	+/-	8.9808	µg/mL	Gravimetric
	CAS # 13127-88-3 (Lot PR-31658)		+/-	44.1635	µg/mL	Unstressed
	Purity 99%		+/-	53.5758	µg/mL	Stressed
3	2-Chlorophenol-d4	1,502.0 µg/mL	+/-	8.9214	µg/mL	Gravimetric
	CAS # 93951-73-6 (Lot PR-30568)		+/-	43.8714	µg/mL	Unstressed
	Purity 99%		+/-	53.2214	µg/mL	Stressed
4	1,2-Dichlorobenzene-d4	1,006.0 µg/mL	+/-	5.9753	µg/mL	Gravimetric
	CAS # 2199-69-1 (Lot M-2097)		+/-	29.3839	µg/mL	Unstressed
	Purity 99%		+/-	35.6463	µg/mL	Stressed
5	Nitrobenzene-d5	1,002.0 µg/mL	+/-	5.9516	µg/mL	Gravimetric
	CAS # 4165-60-0 (Lot PR-29940B)		+/-	29.2671	µg/mL	Unstressed
	Purity 99%		+/-	35.5046	µg/mL	Stressed
6	2-Fluorobiphenyl	1,002.0 µg/mL	+/-	5.9516	µg/mL	Gravimetric
	CAS # 321-60-8 (Lot 00019169)		+/-	29.2671	µg/mL	Unstressed
	Purity 99%		+/-	35.5046	µg/mL	Stressed
7	2,4,6-Tribromophenol	1,502.0 µg/mL	+/-	8.9214	µg/mL	Gravimetric
	CAS # 118-79-6 (Lot S55013V)		+/-	43.8714	µg/mL	Unstressed
	Purity 99%		+/-	53.2214	µg/mL	Stressed

8	p-Terphenyl-d14	1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
	CAS # 1718-51-0	(Lot PR-30504)	+/- 29.2671	µg/mL	Unstressed
	Purity 99%		+/- 35.5046	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
 30m x 0.25mm x 0.25µm
 Rtx-5 (cat.#10223)

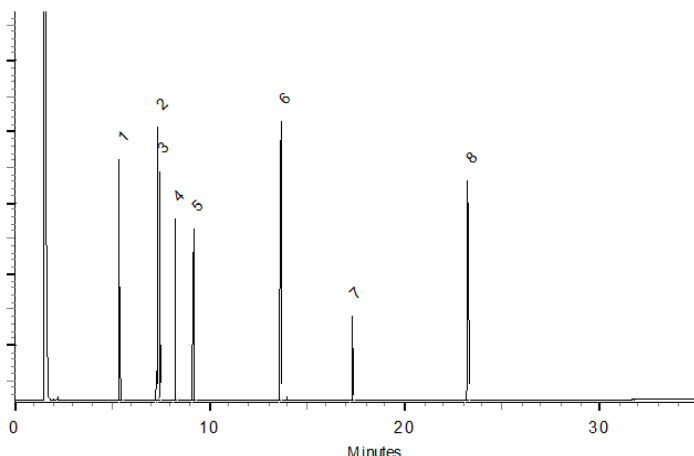
Carrier Gas:
 hydrogen-constant pressure 10 psi.

Temp. Program:
 40°C (hold 2 min.) to 330°C
 @ 10°C/min. (hold 10 min.)

Inj. Temp:
 250°C

Det. Temp:
 330°C

Det. Type:
 FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


 Tom Suckar - Mix Technician

Date Mixed: 29-Dec-2020 **Balance:** B345965662


 Justine Albertson - Operations Tech-ARM QC

Date Passed: 31-Dec-2020

Manufactured under Restek's ISO 9001:2015
 Registered Quality System
 Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Certificate of Analysis

J008074

SVOA PAH STD 2000ug/ml
 Expires 6/30/2023
 Prepared By Joshua Rains 8/5/2021

Product Name: PAH Standard

Product Number: US-106N-1

Lot Number: 0006540449

Lot Issue Date: 11-Jun-2020

Expiration Date: 30-Jun-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
acenaphthene	000083-32-9	RM10879	2008 ± 10 µg/mL
acenaphthylene	000208-96-8	RM10891	2003 ± 10 µg/mL
anthracene	000120-12-7	RM14212	2006 ± 10 µg/mL
benz[a]anthracene	000056-55-3	RM16072	2006 ± 10 µg/mL
benzo[b]fluoranthene	000205-99-2	RM14571	2005 ± 10 µg/mL
benzo[k]fluoranthene	000207-08-9	RM14321	2009 ± 10 µg/mL
benzo[ghi]perylene	000191-24-2	RM15761	2008 ± 10 µg/mL
benzo[a]pyrene	000050-32-8	RM12669	2009 ± 10 µg/mL
chrysene	000218-01-9	RM12260	2009 ± 10 µg/mL
dibenz[a,h]anthracene	000053-70-3	RM06786	2009 ± 10 µg/mL
fluoranthene	000206-44-0	RM12277	2004 ± 10 µg/mL
fluorene	000086-73-7	RM09441	2009 ± 10 µg/mL
indeno[1,2,3-cd]pyrene	000193-39-5	RM14192	2009 ± 10 µg/mL
naphthalene	000091-20-3	NT00970	2008 ± 10 µg/mL
phenanthrene	000085-01-8	RM10495	2009 ± 10 µg/mL
pyrene	000129-00-0	RM03479	2008 ± 10 µg/mL

Matrix: methylene chloride/benzene (1:1)



ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/



ISO 17025 Cert
No. AT-1937

Certificate of Analysis

Product Number: US-106N-1

Lot Number: 0006540449

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:



Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 2 of 2

www.agilent.com/quality/



ISO 17025 Cert
No. AT-1937

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244

Lot Number: CL16062

Description: Benzidines Standard

Certification Date: November 19, 2020

Storage: 4 °C

Expiration Date: November 30, 2030

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 2.740%
3,3'-Dichlorobenzidine	91-94-1	2000	± 3.229%

J008310

Benzidines std @2000ug/ml
Expires 11/30/2030
Prepared By Van Spohn 8/12/2021

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com

Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. Quality Standards: Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

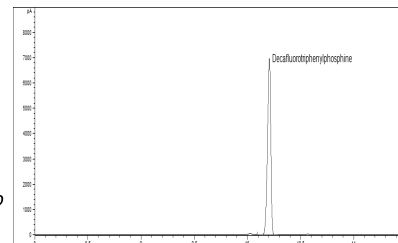


Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis - Certified Reference Material

Decafluorotriphenylphosphine solution

Product no.: 48724-U
Lot no.: LRAD0628
Expiry Date: October 2024
Manufacturing Date: September 2021
Storage: ROOM TEMPERATURE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD0628.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

Analyte	Certified Value	Units	Raw Material Purity, %	Raw Material Lot
DFTPP CAS# 5074-71-5	25.2 ± 2.6	mg/mL	97.0	10220909

ASSAY Method

METHOD: GC (BELLEFONTE)

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness

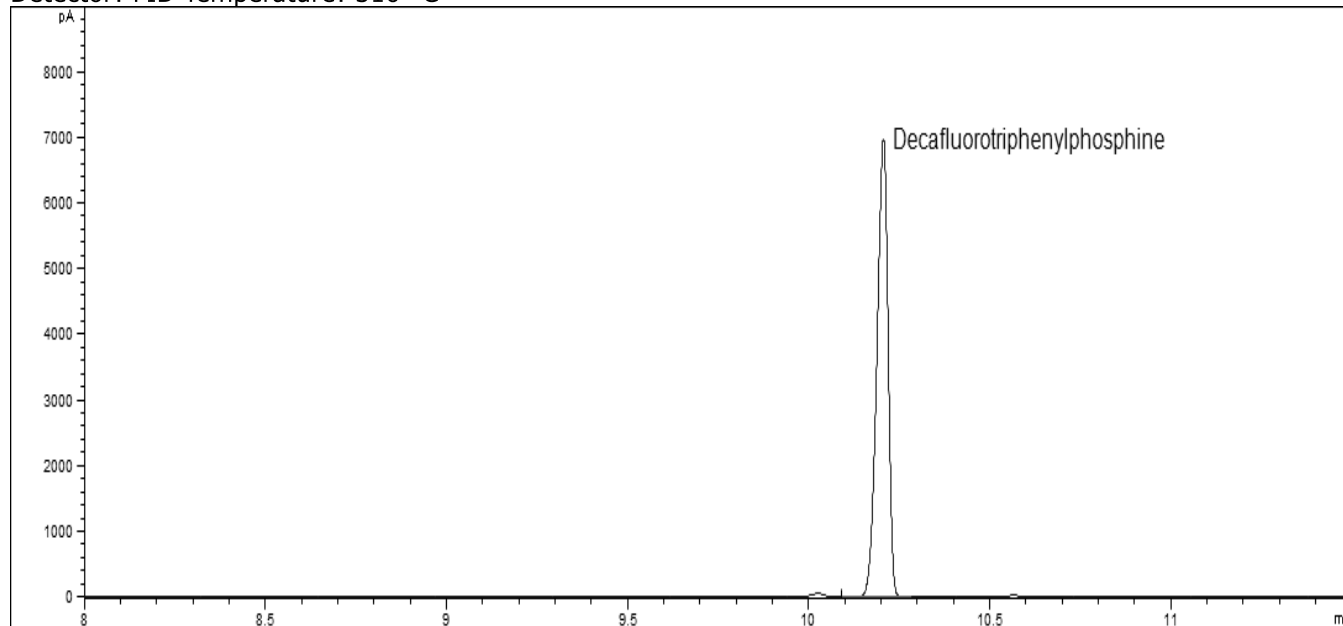
Carrier Gas: H₂ Flow Rate: 4.3 mL/min

Inlet Temperature: 250 °C Injection Volume: 1 µL

Injection Mode: 25:1

Temperature Program: 120 °C (Hold 0 min) @ 12 °C/min to 260 °C (Hold 0 min)

Detector: FID Temperature: 310 °C



Elution details:

EO	RT(MIN)	ANALYTE
1	10.206	Decafluorotriphenylphosphine

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Minimum sample size: 1 µL

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 30-Sep-2021



Andy Ommen - QC Manager

Scott Stetler - QA Manager

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment:

Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD0628.01	30-Sep-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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The life science business of Merck KGaA, Darmstadt, Germany
operates as MilliporeSigma in the US and Canada.



Certificate of Analysis

Produced by Phenova

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101246

Lot Number: CL16693

Description: Benzoic Acid

Certification Date: May 6, 2021

Storage: 4 °C

Expiration Date: April 30, 2031

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzoic acid	65-85-0	2000	± 4.383%

K3238



Reference Material Producer
Certificate No. 2427.02



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Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

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1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 25 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).
$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.
10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101443

Lot Number: CL17696

Description: Aniline

Certification Date: December 14, 2021

Storage: 4 °C

Expiration Date: December 31, 2029

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aniline	62-53-3	1000	± 0.760%

K 3239



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3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = k \sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
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References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty In Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



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Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Certified Values

Analyte	Units	Certified ^{1,4} Value
1,2,4-Trichlorobenzene	µg/Kg	1477 ± 181
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	1625 ± 292
1-Chloronaphthalene	µg/Kg	2809 ± 84
2,3-Dimethylphenol	µg/Kg	4552 ± 137
2,4,5-Trichlorophenol	µg/Kg	3438 ± 245
2,4,6-Trichlorophenol	µg/Kg	2194 ± 251
2,4-Dichlorophenol	µg/Kg	6991 ± 394
2,4-Dimethylphenol	µg/Kg	6357 ± 879
2,4-Dinitrophenol	µg/Kg	2922 ± 523
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	3318 ± 442
2,6-Dichlorophenol	µg/Kg	4578 ± 874
2,6-Dimethylphenol	µg/Kg	7582 ± 228
2-Chloronaphthalene	µg/Kg	2223 ± 168
2-Chlorophenol	µg/Kg	1678 ± 202
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	5148 ± 685
2-Methylphenol (o-Cresol)	µg/Kg	6004 ± 573
2-Nitrophenol	µg/Kg	6456 ± 383
3,4-Dimethylphenol	µg/Kg	7185 ± 216
3+4-Methylphenol (m+p-Cresol)	µg/Kg	8033 ± 1613
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	7169 ± 310
4-Chloro-3-methylphenol	µg/Kg	2071 ± 110
4-Chlorophenyl phenylether	µg/Kg	2052 ± 113
4-Methylphenol (p-Cresol)	µg/Kg	6617 ± 1371
4-Nitrophenol	µg/Kg	6812 ± 595
Acenaphthene	µg/Kg	5489 ± 380



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Acenaphthylene	µg/Kg	1948 ± 240
Anthracene	µg/Kg	2866 ± 237
Benzo(a)anthracene	µg/Kg	5751 ± 552
Benzo(a)pyrene	µg/Kg	5902 ± 612
Benzo(b)fluoranthene	µg/Kg	3010 ± 409
Benzo(b+k)fluoranthene	µg/Kg	6534 ± 196
Benzo(g,h,i)perylene	µg/Kg	1380 ± 136
Benzo(k)fluoranthene	µg/Kg	2215 ± 237
Butyl benzyl phthalate	µg/Kg	3511 ± 384
Carbazole	µg/Kg	5412 ± 407
Chrysene	µg/Kg	1477 ± 72
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	2905 ± 321
Dibenzo(a,h)anthracene	µg/Kg	3420 ± 302
Dibenzofuran	µg/Kg	6130 ± 253
Dimethyl phthalate	µg/Kg	4537 ± 250
Di-n-butyl phthalate	µg/Kg	1721 ± 154
Di-n-octyl phthalate	µg/Kg	2744 ± 288
Fluoranthene	µg/Kg	2497 ± 222
Fluorene	µg/Kg	3724 ± 222
Hexachlorobutadiene	µg/Kg	1877 ± 245
Indeno(1,2,3-cd) pyrene	µg/Kg	3914 ± 409
Isophorone	µg/Kg	1615 ± 170
Naphthalene	µg/Kg	4458 ± 480
Nitrobenzene	µg/Kg	3539 ± 266
n-Nitrosodimethylamine	µg/Kg	1580 ± 402
n-Nitrosodiphenylamine	µg/Kg	2854 ± 379
Pentachlorophenol	µg/Kg	3411 ± 358
Phenanthrene	µg/Kg	5052 ± 385
Phenol	µg/Kg	2660 ± 184
Pyrene	µg/Kg	2964 ± 256
Pyridine	µg/Kg	1008 ± 30

Informational Values



Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

<i>Analyte</i>	<i>Units</i>	<i>Suggested Acceptance Windows</i>	<i>Standard Deviation</i>
1,2,4-Trichlorobenzene	µg/Kg	148 to 2853	459
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	163 to 3440	605
1-Chloronaphthalene	µg/Kg	1123 to 4494	562
2,3-Dimethylphenol	µg/Kg	1821 to 7284	910
2,4,5-Trichlorophenol	µg/Kg	1003 to 5872	811
2,4,6-Trichlorophenol	µg/Kg	640 to 3748	518
2,4-Dichlorophenol	µg/Kg	2391 to 11591	1533
2,4-Dimethylphenol	µg/Kg	0.00 to 13959	2534
2,4-Dinitrophenol	µg/Kg	1169 to 4675	584
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	1248 to 5388	690
2,6-Dichlorophenol	µg/Kg	1831 to 7324	916
2,6-Dimethylphenol	µg/Kg	3033 to 12132	1516
2-Chloronaphthalene	µg/Kg	748 to 3699	492
2-Chlorophenol	µg/Kg	415 to 2942	421
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	0.00 to 10347	1733
2-Methylphenol (o-Cresol)	µg/Kg	1306 to 10702	1566
2-Nitrophenol	µg/Kg	1534 to 11379	1641
3,4-Dimethylphenol	µg/Kg	2874 to 11495	1437
3+4-Methylphenol (m+p-Cresol)	µg/Kg	4054 to 16218	2027
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	2901 to 11437	1423
4-Chloro-3-methylphenol	µg/Kg	677 to 3464	464
4-Chlorophenyl phenylether	µg/Kg	756 to 3348	432
4-Methylphenol (p-Cresol)	µg/Kg	2647 to 10587	1323
4-Nitrophenol	µg/Kg	681 to 14762	2650
Acenaphthene	µg/Kg	2243 to 8736	1082
Acenaphthylene	µg/Kg	712 to 3183	412
Anthracene	µg/Kg	1218 to 4515	550
Benzo(a)anthracene	µg/Kg	2806 to 8696	982
Benzo(a)pyrene	µg/Kg	2512 to 9292	1130
Benzo(b)fluoranthene	µg/Kg	1197 to 4822	604
Benzo(b+k)fluoranthene	µg/Kg	2614 to 10454	1307



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Description

Lot **LRAC8918**

Expiration Date January 2024

Manufacturing Date January 2021

Storage Conditions Refrigerate

Solvent/Matrix SOIL

Benzo(g,h,i)perylene	µg/Kg	489 to 2271	297
Benzo(k)fluoranthene	µg/Kg	892 to 3537	441
Butyl benzyl phthalate	µg/Kg	1255 to 5766	752
Carbazole	µg/Kg	2032 to 8792	1127
Chrysene	µg/Kg	669 to 2284	269
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	765 to 5045	713
Dibenzo(a,h)anthracene	µg/Kg	1257 to 5583	721
Dibenzofuran	µg/Kg	2766 to 9493	1121
Dimethyl phthalate	µg/Kg	1842 to 7231	898
Di-n-butyl phthalate	µg/Kg	495 to 2947	409
Di-n-octyl phthalate	µg/Kg	690 to 4798	685
Fluoranthene	µg/Kg	984 to 4009	504
Fluorene	µg/Kg	1638 to 5810	695
Hexachlorobutadiene	µg/Kg	425 to 3329	484
Indeno(1,2,3-cd) pyrene	µg/Kg	870 to 6957	1015
Isophorone	µg/Kg	437 to 2792	392
Naphthalene	µg/Kg	1131 to 7784	1109
Nitrobenzene	µg/Kg	1024 to 6054	838
n-Nitrosodimethylamine	µg/Kg	632 to 2528	316
n-Nitrosodiphenylamine	µg/Kg	1142 to 4567	571
Pentachlorophenol	µg/Kg	341 to 7037	1209
Phenanthrene	µg/Kg	2307 to 7798	915
Phenol	µg/Kg	681 to 4639	660
Pyrene	µg/Kg	1118 to 4810	615
Pyridine	µg/Kg	403 to 1613	202

Additional Information:

DESCRIPTION

The organic sample is a soil containing extractable BNAs for analysis by 8100, 8270, 8310 or equivalent methods.

This product consist of a 5 vials each containing 10g of soil for analysis of PAHs. Each vial is identical and has been tested how homogeneity. Only one vial is need for test the remaining vials are to be used for multiple methods or routine testing.

The soil has been sterilized to minimize degradation of the sample.

The sample has been sized to 100 mesh.

Required storage condition is 4°C.

The sample has been intentionally prepared with an apparent headspace.

STORAGE

The sample should be stored at 4°C. It has been determined to be stable for the duration of the expiration date.

After sub-sampling replace cap securely and store remaining sample at 4°C.

The shelf life of the product was determined by historic stability of similar CRM's. The expiration date may be extended based on stock and popularity upon successful stability testing by a 17025 accredited laboratory.

Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Stability and shelf life after opening must be determined by the user, taking into account sampling frequency/volume and all local conditions.

SAMPLE PREPARATION

Extract the complete contents of a single vial. Transfer entire contents of one vial to extraction vessel. Rinse vial and cap with extraction solvent.

Assume a 10g sample size for all calculations.

Note: Sample extracts and calibration solutions should be in the same solvent.

Report all results on a wet weight basis, do not correct for moisture.

NOTE: For method 8100 and using a packed column gas chromatographic method or cannot adequately resolve the following may coelute in four pairs of compounds: anthracene and phenanthrene; chrysene and benzo(a)anthracene; benzo(b)fluoranthene and benzo(k)fluoranthene; and dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene.

SCOPE AND APPLICATION

The BNAs in Soil Certified Reference Material (CRM) consists of 5 10mL VOA vials, with a Teflon lined closures containing approximately 10 grams of soil, fortified with BNAs. Being a natural matrix waste sample the analyst is challenged by the same preparation problems, analytical interferences, etc. as is typical for similar matrices received by the laboratory for analysis.



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

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4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. K=2 unless specified. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2017 (ANAB Cert AT-1467) and ISO 17034:2016 (ANAB Cert AR-1470).



Andy Ommen - QC Manager



Mark Pooler - QA Supervisor

Certification Date January 05, 2021
Version 0-152021



Certificate of Analysis



Phenova Certified Reference Materials are sold by Phenomenex.

411 Madrid Ave., Torrance, CA 90501 USA ■ Tel: 310-212-0555 ■ Fax: 310-328-7768 ■ info@phenomenex.com

Access your MSDS and digital C of A at www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101291

Lot Number: CL11000

Description: GC/MS Tuning Mix

Certification Date: May 9, 2014

Storage: 4 °C

Expiration Date: December 31, 2023

Provided As: 1 mL in 2 mL Ampoule in Methylene chloride

Revision Date: August 5, 2015

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty (%)
Benzidine	92-87-5	1000	± 0.208%
Decafluorotriphenylphosphine (DFTPP)	5074-71-5	1000	± 0.057%
4,4'-DDT	50-29-3	1000	± 0.056%
Pentachlorophenol	87-86-5	1000	± 0.061%

K003891

GC/MS Tune solution-1000ug/ml

Solvent / Lot: CL11000

Prep: 4/22/2022 by VS

Exp: 12/31/2023

Location:



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC-MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

IL11110612_us



Certificate of Analysis

Product Name: Toxic Substances Standard

Product Number: US-103N-1

Lot Issue Date: 25-May-2021

Lot Number: 0006609664

Expiration Date: 30-Jun-2024

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
benzoic acid	000065-85-0	RM01884	2005 ± 10 µg/mL
o-cresol	000095-48-7	RM12877	2005 ± 10 µg/mL
p-cresol	000106-44-5	RM01988	2005 ± 10 µg/mL
2,4,5-trichlorophenol	000095-95-4	NT00344	2004 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

[Handwritten signature]
5/11/22

K004539

toxic sub mix#1

Solvent / Lot: methylene chloride

Prep: 5/11/2022 by JZ

Exp: 6/30/2024

Location:



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



Reference Material Certificate

Product Name: Phenols Standard **Lot Number:** 0006648297
Product Number: US-107N-1 **Lot Issue Date:** 17-Nov-2021
Storage Conditions: Store at Room Temperature (15° to 30°C). **Expiration Date:** 31-Dec-2024

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
4-chloro-3-methylphenol	2006	± 10 µg/mL		000059-50-7	RM01885
2-chlorophenol	2007	± 10 µg/mL		000095-57-8	RM01871
2,4-dichlorophenol	2005	± 10 µg/mL		000120-83-2	RM13878
2,4-dimethylphenol	2006	± 10 µg/mL		000105-67-9	RM13009
2,4-dinitrophenol	2006	± 10 µg/mL		000051-28-5	RM02112
2-methyl-4,6-dinitrophenol	2005	± 10 µg/mL		000534-52-1	RM02292
2-nitrophenol	2007	± 10 µg/mL		000088-75-5	RM13445
4-nitrophenol	2006	± 10 µg/mL		000100-02-7	RM03752
pentachlorophenol	2006	± 10 µg/mL		000087-86-5	RM02474
phenol	2006	± 10 µg/mL		000108-95-2	RM11471
2,4,6-trichlorophenol	2006	± 10 µg/mL		000088-06-2	RM18096

Matrix: methylene chloride (dichloromethane)

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

JZ 5/11/22

ISO 17034



Agilent

Trusted Answers

Reference Material Certificate

Product Name: PAH Standard

Lot Number: 0006627349

Product Number: US-106N-1

Lot Issue Date: 17-Sep-2021

Storage Conditions: Store at Room Temperature (15° to 30°C).

Expiration Date: 31-Oct-2024

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
acenaphthene	2007	± 10 µg/mL		000083-32-9	RM10879
acenaphthylene	2004	± 10 µg/mL		000208-96-8	RM10891
anthracene	2006	± 10 µg/mL		000120-12-7	RM14212
benz[a]anthracene	2006	± 10 µg/mL		000056-55-3	RM16072
benzo[b]fluoranthene	2006	± 10 µg/mL		000205-99-2	RM14571
benzo[k]fluoranthene	2006	± 10 µg/mL		000207-08-9	RM18376
benzo[ghi]perylene	2006	± 10 µg/mL		000191-24-2	RM15761
benzo[a]pyrene	2006	± 10 µg/mL		000050-32-8	RM17573
chrysene	2007	± 10 µg/mL		000218-01-9	RM13771
dibenz[a,h]anthracene	2006	± 10 µg/mL		000053-70-3	RM06786
fluoranthene	2006	± 10 µg/mL		000206-44-0	RM12277
fluorene	2006	± 10 µg/mL		000086-73-7	RM09441
indeno[1,2,3-cd]pyrene	2006	± 10 µg/mL		000193-39-5	RM14192
naphthalene	2007	± 10 µg/mL		000091-20-3	RM10445
phenanthrene	2005	± 10 µg/mL		000085-01-8	RM10495
pyrene	2005	± 10 µg/mL		000129-00-0	RM16126

Matrix: methylene chloride/benzene (1:1)

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

K004541

SVOA PAH STD 2000ug/ml

Solvent / Lot: DCM/BENZENE

Prep: 5/11/2022 by JZ

Exp: 10/31/2024

Location: Fridge 19

Page: 1 of 2

CSD-QA-015.1



Reference Materials Producer
Cert #2495.01



Certificate of Analysis



Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030 **Lot No.** AA210126005
Description: Base/Neutrals Mix 1
Matrix: Methylene Chloride **Manufactured Date:** 1-26-2021
Expiration Date: 1-26-2024

This SPEXOrganics® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

<u>Compound</u>	<u>CAS #</u>	<u>Labeled</u>	<u>Purity</u>	<u>Certified†</u>	<u>Uncertainty</u>
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	2010 µg/mL	± 50 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	2021 µg/mL	± 51 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	2012 µg/mL	± 50 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2006 µg/mL	± 50 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	99.6%	2012 µg/mL	± 50 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2022 µg/mL	± 51 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Azobenzene	103-33-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.9%	2010 µg/mL	± 50 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	2009 µg/mL	± 50 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2020 µg/mL	± 50 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99.5%	2002 µg/mL	± 50 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2006 µg/mL	± 50 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	2003 µg/mL	± 50 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	2001 µg/mL	± 50 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2004 µg/mL	± 50 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	97%	2000 µg/mL	± 50 µg/mL

Certificate of Reference Material

Catalog Number:	ECS-A-030	Lot No.	AA210126005
Description:	Base/Neutrals Mix 1	Manufactured Date:	1-26-2021
Matrix:	Methylene Chloride	Expiration Date:	1-26-2024

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 1-26-2021

Certifying Officer: Shannon Mave

Report of Certification

Catalog Number: ECS-A-030 **Lot No.** AA210126005
Description: Base/Neutrals Mix 1
Matrix: Methylene Chloride **Manufactured Date:** 1-26-2021
Expiration Date: 1-26-2024

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory, please store this product in a refrigerator (2°C to 8°C). Note: Shipping conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and is applicable only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve after one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that should be removed from this vial is 5 µL with a 25 µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that come in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation have been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bottle variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = k u_c$ where k=2 is the coverage factor at the 95% confidence level
- $u_c =$ combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i , where $u_c = \sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liable for any loss of profits or any incidental, special, or consequential damages.

Distributed By SPEX CertiPrep

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Reference Materials Producer
Cert #2495.01



Certificate of Analysis



Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030

Lot No. AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

This SPEXOrganics® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

<u>Compound</u>	<u>CAS #</u>	<u>Labeled</u>	<u>Purity</u>	<u>Certified†</u>	<u>Uncertainty</u>
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	2010 µg/mL	± 50 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	2021 µg/mL	± 51 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	2012 µg/mL	± 50 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2006 µg/mL	± 50 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	99.6%	2012 µg/mL	± 50 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2022 µg/mL	± 51 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Azobenzene	103-33-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.9%	2010 µg/mL	± 50 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	2009 µg/mL	± 50 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2020 µg/mL	± 50 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99.5%	2002 µg/mL	± 50 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2006 µg/mL	± 50 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	2003 µg/mL	± 50 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	2001 µg/mL	± 50 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2004 µg/mL	± 50 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	97%	2000 µg/mL	± 50 µg/mL

K004542

Certificate of Reference Material

Catalog Number: ECS-A-030

Lot No. AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 1-26-2021

Certifying Officer: Shannon Nove

Report of Certification

Catalog Number: ECS-A-030 **Lot No.** AA210126005
Description: Base/Neutrals Mix 1
Matrix: Methylene Chloride **Manufactured Date:** 1-26-2021
Expiration Date: 1-26-2024

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory, please store this product in a refrigerator (2°C to 8°C). Note: Shipping conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and is applicable only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve after one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that should be removed from this vial is 5 µL with a 25 µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that come in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation have been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bottle variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = k u_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i , where $u_c = \sqrt{\sum u_i^2}$

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Certificate of Analysis

Product Name: 1-Methylnaphthalene Standard
Product Number: EPA-1225-1 **Lot Issue Date:** 19-Jul-2021
Lot Number: 0006624769 **Expiration Date:** 31-Jul-2023

Description:
This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1-methylnaphthalene	000090-12-0	RM07712	999.3 ± 5.0 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

K004543
1-Methylnaphthalene
Solvent / Lot: MEOH
Prep: 5/11/2022 by JZ
Exp: 7/31/2023
Location:

[Handwritten signature]
[Handwritten date: 5/11/22]

Sample lot approver:
[Handwritten signature: Monica Bourgeois]
Monica Bourgeois
QMS Representative



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026
Page: 1 of 1

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



Certificate of Analysis

Product Name: Toxic Substances Standard

Product Number: US-104N-1

Lot Issue Date: 02-Jul-2021

Lot Number: 0006620643

Expiration Date: 31-Jul-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
aniline	000062-53-3	RM12853	2005 ± 10 µg/mL
benzyl alcohol	000100-51-6	RM10547	2004 ± 10 µg/mL
4-chloroaniline	000106-47-8	RM01886	2002 ± 10 µg/mL
dibenzofuran	000132-64-9	RM02077	2002 ± 10 µg/mL
2-methylnaphthalene	000091-57-6	RM01258	2006 ± 10 µg/mL
2-nitroaniline	000088-74-4	RM02402	2003 ± 10 µg/mL
3-nitroaniline	000099-09-2	RM02424	2003 ± 10 µg/mL
4-nitroaniline	000100-01-6	RM02425	2003 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

K004544

toxic sub mix#2

Solvent / Lot: methylene chloride

Prep: 5/11/2022 by JZ

Exp: 7/31/2023

Location:

JZ 05/11/22



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No.: 31493 Lot No.: A0181243
Description: CLP 04.1 BNA Surrogate Mix
CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul
Container Size: 2 mL Pkg Amt: > 1 mL
Expiration Date: October 31, 2025 Storage: 10°C or colder
Handling: Sonicate prior to use. Ship: Ambient

Handwritten signature and date: 05/11/22

K004545
CLP 04.1 BNA SURR MIX
Solvent / Lot: AO175316
Prep: 5/11/2022 by JZ
Exp: 10/20/2025
Location:

Table with 7 columns: Elution Order, Compound, CAS #, Purity, Weight, Concentration, and Method. Contains 7 rows of data for various compounds like 2-Fluorophenol, Phenol-d6, 2-Chlorophenol-d4, 1,2-Dichlorobenzene-d4, Nitrobenzene-d5, 2-Fluorobiphenyl, and 2,4,6-Tribromophenol.

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101246

Lot Number: CL17953

Description: Benzoic Acid

Certification Date: January 31, 2022

Storage: 4 °C

Expiration Date: January 31, 2032

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzoic acid	65-85-0	2000	± 2.714%

K004603

Benzoic Acid @2000ug/ml

Solvent / Lot: N/A

Prep: 5/13/2022 by JZ

Exp: 1/31/2032

Location: GC

 5/13/22



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244

Lot Number: CL17662

Description: Benzidines Standard

Certification Date: December 2, 2021

Storage: 4 °C

Expiration Date: November 30, 2031

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 0.211%
3,3'-Dichlorobenzidine	91-94-1	2000	± 1.305%

K004604

Benzidines std @2000ug/ml
Solvent / Lot: Mecl2
Prep: 5/13/2022 by JZ
Exp: 11/30/2031
Location: GC

JZ 5/13/22



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

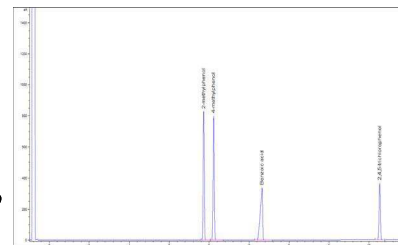


Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis - Certified Reference Material

EPA TCL Hazardous Substances Mix 1

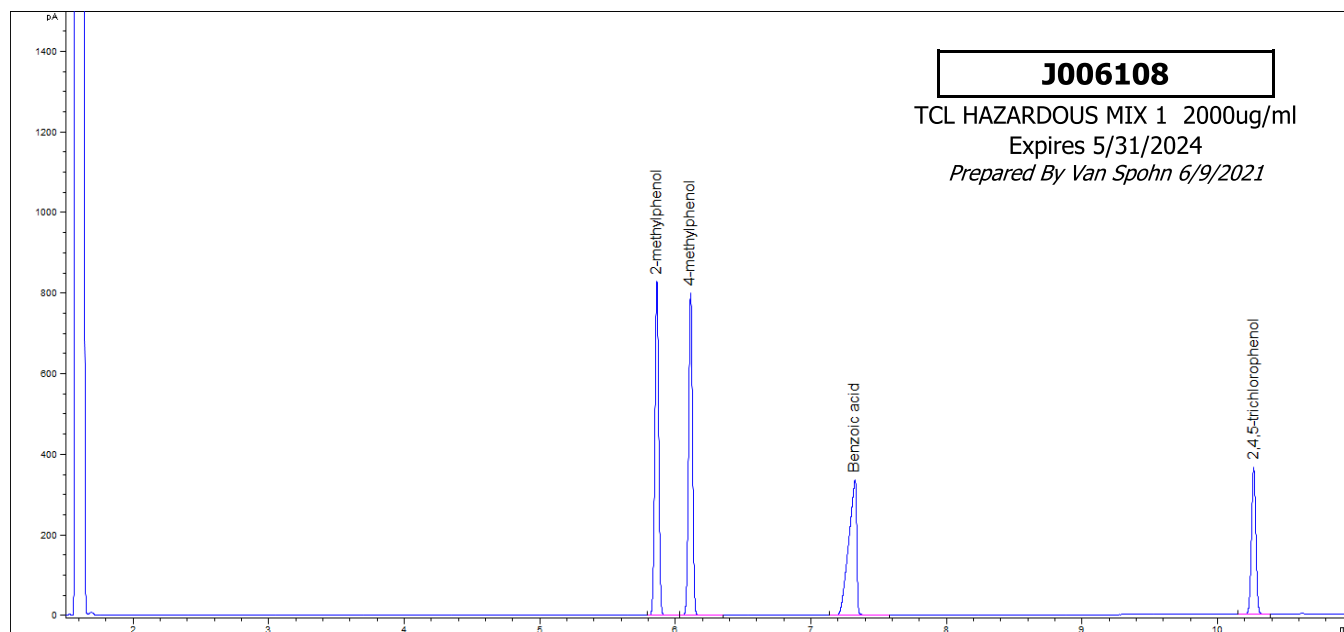
Product no.: 48907
Lot no.: LRAC9610
Expiry Date: May 2024
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAC9610.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

Analyte	Certified Value	Units	Raw Material Purity, %	Elution order	Raw Material Lot
2-METHYLPHENOL CAS# 95-48-7	2004 ± 9	µg/mL	99.0	1	G1735A
4-METHYLPHENOL CAS# 106-44-5	2004 ± 13	µg/mL	98.9	2	06921MG
BENZOIC ACID CAS# 65-85-0	2012 ± 6	µg/mL	99.9	3	LC16514
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	2003 ± 6	µg/mL	99.9	4	JS00008

Informational Values:



Additional Information:

Analytical Method Parameters:
 Column: Equity-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #98)
 Carrier Gas: H₂, Flow: 4.5 mL/min
 Inlet Temperature: 170 °C, Injection Volume: 1 µL
 Injection Mode: Split, Split Ratio: 20:1



Temperature Program: 80 °C @ 10 °C/min to 190 °C (Hold 5 min)
Detector: FID
Detector Temperature: 310 °C

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 20-May-2021



Handwritten signature of Andy Ommen in black ink.

Andy Ommen - QC Manager

Handwritten signature of Mark Pooler in black ink.

Mark Pooler - QA Supervisor

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment:

Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAC9610.01	20-May-2021	Original Release Date

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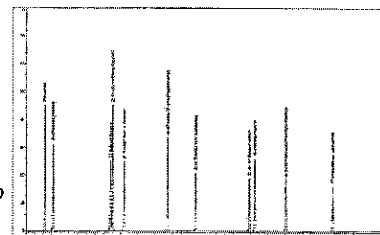
The life science business of Merck KGaA, Darmstadt, Germany
operates as MilliporeSigma in the US and Canada.



Certificate of Analysis - Certified Reference Material

EPA TCL Phenols Mix

Product no.: 48904
Lot no.: LRAD0139
Expiry Date: July 2024
Manufacturing Date: July 2021
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD0139.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

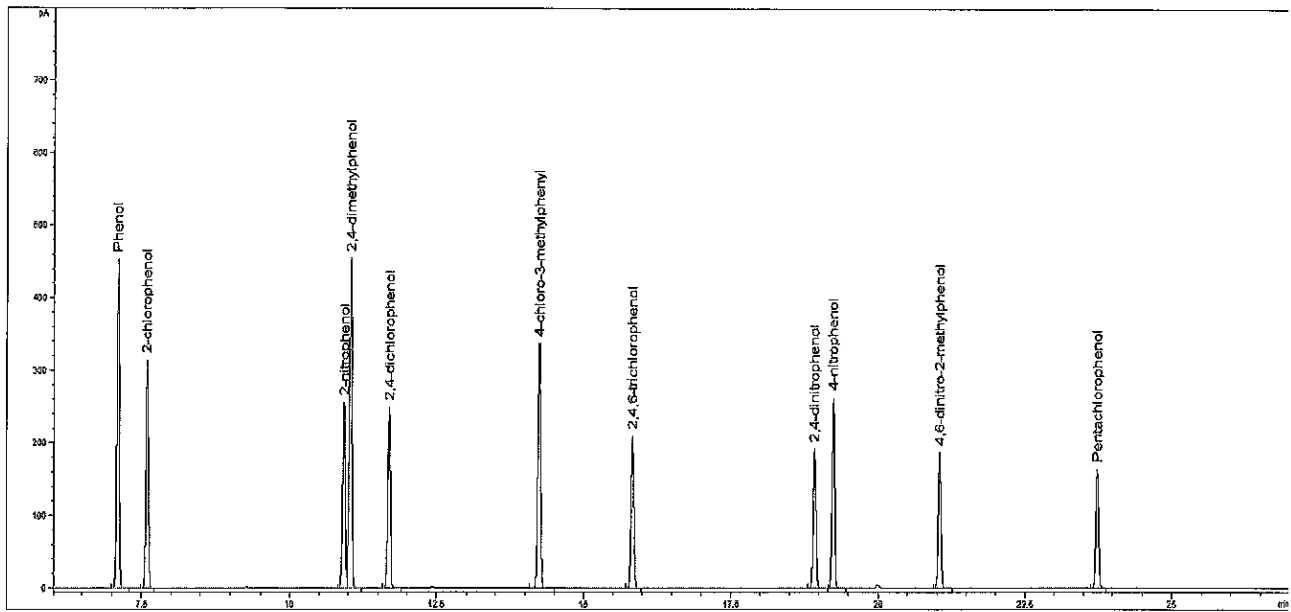
Analyte	Certified Value	Units	Raw Material Purity, %	Raw Material Lot
2-CHLOROPHENOL CAS# 95-57-8	2001 ± 25	µg/mL	99.9	STBG3033V
2-NITROPHENOL CAS# 88-75-5	1999 ± 18	µg/mL	99.3	15905BB
2,4-DIMETHYLPHENOL CAS# 105-67-9	2000 ± 14	µg/mL	99.2	05421CO
2,4-DICHLOROPHENOL CAS# 120-83-2	2000 ± 17	µg/mL	99.5	03221TN
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	2000 ± 5	µg/mL	99.9	JS00013
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	2002 ± 5	µg/mL	99.5	04212PS
2,4-DINITROPHENOL CAS# 51-28-5	2000 ± 28	µg/mL	66.9	STBJ5751
4-NITROPHENOL CAS# 100-02-7	2000 ± 33	µg/mL	99.0	04628LT
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	2000 ± 27	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	1999 ± 25	µg/mL	97.9	MKCD2150

ASSAY Method

J013597

TCL Phenols Mix 2000ug/ml
 Solvent / Lot: LRAD0139
 Prep: 12/30/2021 by VS
 Exp: 7/31/2024
 Location:





METHOD: GC (Bellefonte Method)

Column: SPB-5, 30 m x 0.53 mm I.D., 1.5 µm film thickness

Carrier Gas: H₂ Flow Rate: 4.5 mL/min

Inlet Temperature: 200 °C Injection Volume: 1.0 µL

Injection Mode: 25:1

Temperature Program: 80 °C (Hold 2 min) @ 6 °C/min to 260 °C (Hold 5 min)

Detector: FID Temperature: 310 °C

Elution details:

EO	RT(MIN)	ANALYTE
1	7.095	Phenol
2	7.585	2-chlorophenol
3	10.925	2-nitrophenol
4	11.037	2,4-dimethylphenol
5	11.696	2,4-dichlorophenol
6	14.242	4-chloro-3-methylphenol
7	15.842	2,4,6-trichlorophenol
8	18.93	2,4-dinitrophenol
9	19.25	4-nitrophenol
10	21.05	4,6-dinitro-2-methylphenol
11	23.752	Pentachlorophenol

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 12-Jul-2021



Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment: Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD0139.01	12-Jul-2021	Original Release Date

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Certificate of Analysis

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

K007995

SVOA-8270 LCS MIX 1000ug/ml

Solvent / Lot: N/A

Prep: 8/29/2022 by JZ

Exp: 8/31/2023

Location: FREEZER 44



Aaron Dukes, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 0.300%
Acenaphthylene	208-96-8	1000	± 0.225%
Anthracene	120-12-7	1000	± 6.858%
Azobenzene	103-33-3	1000	± 0.224%
Benzo(a)anthracene	56-55-3	1000	± 0.247%
Benzo(a)pyrene	50-32-8	1000	± 0.270%
Benzo(b)fluoranthene	205-99-2	1000	± 0.635%
Benzo(k)fluoranthene	207-08-9	1000	± 0.682%
Benzo(g,h,i)perylene	191-24-2	1000	± 0.272%
Benzyl alcohol	100-51-6	1000	± 0.231%
Benzyl butyl phthalate	85-68-7	1000	± 0.480%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 0.479%
bis(2-Chloroethyl) ether	111-44-4	1000	± 0.479%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 0.550%
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 0.479%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 0.479%
4-Bromophenyl phenyl ether	101-55-3	1000	± 0.479%
Carbazole	86-74-8	1000	± 0.146%

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
4-Chloroaniline	106-47-8	1000	± 0.300%
4-Chloro-3-methylphenol	59-50-7	1000	± 0.545%
2-Chloronaphthalene	91-58-7	1000	± 0.224%
2-Chlorophenol	95-57-8	1000	± 0.507%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 0.479%
Chrysene	218-01-9	1000	± 0.145%
Dibenz(a,h)anthracene	53-70-3	1000	± 1.058%
Dibenzofuran	132-64-9	1000	± 0.302%
Di-n-butyl phthalate	84-74-2	1000	± 0.518%
1,2-Dichlorobenzene	95-50-1	1000	± 0.247%
1,3-Dichlorobenzene	541-73-1	1000	± 0.225%
1,4-Dichlorobenzene	106-46-7	1000	± 0.224%
2,4-Dichlorophenol	120-83-2	1000	± 0.545%
Diethyl phthalate	84-66-2	1000	± 0.518%
2,4-Dimethylphenol	105-67-9	1000	± 0.507%
Dimethyl phthalate	131-11-3	1000	± 0.518%
1,2-Dinitrobenzene	528-29-0	1000	± 0.361%
1,3-Dinitrobenzene	99-65-0	1000	± 0.300%
1,4-Dinitrobenzene	100-25-4	1000	± 0.242%
2,4-Dinitrophenol	51-28-5	1000	± 0.545%
2,4-Dinitrotoluene	121-14-2	1000	± 1.128%

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2,6-Dinitrotoluene	606-20-2	1000	± 0.224%
Di-n-octyl phthalate	117-84-0	1000	± 0.486%
Fluoranthene	206-44-0	1000	± 0.224%
Fluorene	86-73-7	1000	± 0.224%
Hexachlorobenzene	118-74-1	1000	± 0.152%
Hexachlorobutadiene	87-68-3	1000	± 0.746%
Hexachlorocyclopentadiene	77-47-4	1000	± 0.153%
Hexachloroethane	67-72-1	1000	± 0.300%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 0.883%
Isophorone	78-59-1	1000	± 0.145%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 0.508%
1-Methylnaphthalene	90-12-0	1000	± 0.479%
2-Methylnaphthalene	91-57-6	1000	± 0.487%
2-Methylphenol	95-48-7	1000	± 0.545%
3-Methylphenol	108-39-4	500	± 0.279%
4-Methylphenol	106-44-5	500	± 0.399%
Naphthalene	91-20-3	1000	± 0.226%
2-Nitroaniline	88-74-4	1000	± 0.224%
3-Nitroaniline	99-09-2	1000	± 0.235%
4-Nitroaniline	100-01-6	1000	± 0.300%
Nitrobenzene	98-95-3	1000	± 0.300%

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444 **Lot Number:** CL18355
Description: 8270 Calibration Standard **Certification Date:** July 25, 2022
Storage: -18 °C **Expiration Date:** August 31, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 0.514%
4-Nitrophenol	100-02-7	1000	± 0.519%
N-Nitrosodimethylamine	62-75-9	1000	± 0.503%
N-Nitrosodiphenylamine	86-30-6	1000	± 0.476%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 0.461%
Pentachlorophenol	87-86-5	1000	± 0.202%
Phenanthrene	85-01-8	1000	± 0.145%
Phenol	108-95-2	1000	± 0.545%
Pyrene	129-00-0	1000	± 0.147%
Pyridine	110-86-1	1000	± 0.503%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 0.247%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 0.247%
1,2,4-Trichlorobenzene	120-82-1	1000	± 0.224%
2,4,5-Trichlorophenol	95-95-4	1000	± 0.507%
2,4,6-Trichlorophenol	88-06-2	1000	± 0.509%

Notes: The proper chemical name for Bis(2-Chloroisopropyl) ether is 2,2'-oxybis(1-chloropropane). The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com

Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. Quality Standards: Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = \sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

Certificate of Composition - Analytical Standard

BASE STOCK

Product no.: 22523051
Lot no.: LRAD2751
Expiry Date: June 2024
Manufacturing Date: June 2022
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD2751.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
3,3'-DICHLOROBENZIDINE, 100MG, NEAT CAS# 91-94-1	799	µg/mL	99.8	LRAD2376
2,4-DINITROTOLUENE CAS# 121-14-2	801	µg/mL	97.8	LB46632
2,6-DINITROTOLUENE CAS# 606-20-2	800	µg/mL	99.2	11231AN
HEXACHLOROCYCLOPENTADIENE CAS# 77-47-4	800	µg/mL	96.0	LB95525
N-NITROSODIMETHYLAMINE CAS# 62-75-9	800	µg/mL	95.0	2019-030598 5
PERYLENE CAS# 198-55-0	200	µg/mL	99.6	04101PG
ANILINE CAS# 62-53-3	800	µg/mL	99.9	LA41596
4-CHLOROANILINE CAS# 106-47-8	800	µg/mL	100.0	MKBZ6909V
2-NITROANILINE CAS# 88-74-4	799	µg/mL	99.9	07411KN
3-NITROANILINE CAS# 99-09-2	800	µg/mL	99.9	LC09264
4-NITROANILINE CAS# 100-01-6	800	µg/mL	99.9	15609AA
PYRIDINE (LOW WATER) CAS# 110-86-1	800	µg/mL	100.0	SHBJ9218

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.



Health and safety information:

All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Certificate issue date:

03 JUN 2022



Andy Ommen - QC Manager



Scott Stetler - QA Manager

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD2751.01	03 JUN 2022	Original Release Date

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The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Polynuclear Aromatic Hydrocarbons

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-01 A

SDG: 23A0032

Sampled: 01/03/23 08:52

Prepared: 01/11/23 11:45

File ID: N823011917.D

% Solids: 58.42

Preparation: EPA 3546 (Microwave)

Analyzed: 01/19/23 18:33

Batch: BLA0171

Sequence: SLA0228

Initial/Final: 17.13 g Wet / 0.5 mL

Instrument: NT8

Column: RXI-17Sil ms

Calibration: GA00050

Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
56-55-3	Benzo(a)anthracene	1	63.7		0.82	5.00
218-01-9	Chrysene	1	97.5		1.05	5.00
205-99-2	Benzo(b)fluoranthene	1	68.7		1.37	5.00
207-08-9	Benzo(k)fluoranthene	1	34.5		0.76	5.00
50-32-8	Benzo(a)pyrene	1	53.7		0.61	5.00
193-39-5	Indeno(1,2,3-cd)pyrene	1	37.6		1.05	5.00
53-70-3	Dibenzo(a,h)anthracene	1	10.4		0.89	5.00

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	149.89	112	74.9	32 - 120	
Dibenzo[a,h]anthracene-d14	149.89	158	106	21 - 133	
Fluoranthene-d10	149.89	144	96.0	36 - 134	

Data File: \\target\share\chem3\nt8.1\20230119A,B\N823011917.D

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Client ID:

Sample Info: 23A0032-01

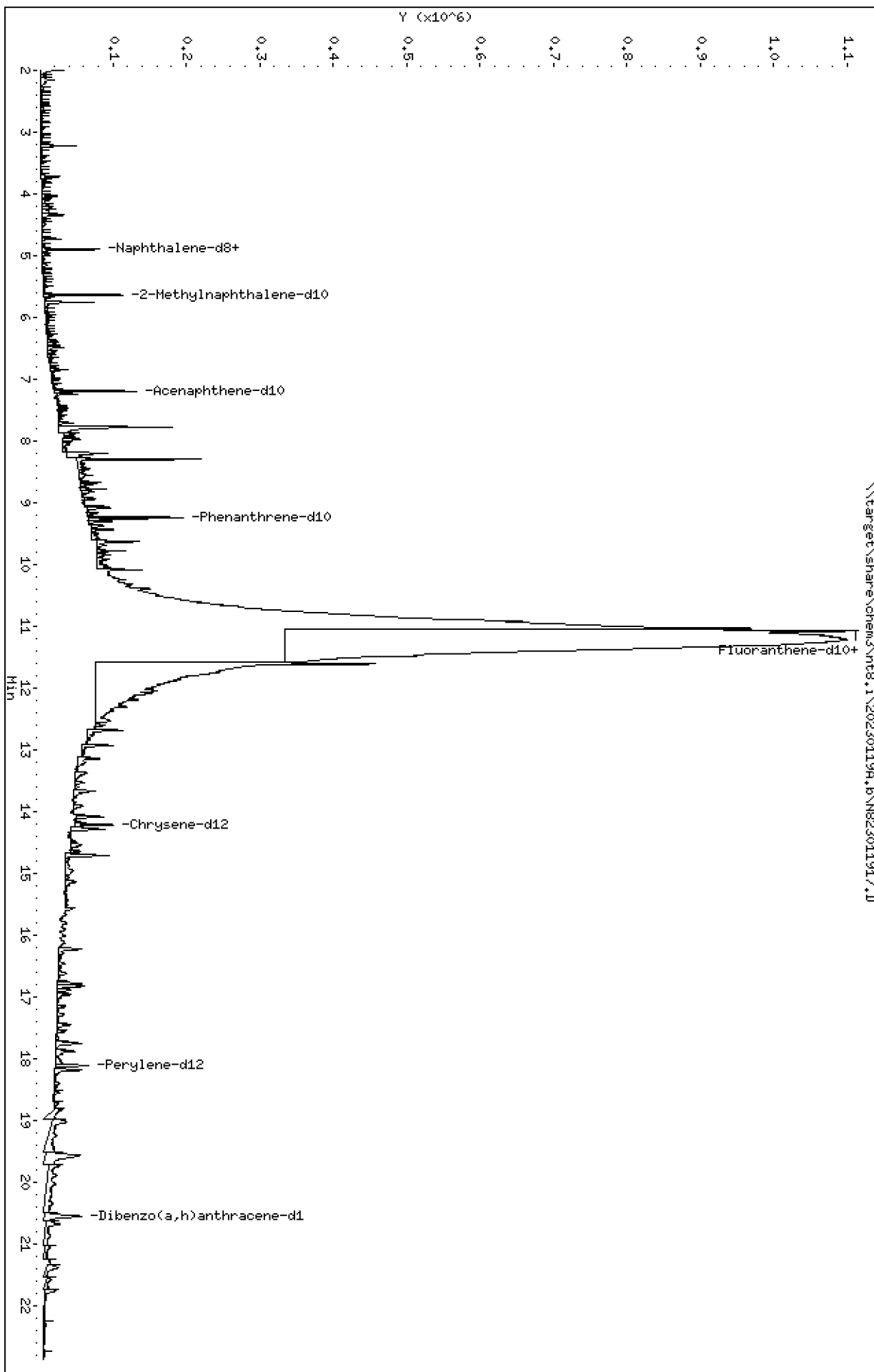
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

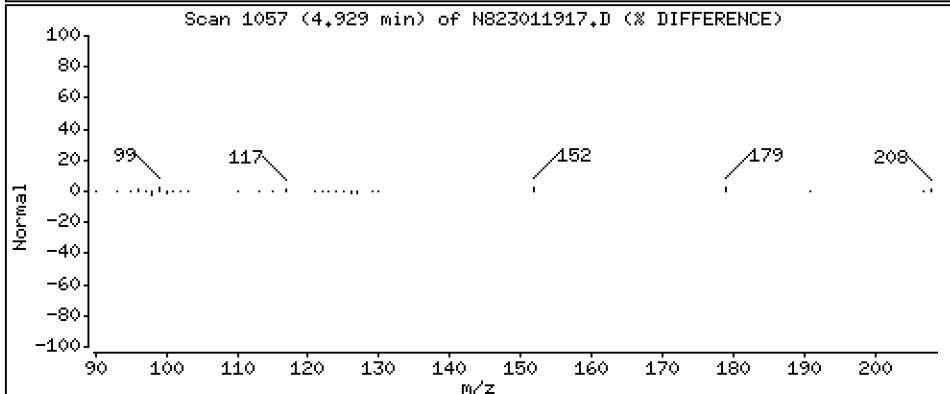
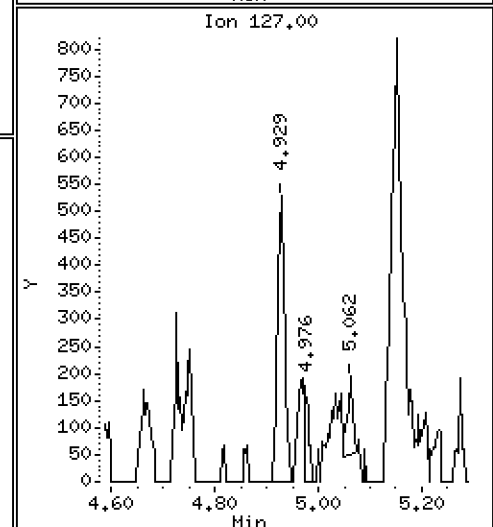
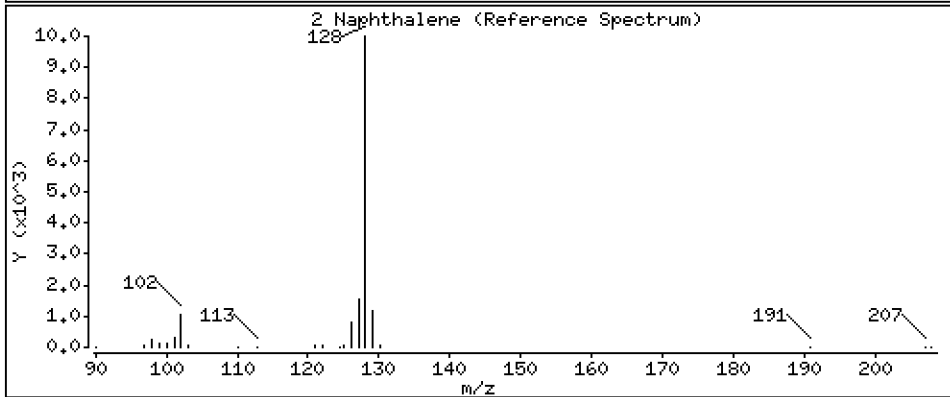
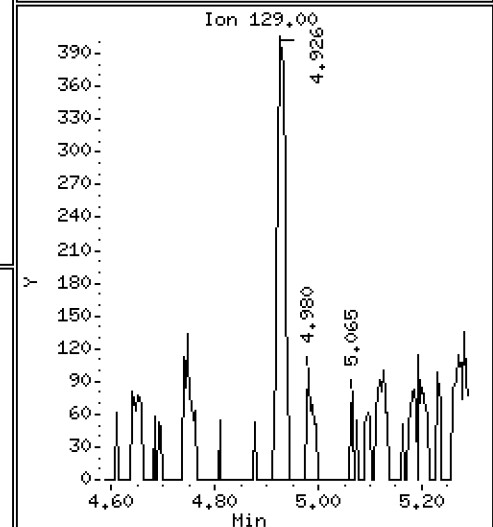
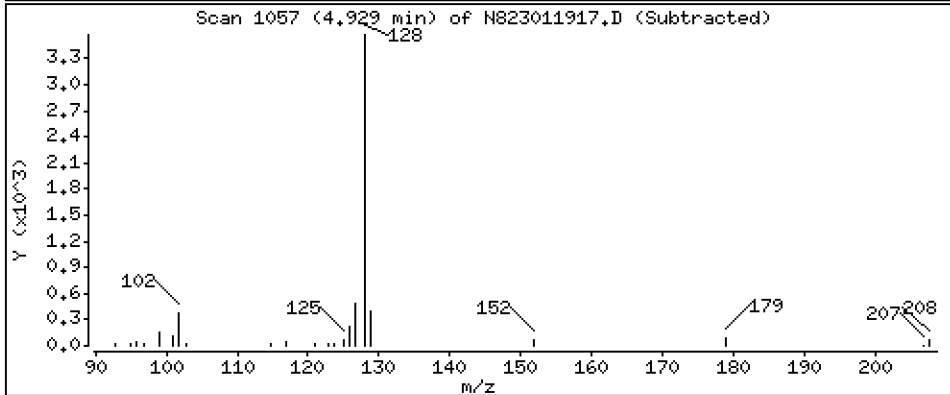
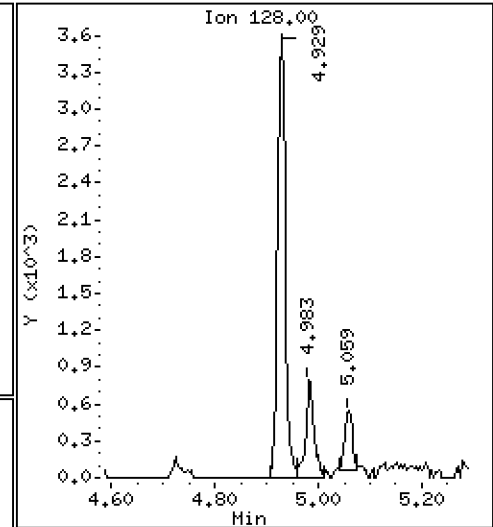
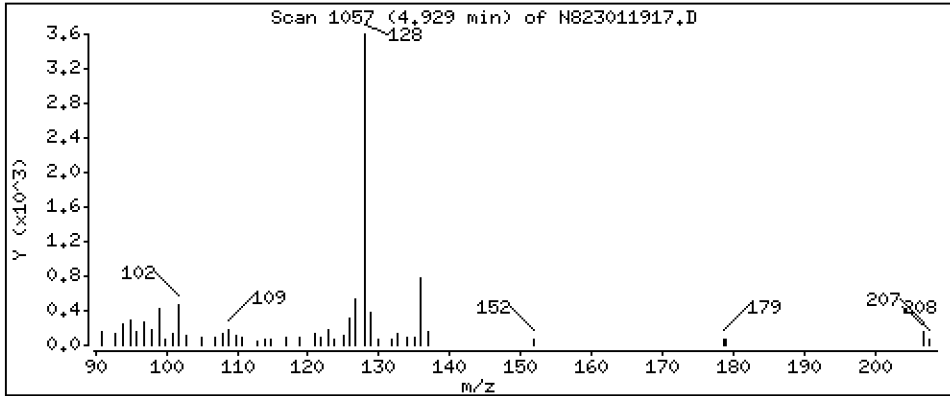
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

2 Naphthalene

Concentration: 0.1457 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

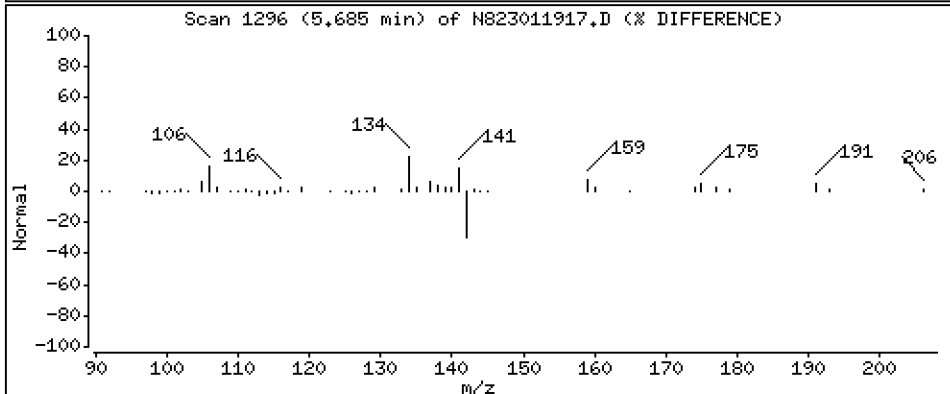
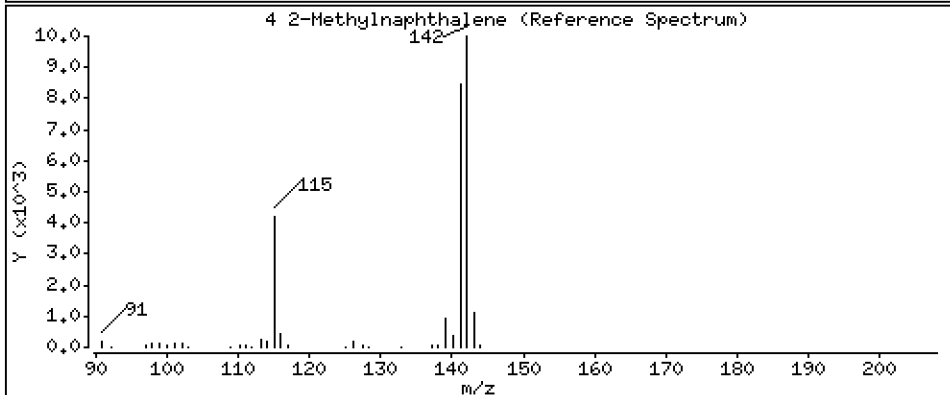
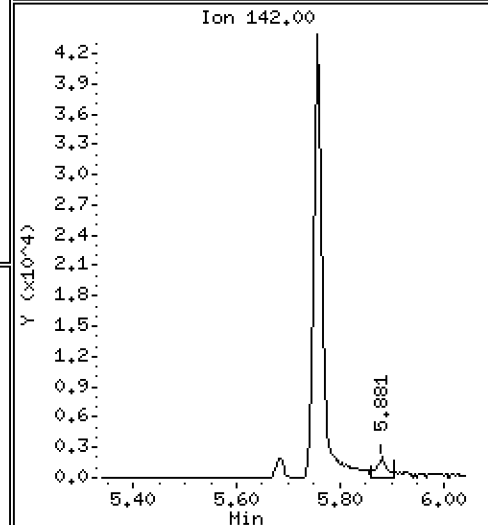
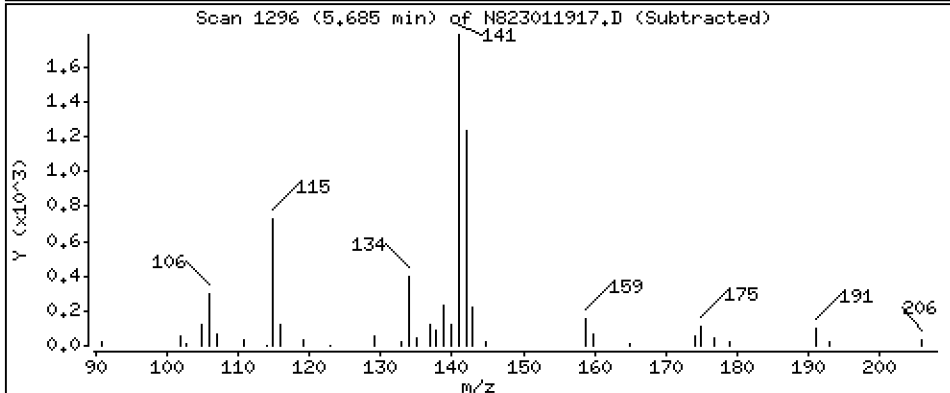
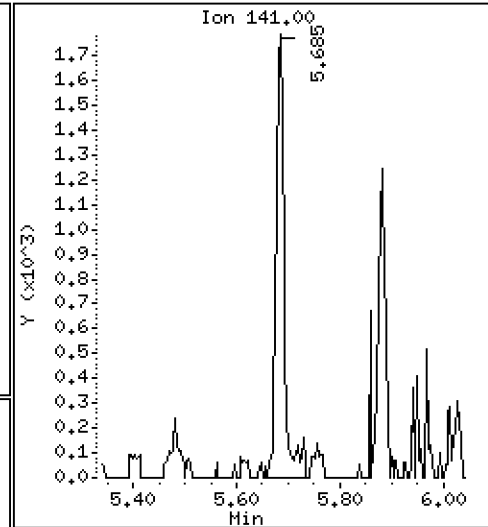
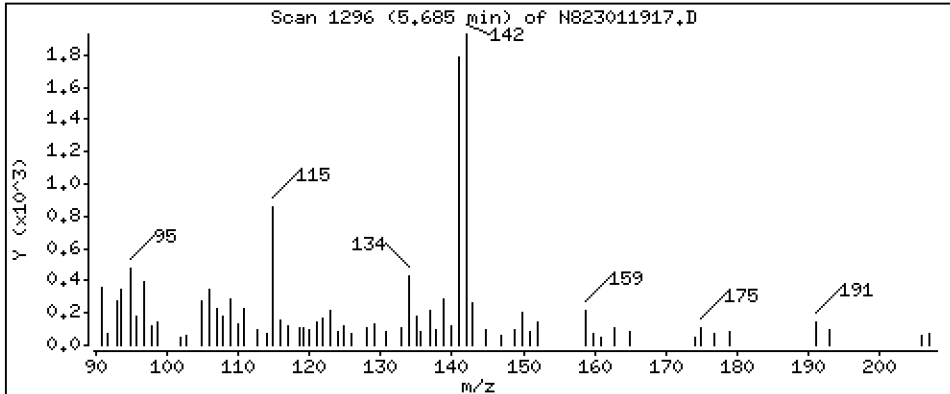
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

4-Methylnaphthalene

Concentration: 0.1325 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

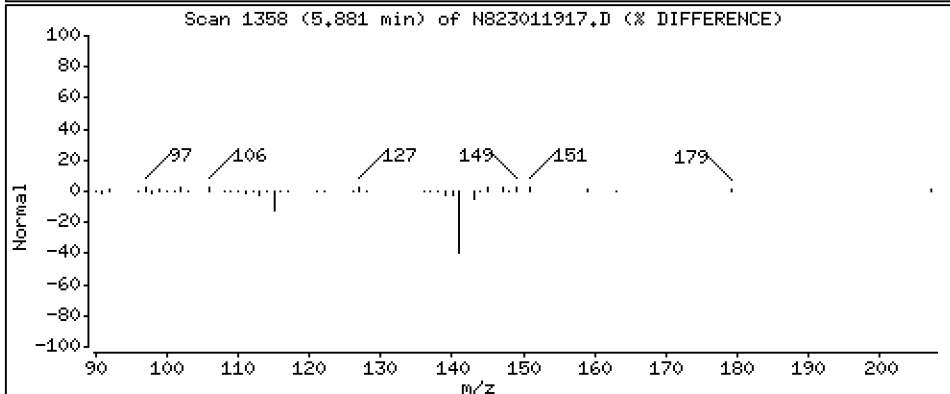
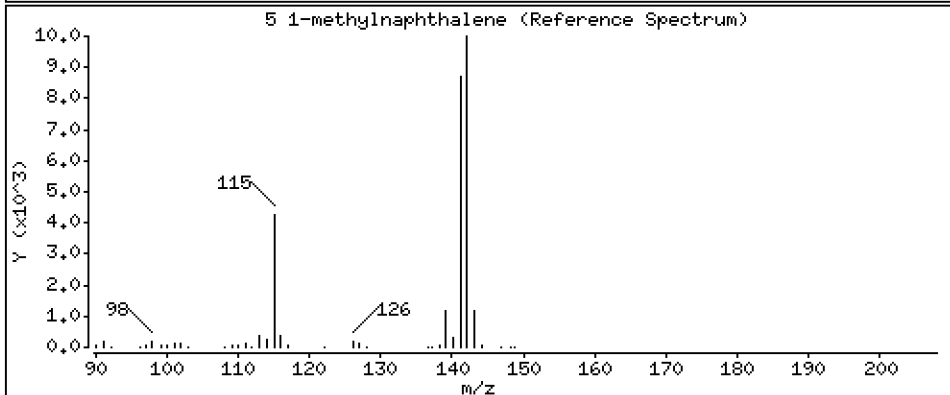
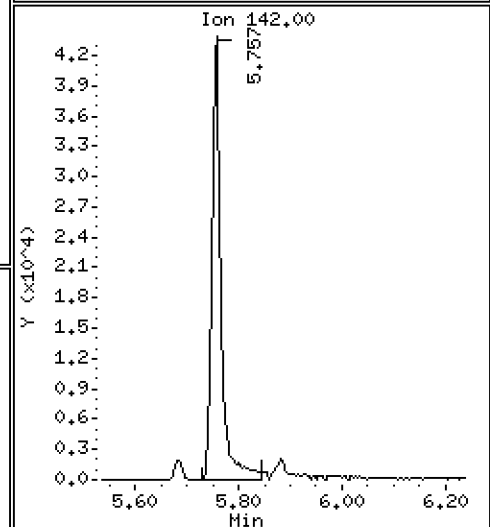
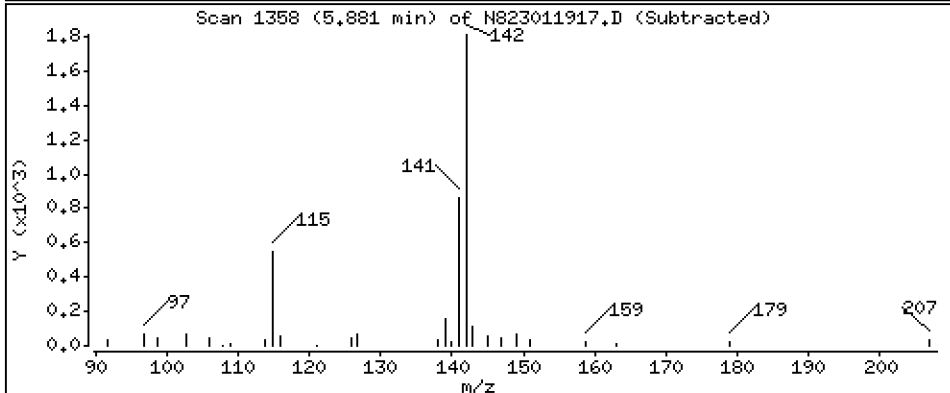
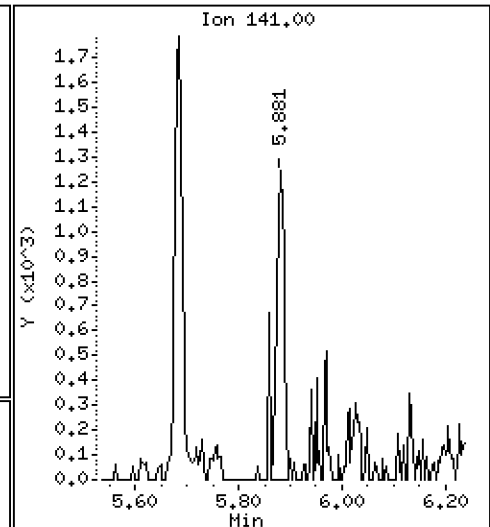
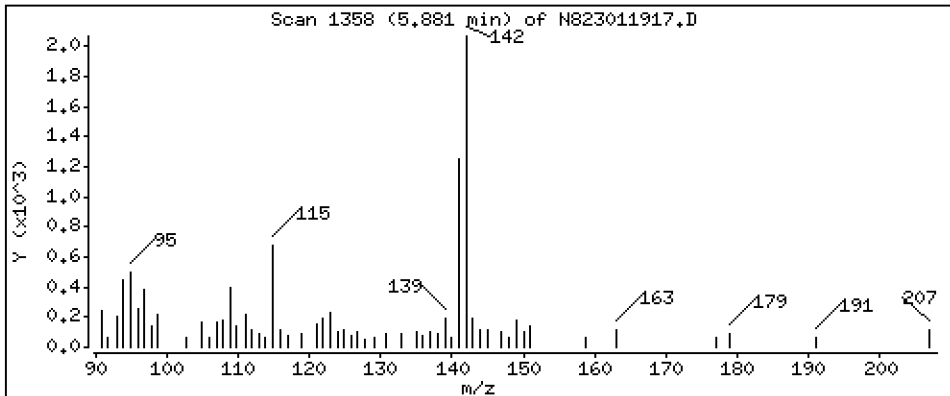
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

5 1-methylnaphthalene

Concentration: 0.08458 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

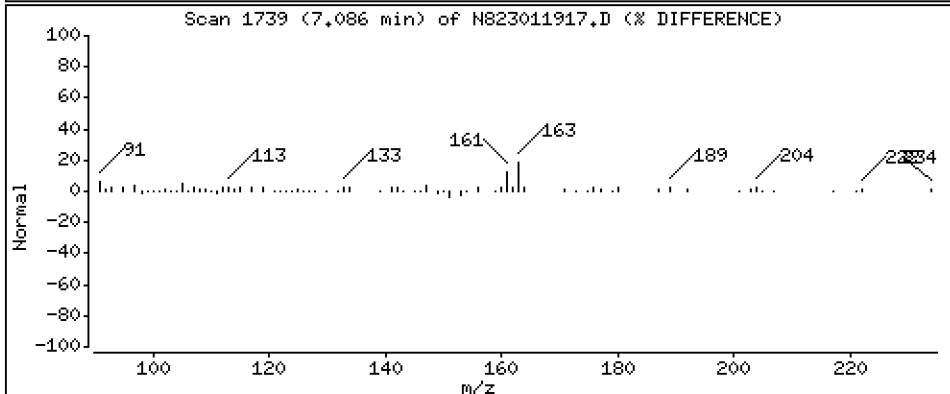
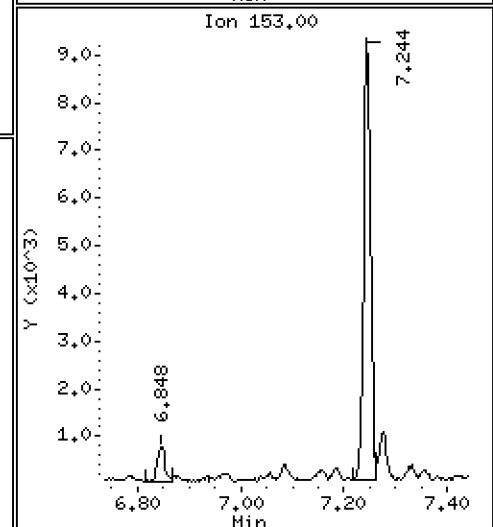
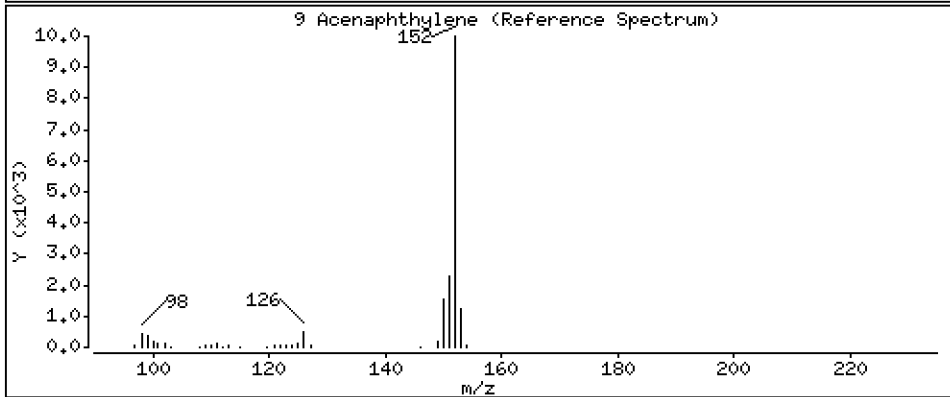
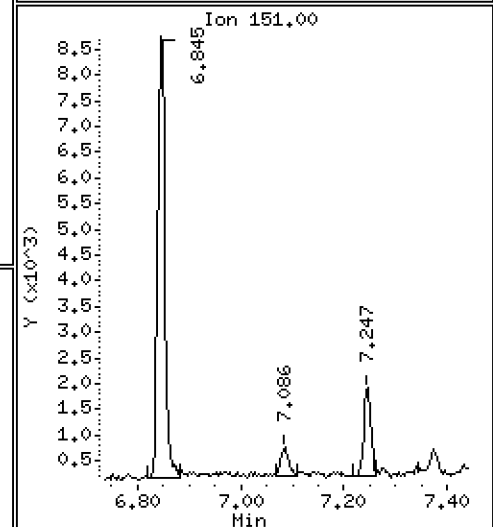
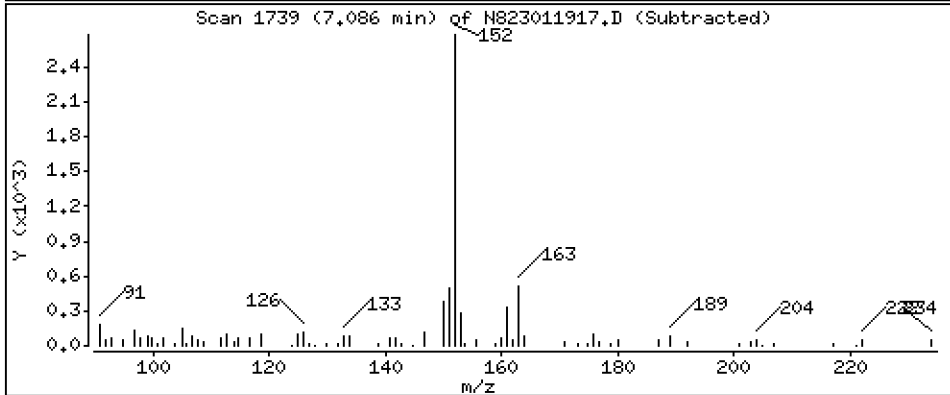
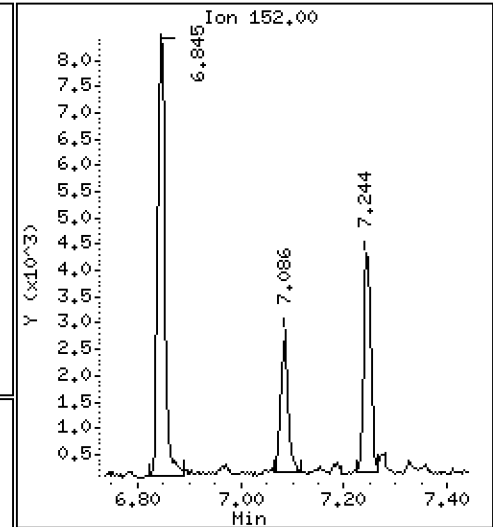
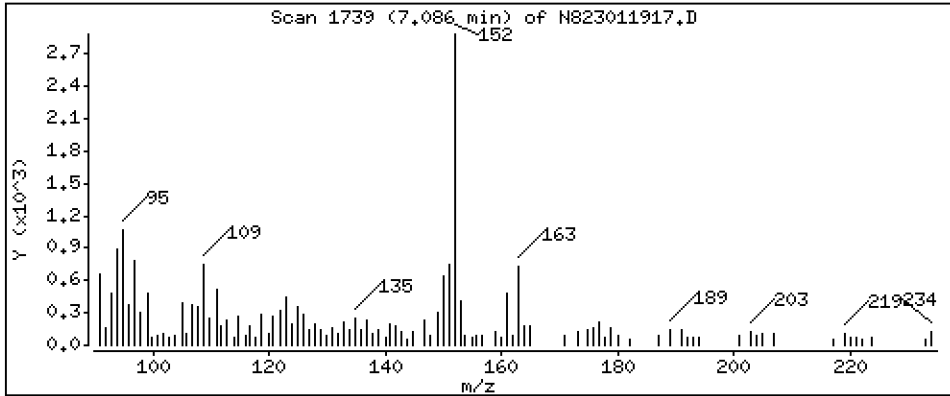
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

9 Acenaphthylene

Concentration: 0,1125 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

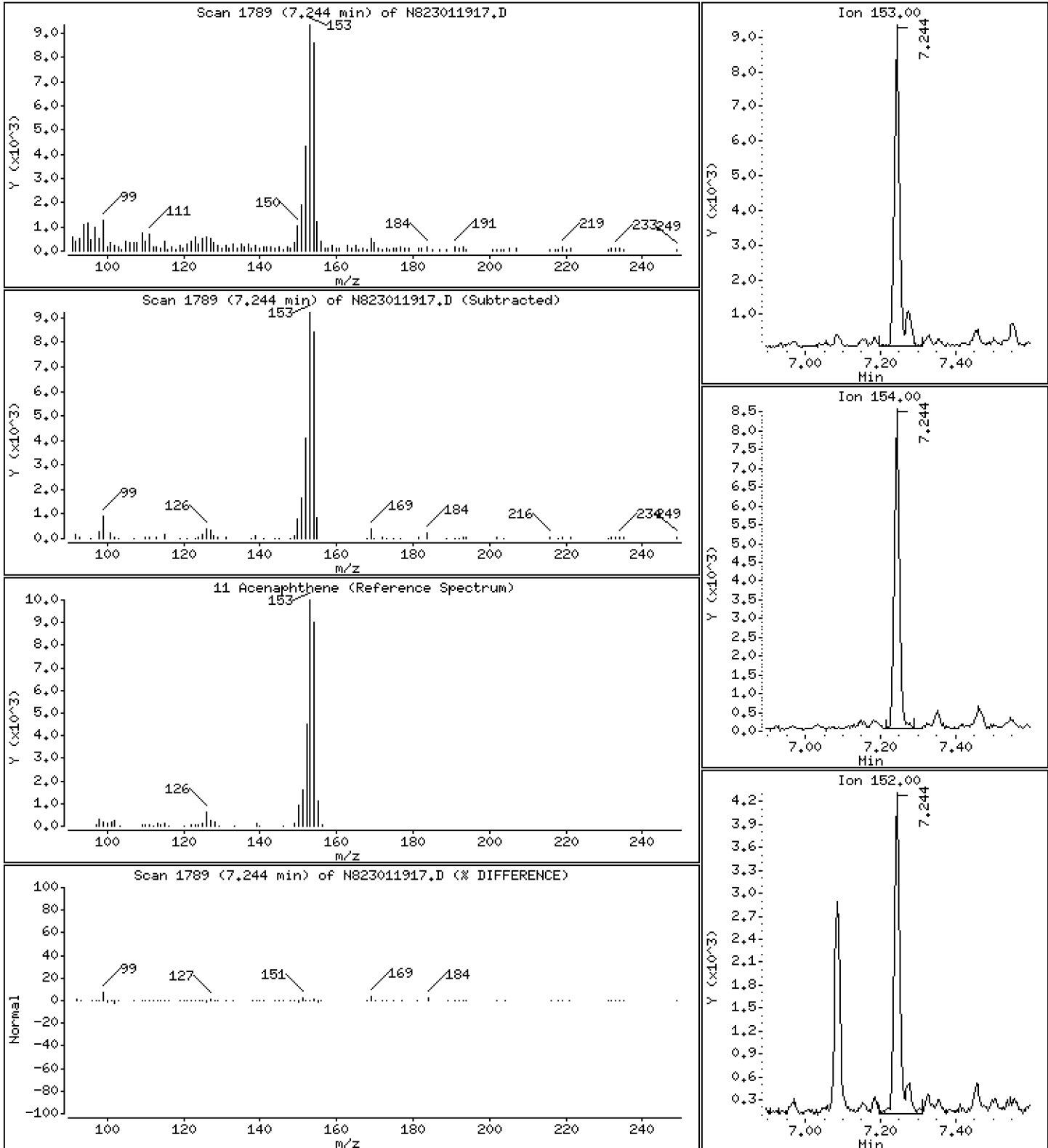
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 0,5894 ug/mL

11 Acenaphthene



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

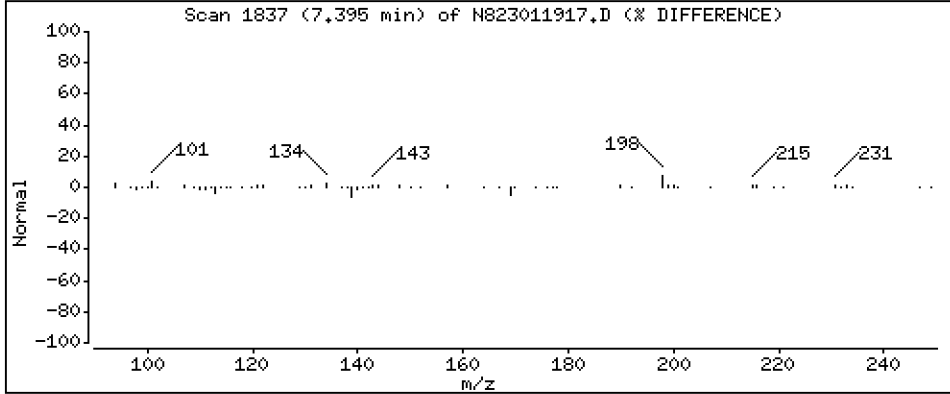
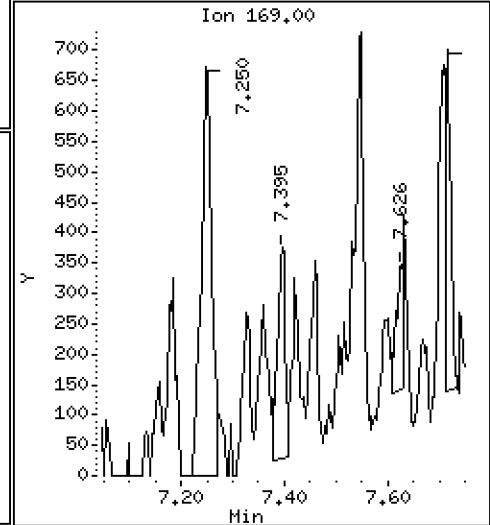
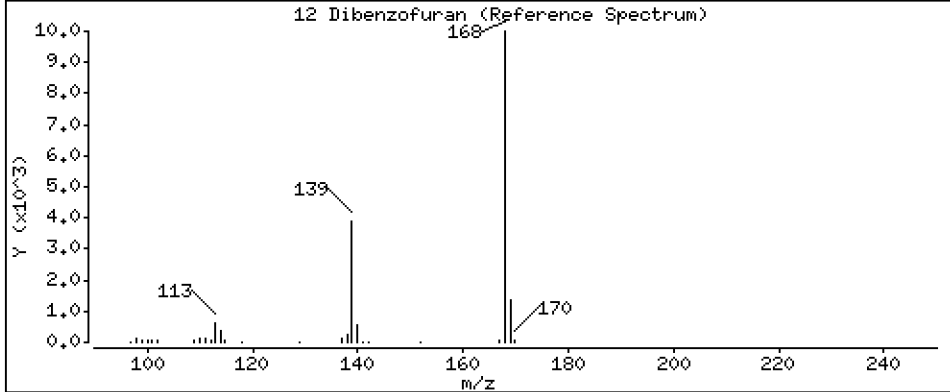
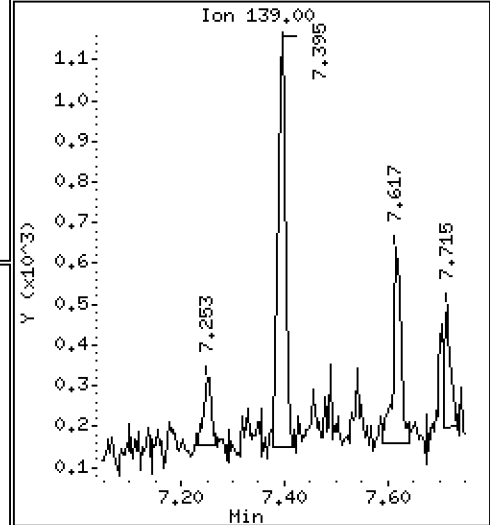
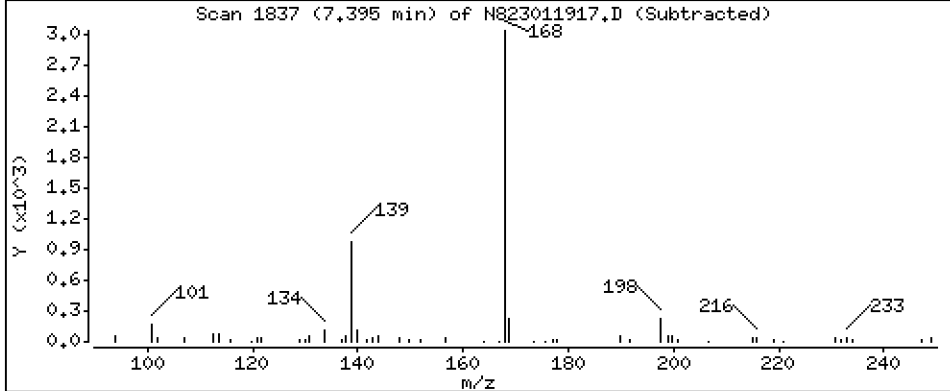
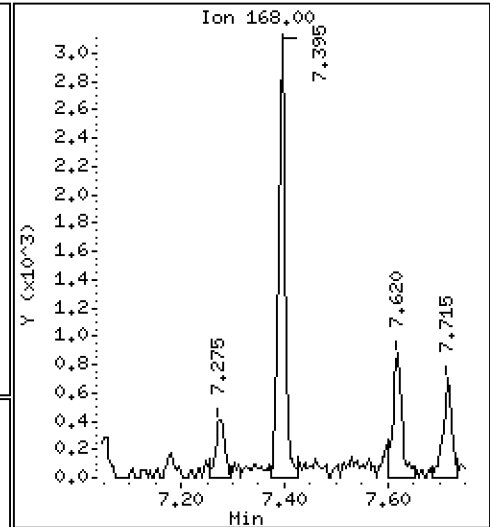
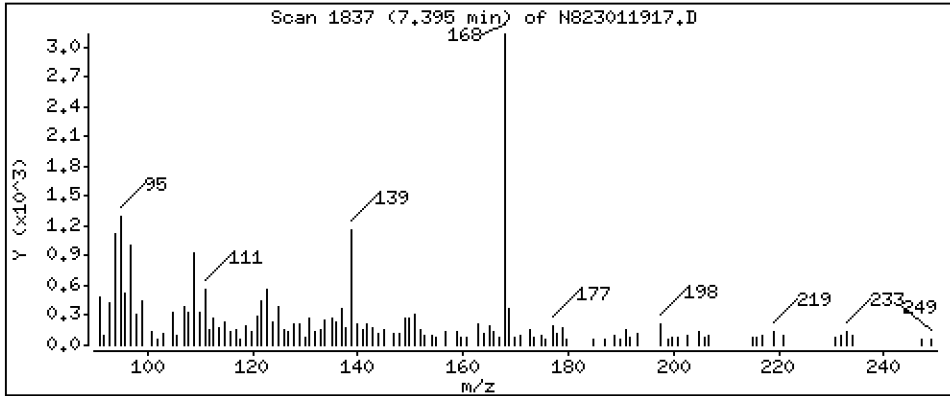
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

Concentration: 0.1132 ug/mL

12 Dibenzofuran



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

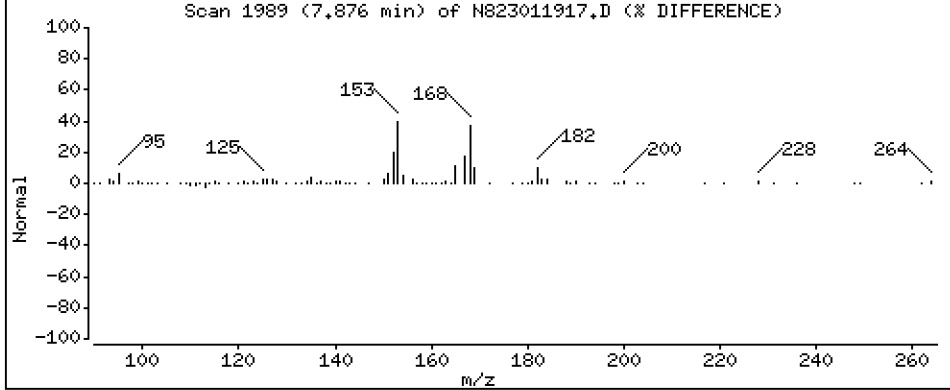
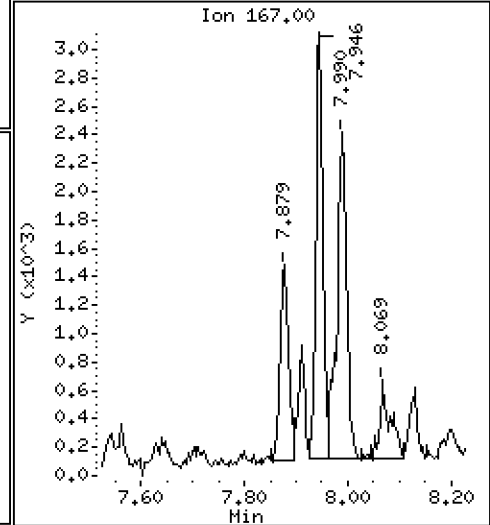
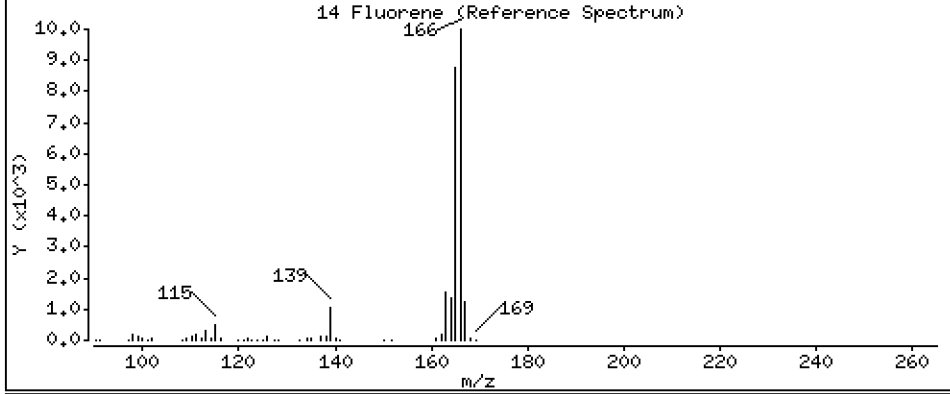
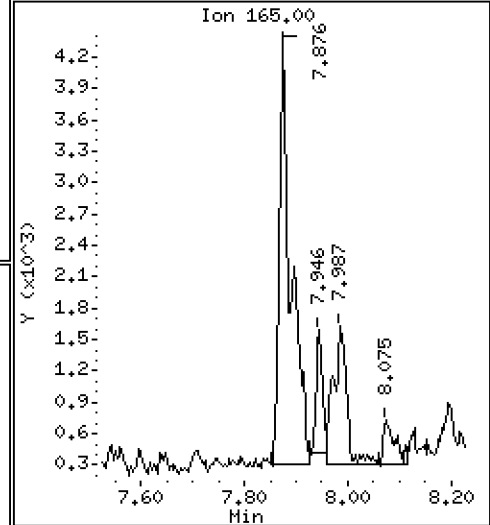
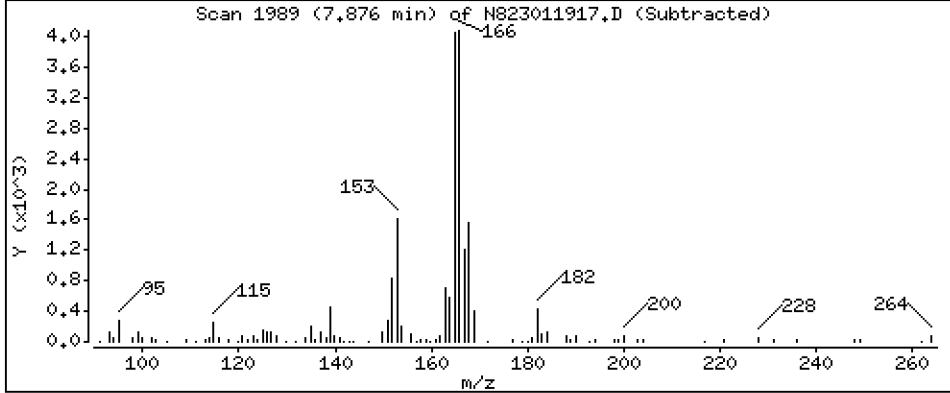
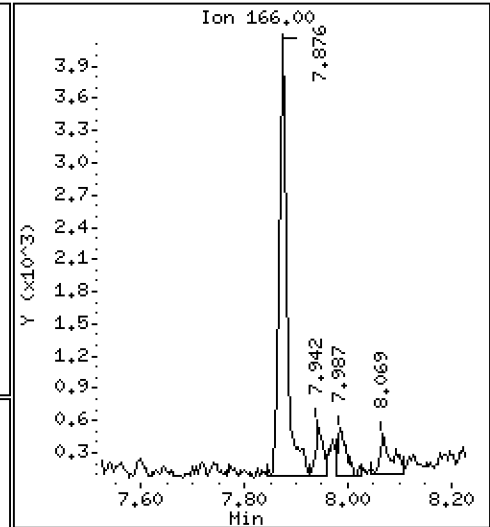
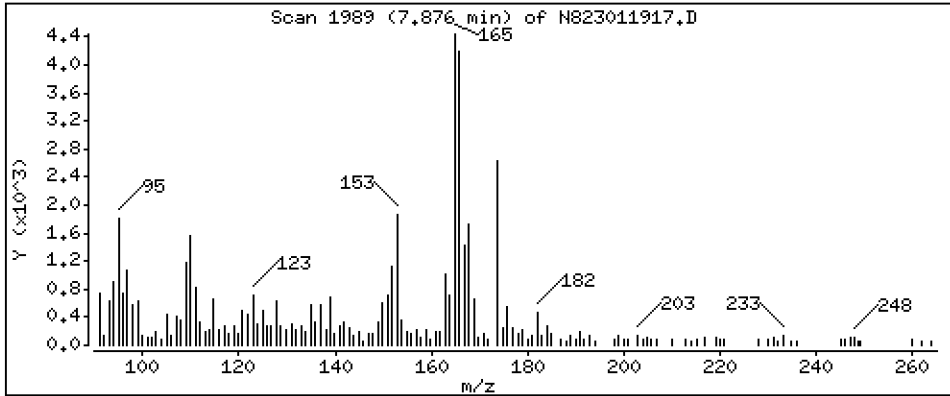
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 0,2333 ug/mL

14 Fluorene



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

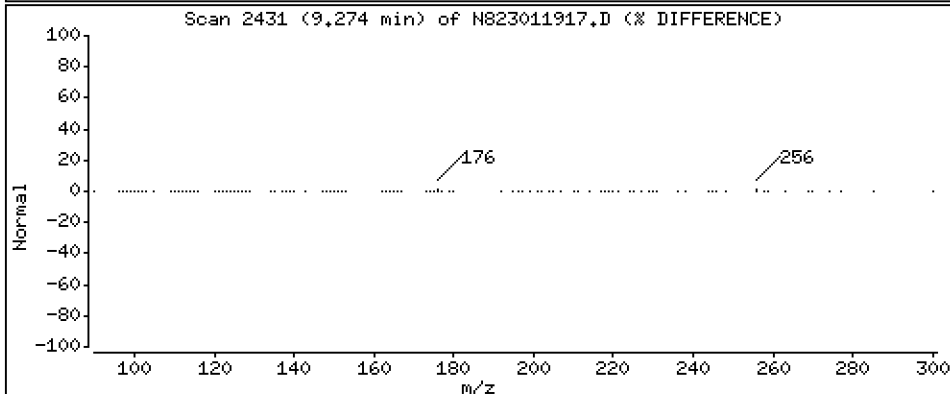
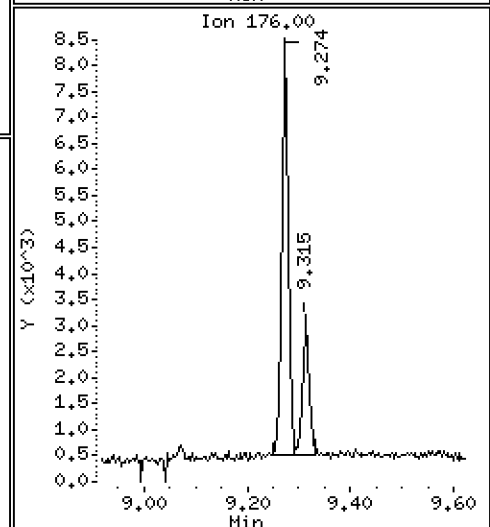
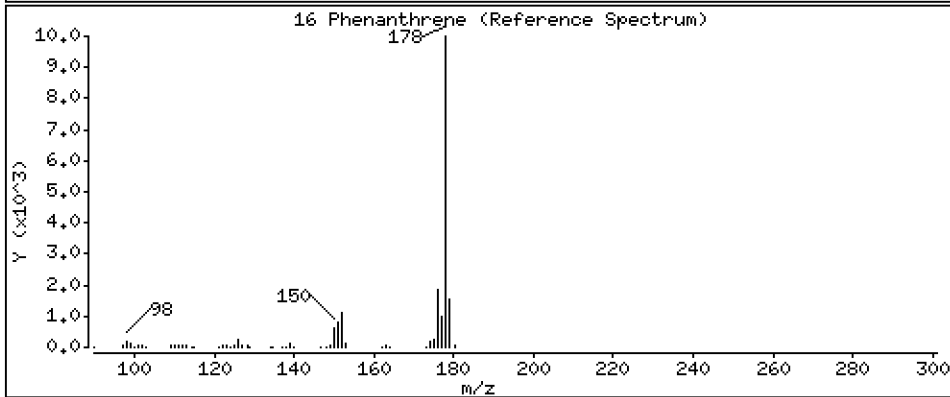
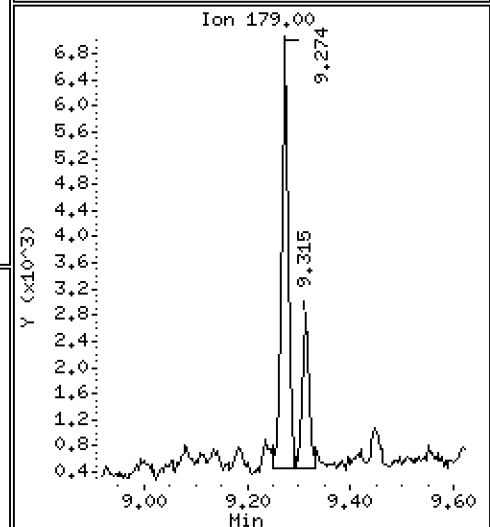
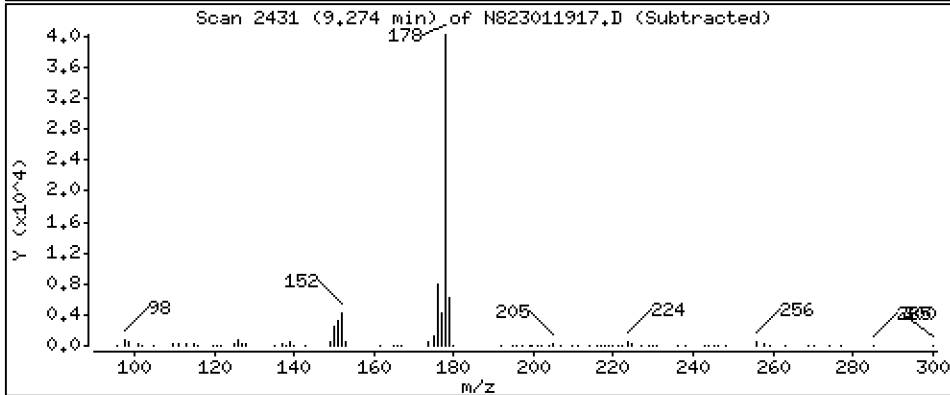
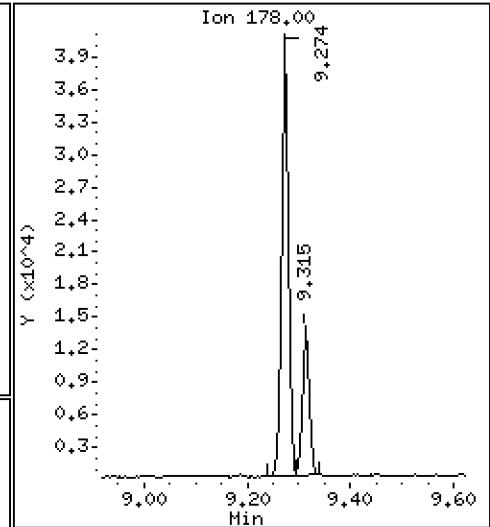
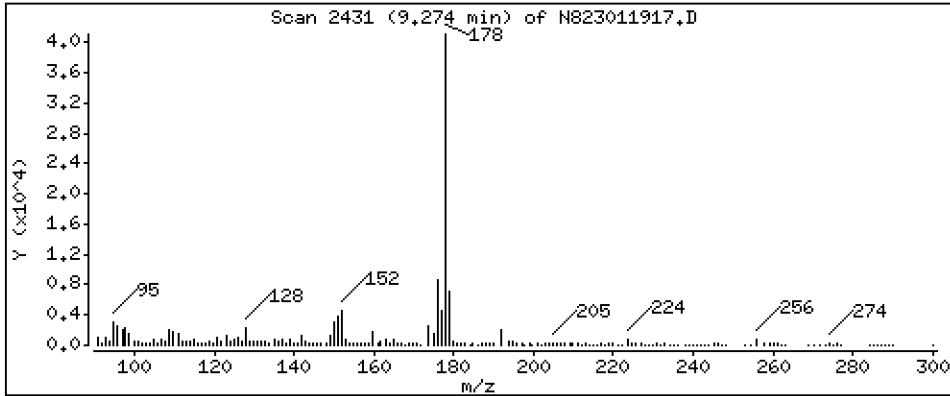
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 1,373 ug/mL

16 Phenanthrene



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

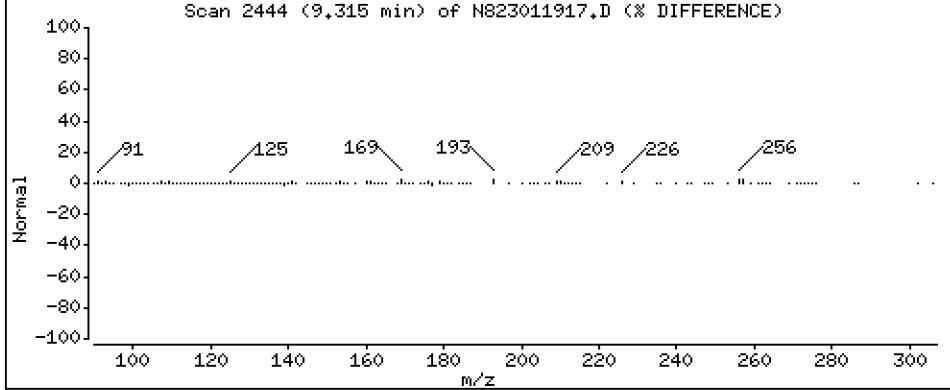
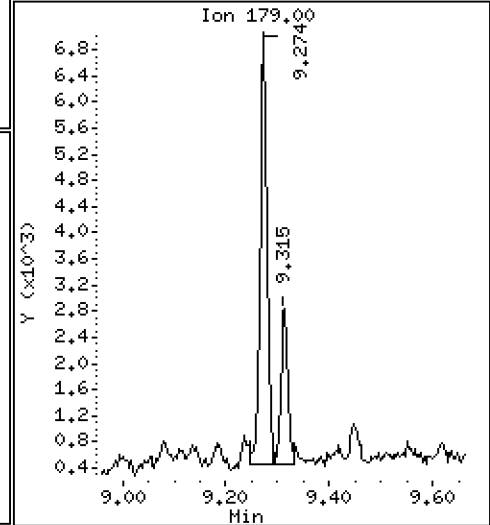
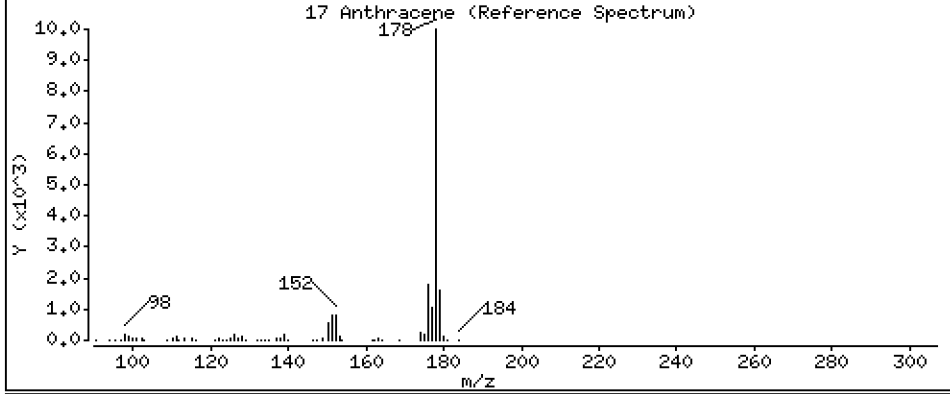
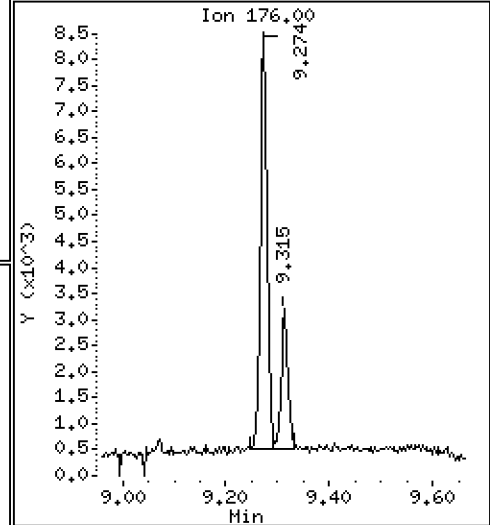
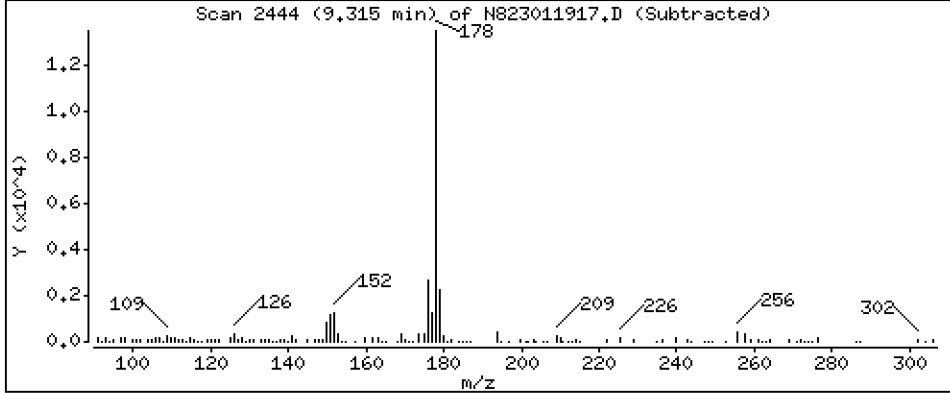
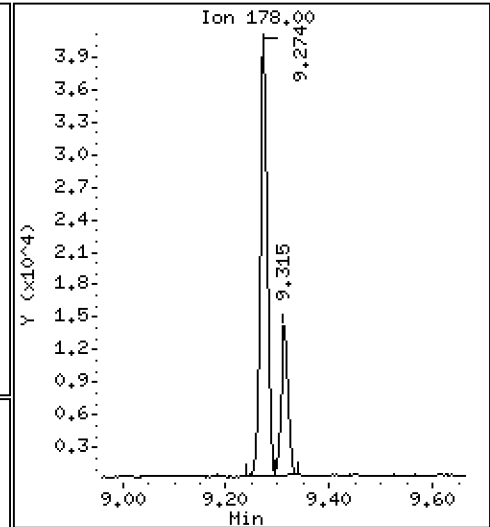
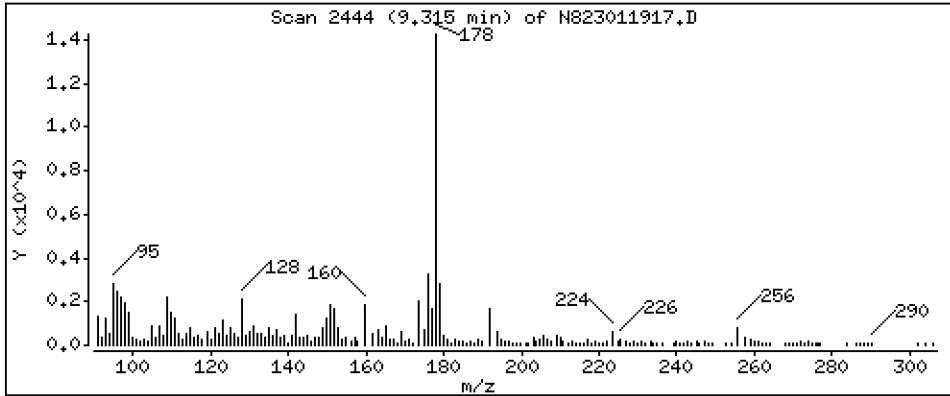
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

17 Anthracene

Concentration: 0,5178 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

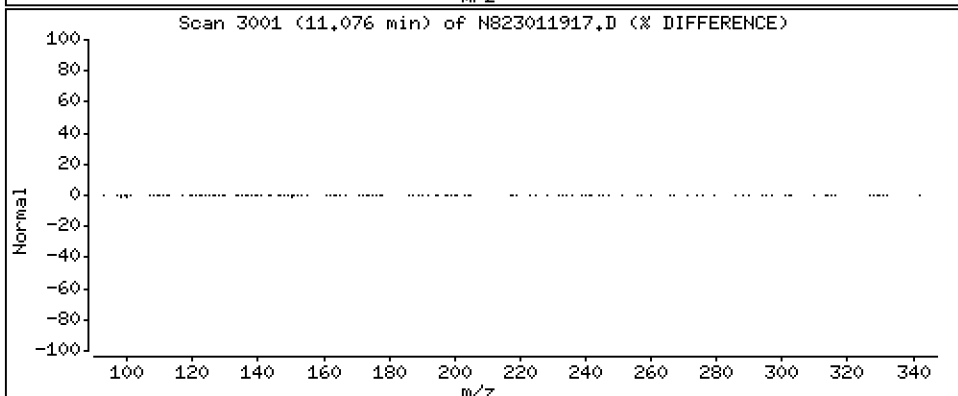
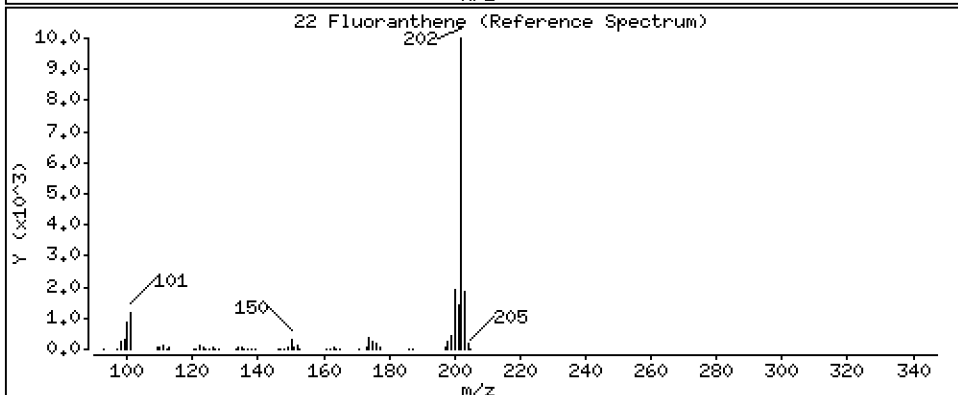
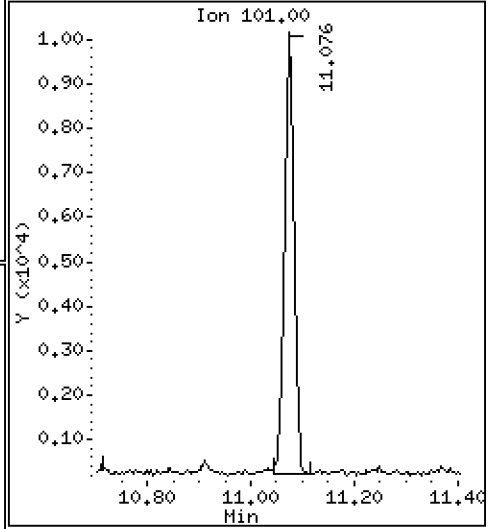
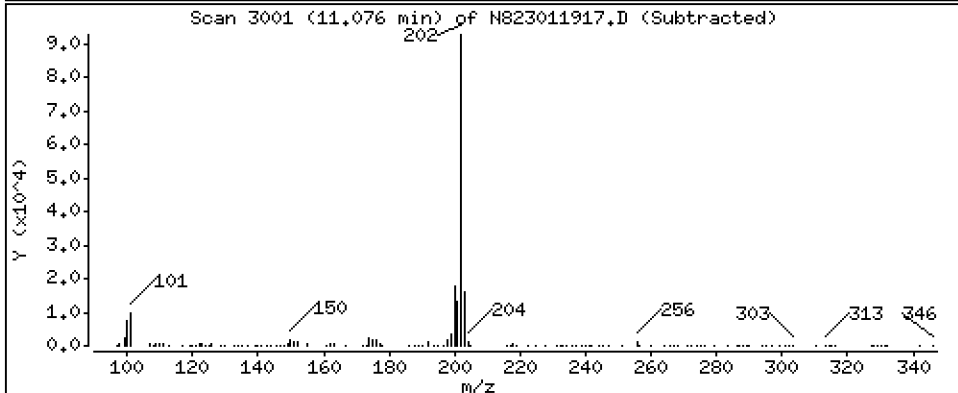
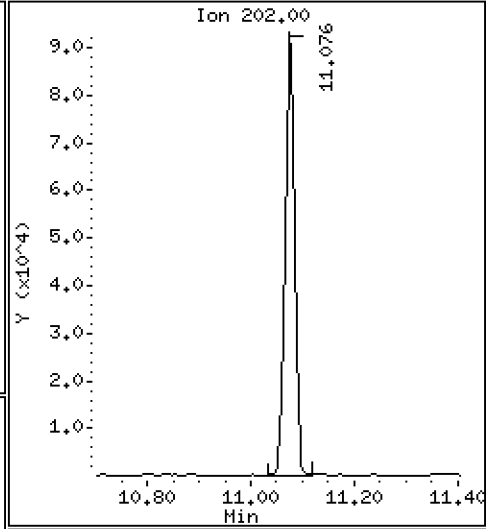
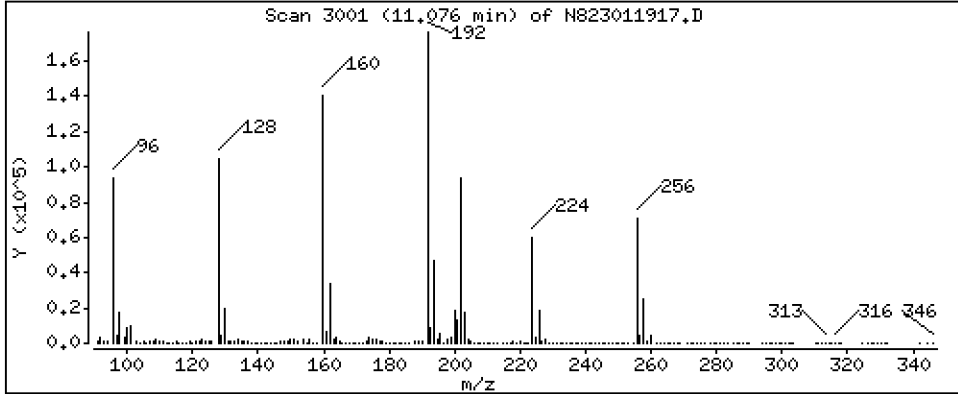
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 3,891 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

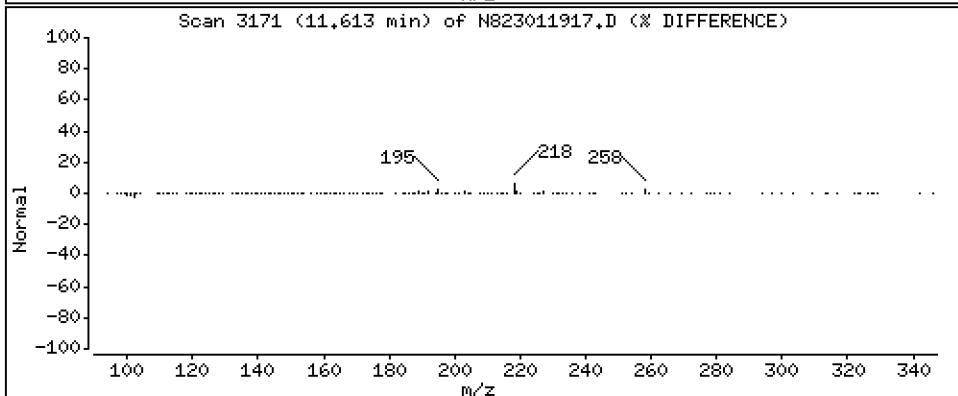
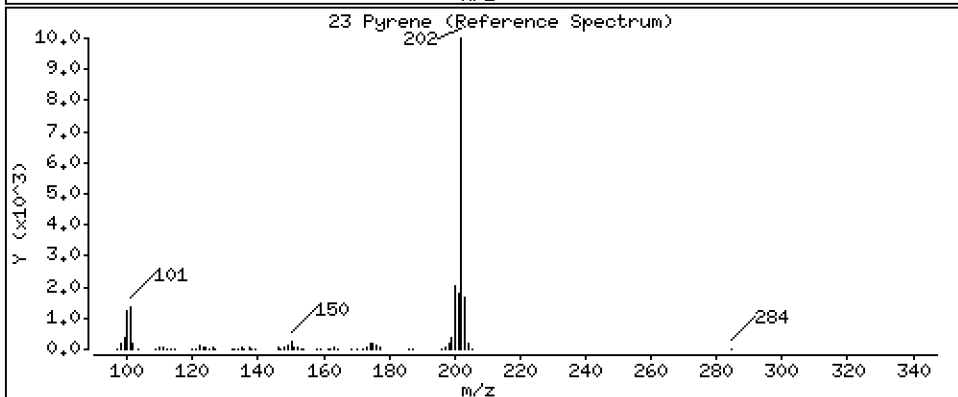
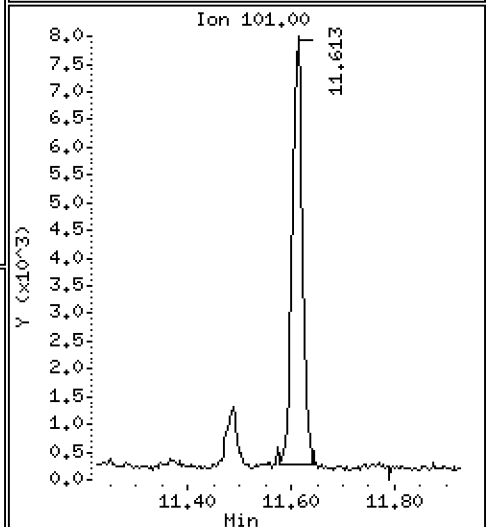
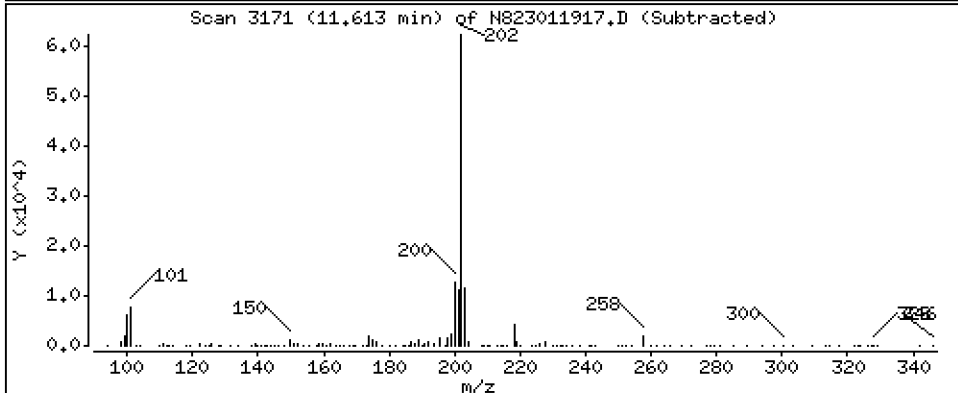
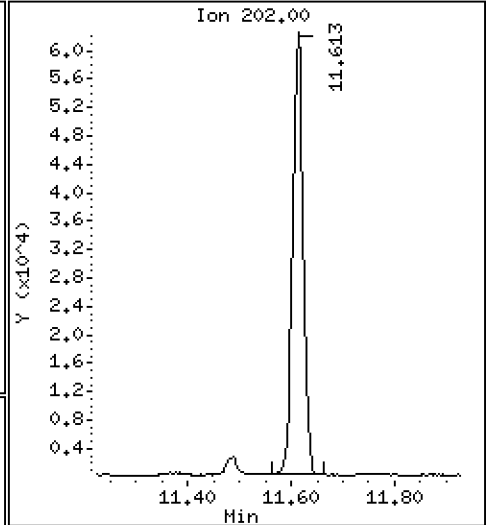
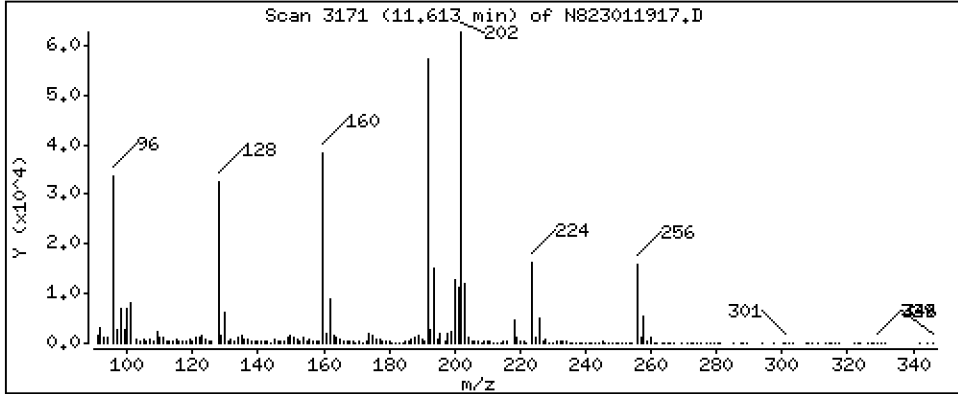
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 4,037 ug/mL

23 Pyrene



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

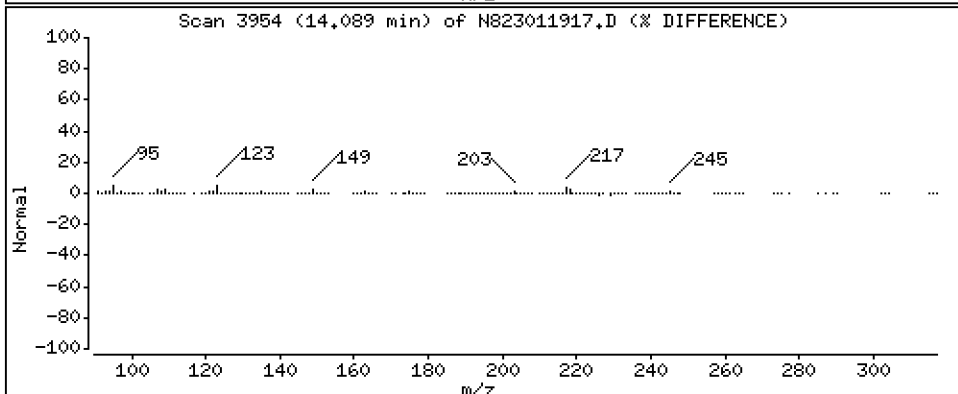
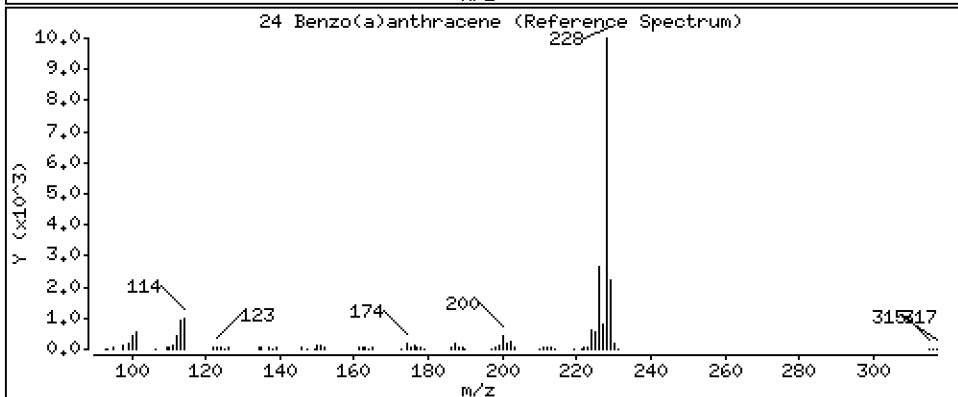
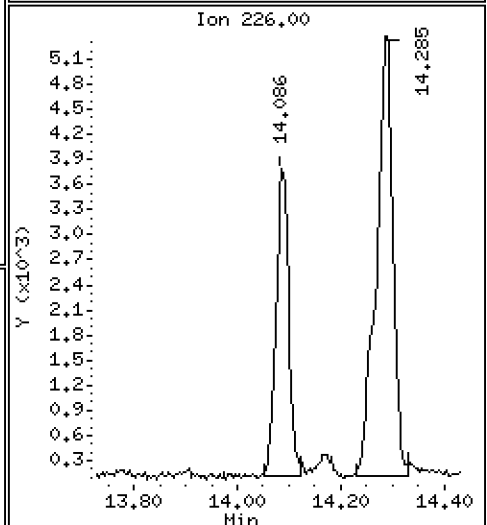
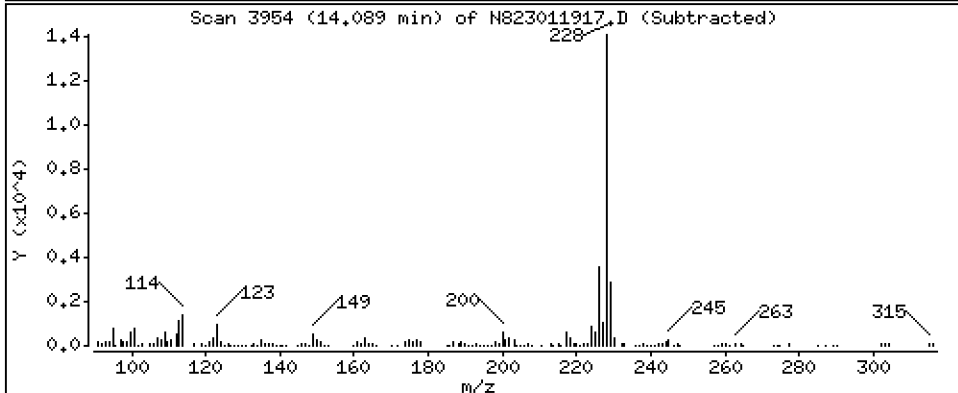
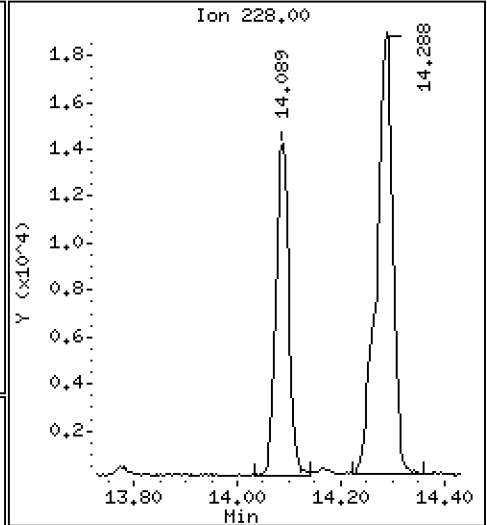
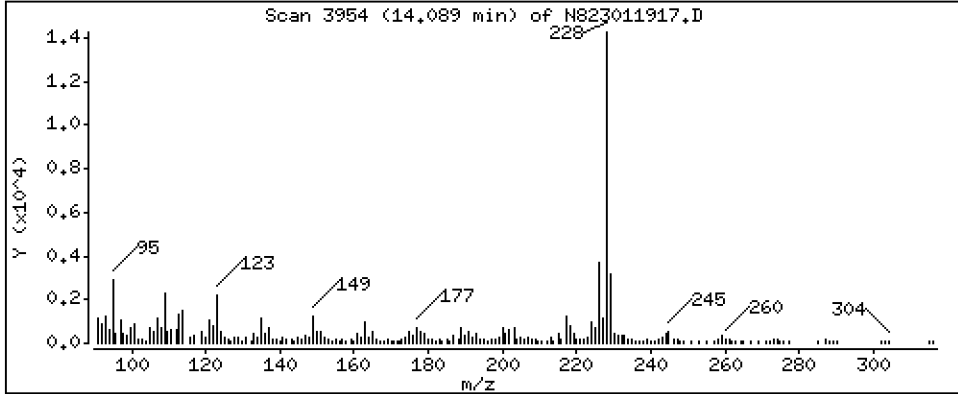
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

24 Benzo(a)anthracene

Concentration: 1,274 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

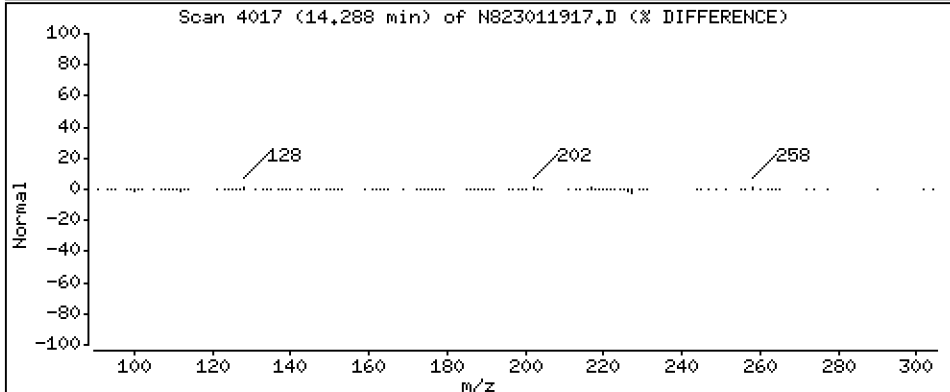
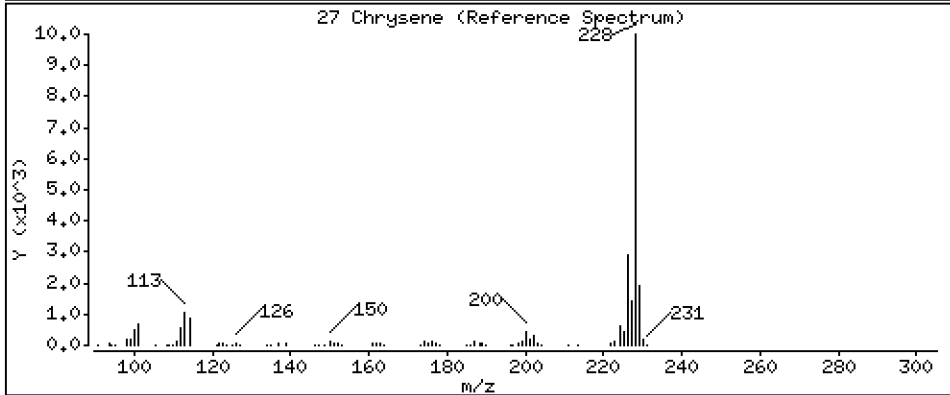
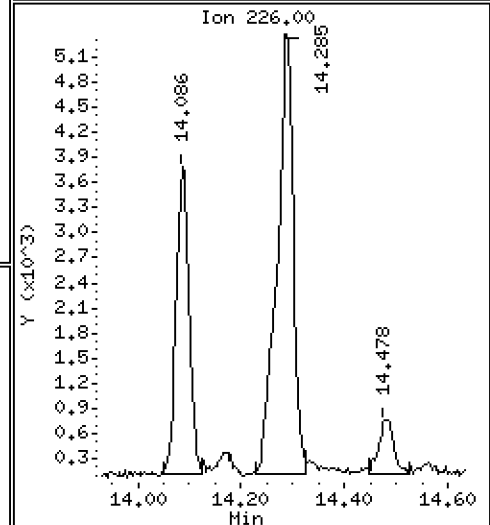
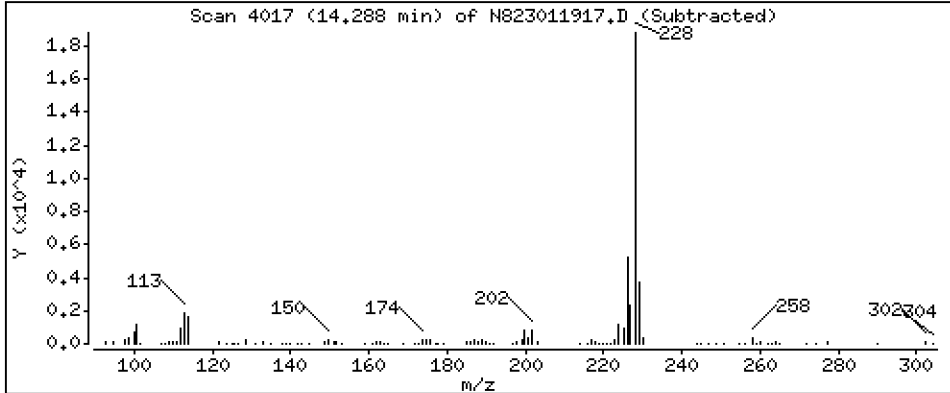
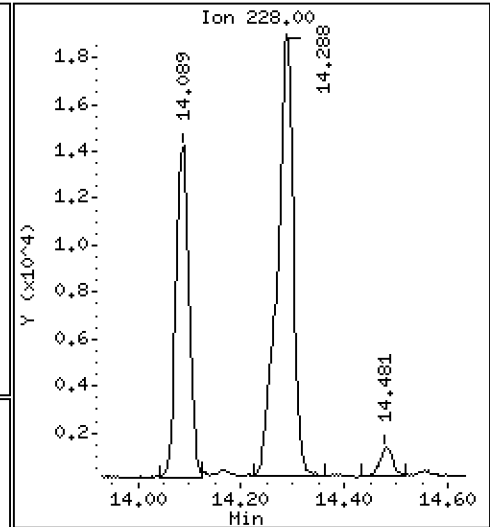
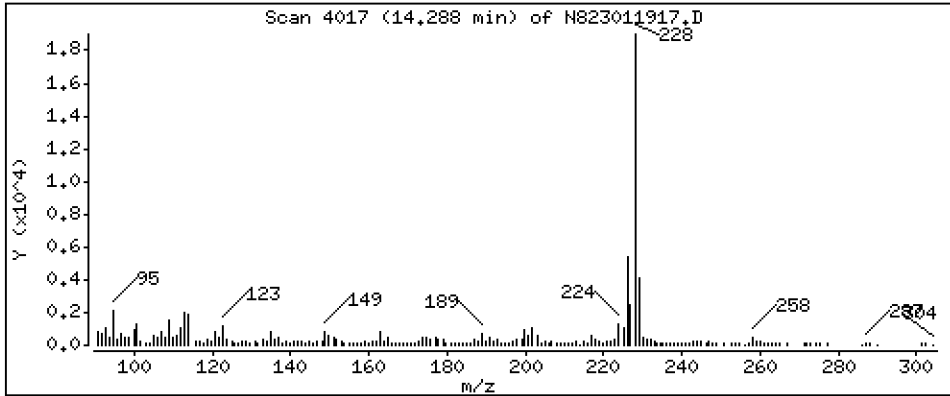
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

27 Chrysene

Concentration: 1,952 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

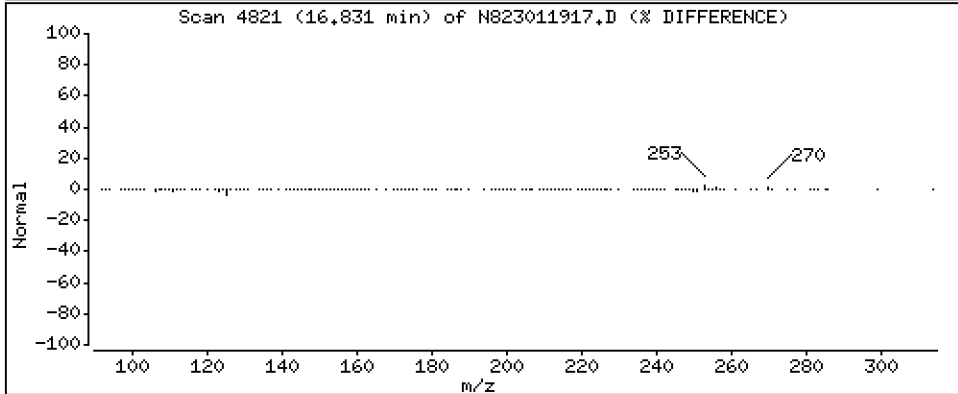
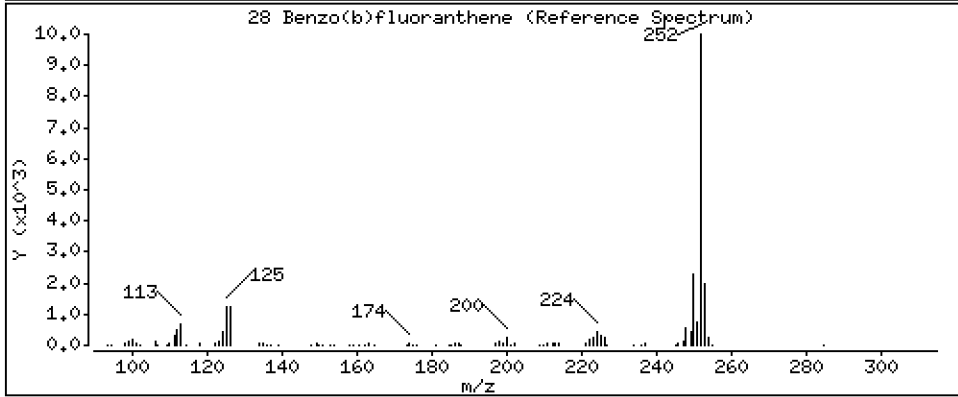
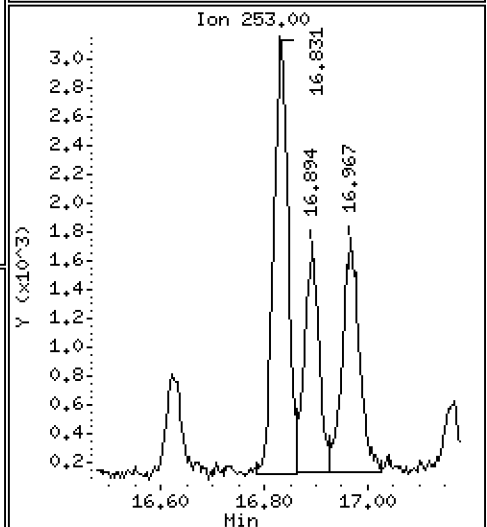
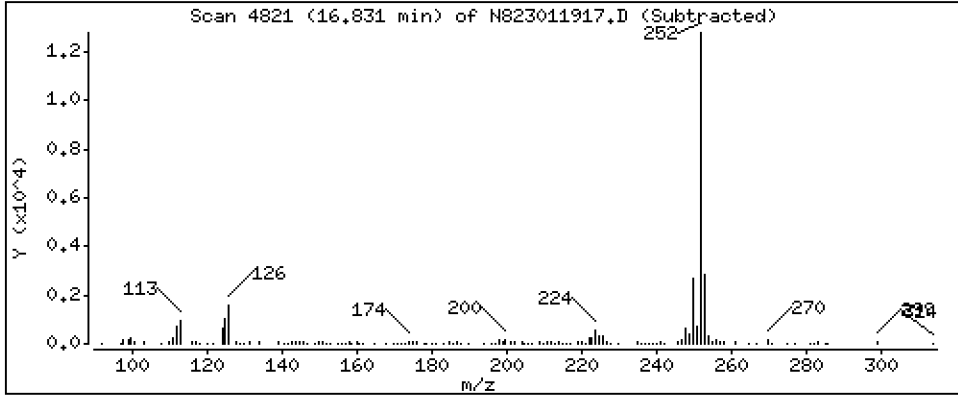
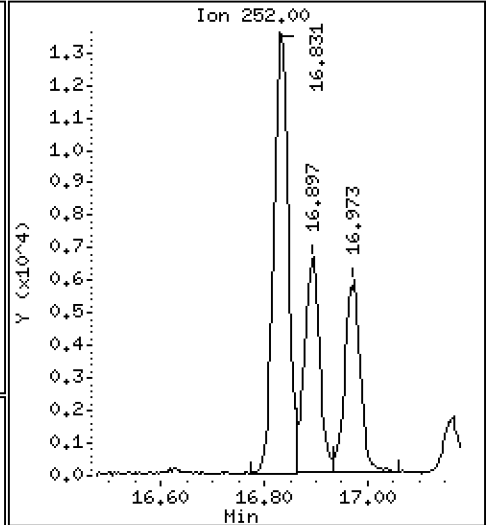
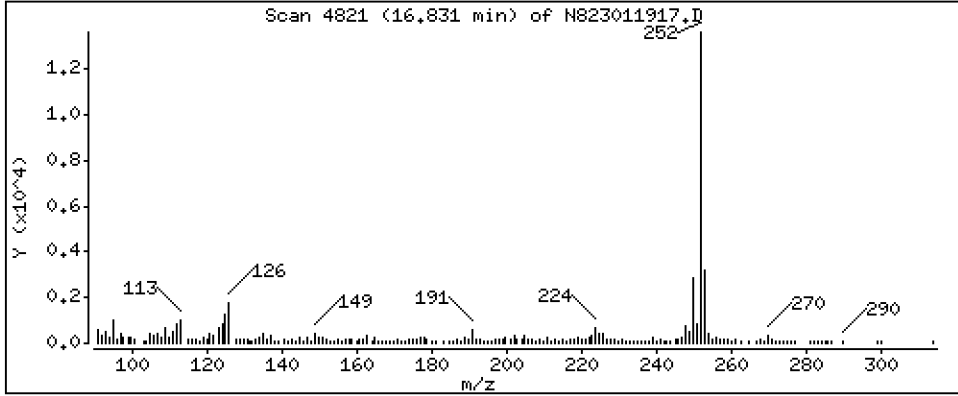
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

28 Benzo(b)fluoranthene

Concentration: 1,375 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

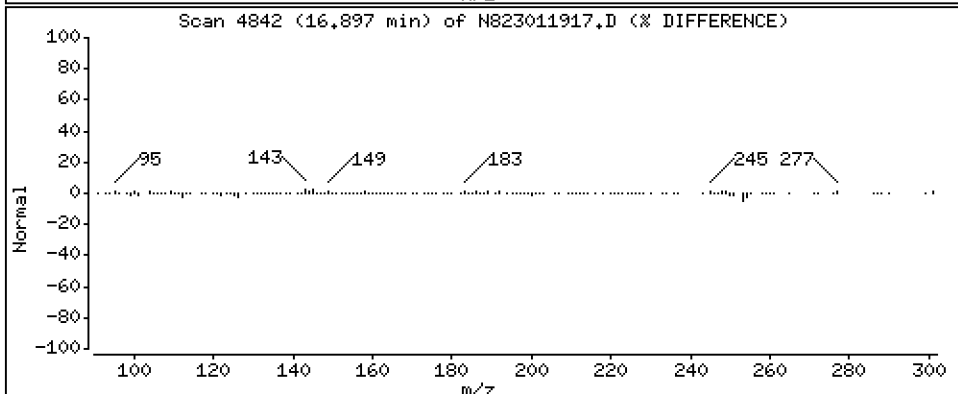
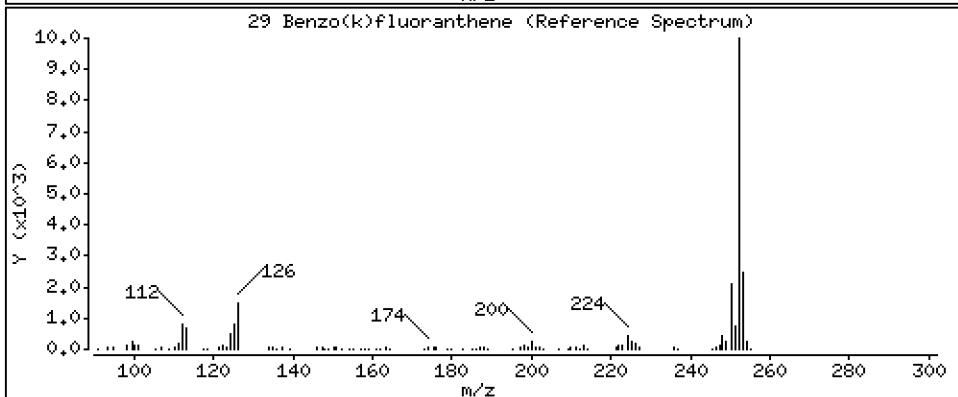
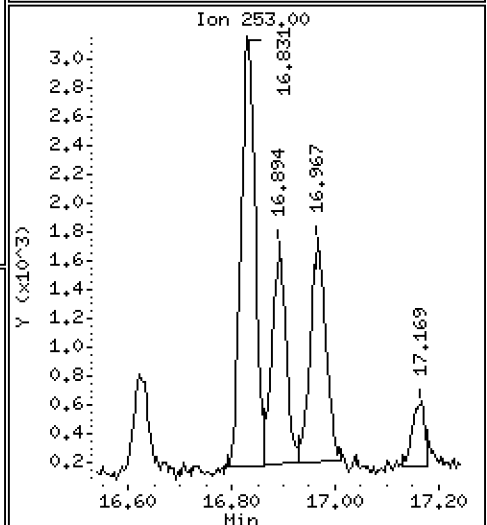
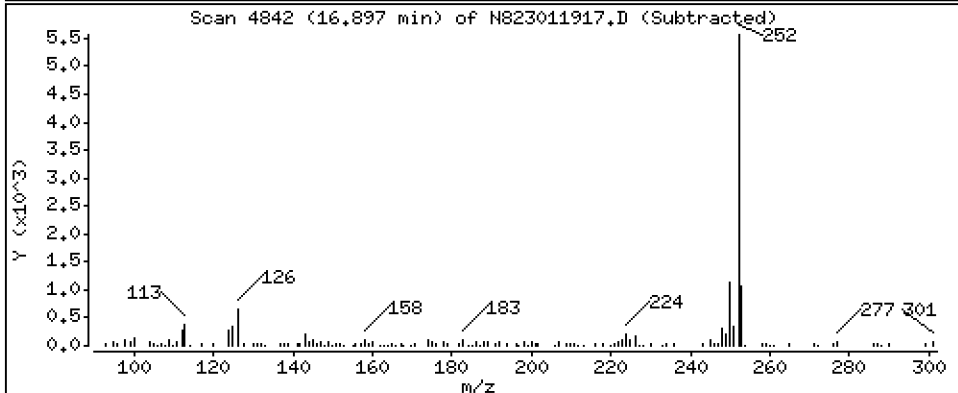
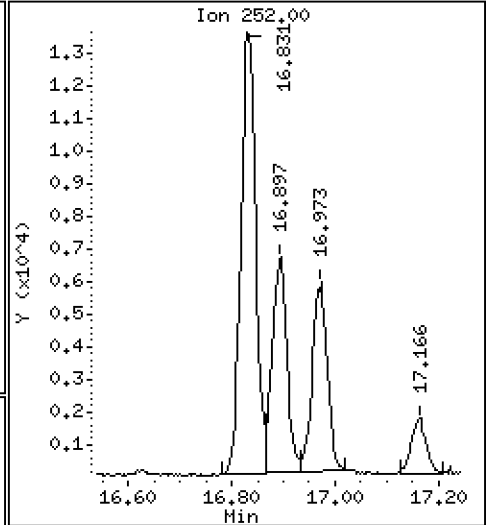
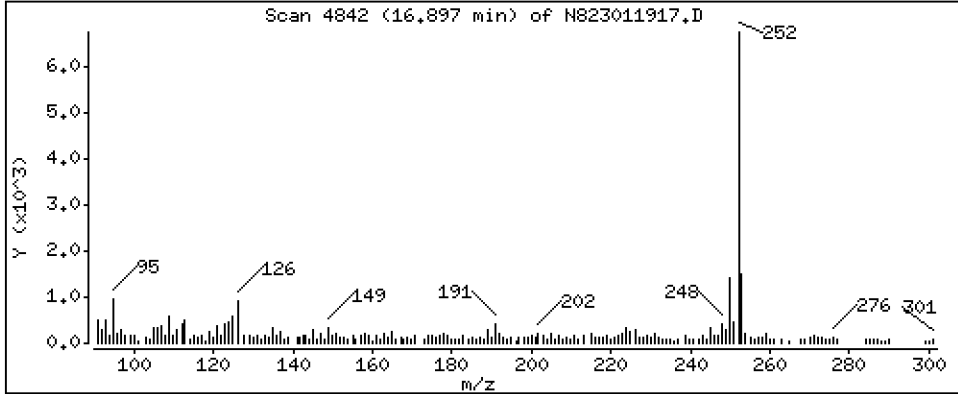
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

29 Benzo(k)fluoranthene

Concentration: 0,6905 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

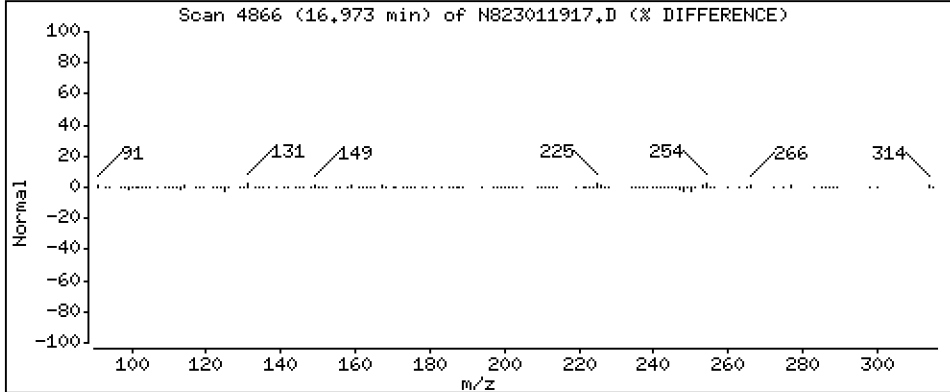
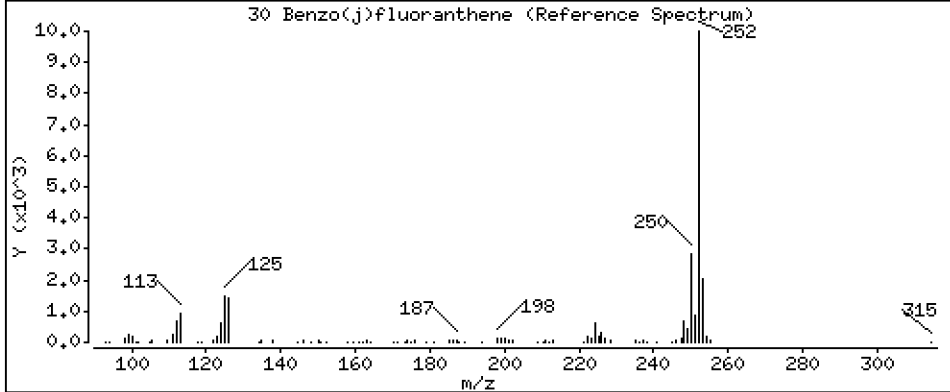
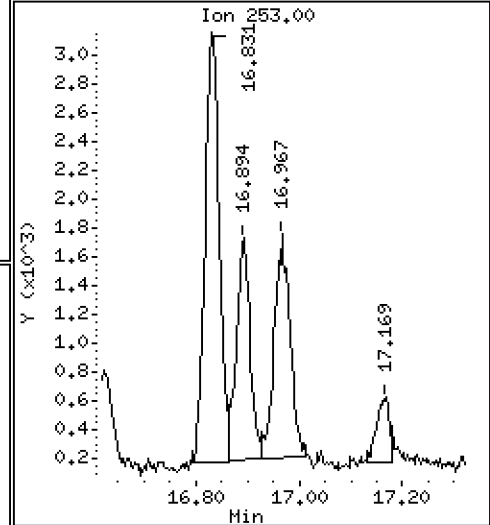
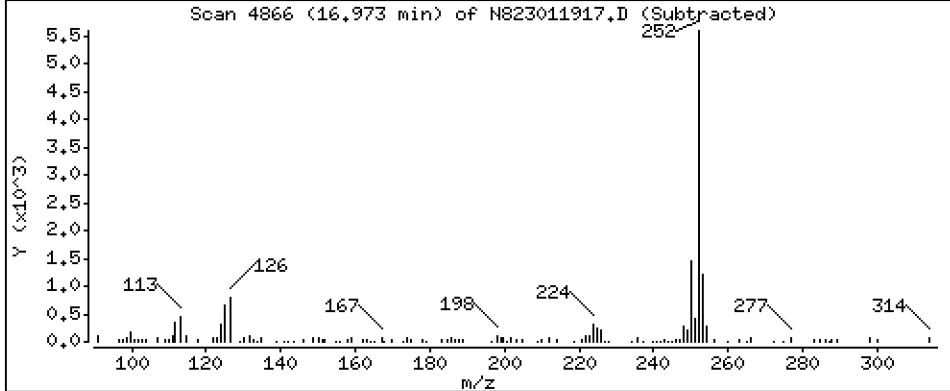
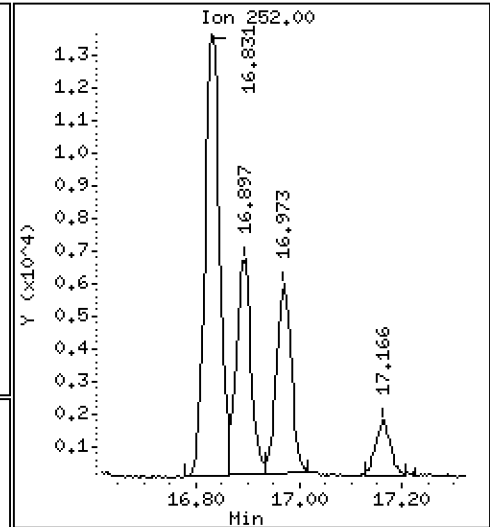
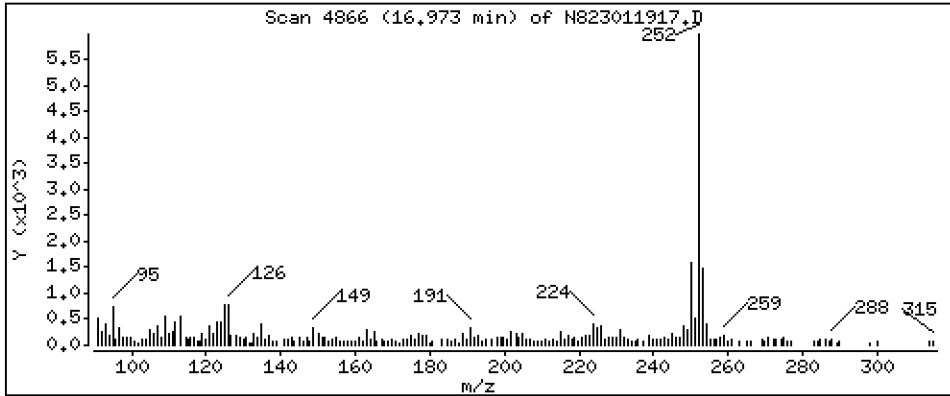
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

30 Benzo(j)fluoranthene

Concentration: 0,6679 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

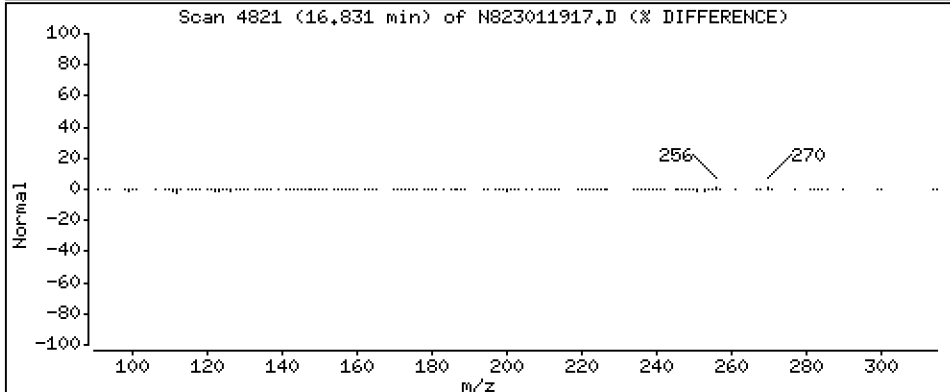
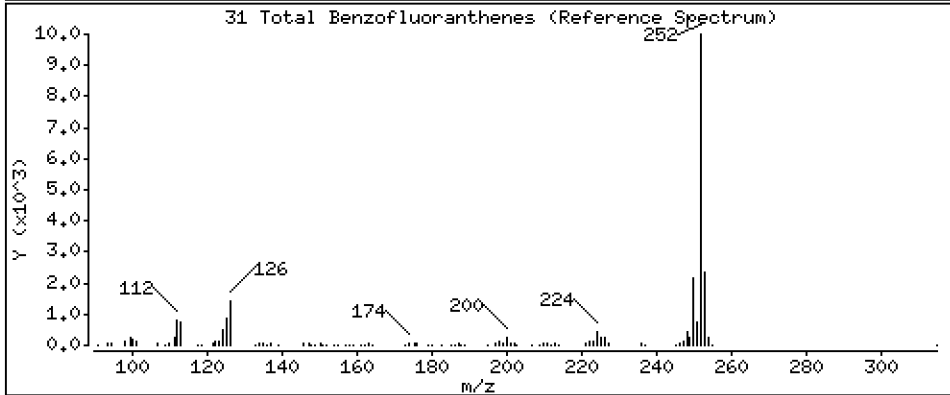
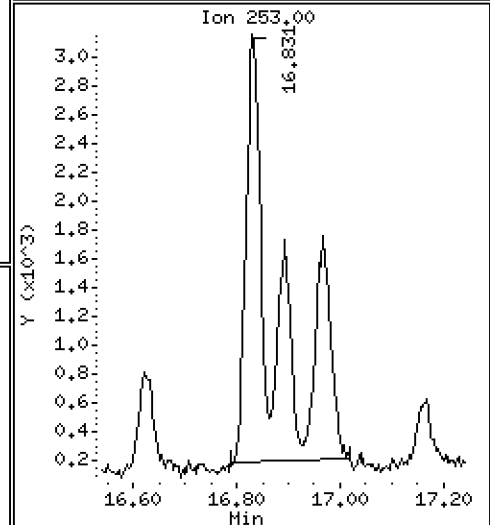
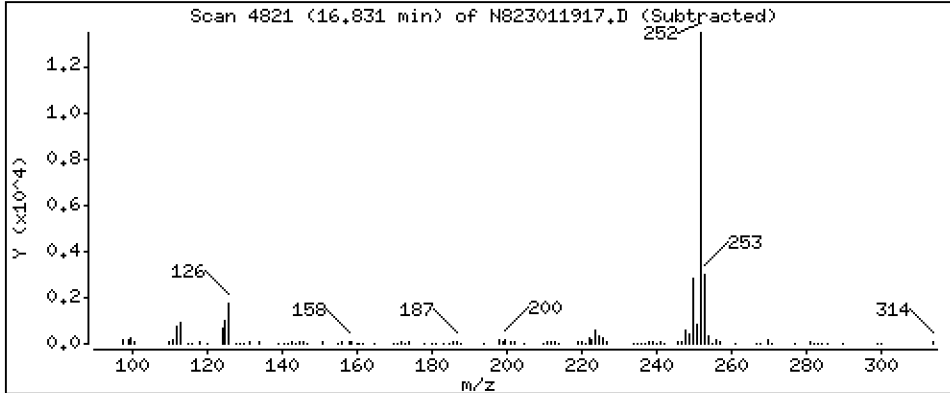
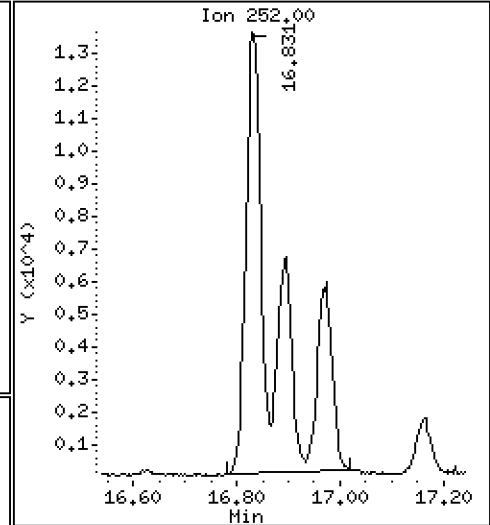
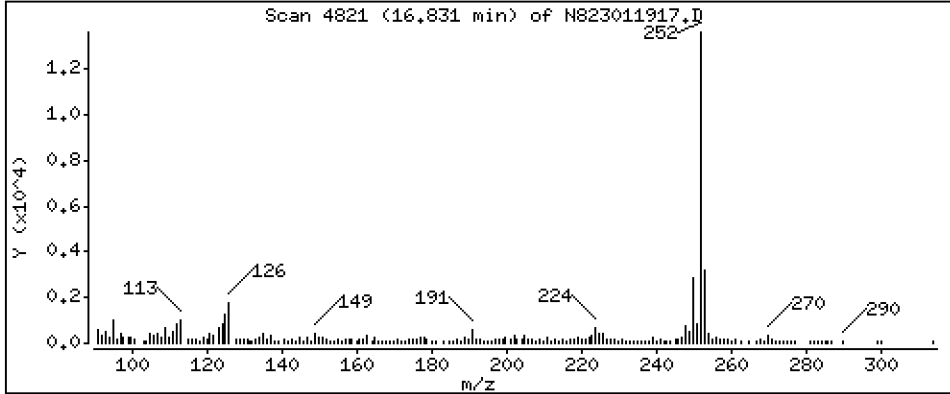
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

31 Total Benzofluoranthenes

Concentration: 2,768 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

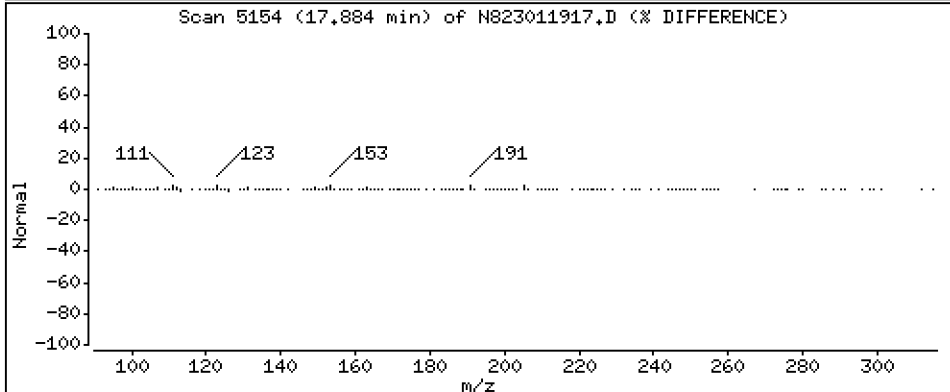
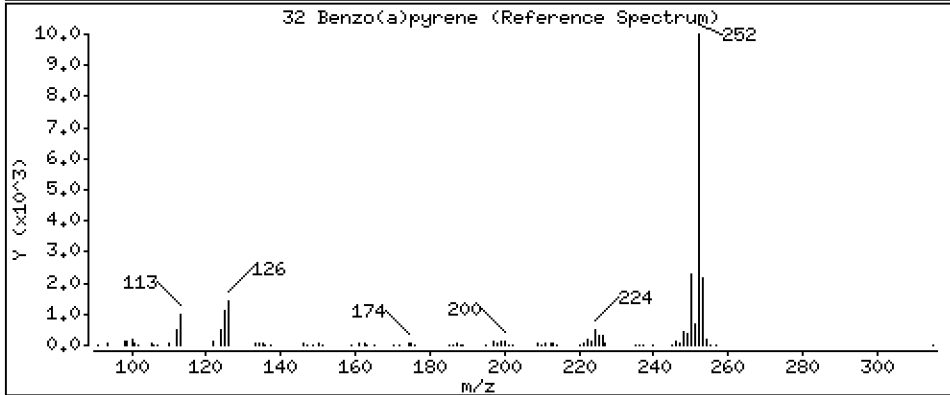
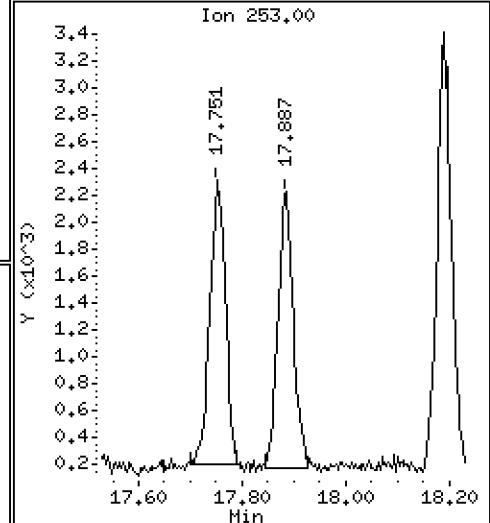
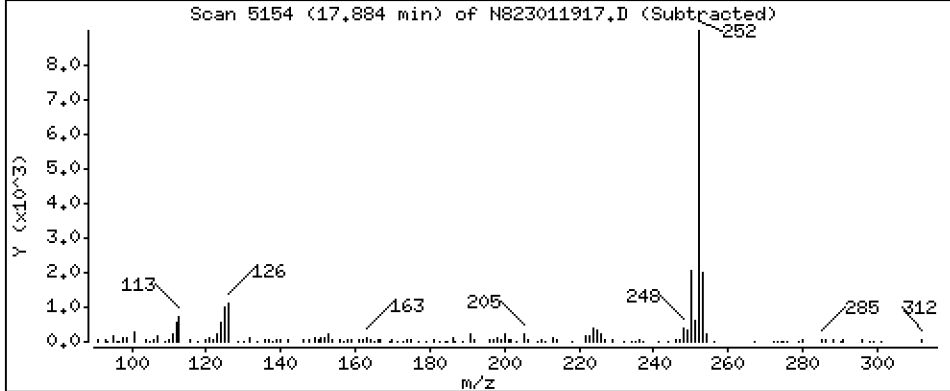
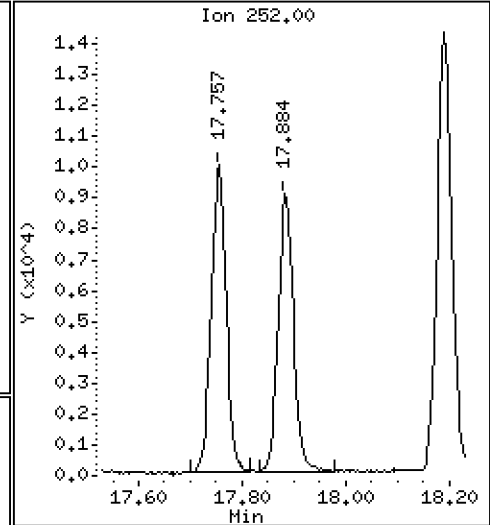
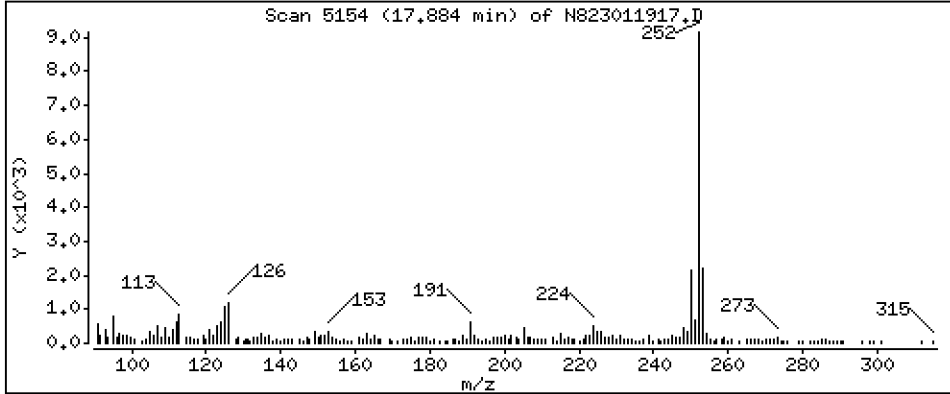
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 1,075 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

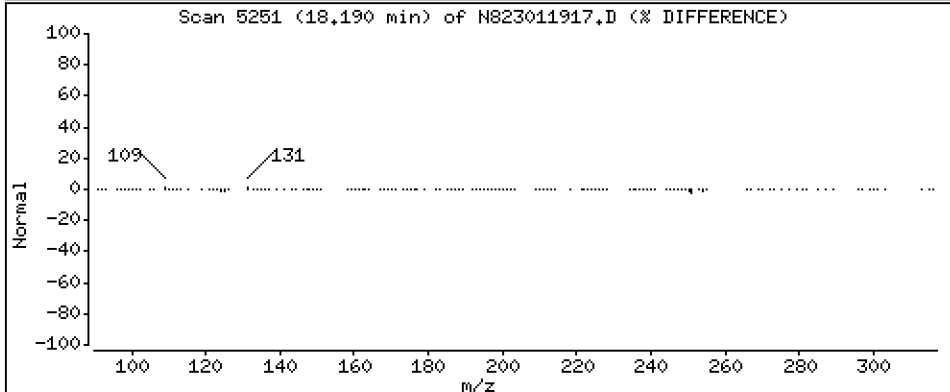
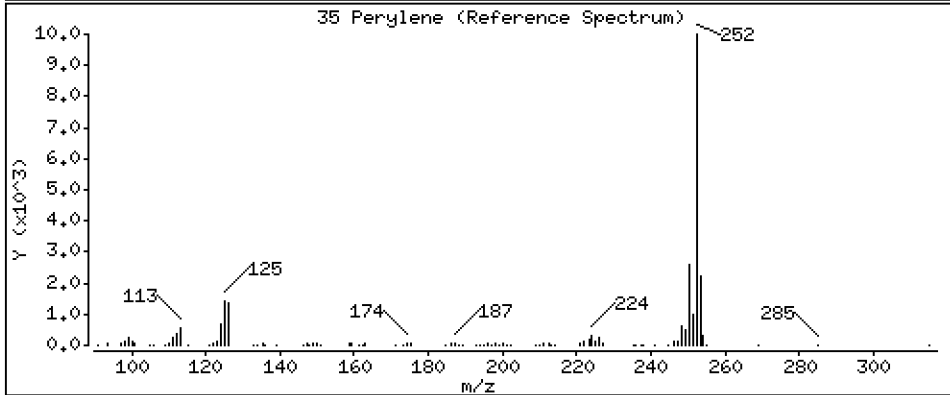
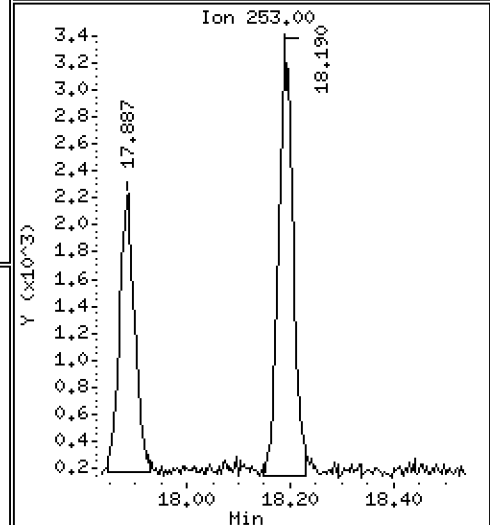
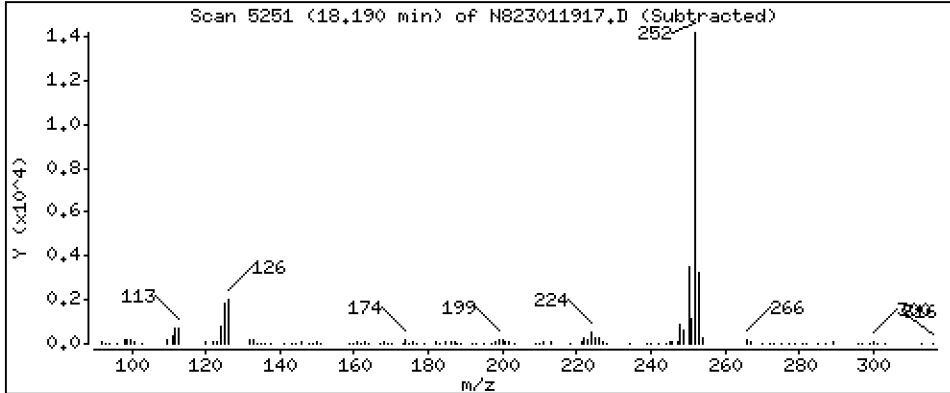
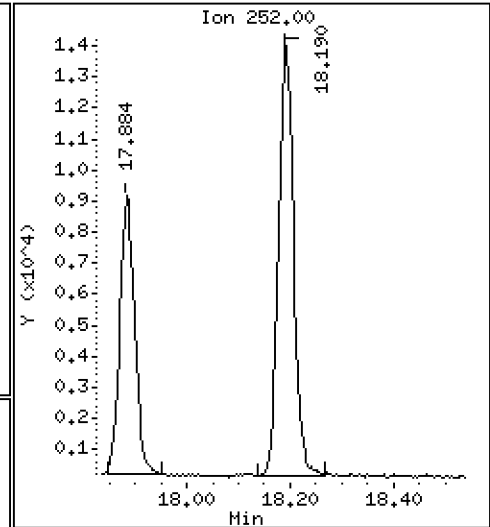
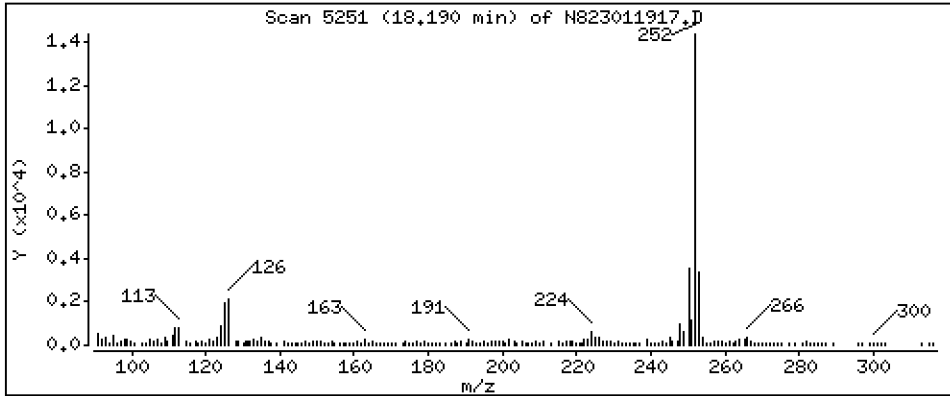
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

35 Perylene

Concentration: 1,539 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

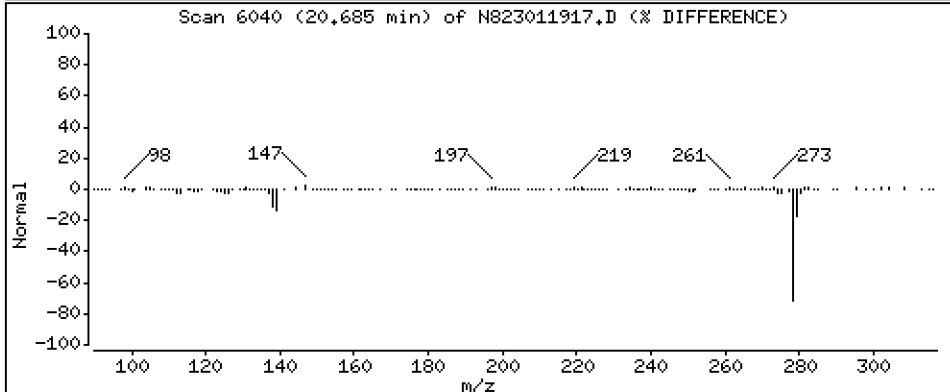
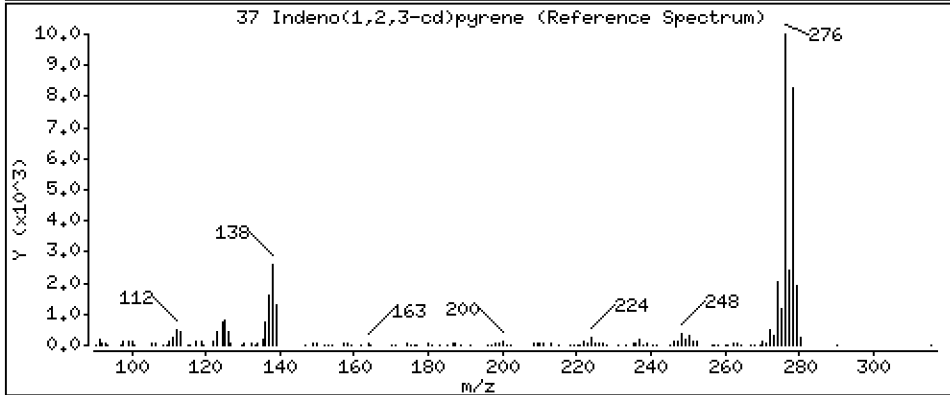
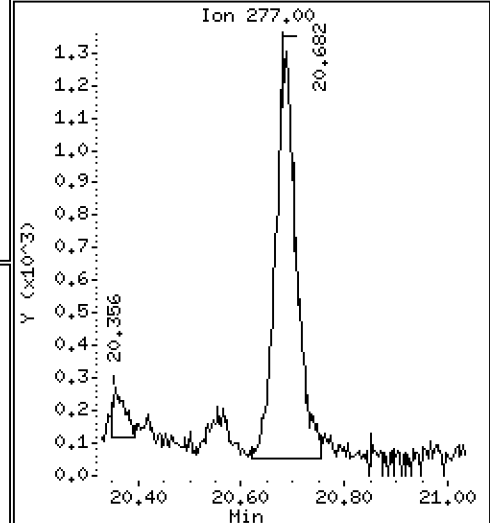
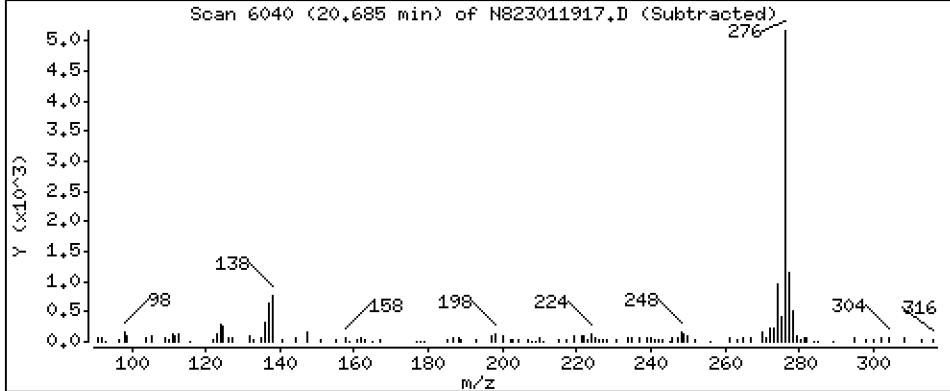
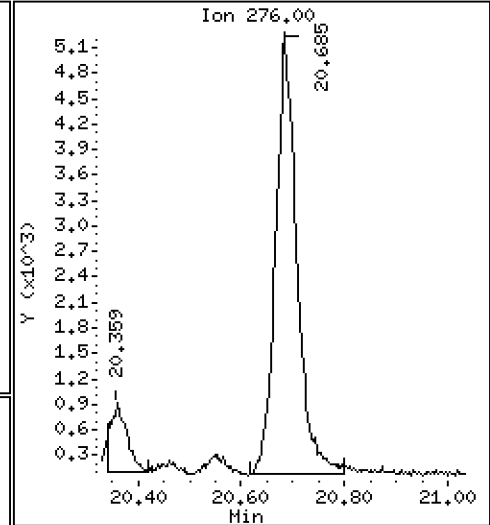
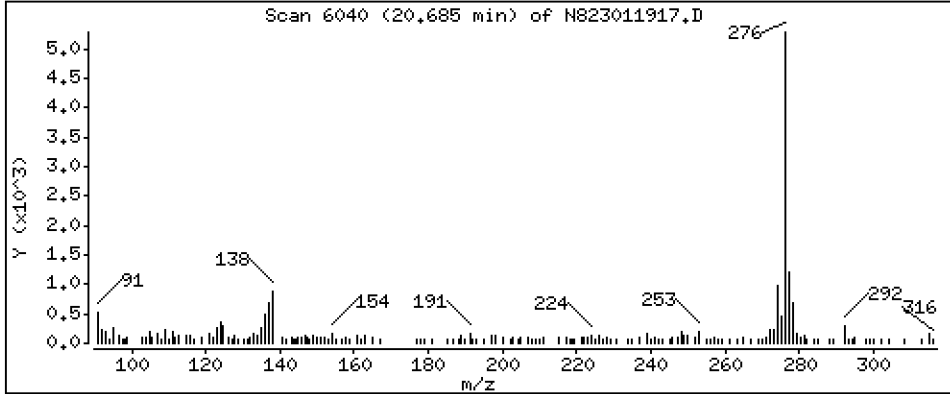
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 0,7526 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

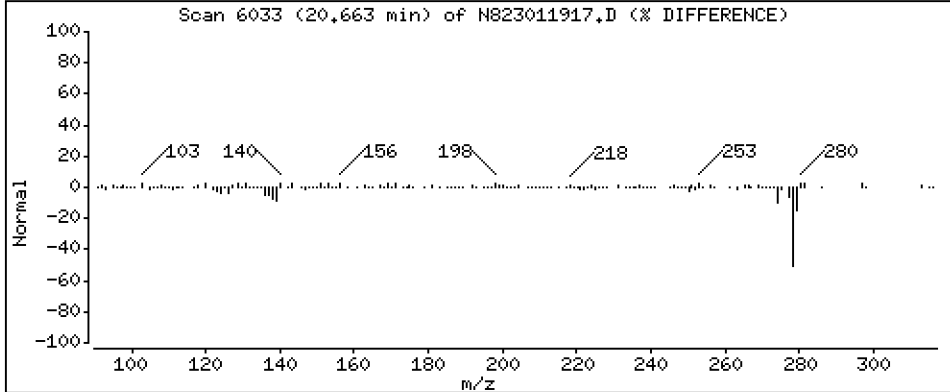
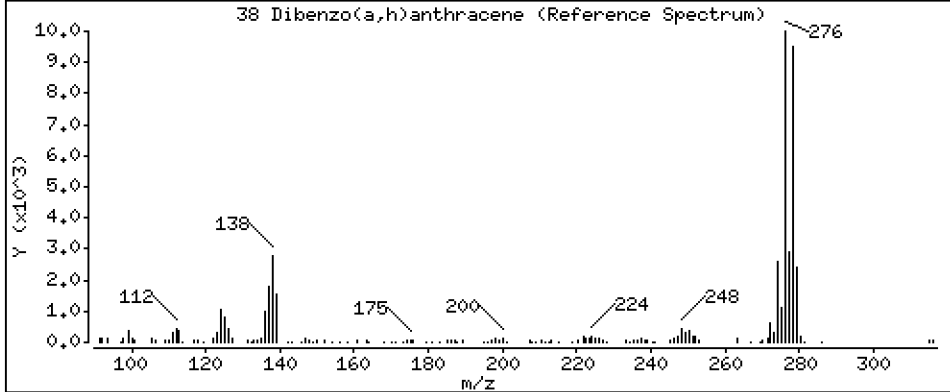
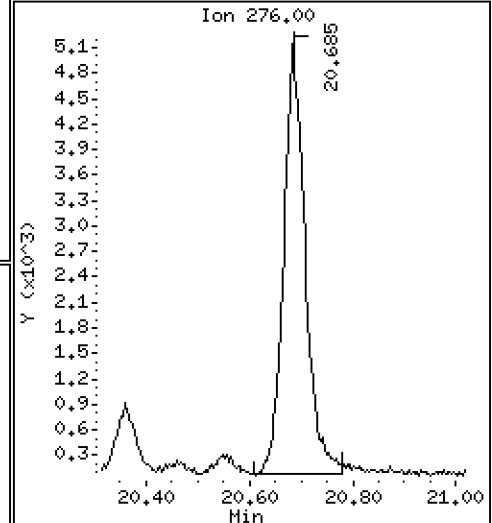
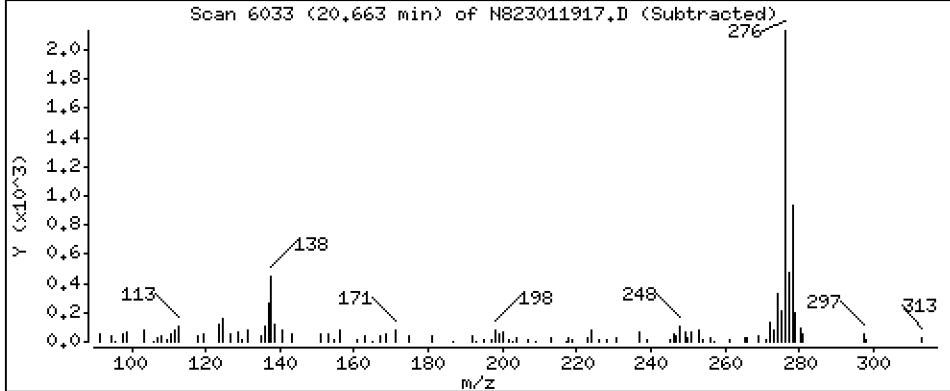
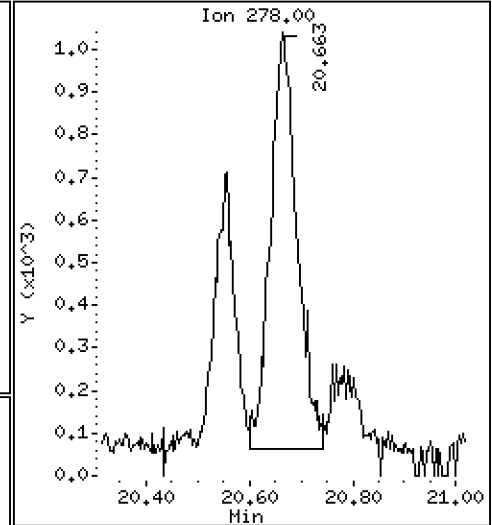
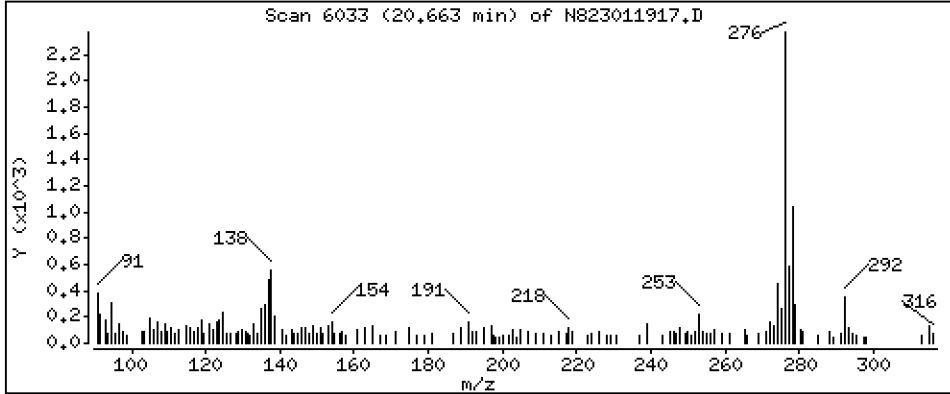
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 0,2075 ug/mL



Date : 19-JAN-2023 18:33

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-01

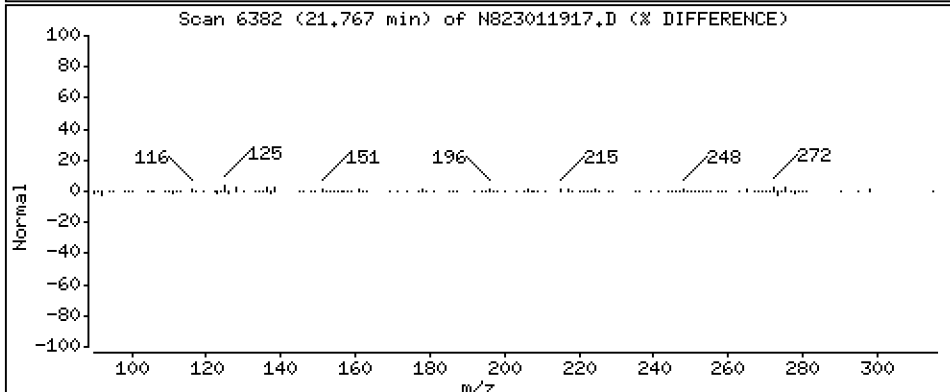
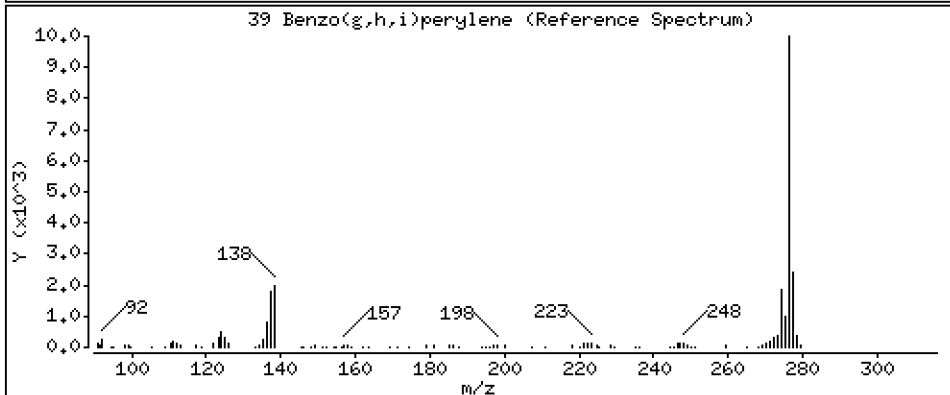
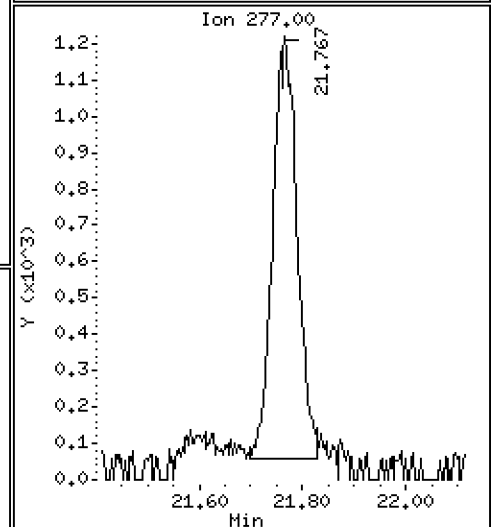
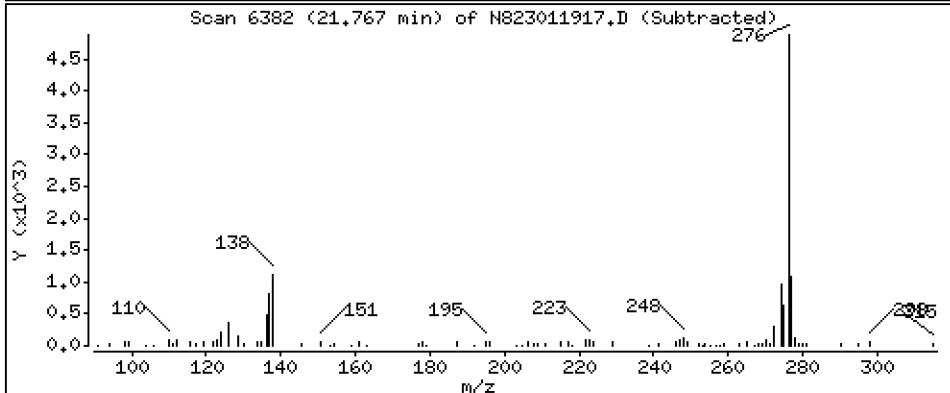
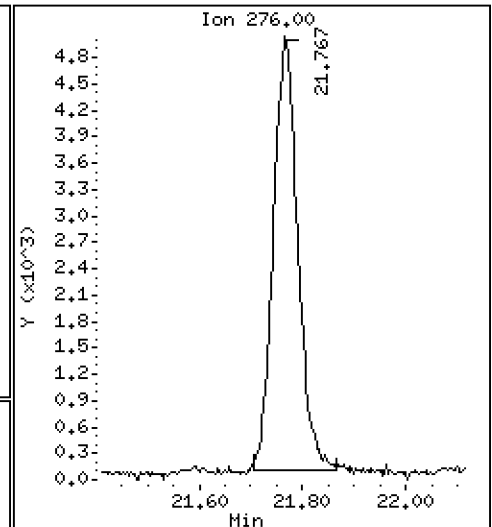
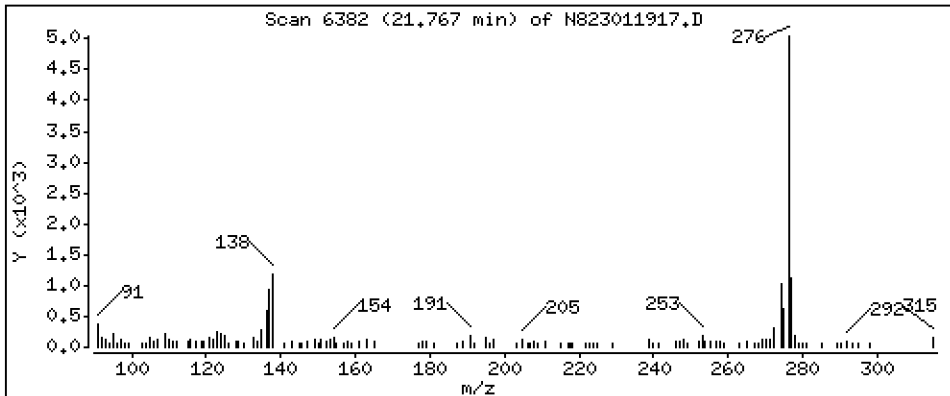
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 0,9022 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119A.b\N823011917.D
 Lab Smp Id: 23A0032-01
 Inj Date : 19-JAN-2023 18:33
 Operator : JZ Inst ID: nt8.i
 Smp Info : 23A0032-01
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 22:11 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PNAXMDL.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
* 1 Naphthalene-d8	136		4.900	4.909	(1.000)	55708	2.00000	
2 Naphthalene	128		4.929	4.938	(1.006)	3775	0.14574	0.1457
\$ 3 2-Methylnaphthalene-d10	152		5.637	5.643	(1.150)	34137	2.24690	2.247
4 2-Methylnaphthalene	141		5.684	5.690	(1.160)	1888	0.13252	0.1325 (M)
5 1-methylnaphthalene	141		5.880	5.887	(1.200)	1223	0.08458	0.08458 (M)
9 Acenaphthylene	152		7.085	7.088	(0.985)	2744	0.11246	0.1125
* 10 Acenaphthene-d10	164		7.196	7.199	(1.000)	32311	2.00000	
11 Acenaphthene	153		7.243	7.246	(1.007)	9635	0.58937	0.5894
12 Dibenzofuran	168		7.395	7.398	(1.028)	2810	0.11317	0.1132
14 Fluorene	166		7.875	7.875	(1.094)	4499	0.23329	0.2333
* 15 Phenanthrene-d10	188		9.238	9.238	(1.000)	56906	2.00000	
16 Phenanthrene	178		9.273	9.270	(1.004)	38156	1.37265	1.373
17 Anthracene	178		9.314	9.311	(1.008)	13076	0.51782	0.5178
22 Fluoranthene	202		11.075	11.053	(1.199)	117730	3.89092	3.891
\$ 21 Fluoranthene-d10	212		11.037	11.015	(1.195)	72299	2.87967	2.880
23 Pyrene	202		11.613	11.575	(0.817)	87953	4.03662	4.037
24 Benzo(a)anthracene	228		14.089	14.079	(0.991)	25164	1.27420	1.274
* 25 Chrysene-d12	240		14.215	14.209	(1.000)	35144	2.00000	
27 Chrysene	228		14.288	14.282	(1.005)	41036	1.95189	1.952
28 Benzo(b)fluoranthene	252		16.830	16.827	(0.929)	26989	1.37485	1.375
29 Benzo(k)fluoranthene	252		16.897	16.890	(0.933)	13278	0.69055	0.6905
30 Benzo(j)fluoranthene	252		16.972	16.969	(0.937)	11561	0.66788	0.6679
31 Total Benzofluoranthenes	252		16.830	16.890	(0.929)	51468	2.76841	2.768 (M)
32 Benzo(a)pyrene	252		17.883	17.880	(0.987)	18571	1.07504	1.075
* 33 Perylene-d12	264		18.117	18.117	(1.000)	33706	2.00000	
35 Perylene	252		18.190	18.187	(1.004)	28536	1.53936	1.539
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.552	20.555	(1.134)	41877	3.17088	3.171
37 Indeno(1,2,3-cd)pyrene	276		20.685	20.681	(1.142)	14812	0.75264	0.7526
38 Dibenzo(a,h)anthracene	278		20.663	20.666	(1.140)	3515	0.20754	0.2075
39 Benzo(g,h,i)perylene	276		21.766	21.763	(1.201)	16086	0.90215	0.9022

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011917.D Calibration Time: 16:16
 Lab Smp Id: 23A0032-01
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	42524	21262	85048	55708	31.00
10 Acenaphthene-d10	25260	12630	50520	32311	27.91
15 Phenanthrene-d10	47890	23945	95780	56906	18.83
25 Chrysene-d12	40533	20267	81066	35144	-13.30
33 Perylene-d12	38115	19058	76230	33706	-11.57

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.90	-0.19
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	-0.04
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.00
25 Chrysene-d12	14.21	13.71	14.71	14.22	0.05
33 Perylene-d12	18.12	17.62	18.62	18.12	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011917.D

Lab ID: 23A0032-01

nt8.i, 20230119A.b\FSIMPNA230119.m, 19-JAN-2023 18:33

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

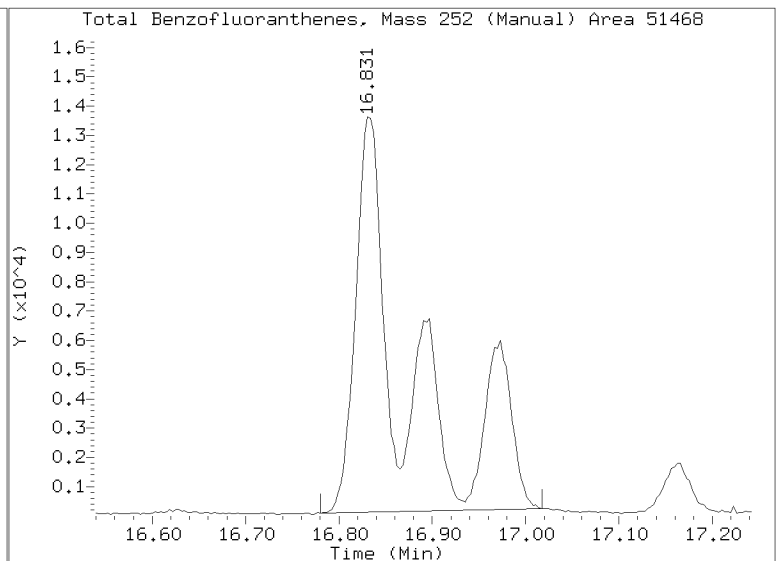
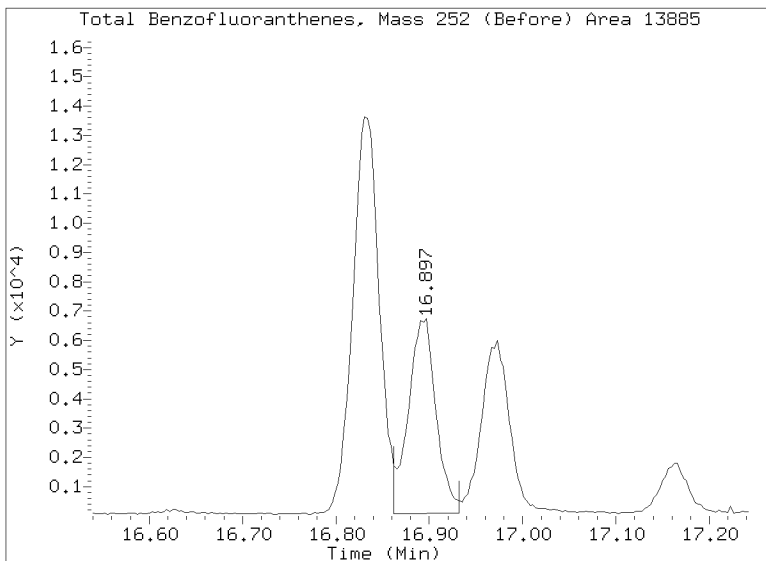
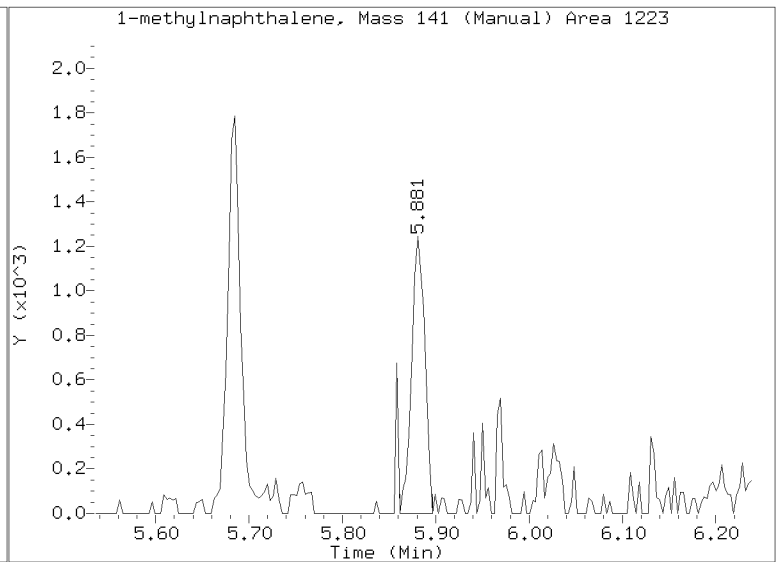
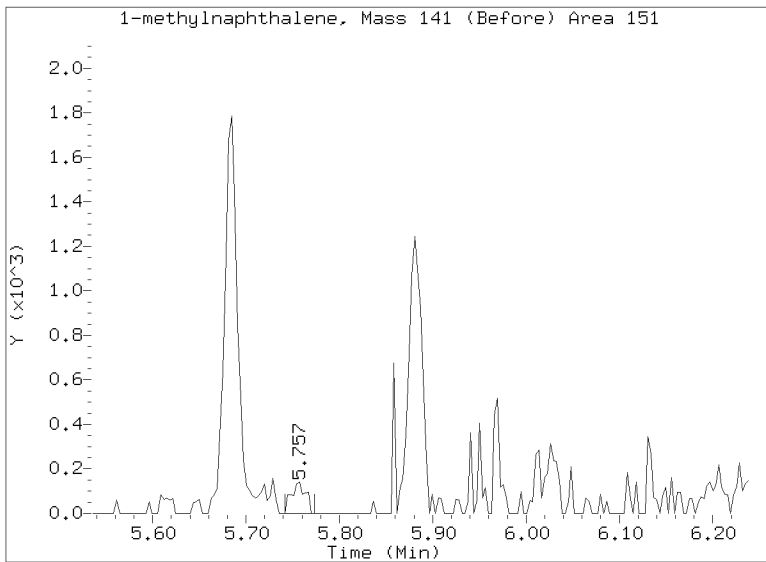
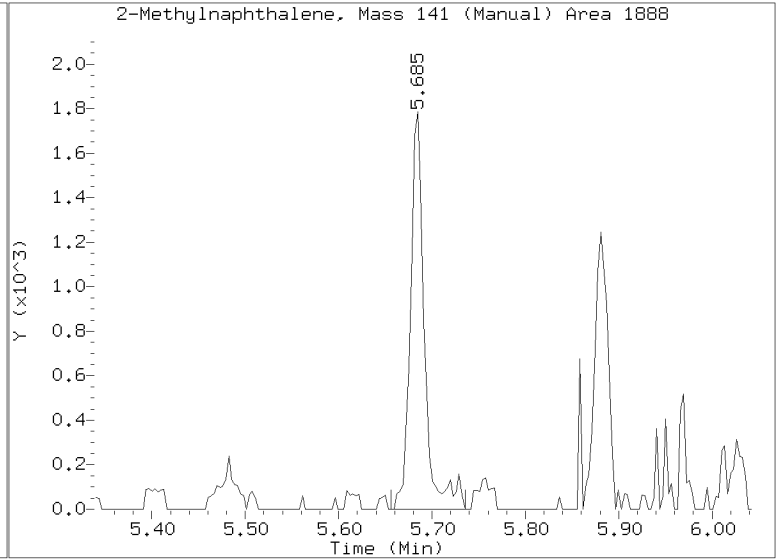
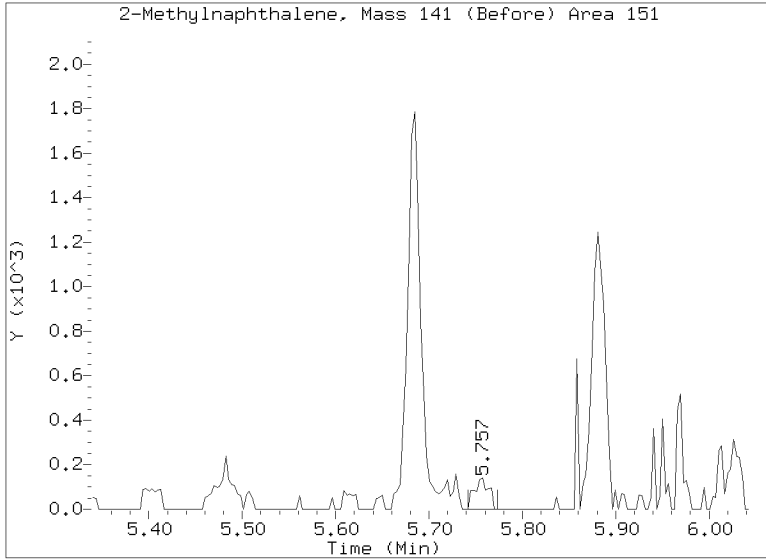
No RRT check performed

On Column LOD for nt8.i, 20230119A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119A.b/N823011917.D
Injection Date: 19-JAN-2023 18:33
Lab ID:23A0032-01 Client ID:
Report Date: 01/25/2023 22:12





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Polynuclear Aromatic Hydrocarbons

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-02 A

SDG: 23A0032

Sampled: 01/03/23 09:12

Prepared: 01/11/23 11:45

File ID: N823011918.D

% Solids: 61.49

Preparation: EPA 3546 (Microwave)

Analyzed: 01/19/23 19:00

Batch: BLA0171

Sequence: SLA0228

Initial/Final: 16.28 g Wet / 0.5 mL

Instrument: NT8

Column: RXI-17Sil ms

Calibration: GA00050

Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
56-55-3	Benzo(a)anthracene	3	5290	D, E	2.47	15.0
218-01-9	Chrysene	3	7630	D, E	3.16	15.0
205-99-2	Benzo(b)fluoranthene	3	3070	D, E	4.11	15.0
207-08-9	Benzo(k)fluoranthene	3	1370	D	2.28	15.0
50-32-8	Benzo(a)pyrene	3	1780	D, E	1.84	15.0
193-39-5	Indeno(1,2,3-cd)pyrene	3	761	D	3.15	15.0
53-70-3	Dibenzo(a,h)anthracene	3	204	D	2.67	15.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	149.84	88.7	59.2	32 - 120	
Dibenzo[a,h]anthracene-d14	149.84	107	71.5	21 - 133	
Fluoranthene-d10	149.84	104	69.5	36 - 134	

Data File: \\target\share\chem3\nt8.1\20230119A.1\N823011918.D

Date: 19-JAN-2023 19:00

Client ID:

Sample Info: 23A0032-02.3

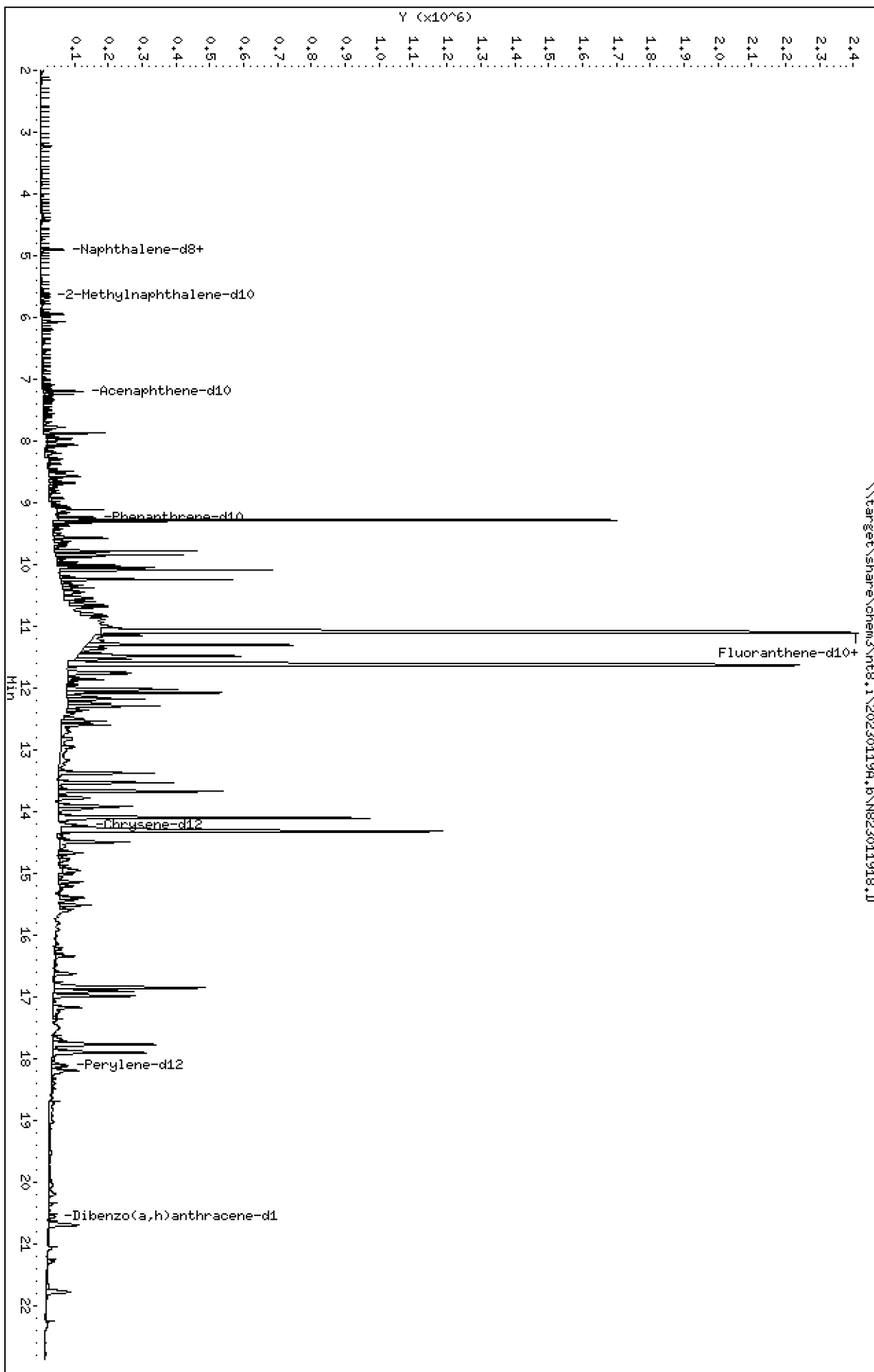
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

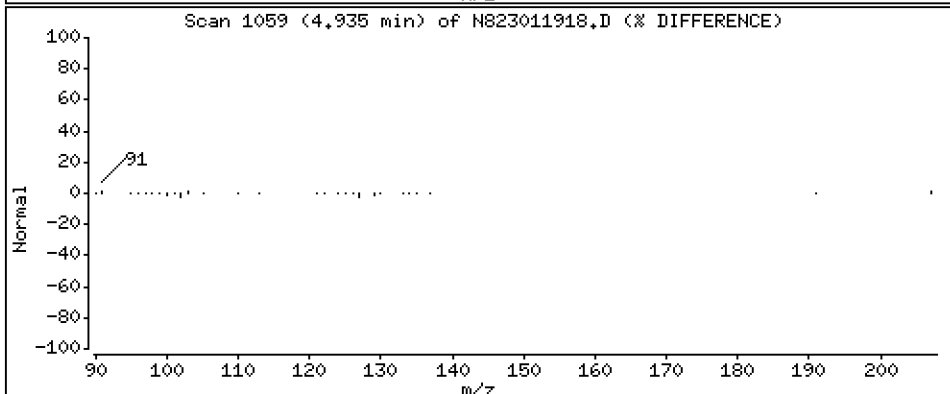
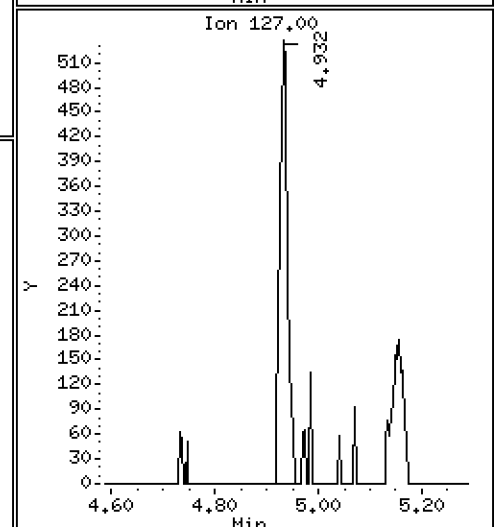
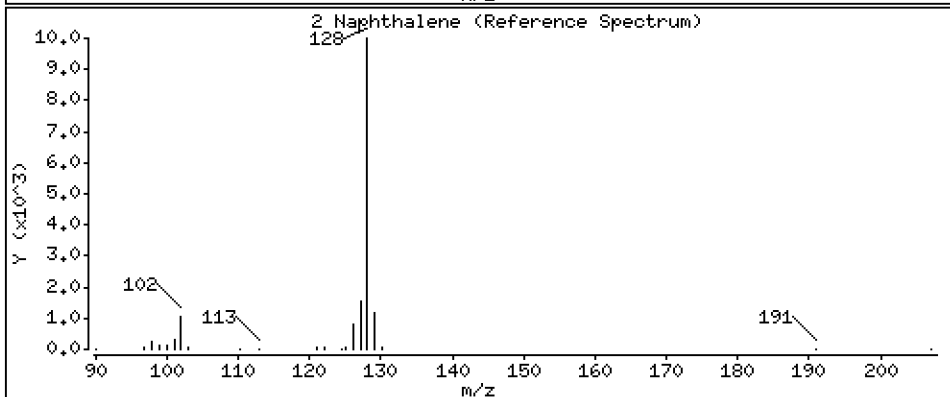
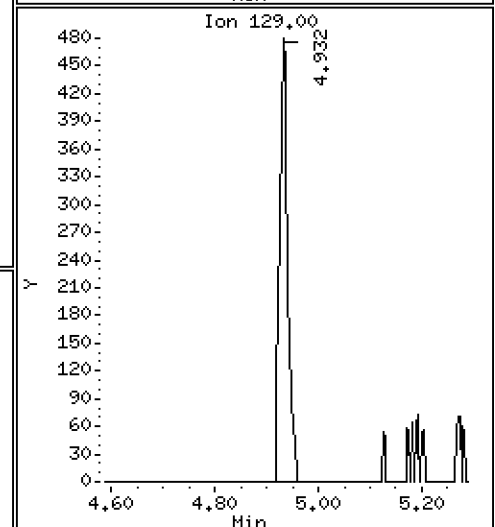
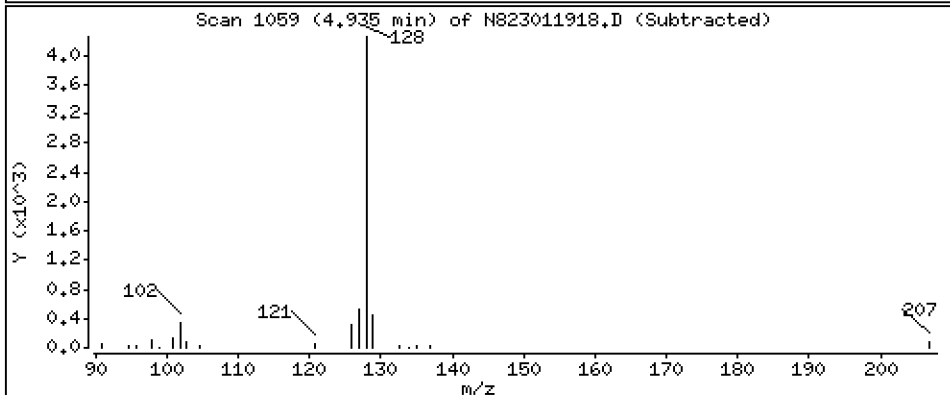
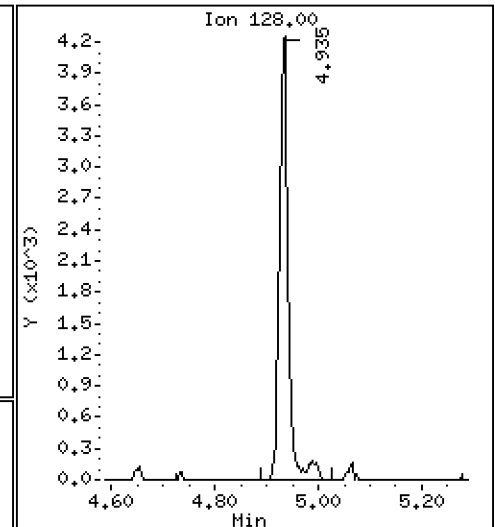
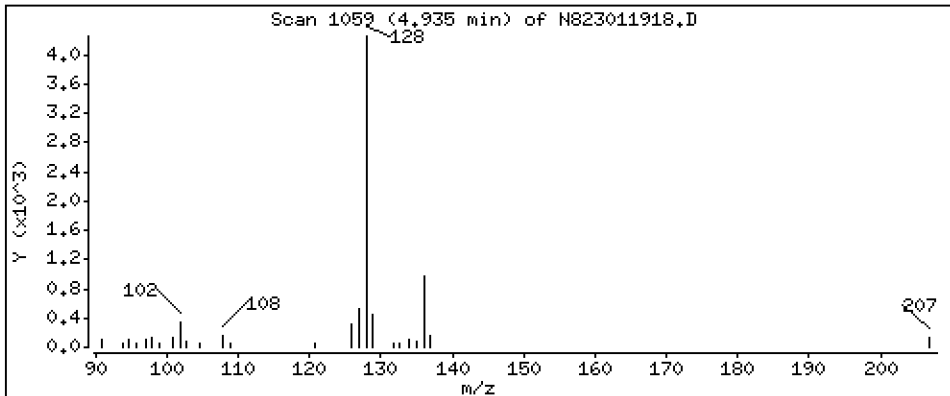
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

2 Naphthalene

Concentration: 0,6260 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

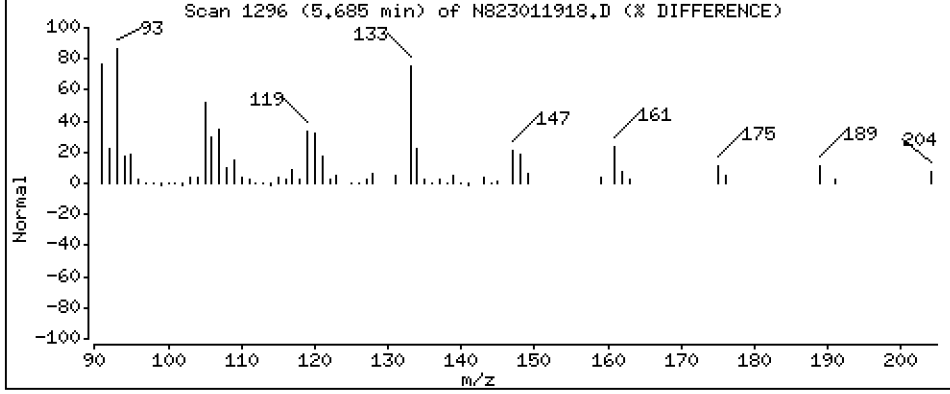
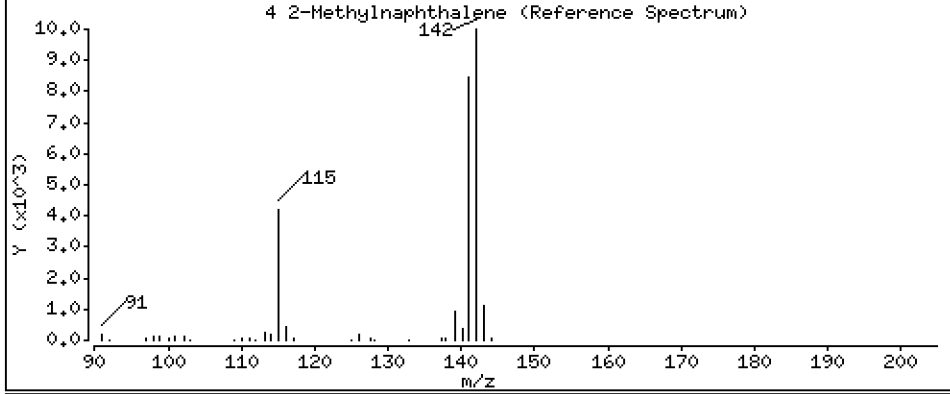
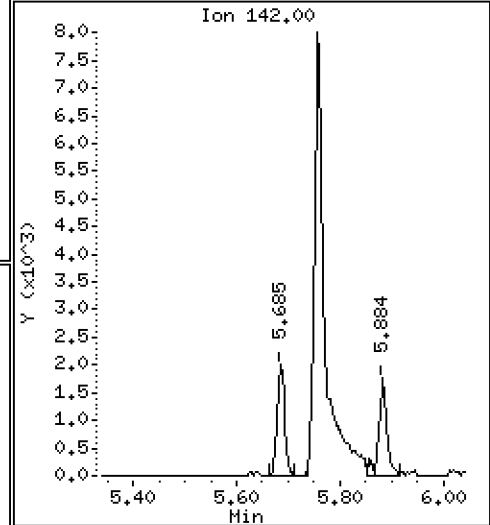
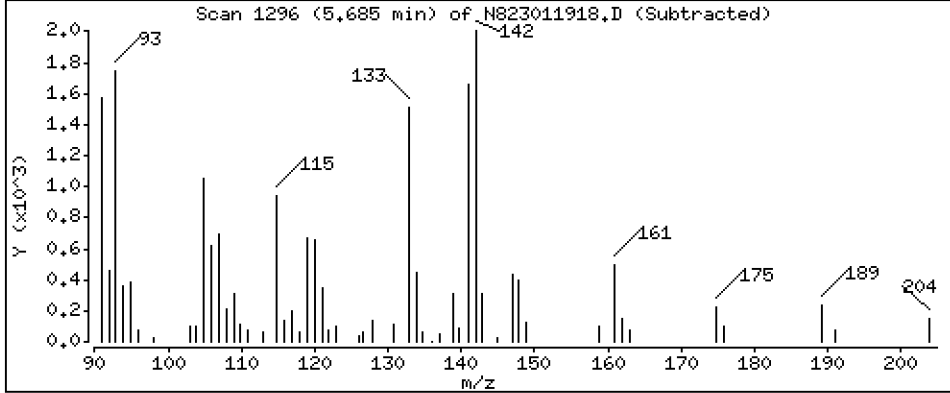
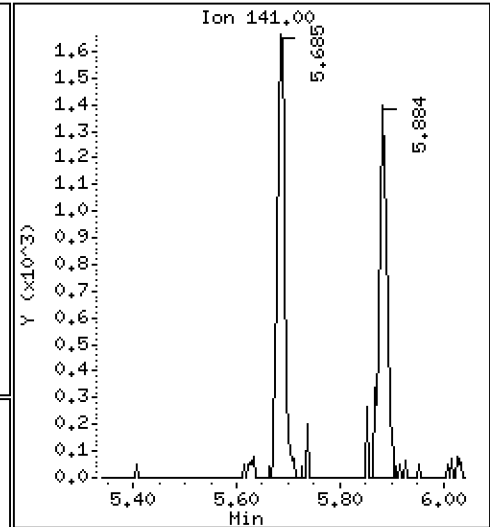
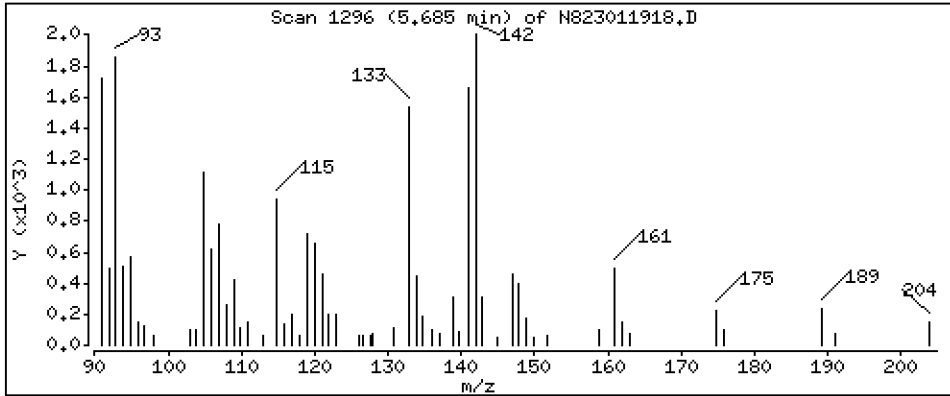
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

4-Methylnaphthalene

Concentration: 0,3705 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

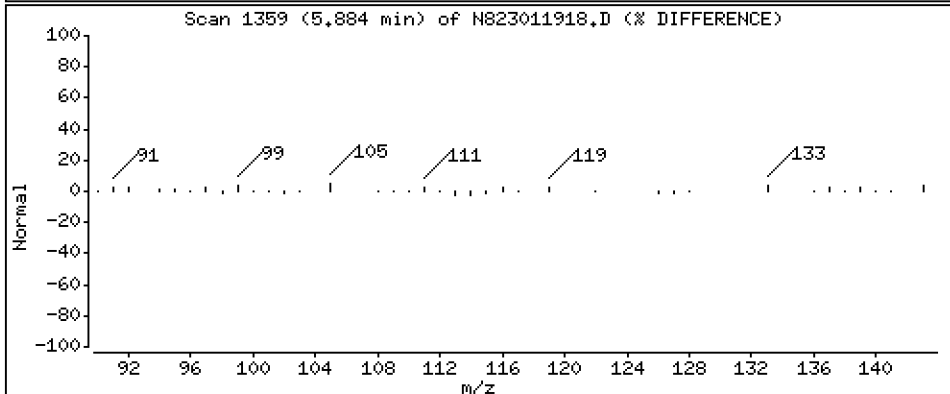
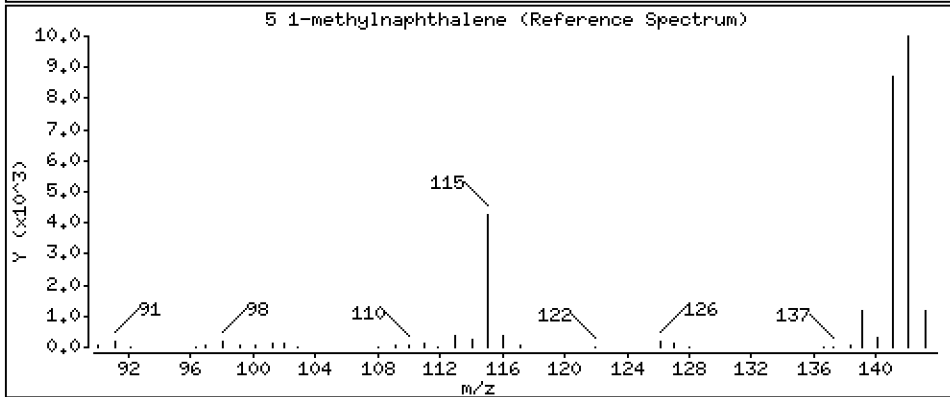
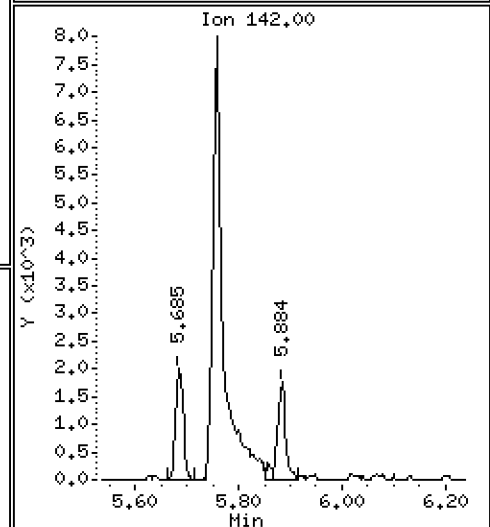
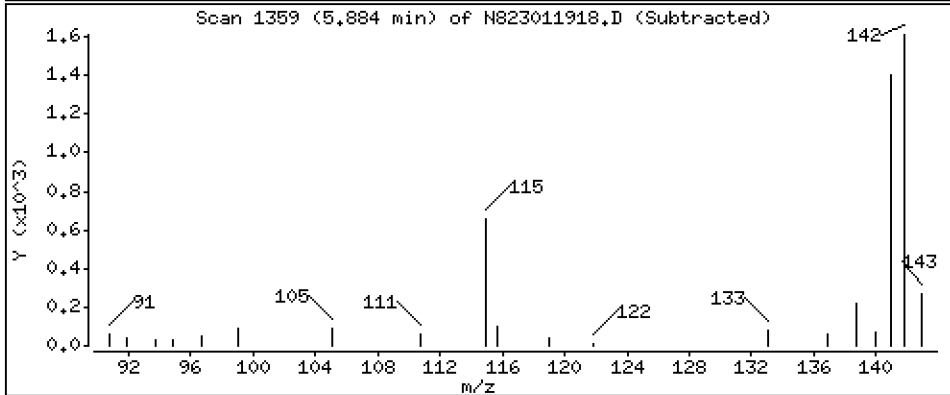
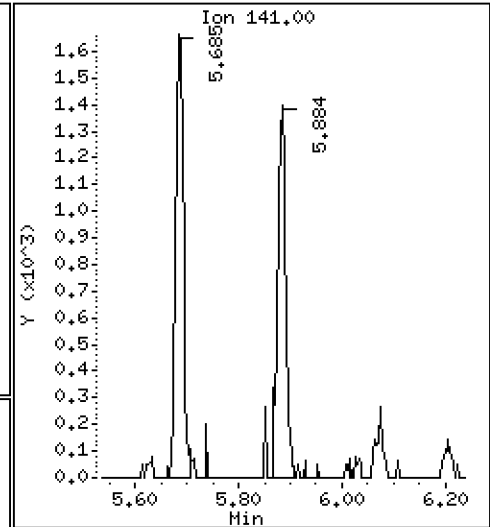
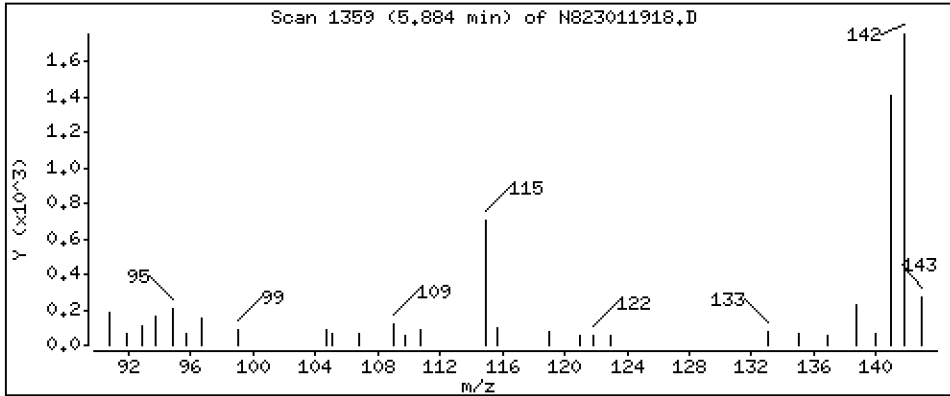
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

5 1-methylnaphthalene

Concentration: 0,3278 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

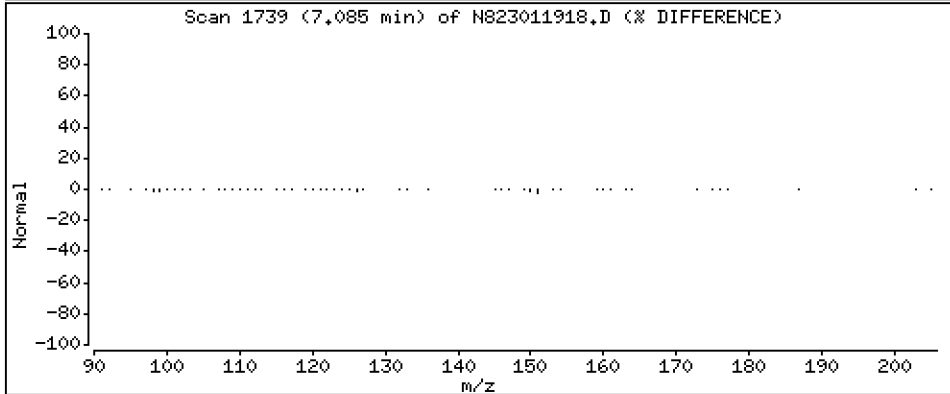
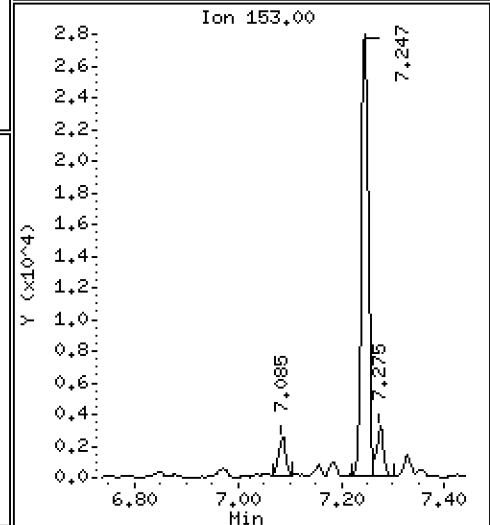
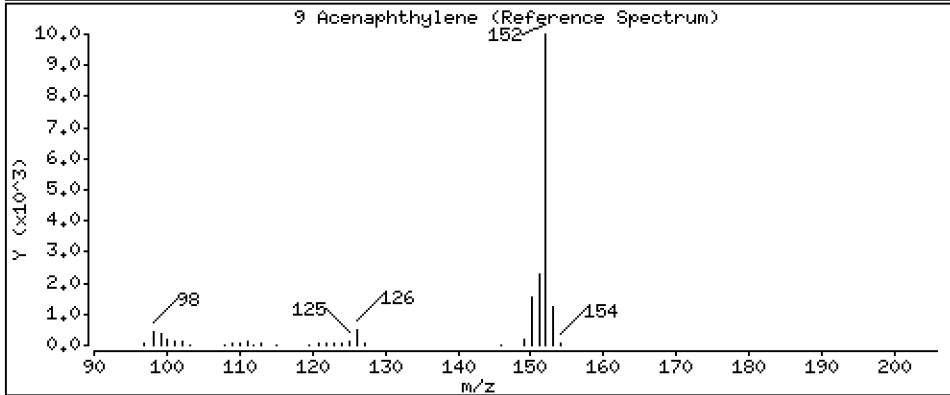
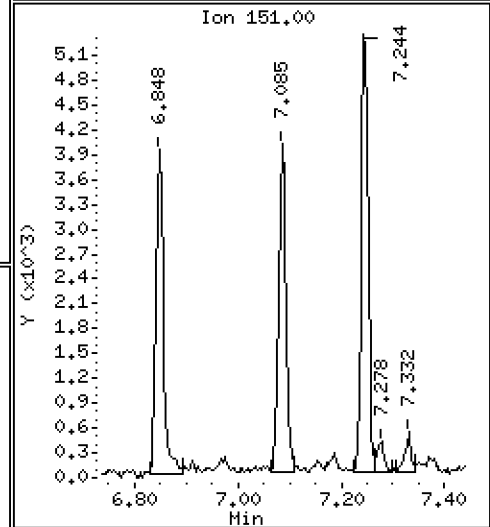
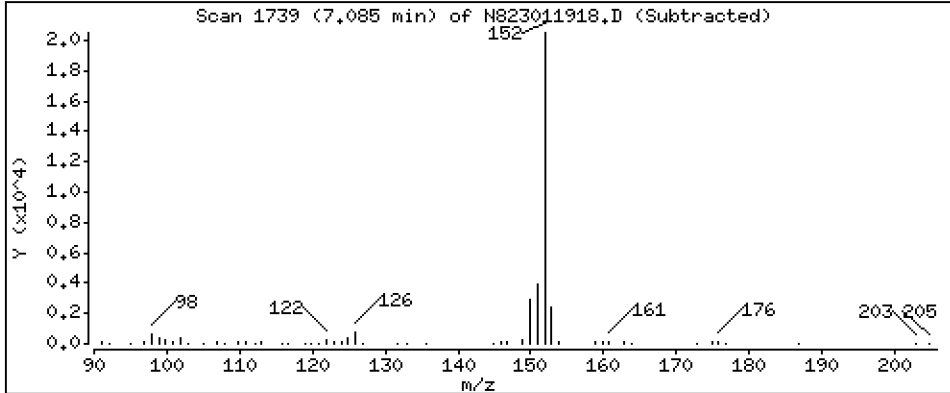
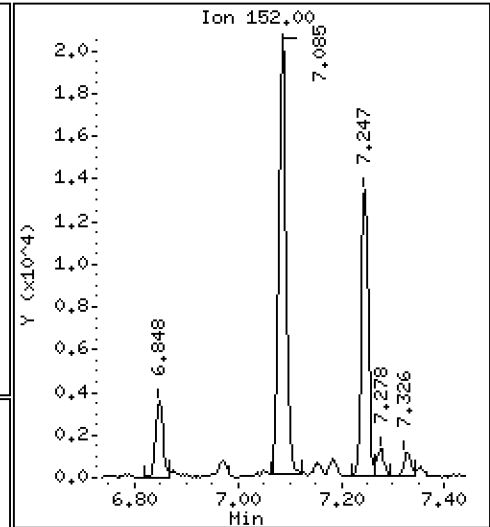
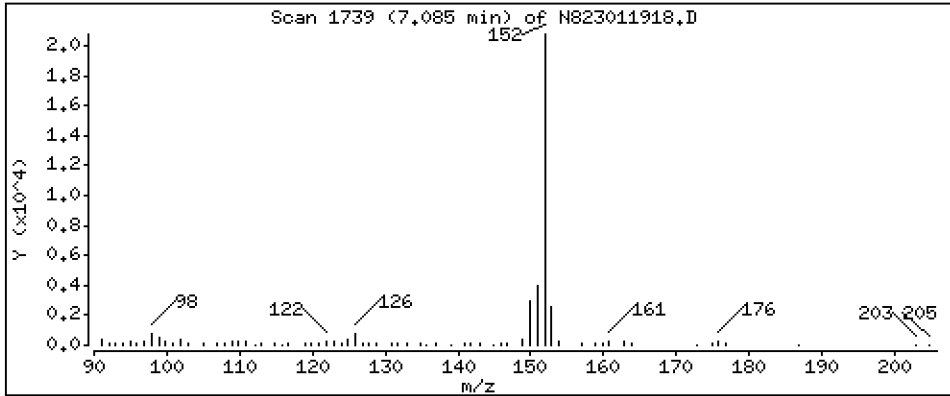
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

9 Acenaphthylene

Concentration: 2,508 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

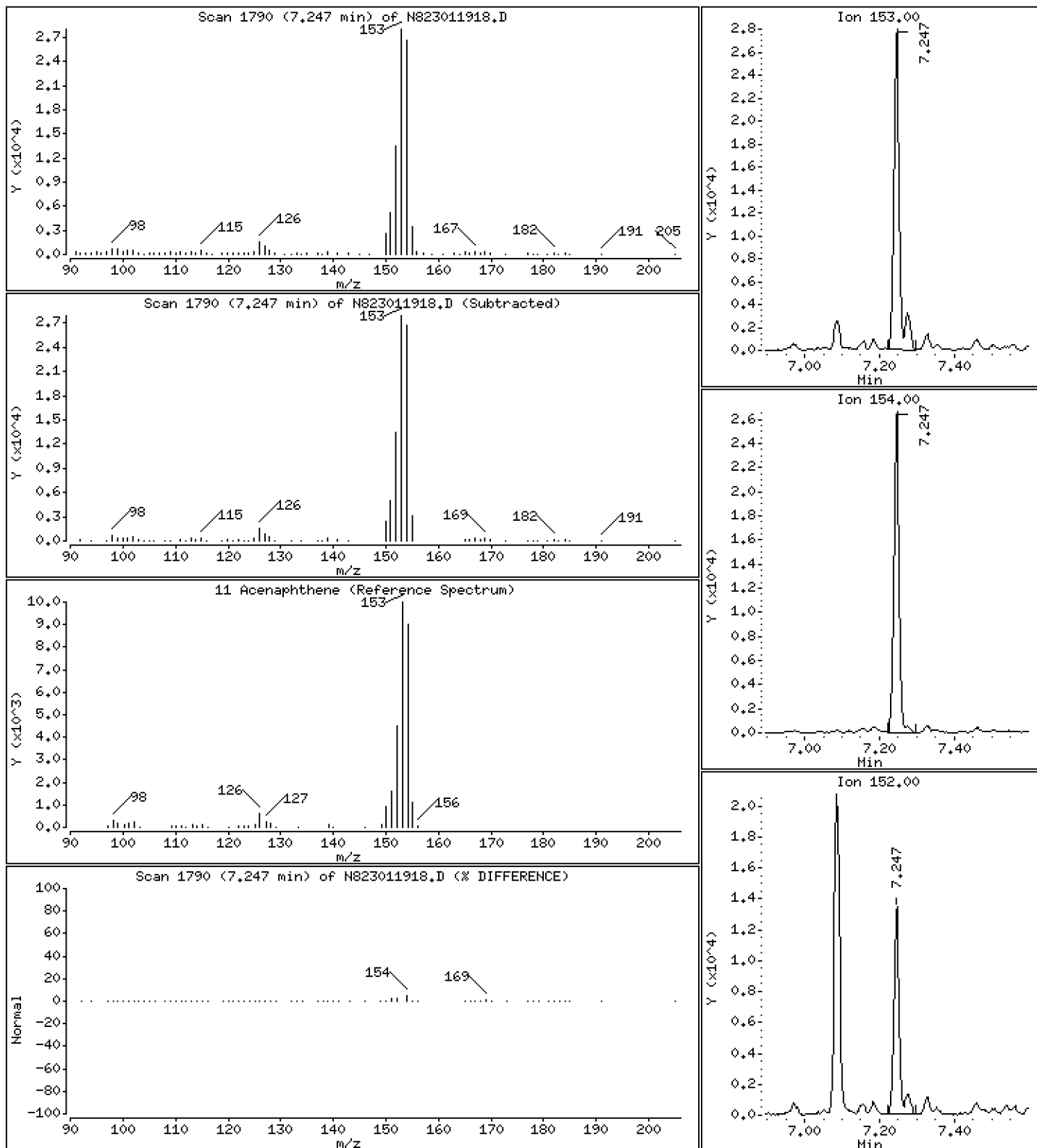
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

11 Acenaphthene

Concentration: 5,433 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

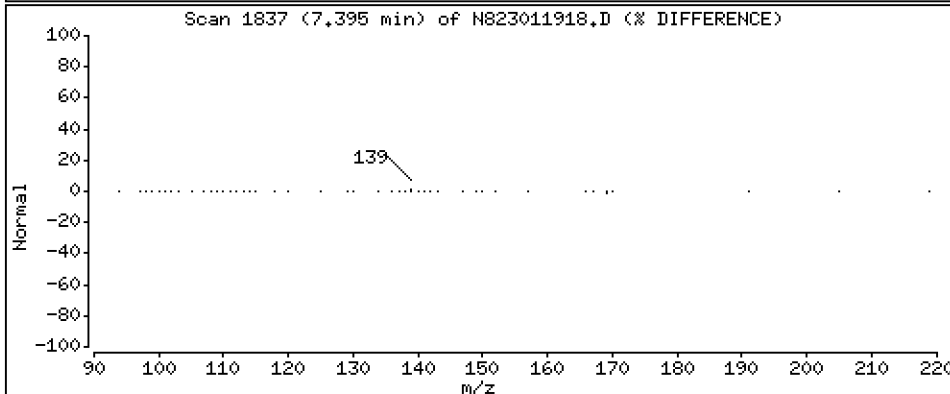
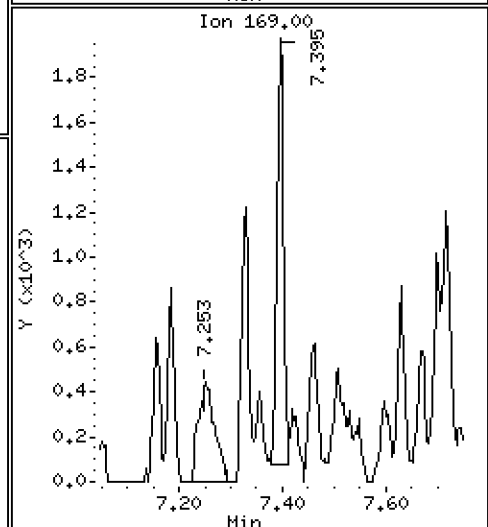
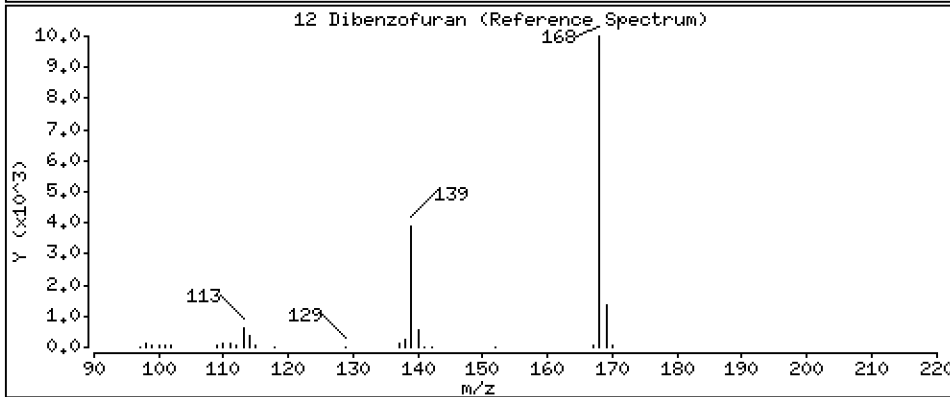
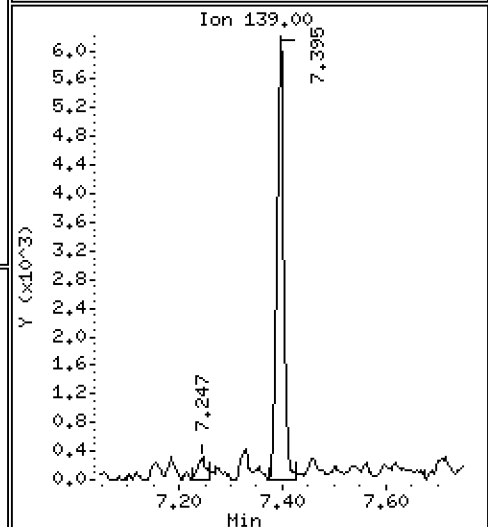
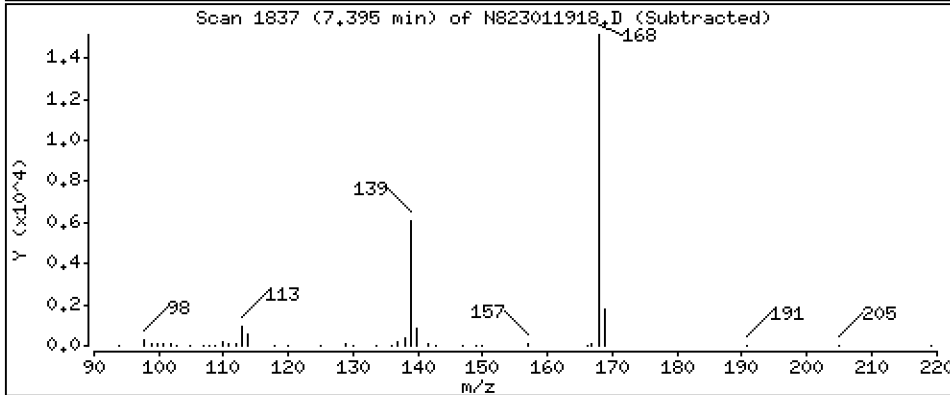
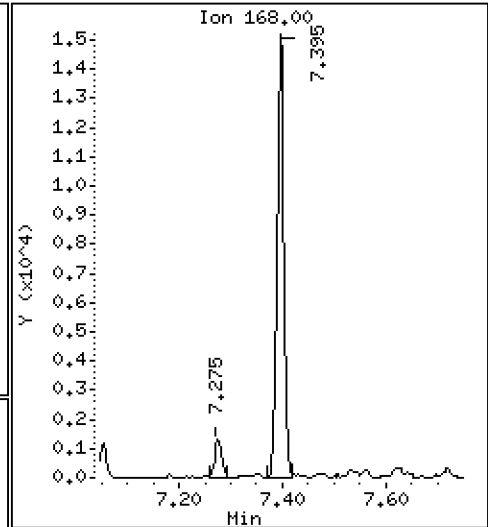
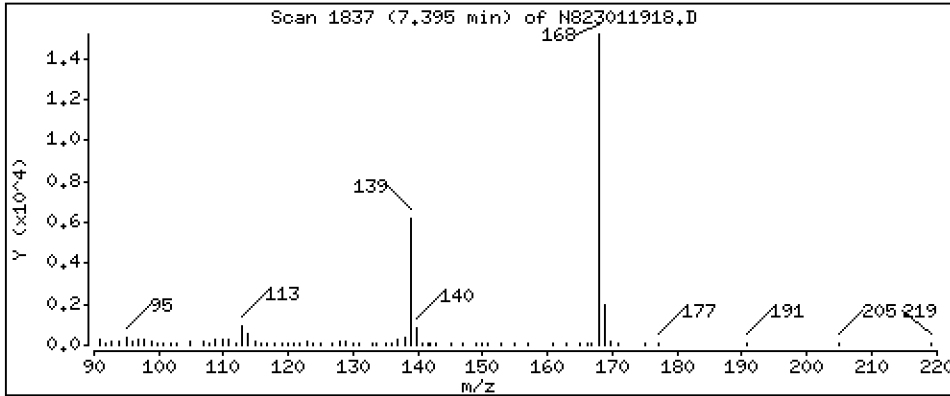
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 1,669 ug/mL

12 Dibenzofuran



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

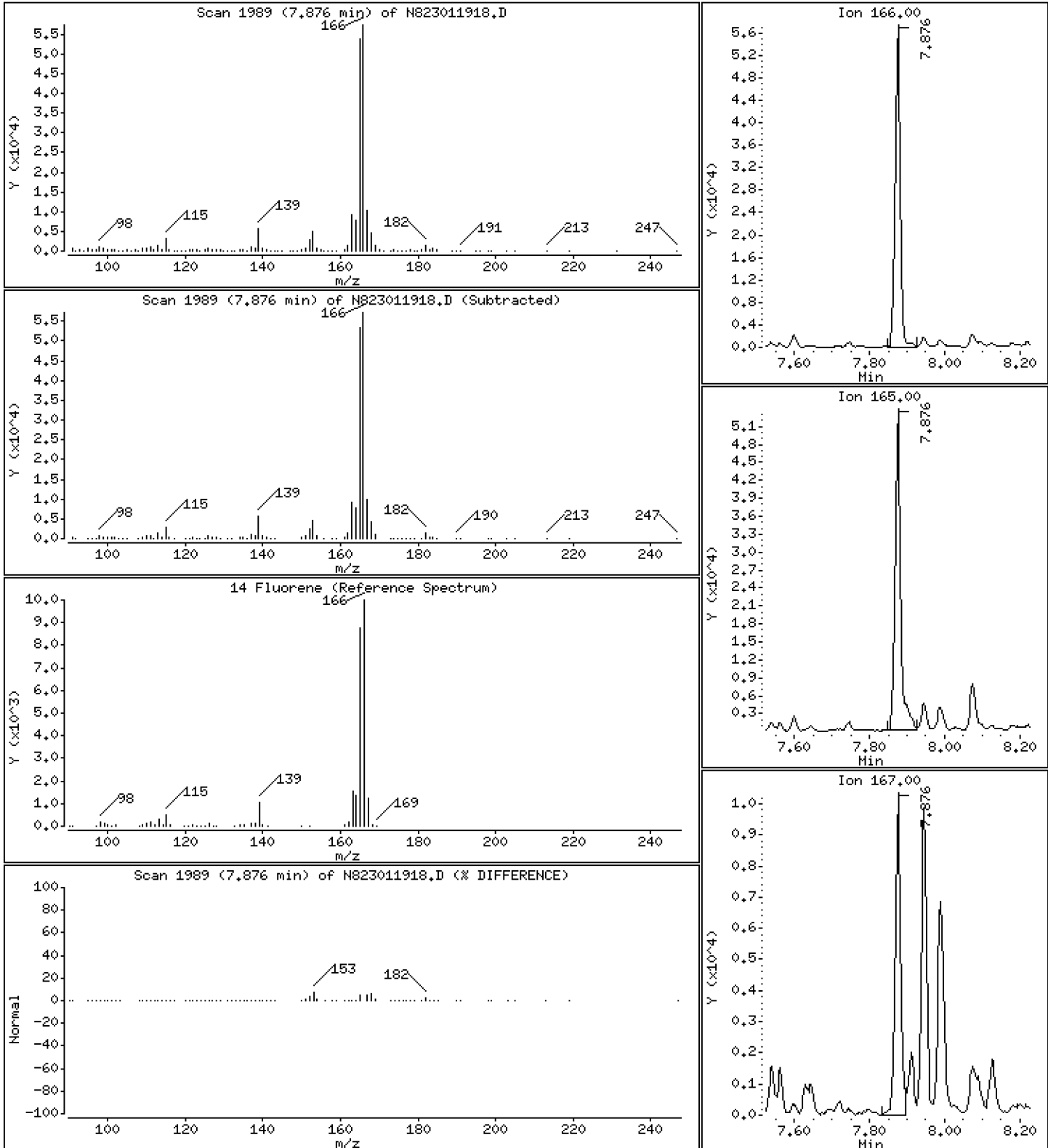
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 8,588 ug/mL

14 Fluorene



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

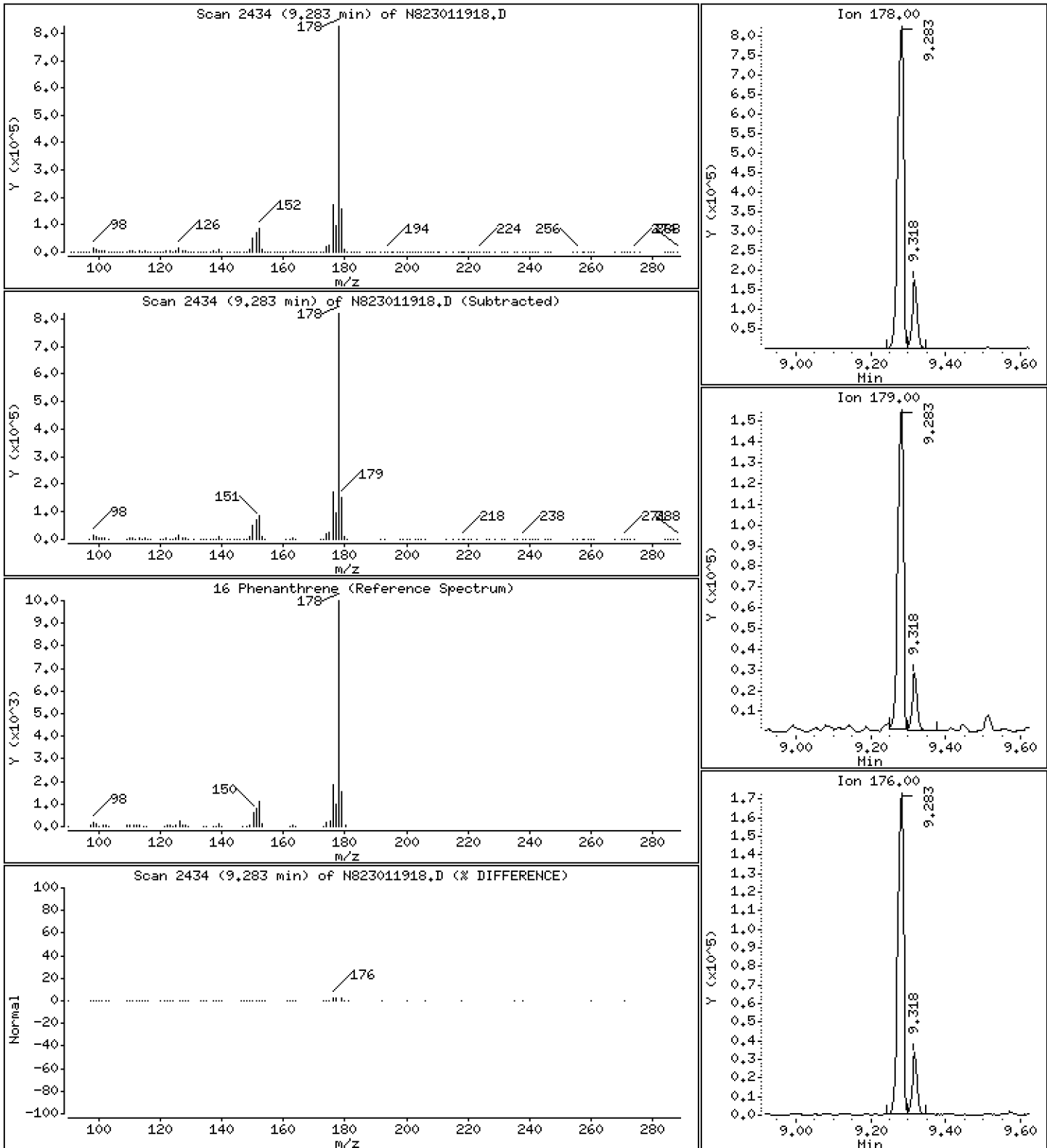
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 96,19 ug/mL

16 Phenanthrene



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

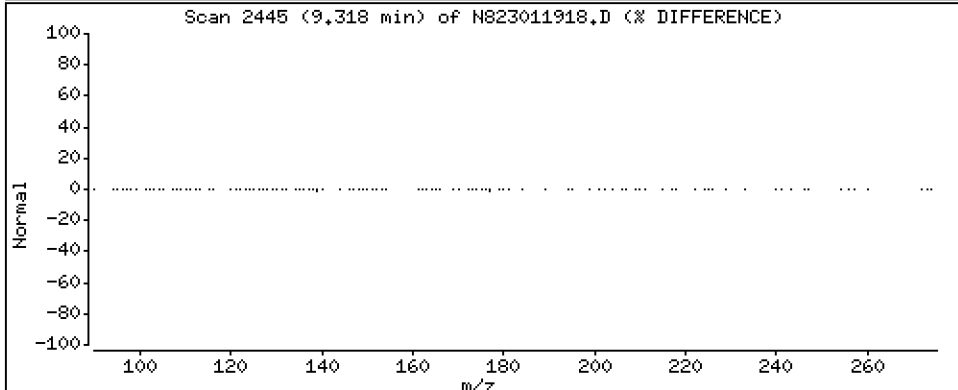
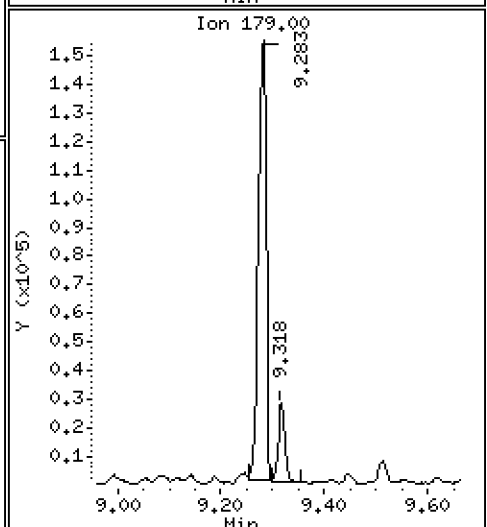
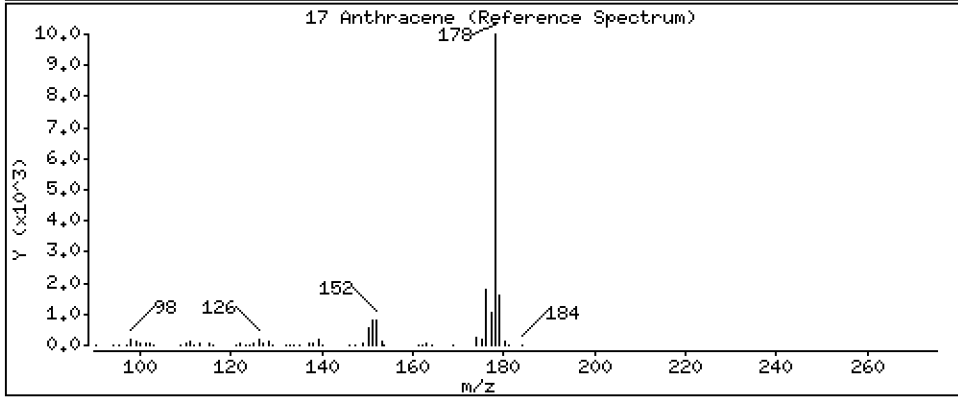
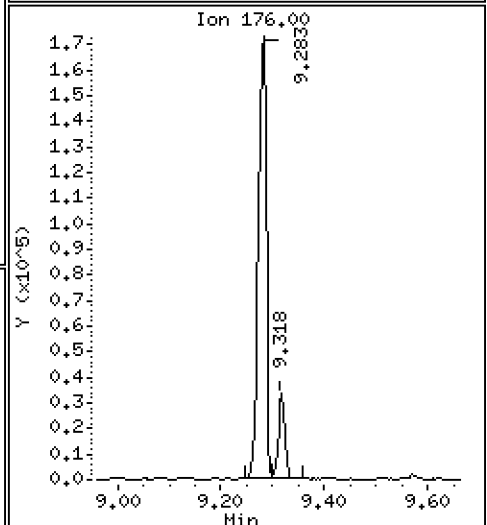
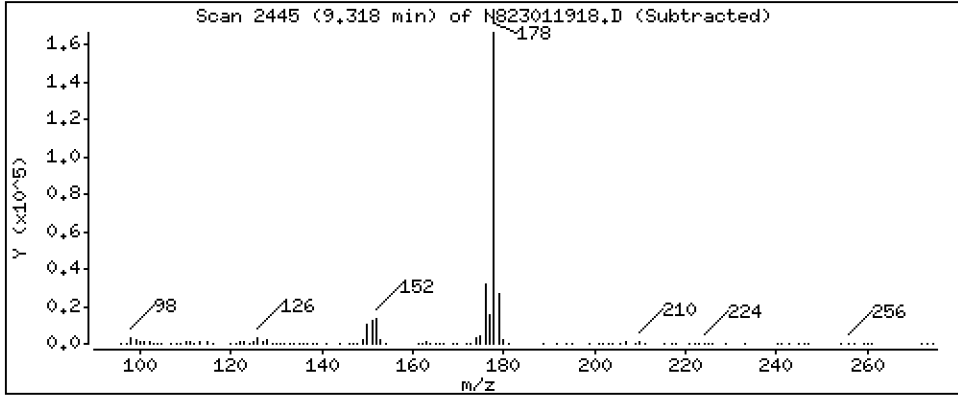
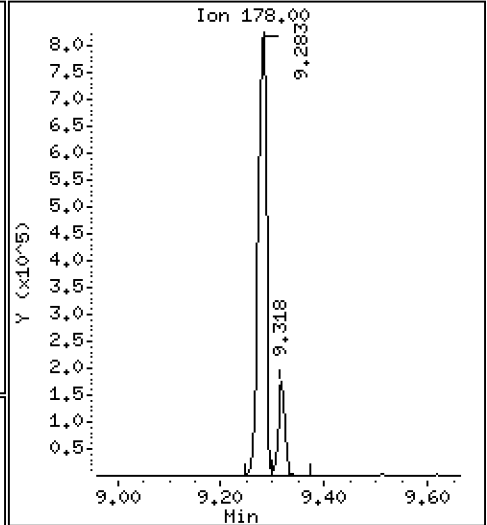
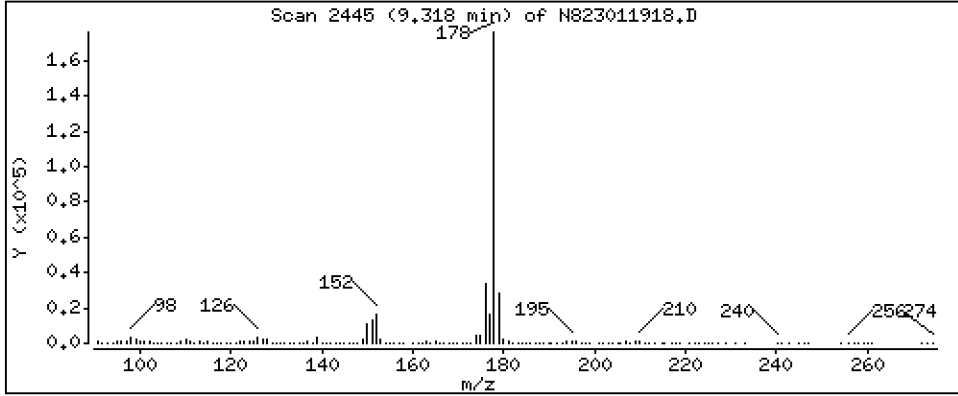
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

17 Anthracene

Concentration: 19,44 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

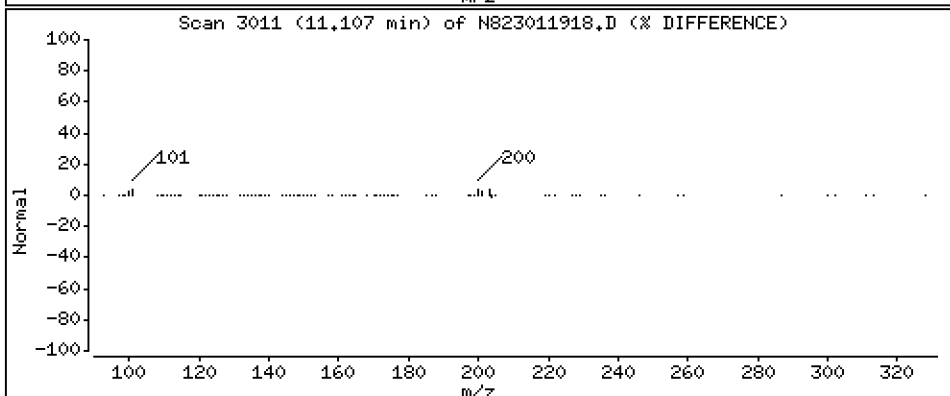
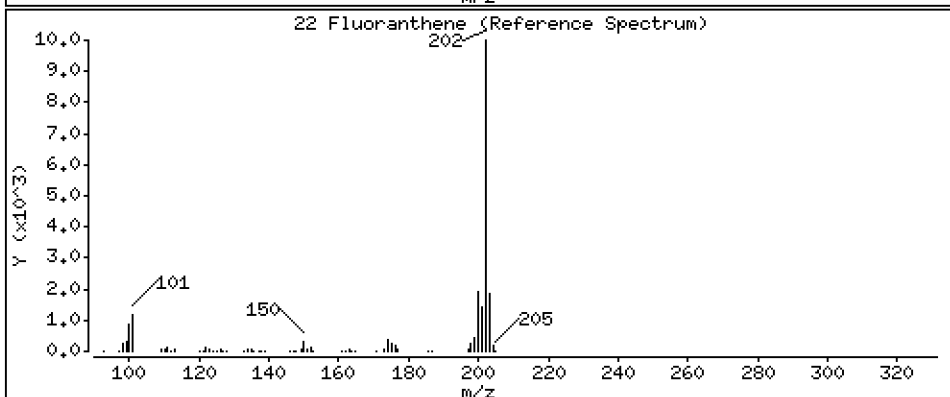
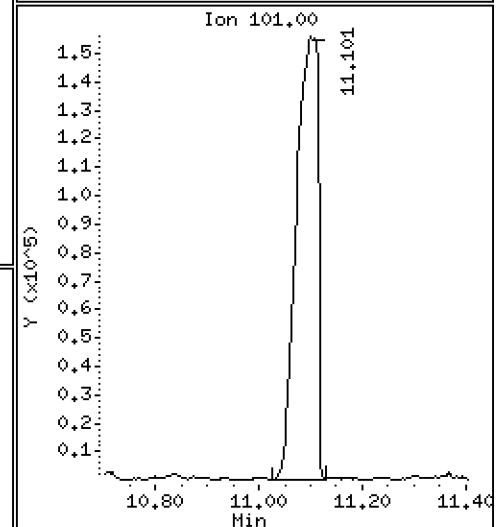
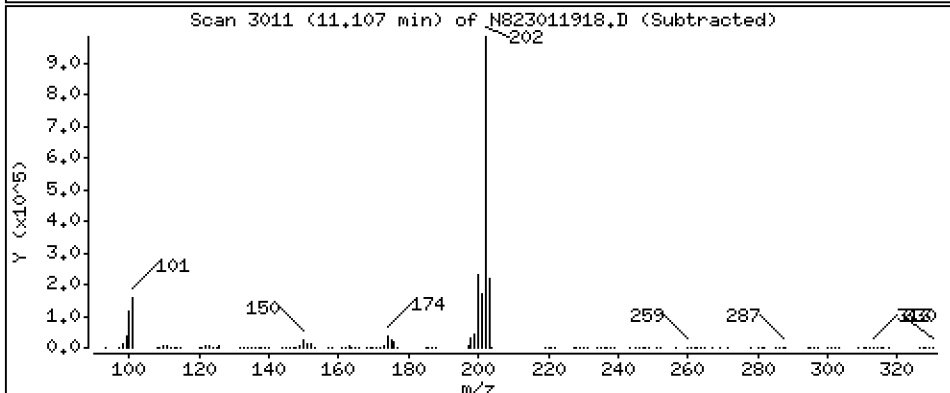
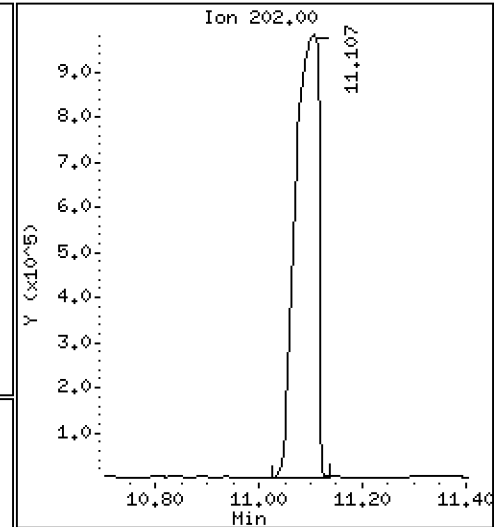
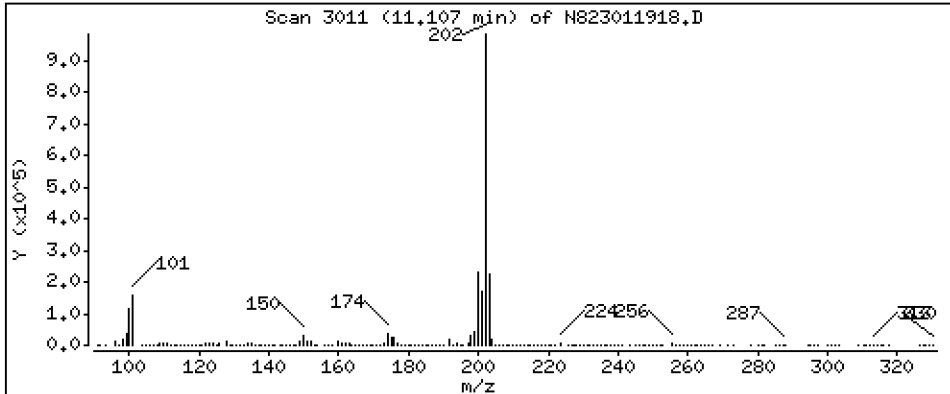
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 306,8 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

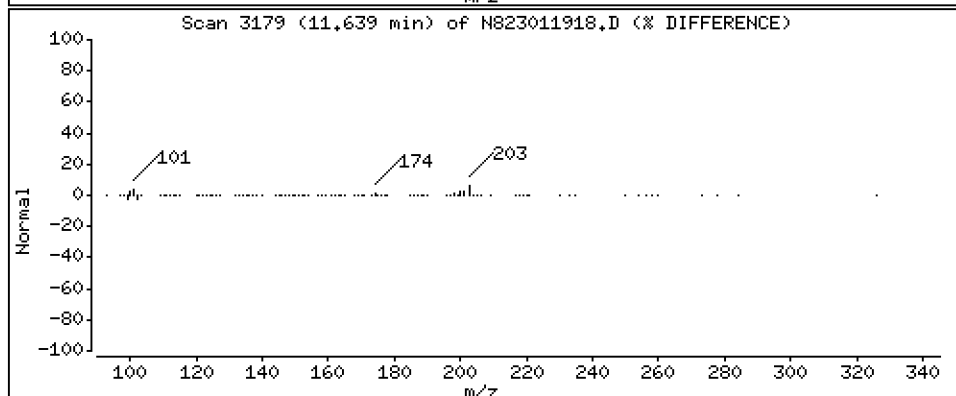
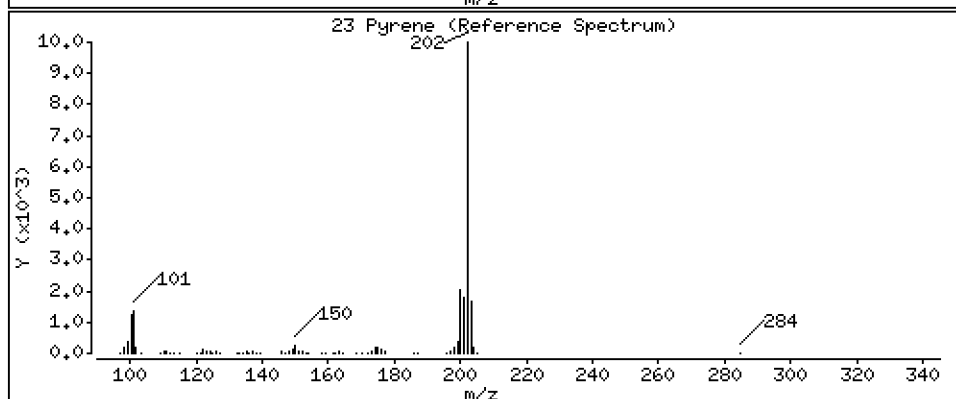
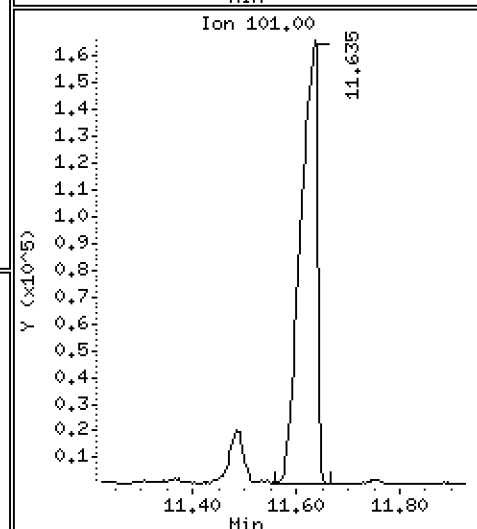
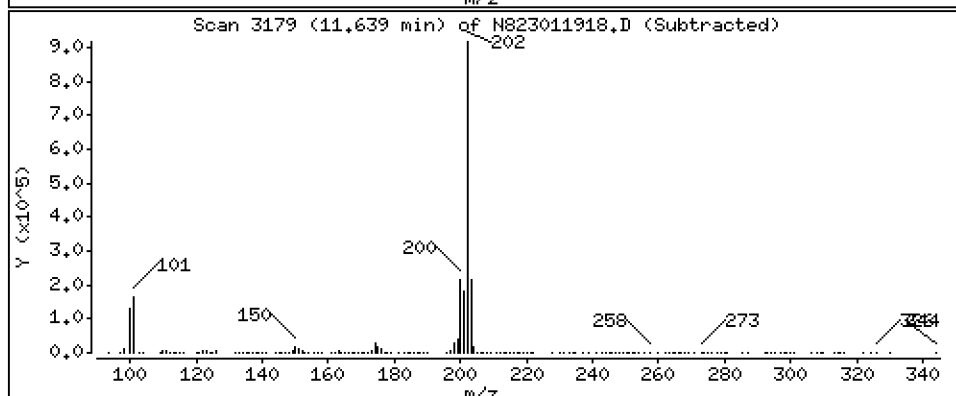
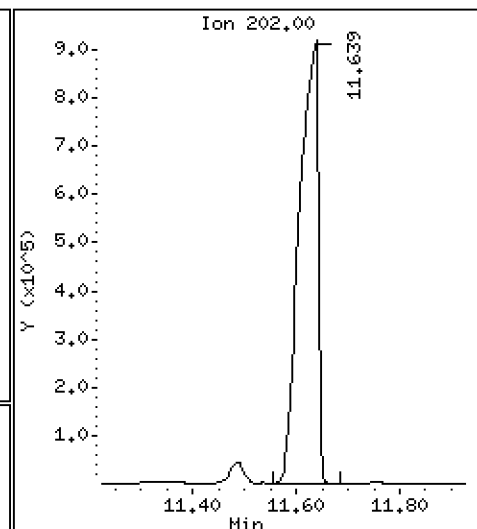
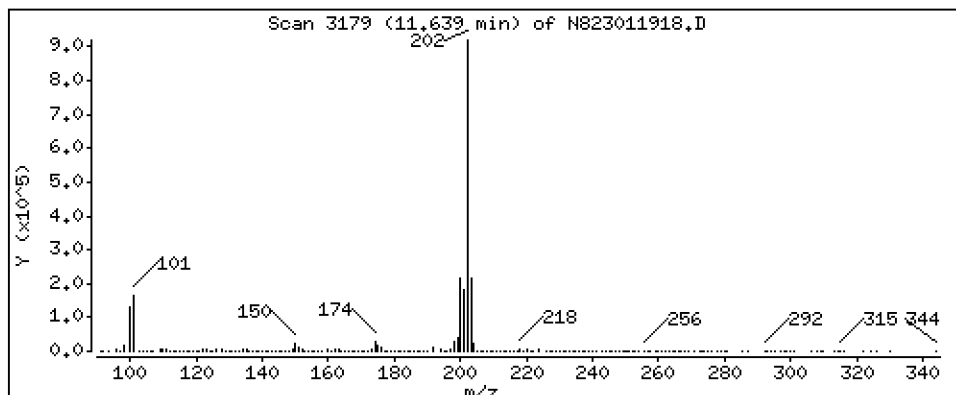
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

23 Pyrene

Concentration: 354.4 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

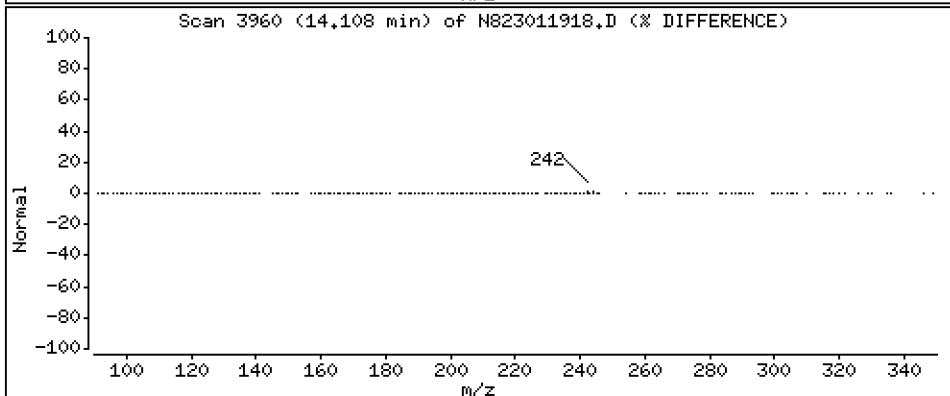
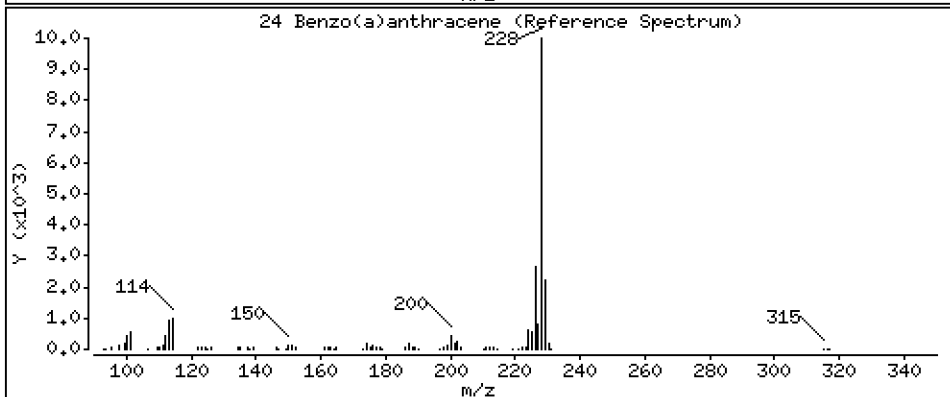
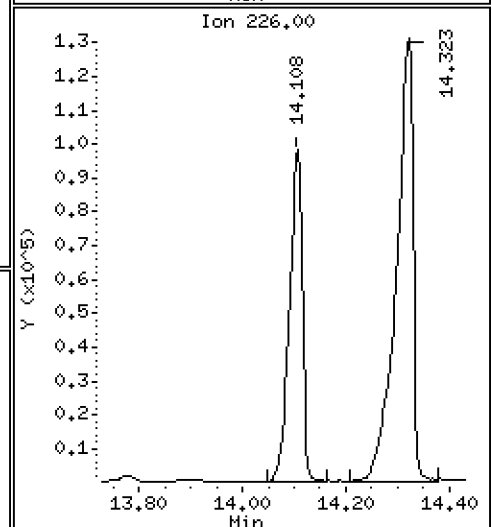
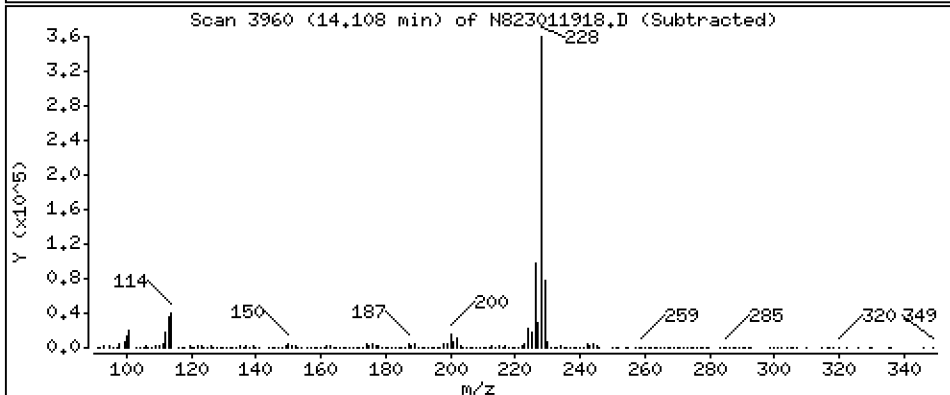
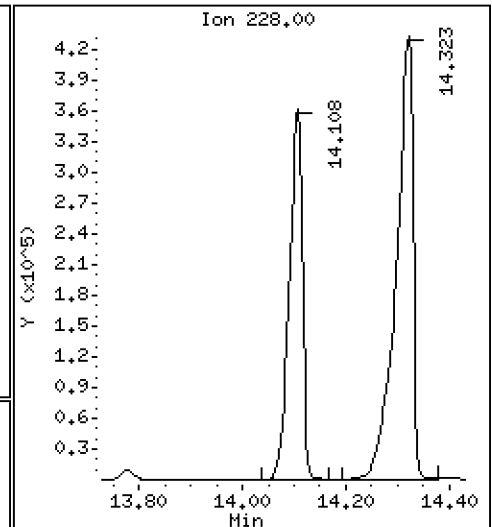
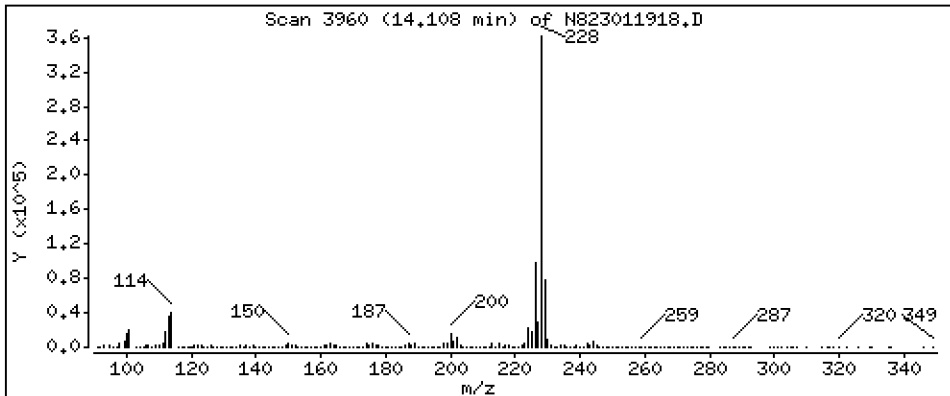
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

24 Benzo(a)anthracene

Concentration: 105,9 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

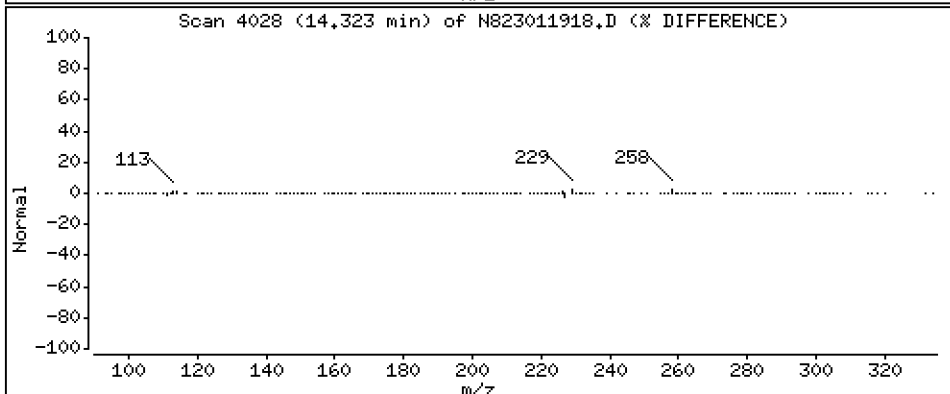
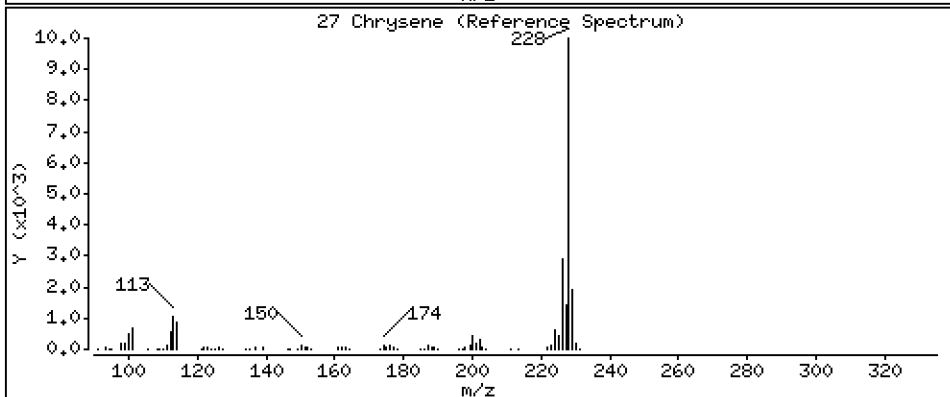
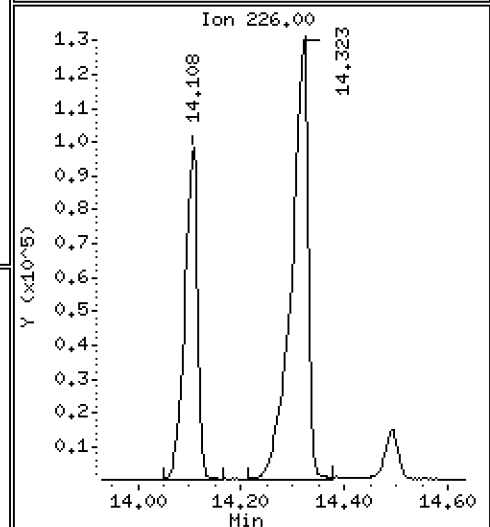
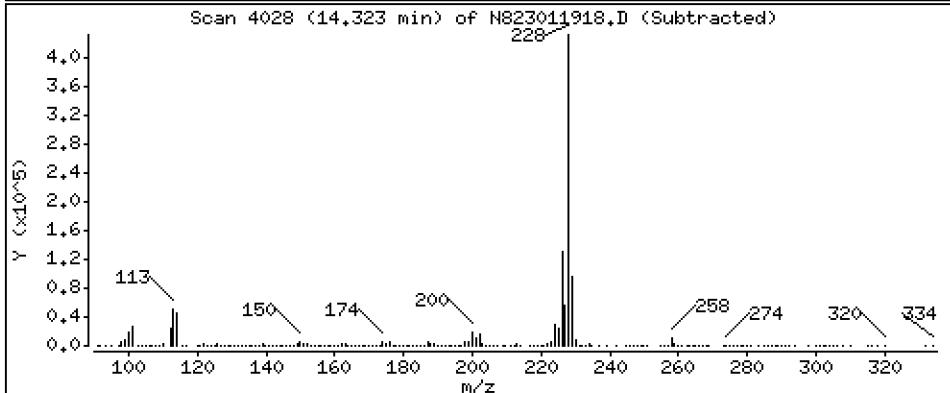
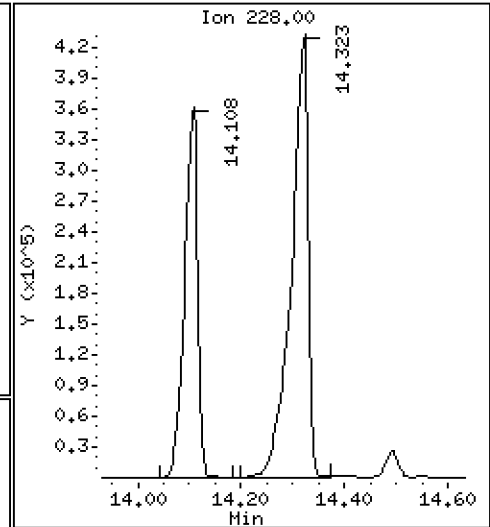
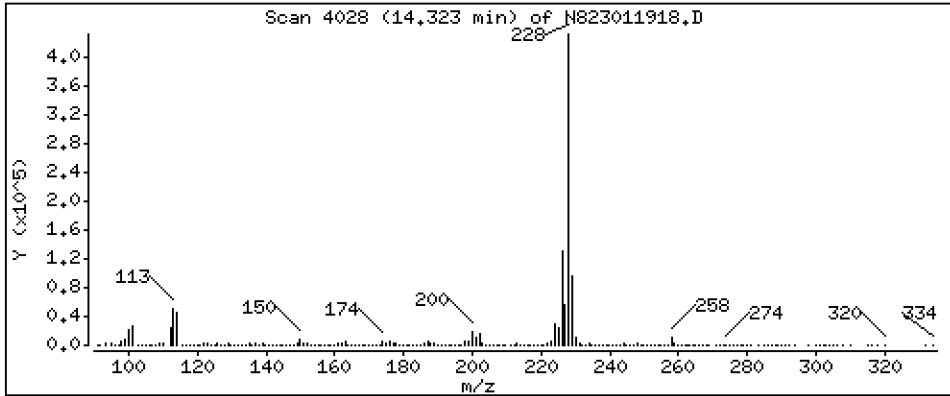
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

27 Chrysene

Concentration: 152,8 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

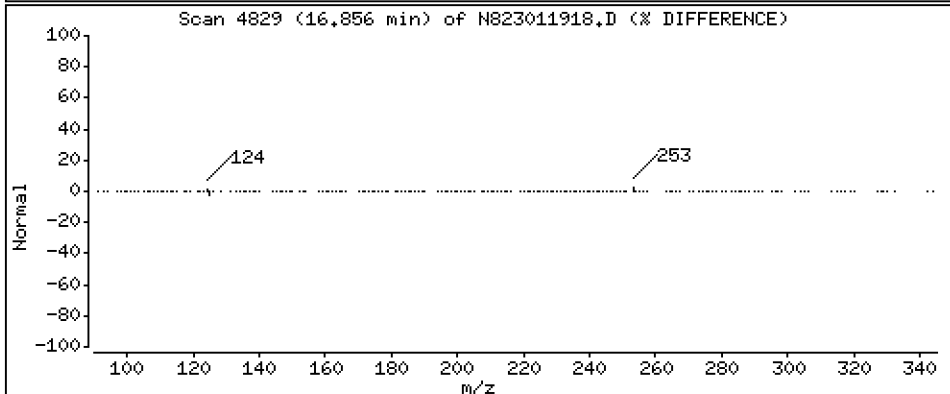
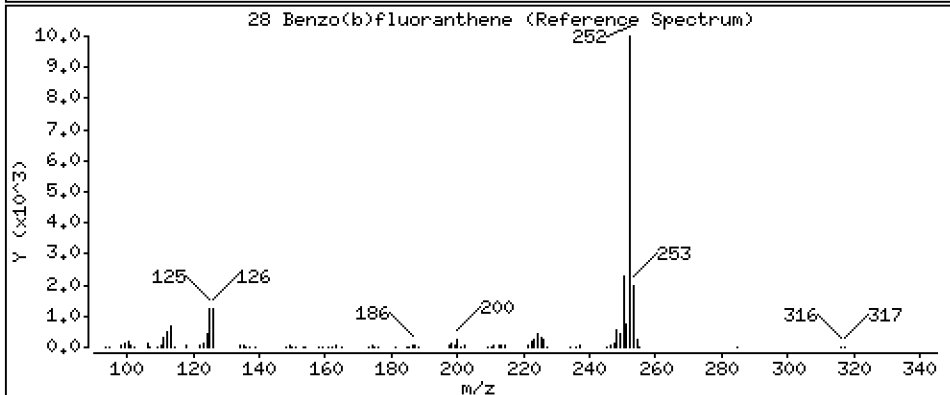
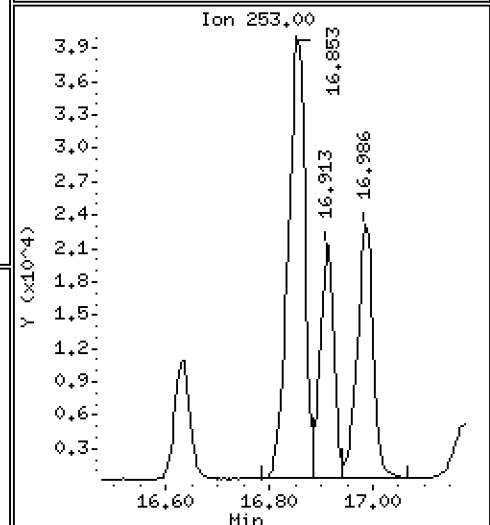
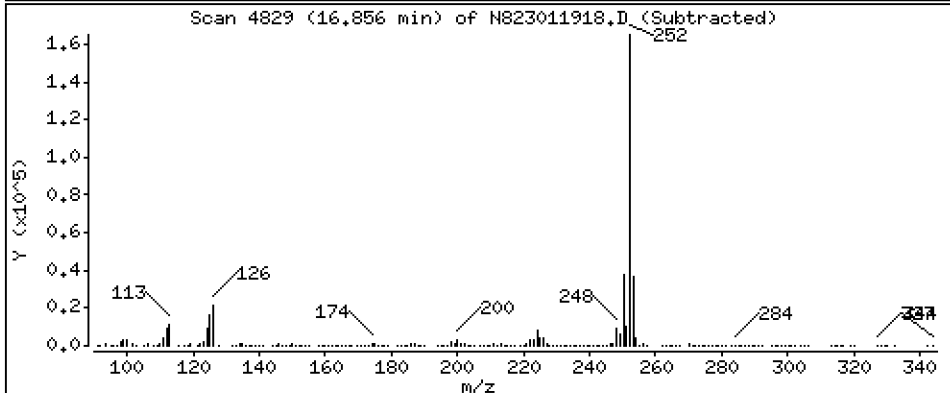
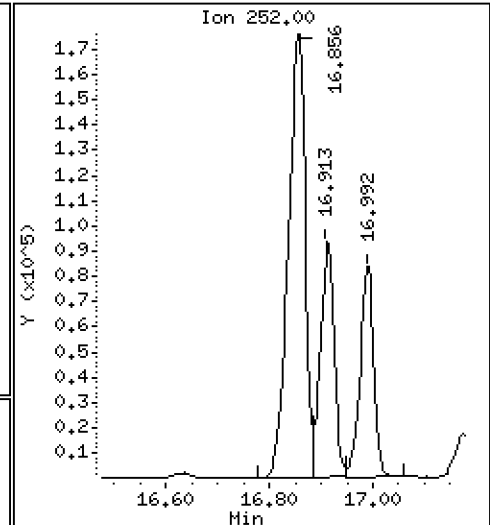
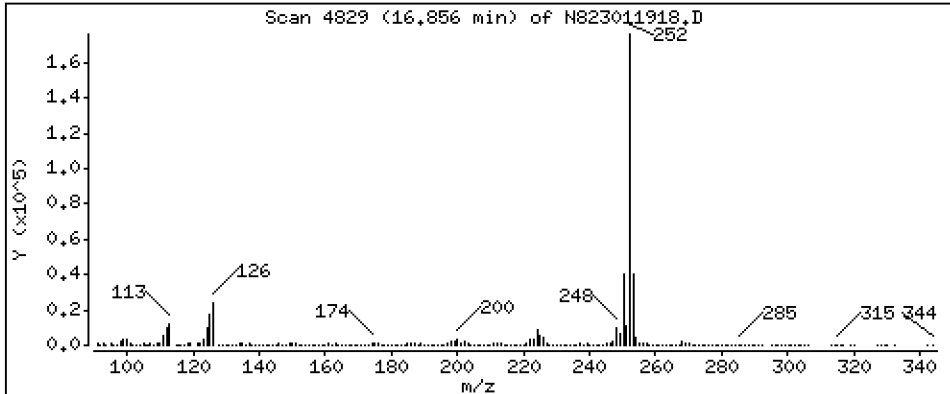
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

28 Benzo(b)fluoranthene

Concentration: 61,56 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

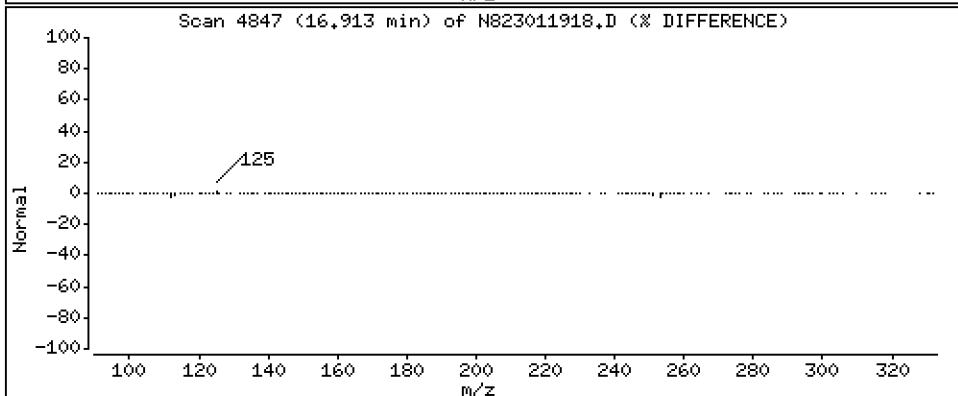
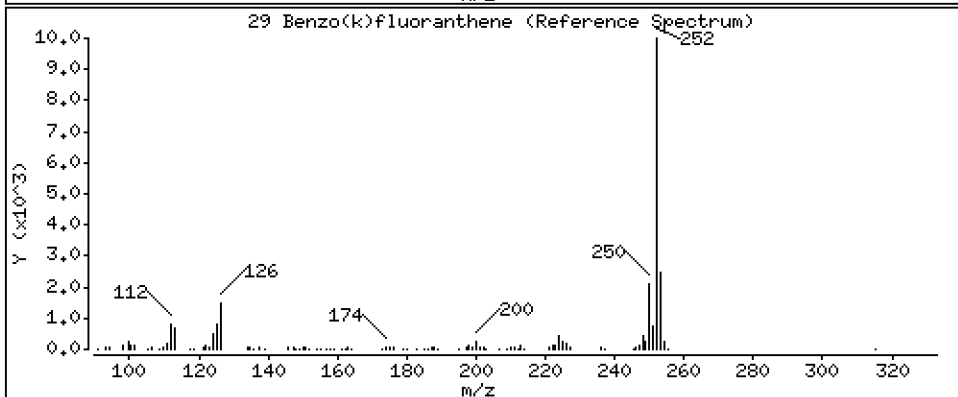
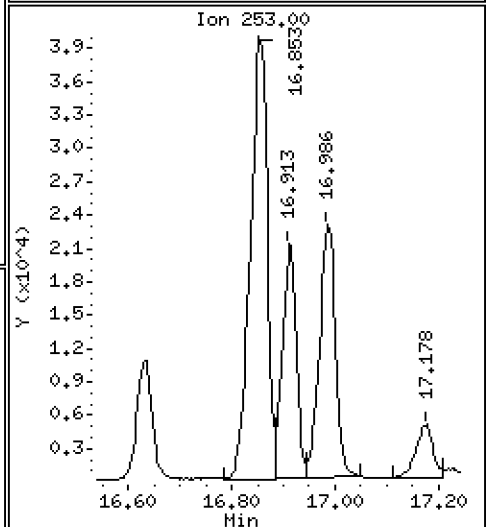
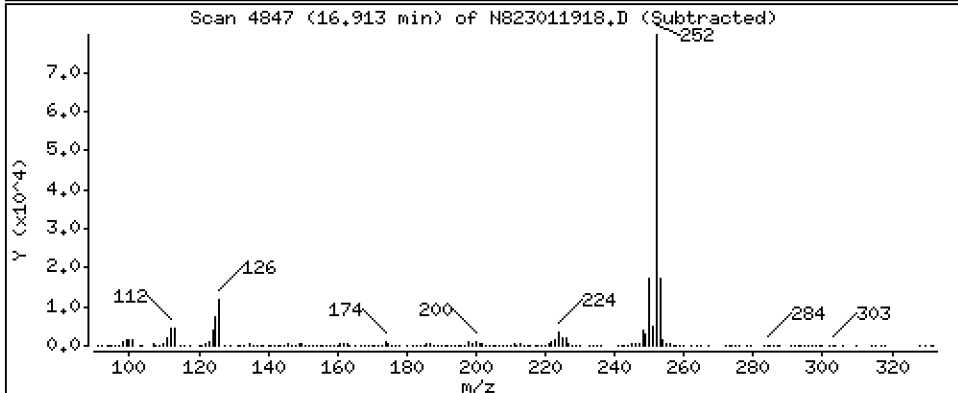
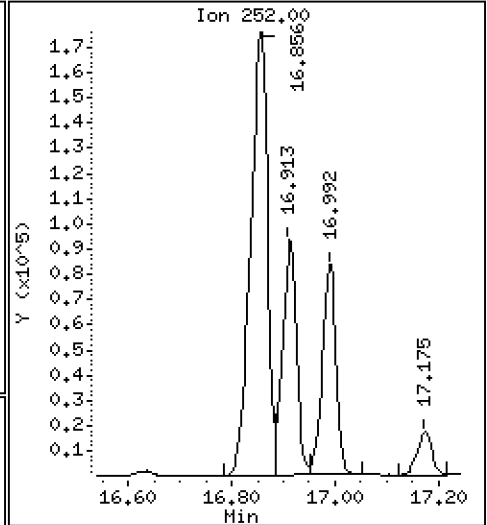
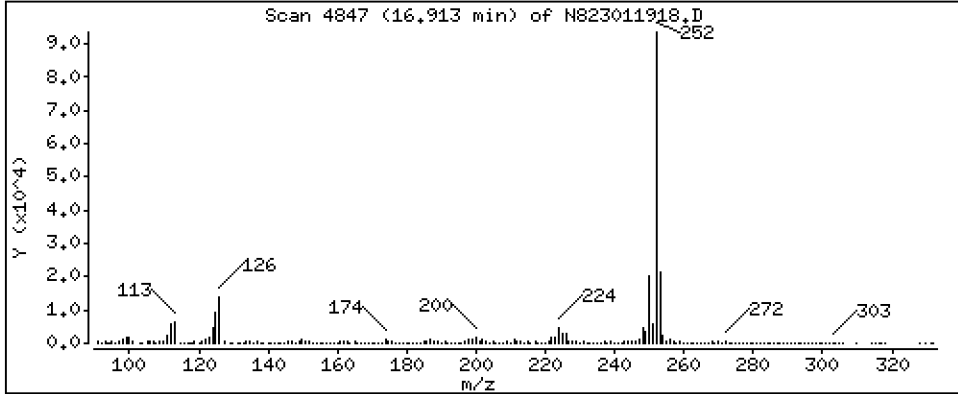
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

29 Benzo(k)fluoranthene

Concentration: 27,41 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

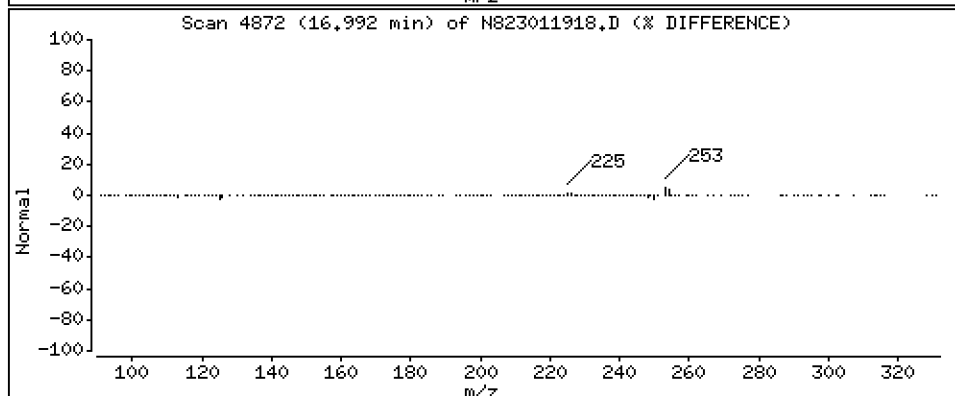
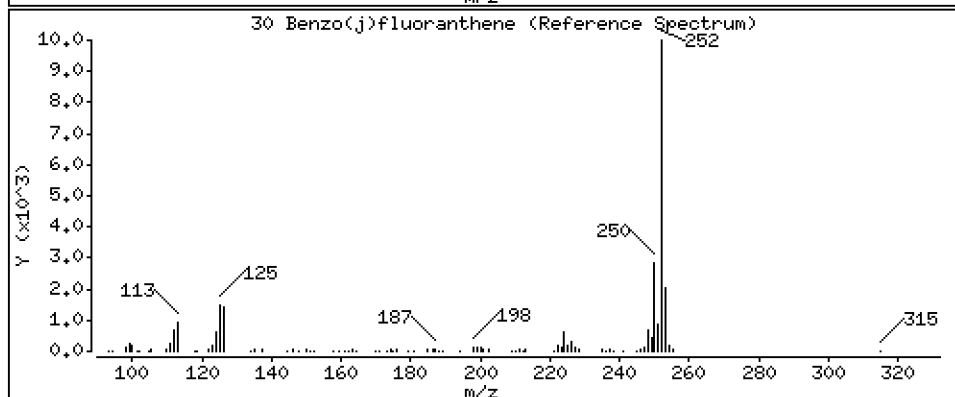
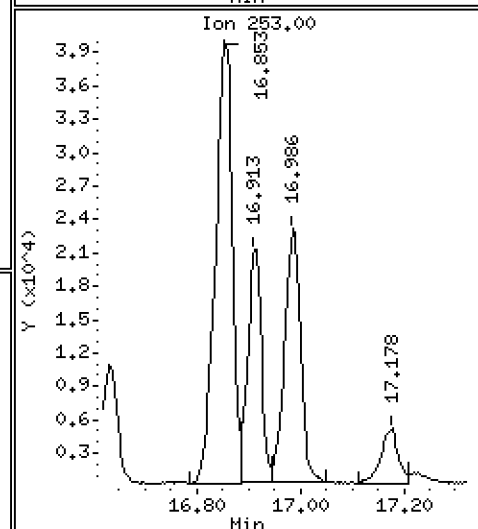
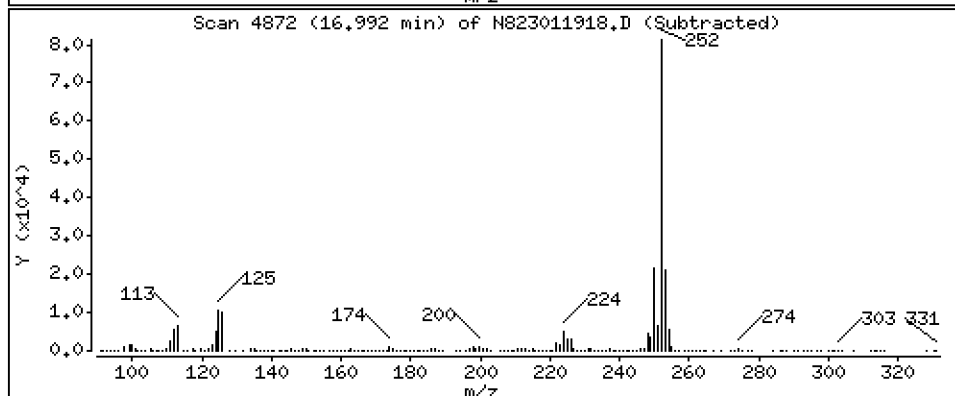
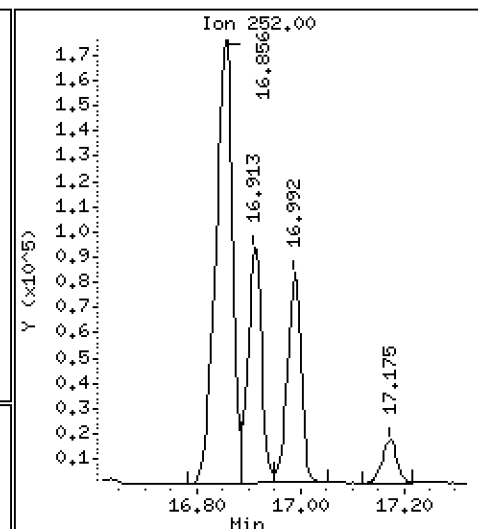
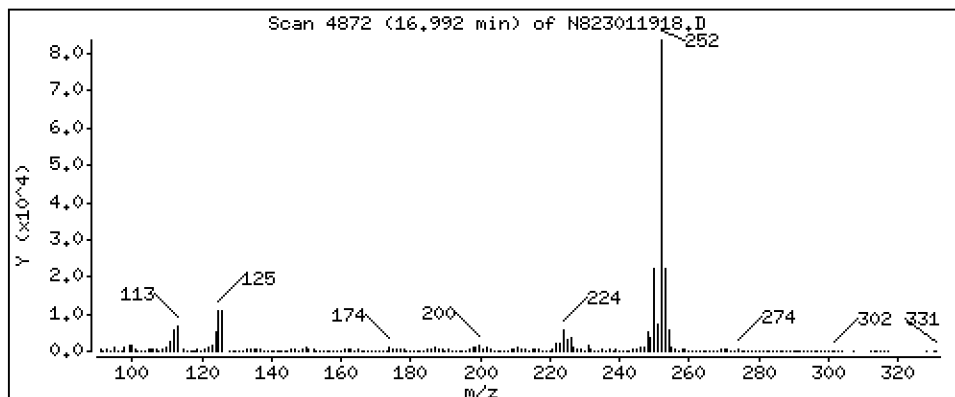
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

30 Benzo(j)fluoranthene

Concentration: 26,79 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

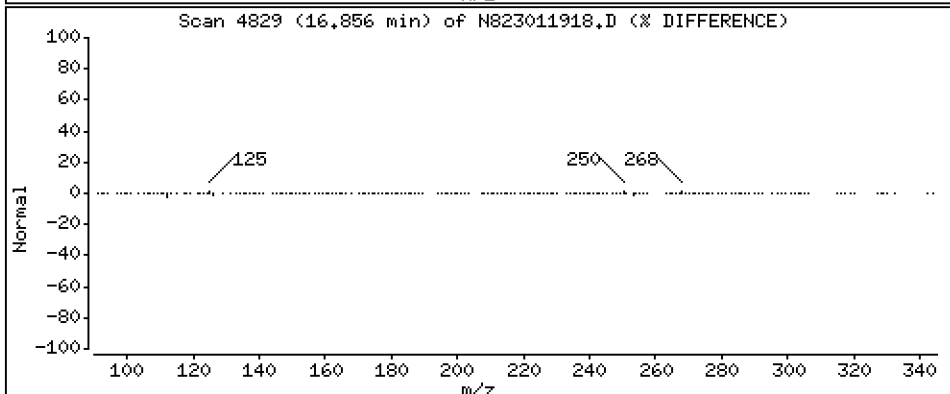
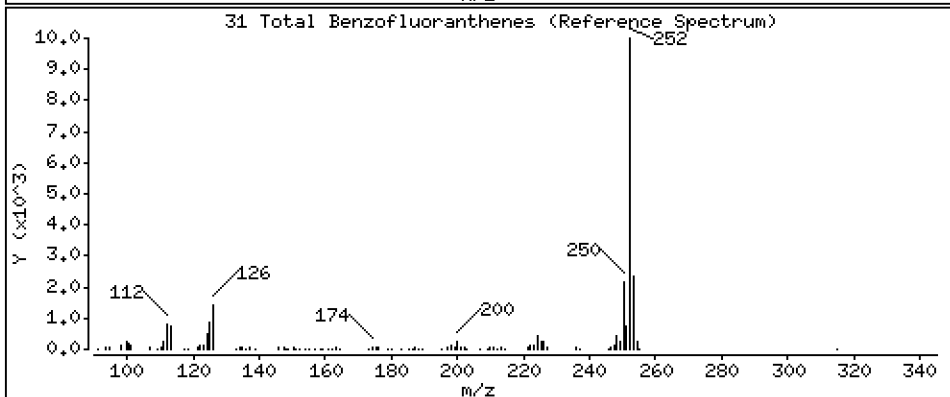
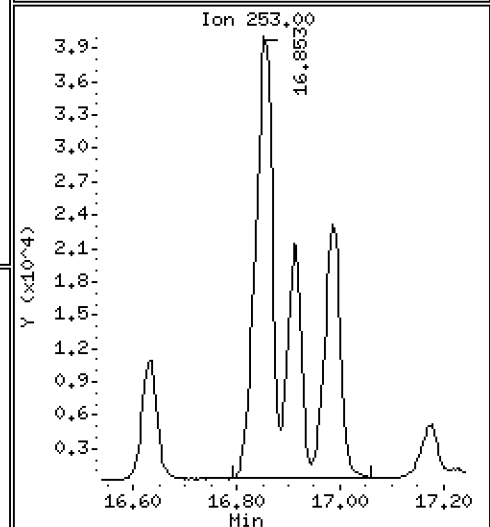
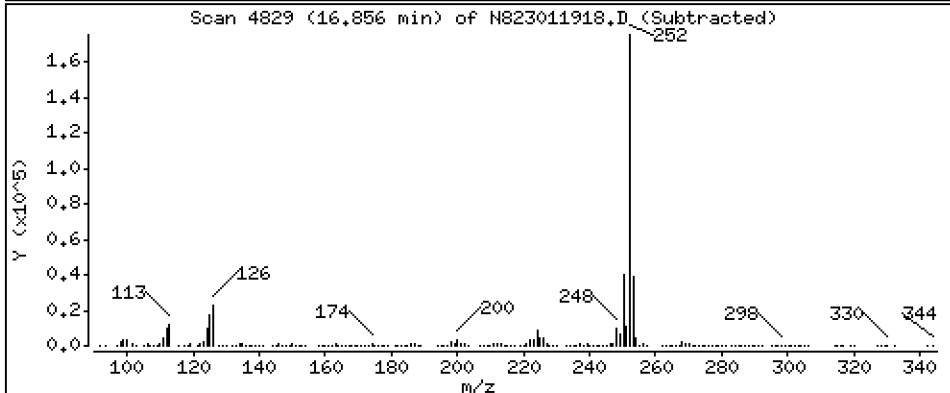
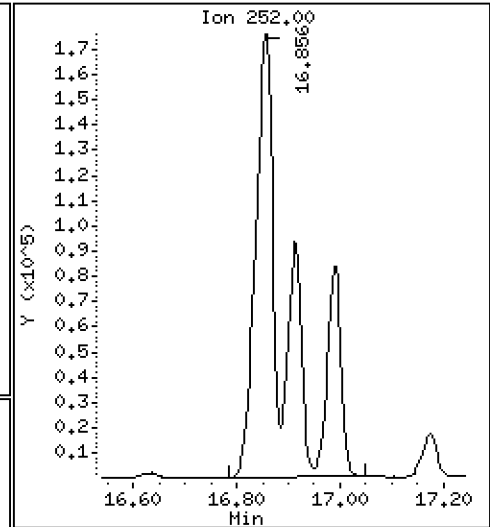
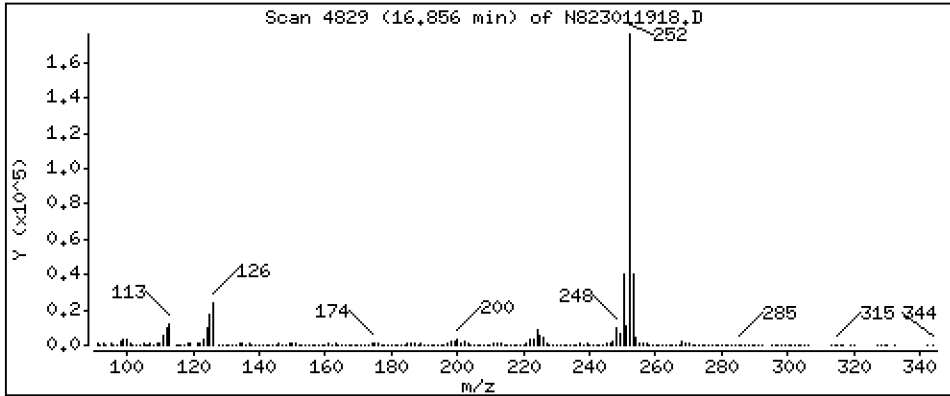
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

31 Total Benzofluoranthenes

Concentration: 117.4 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

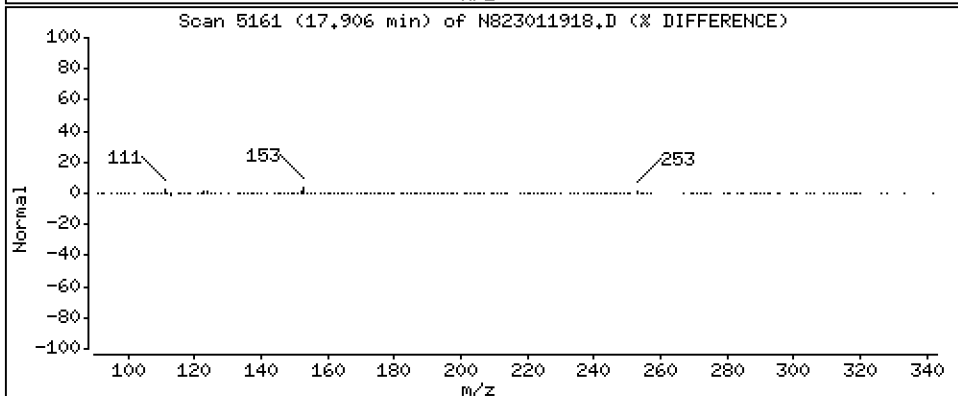
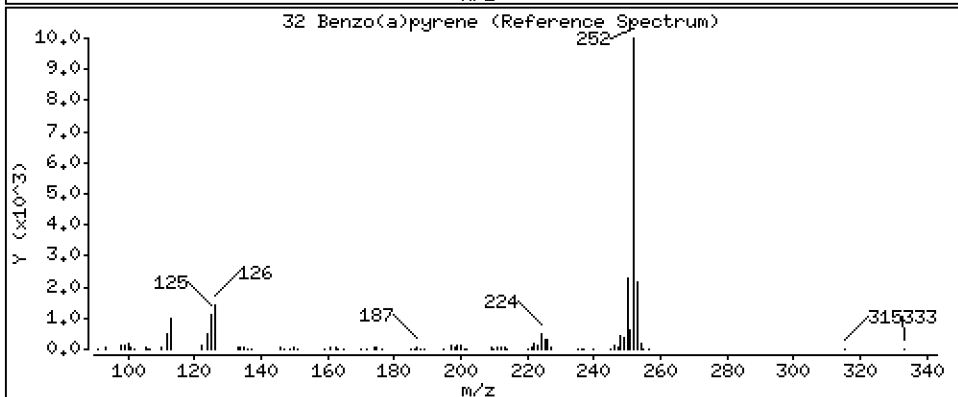
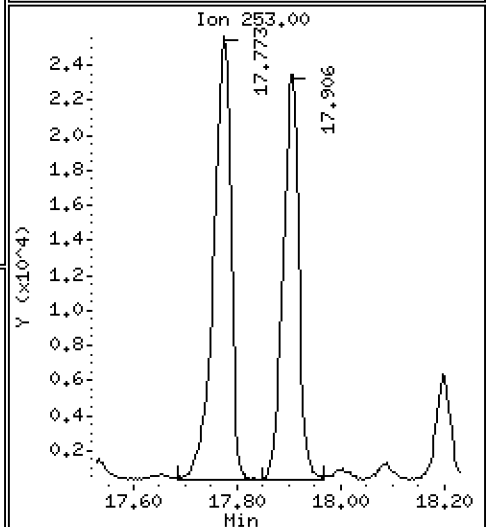
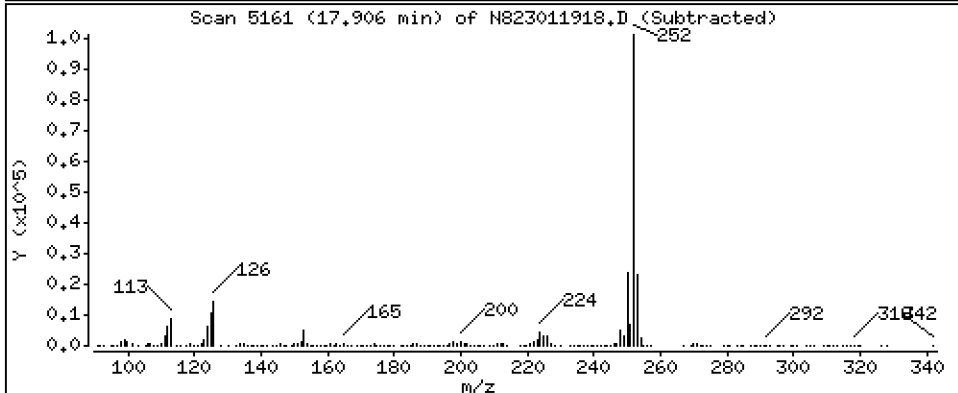
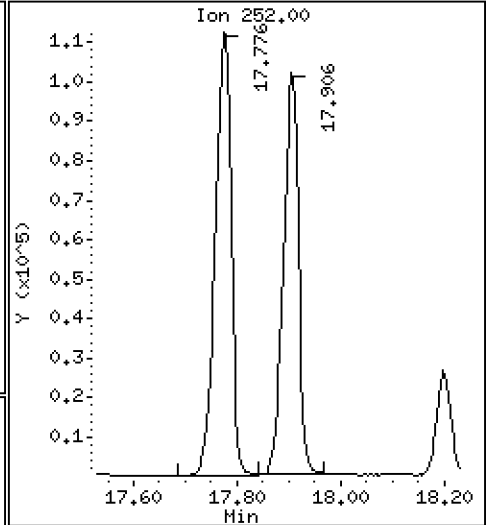
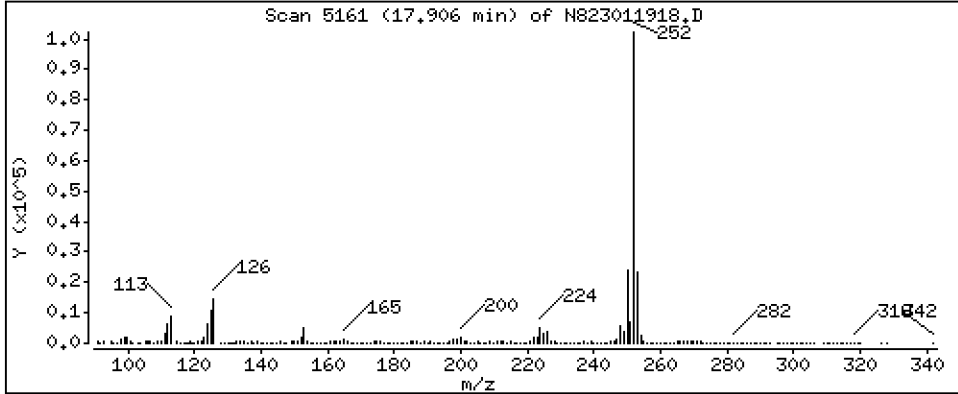
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 35,62 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

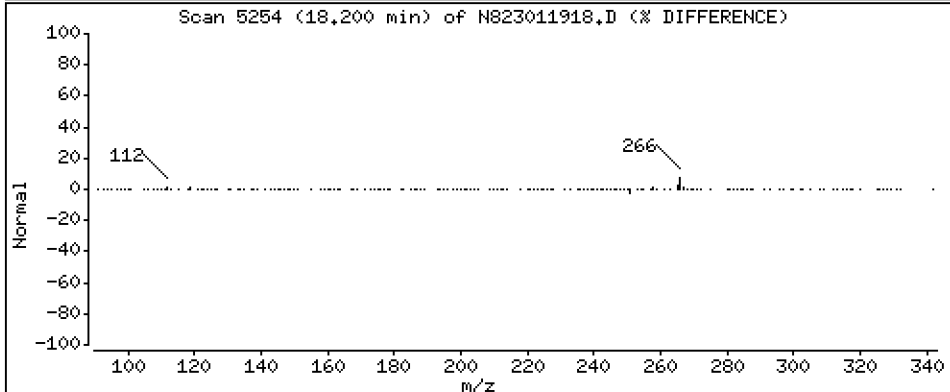
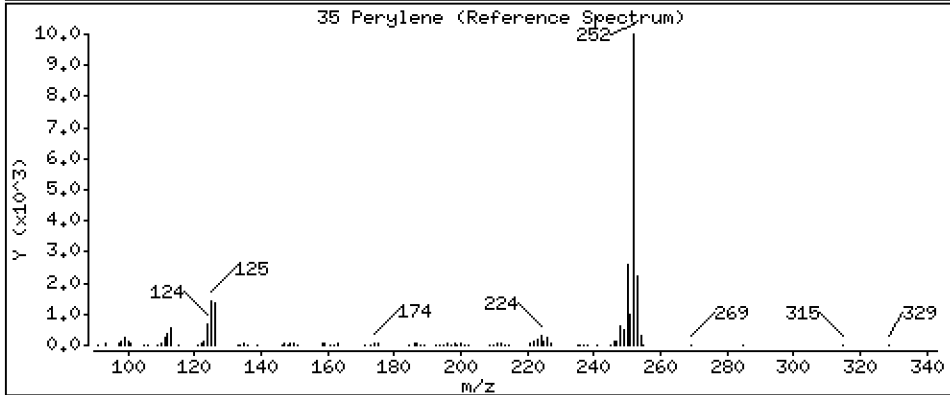
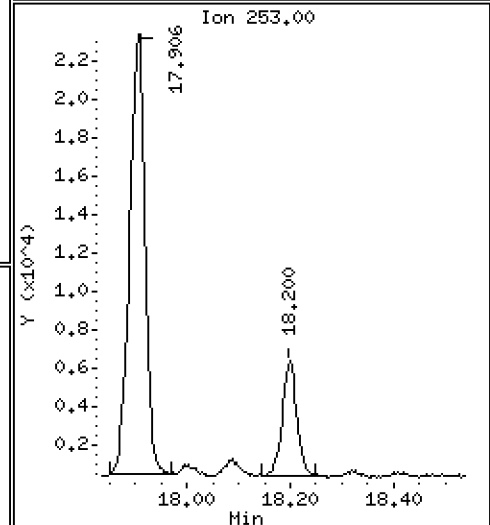
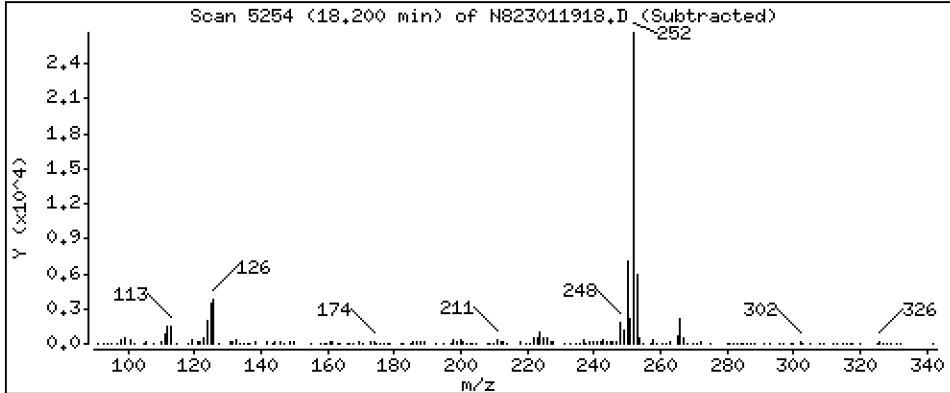
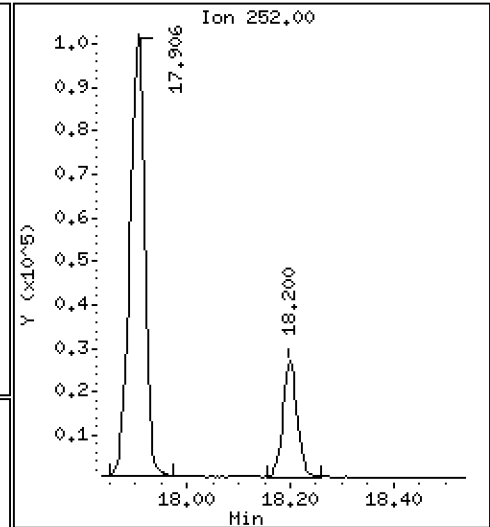
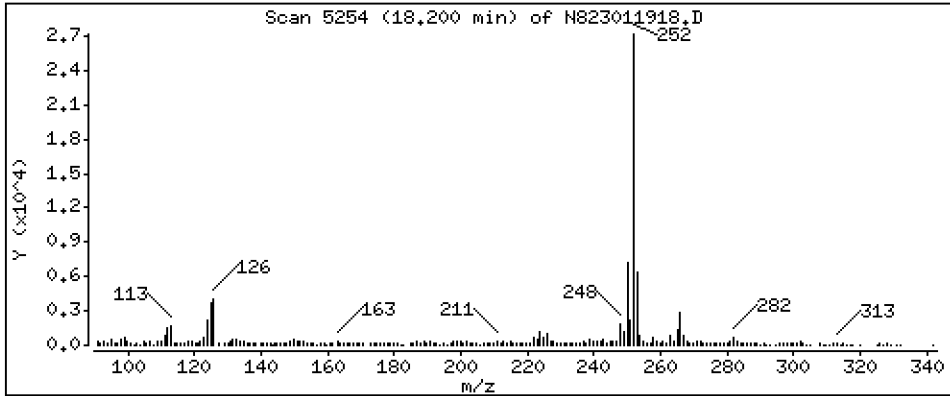
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

35 Perylene

Concentration: 8,295 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

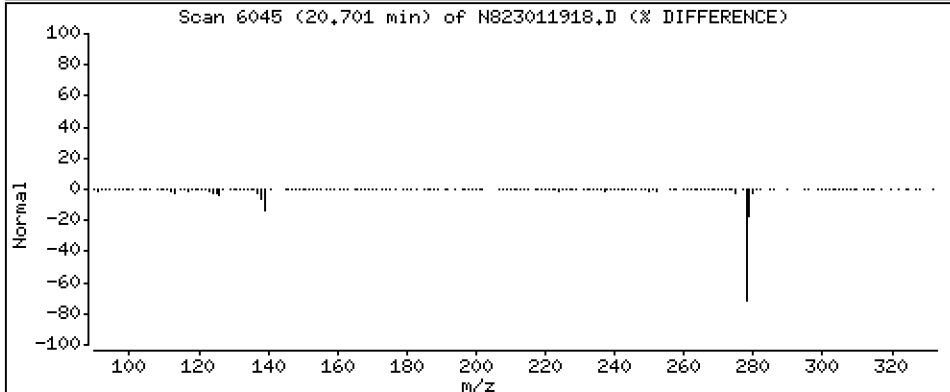
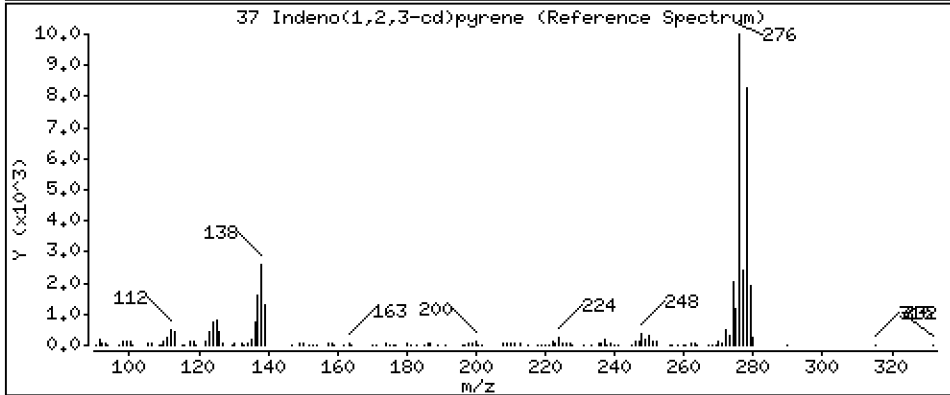
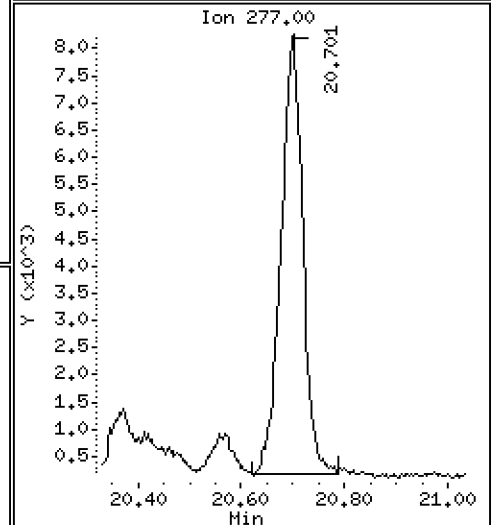
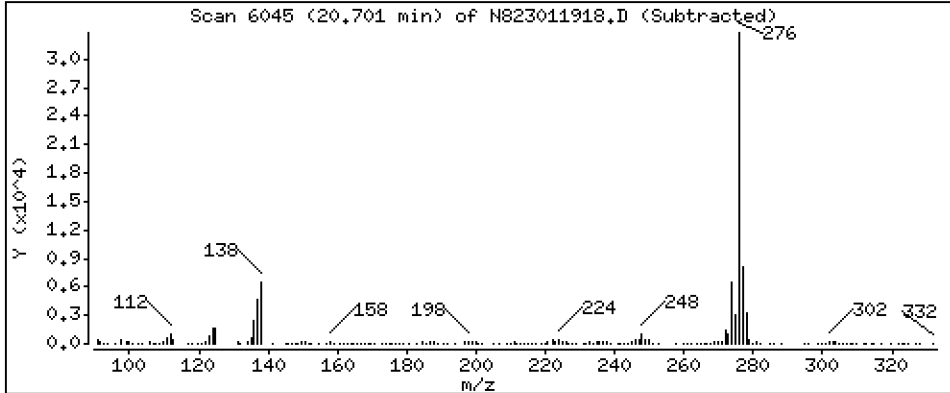
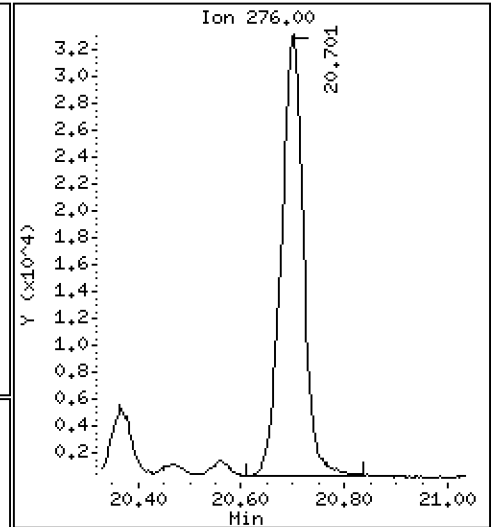
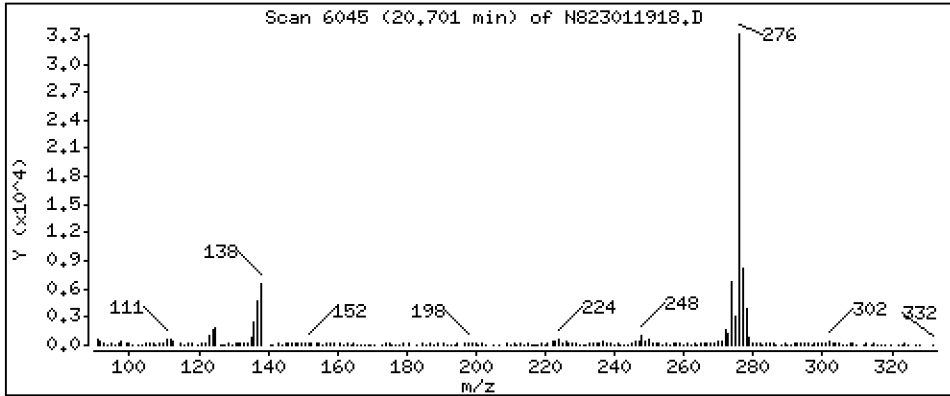
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 15,24 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

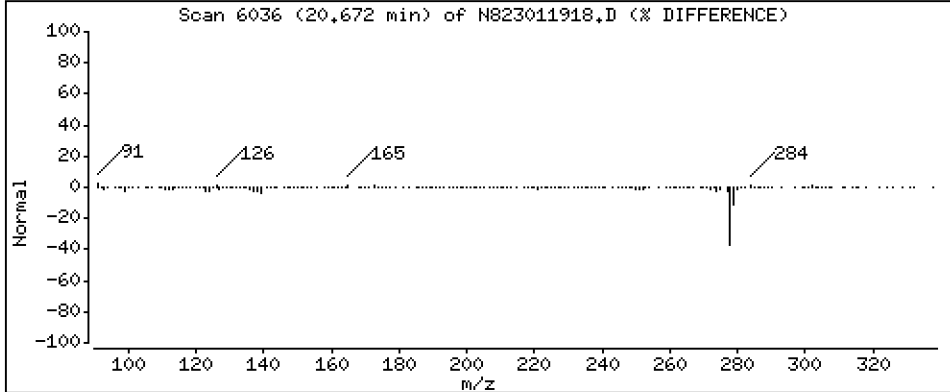
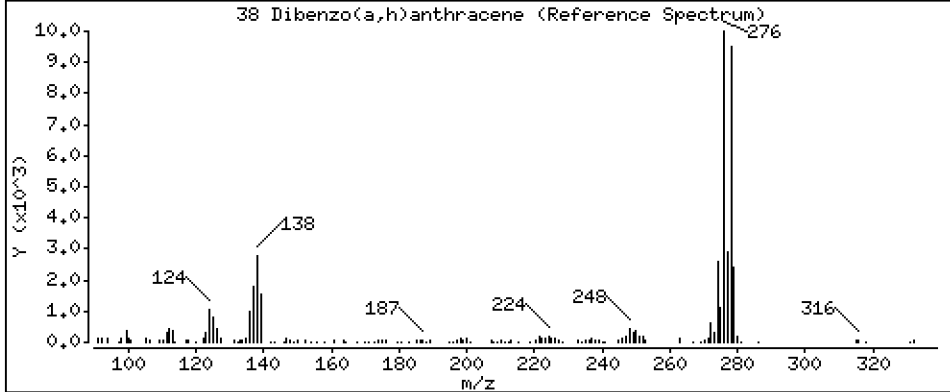
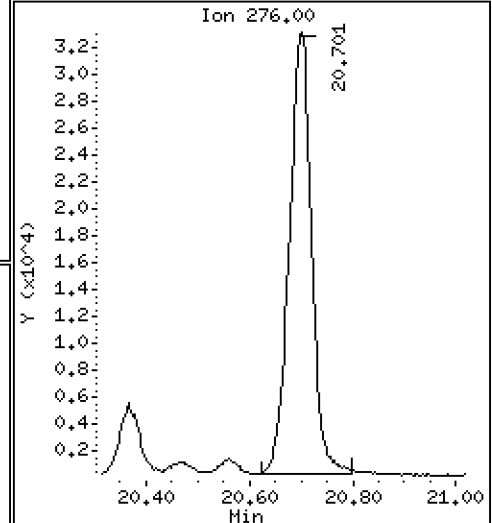
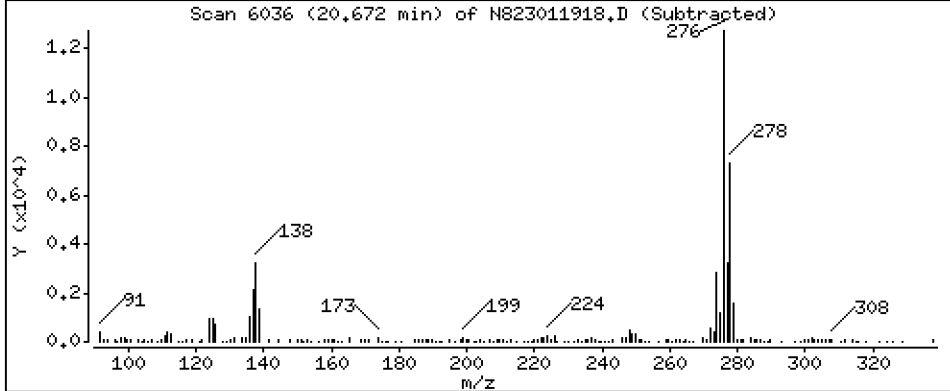
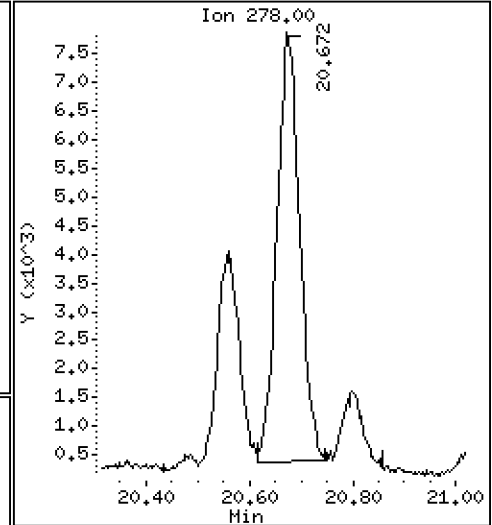
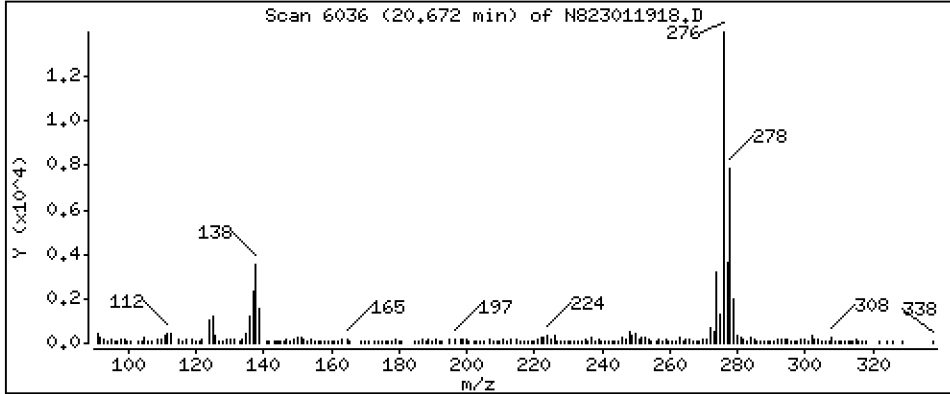
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 4,084 ug/mL



Date : 19-JAN-2023 19:00

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02,3

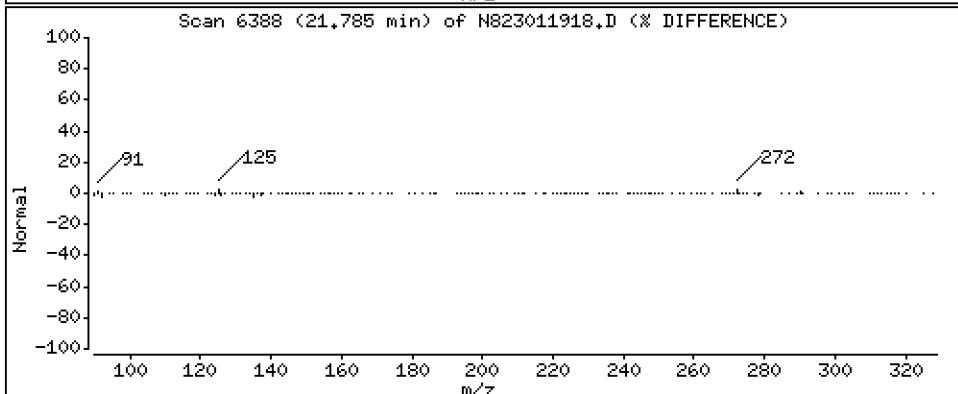
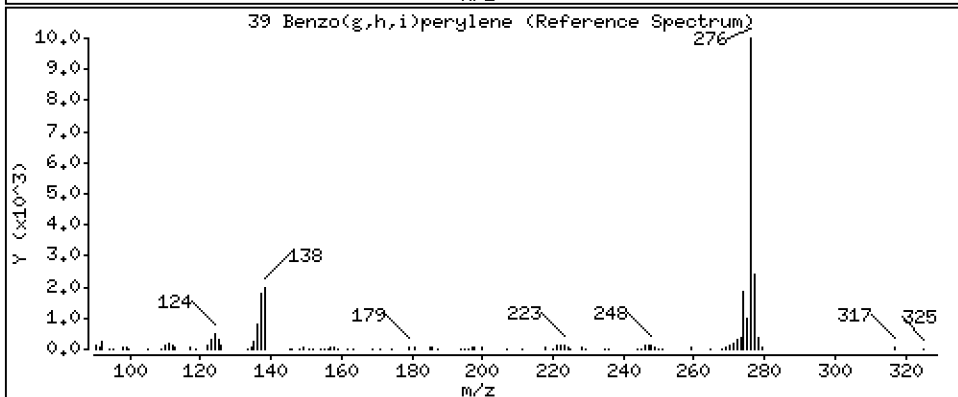
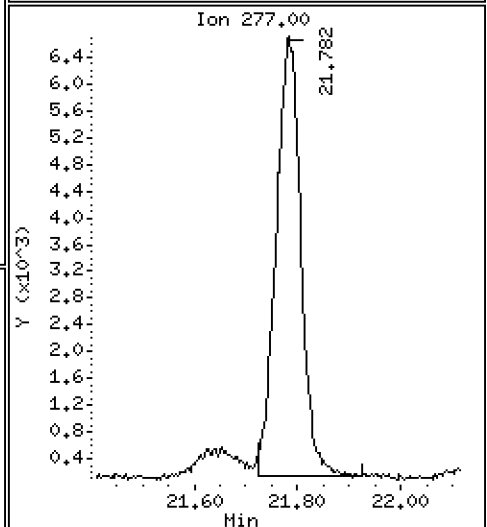
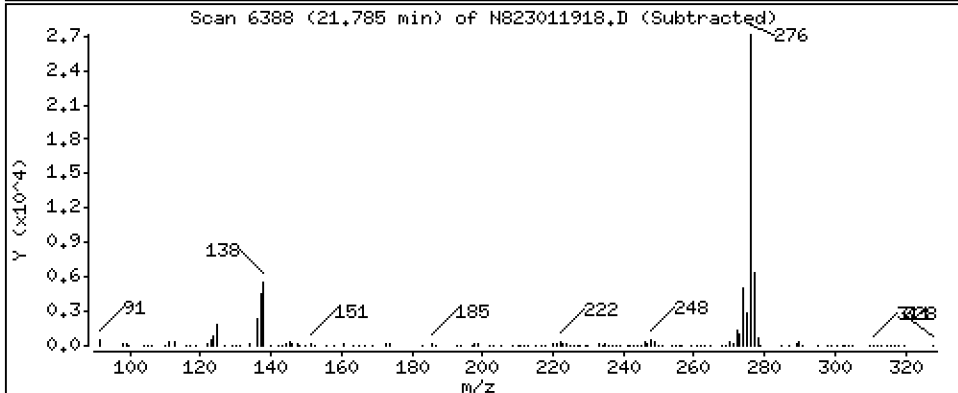
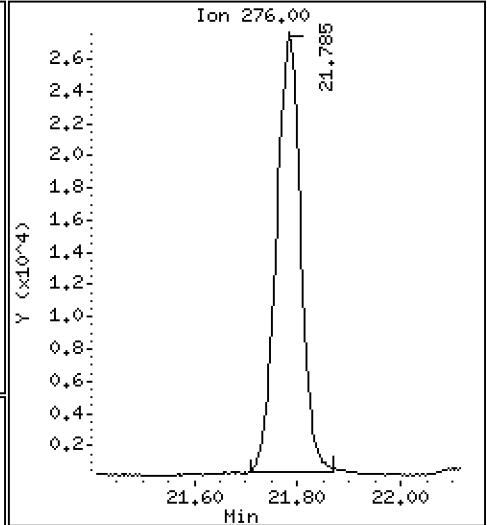
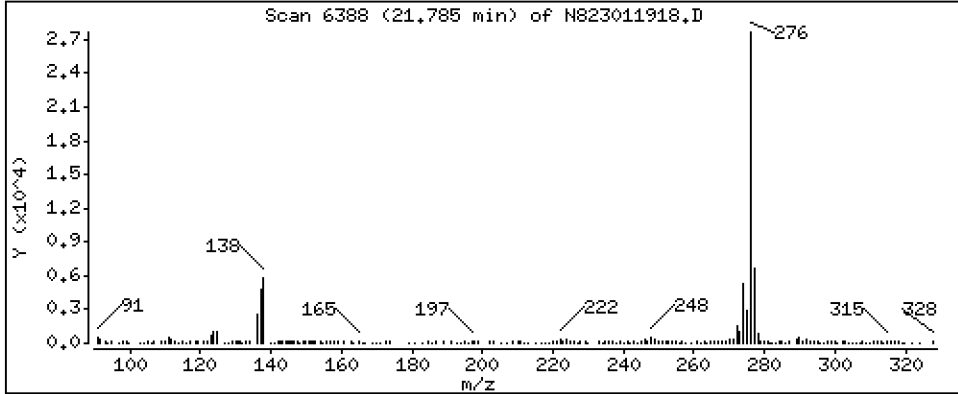
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 14,96 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119A.b\N823011918.D
 Lab Smp Id: 23A0032-02
 Inj Date : 19-JAN-2023 19:00
 Operator : JZ Inst ID: nt8.i
 Smp Info : 23A0032-02,3
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 22:11 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 8
 Dil Factor: 3.00000
 Integrator: HP RTE Compound Sublist: PNAXMDL.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
* 1 Naphthalene-d8	136		4.903	4.909	(1.000)	53696	2.00000	
2 Naphthalene	128		4.935	4.938	(1.006)	5210	0.20868	0.6260 (M)
\$ 3 2-Methylnaphthalene-d10	152		5.637	5.643	(1.150)	8670	0.59204	1.776
4 2-Methylnaphthalene	141		5.684	5.690	(1.159)	1696	0.12350	0.3705
5 1-methylnaphthalene	141		5.883	5.887	(1.200)	1523	0.10927	0.3278
9 Acenaphthylene	152		7.085	7.088	(0.985)	20394	0.83598	2.508
* 10 Acenaphthene-d10	164		7.196	7.199	(1.000)	32306	2.00000	
11 Acenaphthene	153		7.246	7.246	(1.007)	29600	1.81090	5.433
12 Dibenzofuran	168		7.395	7.398	(1.028)	13809	0.55622	1.669
14 Fluorene	166		7.875	7.875	(1.094)	55196	2.86253	8.588
* 15 Phenanthrene-d10	188		9.238	9.238	(1.000)	55819	2.00000	
16 Phenanthrene	178		9.282	9.270	(1.005)	874289	32.0647	96.19
17 Anthracene	178		9.317	9.311	(1.009)	160532	6.48102	19.44
22 Fluoranthene	202		11.107	11.053	(1.202)	3035488	102.275	306.8
\$ 21 Fluoranthene-d10	212		11.037	11.015	(1.195)	17127	0.69545	2.086
23 Pyrene	202		11.638	11.575	(0.818)	2349570	118.130	354.4
24 Benzo(a)anthracene	228		14.108	14.079	(0.992)	636338	35.2978	105.9
* 25 Chrysene-d12	240		14.225	14.209	(1.000)	32081	2.00000	
27 Chrysene	228		14.323	14.282	(1.007)	977323	50.9250	152.8
28 Benzo(b)fluoranthene	252		16.855	16.827	(0.930)	400945	20.5189	61.56
29 Benzo(k)fluoranthene	252		16.912	16.890	(0.933)	174872	9.13657	27.41
30 Benzo(j)fluoranthene	252		16.991	16.969	(0.937)	153888	8.93123	26.79
31 Total Benzofluoranthenes	252		16.855	16.890	(0.930)	724155	39.1315	117.4 (M)
32 Benzo(a)pyrene	252		17.905	17.880	(0.988)	204150	11.8724	35.62
* 33 Perylene-d12	264		18.127	18.117	(1.000)	33551	2.00000	(M)
35 Perylene	252		18.199	18.187	(1.004)	51022	2.76507	8.295
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.564	20.555	(1.134)	9403	0.71527	2.146
37 Indeno(1,2,3-cd)pyrene	276		20.700	20.681	(1.142)	99487	5.07856	15.24
38 Dibenzo(a,h)anthracene	278		20.672	20.666	(1.140)	22948	1.36122	4.084
39 Benzo(g,h,i)perylene	276		21.785	21.763	(1.202)	88528	4.98787	14.96

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011918.D Calibration Time: 16:16
 Lab Smp Id: 23A0032-02
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	42524	21262	85048	53696	26.27
10 Acenaphthene-d10	25260	12630	50520	32306	27.89
15 Phenanthrene-d10	47890	23945	95780	55819	16.56
25 Chrysene-d12	40533	20267	81066	32081	-20.85
33 Perylene-d12	38115	19058	76230	33551	-11.97

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.90	-0.13
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	-0.04
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.00
25 Chrysene-d12	14.21	13.71	14.71	14.23	0.11
33 Perylene-d12	18.12	17.62	18.62	18.13	0.05

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011918.D

Lab ID: 23A0032-02

nt8.i, 20230119A.b\FSIMPNA230119.m, 19-JAN-2023 19:00

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

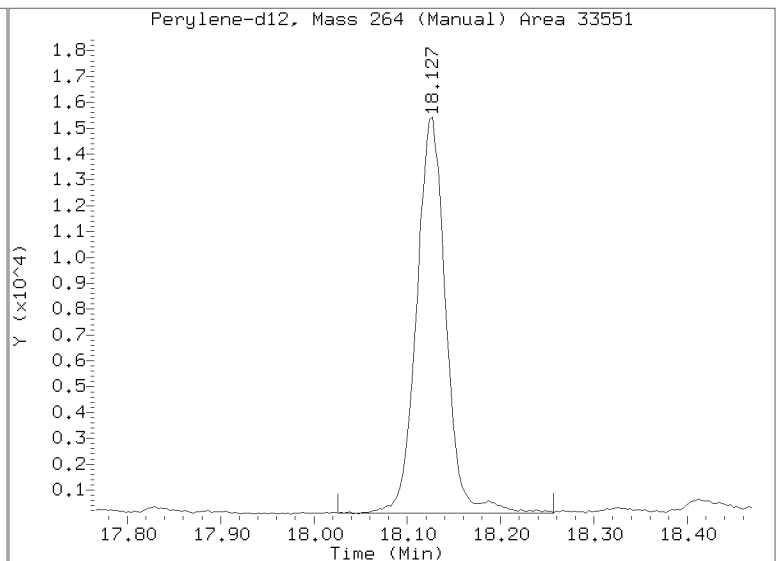
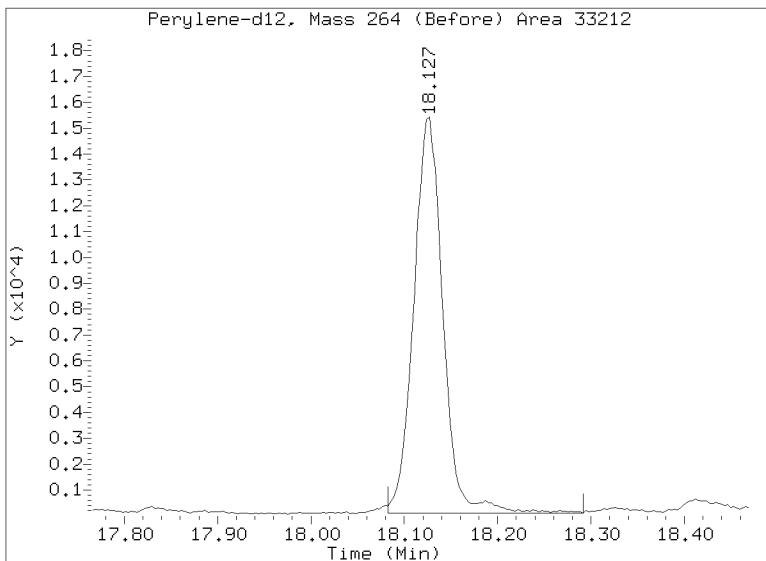
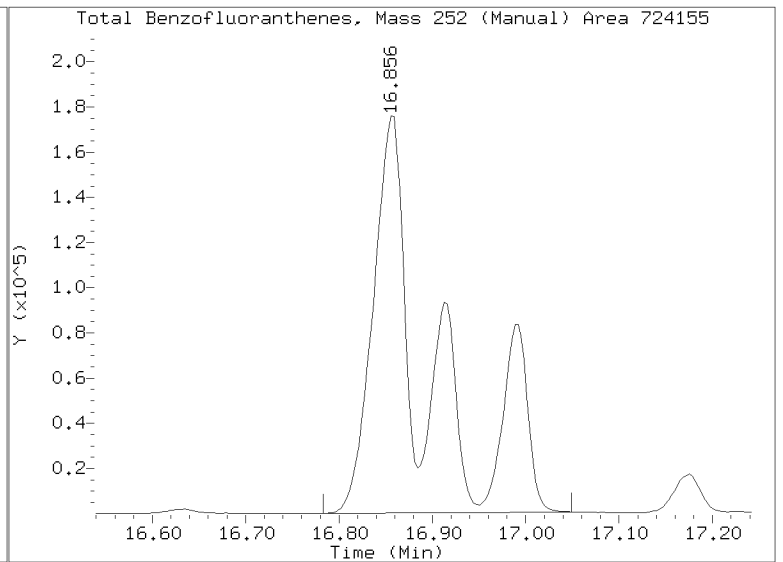
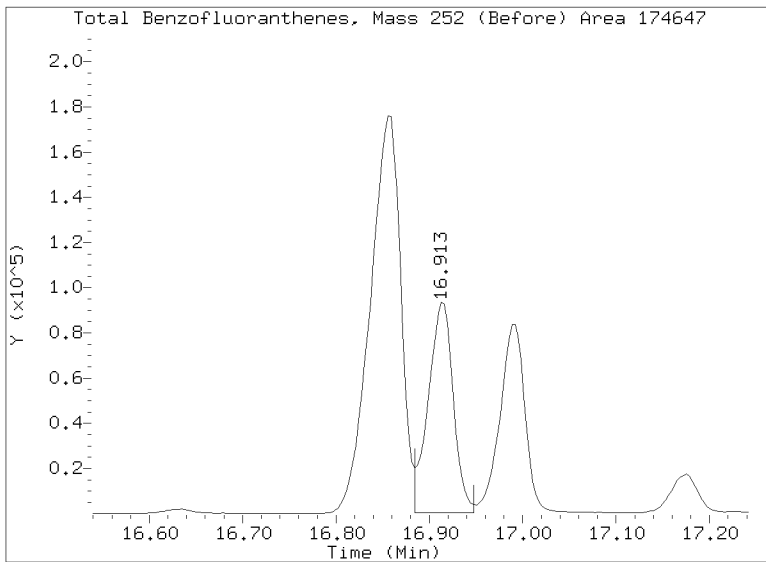
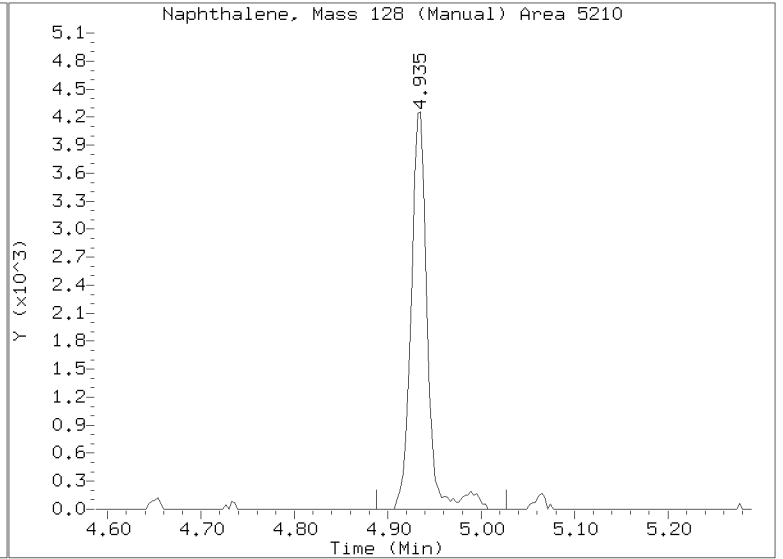
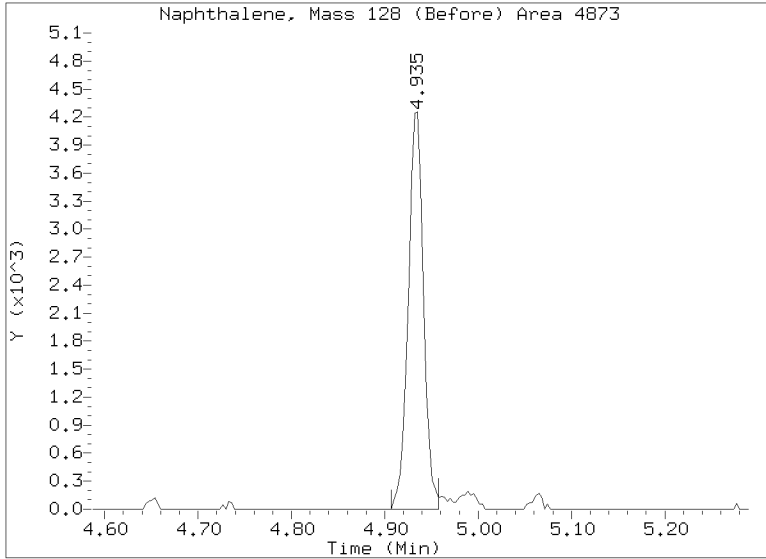
No RRT check performed

On Column LOD for nt8.i, 20230119A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119A.b/N823011918.D
Injection Date: 19-JAN-2023 19:00
Lab ID:23A0032-02 Client ID:
Report Date: 01/25/2023 22:12





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Polynuclear Aromatic Hydrocarbons

Laboratory: Analytical Resources, LLC
 Client: Anchor OEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-02RE1 A SDG: 23A0032
 Sampled: 01/03/23 09:12 Prepared: 01/11/23 11:45 File ID: N823011925.D
 % Solids: 61.49 Preparation: EPA 3546 (Microwave) Analyzed: 01/19/23 22:08
 Batch: BLA0171 Sequence: SLA0228 Initial/Final: 16.28 g Wet / 0.5 mL
 Instrument: NT8 Column: RXI-17Sil ms Calibration: GA00050
 Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
56-55-3	Benzo(a)anthracene	45	4040	D	37.0	225
218-01-9	Chrysene	45	5800	D	47.3	225
205-99-2	Benzo(b)fluoranthene	45	2730	D	61.7	225
207-08-9	Benzo(k)fluoranthene	45	1320	D	34.2	225
50-32-8	Benzo(a)pyrene	45	1530	D	27.6	225
193-39-5	Indeno(1,2,3-cd)pyrene	45	648	D	47.2	225
53-70-3	Dibenzo(a,h)anthracene	45	208	J, D	40.1	225

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	149.84	74.9	50.0	32 - 120	
Dibenzo[a,h]anthracene-d14	149.84	117	78.2	21 - 133	
Fluoranthene-d10	149.84	94.7	63.2	36 - 134	

Data File: \\target\share\chem3\nt8.1\20230119A.1\N823011925.D

Date : 19-JAN-2023 22:08

Client ID:

Sample Info: 23A0032-02REL/45,

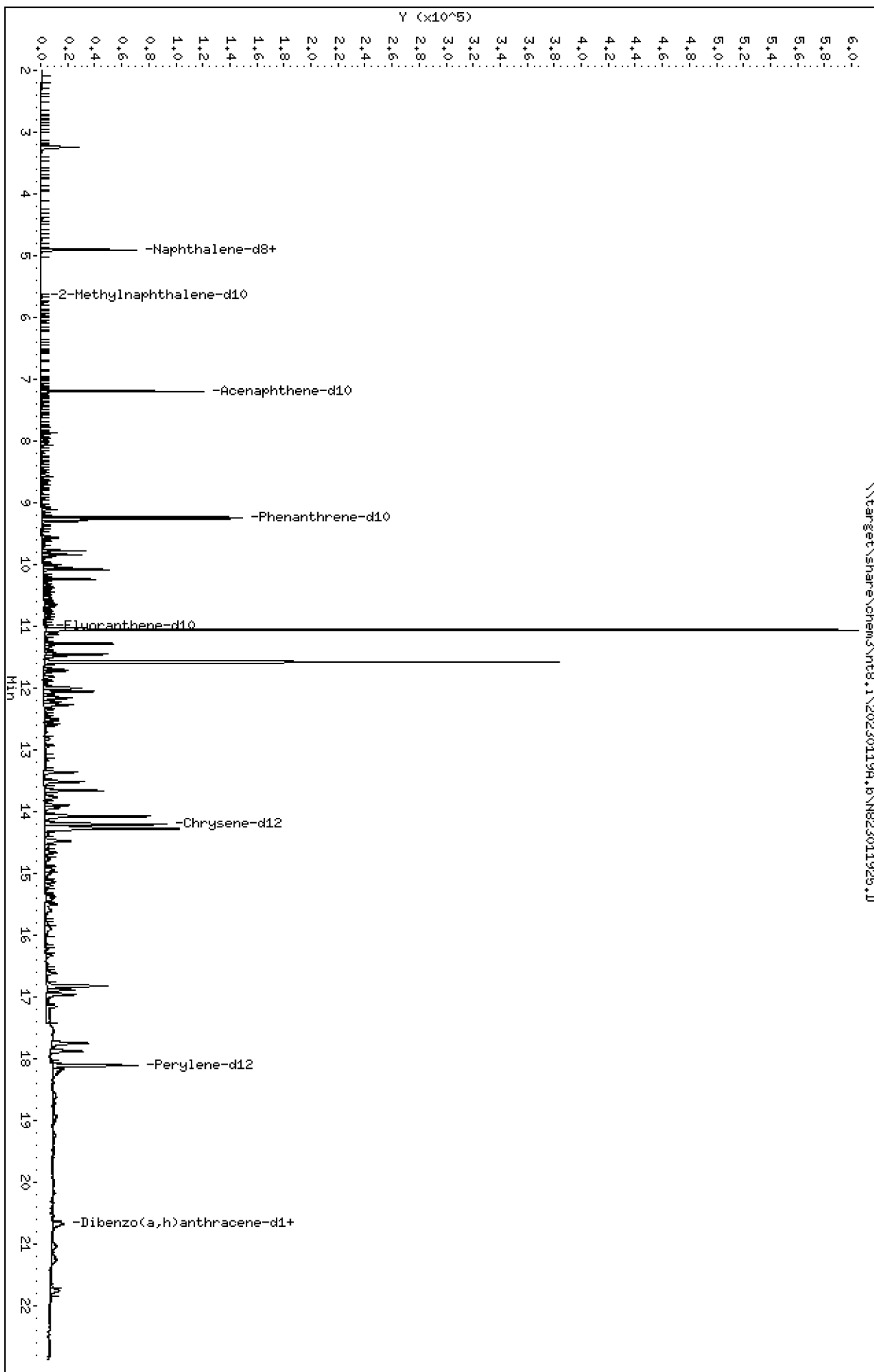
Column phase: Rxi-17sil

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

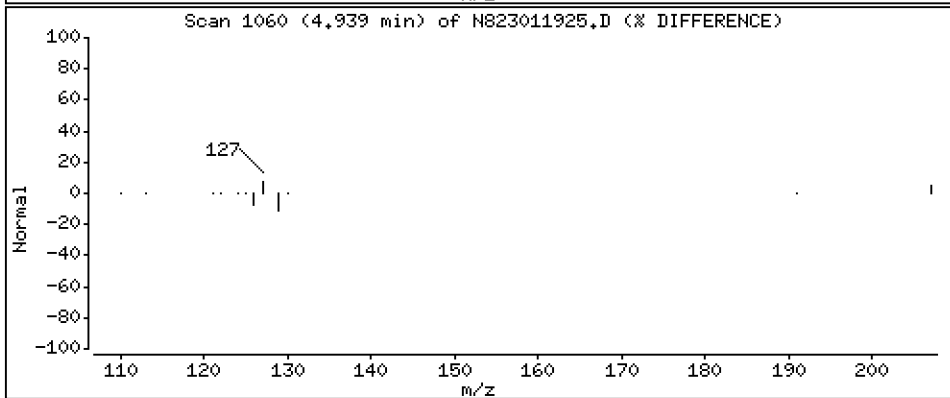
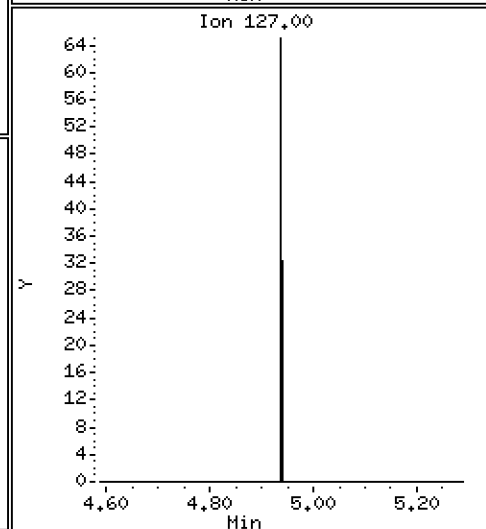
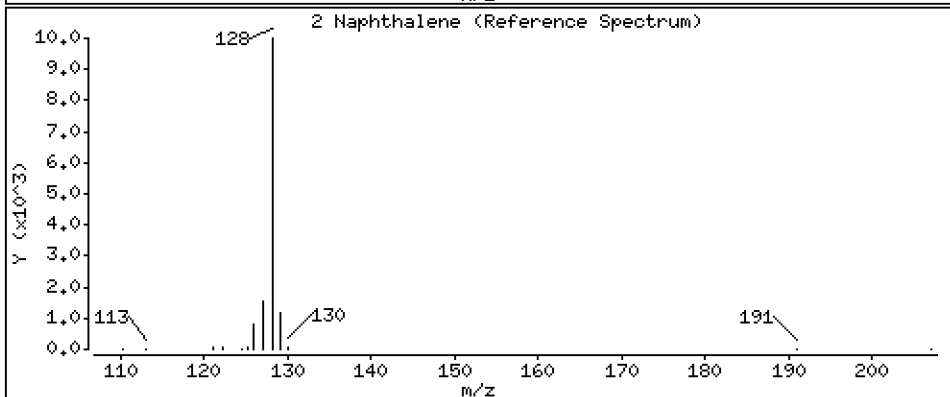
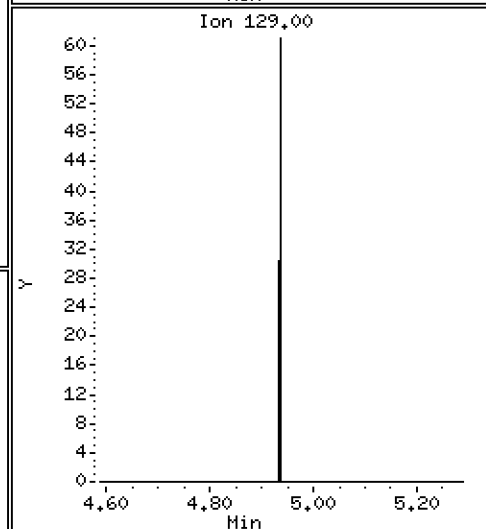
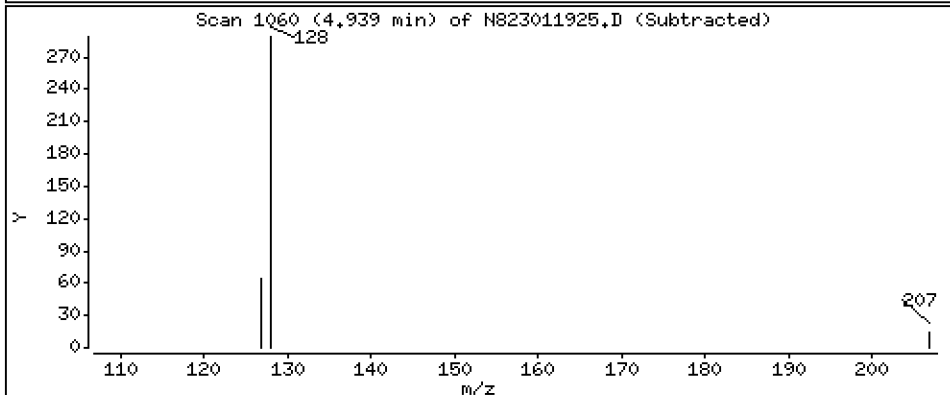
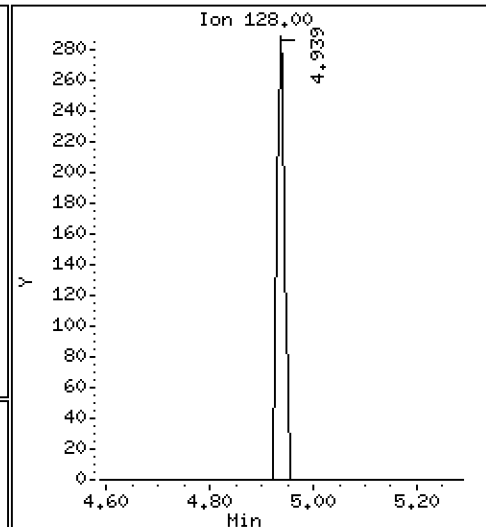
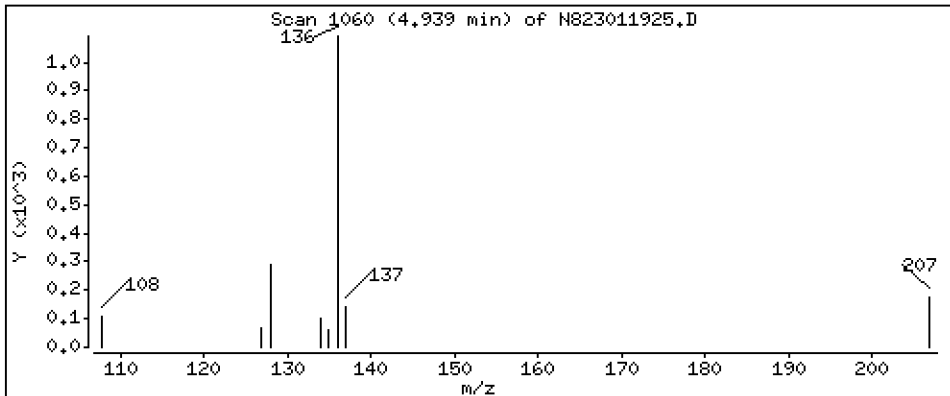
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

2 Naphthalene

Concentration: 0,5317 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

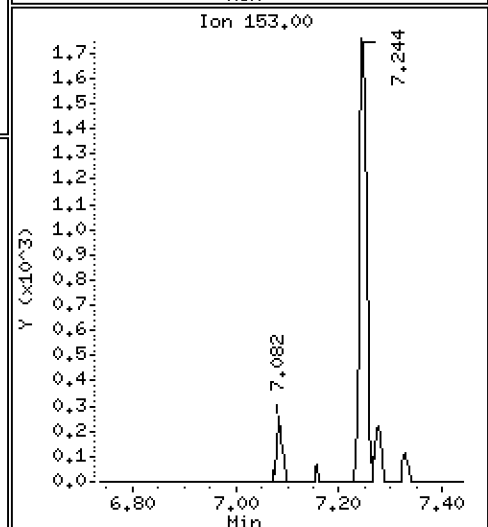
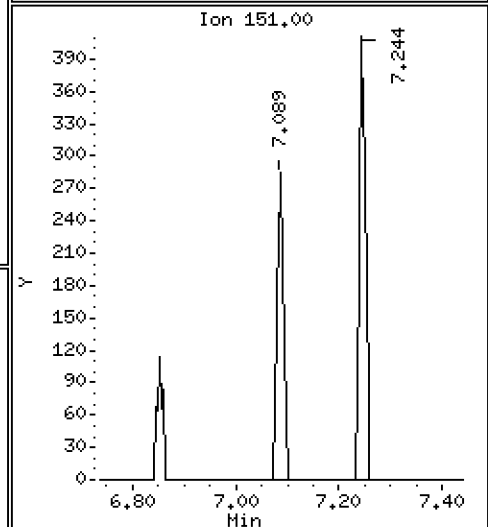
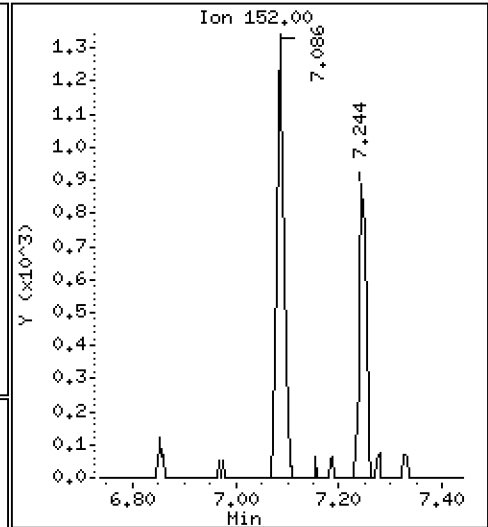
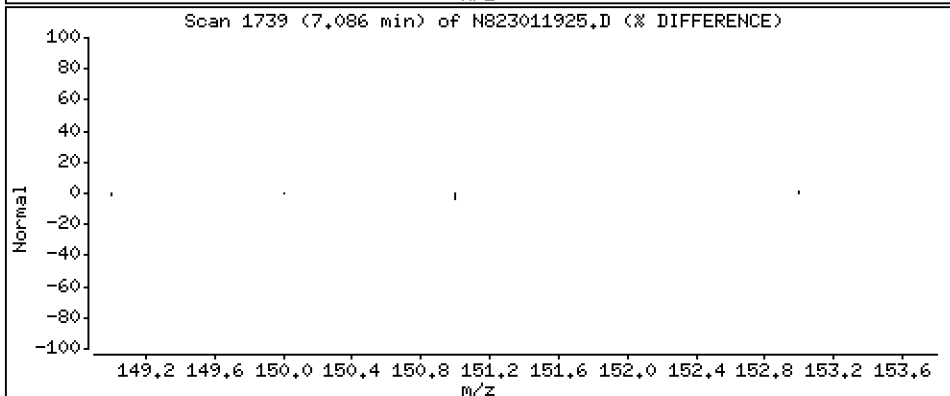
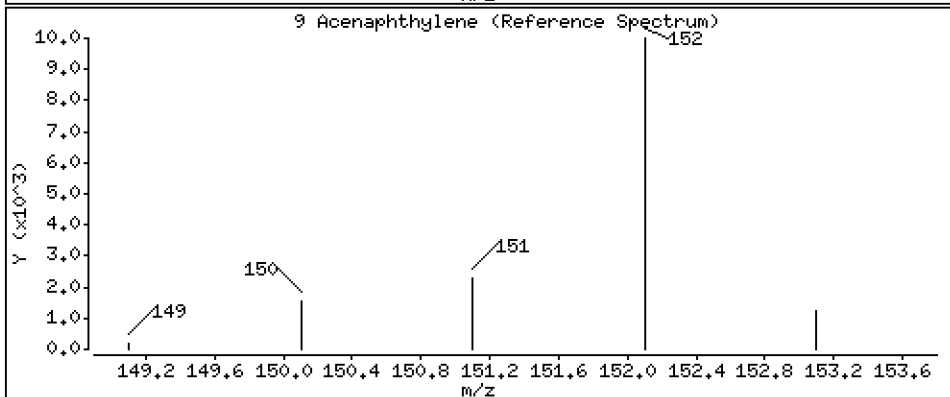
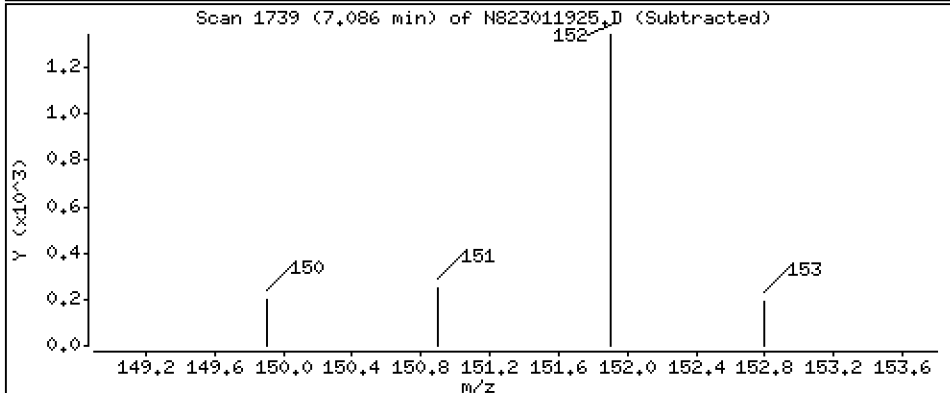
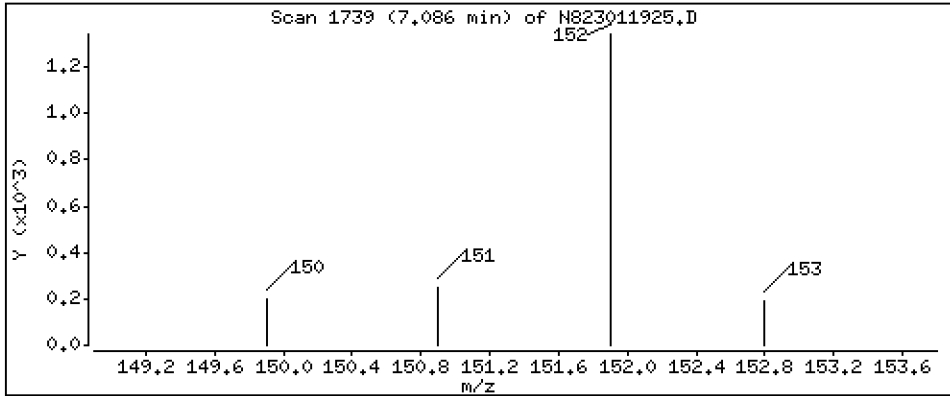
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

9 Acenaphthylene

Concentration: 2,311 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

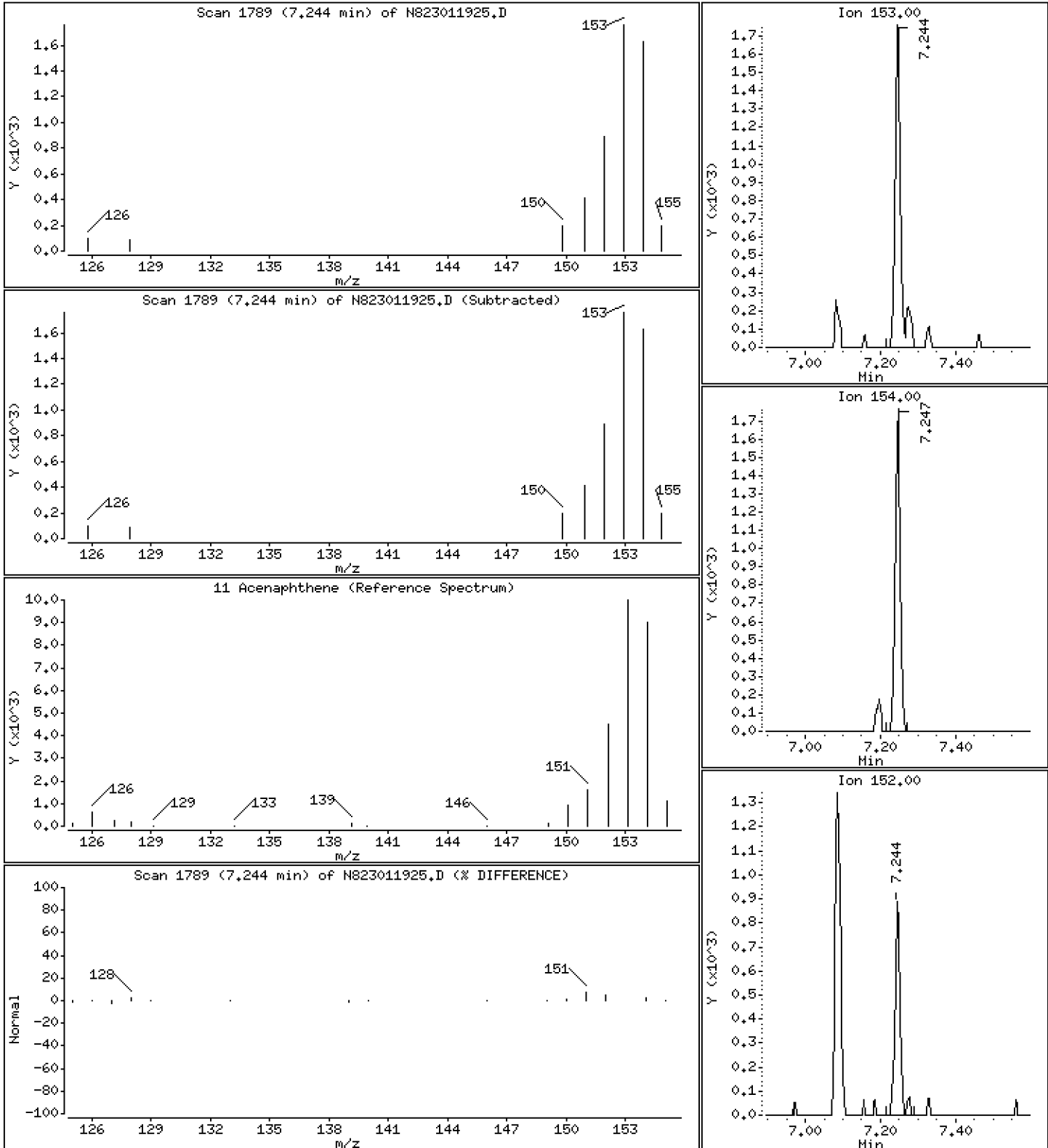
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

11 Acenaphthene

Concentration: 4,914 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

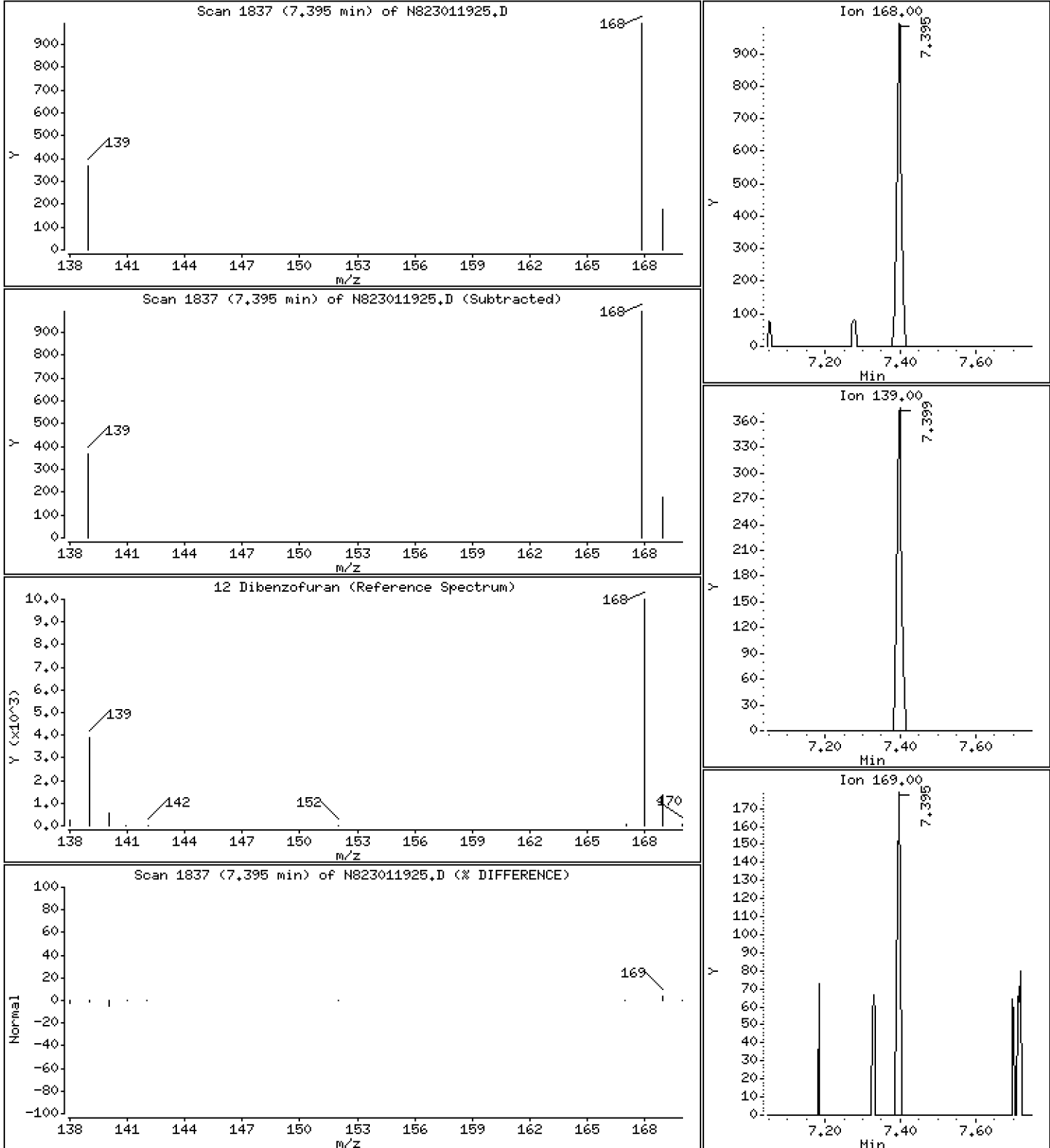
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

12 Dibenzofuran

Concentration: 1,460 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

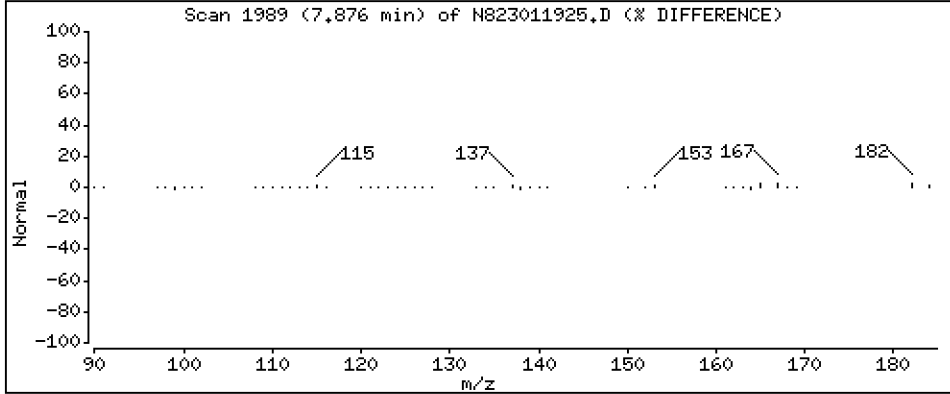
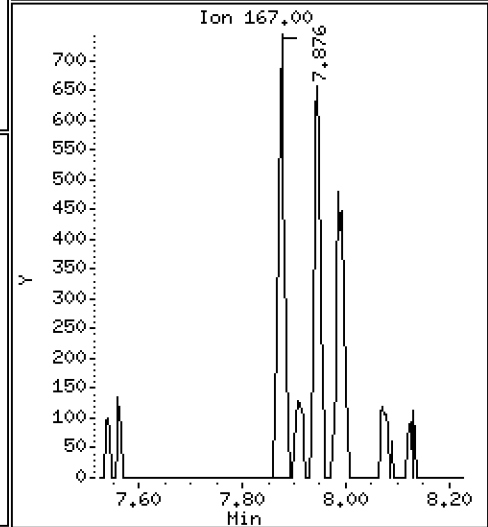
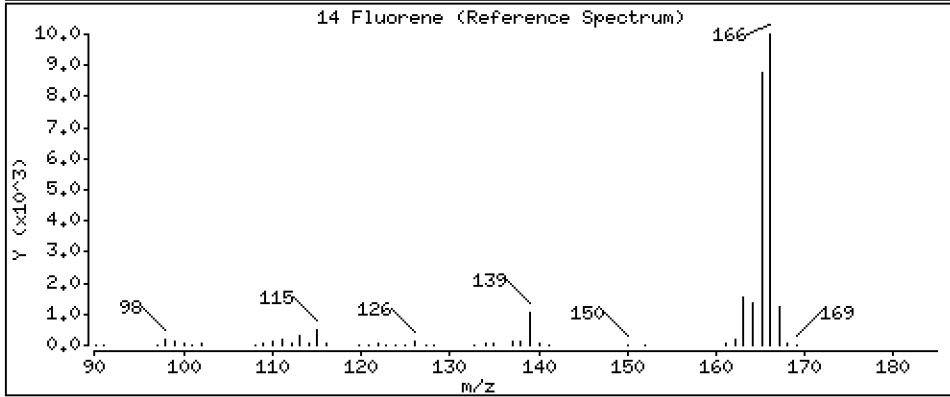
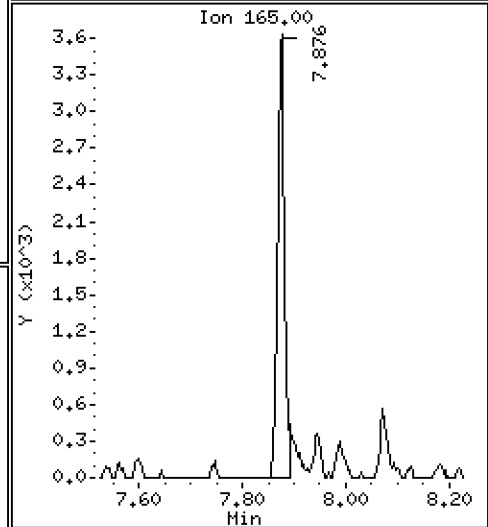
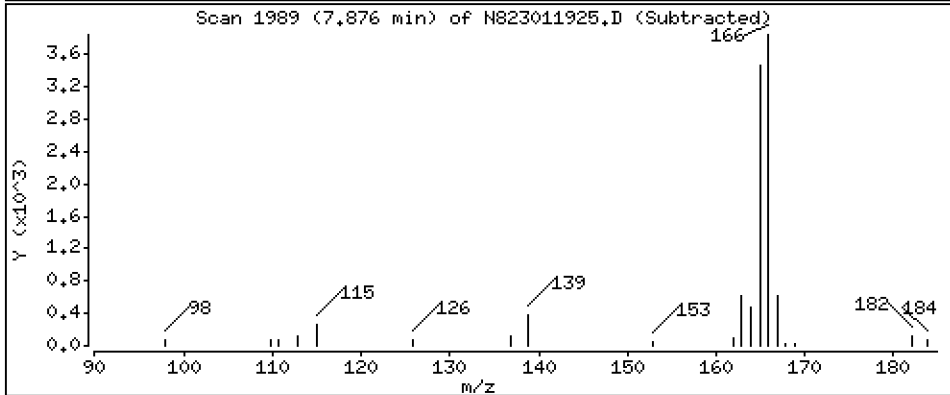
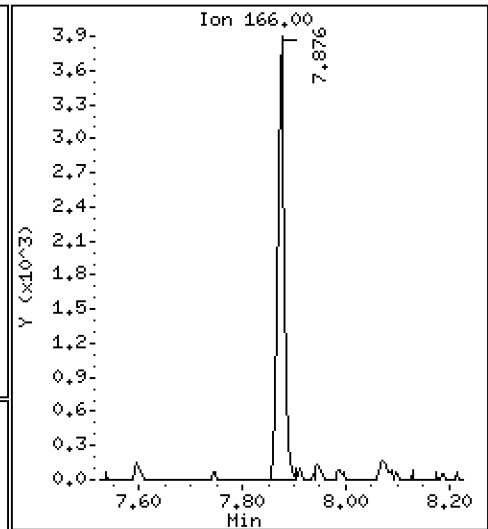
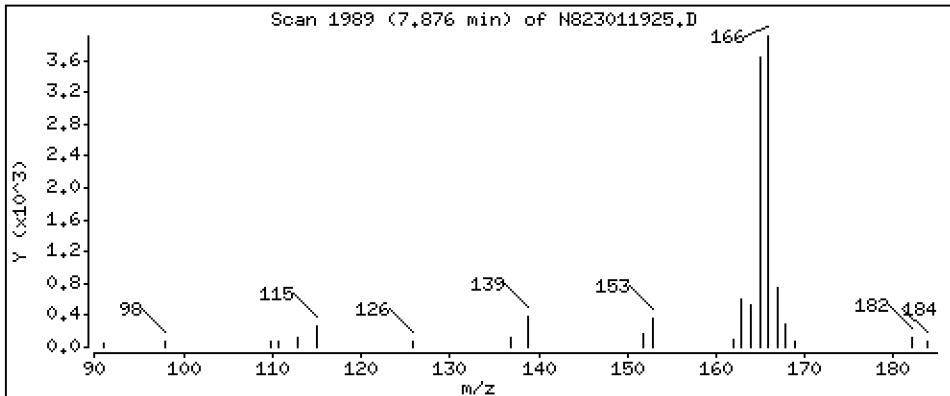
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

14 Fluorene

Concentration: 7,853 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

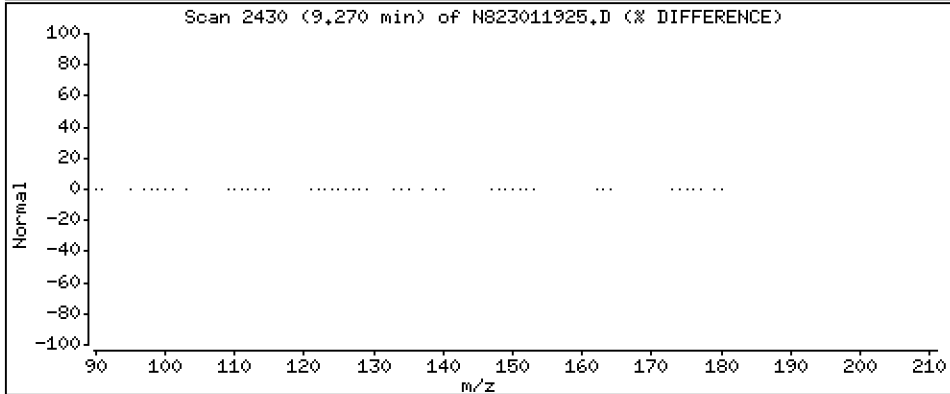
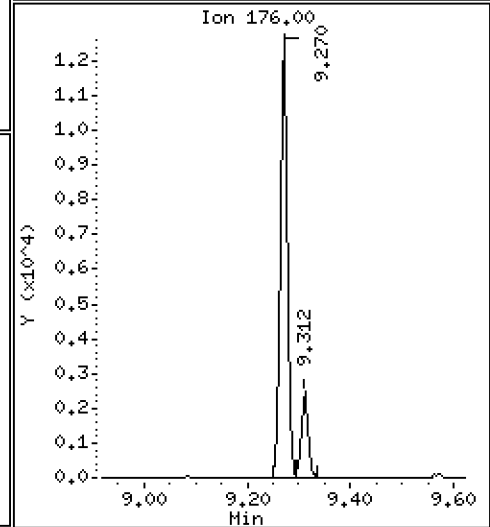
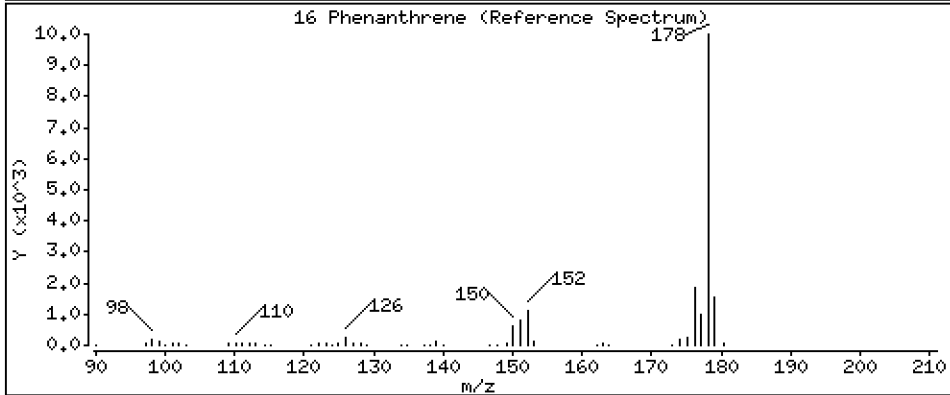
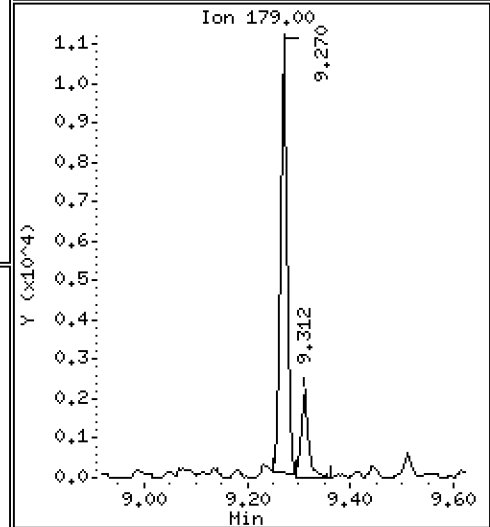
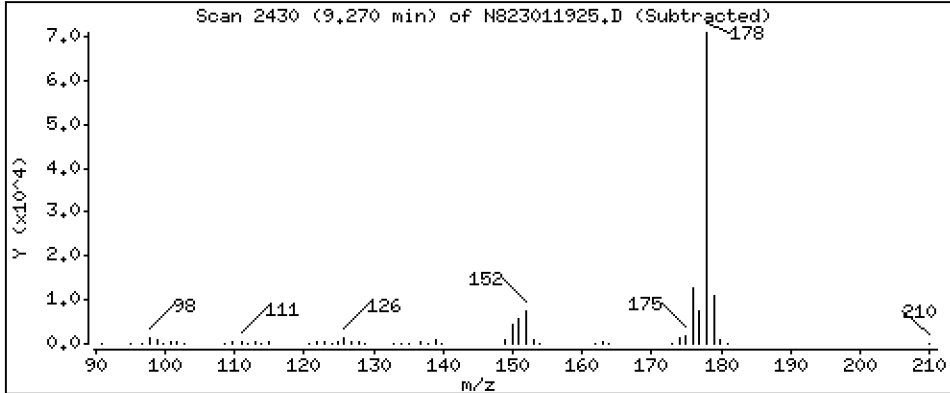
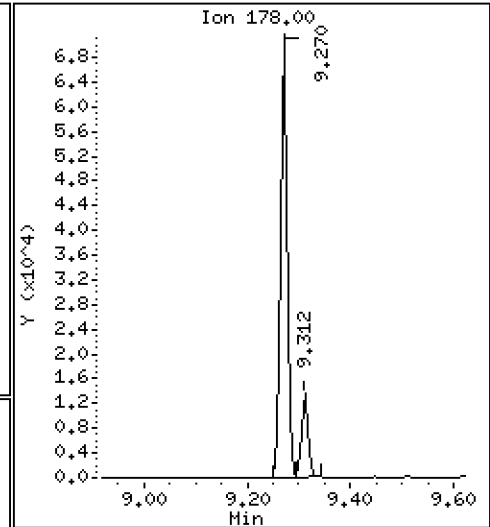
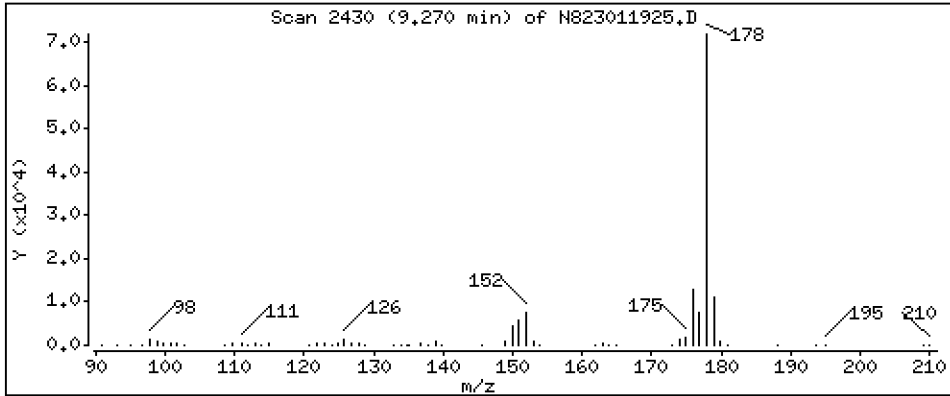
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

16 Phenanthrene

Concentration: 93,31 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

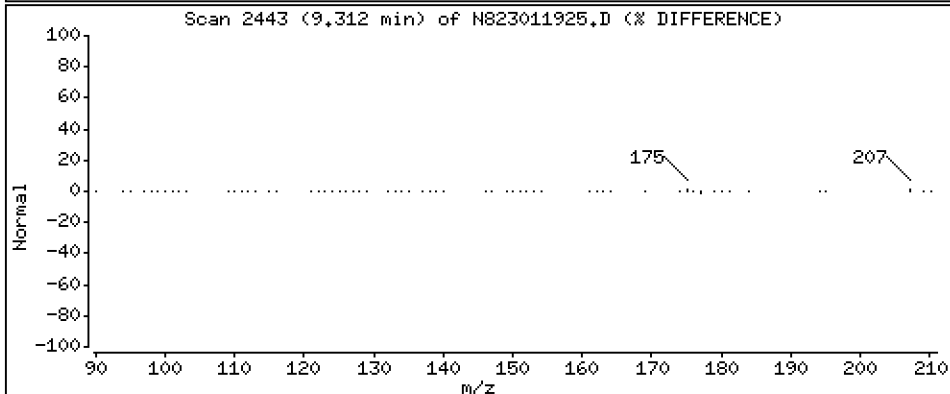
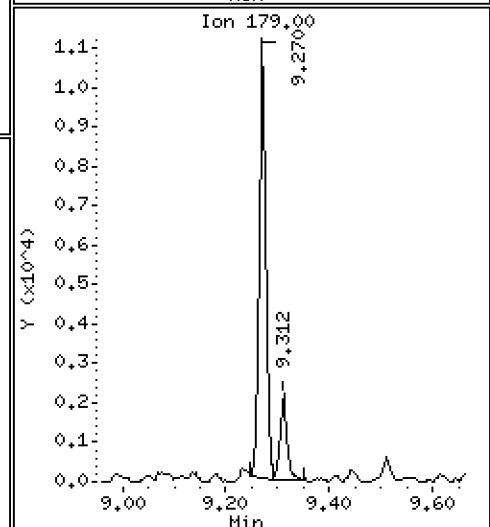
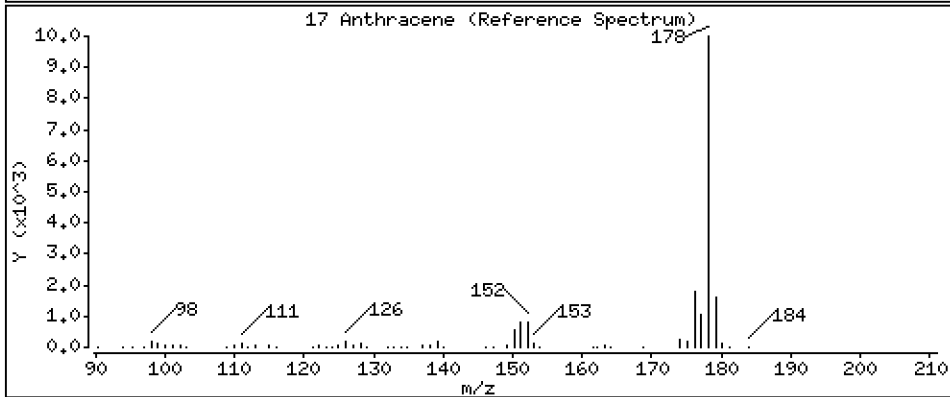
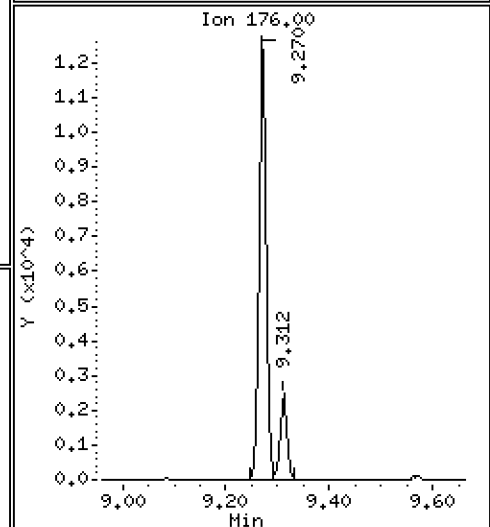
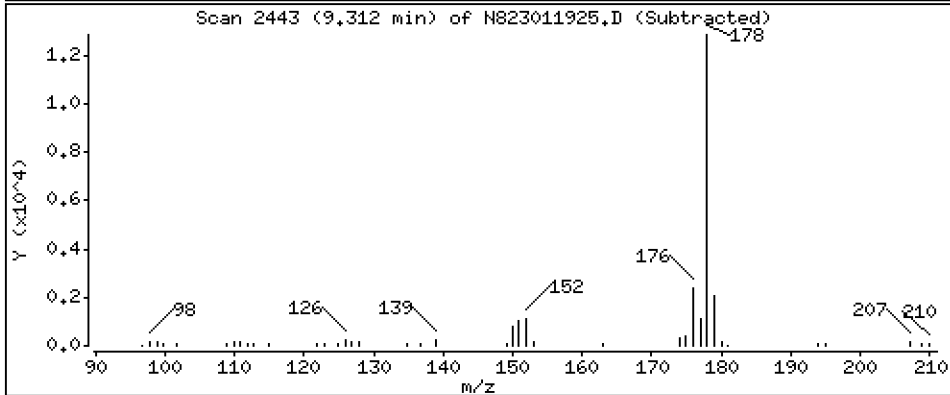
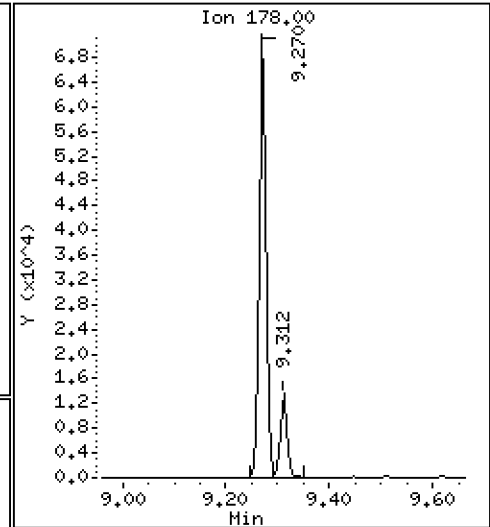
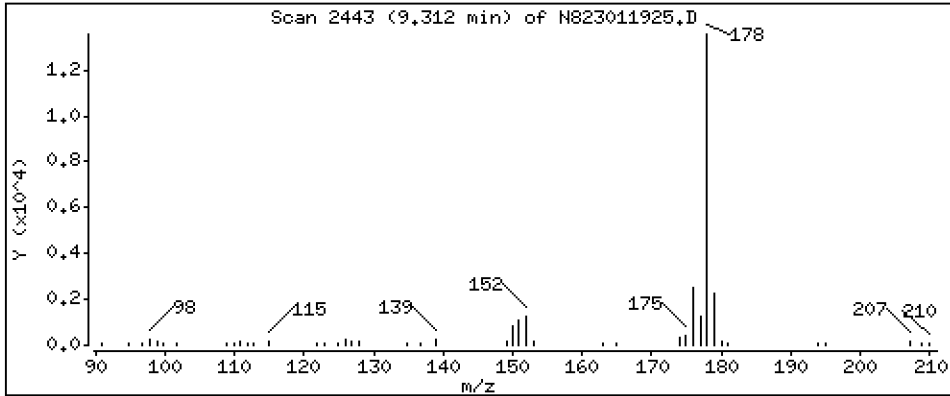
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

17 Anthracene

Concentration: 19,59 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

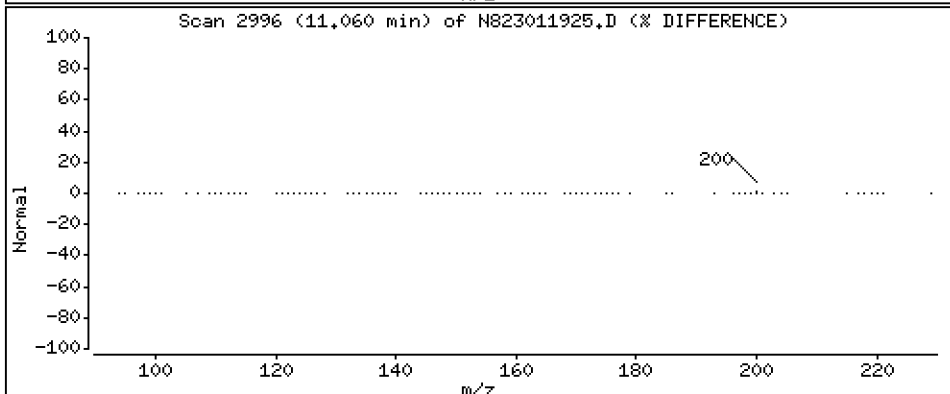
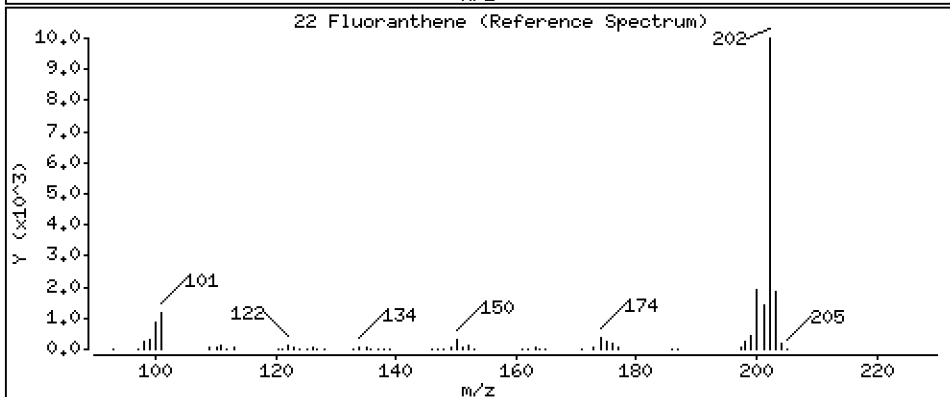
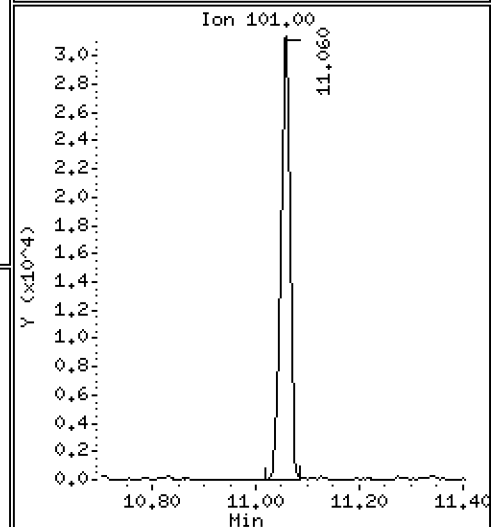
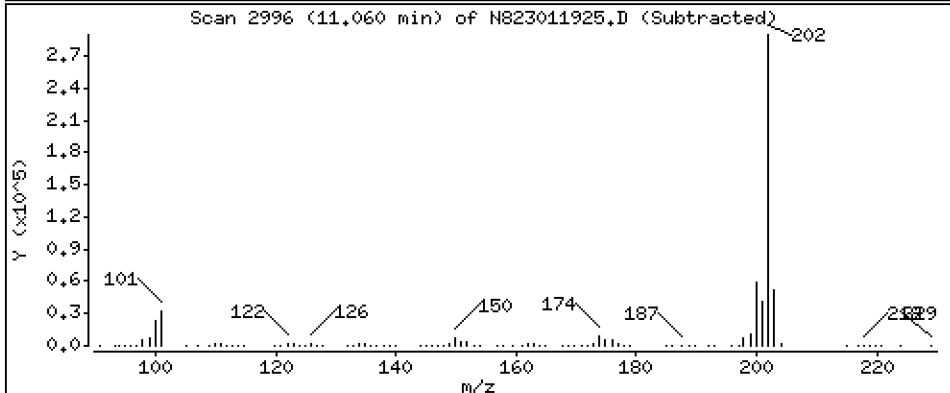
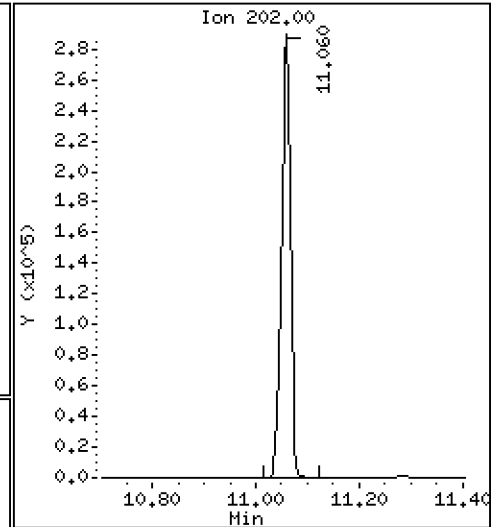
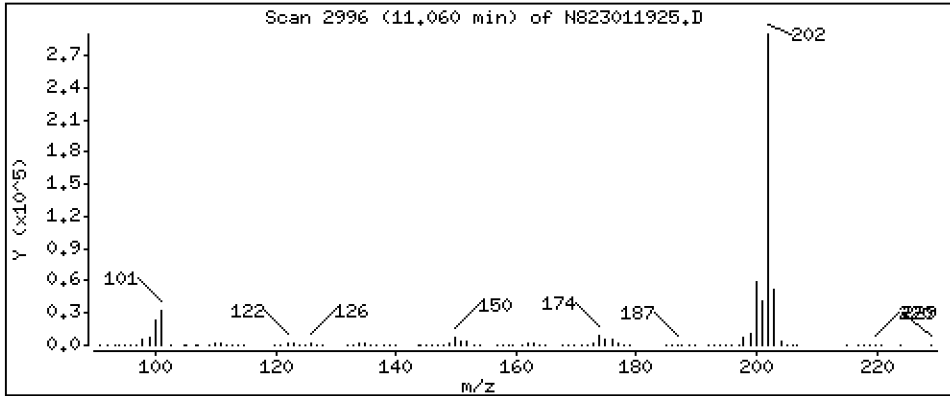
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 460,4 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

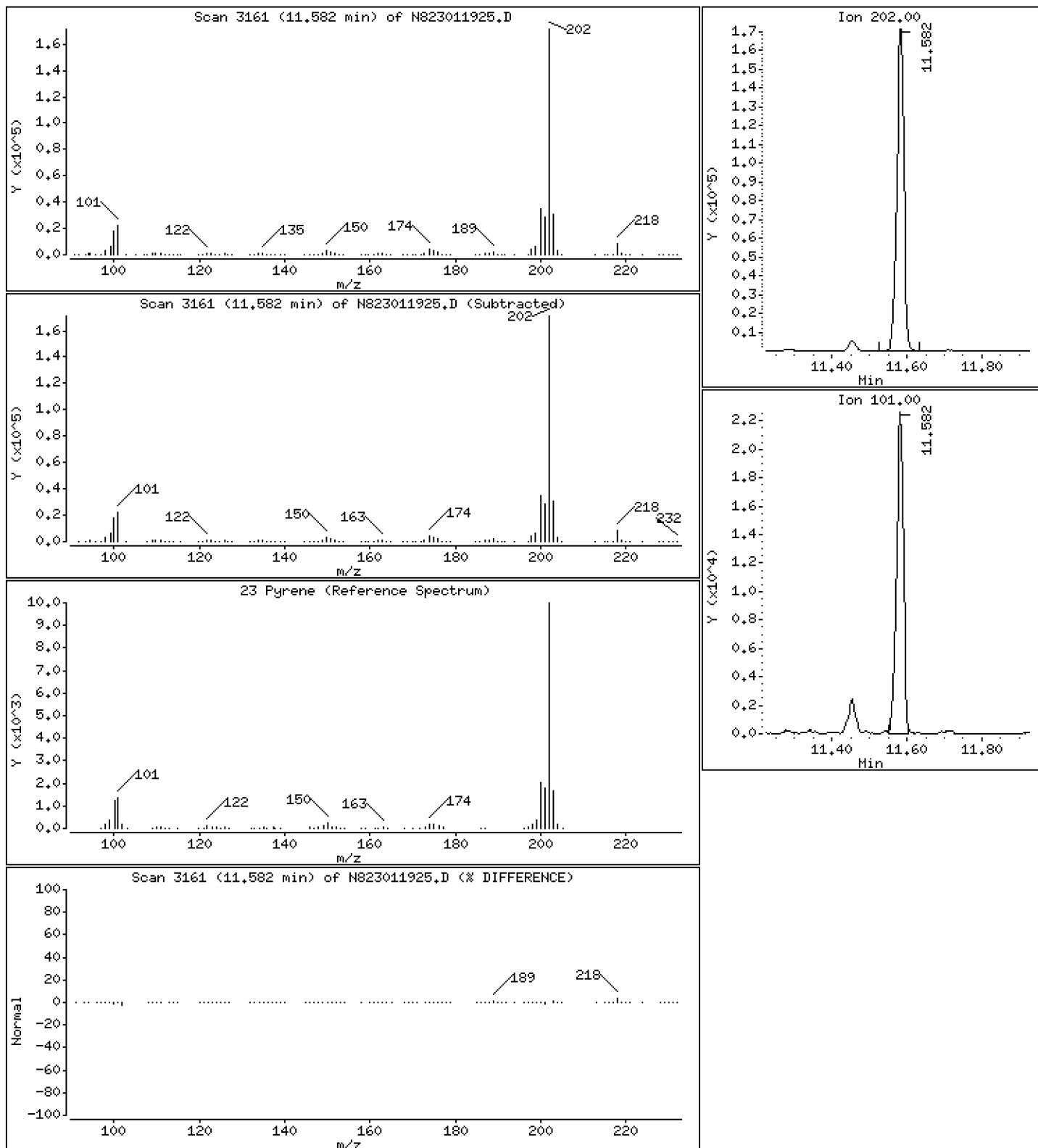
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

23 Pyrene

Concentration: 313,4 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

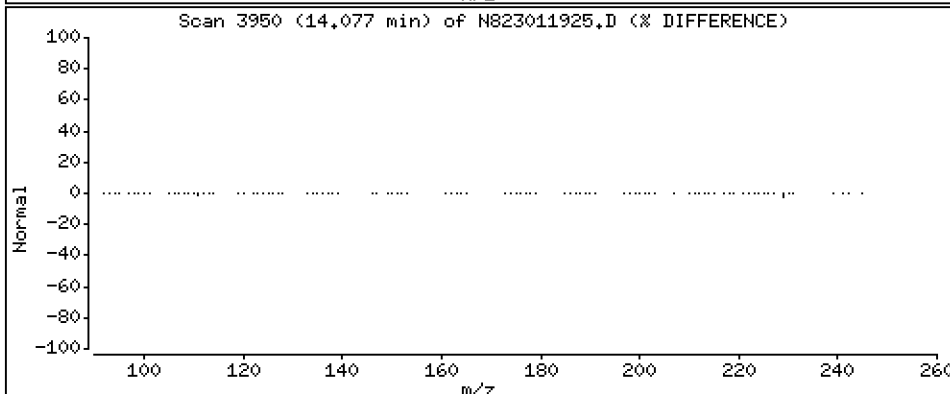
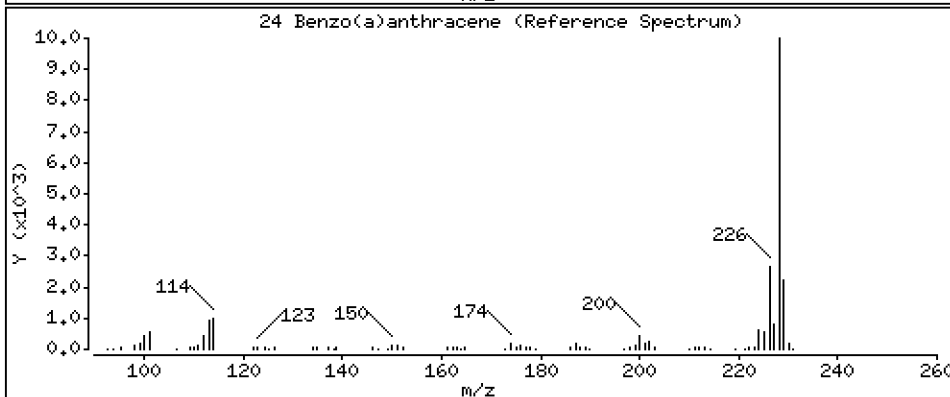
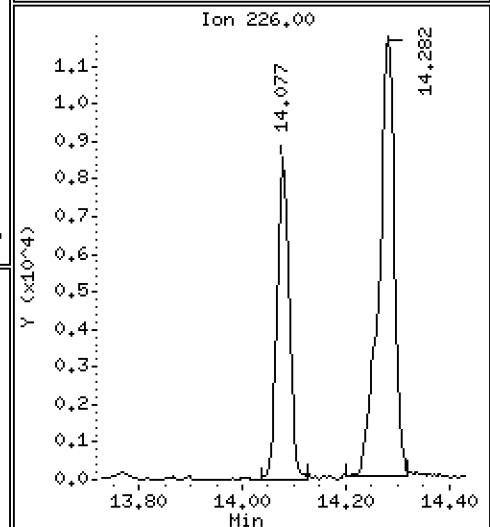
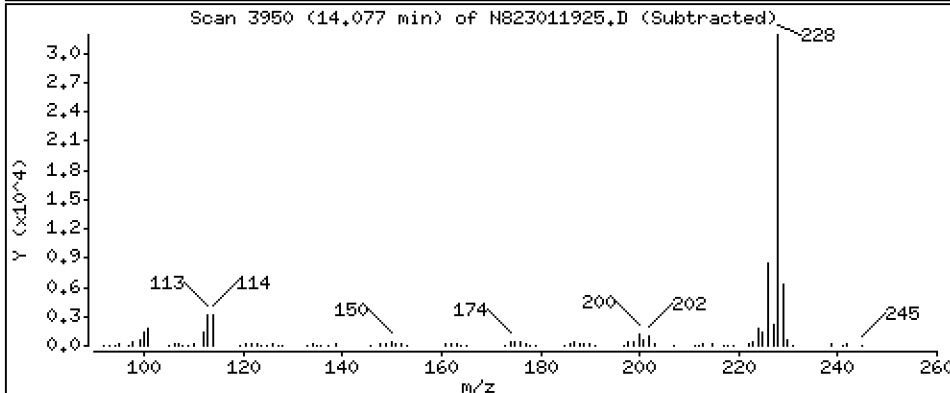
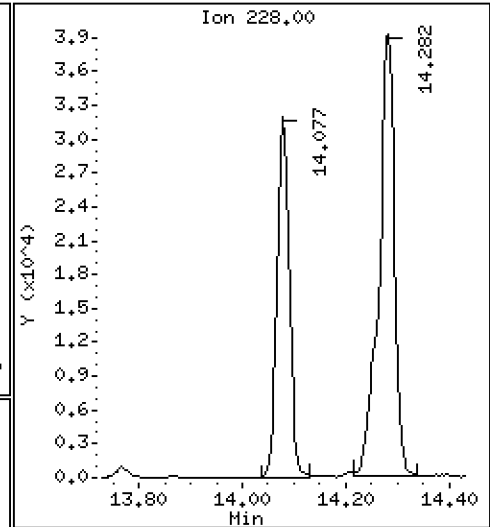
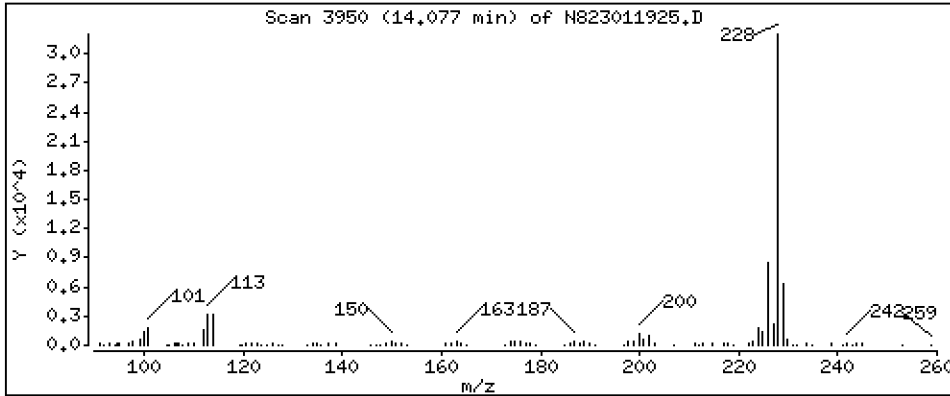
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

24 Benzo(a)anthracene

Concentration: 80,93 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

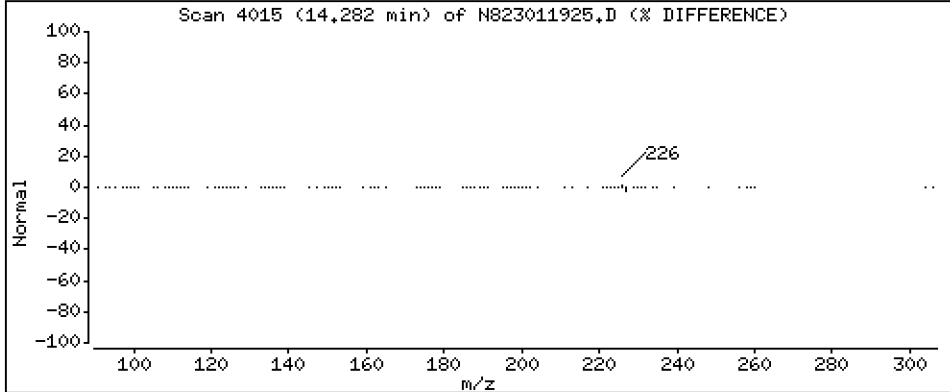
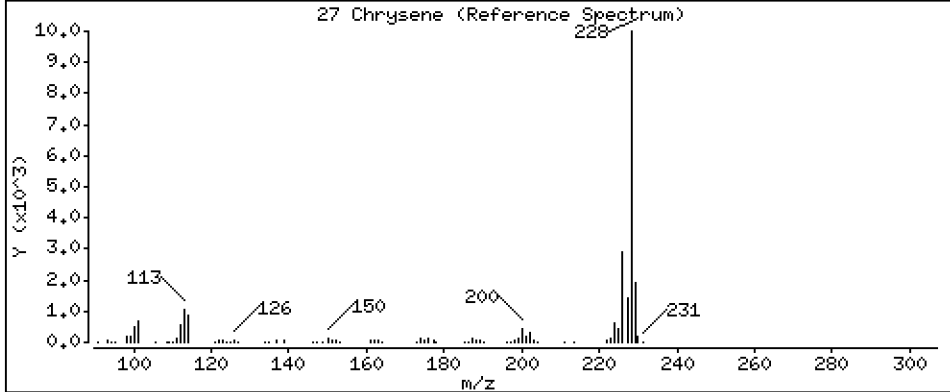
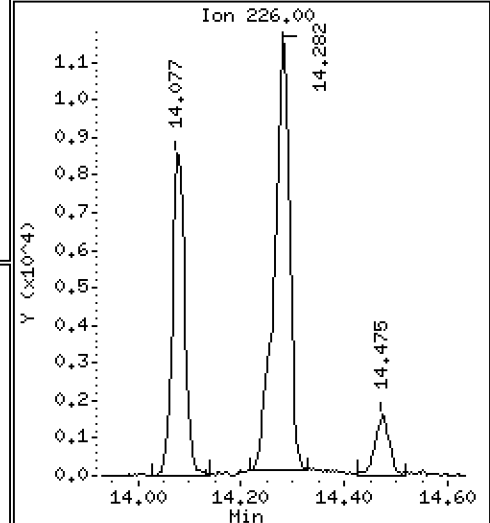
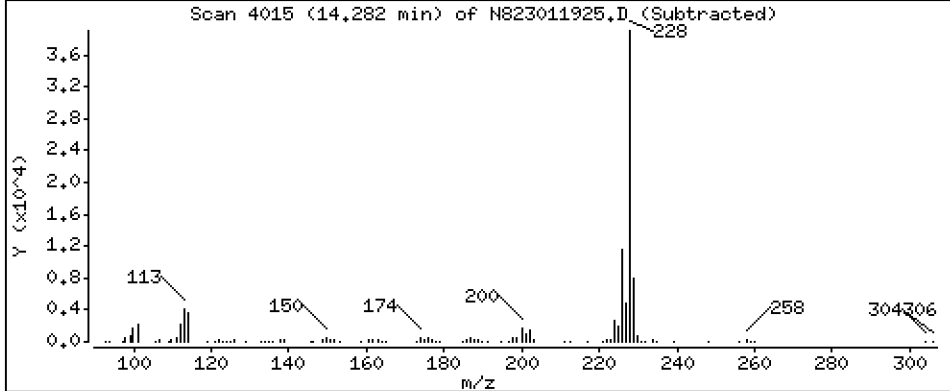
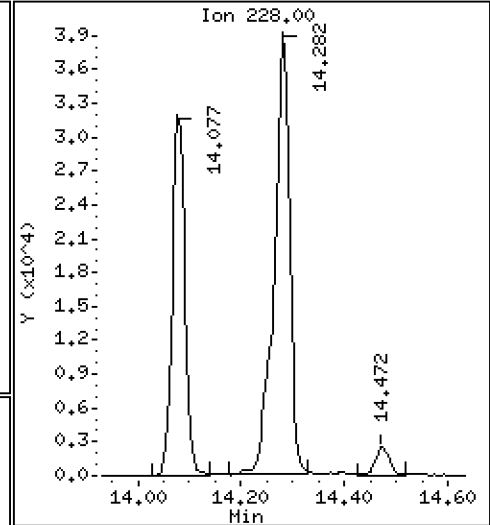
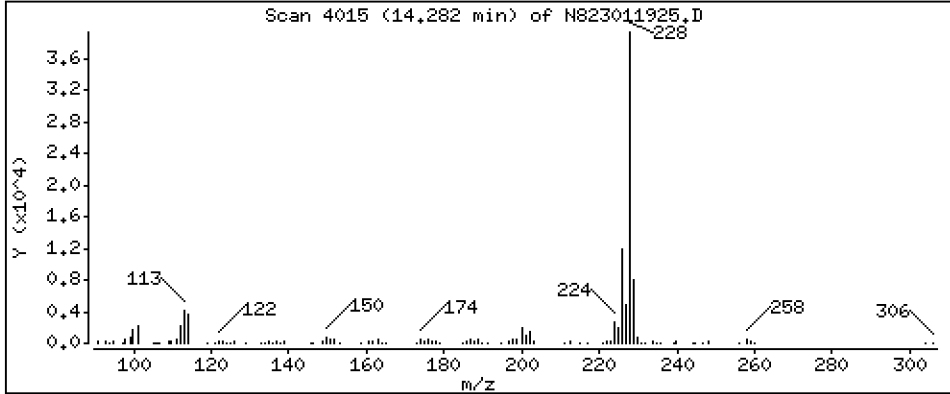
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

27 Chrysene

Concentration: 116,1 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

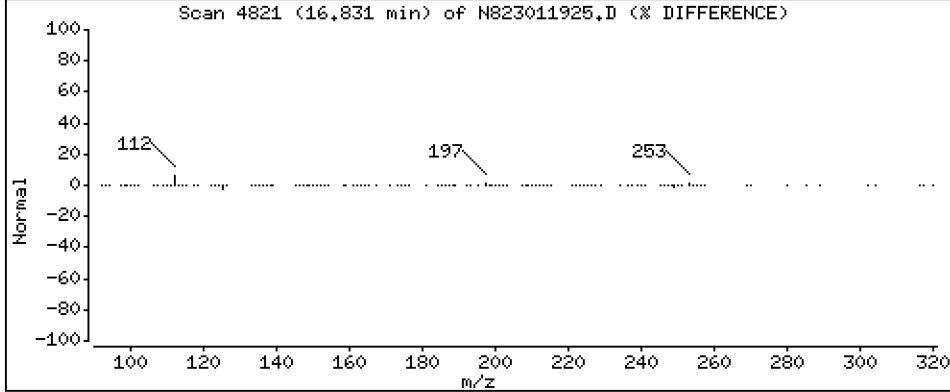
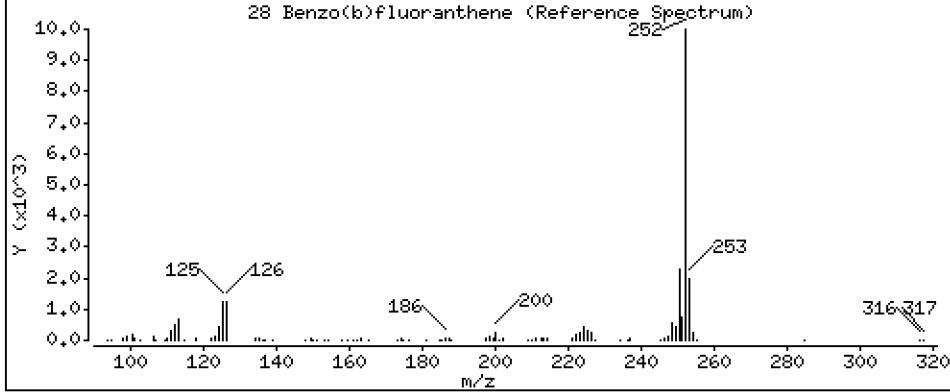
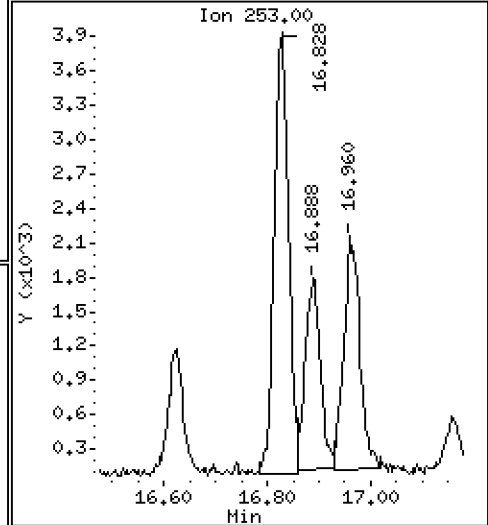
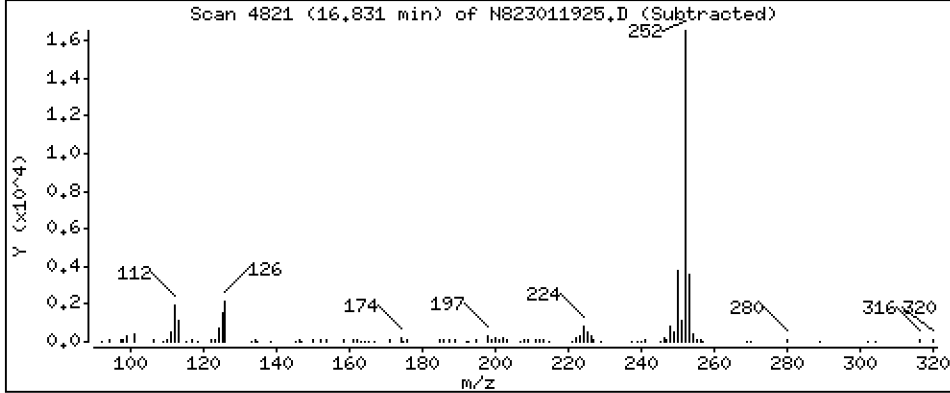
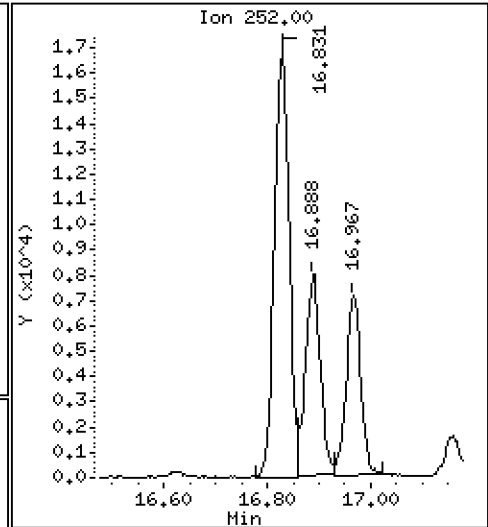
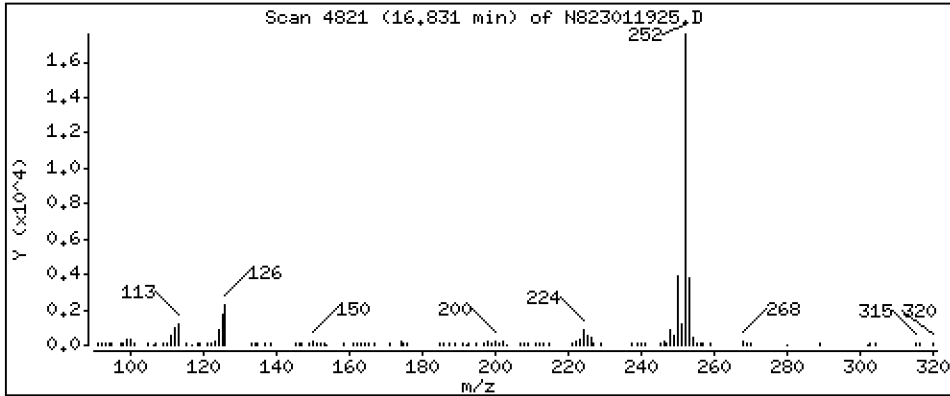
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

28 Benzo(b)fluoranthene

Concentration: 54,76 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

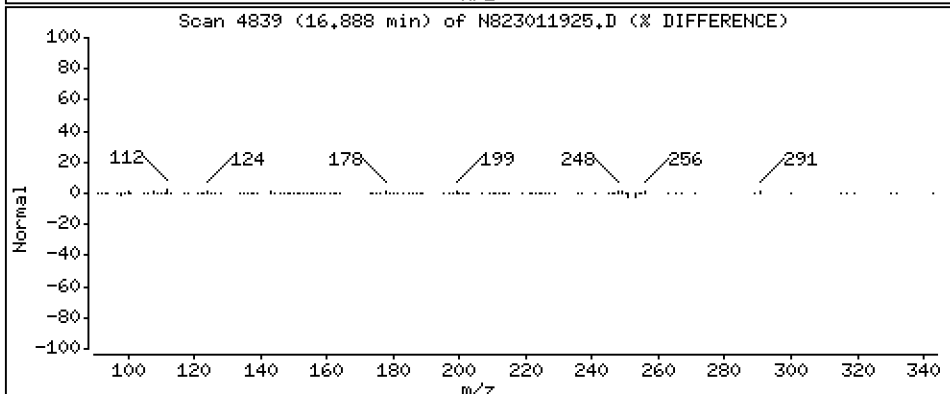
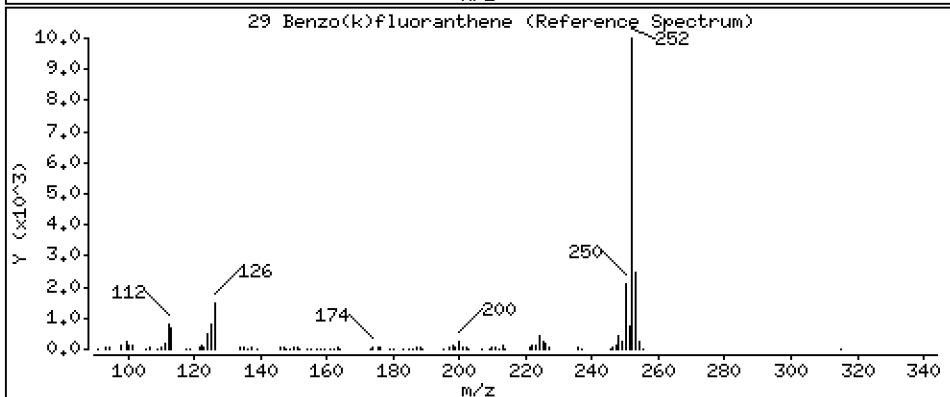
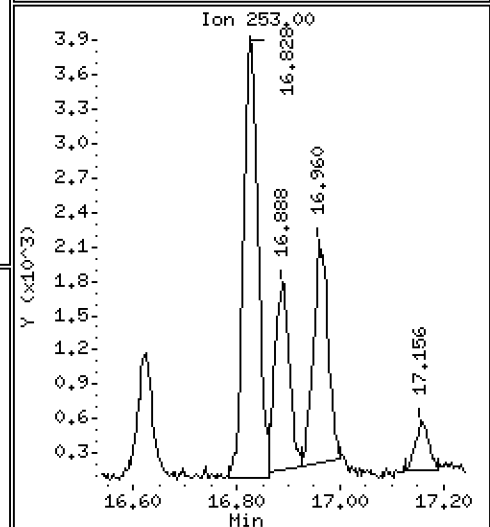
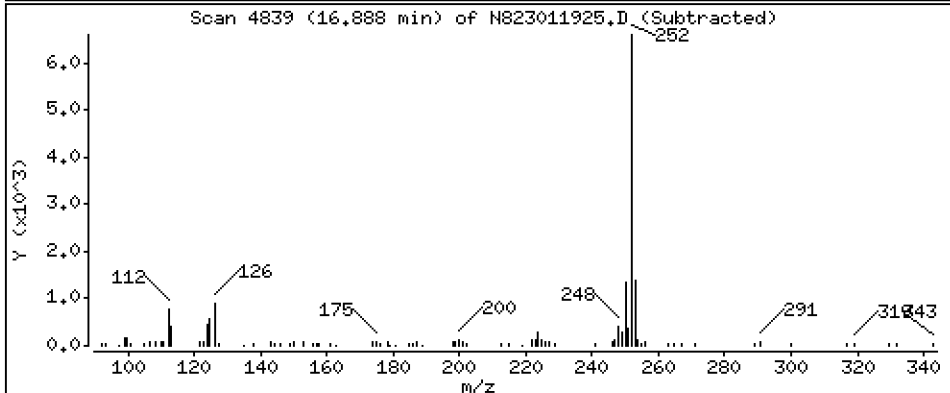
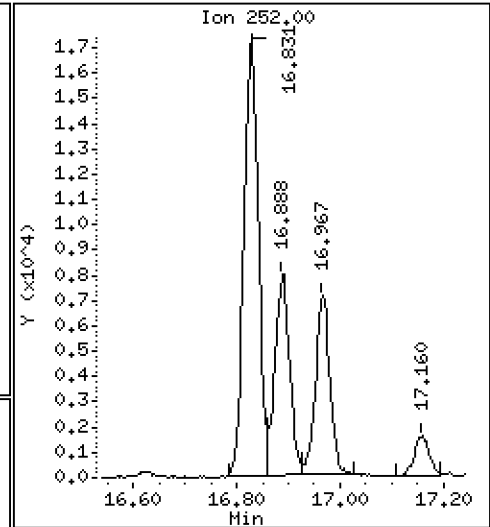
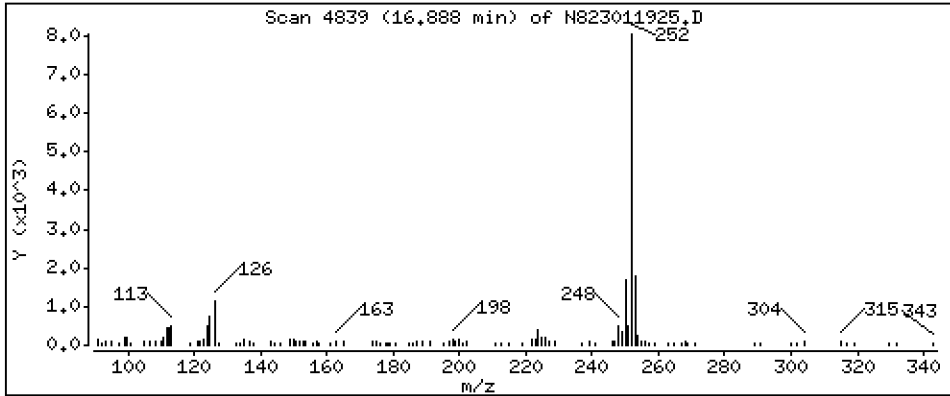
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

29 Benzo(k)fluoranthene

Concentration: 26,36 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

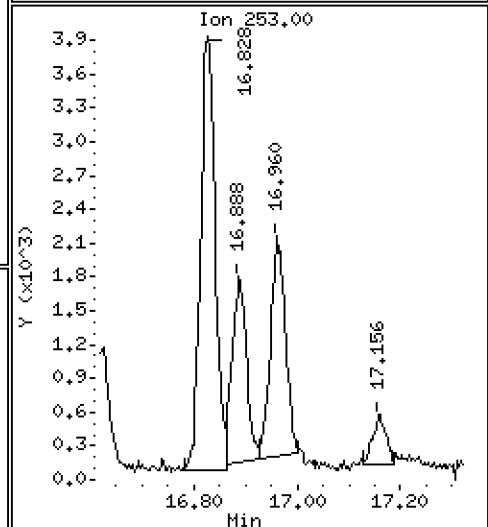
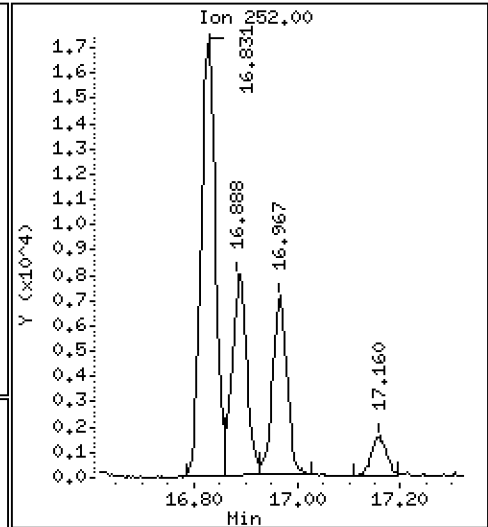
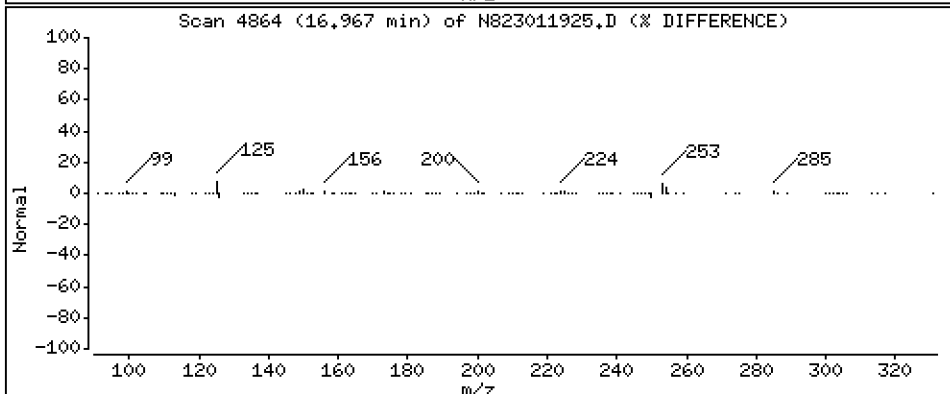
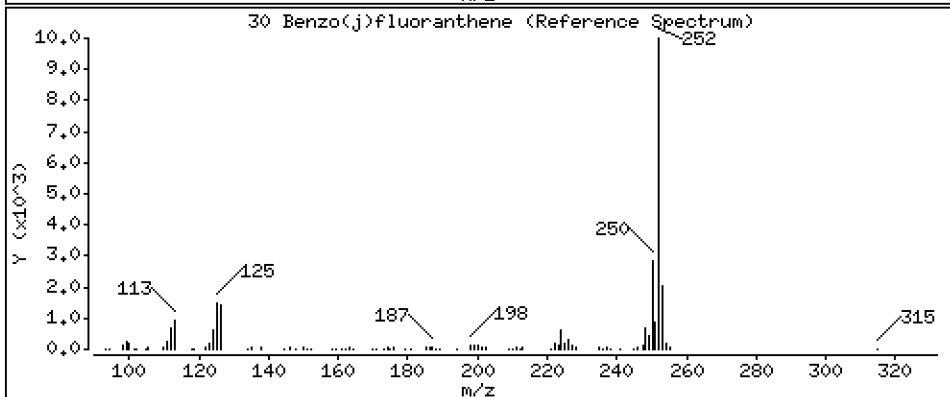
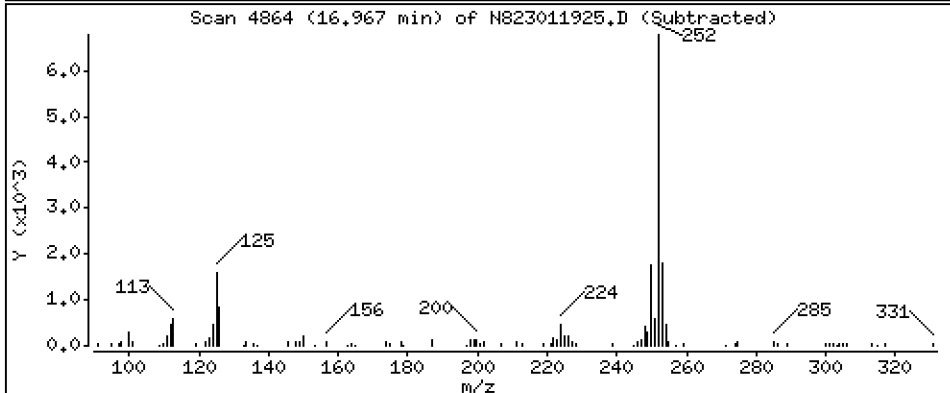
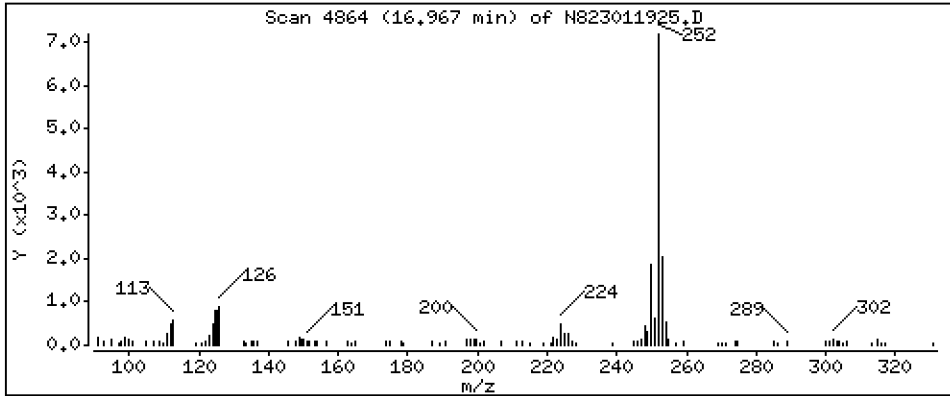
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

30 Benzo(j)fluoranthene

Concentration: 25,41 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

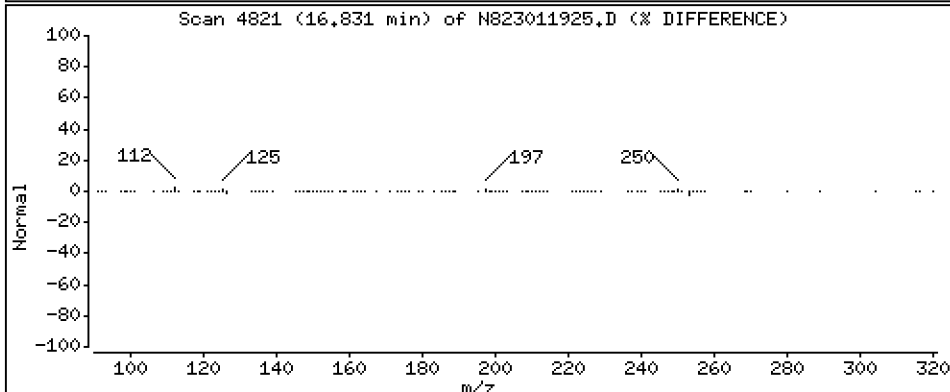
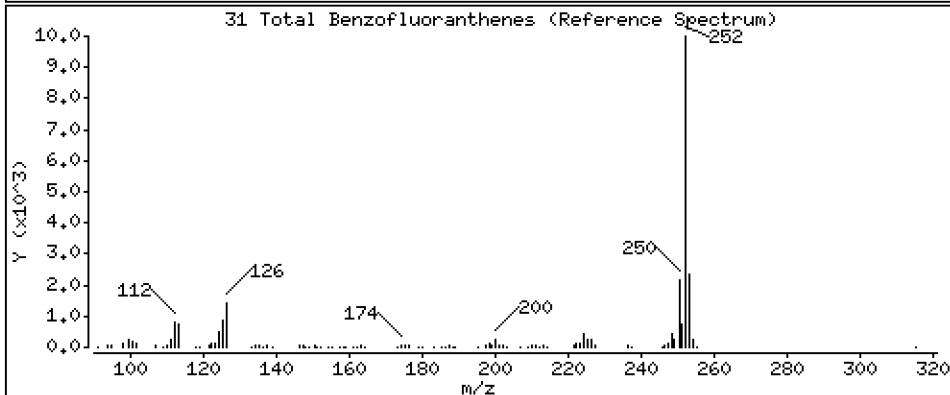
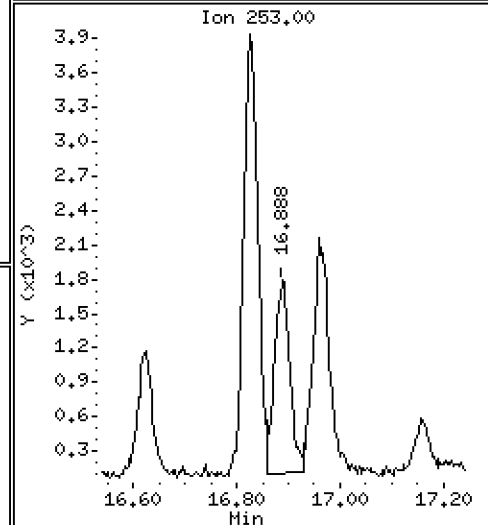
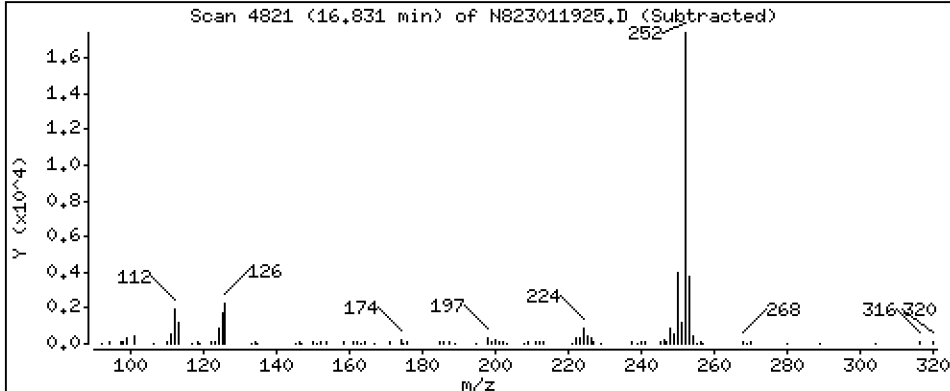
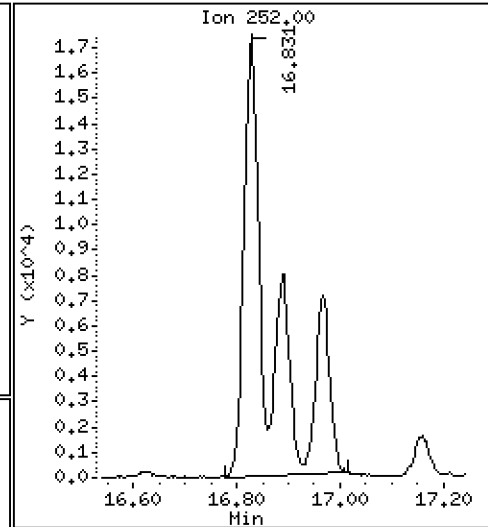
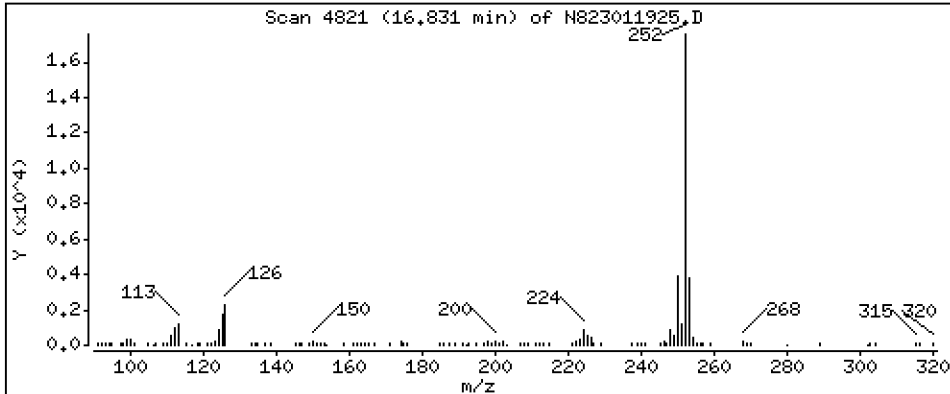
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

31 Total Benzofluoranthenes

Concentration: 107,0 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

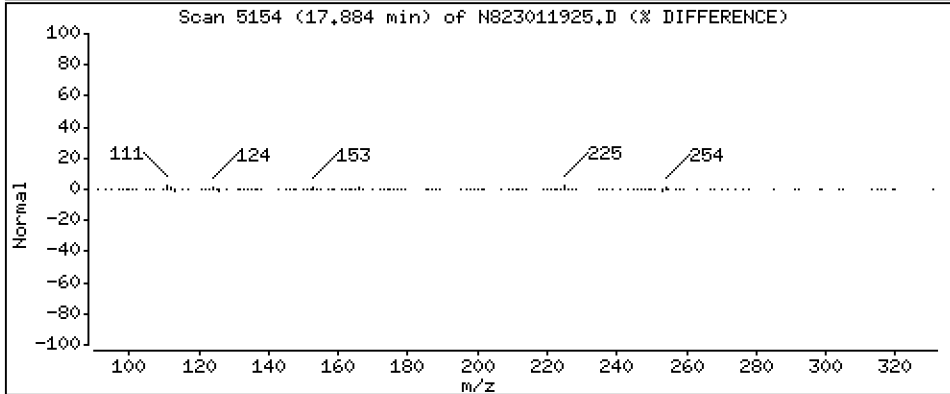
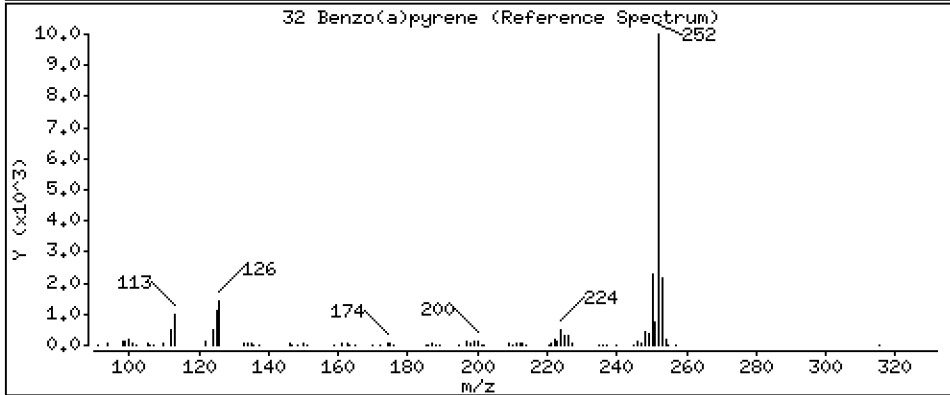
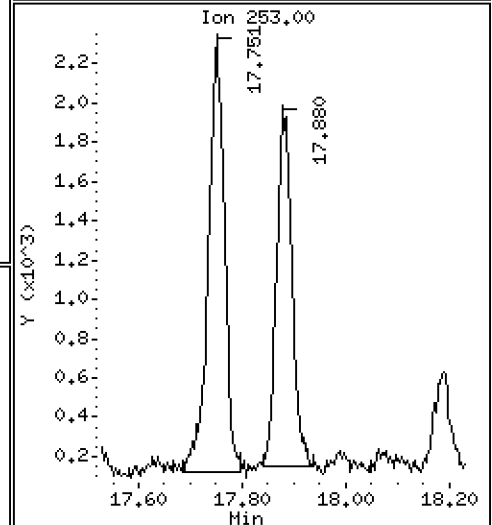
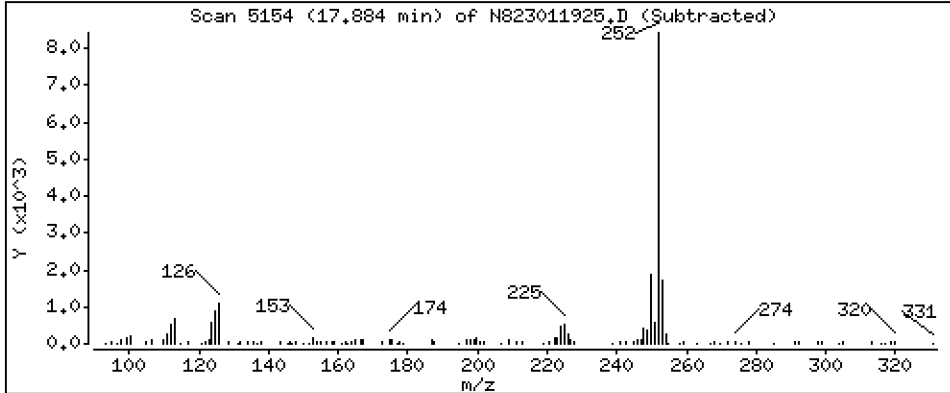
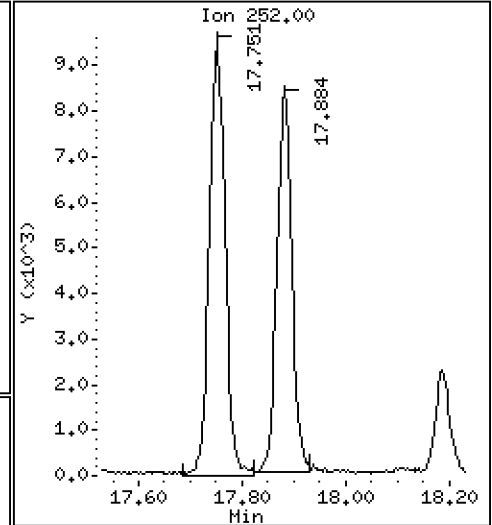
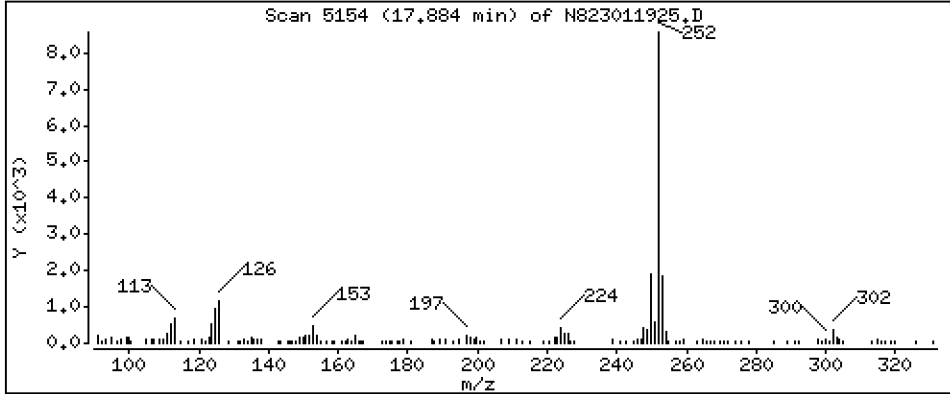
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 30,68 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

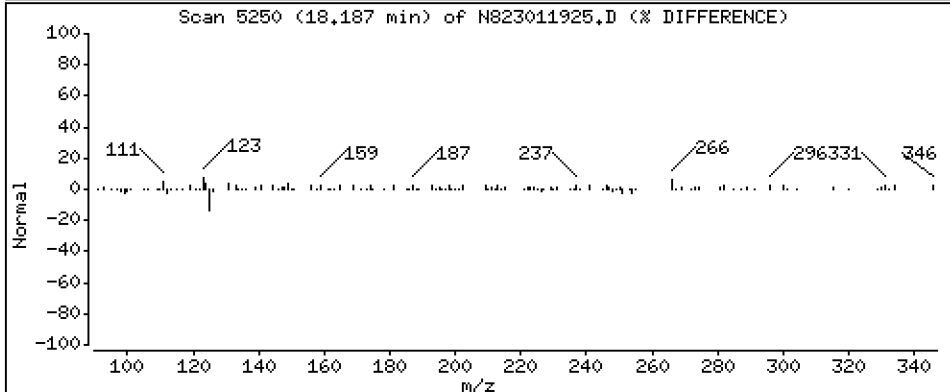
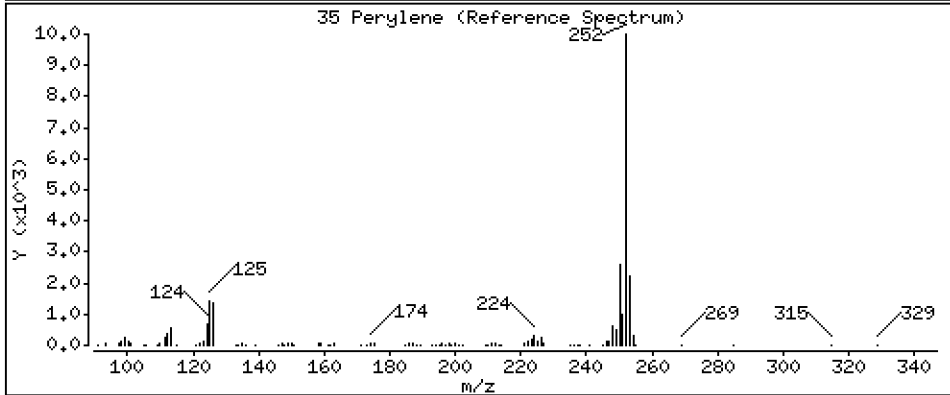
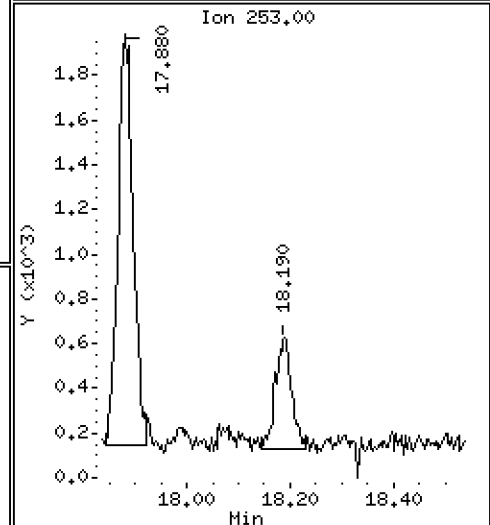
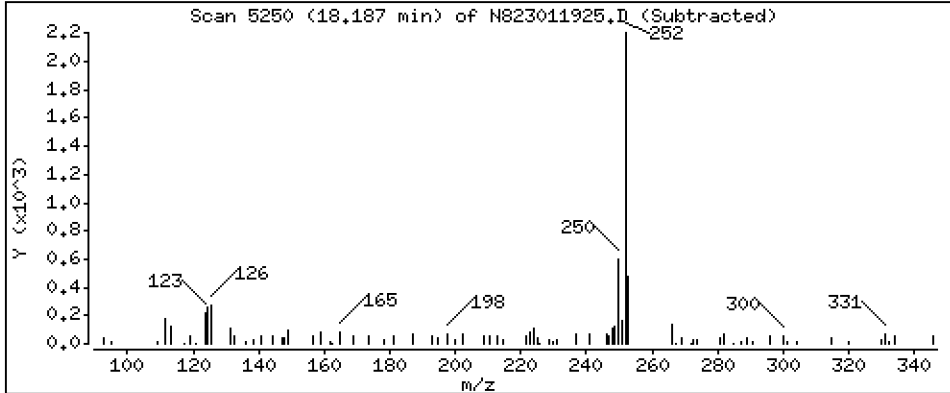
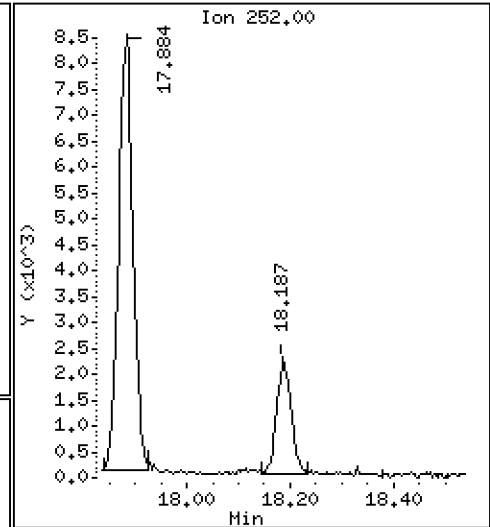
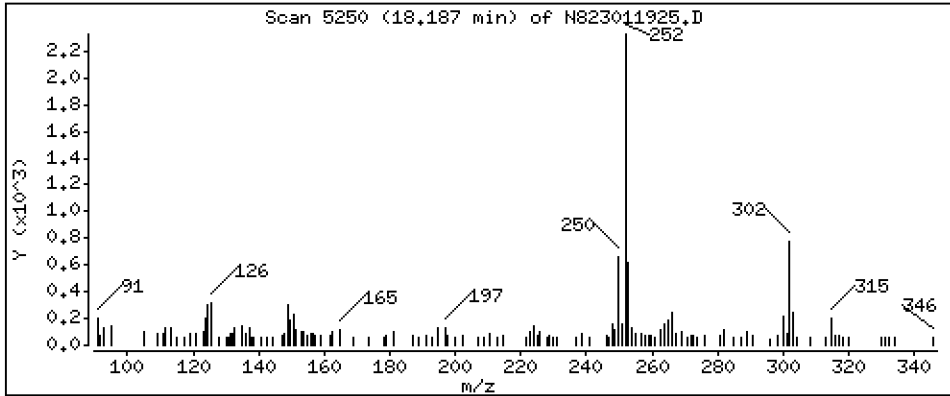
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

35 Perylene

Concentration: 7,299 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

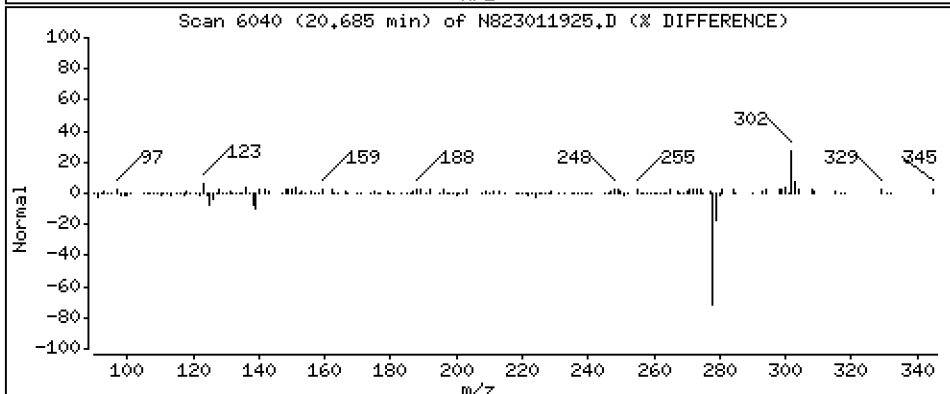
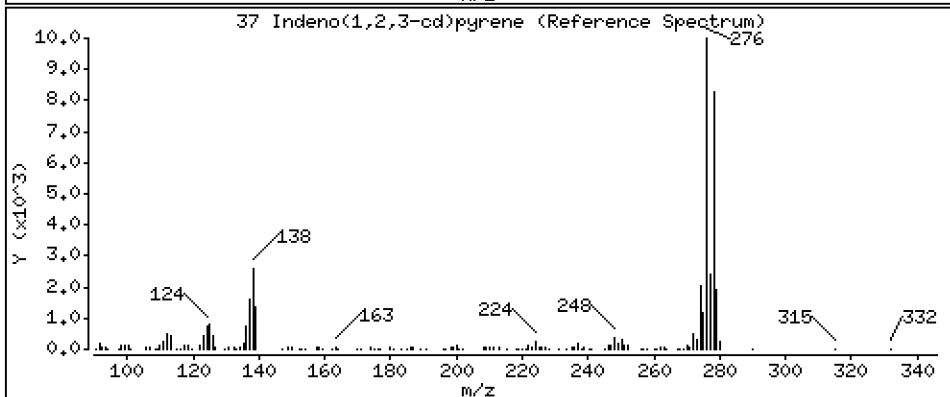
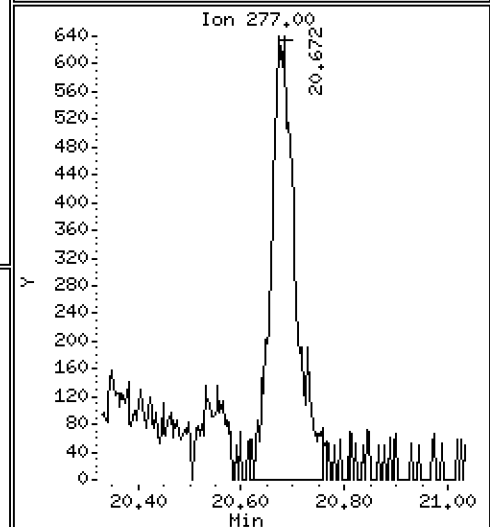
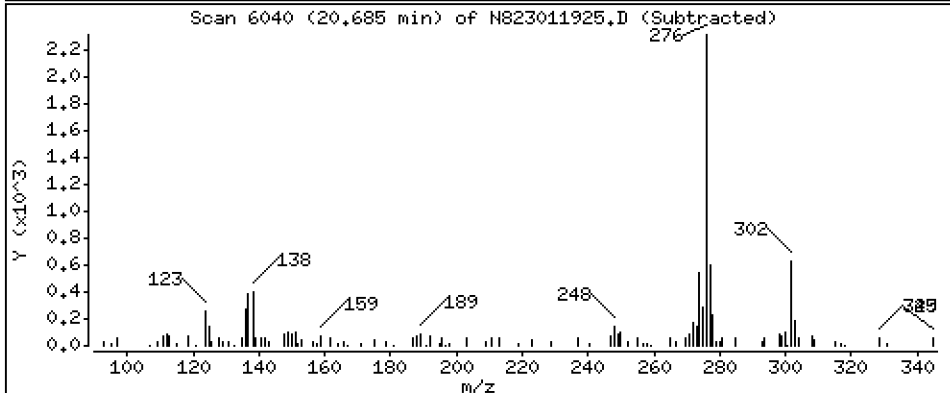
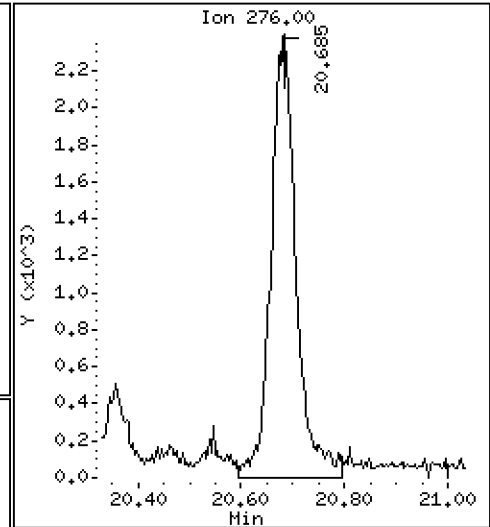
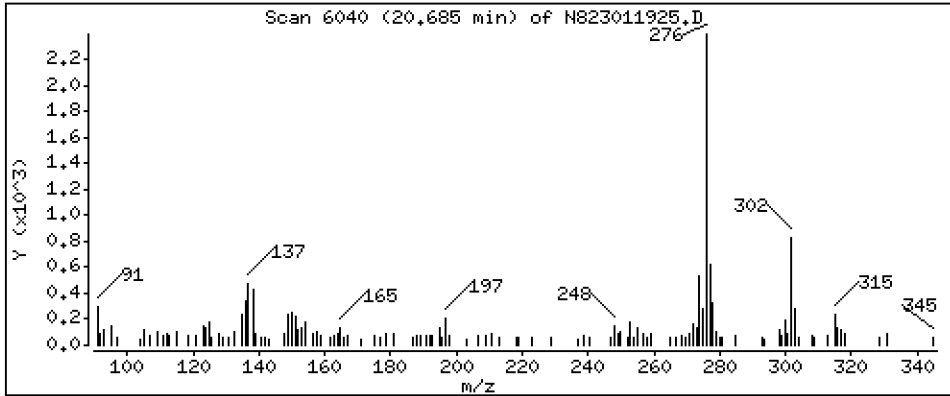
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 12,97 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

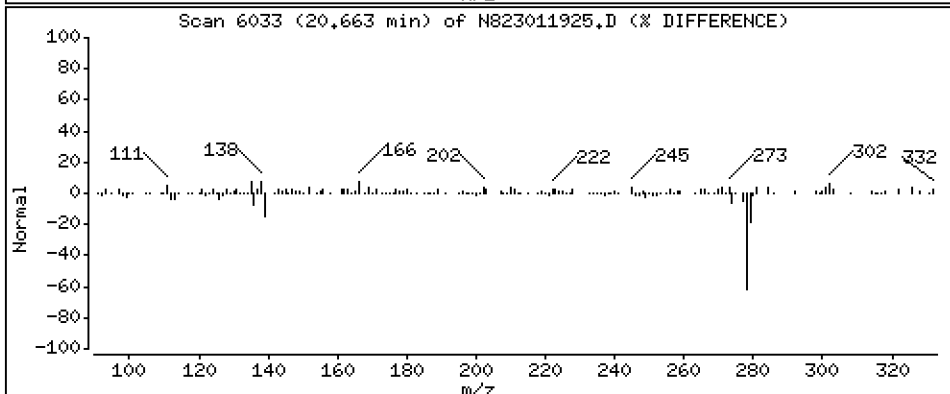
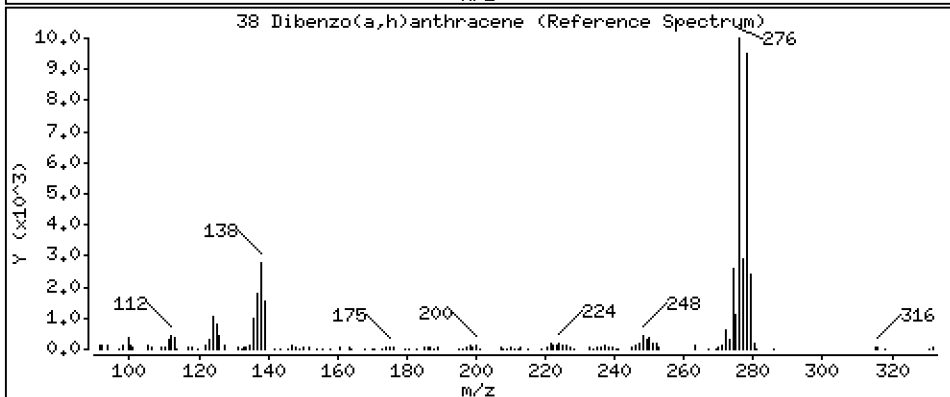
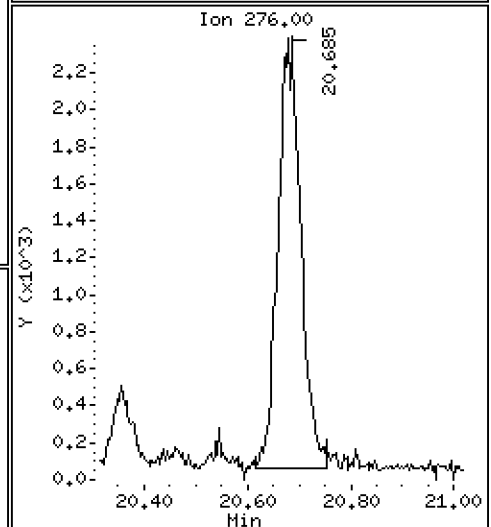
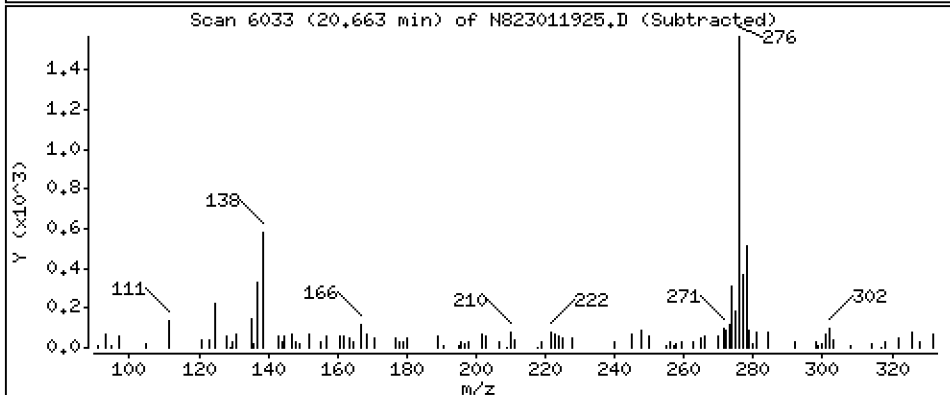
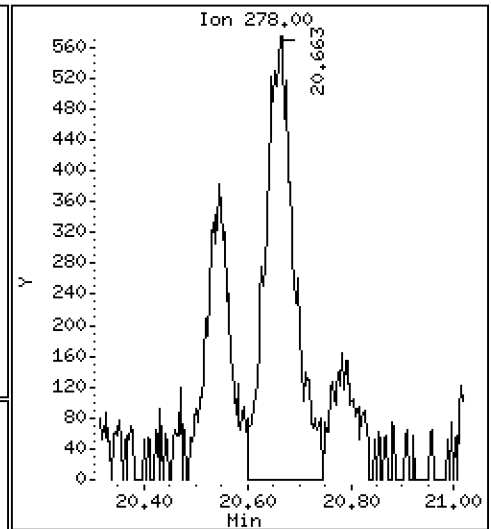
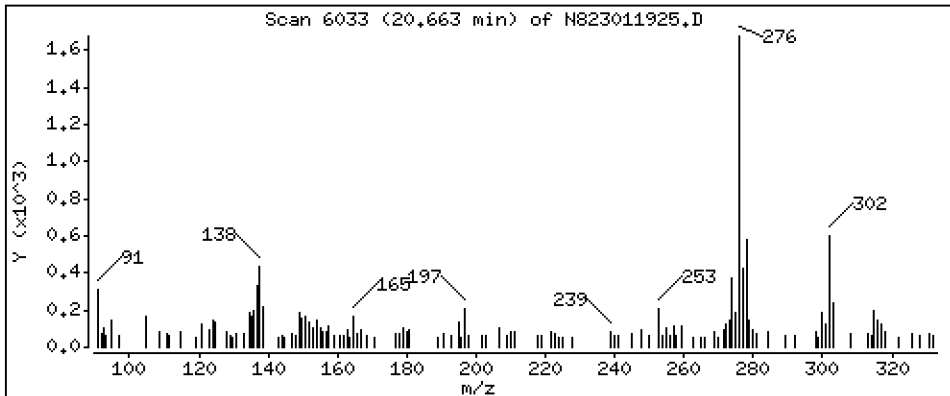
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 4,166 ug/mL



Date : 19-JAN-2023 22:08

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-02RE1,45,

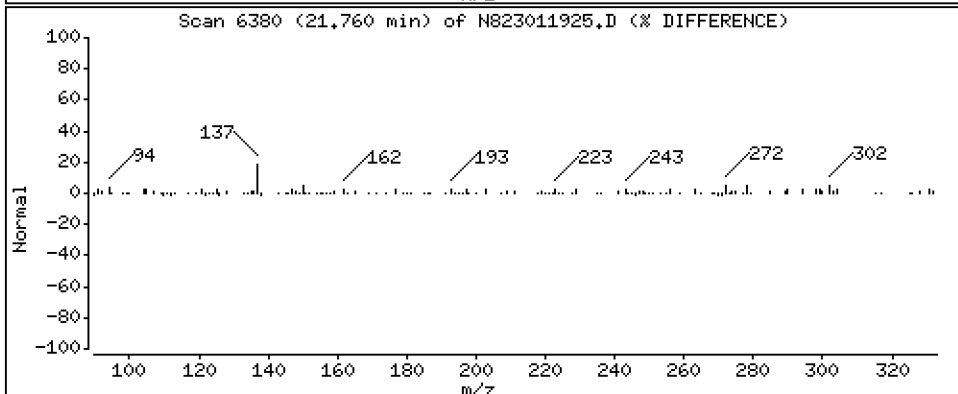
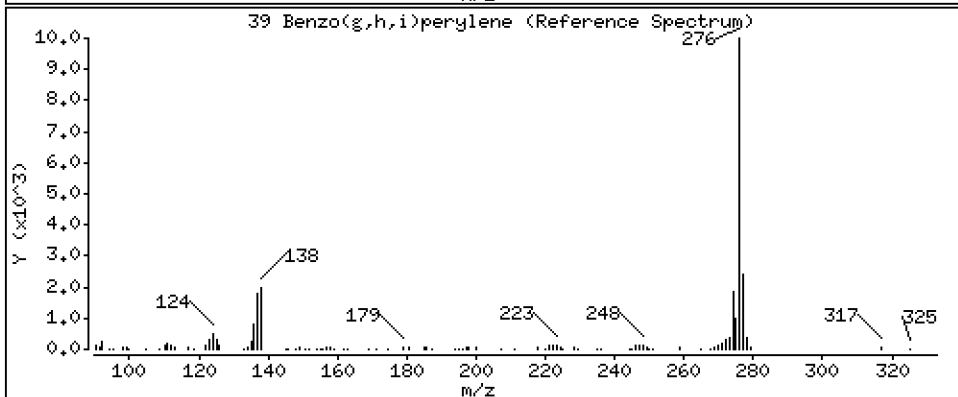
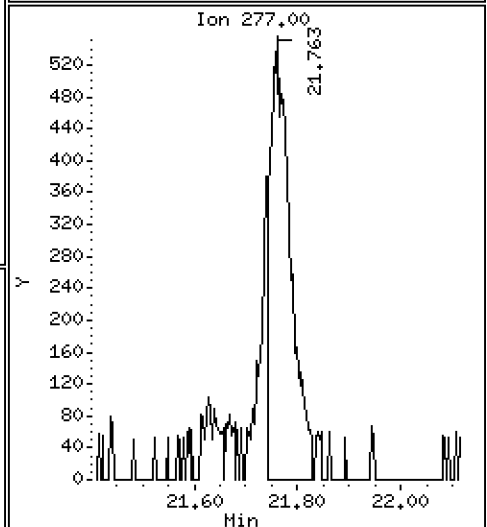
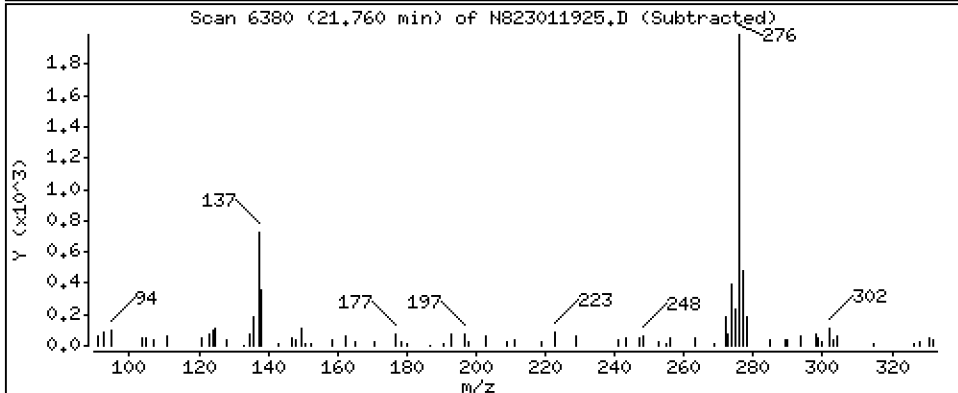
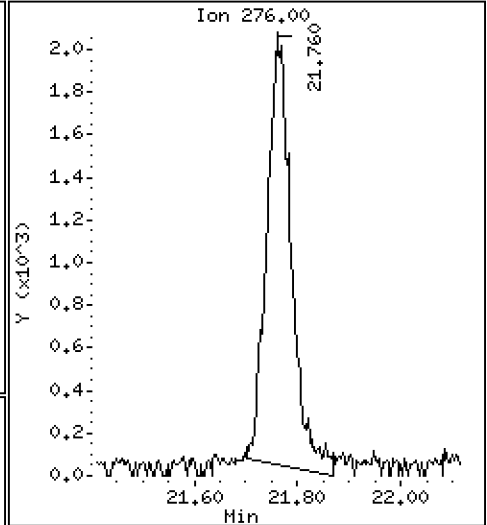
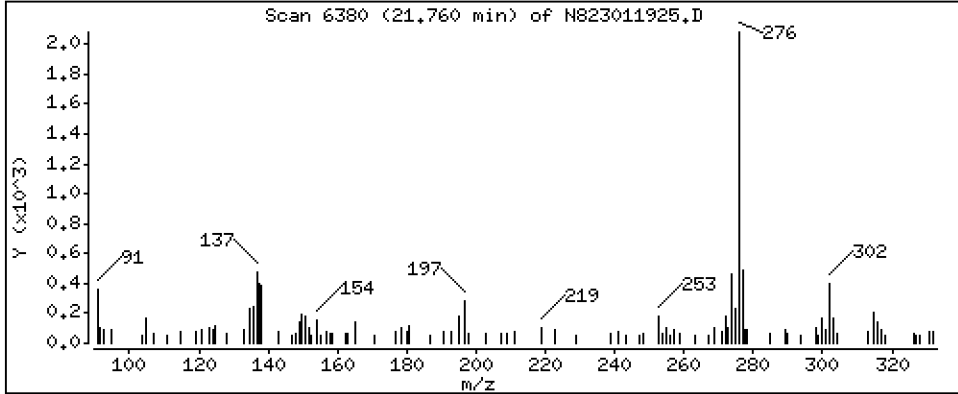
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 11,88 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119A.b\N823011925.D
 Lab Smp Id: 23A0032-02RE1
 Inj Date : 19-JAN-2023 22:08
 Operator : JZ Inst ID: nt8.i
 Smp Info : 23A0032-02RE1,45,
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 22:11 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 15
 Dil Factor: 45.00000
 Integrator: HP RTE Compound Sublist: PNAXMDL.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 1 Naphthalene-d8	136		4.906	4.909	(1.000)	56242	2.00000	
2 Naphthalene	128		4.938	4.938	(1.006)	309	0.01182	0.5317
\$ 3 2-Methylnaphthalene-d10	152		5.640	5.643	(1.149)	511	0.03331	1.499
4 2-Methylnaphthalene	141		Compound Not Detected.					
5 1-methylnaphthalene	141		Compound Not Detected.					
9 Acenaphthylene	152		7.085	7.088	(0.985)	1325	0.05135	2.311
* 10 Acenaphthene-d10	164		7.196	7.199	(1.000)	34169	2.00000	
11 Acenaphthene	153		7.243	7.246	(1.007)	1888	0.10921	4.914
12 Dibenzofuran	168		7.395	7.398	(1.028)	852	0.03245	1.460
14 Fluorene	166		7.875	7.875	(1.094)	3559	0.17451	7.853
* 15 Phenanthrene-d10	188		9.235	9.238	(1.000)	65562	2.00000	
16 Phenanthrene	178		9.270	9.270	(1.004)	66409	2.07362	93.31
17 Anthracene	178		9.311	9.311	(1.008)	12668	0.43543	19.59
22 Fluoranthene	202		11.060	11.053	(1.198)	356652	10.2309	460.4
\$ 21 Fluoranthene-d10	212		11.018	11.015	(1.193)	1219	0.04214	1.896
23 Pyrene	202		11.581	11.575	(0.815)	230115	6.96404	313.4
24 Benzo(a)anthracene	228		14.076	14.079	(0.991)	53863	1.79844	80.93
* 25 Chrysene-d12	240		14.209	14.209	(1.000)	53297	2.00000	
27 Chrysene	228		14.282	14.282	(1.005)	82228	2.57904	116.1
28 Benzo(b)fluoranthene	252		16.830	16.827	(0.929)	34082	1.21682	54.76
29 Benzo(k)fluoranthene	252		16.887	16.890	(0.932)	16069	0.58571	26.36
30 Benzo(j)fluoranthene	252		16.966	16.969	(0.937)	13948	0.56474	25.41
31 Total Benzofluoranthenes	252		16.830	16.890	(0.929)	63052	2.37699	107.0 (M)
32 Benzo(a)pyrene	252		17.883	17.880	(0.987)	16807	0.68189	30.68
* 33 Perylene-d12	264		18.114	18.117	(1.000)	48092	2.00000	
35 Perylene	252		18.187	18.187	(1.004)	4290	0.16220	7.299
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.555	20.555	(1.135)	982	0.05211	2.345 (M)
37 Indeno(1,2,3-cd)pyrene	276		20.685	20.681	(1.142)	8092	0.28818	12.97
38 Dibenzo(a,h)anthracene	278		20.663	20.666	(1.141)	2237	0.09257	4.166 (M)
39 Benzo(g,h,i)perylene	276		21.760	21.763	(1.201)	6719	0.26410	11.88 (M)

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011925.D Calibration Time: 16:16
 Lab Smp Id: 23A0032-02RE1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	42524	21262	85048	56242	32.26
10 Acenaphthene-d10	25260	12630	50520	34169	35.27
15 Phenanthrene-d10	47890	23945	95780	65562	36.90
25 Chrysene-d12	40533	20267	81066	53297	31.49
33 Perylene-d12	38115	19058	76230	48092	26.18

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.91	-0.06
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	-0.04
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	-0.03
25 Chrysene-d12	14.21	13.71	14.71	14.21	0.00
33 Perylene-d12	18.12	17.62	18.62	18.11	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011925.D

Lab ID: 23A0032-02RE1

nt8.i, 20230119A.b\FSIMPNA230119.m, 19-JAN-2023 22:08

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

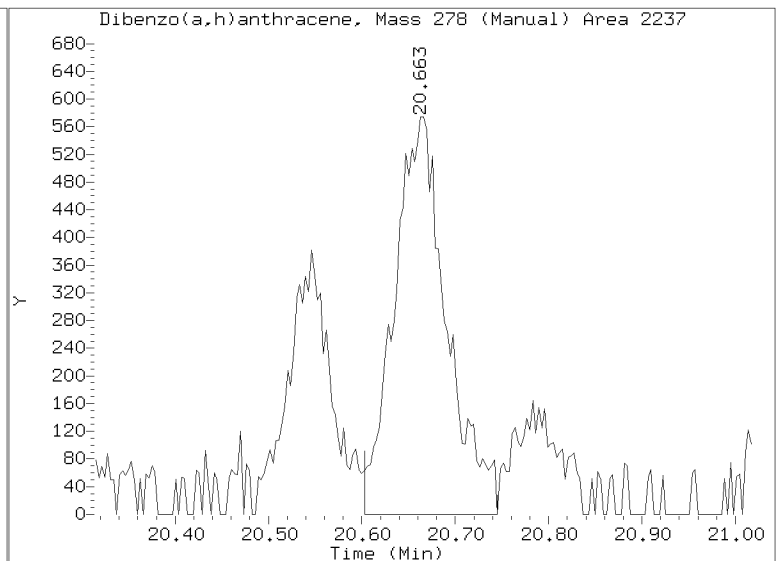
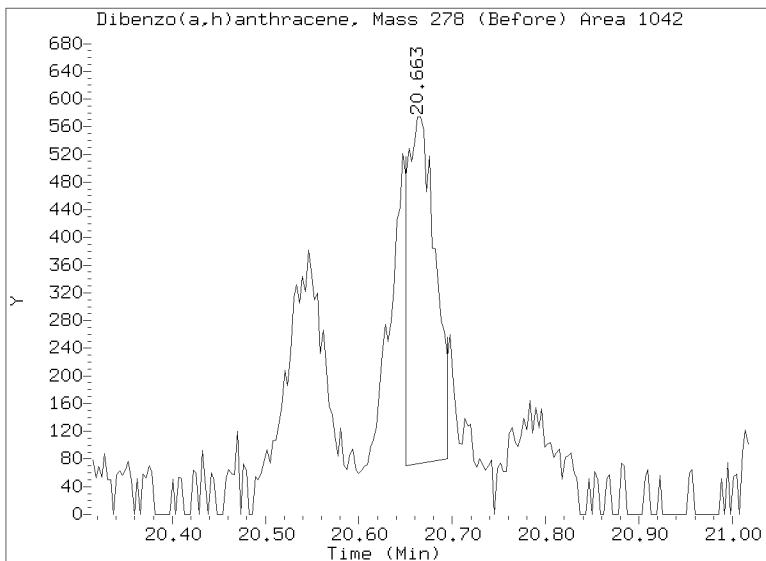
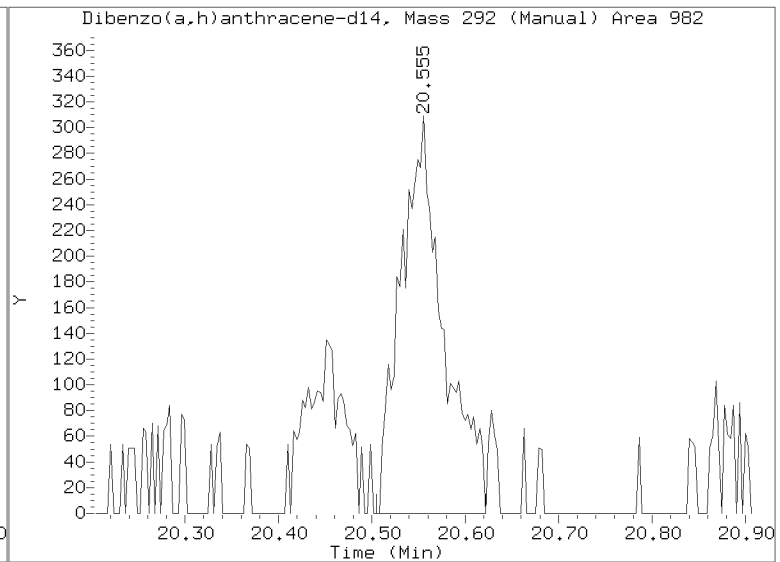
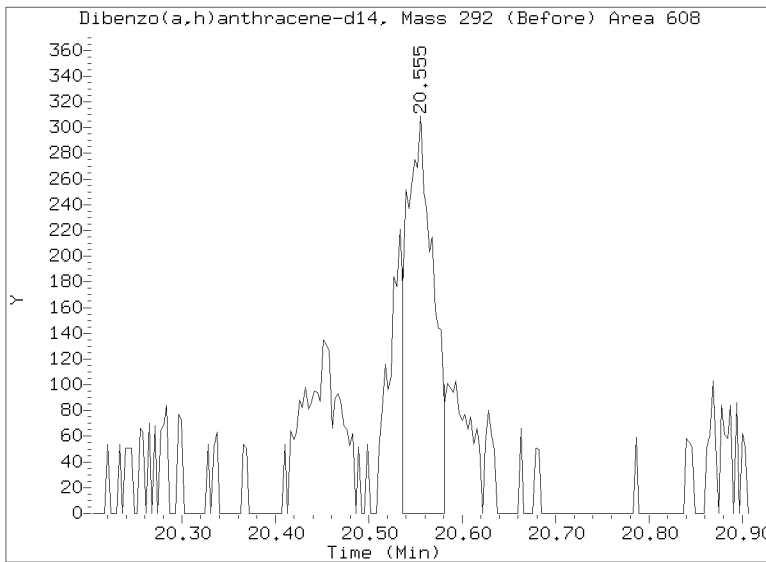
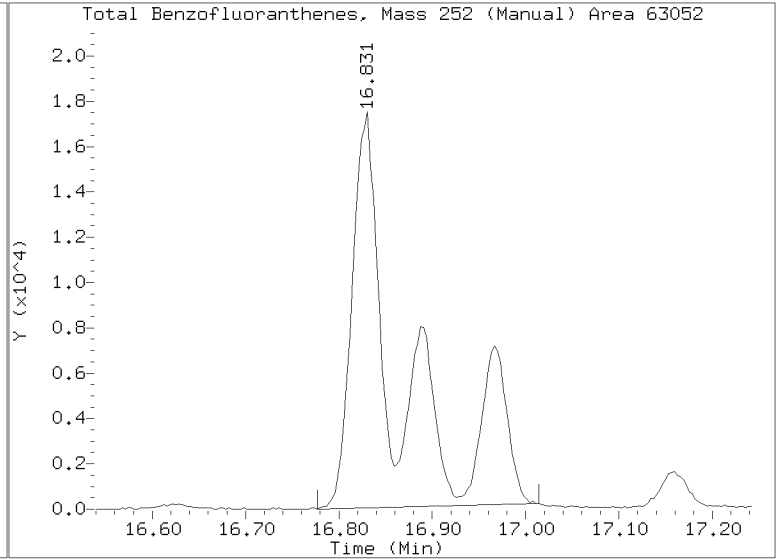
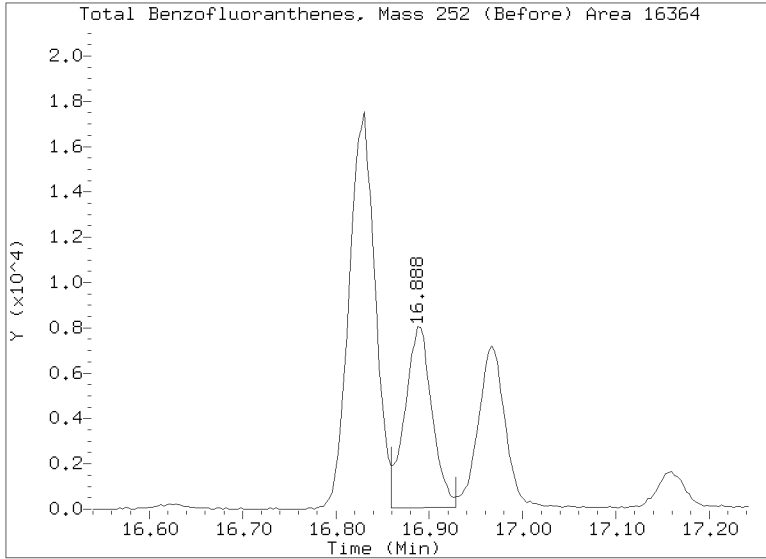
No RRT check performed

On Column LOD for nt8.i, 20230119A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119A.b/N823011925.D
Injection Date: 19-JAN-2023 22:08
Lab ID:23A0032-02RE1 Client ID:
Report Date: 01/25/2023 22:13



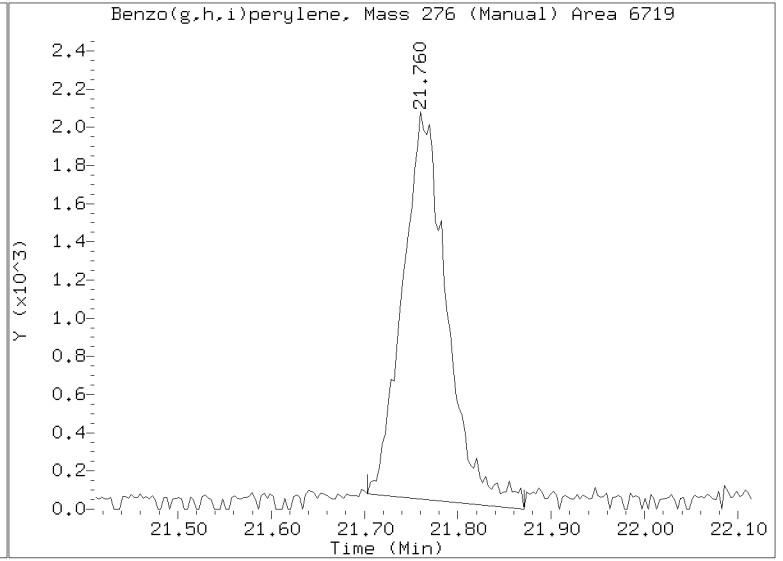
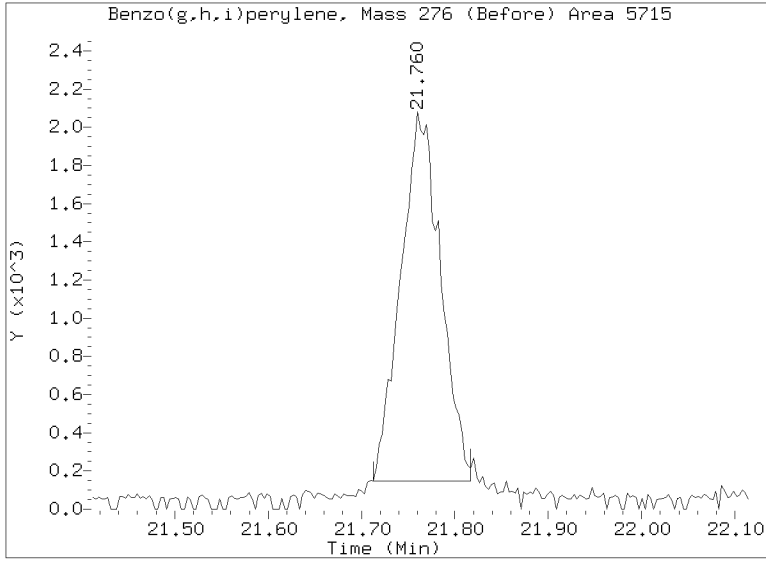
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119A.b/N823011925.D

Injection Date: 19-JAN-2023 22:08

Lab ID: 23A0032-02RE1 Client ID:

Report Date: 01/25/2023 22:13





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Polynuclear Aromatic Hydrocarbons

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-03 A

SDG: 23A0032

Sampled: 01/03/23 09:36

Prepared: 01/11/23 11:45

File ID: N823011919.D

% Solids: 65.27

Preparation: EPA 3546 (Microwave)

Analyzed: 01/19/23 19:27

Batch: BLA0171

Sequence: SLA0228

Initial/Final: 15.37 g Wet / 0.5 mL

Instrument: NT8

Column: RXI-17Sil ms

Calibration: GA00050

Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
56-55-3	Benzo(a)anthracene	3	47.1	D	2.46	15.0
218-01-9	Chrysene	3	58.1	D	3.15	15.0
205-99-2	Benzo(b)fluoranthene	3	58.4	D	4.10	15.0
207-08-9	Benzo(k)fluoranthene	3	29.5	D	2.27	15.0
50-32-8	Benzo(a)pyrene	3	52.2	D	1.84	15.0
193-39-5	Indeno(1,2,3-cd)pyrene	3	46.6	D	3.14	15.0
53-70-3	Dibenzo(a,h)anthracene	3	12.3	J, D	2.66	15.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	149.52	97.2	65.0	32 - 120	
Dibenzo[a,h]anthracene-d14	149.52	135	90.2	21 - 133	
Fluoranthene-d10	149.52	116	77.7	36 - 134	

Data File: \\target\share\chem3\nt8.1\20230119A.1\N823011919.D

Date: 19-JAN-2023 19:27

Client ID:

Sample Info: 23A0032-03.3

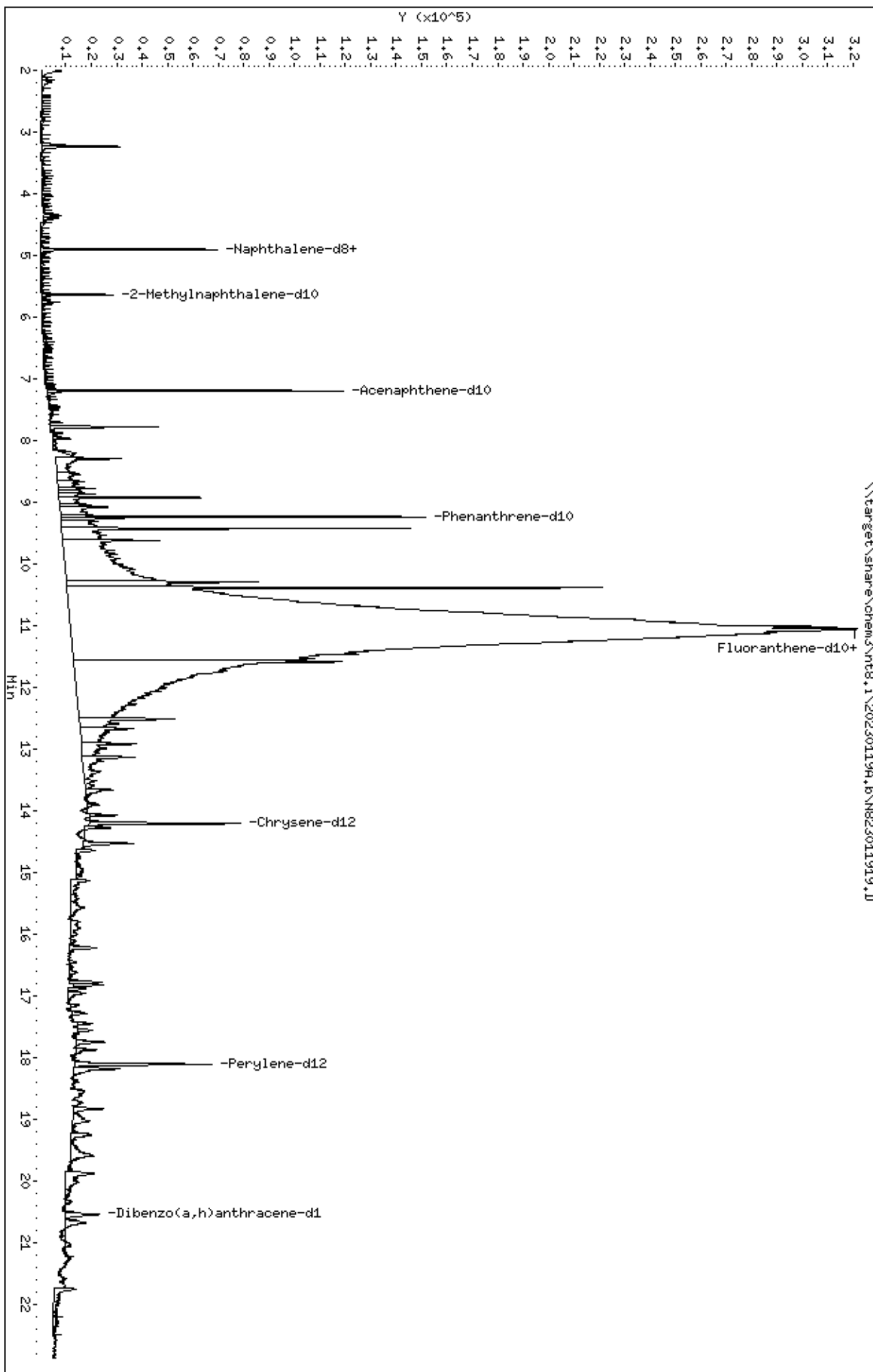
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

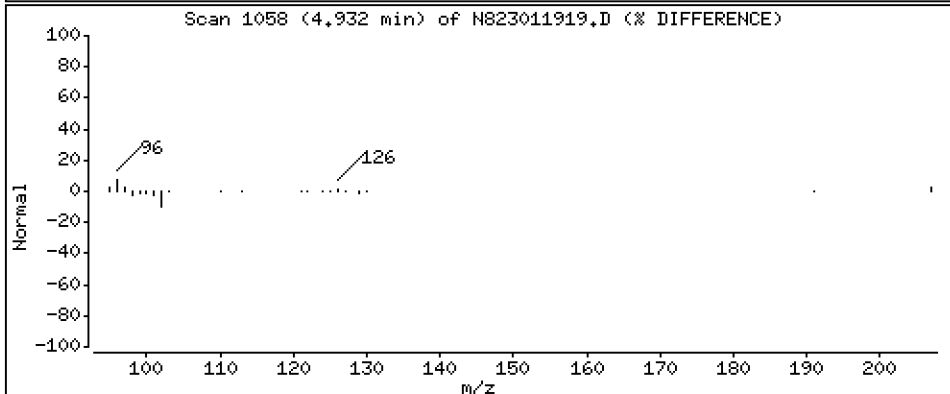
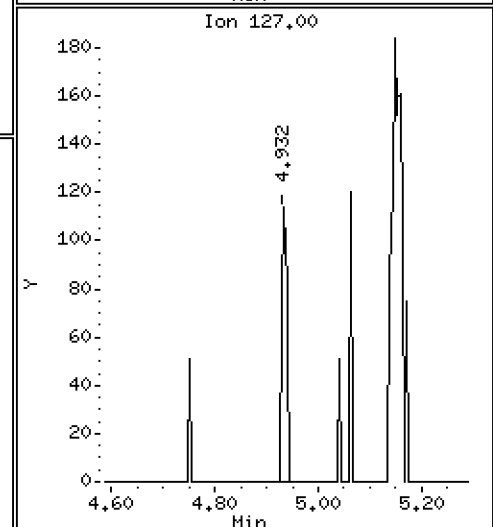
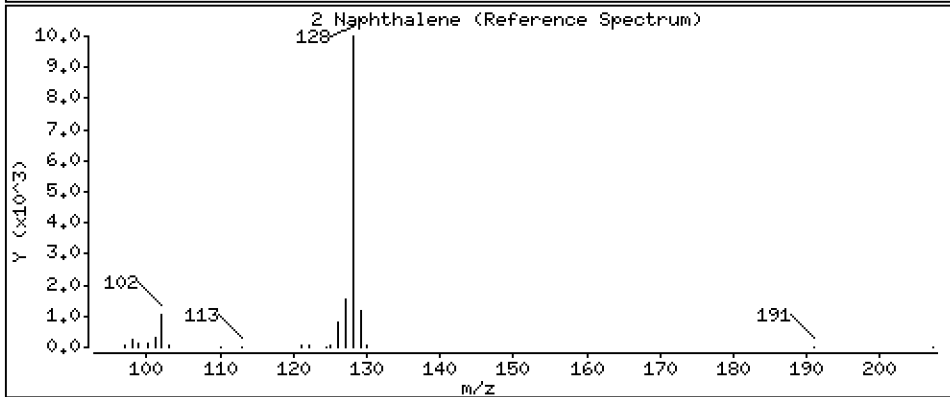
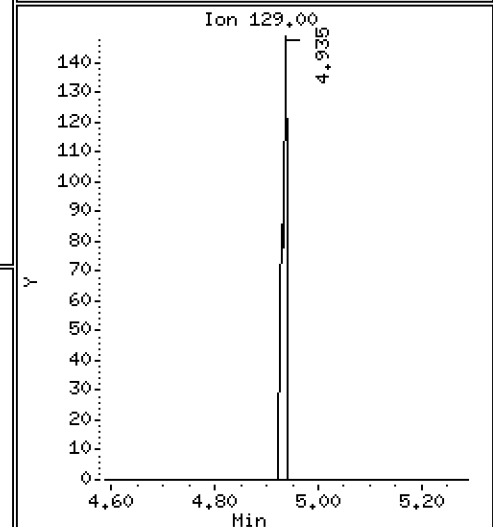
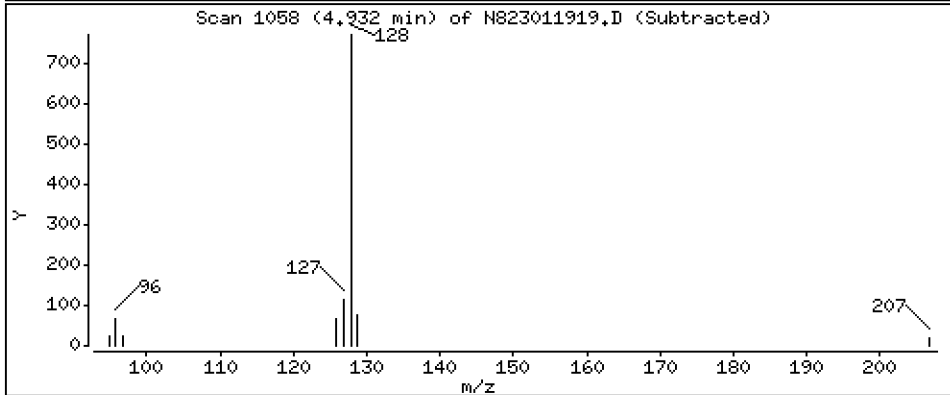
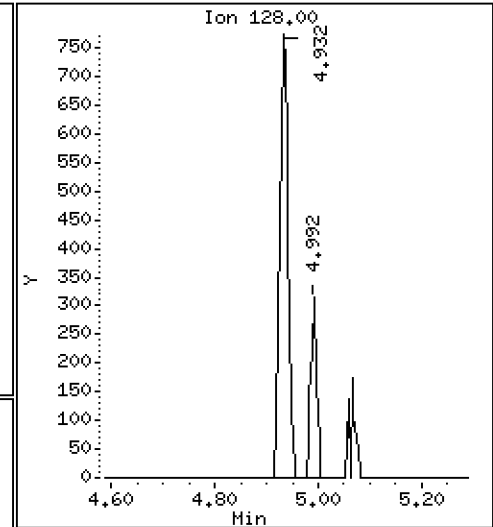
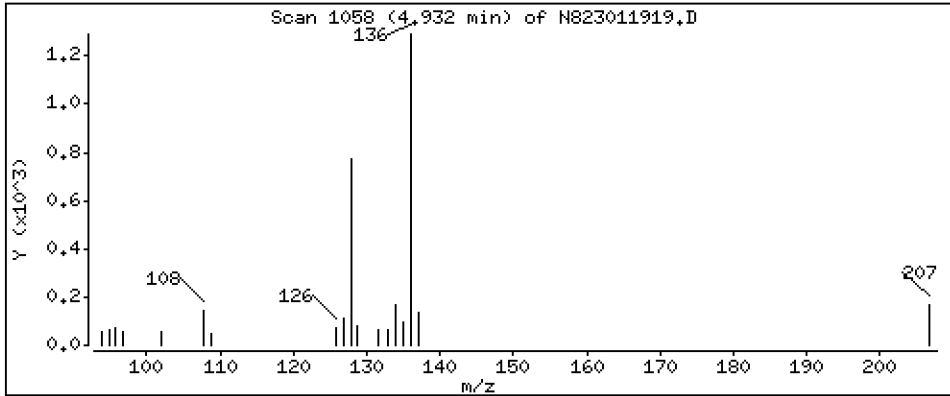
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

2 Naphthalene

Concentration: 0,1007 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

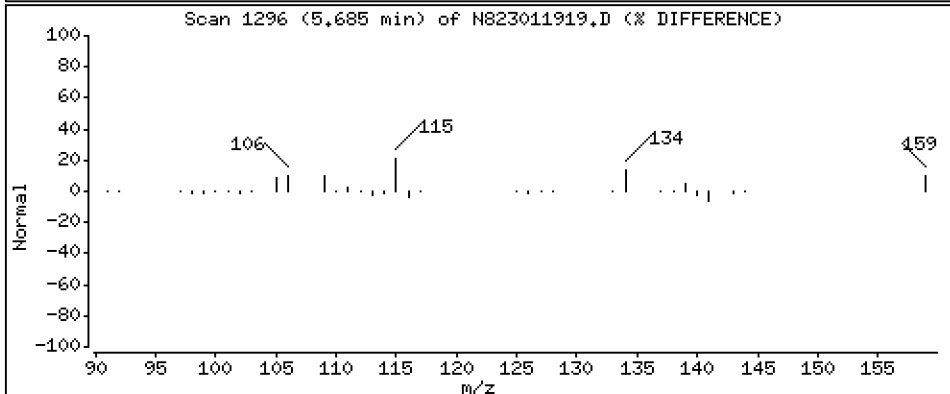
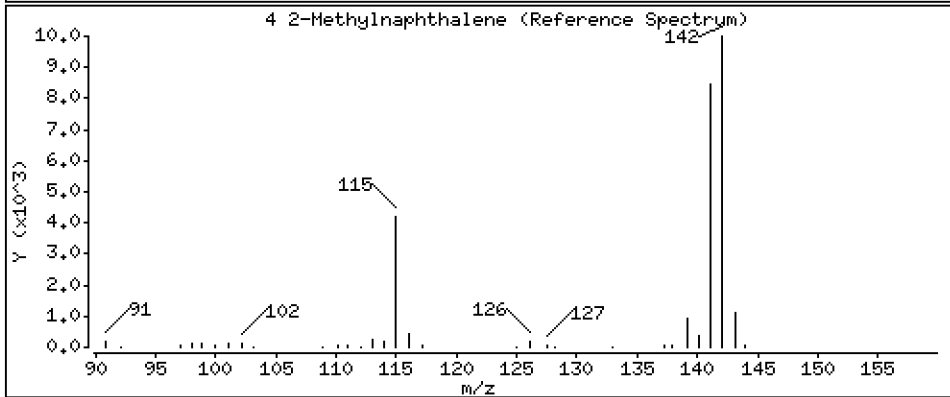
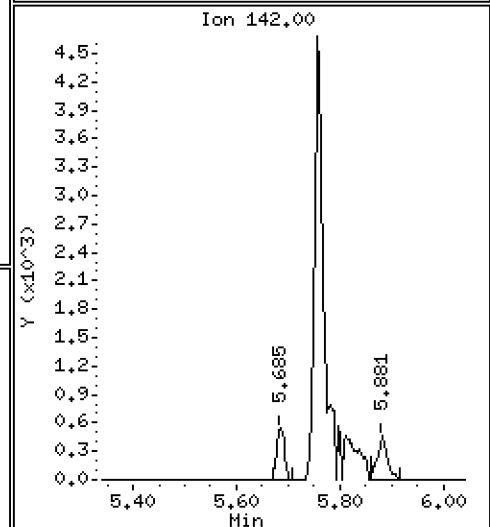
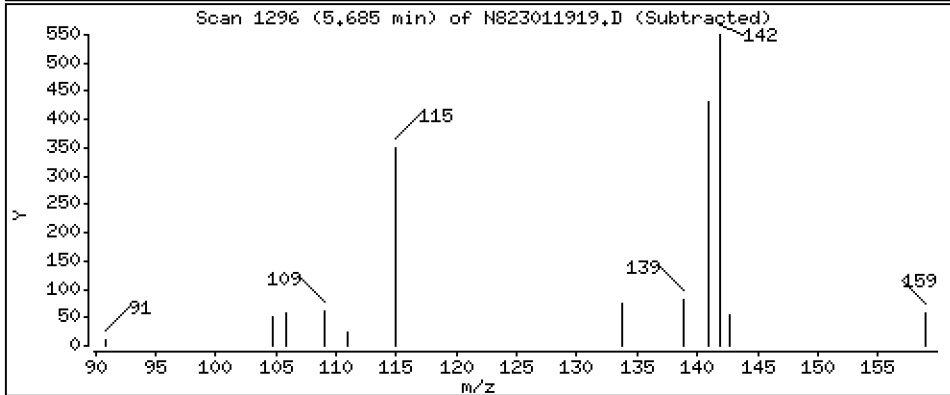
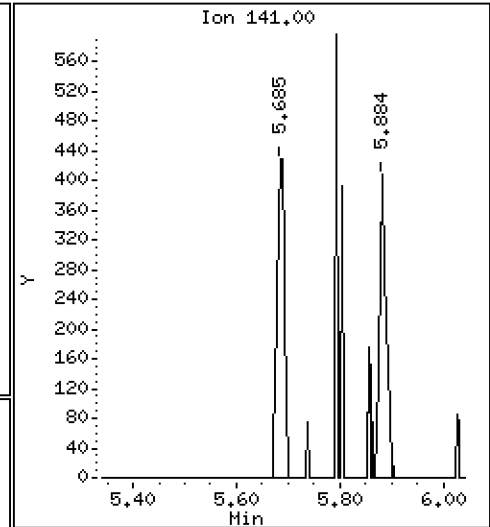
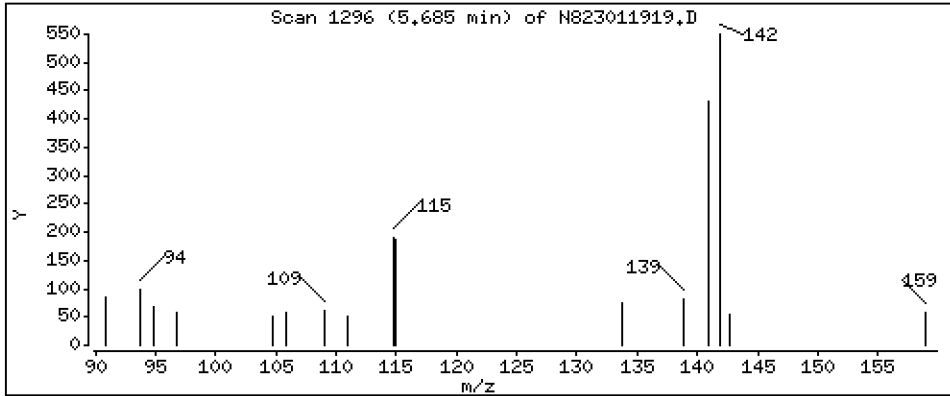
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

4 2-Methylnaphthalene

Concentration: 0,09209 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

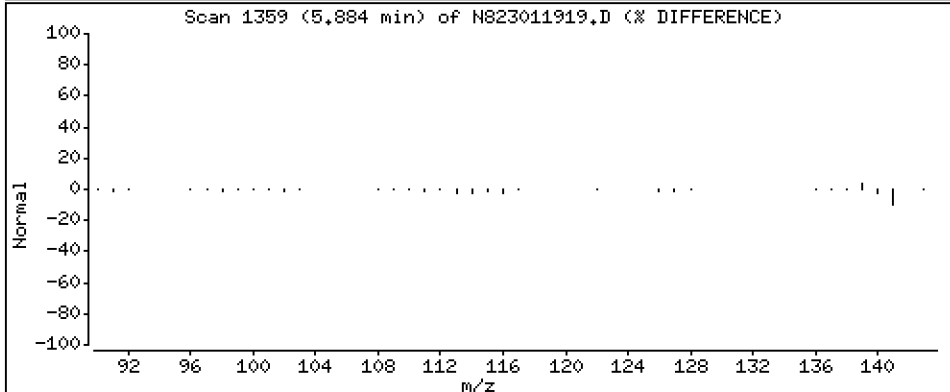
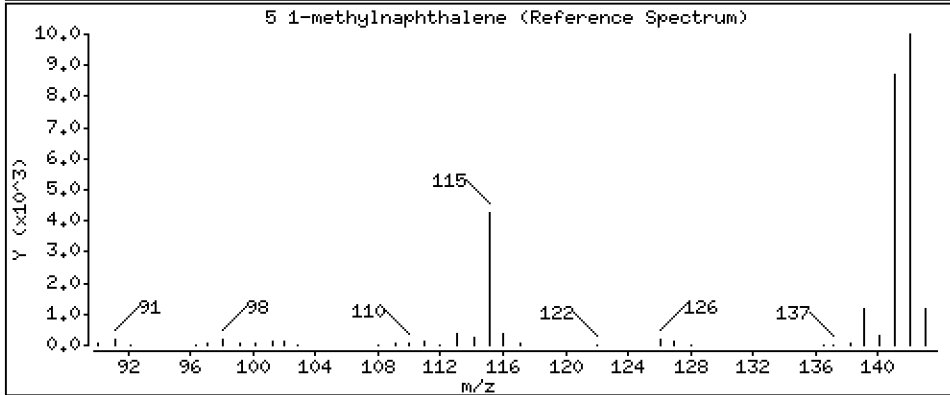
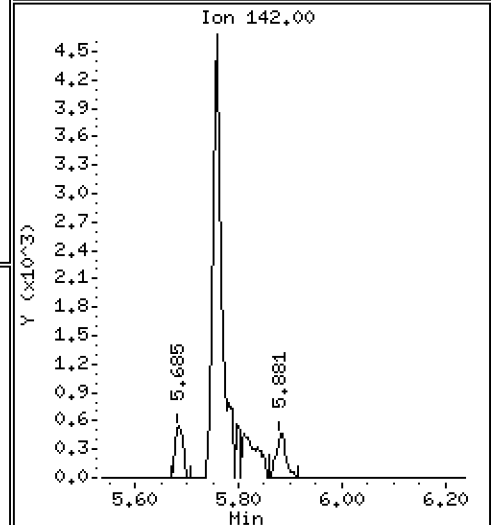
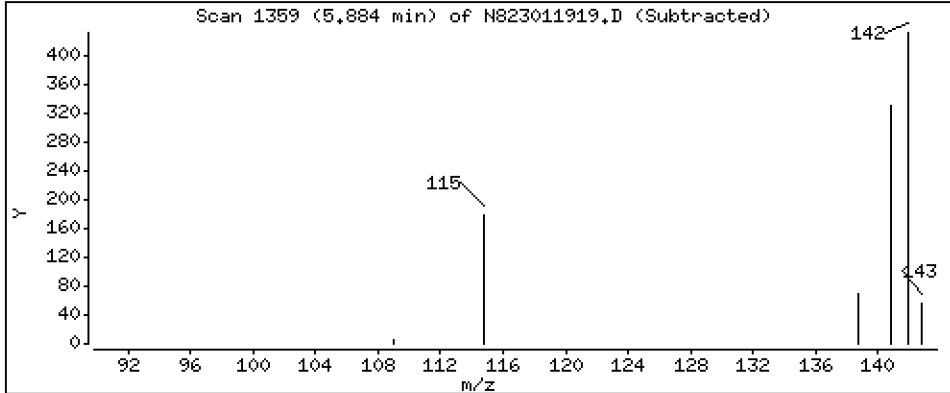
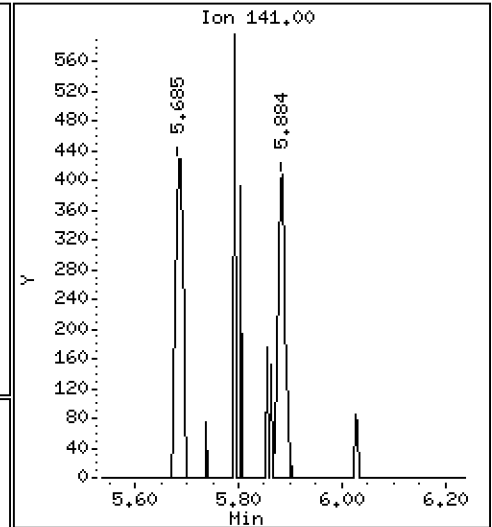
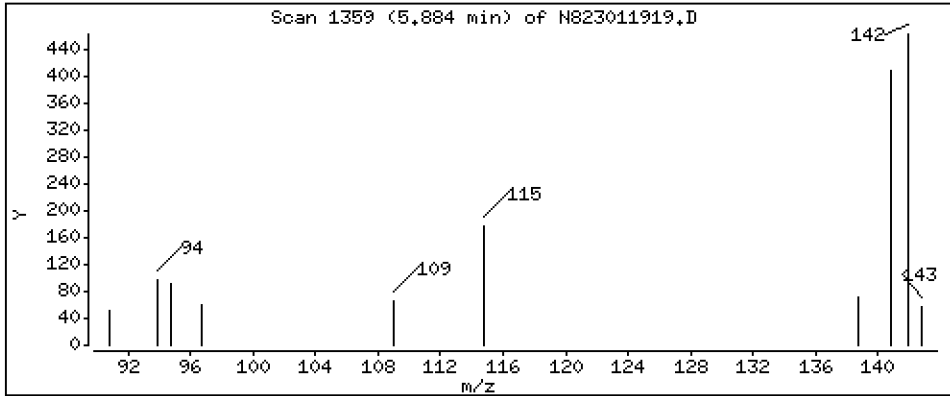
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

5 1-methylnaphthalene

Concentration: 0,08198 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

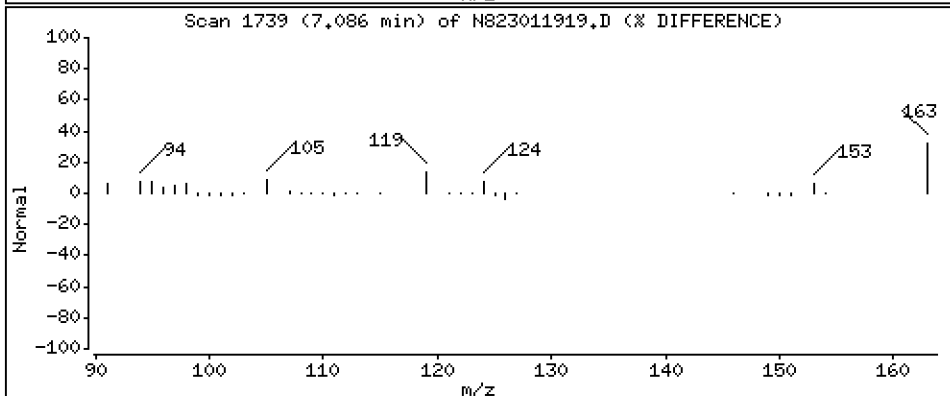
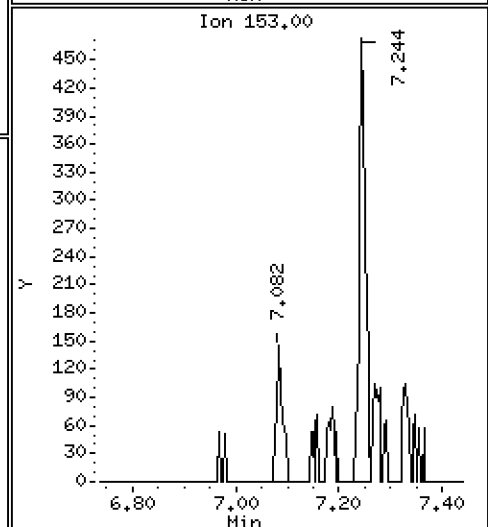
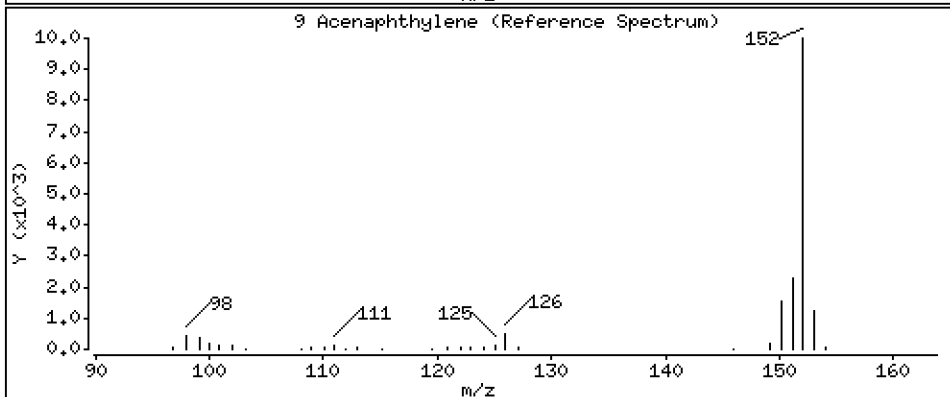
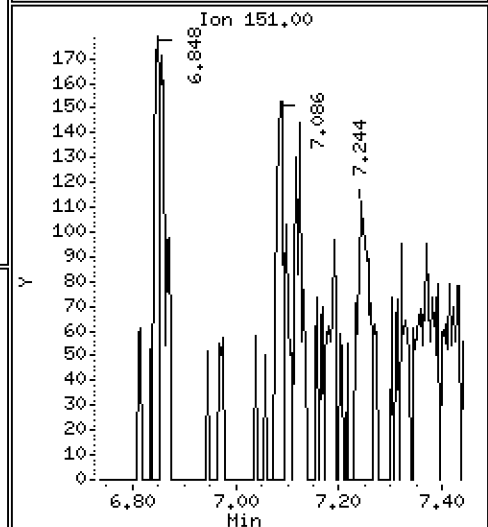
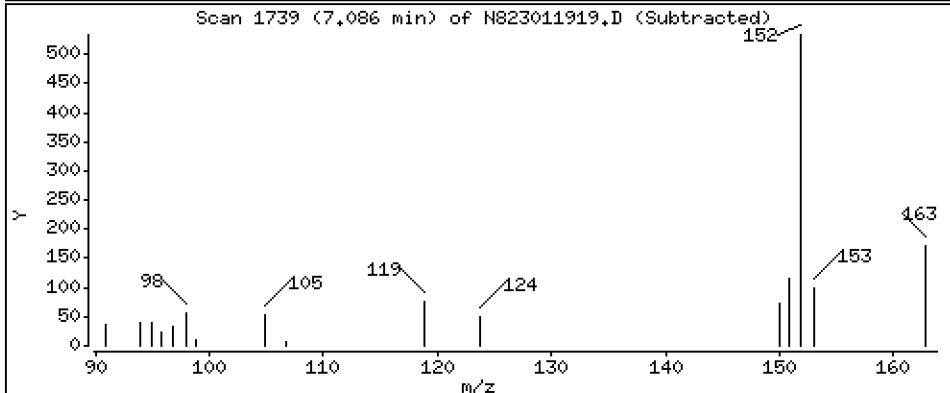
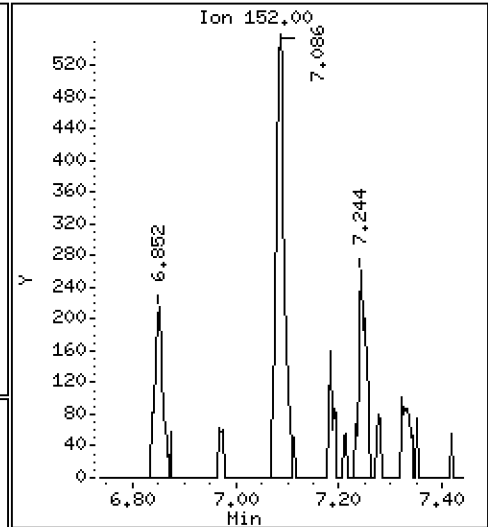
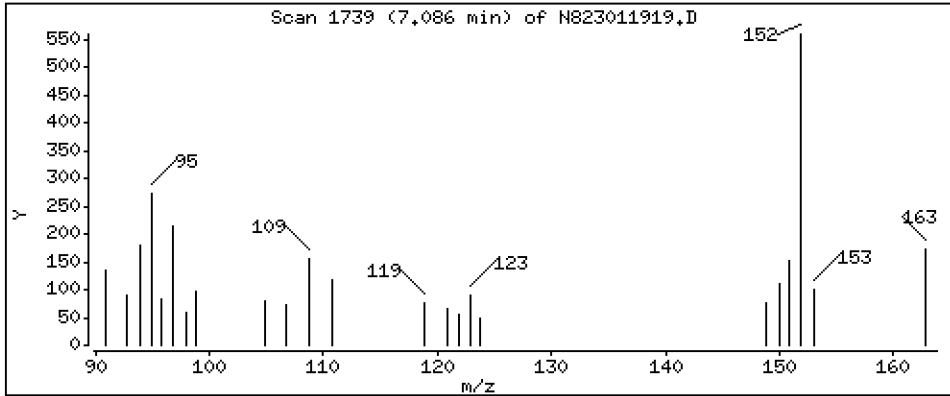
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

9 Acenaphthylene

Concentration: 0,07491 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

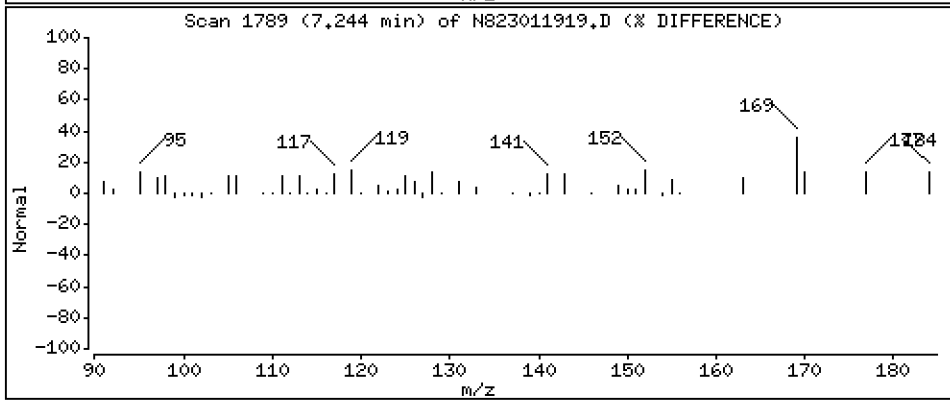
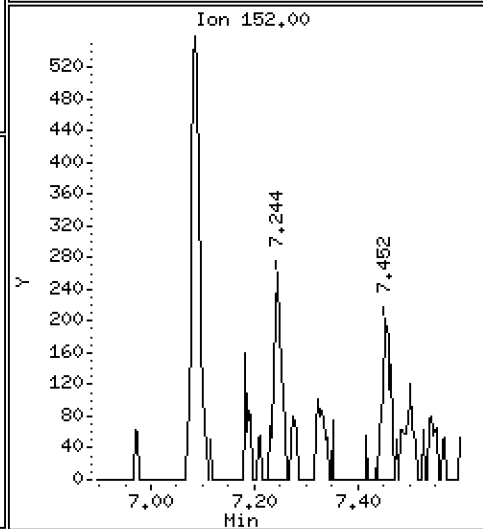
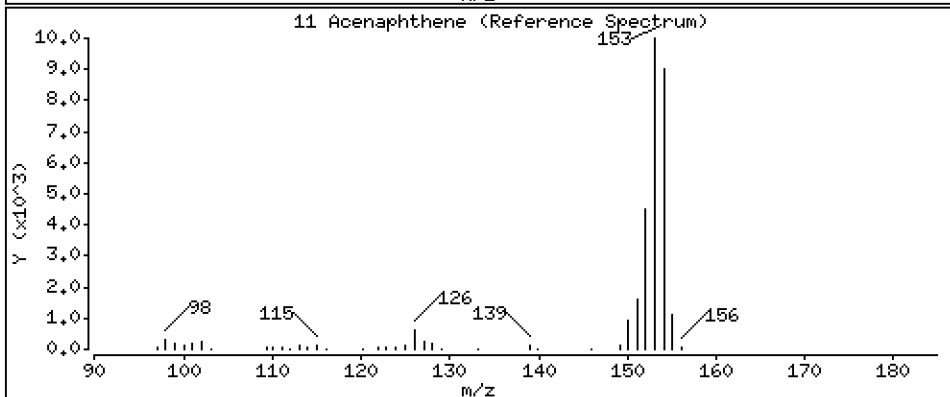
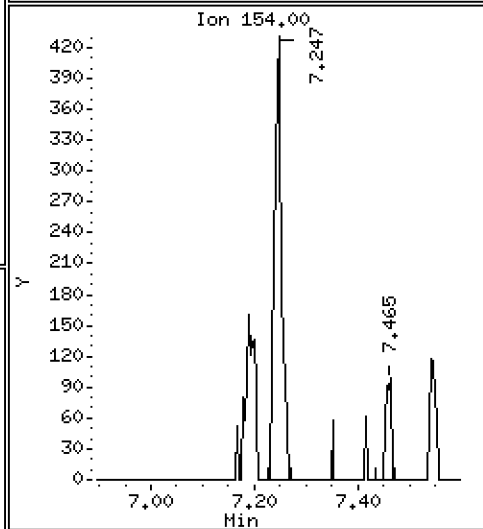
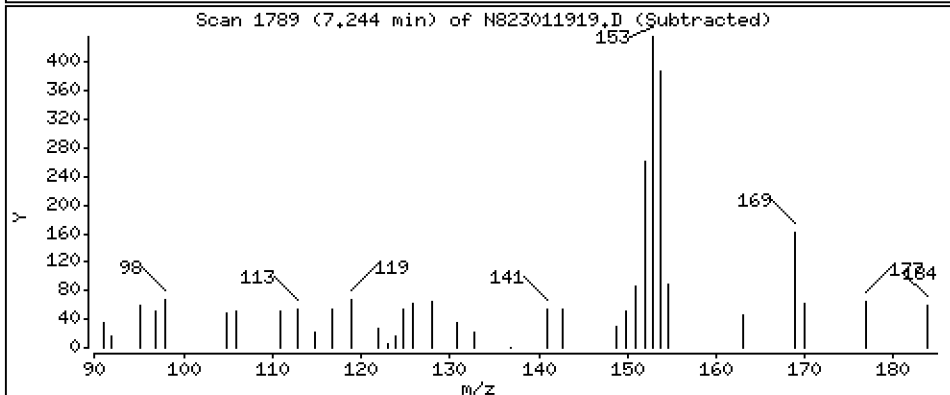
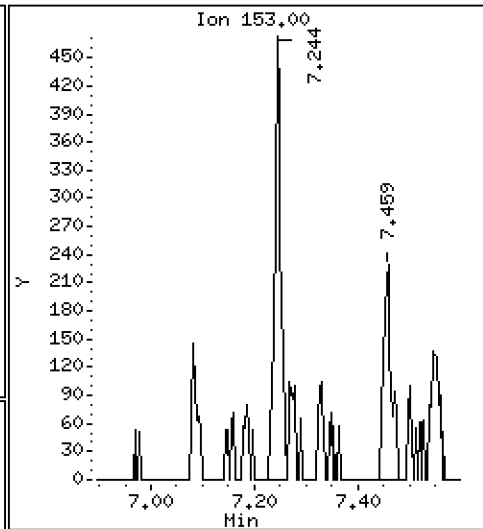
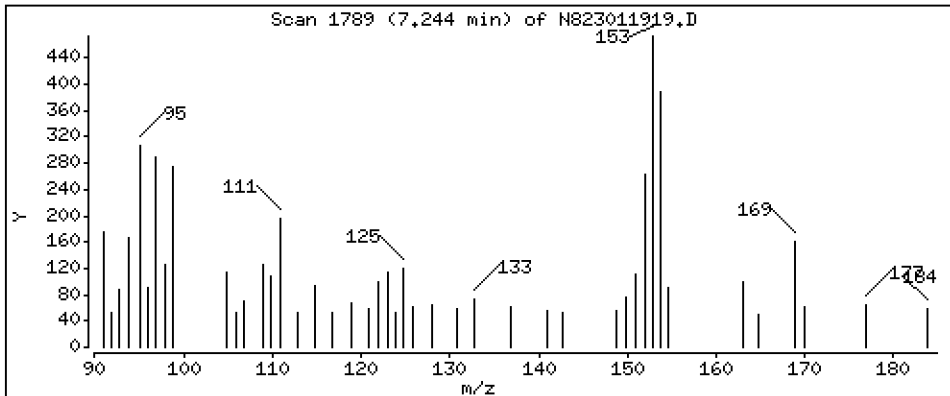
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 0,07103 ug/mL

11 Acenaphthene



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

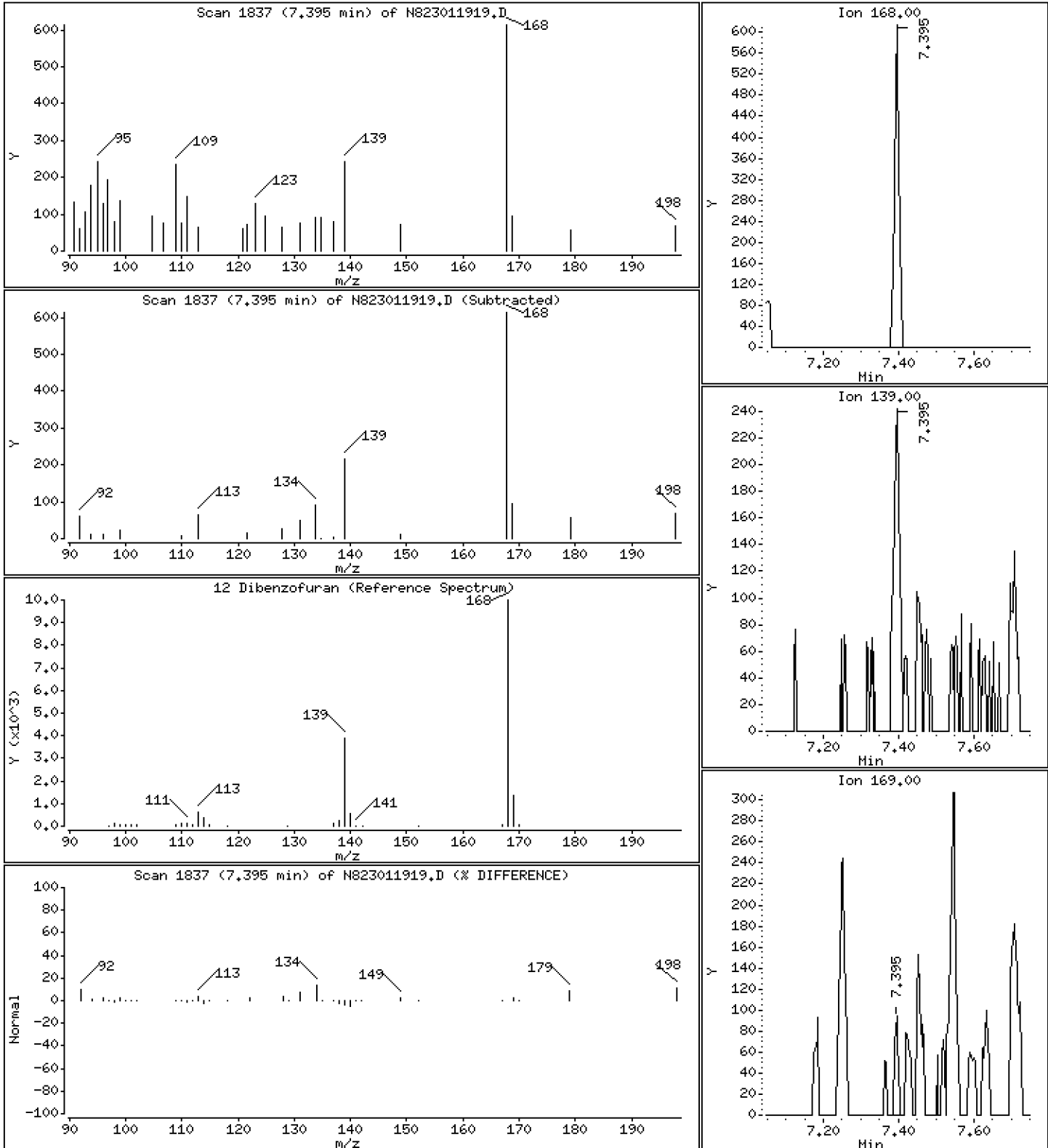
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

12 Dibenzofuran

Concentration: 0,06294 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

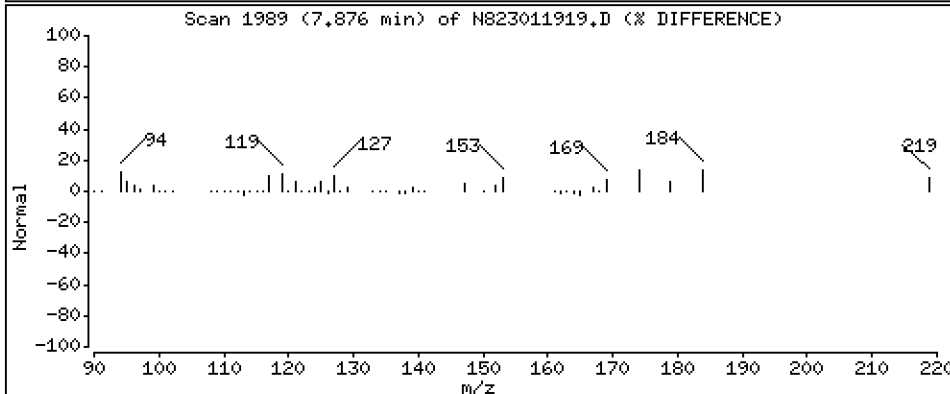
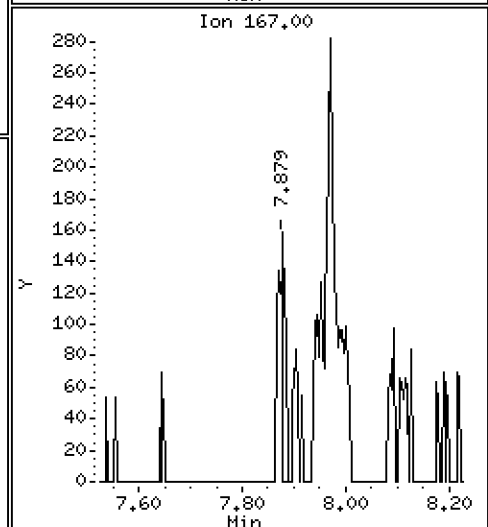
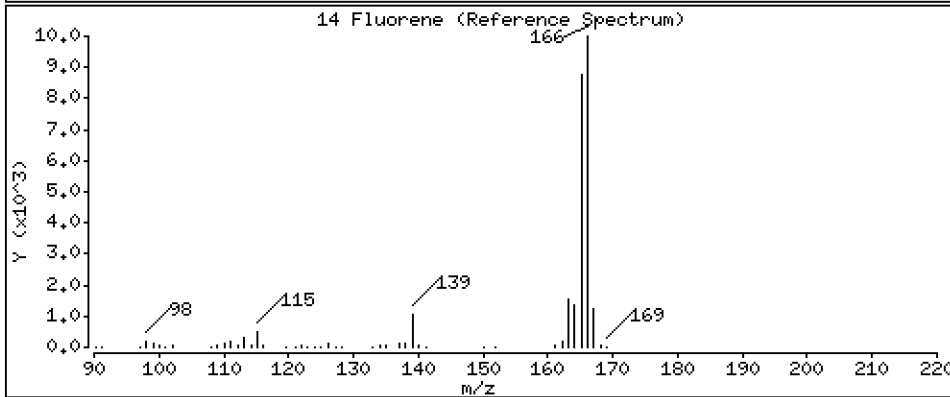
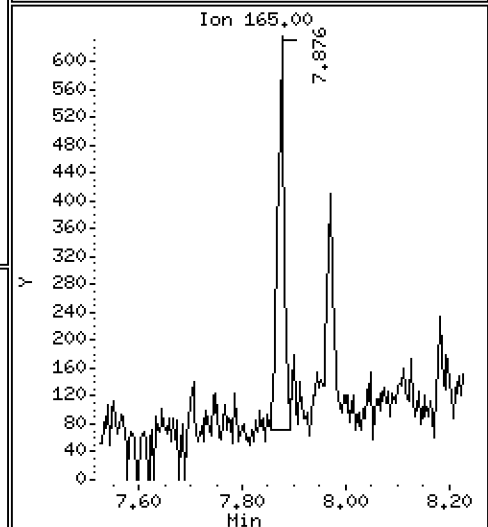
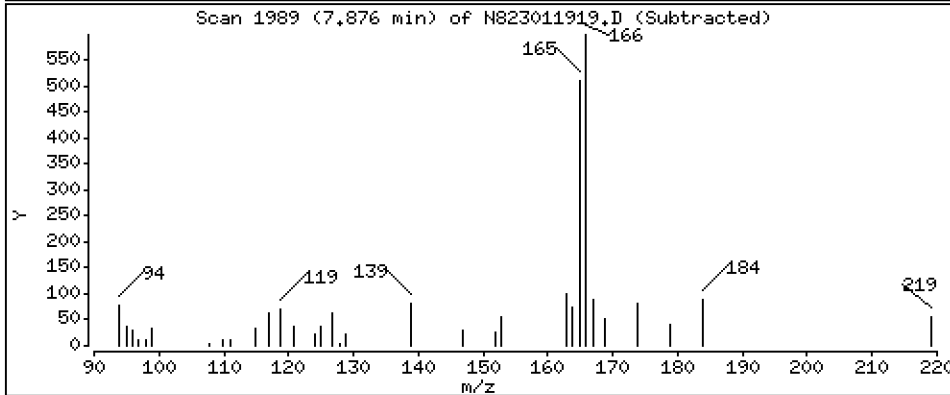
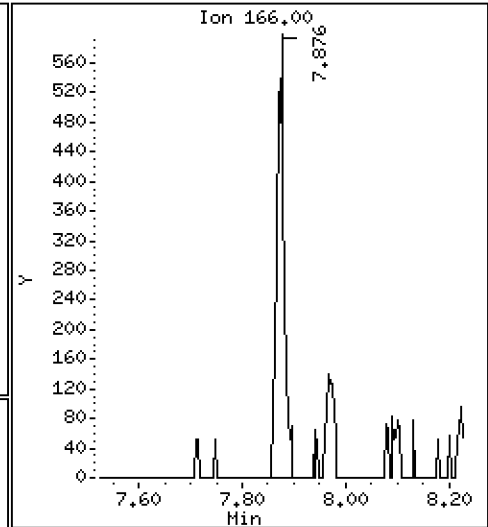
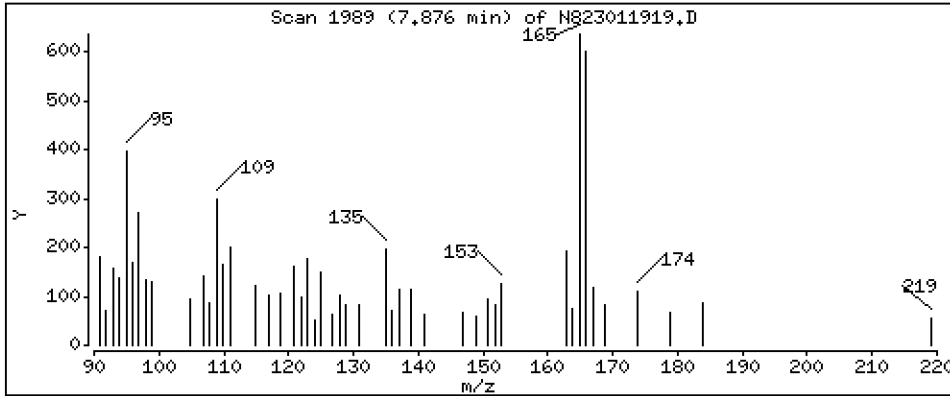
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 0,08994 ug/mL

14 Fluorene



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

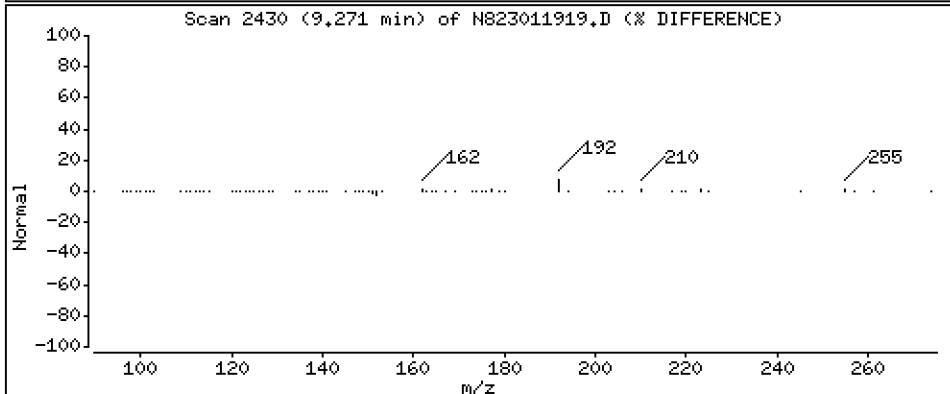
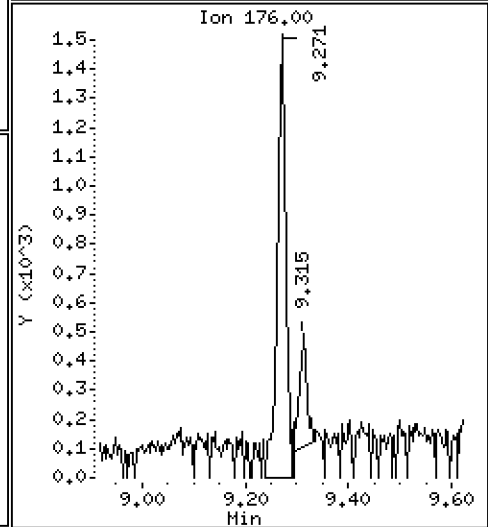
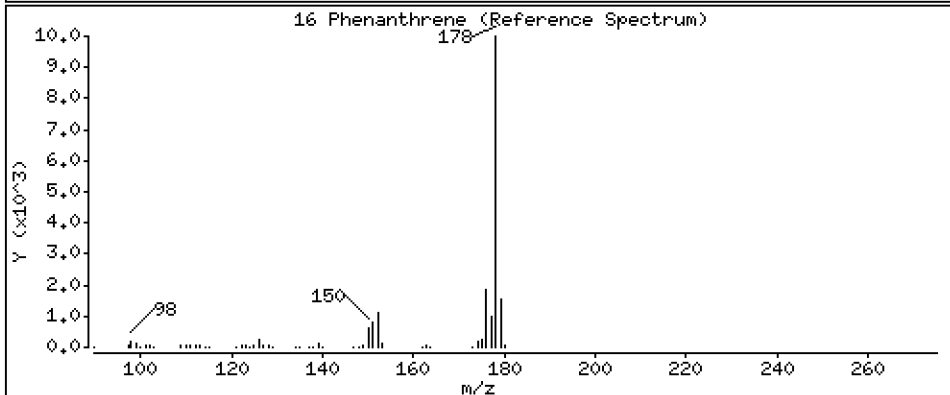
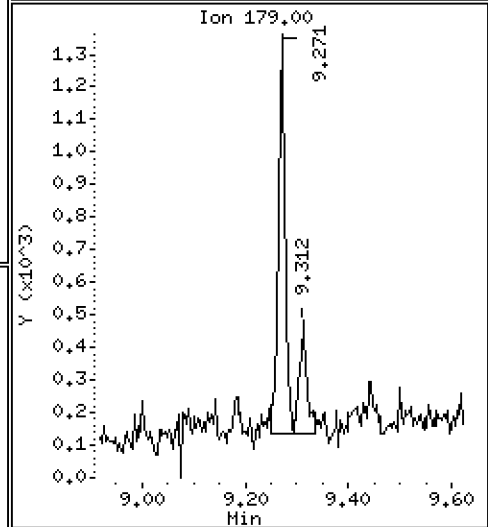
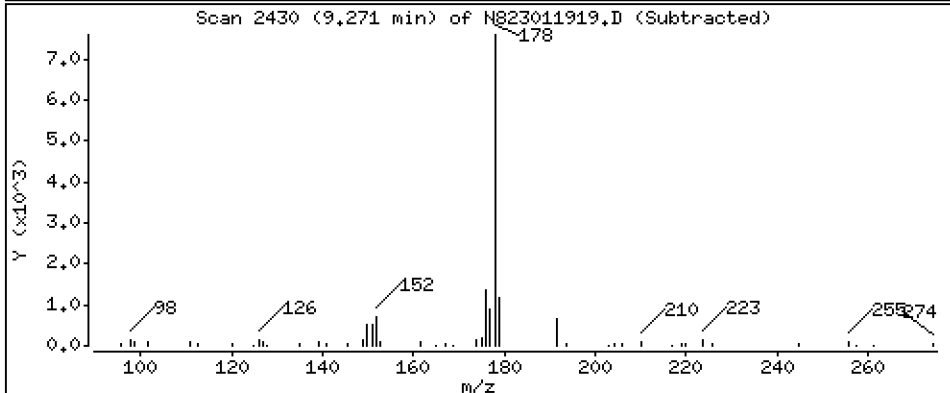
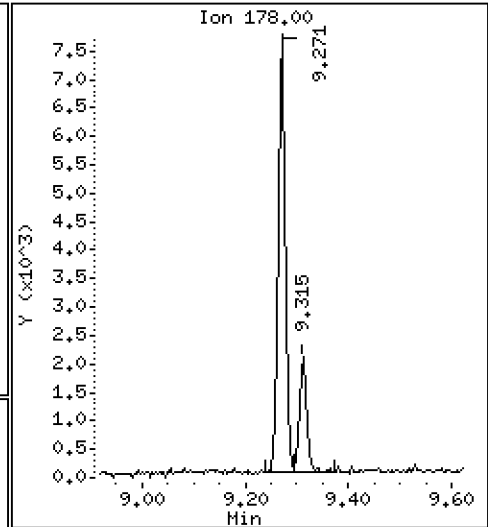
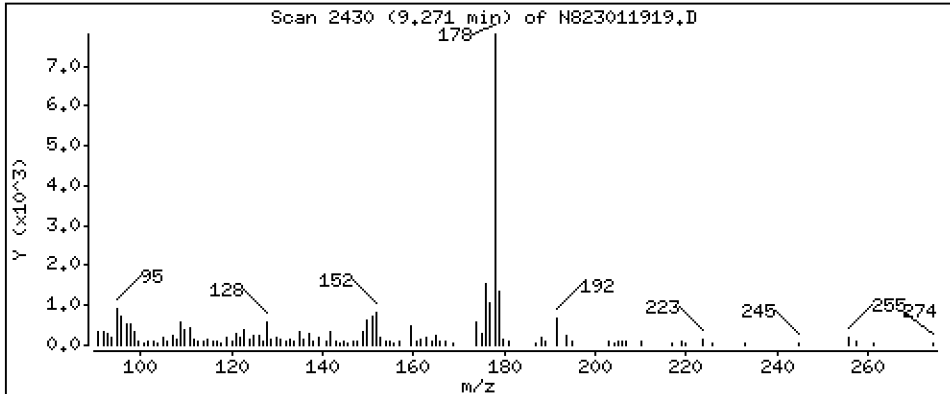
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 0,7768 ug/mL

16 Phenanthrene



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

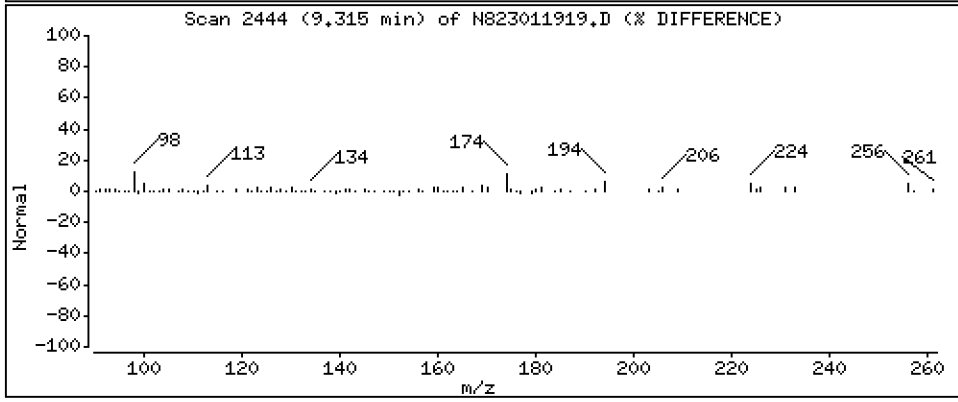
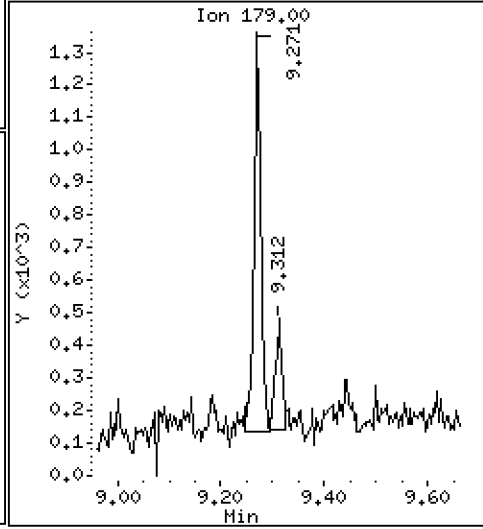
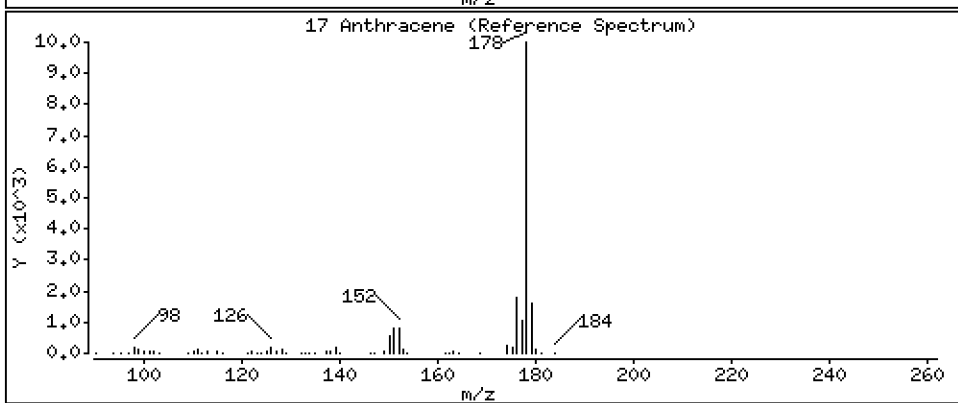
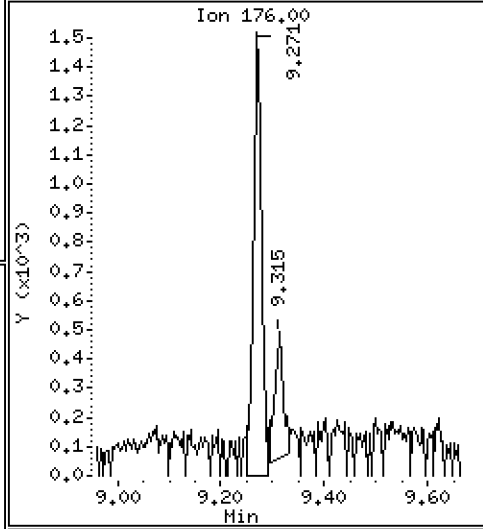
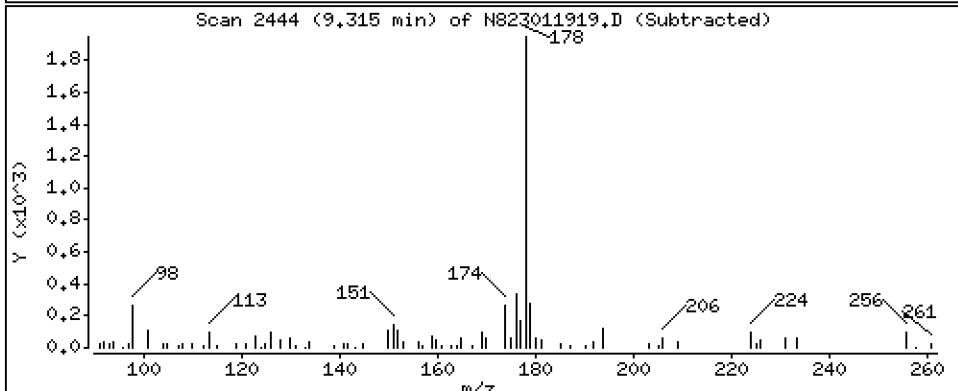
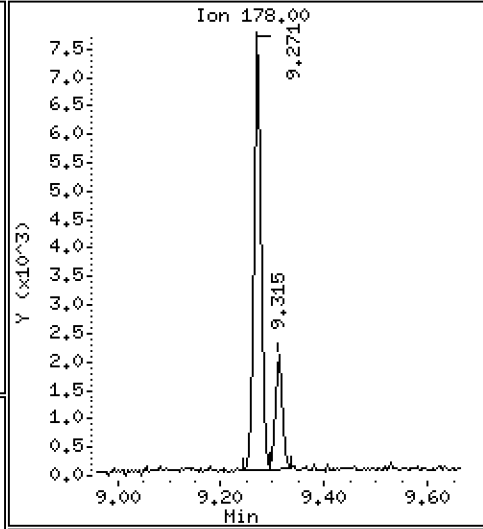
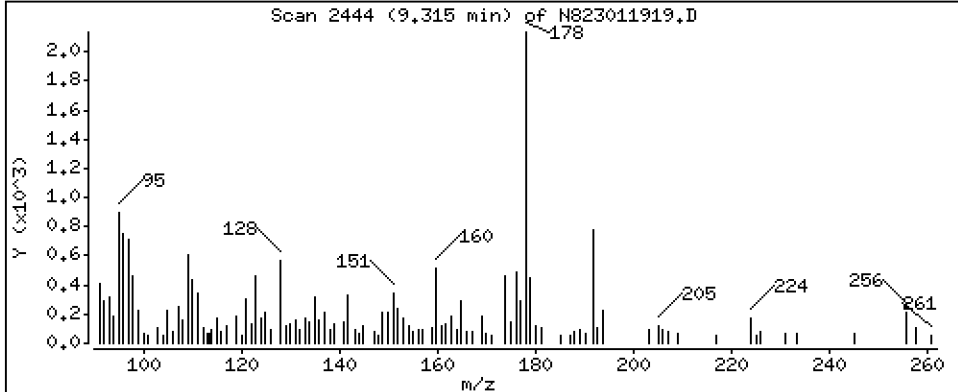
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 0,2236 ug/mL

17 Anthracene



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

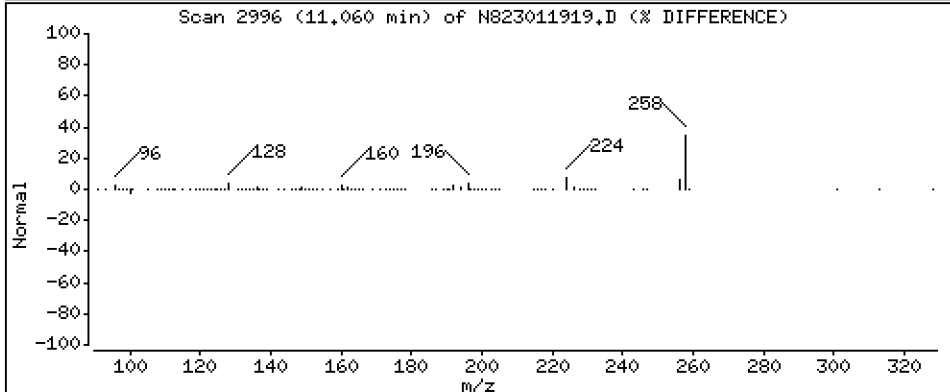
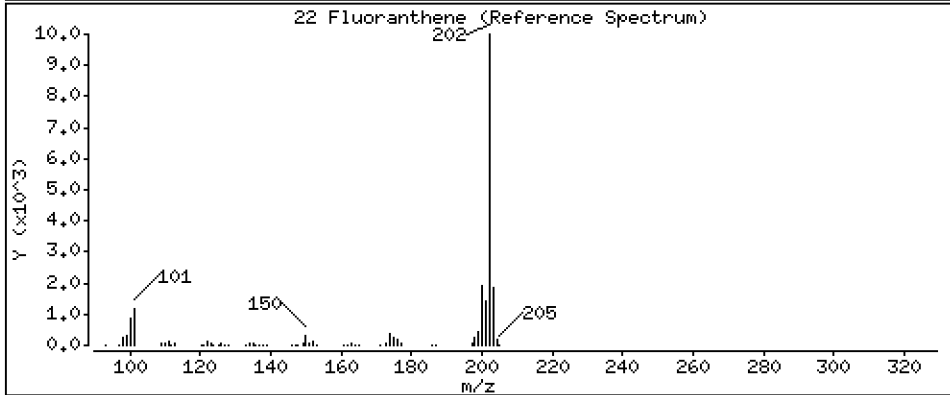
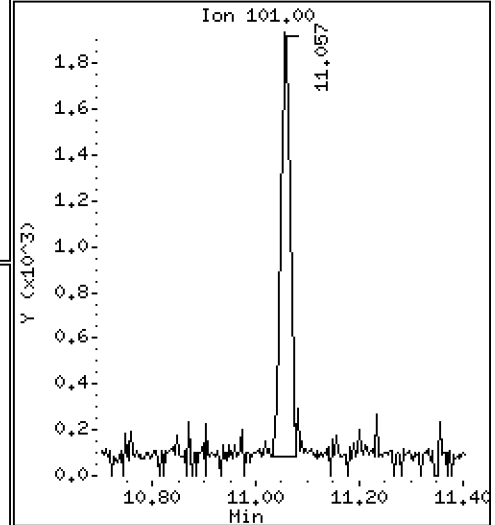
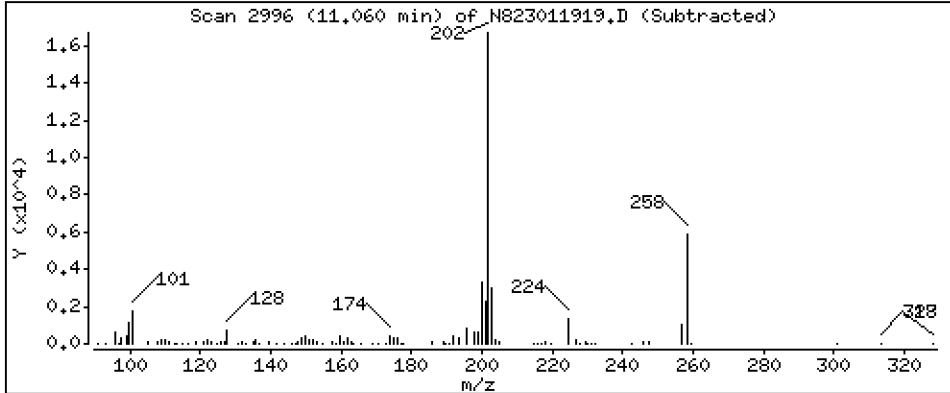
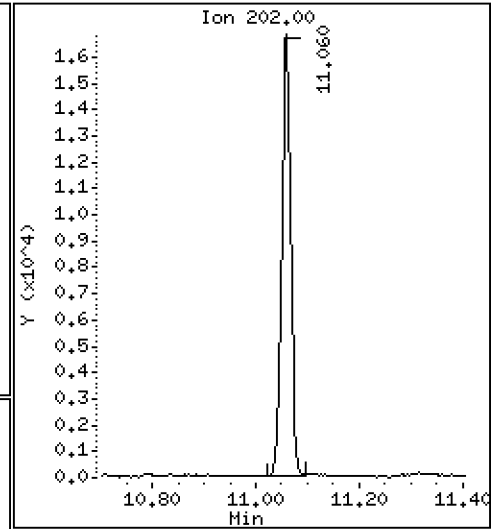
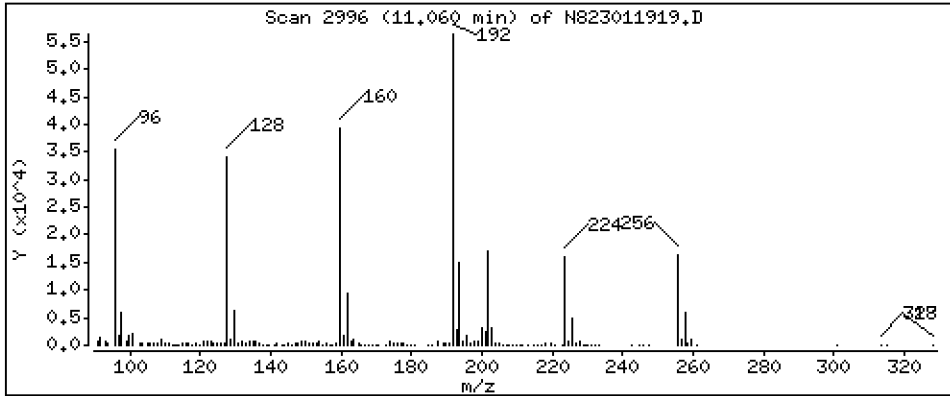
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 1,971 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

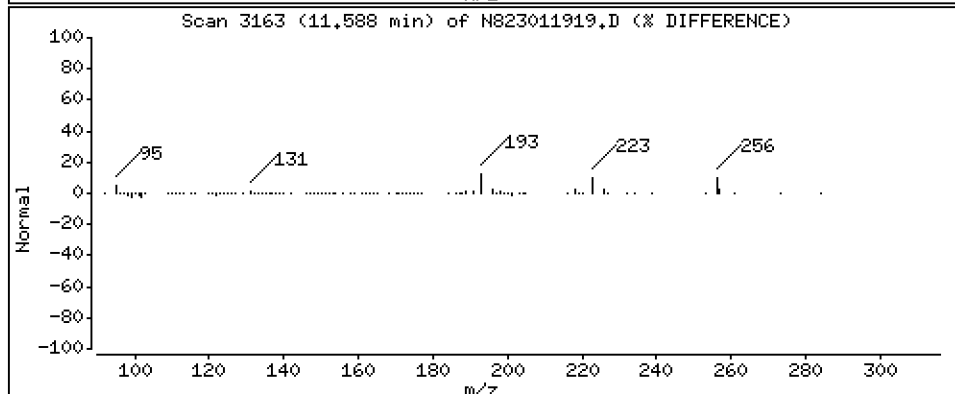
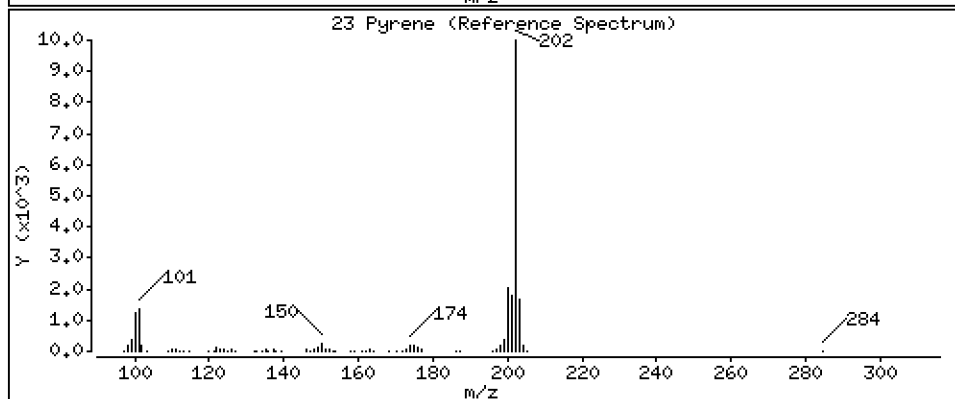
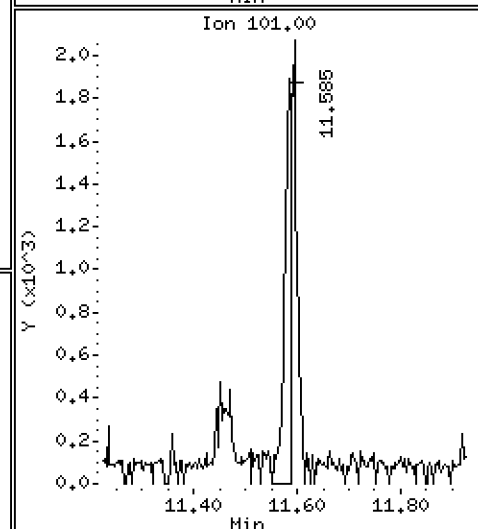
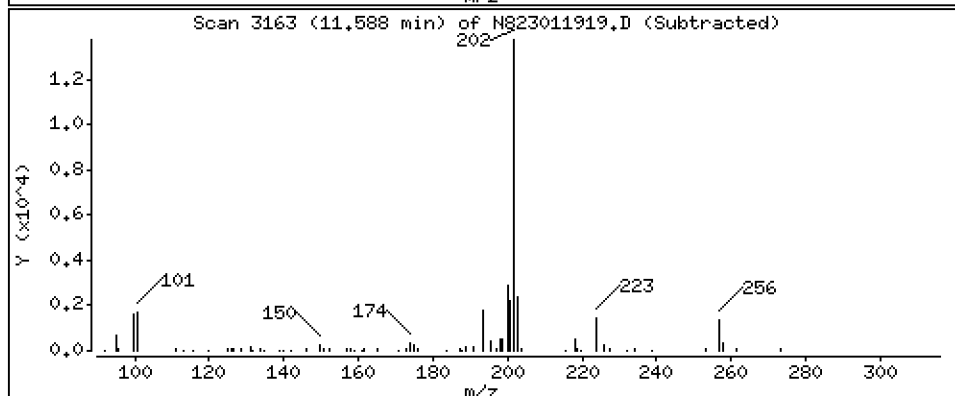
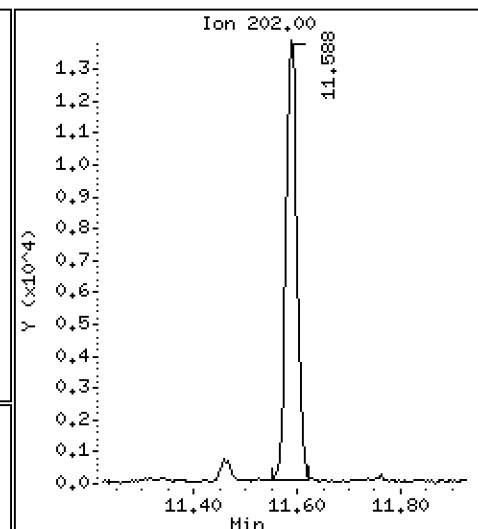
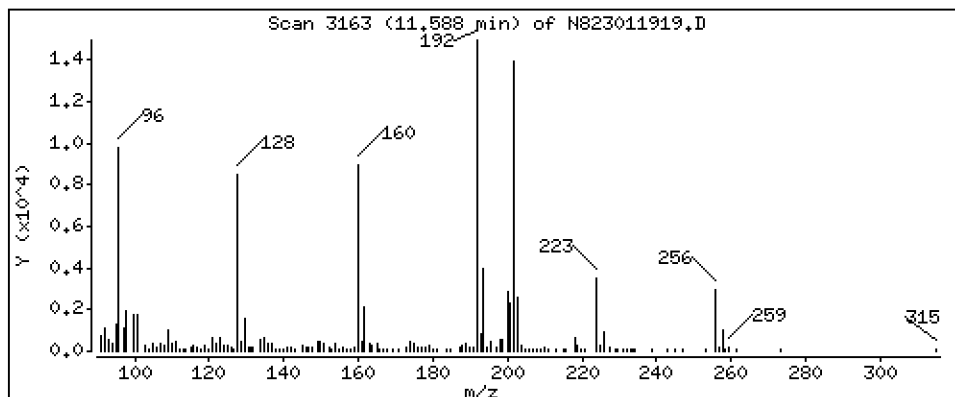
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

23 Pyrene

Concentration: 2,452 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

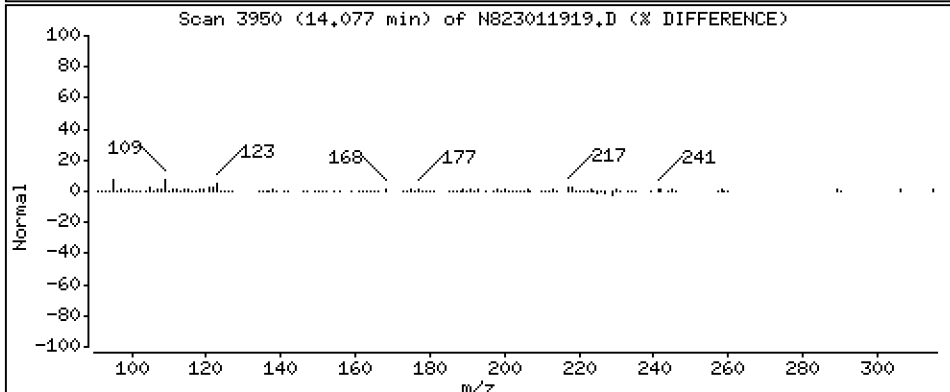
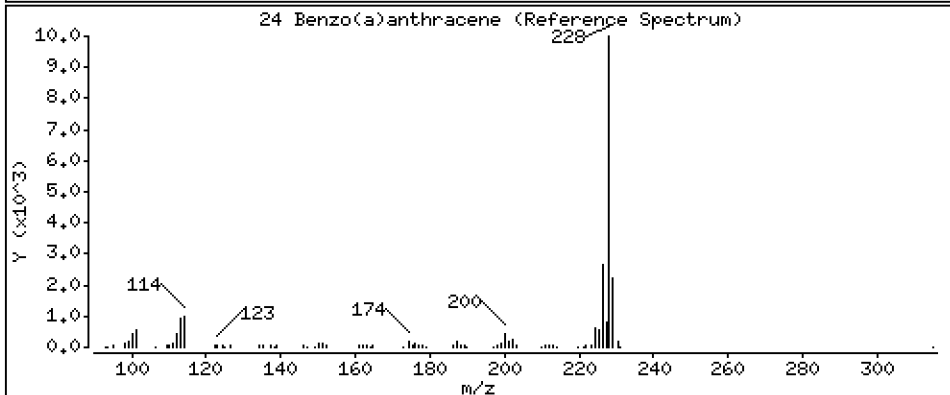
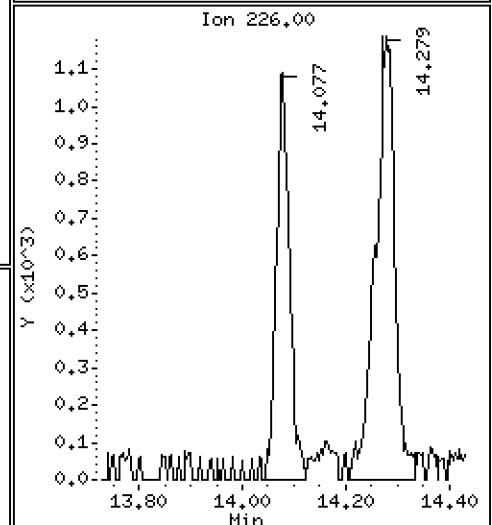
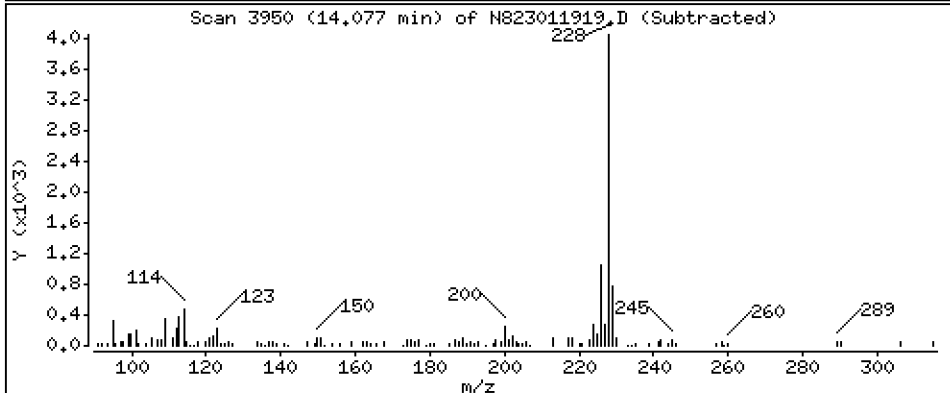
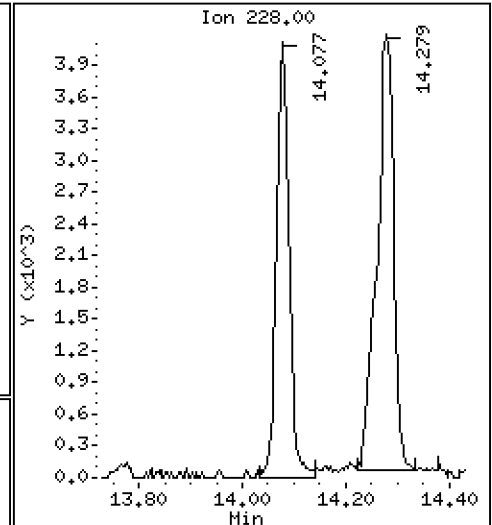
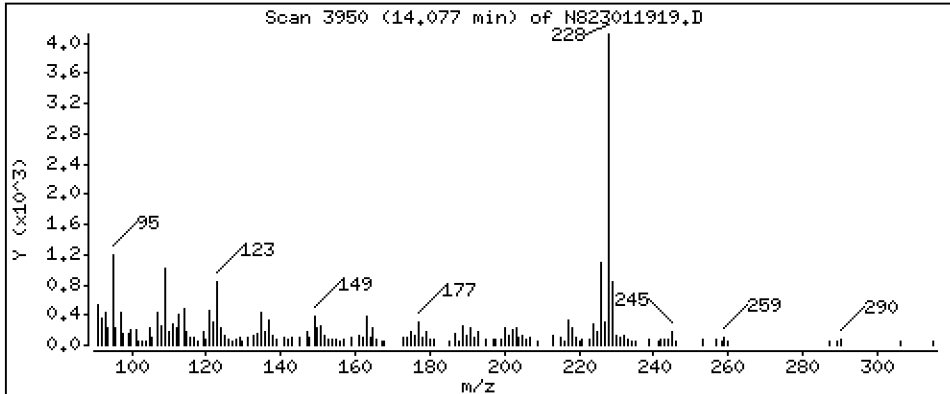
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

24 Benzo(a)anthracene

Concentration: 0,9449 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

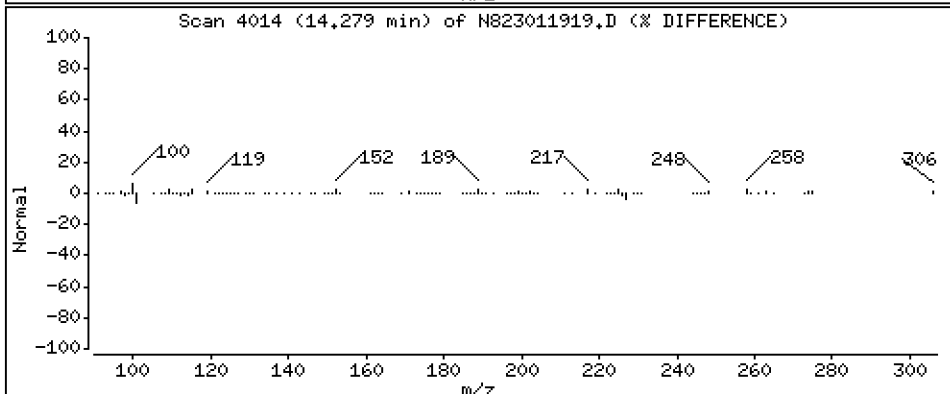
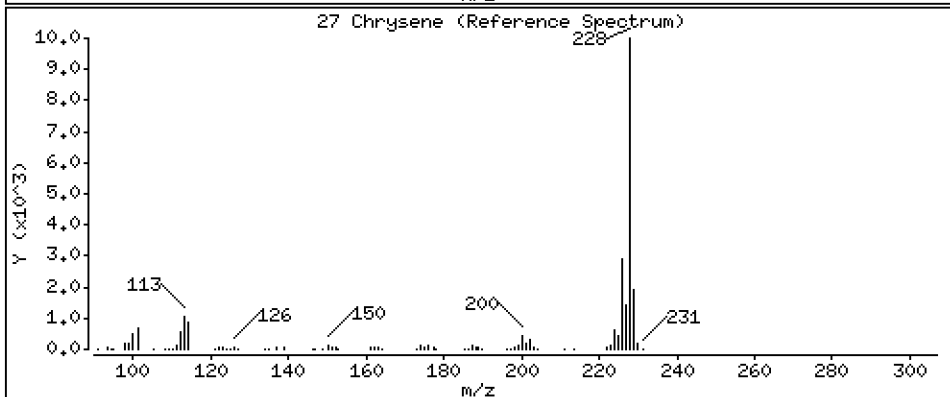
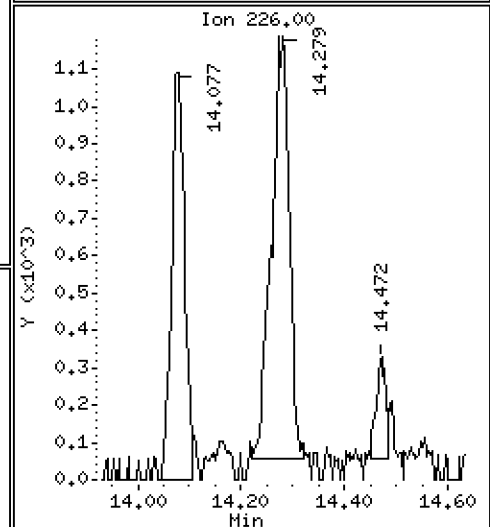
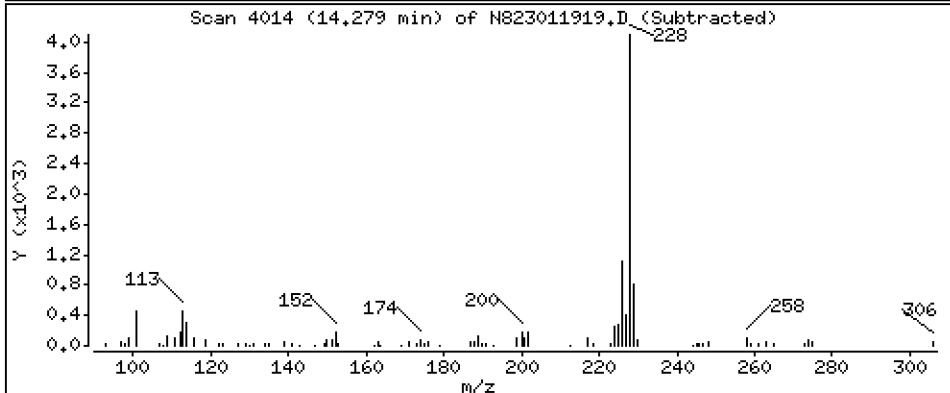
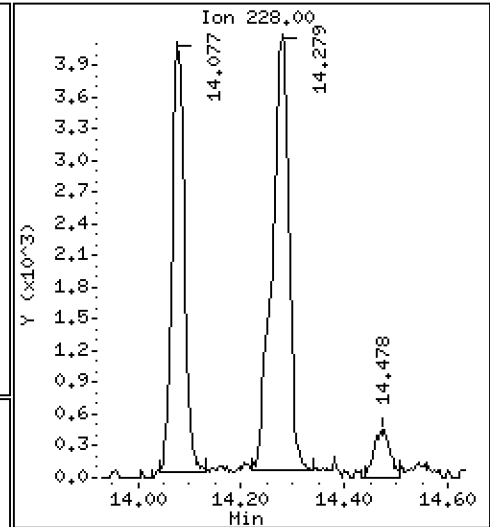
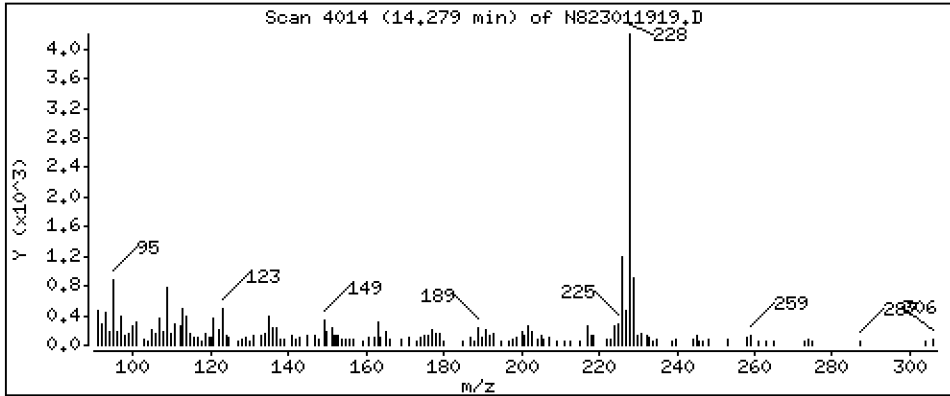
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

27 Chrysene

Concentration: 1,166 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

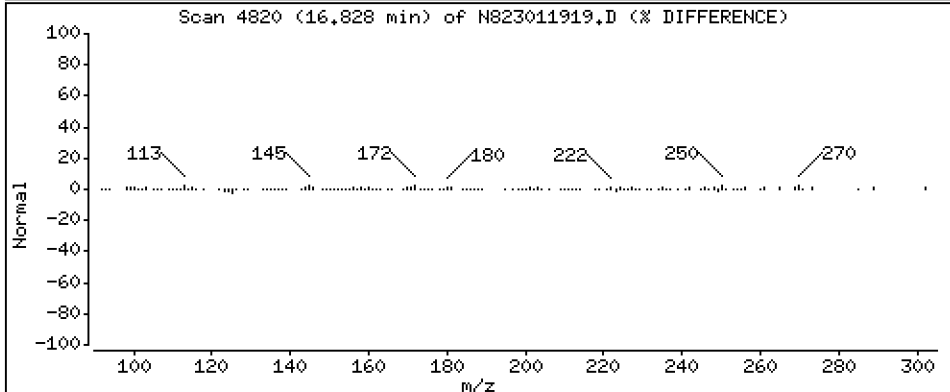
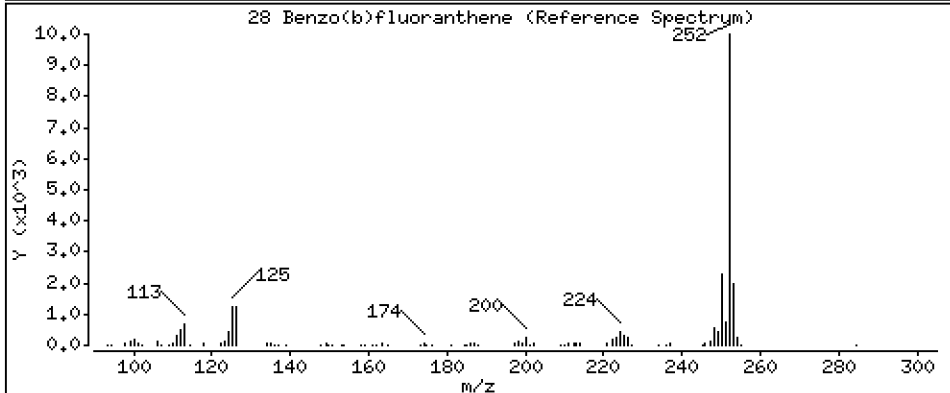
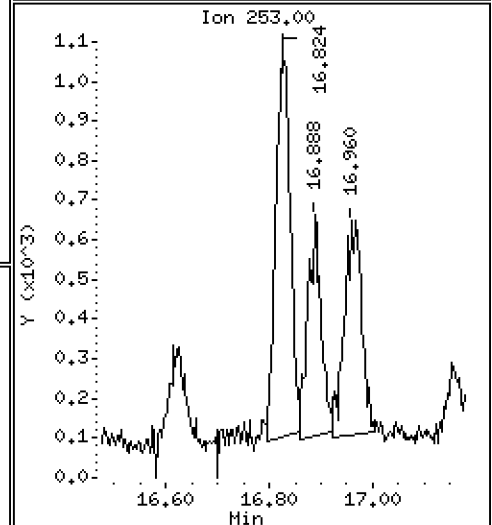
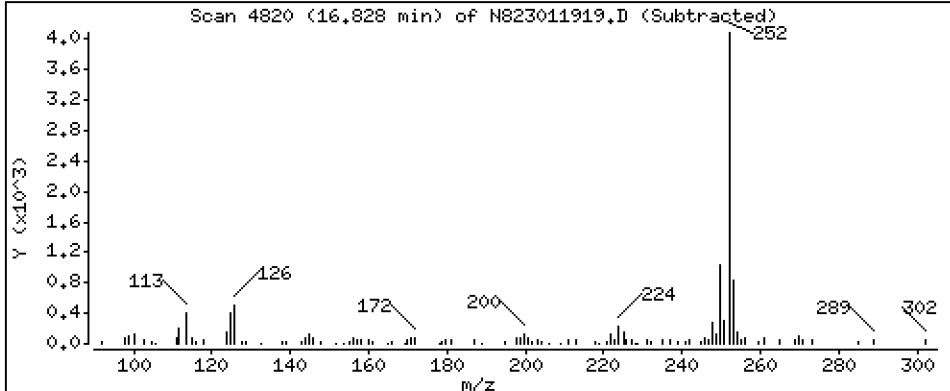
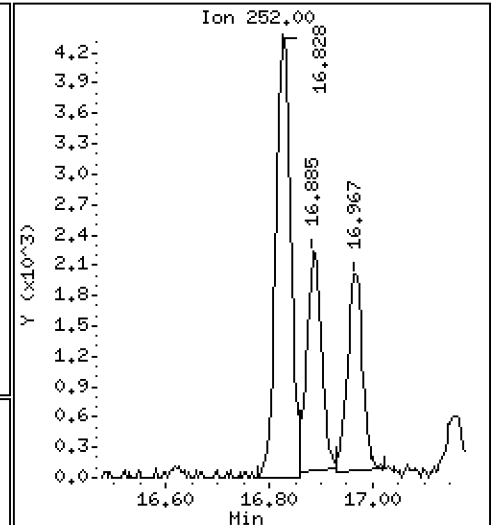
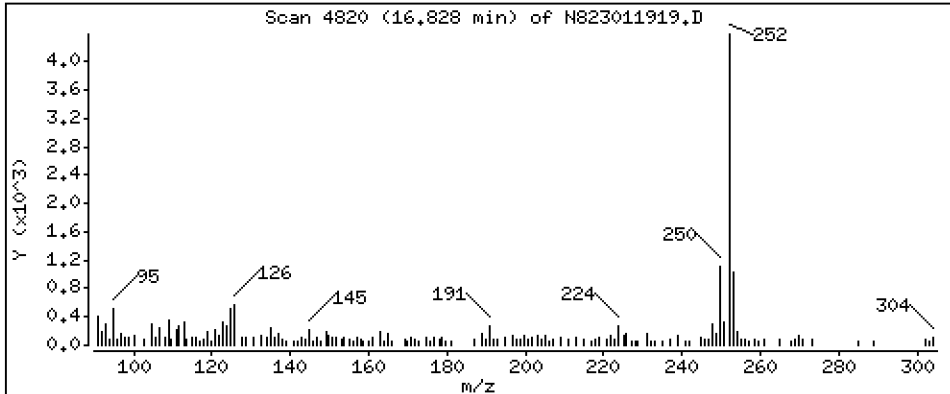
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

28 Benzo(b)fluoranthene

Concentration: 1,171 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

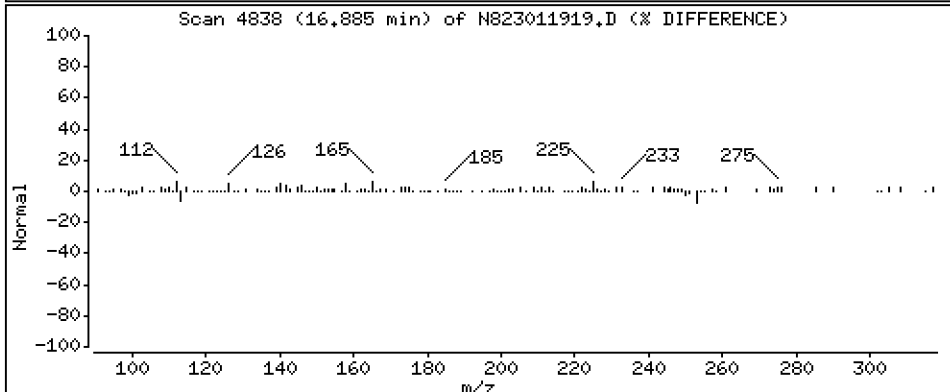
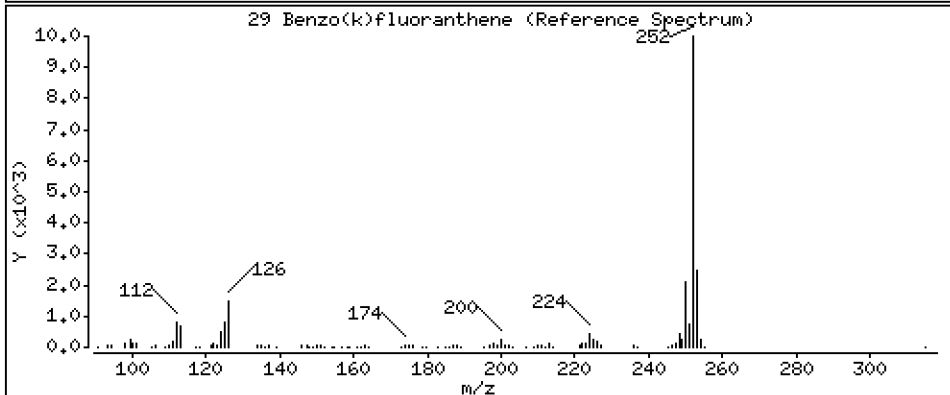
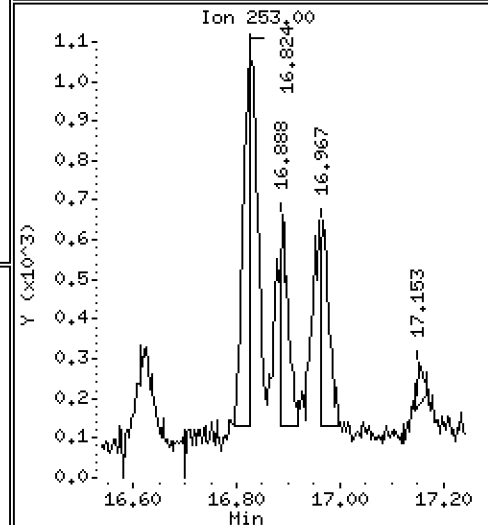
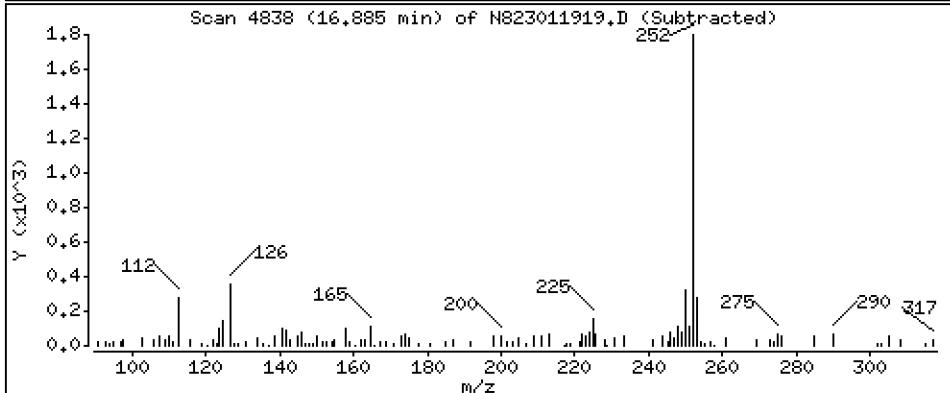
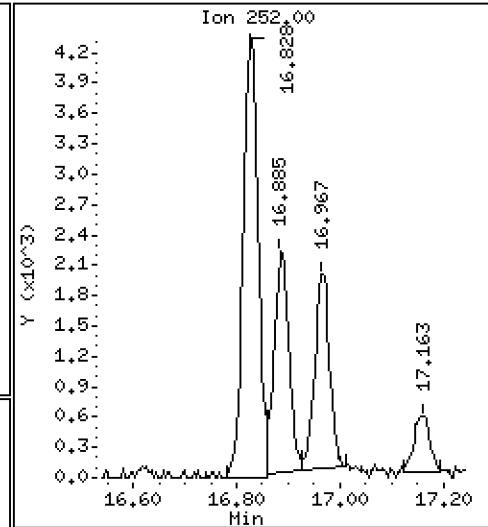
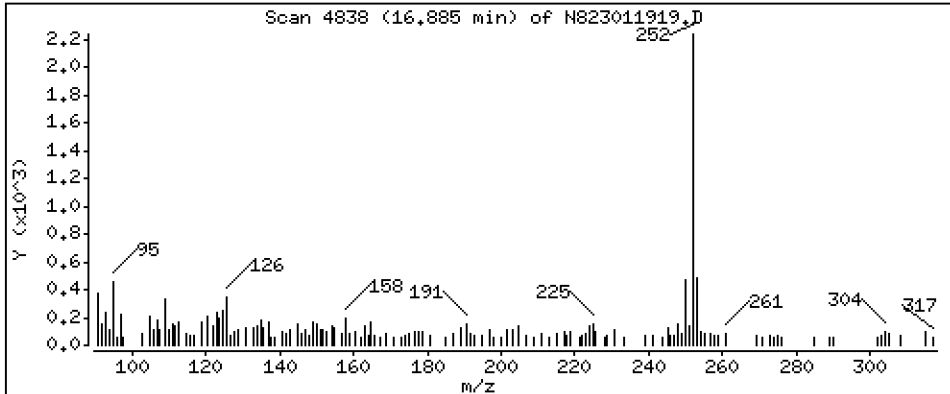
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

29 Benzo(k)fluoranthene

Concentration: 0,5921 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

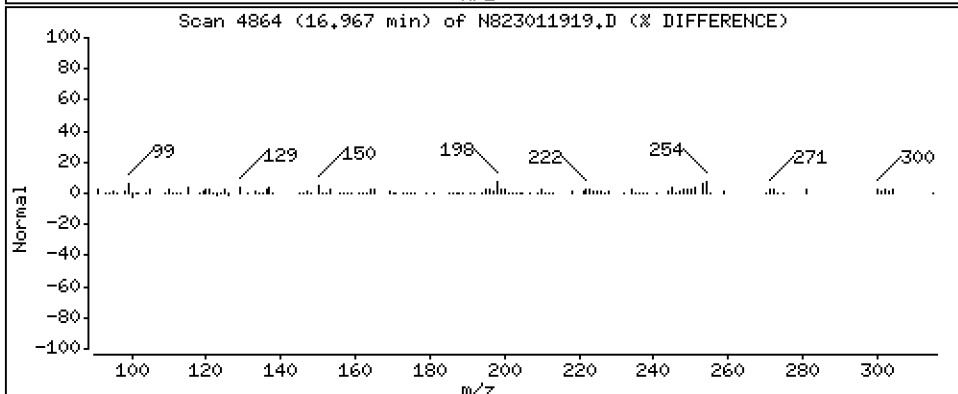
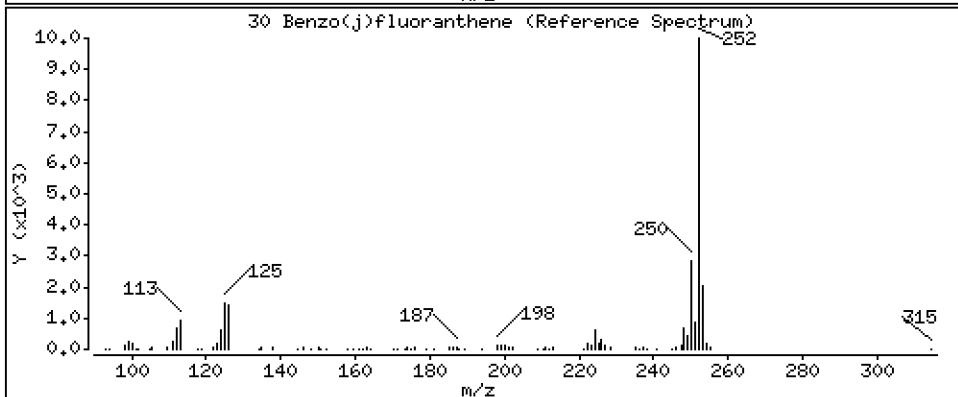
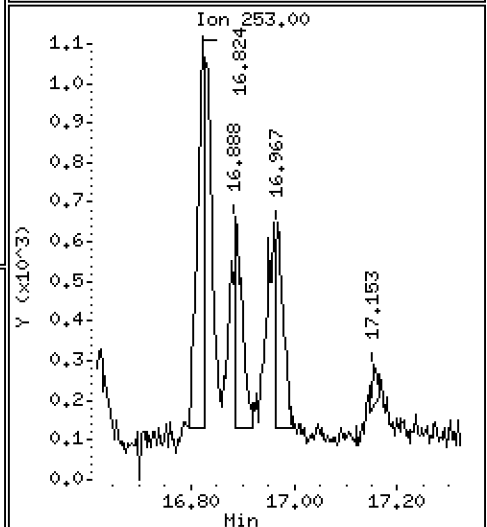
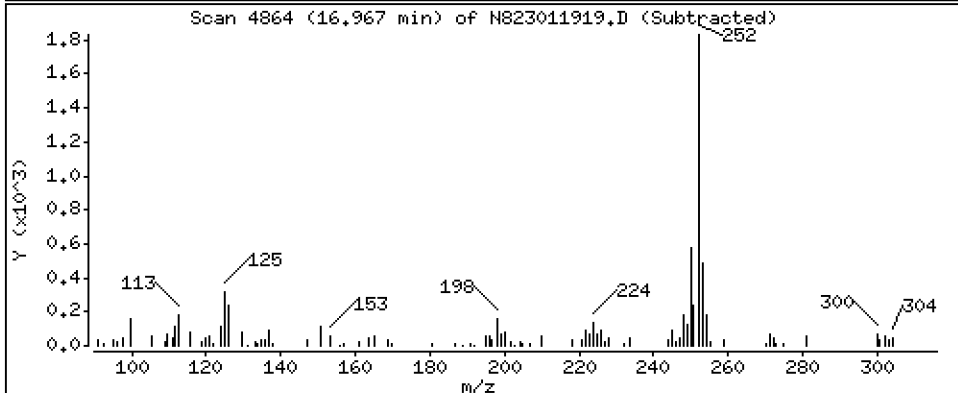
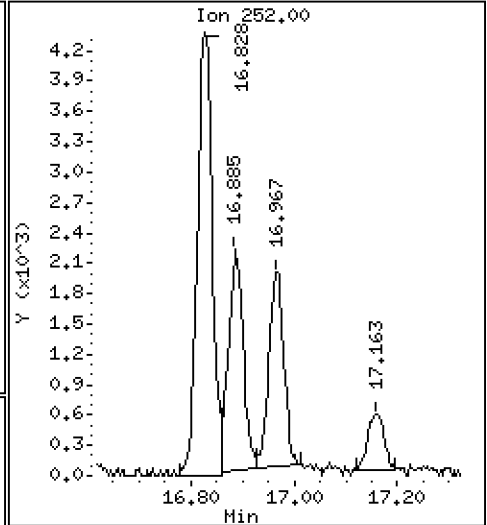
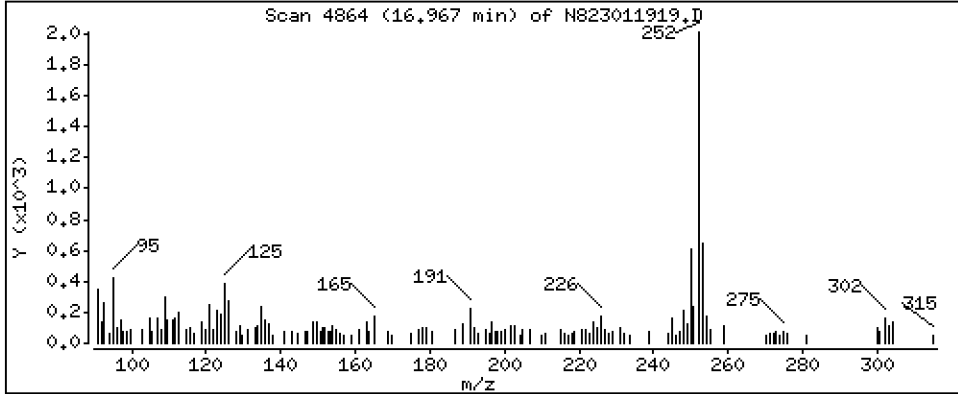
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

30 Benzo(j)fluoranthene

Concentration: 0,5792 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

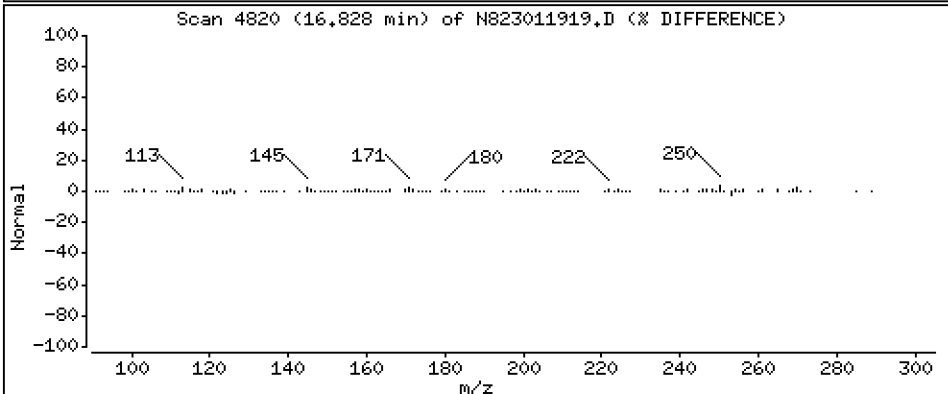
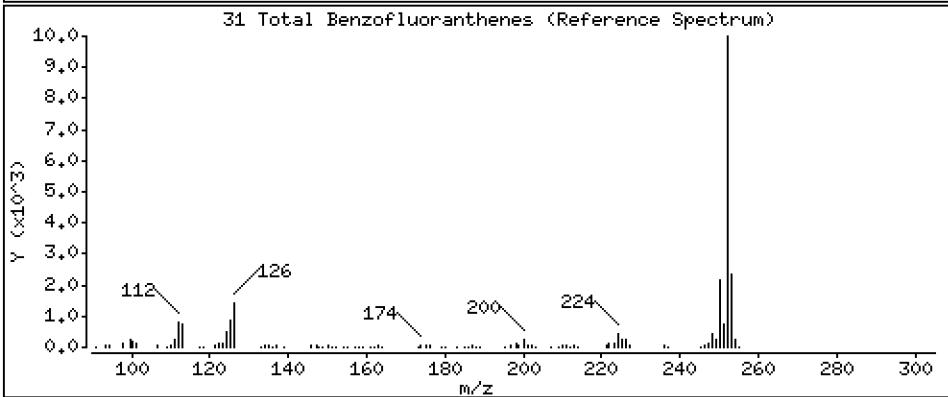
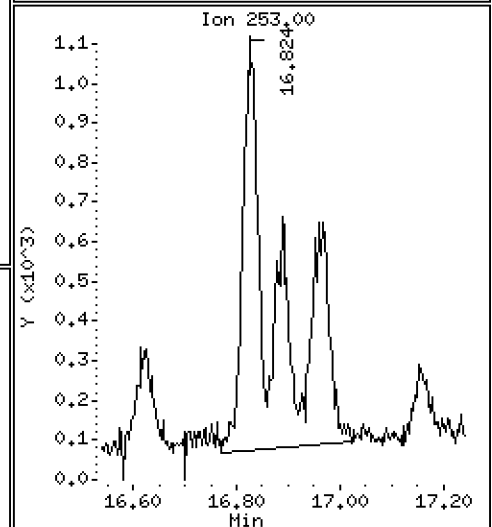
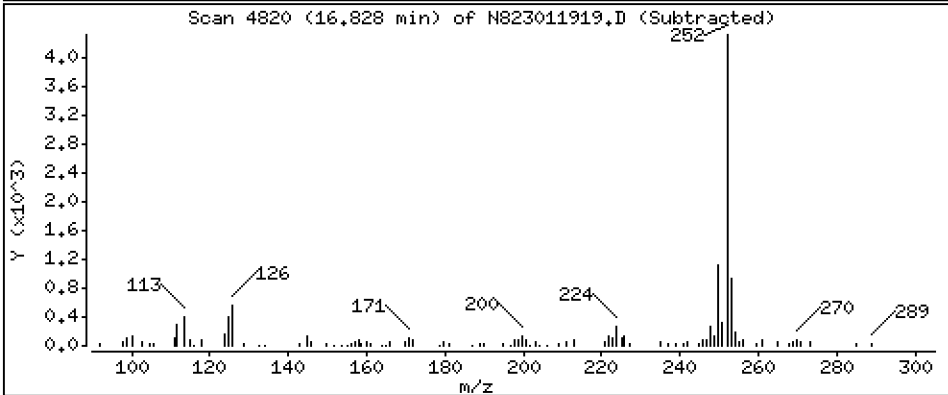
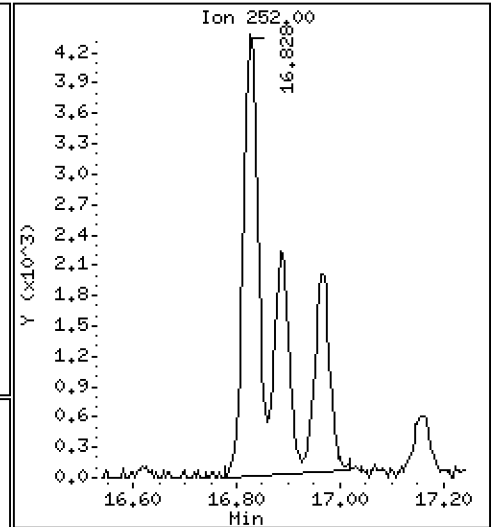
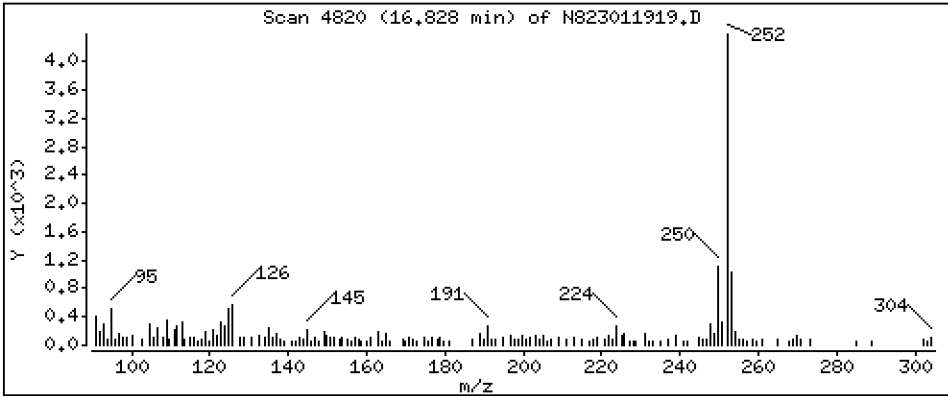
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

31 Total Benzofluoranthenes

Concentration: 2,402 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

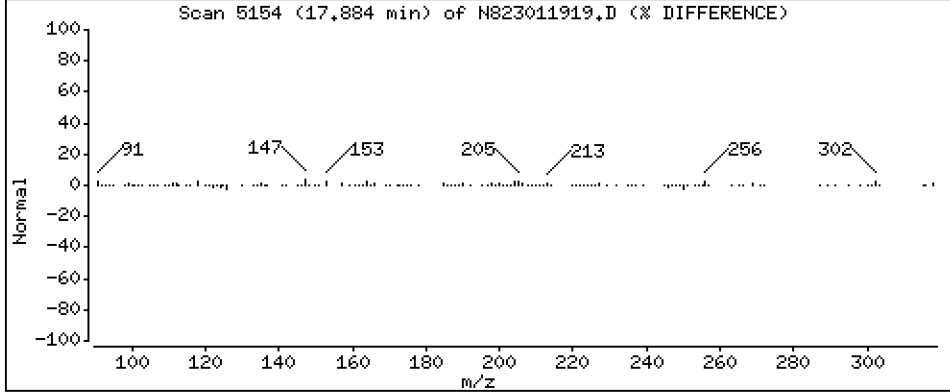
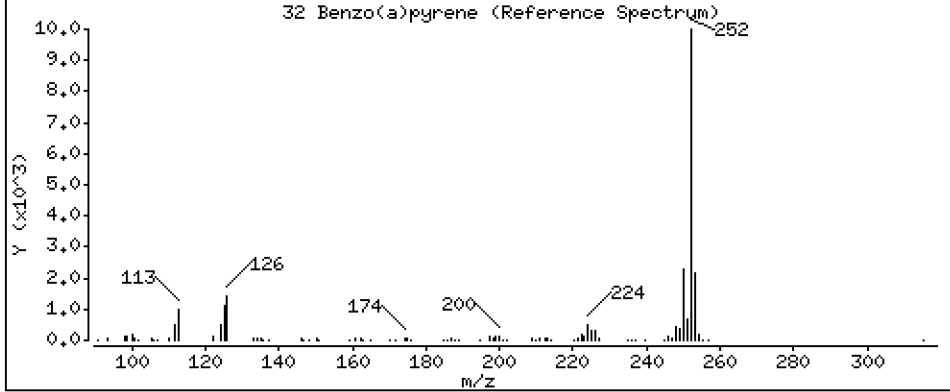
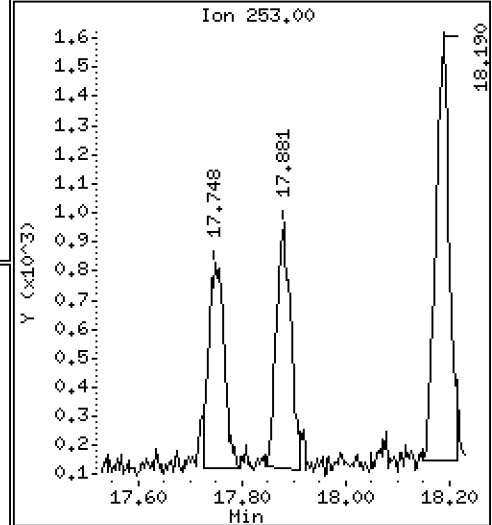
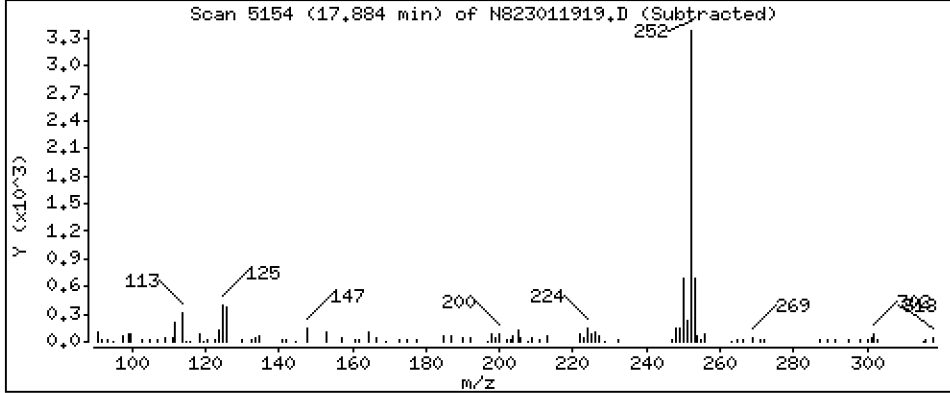
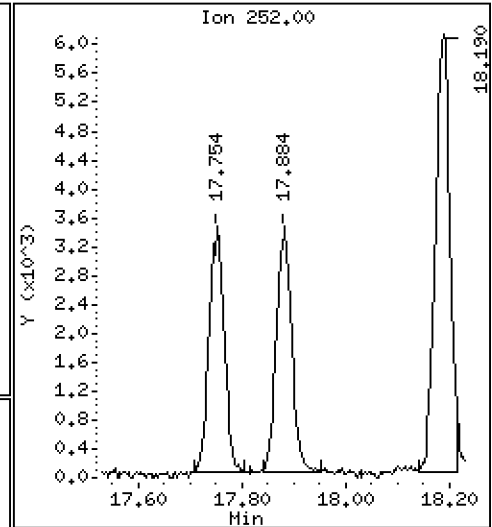
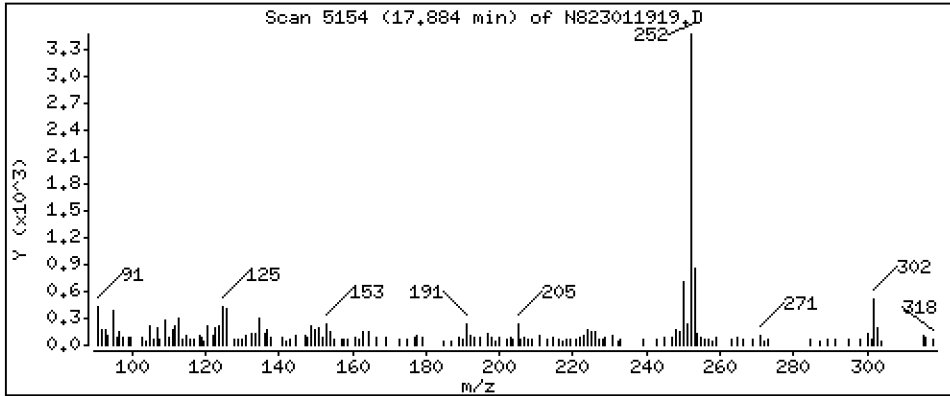
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 1,047 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

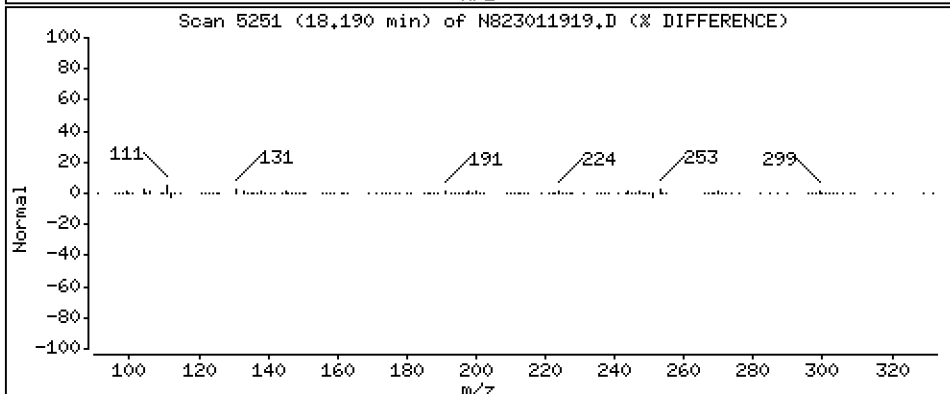
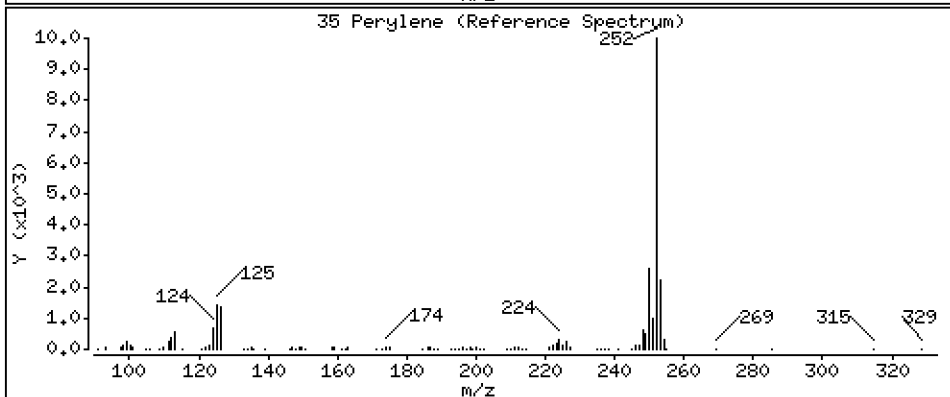
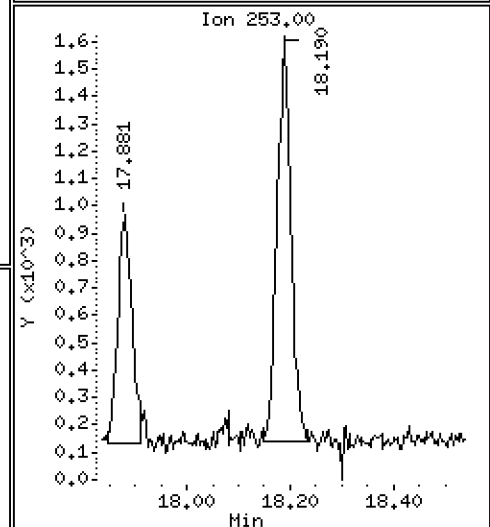
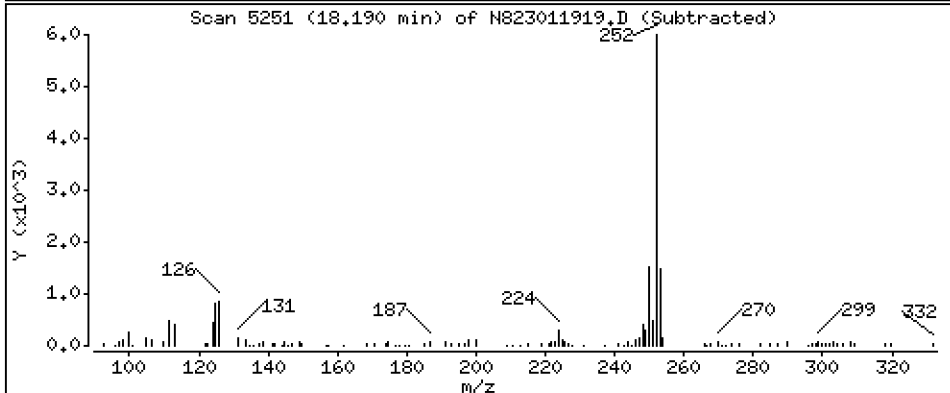
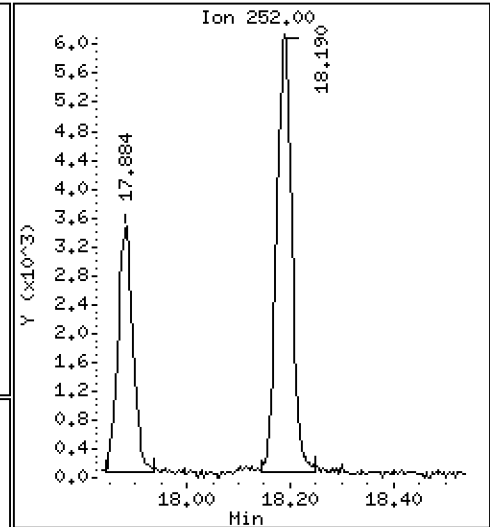
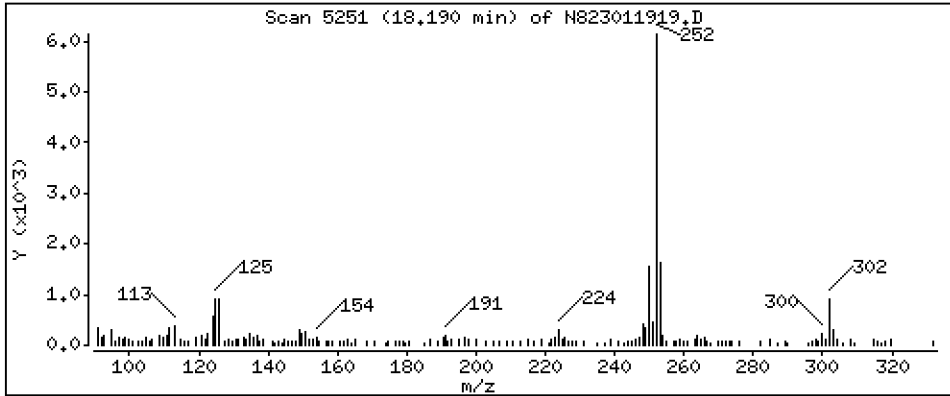
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 1,730 ug/mL

35 Perylene



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

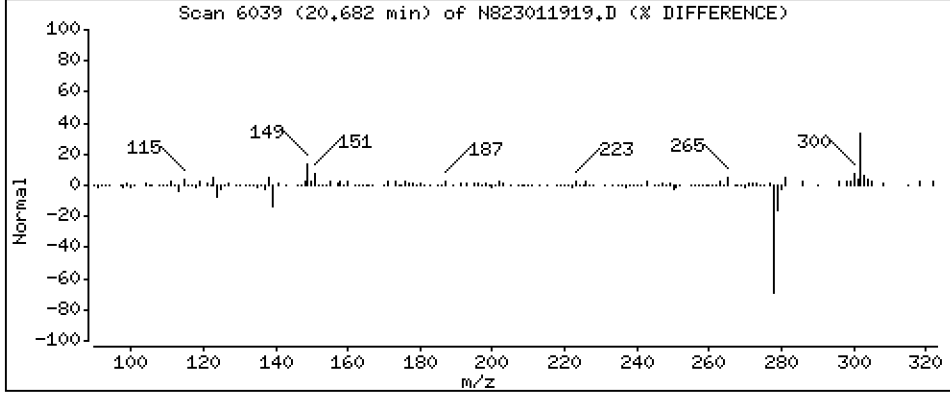
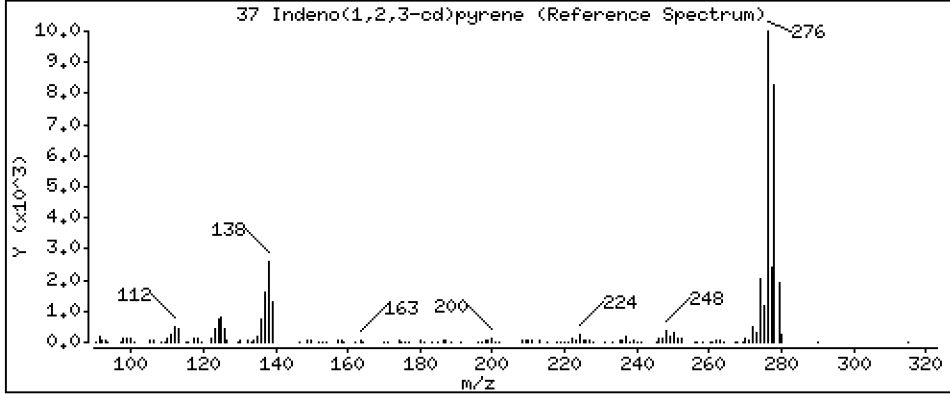
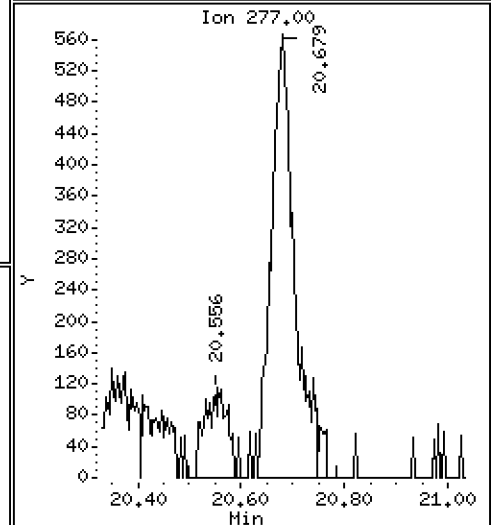
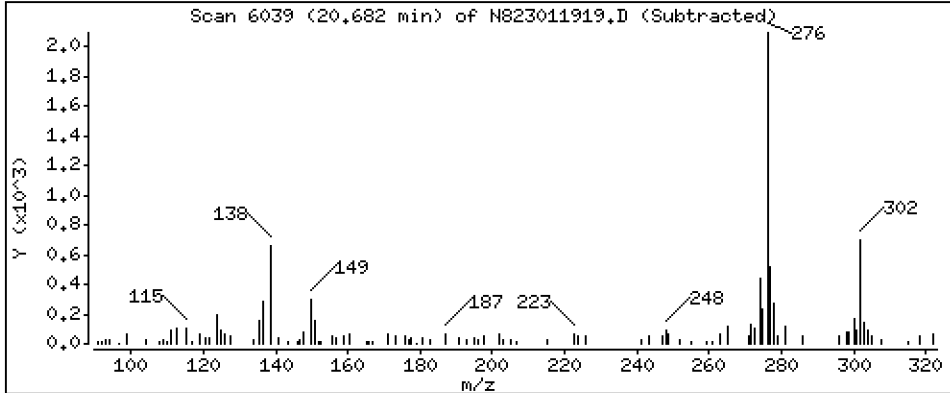
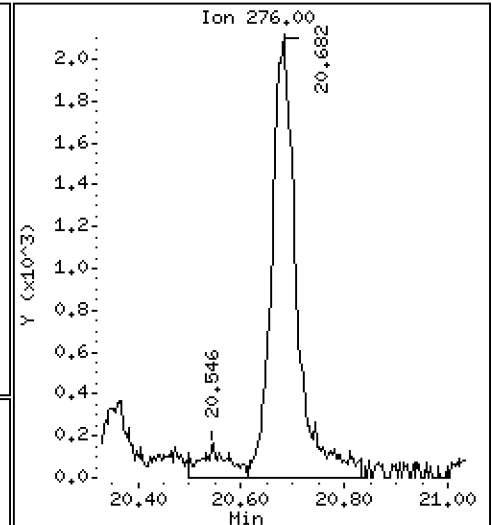
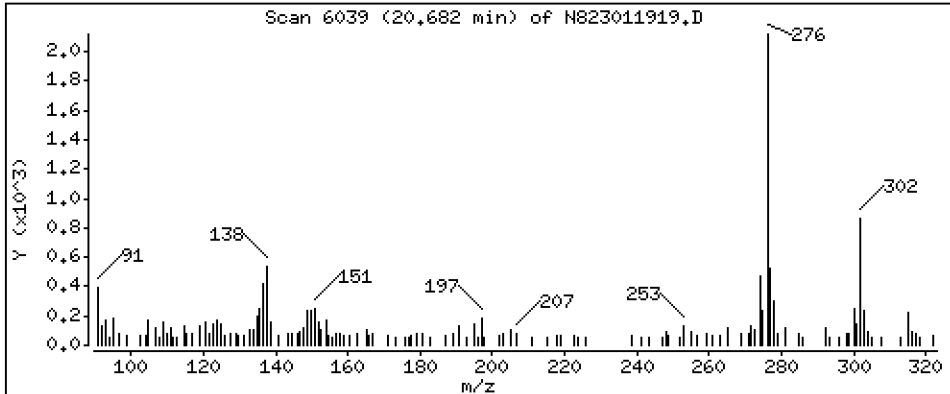
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 0,9356 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

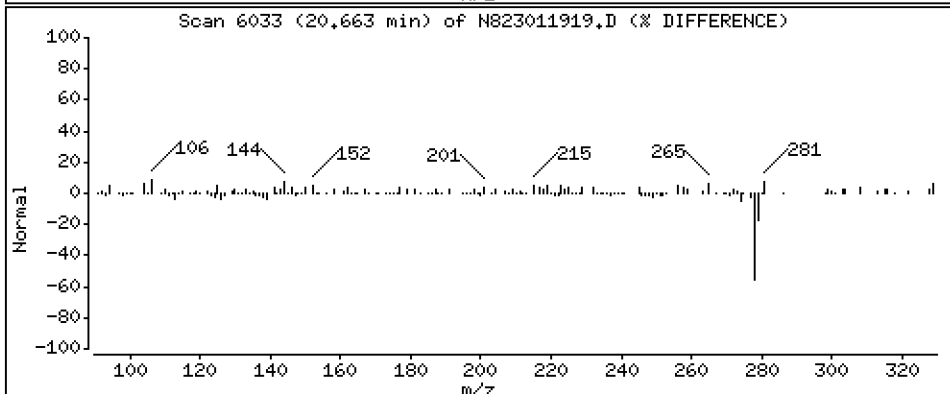
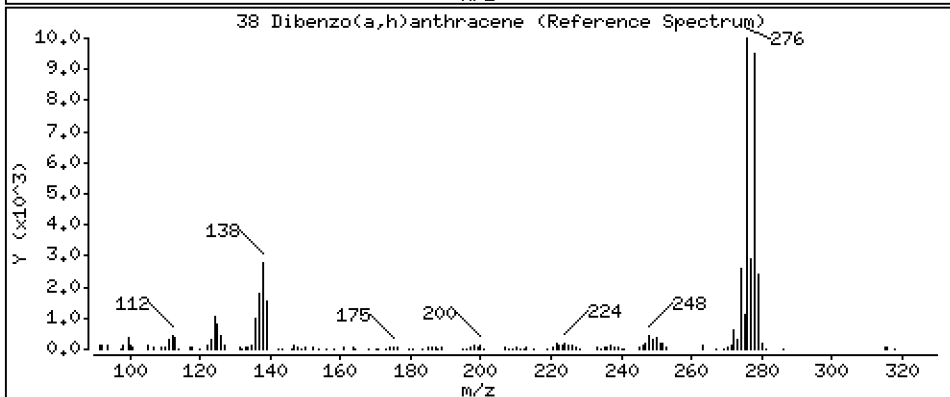
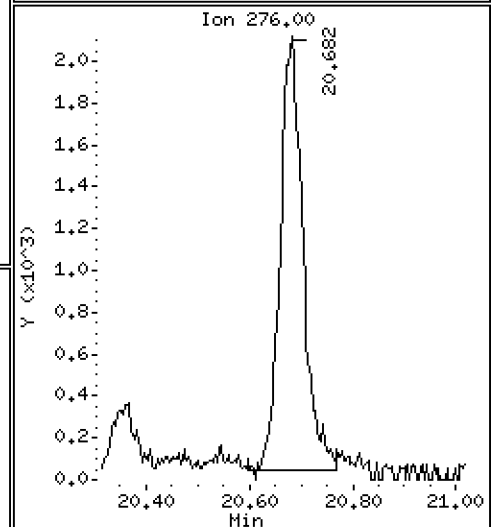
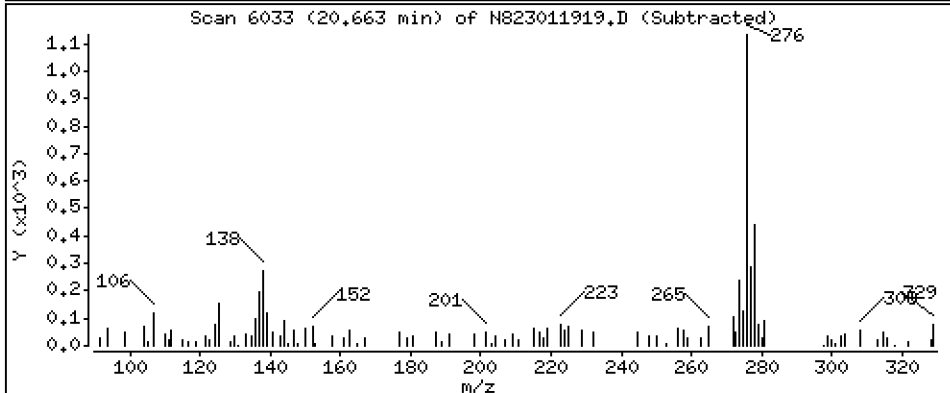
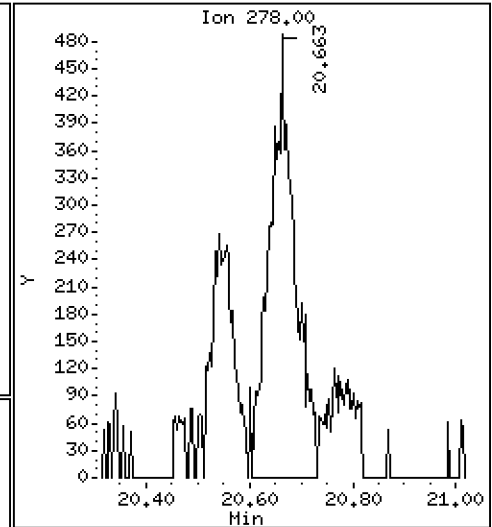
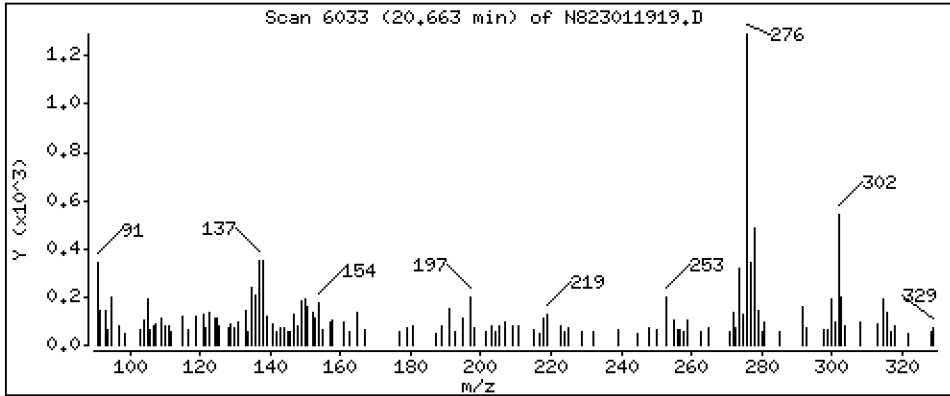
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 0,2460 ug/mL



Date : 19-JAN-2023 19:27

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-03,3

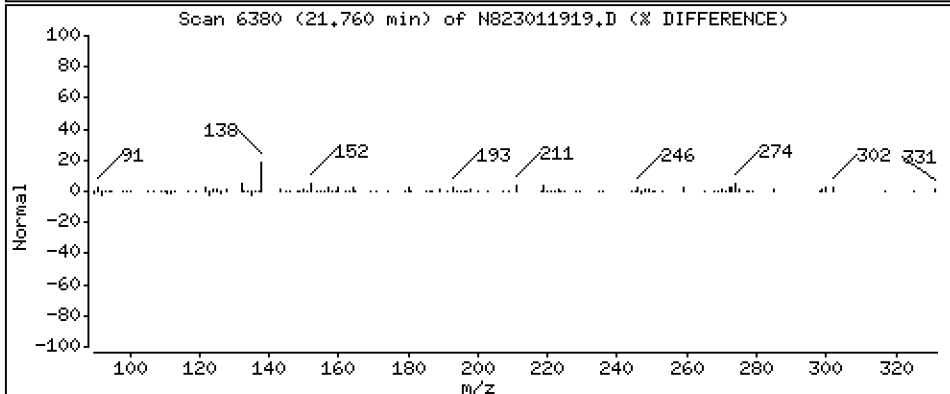
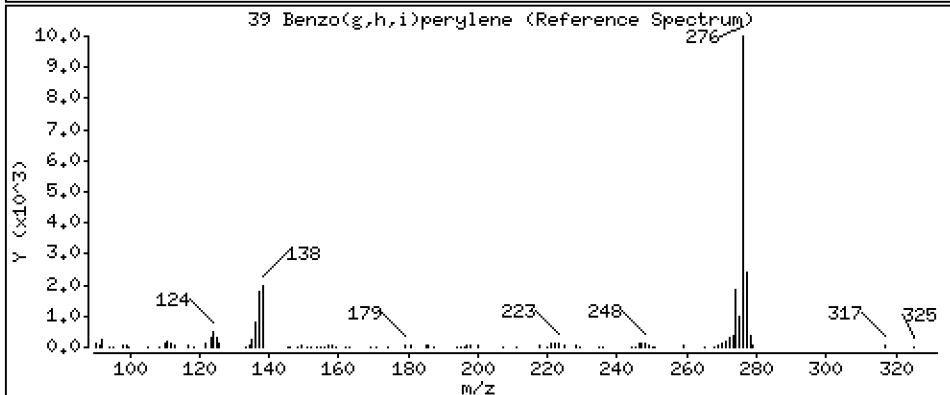
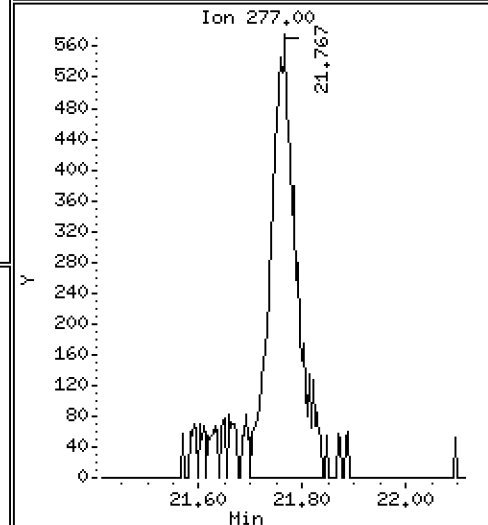
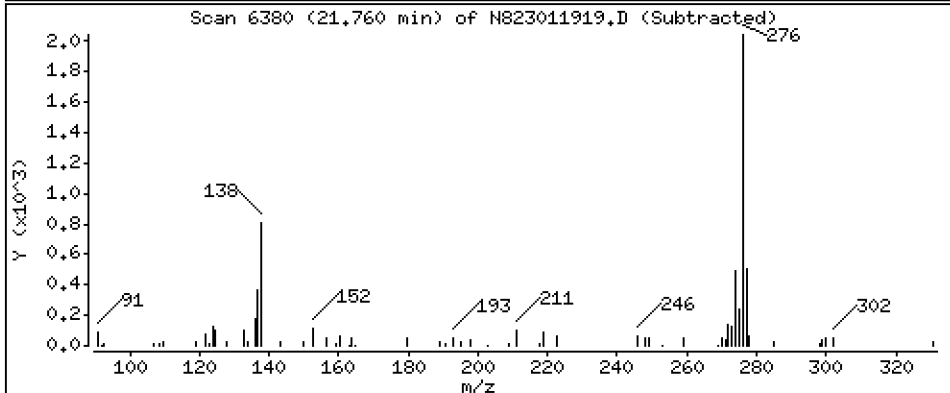
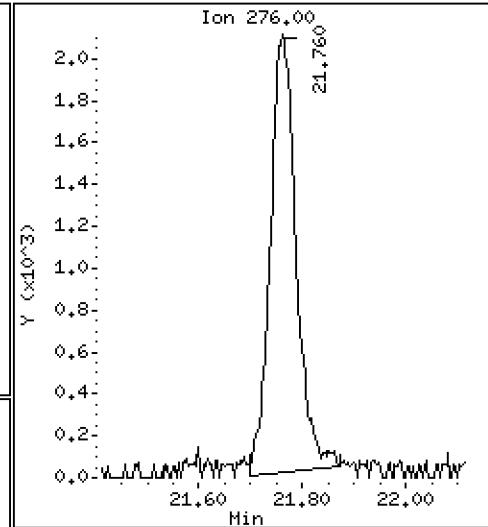
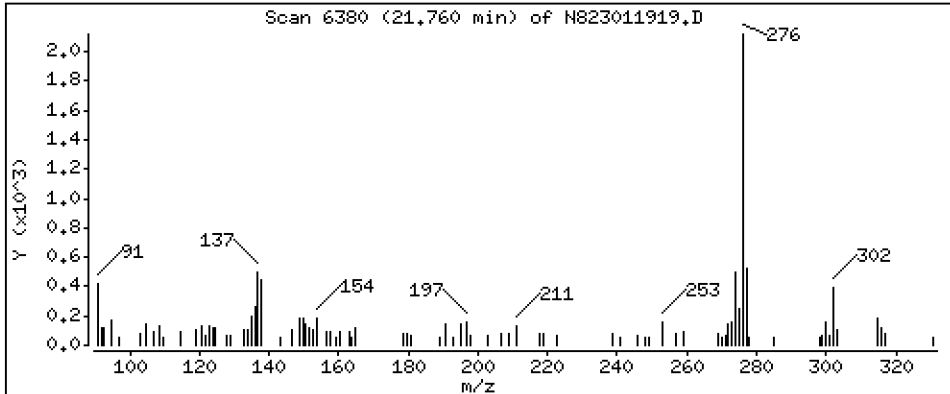
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 1,060 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119A.b\N823011919.D
 Lab Smp Id: 23A0032-03
 Inj Date : 19-JAN-2023 19:27
 Operator : JZ Inst ID: nt8.i
 Smp Info : 23A0032-03,3
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 22:11 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 9
 Dil Factor: 3.00000
 Integrator: HP RTE Compound Sublist: PNAXMDL.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
* 1 Naphthalene-d8	136		4.903	4.909	(1.000)	54137	2.00000	
2 Naphthalene	128		4.932	4.938	(1.006)	845	0.03357	0.1007
\$ 3 2-Methylnaphthalene-d10	152		5.640	5.643	(1.150)	9595	0.64987	1.950
4 2-Methylnaphthalene	141		5.684	5.690	(1.159)	425	0.03070	0.09209
5 1-methylnaphthalene	141		5.884	5.887	(1.200)	384	0.02733	0.08198
9 Acenaphthylene	152		7.085	7.088	(0.985)	628	0.02497	0.07491
* 10 Acenaphthene-d10	164		7.196	7.199	(1.000)	33307	2.00000	
11 Acenaphthene	153		7.243	7.246	(1.007)	399	0.02368	0.07103
12 Dibenzofuran	168		7.395	7.398	(1.028)	537	0.02098	0.06294
14 Fluorene	166		7.876	7.875	(1.094)	596	0.02998	0.08994
* 15 Phenanthrene-d10	188		9.235	9.238	(1.000)	59485	2.00000	
16 Phenanthrene	178		9.270	9.270	(1.004)	7524	0.25894	0.7768
17 Anthracene	178		9.314	9.311	(1.009)	1967	0.07452	0.2236
22 Fluoranthene	202		11.060	11.053	(1.198)	20776	0.65687	1.971
\$ 21 Fluoranthene-d10	212		11.022	11.015	(1.193)	20393	0.77704	2.331
23 Pyrene	202		11.588	11.575	(0.816)	20409	0.81741	2.452
24 Benzo(a)anthracene	228		14.076	14.079	(0.991)	7128	0.31497	0.9449
* 25 Chrysene-d12	240		14.209	14.209	(1.000)	40272	2.00000	
27 Chrysene	228		14.279	14.282	(1.005)	9366	0.38877	1.166
28 Benzo(b)fluoranthene	252		16.827	16.827	(0.929)	8884	0.39034	1.171
29 Benzo(k)fluoranthene	252		16.884	16.890	(0.932)	4400	0.19737	0.5921
30 Benzo(j)fluoranthene	252		16.966	16.969	(0.937)	3875	0.19308	0.5792
31 Total Benzofluoranthenes	252		16.827	16.890	(0.929)	17255	0.80052	2.402 (M)
32 Benzo(a)pyrene	252		17.883	17.880	(0.987)	6993	0.34915	1.047
* 33 Perylene-d12	264		18.114	18.117	(1.000)	39079	2.00000	
35 Perylene	252		18.190	18.187	(1.004)	12397	0.57680	1.730
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.552	20.555	(1.135)	13815	0.90223	2.707
37 Indeno(1,2,3-cd)pyrene	276		20.682	20.681	(1.142)	7116	0.31187	0.9356
38 Dibenzo(a,h)anthracene	278		20.663	20.666	(1.141)	1610	0.08199	0.2460
39 Benzo(g,h,i)perylene	276		21.760	21.763	(1.201)	7306	0.35341	1.060

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011919.D Calibration Time: 16:16
 Lab Smp Id: 23A0032-03
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	42524	21262	85048	54137	27.31
10 Acenaphthene-d10	25260	12630	50520	33307	31.86
15 Phenanthrene-d10	47890	23945	95780	59485	24.21
25 Chrysene-d12	40533	20267	81066	40272	-0.64
33 Perylene-d12	38115	19058	76230	39079	2.53

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.90	-0.12
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	-0.04
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	-0.03
25 Chrysene-d12	14.21	13.71	14.71	14.21	0.00
33 Perylene-d12	18.12	17.62	18.62	18.11	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011919.D

Lab ID: 23A0032-03

nt8.i, 20230119A.b\FSIMPNA230119.m, 19-JAN-2023 19:27

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

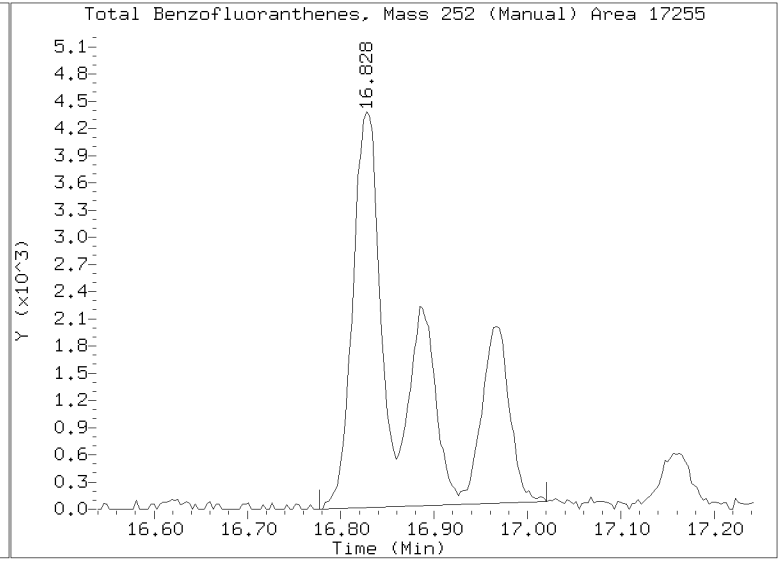
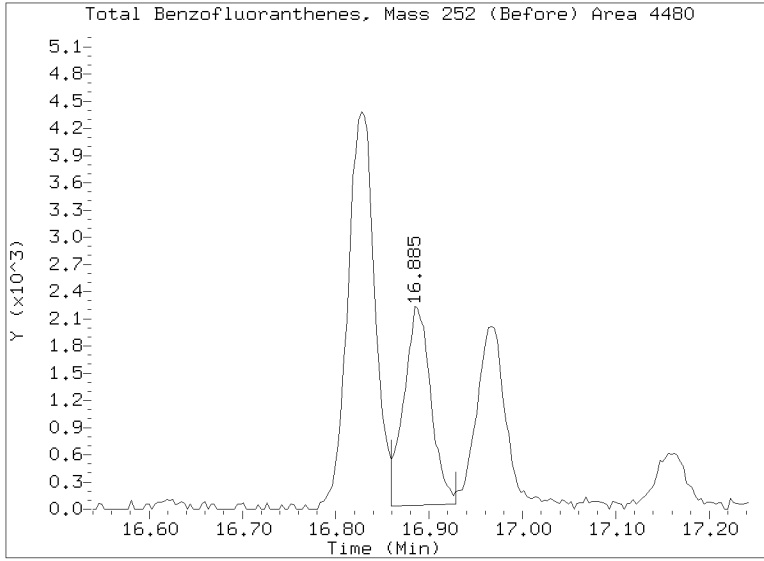
No RRT check performed

On Column LOD for nt8.i, 20230119A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119A.b/N823011919.D
Injection Date: 19-JAN-2023 19:27
Lab ID:23A0032-03 Client ID:
Report Date: 01/25/2023 22:12





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Polynuclear Aromatic Hydrocarbons

Laboratory: Analytical Resources, LLC
 Client: Anchor OEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-04 A SDG: 23A0032
 Sampled: 01/03/23 10:45 Prepared: 01/11/23 11:45 File ID: N823011920.D
 % Solids: 80.13 Preparation: EPA 3546 (Microwave) Analyzed: 01/19/23 19:53
 Batch: BLA0171 Sequence: SLA0228 Initial/Final: 12.49 g Wet / 0.5 mL
 Instrument: NT8 Column: RXI-17Sil ms Calibration: GA00050
 Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
56-55-3	Benzo(a)anthracene	1	11.5		0.82	5.00
218-01-9	Chrysene	1	16.9		1.05	5.00
205-99-2	Benzo(b)fluoranthene	1	12.7		1.37	5.00
207-08-9	Benzo(k)fluoranthene	1	7.68		0.76	5.00
50-32-8	Benzo(a)pyrene	1	17.9		0.61	5.00
193-39-5	Indeno(1,2,3-cd)pyrene	1	10.3		1.05	5.00
53-70-3	Dibenzo(a,h)anthracene	1	3.65	J	0.89	5.00

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	149.88	109	72.9	32 - 120	
Dibenzo[a,h]anthracene-d14	149.88	170	113	21 - 133	
Fluoranthene-d10	149.88	137	91.5	36 - 134	

Data File: \\target\share\chem3\nt8.1\20230119A,B\N823011920.D

Date: 19-Jan-2023 19:53

Client ID:

Sample Info: 23A0032-04

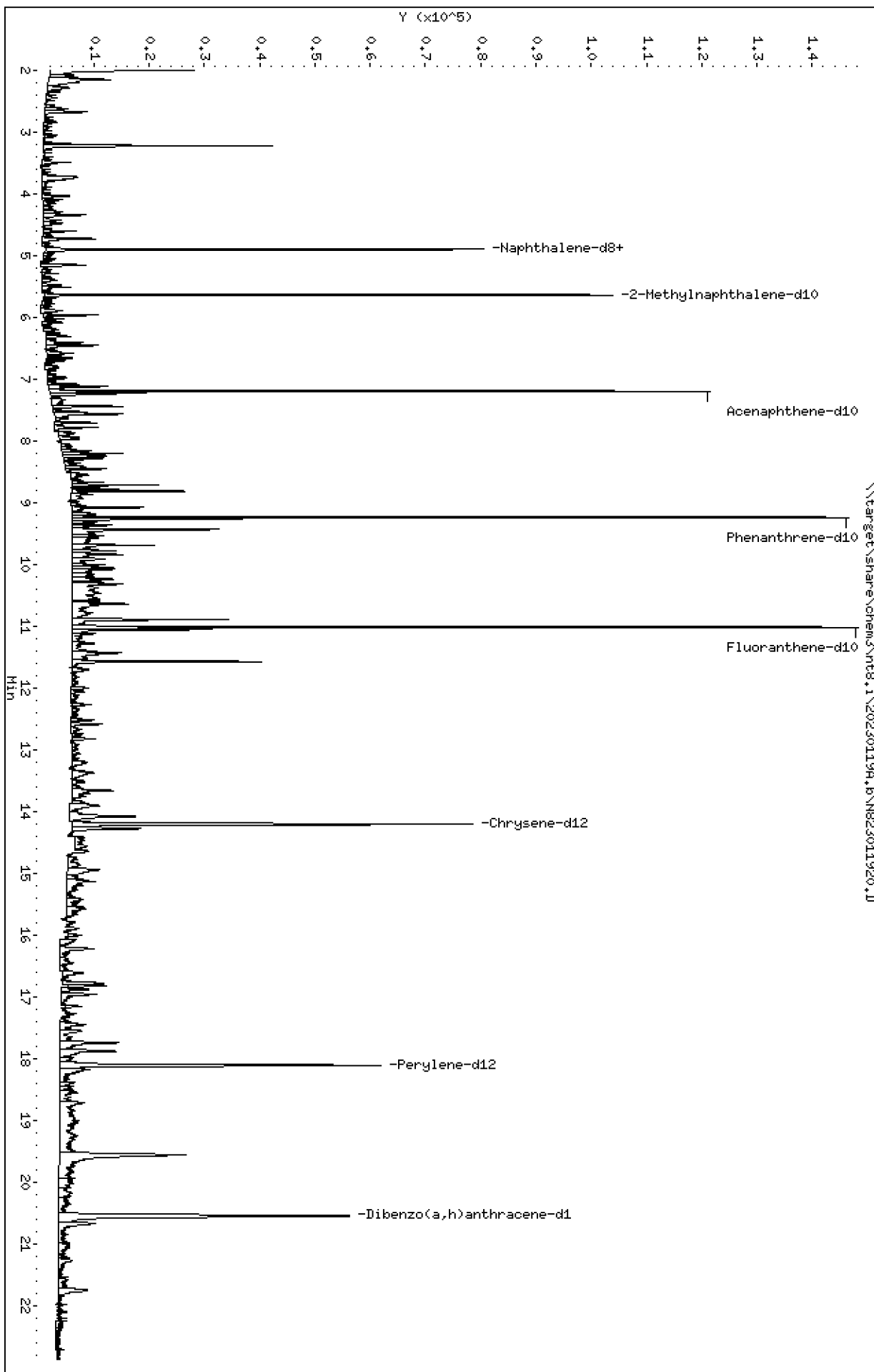
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

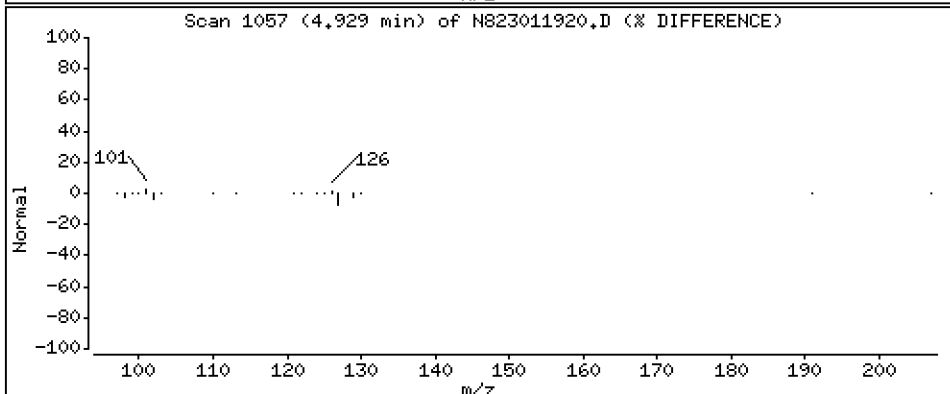
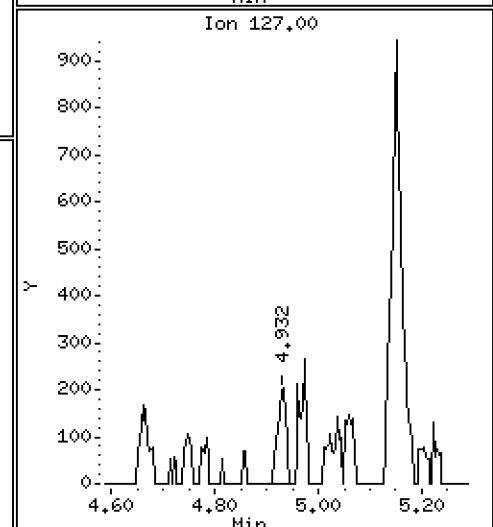
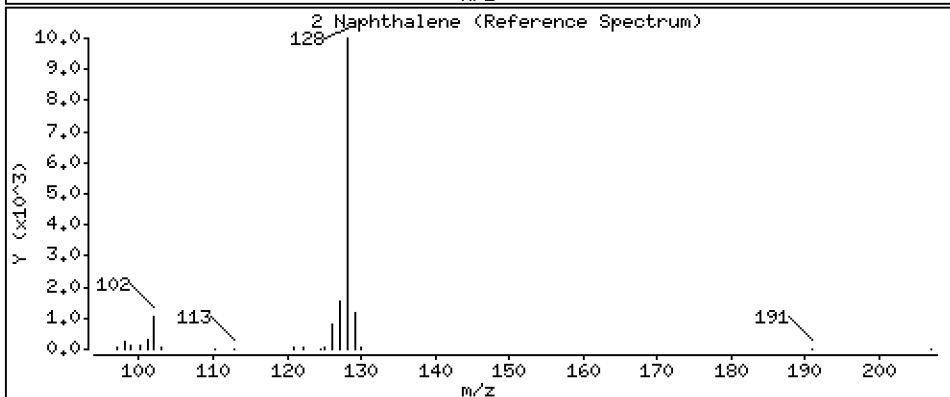
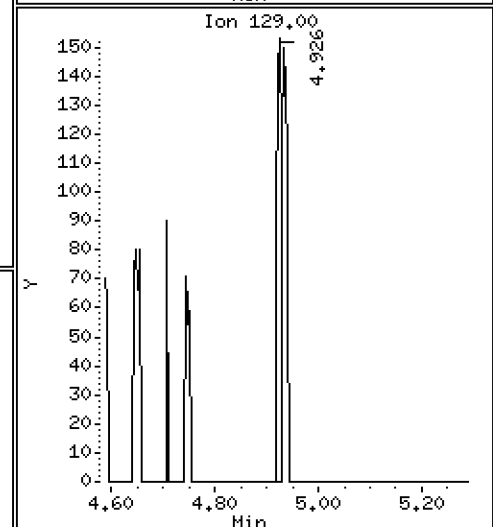
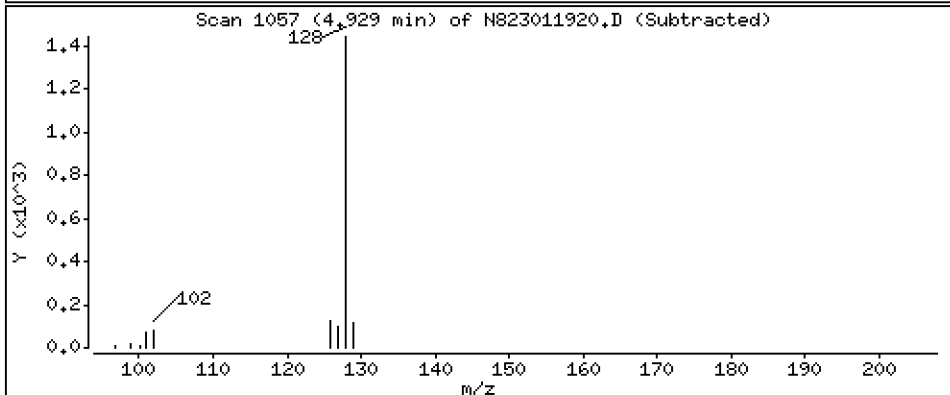
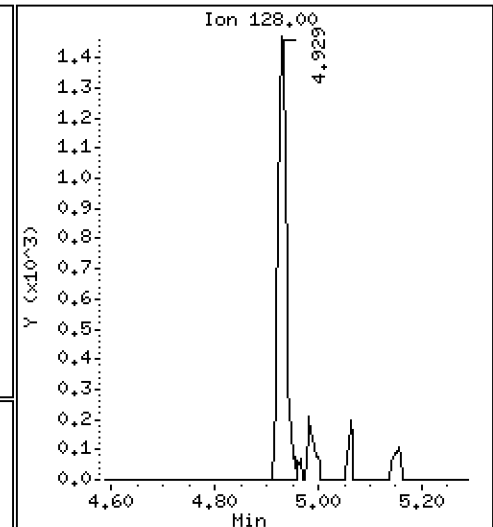
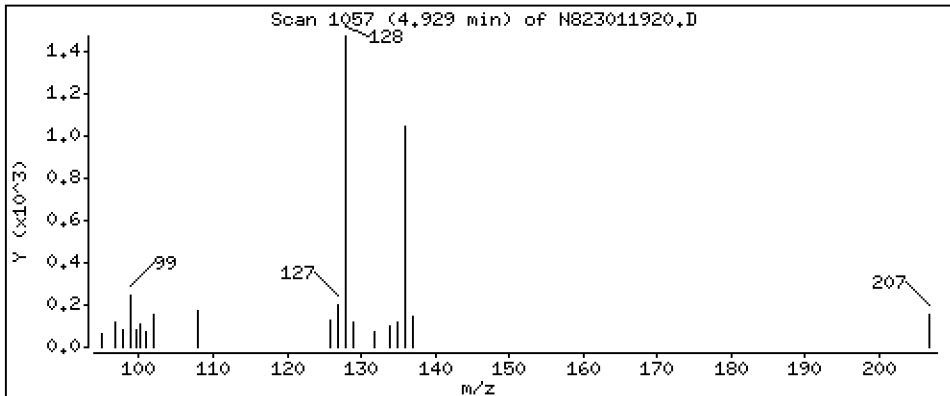
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

2 Naphthalene

Concentration: 0,05898 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

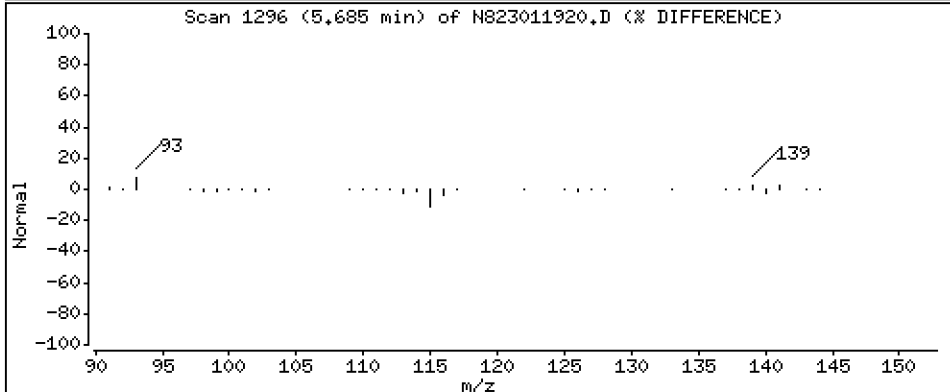
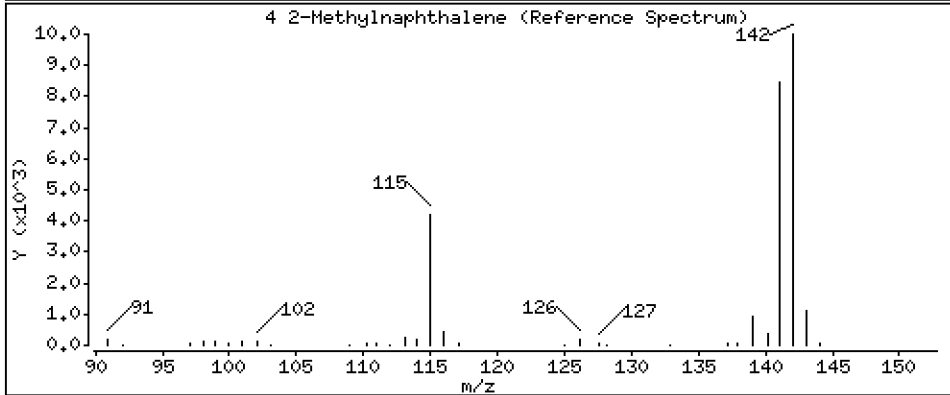
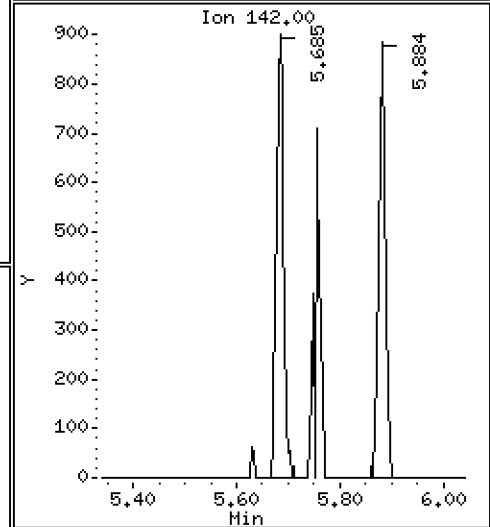
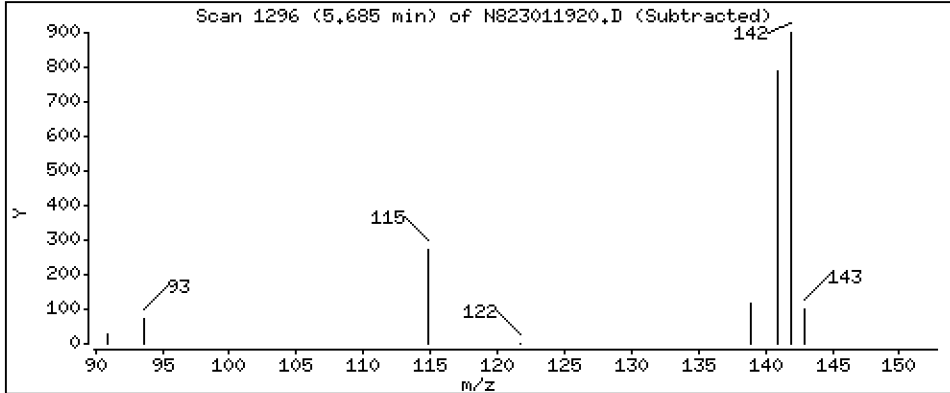
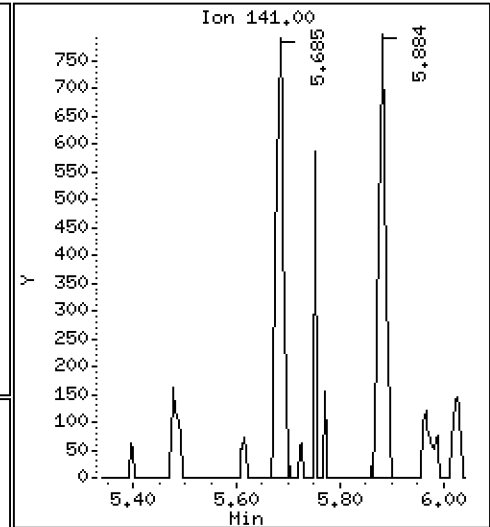
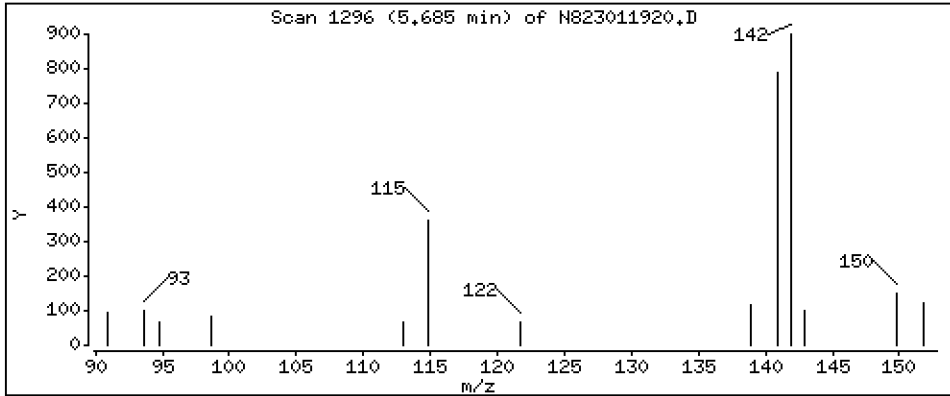
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

4 2-Methylnaphthalene

Concentration: 0,05311 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

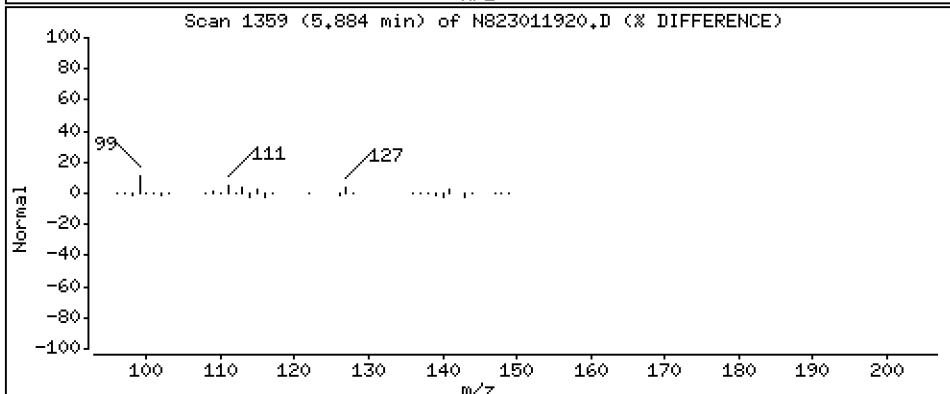
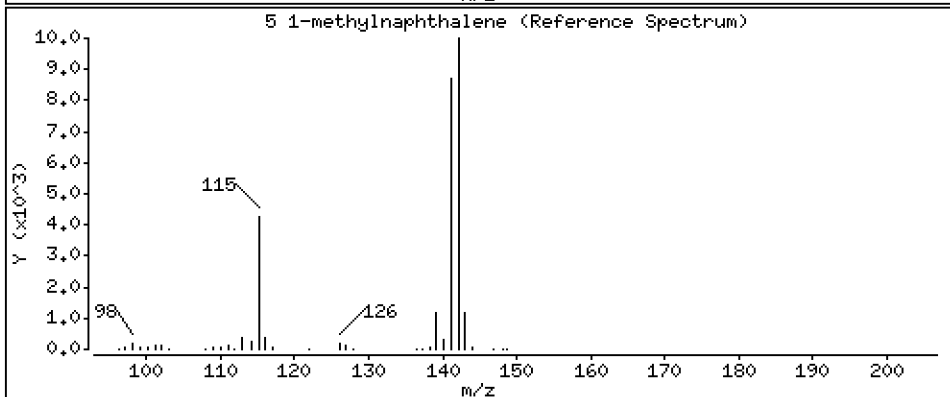
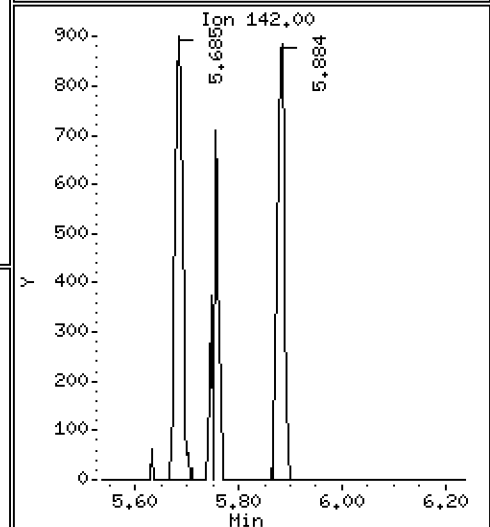
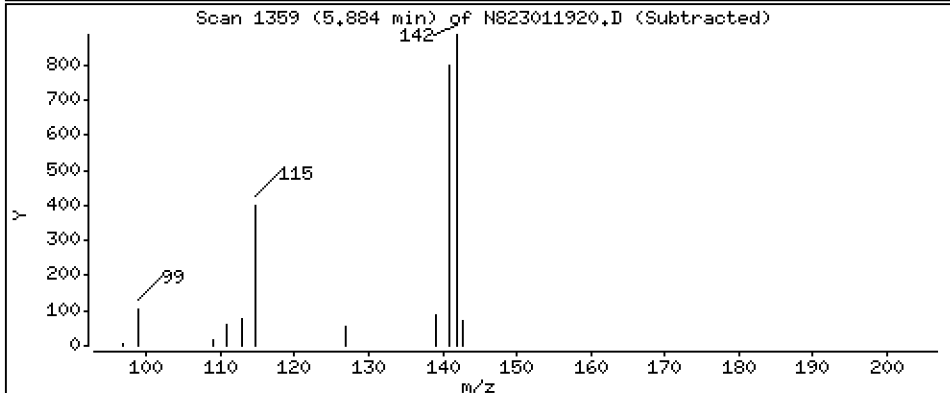
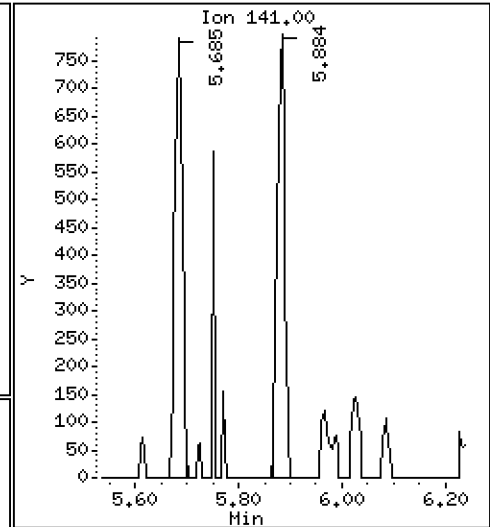
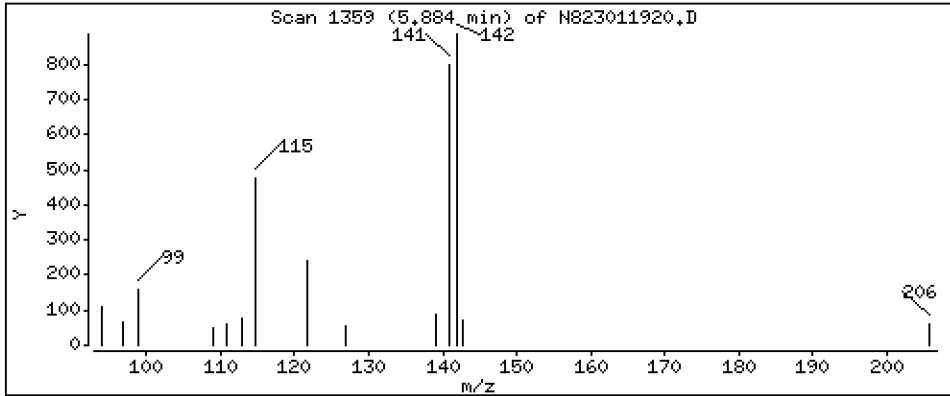
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

5 1-methylnaphthalene

Concentration: 0,05214 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

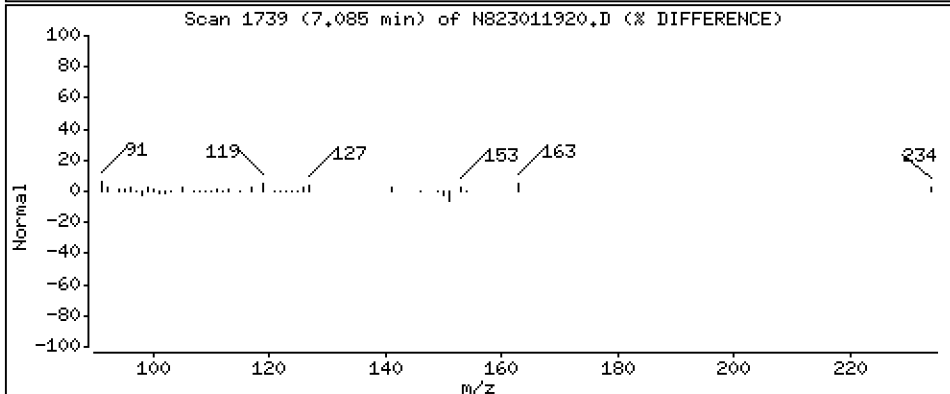
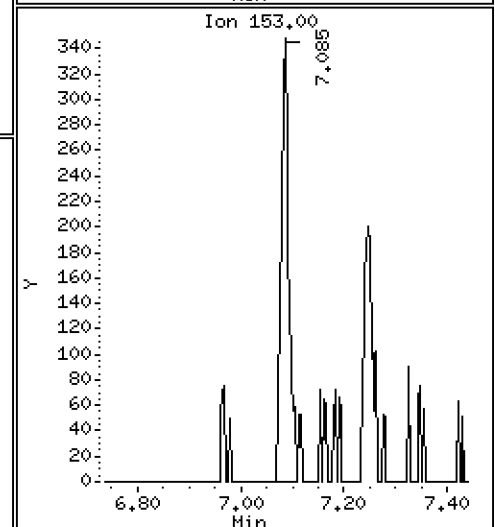
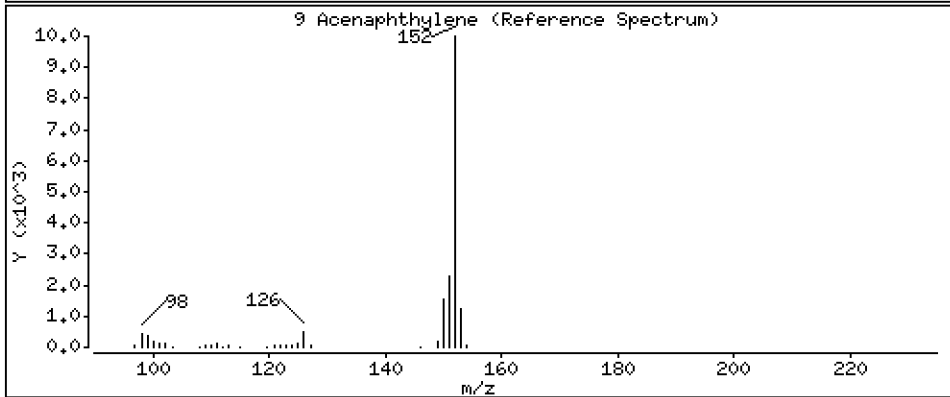
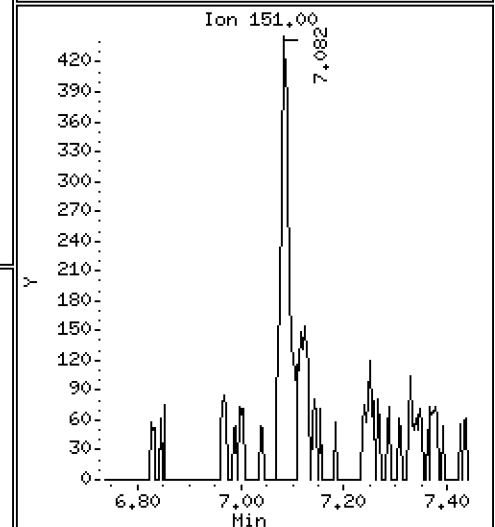
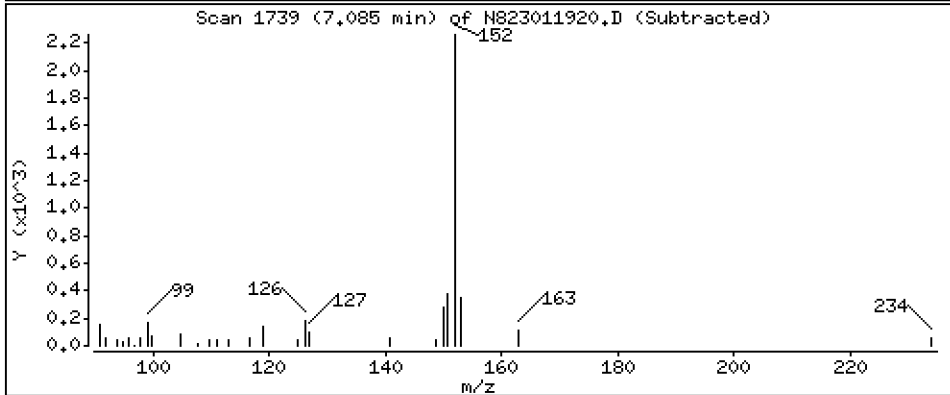
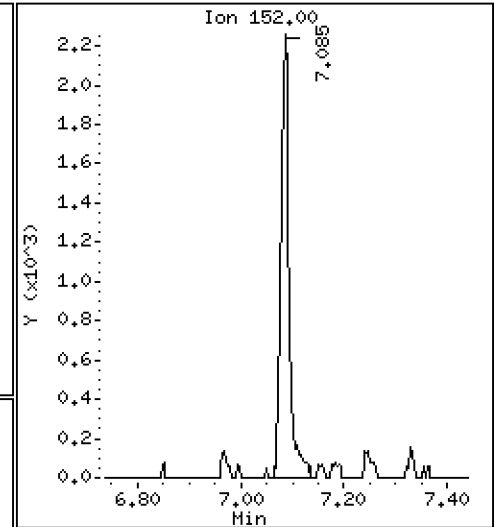
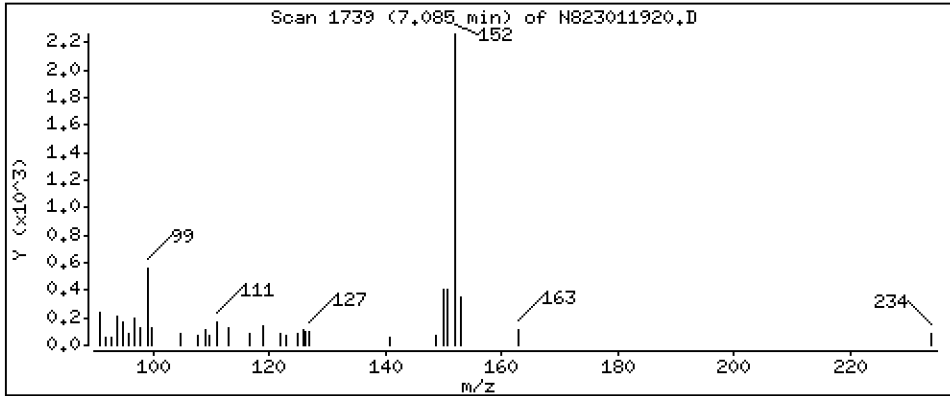
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

9 Acenaphthylene

Concentration: 0.09585 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

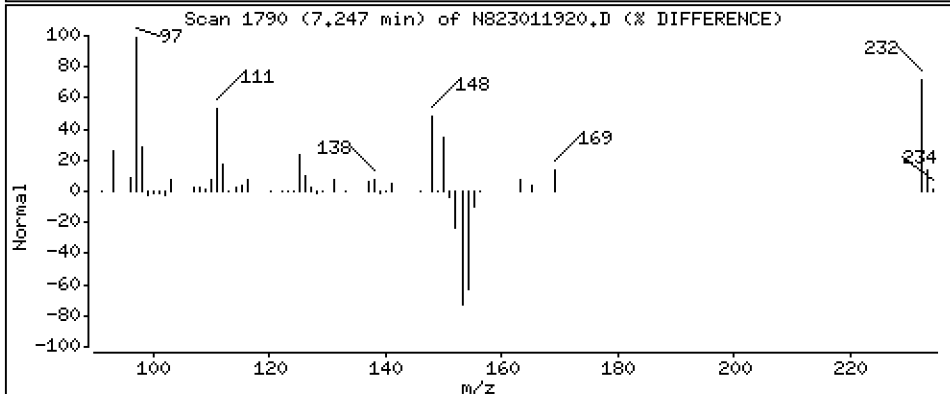
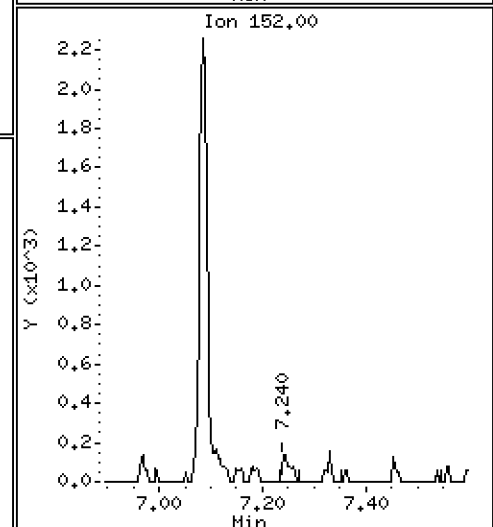
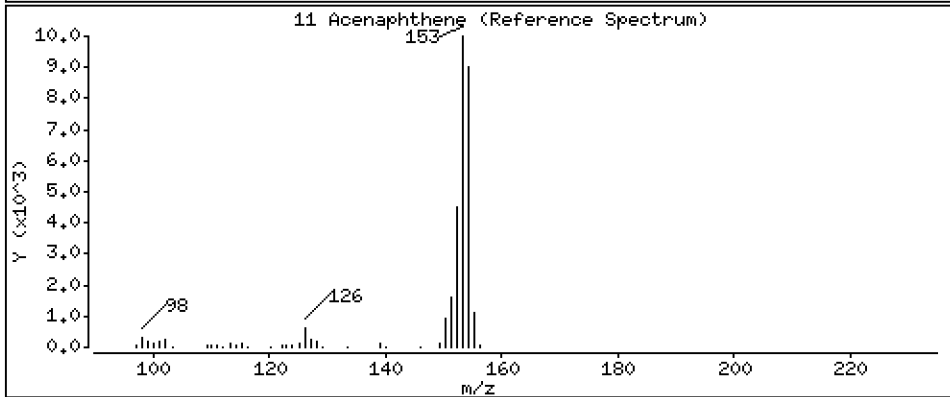
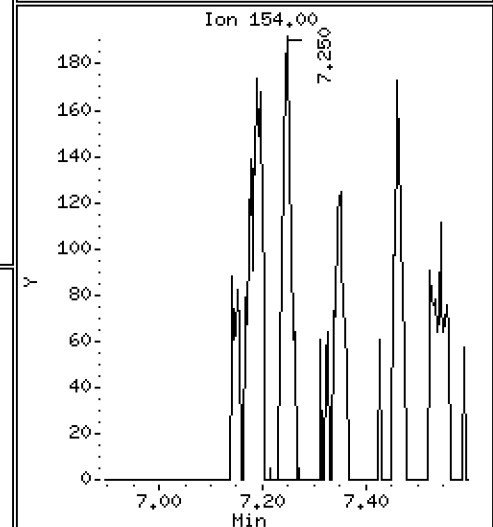
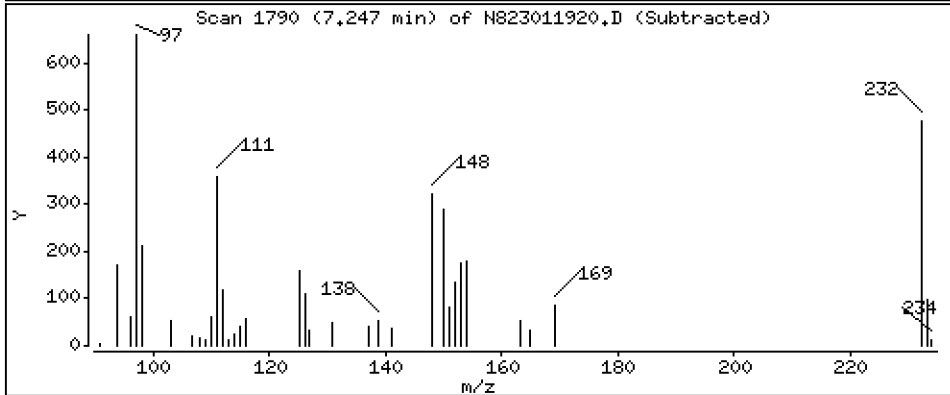
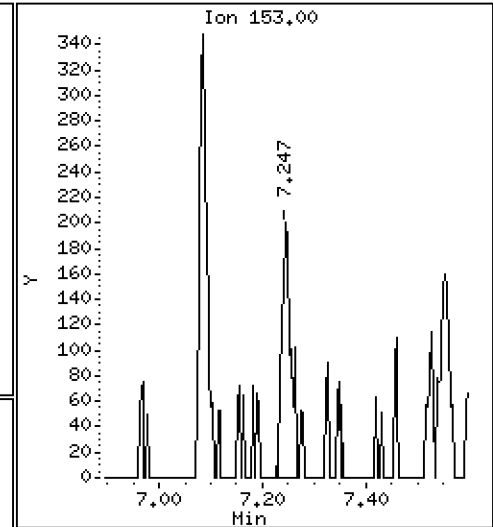
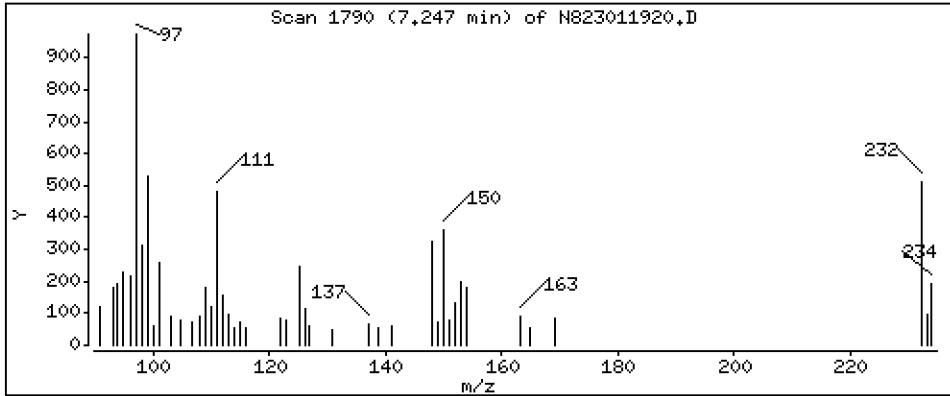
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

Concentration: 0.01385 ug/mL

11 Acenaphthene



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

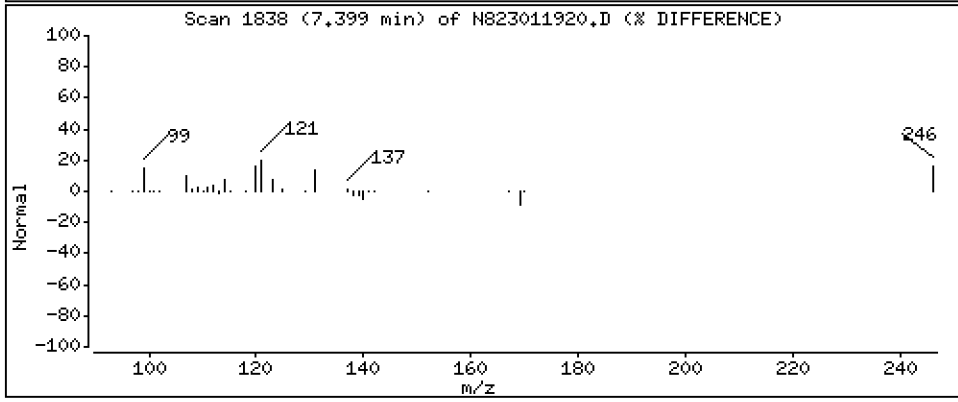
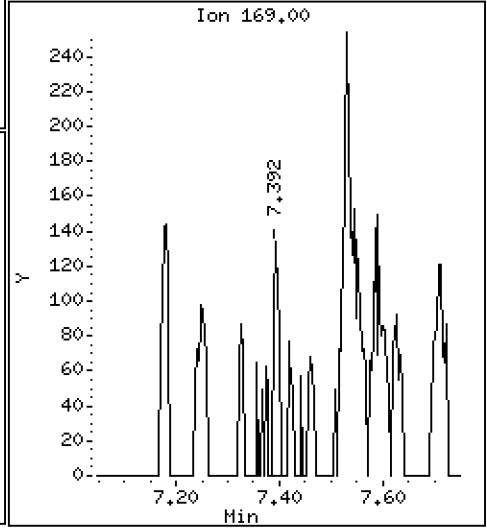
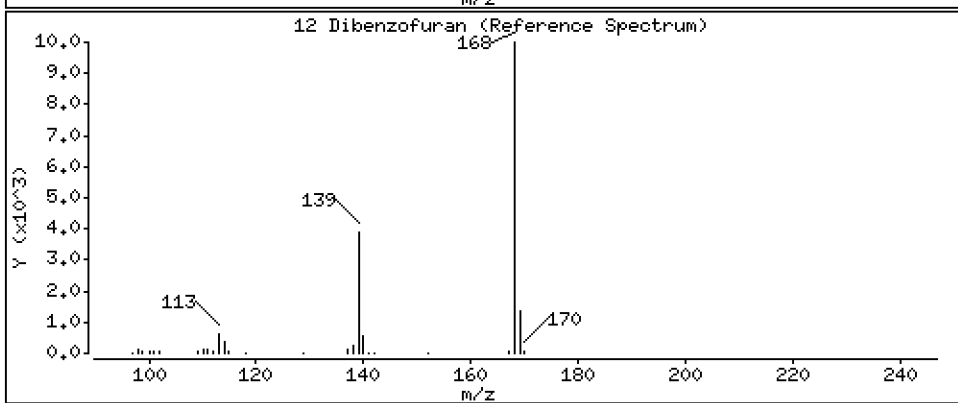
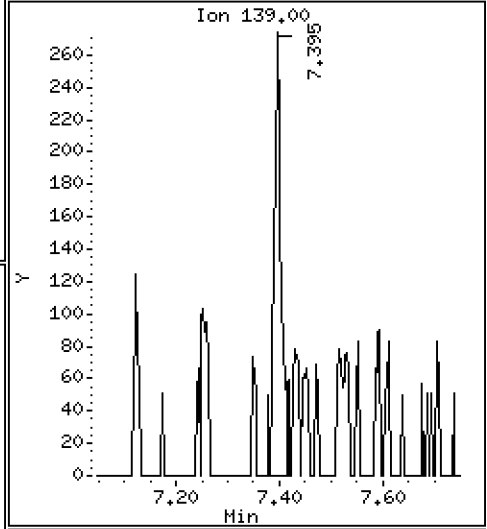
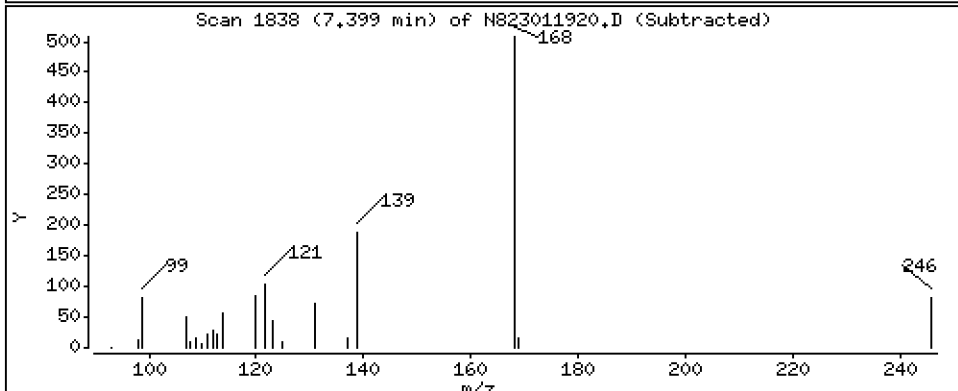
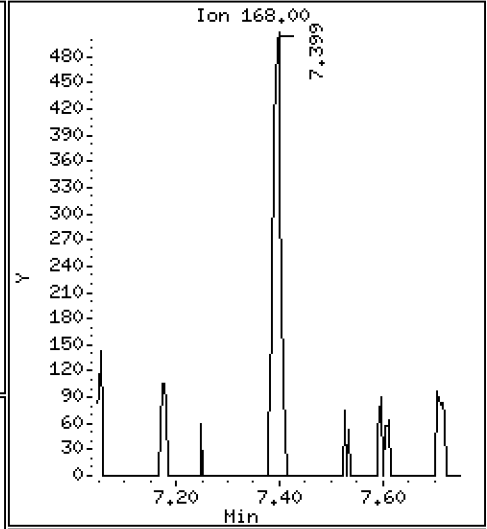
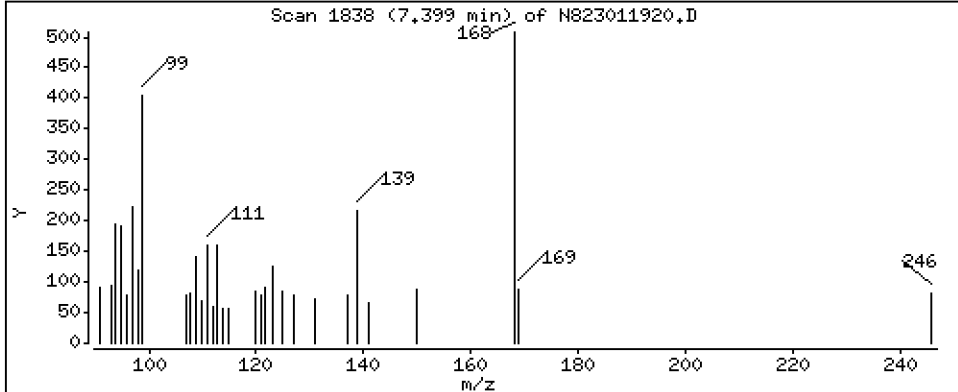
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 0,02053 ug/mL

12 Dibenzofuran



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

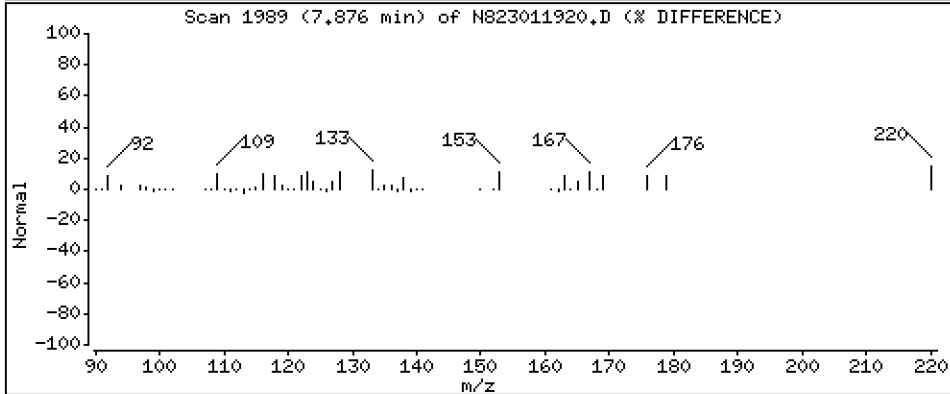
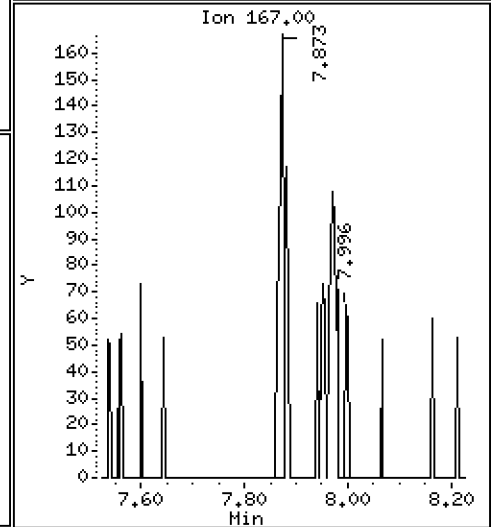
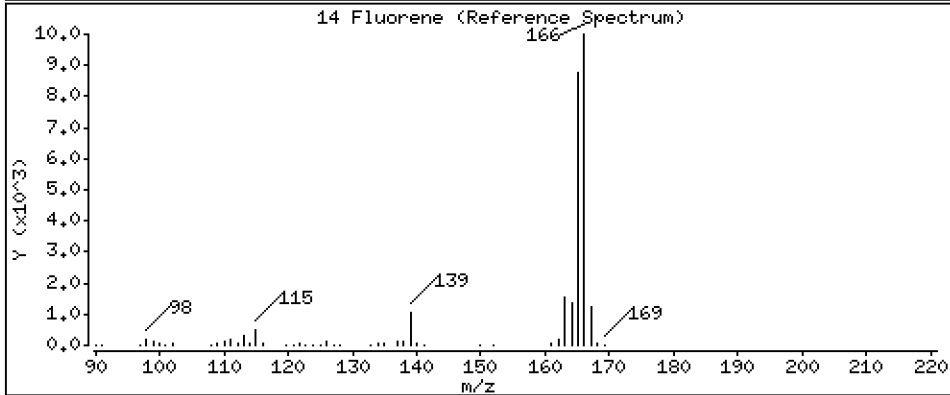
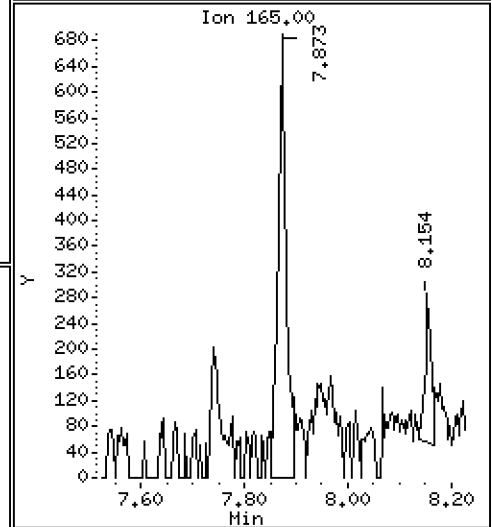
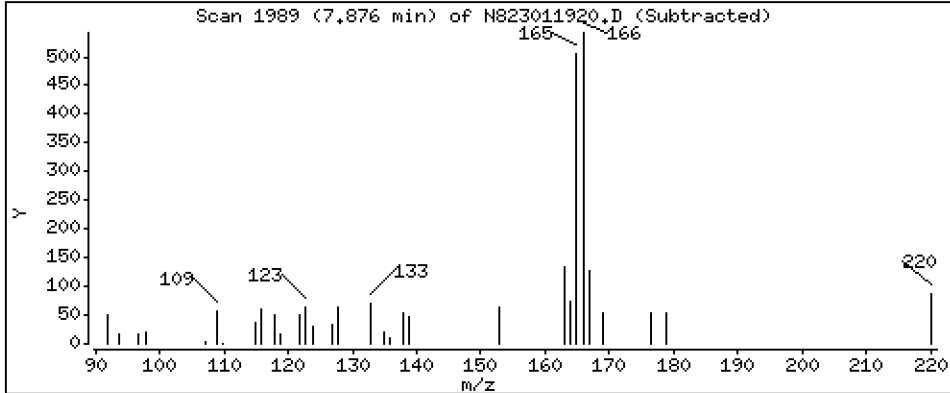
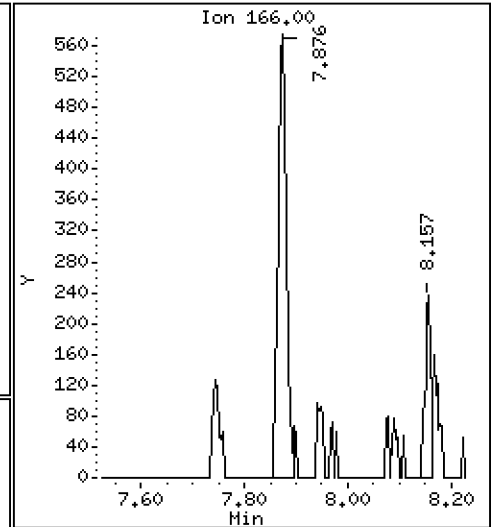
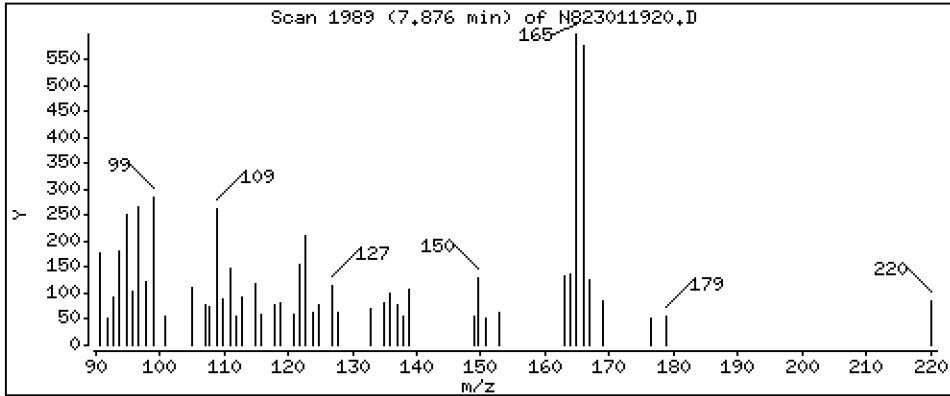
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 0,03179 ug/mL

14 Fluorene



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

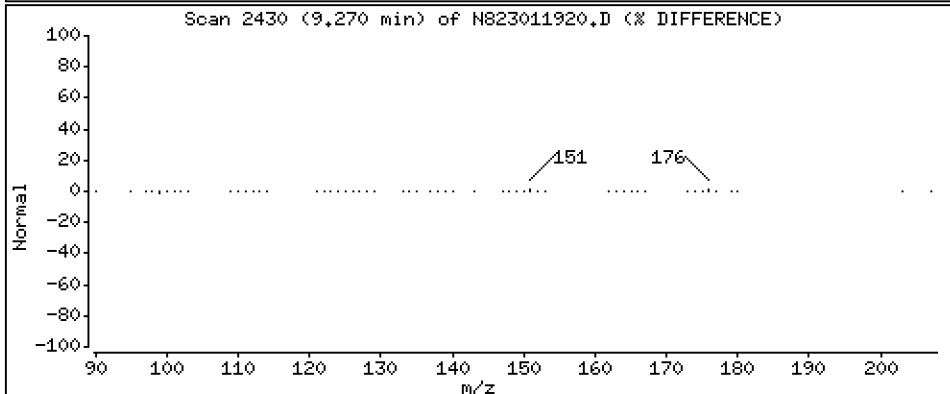
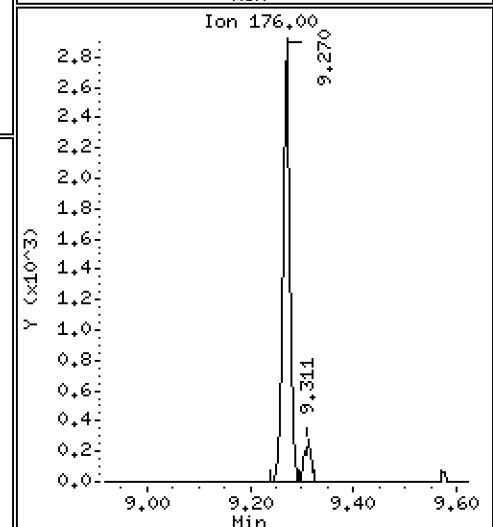
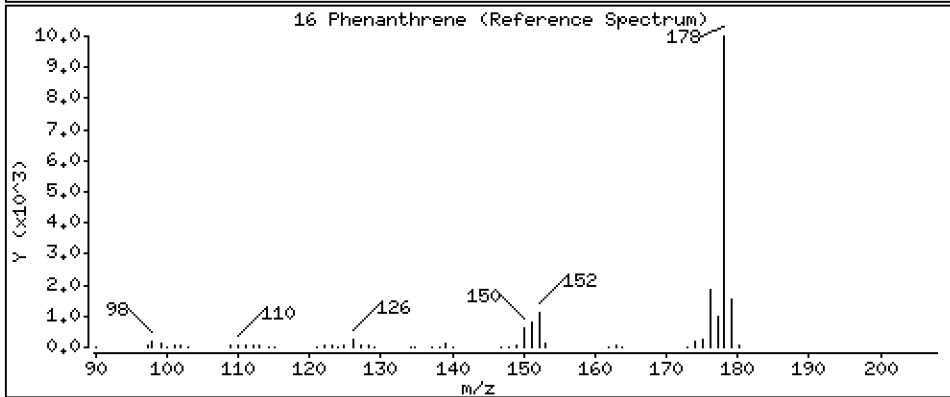
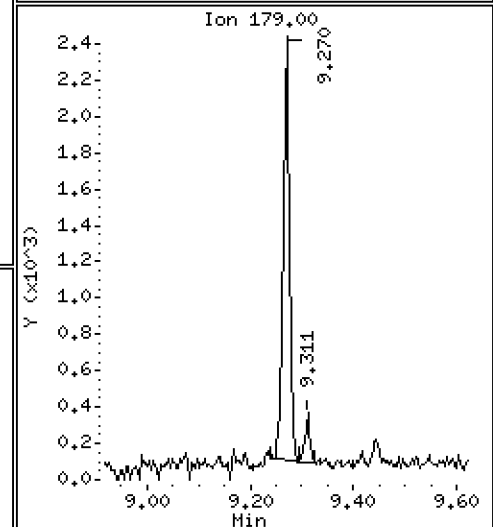
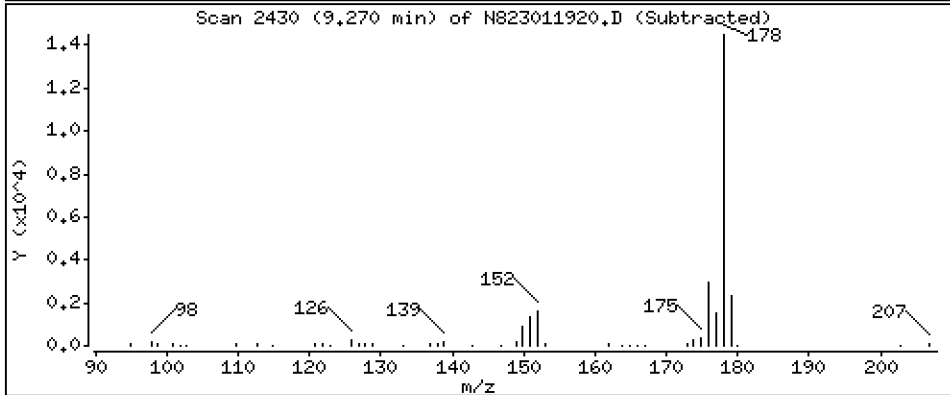
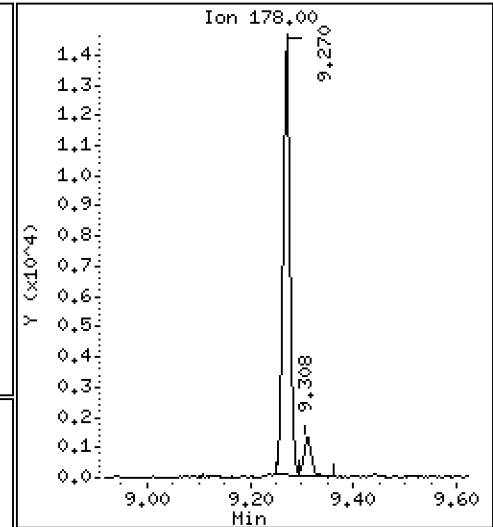
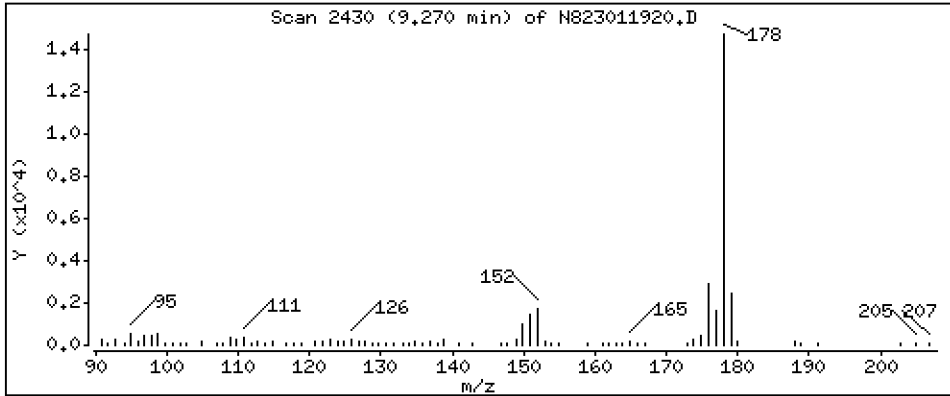
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

16 Phenanthrene

Concentration: 0.4571 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

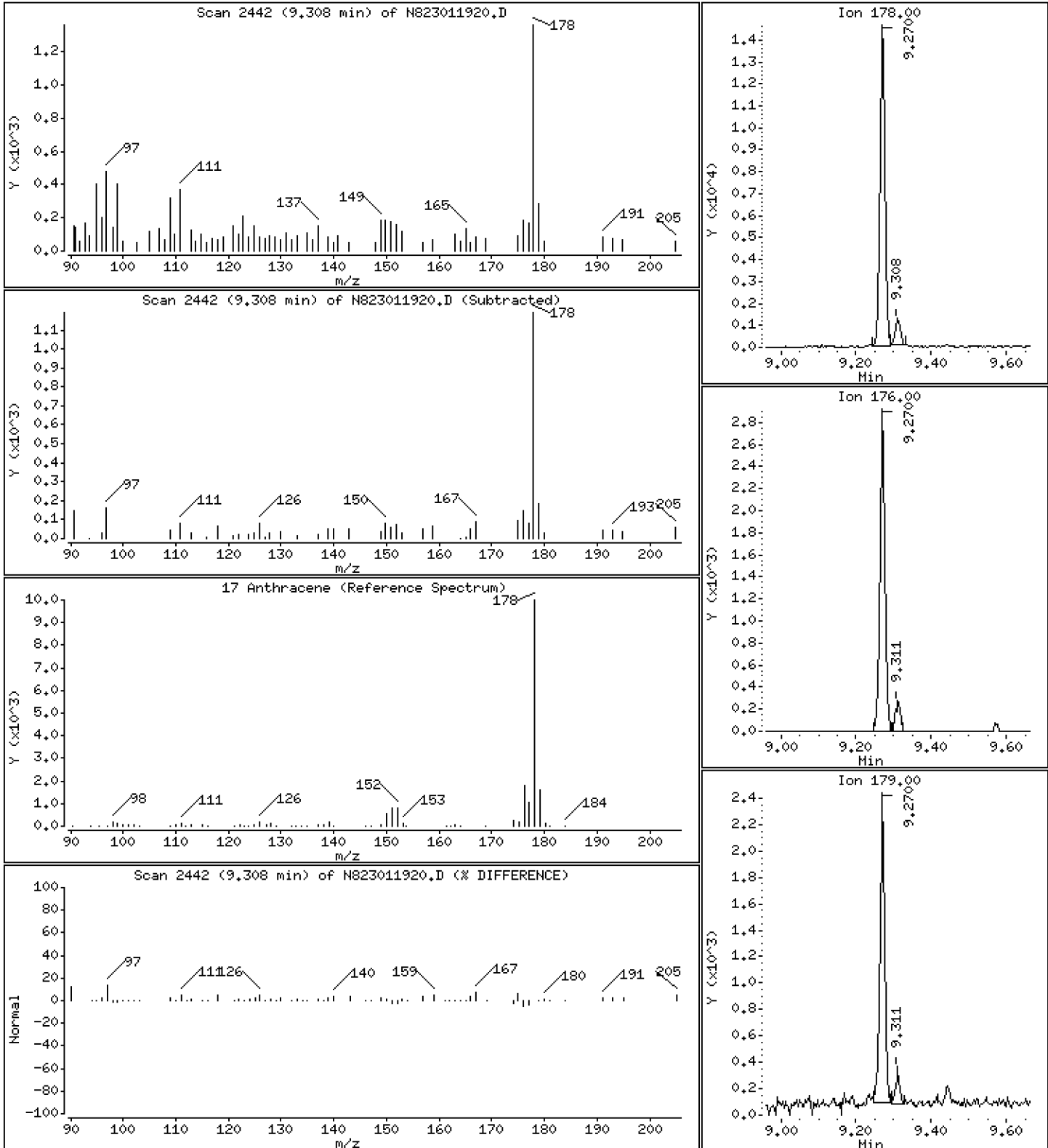
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

17 Anthracene

Concentration: 0.04368 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

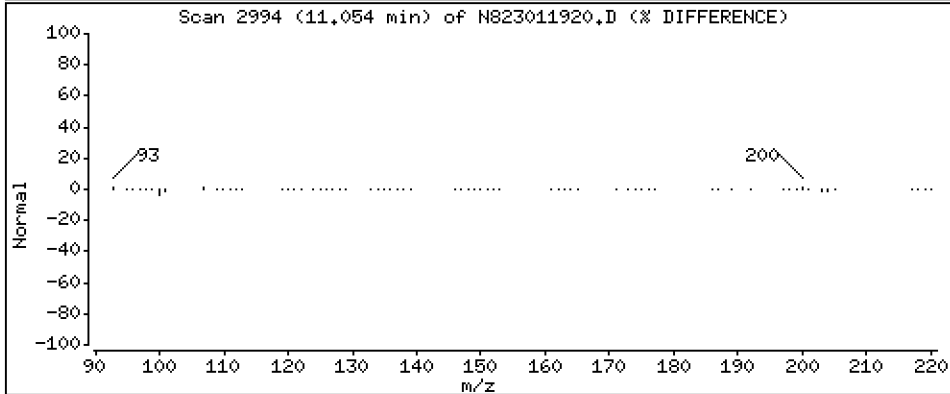
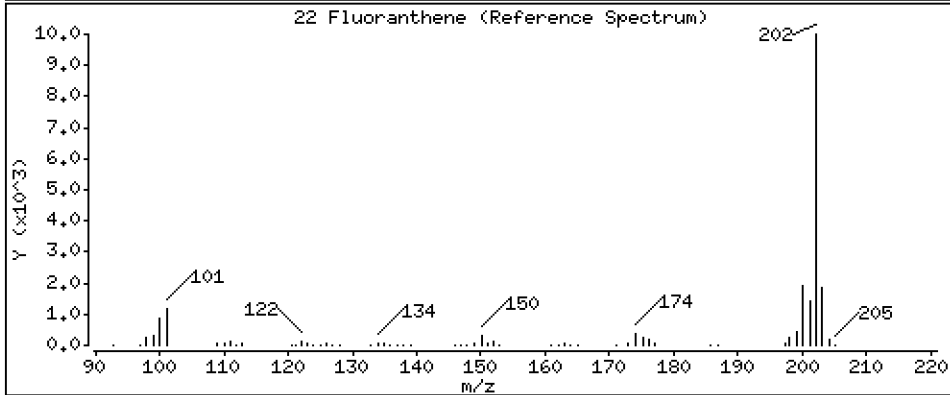
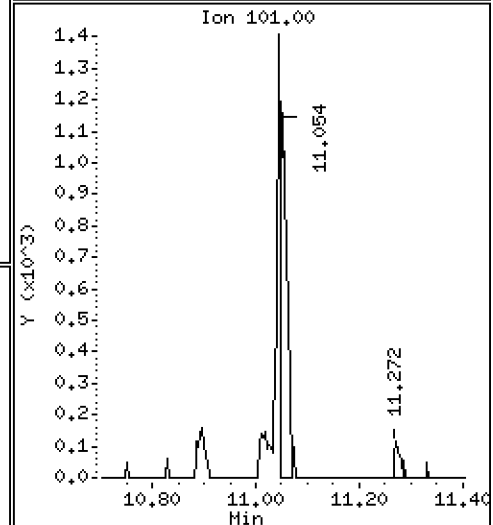
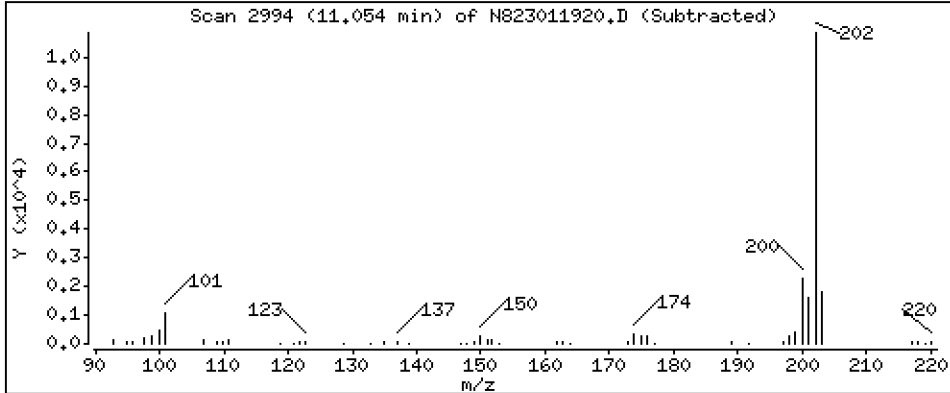
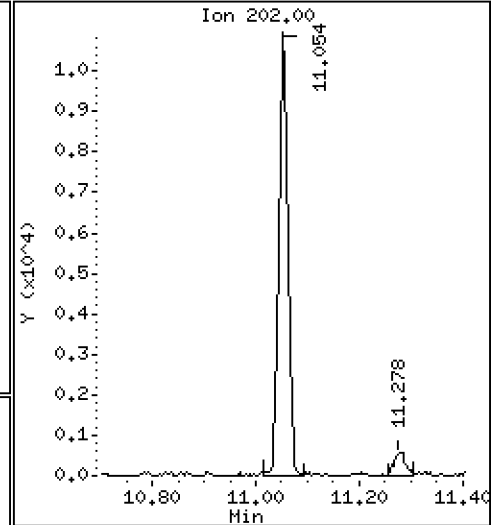
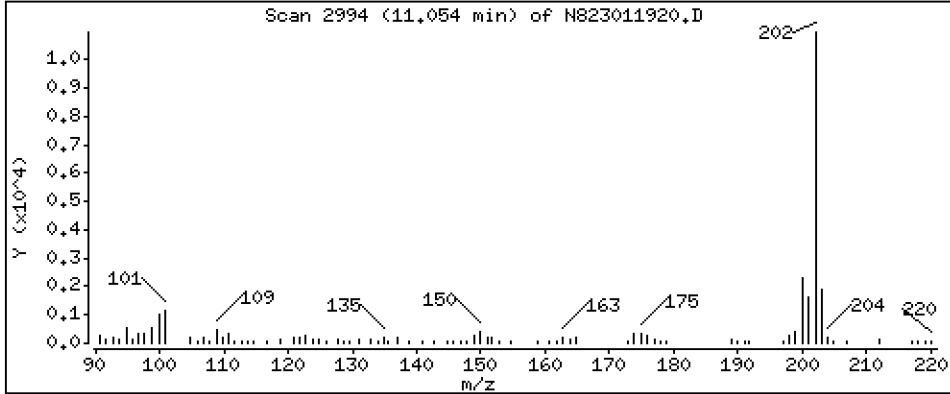
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 0,4089 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

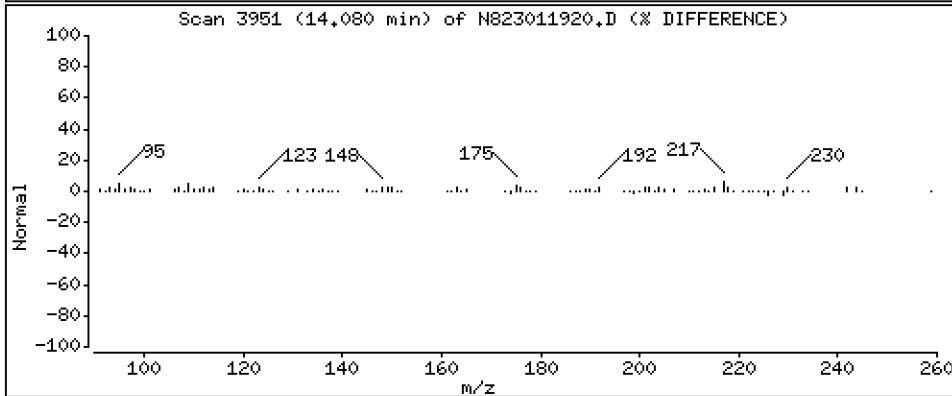
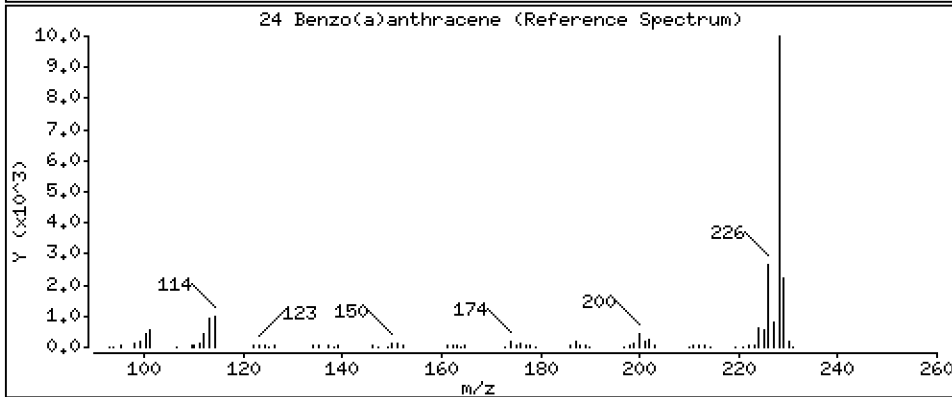
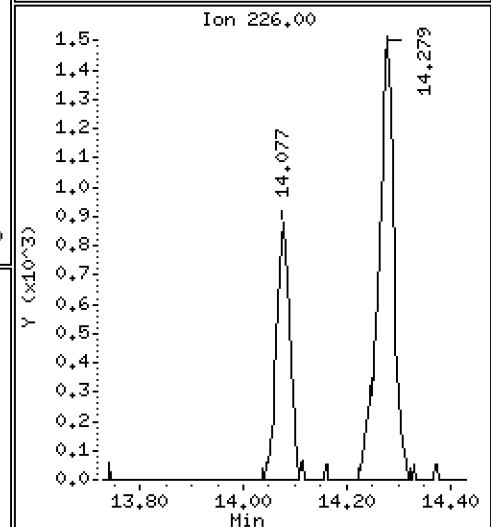
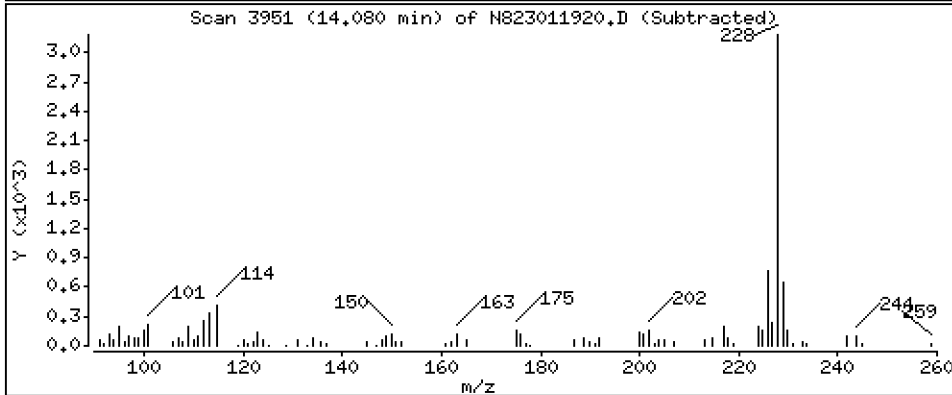
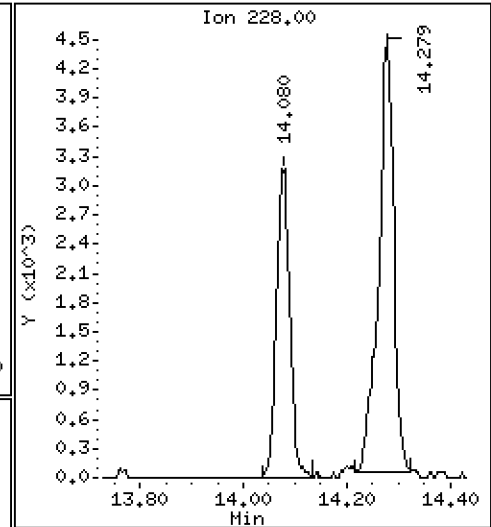
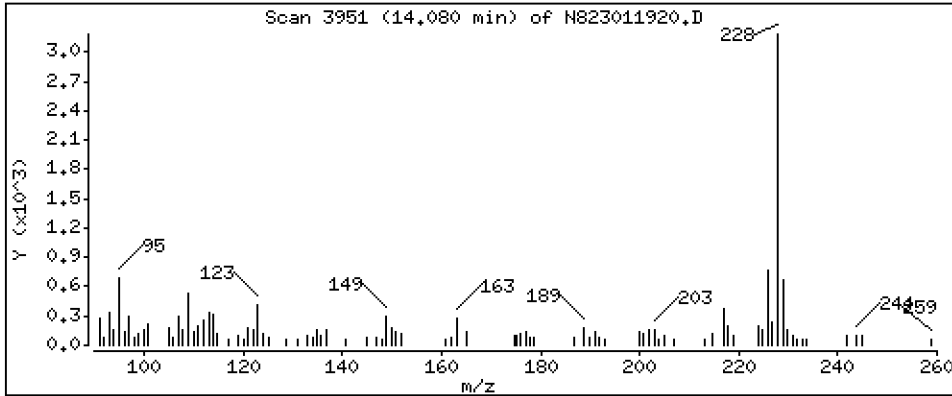
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

24 Benzo(a)anthracene

Concentration: 0,2302 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

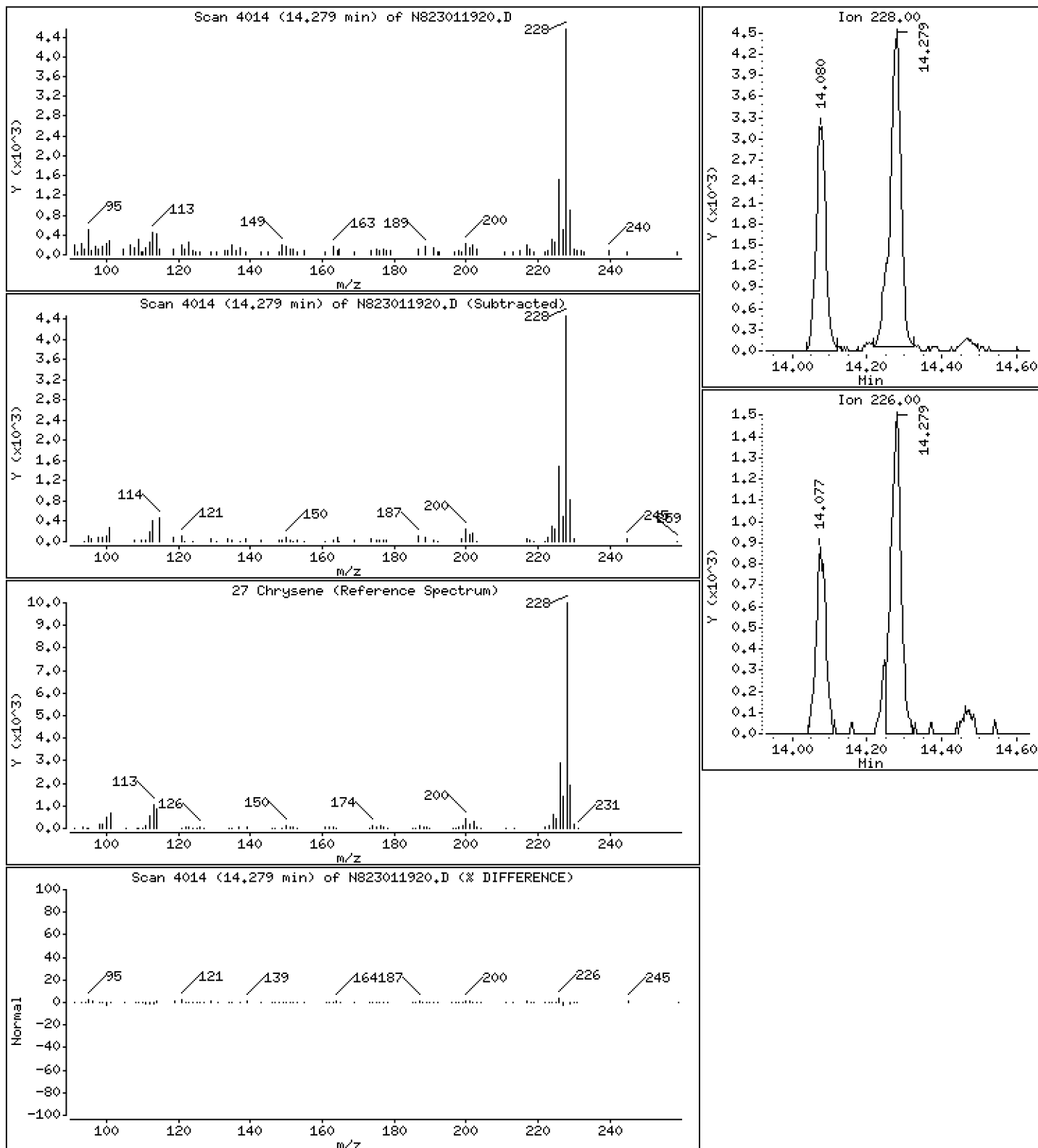
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

27 Chrysene

Concentration: 0,3380 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

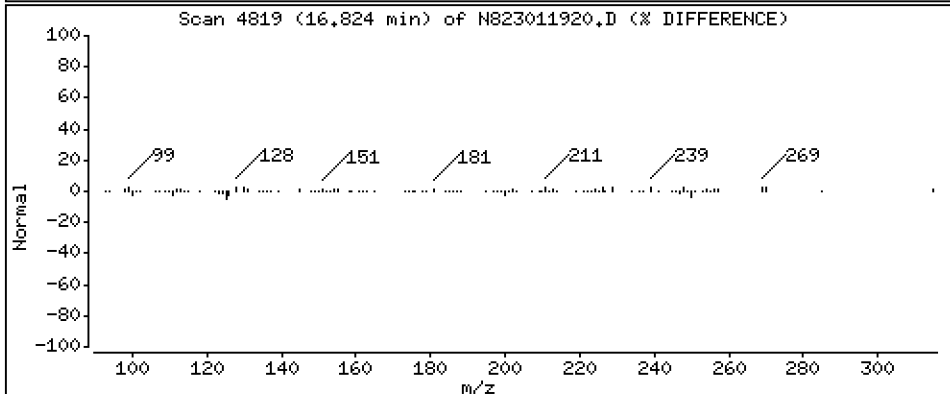
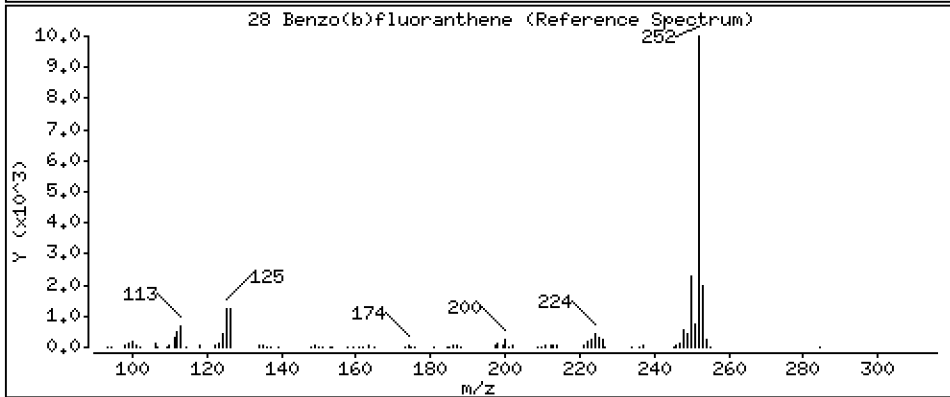
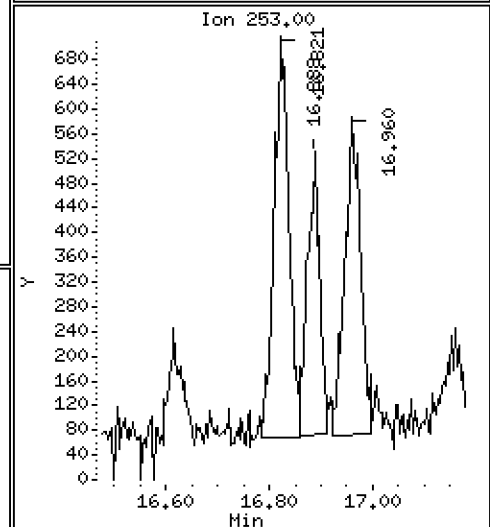
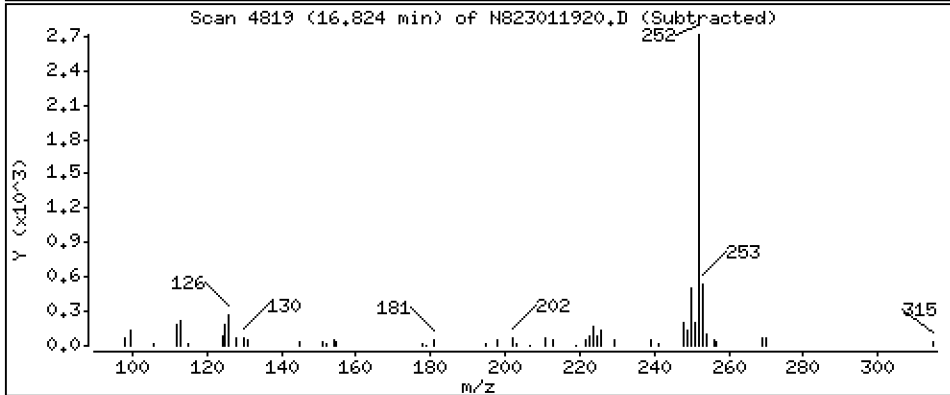
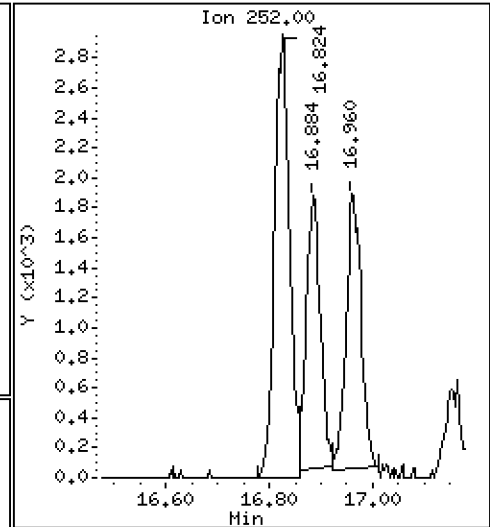
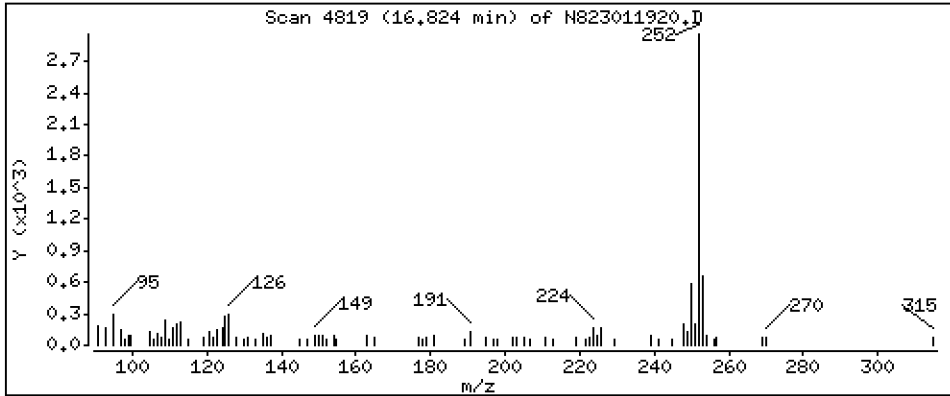
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

28 Benzo(b)fluoranthene

Concentration: 0,2535 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

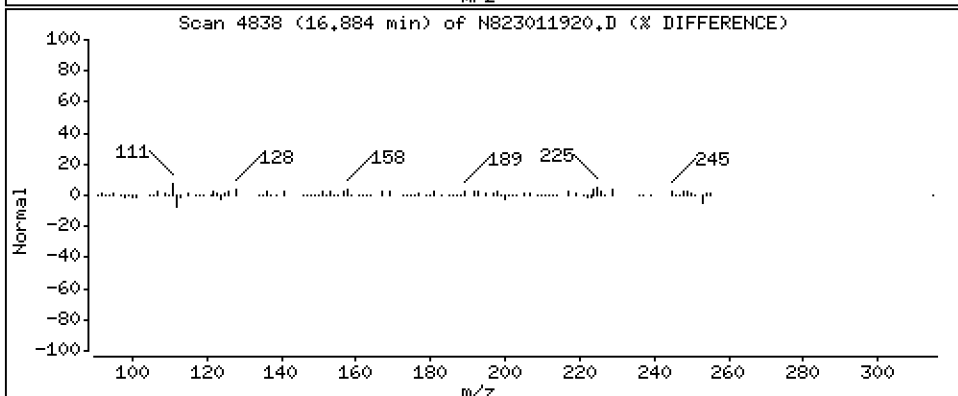
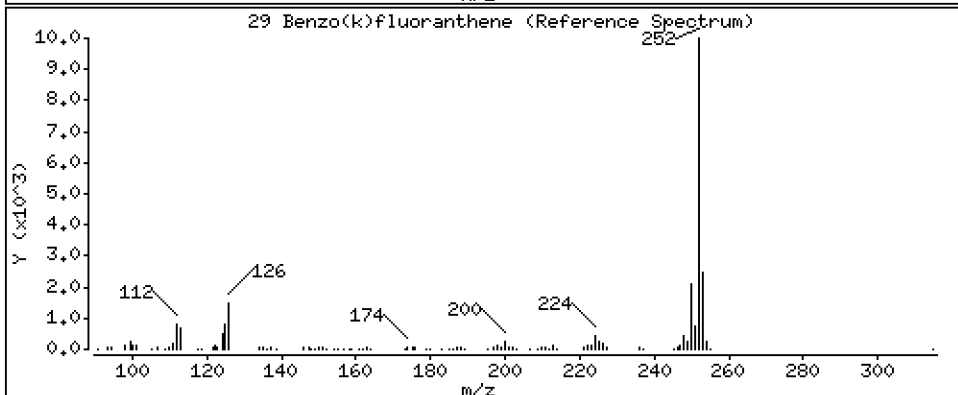
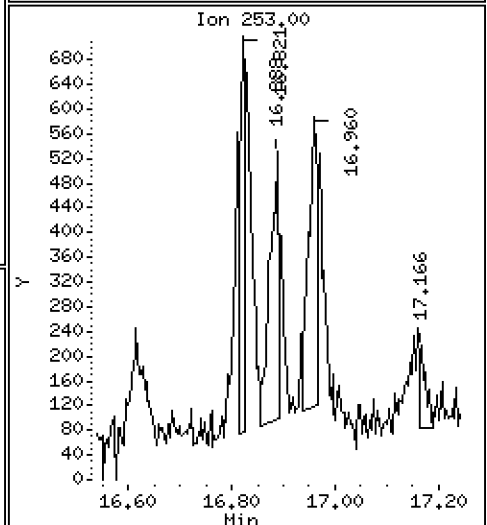
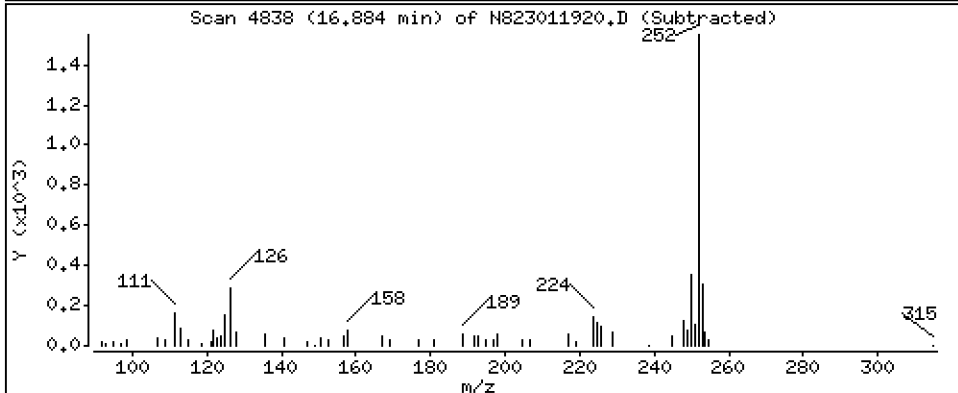
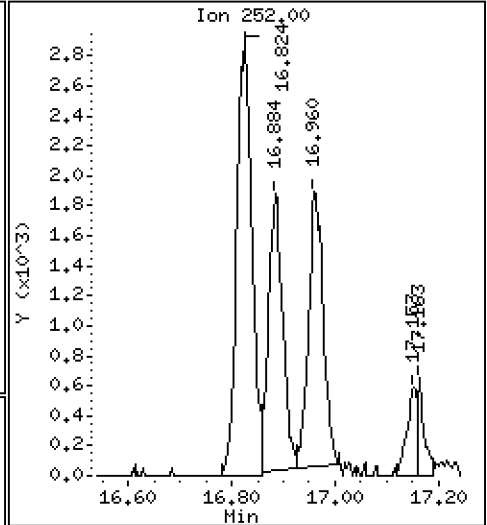
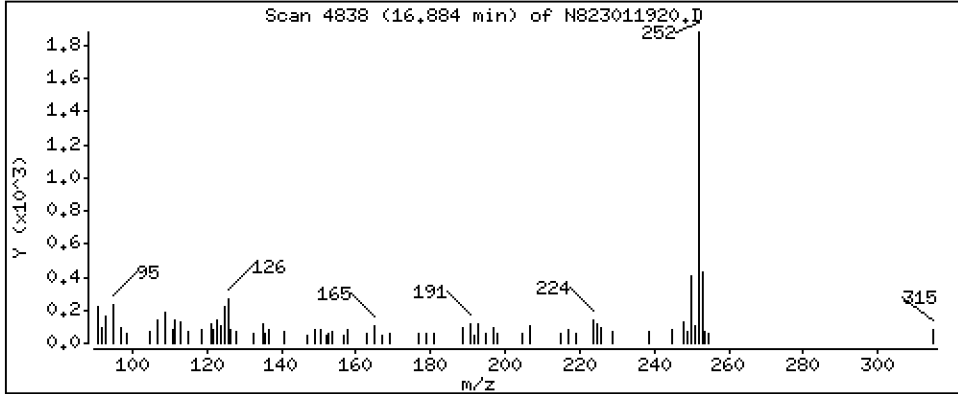
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 0,1536 ug/mL

29 Benzo(k)fluoranthene



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

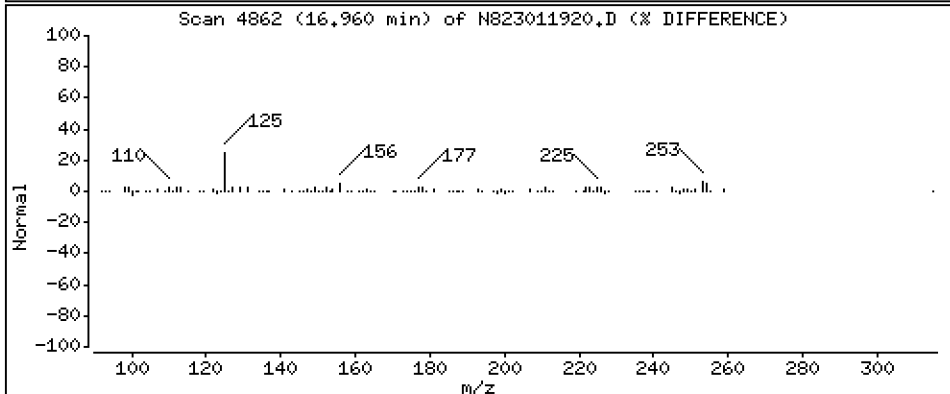
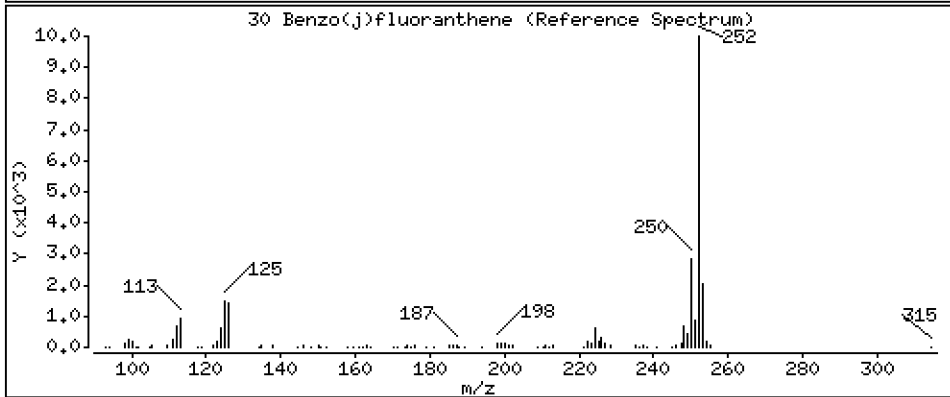
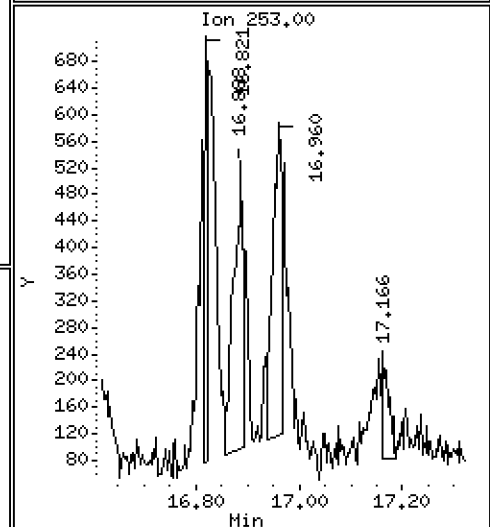
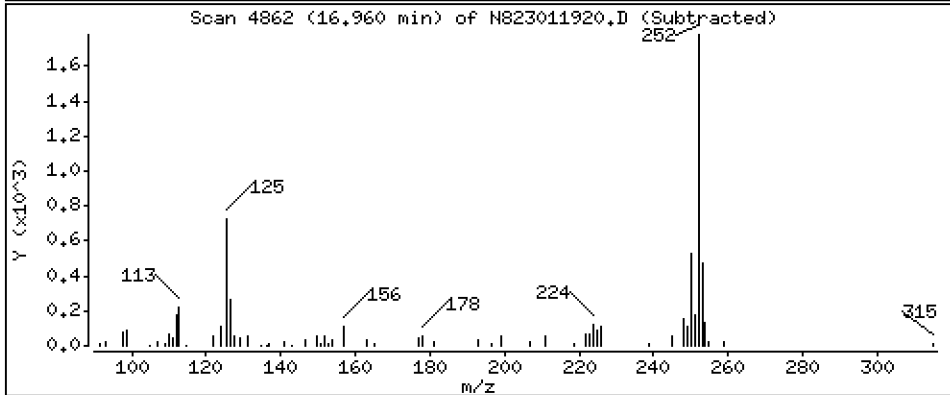
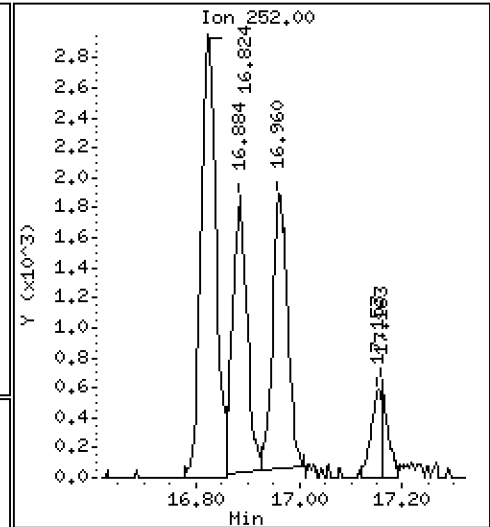
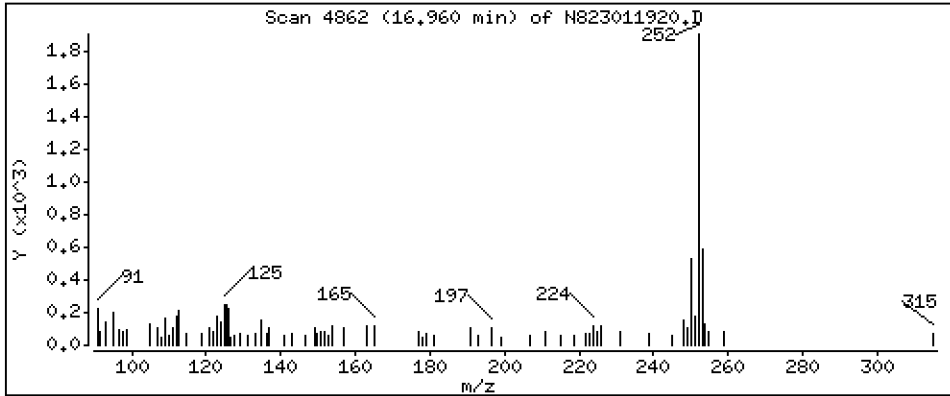
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

30 Benzo(j)fluoranthene

Concentration: 0.1767 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

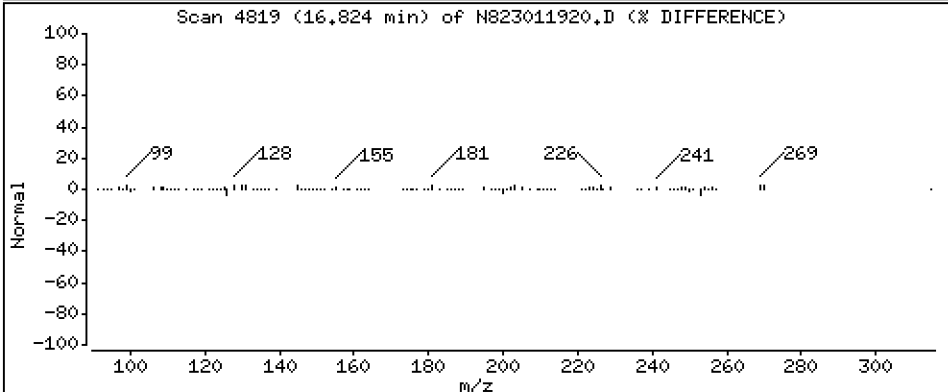
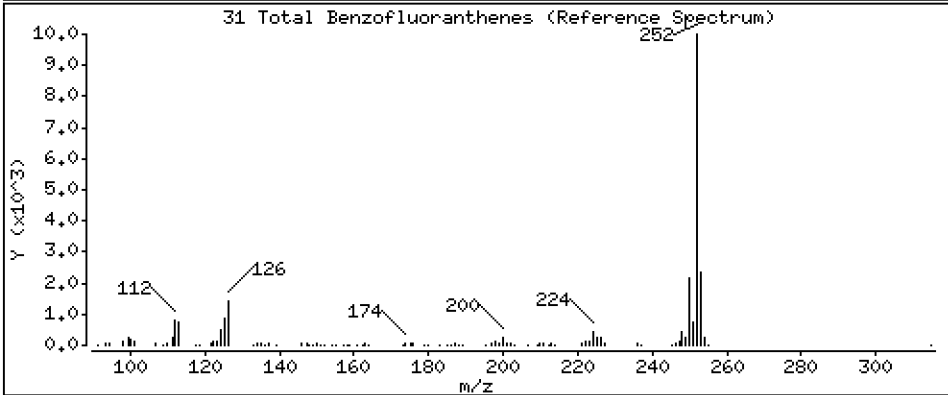
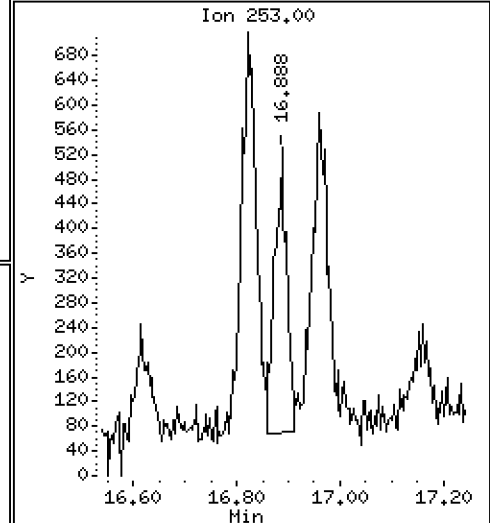
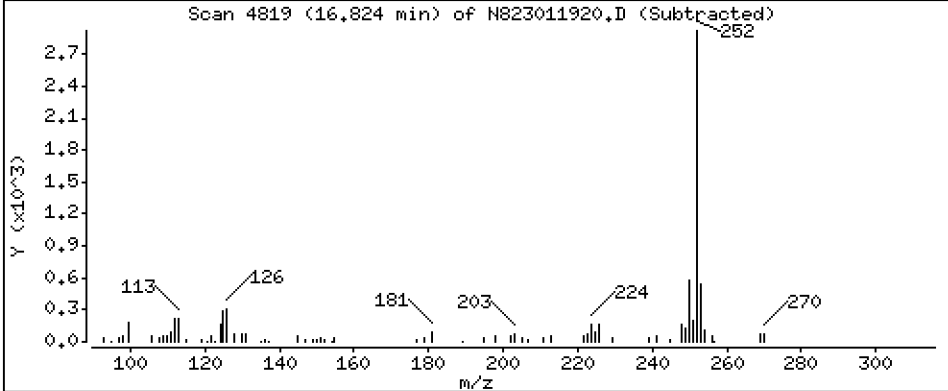
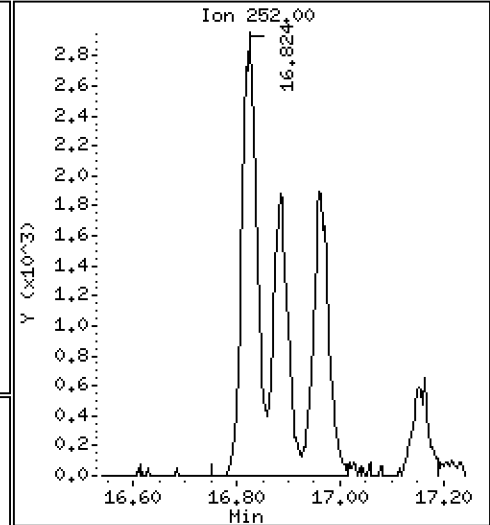
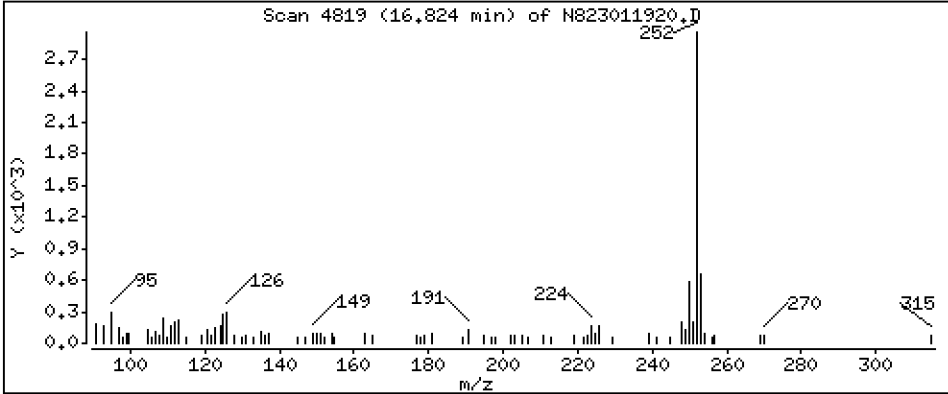
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

31 Total Benzofluoranthenes

Concentration: 0,6076 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

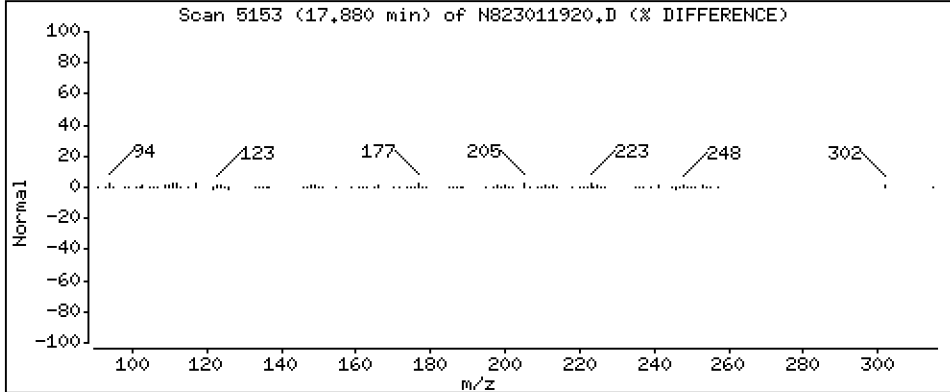
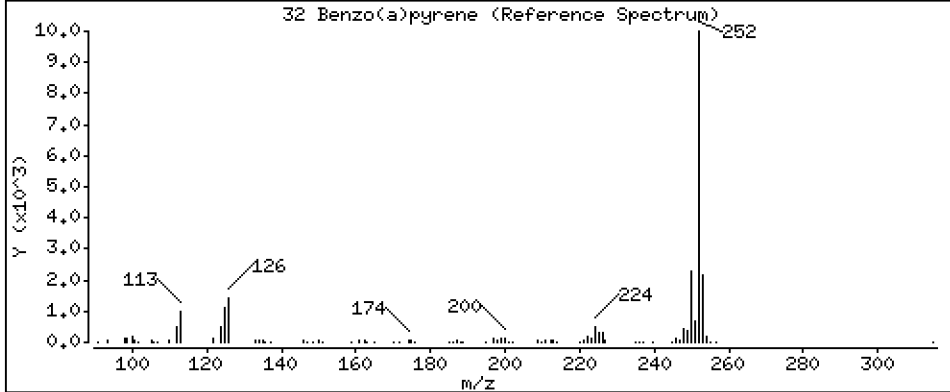
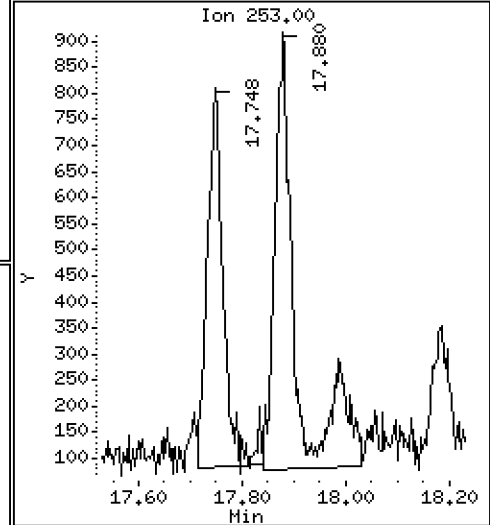
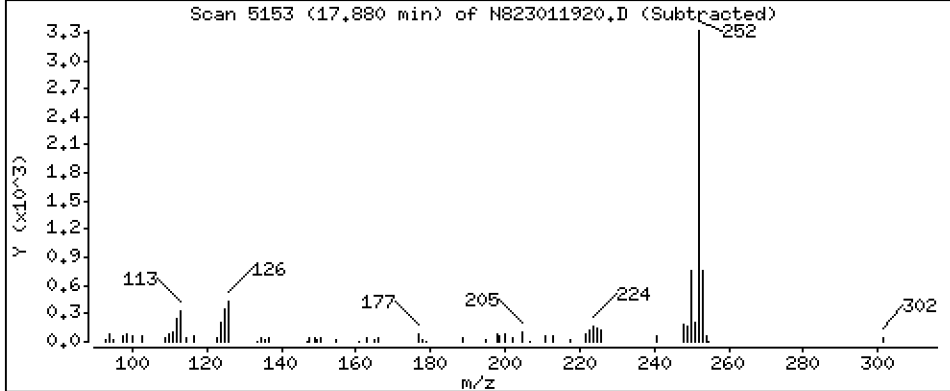
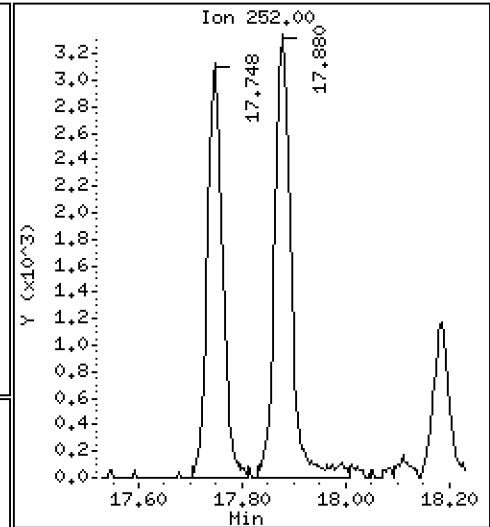
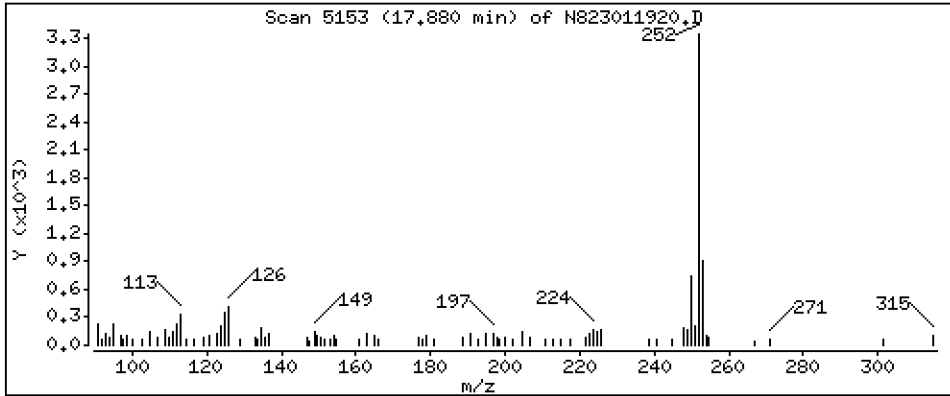
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 0,3584 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

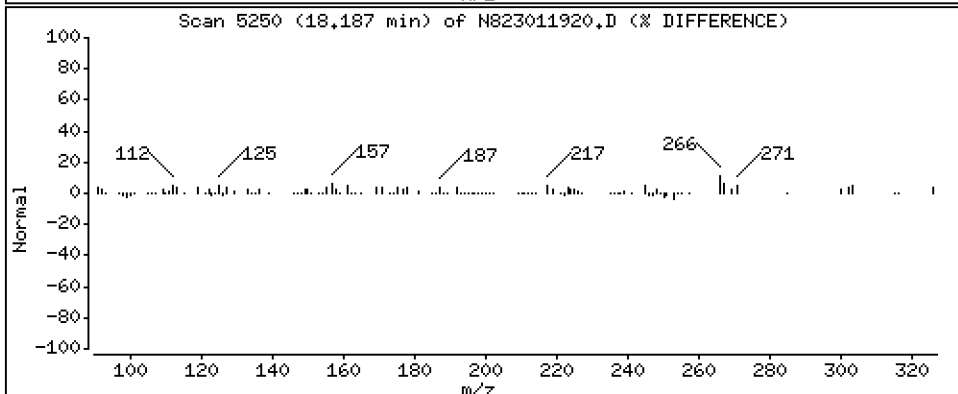
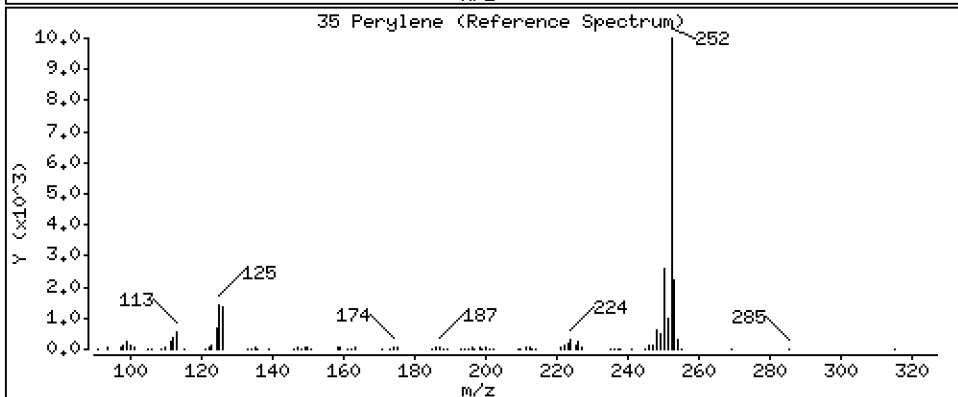
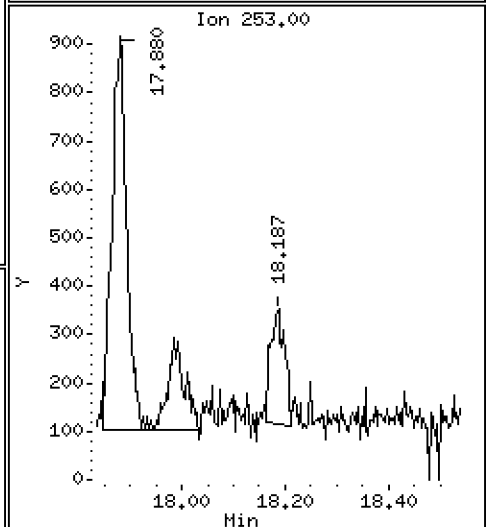
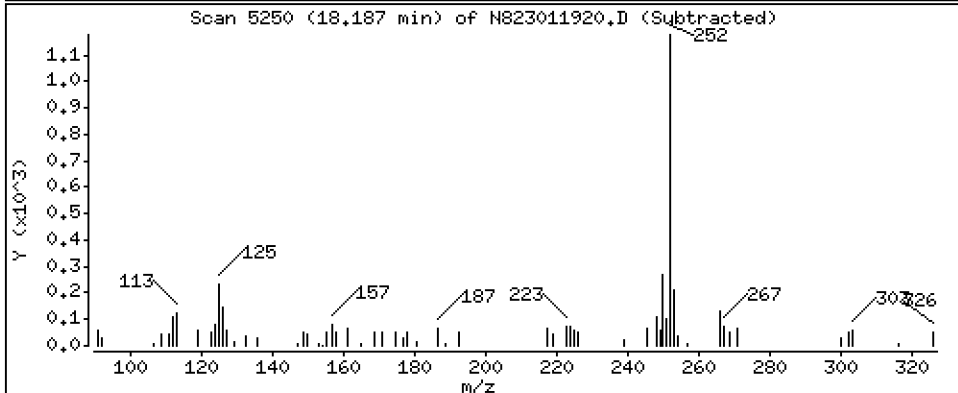
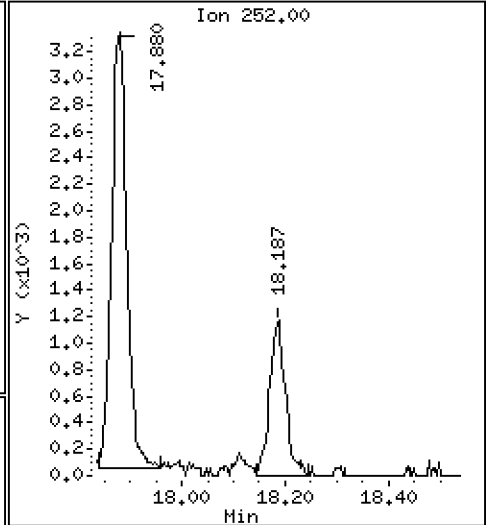
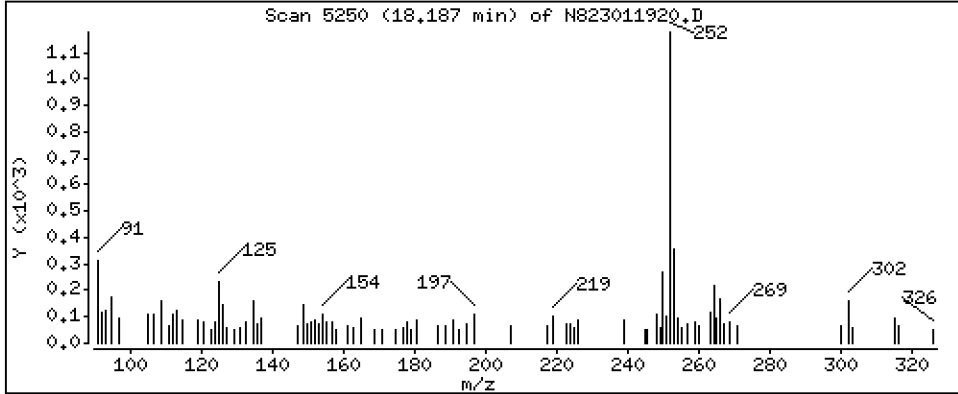
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

35 Perylene

Concentration: 0.1113 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

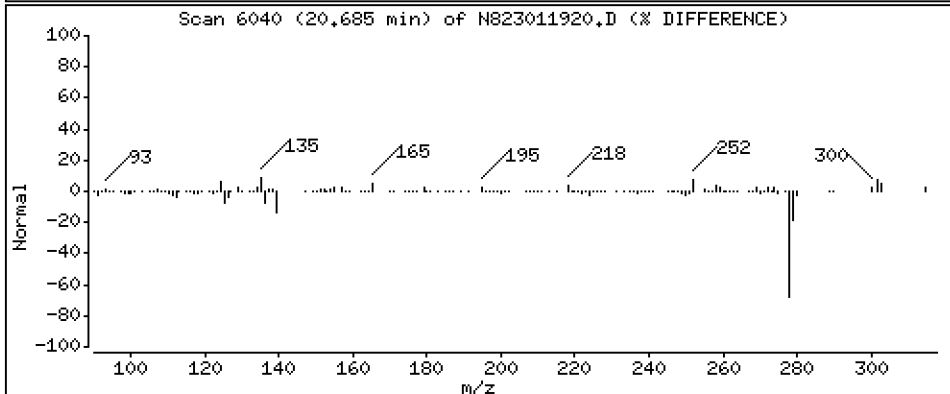
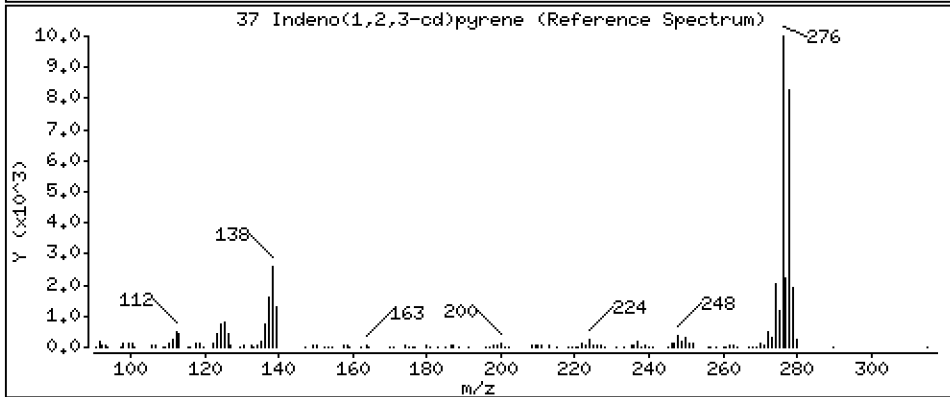
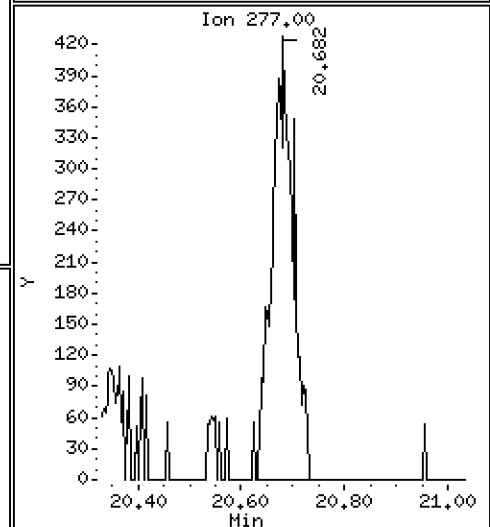
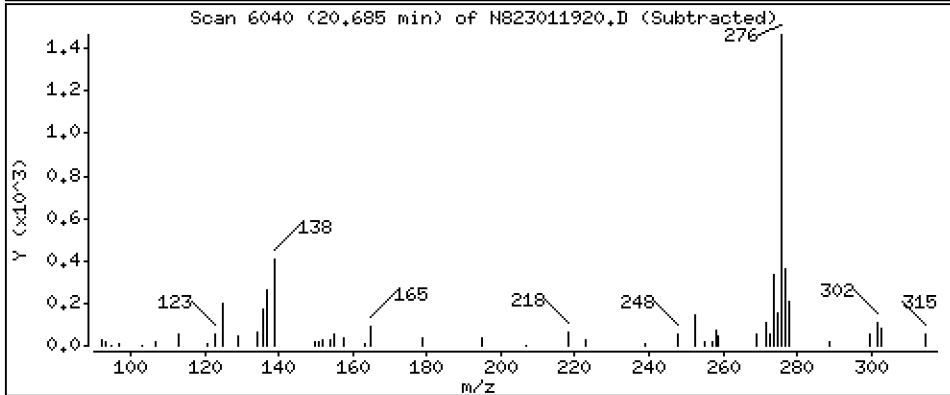
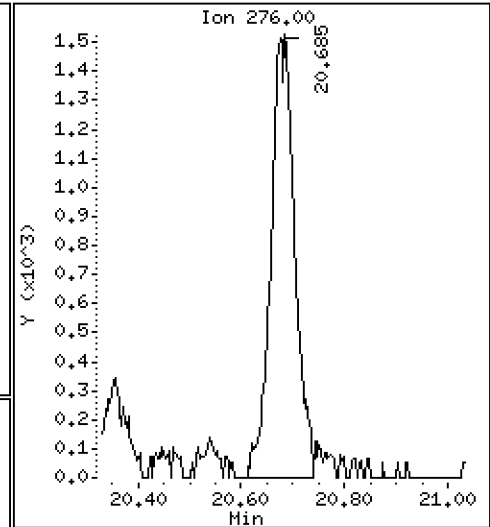
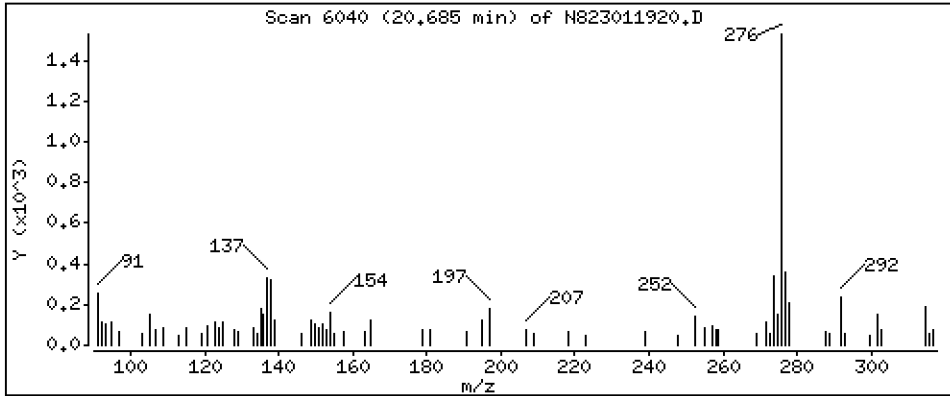
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 0,2053 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

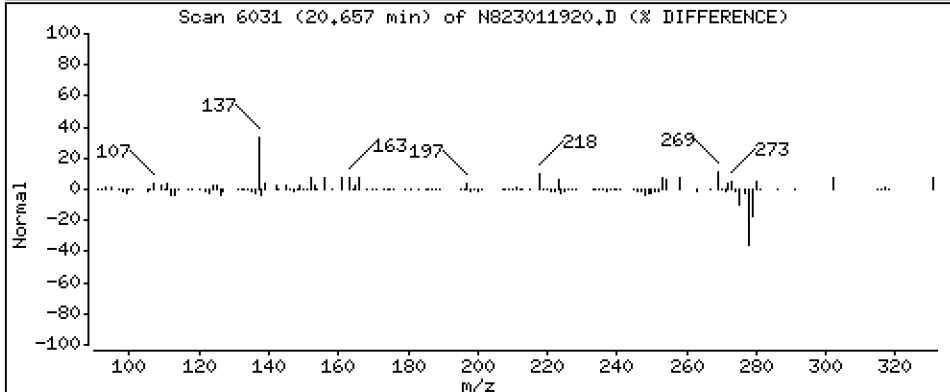
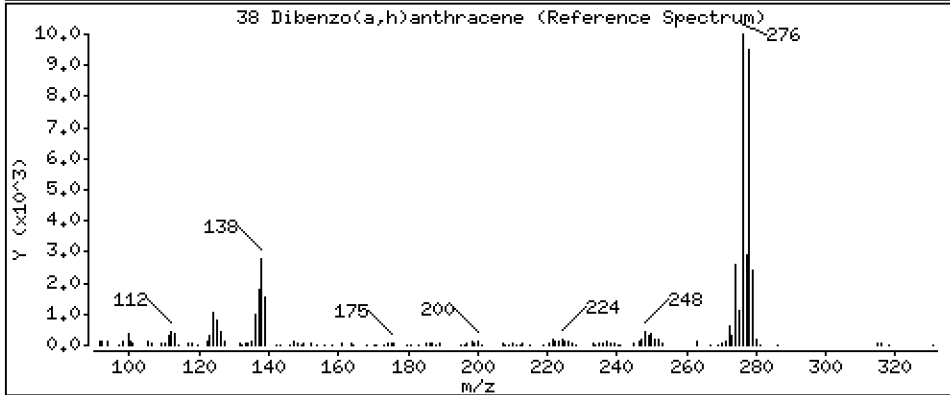
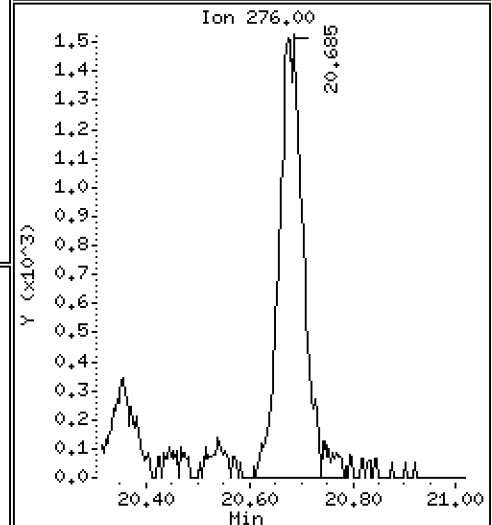
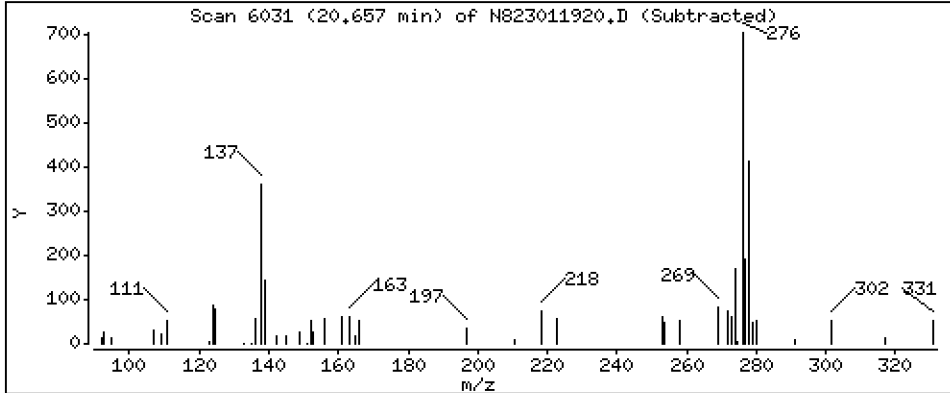
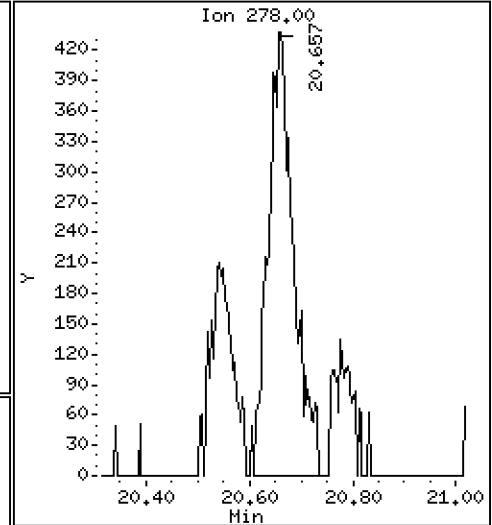
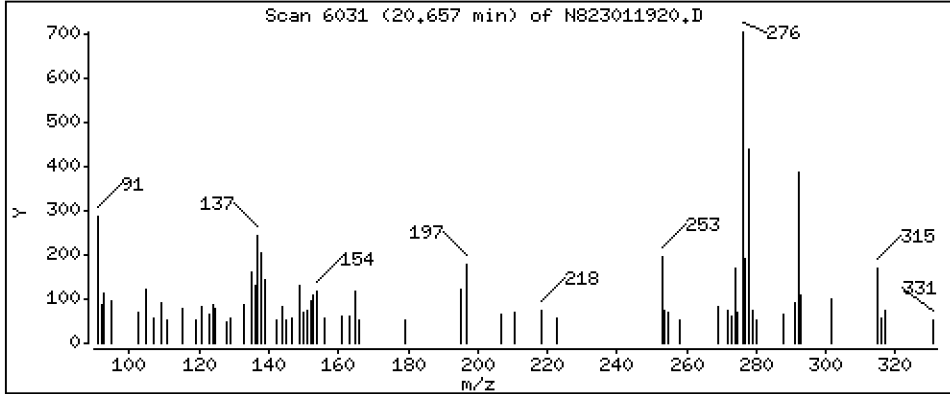
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 0,07305 ug/mL



Date : 19-JAN-2023 19:53

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-04

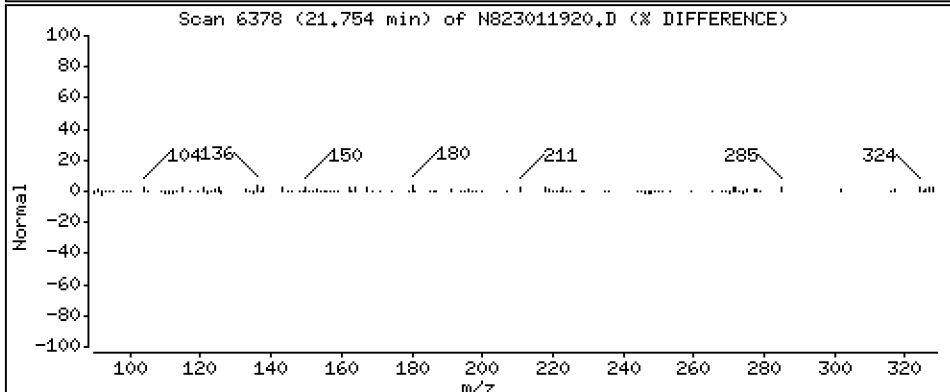
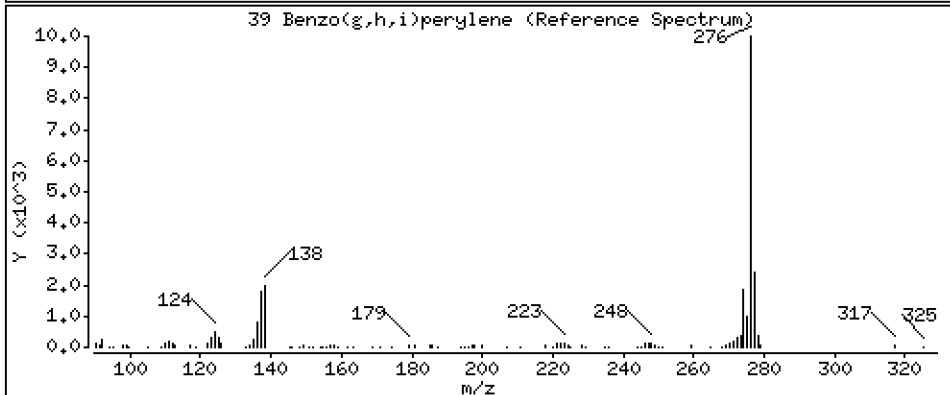
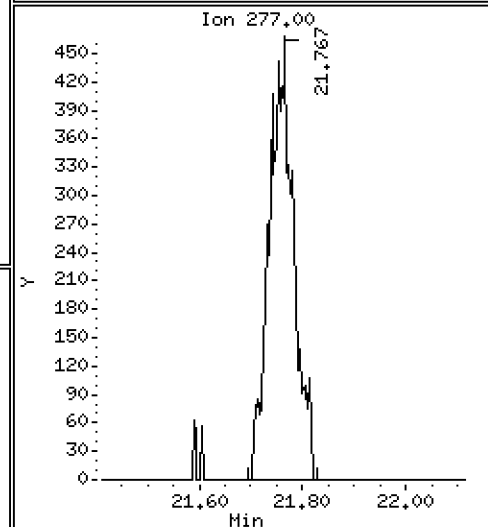
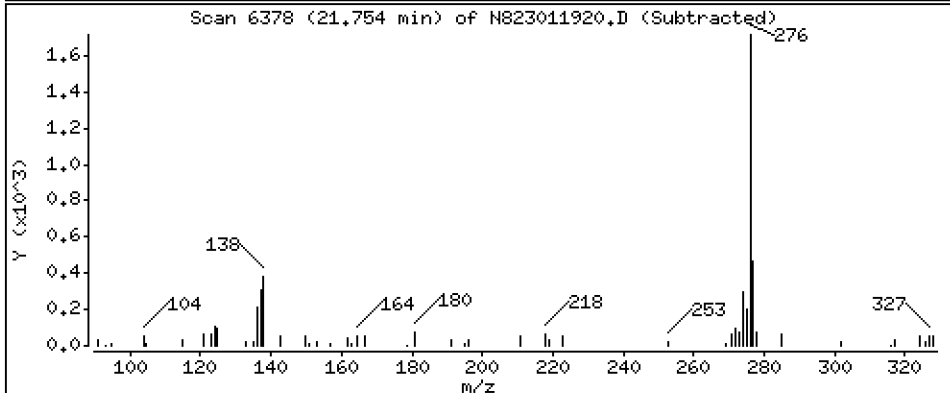
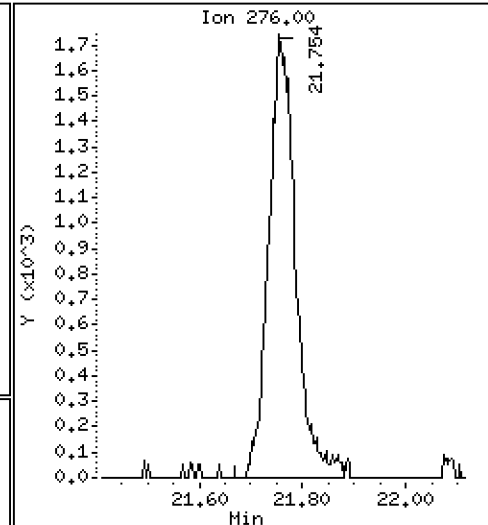
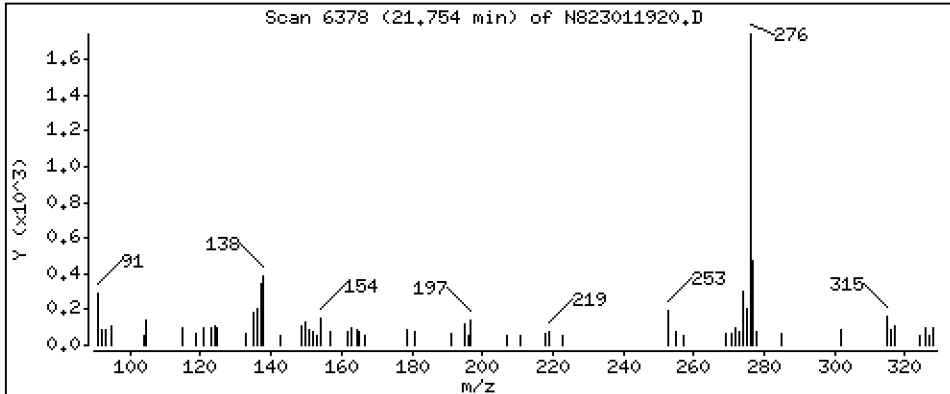
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 0,2908 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119A.b\N823011920.D
 Lab Smp Id: 23A0032-04
 Inj Date : 19-JAN-2023 19:53
 Operator : JZ Inst ID: nt8.i
 Smp Info : 23A0032-04
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 22:11 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 10
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PNAXMDL.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
* 1 Naphthalene-d8	136		4.900	4.909	(1.000)	58598	2.00000	
2 Naphthalene	128		4.929	4.938	(1.006)	1607	0.05898	0.05898
\$ 3 2-Methylnaphthalene-d10	152		5.637	5.643	(1.150)	34948	2.18683	2.187
4 2-Methylnaphthalene	141		5.684	5.690	(1.160)	796	0.05311	0.05311
5 1-methylnaphthalene	141		5.883	5.887	(1.201)	793	0.05214	0.05214
9 Acenaphthylene	152		7.085	7.088	(0.985)	2510	0.09585	0.09585
* 10 Acenaphthene-d10	164		7.196	7.199	(1.000)	34679	2.00000	
11 Acenaphthene	153		7.246	7.246	(1.007)	243	0.01385	0.01385
12 Dibenzofuran	168		7.398	7.398	(1.028)	547	0.02053	0.02053
14 Fluorene	166		7.875	7.875	(1.094)	658	0.03179	0.03179
* 15 Phenanthrene-d10	188		9.235	9.238	(1.000)	62632	2.00000	
16 Phenanthrene	178		9.270	9.270	(1.004)	13984	0.45708	0.4571
17 Anthracene	178		9.308	9.311	(1.008)	1214	0.04368	0.04368
22 Fluoranthene	202		11.053	11.053	(1.197)	13616	0.40886	0.4089
\$ 21 Fluoranthene-d10	212		11.015	11.015	(1.193)	75854	2.74505	2.745
23 Pyrene	202		11.575	11.575	(0.815)	19416	0.70164	0.7016
24 Benzo(a)anthracene	228		14.079	14.079	(0.991)	5775	0.23025	0.2302
* 25 Chrysene-d12	240		14.203	14.209	(1.000)	44634	2.00000	
27 Chrysene	228		14.278	14.282	(1.005)	9026	0.33804	0.3380
28 Benzo(b)fluoranthene	252		16.824	16.827	(0.929)	6061	0.25349	0.2535
29 Benzo(k)fluoranthene	252		16.884	16.890	(0.932)	3598	0.15363	0.1536
30 Benzo(j)fluoranthene	252		16.960	16.969	(0.936)	3725	0.17668	0.1767
31 Total Benzofluoranthenes	252		16.824	16.890	(0.929)	13758	0.60758	0.6076 (M)
32 Benzo(a)pyrene	252		17.880	17.880	(0.987)	7542	0.35845	0.3584
* 33 Perylene-d12	264		18.114	18.117	(1.000)	41054	2.00000	
35 Perylene	252		18.187	18.187	(1.004)	2514	0.11134	0.1113
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.552	20.555	(1.135)	54598	3.39417	3.394
37 Indeno(1,2,3-cd)pyrene	276		20.685	20.681	(1.142)	4922	0.20534	0.2053
38 Dibenzo(a,h)anthracene	278		20.656	20.666	(1.140)	1507	0.07305	0.07305
39 Benzo(g,h,i)perylene	276		21.753	21.763	(1.201)	6316	0.29082	0.2908 (M)

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011920.D Calibration Time: 16:16
 Lab Smp Id: 23A0032-04
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	42524	21262	85048	58598	37.80
10 Acenaphthene-d10	25260	12630	50520	34679	37.29
15 Phenanthrene-d10	47890	23945	95780	62632	30.78
25 Chrysene-d12	40533	20267	81066	44634	10.12
33 Perylene-d12	38115	19058	76230	41054	7.71

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.90	-0.19
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	-0.04
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	-0.03
25 Chrysene-d12	14.21	13.71	14.71	14.20	-0.04
33 Perylene-d12	18.12	17.62	18.62	18.11	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011920.D

Lab ID: 23A0032-04

nt8.i, 20230119A.b\FSIMPNA230119.m, 19-JAN-2023 19:53

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

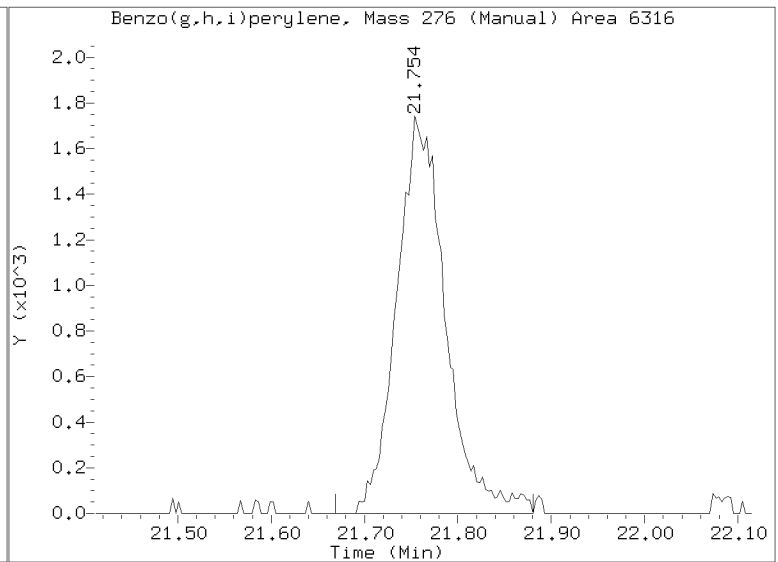
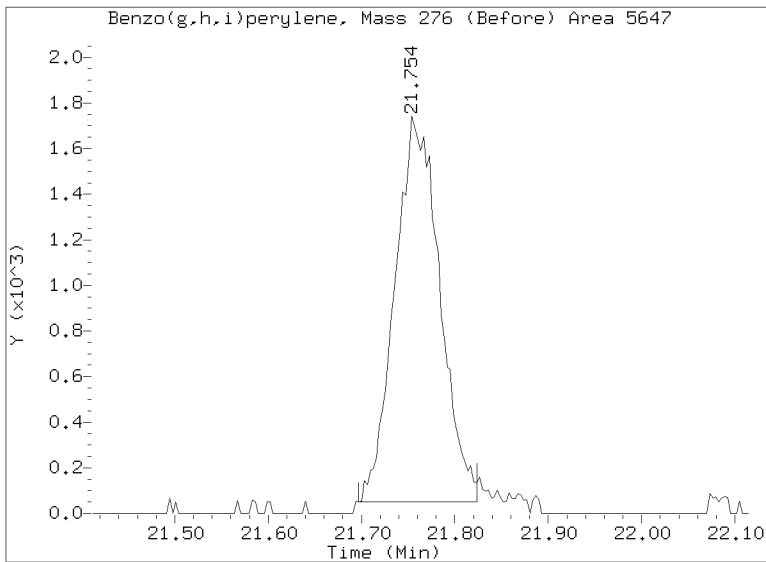
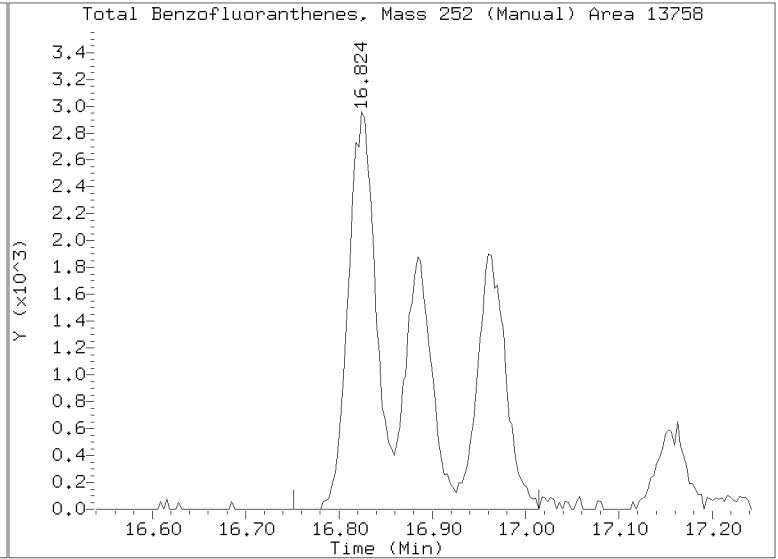
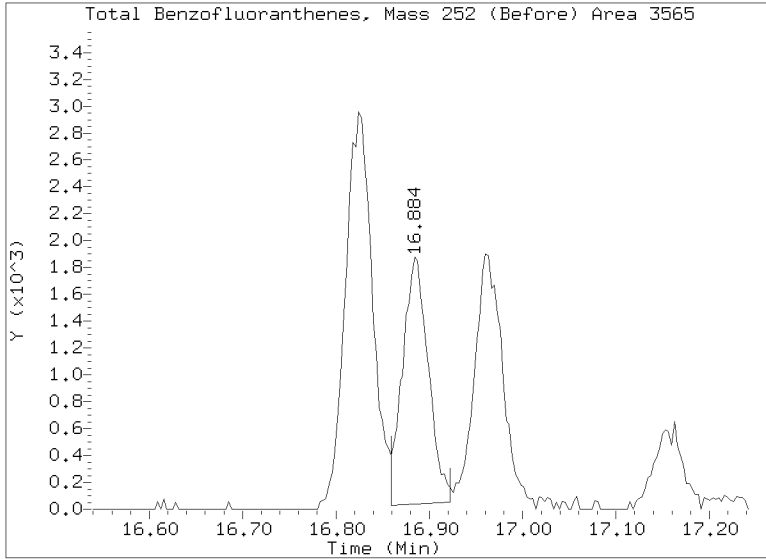
No RRT check performed

On Column LOD for nt8.i, 20230119A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119A.b/N823011920.D
Injection Date: 19-JAN-2023 19:53
Lab ID:23A0032-04 Client ID:
Report Date: 01/25/2023 22:12





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
SIM SVOC Organics (Dual scan list)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-05 A

SDG: 23A0032

Sampled: 01/03/23 13:21

Prepared: 01/10/23 11:20

File ID: NT1023020925S.D

% Solids: 67.90

Preparation: EPA 3546 (Microwave)

Analyzed: 02/10/23 04:21

Batch: BLA0163

Sequence: SLB0157

Initial/Final: 14.76 g Wet / 1 mL

Instrument: NT10

Column: ZB-5MSi

Calibration: GB00019

Cleanups: GPC

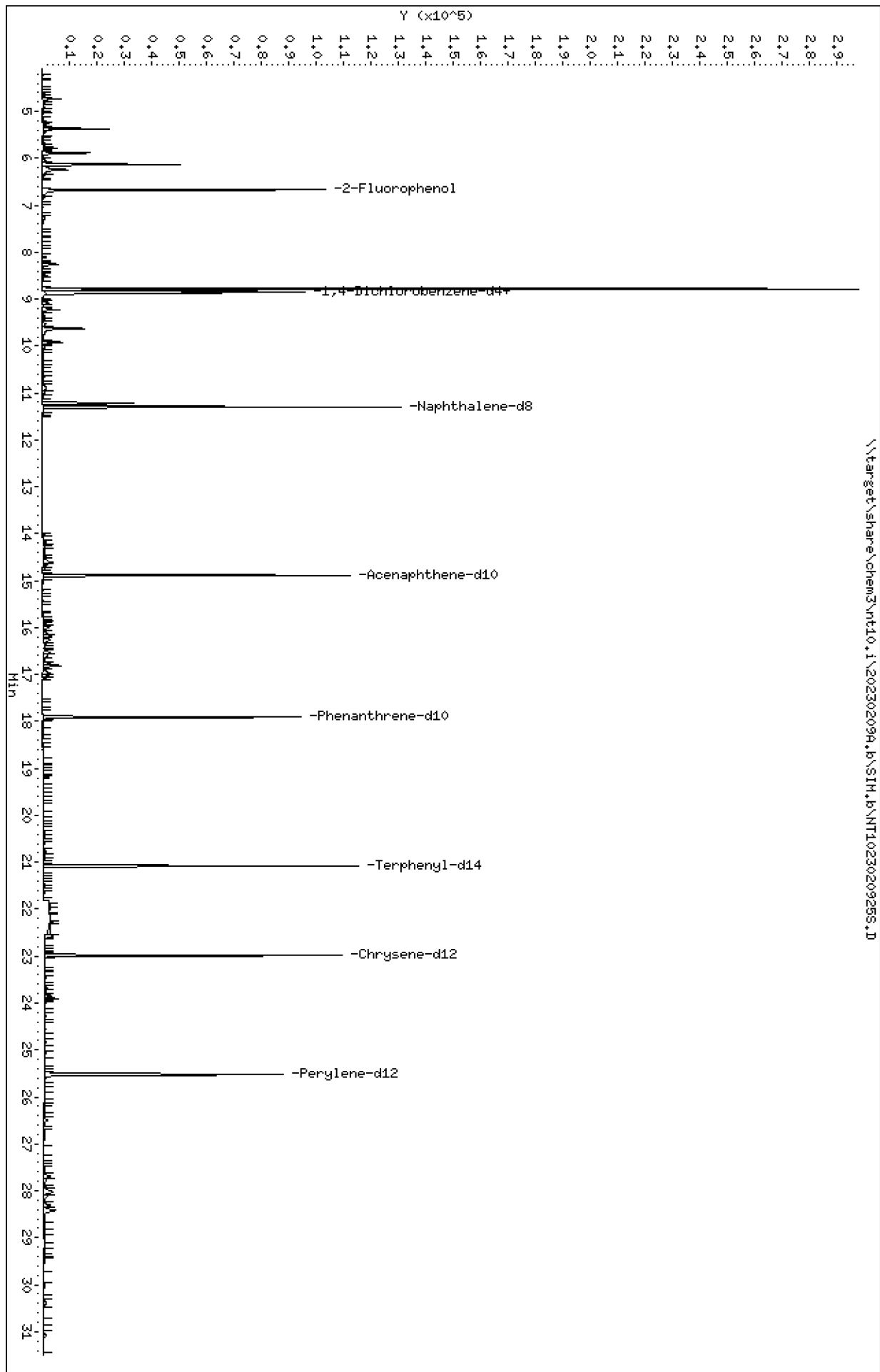
CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	256		0.6	5.0
95-50-1	1,2-Dichlorobenzene	1	26.2		0.7	5.0
100-51-6	Benzyl Alcohol	1	20.0	U	2.5	20.0
65-85-0	Benzoic acid	1	99.8	U	13.4	99.8
105-67-9	2,4-Dimethylphenol	1	20.0	U	2.2	20.0
120-82-1	1,2,4-Trichlorobenzene	1	167		2.7	5.0
86-30-6	N-Nitrosodiphenylamine	1	5.0	U	1.3	5.0
87-86-5	Pentachlorophenol	1	20.0	U	2.1	20.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	748.35	599	80.1	27 - 120	
p-Terphenyl-d14	498.90	488	97.9	37 - 120	

Data File: \\target\share\chem3\nt10.1\202302094.b\SIM.b\NT10230209255.D
Date: 10-FEB-2023 04:21
Client ID:
Sample Info: 23A0032-05
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: DSD
Column diameter: 0.25

\\target\share\chem3\nt10.1\202302094.b\SIM.b\NT10230209255.D



Date : 10-FEB-2023 04:21

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-05

Volume Injected (uL): 1.0

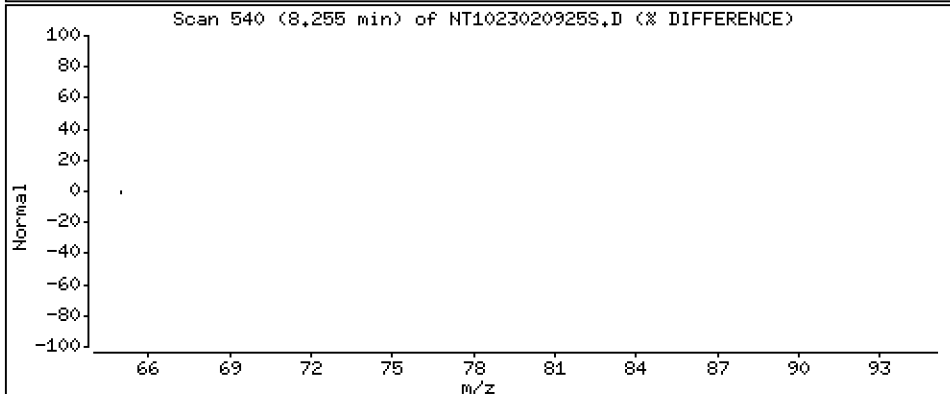
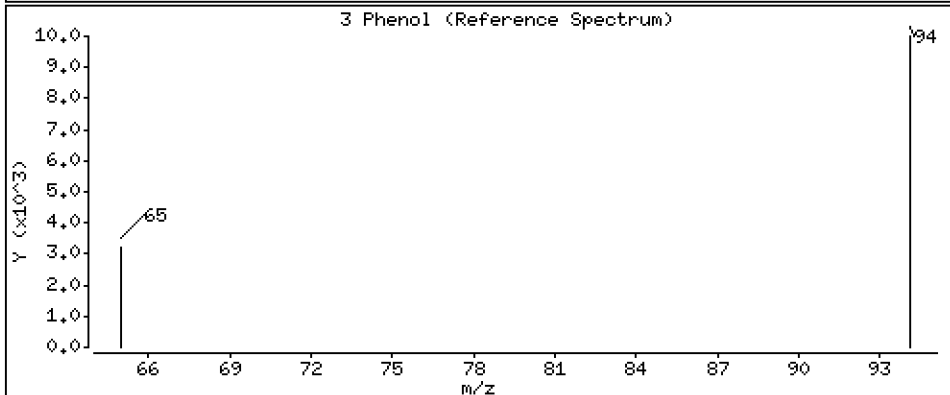
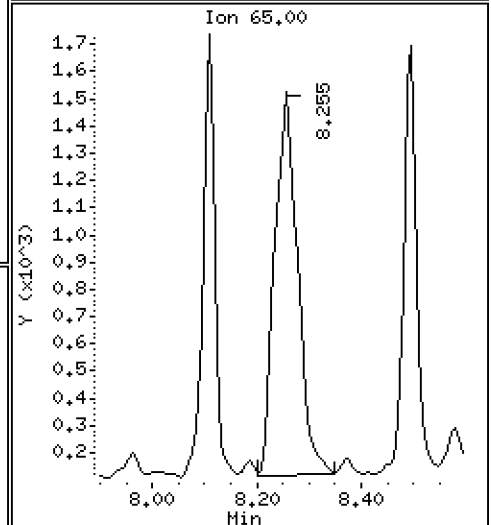
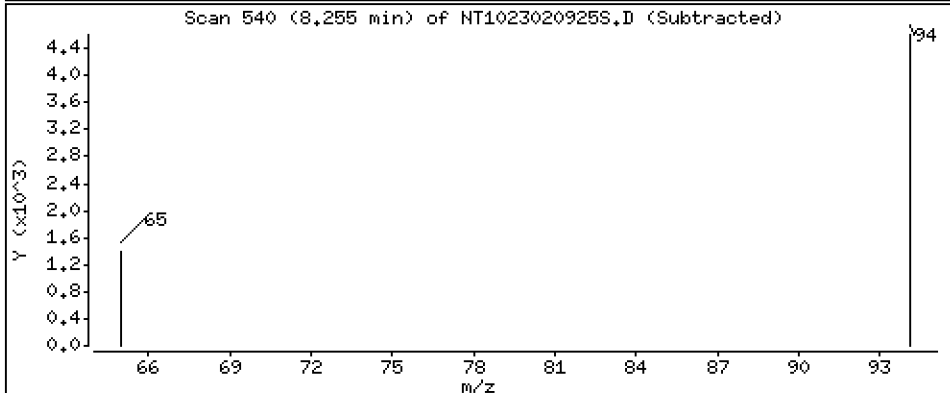
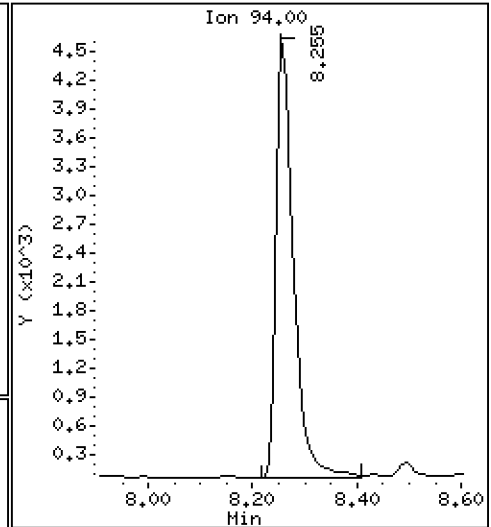
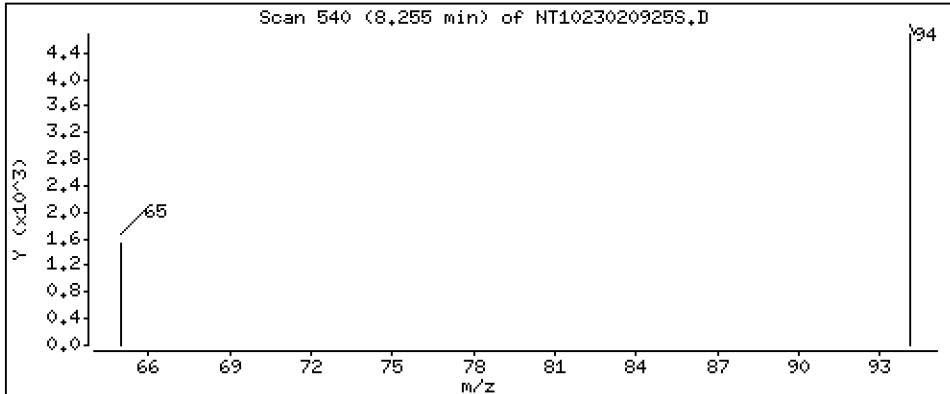
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 0.4108 ug/L



Date : 10-FEB-2023 04:21

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-05

Volume Injected (uL): 1.0

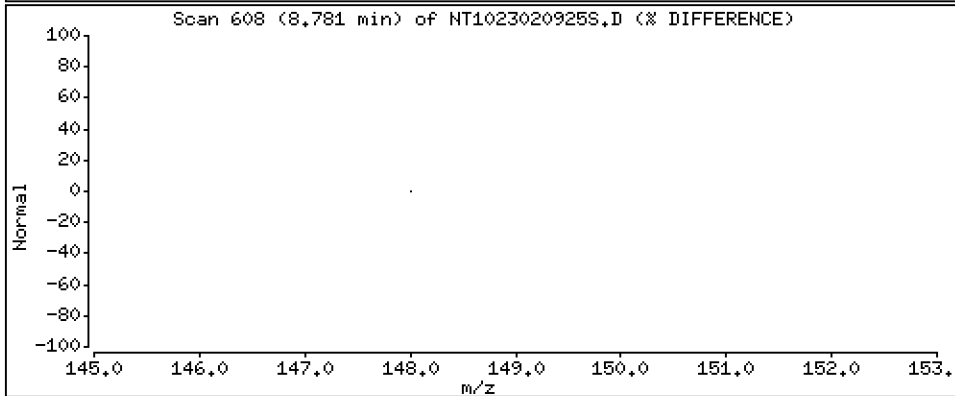
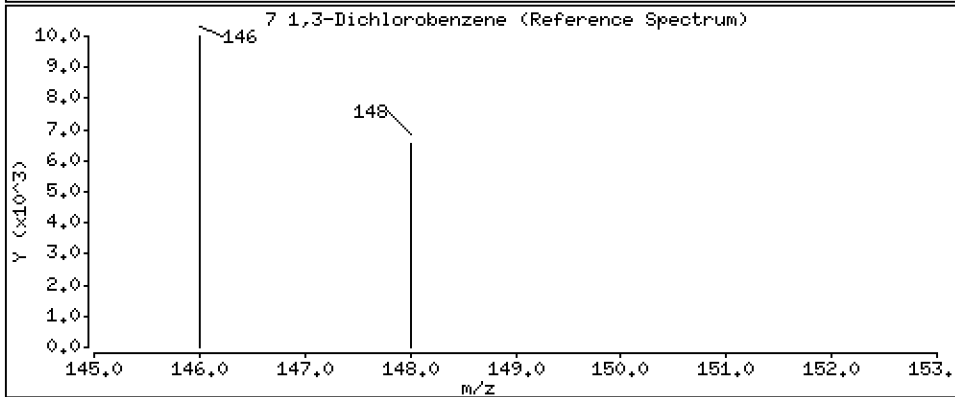
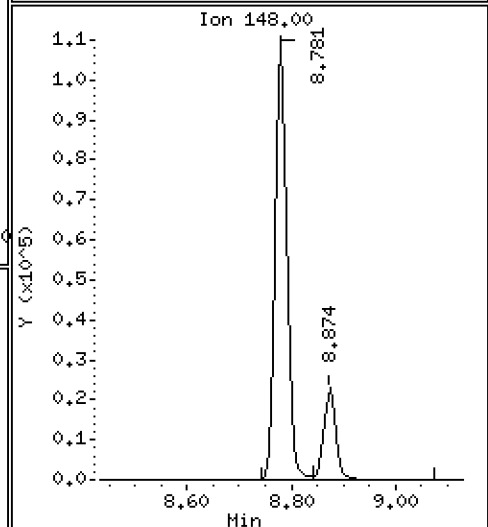
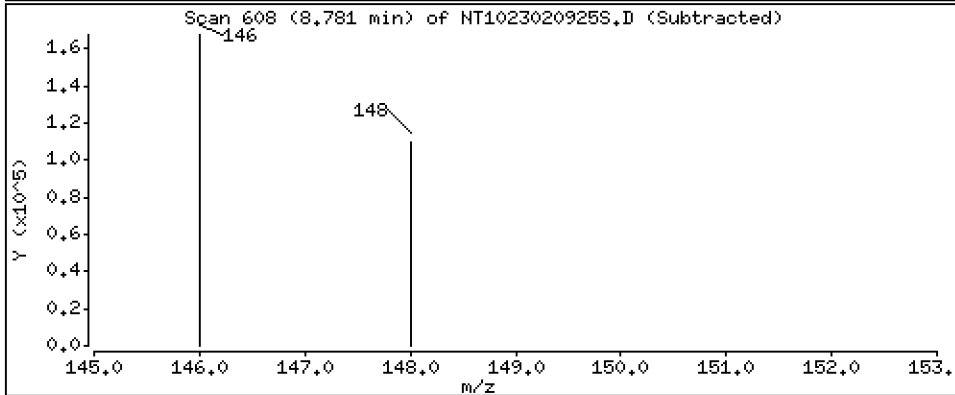
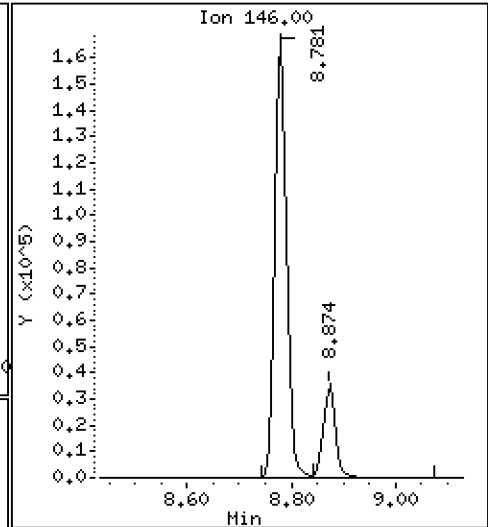
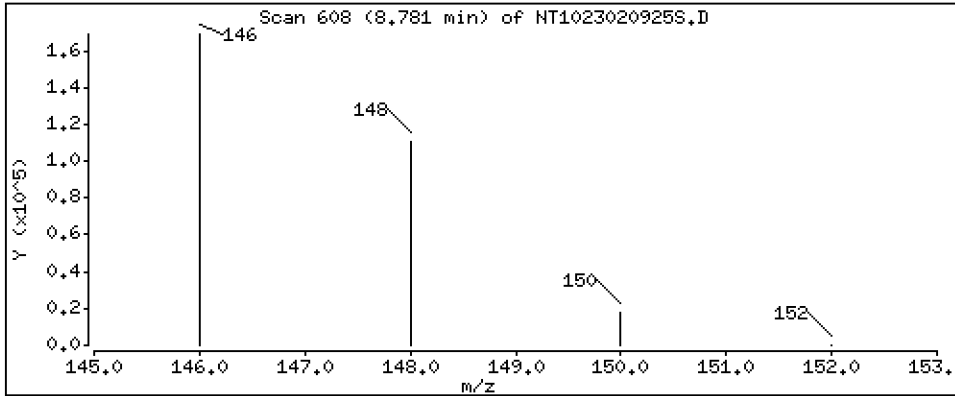
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 11.73 ug/L



Date : 10-FEB-2023 04:21

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-05

Volume Injected (uL): 1.0

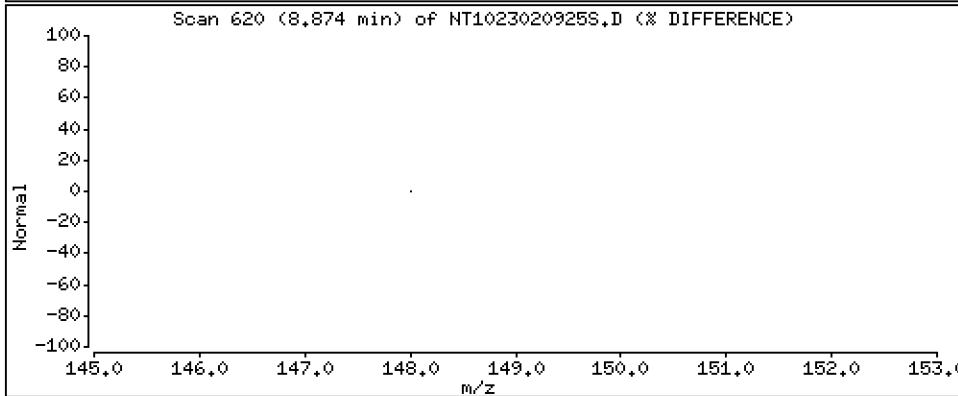
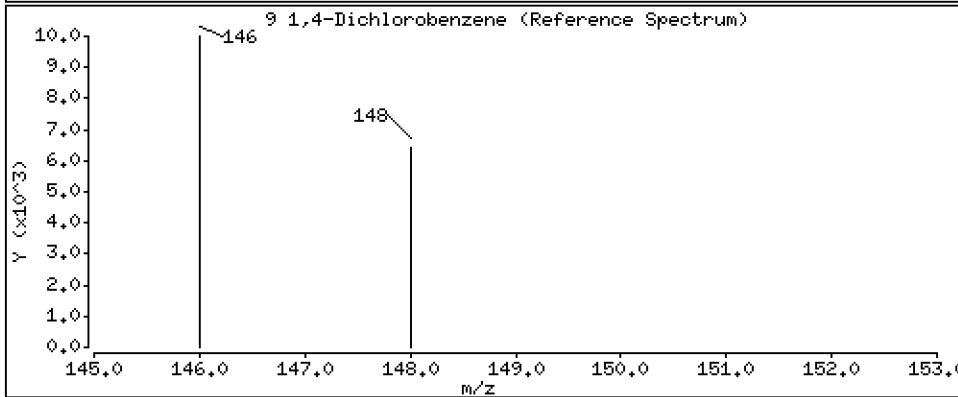
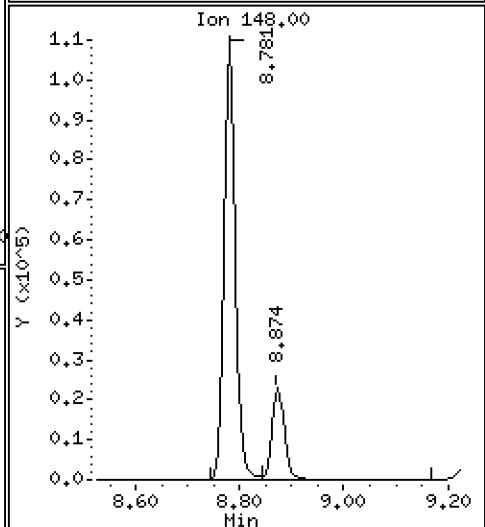
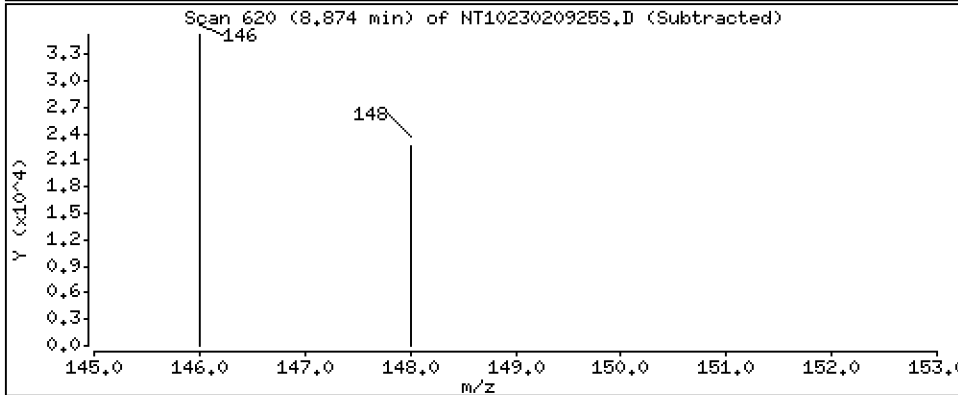
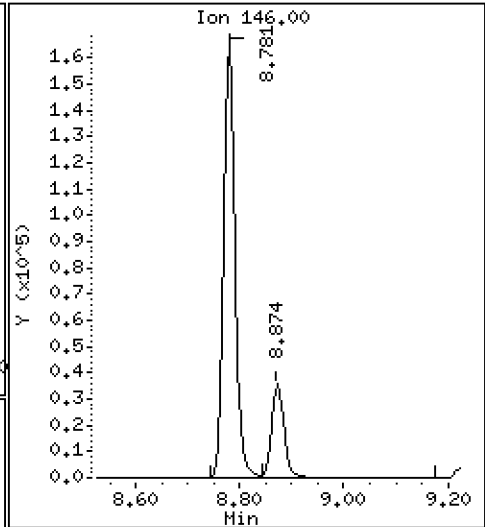
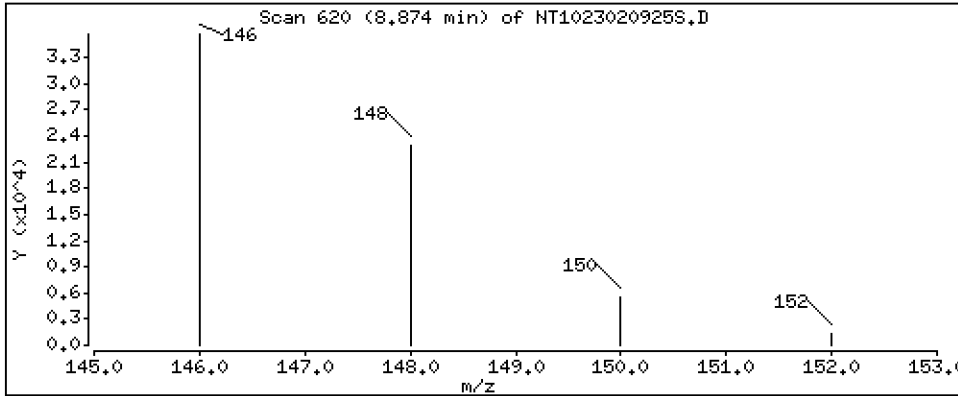
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 2,570 ug/L



Date : 10-FEB-2023 04:21

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-05

Volume Injected (uL): 1.0

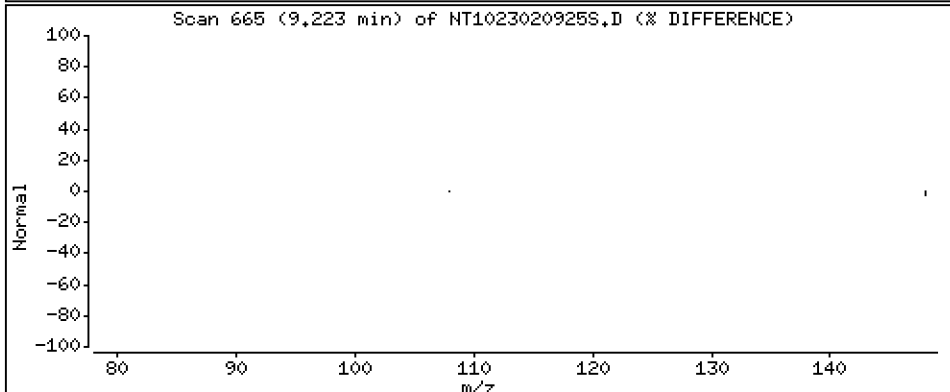
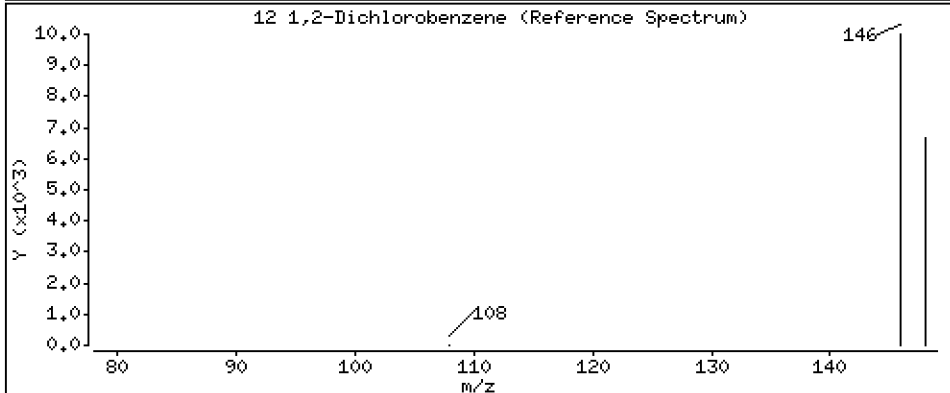
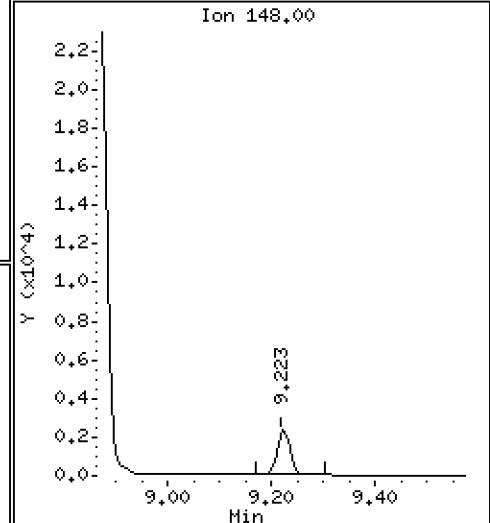
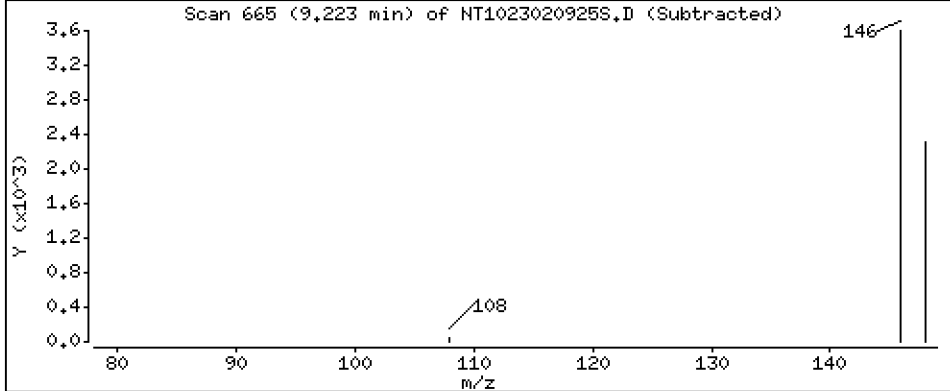
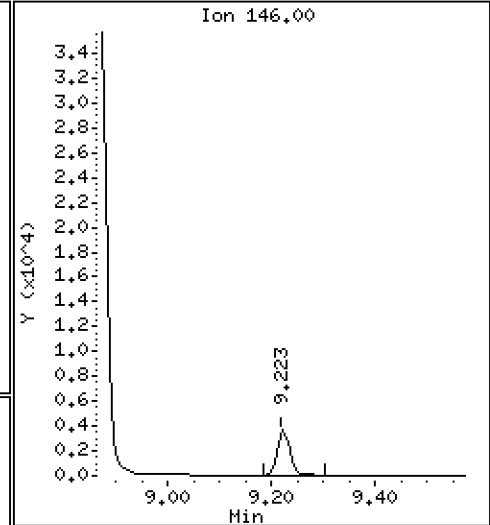
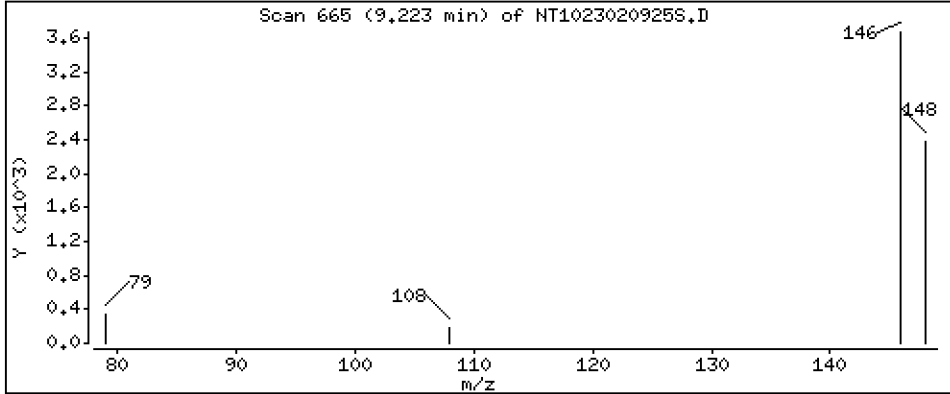
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.2624 ug/L



Date : 10-FEB-2023 04:21

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-05

Volume Injected (uL): 1.0

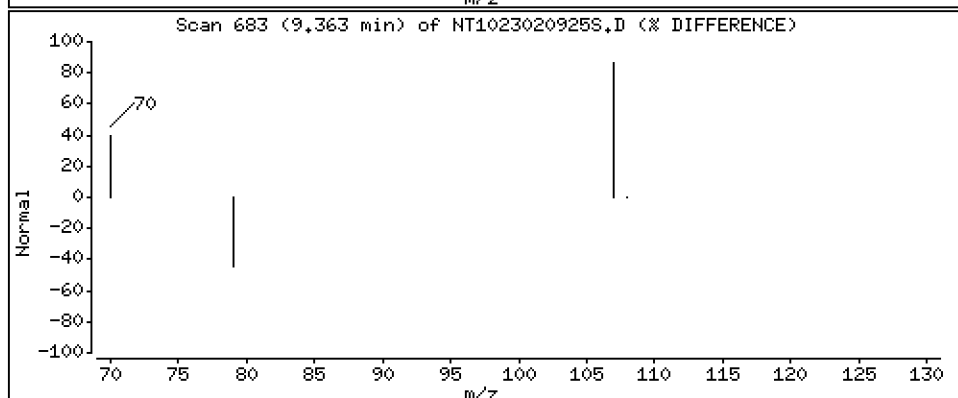
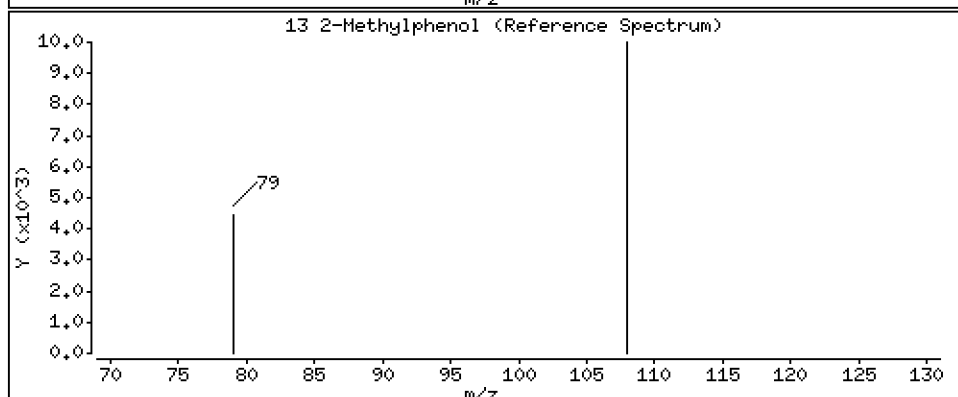
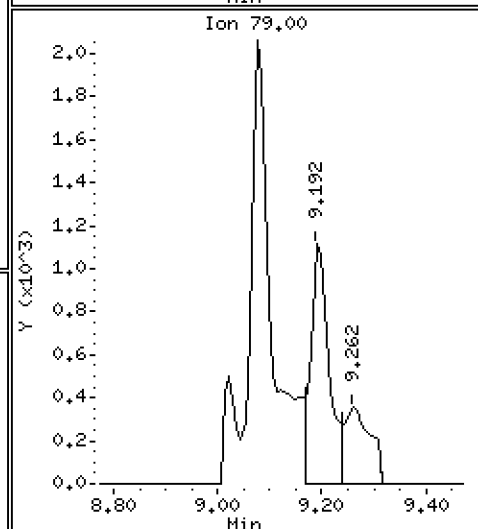
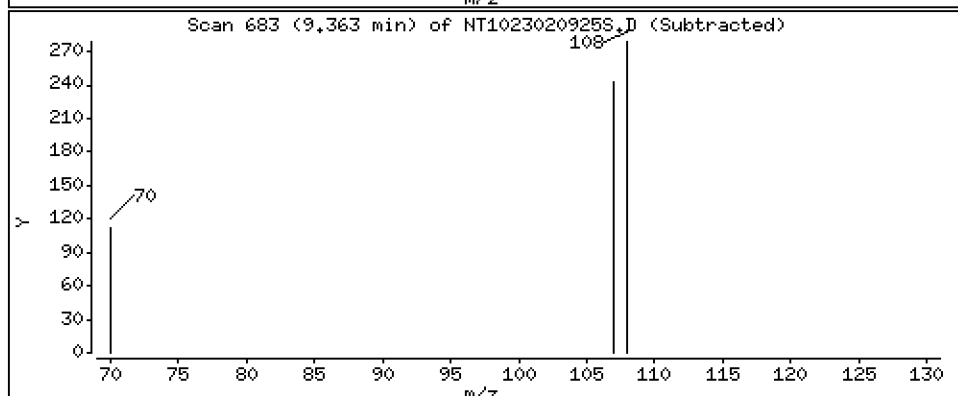
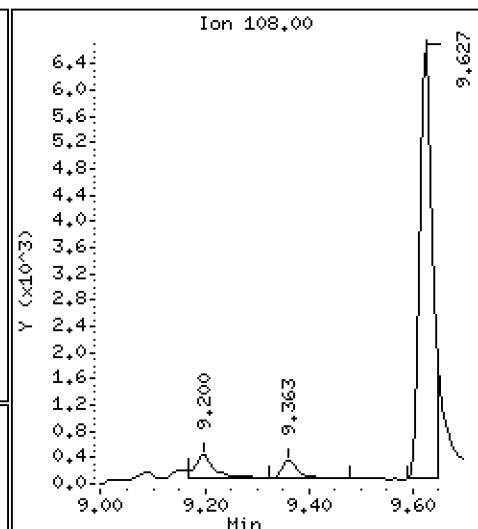
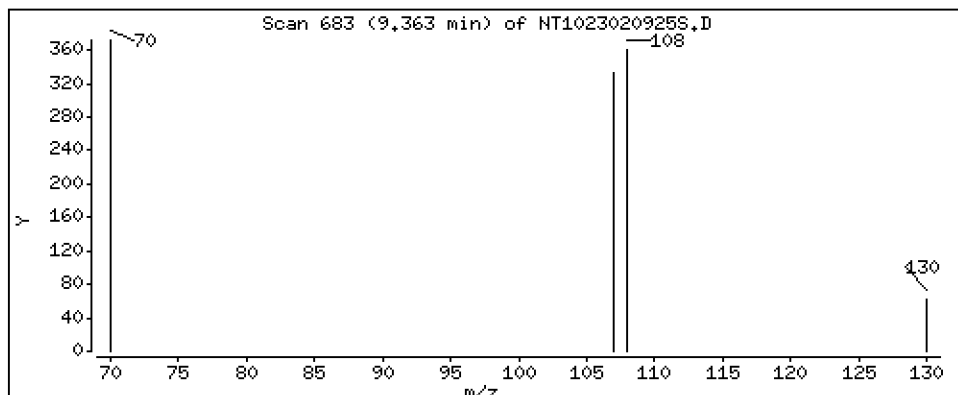
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.03919 ug/L



Date : 10-FEB-2023 04:21

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-05

Volume Injected (uL): 1.0

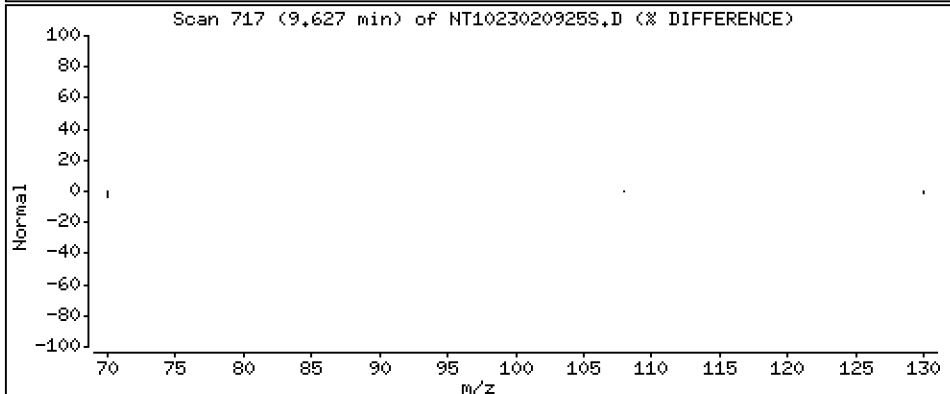
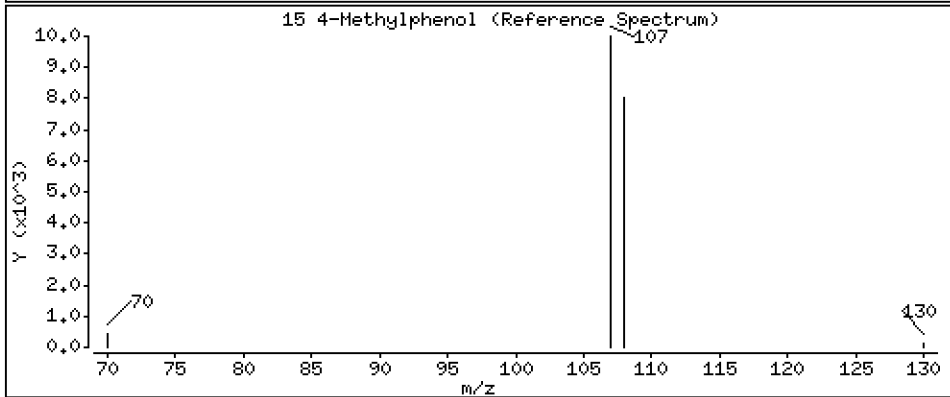
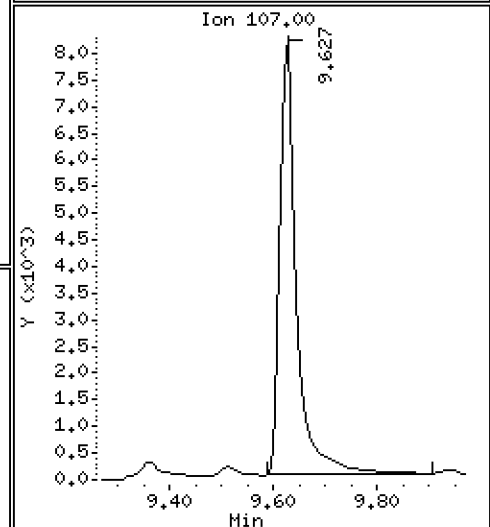
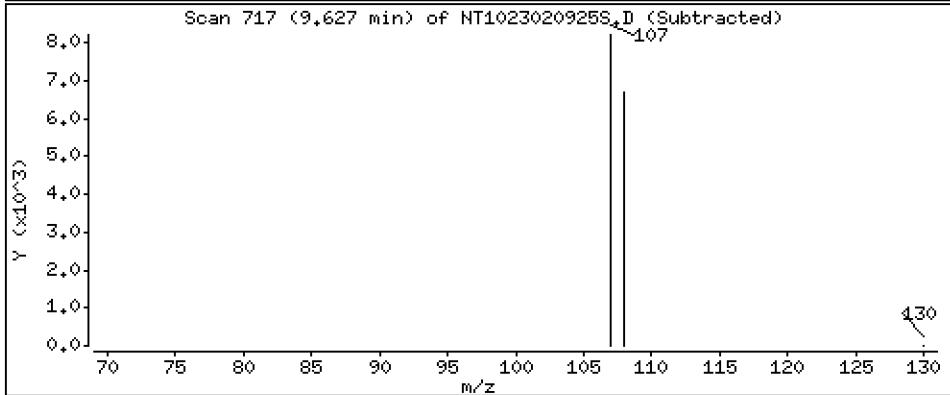
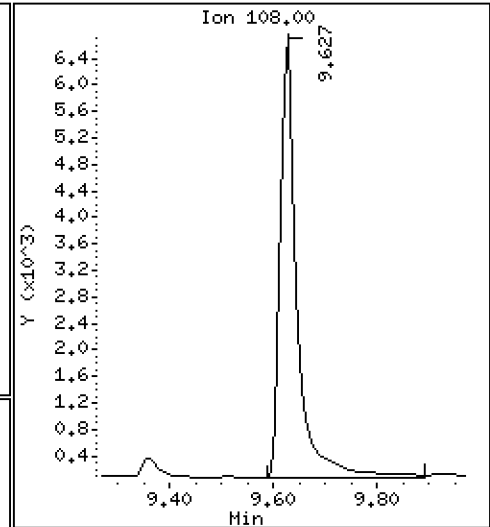
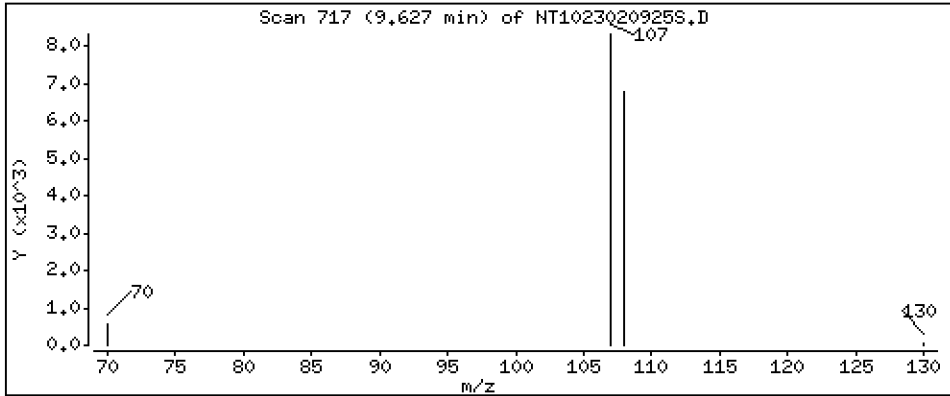
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.8553 ug/L



Date : 10-FEB-2023 04:21

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-05

Volume Injected (uL): 1.0

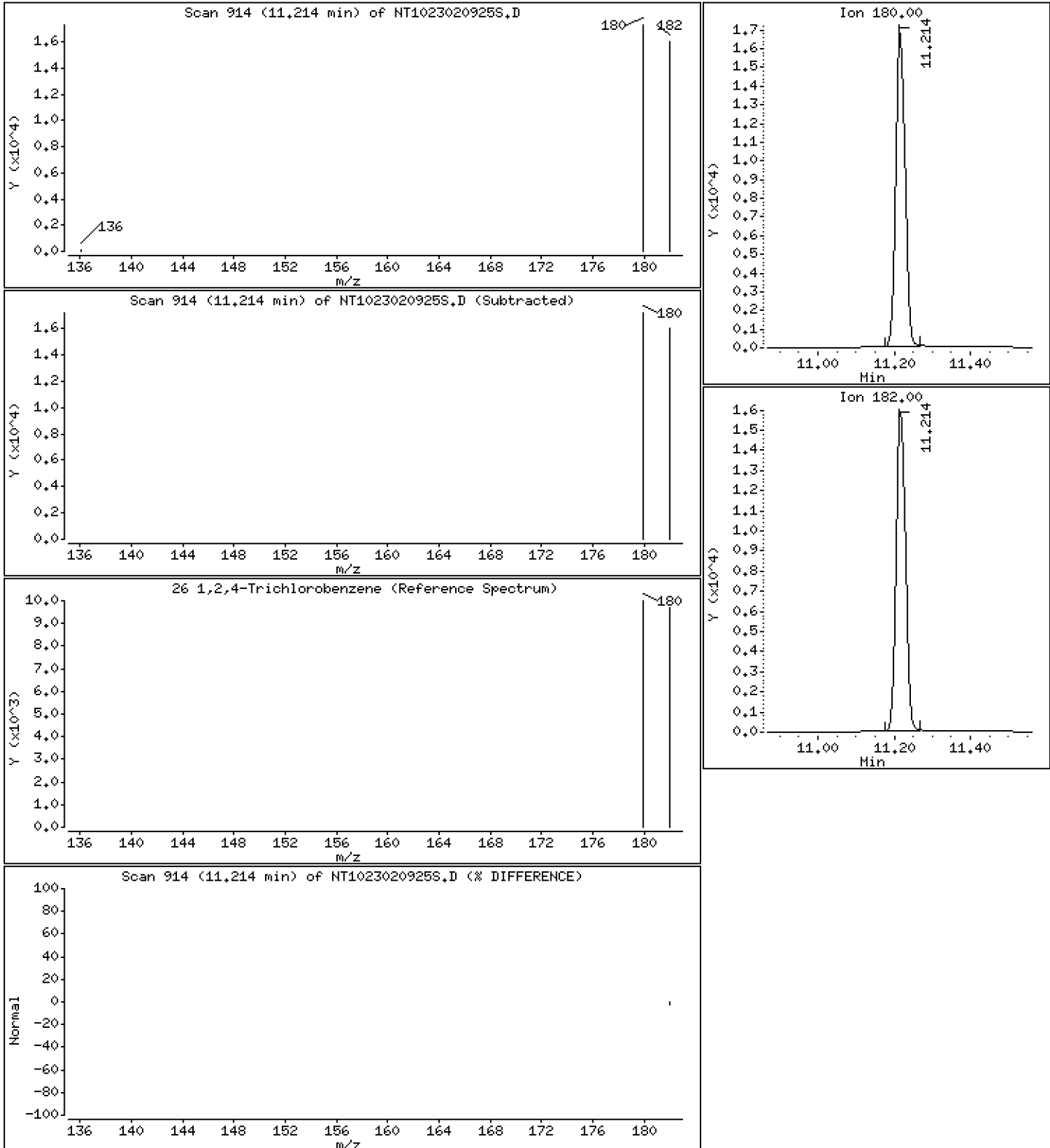
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 1.678 ug/L



Date : 10-FEB-2023 04:21

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-05

Volume Injected (uL): 1.0

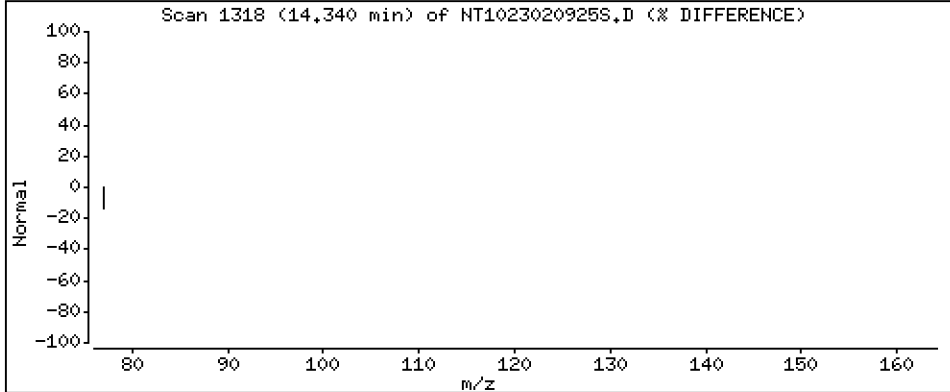
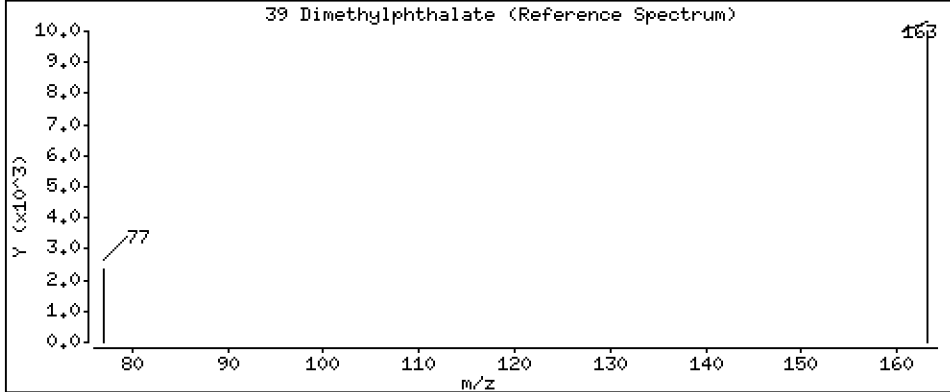
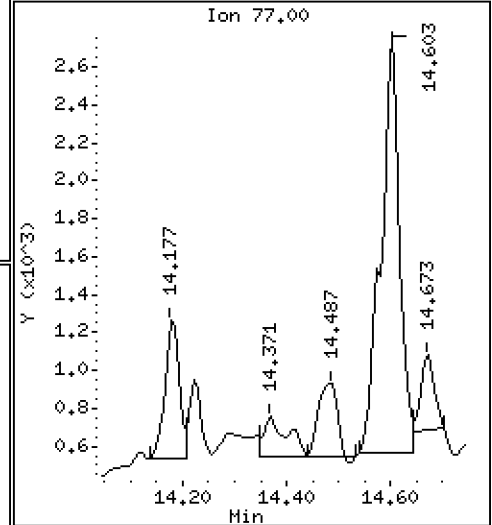
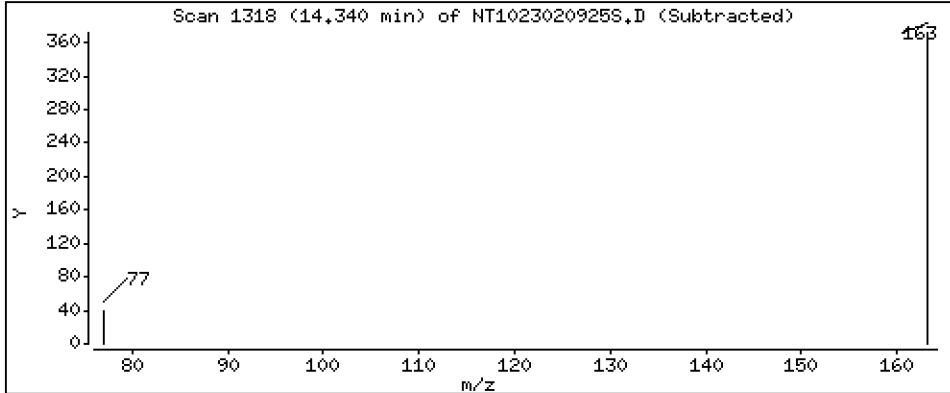
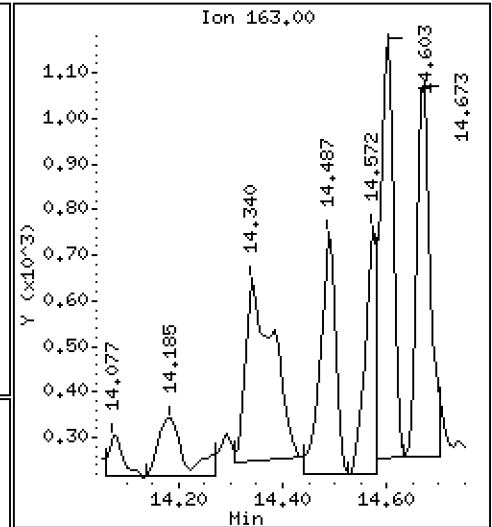
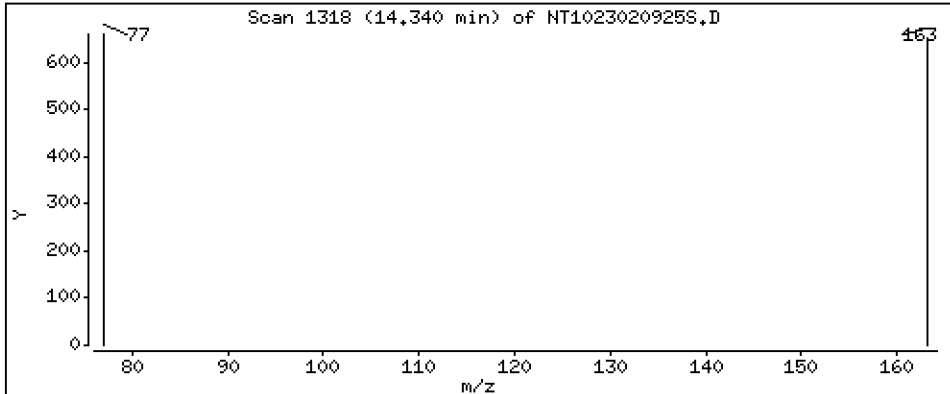
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 0.06840 ug/L



Date : 10-FEB-2023 04:21

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-05

Volume Injected (uL): 1.0

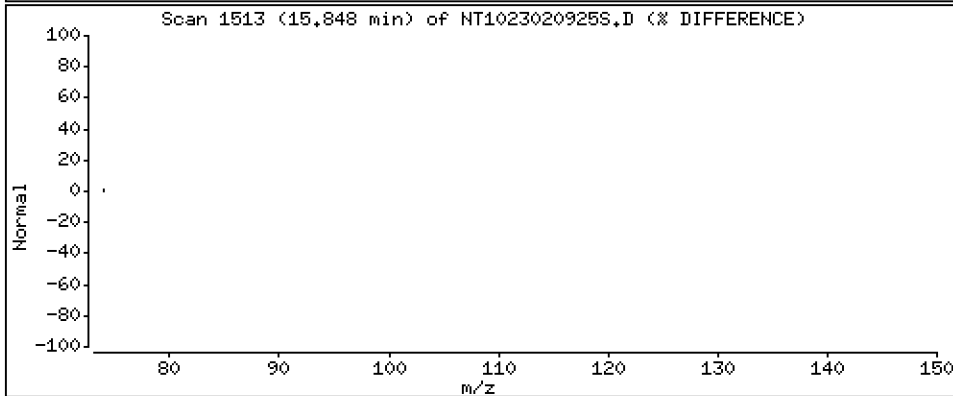
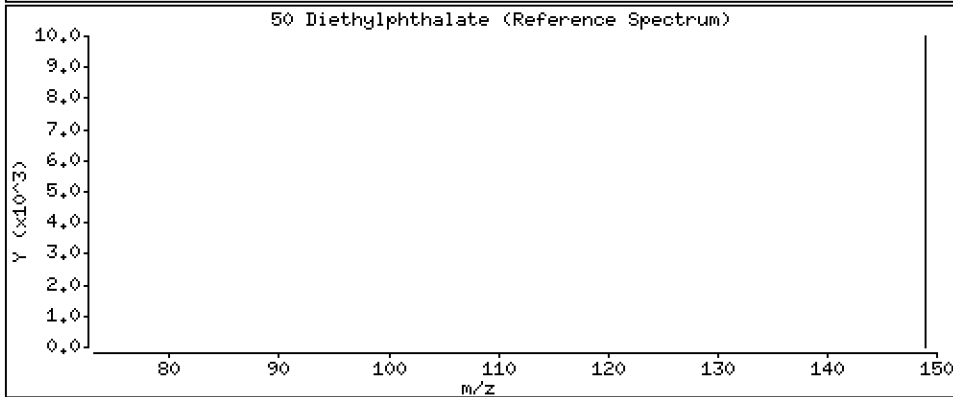
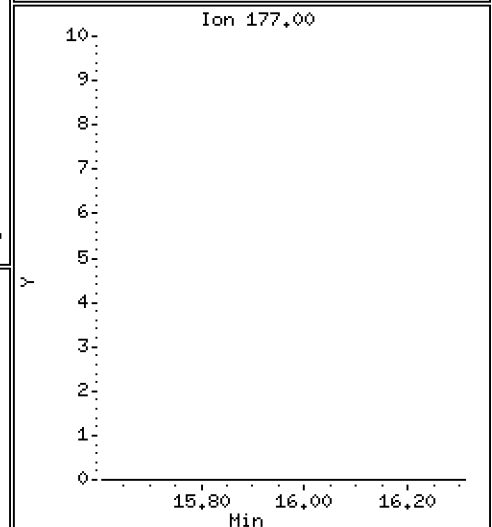
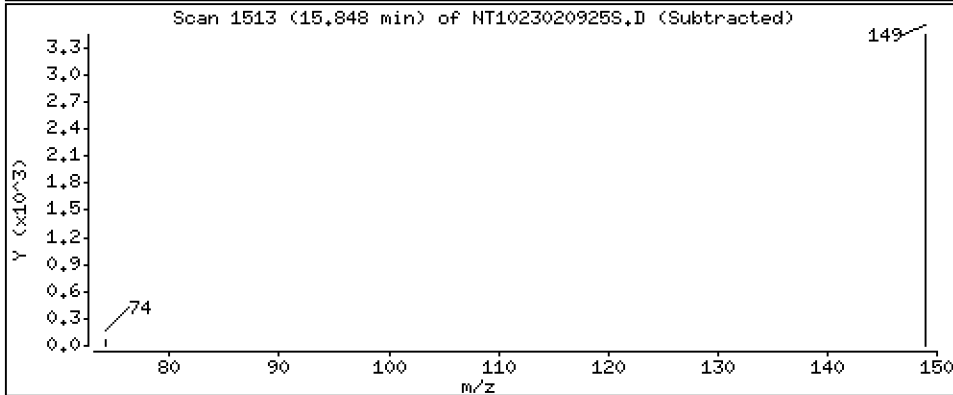
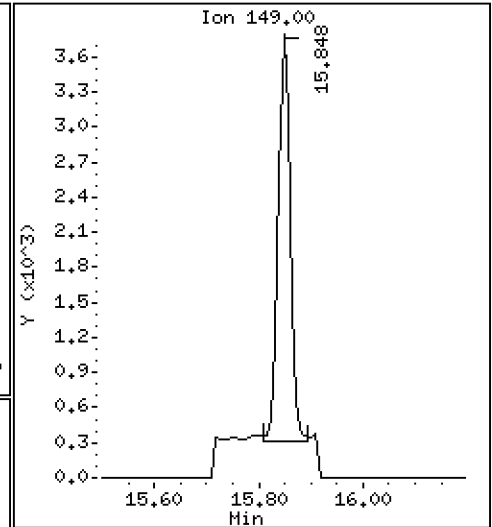
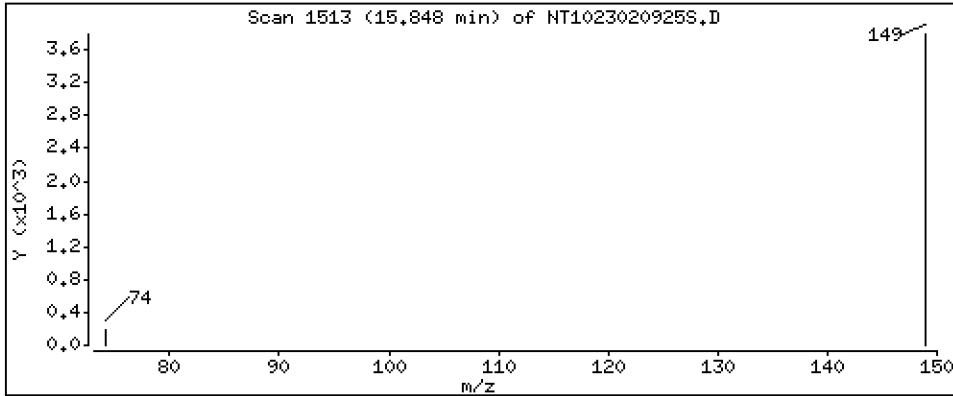
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,1651 ug/L



Date : 10-FEB-2023 04:21

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-05

Volume Injected (uL): 1.0

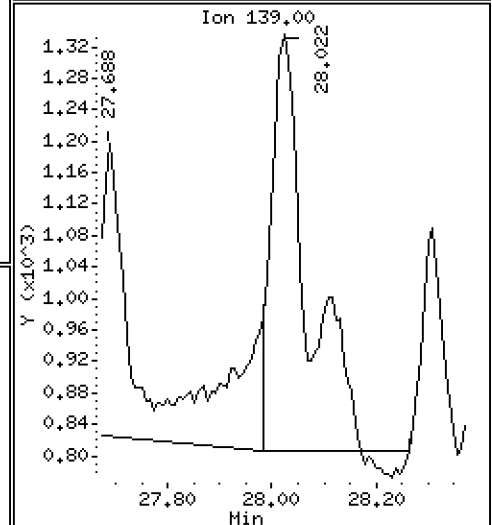
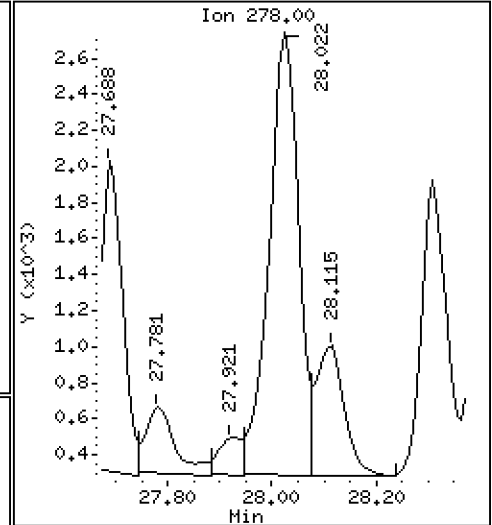
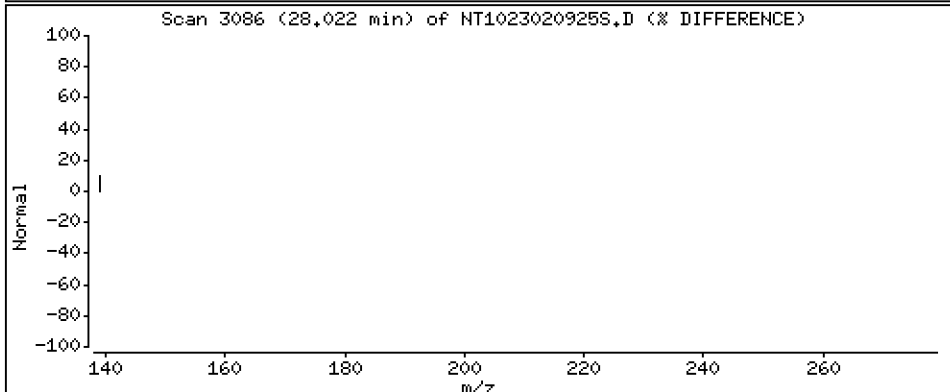
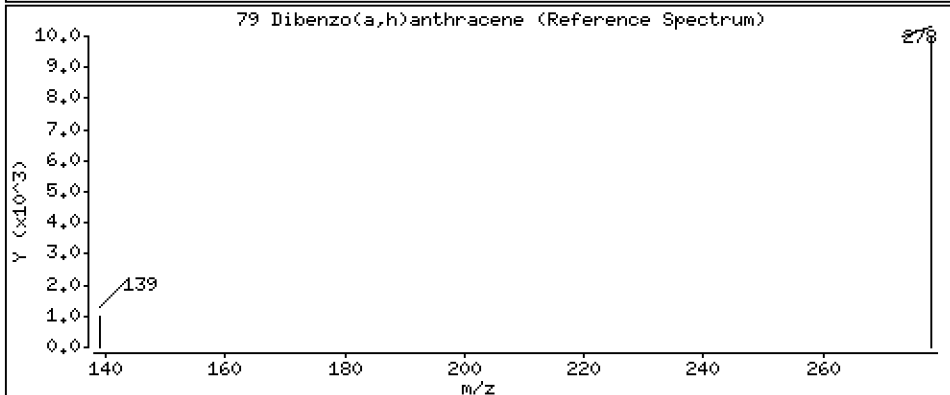
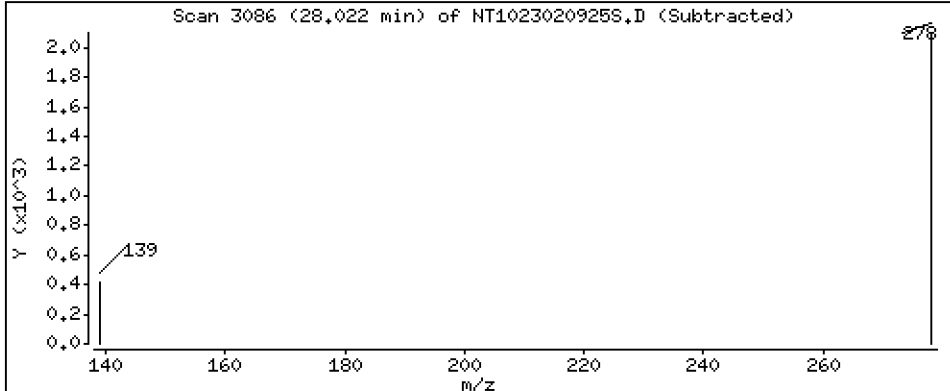
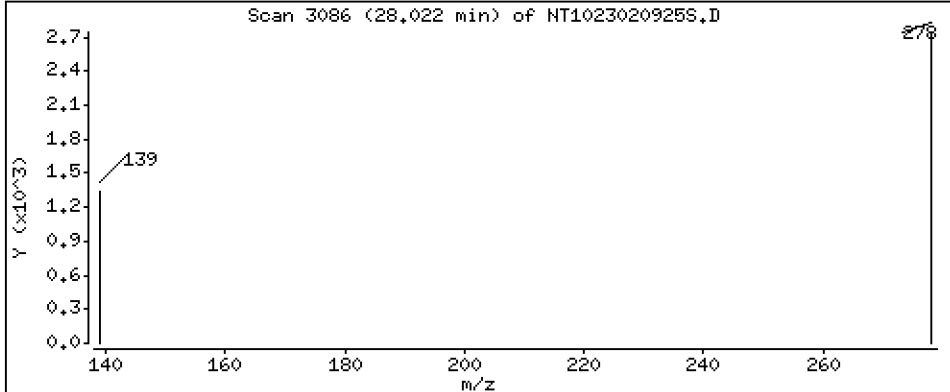
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

79 Dibenzo(a,h)anthracene

Concentration: 0.2076 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230209A.b\SIM.b\NT1023020925S.D
 Lab Smp Id: 23A0032-05
 Inj Date : 10-FEB-2023 04:21 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : 23A0032-05
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230209A.b\SIM.b\SIMABN2.m
 Meth Date : 12-Feb-2023 18:08 yev Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 21
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		6.671	6.663 (0.754)		97655	6.00524	6.005 (RM)
3 Phenol	94		8.255	8.255 (0.934)		10074	0.41084	0.4108
7 1,3-Dichlorobenzene	146		8.781	8.781 (0.993)		258957	11.7270	11.73
* 8 1,4-Dichlorobenzene-d4	152		8.843	8.843 (1.000)		53475	4.00000	
9 1,4-Dichlorobenzene	146		8.874	8.874 (1.004)		55494	2.57039	2.570
11 Benzyl alcohol	79		Compound Not Detected.					
12 1,2-Dichlorobenzene	146		9.223	9.223 (1.043)		5530	0.26244	0.2624
13 2-Methylphenol	108		9.363	9.348 (1.059)		656	0.03919	0.03919
15 4-Methylphenol	108		9.627	9.619 (1.089)		14603	0.85528	0.8553
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
24 Benzoic acid	105		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		11.214	11.214 (0.992)		27305	1.67769	1.678
* 27 Naphthalene-d8	136		11.298	11.299 (1.000)		197668	4.00000	
30 Hexachlorobutadiene	225		Compound Not Detected.					
39 Dimethylphthalate	163		14.339	14.402 (0.963)		1458	0.06840	0.06840
* 42 Acenaphthene-d10	162		14.889	14.882 (1.000)		91464	4.00000	
50 Diethylphthalate	149		15.848	15.848 (1.064)		5300	0.16509	0.1651 (M)
54 N-Nitrosodiphenylamine	169		Compound Not Detected.					
57 Hexachlorobenzene	284		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		Compound Not Detected.					
* 59 Phenanthrene-d10	188		17.910	17.903	(1.000)	161591	4.00000	
\$ 66 Terphenyl-d14	244		21.074	21.075	(0.917)	154000	4.89528	4.895(R)
67 Butylbenzylphthalate	149		Compound Not Detected.					
* 69 Chrysene-d12	240		22.979	22.980	(1.000)	141730	4.00000	
* 77 Perylene-d12	264		25.519	25.511	(1.000)	167096	4.00000	
79 Dibenzo(a,h)anthracene	278		28.022	28.022	(1.098)	9723	0.20762	0.2076(H)
90 N-Nitrosodimethylamine	74		Compound Not Detected.					

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020925S.D
 Lab Smp Id: 23A0032-05
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230209A.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 10-FEB-2023
 Calibration Time: 02:26
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	99878	49939	199756	53475	-46.46
27 Naphthalene-d8	353725	176863	707450	197668	-44.12
42 Acenaphthene-d10	168125	84063	336250	91464	-45.60
59 Phenanthrene-d10	295176	147588	590352	161591	-45.26
69 Chrysene-d12	264951	132476	529902	141730	-46.51
77 Perylene-d12	304147	152074	608294	167096	-45.06

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	-0.00
27 Naphthalene-d8	11.30	10.80	11.80	11.30	-0.00
42 Acenaphthene-d10	14.88	14.38	15.38	14.89	0.05
59 Phenanthrene-d10	17.90	17.40	18.40	17.91	0.04
69 Chrysene-d12	22.98	22.48	23.48	22.98	-0.00
77 Perylene-d12	25.51	25.01	26.01	25.52	0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020925S.D

Lab ID: 23A0032-05

nt10.i, 20230209A.b\SIM.b\SIMABN2.m, 10-FEB-2023 04:21

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: SIM.b/NT1023020922S.D

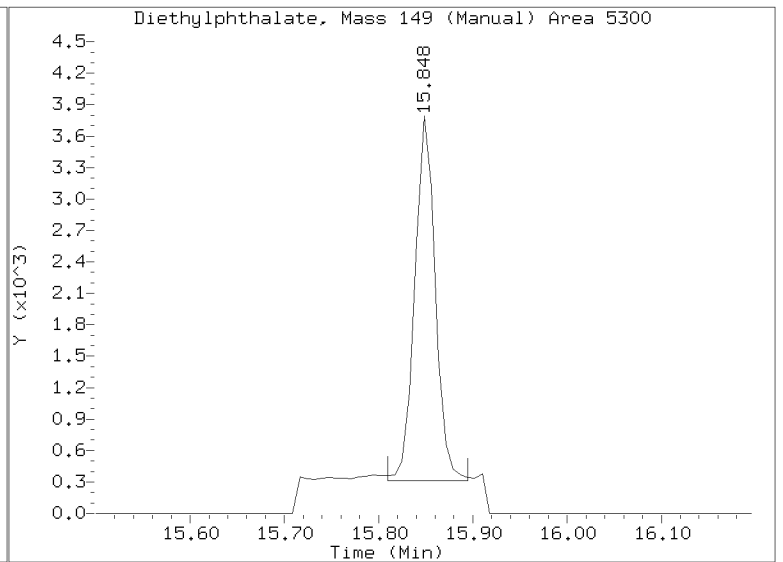
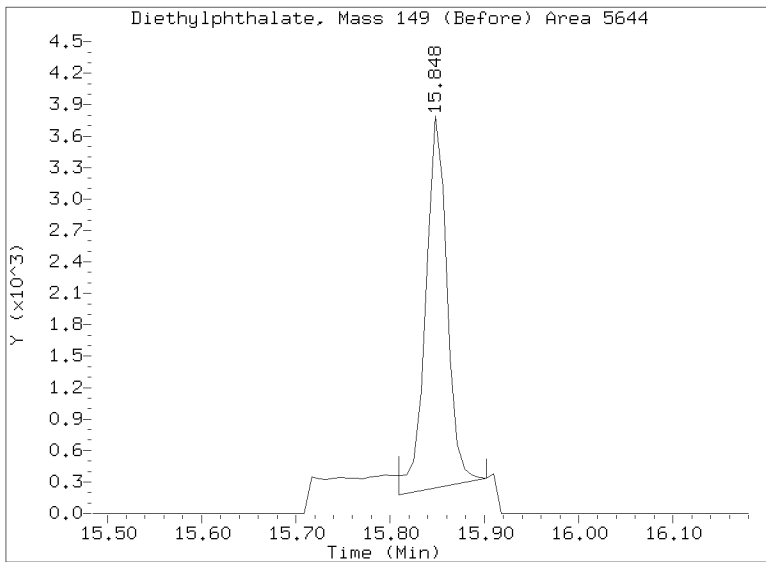
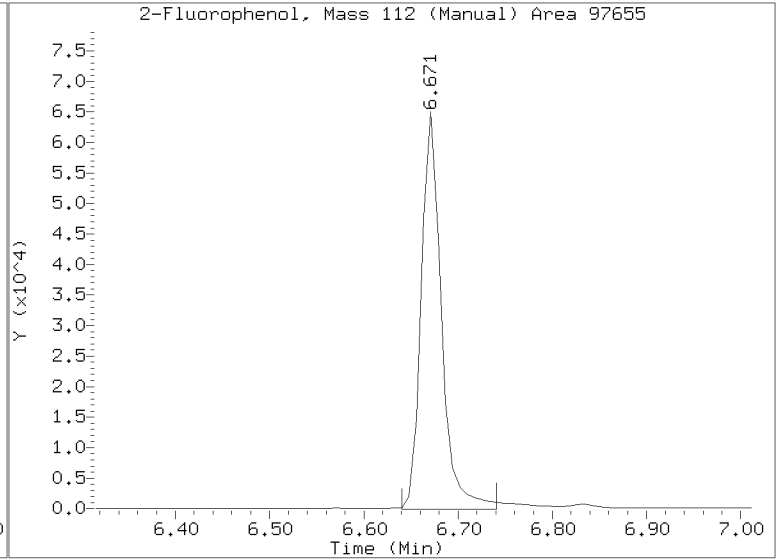
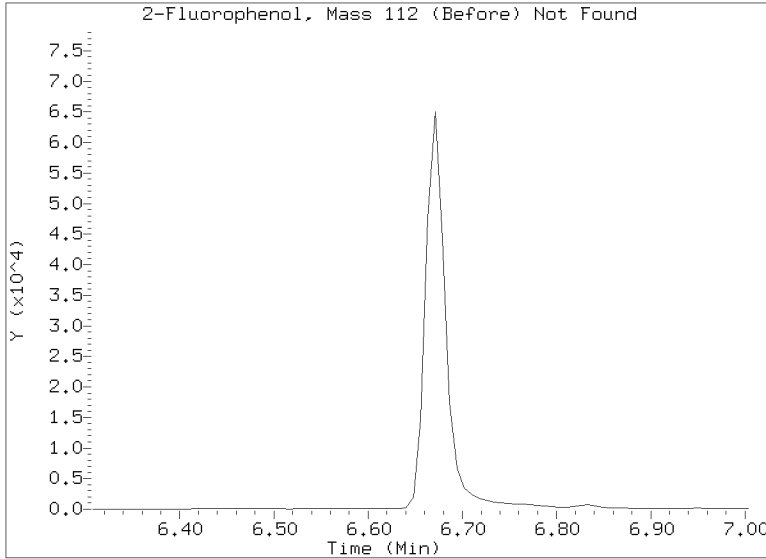
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209A.b/SIM.b/NT1023020925S.D
Injection Date: 10-FEB-2023 04:21
Lab ID:23A0032-05 Client ID:
Report Date: 02/12/2023 18:08





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Polynuclear Aromatic Hydrocarbons

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-06 A

SDG: 23A0032

Sampled: 01/03/23 13:34

Prepared: 01/11/23 11:45

File ID: N823011921.D

% Solids: 74.20

Preparation: EPA 3546 (Microwave)

Analyzed: 01/19/23 20:20

Batch: BLA0171

Sequence: SLA0228

Initial/Final: 13.48 g Wet / 0.5 mL

Instrument: NT8

Column: RXI-17Sil ms

Calibration: GA00050

Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
56-55-3	Benzo(a)anthracene	1	17.7		0.82	5.00
218-01-9	Chrysene	1	26.8		1.05	5.00
205-99-2	Benzo(b)fluoranthene	1	29.4		1.37	5.00
207-08-9	Benzo(k)fluoranthene	1	14.5		0.76	5.00
50-32-8	Benzo(a)pyrene	1	26.8		0.61	5.00
193-39-5	Indeno(1,2,3-cd)pyrene	1	17.6		1.05	5.00
53-70-3	Dibenzo(a,h)anthracene	1	5.03		0.89	5.00

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	149.97	80.0	53.4	32 - 120	
Dibenzo[a,h]anthracene-d14	149.97	130	86.6	21 - 133	
Fluoranthene-d10	149.97	97.8	65.2	36 - 134	

Data File: \\target\share\chem3\nt8.1\20230119A.6\N823011921.D

Date: 19-JAN-2023 20:20

Client ID:

Sample Info: 23A0032-06

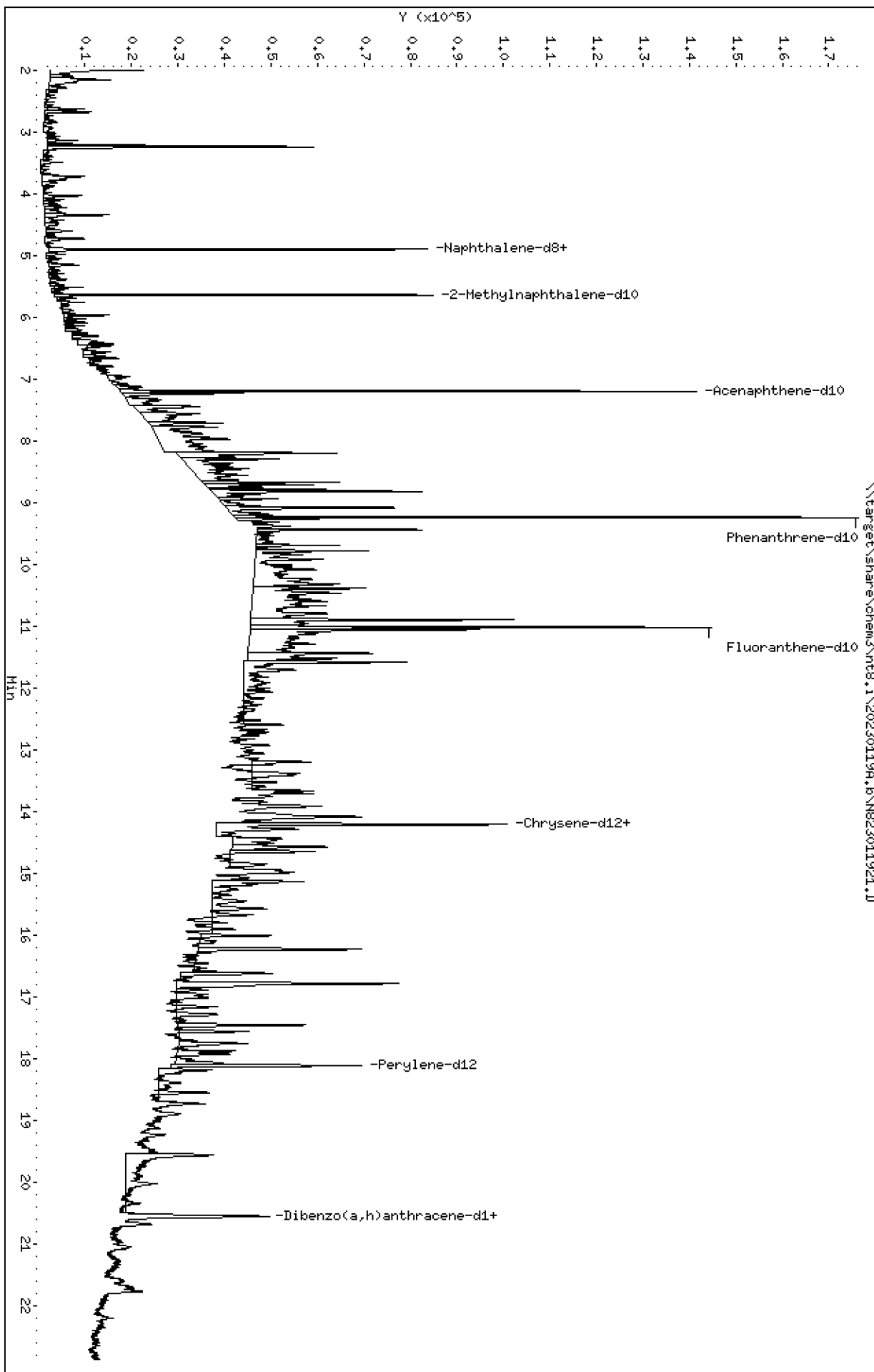
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

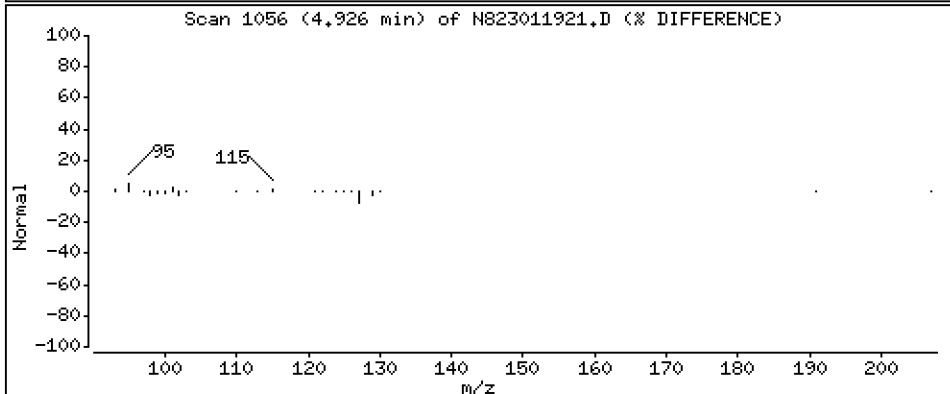
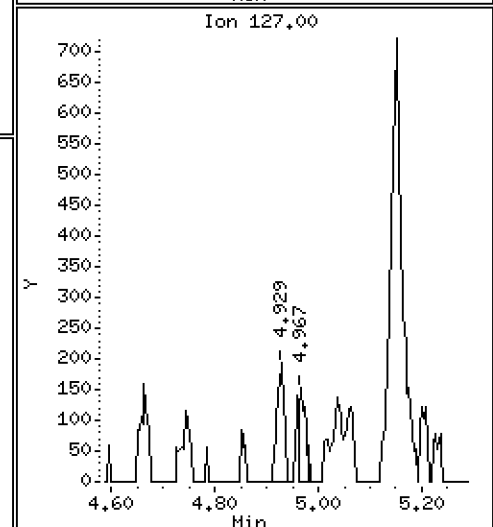
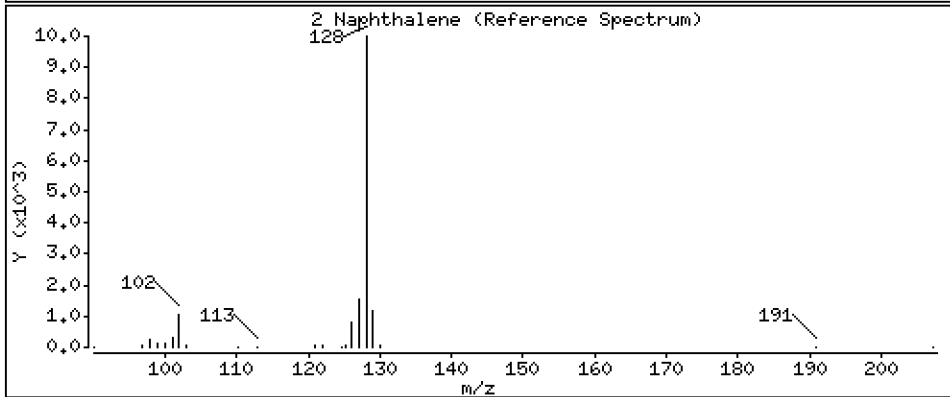
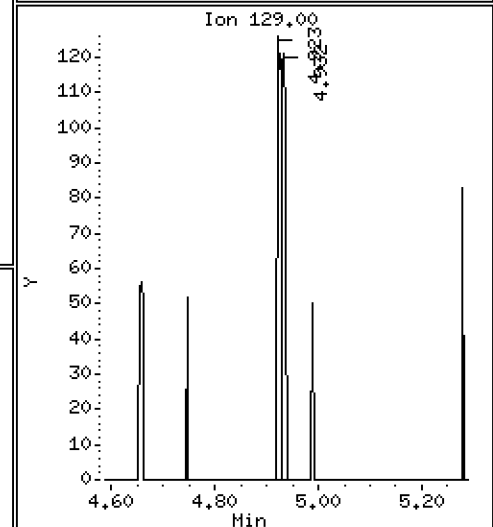
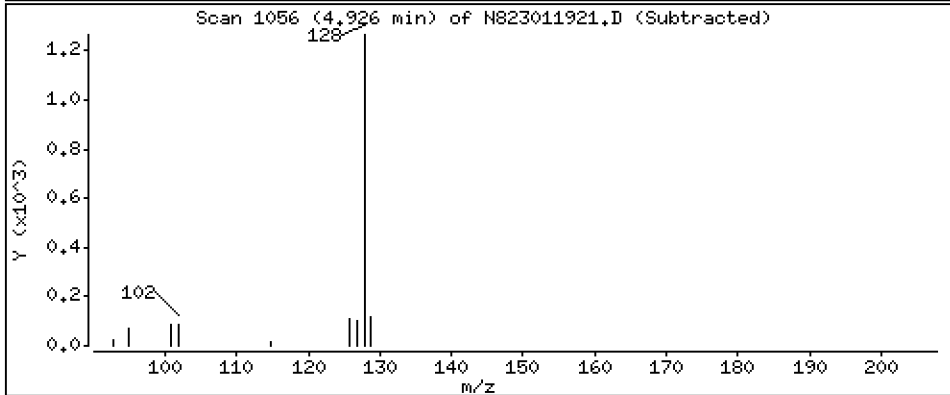
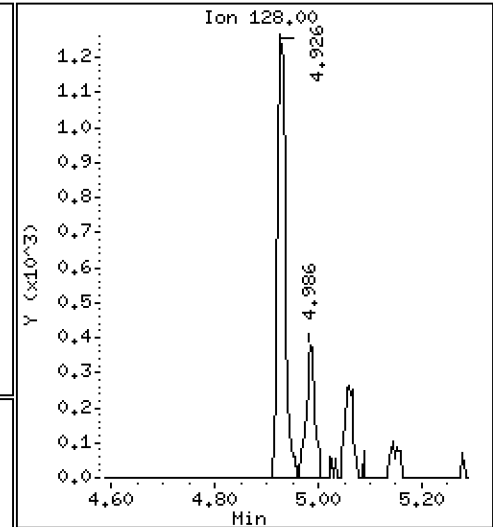
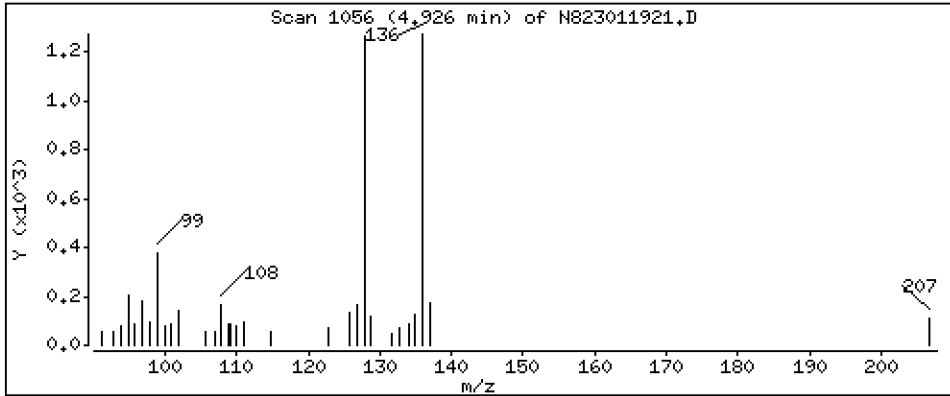
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

2 Naphthalene

Concentration: 0,04913 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

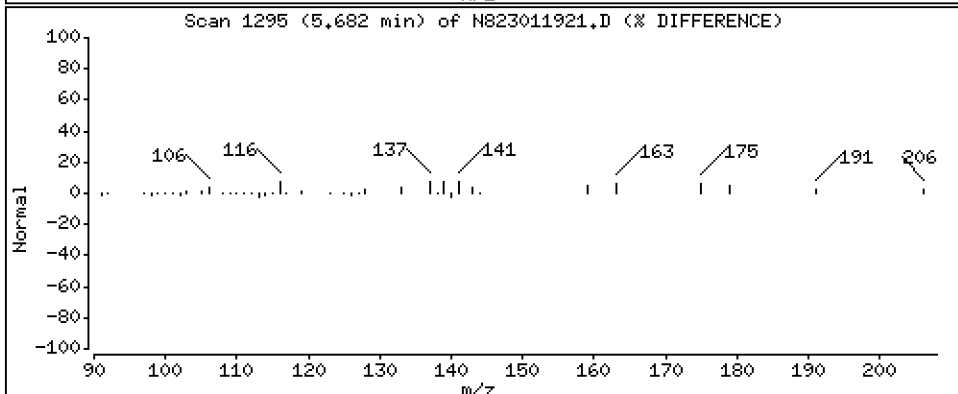
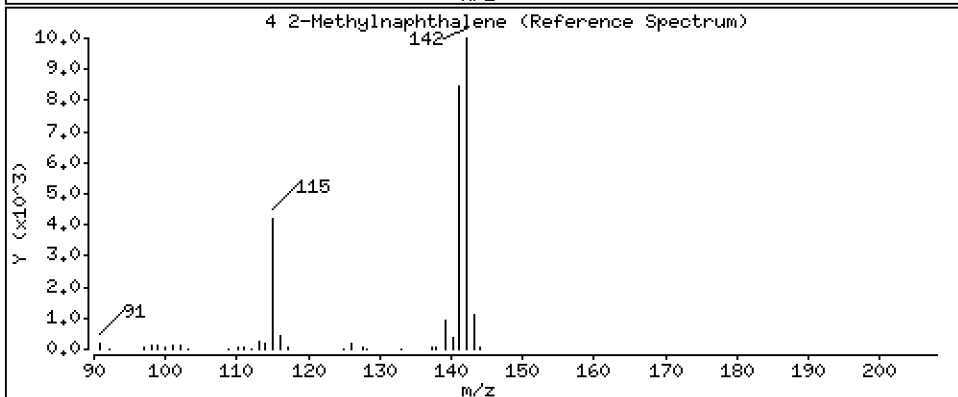
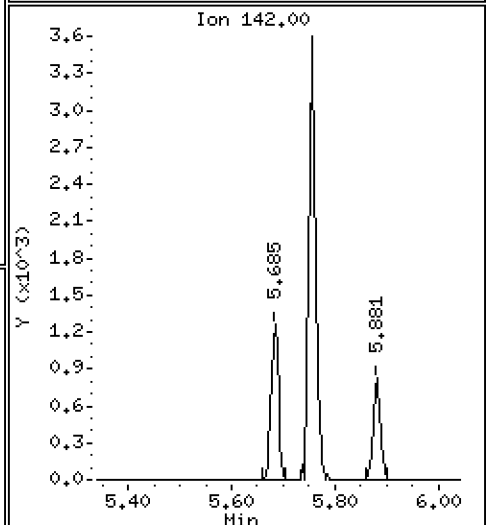
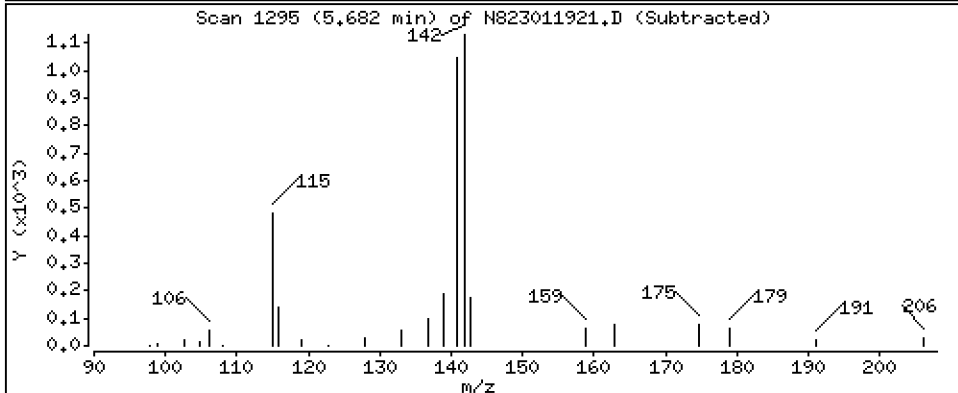
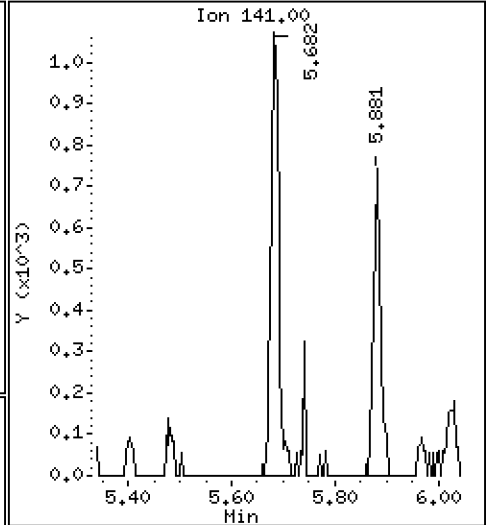
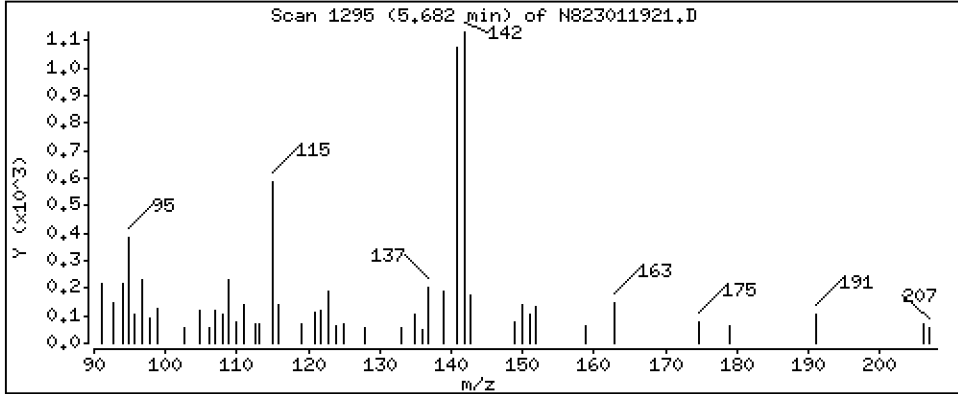
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

4-Methylnaphthalene

Concentration: 0.07244 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

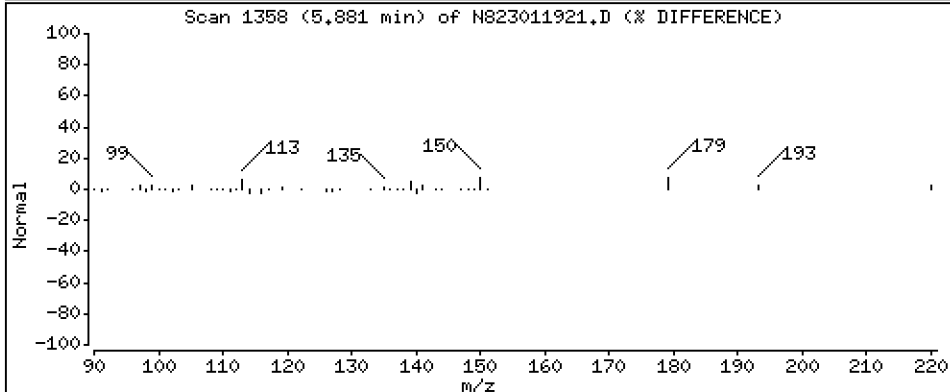
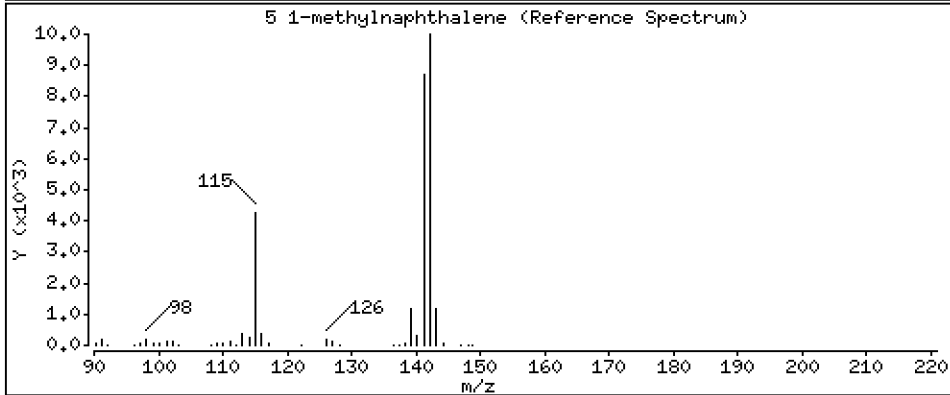
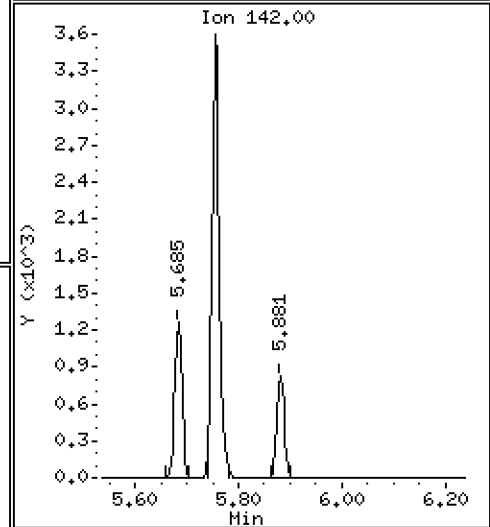
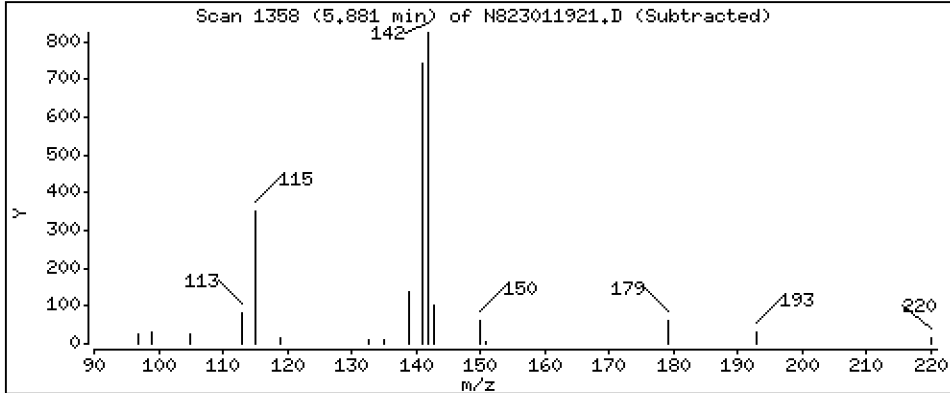
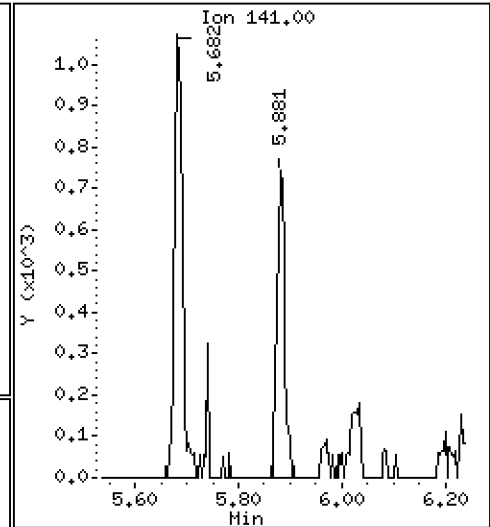
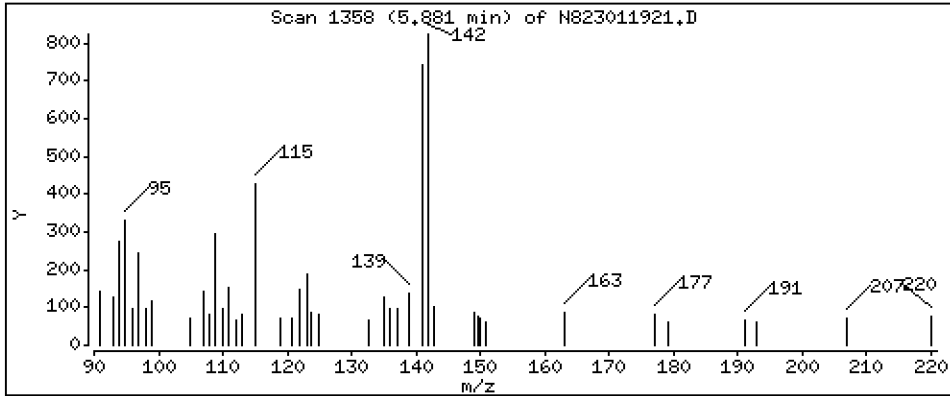
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

5 1-methylnaphthalene

Concentration: 0.04815 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

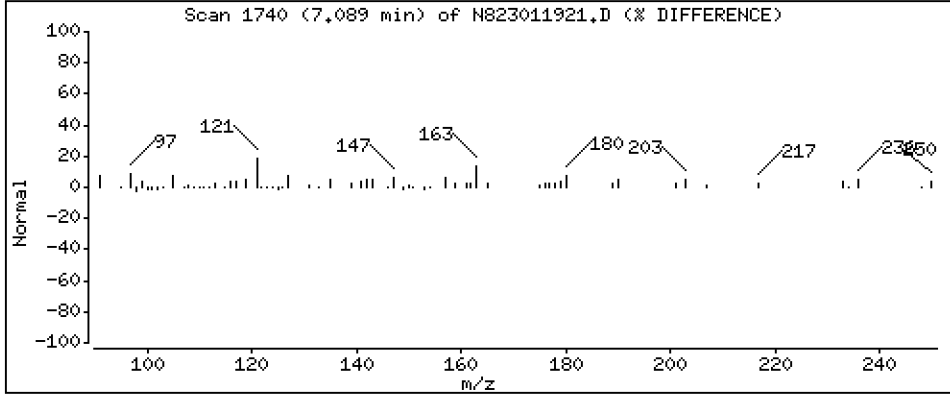
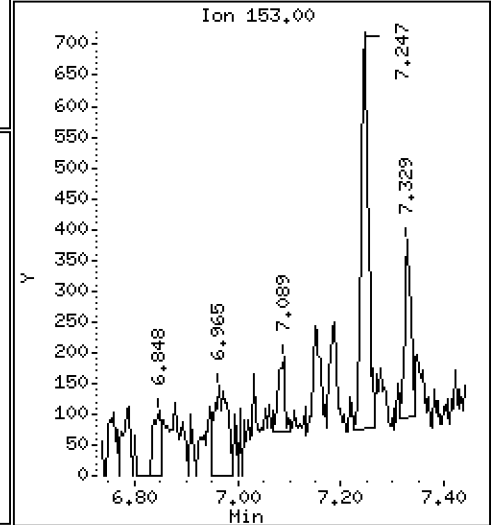
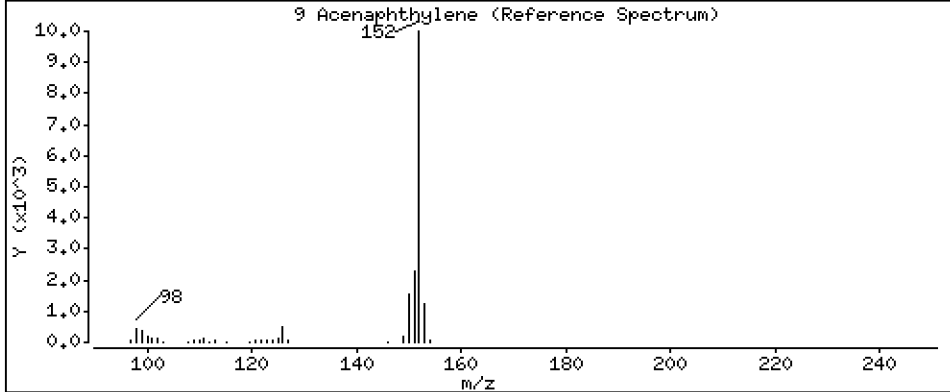
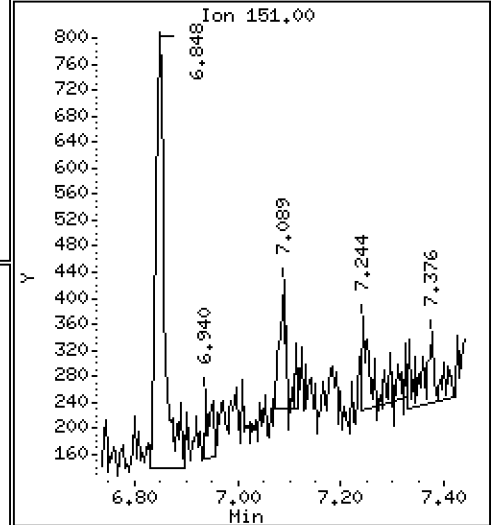
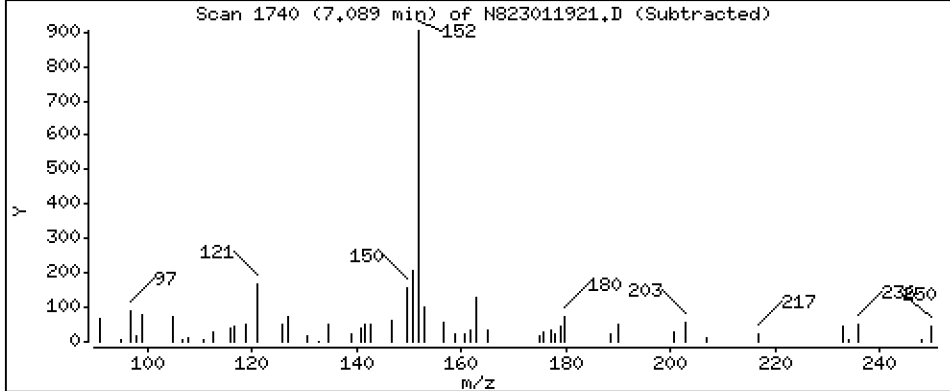
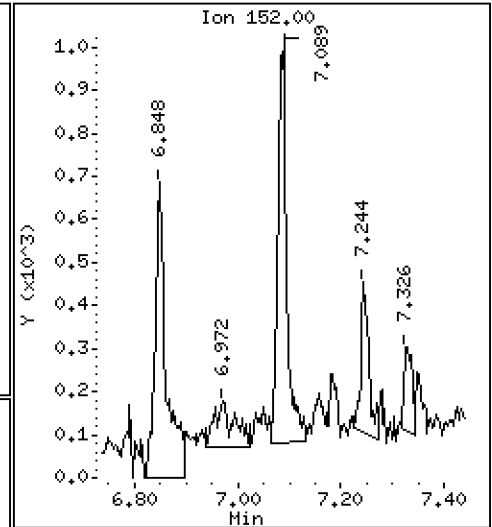
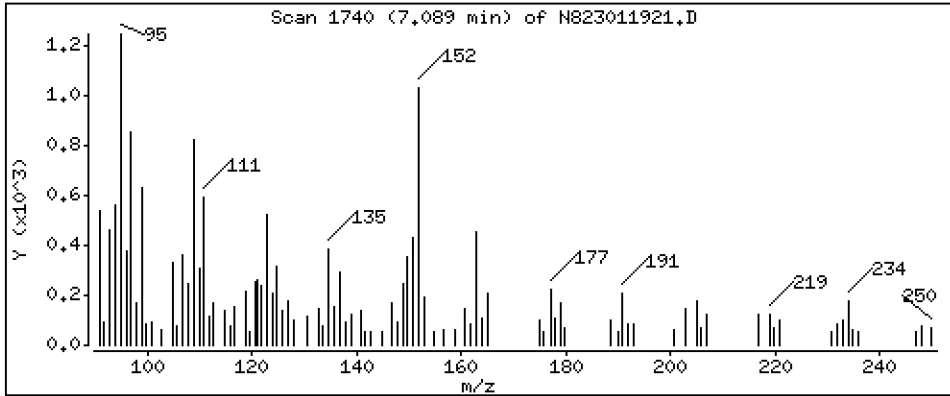
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

9 Acenaphthylene

Concentration: 0.04376 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

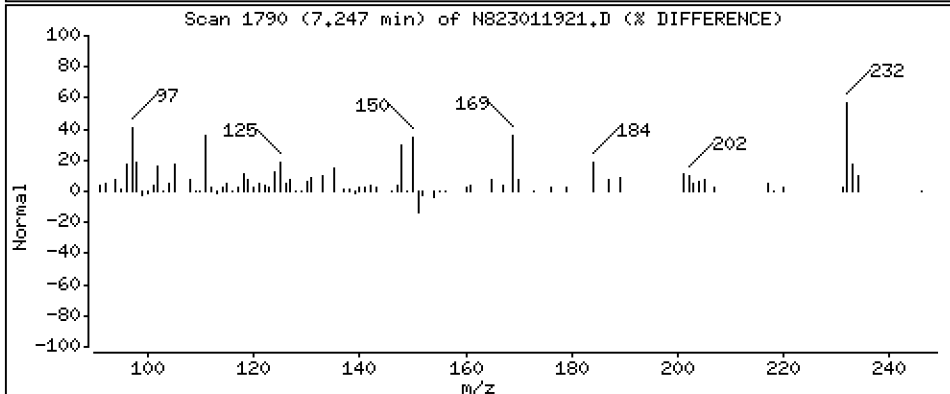
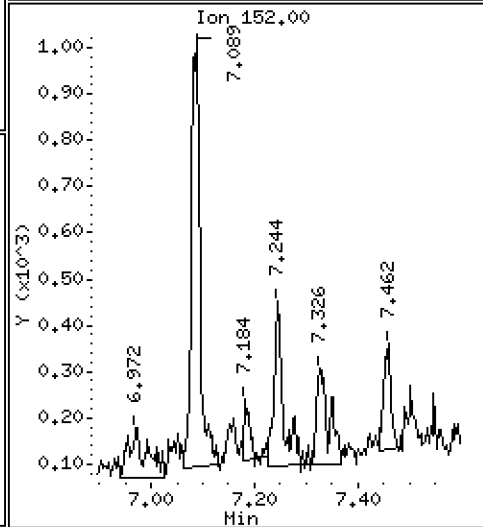
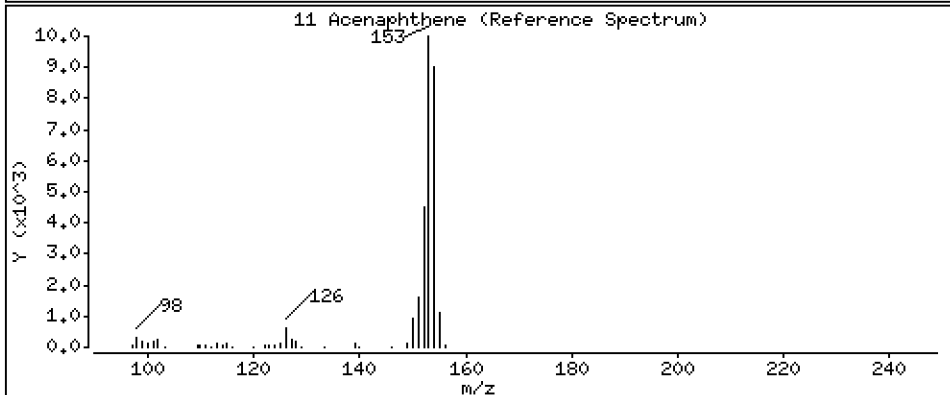
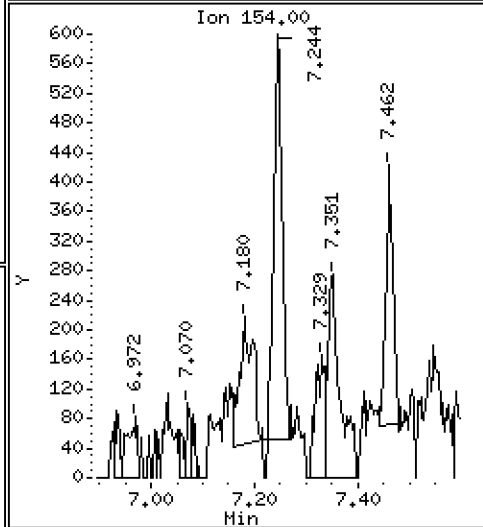
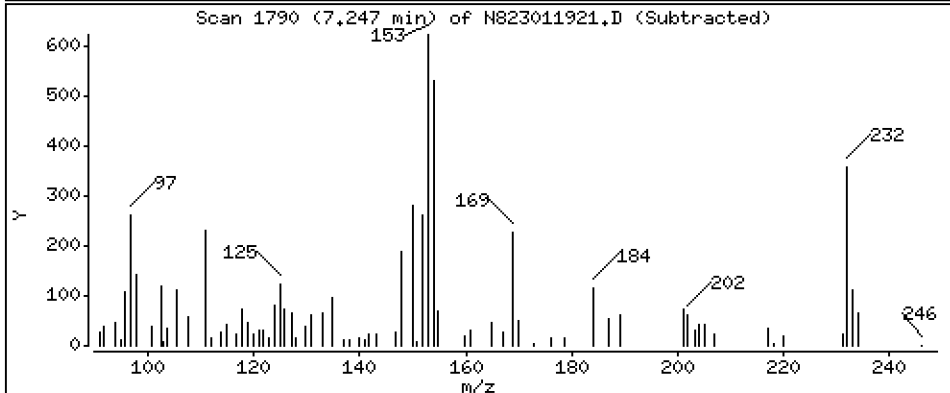
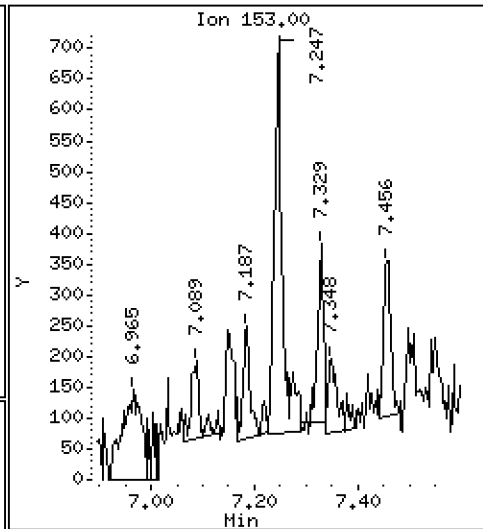
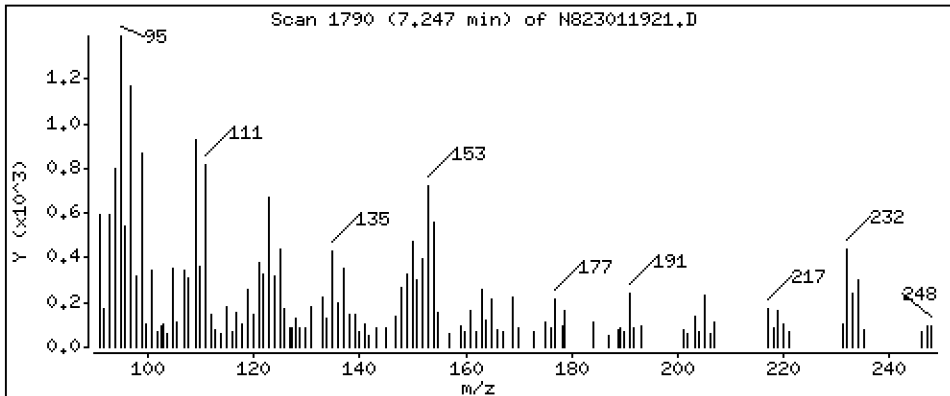
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

Concentration: 0.04167 ug/mL

11 Acenaphthene



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

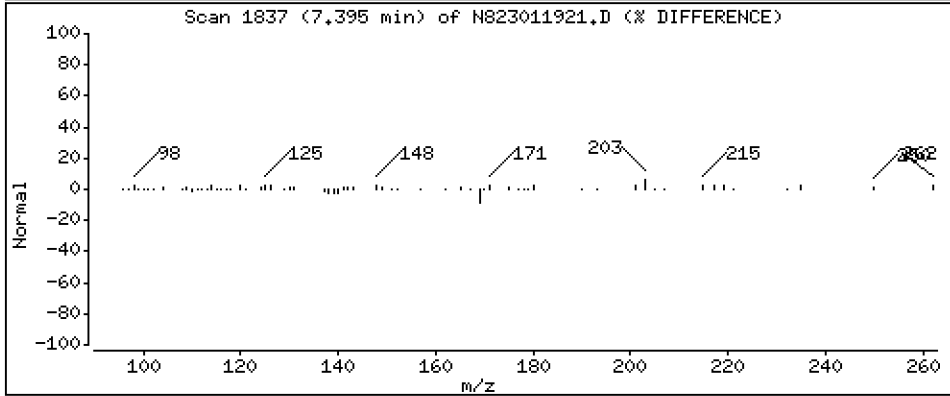
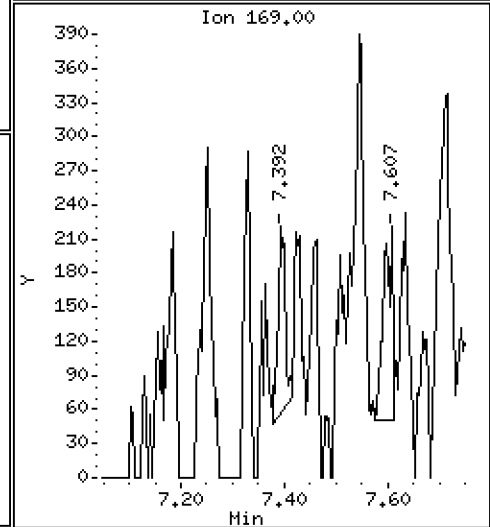
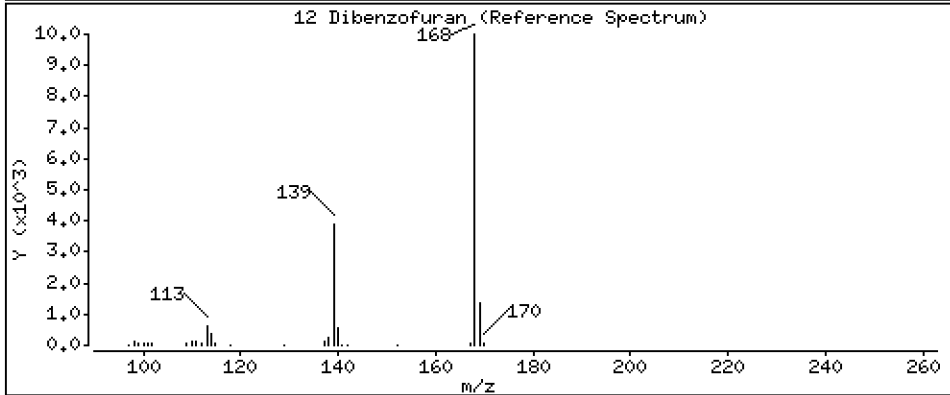
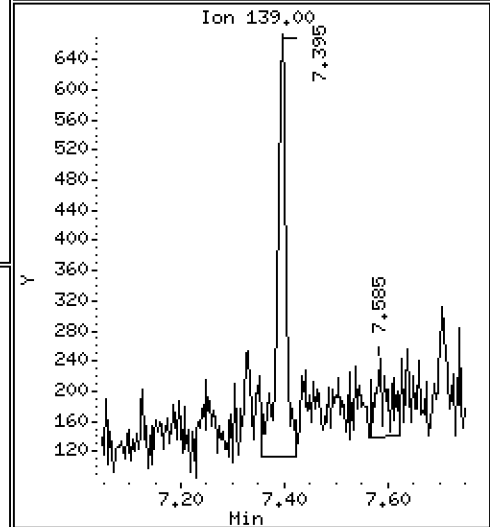
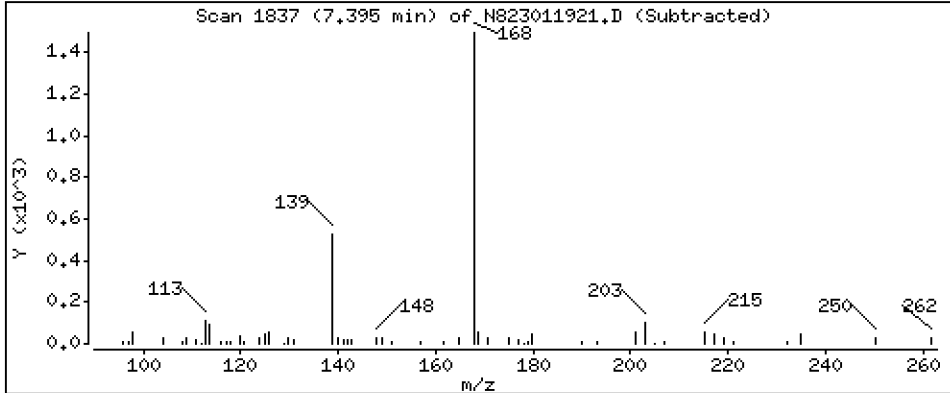
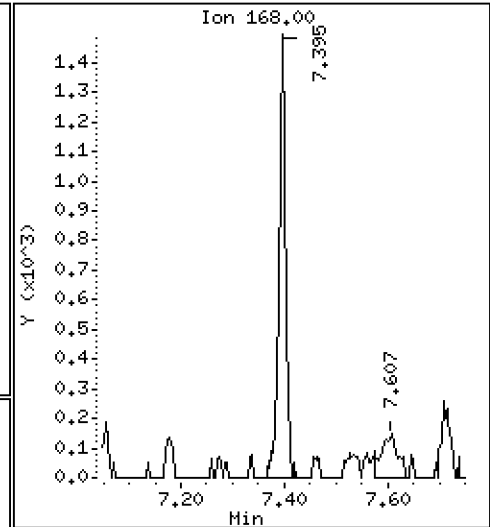
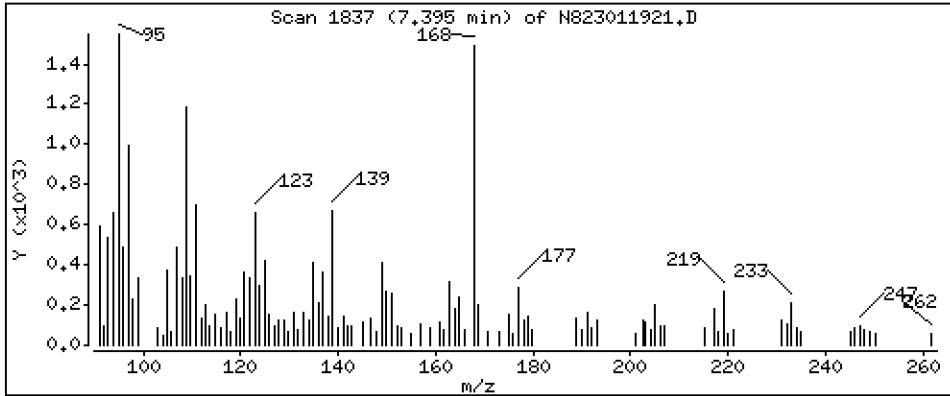
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

12 Dibenzofuran

Concentration: 0.05085 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

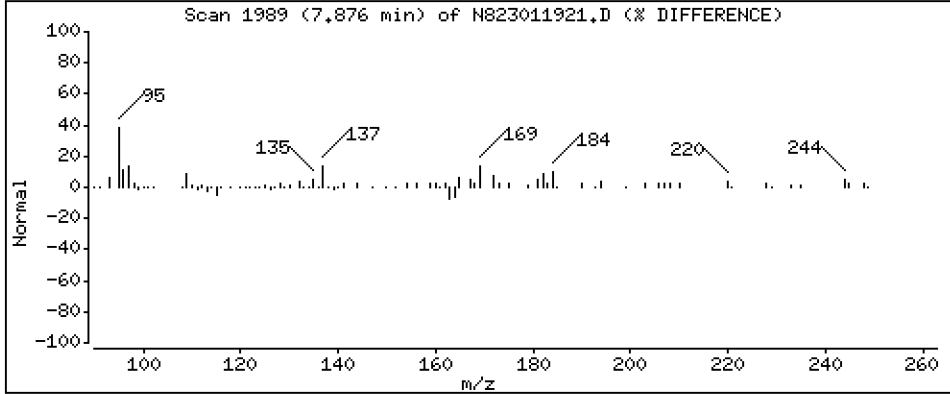
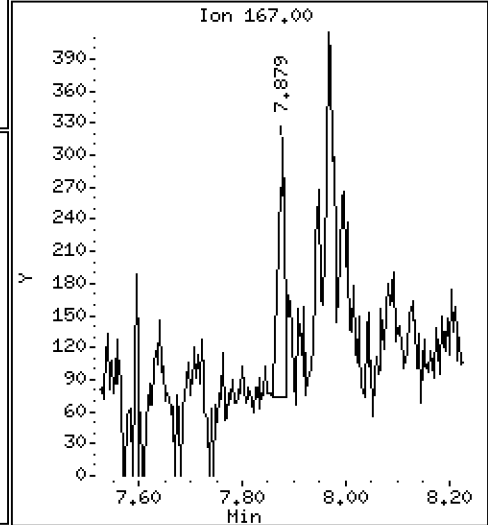
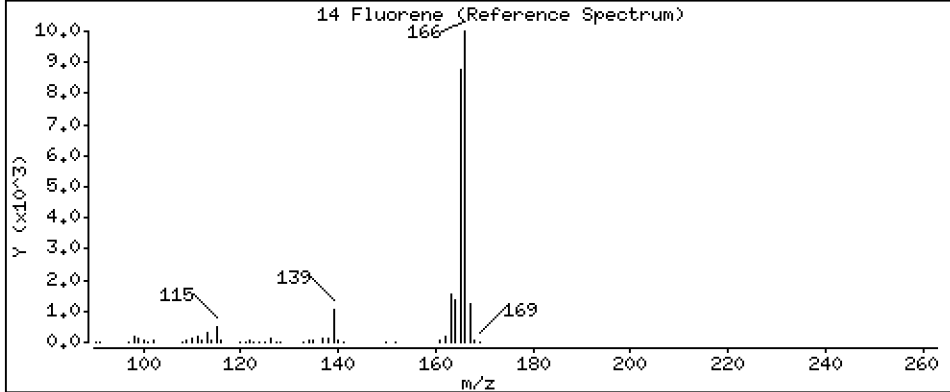
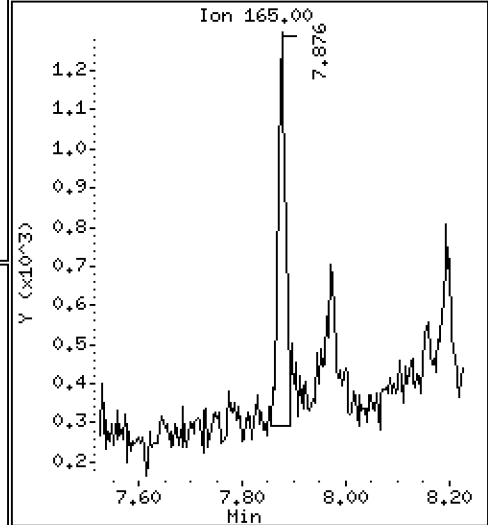
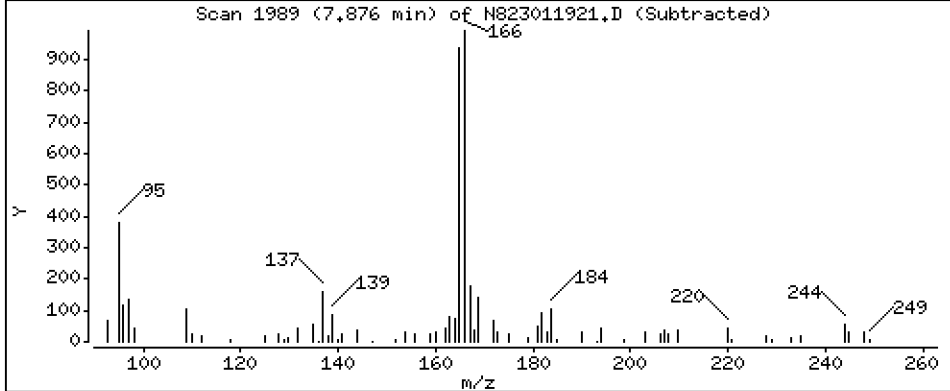
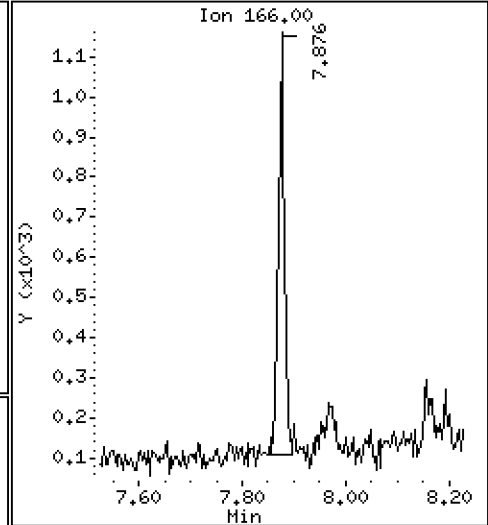
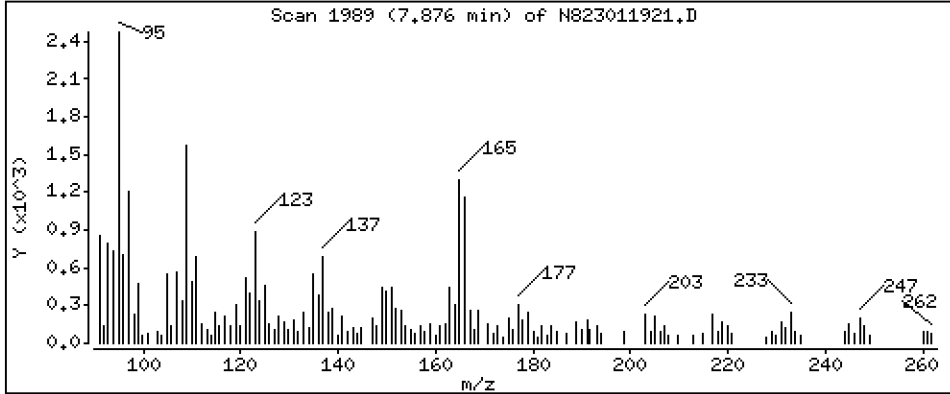
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

14 Fluorene

Concentration: 0.04337 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

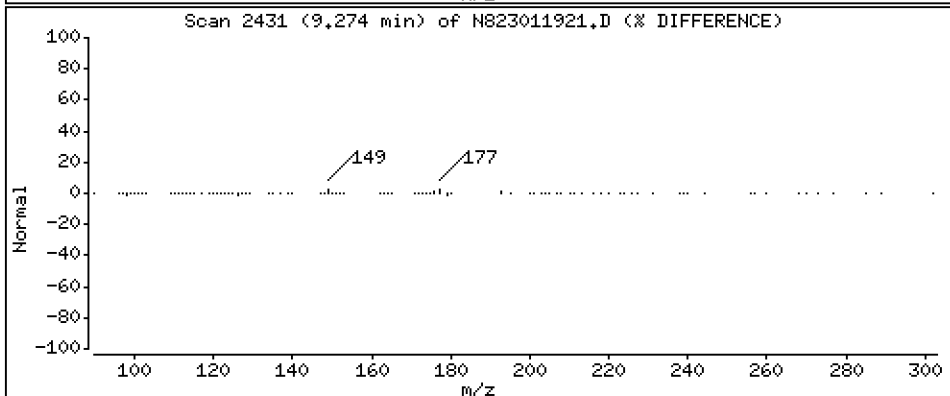
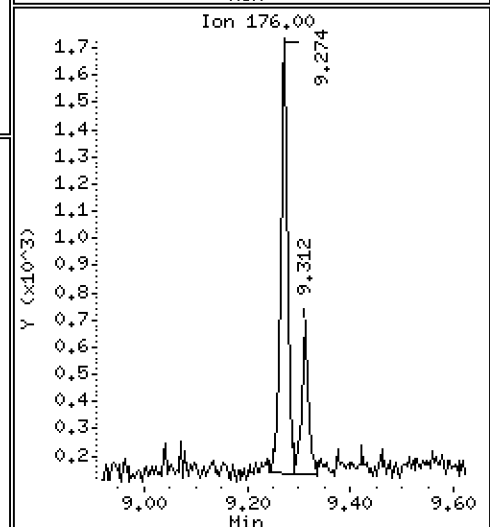
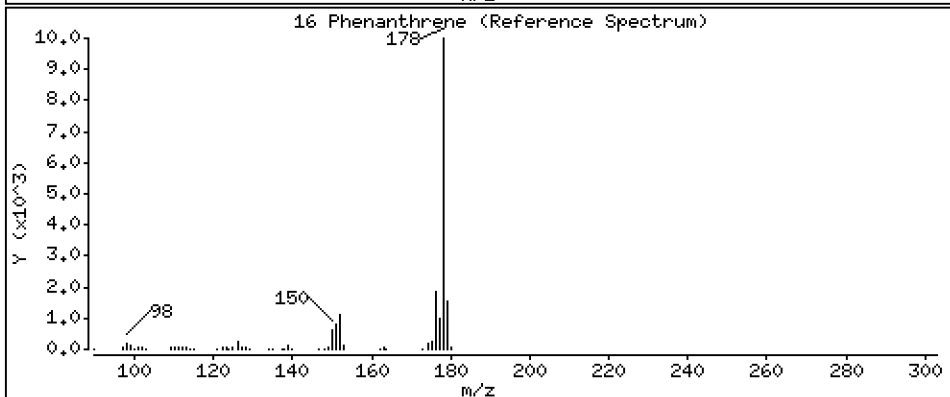
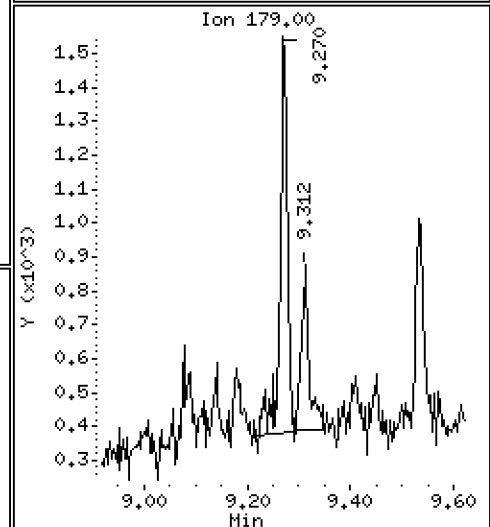
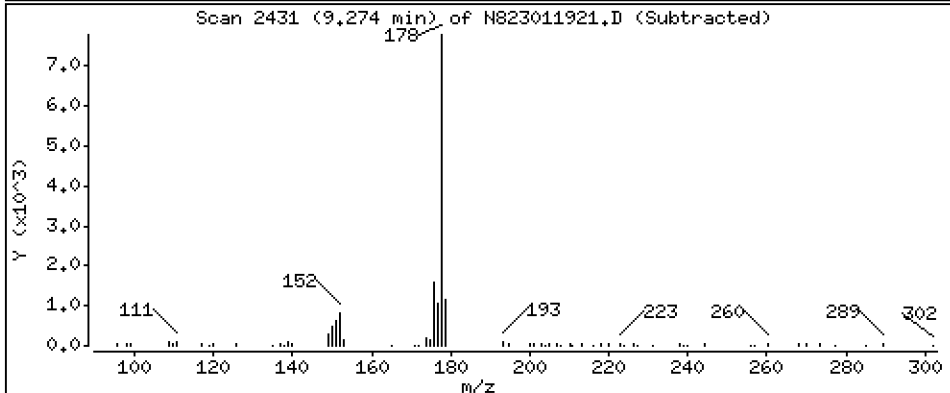
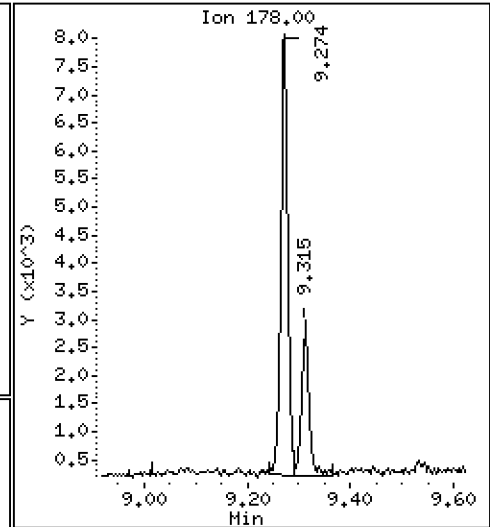
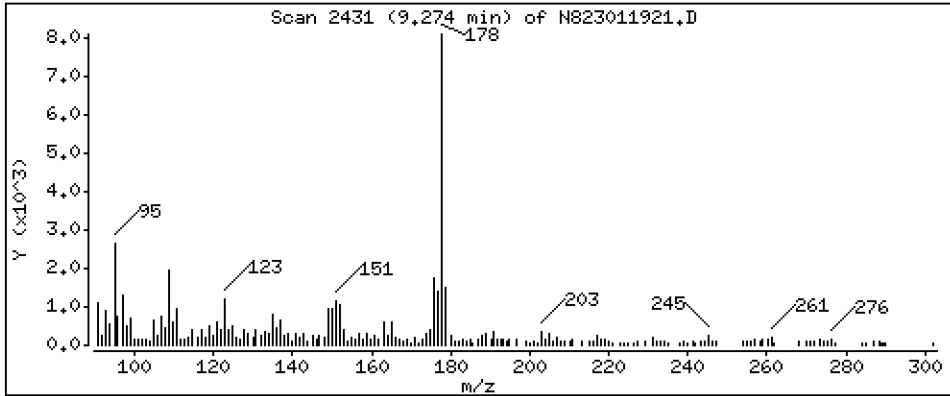
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 0,2609 ug/mL

16 Phenanthrene



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

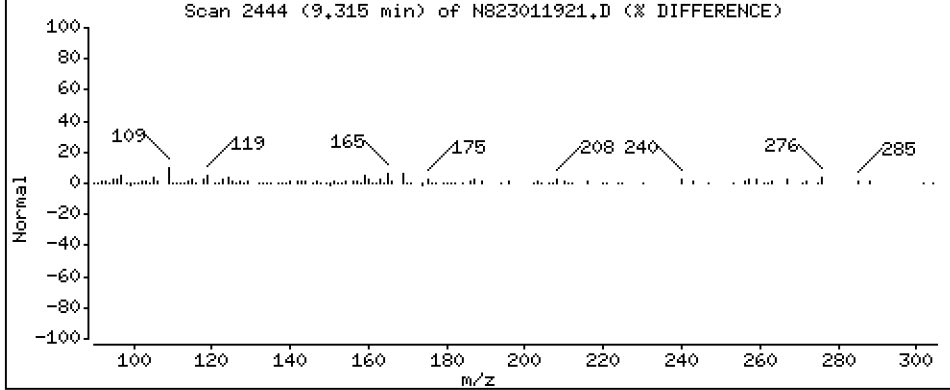
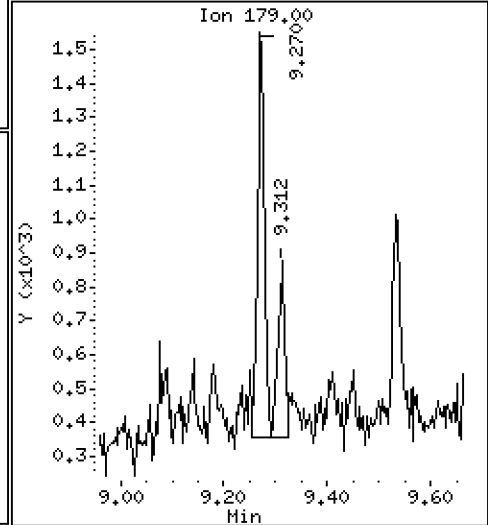
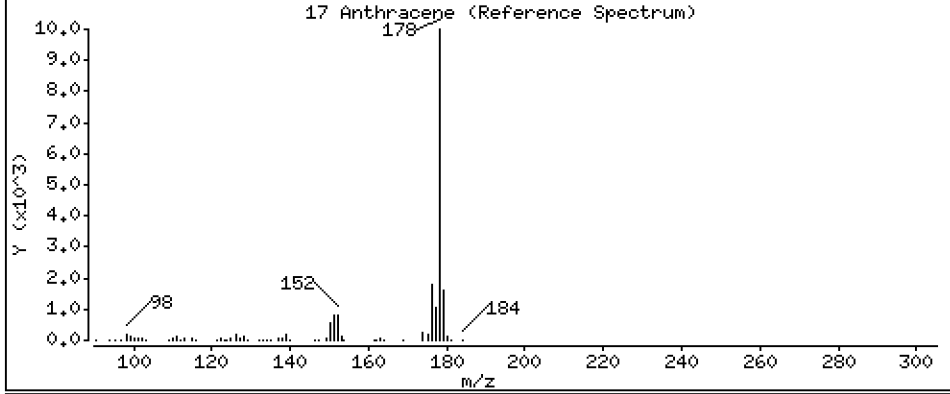
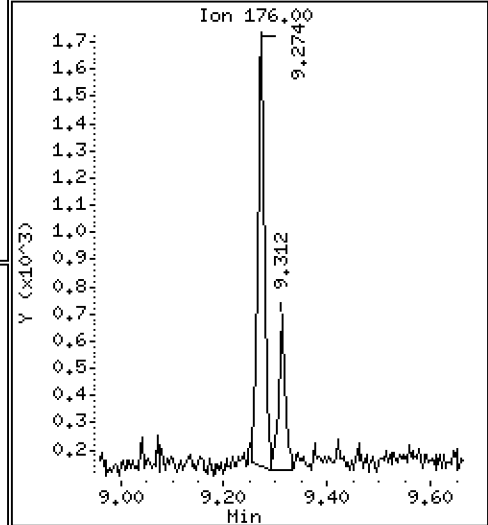
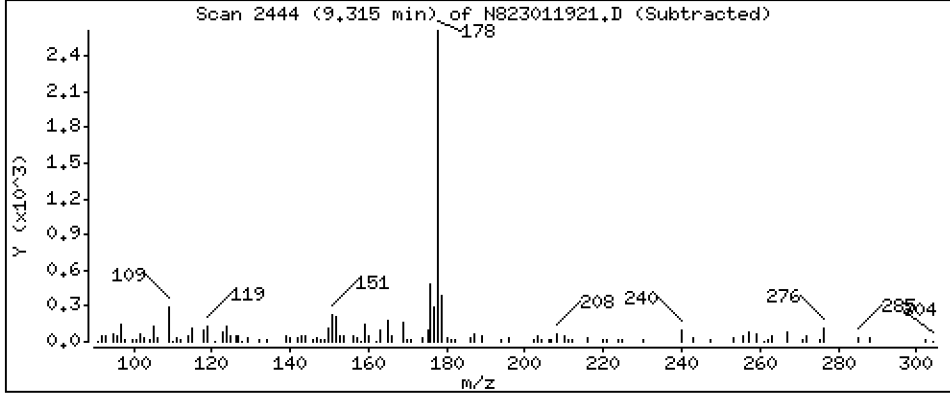
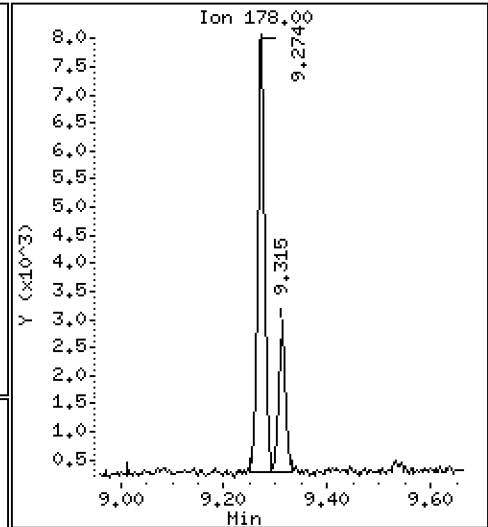
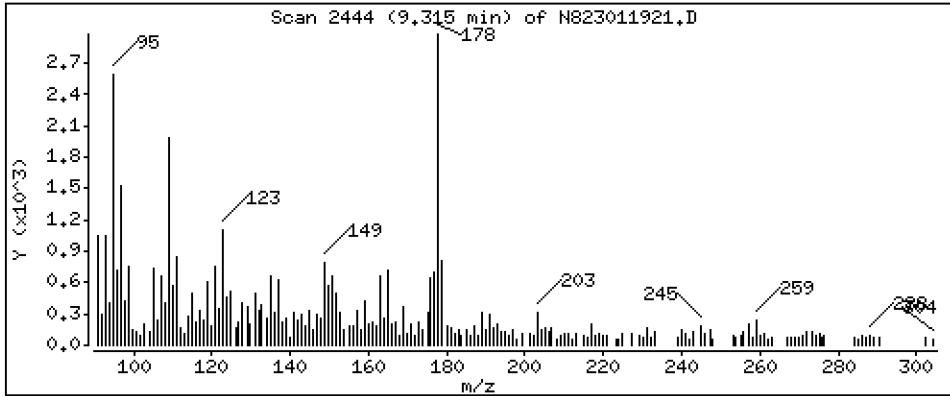
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

17 Anthracene

Concentration: 0.09803 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

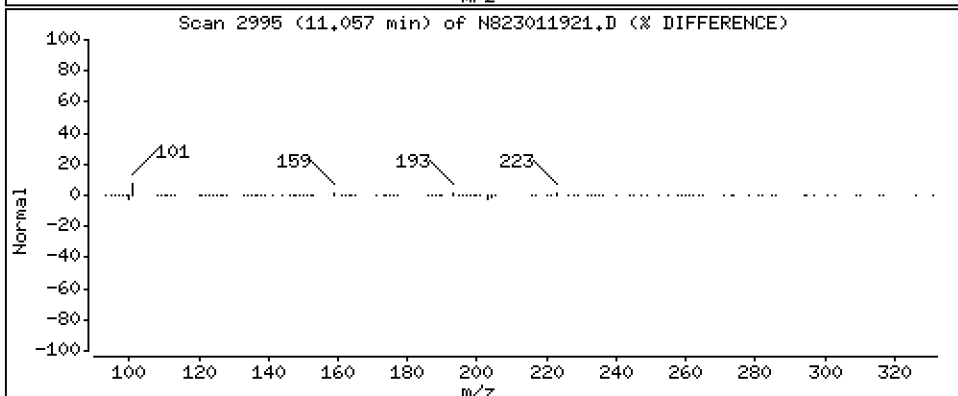
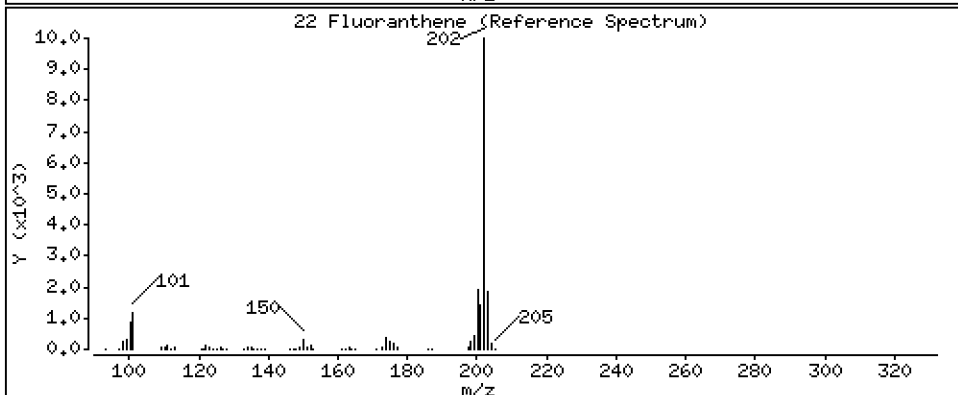
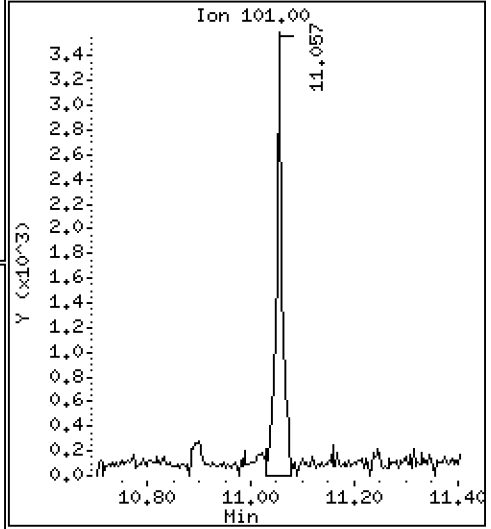
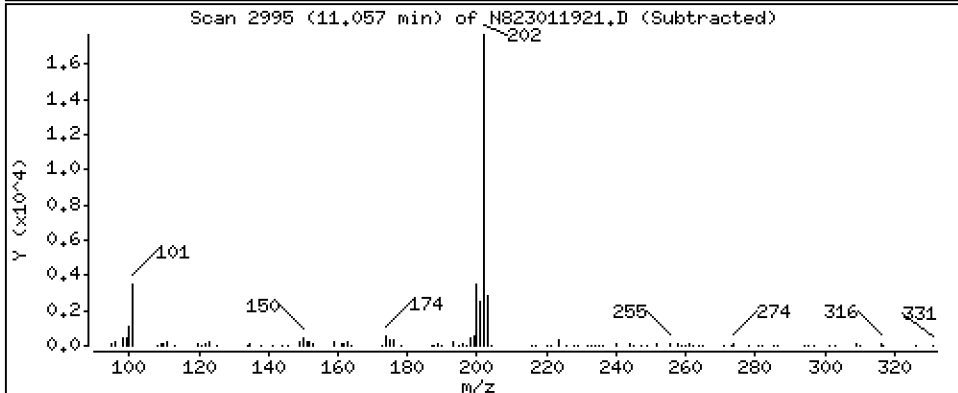
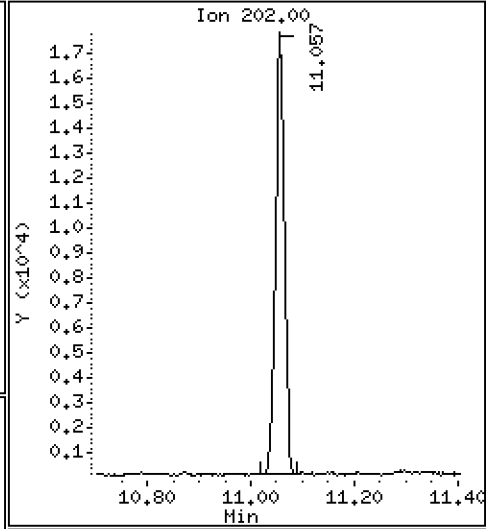
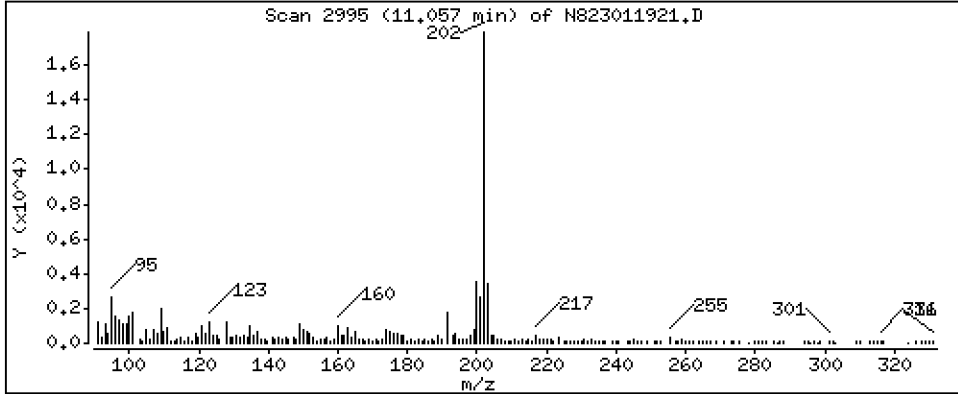
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 0,6738 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

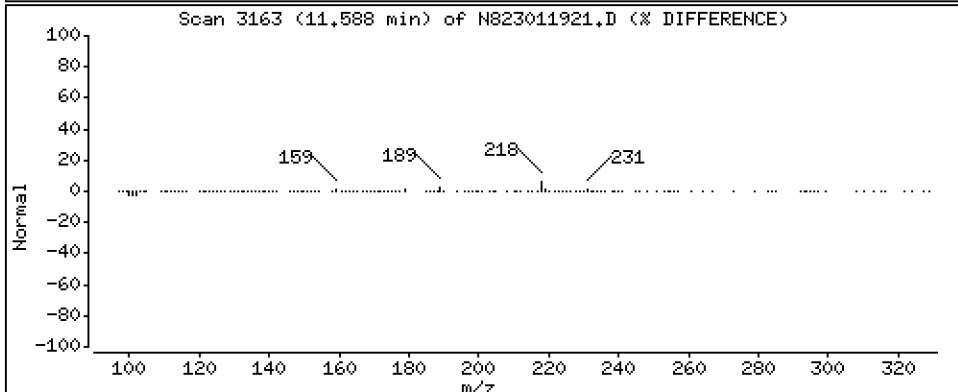
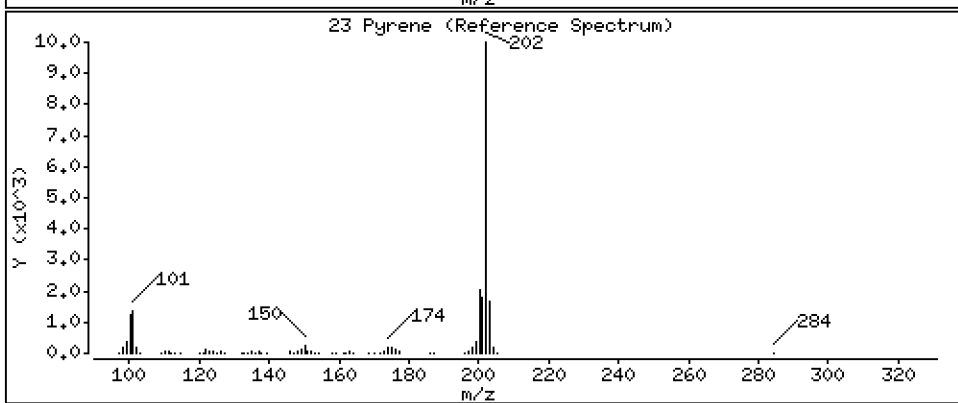
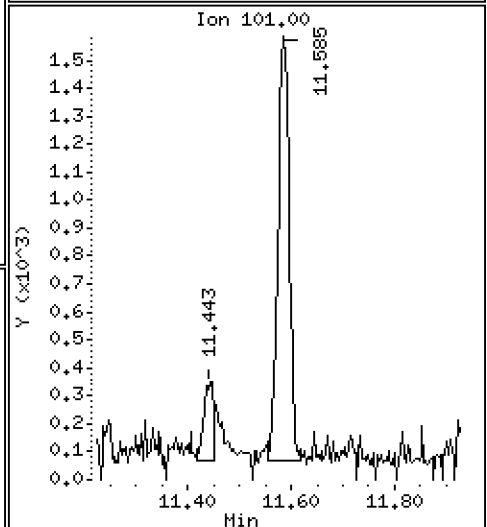
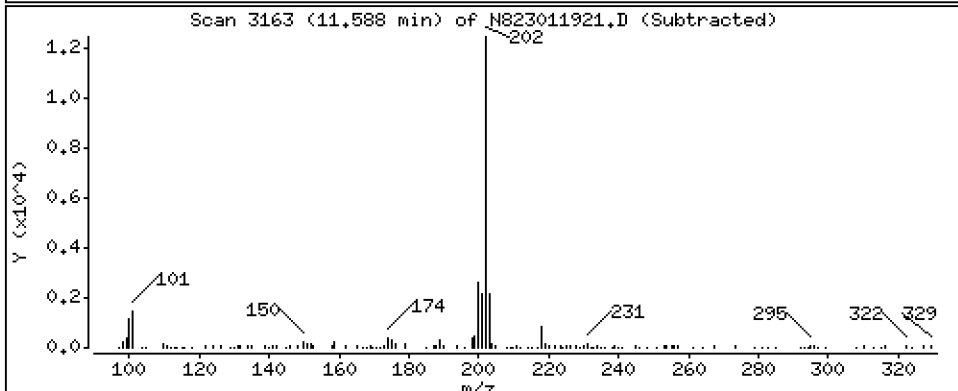
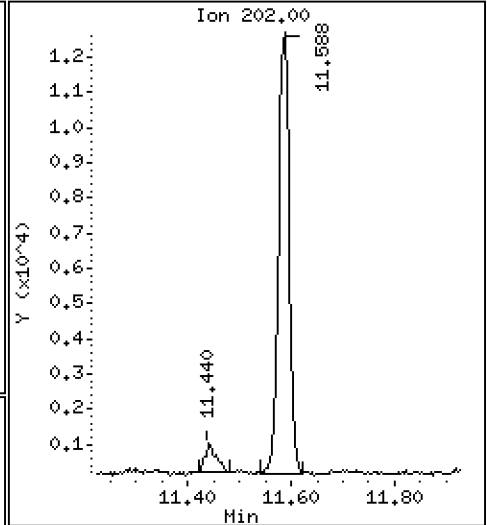
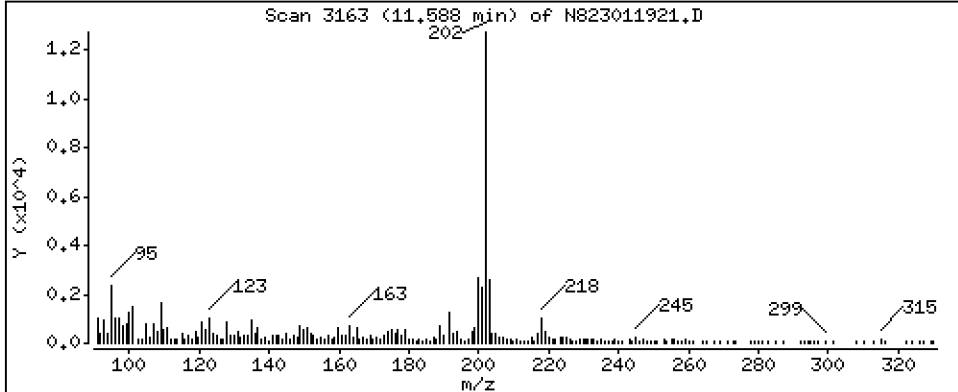
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

23 Pyrene

Concentration: 0,8321 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

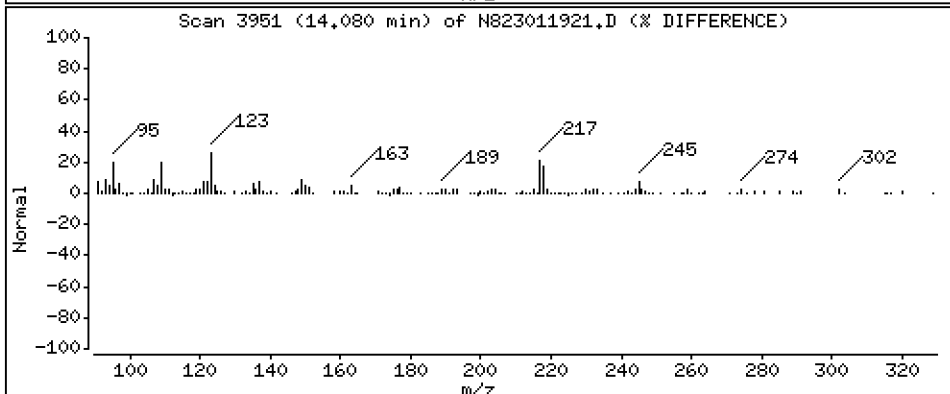
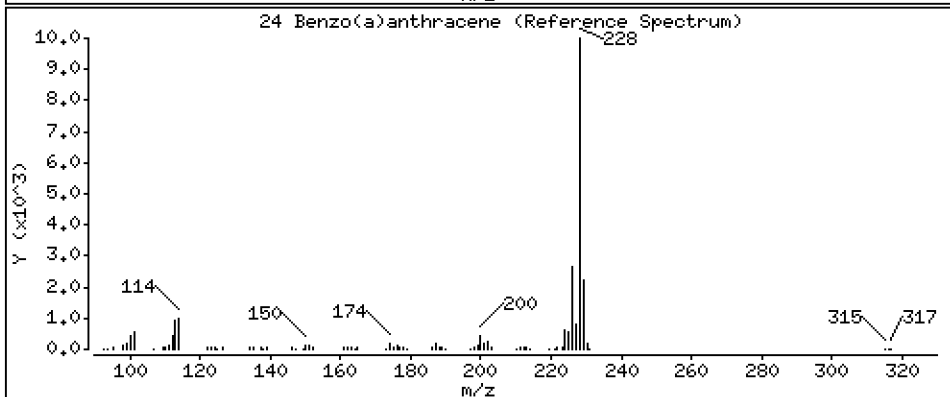
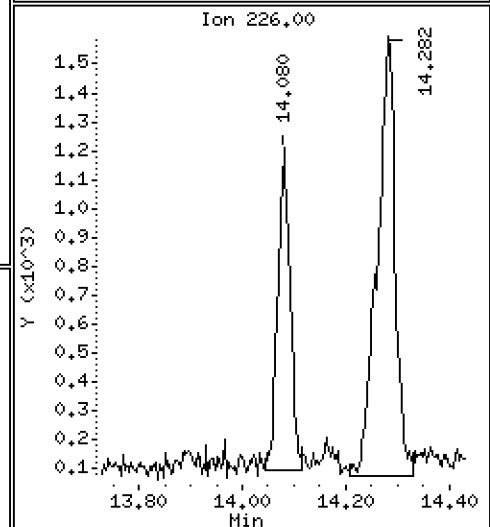
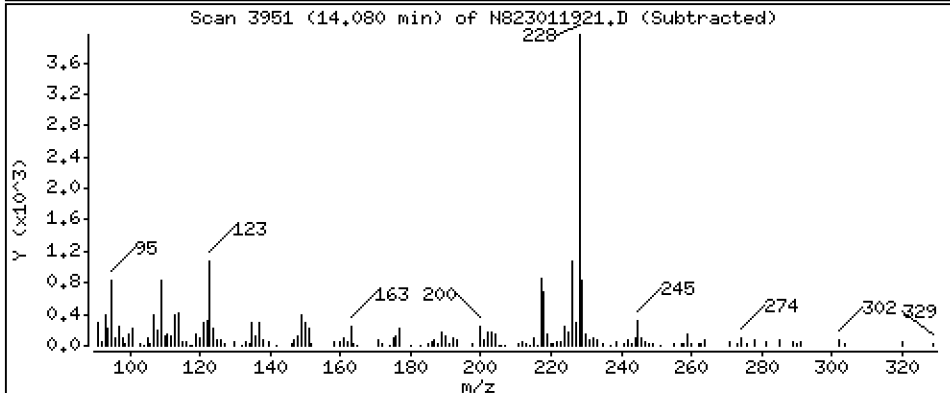
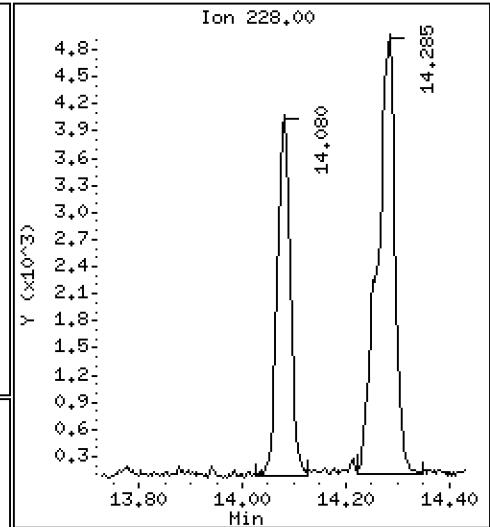
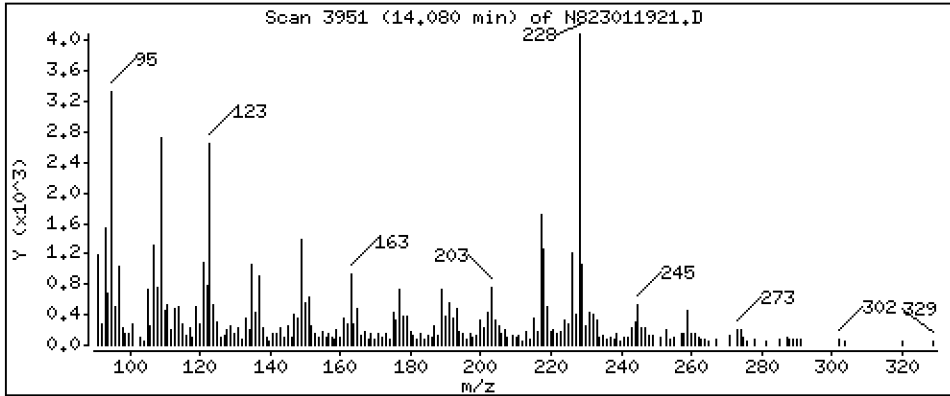
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

24 Benzo(a)anthracene

Concentration: 0.3545 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

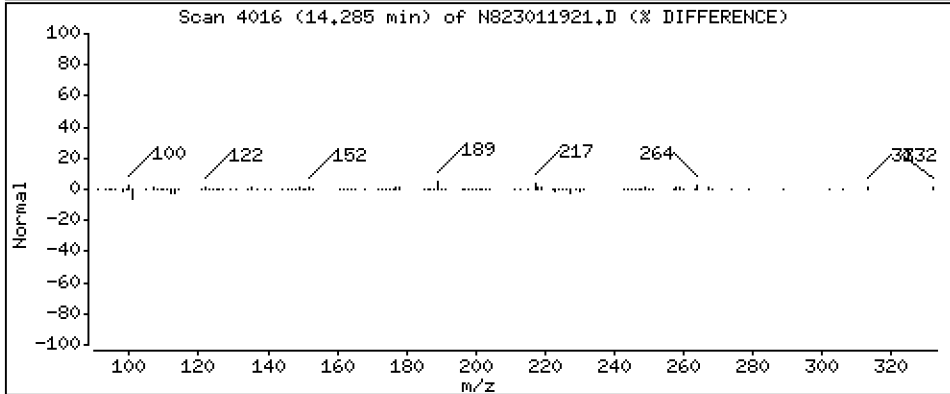
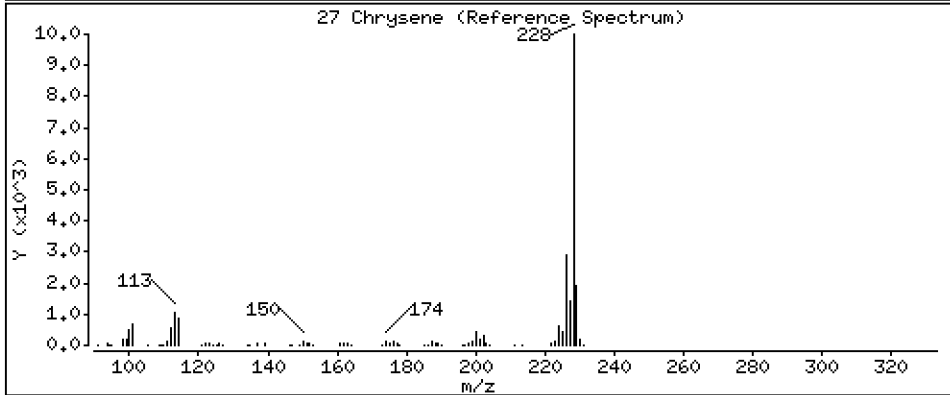
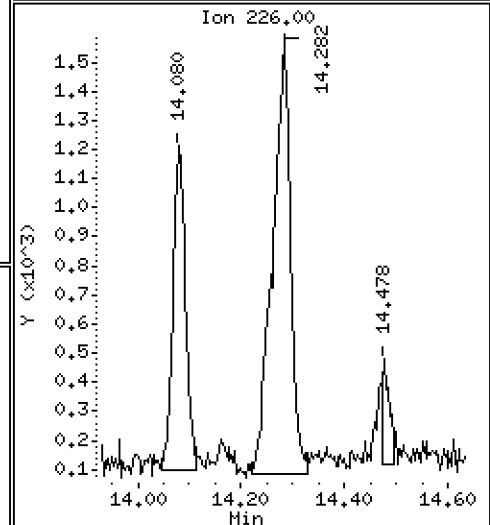
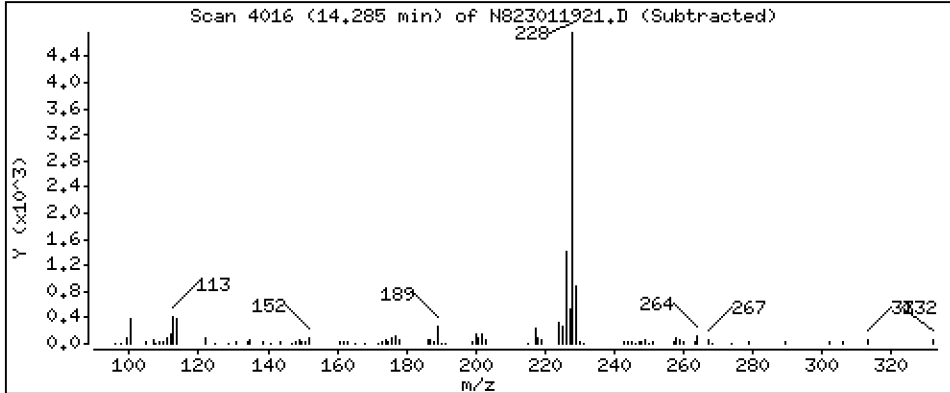
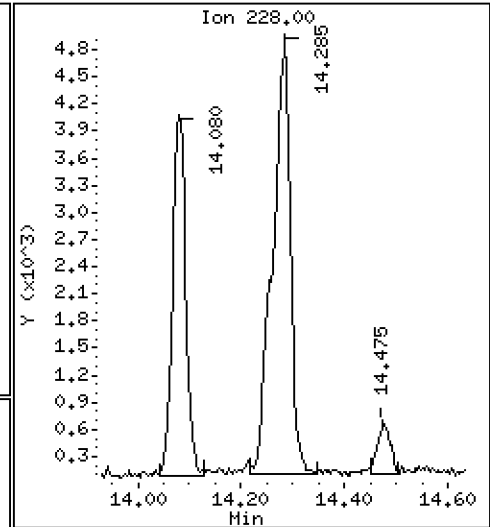
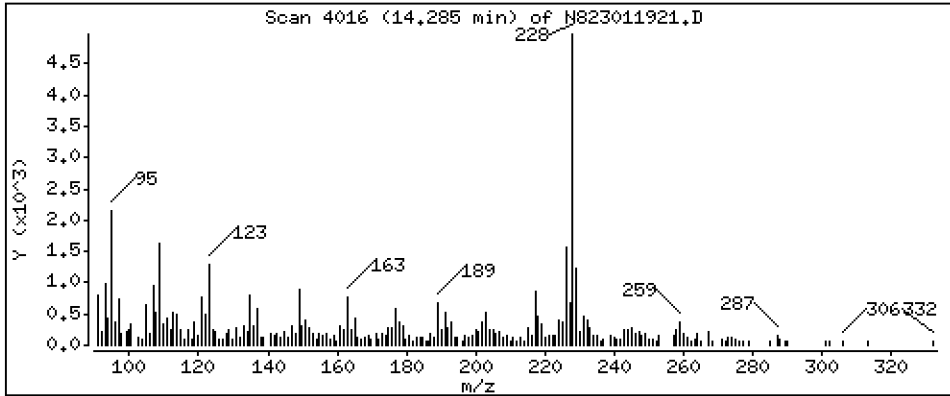
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

27 Chrysene

Concentration: 0,5365 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

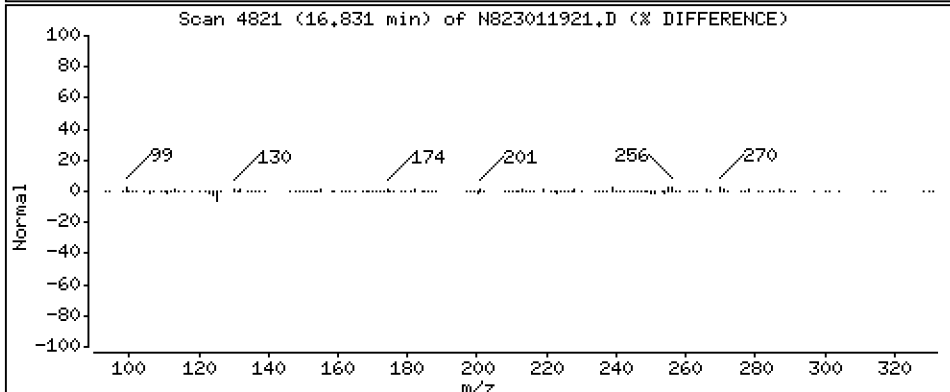
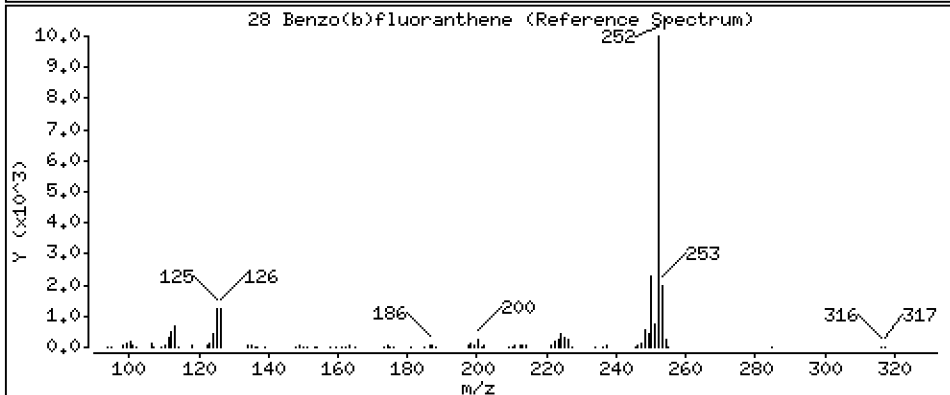
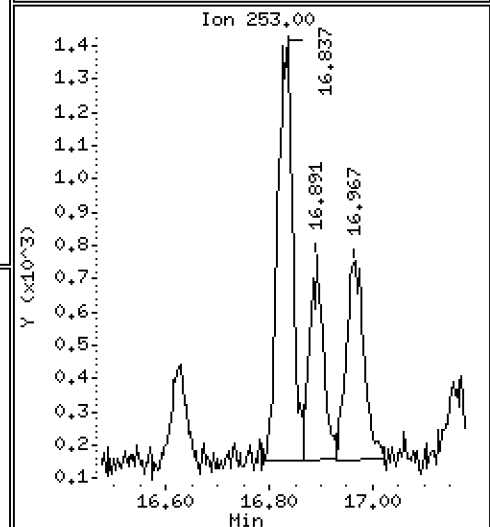
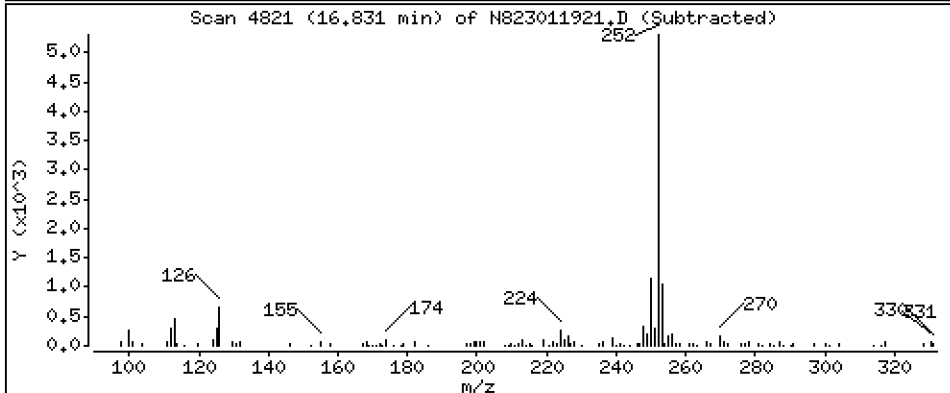
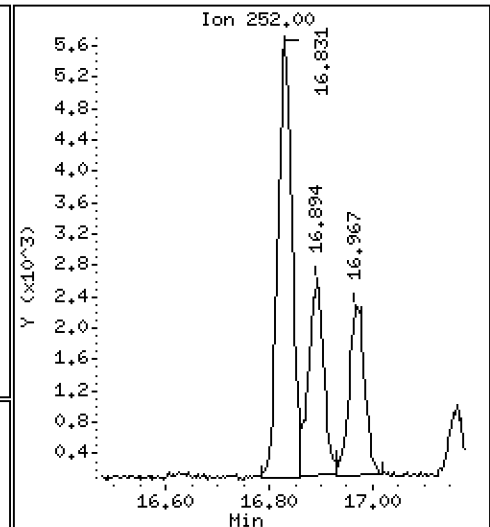
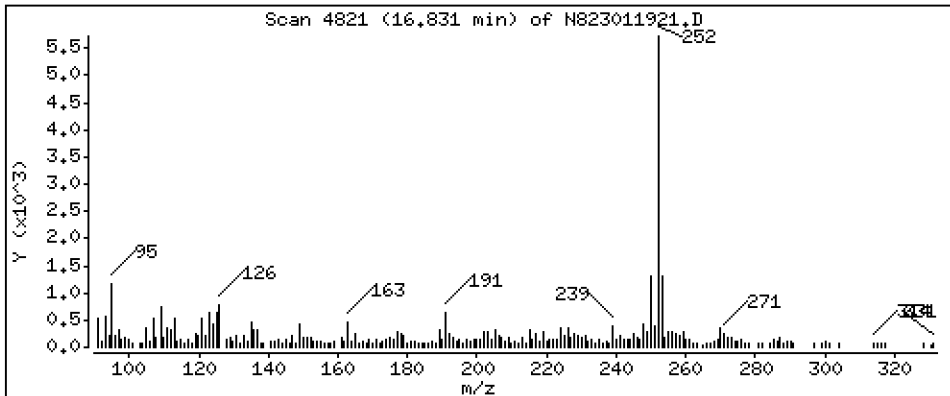
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

28 Benzo(b)fluoranthene

Concentration: 0,5885 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

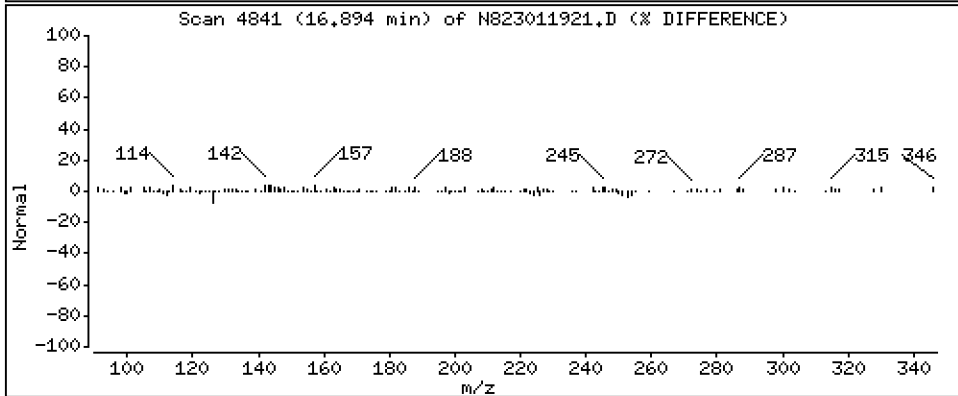
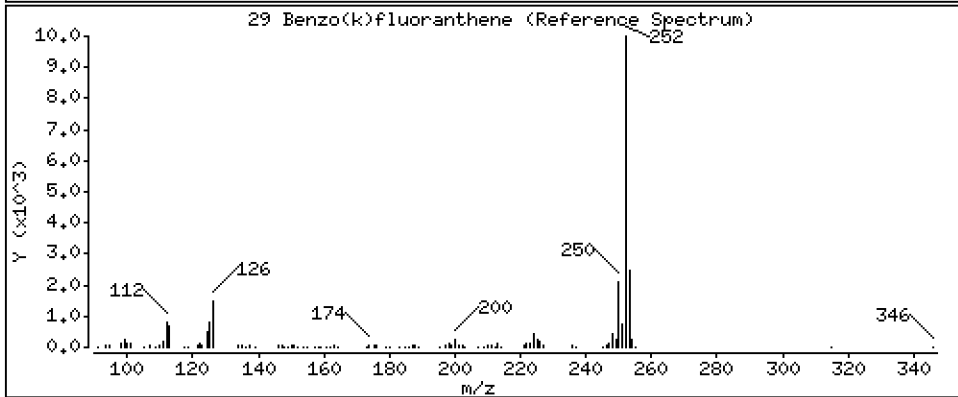
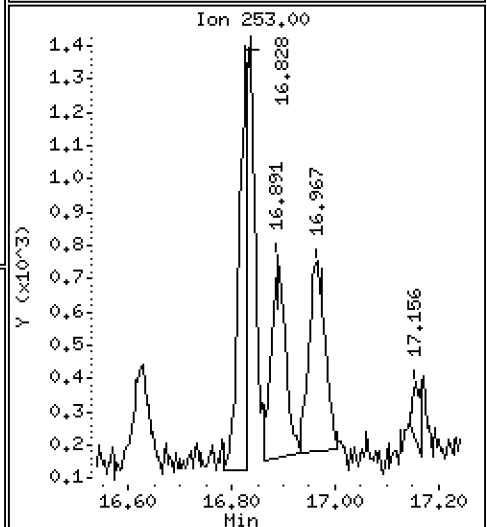
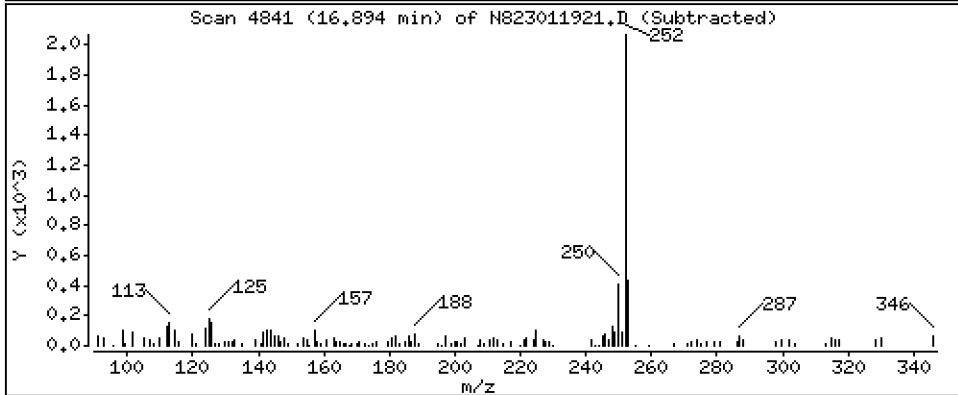
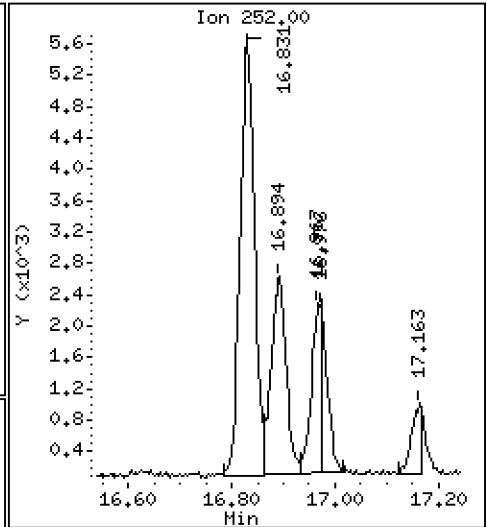
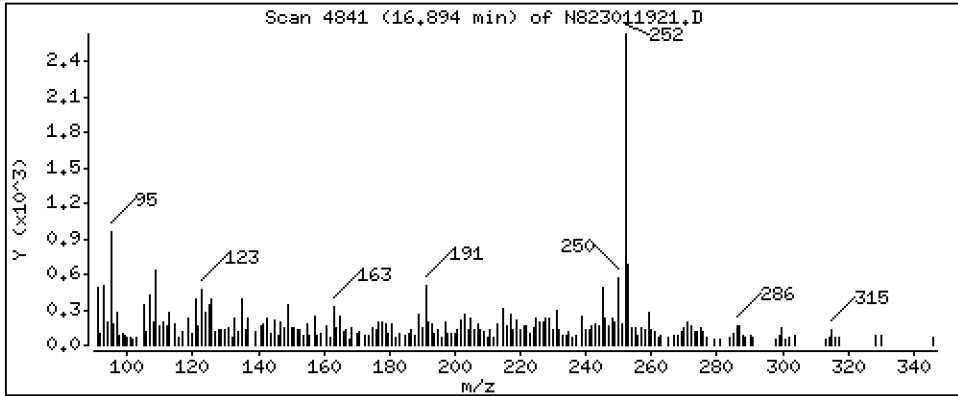
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

29 Benzo(k)fluoranthene

Concentration: 0,2905 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

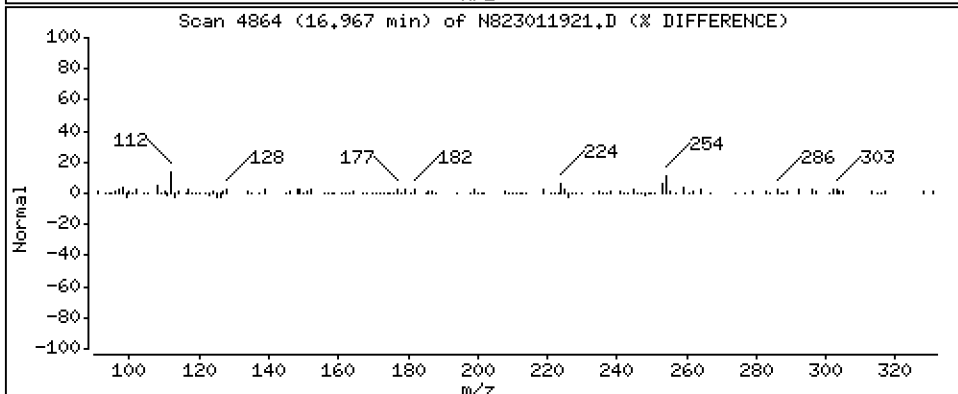
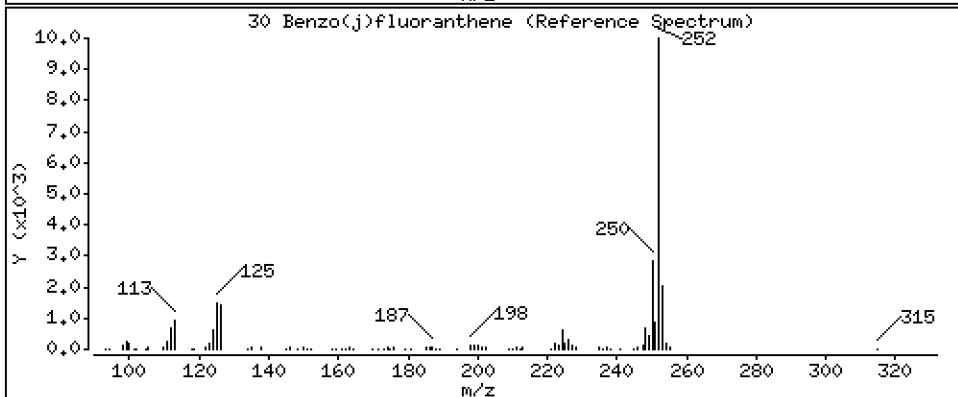
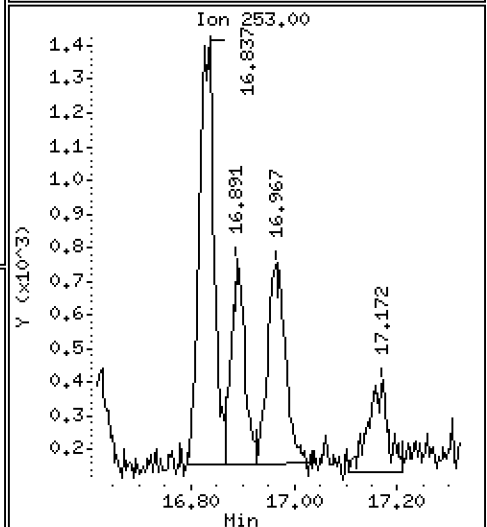
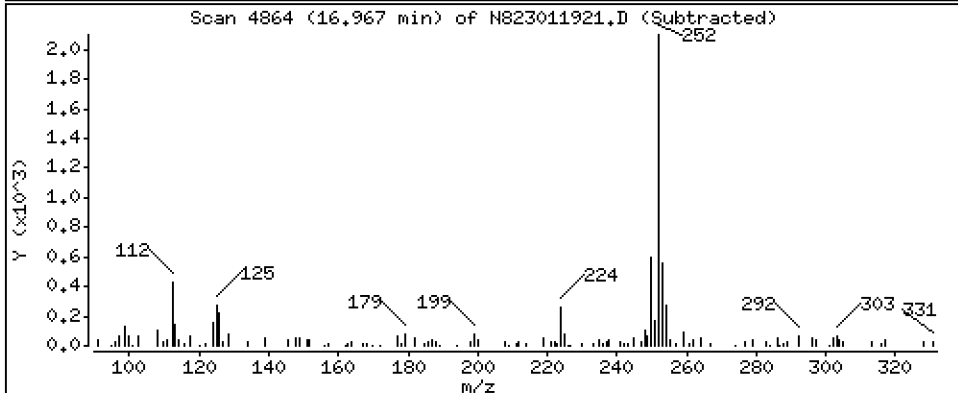
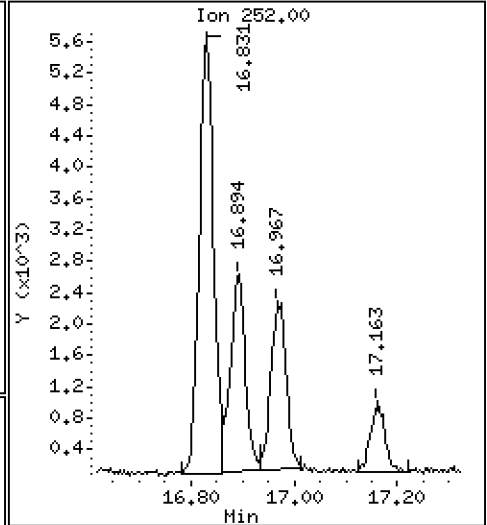
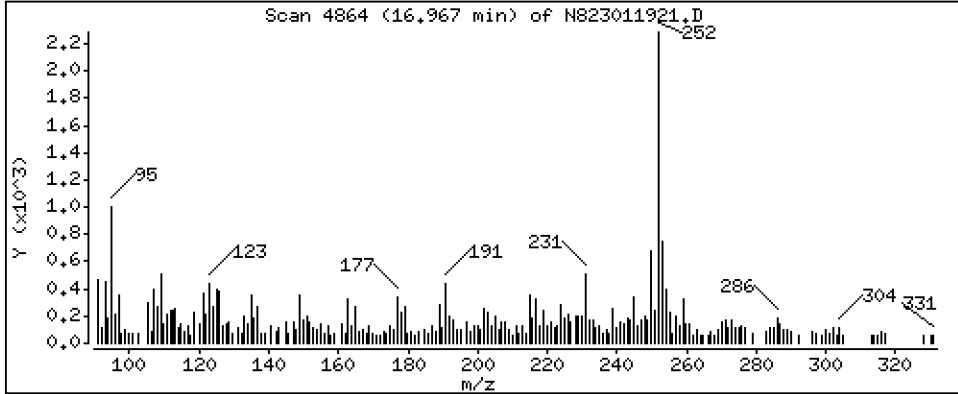
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

30 Benzo(j)fluoranthene

Concentration: 0,2774 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

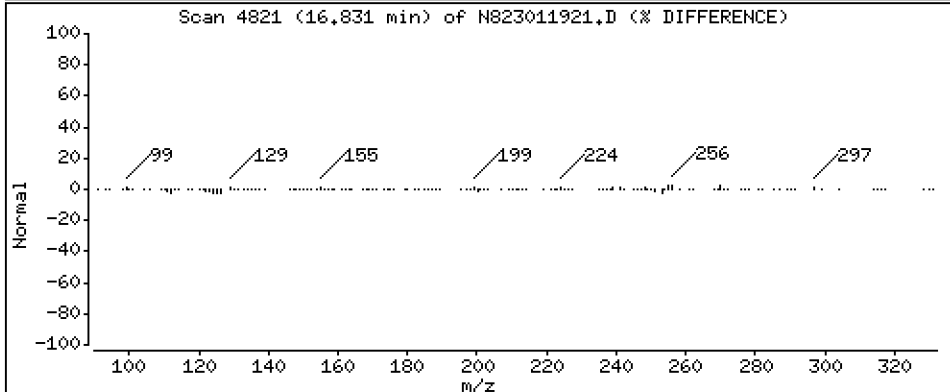
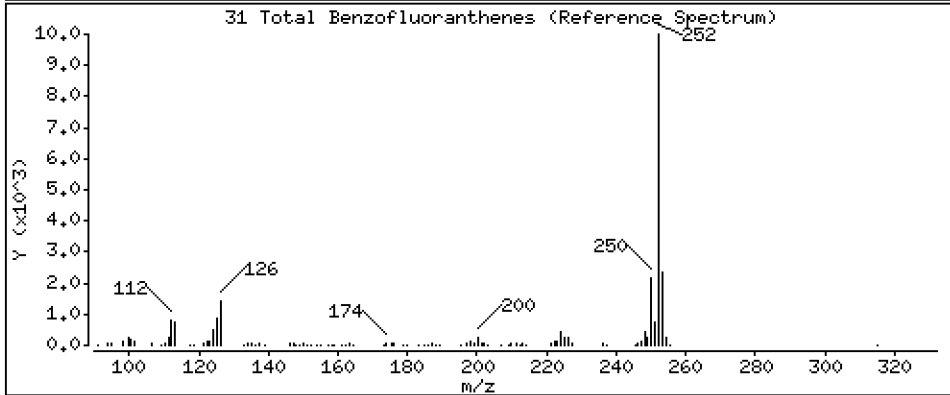
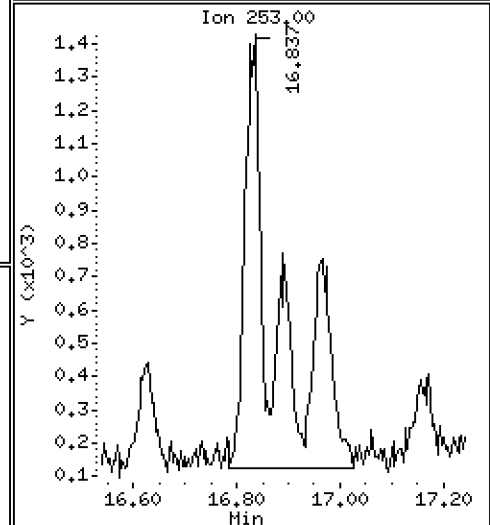
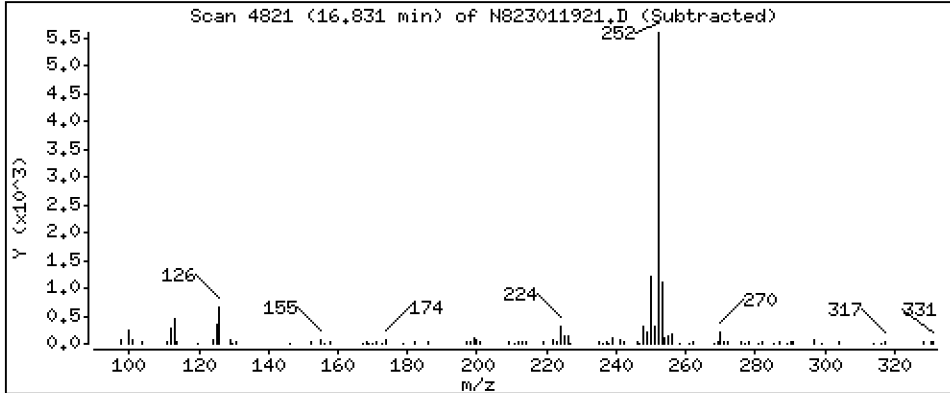
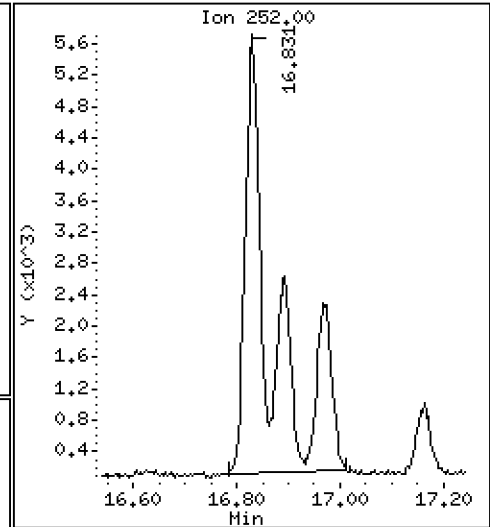
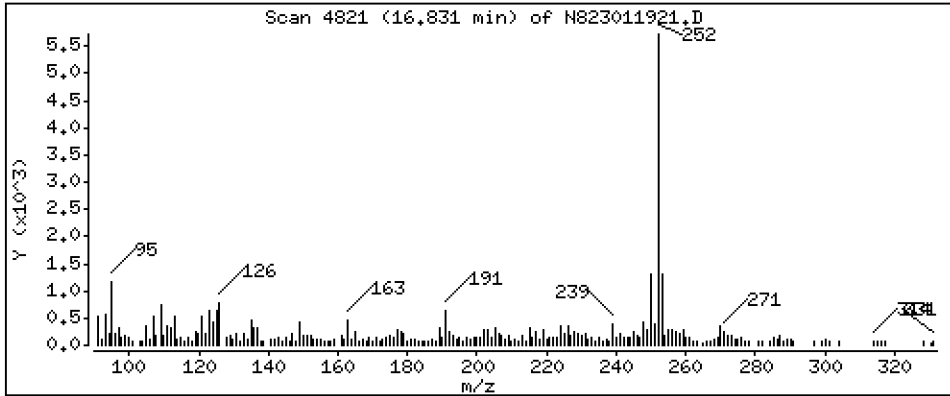
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

31 Total Benzofluoranthenes

Concentration: 1,168 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

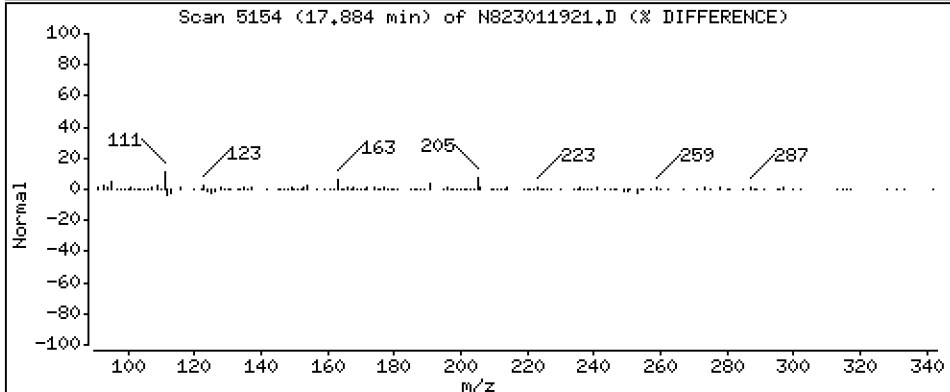
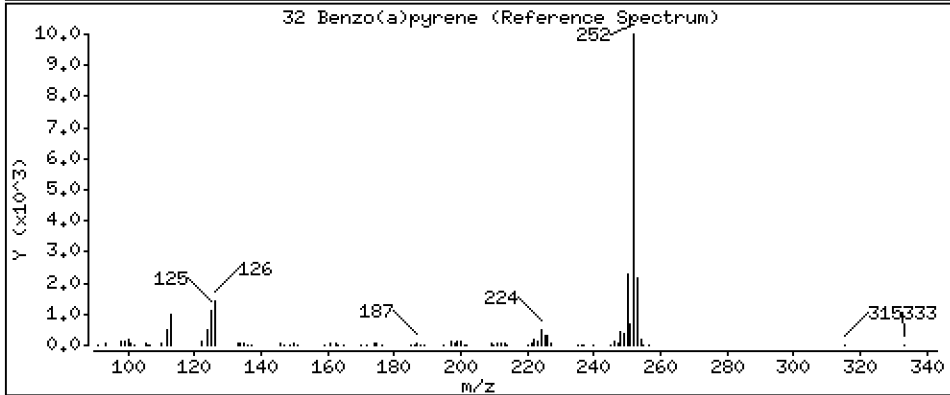
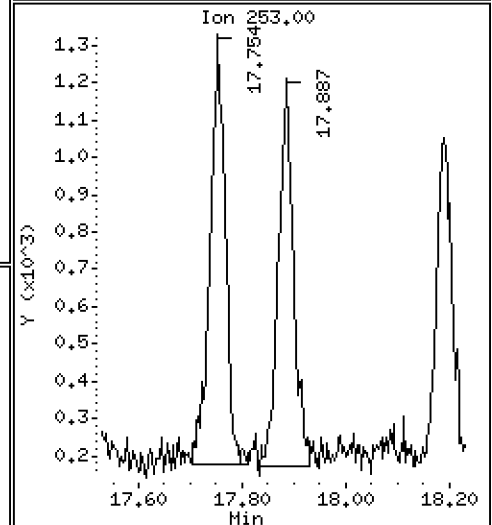
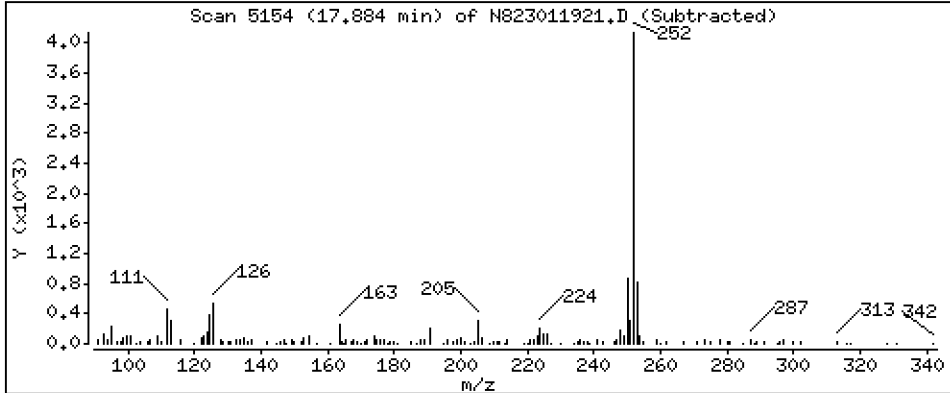
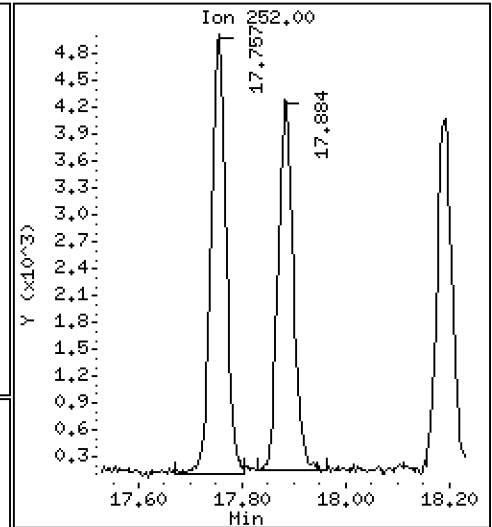
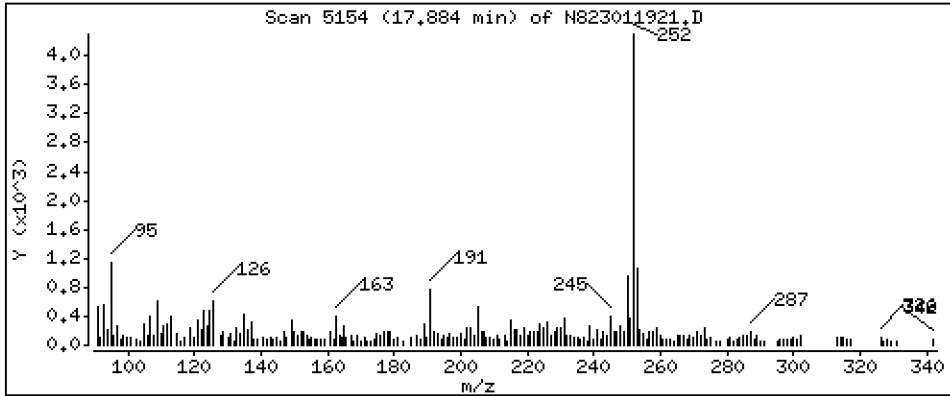
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 0,5358 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

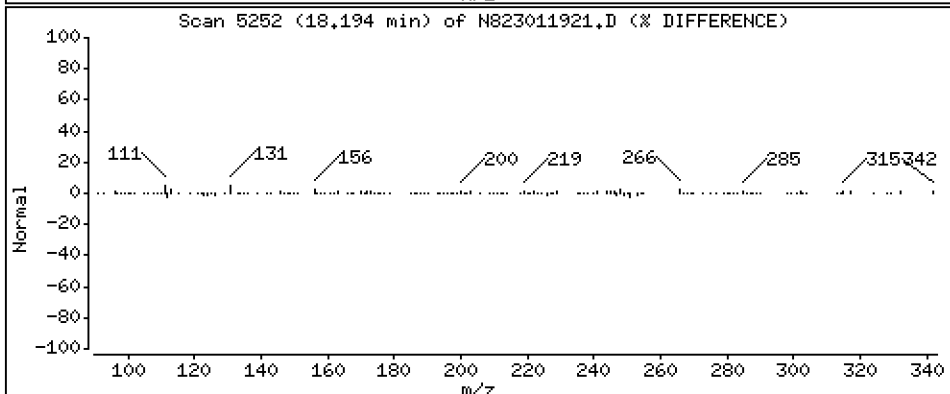
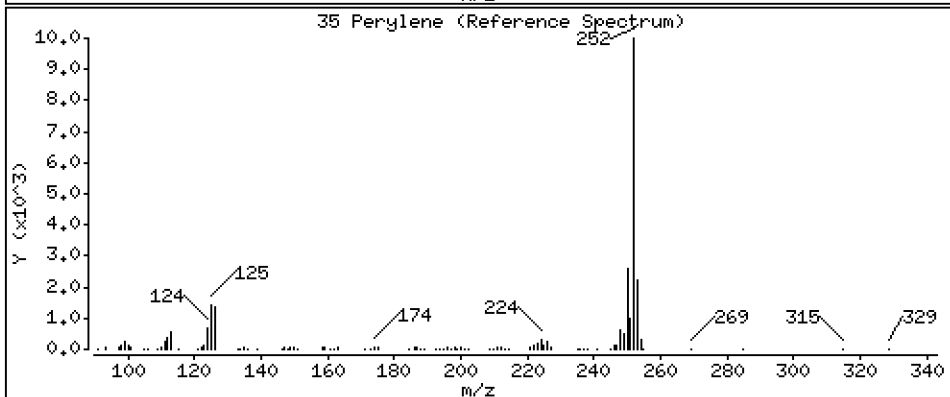
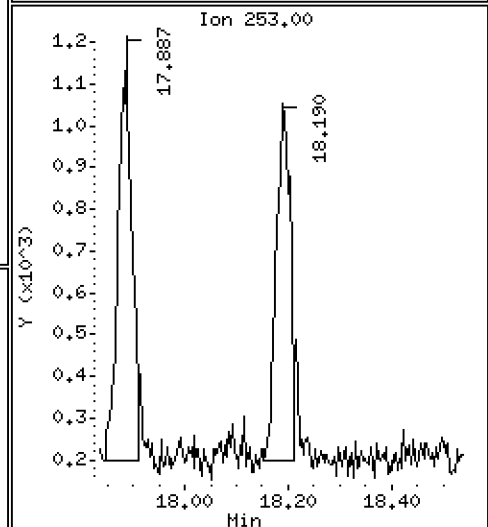
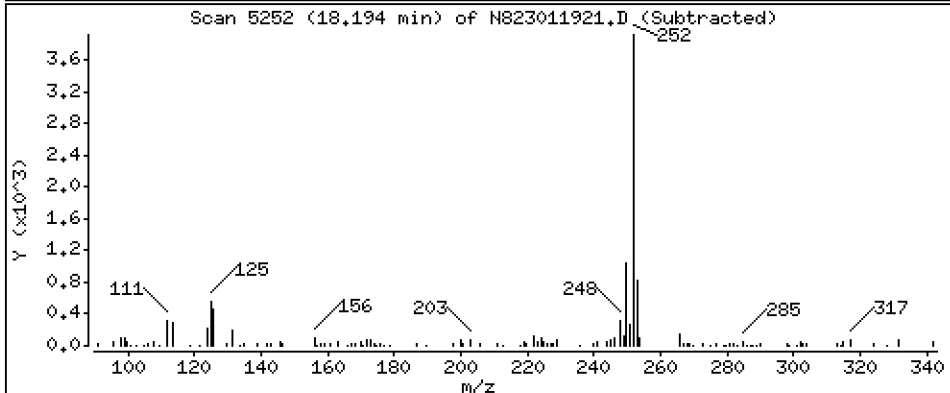
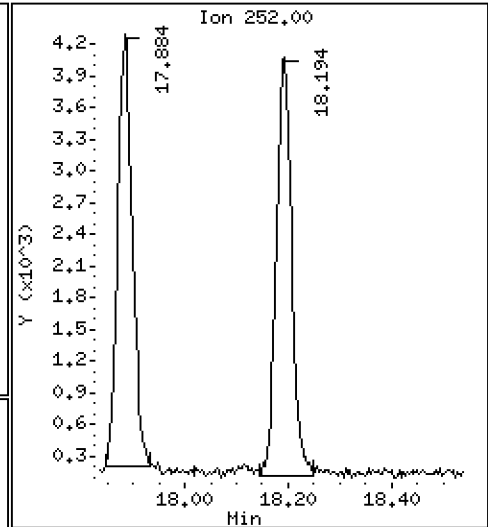
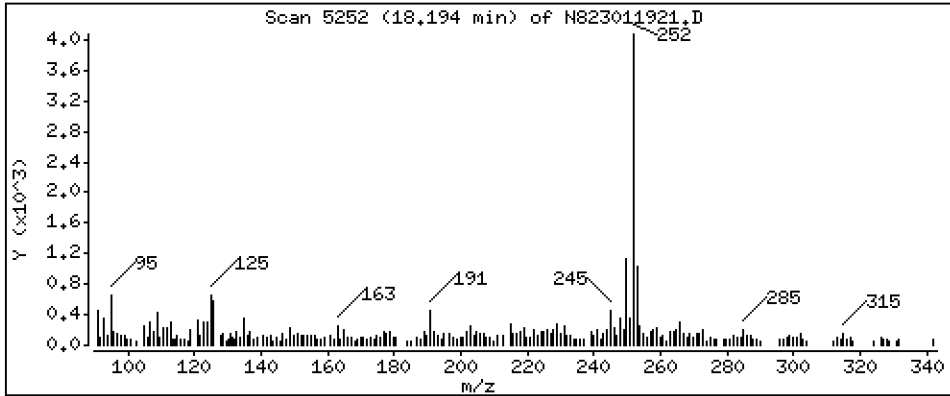
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

35 Perylene

Concentration: 0,4867 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

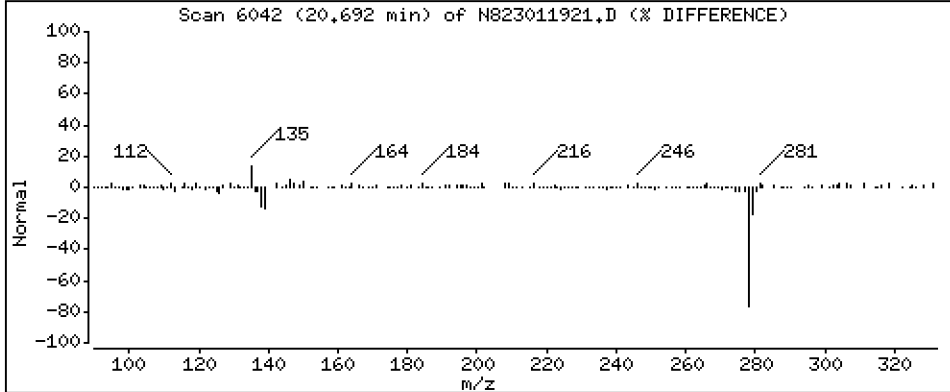
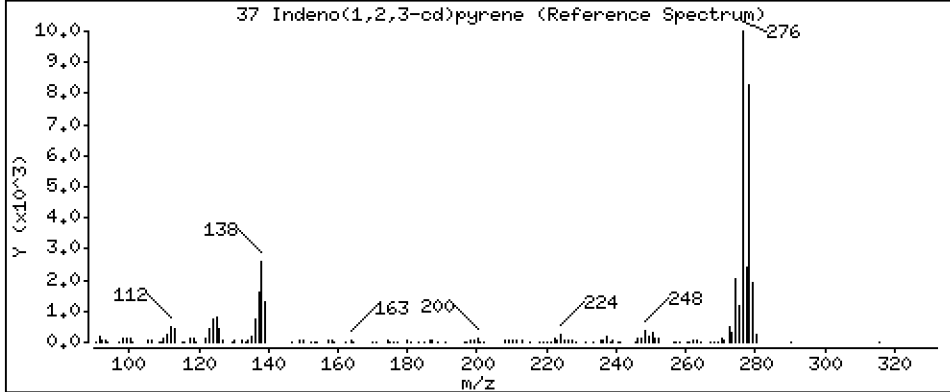
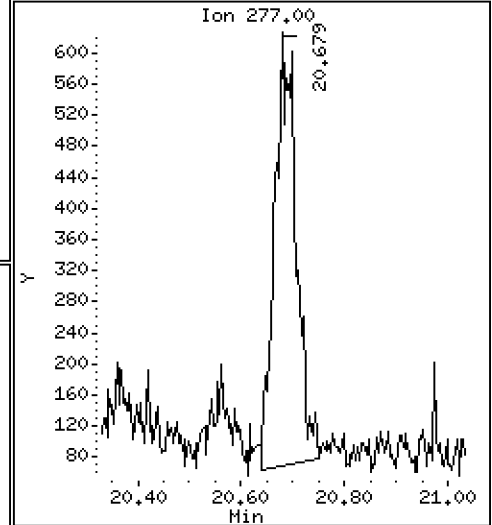
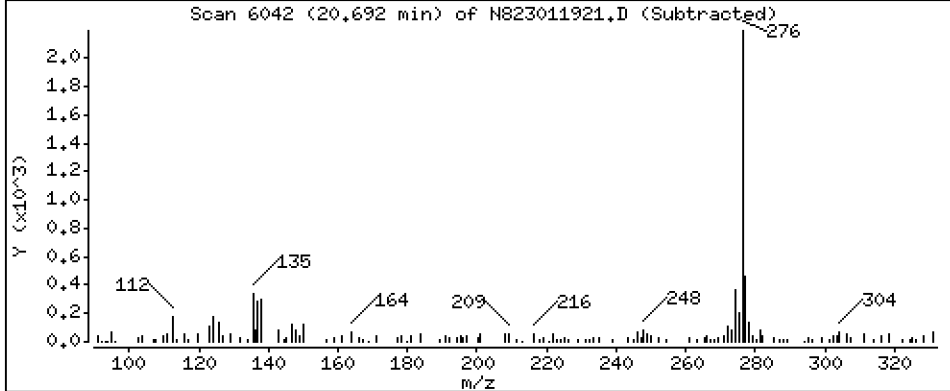
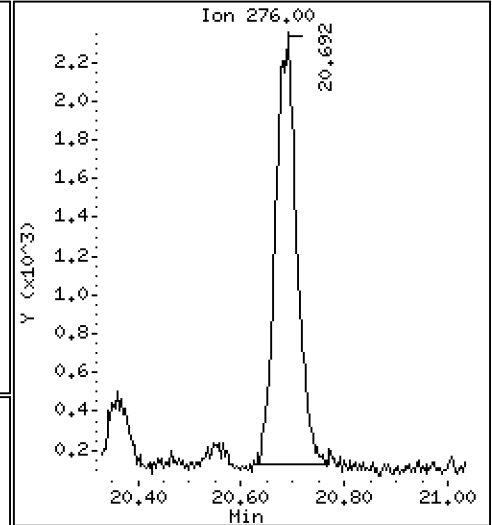
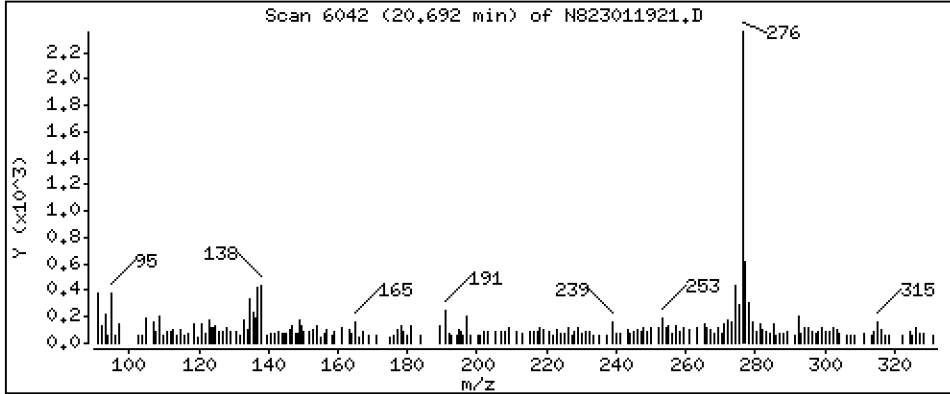
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 0,3520 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

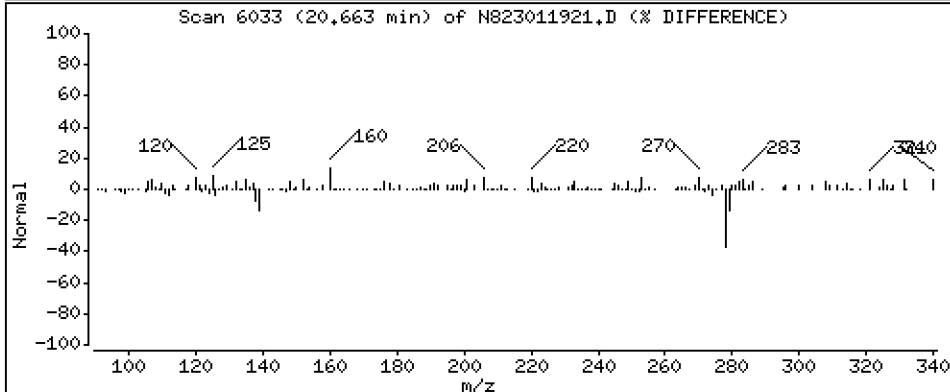
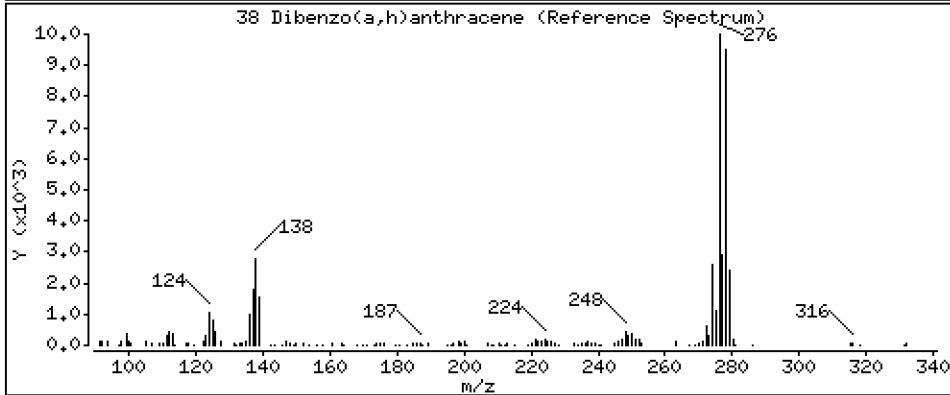
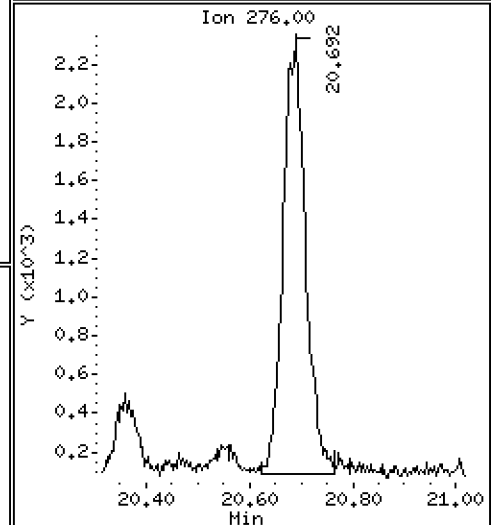
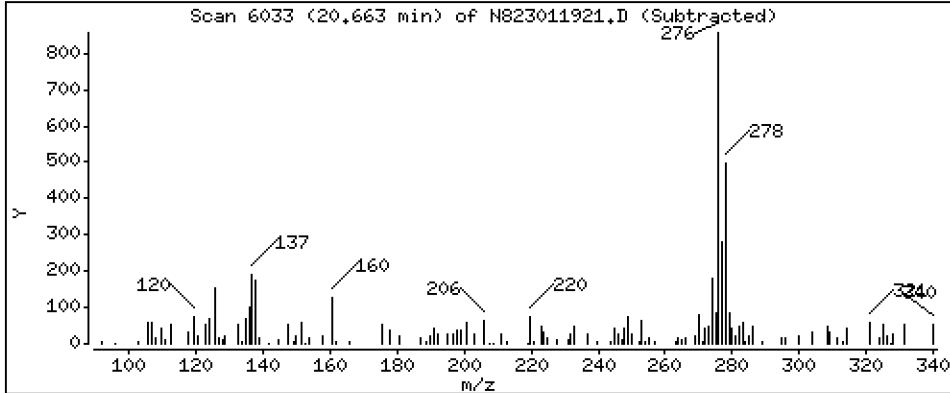
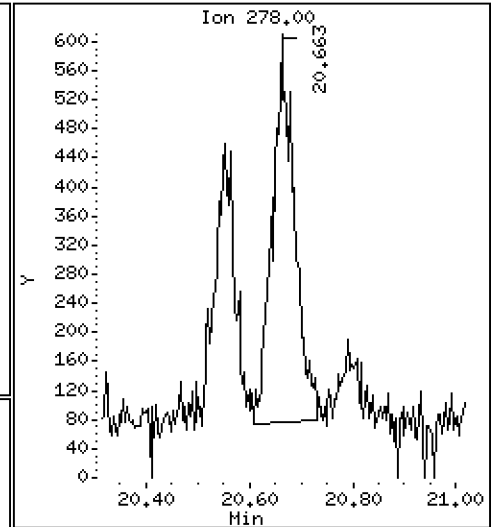
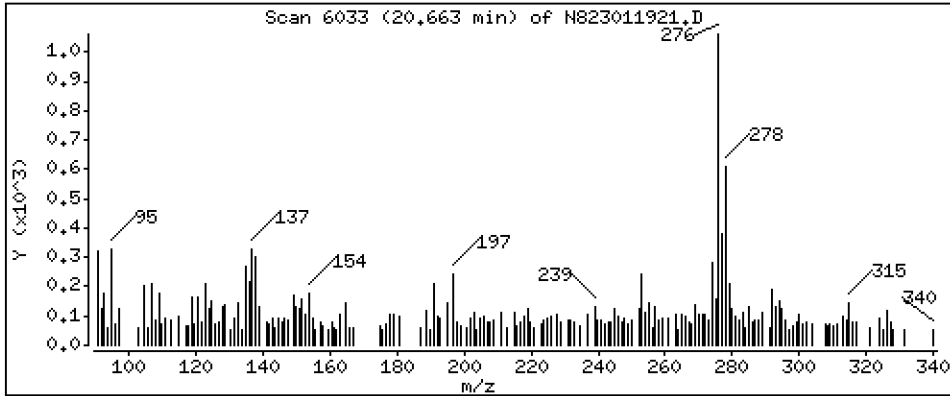
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 0,1005 ug/mL



Date : 19-JAN-2023 20:20

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-06

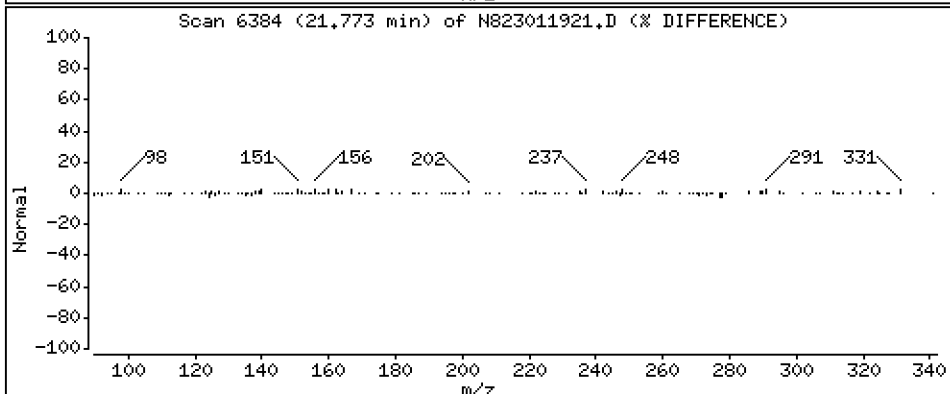
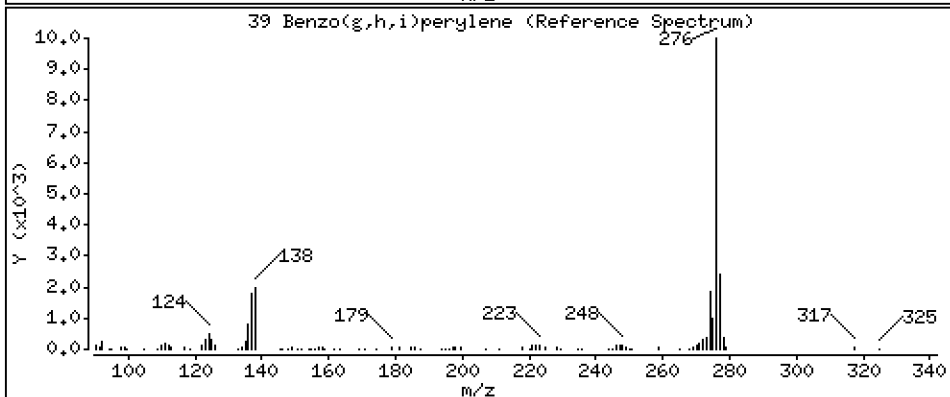
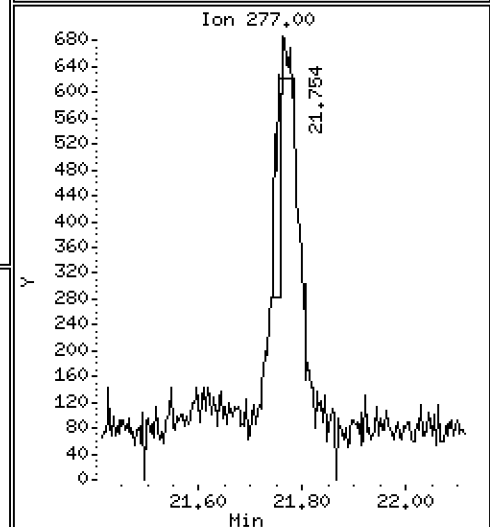
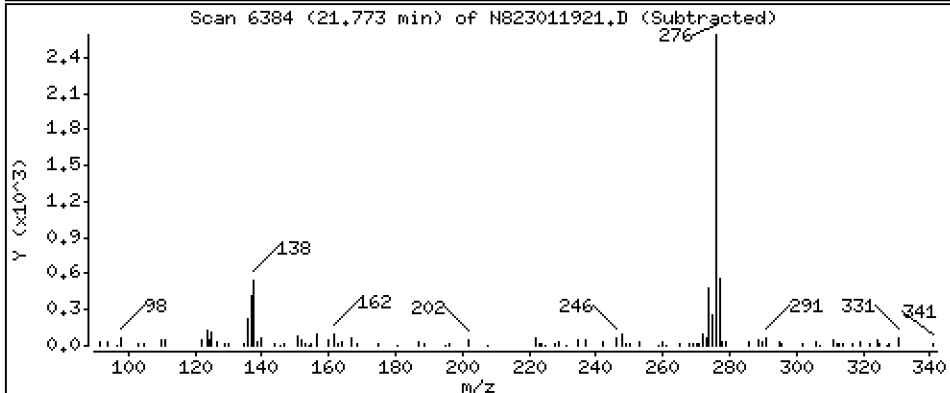
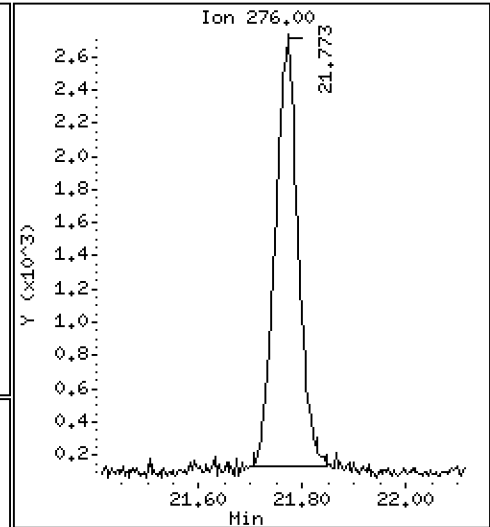
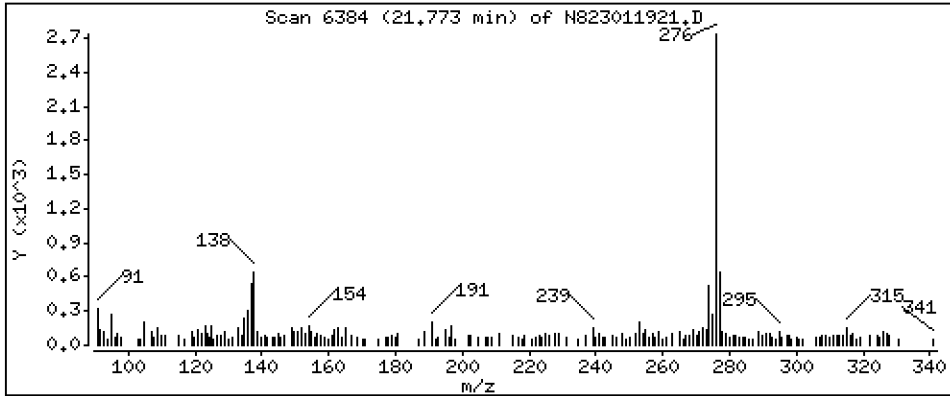
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 0,4863 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119A.b\N823011921.D
 Lab Smp Id: 23A0032-06
 Inj Date : 19-JAN-2023 20:20
 Operator : JZ Inst ID: nt8.i
 Smp Info : 23A0032-06
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 22:11 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PNAXMDL.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
* 1 Naphthalene-d8	136		4.900	4.909	(1.000)	59534	2.00000	
2 Naphthalene	128		4.925	4.938	(1.005)	1360	0.04913	0.04913
\$ 3 2-Methylnaphthalene-d10	152		5.637	5.643	(1.150)	25990	1.60072	1.601
4 2-Methylnaphthalene	141		5.681	5.690	(1.159)	1103	0.07244	0.07244
5 1-methylnaphthalene	141		5.880	5.887	(1.200)	744	0.04815	0.04815
9 Acenaphthylene	152		7.088	7.088	(0.985)	1135	0.04376	0.04376
* 10 Acenaphthene-d10	164		7.196	7.199	(1.000)	34344	2.00000	
11 Acenaphthene	153		7.246	7.246	(1.007)	724	0.04167	0.04167
12 Dibenzofuran	168		7.395	7.398	(1.028)	1342	0.05085	0.05085
14 Fluorene	166		7.876	7.875	(1.094)	889	0.04337	0.04337
* 15 Phenanthrene-d10	188		9.238	9.238	(1.000)	58574	2.00000	
16 Phenanthrene	178		9.273	9.270	(1.004)	7466	0.26094	0.2609
17 Anthracene	178		9.314	9.311	(1.008)	2548	0.09803	0.09803
22 Fluoranthene	202		11.056	11.053	(1.197)	20985	0.67379	0.6738
\$ 21 Fluoranthene-d10	212		11.019	11.015	(1.193)	50576	1.95708	1.957
23 Pyrene	202		11.588	11.575	(0.816)	18477	0.83207	0.8321
24 Benzo(a)anthracene	228		14.079	14.079	(0.991)	7135	0.35450	0.3545
* 25 Chrysene-d12	240		14.209	14.209	(1.000)	35817	2.00000	
27 Chrysene	228		14.285	14.282	(1.005)	11496	0.53654	0.5365
28 Benzo(b)fluoranthene	252		16.830	16.827	(0.929)	10651	0.58849	0.5885
29 Benzo(k)fluoranthene	252		16.893	16.890	(0.932)	5150	0.29050	0.2905
30 Benzo(j)fluoranthene	252		16.966	16.969	(0.936)	4427	0.27739	0.2774
31 Total Benzofluoranthenes	252		16.830	16.890	(0.929)	20026	1.16834	1.168 (M)
32 Benzo(a)pyrene	252		17.883	17.880	(0.987)	8533	0.53576	0.5358
* 33 Perylene-d12	264		18.120	18.117	(1.000)	31076	2.00000	
35 Perylene	252		18.193	18.187	(1.004)	8319	0.48674	0.4867
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.555	20.555	(1.134)	31641	2.59858	2.599
37 Indeno(1,2,3-cd)pyrene	276		20.691	20.681	(1.142)	6386	0.35195	0.3520
38 Dibenzo(a,h)anthracene	278		20.663	20.666	(1.140)	1570	0.10055	0.1005 (M)
39 Benzo(g,h,i)perylene	276		21.772	21.763	(1.202)	7995	0.48633	0.4863

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011921.D Calibration Time: 16:16
 Lab Smp Id: 23A0032-06
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	42524	21262	85048	59534	40.00
10 Acenaphthene-d10	25260	12630	50520	34344	35.96
15 Phenanthrene-d10	47890	23945	95780	58574	22.31
25 Chrysene-d12	40533	20267	81066	35817	-11.63
33 Perylene-d12	38115	19058	76230	31076	-18.47

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.90	-0.19
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	-0.04
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.00
25 Chrysene-d12	14.21	13.71	14.71	14.21	0.00
33 Perylene-d12	18.12	17.62	18.62	18.12	0.02

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011921.D

Lab ID: 23A0032-06

nt8.i, 20230119A.b\FSIMPNA230119.m, 19-JAN-2023 20:20

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

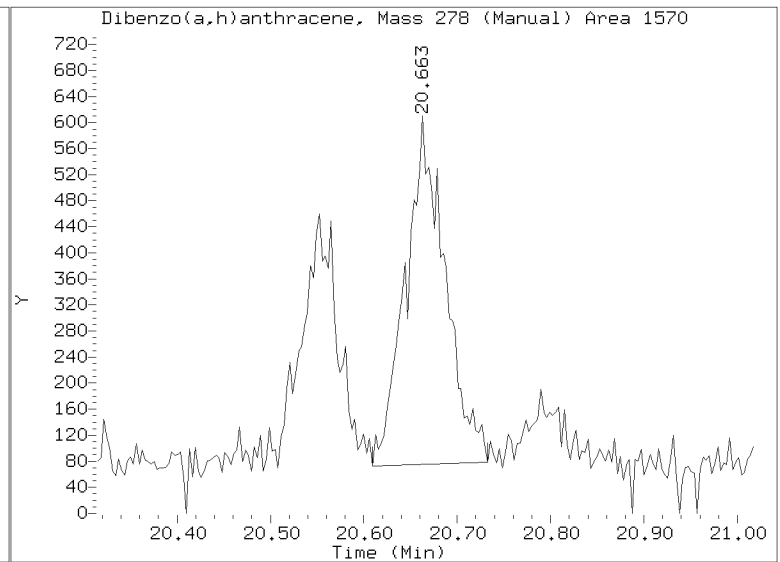
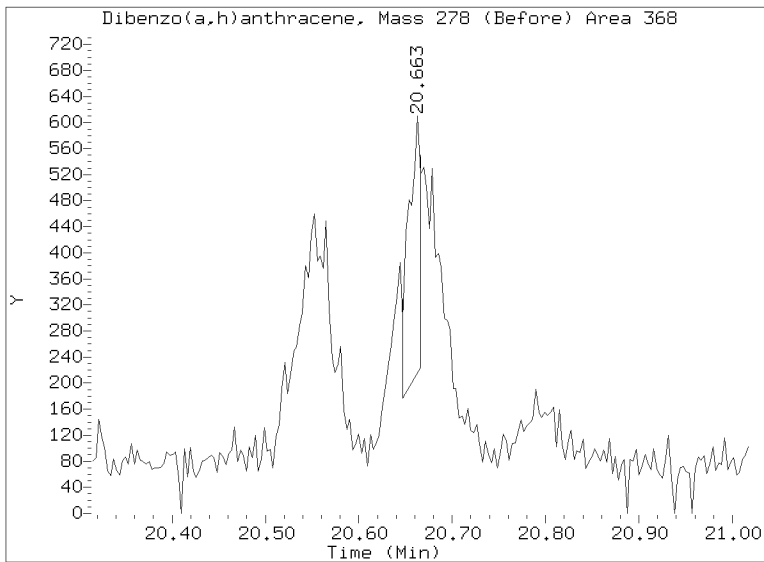
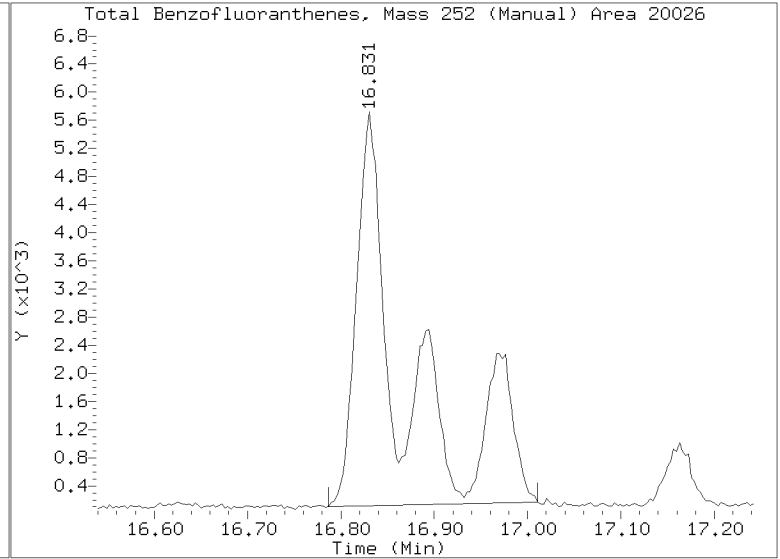
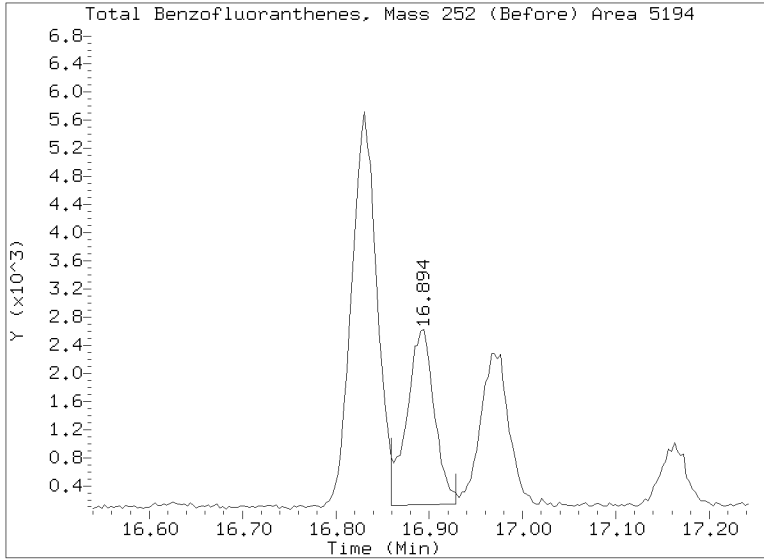
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On Column LOD for nt8.i, 20230119A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119A.b/N823011921.D
Injection Date: 19-JAN-2023 20:20
Lab ID:23A0032-06 Client ID:
Report Date: 01/25/2023 22:12





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Polynuclear Aromatic Hydrocarbons

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-07 A

SDG: 23A0032

Sampled: 01/03/23 14:36

Prepared: 01/11/23 11:45

File ID: N823011924.D

% Solids: 63.70

Preparation: EPA 3546 (Microwave)

Analyzed: 01/19/23 21:41

Batch: BLA0171

Sequence: SLA0228

Initial/Final: 15.79 g Wet / 0.5 mL

Instrument: NT8

Column: RXI-17Sil ms

Calibration: GA00050

Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
56-55-3	Benzo(a)anthracene	3	737	D	2.46	14.9
218-01-9	Chrysene	3	1100	D	3.14	14.9
205-99-2	Benzo(b)fluoranthene	3	785	D	4.09	14.9
207-08-9	Benzo(k)fluoranthene	3	435	D	2.27	14.9
50-32-8	Benzo(a)pyrene	3	832	D	1.83	14.9
193-39-5	Indeno(1,2,3-cd)pyrene	3	449	D	3.13	14.9
53-70-3	Dibenzo(a,h)anthracene	3	118	D	2.66	14.9

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	149.13	95.1	63.8	32 - 120	
Dibenzo[a,h]anthracene-d14	149.13	118	79.4	21 - 133	
Fluoranthene-d10	149.13	119	79.5	36 - 134	

Data File: \\target\share\chem3\nt8.1\20230119A,B\N823011924.D

Date: 19-JAN-2023 21:41

Client ID:

Sample Info: 23A0032-07.3

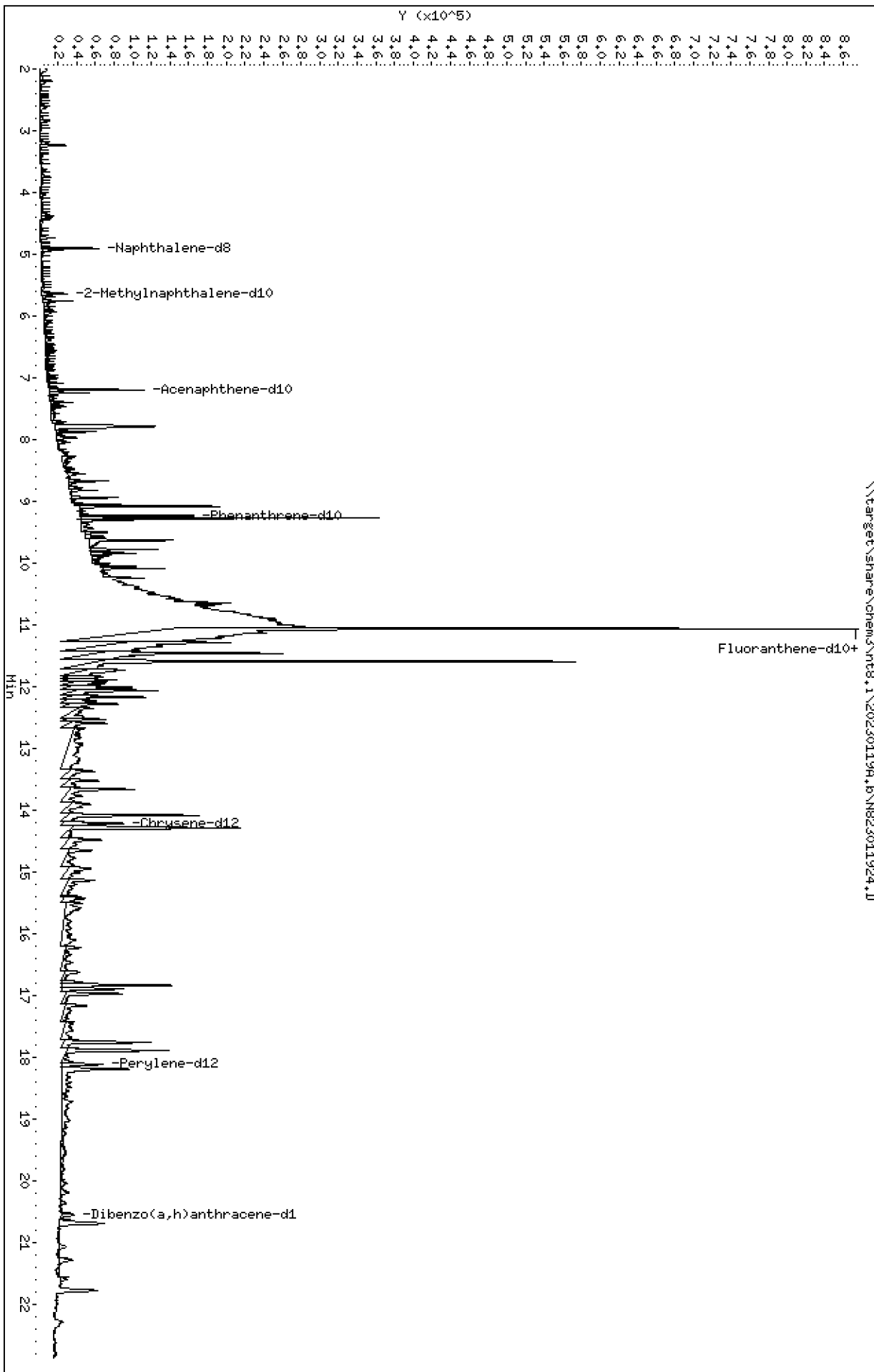
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

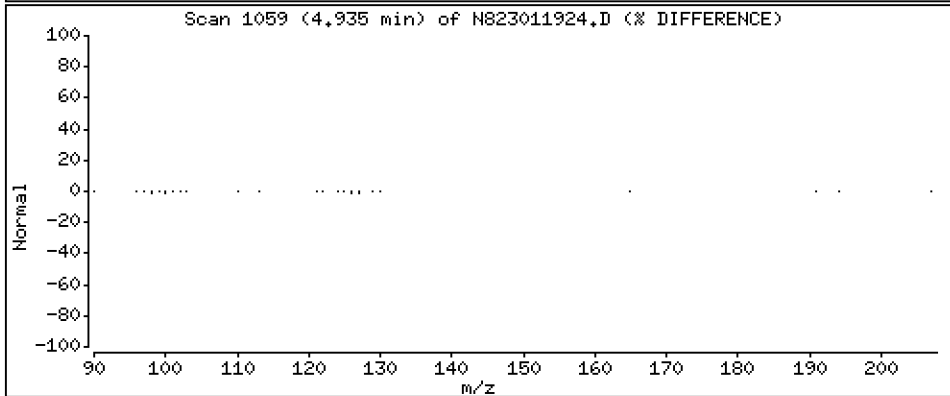
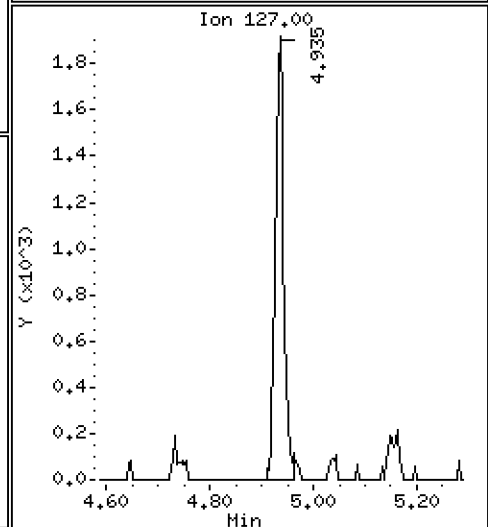
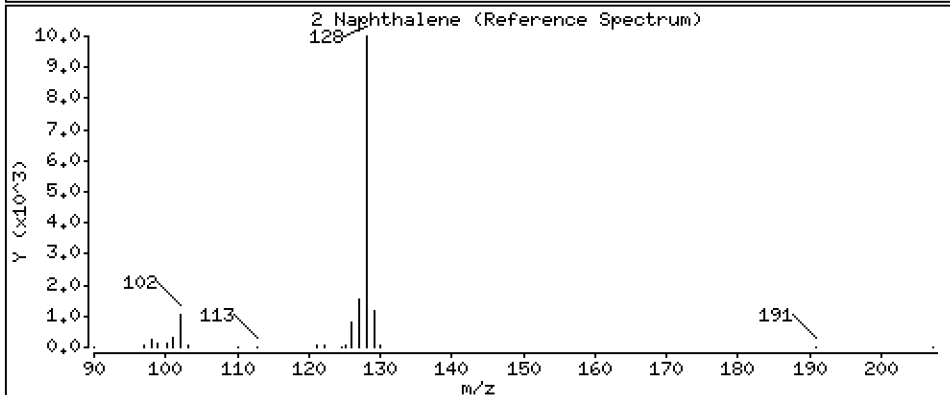
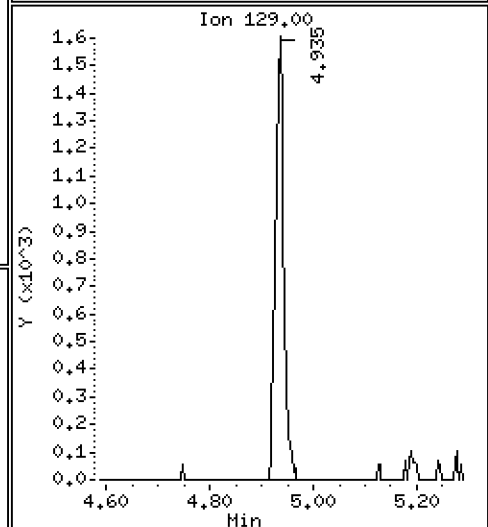
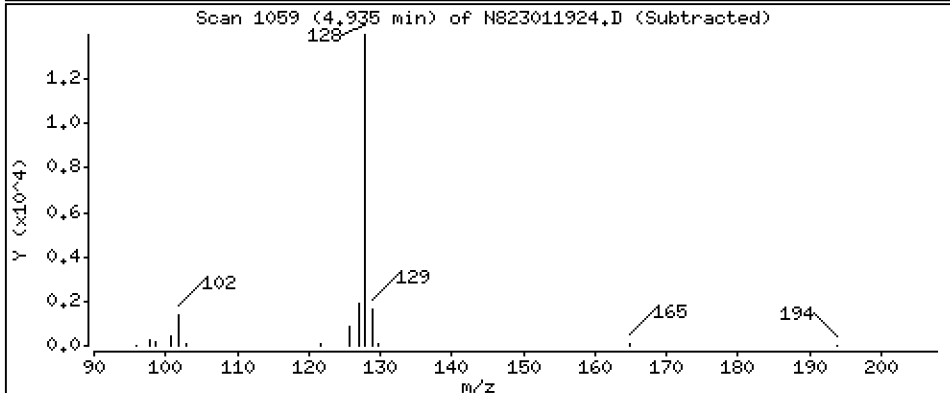
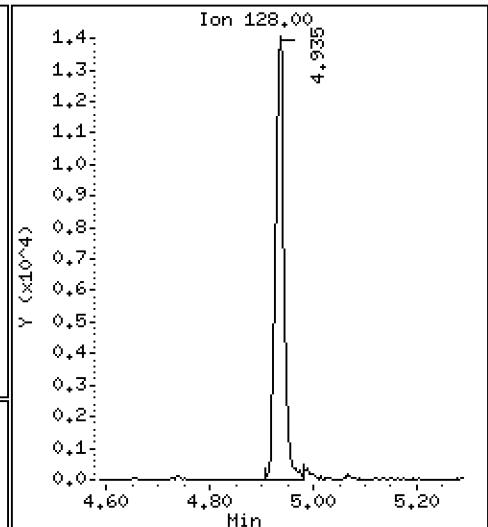
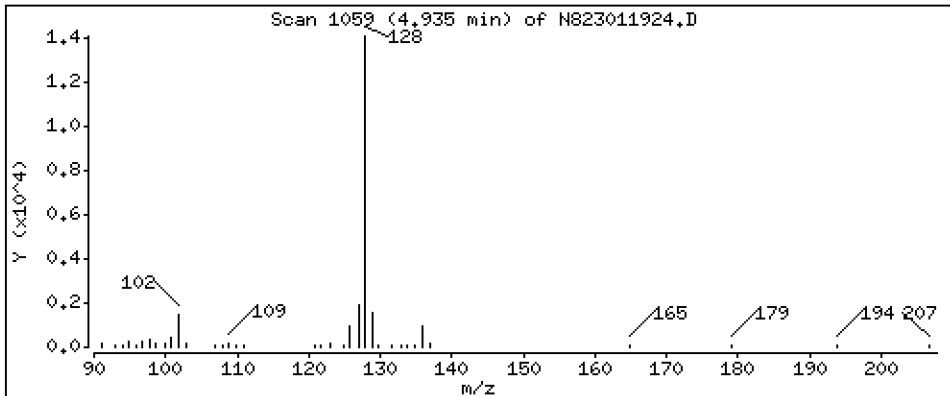
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

2 Naphthalene

Concentration: 2,192 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

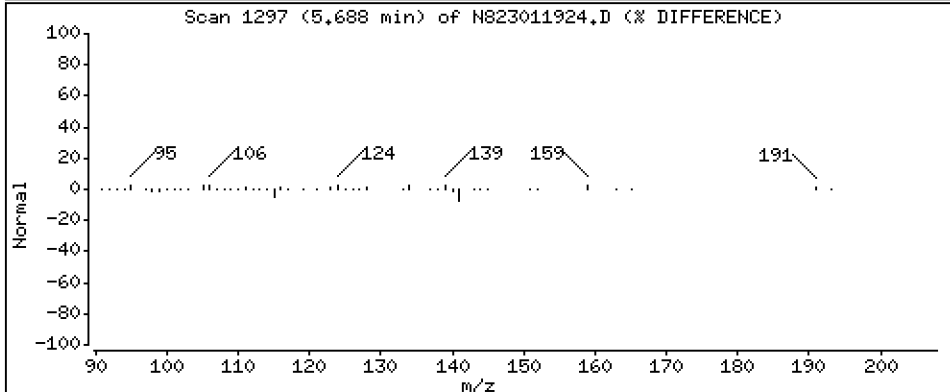
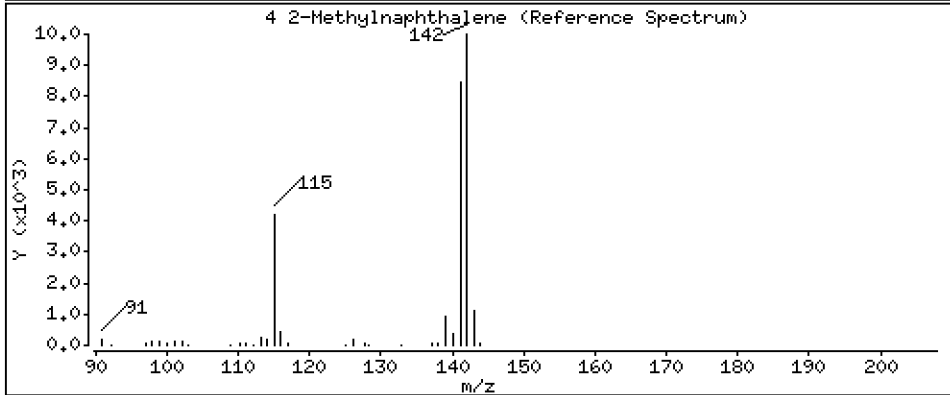
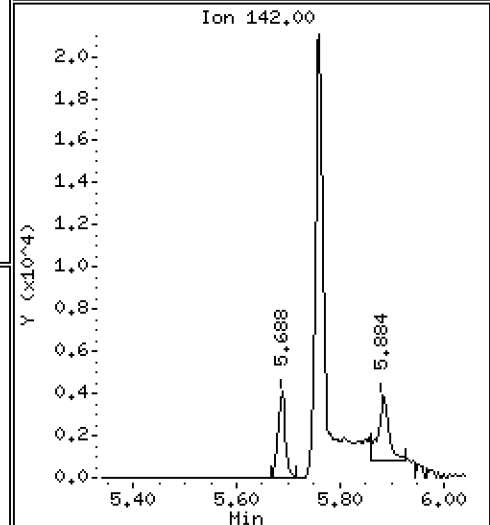
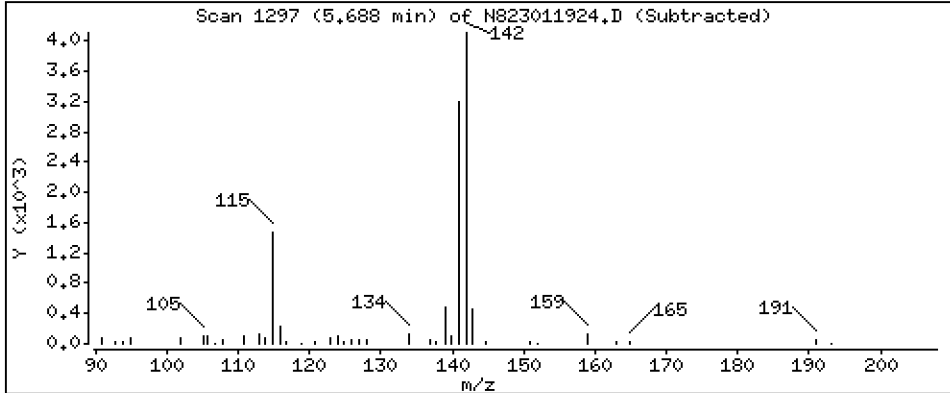
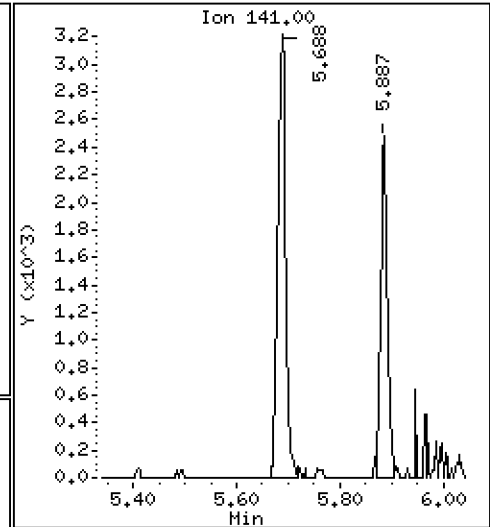
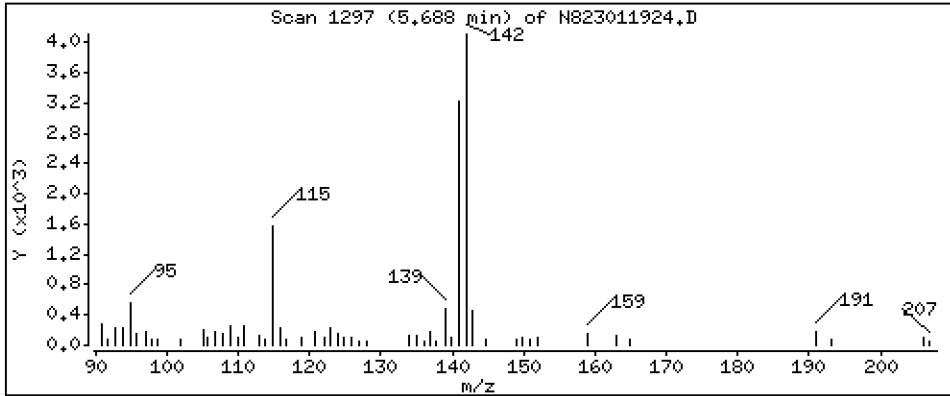
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

4 2-Methylnaphthalene

Concentration: 0,8407 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

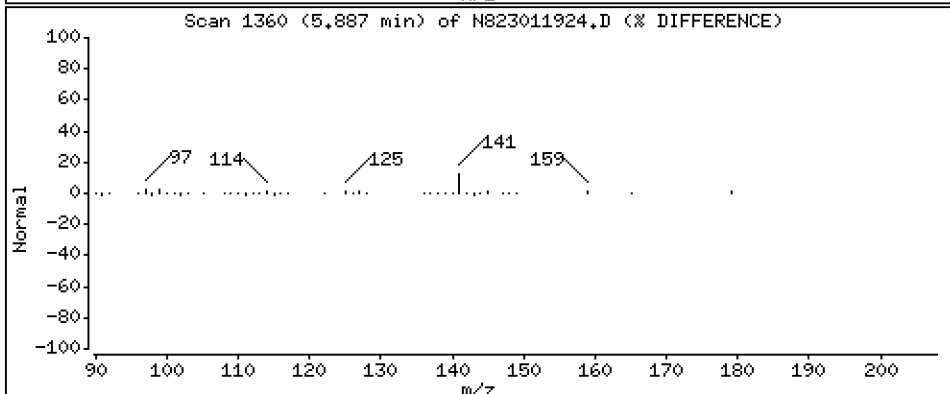
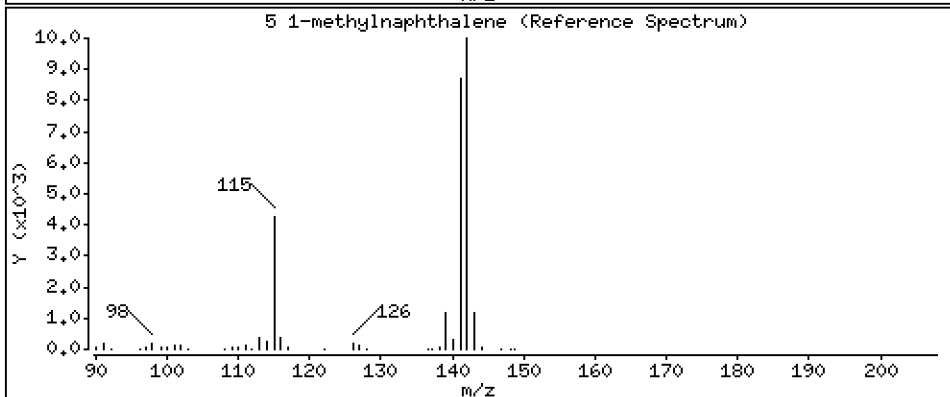
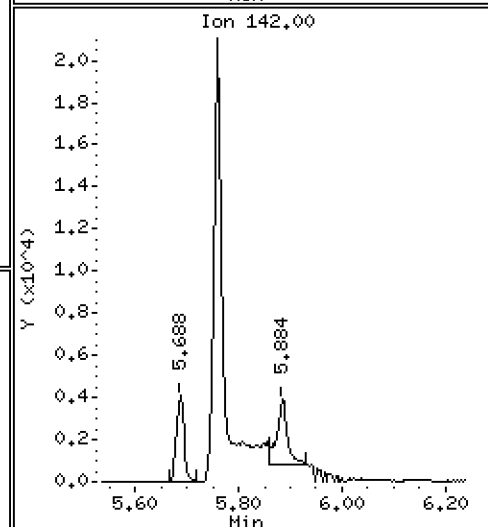
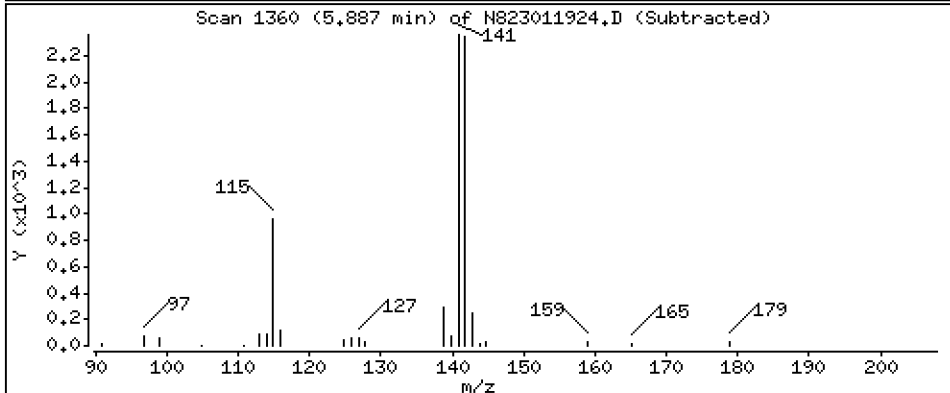
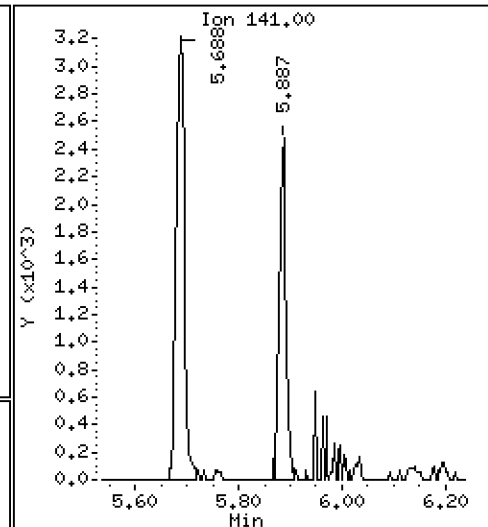
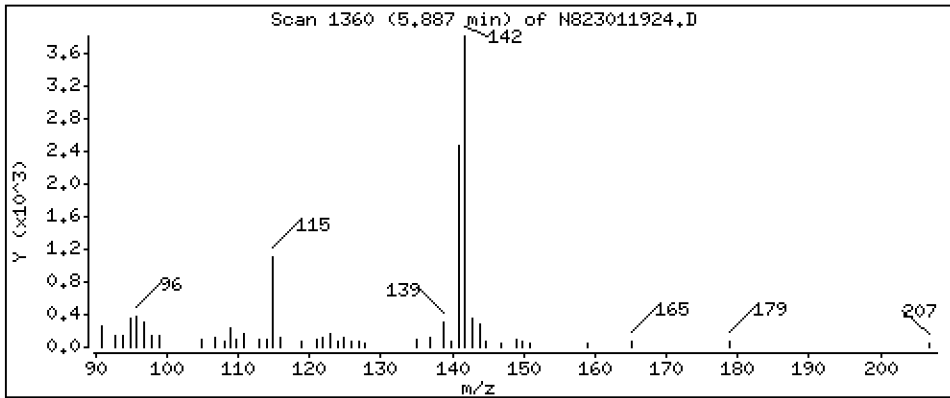
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

5 1-methylnaphthalene

Concentration: 0,5454 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

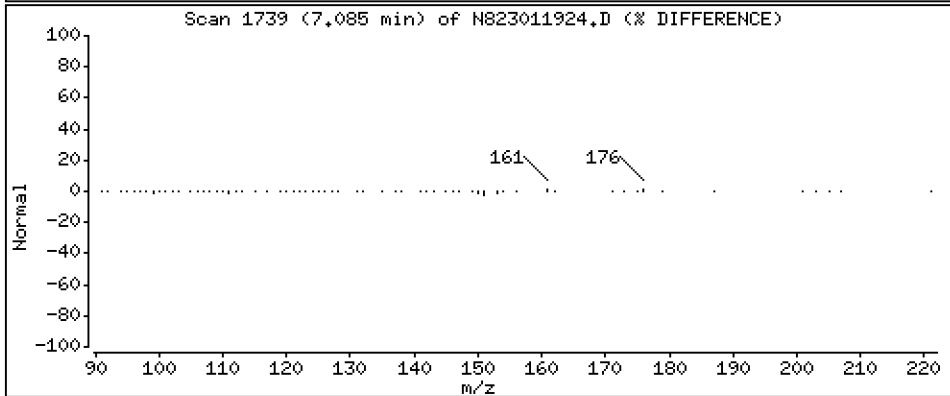
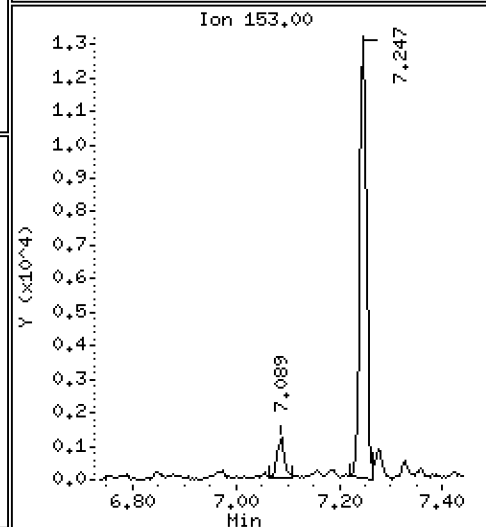
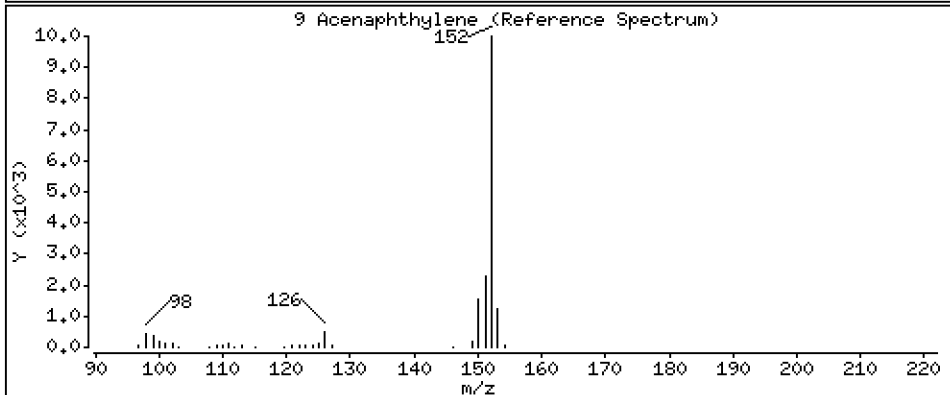
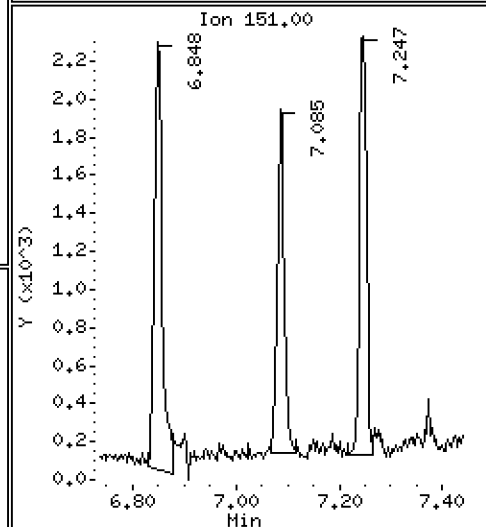
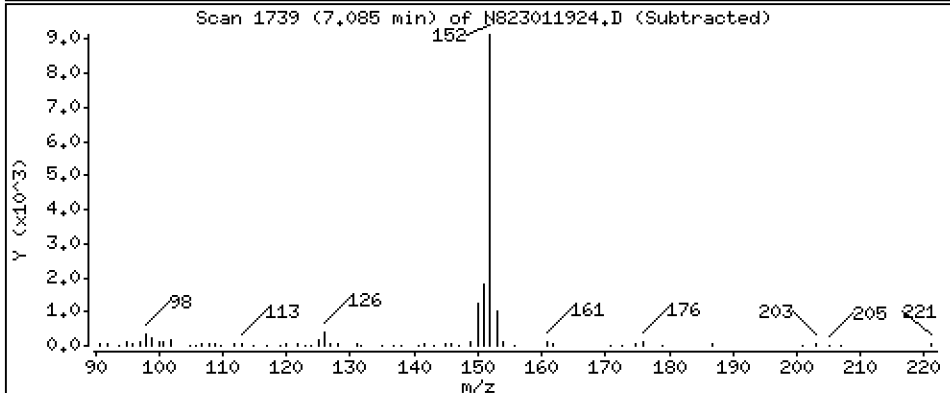
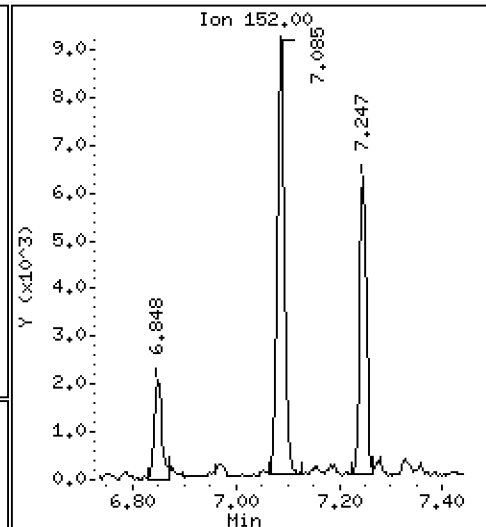
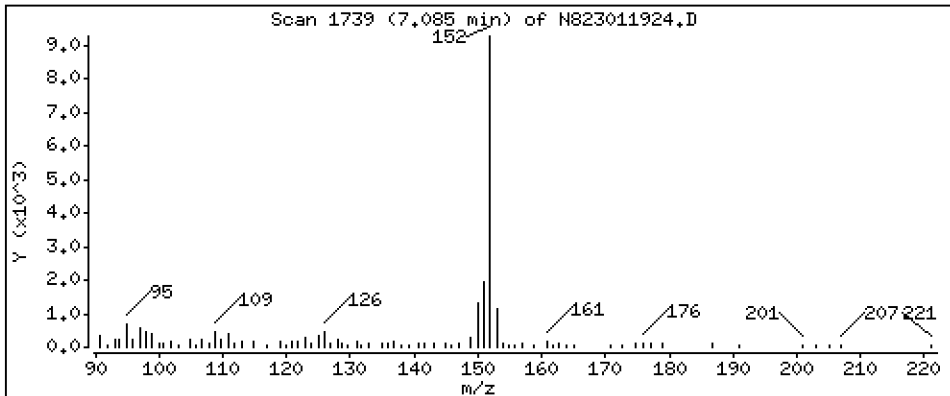
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

9 Acenaphthylene

Concentration: 1,236 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

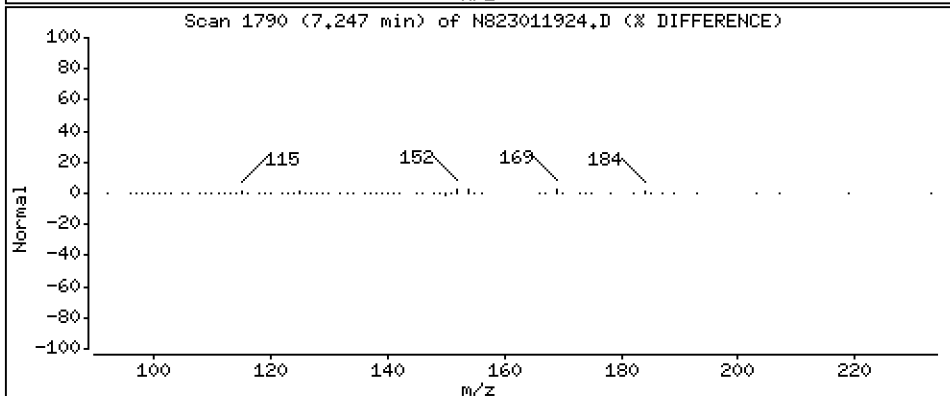
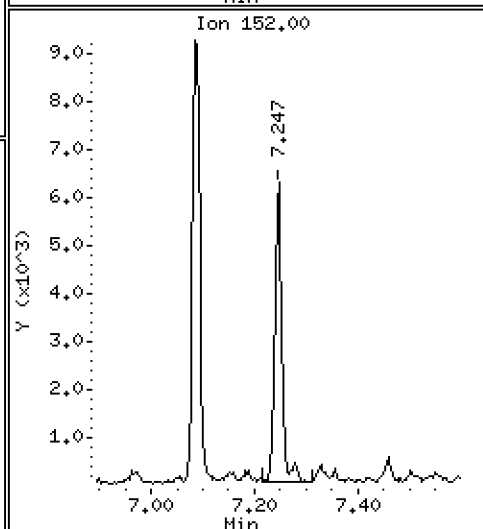
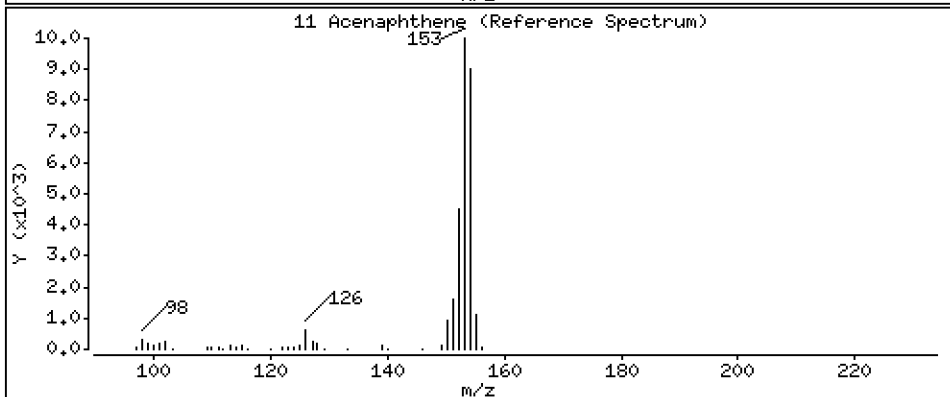
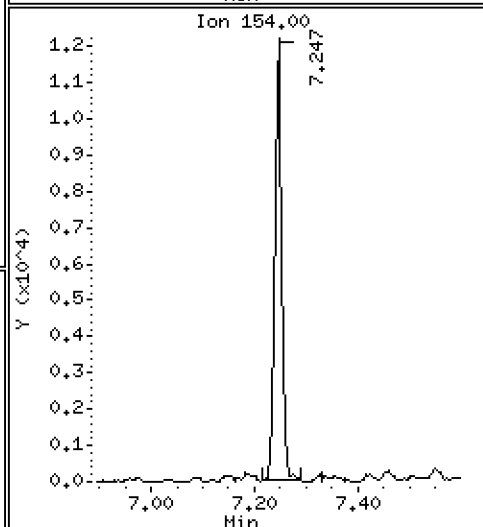
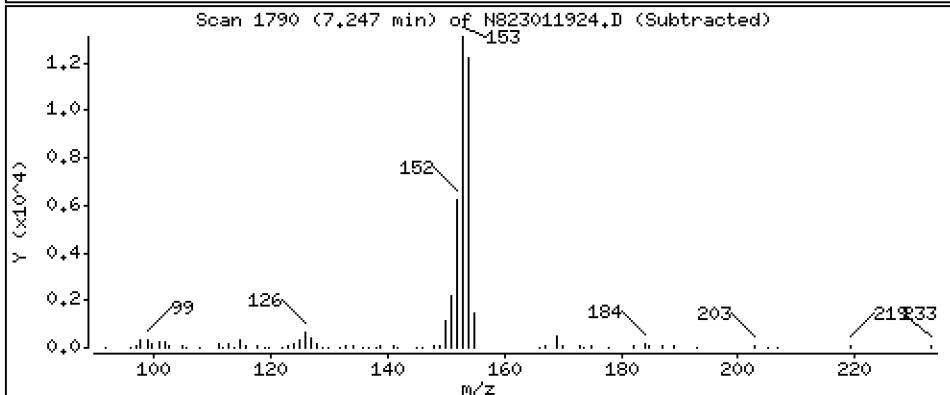
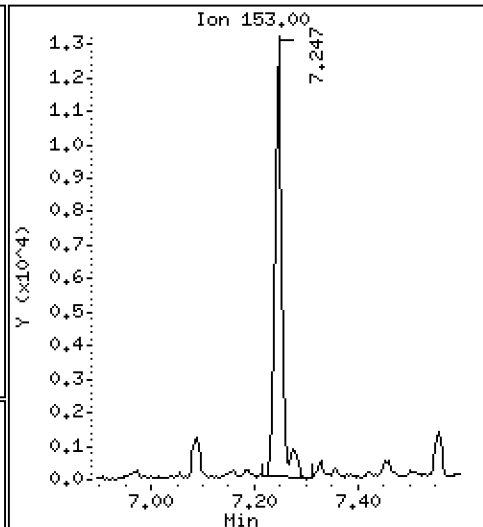
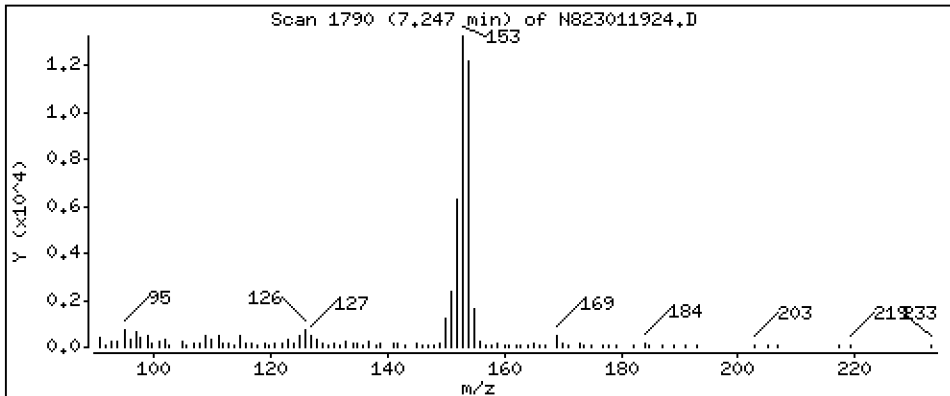
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 2,564 ug/mL

11 Acenaphthene



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

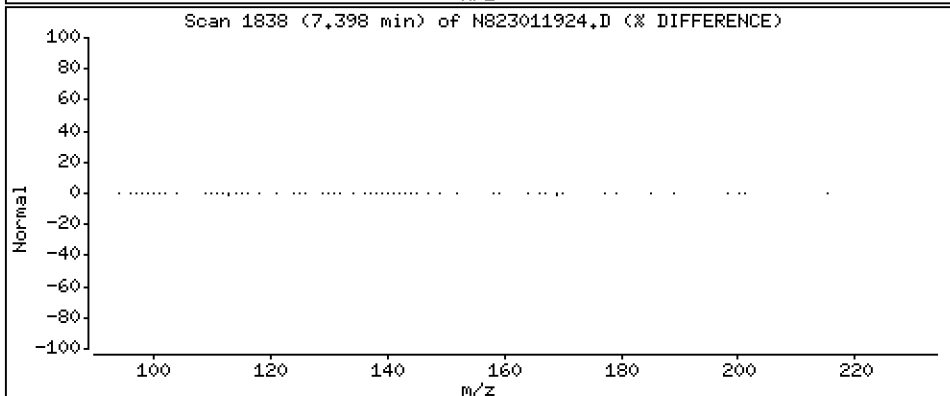
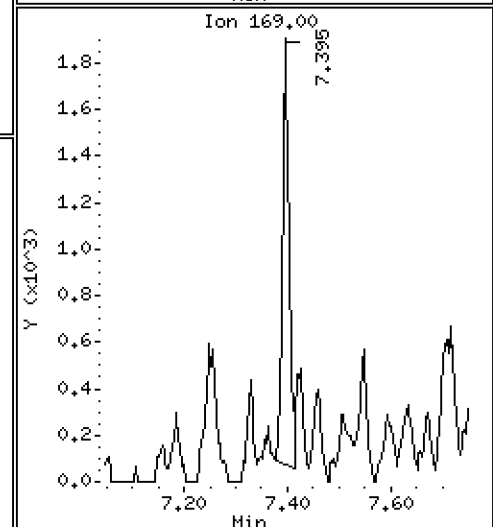
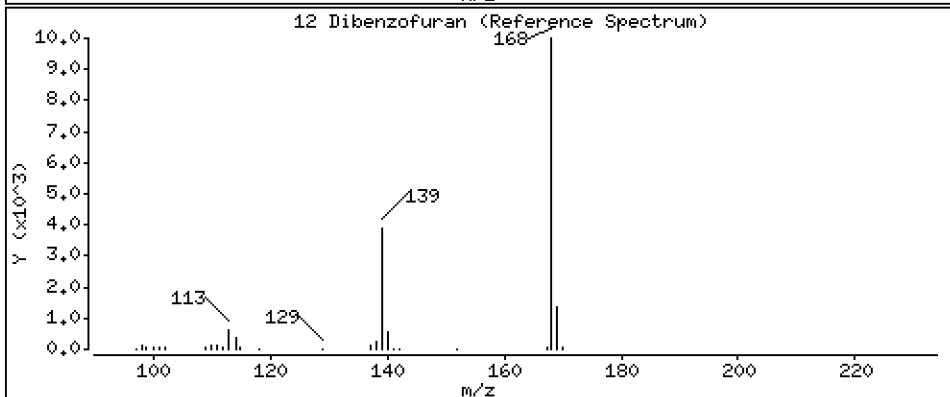
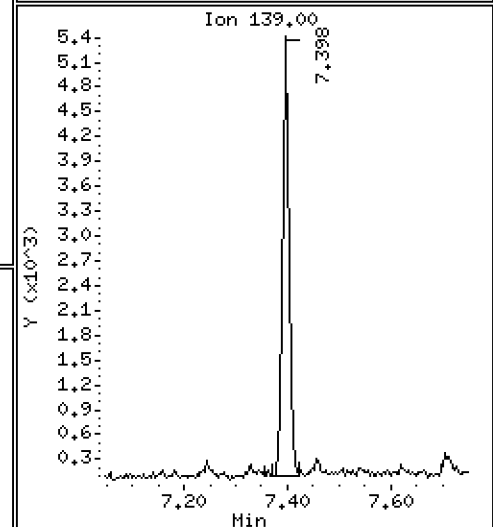
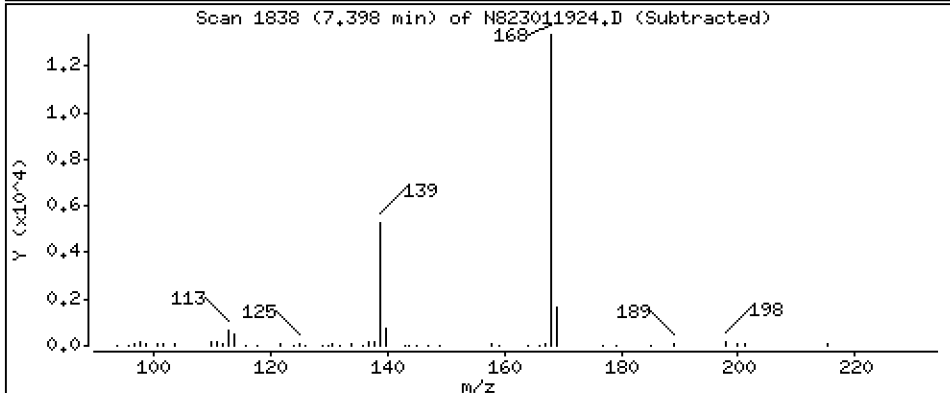
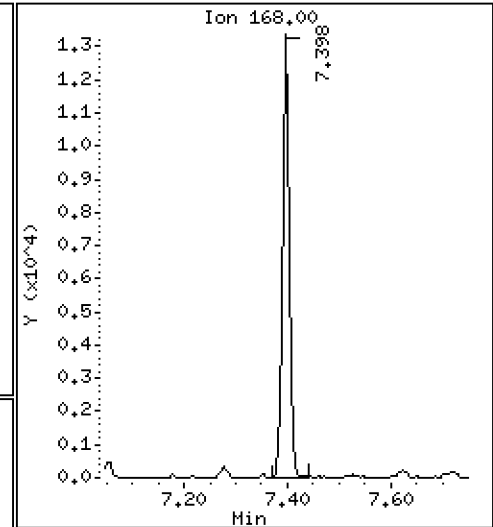
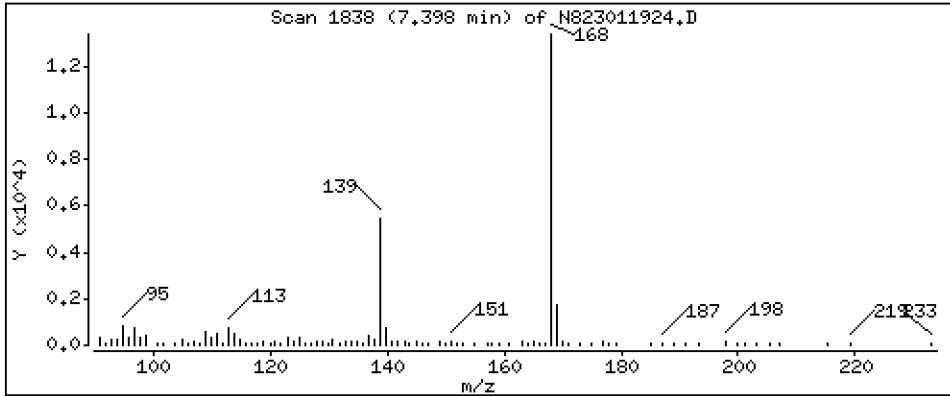
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

12 Dibenzofuran

Concentration: 1,679 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

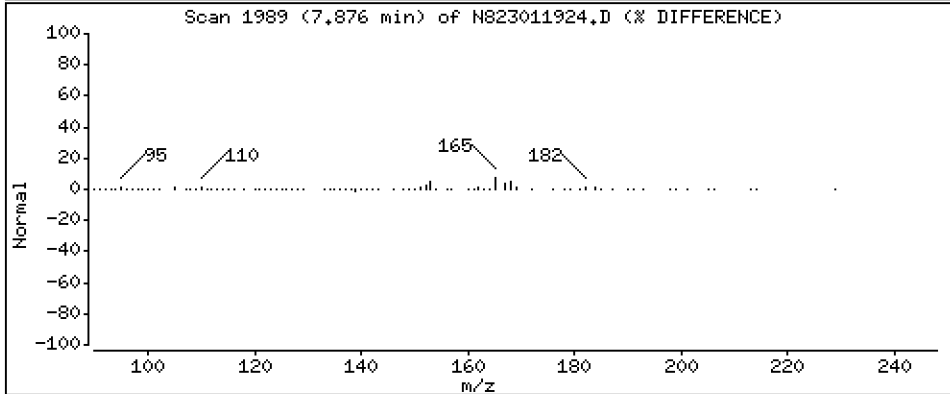
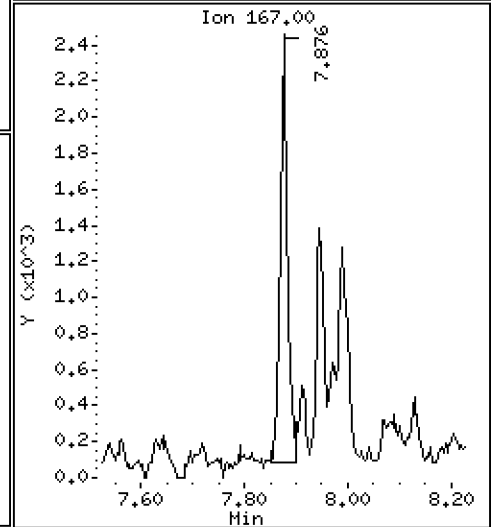
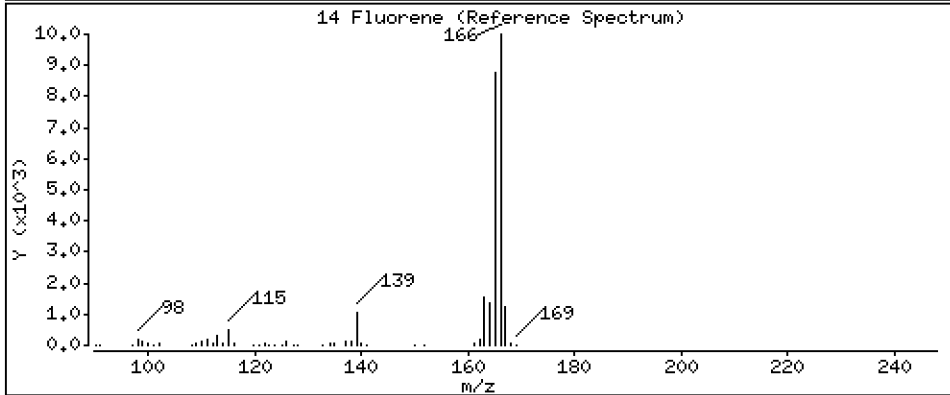
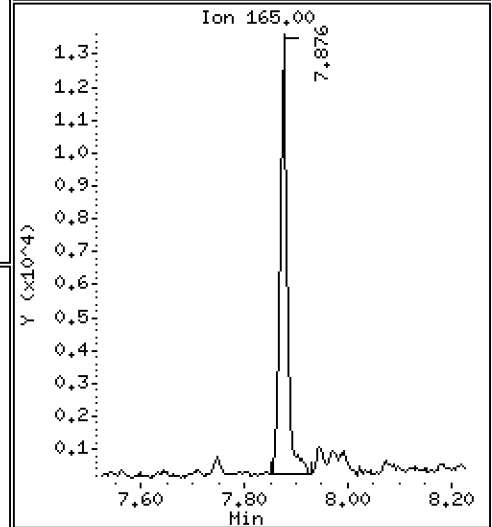
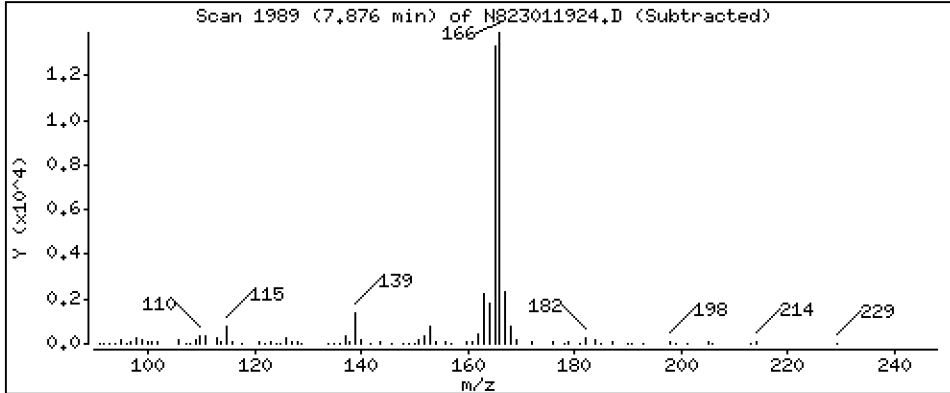
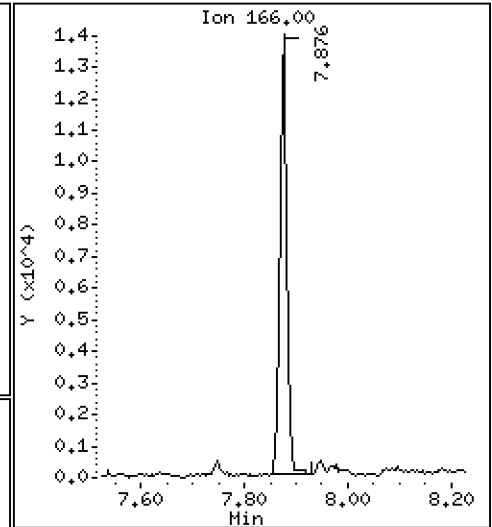
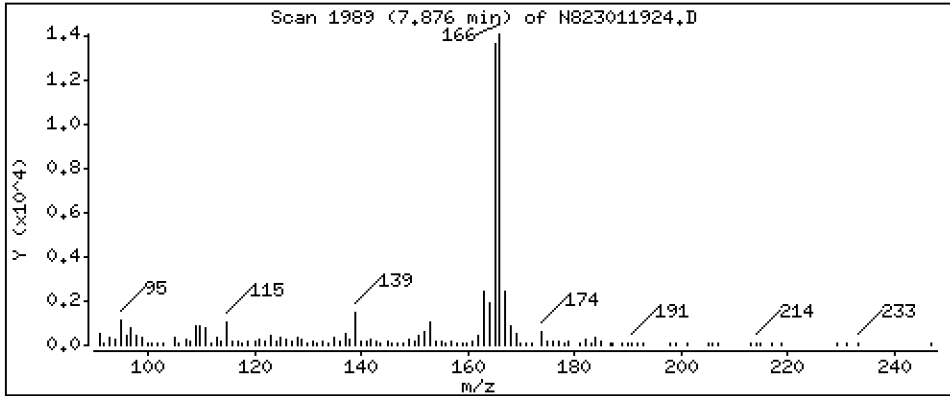
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

14 Fluorene

Concentration: 2,295 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

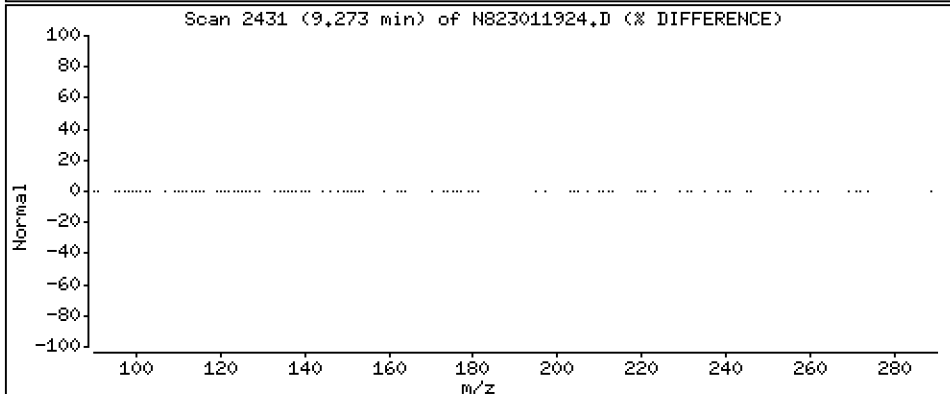
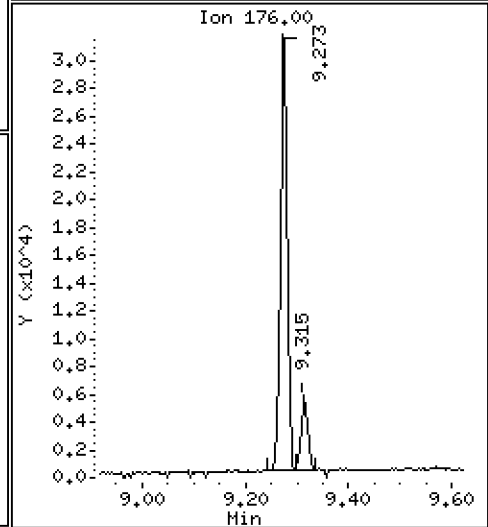
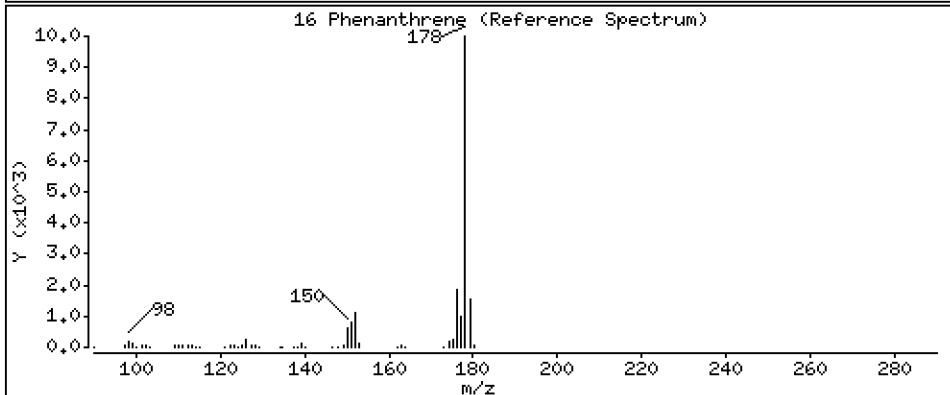
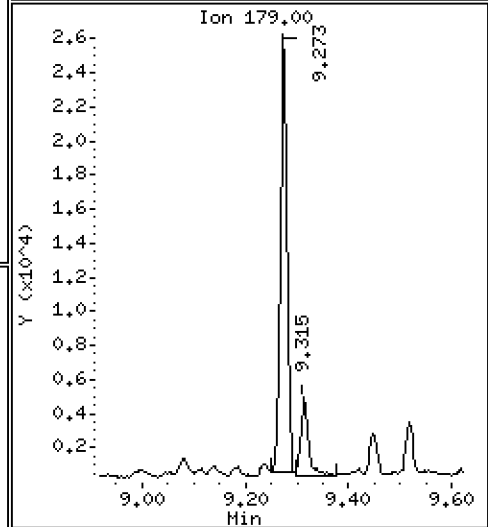
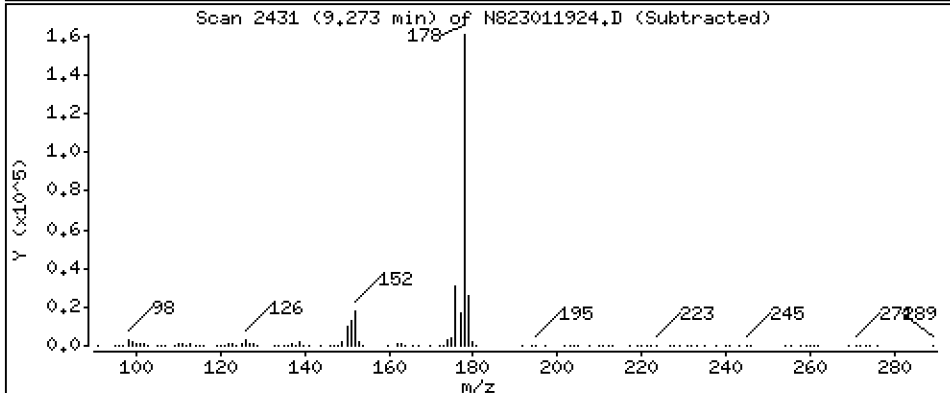
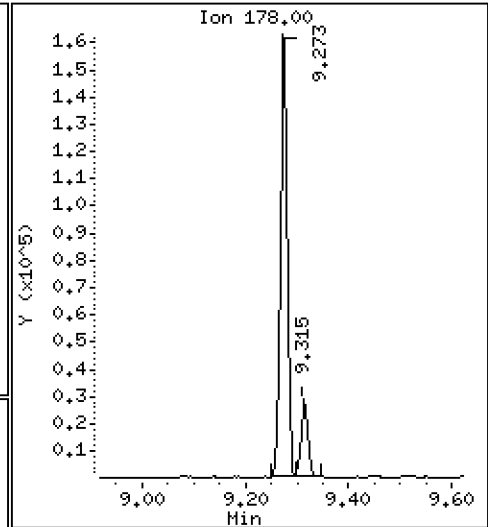
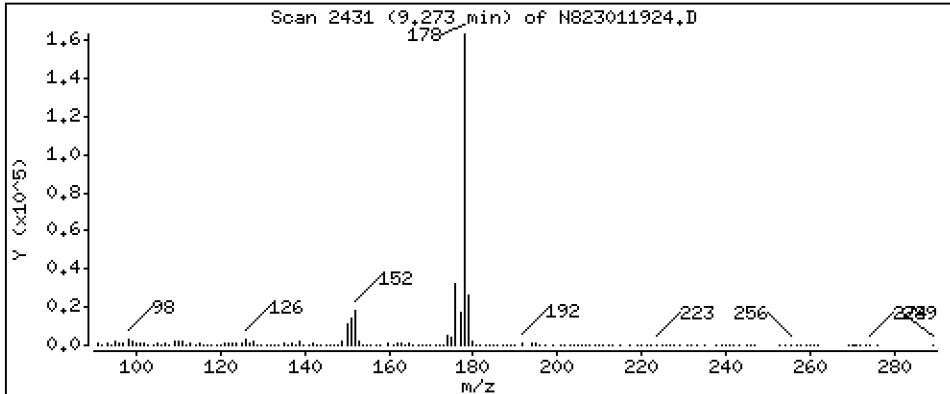
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

16 Phenanthrene

Concentration: 18,62 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

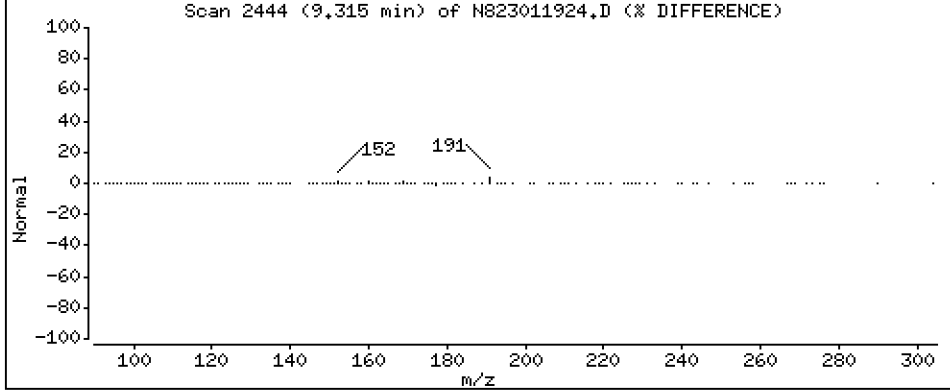
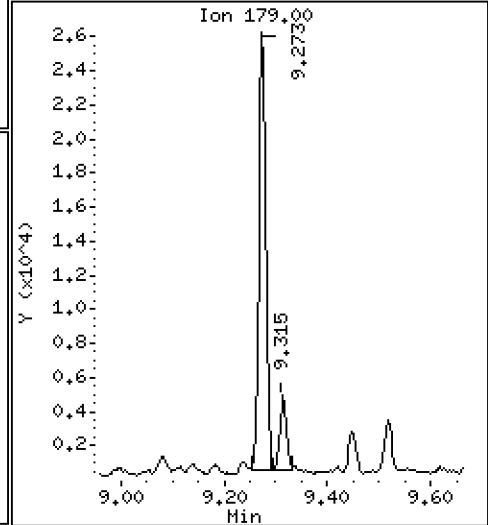
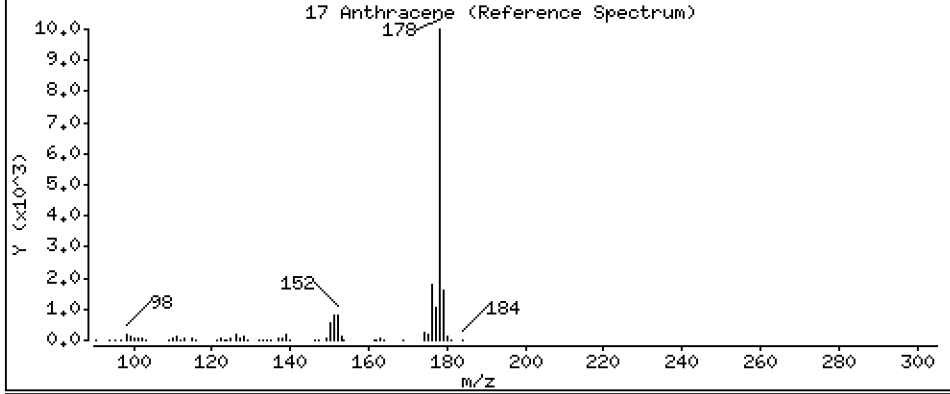
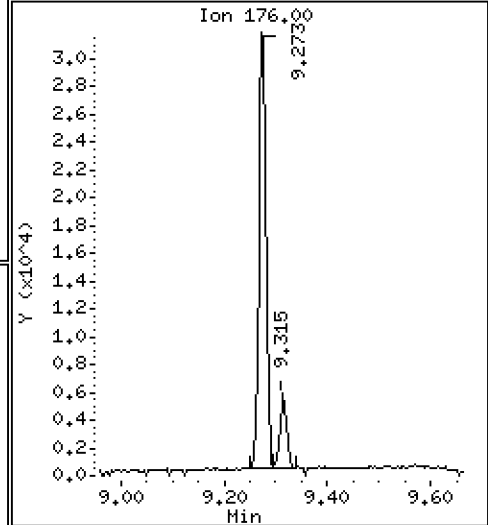
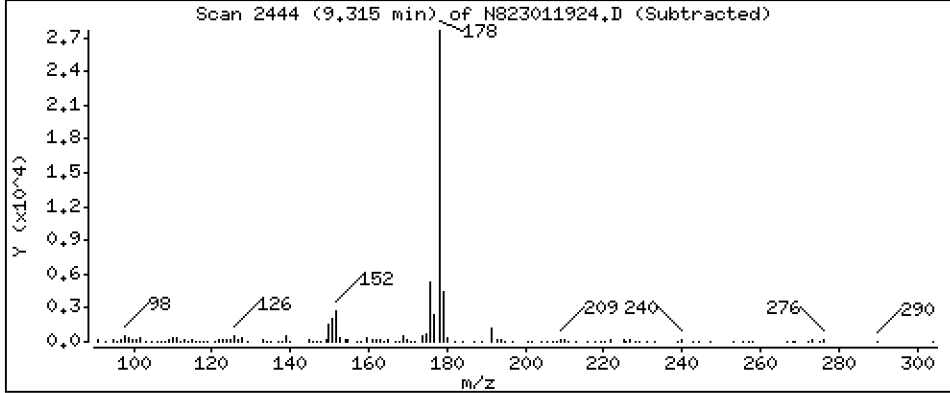
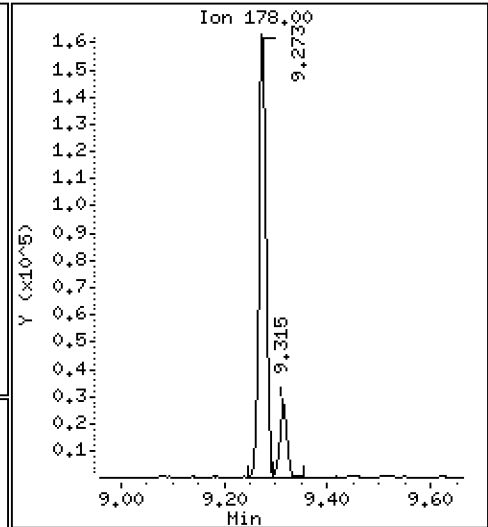
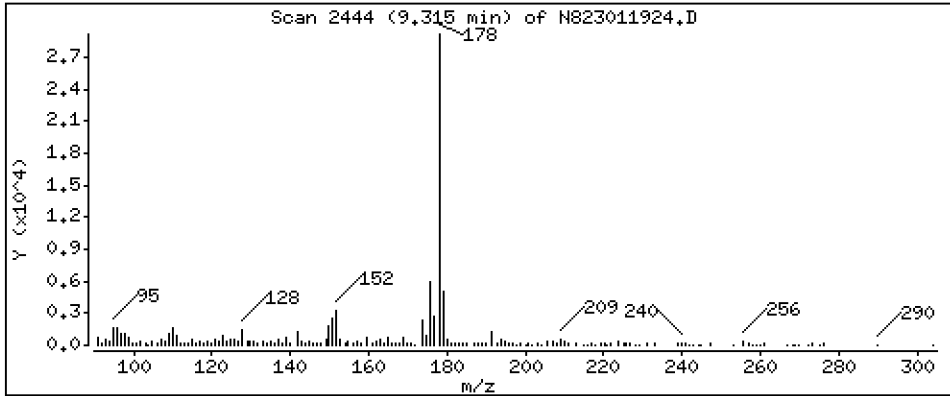
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 3,719 ug/mL

17 Anthracene



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

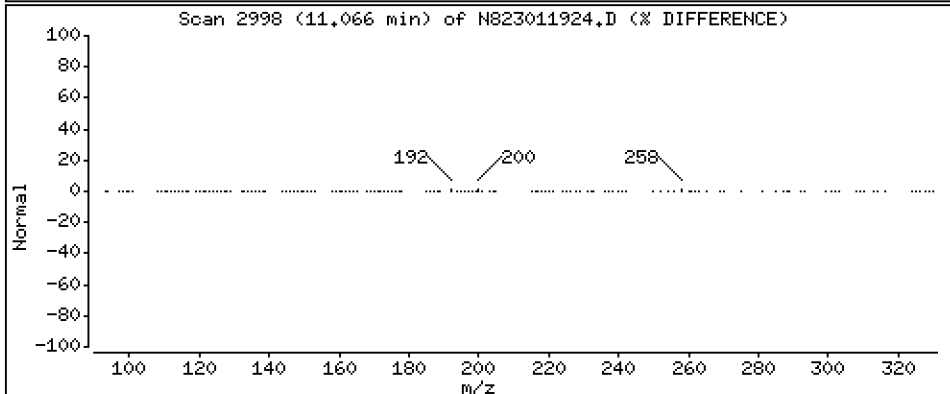
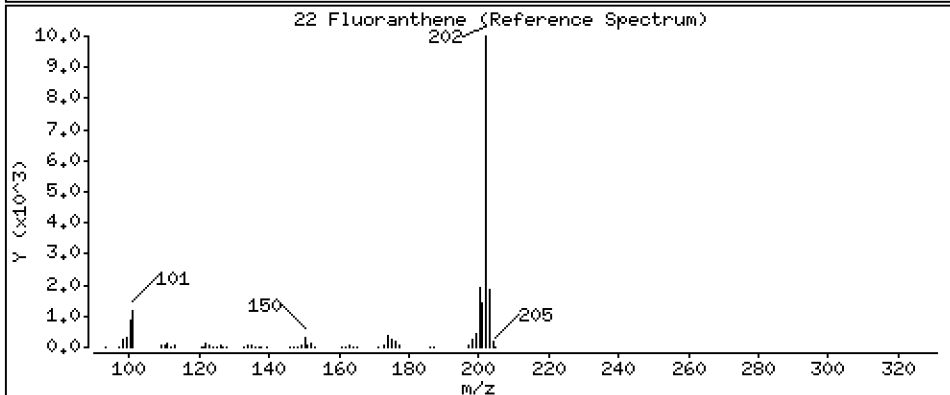
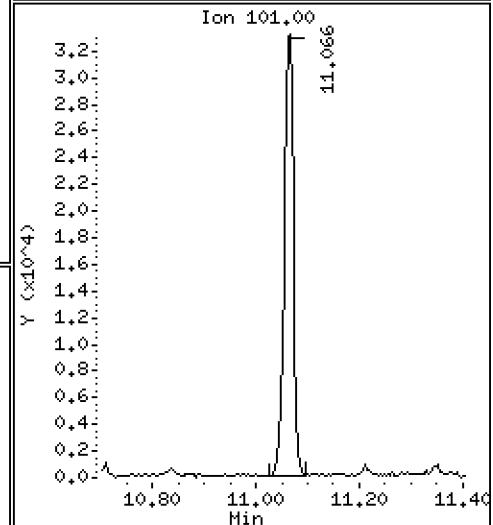
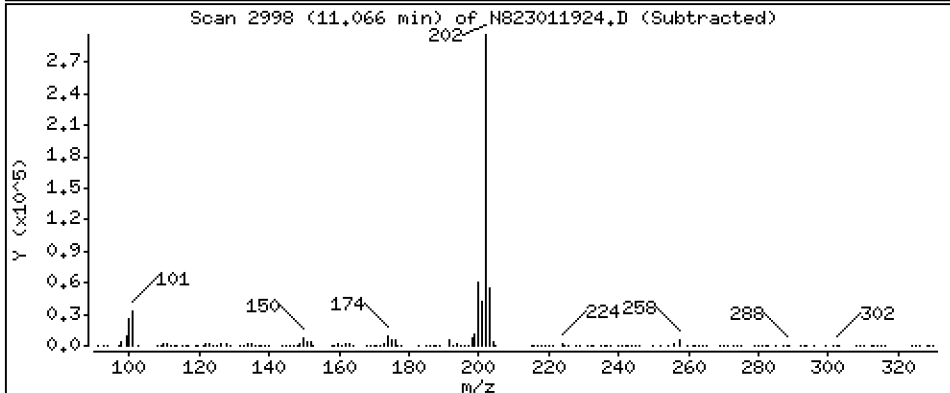
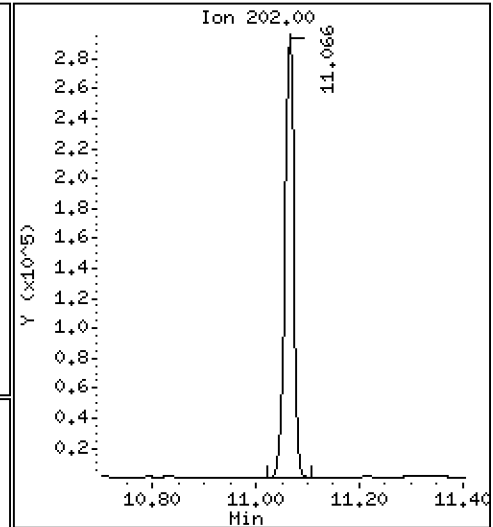
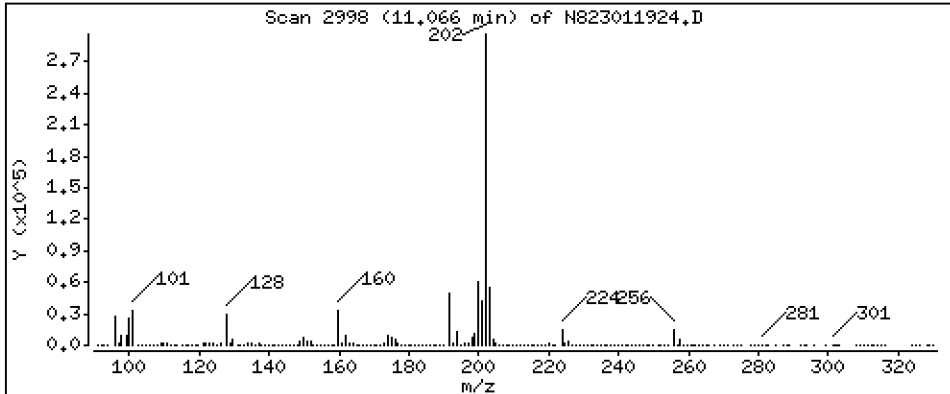
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 40,48 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

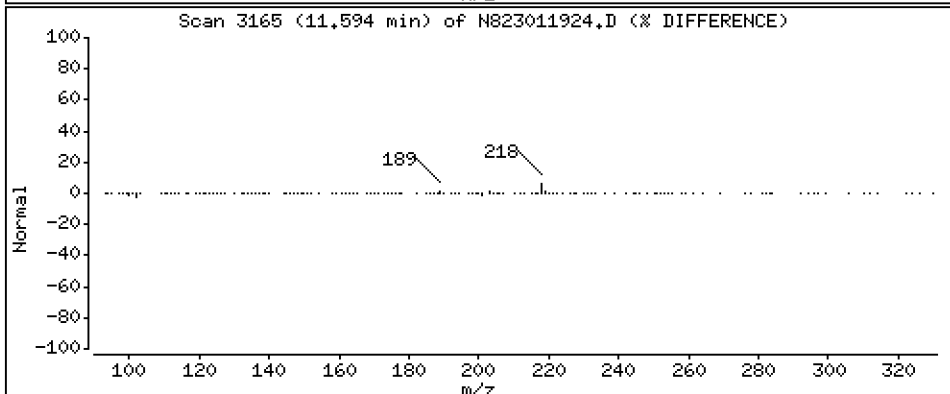
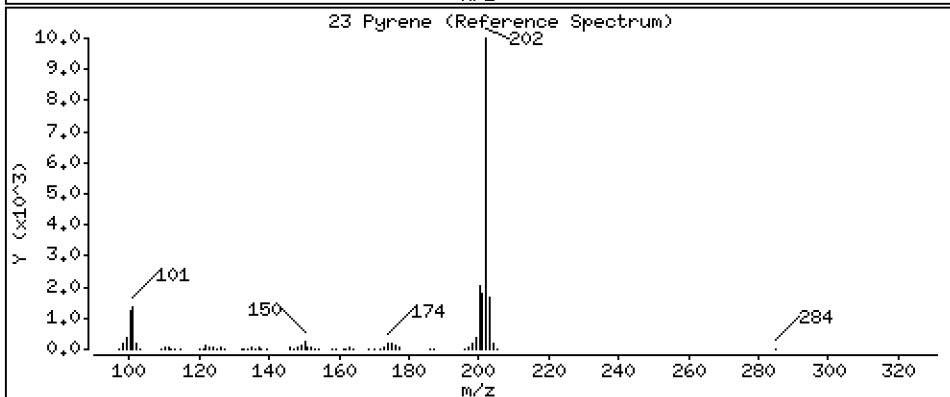
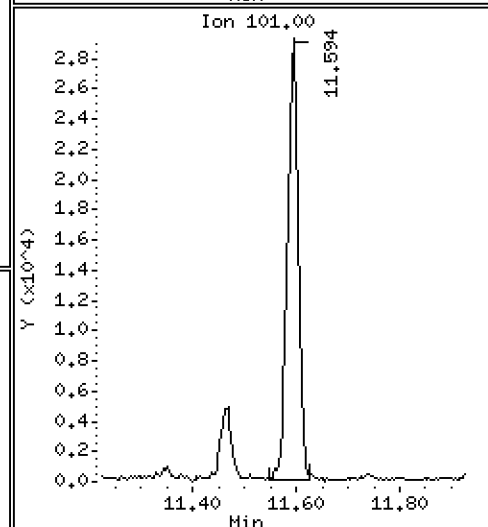
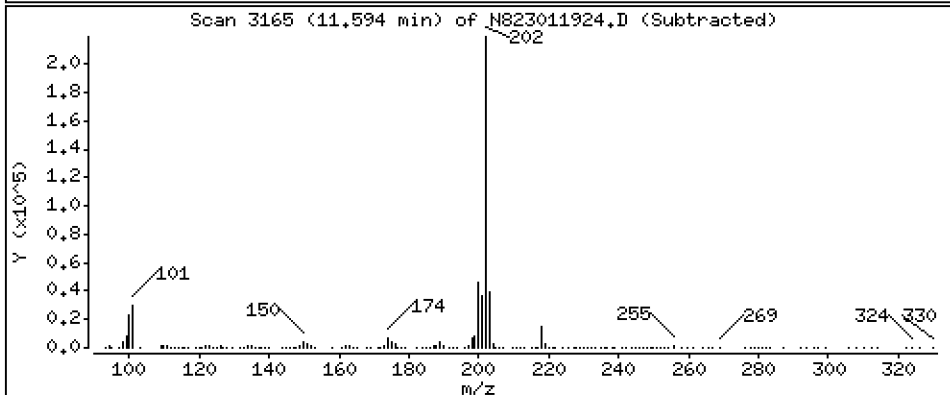
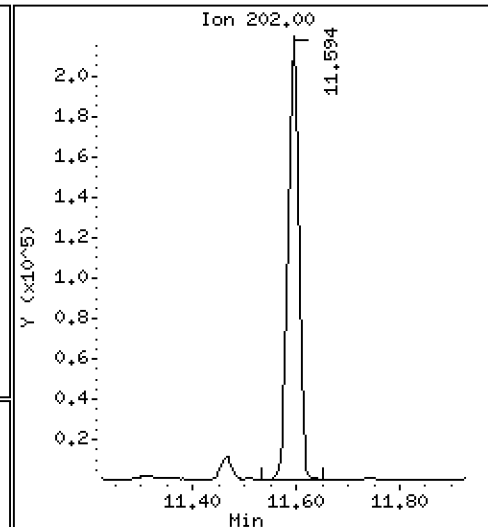
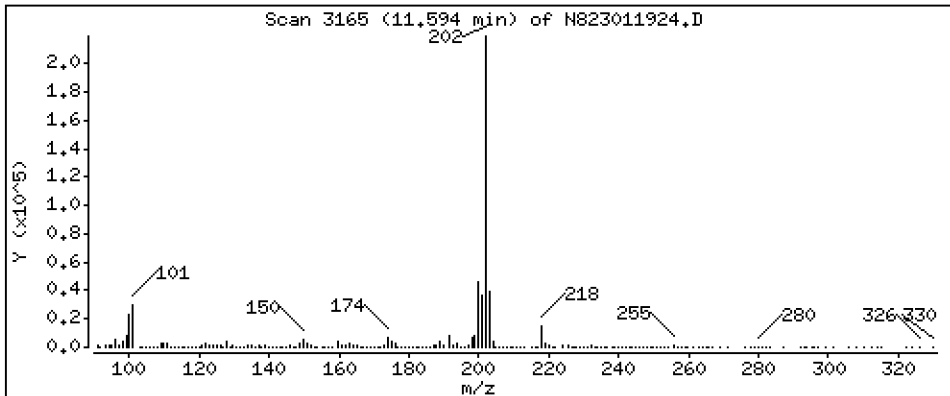
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 48,33 ug/mL

23 Pyrene



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

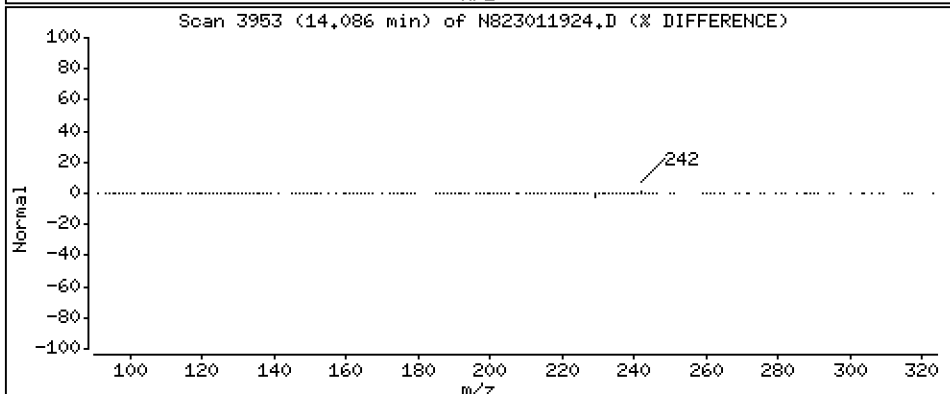
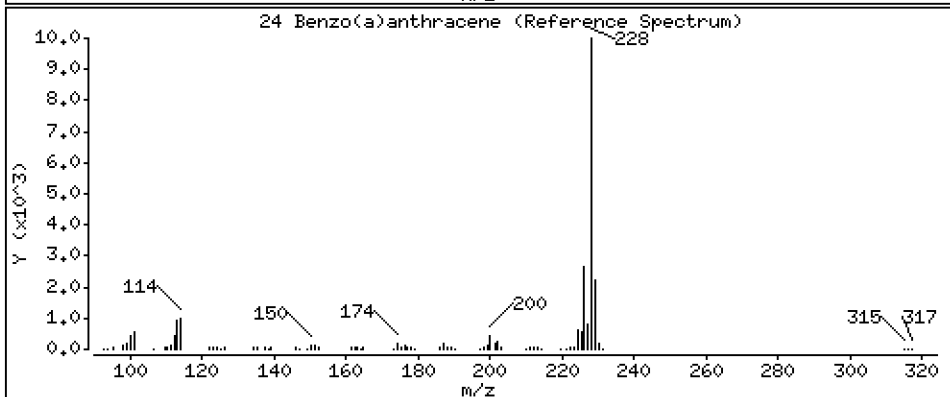
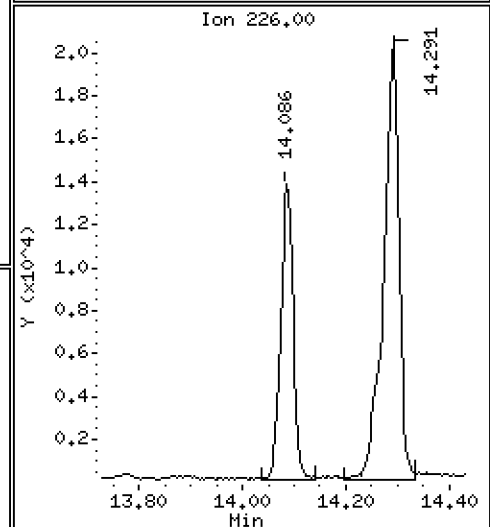
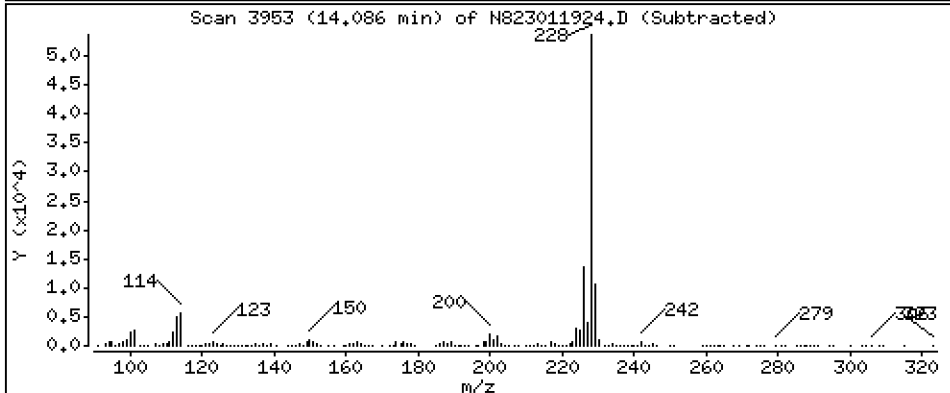
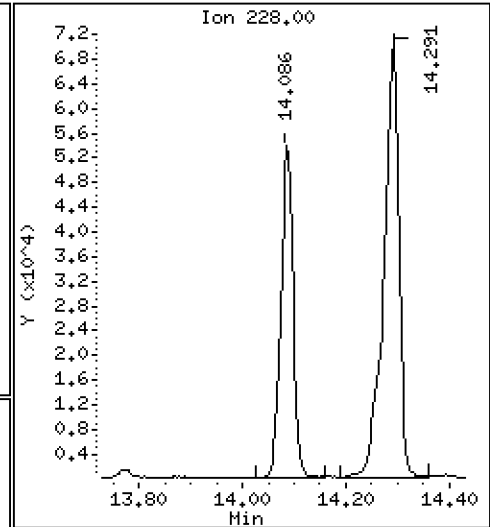
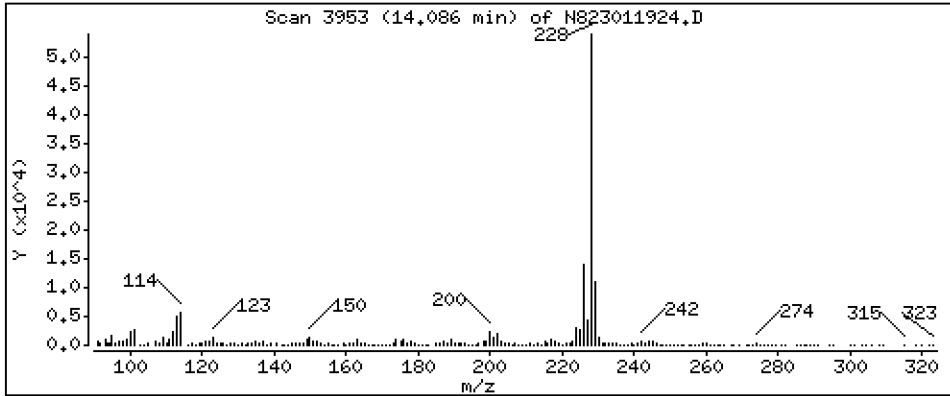
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

24 Benzo(a)anthracene

Concentration: 14,82 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

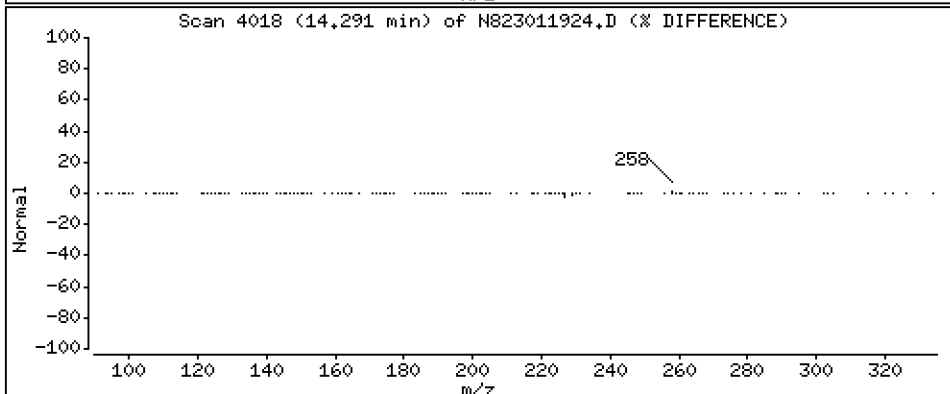
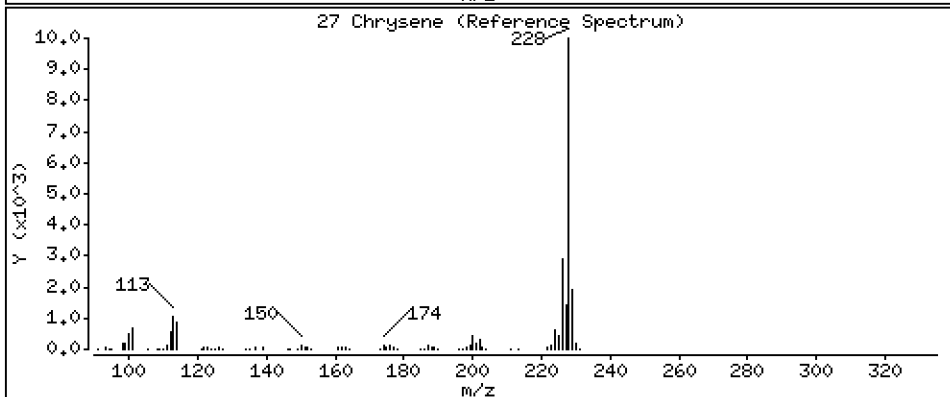
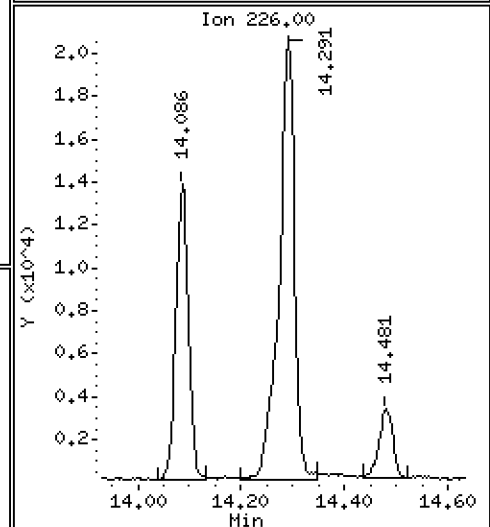
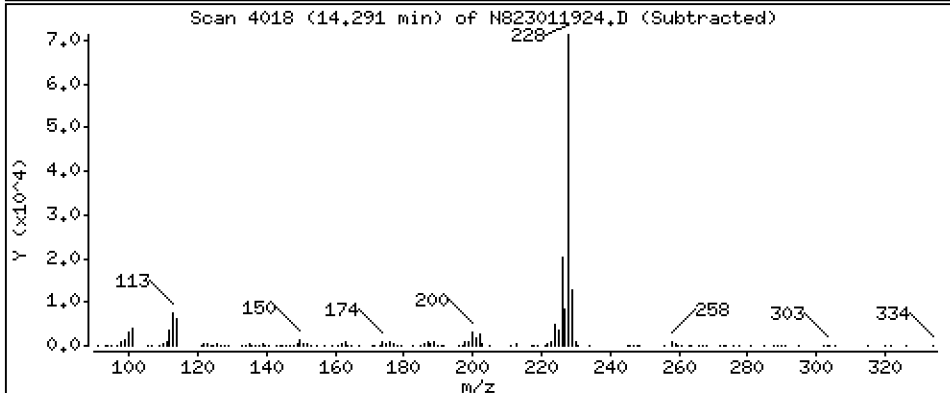
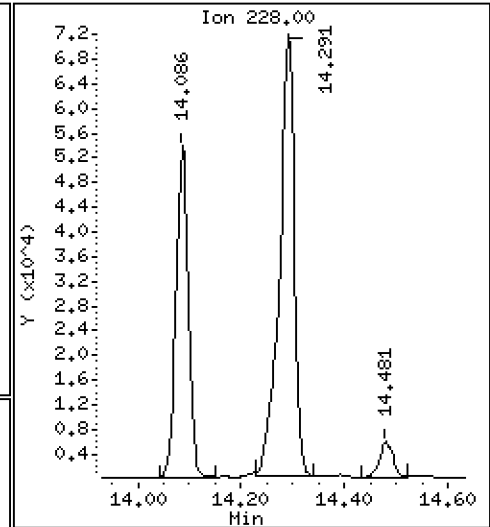
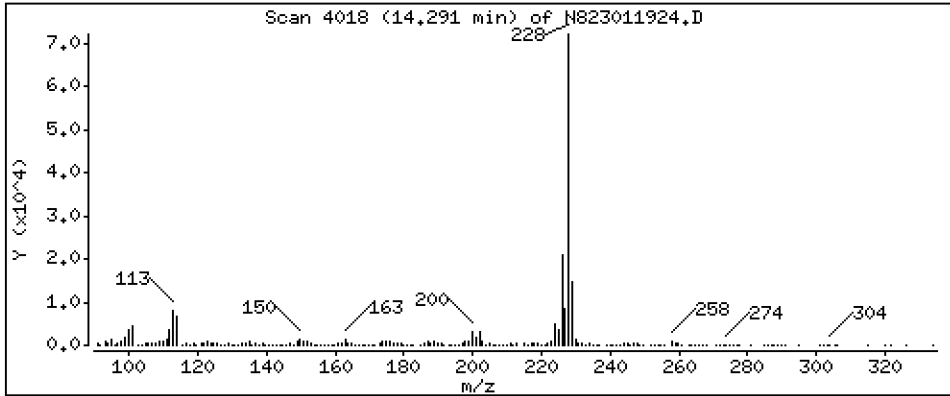
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 22,14 ug/mL

27 Chrysene



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

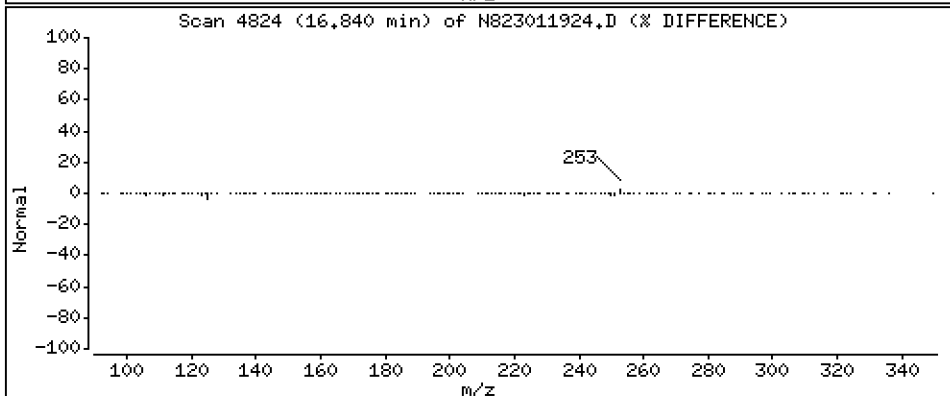
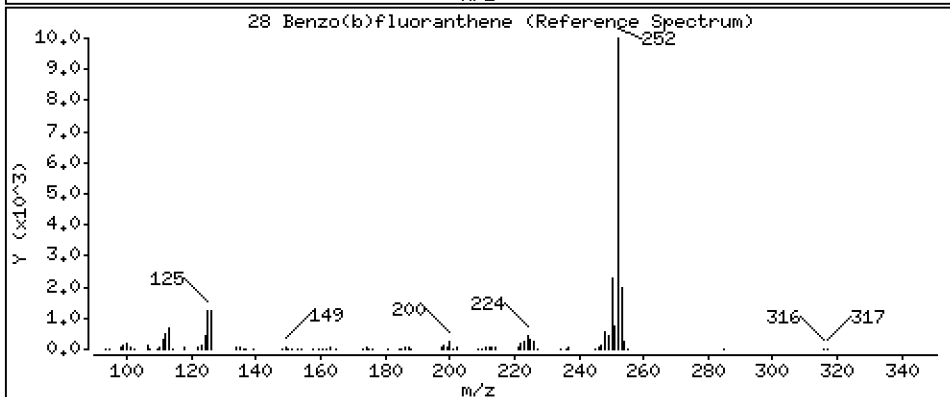
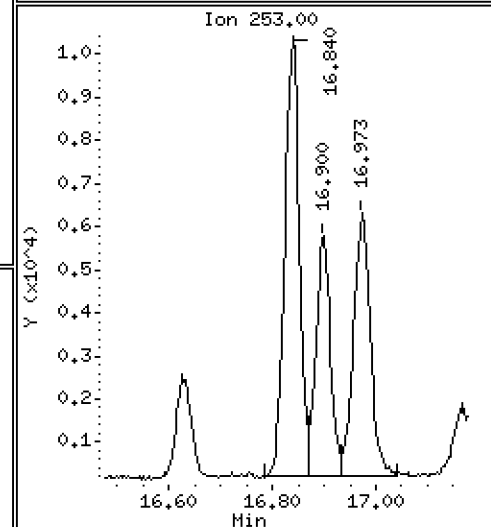
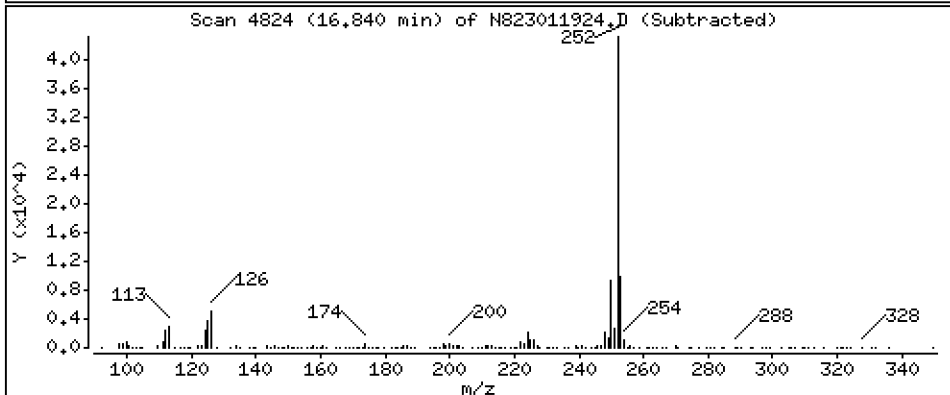
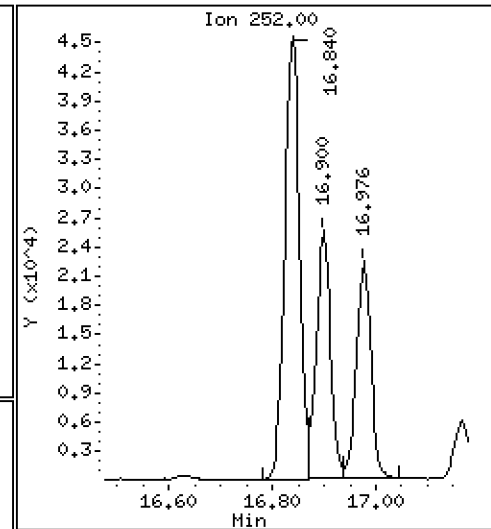
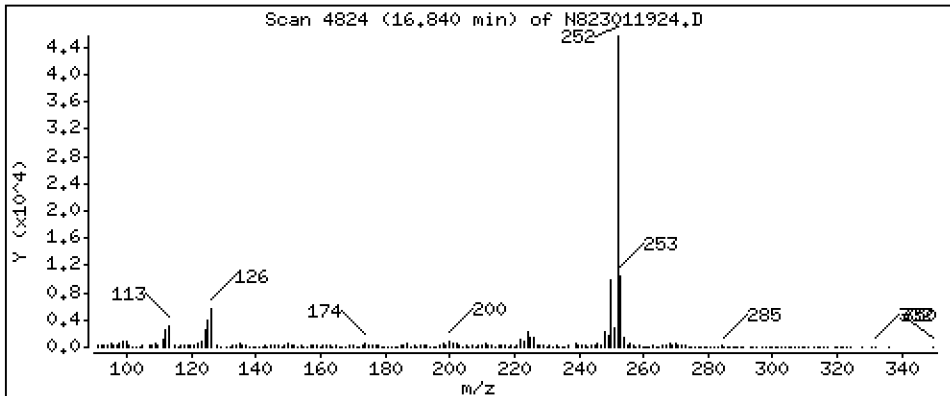
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

28 Benzo(b)fluoranthene

Concentration: 15,79 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

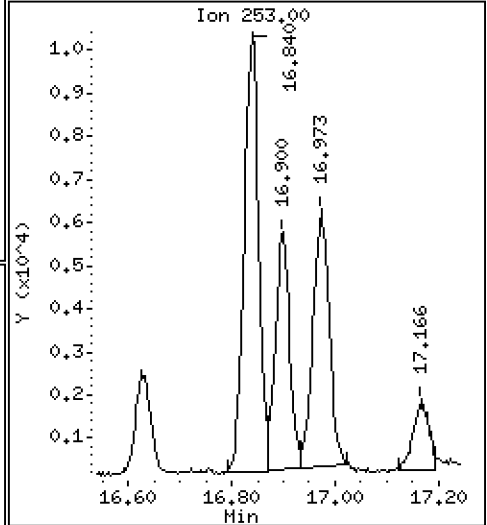
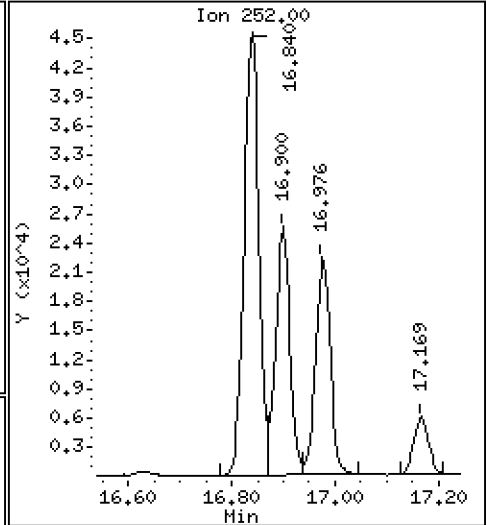
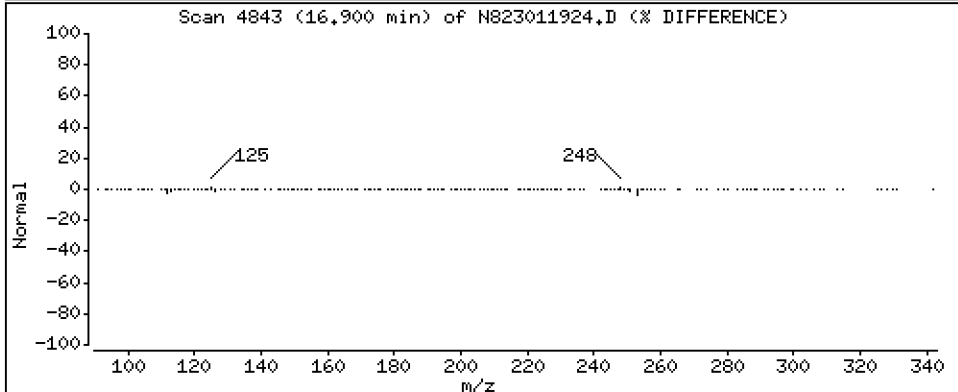
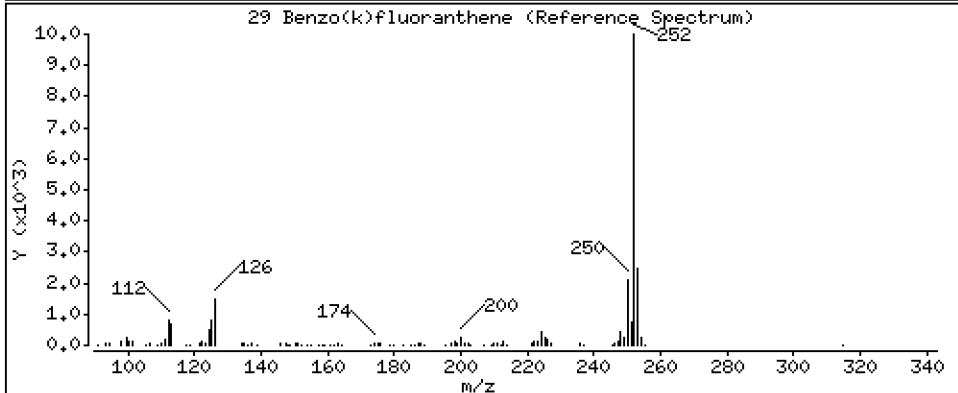
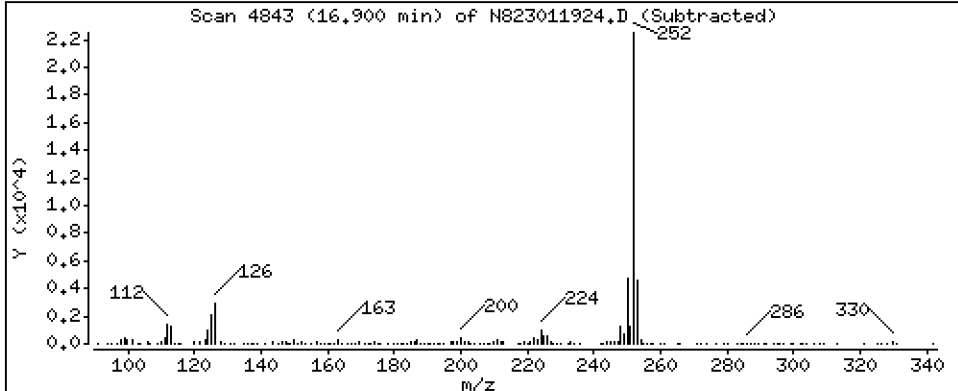
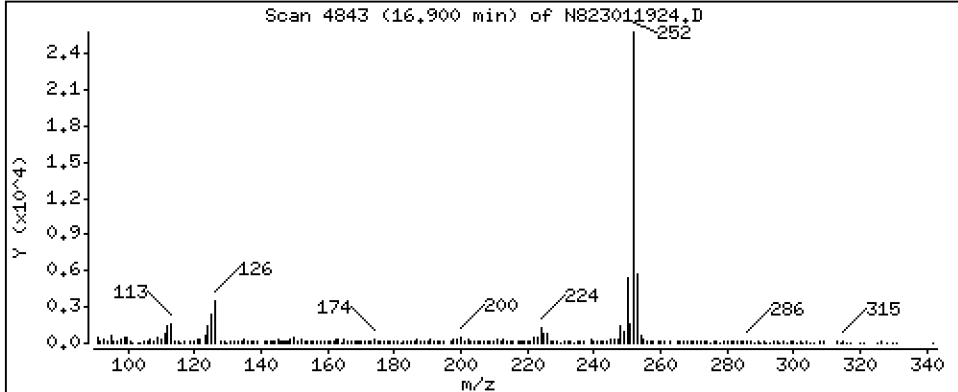
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

29 Benzo(k)fluoranthene

Concentration: 8,752 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

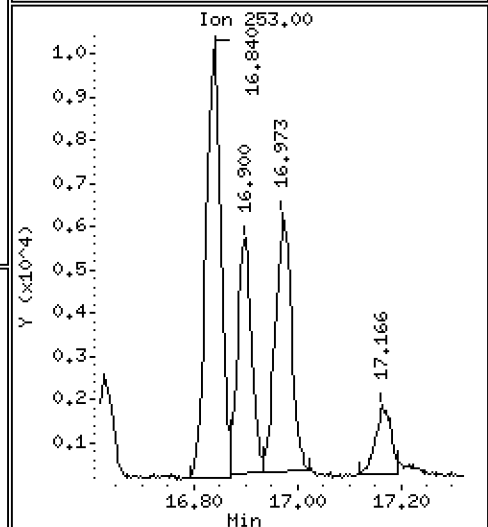
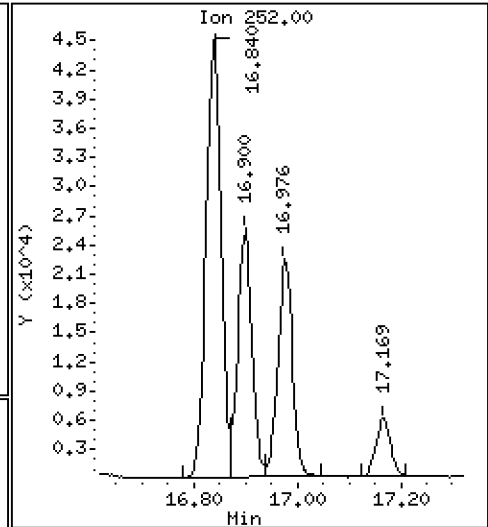
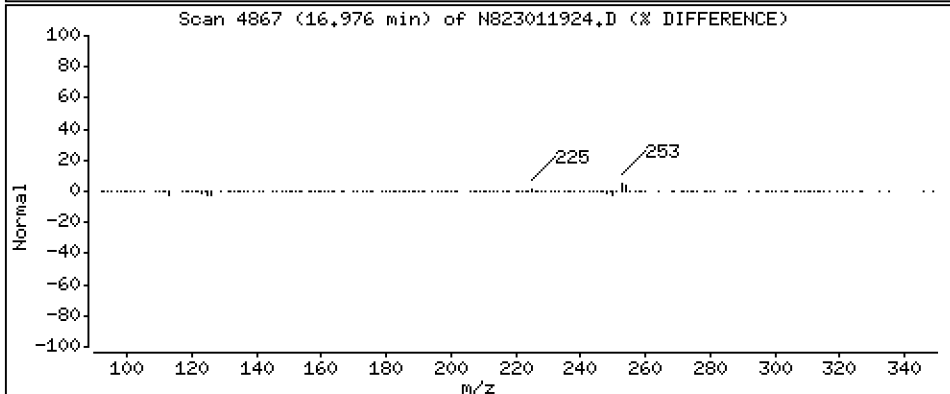
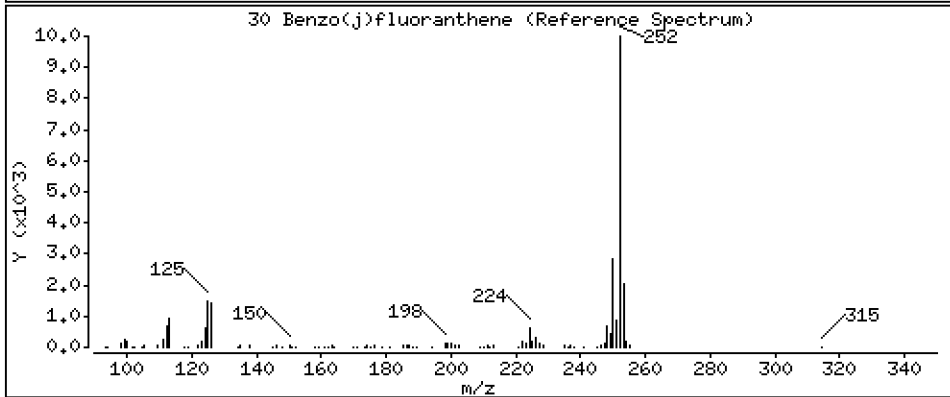
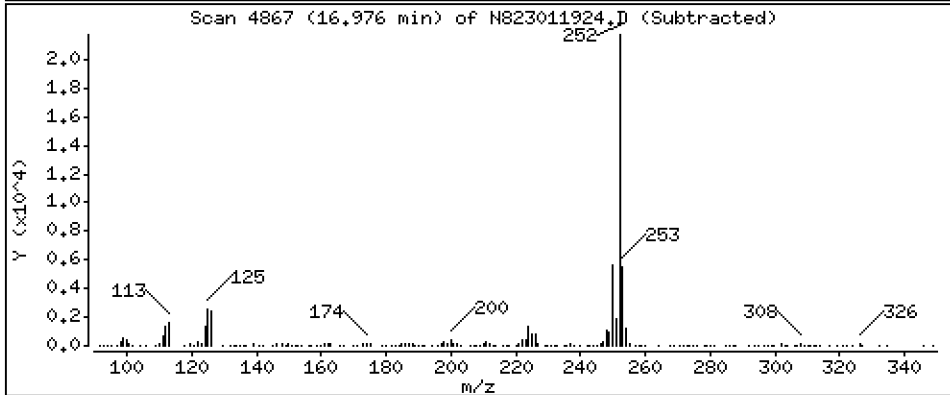
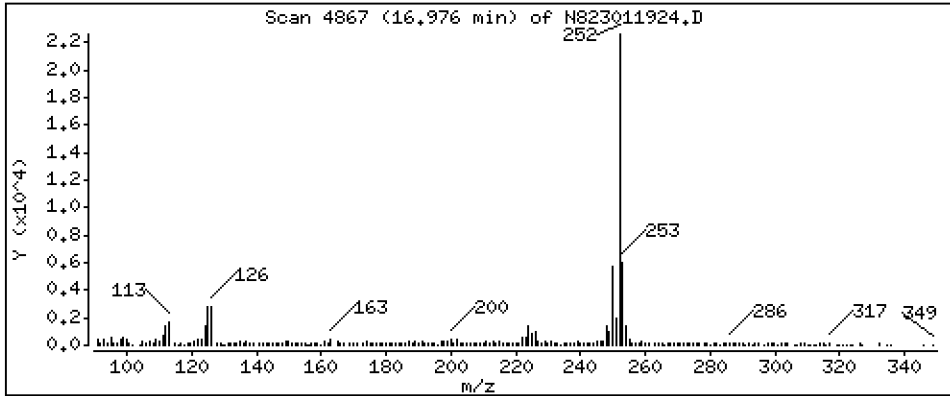
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

30 Benzo(j)fluoranthene

Concentration: 8,724 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

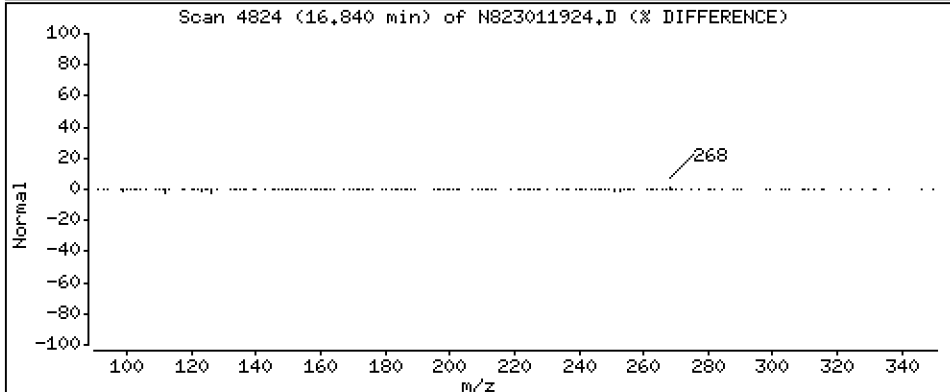
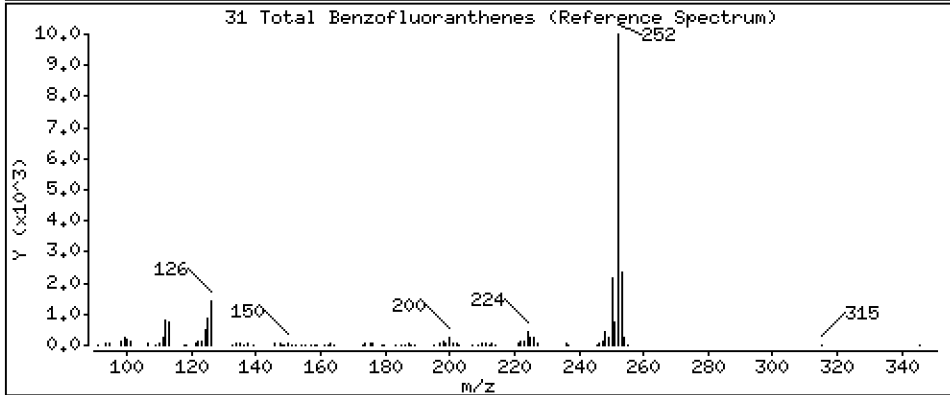
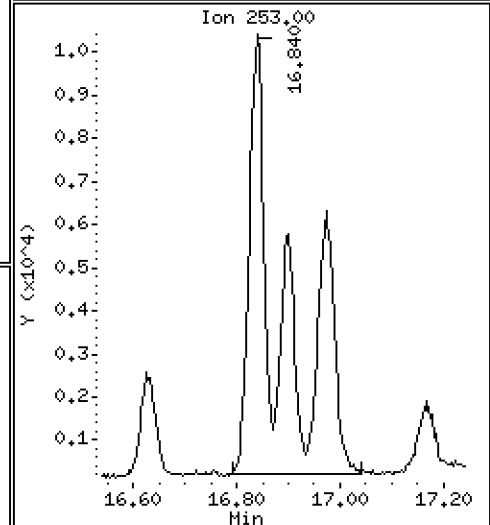
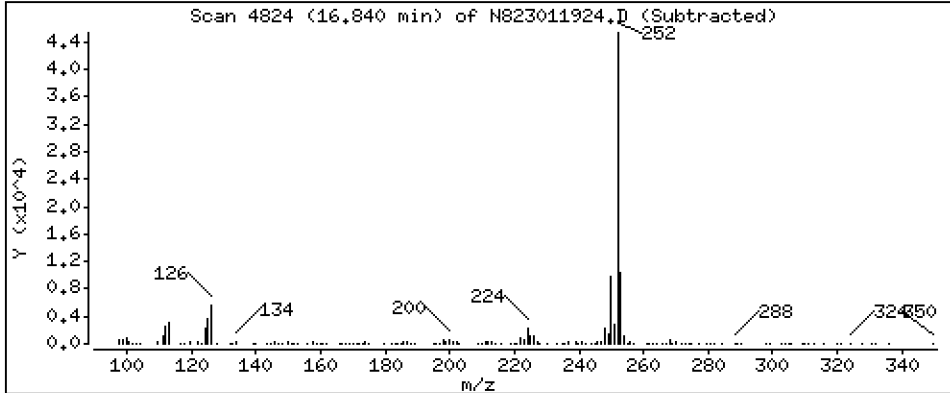
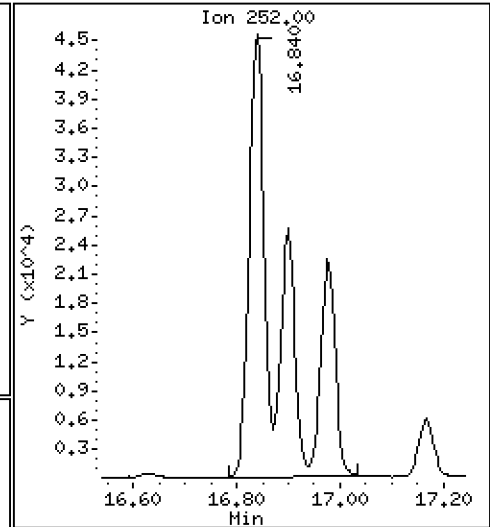
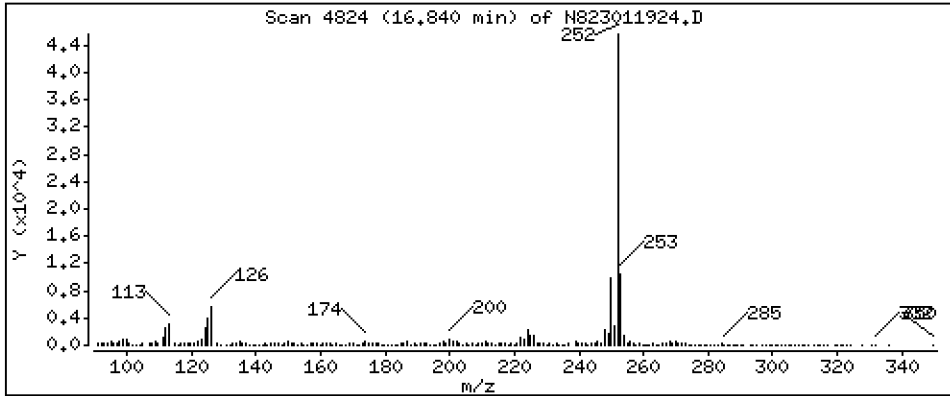
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

31 Total Benzofluoranthenes

Concentration: 33,54 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

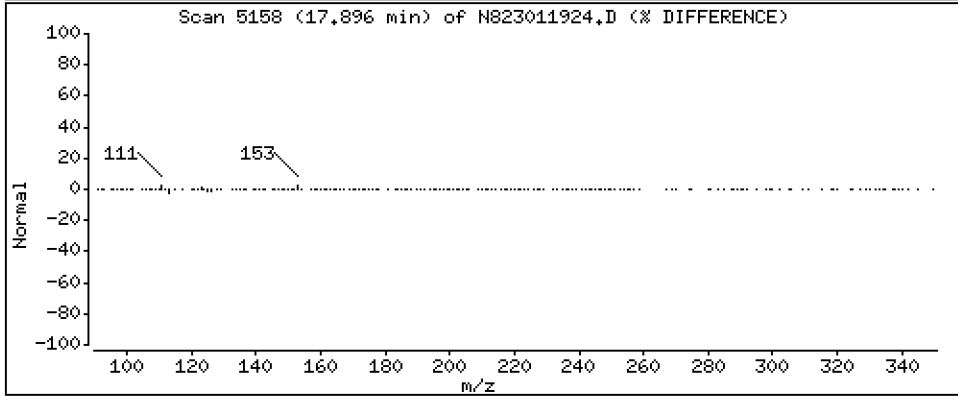
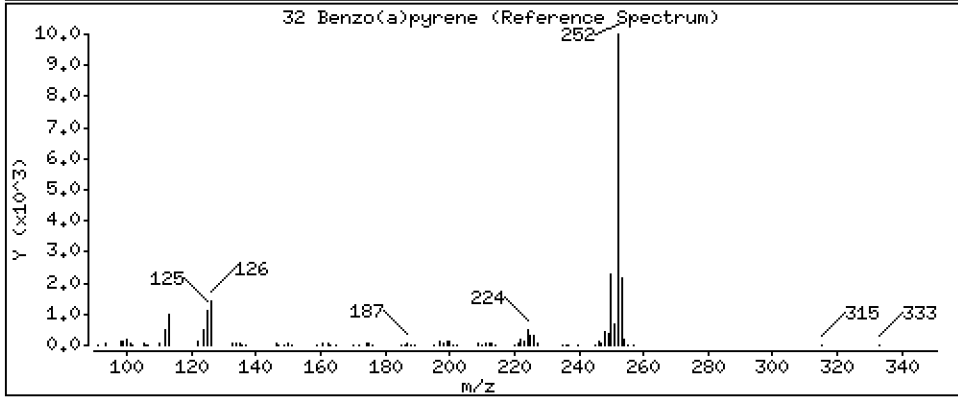
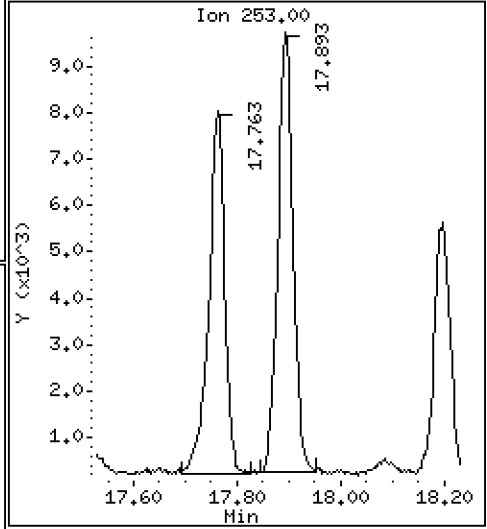
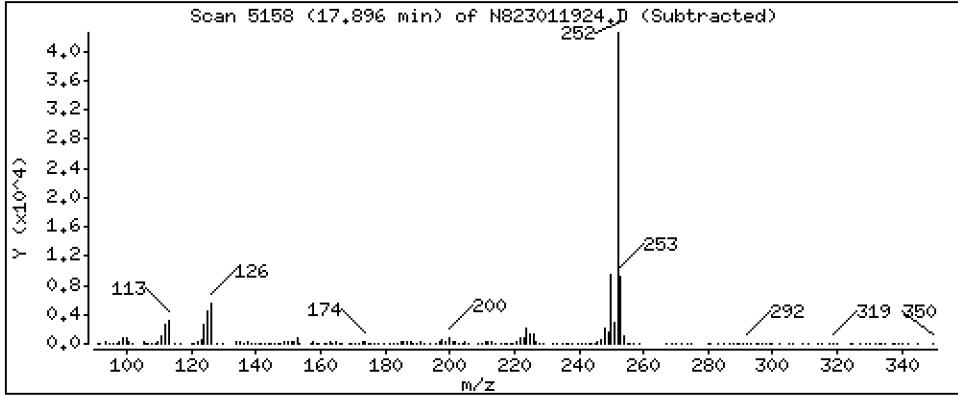
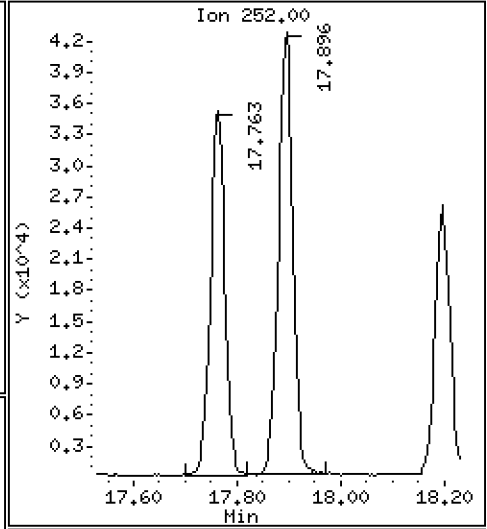
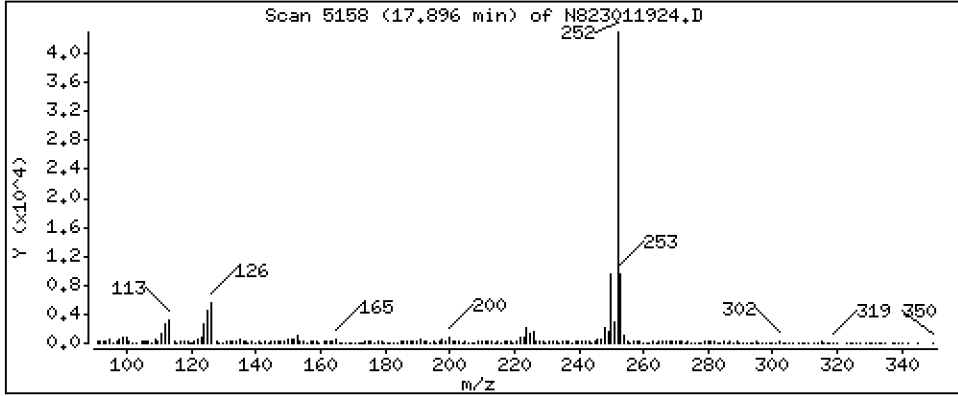
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 16,74 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

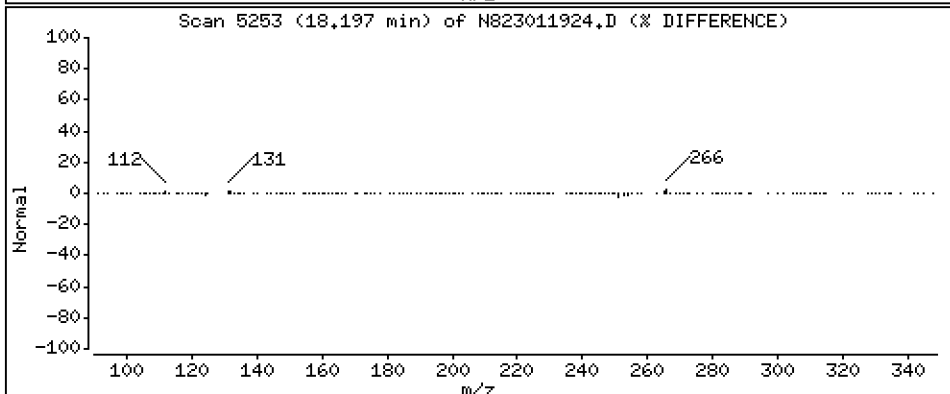
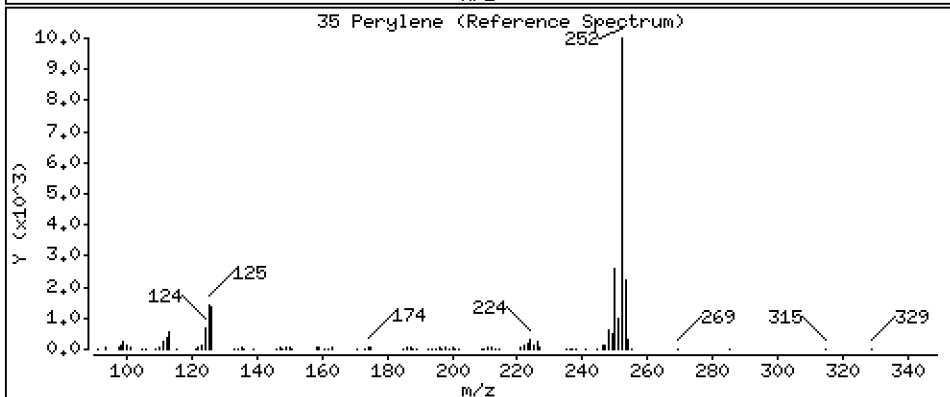
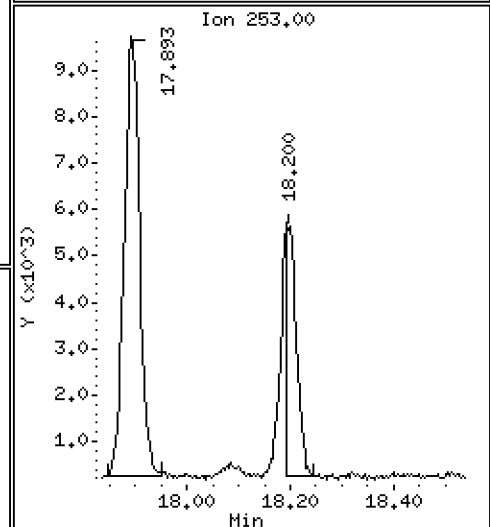
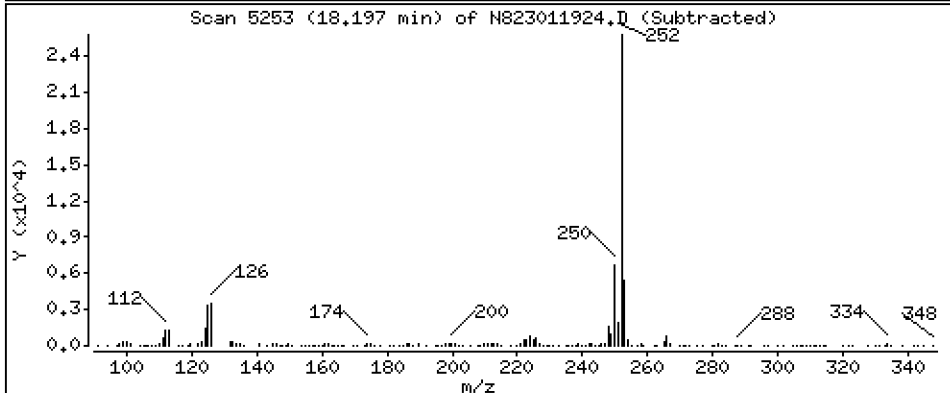
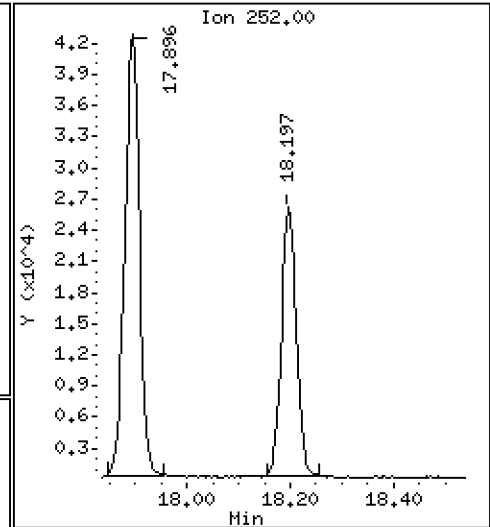
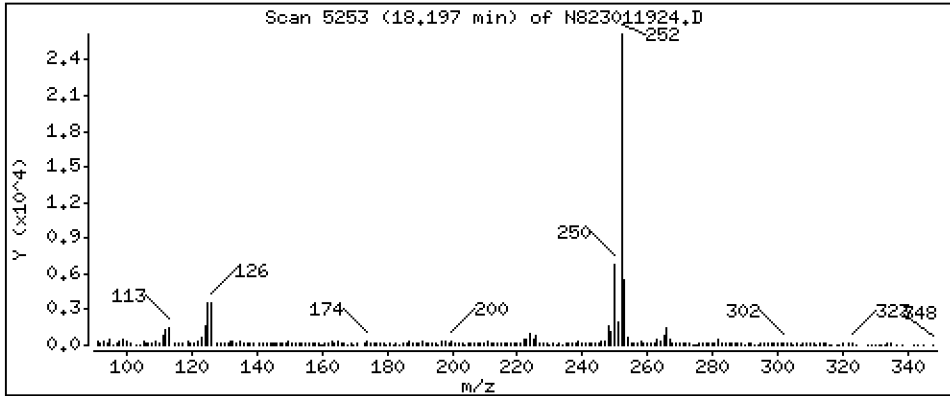
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

35 Perylene

Concentration: 9,516 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

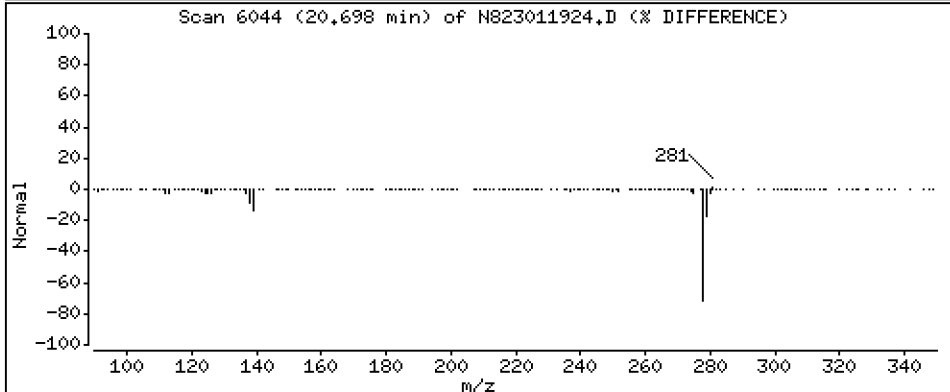
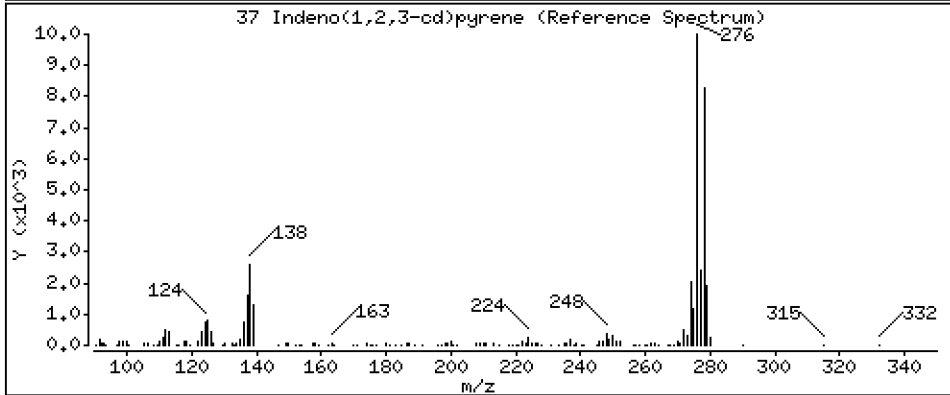
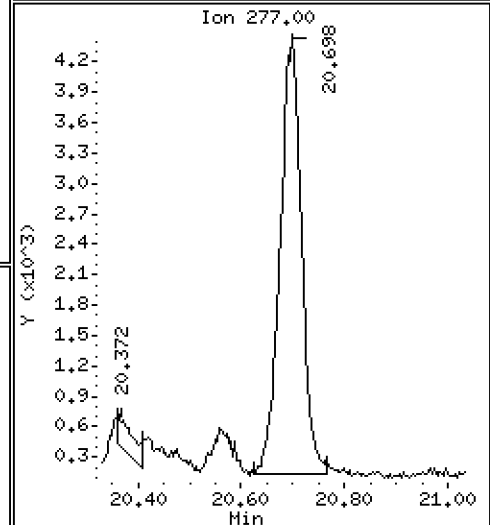
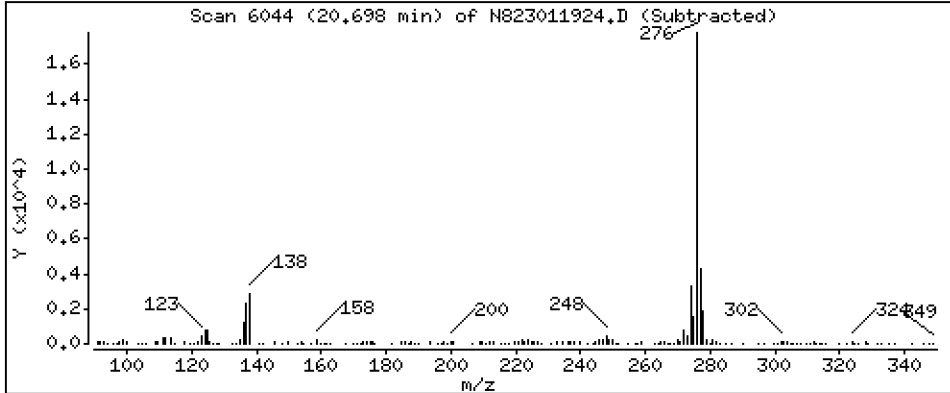
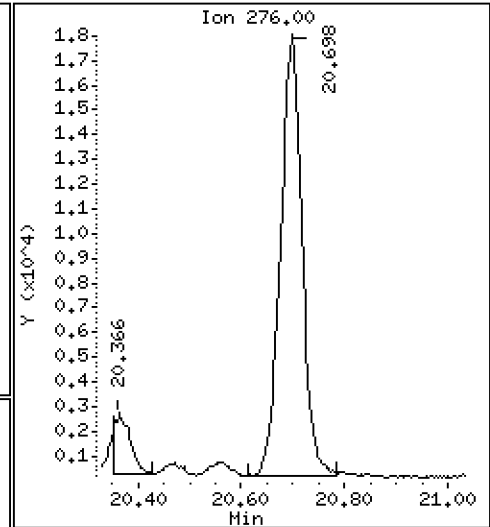
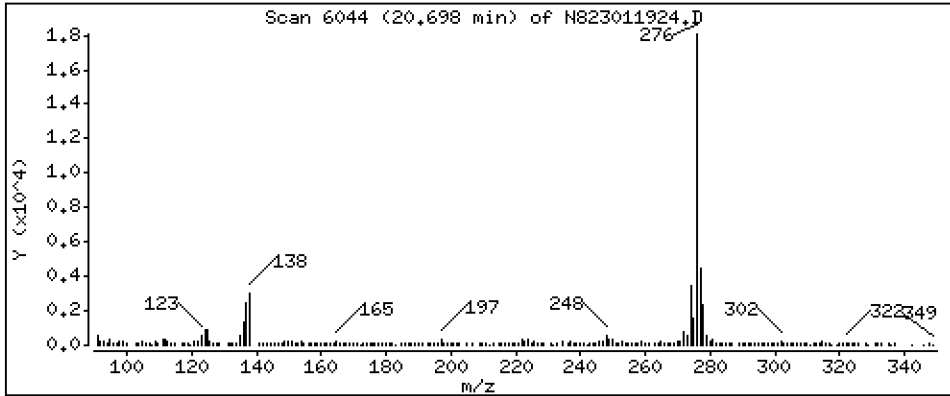
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 9,036 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

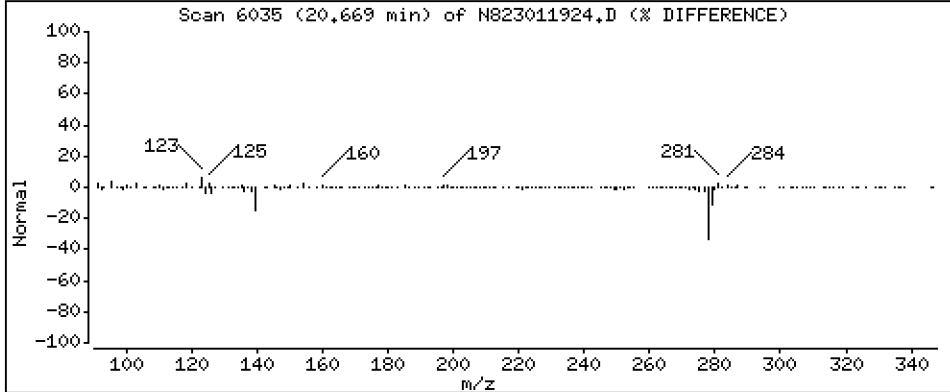
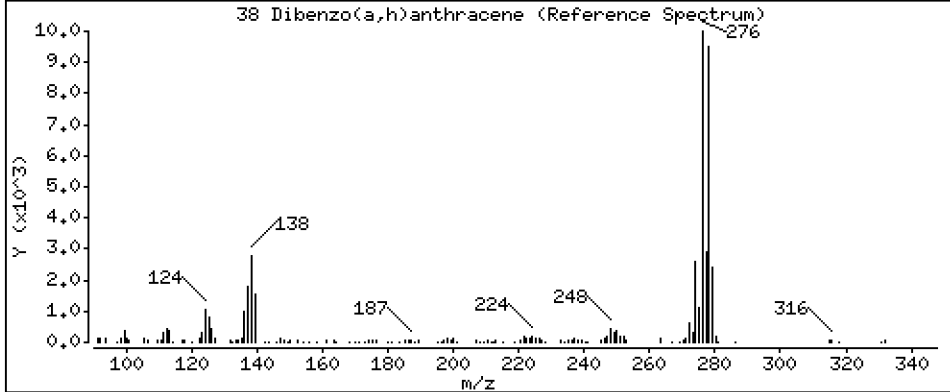
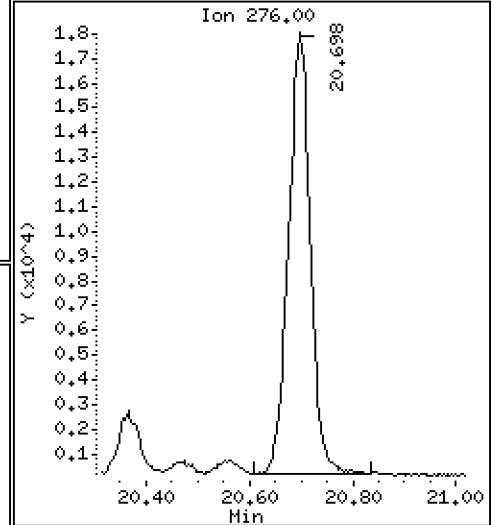
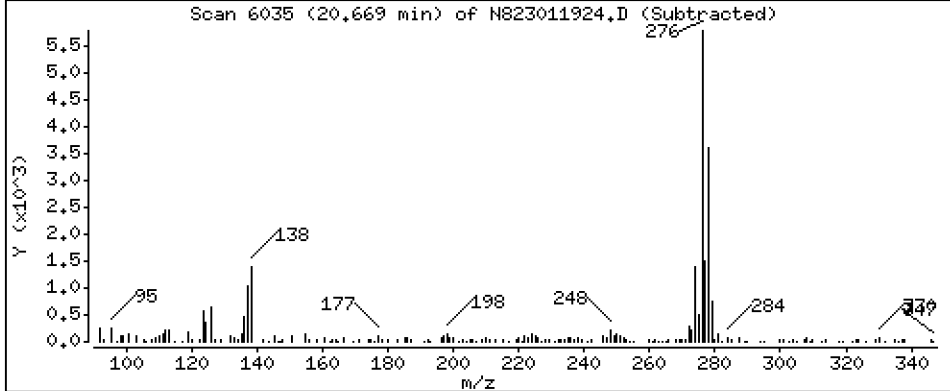
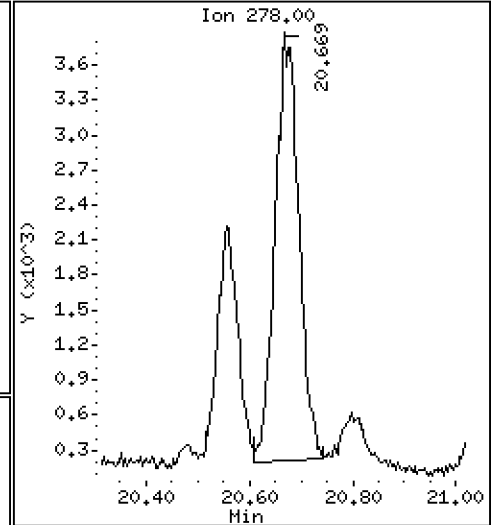
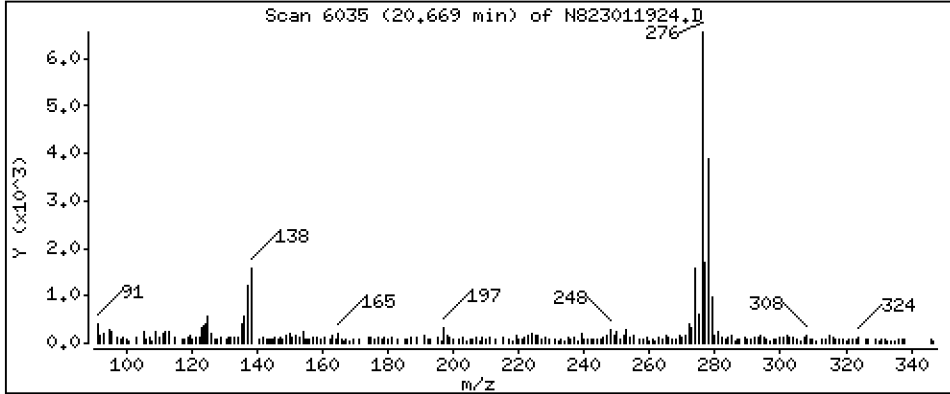
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 2,372 ug/mL



Date : 19-JAN-2023 21:41

Client ID:

Instrument: nt8.i

Sample Info: 23A0032-07,3

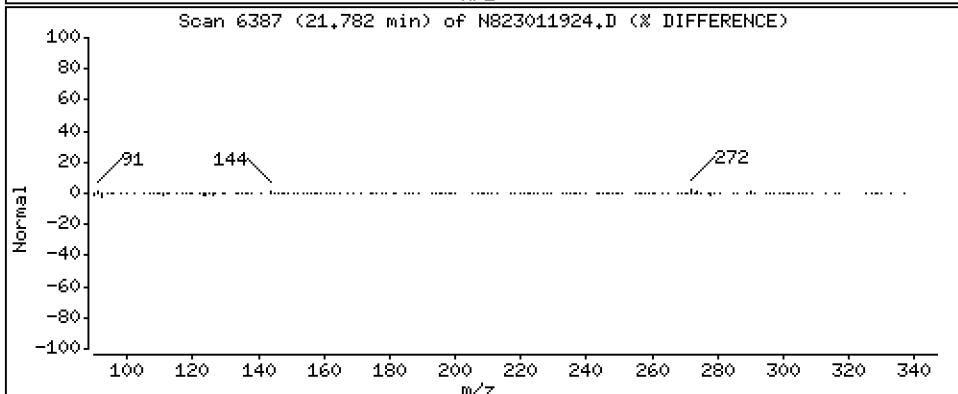
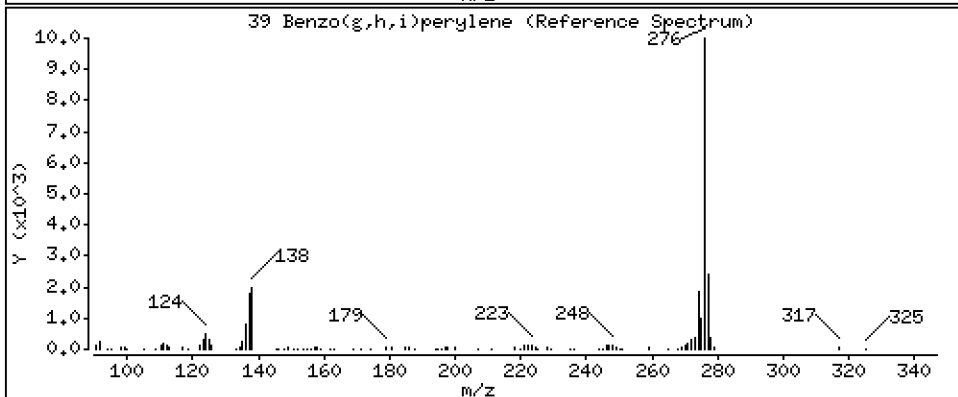
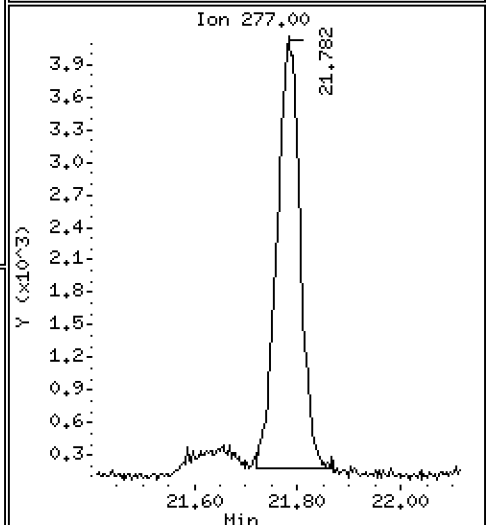
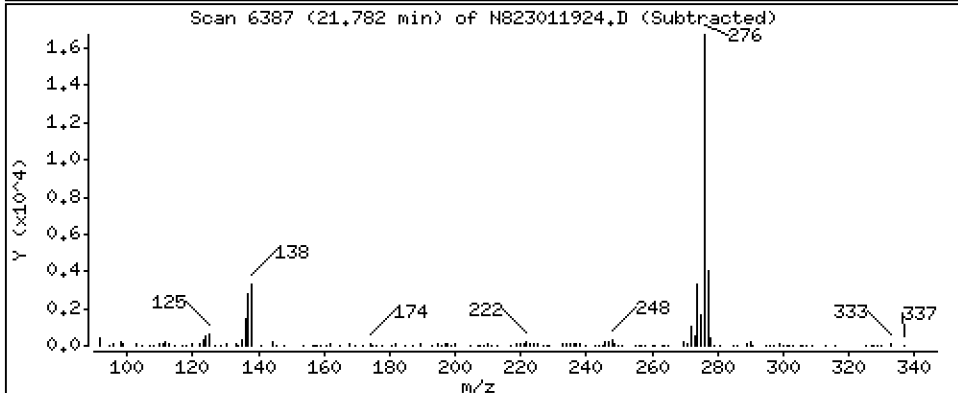
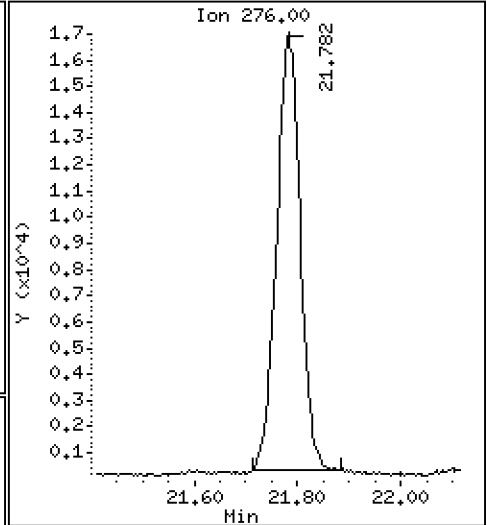
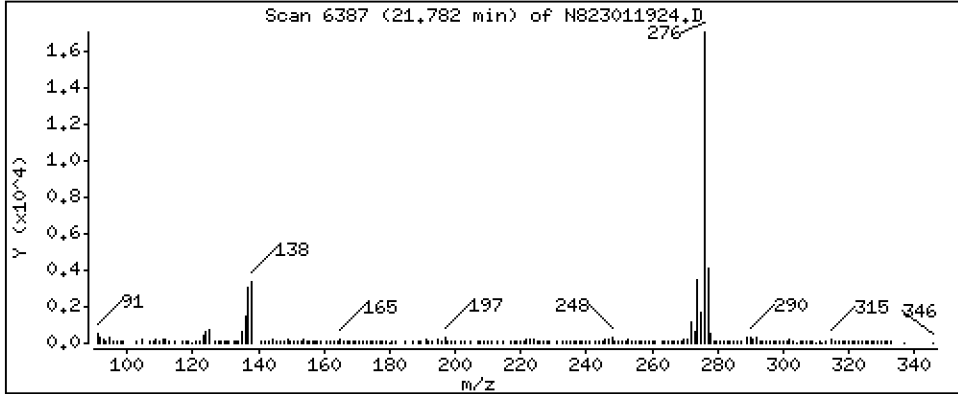
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 10,24 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119A.b\N823011924.D
 Lab Smp Id: 23A0032-07
 Inj Date : 19-JAN-2023 21:41
 Operator : JZ Inst ID: nt8.i
 Smp Info : 23A0032-07,3
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 22:11 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 14
 Dil Factor: 3.00000
 Integrator: HP RTE Compound Sublist: PNAXMDL.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 1 Naphthalene-d8	136		4.906	4.909	(1.000)	48207	2.00000	
2 Naphthalene	128		4.935	4.938	(1.006)	16377	0.73065	2.192
\$ 3 2-Methylnaphthalene-d10	152		5.640	5.643	(1.150)	8387	0.63793	1.914
4 2-Methylnaphthalene	141		5.687	5.690	(1.159)	3455	0.28023	0.8407
5 1-methylnaphthalene	141		5.886	5.887	(1.200)	2275	0.18181	0.5454
9 Acenaphthylene	152		7.085	7.088	(0.985)	9108	0.41198	1.236
* 10 Acenaphthene-d10	164		7.196	7.199	(1.000)	29277	2.00000	
11 Acenaphthene	153		7.246	7.246	(1.007)	12659	0.85459	2.564
12 Dibenzofuran	168		7.398	7.398	(1.028)	12590	0.55958	1.679
14 Fluorene	166		7.875	7.875	(1.094)	13369	0.76507	2.295
* 15 Phenanthrene-d10	188		9.238	9.238	(1.000)	50426	2.00000	
16 Phenanthrene	178		9.273	9.270	(1.004)	152859	6.20571	18.62
17 Anthracene	178		9.314	9.311	(1.008)	27743	1.23983	3.719
22 Fluoranthene	202		11.066	11.053	(1.198)	361749	13.4920	40.48
\$ 21 Fluoranthene-d10	212		11.022	11.015	(1.193)	17684	0.79487	2.385
23 Pyrene	202		11.594	11.575	(0.816)	322277	16.1088	48.33
24 Benzo(a)anthracene	228		14.085	14.079	(0.991)	89606	4.94150	14.82
* 25 Chrysene-d12	240		14.215	14.209	(1.000)	32269	2.00000	
27 Chrysene	228		14.291	14.282	(1.005)	142453	7.37950	22.14
28 Benzo(b)fluoranthene	252		16.840	16.827	(0.929)	90616	5.26439	15.79
29 Benzo(k)fluoranthene	252		16.900	16.890	(0.932)	49188	2.91740	8.752
30 Benzo(j)fluoranthene	252		16.976	16.969	(0.937)	44138	2.90800	8.724
31 Total Benzofluoranthenes	252		16.840	16.890	(0.929)	182269	11.1810	33.54 (M)
32 Benzo(a)pyrene	252		17.896	17.880	(0.987)	84516	5.57959	16.74
* 33 Perylene-d12	264		18.123	18.117	(1.000)	29555	2.00000	
35 Perylene	252		18.196	18.187	(1.004)	51559	3.17196	9.516
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.558	20.555	(1.134)	9196	0.79411	2.382
37 Indeno(1,2,3-cd)pyrene	276		20.697	20.681	(1.142)	51975	3.01192	9.036
38 Dibenzo(a,h)anthracene	278		20.669	20.666	(1.140)	11744	0.79081	2.372
39 Benzo(g,h,i)perylene	276		21.782	21.763	(1.202)	53370	3.41355	10.24

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011924.D Calibration Time: 16:16
 Lab Smp Id: 23A0032-07
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	42524	21262	85048	48207	13.36
10 Acenaphthene-d10	25260	12630	50520	29277	15.90
15 Phenanthrene-d10	47890	23945	95780	50426	5.30
25 Chrysene-d12	40533	20267	81066	32269	-20.39
33 Perylene-d12	38115	19058	76230	29555	-22.46

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.91	-0.07
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	-0.04
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	-0.00
25 Chrysene-d12	14.21	13.71	14.71	14.22	0.04
33 Perylene-d12	18.12	17.62	18.62	18.12	0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011924.D

Lab ID: 23A0032-07

nt8.i, 20230119A.b\FSIMPNA230119.m, 19-JAN-2023 21:41

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check performed

On Column LOD for nt8.i, 20230119A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

* Only compounds listed in the work order have been verified by the analyst *

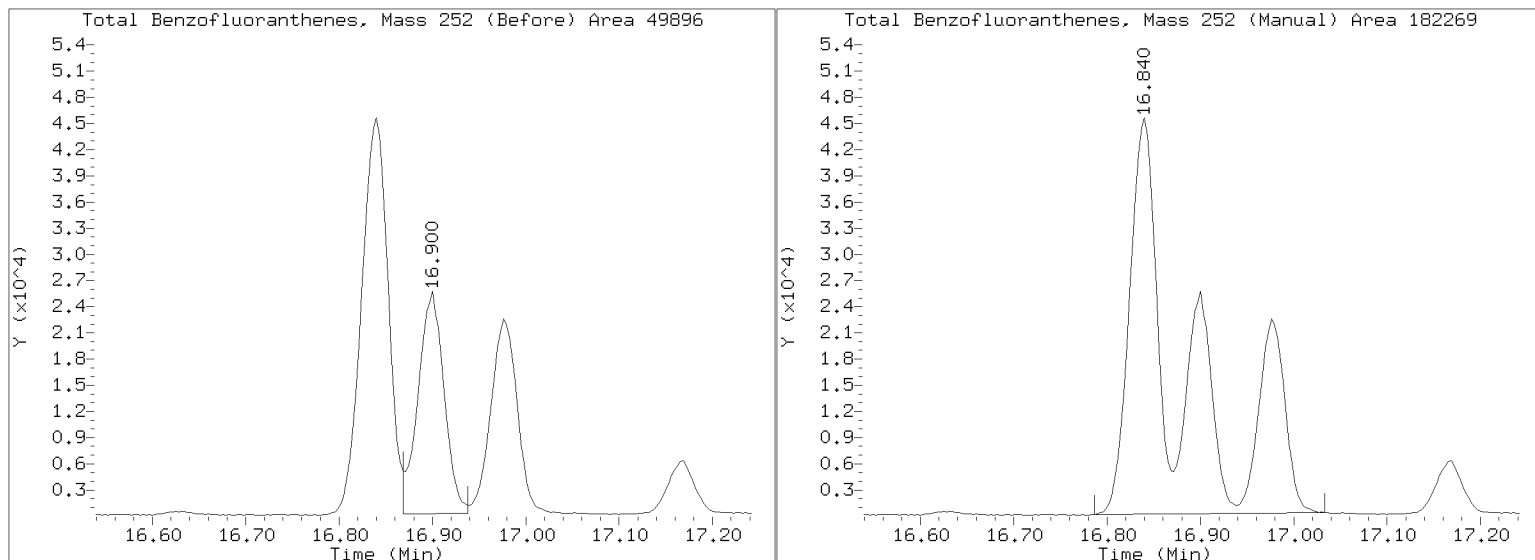
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119A.b/N823011924.D

Injection Date: 19-JAN-2023 21:41

Lab ID: 23A0032-07 Client ID:

Report Date: 01/25/2023 22:13





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
SIM SVOC Organics (Dual scan list)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-08 A

SDG: 23A0032

Sampled: 01/03/23 12:35

Prepared: 01/10/23 11:20

File ID: NT1023020926S.D

% Solids: 61.88

Preparation: EPA 3546 (Microwave)

Analyzed: 02/10/23 04:59

Batch: BLA0163

Sequence: SLB0157

Initial/Final: 16.22 g Wet / 1 mL

Instrument: NT10

Column: ZB-5MSi

Calibration: GB00019

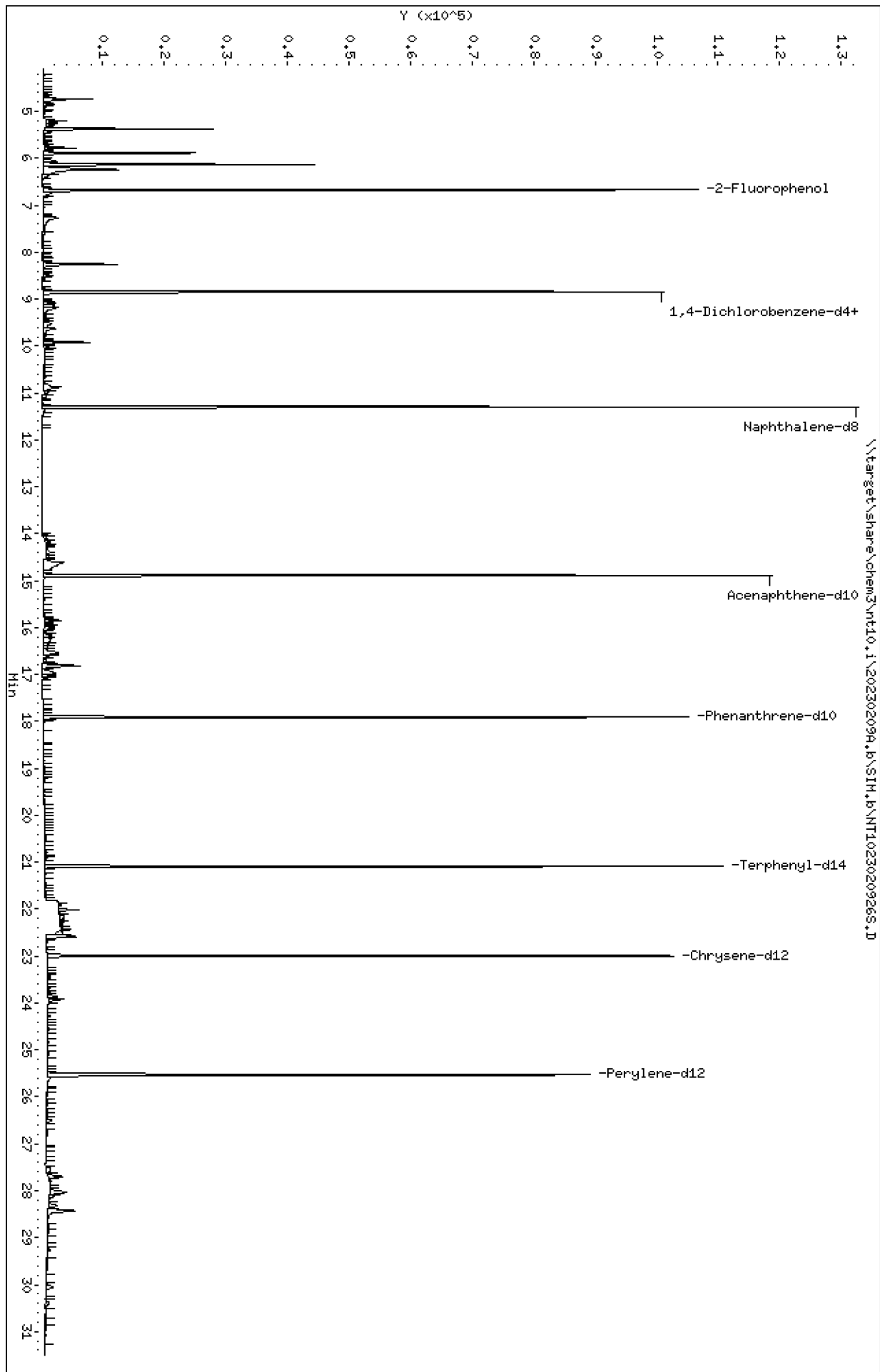
Cleanups: GPC

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	6.6		0.6	5.0
95-50-1	1,2-Dichlorobenzene	1	2.5	J	0.7	5.0
100-51-6	Benzyl Alcohol	1	19.9	U	2.5	19.9
65-85-0	Benzoic acid	1	99.6	U	13.4	99.6
105-67-9	2,4-Dimethylphenol	1	19.9	U	2.2	19.9
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U	2.7	5.0
86-30-6	N-Nitrosodiphenylamine	1	5.0	U	1.3	5.0
87-86-5	Pentachlorophenol	1	19.9	U	2.1	19.9

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	747.24	549	73.5	27 - 120	
p-Terphenyl-d14	498.16	473	94.9	37 - 120	

Data File: \\target\share\chem3\nt10.1\202302094.b\SIM.b\NT10230209268.D
Date: 10-FEB-2023 04:59
Client ID:
Sample Info: 23A0032-08
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: DSD
Column diameter: 0.25



Date : 10-FEB-2023 04:59

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-08

Volume Injected (uL): 1.0

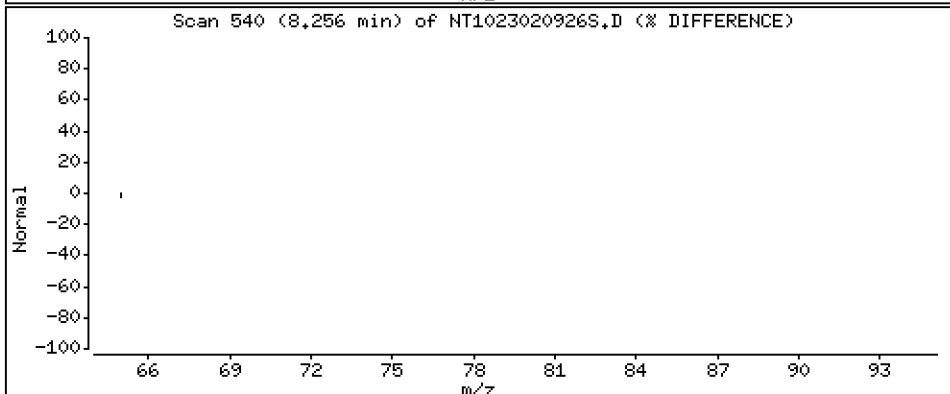
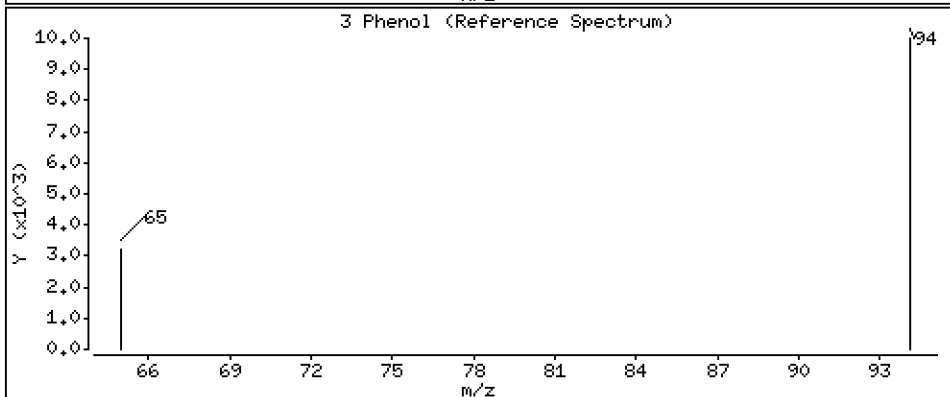
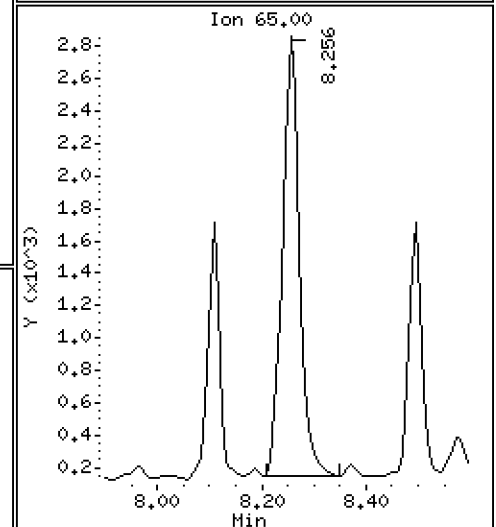
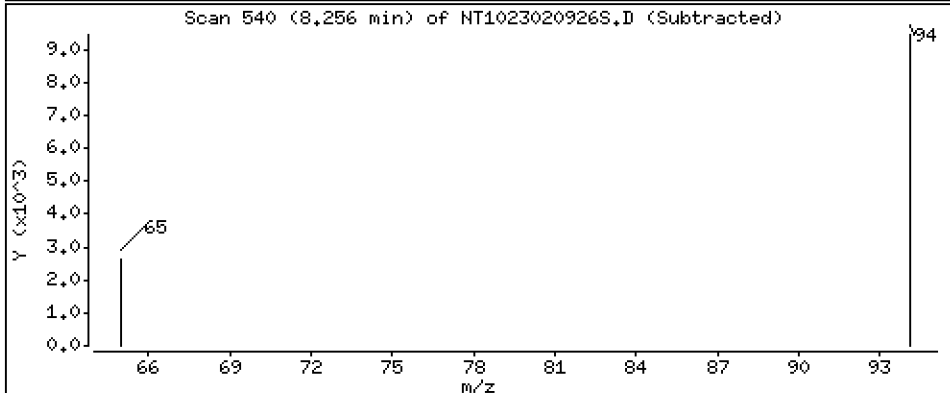
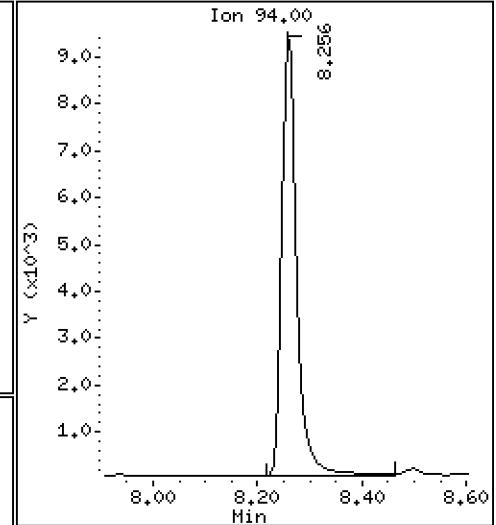
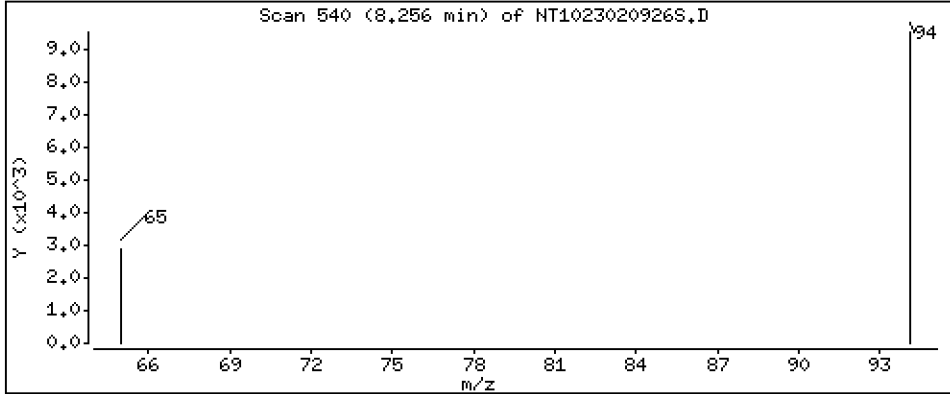
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 0.6761 ug/L



Date : 10-FEB-2023 04:59

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-08

Volume Injected (uL): 1.0

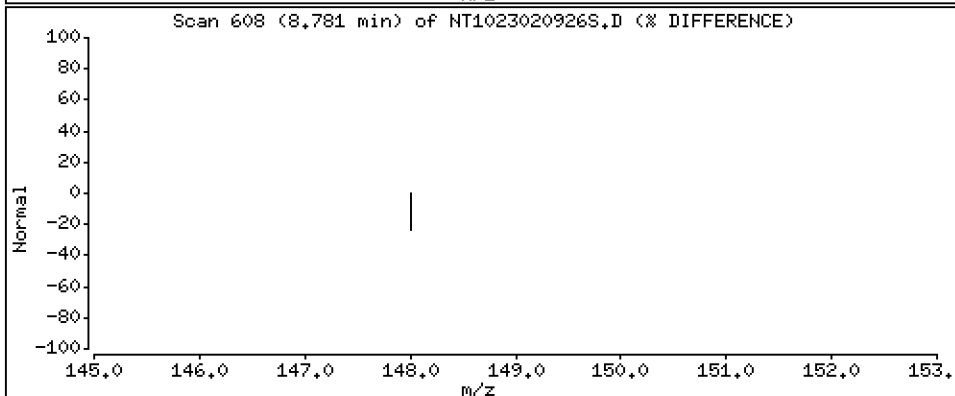
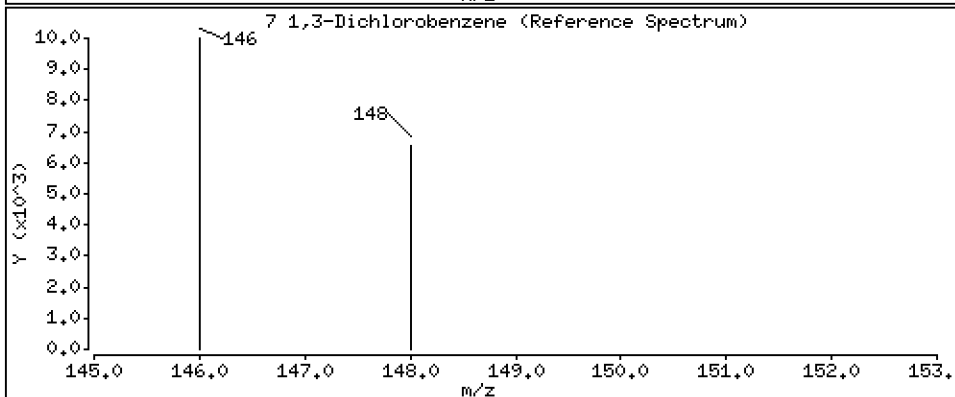
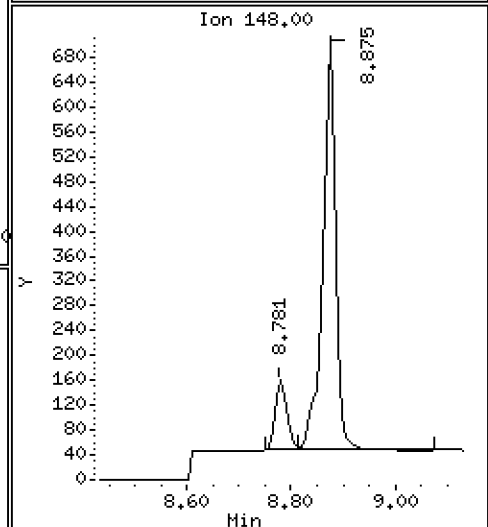
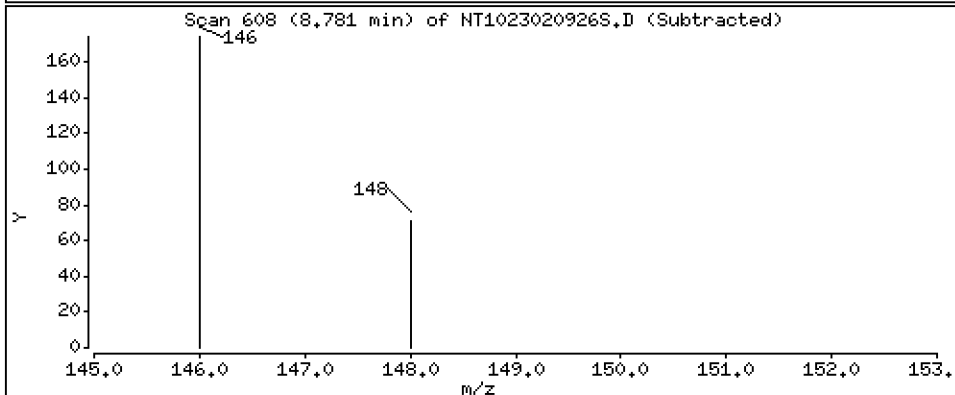
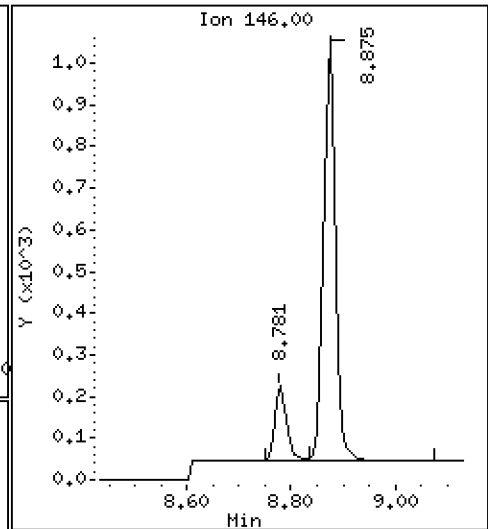
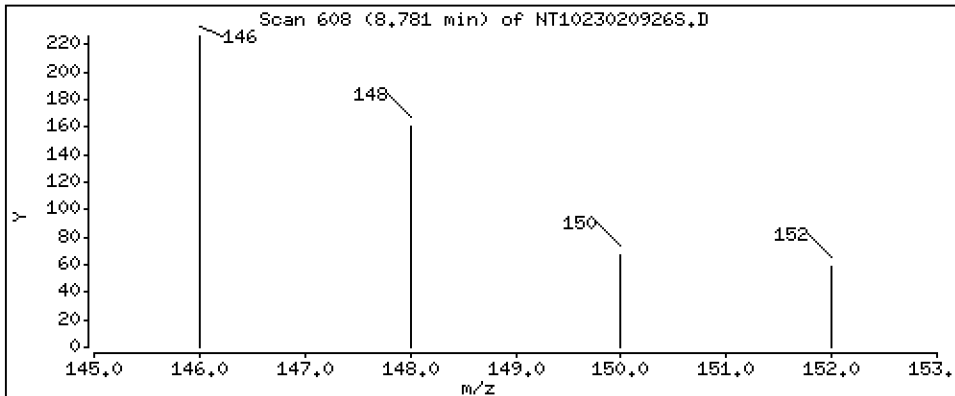
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,01130 ug/L



Date : 10-FEB-2023 04:59

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-08

Volume Injected (uL): 1.0

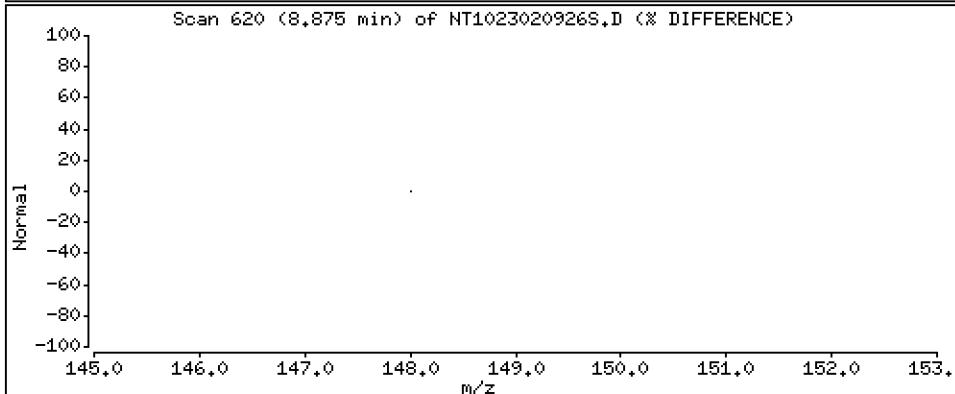
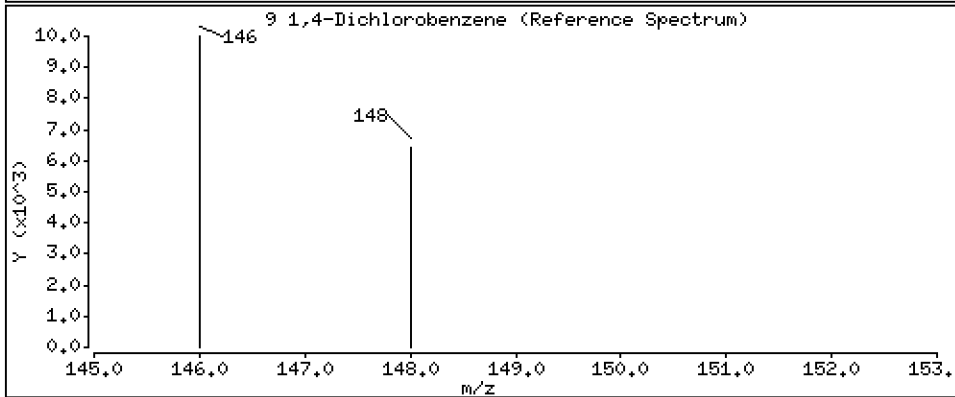
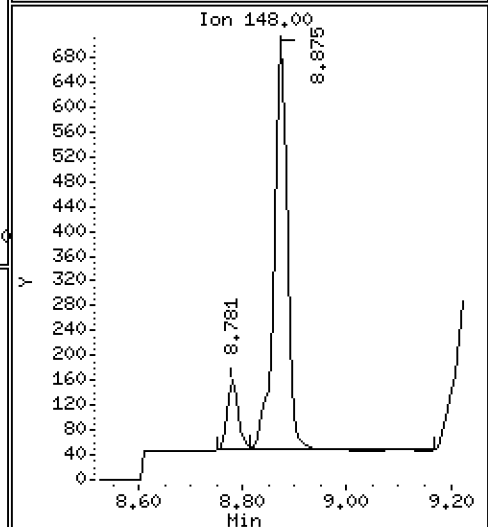
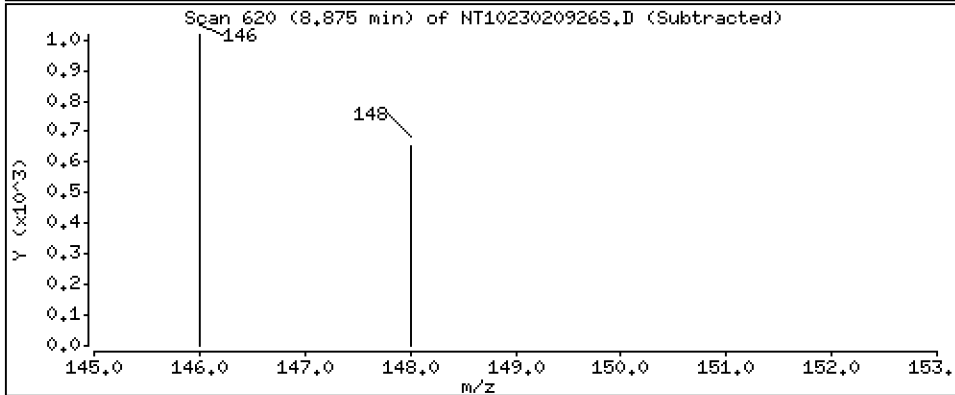
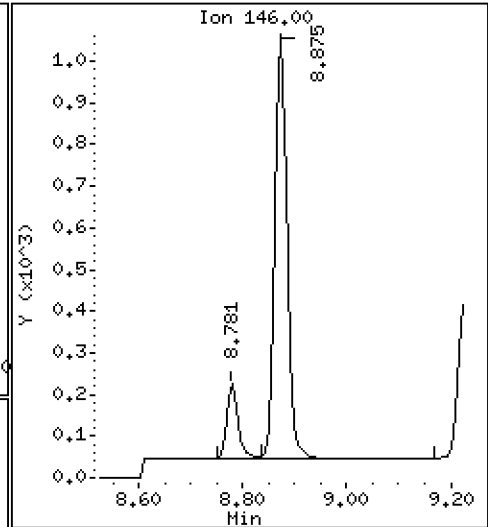
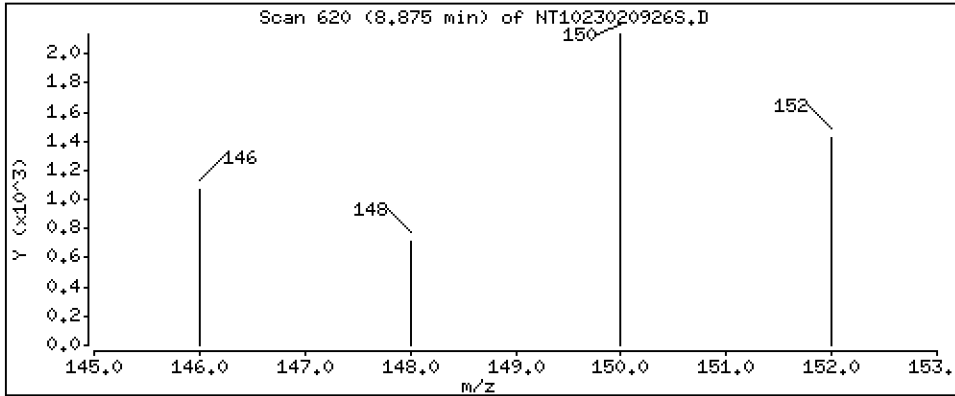
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,06604 ug/L



Date : 10-FEB-2023 04:59

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-08

Volume Injected (uL): 1.0

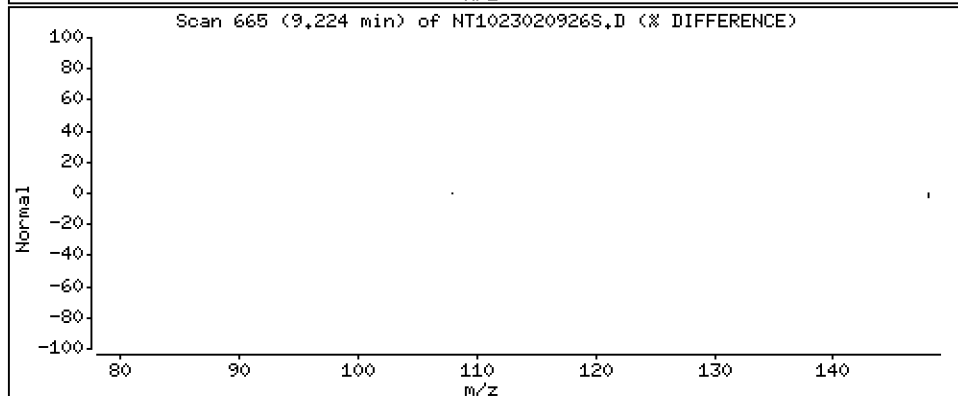
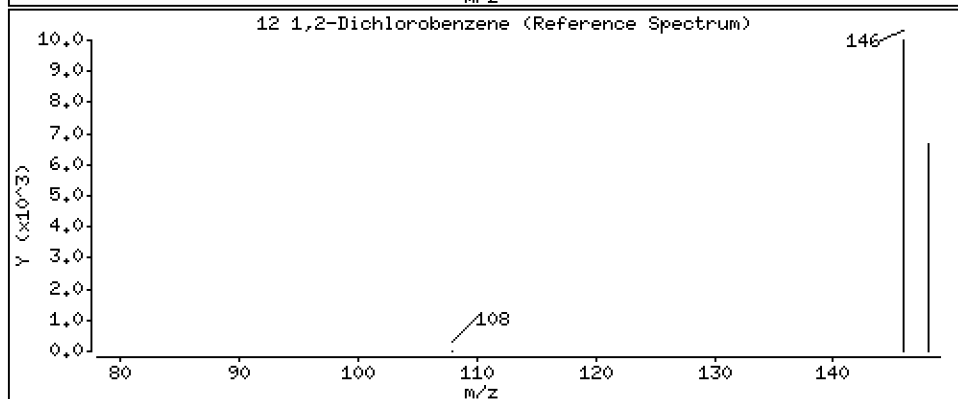
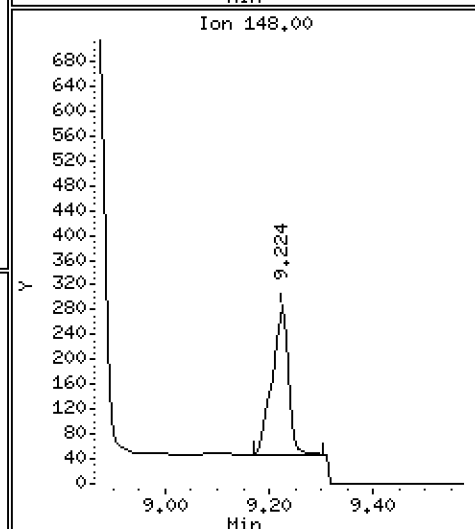
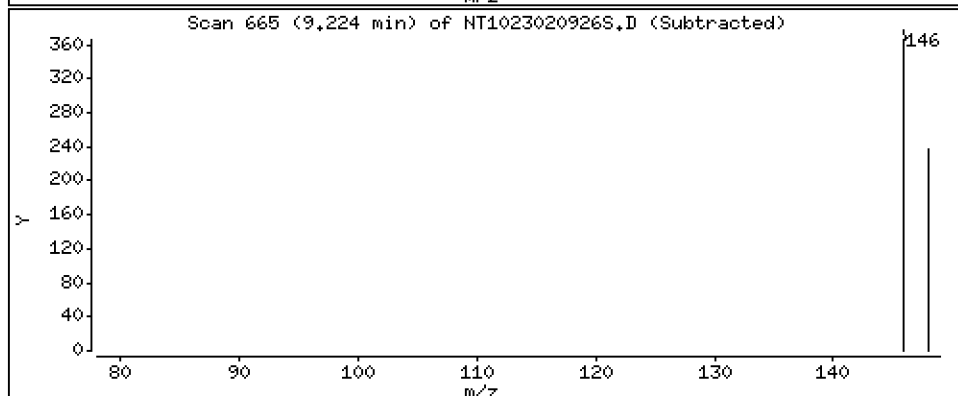
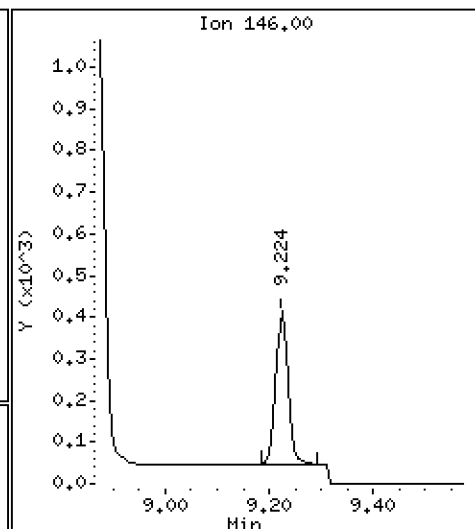
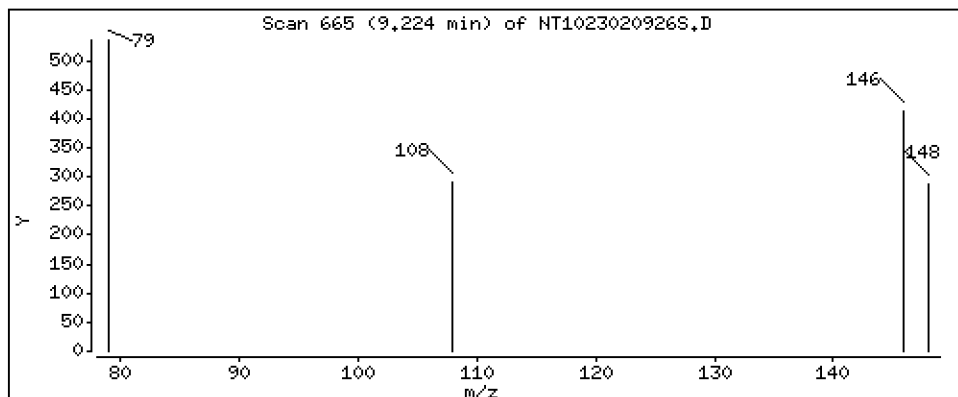
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.02495 ug/L



Date : 10-FEB-2023 04:59

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-08

Volume Injected (uL): 1.0

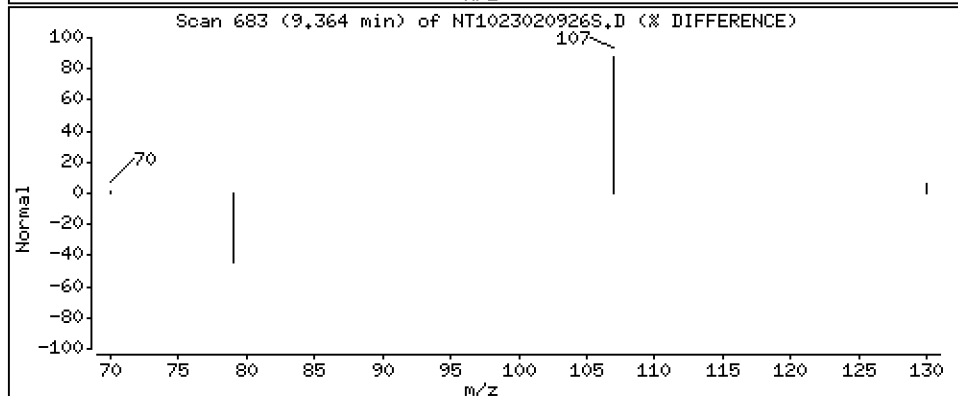
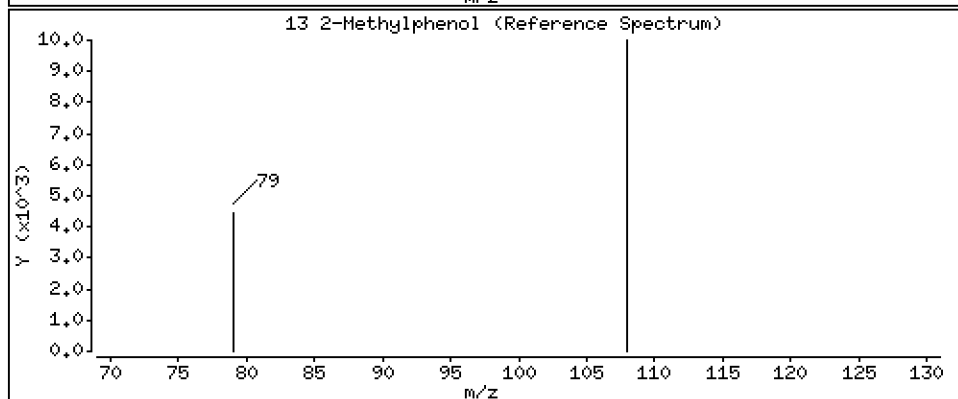
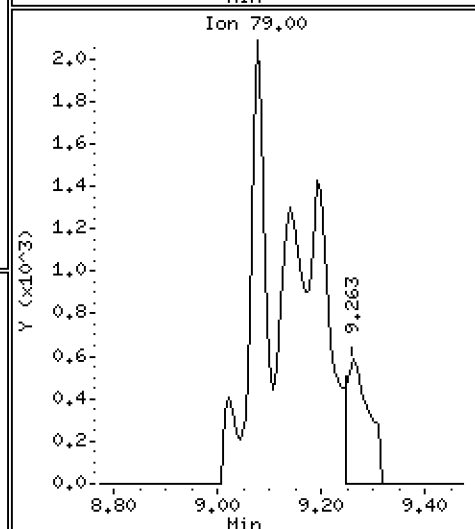
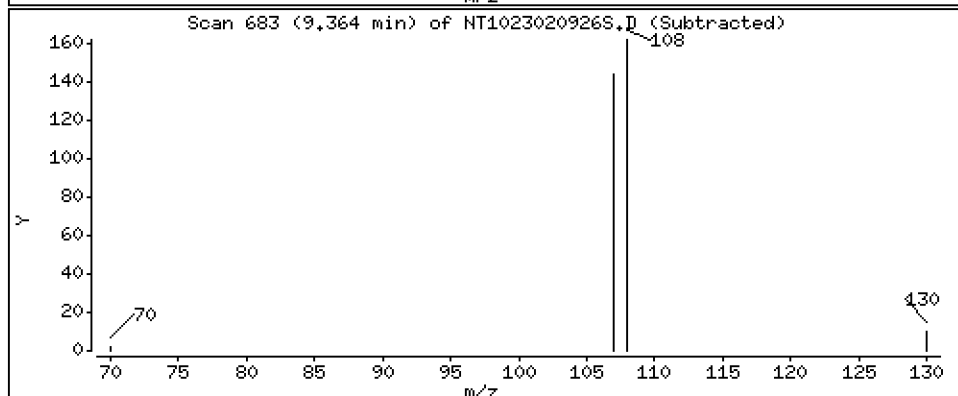
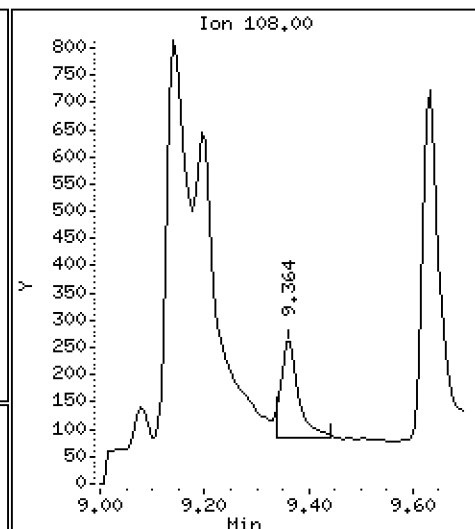
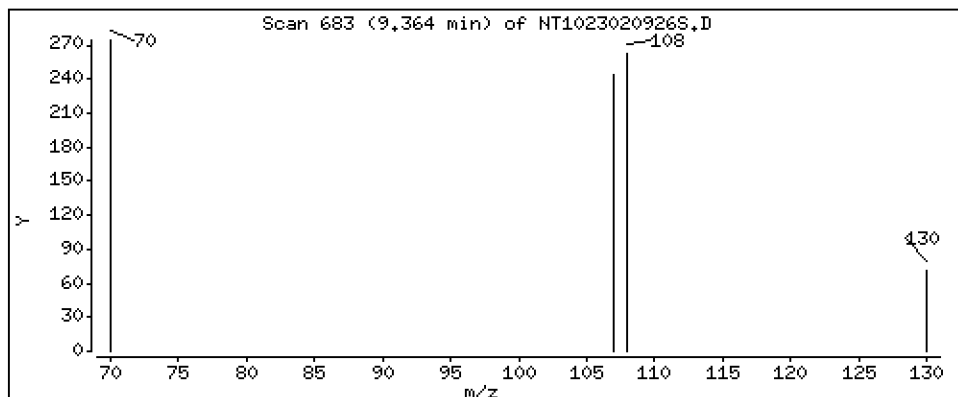
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.02324 ug/L



Date : 10-FEB-2023 04:59

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-08

Volume Injected (uL): 1.0

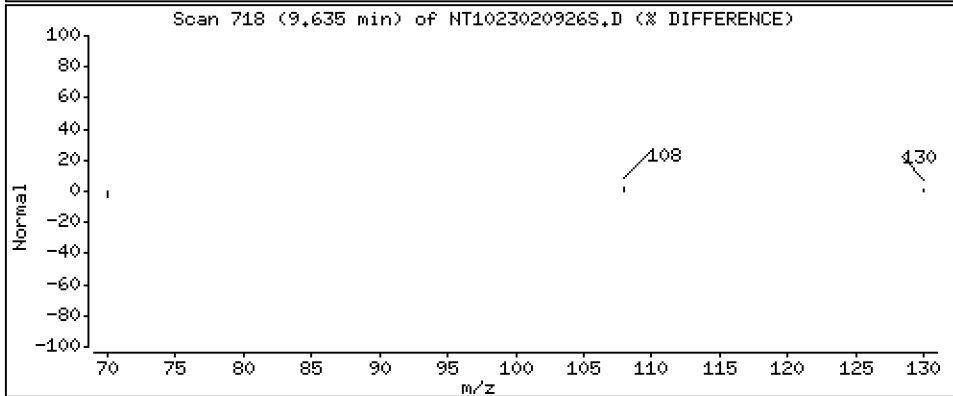
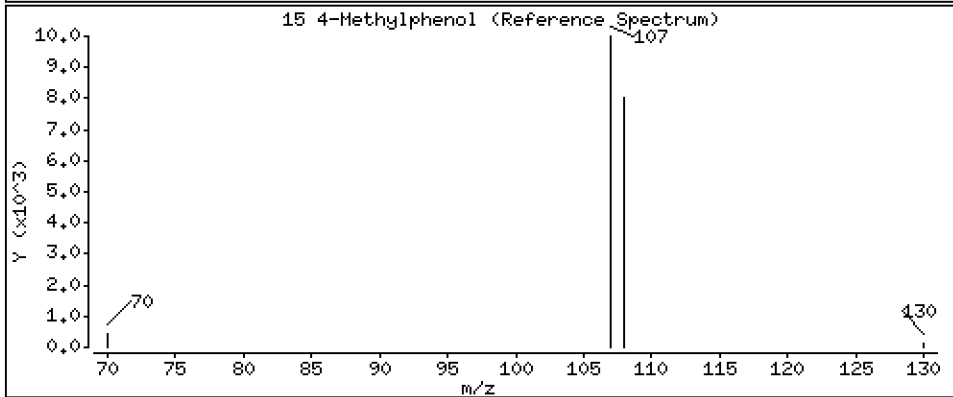
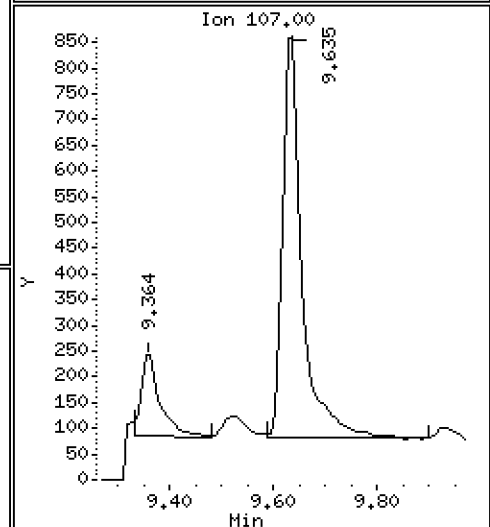
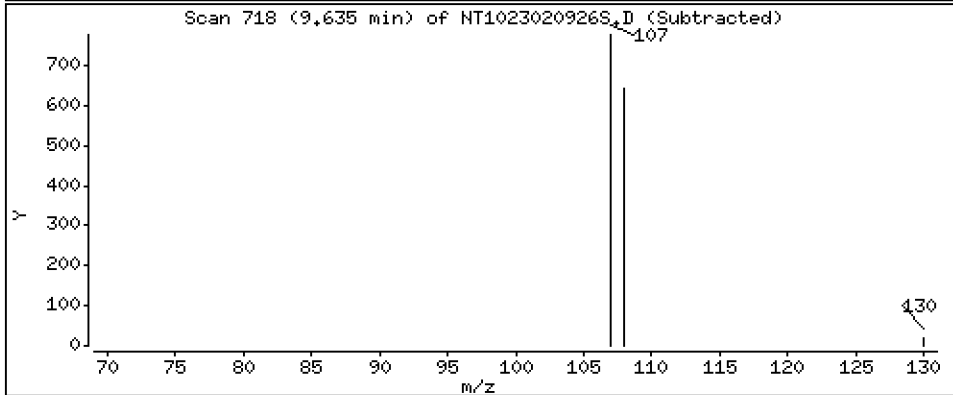
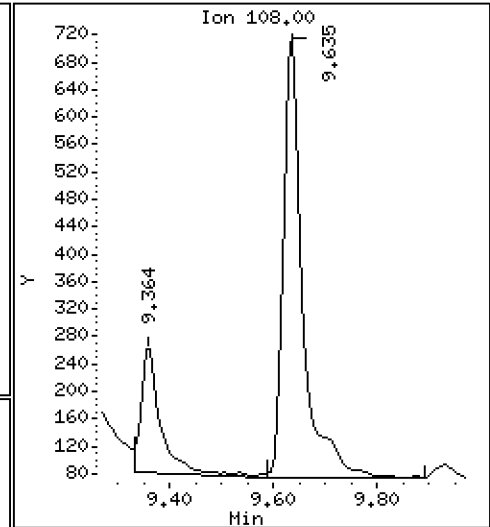
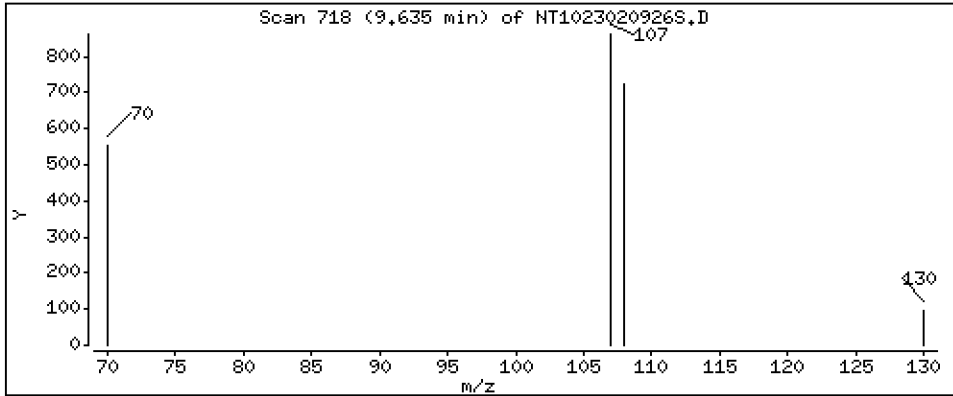
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.09108 ug/L



Date : 10-FEB-2023 04:59

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-08

Volume Injected (uL): 1.0

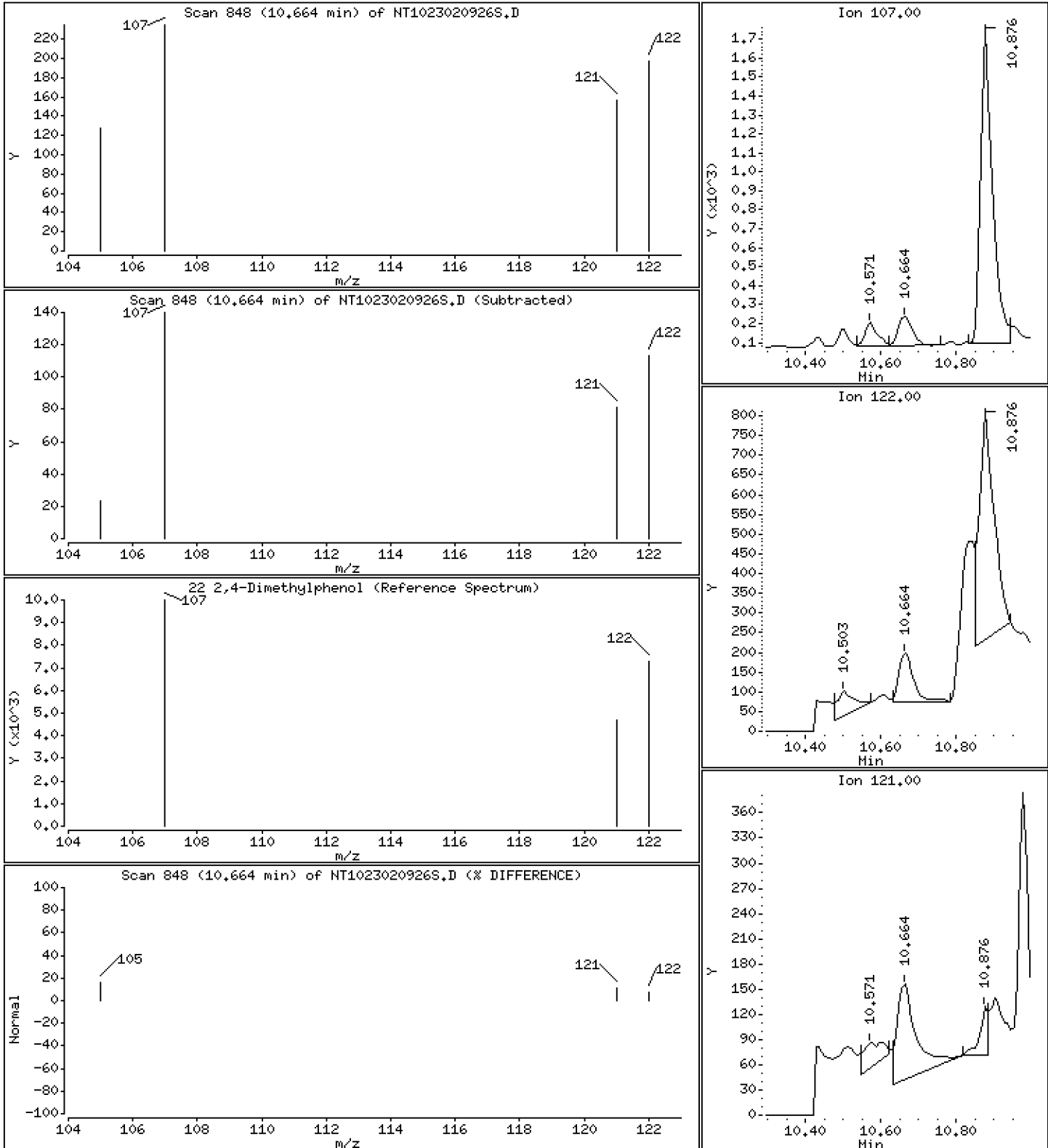
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 0.02095 ug/L



Date : 10-FEB-2023 04:59

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-08

Volume Injected (uL): 1.0

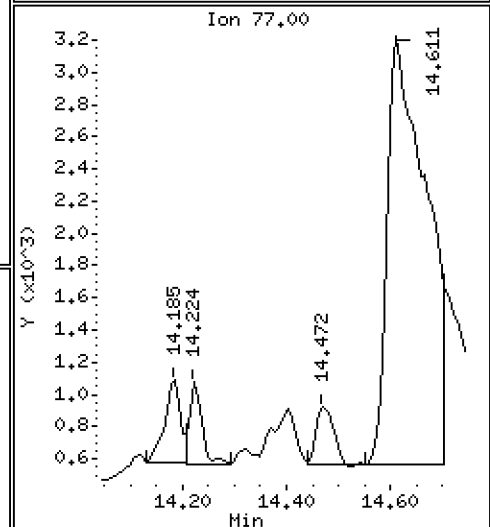
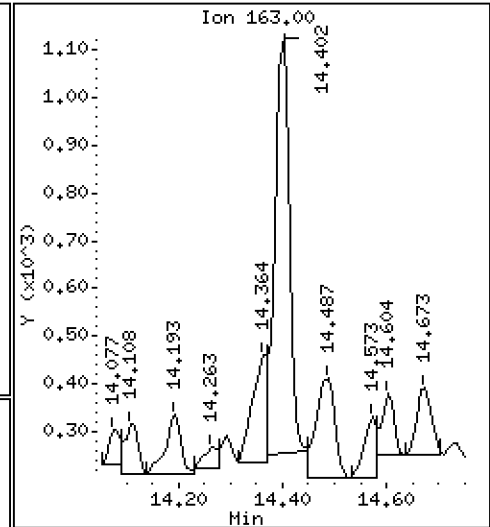
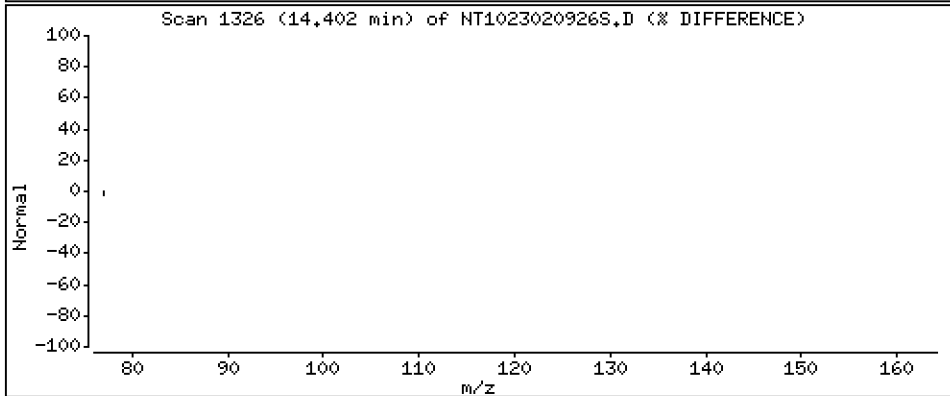
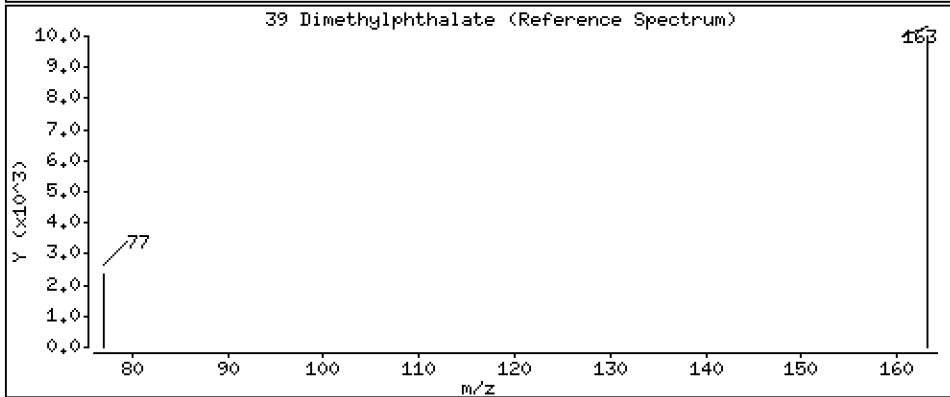
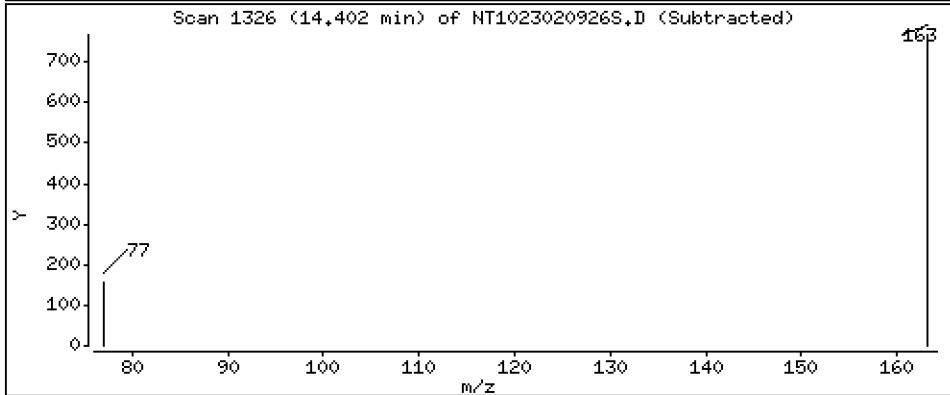
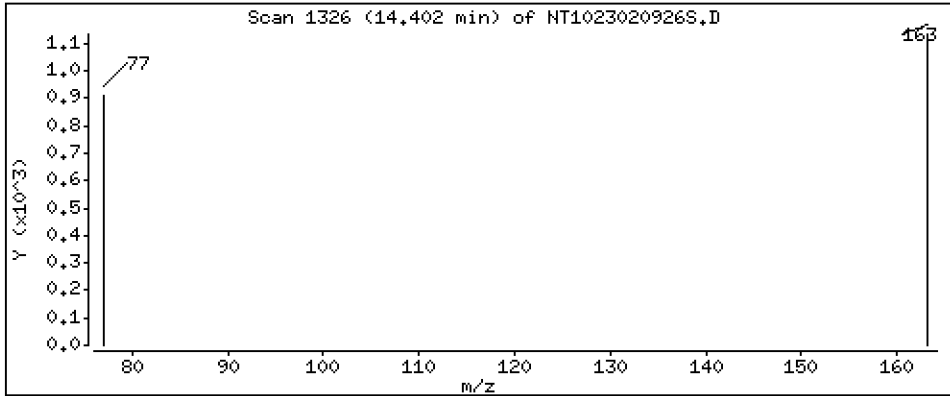
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 0.07350 ug/L



Date : 10-FEB-2023 04:59

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-08

Volume Injected (uL): 1.0

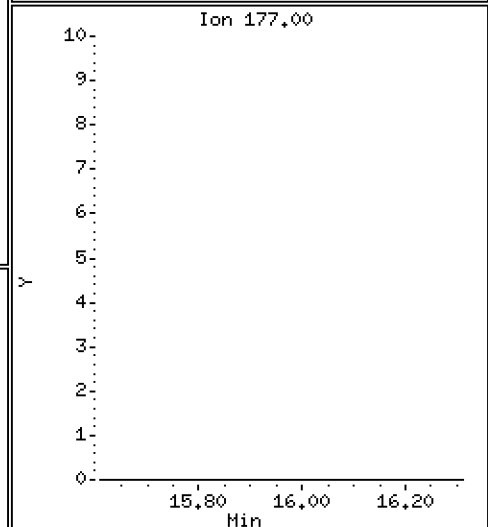
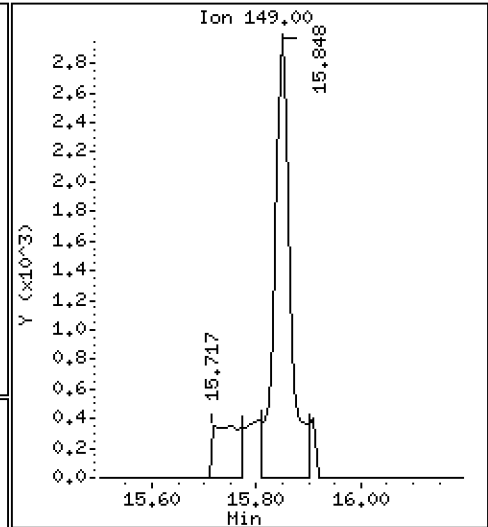
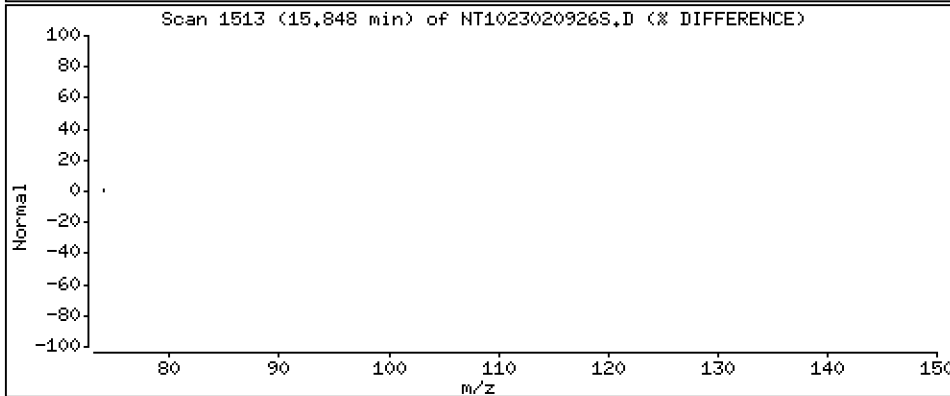
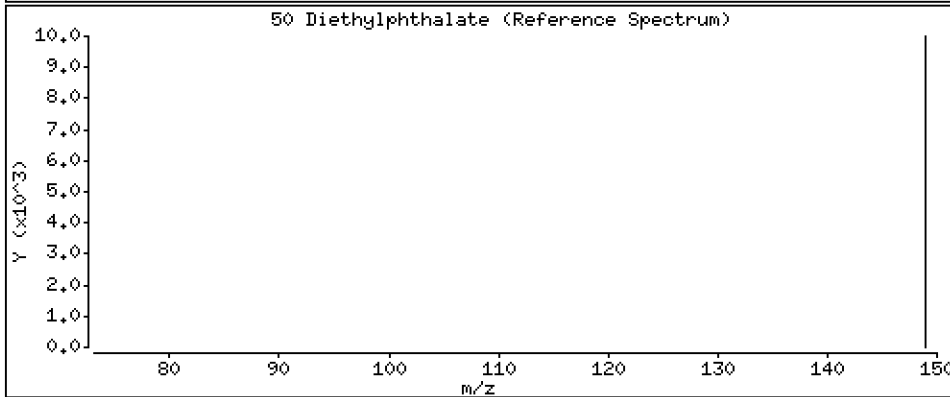
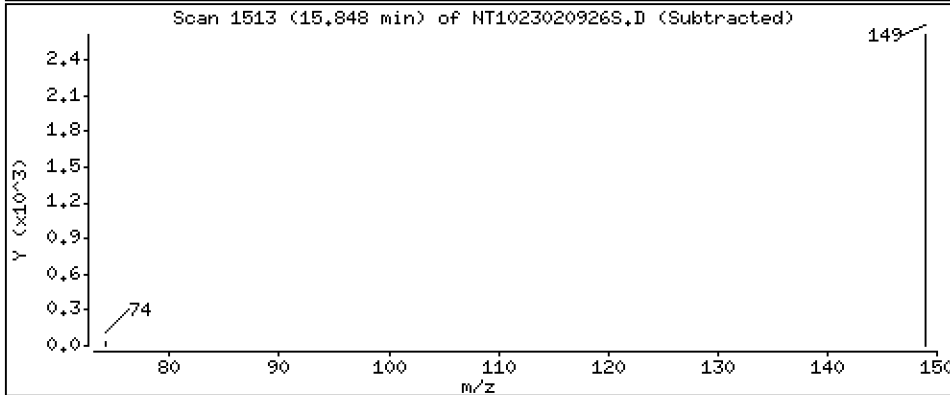
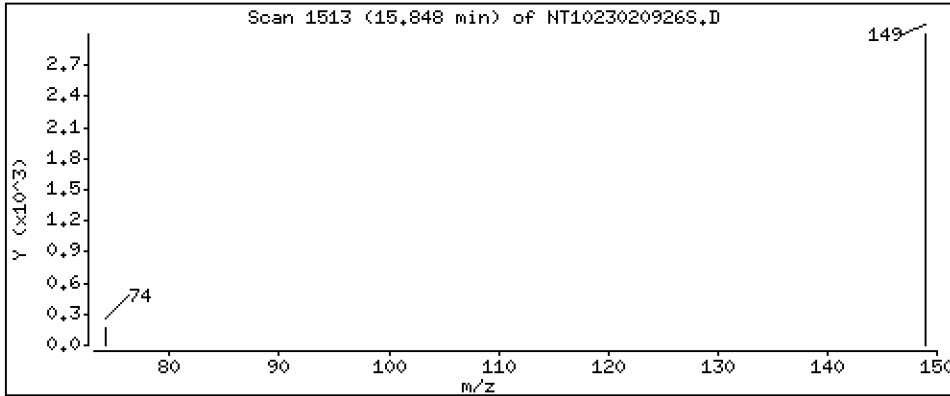
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.1819 ug/L



Date : 10-FEB-2023 04:59

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-08

Volume Injected (uL): 1.0

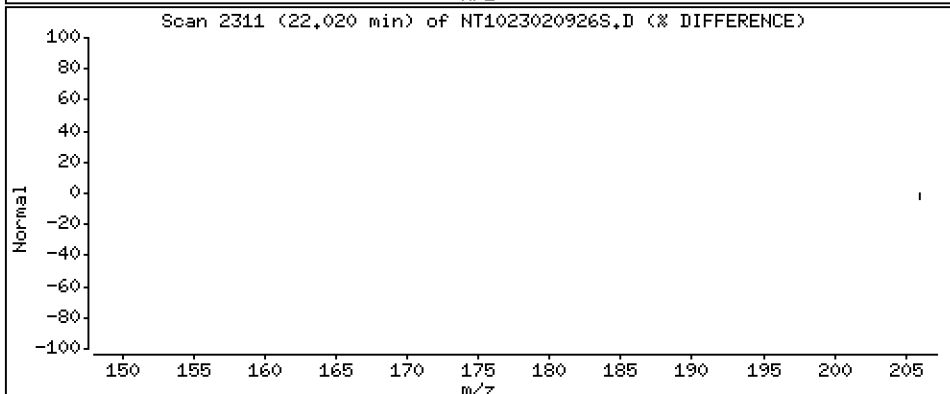
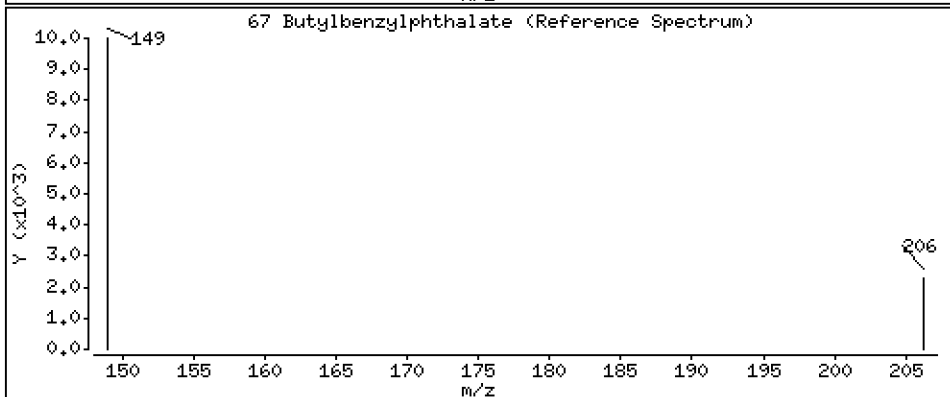
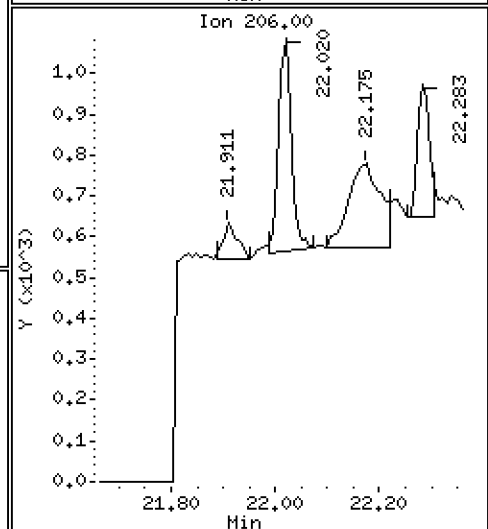
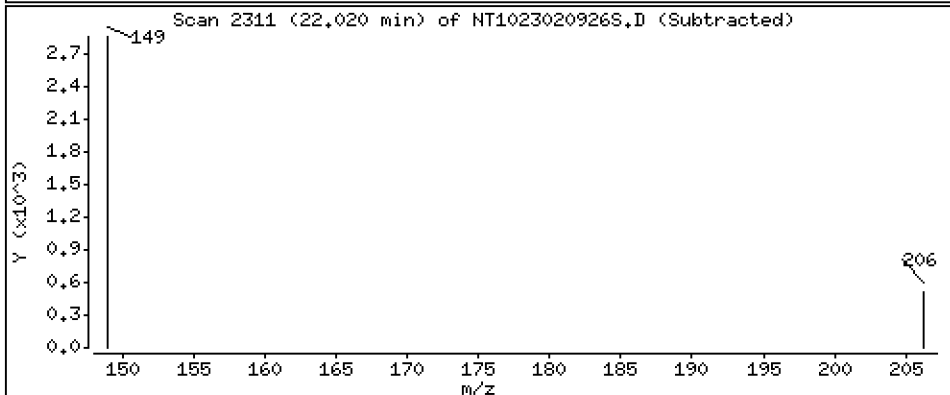
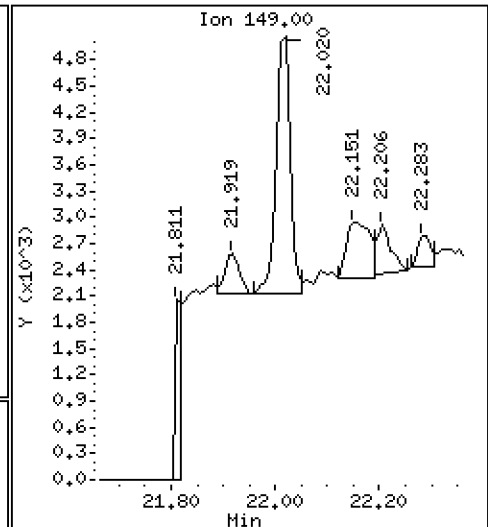
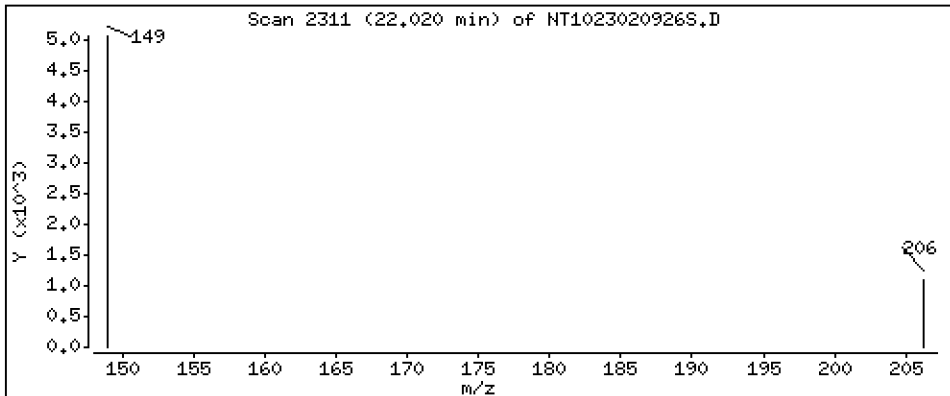
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.2572 ug/L



Date : 10-FEB-2023 04:59

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-08

Volume Injected (uL): 1.0

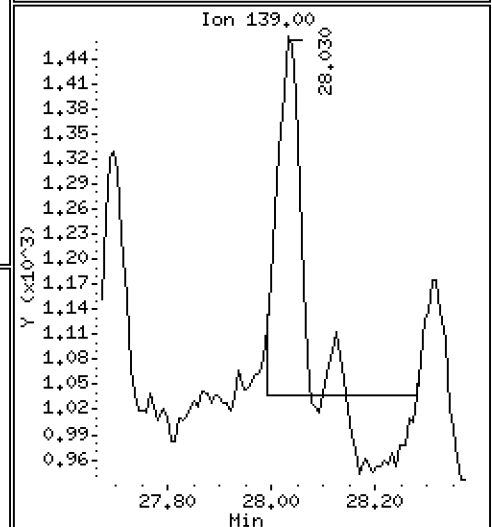
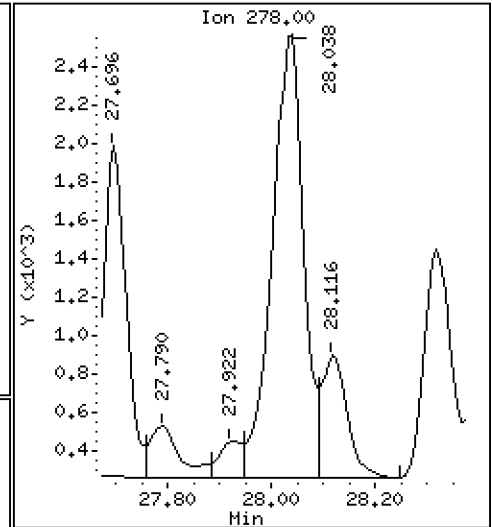
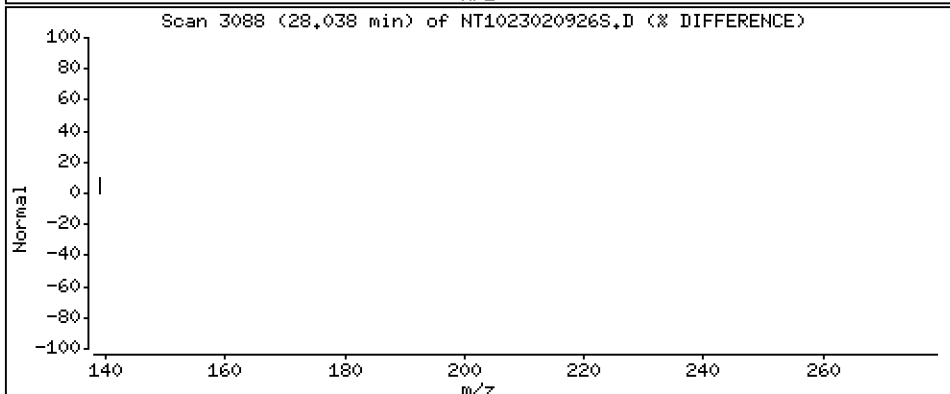
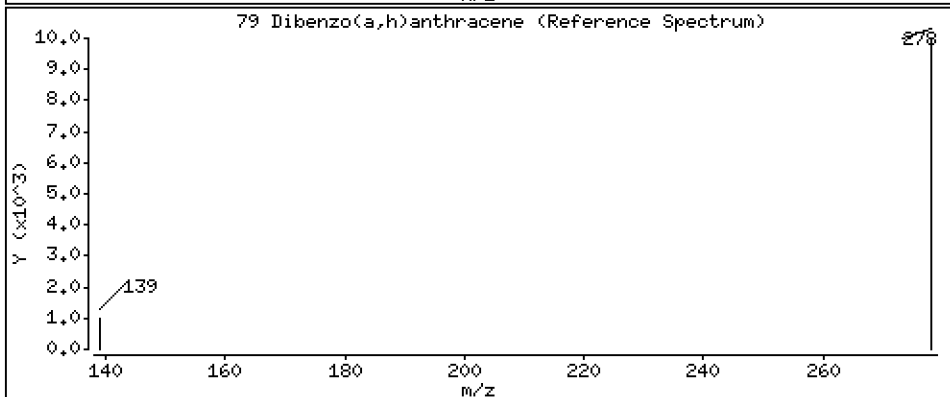
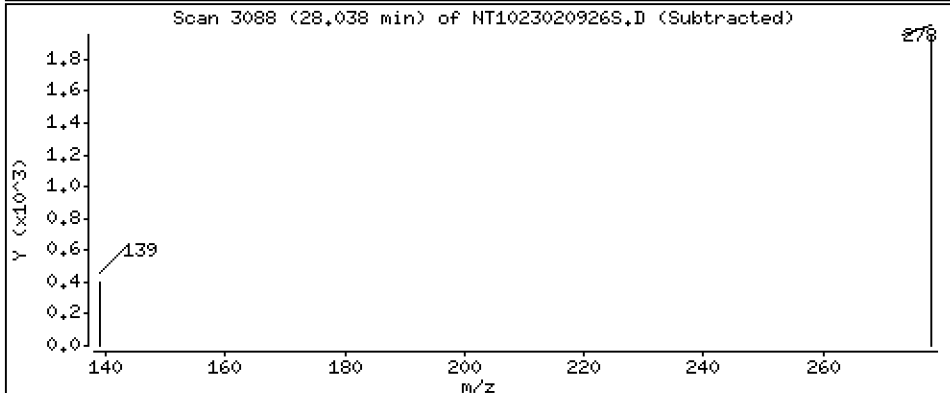
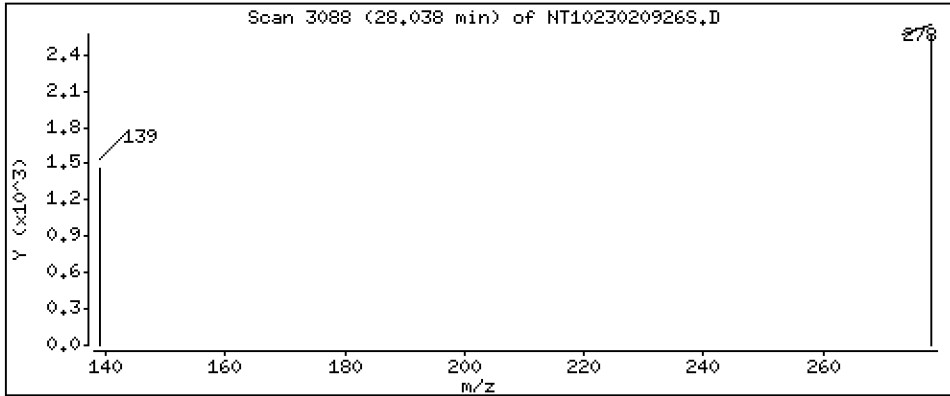
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

79 Dibenzo(a,h)anthracene

Concentration: 0.2238 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230209A.b\SIM.b\NT1023020926S.D
 Lab Smp Id: 23A0032-08
 Inj Date : 10-FEB-2023 04:59 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : 23A0032-08
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230209A.b\SIM.b\SIMABN2.m
 Meth Date : 12-Feb-2023 18:08 yev Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 22
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		6.671	6.663 (0.754)		96986	5.51077	5.511 (RM)
3 Phenol	94		8.255	8.255 (0.934)		17942	0.67609	0.6761
7 1,3-Dichlorobenzene	146		8.781	8.781 (0.993)		270	0.01130	0.01130
* 8 1,4-Dichlorobenzene-d4	152		8.843	8.843 (1.000)		57874	4.00000	
9 1,4-Dichlorobenzene	146		8.874	8.874 (1.004)		1543	0.06604	0.06604
11 Benzyl alcohol	79		Compound Not Detected.					
12 1,2-Dichlorobenzene	146		9.223	9.223 (1.043)		569	0.02495	0.02495
13 2-Methylphenol	108		9.363	9.348 (1.059)		421	0.02324	0.02324 (M)
15 4-Methylphenol	108		9.635	9.619 (1.090)		1683	0.09108	0.09108
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
22 2,4-Dimethylphenol	107		10.664	10.647 (0.944)		387	0.02095	0.02095
24 Benzoic acid	105		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.299	11.299 (1.000)		210252	4.00000	
30 Hexachlorobutadiene	225		Compound Not Detected.					
39 Dimethylphthalate	163		14.402	14.402 (0.967)		1645	0.07350	0.07350
* 42 Acenaphthene-d10	162		14.889	14.882 (1.000)		96034	4.00000	
50 Diethylphthalate	149		15.848	15.848 (1.064)		6131	0.18188	0.1819
54 N-Nitrosodiphenylamine	169		Compound Not Detected.					
57 Hexachlorobenzene	284		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		Compound Not Detected.					
* 59 Phenanthrene-d10	188		17.910	17.903	(1.000)	173410	4.00000	
\$ 66 Terphenyl-d14	244		21.082	21.075	(0.917)	143325	4.74448	4.744 (R)
67 Butylbenzylphthalate	149		22.019	22.012	(0.958)	5251	0.25716	0.2572
* 69 Chrysene-d12	240		22.995	22.980	(1.000)	136098	4.00000	
* 77 Perylene-d12	264		25.527	25.511	(1.000)	155917	4.00000	
79 Dibenzo(a,h)anthracene	278		28.038	28.022	(1.098)	9779	0.22379	0.2238 (H)
90 N-Nitrosodimethylamine	74		Compound Not Detected.					

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020926S.D
 Lab Smp Id: 23A0032-08
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230209A.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 10-FEB-2023
 Calibration Time: 02:26
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	99878	49939	199756	57874	-42.06
27 Naphthalene-d8	353725	176863	707450	210252	-40.56
42 Acenaphthene-d10	168125	84063	336250	96034	-42.88
59 Phenanthrene-d10	295176	147588	590352	173410	-41.25
69 Chrysene-d12	264951	132476	529902	136098	-48.63
77 Perylene-d12	304147	152074	608294	155917	-48.74

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	-0.00
27 Naphthalene-d8	11.30	10.80	11.80	11.30	-0.00
42 Acenaphthene-d10	14.88	14.38	15.38	14.89	0.05
59 Phenanthrene-d10	17.90	17.40	18.40	17.91	0.04
69 Chrysene-d12	22.98	22.48	23.48	23.00	0.07
77 Perylene-d12	25.51	25.01	26.01	25.53	0.06

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020926S.D

Lab ID: 23A0032-08

nt10.i, 20230209A.b\SIM.b\SIMABN2.m, 10-FEB-2023 04:59

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: SIM.b/NT1023020922S.D

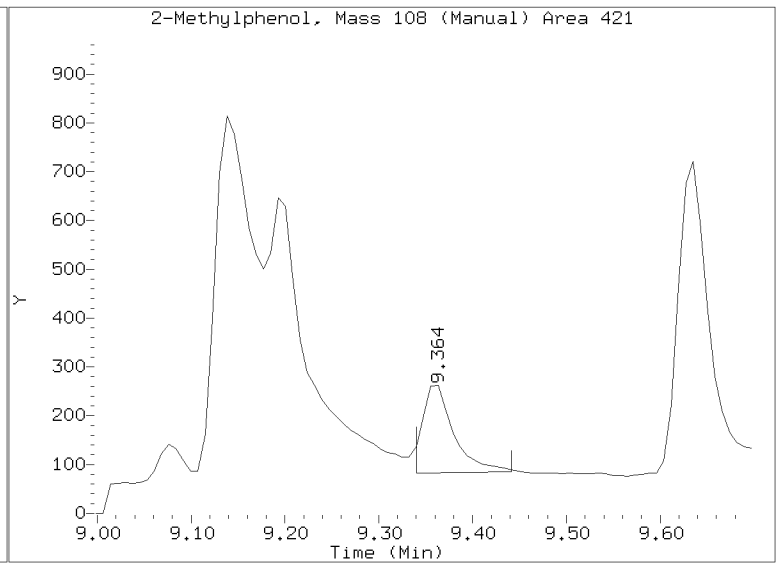
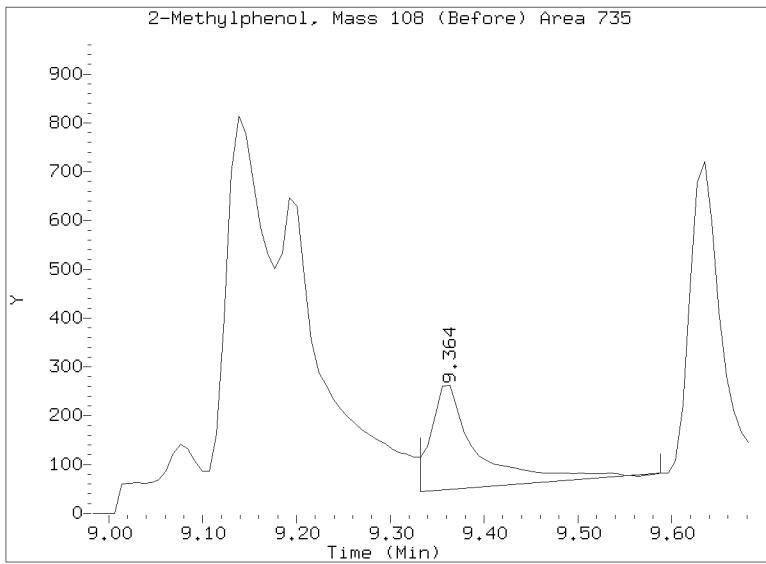
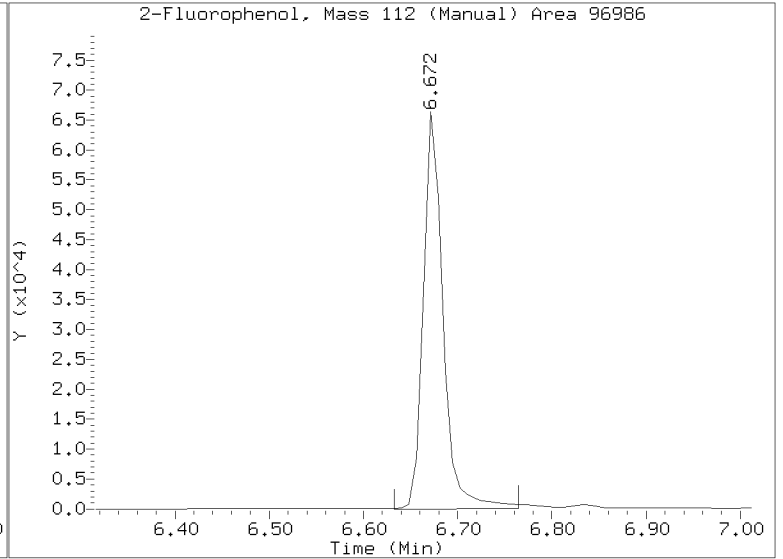
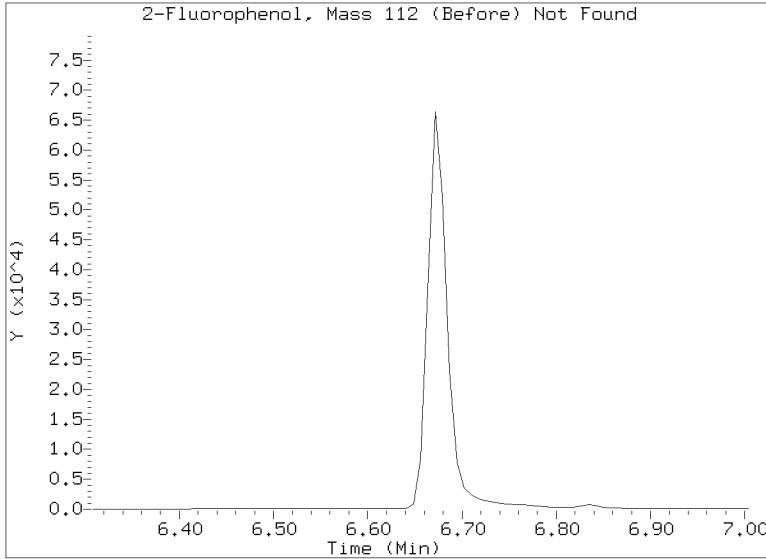
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209A.b/SIM.b/NT1023020926S.D
Injection Date: 10-FEB-2023 04:59
Lab ID: 23A0032-08 Client ID:
Report Date: 02/12/2023 18:09





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
SIM SVOC Organics (Dual scan list)

Laboratory: Analytical Resources, LLC

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-11 A

SDG: 23A0032

Sampled: 01/03/23 14:01

Prepared: 01/10/23 11:20

File ID: NT1023020927S.D

% Solids: 53.06

Preparation: EPA 3546 (Microwave)

Analyzed: 02/10/23 05:37

Batch: BLA0163

Sequence: SLB0157

Initial/Final: 18.9 g Wet / 1 mL

Instrument: NT10

Column: ZB-5MSi

Calibration: GB00019

Cleanups: GPC

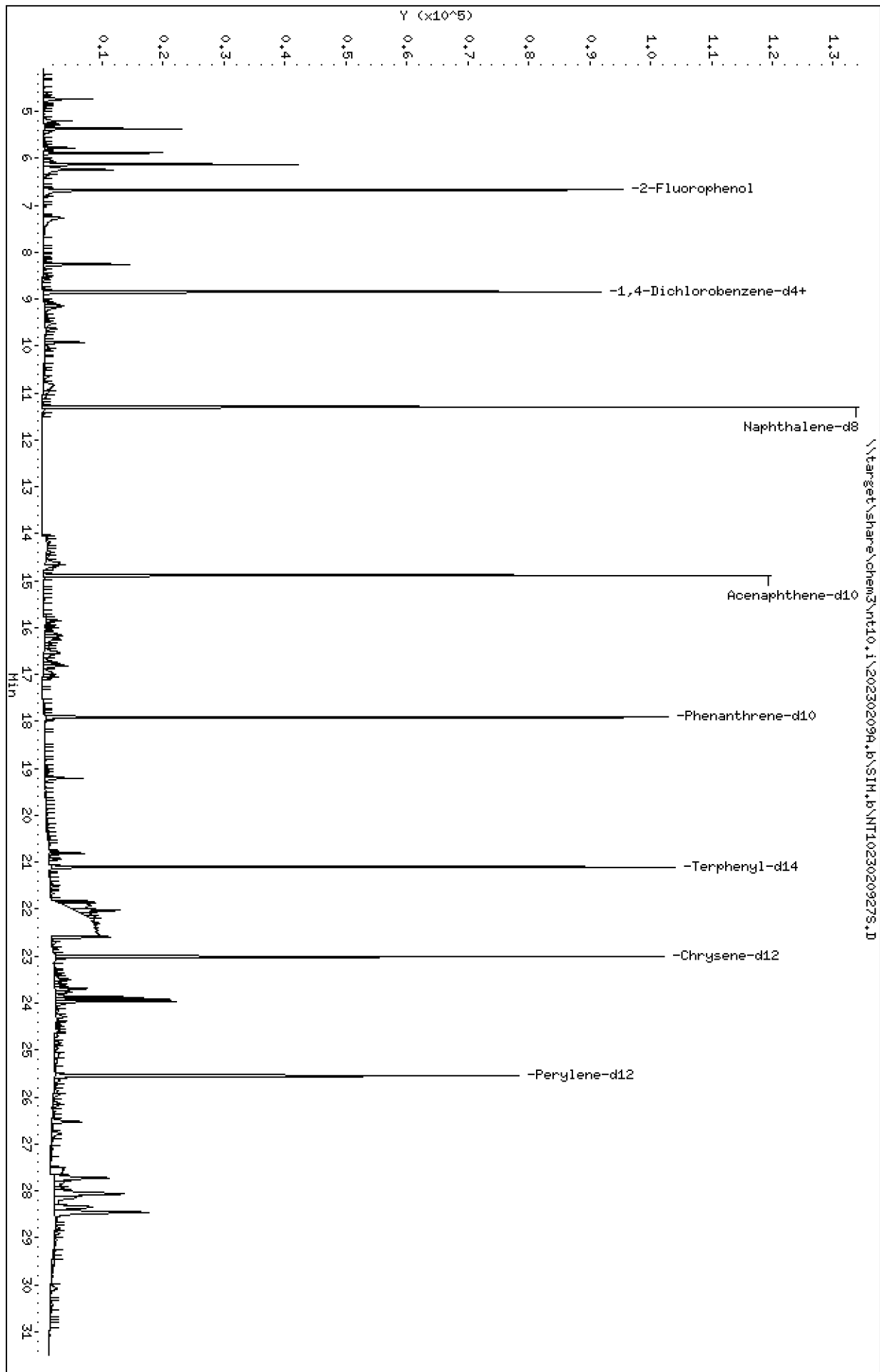
CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	2.6	J	0.6	5.0
95-50-1	1,2-Dichlorobenzene	1	5.0	U	0.7	5.0
100-51-6	Benzyl Alcohol	1	19.9	U	2.5	19.9
65-85-0	Benzoic acid	1	82.0	J	13.4	99.7
105-67-9	2,4-Dimethylphenol	1	5.0	J	2.2	19.9
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U	2.7	5.0
86-30-6	N-Nitrosodiphenylamine	1	5.0	U	1.3	5.0
87-86-5	Pentachlorophenol	1	6.8	J	2.1	19.9

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
2-Fluorophenol	747.88	552	73.8	27 - 120	
p-Terphenyl-d14	498.59	428	85.8	37 - 120	

Data File: \\target\share\chem3\nt10.1\202302094.b\SIM.b\NT1023020927S.D
Date: 10-FEB-2023 05:37
Client ID:
Sample Info: 23A0032-11
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: USD
Column diameter: 0.25

\\target\share\chem3\nt10.1\202302094.b\SIM.b\NT1023020927S.D



Date : 10-FEB-2023 05:37

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-11

Volume Injected (uL): 1.0

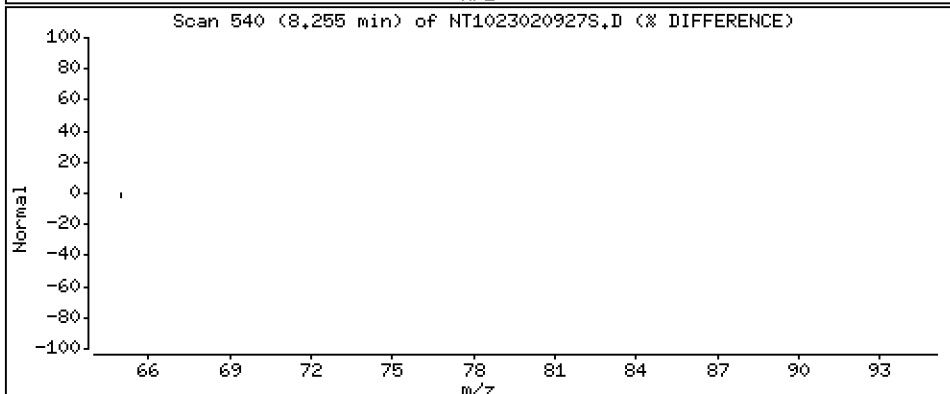
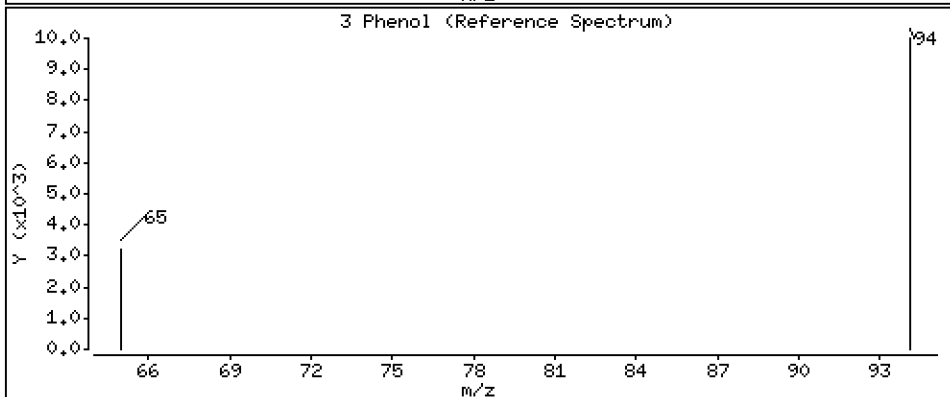
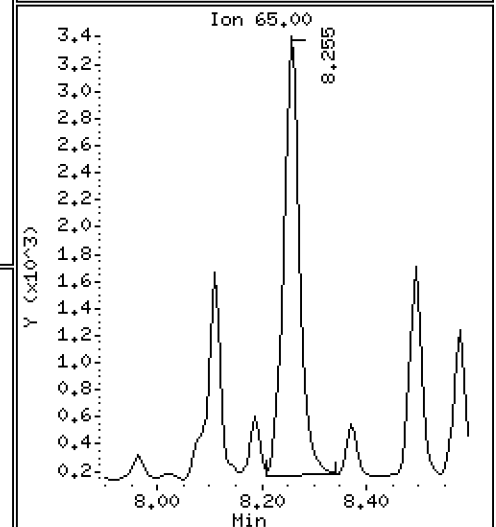
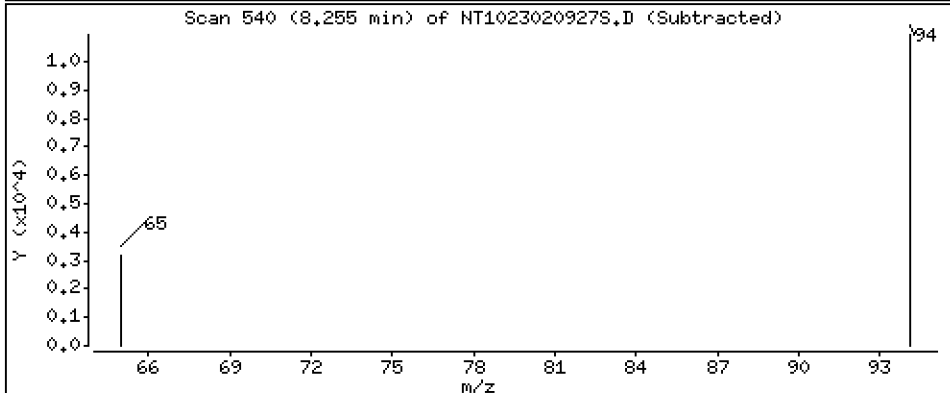
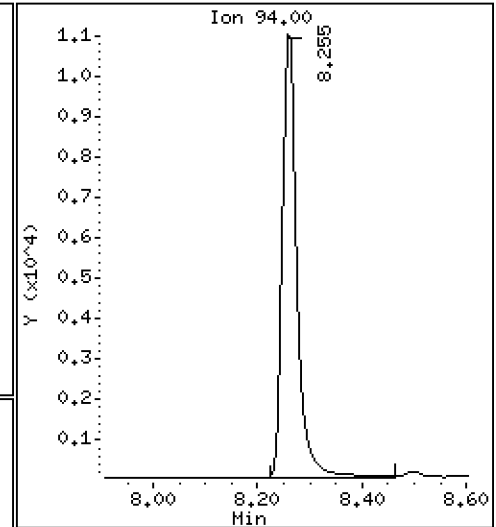
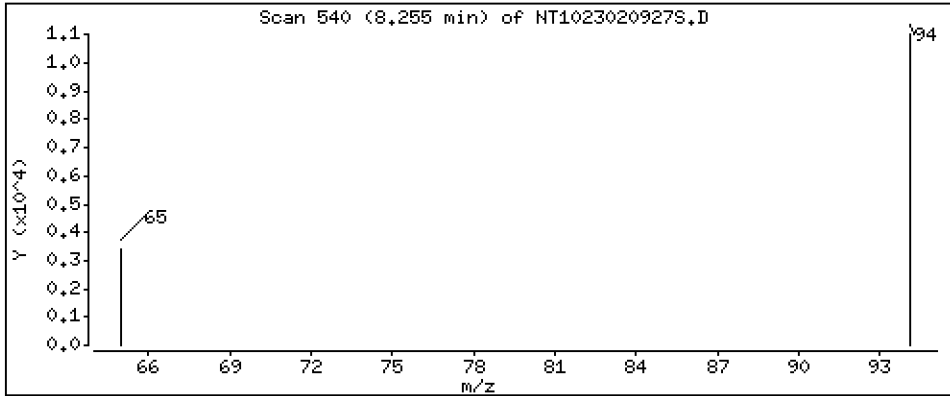
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 0.8145 ug/L



Date : 10-FEB-2023 05:37

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-11

Volume Injected (uL): 1.0

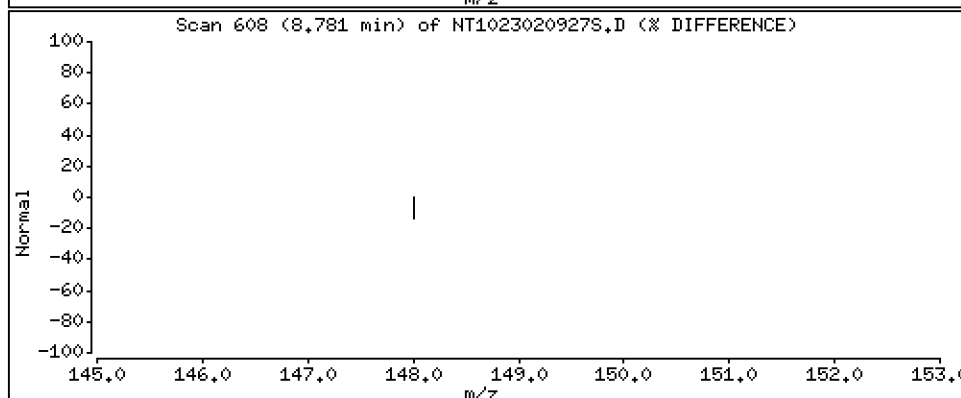
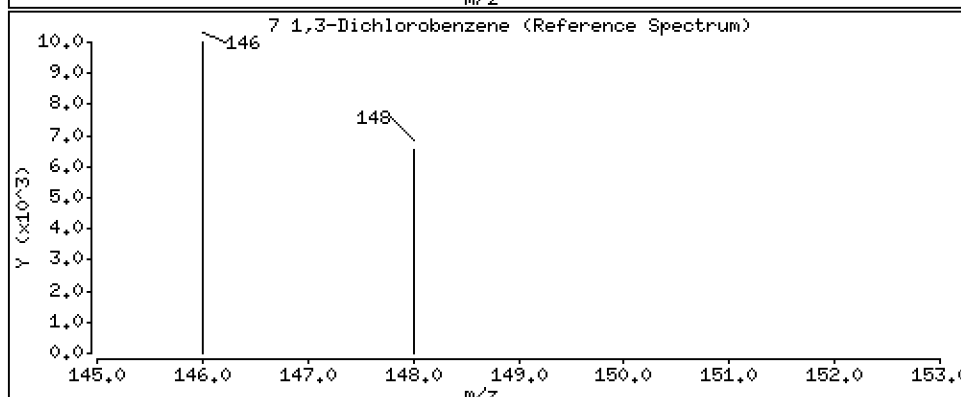
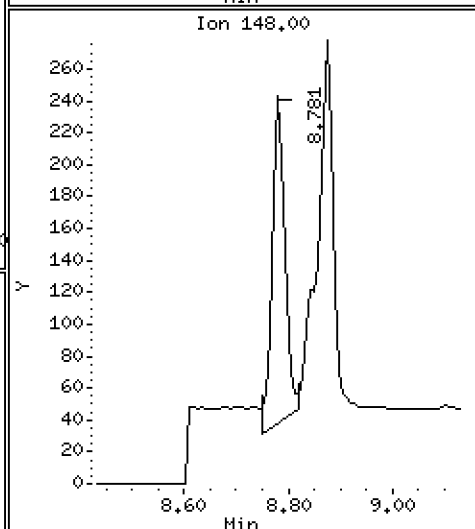
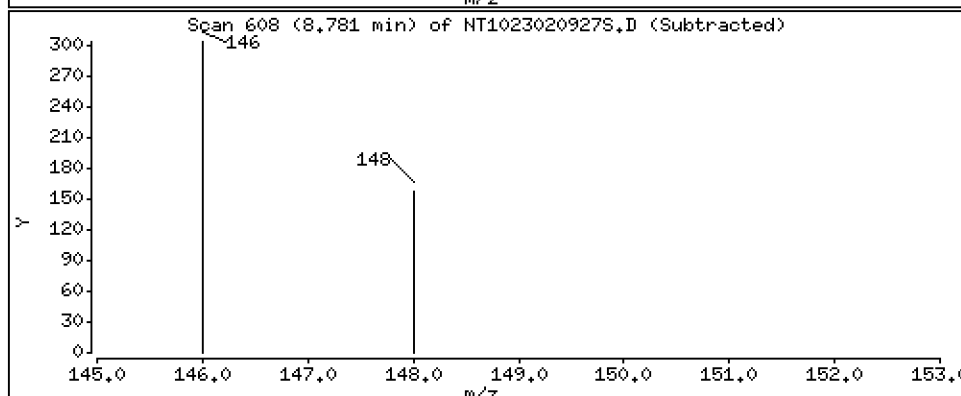
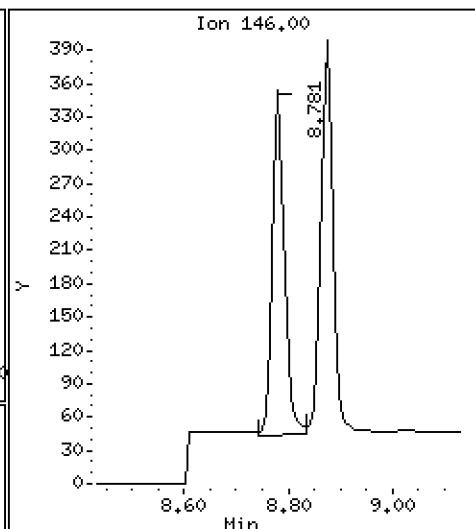
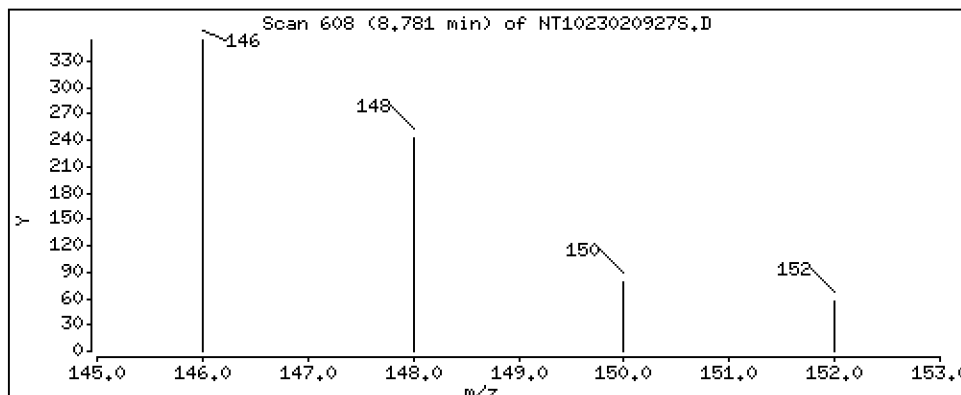
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 0,02145 ug/L



Date : 10-FEB-2023 05:37

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-11

Volume Injected (uL): 1.0

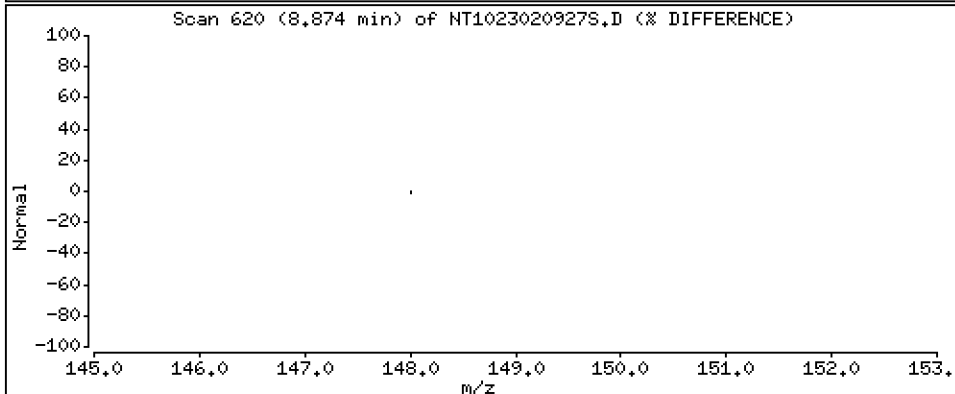
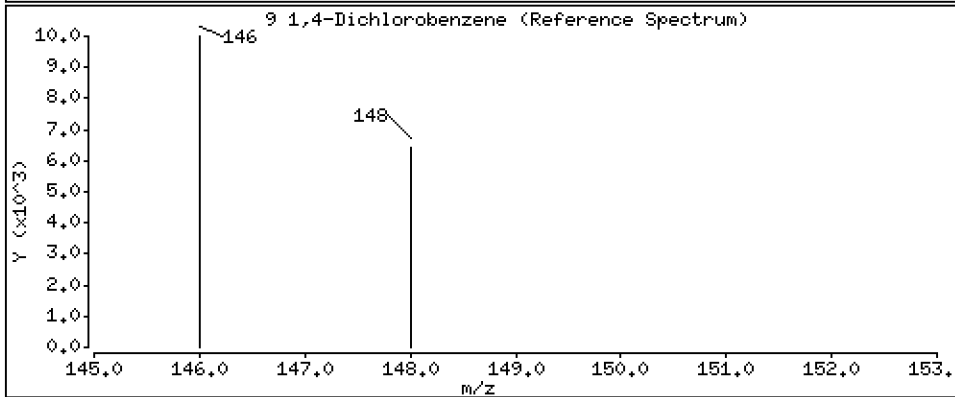
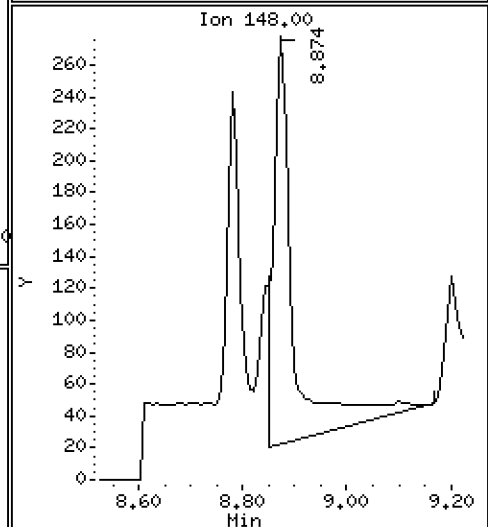
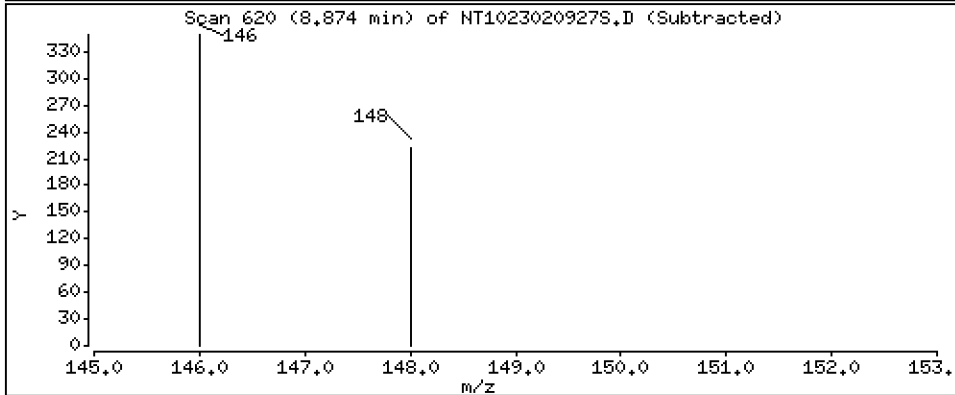
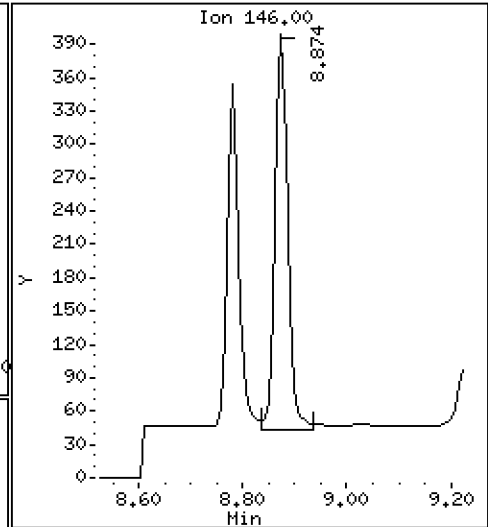
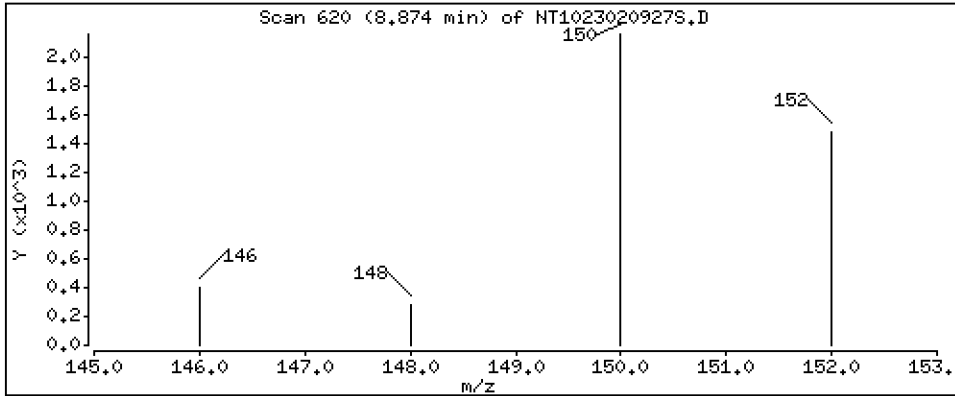
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 0,02568 ug/L



Date : 10-FEB-2023 05:37

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-11

Volume Injected (uL): 1.0

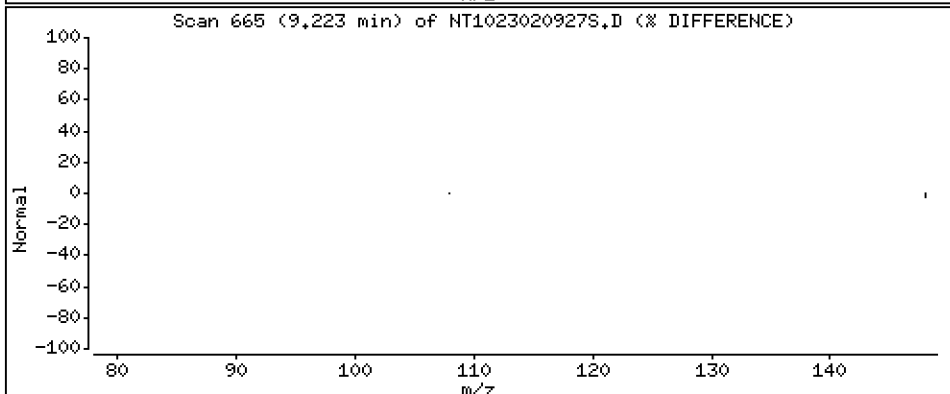
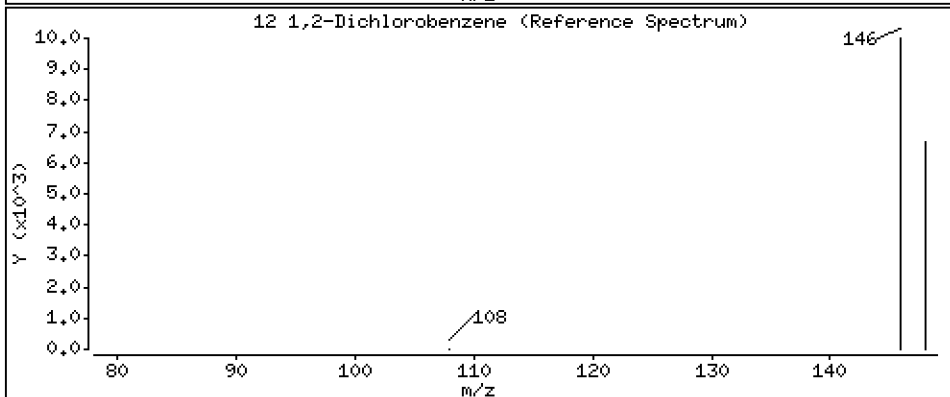
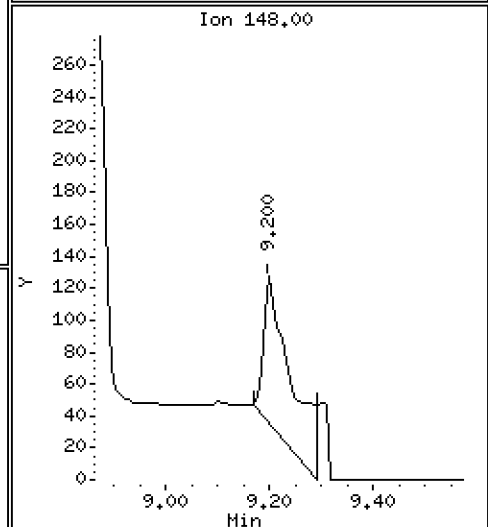
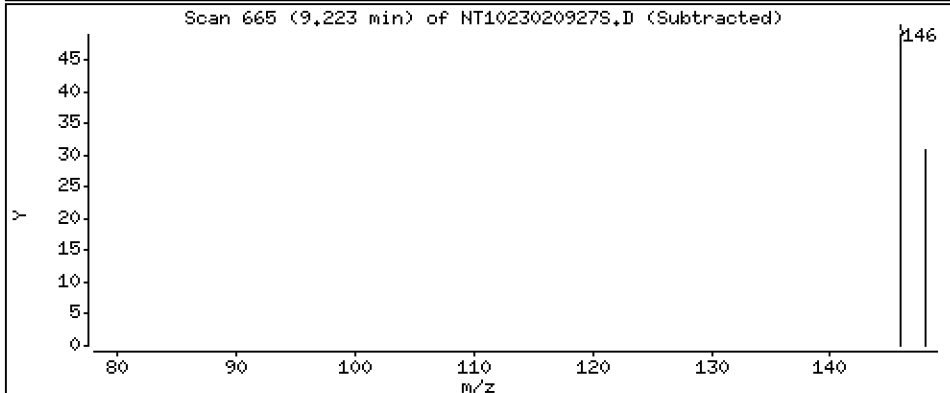
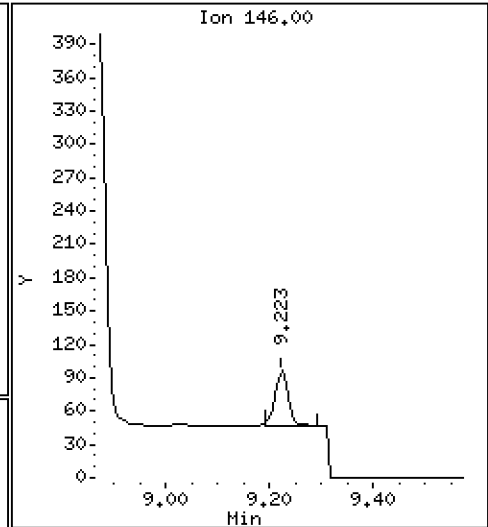
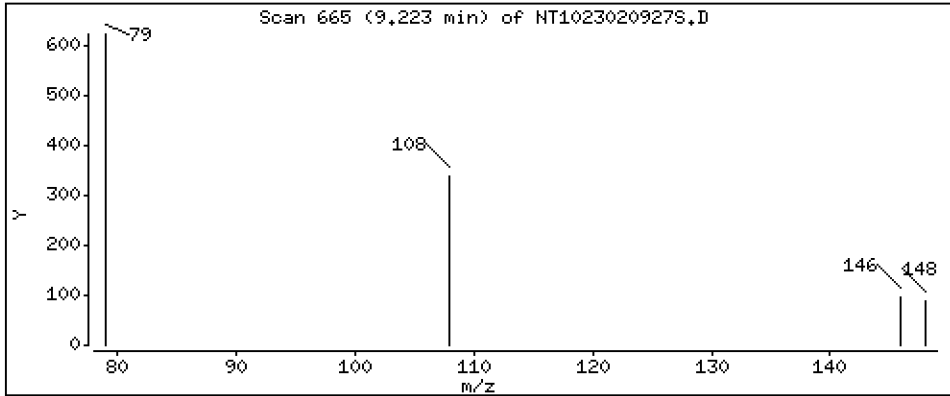
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 0,003653 ug/L



Date : 10-FEB-2023 05:37

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-11

Volume Injected (uL): 1.0

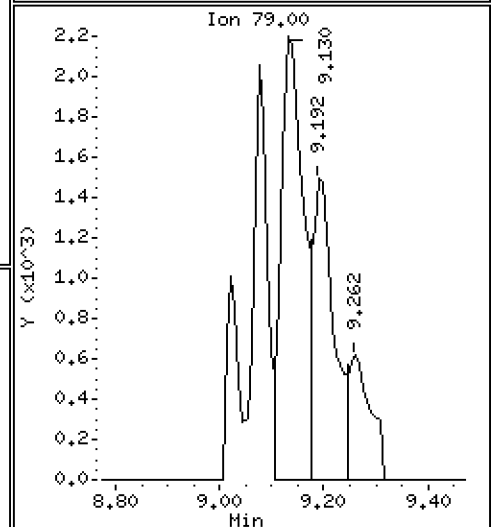
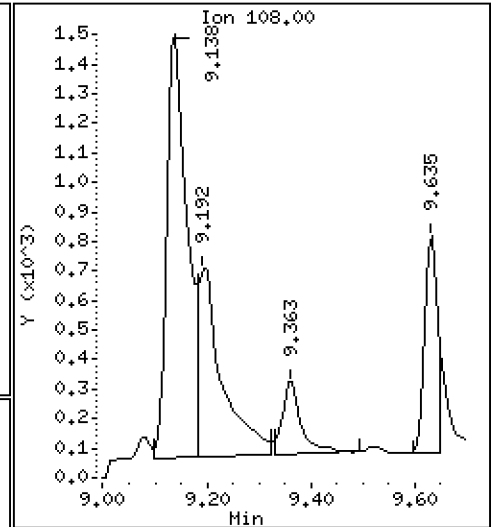
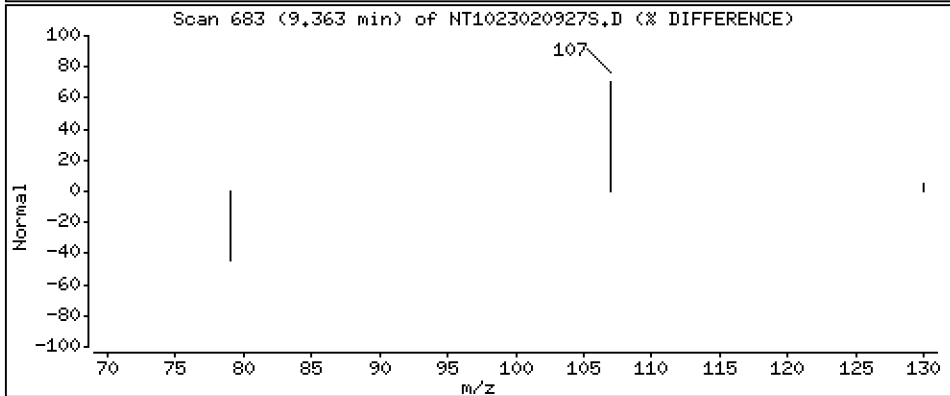
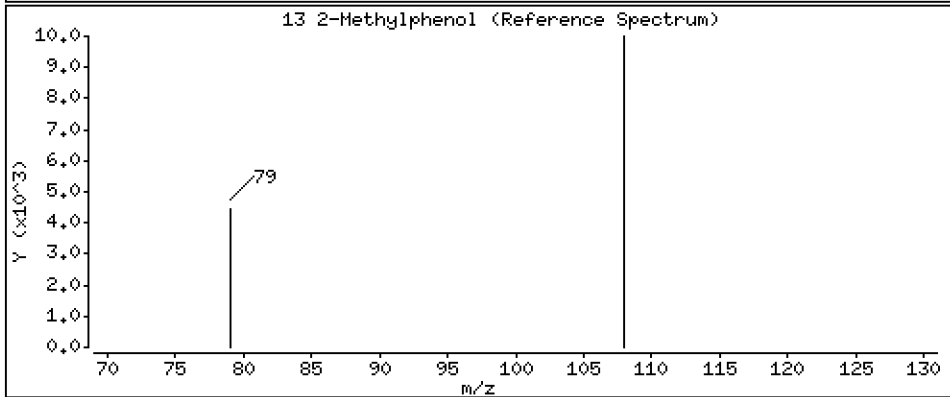
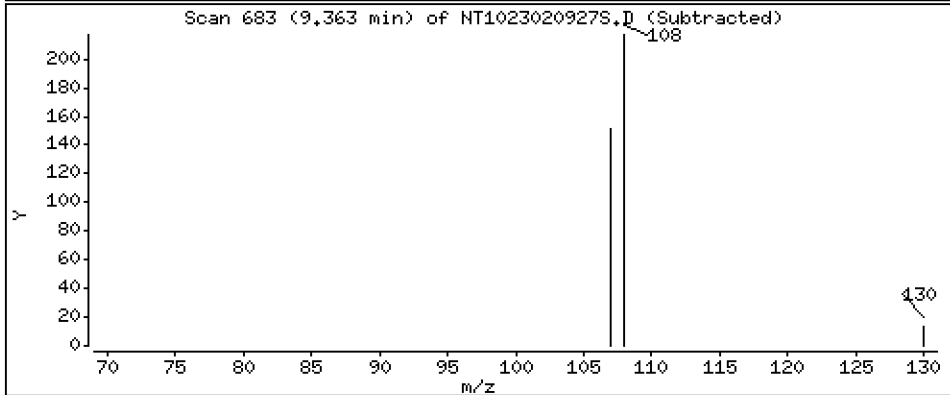
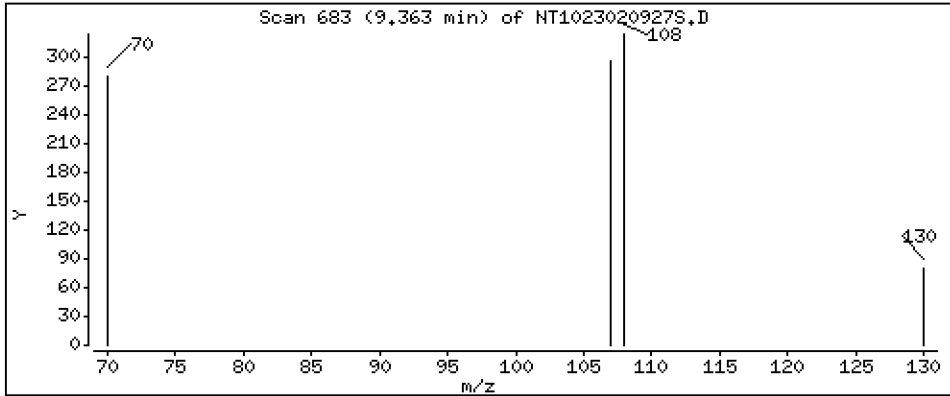
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.03603 ug/L



Date : 10-FEB-2023 05:37

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-11

Volume Injected (uL): 1.0

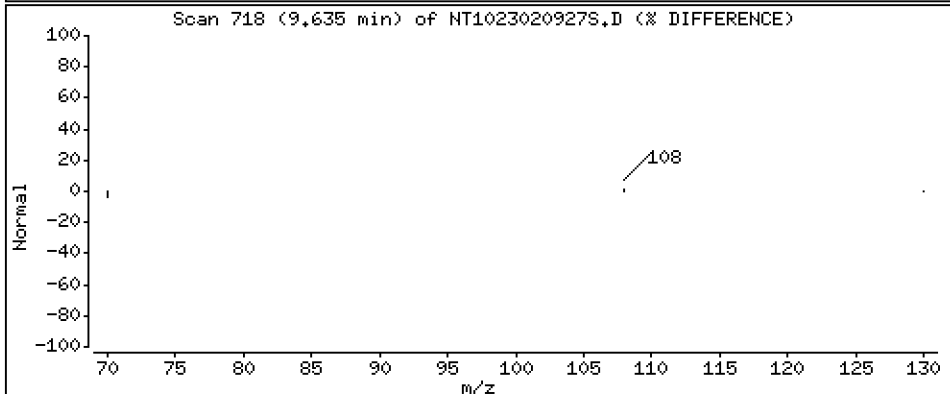
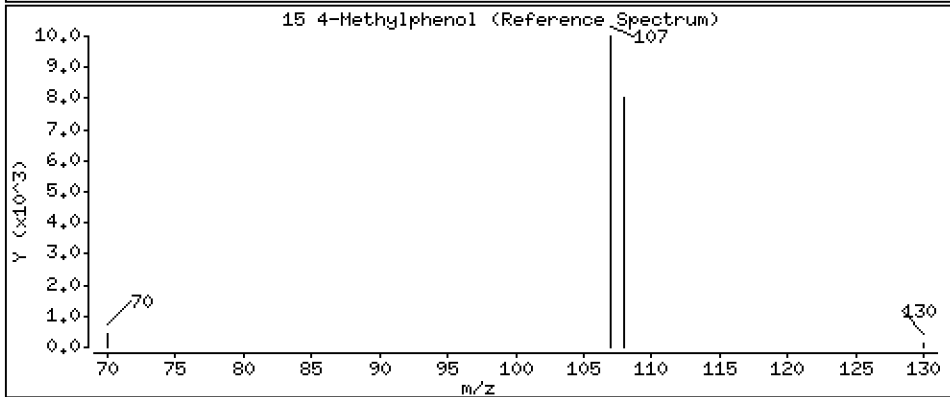
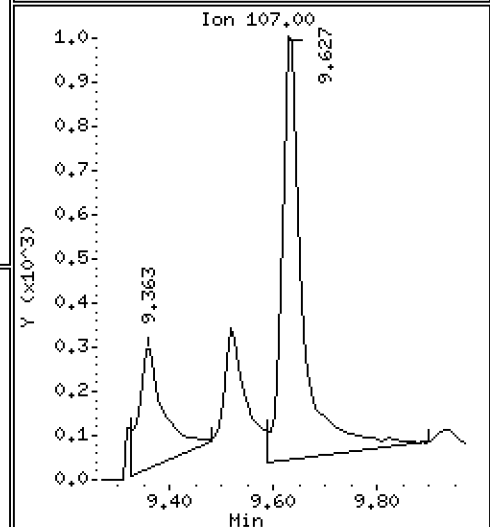
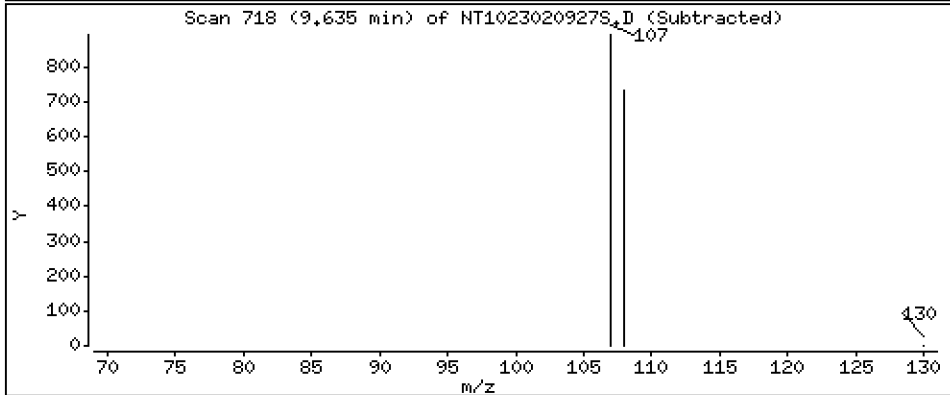
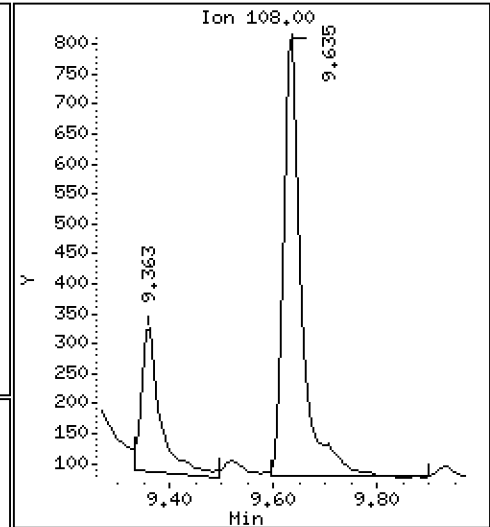
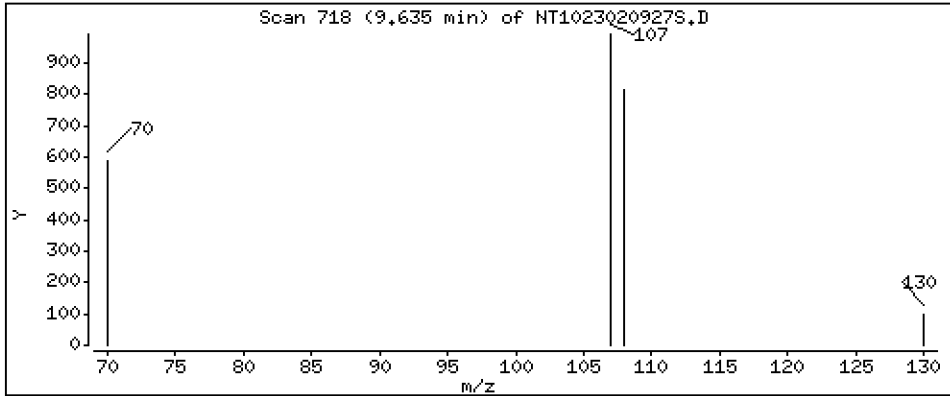
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.1019 ug/L



Date : 10-FEB-2023 05:37

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-11

Volume Injected (uL): 1.0

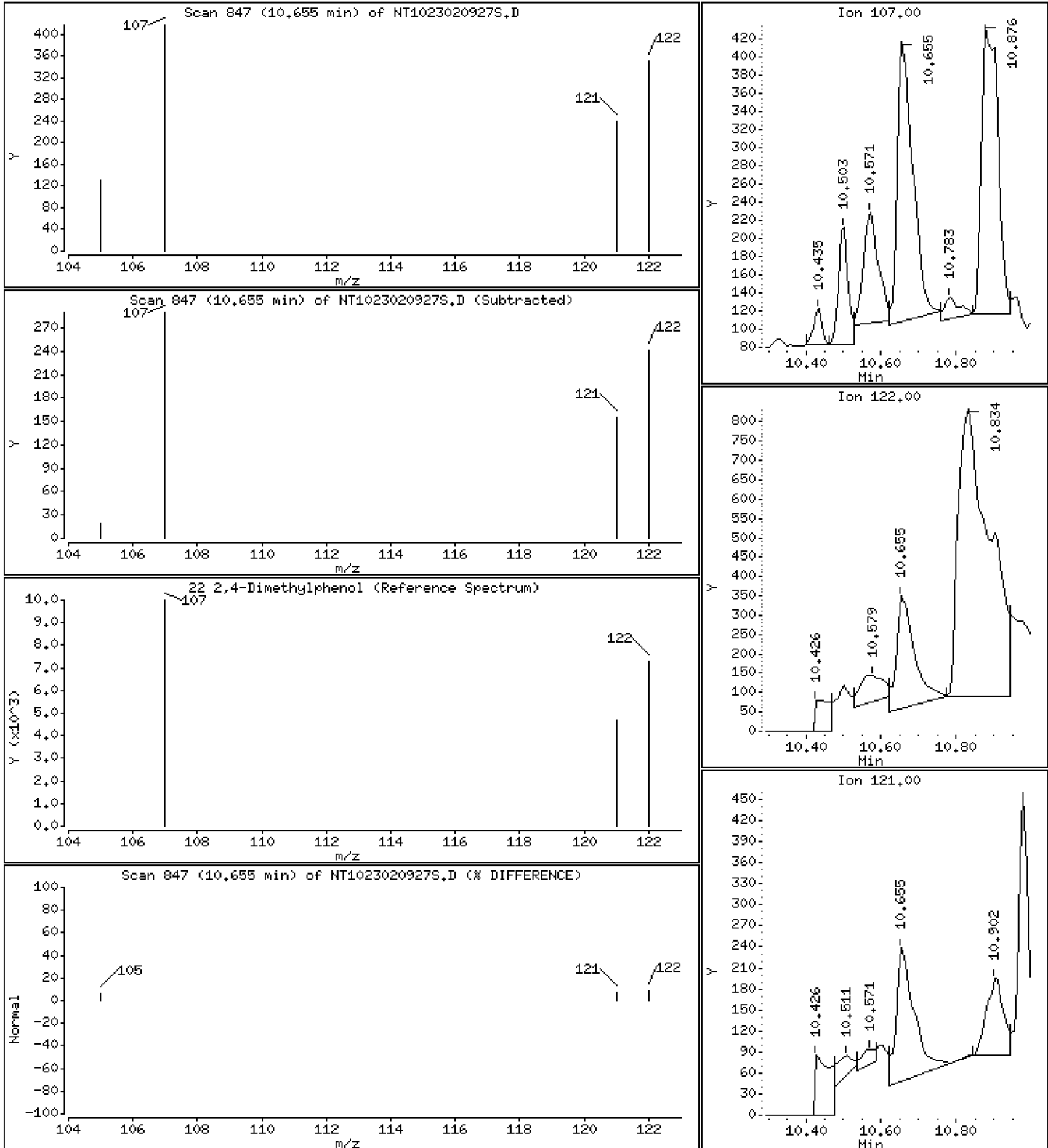
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 0.05035 ug/L



Date : 10-FEB-2023 05:37

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-11

Volume Injected (uL): 1.0

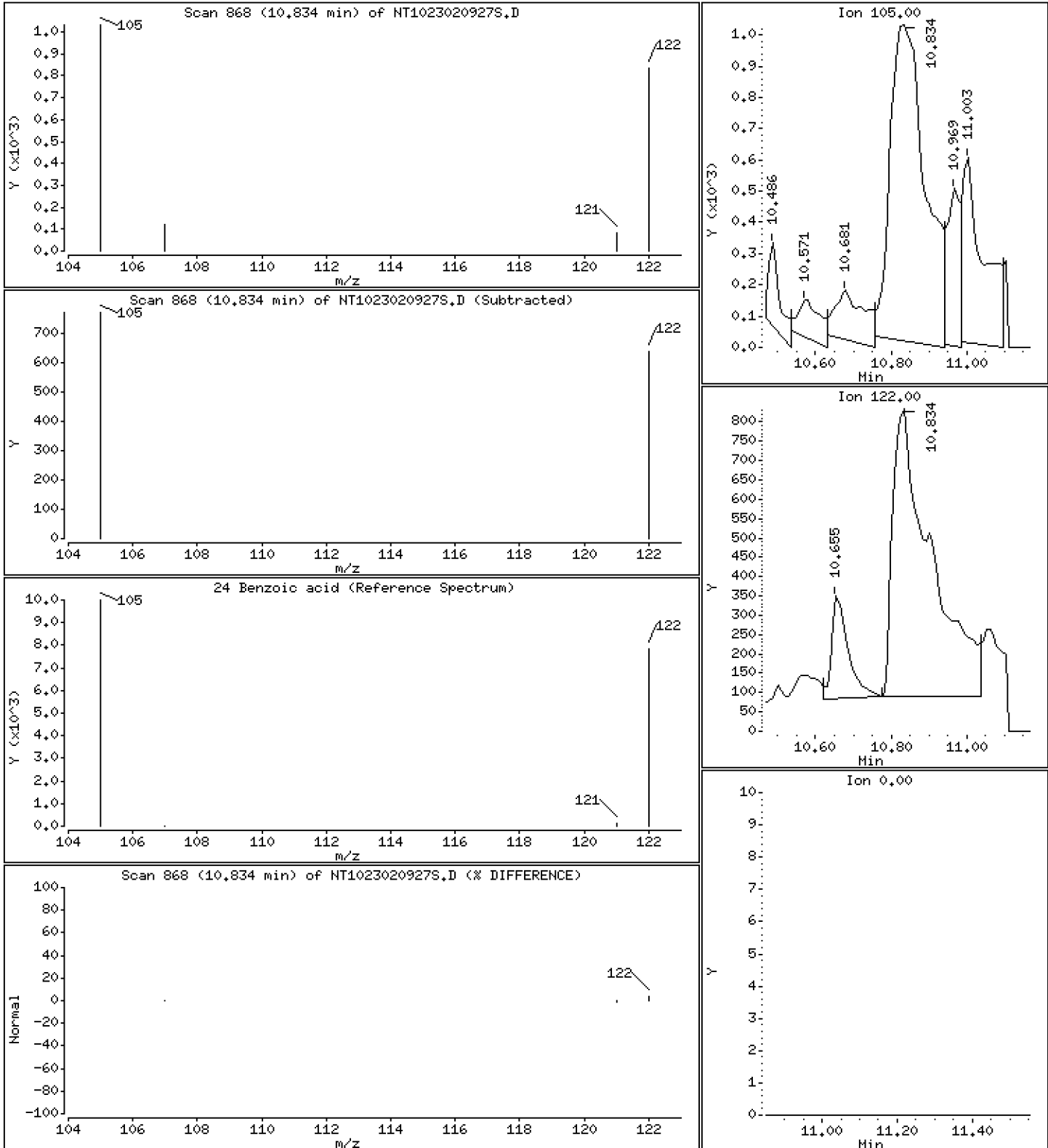
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.8225 ug/L



Date : 10-FEB-2023 05:37

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-11

Volume Injected (uL): 1.0

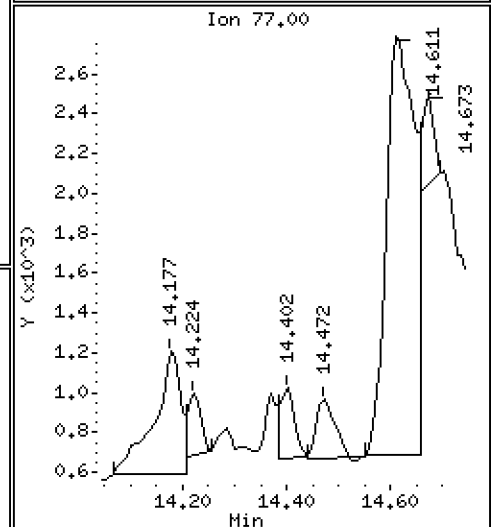
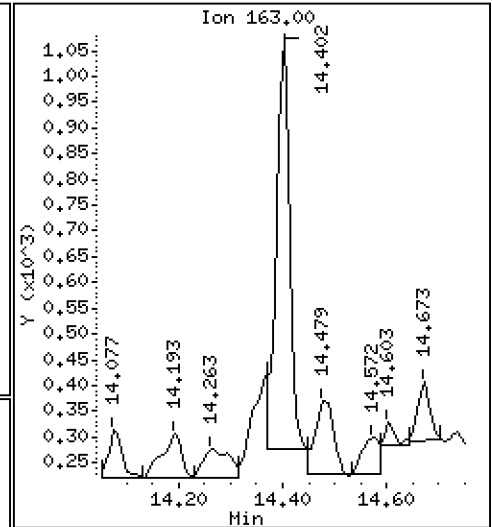
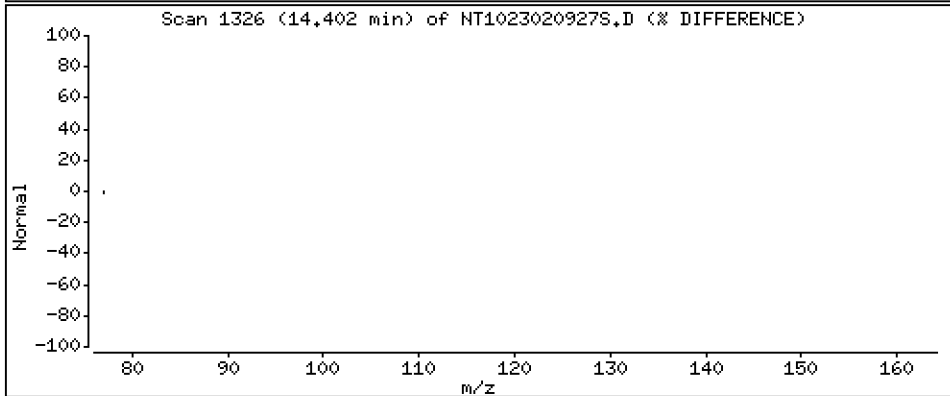
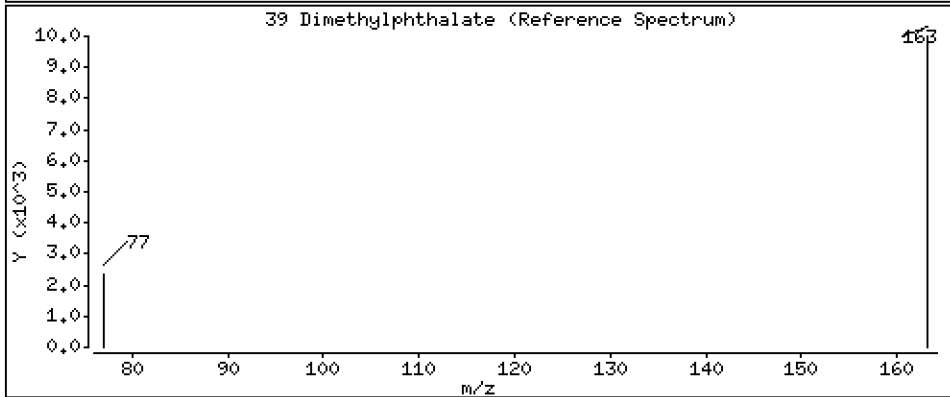
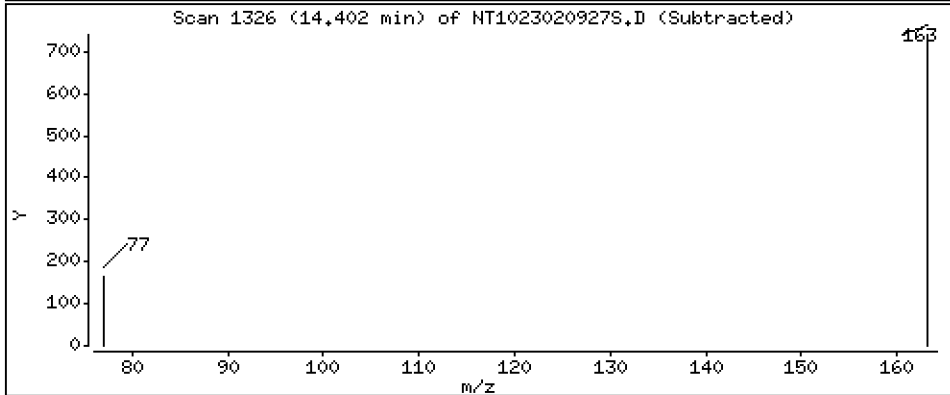
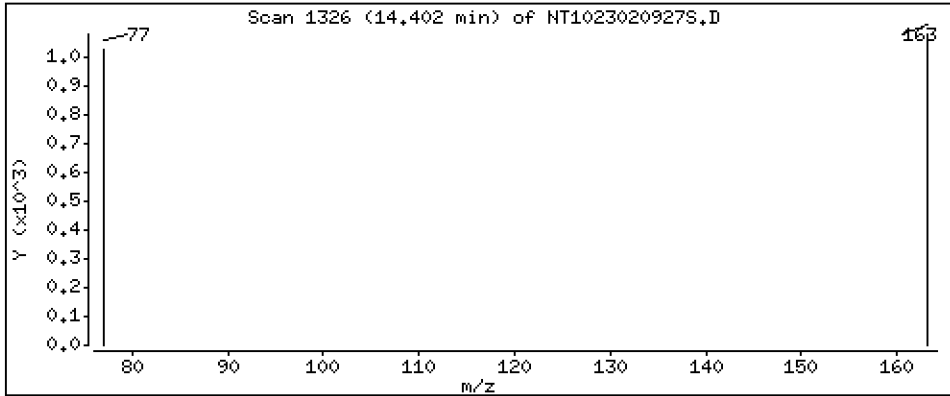
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 0.06352 ug/L



Date : 10-FEB-2023 05:37

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-11

Volume Injected (uL): 1.0

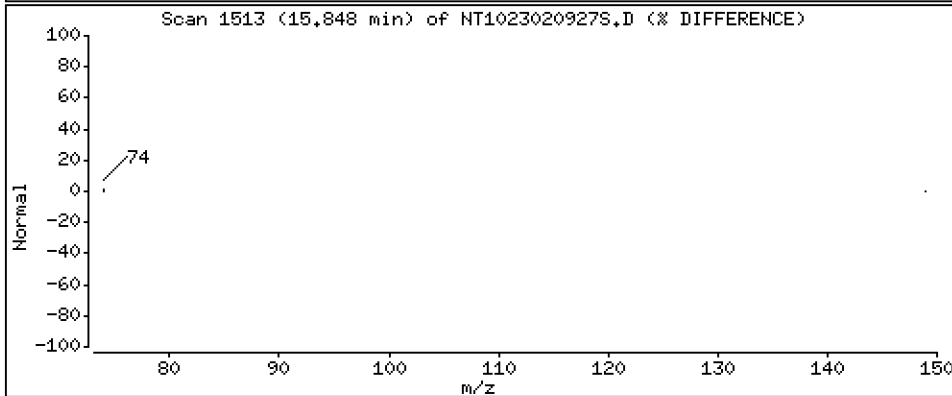
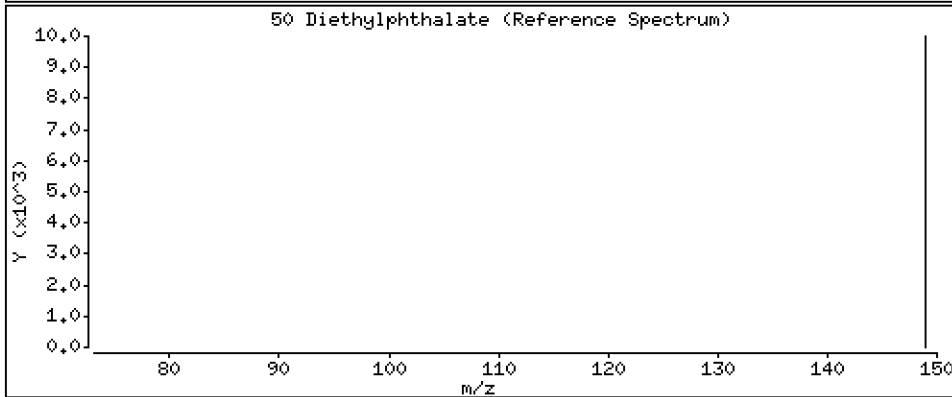
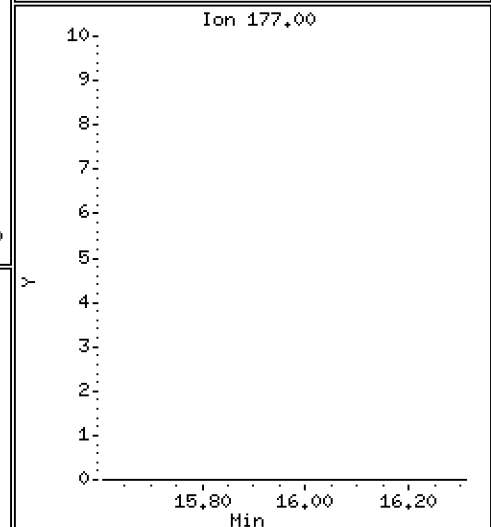
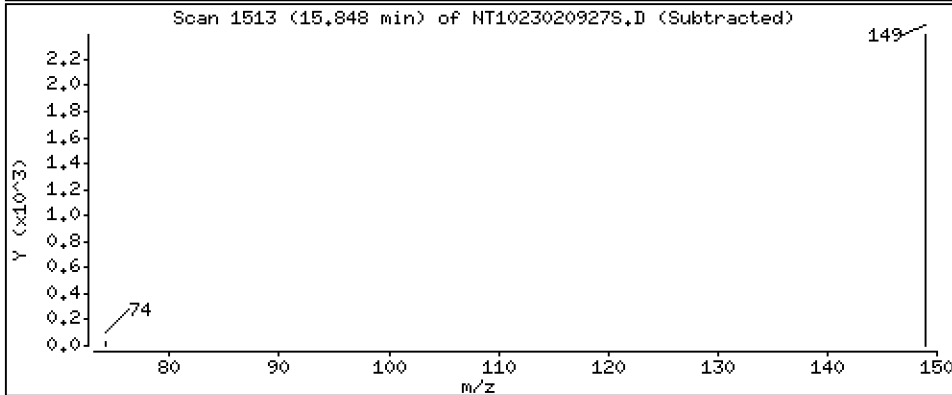
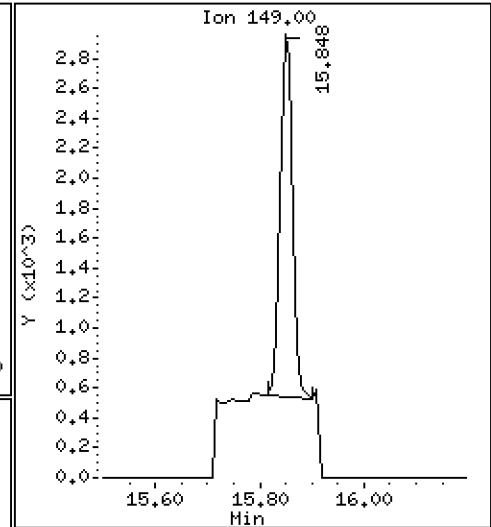
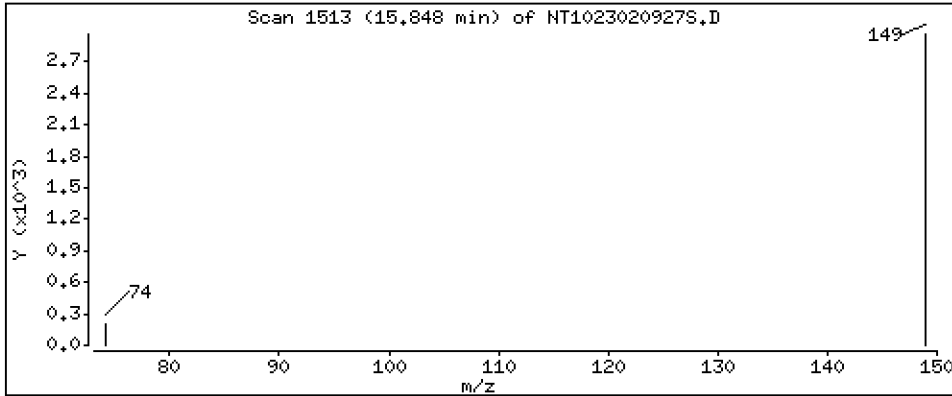
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,1185 ug/L



Date : 10-FEB-2023 05:37

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-11

Volume Injected (uL): 1.0

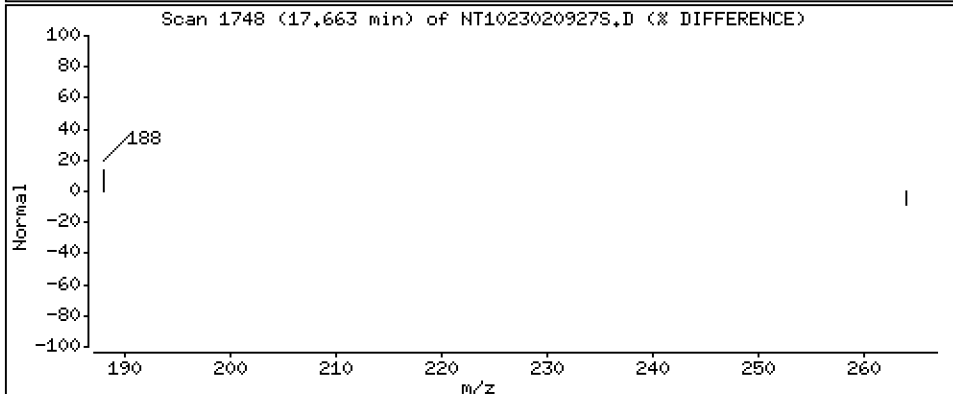
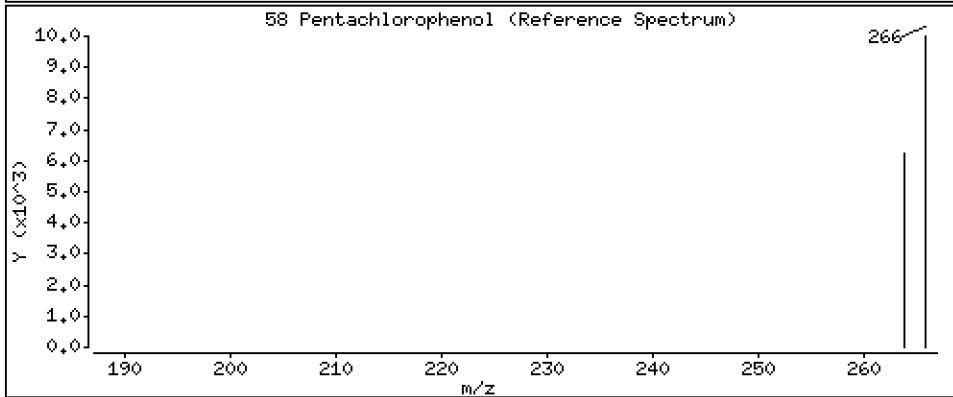
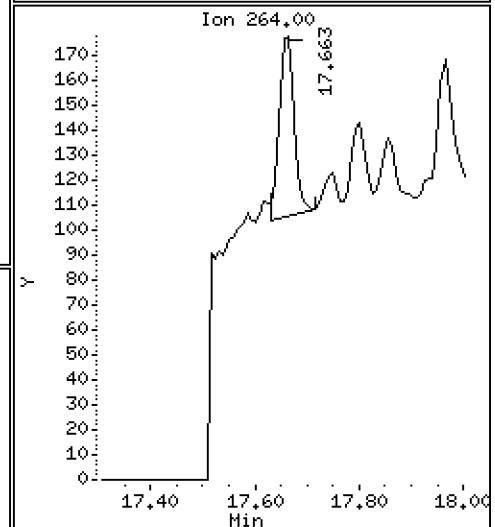
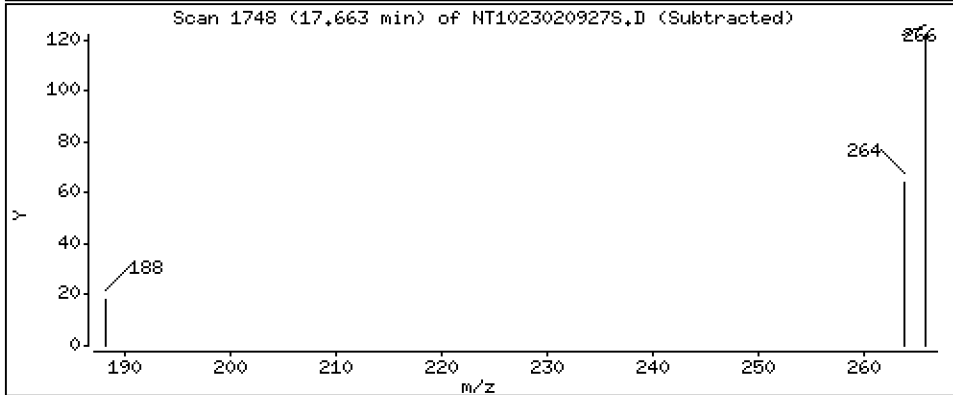
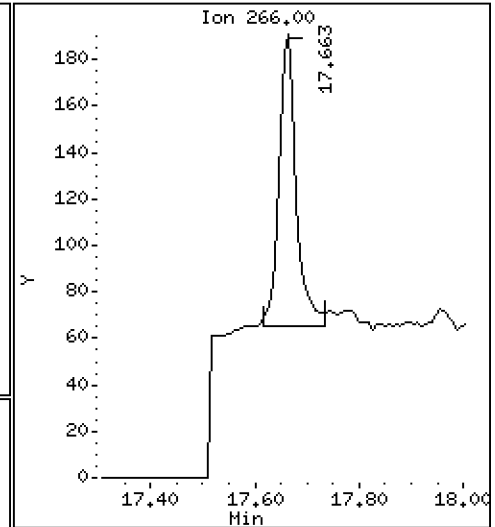
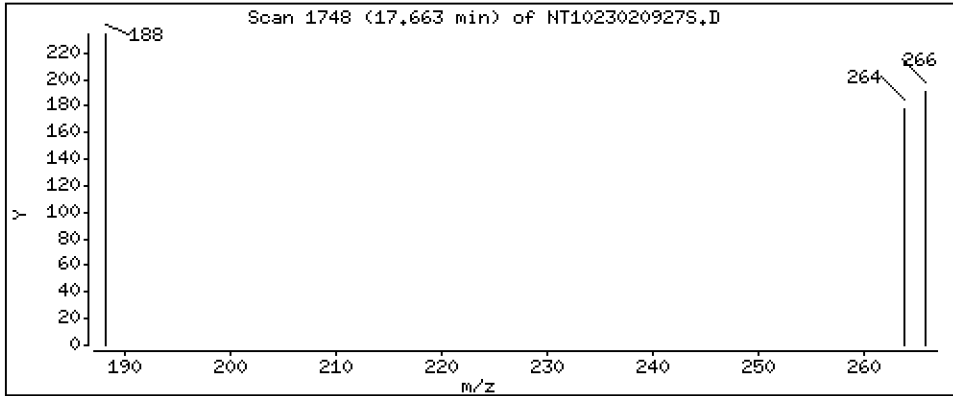
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,06803 ug/L



Date : 10-FEB-2023 05:37

Client ID:

Instrument: nt10.i

Sample Info: 23A0032-11

Volume Injected (uL): 1.0

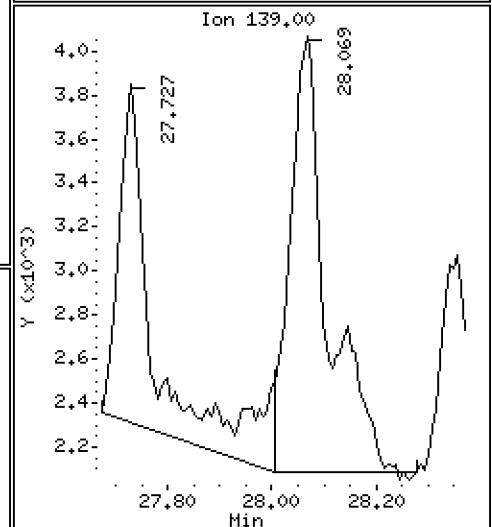
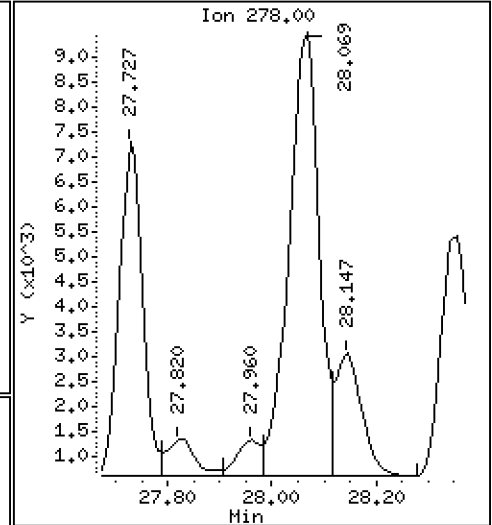
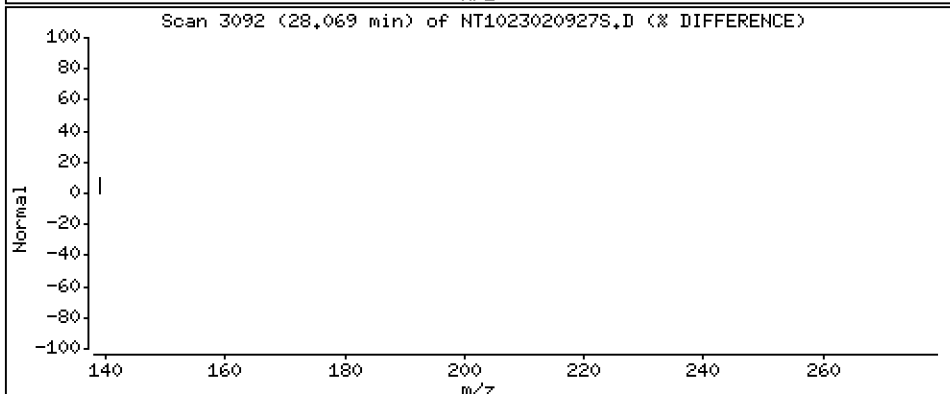
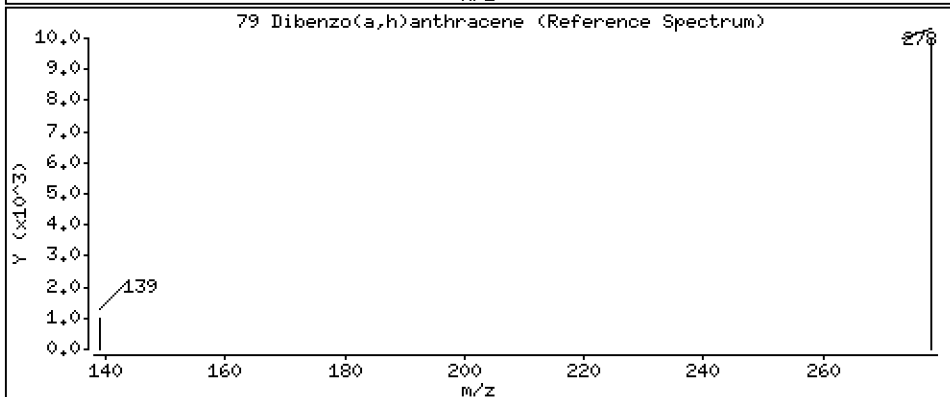
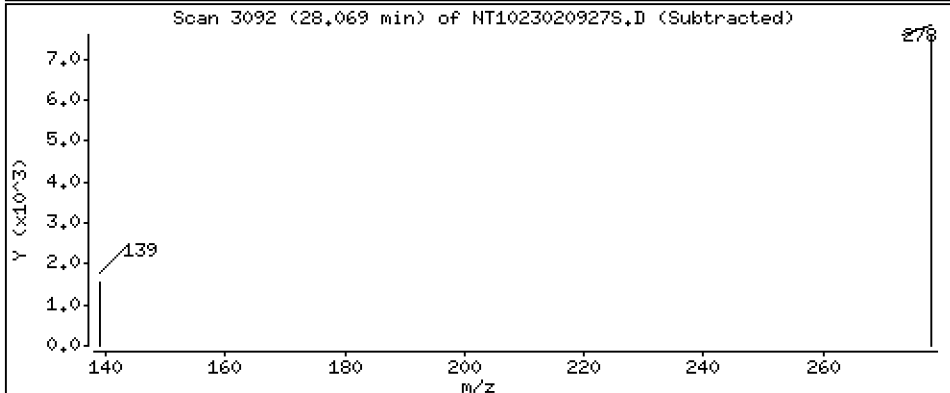
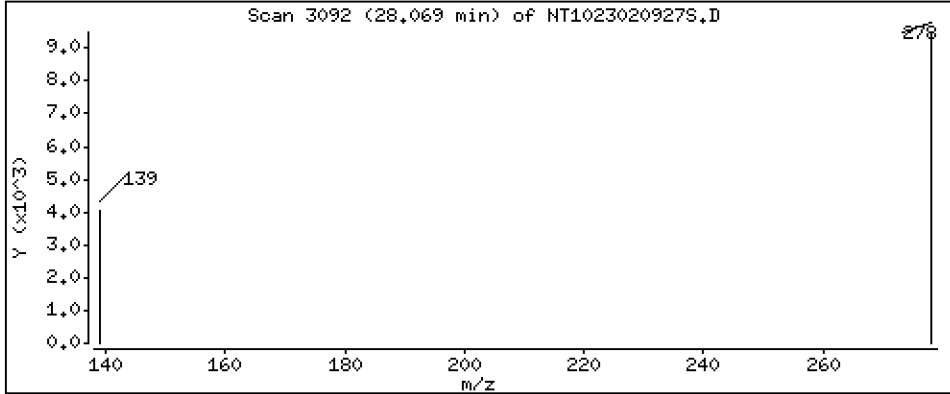
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,9246 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230209A.b\SIM.b\NT1023020927S.D
 Lab Smp Id: 23A0032-11
 Inj Date : 10-FEB-2023 05:37 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : 23A0032-11
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230209A.b\SIM.b\SIMABN2.m
 Meth Date : 12-Feb-2023 18:08 yev Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 23
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		6.671	6.663 (0.754)		92428	5.53850	5.539 (RM)
3 Phenol	94		8.255	8.255 (0.934)		20495	0.81446	0.8145
7 1,3-Dichlorobenzene	146		8.781	8.781 (0.993)		486	0.02145	0.02145 (M)
* 8 1,4-Dichlorobenzene-d4	152		8.843	8.843 (1.000)		54878	4.00000	
9 1,4-Dichlorobenzene	146		8.874	8.874 (1.004)		569	0.02568	0.02568 (M)
11 Benzyl alcohol	79					Compound Not Detected.		
12 1,2-Dichlorobenzene	146		9.223	9.223 (1.043)		79	0.00365	0.003653
13 2-Methylphenol	108		9.363	9.348 (1.059)		619	0.03603	0.03603
15 4-Methylphenol	108		9.634	9.619 (1.090)		1786	0.10193	0.1019
16 N-Nitroso-di-n-propylamine	70					Compound Not Detected.		
22 2,4-Dimethylphenol	107		10.655	10.647 (0.943)		885	0.05035	0.05035
24 Benzoic acid	105		10.833	10.817 (0.959)		6706	0.82246	0.8225
26 1,2,4-Trichlorobenzene	180					Compound Not Detected.		
* 27 Naphthalene-d8	136		11.298	11.299 (1.000)		200078	4.00000	
30 Hexachlorobutadiene	225					Compound Not Detected.		
39 Dimethylphthalate	163		14.401	14.402 (0.967)		1350	0.06352	0.06352
* 42 Acenaphthene-d10	162		14.889	14.882 (1.000)		91192	4.00000	
50 Diethylphthalate	149		15.848	15.848 (1.064)		3794	0.11853	0.1185 (M)
54 N-Nitrosodiphenylamine	169					Compound Not Detected.		
57 Hexachlorobenzene	284					Compound Not Detected.		

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		17.662	17.655	(0.986)	282	0.06803	0.06803 (M)
* 59 Phenanthrene-d10	188		17.910	17.903	(1.000)	169411	4.00000	
\$ 66 Terphenyl-d14	244		21.098	21.075	(0.917)	127345	4.28825	4.288 (R)
67 Butylbenzylphthalate	149		Compound Not Detected.					
* 69 Chrysene-d12	240		23.010	22.980	(1.000)	133789	4.00000	
* 77 Perylene-d12	264		25.550	25.511	(1.000)	141274	4.00000	
79 Dibenzo(a,h)anthracene	278		28.068	28.022	(1.099)	36606	0.92455	0.9246 (H)
90 N-Nitrosodimethylamine	74		Compound Not Detected.					

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020927S.D
 Lab Smp Id: 23A0032-11
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230209A.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 10-FEB-2023
 Calibration Time: 02:26
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	99878	49939	199756	54878	-45.05
27 Naphthalene-d8	353725	176863	707450	200078	-43.44
42 Acenaphthene-d10	168125	84063	336250	91192	-45.76
59 Phenanthrene-d10	295176	147588	590352	169411	-42.61
69 Chrysene-d12	264951	132476	529902	133789	-49.50
77 Perylene-d12	304147	152074	608294	141274	-53.55

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	-0.00
27 Naphthalene-d8	11.30	10.80	11.80	11.30	-0.00
42 Acenaphthene-d10	14.88	14.38	15.38	14.89	0.05
59 Phenanthrene-d10	17.90	17.40	18.40	17.91	0.04
69 Chrysene-d12	22.98	22.48	23.48	23.01	0.13
77 Perylene-d12	25.51	25.01	26.01	25.55	0.15

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020927S.D

Lab ID: 23A0032-11

nt10.i, 20230209A.b\SIM.b\SIMABN2.m, 10-FEB-2023 05:37

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: SIM.b/NT1023020922S.D

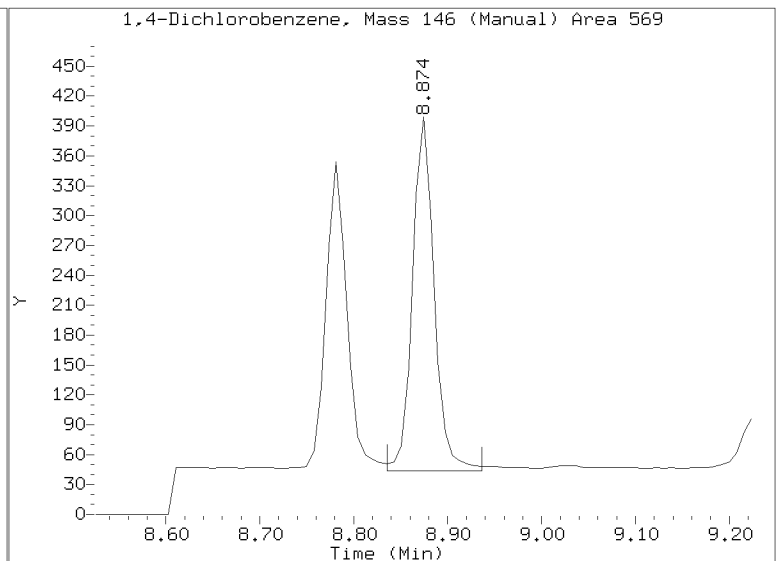
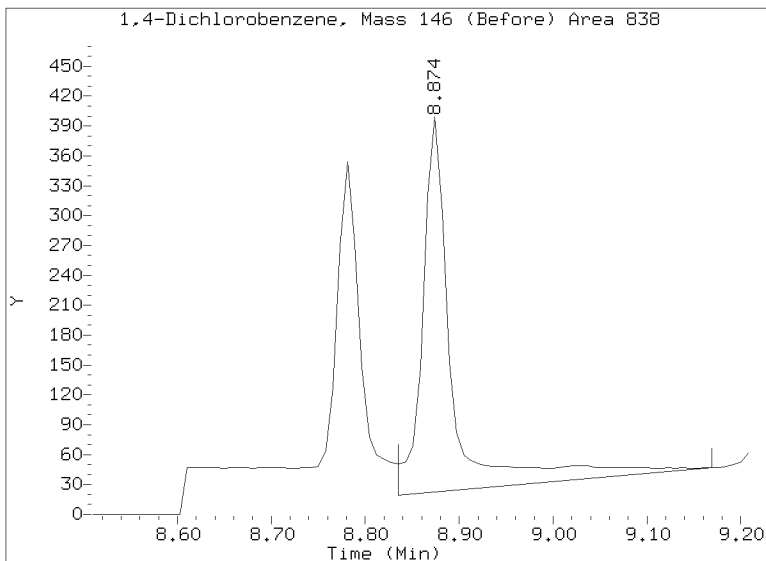
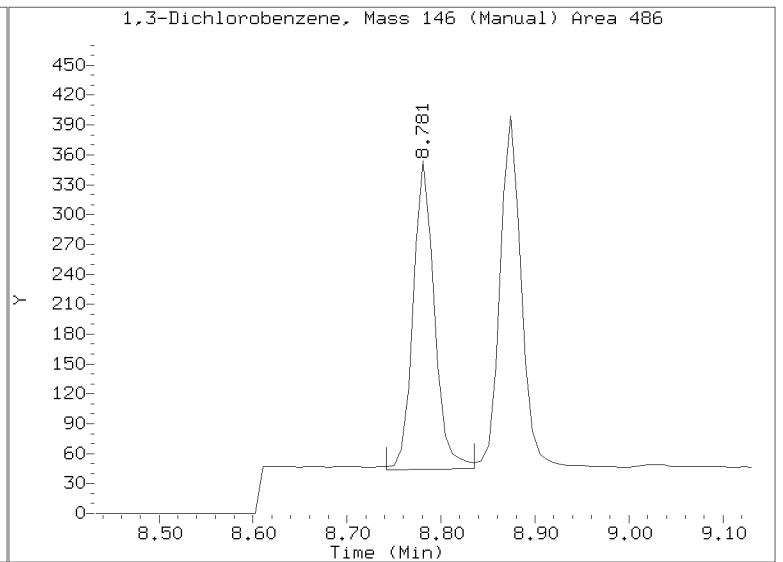
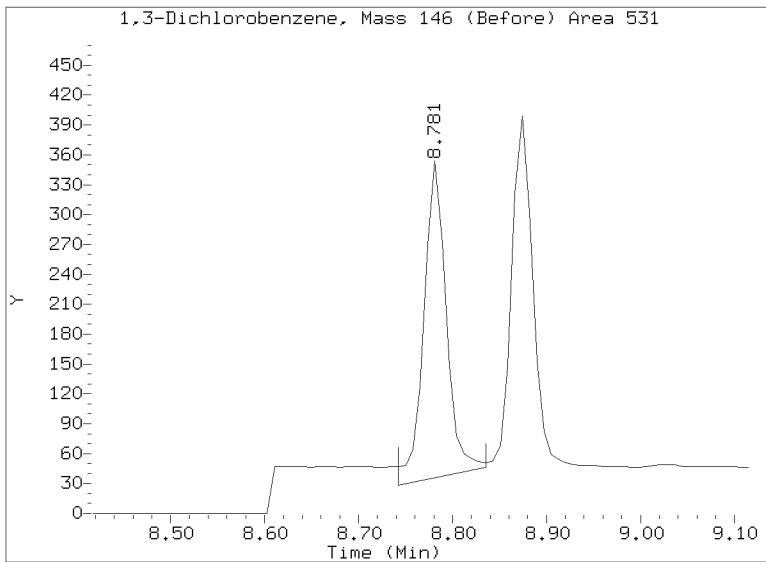
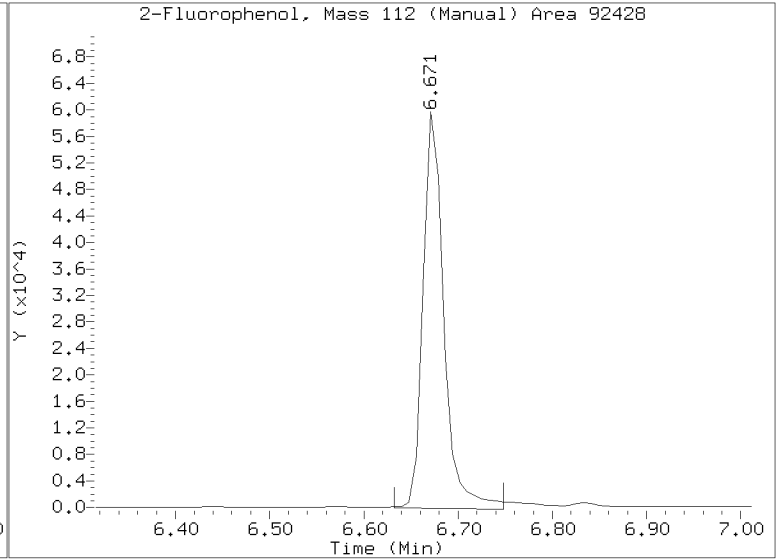
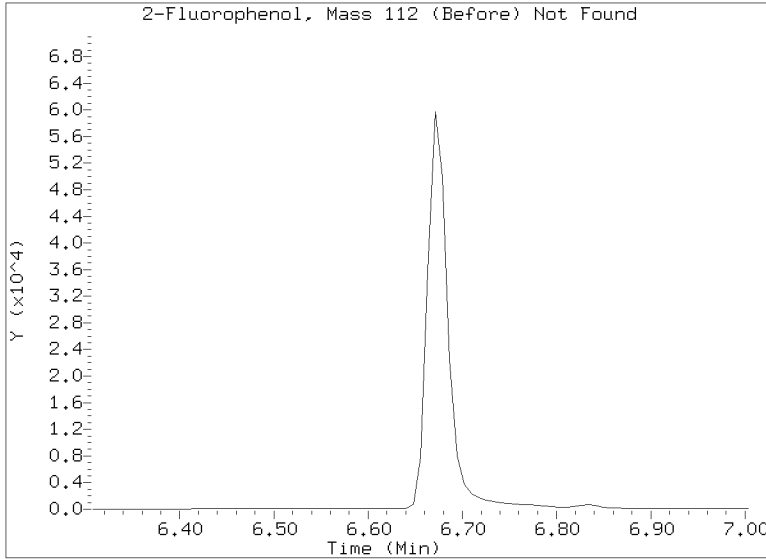
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

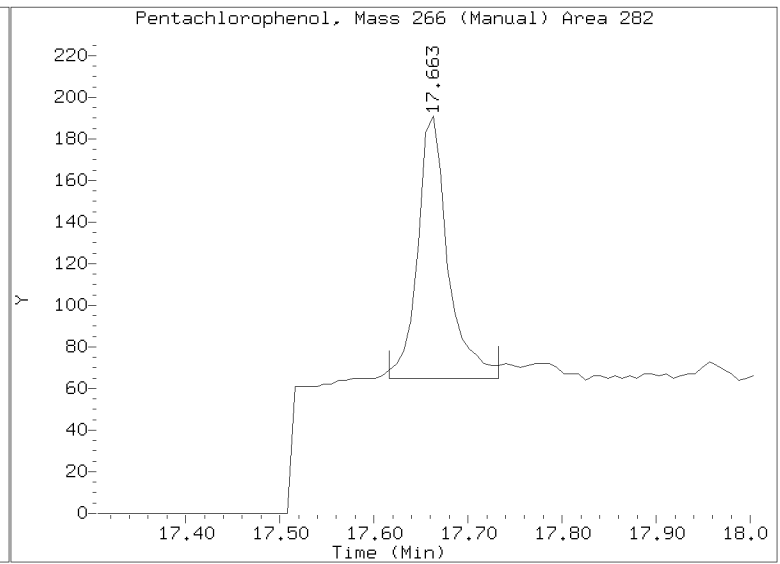
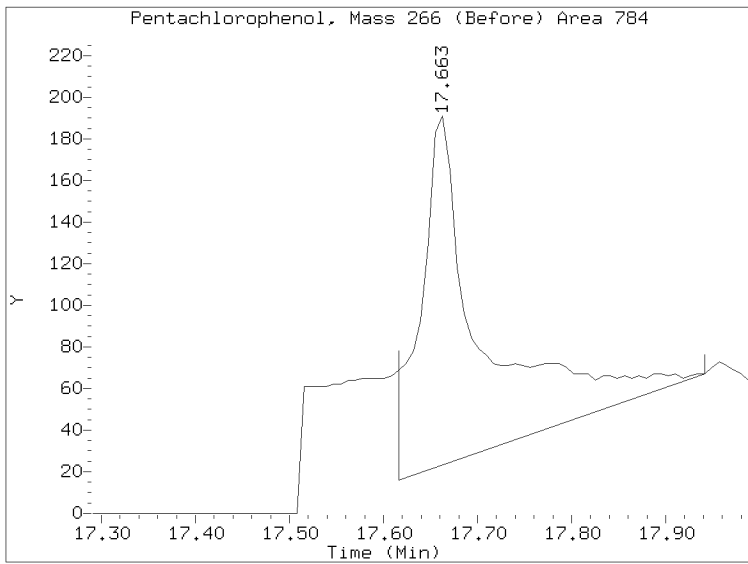
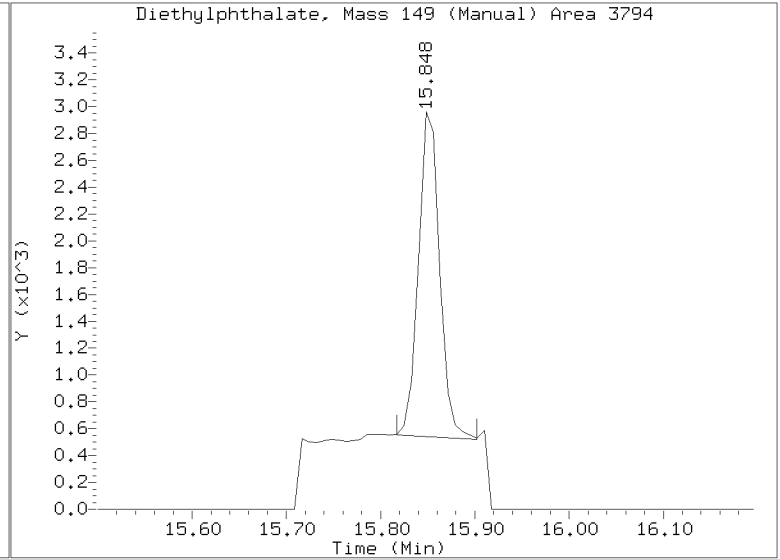
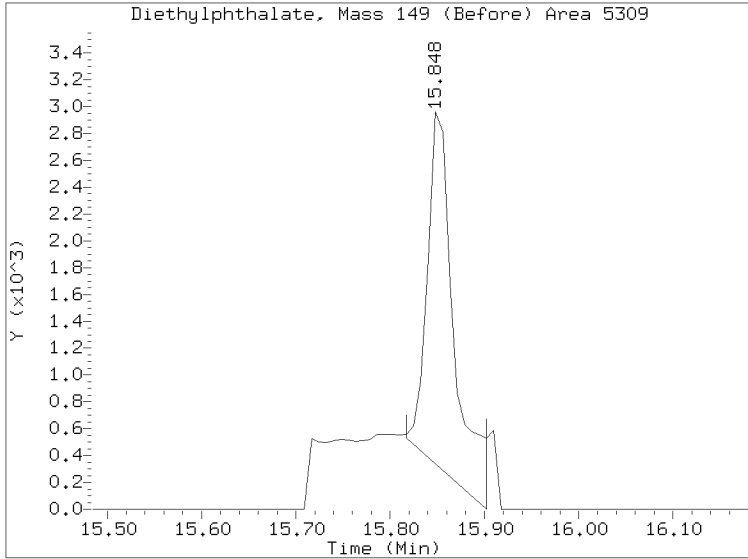
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209A.b/SIM.b/NT1023020927S.D
Injection Date: 10-FEB-2023 05:37
Lab ID:23A0032-11 Client ID:
Report Date: 02/12/2023 18:09



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209A.b/SIM.b/NT1023020927S.D
Injection Date: 10-FEB-2023 05:37
Lab ID:23A0032-11 Client ID:
Report Date: 02/12/2023 18:09





Batch: BLA0163

Prepared using: EPA 3546 (Microwave)

8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf) in Solid (Version:AOC4 List)

WO Comments
 23A0031: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
 <H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
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 <H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
 23A0087: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
 <H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Analysis: 8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf)

Lab Number & Container	% Solids	Initial (g)		(REQ) GPC C/U (1:1) 1 2 3	Water Wash 1mL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual					
23A0031-21 A	67.4	(14.85)	14.85	(1:1)	1mL	1	0.5	
23A0032-05 A	67.9	(14.73)	14.76	(1:1)	1mL	1	0.5	
23A0032-08 A	61.9	(16.16)	16.22	(1:1)	1mL	1	0.5	
23A0032-11 A	53.1	(18.85)	18.94	(1:1)	1mL	1	0.5	
23A0087-01 A	54.3	(18.42)	18.44	(1:1)	1mL	1	0.5	
23A0087-02 A	64.9	(15.40)	15.41	(1:1)	1mL	1	0.5	
23A0087-03 A	70.9	(14.10)	14.11	(1:1)	1mL	1	0.5	
23A0087-04 A	71.8	(13.92)	13.97	(1:1)	1mL	1	0.5	
23A0087-05 A	67.4	(14.84)	14.87	(1:1)	1mL	1	0.5	
23A0087-06 A	68.6	(14.59)	14.61	(1:1)	1mL	1	0.5	
23A0087-07 A	59.4	(16.84)	16.94	(1:1)	1mL	1	0.5	
23A0087-08 A	52.7	(18.99)	18.99	(1:1)	1mL	1	0.5	
23A0087-09 A	73.7	(13.57)	13.57	(1:1)	1mL	1	0.5	
23A0087-10 A	62.8	(15.93)	15.94	(1:1)	1mL	1	0.5	
23A0087-11 A	63.9	(15.65)	15.68	(1:1)	1mL	1	0.5	
23A0087-12 A	43.0	(23.24)	23.25	(1:1)	1mL	1	0.5	
23A0087-13 A	51.9	(19.27)	19.29	(1:1)	1mL	1	0.5	
23A0087-14 A	78.2	(12.79)	12.81	(1:1)	1mL	1	0.5	
23A0087-15 A	67.7	(14.77)	14.79	(1:1)	1mL	1	0.5	

Batch QC

Lab Number	% Solids	Initial (g)		(REQ) GPC C/U (1:1) 1 2 3	Water Wash 1mL	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual					
BLA0163-BLK1	100.0	(10.00)	10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLA0163-BS1	100.0	(10.00)	10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLA0163-BSD1	100.0	(10.00)	10.00	(1:1)	1mL	1	0.5	Use 5g Neutral Sodium Sulfate for Blanks
BLA0163-MS1	73.7	(13.57)	13.57	(1:1)	1mL	1	0.5	Use 23A0087-09
BLA0163-MSD1	73.7	(13.57)	13.57	(1:1)	1mL	1	0.5	Use 23A0087-09
BLA0163-SRM1	100.0	(10.00)	10.00	(1:1)	1mL	1	0.5	Use K003477

+1g DI WATER



Batch: BLA0163

Prepared using: EPA 3546 (Microwave)

8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf) in Solid (Version:AOC4 List)

Matrix: Solid

Date Prepared: 11/14/23

Balance ID: B146462614

Set Up By: CTO 1/9/22

WO Comments

23A0031: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
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<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

The following standards may be missing from this batch!

Designator	Description
39	Benzidine Spike
QLS 14	QLS Spike (Freezer)



Batch: BLA0163

Prepared using: EPA 3546 (Microwave)

8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf) in Solid (Version:AOC4 List)

WO Comments

23A0031: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E>
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[Signature]
Client ID Verified By

Date

NRB
Preparation Reviewed By

Date

01/14/23 11:20
Extraction Date and Time



Batch: BLA0163

Prepared using: EPA 3546 (Microwave)

8270E SVOC (20ug/kg solid or 0.2ug/L low H2O Sepf) in Solid (Version:AOC4 List)

WO Comments
 23A0031: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
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Prep Steps	Reagents Used	Surrogates & Spike Standards Used																																													
Microwave ① 2 3 Analyst/Date: <i>1/11/23</i>	Station/Reagent Microwave Analyst: <i>1/11/23</i> Date: <i>1/11/23</i> Anhydrous Sodium Sulfate <i>L000092</i> 1:1 Methylene Chloride/Acetone <i>K011507</i> Methylene Chloride <i>K007902</i> Pre-Deactivated Glass Wool <i>K01195</i>	<table border="1"> <thead> <tr> <th>Type</th> <th>Vial ID / Standard ID</th> <th>Vol uL</th> <th>Analyst</th> <th>Witness</th> </tr> </thead> <tbody> <tr> <td>Surrogate</td> <td>A K010466⁹²</td> <td>50µL</td> <td><i>CT</i></td> <td><i>2/1/23</i></td> </tr> <tr> <td>100/150µg/mL</td> <td>Exp Date: <i>5/9/2023</i></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Full List Spike (Freezer)</td> <td>7 K011369 (V)</td> <td>50µL</td> <td><i>CT</i></td> <td><i>2/1/23</i></td> </tr> <tr> <td>100µg/mL</td> <td>Exp Date: <i>8/31/2023</i></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Base Spike</td> <td>56 K011369 (V)</td> <td>50µL</td> <td><i>CT</i></td> <td><i>2/1/23</i></td> </tr> <tr> <td>200µg/mL</td> <td>Exp Date: <i>4/19/2023</i></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Acid Spike</td> <td>38 K011369 (V)</td> <td>50µL</td> <td><i>CT</i></td> <td><i>2/1/23</i></td> </tr> <tr> <td>100/200µg/mL</td> <td>Exp Date: <i>4/19/2023</i></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Type	Vial ID / Standard ID	Vol uL	Analyst	Witness	Surrogate	A K010466 ⁹²	50µL	<i>CT</i>	<i>2/1/23</i>	100/150µg/mL	Exp Date: <i>5/9/2023</i>				Full List Spike (Freezer)	7 K011369 (V)	50µL	<i>CT</i>	<i>2/1/23</i>	100µg/mL	Exp Date: <i>8/31/2023</i>				Base Spike	56 K011369 (V)	50µL	<i>CT</i>	<i>2/1/23</i>	200µg/mL	Exp Date: <i>4/19/2023</i>				Acid Spike	38 K011369 (V)	50µL	<i>CT</i>	<i>2/1/23</i>	100/200µg/mL	Exp Date: <i>4/19/2023</i>			
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Pre-GPC KD 100°C Exchange to Hexane (add 10 mL to KD) ② ④ ⑤ ⑥ Analyst/Date: <i>1-16-23</i>	Pre GPC KD Analyst: <i>AA</i> Date: <i>1-16-23</i> Pre-Deactivated Glass Wool <i>NA</i> Anhydrous Sodium Sulfate <i>NA</i>	<p>MANUALLY ENTER EXPIRATION DATES!</p> <p>(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.</p> <p>If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).</p>																																													
TurboVap Pre GPC 1 2 3 ④ 5 Analyst/Date: <i>1/18/23</i>	Anhydrous Sodium Sulfate <i>NA</i> Methylene Chloride <i>K007902</i> Hexane <i>K008310</i> GPC Filter Prep Analyst: <i>TWC</i> Date: <i>1/18/23</i>																																														
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TurboVap 1 2 3 ④ 5 Analyst/Date: <i>1/20/23</i>	GPC Calibration File <i>CLA00086-GR1</i> Post GPC KD Analyst: <i>WJ</i> Date: <i>1/19/23</i> Methylene Chloride <i>K005942</i>																																														
Water Wash Analyst/Date: <i>1/20/23</i>	Vialing Analyst: <i>NRB</i> Date: <i>1/20/23</i> Methylene Chloride <i>K005942</i>																																														



WO Comments

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<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Instructions

SPECIAL INSTRUCTIONS:

1. Weigh into beakers-lightly dry with Sodium Sulfate.
2. Transfer to microwave vessel.
3. Add DCM ONLY to the vessels (until solvent is 3 inches above soil layer after homogenization).
4. Add surr/spike.
5. Microwave on appropriate power setting determined by # of samples.
6. After microwave-re-homogenize while hot then let cool 10-15 min in Refridgerator 05. Re-homogenize while cool.
7. Decant DCM into Erlenmeyer flask with a funnel containing pre-deactivated glasswool.
8. Rinse with DCM
9. Microwave a 2nd time using 1:1 DCM/ACE.
10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM.
11. KD: Add 10 mL Hexane directly to extract in the KD.
12. GPC REQUIRED 100°C water bath (CLP) KD to 5mL.
13. Vialers to take 1:5 Split Pre- GPC.
14. (After GPC): KD at 80°C.
15. TurboVap to 1mL in DCM.
16. WATER WASH REQUIRED:
 - 16a. Vial 1mL of all extracts in 2mL amber vials in DCM.
 - 16b. Add ~0.5mL DI water and vortex for ~5 seconds each.
 - 16c. Centrifuge extracts for 5 minutes at 1500-2000rpm.
 - 16d. Transfer and vial 0.5mL to new 2mL amber vials (Avoiding collecting water in syringe and cleaning syringe with Acetone and DCM between each vial).
17. Archive water wahed vials and deliever new vials to GC Department for analysis.

A. Need Total Solids Y N

B. Archive/Freeze Y N



Extraction Parameter: SVOA Extraction Batch BLA0163

Total Solids Batch: BLA0149 Work Order(s): 23A0087

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>φ1-15.</u>	<u>4/6/23</u> <u>φ1/φ6/23</u>
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= <u>φ1-φ6, φ8-15.</u>	<u>φ1/φ6/23</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y/N <u>N</u>	<u>φ1/φ6/23</u>
<input checked="" type="checkbox"/> Multiple Jars Y/N <u>N</u>	<u>φ1/φ6/23</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



Extraction Parameter: Sr0A Extraction Batch BLA063

Total Solids Batch: BLA0096 Work Order(s): 23A0031 01-21

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= 01-07, 09-21	CR 1/6/2023
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= 01-21	CR 1/6/2023
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input checked="" type="checkbox"/> Previously Frozen = 01-21	CR 1/6/2023
<input checked="" type="checkbox"/> Other (Details)= 08 contains chunks of plastic like material	CR 1/6/2023
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / (N)	CR 1/6/2023
<input checked="" type="checkbox"/> Multiple Jars Y / (N)	CR 1/6/2023
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



Extraction Parameter: SWA Extraction Batch BLA0163

Total Solids Batch: BLA0147 Work Order(s): 23A0032

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>φ1, φ4, φ6, φ7.</u>	<u>N</u> <u>φ1/φ7/23</u>
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= <u>φ1, φ2, φ3, φ5, φ7, φ8, 11.</u>	<u>N</u> <u>φ1/φ7/23</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	<u>N</u>
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input checked="" type="checkbox"/> Rocks (%+size)? <u>φ11 = 10.φ⁰ = φ2, φ3.</u>	<u>N</u> <u>φ1/φ7/23</u>
<input checked="" type="checkbox"/> Organics (Leaves/sticks/grass)= <u>5.φ⁰ = φ5</u>	<u>N</u> <u>φ1/φ7/23</u>
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors= <u>φ8, φ9, 1φ, 11.</u>	<u>N</u> <u>φ1/φ7/23</u>
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	<u>N</u>
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / N	<u>N</u> <u>φ1/φ7/23</u>
<input checked="" type="checkbox"/> Multiple Jars Y / N	<u>N</u> <u>φ1/φ7/23</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	<u>N</u>
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



PREPARATION BATCH SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC SDG: 23A0032
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Batch: BLA0171 Batch Matrix: Solid Preparation: EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1246	23A0032-01	N823011917.D	01/11/23 11:45	
LDW23-IT1264	23A0032-02	N823011918.D	01/11/23 11:45	
LDW23-IT1264	23A0032-02RE1	N823011925.D	01/11/23 11:45	Added 1/19/2023 by JZ
LDW23-IT1269	23A0032-03	N823011919.D	01/11/23 11:45	
LDW23-IT1272	23A0032-04	N823011920.D	01/11/23 11:45	
LDW23-IT1235	23A0032-06	N823011921.D	01/11/23 11:45	
LDW23-IT1202	23A0032-07	N823011924.D	01/11/23 11:45	
Blank	BLA0171-BLK1	N823011913.D	01/11/23 11:45	
LCS	BLA0171-BS1	N823011914.D	01/11/23 11:45	
LCS Dup	BLA0171-BSD1	N823011915.D	01/11/23 11:45	
LDW23-IT1235	BLA0171-MS1	N823011922.D	01/11/23 11:45	
LDW23-IT1235	BLA0171-MSD1	N823011923.D	01/11/23 11:45	
Reference	BLA0171-SRM1	N823011916.D	01/11/23 11:45	



Batch: BLA0171

Prepared using: EPA 3546 (Microwave)

8270E-SIM PAH (0.1ug/L or 5ug/kg) in Solid (Version:AOC4 cPAH)

Matrix: Solid

Date Prepared: 11/11/23

Balance ID: 3146462614

Set Up By: CTB 11/11/23

WO Comments

23A0032: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

The following standards may be missing from this batch!

Designator	Description
QLS 4	QLS 4

Analysis: 8270E-SIM PAH (0.1ug/L or 5ug/kg)

Lab Number & Container	% Solids	Initial (g)		(REQ/Opt)	(REQ/Opt)	(REQ/Opt)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual	GPC C/U (1:1)	Sulfur C/U (1:1) Y/N (Transfer Rinse)	Silica Gel C/U (1:1) Y/N			
23A0032-01 A	58.4	(17.12)	<u>17.13</u>	(1:1) Y/N	(1:1) Y/N	(1:1) Y/N	0.5	0.5	
23A0032-02 A	61.5	(16.26)	<u>16.28</u>	(1:1) Y/N	(1:1) Y/N	(1:1) Y/N	0.5	0.5	
23A0032-03 A	65.3	(15.32)	<u>15.37</u>	(1:1) Y/N	(1:1) Y/N	(1:1) Y/N	0.5	0.5	
23A0032-04 A	80.1	(12.48)	<u>12.49</u>	(1:1) Y/N	(1:1) Y/N	(1:1) Y/N	0.5	0.5	
23A0032-06 A	74.2	(13.48)	<u>13.48</u>	(1:1) Y/N	(1:1) Y/N	(1:1) Y/N	0.5	0.5	
23A0032-07 A	63.7	(15.70)	<u>15.79</u>	(1:1) Y/N	(1:1) Y/N	(1:1) Y/N	0.5	0.5	

Batch QC

Lab Number	% Solids	Initial (g)		(REQ/Opt)	(REQ/Opt)	(REQ/Opt)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual	GPC C/U (1:1)	Sulfur C/U (1:1) Y/N (Transfer Rinse)	Silica Gel C/U (1:1) Y/N			
BLA0171-BLK1	100.0	(10.00)	<u>10.00</u>	(1:1) Y/N	(1:1) Y/N	(1:1) Y/N	0.5	0.5	
BLA0171-BS1	100.0	(10.00)	<u>10.00</u>	(1:1) Y/N	(1:1) Y/N	(1:1) Y/N	0.5	0.5	
BLA0171-BSD1	100.0	(10.00)	<u>10.00</u>	(1:1) Y/N	(1:1) Y/N	(1:1) Y/N	0.5	0.5	
BLA0171-MS1	74.2	(13.48)	<u>13.48</u>	(1:1) Y/N	(1:1) Y/N	(1:1) Y/N	0.5	0.5	Use 23A0032-06
BLA0171-MSD1	74.2	(13.48)	<u>13.48</u>	(1:1) Y/N	(1:1) Y/N	(1:1) Y/N	0.5	0.5	Use 23A0032-06
BLA0171-SRM1	100.0	(10.00) ^(5.00)	<u>5.00</u>	(1:1) Y/N	(1:1) Y/N	(1:1) Y/N	0.5	0.5	Use L000097

+1g DI WATER

Client Verified By: 11/11/23

Date

Preparation Reviewed By: CTB

Date

11/11/23

Date

11/11/23

Extraction Date and Time

11:45



Batch: BLA0171

Prepared using: EPA 3546 (Microwave)

8270E-SIM PAH (0.1ug/L or 5ug/kg) in Solid (Version:AOC4 cPAH)

WO Comments

23A0032: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Steps

Reagents Used

Surrogates & Spike Standards Used

Prep Steps	Station/Reagent	Standard ID
Microwave 1 2 3 OR 11/11/23 Analyst/Date	Microwave	
	Analyst: OR/df Date: 11/11/23	
Pre-GPC KD 100°C (No Exchange) 1 2 3 4 5 6 CP 11/12/23 Analyst/Date	Pre-Deactivated Glass Wool	K011195
	Anhydrous Sodium Sulfate	L000492
	1:1 Methylene Chloride/Acetone	K011507
	Methylene Chloride	K005942
Pre GPC TurboVap 1 2 3 4 SH 11/13/23 Analyst/Date	Pre GPC KD	
	Analyst: CP Date: 11/12/23	
GPC 1 2 3 SH 11/13/23 Analyst/Date	Methylene Chloride	K005942
	Hexane	K011373
Post-GPC KD 80°C Hexane Exchange 2 x 20 mL 100°C 0 1 2 4 5 6 TWC 11/14/23 Analyst/Date	GPC Filter Prep	
	Analyst: SH Date: 11/13/23	
Pre-Cleanup TurboVap 1 2 3 4 CP 11/16/23 Analyst/Date	Methylene Chloride	
	GPC	
Post-Cleanup TurboVap 1 2 3 4 CP 11/16/23 Analyst/Date	Analyst: SH Date: 11/13/23	
	Methylene Chloride	L005157
Vialing CP 11/16/23 Analyst/Date	GPC Calibration File	CL00086-GPC1
	Post GPC KD	
Vialing CP 11/16/23 Analyst/Date	Analyst: TWC Date: 11/14/23	
	Methylene Chloride	K005157
Vialing CP 11/16/23 Analyst/Date	Hexane	K008314
	Hexane	K008314
Vialing CP 11/16/23 Analyst/Date	Methylene Chloride	K005152
	Silica Gel (SPE) darts	K011573
Vialing CP 11/16/23 Analyst/Date	Sodium Sulfite	N/A
	Tetrabutylammonium hydrogensulfate (TBAS)	N/A

Type	Vial ID / Standard-ID	Vol uL	Analyst	Witness
Surrogate	B K009860	100uL	OR	df
15/75ug/mL	Exp Date: 9/28/23			
Spike	15 K009081	200uL	OR	df
15/75ug/mL	Exp Date: 8/4/23			

MANUALLY ENTER EXPIRATION DATES!

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).



Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0171

Prepared using: EPA 3546 (Microwave)
8270E-SIM PAH (0.1ug/L or 5ug/kg) in Solid (Version:AOC4 cPAH)

WO Comments

23A0032: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43,
7935-36, K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)



Batch: BLA0171

Prepared using: EPA 3546 (Microwave)
8270E-SIM PAH (0.1ug/L or 5ug/kg) in Solid (Version:AOC4 cPAH)

WO Comments
23A0032: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36,K011477-79, MS/MSD </E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Instructions	
<p>SPECIAL INSTRUCTIONS:</p> <ol style="list-style-type: none"> 1. Weigh into beakers-lightly dry with Sodium Sulfate. 2. Transfer to microwave vessel. 3. Add DCM ONLY to the vessels (until solvent is 3 inches above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-re-homogenize while hot then let cool 10-15 min in Refrigerator 05. Re-homogenize while cool. 7. Decant DCM into Erlenmeyer flask with a funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using 1:1 DCM/ACE. 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM. 11. If GPC is Req add 10mL Hexane and KD to 5mL at 100°C (NO EXCHANGE) 12. If GPC is NOT Req = KD to 5mL at 100°C. Exchange to Hexane (2X with 10mL) to 5mL at 100°C. 13. TurboVap. 14. If no GPC then Sulfur clean is REQUIRED. 15. Sulfur clean = Hexane transfer rinse. 16. Silica Clean-up Any Color=REQ (All or none). 17. TurboVap 18. Vial in DCM. <p>A. Need Total Solids Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>B. Archive/Freeze <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</p>	



Extraction Parameter: SM PAH
PCB
CFO 1/9/22

Extraction Batch: BLA0171
BLA0165
CFO 1/9/22

Total Solids Batch: BLA0147 Work Order(s): 23A0032

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= $\phi 1, \phi 4, \phi 6, \phi 7$.	$\checkmark \phi 1 / \phi 7 / 23$
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= $\phi 1, \phi 2, \phi 3, \phi 5, \phi 7, \phi 8, 11$.	$\checkmark \phi 1 / \phi 7 / 23$
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input checked="" type="checkbox"/> Rocks (%+size)? $\phi 11 = \phi 2, \phi 3$. ^{10.0%}	$\checkmark \phi 1 / \phi 7 / 23$
<input checked="" type="checkbox"/> Organics (Leaves/sticks/grass)= $\phi 5$. ^{5.0%}	$\checkmark \phi 1 / \phi 7 / 23$
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors= $\phi 8, \phi 9, 1 \phi, 11$.	$\checkmark \phi 1 / \phi 7 / 23$
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	\checkmark
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / N	$\checkmark \phi 1 / \phi 7 / 23$
<input checked="" type="checkbox"/> Multiple Jars Y / N	$\checkmark \phi 1 / \phi 7 / 23$
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	\checkmark
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLA0135

Cleanup Type: Silica Gel

Cleanup Method: EPA 3630C Silica Gel Cleanup - uL

Analysis: EPA 8270E-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1269	23A0032-03	N823011919.D	01/16/2023	
LDW23-IT1235	23A0032-06	N823011921.D	01/16/2023	
Blank	BLA0171-BLK1	N823011913.D	01/16/2023	
LDW23-IT1264	23A0032-02	N823011918.D	01/16/2023	
LDW23-IT1272	23A0032-04	N823011920.D	01/16/2023	
LDW23-IT1246	23A0032-01	N823011917.D	01/16/2023	
Reference	BLA0171-SRM1	N823011916.D	01/16/2023	
Matrix Spike Dup	BLA0171-MSD1	N823011923.D	01/16/2023	
Matrix Spike	BLA0171-MS1	N823011922.D	01/16/2023	
LCS	BLA0171-BS1	N823011914.D	01/16/2023	
LDW23-IT1202	23A0032-07	N823011924.D	01/16/2023	
LCS Dup	BLA0171-BSD1	N823011915.D	01/16/2023	



CLEANUP BENCH SHEET

CLA0135

Matrix: Solid Cleanup using: Organics - EPA 3660C Silica Gel Cleanup - uL

Printed: 1/16/2023 2:48:23PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0032-01	A	LDW23-IT1246	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg)	1/16/2023	CTO	
23A0032-02	A	LDW23-IT1264	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg)	1/16/2023	CTO	
23A0032-03	A	LDW23-IT1269	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg)	1/16/2023	CTO	
23A0032-04	A	LDW23-IT1272	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg)	1/16/2023	CTO	
23A0032-06	A	LDW23-IT1235	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg)	1/16/2023	CTO	
23A0032-07	A	LDW23-IT1202	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg)	1/16/2023	CTO	
BLA0171-BLK1	-	Blank	-	0.5	0.5	-	1/16/2023	CTO	
BLA0171-BS1	-	LCS	-	0.5	0.5	-	1/16/2023	CTO	
BLA0171-BSD1	-	LCS Dup	-	0.5	0.5	-	1/16/2023	CTO	
BLA0171-MS1	-	Matrix Spike	-	0.5	0.5	-	1/16/2023	CTO	
BLA0171-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	1/16/2023	CTO	
BLA0171-SRM1	-	Reference	-	0.5	0.5	-	1/16/2023	CTO	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLA0136

Cleanup Type: GPC

Cleanup Method: EPA 3640A GPC Cleanup 1:1

Analysis: EPA 8270E-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1246	23A0032-01	N823011917.D	01/16/2023	
Matrix Spike Dup	BLA0171-MSD1	N823011923.D	01/16/2023	
Matrix Spike	BLA0171-MS1	N823011922.D	01/16/2023	
LCS Dup	BLA0171-BSD1	N823011915.D	01/16/2023	
LCS	BLA0171-BS1	N823011914.D	01/16/2023	
Blank	BLA0171-BLK1	N823011913.D	01/16/2023	
Reference	BLA0171-SRM1	N823011916.D	01/16/2023	
LDW23-IT1272	23A0032-04	N823011920.D	01/16/2023	
LDW23-IT1202	23A0032-07	N823011924.D	01/16/2023	
LDW23-IT1235	23A0032-06	N823011921.D	01/16/2023	
LDW23-IT1269	23A0032-03	N823011919.D	01/16/2023	
LDW23-IT1264	23A0032-02	N823011918.D	01/16/2023	



CLEANUP BENCH SHEET

CLA0136

Matrix: Solid

Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1

Check Standard: CLA0086-GPC1

Printed: 1/16/2023 2:49:05PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0032-01	A	LDW23-IT1246	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg)	1/16/2023	CTO	
23A0032-02	A	LDW23-IT1264	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg)	1/16/2023	CTO	
23A0032-03	A	LDW23-IT1269	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg)	1/16/2023	CTO	
23A0032-04	A	LDW23-IT1272	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg)	1/16/2023	CTO	
23A0032-06	A	LDW23-IT1235	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg)	1/16/2023	CTO	
23A0032-07	A	LDW23-IT1202	A 01	0.5	0.5	270E-SIM PAH (0.1ug/L or 5ug/kg)	1/16/2023	CTO	
BLA0171-BLK1	-	Blank	-	0.5	0.5	-	1/16/2023	CTO	
BLA0171-BS1	-	LCS	-	0.5	0.5	-	1/16/2023	CTO	
BLA0171-BSD1	-	LCS Dup	-	0.5	0.5	-	1/16/2023	CTO	
BLA0171-MS1	-	Matrix Spike	-	0.5	0.5	-	1/16/2023	CTO	
BLA0171-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	1/16/2023	CTO	
BLA0171-SRM1	-	Reference	-	0.5	0.5	-	1/16/2023	CTO	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLA0177

Cleanup Type: GPC

Cleanup Method: EPA 3640A GPC Cleanup 1:1

Analysis: EPA 8270E-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LCS	BLA0163-BS2	NT1023020914S.D	01/20/2023	
Blank	BLA0163-BLK2	NT1023020913S.D	01/20/2023	
Reference	BLA0163-SRM2	NT1023020916S.D	01/20/2023	
LDW23-SC1226B	23A0032-08	NT1023020926S.D	01/20/2023	
LDW23-IT1224	23A0032-05	NT1023020925S.D	01/20/2023	
LCS Dup	BLA0163-BSD2	NT1023020915S.D	01/20/2023	
LDW23-SC1212	23A0032-11	NT1023020927S.D	01/20/2023	



CLEANUP BENCH SHEET

CLA0177

Matrix: Solid Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1 Check Standard: CLA0166-GPC1 Printed: 1/20/2023 12:43:21PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0031-21	A	LDW23-SS1232	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0031-21	A	LDW23-SS1232	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0032-05	A	LDW23-IT1224	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0032-05	A	LDW23-IT1224	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0032-08	A	LDW23-SC1226B	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0032-08	A	LDW23-SC1226B	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0032-11	A	LDW23-SC1212	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0032-11	A	LDW23-SC1212	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-01	A	LDW23-SS1264	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-01	A	LDW23-SS1264	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-02	A	LDW23-SS1272	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-02	A	LDW23-SS1272	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-03	A	LDW23-SS1235	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-03	A	LDW23-SS1235	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-04	A	LDW23-SS1224	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-04	A	LDW23-SS1224	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-05	A	LDW23-SS1212	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-05	A	LDW23-SS1212	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-06	A	LDW23-SS1212-FD	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-06	A	LDW23-SS1212-FD	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-07	A	LDW23-SS1211	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-07	A	LDW23-SS1211	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	



CLEANUP BENCH SHEET

CLA0177

Matrix: Solid Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1 Check Standard: CLA0166-GPC1 Printed: 1/20/2023 12:43:21PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0087-08	A	LDW23-SS1203	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-08	A	LDW23-SS1203	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-09	A	LDW23-SS1189	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-09	A	LDW23-SS1189	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-10	A	LDW23-SS1267	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-10	A	LDW23-SS1267	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-11	A	LDW23-SS1267-FD	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-11	A	LDW23-SS1267-FD	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-12	A	LDW23-SS1251	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-12	A	LDW23-SS1251	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-13	A	LDW23-SS1240	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-13	A	LDW23-SS1240	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-14	A	LDW23-SS1229	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-14	A	LDW23-SS1229	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
23A0087-15	A	LDW23-SS1228	A 04	1	1	8270E-SIM Dual Scan SVOC	1/20/2023	NRB	
23A0087-15	A	LDW23-SS1228	A 01	1	1	VOC (20ug/kg solid or 0.2ug/L low H ₂	1/20/2023	NRB	
BLA0163-BLK1	-	Blank	-	1	1	-	1/20/2023	NRB	
BLA0163-BLK2	-	Blank	-	1	1	-	1/20/2023	NRB	
BLA0163-BS1	-	LCS	-	1	1	-	1/20/2023	NRB	
BLA0163-BS2	-	LCS	-	1	1	-	1/20/2023	NRB	
BLA0163-BSD1	-	LCS Dup	-	1	1	-	1/20/2023	NRB	
BLA0163-BSD2	-	LCS Dup	-	1	1	-	1/20/2023	NRB	



CLEANUP BENCH SHEET

CLA0177

Matrix: Solid Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1 Check Standard: CLA0166-GPC1 Printed: 1/20/2023 12:43:21PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BLA0163-MS1	-	Matrix Spike	-	1	1	-	1/20/2023	NRB	
BLA0163-MS2	-	Matrix Spike	-	1	1	-	1/20/2023	NRB	
BLA0163-MSD1	-	Matrix Spike Dup	-	1	1	-	1/20/2023	NRB	
BLA0163-MSD2	-	Matrix Spike Dup	-	1	1	-	1/20/2023	NRB	
BLA0163-SRM1	-	Reference	-	1	1	-	1/20/2023	NRB	
BLA0163-SRM2	-	Reference	-	1	1	-	1/20/2023	NRB	



Form I
METHOD BLANK DATA SHEET
EPA 8270E-SIM

Blank

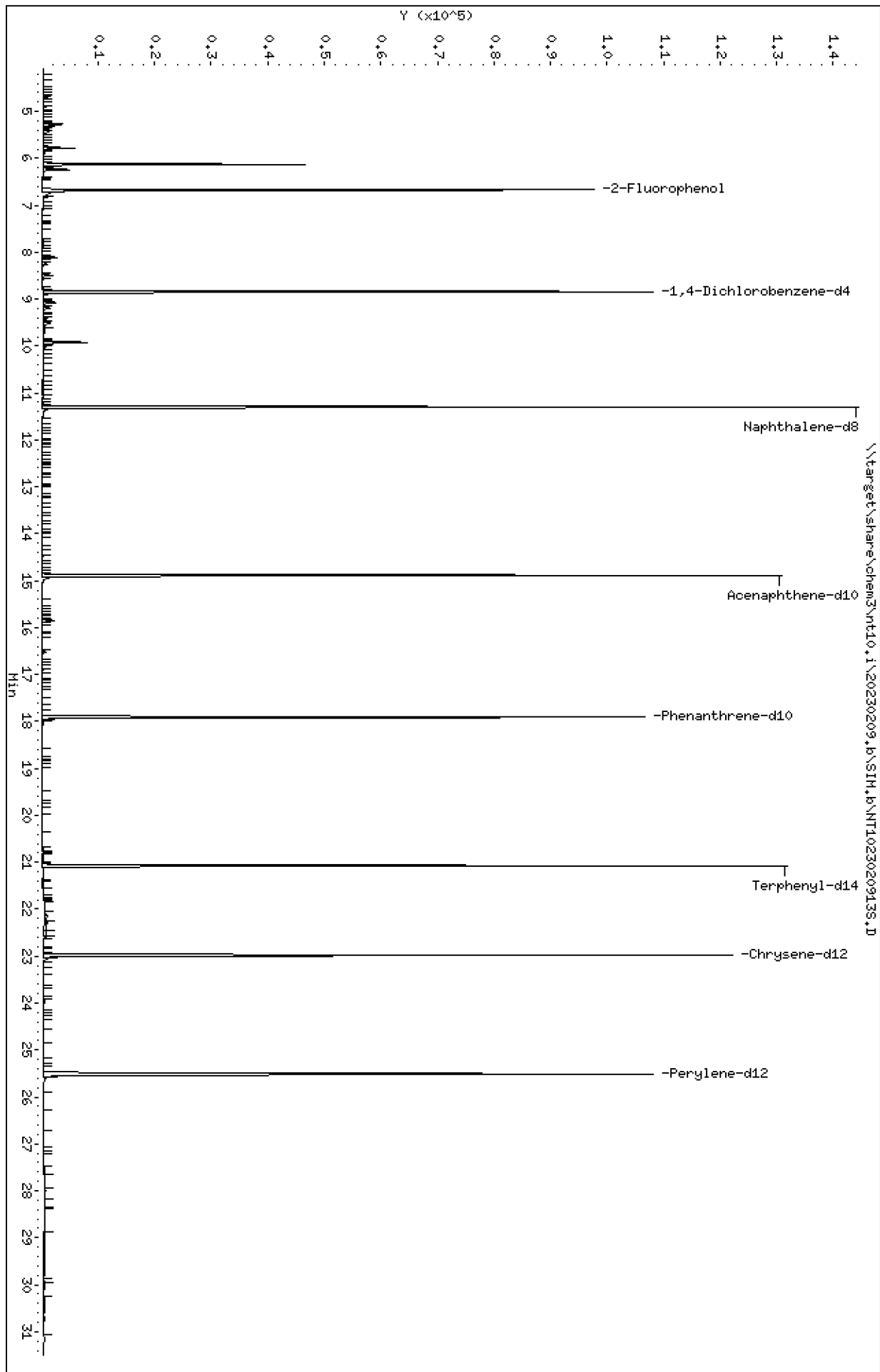
Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BLA0163-BLK2</u>
Sampled:	<u>N/A</u>	Prepared:	<u>01/10/23 11:20</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BLA0163</u>	Sequence:	<u>SLB0114</u>
Instrument:	<u>NT10</u>	Column:	<u>ZB-5MSi</u>
		File ID:	<u>NT1023020913S.D</u>
		Analyzed:	<u>02/09/23 20:39</u>
		Initial/Final:	<u>10 g / 1 mL</u>
		Calibration:	<u>GB00019</u>
		Cleanups:	<u>GPC</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
106-46-7	1,4-Dichlorobenzene	1	5.0	U	0.6	5.0
95-50-1	1,2-Dichlorobenzene	1	5.0	U	0.7	5.0
100-51-6	Benzyl Alcohol	1	20.0	U	2.5	20.0
65-85-0	Benzoic acid	1	100	U	13.4	100
105-67-9	2,4-Dimethylphenol	1	20.0	U	2.2	20.0
120-82-1	1,2,4-Trichlorobenzene	1	5.0	U	2.7	5.0
86-30-6	N-Nitrosodiphenylamine	1	5.0	U	1.3	5.0
87-86-5	Pentachlorophenol	1	20.0	U	2.1	20.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
2-Fluorophenol	750.00	483	64.4	27 - 120	
p-Terphenyl-d14	500.00	471	94.1	37 - 120	

Data File: \\target\share\chem3\nt10.1\20230209.1\SIH.B\NT1023020913S.D
Date: 09-FEB-2023 20:39
Client ID:
Sample Info: BLR0163-BLK1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: JSD
Column diameter: 0.25



Date : 09-FEB-2023 20:39

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BLK1

Volume Injected (uL): 1.0

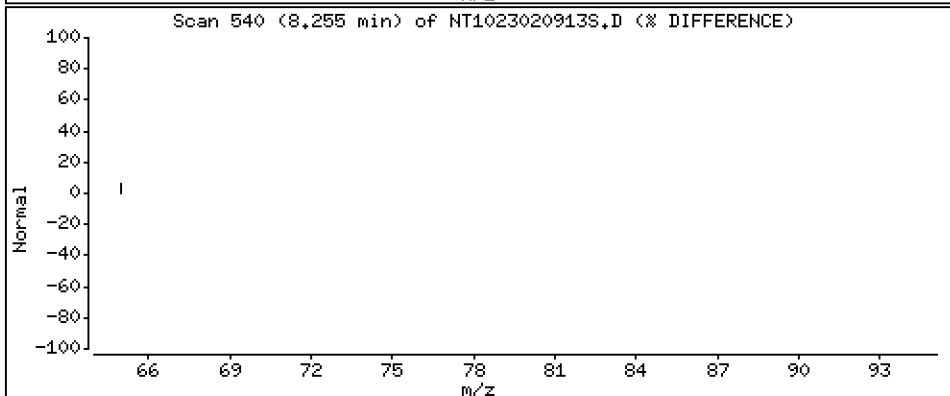
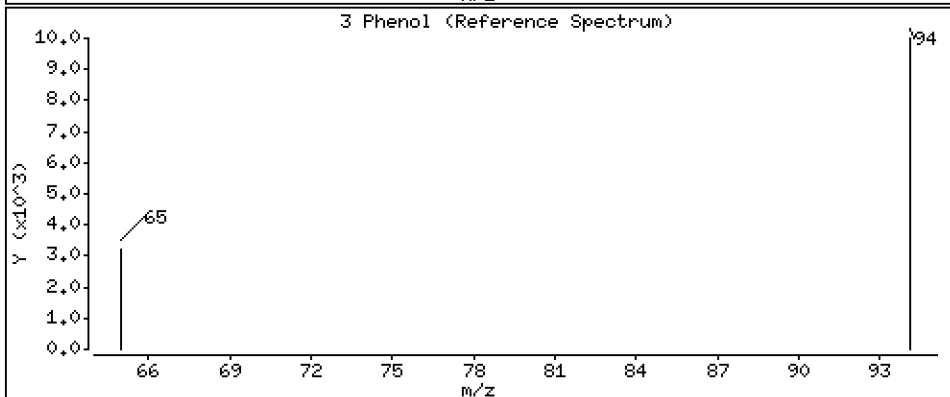
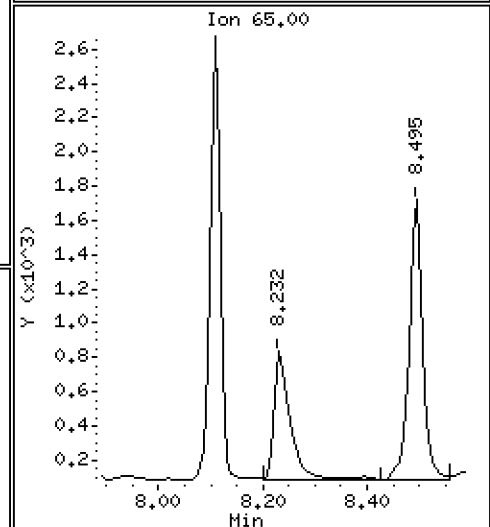
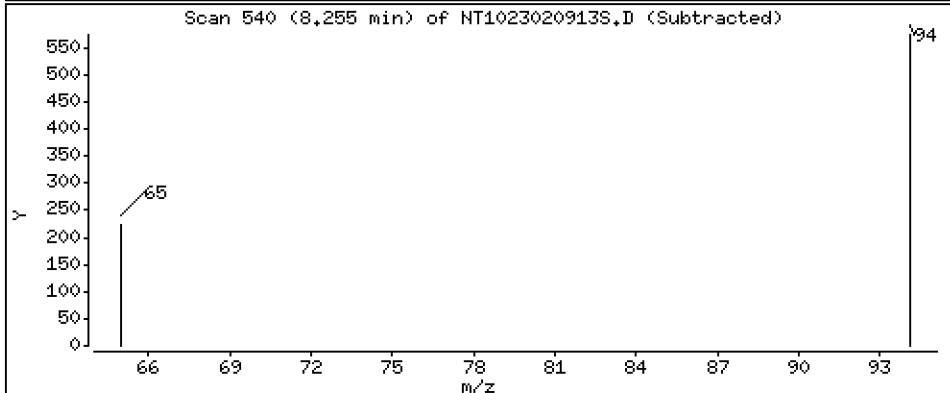
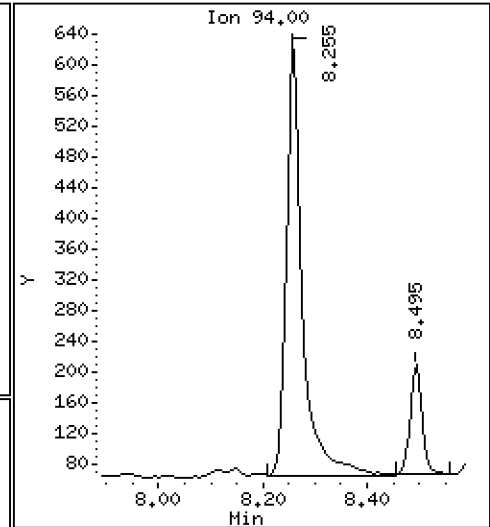
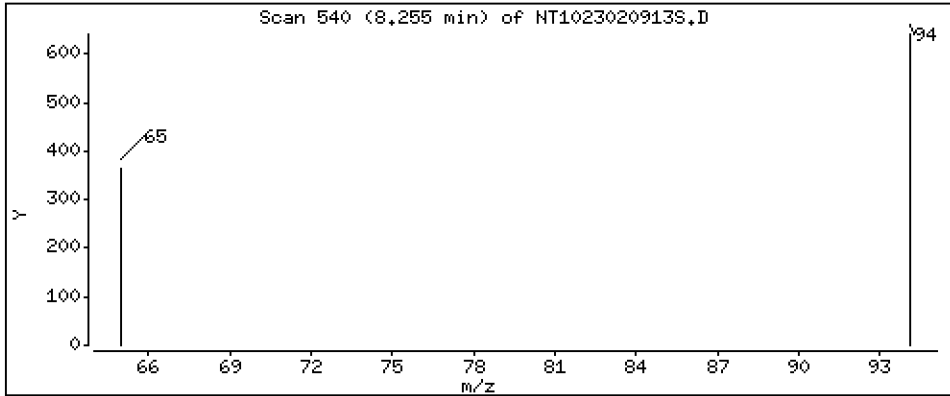
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 0.04212 ug/L



Date : 09-FEB-2023 20:39

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BLK1

Volume Injected (uL): 1.0

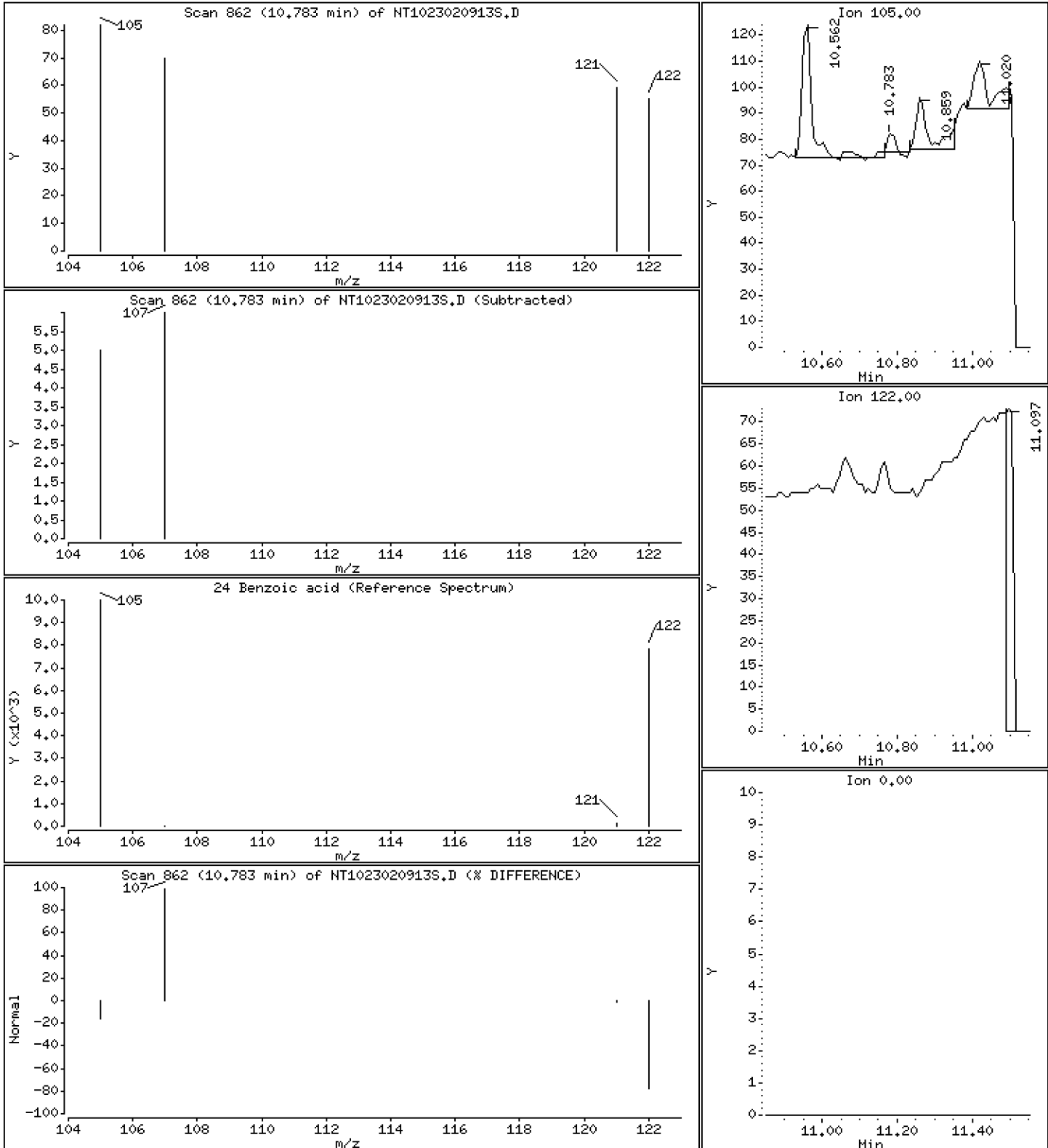
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 0,0008669 ug/L



Date : 09-FEB-2023 20:39

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BLK1

Volume Injected (uL): 1.0

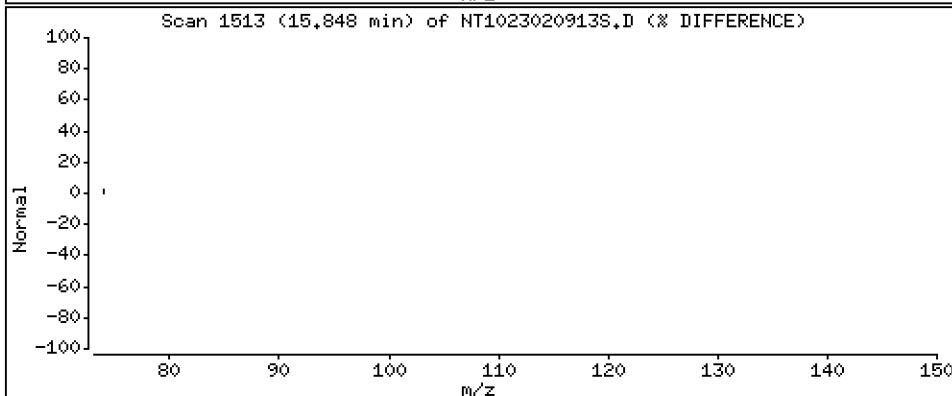
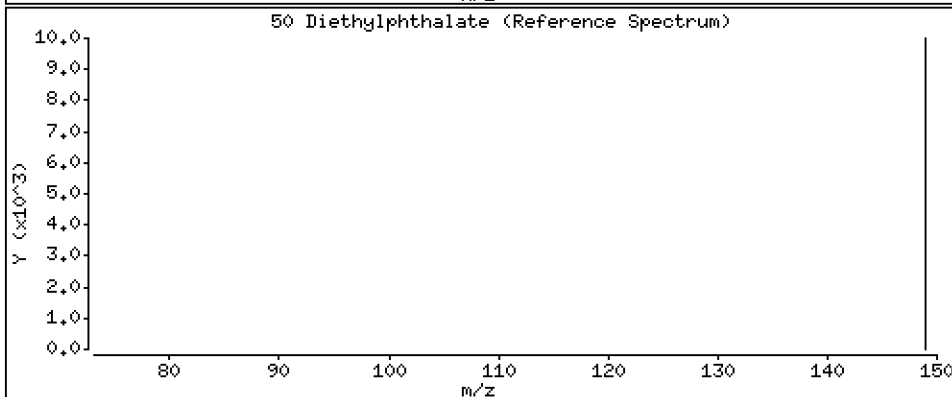
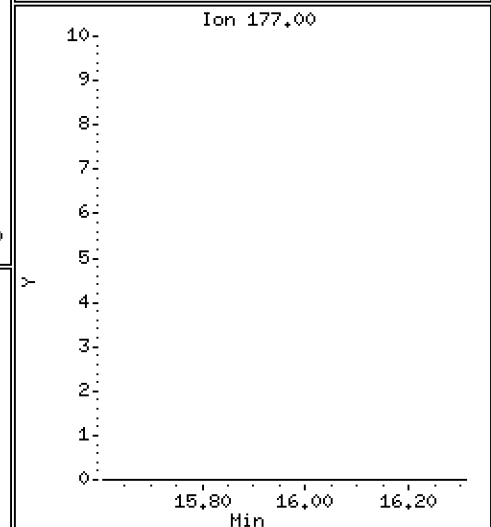
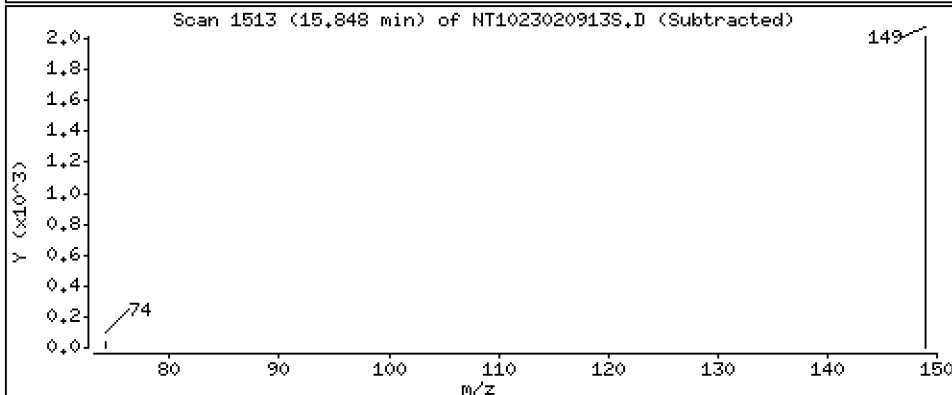
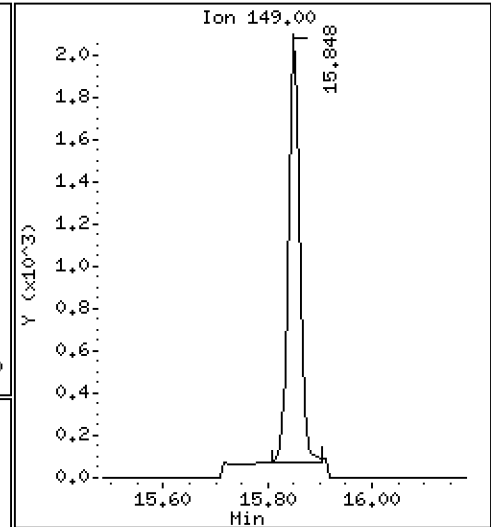
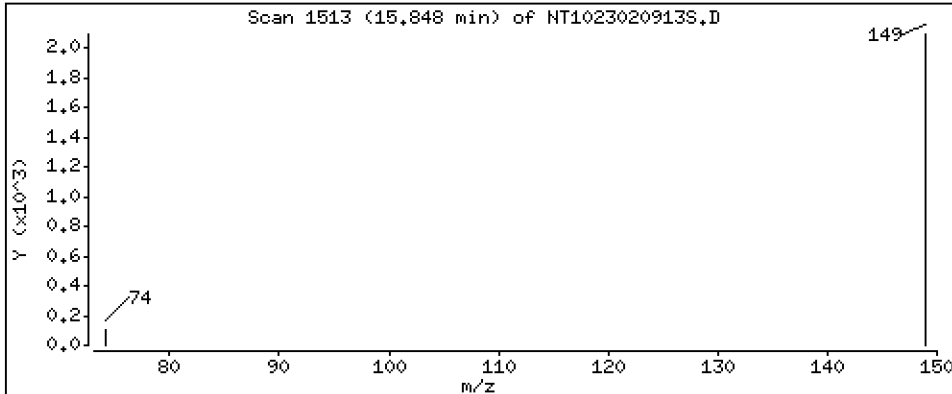
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,08563 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230209.b\SIM.b\NT1023020913S.D
 Lab Smp Id: BLA0163-BLK2
 Inj Date : 09-FEB-2023 20:39 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : BLA0163-BLK1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230209.b\SIM.b\SIMABN2.m
 Meth Date : 12-Feb-2023 17:30 yev Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 13
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		6.671	6.655	(0.754)	90978	4.83146	4.831 (RM)
3 Phenol	94		8.255	8.239	(0.934)	1196	0.04212	0.04212
7 1,3-Dichlorobenzene	146		Compound Not Detected.					
* 8 1,4-Dichlorobenzene-d4	152		8.843	8.835	(1.000)	61922	4.00000	
9 1,4-Dichlorobenzene	146		Compound Not Detected.					
11 Benzyl alcohol	79		Compound Not Detected.					
12 1,2-Dichlorobenzene	146		Compound Not Detected.					
13 2-Methylphenol	108		Compound Not Detected.					
15 4-Methylphenol	108		Compound Not Detected.					
16 N-Nitroso-di-n-propylamine	70		Compound Not Detected.					
22 2,4-Dimethylphenol	107		Compound Not Detected.					
24 Benzoic acid	105		10.782	10.799	(0.954)	8	9e-004	0.0008669
26 1,2,4-Trichlorobenzene	180		Compound Not Detected.					
* 27 Naphthalene-d8	136		11.298	11.283	(1.000)	227453	4.00000	
30 Hexachlorobutadiene	225		Compound Not Detected.					
39 Dimethylphthalate	163		Compound Not Detected.					
* 42 Acenaphthene-d10	162		14.889	14.866	(1.000)	102967	4.00000	
50 Diethylphthalate	149		15.848	15.832	(1.064)	3095	0.08563	0.08563 (H)
54 N-Nitrosodiphenylamine	169		Compound Not Detected.					
57 Hexachlorobenzene	284		Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266				Compound Not Detected.		
* 59 Phenanthrene-d10	188	17.902	17.887	(1.000)	184807	4.00000	
\$ 66 Terphenyl-d14	244	21.074	21.051	(0.917)	164767	4.70669	4.707 (R)
67 Butylbenzylphthalate	149				Compound Not Detected.		
* 69 Chrysene-d12	240	22.979	22.956	(1.000)	157715	4.00000	
* 77 Perylene-d12	264	25.511	25.480	(1.000)	186220	4.00000	
79 Dibenzo(a,h)anthracene	278				Compound Not Detected.		
90 N-Nitrosodimethylamine	74				Compound Not Detected.		

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020913S.D
 Lab Smp Id: BLA0163-BLK2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230209.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 09-FEB-2023
 Calibration Time: 14:49
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	101588	50794	203176	61922	-39.05
27 Naphthalene-d8	364920	182460	729840	227453	-37.67
42 Acenaphthene-d10	174973	87487	349946	102967	-41.15
59 Phenanthrene-d10	314354	157177	628708	184807	-41.21
69 Chrysene-d12	242262	121131	484524	157715	-34.90
77 Perylene-d12	285281	142641	570562	186220	-34.72

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	0.09
27 Naphthalene-d8	11.28	10.78	11.78	11.30	0.14
42 Acenaphthene-d10	14.87	14.37	15.37	14.89	0.16
59 Phenanthrene-d10	17.89	17.39	18.39	17.90	0.09
69 Chrysene-d12	22.96	22.46	23.46	22.98	0.10
77 Perylene-d12	25.48	24.98	25.98	25.51	0.12

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020913S.D

Lab ID: BLA0163-BLK2

nt10.i, 20230209.b\SIM.b\SIMABN2.m, 09-FEB-2023 20:39

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: SIM.b/NT1023020904S.D

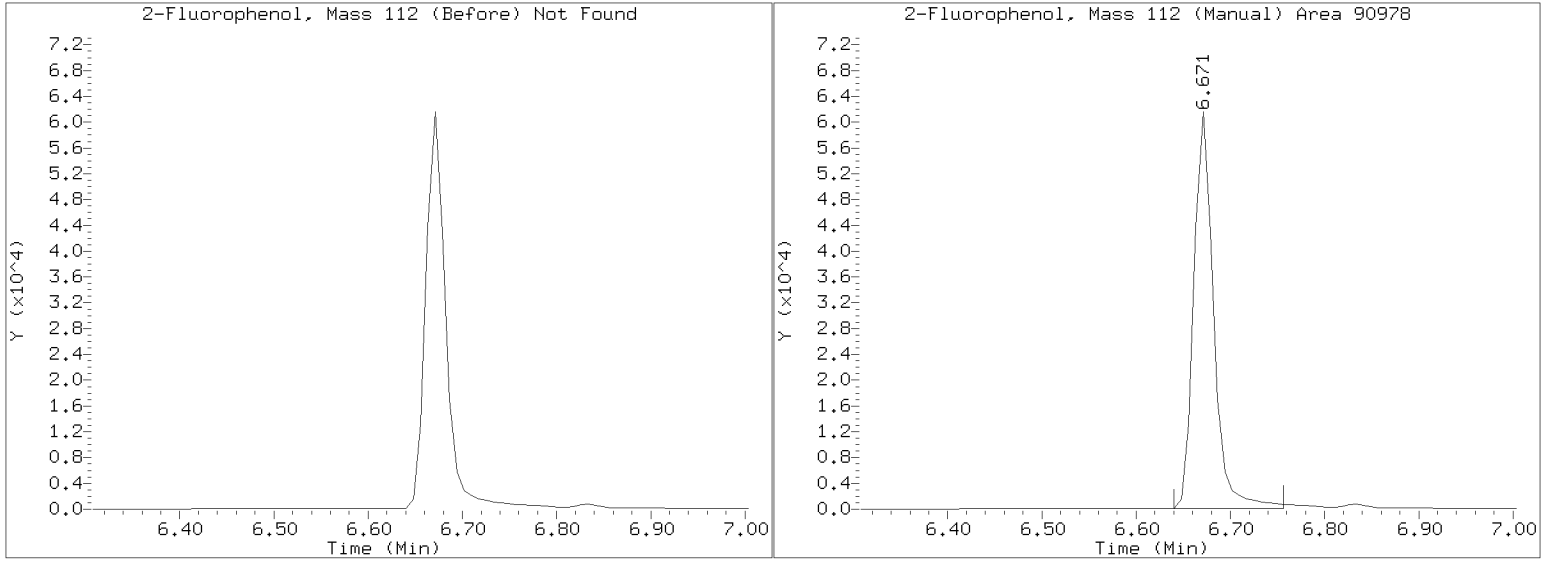
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209.b/SIM.b/NT1023020913S.D
Injection Date: 09-FEB-2023 20:39
Lab ID:BLA0163-BLK2 Client ID:
Report Date: 02/12/2023 17:36





Form I
METHOD BLANK DATA SHEET
EPA 8270E-SIM

Blank

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BLA0171-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>01/11/23 11:45</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BLA0171</u>	Sequence:	<u>SLA0228</u>
Instrument:	<u>NT8</u>	Column:	<u>RXI-17Sil ms</u>
		Cleanups:	<u>GPC, Silica Gel</u>
		File ID:	<u>N823011913.D</u>
		Analyzed:	<u>01/19/23 16:45</u>
		Initial/Final:	<u>10 g / 0.5 mL</u>
		Calibration:	<u>GA00050</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
56-55-3	Benzo(a)anthracene	1	5.00	U	0.82	5.00
218-01-9	Chrysene	1	5.00	U	1.05	5.00
205-99-2	Benzo(b)fluoranthene	1	5.00	U	1.37	5.00
207-08-9	Benzo(k)fluoranthene	1	5.00	U	0.76	5.00
50-32-8	Benzo(a)pyrene	1	5.00	U	0.61	5.00
193-39-5	Indeno(1,2,3-cd)pyrene	1	5.00	U	1.05	5.00
53-70-3	Dibenzo(a,h)anthracene	1	5.00	U	0.89	5.00

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	150.00	83.7	55.8	32 - 120	
Dibenzo[a,h]anthracene-d14	150.00	240	160	21 - 133	*
Fluoranthene-d10	150.00	125	83.3	36 - 134	

Data File: \\target\share\chem3\nt8.1\20230119A,B\N823011913.D

Date: 19-Jan-2023 16:45

Client ID:

Sample Info: BLR0171-BLK1,

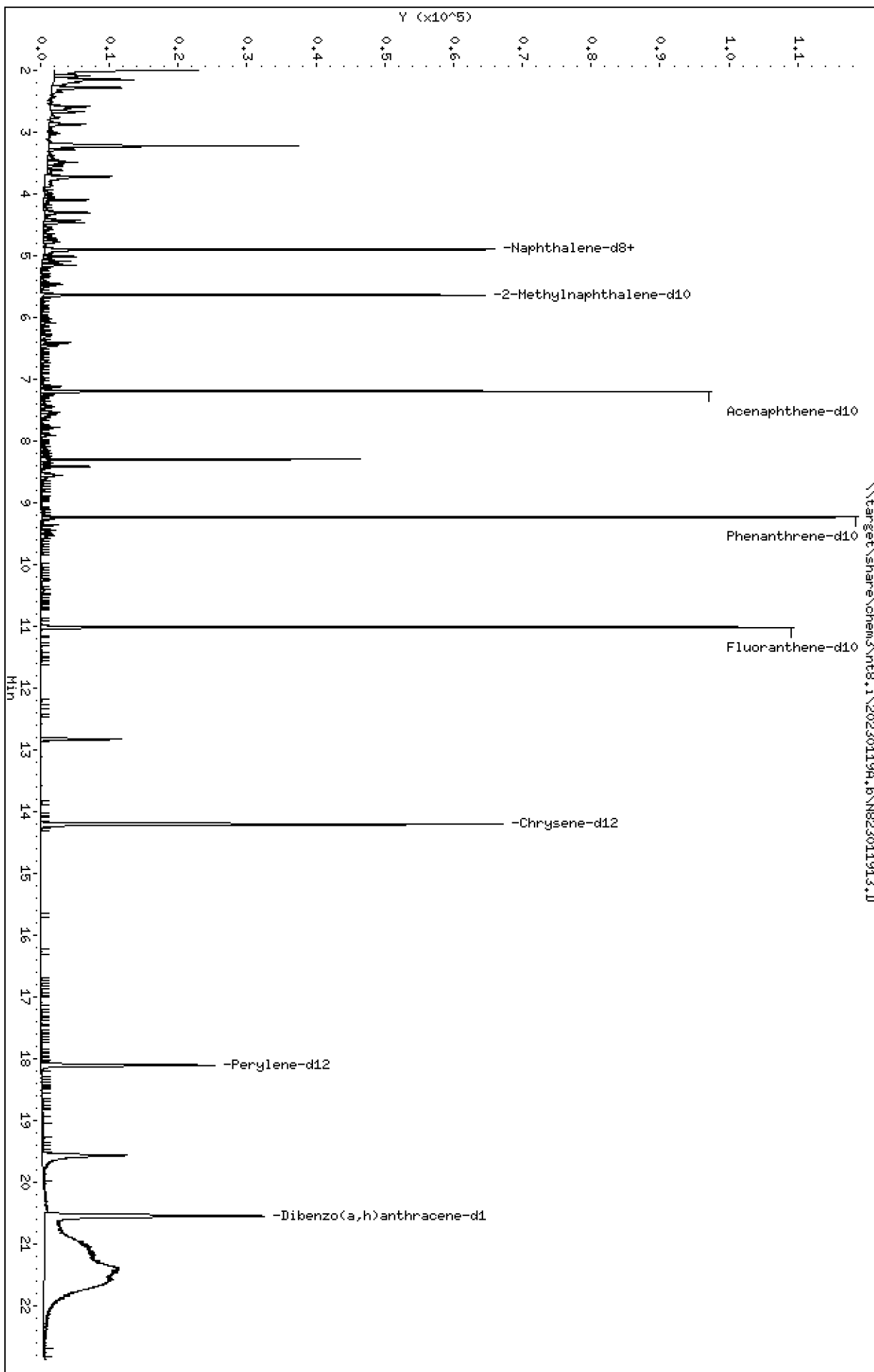
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



Date : 19-JAN-2023 16:45

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BLK1,

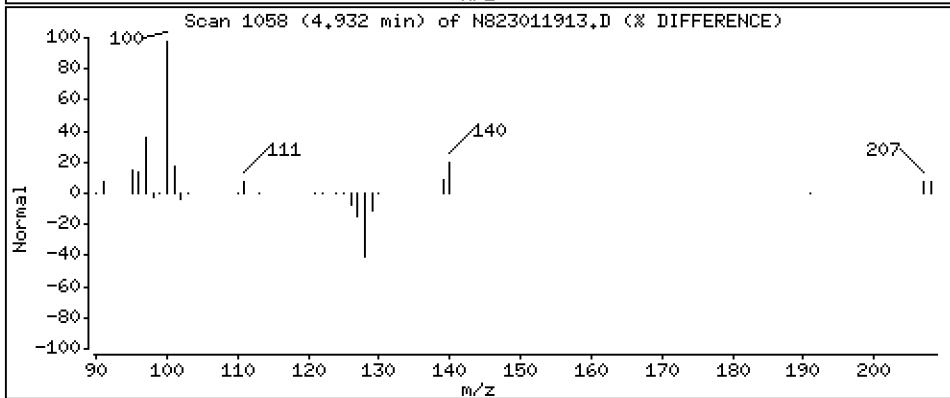
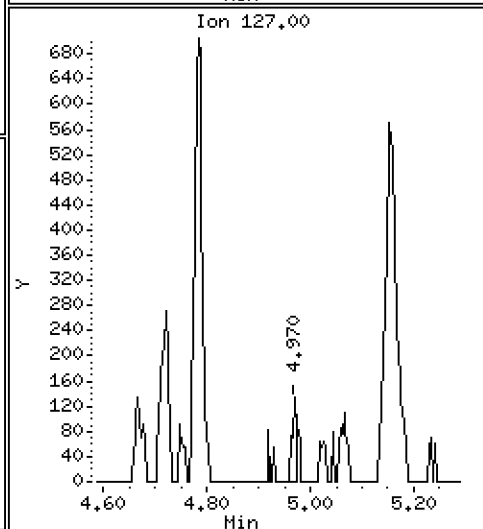
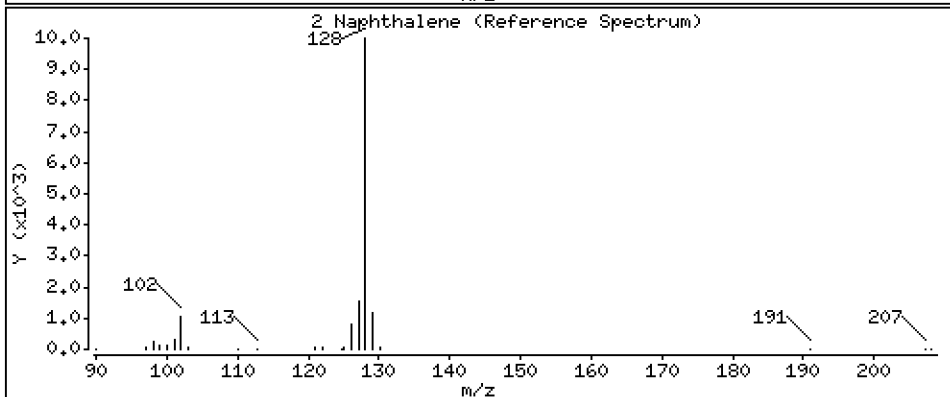
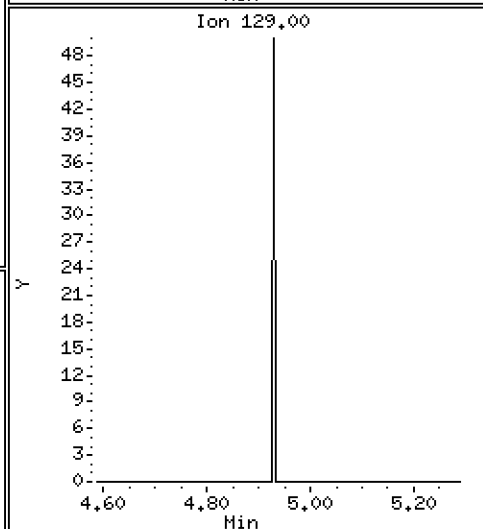
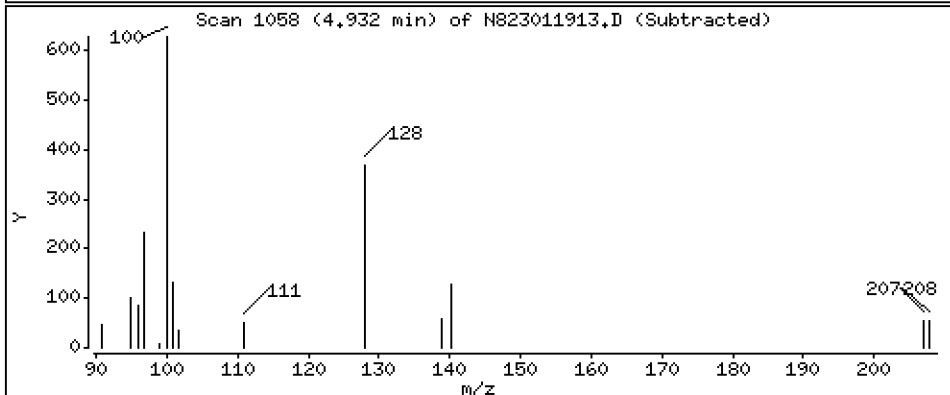
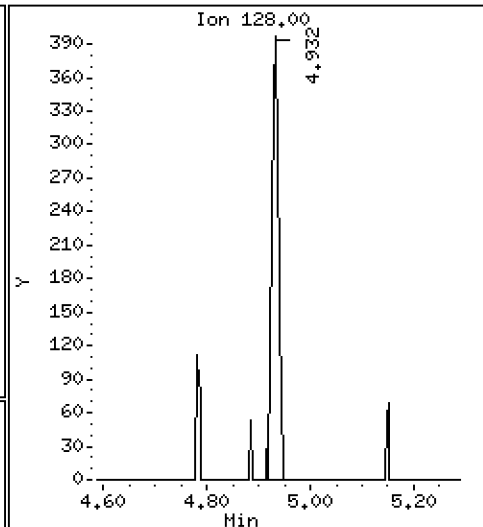
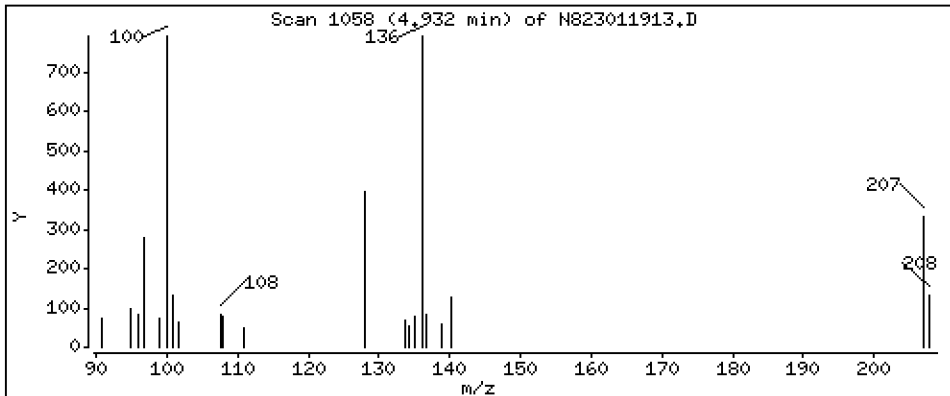
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

2 Naphthalene

Concentration: 0,01510 ug/mL



Date : 19-JAN-2023 16:45

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BLK1,

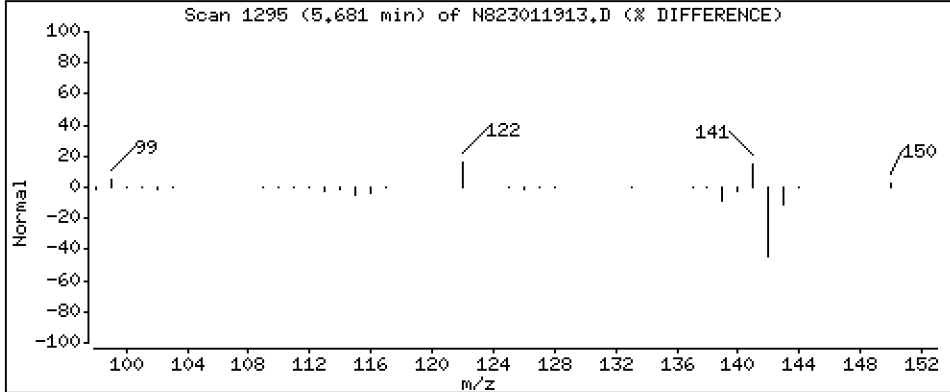
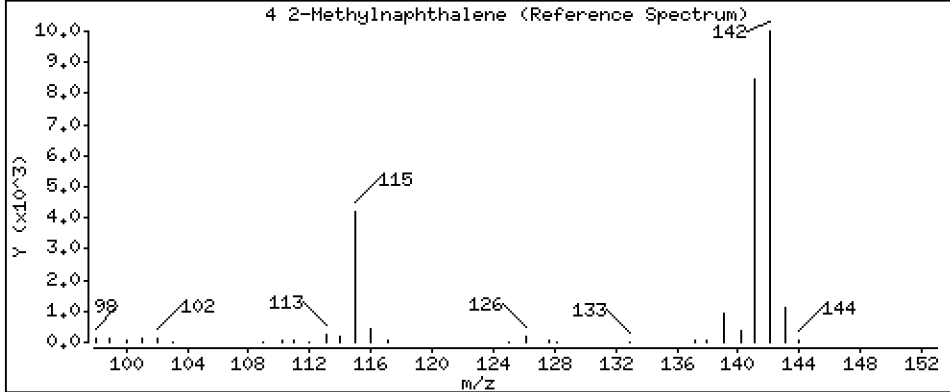
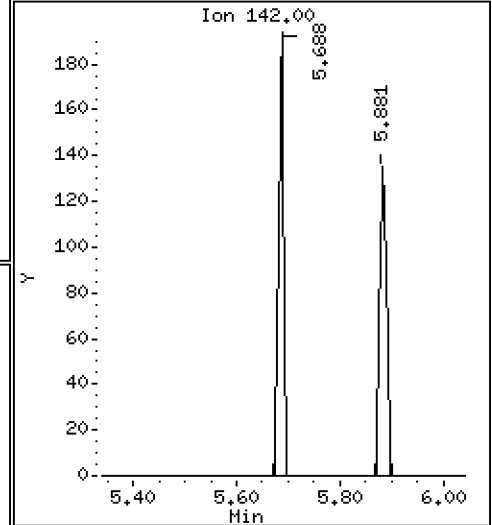
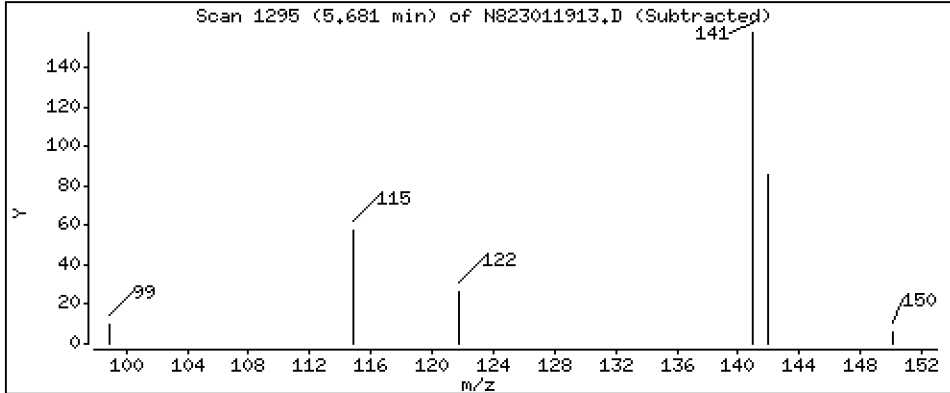
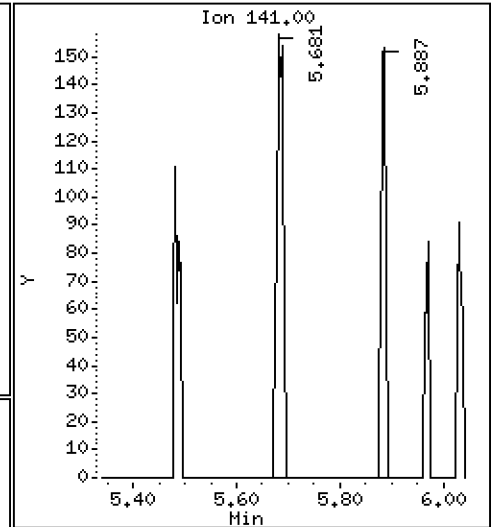
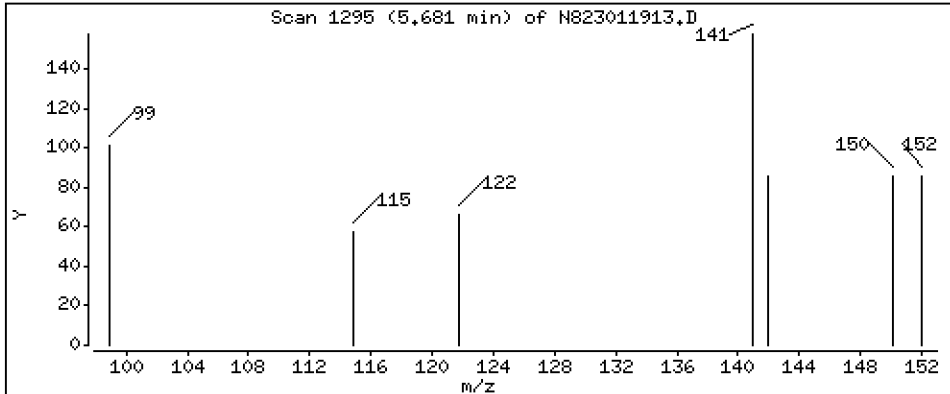
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

4 2-Methylnaphthalene

Concentration: 0,01189 ug/mL



Date : 19-JAN-2023 16:45

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BLK1,

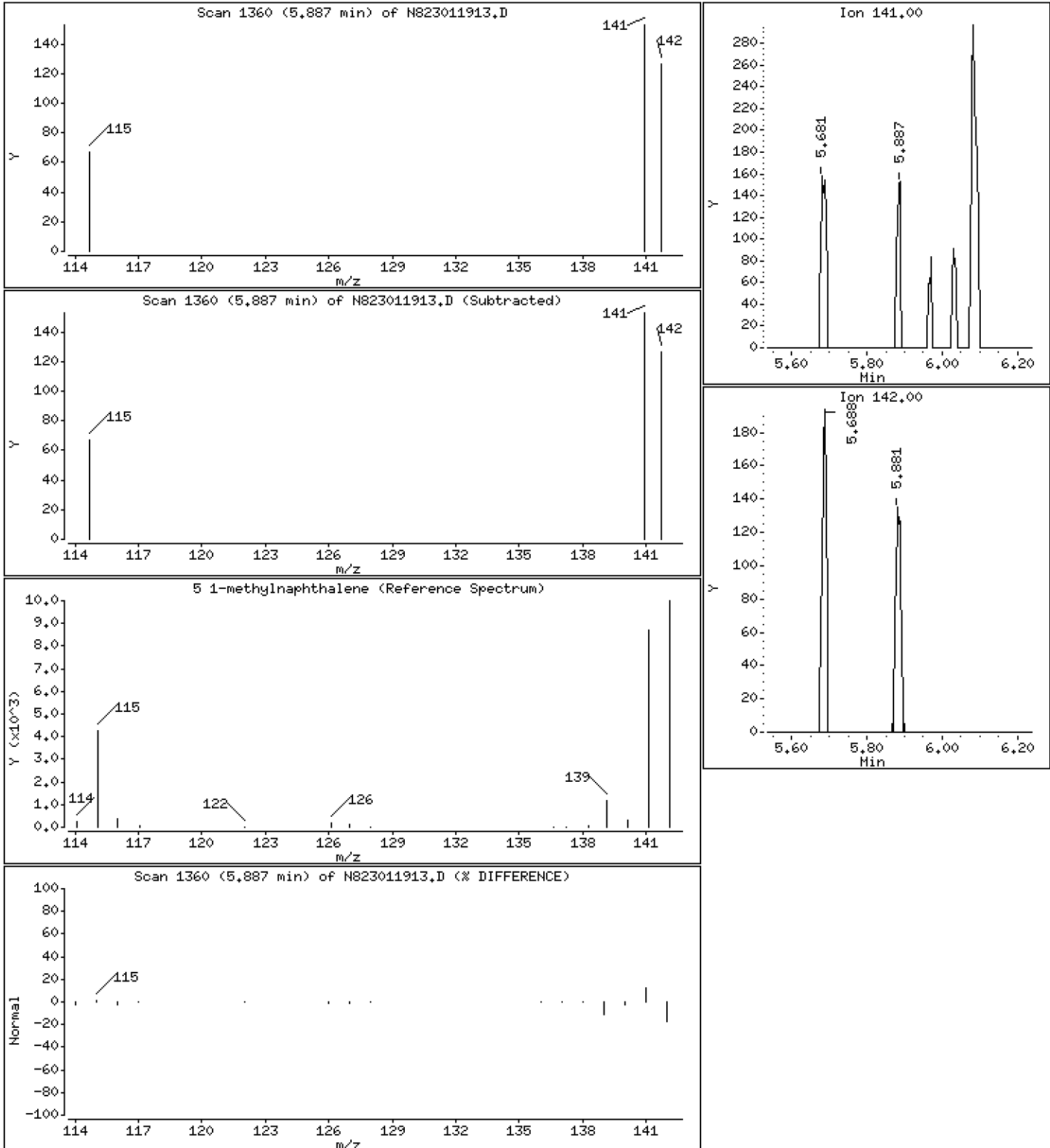
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

5 1-methylnaphthalene

Concentration: 0,008747 ug/mL



Date : 19-JAN-2023 16:45

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BLK1,

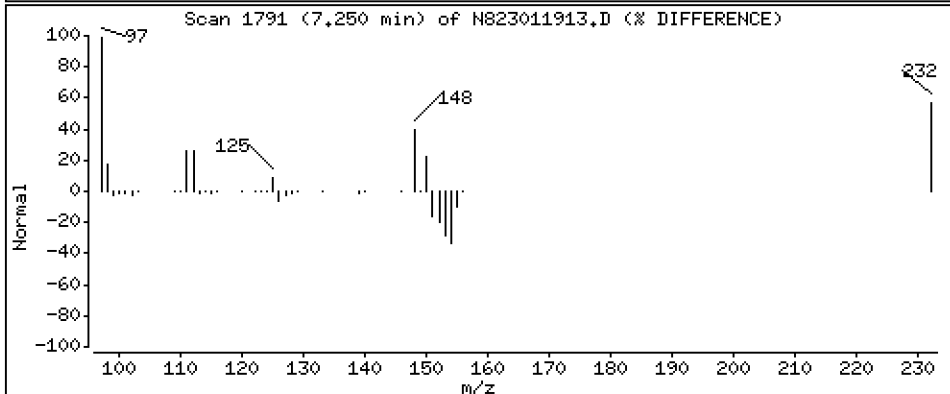
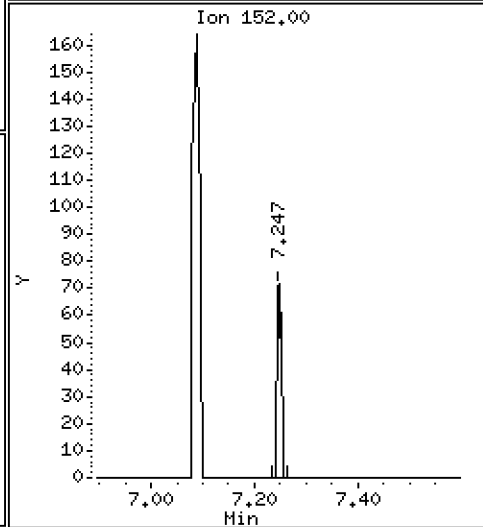
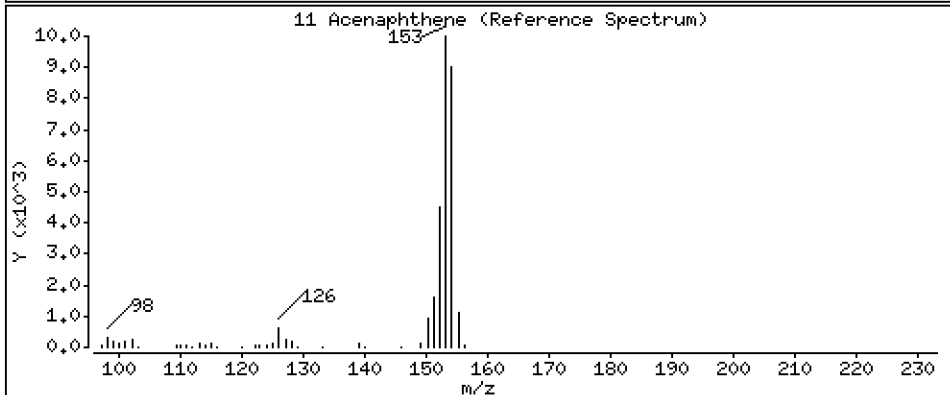
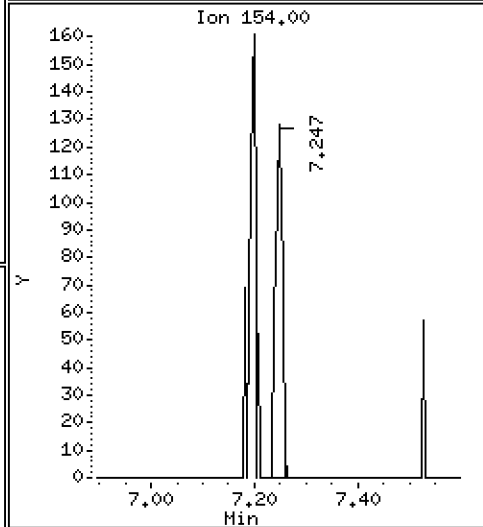
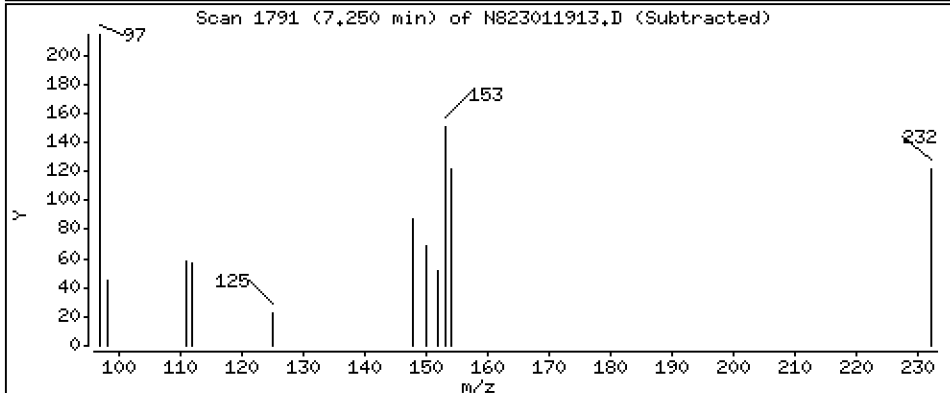
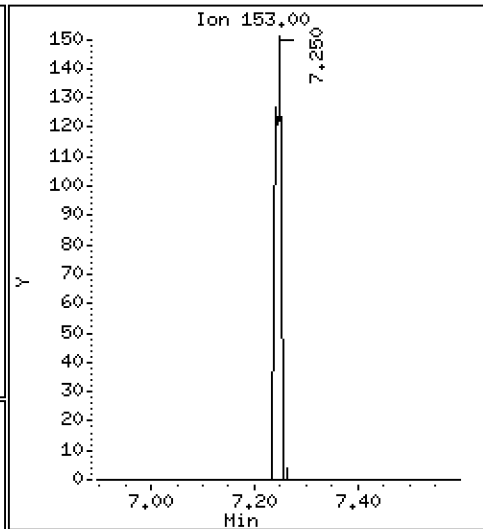
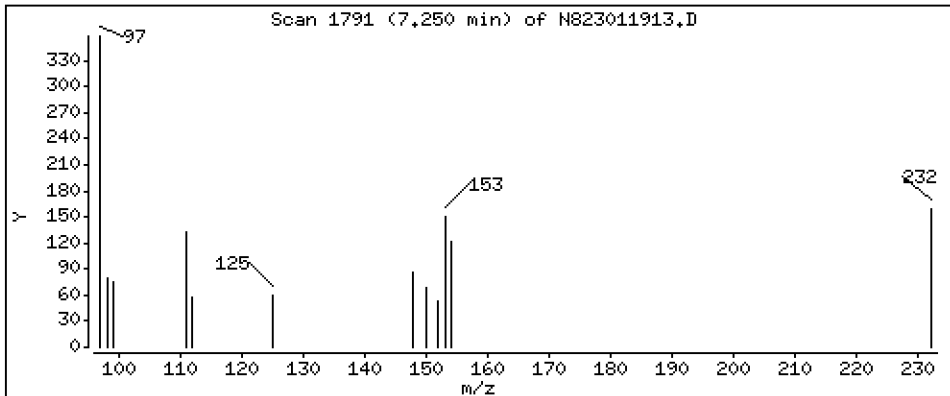
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

11 Acenaphthene

Concentration: 0,009147 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119A.b\N823011913.D
 Lab Smp Id: BLA0171-BLK1
 Inj Date : 19-JAN-2023 16:45
 Operator : JZ Inst ID: nt8.i
 Smp Info : BLA0171-BLK1,
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 22:11 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PNAXMDL.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
* 1 Naphthalene-d8	136		4.900	4.909	(1.000)	48006	2.00000	
2 Naphthalene	128		4.932	4.938	(1.006)	337	0.01510	0.01510
\$ 3 2-Methylnaphthalene-d10	152		5.637	5.643	(1.150)	21906	1.67318	1.673
4 2-Methylnaphthalene	141		5.681	5.690	(1.159)	146	0.01189	0.01189
5 1-methylnaphthalene	141		5.886	5.887	(1.201)	109	0.00875	0.008747
9 Acenaphthylene	152		Compound Not Detected.					
* 10 Acenaphthene-d10	164		7.196	7.199	(1.000)	28306	2.00000	
11 Acenaphthene	153		7.249	7.246	(1.007)	131	0.00915	0.009147
12 Dibenzofuran	168		Compound Not Detected.					
14 Fluorene	166		Compound Not Detected.					
* 15 Phenanthrene-d10	188		9.235	9.238	(1.000)	53575	2.00000	
16 Phenanthrene	178		Compound Not Detected.					
17 Anthracene	178		Compound Not Detected.					
22 Fluoranthene	202		Compound Not Detected.					
\$ 21 Fluoranthene-d10	212		11.015	11.015	(1.193)	59065	2.49883	2.499
23 Pyrene	202		Compound Not Detected.					
24 Benzo(a)anthracene	228		Compound Not Detected.					
* 25 Chrysene-d12	240		14.206	14.209	(1.000)	44210	2.00000	
27 Chrysene	228		Compound Not Detected.					
28 Benzo(b)fluoranthene	252		Compound Not Detected.					
29 Benzo(k)fluoranthene	252		Compound Not Detected.					
30 Benzo(j)fluoranthene	252		Compound Not Detected.					
31 Total Benzofluoranthenes	252		Compound Not Detected.					
32 Benzo(a)pyrene	252		Compound Not Detected.					
* 33 Perylene-d12	264		18.114	18.117	(1.000)	19804	2.00000	
35 Perylene	252		Compound Not Detected.					
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.549	20.555	(1.134)	37216	4.79610	4.796
37 Indeno(1,2,3-cd)pyrene	276		Compound Not Detected.					
38 Dibenzo(a,h)anthracene	278		Compound Not Detected.					
39 Benzo(g,h,i)perylene	276		Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011913.D Calibration Time: 16:16
 Lab Smp Id: BLA0171-BLK1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	42524	21262	85048	48006	12.89
10 Acenaphthene-d10	25260	12630	50520	28306	12.06
15 Phenanthrene-d10	47890	23945	95780	53575	11.87
25 Chrysene-d12	40533	20267	81066	44210	9.07
33 Perylene-d12	38115	19058	76230	19804	-48.04

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.90	-0.19
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	-0.04
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	-0.03
25 Chrysene-d12	14.21	13.71	14.71	14.21	-0.02
33 Perylene-d12	18.12	17.62	18.62	18.11	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011913.D

Lab ID: BLA0171-BLK1

nt8.i, 20230119A.b\FSIMPNA230119.m, 19-JAN-2023 16:45

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check performed

On Column LOD for nt8.i, 20230119A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

* Only compounds listed in the work order have been verified by the analyst *



LCS / LCS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>02/09/23 21:17</u>
Batch:	<u>BLA0163</u>	Laboratory ID:	<u>BLA0163-BS2</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>10 g / 1 mL</u>		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
1,4-Dichlorobenzene	500	330		65.9	36 - 120
1,2-Dichlorobenzene	500	328		65.6	36 - 120
Benzyl Alcohol	500	395		79.0	25 - 123
Benzoic acid	2300	2420	Q	105	10 - 160
2,4-Dimethylphenol	1300	768		59.1	10 - 120
1,2,4-Trichlorobenzene	500	342		68.5	35 - 120
N-Nitrosodiphenylamine	500	341		68.2	27 - 120
Pentachlorophenol	1300	1530	Q	118	26 - 120

* Indicates values outside of QC limits

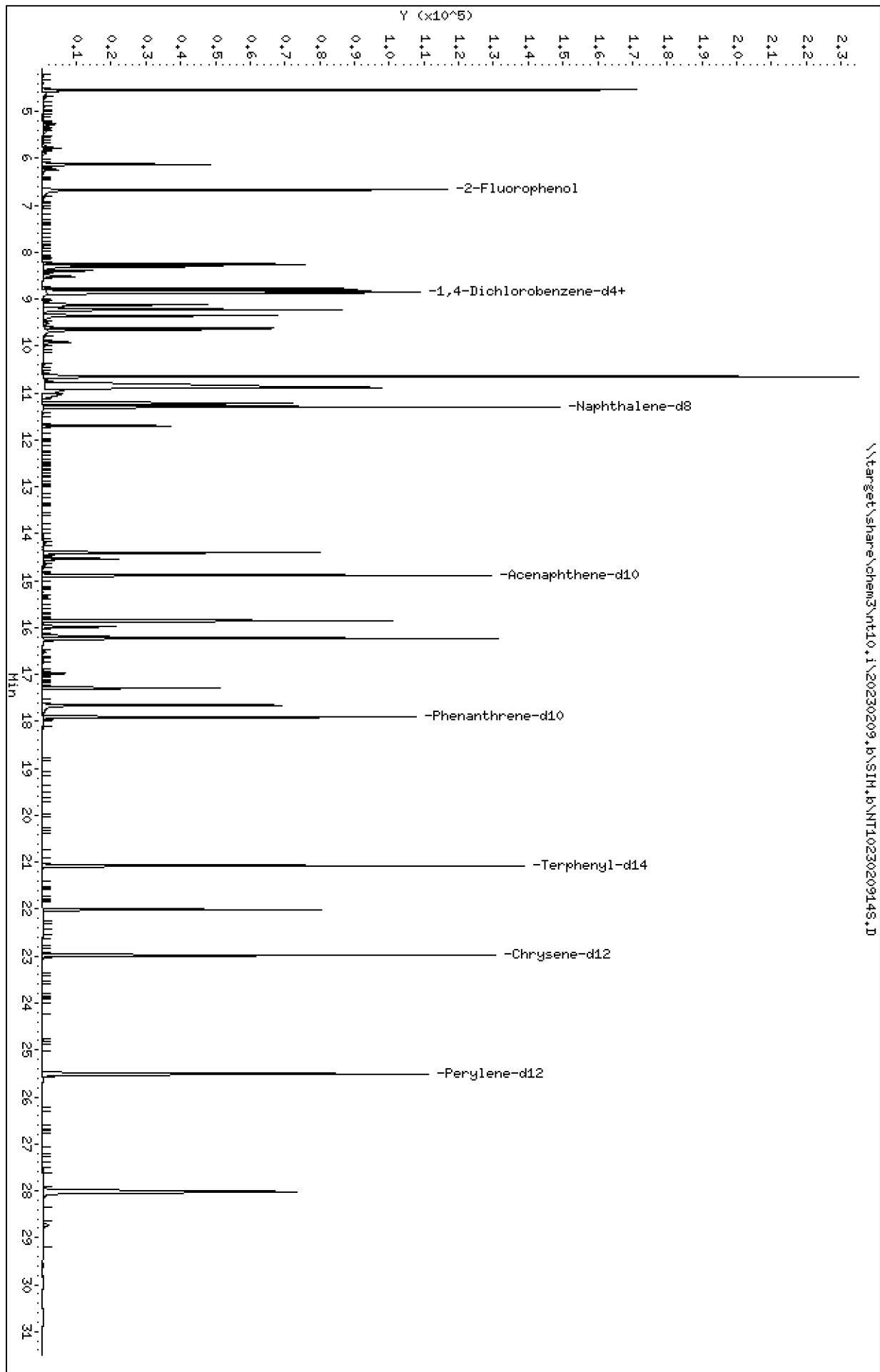
COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
1,4-Dichlorobenzene	500	370		74.1	11.7	30	36 - 120
1,2-Dichlorobenzene	500	370		73.9	12.0	30	36 - 120
Benzyl Alcohol	500	502		100	23.9	30	25 - 123
Benzoic acid	2300	2560	Q	111	5.69	30	10 - 160
2,4-Dimethylphenol	1300	359	*	27.6	72.5 *	30	10 - 120
1,2,4-Trichlorobenzene	500	383		76.5	11.1	30	35 - 120
N-Nitrosodiphenylamine	500	352		70.4	3.09	30	27 - 120
Pentachlorophenol	1300	1560	Q	120	1.53	30	26 - 120

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230209.16\SIM.6\NT1023020914S.D
Date: 09-FEB-2023 21:17
Client ID:
Sample Info: BLR0163-BS1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: JSD
Column diameter: 0.25

\\target\share\chem3\nt10.1\20230209.16\SIM.6\NT1023020914S.D



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

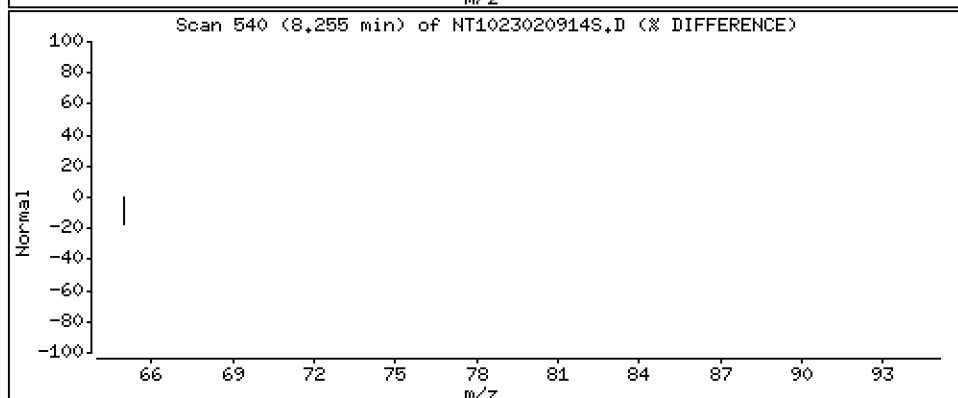
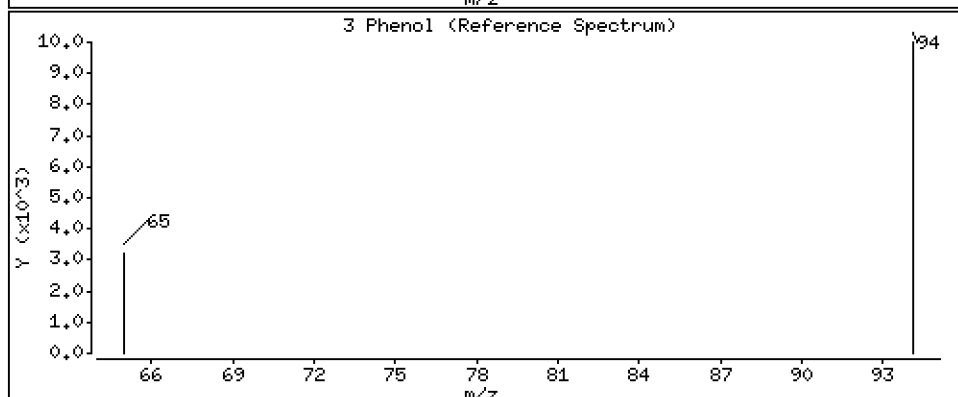
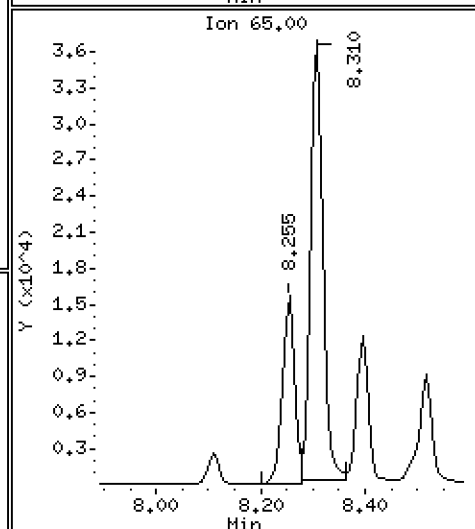
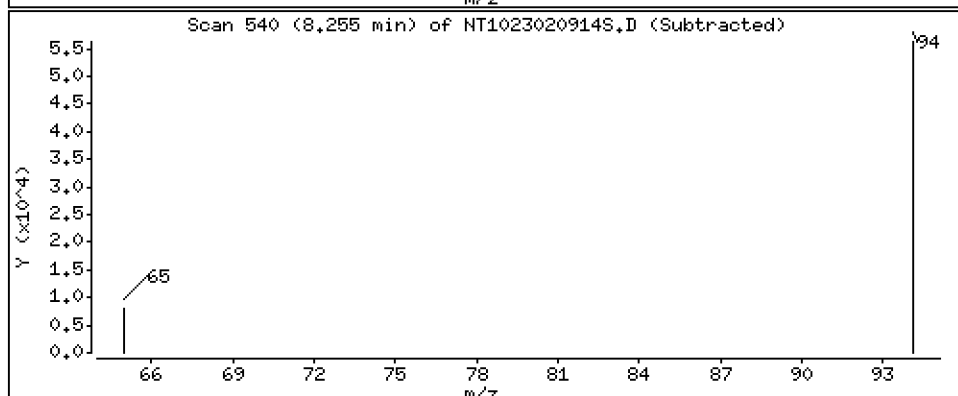
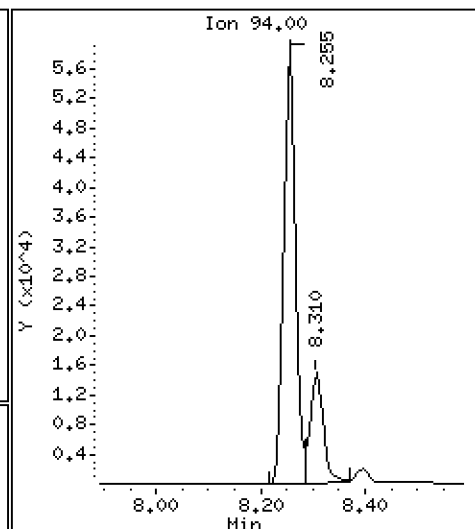
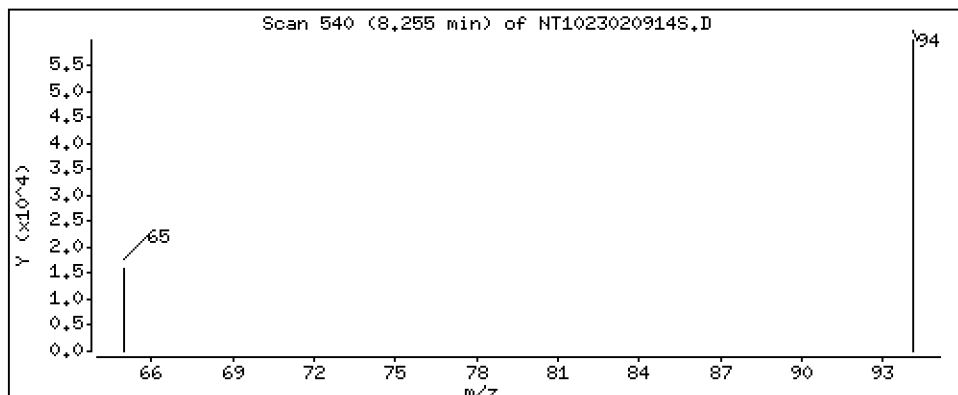
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 3,220 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

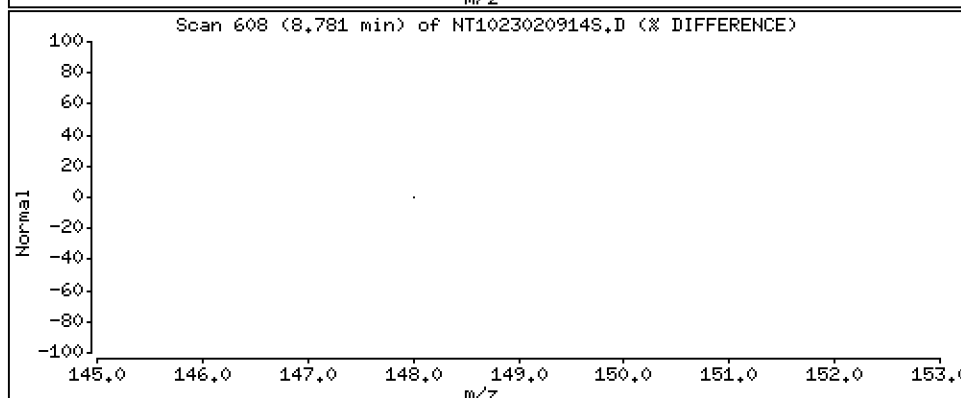
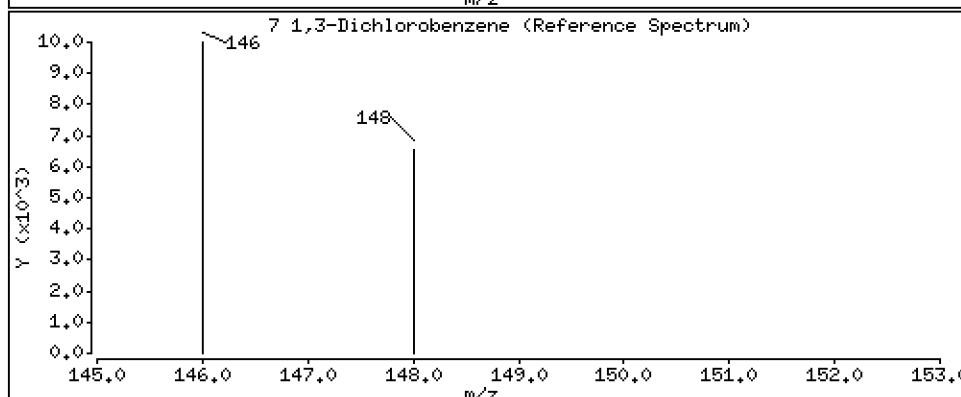
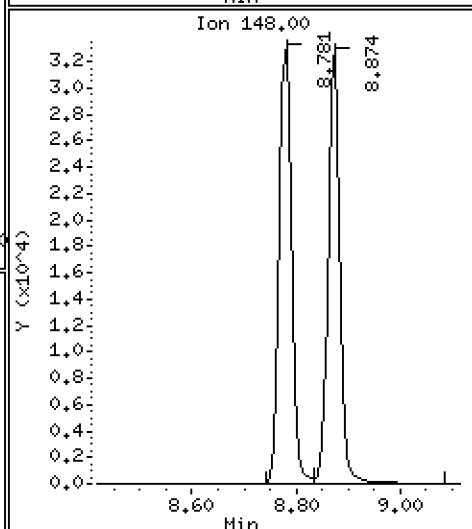
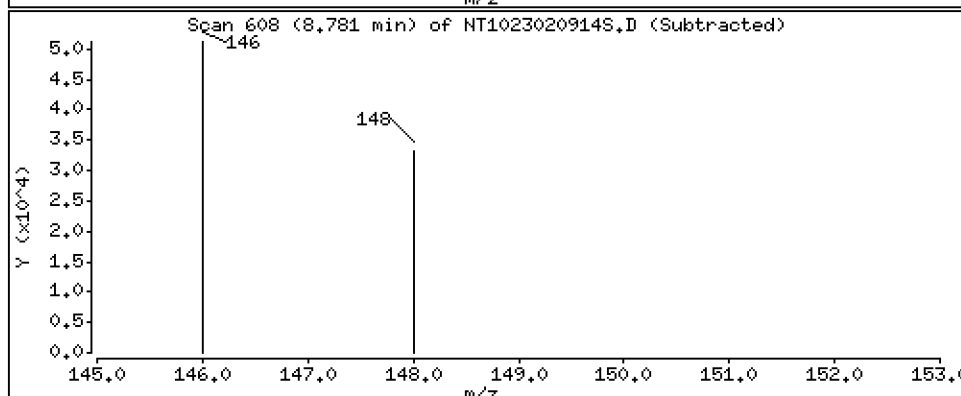
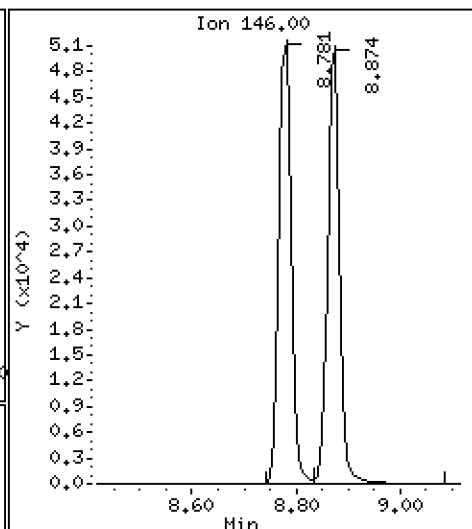
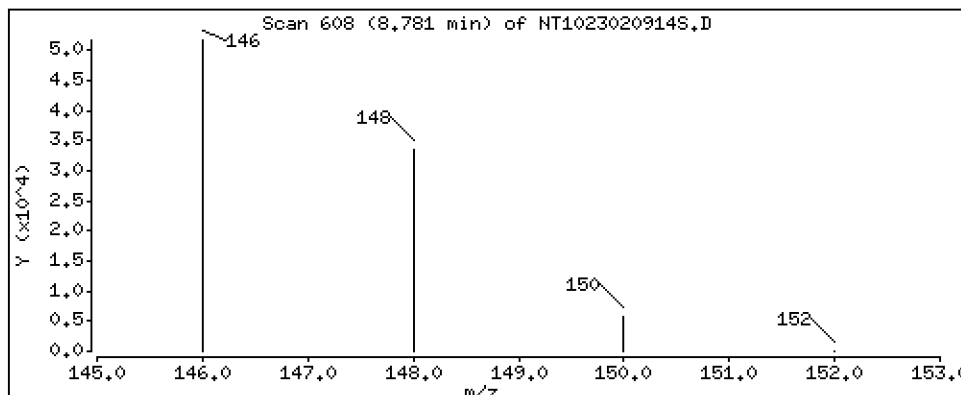
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 3,204 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

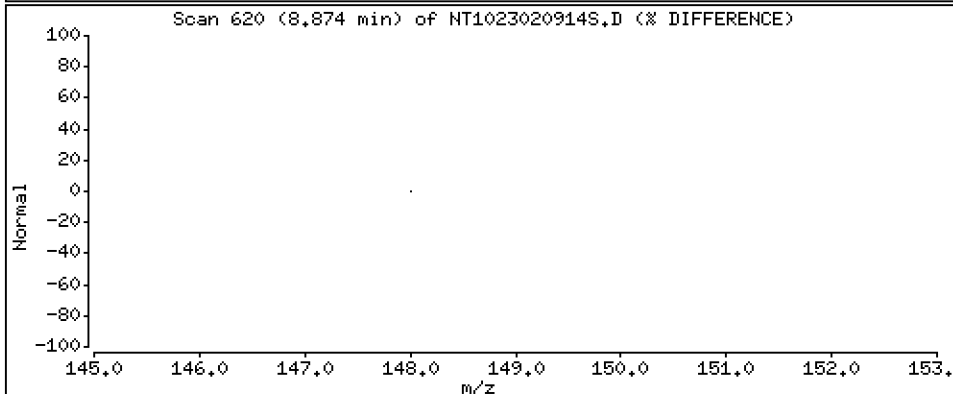
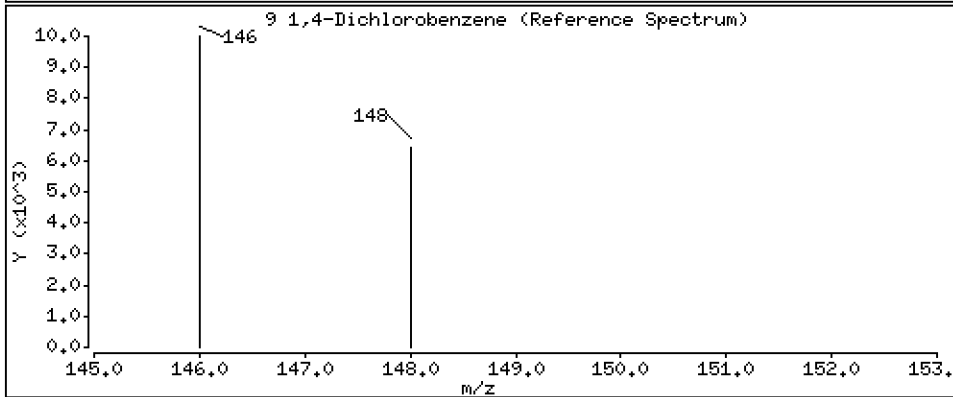
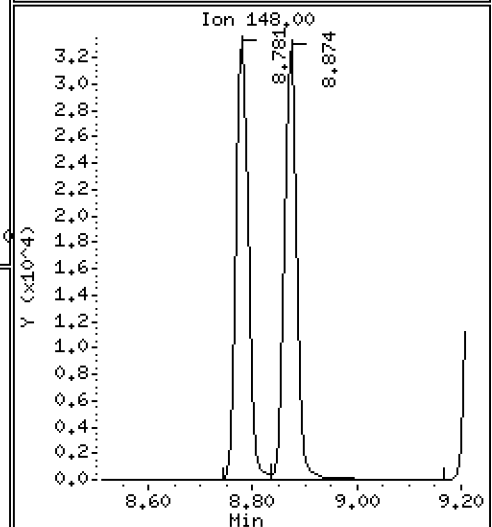
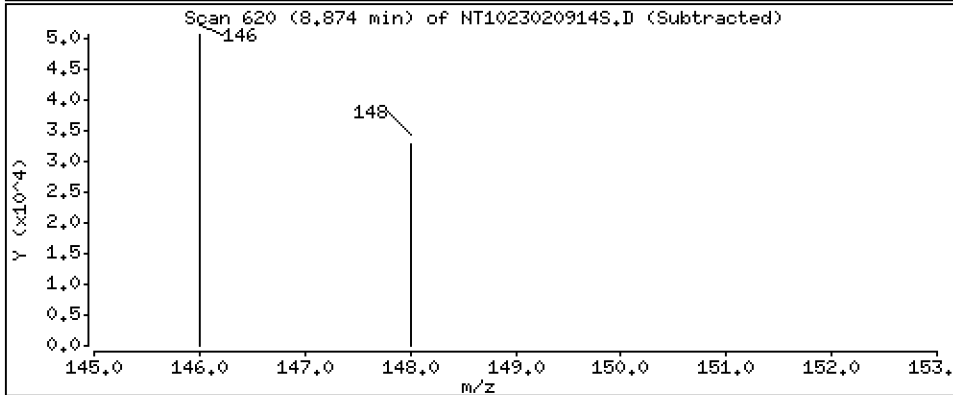
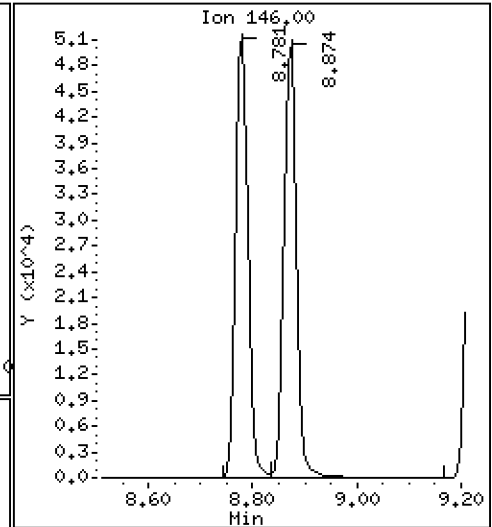
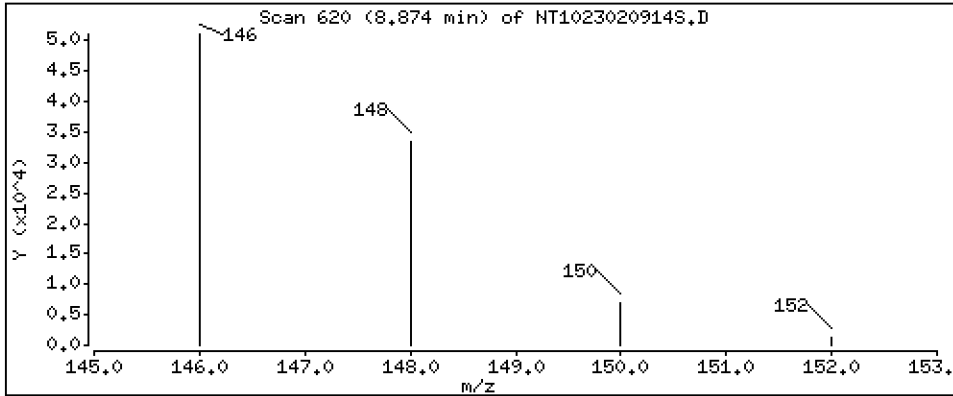
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 3.296 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

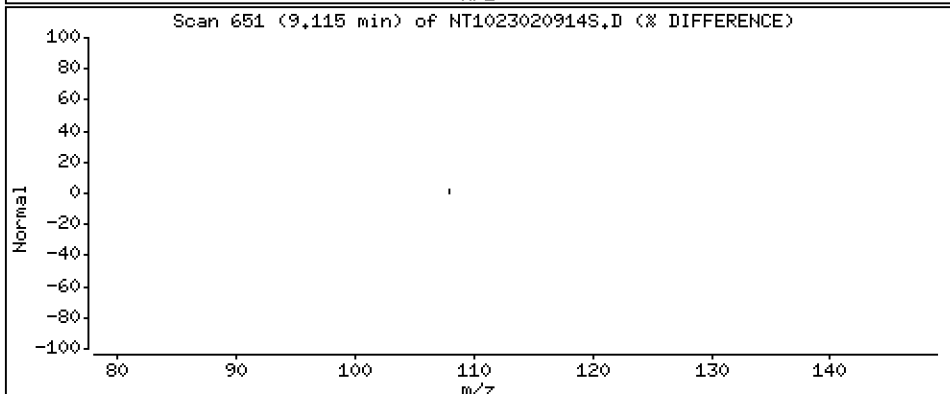
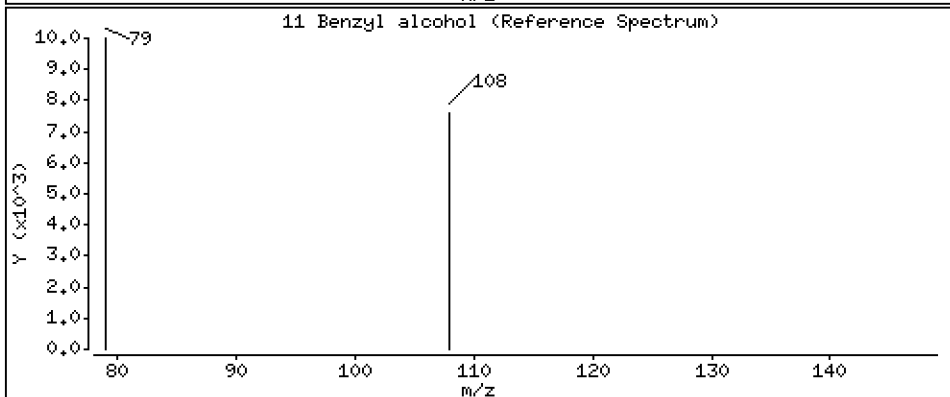
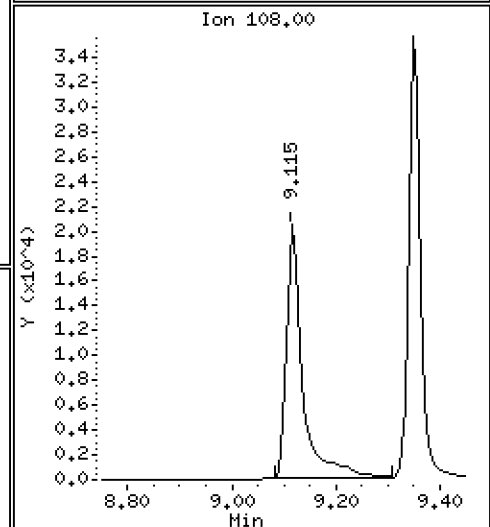
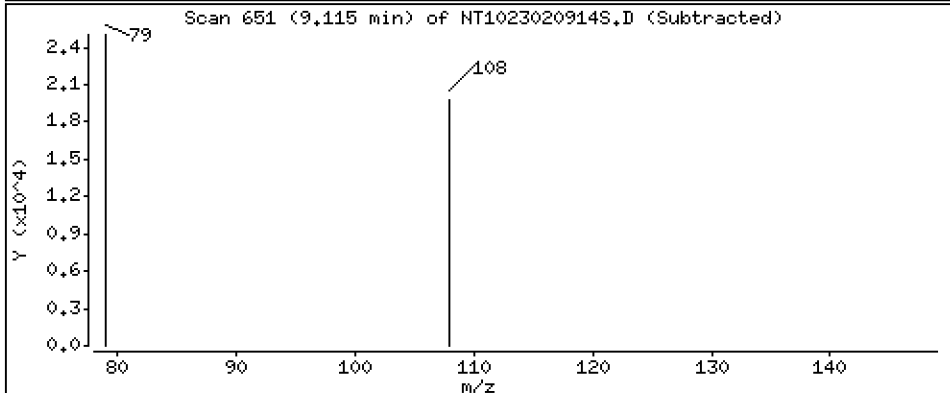
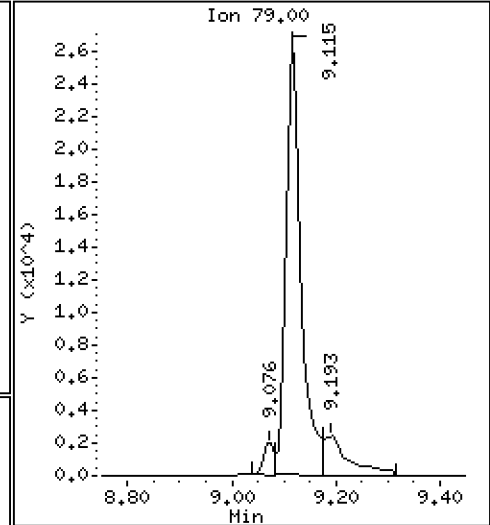
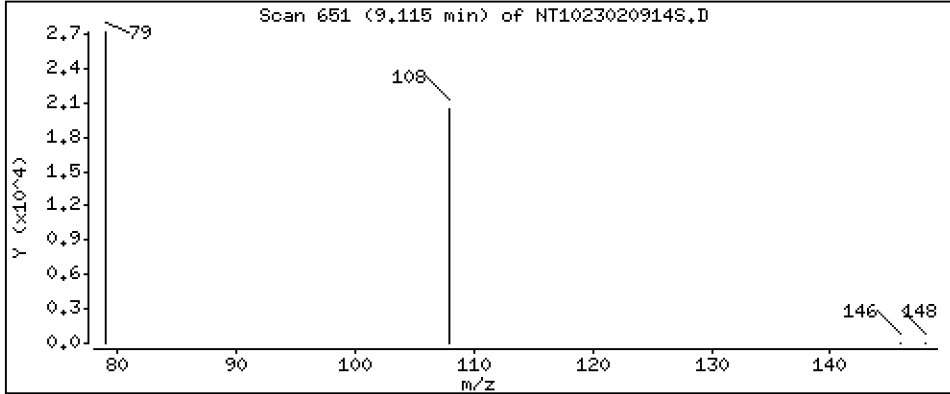
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 3,949 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

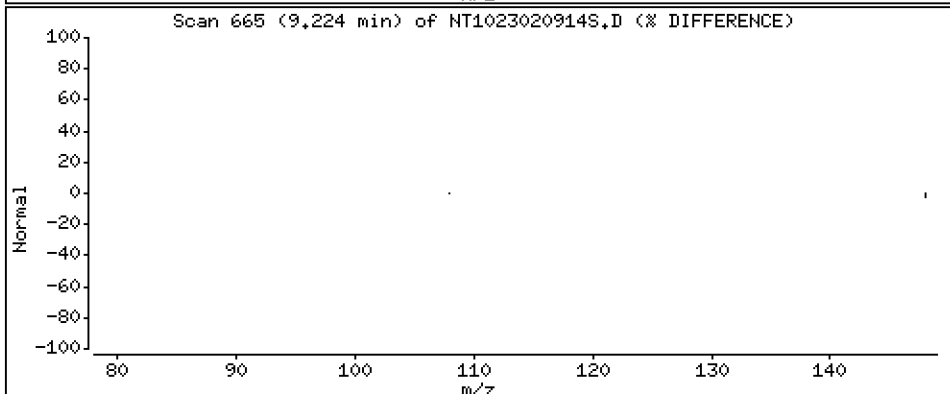
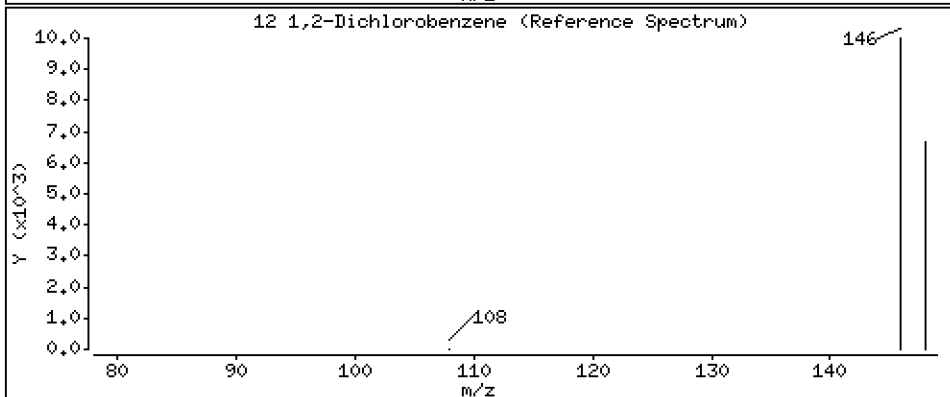
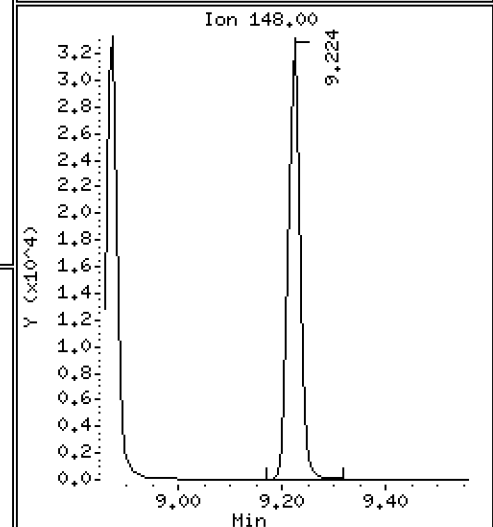
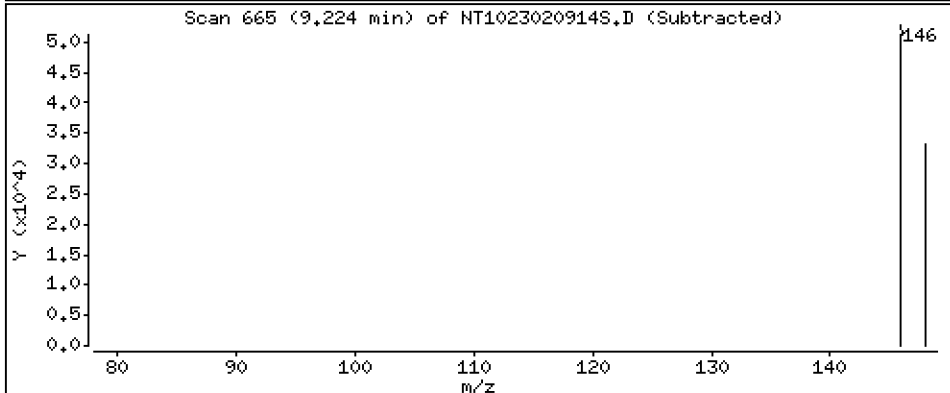
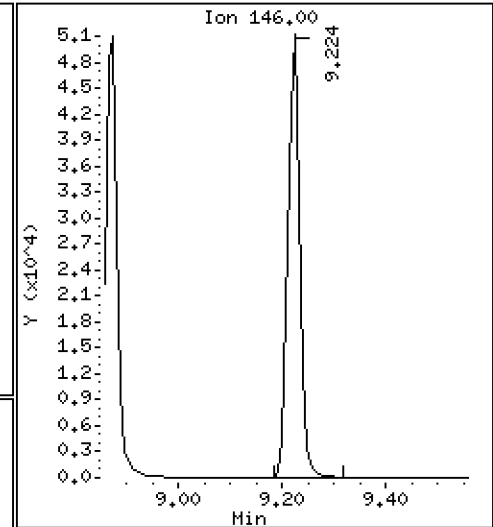
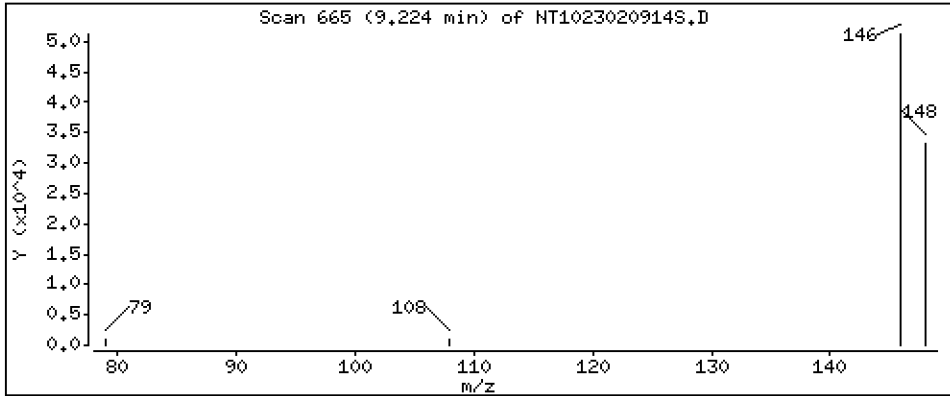
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

12 1,2-Dichlorobenzene

Concentration: 3,278 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

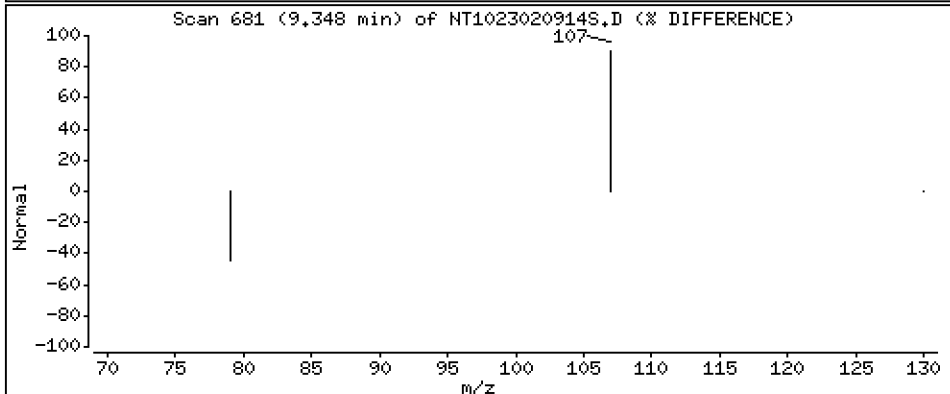
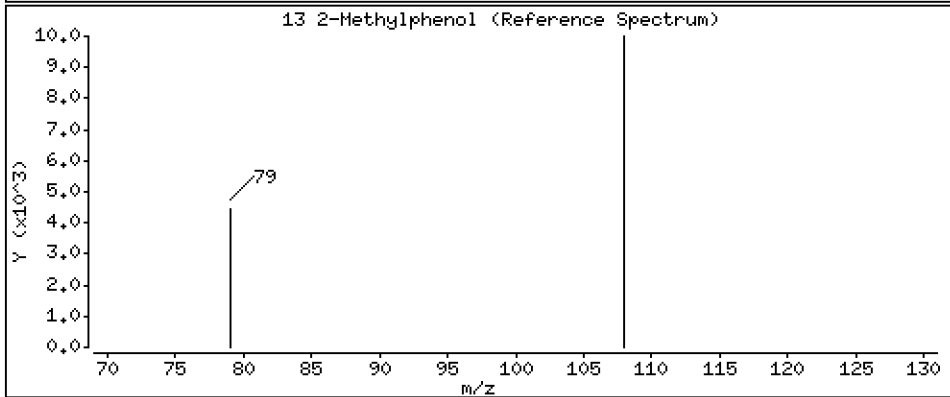
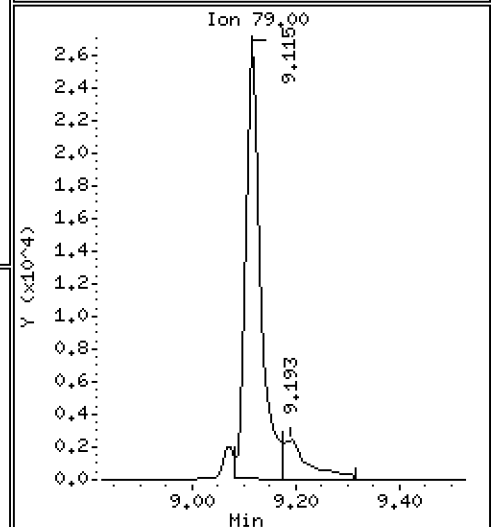
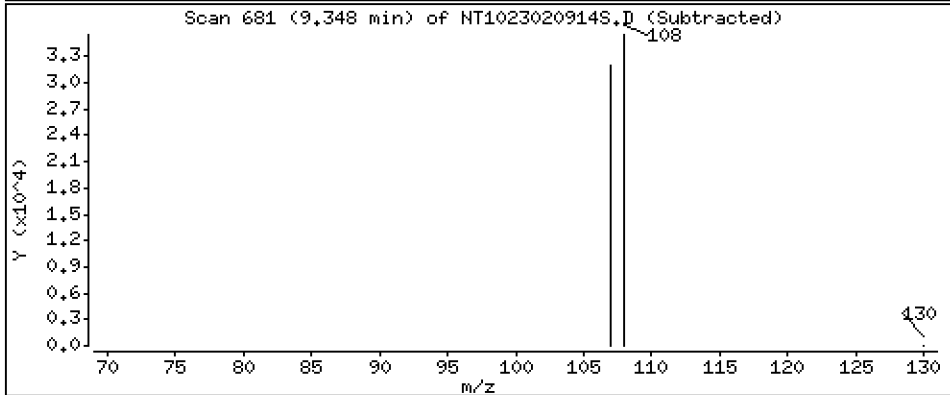
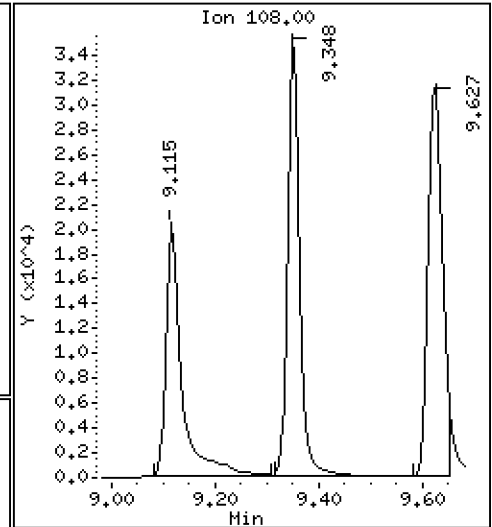
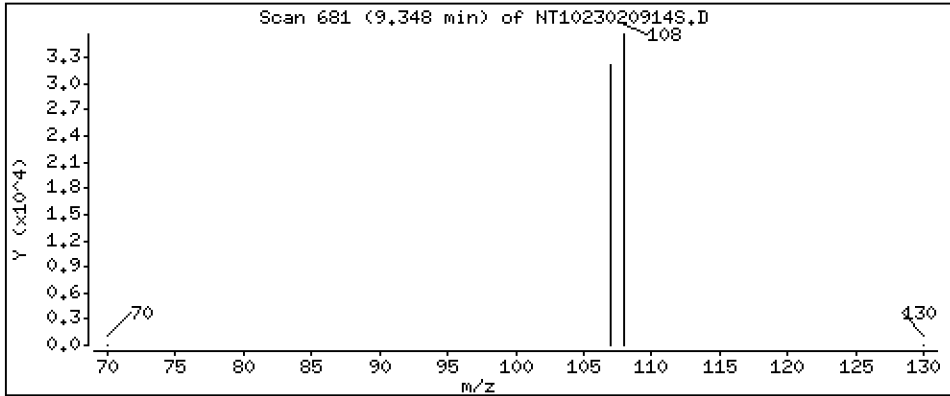
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 3.025 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

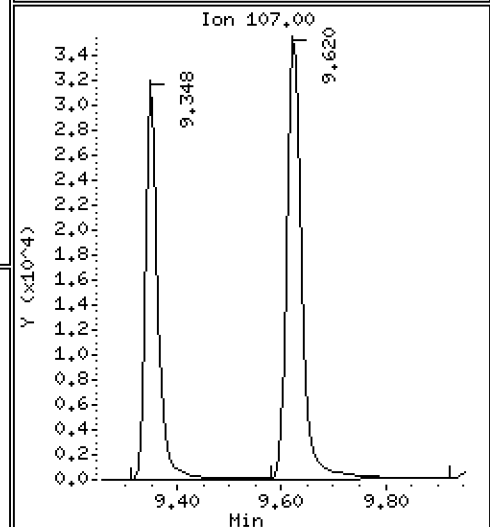
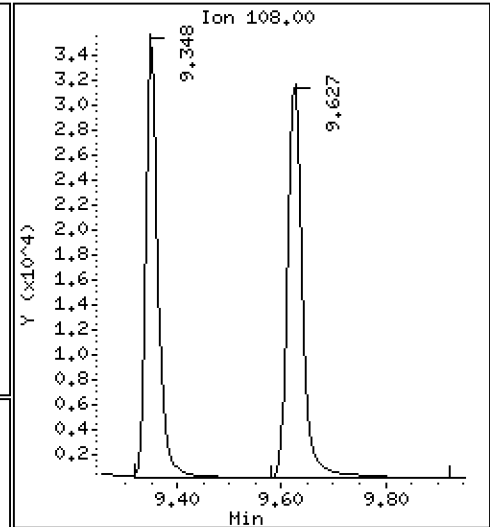
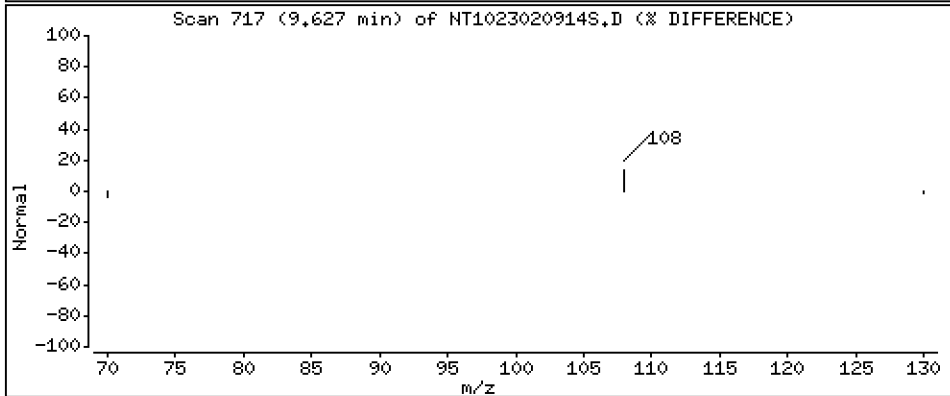
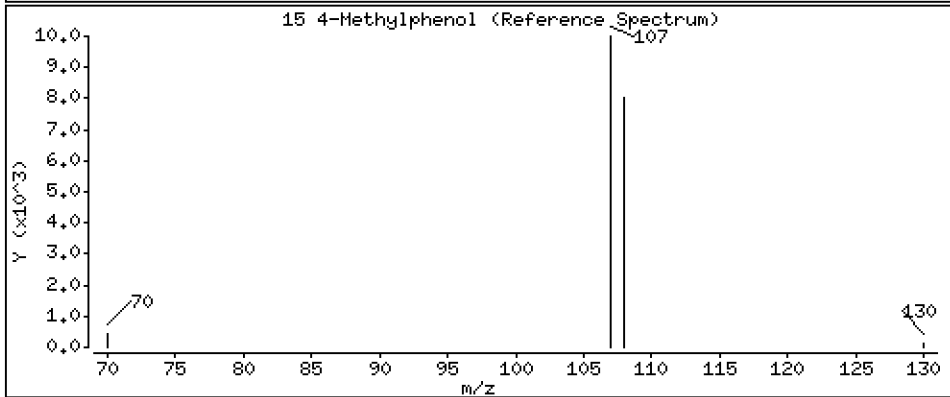
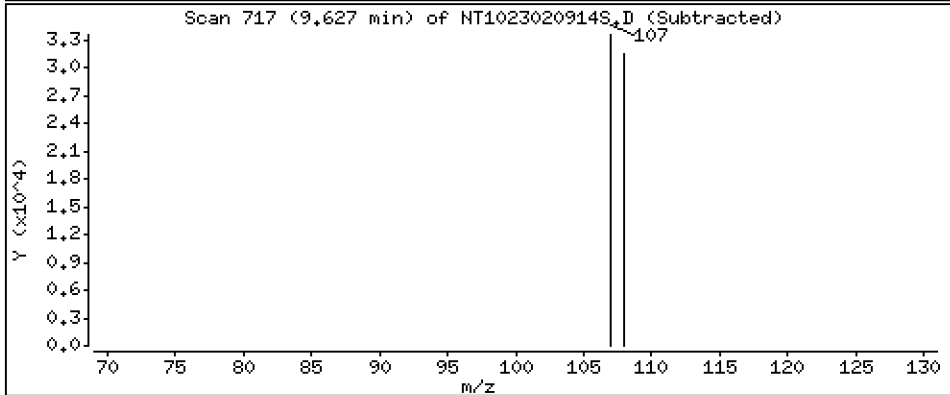
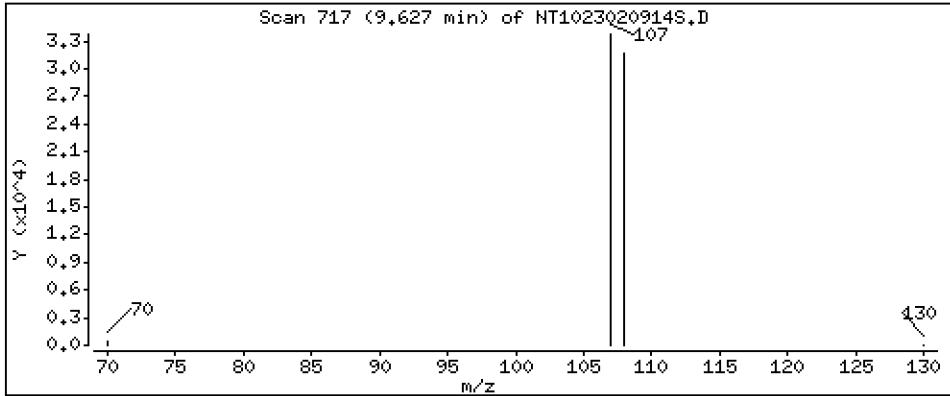
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 3,369 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

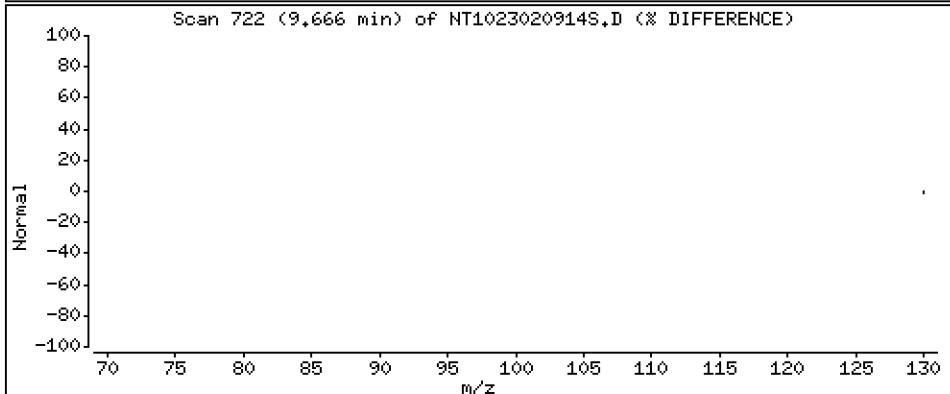
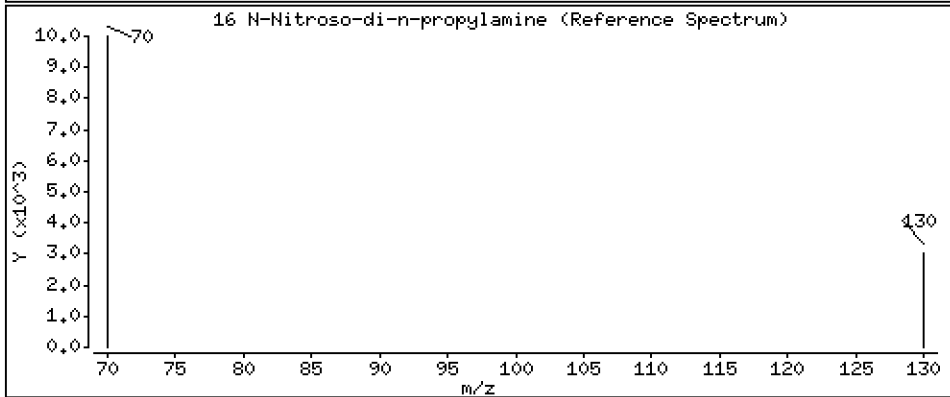
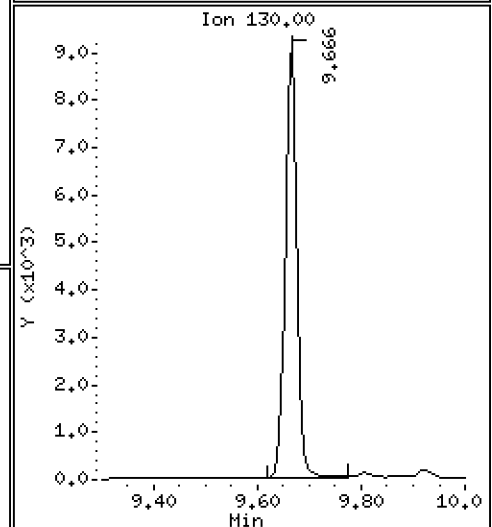
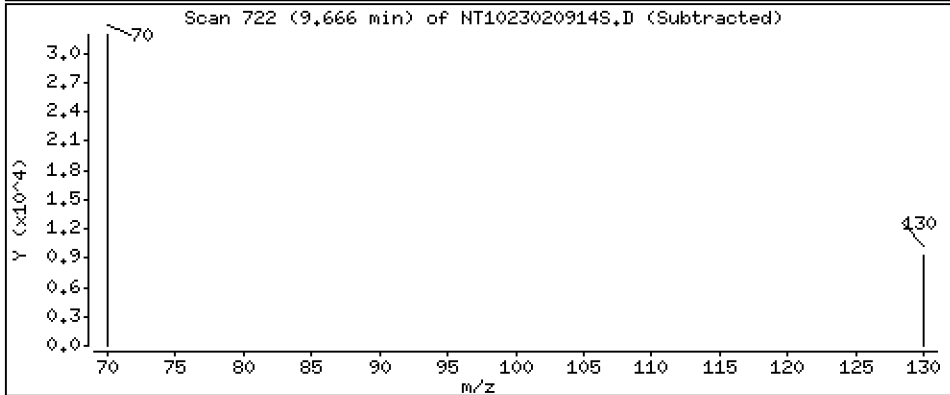
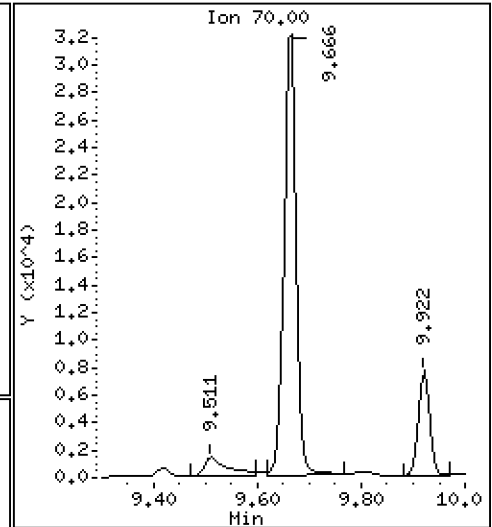
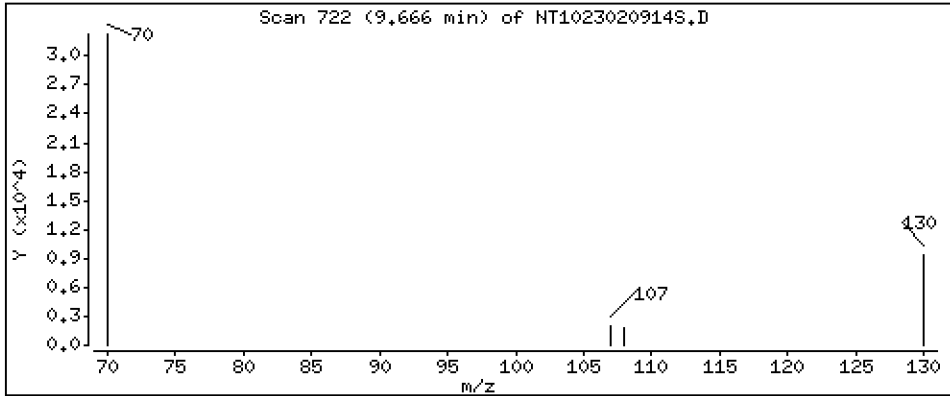
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 3,743 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

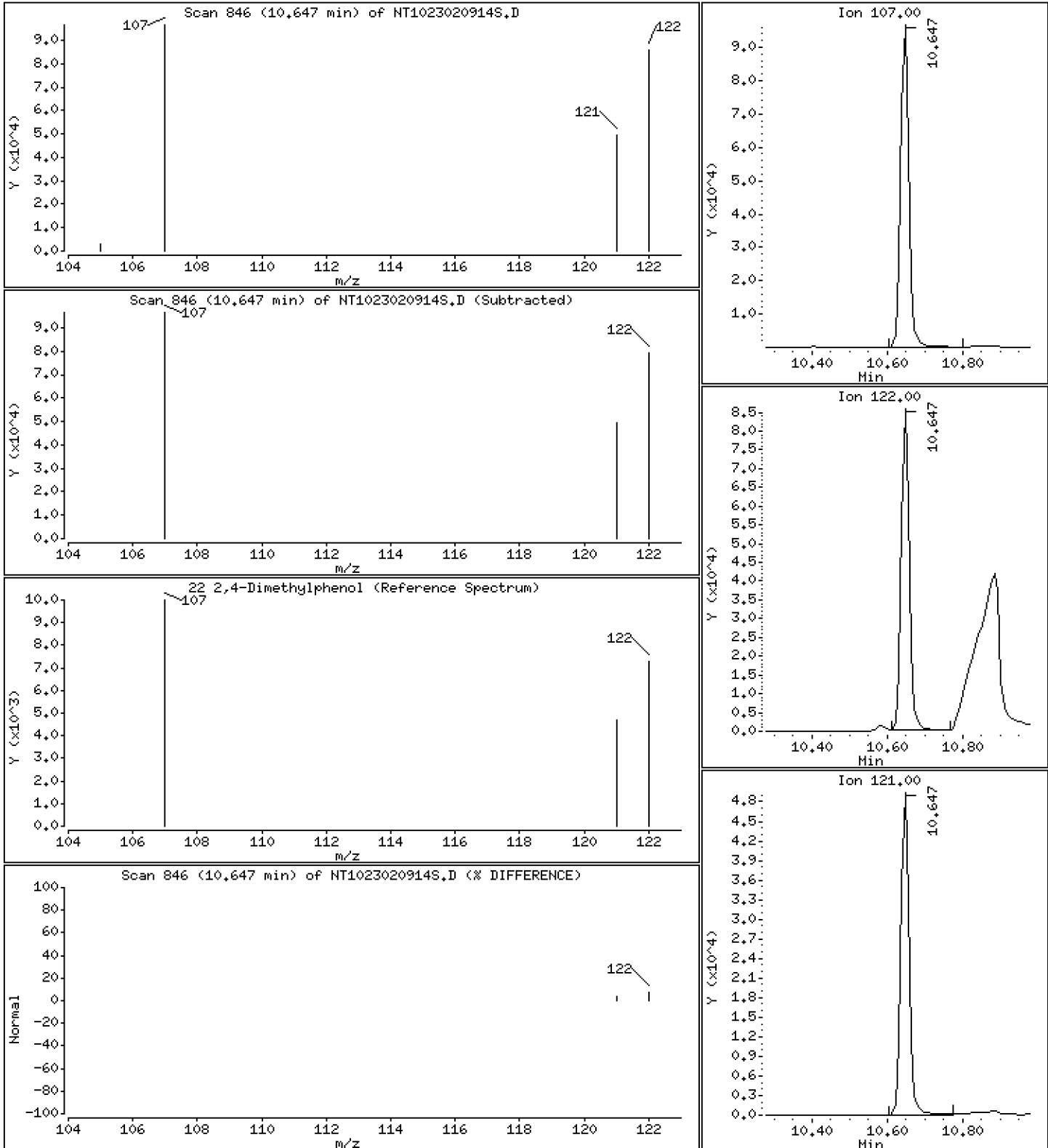
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 7.679 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

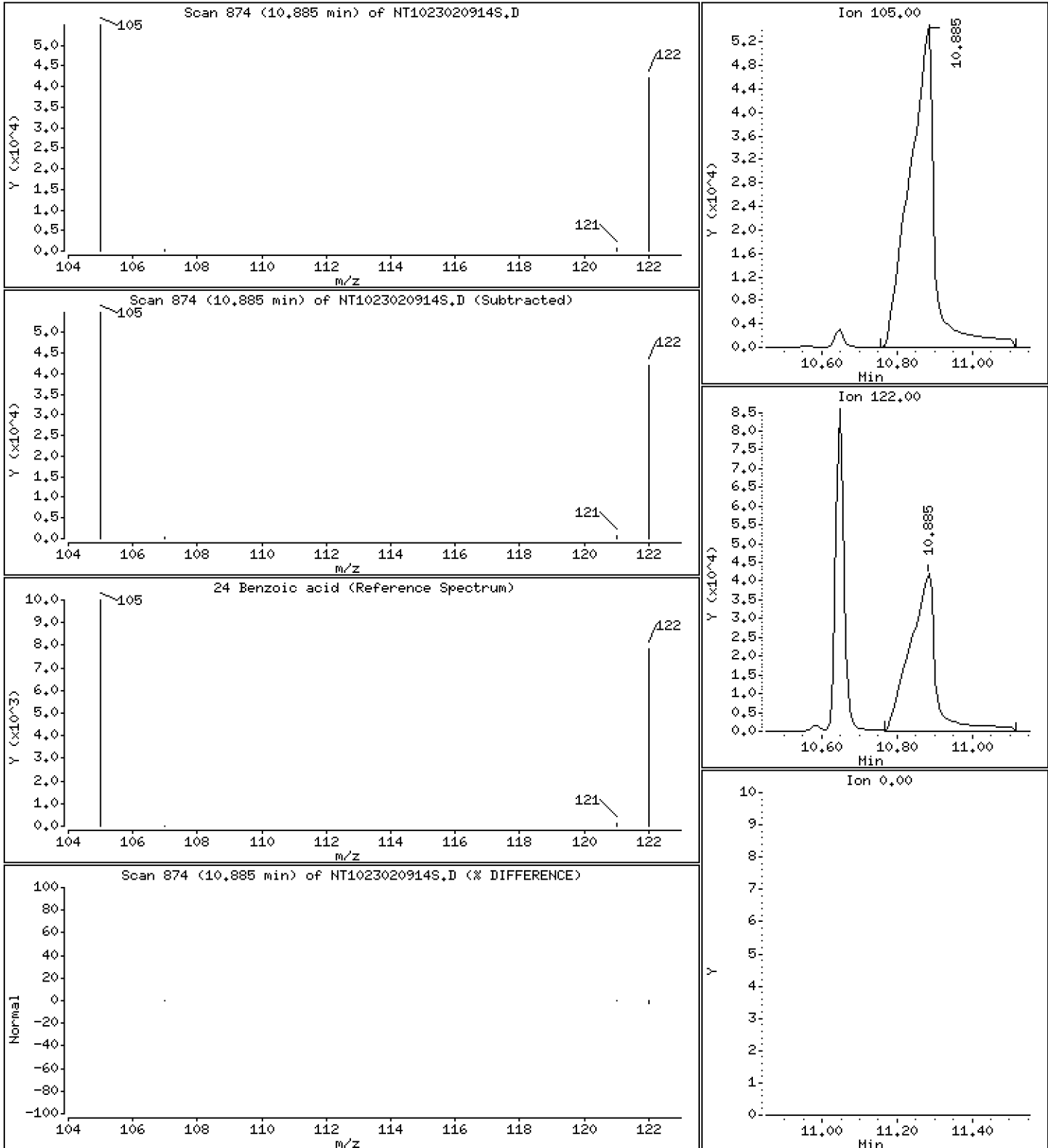
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 24,15 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

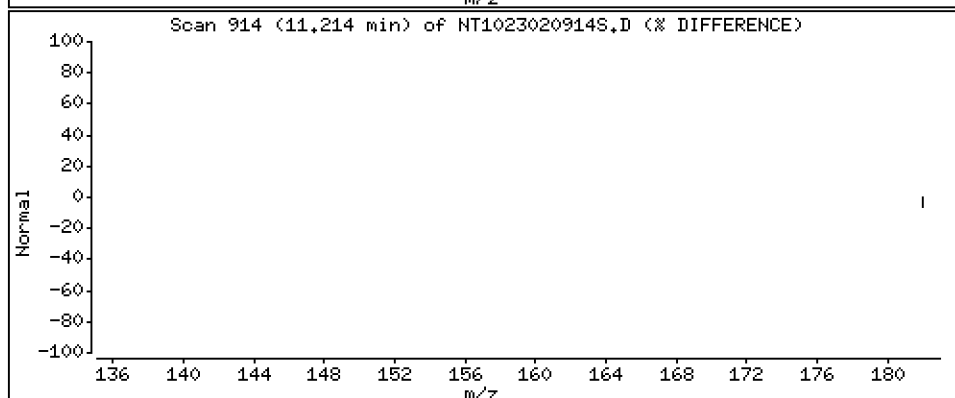
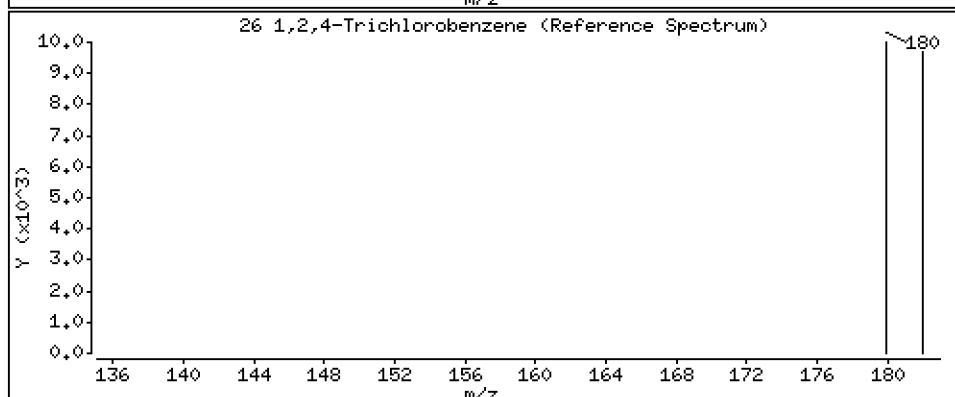
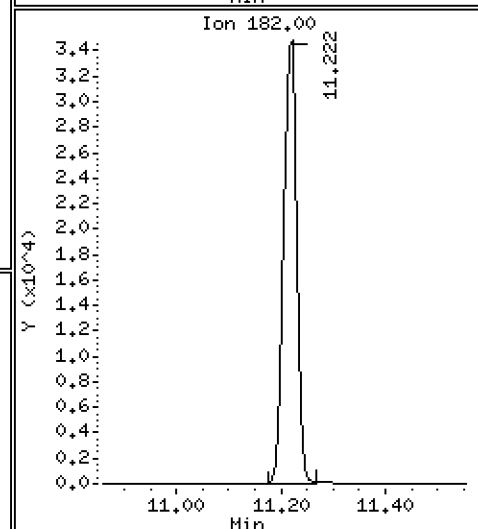
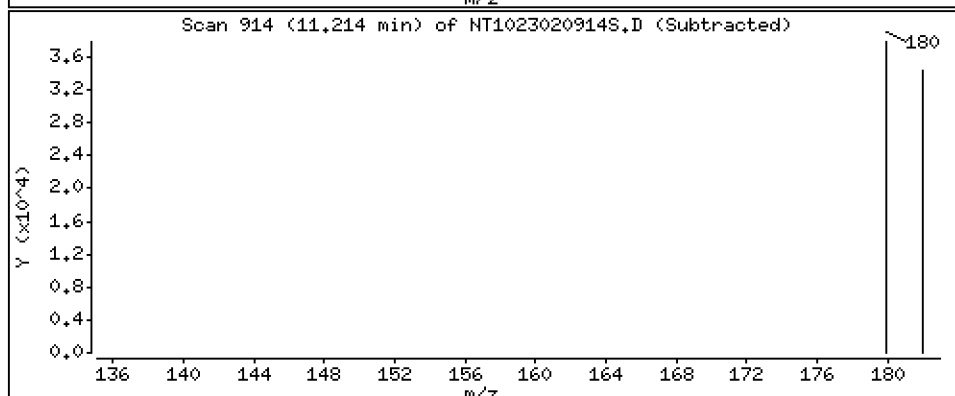
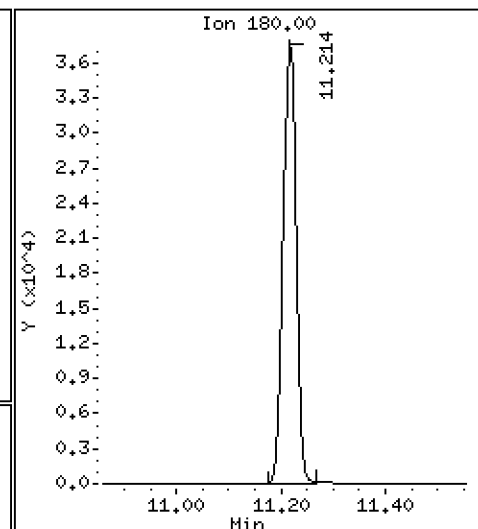
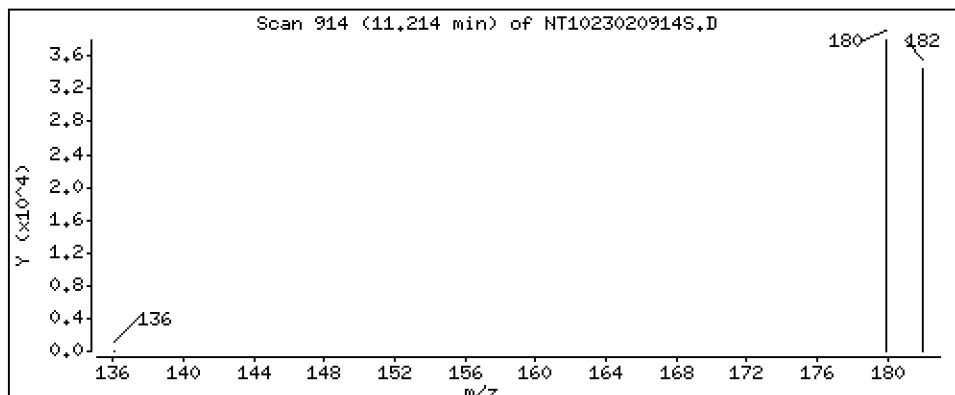
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 3,423 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

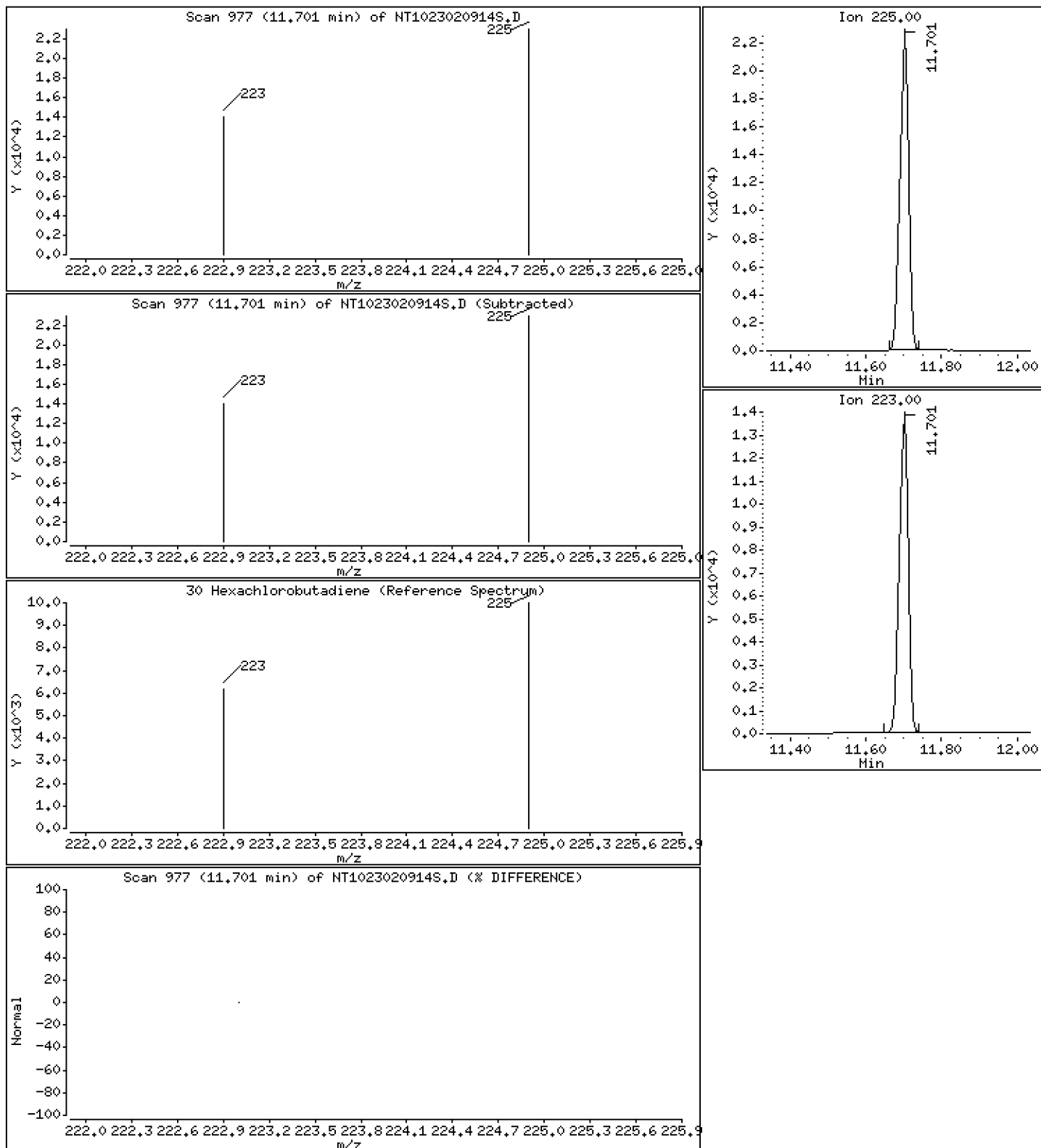
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 3,564 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

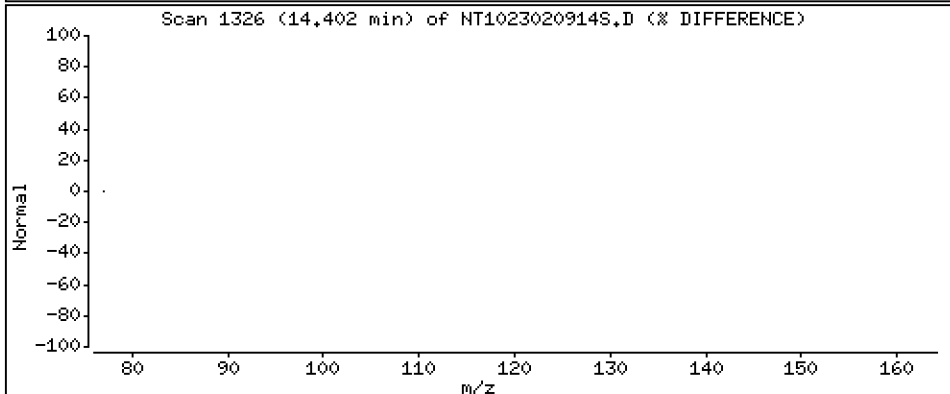
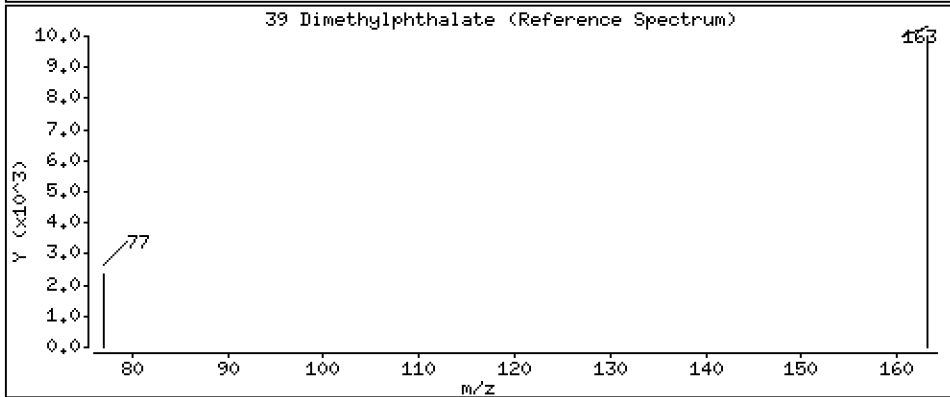
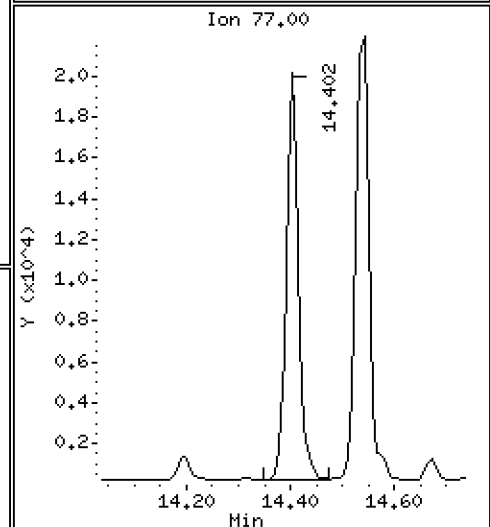
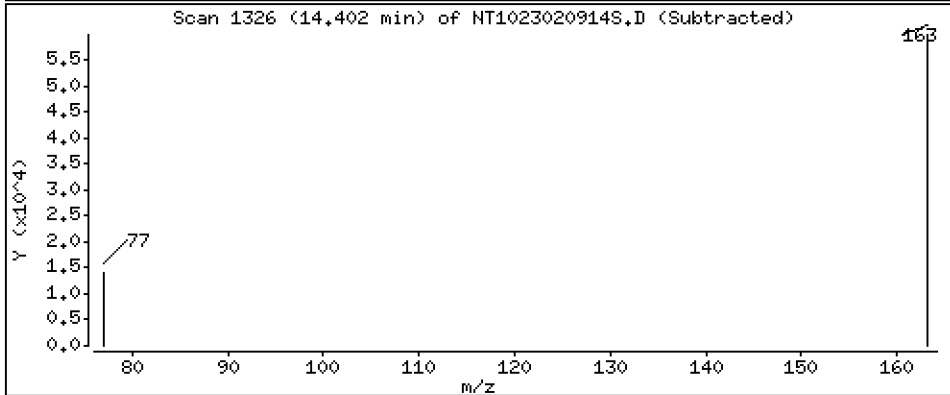
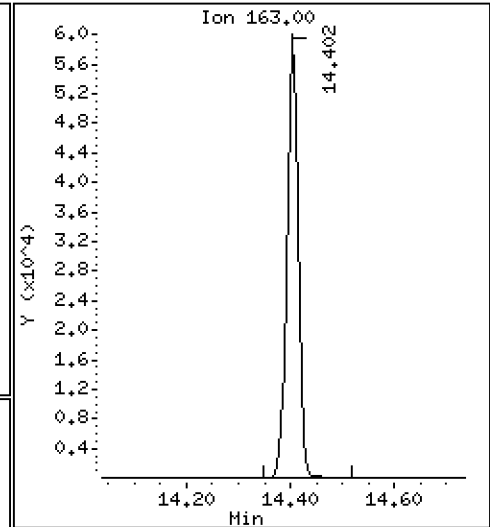
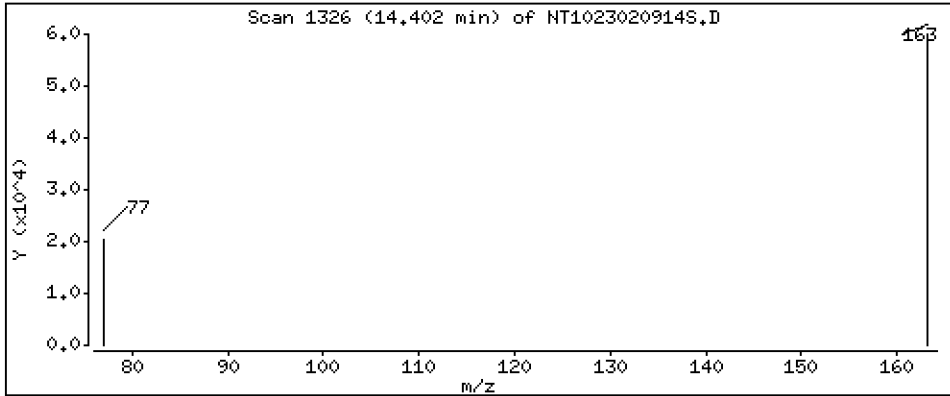
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 3,849 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

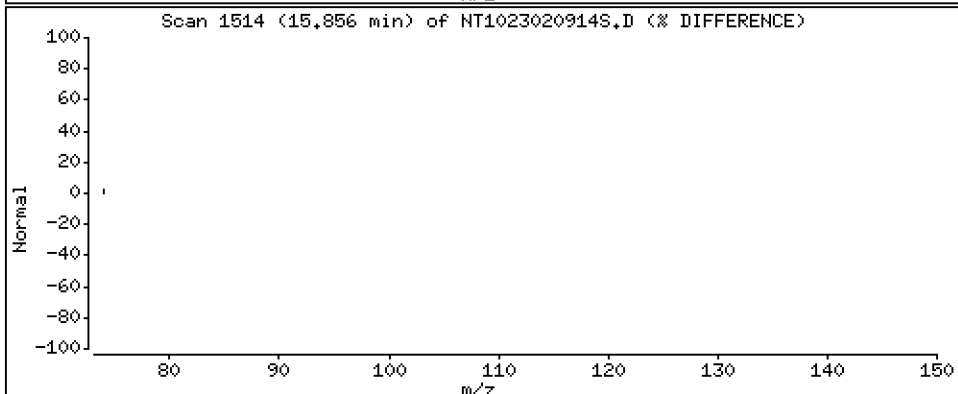
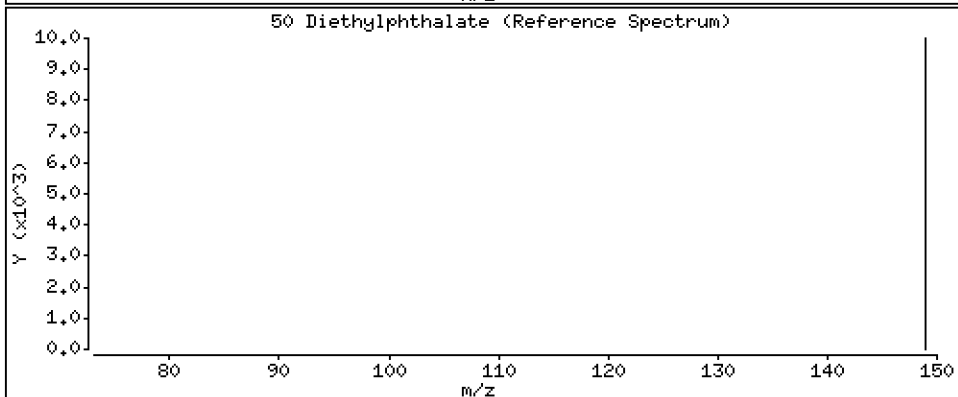
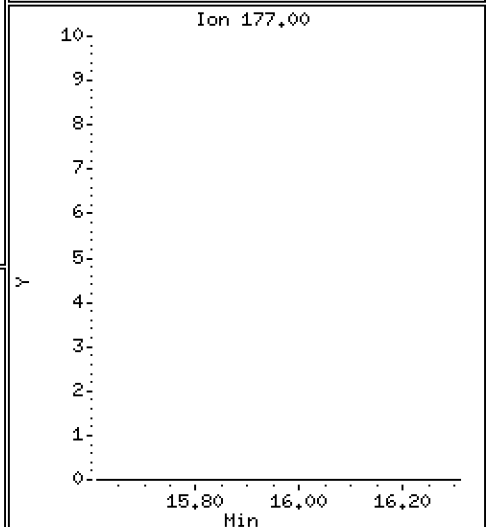
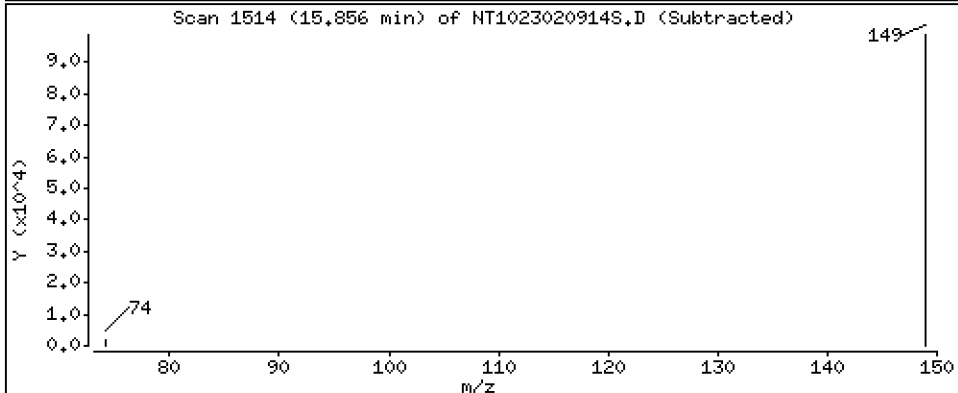
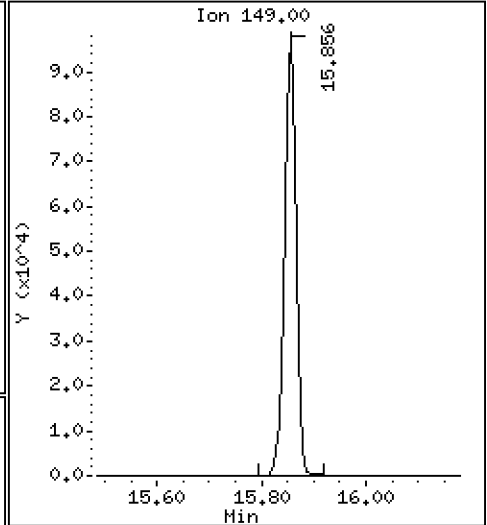
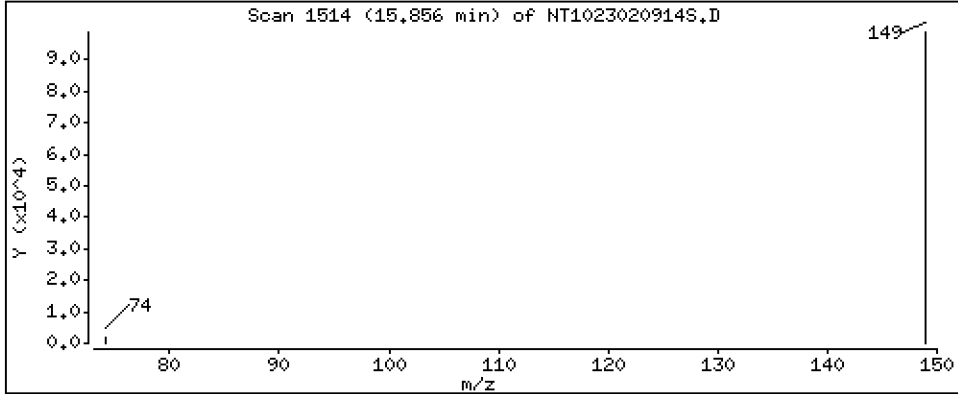
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,397 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

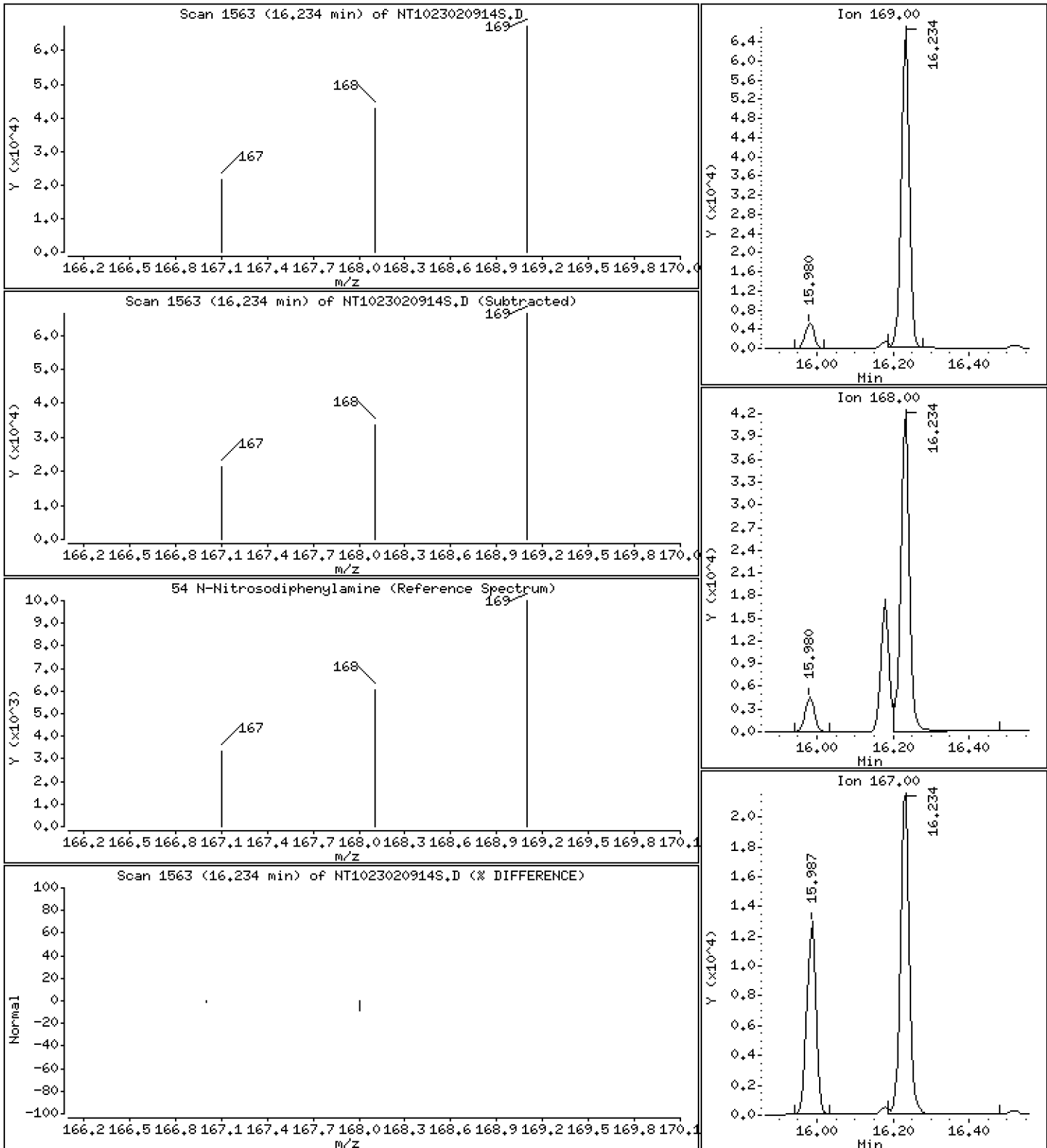
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 3.411 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

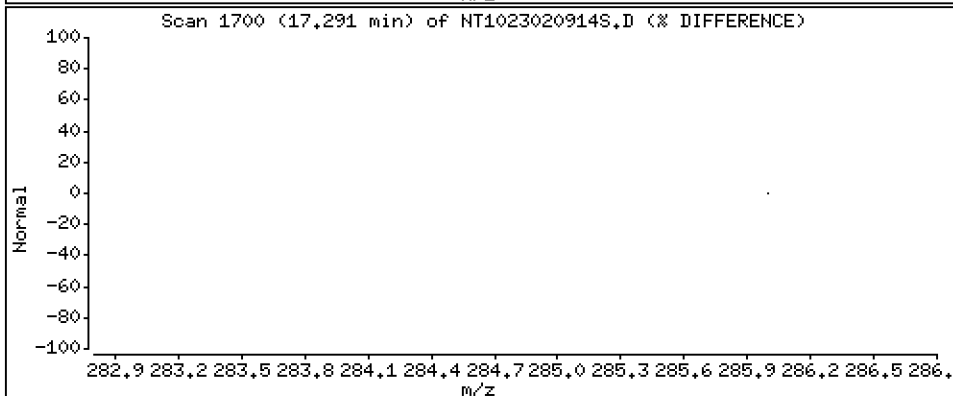
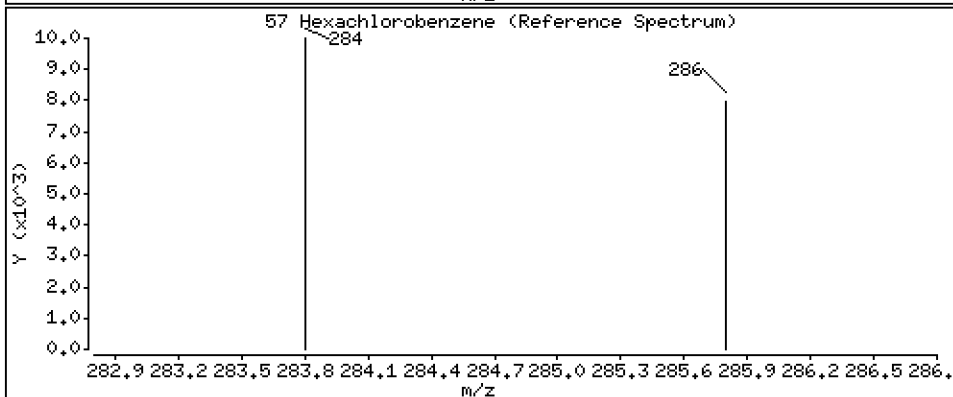
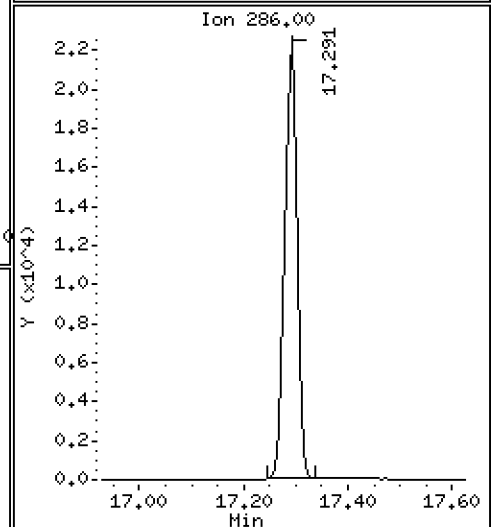
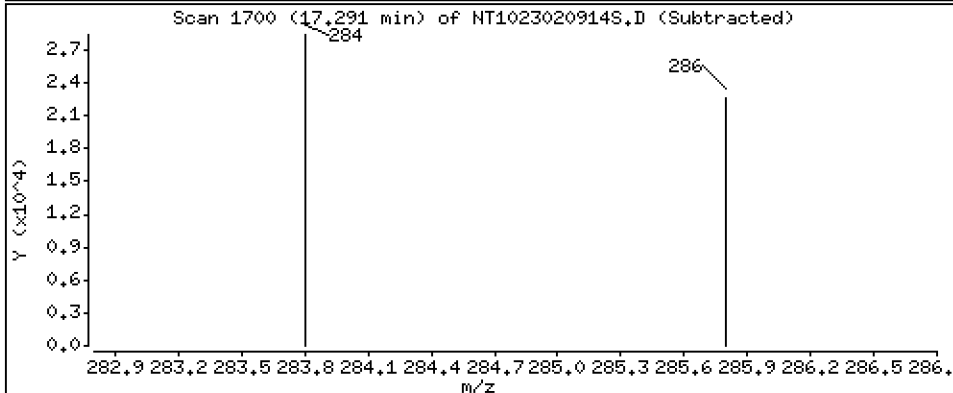
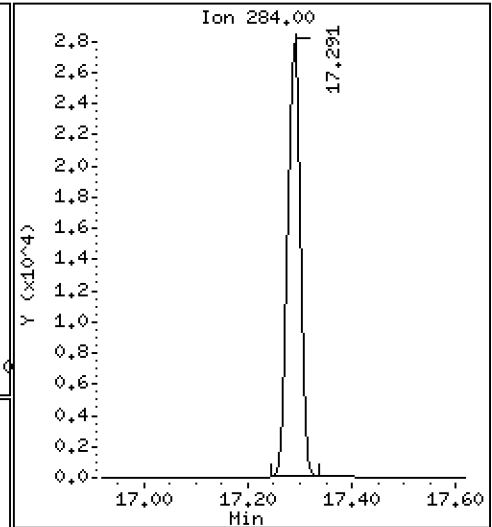
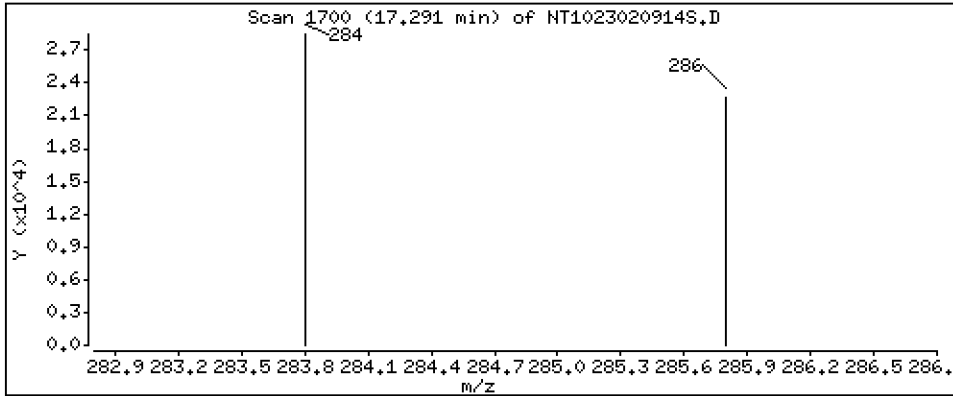
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 3,617 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

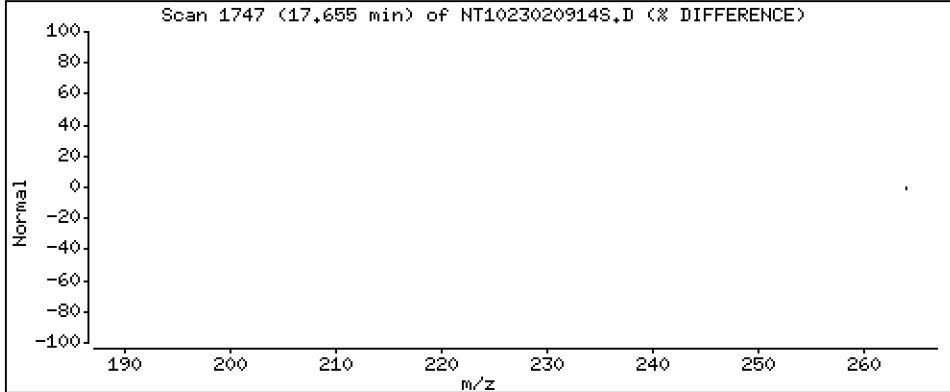
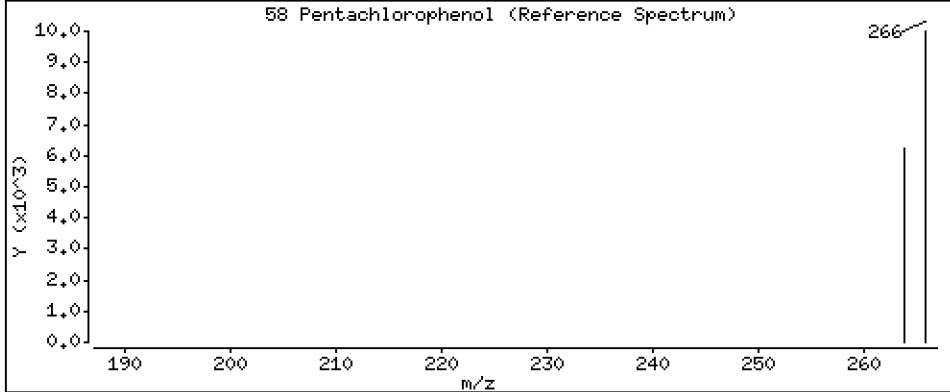
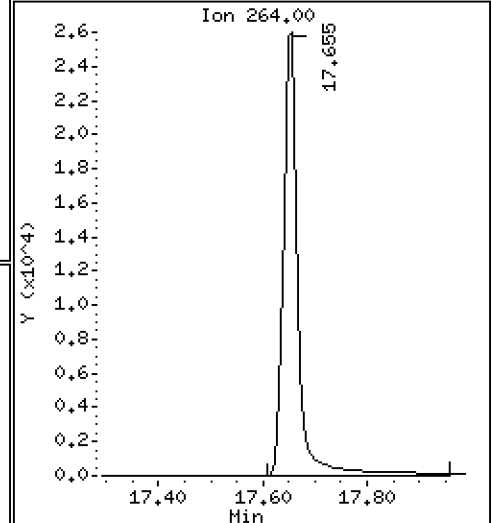
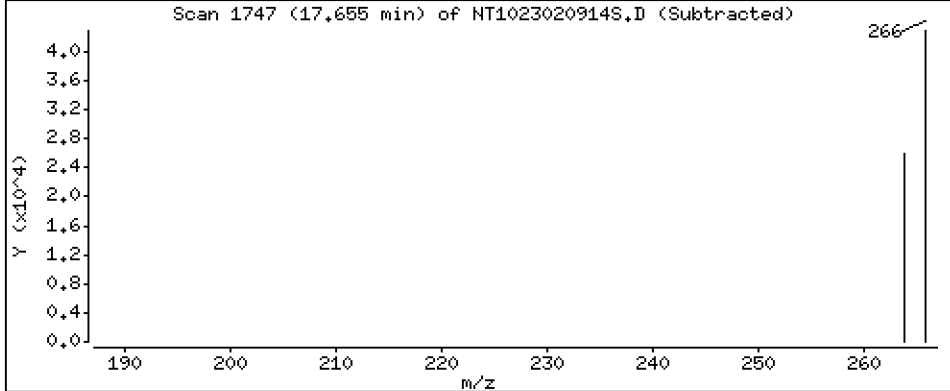
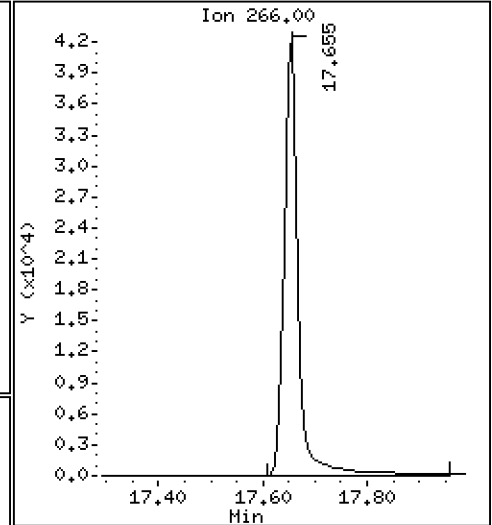
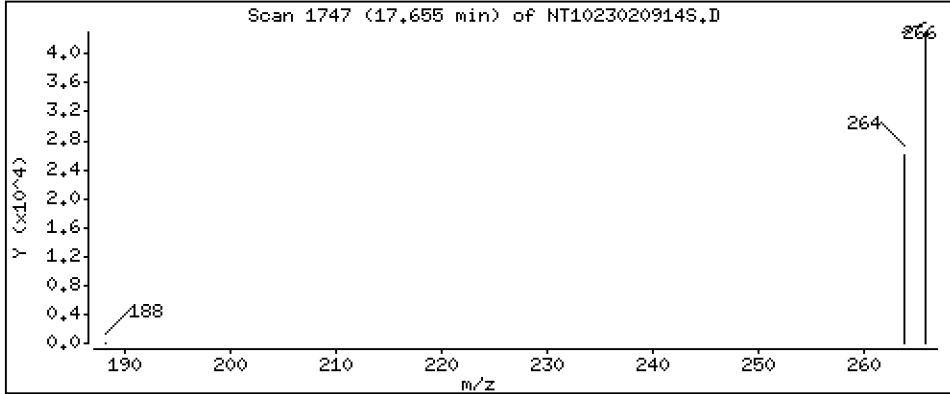
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 15,34 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

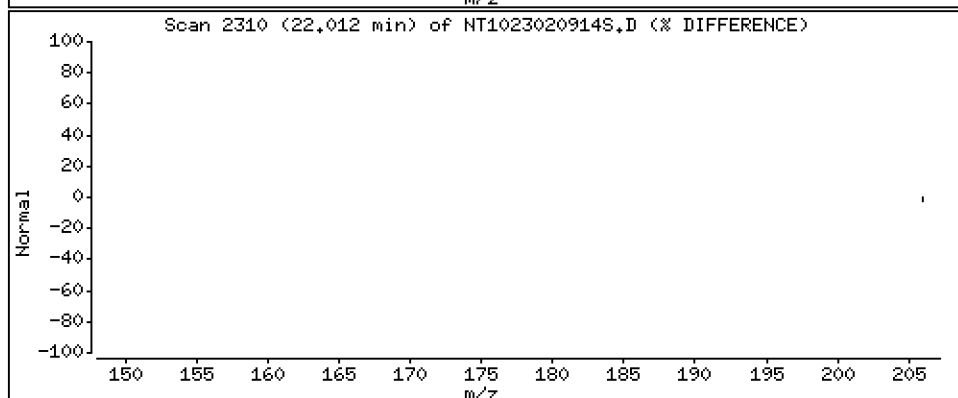
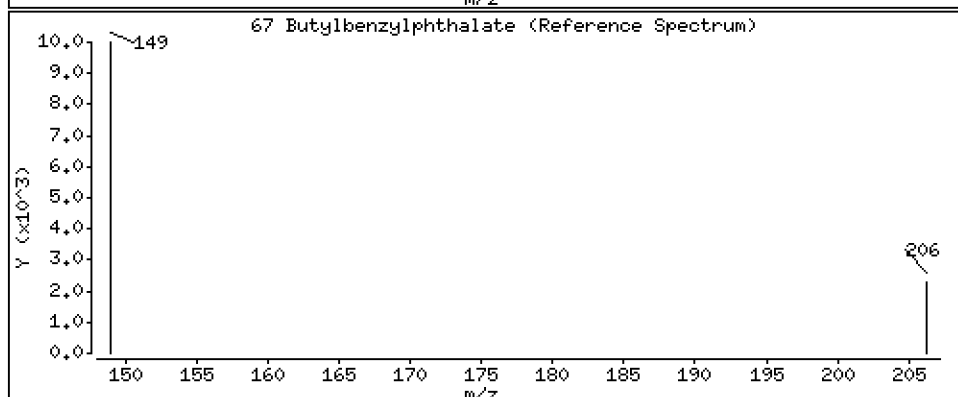
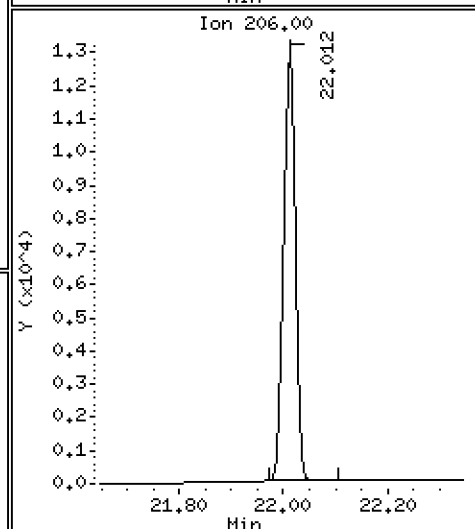
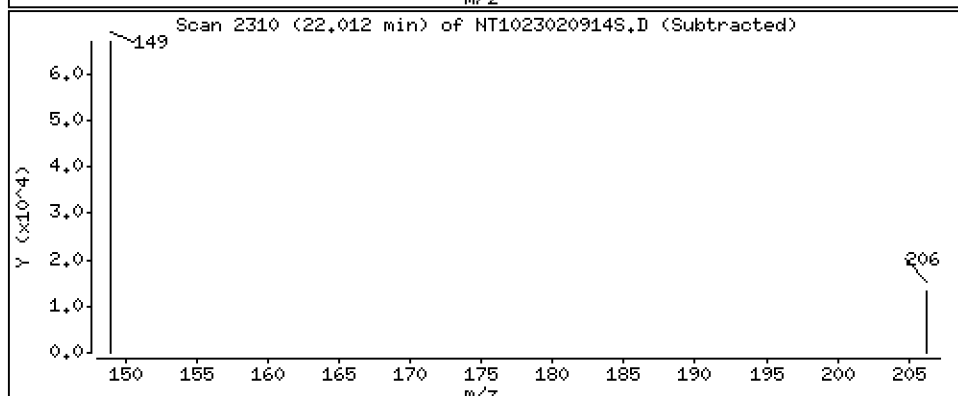
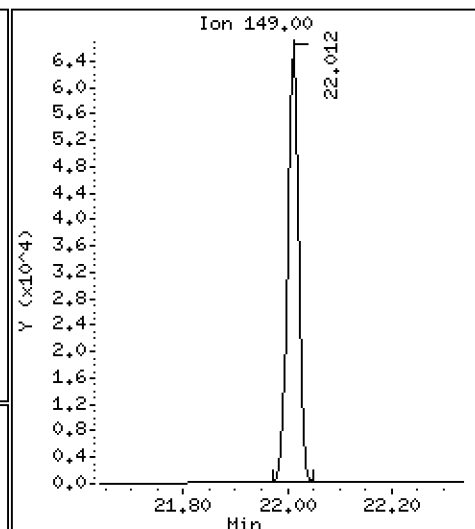
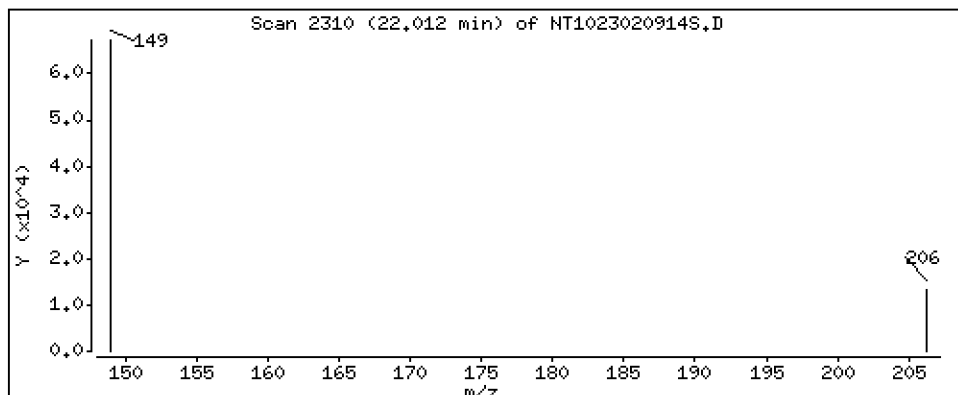
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,168 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

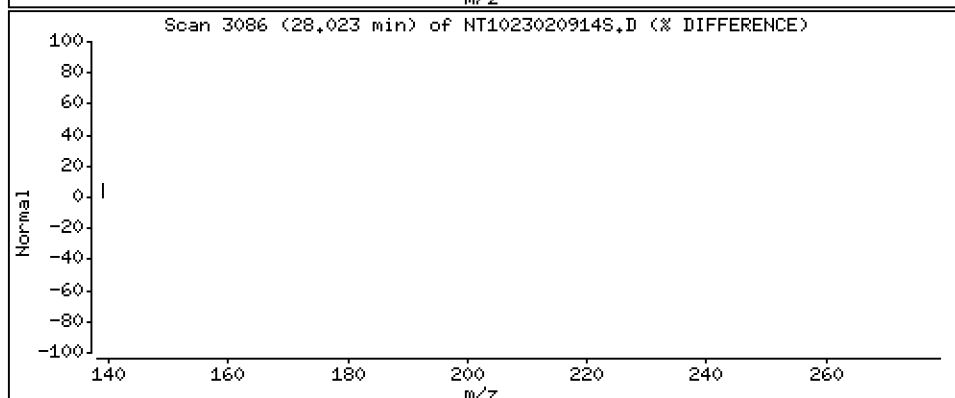
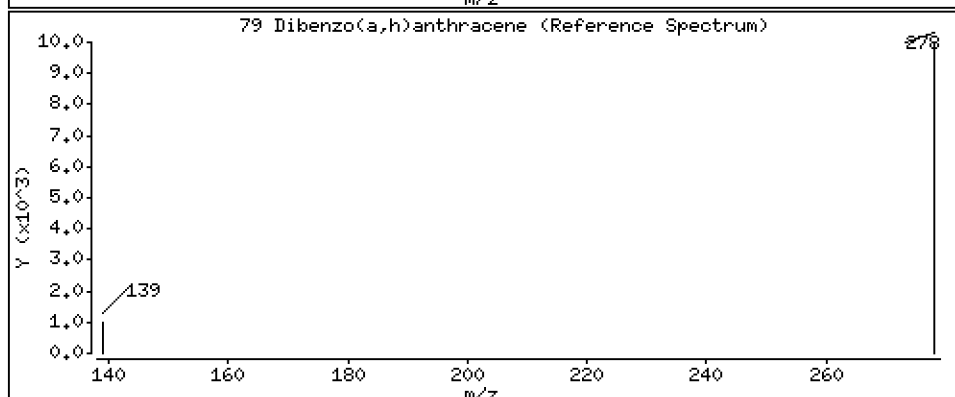
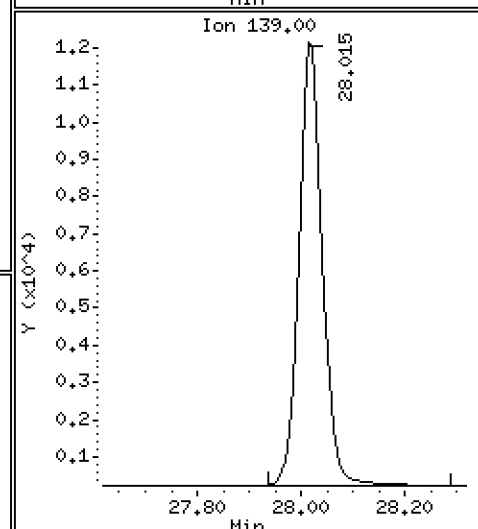
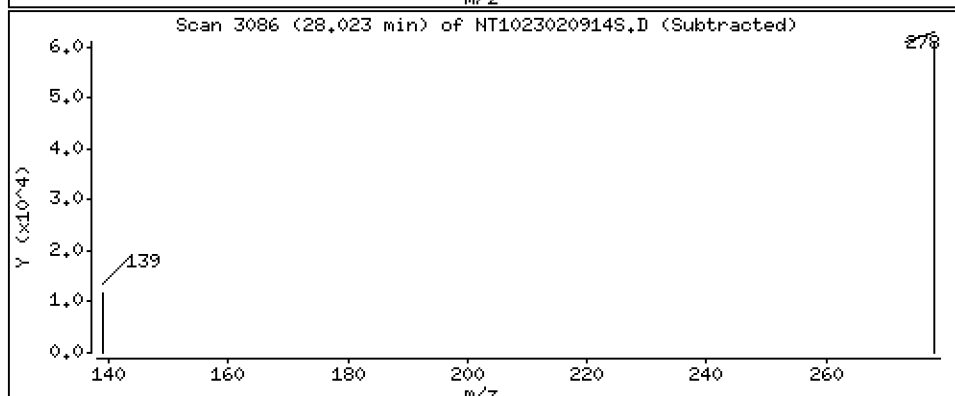
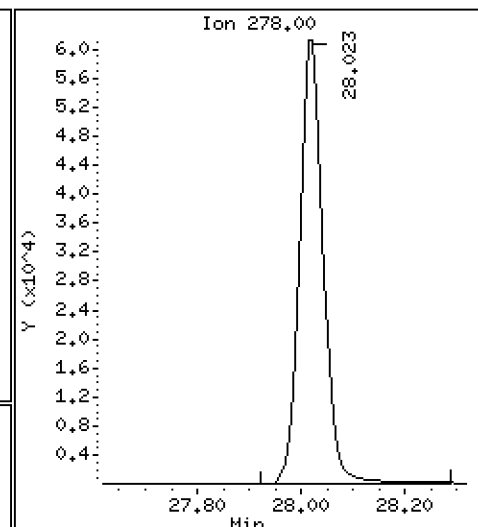
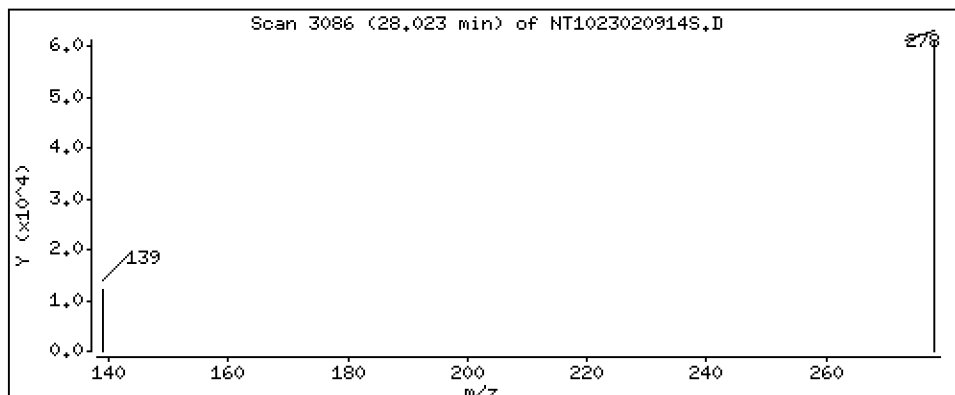
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 3,752 ug/L



Date : 09-FEB-2023 21:17

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BS1

Volume Injected (uL): 1.0

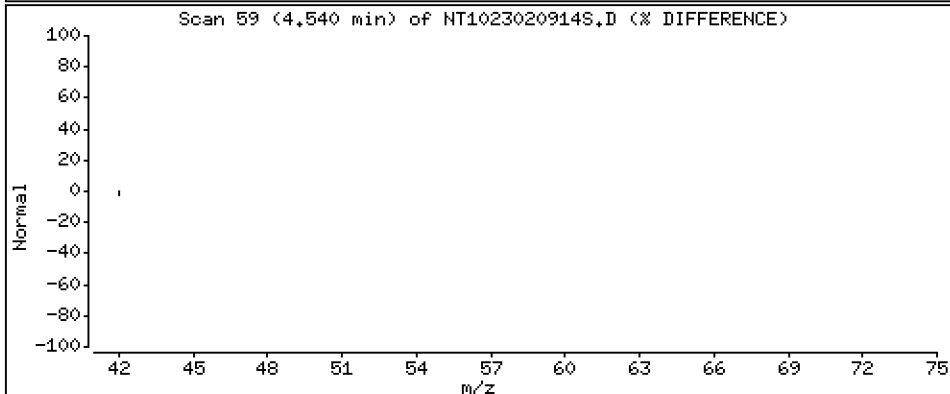
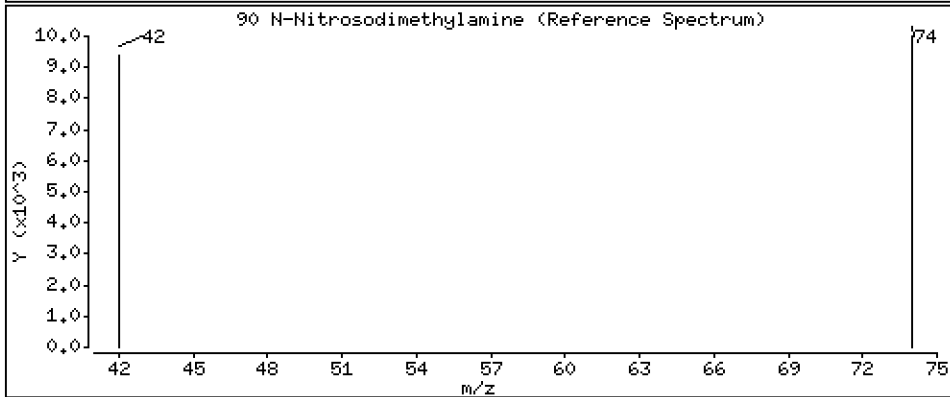
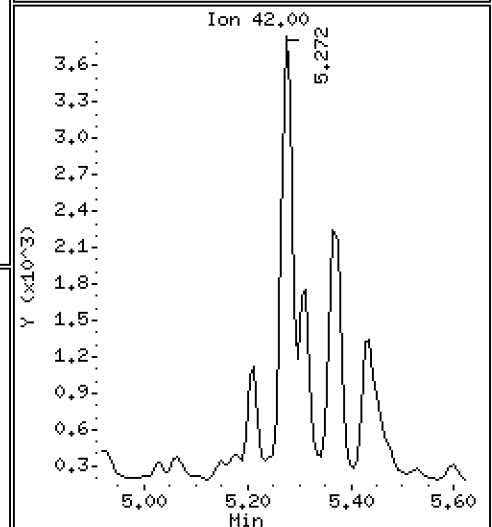
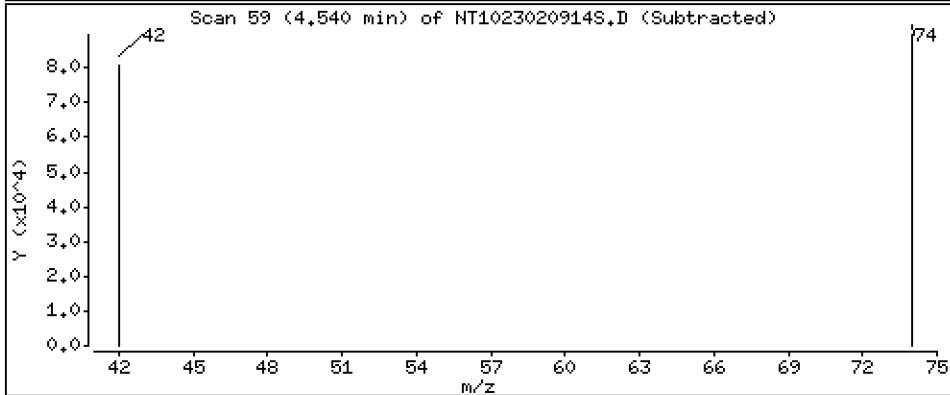
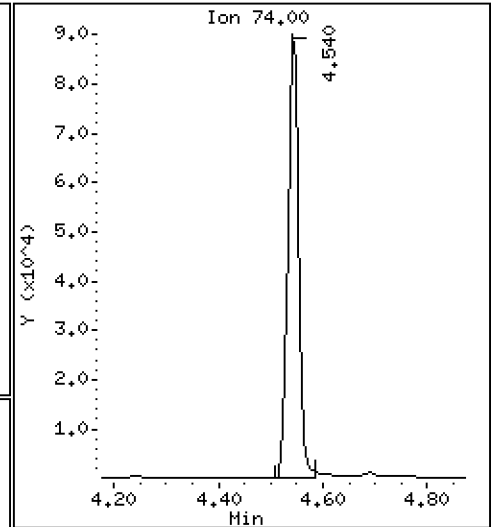
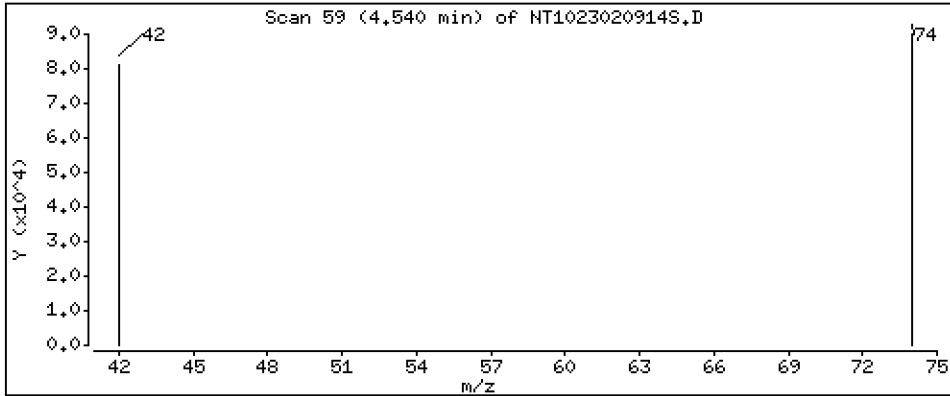
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 10.56 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230209.b\SIM.b\NT1023020914S.D
 Lab Smp Id: BLA0163-BS2
 Inj Date : 09-FEB-2023 21:17 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : BLA0163-BS1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230209.b\SIM.b\SIMABN2.m
 Meth Date : 12-Feb-2023 17:30 yev Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 14
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		6.671	6.655 (0.754)		111265	5.99439	5.994 (RM)
3 Phenol	94		8.255	8.239 (0.934)		90124	3.22002	3.220
7 1,3-Dichlorobenzene	146		8.781	8.765 (0.993)		80760	3.20409	3.204
* 8 1,4-Dichlorobenzene-d4	152		8.843	8.835 (1.000)		61038	4.00000	
9 1,4-Dichlorobenzene	146		8.874	8.858 (1.004)		81216	3.29568	3.296
11 Benzyl alcohol	79		9.115	9.099 (1.031)		53917	3.94887	3.949
12 1,2-Dichlorobenzene	146		9.223	9.207 (1.043)		78847	3.27819	3.278
13 2-Methylphenol	108		9.347	9.332 (1.057)		57798	3.02487	3.025
15 4-Methylphenol	108		9.627	9.603 (1.089)		65666	3.36944	3.369
16 N-Nitroso-di-n-propylamine	70		9.666	9.650 (1.093)		52075	3.74309	3.743
22 2,4-Dimethylphenol	107		10.647	10.630 (0.942)		147925	7.67858	7.679
24 Benzoic acid	105		10.884	10.799 (0.963)		253767	24.1512	24.15
26 1,2,4-Trichlorobenzene	180		11.214	11.206 (0.992)		61811	3.42305	3.423
* 27 Naphthalene-d8	136		11.299	11.283 (1.000)		219310	4.00000	
30 Hexachlorobutadiene	225		11.701	11.685 (1.036)		35142	3.56449	3.564
39 Dimethylphthalate	163		14.402	14.386 (0.967)		91377	3.84916	3.849
* 42 Acenaphthene-d10	162		14.889	14.866 (1.000)		101857	4.00000	
50 Diethylphthalate	149		15.856	15.832 (1.065)		157187	4.39657	4.397
54 N-Nitrosodiphenylamine	169		16.234	16.210 (0.907)		101320	3.41121	3.411
57 Hexachlorobenzene	284		17.291	17.268 (0.966)		45715	3.61651	3.617

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	17.655	17.639	(0.986)	79729	15.3387	15.34
* 59 Phenanthrene-d10	188	17.903	17.887	(1.000)	179728	4.00000	
\$ 66 Terphenyl-d14	244	21.075	21.051	(0.917)	167537	4.79909	4.799(R)
67 Butylbenzylphthalate	149	22.012	21.988	(0.958)	98349	4.16778	4.168
* 69 Chrysene-d12	240	22.979	22.956	(1.000)	157279	4.00000	
* 77 Perylene-d12	264	25.511	25.480	(1.000)	187776	4.00000	
79 Dibenzo(a,h)anthracene	278	28.022	27.967	(1.098)	197445	3.75187	3.752
90 N-Nitrosodimethylamine	74	4.540	4.524	(0.513)	128409	10.5569	10.56(M)

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020914S.D
 Lab Smp Id: BLA0163-BS2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230209.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 09-FEB-2023
 Calibration Time: 14:49
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	101588	50794	203176	61038	-39.92
27 Naphthalene-d8	364920	182460	729840	219310	-39.90
42 Acenaphthene-d10	174973	87487	349946	101857	-41.79
59 Phenanthrene-d10	314354	157177	628708	179728	-42.83
69 Chrysene-d12	242262	121131	484524	157279	-35.08
77 Perylene-d12	285281	142641	570562	187776	-34.18

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	0.09
27 Naphthalene-d8	11.28	10.78	11.78	11.30	0.14
42 Acenaphthene-d10	14.87	14.37	15.37	14.89	0.16
59 Phenanthrene-d10	17.89	17.39	18.39	17.90	0.09
69 Chrysene-d12	22.96	22.46	23.46	22.98	0.10
77 Perylene-d12	25.48	24.98	25.98	25.51	0.12

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020914S.D

Lab ID: BLA0163-BS2

nt10.i, 20230209.b\SIM.b\SIMABN2.m, 09-FEB-2023 21:17

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.963	0.957	0.0062	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1023020904S.D

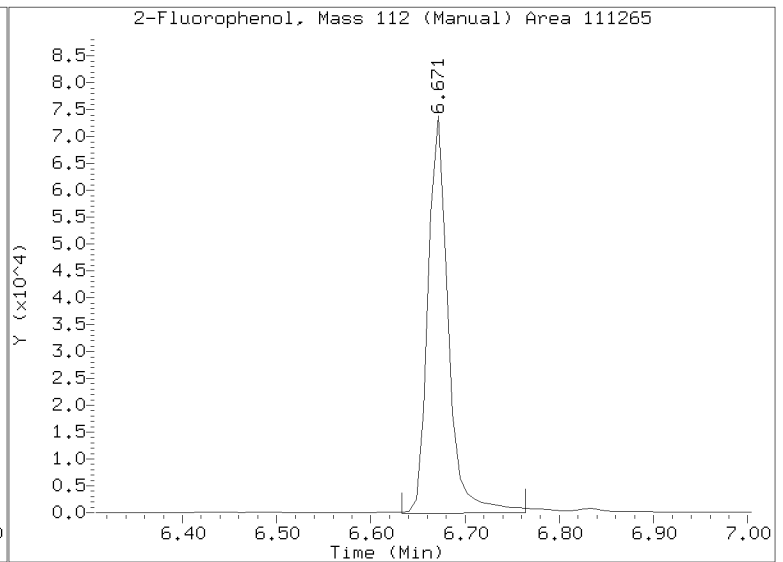
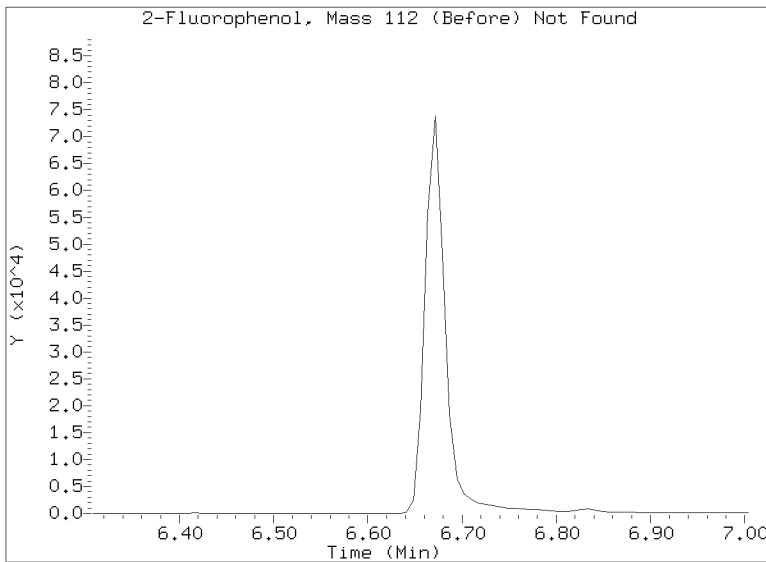
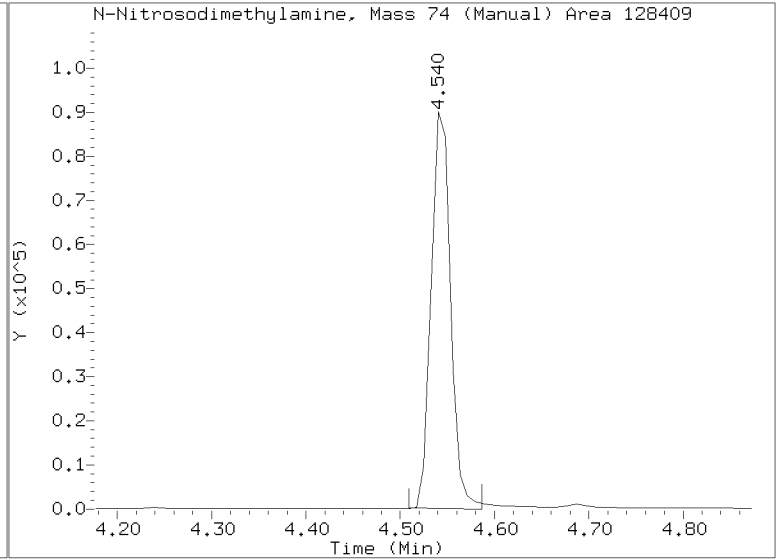
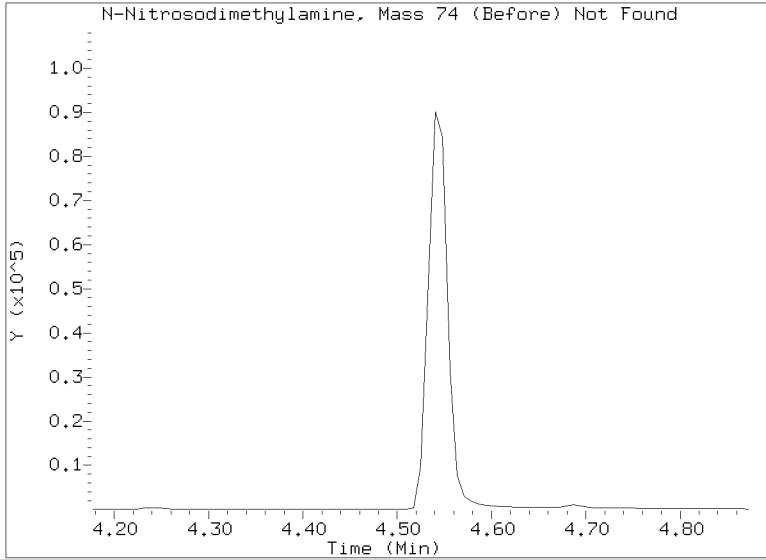
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

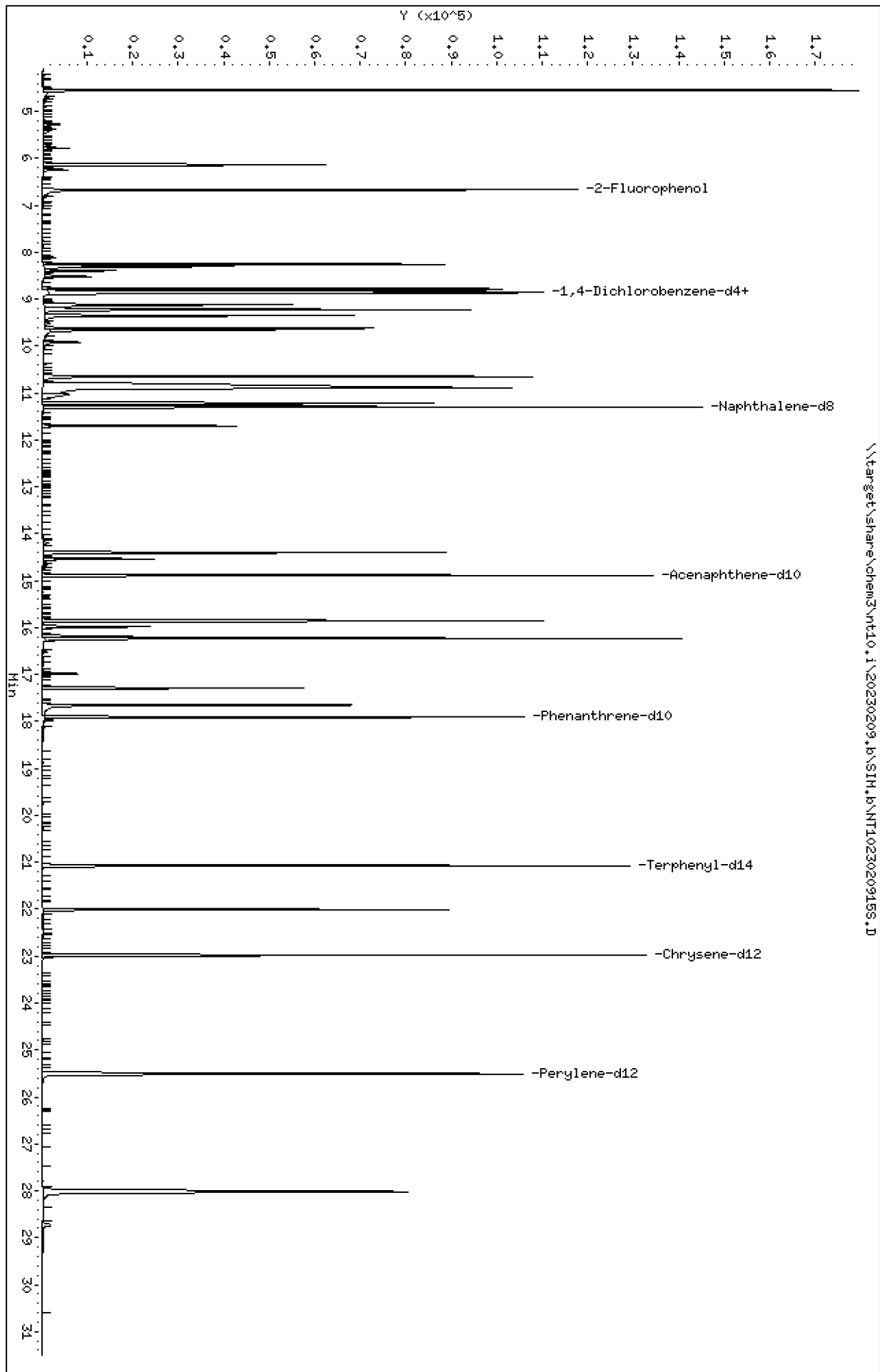
Datafile: //target/share/chem3/nt10.i/20230209.b/SIM.b/NT1023020914S.D
Injection Date: 09-FEB-2023 21:17
Lab ID:BLA0163-BS2 Client ID:
Report Date: 02/12/2023 17:36



Data File: \\target\share\chem3\nt10.i\20230209_16\SIM.B\NT10230209155.D
Date: 09-FEB-2023 21:56
Client ID:
Sample Info: BLR0163-BSM1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.i
Operator: USD
Column diameter: 0.25

\\target\share\chem3\nt10.i\20230209_16\SIM.B\NT10230209155.D



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

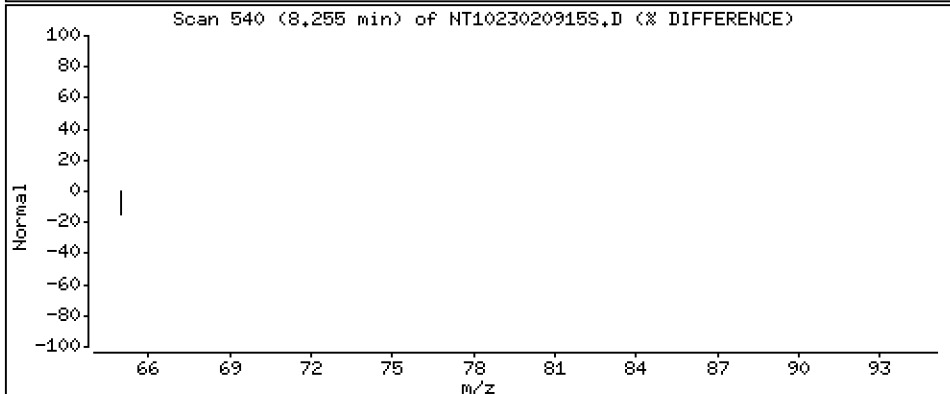
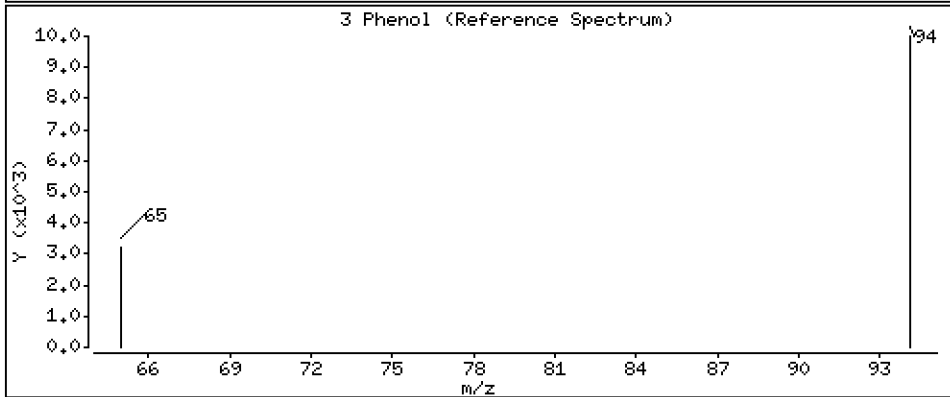
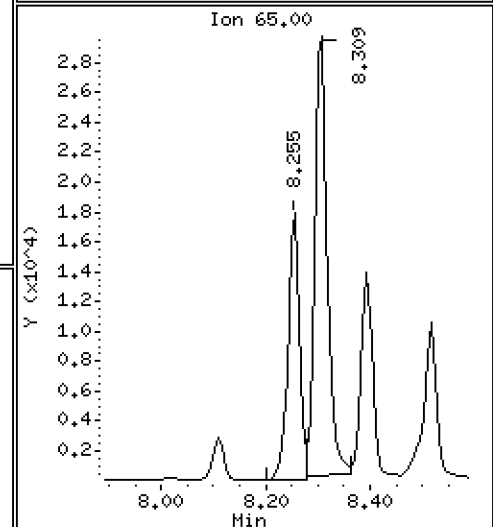
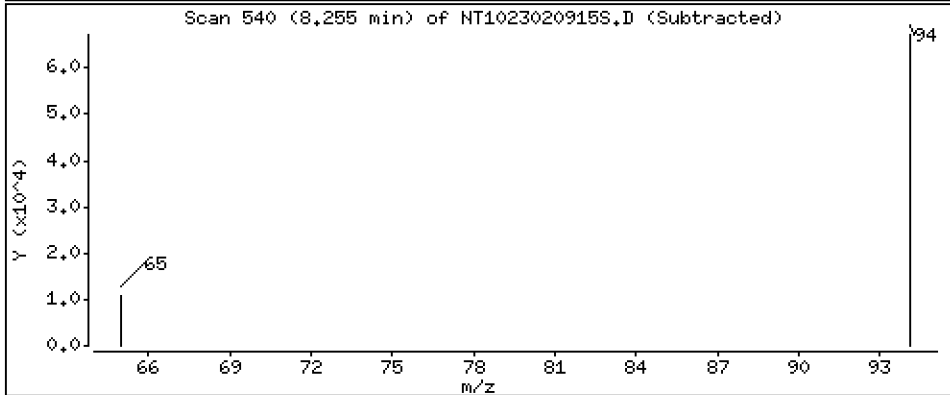
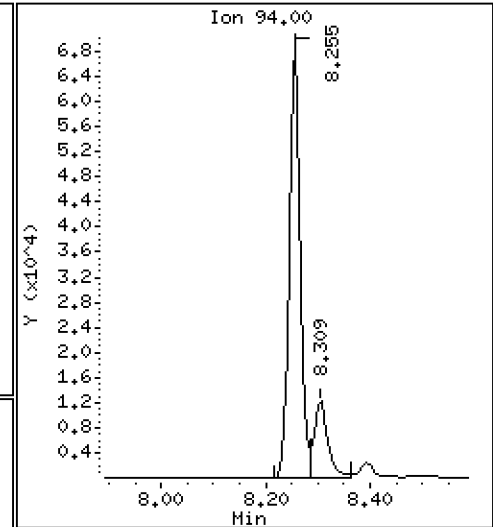
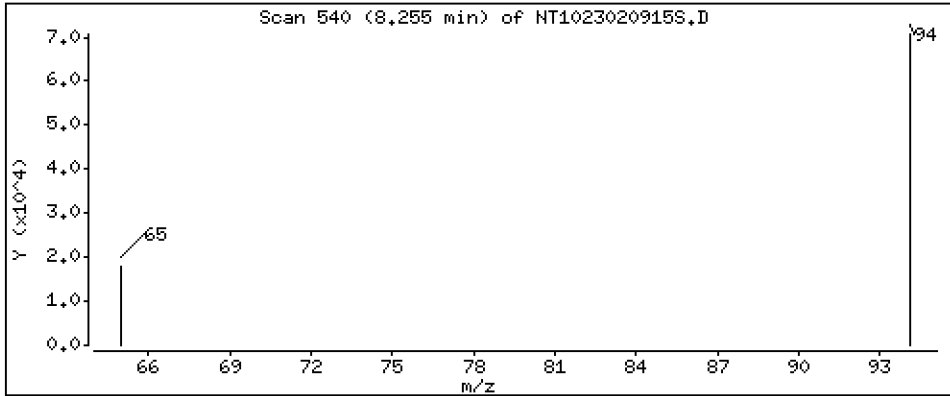
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 3,649 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

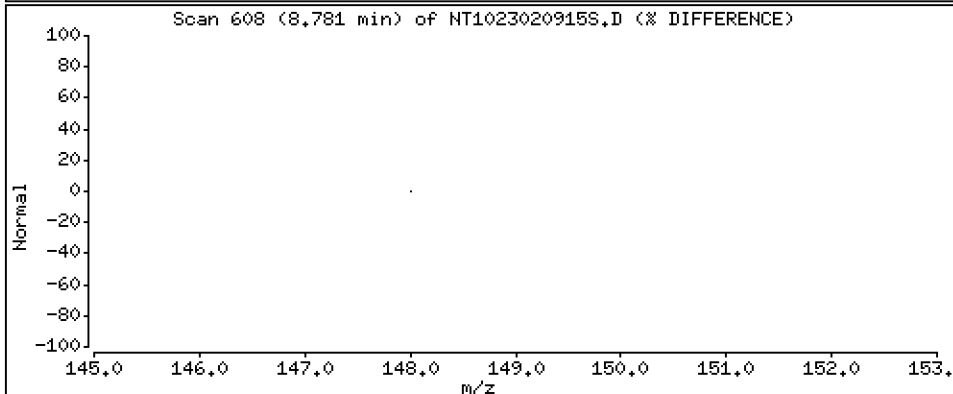
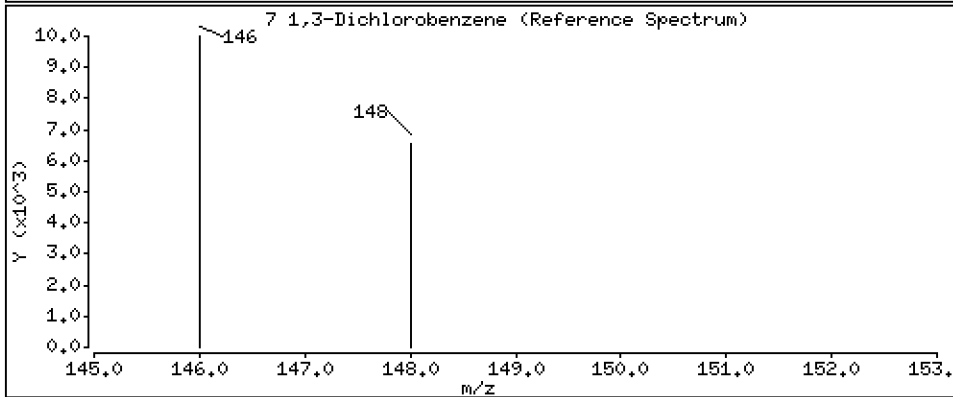
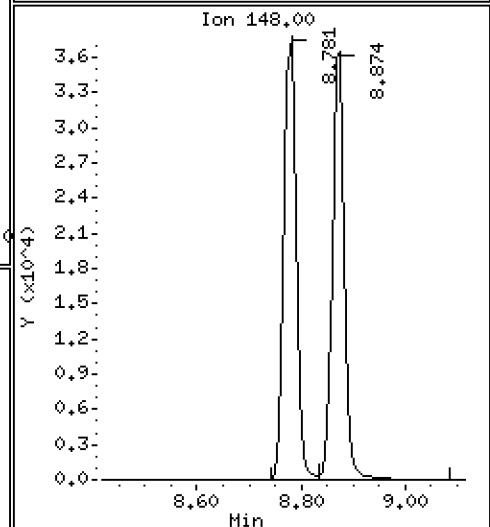
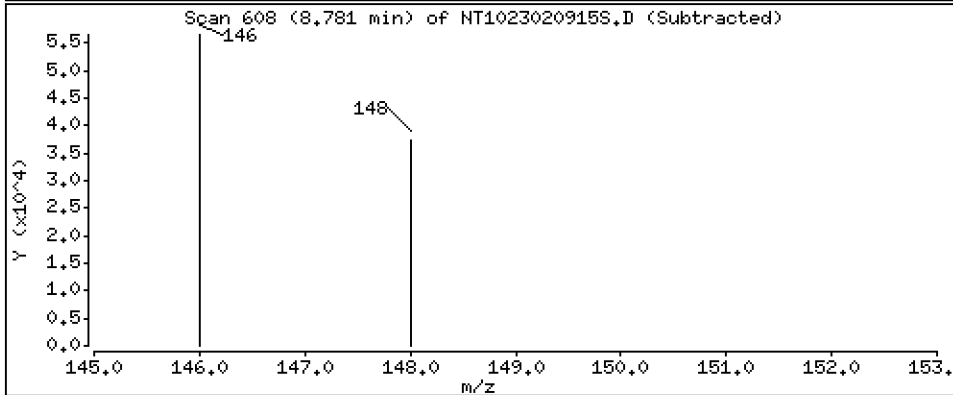
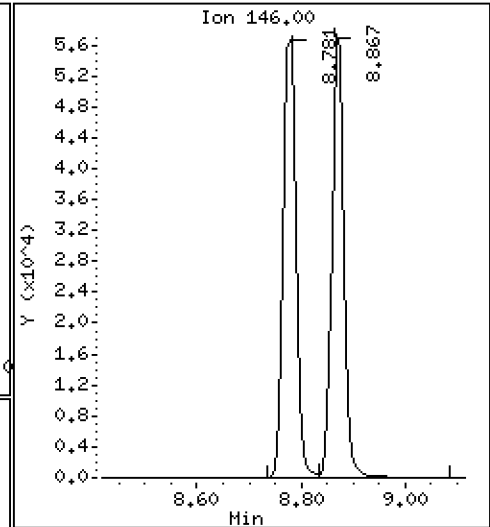
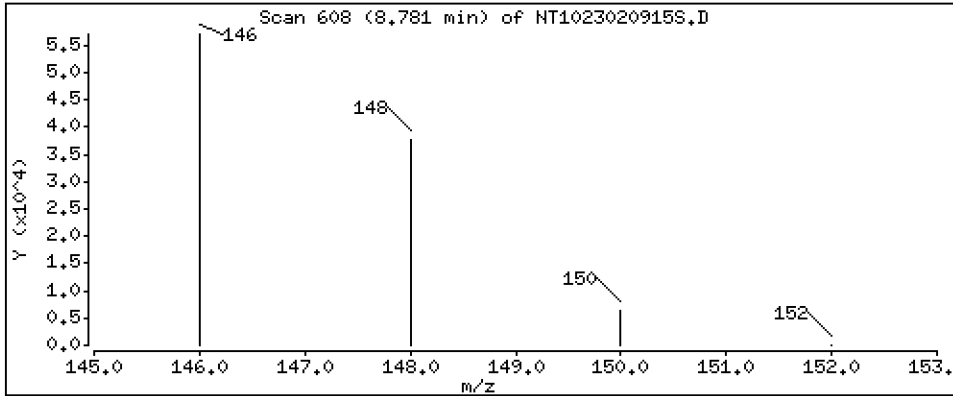
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 3.631 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

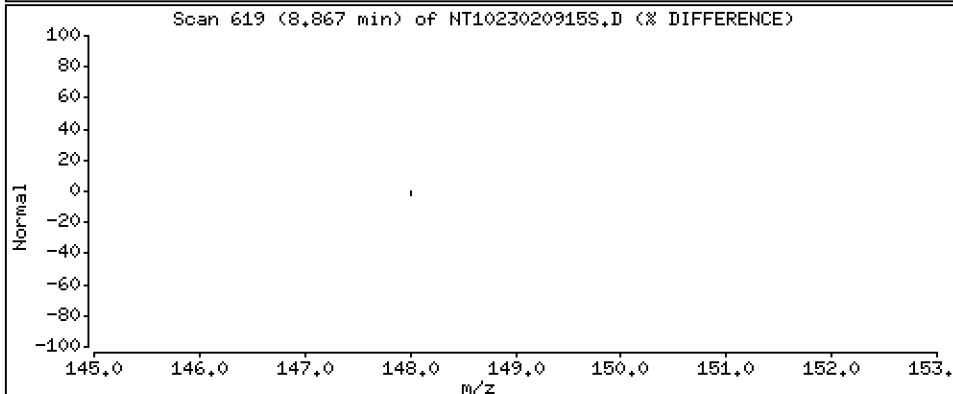
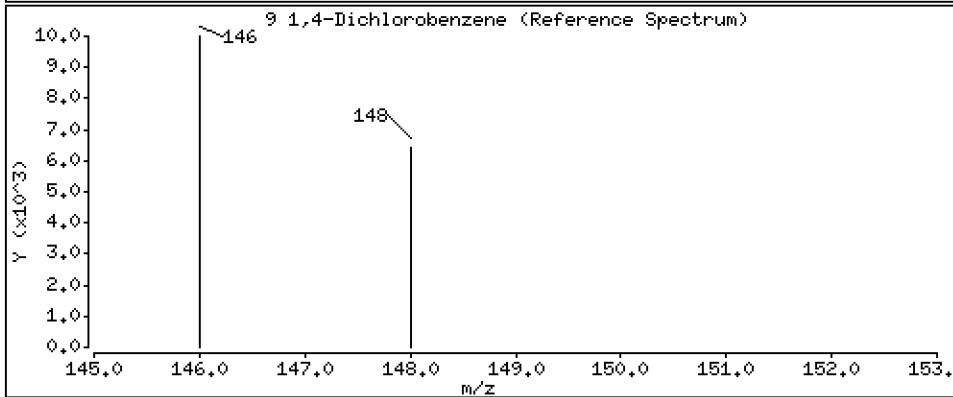
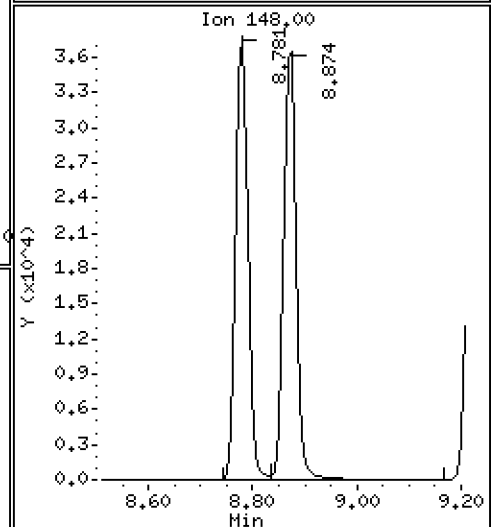
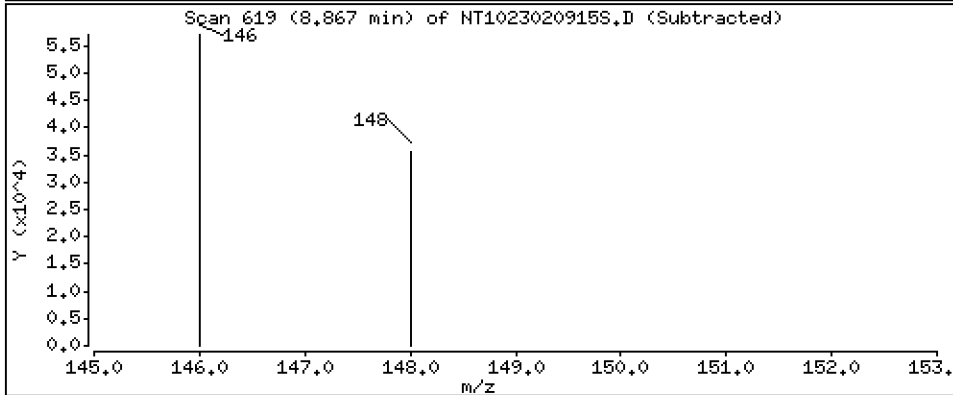
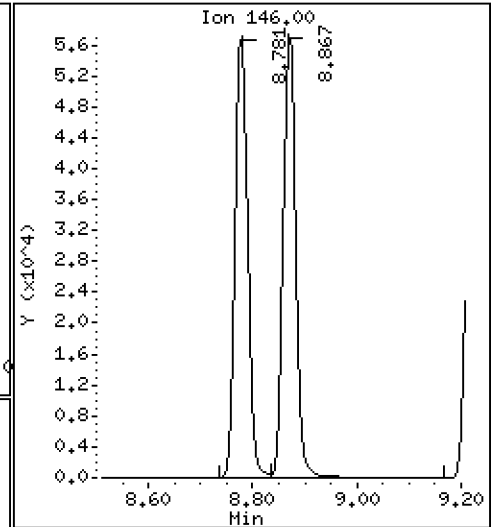
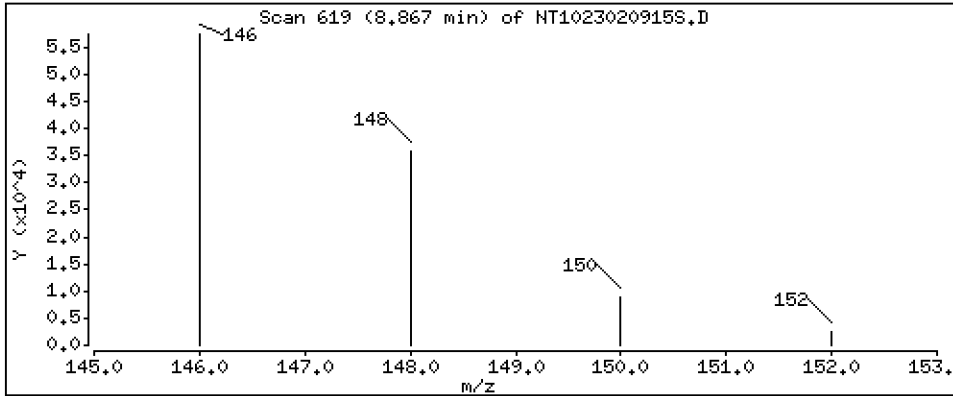
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

9 1,4-Dichlorobenzene

Concentration: 3,704 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

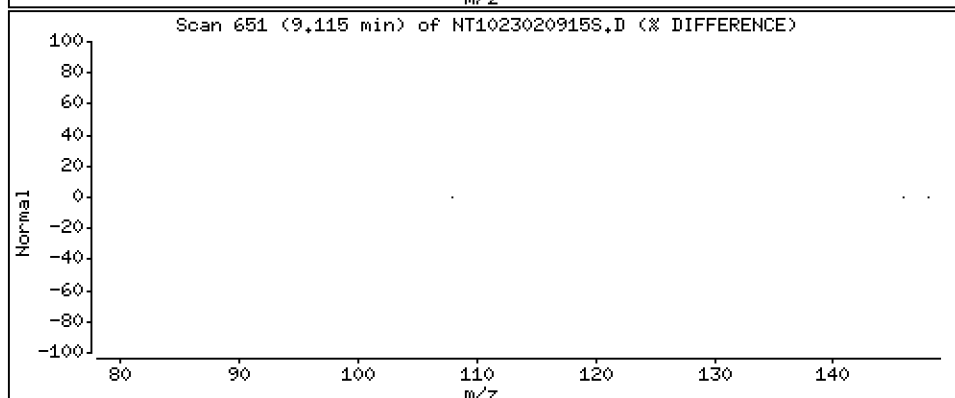
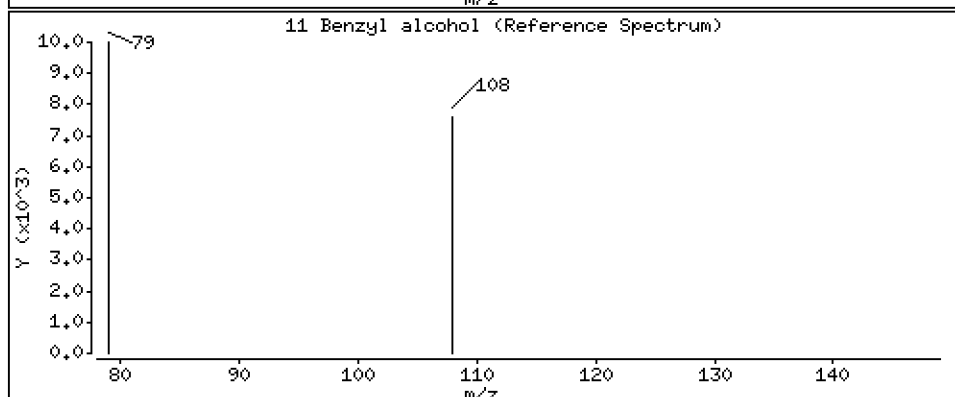
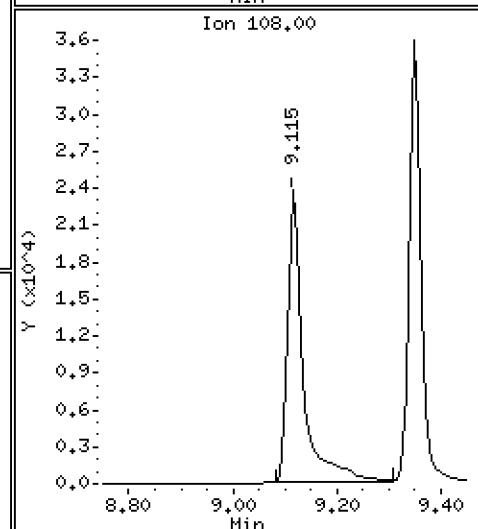
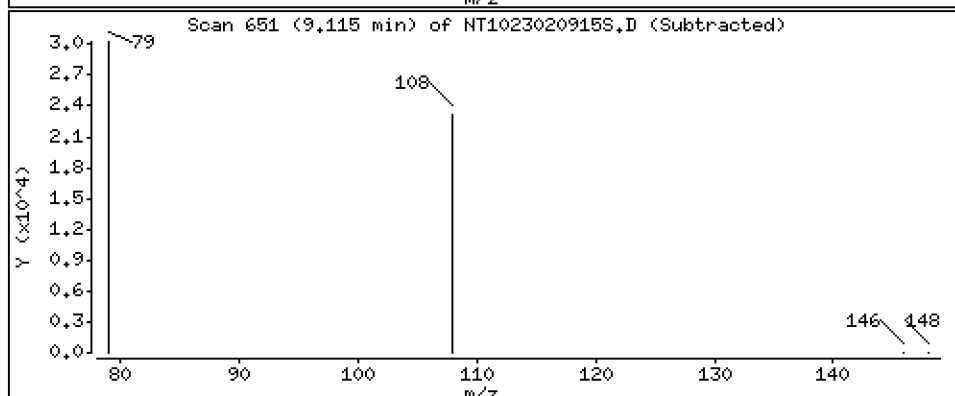
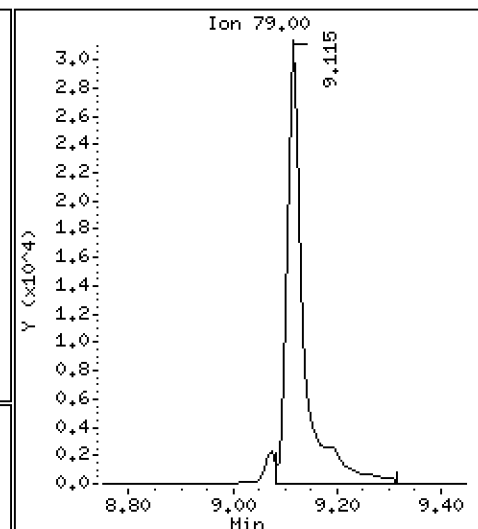
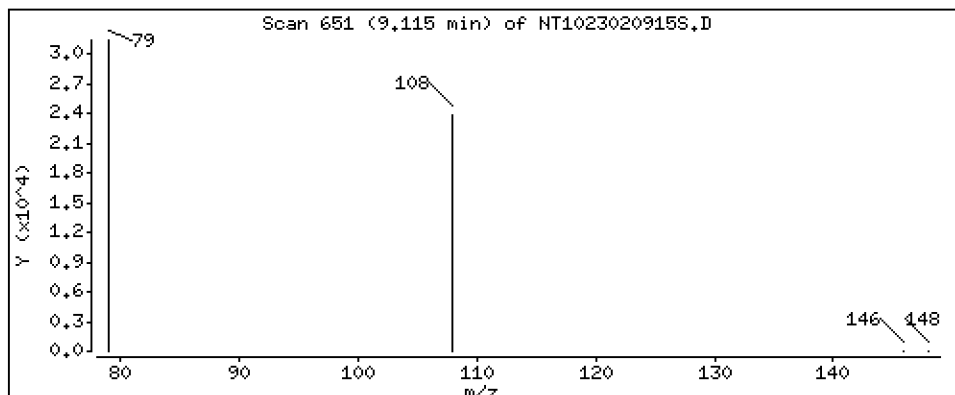
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 5.021 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

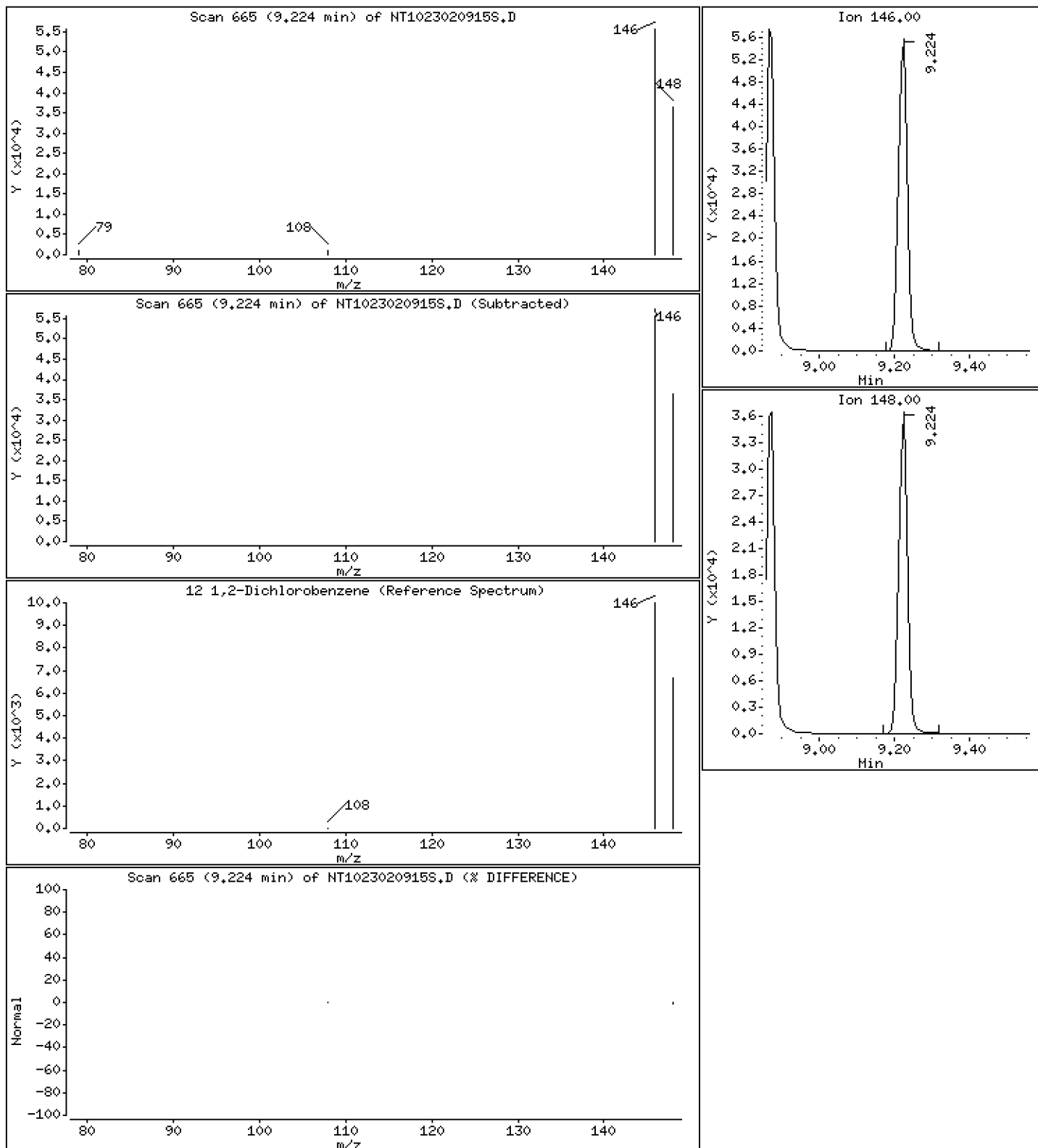
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 3,697 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

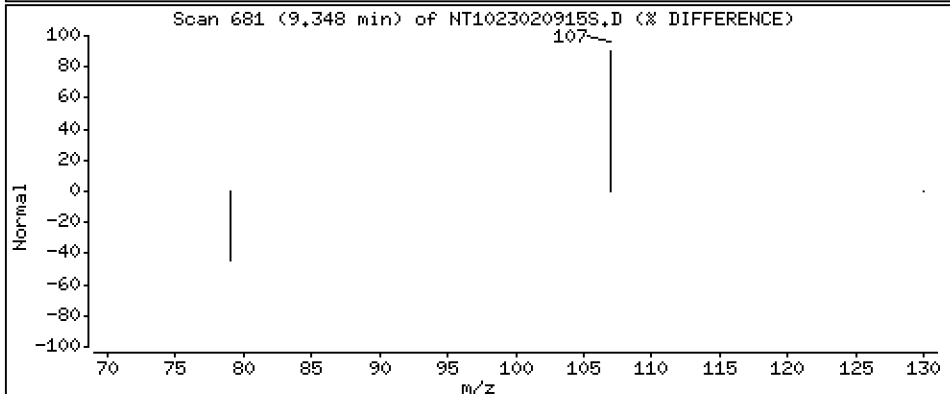
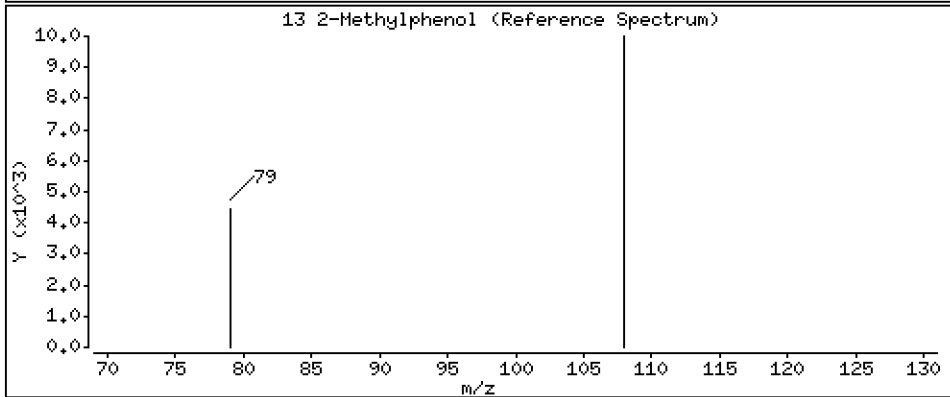
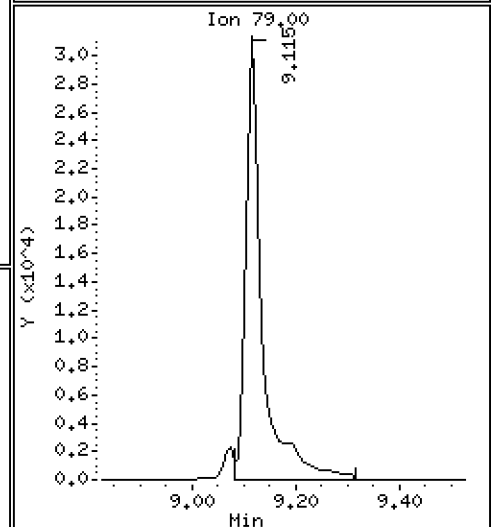
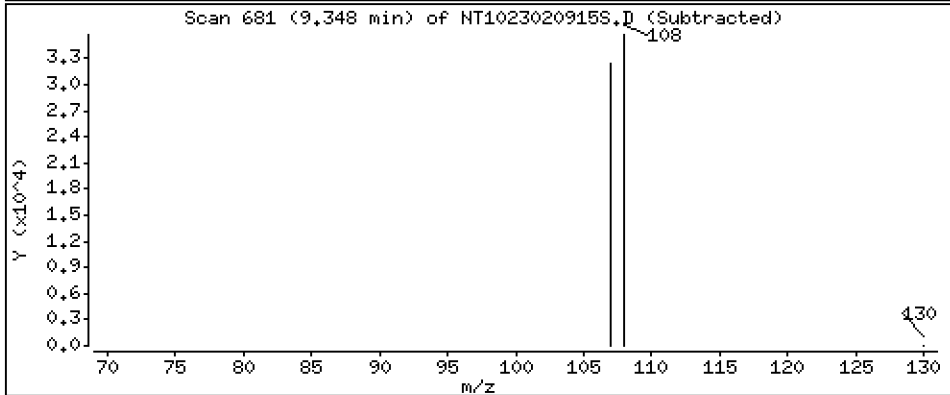
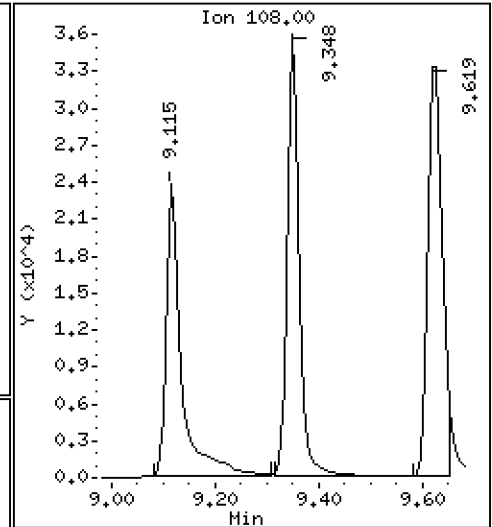
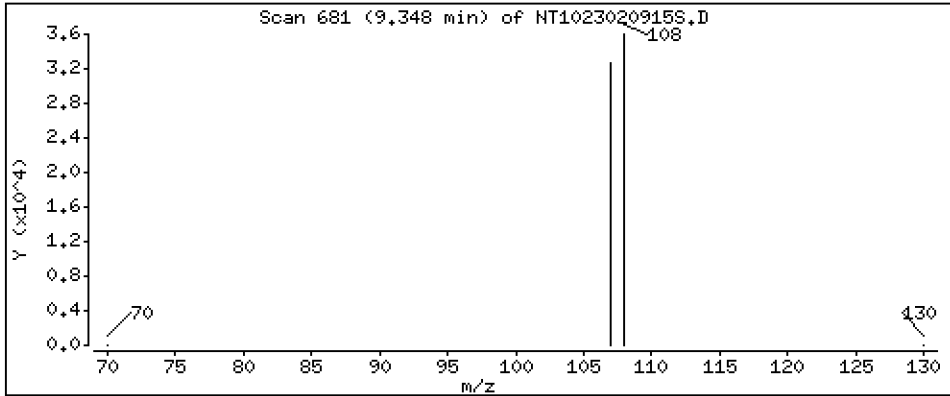
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 3.066 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

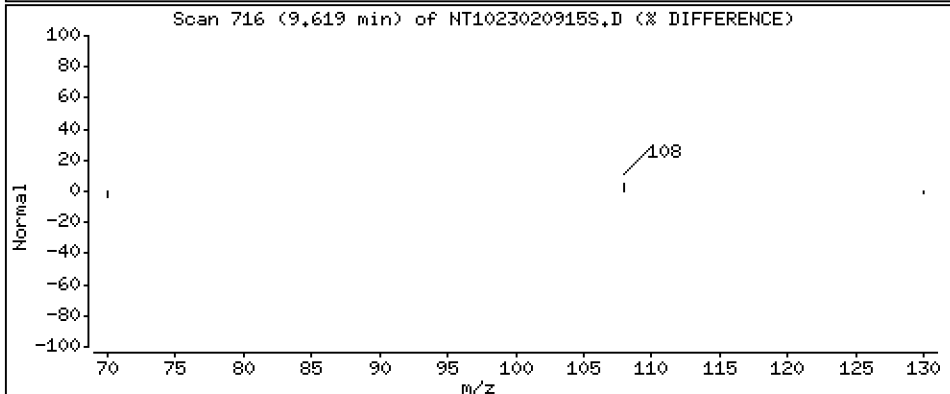
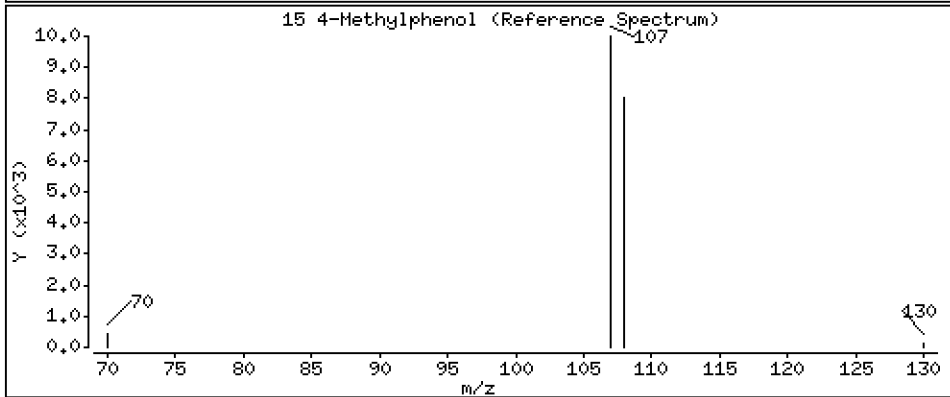
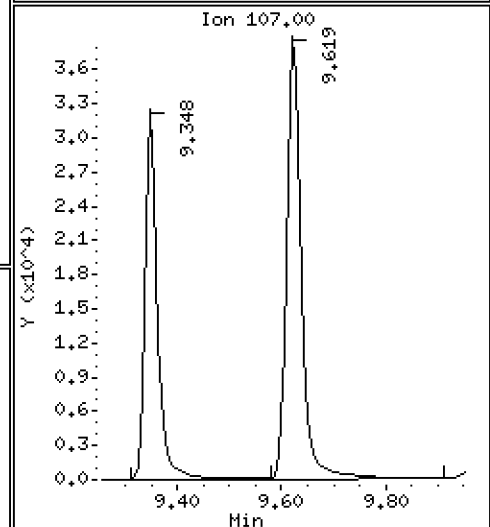
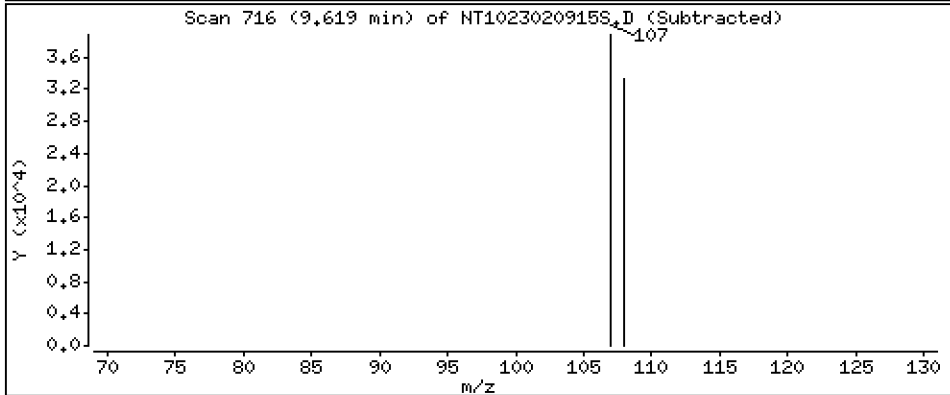
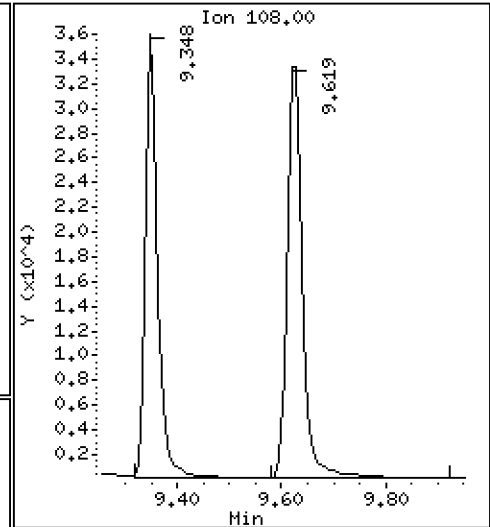
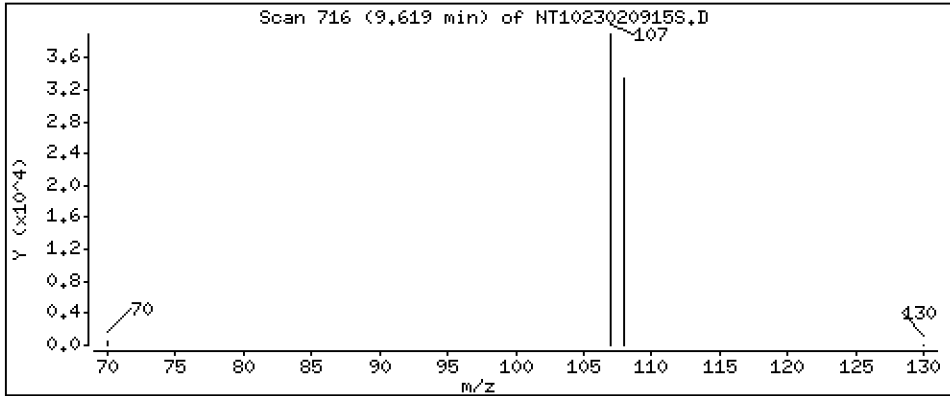
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 3.593 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

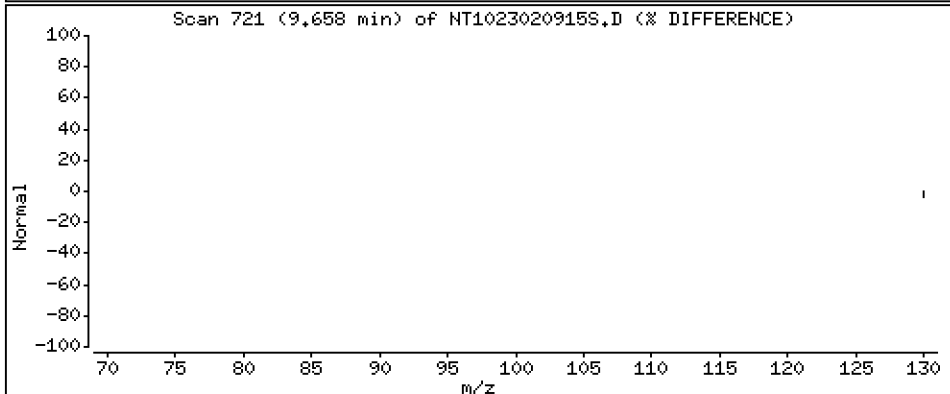
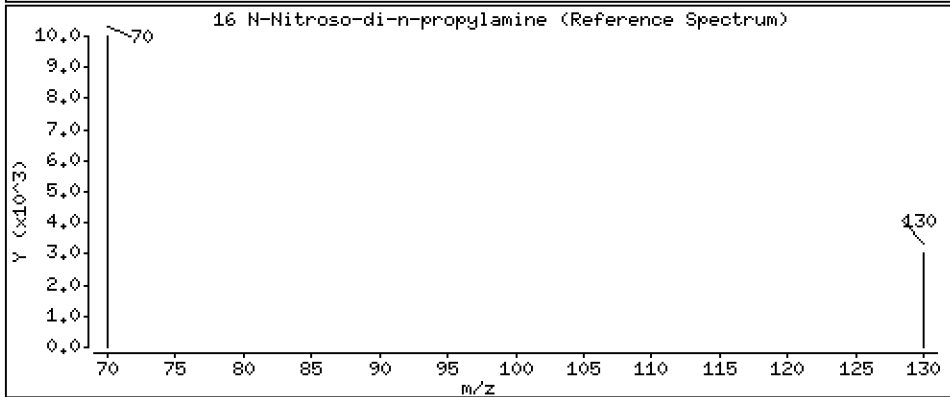
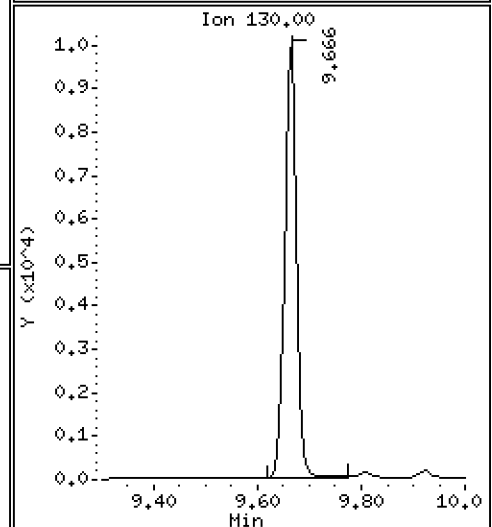
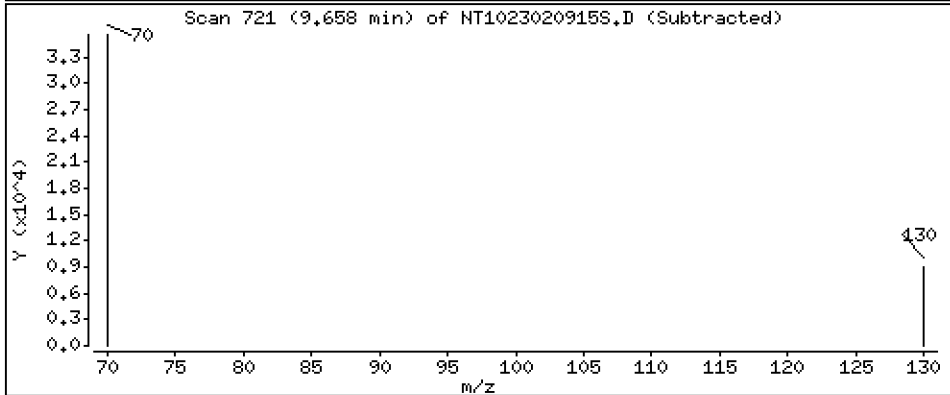
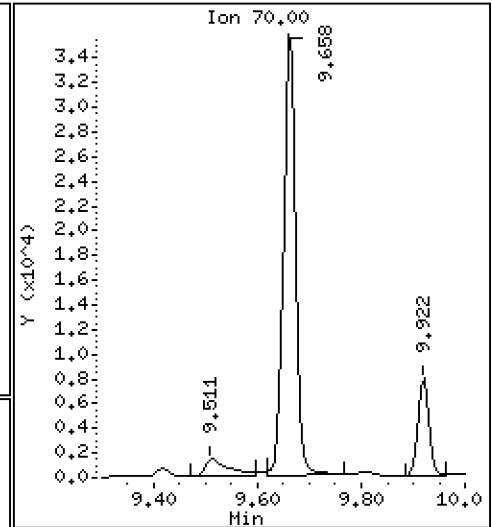
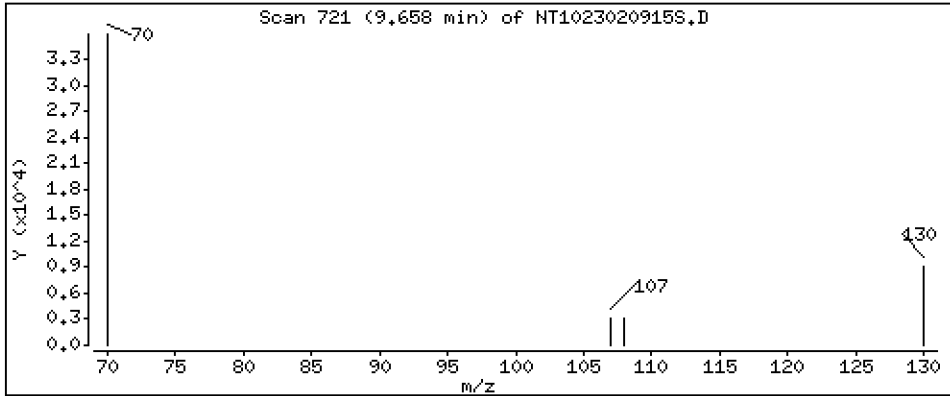
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 4,150 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

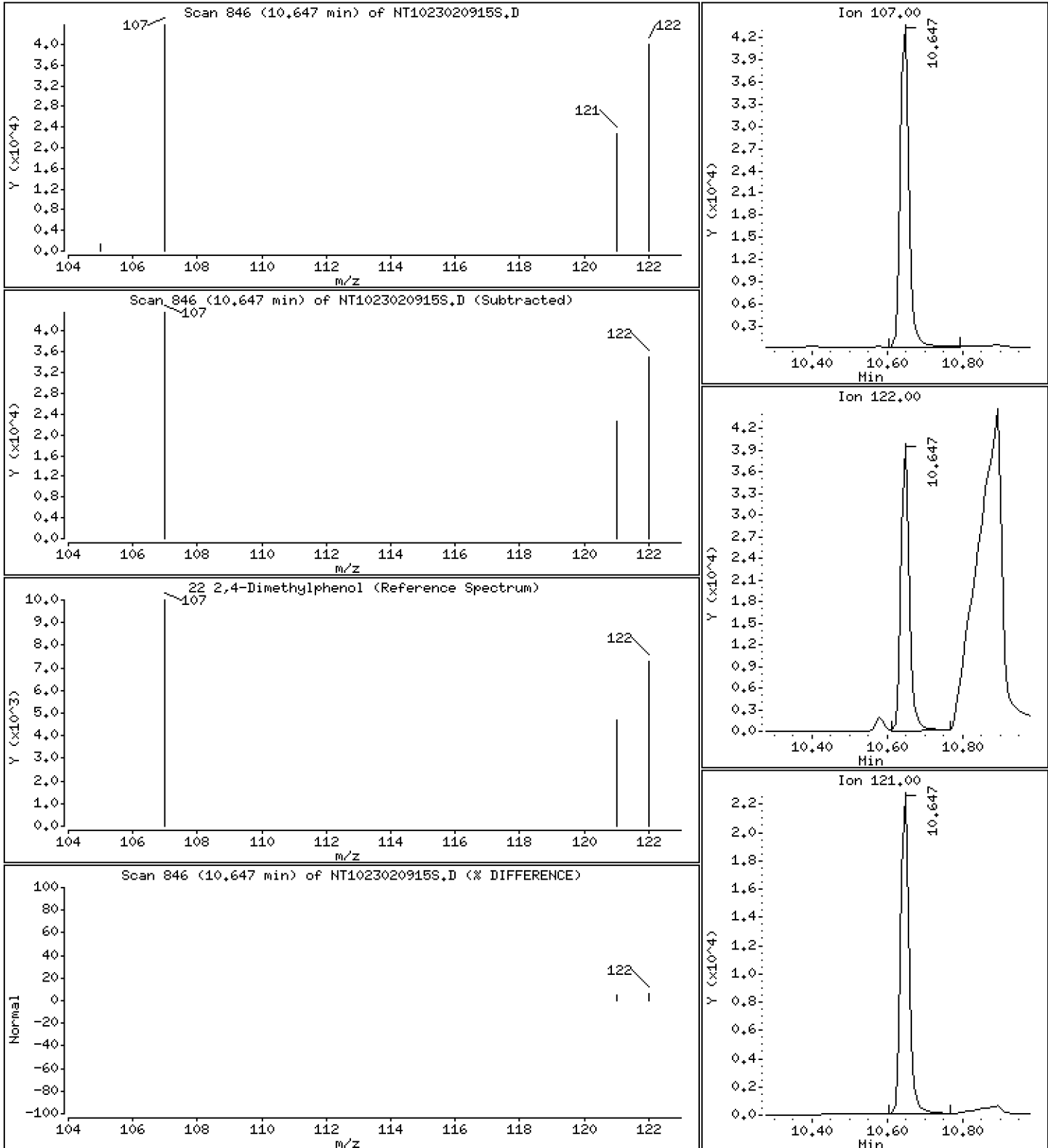
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 3,594 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

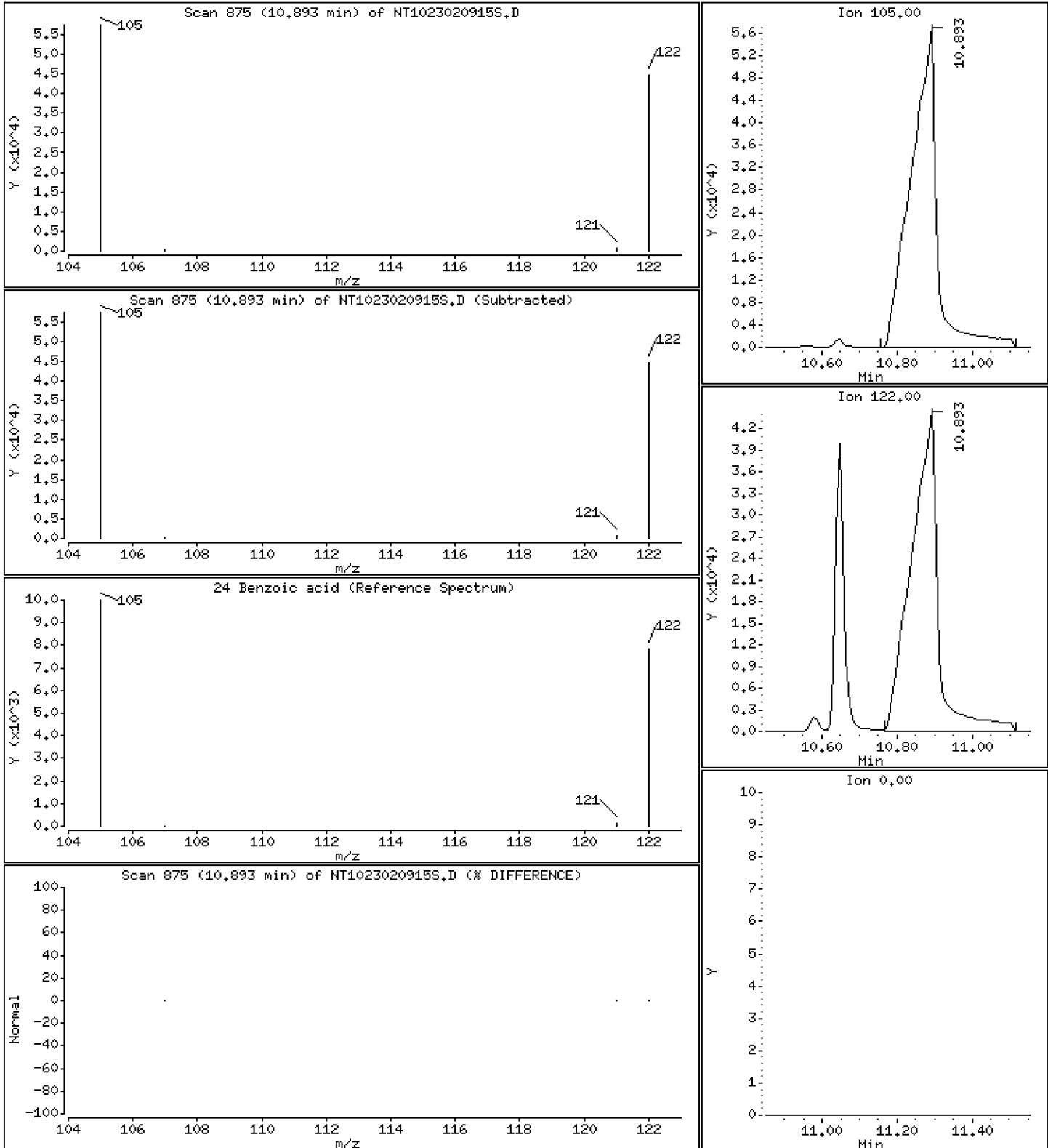
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 25,56 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

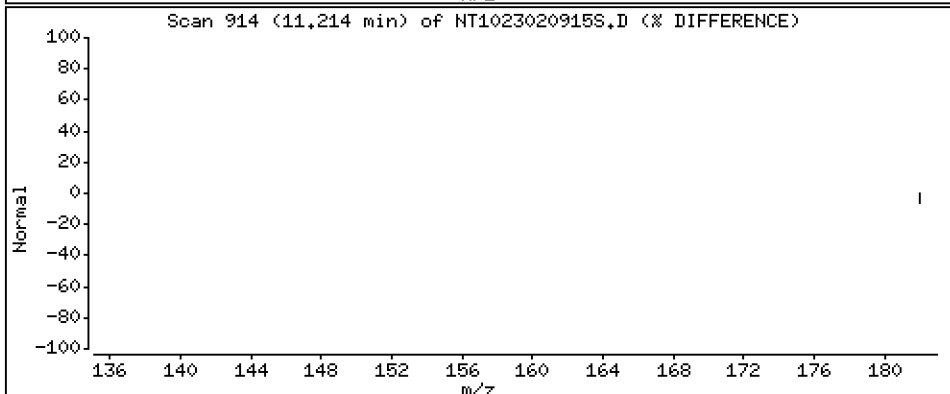
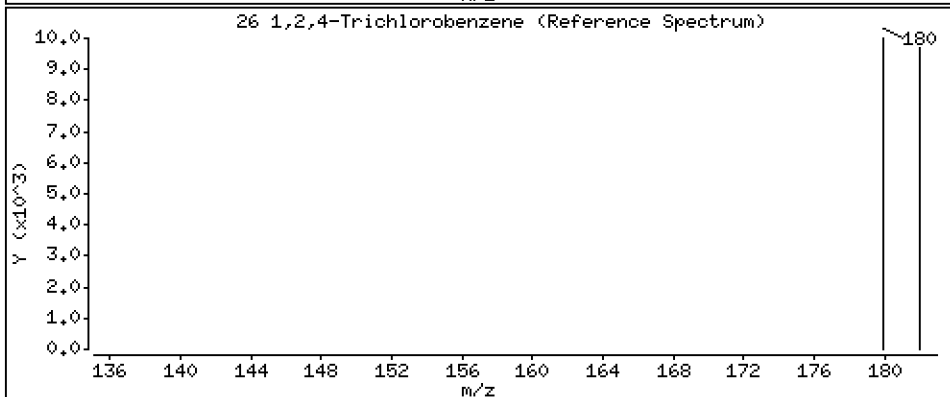
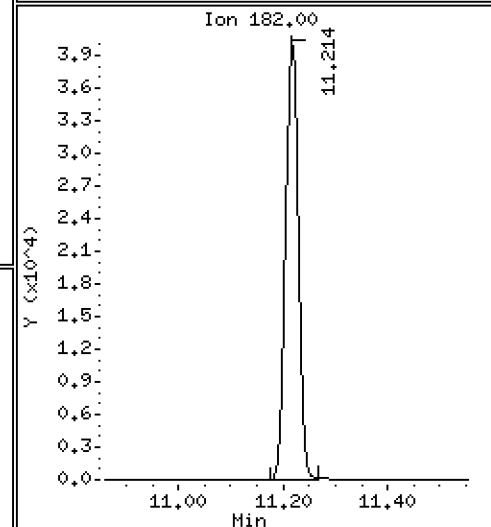
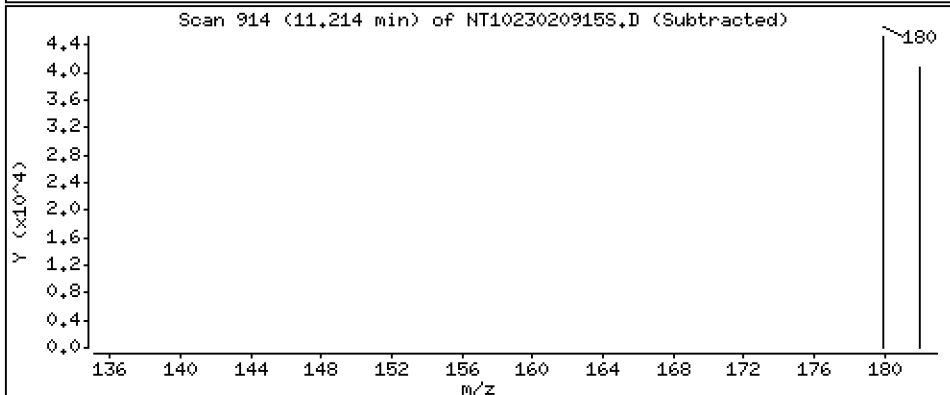
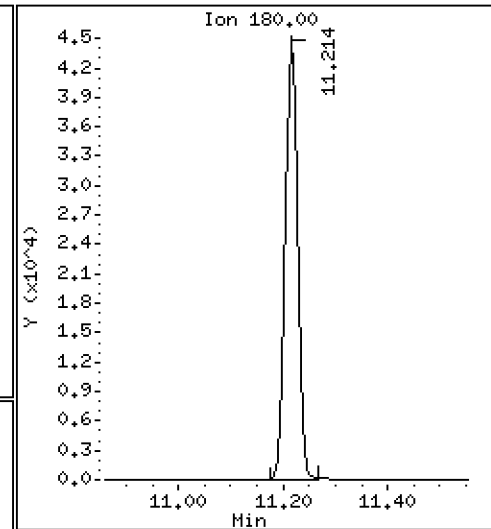
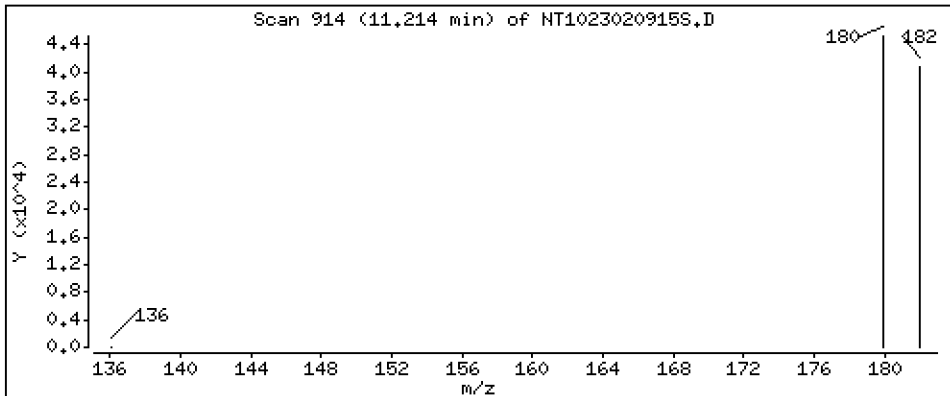
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 3,826 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

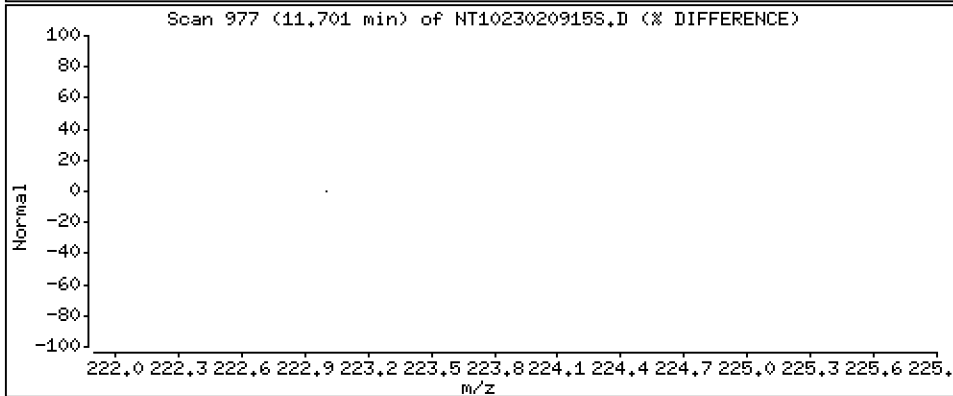
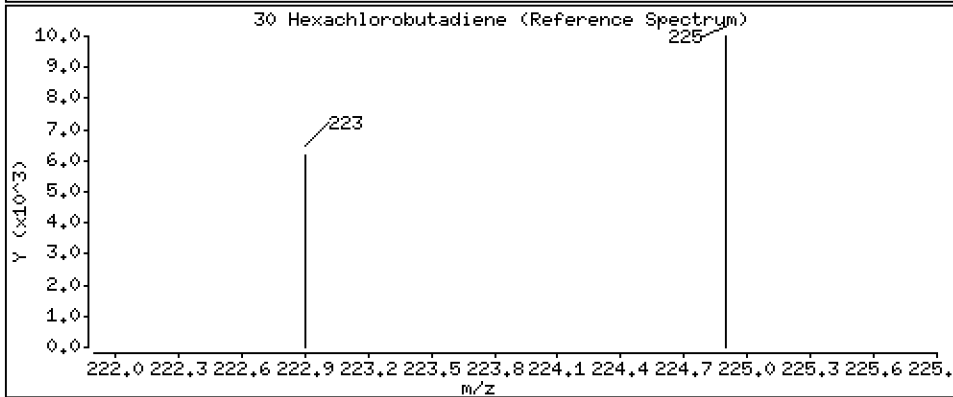
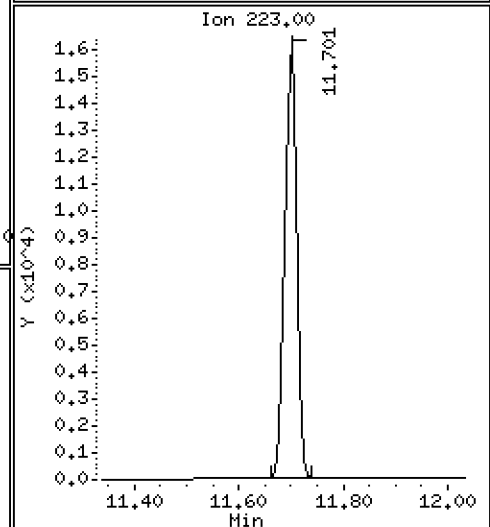
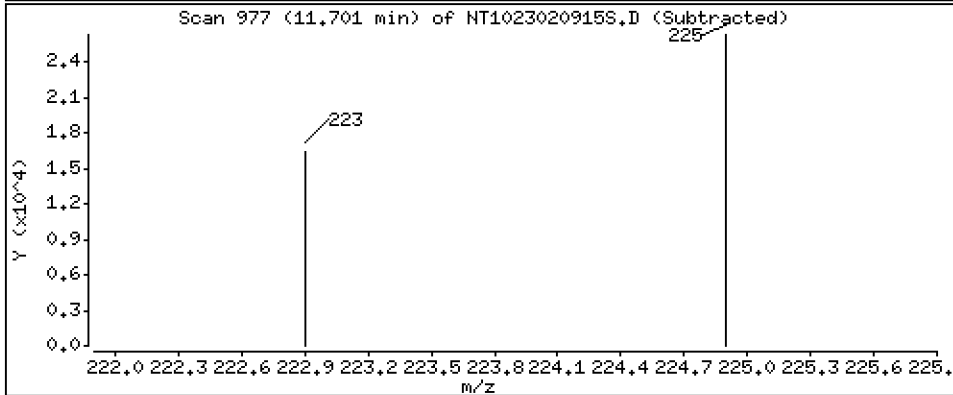
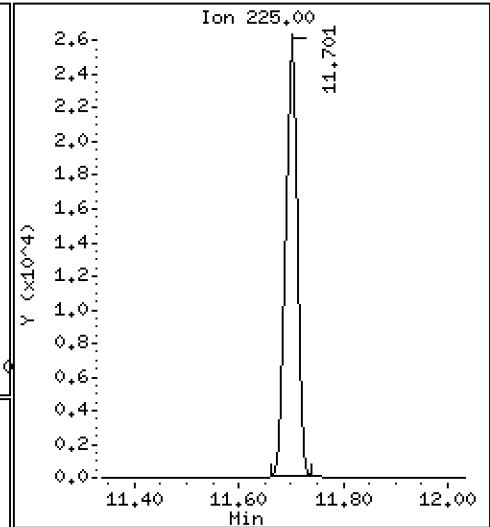
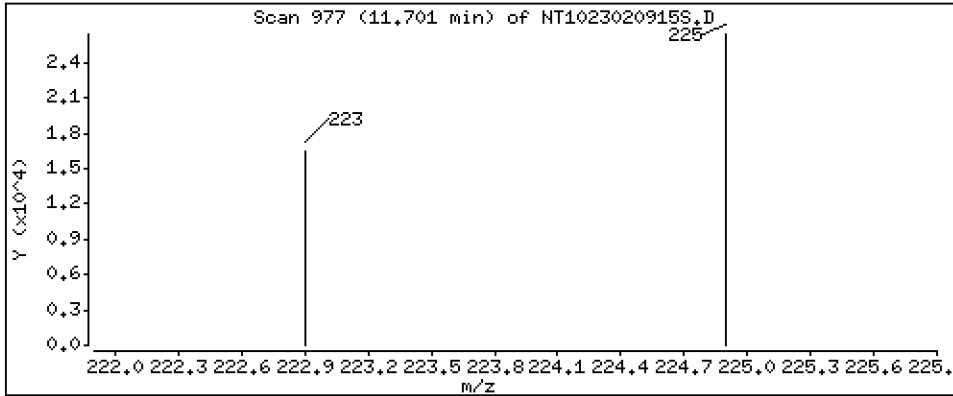
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

30 Hexachlorobutadiene

Concentration: 3,974 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

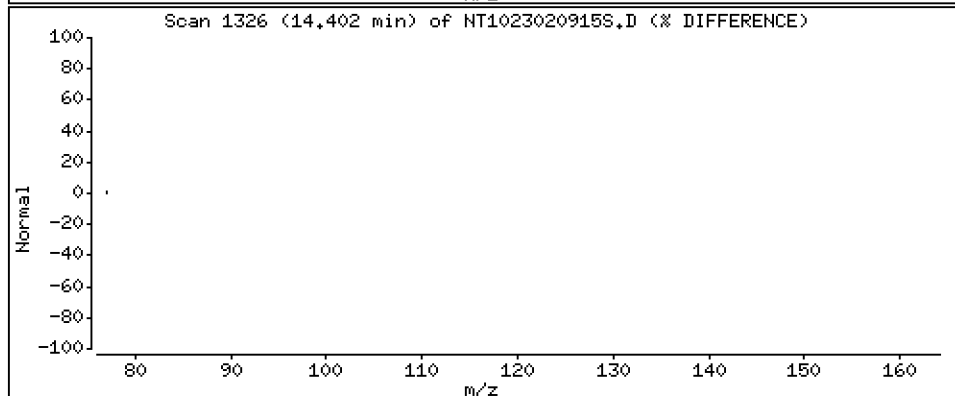
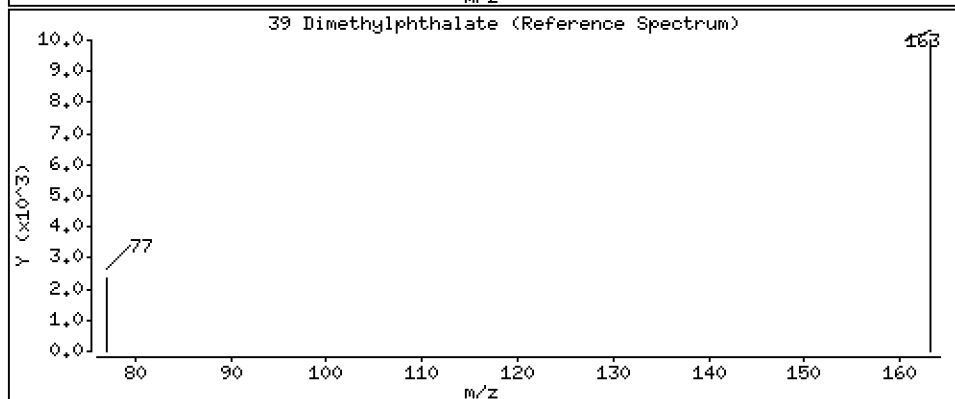
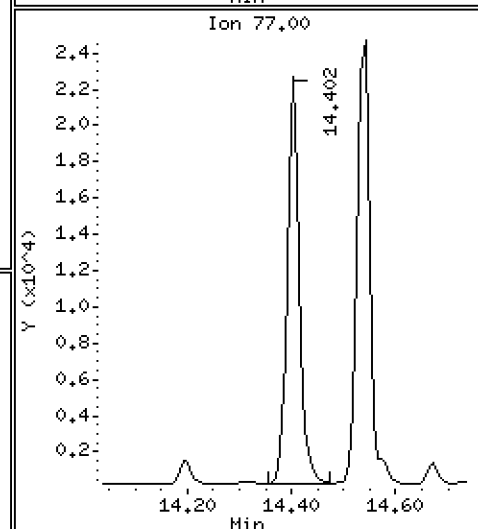
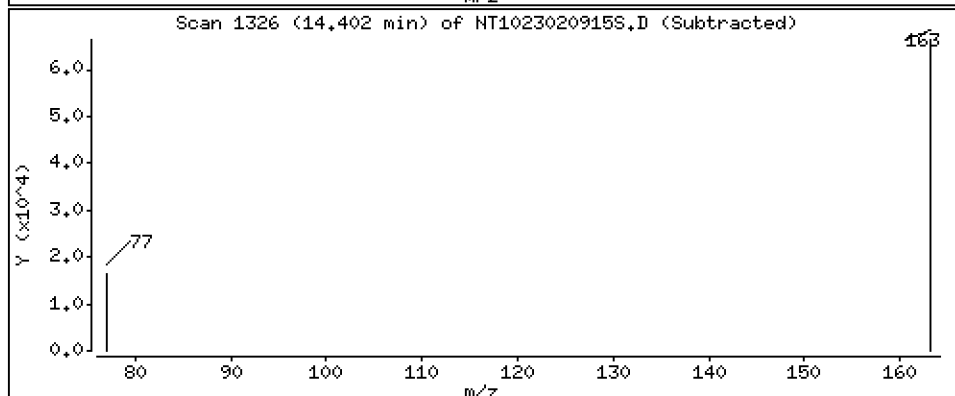
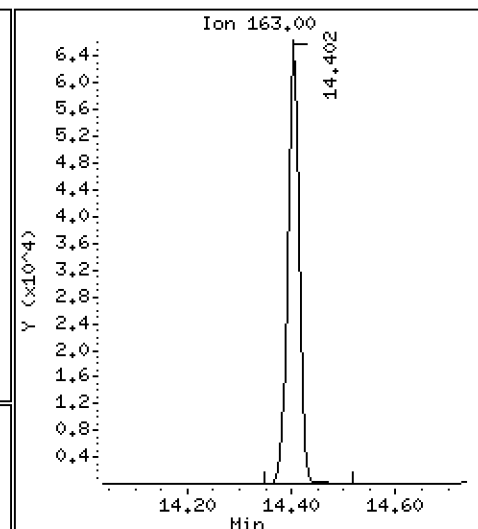
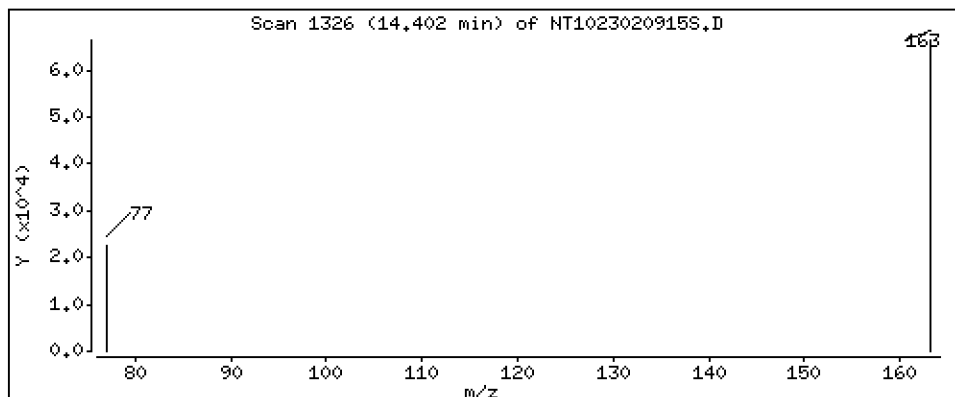
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,269 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

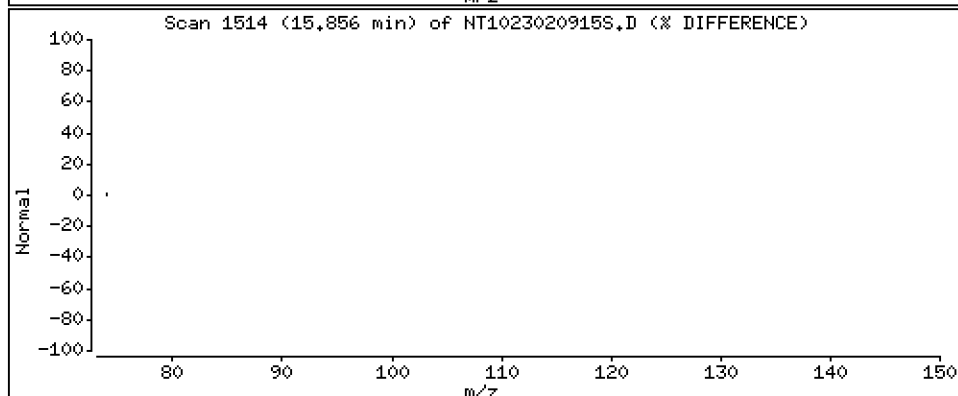
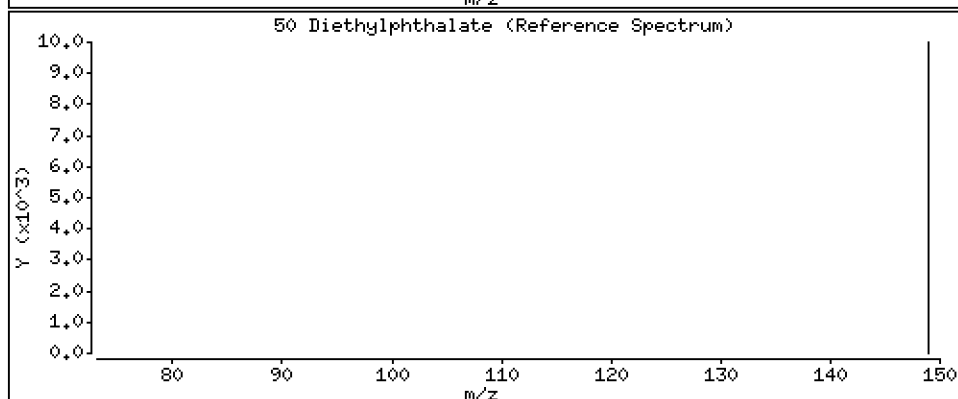
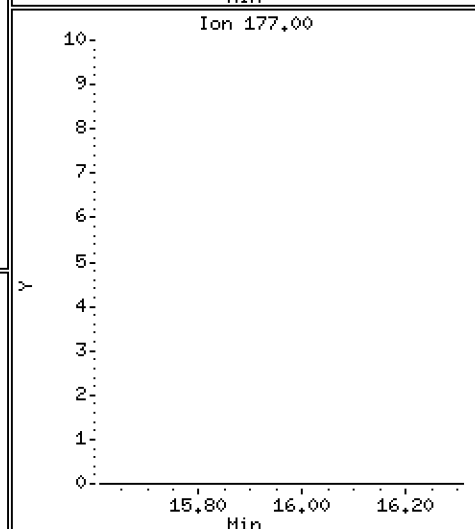
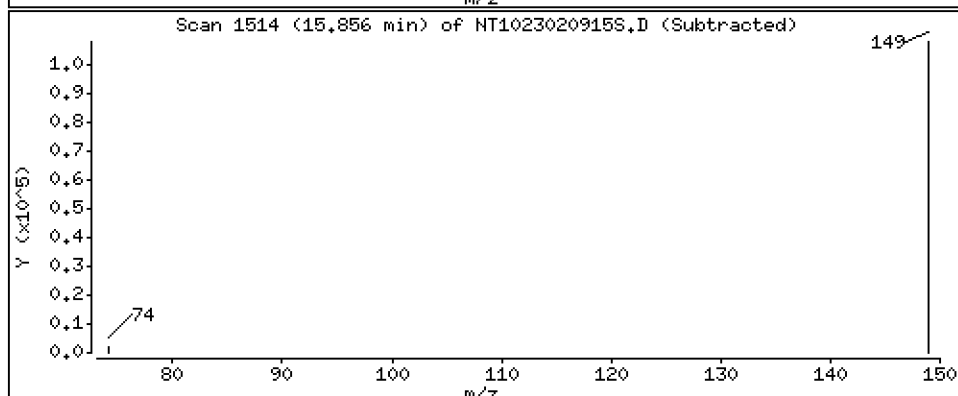
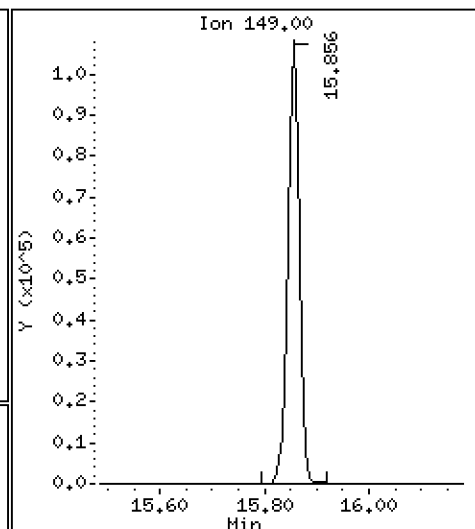
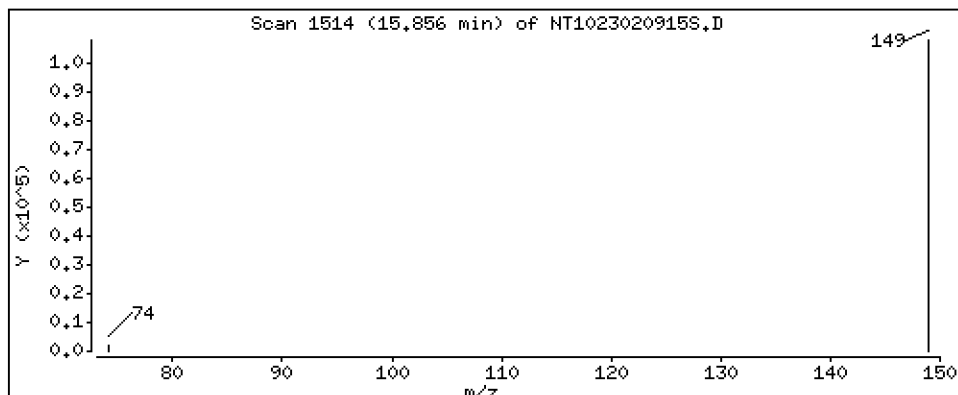
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,765 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

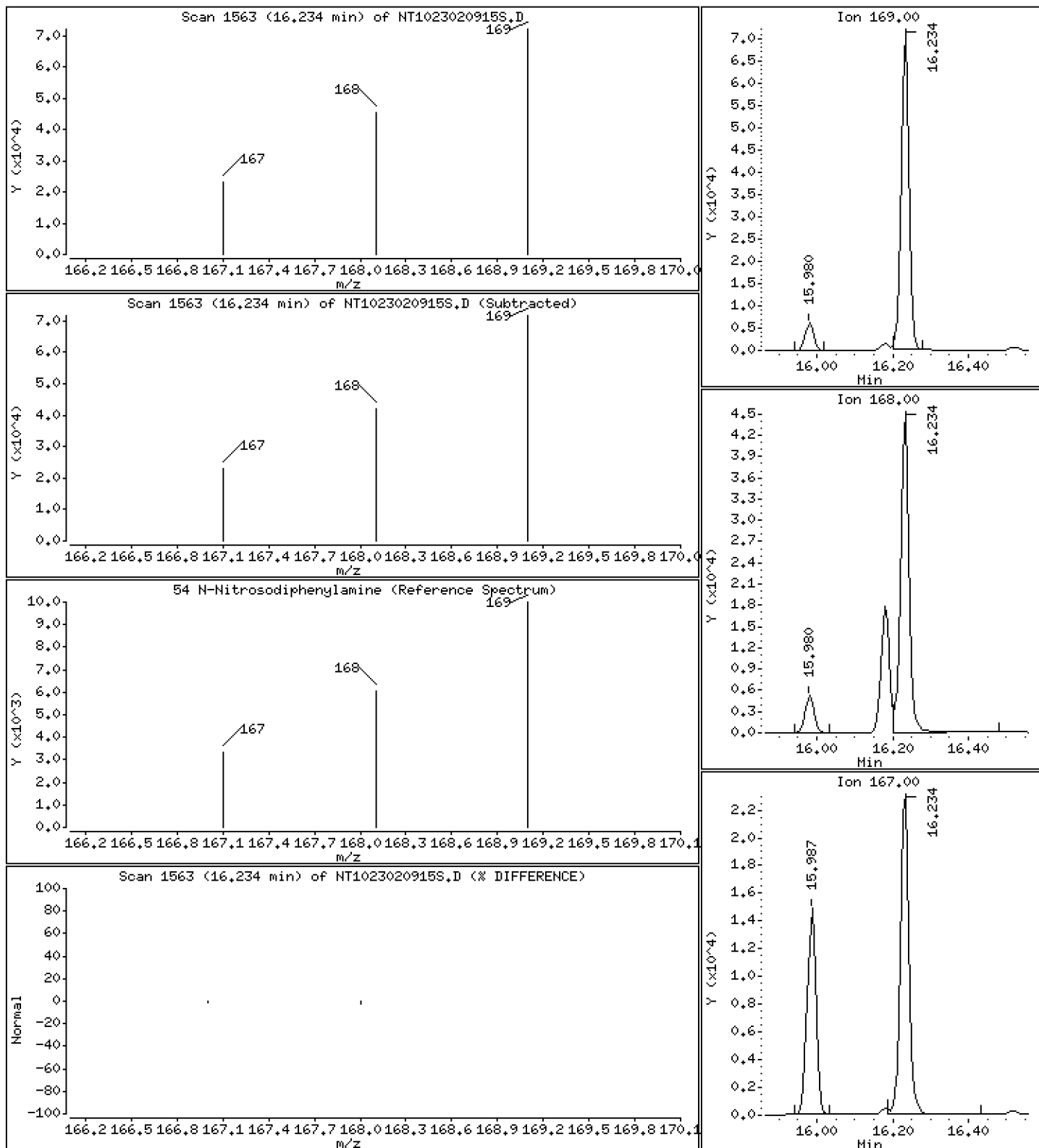
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 3,518 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

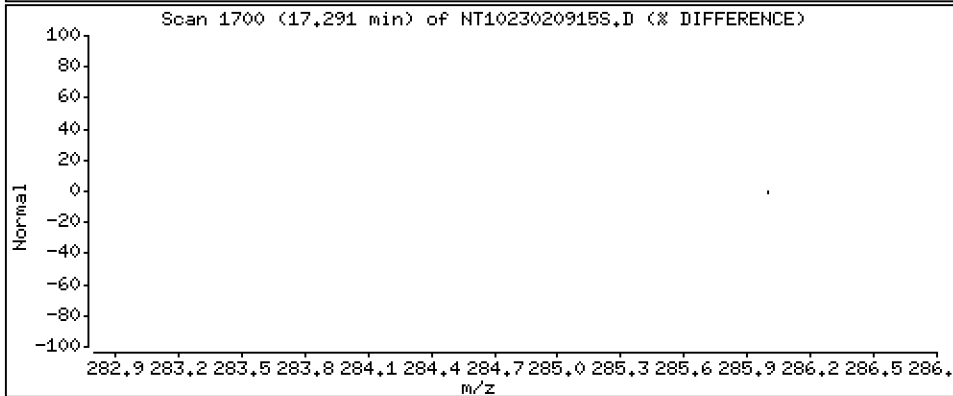
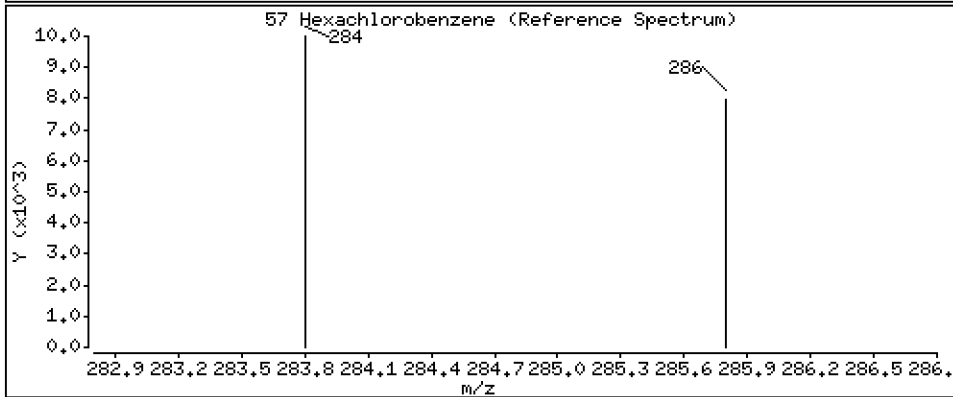
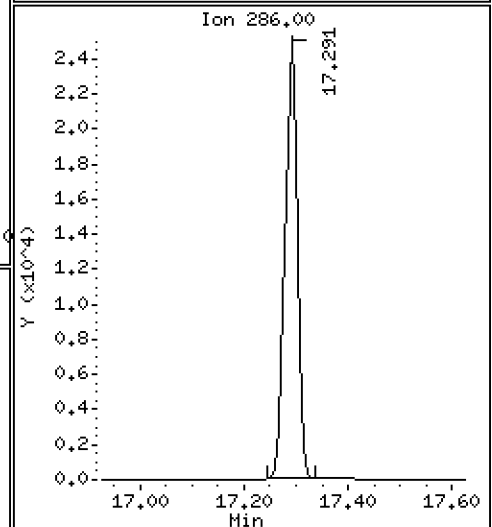
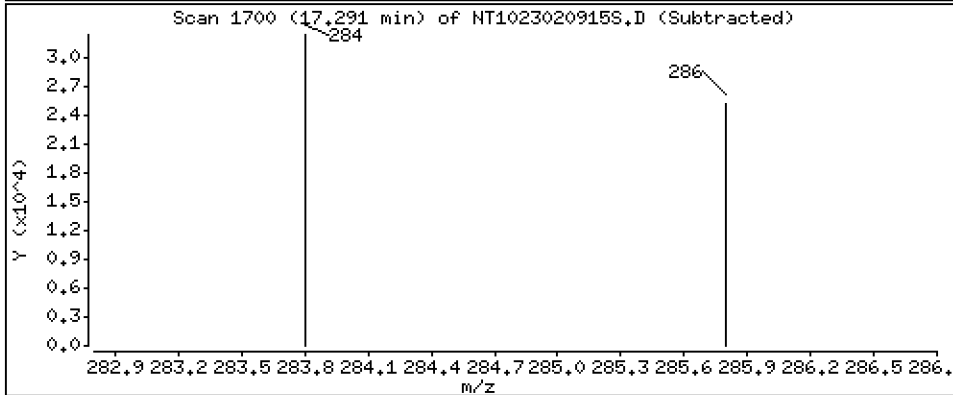
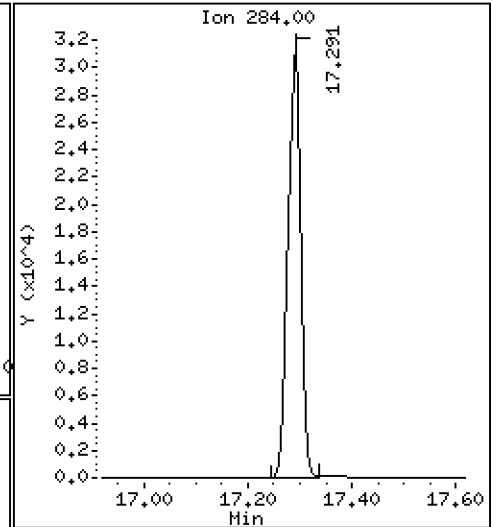
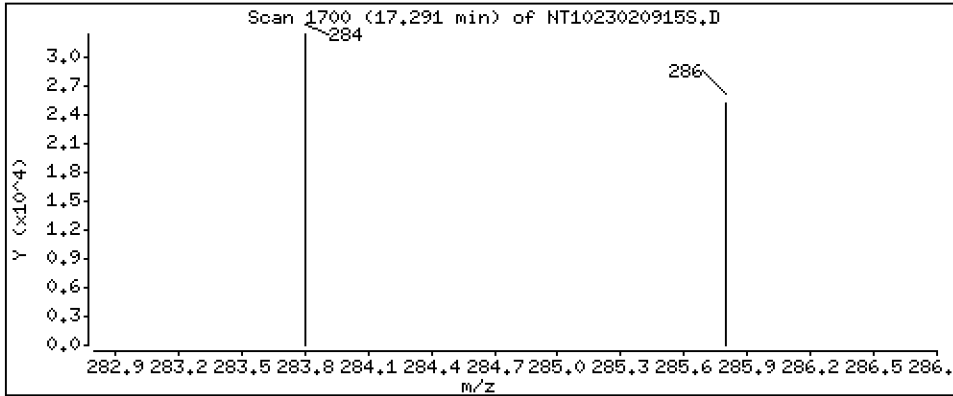
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

57 Hexachlorobenzene

Concentration: 4,049 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

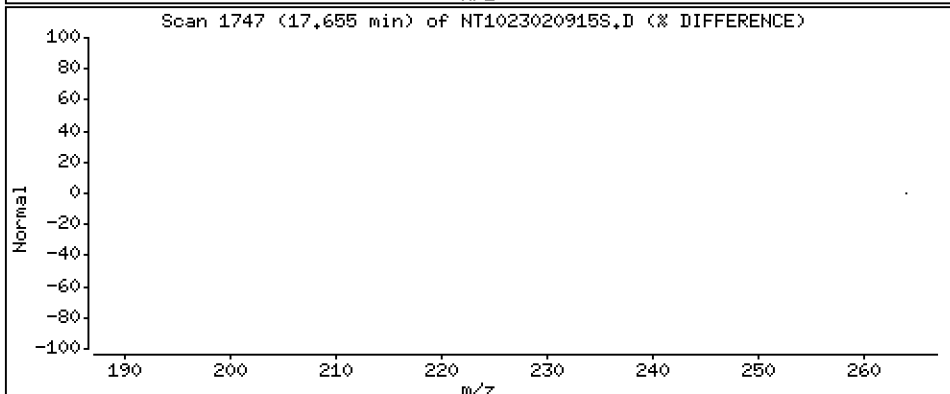
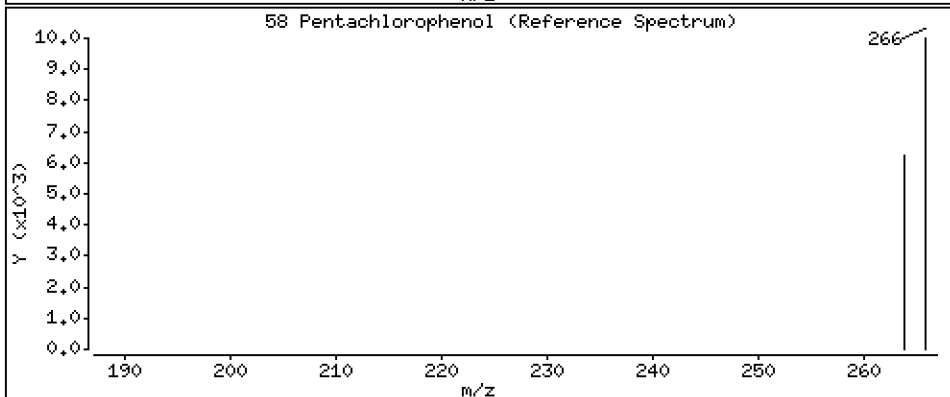
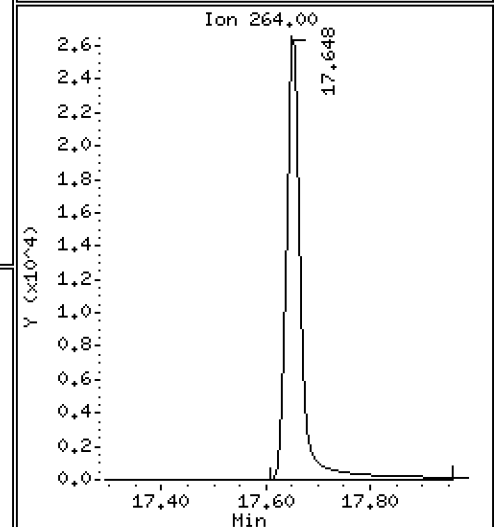
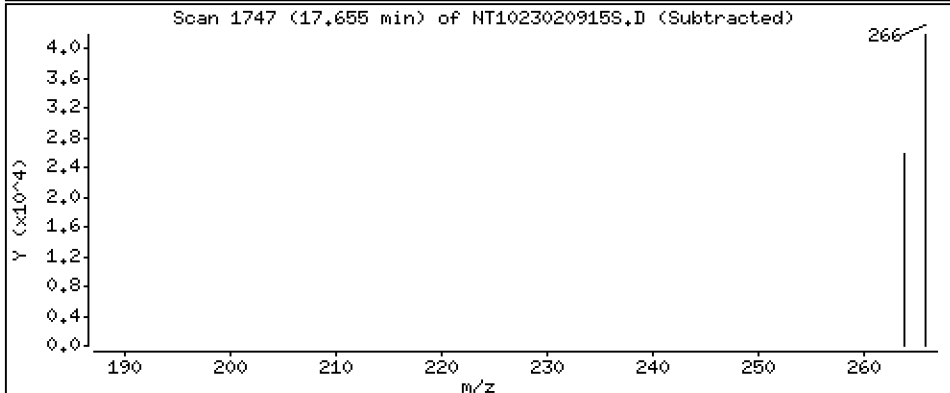
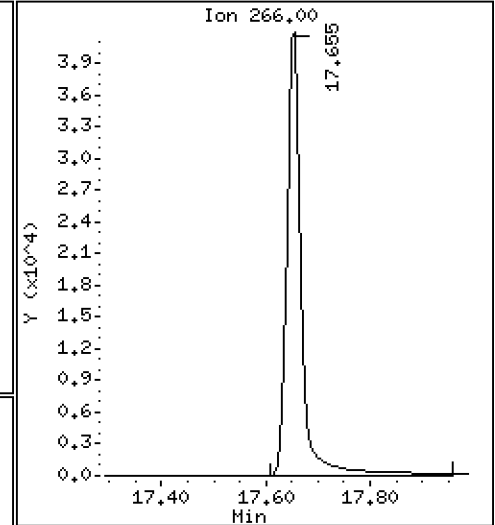
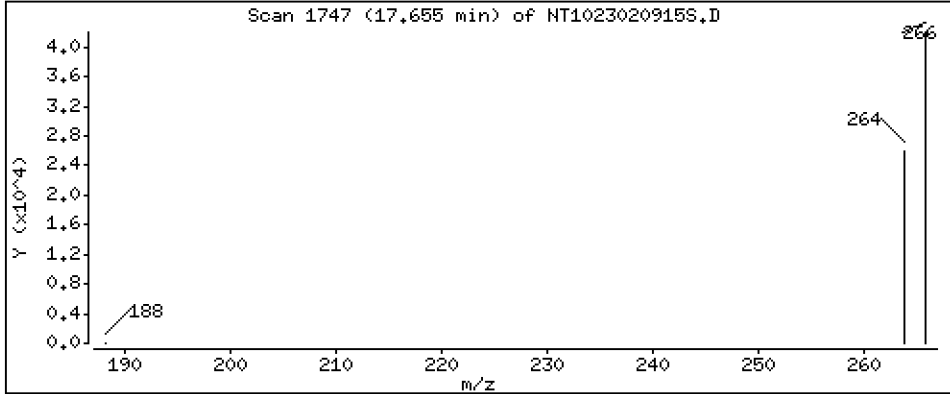
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 15,58 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

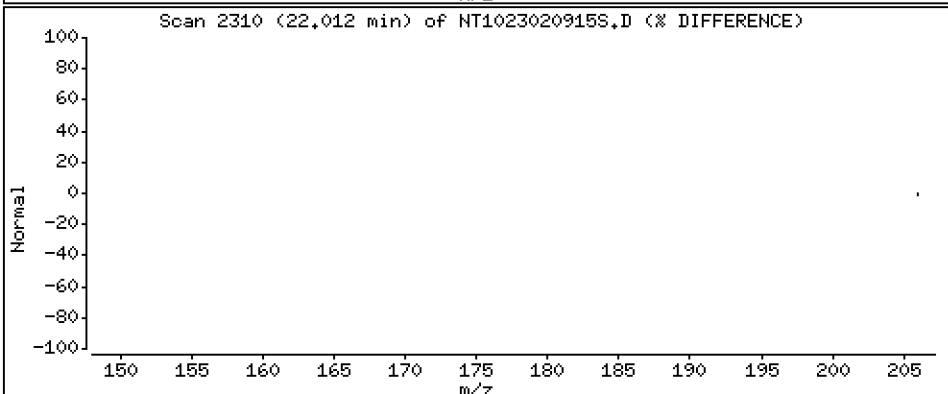
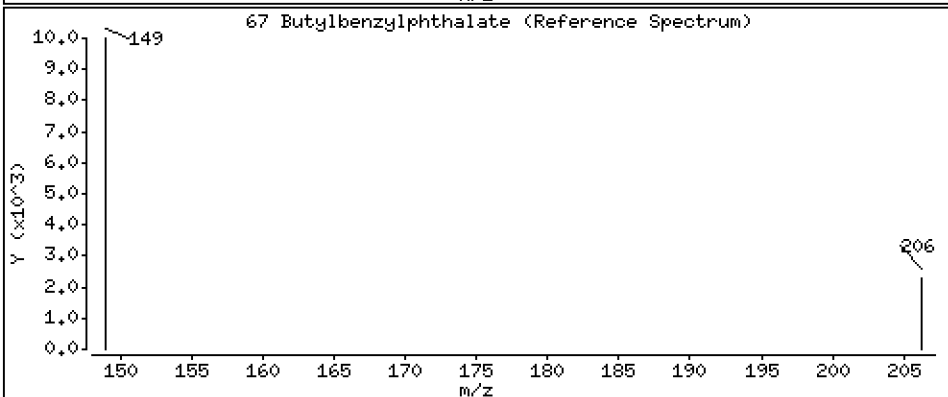
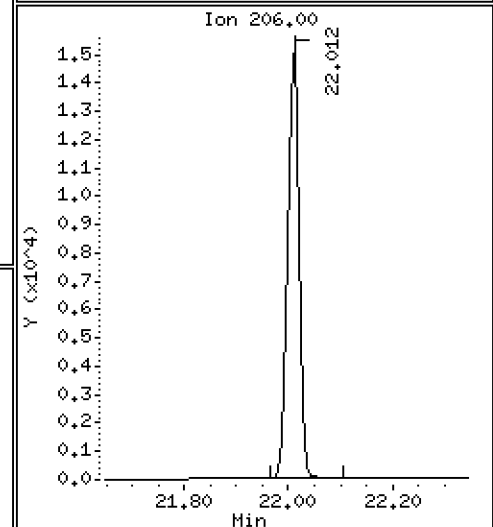
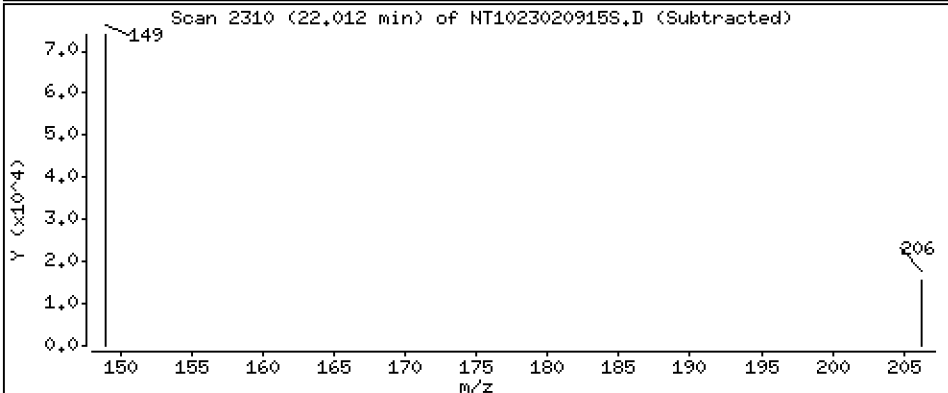
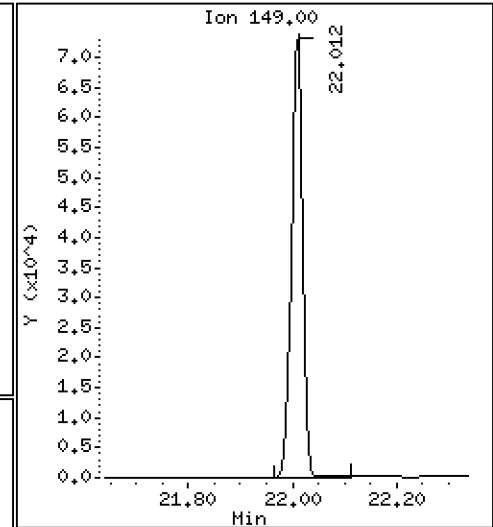
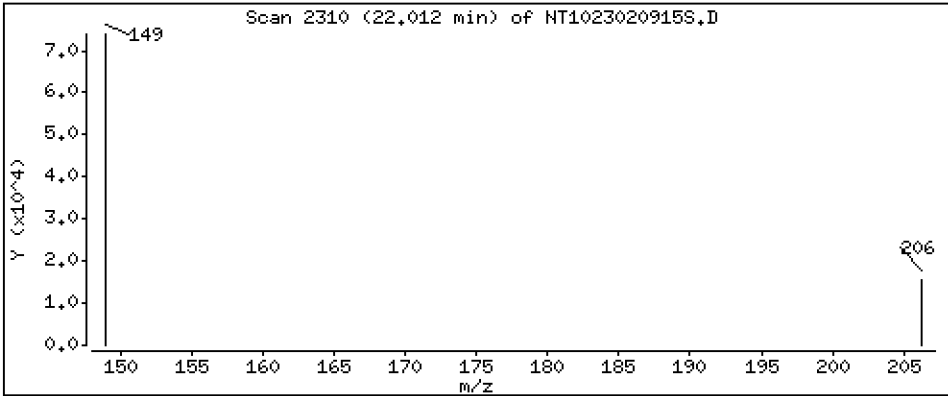
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 4,637 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

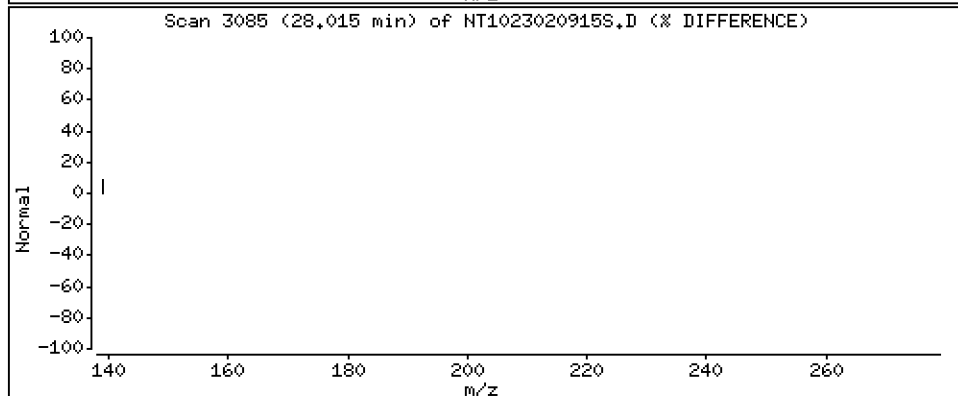
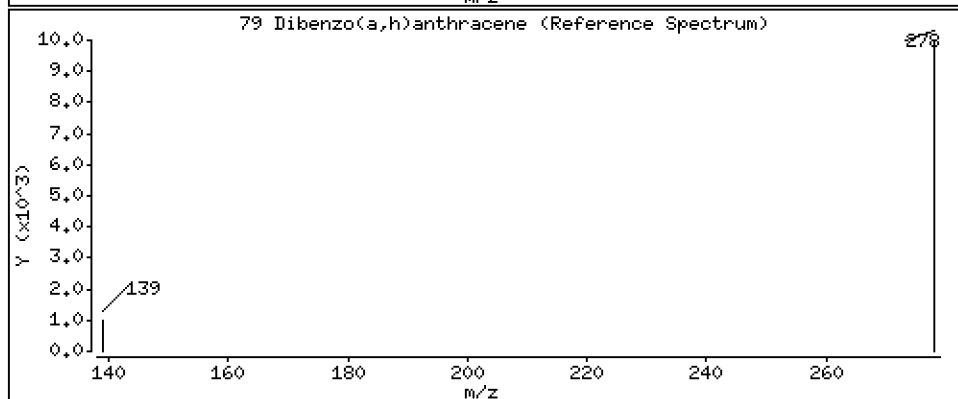
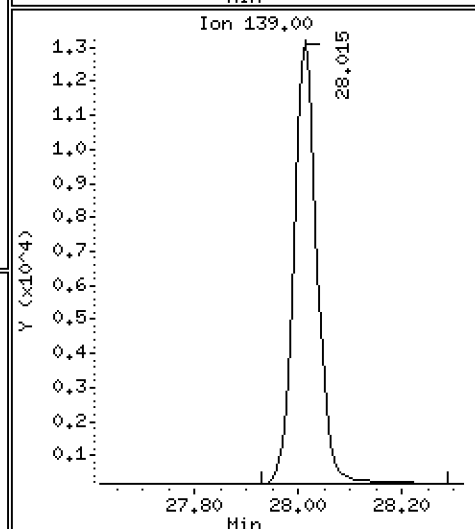
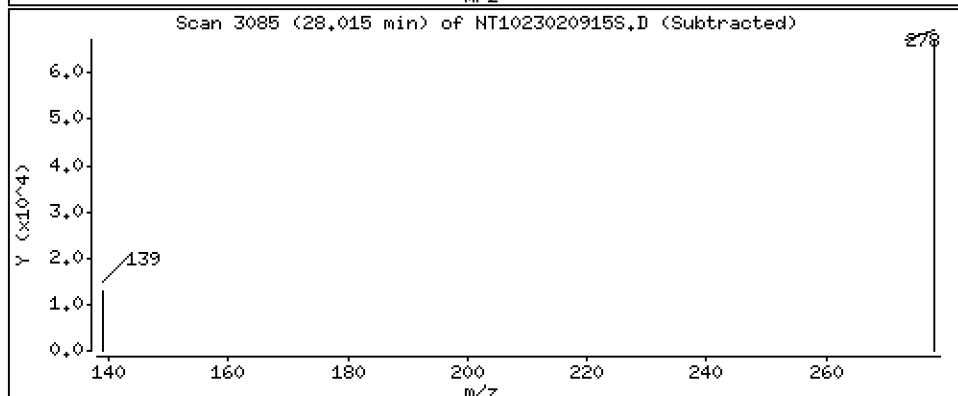
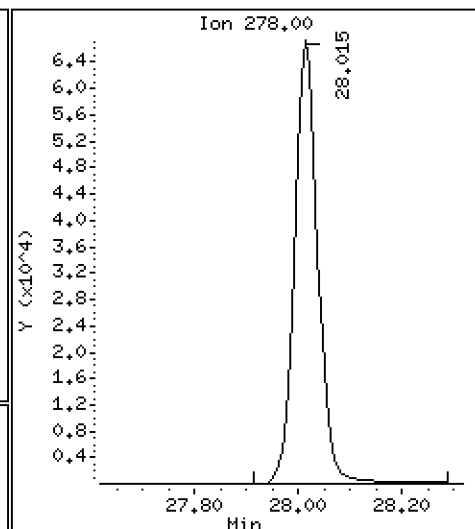
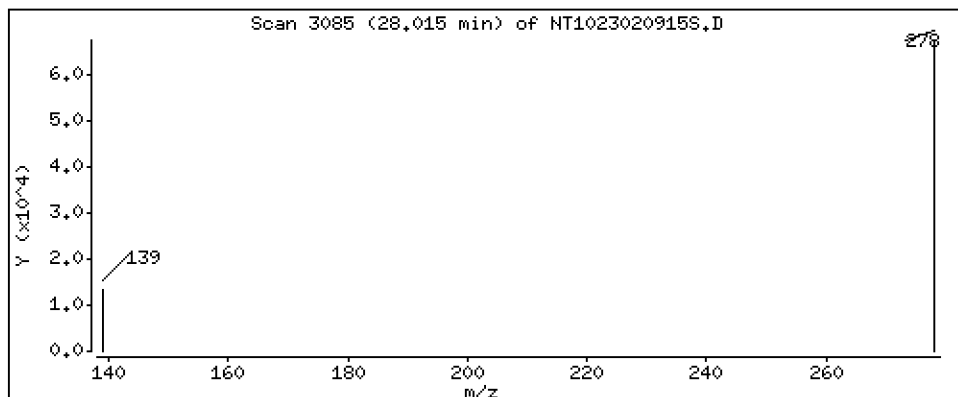
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,115 ug/L



Date : 09-FEB-2023 21:56

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-BSD1

Volume Injected (uL): 1.0

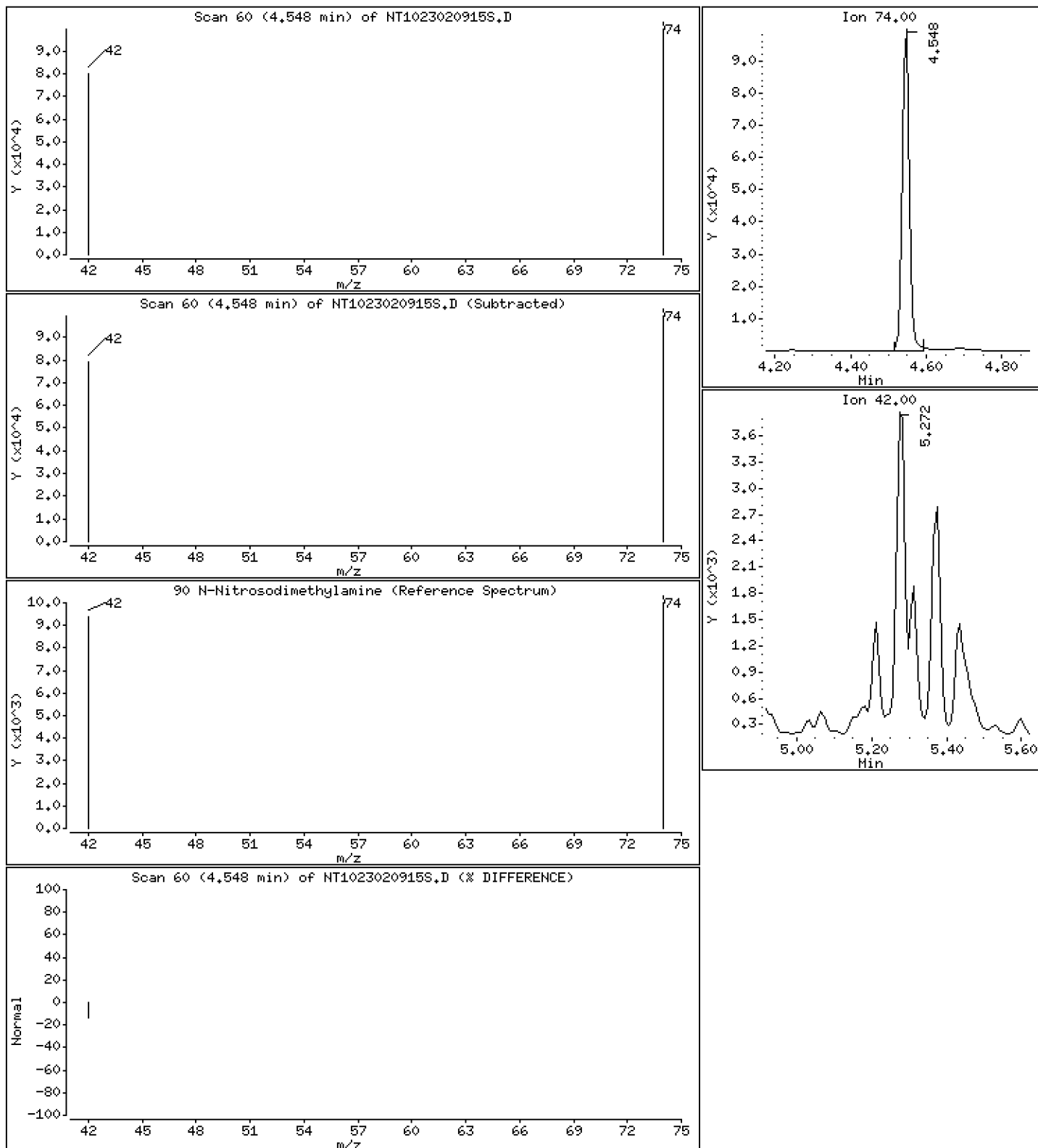
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 11,16 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230209.b\SIM.b\NT1023020915S.D
 Lab Smp Id: BLA0163-BSD2
 Inj Date : 09-FEB-2023 21:56 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : BLA0163-BSD1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230209.b\SIM.b\SIMABN2.m
 Meth Date : 12-Feb-2023 17:30 yev Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 15
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		6.671	6.655 (0.754)		109803	5.91873	5.919 (RM)
3 Phenol	94		8.255	8.239 (0.934)		102078	3.64904	3.649
7 1,3-Dichlorobenzene	146		8.781	8.765 (0.993)		91482	3.63138	3.631
* 8 1,4-Dichlorobenzene-d4	152		8.843	8.835 (1.000)		61006	4.00000	
9 1,4-Dichlorobenzene	146		8.866	8.858 (1.003)		91232	3.70406	3.704
11 Benzyl alcohol	79		9.114	9.099 (1.031)		68526	5.02146	5.021
12 1,2-Dichlorobenzene	146		9.223	9.207 (1.043)		88885	3.69748	3.697
13 2-Methylphenol	108		9.347	9.332 (1.057)		58560	3.06635	3.066
15 4-Methylphenol	108		9.619	9.603 (1.088)		69987	3.59305	3.593
16 N-Nitroso-di-n-propylamine	70		9.658	9.650 (1.092)		57708	4.15016	4.150
22 2,4-Dimethylphenol	107		10.647	10.630 (0.942)		69899	3.59385	3.594
24 Benzoic acid	105		10.893	10.799 (0.964)		274807	25.5646	25.56
26 1,2,4-Trichlorobenzene	180		11.214	11.206 (0.992)		69748	3.82586	3.826
* 27 Naphthalene-d8	136		11.299	11.283 (1.000)		221416	4.00000	
30 Hexachlorobutadiene	225		11.701	11.685 (1.036)		39555	3.97394	3.974
39 Dimethylphthalate	163		14.402	14.386 (0.967)		102447	4.26858	4.269
* 42 Acenaphthene-d10	162		14.889	14.866 (1.000)		102976	4.00000	
50 Diethylphthalate	149		15.856	15.832 (1.065)		172239	4.76522	4.765
54 N-Nitrosodiphenylamine	169		16.234	16.210 (0.907)		105052	3.51811	3.518
57 Hexachlorobenzene	284		17.291	17.268 (0.966)		51451	4.04870	4.049

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	17.655	17.639	(0.986)	81675	15.5756	15.58
* 59 Phenanthrene-d10	188	17.902	17.887	(1.000)	180686	4.00000	
\$ 66 Terphenyl-d14	244	21.075	21.051	(0.917)	165522	4.74236	4.742 (R)
67 Butylbenzylphthalate	149	22.011	21.988	(0.958)	109392	4.63673	4.637
* 69 Chrysene-d12	240	22.979	22.956	(1.000)	157246	4.00000	
* 77 Perylene-d12	264	25.503	25.480	(1.000)	184824	4.00000	
79 Dibenzo(a,h)anthracene	278	28.014	27.967	(1.098)	213166	4.11530	4.115
90 N-Nitrosodimethylamine	74	4.547	4.524	(0.514)	135714	11.1633	11.16 (M)

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020915S.D
 Lab Smp Id: BLA0163-BSD2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230209.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 09-FEB-2023
 Calibration Time: 14:49
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	101588	50794	203176	61006	-39.95
27 Naphthalene-d8	364920	182460	729840	221416	-39.32
42 Acenaphthene-d10	174973	87487	349946	102976	-41.15
59 Phenanthrene-d10	314354	157177	628708	180686	-42.52
69 Chrysene-d12	242262	121131	484524	157246	-35.09
77 Perylene-d12	285281	142641	570562	184824	-35.21

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	0.09
27 Naphthalene-d8	11.28	10.78	11.78	11.30	0.14
42 Acenaphthene-d10	14.87	14.37	15.37	14.89	0.16
59 Phenanthrene-d10	17.89	17.39	18.39	17.90	0.09
69 Chrysene-d12	22.96	22.46	23.46	22.98	0.10
77 Perylene-d12	25.48	24.98	25.98	25.50	0.09

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020915S.D

Lab ID: BLA0163-BSD2

nt10.i, 20230209.b\SIM.b\SIMABN2.m, 09-FEB-2023 21:56

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.964	0.957	0.0070	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1023020904S.D

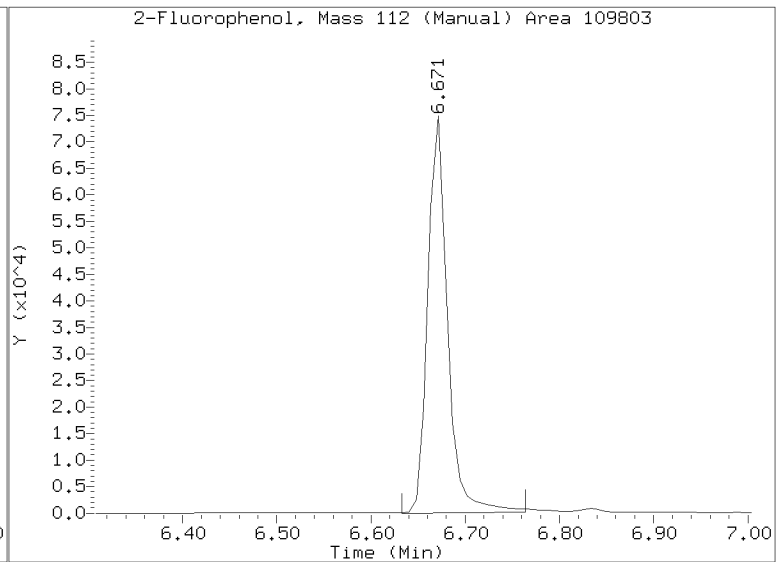
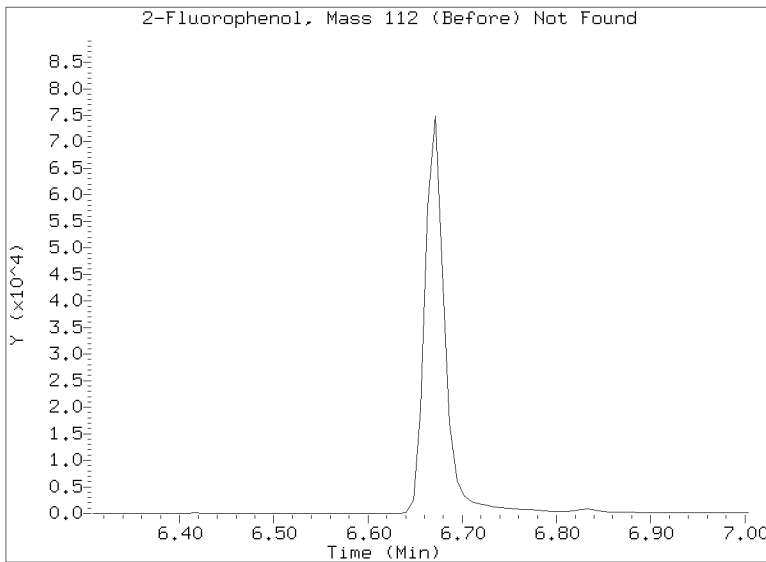
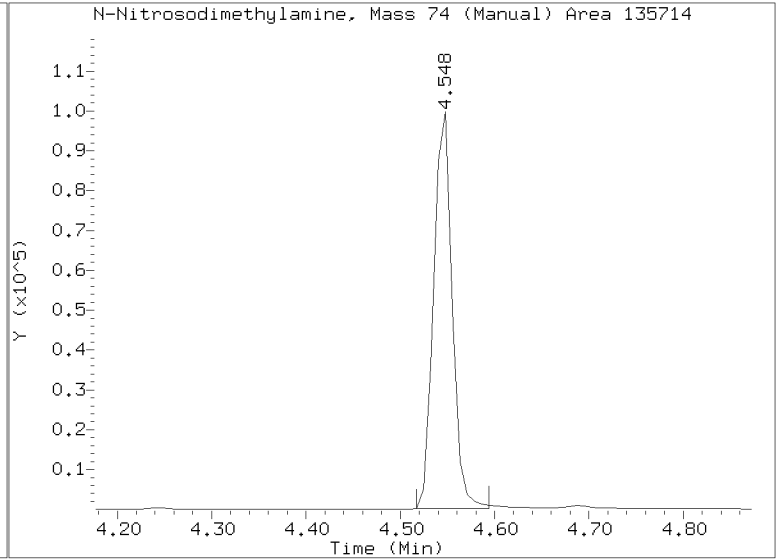
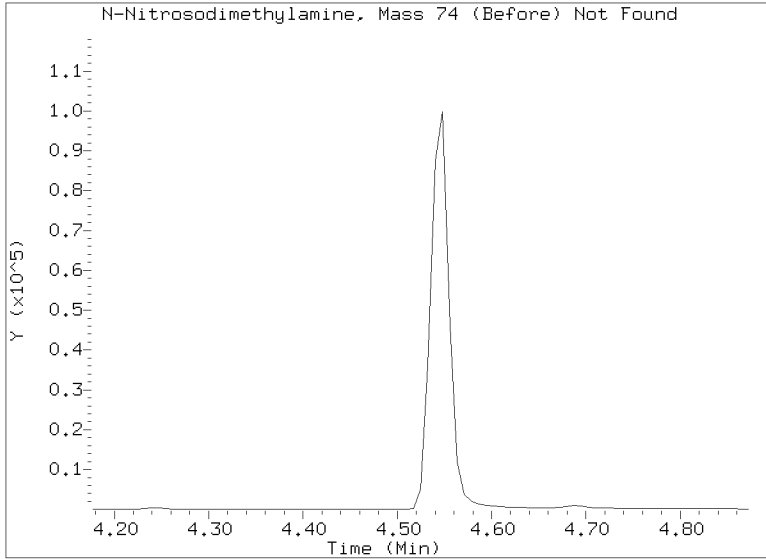
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209.b/SIM.b/NT1023020915S.D
Injection Date: 09-FEB-2023 21:56
Lab ID:BLA0163-BSD2 Client ID:
Report Date: 02/12/2023 17:36





LCS / LCS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC SDG: 23A0032
 Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
 Matrix: Solid Analyzed: 01/19/23 17:12
 Batch: BLA0171 Laboratory ID: BLA0171-BS1
 Preparation: EPA 3546 (Microwave) Sequence Name: LCS
 Initial/Final: 10 g / 0.5 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Benzo(a)anthracene	300	241		80.4	42 - 120
Chrysene	300	242		80.5	48 - 120
Benzo(b)fluoranthene	300	432	*	144 *	52 - 137
Benzo(k)fluoranthene	300	396	*	132 *	37 - 129
Benzo(a)pyrene	300	251		83.6	36 - 120
Indeno(1,2,3-cd)pyrene	300	345		115	67 - 132
Dibenzo(a,h)anthracene	300	405		135	66 - 139

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Benzo(a)anthracene	300	164	*	54.6	38.4 *	30	42 - 120
Chrysene	300	170	*	56.6	34.8 *	30	48 - 120
Benzo(b)fluoranthene	300	298	*	99.4	36.7 *	30	52 - 137
Benzo(k)fluoranthene	300	276	*	92.1	35.6 *	30	37 - 129
Benzo(a)pyrene	300	180	*	60.1	32.7 *	30	36 - 120
Indeno(1,2,3-cd)pyrene	300	244	*	81.3	34.3 *	30	67 - 132
Dibenzo(a,h)anthracene	300	284	*	94.8	35.1 *	30	66 - 139

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt8.1\20230119A.1\N823011914.D

Date: 19-JAN-2023 17:12

Client ID:

Sample Info: BLR0171-BS1,

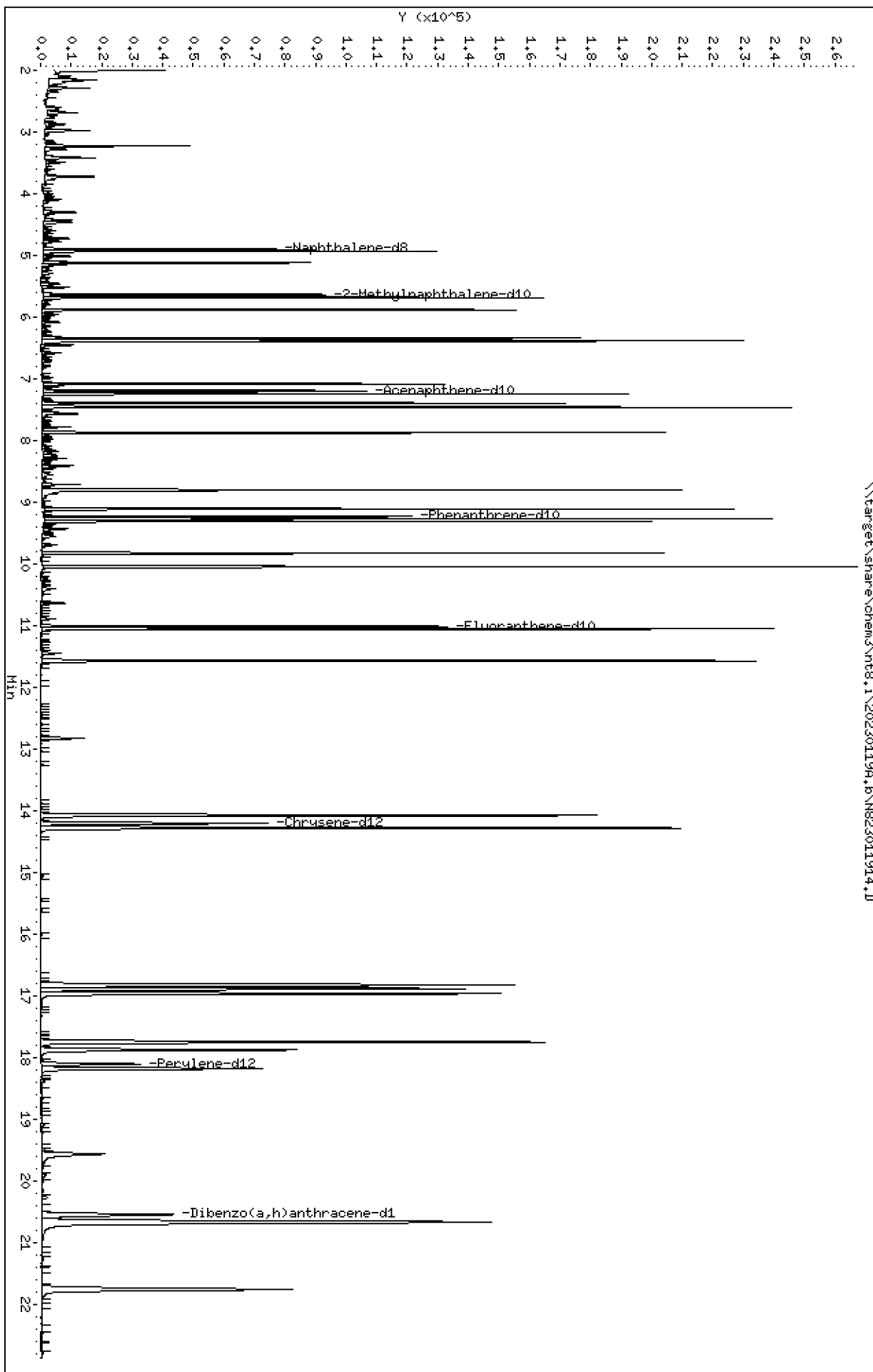
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

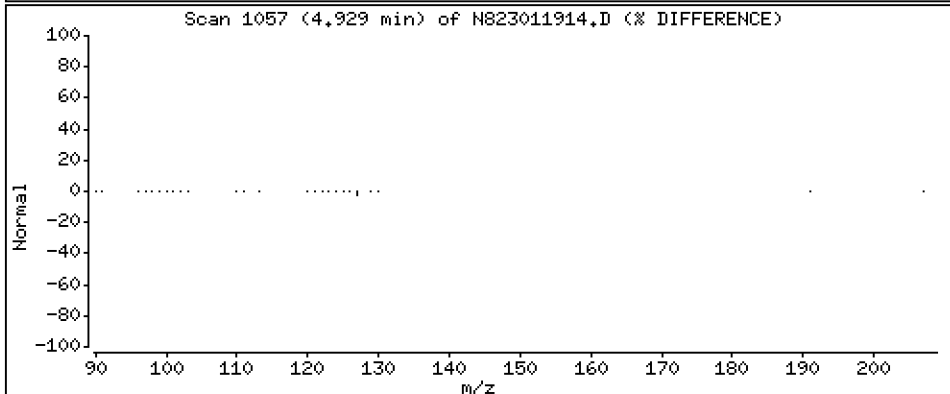
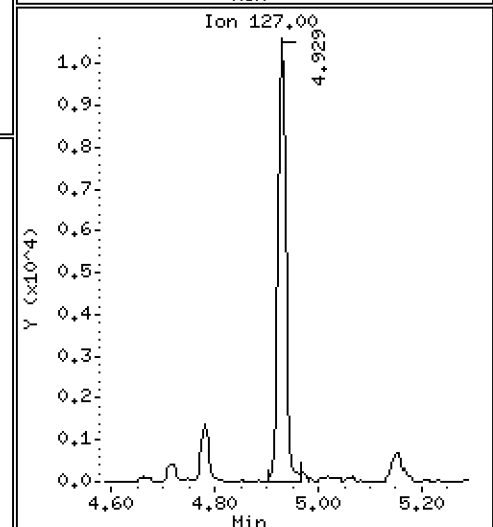
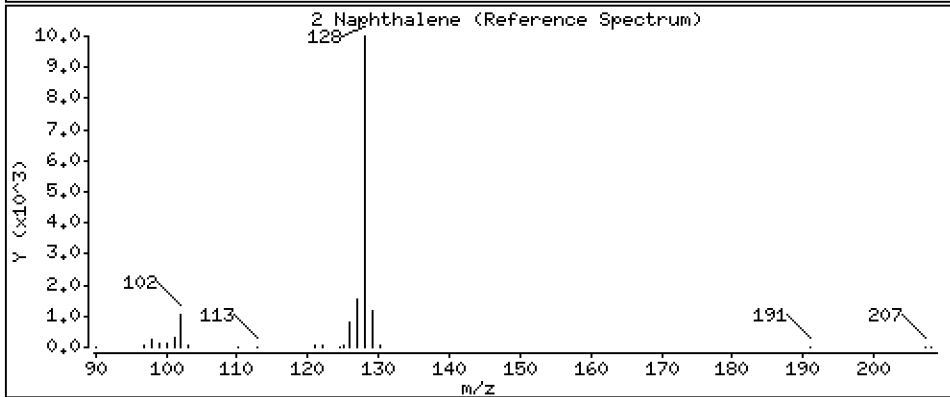
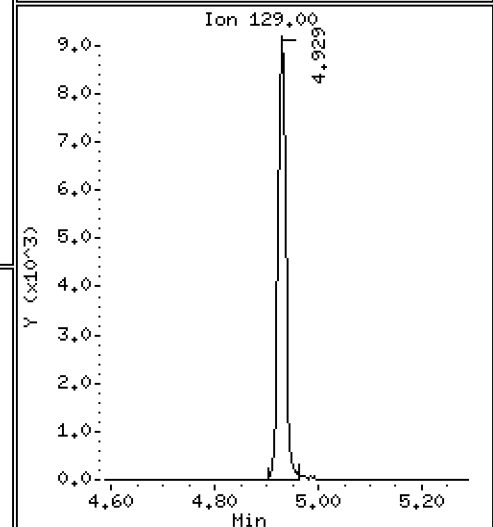
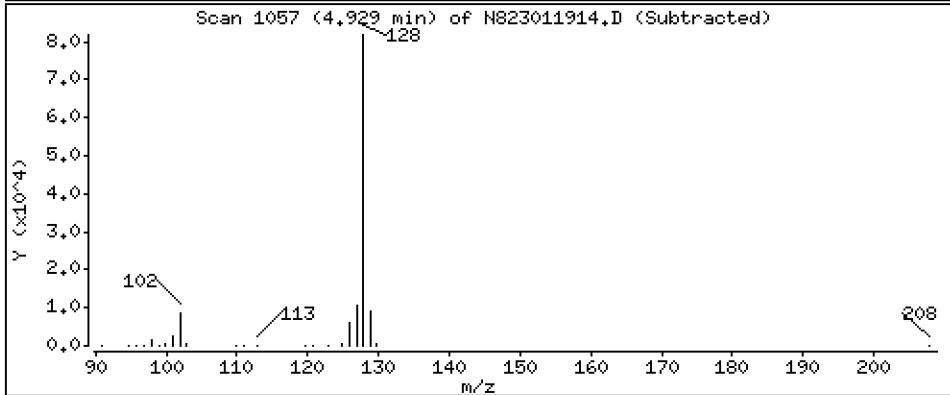
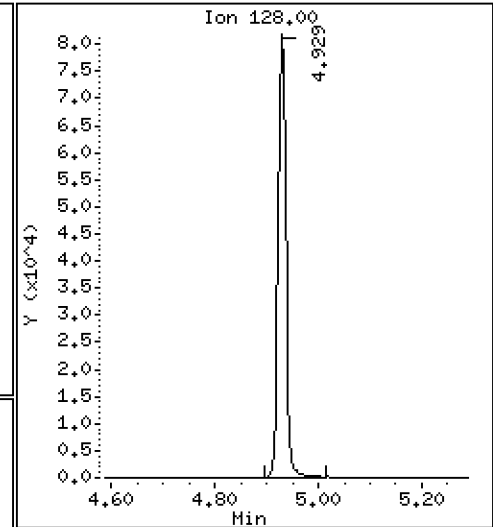
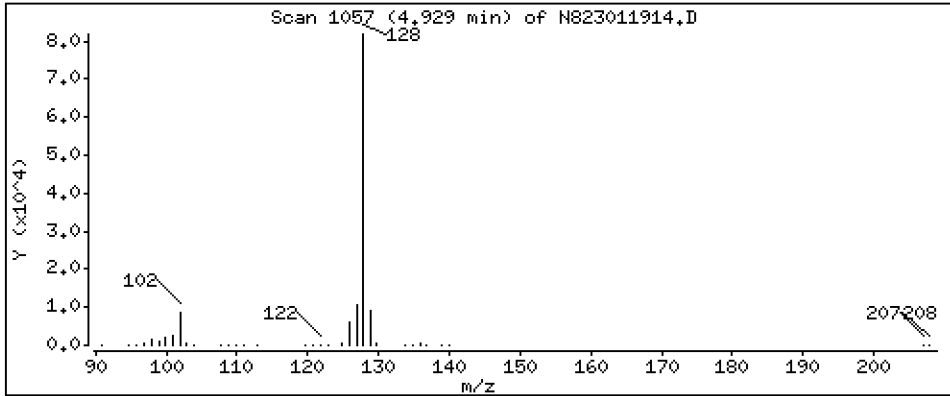
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

2 Naphthalene

Concentration: 3.459 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

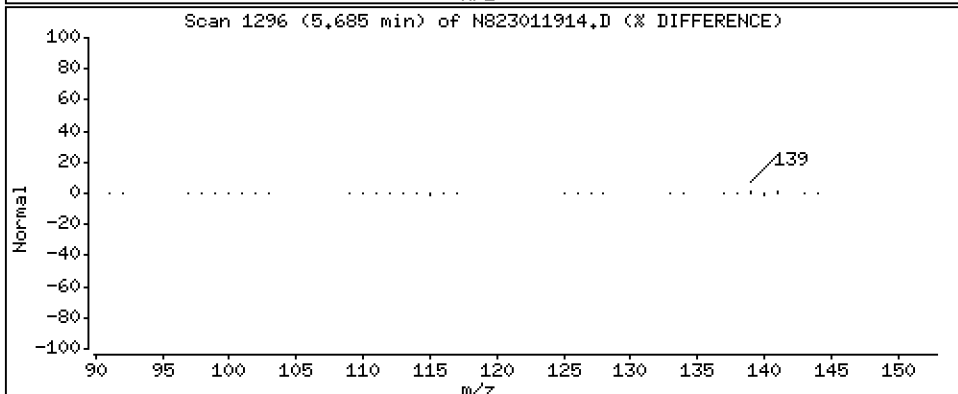
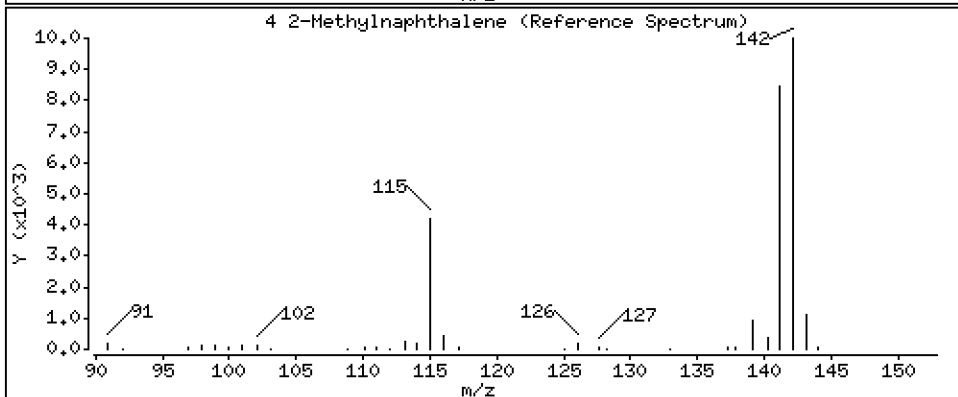
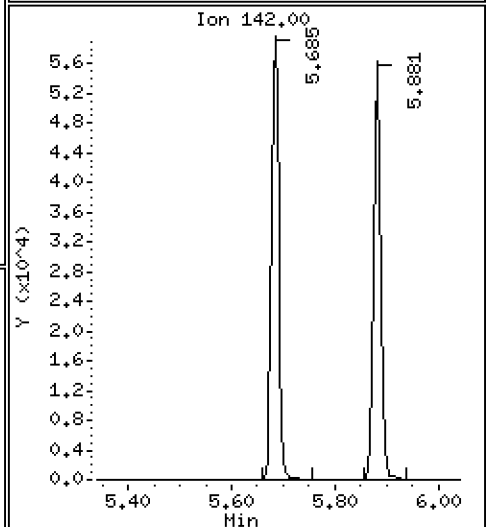
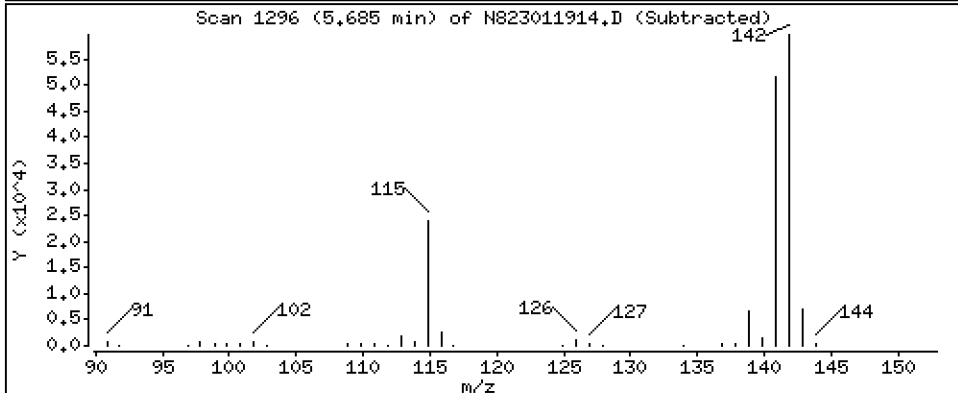
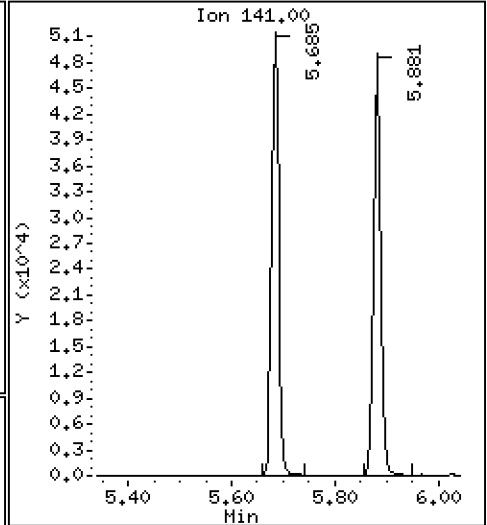
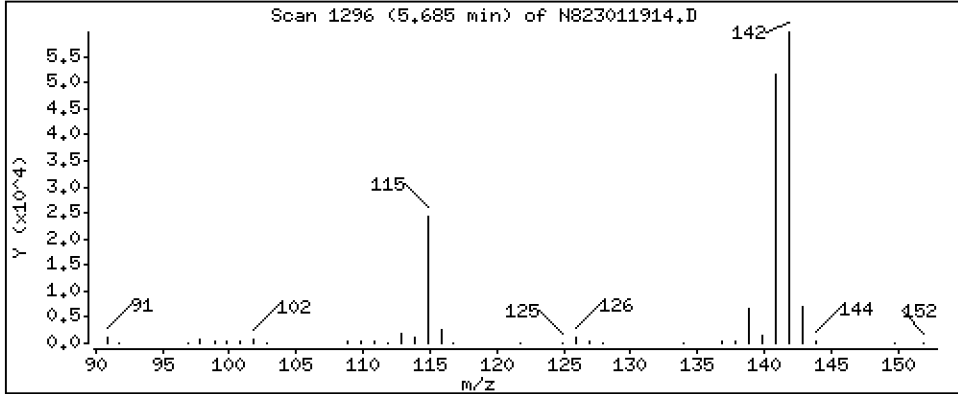
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

4-Methylnaphthalene

Concentration: 3.591 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

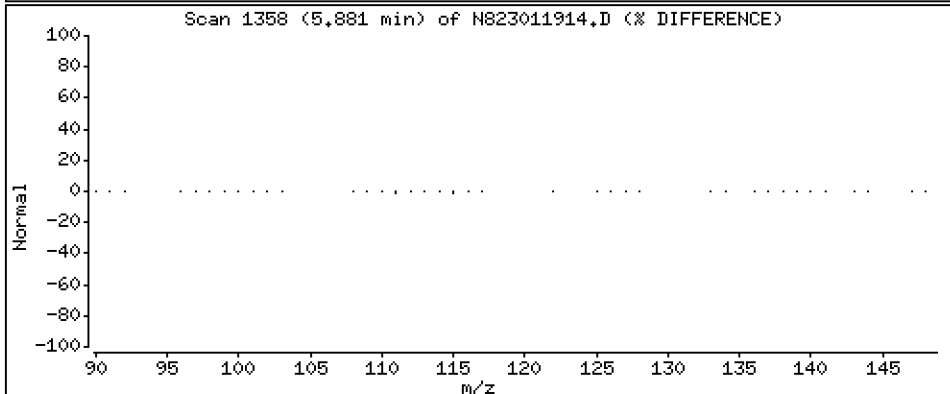
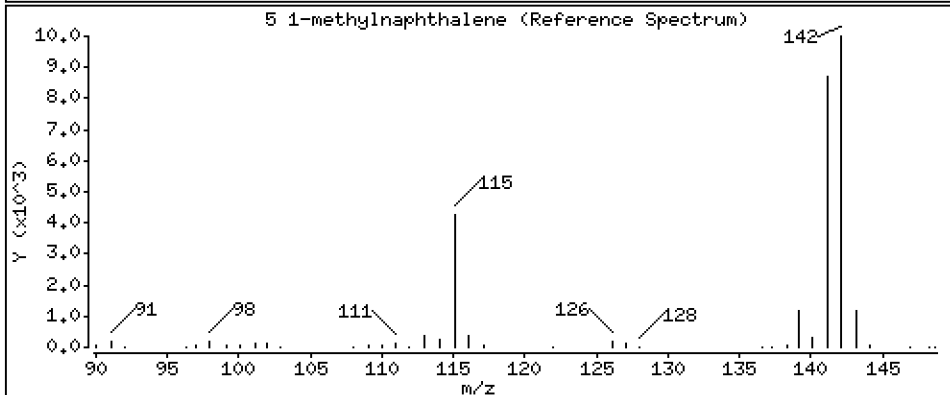
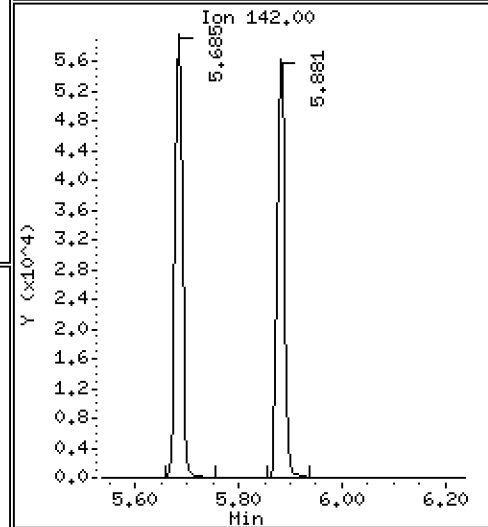
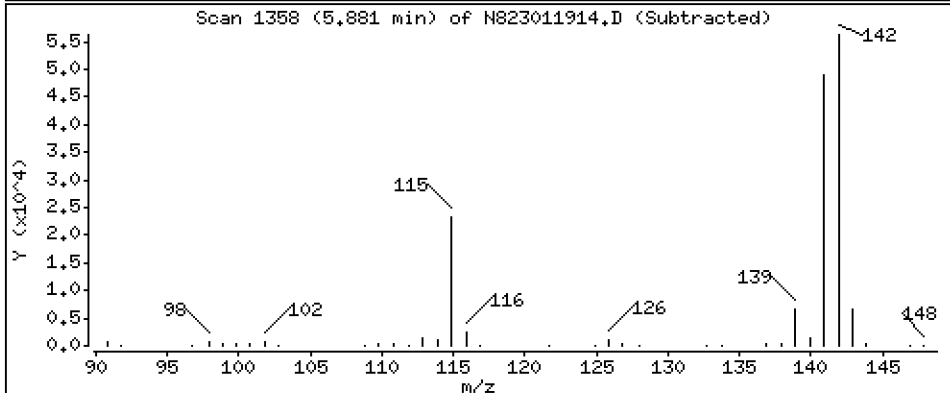
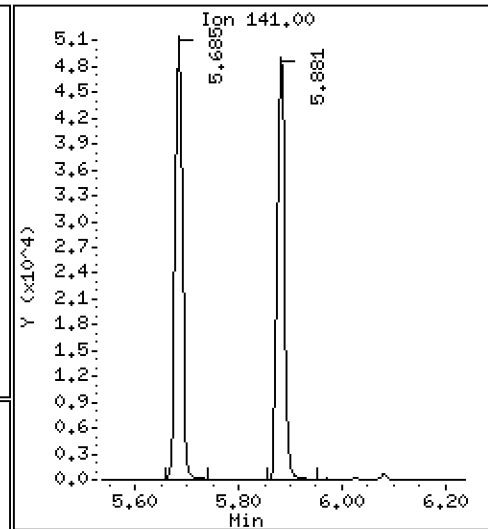
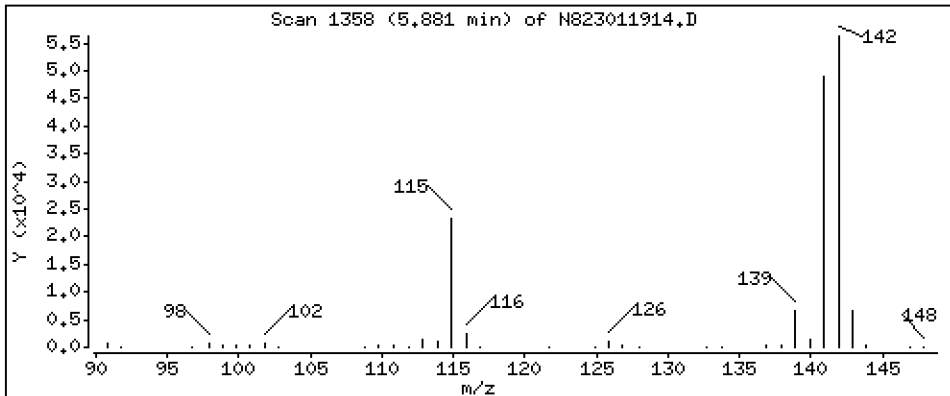
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

5 1-methylnaphthalene

Concentration: 3,578 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

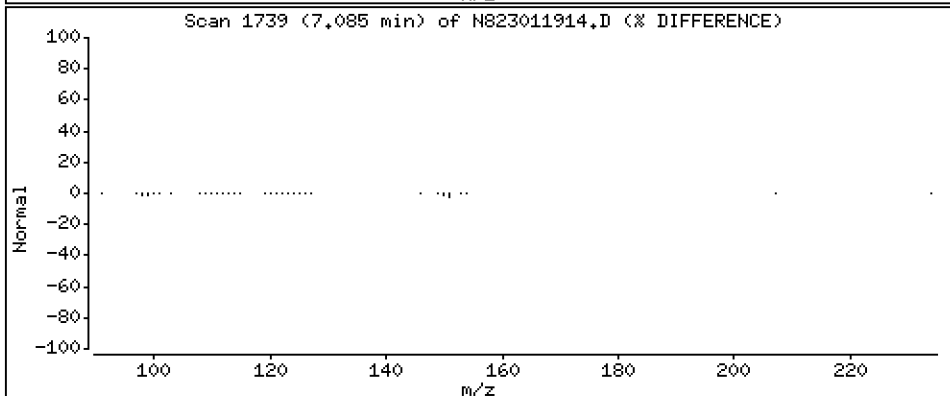
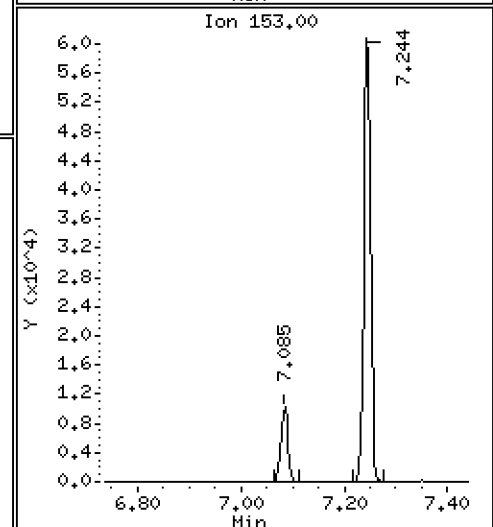
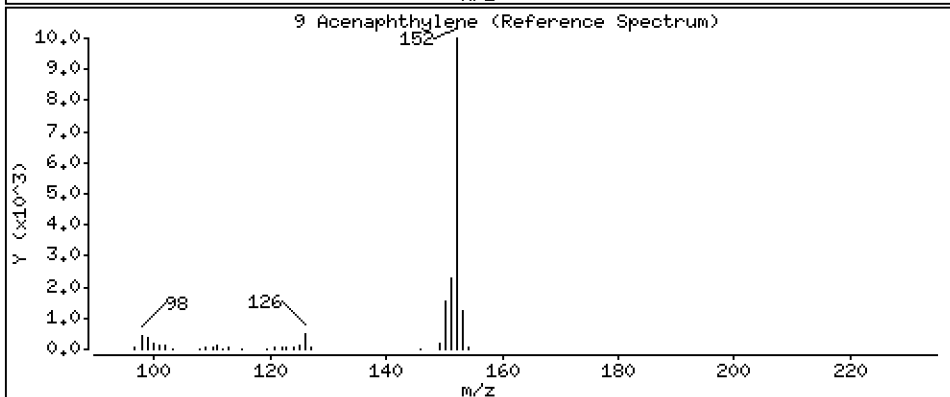
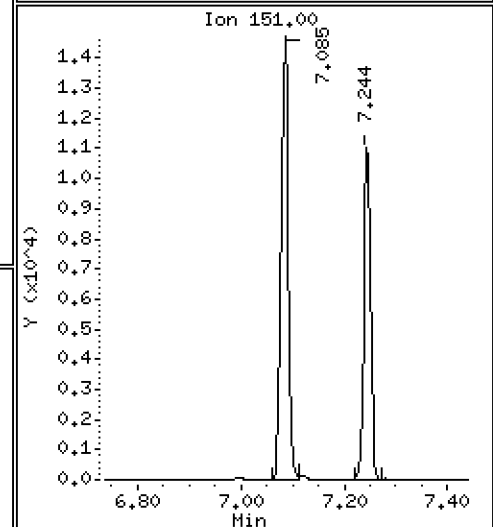
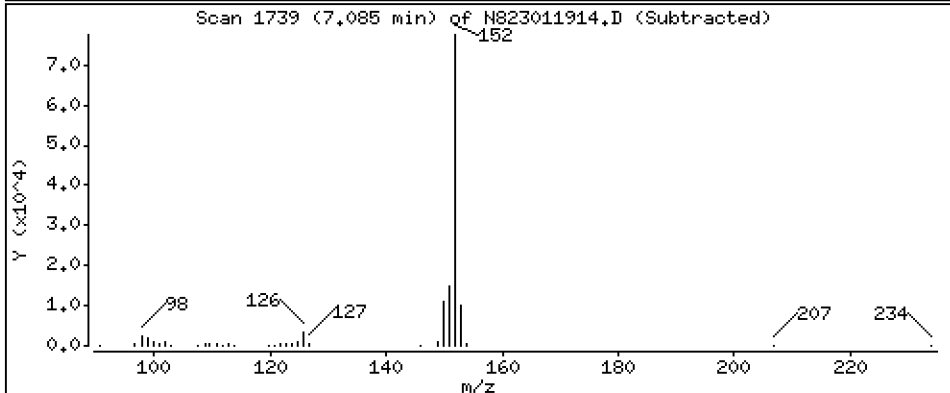
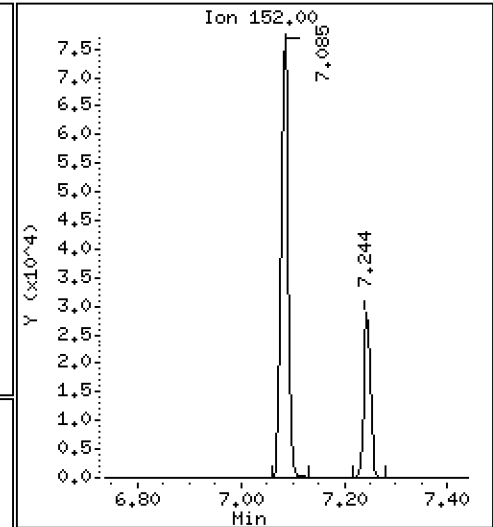
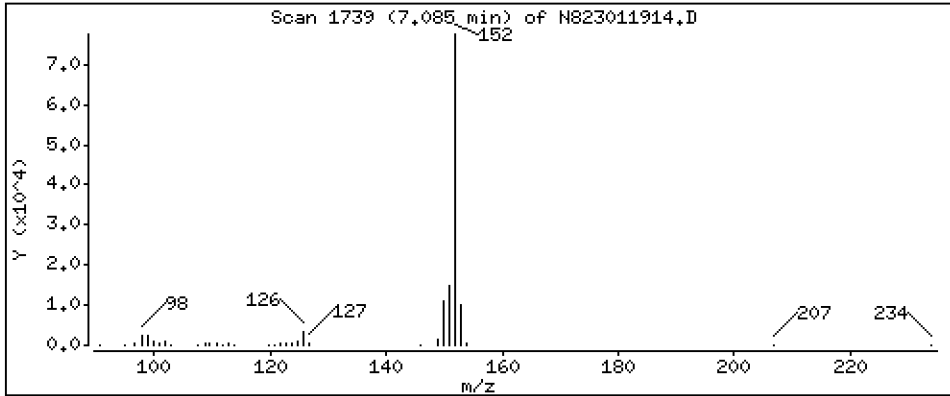
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

9 Acenaphthylene

Concentration: 3,176 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

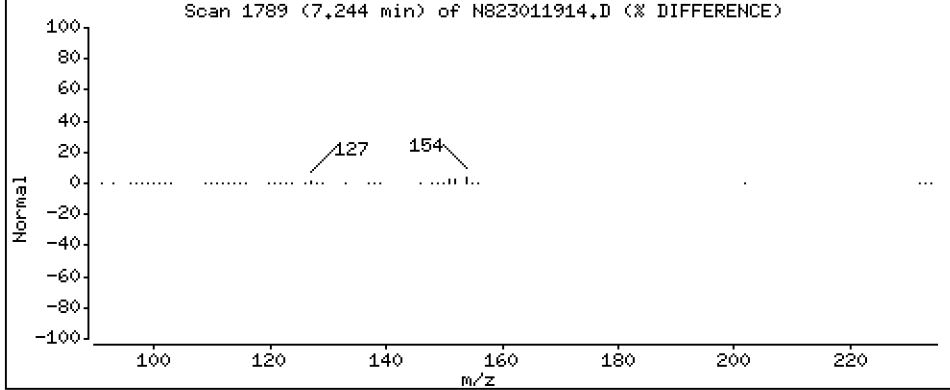
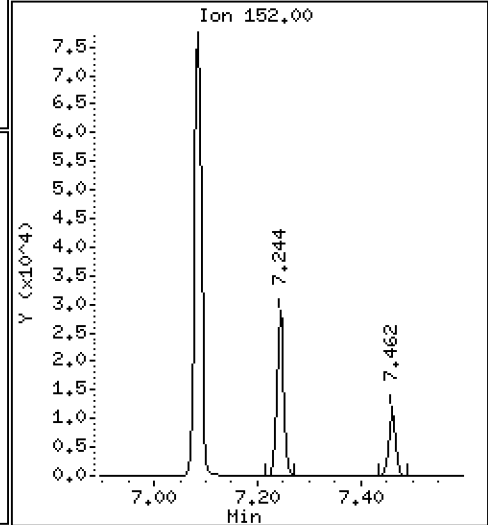
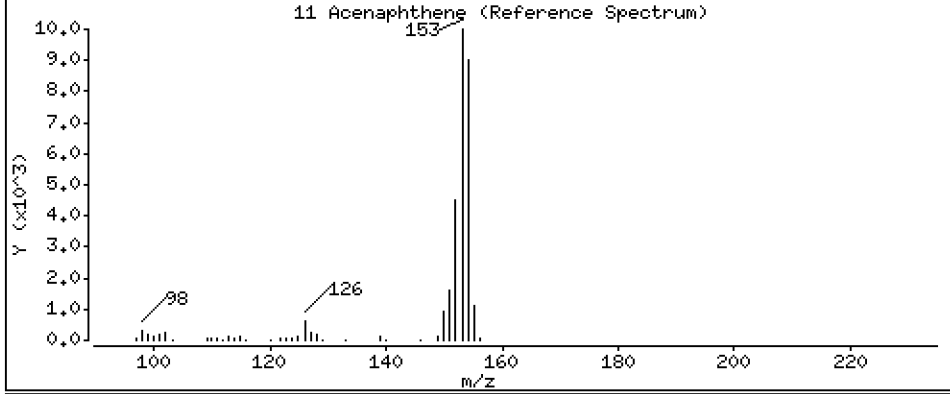
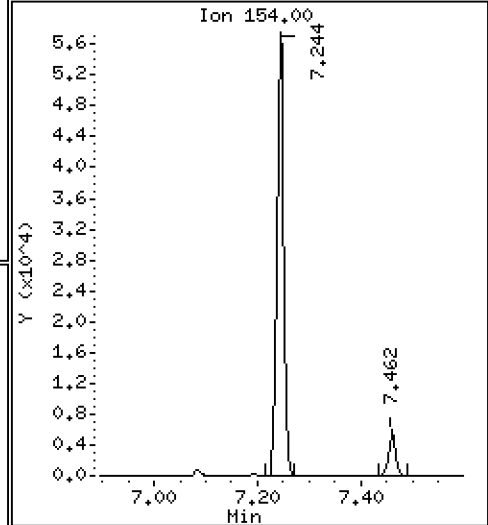
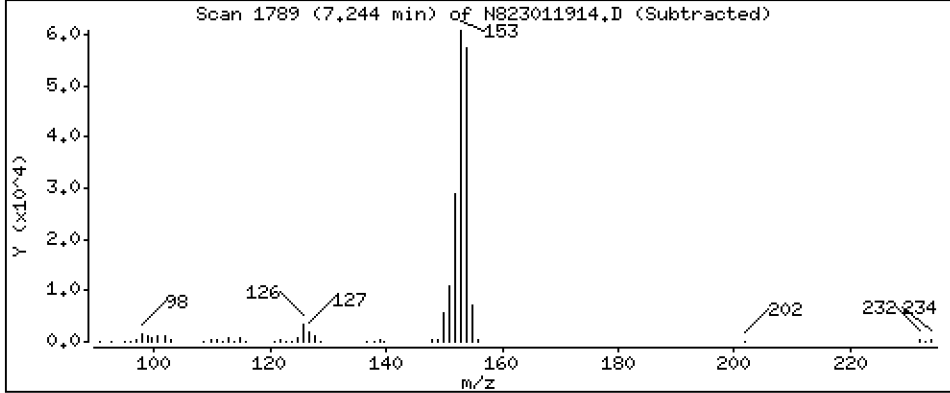
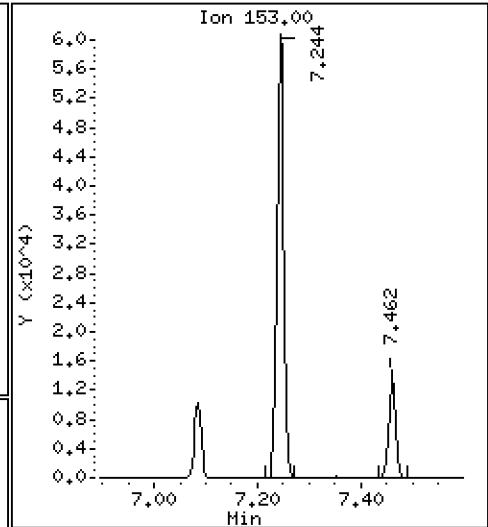
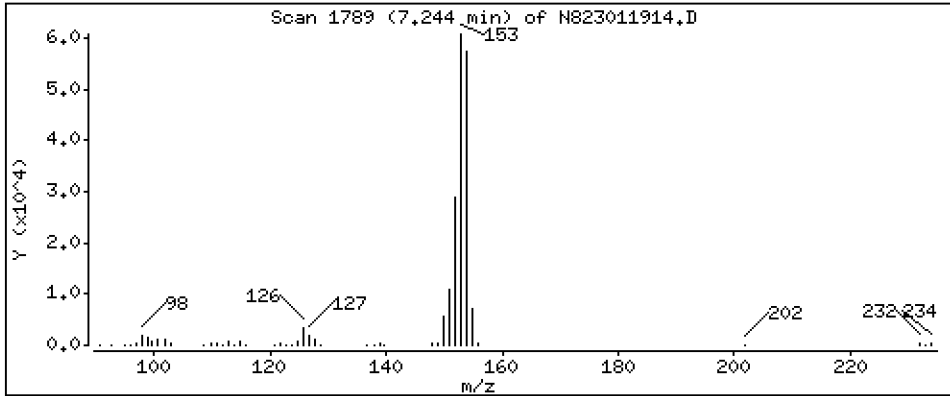
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

11 Acenaphthene

Concentration: 3,575 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

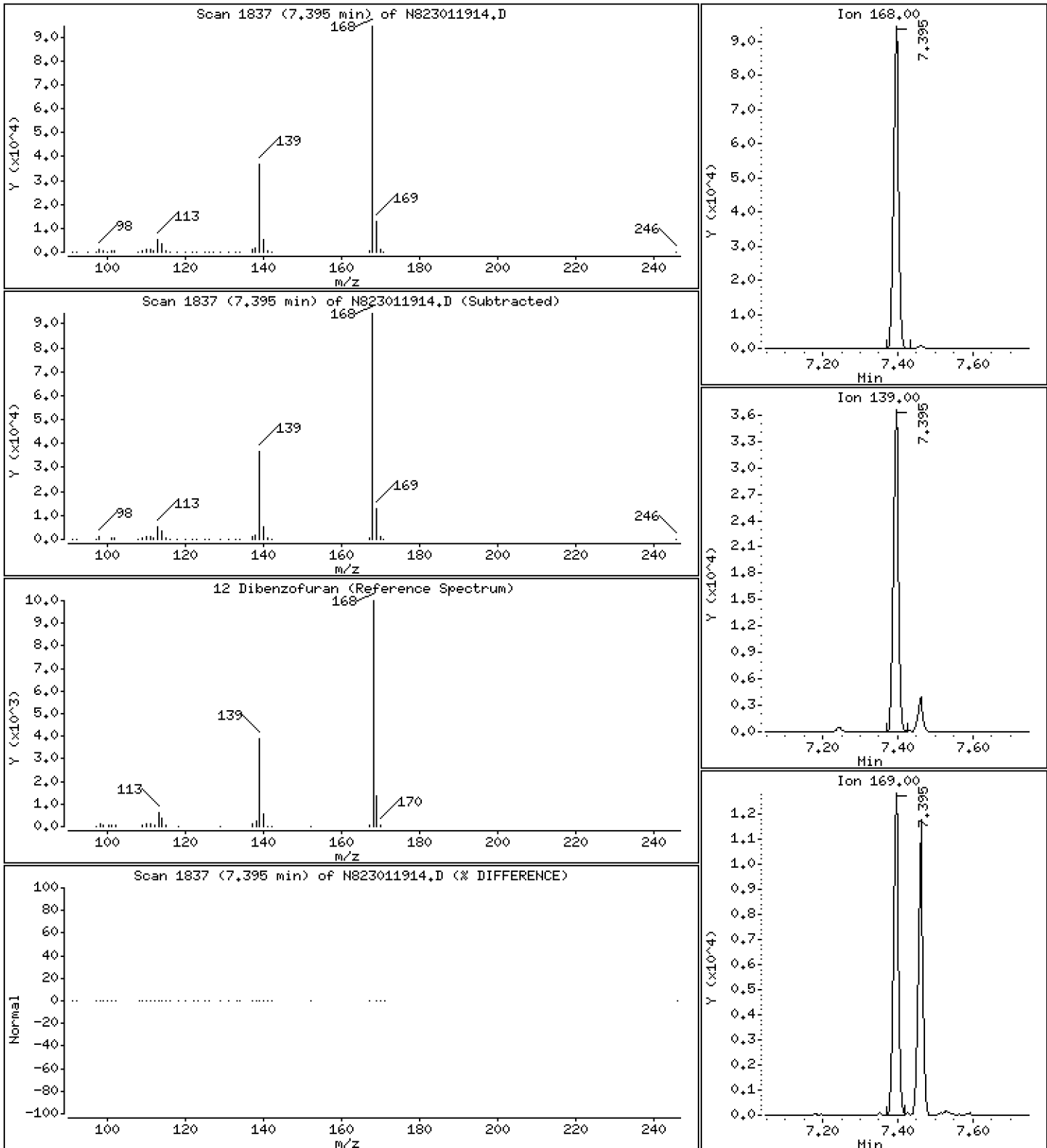
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

12 Dibenzofuran

Concentration: 3,703 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

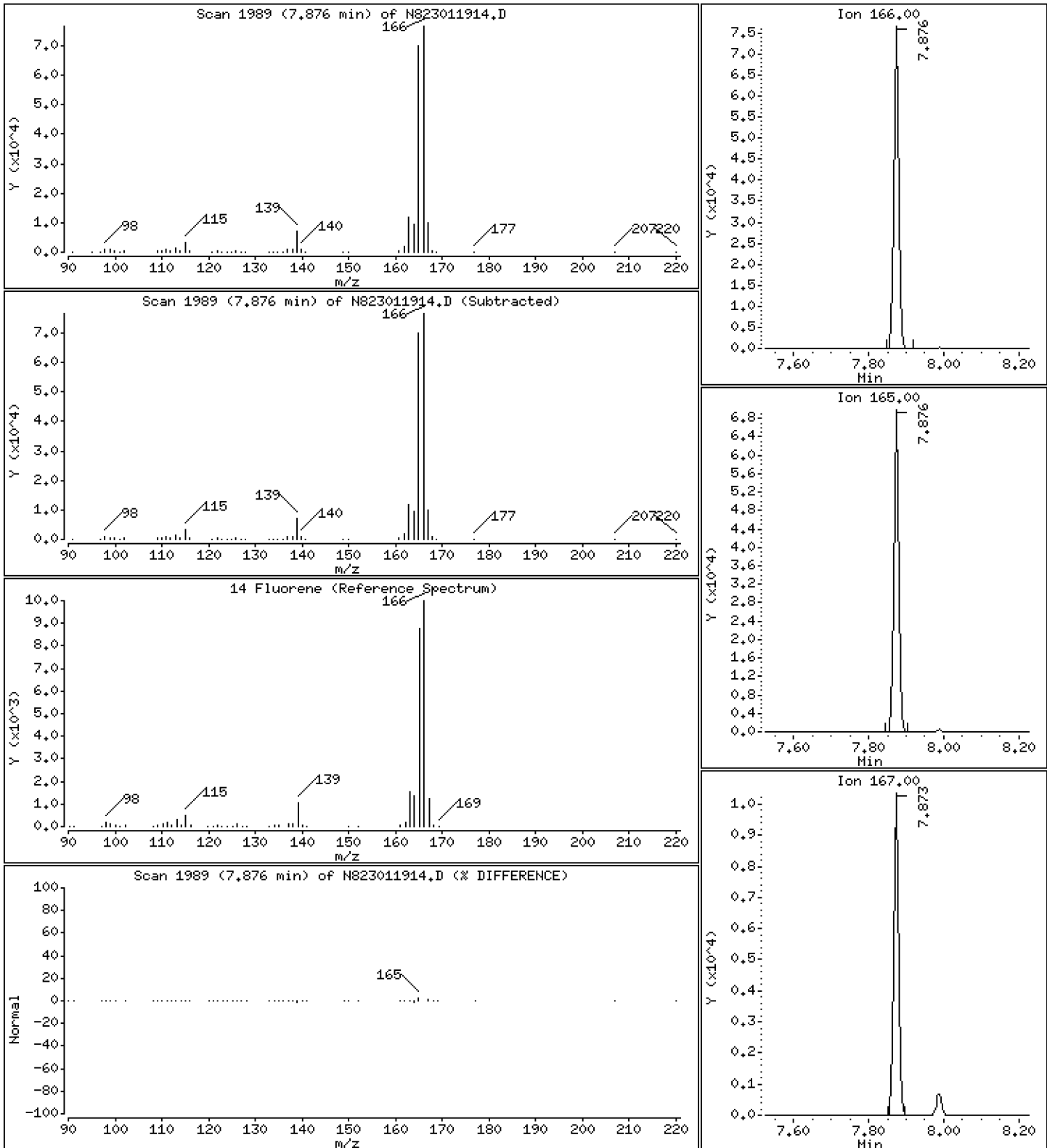
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

14 Fluorene

Concentration: 3,919 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

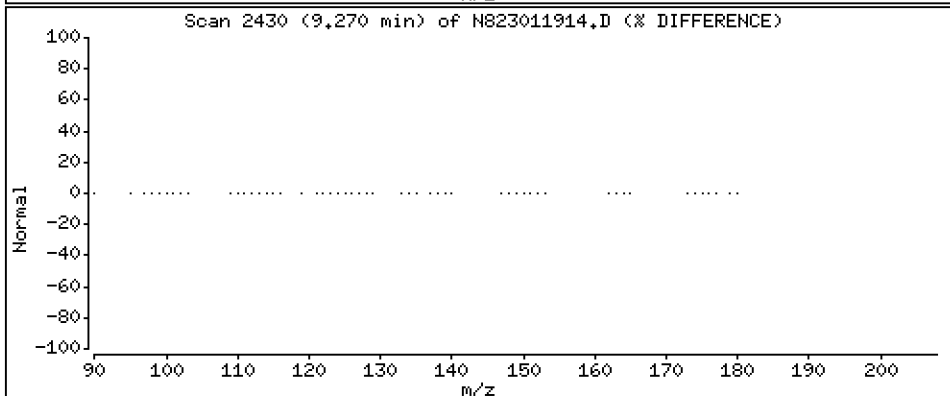
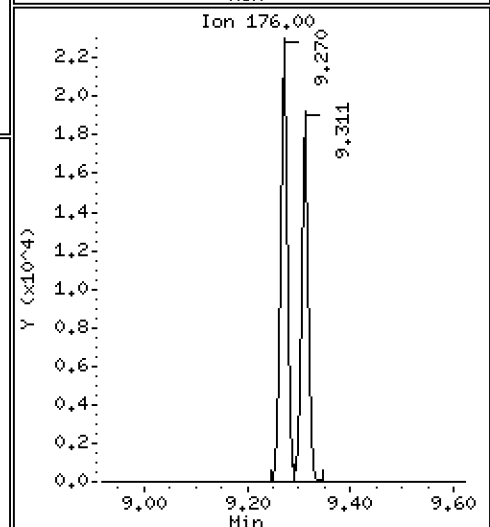
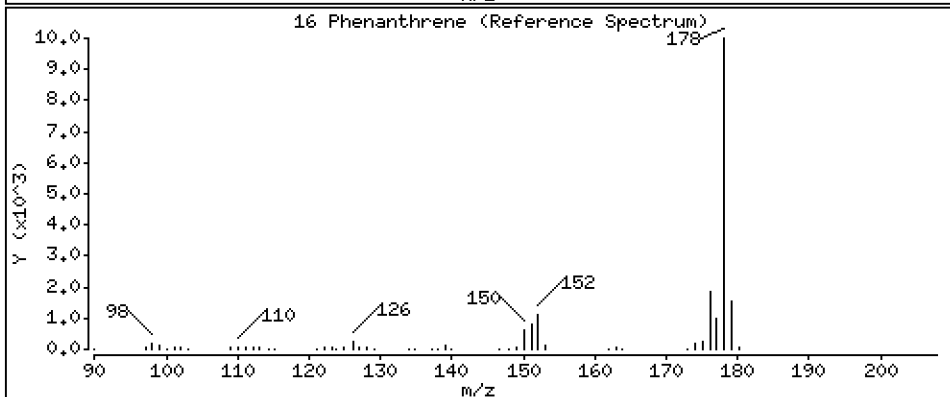
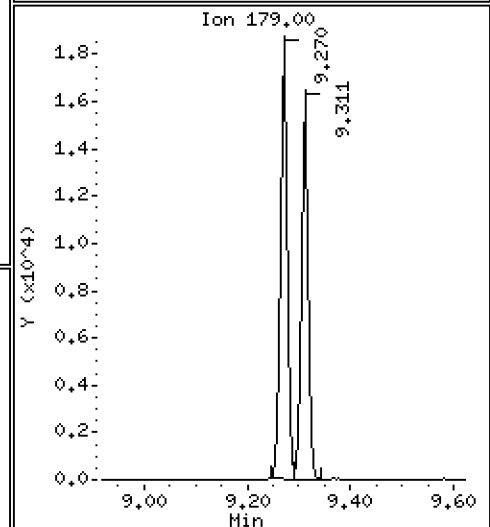
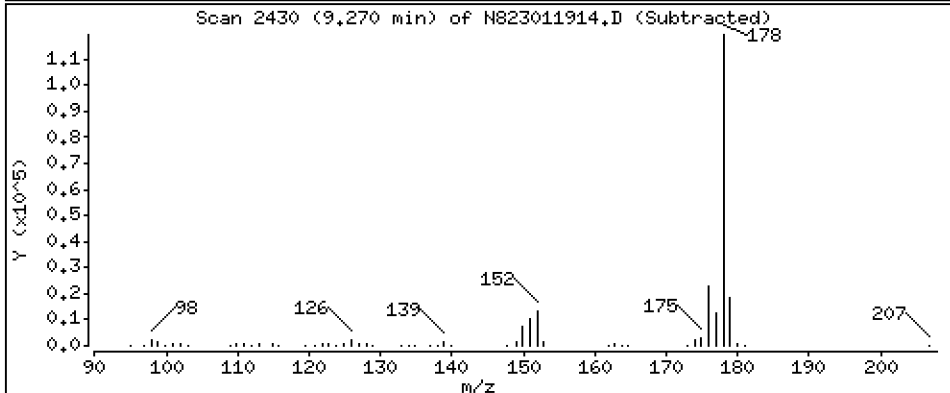
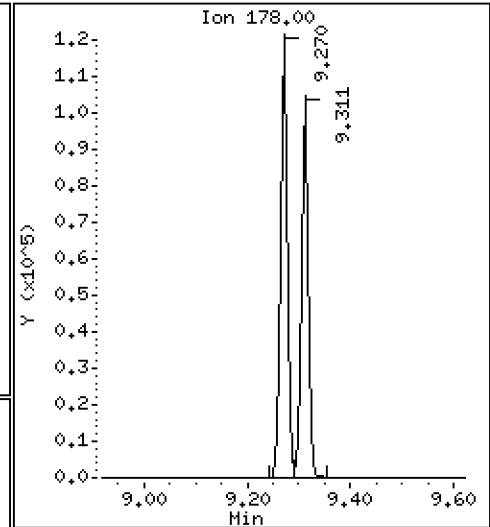
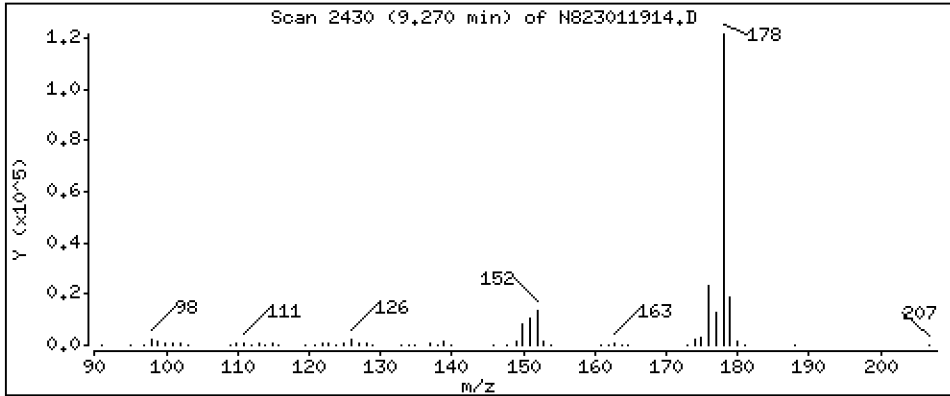
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

Concentration: 4.099 ug/mL

16 Phenanthrene



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

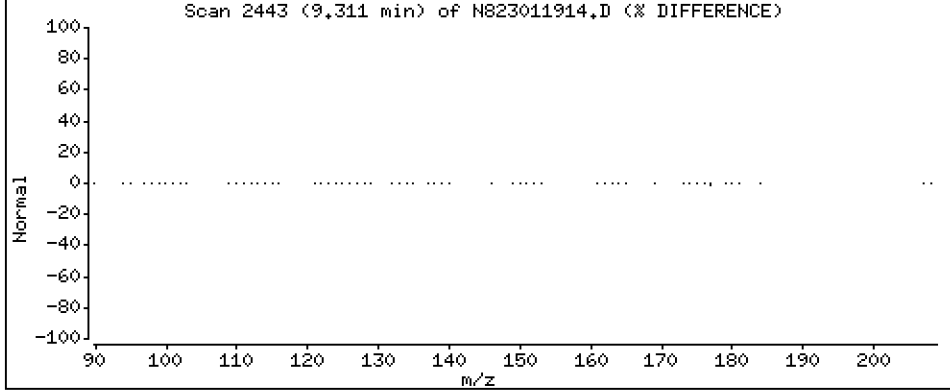
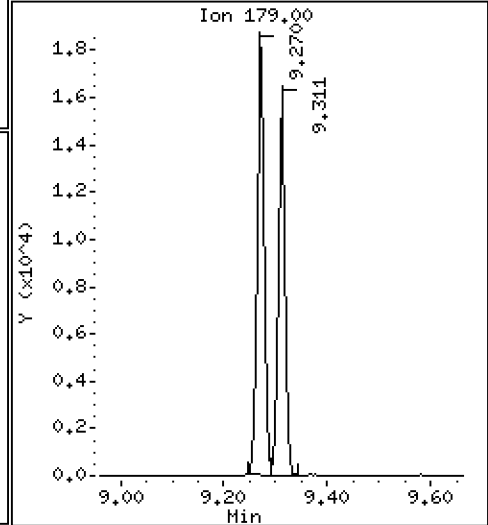
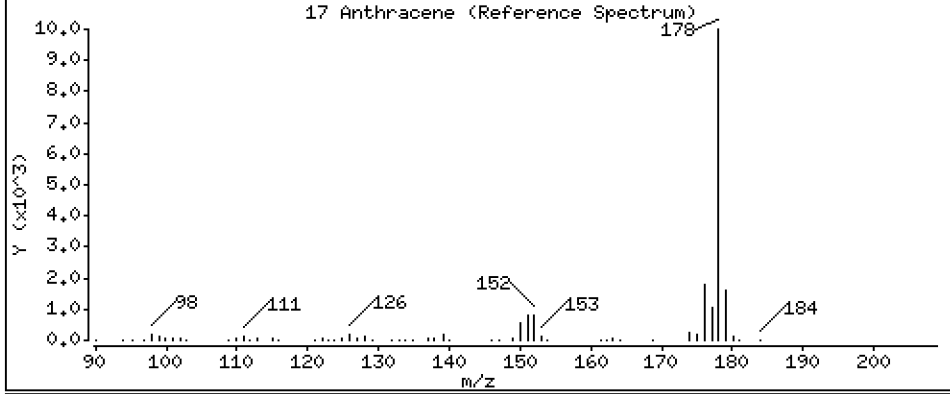
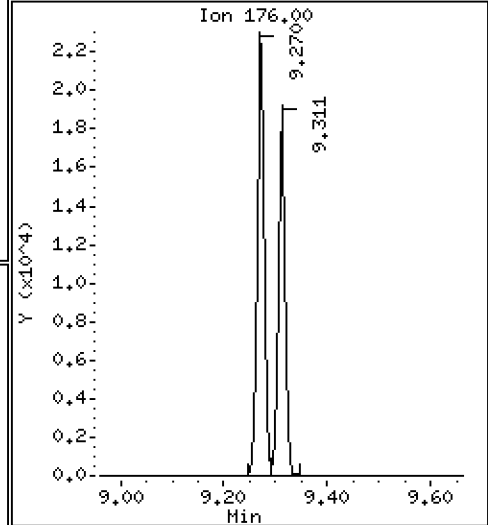
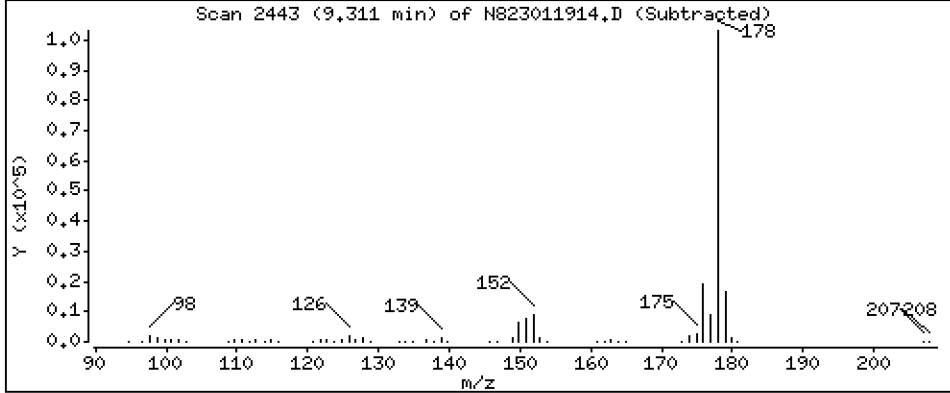
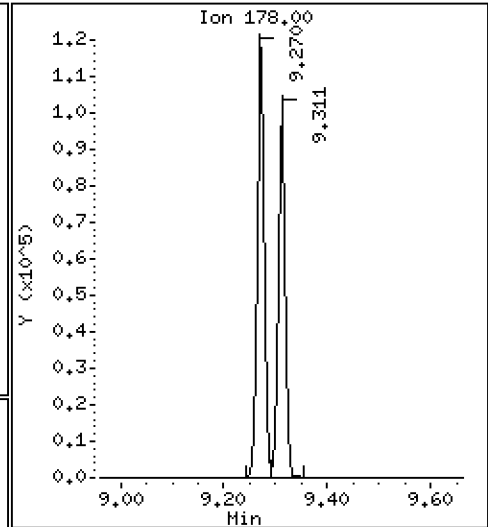
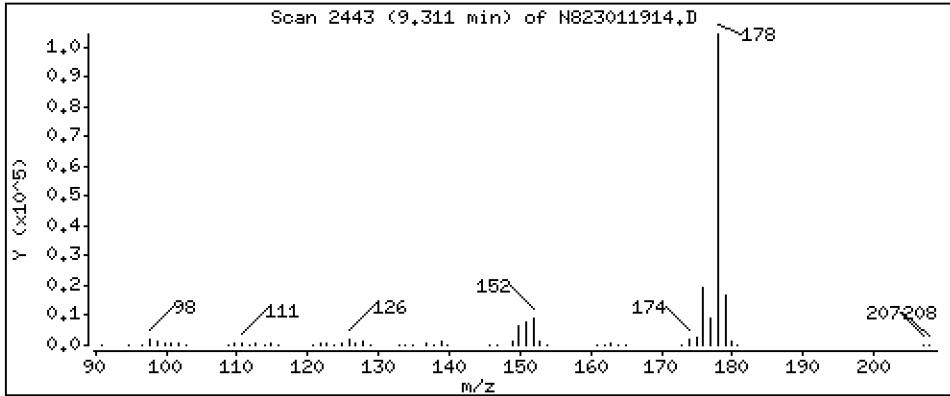
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

17 Anthracene

Concentration: 3,792 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

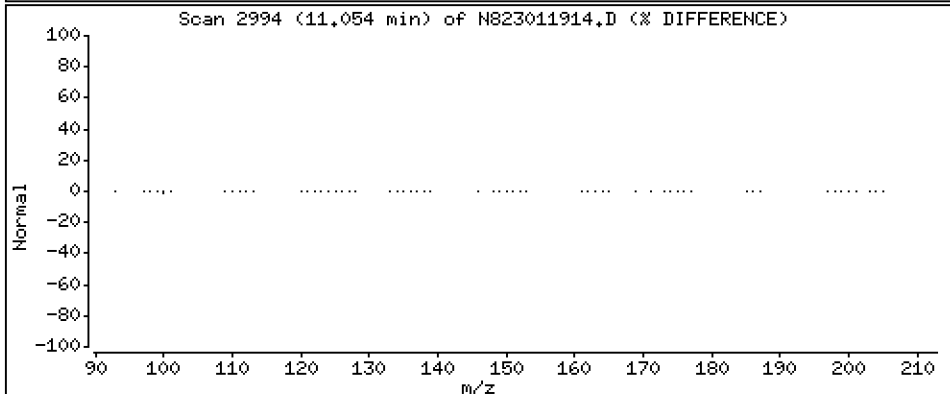
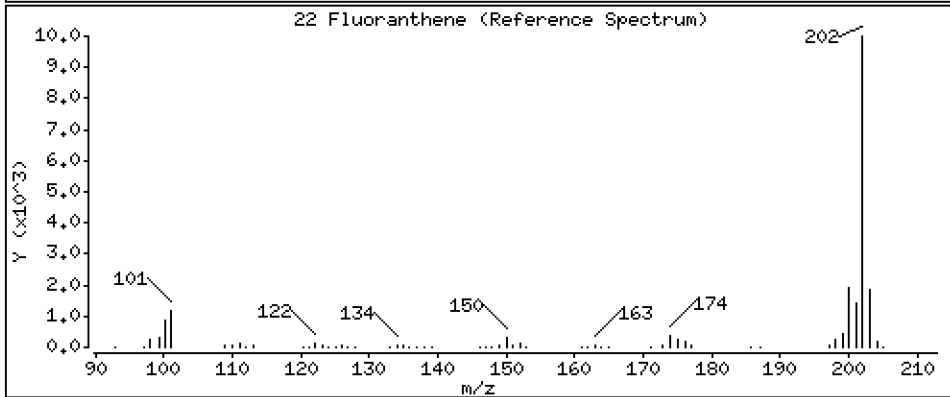
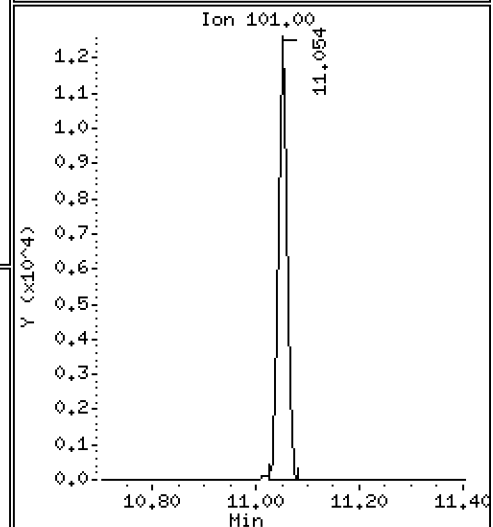
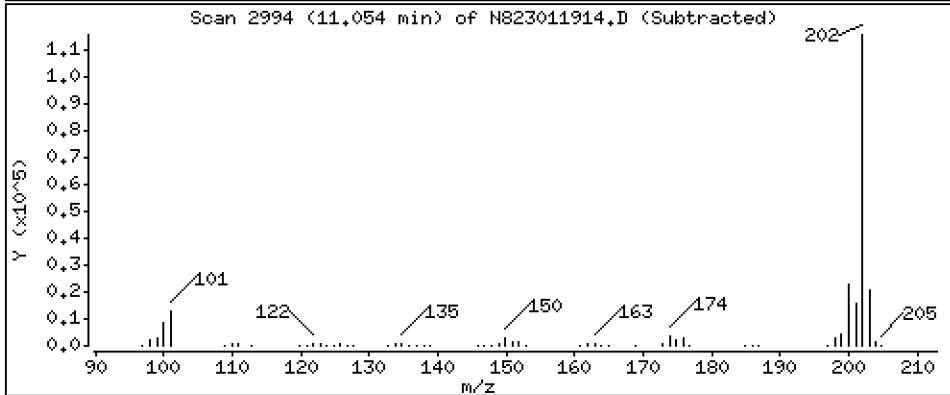
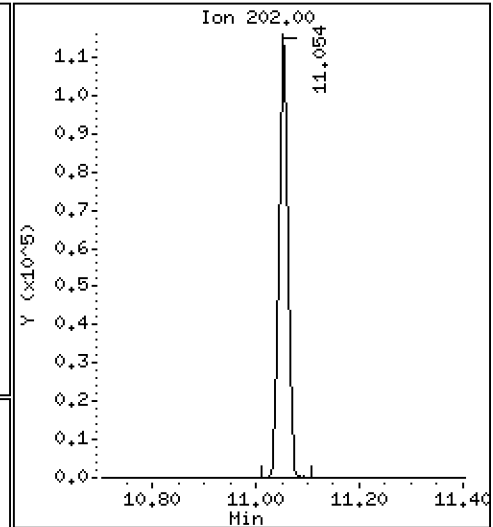
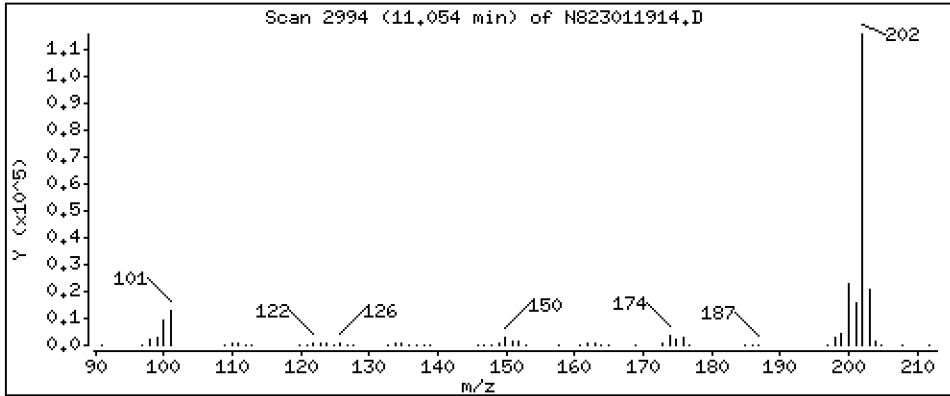
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 4,615 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

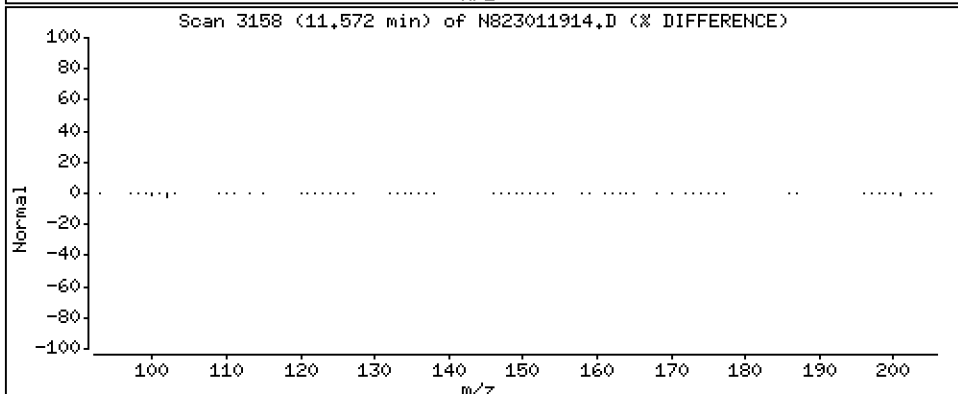
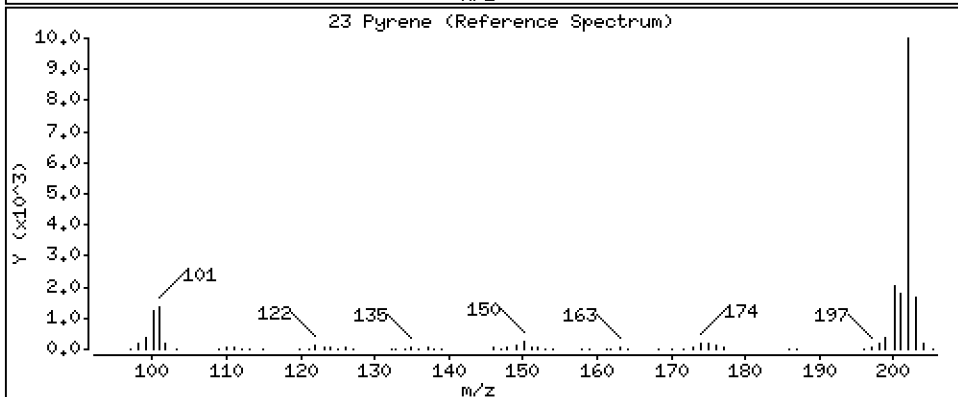
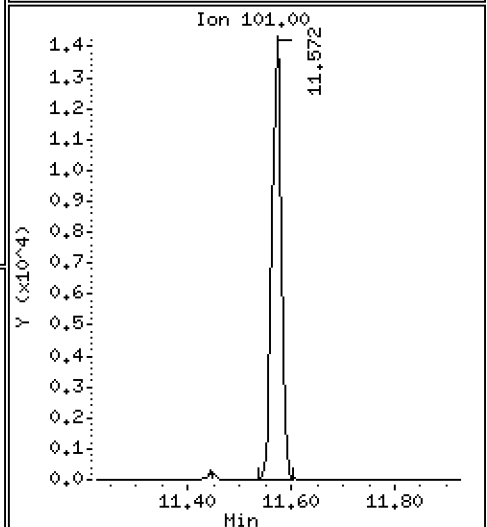
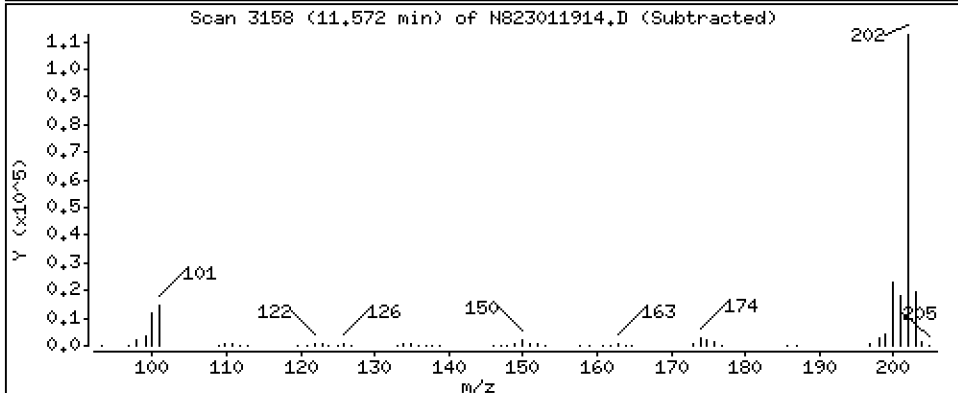
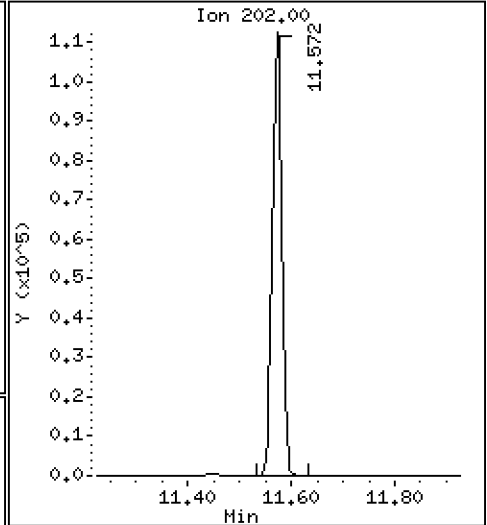
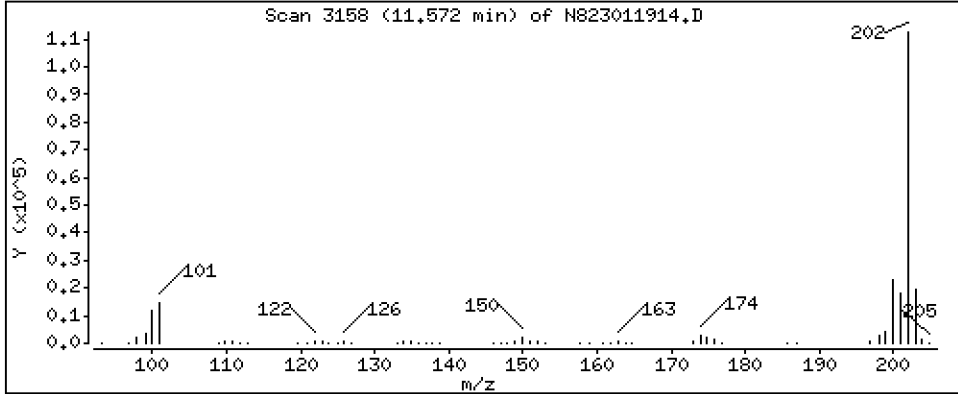
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

23 Pyrene

Concentration: 4,802 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

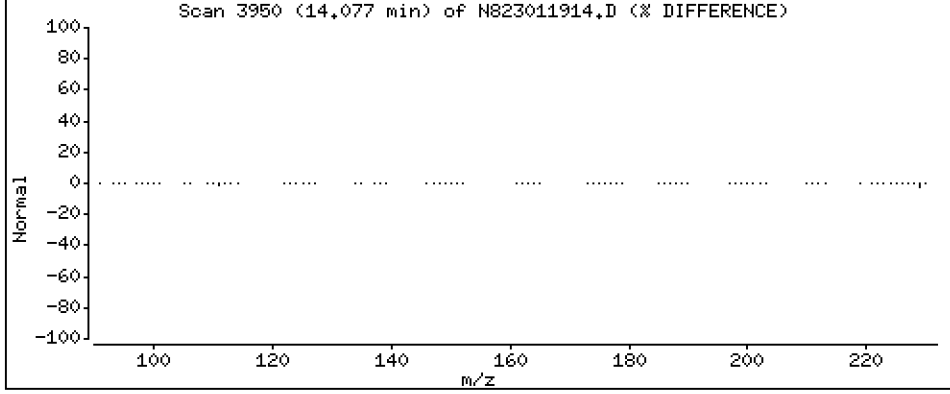
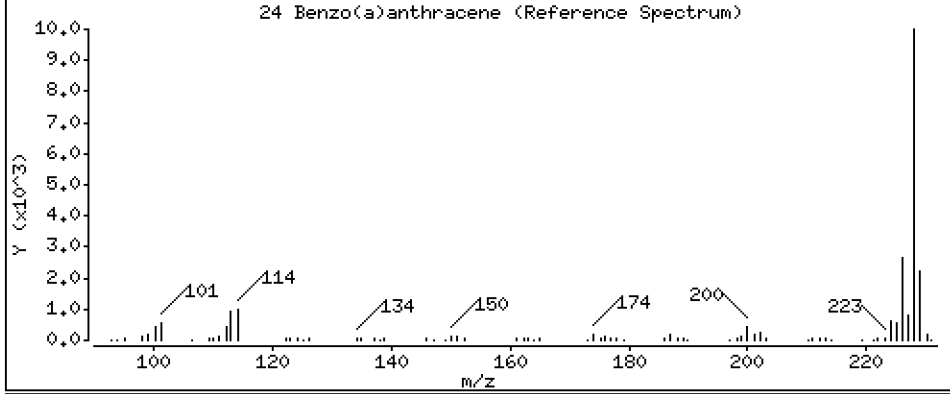
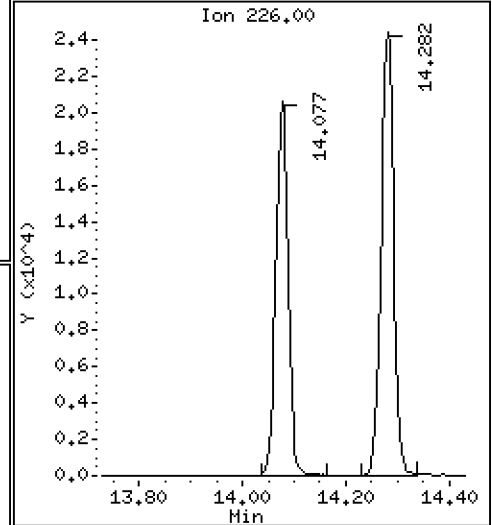
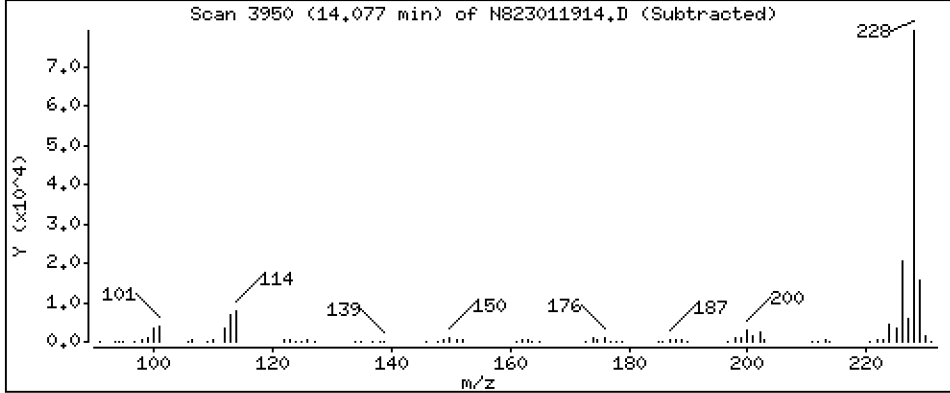
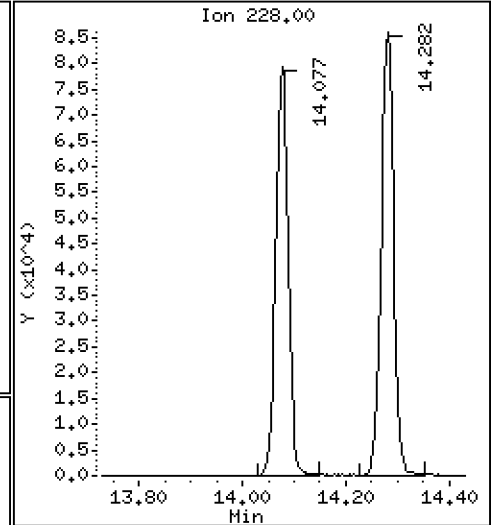
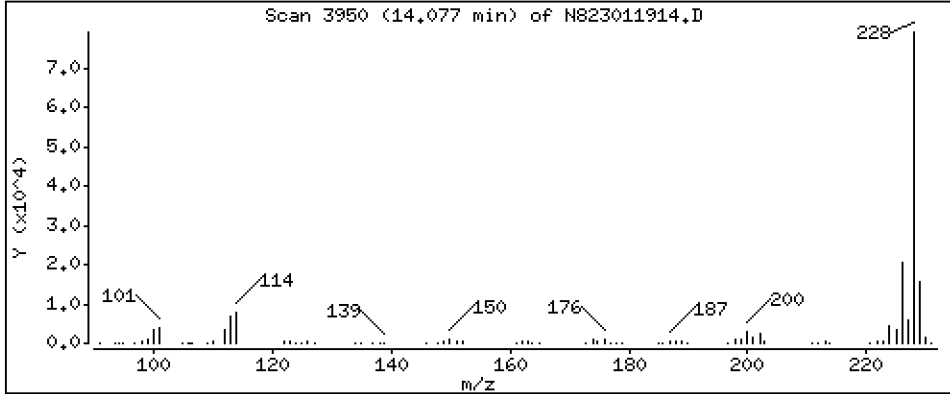
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

24 Benzo(a)anthracene

Concentration: 4,827 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

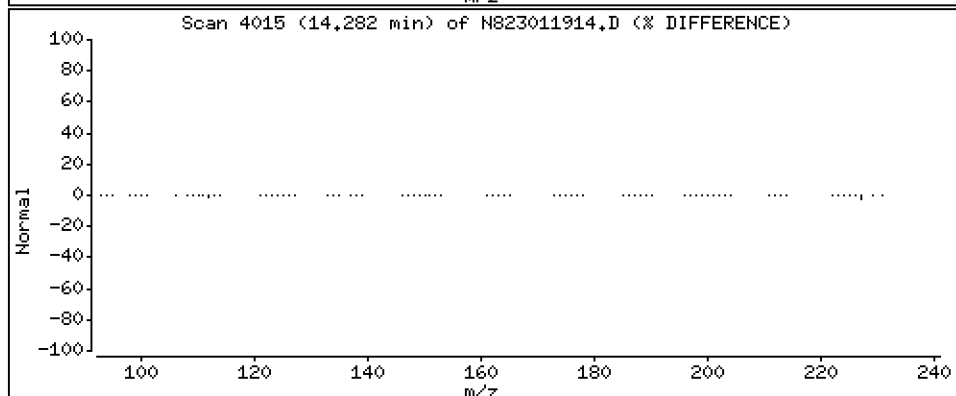
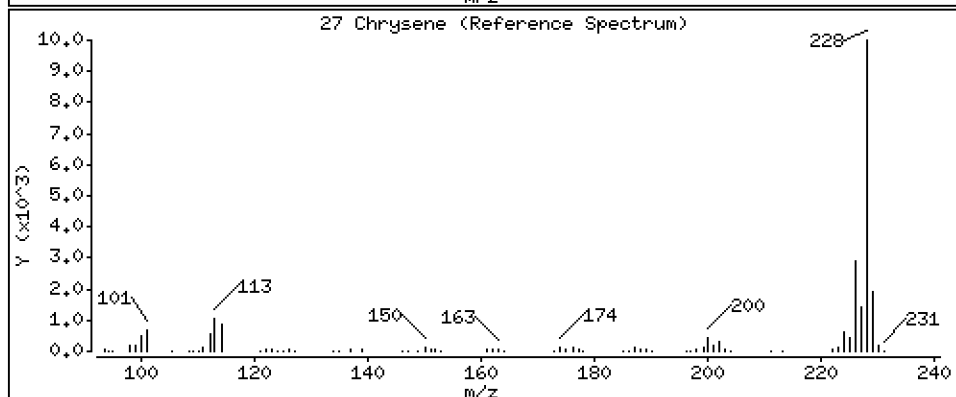
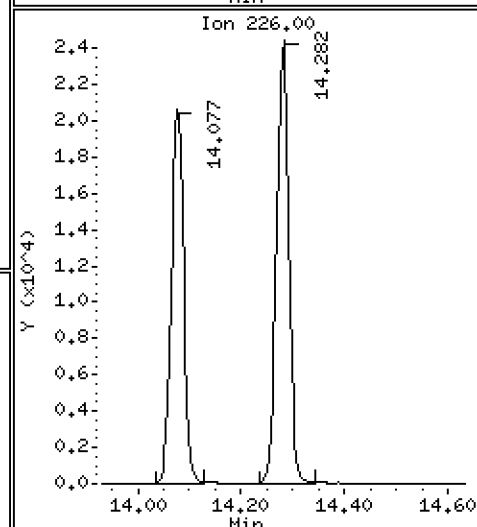
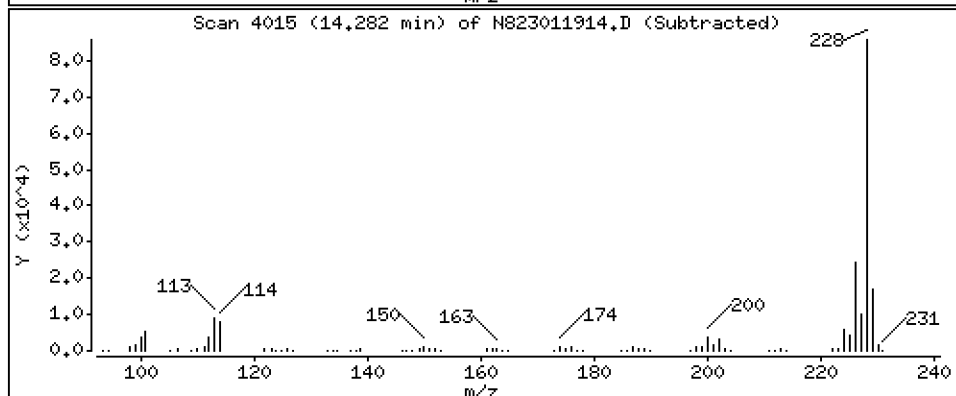
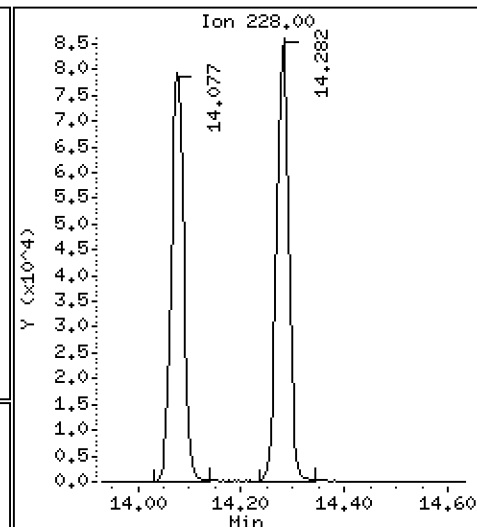
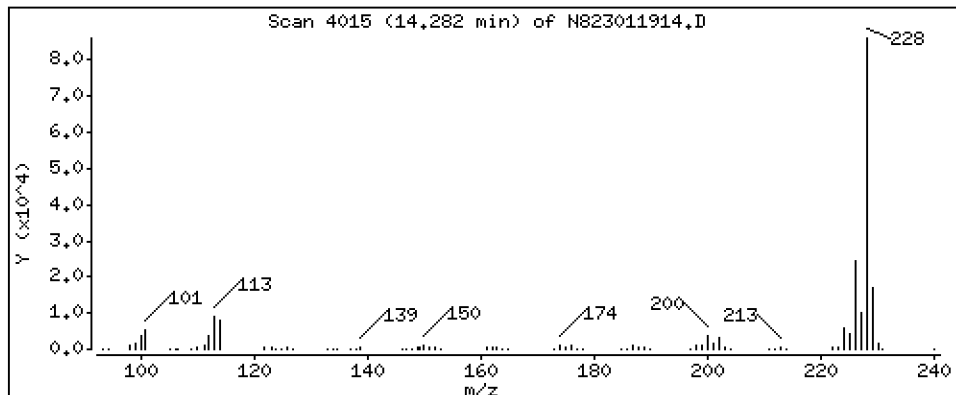
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

27 Chrysene

Concentration: 4.831 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

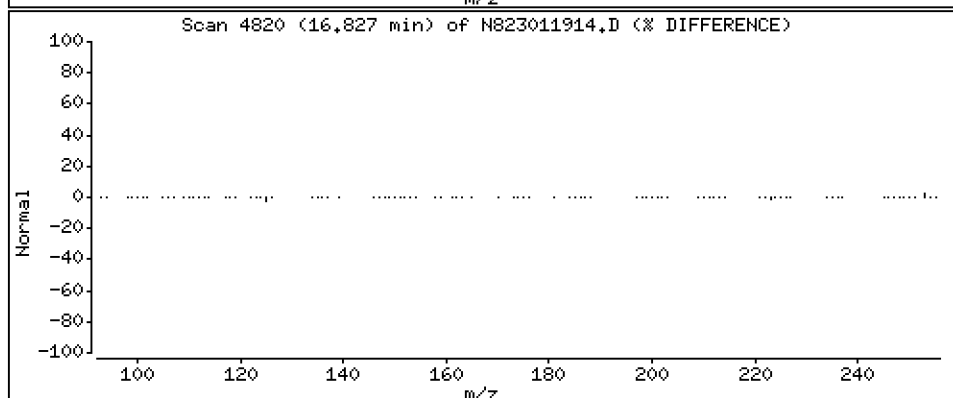
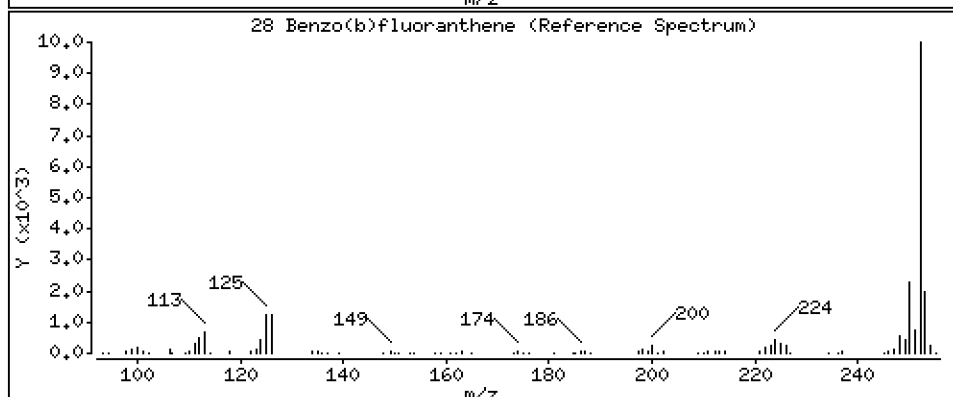
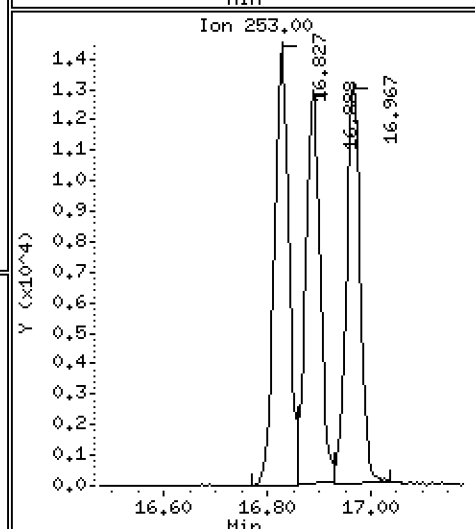
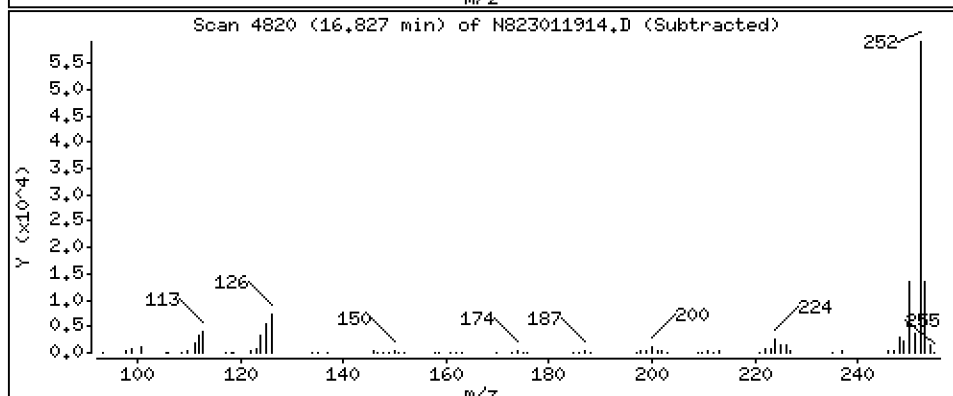
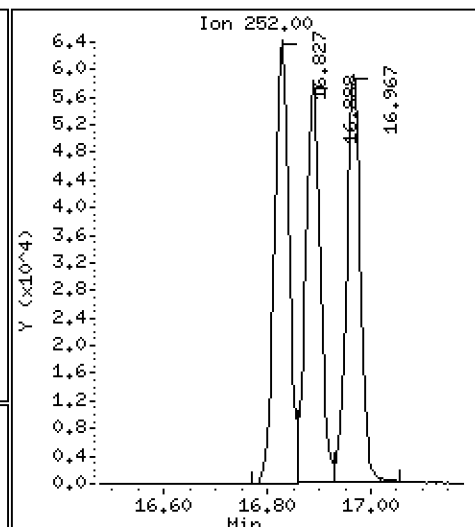
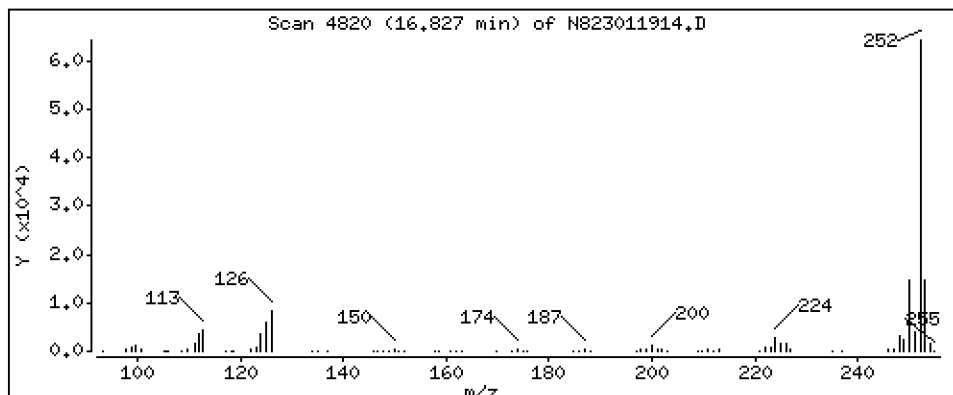
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

28 Benzo(b)fluoranthene

Concentration: 8,644 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

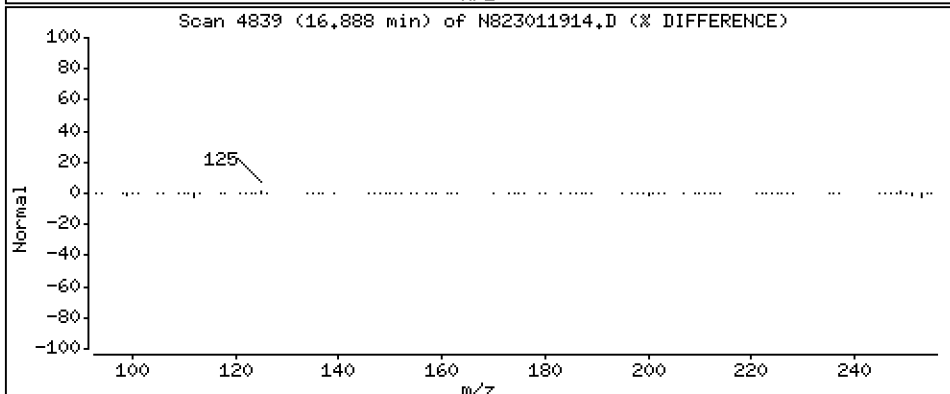
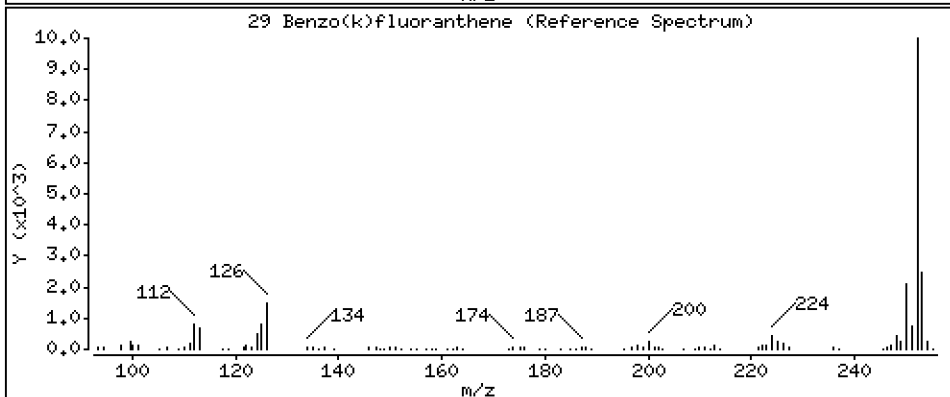
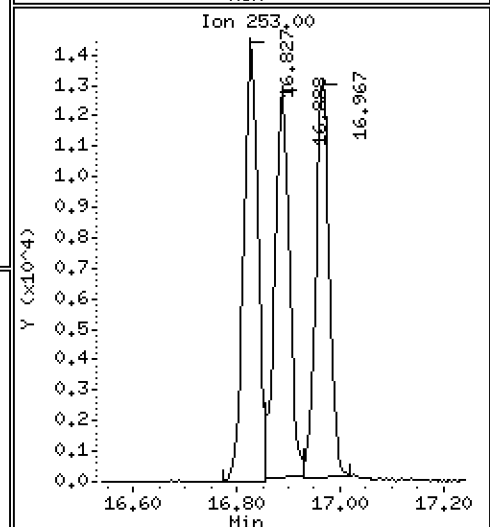
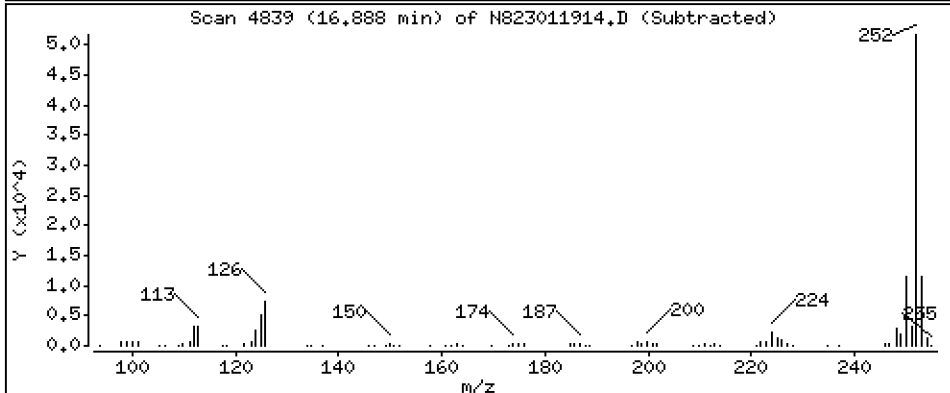
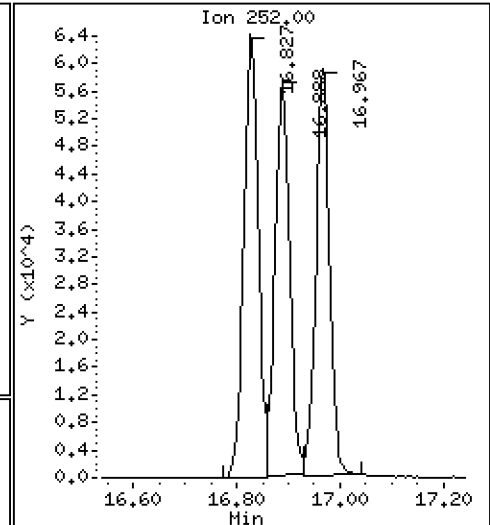
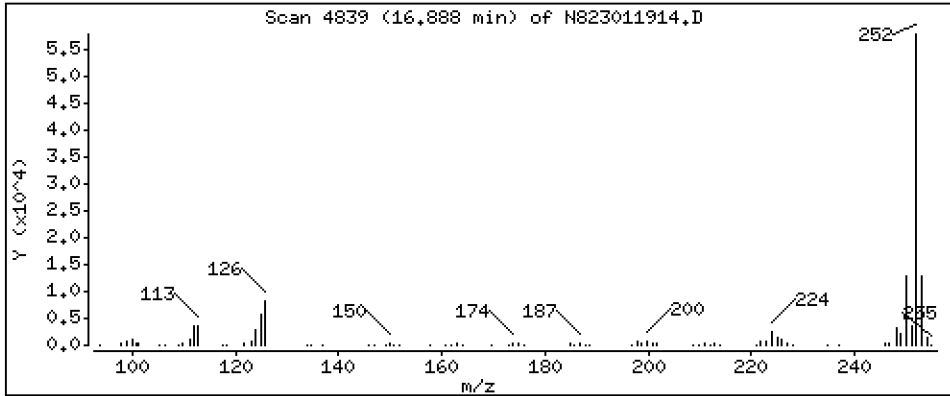
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

29 Benzo(k)fluoranthene

Concentration: 7,922 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

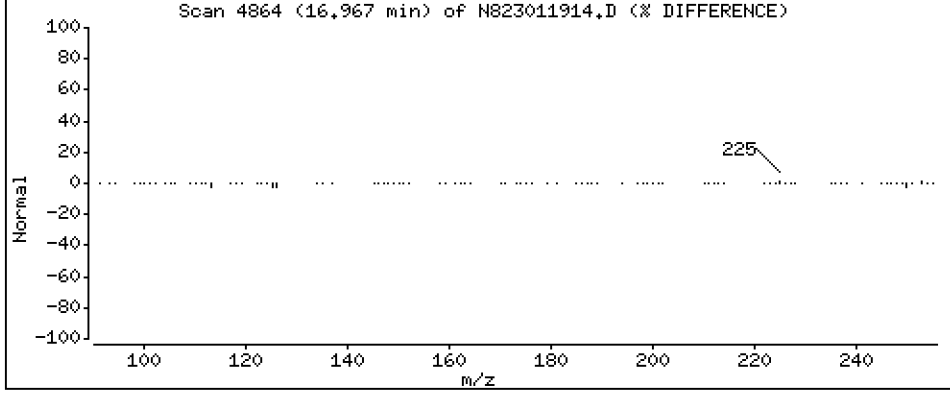
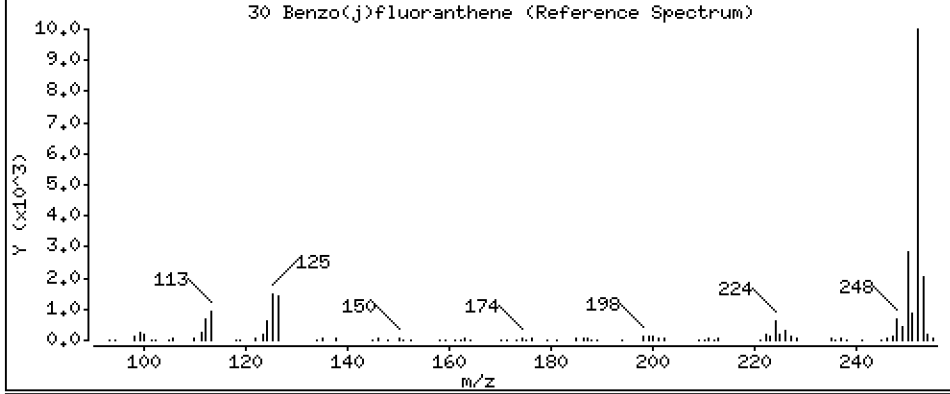
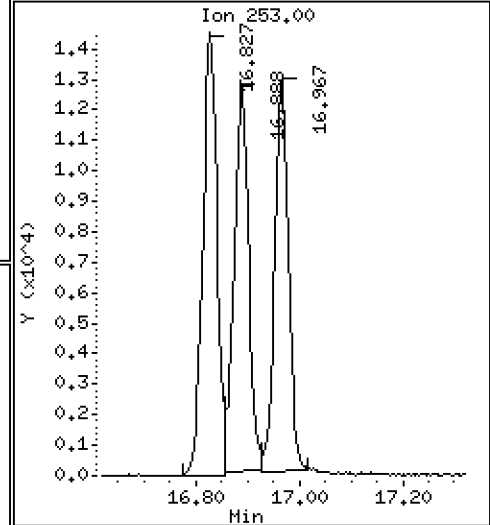
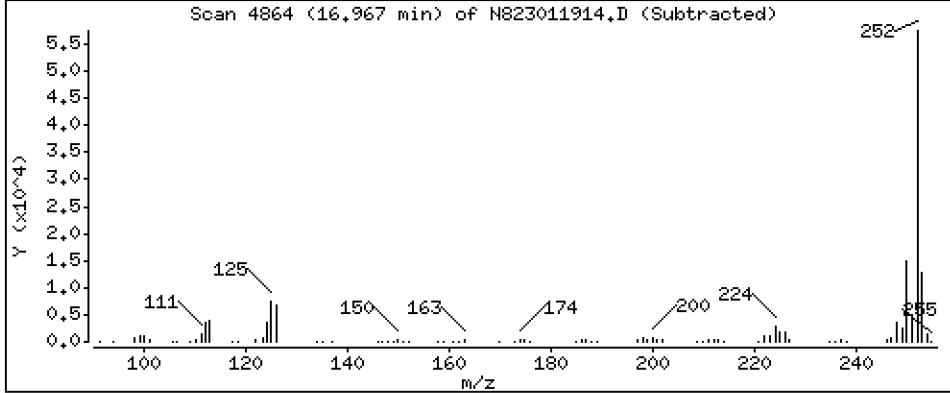
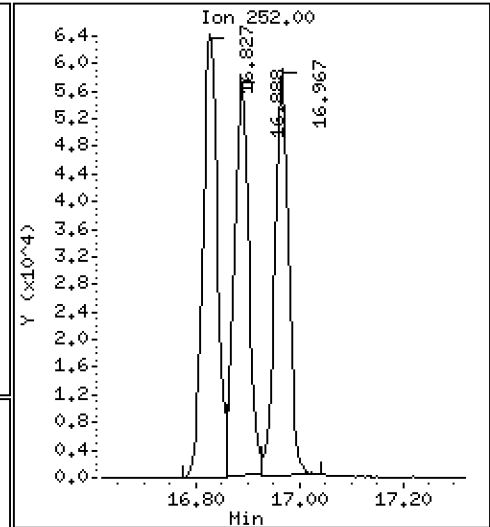
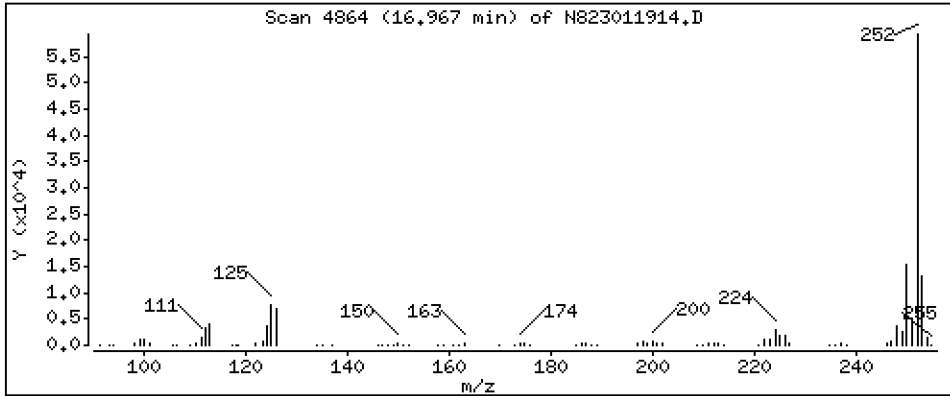
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

30 Benzo(j)fluoranthene

Concentration: 8,556 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

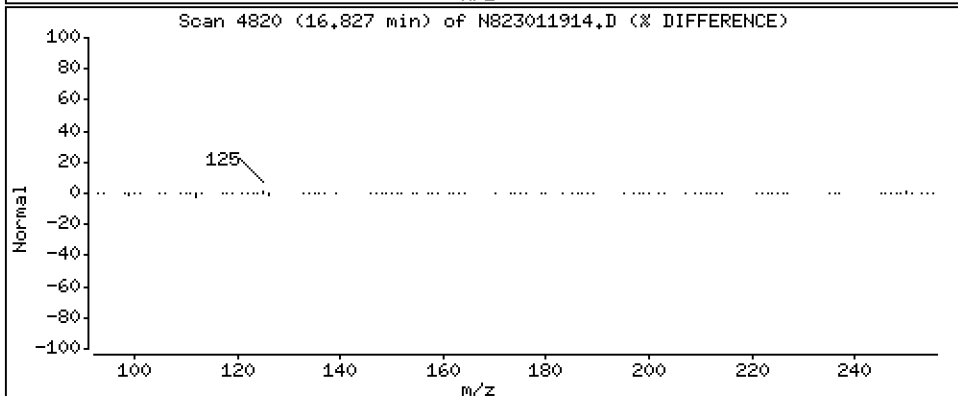
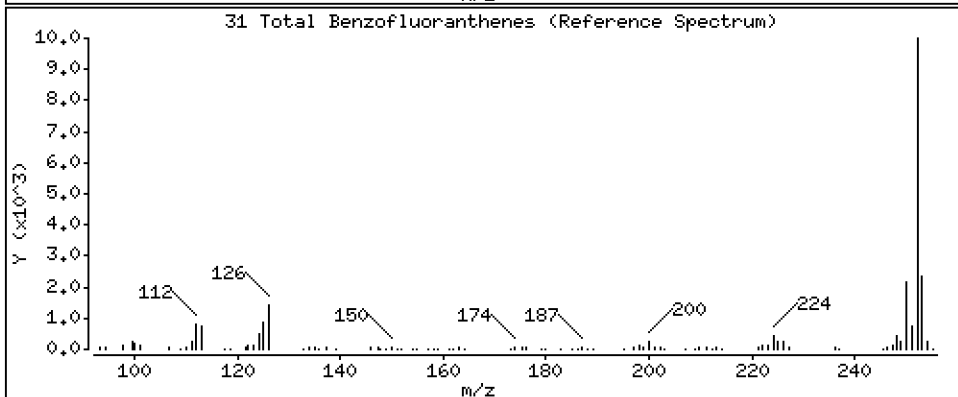
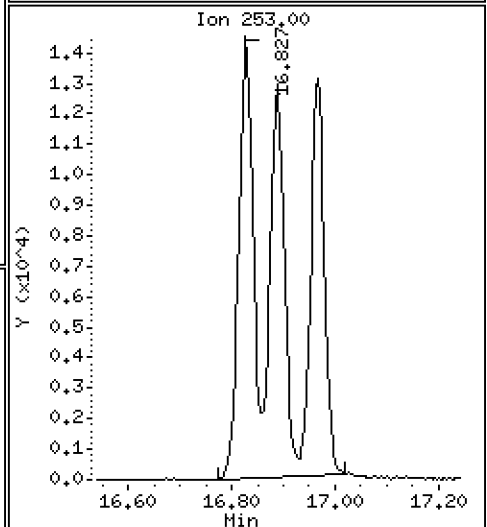
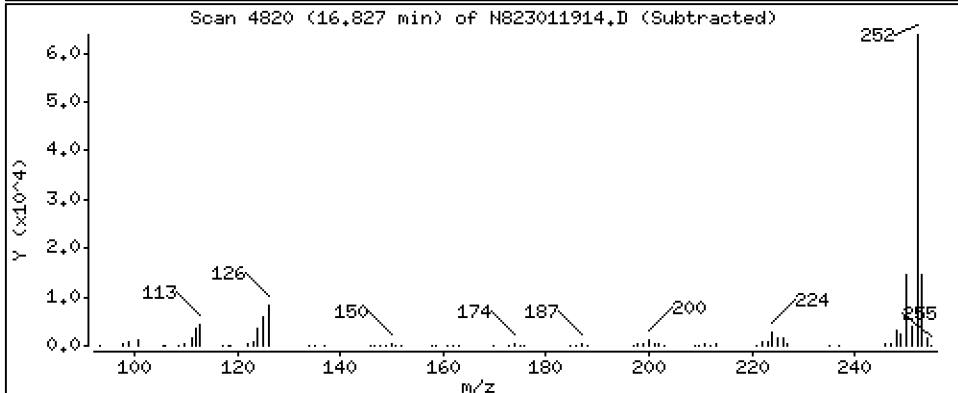
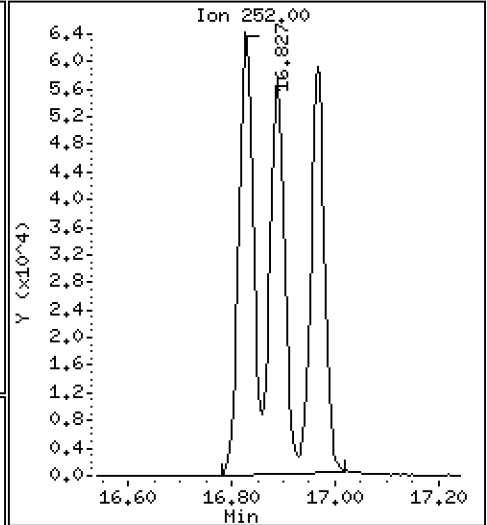
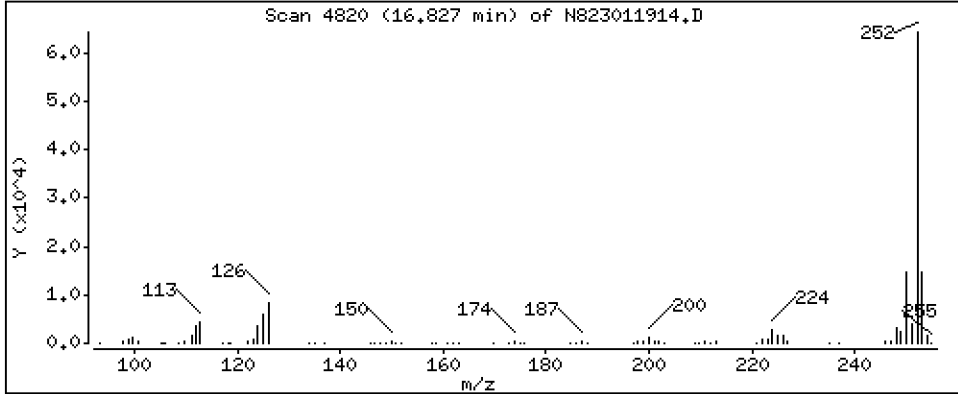
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

31 Total Benzofluoranthenes

Concentration: 24,93 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

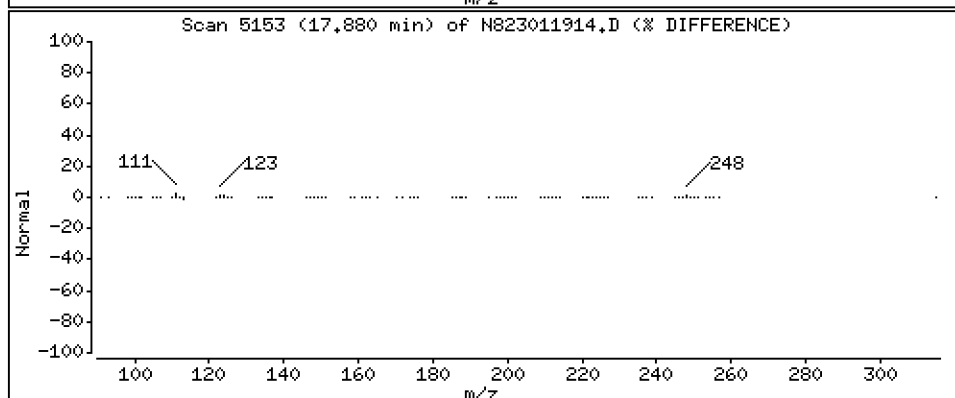
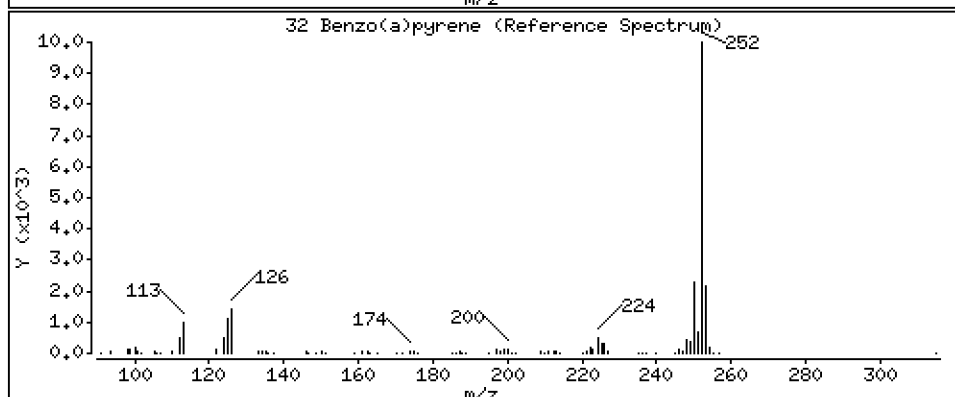
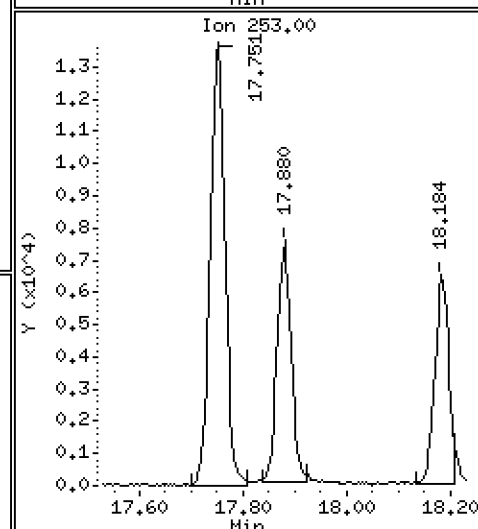
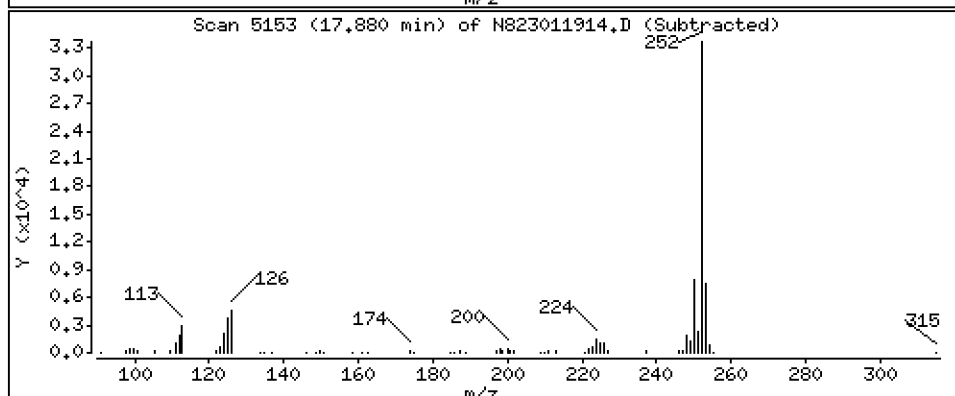
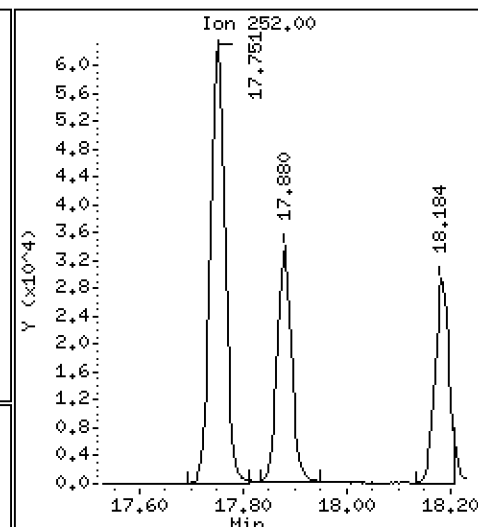
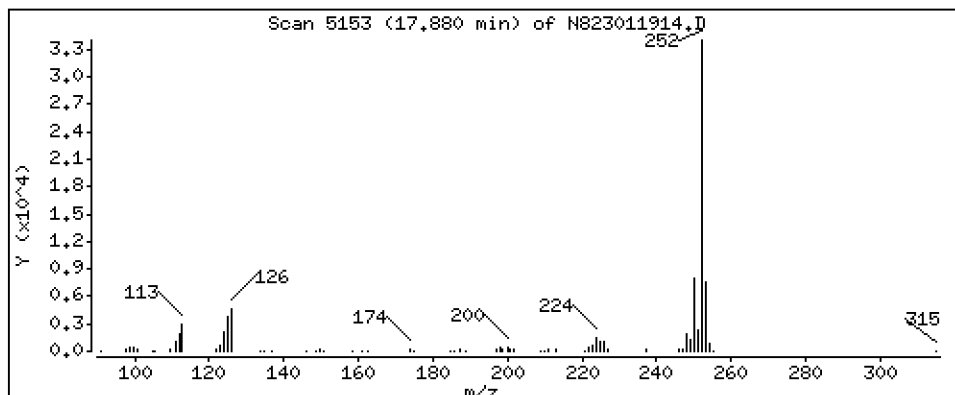
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 5,016 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

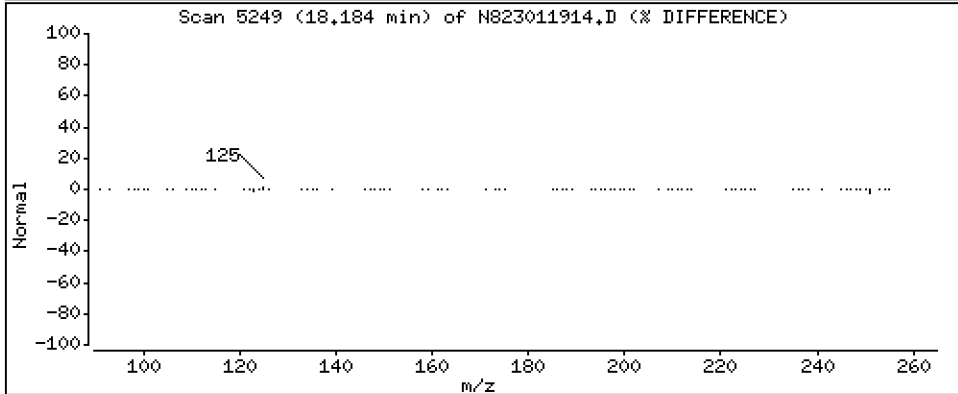
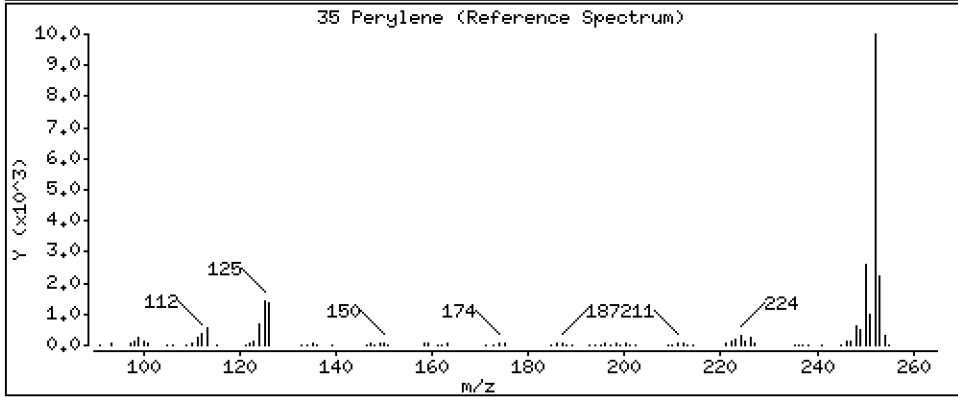
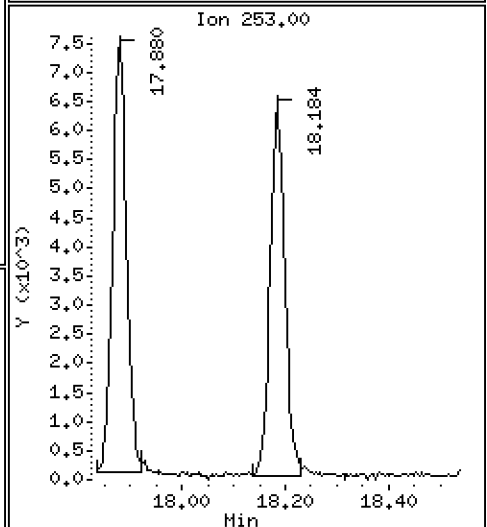
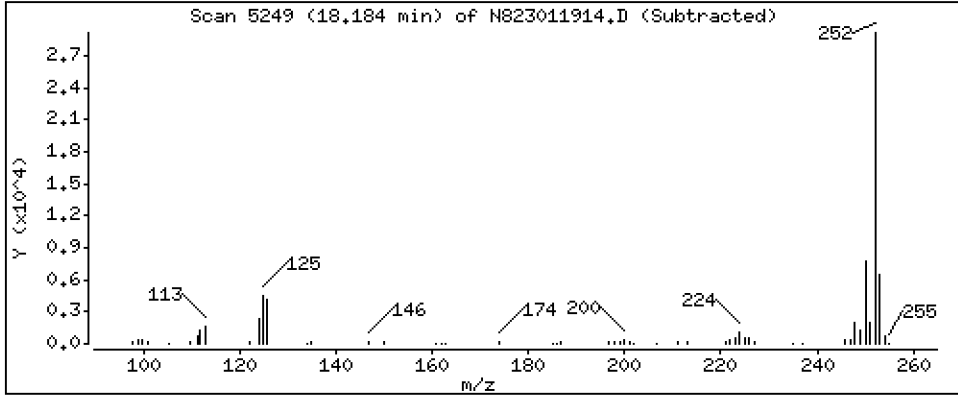
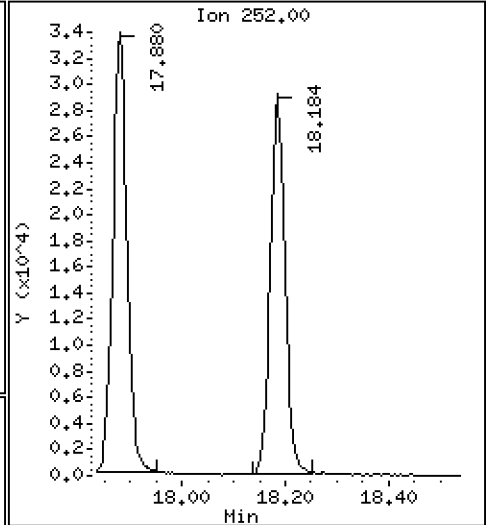
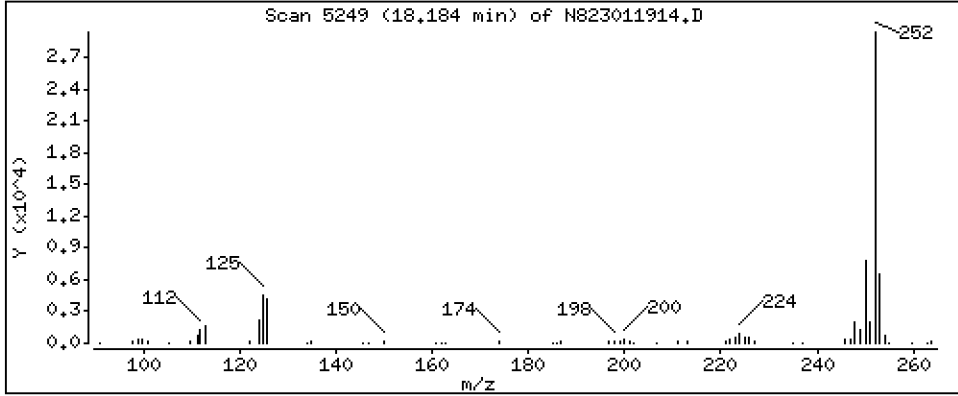
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

35 Perylene

Concentration: 4,207 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

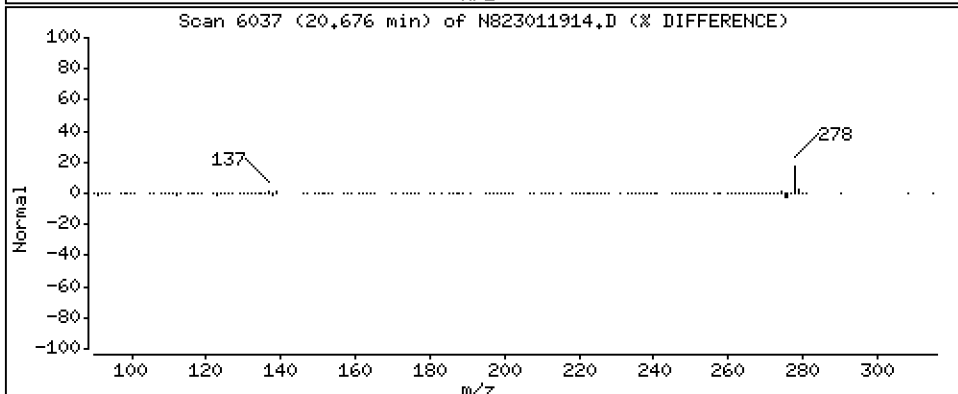
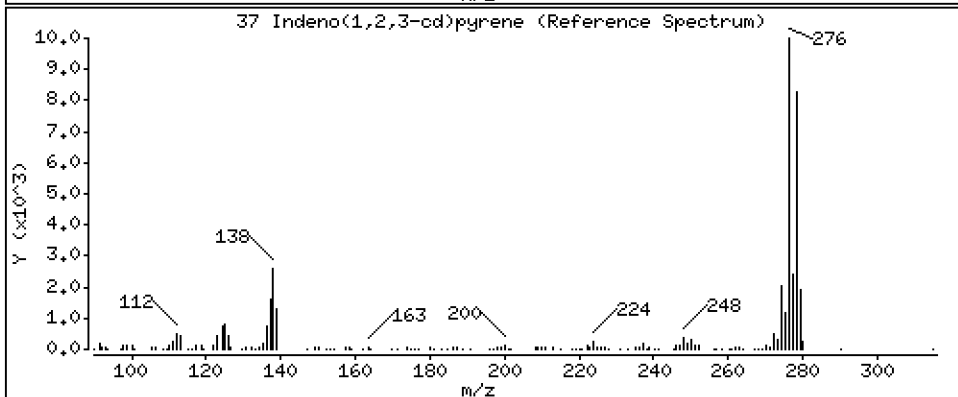
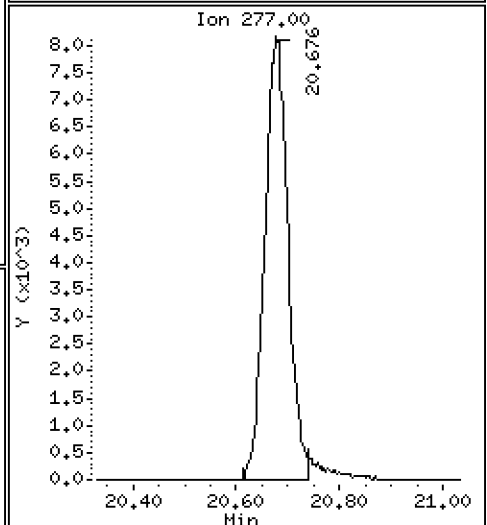
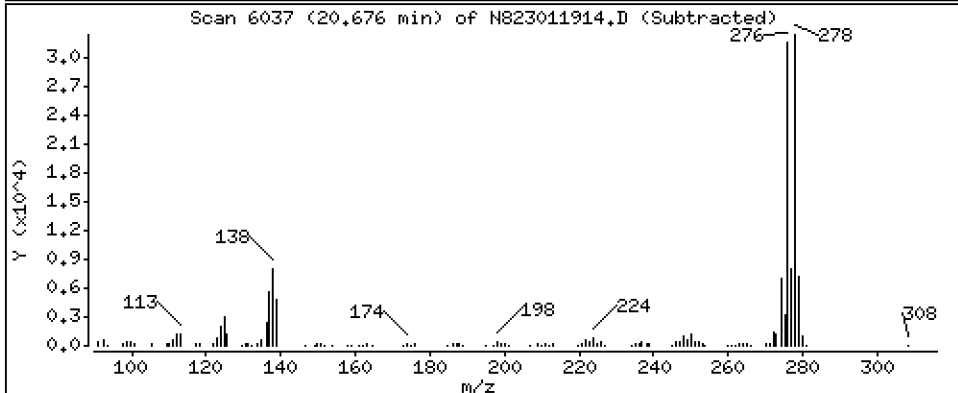
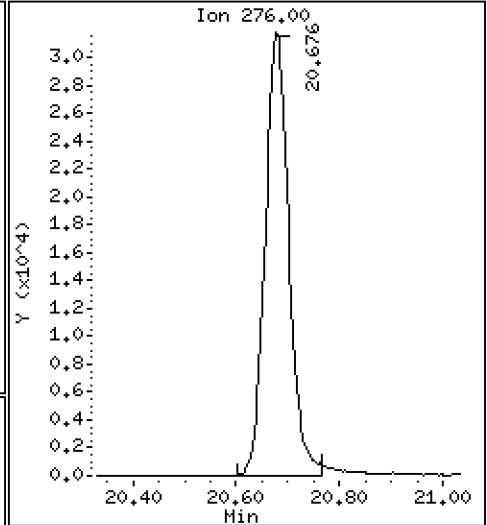
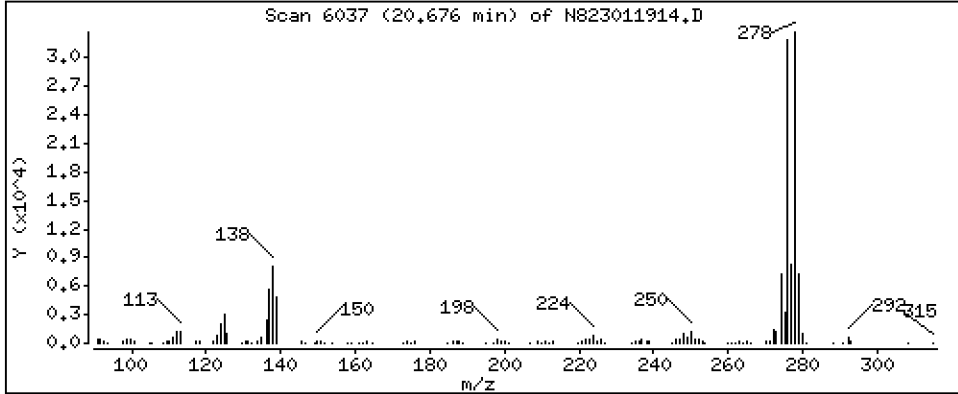
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 6,900 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

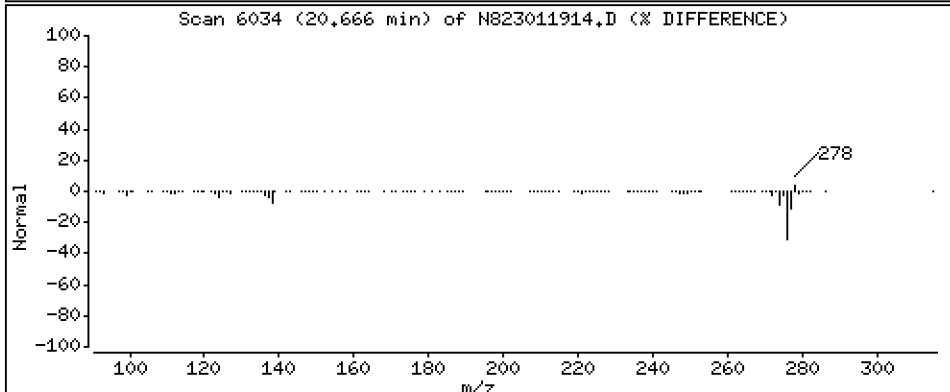
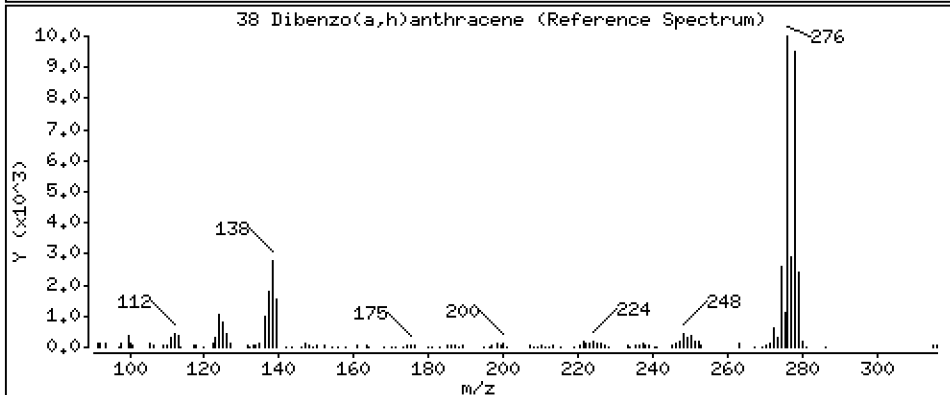
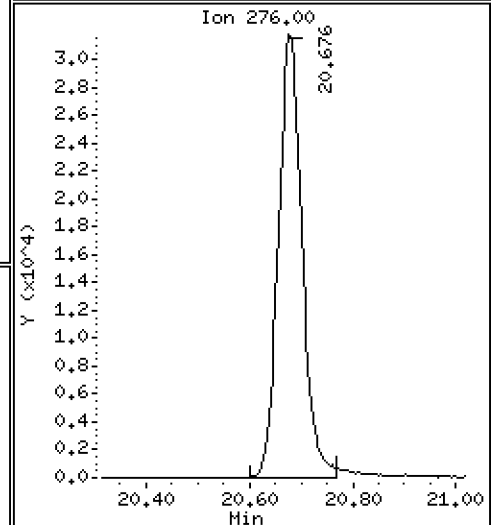
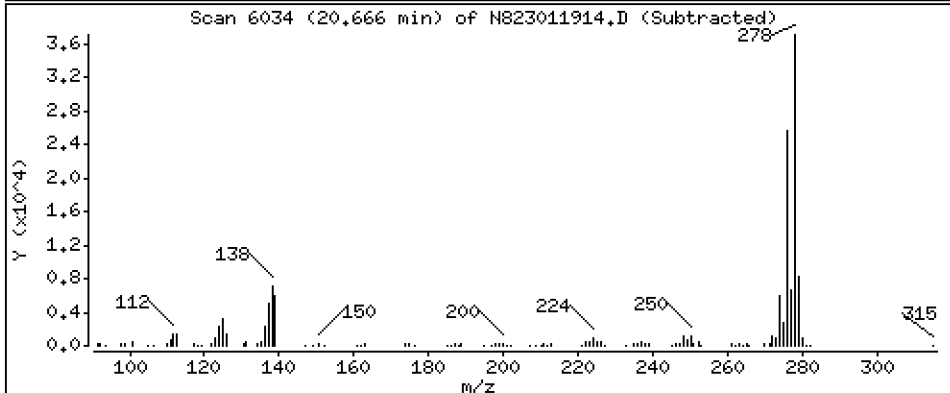
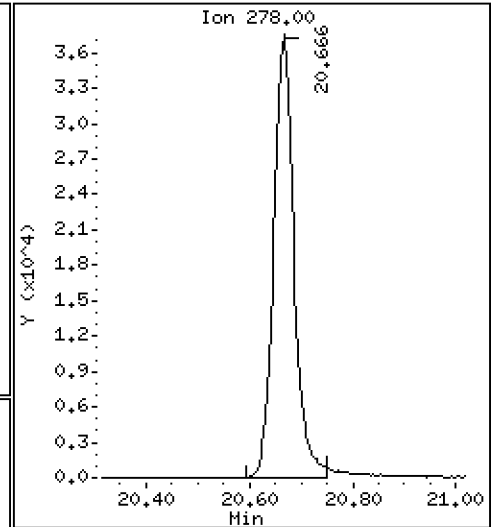
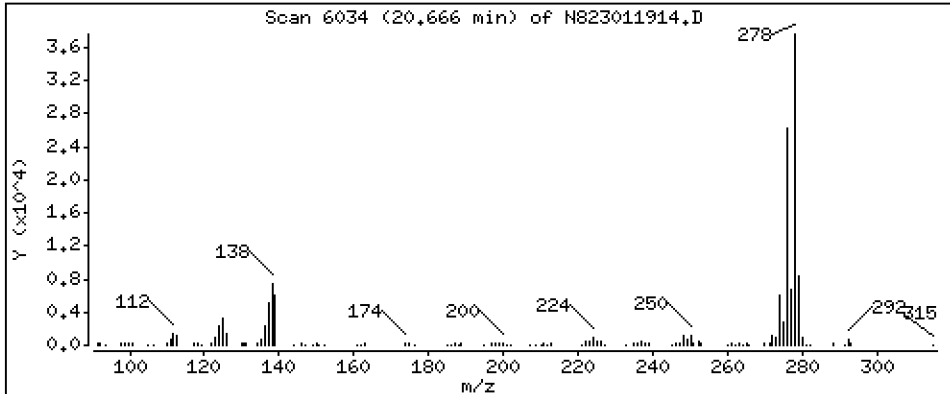
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 8,103 ug/mL



Date : 19-JAN-2023 17:12

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BS1.

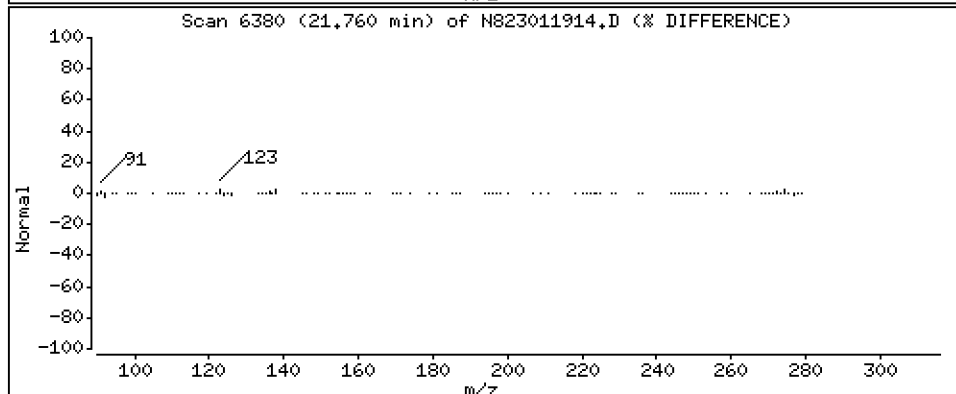
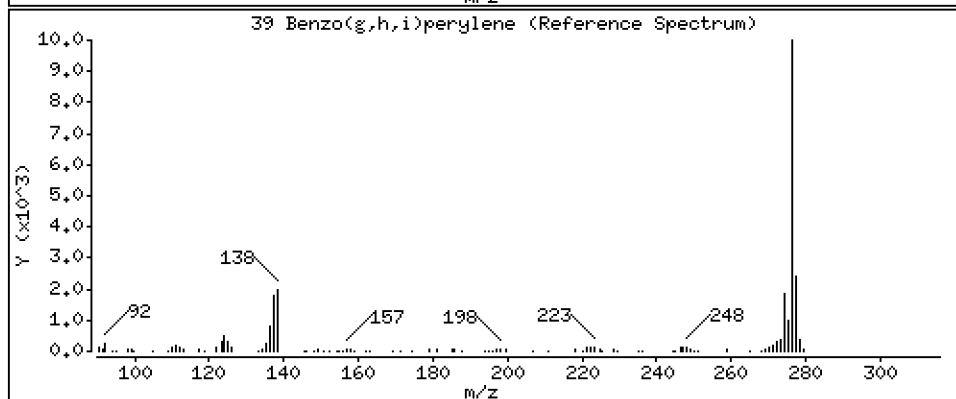
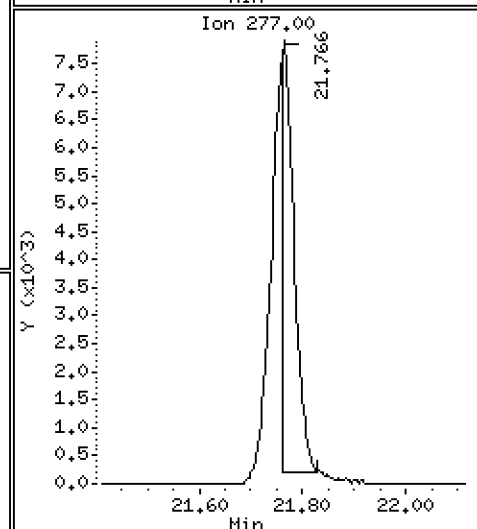
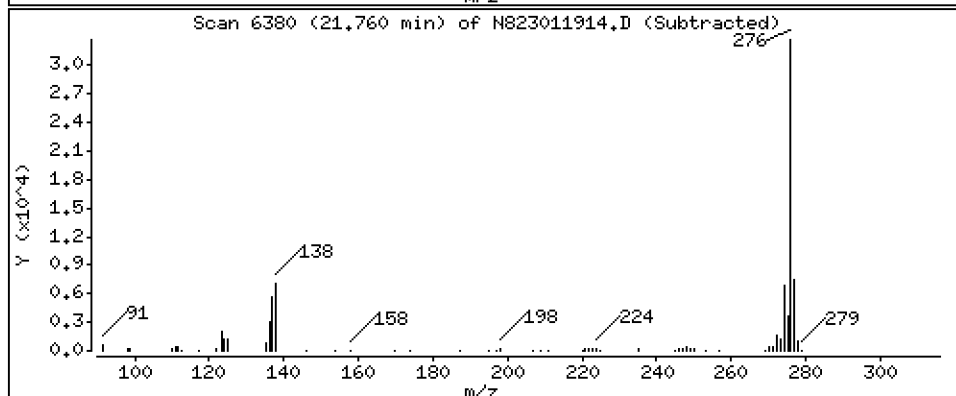
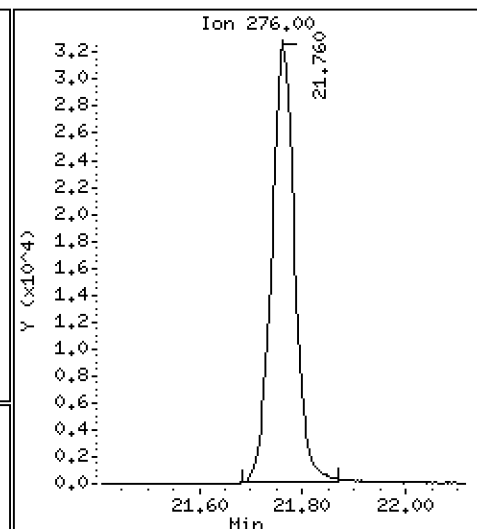
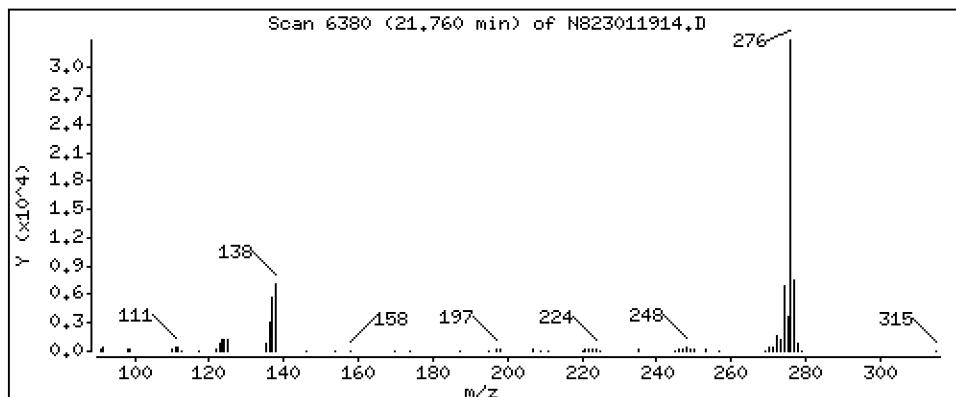
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 7,658 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119A.b\N823011914.D
 Lab Smp Id: BLA0171-BS1
 Inj Date : 19-JAN-2023 17:12
 Operator : JZ Inst ID: nt8.i
 Smp Info : BLA0171-BS1,
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 22:11 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PNAXMDL.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
* 1 Naphthalene-d8	136		4.900	4.909	(1.000)	52345	2.00000	
2 Naphthalene	128		4.928	4.938	(1.006)	84193	3.45928	3.459
\$ 3 2-Methylnaphthalene-d10	152		5.637	5.643	(1.150)	30854	2.16128	2.161
4 2-Methylnaphthalene	141		5.684	5.690	(1.160)	48075	3.59108	3.591
5 1-methylnaphthalene	141		5.880	5.887	(1.200)	48611	3.57776	3.578
9 Acenaphthylene	152		7.085	7.088	(0.985)	73526	3.17607	3.176
* 10 Acenaphthene-d10	164		7.196	7.199	(1.000)	30657	2.00000	
11 Acenaphthene	153		7.243	7.246	(1.007)	55460	3.57549	3.575
12 Dibenzofuran	168		7.395	7.398	(1.028)	87235	3.70276	3.703
14 Fluorene	166		7.875	7.875	(1.094)	71718	3.91945	3.919
* 15 Phenanthrene-d10	188		9.235	9.238	(1.000)	57385	2.00000	
16 Phenanthrene	178		9.270	9.270	(1.004)	114891	4.09866	4.099
17 Anthracene	178		9.311	9.311	(1.008)	96557	3.79183	3.792
22 Fluoranthene	202		11.053	11.053	(1.197)	140810	4.61485	4.615
\$ 21 Fluoranthene-d10	212		11.015	11.015	(1.193)	75784	2.99328	2.993
23 Pyrene	202		11.572	11.575	(0.815)	147224	4.80249	4.802
24 Benzo(a)anthracene	228		14.076	14.079	(0.991)	134117	4.82681	4.827
* 25 Chrysene-d12	240		14.206	14.209	(1.000)	49446	2.00000	
27 Chrysene	228		14.282	14.282	(1.005)	142906	4.83126	4.831
28 Benzo(b)fluoranthene	252		16.827	16.827	(0.929)	127017	8.64443	8.644
29 Benzo(k)fluoranthene	252		16.887	16.890	(0.933)	114017	7.92206	7.922
30 Benzo(j)fluoranthene	252		16.966	16.969	(0.937)	110857	8.55609	8.556
31 Total Benzofluoranthenes	252		16.827	16.890	(0.929)	346852	24.9256	24.93 (M)
32 Benzo(a)pyrene	252		17.880	17.880	(0.987)	64862	5.01632	5.016
* 33 Perylene-d12	264		18.108	18.117	(1.000)	25229	2.00000	
35 Perylene	252		18.183	18.187	(1.004)	58368	4.20657	4.207
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.552	20.555	(1.135)	49280	4.98520	4.985
37 Indeno(1,2,3-cd)pyrene	276		20.675	20.681	(1.142)	101648	6.90046	6.900
38 Dibenzo(a,h)anthracene	278		20.666	20.666	(1.141)	102720	8.10295	8.103
39 Benzo(g,h,i)perylene	276		21.760	21.763	(1.202)	102212	7.65846	7.658

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011914.D Calibration Time: 16:16
 Lab Smp Id: BLA0171-BS1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	42524	21262	85048	52345	23.10
10 Acenaphthene-d10	25260	12630	50520	30657	21.37
15 Phenanthrene-d10	47890	23945	95780	57385	19.83
25 Chrysene-d12	40533	20267	81066	49446	21.99
33 Perylene-d12	38115	19058	76230	25229	-33.81

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.90	-0.19
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	-0.04
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	-0.03
25 Chrysene-d12	14.21	13.71	14.71	14.21	-0.02
33 Perylene-d12	18.12	17.62	18.62	18.11	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011914.D

Lab ID: BLA0171-BS1

nt8.i, 20230119A.b\FSIMPNA230119.m, 19-JAN-2023 17:12

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check performed

On Column LOD for nt8.i, 20230119A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

* Only compounds listed in the work order have been verified by the analyst *

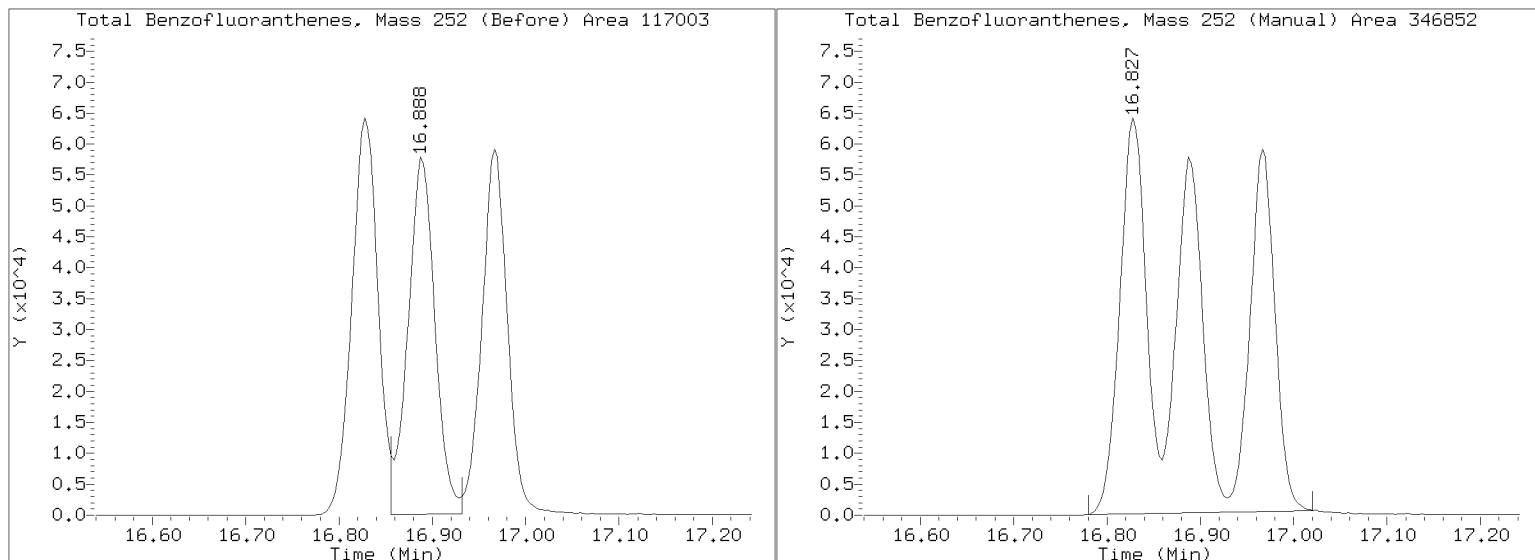
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119A.b/N823011914.D

Injection Date: 19-JAN-2023 17:12

Lab ID:BLA0171-BS1 Client ID:

Report Date: 01/25/2023 22:12



Data File: \\target\share\chem3\nt8.1\20230119A.1\N823011915.D

Date: 19-JAN-2023 17:39

Client ID:

Sample Info: BLR0171-BSM1,

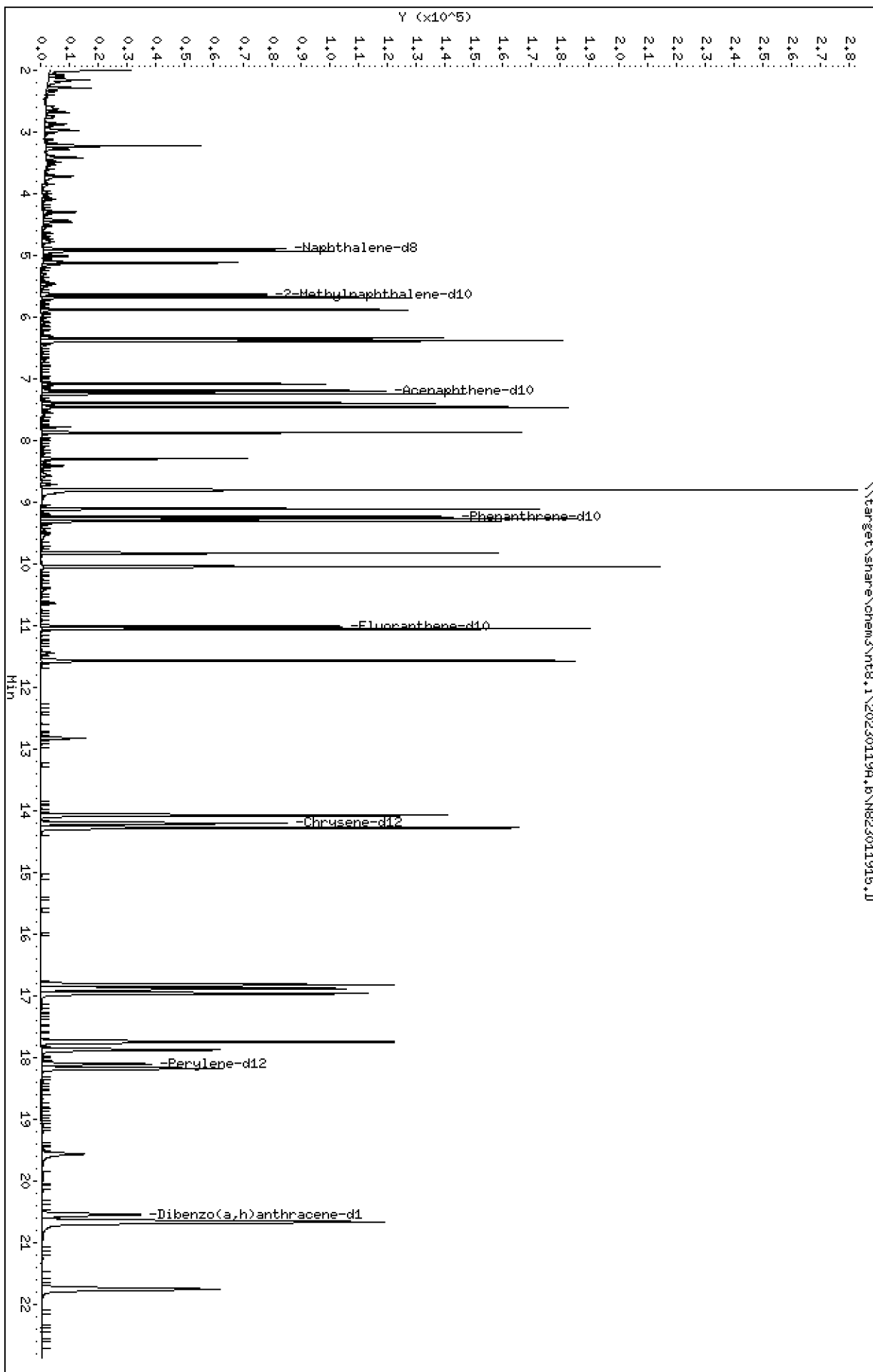
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

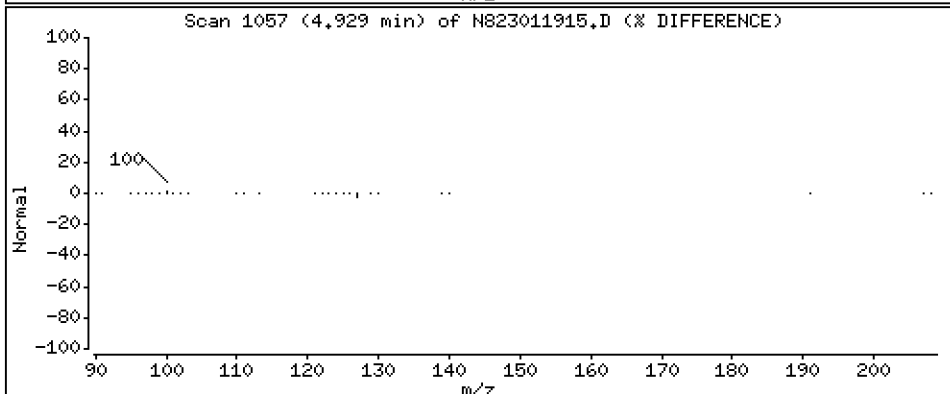
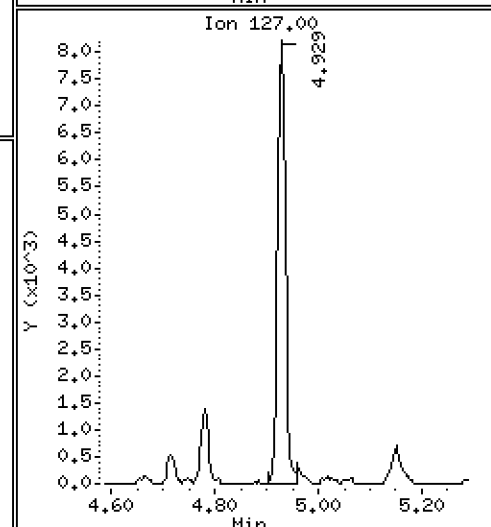
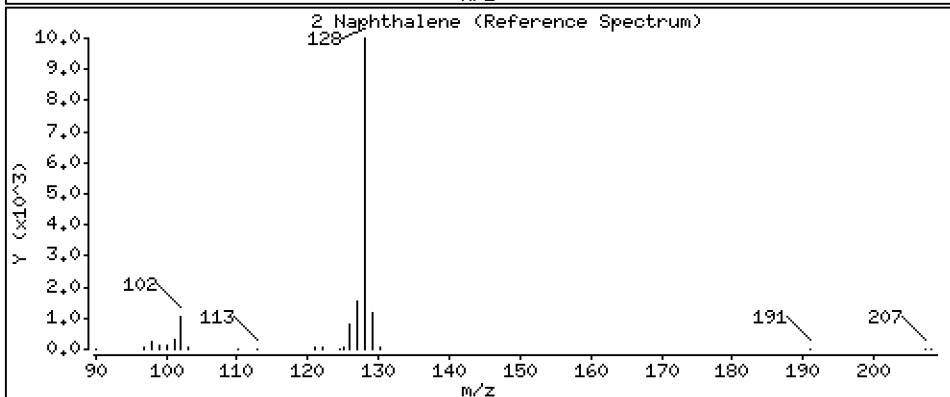
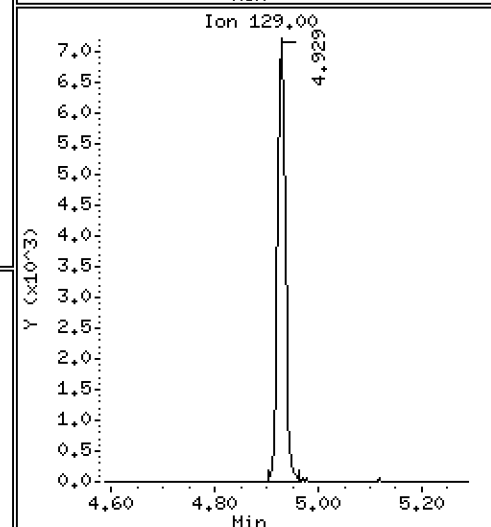
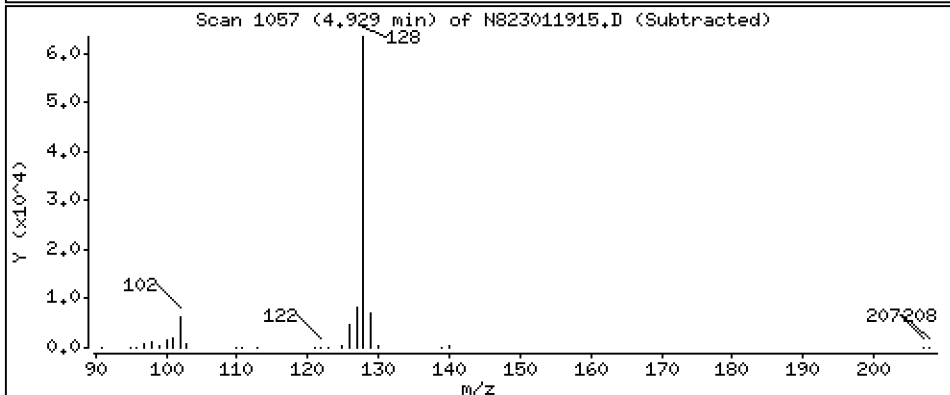
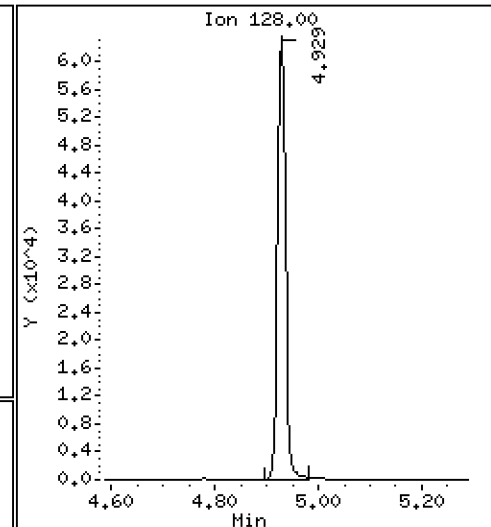
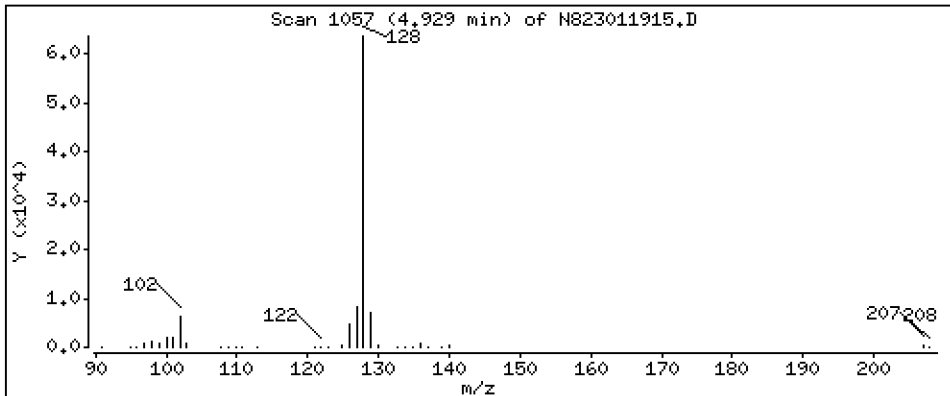
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

2 Naphthalene

Concentration: 2.442 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

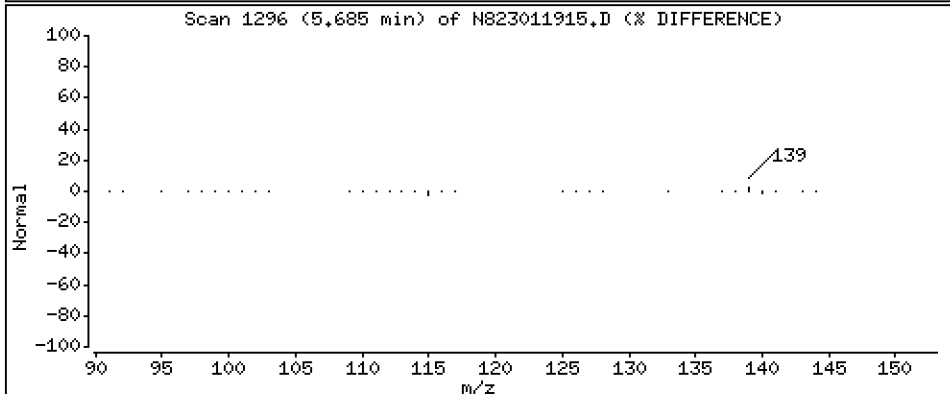
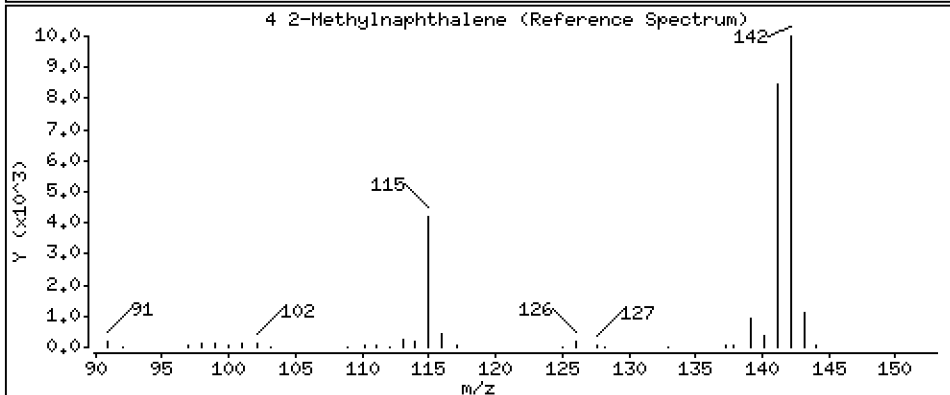
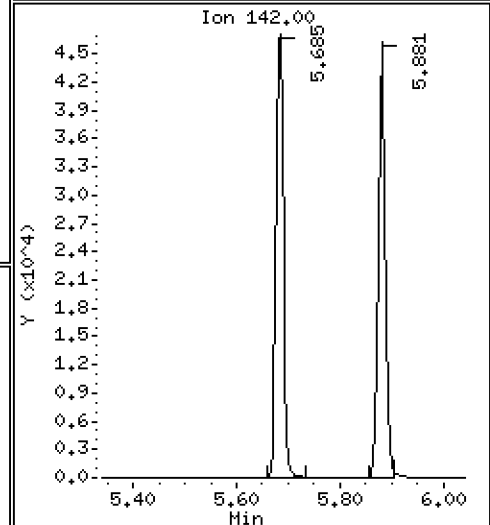
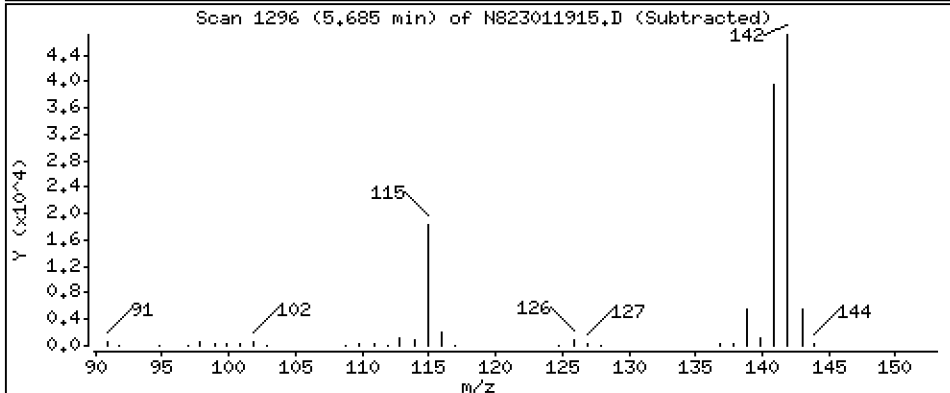
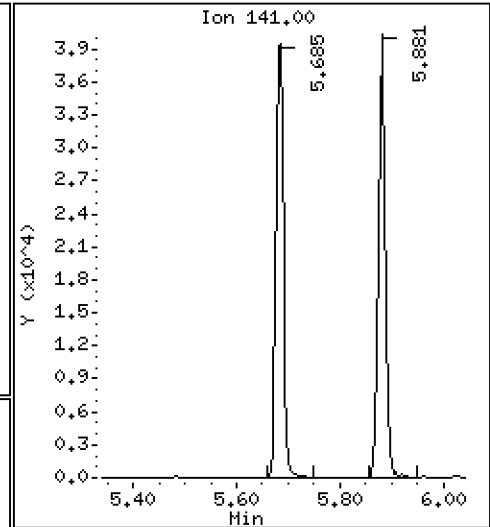
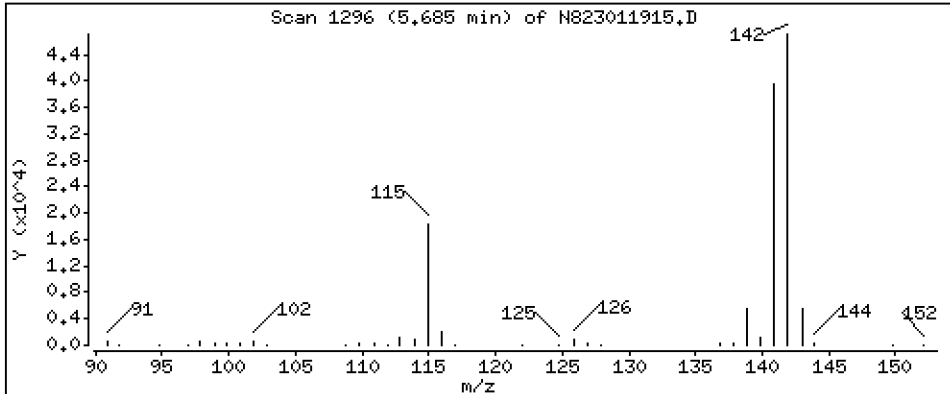
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

4 2-Methylnaphthalene

Concentration: 2,559 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

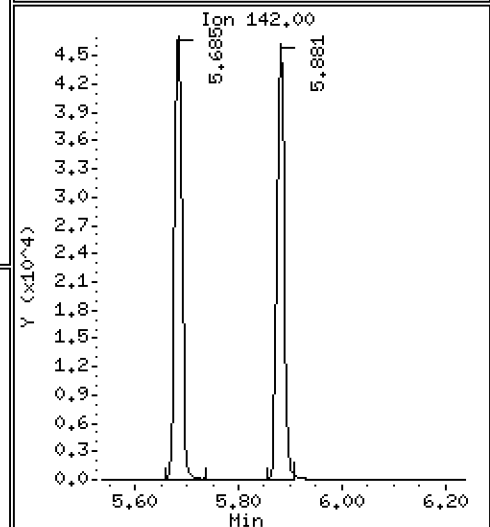
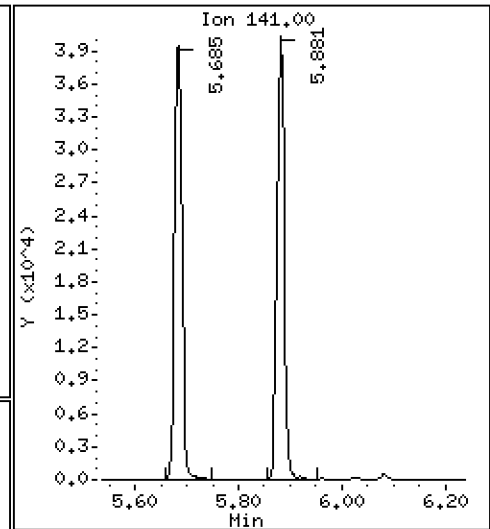
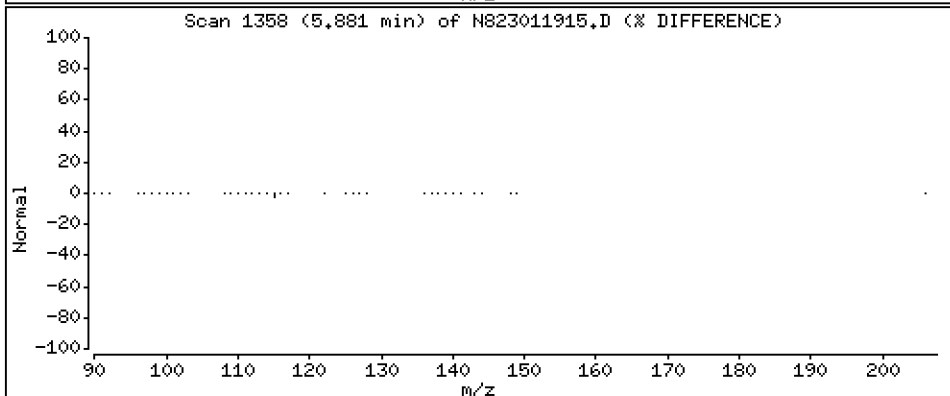
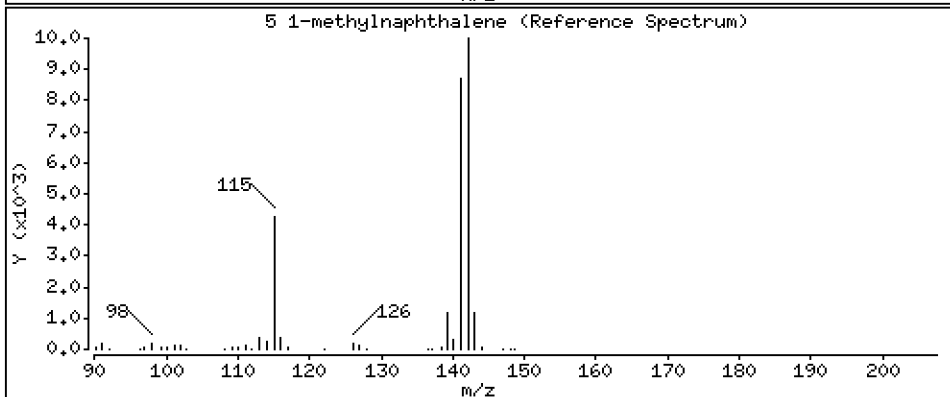
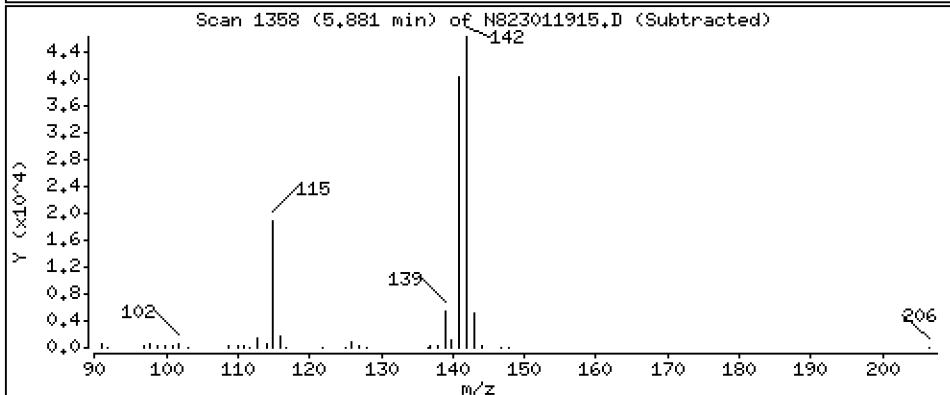
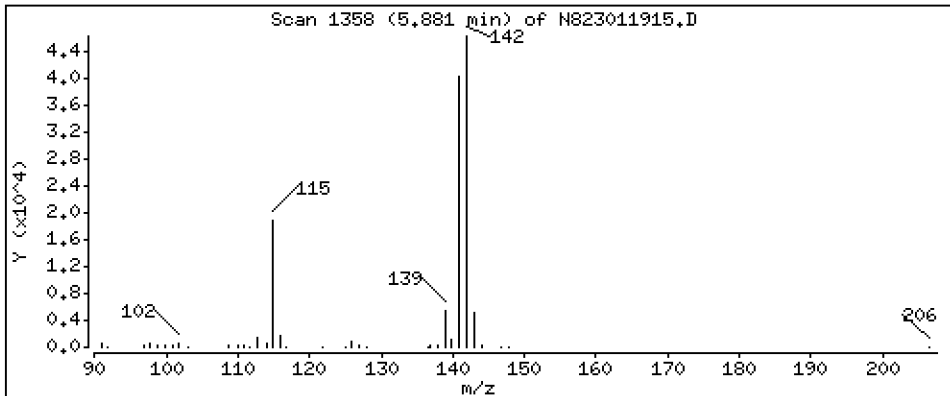
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

5 1-methylnaphthalene

Concentration: 2,539 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

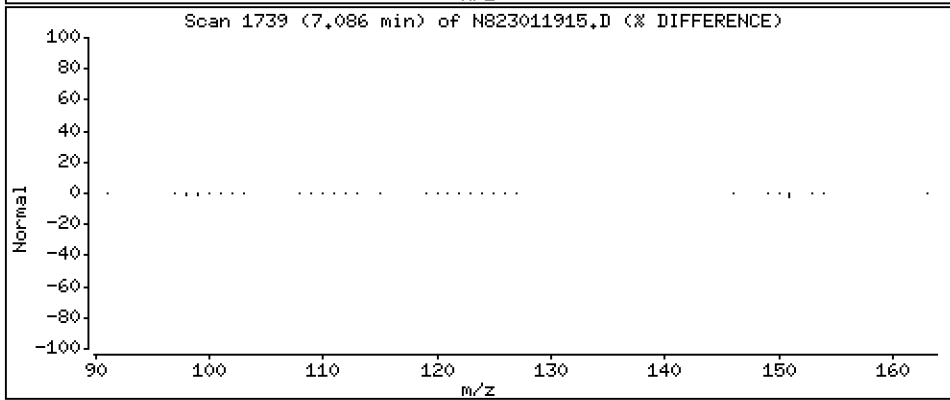
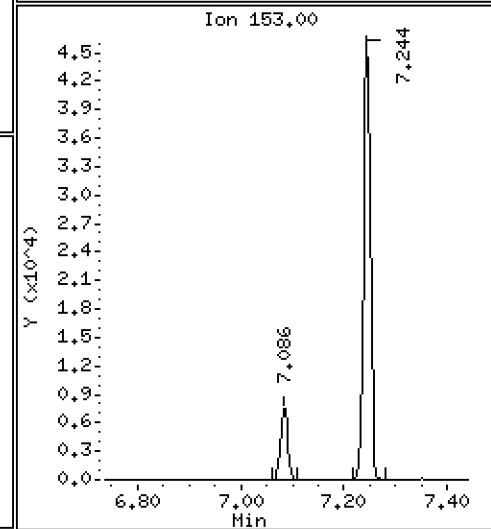
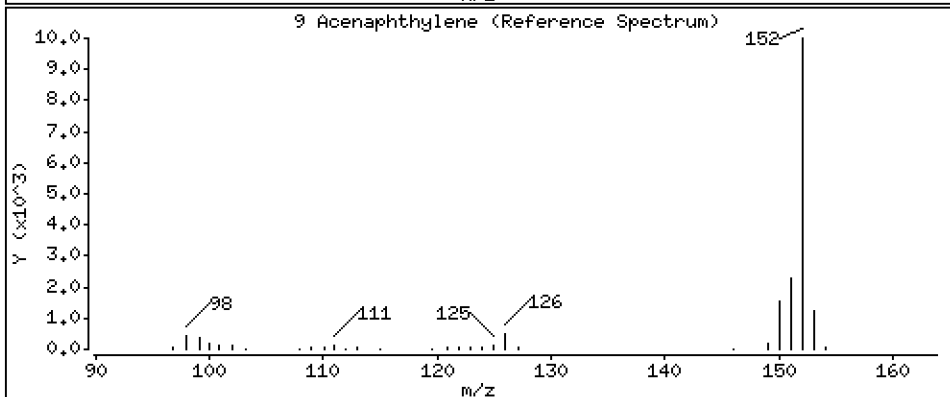
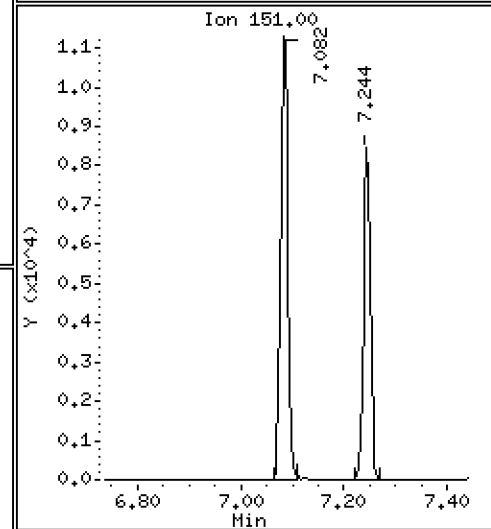
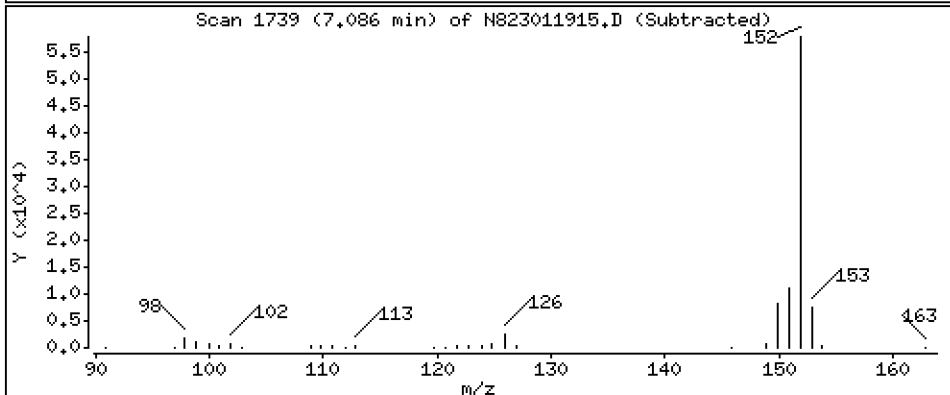
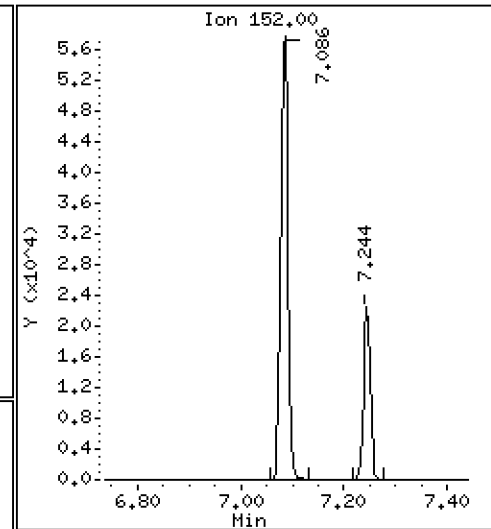
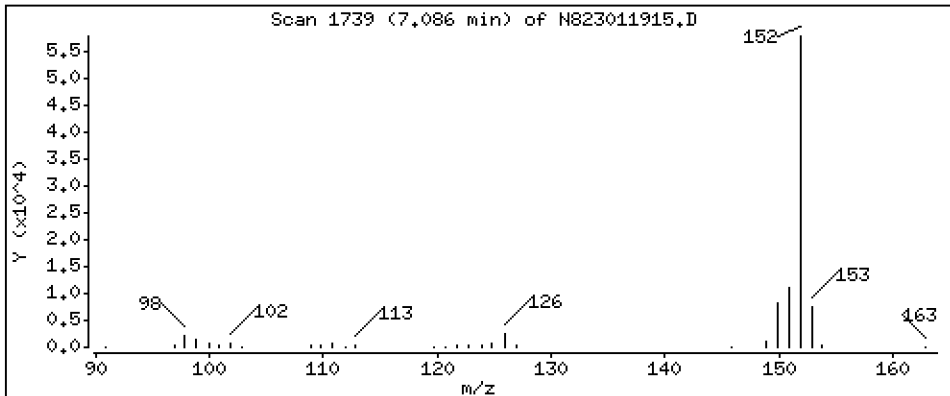
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

9 Acenaphthylene

Concentration: 2,119 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

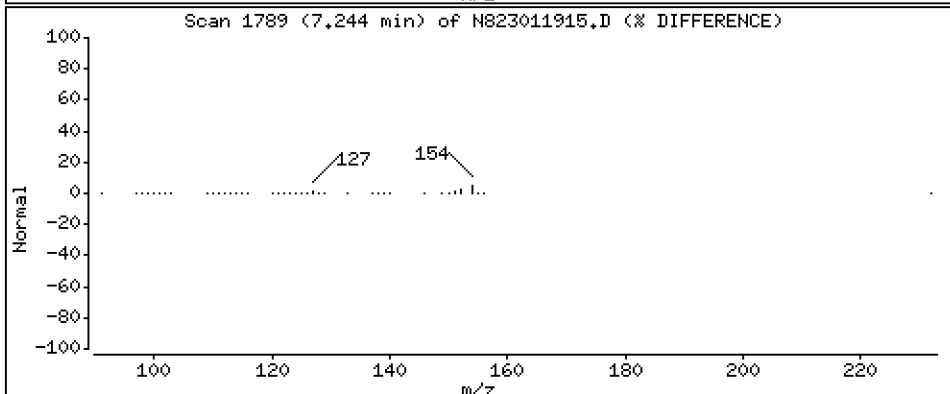
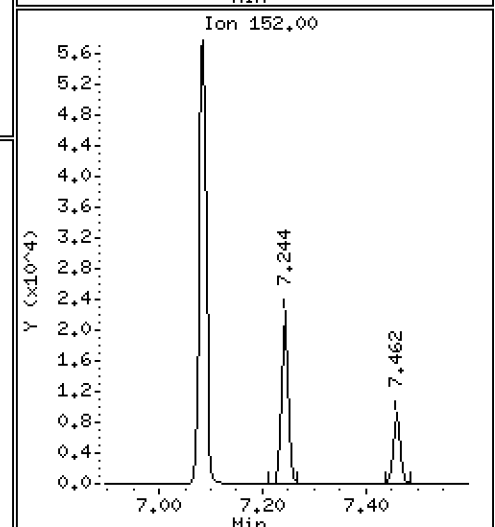
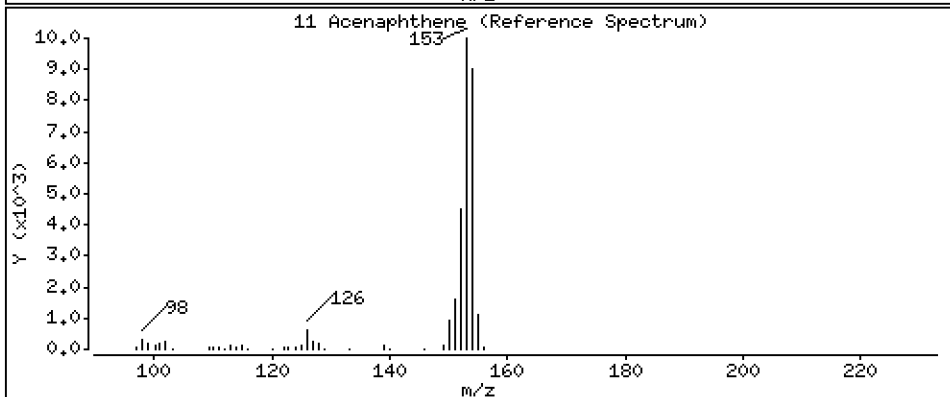
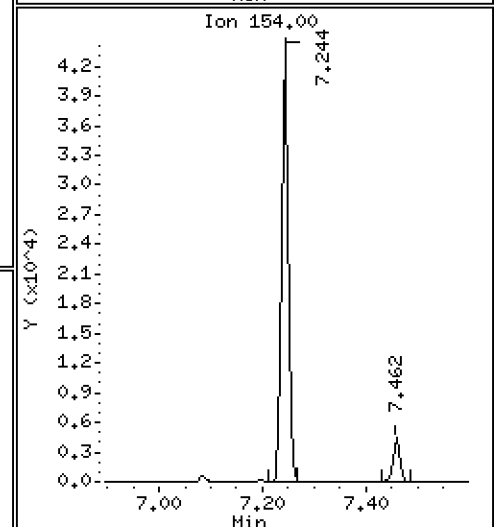
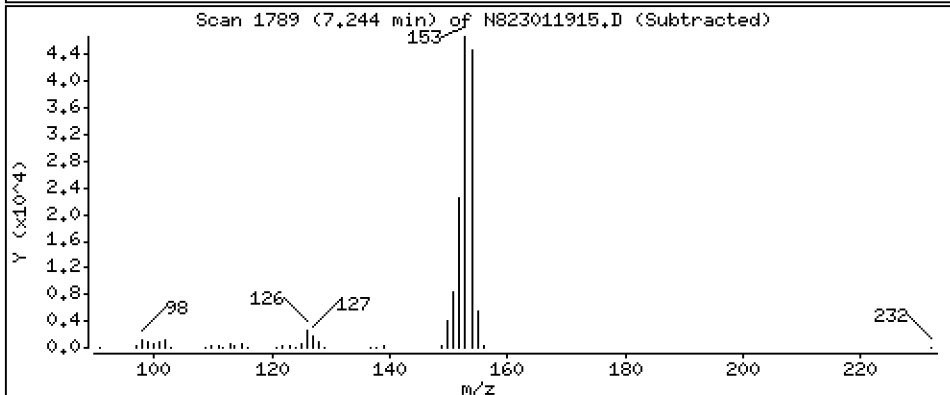
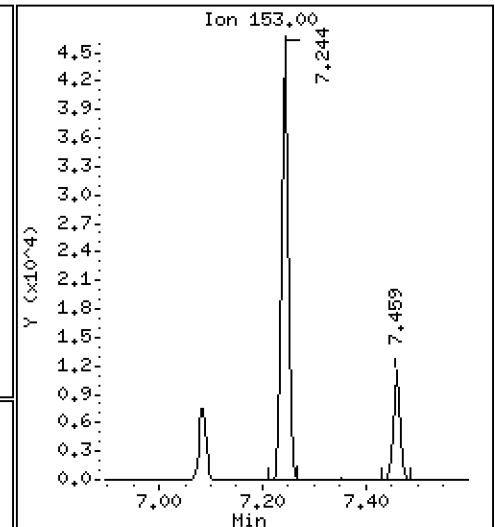
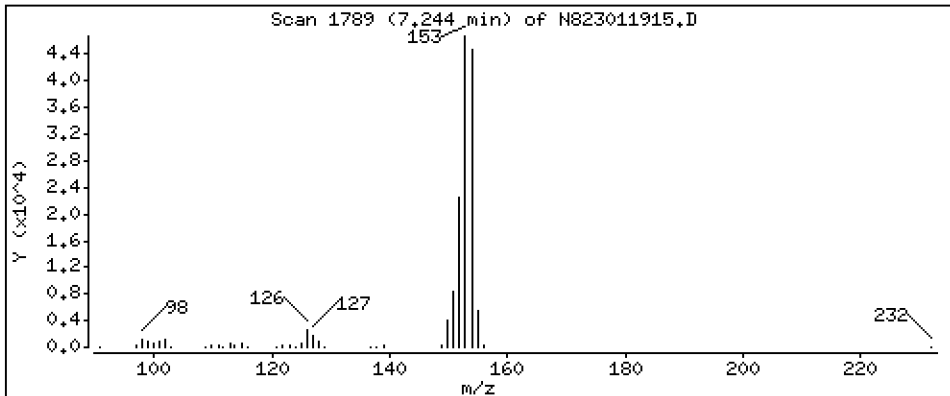
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

11 Acenaphthene

Concentration: 2,479 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

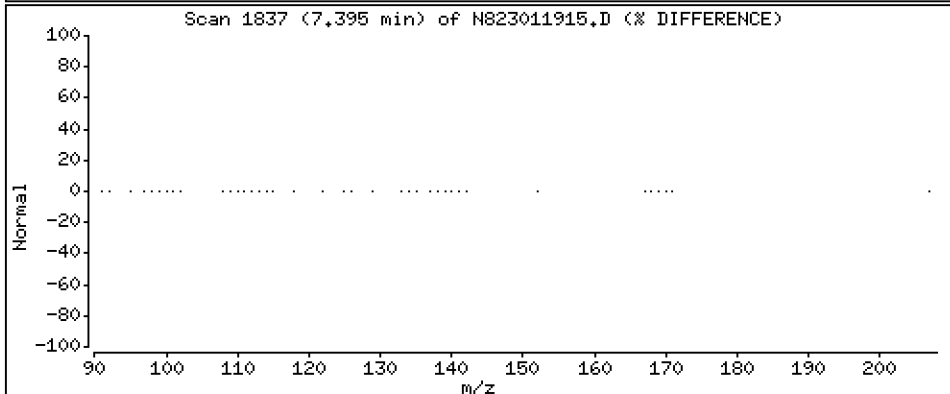
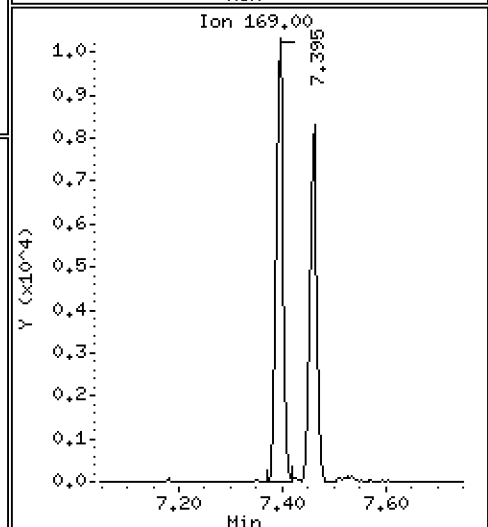
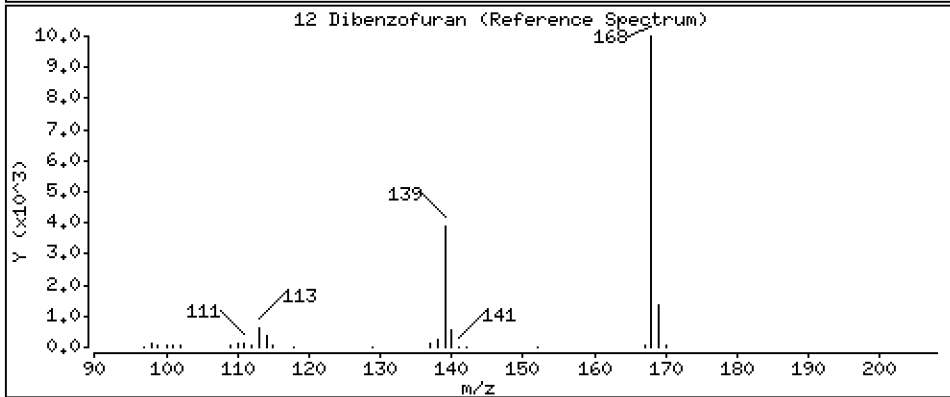
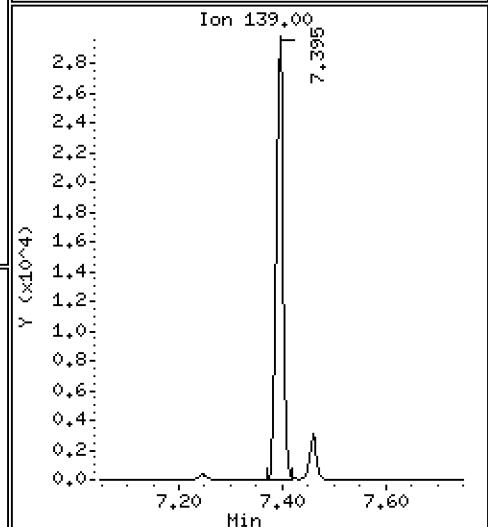
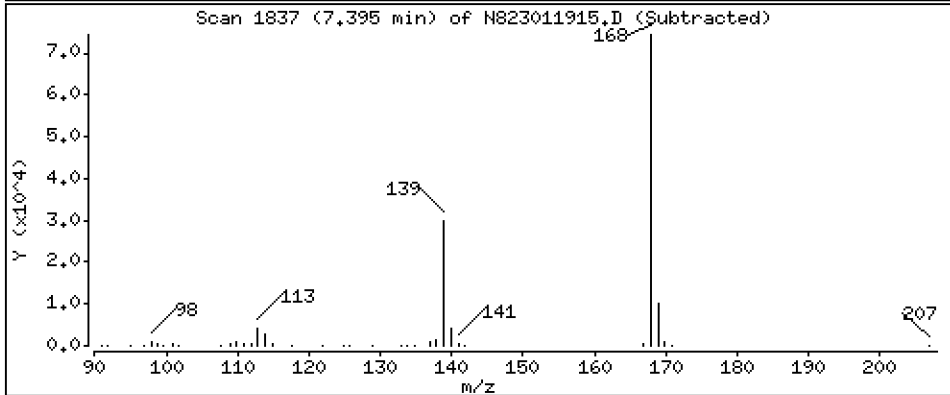
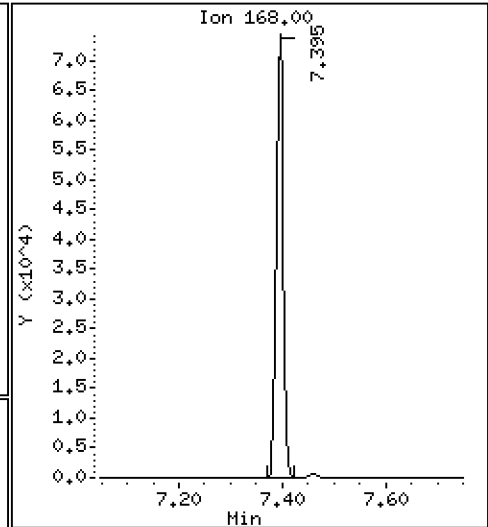
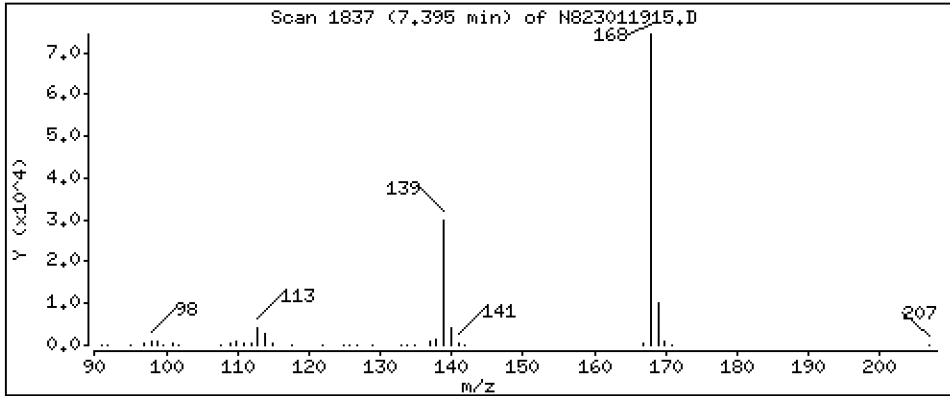
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

12 Dibenzofuran

Concentration: 2,597 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

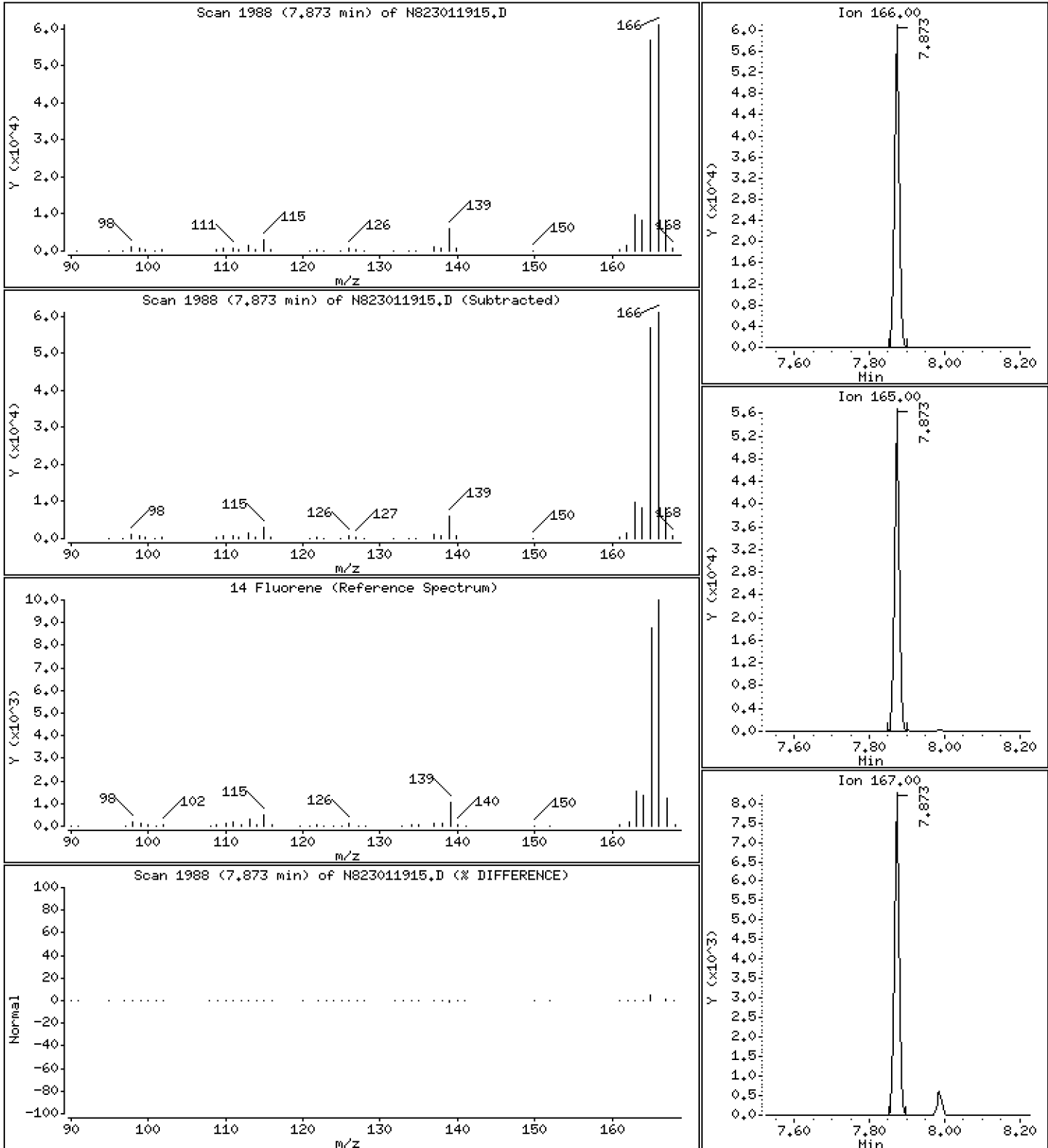
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

14 Fluorene

Concentration: 2,691 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

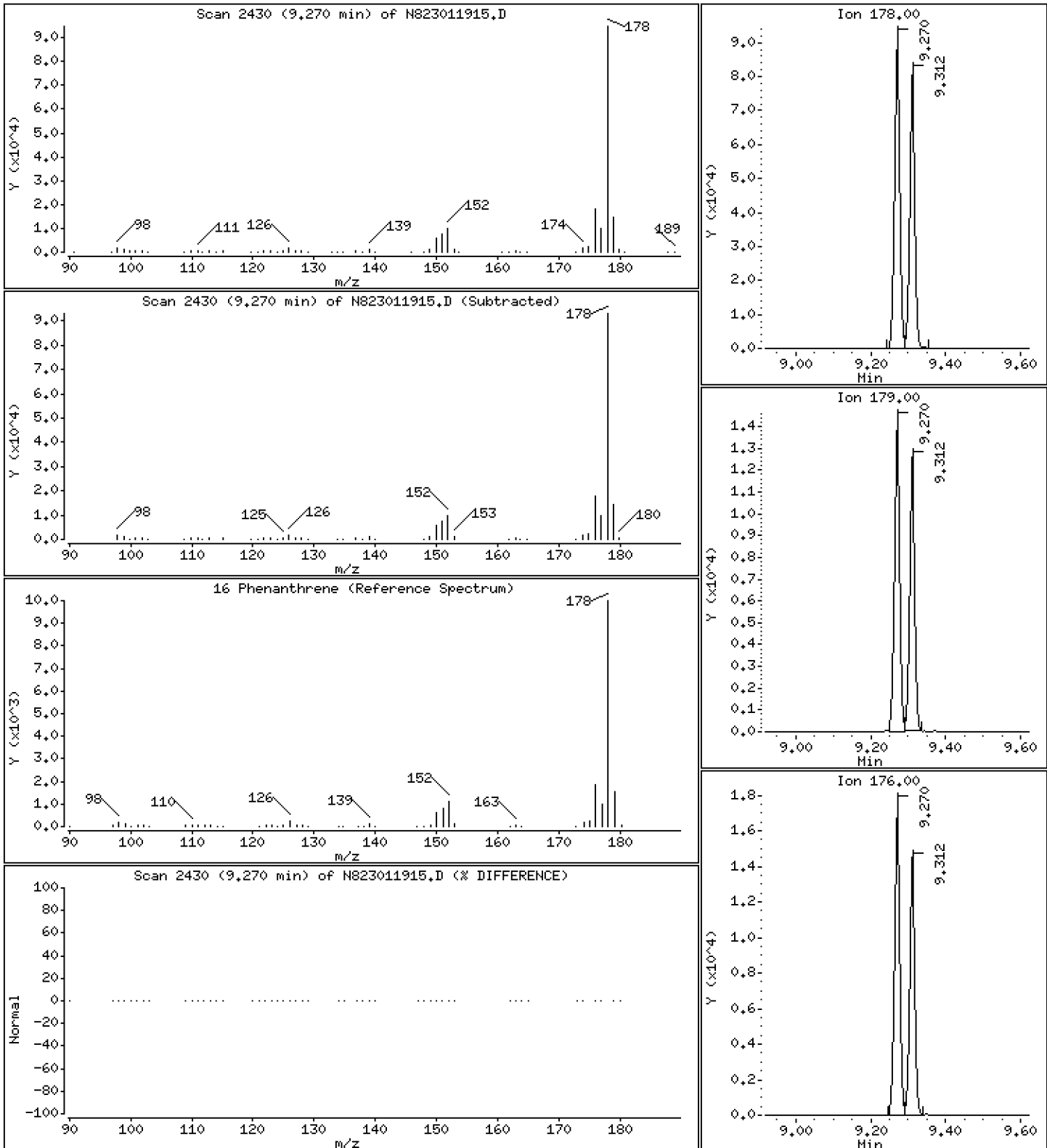
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

16 Phenanthrene

Concentration: 2,877 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

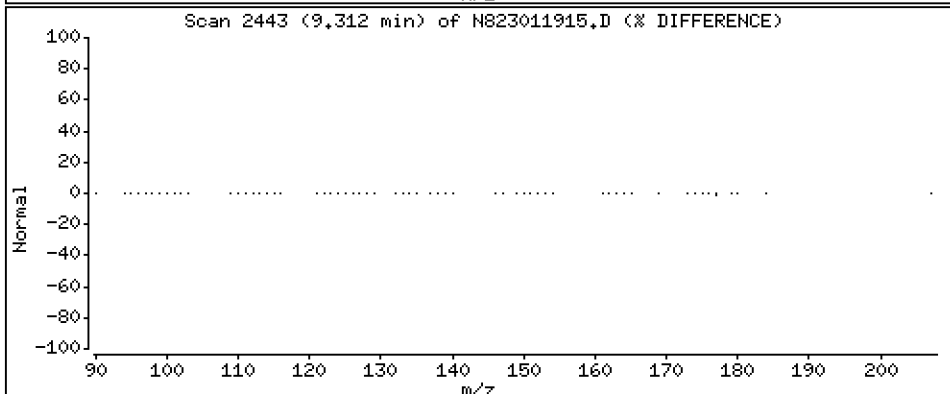
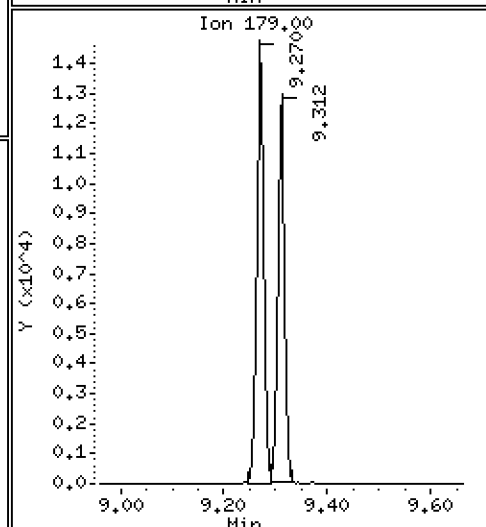
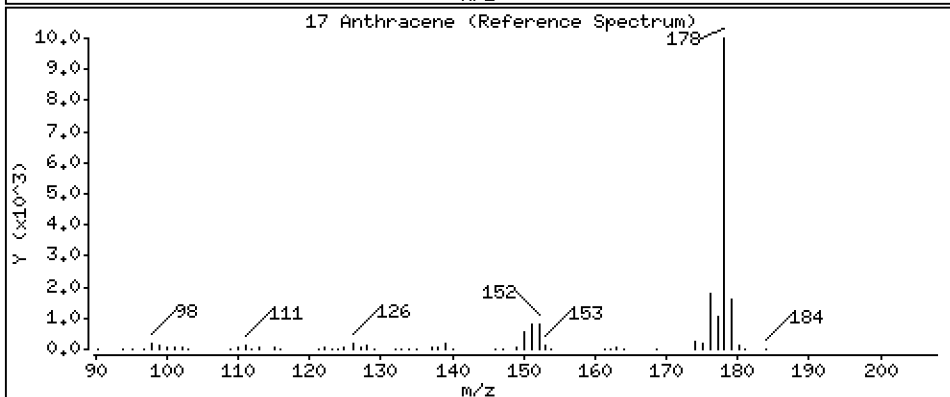
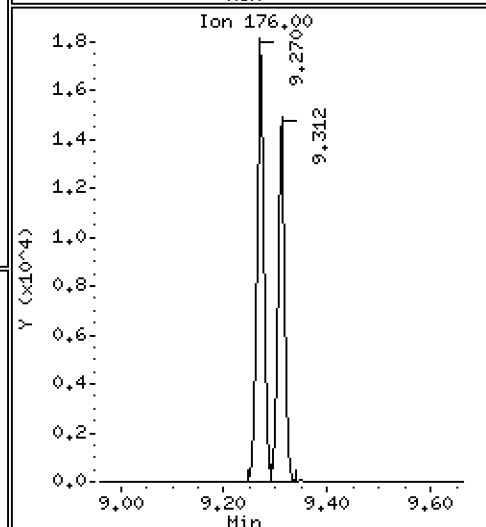
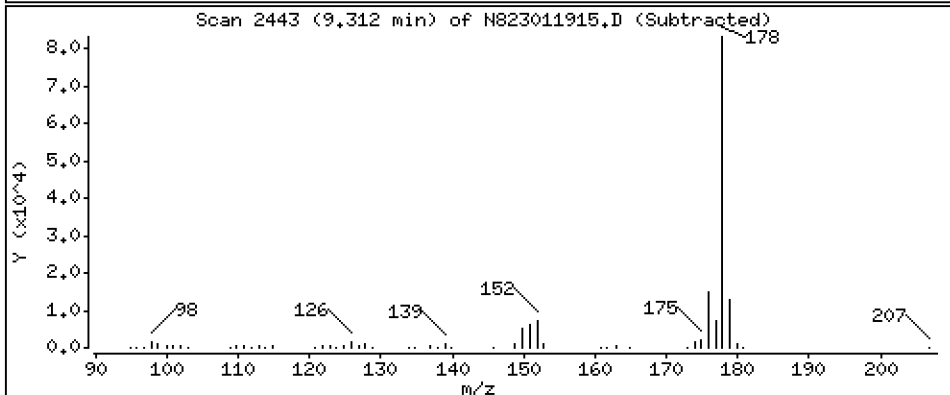
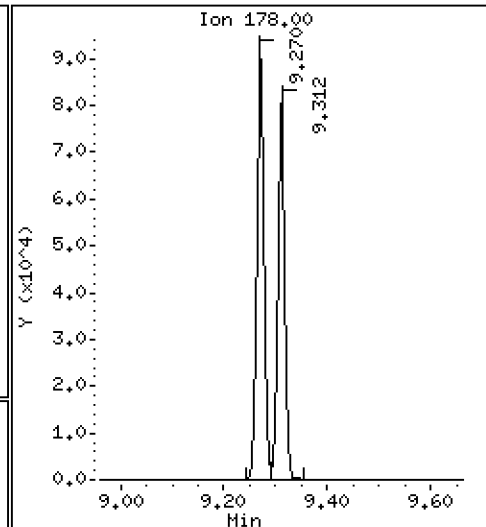
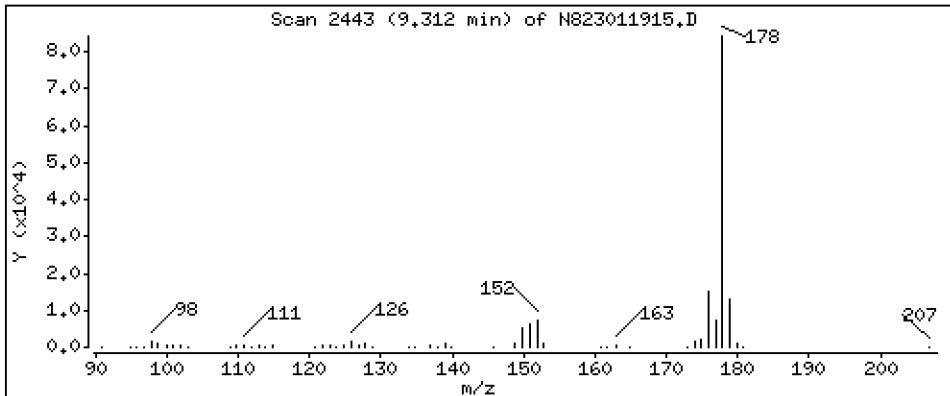
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

17 Anthracene

Concentration: 2,674 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

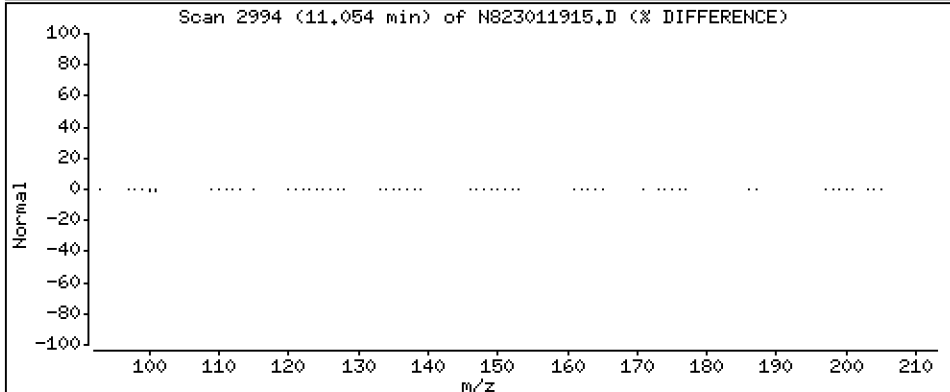
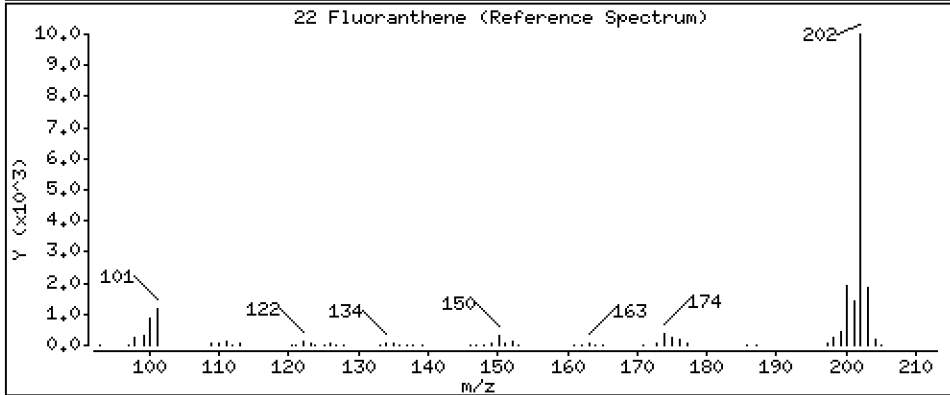
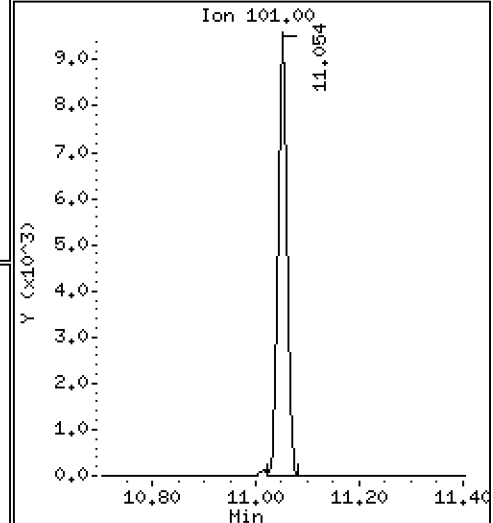
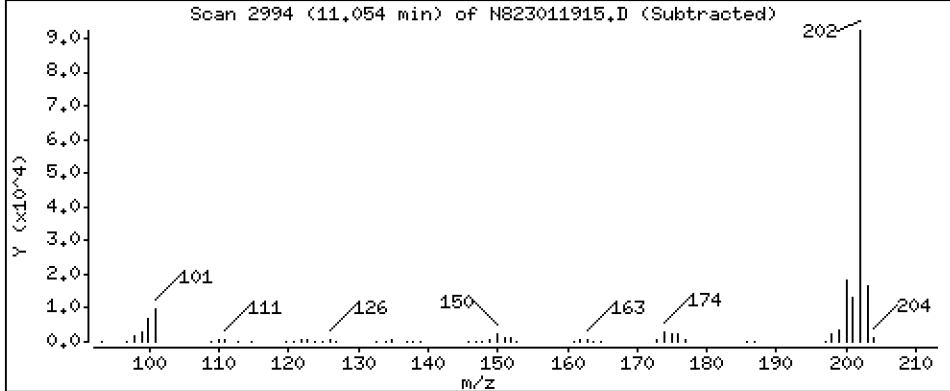
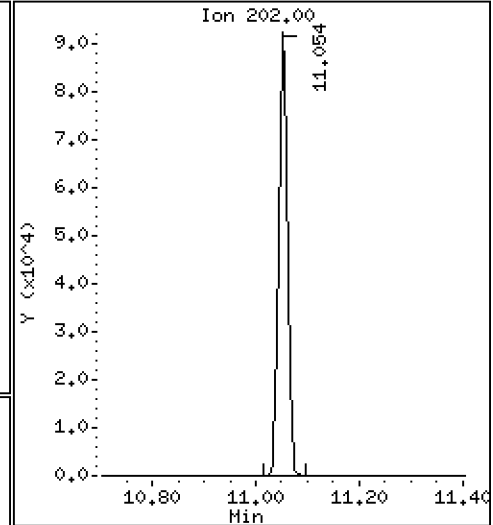
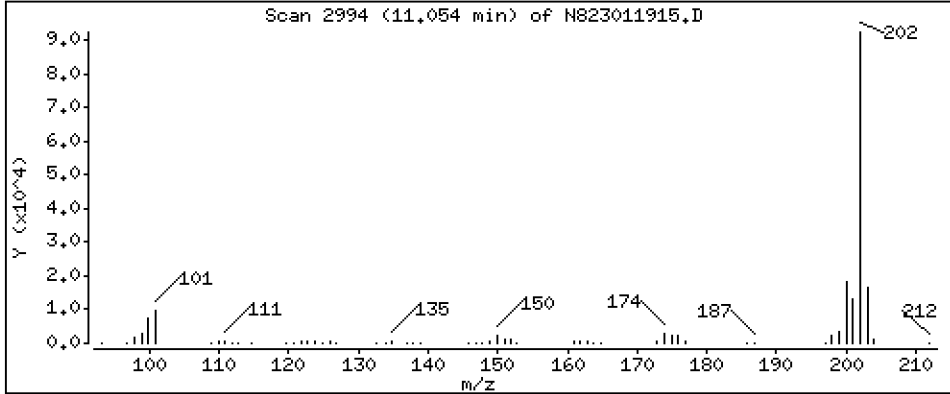
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 3,248 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

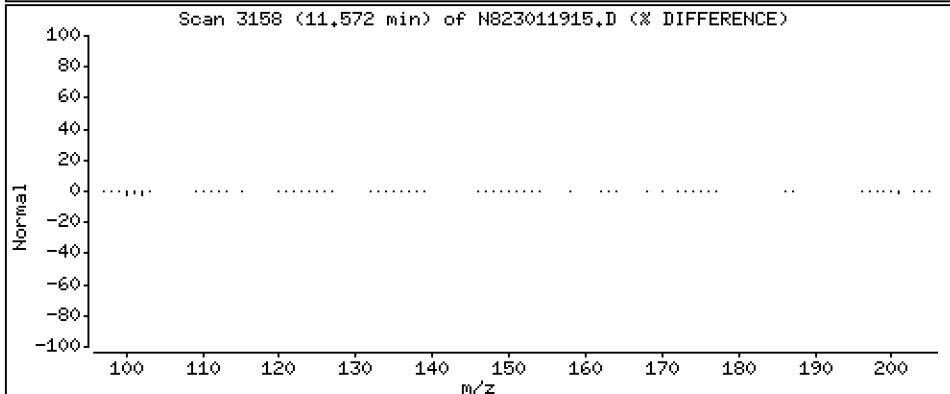
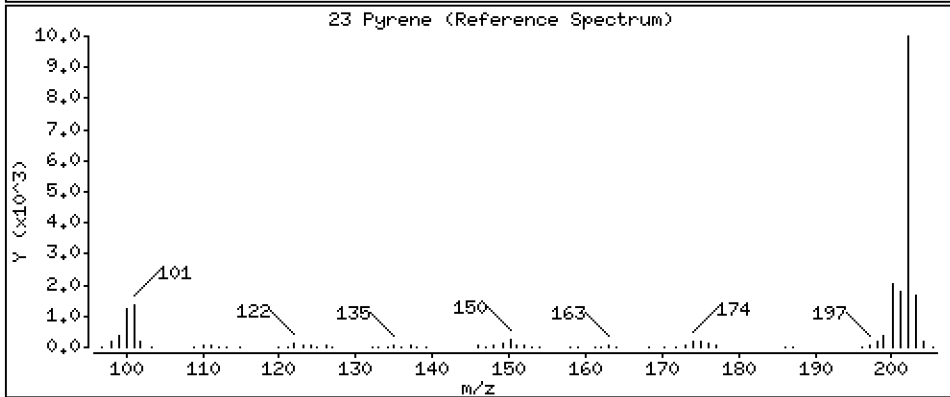
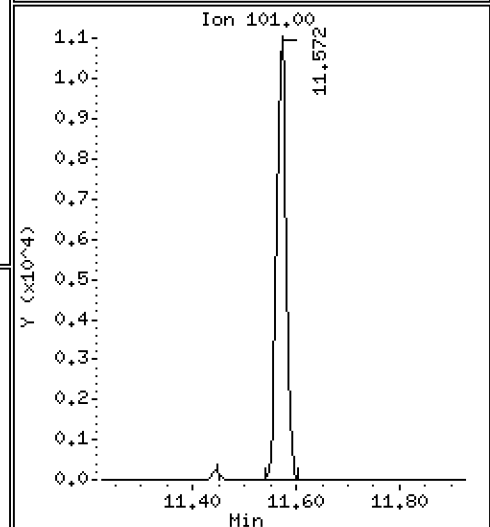
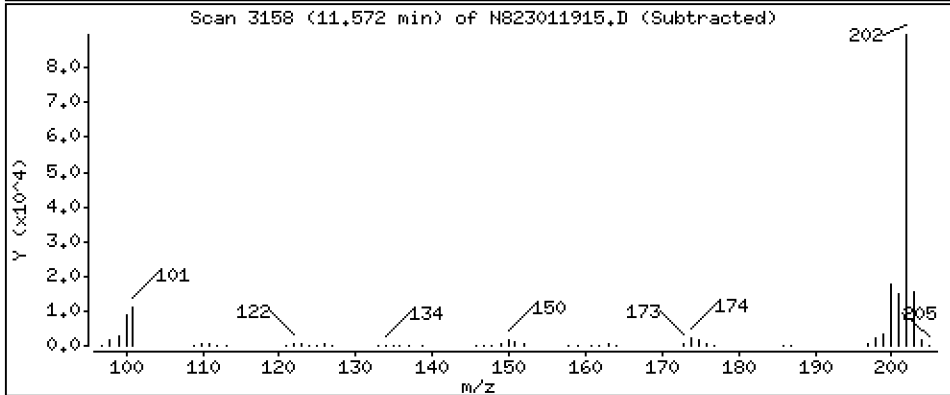
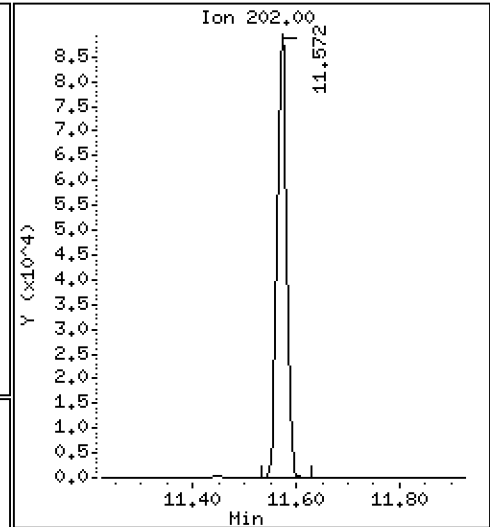
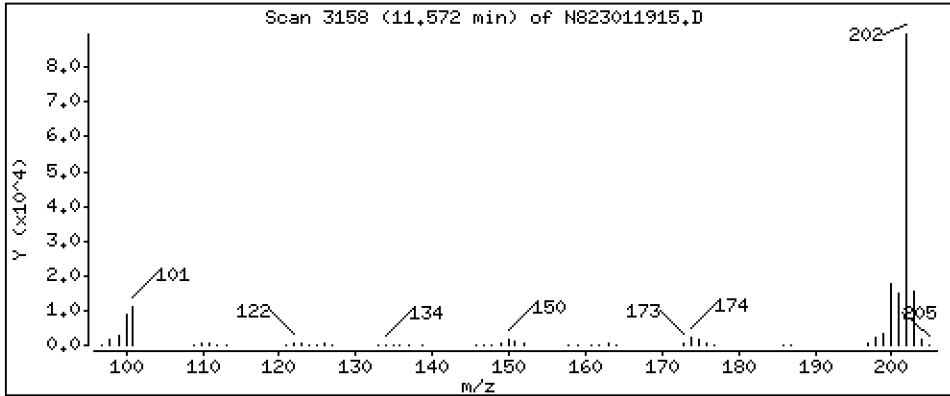
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

23 Pyrene

Concentration: 3,354 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

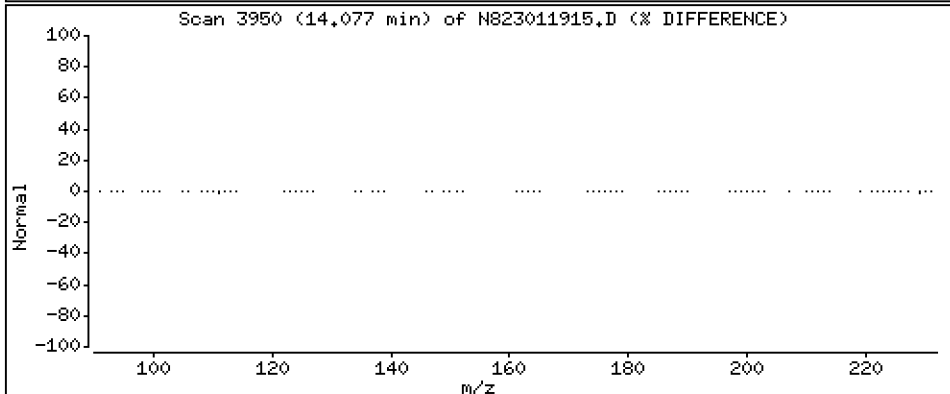
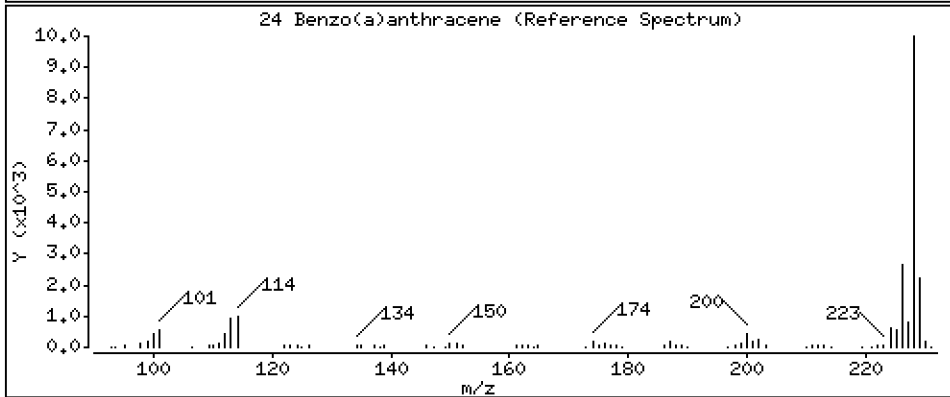
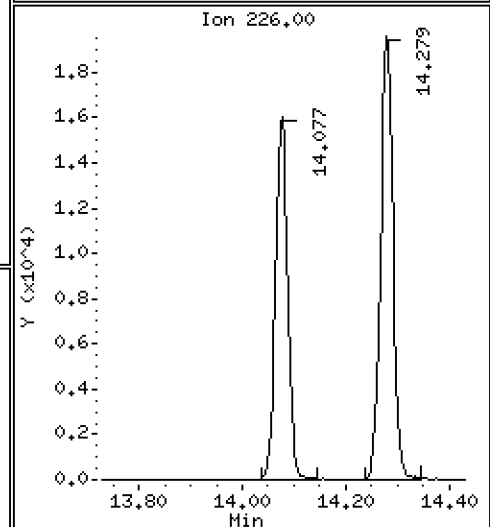
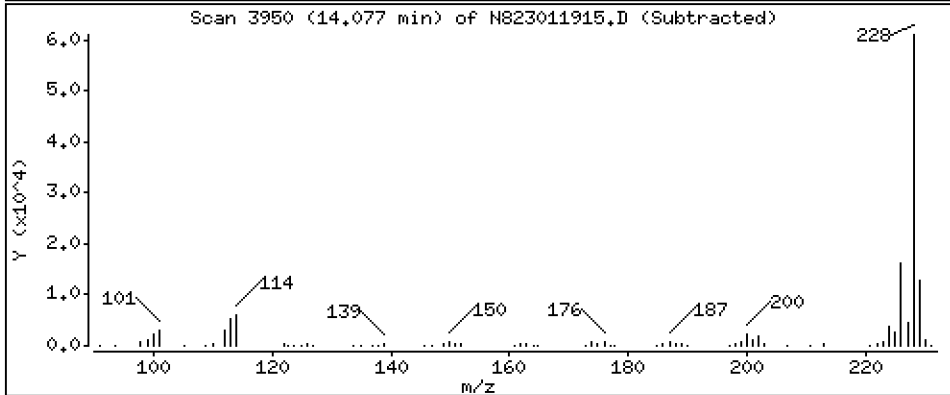
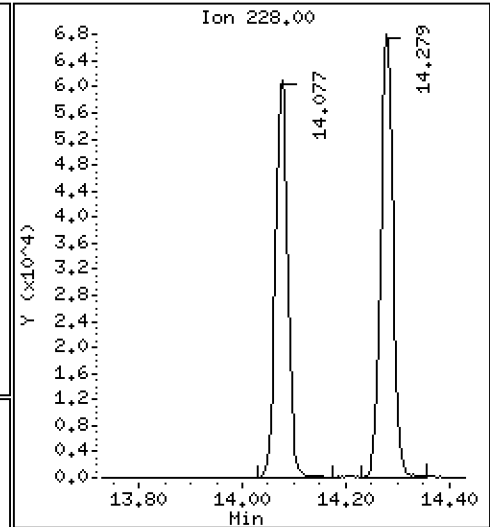
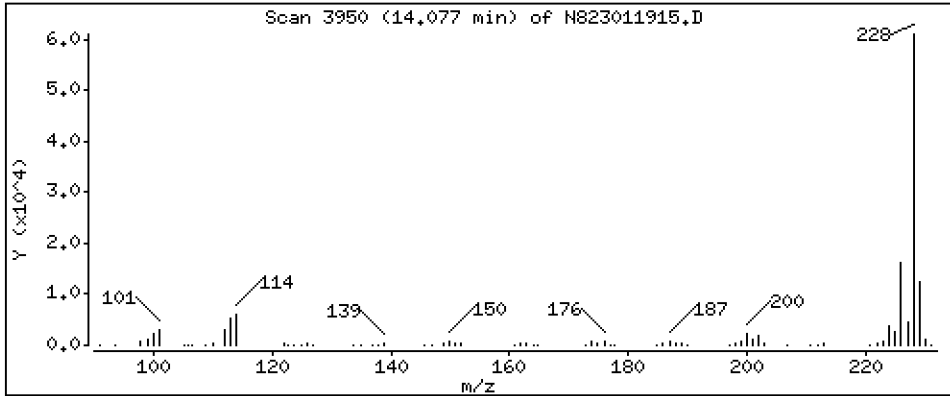
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

24 Benzo(a)anthracene

Concentration: 3,273 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

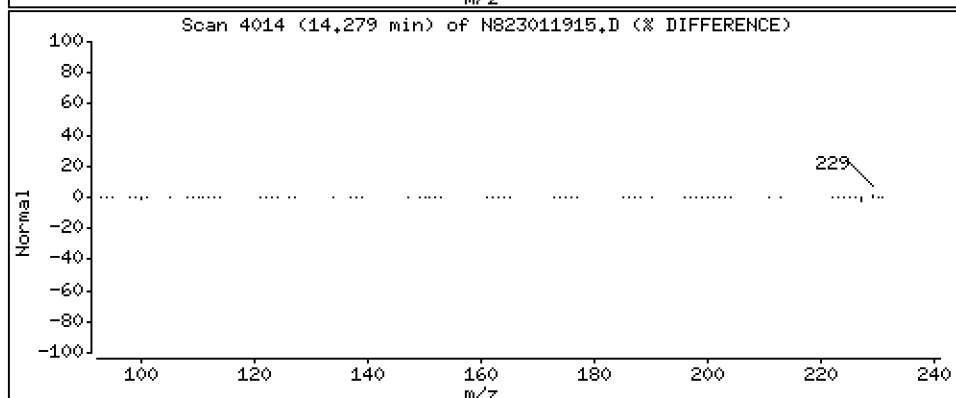
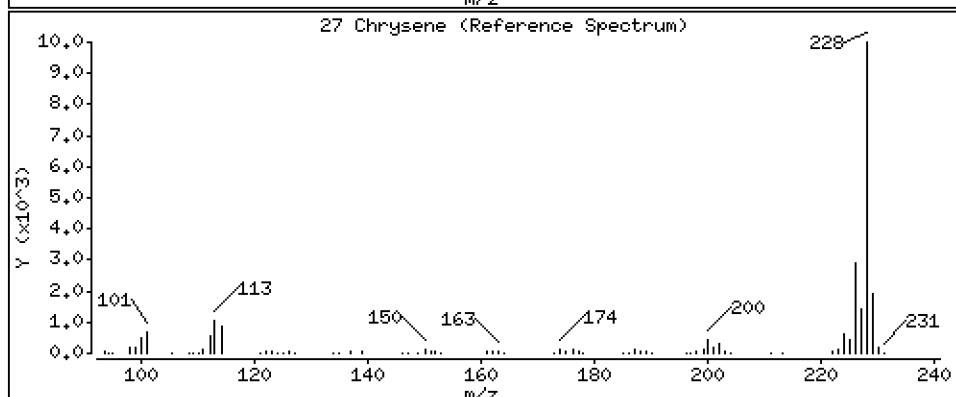
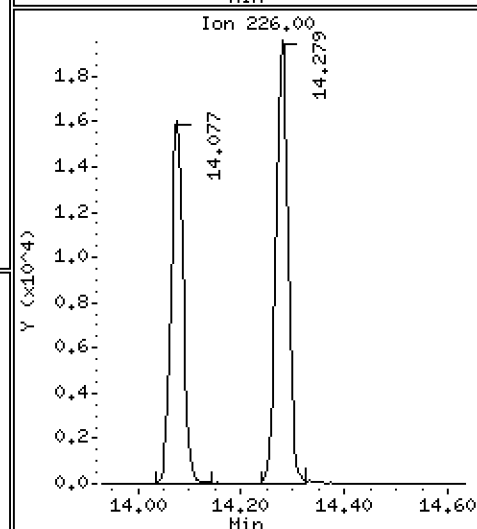
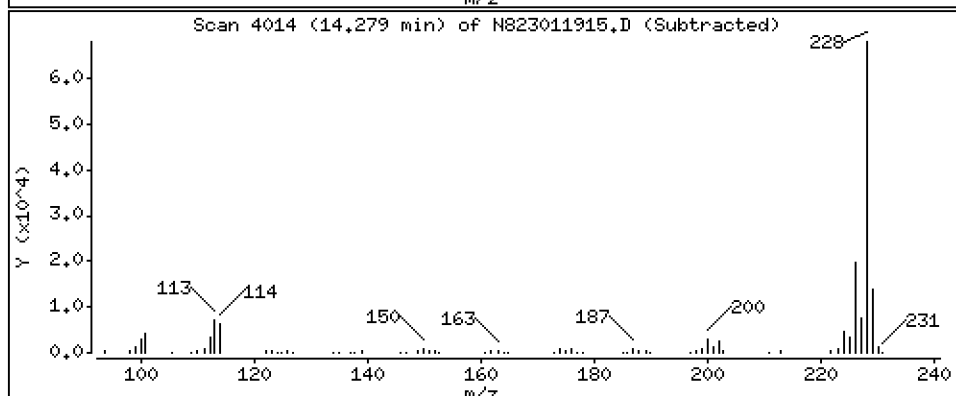
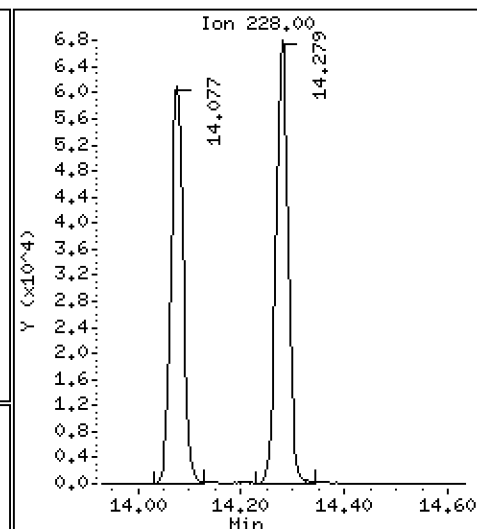
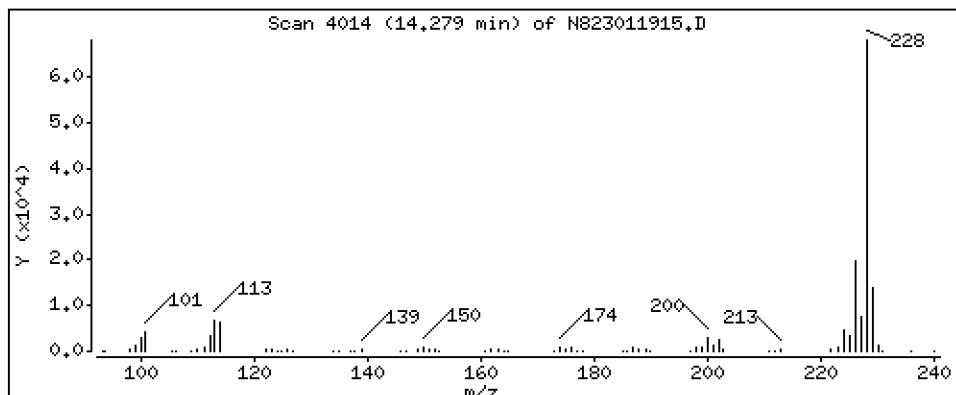
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

27 Chrysene

Concentration: 3,398 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

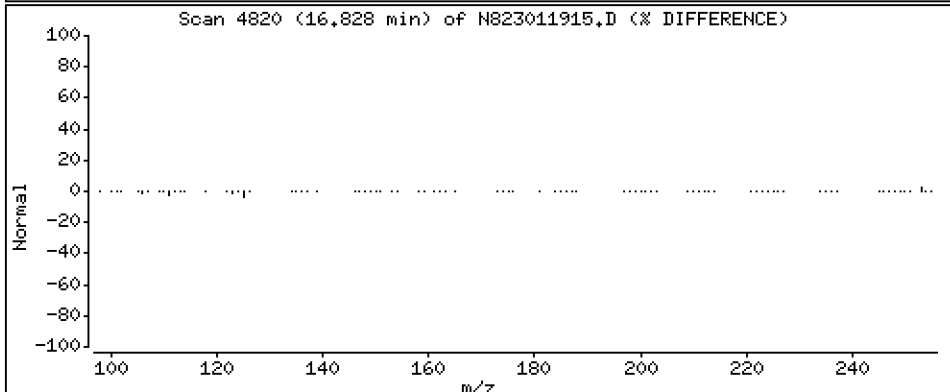
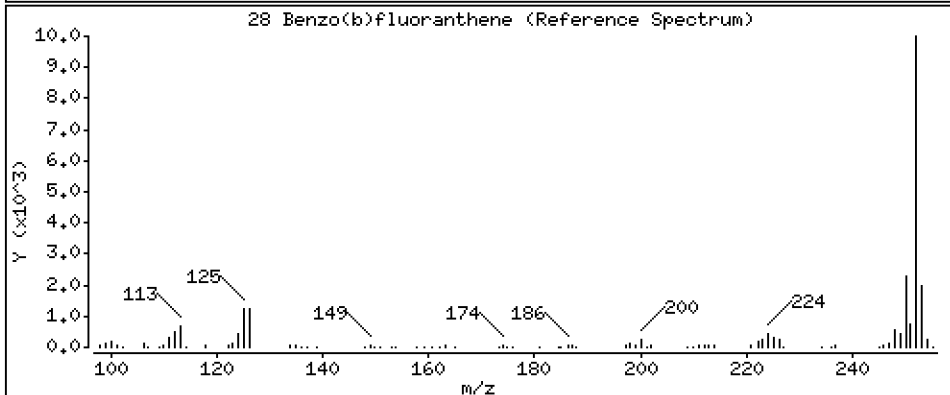
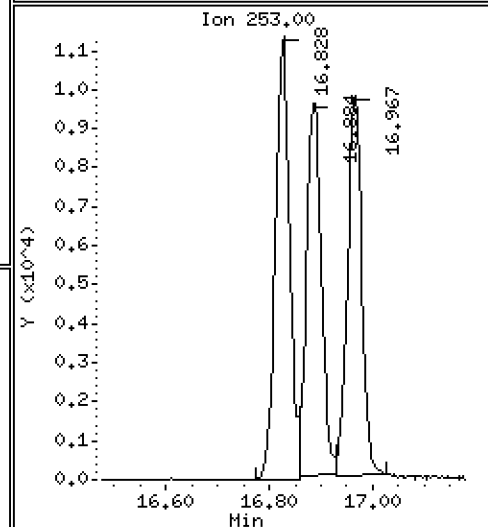
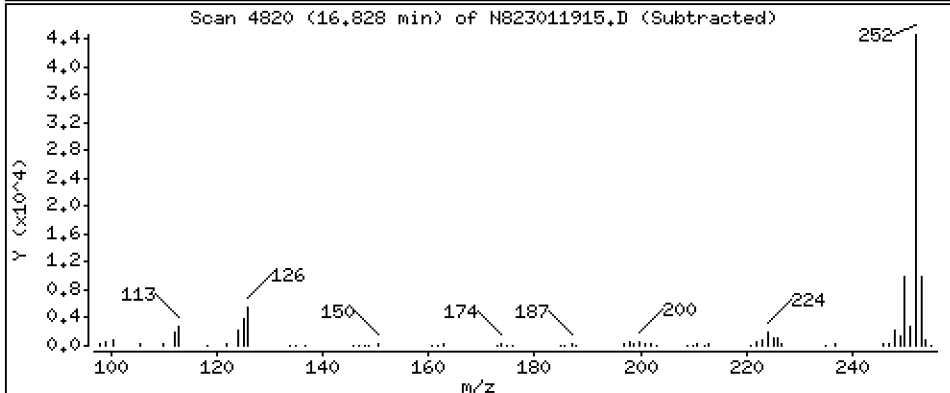
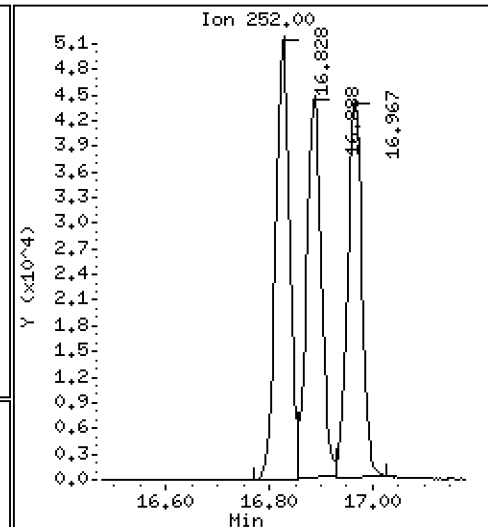
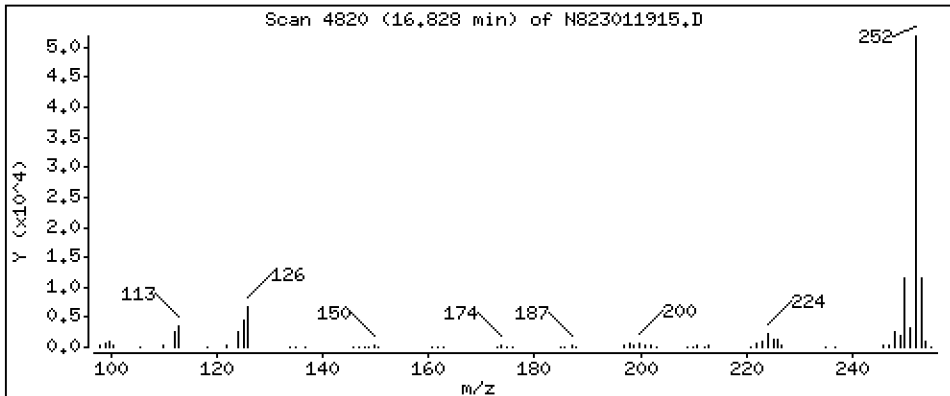
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

28 Benzo(b)fluoranthene

Concentration: 5,965 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

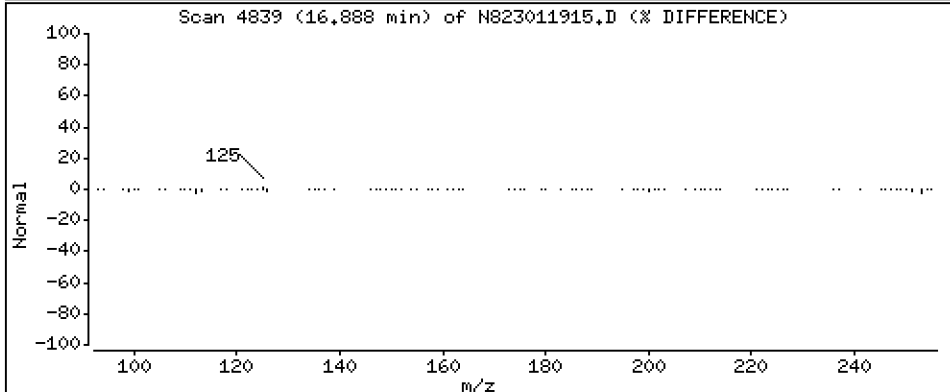
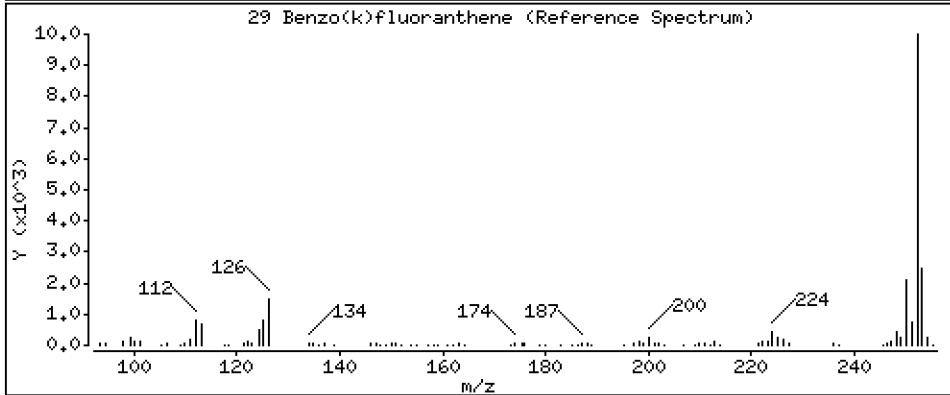
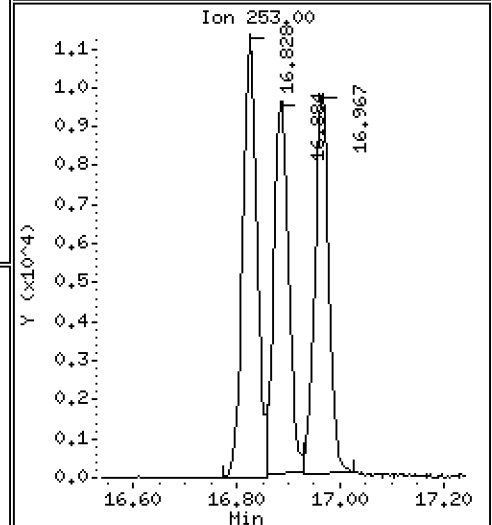
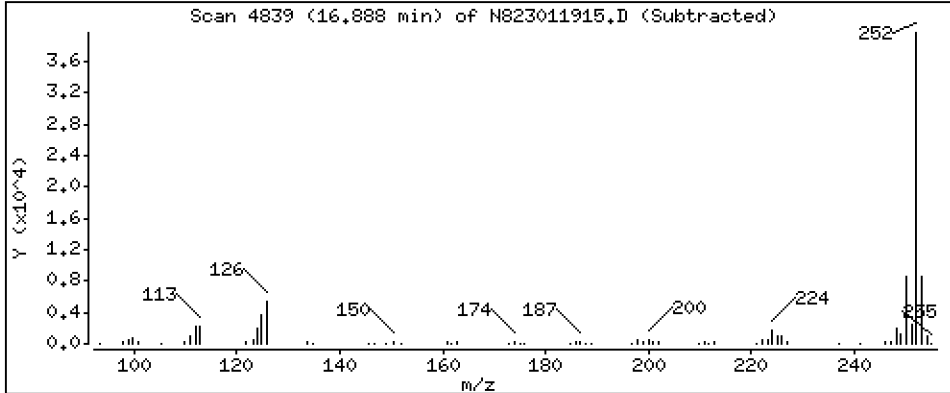
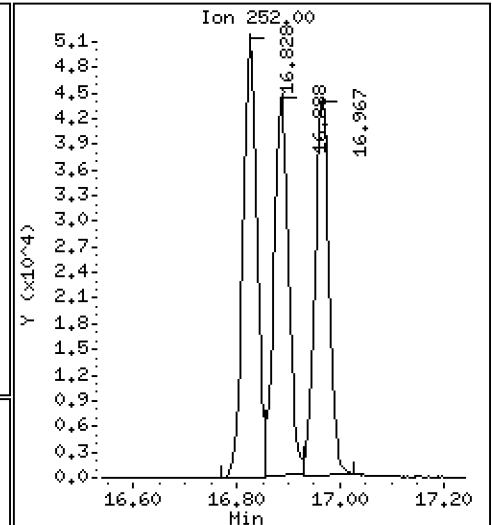
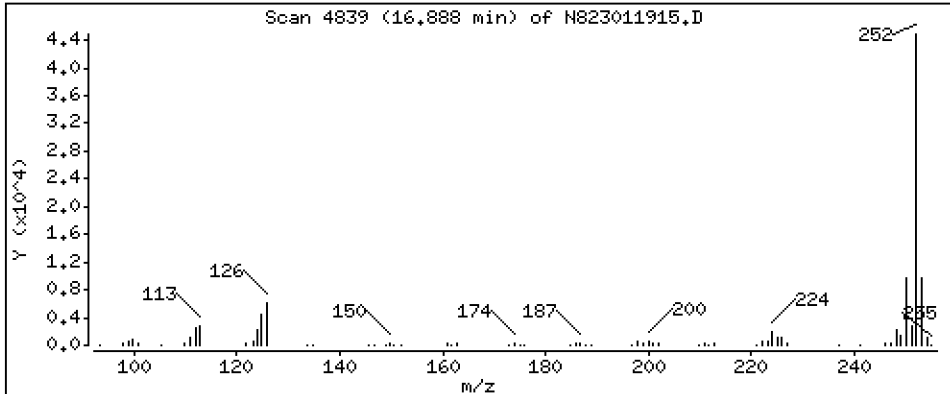
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

29 Benzo(k)fluoranthene

Concentration: 5,527 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

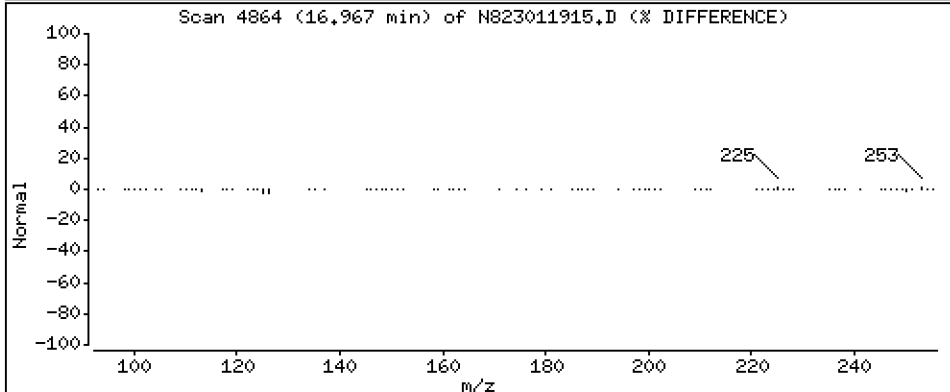
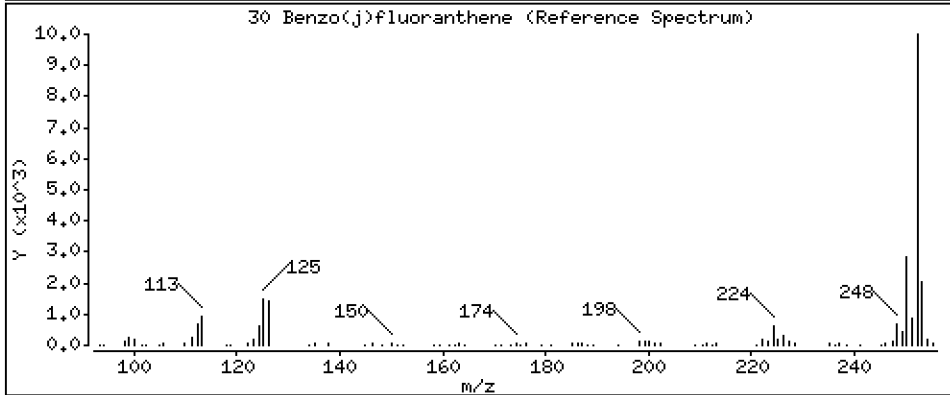
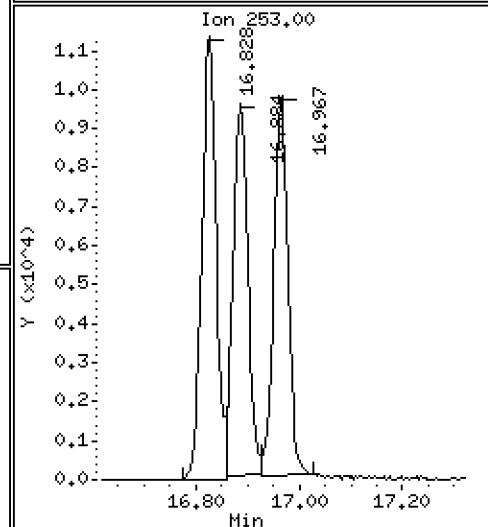
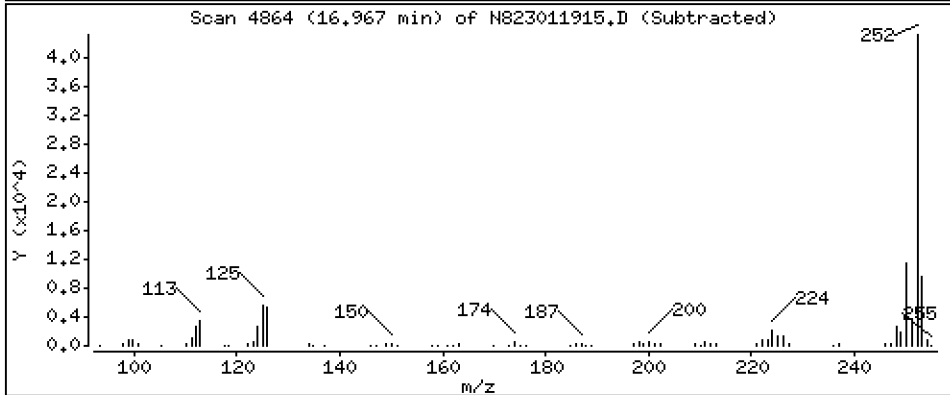
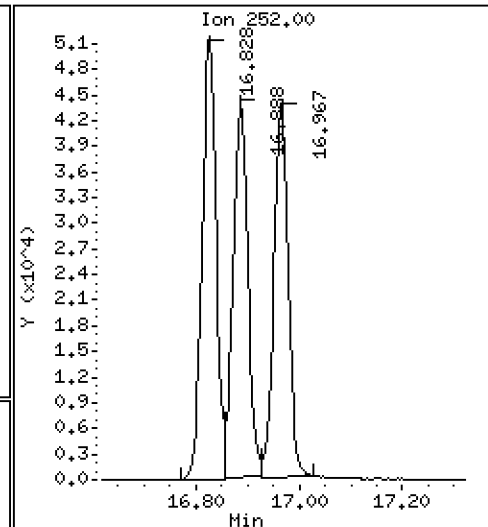
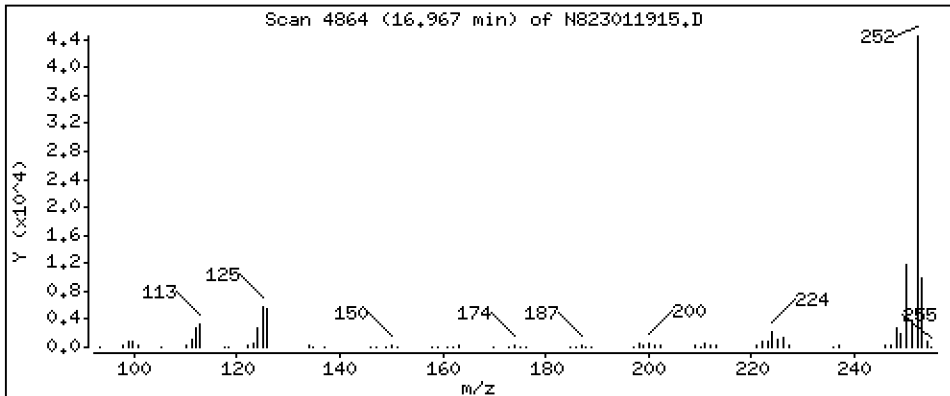
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

30 Benzo(j)fluoranthene

Concentration: 5,922 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

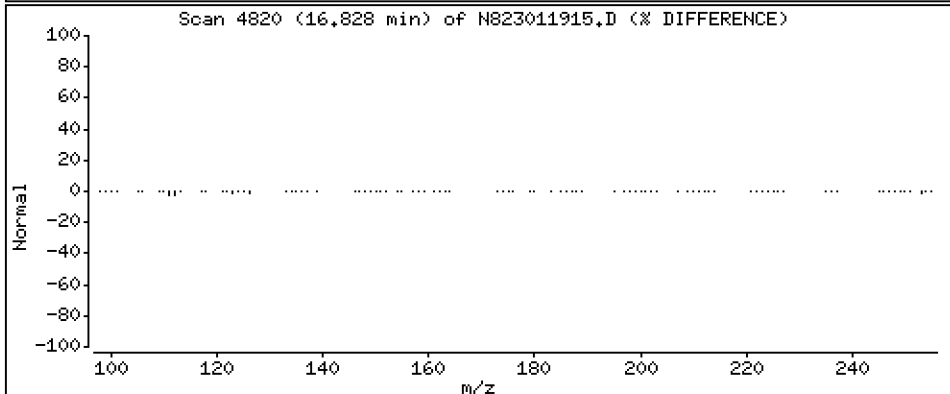
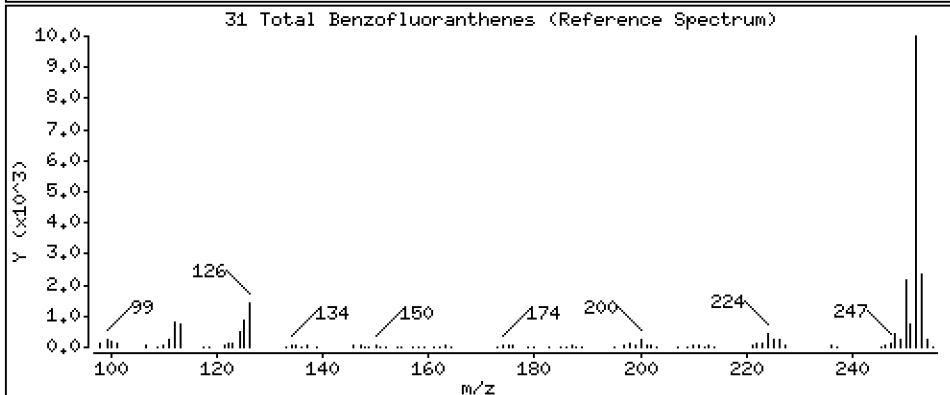
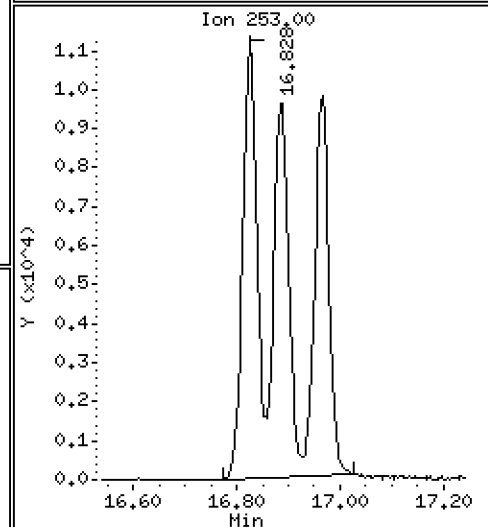
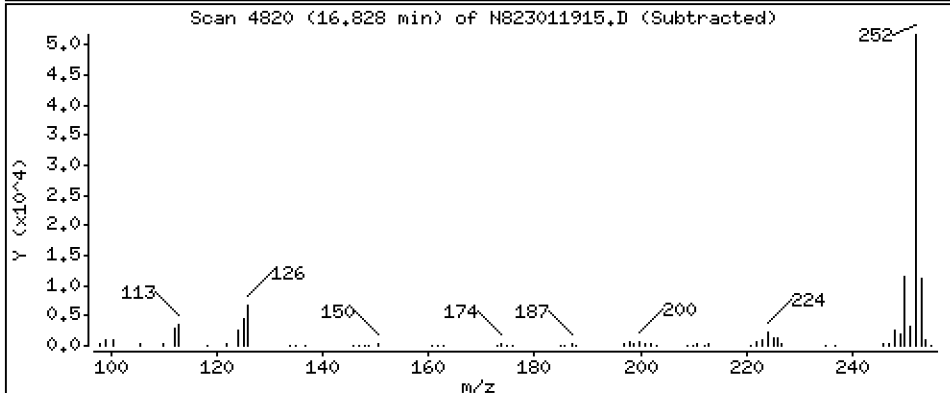
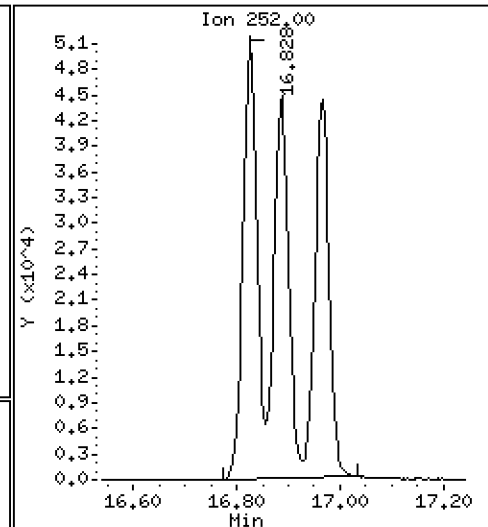
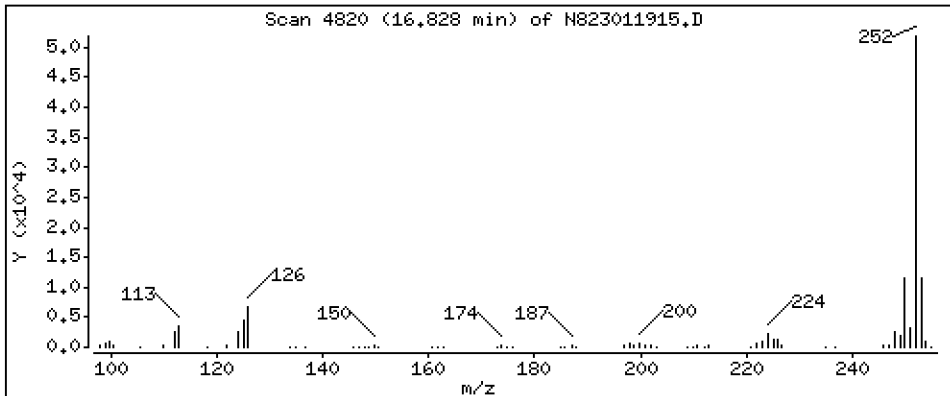
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

31 Total Benzofluoranthenes

Concentration: 17,40 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

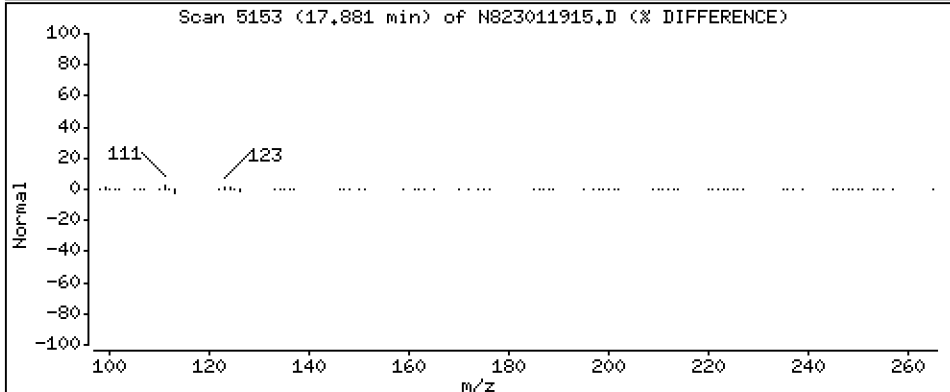
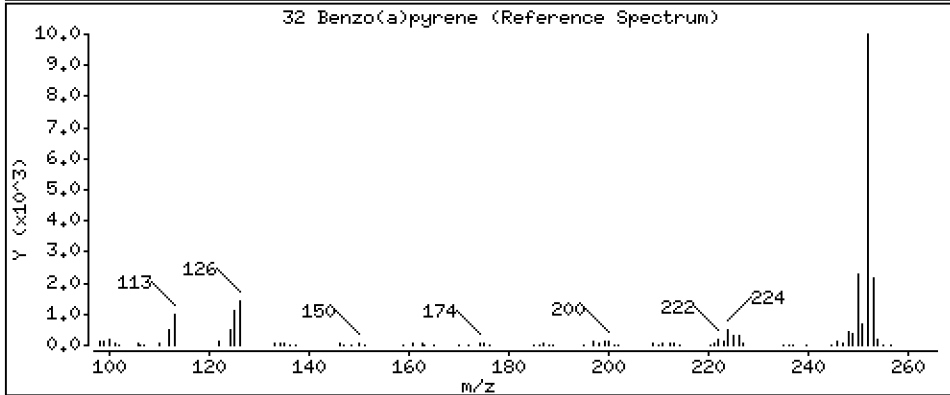
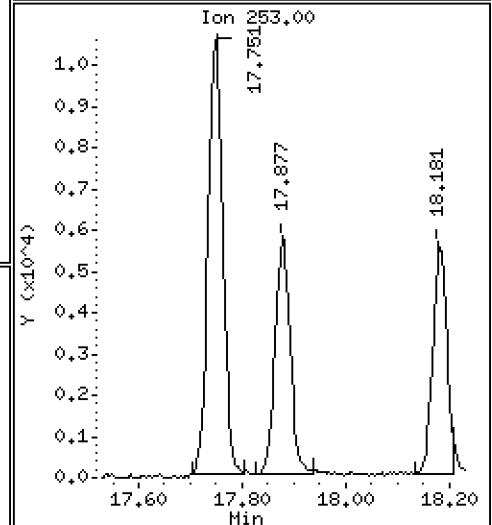
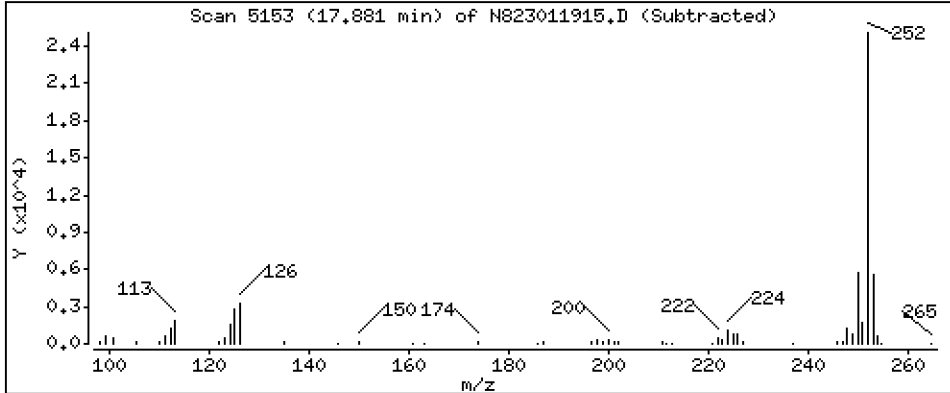
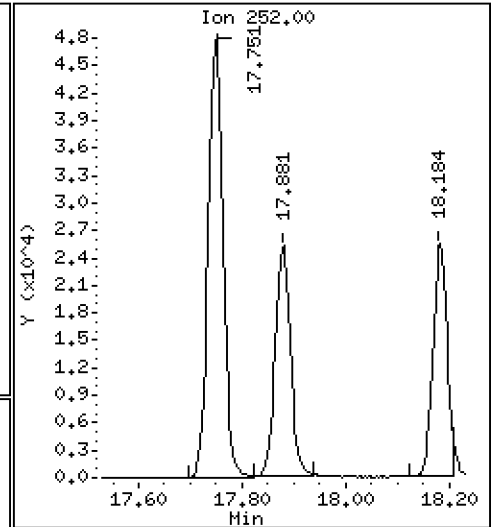
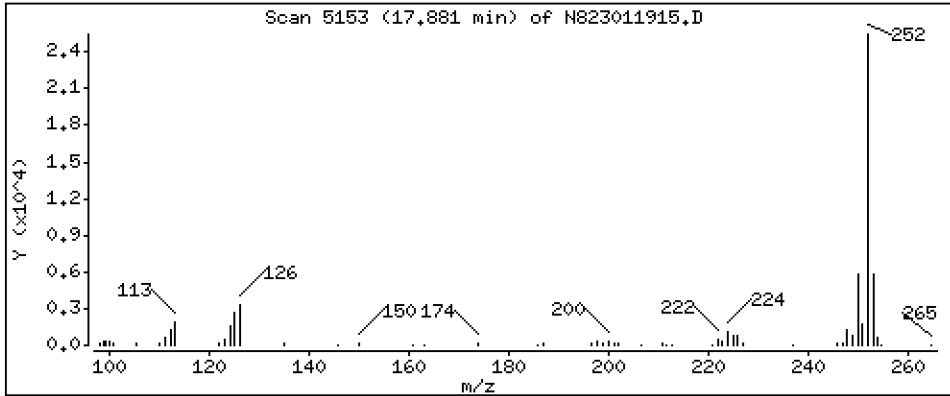
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 3,606 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

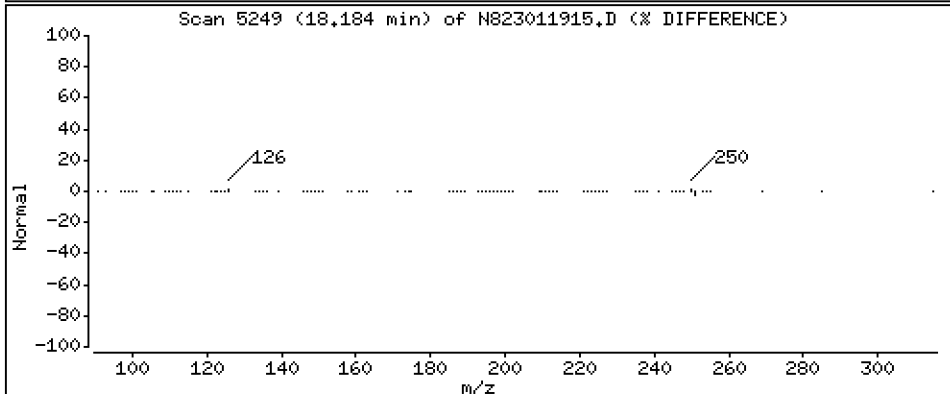
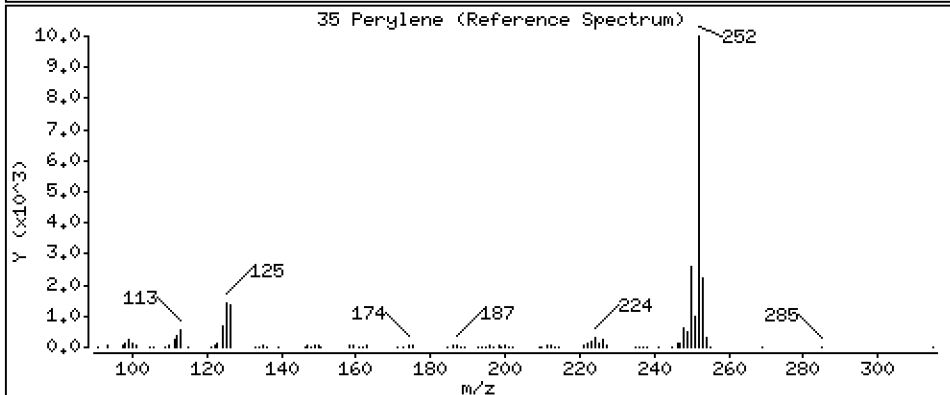
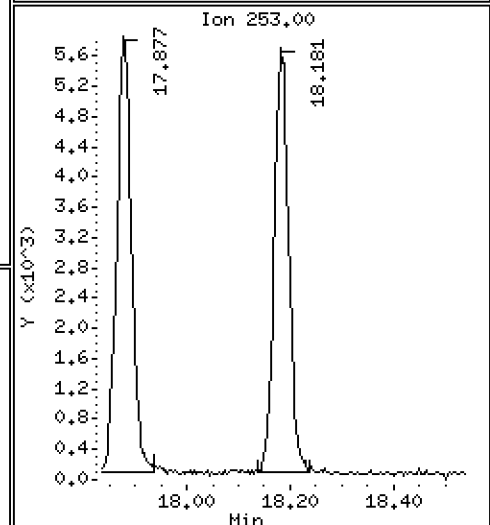
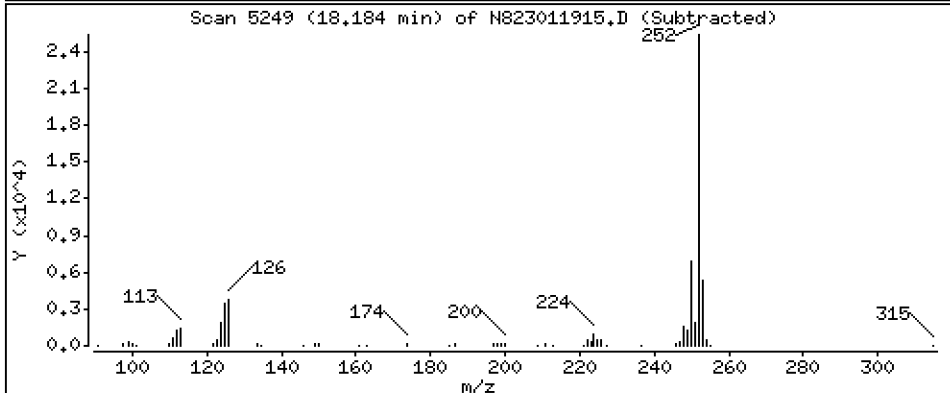
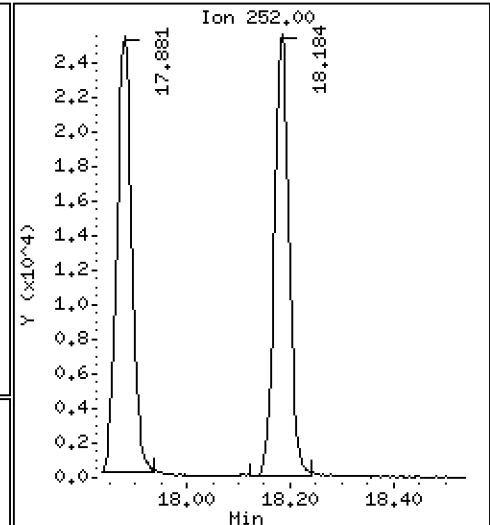
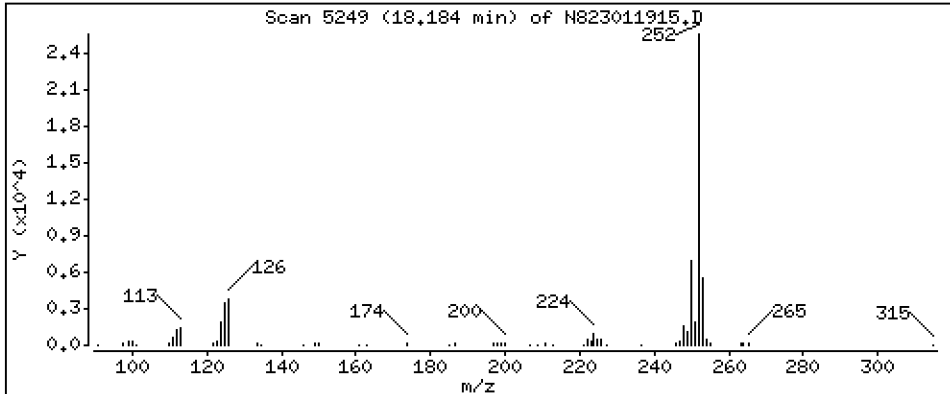
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

35 Perylene

Concentration: 3,255 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

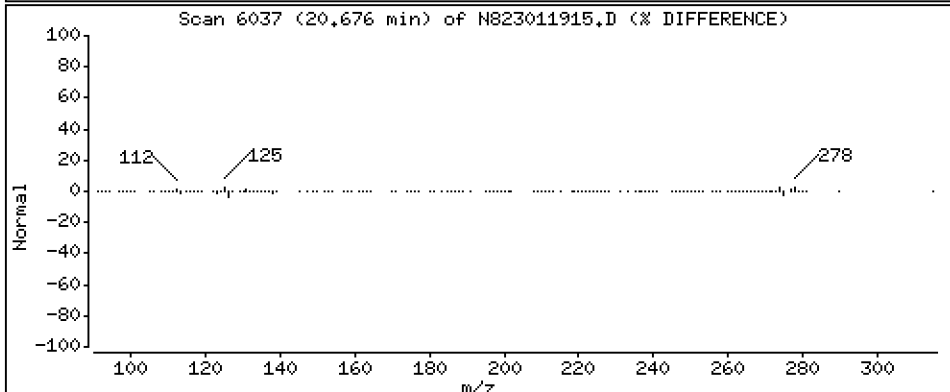
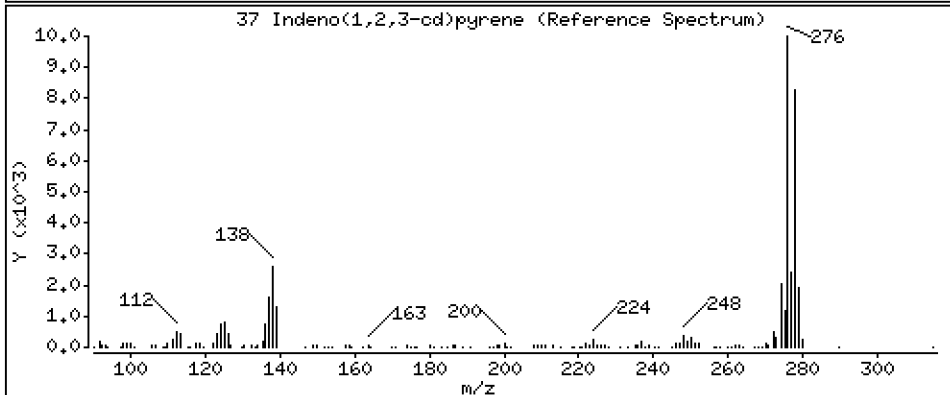
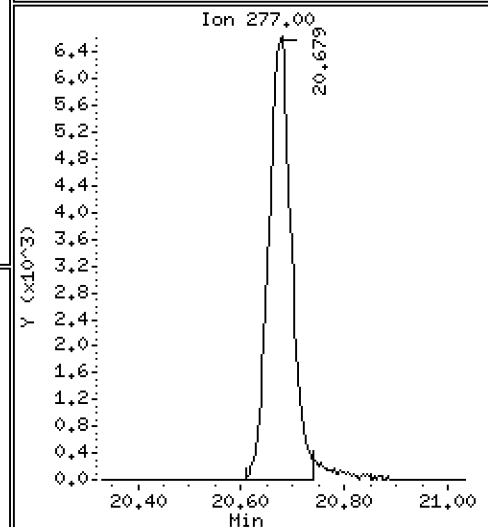
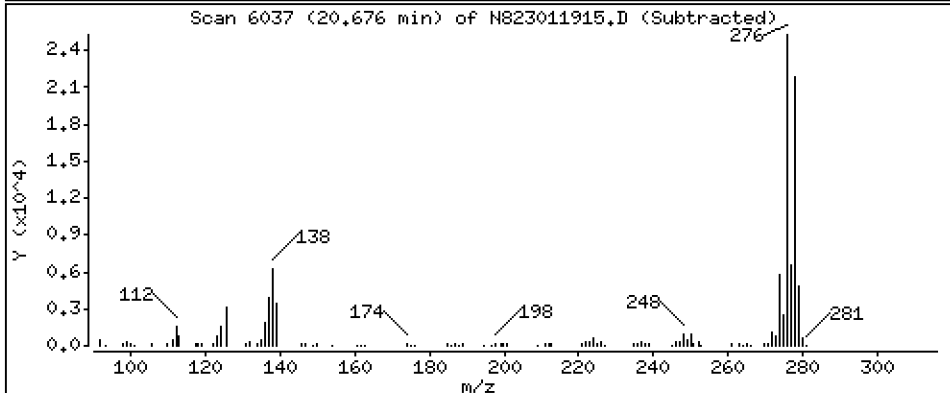
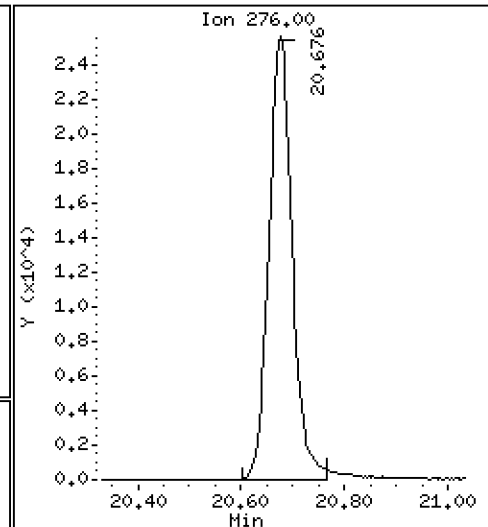
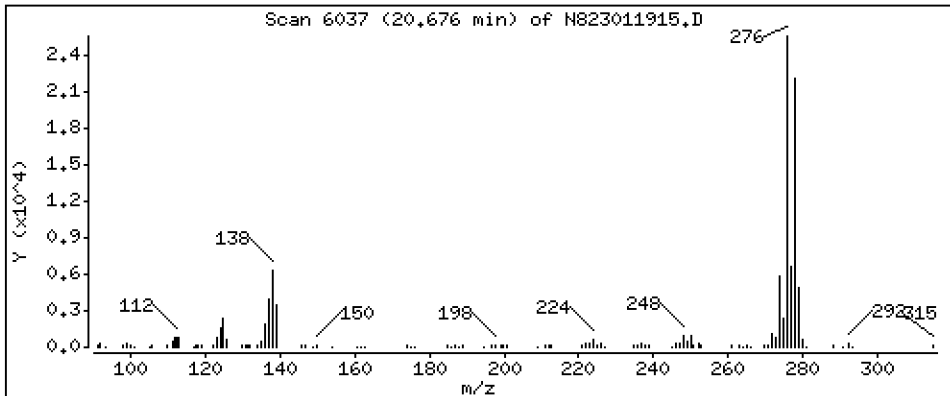
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 4,878 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

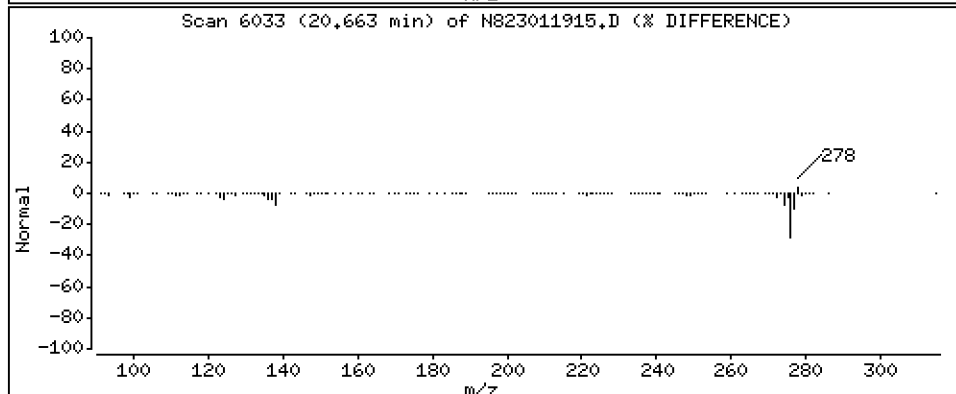
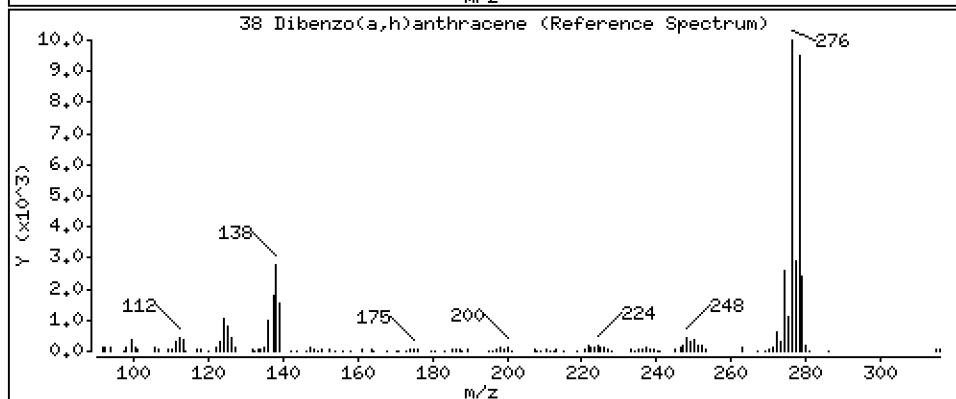
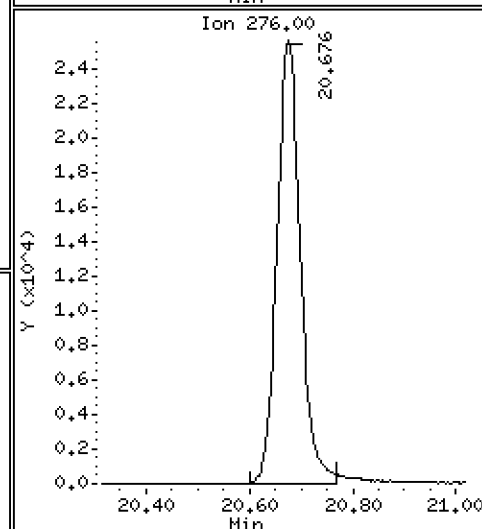
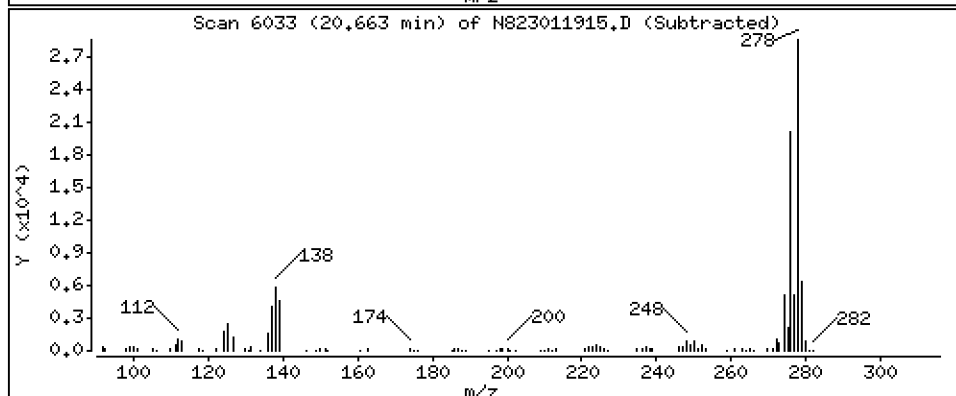
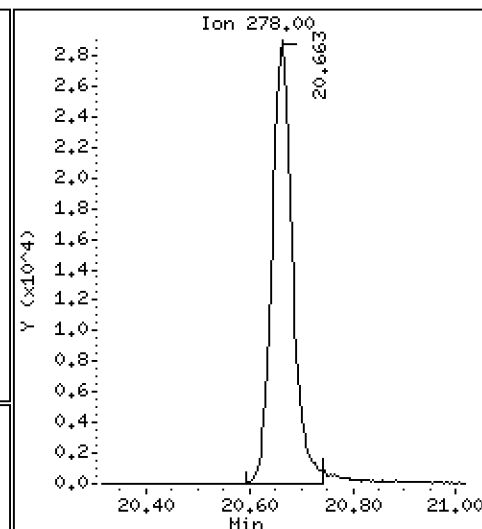
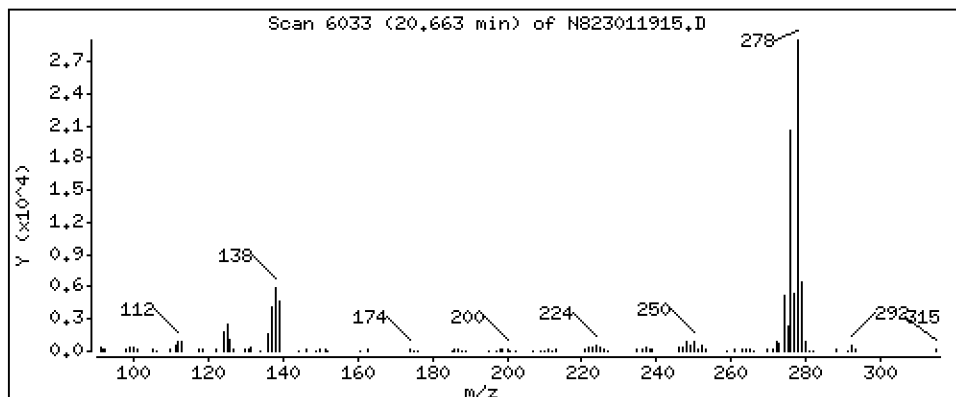
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 5,686 ug/mL



Date : 19-JAN-2023 17:39

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-BSD1,

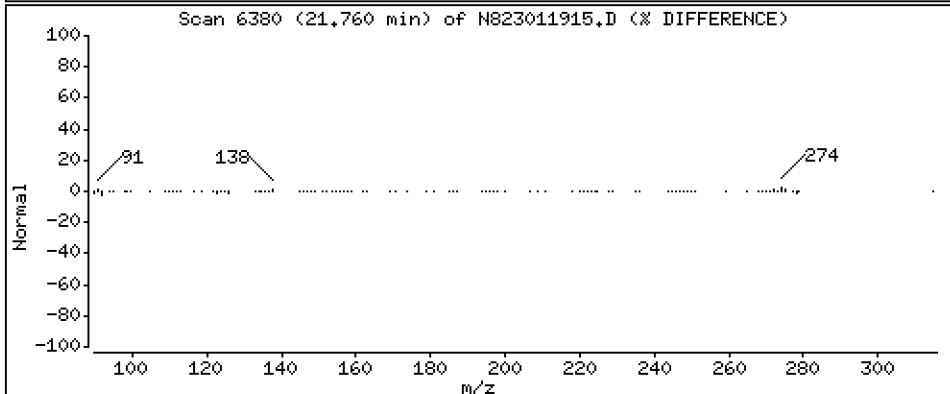
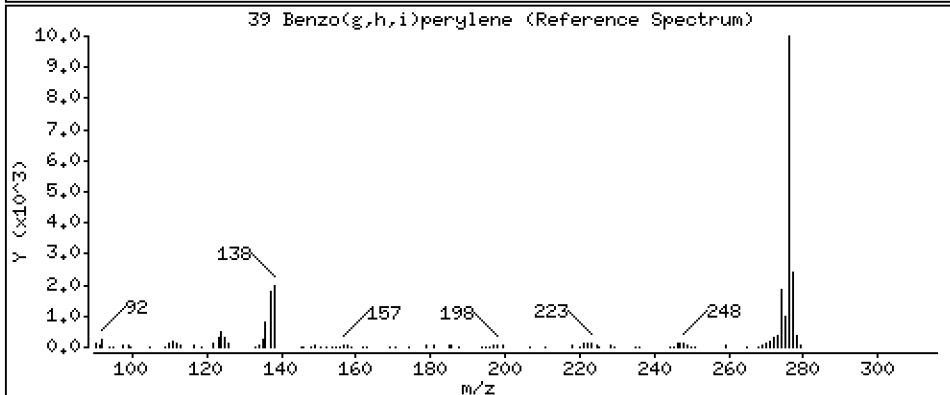
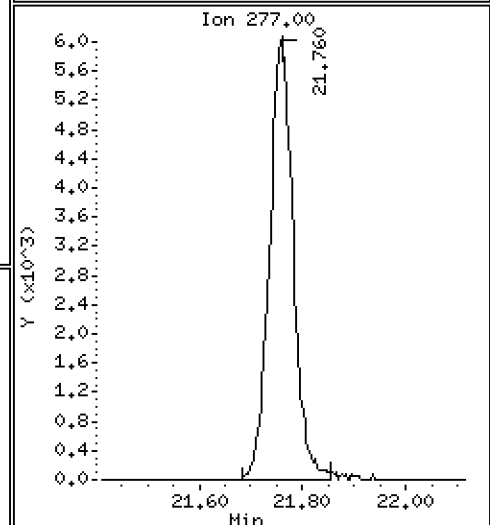
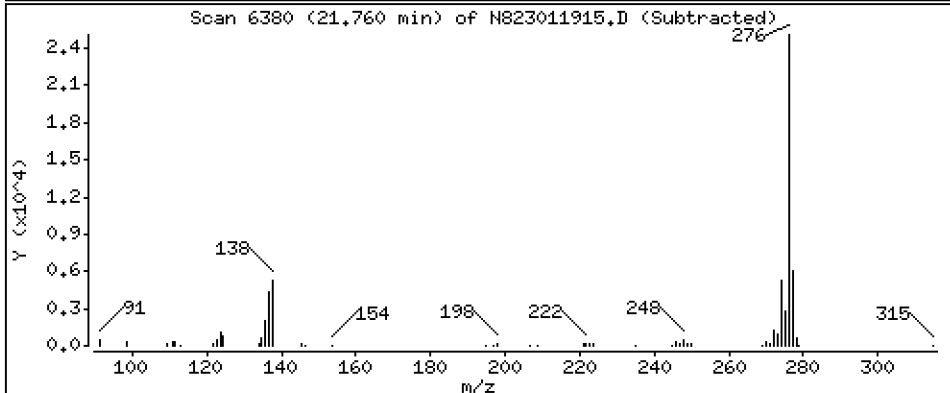
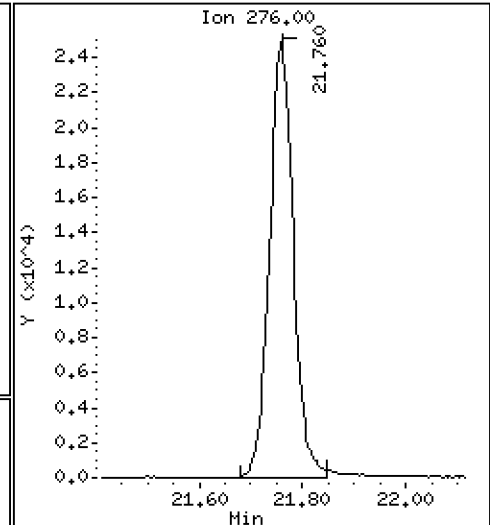
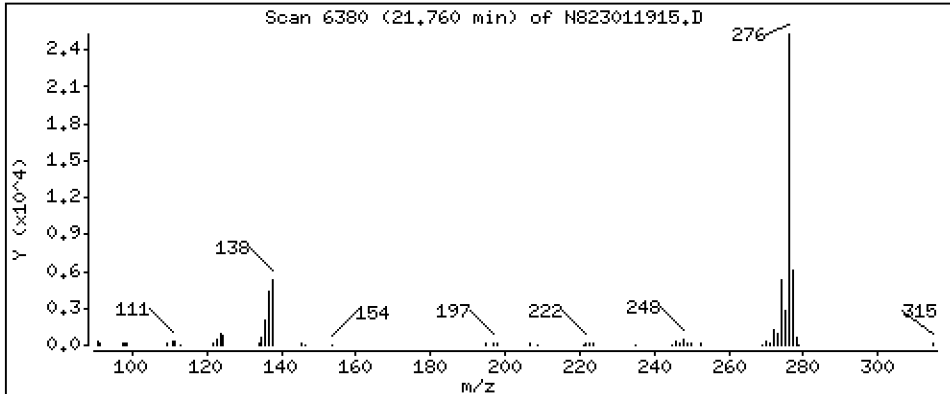
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 5,389 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119A.b\N823011915.D
 Lab Smp Id: BLA0171-BSD1
 Inj Date : 19-JAN-2023 17:39
 Operator : JZ Inst ID: nt8.i
 Smp Info : BLA0171-BSD1,
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 22:11 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PNAXMDL.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
* 1 Naphthalene-d8	136		4.900	4.909	(1.000)	58698	2.00000	
2 Naphthalene	128		4.929	4.938	(1.006)	66644	2.44187	2.442
\$ 3 2-Methylnaphthalene-d10	152		5.637	5.643	(1.150)	26027	1.62583	1.626
4 2-Methylnaphthalene	141		5.684	5.690	(1.160)	38411	2.55867	2.559
5 1-methylnaphthalene	141		5.880	5.887	(1.200)	38691	2.53945	2.539
9 Acenaphthylene	152		7.085	7.088	(0.985)	55514	2.11886	2.119
* 10 Acenaphthene-d10	164		7.193	7.199	(1.000)	34696	2.00000	
11 Acenaphthene	153		7.243	7.246	(1.007)	43514	2.47877	2.479
12 Dibenzofuran	168		7.395	7.398	(1.028)	69256	2.59742	2.597
14 Fluorene	166		7.872	7.875	(1.095)	55733	2.69128	2.691
* 15 Phenanthrene-d10	188		9.235	9.238	(1.000)	64445	2.00000	
16 Phenanthrene	178		9.270	9.270	(1.004)	90572	2.87713	2.877
17 Anthracene	178		9.311	9.311	(1.008)	76456	2.67354	2.674
22 Fluoranthene	202		11.053	11.053	(1.197)	111293	3.24789	3.248
\$ 21 Fluoranthene-d10	212		11.015	11.015	(1.193)	61618	2.16714	2.167
23 Pyrene	202		11.572	11.575	(0.815)	115441	3.35422	3.354
24 Benzo(a)anthracene	228		14.076	14.079	(0.991)	102105	3.27316	3.273
* 25 Chrysene-d12	240		14.206	14.209	(1.000)	55512	2.00000	
27 Chrysene	228		14.279	14.282	(1.005)	112850	3.39825	3.398
28 Benzo(b)fluoranthene	252		16.827	16.827	(0.929)	98058	5.96476	5.965
29 Benzo(k)fluoranthene	252		16.887	16.890	(0.933)	89007	5.52749	5.527
30 Benzo(j)fluoranthene	252		16.966	16.969	(0.937)	85853	5.92247	5.922
31 Total Benzofluoranthenes	252		16.827	16.890	(0.929)	270942	17.4025	17.40 (M)
32 Benzo(a)pyrene	252		17.880	17.880	(0.987)	52174	3.60648	3.606
* 33 Perylene-d12	264		18.108	18.117	(1.000)	28227	2.00000	
35 Perylene	252		18.184	18.187	(1.004)	50527	3.25471	3.255
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.552	20.555	(1.135)	41645	3.76539	3.765
37 Indeno(1,2,3-cd)pyrene	276		20.675	20.681	(1.142)	80391	4.87778	4.878
38 Dibenzo(a,h)anthracene	278		20.663	20.666	(1.141)	80640	5.68557	5.686
39 Benzo(g,h,i)perylene	276		21.760	21.763	(1.202)	80474	5.38928	5.389

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011915.D Calibration Time: 16:16
 Lab Smp Id: BLA0171-BSD1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	42524	21262	85048	58698	38.03
10 Acenaphthene-d10	25260	12630	50520	34696	37.36
15 Phenanthrene-d10	47890	23945	95780	64445	34.57
25 Chrysene-d12	40533	20267	81066	55512	36.96
33 Perylene-d12	38115	19058	76230	28227	-25.94

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.90	-0.19
10 Acenaphthene-d10	7.20	6.70	7.70	7.19	-0.09
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	-0.03
25 Chrysene-d12	14.21	13.71	14.71	14.21	-0.02
33 Perylene-d12	18.12	17.62	18.62	18.11	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011915.D

Lab ID: BLA0171-BSD1

nt8.i, 20230119A.b\FSIMPNA230119.m, 19-JAN-2023 17:39

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check performed

On Column LOD for nt8.i, 20230119A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

* Only compounds listed in the work order have been verified by the analyst *

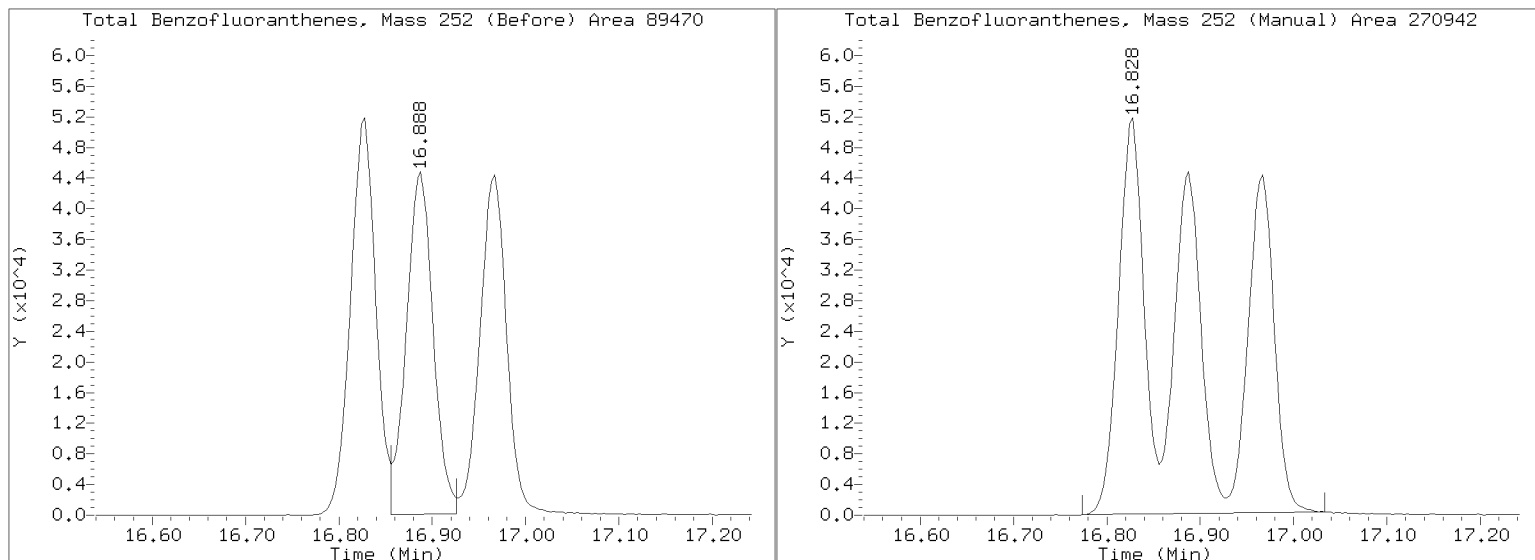
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119A.b/N823011915.D

Injection Date: 19-JAN-2023 17:39

Lab ID:BLA0171-BSD1 Client ID:

Report Date: 01/25/2023 22:12





MS / MS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23A0032</u>
Client: <u>Anchor OEA, LLC</u>	Project: <u>AOC5 MR Phase 1</u>
Matrix: <u>Solid</u>	Analyzed: <u>01/19/23 20:47</u>
Batch: <u>BLA0171</u>	Laboratory ID: <u>BLA0171-MS1</u>
Preparation: <u>EPA 3546 (Microwave)</u>	Sequence Name: <u>Matrix Spike</u>
Initial/Final: <u>13.48 g / 0.5 mL</u>	Source Sample: <u>LDW23-IT1235</u>

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Benzo(a)anthracene	300	17.7		261		81.1	42 - 120
Chrysene	300	26.8		234		69.1	48 - 120
Benzo(b)fluoranthene	300	29.4		238		69.5	52 - 137
Benzo(k)fluoranthene	300	14.5		210		65.2	37 - 129
Benzo(a)pyrene	300	26.8		240		71.2	36 - 120
Indeno(1,2,3-cd)pyrene	300	17.6		236		72.7	67 - 132
Dibenzo(a,h)anthracene	300	5.03		224		72.9	66 - 139

* Values outside of QC limits



MS / MS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>01/19/23 21:14</u>
Batch:	<u>BLA0171</u>	Laboratory ID:	<u>BLA0171-MSD1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>Matrix Spike Dup</u>
Initial/Final:	<u>13.48 g / 0.5 mL</u>	Source Sample:	<u>LDW23-IT1235</u>

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Benzo(a)anthracene	300	280		87.3	6.91	30	42 - 120
Chrysene	300	257		76.7	9.26	30	48 - 120
Benzo(b)fluoranthene	300	289		86.6	19.4	30	52 - 137
Benzo(k)fluoranthene	300	252		79.1	18.1	30	37 - 129
Benzo(a)pyrene	300	280		84.6	15.4	30	36 - 120
Indeno(1,2,3-cd)pyrene	300	262		81.4	10.4	30	67 - 132
Dibenzo(a,h)anthracene	300	244		79.6	8.61	30	66 - 139

* Values outside of QC limits

Data File: \\target\share\chem3\nt8.1\20230119A.1\N823011922.D

Date: 19-JAN-2023 20:47

Client ID:

Sample Info: BLR0171-HSI,

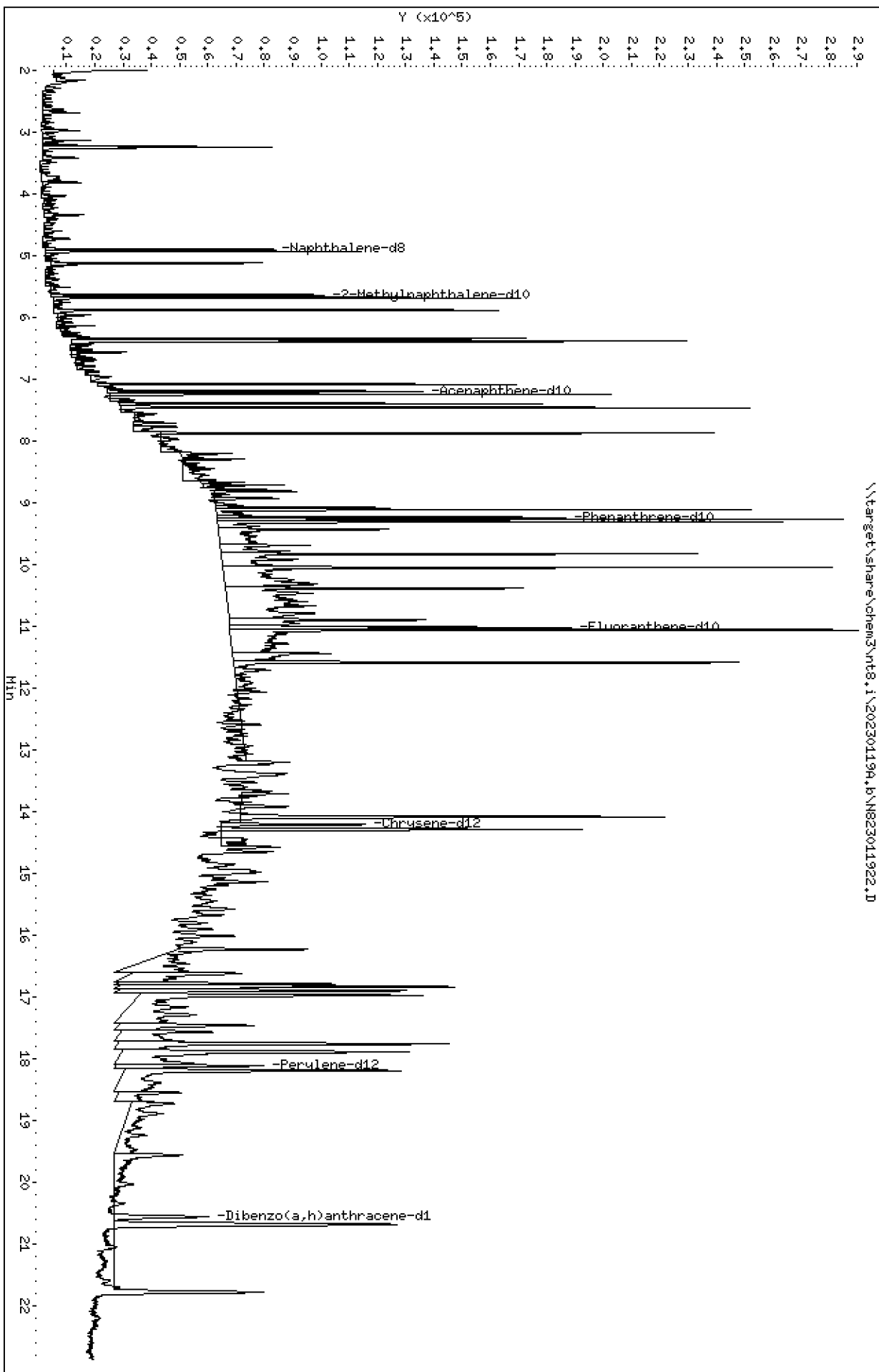
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

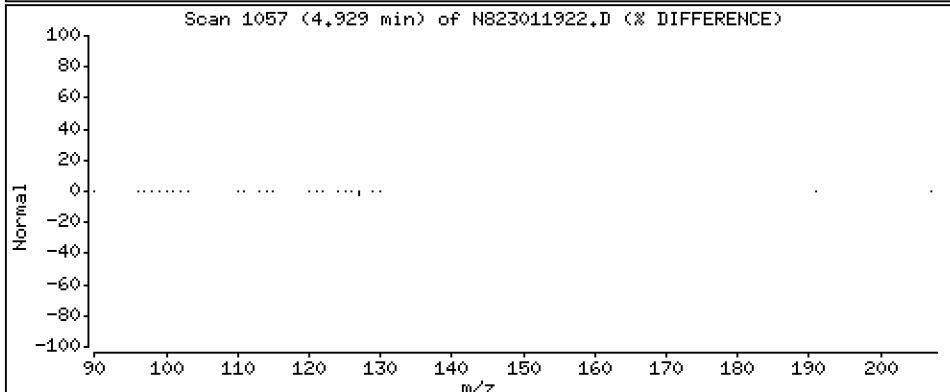
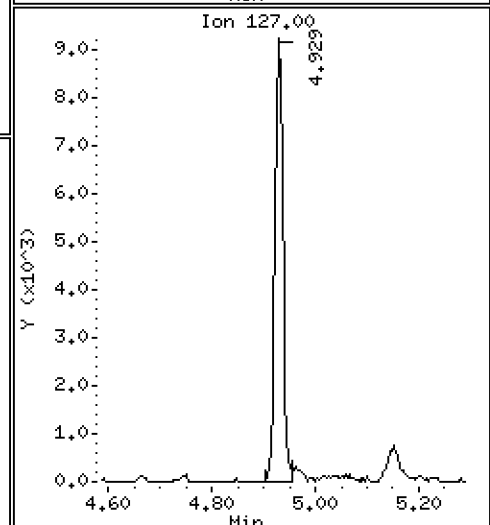
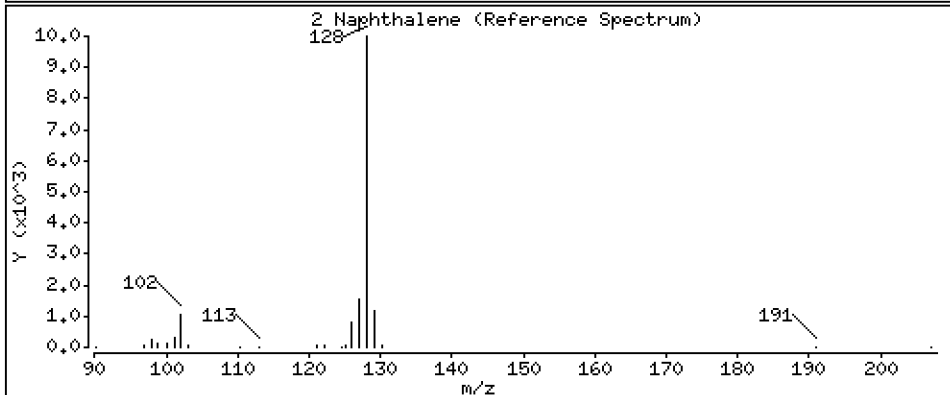
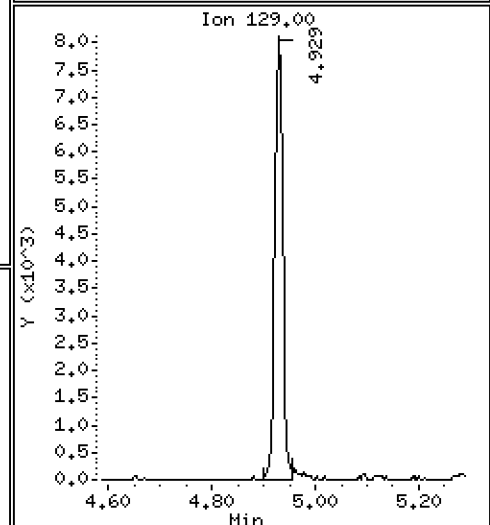
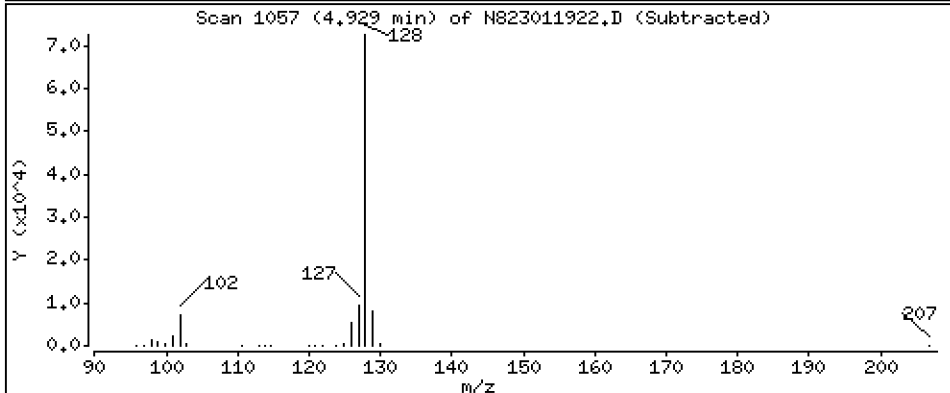
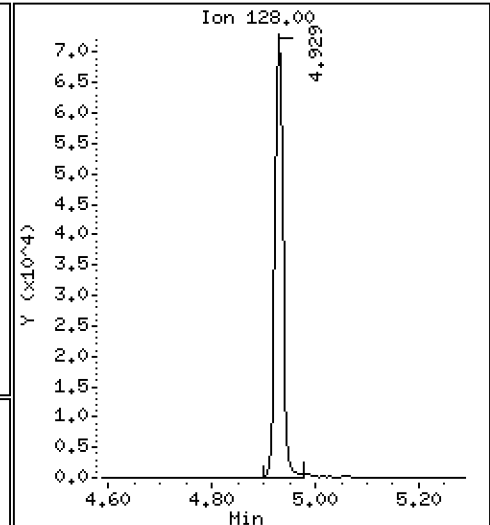
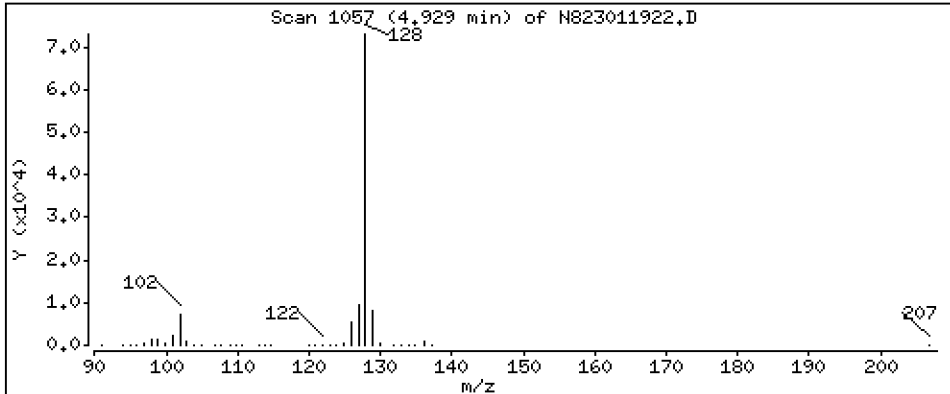
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

2 Naphthalene

Concentration: 2,866 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

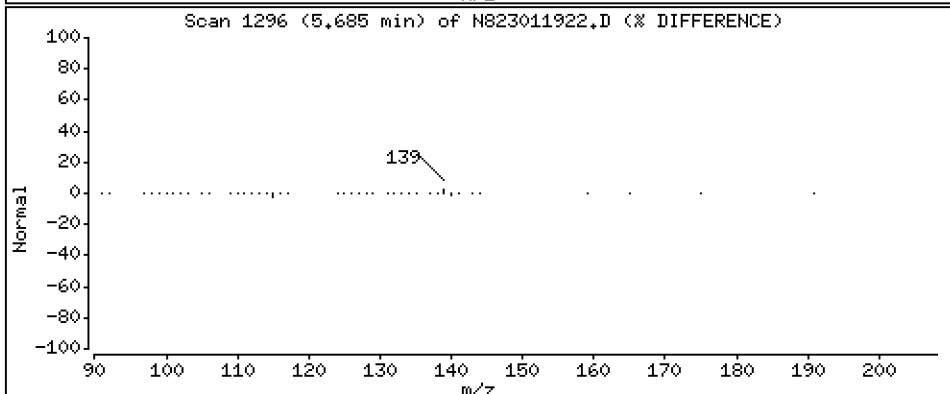
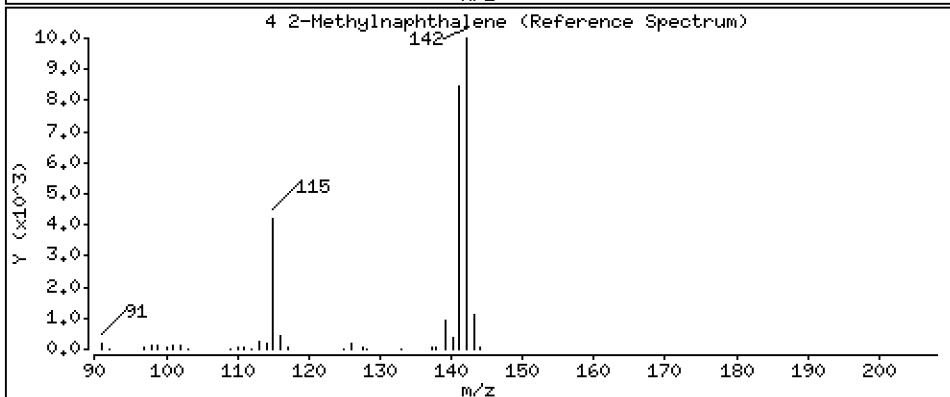
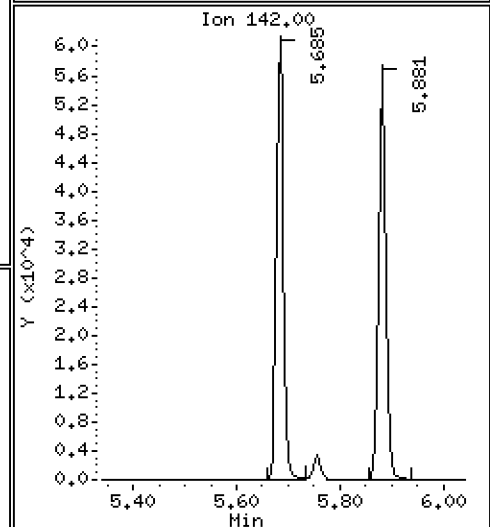
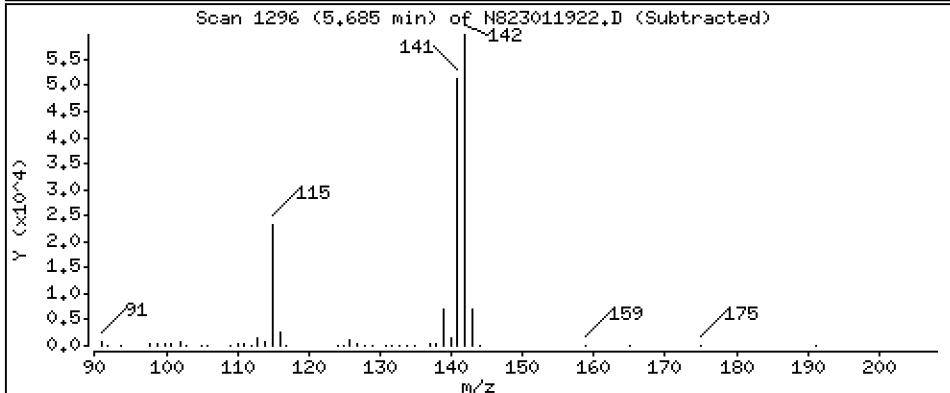
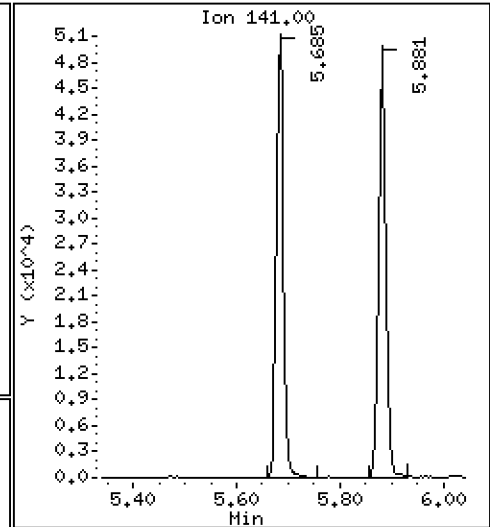
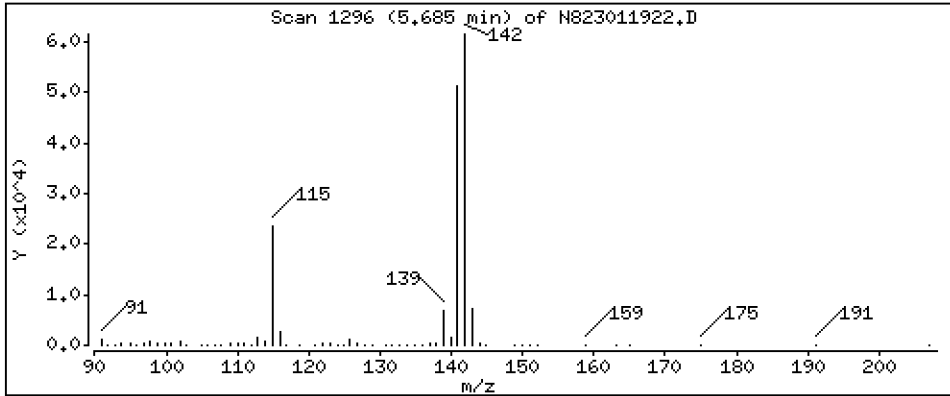
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

4 2-Methylnaphthalene

Concentration: 3,376 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

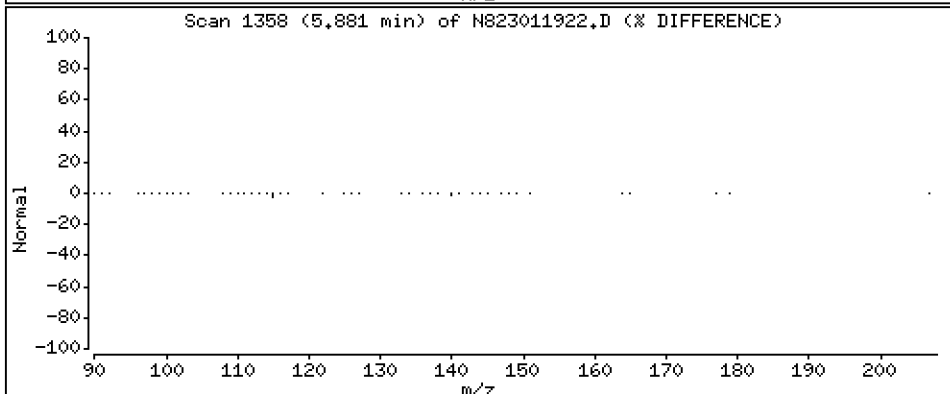
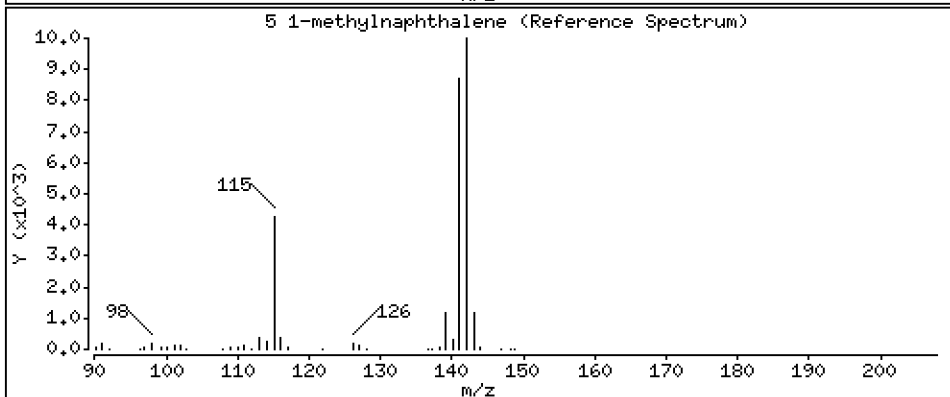
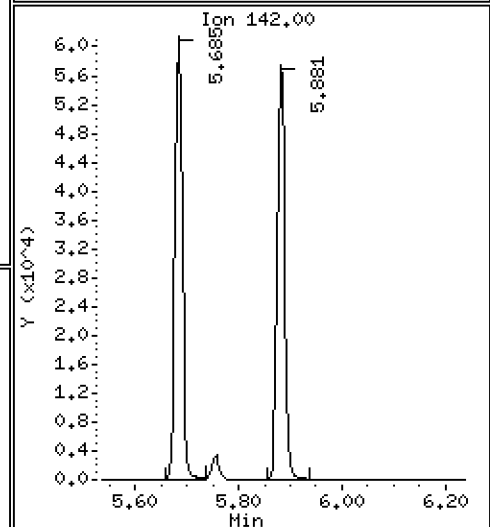
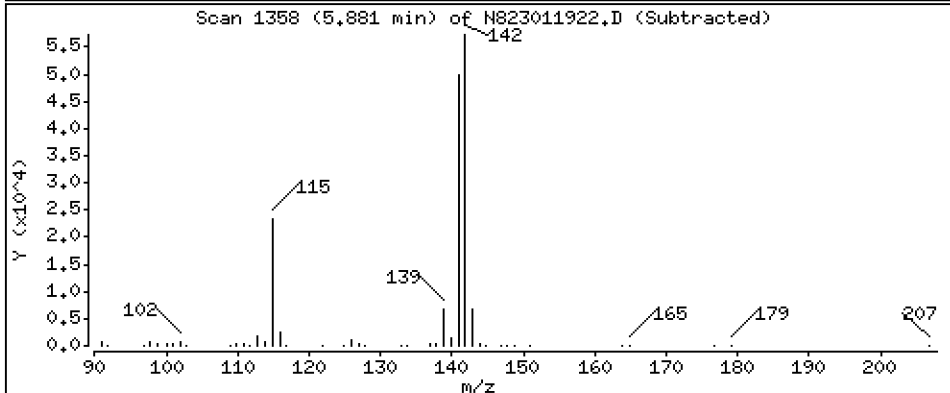
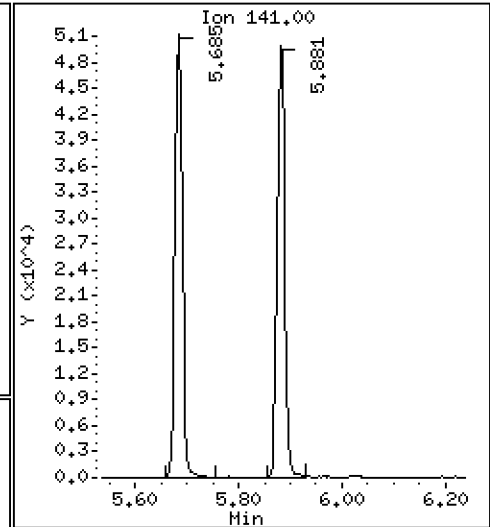
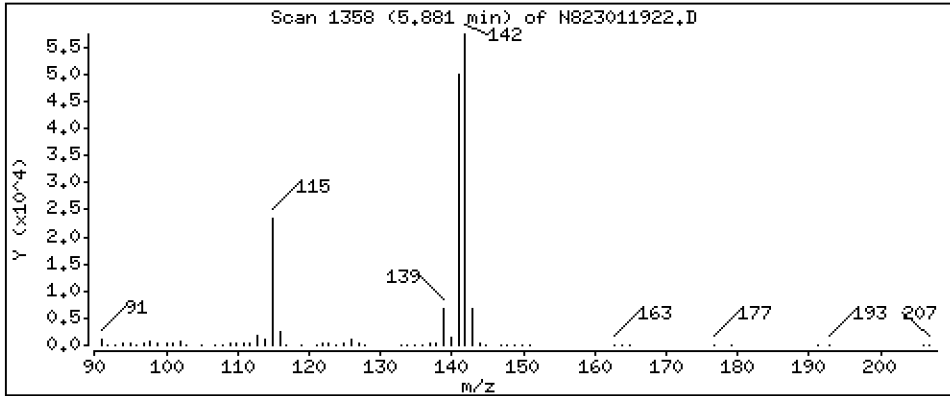
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

5 1-methylnaphthalene

Concentration: 3,363 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

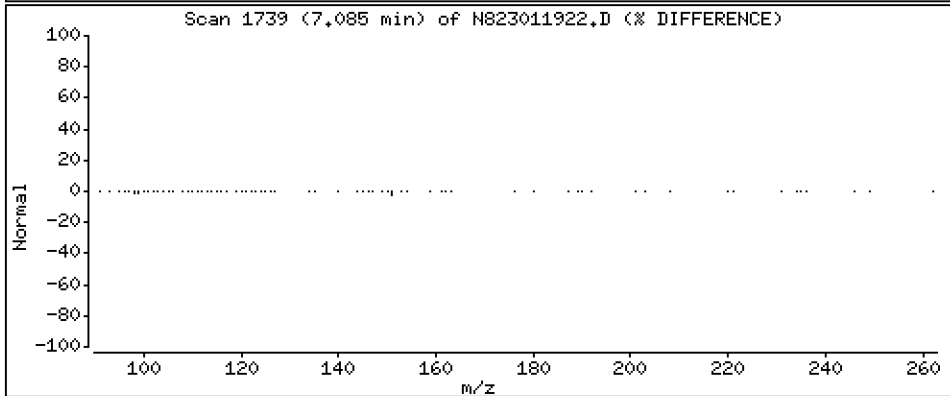
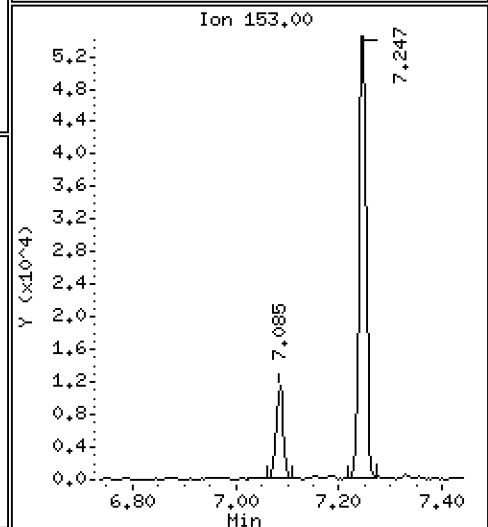
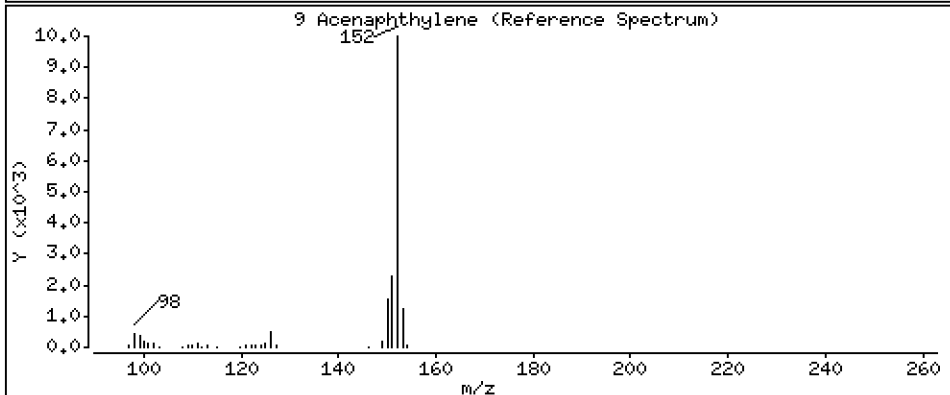
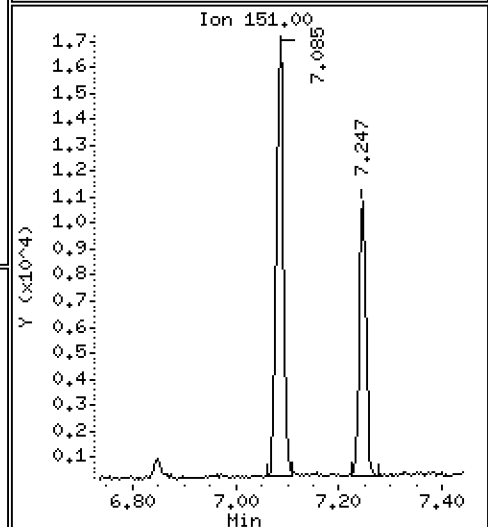
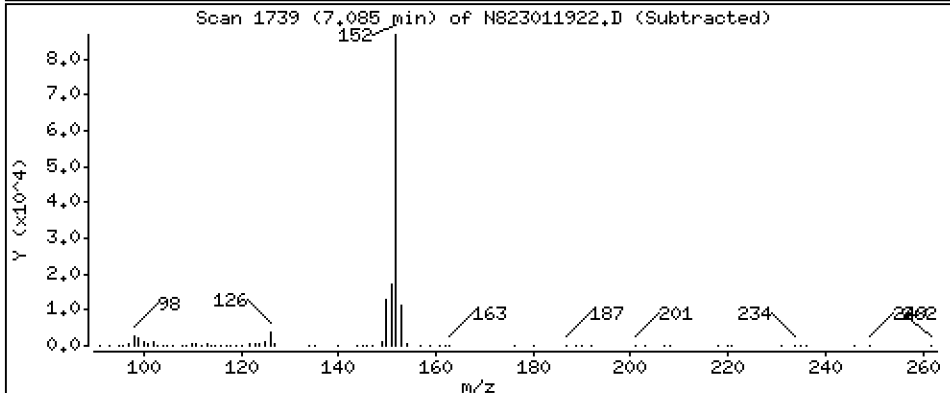
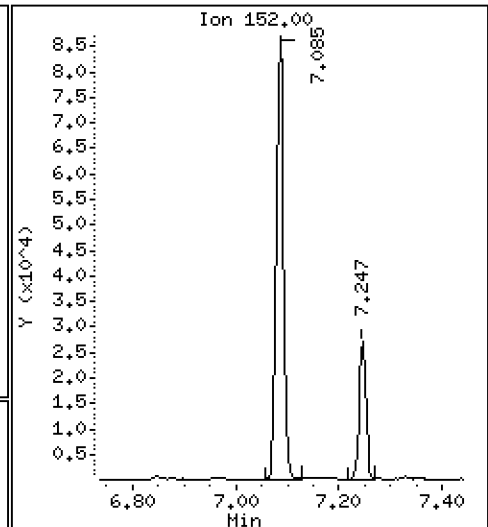
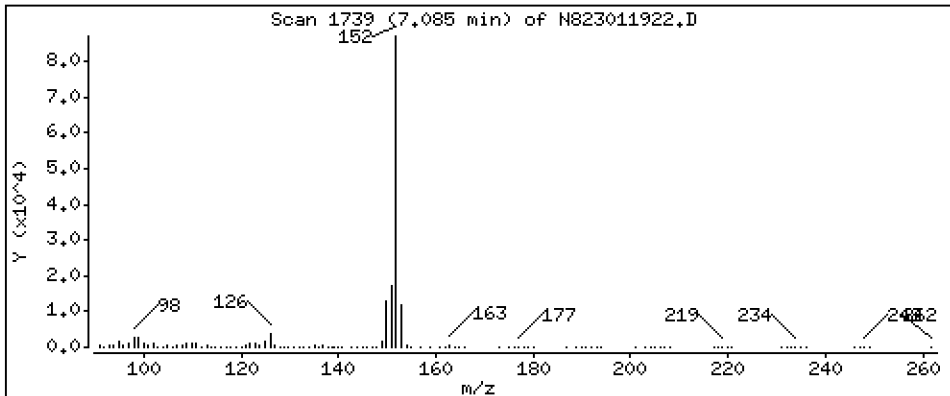
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

9 Acenaphthylene

Concentration: 3,441 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

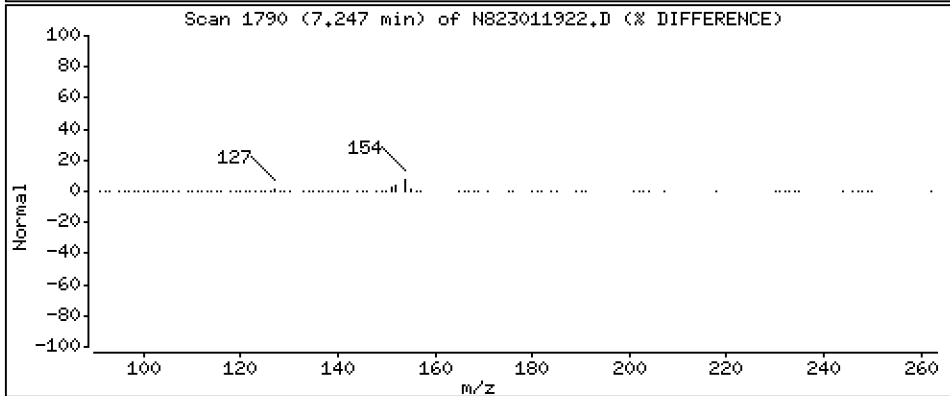
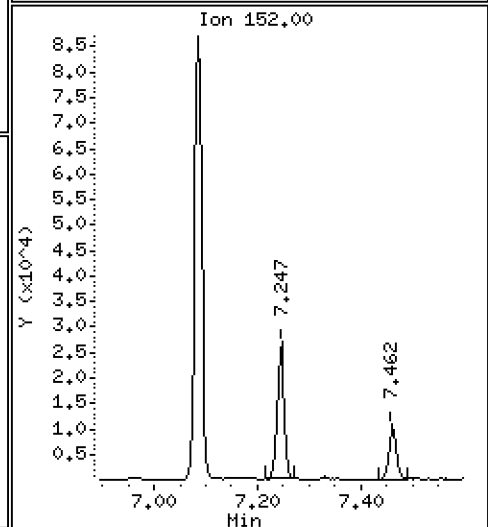
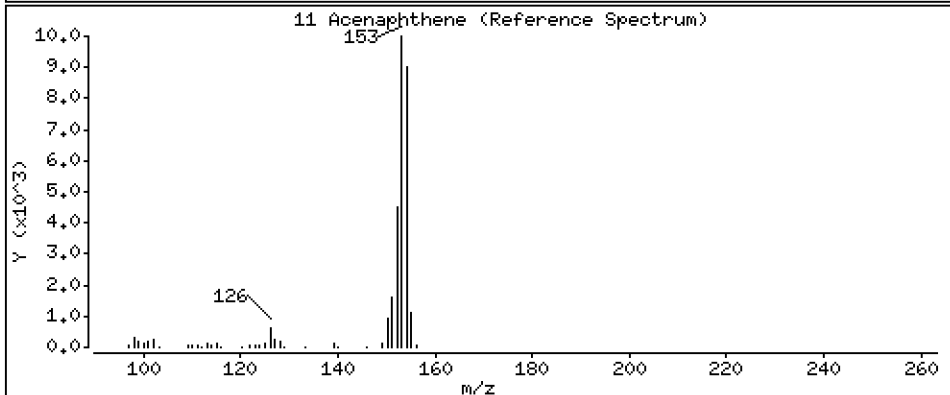
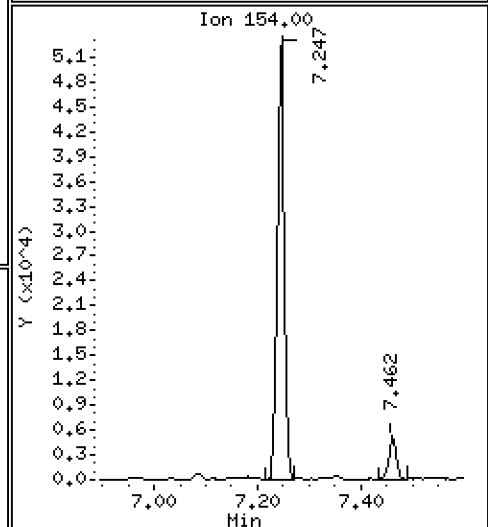
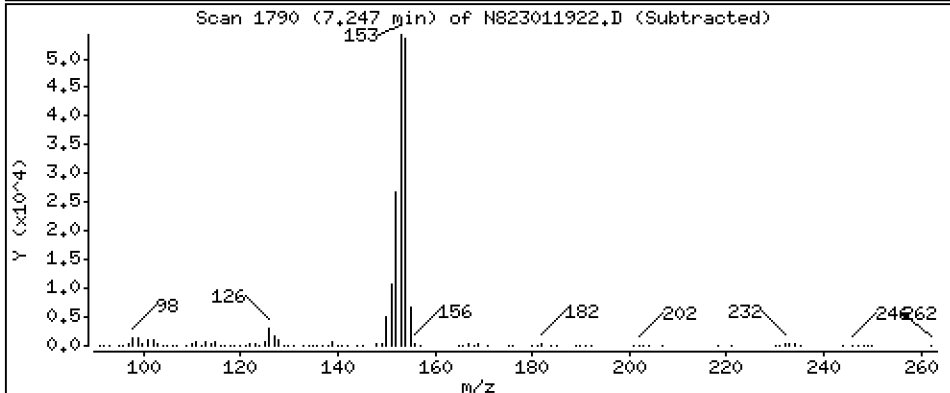
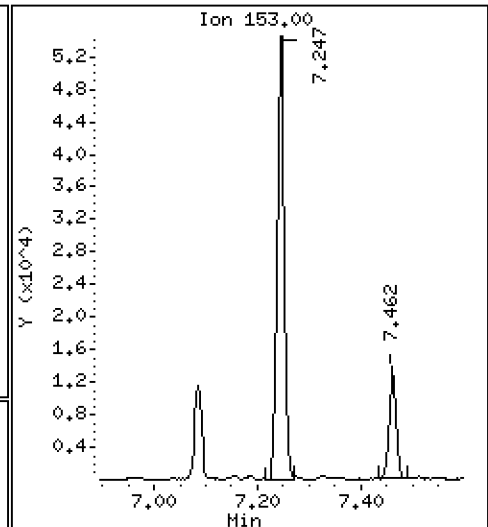
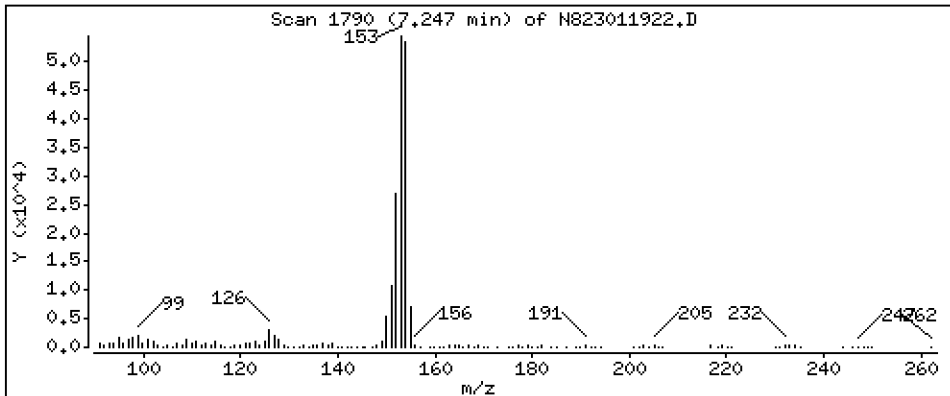
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

Concentration: 3.177 ug/mL

11 Acenaphthene



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

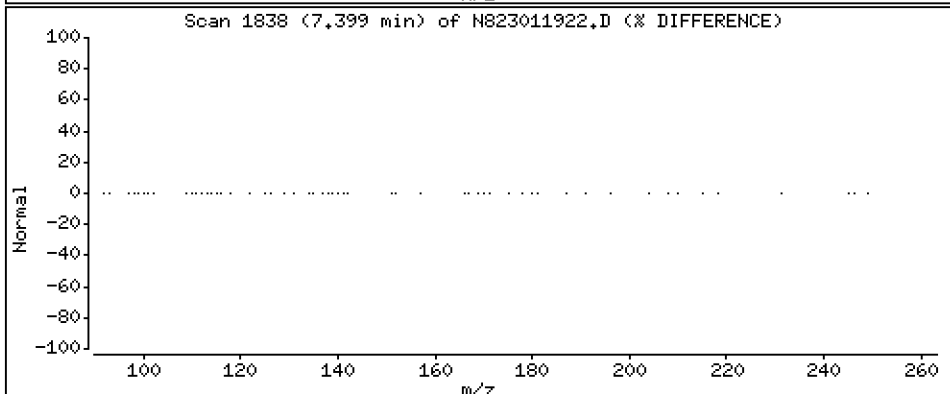
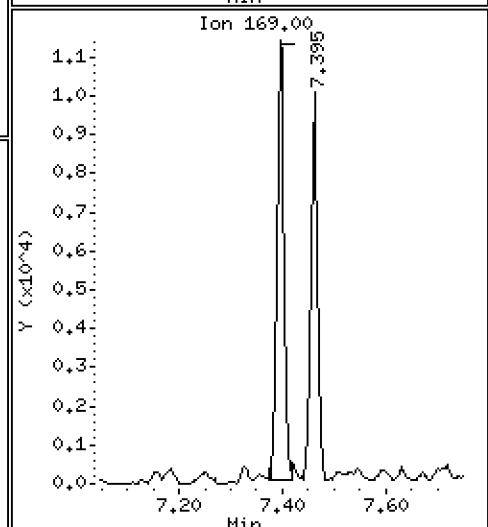
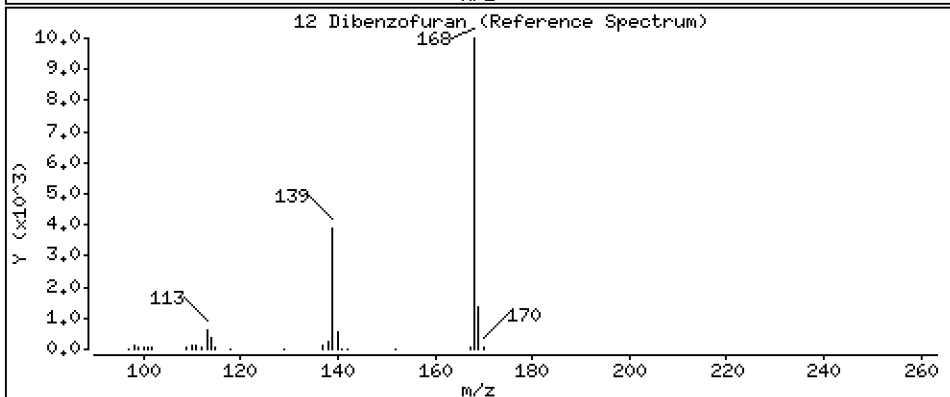
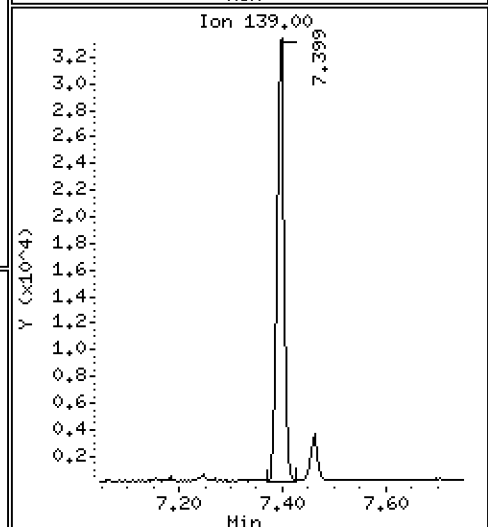
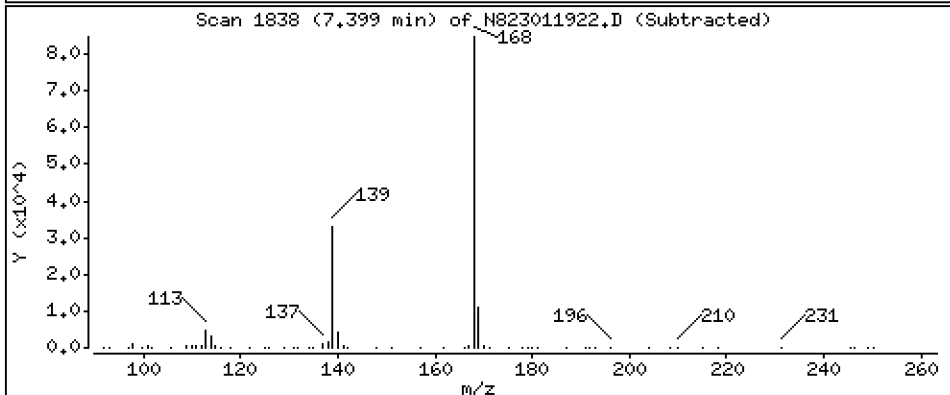
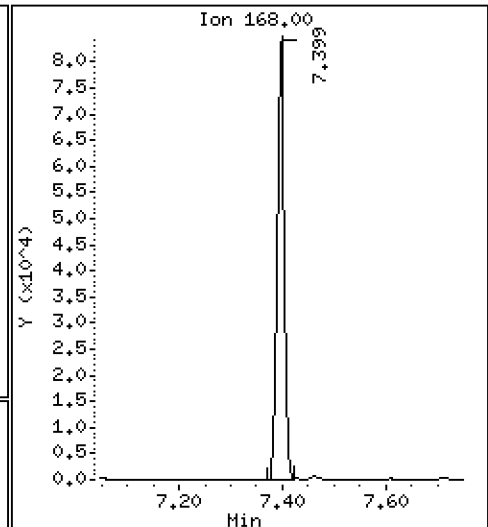
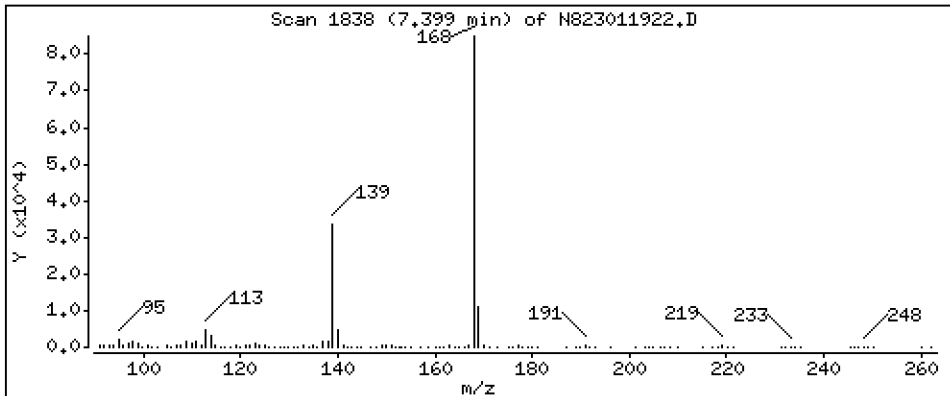
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

12 Dibenzofuran

Concentration: 3.237 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

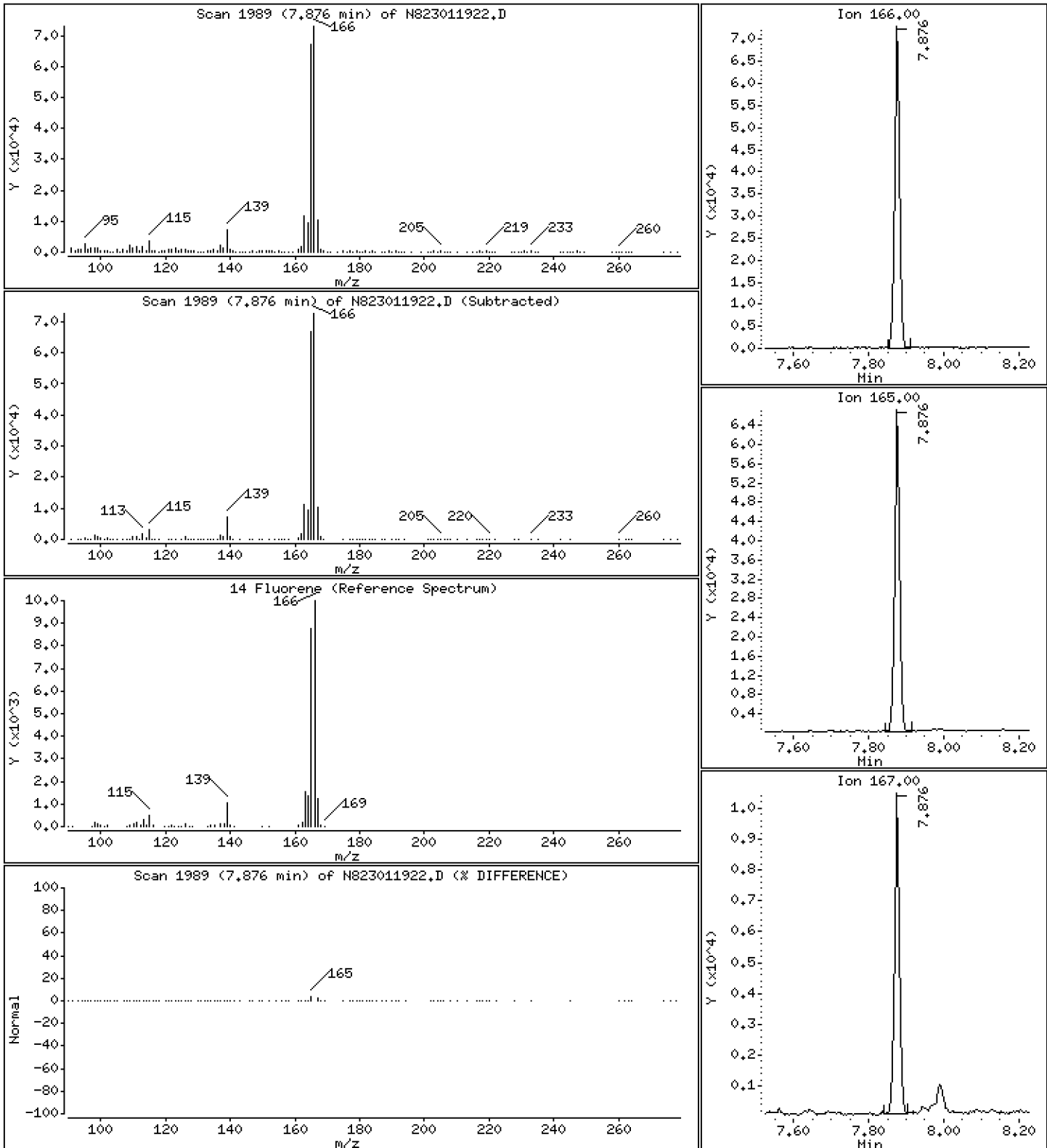
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

14 Fluorene

Concentration: 3,505 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

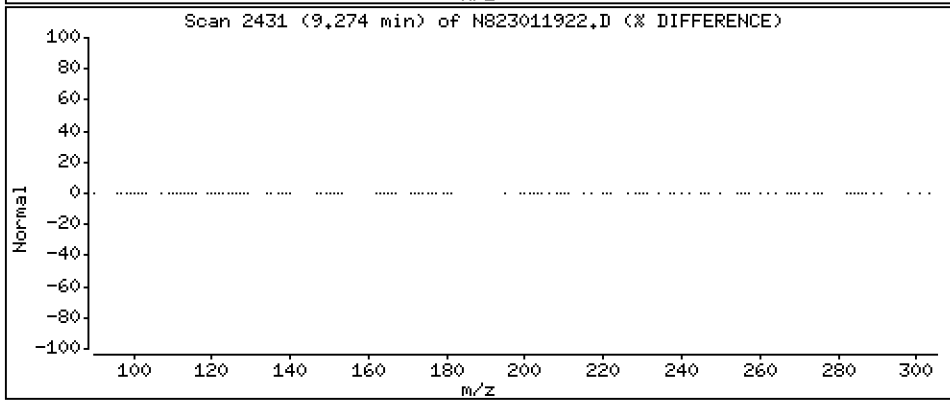
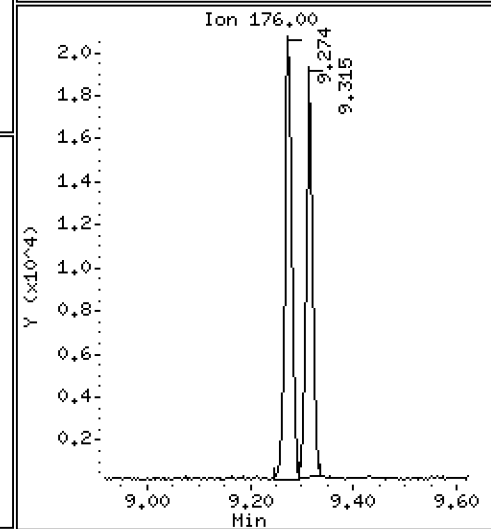
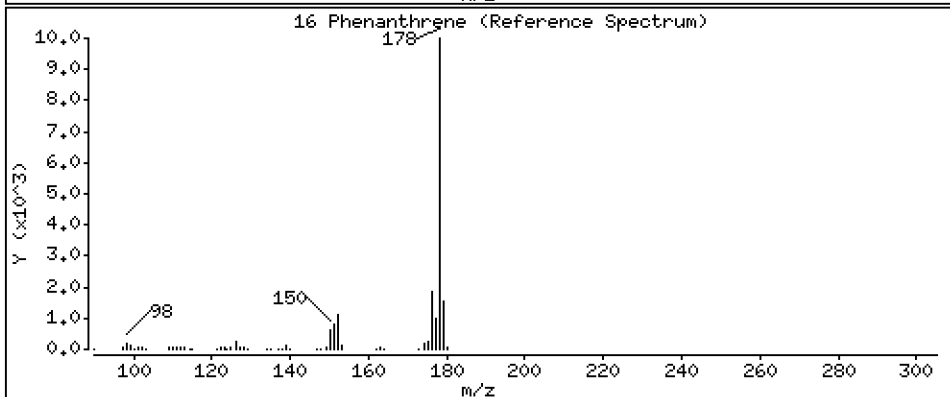
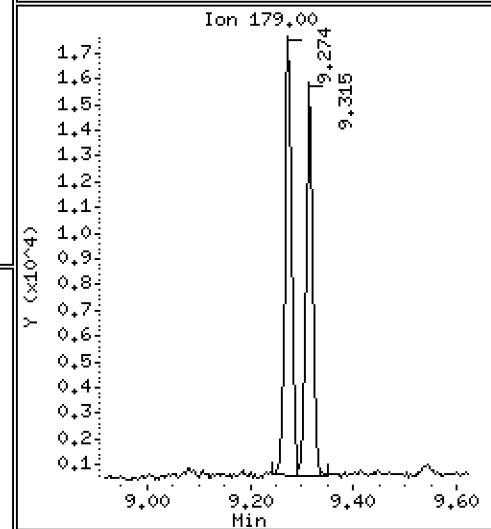
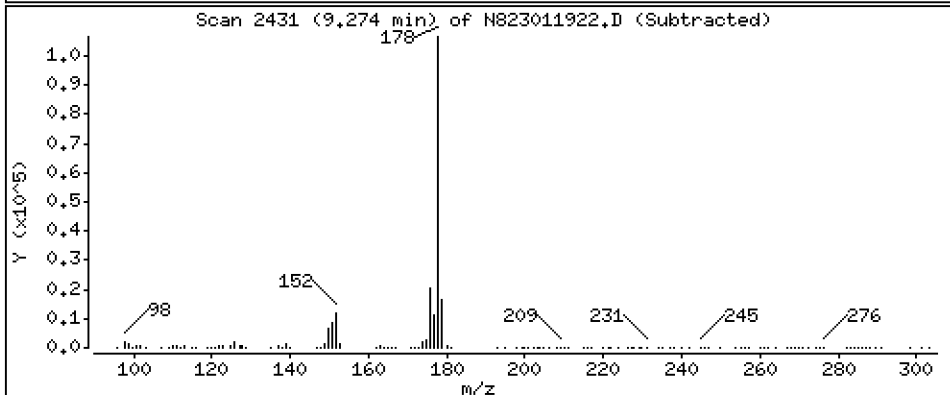
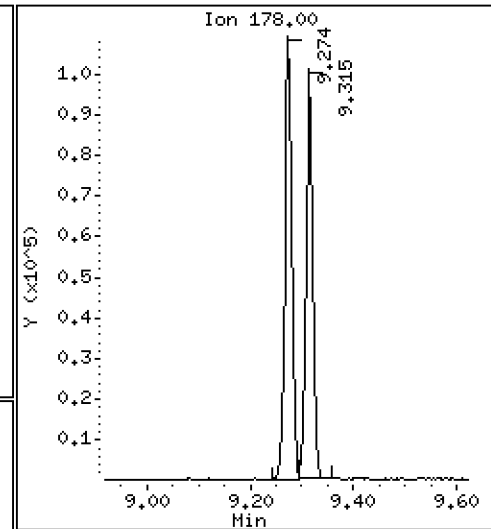
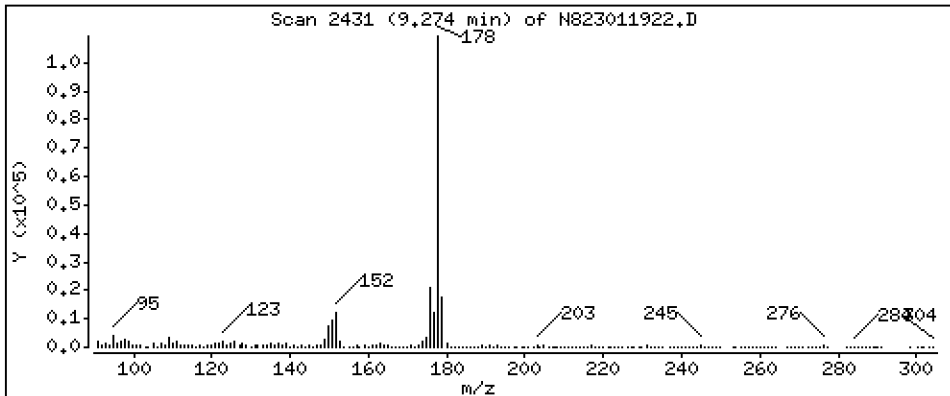
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 3,776 ug/mL

16 Phenanthrene



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

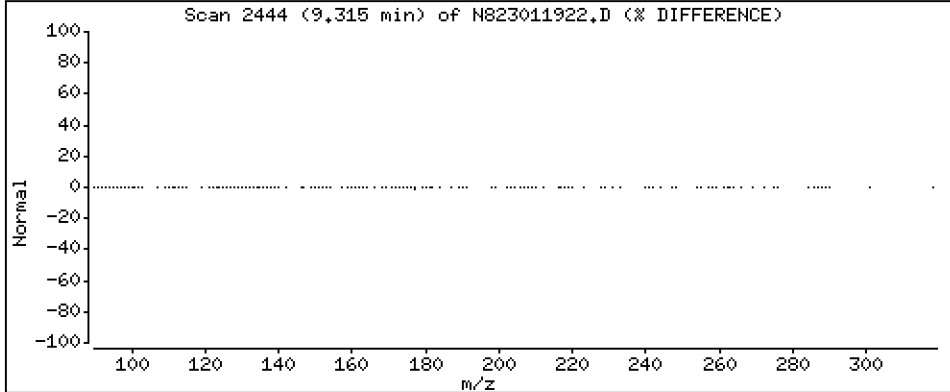
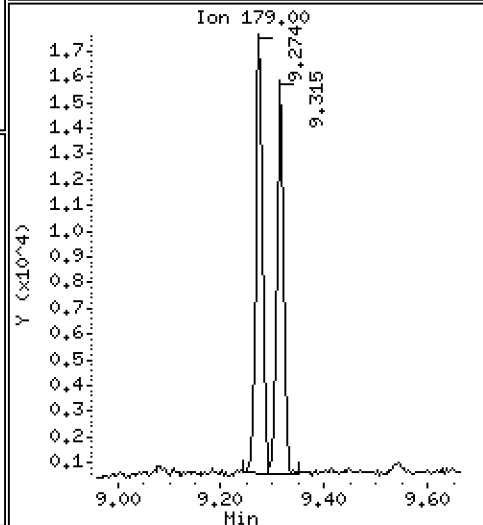
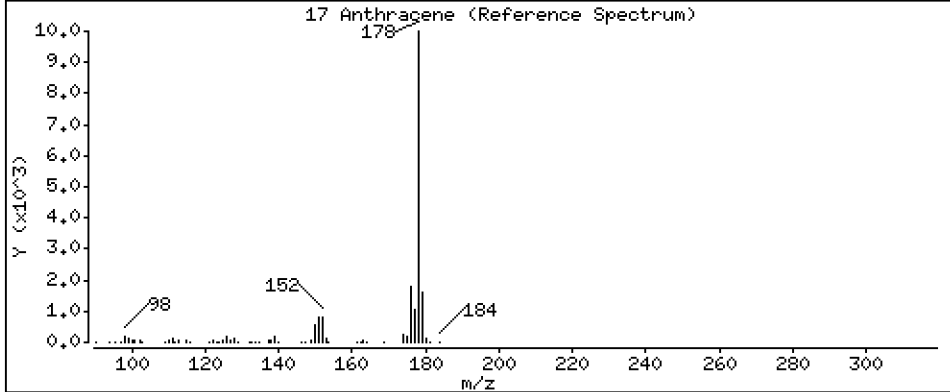
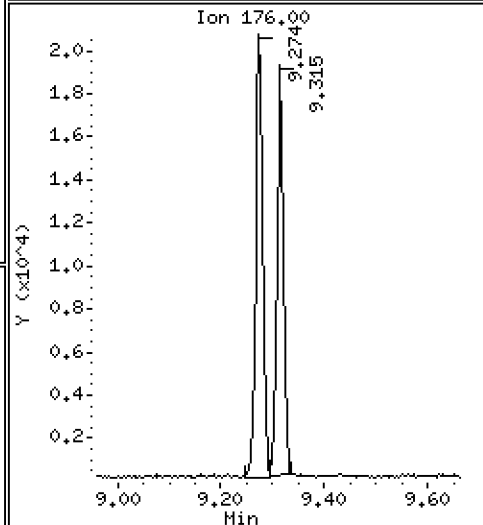
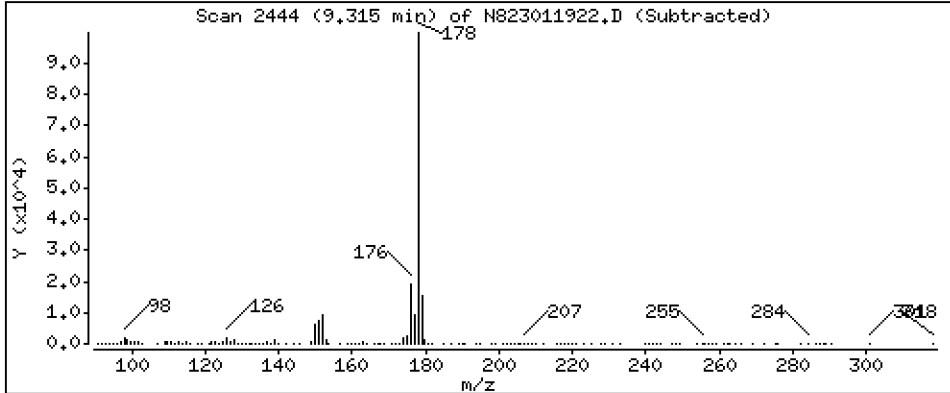
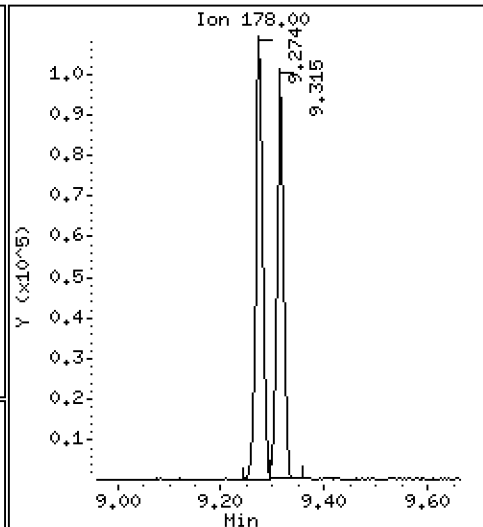
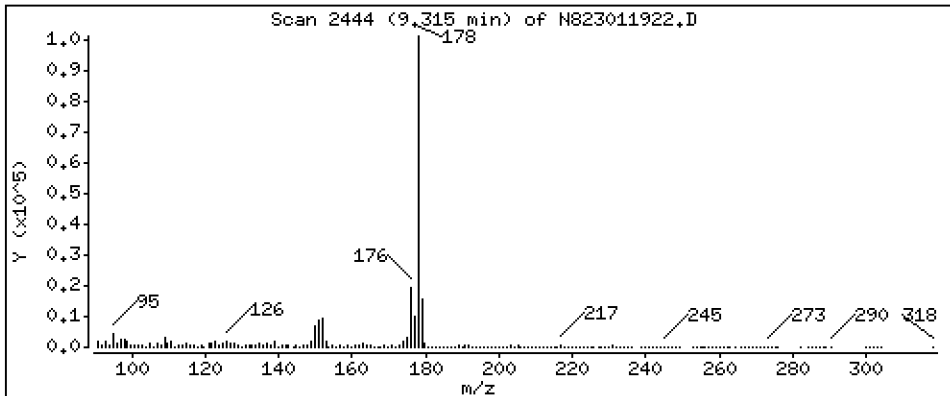
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

17 Anthracene

Concentration: 3,843 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

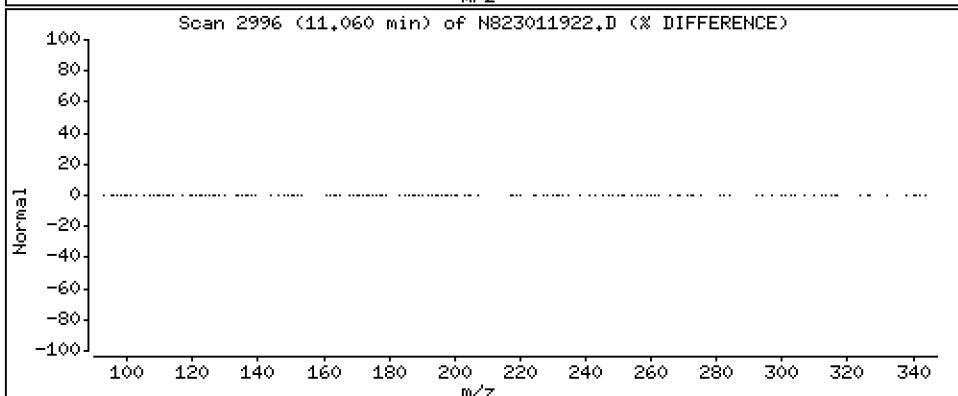
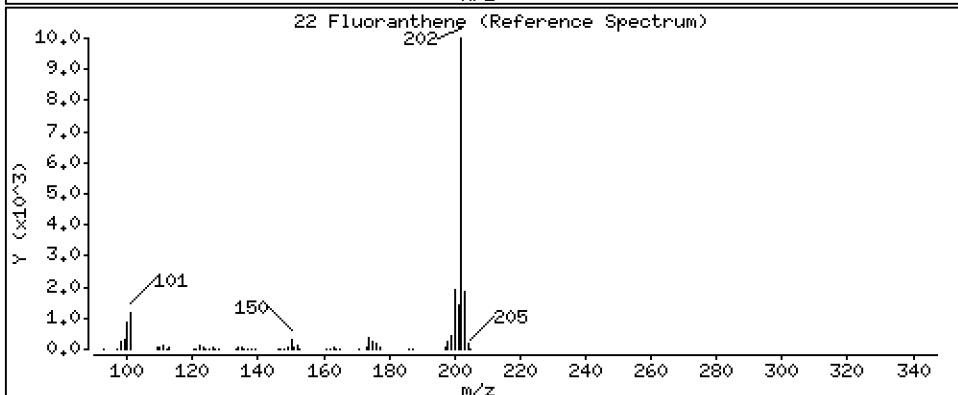
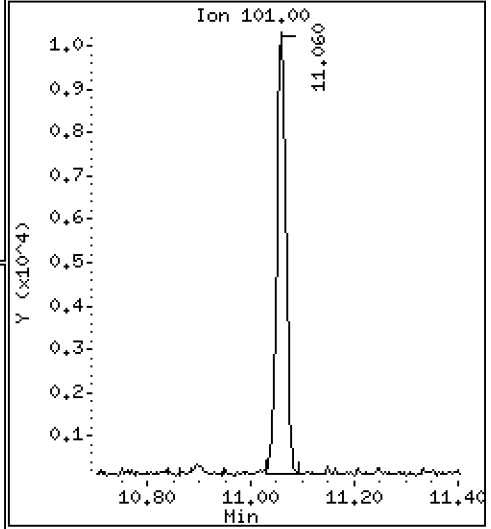
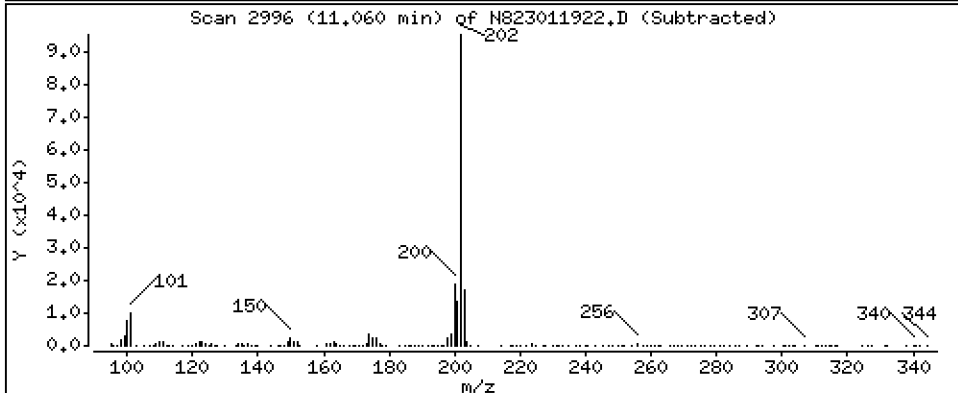
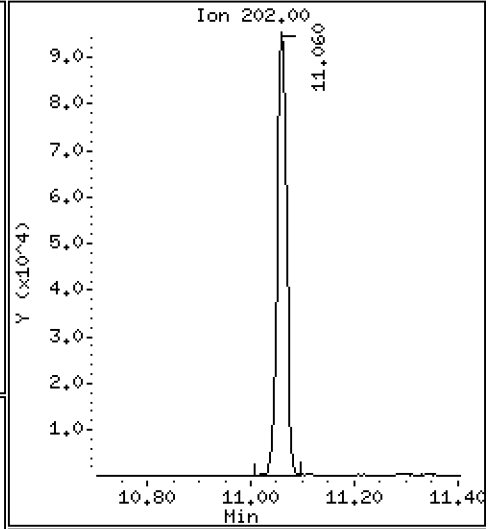
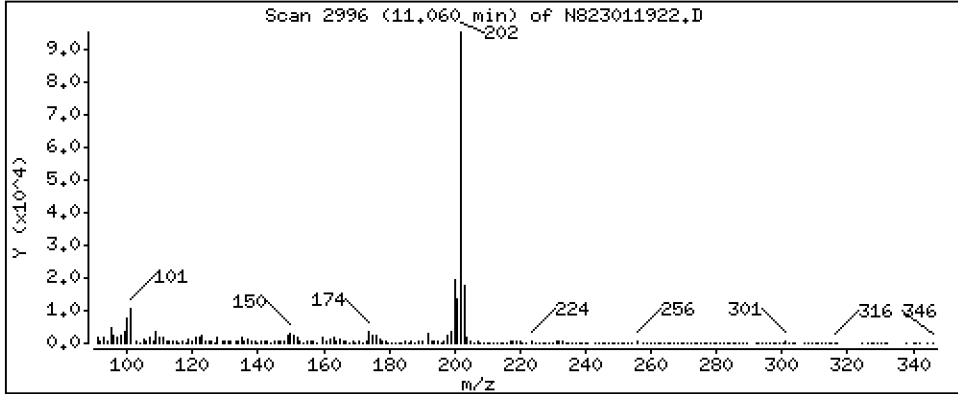
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 4,129 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

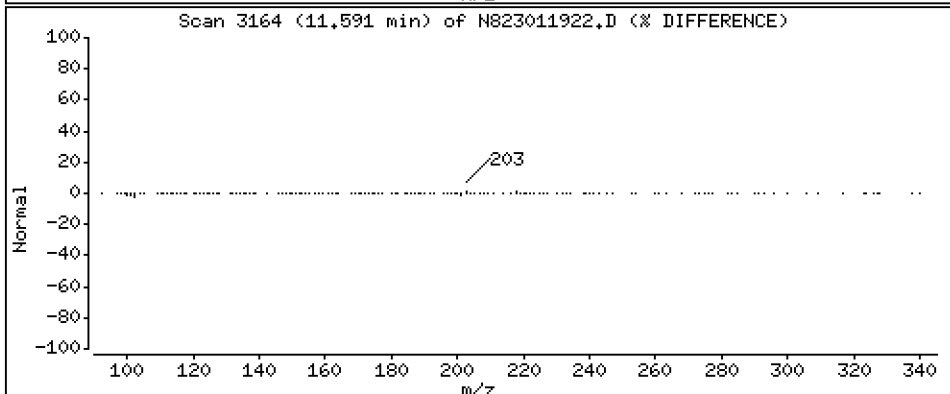
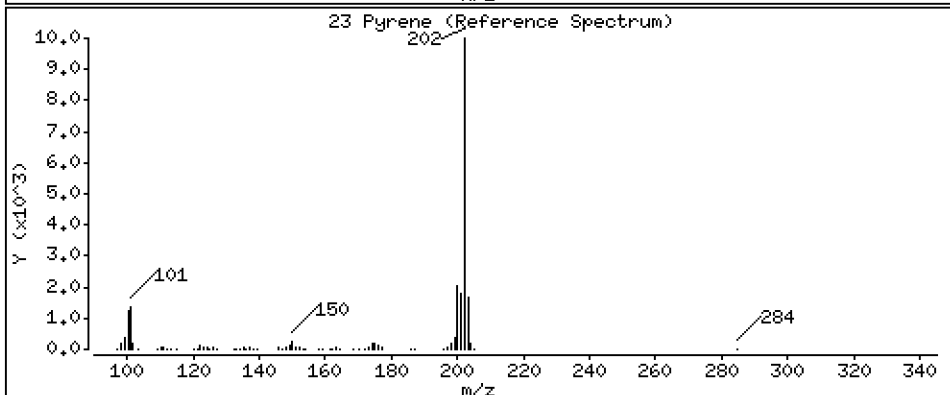
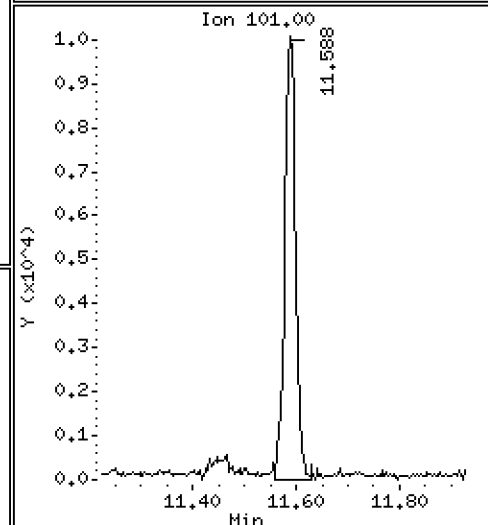
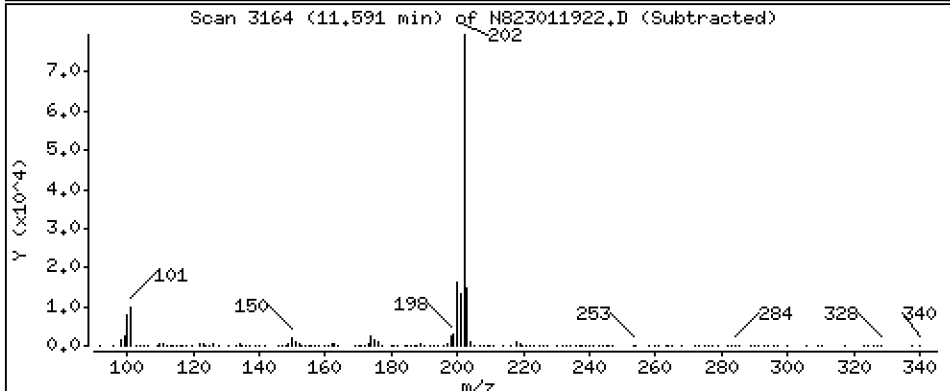
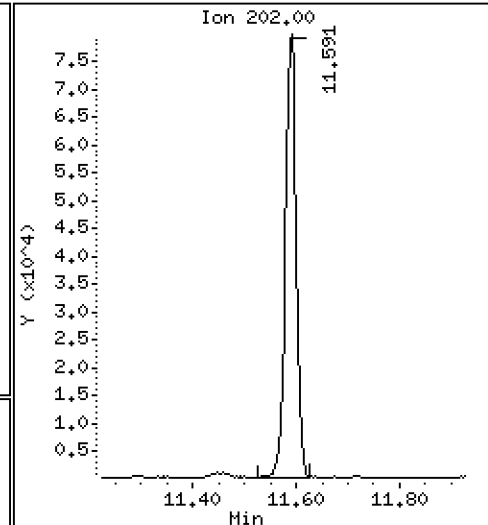
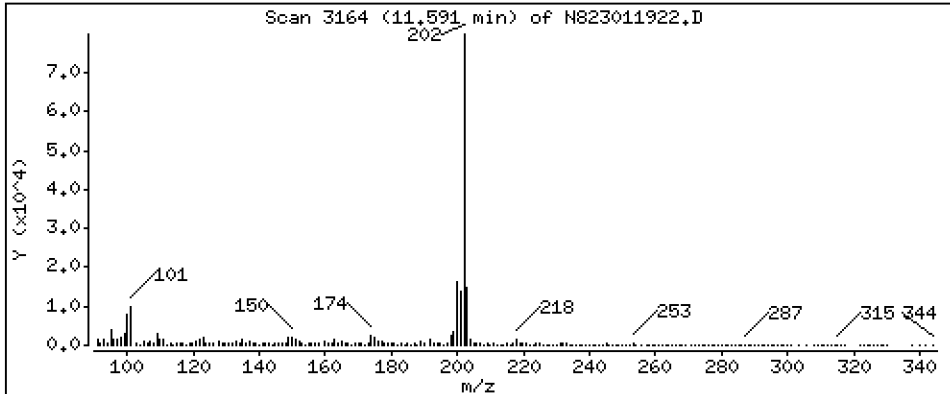
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

23 Pyrene

Concentration: 6,101 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

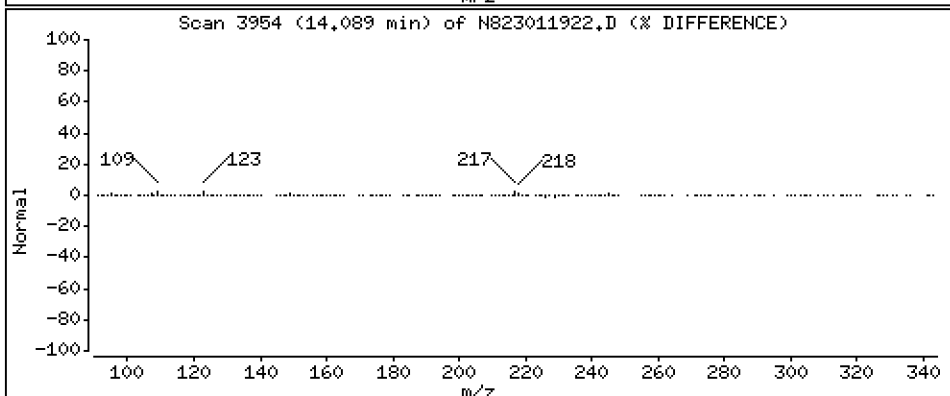
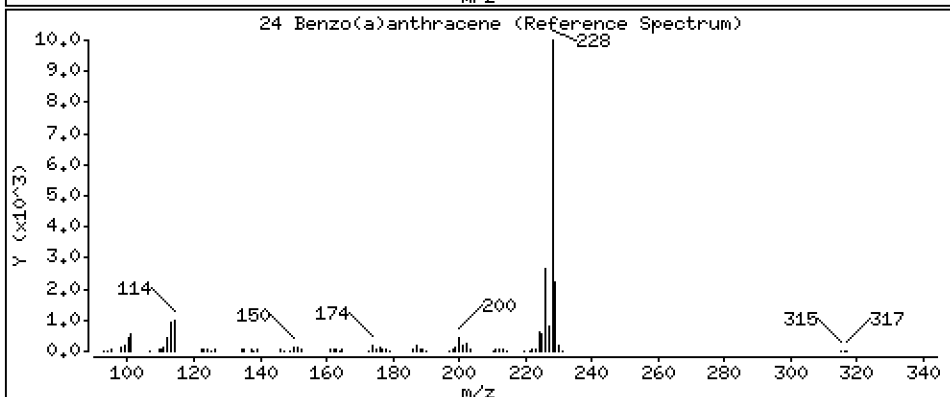
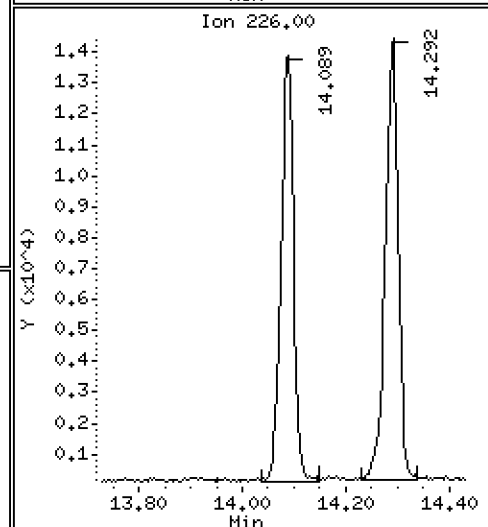
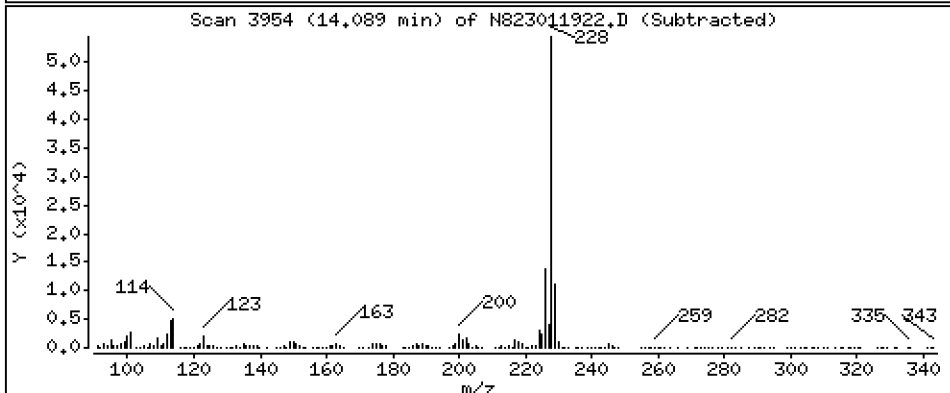
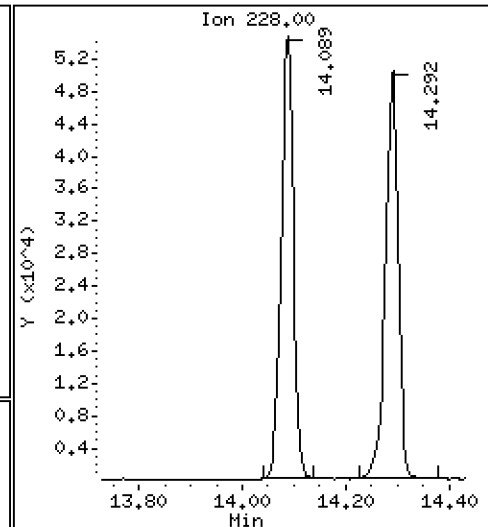
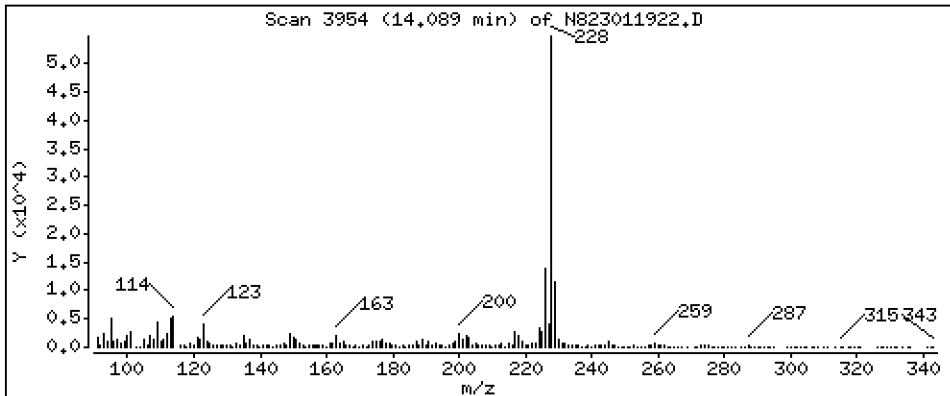
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

24 Benzo(a)anthracene

Concentration: 5,221 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

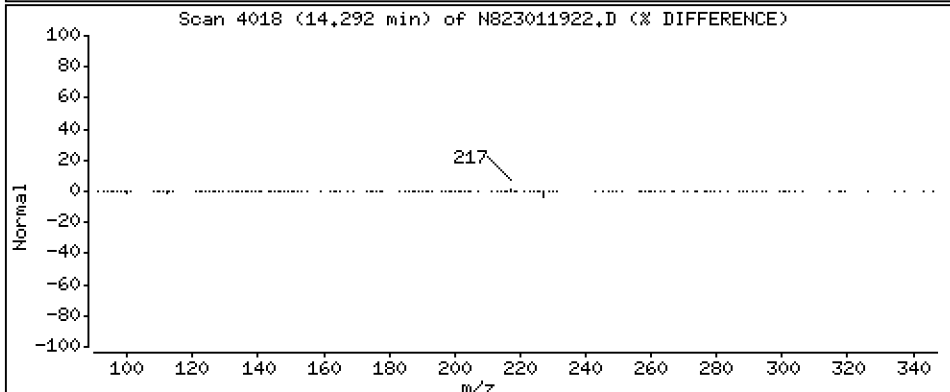
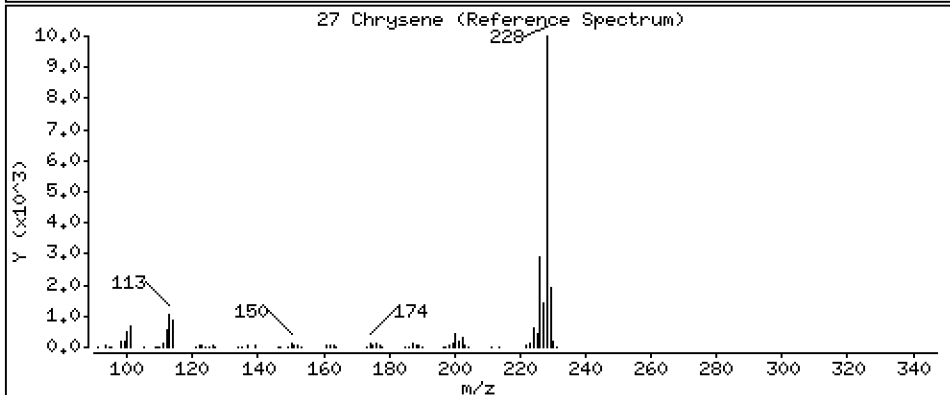
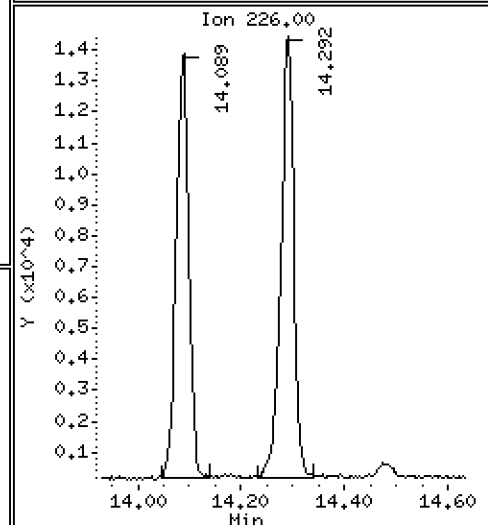
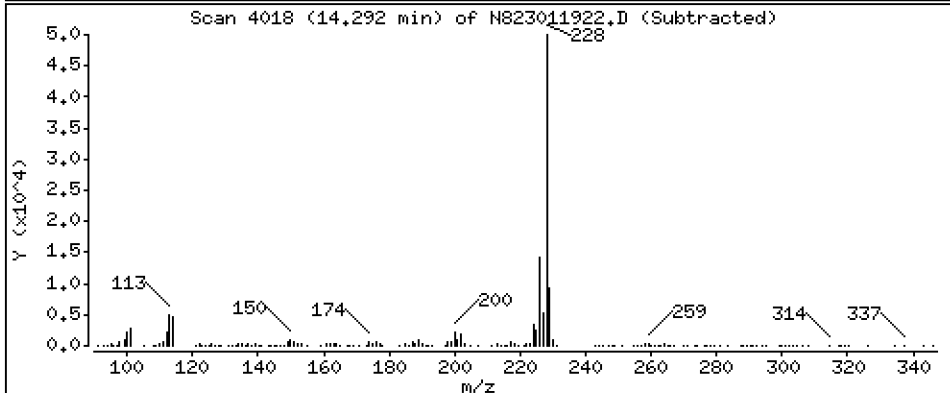
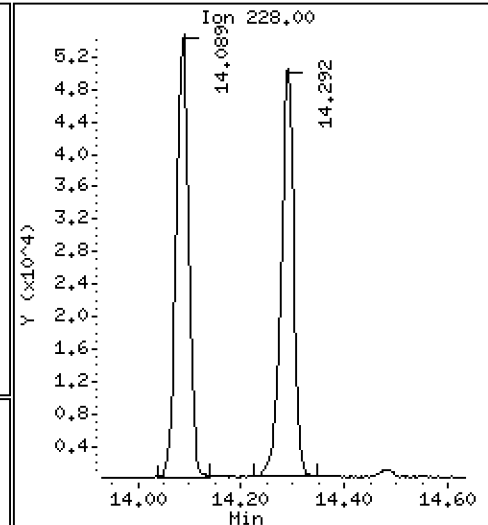
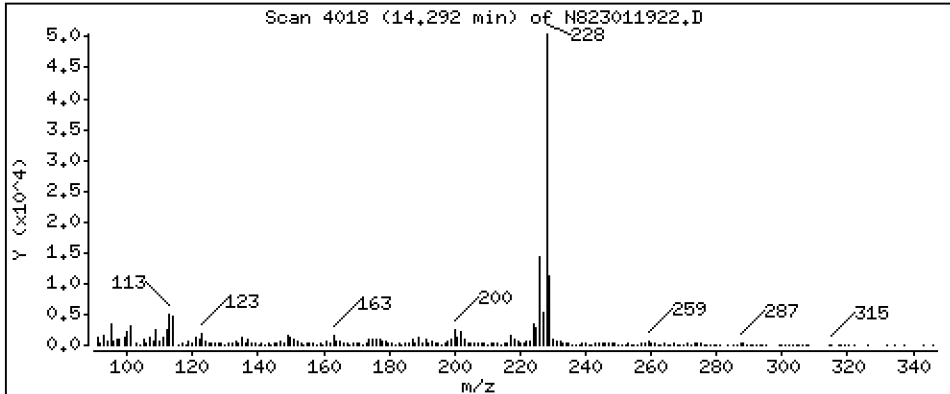
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

27 Chrysene

Concentration: 4,684 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

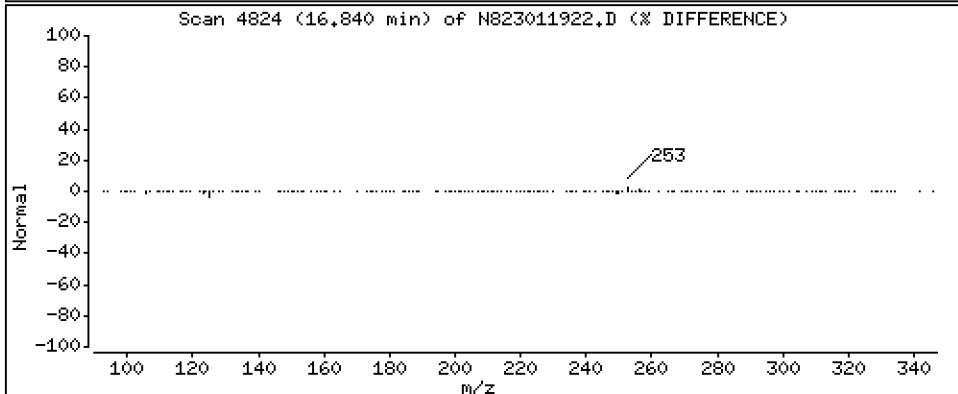
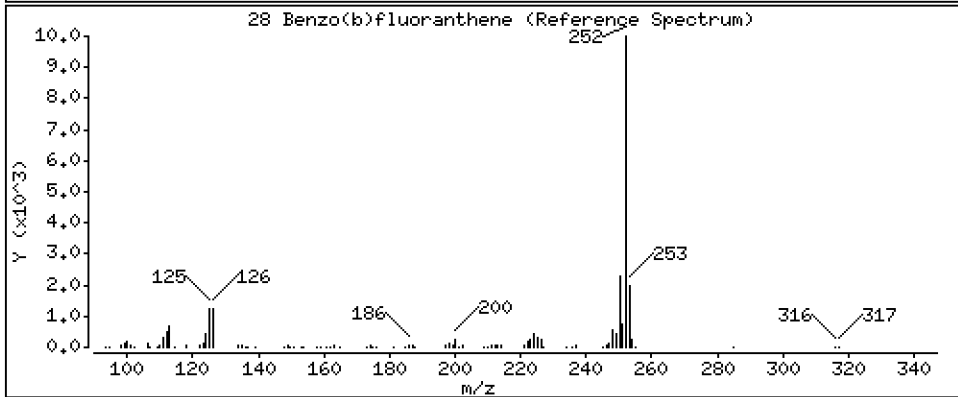
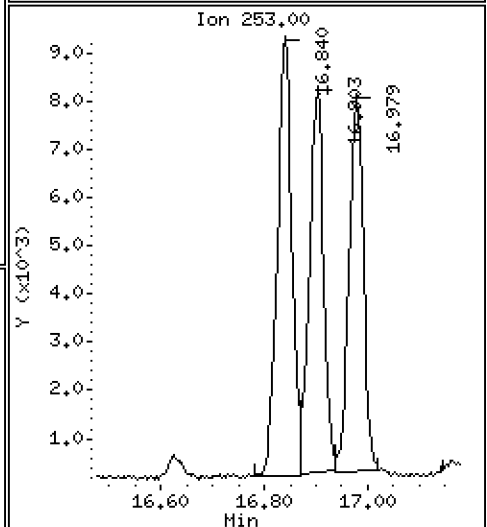
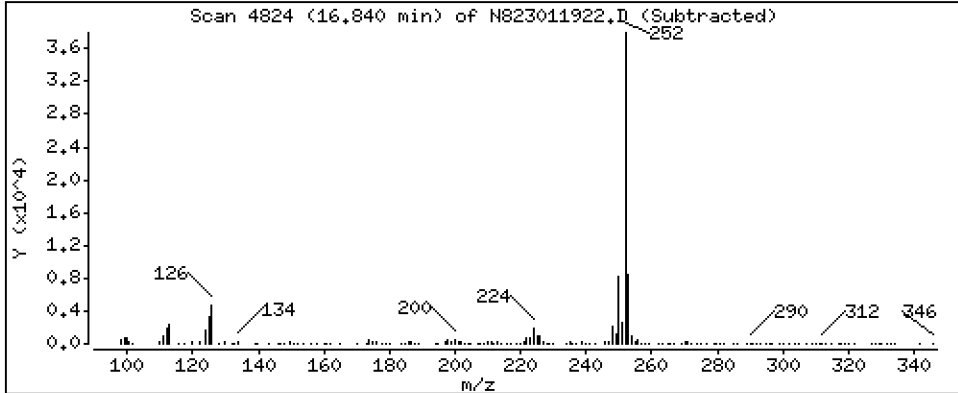
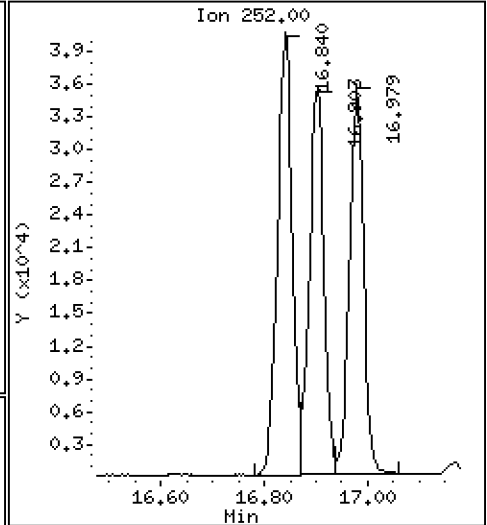
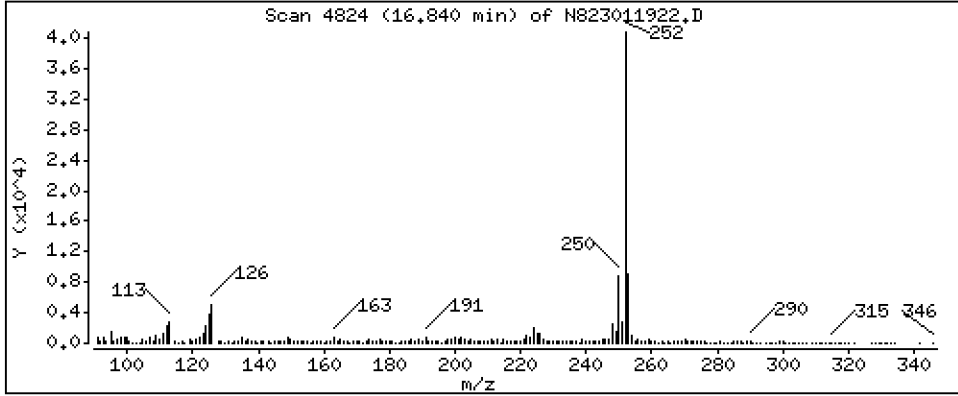
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

28 Benzo(b)fluoranthene

Concentration: 4,759 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

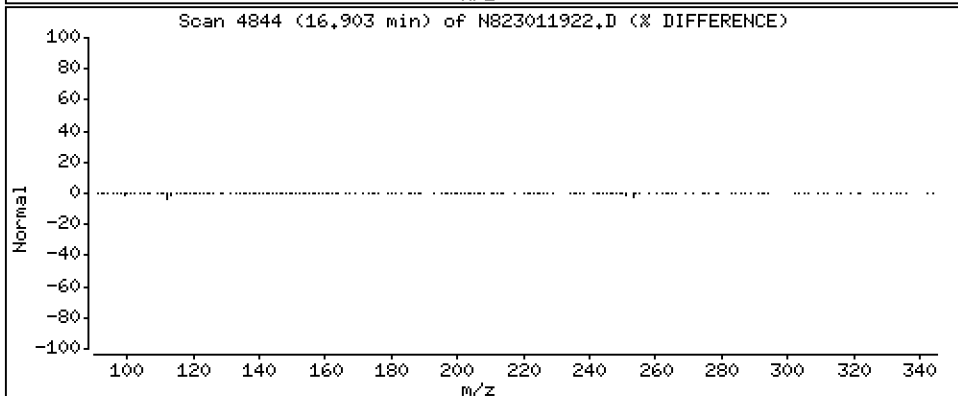
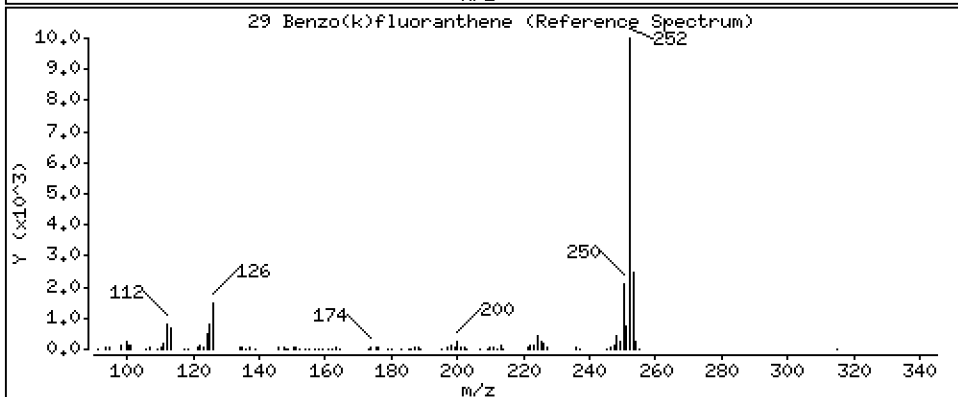
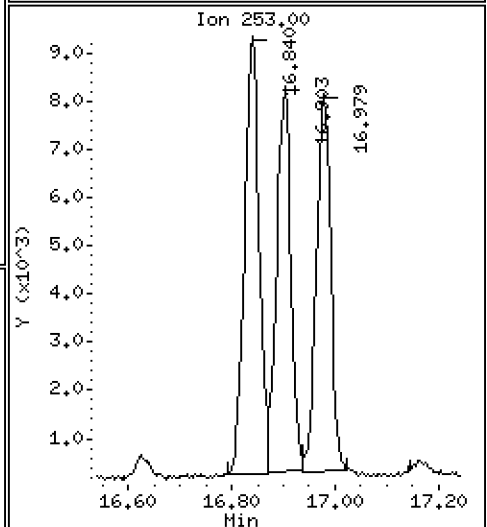
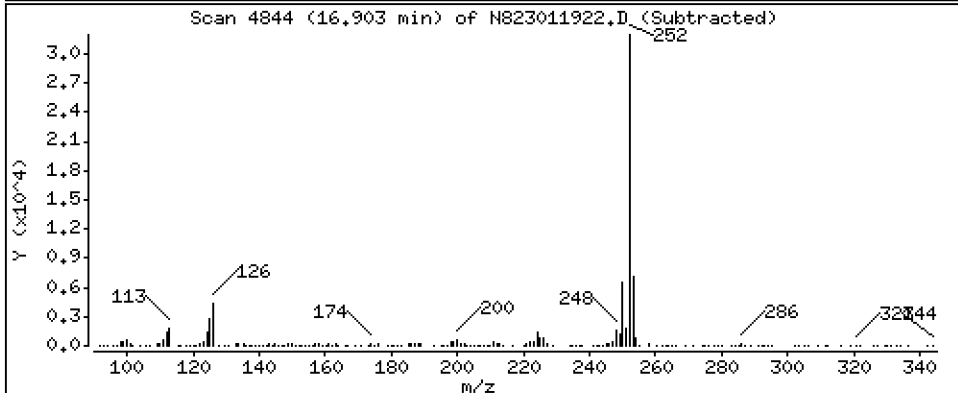
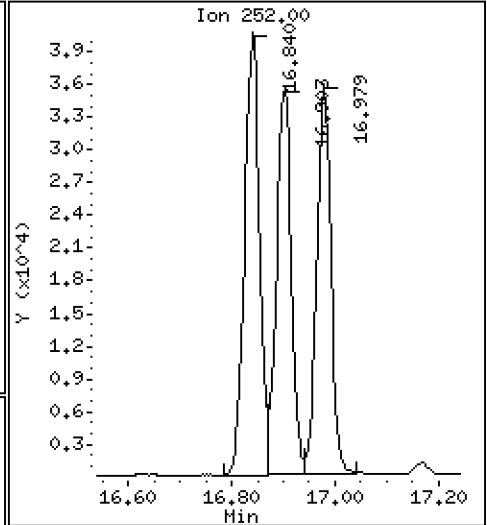
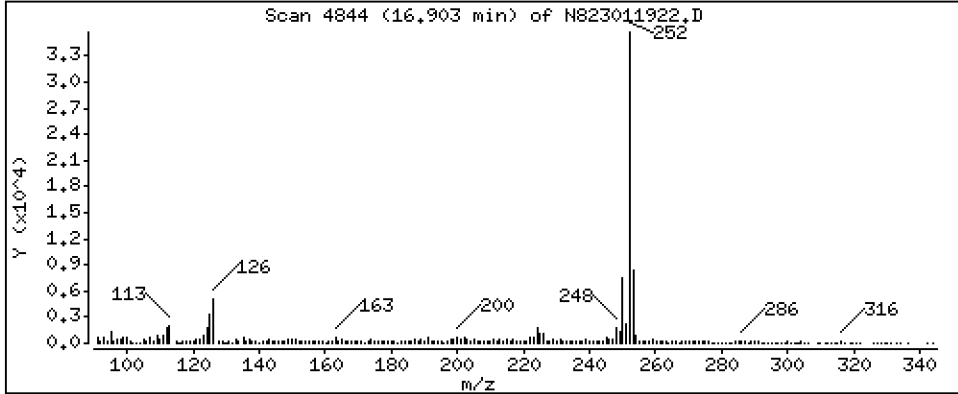
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

29 Benzo(k)fluoranthene

Concentration: 4,201 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

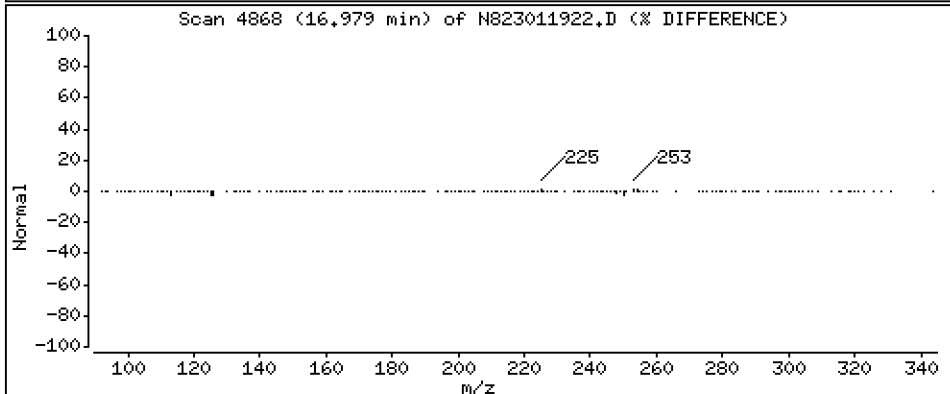
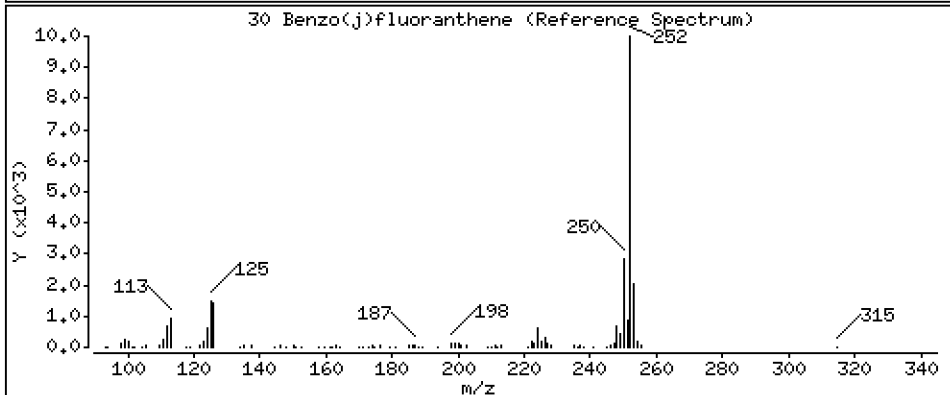
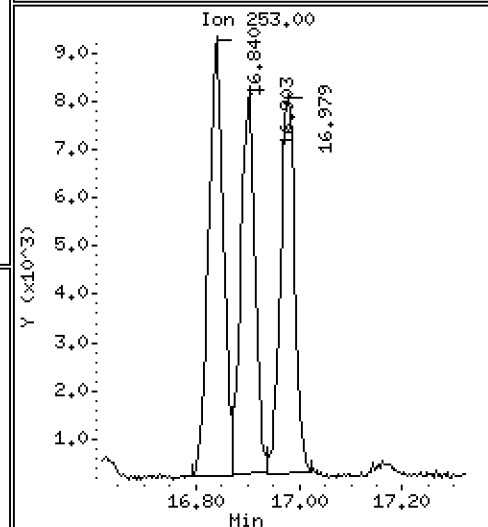
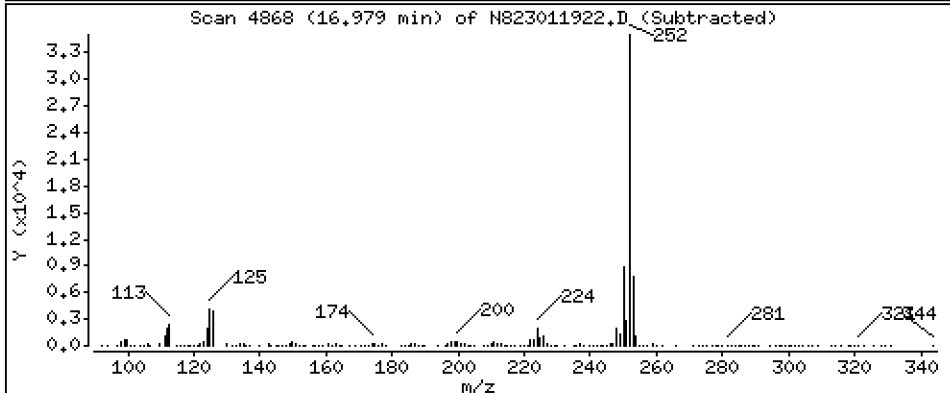
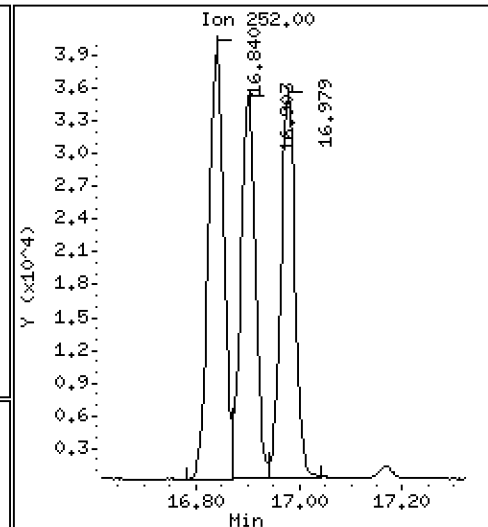
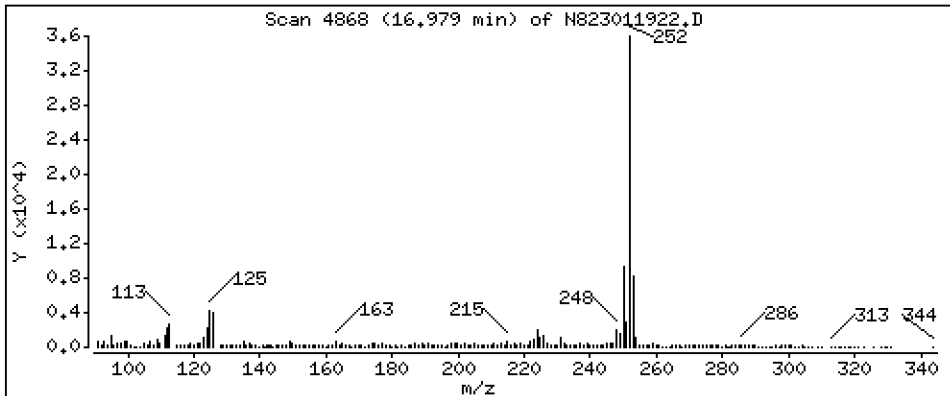
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

30 Benzo(j)fluoranthene

Concentration: 4,508 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

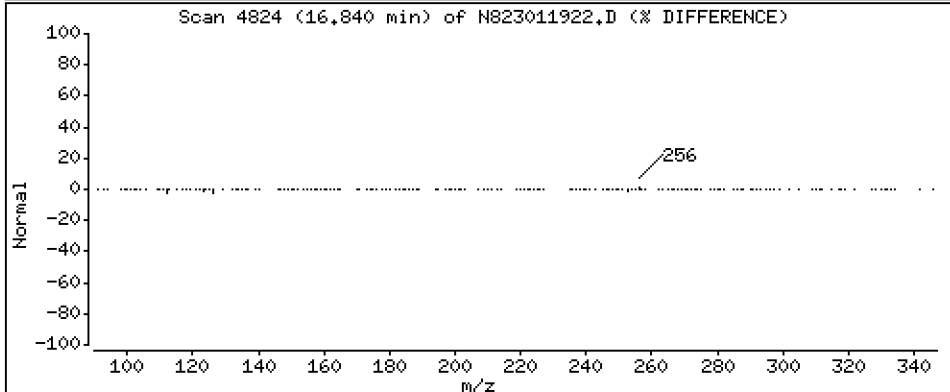
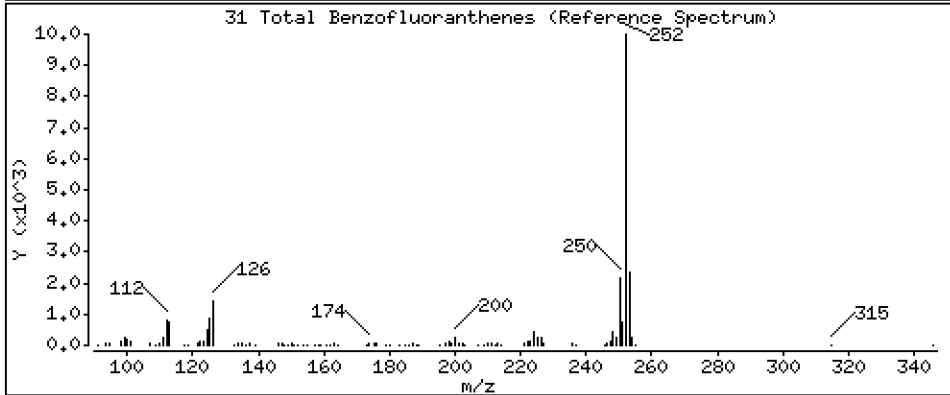
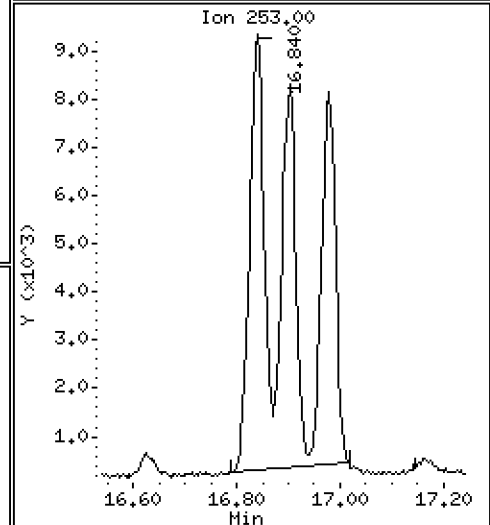
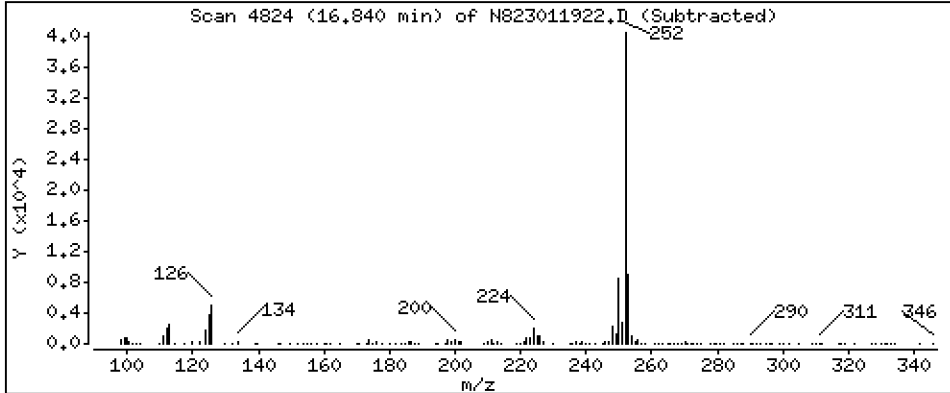
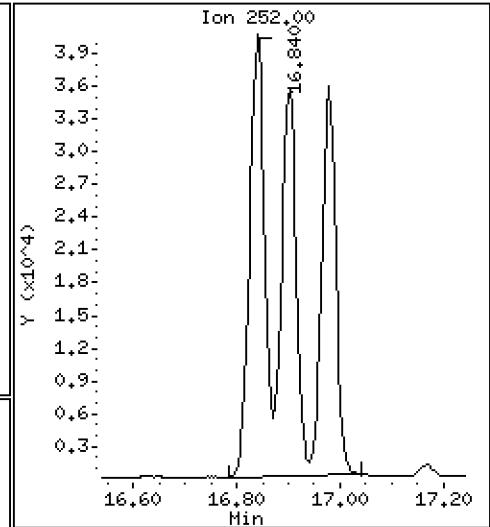
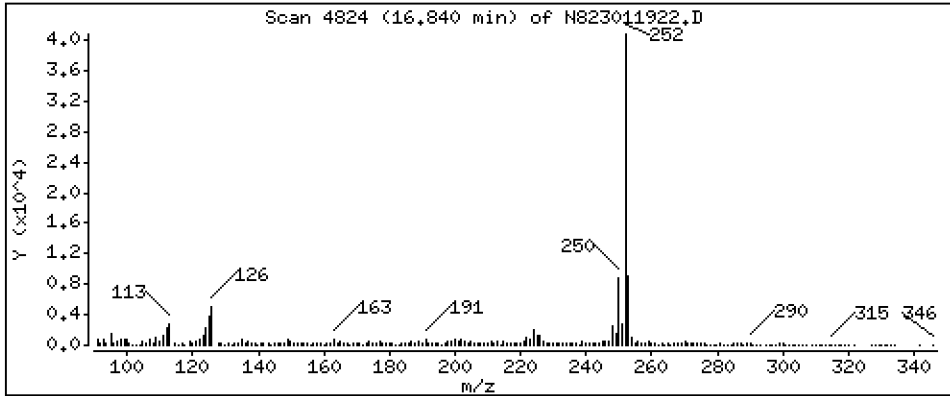
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

31 Total Benzofluoranthenes

Concentration: 13,49 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

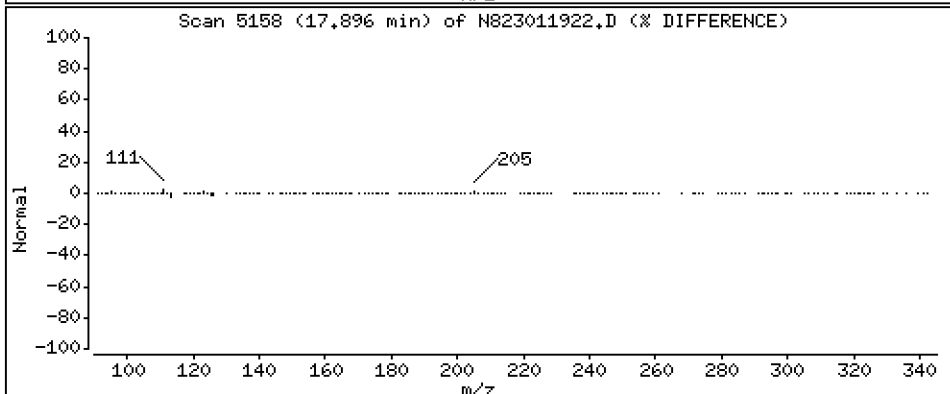
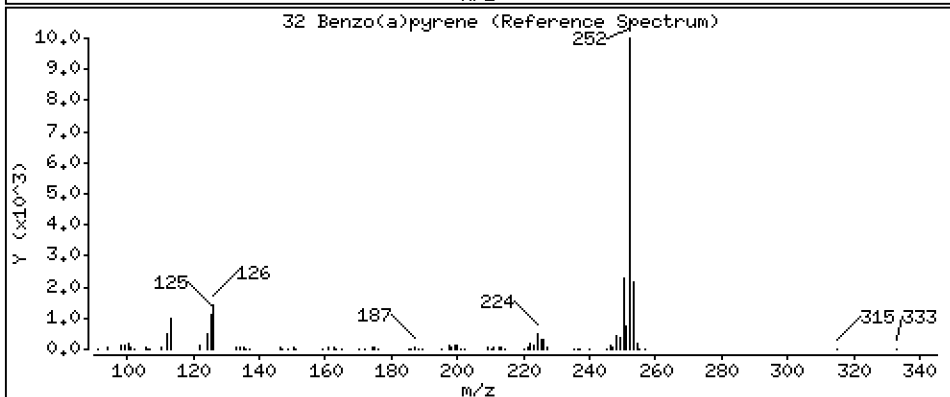
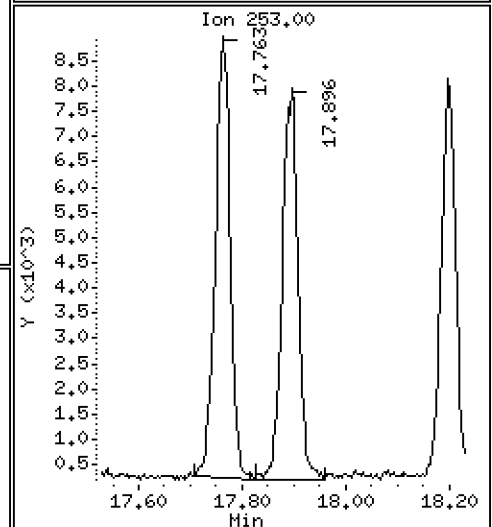
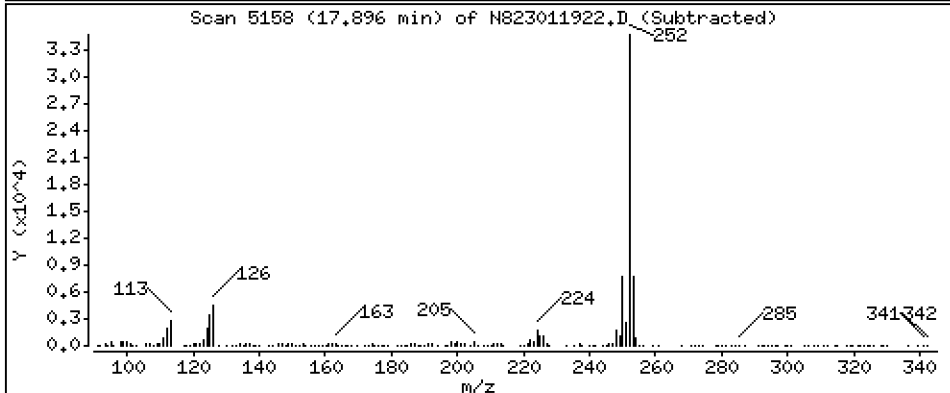
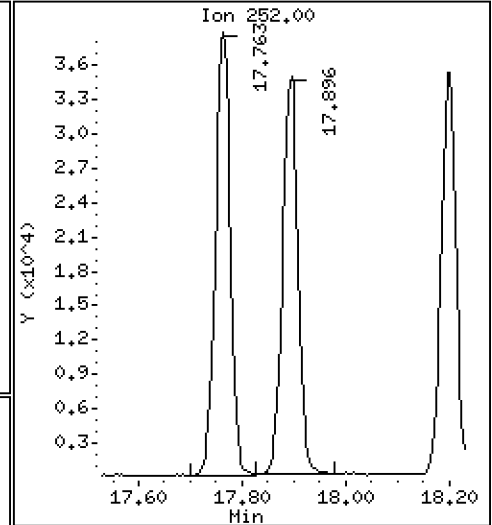
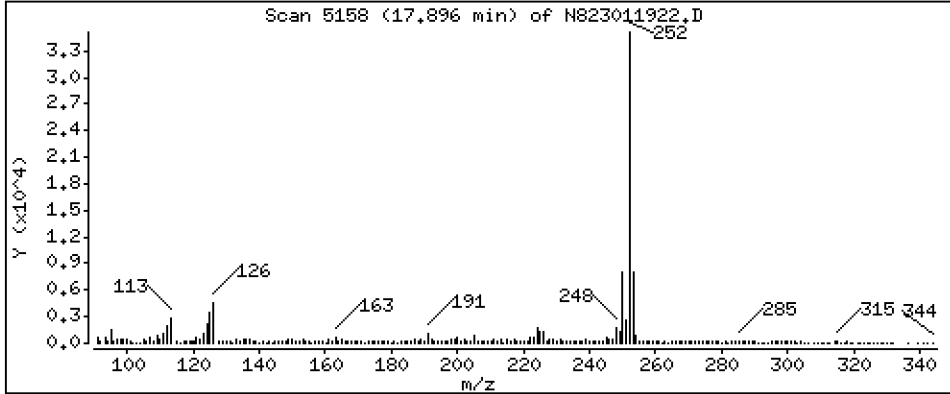
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 4,809 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

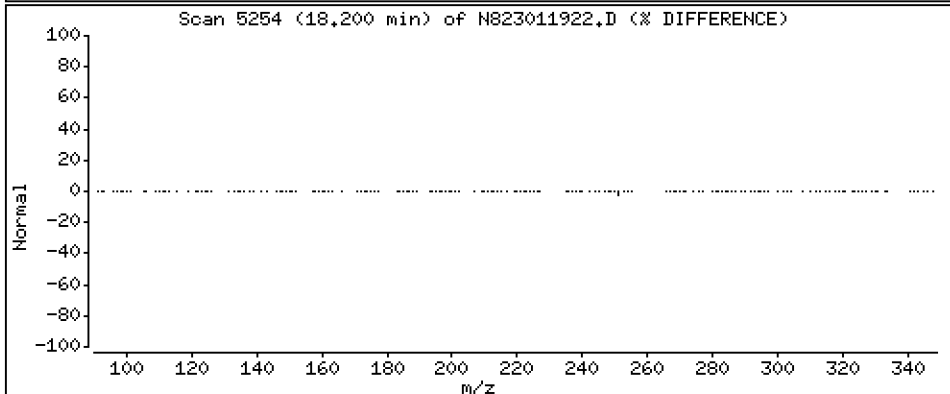
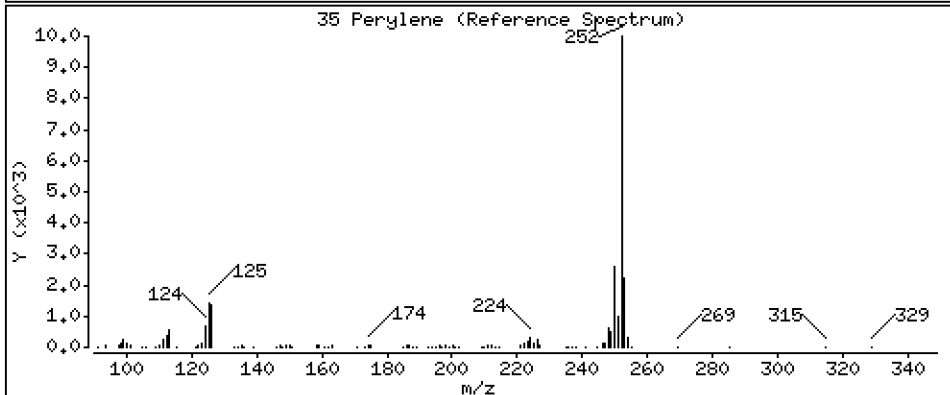
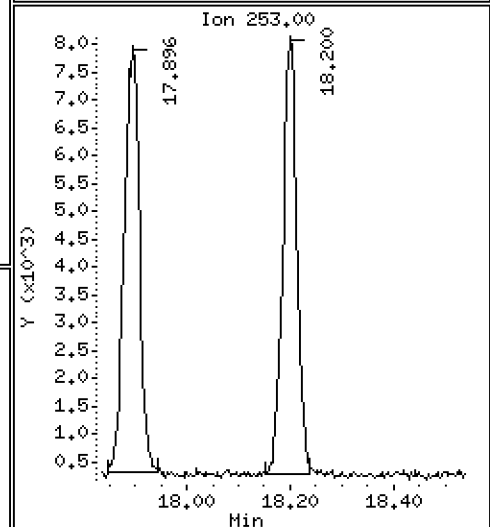
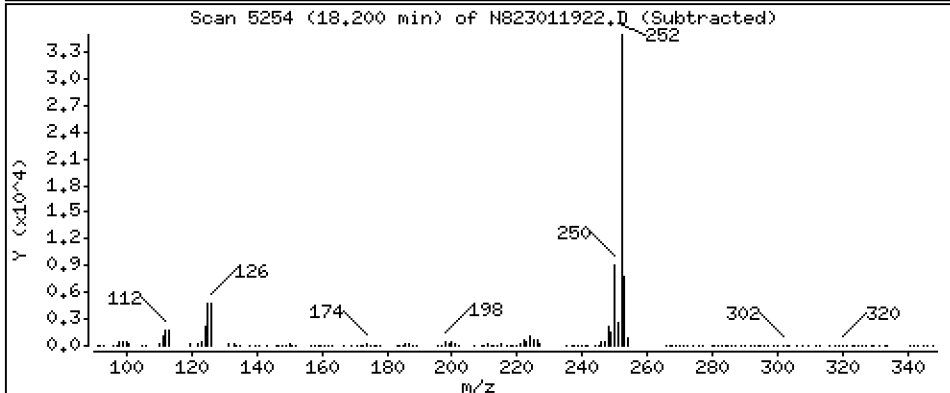
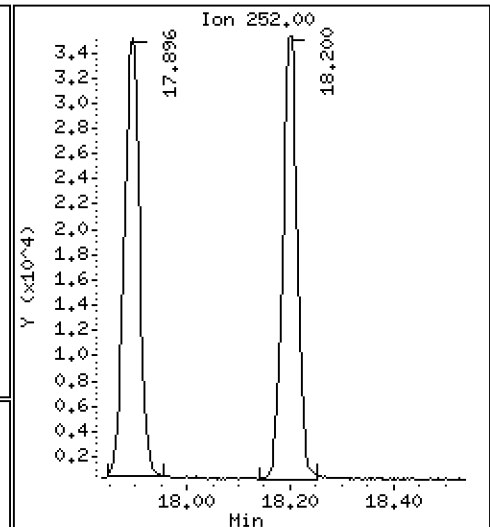
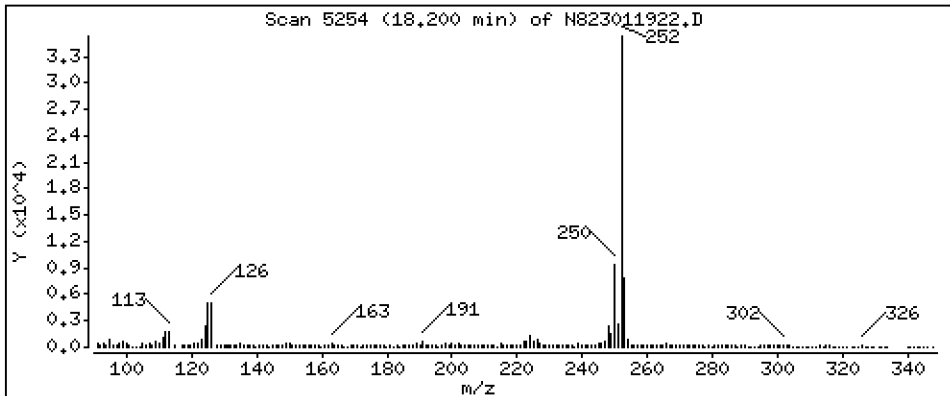
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

35 Perylene

Concentration: 4,349 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

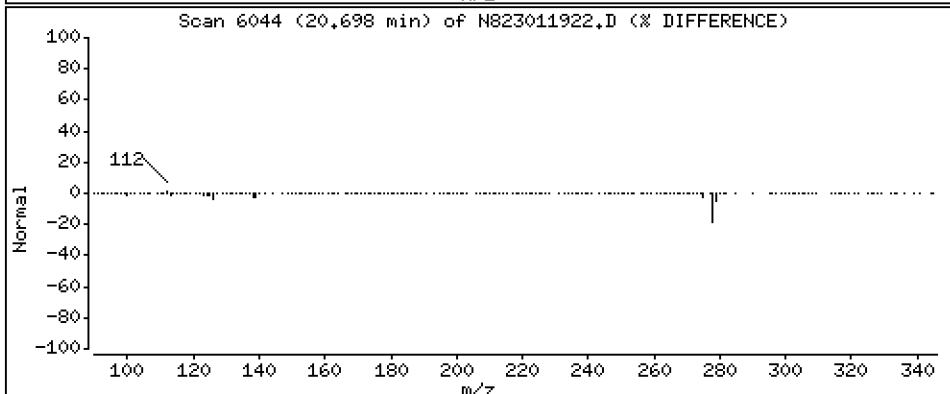
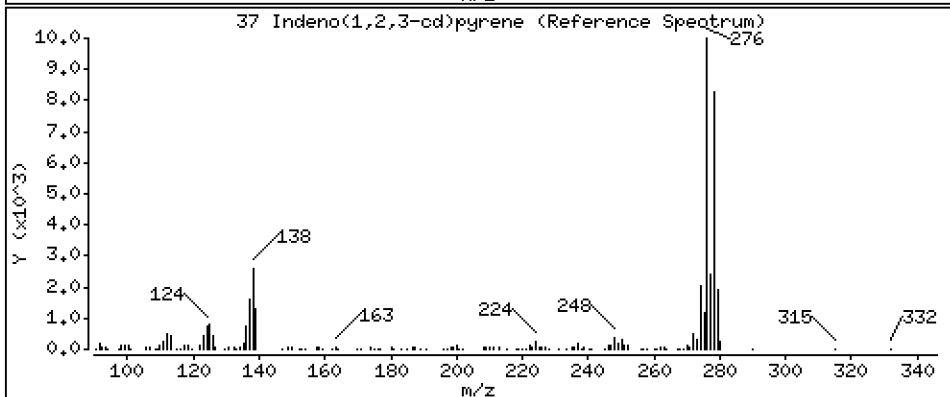
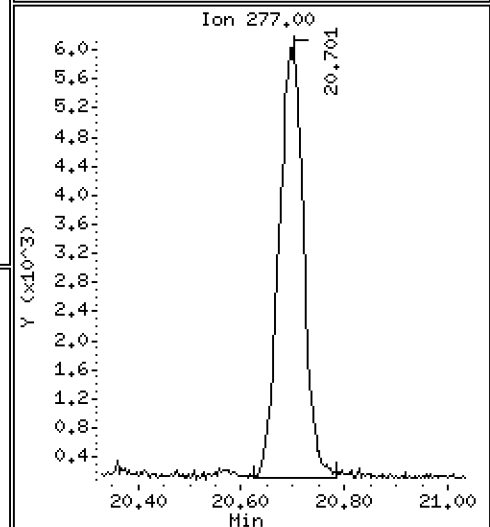
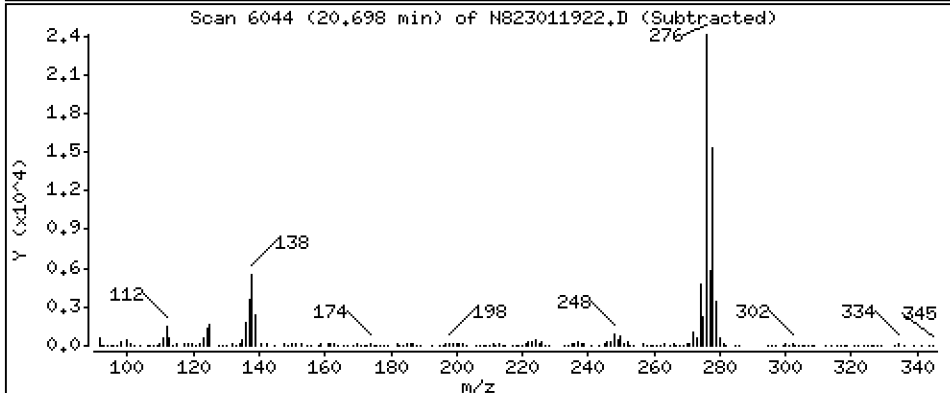
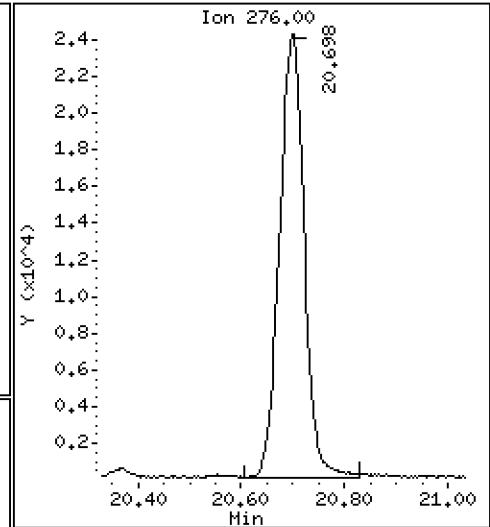
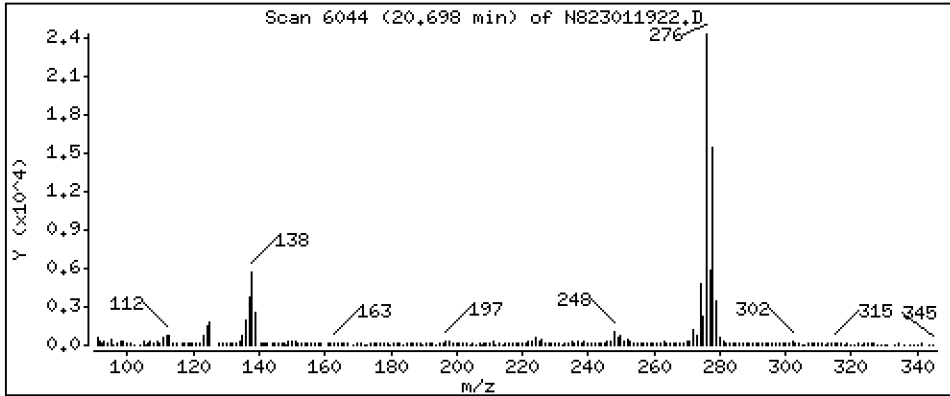
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 4,717 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

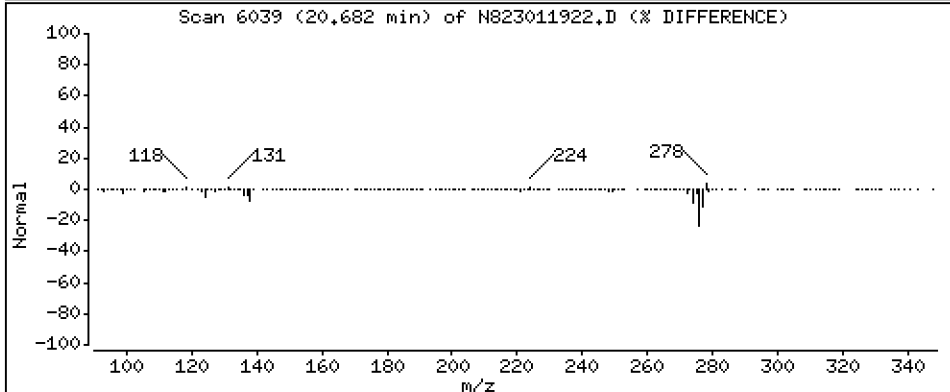
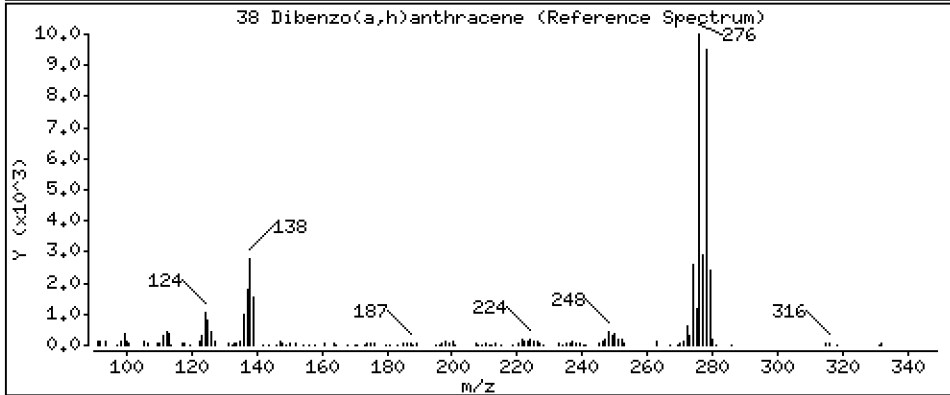
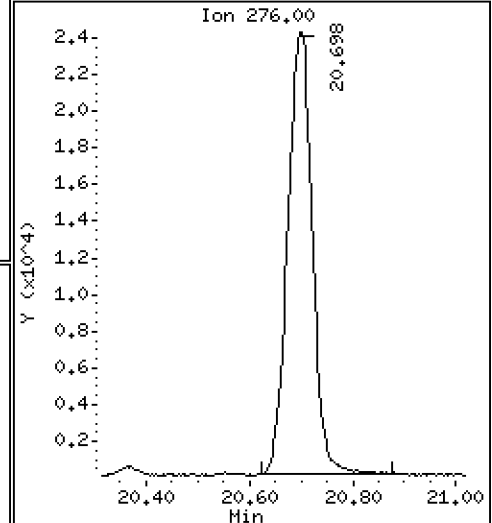
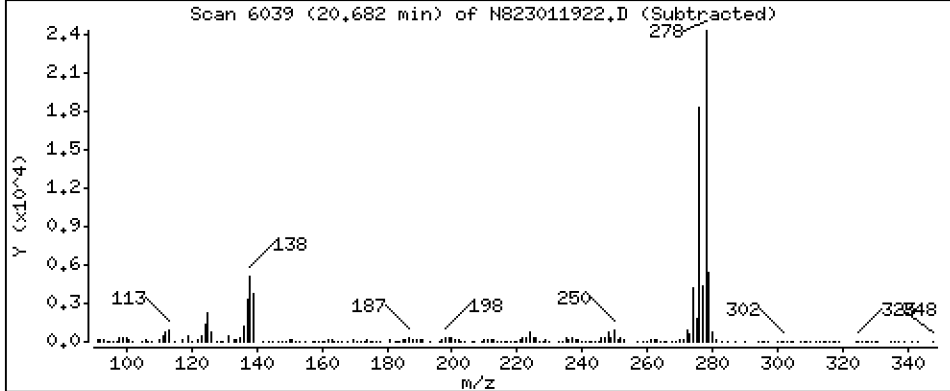
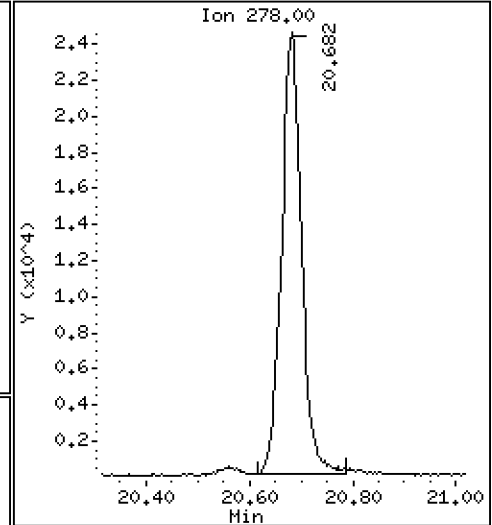
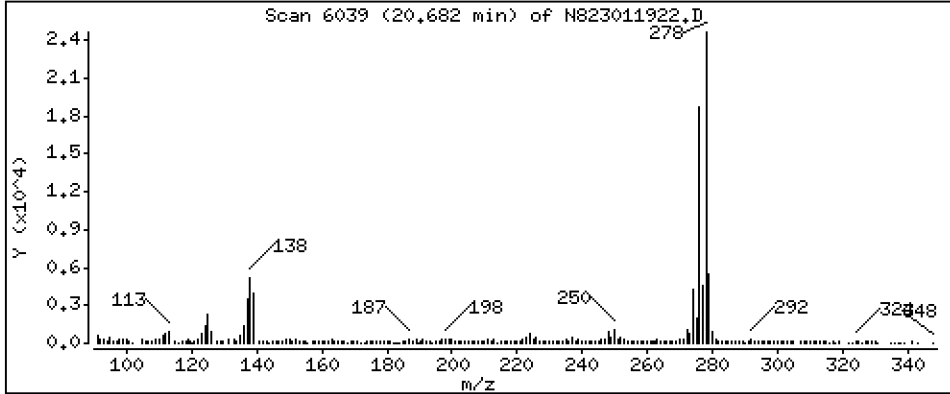
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 4,475 ug/mL



Date : 19-JAN-2023 20:47

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MS1.

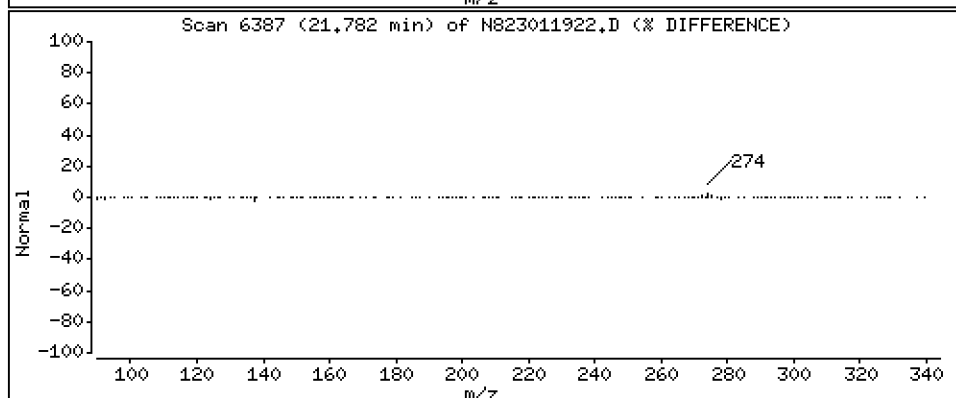
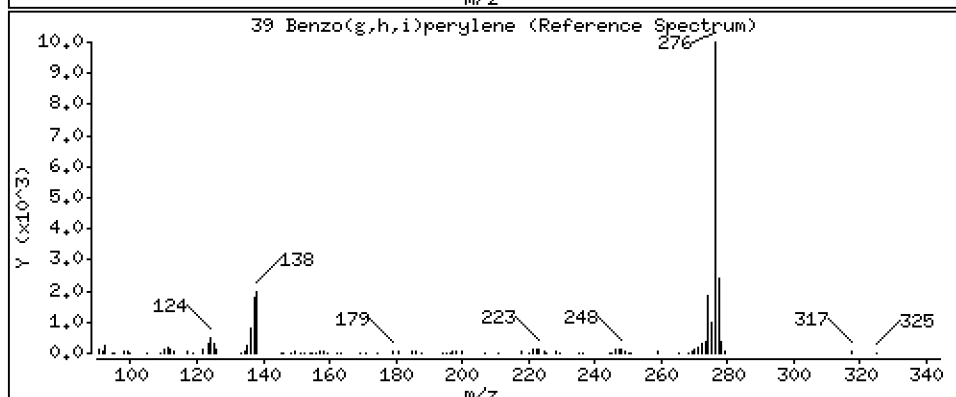
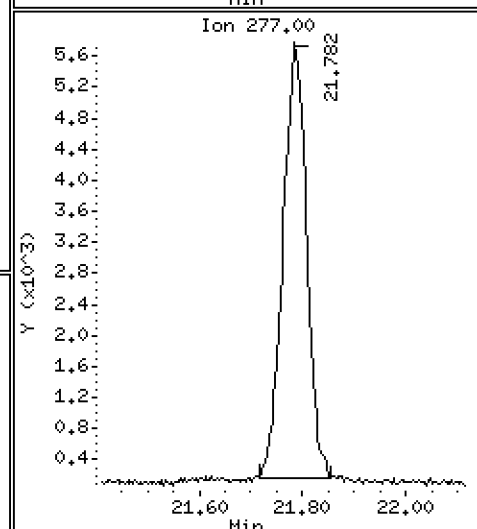
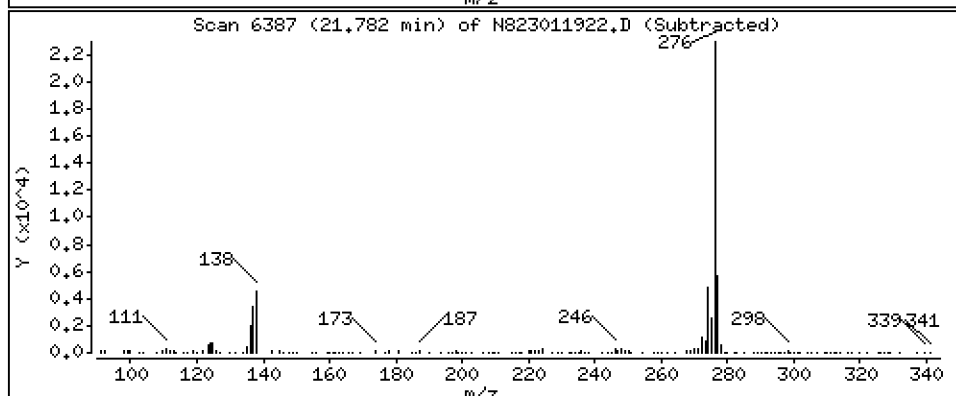
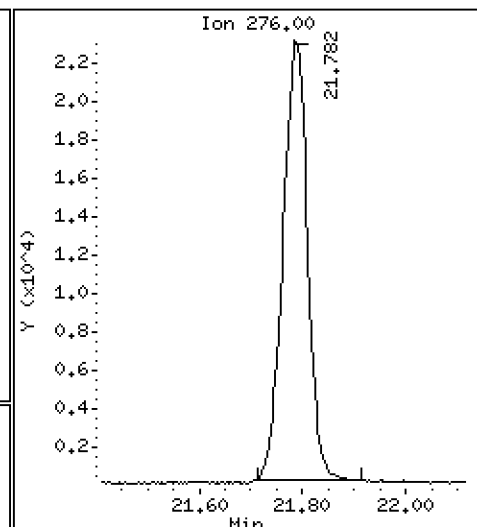
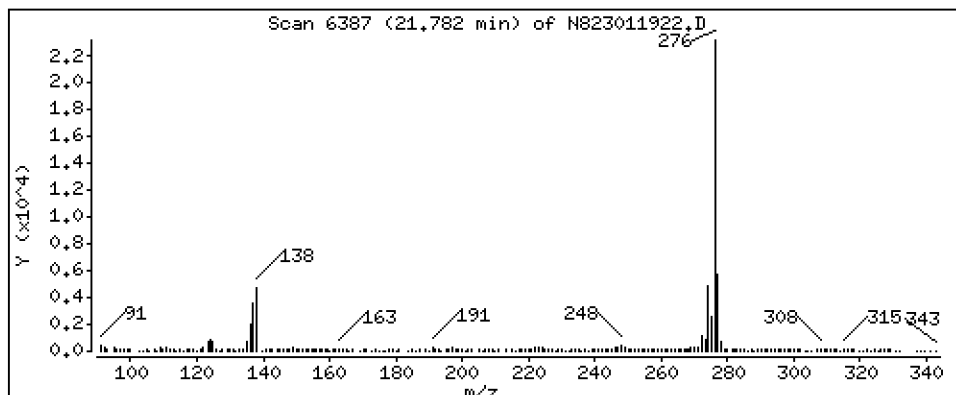
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 4,859 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119A.b\N823011922.D
 Lab Smp Id: BLA0171-MS1
 Inj Date : 19-JAN-2023 20:47
 Operator : JZ Inst ID: nt8.i
 Smp Info : BLA0171-MS1,
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 22:11 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 12
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PNAXMDL.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
* 1 Naphthalene-d8	136		4.900	4.909	(1.000)	57416	2.00000	
2 Naphthalene	128		4.929	4.938	(1.006)	76524	2.86649	2.866
\$ 3 2-Methylnaphthalene-d10	152		5.637	5.643	(1.150)	32378	2.06772	2.068
4 2-Methylnaphthalene	141		5.684	5.690	(1.160)	49574	3.37600	3.376
5 1-methylnaphthalene	141		5.880	5.887	(1.200)	50126	3.36343	3.363
9 Acenaphthylene	152		7.085	7.088	(0.985)	84298	3.44103	3.441
* 10 Acenaphthene-d10	164		7.196	7.199	(1.000)	32442	2.00000	
11 Acenaphthene	153		7.246	7.246	(1.007)	52140	3.17650	3.177
12 Dibenzofuran	168		7.398	7.398	(1.028)	80690	3.23651	3.237
14 Fluorene	166		7.875	7.875	(1.094)	67864	3.50476	3.505
* 15 Phenanthrene-d10	188		9.238	9.238	(1.000)	53916	2.00000	
16 Phenanthrene	178		9.273	9.270	(1.004)	99443	3.77582	3.776
17 Anthracene	178		9.314	9.311	(1.008)	91953	3.84337	3.843
22 Fluoranthene	202		11.060	11.053	(1.197)	118372	4.12909	4.129
\$ 21 Fluoranthene-d10	212		11.022	11.015	(1.193)	58566	2.46205	2.462
23 Pyrene	202		11.591	11.575	(0.816)	117548	6.10072	6.101
24 Benzo(a)anthracene	228		14.089	14.079	(0.991)	91173	5.22060	5.221
* 25 Chrysene-d12	240		14.212	14.209	(1.000)	31078	2.00000	
27 Chrysene	228		14.291	14.282	(1.006)	87089	4.68437	4.684
28 Benzo(b)fluoranthene	252		16.840	16.827	(0.929)	81522	4.75926	4.759
29 Benzo(k)fluoranthene	252		16.903	16.890	(0.933)	70488	4.20120	4.201
30 Benzo(j)fluoranthene	252		16.979	16.969	(0.937)	68091	4.50809	4.508
31 Total Benzofluoranthenes	252		16.840	16.890	(0.929)	218784	13.4867	13.49 (M)
32 Benzo(a)pyrene	252		17.896	17.880	(0.987)	72483	4.80863	4.809
* 33 Perylene-d12	264		18.123	18.117	(1.000)	29411	2.00000	
35 Perylene	252		18.199	18.187	(1.004)	70339	4.34851	4.349
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.564	20.555	(1.135)	36491	3.16656	3.167
37 Indeno(1,2,3-cd)pyrene	276		20.697	20.681	(1.142)	81001	4.71694	4.717
38 Dibenzo(a,h)anthracene	278		20.681	20.666	(1.141)	66134	4.47511	4.475
39 Benzo(g,h,i)perylene	276		21.782	21.763	(1.202)	75602	4.85918	4.859

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011922.D Calibration Time: 16:16
 Lab Smp Id: BLA0171-MS1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	42524	21262	85048	57416	35.02
10 Acenaphthene-d10	25260	12630	50520	32442	28.43
15 Phenanthrene-d10	47890	23945	95780	53916	12.58
25 Chrysene-d12	40533	20267	81066	31078	-23.33
33 Perylene-d12	38115	19058	76230	29411	-22.84

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.90	-0.19
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	-0.04
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.00
25 Chrysene-d12	14.21	13.71	14.71	14.21	0.02
33 Perylene-d12	18.12	17.62	18.62	18.12	0.04

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011922.D

Lab ID: BLA0171-MS1

nt8.i, 20230119A.b\FSIMPNA230119.m,

19-JAN-2023 20:47

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check performed

On Column LOD for nt8.i, 20230119A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

* Only compounds listed in the work order have been verified by the analyst *

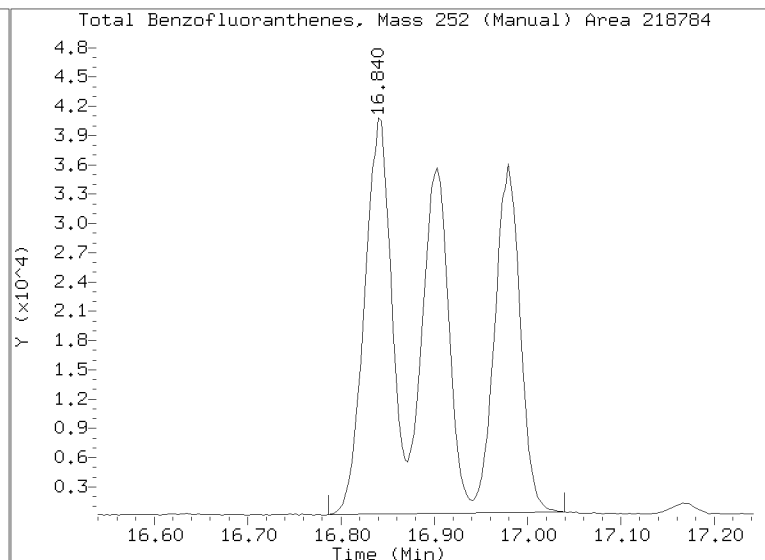
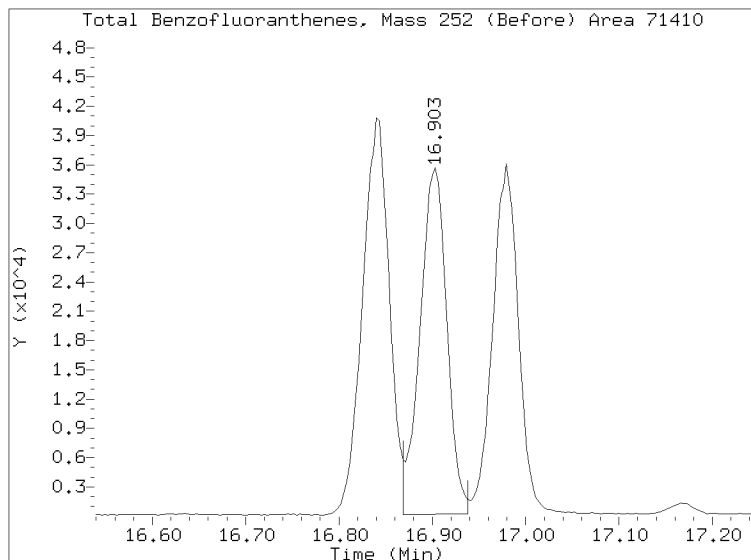
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119A.b/N823011922.D

Injection Date: 19-JAN-2023 20:47

Lab ID:BLA0171-MS1 Client ID:

Report Date: 01/25/2023 22:12



Data File: \\target\share\chem3\nt8.1\20230119A.1\N823011923.D

Date: 19-JAN-2023 21:14

Client ID:

Sample Info: BLR0171-HSDM,

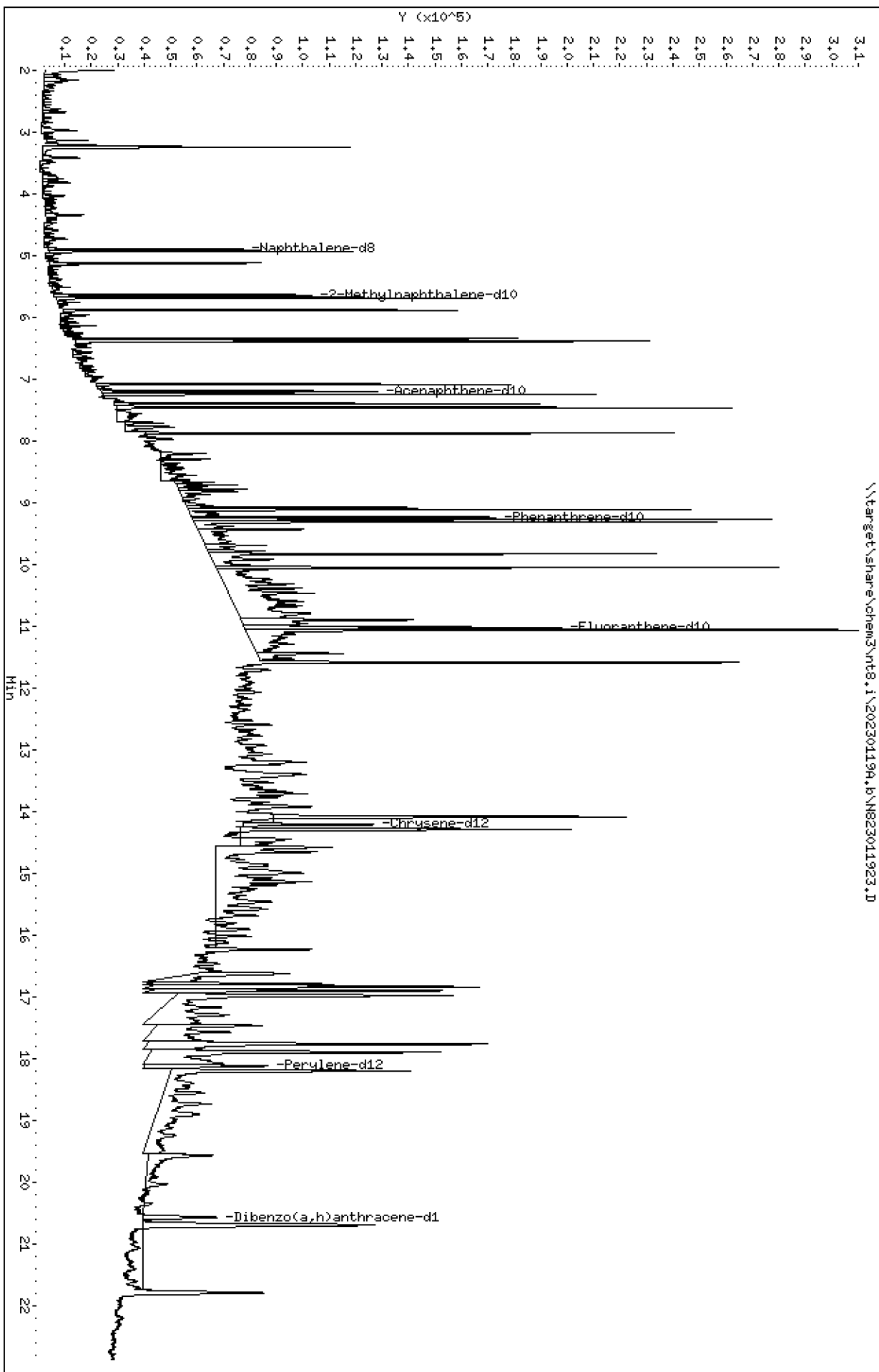
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

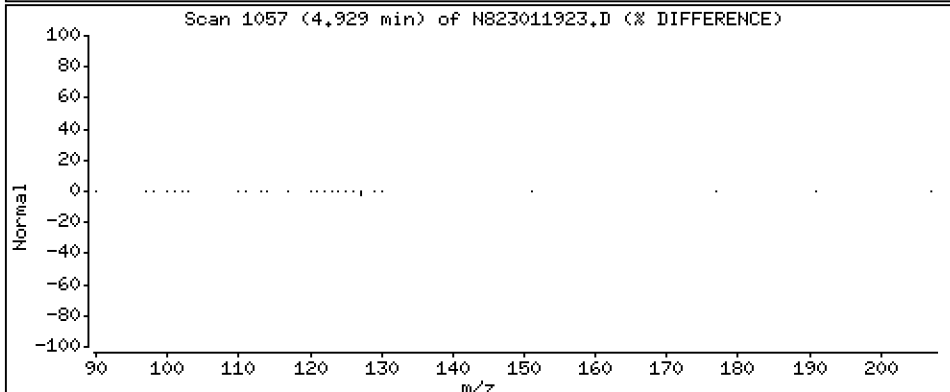
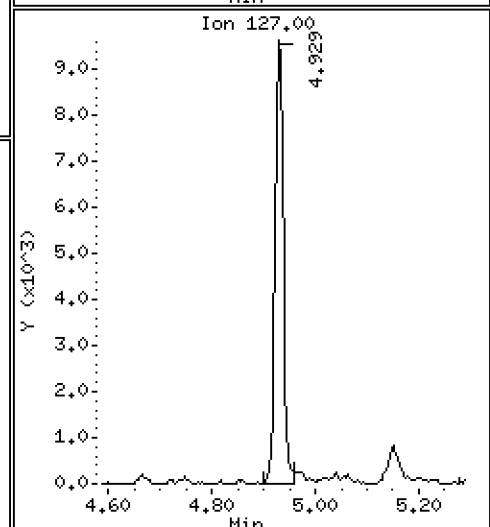
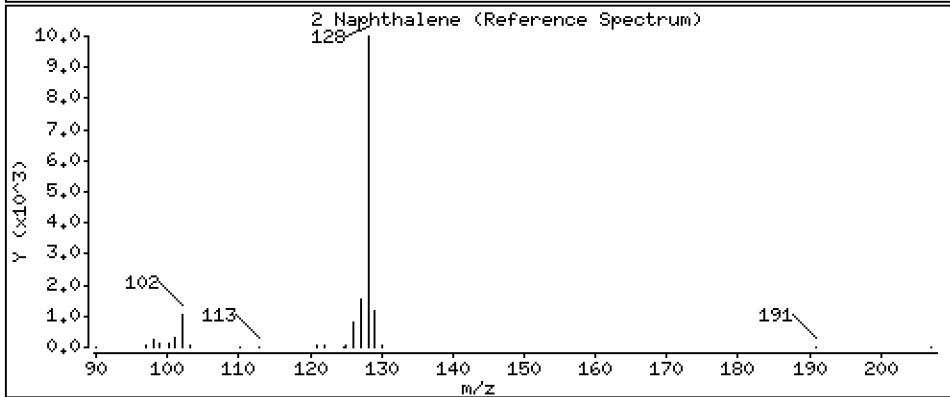
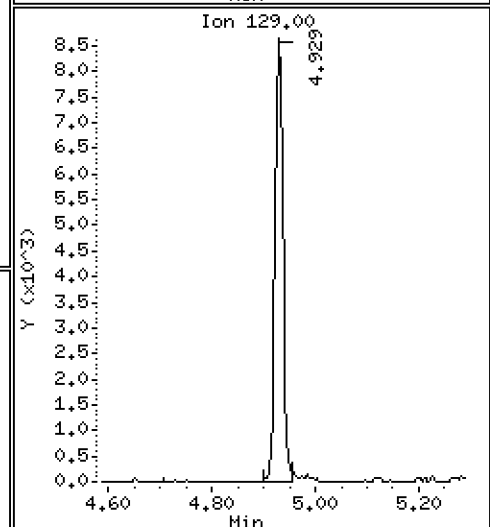
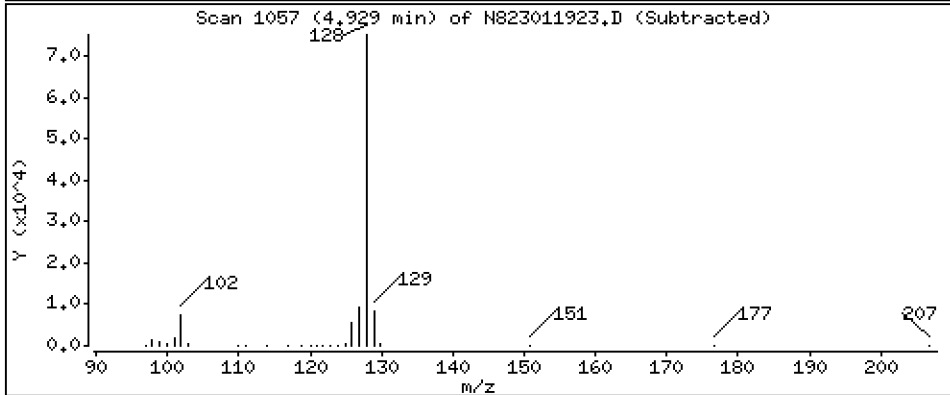
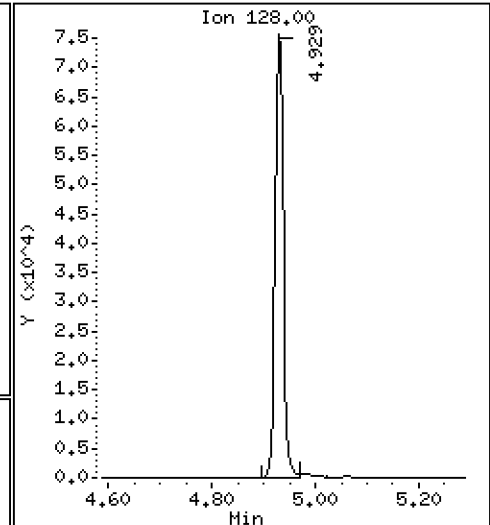
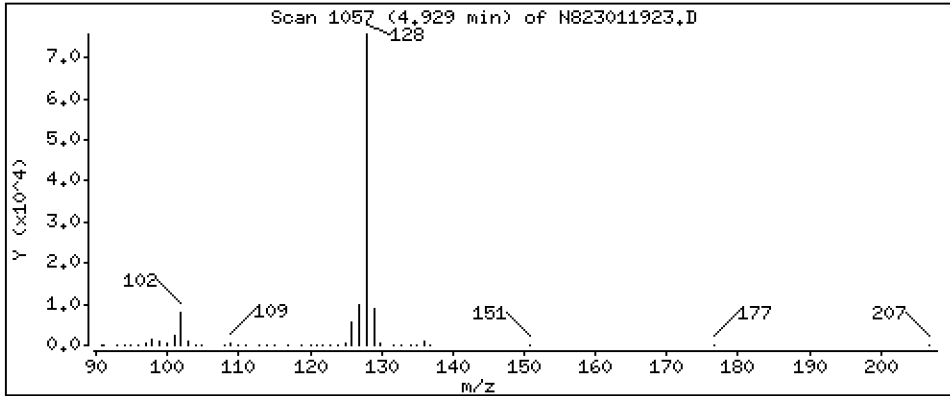
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

2 Naphthalene

Concentration: 3.327 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

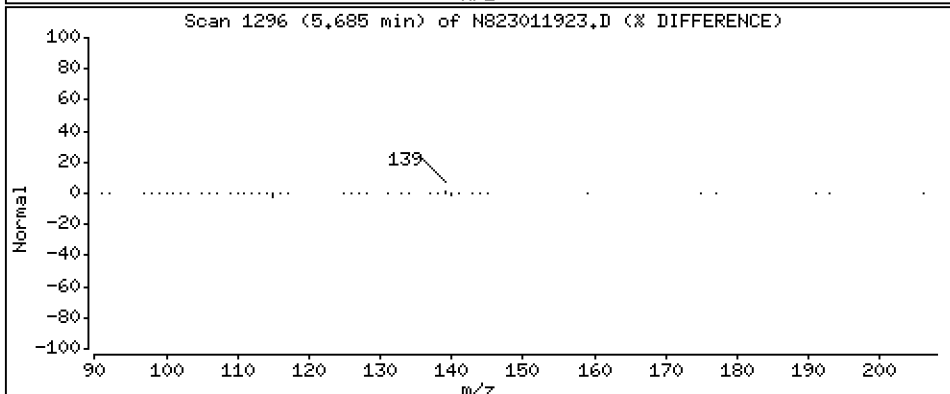
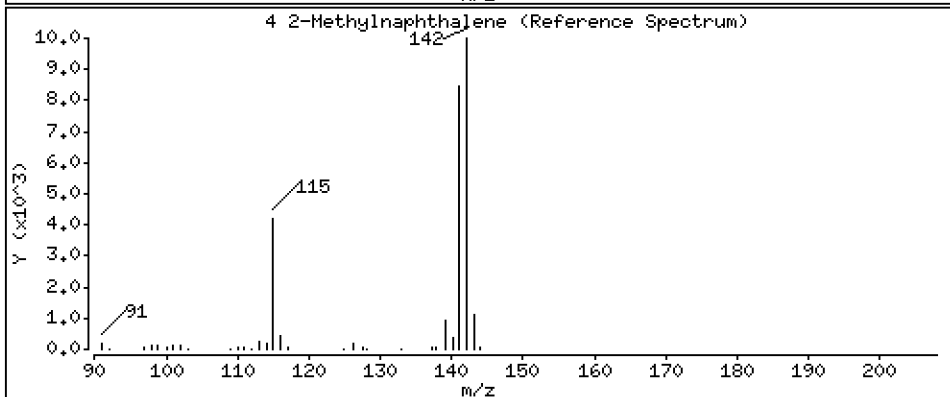
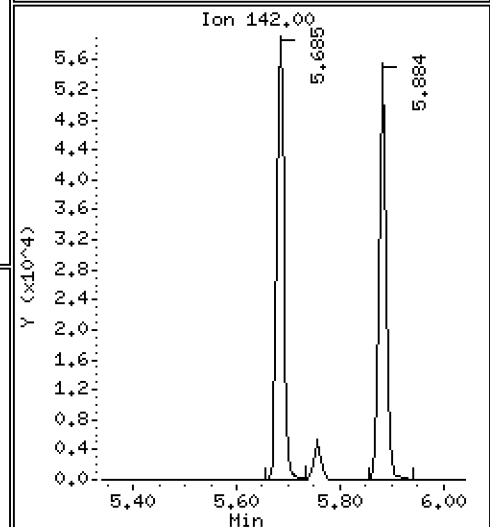
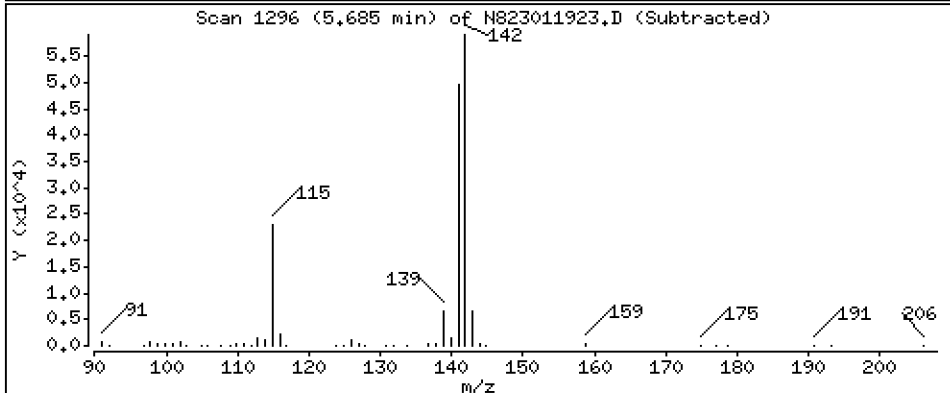
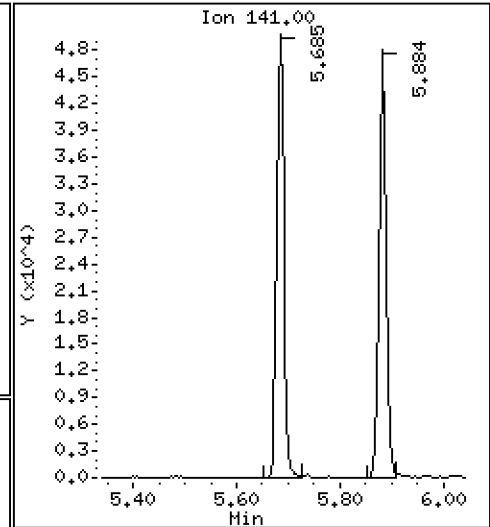
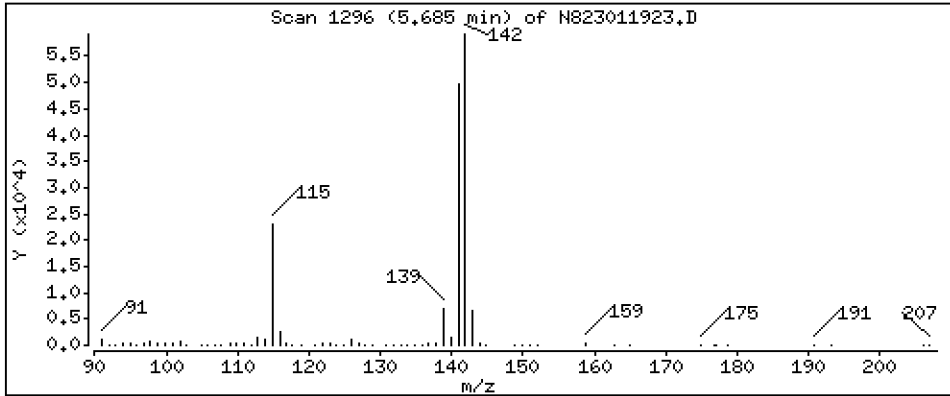
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

4-2-Methylnaphthalene

Concentration: 3,519 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

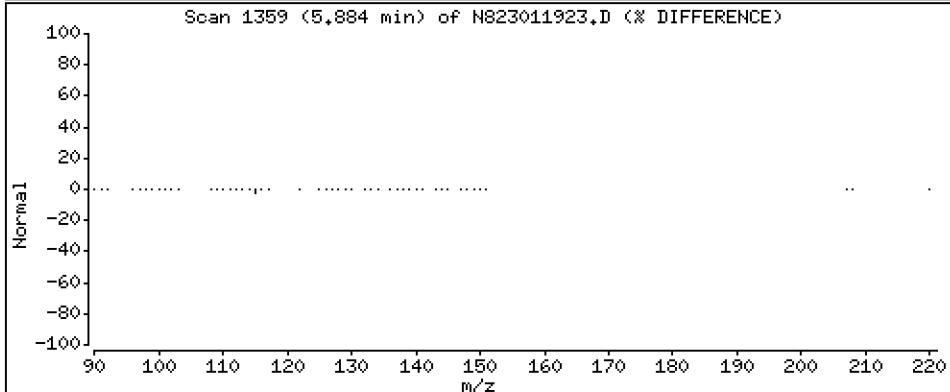
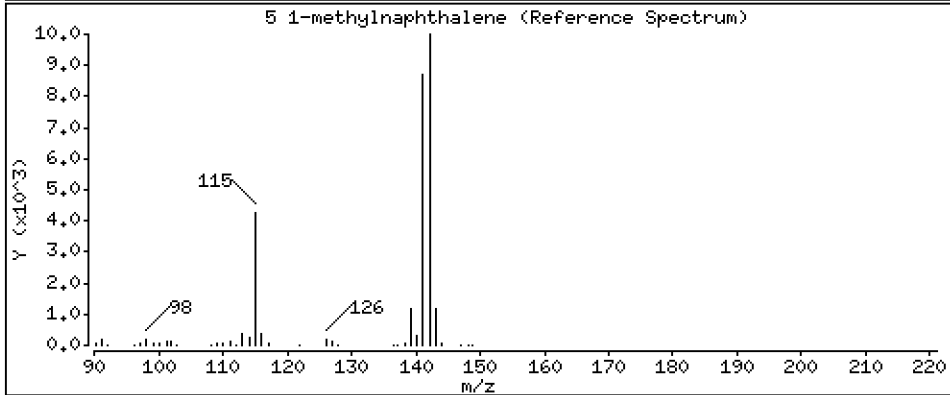
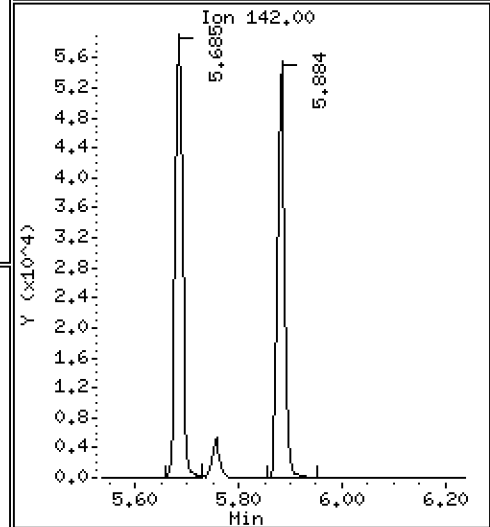
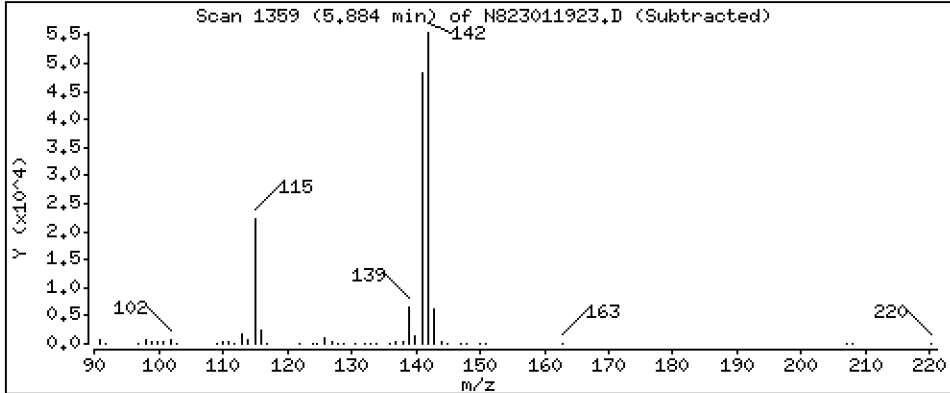
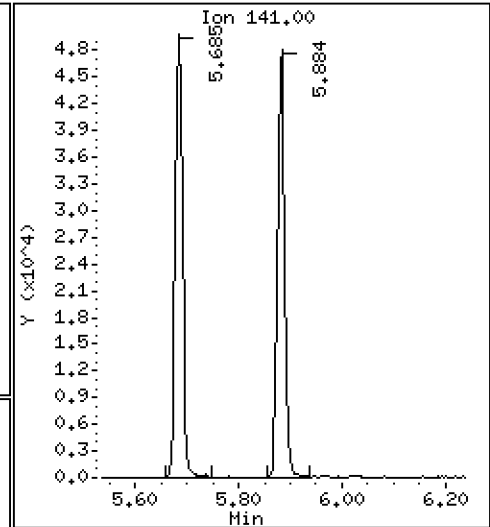
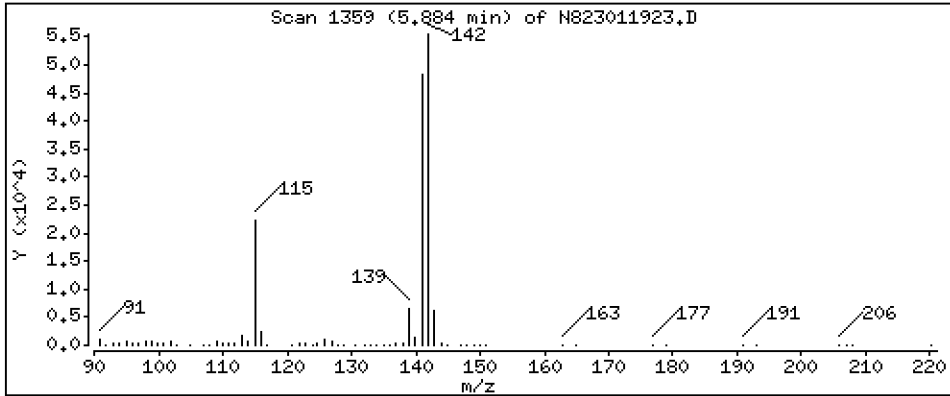
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

5 1-methylnaphthalene

Concentration: 3,495 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

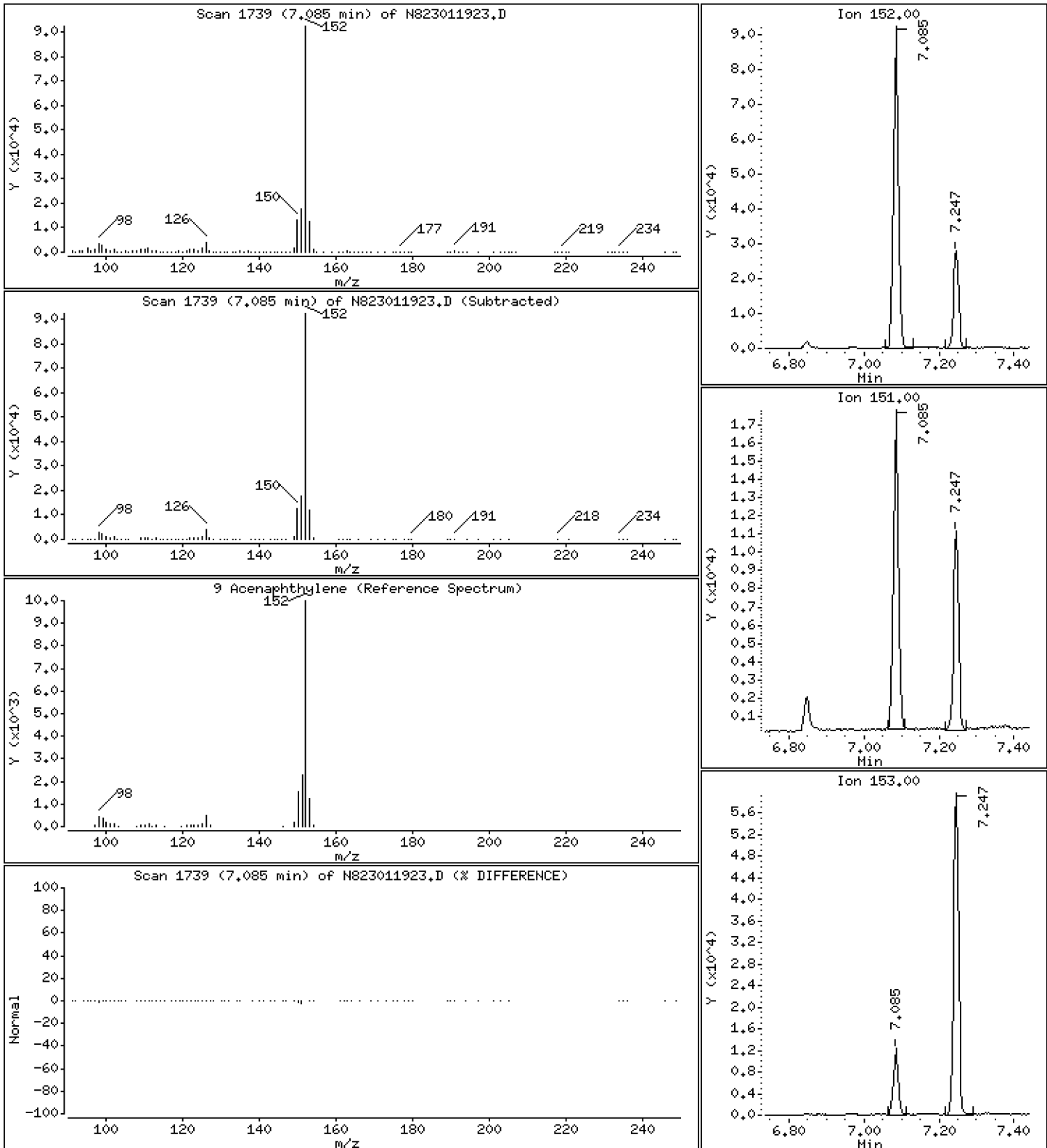
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

9 Acenaphthylene

Concentration: 3,880 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

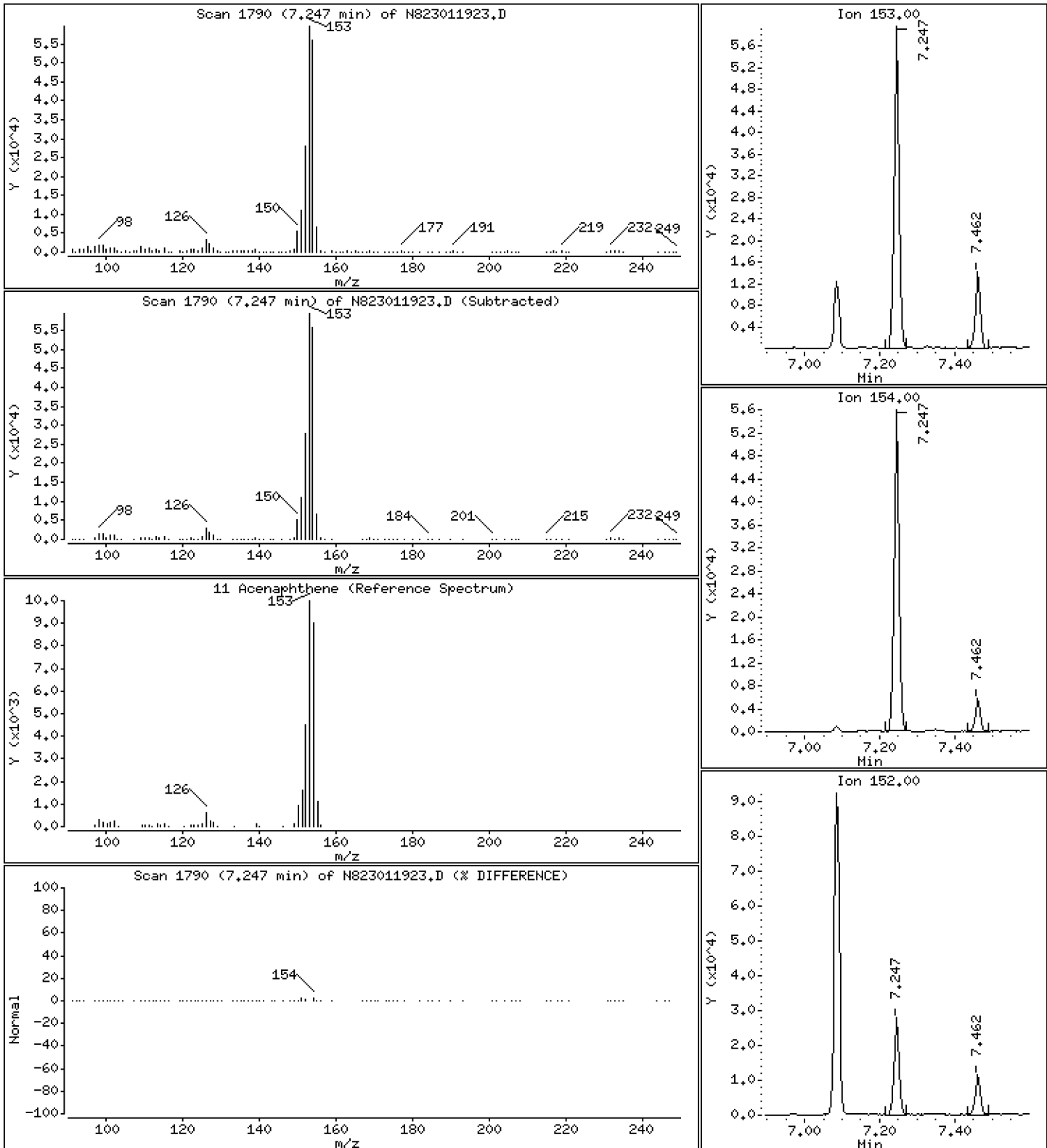
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 3,667 ug/mL

11 Acenaphthene



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

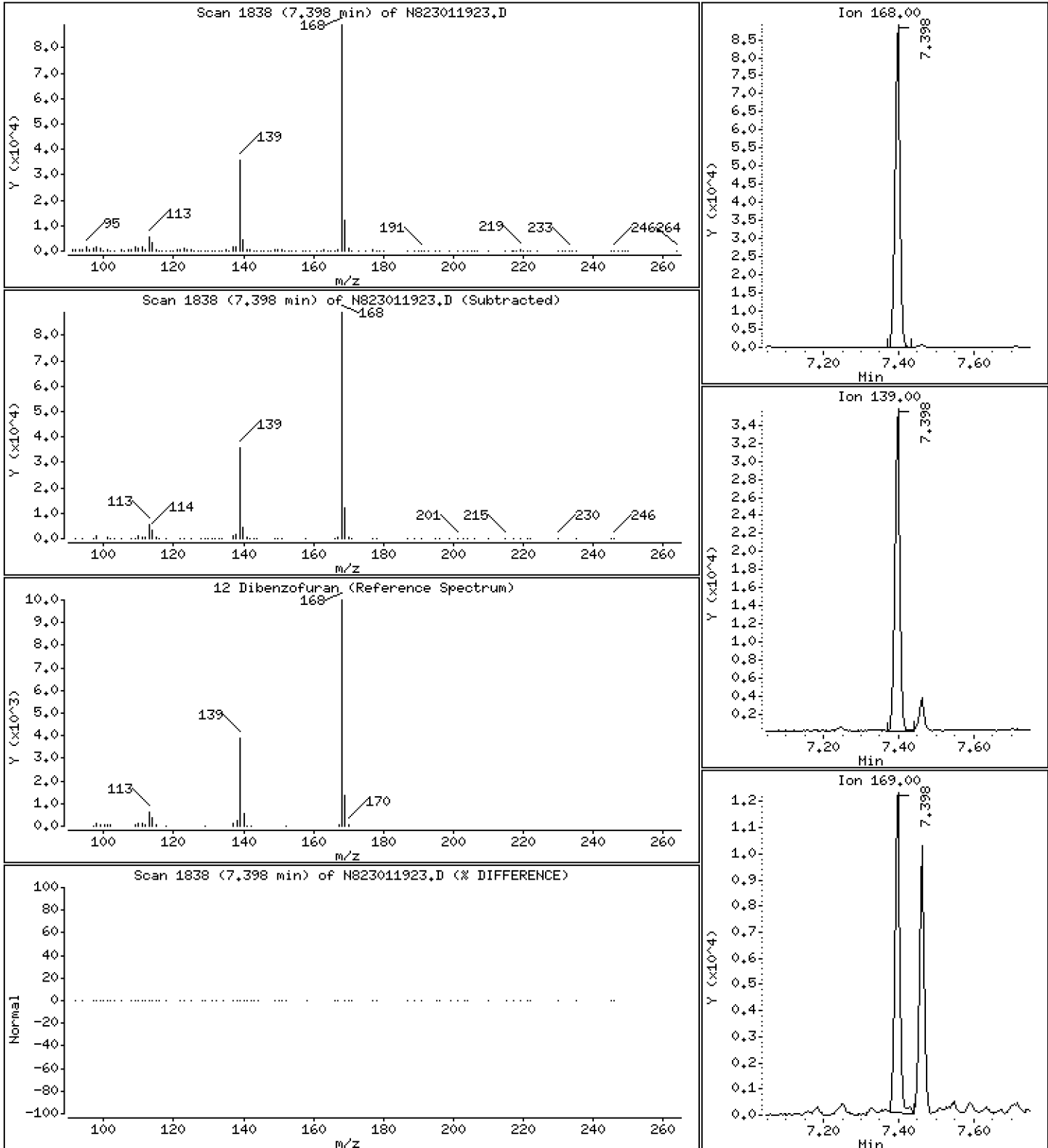
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

12 Dibenzofuran

Concentration: 3,625 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

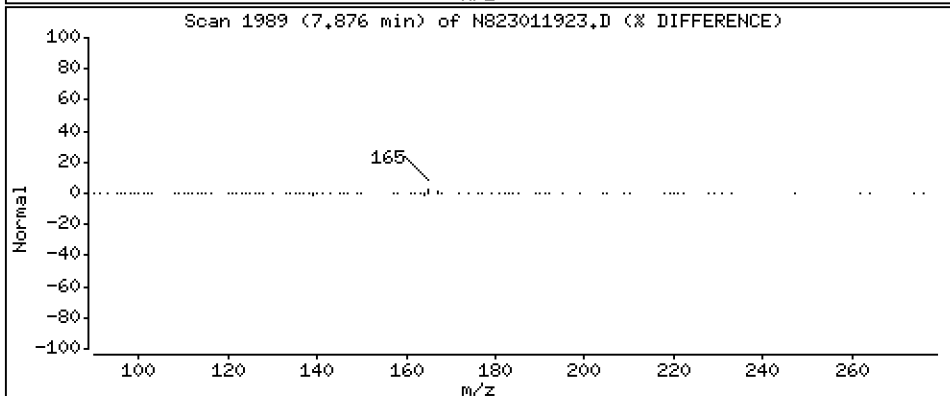
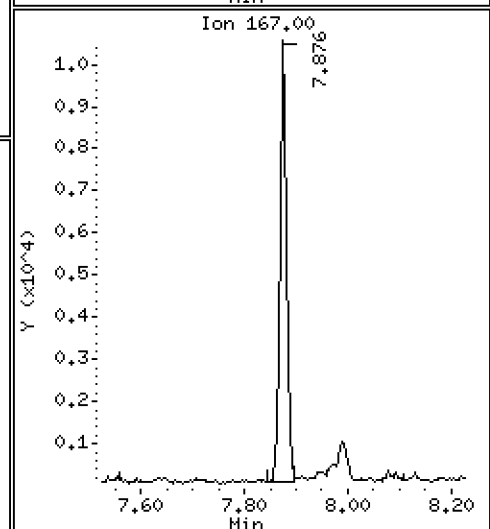
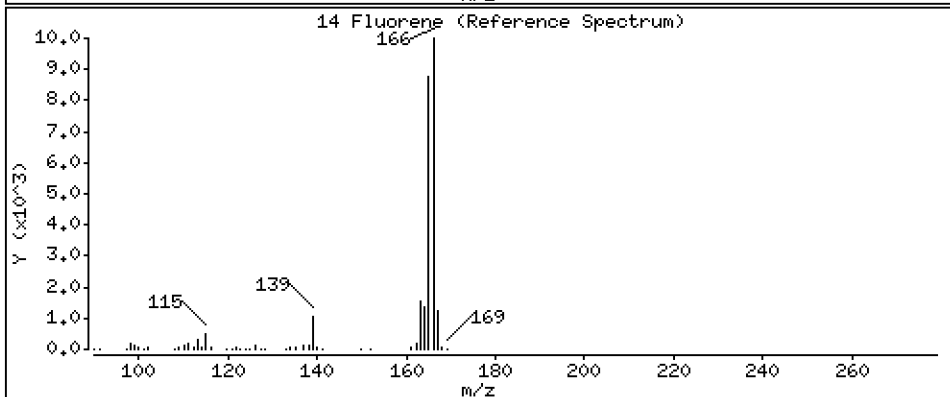
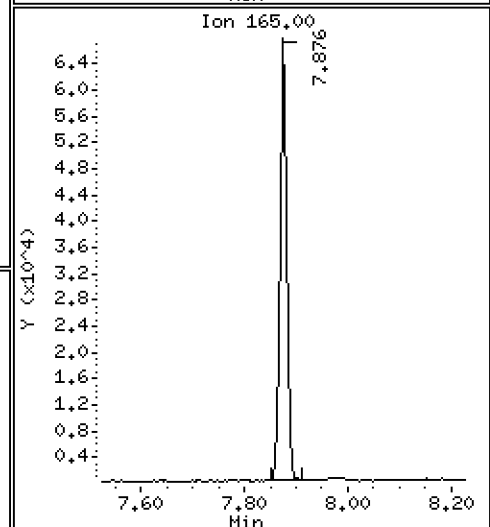
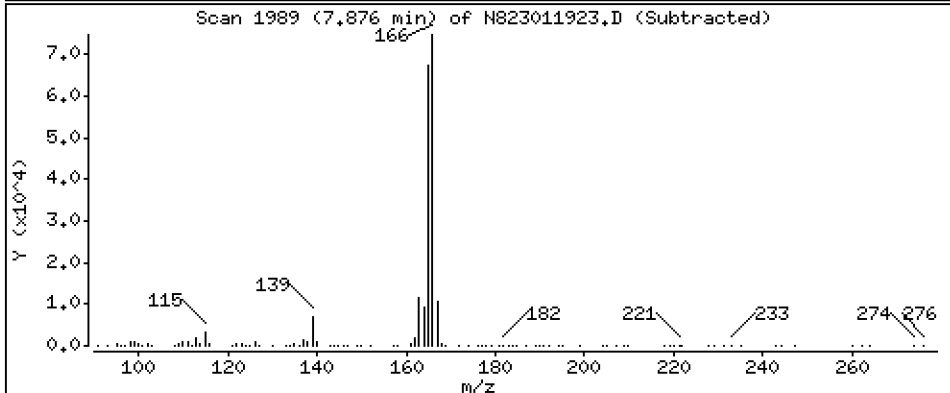
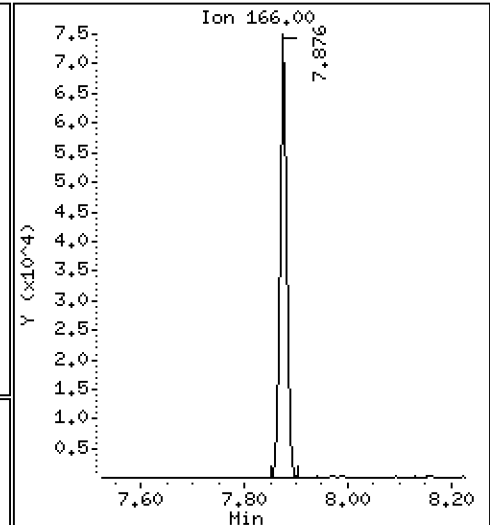
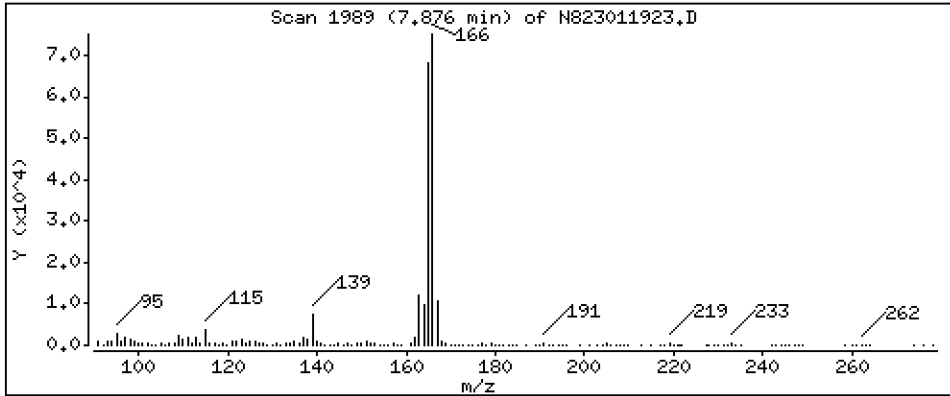
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

Concentration: 3,913 ug/mL

14 Fluorene



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

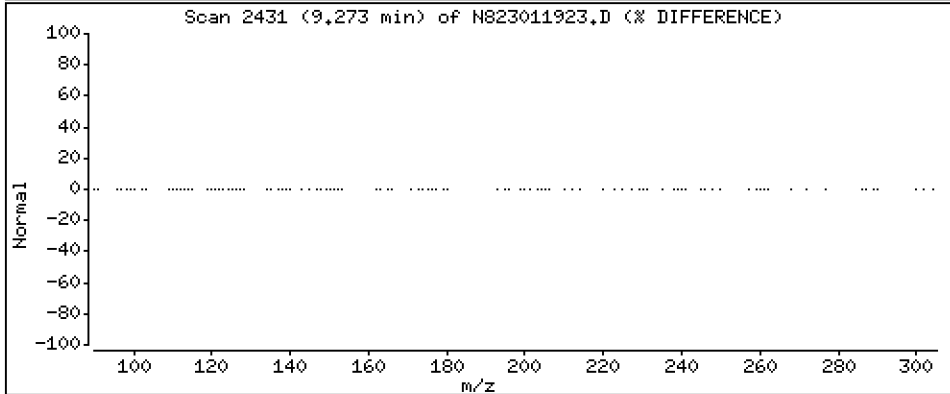
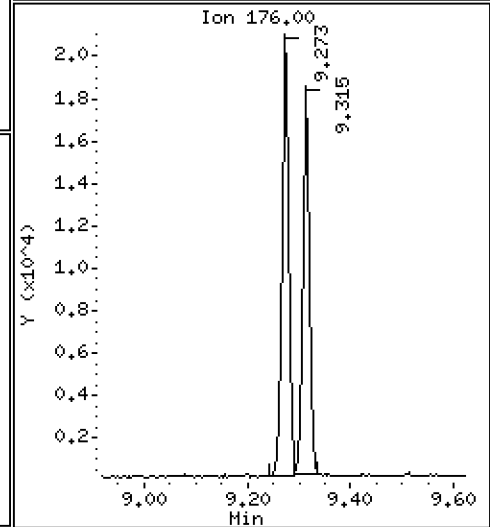
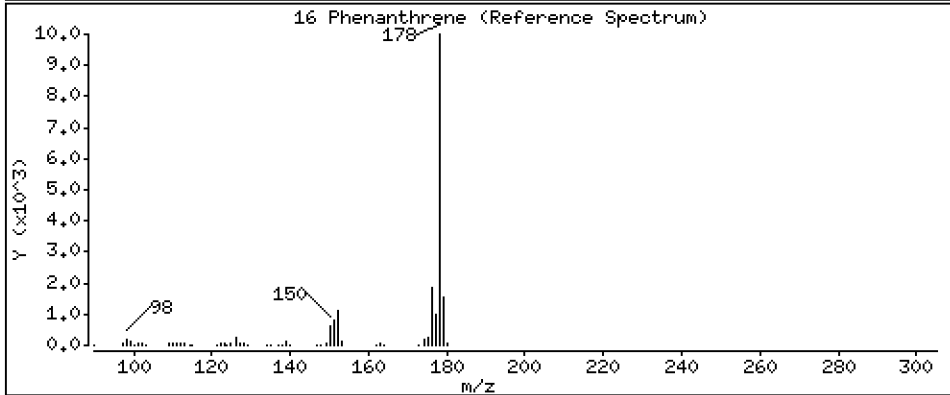
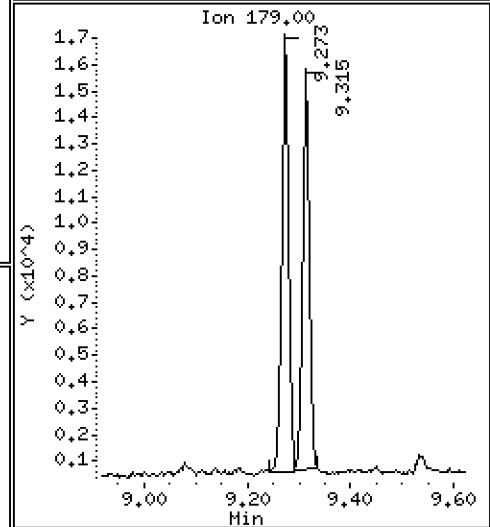
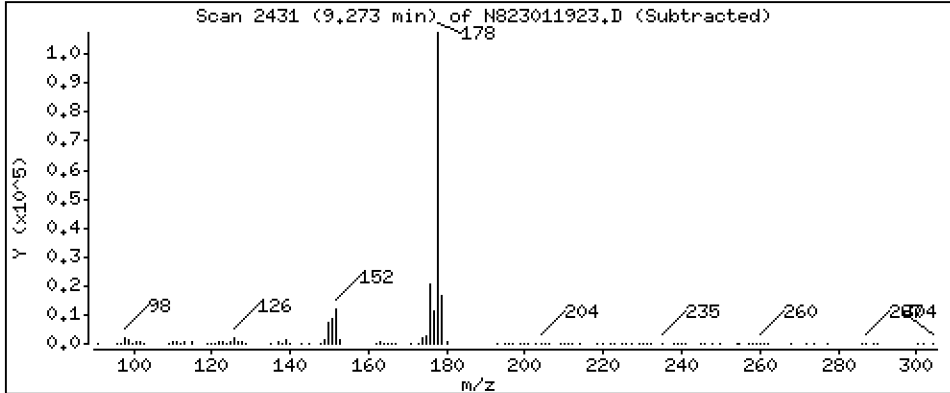
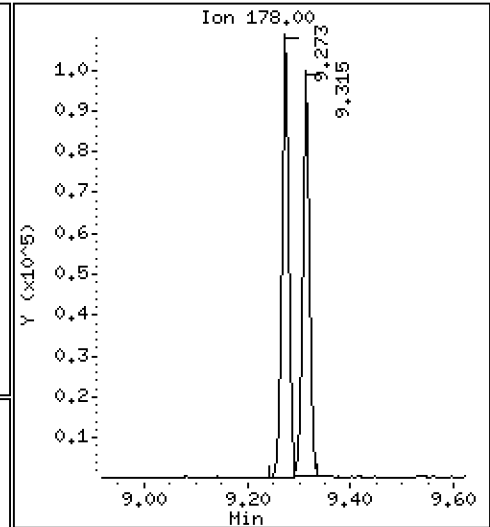
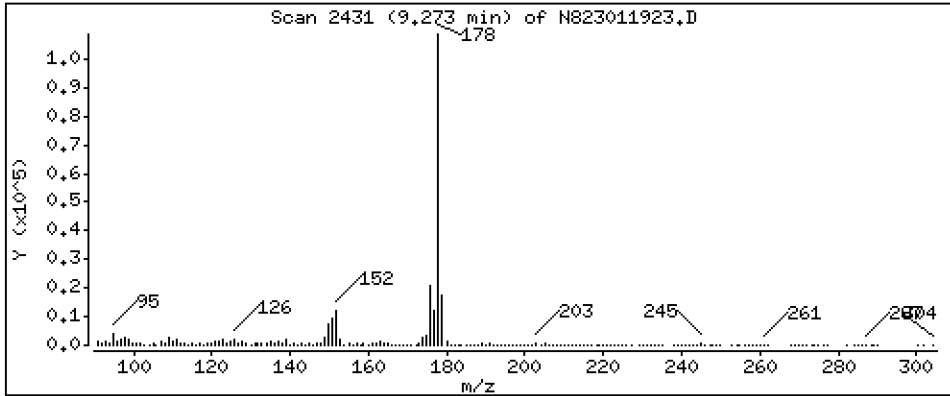
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

16 Phenanthrene

Concentration: 4,346 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

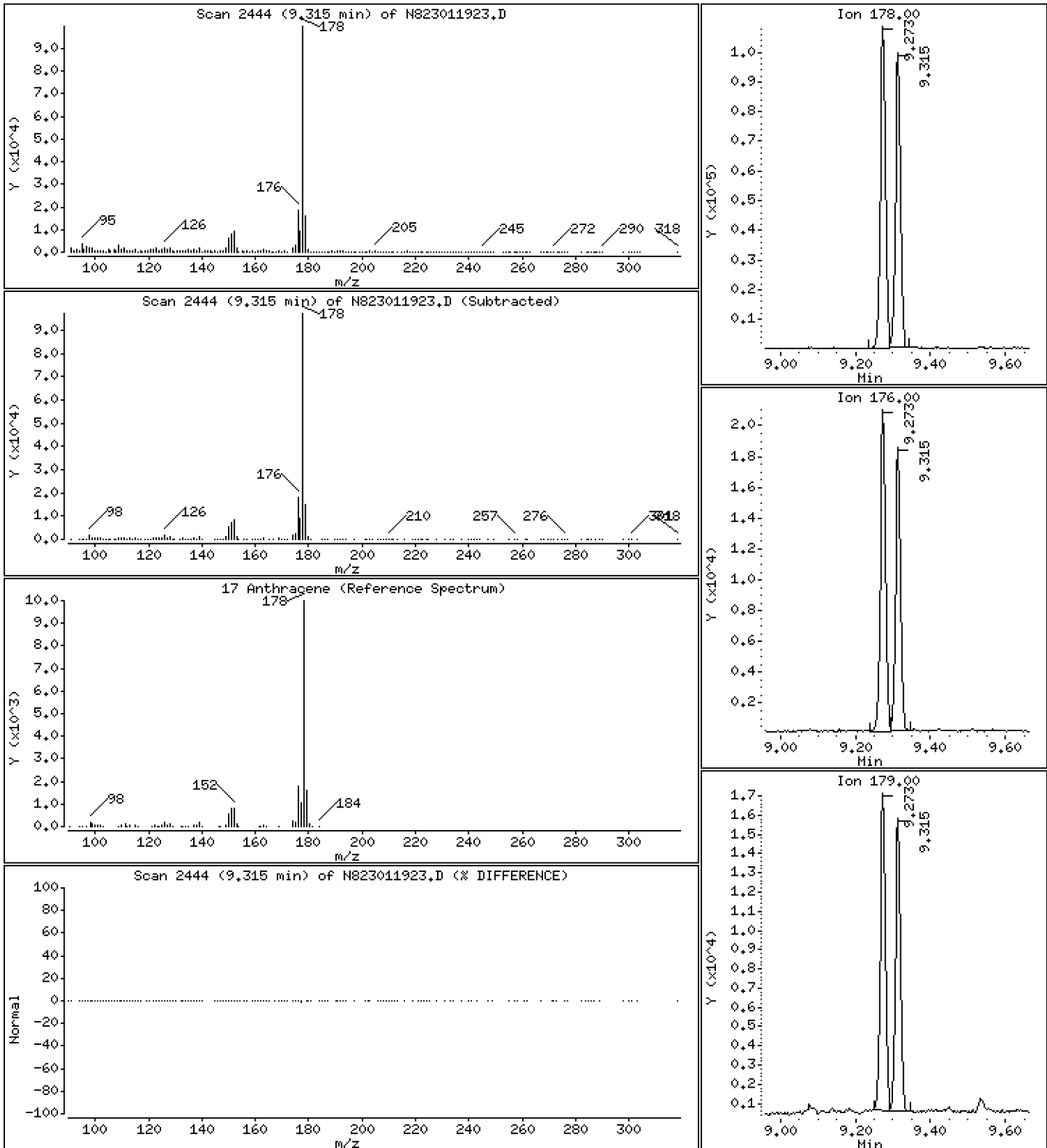
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

17 Anthracene

Concentration: 4,307 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

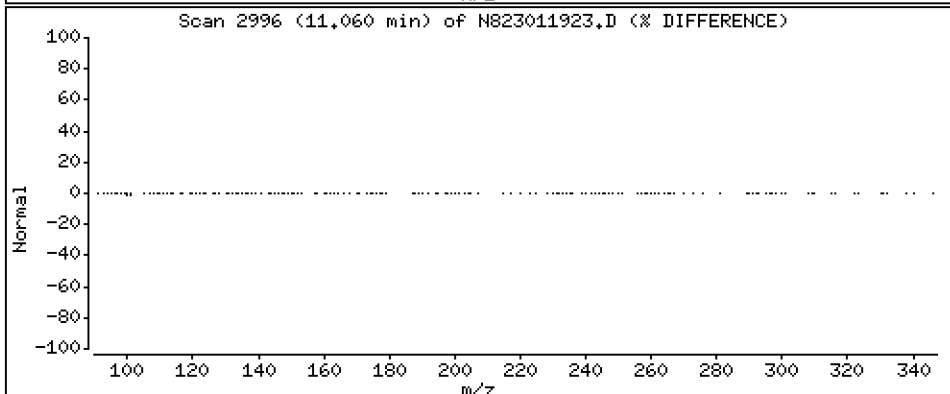
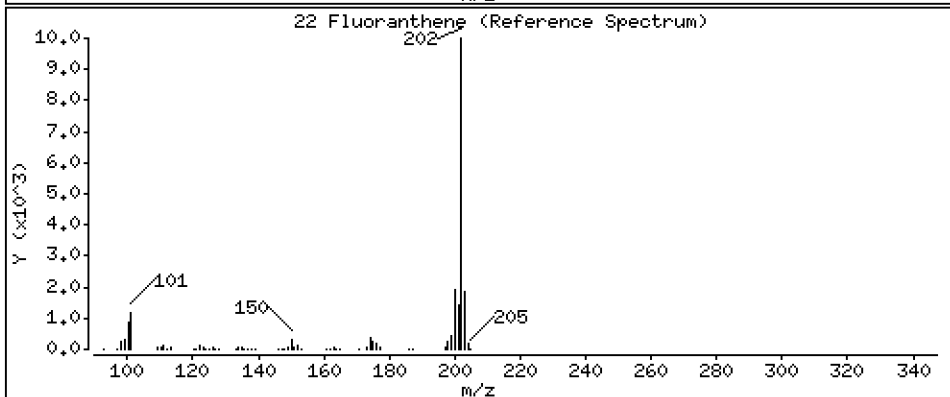
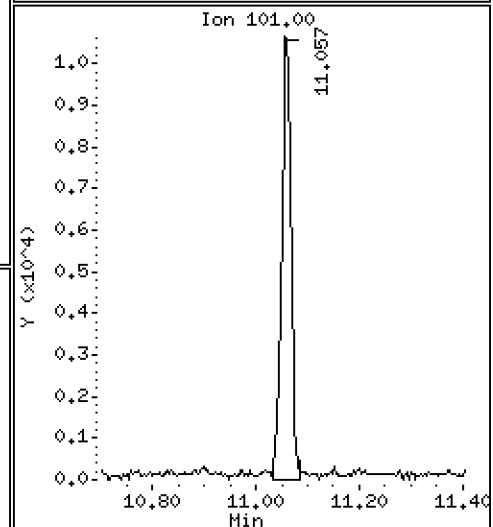
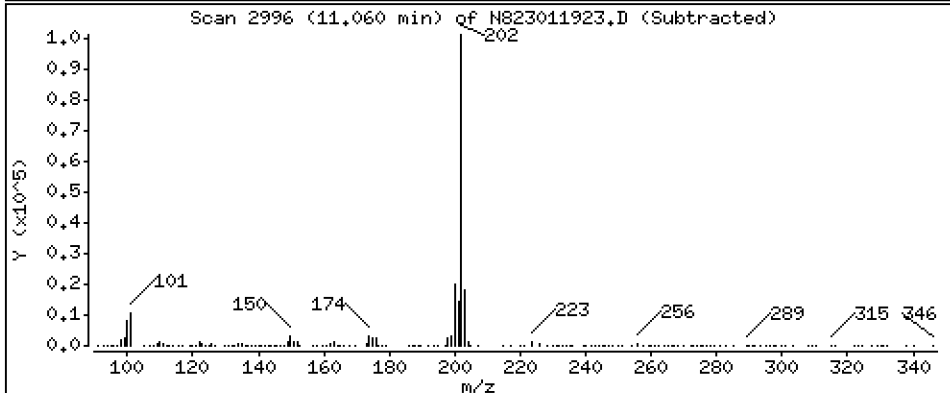
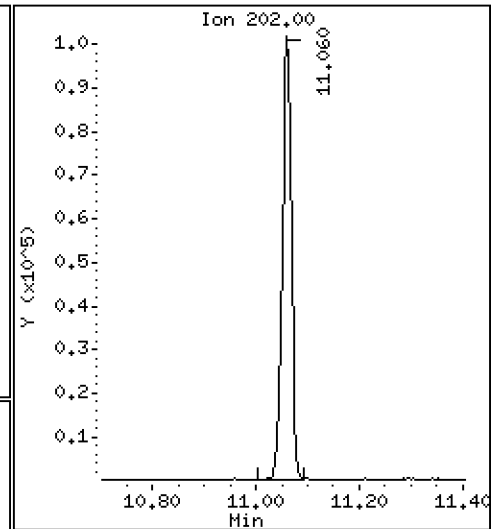
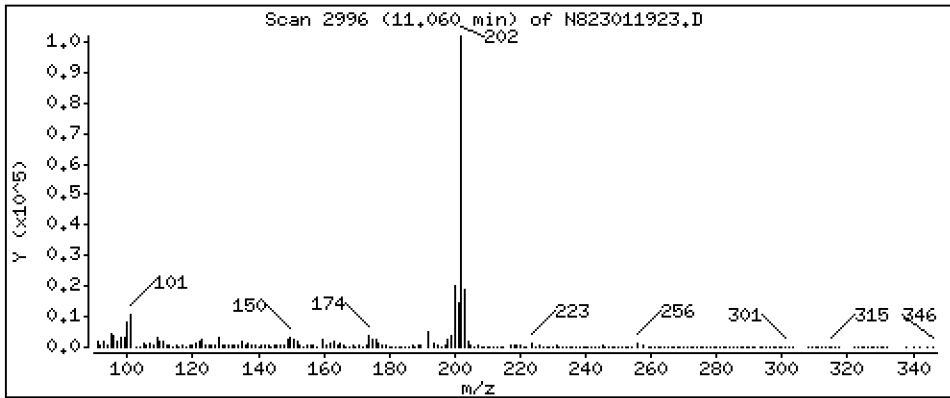
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 4,921 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

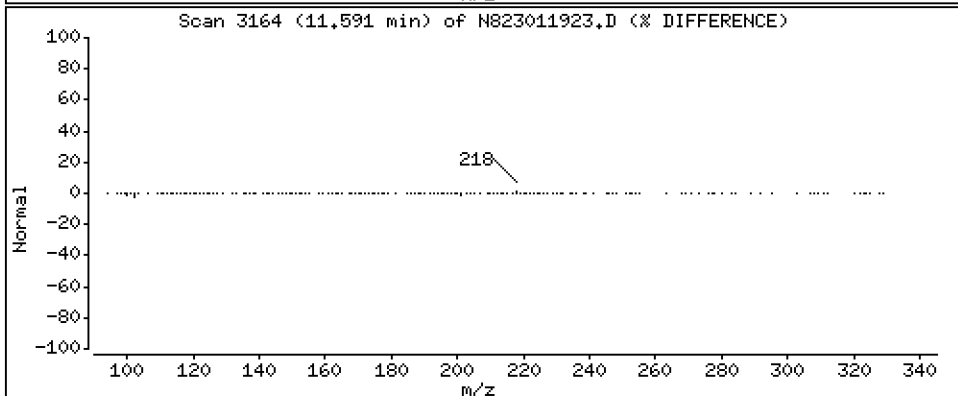
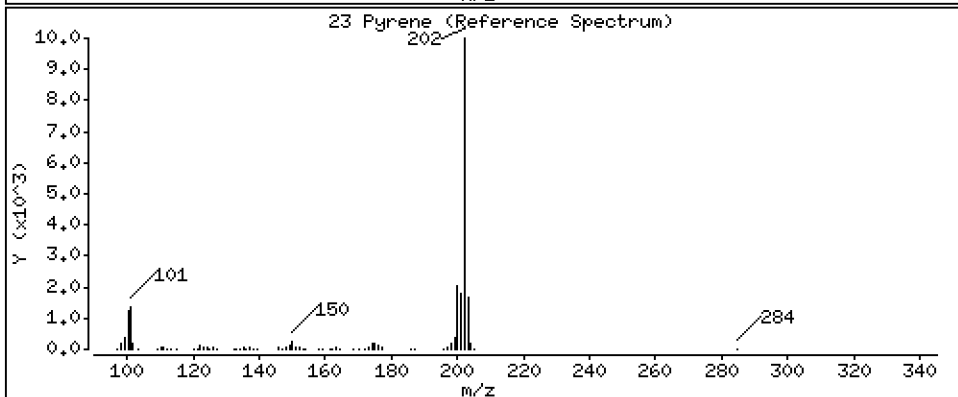
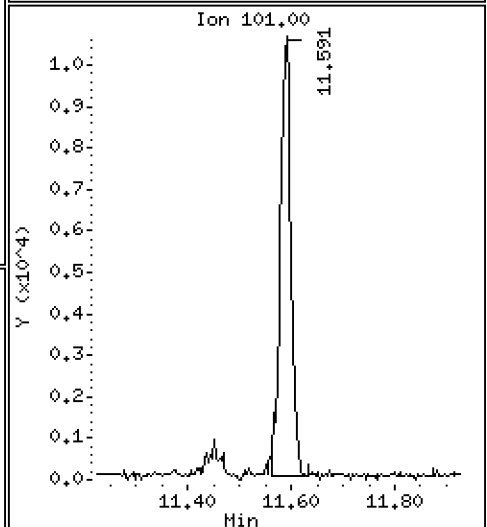
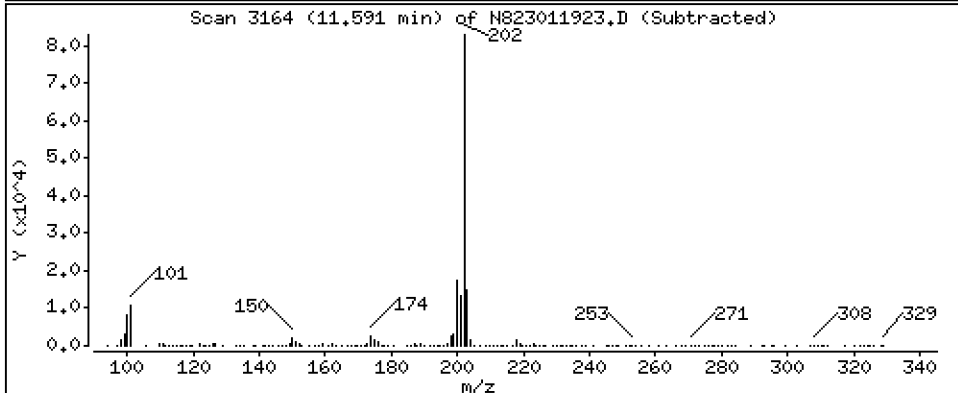
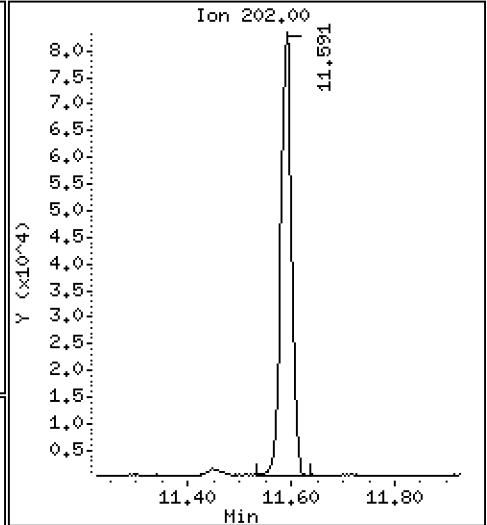
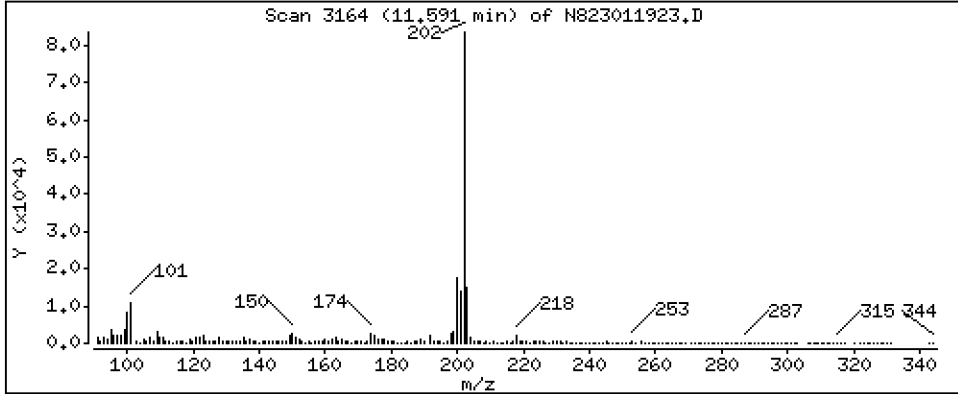
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

23 Pyrene

Concentration: 7,361 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

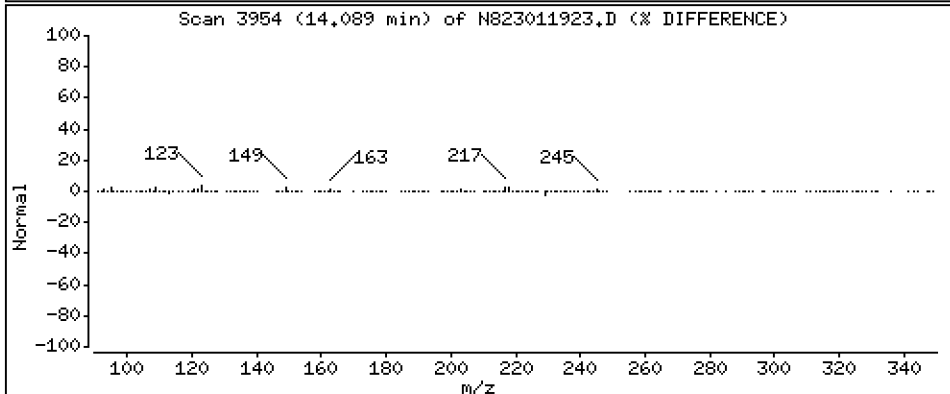
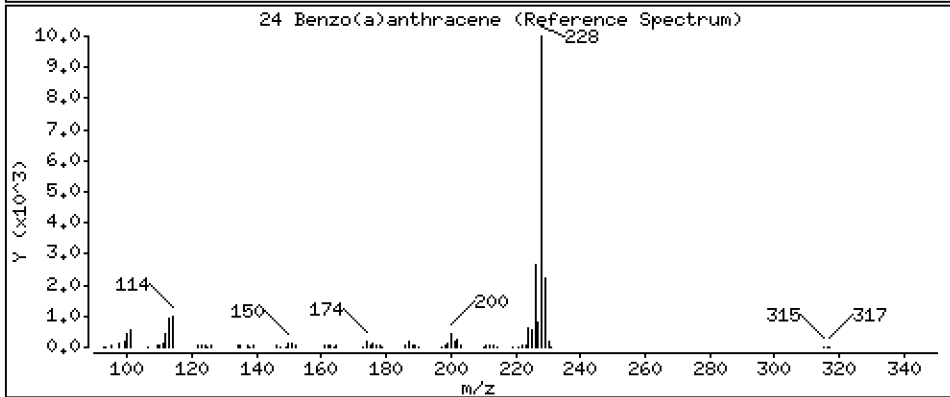
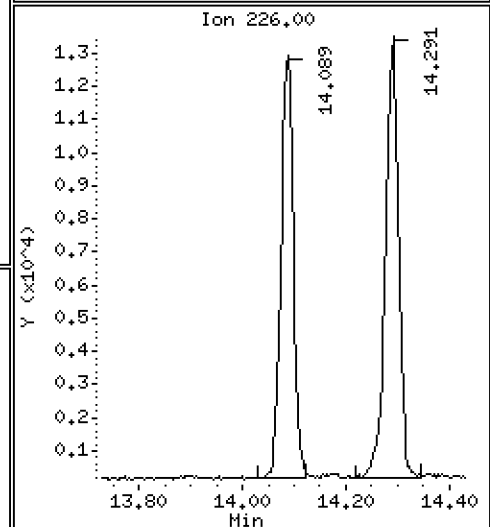
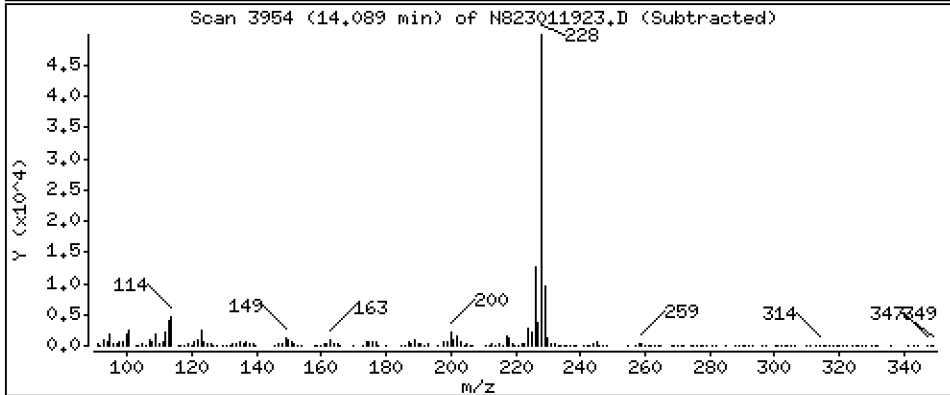
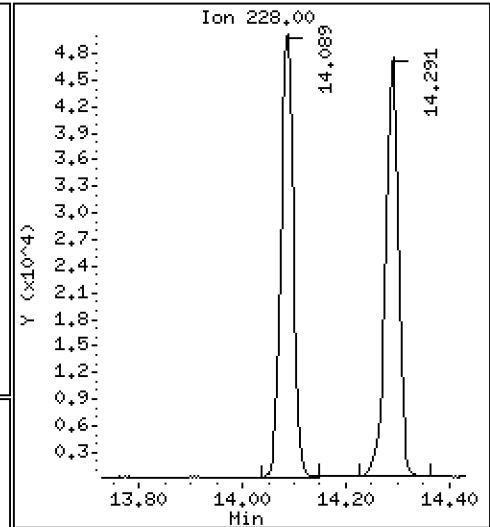
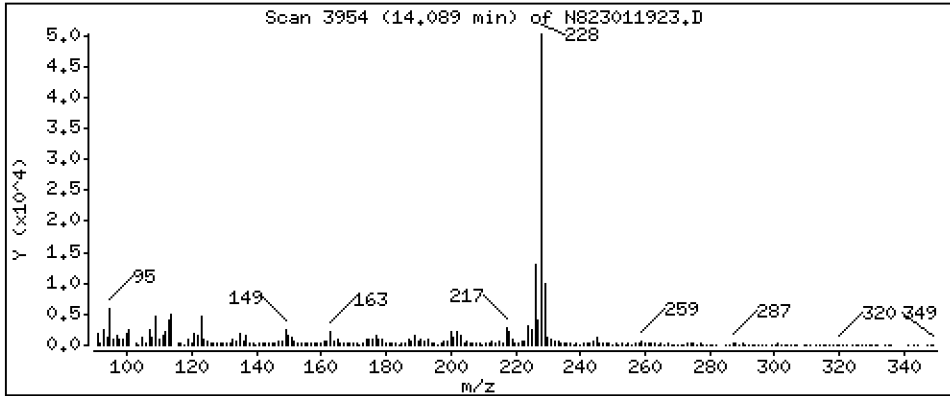
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

24 Benzo(a)anthracene

Concentration: 5,594 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

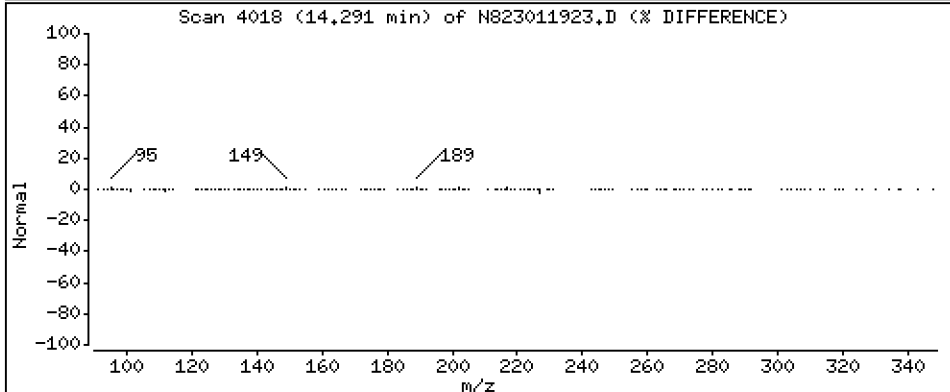
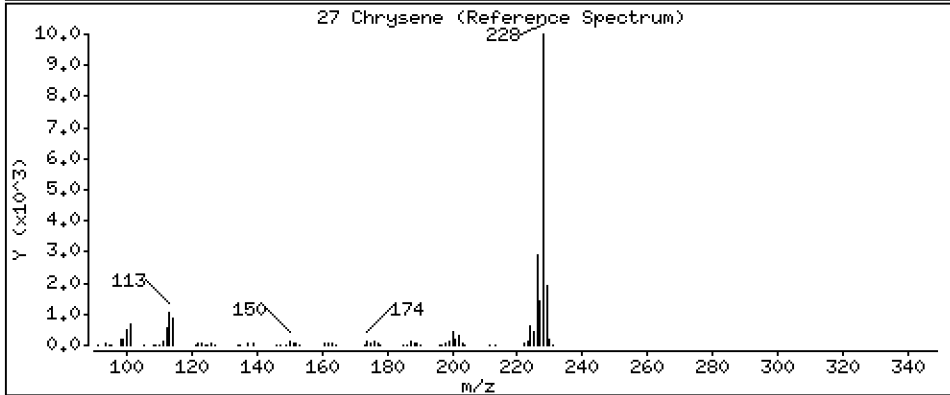
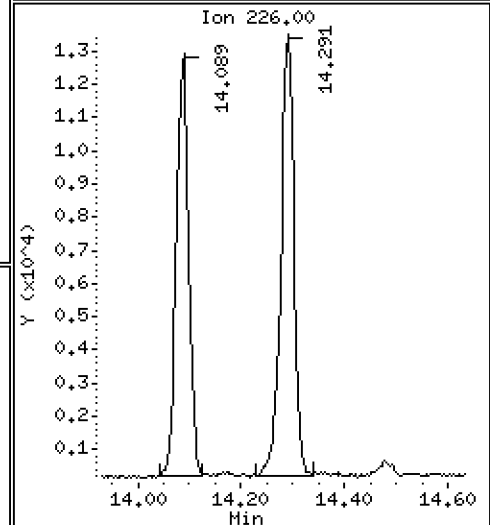
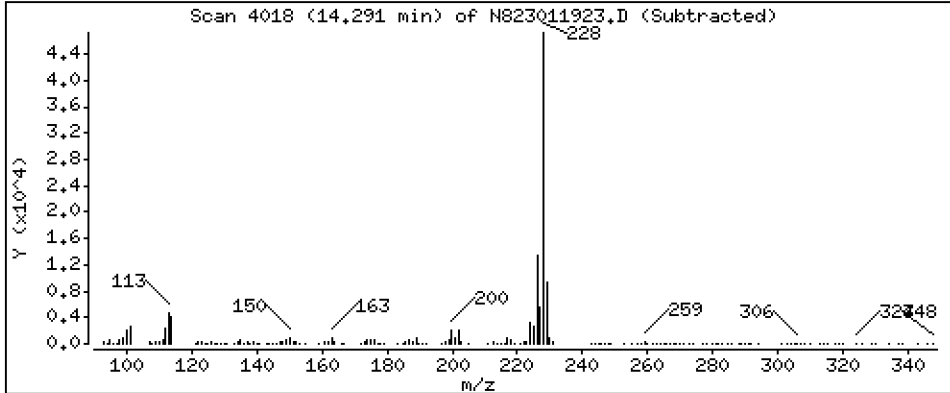
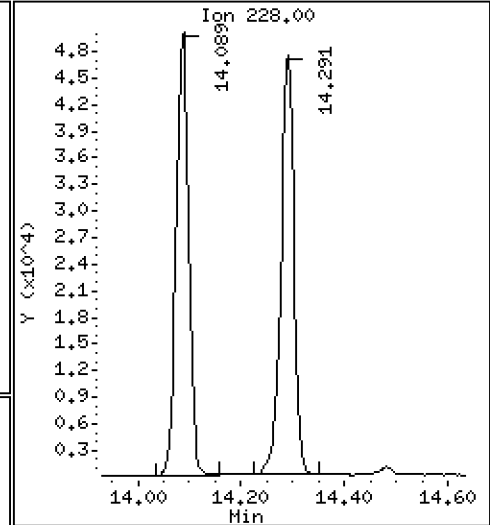
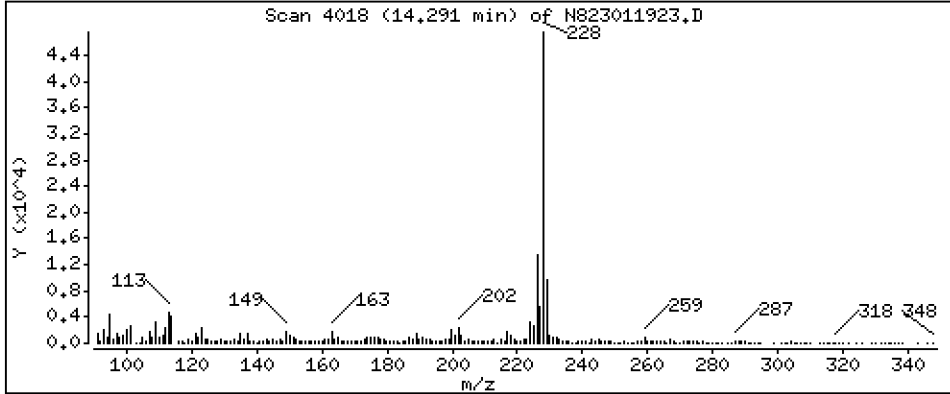
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

27 Chrysene

Concentration: 5,139 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

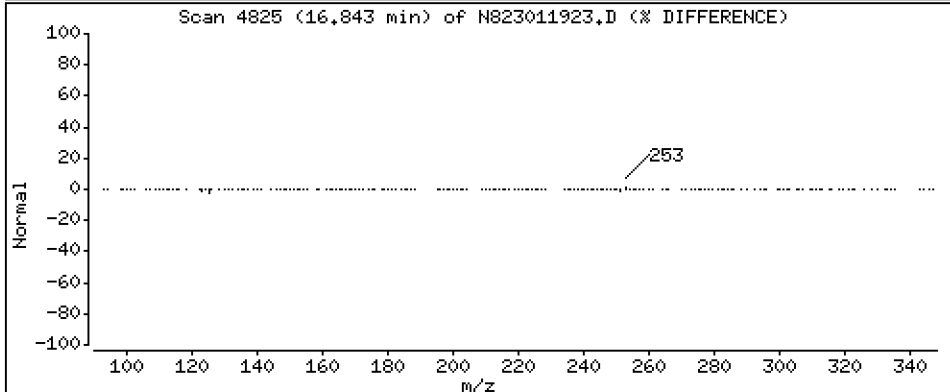
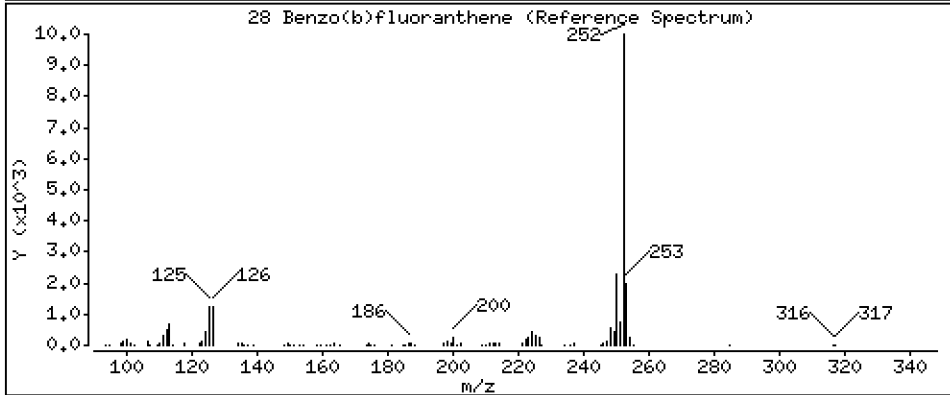
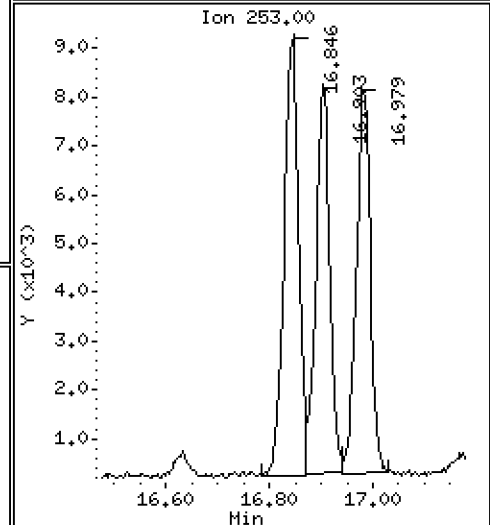
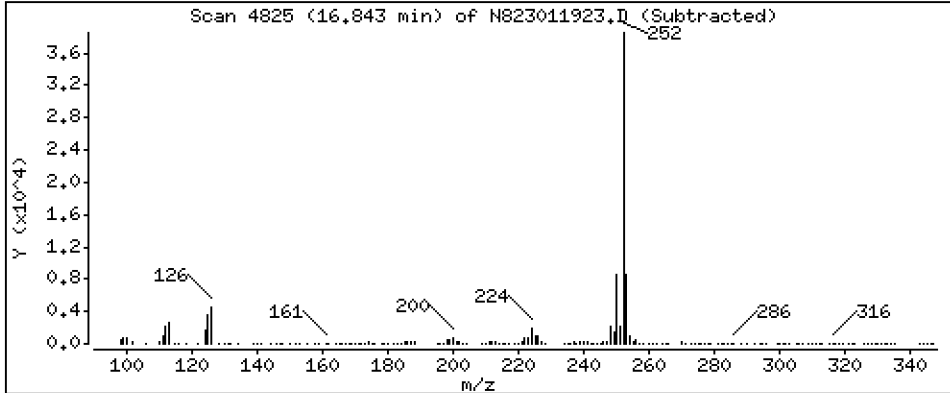
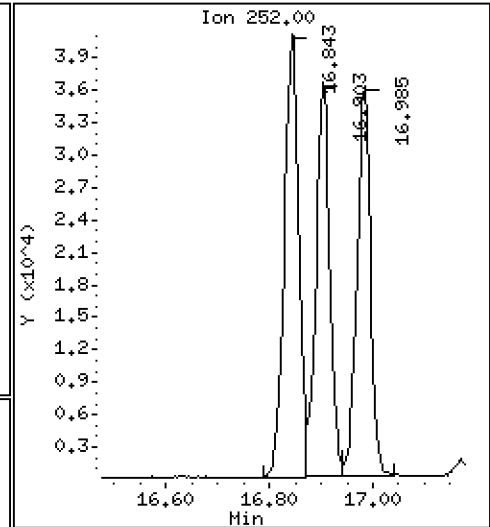
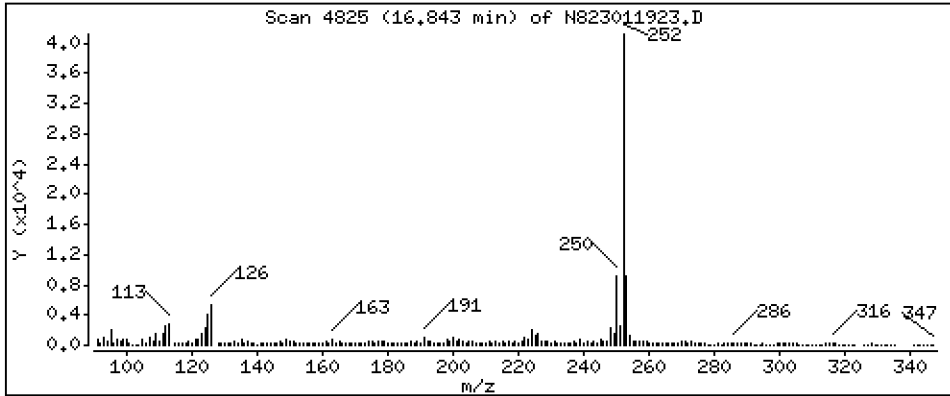
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

28 Benzo(b)fluoranthene

Concentration: 5,784 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

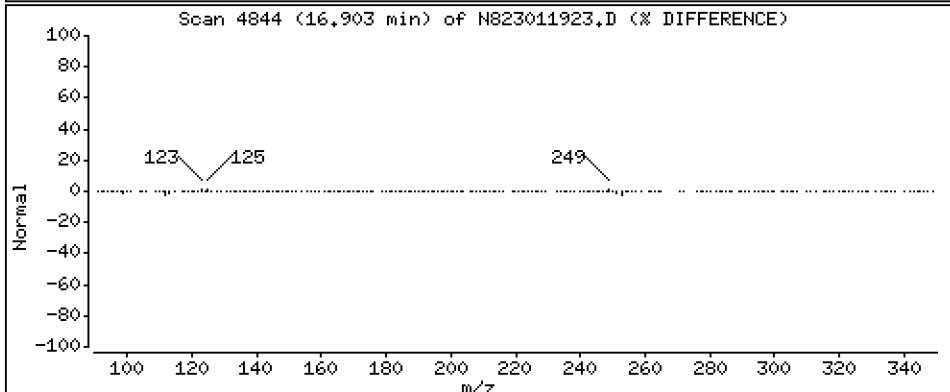
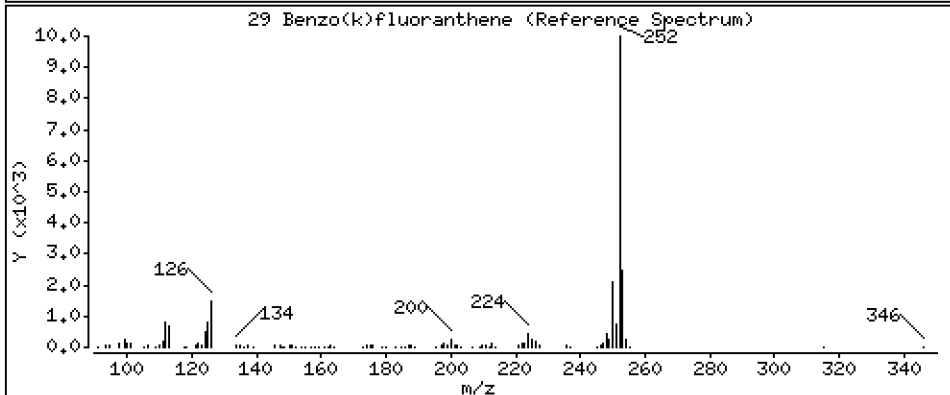
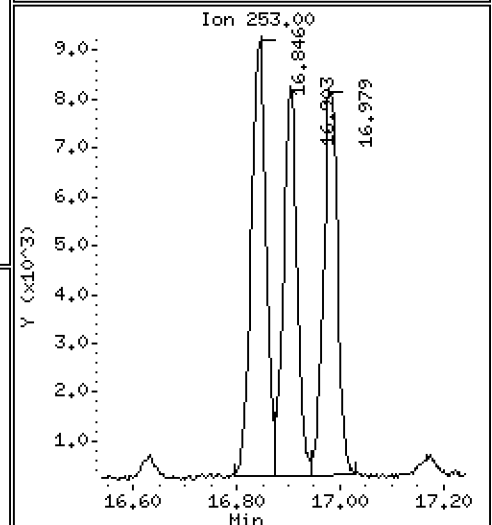
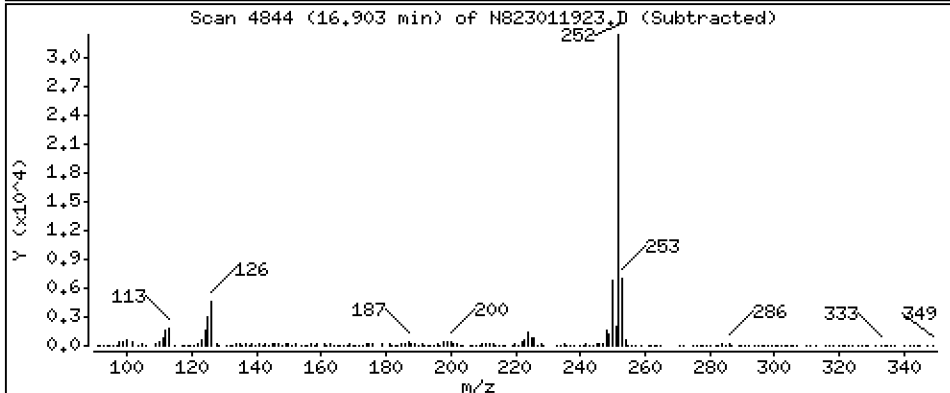
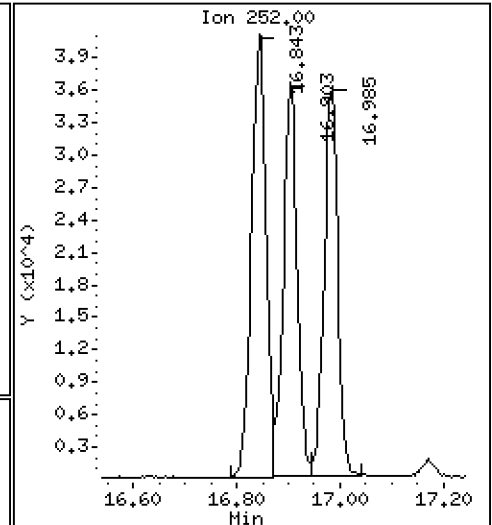
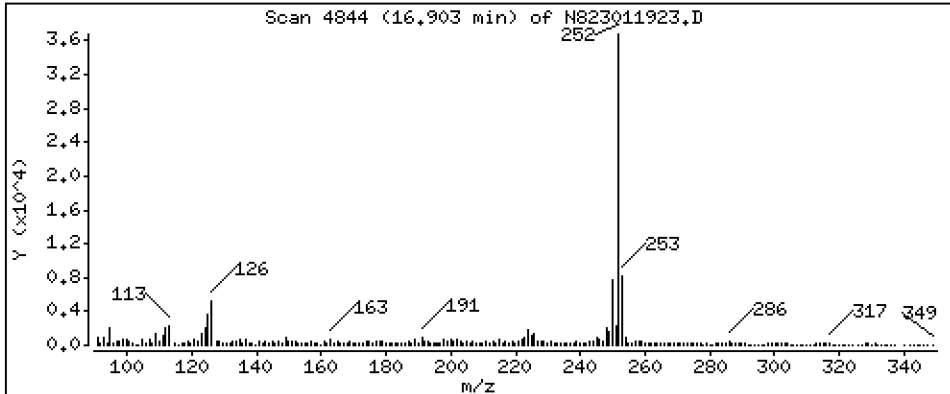
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

29 Benzo(k)fluoranthene

Concentration: 5,037 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

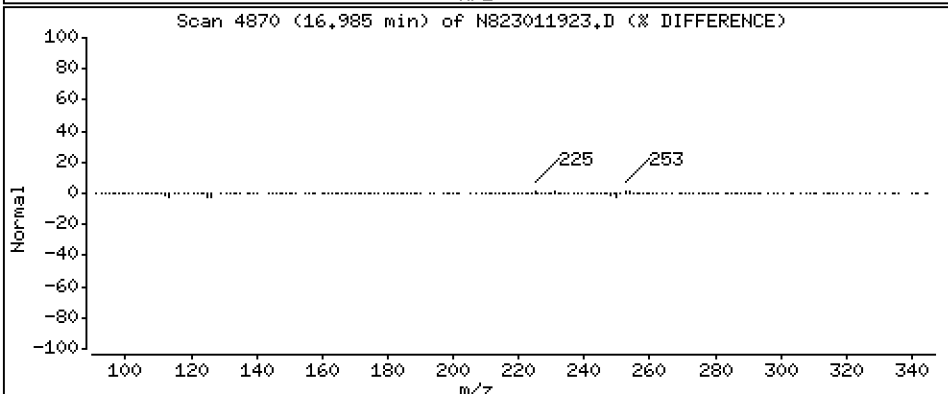
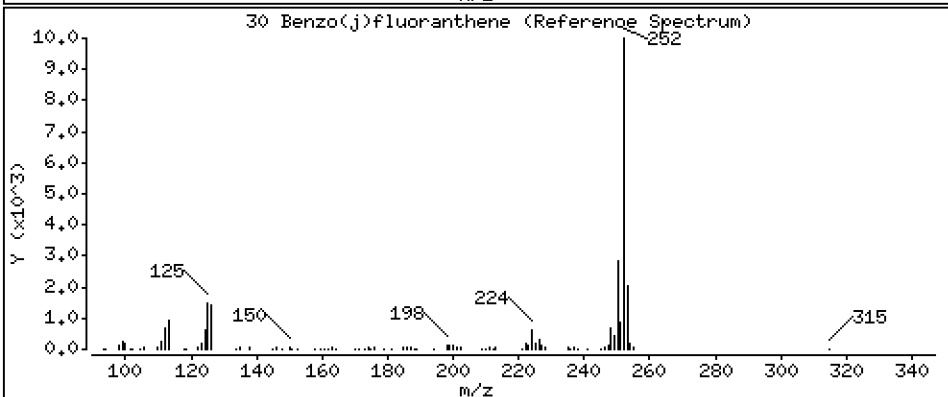
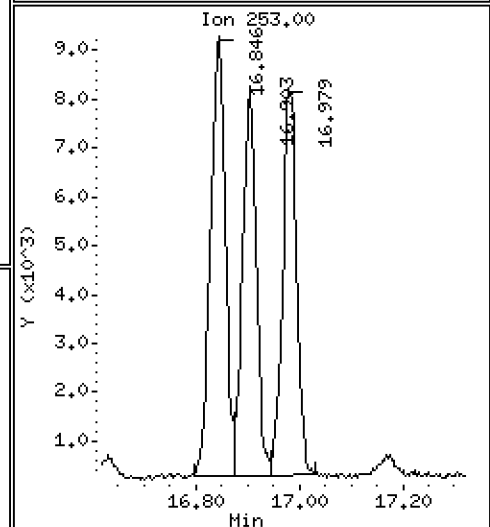
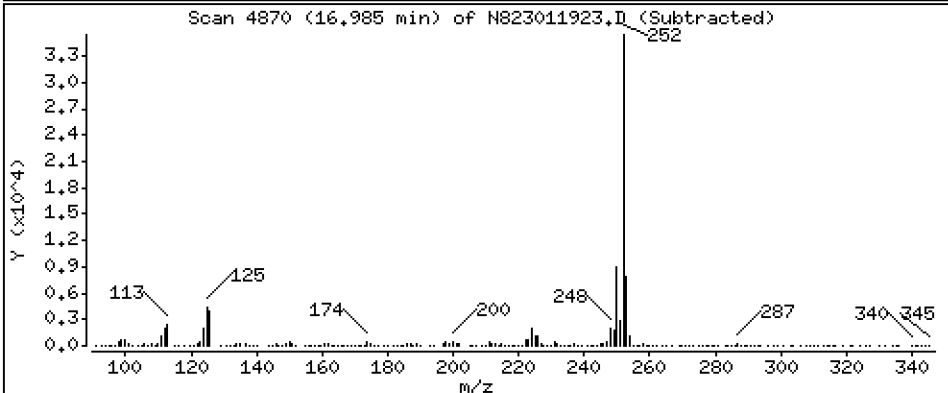
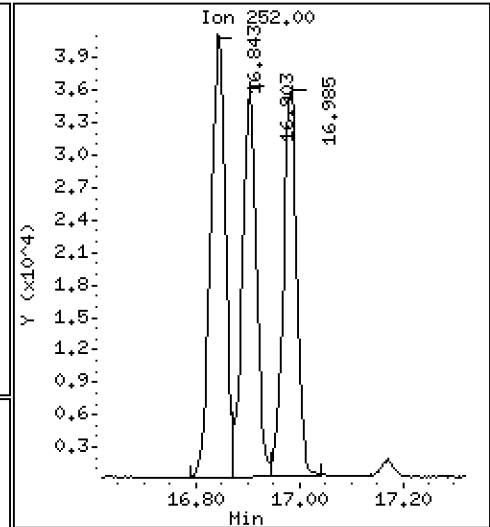
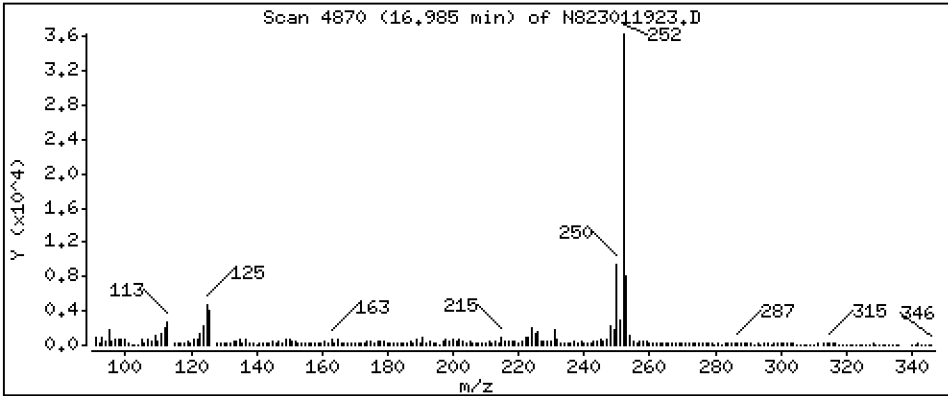
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

30 Benzo(j)fluoranthene

Concentration: 5,390 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

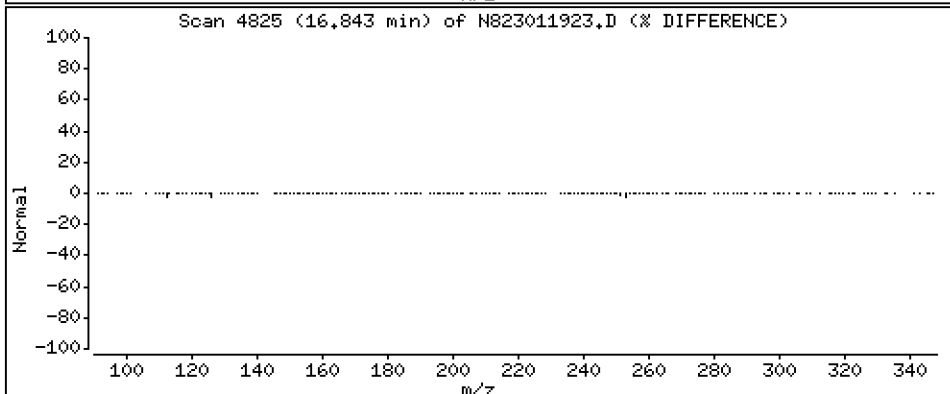
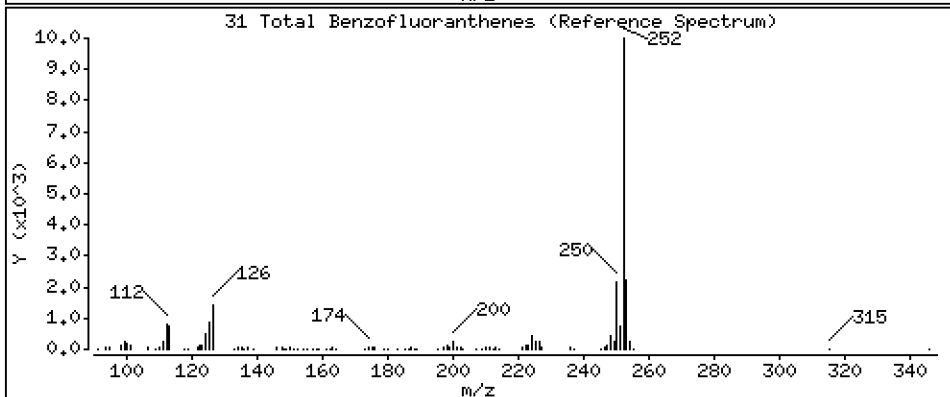
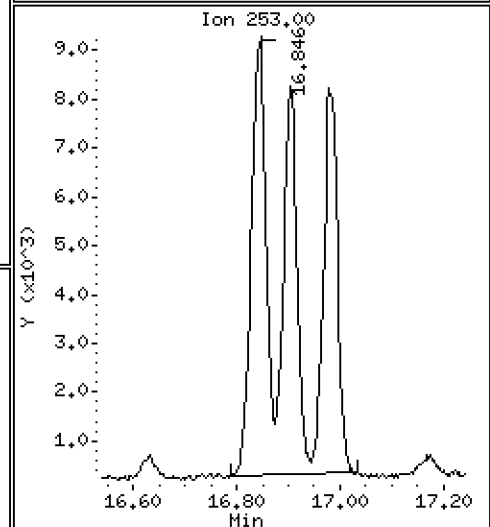
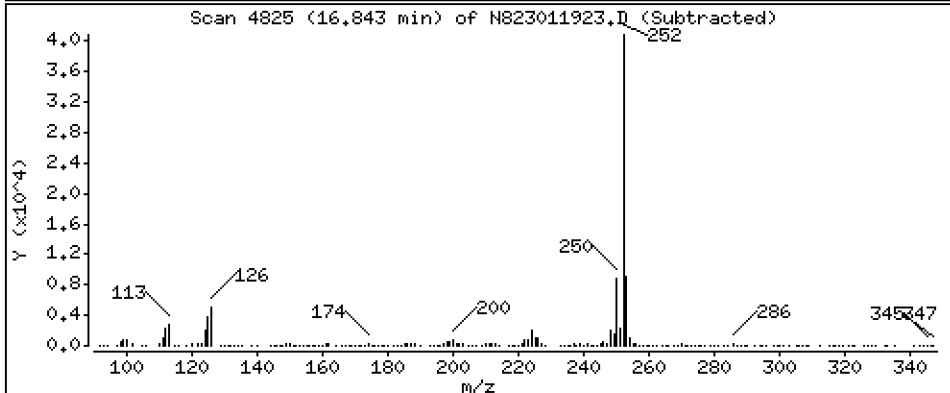
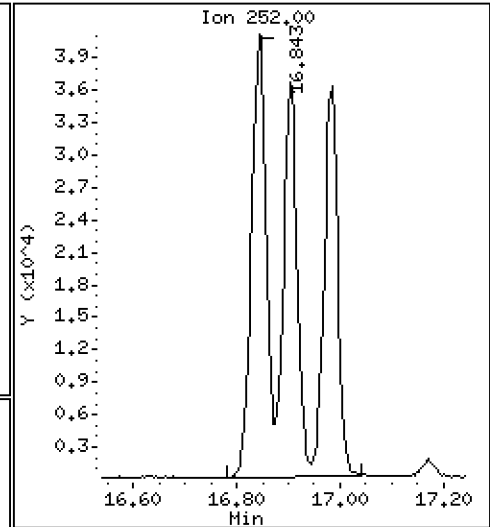
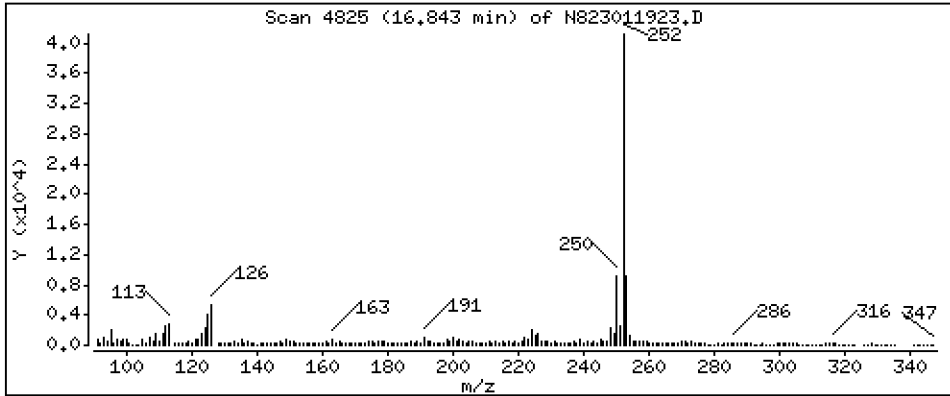
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

31 Total Benzofluoranthenes

Concentration: 16,22 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

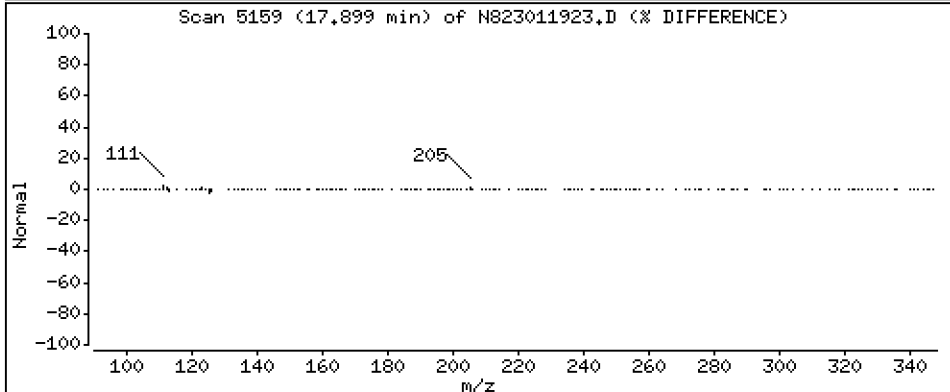
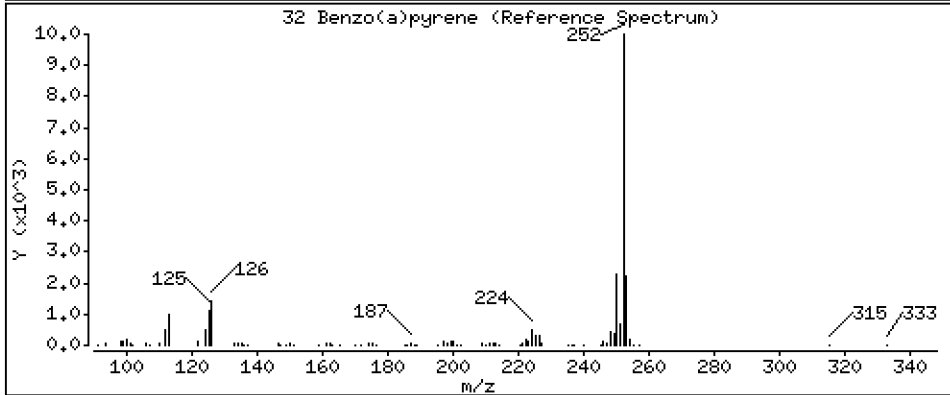
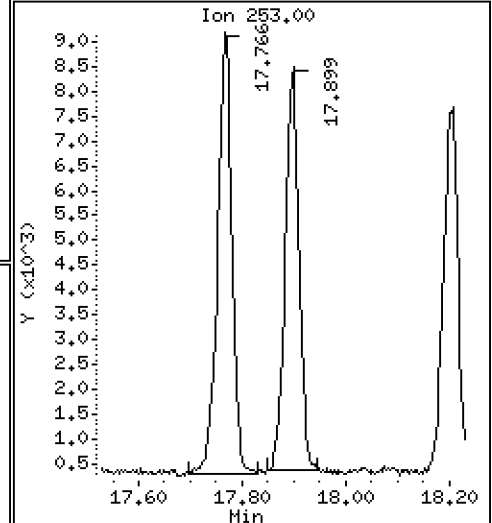
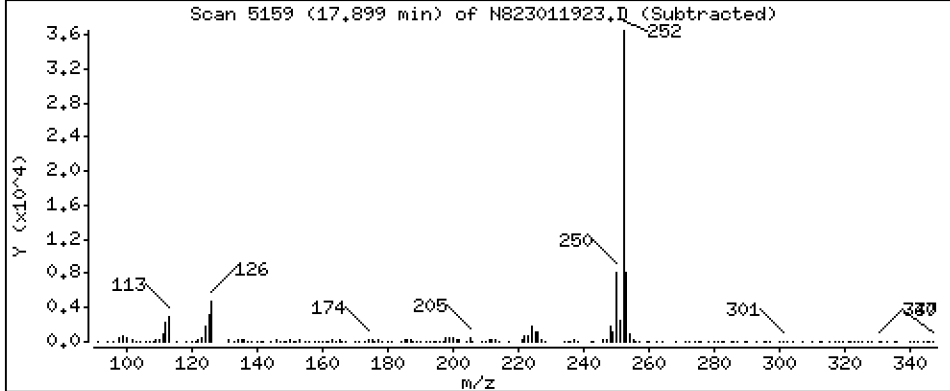
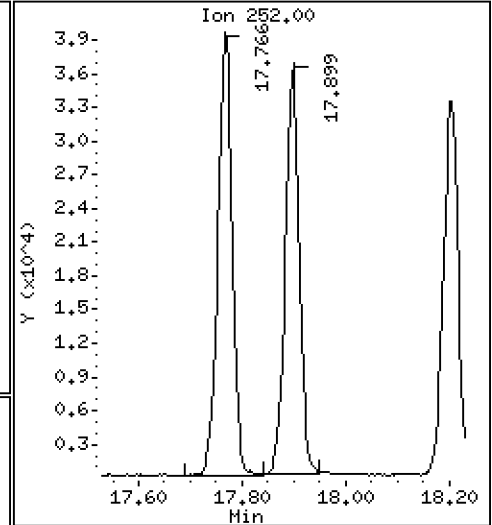
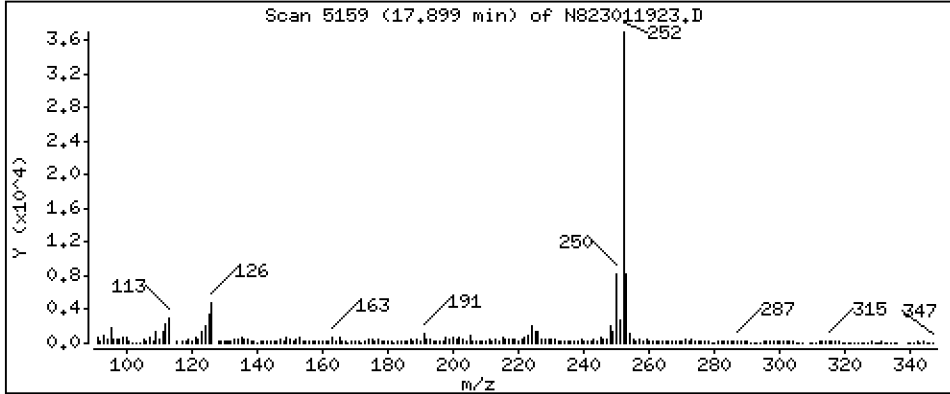
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 5,610 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

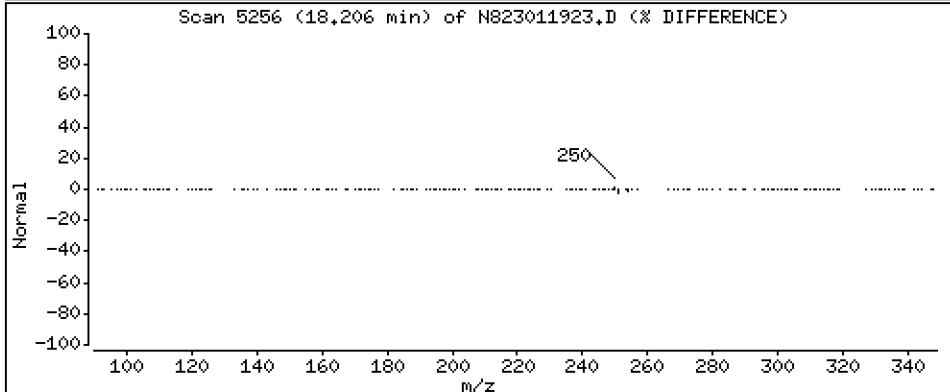
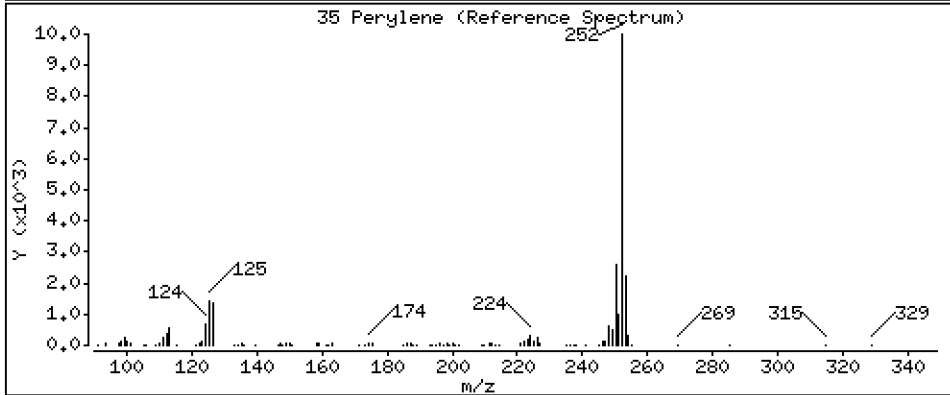
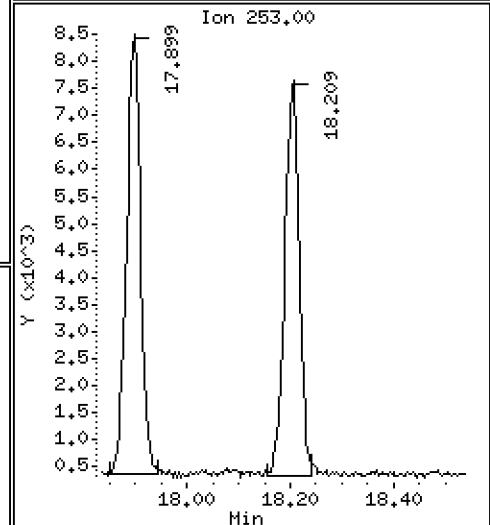
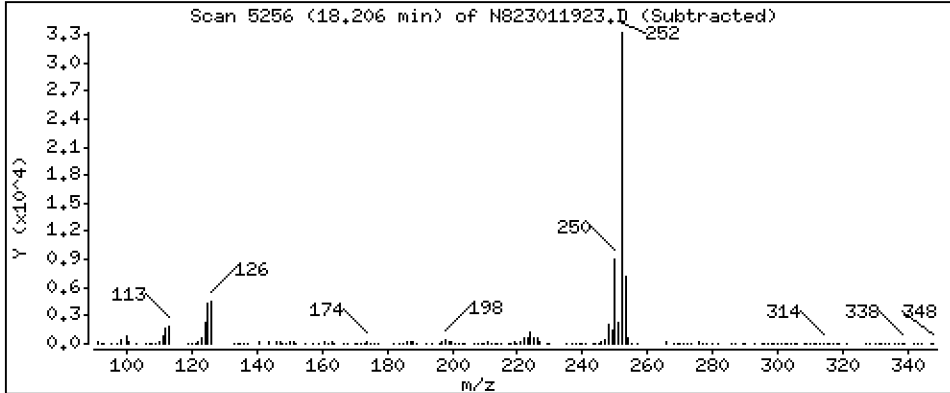
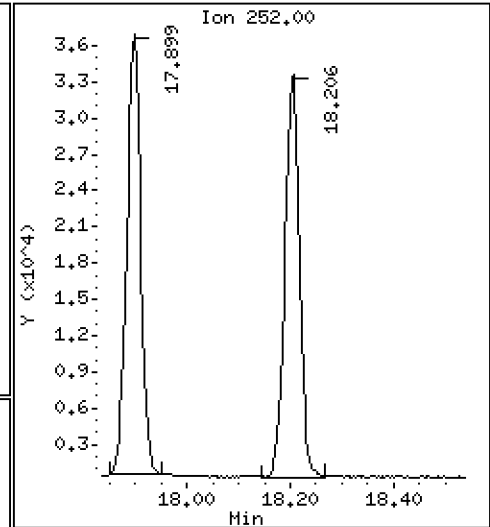
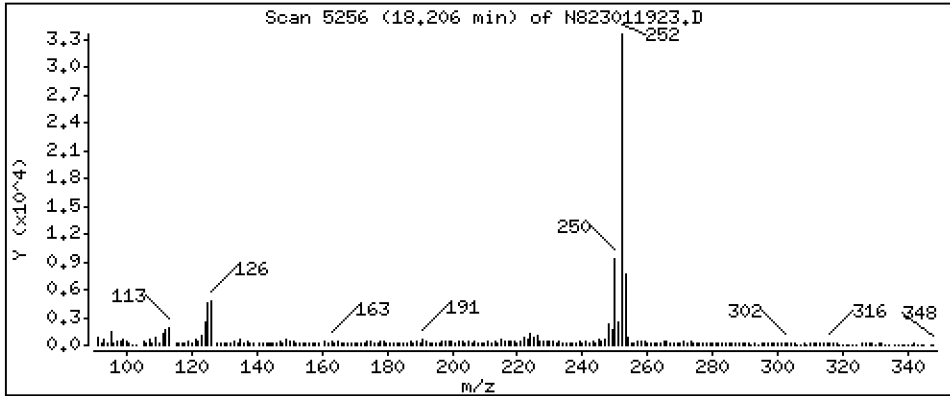
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

35 Perylene

Concentration: 5,020 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

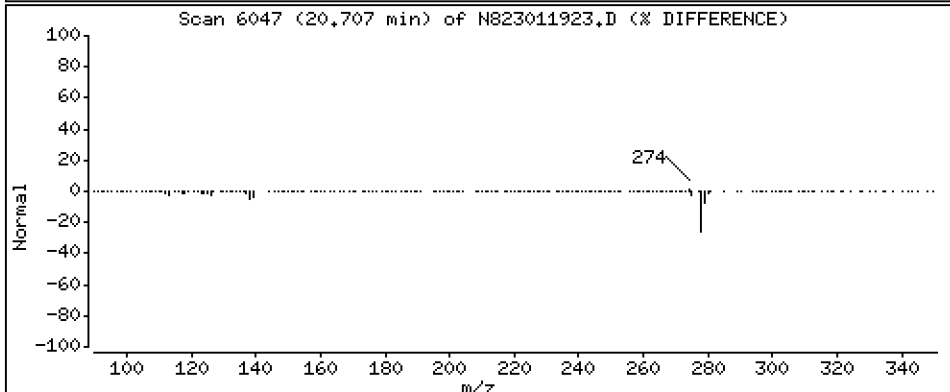
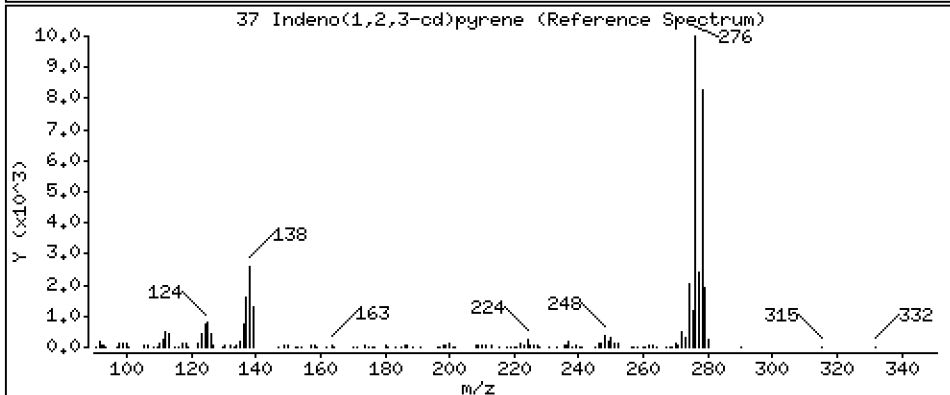
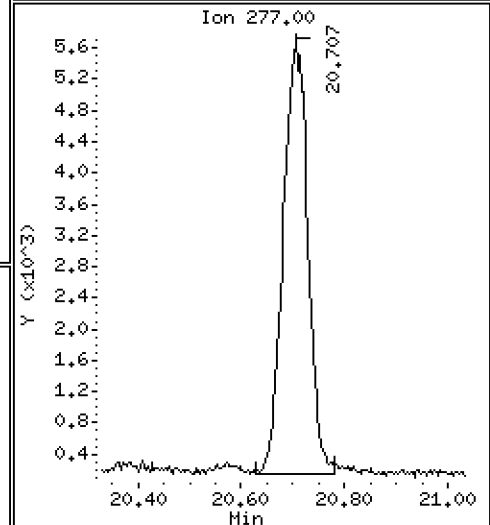
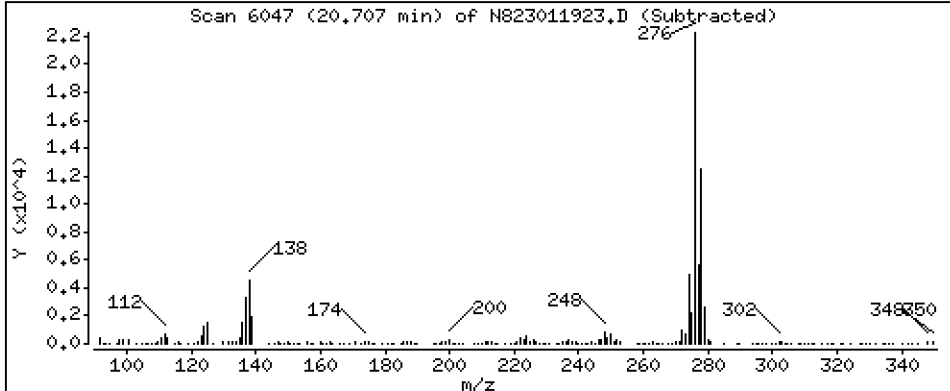
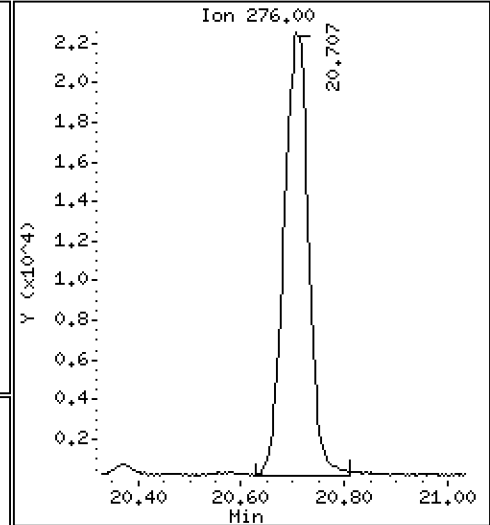
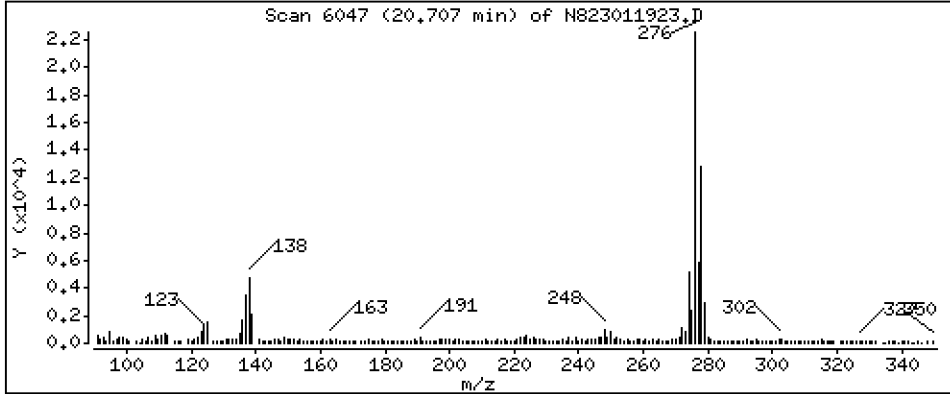
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 5,234 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

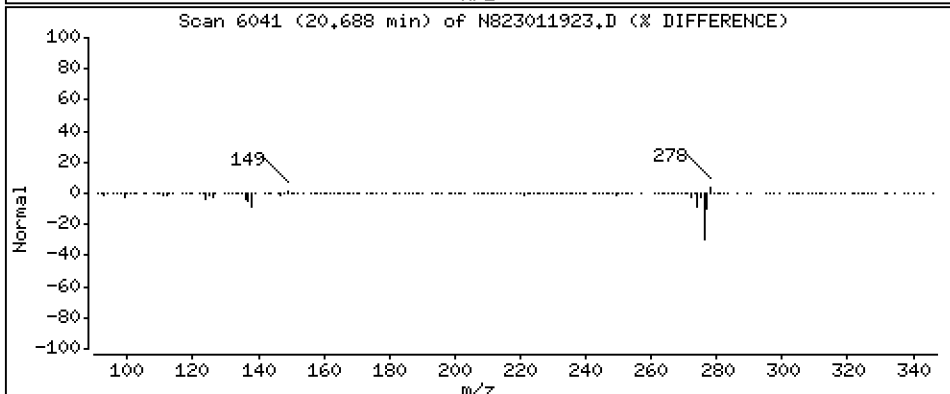
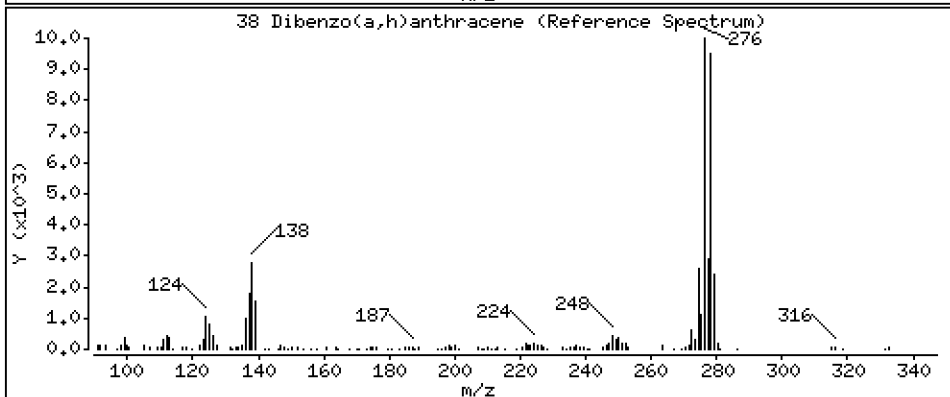
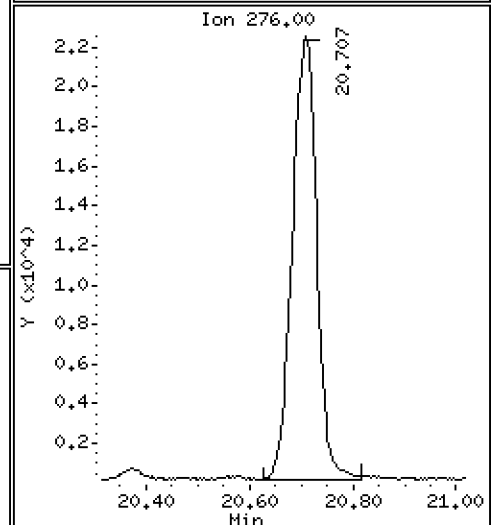
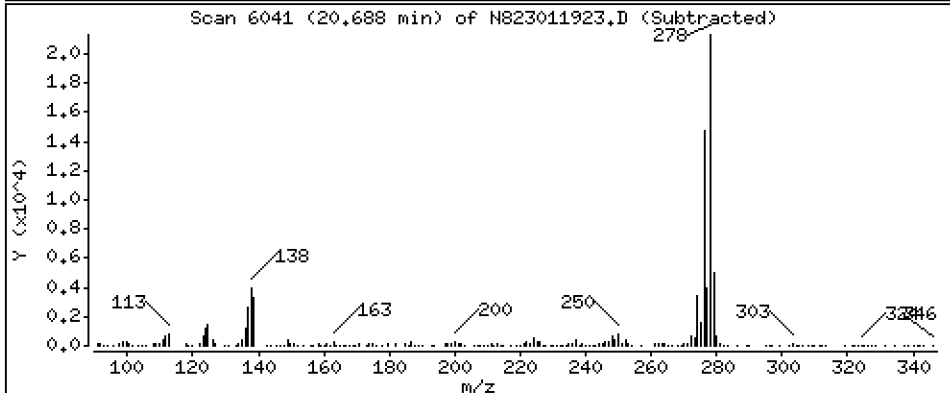
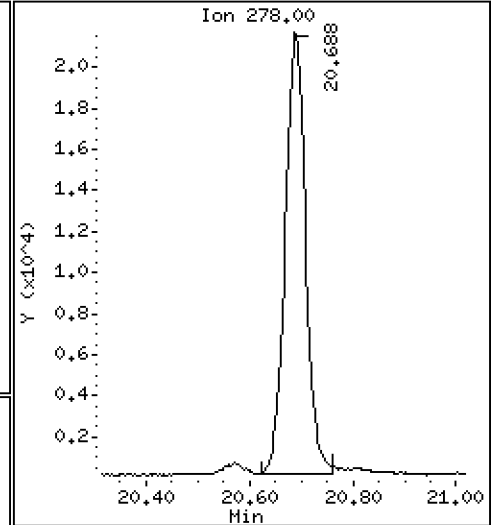
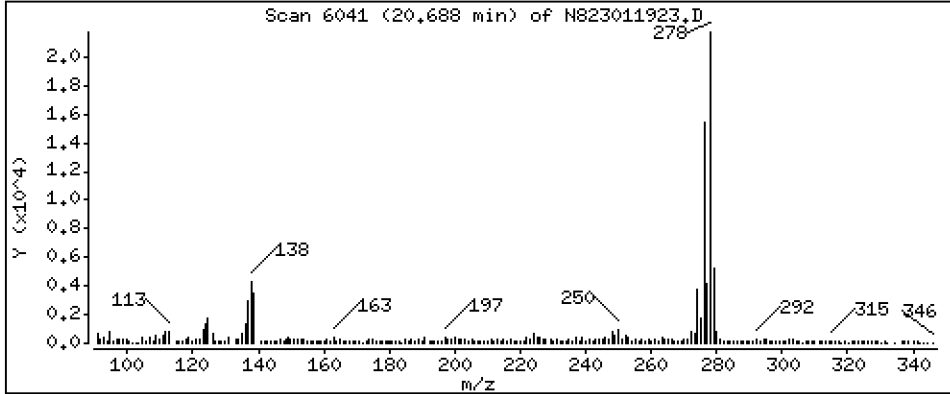
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 4,878 ug/mL



Date : 19-JAN-2023 21:14

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-MSD1,

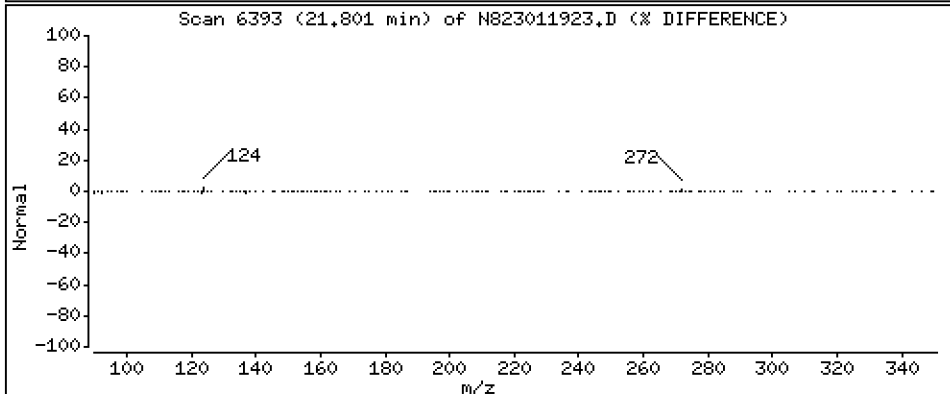
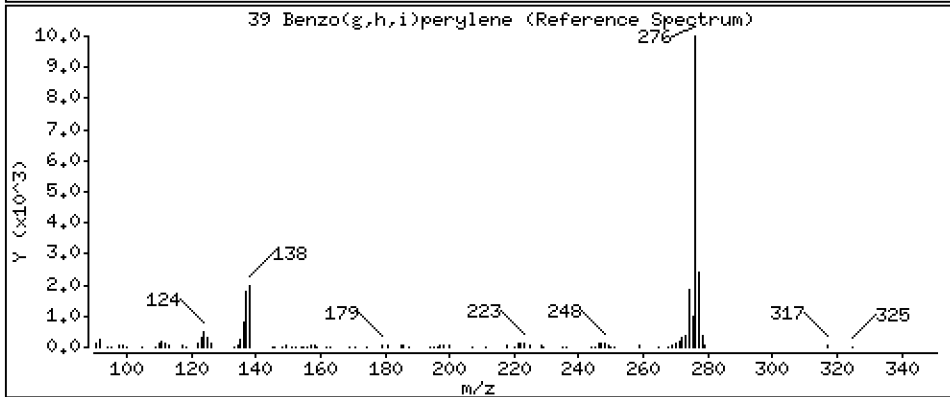
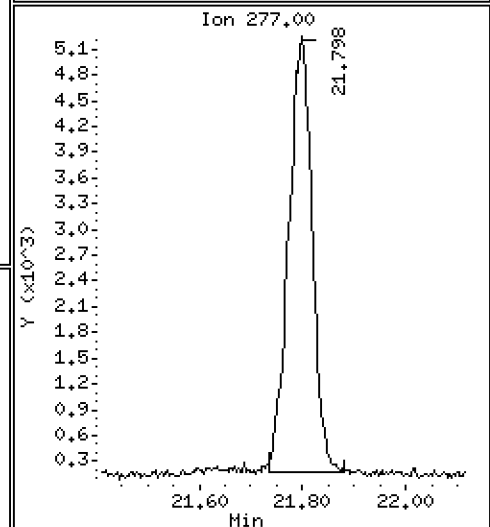
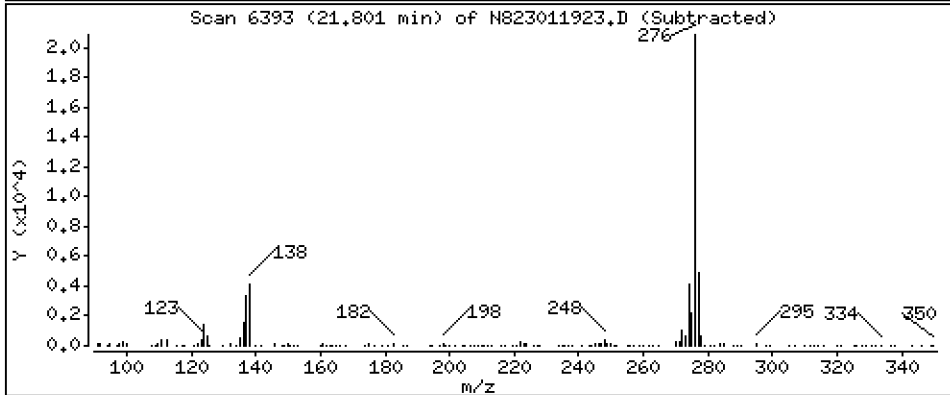
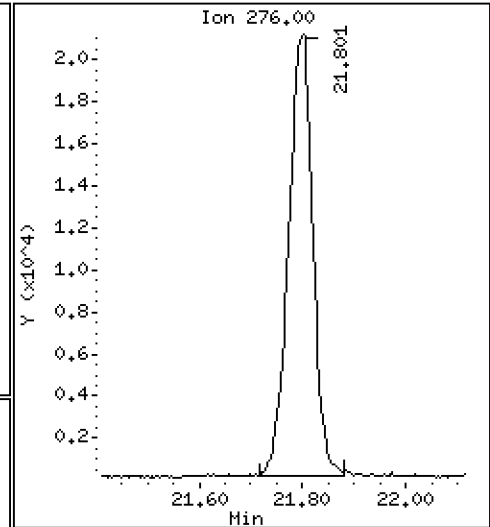
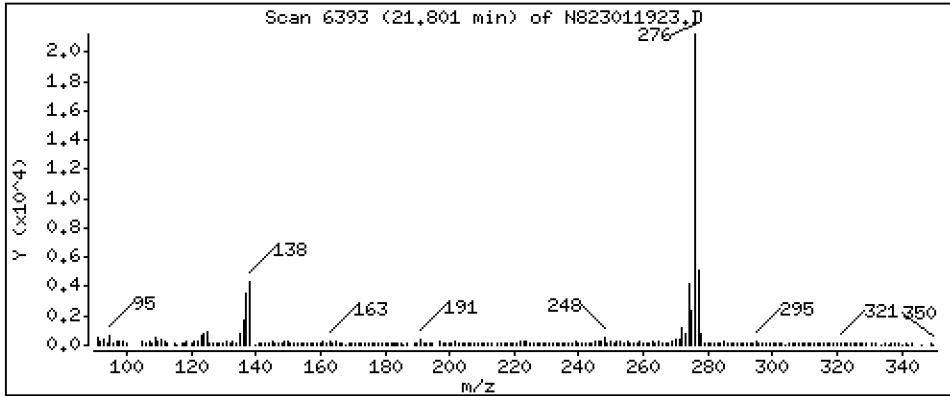
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 5,389 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119A.b\N823011923.D
 Lab Smp Id: BLA0171-MSD1
 Inj Date : 19-JAN-2023 21:14
 Operator : JZ Inst ID: nt8.i
 Smp Info : BLA0171-MSD1,
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 22:11 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 13
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PNAXMDL.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
* 1 Naphthalene-d8	136		4.900	4.909	(1.000)	52331	2.00000	
2 Naphthalene	128		4.928	4.938	(1.006)	80941	3.32656	3.327
\$ 3 2-Methylnaphthalene-d10	152		5.637	5.643	(1.150)	32404	2.27046	2.270
4 2-Methylnaphthalene	141		5.684	5.690	(1.160)	47098	3.51905	3.519
5 1-methylnaphthalene	141		5.883	5.887	(1.201)	47473	3.49494	3.495
9 Acenaphthylene	152		7.085	7.088	(0.985)	86900	3.87957	3.880
* 10 Acenaphthene-d10	164		7.196	7.199	(1.000)	29663	2.00000	
11 Acenaphthene	153		7.246	7.246	(1.007)	55031	3.66672	3.667
12 Dibenzofuran	168		7.398	7.398	(1.028)	82625	3.62461	3.625
14 Fluorene	166		7.875	7.875	(1.094)	69270	3.91252	3.913
* 15 Phenanthrene-d10	188		9.238	9.238	(1.000)	48346	2.00000	
16 Phenanthrene	178		9.273	9.270	(1.004)	102624	4.34553	4.346
17 Anthracene	178		9.314	9.311	(1.008)	92406	4.30728	4.307
22 Fluoranthene	202		11.059	11.053	(1.197)	126502	4.92107	4.921
\$ 21 Fluoranthene-d10	212		11.022	11.015	(1.193)	56610	2.65400	2.654
23 Pyrene	202		11.591	11.575	(0.816)	122450	7.36079	7.361
24 Benzo(a)anthracene	228		14.089	14.079	(0.991)	84351	5.59429	5.594
* 25 Chrysene-d12	240		14.212	14.209	(1.000)	26832	2.00000	
27 Chrysene	228		14.291	14.282	(1.006)	82492	5.13925	5.139
28 Benzo(b)fluoranthene	252		16.843	16.827	(0.929)	81089	5.78419	5.784
29 Benzo(k)fluoranthene	252		16.903	16.890	(0.932)	69169	5.03716	5.037
30 Benzo(j)fluoranthene	252		16.985	16.969	(0.937)	66630	5.38999	5.390
31 Total Benzofluoranthenes	252		16.843	16.890	(0.929)	215366	16.2212	16.22 (M)
32 Benzo(a)pyrene	252		17.899	17.880	(0.987)	69215	5.61049	5.610
* 33 Perylene-d12	264		18.126	18.117	(1.000)	24071	2.00000	
35 Perylene	252		18.206	18.187	(1.004)	66459	5.02011	5.020
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.574	20.555	(1.135)	30544	3.23850	3.238
37 Indeno(1,2,3-cd)pyrene	276		20.707	20.681	(1.142)	73564	5.23421	5.234
38 Dibenzo(a,h)anthracene	278		20.688	20.666	(1.141)	58997	4.87780	4.878
39 Benzo(g,h,i)perylene	276		21.801	21.763	(1.203)	68625	5.38924	5.389

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011923.D Calibration Time: 16:16
 Lab Smp Id: BLA0171-MSD1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	42524	21262	85048	52331	23.06
10 Acenaphthene-d10	25260	12630	50520	29663	17.43
15 Phenanthrene-d10	47890	23945	95780	48346	0.95
25 Chrysene-d12	40533	20267	81066	26832	-33.80
33 Perylene-d12	38115	19058	76230	24071	-36.85

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.90	-0.19
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	-0.04
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	-0.00
25 Chrysene-d12	14.21	13.71	14.71	14.21	0.02
33 Perylene-d12	18.12	17.62	18.62	18.13	0.05

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011923.D

Lab ID: BLA0171-MSD1

nt8.i, 20230119A.b\FSIMPNA230119.m, 19-JAN-2023 21:14

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

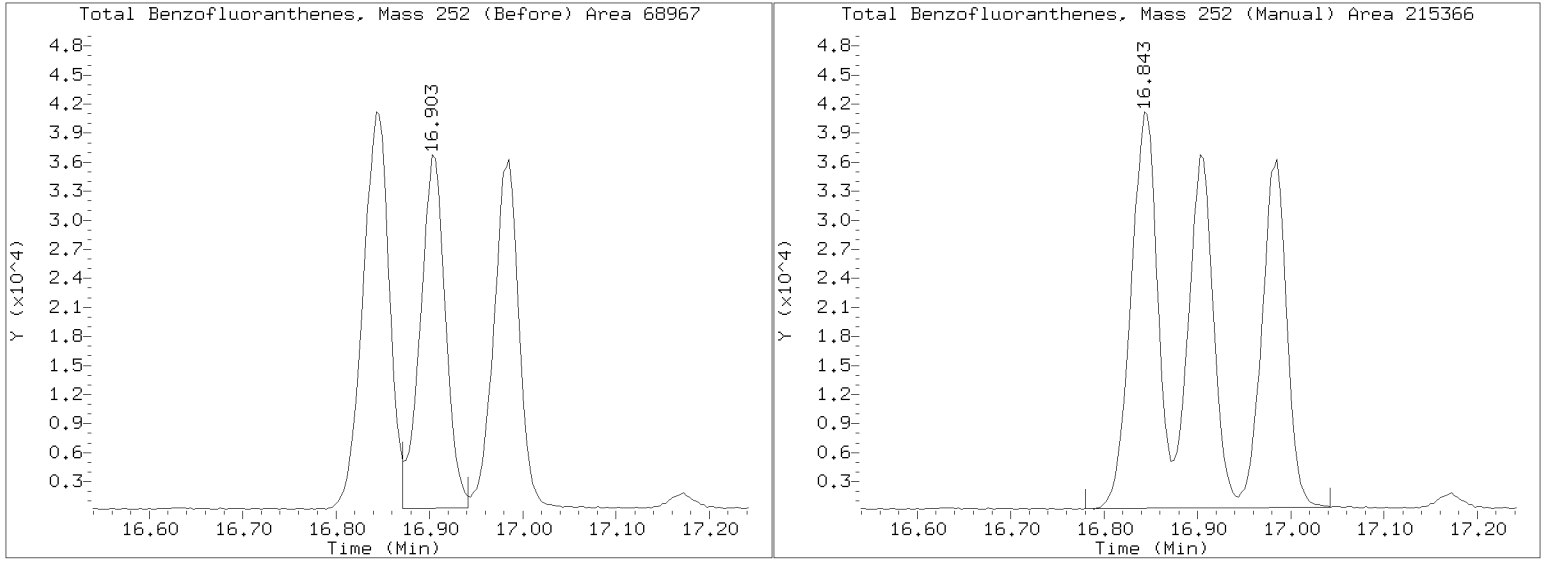
No RRT check performed

On Column LOD for nt8.i, 20230119A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119A.b/N823011923.D
Injection Date: 19-JAN-2023 21:14
Lab ID:BLA0171-MSD1 Client ID:
Report Date: 01/25/2023 22:12





STANDARD REFERENCE MATERIAL RECOVERY

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLA0163-SRM2

Batch: BLA0163

Initial/Final: 1 g / 1 mL

Preparation: EPA 3546 (Microwave)

Analyzed: 02/09/2023 22:35

Standard ID: K003477

Expires: 01/31/2024

Standard Lot#: CRM 143 (LRAC8918)

Description: CRM 143 BNAs - Sandy Loam

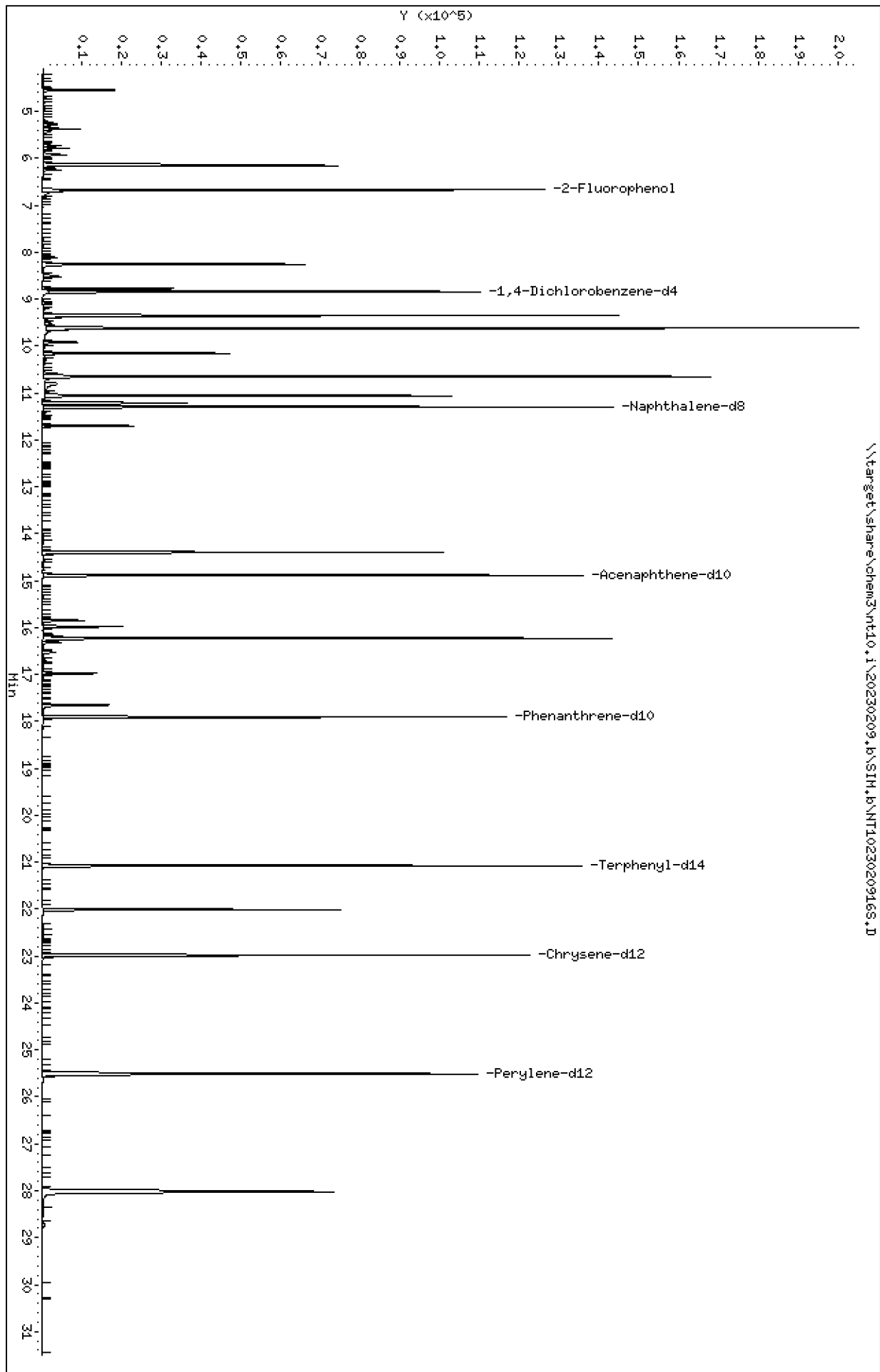
ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
2,4-Dimethylphenol	6357.0	5520	21.7	200		86.8	0 - 220
1,2,4-Trichlorobenzene	1477.0	1460	26.8	50.0		98.6	10 - 193
N-Nitrosodiphenylamine	2854.0	3750	13.1	50.0		131	40 - 160
Pentachlorophenol	3411.0	4500	21.3	200	Q	132	10 - 206

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230209.16\SIH.6\NT1023020916S.D
Date: 09-FEB-2023 22:35
Client ID:
Sample Info: BLR0163-SRM1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: JSD
Column diameter: 0.25

\\target\share\chem3\nt10.1\20230209.16\SIH.6\NT1023020916S.D



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

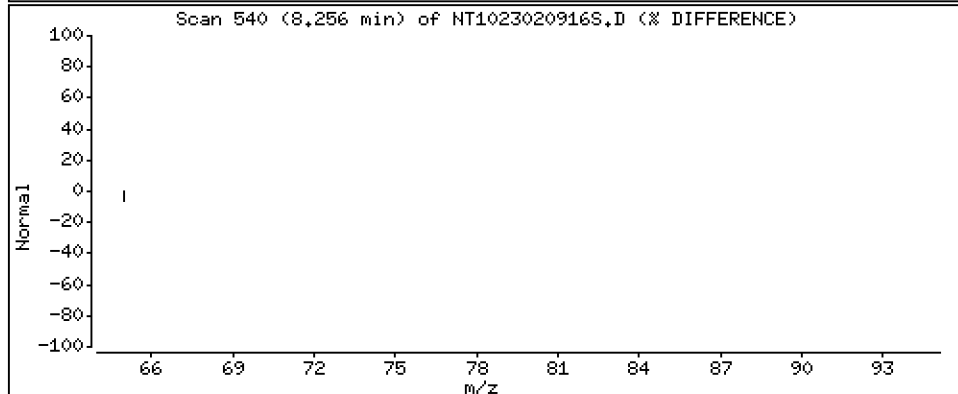
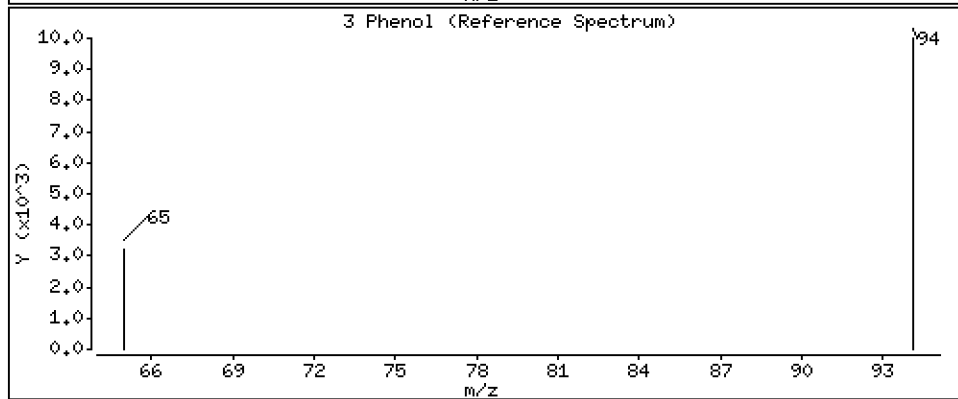
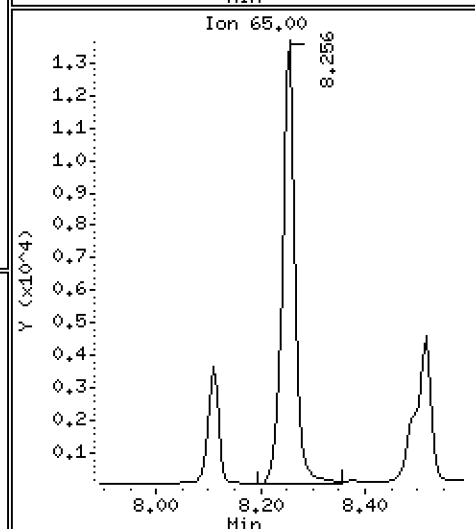
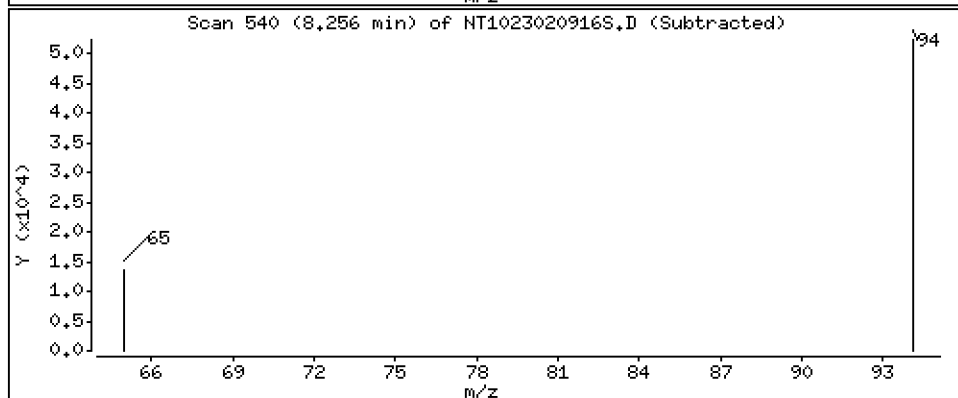
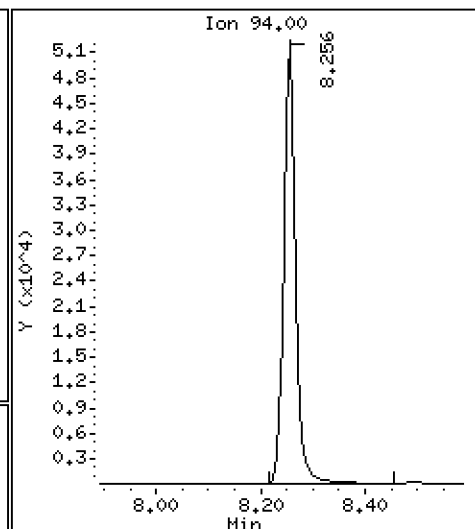
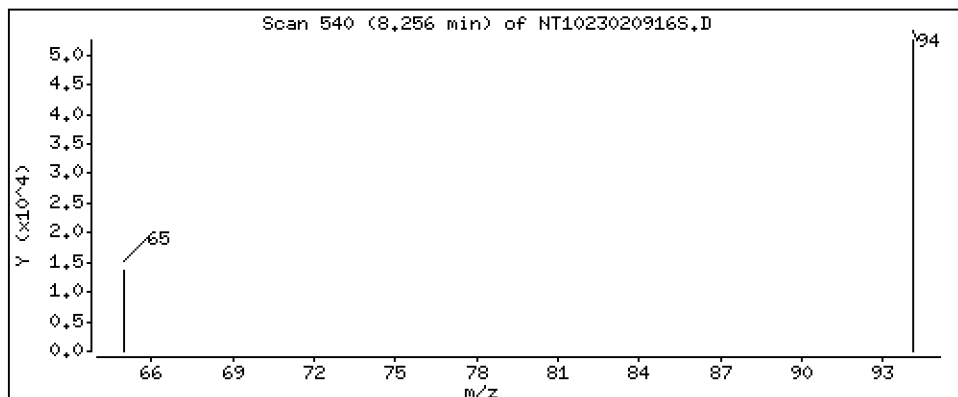
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 2,821 ug/L



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

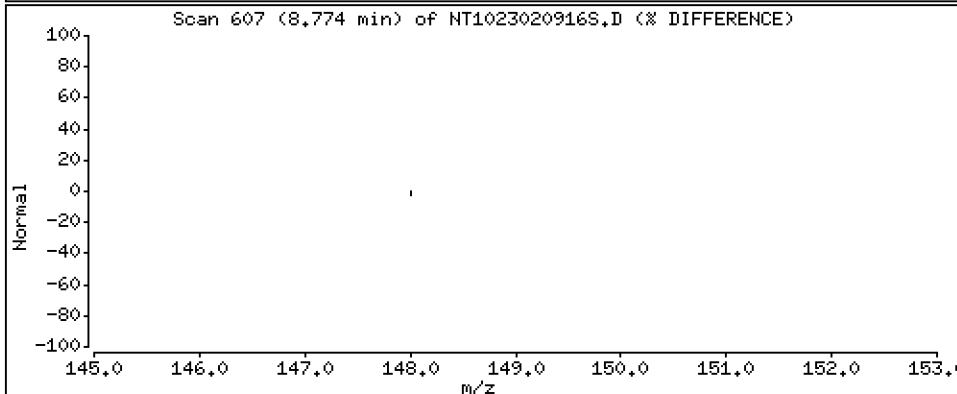
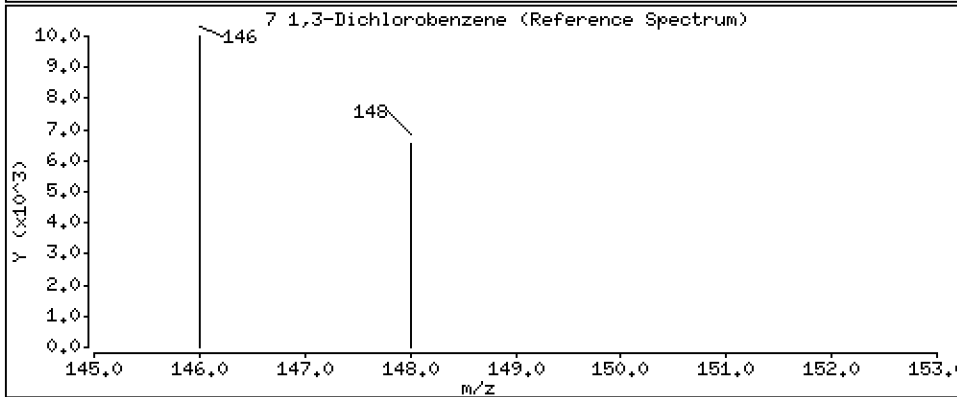
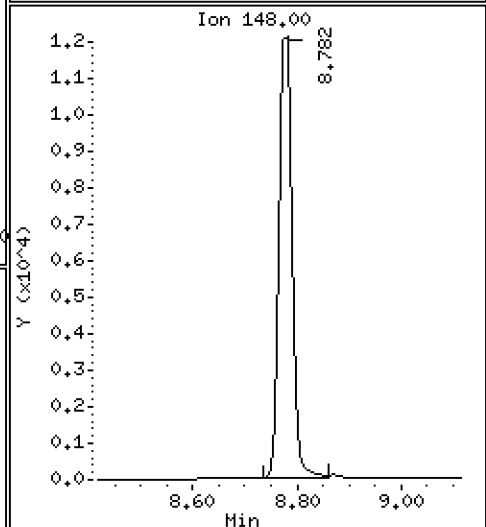
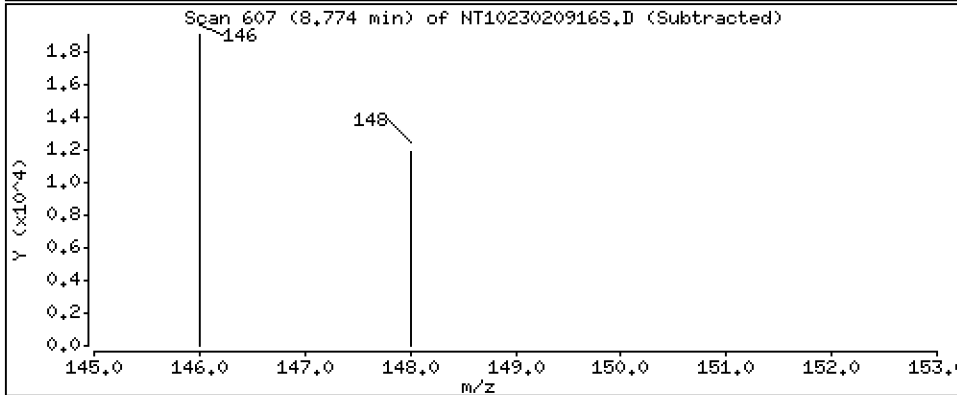
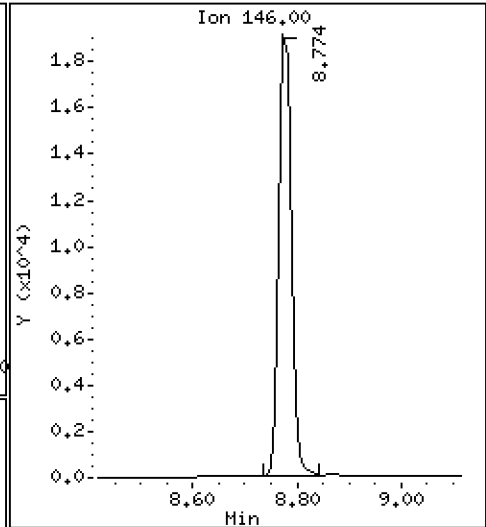
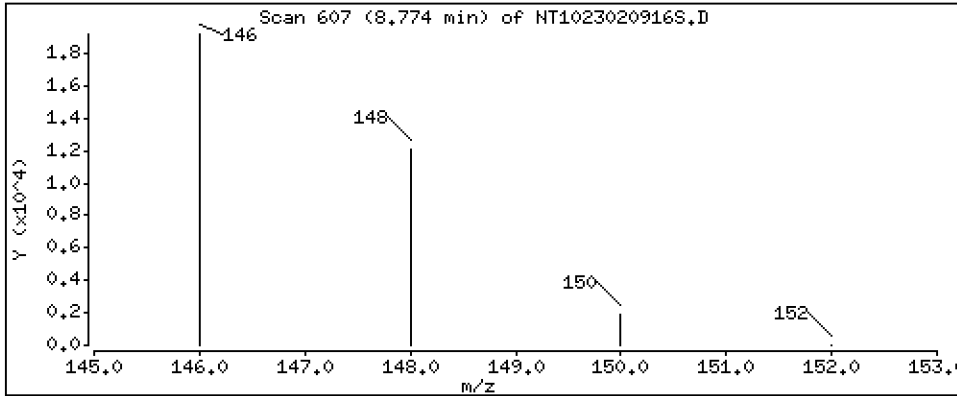
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 1.159 ug/L



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

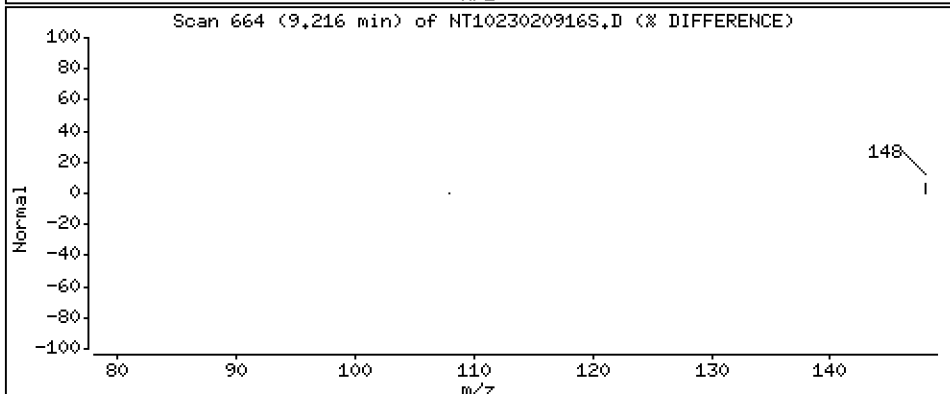
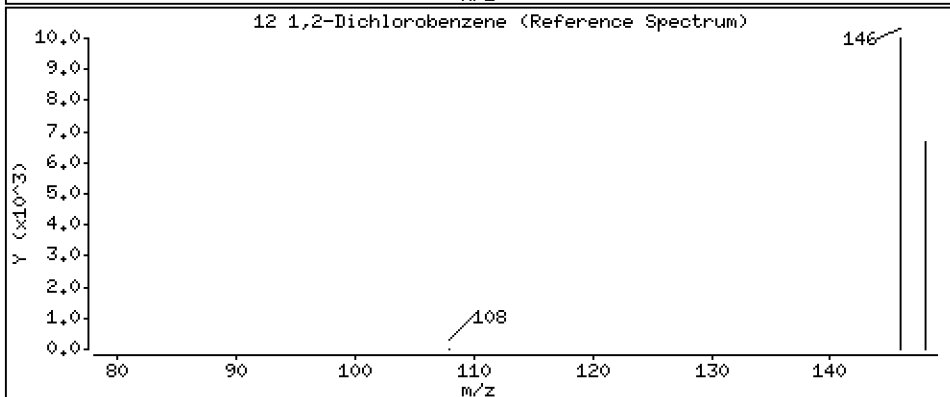
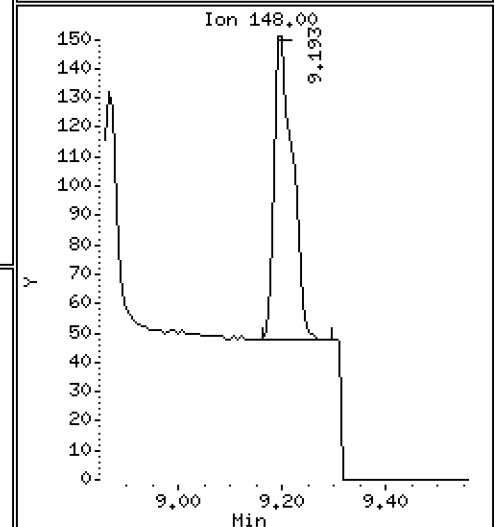
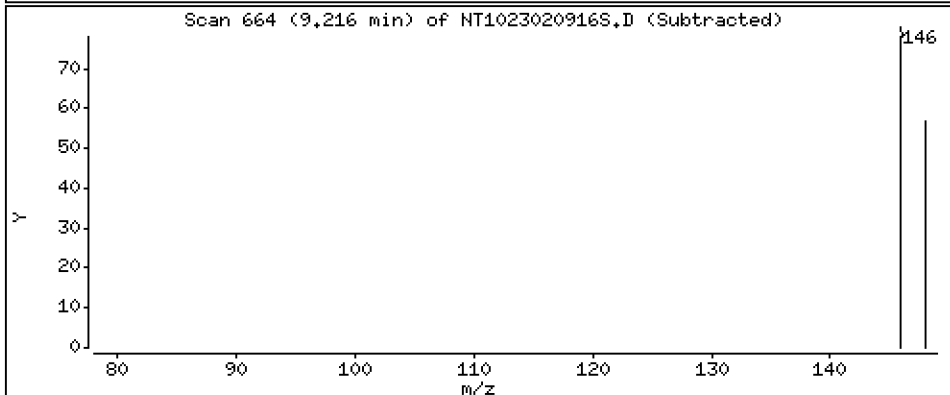
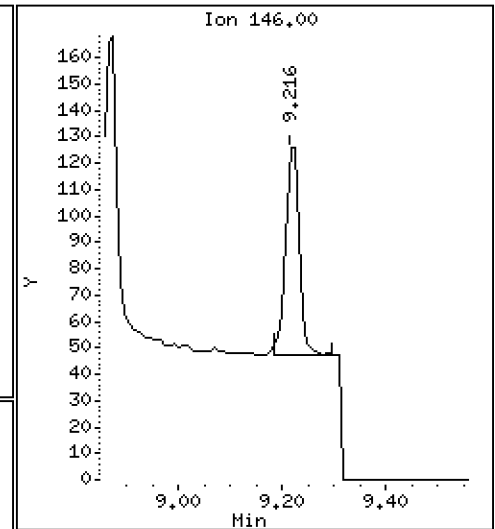
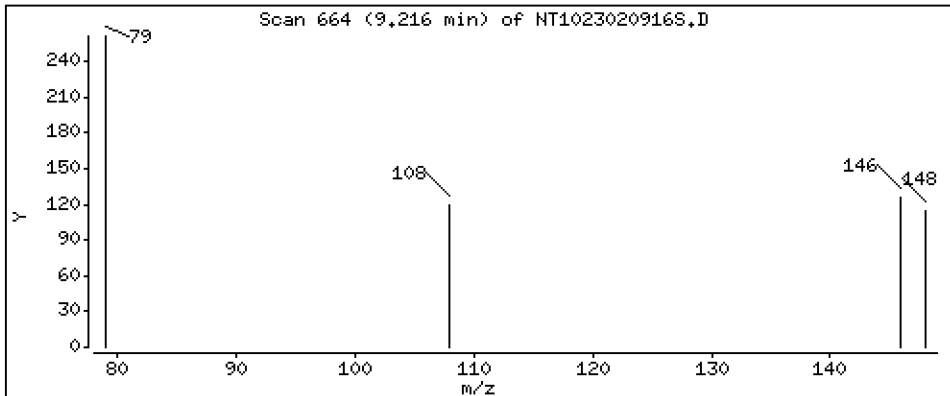
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.005616 ug/L



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

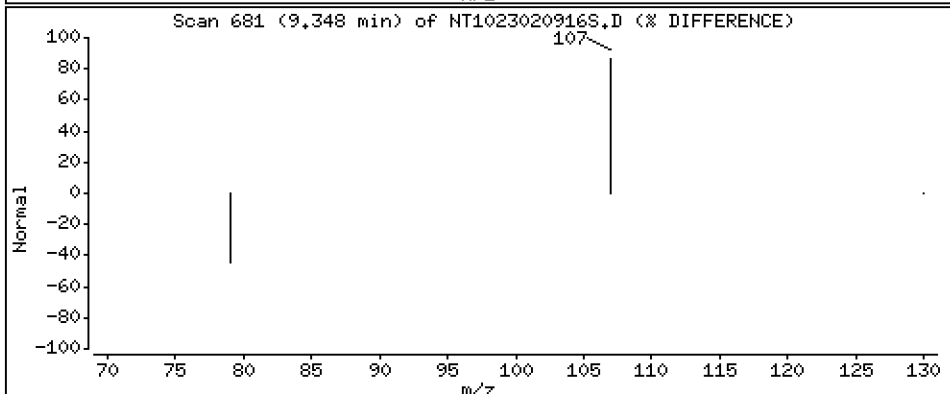
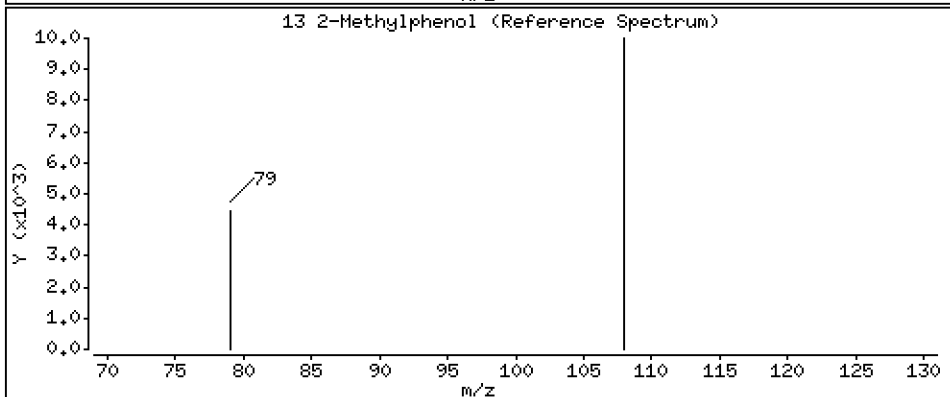
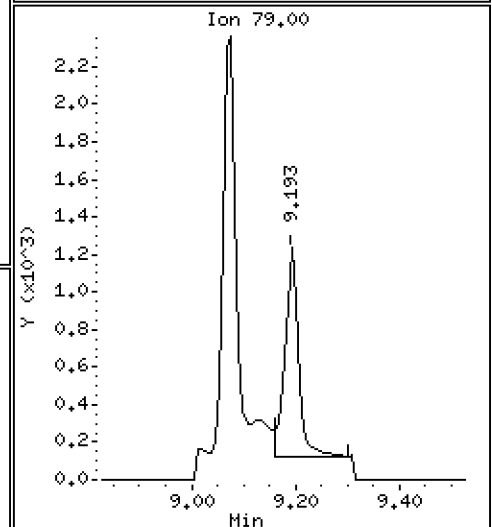
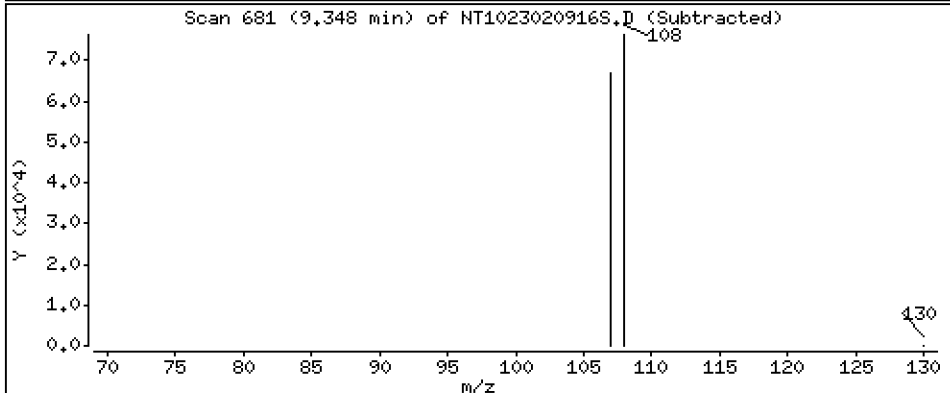
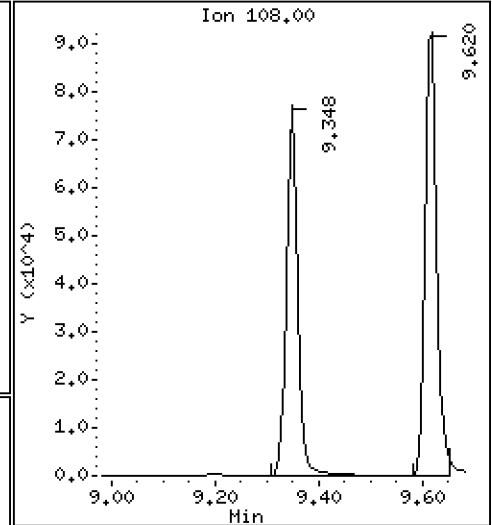
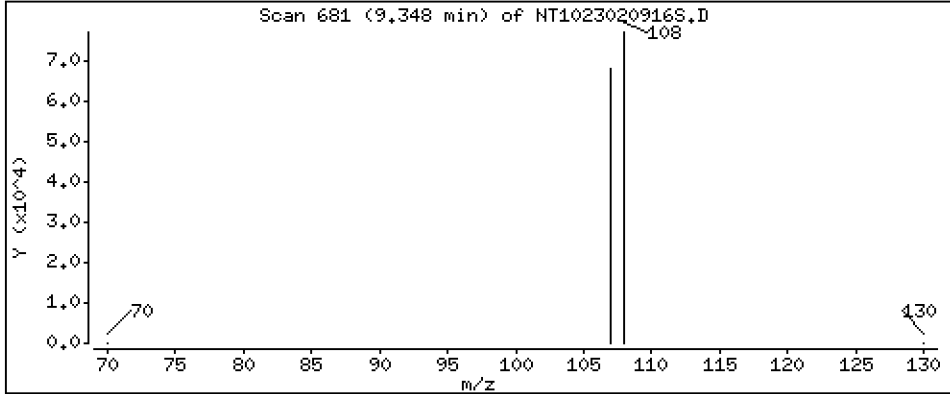
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 5,866 ug/L



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

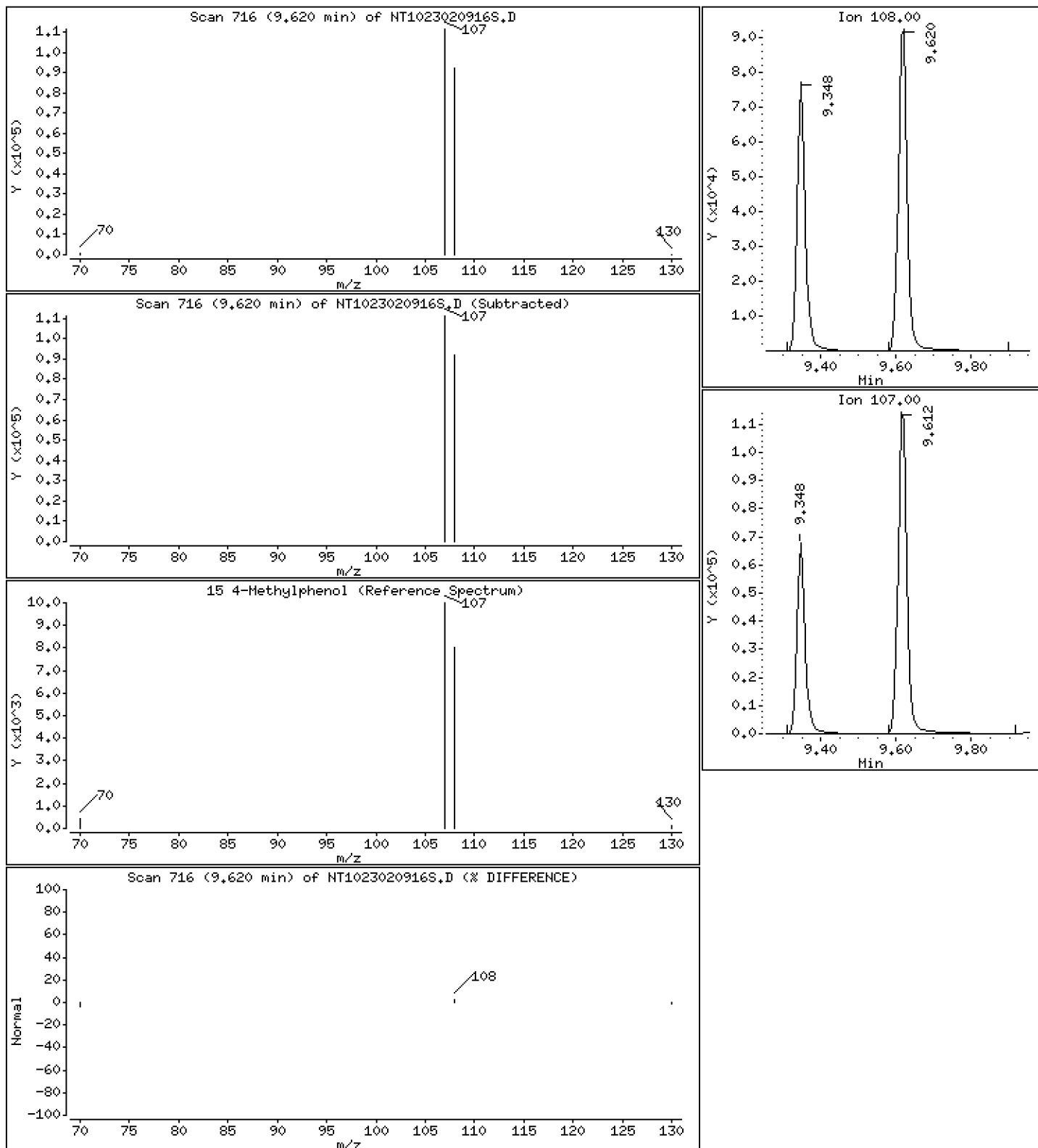
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 7.471 ug/L



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

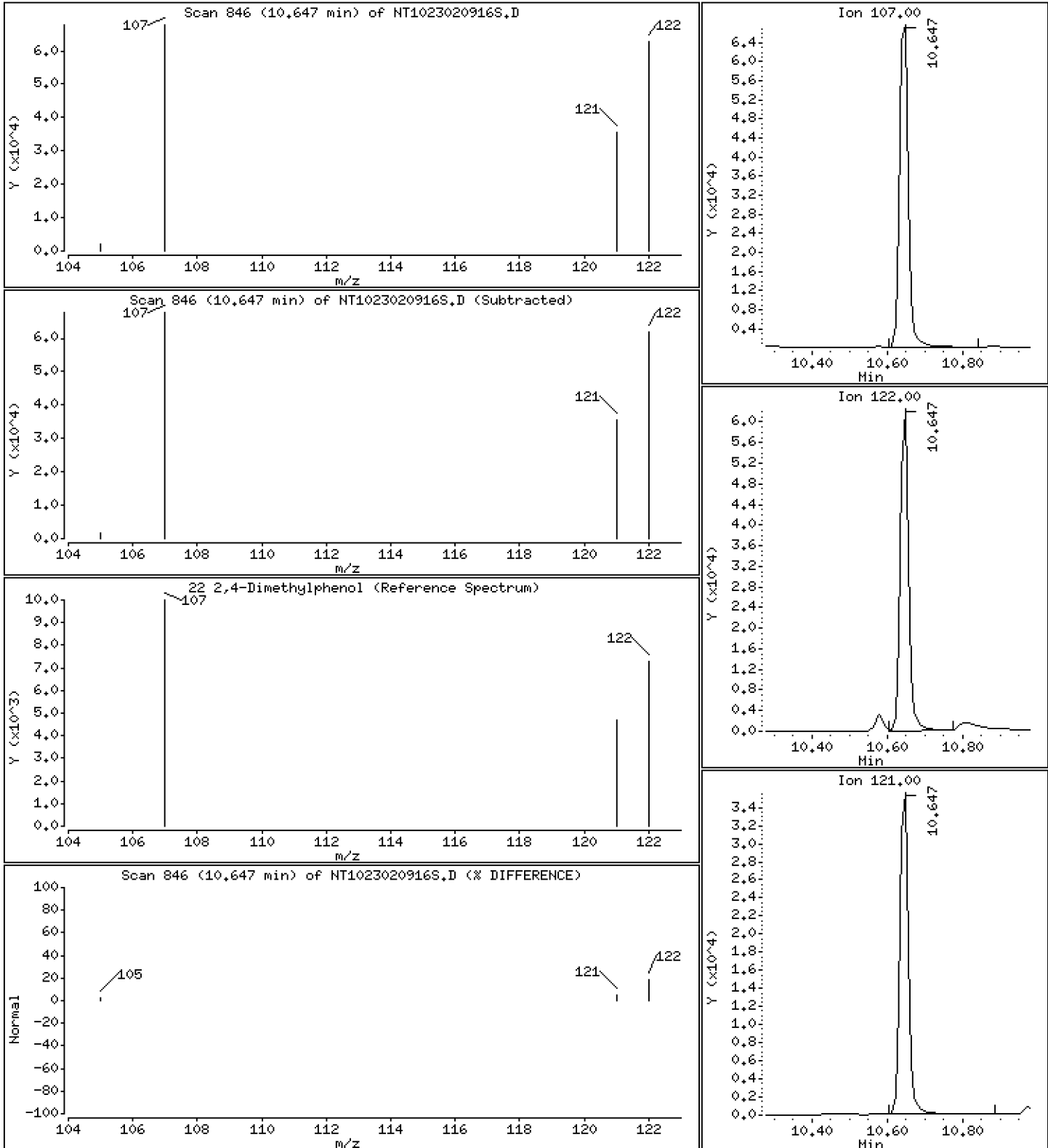
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 5.519 ug/L



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

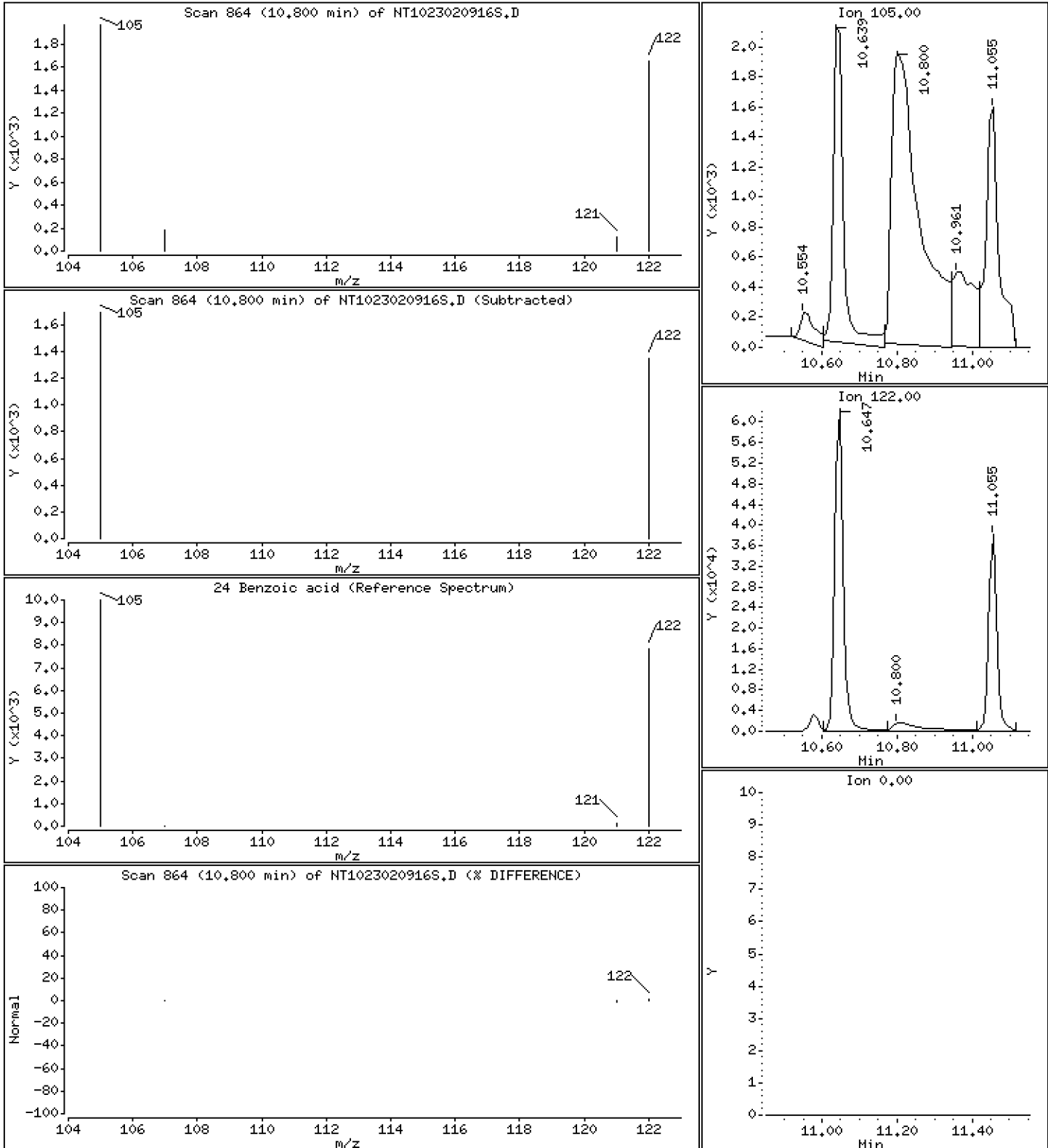
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 1.086 ug/L



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

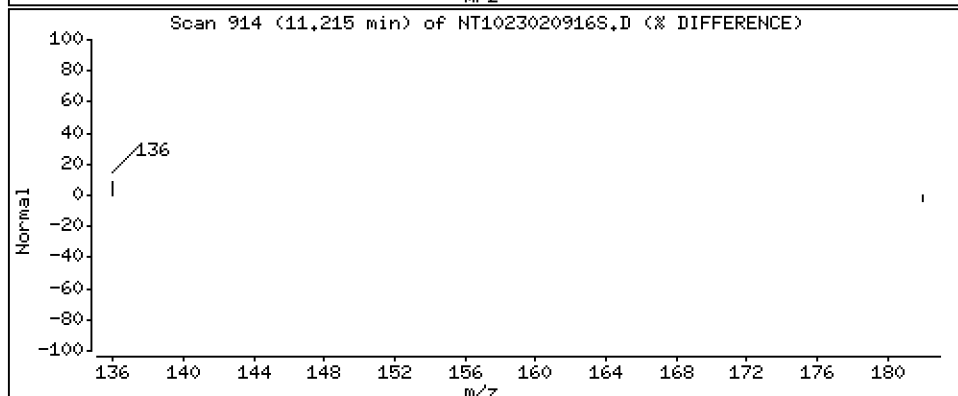
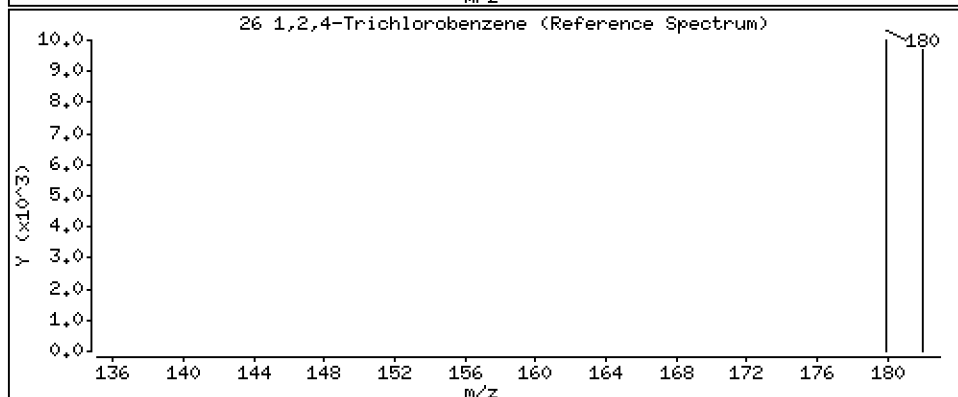
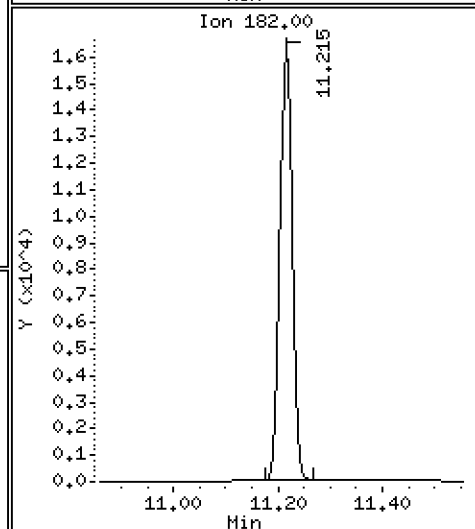
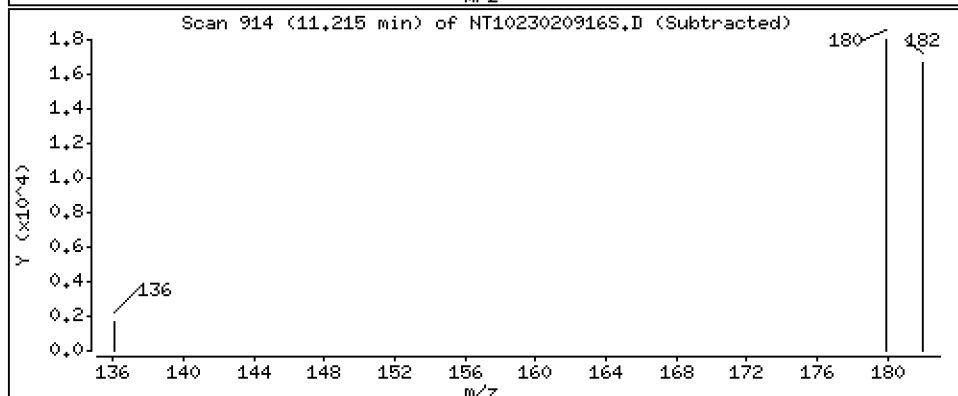
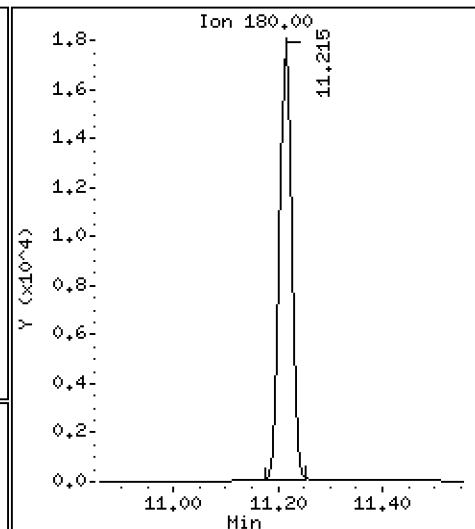
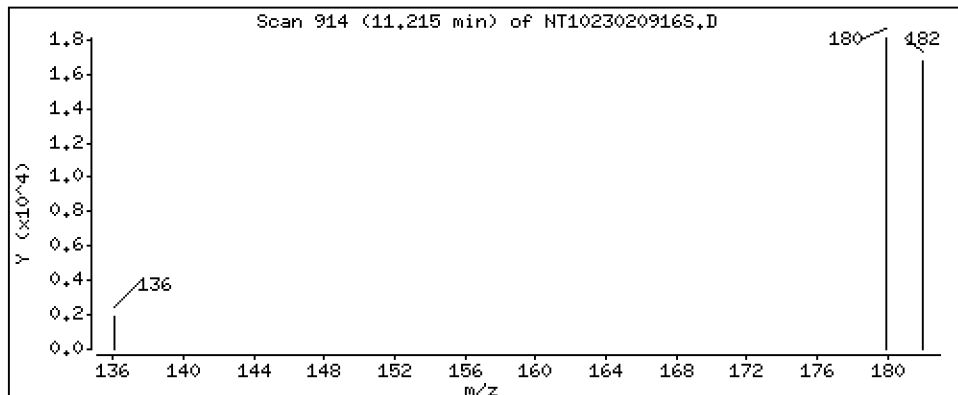
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 1.456 ug/L



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

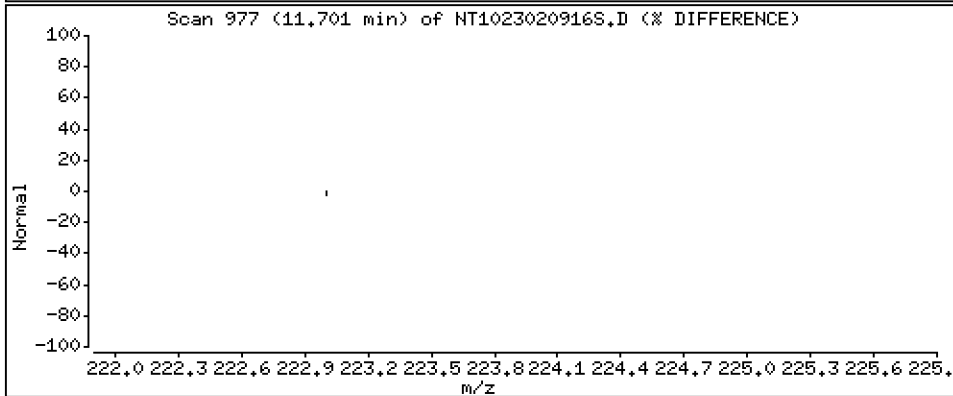
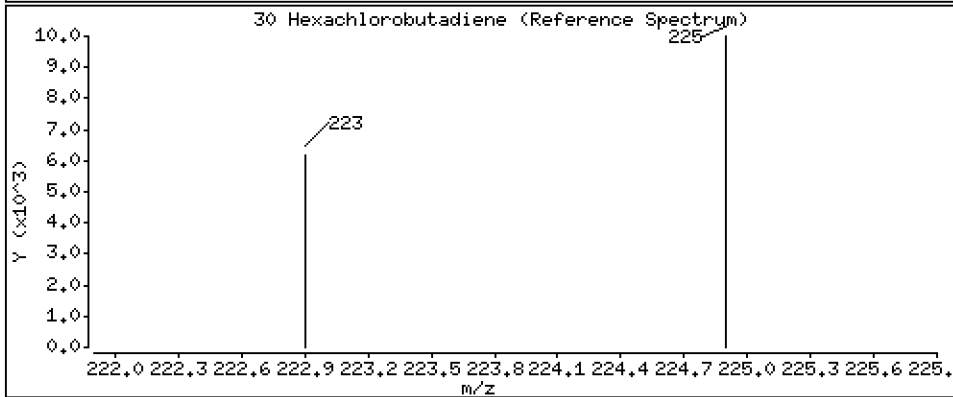
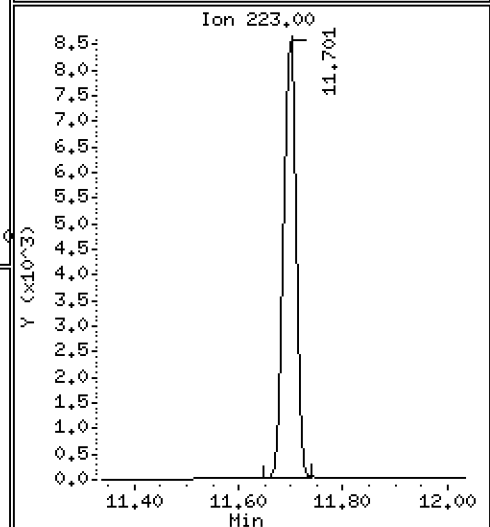
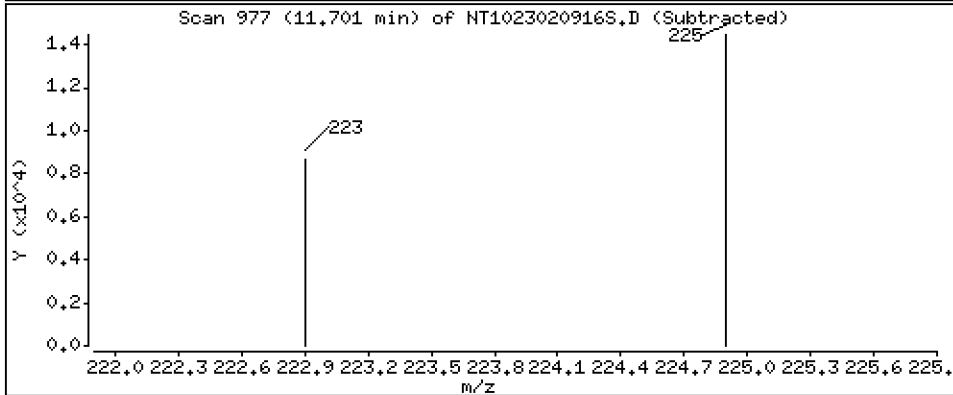
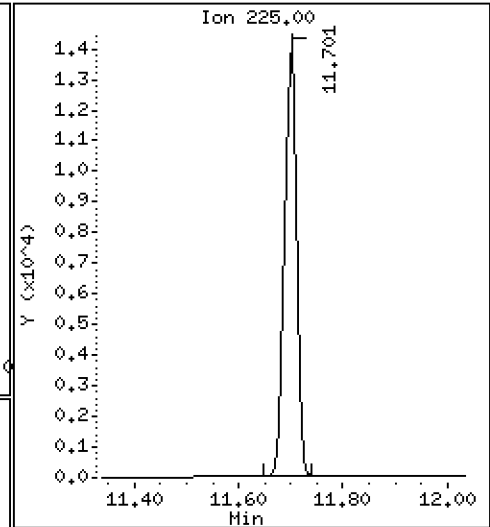
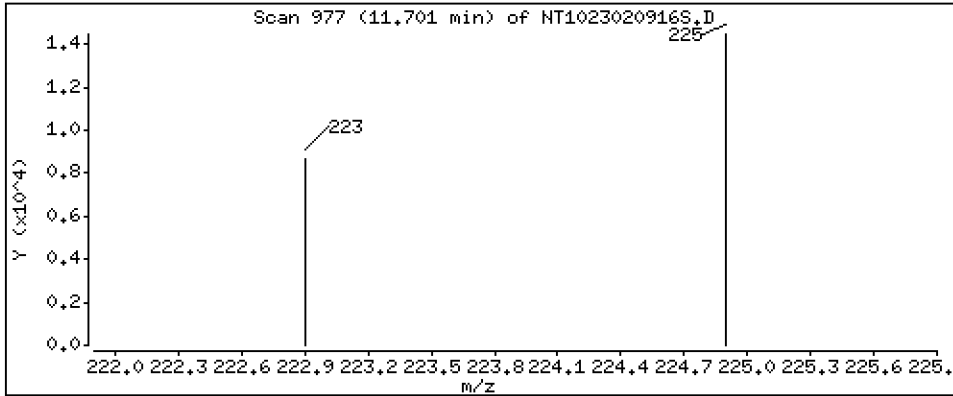
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 2,154 ug/L



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

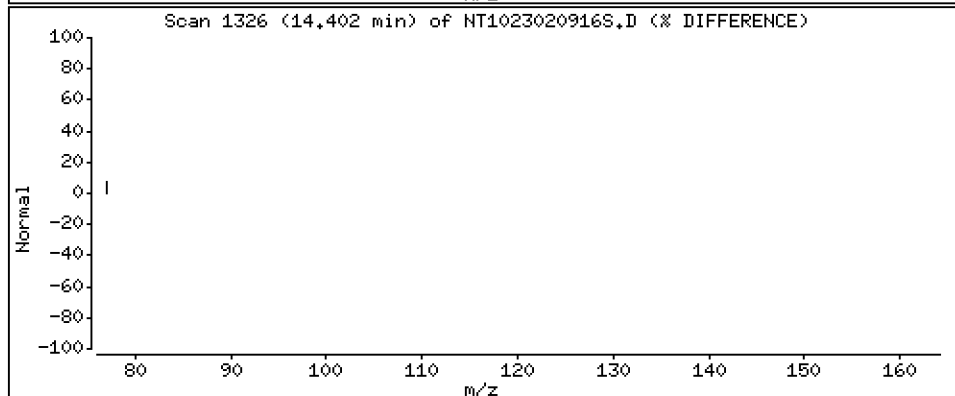
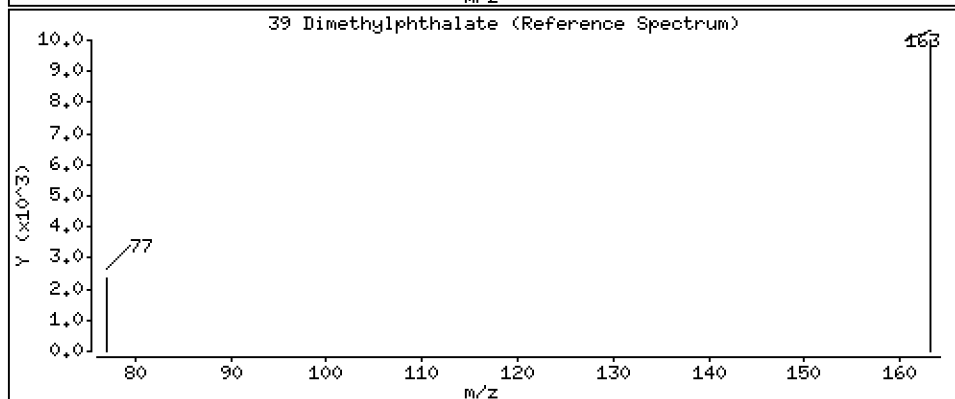
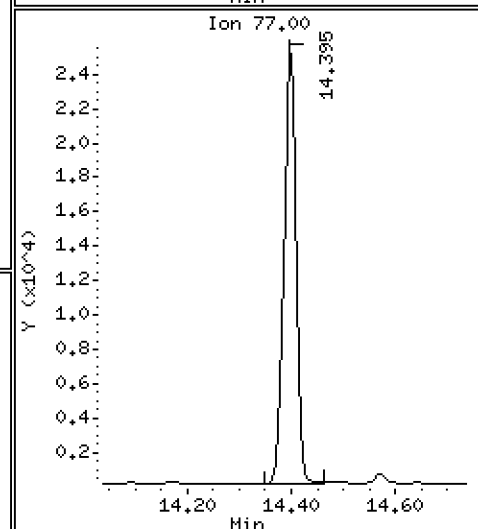
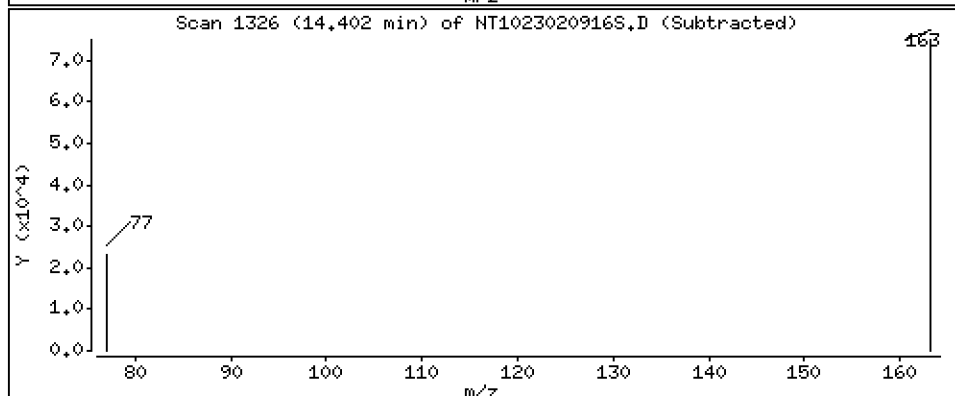
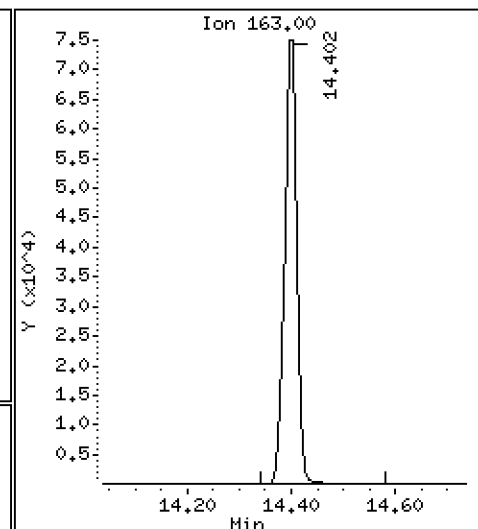
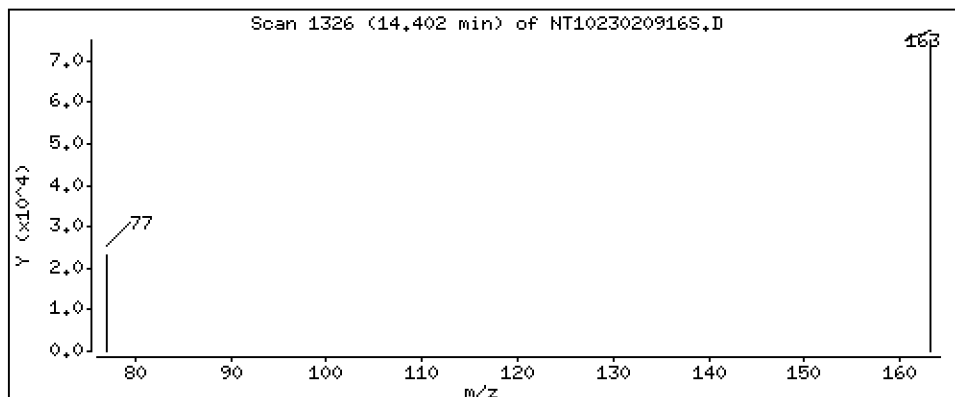
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,996 ug/L



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

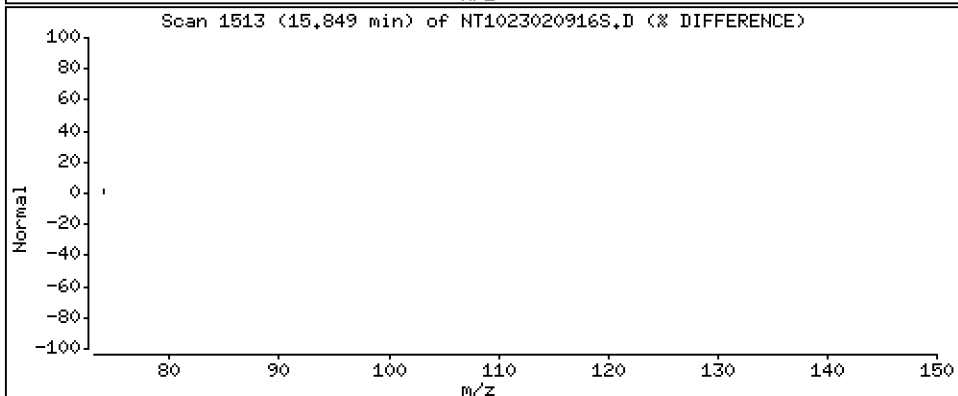
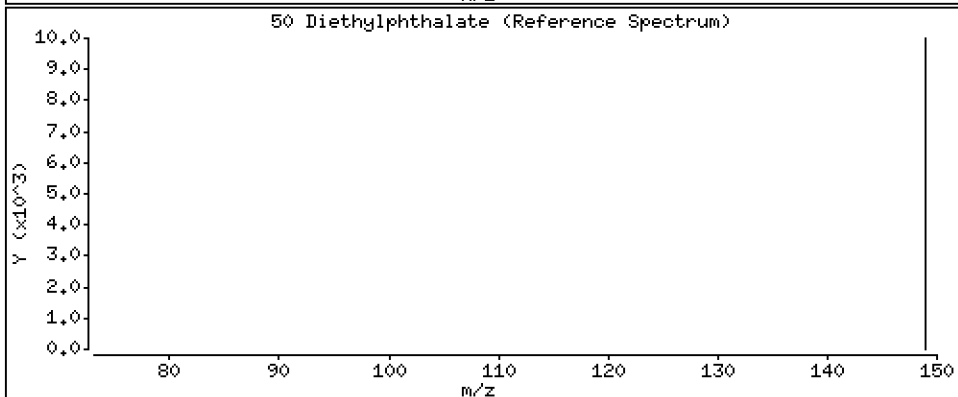
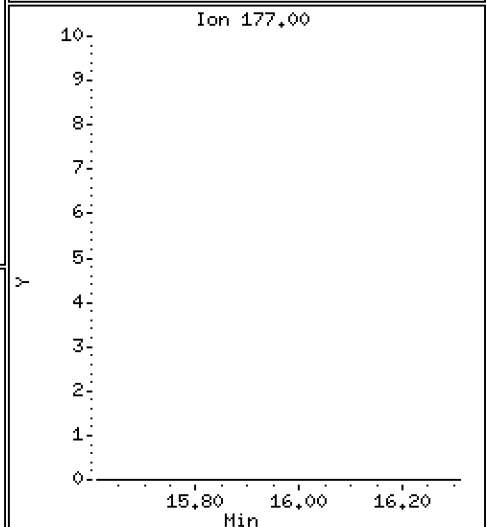
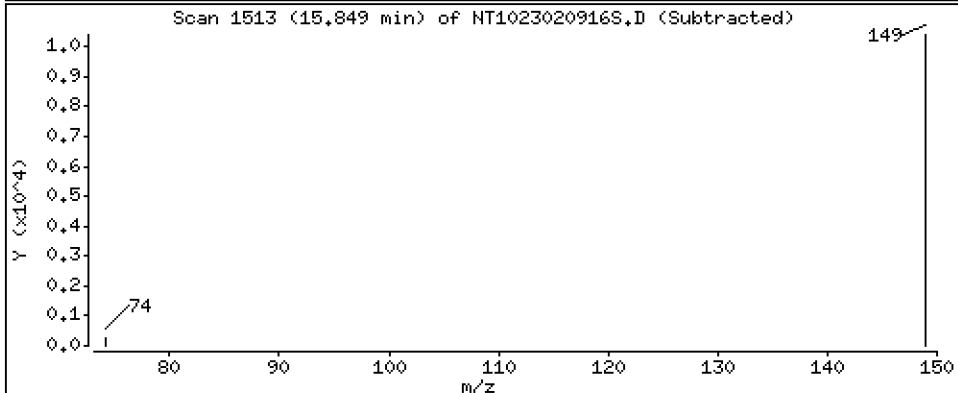
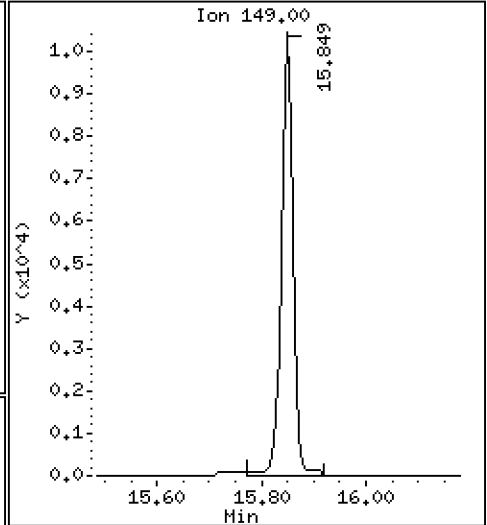
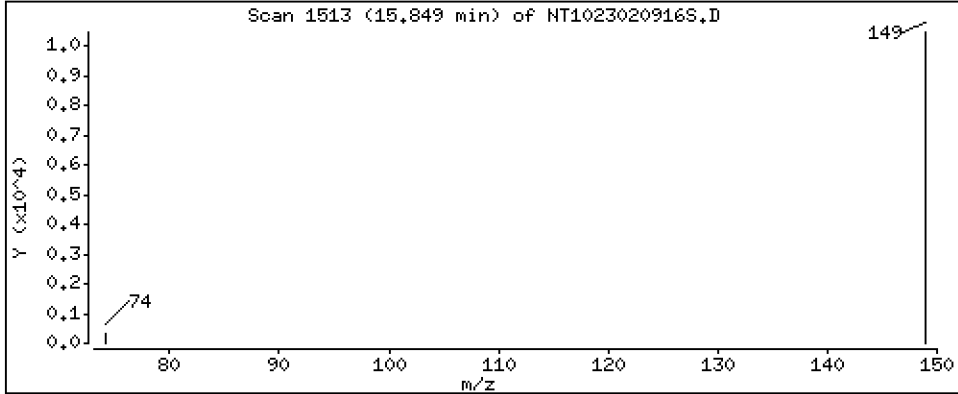
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,4493 ug/L



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

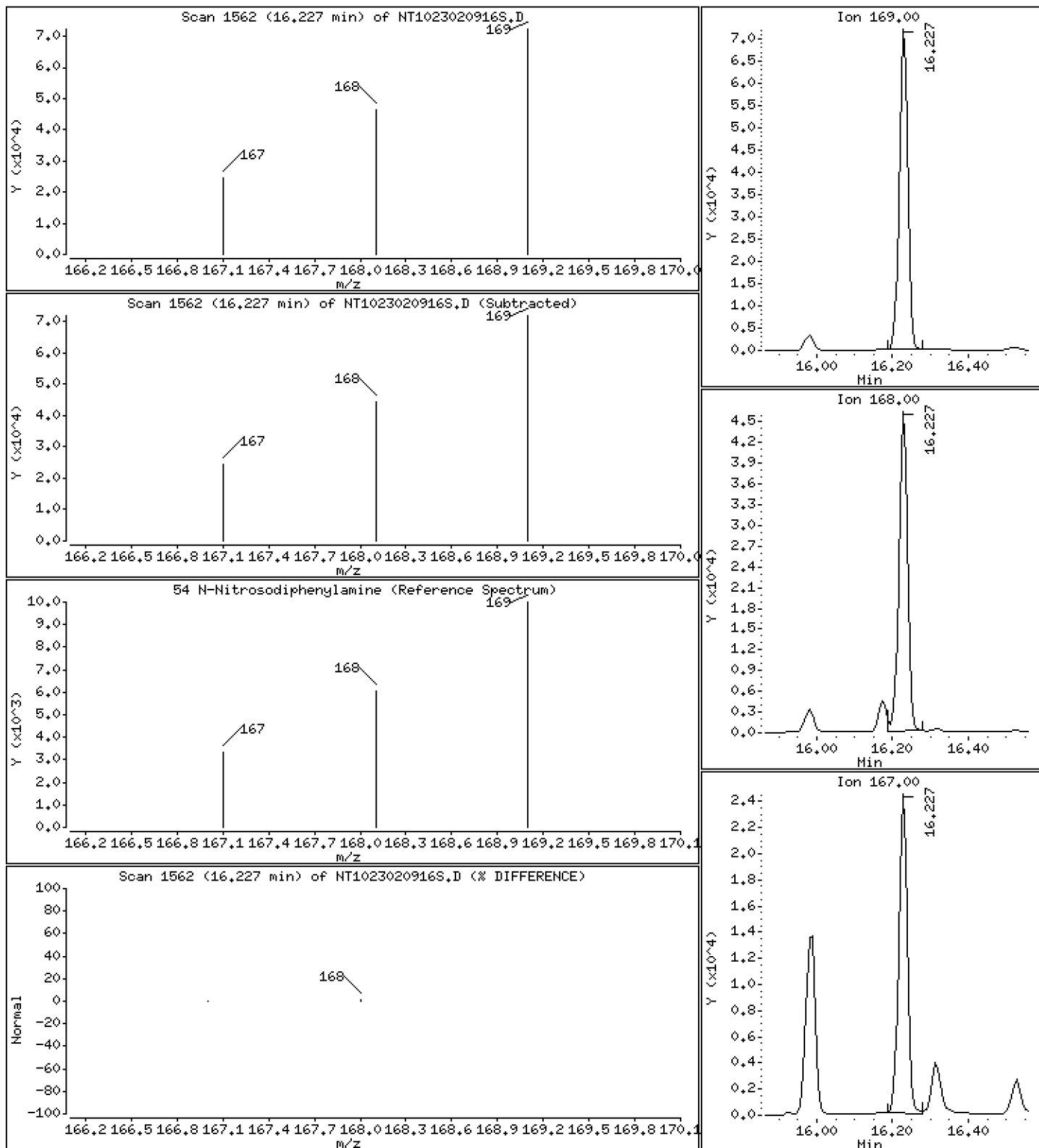
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

54 N-Nitrosodiphenylamine

Concentration: 3,748 ug/L



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

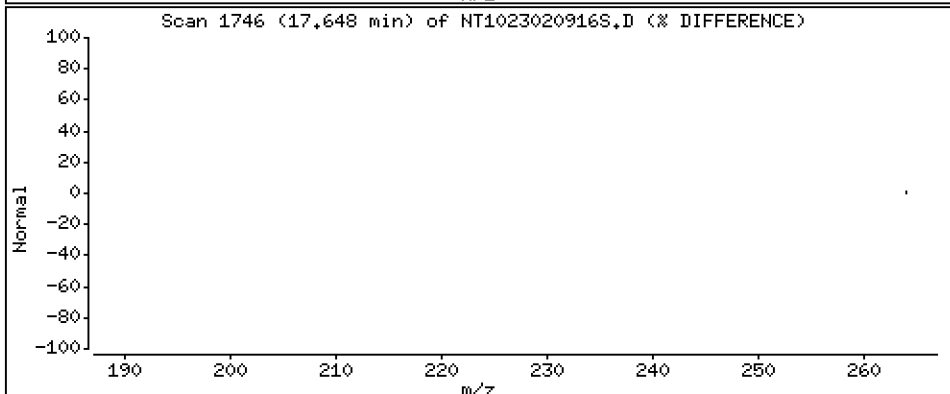
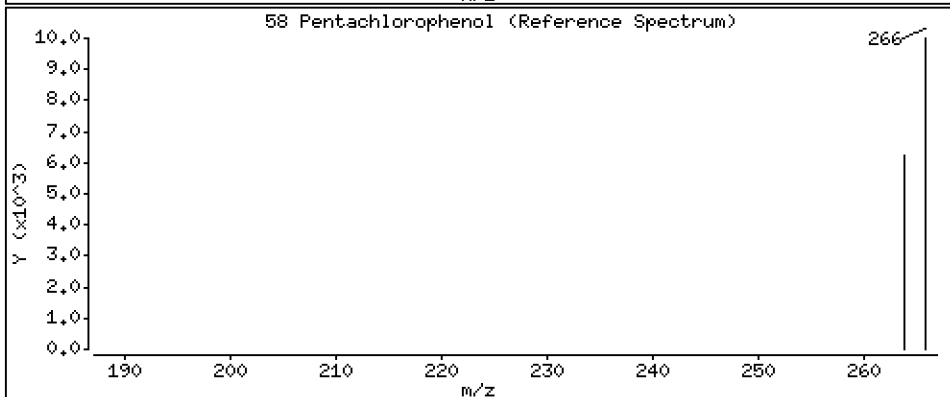
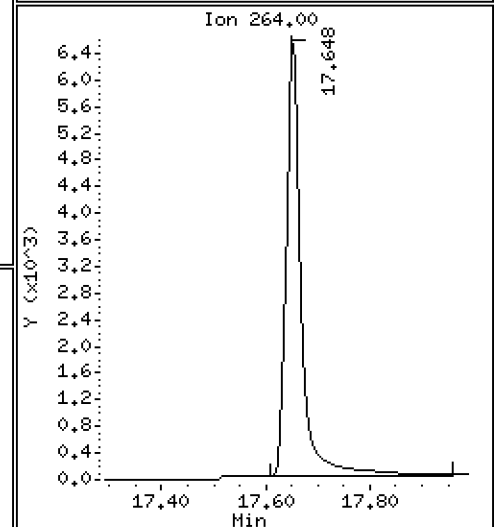
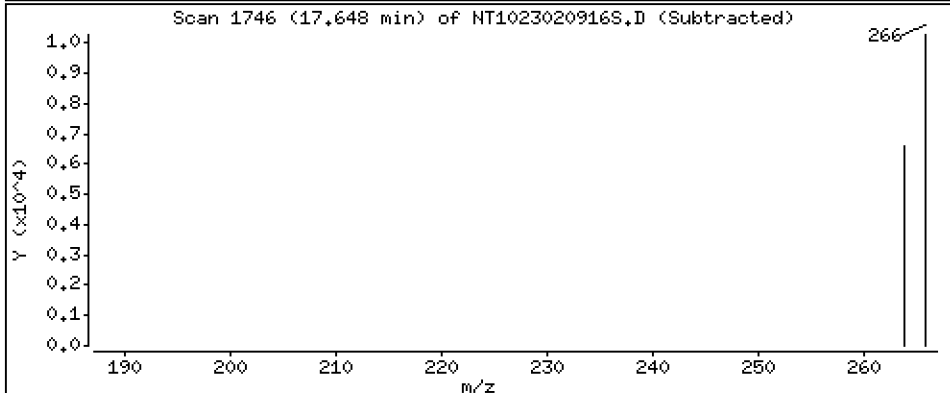
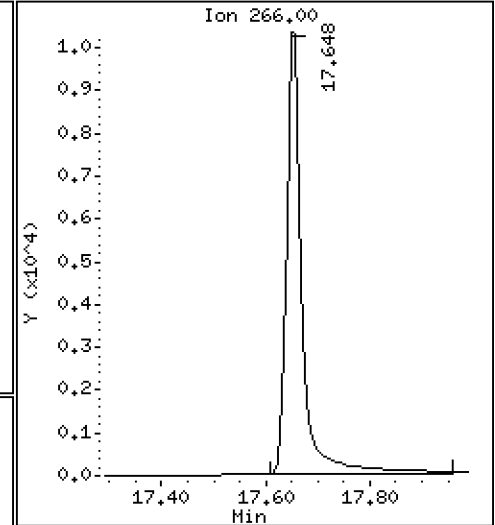
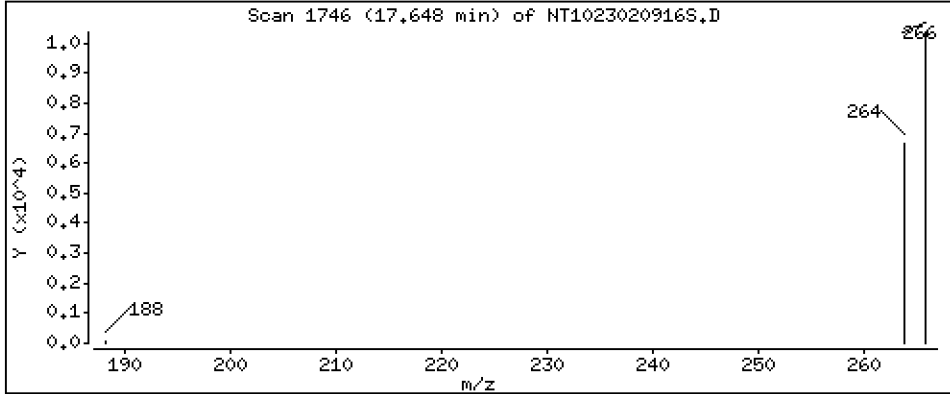
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 4,503 ug/L



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

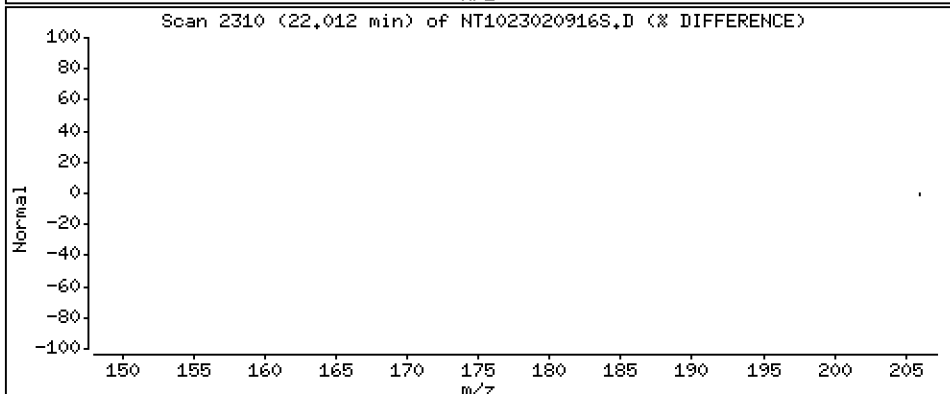
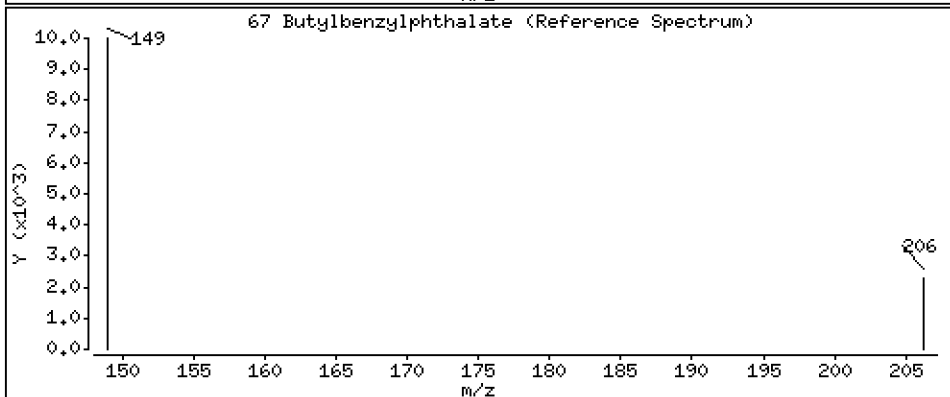
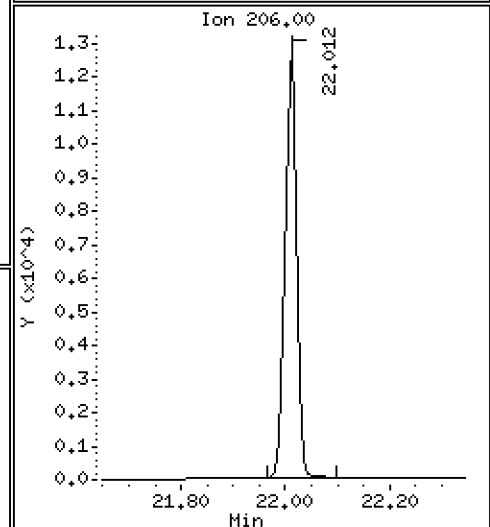
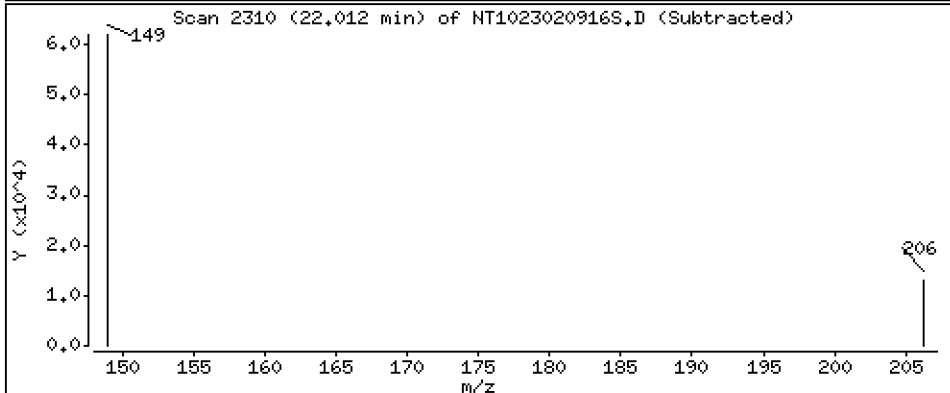
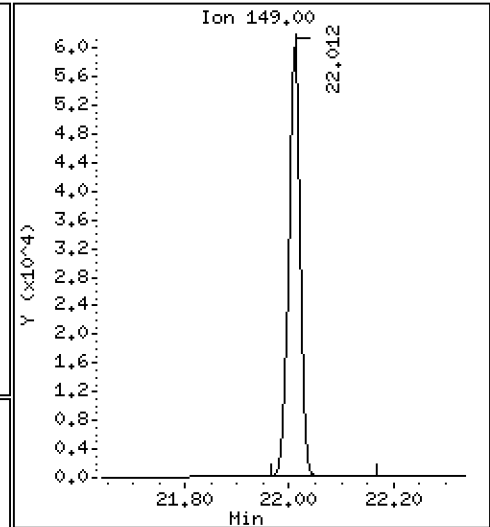
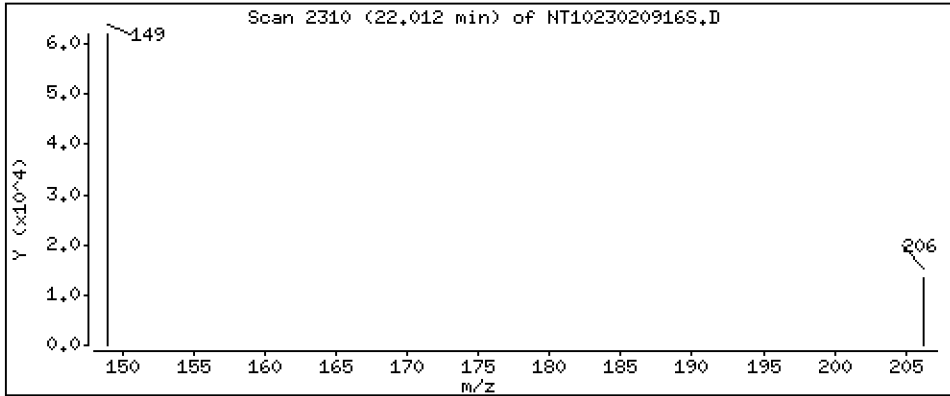
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 3,896 ug/L



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

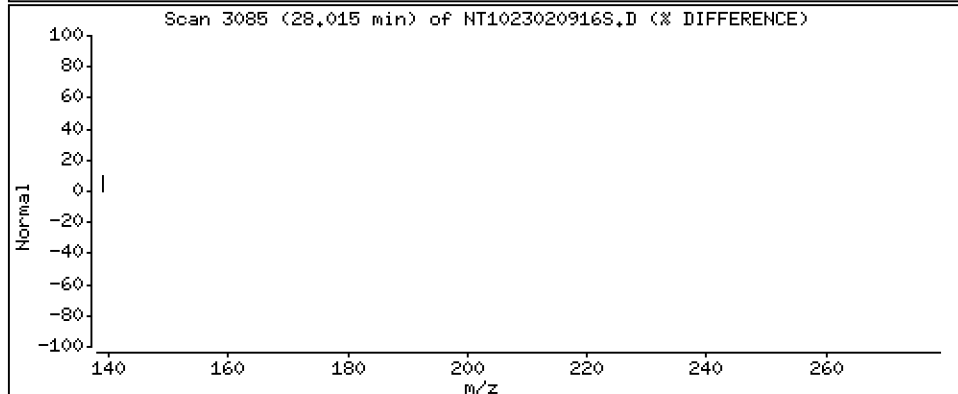
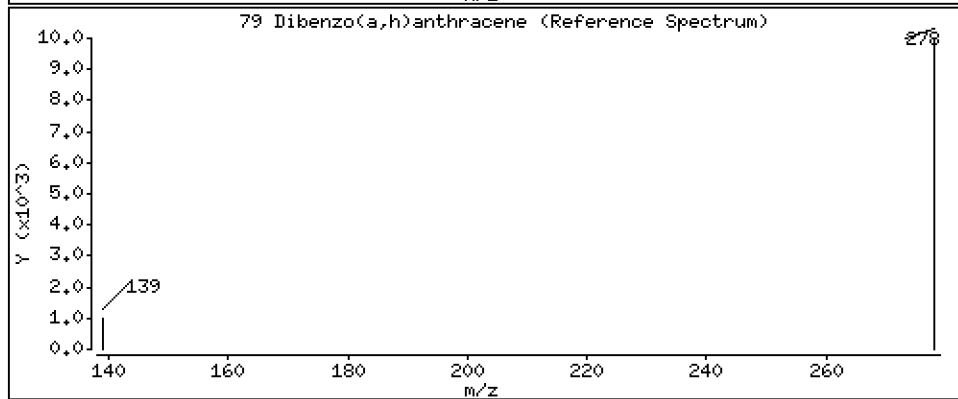
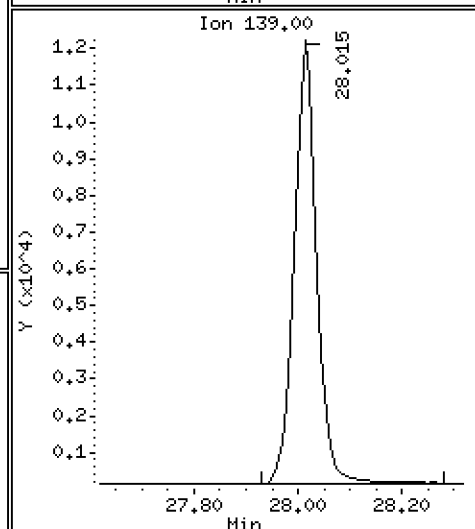
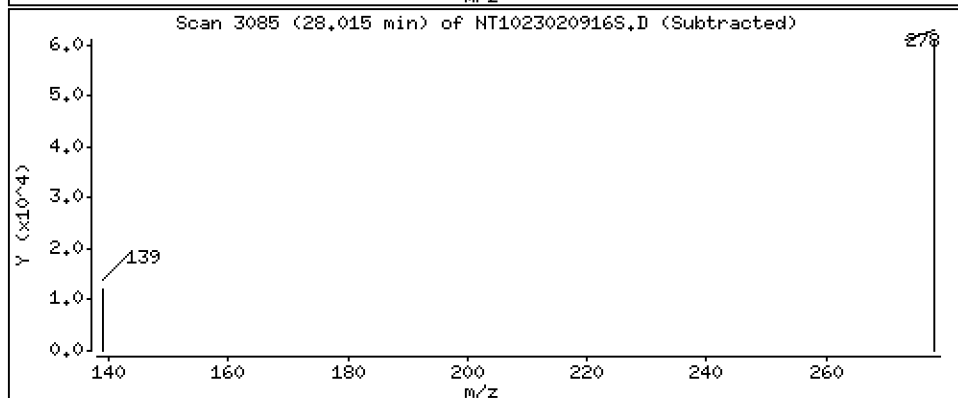
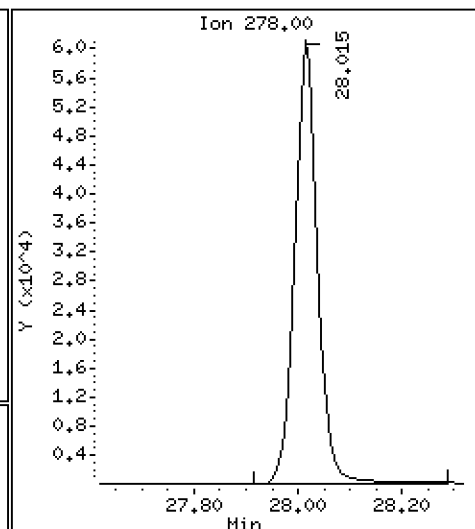
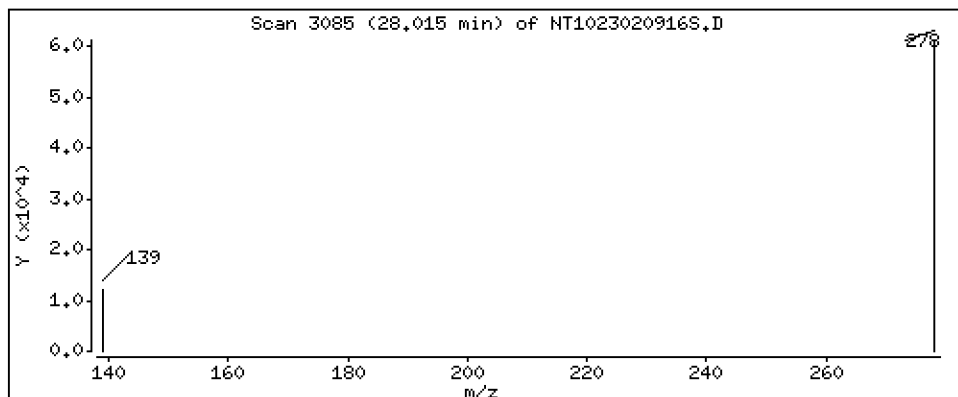
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 3,620 ug/L



Date : 09-FEB-2023 22:35

Client ID:

Instrument: nt10.i

Sample Info: BLA0163-SRM1

Volume Injected (uL): 1.0

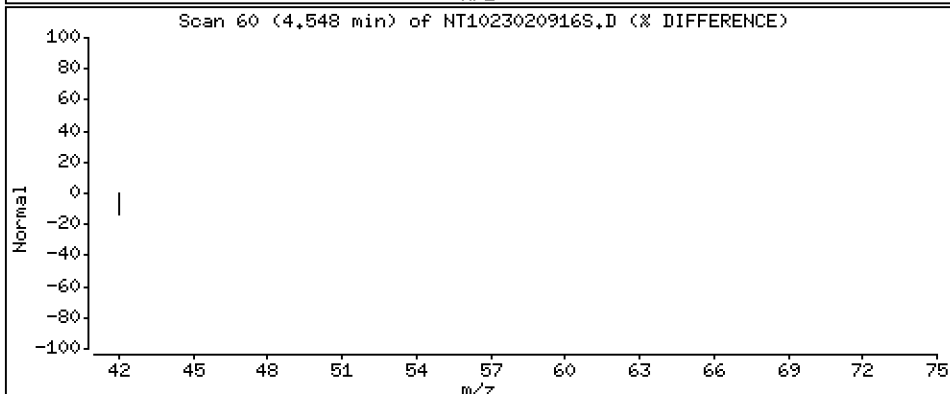
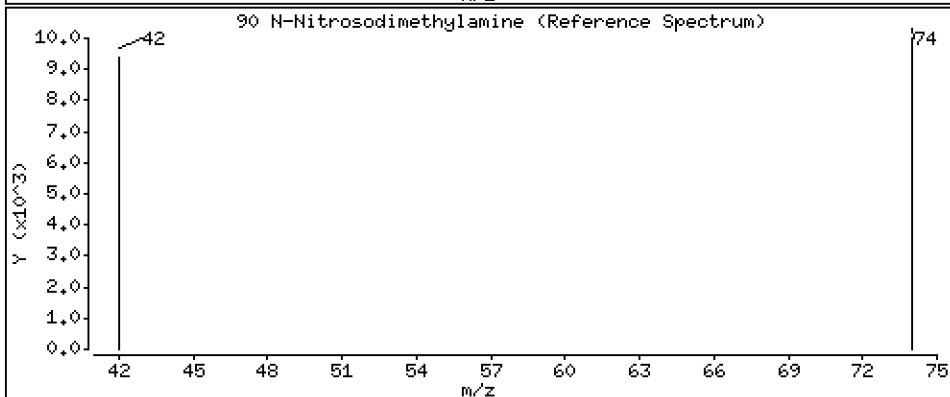
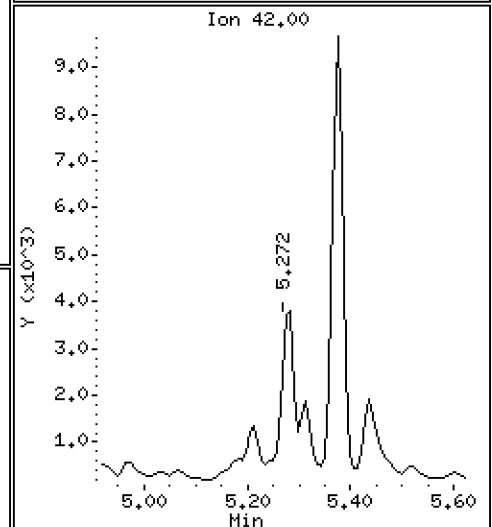
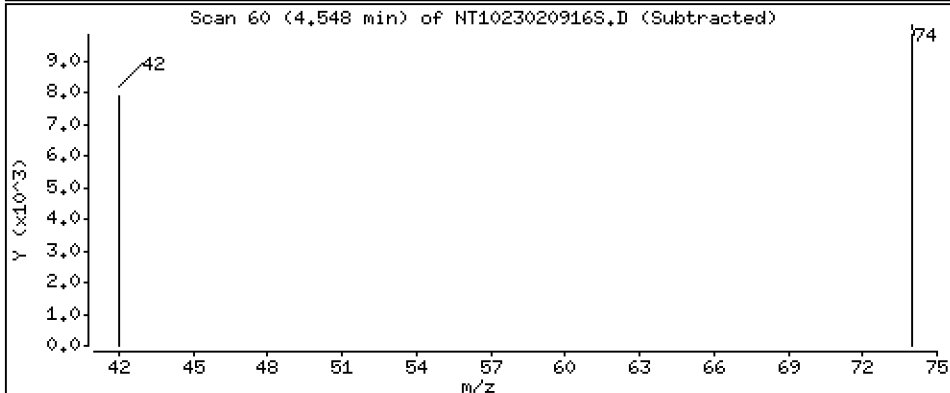
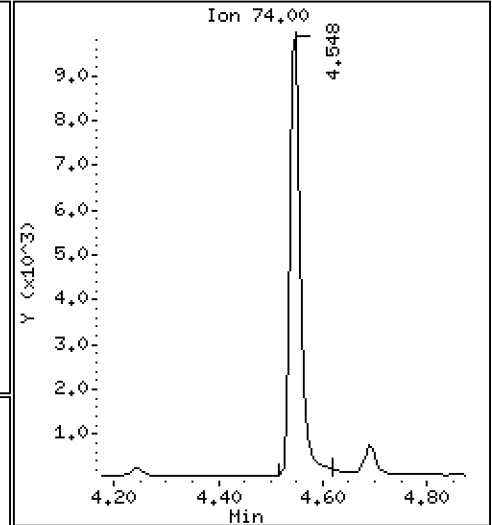
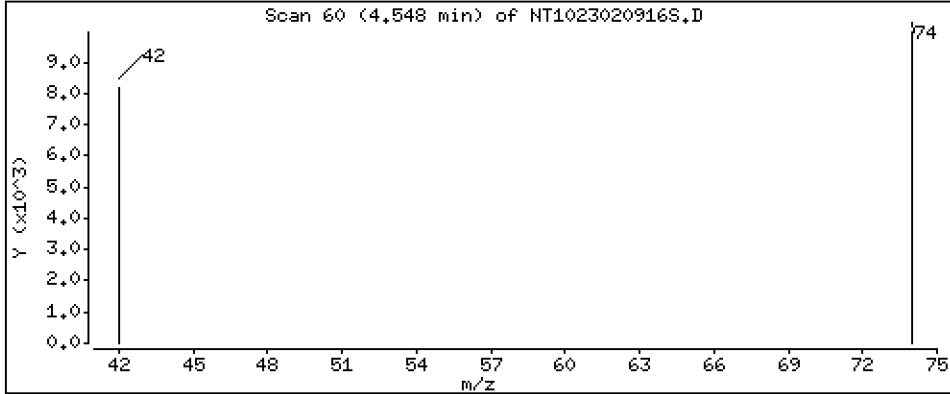
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 1.185 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230209.b\SIM.b\NT1023020916S.D
 Lab Smp Id: BLA0163-SRM2
 Inj Date : 09-FEB-2023 22:35 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : BLA0163-SRM1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230209.b\SIM.b\SIMABN2.m
 Meth Date : 12-Feb-2023 17:30 yev Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 16
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSSDA.sub
 Target Version: 4.14
 Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		6.671	6.655 (0.754)		120230	6.20504	6.205 (RM)
3 Phenol	94		8.255	8.239 (0.934)		82411	2.82065	2.821
7 1,3-Dichlorobenzene	146		8.773	8.765 (0.992)		30490	1.15881	1.159
* 8 1,4-Dichlorobenzene-d4	152		8.843	8.835 (1.000)		63717	4.00000	
9 1,4-Dichlorobenzene	146							Compound Not Detected.
11 Benzyl alcohol	79							Compound Not Detected.
12 1,2-Dichlorobenzene	146		9.216	9.207 (1.042)		141	0.00562	0.005616
13 2-Methylphenol	108		9.348	9.332 (1.057)		117012	5.86636	5.866
15 4-Methylphenol	108		9.619	9.603 (1.088)		152000	7.47147	7.471
16 N-Nitroso-di-n-propylamine	70							Compound Not Detected.
22 2,4-Dimethylphenol	107		10.647	10.630 (0.942)		109903	5.51919	5.519
24 Benzoic acid	105		10.800	10.799 (0.956)		10050	1.08632	1.086
26 1,2,4-Trichlorobenzene	180		11.214	11.206 (0.992)		27179	1.45615	1.456
* 27 Naphthalene-d8	136		11.299	11.283 (1.000)		226690	4.00000	
30 Hexachlorobutadiene	225		11.701	11.685 (1.036)		21949	2.15383	2.154
39 Dimethylphthalate	163		14.402	14.386 (0.968)		122105	4.99629	4.996
* 42 Acenaphthene-d10	162		14.882	14.866 (1.000)		104859	4.00000	
50 Diethylphthalate	149		15.848	15.832 (1.065)		16537	0.44930	0.4493
54 N-Nitrosodiphenylamine	169		16.226	16.210 (0.906)		114997	3.74833	3.748
57 Hexachlorobenzene	284							Compound Not Detected.

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	17.647	17.639	(0.986)	21294	4.50303	4.503
* 59 Phenanthrene-d10	188	17.903	17.887	(1.000)	185643	4.00000	
\$ 66 Terphenyl-d14	244	21.075	21.051	(0.917)	172969	4.90640	4.906(R)
67 Butylbenzylphthalate	149	22.012	21.988	(0.958)	92848	3.89632	3.896
* 69 Chrysene-d12	240	22.980	22.956	(1.000)	158827	4.00000	
* 77 Perylene-d12	264	25.504	25.480	(1.000)	187835	4.00000	
79 Dibenzo(a,h)anthracene	278	28.014	27.967	(1.098)	190558	3.61987	3.620
90 N-Nitrosodimethylamine	74	4.548	4.524	(0.514)	15042	1.18465	1.185(M)

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020916S.D
 Lab Smp Id: BLA0163-SRM2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230209.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 09-FEB-2023
 Calibration Time: 14:49
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	101588	50794	203176	63717	-37.28
27 Naphthalene-d8	364920	182460	729840	226690	-37.88
42 Acenaphthene-d10	174973	87487	349946	104859	-40.07
59 Phenanthrene-d10	314354	157177	628708	185643	-40.94
69 Chrysene-d12	242262	121131	484524	158827	-34.44
77 Perylene-d12	285281	142641	570562	187835	-34.16

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	0.09
27 Naphthalene-d8	11.28	10.78	11.78	11.30	0.14
42 Acenaphthene-d10	14.87	14.37	15.37	14.88	0.11
59 Phenanthrene-d10	17.89	17.39	18.39	17.90	0.09
69 Chrysene-d12	22.96	22.46	23.46	22.98	0.10
77 Perylene-d12	25.48	24.98	25.98	25.50	0.09

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020916S.D

Lab ID: BLA0163-SRM2

nt10.i, 20230209.b\SIM.b\SIMABN2.m, 09-FEB-2023 22:35

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: SIM.b/NT1023020904S.D

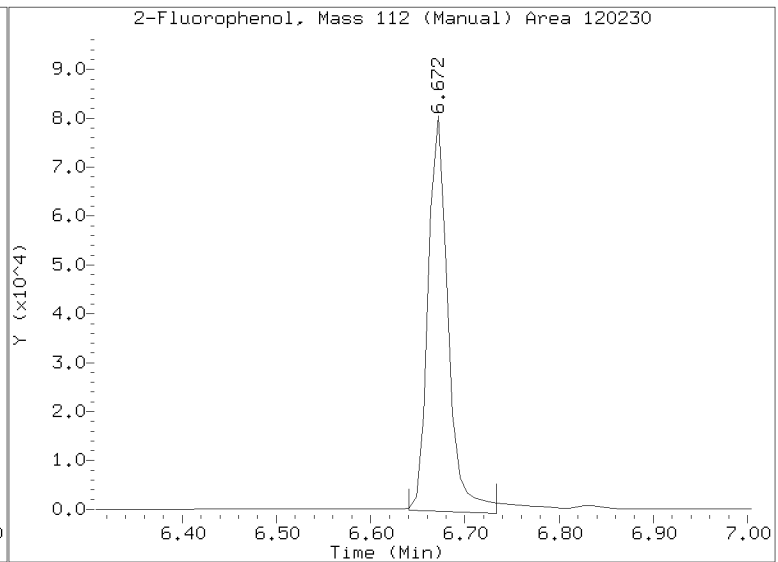
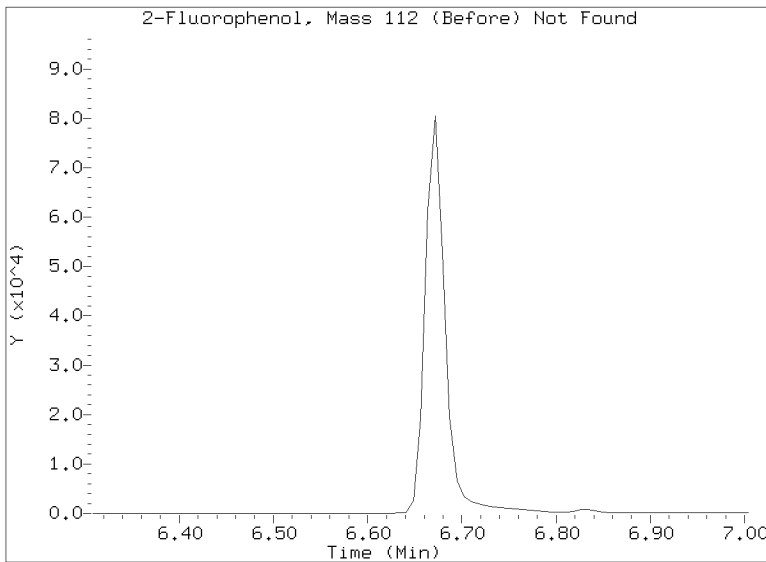
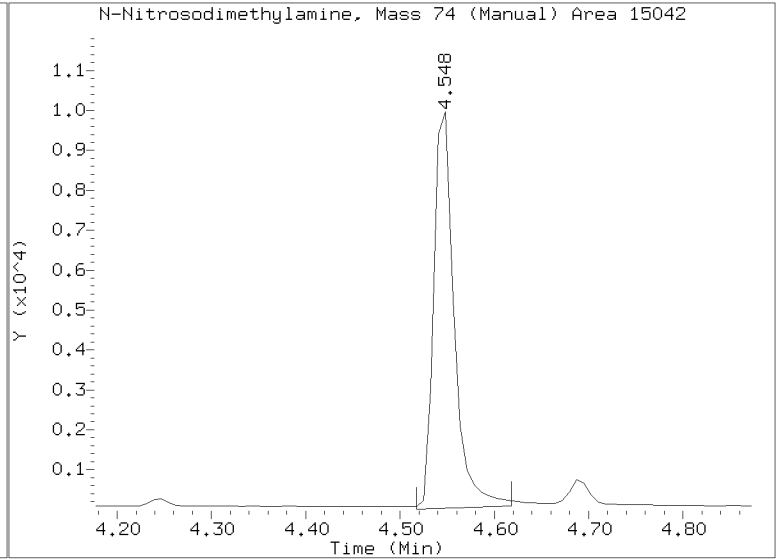
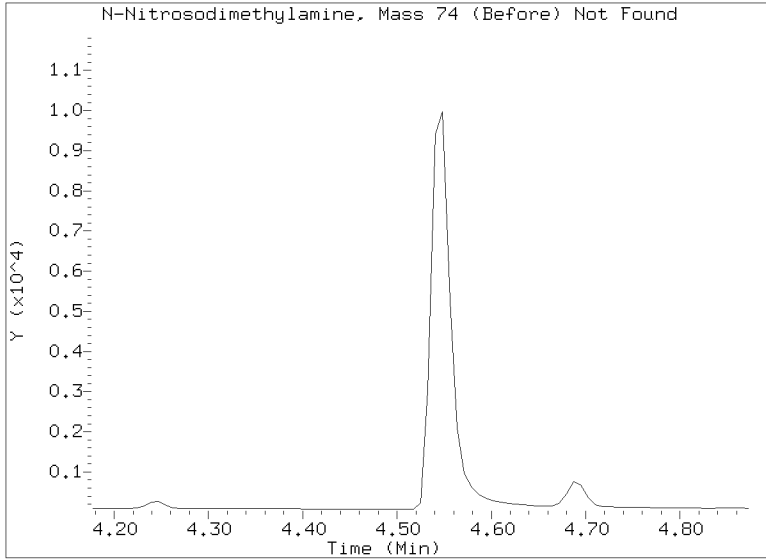
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209.b/SIM.b/NT1023020916S.D
Injection Date: 09-FEB-2023 22:35
Lab ID:BLA0163-SRM2 Client ID:
Report Date: 02/12/2023 17:36





STANDARD REFERENCE MATERIAL RECOVERY

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLA0171-SRM1

Batch: BLA0171

Initial/Final: 5 g / 0.5 mL

Preparation: EPA 3546 (Microwave)

Analyzed: 01/19/2023 18:06

Standard ID: L000097

Expires: 10/31/2025

Standard Lot#: SQC017 (LRAD3953)

Description: SQC017-40G PAHs by HPLC40g

ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Benzo(a)anthracene	110.00	72.0	1.65	10.0		65.5	26 - 174
Chrysene	231.00	148	2.11	10.0		64.3	43 - 156
Benzo(b)fluoranthene	318.00	345	2.74	10.0		109	0 - 211
Benzo(k)fluoranthene	95.100	95.5	1.52	10.0		100	0 - 226
Benzo(a)pyrene	159.00	101	1.23	10.0		63.8	0 - 206
Indeno(1,2,3-cd)pyrene	119.00	100	2.10	10.0		84.4	44 - 155
Dibenzo(a,h)anthracene	220.00	204	1.78	10.0		92.9	45 - 155

* Values outside of QC limits

Data File: \\target\share\chem3\nt8.1\20230119A,B\N823011916.D

Date: 19-JAN-2023 18:06

Client ID:

Sample Info: BLR0171-SRM1,

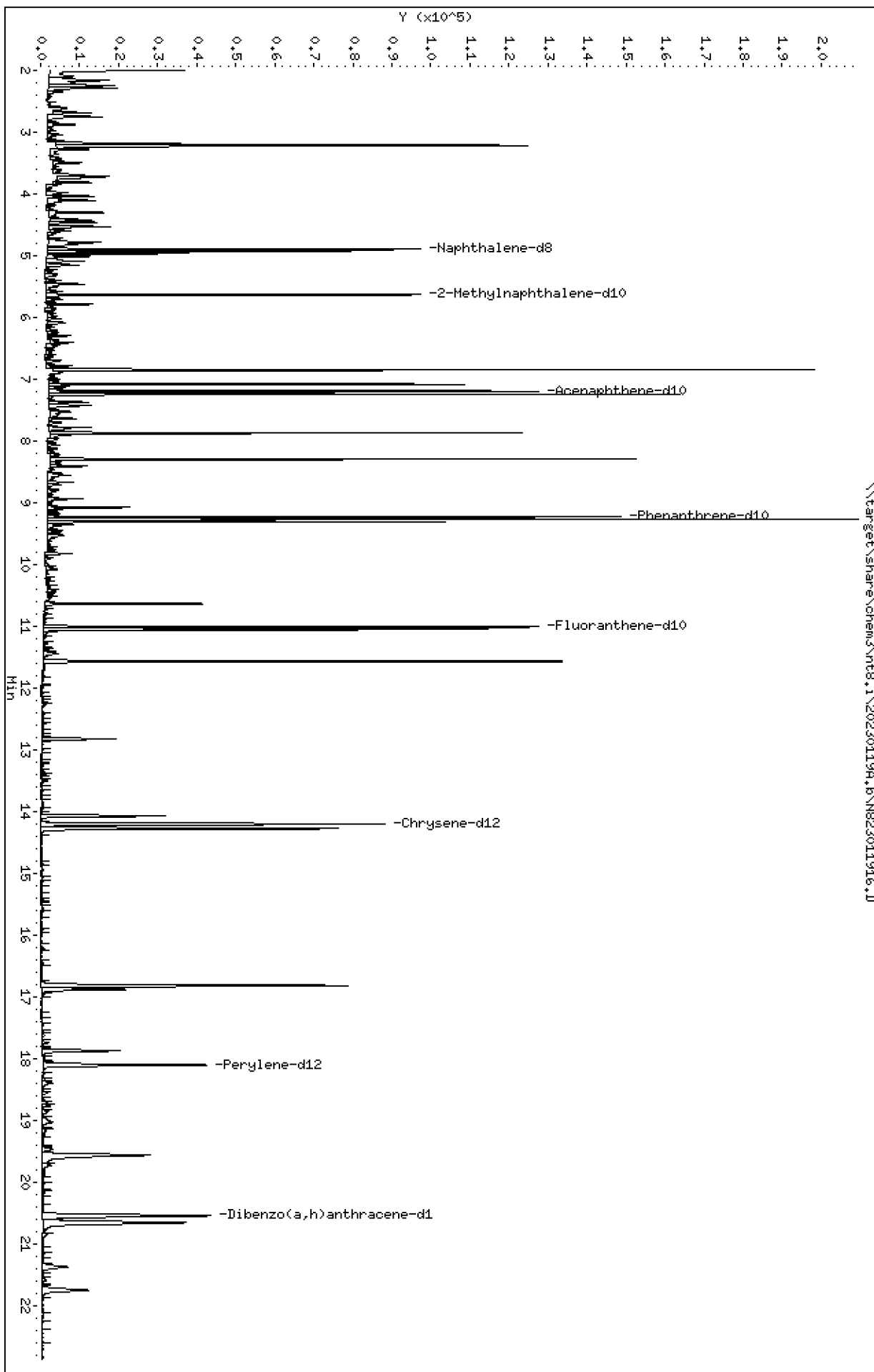
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

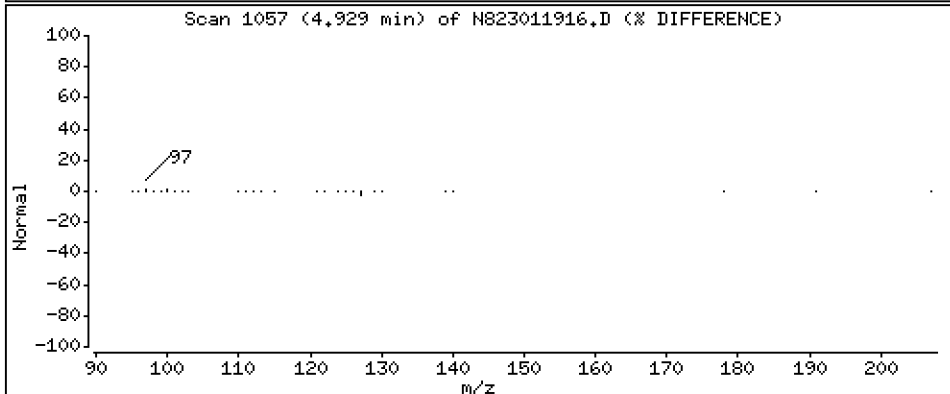
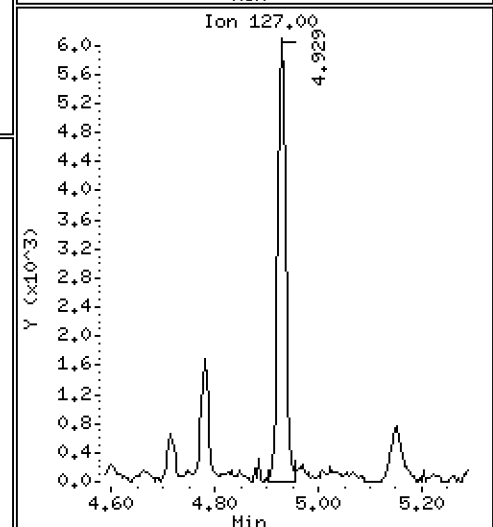
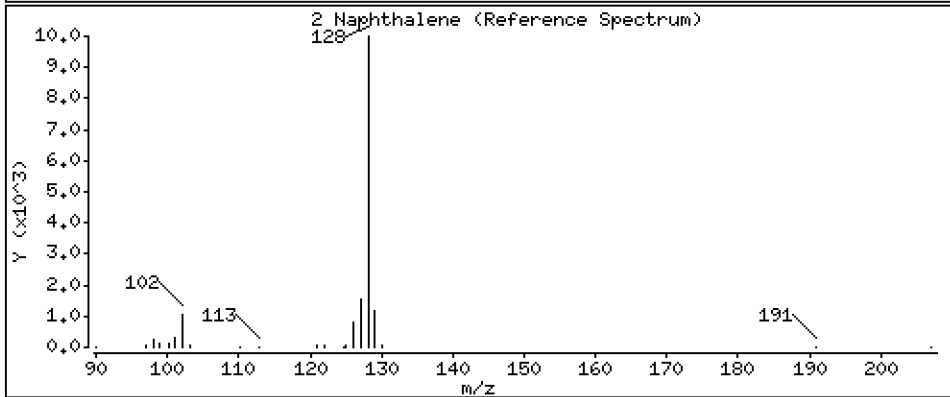
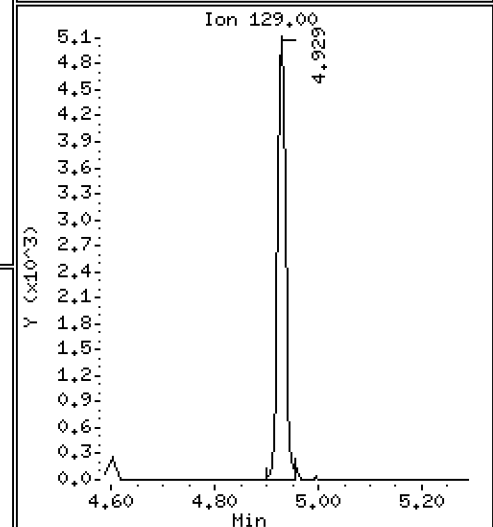
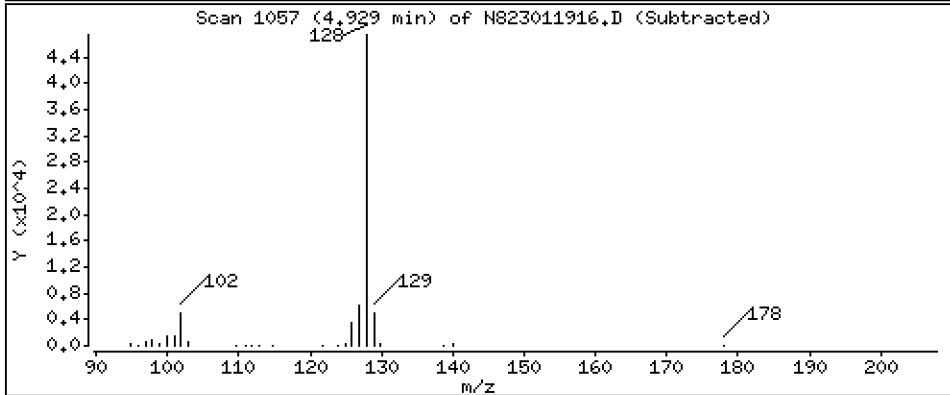
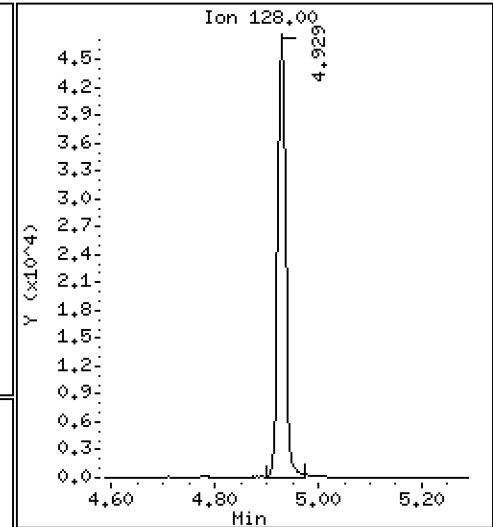
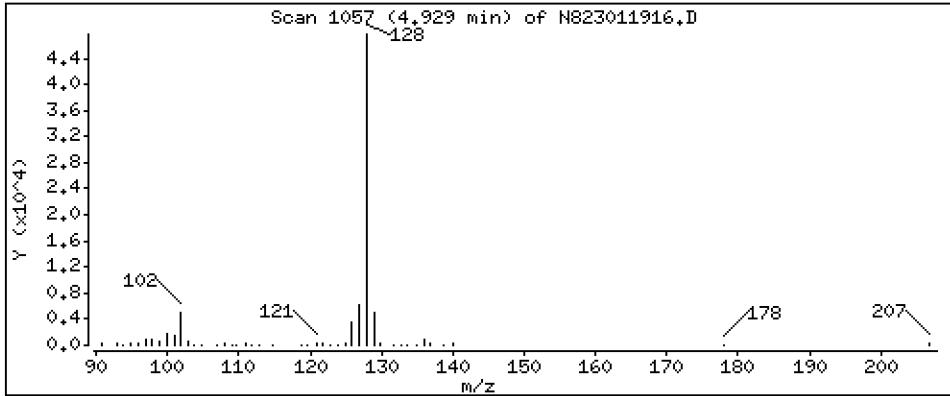
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

2 Naphthalene

Concentration: 1,749 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

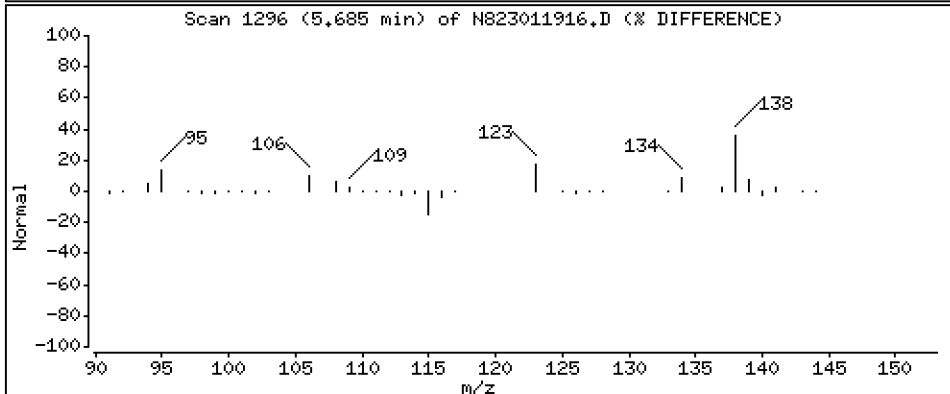
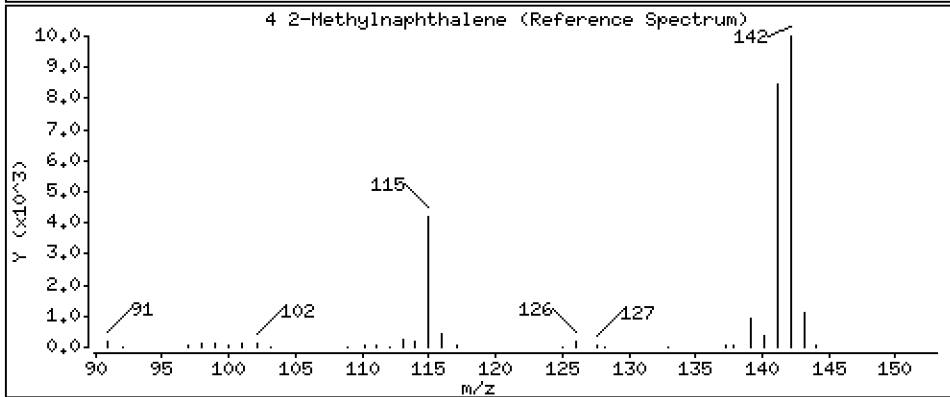
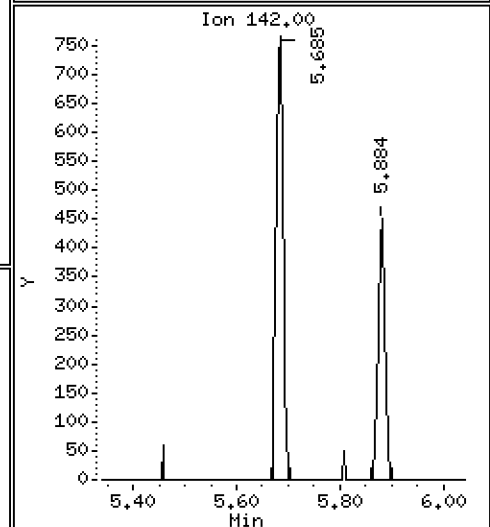
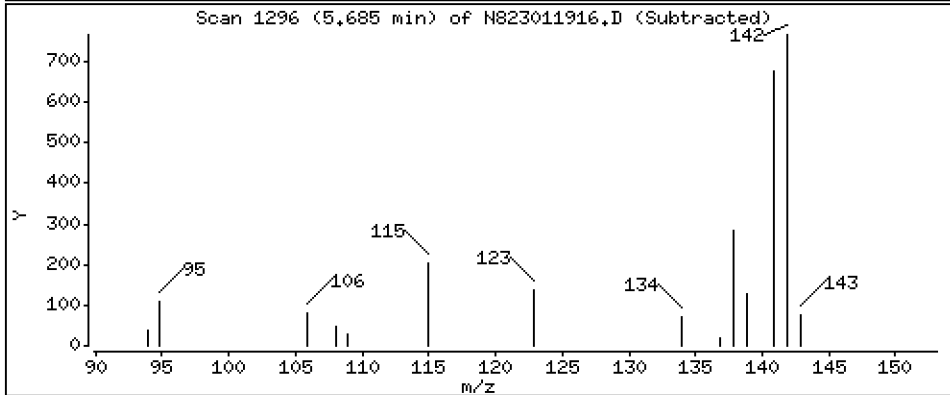
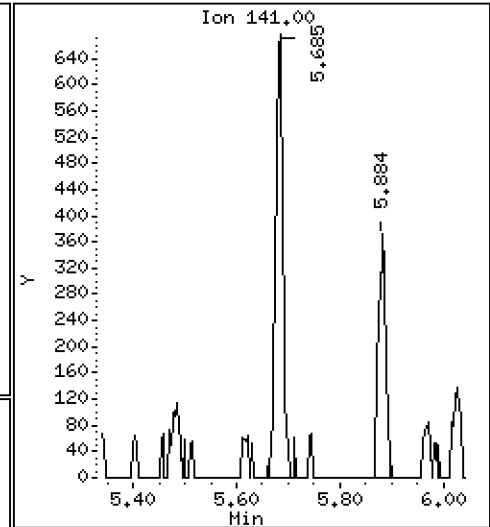
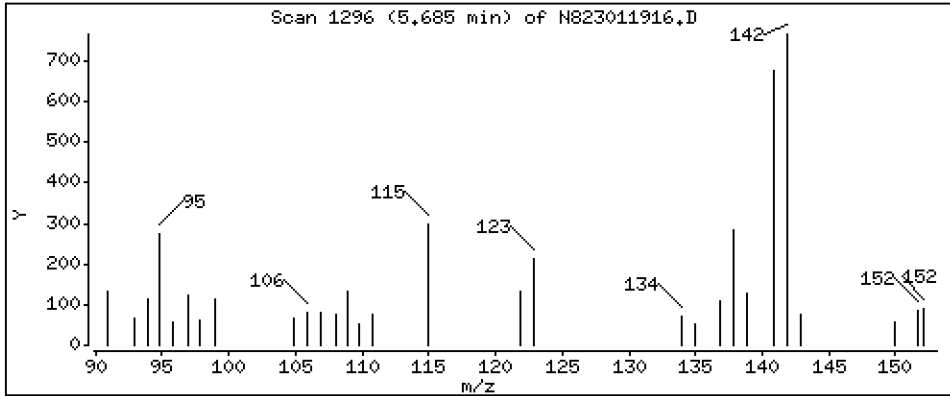
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

4 2-Methylnaphthalene

Concentration: 0,04082 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

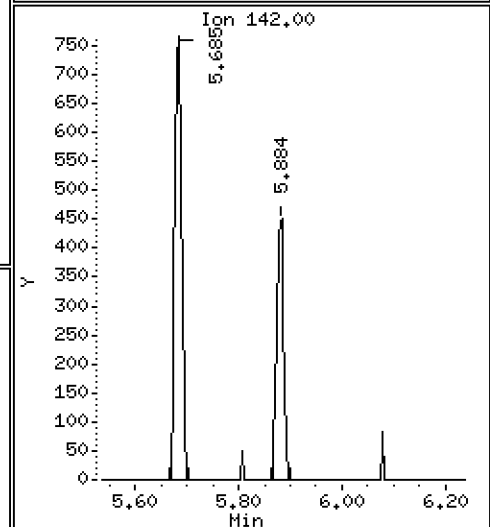
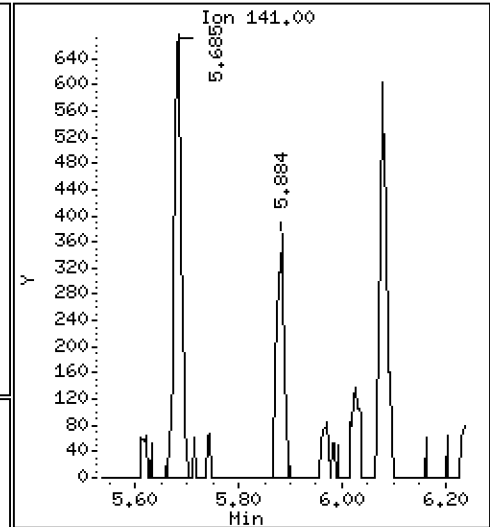
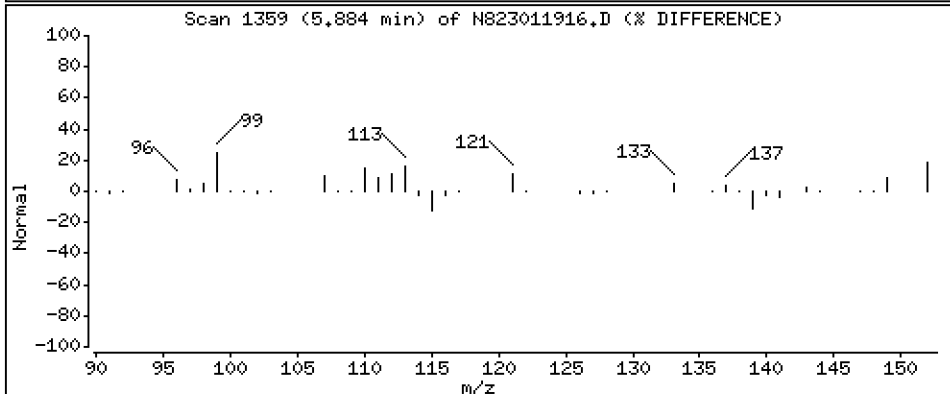
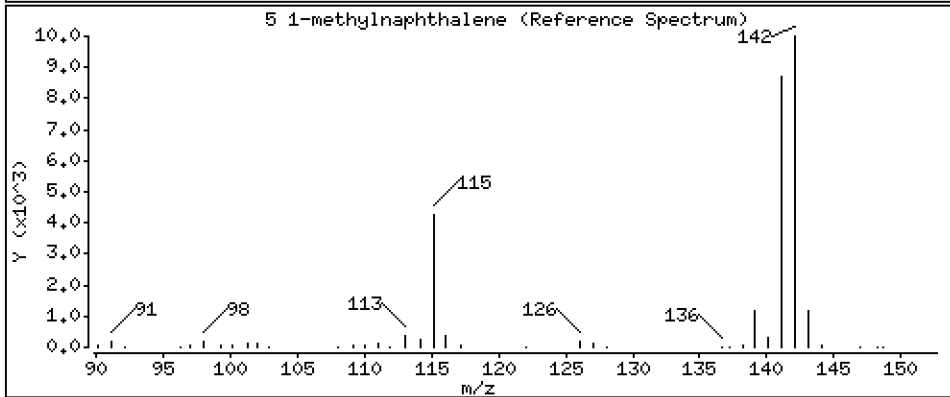
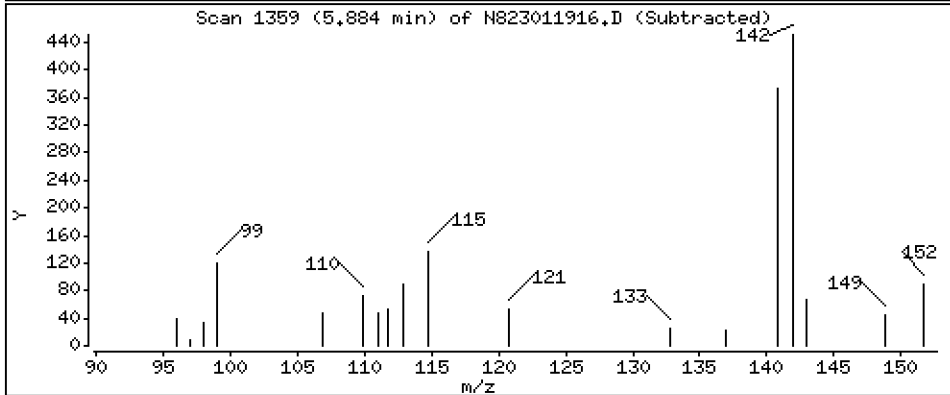
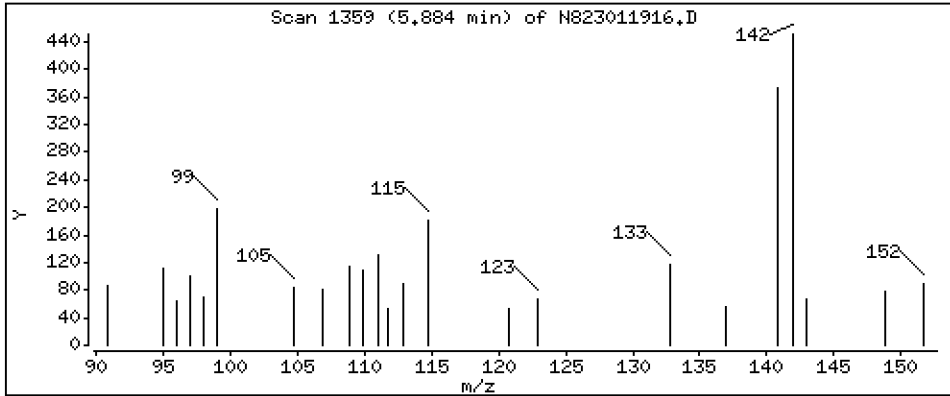
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

5 1-methylnaphthalene

Concentration: 0,02424 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

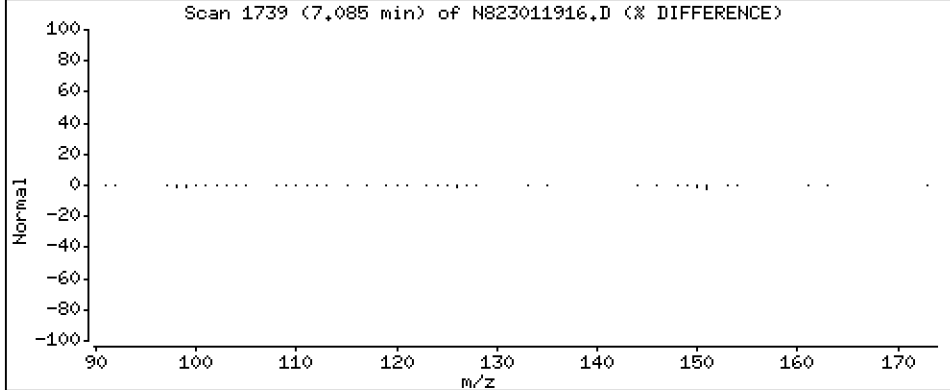
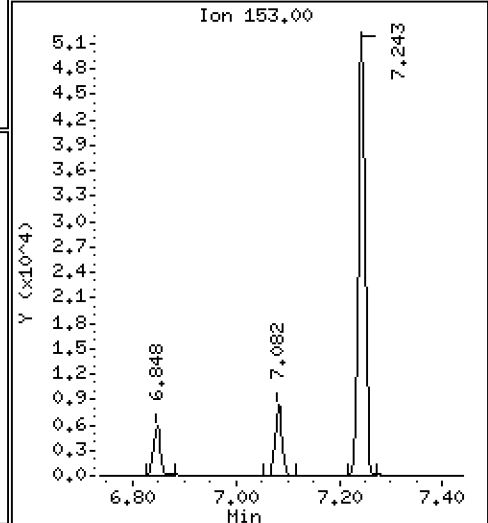
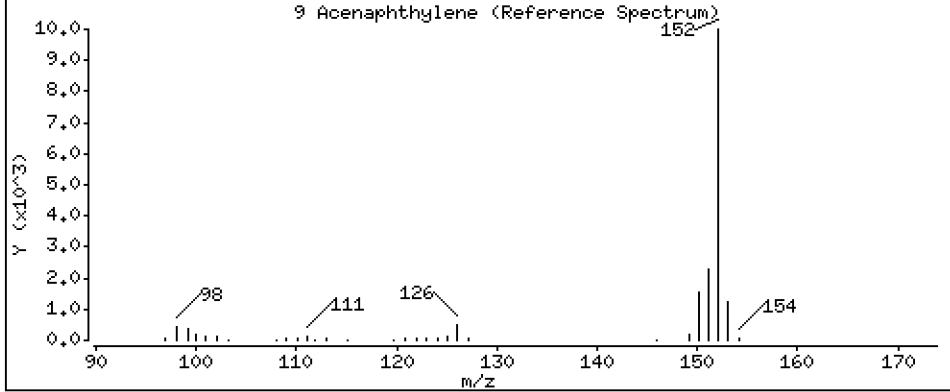
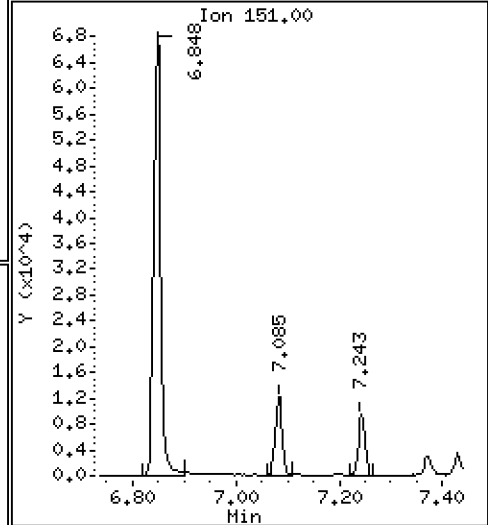
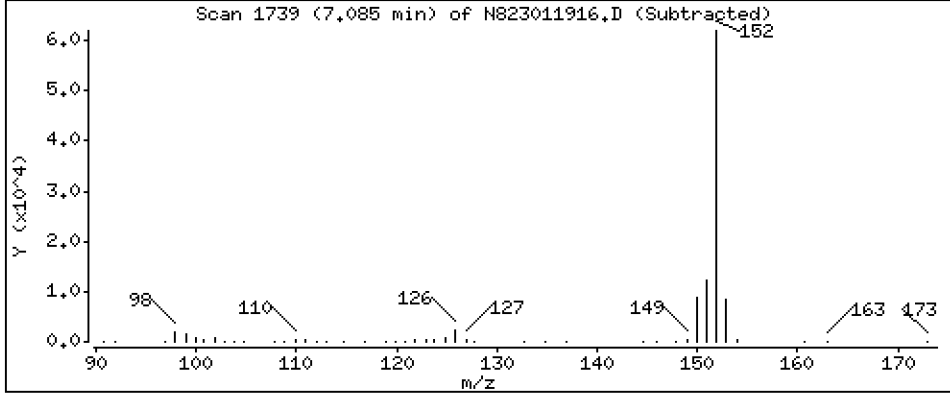
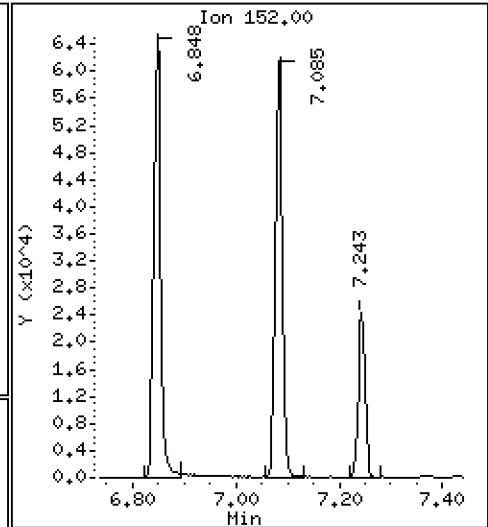
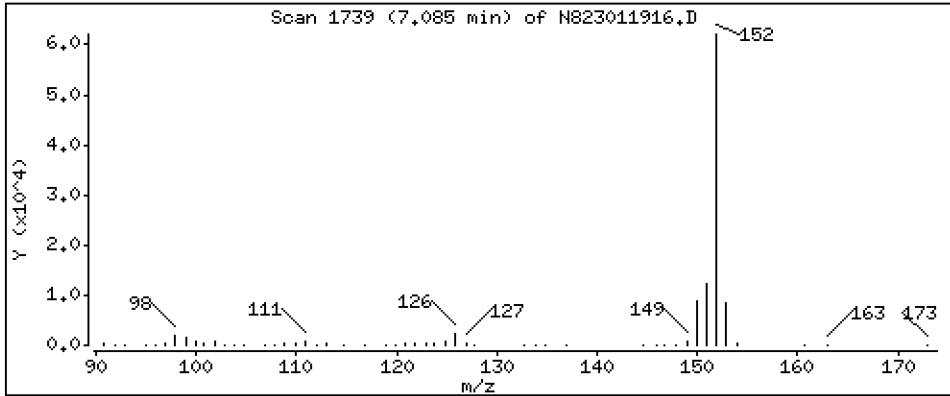
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

9 Acenaphthylene

Concentration: 2,254 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

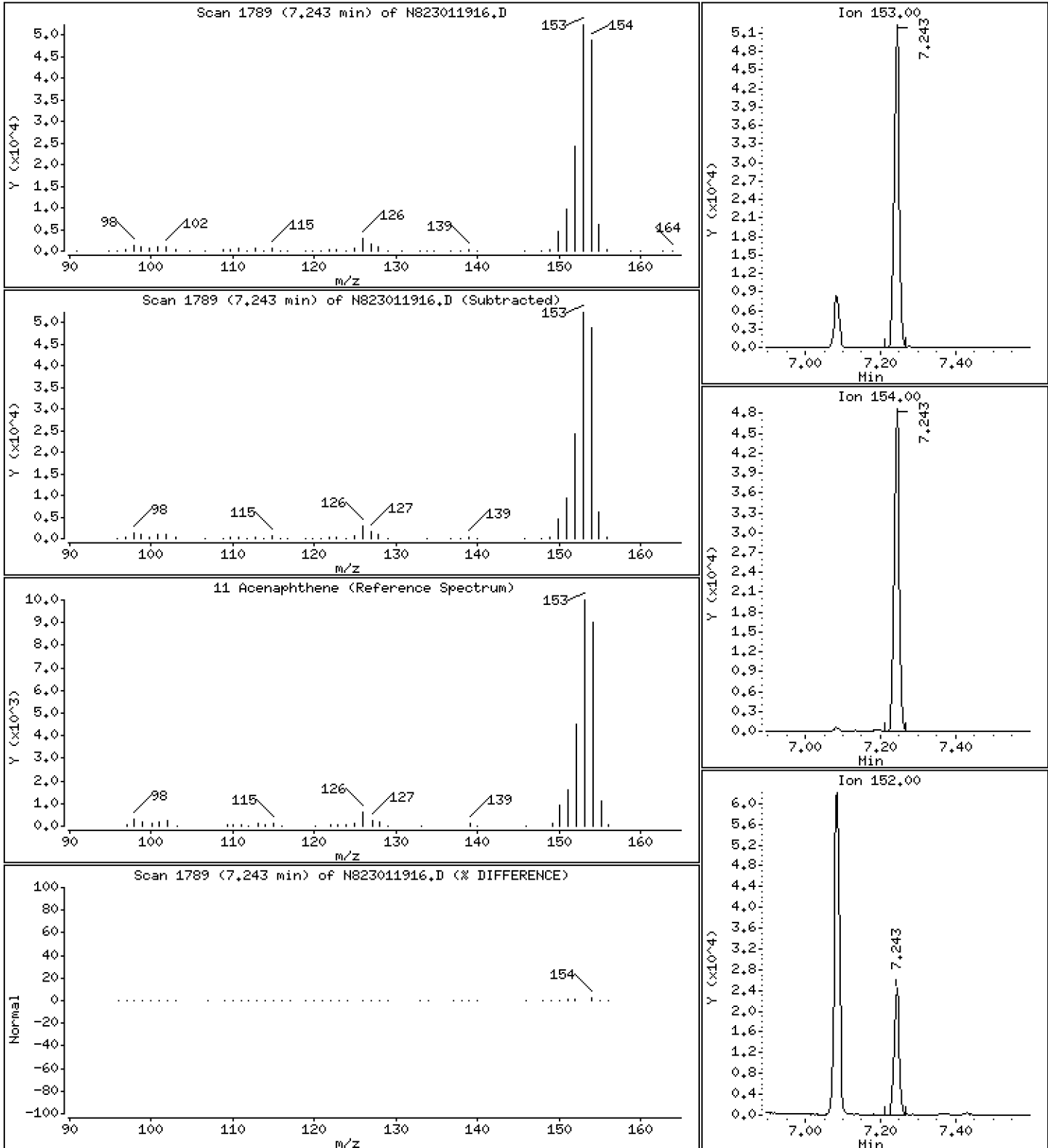
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

11 Acenaphthene

Concentration: 2,688 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

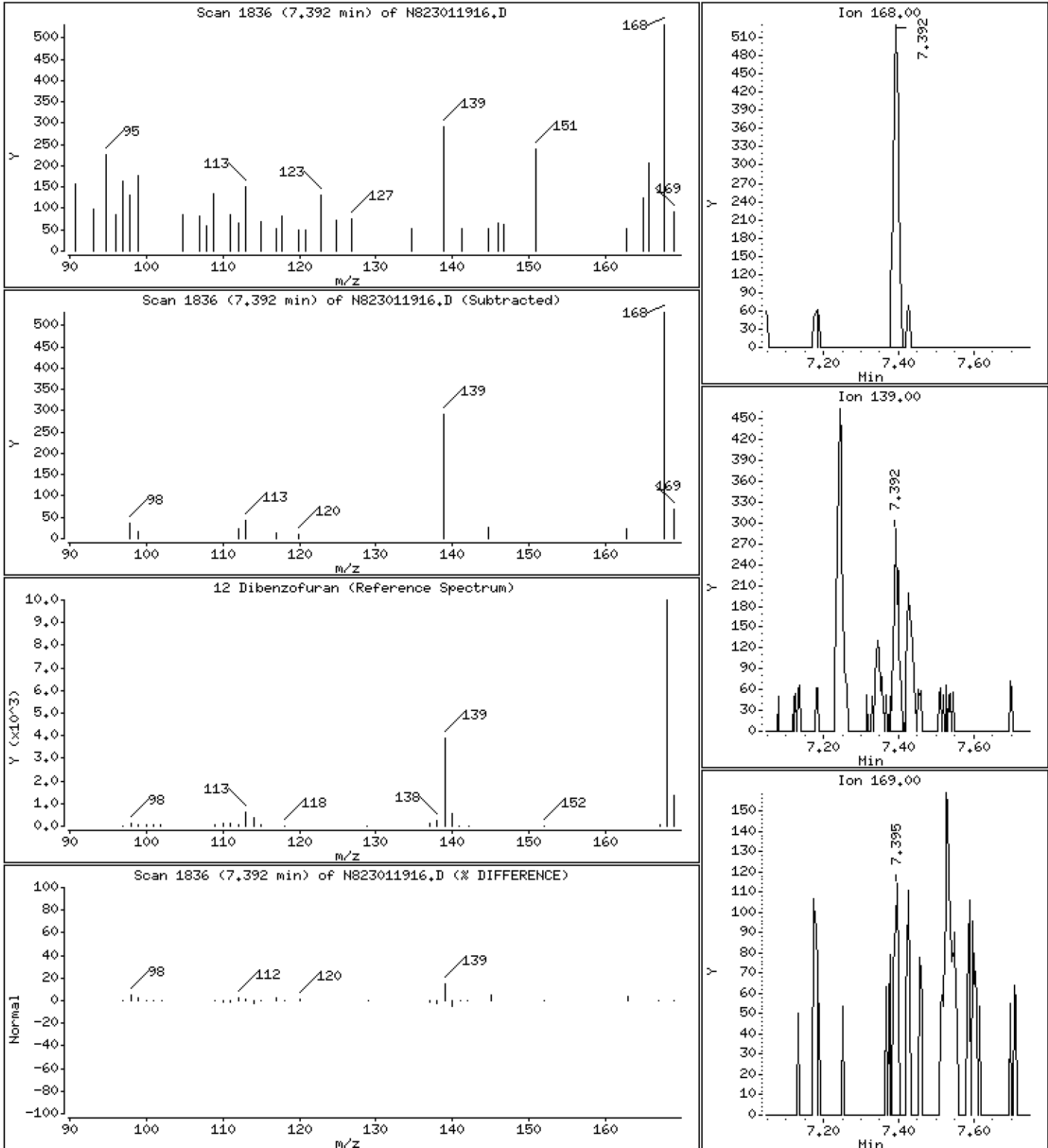
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

12 Dibenzofuran

Concentration: 0,01943 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

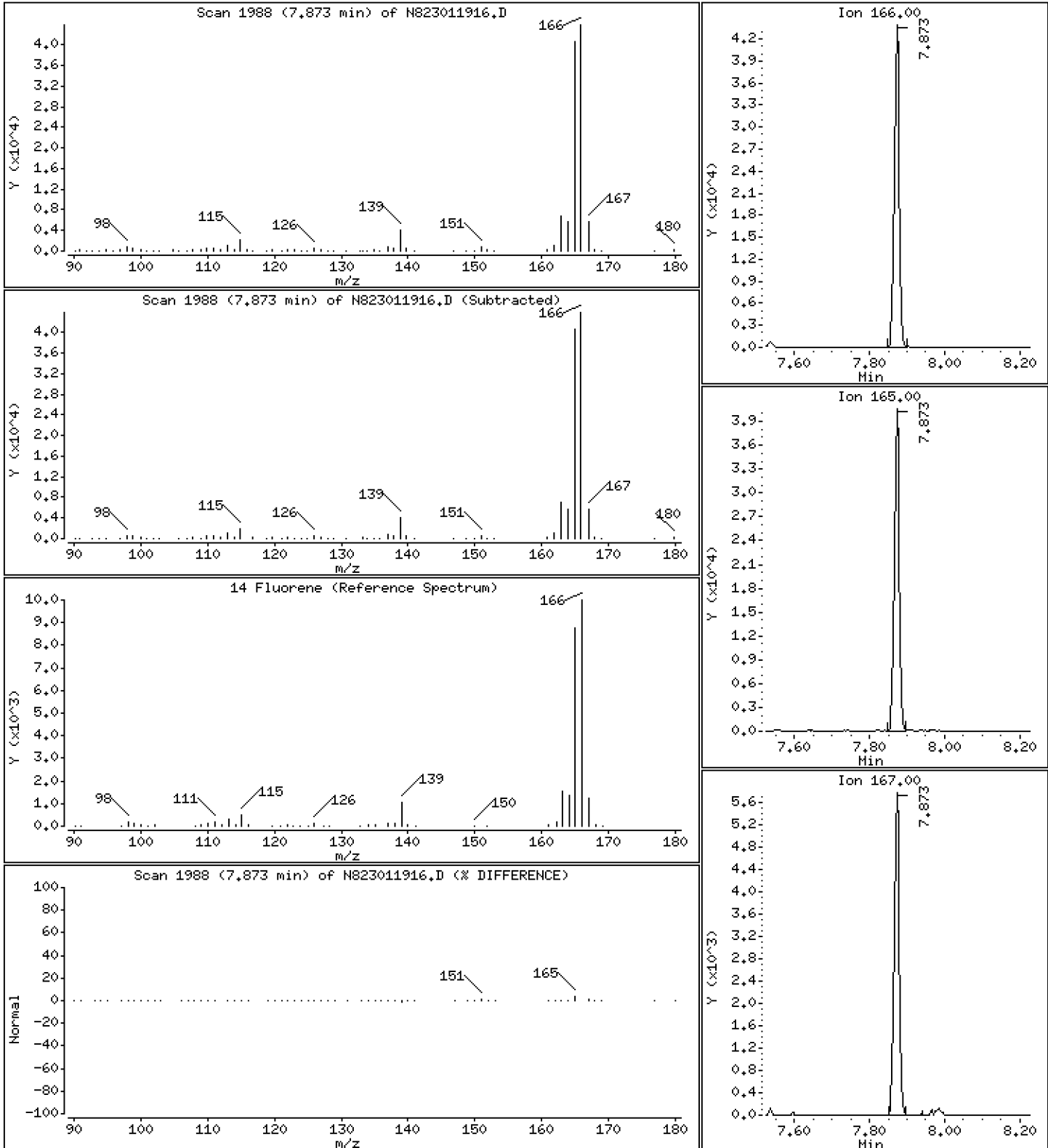
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

14 Fluorene

Concentration: 1,867 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

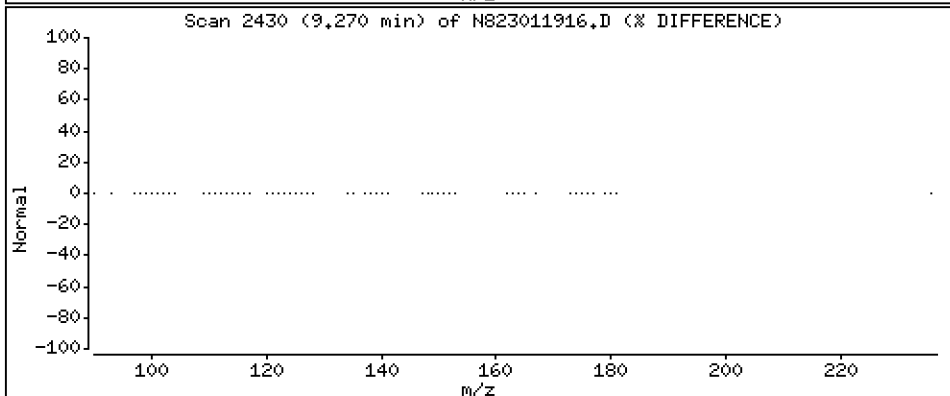
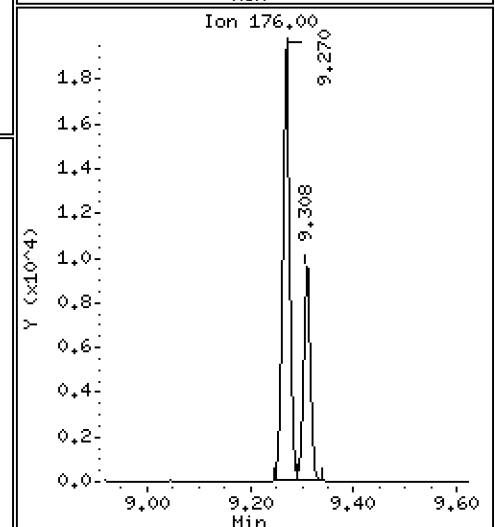
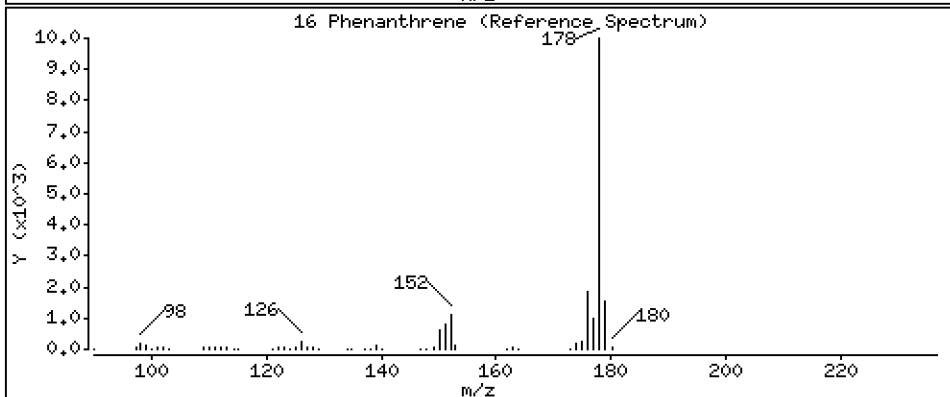
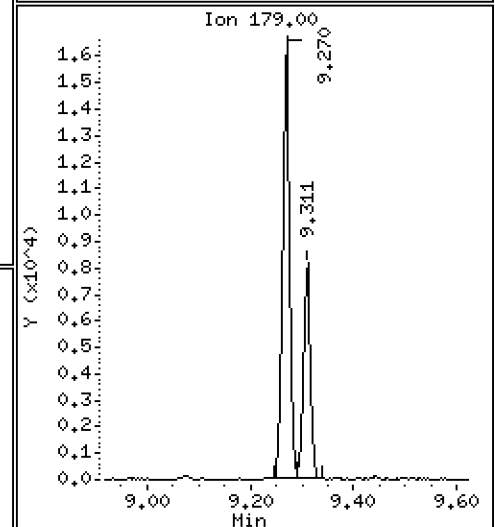
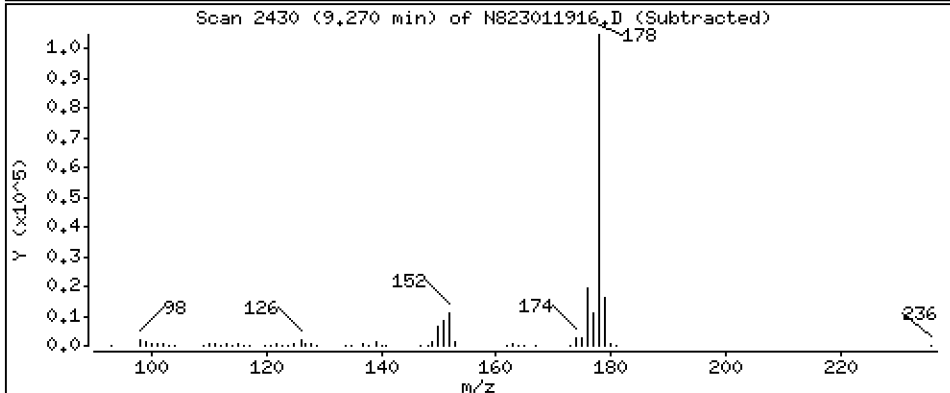
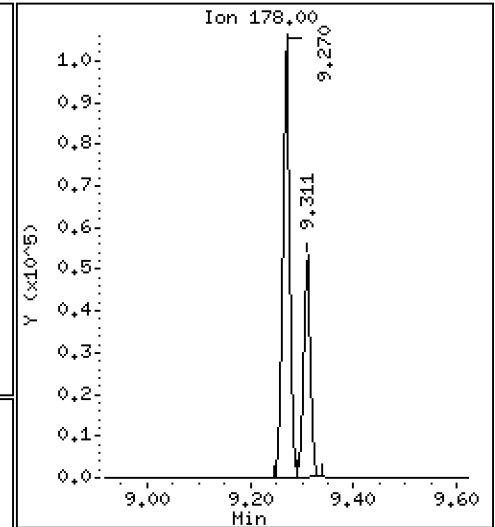
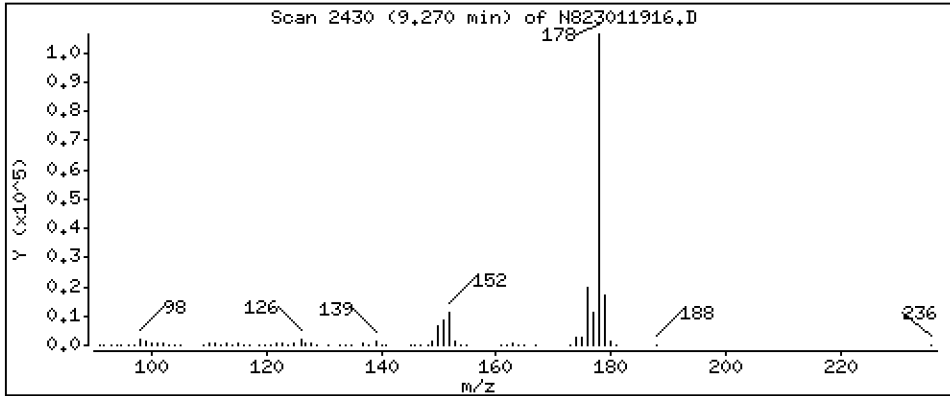
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

16 Phenanthrene

Concentration: 3,135 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

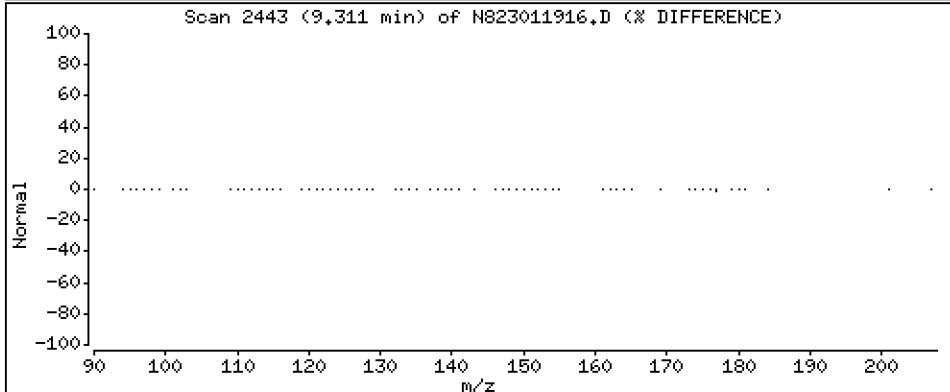
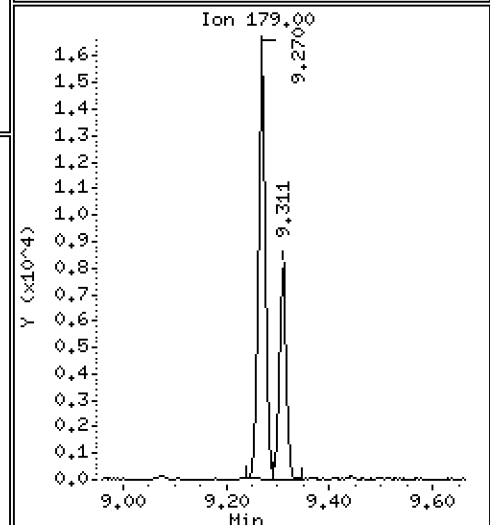
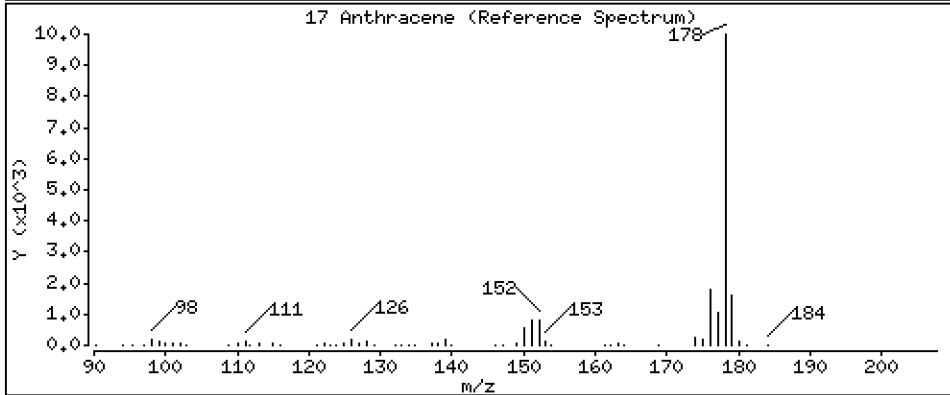
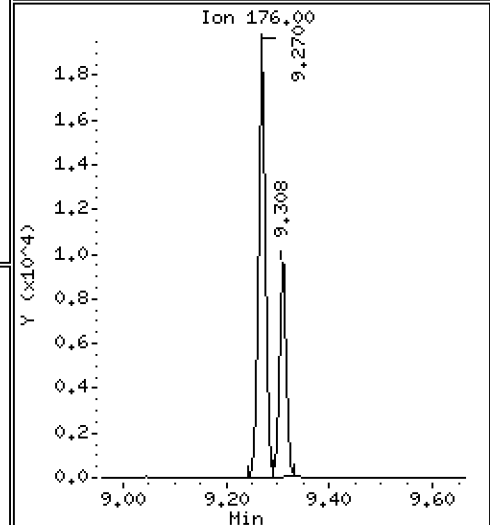
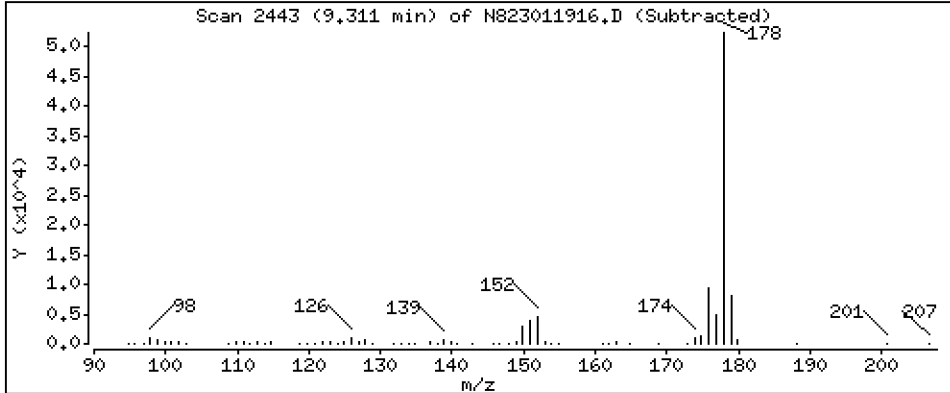
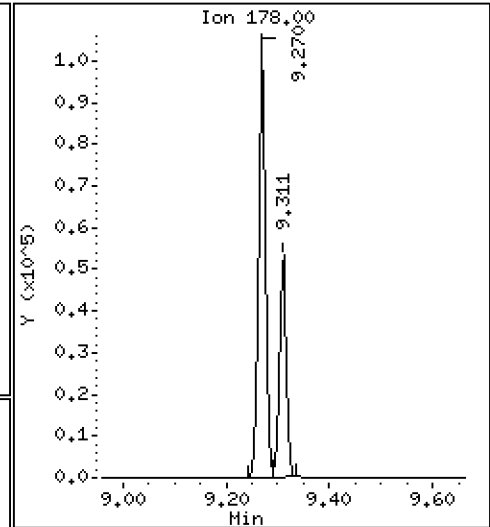
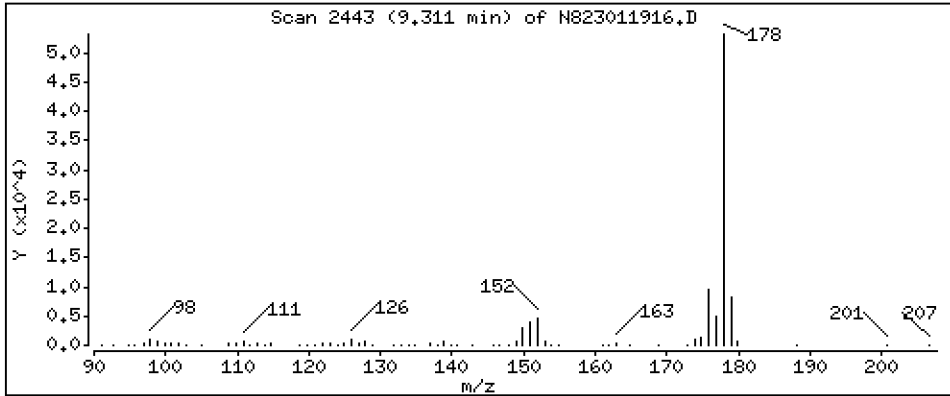
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

17 Anthracene

Concentration: 1,706 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

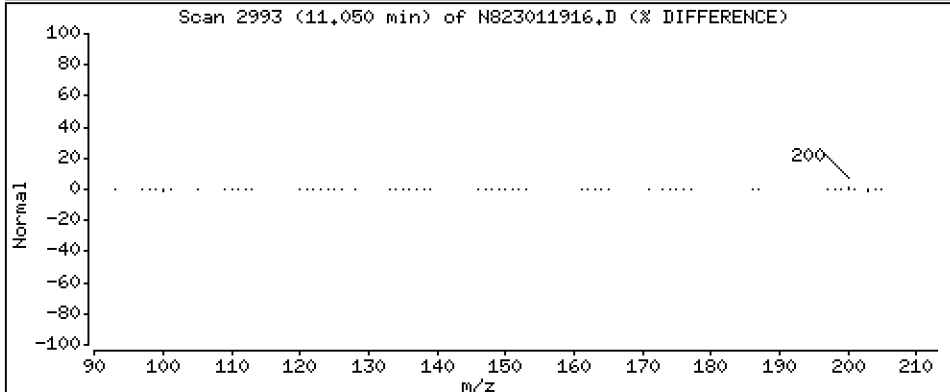
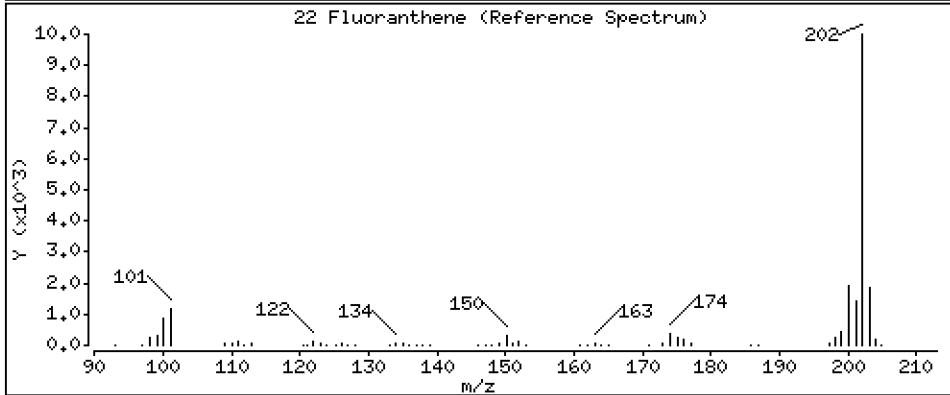
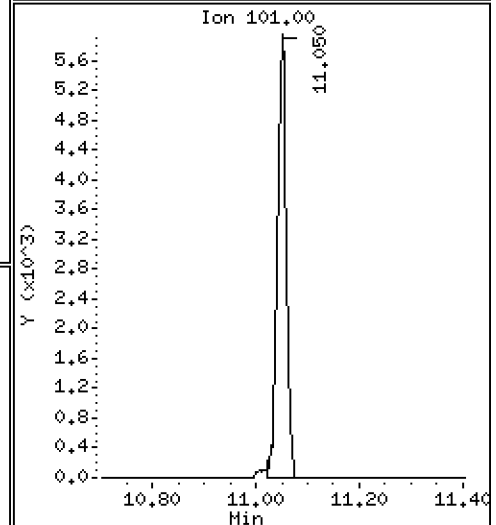
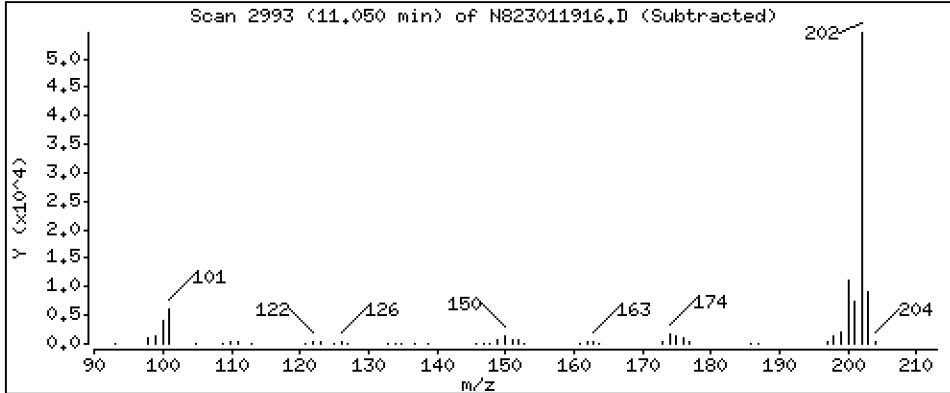
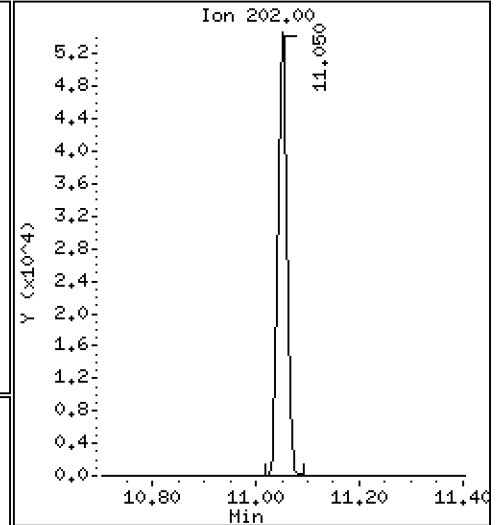
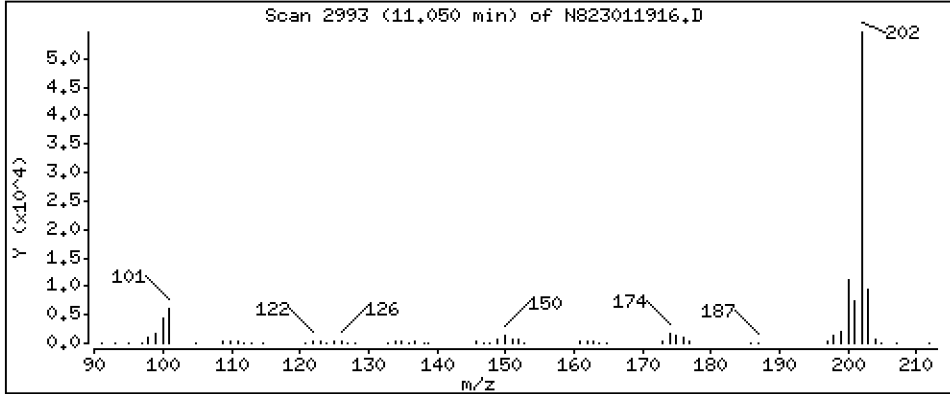
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 1,924 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

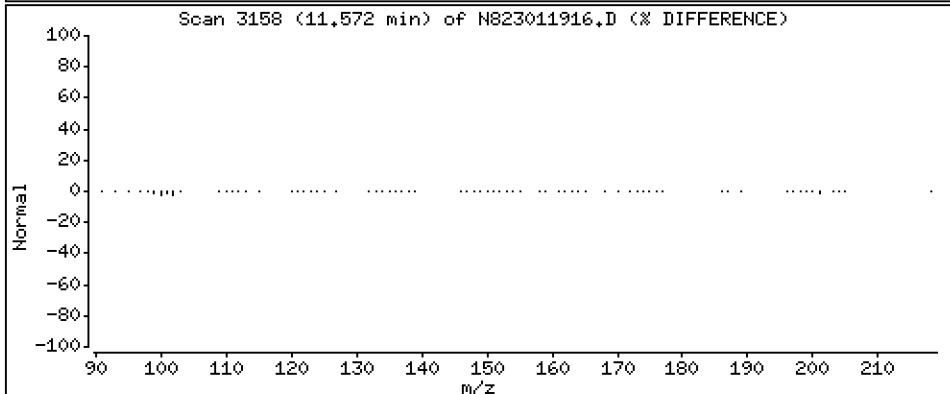
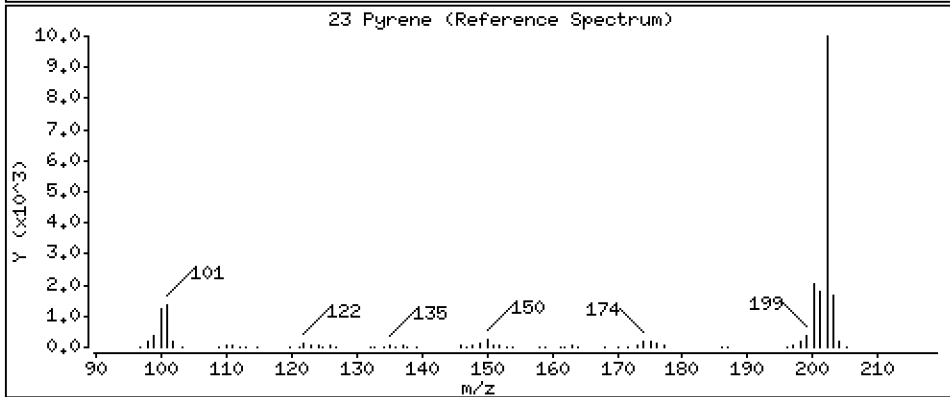
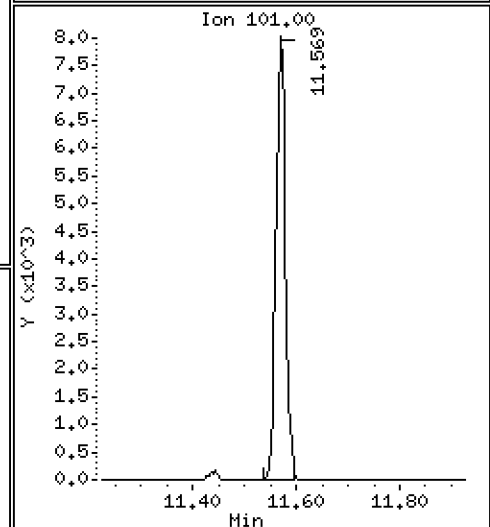
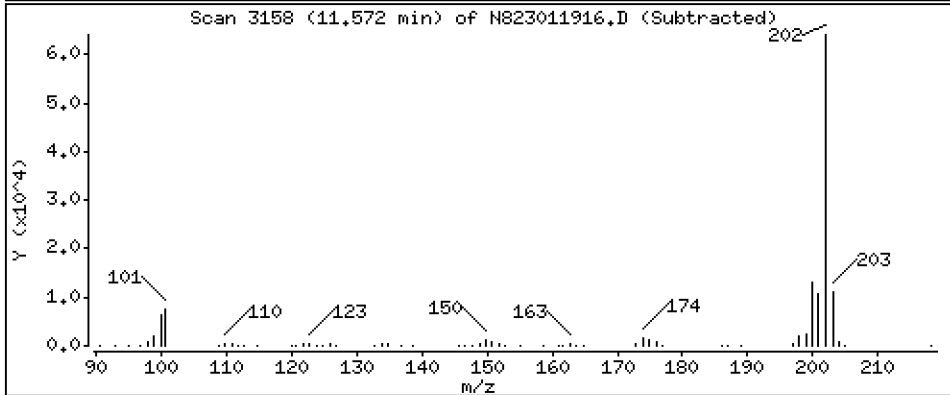
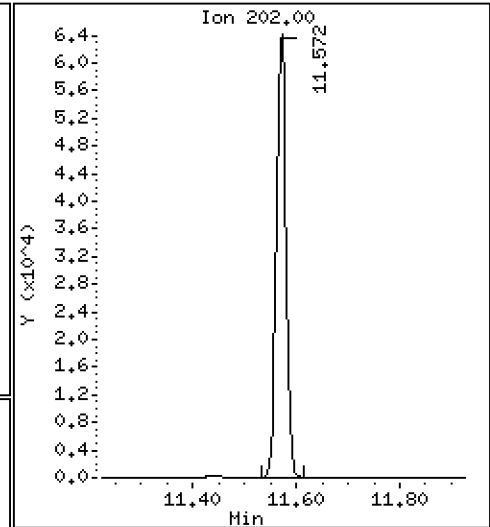
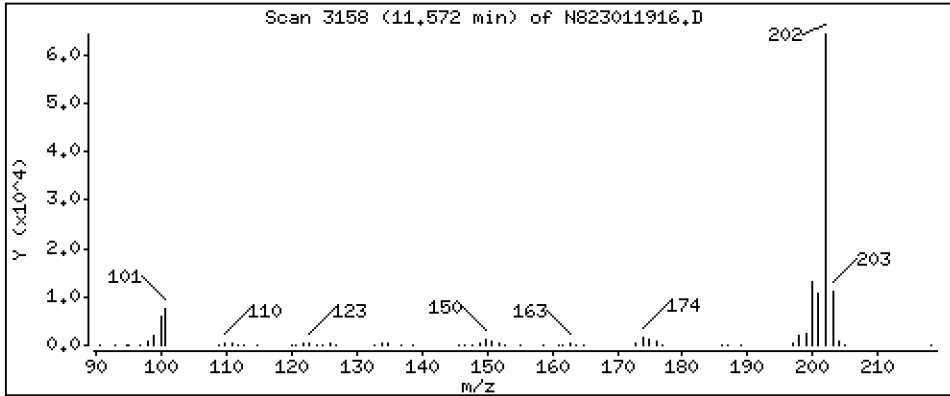
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

23 Pyrene

Concentration: 2,297 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

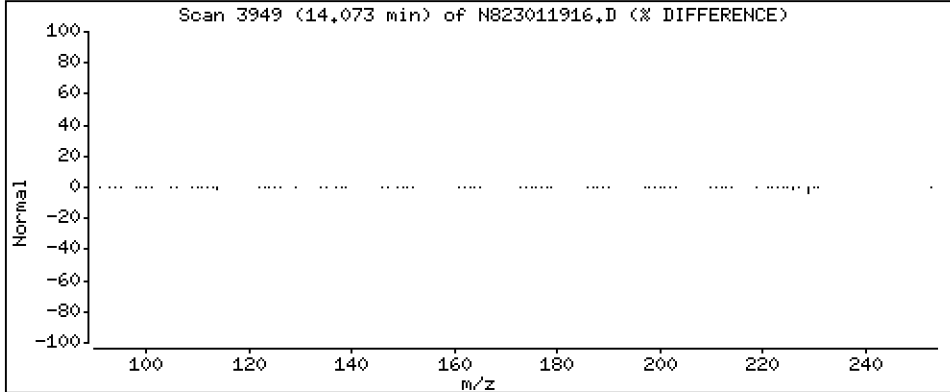
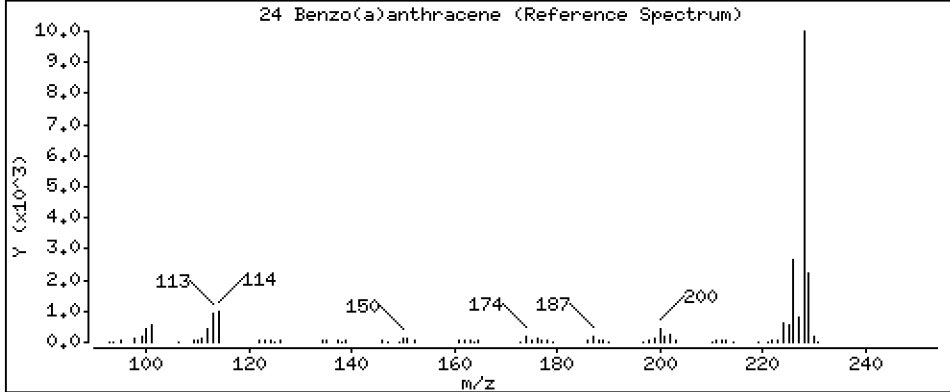
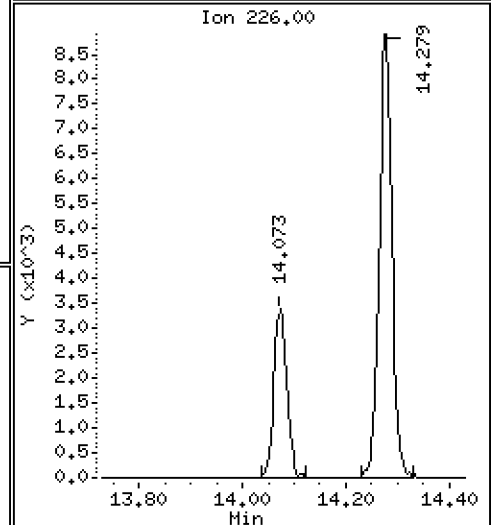
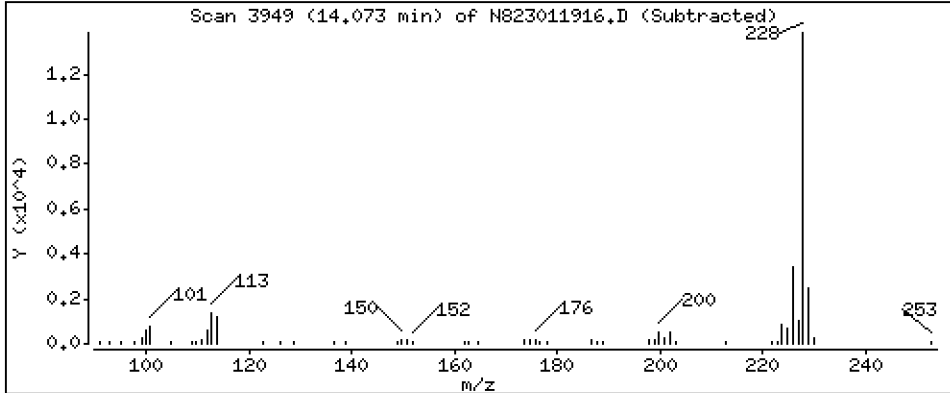
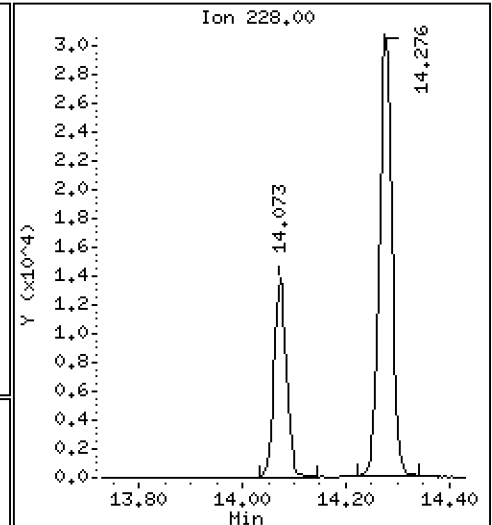
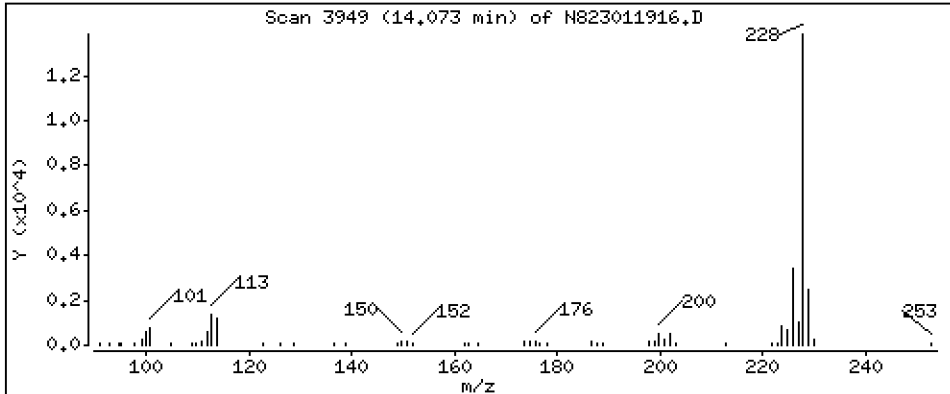
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

24 Benzo(a)anthracene

Concentration: 0,7200 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

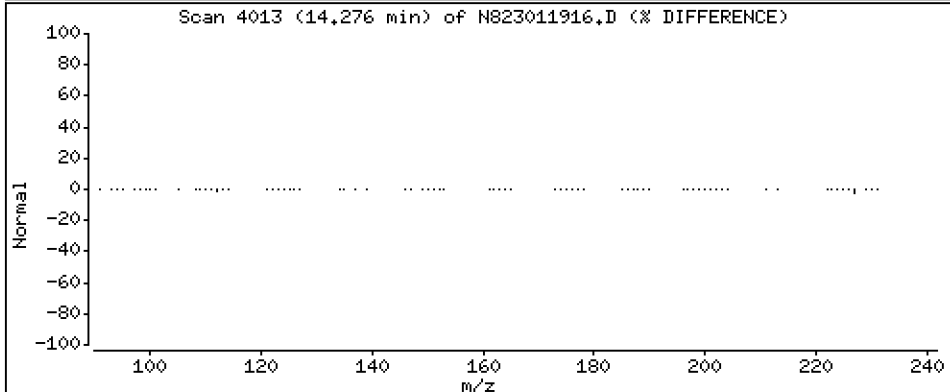
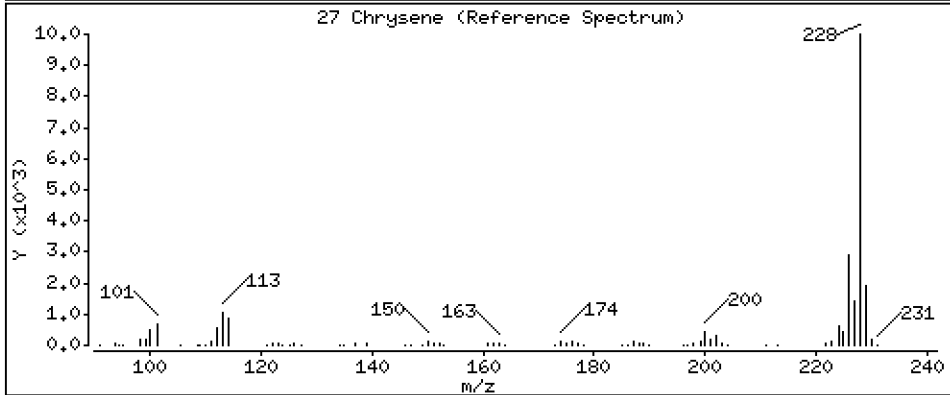
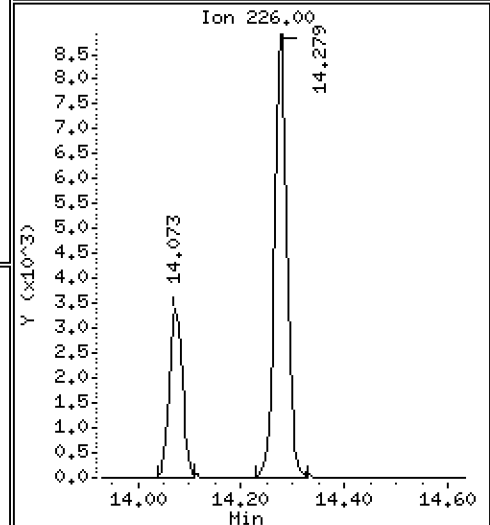
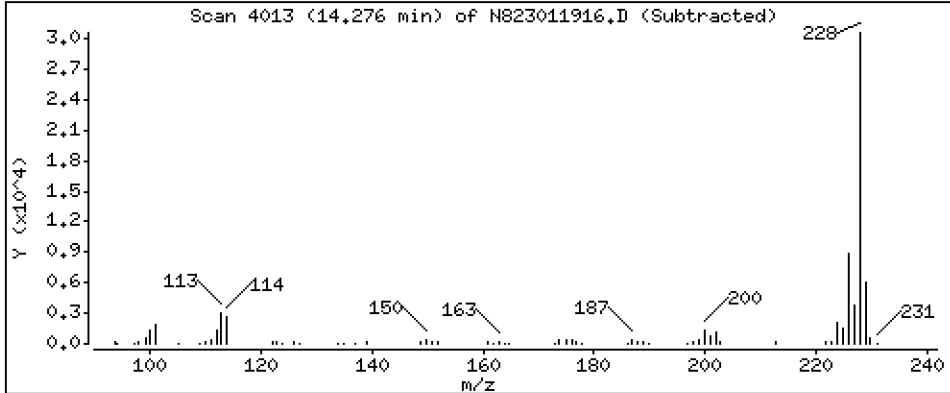
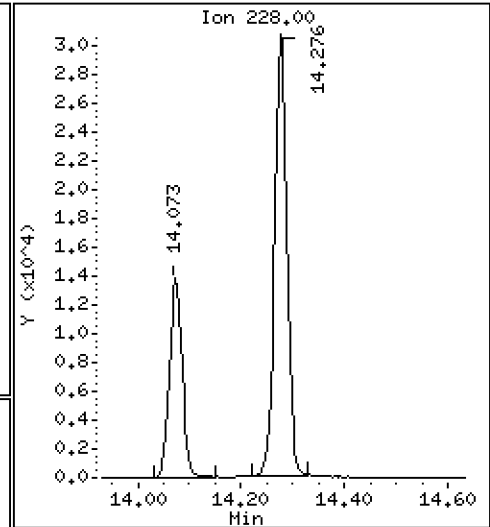
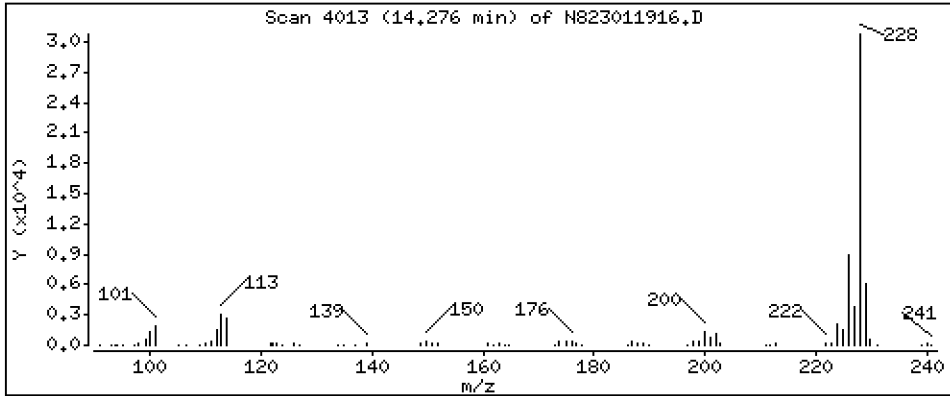
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

27 Chrysene

Concentration: 1,485 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

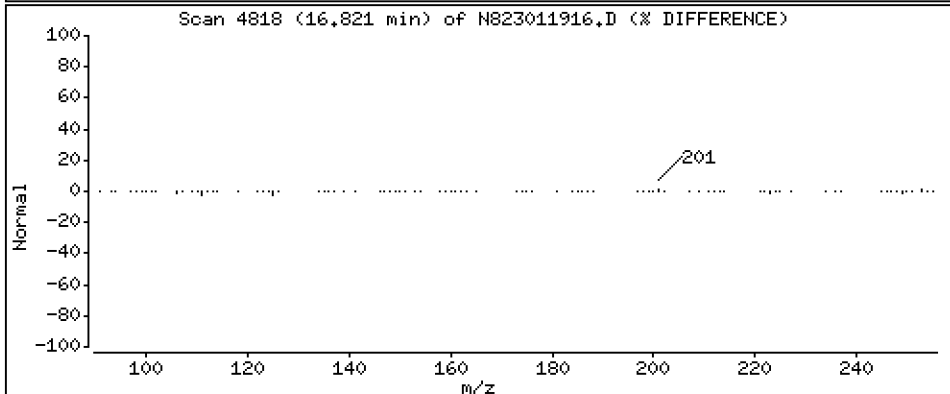
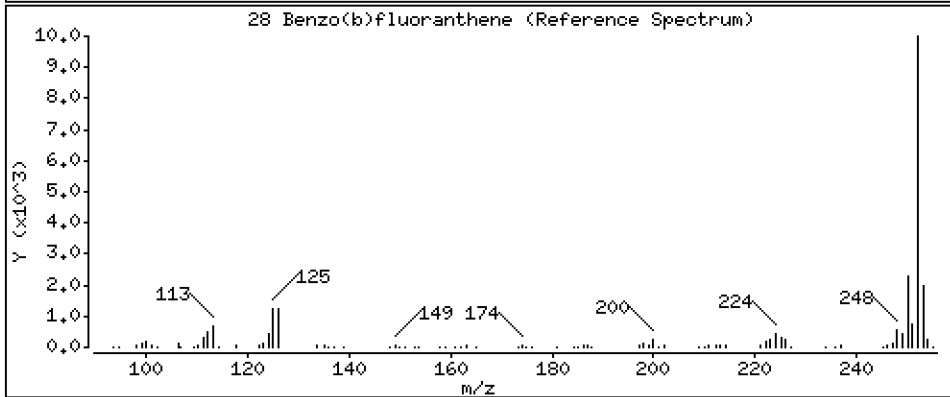
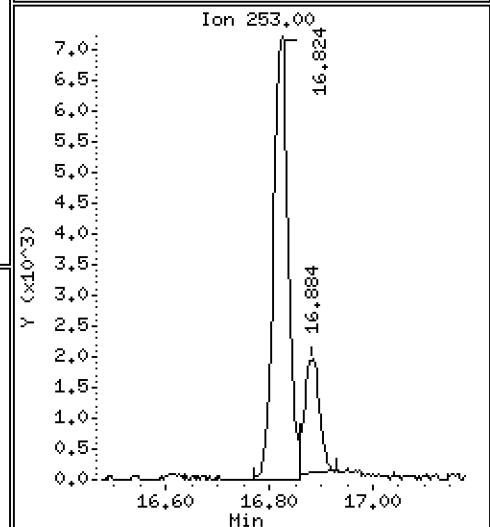
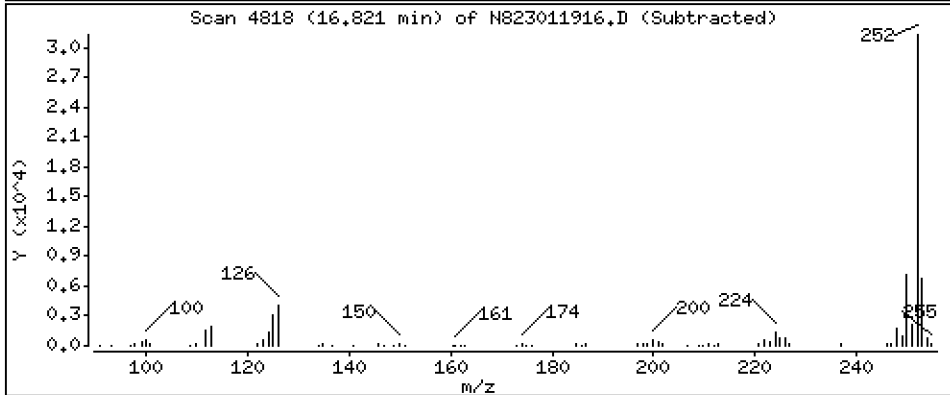
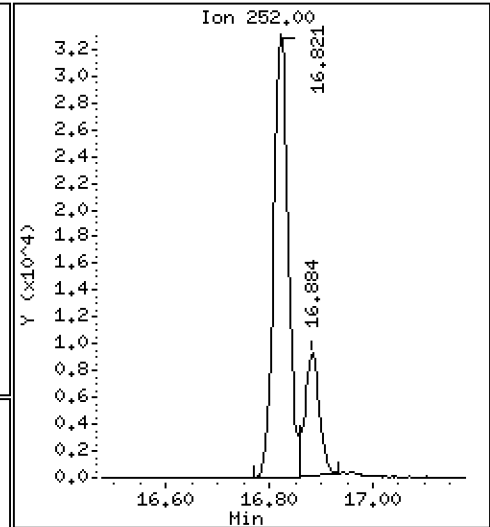
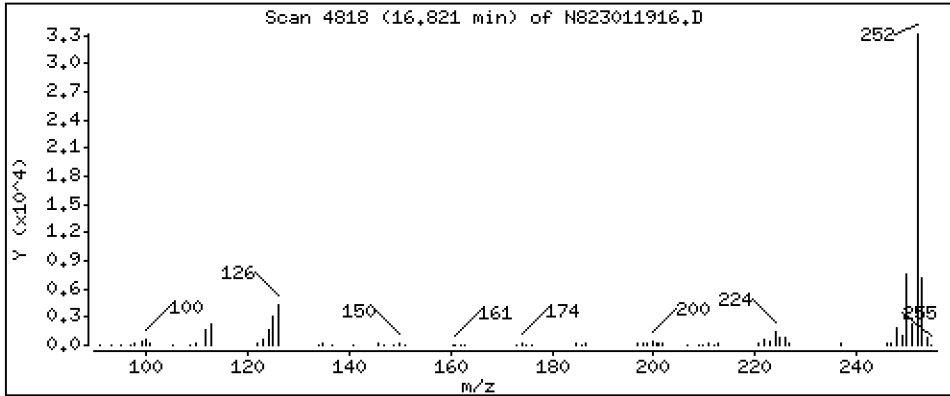
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

28 Benzo(b)fluoranthene

Concentration: 3,452 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

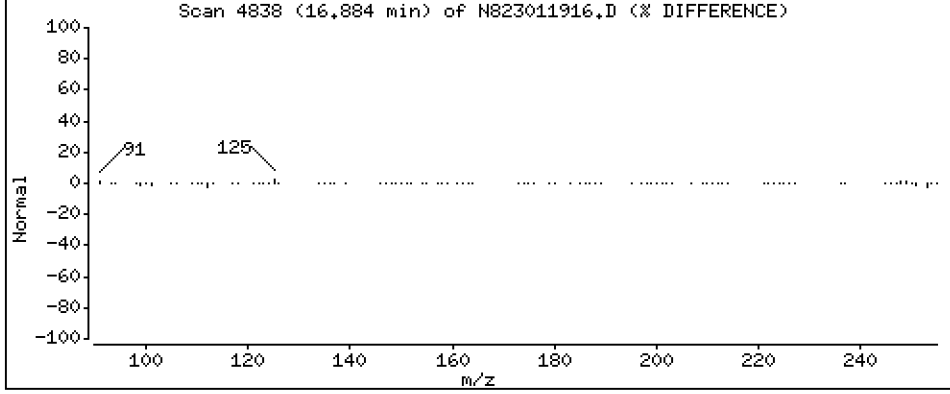
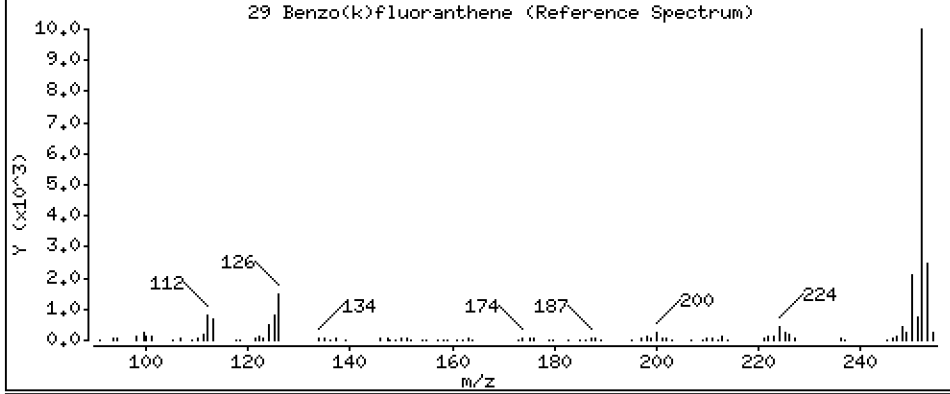
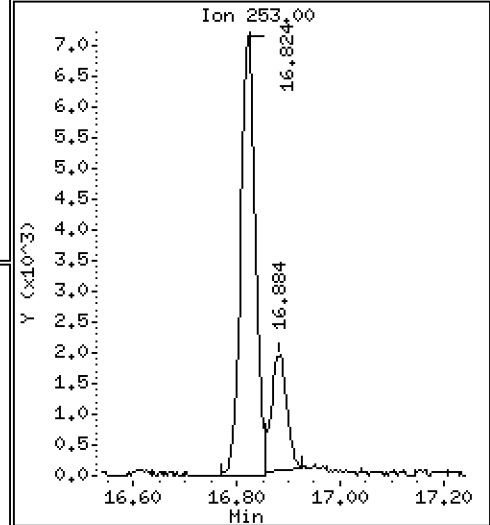
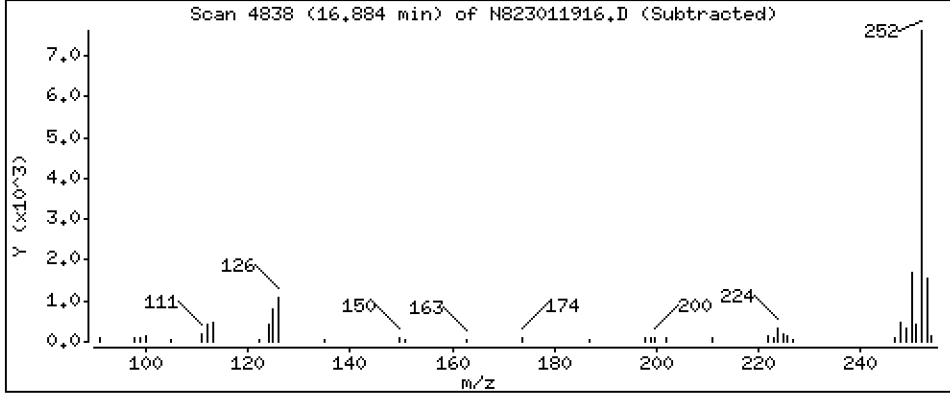
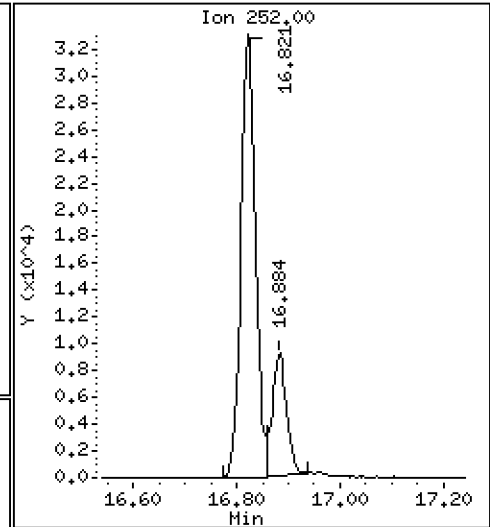
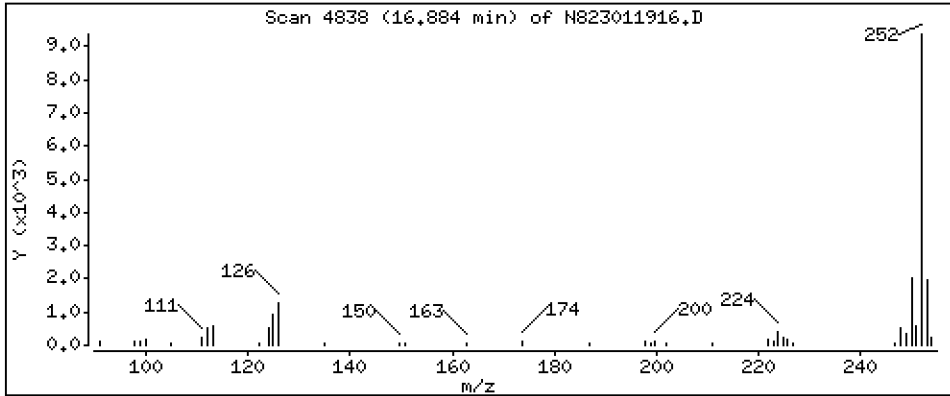
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

29 Benzo(k)fluoranthene

Concentration: 0,9552 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

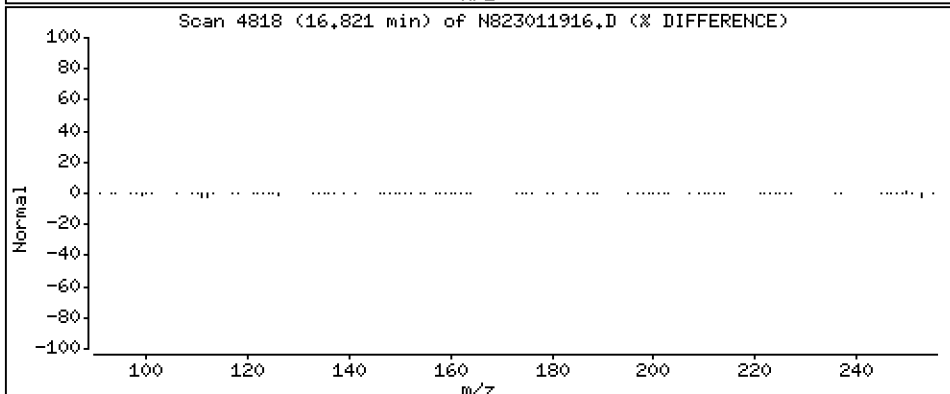
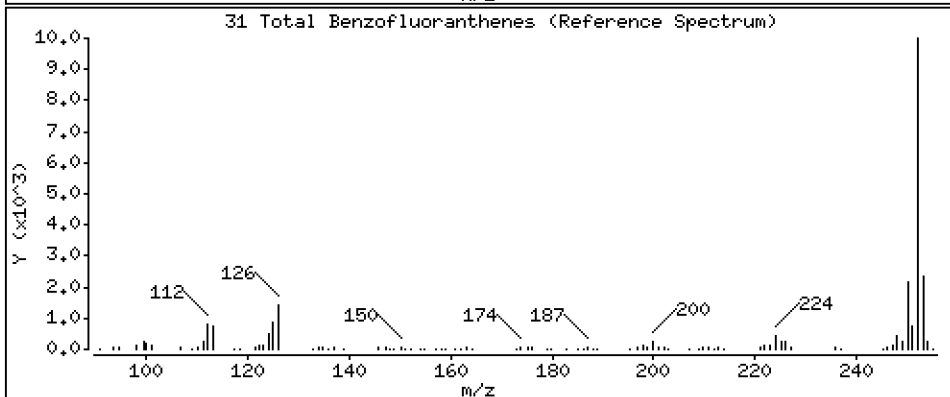
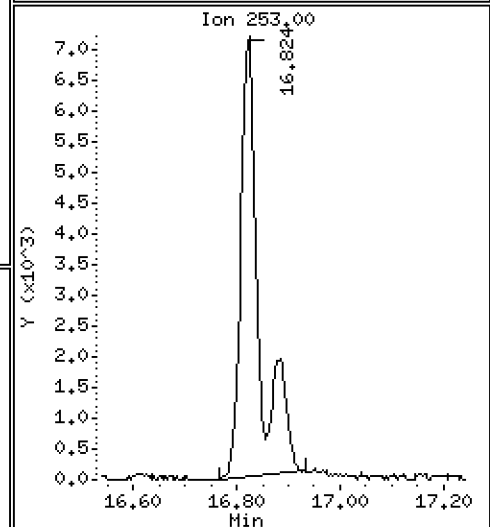
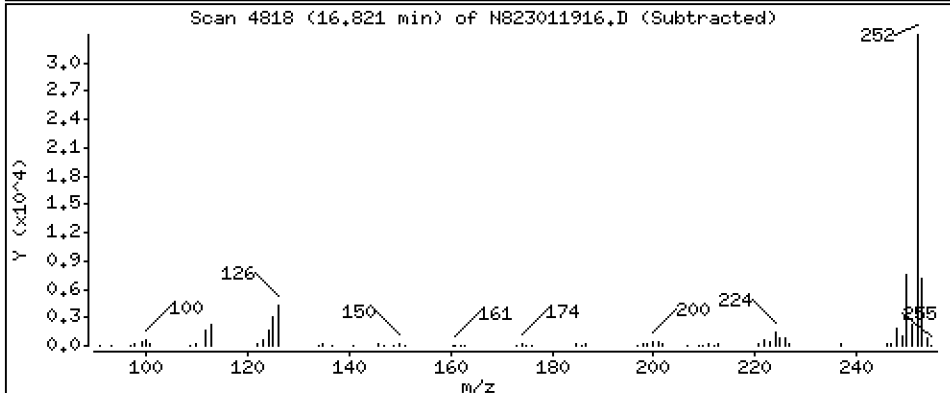
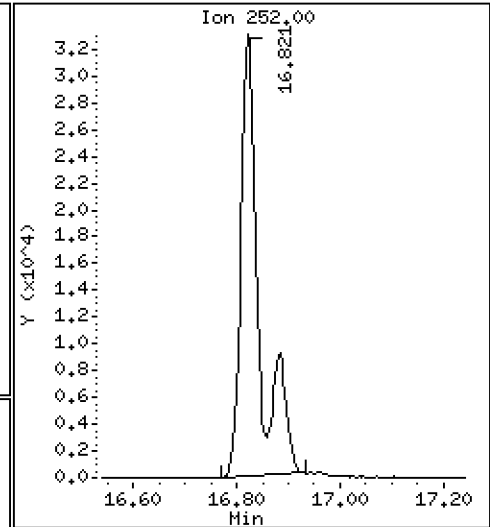
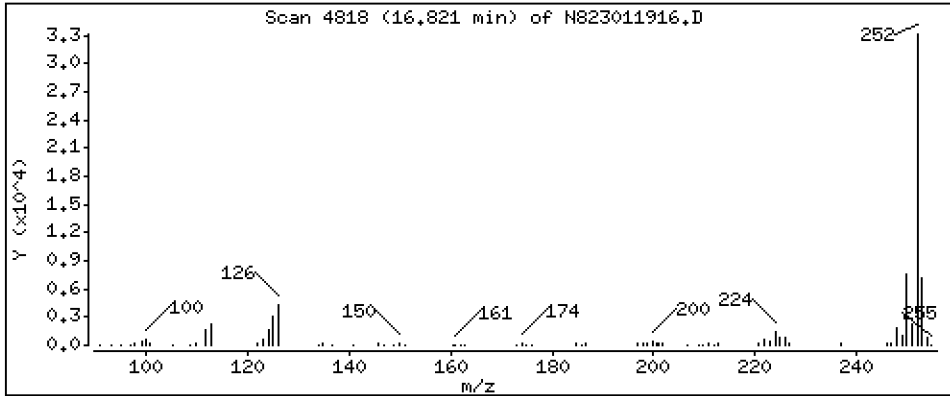
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

31 Total Benzofluoranthenes

Concentration: 4,538 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

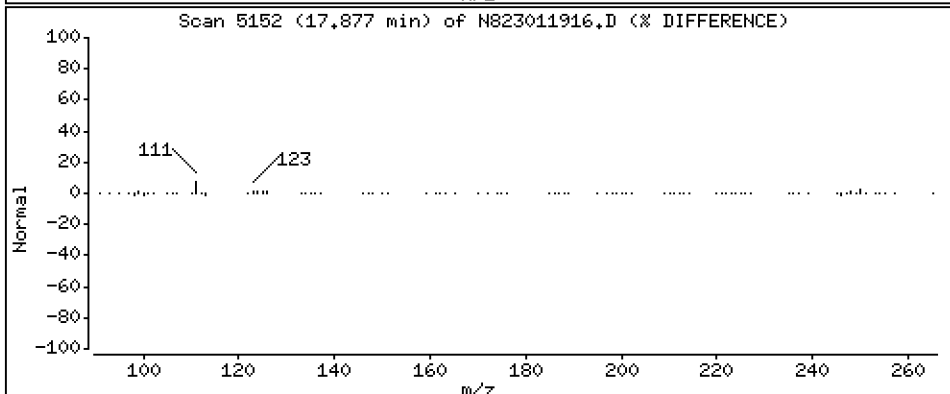
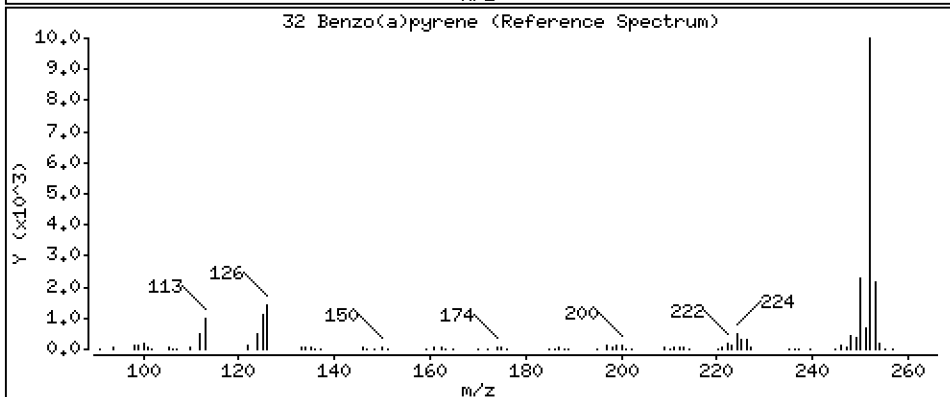
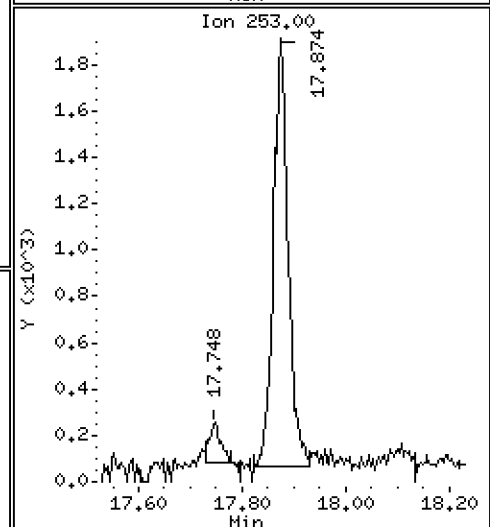
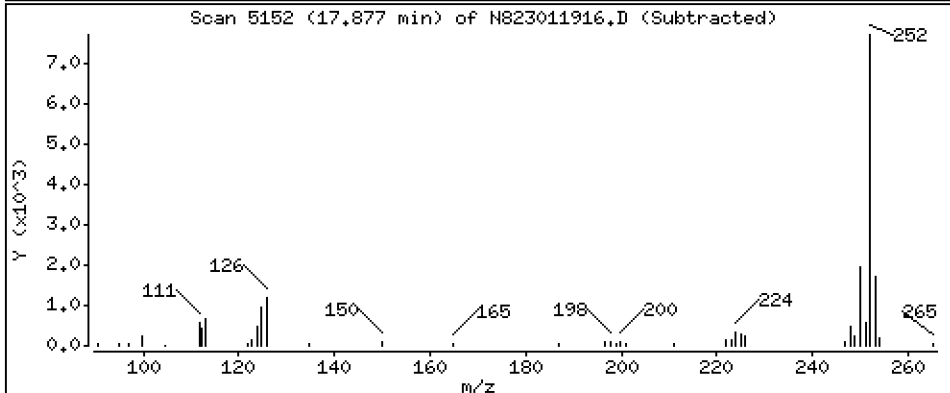
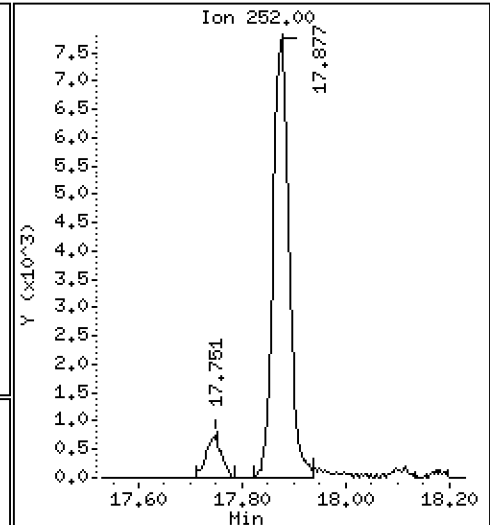
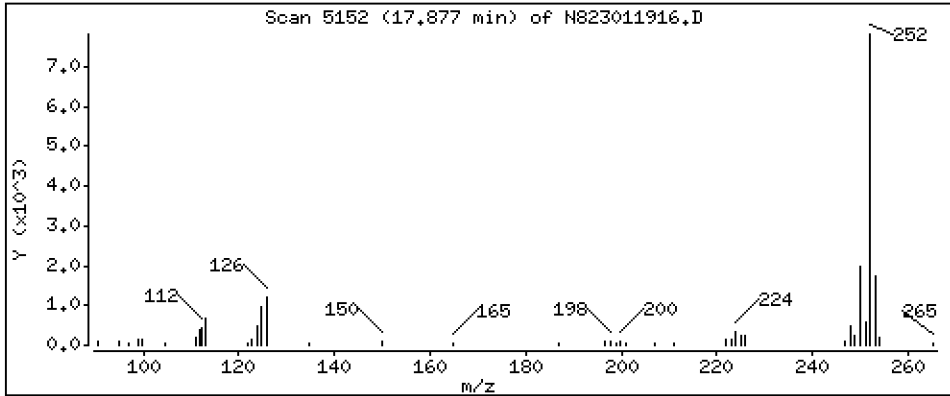
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 1,014 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

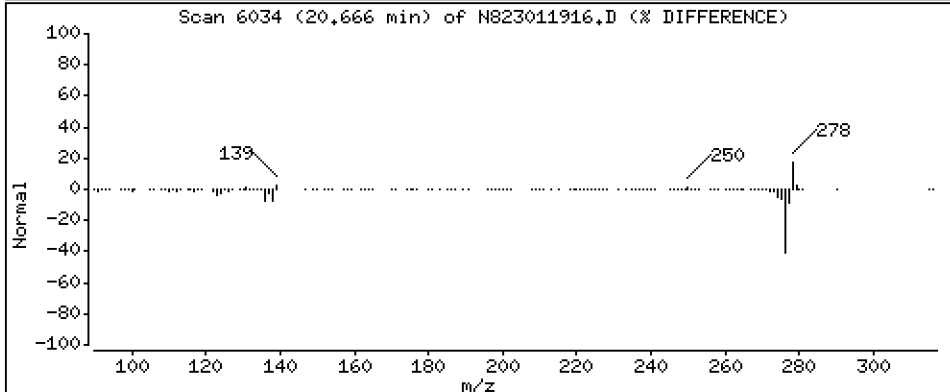
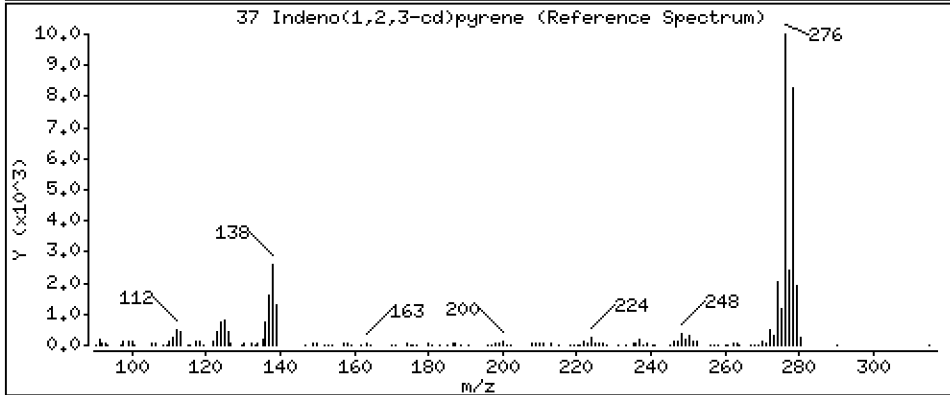
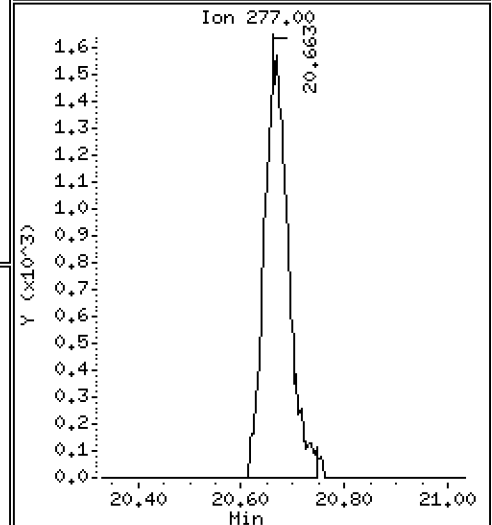
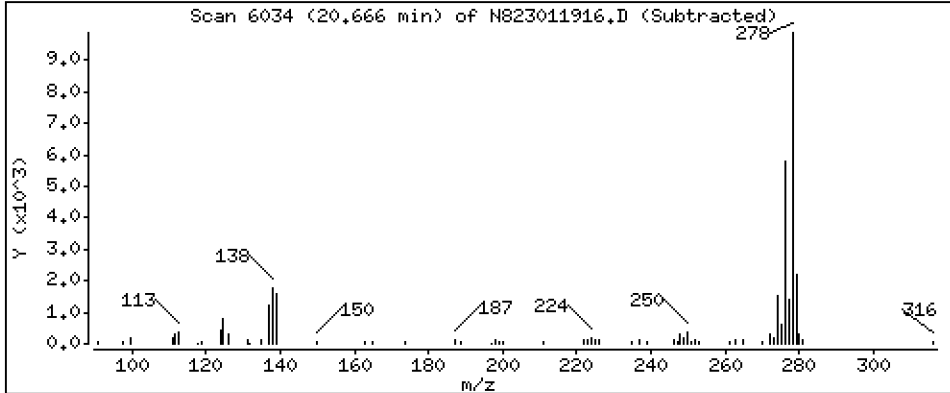
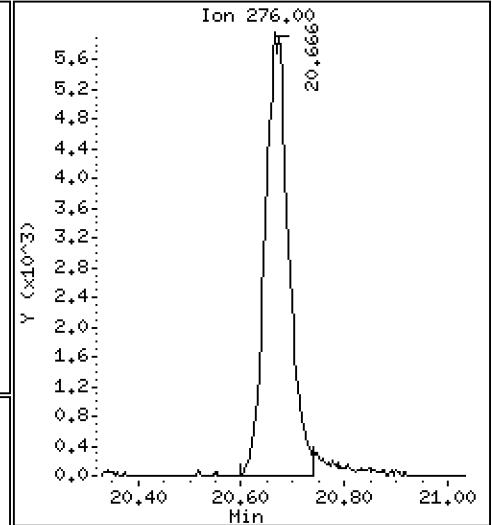
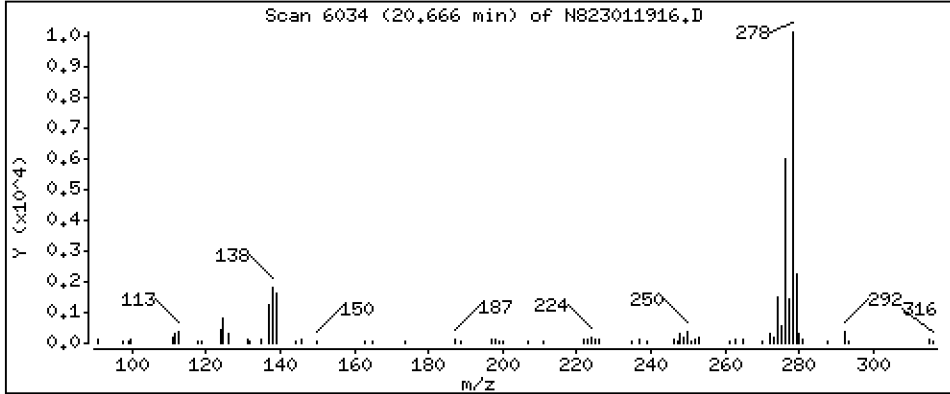
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 1,004 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

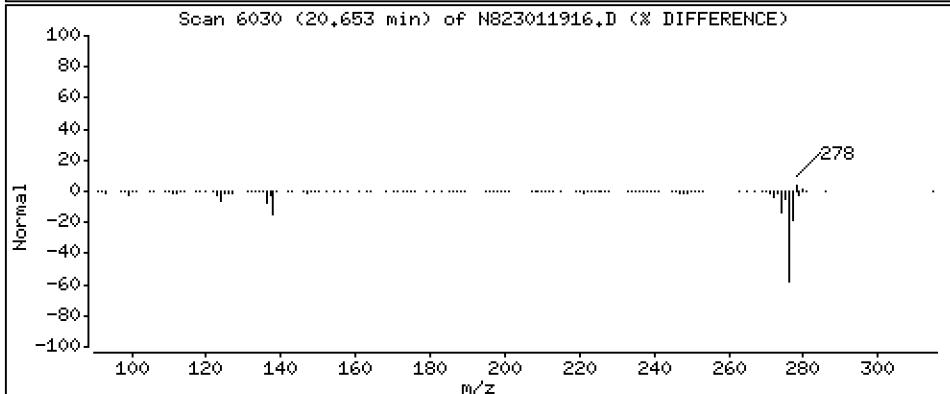
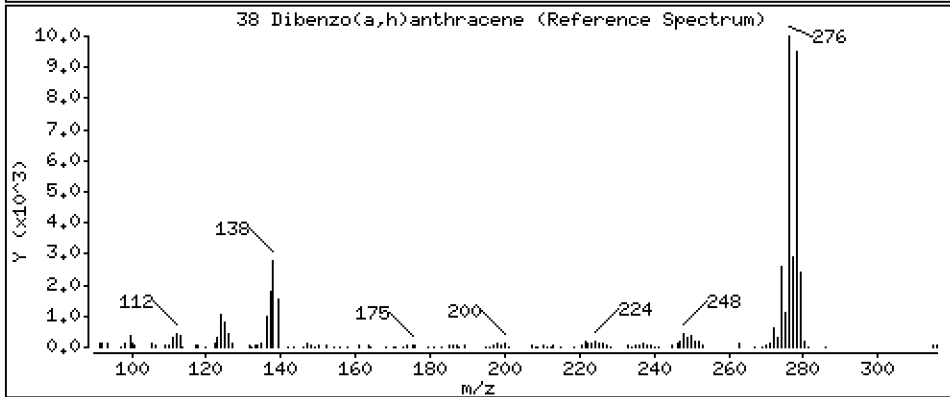
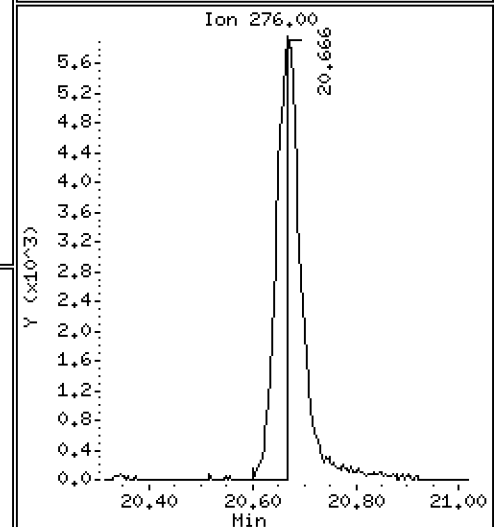
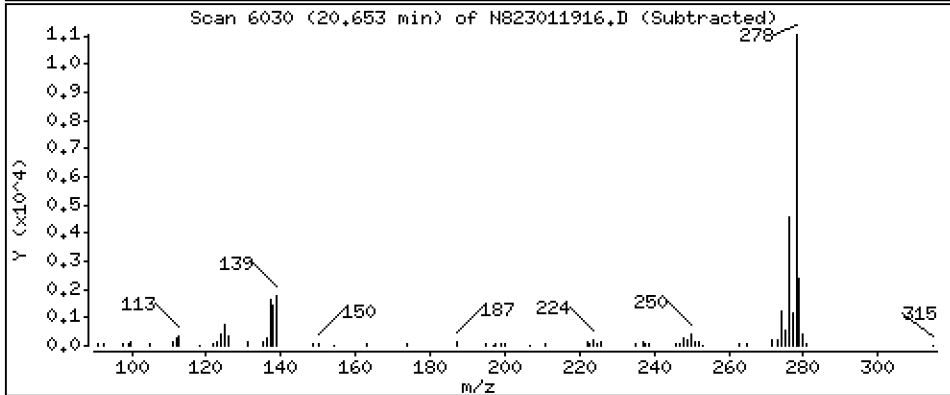
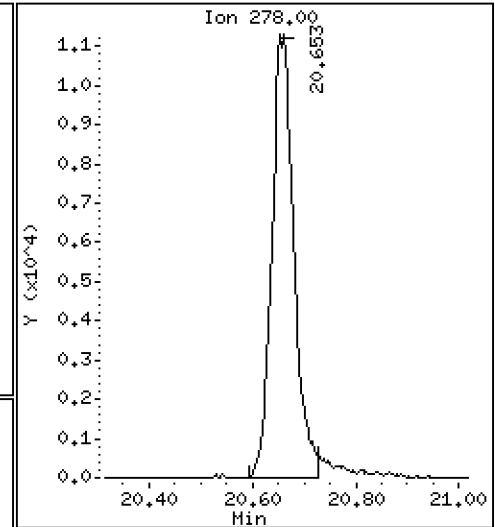
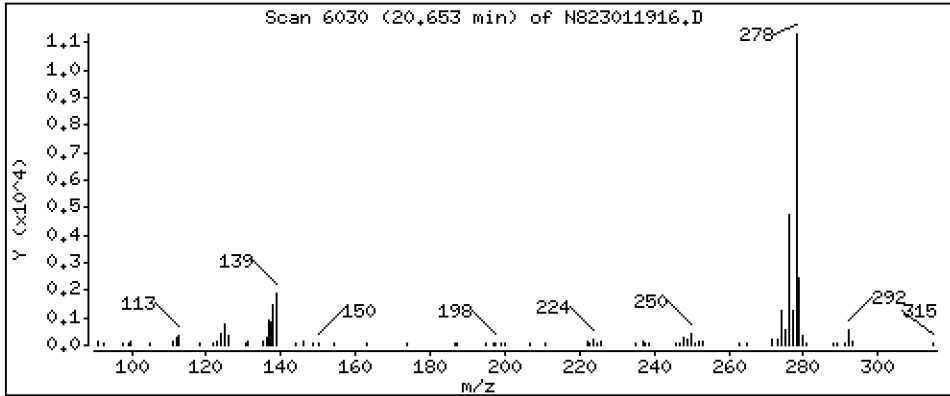
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 2,043 ug/mL



Date : 19-JAN-2023 18:06

Client ID:

Instrument: nt8.i

Sample Info: BLA0171-SRM1,

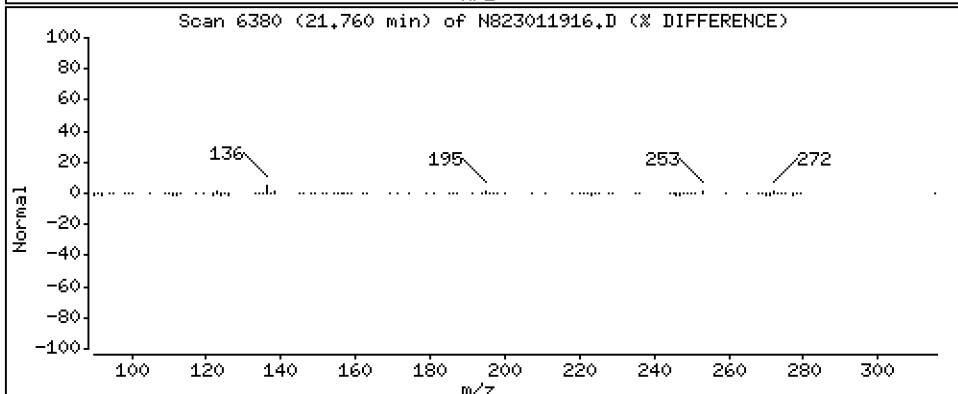
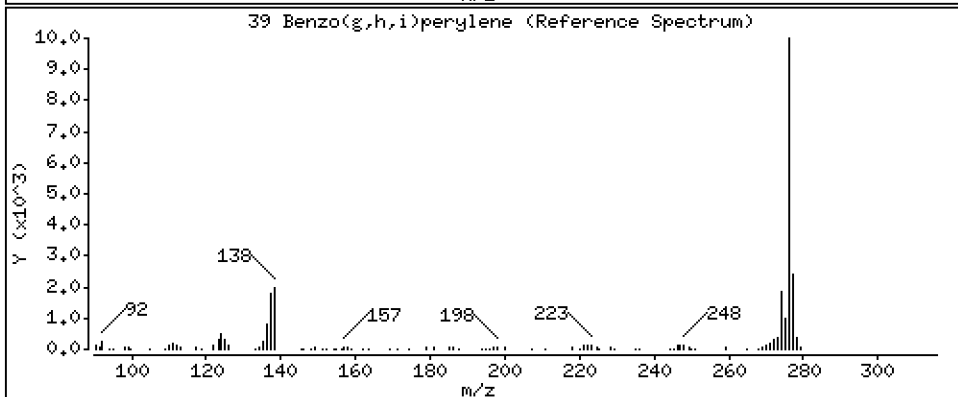
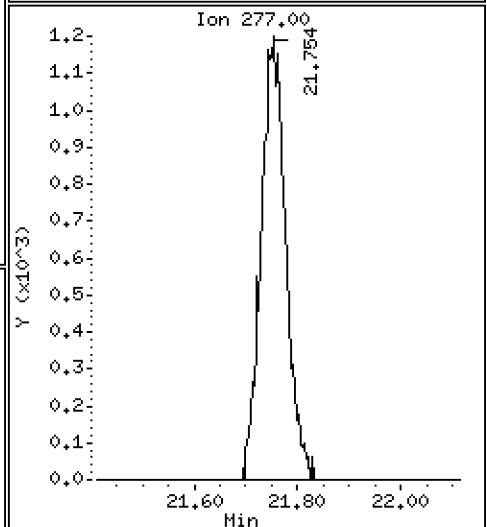
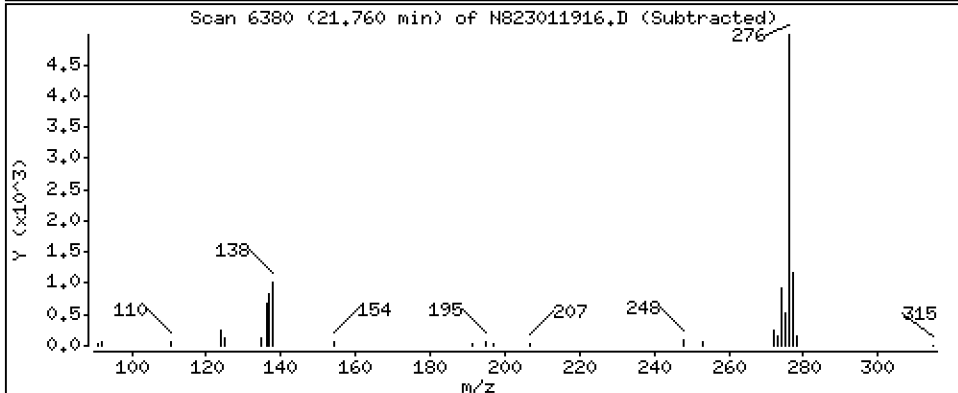
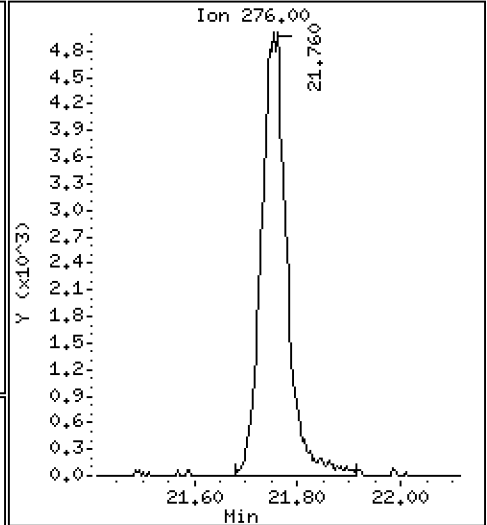
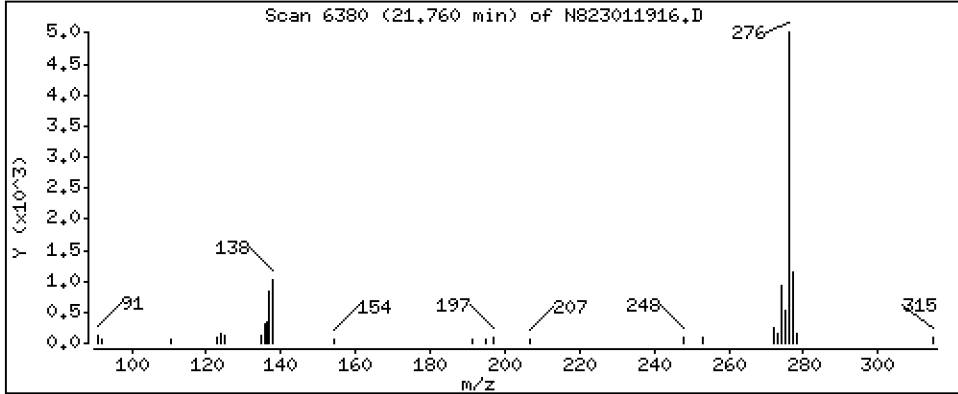
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 1,003 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119A.b\N823011916.D
 Lab Smp Id: BLA0171-SRM1
 Inj Date : 19-JAN-2023 18:06
 Operator : JZ Inst ID: nt8.i
 Smp Info : BLA0171-SRM1,
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 22:11 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PNAXMDL.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
* 1 Naphthalene-d8	136		4.900	4.909	(1.000)	60246	2.00000	
2 Naphthalene	128		4.928	4.938	(1.006)	49004	1.74940	1.749
\$ 3 2-Methylnaphthalene-d10	152		5.634	5.643	(1.150)	31115	1.89372	1.894
4 2-Methylnaphthalene	141		5.684	5.690	(1.160)	629	0.04082	0.04082
5 1-methylnaphthalene	141		5.883	5.887	(1.201)	379	0.02424	0.02424
9 Acenaphthylene	152		7.085	7.088	(0.985)	60193	2.25392	2.254
* 10 Acenaphthene-d10	164		7.192	7.199	(1.000)	35366	2.00000	
11 Acenaphthene	153		7.243	7.246	(1.007)	48101	2.68815	2.688
12 Dibenzofuran	168		7.392	7.398	(1.028)	528	0.01943	0.01943
14 Fluorene	166		7.872	7.875	(1.095)	39407	1.86687	1.867
* 15 Phenanthrene-d10	188		9.232	9.238	(1.000)	65529	2.00000	
16 Phenanthrene	178		9.270	9.270	(1.004)	100335	3.13454	3.135
17 Anthracene	178		9.311	9.311	(1.009)	49597	1.70563	1.706
22 Fluoranthene	202		11.050	11.053	(1.197)	67042	1.92414	1.924
\$ 21 Fluoranthene-d10	212		11.012	11.015	(1.193)	72018	2.49101	2.491
23 Pyrene	202		11.572	11.575	(0.815)	83068	2.29716	2.297
24 Benzo(a)anthracene	228		14.073	14.079	(0.991)	23598	0.71998	0.7200
* 25 Chrysene-d12	240		14.202	14.209	(1.000)	58326	2.00000	
27 Chrysene	228		14.275	14.282	(1.005)	51805	1.48474	1.485
28 Benzo(b)fluoranthene	252		16.821	16.827	(0.929)	65625	3.45155	3.452
29 Benzo(k)fluoranthene	252		16.884	16.890	(0.932)	17789	0.95519	0.9552
30 Benzo(j)fluoranthene	252		Compound Not Detected.					
31 Total Benzofluoranthenes	252		16.821	16.890	(0.929)	81708	4.53769	4.538 (M)
32 Benzo(a)pyrene	252		17.877	17.880	(0.987)	16964	1.01389	1.014
* 33 Perylene-d12	264		18.108	18.117	(1.000)	32646	2.00000	
35 Perylene	252		Compound Not Detected.					
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.545	20.555	(1.135)	48029	3.75479	3.755
37 Indeno(1,2,3-cd)pyrene	276		20.666	20.681	(1.141)	19141	1.00419	1.004
38 Dibenzo(a,h)anthracene	278		20.653	20.666	(1.141)	33520	2.04344	2.043
39 Benzo(g,h,i)perylene	276		21.760	21.763	(1.202)	17330	1.00348	1.003 (M)

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011916.D Calibration Time: 16:16
 Lab Smp Id: BLA0171-SRM1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	42524	21262	85048	60246	41.68
10 Acenaphthene-d10	25260	12630	50520	35366	40.01
15 Phenanthrene-d10	47890	23945	95780	65529	36.83
25 Chrysene-d12	40533	20267	81066	58326	43.90
33 Perylene-d12	38115	19058	76230	32646	-14.35

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.90	-0.19
10 Acenaphthene-d10	7.20	6.70	7.70	7.19	-0.09
15 Phenanthrene-d10	9.24	8.74	9.74	9.23	-0.07
25 Chrysene-d12	14.21	13.71	14.71	14.20	-0.04
33 Perylene-d12	18.12	17.62	18.62	18.11	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011916.D

Lab ID: BLA0171-SRM1

nt8.i, 20230119A.b\FSIMPNA230119.m, 19-JAN-2023 18:06

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

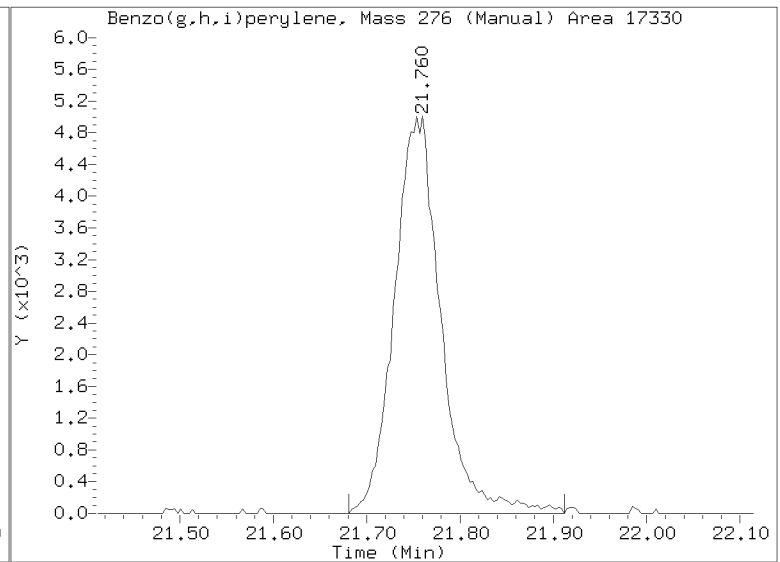
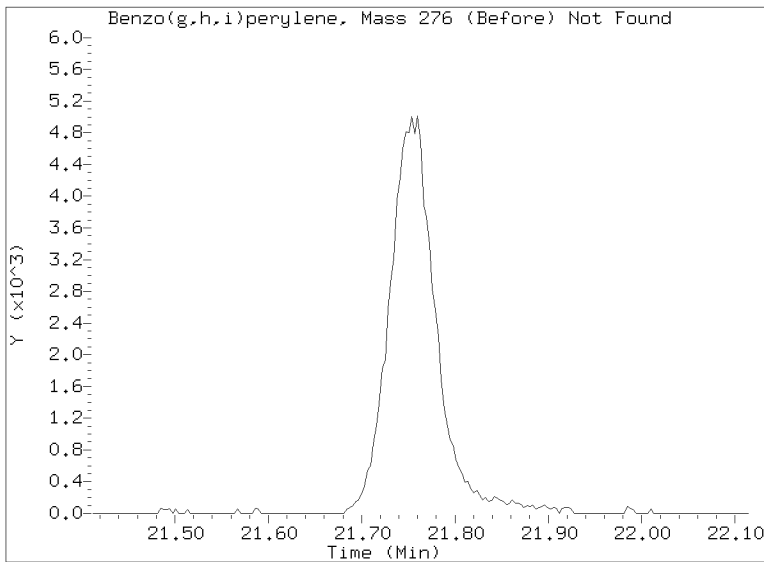
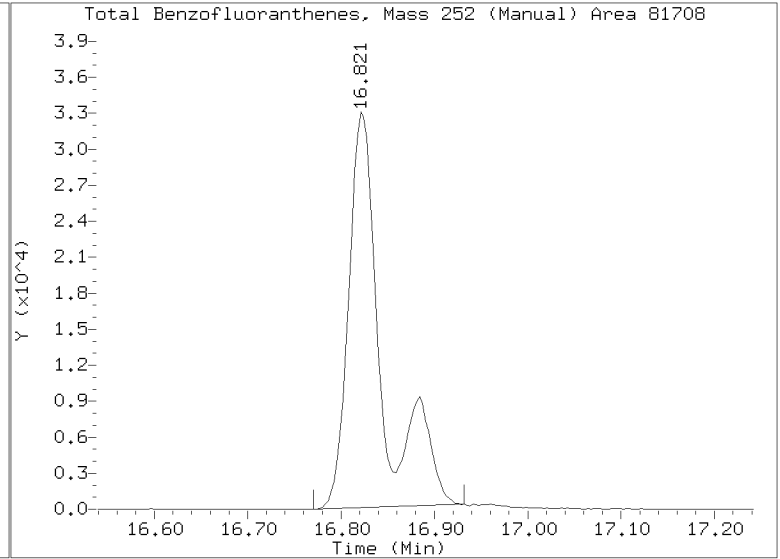
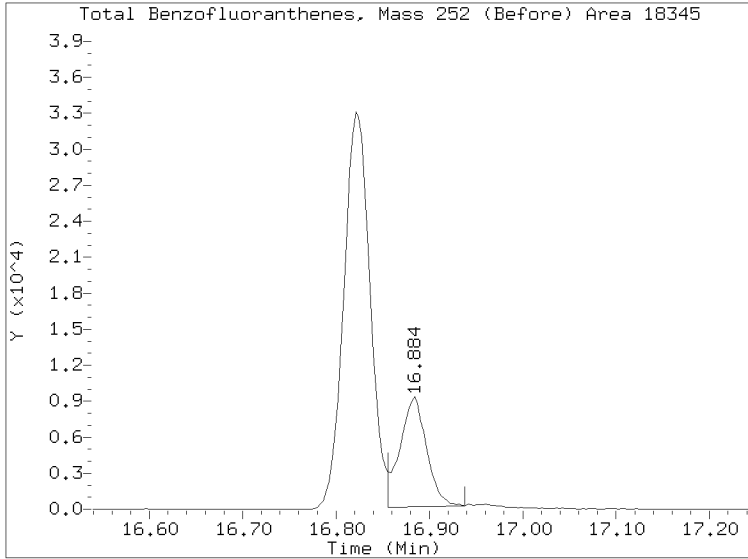
No RRT check performed

On Column LOD for nt8.i, 20230119A.b\FSIMPNA230119.m, PNAXMDL.sub = 0.0080

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119A.b/N823011916.D
Injection Date: 19-JAN-2023 18:06
Lab ID:BLA0171-SRM1 Client ID:
Report Date: 01/25/2023 22:12





**MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E-SIM**

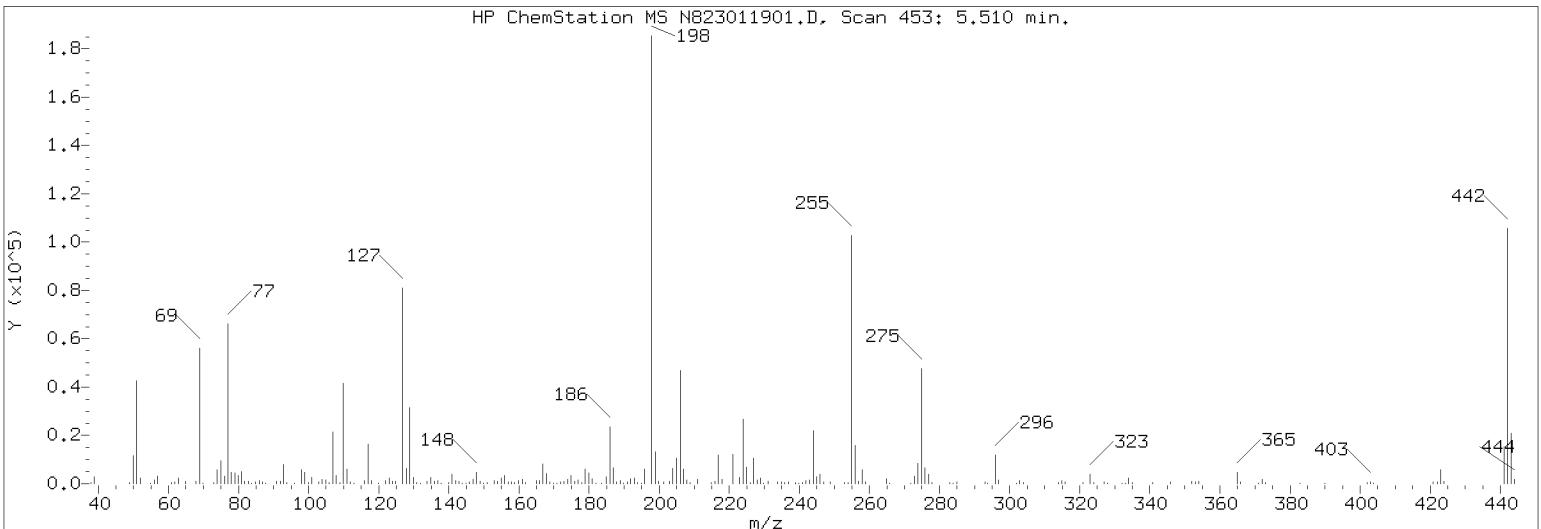
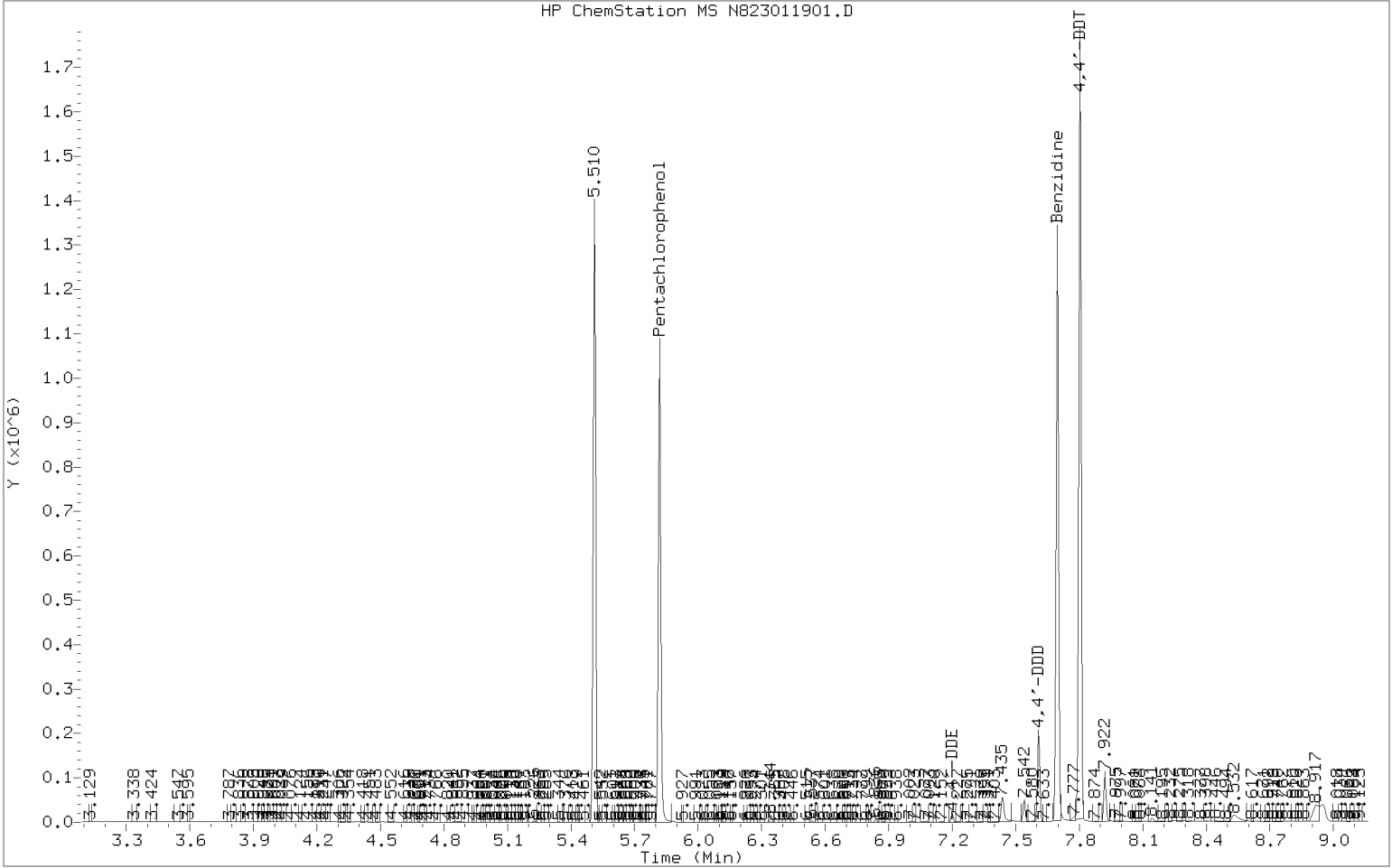
Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Lab File ID:	<u>N823011901.D</u>	Injection Date:	<u>01/19/23</u>
Instrument ID:	<u>NT8</u>	Injection Time:	<u>10:28</u>
Sequence:	<u>SLA0213</u>	Lab Sample ID:	<u>SLA0213-TUN1</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	1.25	PASS
69	Less than 100% of 198	30.9	PASS
70	Less than 2% of 69	0.208	PASS
197	Less than 2% of 198	0.168	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.89	PASS
365	1 - 100% of 198	2.85	PASS
441	Less than 150% of 443	72.9	PASS
442	1 - 200% of 198	67.9	PASS
443	15 - 24% of 442	19.6	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Base peak, 100% relative abundance		

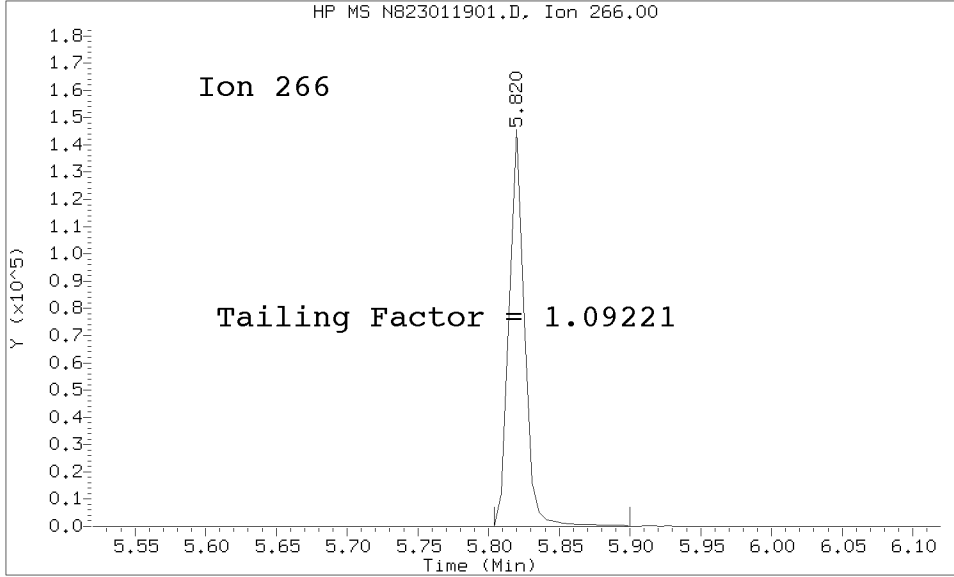
Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SLA0213-TUN1	N823011901.D	01/19/2023	10:28
Initial Cal Blank	SLA0213-ICB1	N823011902.D	01/19/2023	10:59
Cal Standard	SLA0213-CAL1	N823011903.D	01/19/2023	11:26
Cal Standard	SLA0213-CAL2	N823011904.D	01/19/2023	11:58
Cal Standard	SLA0213-CAL3	N823011905.D	01/19/2023	12:25
Cal Standard	SLA0213-CAL4	N823011906.D	01/19/2023	12:52
Cal Standard	SLA0213-CAL5	N823011907.D	01/19/2023	13:19
Cal Standard	SLA0213-CAL6	N823011908.D	01/19/2023	13:46
Secondary Cal Check	SLA0213-SCV1	N823011909.D	01/19/2023	14:58

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230119.b/tune.b/N823011901.D/N823011901.D
 Method Used: \20230119.b\tune.b\DFTPP.m Inst: nt8
 Injection Date: 19-JAN-2023 10:28 Operator: JZ
 Sample Info: SLA0213-TUN1 DFTPP230119
 Report Date: 01/19/2023 20:14



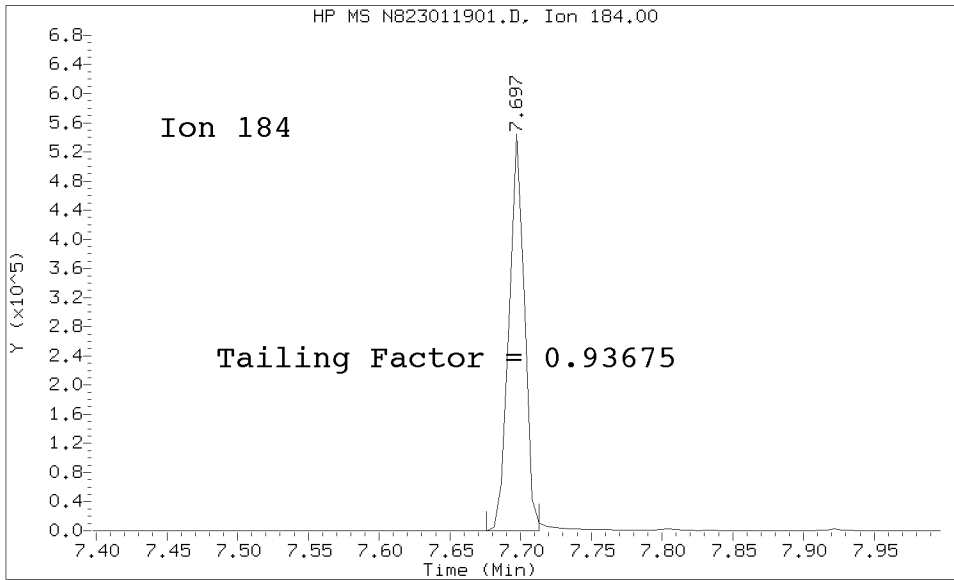
Datafile Analyzed: /20230119.b/tune.b/N823011901.D/N823011901.D
Method Used: \20230119.b\tune.b\DFTPP.m\sw846ddt.m Inst: nt8
Injection Date: 19-JAN-2023 10:28 Operator: JZ
Sample Info: DFTPP230119
Report Date: 01/19/2023 20:14



Pentachlorophenol

=====
Exp. RT = 5.825
Found RT = 5.820

Tail Factor = 1.092 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 7.703
Found RT = 7.697

Tail Factor = 0.937 Maximum Allowed = 2.0

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	23.71
68	Less than 2.00% of mass 69	0.39 (1.25)
69	Mass 69 relative abundance	30.92
70	Less than 2.00% of mass 69	0.06 (0.21)
127	10.00 - 80.00% of mass 198	44.20
197	Less than 2.00% of mass 198	0.17
199	5.00 - 9.00% of mass 198	6.89
275	10.00 - 60.00% of mass 198	26.96
365	Greater than 1.00% of mass 198	2.85
441	0.01 - 24.00% of mass 442	9.72 (14.32)
442	50.00 - 200.00% of mass 198	67.89
443	15.00 - 24.00% of mass 442	13.33 (19.64)

Data File: N823011901.D
 Spectrum: Avg. Scans 452-454 (5.51), Background Scan 448
 Location of Maximum: 198.00
 Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	424	124.00	727	188.00	466	265.00	1738
39.00	2285	125.00	694	189.00	1088	266.00	231
49.00	389	127.00	59064	190.00	92	272.00	97
50.00	8567	128.00	4618	191.00	538	273.00	2435
51.00	31688	129.00	23208	192.00	1501	274.00	6434
52.00	1694	130.00	1967	193.00	1652	275.00	36032
55.00	89	131.00	387	194.00	339	276.00	4936
56.00	1081	132.00	92	195.00	108	277.00	3133
57.00	2353	134.00	695	196.00	4417	278.00	496
61.00	487	135.00	1887	197.00	224	283.00	243
62.00	511	136.00	770	198.00	133632	284.00	200
63.00	1627	137.00	979	199.00	9210	285.00	536
65.00	865	138.00	101	200.00	711	293.00	678
68.00	518	140.00	220	201.00	653	294.00	83
69.00	41320	141.00	2913	203.00	891	296.00	9364
70.00	86	142.00	931	204.00	4715	297.00	1310
73.00	274	143.00	728	205.00	8070	302.00	96
74.00	4327	144.00	83	206.00	34104	303.00	1146
75.00	6885	145.00	91	207.00	4557	304.00	262
76.00	2362	146.00	508	208.00	1177	314.00	364
77.00	48072	147.00	1540	209.00	387	315.00	1068
78.00	3441	148.00	3391	210.00	236	316.00	588
79.00	3296	149.00	690	211.00	1430	321.00	250
80.00	2464	150.00	90	215.00	376	323.00	3145
81.00	3741	151.00	458	216.00	746	324.00	501
82.00	872	152.00	181	217.00	9085	327.00	540
83.00	845	153.00	893	218.00	1189	328.00	201
84.00	287	154.00	764	221.00	8442	332.00	178
85.00	621	155.00	1756	223.00	2039	333.00	129
86.00	1039	156.00	2503	224.00	19544	334.00	1893
87.00	481	157.00	527	225.00	5122	335.00	518
88.00	91	158.00	516	226.00	502	341.00	275
91.00	866	159.00	410	227.00	8274	346.00	674
92.00	878	160.00	955	228.00	1174	352.00	945
93.00	5816	161.00	1421	229.00	1712	353.00	630
94.00	409	162.00	445	230.00	111	354.00	910
96.00	203	165.00	1085	231.00	685	365.00	3802
98.00	4243	166.00	1023	234.00	538	366.00	580
99.00	3501	167.00	5993	235.00	568	371.00	91
100.00	344	168.00	3082	236.00	394	372.00	1475
101.00	1983	169.00	490	237.00	657	373.00	292
103.00	704	170.00	94	239.00	327	383.00	290
104.00	1275	171.00	194	240.00	187	390.00	177
105.00	1230	172.00	595	241.00	468	402.00	468
106.00	379	173.00	732	242.00	1090	403.00	736
107.00	15826	174.00	1319	243.00	1102	404.00	243
108.00	2447	175.00	2491	244.00	16206	421.00	649
109.00	331	176.00	751	245.00	2245	422.00	226
110.00	30008	177.00	1175	246.00	3000	423.00	4860

111.00	4456	178.00	288	247.00	624	424.00	978
112.00	513	179.00	4561	249.00	587	441.00	12991
113.00	89	180.00	3271	253.00	239	442.00	90720
116.00	935	181.00	1513	254.00	438	443.00	17816
117.00	12513	182.00	106	255.00	76904	444.00	1584
118.00	931	184.00	333	256.00	11699		
120.00	104	185.00	2153	257.00	880		
122.00	1003	186.00	17336	258.00	4539		
123.00	1682	187.00	4916	259.00	746		



**MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E-SIM**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Lab File ID:	<u>NT1023020701S.D</u>	Injection Date:	<u>02/07/23</u>
Instrument ID:	<u>NT10</u>	Injection Time:	<u>11:54</u>
Sequence:	<u>SLB0106</u>	Lab Sample ID:	<u>SLB0106-TUN1</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	60.5	PASS
70	Less than 2% of 69	0.483	PASS
197	Less than 2% of 198	0.49	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.86	PASS
365	1 - 100% of 198	2.39	PASS
441	Less than 150% of 443	74.8	PASS
442	1 - 200% of 198	47.5	PASS
443	15 - 24% of 442	19.4	PASS
4,4'-DDD	Less than 20% of		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Base peak, 100% relative abundance		



**MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E-SIM**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Lab File ID:	<u>NT1023020701S.D</u>	Injection Date:	<u>02/07/23</u>
Instrument ID:	<u>NT10</u>	Injection Time:	<u>11:54</u>
Sequence:	<u>SLB0106</u>	Lab Sample ID:	<u>SLB0106-TUN1</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	60.5	PASS
70	Less than 2% of 69	0.483	PASS
197	Less than 2% of 198	0.49	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.86	PASS
365	1 - 100% of 198	2.39	PASS
441	Less than 150% of 443	74.8	PASS
442	1 - 200% of 198	47.5	PASS
443	15 - 24% of 442	19.4	PASS
4,4'-DDD	Less than 20% of		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Base peak, 100% relative abundance		

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SLB0106-TUN1	NT1023020701S.D	02/07/2023	11:54
Cal Standard	SLB0106-CAL8	NT1023020703S.D	02/07/2023	12:57
Cal Standard	SLB0106-CAL7	NT1023020704S.D	02/07/2023	13:35
Cal Standard	SLB0106-CAL6	NT1023020705S.D	02/07/2023	14:14
Cal Standard	SLB0106-CAL5	NT1023020706S.D	02/07/2023	14:52
Cal Standard	SLB0106-CAL4	NT1023020707S.D	02/07/2023	15:30
Cal Standard	SLB0106-CAL3	NT1023020708S.D	02/07/2023	16:09
Cal Standard	SLB0106-CAL2	NT1023020709S.D	02/07/2023	16:47
Cal Standard	SLB0106-CAL1	NT1023020710S.D	02/07/2023	17:25
Secondary Cal Check	SLB0106-SCV1	NT1023020711S.D	02/07/2023	18:04
Initial Cal Check	SLB0106-ICV1	NT1023020714S.D	02/07/2023	19:58
Low Cal Check	SLB0106-LCV1	NT1023020715S.D	02/07/2023	20:36
Blank	BLA0160-BLK3	NT1023020716S.D	02/07/2023	21:14
LCS	BLA0160-BS2	NT1023020717S.D	02/07/2023	21:52
LCS Dup	BLA0160-BSD2	NT1023020718S.D	02/07/2023	22:30
Reference	BLA0160-SRM2	NT1023020719S.D	02/07/2023	23:09
ZZZZZ	23A0031-01	NT1023020720S.D	02/07/2023	23:47
ZZZZZ	23A0031-02	NT1023020721S.D	02/08/2023	0:25
ZZZZZ	23A0031-03	NT1023020722S.D	02/08/2023	1:03
ZZZZZ	23A0031-04	NT1023020723S.D	02/08/2023	1:41
ZZZZZ	23A0031-05	NT1023020724S.D	02/08/2023	2:18
ZZZZZ	23A0031-06	NT1023020725S.D	02/08/2023	2:57
ZZZZZ	23A0031-07	NT1023020726S.D	02/08/2023	3:34
ZZZZZ	23A0031-08	NT1023020727S.D	02/08/2023	4:13
ZZZZZ	23A0031-09	NT1023020728S.D	02/08/2023	4:51
ZZZZZ	23A0031-10	NT1023020729S.D	02/08/2023	5:29



**MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E-SIM**

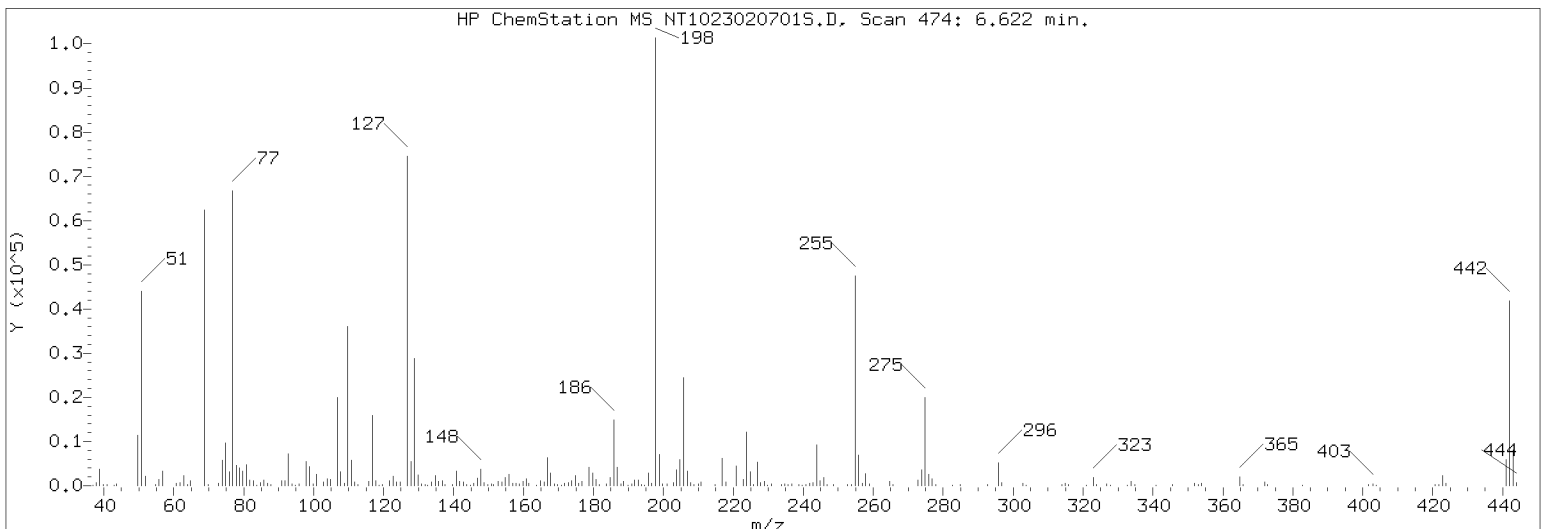
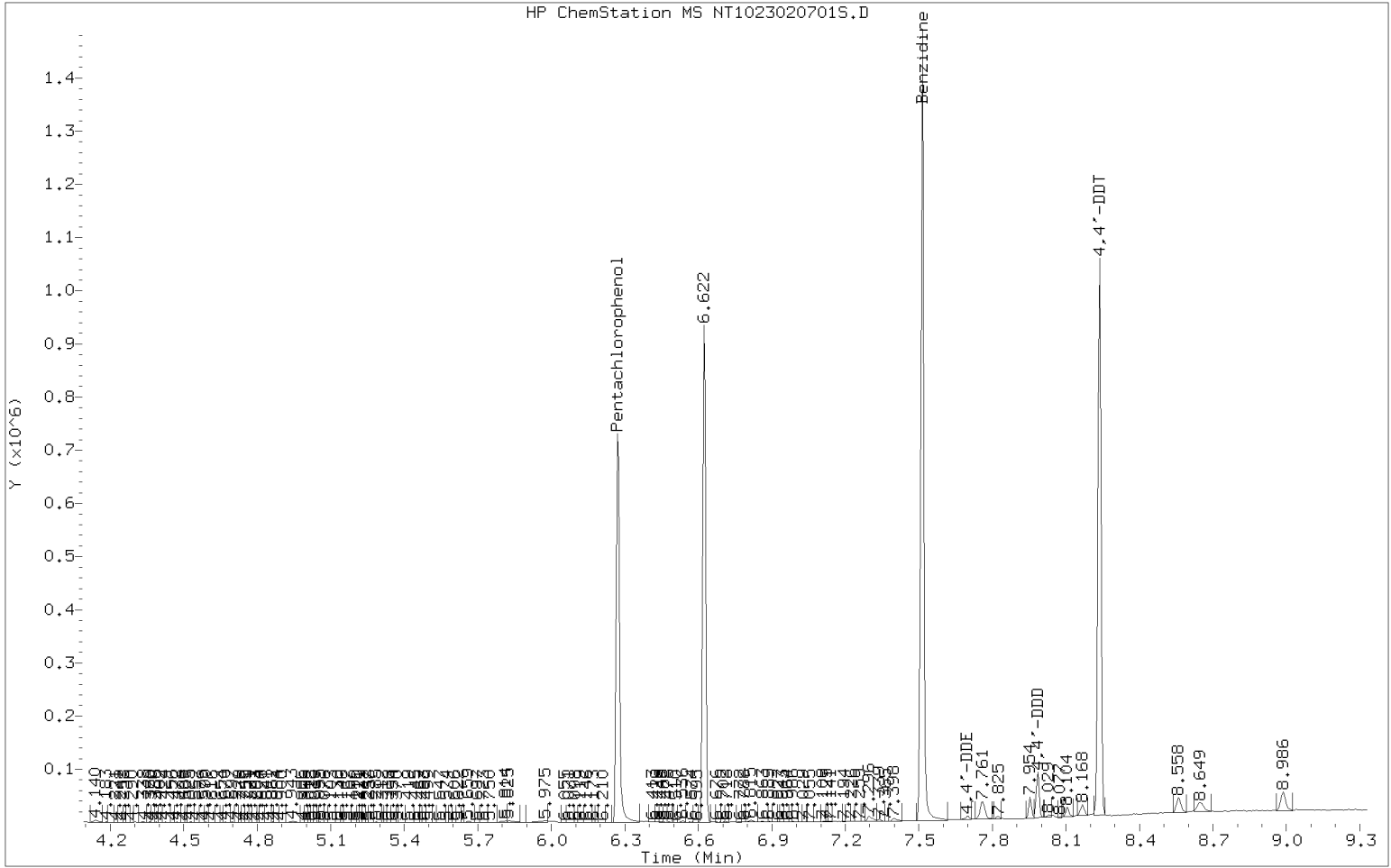
Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Lab File ID:	<u>NT1023020701S.D</u>	Injection Date:	<u>02/07/23</u>
Instrument ID:	<u>NT10</u>	Injection Time:	<u>11:54</u>
Sequence:	<u>SLB0106</u>	Lab Sample ID:	<u>SLB0106-TUN1</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	60.5	PASS
70	Less than 2% of 69	0.483	PASS
197	Less than 2% of 198	0.49	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.86	PASS
365	1 - 100% of 198	2.39	PASS
441	Less than 150% of 443	74.8	PASS
442	1 - 200% of 198	47.5	PASS
443	15 - 24% of 442	19.4	PASS
4,4'-DDD	Less than 20% of		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Base peak, 100% relative abundance		

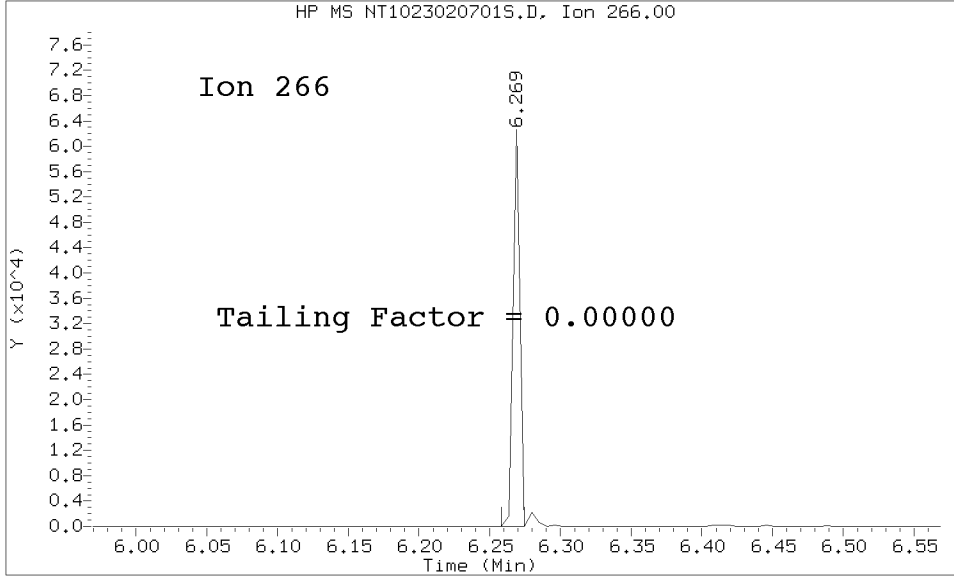
ZZZZZ	23A0031-11	NT1023020730S.D	02/08/2023	6:07
ZZZZZ	23A0031-12	NT1023020731S.D	02/08/2023	6:45
Initial Cal Check	SLB0106-ICV2	NT1023020734S.D	02/08/2023	8:40
Blank	BLA0064-BLK2	NT1023020736S.D	02/08/2023	9:56
LCS	BLA0064-BS2	NT1023020737S.D	02/08/2023	10:35
LCS Dup	BLA0064-BSD2	NT1023020738S.D	02/08/2023	11:13
ZZZZZ	22L0459-01	NT1023020739S.D	02/08/2023	11:51
Matrix Spike	BLA0064-MS2	NT1023020740S.D	02/08/2023	12:29
Matrix Spike Dup	BLA0064-MSD2	NT1023020741S.D	02/08/2023	13:08
ZZZZZ	22L0459-02	NT1023020742S.D	02/08/2023	13:46
ZZZZZ	22L0459-03	NT1023020743S.D	02/08/2023	14:25
ZZZZZ	22L0459-04	NT1023020744S.D	02/08/2023	15:03
ZZZZZ	22L0459-05	NT1023020745S.D	02/08/2023	15:41
ZZZZZ	22L0459-06	NT1023020746S.D	02/08/2023	16:20
ZZZZZ	22L0459-07	NT1023020747S.D	02/08/2023	16:58
Initial Cal Check	SLB0106-ICV3	NT1023020750S.D	02/08/2023	18:52
Blank	BLA0160-BLK4	NT1023020752S.D	02/08/2023	20:08
ZZZZZ	23A0031-13	NT1023020754S.D	02/08/2023	21:25
ZZZZZ	23A0031-14	NT1023020755S.D	02/08/2023	22:03
Matrix Spike	BLA0160-MS2	NT1023020756S.D	02/08/2023	22:41
Matrix Spike Dup	BLA0160-MSD2	NT1023020757S.D	02/08/2023	23:19
Calibration Check	SLB0106-CCV1	NT1023020760S.D	02/09/2023	1:13

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230207.b/20230207.b/NT1023020701S.D/NT1023020701S.D
Method Used: \20230207.b\20230207.b\DFTPP8270E.m Inst: nt10
Injection Date: 07-FEB-2023 11:54 Operator: DSD
Sample Info: SLB0106-TUN1 SLB0106-TUN1
Report Date: 02/09/2023 12:56



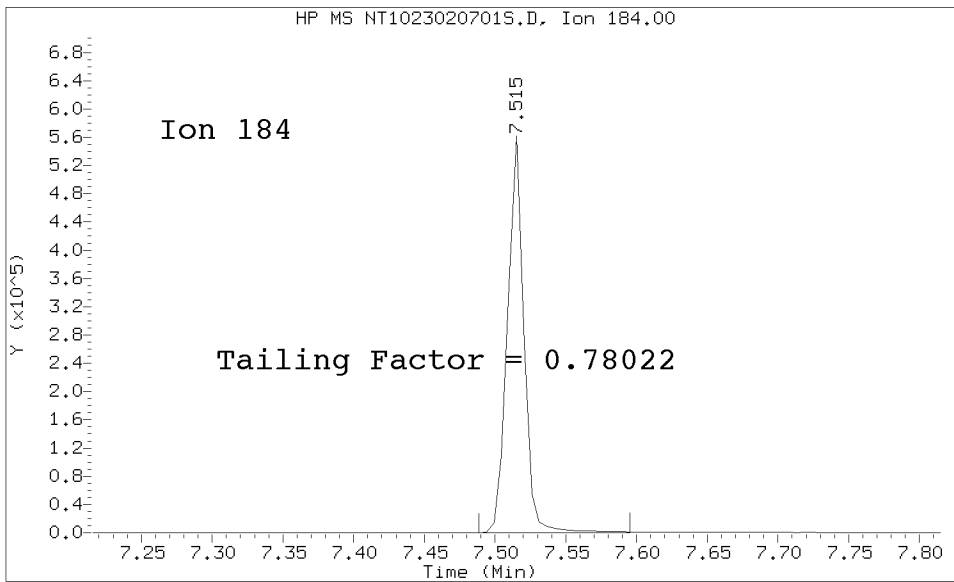
Datafile Analyzed: /20230207.b/20230207.b/NT1023020701S.D/NT1023020701S.D
Method Used: \20230207.b\20230207.b\DFTPP8270E.m\sw846ddt.m Inst: nt10
Injection Date: 07-FEB-2023 11:54 Operator: DSD
Sample Info: SEQ-TUN1
Report Date: 02/09/2023 12:56



Pentachlorophenol

=====
Exp. RT = 6.269
Found RT = 6.269

Tail Factor = 0.000 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 7.515
Found RT = 7.515

Tail Factor = 0.780 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.0000000	2.000	PASS
Benzidine	0.7802198	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	149280			N/A
4,4-DDE	735	0.5	20.0	PASS
4,4-DDD	12536	7.7	20.0	PASS
4,4-DDD + DDE	13271	8.2	20.0	PASS

Tuning Sample, nt10.i/20230207.b/20230207.b/NT1023020701S.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	60.47
70	Less than 2.00% of mass 69	0.29 (0.48)
197	Less than 2.00% of mass 198	0.49
199	5.00 - 9.00% of mass 198	6.86
365	1.00 - 100.00% of mass 198	2.39
441	Less than 150.00% of mass 443	6.91 (74.79)
442	Less than 200.00% of mass 198	47.52
443	15.00 - 24.00% of mass 442	9.23 (19.43)

Data File: NT1023020701S.D
 Spectrum: Avg. Scans 473-475 (6.62), Background Scan 468
 Location of Maximum: 198.00
 Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	119	116.00	359	180.00	2190	254.00	118
38.00	475	117.00	11928	181.00	1080	255.00	37560
39.00	2852	118.00	862	182.00	148	256.00	5492
40.00	228	119.00	105	184.00	220	257.00	441
41.00	60	120.00	163	185.00	1473	258.00	2142
43.00	52	122.00	932	186.00	11286	259.00	374
44.00	19	123.00	1583	187.00	3200	265.00	861
49.00	199	124.00	690	188.00	636	266.00	153
50.00	8730	125.00	703	189.00	393	273.00	1096
51.00	32904	127.00	55096	190.00	58	274.00	2954
52.00	1756	128.00	4133	191.00	351	275.00	16094
55.00	283	129.00	21552	192.00	960	276.00	2062
56.00	1097	130.00	1846	193.00	1072	277.00	1379
57.00	2521	131.00	354	194.00	250	278.00	185
61.00	464	132.00	220	195.00	53	283.00	130
62.00	564	133.00	55	196.00	2314	284.00	59
63.00	1603	134.00	606	197.00	379	285.00	205
64.00	237	135.00	1785	198.00	77392	293.00	262
65.00	848	136.00	683	199.00	5312	296.00	4424
69.00	46800	137.00	996	200.00	419	297.00	608
70.00	226	138.00	76	201.00	374	302.00	75
73.00	286	140.00	245	203.00	595	303.00	429
74.00	4406	141.00	2462	204.00	2841	304.00	113
75.00	7199	142.00	1192	205.00	4572	314.00	253
76.00	2399	143.00	511	206.00	18736	315.00	423
77.00	49840	144.00	185	207.00	2575	316.00	233
78.00	3477	145.00	68	208.00	609	321.00	120
79.00	2952	146.00	430	209.00	199	323.00	1536
80.00	2464	147.00	1292	210.00	336	324.00	224
81.00	3558	148.00	2914	211.00	768	327.00	262
82.00	946	149.00	591	215.00	254	328.00	111
83.00	770	150.00	144	217.00	4805	333.00	112
84.00	191	151.00	589	218.00	615	334.00	892
85.00	584	153.00	789	221.00	3522	335.00	216
86.00	997	154.00	600	223.00	1075	341.00	125
87.00	447	155.00	1374	224.00	9658	346.00	270
88.00	140	156.00	1954	225.00	2516	352.00	368
91.00	854	157.00	519	226.00	114	353.00	232
92.00	848	158.00	446	227.00	4133	354.00	428
93.00	5377	159.00	293	228.00	597	365.00	1853
94.00	366	160.00	719	229.00	841	366.00	222
95.00	195	161.00	1289	230.00	64	371.00	50
96.00	333	162.00	174	231.00	384	372.00	649
98.00	4109	164.00	57	234.00	215	373.00	150
99.00	3213	165.00	910	235.00	397	383.00	160
100.00	283	166.00	717	236.00	100	402.00	209
101.00	1952	167.00	4756	237.00	321	403.00	396
103.00	639	168.00	2216	239.00	184	404.00	124
104.00	1244	169.00	394	240.00	63	421.00	262

105.00	1190	170.00	79	241.00	196	422.00	242
106.00	77	171.00	147	242.00	509	423.00	1998
107.00	14850	172.00	428	243.00	289	424.00	382
108.00	2302	173.00	510	244.00	7324	441.00	5344
109.00	279	174.00	899	245.00	989	442.00	36776
110.00	26472	175.00	1734	246.00	1436	443.00	7145
111.00	4139	176.00	479	247.00	288	444.00	677
112.00	545	177.00	846	249.00	228		
113.00	159	179.00	3266	253.00	167		



INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00050	Instrument:	NT8
Calibration Date:	01/19/2023	Column (1):	RXI-17Sil ms

Calibration Comments: SS, Dibenzo(a,h)anthracene-d14, highest point included. Changed curve fit from "AVG" to "LRO" on 1/25/23 by JZ.

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Naphthalene	0.9299181	6.9			RSD (15)	
2-Methylnaphthalene	0.5115033	5.6			RSD (15)	
1-Methylnaphthalene	0.5191318	5.6			RSD (15)	
Acenaphthylene	1.51026	8.5			RSD (15)	
Acenaphthene	1.011915	7.8			RSD (15)	
Dibenzofuran	1.536969	10.4			RSD (15)	
Fluorene	1.193724	7.5			RSD (15)	
Phenanthrene	0.9769567	11.6			RSD (15)	
Anthracene	0.887496	8.1			RSD (15)	
Fluoranthene	1.063426	7.7			RSD (15)	
Pyrene	1.23997	9.6			RSD (15)	
Benzo(a)anthracene	1.123887	10.5			RSD (15)	
Chrysene	1.196435	8.7			RSD (15)	
Benzo(b)fluoranthene	1.164811	11.8			RSD (15)	
Benzo(k)fluoranthene	1.140937	10.9			RSD (15)	
Benzo(j)fluoranthene	1.027112	8.0			RSD (15)	
Benzo(a)fluoranthene, Total	1.103137	11.2			RSD (15)	
Benzo(a)pyrene	1.025027	10.8			RSD (15)	
Indeno(1,2,3-cd)pyrene	1.167752	9.2			RSD (15)	
Dibenzo(a,h)anthracene	1.004944	11.1			RSD (15)	
Benzo(g,h,i)perylene	1.058011	10.0			RSD (15)	
2-Methylnaphthalene-d10	0.5454499	5.8			RSD (15)	
Dibenzo[a,h]anthracene-d14	0.6679424	15.3	0.9971		LCOD (0.99)	
Fluoranthene-d10	0.8823923	8.7			RSD (15)	



ANALYSIS SEQUENCE

SLA0213

Instrument: NT8
Calibration ID: GA00050

Element Column ID: J006458

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SLA0213-TUN1	MS Tune	QC		1	K004775			
SLA0213-ICB1	Initial Cal Blank	QC		2		K008540		
SLA0213-CAL1	8270 SIM PNA 0.1	QC		3	L000603	K008540		
SLA0213-CAL2	8270 SIM PNA 0.5	QC		4	L000604	K008540		
SLA0213-CAL3	8270 SIM PNA 1.0	QC		5	L000605	K008540		
SLA0213-CAL4	8270 SIM PNA 2.5	QC		6	L000606	K008540		
SLA0213-CAL5	8270 SIM PNA 5	QC		7	L000607	K008540		
SLA0213-CAL6	8270 SIM PNA 10	QC		8	L000608	K008540		
SLA0213-SCV1	8270 SIM PNA SCV	QC		9	L000686	K008540		

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230119.b

Time	Filename	LabID	ClientId	DF											
1	1028	N823011901.D	SLA0213-TUN1	1	|	NO ISTDS FOUND|									
2	1059	N823011902.D	SLA0213-ICB1	1	|	4.92	52082|	7.20	30936|	9.24	59030|	14.22	50944|	18.12	47418|
3	1126	N823011903.D	SLA0213-CAL1	1	|	4.91	46132|	7.20	27261|	9.24	52158|	14.20	44953|	18.11	41635|
4	1158	N823011904.D	SLA0213-CAL2	1	|	4.91	45056|	7.20	26746|	9.24	50759|	14.21	44658|	18.11	42567|
5	1225	N823011905.D	SLA0213-CAL3	1	|	4.91	47180|	7.20	28206|	9.24	53233|	14.20	46493|	18.11	44587|
6	1252	N823011906.D	SLA0213-CAL4	1	|	4.91	44704|	7.20	26411|	9.24	49210|	14.20	42994|	18.11	40520|
7	1319	N823011907.D	SLA0213-CAL5	1	|	4.91	46542|	7.20	27638|	9.23	51351|	14.20	44781|	18.11	42187|
8	1346	N823011908.D	SLA0213-CAL6	1	|	4.91	46070|	7.20	26689|	9.24	50683|	14.21	43880|	18.11	40659|
9	1458	N823011909.D	SLA0213-SCV1	1	|	4.91	46346|	7.20	27709|	9.24	51685|	14.21	46582|	18.12	41743|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230119.b

ARI Job No.: SLA0 Method: FSIMPNA230119.m Instrument: nt8.i Date: 19-JAN-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1059	N823011902.D	SLA0213-ICB1		1	NO MANUAL INTEGRATION
1126	N823011903.D	SLA0213-CAL1		1	Total Benzofluoranthenes, Dibenzo(a,h)anthracene-d14,
1158	N823011904.D	SLA0213-CAL2		1	Total Benzofluoranthenes, Dibenzo(a,h)anthracene, Dibenzo(a,h)anthracene-d14,
1225	N823011905.D	SLA0213-CAL3		1	Total Benzofluoranthenes,
1252	N823011906.D	SLA0213-CAL4		1	Total Benzofluoranthenes,
1319	N823011907.D	SLA0213-CAL5		1	Total Benzofluoranthenes,
1346	N823011908.D	SLA0213-CAL6		1	Total Benzofluoranthenes,
1458	N823011909.D	SLA0213-SCV1		1	Total Benzofluoranthenes,

Security Status Report

Date: 19-Jan-2023 20:43

N823011901.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011902.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011903.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011904.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011905.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011906.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011907.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011908.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011909.D	Data Locked	jianqing, 19-Jan-2023 20:43

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 19-JAN-2023 11:26
 End Cal Date : 19-JAN-2023 13:46
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Last Edit : 19-Jan-2023 20:20 jianqing
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem3\nt8.i\20230119.b\N823011903.D
 Level 2: \\target\share\chem3\nt8.i\20230119.b\N823011904.D
 Level 3: \\target\share\chem3\nt8.i\20230119.b\N823011905.D
 Level 4: \\target\share\chem3\nt8.i\20230119.b\N823011906.D
 Level 5: \\target\share\chem3\nt8.i\20230119.b\N823011907.D
 Level 6: \\target\share\chem3\nt8.i\20230119.b\N823011908.D

Compound	0.10000	0.50000	1.000	2.500	5.000	10.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
2 Naphthalene	1.05133	0.88042	0.91407	0.94424	0.90597	0.88348	0.92992	6.865
4 2-Methylnaphthalene	0.55840	0.48358	0.49661	0.53216	0.50818	0.49010	0.51150	5.596
5 1-methylnaphthalene	0.56750	0.48819	0.50733	0.53862	0.51235	0.50079	0.51913	5.582
6 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 Biphenyl	1.53553	1.22381	1.26186	1.35447	1.27381	1.26708	1.31943	8.655
8 2,6-Dimethylnaphthalene	1.00657	0.84902	0.90342	0.98129	0.93327	0.92936	0.93382	5.997
9 Acenaphthylene	1.56927	1.28857	1.41963	1.61272	1.57386	1.59750	1.51026	8.531
11 Acenaphthene	1.15917	0.93995	0.96901	1.04002	0.98262	0.98072	1.01192	7.822
12 Dibenzofuran	1.85613	1.44919	1.46877	1.53906	1.45840	1.45028	1.53697	10.407
13 1,6,7-Trimethylnaphthalene	1.10194	0.88028	0.91555	1.00758	0.95392	0.95592	0.96920	8.030
14 Fluorene	1.33377	1.06663	1.13494	1.22673	1.19285	1.20743	1.19372	7.540
16 Phenanthrene	1.20020	0.90687	0.92597	0.99220	0.92889	0.90761	0.97696	11.644
17 Anthracene	0.99007	0.78914	0.83625	0.94156	0.89523	0.87273	0.88750	8.129
18 Dibenzothiophene	1.00464	0.81097	0.83858	0.91687	0.87432	0.85731	0.88378	7.813
19 Carbazole	0.89689	0.71317	0.75168	0.85950	0.83159	0.82882	0.81361	8.430
20 1-Methylphenanthrene	0.79489	0.62625	0.65095	0.73891	0.70849	0.70462	0.70402	8.607

22	Fluoranthene	1.20097	0.97204	1.02294	1.11434	1.05358	1.01668	1.06343	7.729
23	Pyrene	1.41615	1.06642	1.15622	1.29482	1.25683	1.24939	1.23997	9.648
24	Benzo(a)anthracene	1.20036	0.94191	1.00686	1.18718	1.18459	1.22241	1.12389	10.532
27	Chrysene	1.38233	1.08164	1.12834	1.22724	1.18577	1.17328	1.19644	8.684
28	Benzo(b)fluoranthene	1.33590	0.97747	1.02294	1.22049	1.19238	1.23969	1.16481	11.769
29	Benzo(k)fluoranthene	1.32725	0.99373	1.00590	1.17899	1.16454	1.17521	1.14094	10.933
30	Benzo(j)fluoranthene	1.09283	0.92053	0.92287	1.08478	1.07520	1.06646	1.02711	7.997
31	Total Benzofluoranthenes	1.25535	0.93450	0.97166	1.15908	1.14235	1.15588	1.10314	11.202
32	Benzo(a)pyrene	1.13991	0.87777	0.89515	1.07737	1.06309	1.09688	1.02503	10.785
34	Benzo(e)pyrene	1.38633	1.02276	1.03286	1.18813	1.15641	1.18275	1.16154	11.391
35	Perylene	1.28978	0.96103	0.98751	1.14448	1.10241	1.11455	1.09996	10.771
37	Indeno(1,2,3-cd)pyrene	1.20860	0.99533	1.07255	1.25747	1.22858	1.24398	1.16775	9.225

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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 Quant Method : ISTD
 Origin : Disabled
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 Last Edit : 19-Jan-2023 20:20 jianqing
 Curve Type : Average

Compound	0.10000	0.50000	1.000	2.500	5.000	10.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
38 Dibenzo(a,h)anthracene	1.04912	0.83483	0.89506	1.08138	1.06856	1.10072	1.00494	11.083
39 Benzo(g,h,i)perylene	1.16296	0.91028	0.94095	1.10667	1.08873	1.13847	1.05801	10.032
\$ 3 2-Methylnaphthalene-d10	0.58571	0.49325	0.53451	0.56745	0.55043	0.54135	0.54545	5.792
\$ 21 Fluoranthene-d10	0.90072	0.75455	0.82479	0.95503	0.92918	0.93009	0.88239	8.740
\$ 36 Dibenzo(a,h)anthracene-d14	0.58028	0.54718	0.60762	0.73250	0.74207	+++++	0.64193	13.973

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Batch File: \\target\share\chem3\nt8.i\20230119.b
Inst ID: nt8.i

ID: RT01 RT02 RT03 RT04 RT05 RT06
FILENAME: N823011903 N823011904 N823011905 N823011906 N823011907 N823011908
INJ. DATE: 19-JAN-2023 19-JAN-2023 19-JAN-2023 19-JAN-2023 19-JAN-2023 19-JAN-2023
INJ. TIME: 11:26 11:58 12:25 12:52 13:19 13:46

Table with 11 columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include various chemical compounds like Naphthalene, Acenaphthene, and Phenanthrene with their respective retention times and standard deviations.

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

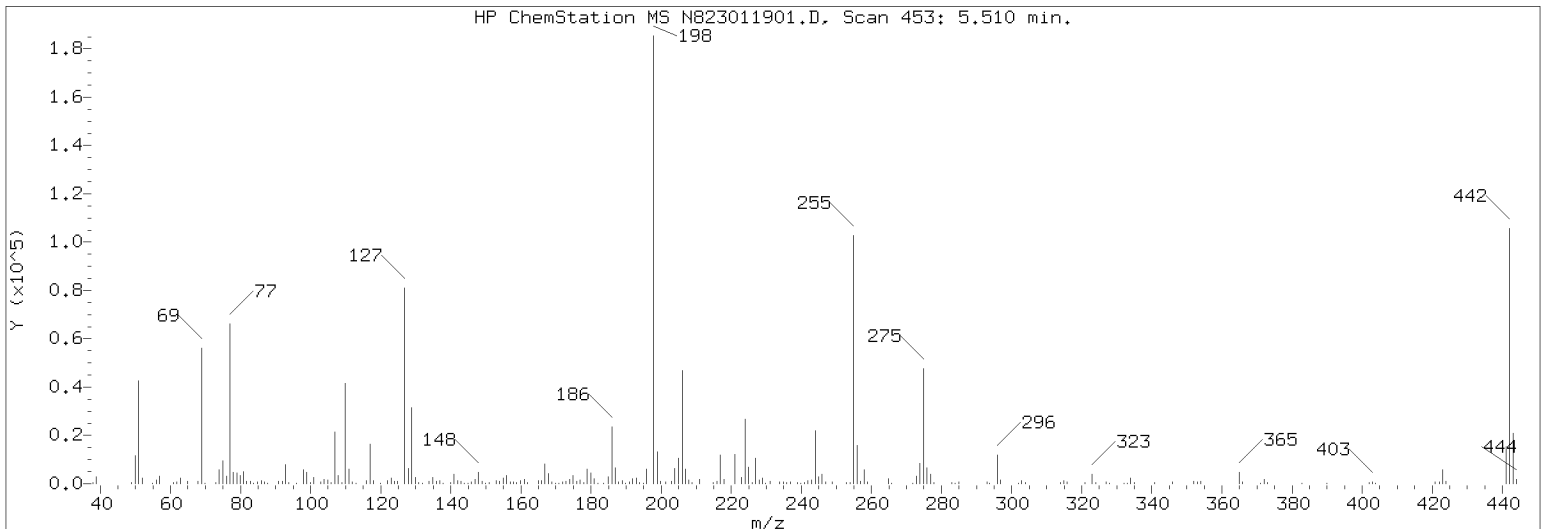
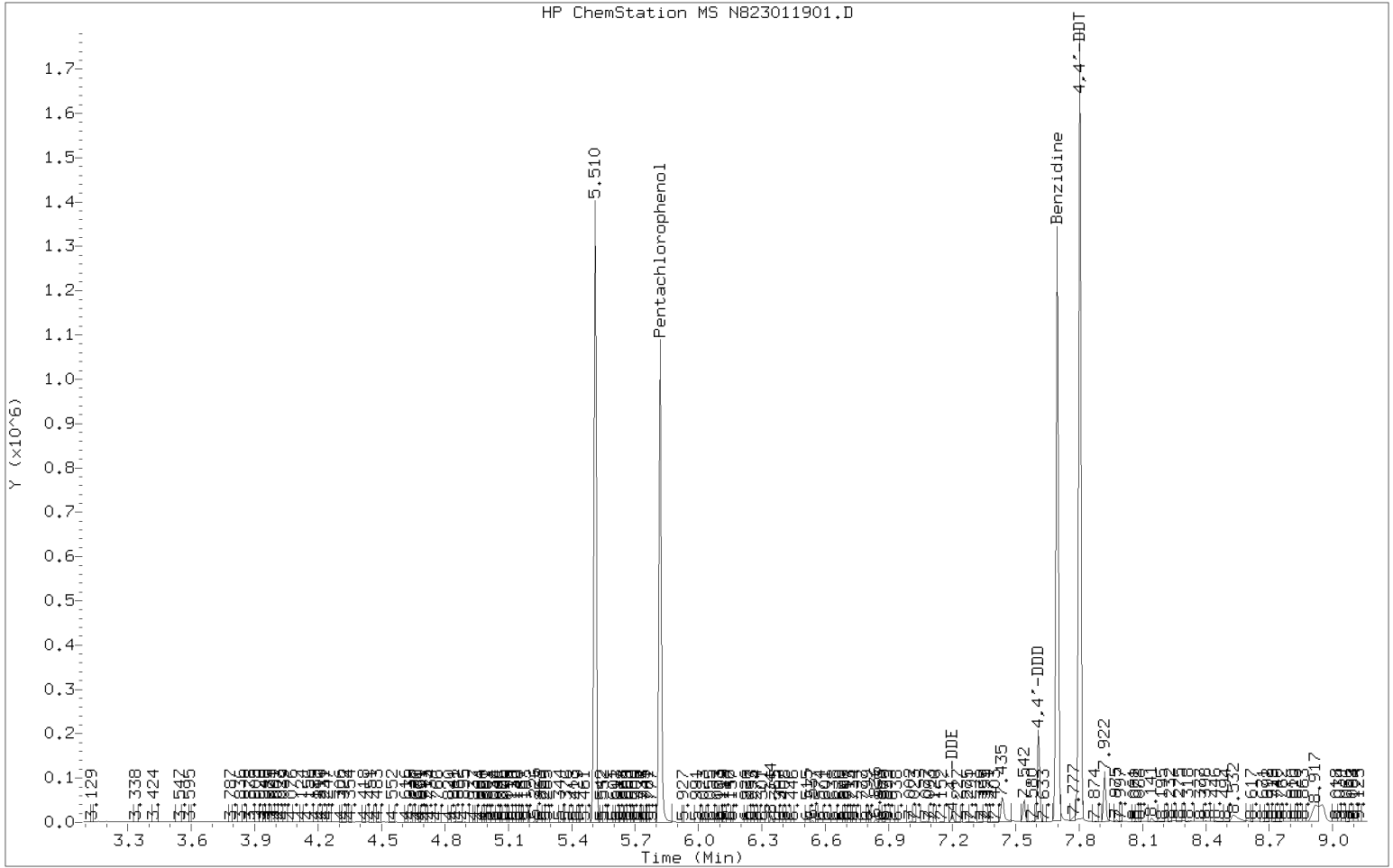
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
Batch File: \\target\share\chem3\nt8.i\20230119.b
Inst ID: nt8.i

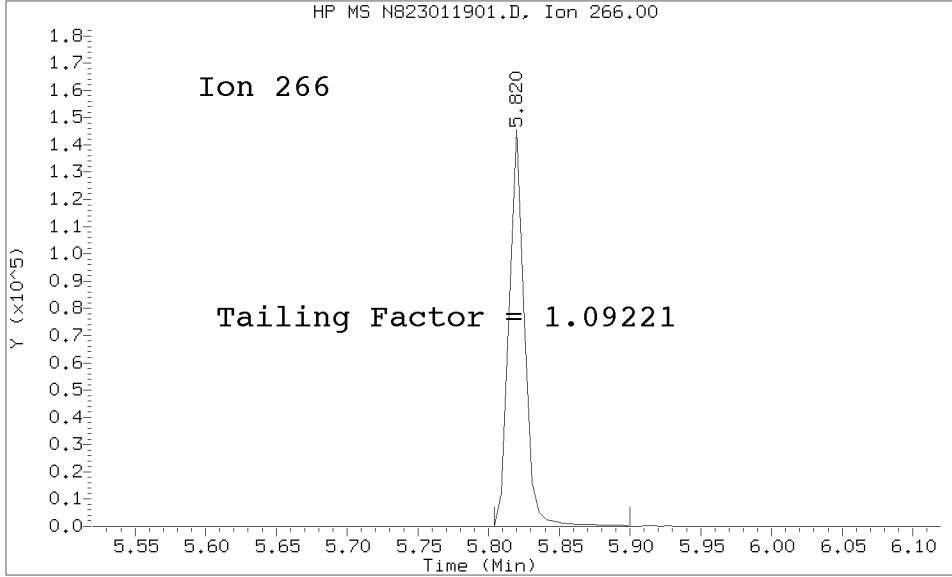
Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 Dibenzothiophene	9.109	9.112	9.109	9.109	9.109	9.112	9.112	6.112-12.112	9.110	0.002
19 Carbazole	9.824	9.830	9.824	9.824	9.824	9.827	9.827	6.827-12.827	9.825	0.003
20 1-Methylphenanthrene	10.048	10.051	10.048	10.048	10.048	10.051	10.051	7.051-13.051	10.049	0.002
21 Fluoranthene-d10	11.016	11.019	11.016	11.016	11.016	11.019	11.019	8.019-14.019	11.017	0.002
22 Fluoranthene	11.054	11.057	11.051	11.054	11.054	11.057	11.057	8.057-14.057	11.054	0.002
23 Pyrene	11.572	11.575	11.572	11.572	11.572	11.575	11.575	8.575-14.575	11.573	0.002
24 Benzo(a)anthracene	14.073	14.080	14.077	14.077	14.077	14.080	14.080	11.080-17.080	14.077	0.002
* 25 Chrysene-d12	14.203	14.209	14.203	14.203	14.203	14.206	14.206	11.206-17.206	14.205	0.003
27 Chrysene	14.276	14.279	14.276	14.279	14.279	14.282	14.282	11.282-17.282	14.278	0.002
28 Benzo(b)fluoranthene	16.821	16.827	16.824	16.821	16.827	16.834	16.834	13.834-19.834	16.826	0.005
29 Benzo(k)fluoranthene	16.881	16.887	16.881	16.884	16.888	16.897	16.897	13.897-19.897	16.886	0.006
30 Benzo(j)fluoranthene	16.960	16.963	16.960	16.963	16.967	16.973	16.973	13.973-19.973	16.964	0.005
31 Total Benzofluoranthene	16.821	16.827	16.824	16.821	16.827	16.834	16.834	13.834-19.834	16.826	0.005
32 Benzo(a)pyrene	17.874	17.883	17.877	17.877	17.884	17.890	17.890	14.890-20.890	17.881	0.006
* 33 Perylene-d12	18.111	18.114	18.111	18.111	18.111	18.114	18.114	15.114-21.114	18.112	0.002
34 Benzo(e)pyrene	17.748	17.754	17.751	17.748	17.751	17.760	17.760	14.760-20.760	17.752	0.005
35 Perylene	18.184	18.187	18.184	18.184	18.187	18.193	18.193	15.193-21.193	18.187	0.004
36 Dibenzo(a,h)anthracene	20.546	20.549	20.549	20.552	20.555	20.565	20.565	17.565-23.565	20.553	0.007
37 Indeno(1,2,3-cd)pyrene	20.666	20.676	20.672	20.676	20.682	20.691	20.691	17.691-23.691	20.677	0.009
38 Dibenzo(a,h)anthracene	20.666	20.666	20.657	20.663	20.669	20.685	20.685	17.685-23.685	20.668	0.010
39 Benzo(g,h,i)perylene	21.757	21.760	21.748	21.757	21.763	21.782	21.782	18.782-24.782	21.761	0.012

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230119.b/tune.b/N823011901.D/N823011901.D
 Method Used: \20230119.b\tune.b\DFTPP.m Inst: nt8
 Injection Date: 19-JAN-2023 10:28 Operator: JZ
 Sample Info: SLA0213-TUN1 DFTPP230119
 Report Date: 01/19/2023 20:14



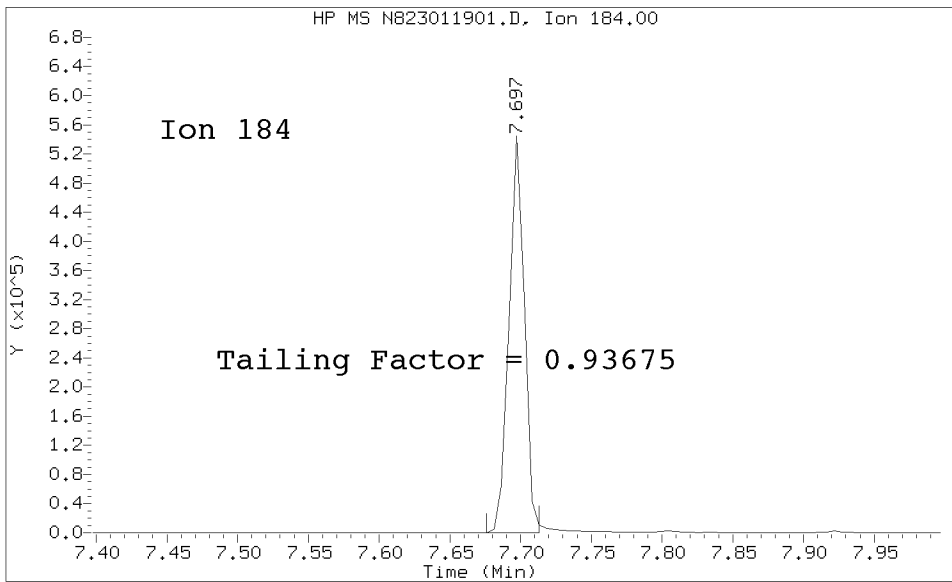
Datafile Analyzed: /20230119.b/tune.b/N823011901.D/N823011901.D
Method Used: \20230119.b\tune.b\DFTPP.m\sw846ddt.m Inst: nt8
Injection Date: 19-JAN-2023 10:28 Operator: JZ
Sample Info: DFTPP230119
Report Date: 01/19/2023 20:14



Pentachlorophenol

=====
Exp. RT = 5.825
Found RT = 5.820

Tail Factor = 1.092 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 7.703
Found RT = 7.697

Tail Factor = 0.937 Maximum Allowed = 2.0

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	23.71
68	Less than 2.00% of mass 69	0.39 (1.25)
69	Mass 69 relative abundance	30.92
70	Less than 2.00% of mass 69	0.06 (0.21)
127	10.00 - 80.00% of mass 198	44.20
197	Less than 2.00% of mass 198	0.17
199	5.00 - 9.00% of mass 198	6.89
275	10.00 - 60.00% of mass 198	26.96
365	Greater than 1.00% of mass 198	2.85
441	0.01 - 24.00% of mass 442	9.72 (14.32)
442	50.00 - 200.00% of mass 198	67.89
443	15.00 - 24.00% of mass 442	13.33 (19.64)

Data File: N823011901.D
 Spectrum: Avg. Scans 452-454 (5.51), Background Scan 448
 Location of Maximum: 198.00
 Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	424	124.00	727	188.00	466	265.00	1738
39.00	2285	125.00	694	189.00	1088	266.00	231
49.00	389	127.00	59064	190.00	92	272.00	97
50.00	8567	128.00	4618	191.00	538	273.00	2435
51.00	31688	129.00	23208	192.00	1501	274.00	6434
52.00	1694	130.00	1967	193.00	1652	275.00	36032
55.00	89	131.00	387	194.00	339	276.00	4936
56.00	1081	132.00	92	195.00	108	277.00	3133
57.00	2353	134.00	695	196.00	4417	278.00	496
61.00	487	135.00	1887	197.00	224	283.00	243
62.00	511	136.00	770	198.00	133632	284.00	200
63.00	1627	137.00	979	199.00	9210	285.00	536
65.00	865	138.00	101	200.00	711	293.00	678
68.00	518	140.00	220	201.00	653	294.00	83
69.00	41320	141.00	2913	203.00	891	296.00	9364
70.00	86	142.00	931	204.00	4715	297.00	1310
73.00	274	143.00	728	205.00	8070	302.00	96
74.00	4327	144.00	83	206.00	34104	303.00	1146
75.00	6885	145.00	91	207.00	4557	304.00	262
76.00	2362	146.00	508	208.00	1177	314.00	364
77.00	48072	147.00	1540	209.00	387	315.00	1068
78.00	3441	148.00	3391	210.00	236	316.00	588
79.00	3296	149.00	690	211.00	1430	321.00	250
80.00	2464	150.00	90	215.00	376	323.00	3145
81.00	3741	151.00	458	216.00	746	324.00	501
82.00	872	152.00	181	217.00	9085	327.00	540
83.00	845	153.00	893	218.00	1189	328.00	201
84.00	287	154.00	764	221.00	8442	332.00	178
85.00	621	155.00	1756	223.00	2039	333.00	129
86.00	1039	156.00	2503	224.00	19544	334.00	1893
87.00	481	157.00	527	225.00	5122	335.00	518
88.00	91	158.00	516	226.00	502	341.00	275
91.00	866	159.00	410	227.00	8274	346.00	674
92.00	878	160.00	955	228.00	1174	352.00	945
93.00	5816	161.00	1421	229.00	1712	353.00	630
94.00	409	162.00	445	230.00	111	354.00	910
96.00	203	165.00	1085	231.00	685	365.00	3802
98.00	4243	166.00	1023	234.00	538	366.00	580
99.00	3501	167.00	5993	235.00	568	371.00	91
100.00	344	168.00	3082	236.00	394	372.00	1475
101.00	1983	169.00	490	237.00	657	373.00	292
103.00	704	170.00	94	239.00	327	383.00	290
104.00	1275	171.00	194	240.00	187	390.00	177
105.00	1230	172.00	595	241.00	468	402.00	468
106.00	379	173.00	732	242.00	1090	403.00	736
107.00	15826	174.00	1319	243.00	1102	404.00	243
108.00	2447	175.00	2491	244.00	16206	421.00	649
109.00	331	176.00	751	245.00	2245	422.00	226
110.00	30008	177.00	1175	246.00	3000	423.00	4860

111.00	4456	178.00	288	247.00	624	424.00	978
112.00	513	179.00	4561	249.00	587	441.00	12991
113.00	89	180.00	3271	253.00	239	442.00	90720
116.00	935	181.00	1513	254.00	438	443.00	17816
117.00	12513	182.00	106	255.00	76904	444.00	1584
118.00	931	184.00	333	256.00	11699		
120.00	104	185.00	2153	257.00	880		
122.00	1003	186.00	17336	258.00	4539		
123.00	1682	187.00	4916	259.00	746		

Data File: \\target\share\chem3\nt8.1\20230119.B\MS23011902.D

Date: 19-JAN-2023 10:59

Client ID:

Sample Info: ICB230119

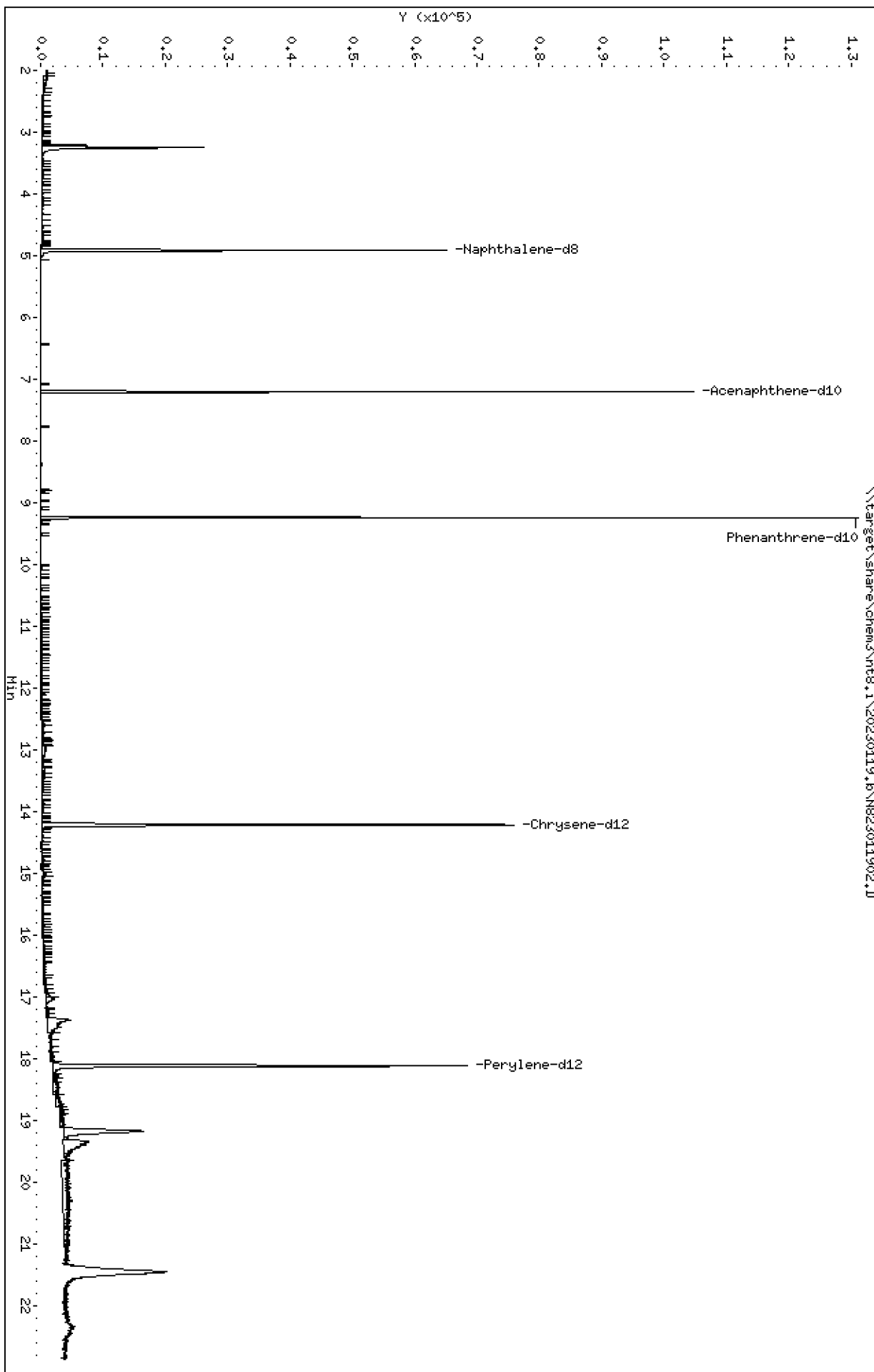
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011902.D
 Lab Smp Id: SLA0213-ICB1
 Inj Date : 19-JAN-2023 10:59
 Operator : JZ Inst ID: nt8.i
 Smp Info : ICB230119
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Meth Date : 19-Jan-2023 20:20 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
* 1 Naphthalene-d8	136		4.916	4.906	(1.000)	52082	2.00000	
2 Naphthalene	128		Compound Not Detected.					
§ 3 2-Methylnaphthalene-d10	152		Compound Not Detected.					
4 2-Methylnaphthalene	141		Compound Not Detected.					
5 1-methylnaphthalene	141		Compound Not Detected.					
7 Biphenyl	154		Compound Not Detected.					
8 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
9 Acenaphthylene	152		Compound Not Detected.					
* 10 Acenaphthene-d10	164		7.202	7.196	(1.000)	30936	2.00000	
11 Acenaphthene	153		Compound Not Detected.					
12 Dibenzofuran	168		Compound Not Detected.					
13 1,6,7-Trimethylnaphthalene	170		Compound Not Detected.					
14 Fluorene	166		Compound Not Detected.					
18 Dibenzothiophene	184		Compound Not Detected.					
* 15 Phenanthrene-d10	188		9.241	9.235	(1.000)	59030	2.00000	
16 Phenanthrene	178		Compound Not Detected.					
17 Anthracene	178		Compound Not Detected.					
19 Carbazole	167		Compound Not Detected.					
20 1-Methylphenanthrene	192		Compound Not Detected.					
22 Fluoranthene	202		Compound Not Detected.					
§ 21 Fluoranthene-d10	212		Compound Not Detected.					
23 Pyrene	202		Compound Not Detected.					
24 Benzo(a)anthracene	228		Compound Not Detected.					
* 25 Chrysene-d12	240		14.215	14.202	(1.000)	50944	2.00000	
27 Chrysene	228		Compound Not Detected.					
28 Benzo(b)fluoranthene	252		Compound Not Detected.					
29 Benzo(k)fluoranthene	252		Compound Not Detected.					
30 Benzo(j)fluoranthene	252		Compound Not Detected.					
31 Total Benzofluoranthenes	252		Compound Not Detected.					
34 Benzo(e)pyrene	252		Compound Not Detected.					
32 Benzo(a)pyrene	252		Compound Not Detected.					
* 33 Perylene-d12	264		18.120	18.111	(1.000)	47418	2.00000	
35 Perylene	252		Compound Not Detected.					

Compounds	QUANT MASS	SIG					CONCENTRATIONS	
			RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
=====	=====	=====	=====	=====	=====	=====	=====	
\$ 36 Dibenzo(a,h)anthracene-d14	292				Compound Not Detected.			
37 Indeno(1,2,3-cd)pyrene	276				Compound Not Detected.			
38 Dibenzo(a,h)anthracene	278				Compound Not Detected.			
39 Benzo(g,h,i)perylene	276				Compound Not Detected.			

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011902.D Calibration Time: 12:52
 Lab Smp Id: SLA0213-ICB1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	44704	22352	89408	52082	16.50
10 Acenaphthene-d10	26411	13206	52822	30936	17.13
15 Phenanthrene-d10	49210	24605	98420	59030	19.96
25 Chrysene-d12	42994	21497	85988	50944	18.49
33 Perylene-d12	40520	20260	81040	47418	17.02

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.92	0.19
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.09
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.07
25 Chrysene-d12	14.20	13.70	14.70	14.22	0.09
33 Perylene-d12	18.11	17.61	18.61	18.12	0.05

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011902.D

Lab ID: SLA0213-ICB1

nt8.i, 20230119.b\FSIMPNA230119.m, 19-JAN-2023 10:59

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

No RRT check performed

On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt8.1\20230119.B\N823011903.D

Date: 19-JAN-2023 11:26

Client ID:

Sample Info: IC01230119,

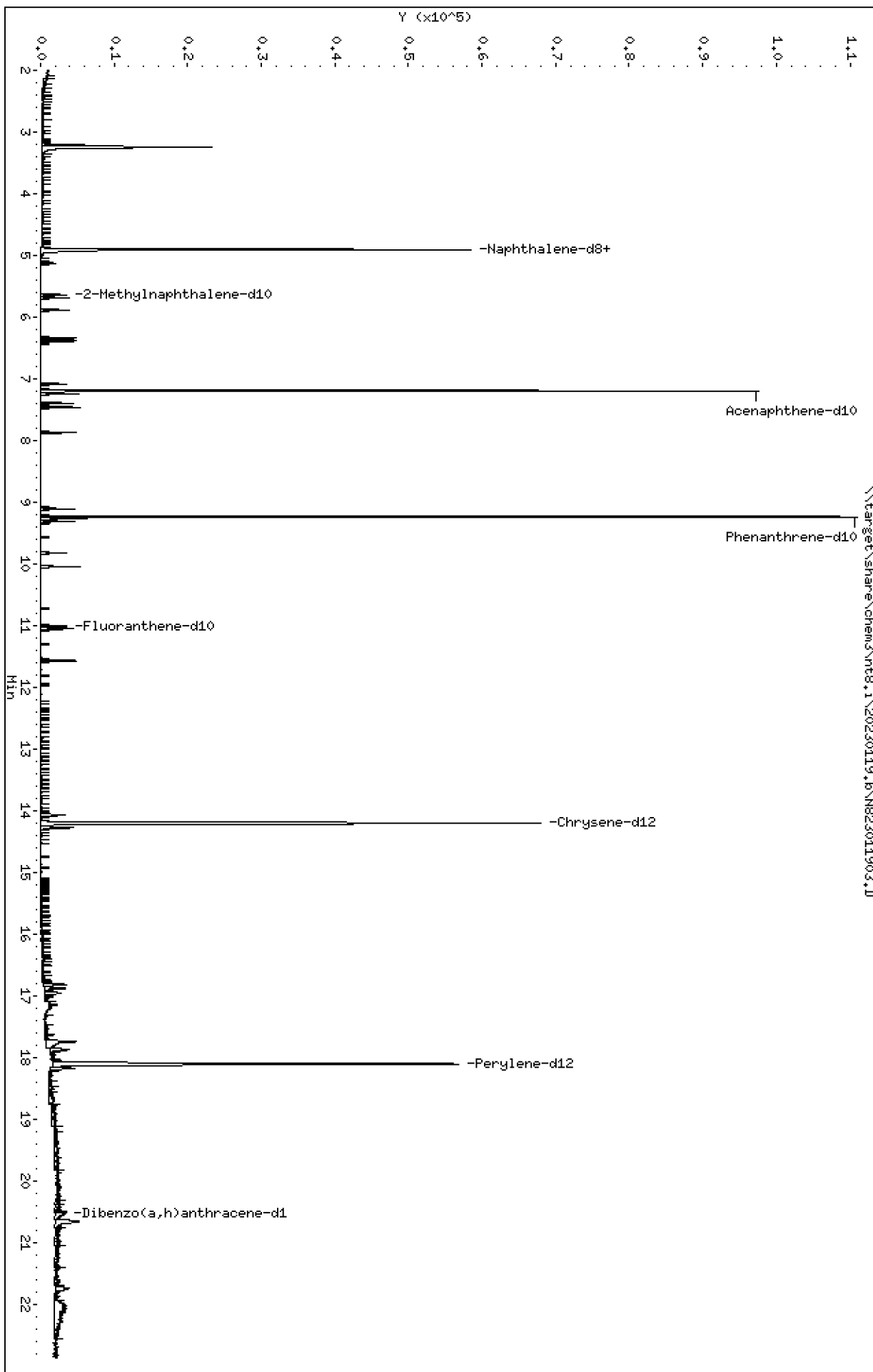
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatle Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011903.D
 Lab Smp Id: SLA0213-CAL1
 Inj Date : 19-JAN-2023 11:26
 Operator : JZ Inst ID: nt8.i
 Smp Info : IC01230119,
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Meth Date : 19-Jan-2023 20:10 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 3 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT SIG		AMOUNTS				ON-COL
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	
* 1 Naphthalene-d8	136	4.906	4.906	(1.000)	46132	2.00000	
2 Naphthalene	128	4.938	4.938	(1.006)	2425	0.10000	0.1131
§ 3 2-Methylnaphthalene-d10	152	5.643	5.640	(1.150)	1351	0.10000	0.1074
4 2-Methylnaphthalene	141	5.691	5.687	(1.160)	1288	0.10000	0.1092
5 1-methylnaphthalene	141	5.883	5.887	(1.199)	1309	0.10000	0.1093
7 Biphenyl	154	6.345	6.348	(0.882)	2093	0.10000	0.1164
8 2,6-Dimethylnaphthalene	156	6.389	6.392	(0.888)	1372	0.10000	0.1078
9 Acenaphthylene	152	7.085	7.088	(0.985)	2139	0.10000	0.1039
* 10 Acenaphthene-d10	164	7.196	7.196	(1.000)	27261	2.00000	
11 Acenaphthene	153	7.246	7.246	(1.007)	1580	0.10000	0.1146
12 Dibenzofuran	168	7.395	7.398	(1.028)	2530	0.10000	0.1208
13 1,6,7-Trimethylnaphthalene	170	7.461	7.464	(1.037)	1502	0.10000	0.1137
14 Fluorene	166	7.876	7.875	(1.094)	1818	0.10000	0.1117
18 Dibenzothiophene	184	9.109	9.112	(0.986)	2620	0.10000	0.1137
* 15 Phenanthrene-d10	188	9.235	9.235	(1.000)	52158	2.00000	
16 Phenanthrene	178	9.270	9.273	(1.004)	3130	0.10000	0.1229
17 Anthracene	178	9.311	9.314	(1.008)	2582	0.10000	0.1116
19 Carbazole	167	9.823	9.826	(1.064)	2339	0.10000	0.1102
20 1-Methylphenanthrene	192	10.048	10.051	(1.088)	2073	0.10000	0.1129
22 Fluoranthene	202	11.053	11.056	(1.197)	3132	0.10000	0.1129
§ 21 Fluoranthene-d10	212	11.015	11.018	(1.193)	2349	0.10000	0.1021
23 Pyrene	202	11.572	11.575	(0.815)	3183	0.10000	0.1142
24 Benzo(a)anthracene	228	14.073	14.079	(0.991)	2698	0.10000	0.1068
* 25 Chrysene-d12	240	14.203	14.206	(1.000)	44953	2.00000	
27 Chrysene	228	14.275	14.282	(1.005)	3107	0.10000	0.1155
28 Benzo(b)fluoranthene	252	16.821	16.833	(0.929)	2781	0.10000	0.1147
29 Benzo(k)fluoranthene	252	16.881	16.897	(0.932)	2763	0.10000	0.1163
30 Benzo(j)fluoranthene	252	16.960	16.972	(0.936)	2275	0.10000	0.1064
31 Total Benzofluoranthenes	252	16.821	16.833	(0.929)	7840	0.30000	0.3414 (M)
34 Benzo(e)pyrene	252	17.747	17.760	(0.980)	2886	0.10000	0.1194
32 Benzo(a)pyrene	252	17.874	17.889	(0.987)	2373	0.10000	0.1112
* 33 Perylene-d12	264	18.111	18.114	(1.000)	41635	2.00000	
35 Perylene	252	18.184	18.193	(1.004)	2685	0.10000	0.1173

Compounds	QUANT SIG							AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	
=====	=====		=====	=====	=====	=====	=====	=====	
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.546	20.565	(1.134)	1208	0.10000	0.09040 (M)	
37 Indeno(1,2,3-cd)pyrene	276		20.666	20.691	(1.141)	2516	0.10000	0.1035	
38 Dibenzo(a,h)anthracene	278		20.666	20.685	(1.141)	2184	0.10000	0.1044	
39 Benzo(g,h,i)perylene	276		21.757	21.782	(1.201)	2421	0.10000	0.1099	

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011903.D Calibration Time: 12:52
 Lab Smp Id: SLA0213-CAL1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	44704	22352	89408	46132	3.19
10 Acenaphthene-d10	26411	13206	52822	27261	3.22
15 Phenanthrene-d10	49210	24605	98420	52158	5.99
25 Chrysene-d12	42994	21497	85988	44953	4.56
33 Perylene-d12	40520	20260	81040	41635	2.75

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.00
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.00
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.00
25 Chrysene-d12	14.20	13.70	14.70	14.20	0.00
33 Perylene-d12	18.11	17.61	18.61	18.11	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011903.D

Lab ID: SLA0213-CAL1

nt8.i, 20230119.b\FSIMPNA230119.m, 19-JAN-2023 11:26

RT	CO-ELUTION COMPOUNDS
20.666	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
20.666	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Quant Method: ICAL

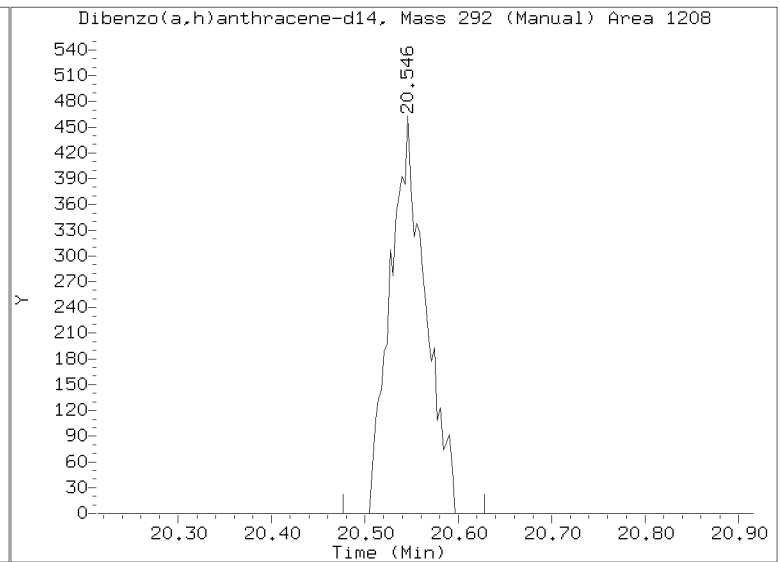
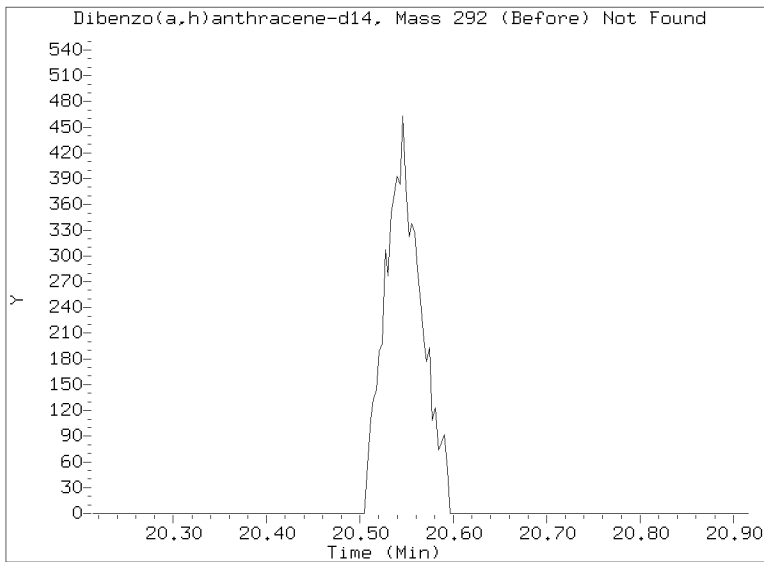
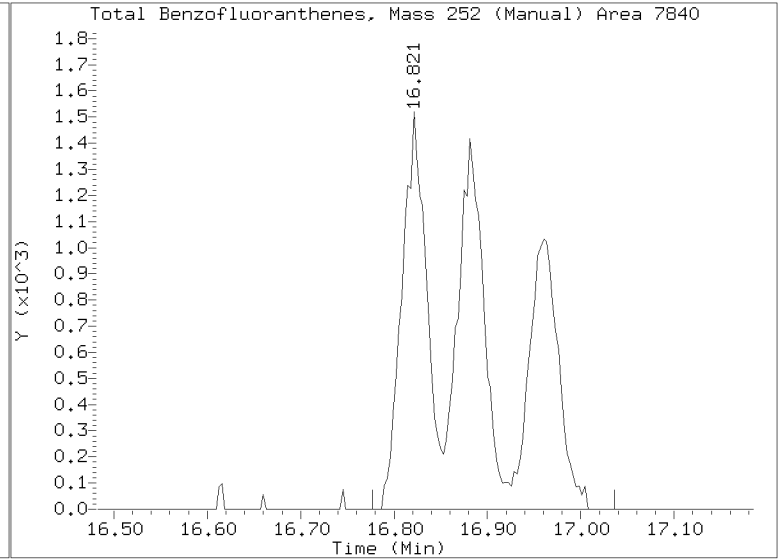
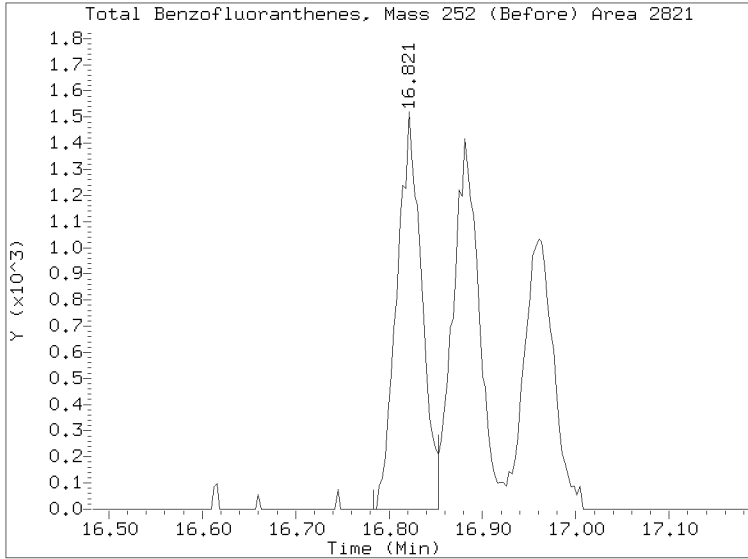
No RRT check performed

On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011903.D
Injection Date: 19-JAN-2023 11:26
Lab ID:SLA0213-CAL1 Client ID:
Report Date: 01/19/2023 20:12



Data File: \\target\share\chem3\nt8.1\20230119.B\N823011904.D

Date: 19-JAN-2023 11:58

Client ID:

Sample Info: IC05230119,

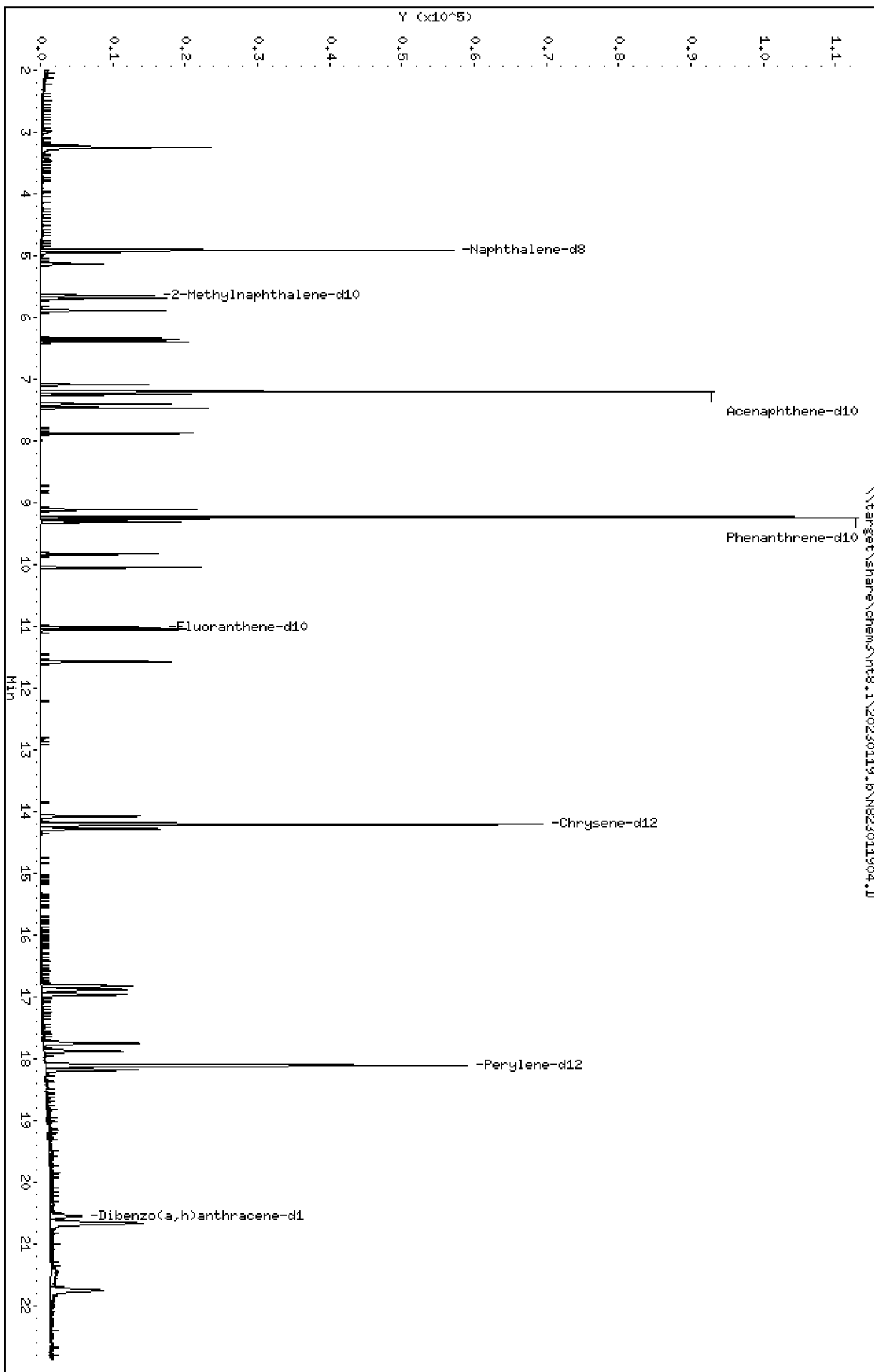
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatle Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011904.D
 Lab Smp Id: SLA0213-CAL2
 Inj Date : 19-JAN-2023 11:58
 Operator : JZ Inst ID: nt8.i
 Smp Info : IC05230119,
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Meth Date : 19-Jan-2023 20:10 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 4 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
* 1 Naphthalene-d8	136		4.913	4.906	(1.000)	45056	2.00000	
2 Naphthalene	128		4.941	4.938	(1.006)	9917	0.50000	0.4734
§ 3 2-Methylnaphthalene-d10	152		5.646	5.640	(1.149)	5556	0.50000	0.4522
4 2-Methylnaphthalene	141		5.694	5.687	(1.159)	5447	0.50000	0.4727
5 1-methylnaphthalene	141		5.890	5.887	(1.199)	5499	0.50000	0.4702
7 Biphenyl	154		6.351	6.348	(0.882)	8183	0.50000	0.4638
8 2,6-Dimethylnaphthalene	156		6.396	6.392	(0.888)	5677	0.50000	0.4546
9 Acenaphthylene	152		7.091	7.088	(0.985)	8616	0.50000	0.4266
* 10 Acenaphthene-d10	164		7.199	7.196	(1.000)	26746	2.00000	
11 Acenaphthene	153		7.249	7.246	(1.007)	6285	0.50000	0.4644
12 Dibenzofuran	168		7.401	7.398	(1.028)	9690	0.50000	0.4714
13 1,6,7-Trimethylnaphthalene	170		7.464	7.464	(1.037)	5886	0.50000	0.4541
14 Fluorene	166		7.879	7.875	(1.094)	7132	0.50000	0.4468
18 Dibenzothiophene	184		9.112	9.112	(0.986)	10291	0.50000	0.4588
* 15 Phenanthrene-d10	188		9.238	9.235	(1.000)	50759	2.00000	
16 Phenanthrene	178		9.273	9.273	(1.004)	11508	0.50000	0.4641
17 Anthracene	178		9.314	9.314	(1.008)	10014	0.50000	0.4446
19 Carbazole	167		9.829	9.826	(1.064)	9050	0.50000	0.4383
20 1-Methylphenanthrene	192		10.051	10.051	(1.088)	7947	0.50000	0.4448
22 Fluoranthene	202		11.056	11.056	(1.197)	12335	0.50000	0.4570
§ 21 Fluoranthene-d10	212		11.018	11.018	(1.193)	9575	0.50000	0.4276
23 Pyrene	202		11.575	11.575	(0.815)	11906	0.50000	0.4300
24 Benzo(a)anthracene	228		14.079	14.079	(0.991)	10516	0.50000	0.4190
* 25 Chrysene-d12	240		14.209	14.206	(1.000)	44658	2.00000	
27 Chrysene	228		14.278	14.282	(1.005)	12076	0.50000	0.4520
28 Benzo(b)fluoranthene	252		16.827	16.833	(0.929)	10402	0.50000	0.4196
29 Benzo(k)fluoranthene	252		16.887	16.897	(0.932)	10575	0.50000	0.4355
30 Benzo(j)fluoranthene	252		16.963	16.972	(0.936)	9796	0.50000	0.4481
31 Total Benzofluoranthenes	252		16.827	16.833	(0.929)	29834	1.50000	1.271 (M)
34 Benzo(e)pyrene	252		17.753	17.760	(0.980)	10884	0.50000	0.4403
32 Benzo(a)pyrene	252		17.883	17.889	(0.987)	9341	0.50000	0.4282
* 33 Perylene-d12	264		18.114	18.114	(1.000)	42567	2.00000	
35 Perylene	252		18.187	18.193	(1.004)	10227	0.50000	0.4368

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.549	20.565	(1.134)	5823	0.50000	0.4262 (M)
37 Indeno(1,2,3-cd)pyrene	276		20.675	20.691	(1.141)	10592	0.50000	0.4262
38 Dibenzo(a,h)anthracene	278		20.666	20.685	(1.141)	8884	0.50000	0.4154 (M)
39 Benzo(g,h,i)perylene	276		21.760	21.782	(1.201)	9687	0.50000	0.4302

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011904.D Calibration Time: 12:52
 Lab Smp Id: SLA0213-CAL2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	44704	22352	89408	45056	0.79
10 Acenaphthene-d10	26411	13206	52822	26746	1.27
15 Phenanthrene-d10	49210	24605	98420	50759	3.15
25 Chrysene-d12	42994	21497	85988	44658	3.87
33 Perylene-d12	40520	20260	81040	42567	5.05

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.13
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.04
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.03
25 Chrysene-d12	14.20	13.70	14.70	14.21	0.04
33 Perylene-d12	18.11	17.61	18.61	18.11	0.02

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011904.D

Lab ID: SLA0213-CAL2

nt8.i, 20230119.b\FSIMPNA230119.m, 19-JAN-2023 11:58

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

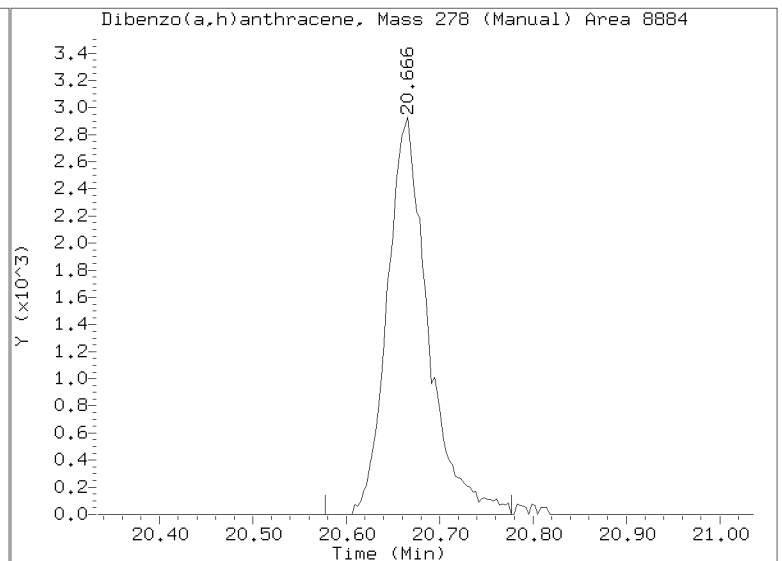
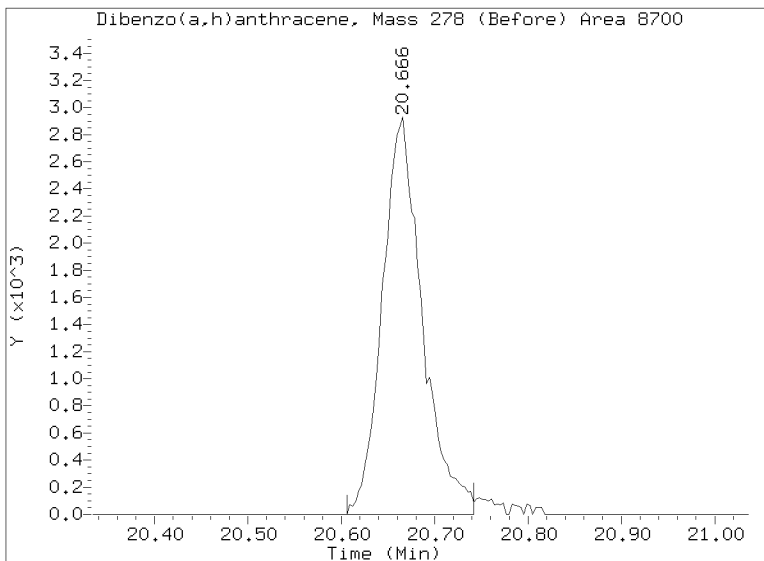
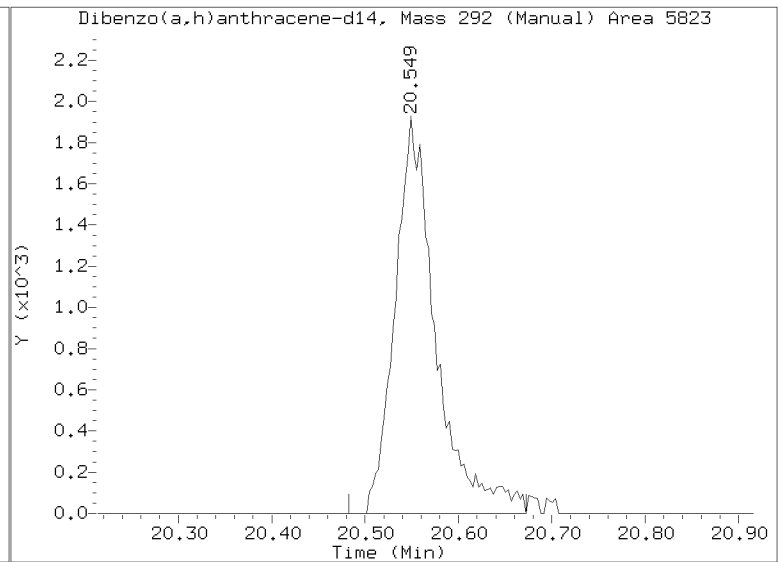
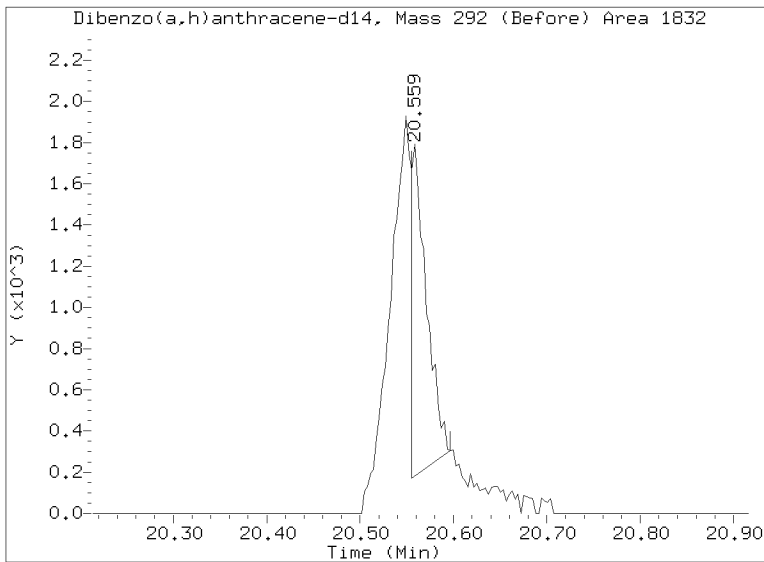
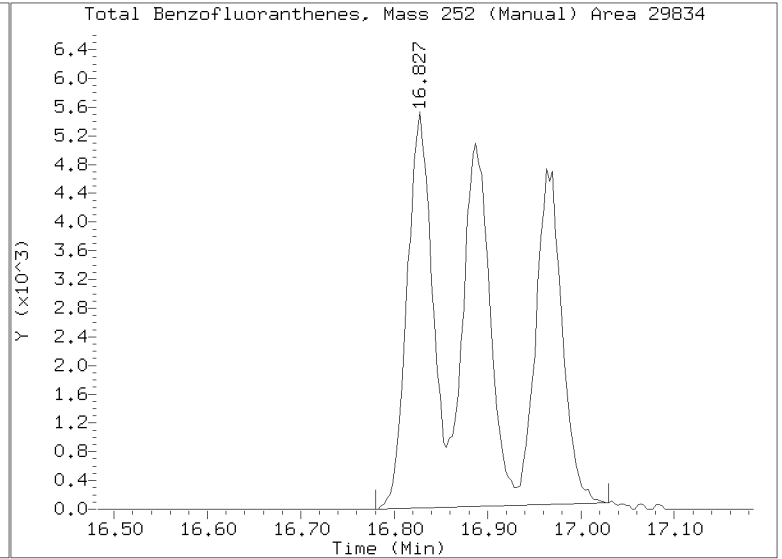
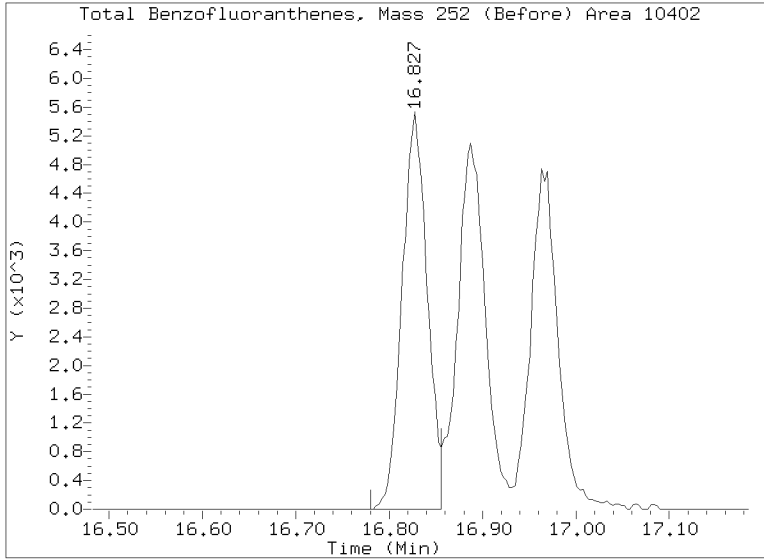
No RRT check performed

On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011904.D
Injection Date: 19-JAN-2023 11:58
Lab ID:SLA0213-CAL2 Client ID:
Report Date: 01/19/2023 20:12



Data File: \\target\share\chem3\nt8.1\20230119.B\MS23011905.D

Date: 19-JAN-2023 12:25

Client ID:

Sample Info: IC1230119,

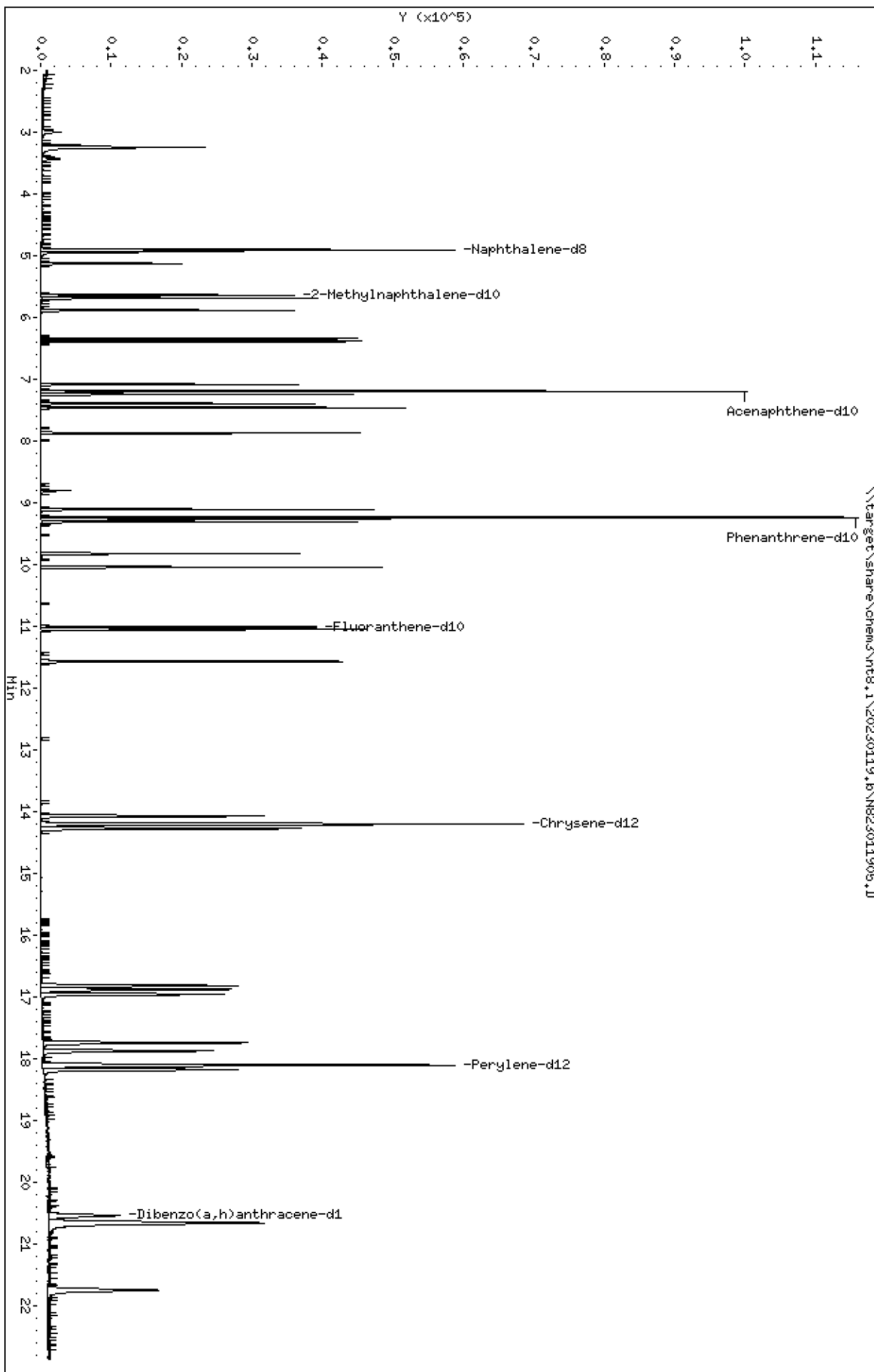
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatle Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011905.D
 Lab Smp Id: SLA0213-CAL3
 Inj Date : 19-JAN-2023 12:25
 Operator : JZ Inst ID: nt8.i
 Smp Info : IC1230119,
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Meth Date : 19-Jan-2023 20:10 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 5 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT SIG		AMOUNTS				ON-COL
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	
* 1 Naphthalene-d8	136	4.906	4.906	(1.000)	47180	2.00000	
2 Naphthalene	128	4.938	4.938	(1.006)	21563	1.00000	0.9830
§ 3 2-Methylnaphthalene-d10	152	5.640	5.640	(1.150)	12609	1.00000	0.9799
4 2-Methylnaphthalene	141	5.687	5.687	(1.159)	11715	1.00000	0.9709
5 1-methylnaphthalene	141	5.887	5.887	(1.200)	11968	1.00000	0.9773
7 Biphenyl	154	6.345	6.348	(0.882)	17796	1.00000	0.9564
8 2,6-Dimethylnaphthalene	156	6.389	6.392	(0.888)	12741	1.00000	0.9674
9 Acenaphthylene	152	7.085	7.088	(0.985)	20021	1.00000	0.9400
* 10 Acenaphthene-d10	164	7.196	7.196	(1.000)	28206	2.00000	
11 Acenaphthene	153	7.246	7.246	(1.007)	13666	1.00000	0.9576
12 Dibenzofuran	168	7.395	7.398	(1.028)	20714	1.00000	0.9556
13 1,6,7-Trimethylnaphthalene	170	7.461	7.464	(1.037)	12912	1.00000	0.9446
14 Fluorene	166	7.875	7.875	(1.094)	16006	1.00000	0.9508
18 Dibenzothiophene	184	9.109	9.112	(0.986)	22320	1.00000	0.9489
* 15 Phenanthrene-d10	188	9.235	9.235	(1.000)	53233	2.00000	
16 Phenanthrene	178	9.270	9.273	(1.004)	24646	1.00000	0.9478
17 Anthracene	178	9.311	9.314	(1.008)	22258	1.00000	0.9423
19 Carbazole	167	9.823	9.826	(1.064)	20007	1.00000	0.9239
20 1-Methylphenanthrene	192	10.048	10.051	(1.088)	17326	1.00000	0.9246
22 Fluoranthene	202	11.050	11.056	(1.197)	27227	1.00000	0.9619
§ 21 Fluoranthene-d10	212	11.015	11.018	(1.193)	21953	1.00000	0.9347
23 Pyrene	202	11.572	11.575	(0.815)	26878	1.00000	0.9325
24 Benzo(a)anthracene	228	14.076	14.079	(0.991)	23406	1.00000	0.8959
* 25 Chrysene-d12	240	14.203	14.206	(1.000)	46493	2.00000	
27 Chrysene	228	14.275	14.282	(1.005)	26230	1.00000	0.9431
28 Benzo(b)fluoranthene	252	16.824	16.833	(0.929)	22805	1.00000	0.8782
29 Benzo(k)fluoranthene	252	16.881	16.897	(0.932)	22425	1.00000	0.8816
30 Benzo(j)fluoranthene	252	16.960	16.972	(0.936)	20574	1.00000	0.8985
31 Total Benzofluoranthenes	252	16.824	16.833	(0.929)	64985	3.00000	2.642 (M)
34 Benzo(e)pyrene	252	17.750	17.760	(0.980)	23026	1.00000	0.8892
32 Benzo(a)pyrene	252	17.877	17.889	(0.987)	19956	1.00000	0.8733
* 33 Perylene-d12	264	18.111	18.114	(1.000)	44587	2.00000	
35 Perylene	252	18.184	18.193	(1.004)	22015	1.00000	0.8978

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.549	20.565	(1.135)	13546	1.00000	0.9466
37 Indeno(1,2,3-cd)pyrene	276		20.672	20.691	(1.141)	23911	1.00000	0.9185
38 Dibenzo(a,h)anthracene	278		20.656	20.685	(1.141)	19954	1.00000	0.8907
39 Benzo(g,h,i)perylene	276		21.747	21.782	(1.201)	20977	1.00000	0.8894

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011905.D Calibration Time: 12:52
 Lab Smp Id: SLA0213-CAL3
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	44704	22352	89408	47180	5.54
10 Acenaphthene-d10	26411	13206	52822	28206	6.80
15 Phenanthrene-d10	49210	24605	98420	53233	8.18
25 Chrysene-d12	42994	21497	85988	46493	8.14
33 Perylene-d12	40520	20260	81040	44587	10.04

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.00
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.00
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.00
25 Chrysene-d12	14.20	13.70	14.70	14.20	0.00
33 Perylene-d12	18.11	17.61	18.61	18.11	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011905.D

Lab ID: SLA0213-CAL3

nt8.i, 20230119.b\FSIMPNA230119.m, 19-JAN-2023 12:25

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check performed

On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

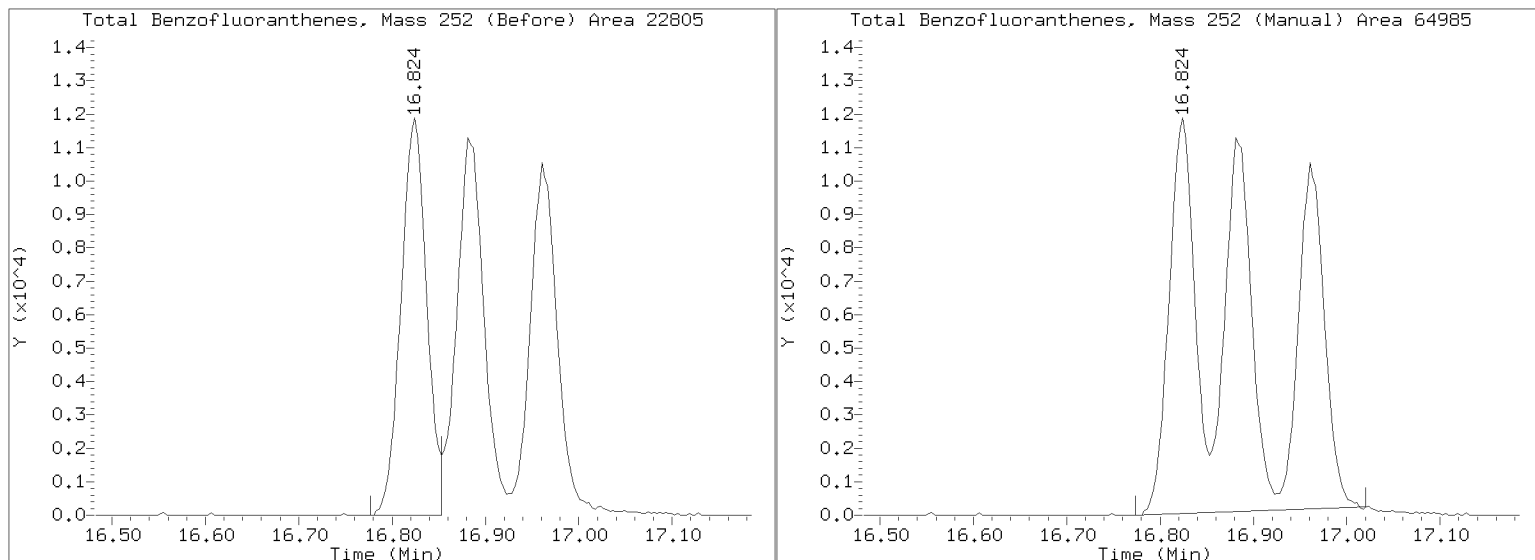
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011905.D

Injection Date: 19-JAN-2023 12:25

Lab ID:SLA0213-CAL3 Client ID:

Report Date: 01/19/2023 20:12



Data File: \\target\share\chem3\nt8.1\20230119.B\N823011906.D

Date: 19-JAN-2023 12:52

Client ID:

Sample Info: IC25230119,

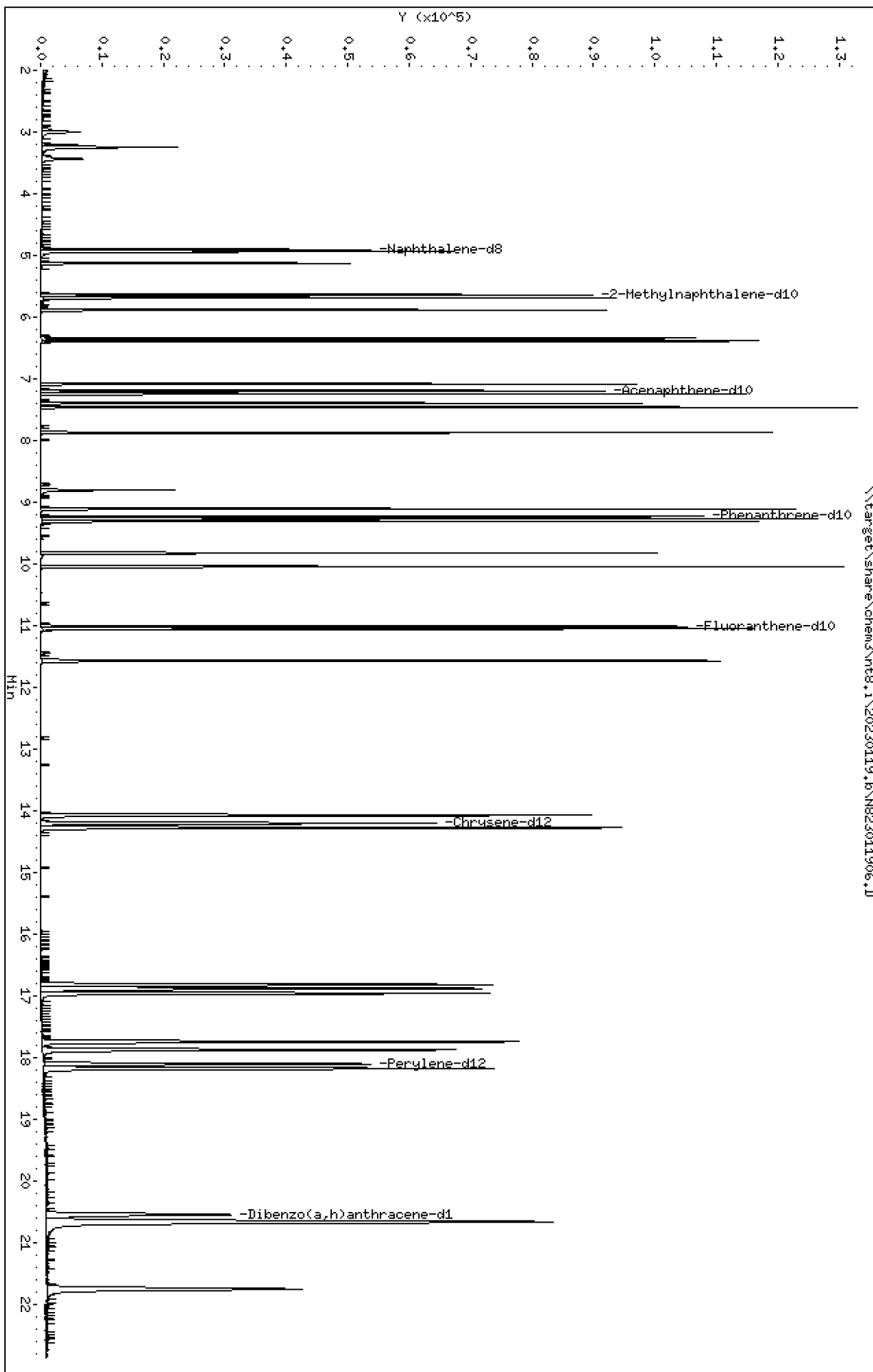
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatle Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011906.D
 Lab Smp Id: SLA0213-CAL4
 Inj Date : 19-JAN-2023 12:52
 Operator : JZ Inst ID: nt8.i
 Smp Info : IC25230119,
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Meth Date : 19-Jan-2023 20:10 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 6 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
* 1 Naphthalene-d8	136		4.906	4.906	(1.000)	44704	2.00000	
2 Naphthalene	128		4.938	4.938	(1.006)	52764	2.50000	2.538
§ 3 2-Methylnaphthalene-d10	152		5.640	5.640	(1.150)	31709	2.50000	2.601
4 2-Methylnaphthalene	141		5.687	5.687	(1.159)	29737	2.50000	2.601
5 1-methylnaphthalene	141		5.883	5.887	(1.199)	30098	2.50000	2.594
7 Biphenyl	154		6.345	6.348	(0.882)	44716	2.50000	2.566
8 2,6-Dimethylnaphthalene	156		6.389	6.392	(0.888)	32396	2.50000	2.627
9 Acenaphthylene	152		7.085	7.088	(0.985)	53242	2.50000	2.670
* 10 Acenaphthene-d10	164		7.196	7.196	(1.000)	26411	2.00000	
11 Acenaphthene	153		7.246	7.246	(1.007)	34335	2.50000	2.569
12 Dibenzofuran	168		7.395	7.398	(1.028)	50810	2.50000	2.503
13 1,6,7-Trimethylnaphthalene	170		7.461	7.464	(1.037)	33264	2.50000	2.599
14 Fluorene	166		7.872	7.875	(1.094)	40499	2.50000	2.569
18 Dibenzothiophene	184		9.109	9.112	(0.986)	56399	2.50000	2.594
* 15 Phenanthrene-d10	188		9.235	9.235	(1.000)	49210	2.00000	
16 Phenanthrene	178		9.270	9.273	(1.004)	61033	2.50000	2.539
17 Anthracene	178		9.311	9.314	(1.008)	57918	2.50000	2.652
19 Carbazole	167		9.823	9.826	(1.064)	52870	2.50000	2.641
20 1-Methylphenanthrene	192		10.048	10.051	(1.088)	45452	2.50000	2.624
22 Fluoranthene	202		11.053	11.056	(1.197)	68546	2.50000	2.620
§ 21 Fluoranthene-d10	212		11.015	11.018	(1.193)	58746	2.50000	2.706
23 Pyrene	202		11.572	11.575	(0.815)	69587	2.50000	2.611
24 Benzo(a)anthracene	228		14.076	14.079	(0.991)	63802	2.50000	2.641
* 25 Chrysene-d12	240		14.202	14.206	(1.000)	42994	2.00000	
27 Chrysene	228		14.278	14.282	(1.005)	65955	2.50000	2.564
28 Benzo(b)fluoranthene	252		16.821	16.833	(0.929)	61818	2.50000	2.620
29 Benzo(k)fluoranthene	252		16.884	16.897	(0.932)	59716	2.50000	2.583
30 Benzo(j)fluoranthene	252		16.963	16.972	(0.937)	54944	2.50000	2.640
31 Total Benzofluoranthenes	252		16.821	16.833	(0.929)	176122	7.50000	7.880 (M)
34 Benzo(e)pyrene	252		17.747	17.760	(0.980)	60179	2.50000	2.557
32 Benzo(a)pyrene	252		17.877	17.889	(0.987)	54569	2.50000	2.628
* 33 Perylene-d12	264		18.111	18.114	(1.000)	40520	2.00000	
35 Perylene	252		18.183	18.193	(1.004)	57968	2.50000	2.601

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.552	20.565	(1.135)	37101	2.50000	2.853
37 Indeno(1,2,3-cd)pyrene	276		20.675	20.691	(1.142)	63691	2.50000	2.692
38 Dibenzo(a,h)anthracene	278		20.662	20.685	(1.141)	54772	2.50000	2.690
39 Benzo(g,h,i)perylene	276		21.756	21.782	(1.201)	56053	2.50000	2.615

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011906.D Calibration Time: 12:52
 Lab Smp Id: SLA0213-CAL4
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	44704	22352	89408	44704	0.00
10 Acenaphthene-d10	26411	13206	52822	26411	0.00
15 Phenanthrene-d10	49210	24605	98420	49210	0.00
25 Chrysene-d12	42994	21497	85988	42994	0.00
33 Perylene-d12	40520	20260	81040	40520	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.00
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.00
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.00
25 Chrysene-d12	14.20	13.70	14.70	14.20	0.00
33 Perylene-d12	18.11	17.61	18.61	18.11	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011906.D

Lab ID: SLA0213-CAL4

nt8.i, 20230119.b\FSIMPNA230119.m, 19-JAN-2023 12:52

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check performed

On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

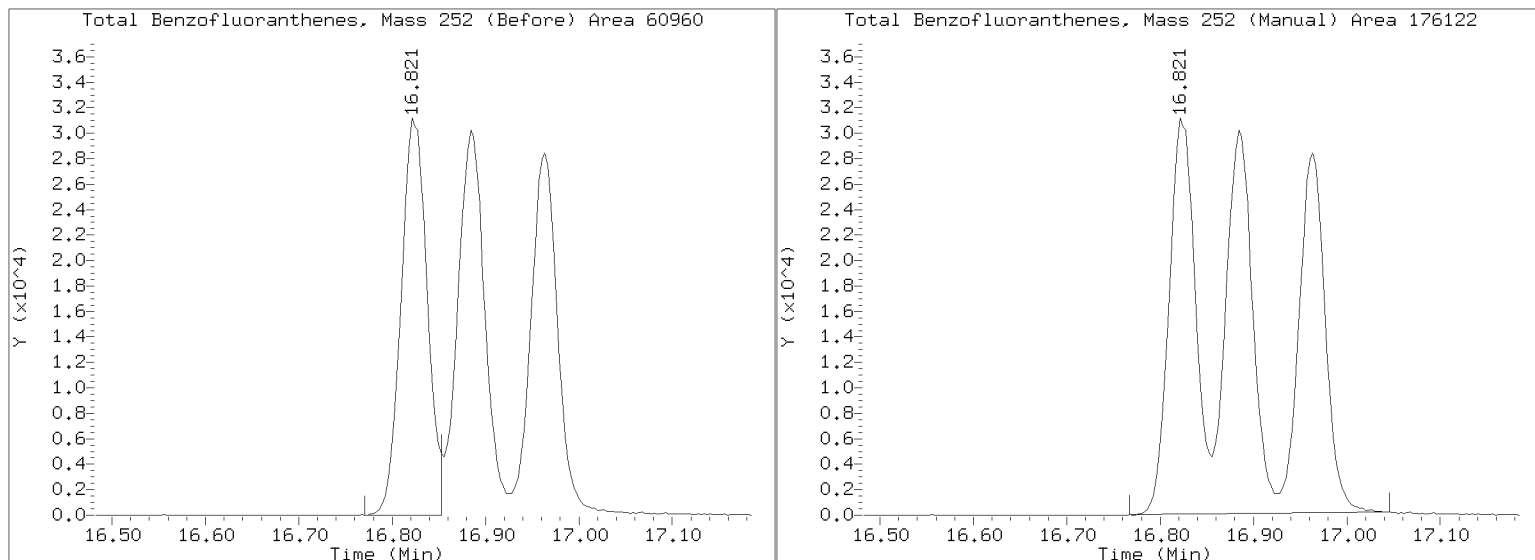
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011906.D

Injection Date: 19-JAN-2023 12:52

Lab ID:SLA0213-CAL4 Client ID:

Report Date: 01/19/2023 20:12



Data File: \\target\share\chem3\nt8.1\20230119.B\MS23011907.D

Date: 19-JAN-2023 13:19

Client ID:

Sample Info: IC6230119,

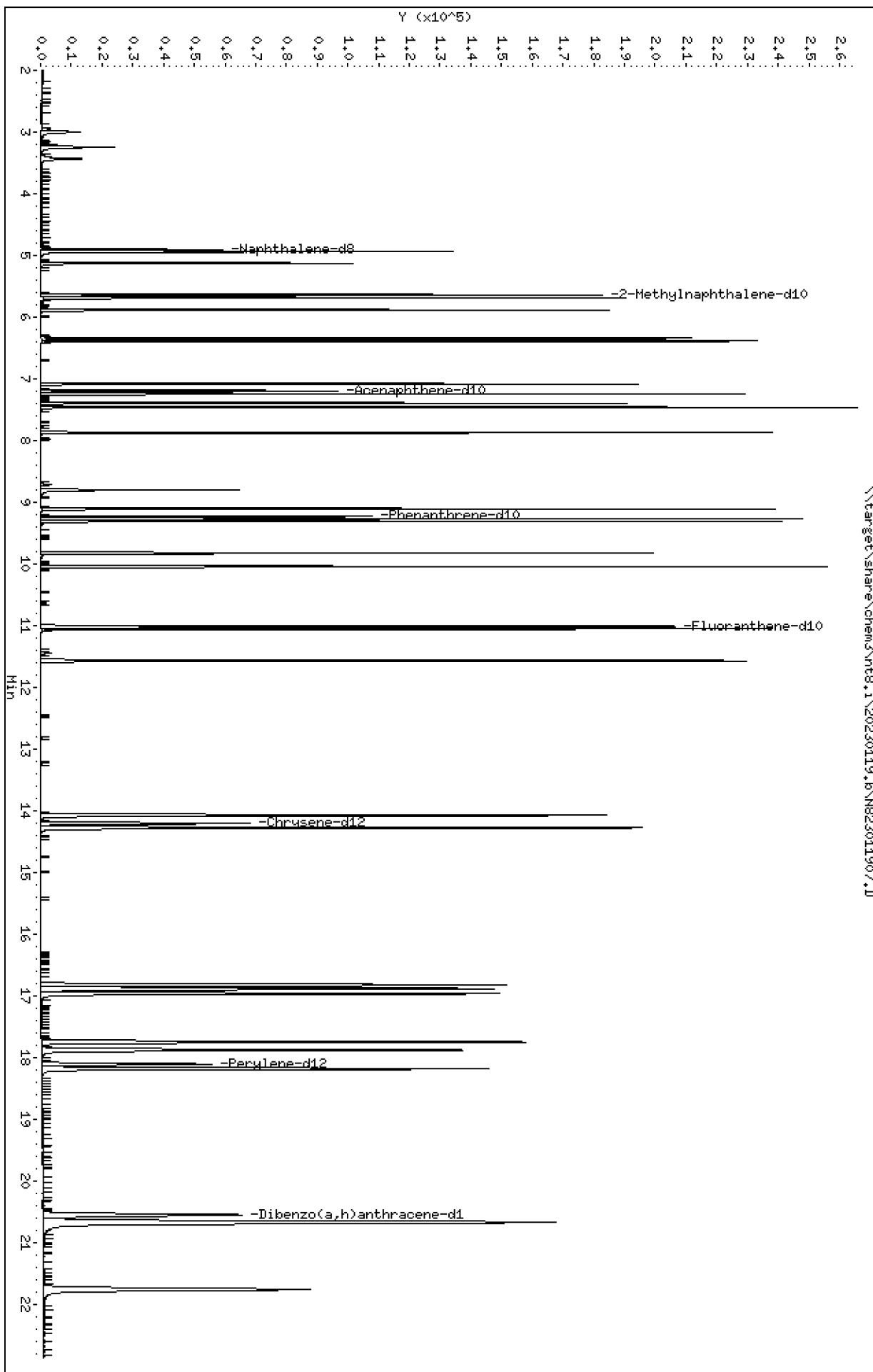
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatle Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011907.D
 Lab Smp Id: SLA0213-CAL5
 Inj Date : 19-JAN-2023 13:19
 Operator : JZ Inst ID: nt8.i
 Smp Info : IC5230119,
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Meth Date : 19-Jan-2023 20:10 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 7 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT SIG		AMOUNTS				ON-COL
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	
* 1 Naphthalene-d8	136	4.909	4.906	(1.000)	46542	2.00000	
2 Naphthalene	128	4.938	4.938	(1.006)	105414	5.00000	4.871
§ 3 2-Methylnaphthalene-d10	152	5.640	5.640	(1.149)	64045	5.00000	5.046
4 2-Methylnaphthalene	141	5.687	5.687	(1.158)	59129	5.00000	4.967
5 1-methylnaphthalene	141	5.887	5.887	(1.199)	59615	5.00000	4.935
7 Biphenyl	154	6.345	6.348	(0.882)	88014	5.00000	4.827
8 2,6-Dimethylnaphthalene	156	6.389	6.392	(0.888)	64484	5.00000	4.997
9 Acenaphthylene	152	7.085	7.088	(0.985)	108746	5.00000	5.211
* 10 Acenaphthene-d10	164	7.196	7.196	(1.000)	27638	2.00000	
11 Acenaphthene	153	7.246	7.246	(1.007)	67894	5.00000	4.855
12 Dibenzofuran	168	7.395	7.398	(1.028)	100768	5.00000	4.744
13 1,6,7-Trimethylnaphthalene	170	7.461	7.464	(1.037)	65911	5.00000	4.921
14 Fluorene	166	7.875	7.875	(1.094)	82420	5.00000	4.996
18 Dibenzothiophene	184	9.109	9.112	(0.987)	112243	5.00000	4.946
* 15 Phenanthrene-d10	188	9.232	9.235	(1.000)	51351	2.00000	
16 Phenanthrene	178	9.270	9.273	(1.004)	119248	5.00000	4.754
17 Anthracene	178	9.311	9.314	(1.009)	114927	5.00000	5.044
19 Carbazole	167	9.823	9.826	(1.064)	106758	5.00000	5.111
20 1-Methylphenanthrene	192	10.048	10.051	(1.088)	90954	5.00000	5.032
22 Fluoranthene	202	11.053	11.056	(1.197)	135256	5.00000	4.954
§ 21 Fluoranthene-d10	212	11.015	11.018	(1.193)	119286	5.00000	5.265
23 Pyrene	202	11.572	11.575	(0.815)	140705	5.00000	5.068
24 Benzo(a)anthracene	228	14.076	14.079	(0.991)	132618	5.00000	5.270
* 25 Chrysene-d12	240	14.203	14.206	(1.000)	44781	2.00000	
27 Chrysene	228	14.278	14.282	(1.005)	132750	5.00000	4.955
28 Benzo(b)fluoranthene	252	16.827	16.833	(0.929)	125757	5.00000	5.118
29 Benzo(k)fluoranthene	252	16.887	16.897	(0.932)	122821	5.00000	5.103
30 Benzo(j)fluoranthene	252	16.966	16.972	(0.937)	113399	5.00000	5.234
31 Total Benzofluoranthenes	252	16.827	16.833	(0.929)	361443	15.0000	15.53 (M)
34 Benzo(e)pyrene	252	17.750	17.760	(0.980)	121964	5.00000	4.978
32 Benzo(a)pyrene	252	17.883	17.889	(0.987)	112121	5.00000	5.186
* 33 Perylene-d12	264	18.111	18.114	(1.000)	42187	2.00000	
35 Perylene	252	18.187	18.193	(1.004)	116268	5.00000	5.011

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.555	20.565	(1.135)	78264	5.00000	5.780
37 Indeno(1,2,3-cd)pyrene	276		20.681	20.691	(1.142)	129575	5.00000	5.260
38 Dibenzo(a,h)anthracene	278		20.669	20.685	(1.141)	112698	5.00000	5.317
39 Benzo(g,h,i)perylene	276		21.763	21.782	(1.202)	114826	5.00000	5.145

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011907.D Calibration Time: 12:52
 Lab Smp Id: SLA0213-CAL5
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	44704	22352	89408	46542	4.11
10 Acenaphthene-d10	26411	13206	52822	27638	4.65
15 Phenanthrene-d10	49210	24605	98420	51351	4.35
25 Chrysene-d12	42994	21497	85988	44781	4.16
33 Perylene-d12	40520	20260	81040	42187	4.11

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.06
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.00
15 Phenanthrene-d10	9.24	8.74	9.74	9.23	-0.03
25 Chrysene-d12	14.20	13.70	14.70	14.20	0.00
33 Perylene-d12	18.11	17.61	18.61	18.11	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011907.D

Lab ID: SLA0213-CAL5

nt8.i, 20230119.b\FSIMPNA230119.m, 19-JAN-2023 13:19

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check performed

On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

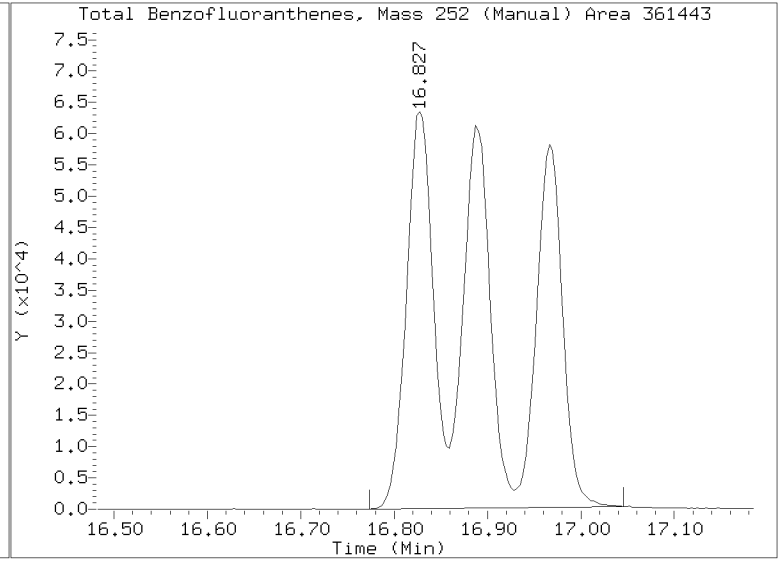
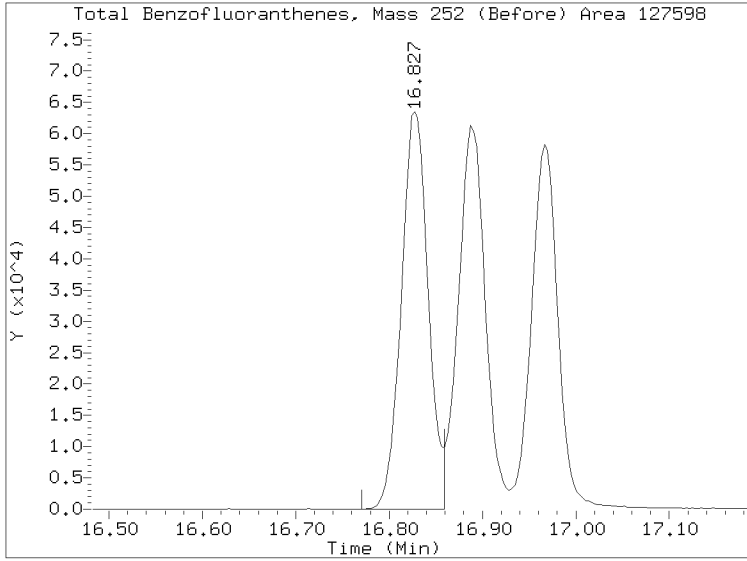
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011907.D

Injection Date: 19-JAN-2023 13:19

Lab ID:SLA0213-CAL5 Client ID:

Report Date: 01/19/2023 20:12



Data File: \\target\share\chem3\nt8.1\20230119.B\MS23011908.D

Date: 19-JAN-2023 13:46

Client ID:

Sample Info: IC10230119,

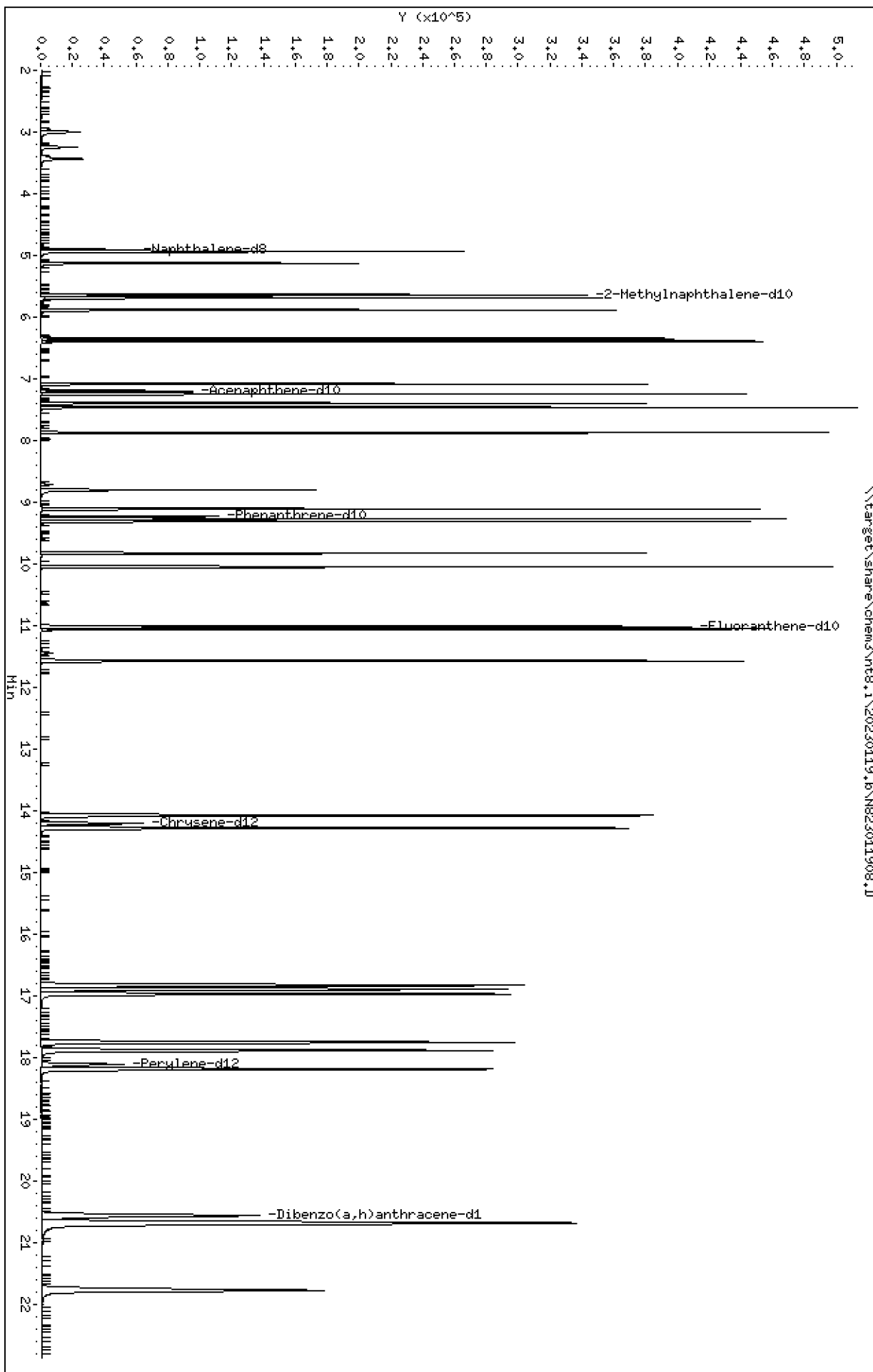
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatle Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011908.D
 Lab Smp Id: SLA0213-CAL6
 Inj Date : 19-JAN-2023 13:46
 Operator : JZ Inst ID: nt8.i
 Smp Info : IC10230119,
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Meth Date : 19-Jan-2023 20:10 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 8 Calibration Sample, Level: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
* 1 Naphthalene-d8	136		4.906	4.906	(1.000)	46070	2.00000	
2 Naphthalene	128		4.938	4.938	(1.006)	203510	10.0000	9.501
§ 3 2-Methylnaphthalene-d10	152		5.640	5.640	(1.149)	124701	10.0000	9.925
4 2-Methylnaphthalene	141		5.687	5.687	(1.159)	112895	10.0000	9.582
5 1-methylnaphthalene	141		5.887	5.887	(1.200)	115357	10.0000	9.647
7 Biphenyl	154		6.348	6.348	(0.882)	169086	10.0000	9.603
8 2,6-Dimethylnaphthalene	156		6.392	6.392	(0.888)	124019	10.0000	9.952
9 Acenaphthylene	152		7.088	7.088	(0.985)	213179	10.0000	10.58
* 10 Acenaphthene-d10	164		7.196	7.196	(1.000)	26689	2.00000	
11 Acenaphthene	153		7.246	7.246	(1.007)	130872	10.0000	9.692
12 Dibenzofuran	168		7.398	7.398	(1.028)	193532	10.0000	9.436
13 1,6,7-Trimethylnaphthalene	170		7.464	7.464	(1.037)	127563	10.0000	9.863
14 Fluorene	166		7.875	7.875	(1.094)	161125	10.0000	10.11
18 Dibenzothiophene	184		9.112	9.112	(0.987)	217256	10.0000	9.701
* 15 Phenanthrene-d10	188		9.235	9.235	(1.000)	50683	2.00000	
16 Phenanthrene	178		9.273	9.273	(1.004)	230002	10.0000	9.290
17 Anthracene	178		9.314	9.314	(1.009)	221162	10.0000	9.834
19 Carbazole	167		9.826	9.826	(1.064)	210036	10.0000	10.19
20 1-Methylphenanthrene	192		10.051	10.051	(1.088)	178561	10.0000	10.01
22 Fluoranthene	202		11.056	11.056	(1.197)	257643	10.0000	9.560
§ 21 Fluoranthene-d10	212		11.018	11.018	(1.193)	235698	10.0000	10.54
23 Pyrene	202		11.575	11.575	(0.815)	274116	10.0000	10.08
24 Benzo(a)anthracene	228		14.079	14.079	(0.991)	268196	10.0000	10.88
* 25 Chrysene-d12	240		14.206	14.206	(1.000)	43880	2.00000	
27 Chrysene	228		14.282	14.282	(1.005)	257418	10.0000	9.806
28 Benzo(b)fluoranthene	252		16.833	16.833	(0.929)	252022	10.0000	10.64
29 Benzo(k)fluoranthene	252		16.897	16.897	(0.933)	238915	10.0000	10.30
30 Benzo(j)fluoranthene	252		16.972	16.972	(0.937)	216807	10.0000	10.38
31 Total Benzofluoranthenes	252		16.833	16.833	(0.929)	704955	30.0000	31.43 (M)
34 Benzo(e)pyrene	252		17.760	17.760	(0.980)	240447	10.0000	10.18
32 Benzo(a)pyrene	252		17.889	17.889	(0.988)	222990	10.0000	10.70
* 33 Perylene-d12	264		18.114	18.114	(1.000)	40659	2.00000	
35 Perylene	252		18.193	18.193	(1.004)	226582	10.0000	10.13

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.564	20.565	(1.135)	162230	10.0000	12.43
37 Indeno(1,2,3-cd)pyrene	276		20.691	20.691	(1.142)	252895	10.0000	10.65
38 Dibenzo(a,h)anthracene	278		20.685	20.685	(1.142)	223771	10.0000	10.95
39 Benzo(g,h,i)perylene	276		21.782	21.782	(1.202)	231445	10.0000	10.76

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011908.D Calibration Time: 12:52
 Lab Smp Id: SLA0213-CAL6
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	44704	22352	89408	46070	3.06
10 Acenaphthene-d10	26411	13206	52822	26689	1.05
15 Phenanthrene-d10	49210	24605	98420	50683	2.99
25 Chrysene-d12	42994	21497	85988	43880	2.06
33 Perylene-d12	40520	20260	81040	40659	0.34

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.00
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.00
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.00
25 Chrysene-d12	14.20	13.70	14.70	14.21	0.02
33 Perylene-d12	18.11	17.61	18.61	18.11	0.02

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011908.D

Lab ID: SLA0213-CAL6

nt8.i, 20230119.b\FSIMPNA230119.m, 19-JAN-2023 13:46

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

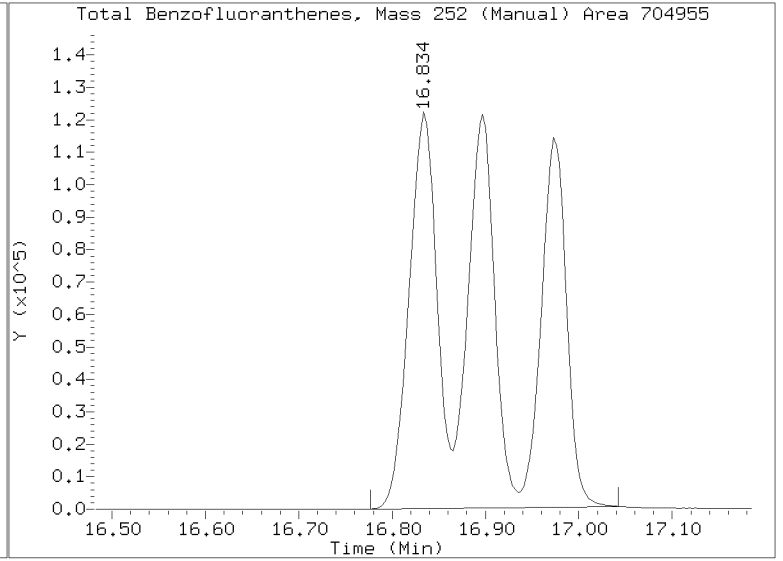
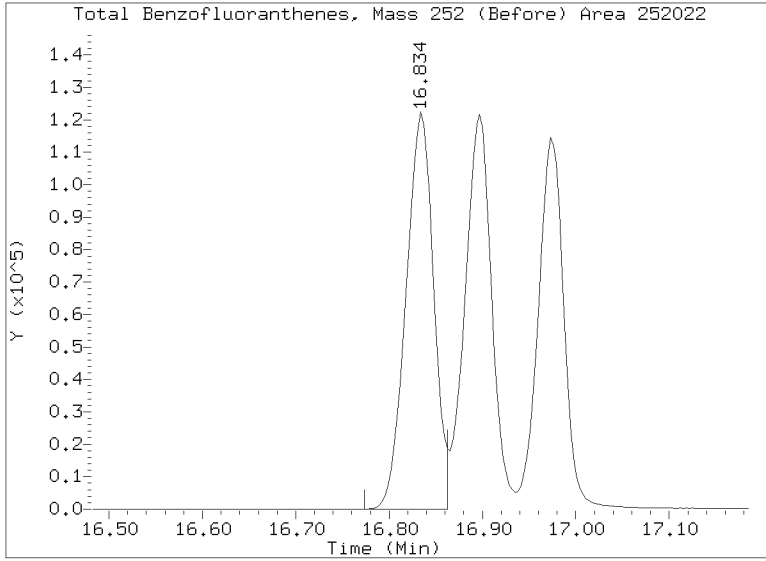
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On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

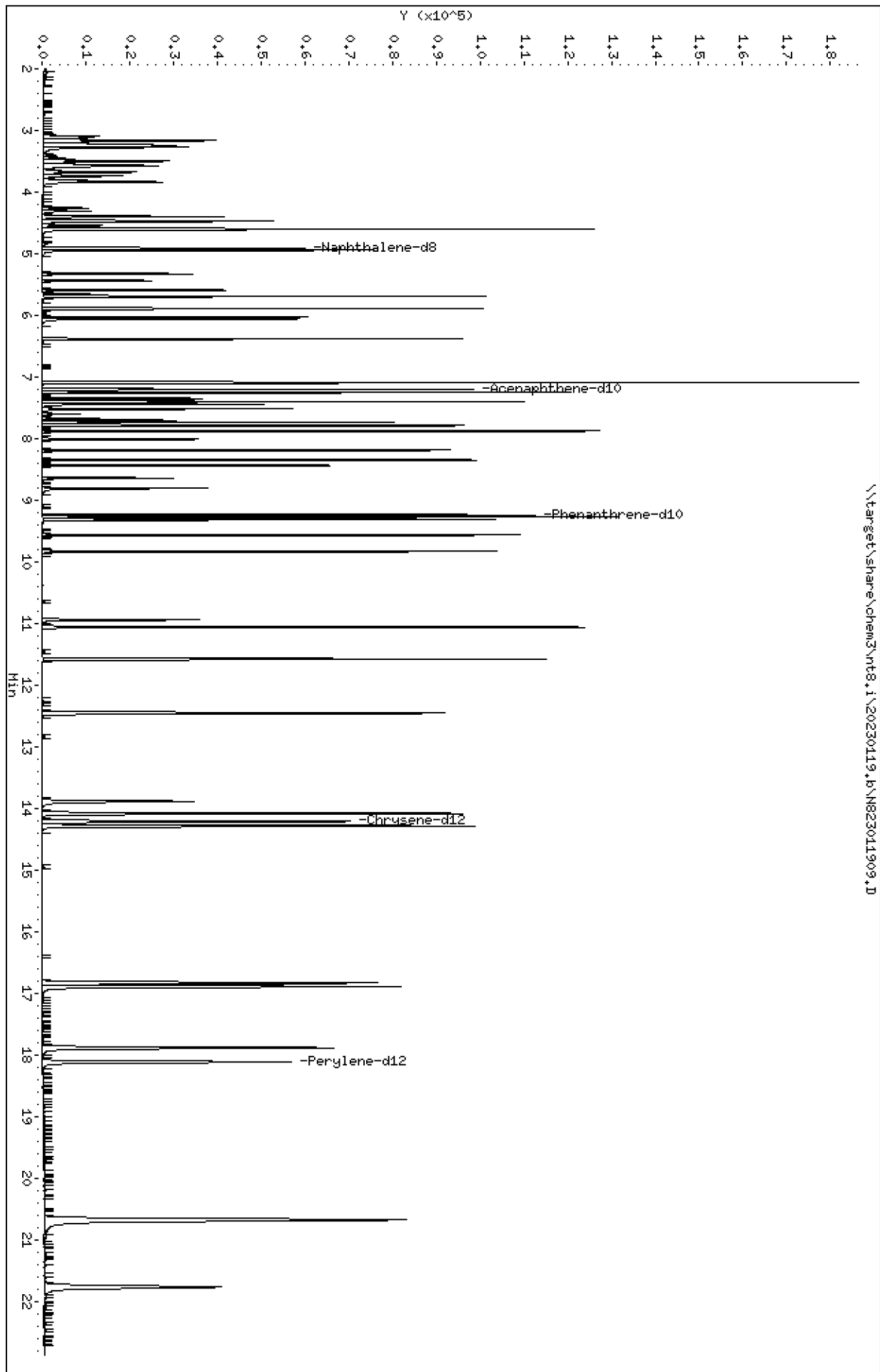
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Injection Date: 19-JAN-2023 13:46
Lab ID:SLA0213-CAL6 Client ID:
Report Date: 01/19/2023 20:12



Data File: \\target\share\chem3\nt8.1\20230119.6\N823011909.D
Date: 19-JAN-2023 14:58
Client ID:
Sample Info: SCV230119
Volume Injected (uL): 1.0
Column phase: Rxi-17sil

Instrument: nt8.1
Operator: JZ
Column diameter: 0.25

\\target\share\chem3\nt8.1\20230119.6\N823011909.D



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

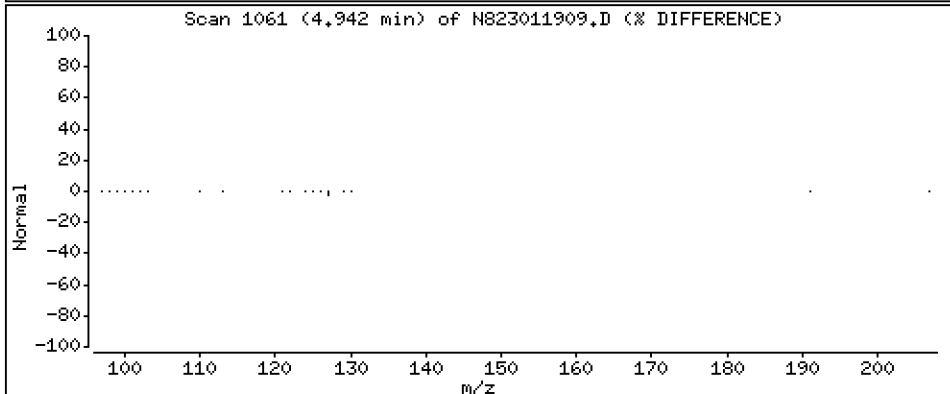
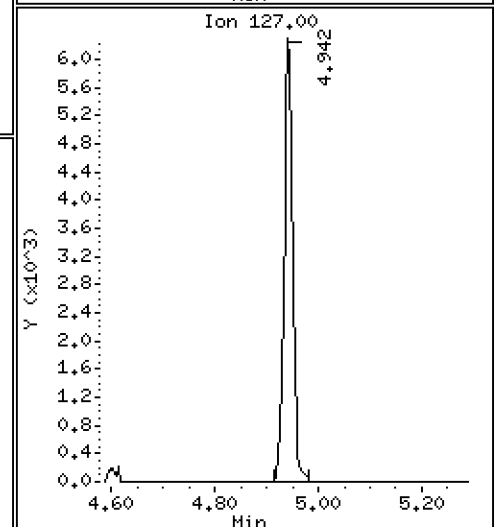
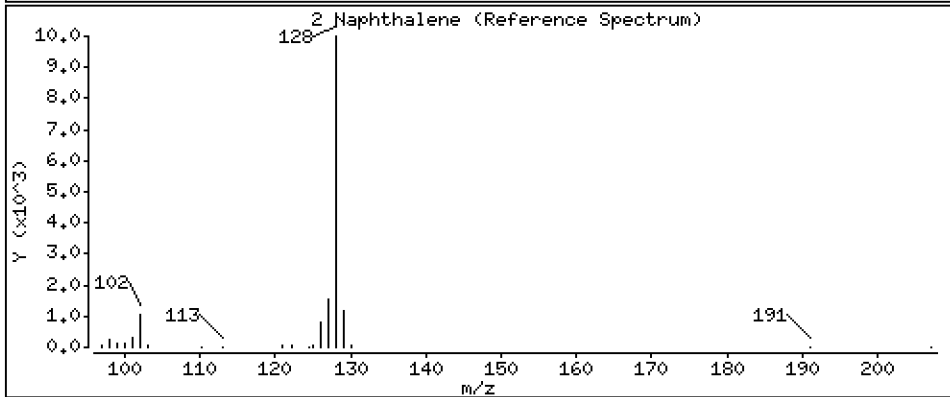
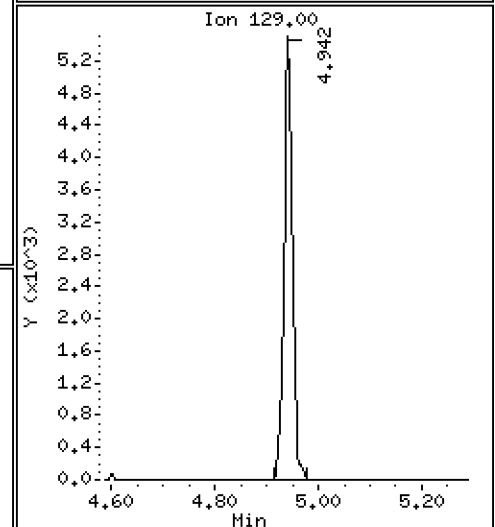
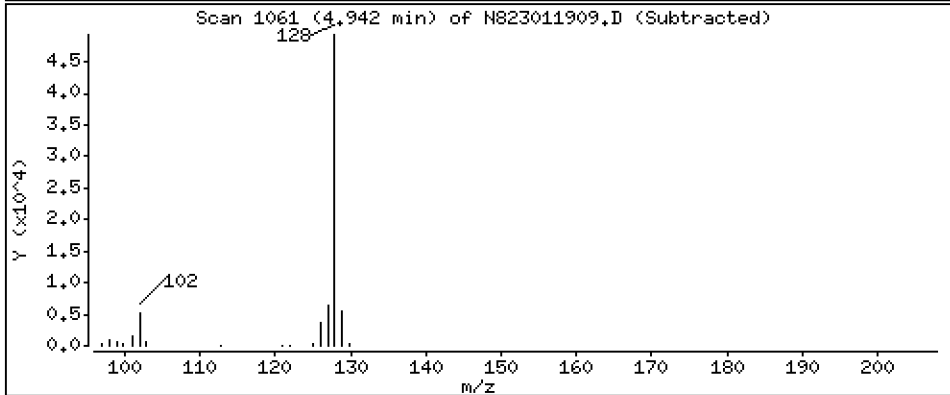
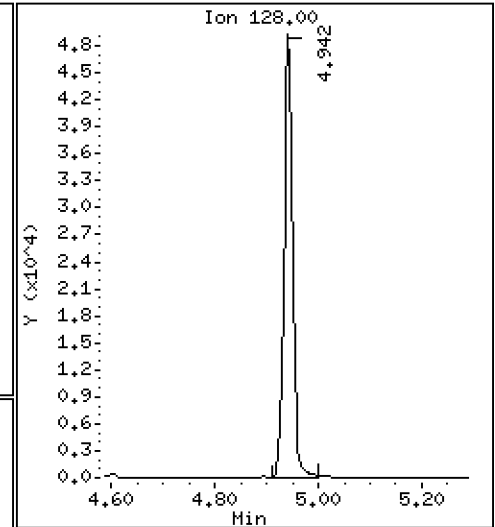
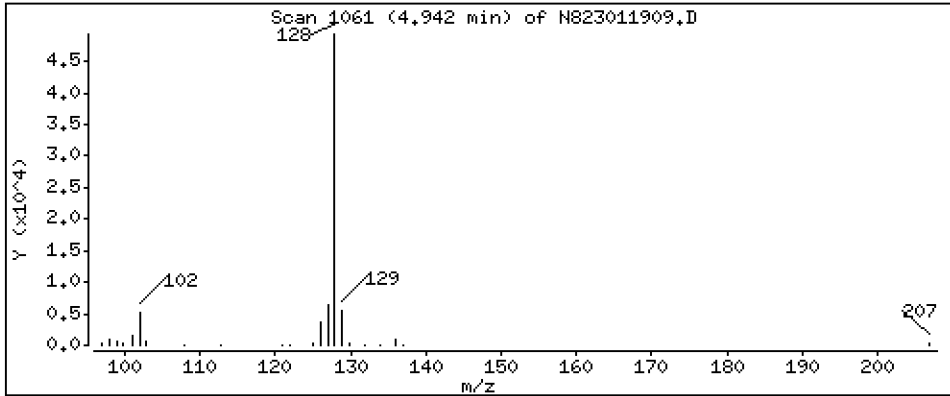
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

2 Naphthalene

Concentration: 2,626 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

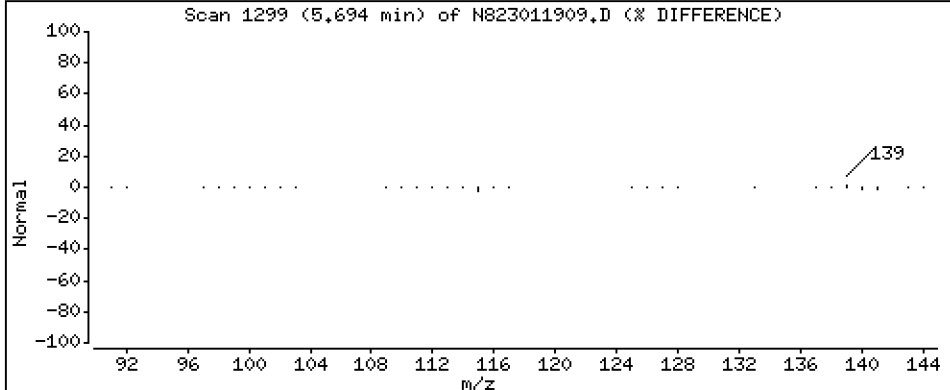
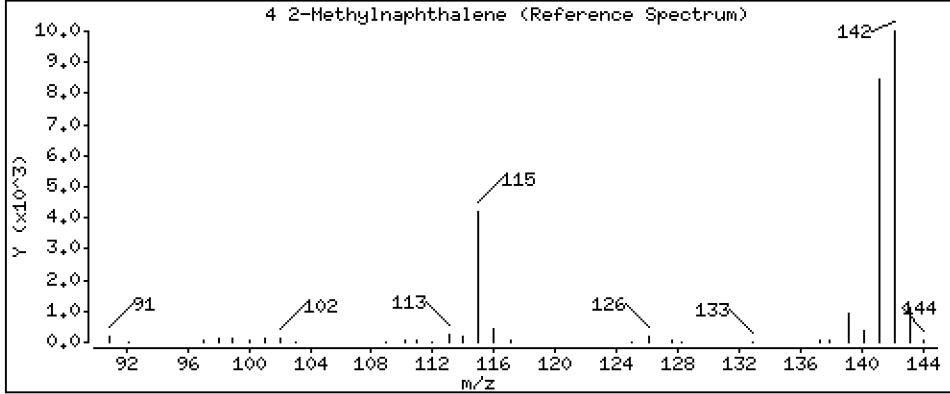
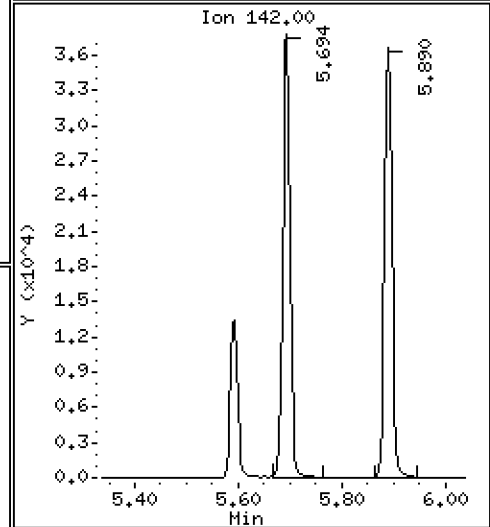
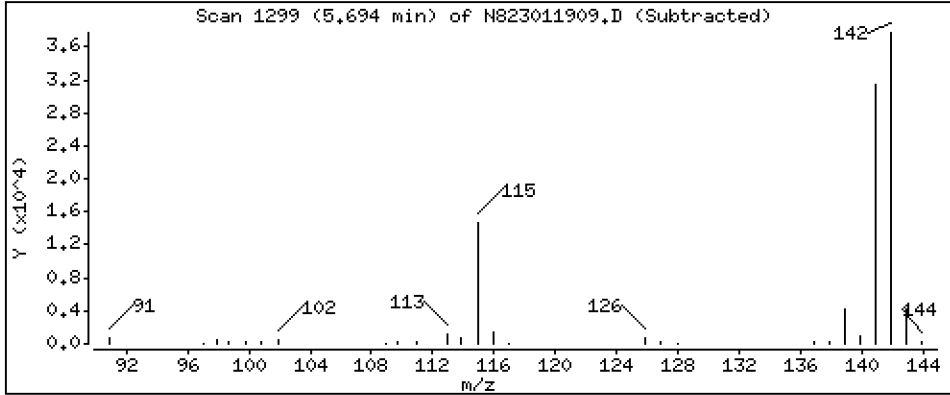
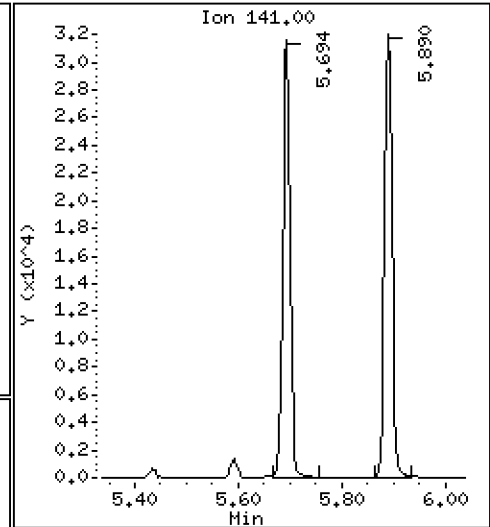
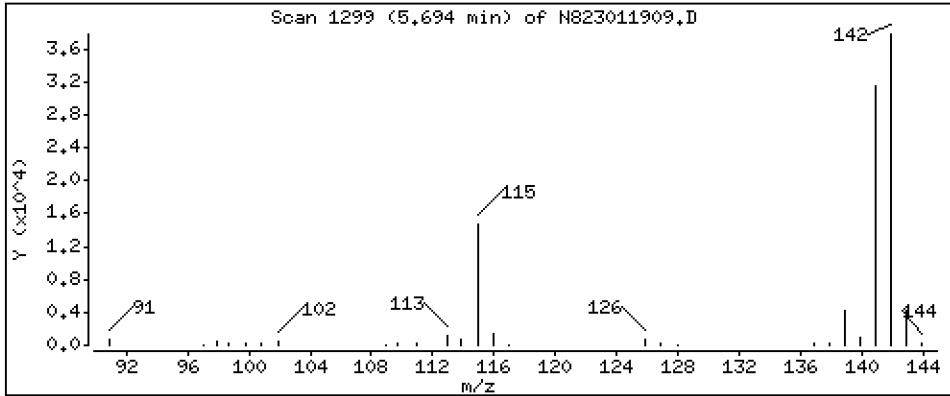
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

4 2-Methylnaphthalene

Concentration: 2,670 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

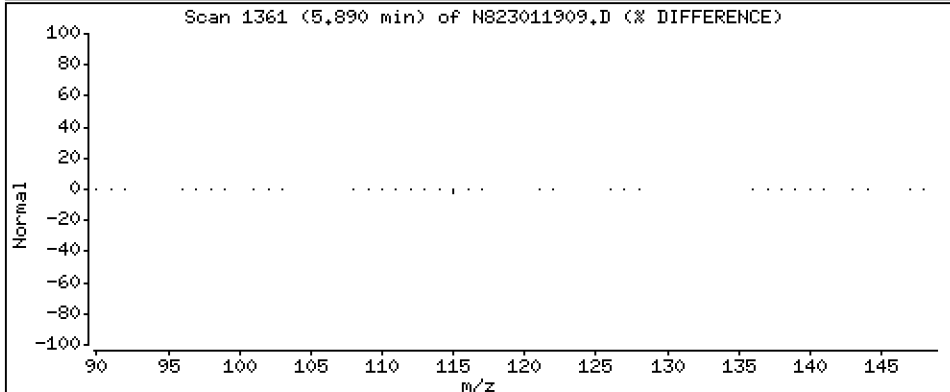
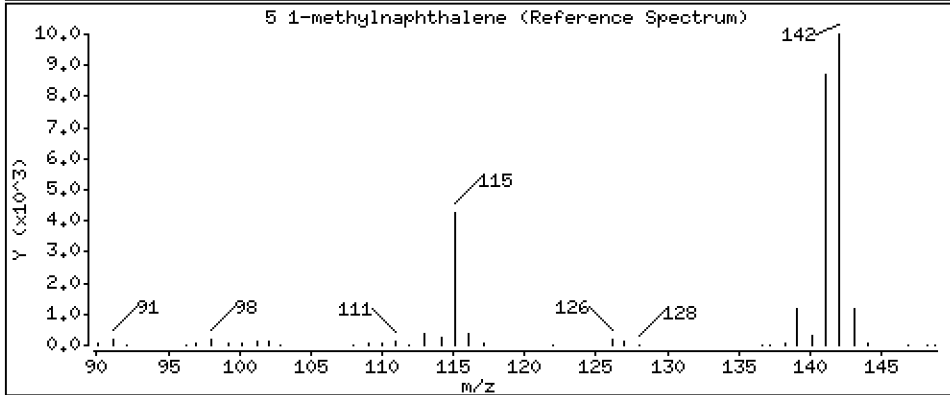
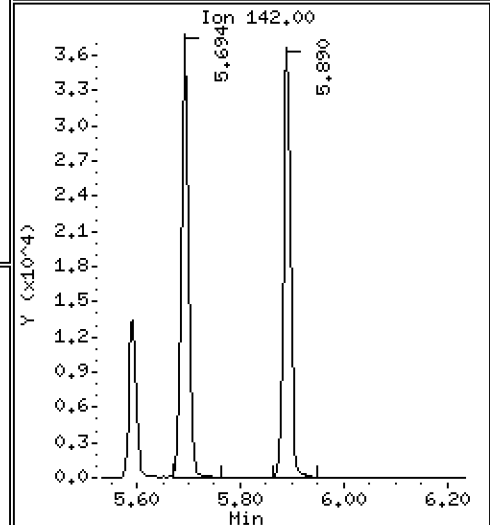
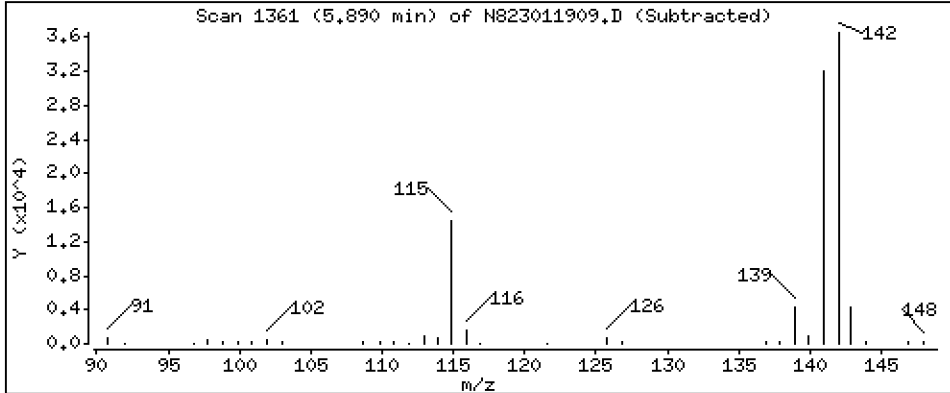
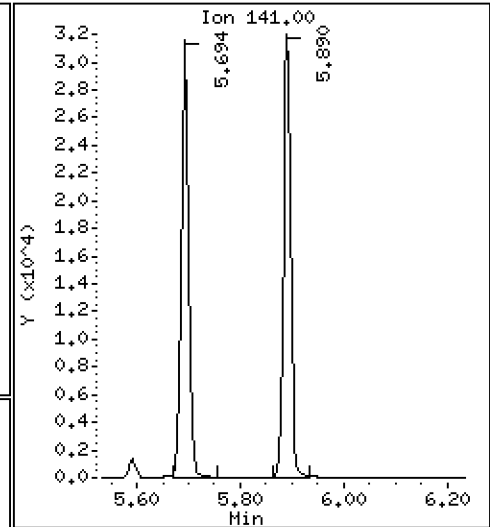
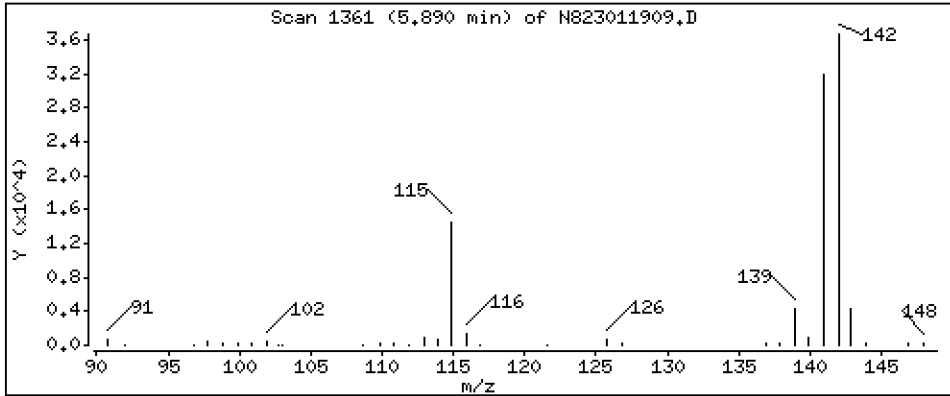
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

5 1-methylnaphthalene

Concentration: 2,649 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

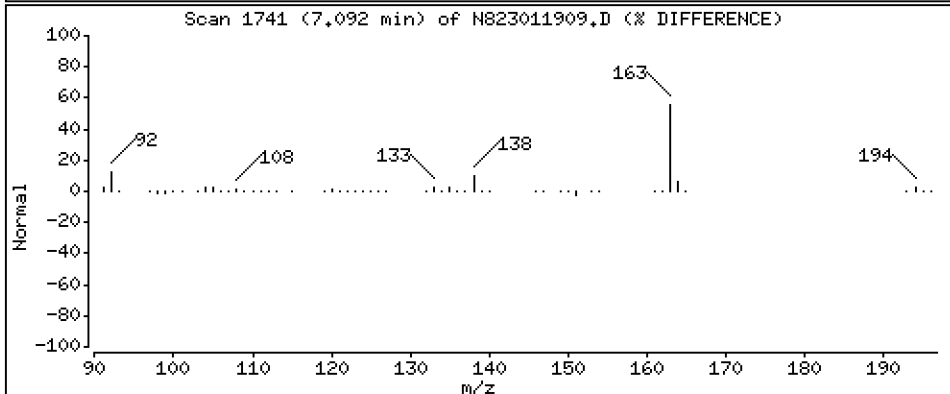
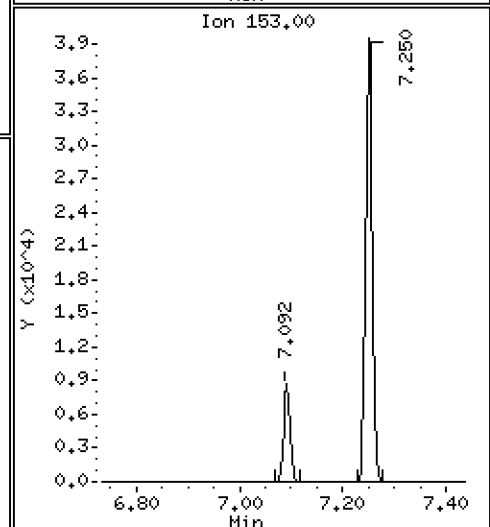
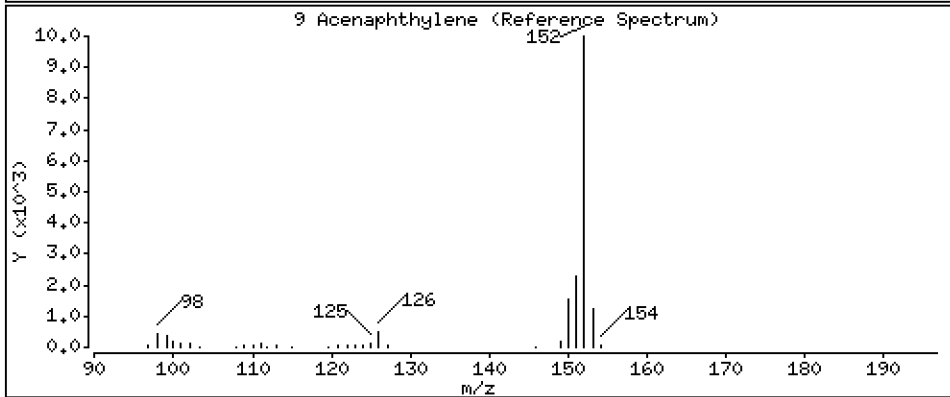
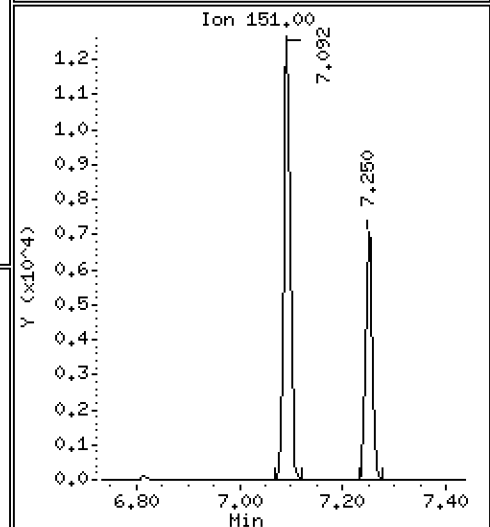
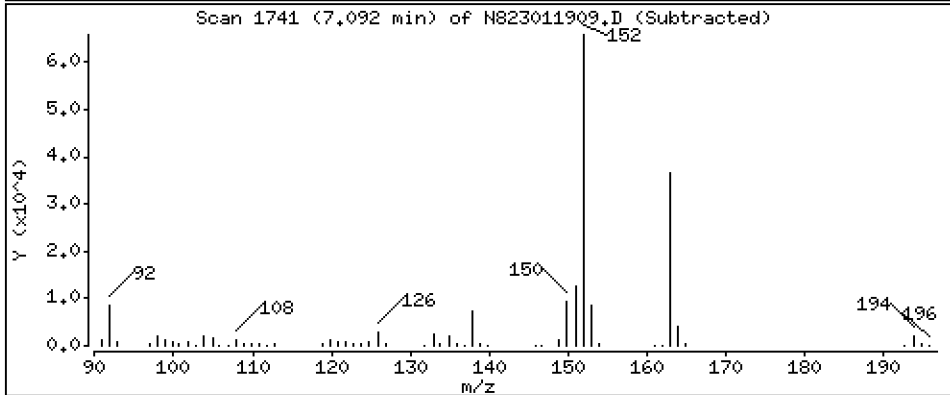
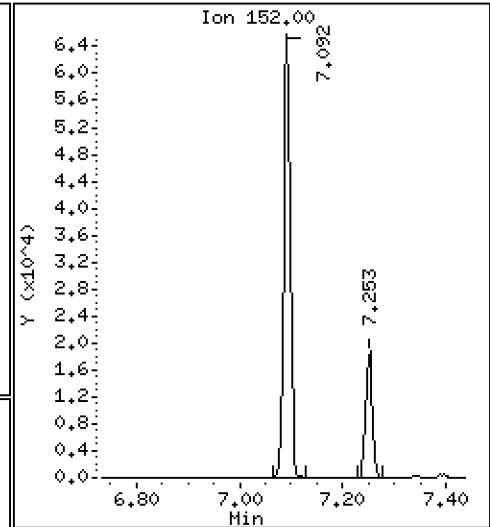
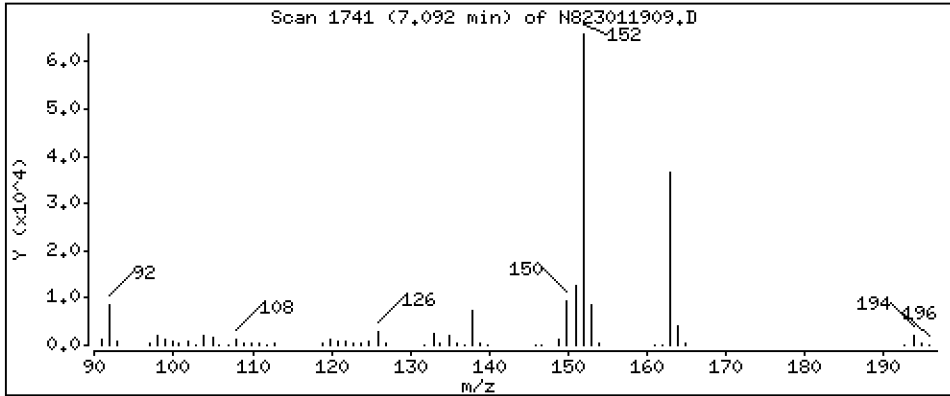
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

9 Acenaphthylene

Concentration: 2,821 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

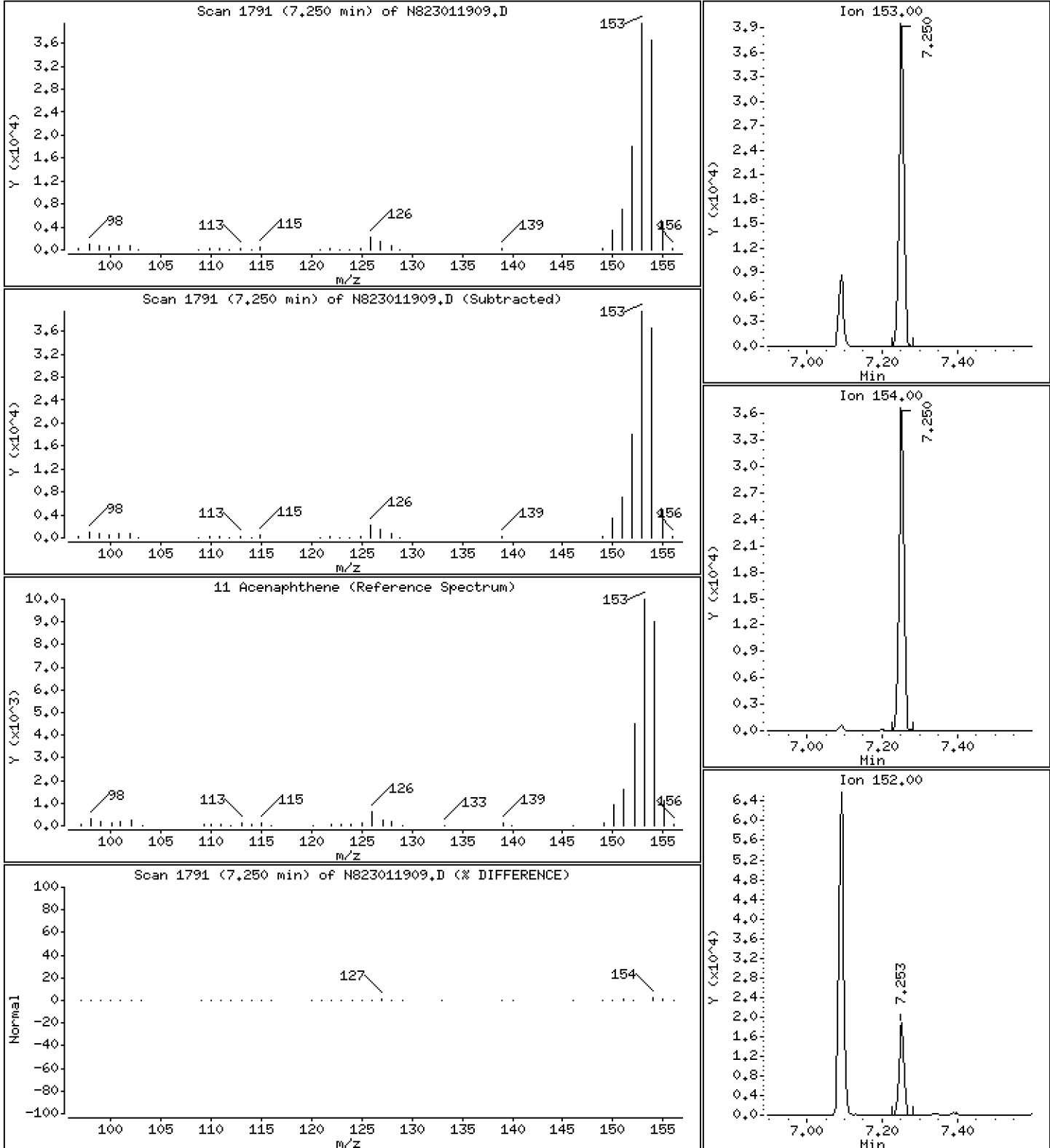
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

11 Acenaphthene

Concentration: 2,600 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

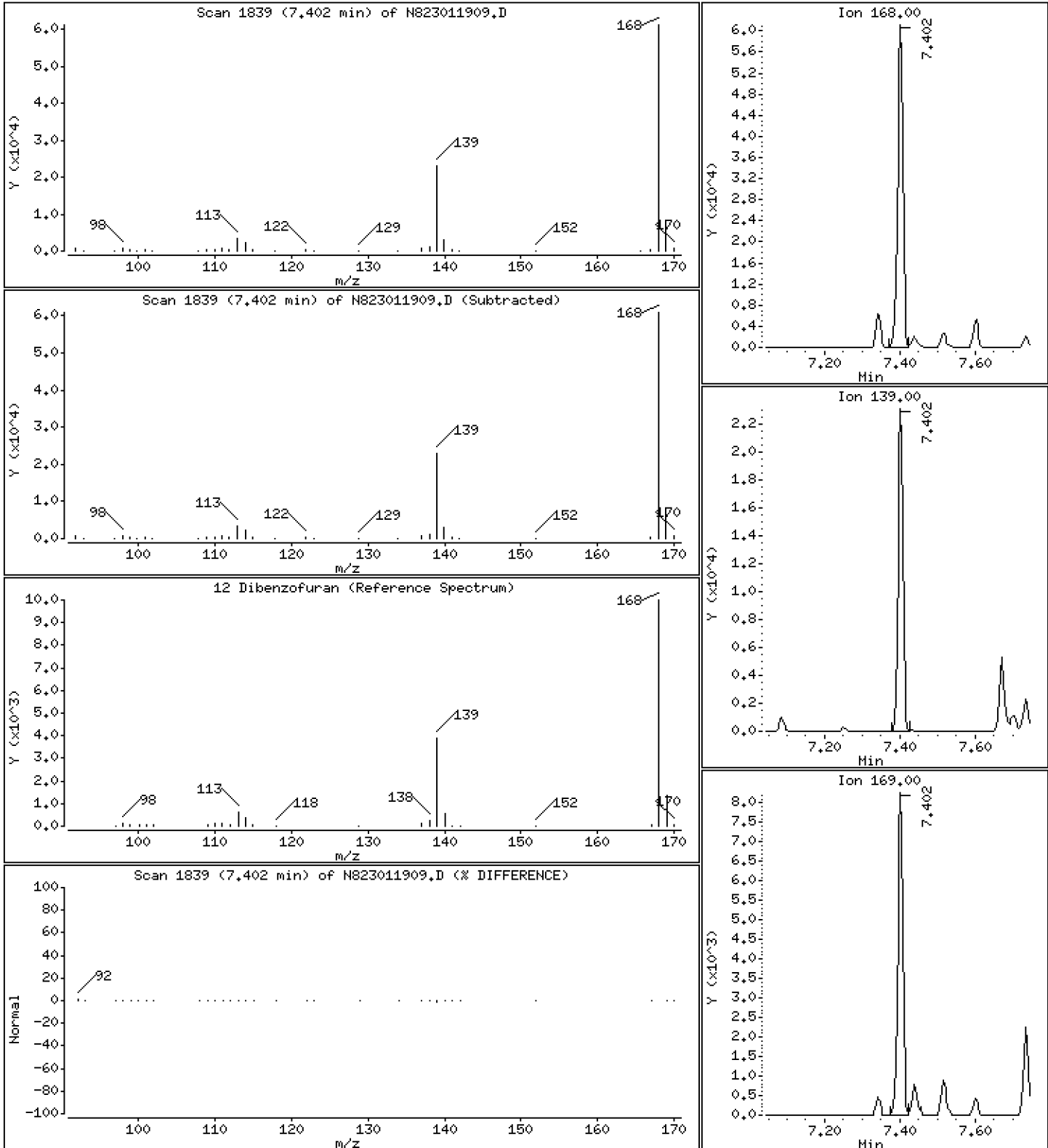
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

12 Dibenzofuran

Concentration: 2,860 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

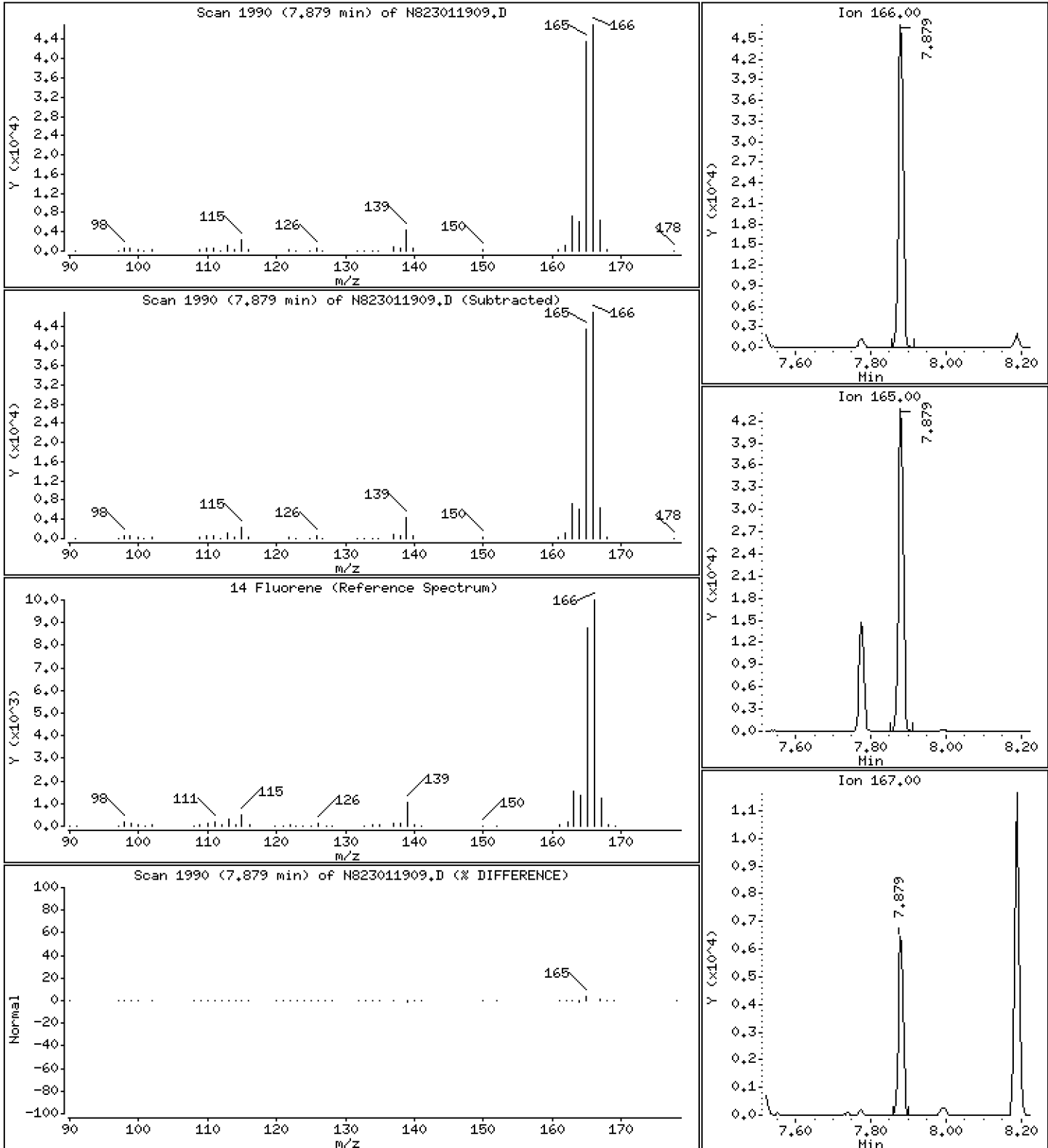
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

14 Fluorene

Concentration: 2,631 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

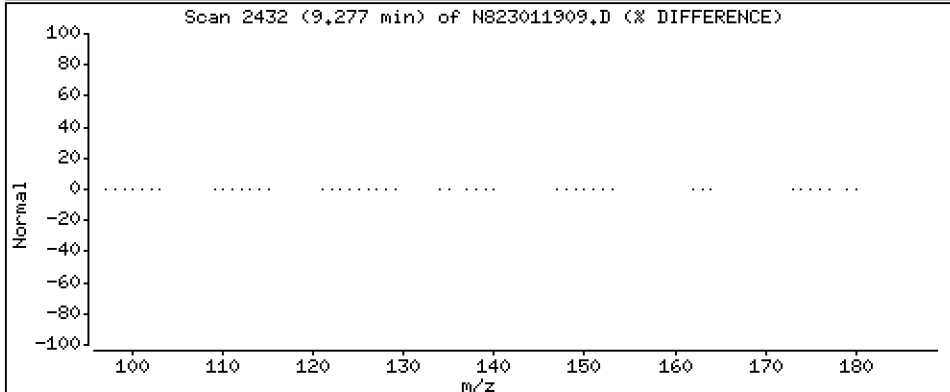
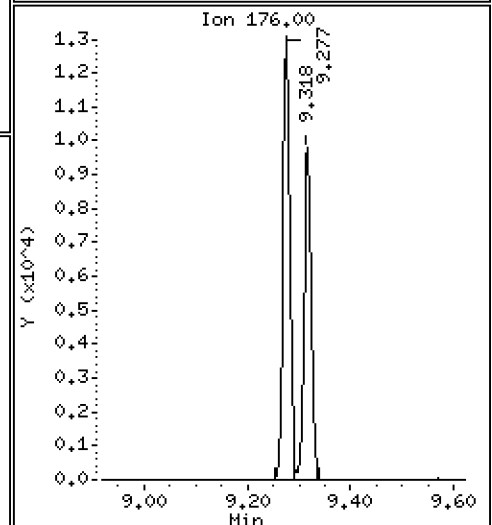
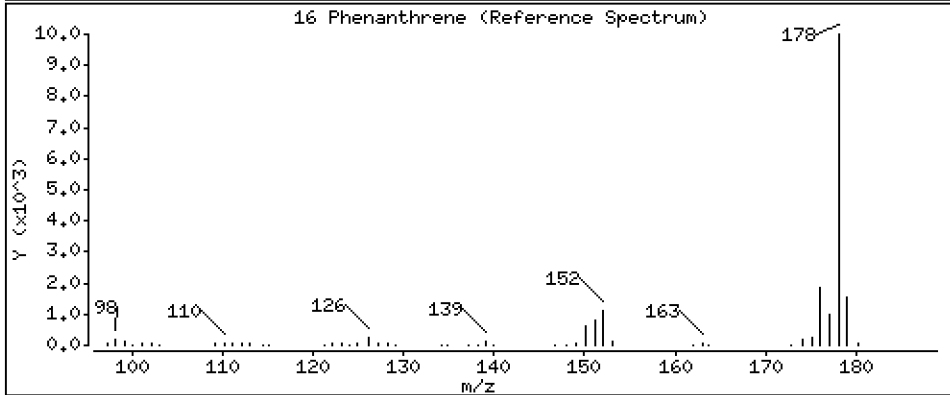
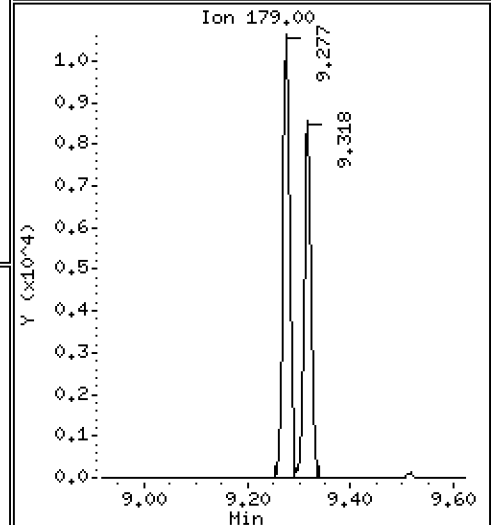
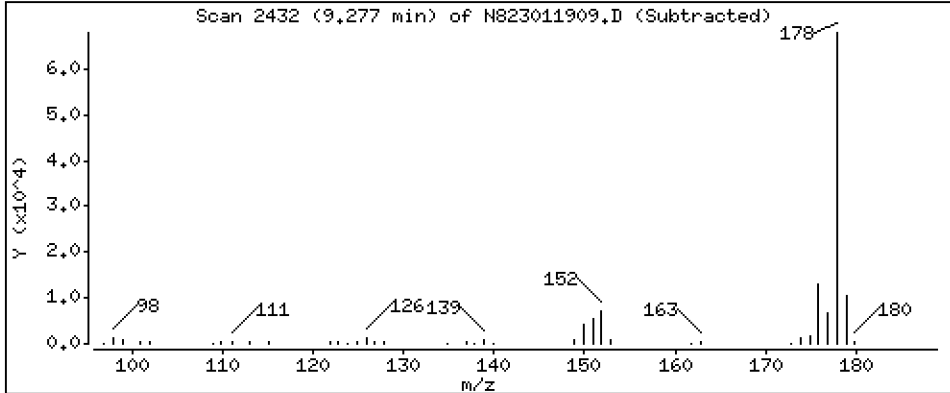
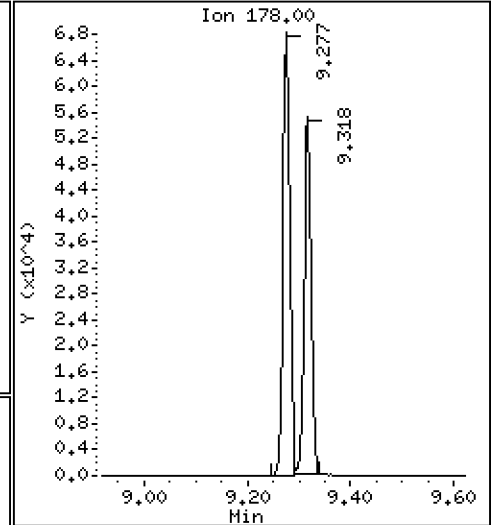
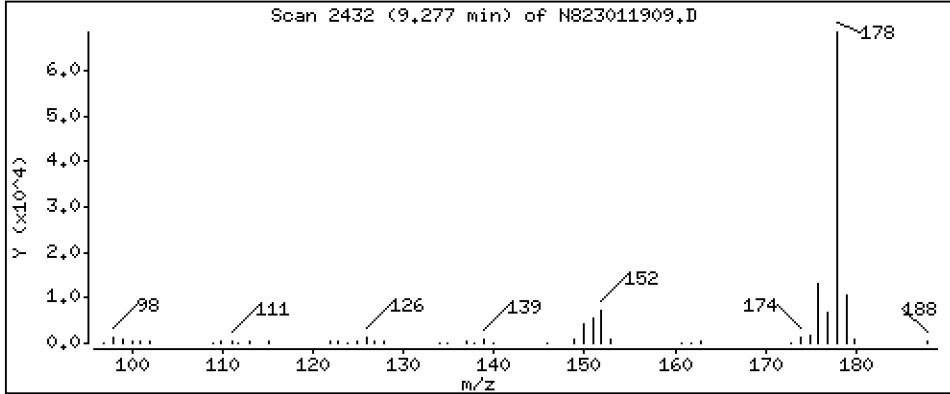
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

16 Phenanthrene

Concentration: 2,448 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

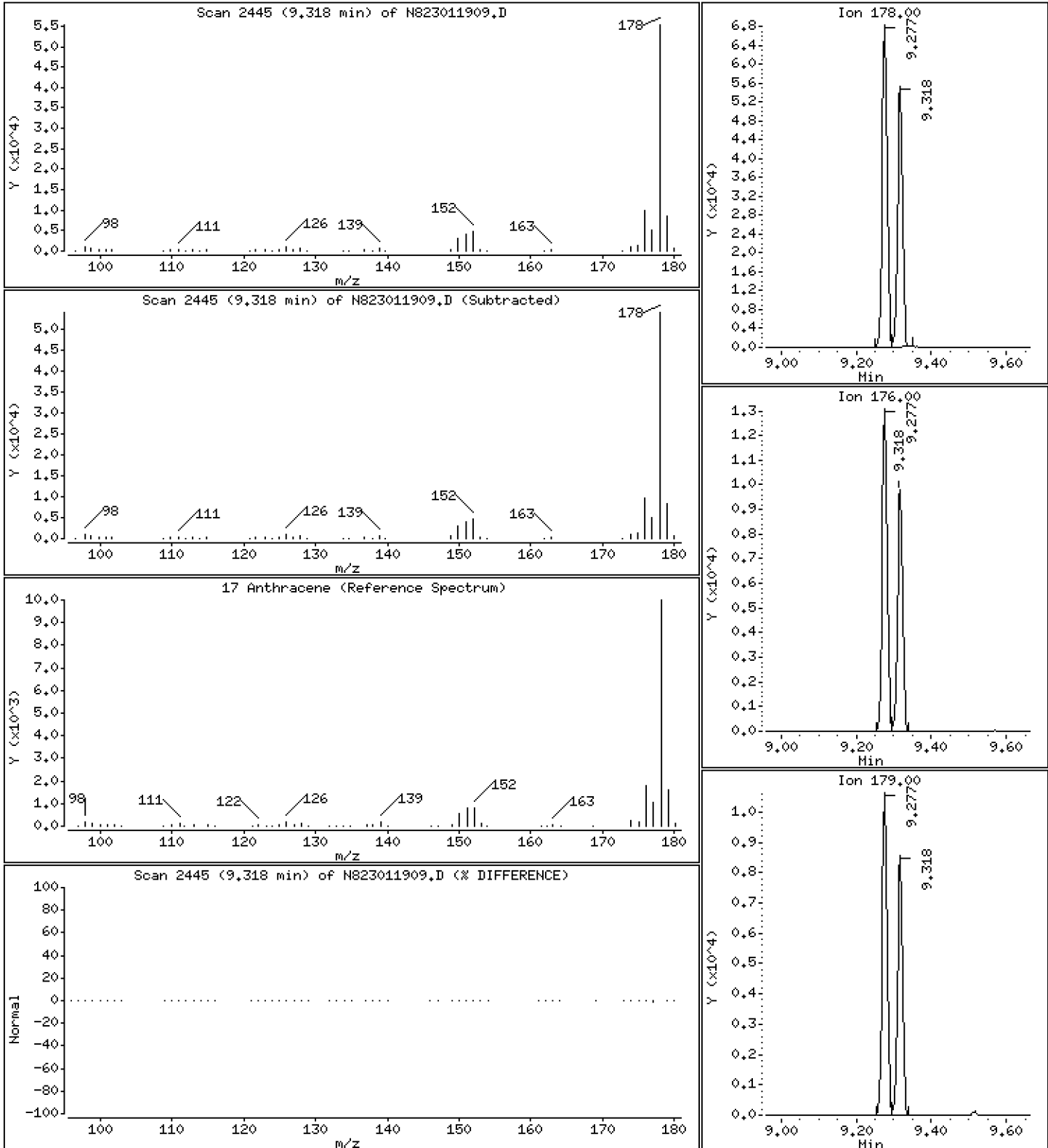
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

17 Anthracene

Concentration: 2,270 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

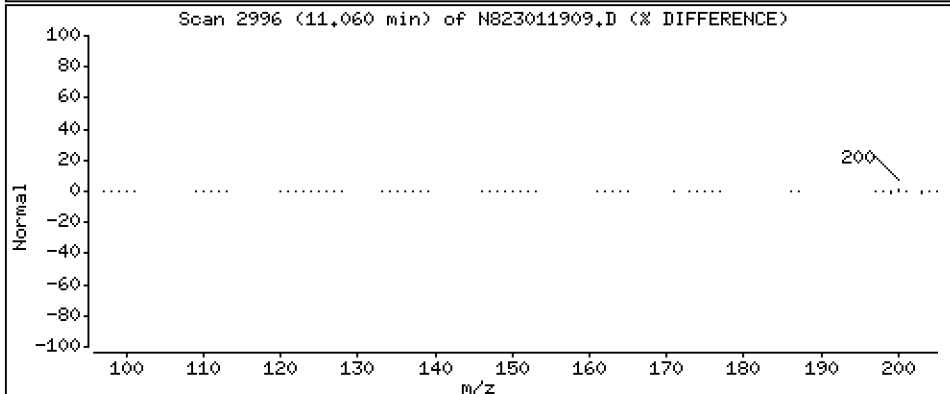
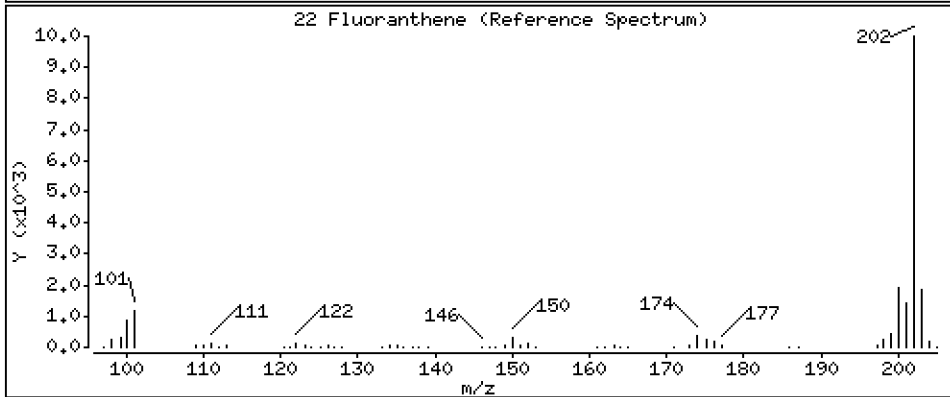
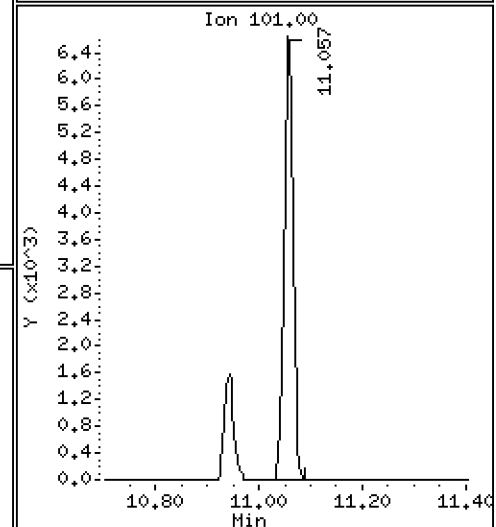
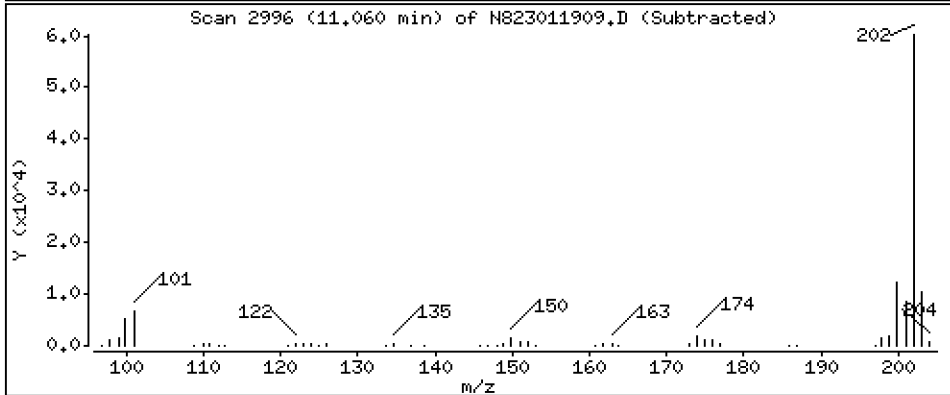
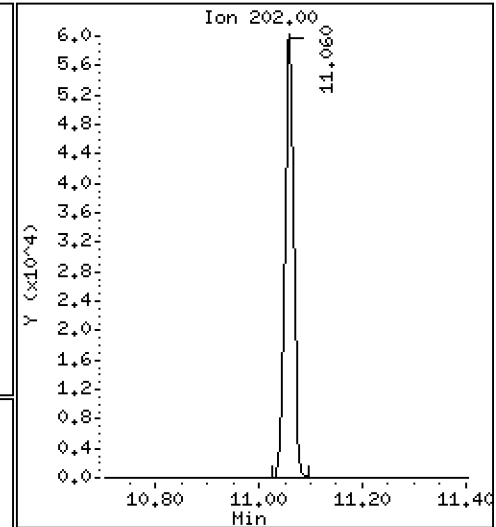
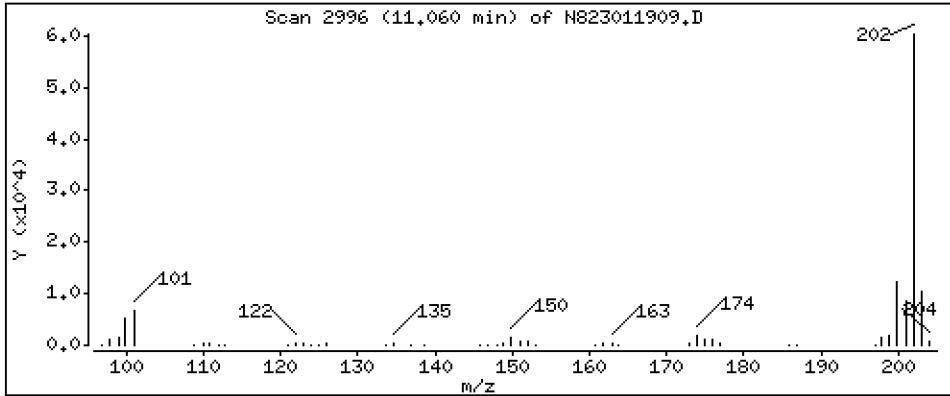
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 2,653 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

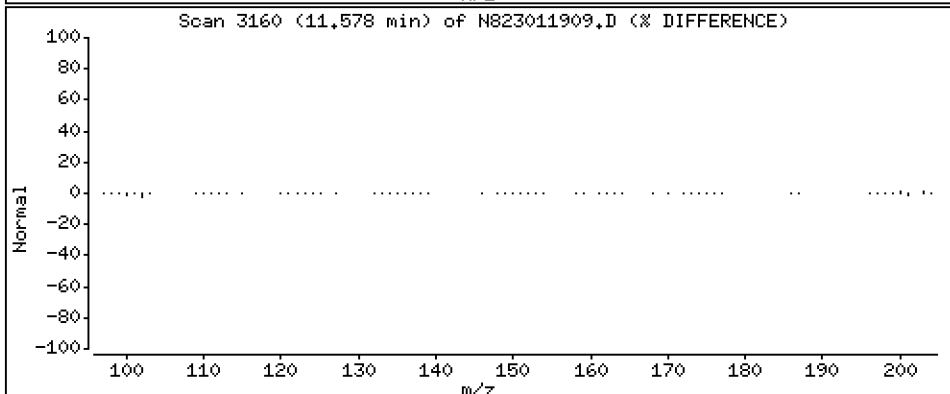
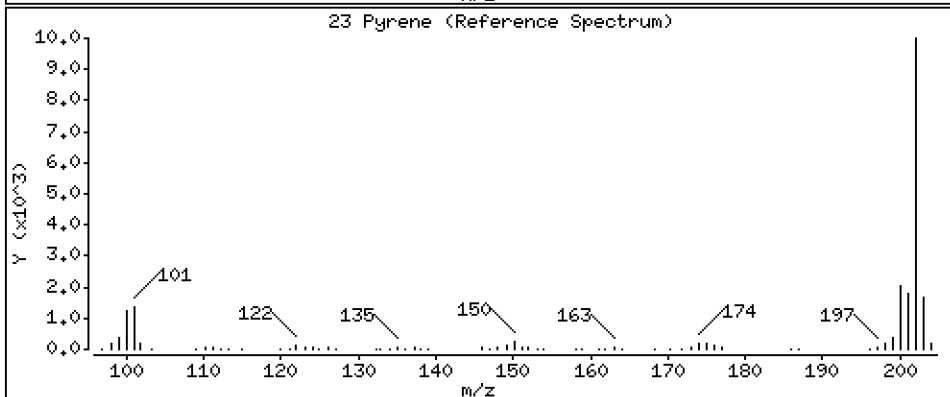
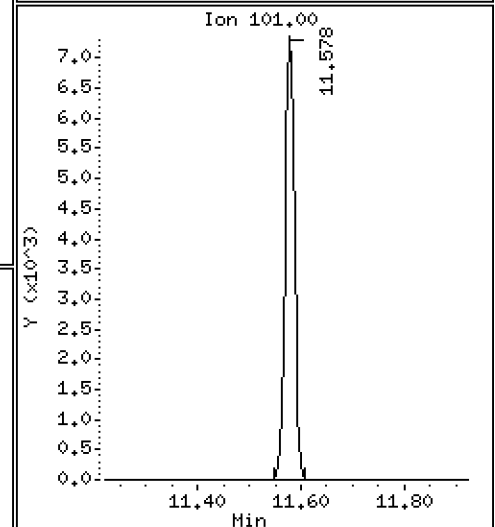
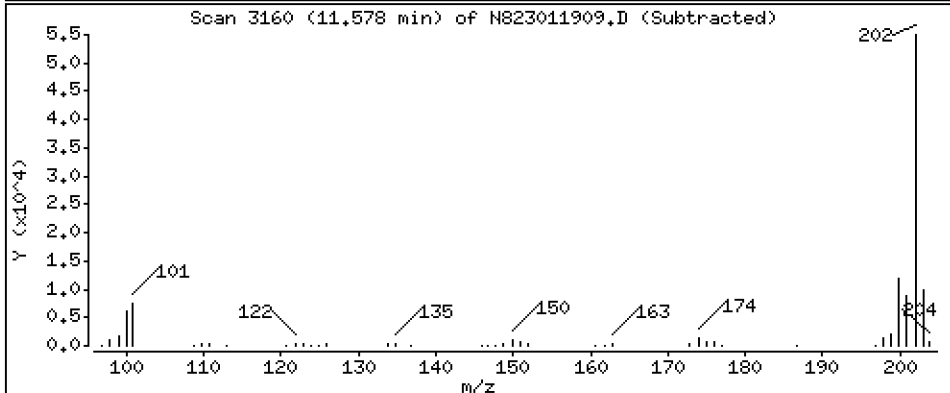
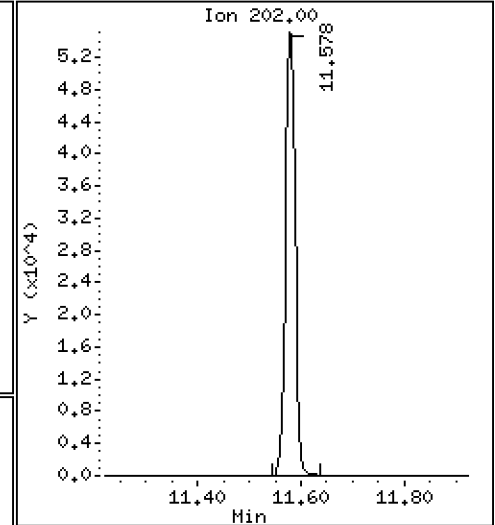
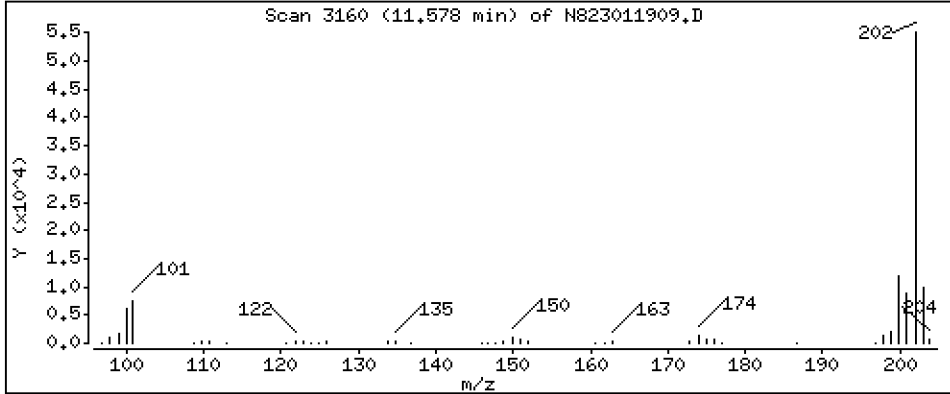
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

23 Pyrene

Concentration: 2,462 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

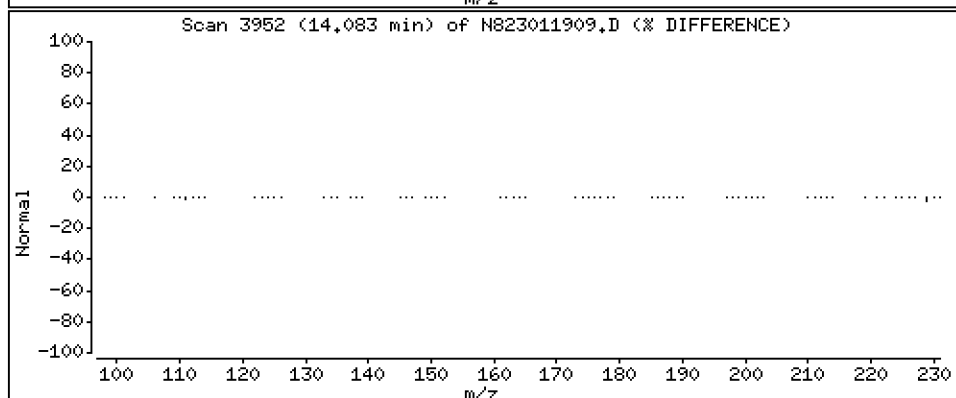
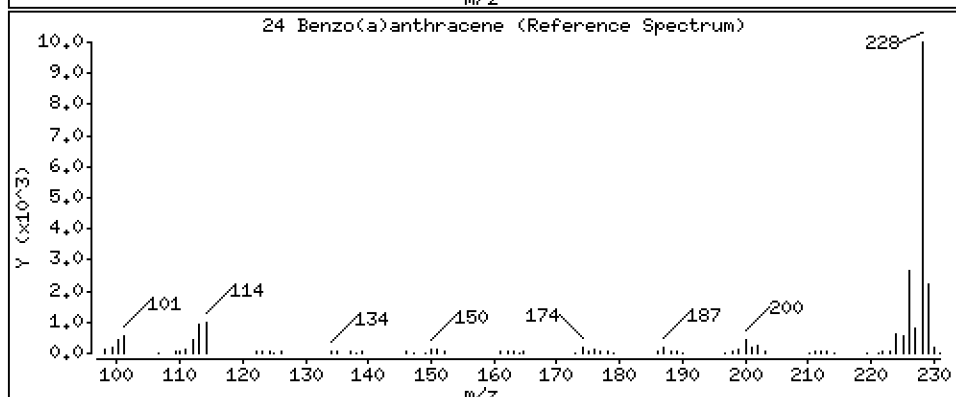
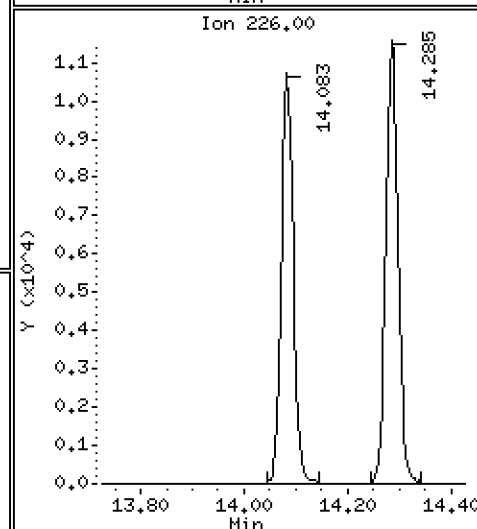
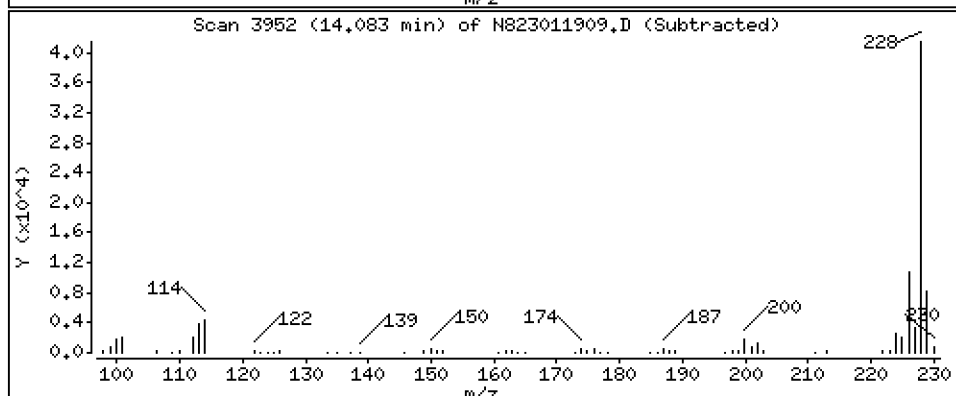
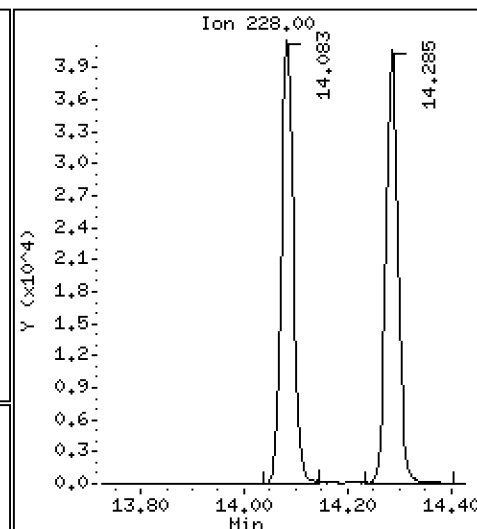
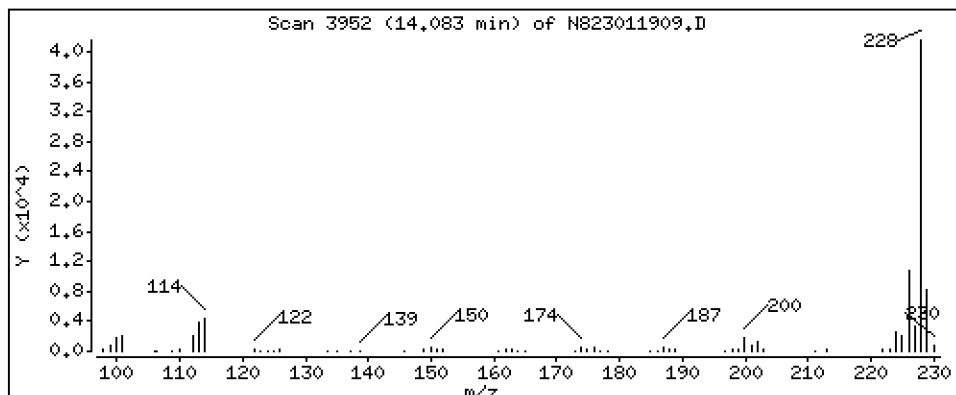
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

24 Benzo(a)anthracene

Concentration: 2,587 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

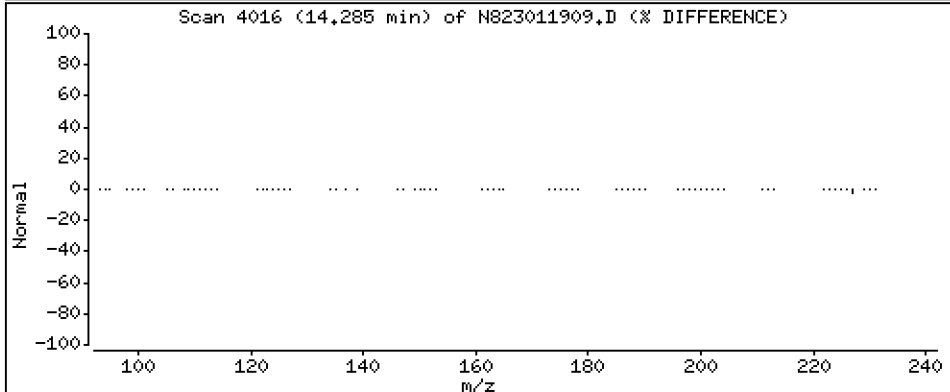
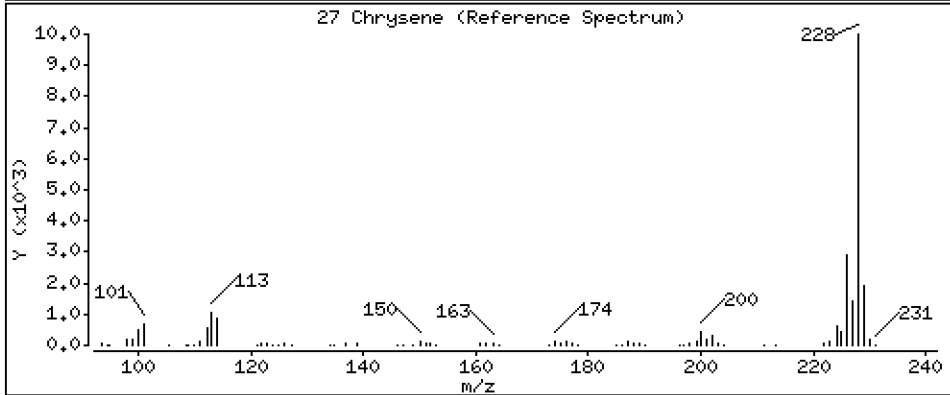
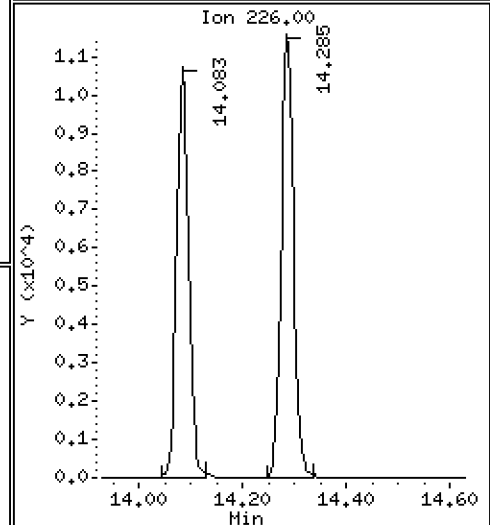
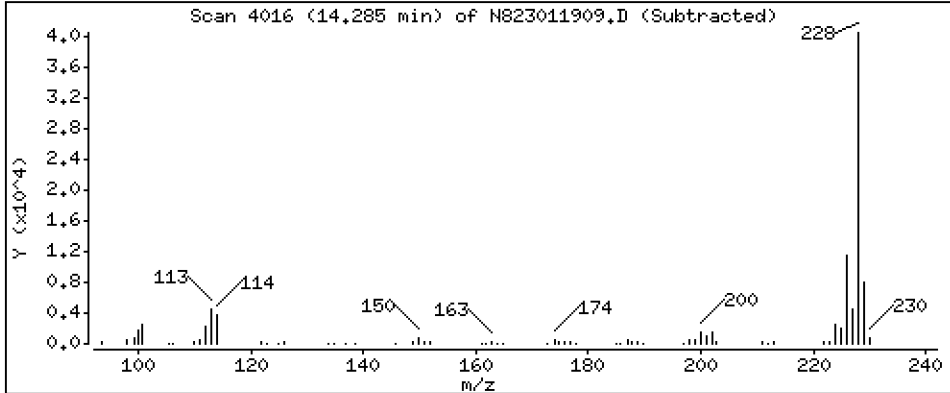
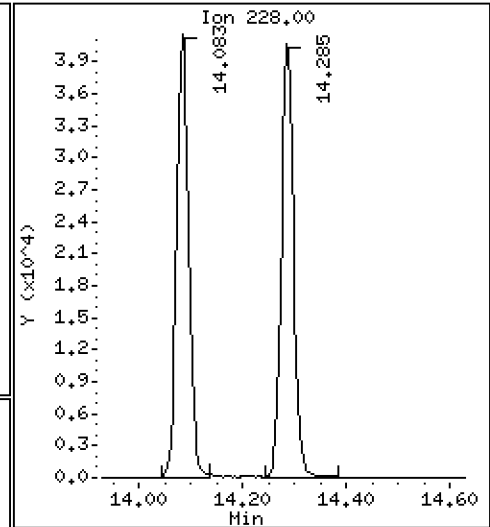
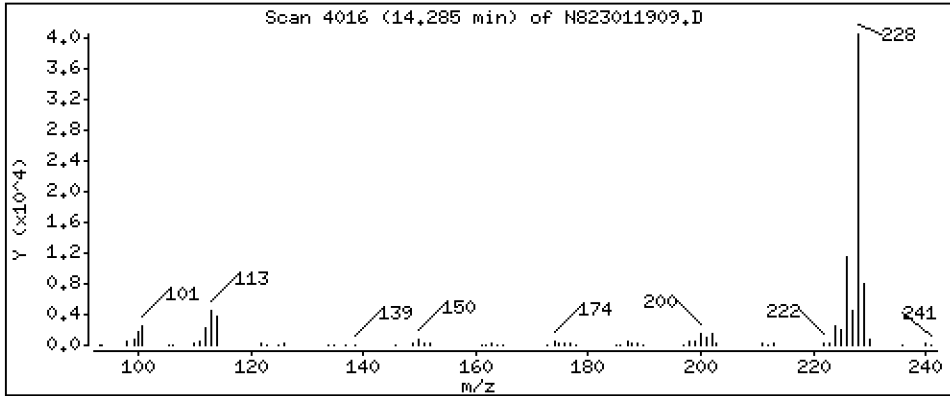
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

27 Chrysene

Concentration: 2,400 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

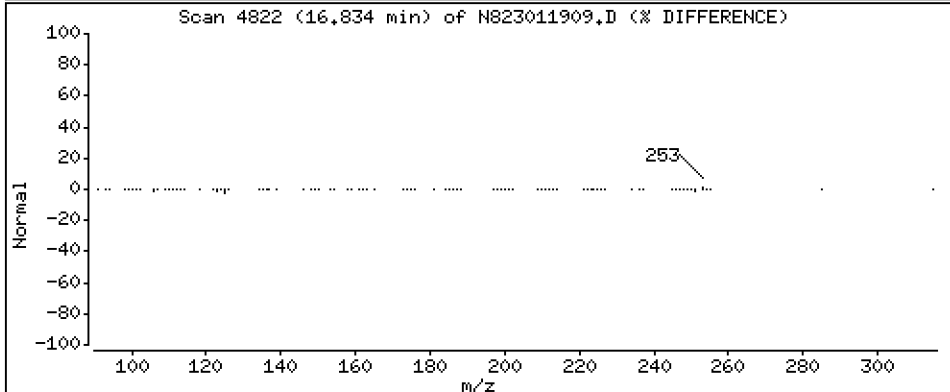
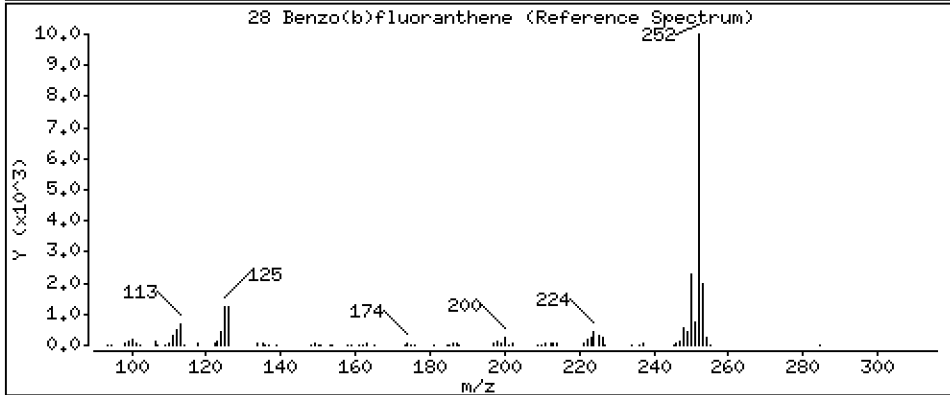
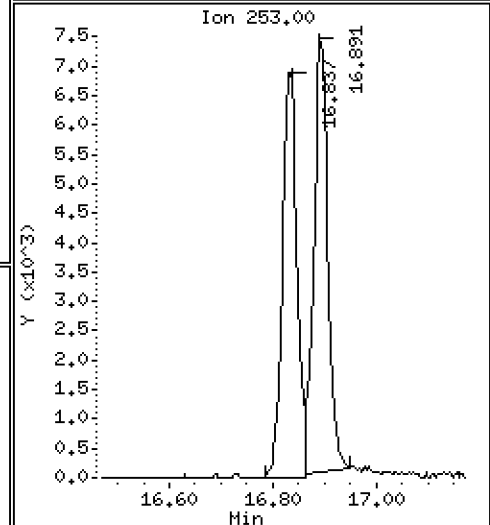
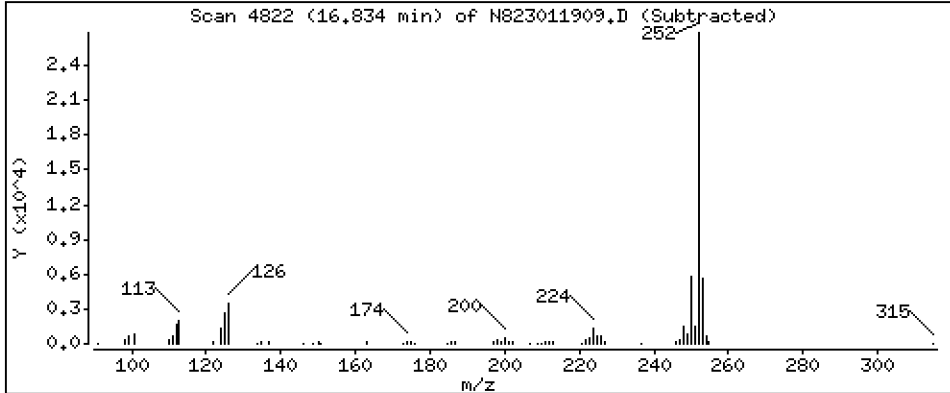
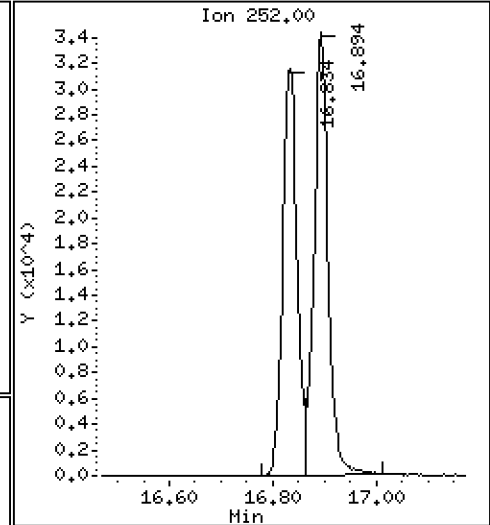
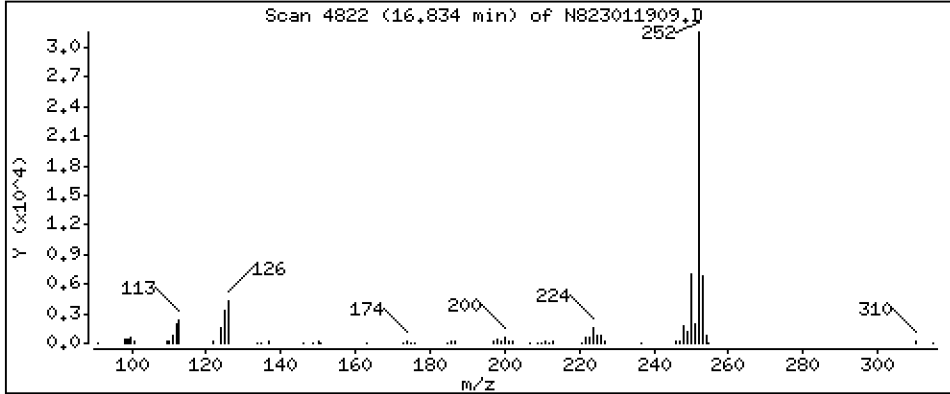
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

28 Benzo(b)fluoranthene

Concentration: 2,507 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

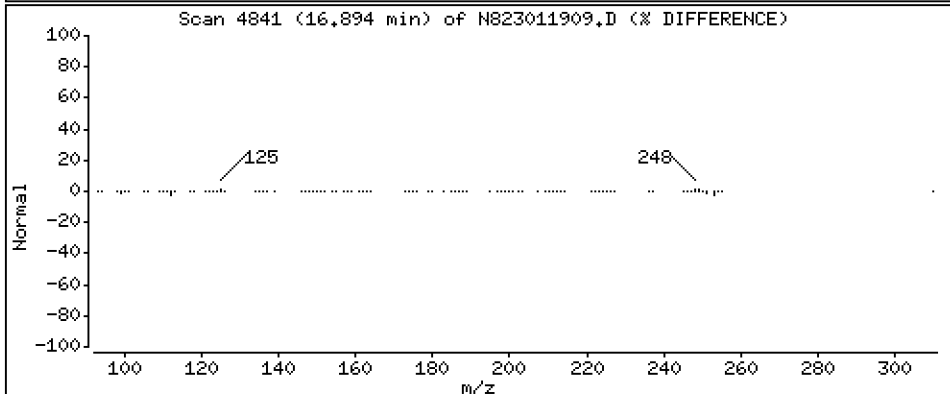
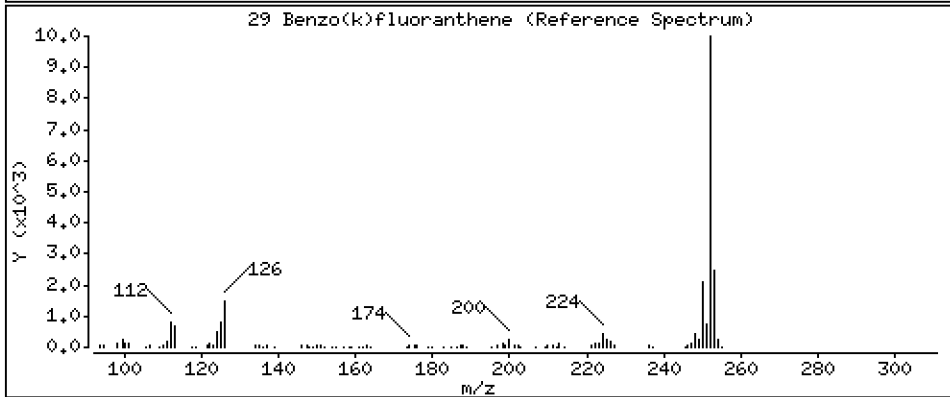
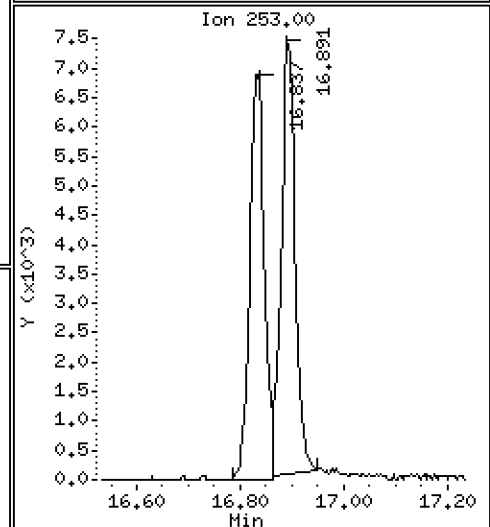
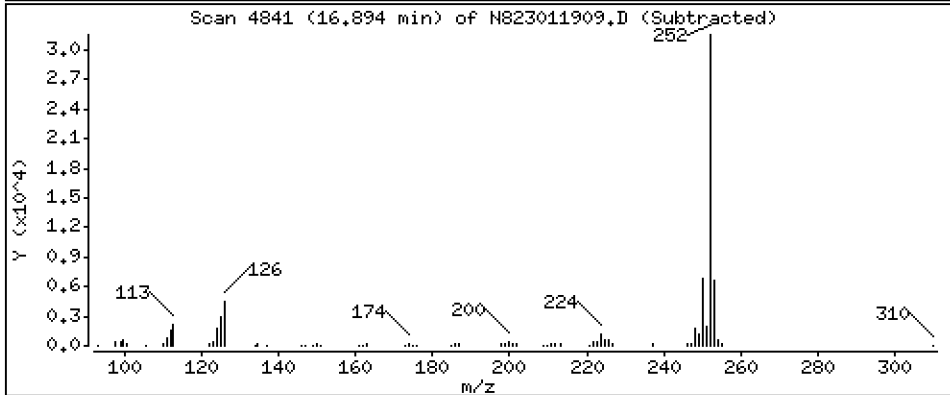
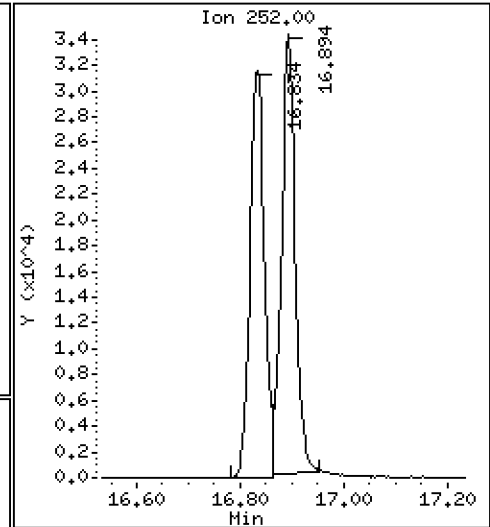
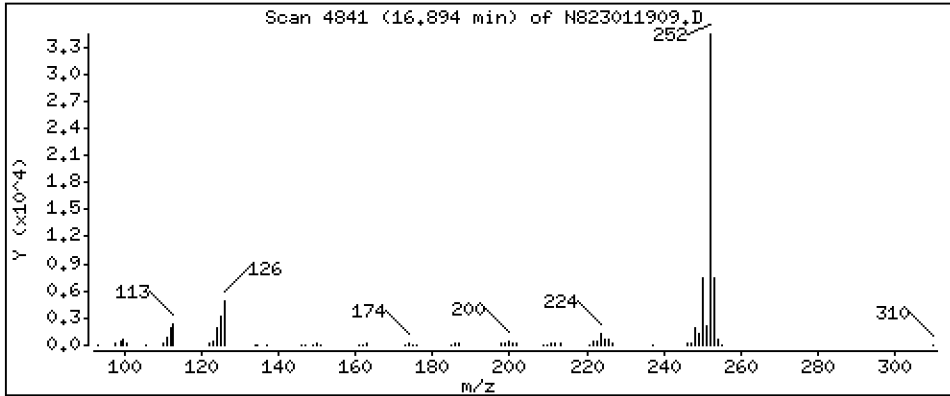
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

29 Benzo(k)fluoranthene

Concentration: 2,656 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

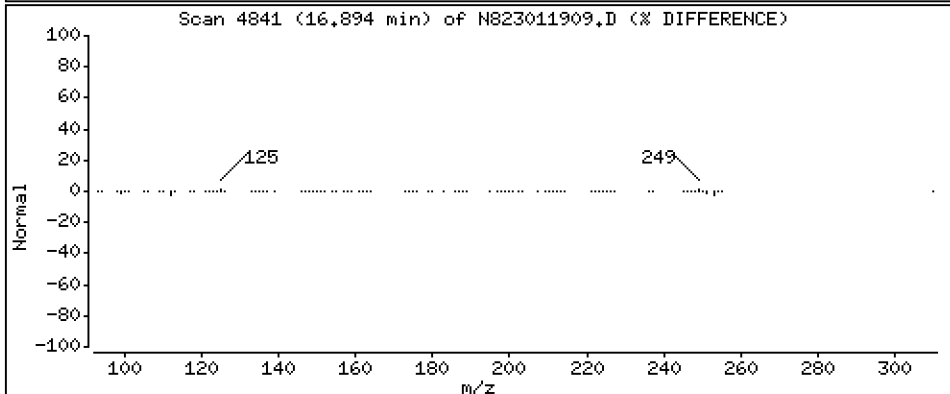
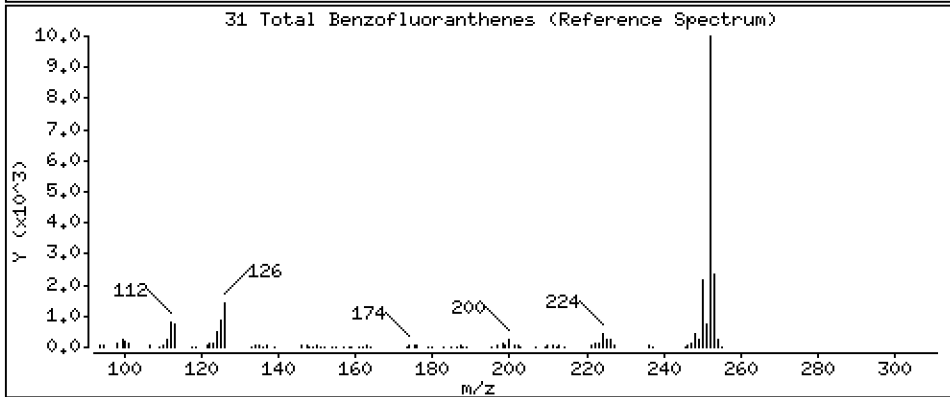
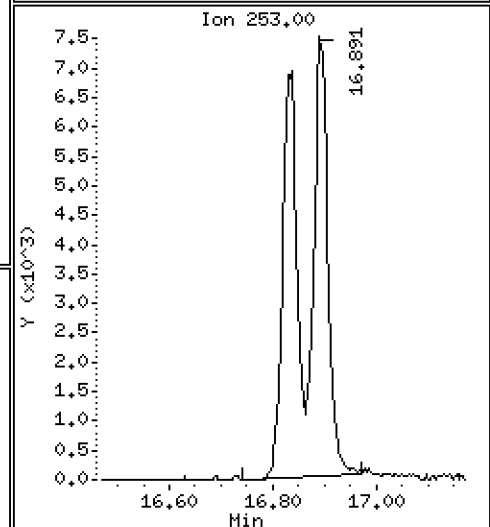
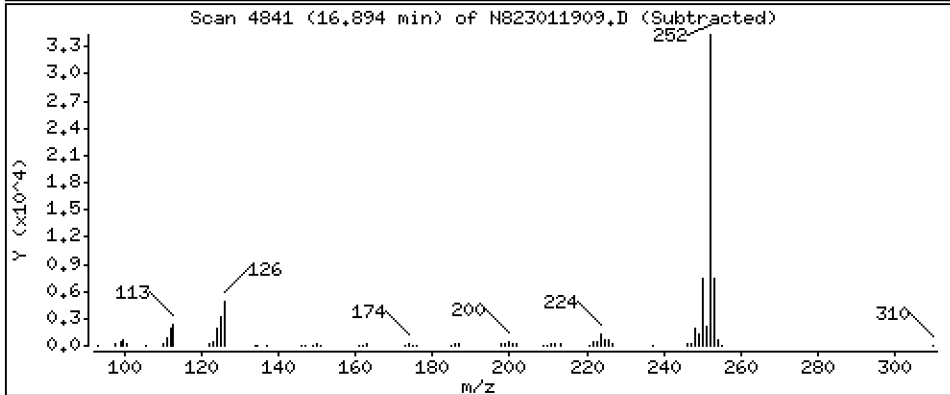
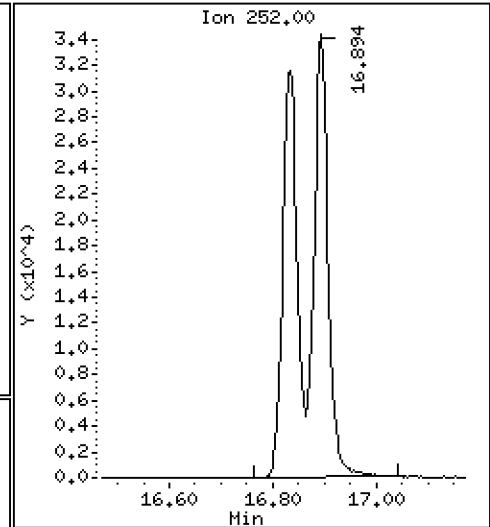
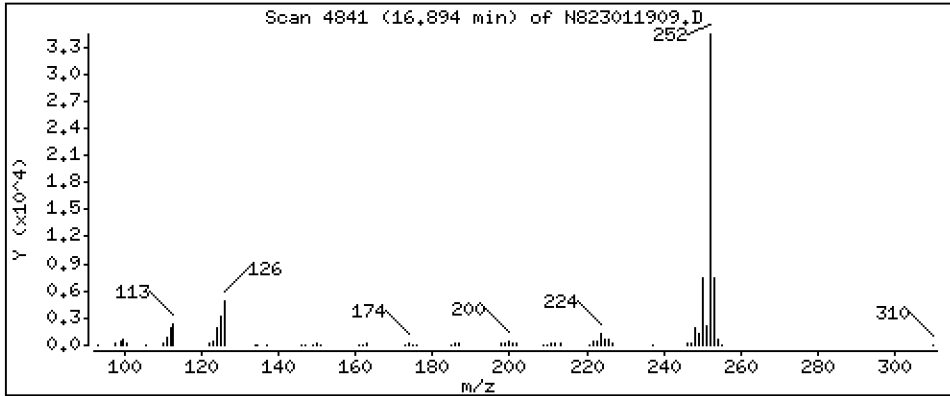
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

31 Total Benzofluoranthenes

Concentration: 5,480 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

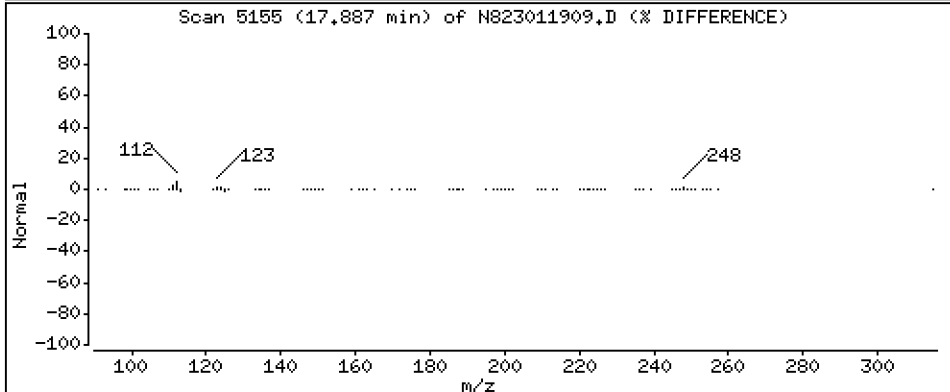
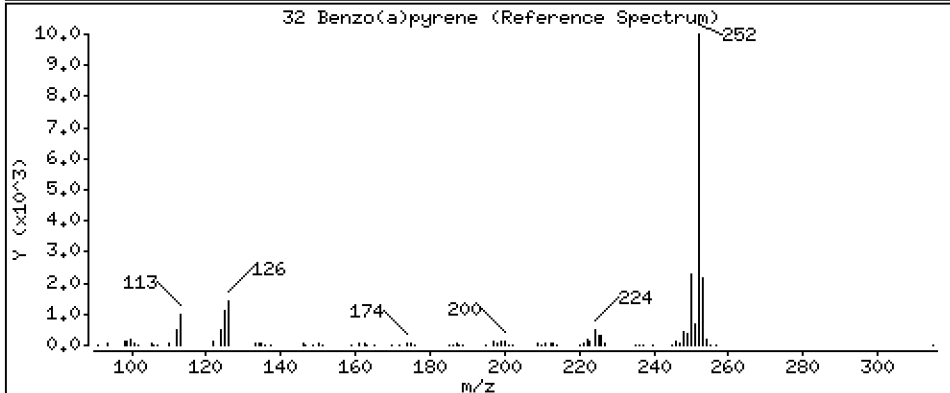
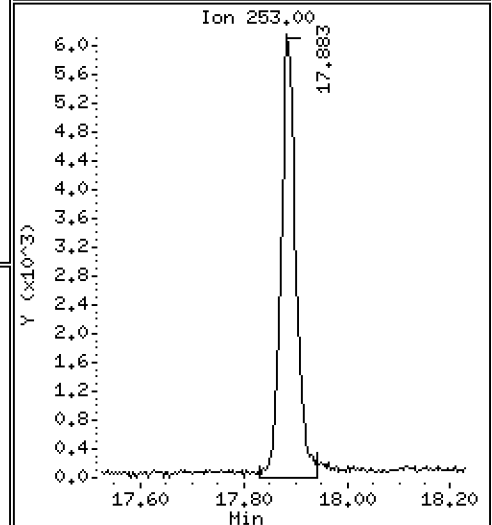
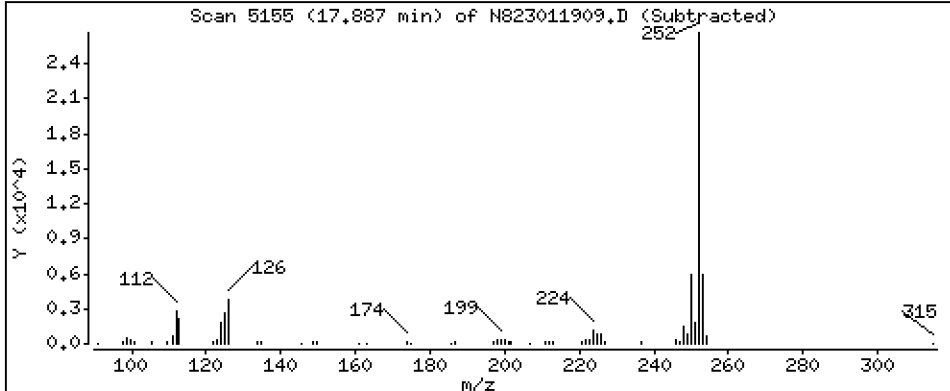
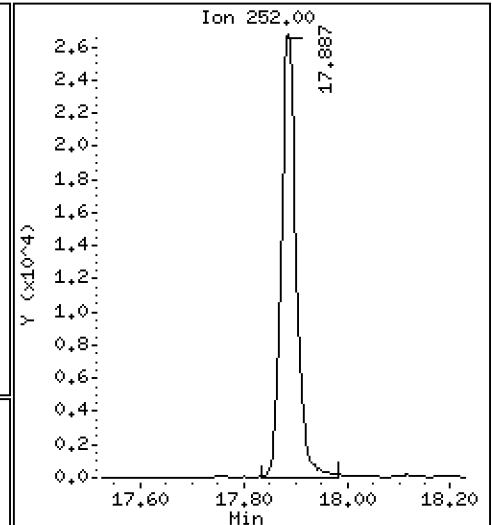
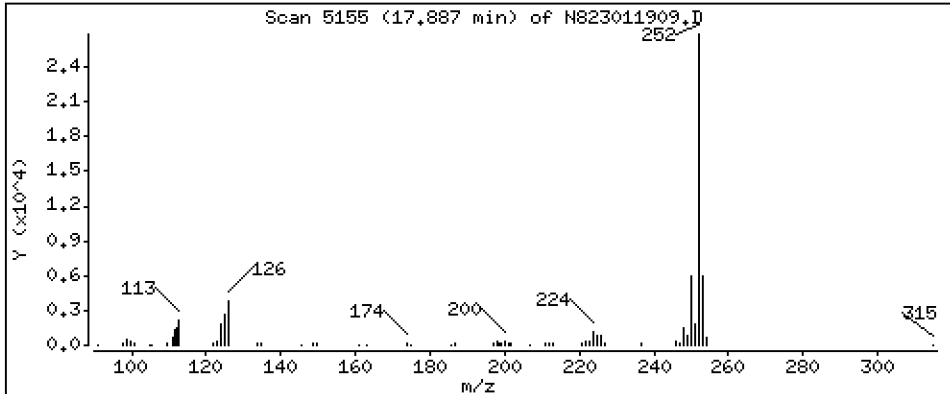
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

32 Benzo(a)pyrene

Concentration: 2,572 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

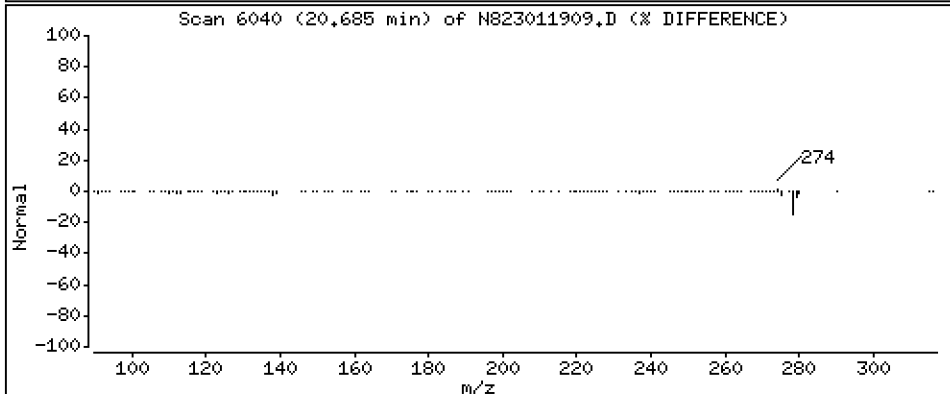
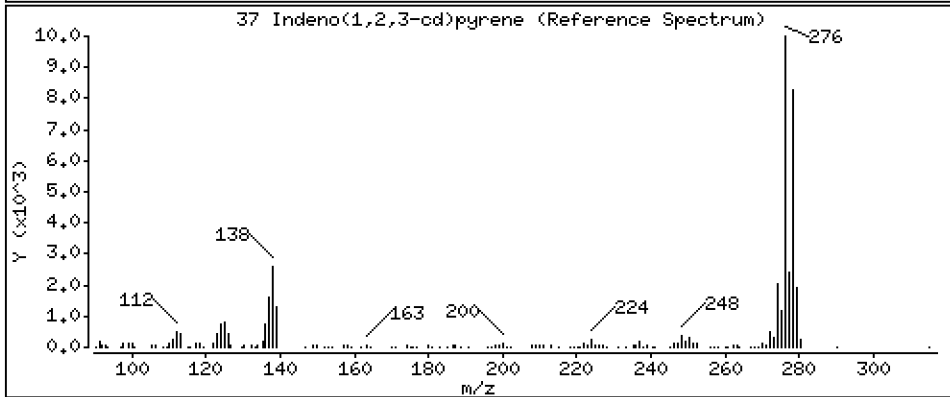
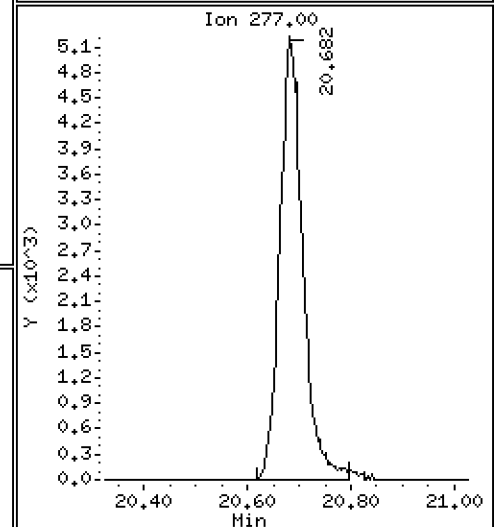
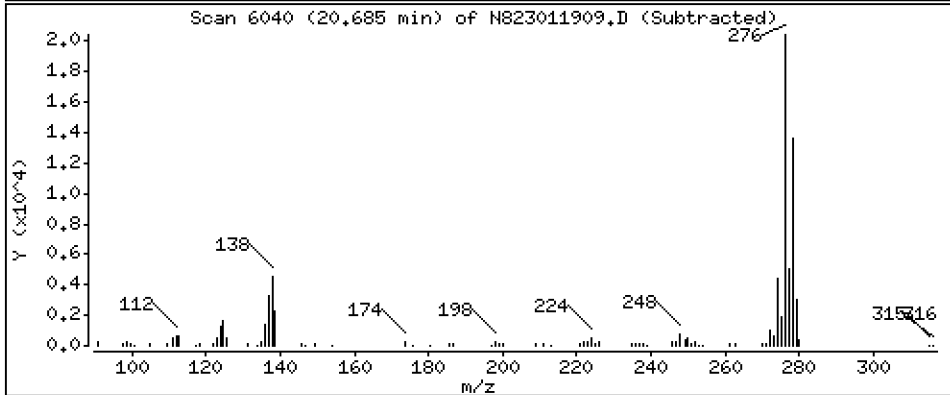
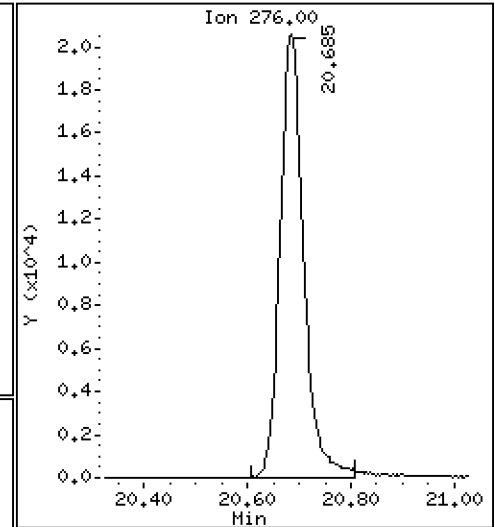
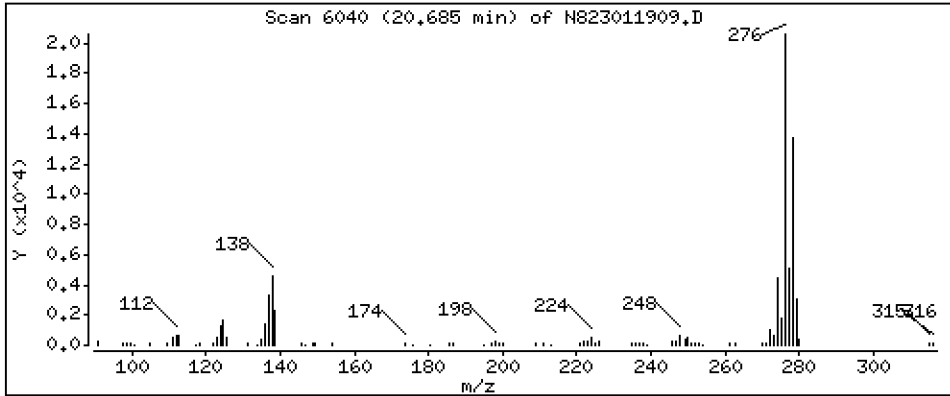
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 2,689 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

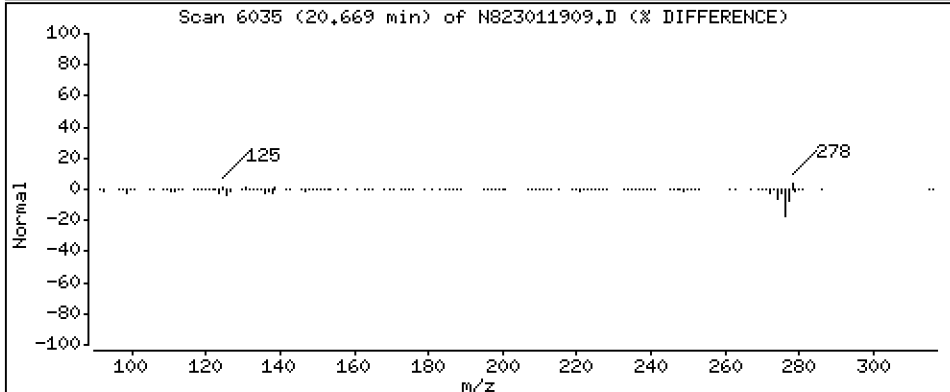
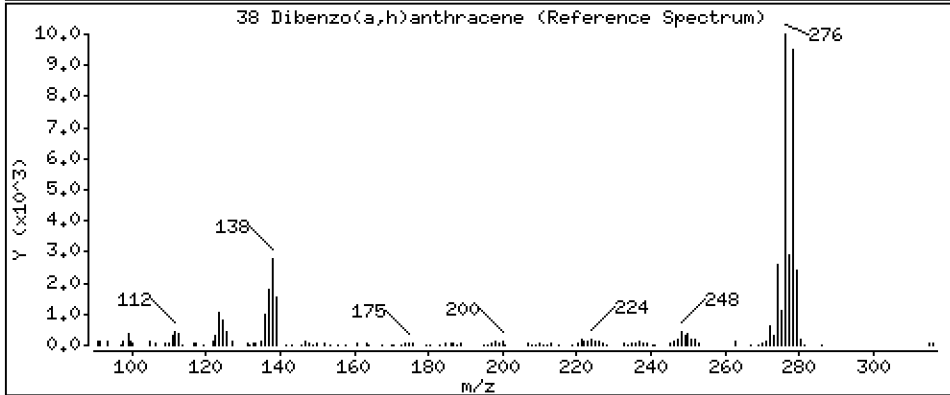
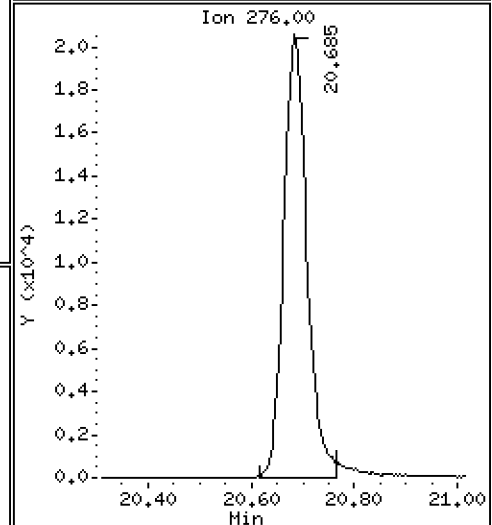
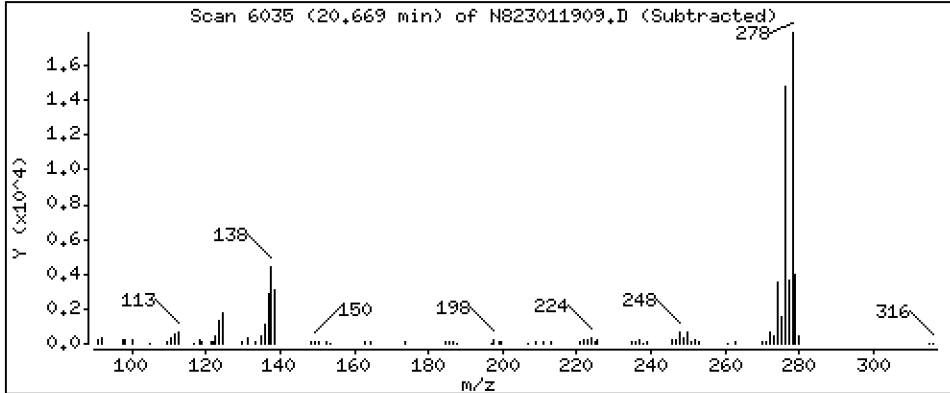
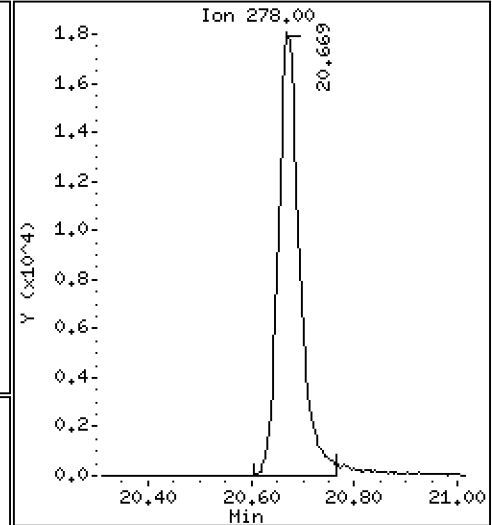
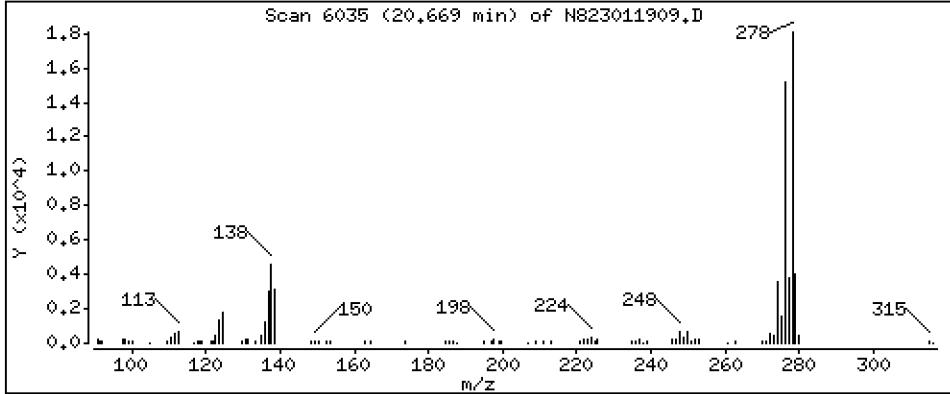
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 2,493 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

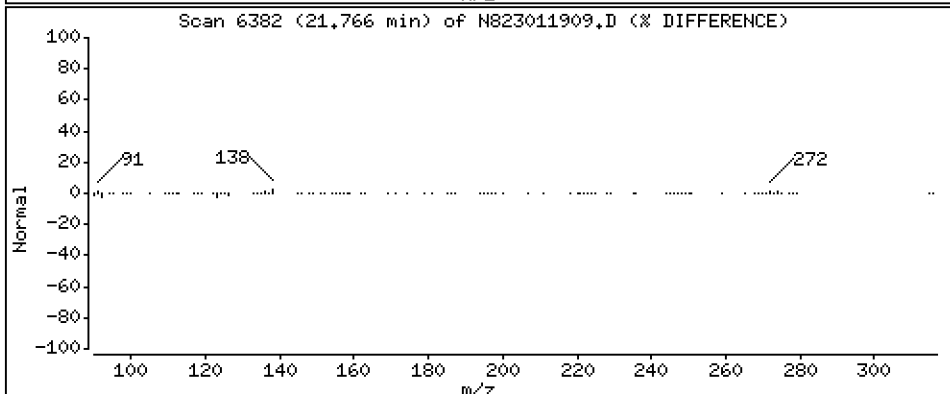
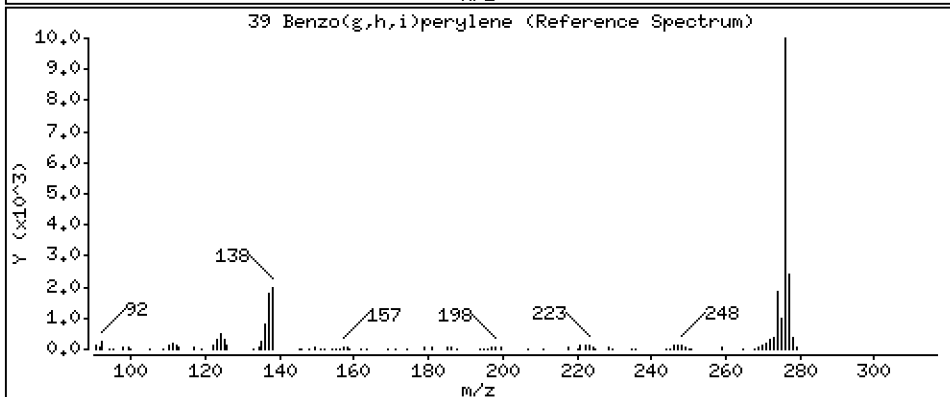
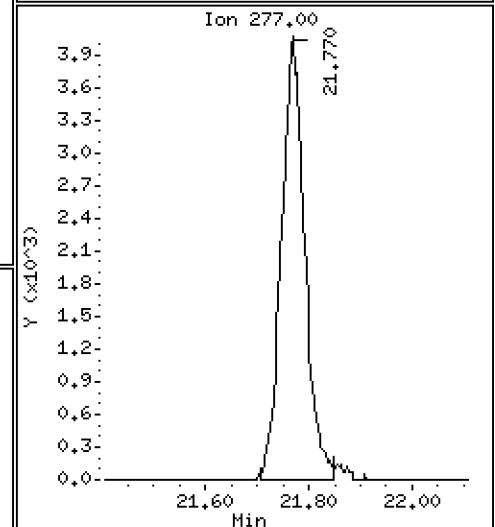
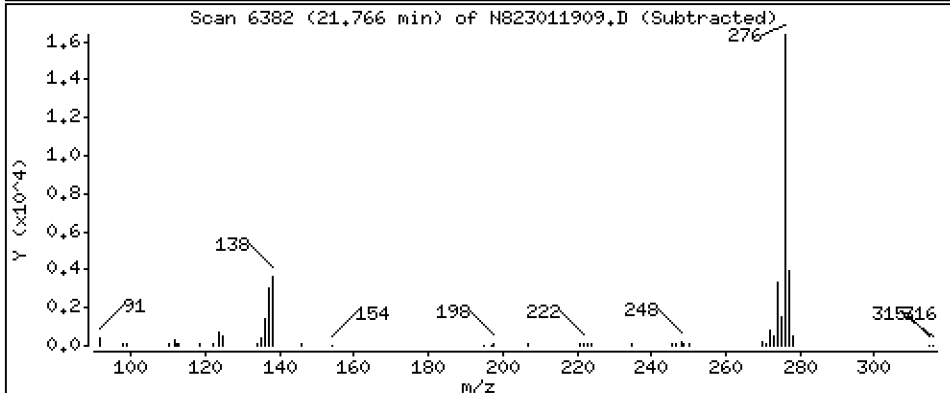
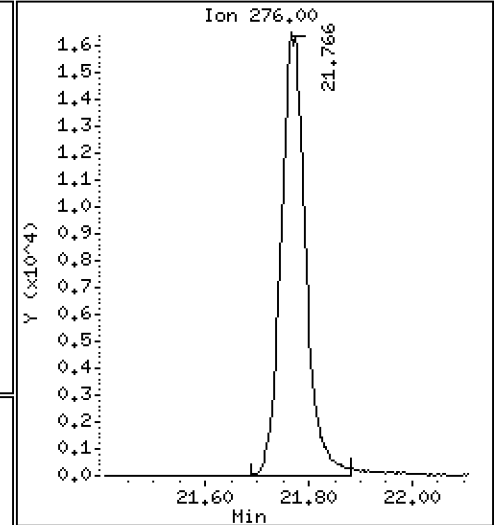
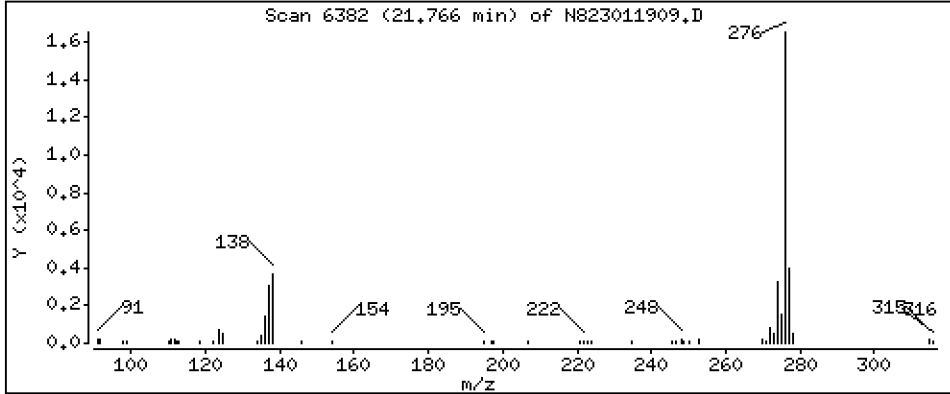
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 2,483 ug/L



ARI Labs, Inc.

Semivolatle Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011909.D
 Lab Smp Id: SLA0213-SCV1
 Inj Date : 19-JAN-2023 14:58
 Operator : JZ Inst ID: nt8.i
 Smp Info : SCV230119
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Meth Date : 19-Jan-2023 20:20 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 9 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnascv.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
* 1 Naphthalene-d8	136	4.913	4.906	(1.000)	46346	2.00000	
2 Naphthalene	128	4.941	4.938	(1.006)	56587	2.62597	2.626
\$ 3 2-Methylnaphthalene-d10	152	Compound Not Detected.					
4 2-Methylnaphthalene	141	5.694	5.687	(1.159)	31650	2.67019	2.670
5 1-methylnaphthalene	141	5.890	5.883	(1.199)	31873	2.64949	2.649
9 Acenaphthylene	152	7.091	7.085	(0.985)	59018	2.82060	2.821
* 10 Acenaphthene-d10	164	7.202	7.196	(1.000)	27709	2.00000	
11 Acenaphthene	153	7.249	7.246	(1.007)	36454	2.60022	2.600
12 Dibenzofuran	168	7.401	7.395	(1.028)	60898	2.85987	2.860
14 Fluorene	166	7.878	7.872	(1.094)	43507	2.63066	2.631
* 15 Phenanthrene-d10	188	9.238	9.235	(1.000)	51685	2.00000	
16 Phenanthrene	178	9.276	9.270	(1.004)	61815	2.44841	2.448
17 Anthracene	178	9.317	9.311	(1.009)	52064	2.27006	2.270
22 Fluoranthene	202	11.059	11.053	(1.197)	72902	2.65276	2.653
\$ 21 Fluoranthene-d10	212	Compound Not Detected.					
23 Pyrene	202	11.578	11.572	(0.815)	71115	2.46242	2.462
24 Benzo(a)anthracene	228	14.082	14.076	(0.991)	67725	2.58725	2.587
* 25 Chrysene-d12	240	14.212	14.202	(1.000)	46582	2.00000	
27 Chrysene	228	14.285	14.278	(1.005)	66872	2.39976	2.400
28 Benzo(b)fluoranthene	252	16.833	16.821	(0.929)	60946	2.50689	2.507
29 Benzo(k)fluoranthene	252	16.893	16.884	(0.932)	63249	2.65606	2.656
31 Total Benzofluoranthenes	252	16.893	16.821	(0.932)	126178	5.48025	5.480 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/mL)	FINAL (ug/L)	
=====	=====	=====	=====	=====	=====	=====	=====	
32 Benzo(a)pyrene	252	17.886	17.877	(0.987)	55026	2.57205	2.572	
* 33 Perylene-d12	264	18.117	18.111	(1.000)	41743	2.00000		
37 Indeno(1,2,3-cd)pyrene	276	20.684	20.675	(1.142)	65545	2.68928	2.689	
\$ 36 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.						
38 Dibenzo(a,h)anthracene	278	20.669	20.662	(1.141)	52293	2.49315	2.493	
39 Benzo(g,h,i)perylene	276	21.766	21.756	(1.201)	54821	2.48258	2.483	
35 Perylene	252	Compound Not Detected.						

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011909.D Calibration Time: 12:52
 Lab Smp Id: SLA0213-SCV1
 Analysis Type: SV Level: LOW
 Quant Type: ISTD Sample Type: WATER
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	44704	22352	89408	46346	3.67
10 Acenaphthene-d10	26411	13206	52822	27709	4.91
15 Phenanthrene-d10	49210	24605	98420	51685	5.03
25 Chrysene-d12	42994	21497	85988	46582	8.35
33 Perylene-d12	40520	20260	81040	41743	3.02

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.13
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.09
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.03
25 Chrysene-d12	14.20	13.70	14.70	14.21	0.07
33 Perylene-d12	18.11	17.61	18.61	18.12	0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011909.D

Lab ID: SLA0213-SCV1

nt8.i, 20230119.b\FSIMPNA230119.m, 19-JAN-2023 14:58

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

No RRT check performed

On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, pnascv.sub = 0.0500

Exception: Benzo(b)fluoranthene 0.0300
Exception: Benzo(k)fluoranthene 0.0300
Exception: Total Benzofluoranthenes 0.0300
Exception: Fluoranthene-d10 (Surr) 0.0000

* Only compounds listed in the work order have been verified by the analyst *

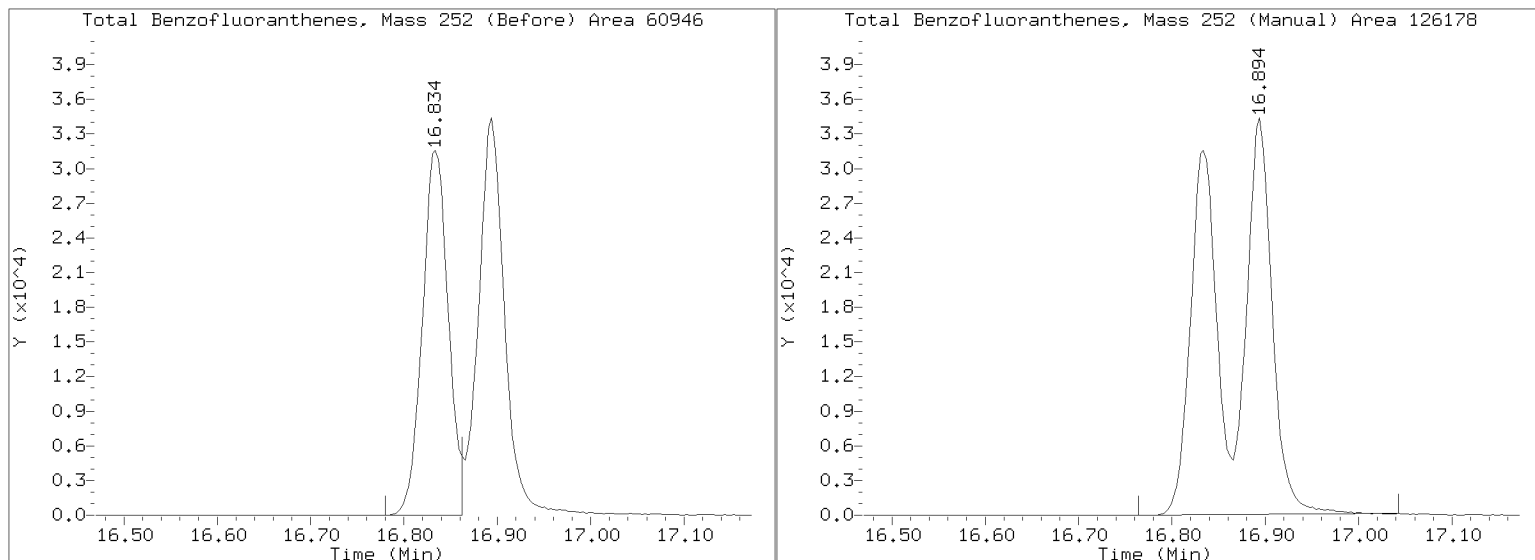
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011909.D

Injection Date: 19-JAN-2023 14:58

Lab ID:SLA0213-SCV1 Client ID:

Report Date: 01/19/2023 20:27





INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00019	Instrument:	NT10
Calibration Date:	02/07/2023	Column (1):	ZB-5MSi

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
1,4-Dichlorobenzene	0.05	1.746853	0.1	1.824146	0.2	1.716999	0.5	1.644641	1	1.644952	2.5	1.438483
1,2-Dichlorobenzene	0.05	1.669075	0.1	1.760731	0.2	1.667808	0.5	1.606479	1	1.634269	2.5	1.411825
Benzyl Alcohol	0.05	0.6229253	0.1	0.8641461	0.2	0.9367905	0.5	0.833555	1	0.9600758	2.5	0.9355283
Benzoic acid					0.8	8.566733E-03	2	5.676729E-02	4	0.119262	10	0.1531063
2,4-Dimethylphenol	0.1	0.3465196	0.2	0.3862129	0.4	0.3773608	1	0.3774286	2	0.3776882	5	0.3233556
1,2,4-Trichlorobenzene	0.05	0.3447792	0.1	0.372557	0.2	0.3515607	0.5	0.3391428	1	0.3445313	2.5	0.2917329
N-Nitrosodiphenylamine	0.05	0.7055404	0.1	0.7523853	0.2	0.6919824	0.5	0.6814253	1	0.6964491	2.5	0.599221
Pentachlorophenol			0.2	1.561504E-02	0.4	3.010523E-02	1	6.365281E-02	2	9.115425E-02	5	9.408531E-02
2-Fluorophenol	0.075	1.044048	0.15	1.337668	0.3	1.310317	0.75	1.272772	1.5	1.301572	3.75	1.150276
p-Terphenyl-d14	0.05	0.9131011	0.1	0.9901217	0.2	0.940309	0.5	0.9119706	1	0.9287552	2.5	0.7799



INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00019	Instrument:	NT10
Calibration Date:	02/07/2023	Column (1):	ZB-5MSi

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
1,4-Dichlorobenzene	5	1.453912	10	1.449533								
1,2-Dichlorobenzene	5	1.437155	10	1.422238								
Benzyl Alcohol	5	0.989421	10	1.015741								
Benzoic acid	20	0.1943862	40	0.2347868								
2,4-Dimethylphenol	10	0.3258606	20	0.2965172								
1,2,4-Trichlorobenzene	5	0.2954888	10	0.2949844								
N-Nitrosodiphenylamine	5	0.5876583	10	0.57369								
Pentachlorophenol	10	0.1119245	20	0.1245814								
2-Fluorophenol	7.5	1.184621	15	1.129849								
p-Terphenyl-d14	5	0.7926175	10	0.8460514								



INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00019	Instrument:	NT10
Calibration Date:	02/07/2023	Column (1):	ZB-5MSi

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
1,4-Dichlorobenzene	1.61494	9.3			RSD (15)	
1,2-Dichlorobenzene	1.576198	8.5			RSD (15)	
Benzyl Alcohol	0.8947729	14.0			RSD (15)	
Benzoic acid	0.1278126	66.3		0.9953	QCOD (0.99)	
2,4-Dimethylphenol	0.3513679	9.5			RSD (15)	
1,2,4-Trichlorobenzene	0.3293471	9.4			RSD (15)	
N-Nitrosodiphenylamine	0.661044	9.9			RSD (15)	
Pentachlorophenol	7.587408E-02	54.1		0.9984	QCOD (0.99)	
2-Fluorophenol	1.21639	8.6			RSD (15)	
p-Terphenyl-d14	0.8878533	8.4			RSD (15)	



ANALYSIS SEQUENCE

SLB0106

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GB00019 GCMS Column ID: L000749
MS EM Level: 1000 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLB0106-TUN1	MS Tune	QC		1	K008469		02/07/2023 11:54	NT1023020701S.D	DSD	
SLB0106-CAL8	CAL 10.0	QC		2	K011110	K010831	02/07/2023 12:57	NT1023020703S.D	DSD	
SLB0106-CAL7	CAL 5.0	QC		3	K011109	K010831	02/07/2023 13:35	NT1023020704S.D	DSD	
SLB0106-CAL6	CAL 2.5	QC		4	K011108	K010831	02/07/2023 14:14	NT1023020705S.D	DSD	
SLB0106-CAL5	CAL 1.0	QC		5	K011107	K010831	02/07/2023 14:52	NT1023020706S.D	DSD	
SLB0106-CAL4	CAL 0.50	QC		6	K011106	K010831	02/07/2023 15:30	NT1023020707S.D	DSD	
SLB0106-CAL3	CAL 0.20	QC		7	K011105	K010831	02/07/2023 16:09	NT1023020708S.D	DSD	
SLB0106-CAL2	CAL 0.10	QC		8	K011452	K010831	02/07/2023 16:47	NT1023020709S.D	DSD	
SLB0106-CAL1	CAL 0.05	QC		9	K011453	K010831	02/07/2023 17:25	NT1023020710S.D	DSD	
SLB0106-SCV1	SCV 5.0	QC		10	K010066	K010831	02/07/2023 18:04	NT1023020711S.D	DSD	
SLB0106-ICV1	Initial Cal Check	QC		11	K011107	K010831	02/07/2023 19:58	NT1023020714S.D	DSD	
SLB0106-LCV1	LCV 0.1	QC		12	K011452	K010831	02/07/2023 20:36	NT1023020715S.D	DSD	
BLA0160-BLK3	Blank	QC		13		K010831	02/07/2023 21:14	NT1023020716S.D	DSD	
BLA0160-BS2	LCS	QC		14		K010831	02/07/2023 21:52	NT1023020717S.D	DSD	
BLA0160-BSD2	LCS Dup	QC		15		K010831	02/07/2023 22:30	NT1023020718S.D	DSD	
BLA0160-SRM2	Reference	QC		16		K010831	02/07/2023 23:09	NT1023020719S.D	DSD	
23A0031-01	LDW23-SS1002	270E-SIM Dual Scan SVO	A 01	17		K010831	02/07/2023 23:47	NT1023020720S.D	DSD	
23A0031-02	LDW23-SS1001	270E-SIM Dual Scan SVO	A 01	18		K010831	02/08/2023 00:25	NT1023020721S.D	DSD	
23A0031-03	LDW23-SS1199	270E-SIM Dual Scan SVO	A 01	19		K010831	02/08/2023 01:03	NT1023020722S.D	DSD	
23A0031-04	LDW23-SS1199-FD	270E-SIM Dual Scan SVO	A 01	20		K010831	02/08/2023 01:41	NT1023020723S.D	DSD	
23A0031-05	LDW23-SS1191	270E-SIM Dual Scan SVO	A 01	21		K010831	02/08/2023 02:18	NT1023020724S.D	DSD	
23A0031-06	LDW23-SS1191-FD	270E-SIM Dual Scan SVO	A 01	22		K010831	02/08/2023 02:57	NT1023020725S.D	DSD	



ANALYSIS SEQUENCE

SLB0106

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GB00019 GCMS Column ID: L000749
MS EM Level: 1000 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
23A0031-07	LDW23-SS1177	270E-SIM Dual Scan SVO	A 01	23		K010831	02/08/2023 03:34	NT1023020726S.D	DSD	
23A0031-08	LDW23-SS1177-FD	270E-SIM Dual Scan SVO	A 01	24		K010831	02/08/2023 04:13	NT1023020727S.D	DSD	
23A0031-09	LDW23-SS1156	270E-SIM Dual Scan SVO	A 01	25		K010831	02/08/2023 04:51	NT1023020728S.D	DSD	
23A0031-10	LDW23-SS1156-FD	270E-SIM Dual Scan SVO	A 01	26		K010831	02/08/2023 05:29	NT1023020729S.D	DSD	
23A0031-11	LDW23-SS1143	270E-SIM Dual Scan SVO	A 01	27		K010831	02/08/2023 06:07	NT1023020730S.D	DSD	
23A0031-12	LDW23-SS1143-FD	270E-SIM Dual Scan SVO	A 01	28		K010831	02/08/2023 06:45	NT1023020731S.D	DSD	
SLB0106-ICV2	ABN 1	QC		29	K011107	K010831	02/08/2023 08:40	NT1023020734S.D	DSD	
BLA0064-BLK2	Blank	QC		30		K010831	02/08/2023 09:56	NT1023020736S.D	DSD	
BLA0064-BS2	LCS	QC		31		K010831	02/08/2023 10:35	NT1023020737S.D	DSD	
BLA0064-BSD2	LCS Dup	QC		32		K010831	02/08/2023 11:13	NT1023020738S.D	DSD	
22L0459-01	LDW23-SC1123B	270E-SIM Dual Scan SVO	A 01	33		K010831	02/08/2023 11:51	NT1023020739S.D	DSD	
BLA0064-MS2	Matrix Spike	QC		34		K010831	02/08/2023 12:29	NT1023020740S.D	DSD	
BLA0064-MSD2	Matrix Spike Dup	QC		35		K010831	02/08/2023 13:08	NT1023020741S.D	DSD	
22L0459-02	LDW23-SC1053C	270E-SIM Dual Scan SVO	A 01	36		K010831	02/08/2023 13:46	NT1023020742S.D	DSD	
22L0459-03	LDW23-SC1039C	270E-SIM Dual Scan SVO	A 01	37		K010831	02/08/2023 14:25	NT1023020743S.D	DSD	
22L0459-04	LDW23-SC1007B	270E-SIM Dual Scan SVO	A 01	38		K010831	02/08/2023 15:03	NT1023020744S.D	DSD	
22L0459-05	LDW23-SC1002C	270E-SIM Dual Scan SVO	A 01	39		K010831	02/08/2023 15:41	NT1023020745S.D	DSD	
22L0459-06	LDW23-SC1070B	270E-SIM Dual Scan SVO	A 01	40		K010831	02/08/2023 16:20	NT1023020746S.D	DSD	
22L0459-07	LDW23-SC1091B	270E-SIM Dual Scan SVO	A 01	41		K010831	02/08/2023 16:58	NT1023020747S.D	DSD	
SLB0106-ICV3	ABN 1	QC		42	K011107	K010831	02/08/2023 18:52	NT1023020750S.D	DSD	
BLA0160-BLK4	Blank	QC		43			02/08/2023 20:08	NT1023020752S.D	DSD	
23A0031-13	LDW23-SS1137	270E-SIM Dual Scan SVO	A 01	44		K010831	02/08/2023 21:25	NT1023020754S.D	DSD	



ANALYSIS SEQUENCE

SLB0106

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GB00019 GCMS Column ID: L000749
MS EM Level: 1000 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
23A0031-14	LDW23-SS1138	270E-SIM Dual Scan SVO	A 01	45		K010831	02/08/2023 22:03	NT1023020755S.D	DSD	
BLA0160-MS2	Matrix Spike	QC		46		K010831	02/08/2023 22:41	NT1023020756S.D	DSD	
BLA0160-MSD2	Matrix Spike Dup	QC		47		K010831	02/08/2023 23:19	NT1023020757S.D	DSD	
SLB0106-CCV1	ABN 1	QC		48	K011107	K010831	02/09/2023 01:13	NT1023020760S.D	DSD	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b\20230207.b

Time	Filename	LabID	ClientId	DF														
1	1154	NT1023020701S.D	SLB0106-TUN1		1	|	NO ISTDS FOUND||											
2	1218	NT1023020702S.D			1	|	NO ISTDS FOUND||											
3	1257	NT1023020703S.D	SLB0106-CAL8		1	|	8.96	127627||11.43	477552||15.01	233486||18.02	439772||23.07	343972||25.62	368450|					
4	1335	NT1023020704S.D	SLB0106-CAL7		1	|	8.96	117157||11.42	443872||15.00	226196||18.02	406281||23.07	352619||25.62	360424|					
5	1414	NT1023020705S.D	SLB0106-CAL6		1	|	8.96	120943||11.42	451498||15.00	230284||18.02	411788||23.07	362547||25.62	370447|					
6	1452	NT1023020706S.D	SLB0106-CAL5		1	|	8.96	128794||11.42	469043||15.00	233225||18.02	433858||23.06	361809||25.62	380407|					
7	1530	NT1023020707S.D	SLB0106-CAL4		1	|	8.97	134585||11.42	492819||15.00	241419||18.02	453837||23.06	377942||25.62	396018|					
8	1609	NT1023020708S.D	SLB0106-CAL3		1	|	8.96	110996||11.42	400386||15.00	198387||18.02	365385||23.06	297264||25.62	312718|					
9	1647	NT1023020709S.D	SLB0106-CAL2		1	|	8.96	136875||11.42	493562||15.00	242772||18.02	447005||23.06	366662||25.62	385910|					
10	1725	NT1023020710S.D	SLB0106-CAL1		1	|	8.97	114171||11.42	413714||15.00	201294||18.02	378490||23.06	311028||25.62	320643|					
11	1804	NT1023020711S.D	SLB0106-SCV1		1	|	8.97	121574||11.42	457304||15.01	231625||18.02	412906||23.07	357298||25.62	361150|					
12	1842	NT1023020712S.D			1	|	NO ISTDS FOUND||											
13	1920	NT1023020713S.D	SEQ-LCV1		1	|	8.96	127448||11.42	459191||15.00	228840||18.02	413751||23.06	342486||25.62	357565|					
14	1958	NT1023020714S.D	SLB0106-ICV1		1	|	8.97	127975||11.42	464967||15.00	234978||18.02	431277||23.07	358788||25.62	370755|					
15	2036	NT1023020715S.D	SLB0106-LCV1		1	|	8.96	137052||11.42	493177||15.00	243620||18.02	446506||23.06	370022||25.62	388403|					
16	2114	NT1023020716S.D	BLA0160-BLK3		1	|	8.97	110723||11.42	402412||15.00	198377||18.02	367157||23.06	298048||25.62	282205|					
17	2152	NT1023020717S.D	BLA0160-BS2		1	|	8.97	110807||11.42	403307||15.01	202270||18.02	373870||23.07	306885||25.62	305930|					
18	2230	NT1023020718S.D	BLA0160-BSD2		1	|	8.96	112259||11.42	411473||15.01	204242||18.02	378986||23.07	304094||25.62	300628|					
19	2309	NT1023020719S.D	BLA0160-SRM2		1	|	8.96	112114||11.42	410278||15.00	203758||18.02	385638||23.07	301014||25.62	290133|					
20	2347	NT1023020720S.D	23A0031-01		1	|	8.96	107965||11.42	398657||15.00	196682||18.02	351390||23.07	270613||25.62	328913|					

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b\20230207.b

Time	Filename	LabID	ClientId	DF									
21	0025	NT1023020721S.D	23A0031-02	1	|	8.97	112022||11.42	417387||15.01	206013||18.02	383214||23.07	283048||25.63	338155|	
22	0103	NT1023020722S.D	23A0031-03	1	|	8.96	100015||11.42	372094||15.00	180738||18.02	329551||23.07	244901||25.63	299557|	
23	0141	NT1023020723S.D	23A0031-04	1	|	8.97	109315||11.42	410277||15.01	199704||18.02	372823||23.07	275317||25.63	325043|	
24	0218	NT1023020724S.D	23A0031-05	1	|	8.97	102071||11.42	380853||15.01	187319||18.02	346716||23.07	258406||25.63	308547|	
25	0257	NT1023020725S.D	23A0031-06	1	|	8.97	104003||11.43	387135||15.01	189939||18.02	361779||23.07	267322||25.63	309509|	
26	0334	NT1023020726S.D	23A0031-07	1	|	8.97	98993||11.42	371726||15.01	181917||18.02	336826||23.08	253244||25.63	298568|	
27	0413	NT1023020727S.D	23A0031-08	1	|	8.97	104338||11.43	394877||15.01	194034||18.02	358656||23.08	274629||25.64	313774|	
28	0451	NT1023020728S.D	23A0031-09	1	|	8.97	103917||11.43	394505||15.01	191584||18.02	355293||23.08	276147||25.65	297452|	
29	0529	NT1023020729S.D	23A0031-10	1	|	8.97	106518||11.43	402507||15.01	194380||18.03	358489||23.08	281548||25.65	300684|	
30	0607	NT1023020730S.D	23A0031-11	1	|	8.97	92717||11.43	351247||15.01	166081||18.02	312170||23.08	243505||25.63	275249|	
31	0645	NT1023020731S.D	23A0031-12	1	|	8.97	89897||11.43	337409||15.01	161506||18.02	297891||23.08	238544||25.64	263371|	
32	0724	NT1023020732S.D	SEQ-ICV2	1	|	8.97	115715||11.43	441080||15.01	220681||18.02	400233||23.08	345619||25.63	382335|	
33	0802	NT1023020733S.D	SEQ-LCV2	1	|	8.97	120550||11.43	440099||15.01	211763||18.02	390655||23.07	319612||25.62	370093|	
34	0840	NT1023020734S.D	SLB0106-ICV2	1	|	8.97	123596||11.43	454738||15.01	223117||18.02	408770||23.07	339328||25.63	382671|	
35	0918	NT1023020735S.D	SLB0106-LCV2	1	|	8.97	136631||11.43	494473||15.01	239109||18.02	436435||23.07	359093||25.63	406370|	
36	0956	NT1023020736S.D	BLA0064-BLK3	1	|	8.97	120344||11.43	445549||15.01	215301||18.02	395423||23.07	318273||25.62	350817|	
37	1035	NT1023020737S.D	BLA0064-BS2	1	|	8.97	89632||11.43	356743||15.01	180593||18.02	334413||23.07	273402||25.62	304782|	
38	1113	NT1023020738S.D	BLA0064-BSD2	1	|	8.97	107414||11.43	407123||15.01	201603||18.02	368890||23.07	298075||25.62	333508|	
39	1151	NT1023020739S.D	22L0459-01	1	|	8.97	110965||11.43	424736||15.01	204070||18.03	369495||23.09	284476||25.66	290541|	
40	1229	NT1023020740S.D	BLA0064-MS2	1	|	8.97	113976||11.43	432968||15.02	207269||18.03	379712||23.11	262267||25.68	260261|	
41	1308	NT1023020741S.D	BLA0064-MSD2	1	|	8.97	101164||11.43	388196||15.02	184753||18.04	337160||23.11	249066||25.68	234870|	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b\20230207.b

Time	Filename	LabID	ClientId	DF									
42	1346	NT1023020742S.D	22L0459-02	1	|	8.97	100891||11.43	392038||15.01	184063||18.03	341544||23.09	262324||25.67	250582|	
43	1425	NT1023020743S.D	22L0459-03	1	|	8.97	104328||11.43	406627||15.02	190468||18.04	354546||23.11	237446||25.69	215820|	
44	1503	NT1023020744S.D	22L0459-04	1	|	8.97	93235||11.43	366510||15.02	172531||18.03	323195||23.09	243552||25.66	225418|	
45	1541	NT1023020745S.D	22L0459-05	1	|	8.97	87773||11.43	343641||15.02	161215||18.04	299100||23.10	225102||25.69	189075|	
46	1620	NT1023020746S.D	22L0459-06	1	|	8.97	89484||11.43	348042||15.02	160019||18.04	301023||23.11	230142||25.69	184992|	
47	1658	NT1023020747S.D	22L0459-07	1	|	8.97	87825||11.43	345632||15.02	161330||18.04	302095||23.10	221246||25.67	188691|	
48	1736	NT1023020748S.D	SEQ-ICV3	1	|	8.97	85503||11.43	322816||15.02	162377||18.03	296201||23.08	269910||25.65	230520|	
49	1814	NT1023020749S.D	SEQ-LCV3	1	|	8.97	92311||11.43	336993||15.02	159967||18.03	300791||23.08	265211||25.64	229502|	
50	1852	NT1023020750S.D	SLB0106-ICV3	1	|	8.97	95705||11.43	353101||15.02	170881||18.03	321878||23.08	279976||25.65	238134|	
51	1931	NT1023020751S.D	SLB0106-LCV2	1	|	8.97	106466||11.43	387137||15.02	180160||18.03	334996||23.08	298320||25.64	251310|	
52	2008	NT1023020752S.D	BLA0160-BLK4	1	|	8.97	76782||11.43	288603||15.02	136246||18.03	252608||23.08	216105||25.64	173878|	
53	2047	NT1023020753S.D	23A0031-12	1	|	8.97	67580||11.43	252826||15.02	121531||18.03	222356||23.08	185834||25.65	164863|	
54	2125	NT1023020754S.D	23A0031-13	1	|	8.97	62896||11.43	238179||15.02	113969||18.03	207414||23.08	169045||25.66	154288|	
55	2203	NT1023020755S.D	23A0031-14	1	|	8.97	65989||11.43	251708||15.02	121538||18.03	225060||23.08	180743||25.65	162217|	
56	2241	NT1023020756S.D	BLA0160-MS1	1	|	8.97	67342||11.43	253069||15.02	124418||18.04	231566||23.09	187881||25.66	166627|	
57	2319	NT1023020757S.D	BLA0160-MSD1	1	|	8.97	62997||11.43	237770||15.02	116238||18.04	216331||23.08	175285||25.66	153226|	
58	2357	NT1023020758S.D	SEQ-CCV1	1	|	8.97	87868||11.44	331321||15.02	168992||18.03	309546||23.08	279182||25.65	221462|	
59	0035	NT1023020759S.D	SEQ-LCV1	1	|	8.97	93356||11.43	344344||15.02	165502||18.03	307169||23.08	266666||25.65	211167|	
60	0113	NT1023020760S.D	SLB0106-CCV1	1	|	8.97	95964||11.43	350716||15.02	174033||18.03	317531||23.08	279383||25.66	215378|	
61	0151	NT1023020761S.D	SIM-LCV1	1	|	8.97	107874||11.43	389989||15.02	183546||18.04	339249||23.08	301426||25.66	229883|	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b\20230207.b

Instrument: nt10.i Date: 07-FEB-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
1154	NT1023020701S.D	SLB0106-TUN1	1	NO MANUAL INTEGRATION
1218	NT1023020702S.D		1	NO MANUAL INTEGRATION
1257	NT1023020703S.D	SLB0106-CAL8	1	NO MANUAL INTEGRATION
1335	NT1023020704S.D	SLB0106-CAL7	1	NO MANUAL INTEGRATION
1414	NT1023020705S.D	SLB0106-CAL6	1	NO MANUAL INTEGRATION
1452	NT1023020706S.D	SLB0106-CAL5	1	NO MANUAL INTEGRATION
1530	NT1023020707S.D	SLB0106-CAL4	1	NO MANUAL INTEGRATION
1609	NT1023020708S.D	SLB0106-CAL3	1	Benzoic acid, Pentachlorophenol,
1647	NT1023020709S.D	SLB0106-CAL2	1	Pentachlorophenol,
1725	NT1023020710S.D	SLB0106-CAL1	1	Hexachlorobutadiene, Benzyl alcohol, N-Nitroso-di-n-propylamine, Hexachlorobenzene, Pentachlorophenol, Dibenzo Butylbenzylphthalate,
1804	NT1023020711S.D	SLB0106-SCV1	1	NO MANUAL INTEGRATION
1842	NT1023020712S.D		1	NO MANUAL INTEGRATION
1920	NT1023020713S.D	SEQ-LCV1	1	NO MANUAL INTEGRATION
1958	NT1023020714S.D	SLB0106-ICV1	1	NO MANUAL INTEGRATION
2036	NT1023020715S.D	SLB0106-LCV1	1	Benzyl alcohol, N-Nitroso-di-n-propylamine, Pentachlorophenol,
2114	NT1023020716S.D	BLA0160-BLK3	1	NO MANUAL INTEGRATION
2152	NT1023020717S.D	BLA0160-BS2	1	NO MANUAL INTEGRATION

Instrument: nt10.i Date: 07-FEB-2023

Time	Filename	LabID	DF	Manually Integrated Compounds					
2230	NT1023020718S.D	BLA0160-BSD2	1	NO MANUAL INTEGRATION					
2309	NT1023020719S.D	BLA0160-SRM2	1	NO MANUAL INTEGRATION					
2347	NT1023020720S.D	23A0031-01	1	1,4-Dichlorobenzene,	1,2-Dichlorobenzene,	2,4-Dimethylphenol,	Dimethylphthalate,	Diethylphthalate,	Butylbenzyl
0025	NT1023020721S.D	23A0031-02	1	1,4-Dichlorobenzene,	Dimethylphthalate,	Diethylphthalate,	Butylbenzylphthalate,		
0103	NT1023020722S.D	23A0031-03	1	1,4-Dichlorobenzene,	Benzoic acid,	Dimethylphthalate,	Pentachlorophenol,	Butylbenzylphthalate,	
0141	NT1023020723S.D	23A0031-04	1	1,4-Dichlorobenzene,	Dimethylphthalate,	Pentachlorophenol,	Butylbenzylphthalate,		
0218	NT1023020724S.D	23A0031-05	1	1,4-Dichlorobenzene,	Benzoic acid,	Diethylphthalate,	Pentachlorophenol,	Butylbenzylphthalate,	
0257	NT1023020725S.D	23A0031-06	1	1,4-Dichlorobenzene,	Benzoic acid,	Diethylphthalate,	Pentachlorophenol,	Butylbenzylphthalate,	
0334	NT1023020726S.D	23A0031-07	1	1,3-Dichlorobenzene,	1,4-Dichlorobenzene,	2-Methylphenol,	Benzoic acid,	Dimethylphthalate,	Diethylphthalate,
				Pentachlorophenol,	Butylbenzylphthalate,				
0413	NT1023020727S.D	23A0031-08	1	1,4-Dichlorobenzene,	1,2-Dichlorobenzene,	Benzoic acid,	Dimethylphthalate,	Diethylphthalate,	Pentachlorophenol
				Butylbenzylphthalate,					
0451	NT1023020728S.D	23A0031-09	1	1,3-Dichlorobenzene,	1,4-Dichlorobenzene,	Benzoic acid,	Dimethylphthalate,	Diethylphthalate,	Pentachlorophenol
				Dibenzo(a,h)anthracene,	Butylbenzylphthalate,				
0529	NT1023020729S.D	23A0031-10	1	1,4-Dichlorobenzene,	1,2-Dichlorobenzene,	Dimethylphthalate,	Diethylphthalate,	Pentachlorophenol,	Dibenzo(a,h)
				Butylbenzylphthalate,					
0607	NT1023020730S.D	23A0031-11	1	1,3-Dichlorobenzene,	1,4-Dichlorobenzene,	Benzoic acid,	Dimethylphthalate,	Pentachlorophenol,	Butylbenzylphtha
0645	NT1023020731S.D	23A0031-12	1	1,4-Dichlorobenzene,	1,2-Dichlorobenzene,	Dimethylphthalate,	Diethylphthalate,	Pentachlorophenol,	Butylbenzylp
0724	NT1023020732S.D	SEQ-ICV2	1	NO MANUAL INTEGRATION					
0802	NT1023020733S.D	SEQ-LCV2	1	NO MANUAL INTEGRATION					
0840	NT1023020734S.D	SLB0106-ICV2	1	NO MANUAL INTEGRATION					
0918	NT1023020735S.D	SLB0106-LCV2	1	Pentachlorophenol,					

Instrument: nt10.i Date: 08-FEB-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
0956	NT1023020736S.D	BLA0064-BLK3	1	1,4-Dichlorobenzene, 1,2-Dichlorobenzene, Dimethylphthalate,
1035	NT1023020737S.D	BLA0064-BS2	1	Benzoic acid,
1113	NT1023020738S.D	BLA0064-BSD2	1	NO MANUAL INTEGRATION
1151	NT1023020739S.D	22L0459-01	1	1,4-Dichlorobenzene, 2-Methylphenol, 1,2,4-Trichlorobenzene, Dimethylphthalate, Diethylphthalate, N-Nitrosodip Hexachlorobenzene, Pentachlorophenol, Butylbenzylphthalate,
1229	NT1023020740S.D	BLA0064-MS2	1	NO MANUAL INTEGRATION
1308	NT1023020741S.D	BLA0064-MSD2	1	NO MANUAL INTEGRATION
1346	NT1023020742S.D	22L0459-02	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dimethylphthalate, Diethylphthalate, Hexachlorobenzene, Pentachlorop Butylbenzylphthalate,
1425	NT1023020743S.D	22L0459-03	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dimethylphthalate, Diethylphthalate, Hexachlorobenzene, Pentachlorop Butylbenzylphthalate,
1503	NT1023020744S.D	22L0459-04	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, 2-Methylphenol, Dimethylphthalate, Diethylphtha Pentachlorophenol, Butylbenzylphthalate,
1541	NT1023020745S.D	22L0459-05	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, Diethylphthalate, Butylbenzylphthalate,
1620	NT1023020746S.D	22L0459-06	1	Benzoic acid, 1,2,4-Trichlorobenzene, Diethylphthalate, N-Nitrosodiphenylamine, Pentachlorophenol, Butylbenzyl
1658	NT1023020747S.D	22L0459-07	1	Hexachlorobutadiene, 1,4-Dichlorobenzene, 1,2,4-Trichlorobenzene, Diethylphthalate, N-Nitrosodiphenylamine, Pe Butylbenzylphthalate,
1736	NT1023020748S.D	SEQ-ICV3	1	NO MANUAL INTEGRATION
1814	NT1023020749S.D	SEQ-LCV3	1	NO MANUAL INTEGRATION
1852	NT1023020750S.D	SLB0106-ICV3	1	NO MANUAL INTEGRATION
1931	NT1023020751S.D	SLB0106-LCV2	1	Benzoic acid,
2008	NT1023020752S.D	BLA0160-BLK4	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, Pentachlorophenol,
2047	NT1023020753S.D	23A0031-12	1	1,4-Dichlorobenzene, 1,2-Dichlorobenzene, Diethylphthalate, Dibenzo(a,h)anthracene, Butylbenzylphthalate,

Instrument: nt10.i Date: 08-FEB-2023

Time	Filename	LabID	DF	Manually Integrated Compounds	
2125	NT1023020754S.D	23A0031-13	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, Diethylphthalate, N-Nitrosodiphenylamine, Butylbenzylphthalate,	Penta
2203	NT1023020755S.D	23A0031-14	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, Diethylphthalate, N-Nitrosodiphenylamine, Dibenzo(a,h)anthracene, Butylbenzylphthalate,	Penta
2241	NT1023020756S.D	BLA0160-MS1	1	NO MANUAL INTEGRATION	
2319	NT1023020757S.D	BLA0160-MSD1	1	NO MANUAL INTEGRATION	
2357	NT1023020758S.D	SEQ-CCV1	1	NO MANUAL INTEGRATION	
0035	NT1023020759S.D	SEQ-LCV1	1	NO MANUAL INTEGRATION	
0113	NT1023020760S.D	SLB0106-CCV1	1	NO MANUAL INTEGRATION	
0151	NT1023020761S.D	SIM-LCV1	1	NO MANUAL INTEGRATION	

Security Status Report

Date: 10-Feb-2023 09:08

NT1023020701S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020702S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020703S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020704S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020705S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020706S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020707S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020708S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020709S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020710S.D	Data Locked	van,	10-Feb-2023	09:07
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NT1023020758S.D	Data Locked	van, 10-Feb-2023 09:07
NT1023020759S.D	Data Locked	van, 10-Feb-2023 09:07
NT1023020760S.D	Data Locked	van, 10-Feb-2023 09:07
NT1023020761S.D	Data Locked	van, 10-Feb-2023 09:07

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-FEB-2023 12:57
 End Cal Date : 07-FEB-2023 17:25
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Last Edit : 09-Feb-2023 11:45 van

Calibration File Names:

Level 1: \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020710S.D
 Level 2: \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020709S.D
 Level 3: \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020708S.D
 Level 4: \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020707S.D
 Level 5: \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020706S.D
 Level 6: \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020705S.D
 Level 7: \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020704S.D
 Level 8: \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020703S.D

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
138 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
139 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
140 Diallate A	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

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 Last Edit : 09-Feb-2023 11:45 van

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
141 Diallate B	++++	++++	++++	++++	++++	++++					
	++++	++++					|AVRG|		|0.000e+000|		|0.000e+000|
142 1,2-Dibromo-3-Chloropropane	++++	++++	++++	++++	++++	++++					
	++++	++++					|AVRG|		|0.000e+000|		|0.000e+000|
135 2,3,5,6-Tetrachlorophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					|AVRG|		|0.000e+000|		|0.000e+000|
136 2,3,4,5-tetrachlorophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					|AVRG|		|0.000e+000|		|0.000e+000|
137 NewCpnd_131	++++	++++	++++	++++	++++	++++					
	++++	++++					|AVRG|		|0.000e+000|		|0.000e+000|
133 Butylatedhydroxytoluene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
132 3,6-Dimethylphenanthrene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

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 Last Edit : 09-Feb-2023 11:45 van

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
131 1-Methylphenanthrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
146 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
130 Dibenzothiophene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
129 1-Methylfluorene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
128 N-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
127 2-Isopropyl-naphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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 Method file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Last Edit : 09-Feb-2023 11:45 van

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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INITIAL CALIBRATION DATA

Start Cal Date : 07-FEB-2023 12:57
 End Cal Date : 07-FEB-2023 17:25
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Last Edit : 09-Feb-2023 11:45 van

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
120 2,3,4,6-Tetrachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
119 7,12-Dimethylbenz(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
117 Butyl Diphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
116 Dibutyl Phenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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INITIAL CALIBRATION DATA

Start Cal Date : 07-FEB-2023 12:57
 End Cal Date : 07-FEB-2023 17:25
 Quant Method : ISTD
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 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Last Edit : 09-Feb-2023 11:45 van

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
111 Azobenzene (1,2-DP-Hydrazine)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
108 4,5,6-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
107 4,5-Dichloro-2-Methoxyphenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
3 Phenol	1.58079	1.89837	1.89484	1.96176	2.04969	1.73555					
	1.79475	1.75767					AVRG		1.83418		8.03055
4 Bis(2-Chloroethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
6 2-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
7 1,3-Dichlorobenzene	1.74615	1.86857	1.75087	1.68994	1.69567	1.47816					
	1.50050	1.48435					AVRG		1.65178		8.86723
9 1,4-Dichlorobenzene	1.74685	1.82415	1.71700	1.64464	1.64495	1.43848					
	1.45391	1.44953					AVRG		1.61494		9.29693

ARI Labs, Inc.

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
11 Benzyl alcohol	0.62293	0.86415	0.93679	0.83356	0.96008	0.93553					
	0.98942	1.01574					AVRG		0.89477		14.00156
12 1,2-Dichlorobenzene	1.66908	1.76073	1.66781	1.60648	1.63427	1.41183					
	1.43716	1.42224					AVRG		1.57620		8.49209
13 2-Methylphenol	1.22343	1.34546	1.28491	1.31129	1.33606	1.16129					
	1.18325	1.17175					AVRG		1.25218		6.08280
14 2,2'-oxybis(1-Chloropropane)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
15 4-Methylphenol	1.10010	1.29695	1.28113	1.35183	1.40798	1.23738					
	1.28055	1.26128					AVRG		1.27715		7.02159
16 N-Nitroso-di-n-propylamine	0.75326	1.05498	0.93120	0.93342	0.96840	0.85951					
	0.89599	0.89695					AVRG		0.91171		9.53389
17 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
19 Nitrobenzene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
20 Isophorone	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
21 2-Nitrophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
22 2,4-Dimethylphenol	0.34652	0.38621	0.37736	0.37743	0.37769	0.32336					
	0.32586	0.29652					AVRG		0.35137		9.45702
23 Bis(2-Chloroethoxy)methane	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
24 Benzoic acid	++++	++++	686	13988	55939	172818					
	431413	1121229					QUAD	0.000e+000	6.16200	-0.81584	0.99832
25 2,4-Dichlorophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
26 1,2,4-Trichlorobenzene	0.34478|	0.37256|	0.35156|	0.33914|	0.34453|	0.29173|					
	0.29549|	0.29498|					|AVRG|		0.32935|		9.37065|
28 Naphthalene	++++|	++++|	++++|	++++|	++++|	++++|					
	++++|	++++|					|AVRG|		|0.000e+000|		|0.000e+000|
29 4-Chloroaniline	++++|	++++|	++++|	++++|	++++|	++++|					
	++++|	++++|					|AVRG|		|0.000e+000|		|0.000e+000|
30 Hexachlorobutadiene	0.18854|	0.20123|	0.19331|	0.18374|	0.18745|	0.16034|					
	0.16117|	0.16275|					|AVRG|		0.17982|		8.93978|
31 4-Chloro-3-methylphenol	++++|	++++|	++++|	++++|	++++|	++++|					
	++++|	++++|					|AVRG|		|0.000e+000|		|0.000e+000|
32 2-Methylnaphthalene	++++|	++++|	++++|	++++|	++++|	++++|					
	++++	++++					AVRG		0.000e+000		0.000e+000
33 Hexachlorocyclopentadiene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
34 2,4,6-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
35 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
37 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
38 2-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
39 Dimethylphthalate	0.92442|	1.02335|	0.96145|	0.99495|	1.01023|	0.83721|					
	0.84244|	0.86408|					|AVRG|		0.93227|		8.20643|
40 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
41 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
43 3-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
44 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
45 2,4-Dinitrophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
46 Dibenzofuran	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
47 4-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
48 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
49 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
50 Diethylphthalate	1.49592| 1.28852|	1.46195| +++++	1.39898|	1.47147|	1.52944|	1.26227|			1.41551|		7.33141|
51 4-Chlorophenyl-phenylether	+++++	+++++	+++++	+++++	+++++	+++++		AVRG	0.000e+000|		0.000e+000|
52 4-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++		AVRG	0.000e+000|		0.000e+000|
53 4,6-Dinitro-2-methylphenol	+++++	+++++	+++++	+++++	+++++	+++++		AVRG	0.000e+000|		0.000e+000|
54 N-Nitrosodiphenylamine	0.70554| 0.58766|	0.75239| 0.57369|	0.69198|	0.68143|	0.69645|	0.59922|			0.66104|		9.86820|
56 4-Bromophenyl-phenylether	+++++	+++++	+++++	+++++	+++++	+++++		AVRG	0.000e+000|		0.000e+000|
57 Hexachlorobenzene	0.29697 0.25082	0.32447 0.23980	0.29832	0.29138	0.29541	0.25345		AVRG	0.28133		10.51574

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2		
	5.0000	10.0000										
	Level 7	Level 8										
58 Pentachlorophenol	++++ 113682	349 ++++	1100	7222	19774	48429		QUAD	0.000e+000	11.93360	-10.73390	0.99902
60 Phenanthrene	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
61 Anthracene	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
62 Carbazole	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
63 Di-n-butylphthalate	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
64 Fluoranthene	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
65 Pyrene	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000

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Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2		
	5.0000	10.0000										
	Level 7	Level 8										
67 Butylbenzylphthalate	1953 254316	5564 549960	8910	29952	61304	127815		QUAD	0.000e+000	1.81649	-0.15663	0.99943
68 Benzo(a)anthracene	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
70 3,3'-Dichlorobenzidine	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
71 Chrysene	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
72 bis(2-Ethylhexyl)phthalate	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
73 Di-n-octylphthalate	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000
74 Benzo(b)fluoranthene	++++ ++++	++++ ++++	++++	++++	++++	++++		AVRG	0.000e+000			0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
75 Benzo(k)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
76 Benzo(a)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
78 Indeno(1,2,3-cd)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
79 Dibenzo(a,h)anthracene	1.08133|	1.21438|	1.15874|	1.13377|	1.18525|	1.02278|					
	1.06172|	1.11029|					AVRG		1.12103|		5.76967|
80 Benzo(g,h,i)perylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
90 N-Nitrosodimethylamine	0.70175	0.83142	0.81237	0.84482	0.86394	0.76990					
	0.78099	0.77173					AVRG		0.79711		6.51683
91 Aniline	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
93 Benzidine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					|AVRG|		|0.000e+000|		|0.000e+000|
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+000		0.000e+000

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	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
101 Cholesterol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
102 beta-Sitosterol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
103 Pyridine	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 1 2-Fluorophenol	1.04405	1.33767	1.31032	1.27277	1.30157	1.15028					
	1.18462	1.12985					AVRG		1.21639		8.59635
\$ 145 d8-1,4-Dioxane	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 2 Phenol-d5	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 5 2-Chlorophenol-d4	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

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 Last Edit : 09-Feb-2023 11:45 van

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
\$ 10 1,2-Dichlorobenzene-d4	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 18 Nitrobenzene-d5	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 36 2-Fluorobiphenyl	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 55 2,4,6-Tribromophenol	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 66 Terphenyl-d14	0.91310	0.99012	0.94031	0.91197	0.92876	0.77990					
	0.79262	0.84605					AVRG		0.88785		8.36094
\$ 85 p-Cresol-d4	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 86 Anthracene-d10	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-FEB-2023 12:57
 End Cal Date : 07-FEB-2023 17:25
 Quant Method : ISTD
 Origin : Force
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Last Edit : 09-Feb-2023 11:45 van

Compound	0.0500000	0.1000000	0.2000000	0.5000000	1.0000	2.5000	Curve	b	Coefficients		%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	5.0000	10.0000									
	Level 7	Level 8									
\$ 87 Fluoranthene-d10	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 88 Dibenz(a,h)anthracene-d14	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 89 Diphenyl-d10	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000
\$ 95 D10-1-methylnaphthalene	++++	++++	++++	++++	++++	++++					
	++++	++++					AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-FEB-2023 12:57
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Last Edit : 09-Feb-2023 11:45 van

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230207.b\20230207.b
Inst ID: nt10.i

Table with 8 columns: ID, RT01, RT02, RT03, RT04, RT05, RT06, RT07, RT08. Rows include FILENAME, INJ. DATE, and INJ. TIME for various sample IDs.

Main data table with 13 columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, RT08, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Lists various chemical compounds and their retention times.

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230207.b\20230207.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
127 2-Isopropyl-naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.349	22.849-23.849	+++++	+++++
126 N-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.474	21.974-22.974	+++++	+++++
144 alpha-Terpineol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.191	10.691-11.691	+++++	+++++
125 Safrole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.779	17.279-18.279	+++++	+++++
124 3,4-Dimethylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.310	15.810-16.810	+++++	+++++
123 Acetophenone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.707	17.207-18.207	+++++	+++++
122 Furfuraldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.921	8.421-9.421	+++++	+++++
143 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.736	3.236-4.236	+++++	+++++
145 d8-1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2.914	2.414-3.414	+++++	+++++
121 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.148	19.648-20.648	+++++	+++++
120 2,3,4,6-Tetrachlorophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.588	15.088-16.088	+++++	+++++
119 7,12-Dimethylbenz(a)an	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.587	38.087-39.087	+++++	+++++
118 Triphenyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.382	19.882-20.882	+++++	+++++
117 Butyl Diphenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.734	18.234-19.234	+++++	+++++
116 Dibutyl Phenyl Phospha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.987	16.487-17.487	+++++	+++++
115 Tributyl Phosphate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.204	14.704-15.704	+++++	+++++
114 Beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.540	14.040-15.040	+++++	+++++
113 Diphenyl Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.586	21.086-22.086	+++++	+++++
112 Biphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.692	17.192-18.192	+++++	+++++
111 Azobenzene (1,2-DP-Hyd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.268	15.768-16.768	+++++	+++++
110 Tetrachloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.055	17.555-18.555	+++++	+++++
109 3,4,5-Trichloroguaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.228	16.728-17.728	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230207.b\20230207.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
108 4,5,6-Trichloroguaiaco	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.517	16.017-17.017	+++++	+++++
107 4,5-Dichloro-2-Methoxy	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.803	14.303-15.303	+++++	+++++
106 Guaiacol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.843	11.343-12.343	+++++	+++++
105 1-methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.927	12.427-13.427	+++++	+++++
\$ 2 Phenol-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.235	7.735-8.735	+++++	+++++
3 Phenol	8.362	8.362	8.354	8.354	8.354	8.362	8.362	8.370	8.370	7.870-8.870	8.360	0.005
4 Bis(2-Chloroethyl)ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.397	7.897-8.897	+++++	+++++
\$ 5 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.490	7.990-8.990	+++++	+++++
6 2-Chlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.521	8.021-9.021	+++++	+++++
7 1,3-Dichlorobenzene	8.903	8.903	8.903	8.903	8.903	8.903	8.903	8.903	8.903	8.403-9.403	8.903	0.000
* 8 1,4-Dichlorobenzene-d4	8.965	8.965	8.965	8.965	8.965	8.965	8.965	8.965	8.965	8.465-9.465	8.965	0.000
9 1,4-Dichlorobenzene	8.996	8.996	8.996	8.996	8.996	8.996	8.996	8.996	8.996	8.496-9.496	8.996	0.000
\$ 10 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.230	8.730-9.730	+++++	+++++
11 Benzyl alcohol	9.237	9.229	9.229	9.229	9.237	9.244	9.244	9.268	9.268	8.768-9.768	9.239	0.013
12 1,2-Dichlorobenzene	9.345	9.345	9.345	9.345	9.345	9.345	9.345	9.345	9.345	8.845-9.845	9.345	0.000
13 2-Methylphenol	9.462	9.454	9.462	9.454	9.454	9.462	9.462	9.470	9.470	8.970-9.970	9.460	0.006
14 2,2'-oxybis(1-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.413	8.913-9.913	+++++	+++++
15 4-Methylphenol	9.726	9.725	9.725	9.726	9.726	9.733	9.733	9.741	9.741	9.241-10.241	9.730	0.006
16 N-Nitroso-di-n-propyla	9.788	9.780	9.780	9.780	9.780	9.780	9.780	9.780	9.780	9.280-10.280	9.781	0.003
17 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.809	9.309-10.309	+++++	+++++
\$ 18 Nitrobenzene-d5	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.917	9.417-10.417	+++++	+++++
19 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.948	9.448-10.448	+++++	+++++
20 Isophorone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.399	9.899-10.899	+++++	+++++
21 2-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.575	10.075-11.075	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230207.b\20230207.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
22 2,4-Dimethylphenol	10.763	10.754	10.754	10.755	10.755	10.754	10.763	10.763	10.763	10.263-11.263	10.758	0.004
23 Bis(2-Chloroethoxy)met	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.830	10.330-11.330	+++++	+++++
24 Benzoic acid	11.060	10.983	10.941	10.916	10.916	11.204	+++++	+++++	11.204	10.704-11.704	11.003	0.112
25 2,4-Dichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.033	10.533-11.533	+++++	+++++
26 1,2,4-Trichlorobenzene	11.342	11.342	11.342	11.335	11.335	11.335	11.342	11.343	11.343	10.843-11.843	11.340	0.004
* 27 Naphthalene-d8	11.427	11.419	11.420	11.420	11.420	11.420	11.420	11.420	11.420	10.920-11.920	11.421	0.003
28 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.326	10.826-11.826	+++++	+++++
29 4-Chloroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.457	10.957-11.957	+++++	+++++
30 Hexachlorobutadiene	11.829	11.829	11.821	11.829	11.822	11.829	11.829	11.829	11.829	11.329-12.329	11.827	0.004
31 4-Chloro-3-methylpheno	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.432	11.932-12.932	+++++	+++++
32 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.710	12.210-13.210	+++++	+++++
33 Hexachlorocyclopentadi	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.182	12.682-13.682	+++++	+++++
34 2,4,6-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.330	12.830-13.830	+++++	+++++
35 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.415	12.915-13.915	+++++	+++++
\$ 36 2-Fluorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.484	12.984-13.984	+++++	+++++
37 2-Chloronaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.686	13.186-14.186	+++++	+++++
38 2-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.941	13.441-14.441	+++++	+++++
39 Dimethylphthalate	14.522	14.514	14.514	14.515	14.515	14.514	14.515	14.515	14.515	14.015-15.015	14.516	0.003
40 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.545	14.045-15.045	+++++	+++++
41 2,6-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.506	14.006-15.006	+++++	+++++
* 42 Acenaphthene-d10	15.010	15.002	15.002	15.002	15.002	15.002	15.002	15.002	15.002	14.502-15.502	15.003	0.003
43 3-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.785	14.285-15.285	+++++	+++++
44 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.924	14.424-15.424	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
Batch File: \\target\share\chem3\nt10.i\20230207.b\20230207.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
45 2,4-Dinitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.001	14.501-15.501	+++++	+++++
46 Dibenzofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.248	14.748-15.748	+++++	+++++
47 4-Nitrophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.171	14.671-15.671	+++++	+++++
48 2,4-Dinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.302	14.802-15.802	+++++	+++++
49 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.952	15.452-16.452	+++++	+++++
50 Diethylphthalate	15.976	15.968	15.961	15.961	15.961	15.961	15.961	15.961	15.961	15.461-16.461	15.964	0.006
51 4-Chlorophenyl-phenyle	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.952	15.452-16.452	+++++	+++++
52 4-Nitroaniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.037	15.537-16.537	+++++	+++++
53 4,6-Dinitro-2-methylph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.145	15.645-16.645	+++++	+++++
54 N-Nitrosodiphenylamine	16.347	16.346	16.339	16.339	16.339	16.339	16.339	16.347	16.347	15.847-16.847	16.342	0.004
55 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.477	15.977-16.977	+++++	+++++
56 4-Bromophenyl-phenylet	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.939	16.439-17.439	+++++	+++++
57 Hexachlorobenzene	17.404	17.404	17.404	17.396	17.404	17.404	17.404	17.404	17.404	16.904-17.904	17.403	0.003
58 Pentachlorophenol	17.760	17.760	17.760	17.760	17.768	17.776	17.783	17.799	17.799	17.299-18.299	17.771	0.014
59 Phenanthrene-d10	18.023	18.015	18.015	18.016	18.016	18.015	18.015	18.016	18.016	17.516-18.516	18.016	0.003
60 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.899	17.399-18.399	+++++	+++++
61 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.991	17.491-18.491	+++++	+++++
62 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.324	17.824-18.824	+++++	+++++
63 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.152	18.652-19.652	+++++	+++++
64 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.289	19.789-20.789	+++++	+++++
65 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.715	20.215-21.215	+++++	+++++
66 Terphenyl-d14	21.172	21.164	21.164	21.165	21.165	21.164	21.164	21.165	21.165	20.665-21.665	21.165	0.003
67 Butylbenzylphthalate	22.101	22.093	22.093	22.094	22.094	22.093	22.094	22.094	22.094	21.594-22.594	22.094	0.003
68 Benzo(a)anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.875	22.375-23.375	+++++	+++++

ARI Labs, Inc.
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Batch File: \\target\share\chem3\nt10.i\20230207.b\20230207.b
Inst ID: nt10.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 69 Chrysene-d12	23.069	23.069	23.069	23.062	23.062	23.061	23.061	23.062	23.062	22.562-23.562	23.064	0.004
70 3,3'-Dichlorobenzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.844	22.344-23.344	+++++	+++++
71 Chrysene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.952	22.452-23.452	+++++	+++++
72 bis(2-Ethylhexyl)phtha	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.007	22.507-23.507	+++++	+++++
73 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.990	23.490-24.490	+++++	+++++
74 Benzo(b)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.687	24.187-25.187	+++++	+++++
75 Benzo(k)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.725	24.225-25.225	+++++	+++++
76 Benzo(a)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.283	24.783-25.783	+++++	+++++
* 77 Perylene-d12	25.624	25.616	25.616	25.616	25.617	25.616	25.616	25.617	25.617	25.117-26.117	25.617	0.003
78 Indeno(1,2,3-cd)pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.794	27.294-28.294	+++++	+++++
79 Dibenzo(a,h)anthracene	28.188	28.173	28.173	28.165	28.173	28.173	28.181	28.189	28.189	27.689-28.689	28.177	0.008
80 Benzo(g,h,i)perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	28.494	27.994-28.994	+++++	+++++
\$ 85 p-Cresol-d4	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.238	16.738-17.738	+++++	+++++
\$ 86 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.316	28.816-29.816	+++++	+++++
\$ 87 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.007	25.507-26.507	+++++	+++++
\$ 88 Dibenz(a,h)anthracene-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	44.609	44.109-45.109	+++++	+++++
\$ 89 Diphenyl-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.085	15.585-16.585	+++++	+++++
90 N-Nitrosodimethylamine	4.646	4.638	4.639	4.639	4.639	4.631	4.646	4.647	4.647	4.147-5.147	4.641	0.006
91 Aniline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.305	7.805-8.805	+++++	+++++
92 1,2-Diphenylhydrazine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.615	21.115-22.115	+++++	+++++
93 Benzidine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.529	20.029-21.029	+++++	+++++
\$ 95 D10-1-methylnaphthalen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.686	17.186-18.186	+++++	+++++
96 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.540	14.040-15.040	+++++	+++++
97 Caffeine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.957	26.457-27.457	+++++	+++++

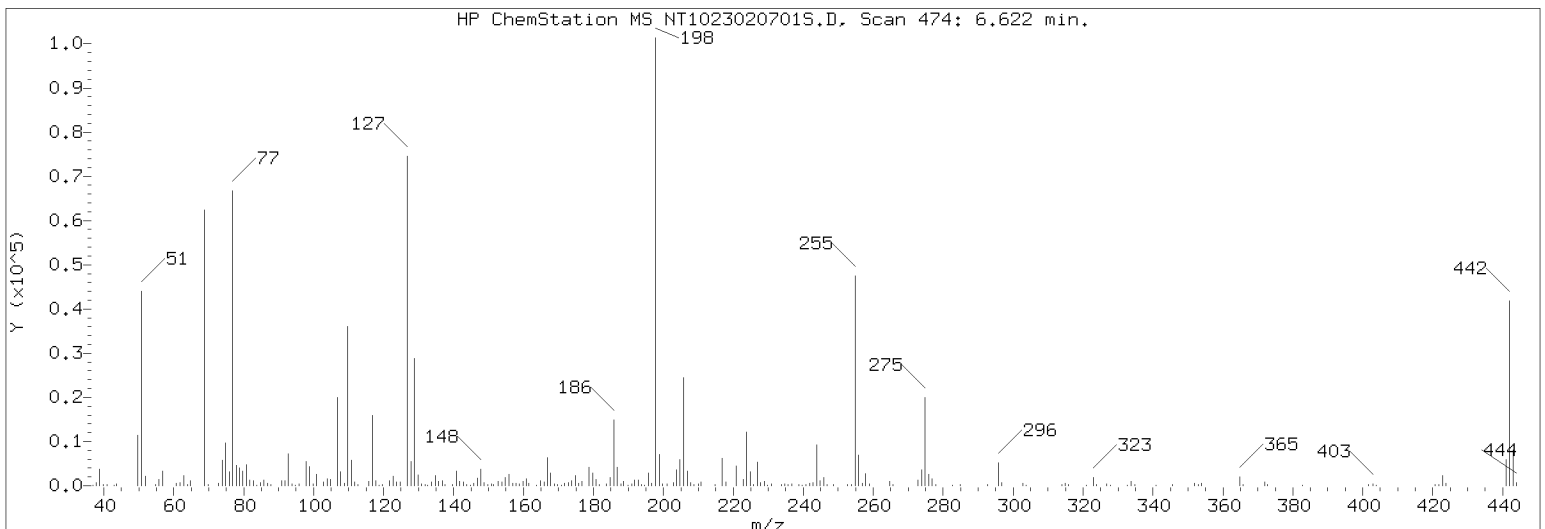
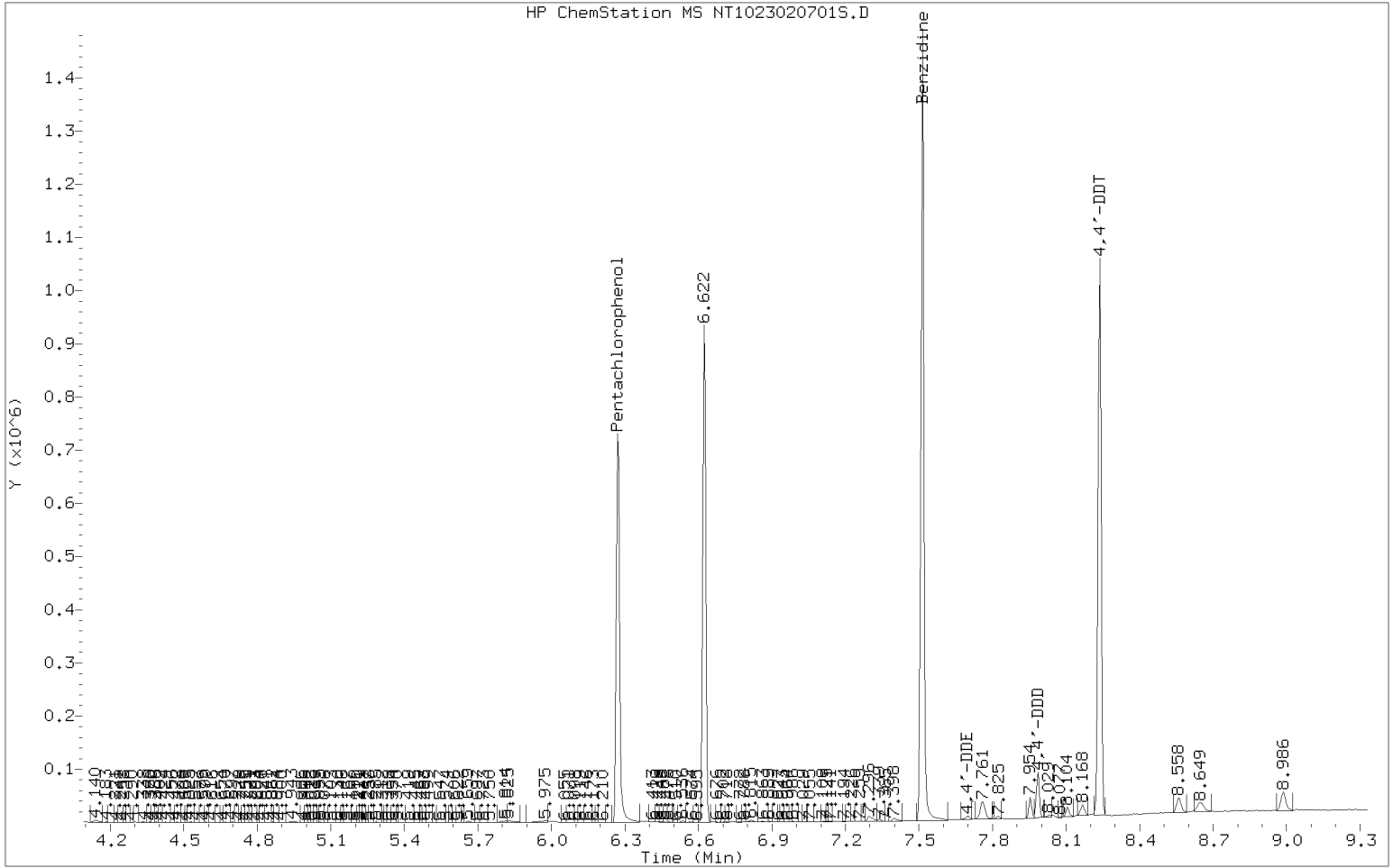
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Batch File: \\target\share\chem3\nt10.i\20230207.b\20230207.b
 Inst ID: nt10.i

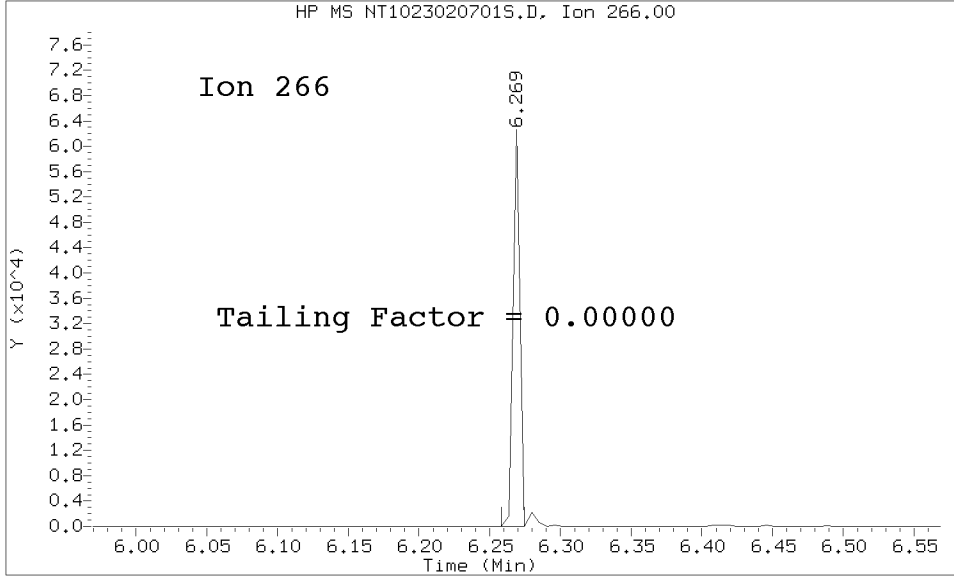
Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
98 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.609	19.109-20.109	+++++	+++++
99 Perylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.438	24.938-25.938	+++++	+++++
100 3-beta-Coprostanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.384	25.884-26.884	+++++	+++++
101 Cholesterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	43.881	43.381-44.381	+++++	+++++
102 beta-Sitosterol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	45.573	45.073-46.073	+++++	+++++
103 Pyridine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.535	4.035-5.035	+++++	+++++

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20230207.b/20230207.b/NT1023020701S.D/NT1023020701S.D
Method Used: \20230207.b\20230207.b\DFTPP8270E.m Inst: nt10
Injection Date: 07-FEB-2023 11:54 Operator: DSD
Sample Info: SLB0106-TUN1 SLB0106-TUN1
Report Date: 02/09/2023 12:56



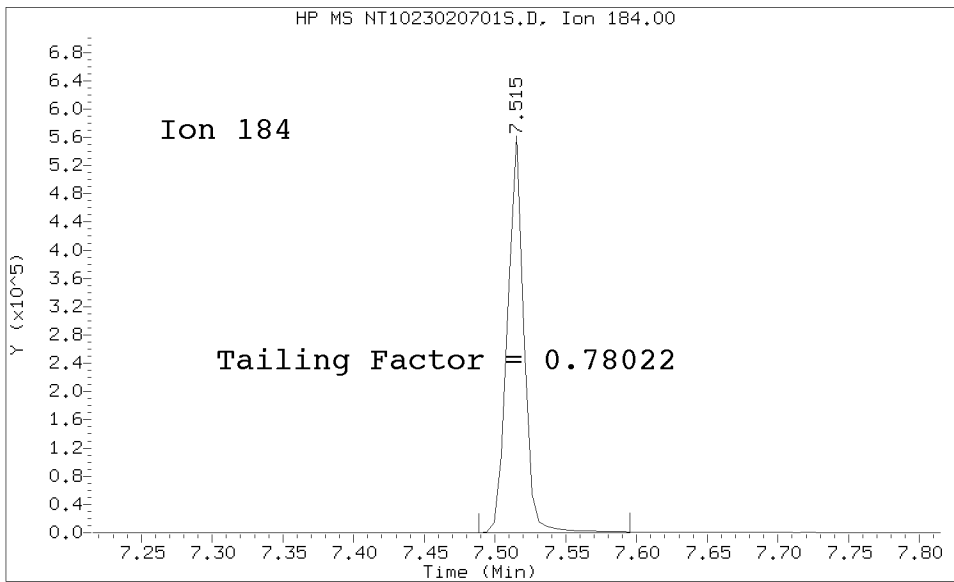
Datafile Analyzed: /20230207.b/20230207.b/NT1023020701S.D/NT1023020701S.D
Method Used: \20230207.b\20230207.b\DFTPP8270E.m\sw846ddt.m Inst: nt10
Injection Date: 07-FEB-2023 11:54 Operator: DSD
Sample Info: SEQ-TUN1
Report Date: 02/09/2023 12:56



Pentachlorophenol

=====
Exp. RT = 6.269
Found RT = 6.269

Tail Factor = 0.000 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 7.515
Found RT = 7.515

Tail Factor = 0.780 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.0000000	2.000	PASS
Benzidine	0.7802198	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	149280			N/A
4,4-DDE	735	0.5	20.0	PASS
4,4-DDD	12536	7.7	20.0	PASS
4,4-DDD + DDE	13271	8.2	20.0	PASS

Tuning Sample, nt10.i/20230207.b/20230207.b/NT1023020701S.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	60.47
70	Less than 2.00% of mass 69	0.29 (0.48)
197	Less than 2.00% of mass 198	0.49
199	5.00 - 9.00% of mass 198	6.86
365	1.00 - 100.00% of mass 198	2.39
441	Less than 150.00% of mass 443	6.91 (74.79)
442	Less than 200.00% of mass 198	47.52
443	15.00 - 24.00% of mass 442	9.23 (19.43)

Data File: NT1023020701S.D
 Spectrum: Avg. Scans 473-475 (6.62), Background Scan 468
 Location of Maximum: 198.00
 Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	119	116.00	359	180.00	2190	254.00	118
38.00	475	117.00	11928	181.00	1080	255.00	37560
39.00	2852	118.00	862	182.00	148	256.00	5492
40.00	228	119.00	105	184.00	220	257.00	441
41.00	60	120.00	163	185.00	1473	258.00	2142
43.00	52	122.00	932	186.00	11286	259.00	374
44.00	19	123.00	1583	187.00	3200	265.00	861
49.00	199	124.00	690	188.00	636	266.00	153
50.00	8730	125.00	703	189.00	393	273.00	1096
51.00	32904	127.00	55096	190.00	58	274.00	2954
52.00	1756	128.00	4133	191.00	351	275.00	16094
55.00	283	129.00	21552	192.00	960	276.00	2062
56.00	1097	130.00	1846	193.00	1072	277.00	1379
57.00	2521	131.00	354	194.00	250	278.00	185
61.00	464	132.00	220	195.00	53	283.00	130
62.00	564	133.00	55	196.00	2314	284.00	59
63.00	1603	134.00	606	197.00	379	285.00	205
64.00	237	135.00	1785	198.00	77392	293.00	262
65.00	848	136.00	683	199.00	5312	296.00	4424
69.00	46800	137.00	996	200.00	419	297.00	608
70.00	226	138.00	76	201.00	374	302.00	75
73.00	286	140.00	245	203.00	595	303.00	429
74.00	4406	141.00	2462	204.00	2841	304.00	113
75.00	7199	142.00	1192	205.00	4572	314.00	253
76.00	2399	143.00	511	206.00	18736	315.00	423
77.00	49840	144.00	185	207.00	2575	316.00	233
78.00	3477	145.00	68	208.00	609	321.00	120
79.00	2952	146.00	430	209.00	199	323.00	1536
80.00	2464	147.00	1292	210.00	336	324.00	224
81.00	3558	148.00	2914	211.00	768	327.00	262
82.00	946	149.00	591	215.00	254	328.00	111
83.00	770	150.00	144	217.00	4805	333.00	112
84.00	191	151.00	589	218.00	615	334.00	892
85.00	584	153.00	789	221.00	3522	335.00	216
86.00	997	154.00	600	223.00	1075	341.00	125
87.00	447	155.00	1374	224.00	9658	346.00	270
88.00	140	156.00	1954	225.00	2516	352.00	368
91.00	854	157.00	519	226.00	114	353.00	232
92.00	848	158.00	446	227.00	4133	354.00	428
93.00	5377	159.00	293	228.00	597	365.00	1853
94.00	366	160.00	719	229.00	841	366.00	222
95.00	195	161.00	1289	230.00	64	371.00	50
96.00	333	162.00	174	231.00	384	372.00	649
98.00	4109	164.00	57	234.00	215	373.00	150
99.00	3213	165.00	910	235.00	397	383.00	160
100.00	283	166.00	717	236.00	100	402.00	209
101.00	1952	167.00	4756	237.00	321	403.00	396
103.00	639	168.00	2216	239.00	184	404.00	124
104.00	1244	169.00	394	240.00	63	421.00	262

105.00	1190	170.00	79	241.00	196	422.00	242
106.00	77	171.00	147	242.00	509	423.00	1998
107.00	14850	172.00	428	243.00	289	424.00	382
108.00	2302	173.00	510	244.00	7324	441.00	5344
109.00	279	174.00	899	245.00	989	442.00	36776
110.00	26472	175.00	1734	246.00	1436	443.00	7145
111.00	4139	176.00	479	247.00	288	444.00	677
112.00	545	177.00	846	249.00	228		
113.00	159	179.00	3266	253.00	167		

Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.1\NT10230207035.D

Date: 07-FEB-2023 12:57

Client ID:

Sample Info: SLB0106-CAL8

Volume Injected (uL): 1.0

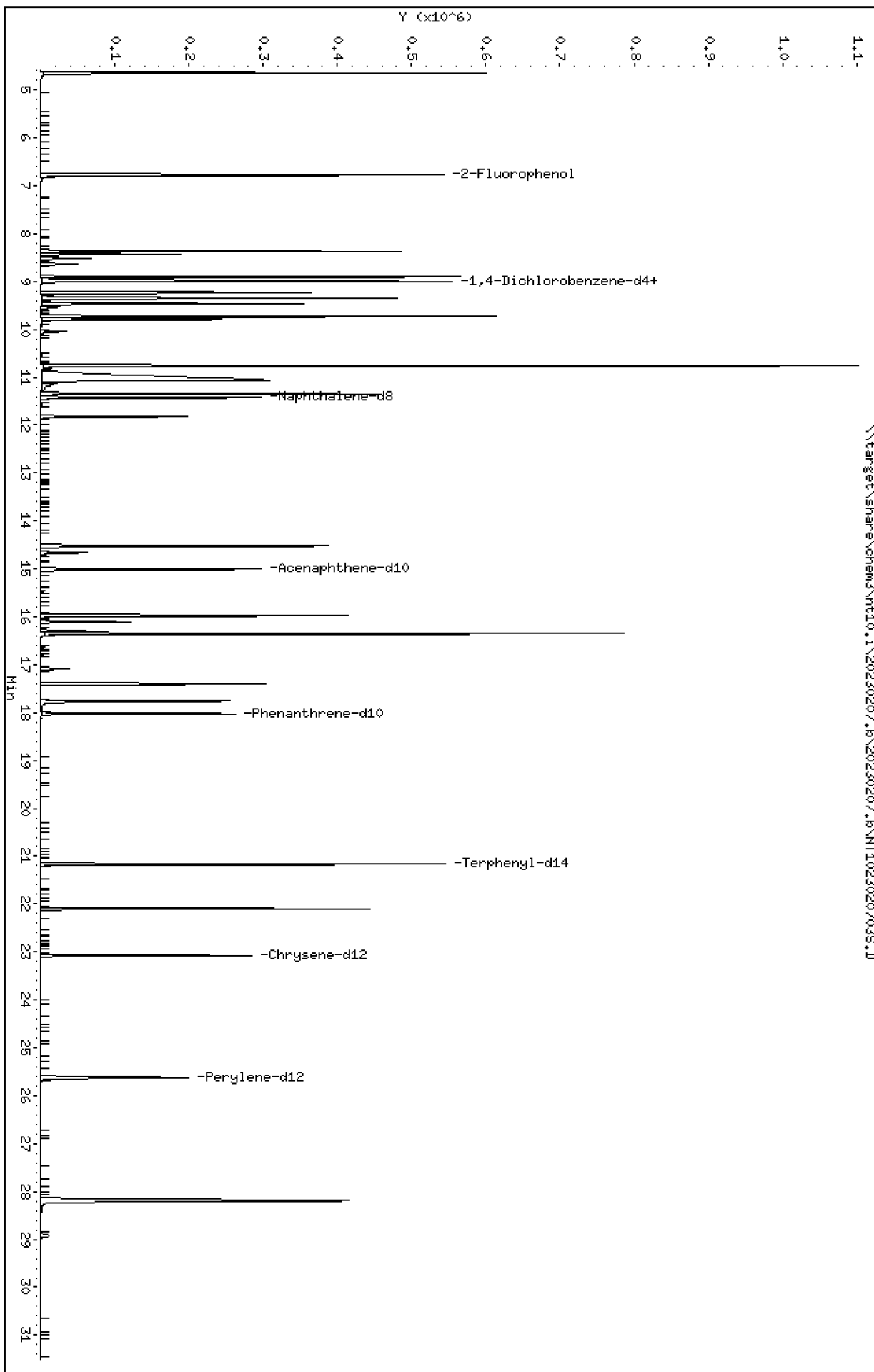
Column phase: ZB-5msi

Instrument: nt10.1

Operator: USD

Column diameter: 0.25

Page 1



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020703S.D
 Lab Smp Id: SLB0106-CAL8
 Inj Date : 07-FEB-2023 12:57 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-CAL8
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 09-Feb-2023 12:21 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 3 Calibration Sample, Level: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSSDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		6.777	6.785	(0.756)	540747	15.0000	13.93
3 Phenol	94		8.361	8.369	(0.933)	560814	10.0000	9.583
7 1,3-Dichlorobenzene	146		8.902	8.903	(0.993)	473607	10.0000	8.986
* 8 1,4-Dichlorobenzene-d4	152		8.964	8.965	(1.000)	127627	4.00000	
9 1,4-Dichlorobenzene	146		8.995	8.996	(1.003)	462499	10.0000	8.976
11 Benzyl alcohol	79		9.236	9.267	(1.030)	324090	10.0000	11.35
12 1,2-Dichlorobenzene	146		9.345	9.345	(1.042)	453790	10.0000	9.023
13 2-Methylphenol	108		9.461	9.469	(1.055)	373868	10.0000	9.358
15 4-Methylphenol	108		9.725	9.741	(1.085)	402432	10.0000	9.876
16 N-Nitroso-di-n-propylamine	70		9.787	9.780	(1.092)	286188	10.0000	9.838
22 2,4-Dimethylphenol	107		10.763	10.763	(0.942)	708012	20.0000	16.88
24 Benzoic acid	105		11.060	11.204	(0.968)	1121229	40.0000	39.88
26 1,2,4-Trichlorobenzene	180		11.342	11.342	(0.993)	352176	10.0000	8.957
* 27 Naphthalene-d8	136		11.427	11.419	(1.000)	477552	4.00000	
30 Hexachlorobutadiene	225		11.829	11.829	(1.035)	194304	10.0000	9.051
39 Dimethylphthalate	163		14.522	14.514	(0.968)	504374	10.0000	9.269
* 42 Acenaphthene-d10	162		15.009	15.002	(1.000)	233486	4.00000	
50 Diethylphthalate	149		15.976	15.961	(1.064)	772595	10.0000	9.427
54 N-Nitrosodiphenylamine	169		16.346	16.346	(0.907)	630732	10.0000	8.679
57 Hexachlorobenzene	284		17.403	17.404	(0.966)	263639	10.0000	8.524

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		17.760	17.799	(0.985)	273937	20.0000	19.95
* 59 Phenanthrene-d10	188		18.023	18.015	(1.000)	439772	4.00000	
\$ 66 Terphenyl-d14	244		21.172	21.164	(0.918)	727545	10.0000	9.529
67 Butylbenzylphthalate	149		22.101	22.094	(0.958)	549960	10.0000	10.66
* 69 Chrysene-d12	240		23.069	23.061	(1.000)	343972	4.00000	
* 77 Perylene-d12	264		25.624	25.616	(1.000)	368450	4.00000	
79 Dibenzo(a,h)anthracene	278		28.188	28.188	(1.100)	1022718	10.0000	9.904
90 N-Nitrosodimethylamine	74		4.646	4.646	(0.518)	492470	20.0000	19.36

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020703S.D
 Lab Smp Id: SLB0106-CAL8
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 07-FEB-2023
 Calibration Time: 14:52
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	128794	64397	257588	127627	-0.91
27 Naphthalene-d8	469043	234522	938086	477552	1.81
42 Acenaphthene-d10	233225	116613	466450	233486	0.11
59 Phenanthrene-d10	433858	216929	867716	439772	1.36
69 Chrysene-d12	361809	180905	723618	343972	-4.93
77 Perylene-d12	380407	190204	760814	368450	-3.14

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.96	-0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.43	0.07
42 Acenaphthene-d10	15.00	14.50	15.50	15.01	0.05
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	0.04
69 Chrysene-d12	23.06	22.56	23.56	23.07	0.03
77 Perylene-d12	25.62	25.12	26.12	25.62	0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020703S.D

Lab ID: SLB0106-CAL8

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

07-FEB-2023 12:57

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
0.968	0.000	0.9678		Benzoic acid

RRT check based on Ccal File: 20230207.b/NT1023020710S.D

On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.1\NT10230207045.D

Date: 07-FEB-2023 13:35

Client ID:

Sample Info: SLB0106-CAL7

Volume Injected (uL): 1.0

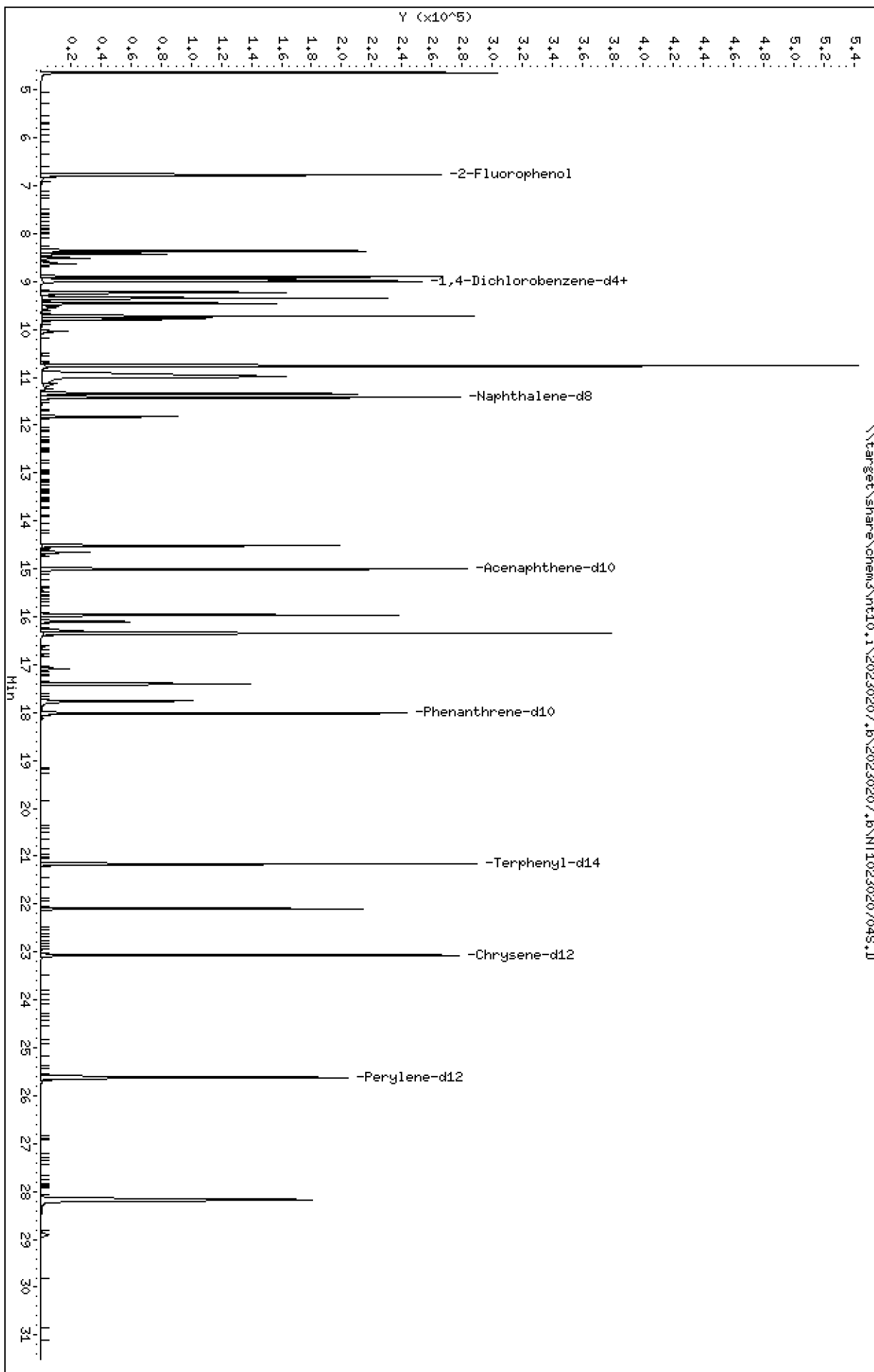
Column phase: ZB-5msi

Instrument: nt10.1

Operator: USD

Column diameter: 0.25

Page 1



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020704S.D
 Lab Smp Id: SLB0106-CAL7
 Inj Date : 07-FEB-2023 13:35 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-CAL7
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 09-Feb-2023 12:21 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 4 Calibration Sample, Level: 7
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		6.769	6.785	(0.755)	260225	7.50000	7.304
3 Phenol	94		8.361	8.369	(0.933)	262834	5.00000	4.893
7 1,3-Dichlorobenzene	146		8.902	8.903	(0.993)	219743	5.00000	4.542
* 8 1,4-Dichlorobenzene-d4	152		8.964	8.965	(1.000)	117157	4.00000	
9 1,4-Dichlorobenzene	146		8.995	8.996	(1.003)	212920	5.00000	4.501
11 Benzyl alcohol	79		9.228	9.267	(1.029)	144897	5.00000	5.529
12 1,2-Dichlorobenzene	146		9.344	9.345	(1.042)	210466	5.00000	4.559
13 2-Methylphenol	108		9.453	9.469	(1.055)	173282	5.00000	4.725
15 4-Methylphenol	108		9.725	9.741	(1.085)	187532	5.00000	5.013
16 N-Nitroso-di-n-propylamine	70		9.779	9.780	(1.091)	131214	5.00000	4.914
22 2,4-Dimethylphenol	107		10.754	10.763	(0.942)	361601	10.0000	9.274
24 Benzoic acid	105		10.983	11.204	(0.962)	431413	20.0000	20.87
26 1,2,4-Trichlorobenzene	180		11.342	11.342	(0.993)	163949	5.00000	4.486
* 27 Naphthalene-d8	136		11.419	11.419	(1.000)	443872	4.00000	
30 Hexachlorobutadiene	225		11.828	11.829	(1.036)	89424	5.00000	4.482
39 Dimethylphthalate	163		14.514	14.514	(0.968)	238197	5.00000	4.518
* 42 Acenaphthene-d10	162		15.001	15.002	(1.000)	226196	4.00000	
50 Diethylphthalate	149		15.968	15.961	(1.064)	364322	5.00000	4.589
54 N-Nitrosodiphenylamine	169		16.346	16.346	(0.907)	298443	5.00000	4.445
57 Hexachlorobenzene	284		17.403	17.404	(0.966)	127381	5.00000	4.458

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
58 Pentachlorophenol	266		17.759	17.799	(0.986)	113682	10.0000	10.33
* 59 Phenanthrene-d10	188		18.015	18.015	(1.000)	406281	4.00000	
\$ 66 Terphenyl-d14	244		21.164	21.164	(0.917)	349365	5.00000	4.464
67 Butylbenzylphthalate	149		22.093	22.094	(0.958)	254316	5.00000	4.807
* 69 Chrysene-d12	240		23.068	23.061	(1.000)	352619	4.00000	
* 77 Perylene-d12	264		25.616	25.616	(1.000)	360424	4.00000	
79 Dibenzo(a,h)anthracene	278		28.172	28.188	(1.100)	478335	5.00000	4.735
90 N-Nitrosodimethylamine	74		4.638	4.646	(0.517)	228745	10.0000	9.798

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020704S.D
 Lab Smp Id: SLB0106-CAL7
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 07-FEB-2023
 Calibration Time: 14:52
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	128794	64397	257588	117157	-9.04
27 Naphthalene-d8	469043	234522	938086	443872	-5.37
42 Acenaphthene-d10	233225	116613	466450	226196	-3.01
59 Phenanthrene-d10	433858	216929	867716	406281	-6.36
69 Chrysene-d12	361809	180905	723618	352619	-2.54
77 Perylene-d12	380407	190204	760814	360424	-5.25

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.96	-0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	-0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.00	-0.00
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	-0.00
69 Chrysene-d12	23.06	22.56	23.56	23.07	0.03
77 Perylene-d12	25.62	25.12	26.12	25.62	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020704S.D

Lab ID: SLB0106-CAL7

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

07-FEB-2023 13:35

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
0.962	0.000	0.9618		Benzoic acid

RRT check based on Ccal File: 20230207.b/NT1023020710S.D

On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.1\NT10230207055.D

Page 1

Date: 07-FEB-2023 14:14

Client ID:

Instrument: nt10.1

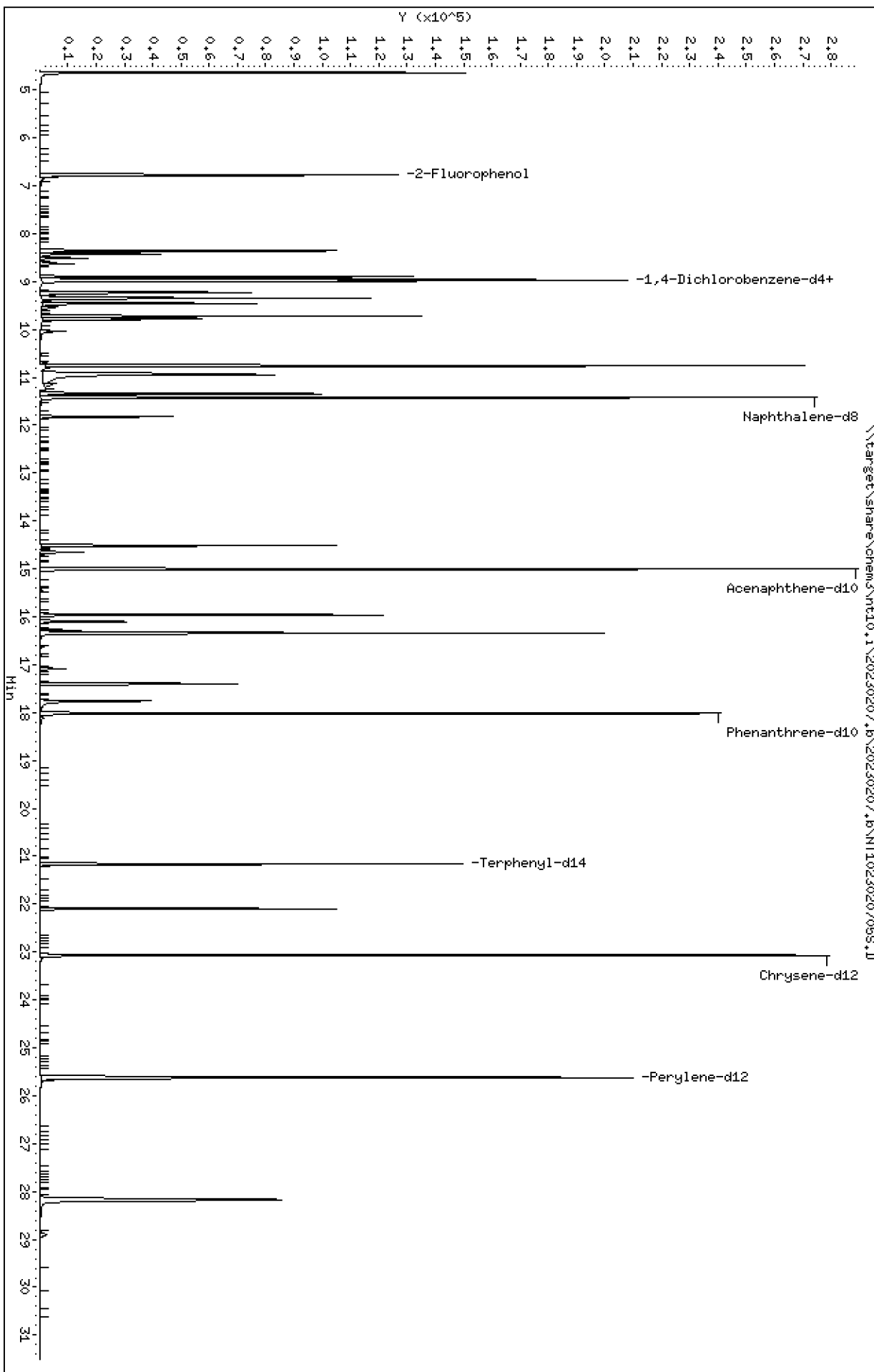
Sample Info: SLB0106-CAL6

Volume Injected (uL): 1.0

Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020705S.D
 Lab Smp Id: SLB0106-CAL6
 Inj Date : 07-FEB-2023 14:14 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-CAL6
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 09-Feb-2023 12:21 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 5 Calibration Sample, Level: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		6.777	6.785	(0.756)	130423	3.75000	3.546
3 Phenol	94		8.353	8.369	(0.932)	131189	2.50000	2.366
7 1,3-Dichlorobenzene	146		8.902	8.903	(0.993)	111733	2.50000	2.237
* 8 1,4-Dichlorobenzene-d4	152		8.964	8.965	(1.000)	120943	4.00000	
9 1,4-Dichlorobenzene	146		8.995	8.996	(1.003)	108734	2.50000	2.227
11 Benzyl alcohol	79		9.228	9.267	(1.029)	70716	2.50000	2.614
12 1,2-Dichlorobenzene	146		9.345	9.345	(1.042)	106719	2.50000	2.239
13 2-Methylphenol	108		9.461	9.469	(1.055)	87781	2.50000	2.319
15 4-Methylphenol	108		9.725	9.741	(1.085)	93533	2.50000	2.422
16 N-Nitroso-di-n-propylamine	70		9.779	9.780	(1.091)	64970	2.50000	2.357
22 2,4-Dimethylphenol	107		10.754	10.763	(0.942)	182493	5.00000	4.601
24 Benzoic acid	105		10.941	11.204	(0.958)	172818	10.0000	8.956
26 1,2,4-Trichlorobenzene	180		11.342	11.342	(0.993)	82323	2.50000	2.214
* 27 Naphthalene-d8	136		11.419	11.419	(1.000)	451498	4.00000	
30 Hexachlorobutadiene	225		11.821	11.829	(1.035)	45245	2.50000	2.229
39 Dimethylphthalate	163		14.514	14.514	(0.968)	120497	2.50000	2.245
* 42 Acenaphthene-d10	162		15.001	15.002	(1.000)	230284	4.00000	
50 Diethylphthalate	149		15.960	15.961	(1.064)	181675	2.50000	2.248
54 N-Nitrosodiphenylamine	169		16.338	16.346	(0.907)	154220	2.50000	2.266
57 Hexachlorobenzene	284		17.403	17.404	(0.966)	65231	2.50000	2.252

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		17.760	17.799	(0.986)	48429	5.00000	4.612
* 59 Phenanthrene-d10	188		18.015	18.015	(1.000)	411788	4.00000	
\$ 66 Terphenyl-d14	244		21.164	21.164	(0.917)	176719	2.50000	2.196
67 Butylbenzylphthalate	149		22.093	22.094	(0.958)	127815	2.50000	2.350
* 69 Chrysene-d12	240		23.069	23.061	(1.000)	362547	4.00000	
* 77 Perylene-d12	264		25.616	25.616	(1.000)	370447	4.00000	
79 Dibenzo(a,h)anthracene	278		28.172	28.188	(1.100)	236804	2.50000	2.281
90 N-Nitrosodimethylamine	74		4.638	4.646	(0.517)	116392	5.00000	4.829

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020705S.D
 Lab Smp Id: SLB0106-CAL6
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 07-FEB-2023
 Calibration Time: 14:52
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	128794	64397	257588	120943	-6.10
27 Naphthalene-d8	469043	234522	938086	451498	-3.74
42 Acenaphthene-d10	233225	116613	466450	230284	-1.26
59 Phenanthrene-d10	433858	216929	867716	411788	-5.09
69 Chrysene-d12	361809	180905	723618	362547	0.20
77 Perylene-d12	380407	190204	760814	370447	-2.62

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.96	-0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	-0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.00	-0.00
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	-0.00
69 Chrysene-d12	23.06	22.56	23.56	23.07	0.03
77 Perylene-d12	25.62	25.12	26.12	25.62	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020705S.D

Lab ID: SLB0106-CAL6

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

07-FEB-2023 14:14

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.958	0.000	0.9581	Benzoic acid

RRT check based on Ccal File: 20230207.b/NT1023020710S.D

On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.1\NT10230207065.D

Page 1

Date : 07-FEB-2023 14:52

Client ID:

Instrument: nt10.1

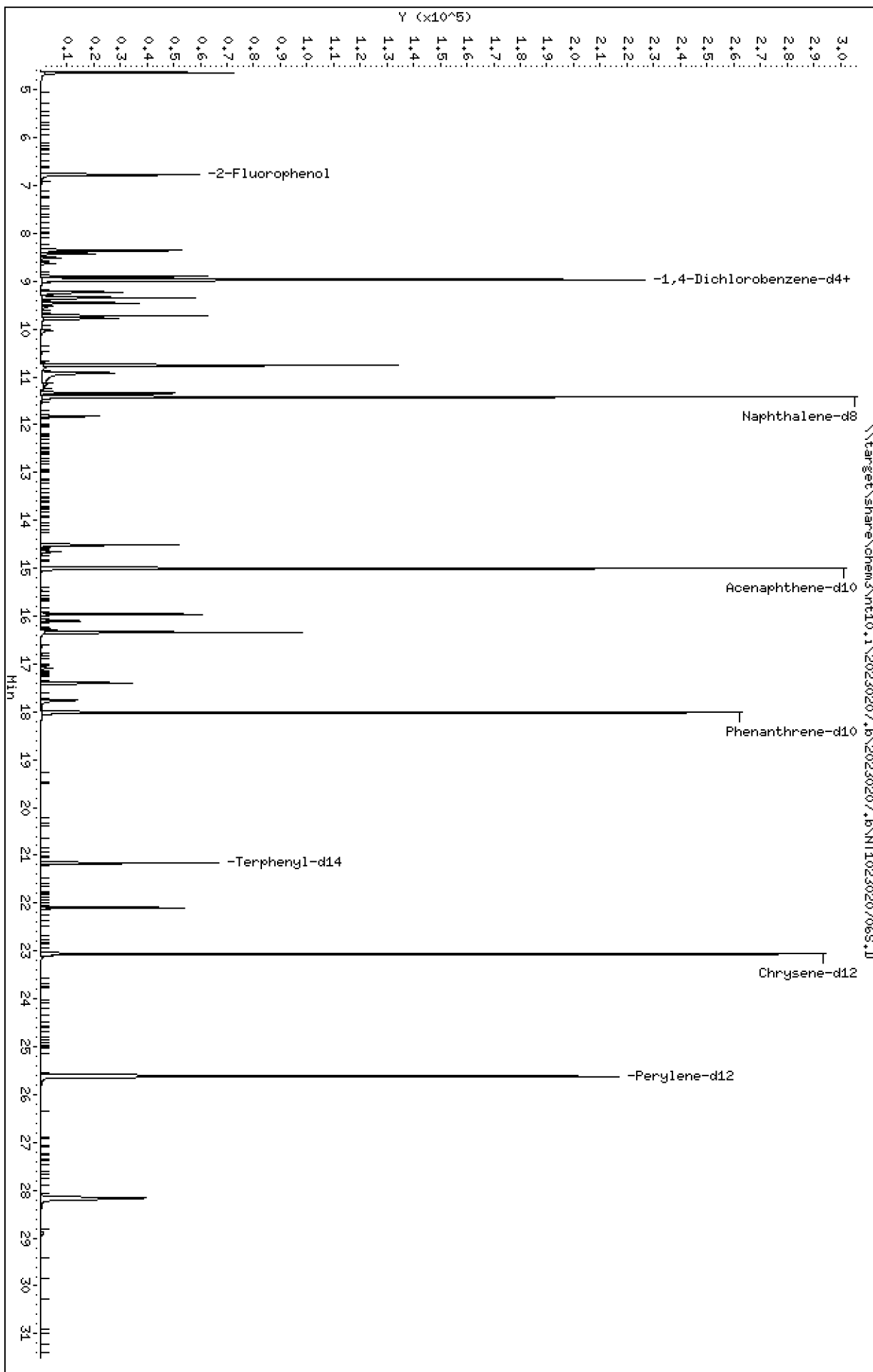
Sample Info: SLB0106-CAL5

Volume Injected (uL): 1.0

Operator: USD

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020706S.D
 Lab Smp Id: SLB0106-CAL5
 Inj Date : 07-FEB-2023 14:52 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-CAL5
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 09-Feb-2023 12:21 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 6 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		6.777	6.785	(0.756)	62863	1.50000	1.605
3 Phenol	94		8.354	8.369	(0.932)	65997	1.00000	1.117
7 1,3-Dichlorobenzene	146		8.902	8.903	(0.993)	54598	1.00000	1.027
* 8 1,4-Dichlorobenzene-d4	152		8.965	8.965	(1.000)	128794	4.00000	
9 1,4-Dichlorobenzene	146		8.996	8.996	(1.003)	52965	1.00000	1.019
11 Benzyl alcohol	79		9.228	9.267	(1.029)	30913	1.00000	1.073
12 1,2-Dichlorobenzene	146		9.345	9.345	(1.042)	52621	1.00000	1.037
13 2-Methylphenol	108		9.454	9.469	(1.055)	43019	1.00000	1.067
15 4-Methylphenol	108		9.725	9.741	(1.085)	45335	1.00000	1.102
16 N-Nitroso-di-n-propylamine	70		9.780	9.780	(1.091)	31181	1.00000	1.062
22 2,4-Dimethylphenol	107		10.754	10.763	(0.942)	88576	2.00000	2.150
24 Benzoic acid	105		10.915	11.204	(0.956)	55939	4.00000	2.893
26 1,2,4-Trichlorobenzene	180		11.334	11.342	(0.993)	40400	1.00000	1.046
* 27 Naphthalene-d8	136		11.419	11.419	(1.000)	469043	4.00000	
30 Hexachlorobutadiene	225		11.829	11.829	(1.036)	21981	1.00000	1.042
39 Dimethylphthalate	163		14.514	14.514	(0.968)	58903	1.00000	1.084
* 42 Acenaphthene-d10	162		15.002	15.002	(1.000)	233225	4.00000	
50 Diethylphthalate	149		15.960	15.961	(1.064)	89176	1.00000	1.089
54 N-Nitrosodiphenylamine	169		16.339	16.346	(0.907)	75540	1.00000	1.054
57 Hexachlorobenzene	284		17.396	17.404	(0.966)	32042	1.00000	1.050

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		17.760	17.799	(0.986)	19774	2.00000	1.834
* 59 Phenanthrene-d10	188		18.015	18.015	(1.000)	433858	4.00000	
\$ 66 Terphenyl-d14	244		21.164	21.164	(0.918)	84008	1.00000	1.046
67 Butylbenzylphthalate	149		22.093	22.094	(0.958)	61304	1.00000	1.129
* 69 Chrysene-d12	240		23.061	23.061	(1.000)	361809	4.00000	
* 77 Perylene-d12	264		25.616	25.616	(1.000)	380407	4.00000	
79 Dibenzo(a,h)anthracene	278		28.165	28.188	(1.100)	112719	1.00000	1.057
90 N-Nitrosodimethylamine	74		4.638	4.646	(0.517)	55635	2.00000	2.168

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020706S.D
 Lab Smp Id: SLB0106-CAL5
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 07-FEB-2023
 Calibration Time: 14:52
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	128794	64397	257588	128794	0.00
27 Naphthalene-d8	469043	234522	938086	469043	0.00
42 Acenaphthene-d10	233225	116613	466450	233225	0.00
59 Phenanthrene-d10	433858	216929	867716	433858	0.00
69 Chrysene-d12	361809	180905	723618	361809	0.00
77 Perylene-d12	380407	190204	760814	380407	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.96	0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.00	0.00
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	0.00
69 Chrysene-d12	23.06	22.56	23.56	23.06	0.00
77 Perylene-d12	25.62	25.12	26.12	25.62	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020706S.D

Lab ID: SLB0106-CAL5

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

07-FEB-2023 14:52

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
0.956	0.000	0.9559		Benzoic acid

RRT check based on Ccal File: 20230207.b/NT1023020710S.D

On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.1\NT10230207075.D

Page 1

Date : 07-FEB-2023 15:30

Client ID:

Instrument: nt10.1

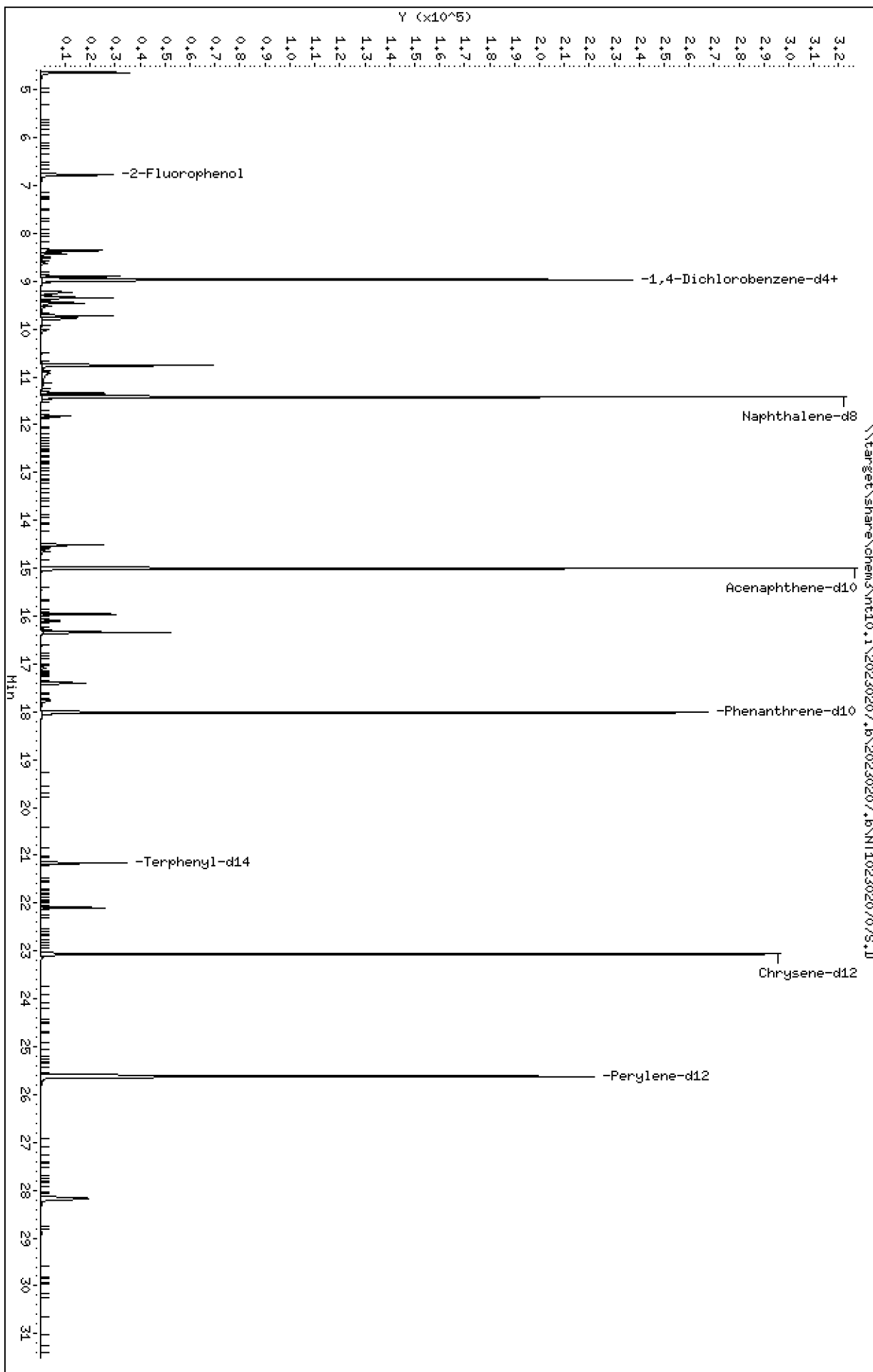
Sample Info: SLB0106-CAL4

Volume Injected (uL): 1.0

Operator: USD

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020707S.D
 Lab Smp Id: SLB0106-CAL4
 Inj Date : 07-FEB-2023 15:30 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-CAL4
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 09-Feb-2023 12:21 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 7 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		6.777	6.785	(0.756)	32118	0.75000	0.7848
3 Phenol	94		8.354	8.369	(0.932)	33003	0.50000	0.5348
7 1,3-Dichlorobenzene	146		8.903	8.903	(0.993)	28430	0.50000	0.5116
* 8 1,4-Dichlorobenzene-d4	152		8.965	8.965	(1.000)	134585	4.00000	
9 1,4-Dichlorobenzene	146		8.996	8.996	(1.003)	27668	0.50000	0.5092
11 Benzyl alcohol	79		9.236	9.267	(1.030)	14023	0.50000	0.4658
12 1,2-Dichlorobenzene	146		9.345	9.345	(1.042)	27026	0.50000	0.5096
13 2-Methylphenol	108		9.454	9.469	(1.055)	22060	0.50000	0.5236
15 4-Methylphenol	108		9.725	9.741	(1.085)	22742	0.50000	0.5292
16 N-Nitroso-di-n-propylamine	70		9.780	9.780	(1.091)	15703	0.50000	0.5119
22 2,4-Dimethylphenol	107		10.754	10.763	(0.942)	46501	1.00000	1.074
24 Benzoic acid	105		10.916	11.204	(0.956)	13988	2.00000	0.6970
26 1,2,4-Trichlorobenzene	180		11.334	11.342	(0.993)	20892	0.50000	0.5149
* 27 Naphthalene-d8	136		11.419	11.419	(1.000)	492819	4.00000	
30 Hexachlorobutadiene	225		11.821	11.829	(1.035)	11319	0.50000	0.5109
39 Dimethylphthalate	163		14.514	14.514	(0.968)	30025	0.50000	0.5336
* 42 Acenaphthene-d10	162		15.002	15.002	(1.000)	241419	4.00000	
50 Diethylphthalate	149		15.960	15.961	(1.064)	44405	0.50000	0.5240
54 N-Nitrosodiphenylamine	169		16.339	16.346	(0.907)	38657	0.50000	0.5154
57 Hexachlorobenzene	284		17.404	17.404	(0.966)	16530	0.50000	0.5179

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	
58 Pentachlorophenol	266		17.768	17.799	(0.986)	7222	1.00000	0.6471
* 59 Phenanthrene-d10	188		18.015	18.015	(1.000)	453837	4.00000	
\$ 66 Terphenyl-d14	244		21.164	21.164	(0.918)	43084	0.50000	0.5136
67 Butylbenzylphthalate	149		22.093	22.094	(0.958)	29952	0.50000	0.5282
* 69 Chrysene-d12	240		23.061	23.061	(1.000)	377942	4.00000	
* 77 Perylene-d12	264		25.616	25.616	(1.000)	396018	4.00000	
79 Dibenzo(a,h)anthracene	278		28.173	28.188	(1.100)	56124	0.50000	0.5057
90 N-Nitrosodimethylamine	74		4.638	4.646	(0.517)	28425	1.00000	1.060

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020707S.D
 Lab Smp Id: SLB0106-CAL4
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 07-FEB-2023
 Calibration Time: 14:52
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	128794	64397	257588	134585	4.50
27 Naphthalene-d8	469043	234522	938086	492819	5.07
42 Acenaphthene-d10	233225	116613	466450	241419	3.51
59 Phenanthrene-d10	433858	216929	867716	453837	4.60
69 Chrysene-d12	361809	180905	723618	377942	4.46
77 Perylene-d12	380407	190204	760814	396018	4.10

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.97	0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.00	0.00
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	0.00
69 Chrysene-d12	23.06	22.56	23.56	23.06	0.00
77 Perylene-d12	25.62	25.12	26.12	25.62	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020707S.D

Lab ID: SLB0106-CAL4

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

07-FEB-2023 15:30

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
0.956	0.000	0.9559		Benzoic acid

RRT check based on Ccal File: 20230207.b/NT1023020710S.D

On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.1\NT10230207085.D

Date: 07-FEB-2023 16:09

Client ID:

Sample Info: SLB0106-CAL3

Volume Injected (uL): 1.0

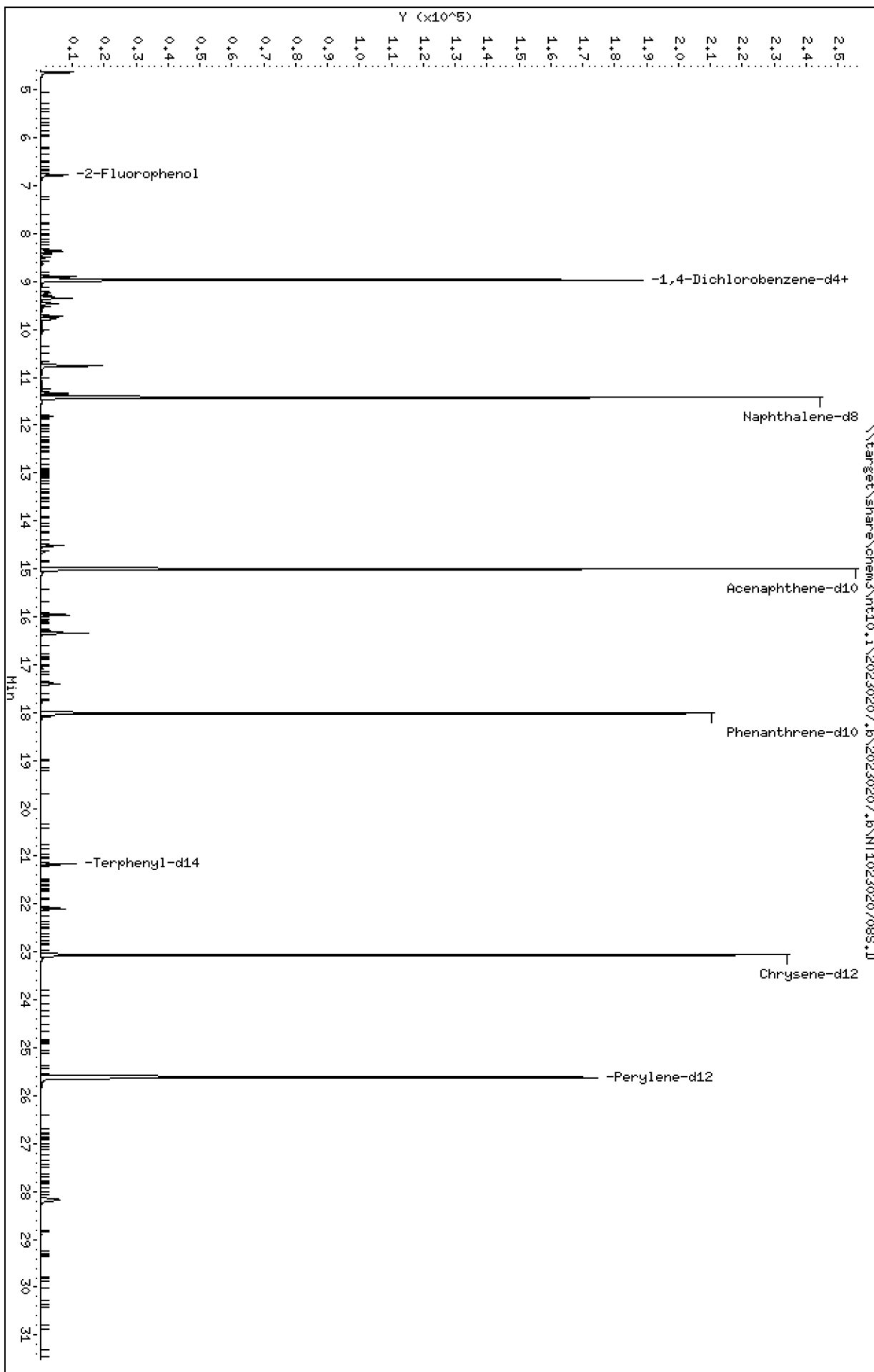
Column phase: ZB-5msi

Instrument: nt10.1

Operator: JSD

Column diameter: 0.25

Page 1



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020708S.D
 Lab Smp Id: SLB0106-CAL3
 Inj Date : 07-FEB-2023 16:09 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-CAL3
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 09-Feb-2023 12:21 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 8 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		6.777	6.785	(0.756)	10908	0.30000	0.3232
3 Phenol	94		8.361	8.369	(0.933)	10516	0.20000	0.2066
7 1,3-Dichlorobenzene	146		8.902	8.903	(0.993)	9717	0.20000	0.2120
* 8 1,4-Dichlorobenzene-d4	152		8.964	8.965	(1.000)	110996	4.00000	
9 1,4-Dichlorobenzene	146		8.995	8.996	(1.003)	9529	0.20000	0.2126
11 Benzyl alcohol	79		9.244	9.267	(1.031)	5199	0.20000	0.2094
12 1,2-Dichlorobenzene	146		9.345	9.345	(1.042)	9256	0.20000	0.2116
13 2-Methylphenol	108		9.461	9.469	(1.055)	7131	0.20000	0.2052
15 4-Methylphenol	108		9.733	9.741	(1.086)	7110	0.20000	0.2006
16 N-Nitroso-di-n-propylamine	70		9.779	9.780	(1.091)	5168	0.20000	0.2043
22 2,4-Dimethylphenol	107		10.754	10.763	(0.942)	15109	0.40000	0.4296
24 Benzoic acid	105		11.204	11.204	(0.981)	686	0.80000	0.04222 (M)
26 1,2,4-Trichlorobenzene	180		11.334	11.342	(0.993)	7038	0.20000	0.2135
* 27 Naphthalene-d8	136		11.419	11.419	(1.000)	400386	4.00000	
30 Hexachlorobutadiene	225		11.828	11.829	(1.036)	3870	0.20000	0.2150
39 Dimethylphthalate	163		14.514	14.514	(0.968)	9537	0.20000	0.2063
* 42 Acenaphthene-d10	162		15.001	15.002	(1.000)	198387	4.00000	
50 Diethylphthalate	149		15.960	15.961	(1.064)	13877	0.20000	0.1993
54 N-Nitrosodiphenylamine	169		16.338	16.346	(0.907)	12642	0.20000	0.2094
57 Hexachlorobenzene	284		17.403	17.404	(0.966)	5450	0.20000	0.2121

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
58 Pentachlorophenol	266		17.775	17.799	(0.987)	1100	0.40000	0.1230 (M)
* 59 Phenanthrene-d10	188		18.015	18.015	(1.000)	365385	4.00000	
\$ 66 Terphenyl-d14	244		21.164	21.164	(0.918)	13976	0.20000	0.2118
67 Butylbenzylphthalate	149		22.093	22.094	(0.958)	8910	0.20000	0.1998
* 69 Chrysene-d12	240		23.061	23.061	(1.000)	297264	4.00000	
* 77 Perylene-d12	264		25.616	25.616	(1.000)	312718	4.00000	
79 Dibenzo(a,h)anthracene	278		28.172	28.188	(1.100)	18118	0.20000	0.2067
90 N-Nitrosodimethylamine	74		4.630	4.646	(0.517)	9017	0.40000	0.4077

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020708S.D
 Lab Smp Id: SLB0106-CAL3
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 07-FEB-2023
 Calibration Time: 14:52
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	128794	64397	257588	110996	-13.82
27 Naphthalene-d8	469043	234522	938086	400386	-14.64
42 Acenaphthene-d10	233225	116613	466450	198387	-14.94
59 Phenanthrene-d10	433858	216929	867716	365385	-15.78
69 Chrysene-d12	361809	180905	723618	297264	-17.84
77 Perylene-d12	380407	190204	760814	312718	-17.79

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.96	-0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	-0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.00	-0.00
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	-0.00
69 Chrysene-d12	23.06	22.56	23.56	23.06	-0.00
77 Perylene-d12	25.62	25.12	26.12	25.62	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020708S.D

Lab ID: SLB0106-CAL3

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

07-FEB-2023 16:09

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
0.981	0.000	0.9811		Benzoic acid

RRT check based on Ccal File: 20230207.b/NT1023020710S.D

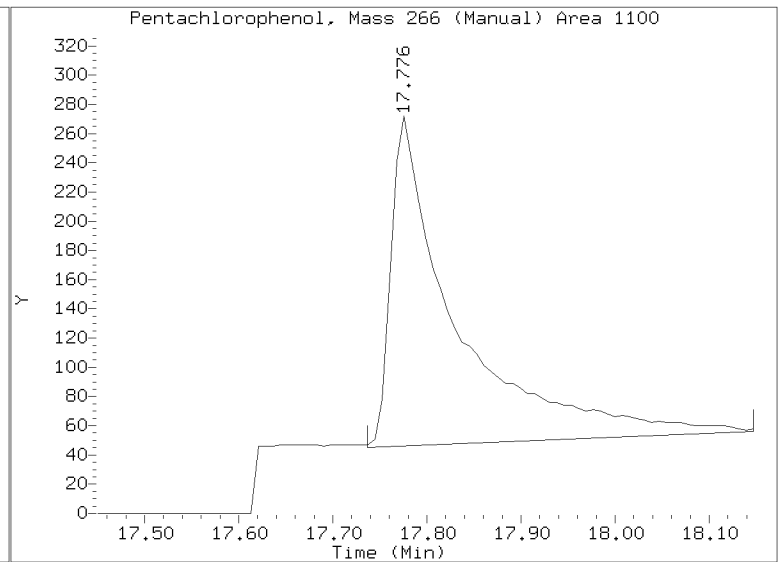
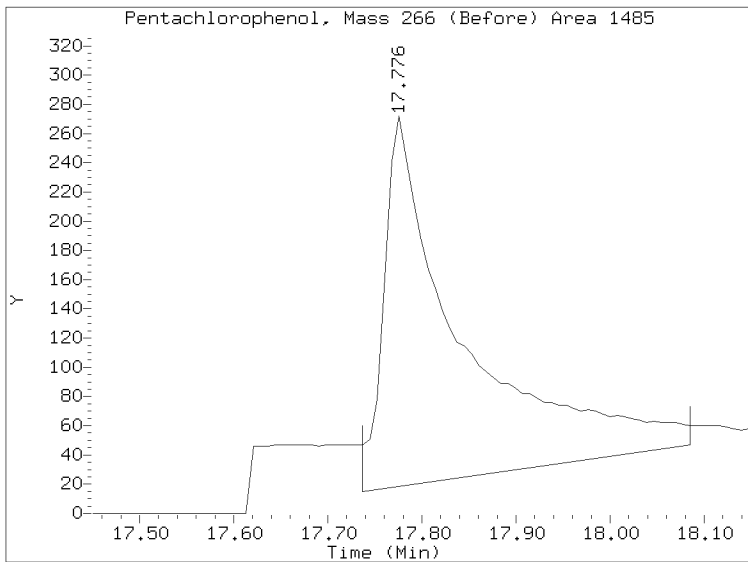
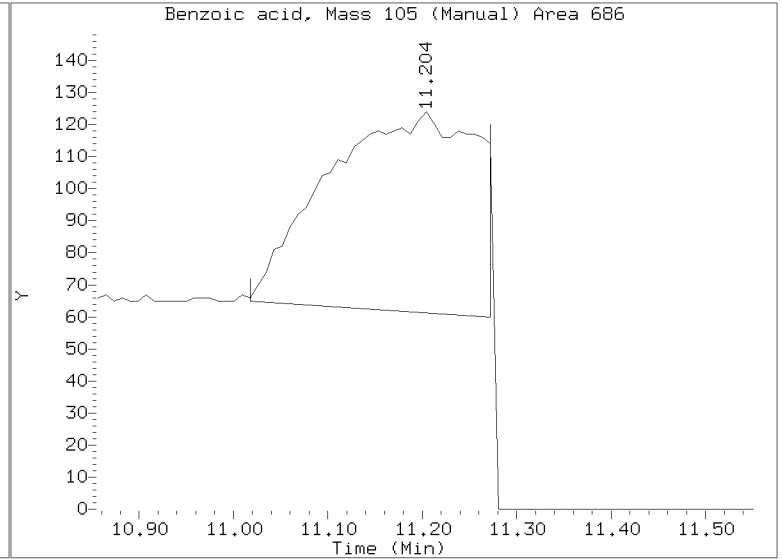
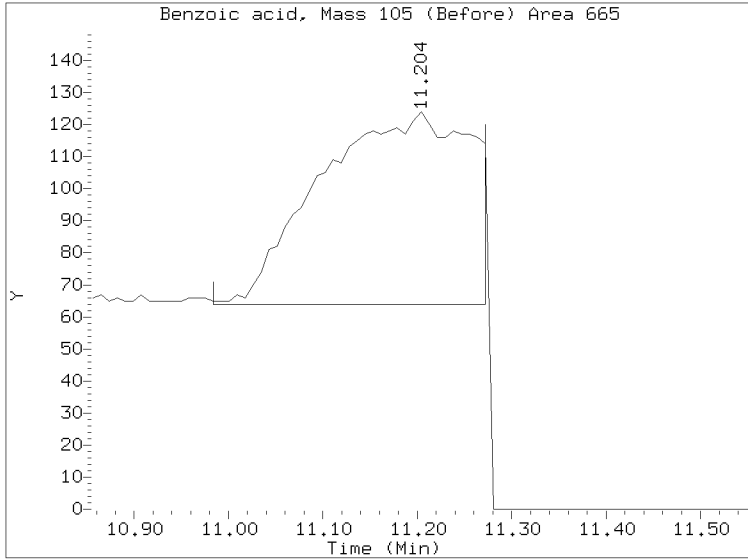
On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/20230207.b/NT1023020708S.D
Injection Date: 07-FEB-2023 16:09
Lab ID:SLB0106-CAL3 Client ID:
Report Date: 02/09/2023 12:53



Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.1\NT10230207095.D

Page 1

Date : 07-FEB-2023 16:47

Client ID:

Instrument: nt10.1

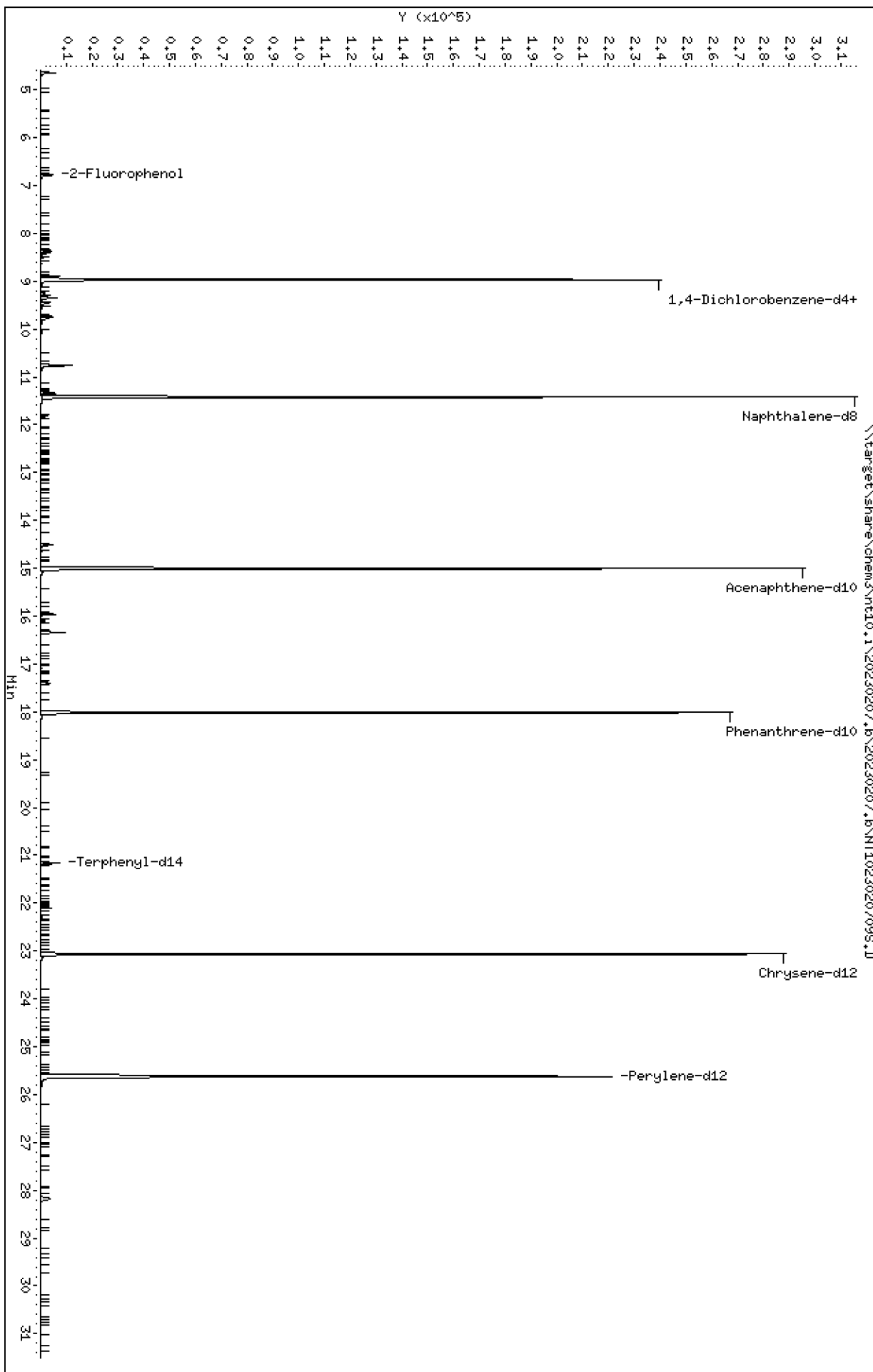
Sample Info: SLB0106-CAL2

Volume Injected (uL): 1.0

Operator: USD

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020709S.D
 Lab Smp Id: SLB0106-CAL2
 Inj Date : 07-FEB-2023 16:47 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-CAL2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 09-Feb-2023 12:21 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 9 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		6.777	6.785	(0.756)	6866	0.15000	0.1650
3 Phenol	94		8.361	8.369	(0.933)	6496	0.10000	0.1035
7 1,3-Dichlorobenzene	146		8.902	8.903	(0.993)	6394	0.10000	0.1131
* 8 1,4-Dichlorobenzene-d4	152		8.964	8.965	(1.000)	136875	4.00000	
9 1,4-Dichlorobenzene	146		8.995	8.996	(1.003)	6242	0.10000	0.1130
11 Benzyl alcohol	79		9.244	9.267	(1.031)	2957	0.10000	0.09658
12 1,2-Dichlorobenzene	146		9.345	9.345	(1.042)	6025	0.10000	0.1117
13 2-Methylphenol	108		9.461	9.469	(1.055)	4604	0.10000	0.1074
15 4-Methylphenol	108		9.733	9.741	(1.086)	4438	0.10000	0.1016
16 N-Nitroso-di-n-propylamine	70		9.779	9.780	(1.091)	3610	0.10000	0.1157
22 2,4-Dimethylphenol	107		10.763	10.763	(0.942)	9531	0.20000	0.2198
24 Benzoic acid	105		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		11.342	11.342	(0.993)	4597	0.10000	0.1131
* 27 Naphthalene-d8	136		11.419	11.419	(1.000)	493562	4.00000	
30 Hexachlorobutadiene	225		11.829	11.829	(1.036)	2483	0.10000	0.1119
39 Dimethylphthalate	163		14.514	14.514	(0.968)	6211	0.10000	0.1098
* 42 Acenaphthene-d10	162		15.002	15.002	(1.000)	242772	4.00000	
50 Diethylphthalate	149		15.960	15.961	(1.064)	8873	0.10000	0.1041
54 N-Nitrosodiphenylamine	169		16.338	16.346	(0.907)	8408	0.10000	0.1138
57 Hexachlorobenzene	284		17.403	17.404	(0.966)	3626	0.10000	0.1153

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		17.783	17.799	(0.987)	349	0.20000	0.03192 (M)
* 59 Phenanthrene-d10	188		18.015	18.015	(1.000)	447005	4.00000	
\$ 66 Terphenyl-d14	244		21.164	21.164	(0.918)	9076	0.10000	0.1115
67 Butylbenzylphthalate	149		22.093	22.094	(0.958)	5564	0.10000	0.1011
* 69 Chrysene-d12	240		23.061	23.061	(1.000)	366662	4.00000	
* 77 Perylene-d12	264		25.616	25.616	(1.000)	385910	4.00000	
79 Dibenzo(a,h)anthracene	278		28.180	28.188	(1.100)	11716	0.10000	0.1083
90 N-Nitrosodimethylamine	74		4.646	4.646	(0.518)	5690	0.20000	0.2086

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020709S.D
 Lab Smp Id: SLB0106-CAL2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 07-FEB-2023
 Calibration Time: 14:52
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	128794	64397	257588	136875	6.27
27 Naphthalene-d8	469043	234522	938086	493562	5.23
42 Acenaphthene-d10	233225	116613	466450	242772	4.09
59 Phenanthrene-d10	433858	216929	867716	447005	3.03
69 Chrysene-d12	361809	180905	723618	366662	1.34
77 Perylene-d12	380407	190204	760814	385910	1.45

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.96	-0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	-0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.00	-0.00
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	-0.00
69 Chrysene-d12	23.06	22.56	23.56	23.06	-0.00
77 Perylene-d12	25.62	25.12	26.12	25.62	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020709S.D

Lab ID: SLB0106-CAL2

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

07-FEB-2023 16:47

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230207.b/NT1023020710S.D

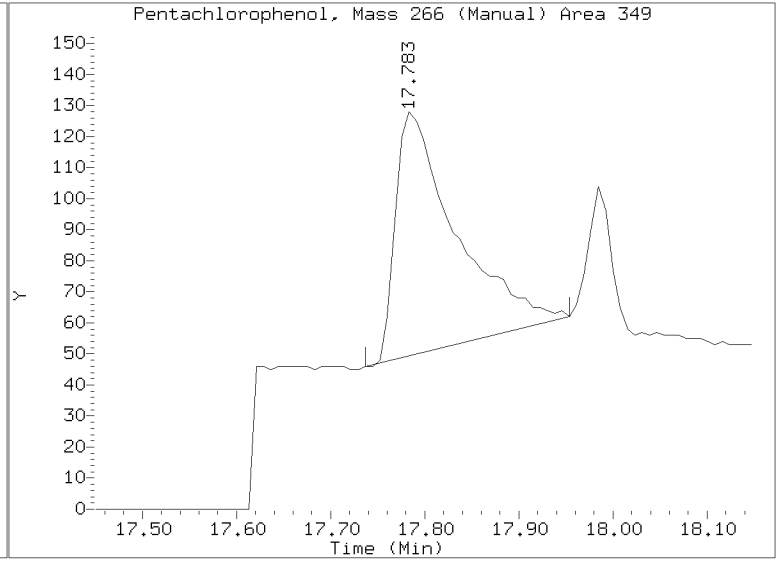
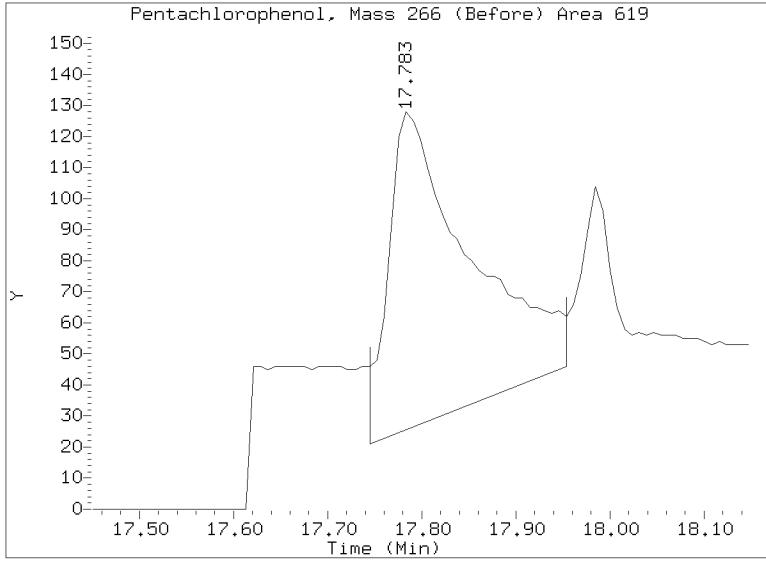
On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/20230207.b/NT1023020709S.D
Injection Date: 07-FEB-2023 16:47
Lab ID: SLB0106-CAL2 Client ID:
Report Date: 02/09/2023 12:53



Data File: \\target\share\chem3\nt10.1\20230207.105.D

Date: 07-FEB-2023 17:25

Client ID:

Sample Info: SLB0106-CAL1

Volume Injected (uL): 1.0

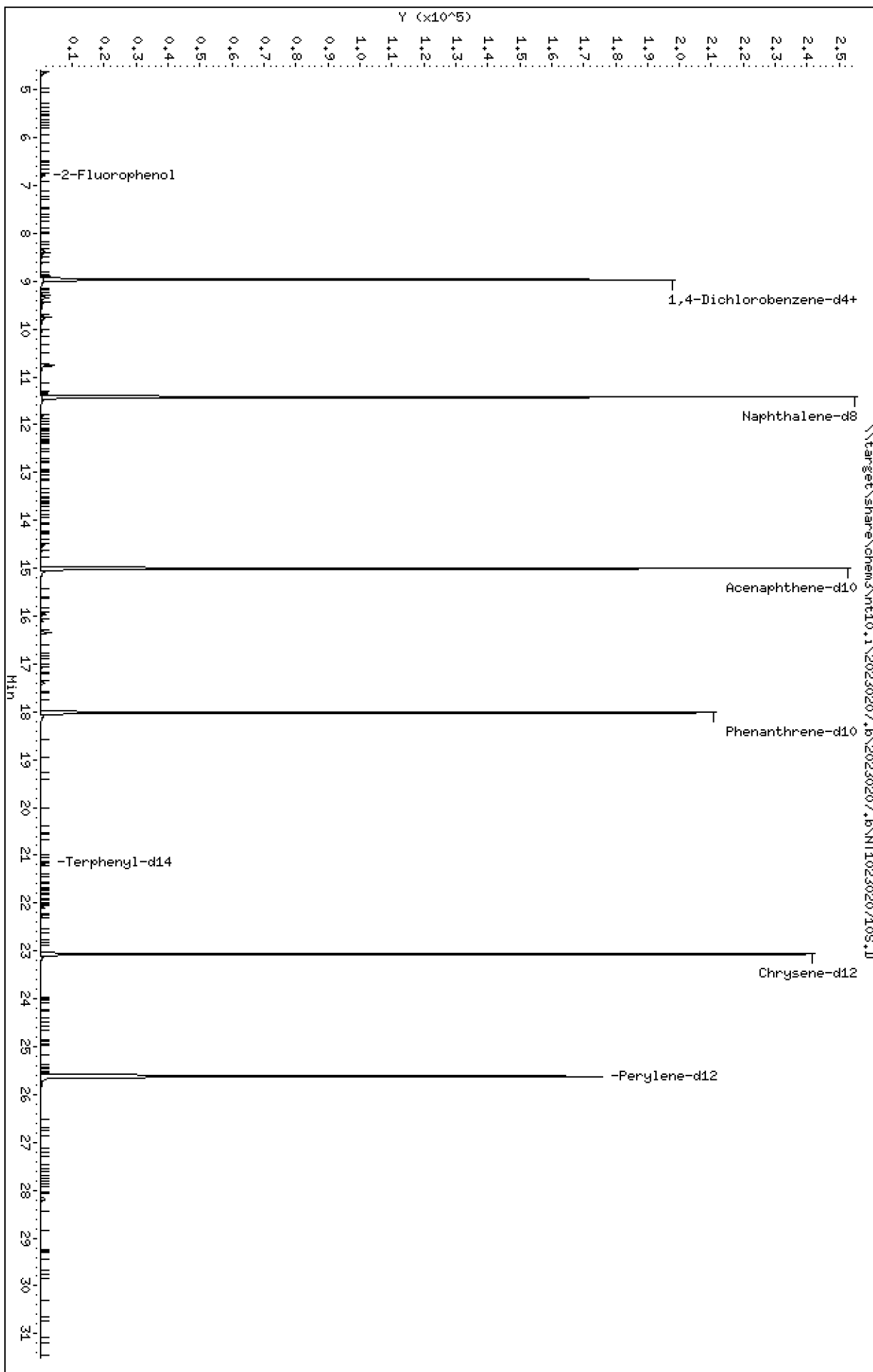
Column phase: ZB-5msi

Instrument: nt10.1

Operator: JSD

Column diameter: 0.25

Page 1



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020710S.D
 Lab Smp Id: SLB0106-CAL1
 Inj Date : 07-FEB-2023 17:25 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-CAL1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 09-Feb-2023 12:21 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 10 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vo} * \text{Vi}) * \text{CpndVariable}$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		6.785	6.785	(0.757)	2235	0.07500	0.06437
3 Phenol	94		8.369	8.369	(0.934)	2256	0.05000	0.04309
7 1,3-Dichlorobenzene	146		8.903	8.903	(0.993)	2492	0.05000	0.05286
* 8 1,4-Dichlorobenzene-d4	152		8.965	8.965	(1.000)	114171	4.00000	
9 1,4-Dichlorobenzene	146		8.996	8.996	(1.003)	2493	0.05000	0.05408
11 Benzyl alcohol	79		9.267	9.267	(1.034)	889	0.05000	0.03481 (M)
12 1,2-Dichlorobenzene	146		9.345	9.345	(1.042)	2382	0.05000	0.05295
13 2-Methylphenol	108		9.469	9.469	(1.056)	1746	0.05000	0.04885
15 4-Methylphenol	108		9.741	9.741	(1.087)	1570	0.05000	0.04307
16 N-Nitroso-di-n-propylamine	70		9.780	9.780	(1.091)	1075	0.05000	0.04131 (M)
22 2,4-Dimethylphenol	107		10.763	10.763	(0.943)	3584	0.10000	0.09862
24 Benzoic acid	105		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		11.342	11.342	(0.993)	1783	0.05000	0.05234
* 27 Naphthalene-d8	136		11.419	11.419	(1.000)	413714	4.00000	
30 Hexachlorobutadiene	225		11.829	11.829	(1.036)	975	0.05000	0.05242 (M)
39 Dimethylphthalate	163		14.514	14.514	(0.968)	2326	0.05000	0.04958
* 42 Acenaphthene-d10	162		15.002	15.002	(1.000)	201294	4.00000	
50 Diethylphthalate	149		15.960	15.961	(1.064)	3764	0.05000	0.05327
54 N-Nitrosodiphenylamine	169		16.346	16.346	(0.907)	3338	0.05000	0.05337
57 Hexachlorobenzene	284		17.404	17.404	(0.966)	1405	0.05000	0.05278 (M)

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		17.799	17.799	(0.988)	43	0.10000	0.004645 (M)
* 59 Phenanthrene-d10	188		18.015	18.015	(1.000)	378490	4.00000	
\$ 66 Terphenyl-d14	244		21.164	21.164	(0.918)	3550	0.05000	0.05142
67 Butylbenzylphthalate	149		22.093	22.094	(0.958)	1953	0.05000	0.04185 (M)
* 69 Chrysene-d12	240		23.061	23.061	(1.000)	311028	4.00000	
* 77 Perylene-d12	264		25.616	25.616	(1.000)	320643	4.00000	
79 Dibenzo(a,h)anthracene	278		28.188	28.188	(1.100)	4334	0.05000	0.04823 (M)
90 N-Nitrosodimethylamine	74		4.646	4.646	(0.518)	2003	0.10000	0.08804

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020710S.D
 Lab Smp Id: SLB0106-CAL1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 07-FEB-2023
 Calibration Time: 14:52
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	128794	64397	257588	114171	-11.35
27 Naphthalene-d8	469043	234522	938086	413714	-11.80
42 Acenaphthene-d10	233225	116613	466450	201294	-13.69
59 Phenanthrene-d10	433858	216929	867716	378490	-12.76
69 Chrysene-d12	361809	180905	723618	311028	-14.04
77 Perylene-d12	380407	190204	760814	320643	-15.71

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.97	0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.00	0.00
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	0.00
69 Chrysene-d12	23.06	22.56	23.56	23.06	0.00
77 Perylene-d12	25.62	25.12	26.12	25.62	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020710S.D

Lab ID: SLB0106-CAL1

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

07-FEB-2023 17:25

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: 20230207.b/NT1023020710S.D

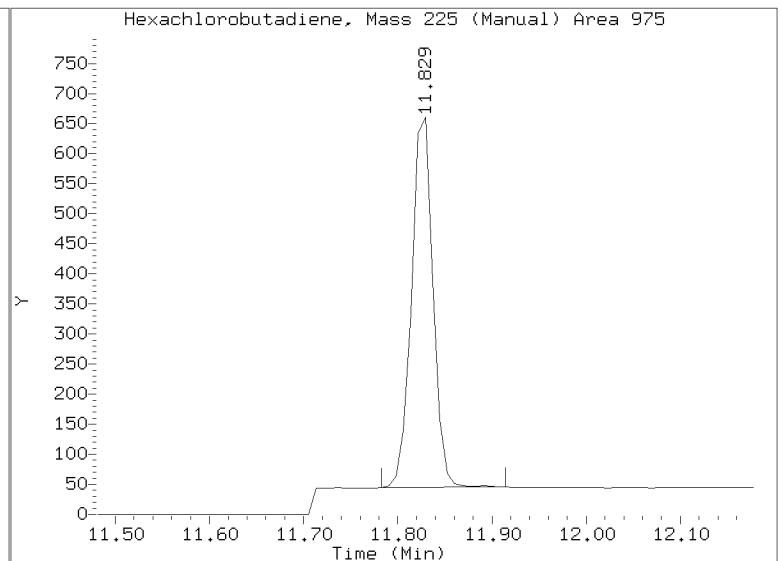
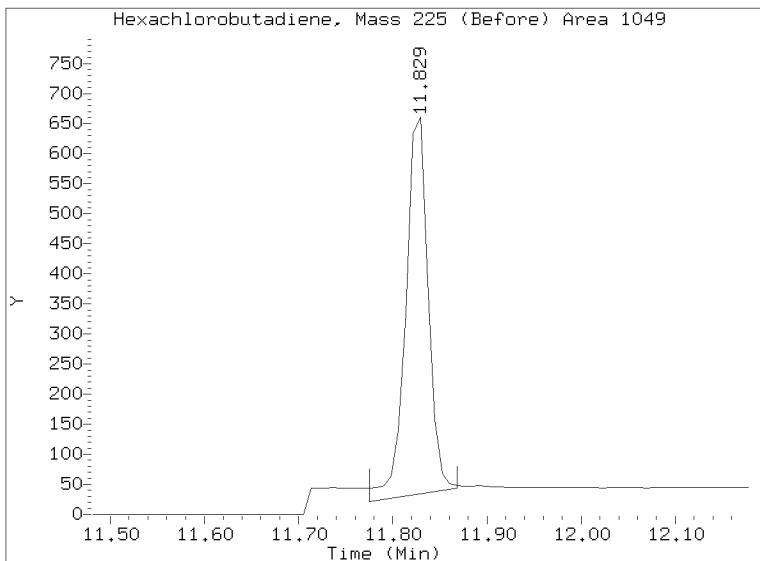
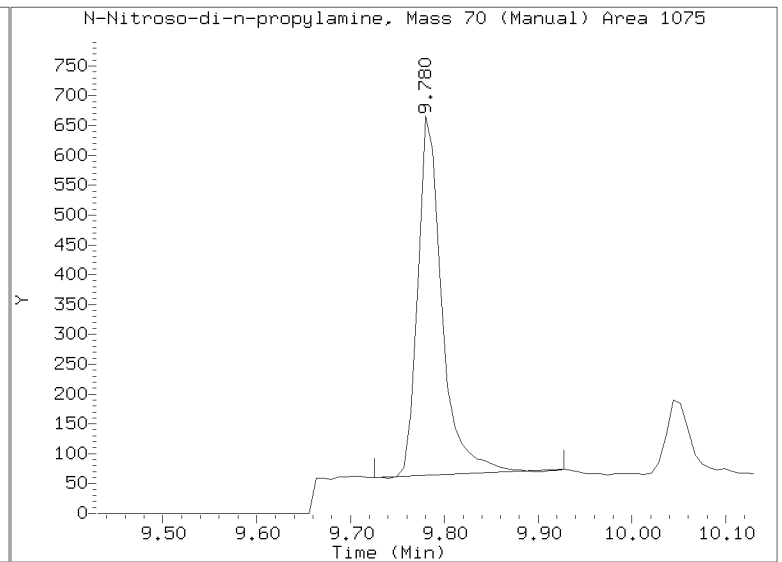
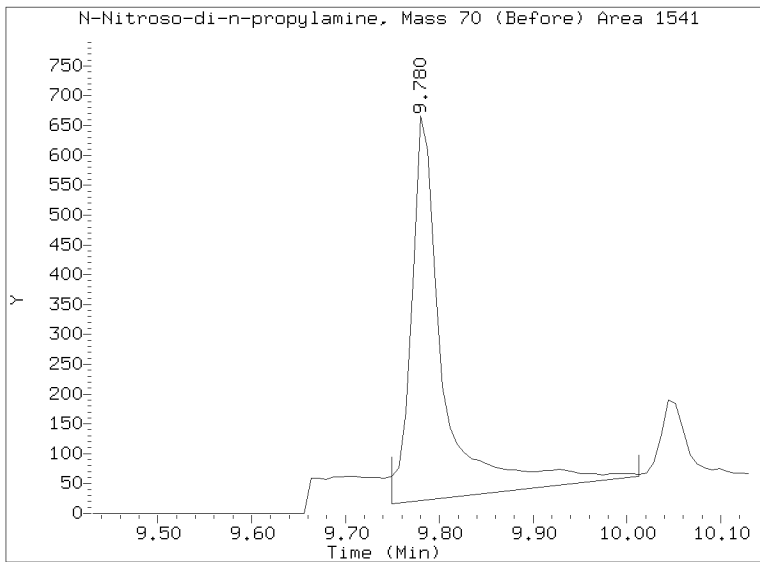
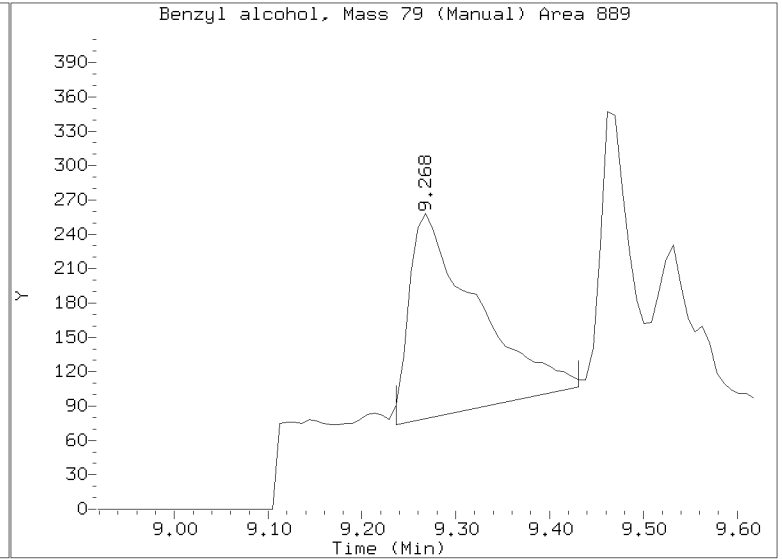
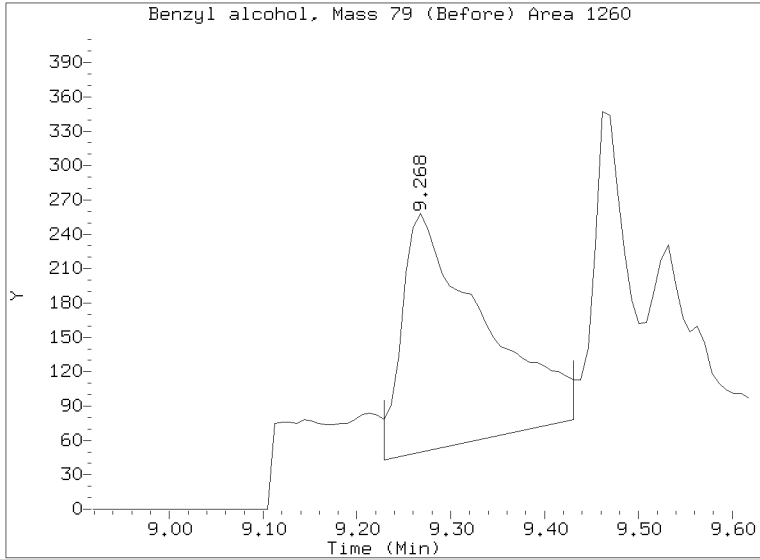
On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

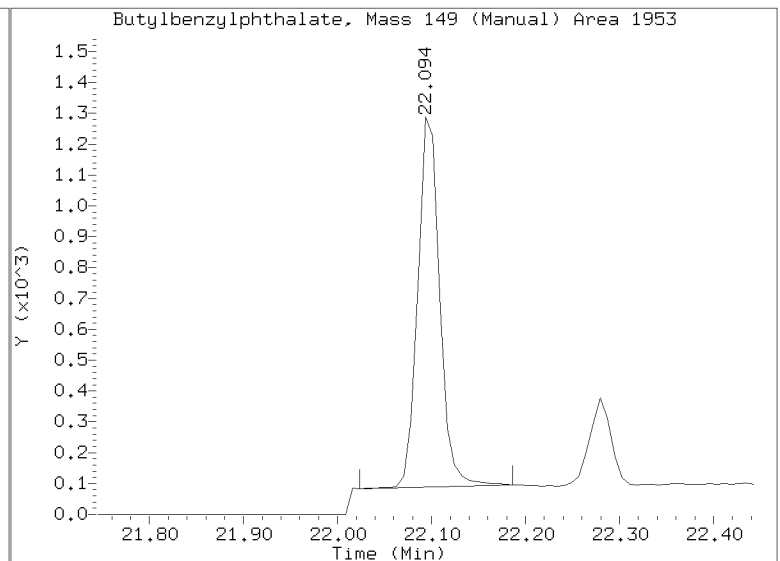
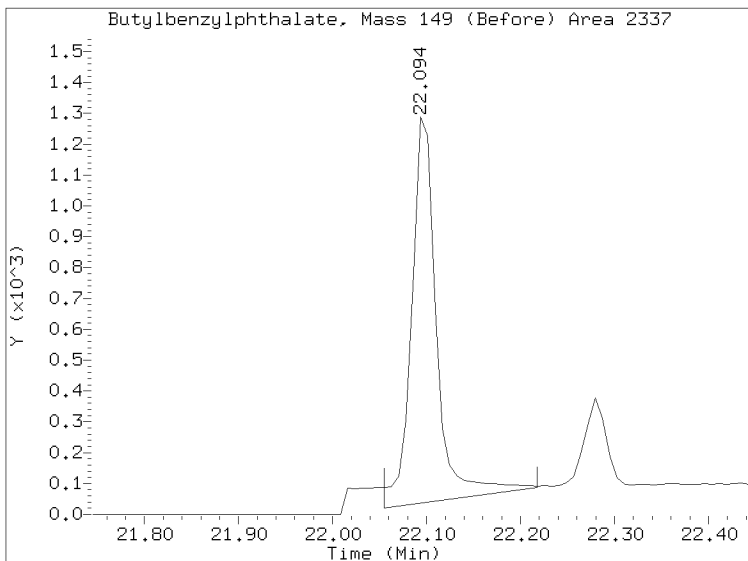
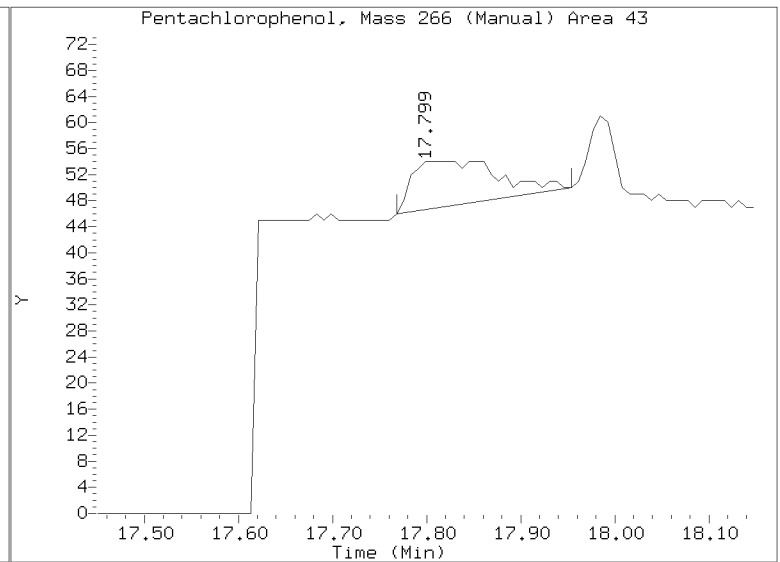
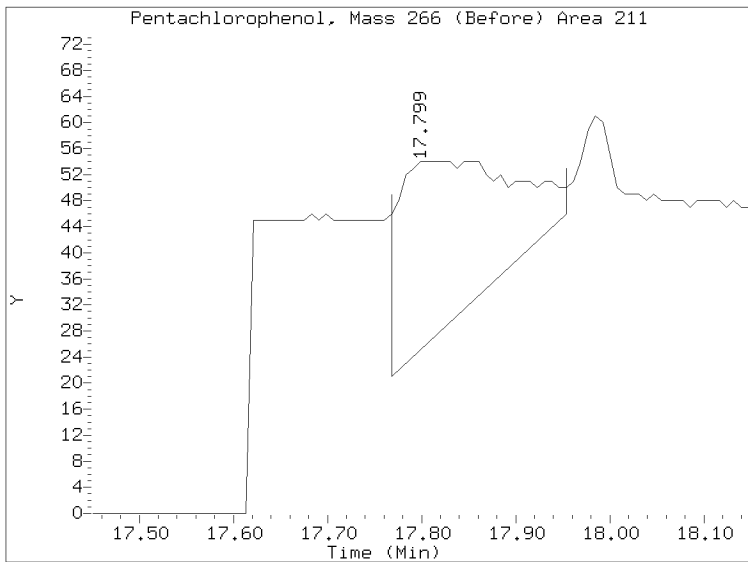
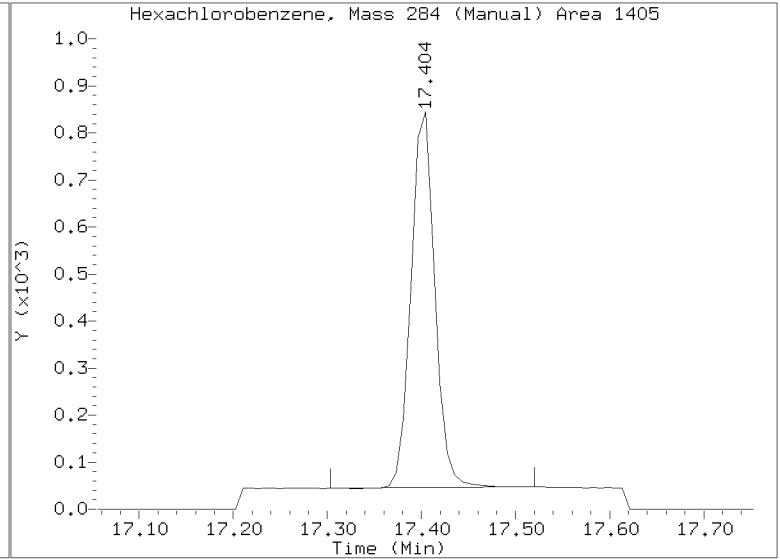
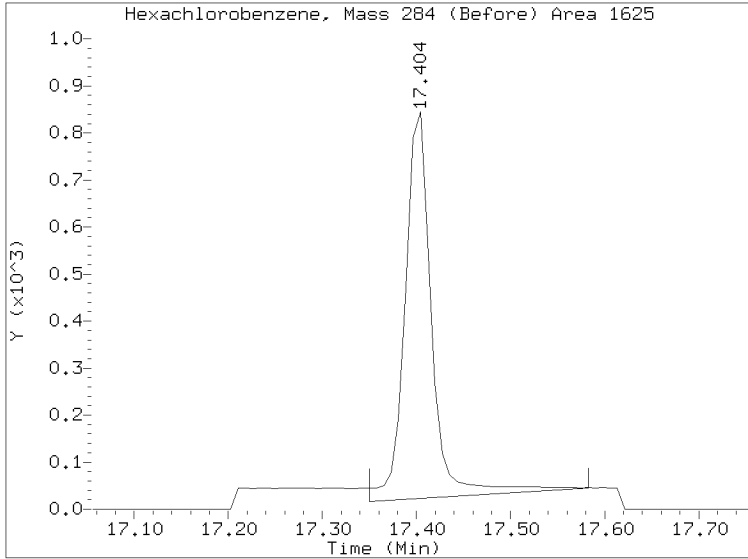
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/20230207.b/NT1023020710S.D
Injection Date: 07-FEB-2023 17:25
Lab ID:SLB0106-CAL1 Client ID:
Report Date: 02/09/2023 12:53



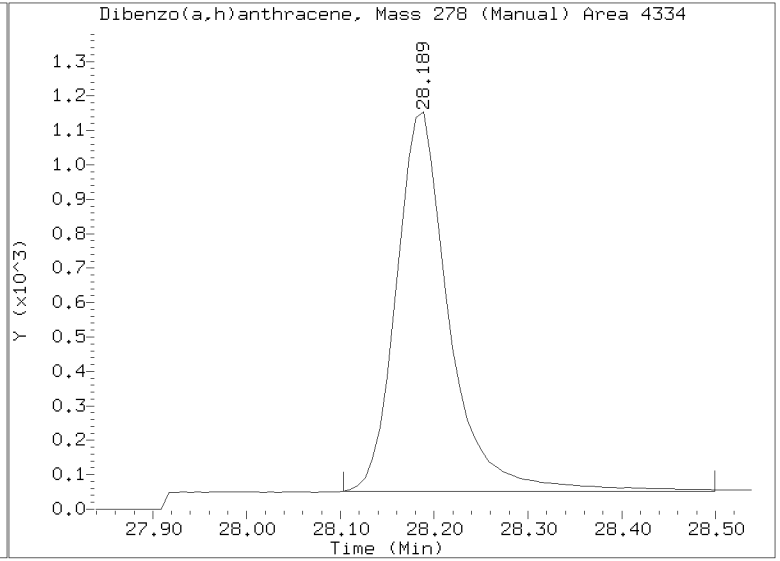
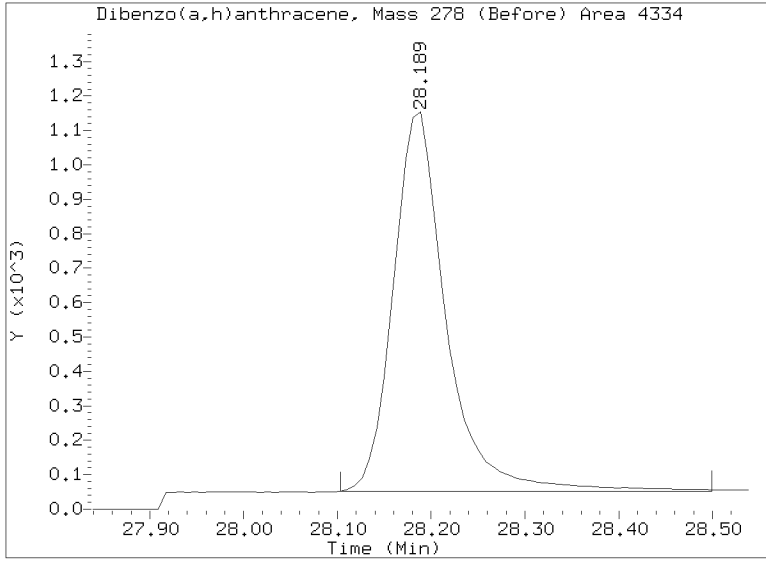
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/20230207.b/NT1023020710S.D
Injection Date: 07-FEB-2023 17:25
Lab ID: SLB0106-CAL1 Client ID:
Report Date: 02/09/2023 12:53



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/20230207.b/NT1023020710S.D
Injection Date: 07-FEB-2023 17:25
Lab ID:SLB0106-CAL1 Client ID:
Report Date: 02/09/2023 12:53



Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.1\NT10230207115.D

Page 1

Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.1

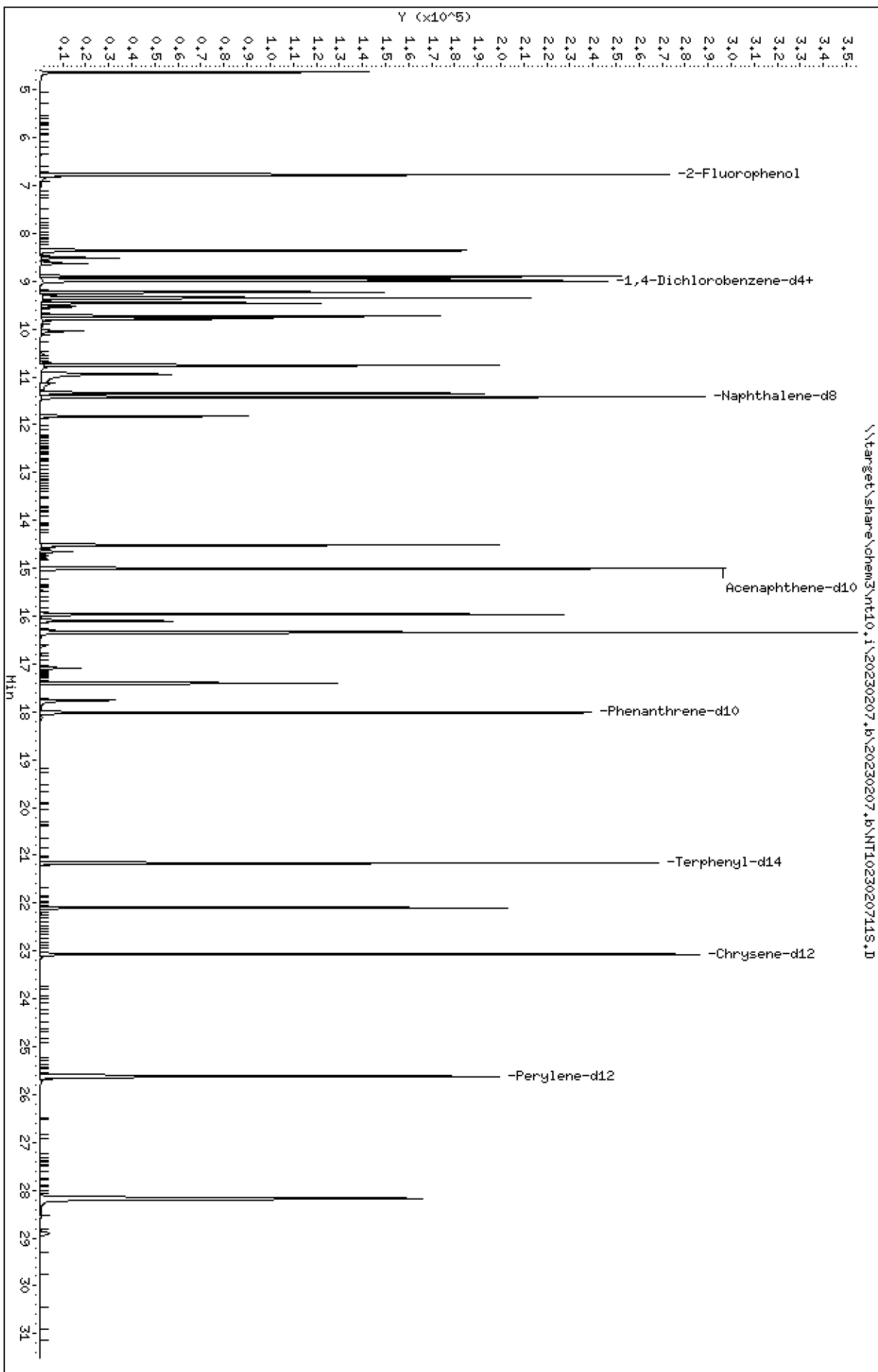
Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

Operator: USD

Column phase: ZB-5msi

Column diameter: 0.25



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

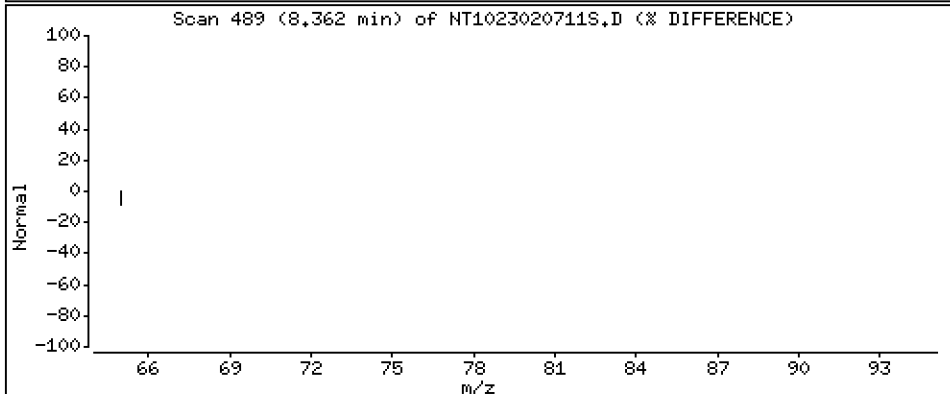
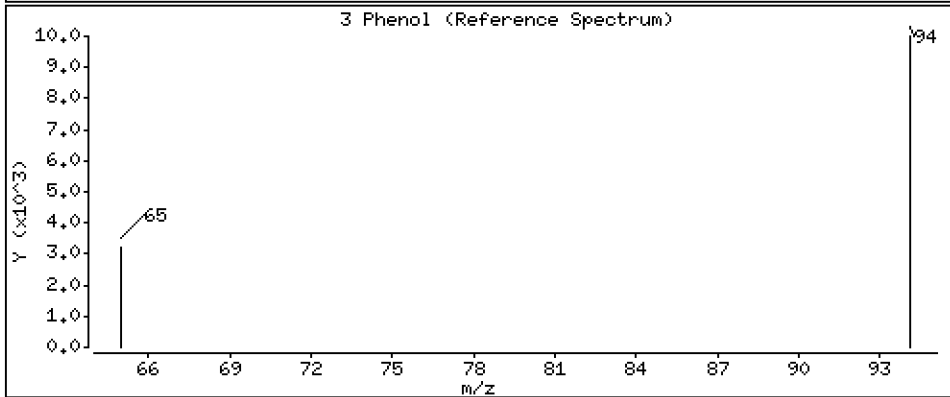
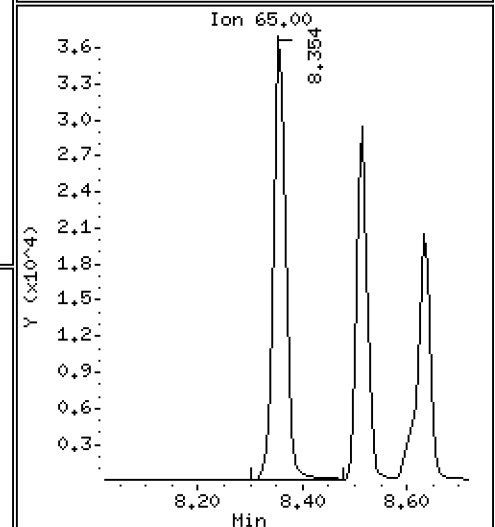
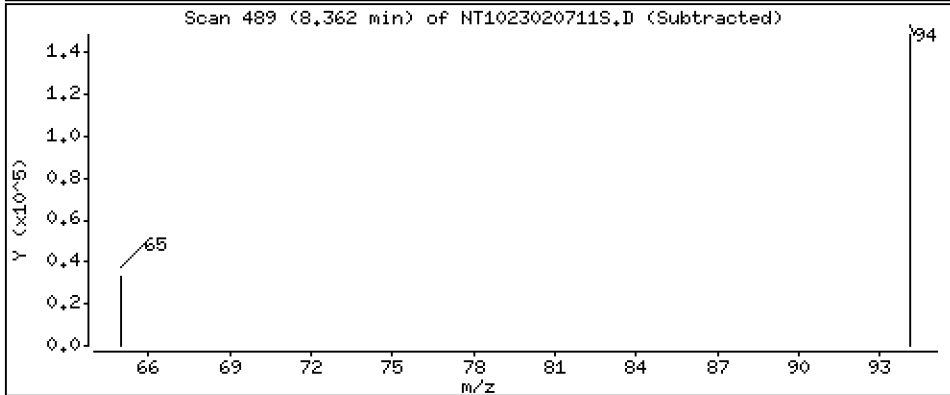
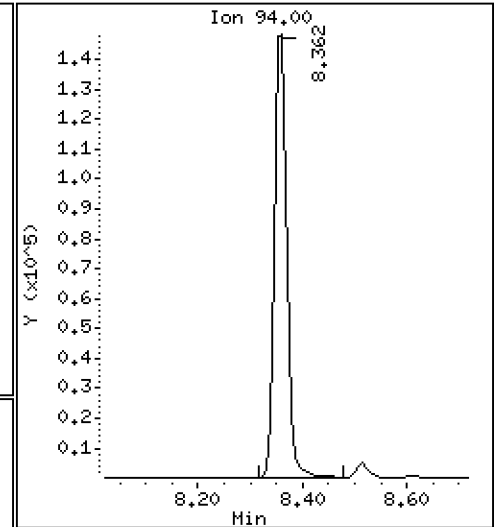
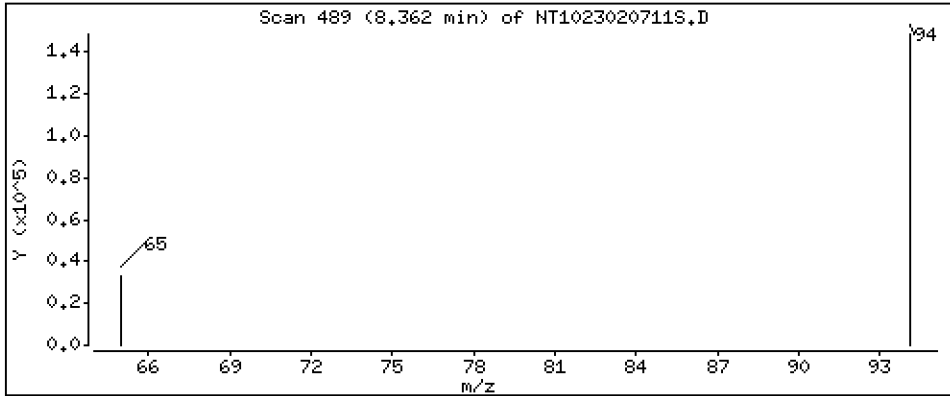
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 4.170 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

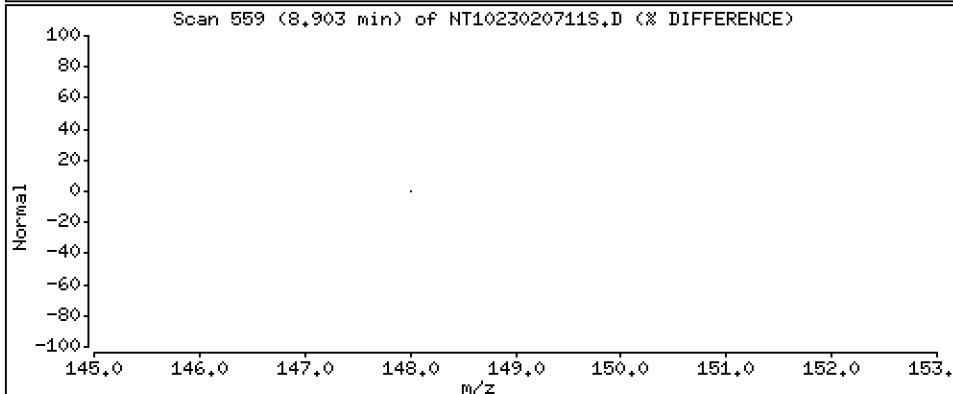
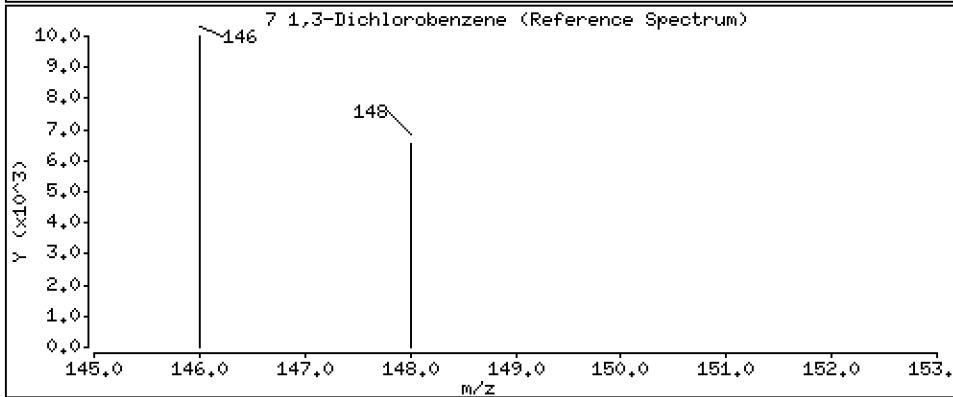
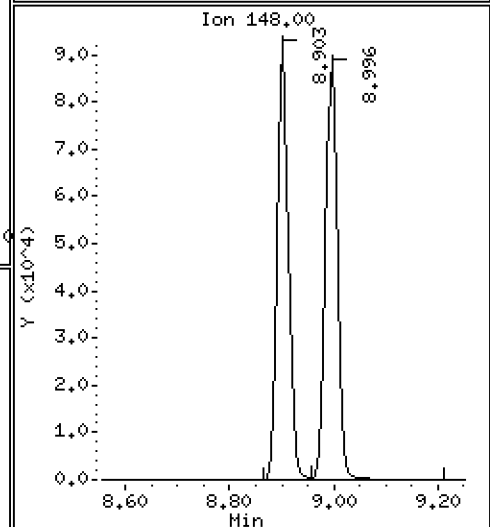
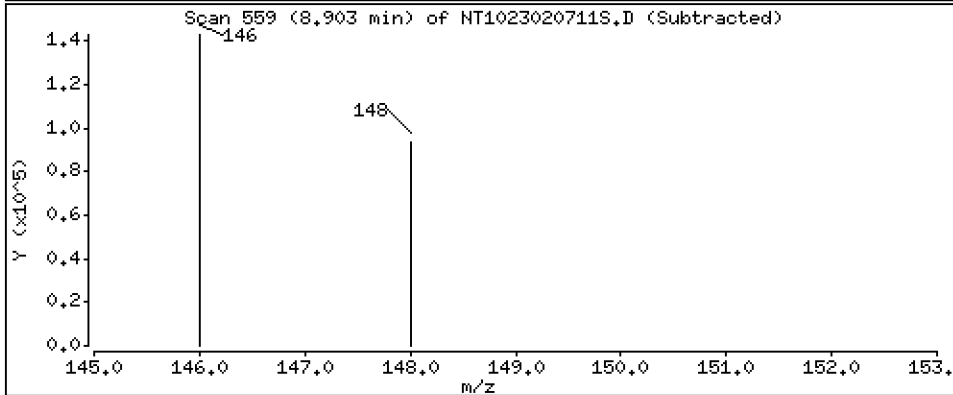
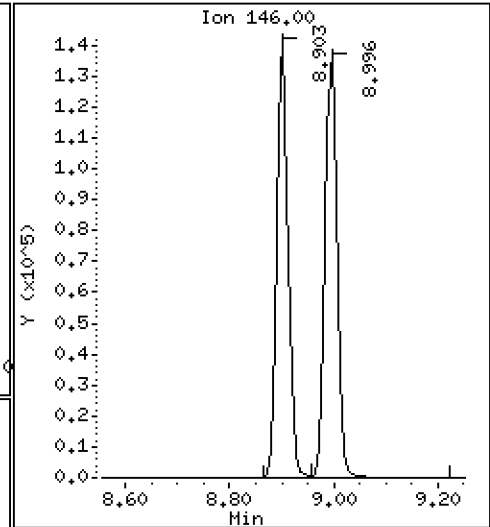
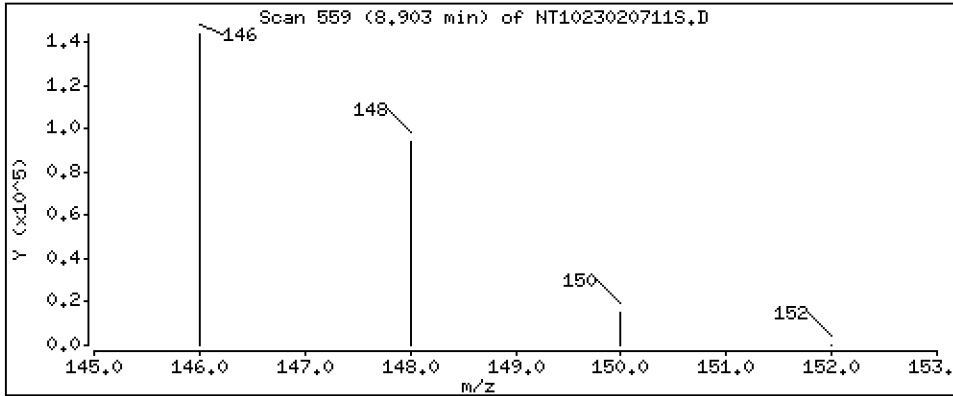
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 4,159 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

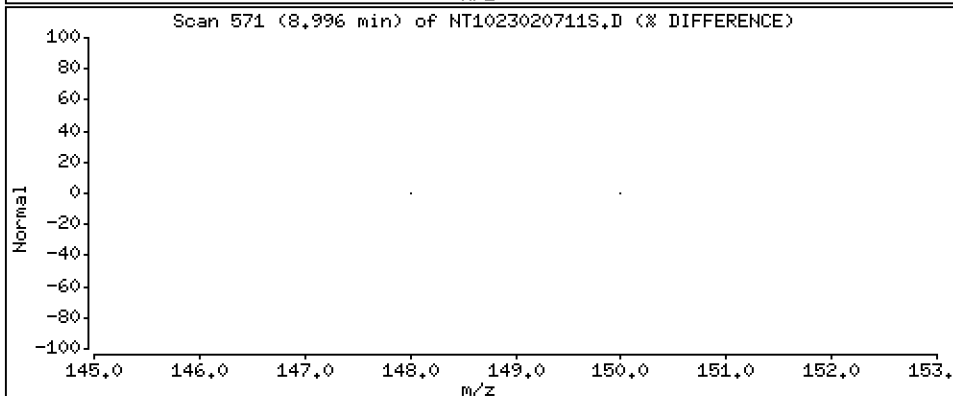
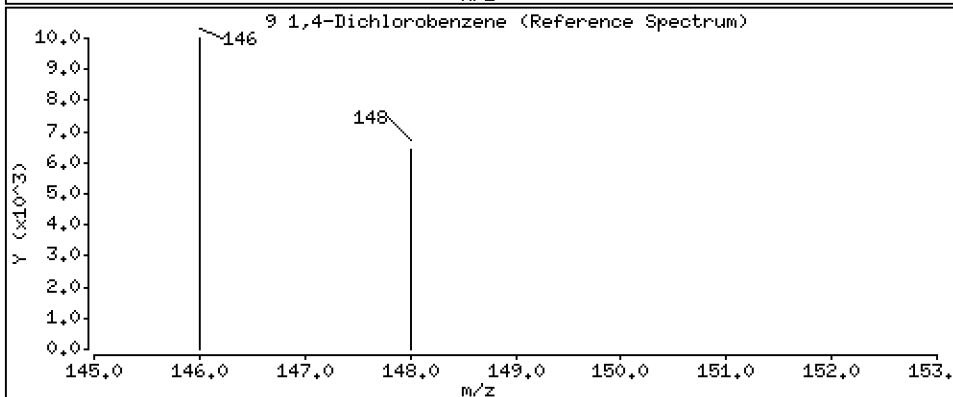
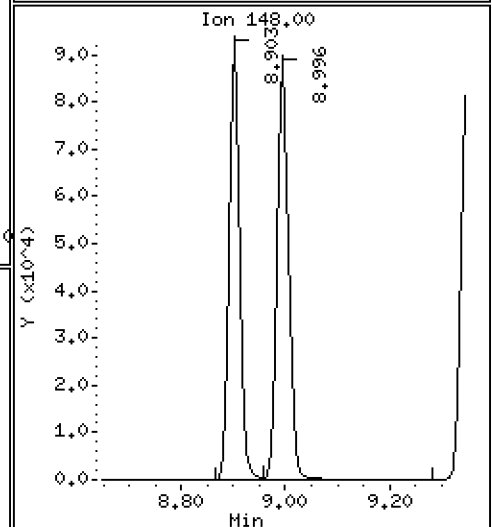
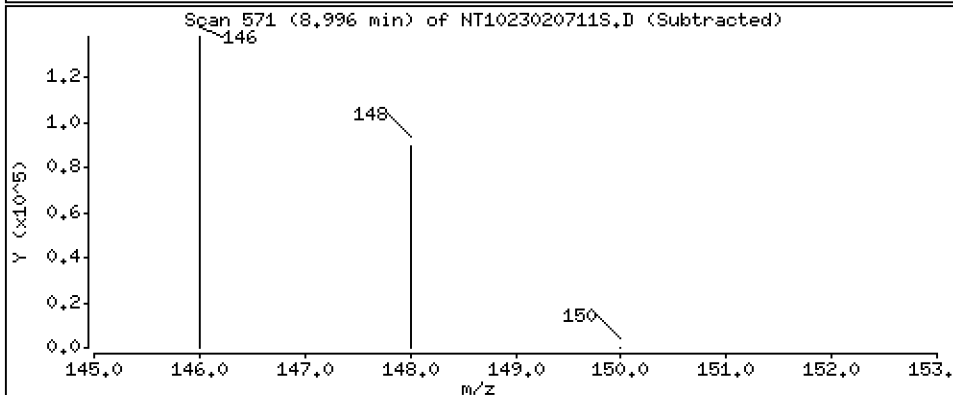
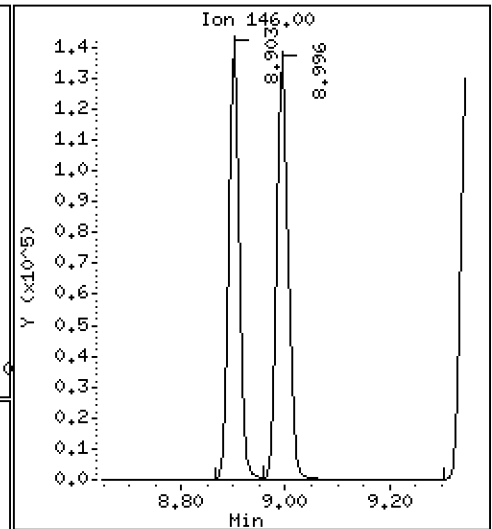
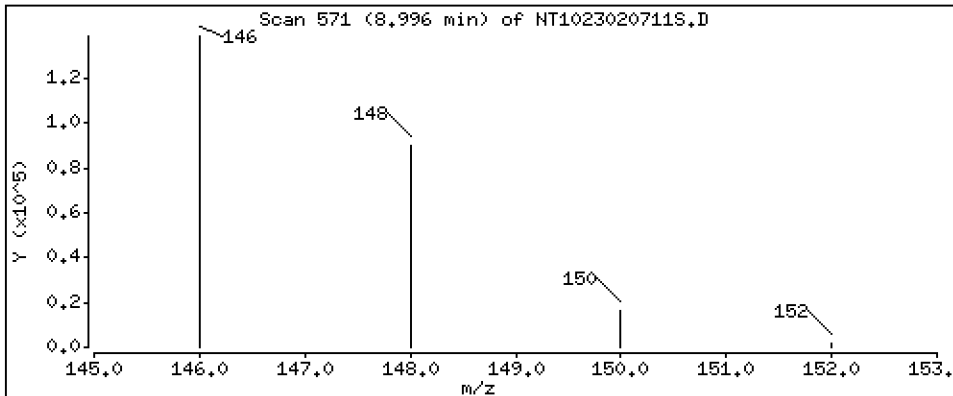
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 4.237 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

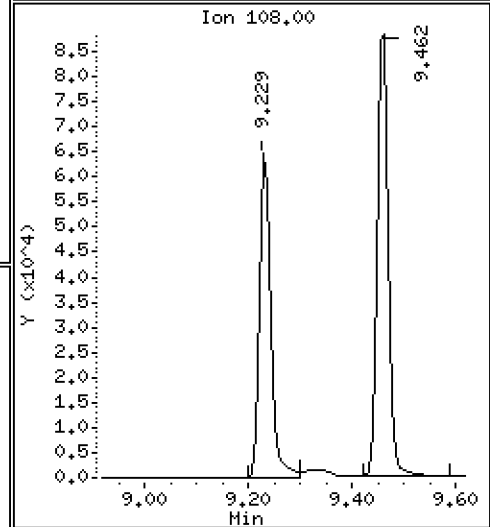
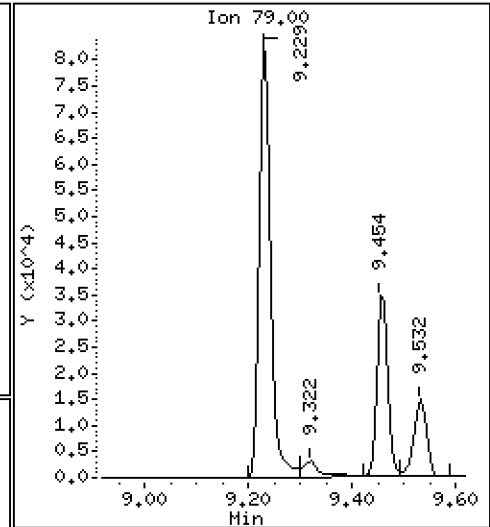
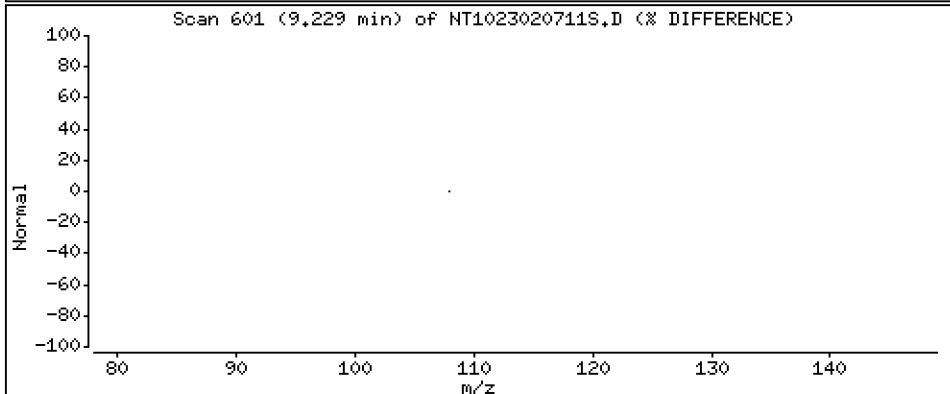
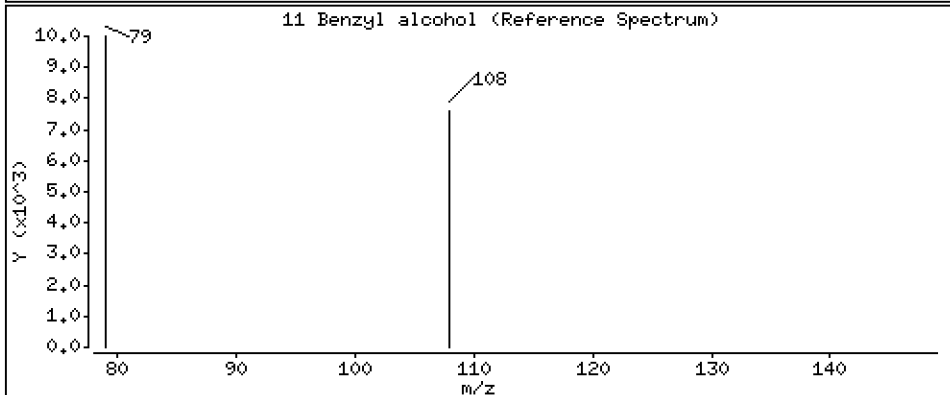
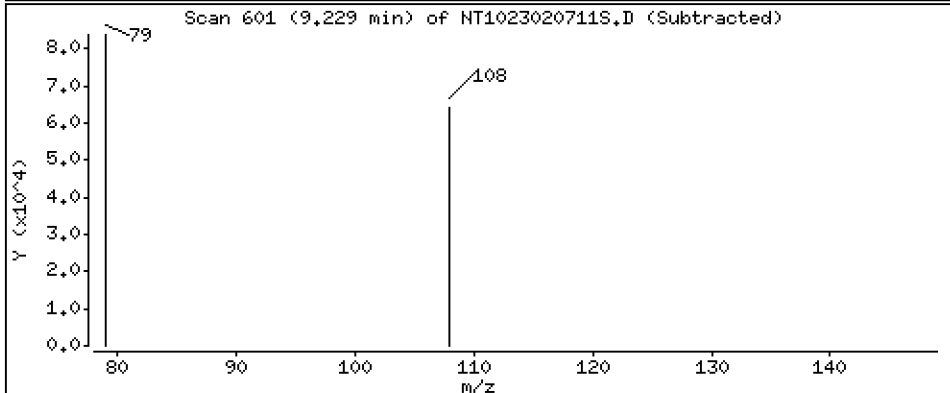
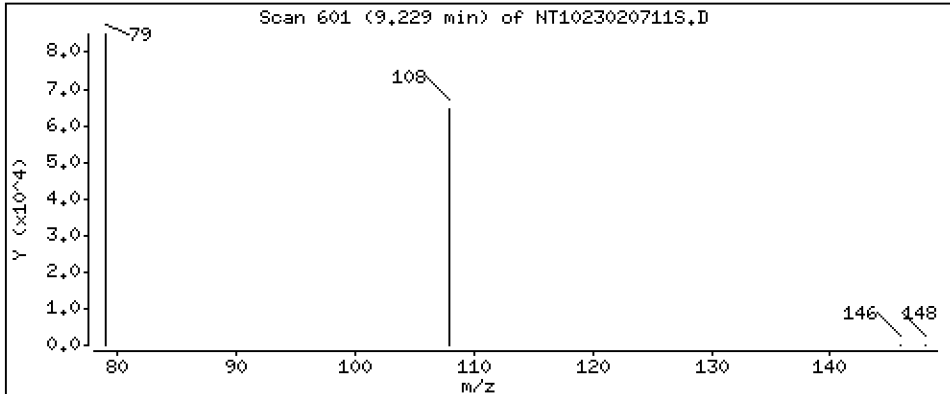
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 4.907 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

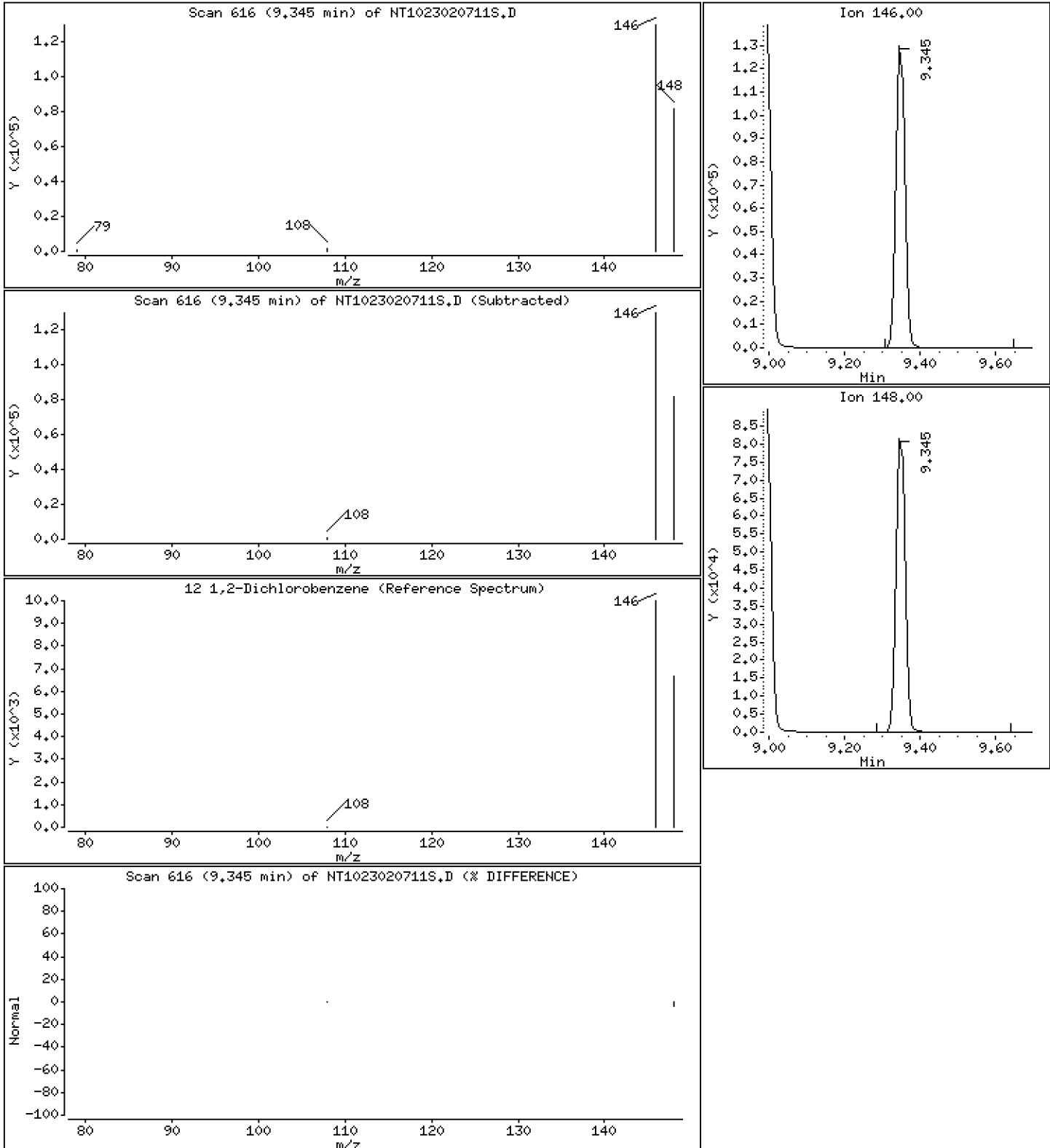
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 4.205 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

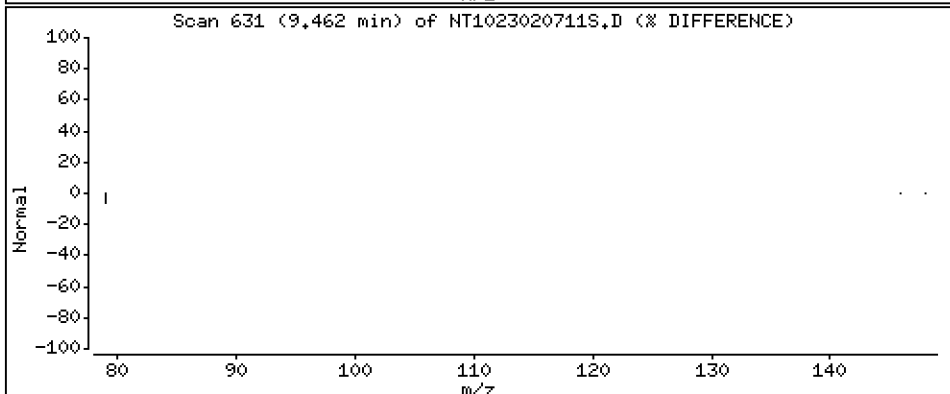
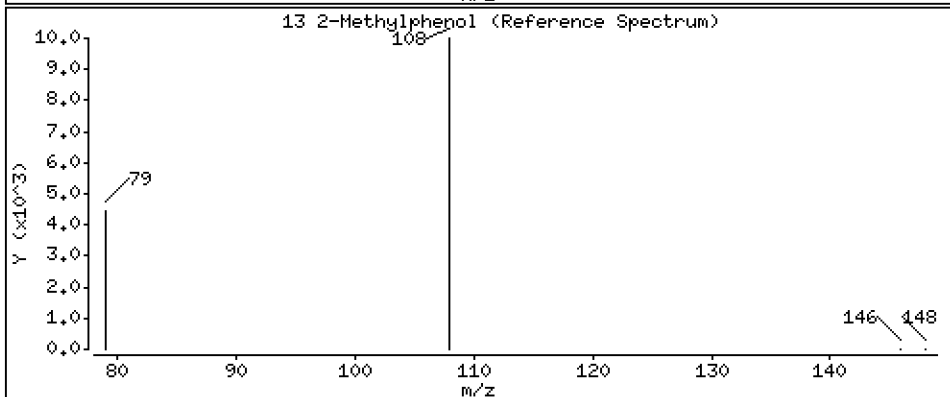
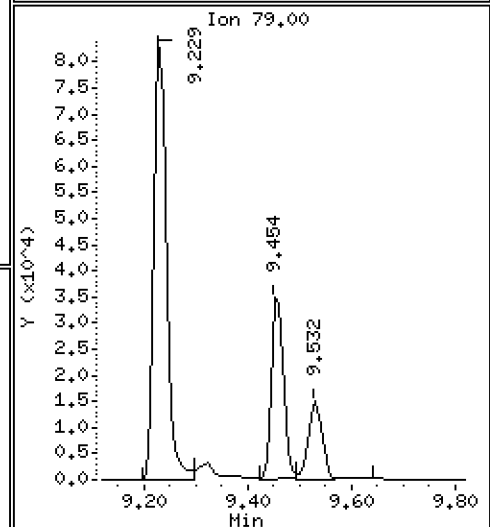
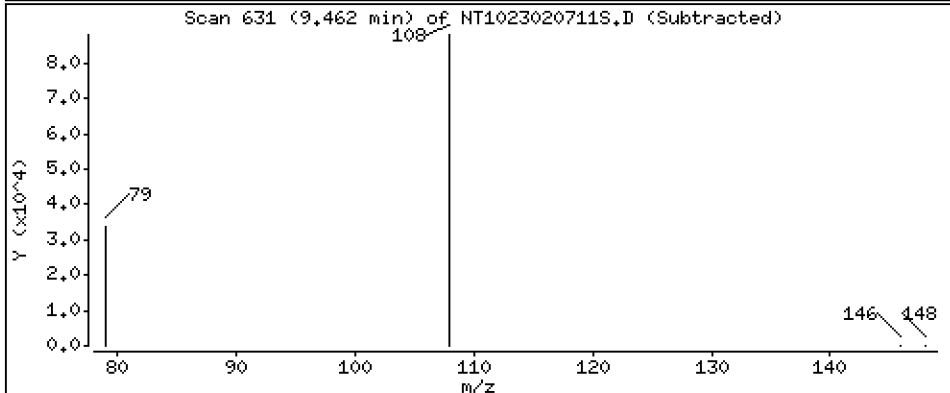
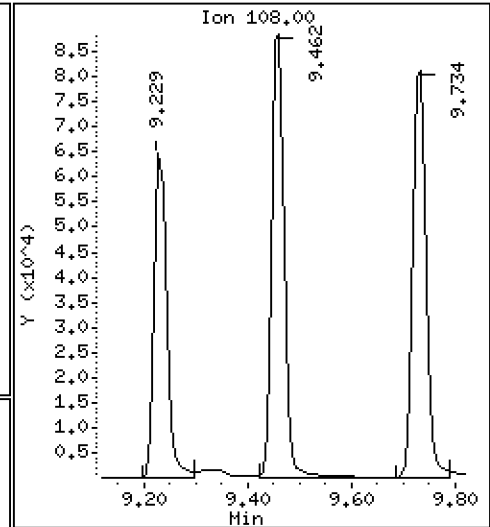
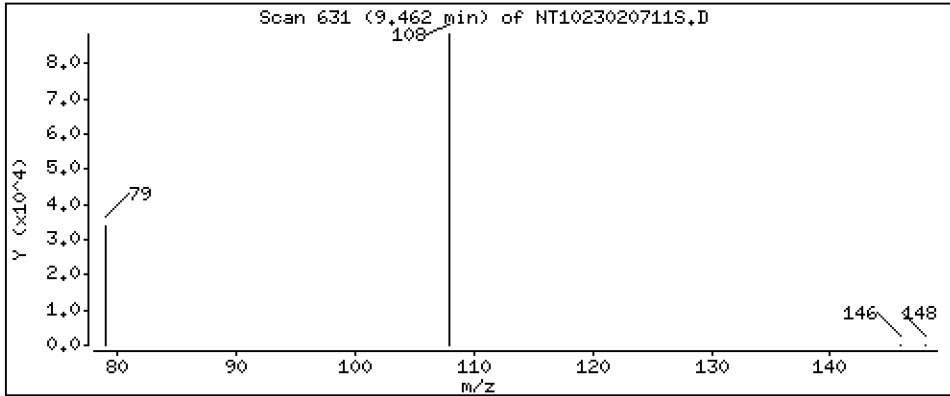
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 3,649 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

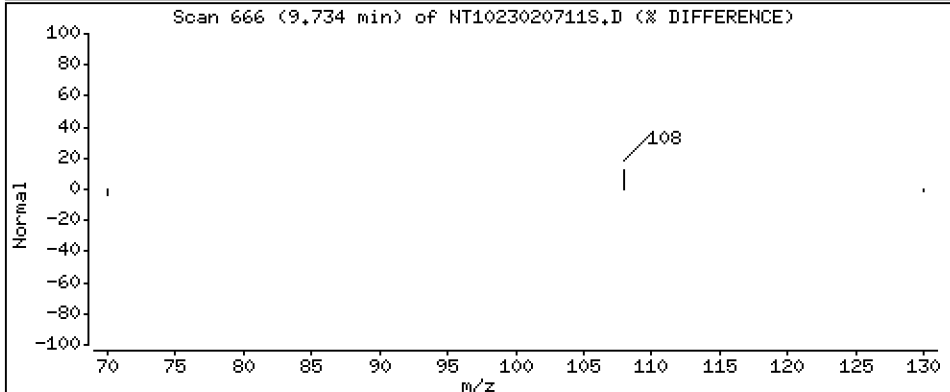
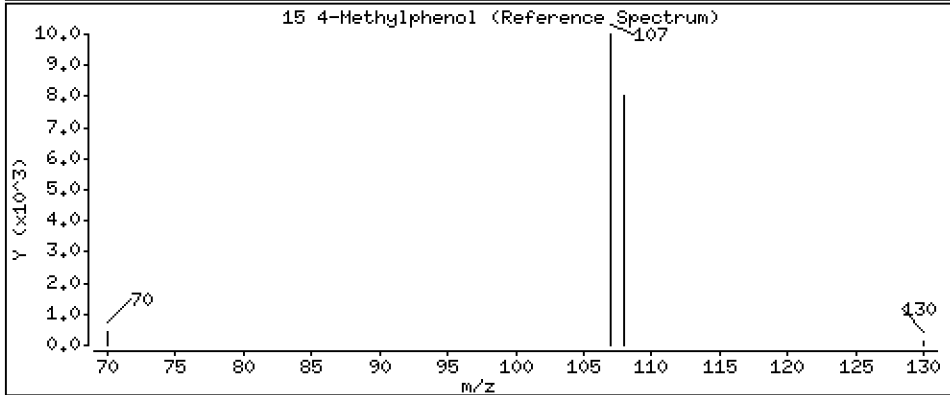
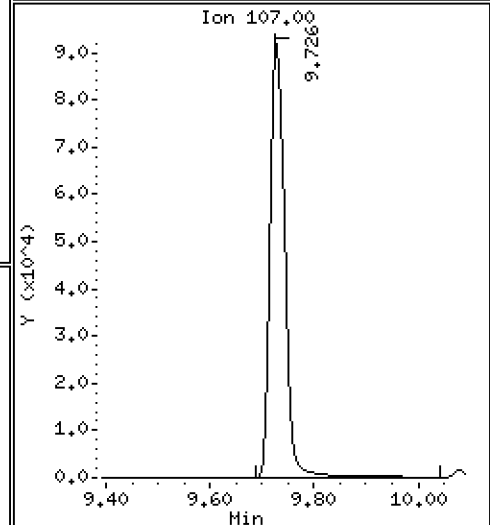
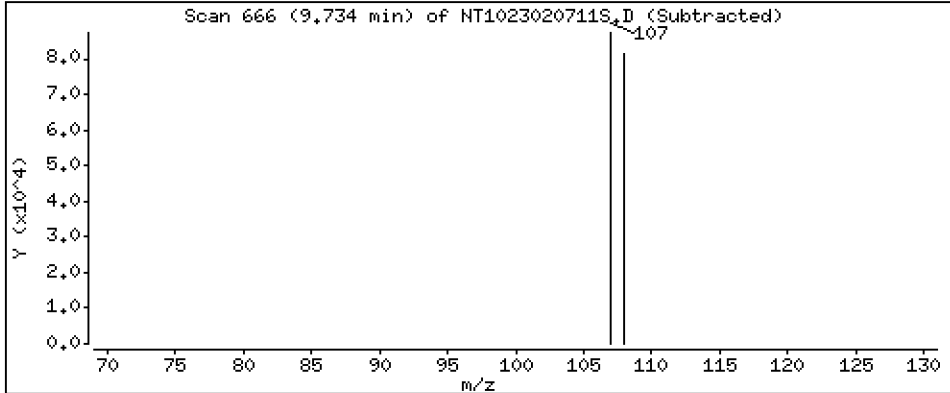
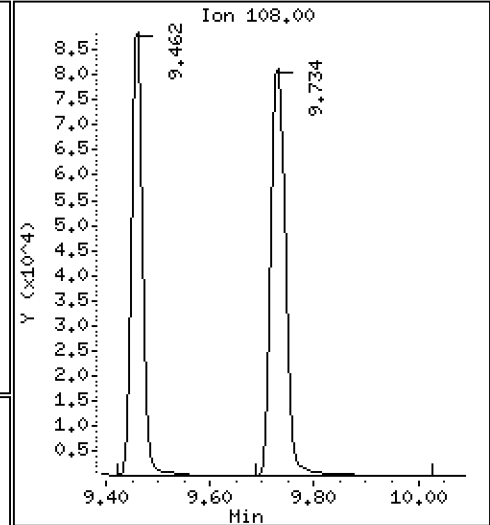
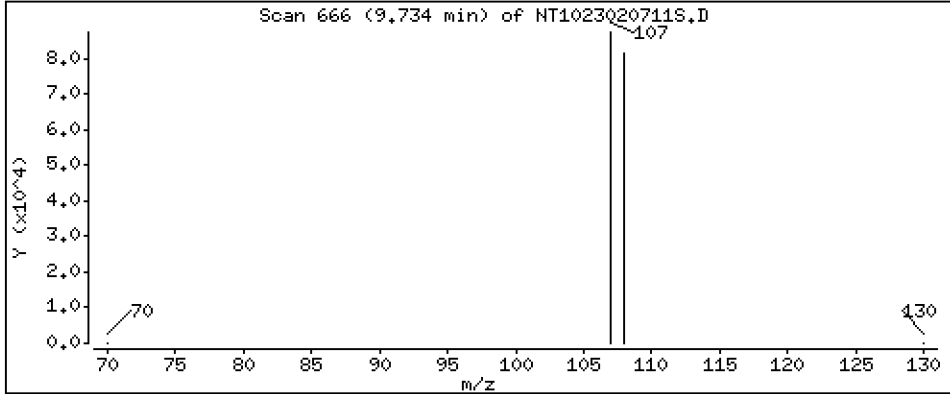
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,980 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

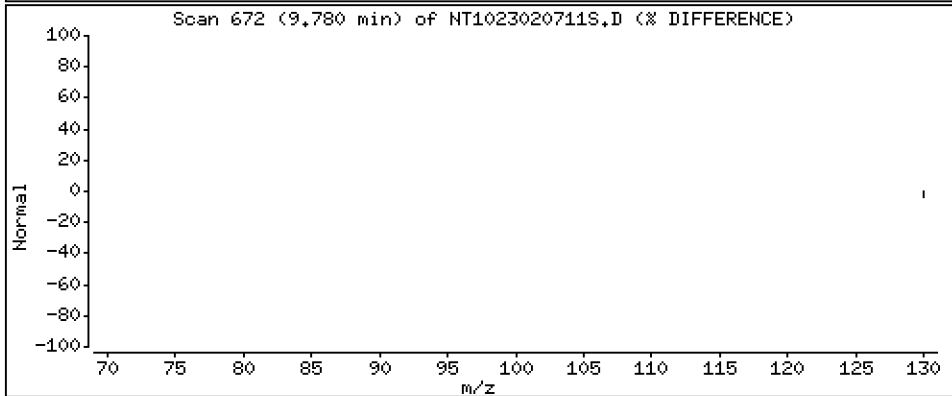
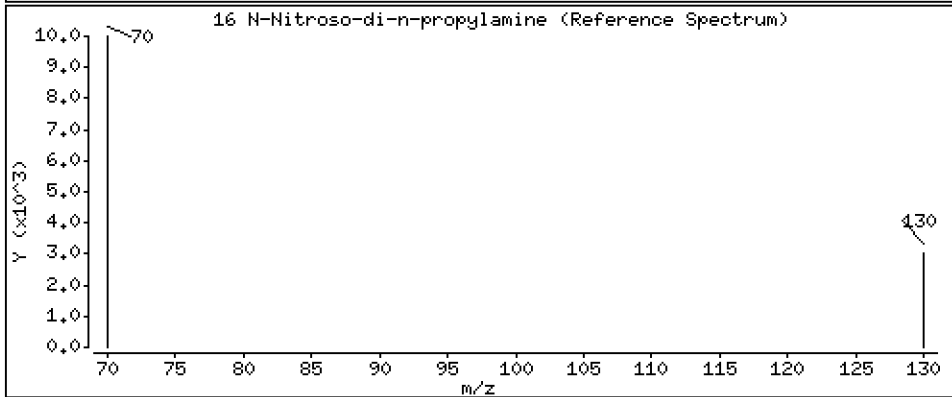
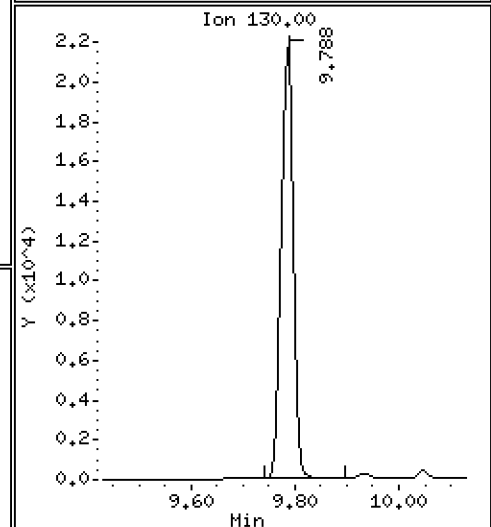
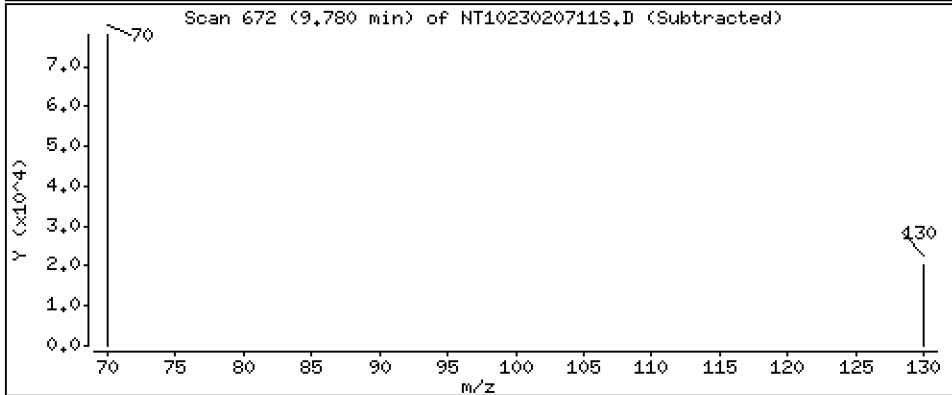
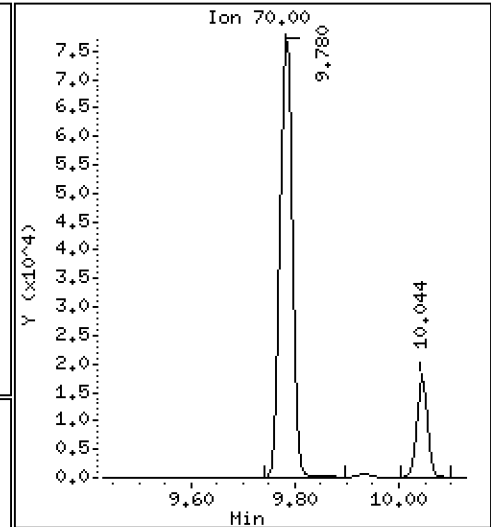
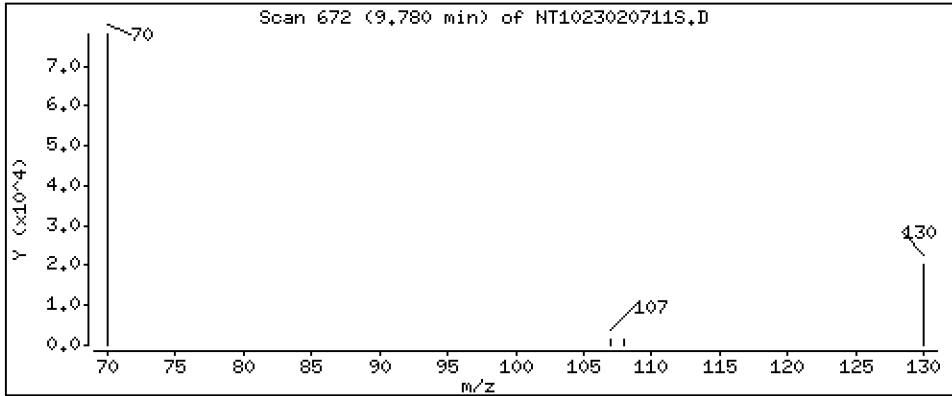
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 4,396 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

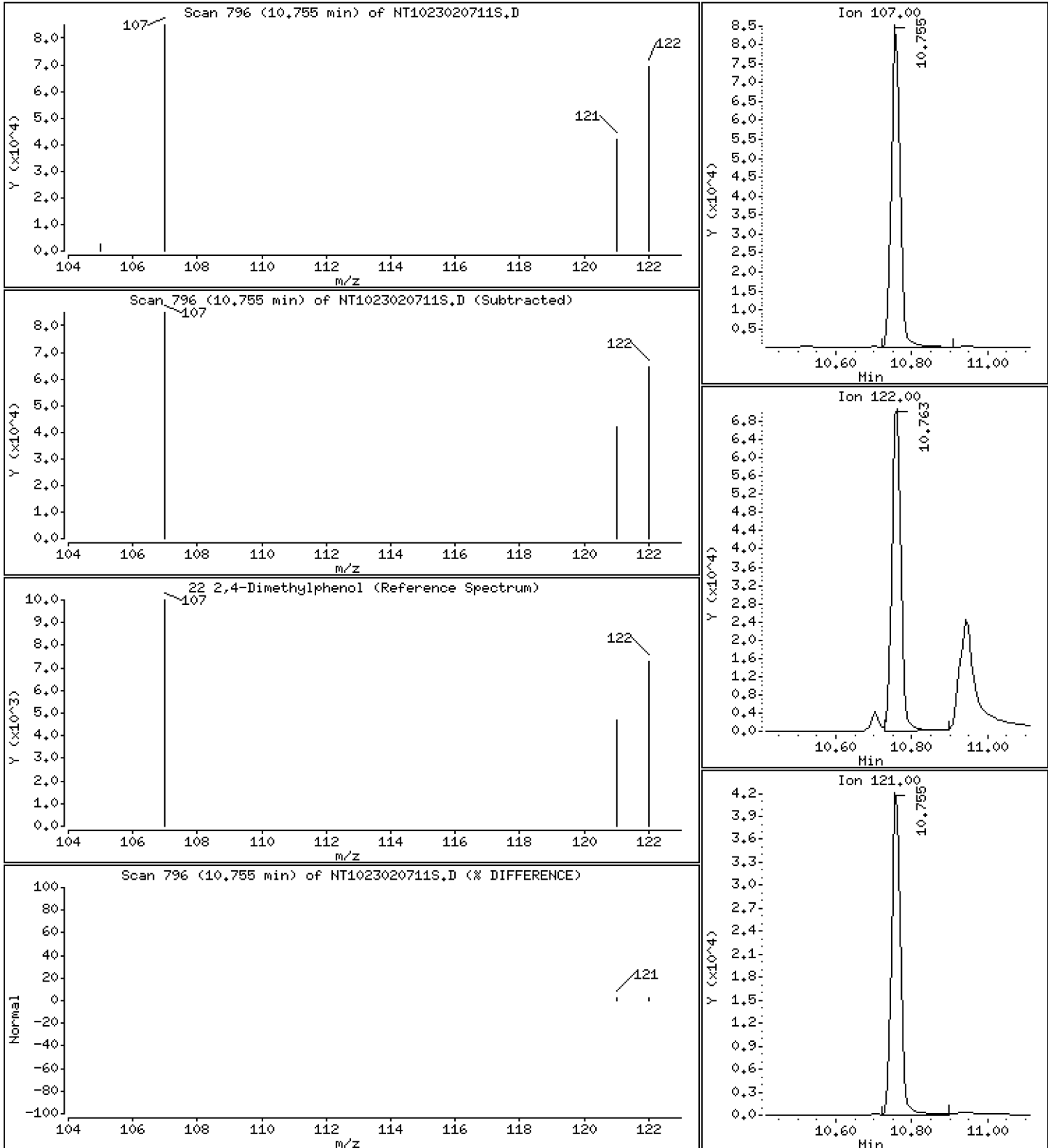
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 3,353 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

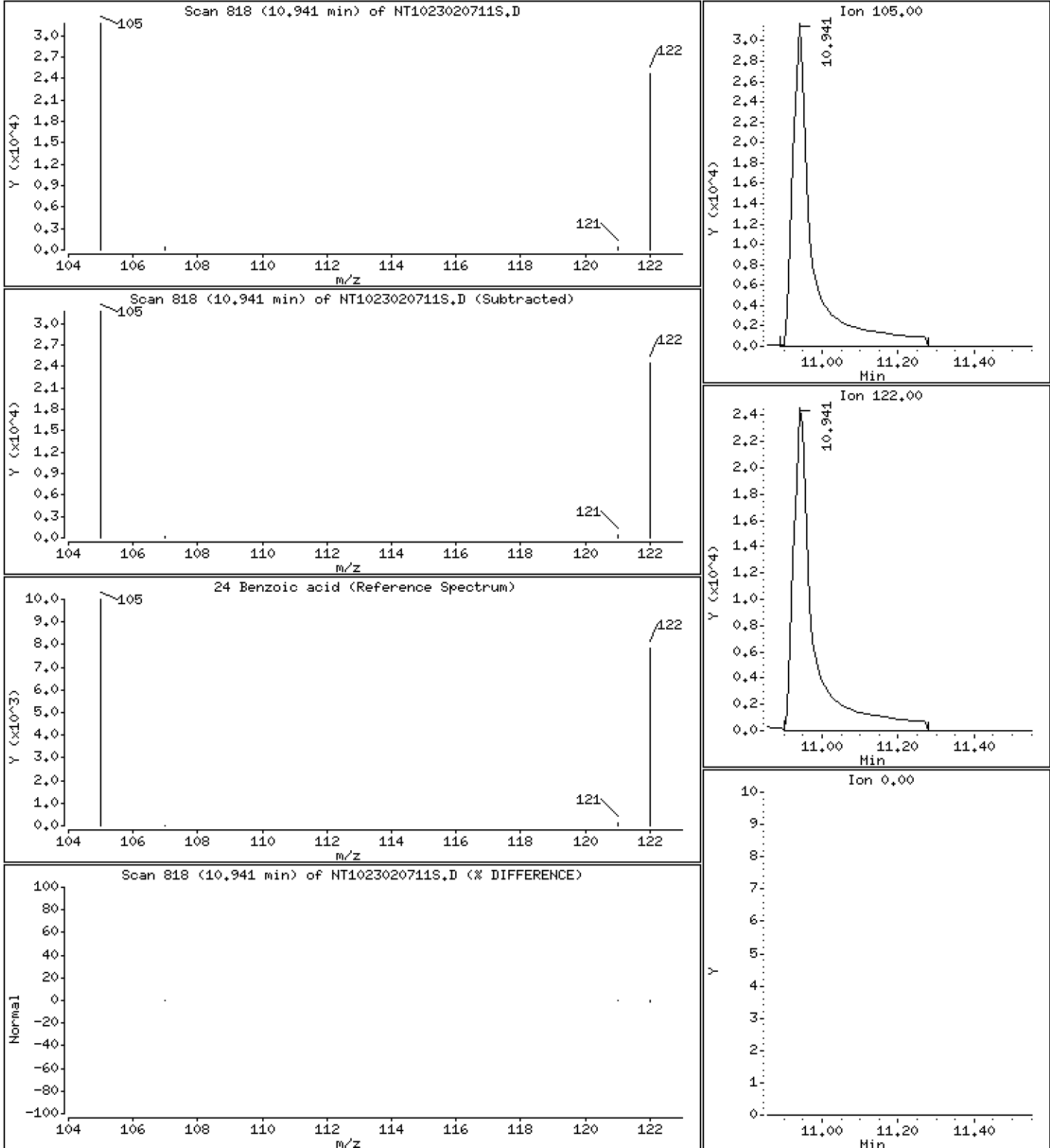
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 5,884 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

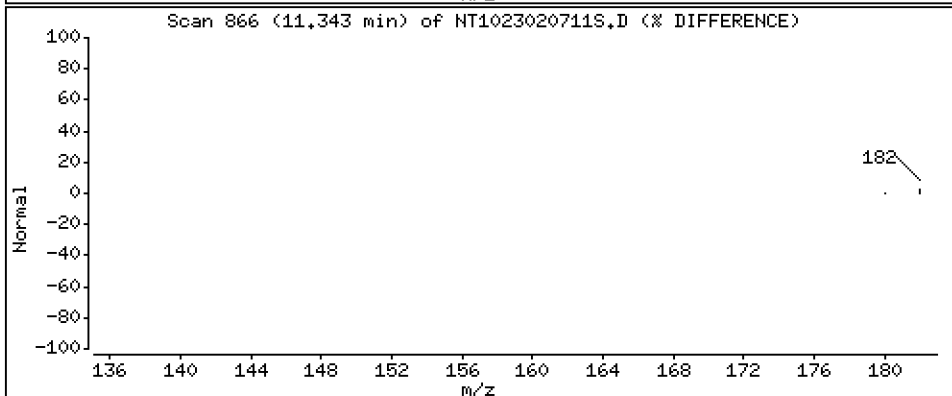
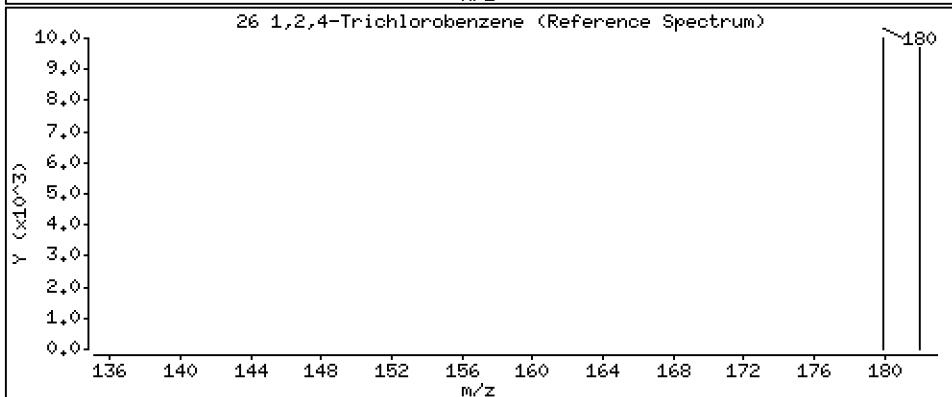
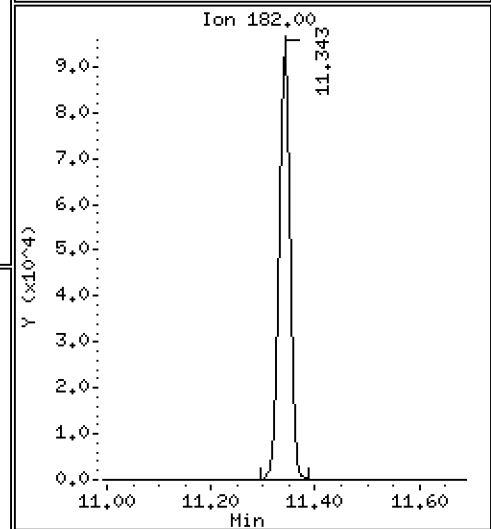
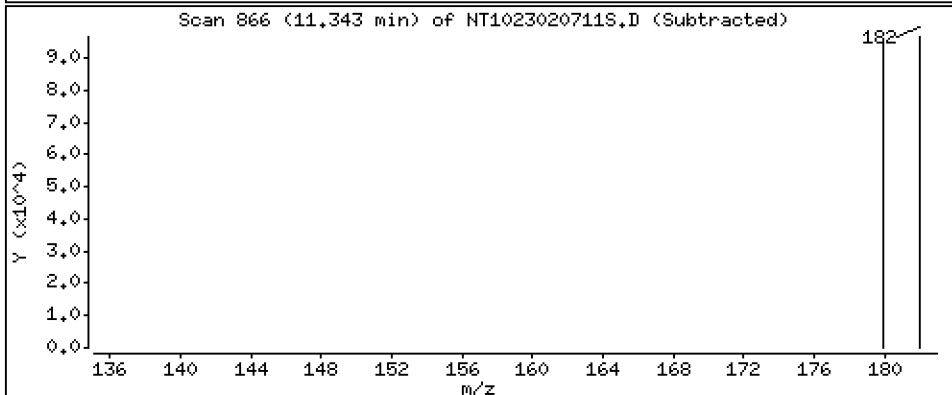
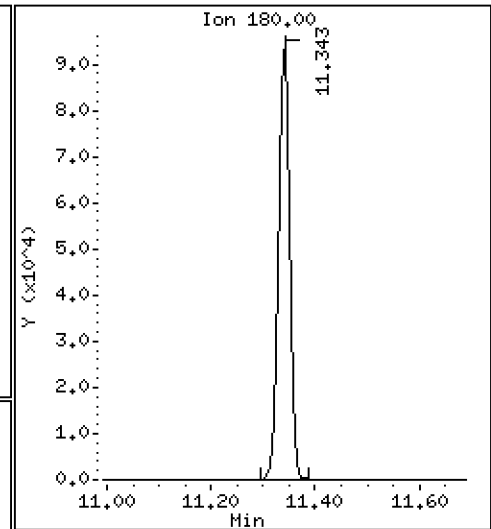
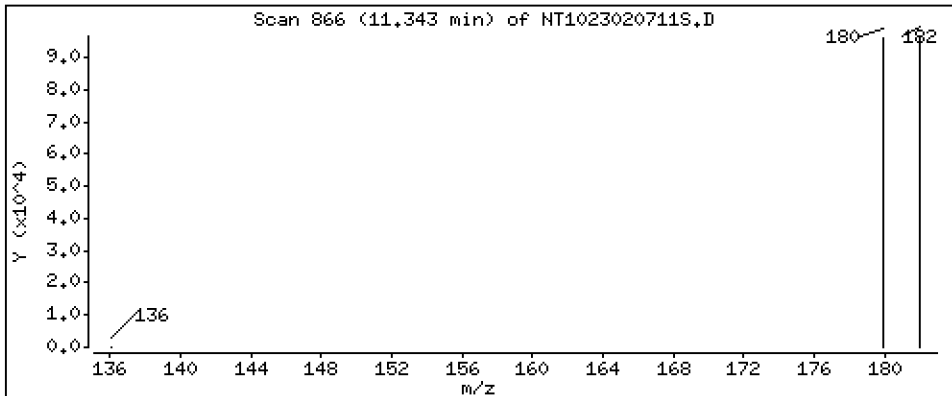
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 3,930 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

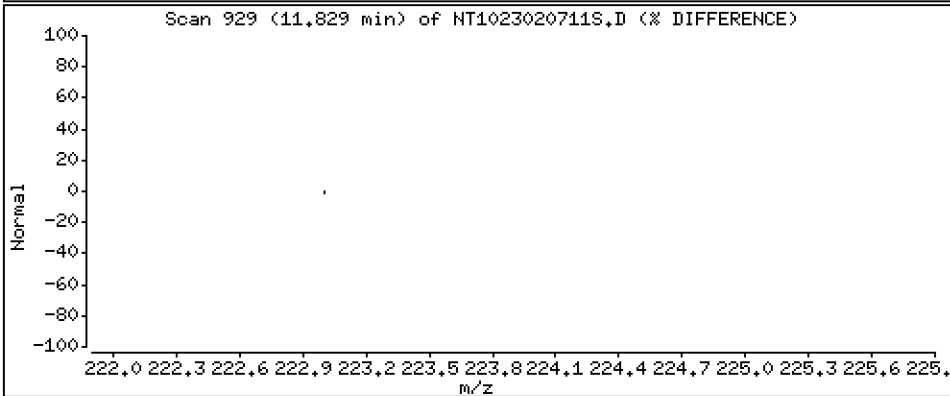
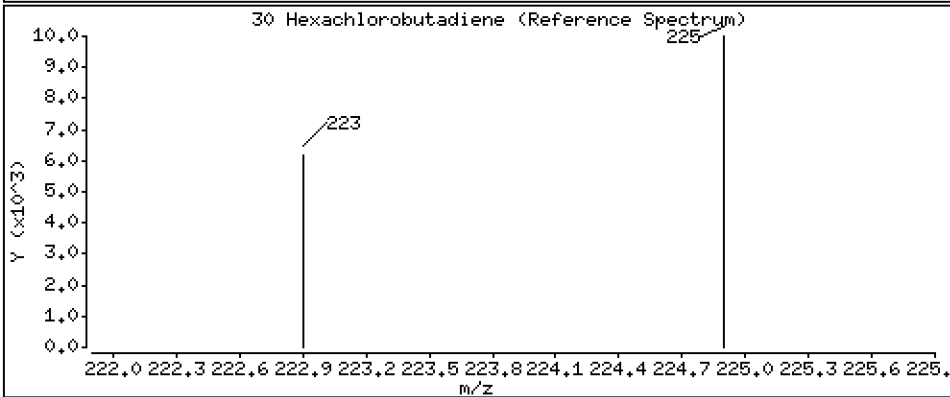
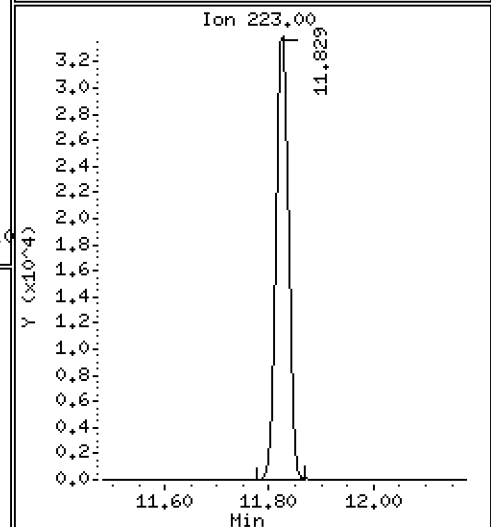
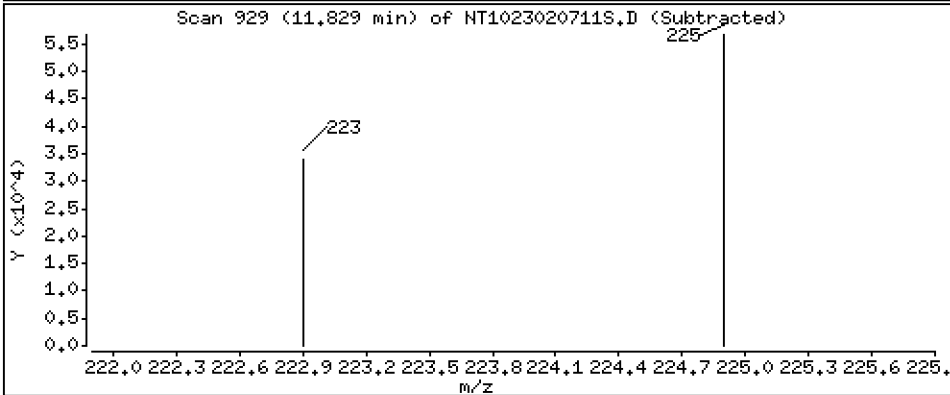
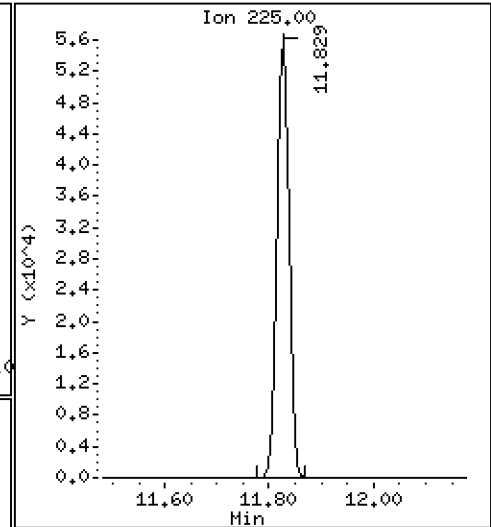
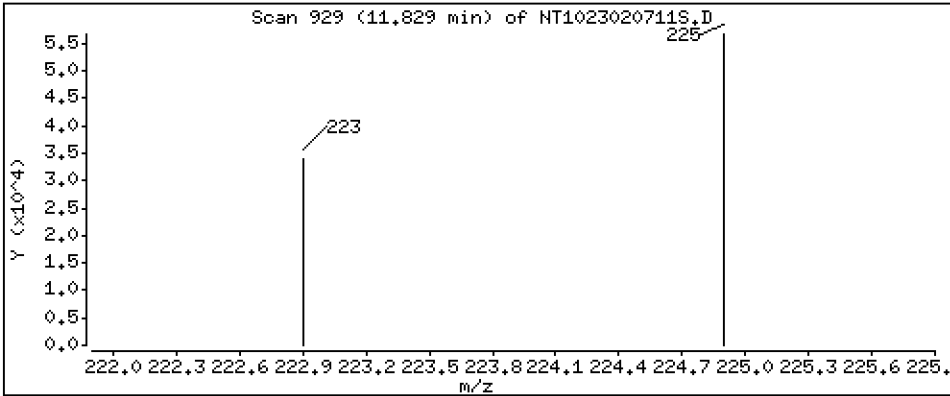
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,166 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

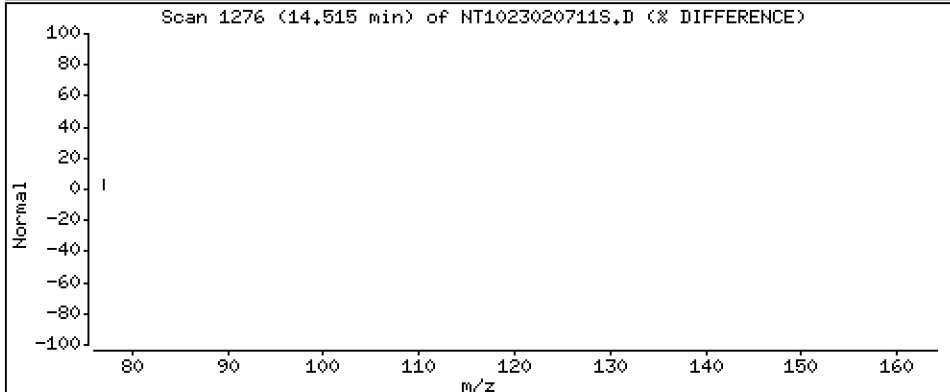
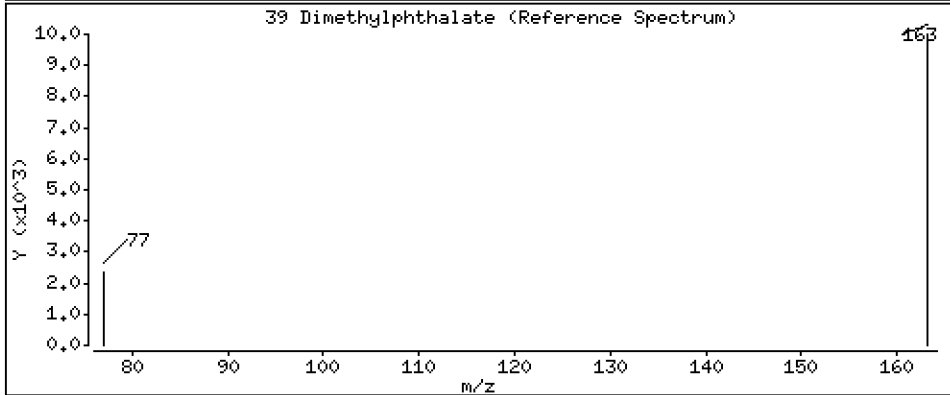
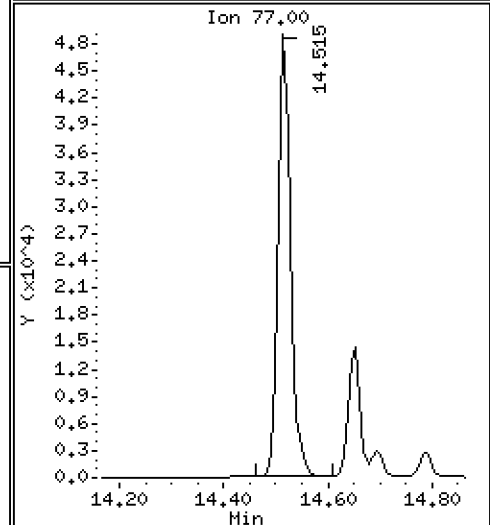
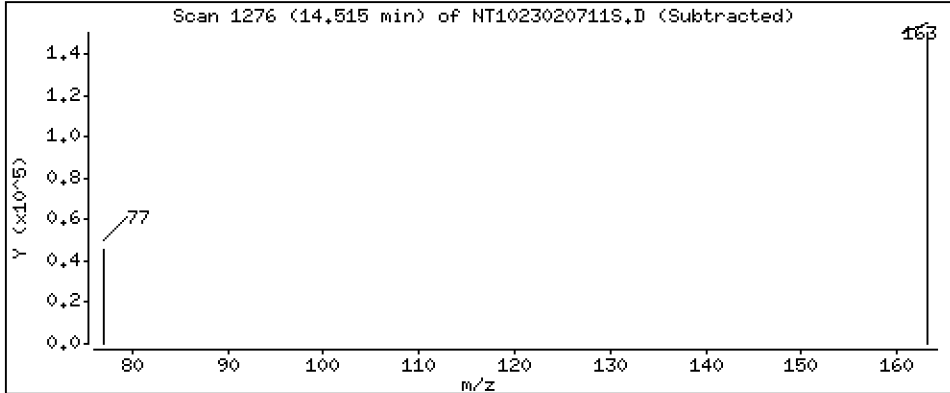
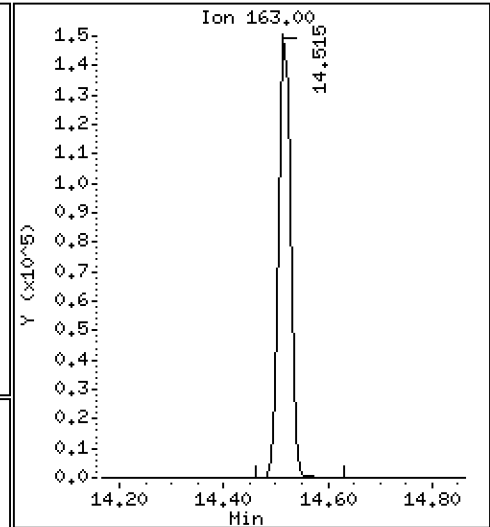
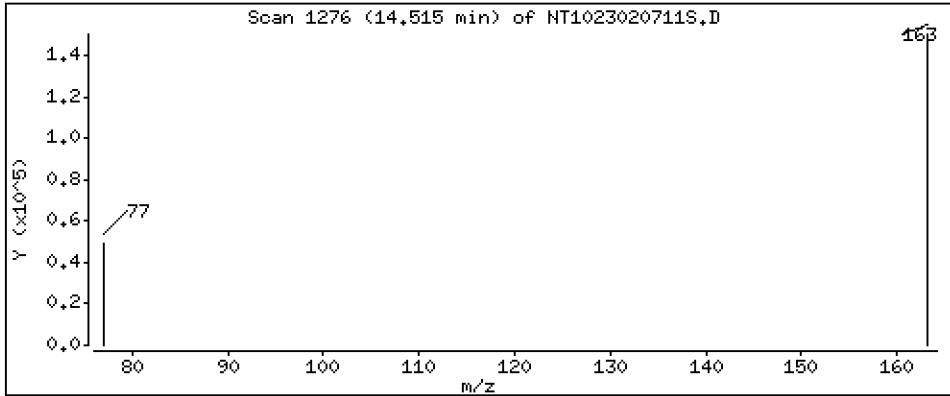
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 4.173 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

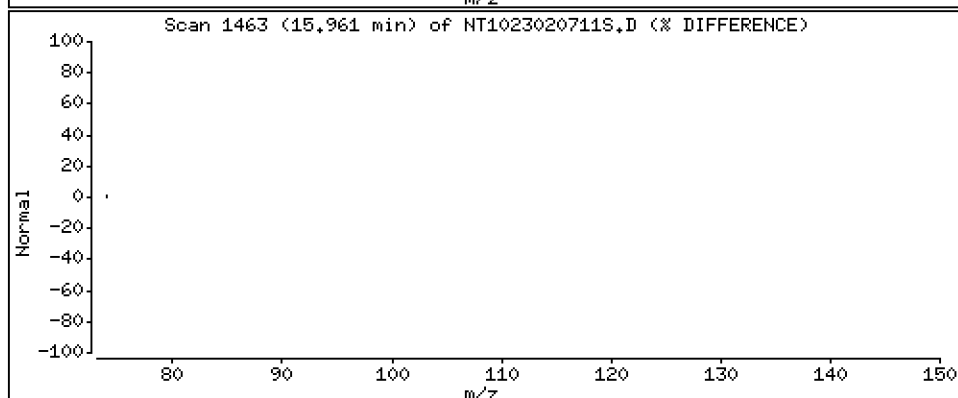
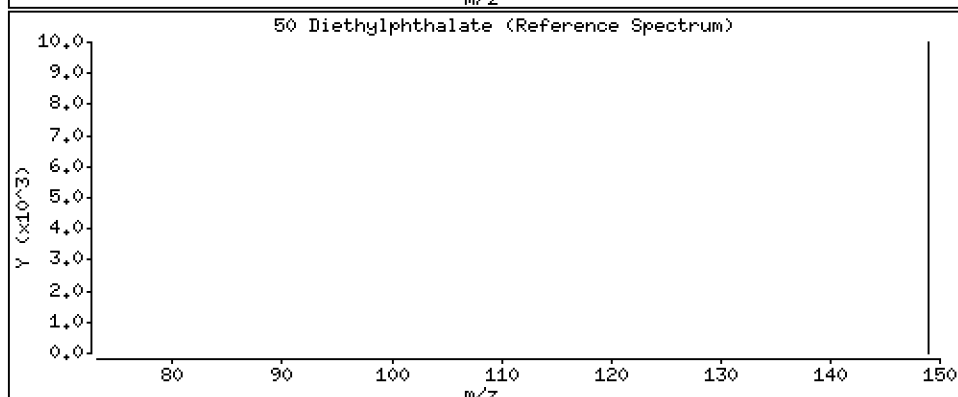
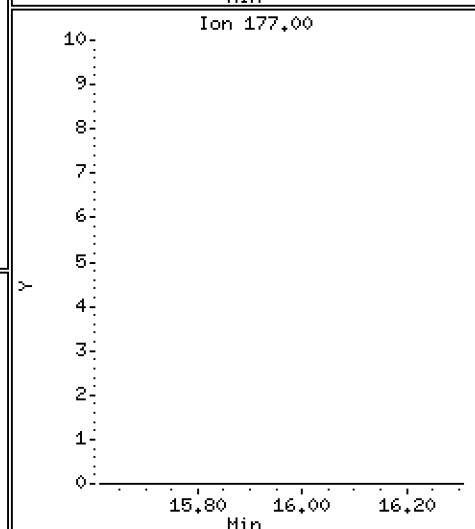
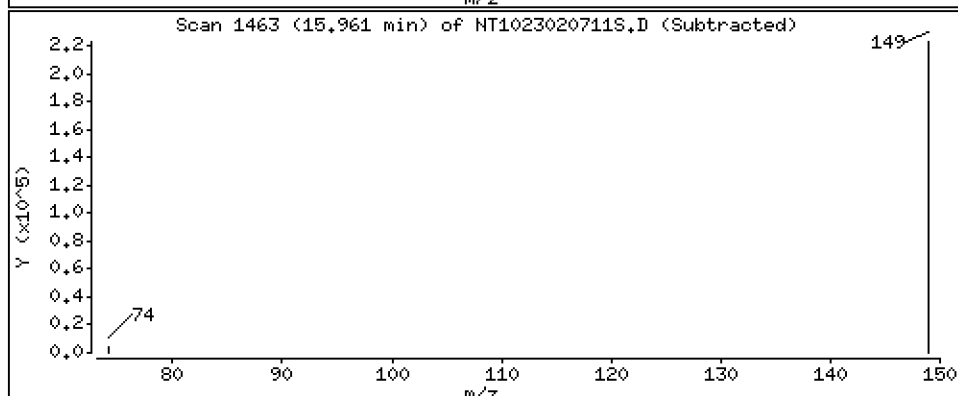
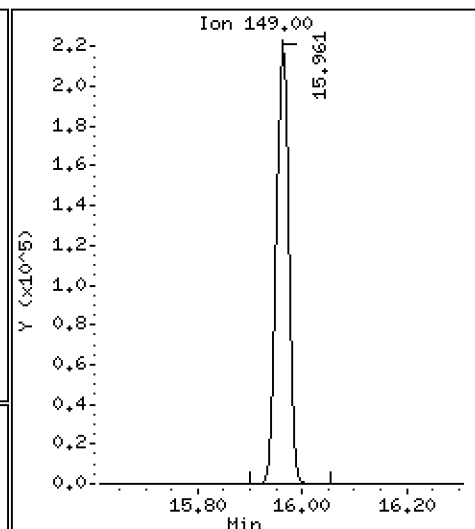
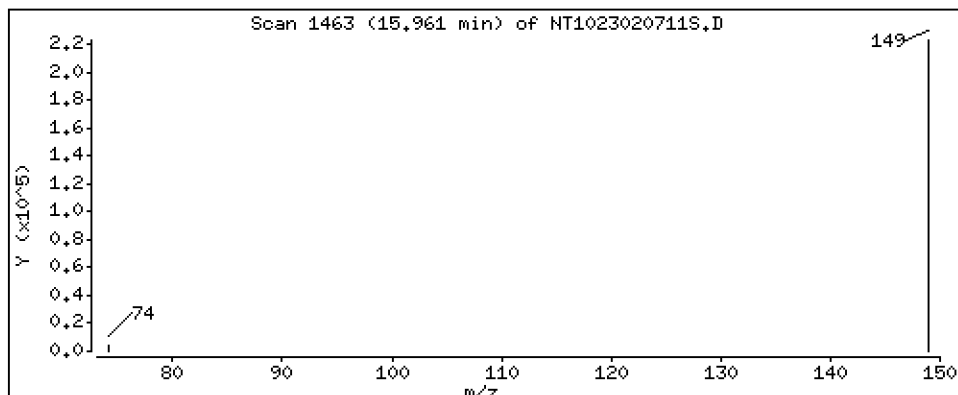
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,282 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

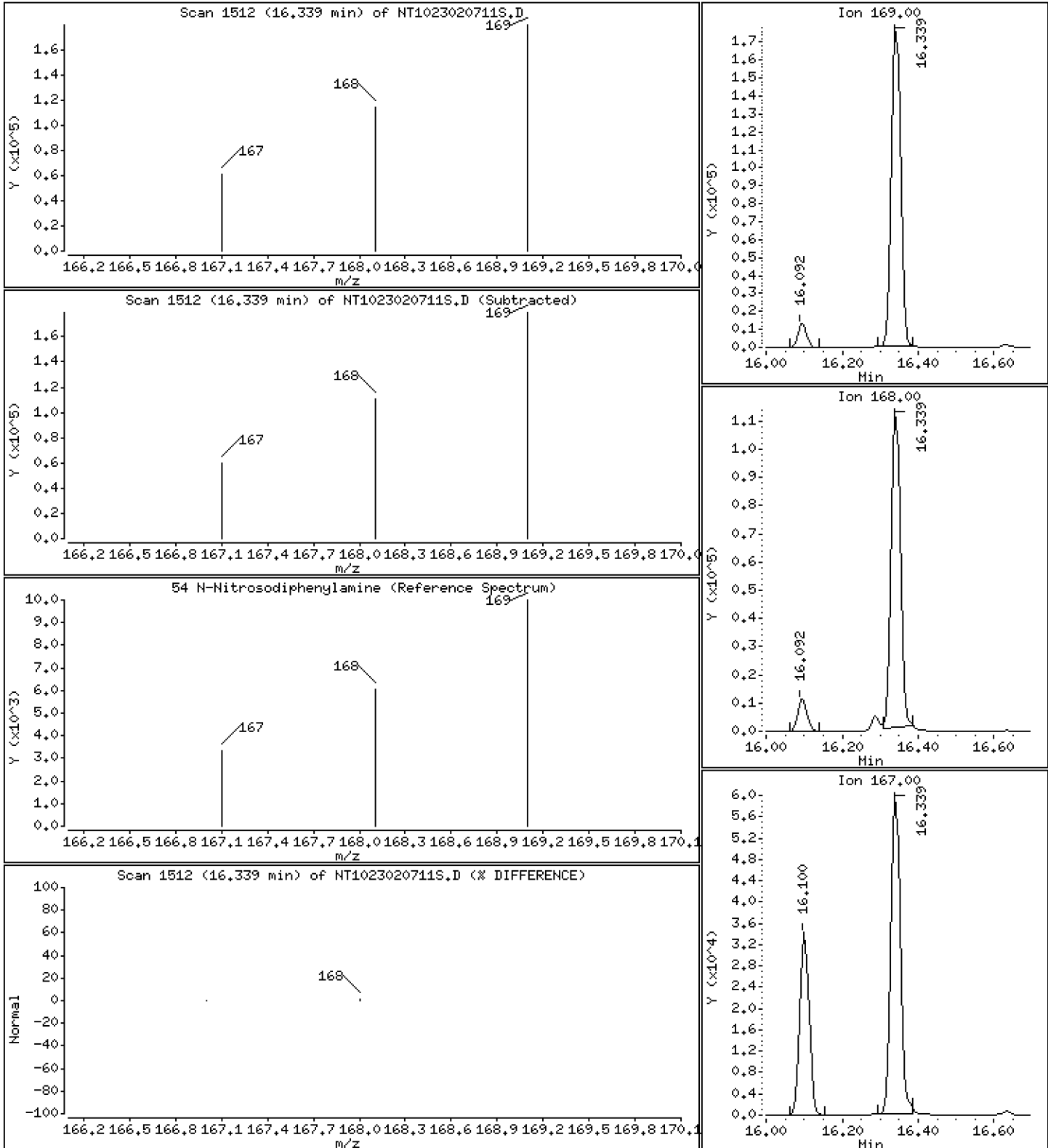
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 4.205 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

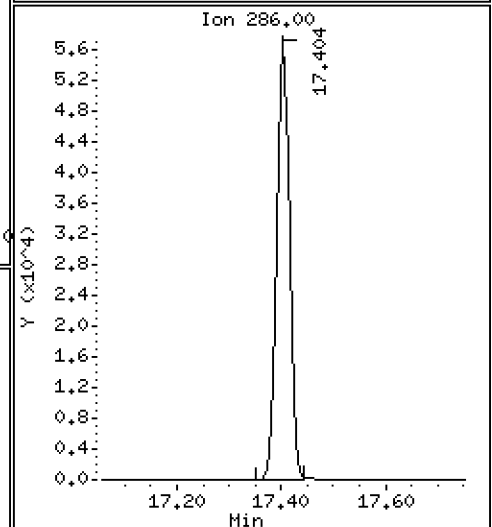
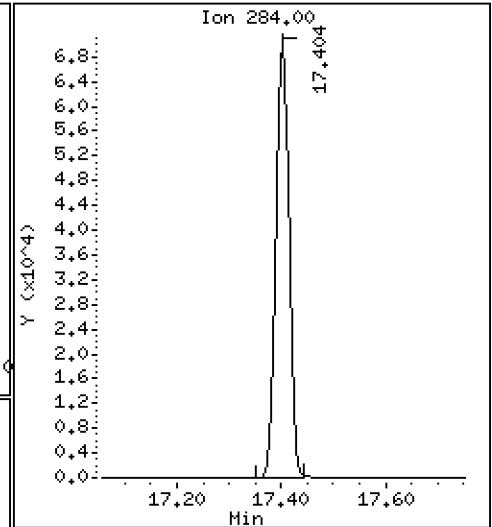
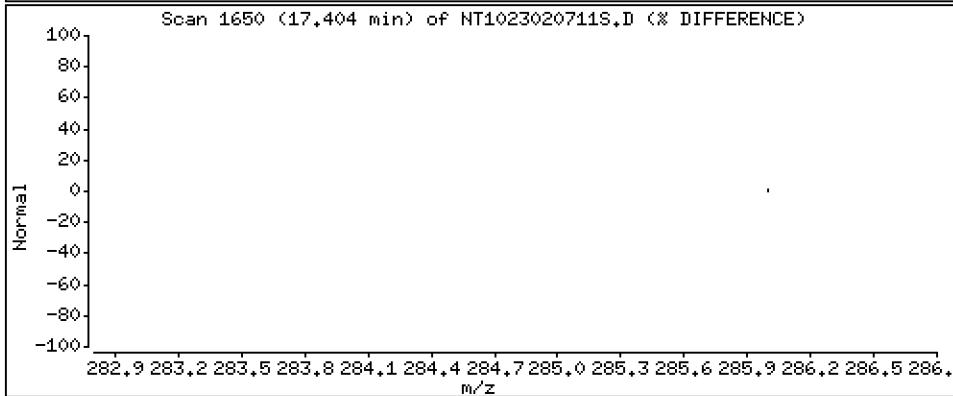
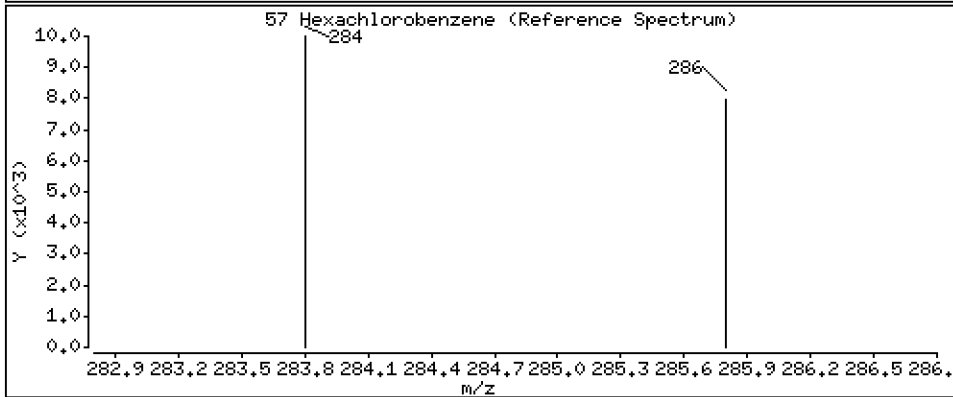
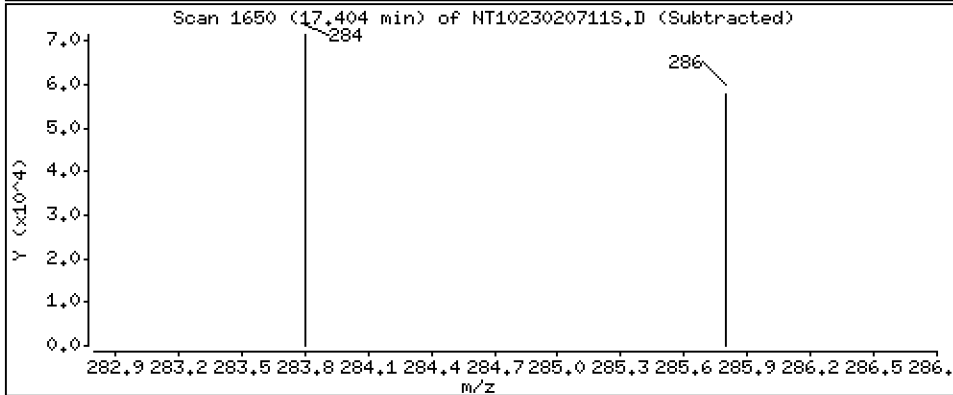
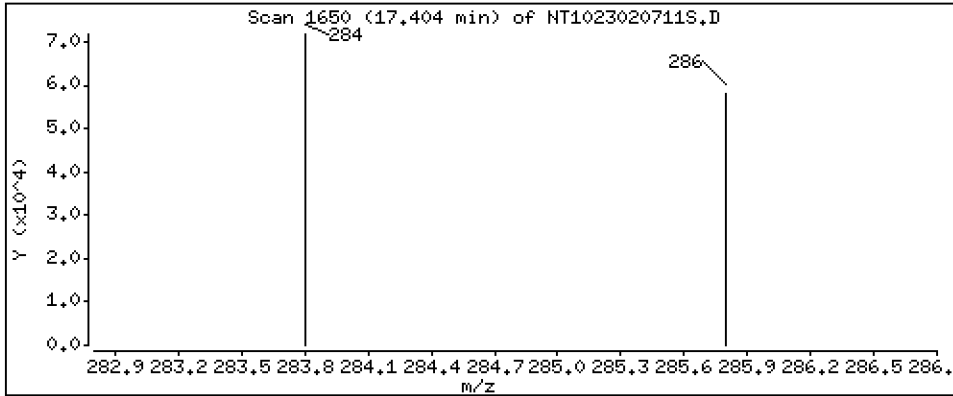
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 4.026 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

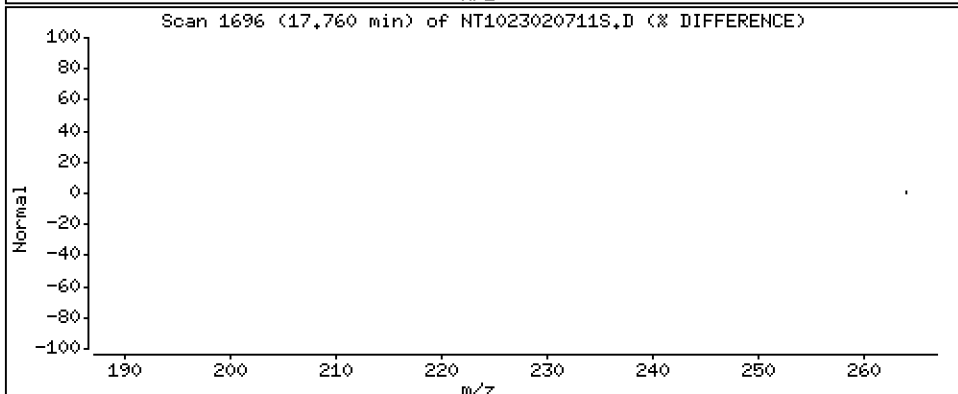
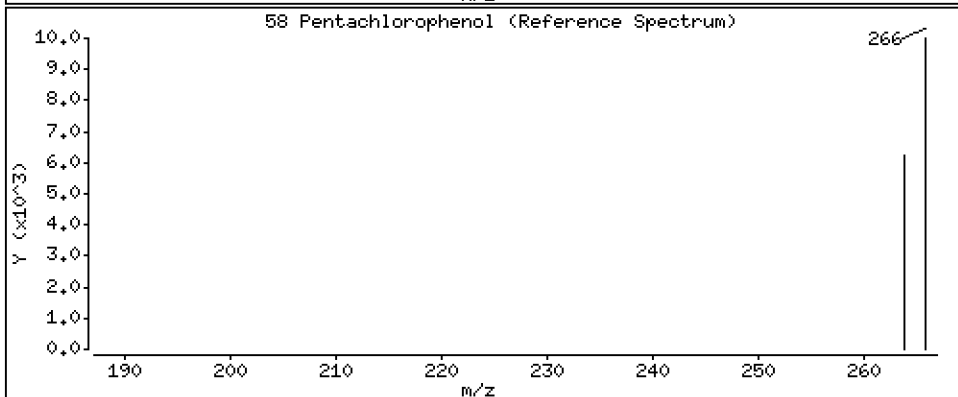
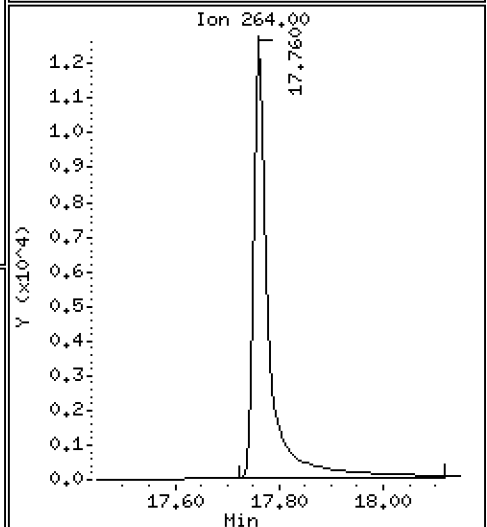
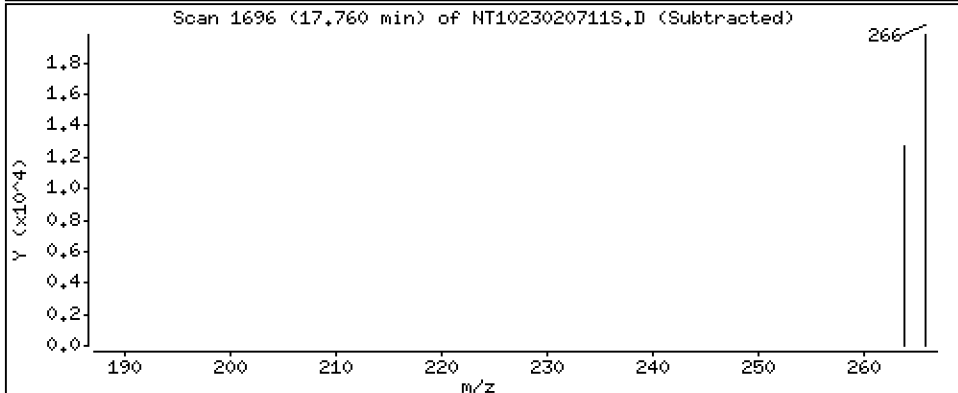
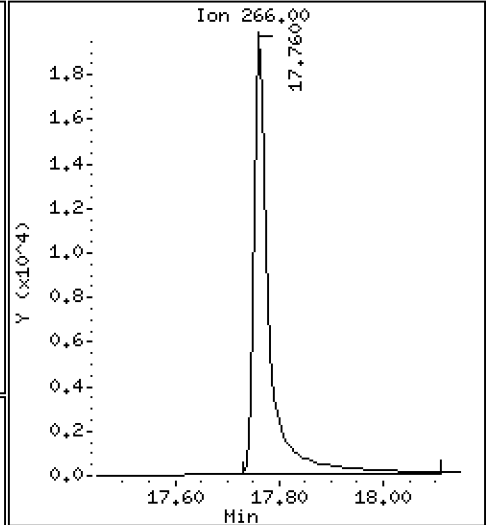
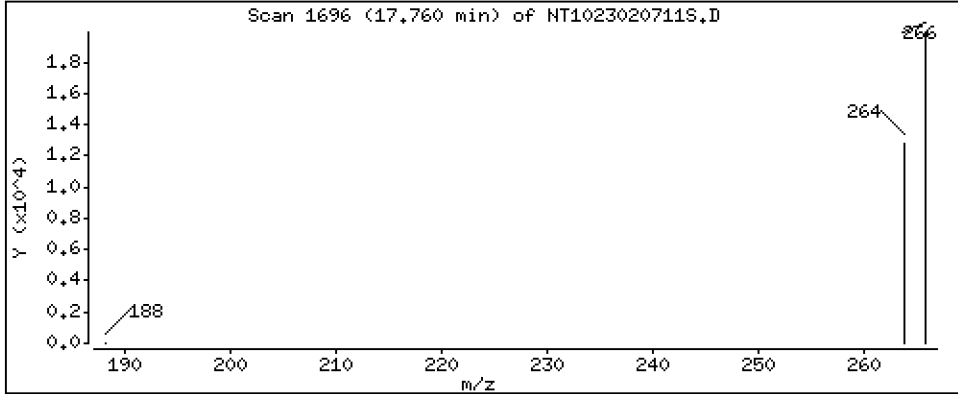
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,994 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

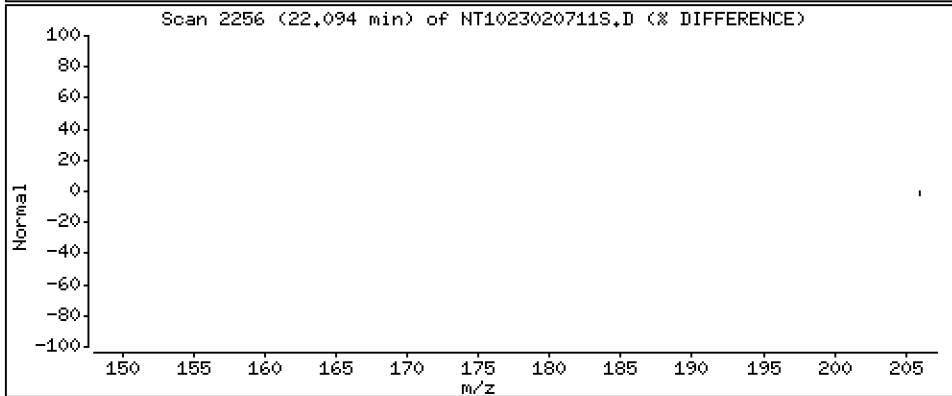
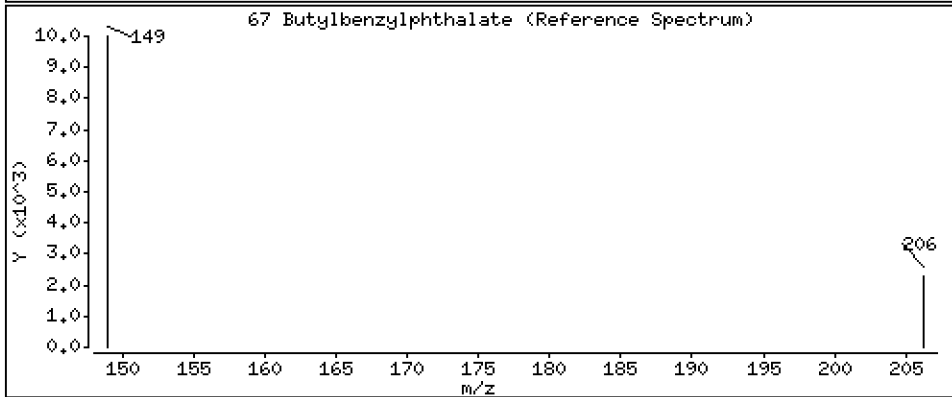
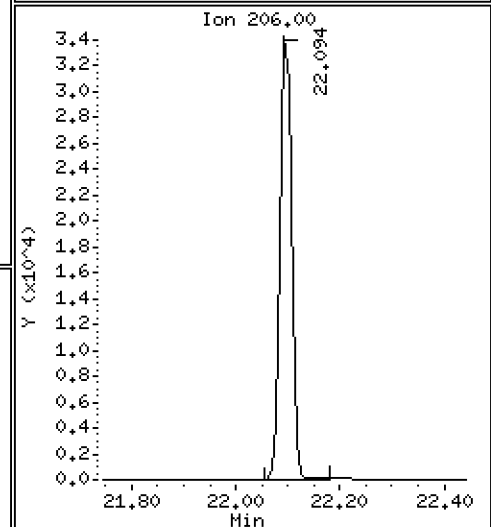
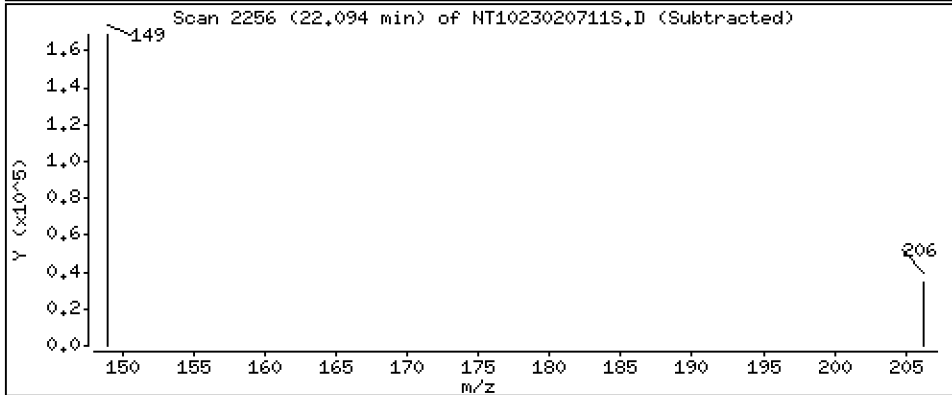
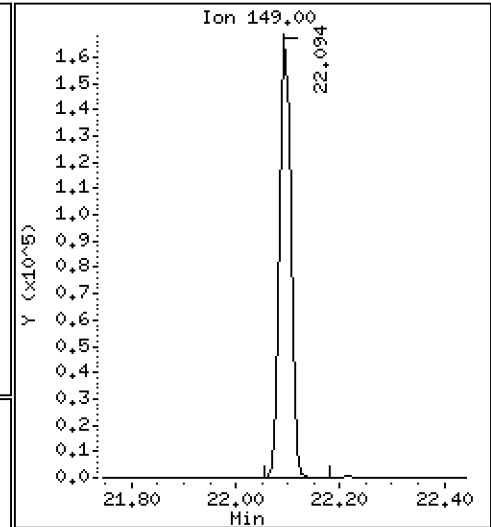
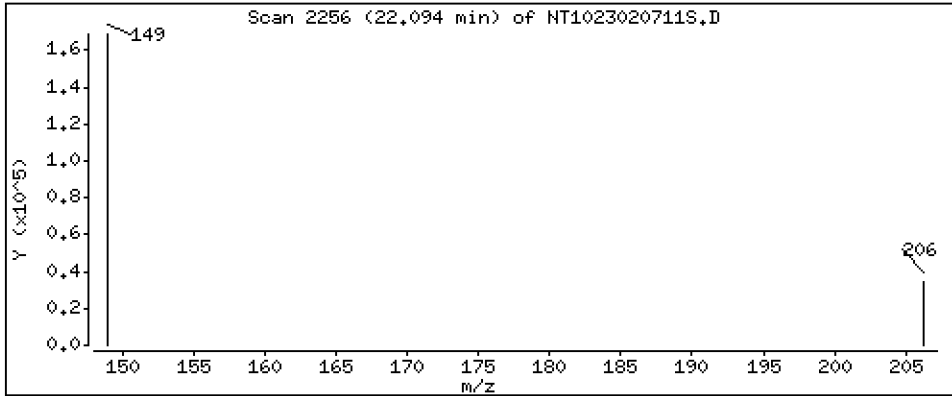
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 4.408 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

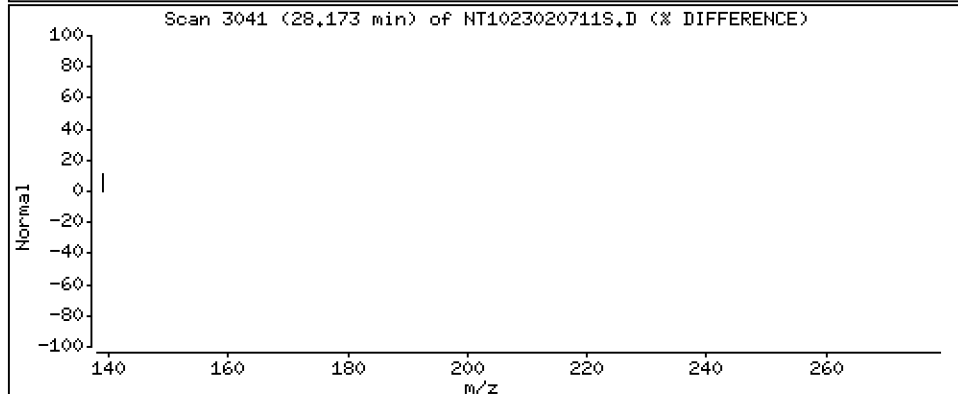
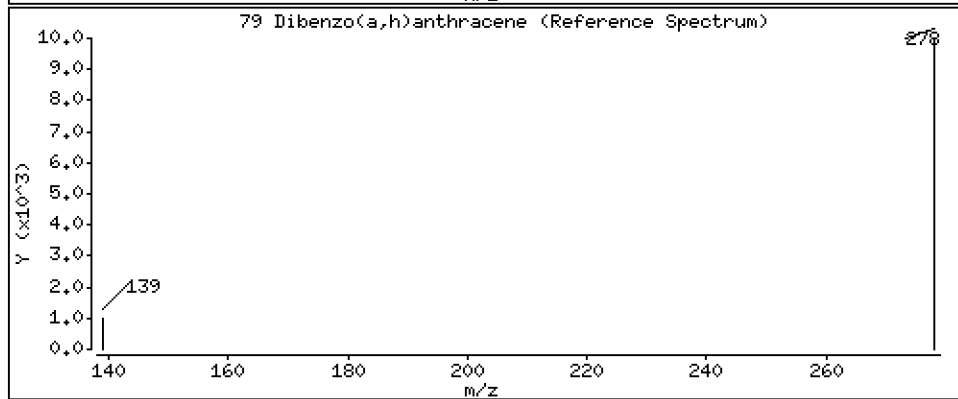
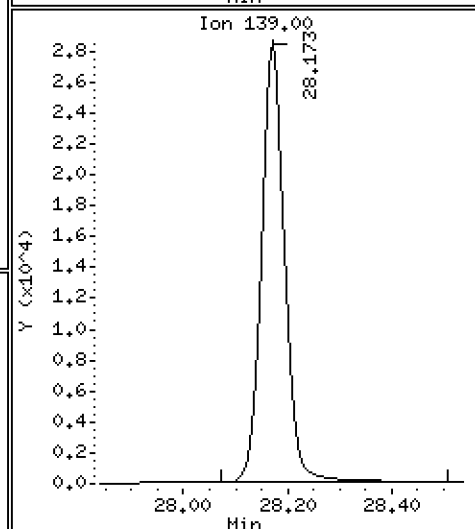
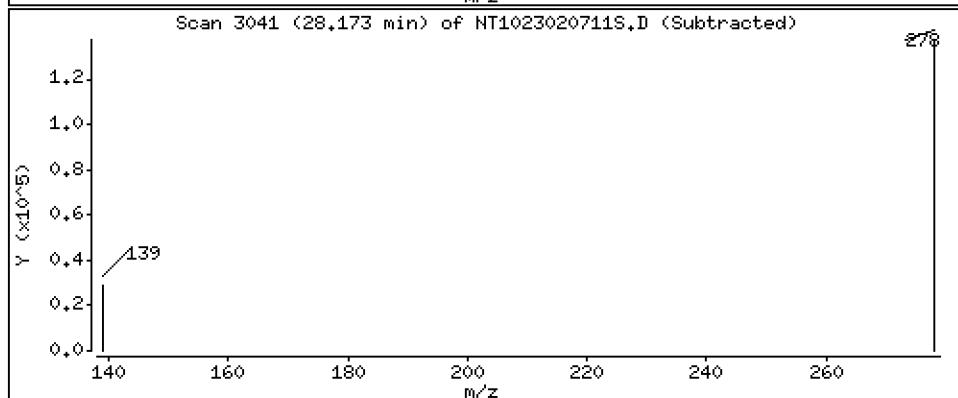
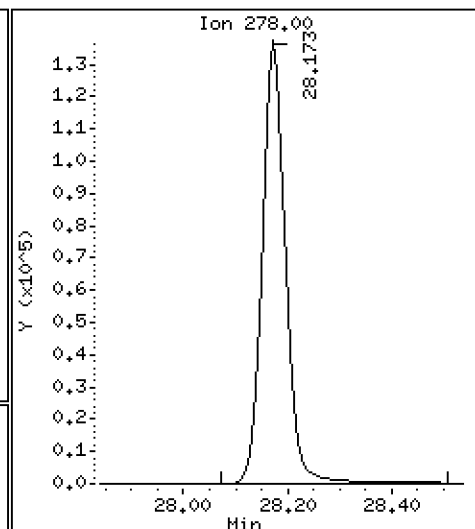
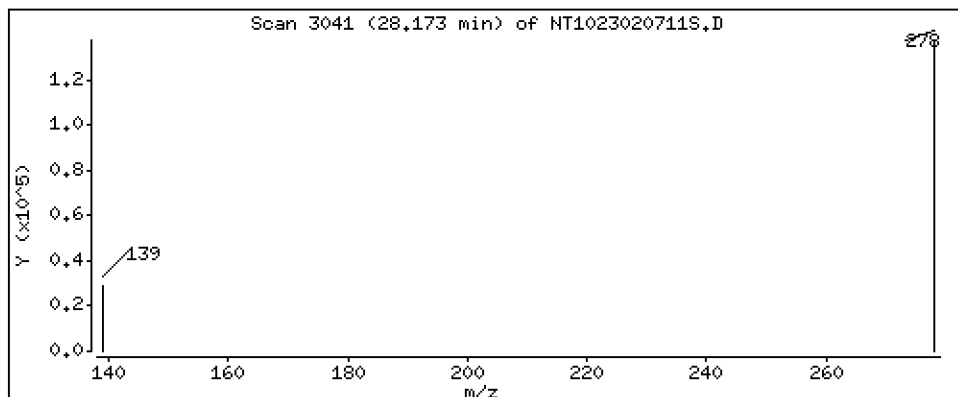
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,213 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

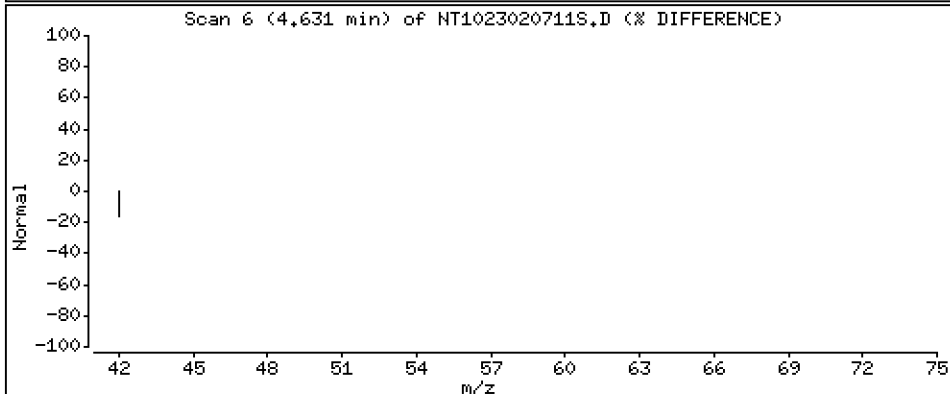
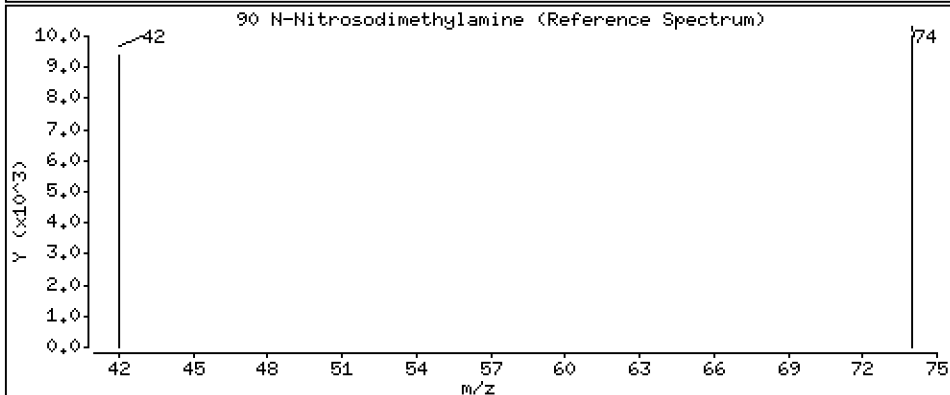
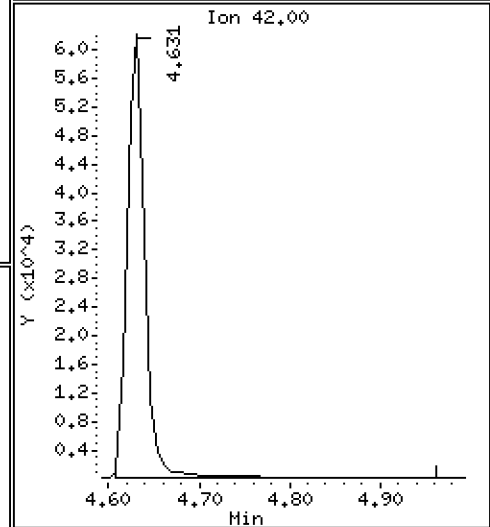
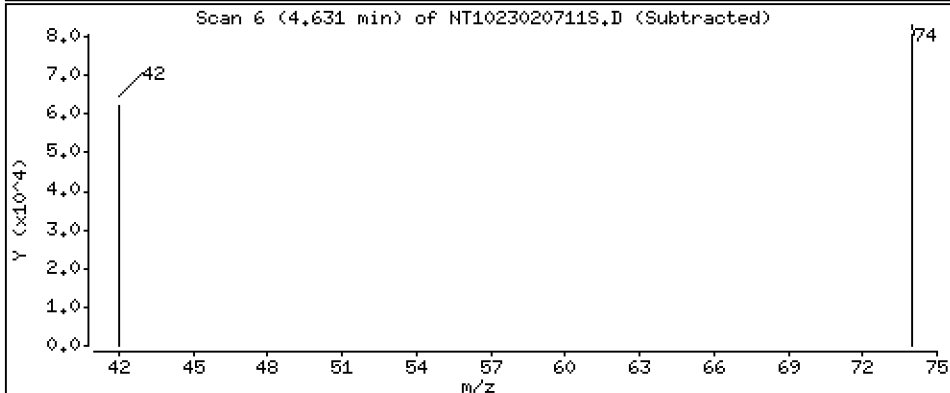
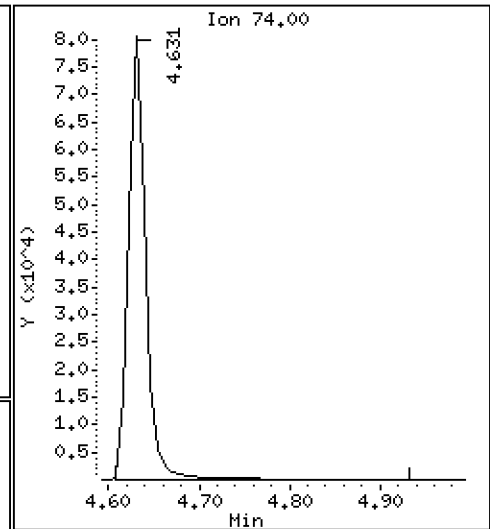
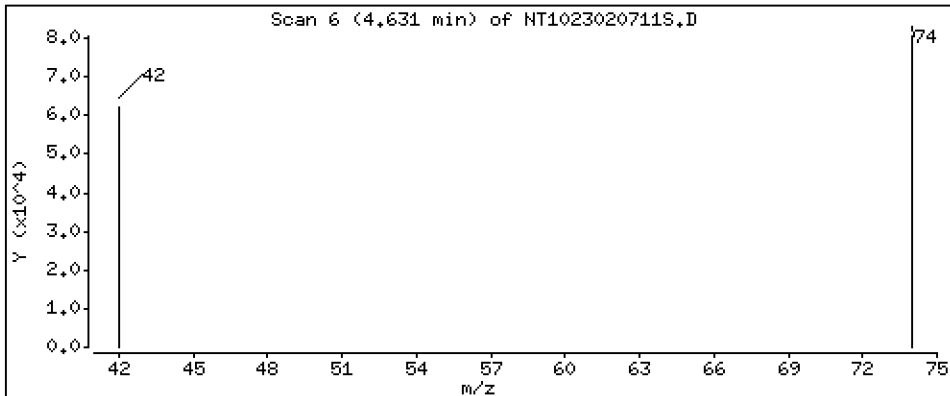
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 4.486 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020711S.D
 Lab Smp Id: SLB0106-SCV1
 Inj Date : 07-FEB-2023 18:04 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 09-Feb-2023 12:21 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		6.770	6.785	(0.755)	257806	6.97332	6.973 (R)
3 Phenol	94		8.362	8.369	(0.933)	232442	4.16958	4.170
7 1,3-Dichlorobenzene	146		8.903	8.903	(0.993)	208793	4.15895	4.159
* 8 1,4-Dichlorobenzene-d4	152		8.965	8.965	(1.000)	121574	4.00000	
9 1,4-Dichlorobenzene	146		8.996	8.996	(1.003)	207977	4.23719	4.237
11 Benzyl alcohol	79		9.228	9.267	(1.029)	133450	4.90710	4.907
12 1,2-Dichlorobenzene	146		9.345	9.345	(1.042)	201423	4.20453	4.205
13 2-Methylphenol	108		9.461	9.469	(1.055)	138888	3.64937	3.649
15 4-Methylphenol	108		9.733	9.741	(1.086)	154509	3.98044	3.980
16 N-Nitroso-di-n-propylamine	70		9.780	9.780	(1.091)	121809	4.39583	4.396
22 2,4-Dimethylphenol	107		10.754	10.763	(0.942)	134677	3.35264	3.353
24 Benzoic acid	105		10.941	11.204	(0.958)	112855	5.88397	5.884
26 1,2,4-Trichlorobenzene	180		11.342	11.342	(0.993)	147977	3.93002	3.930
* 27 Naphthalene-d8	136		11.419	11.419	(1.000)	457304	4.00000	
30 Hexachlorobutadiene	225		11.829	11.829	(1.036)	85644	4.16602	4.166
39 Dimethylphthalate	163		14.514	14.514	(0.967)	225259	4.17269	4.173
* 42 Acenaphthene-d10	162		15.010	15.002	(1.000)	231625	4.00000	
50 Diethylphthalate	149		15.960	15.961	(1.063)	348168	4.28244	4.282
54 N-Nitrosodiphenylamine	169		16.339	16.346	(0.907)	286918	4.20471	4.205
57 Hexachlorobenzene	284		17.404	17.404	(0.966)	116927	4.02634	4.026

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	17.760	17.799	(0.986)	41808	3.99436	3.994
* 59 Phenanthrene-d10	188	18.015	18.015	(1.000)	412906	4.00000	
\$ 66 Terphenyl-d14	244	21.164	21.164	(0.917)	336208	4.23932	4.239(R)
67 Butylbenzylphthalate	149	22.093	22.094	(0.958)	236283	4.40766	4.408
* 69 Chrysene-d12	240	23.069	23.061	(1.000)	357298	4.00000	
* 77 Perylene-d12	264	25.616	25.616	(1.000)	361150	4.00000	
79 Dibenzo(a,h)anthracene	278	28.173	28.188	(1.100)	426459	4.21339	4.213
90 N-Nitrosodimethylamine	74	4.631	4.646	(0.517)	108685	4.48609	4.486

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020711S.D
 Lab Smp Id: SLB0106-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 07-FEB-2023
 Calibration Time: 14:52
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	128794	64397	257588	121574	-5.61
27 Naphthalene-d8	469043	234522	938086	457304	-2.50
42 Acenaphthene-d10	233225	116613	466450	231625	-0.69
59 Phenanthrene-d10	433858	216929	867716	412906	-4.83
69 Chrysene-d12	361809	180905	723618	357298	-1.25
77 Perylene-d12	380407	190204	760814	361150	-5.06

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.97	0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.01	0.05
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	0.00
69 Chrysene-d12	23.06	22.56	23.56	23.07	0.03
77 Perylene-d12	25.62	25.12	26.12	25.62	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020711S.D

Lab ID: SLB0106-SCV1

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

07-FEB-2023 18:04

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
0.958	0.000	0.9581		Benzoic acid

RRT check based on Ccal File: 20230207.b/NT1023020710S.D

On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GA00050

Laboratory ID: SLA0213-SCV1

Sequence: SLA0213

Sequence Name: 8270 SIM PNA SCV

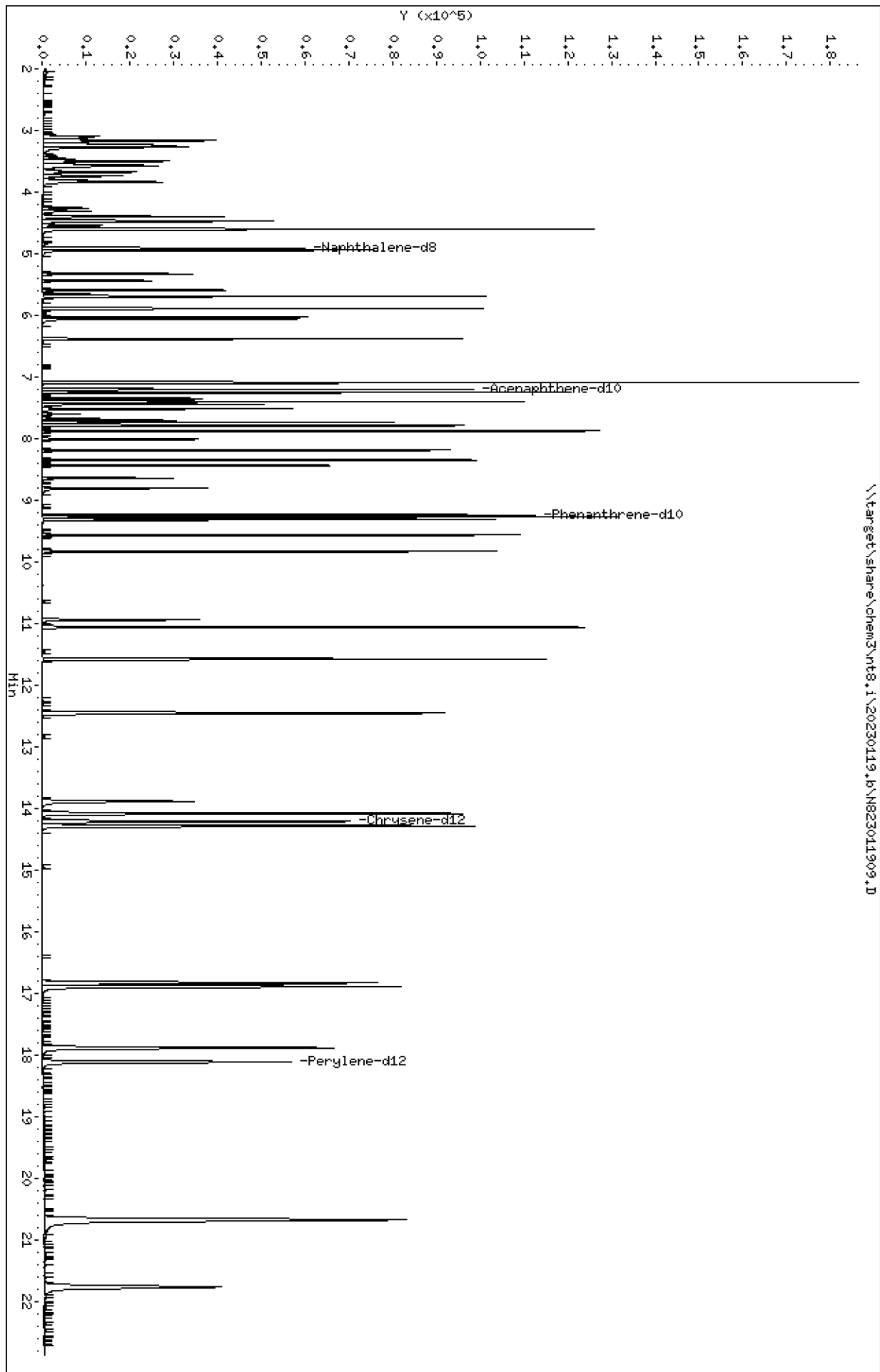
Standard ID: L000686

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Naphthalene	2.5000	2.63	5.0	
2-Methylnaphthalene	2.5000	2.67	6.8	
1-Methylnaphthalene	2.5000	2.65	6.0	
Acenaphthylene	2.5000	2.82	12.8	
Acenaphthene	2.5000	2.60	4.0	
Dibenzofuran	2.5000	2.86	14.4	
Fluorene	2.5000	2.63	5.2	
Phenanthrene	2.5000	2.45	-2.1	
Anthracene	2.5000	2.27	-9.2	
Fluoranthene	2.5000	2.65	6.1	
Pyrene	2.5000	2.46	-1.5	
Benzo(a)anthracene	2.5000	2.59	3.5	
Chrysene	2.5000	2.40	-4.0	
Benzo(b)fluoranthene	2.5000	2.51	0.3	
Benzo(k)fluoranthene	2.5000	2.66	6.2	
Benzo(a)fluoranthenes, Total	5.0000	5.48	9.6	
Benzo(a)pyrene	2.5000	2.57	2.9	
Indeno(1,2,3-cd)pyrene	2.5000	2.69	7.6	
Dibenzo(a,h)anthracene	2.5000	2.49	-0.3	
Benzo(g,h,i)perylene	2.5000	2.48	-0.7	

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt8.1\20230119.6\N823011909.D
Date: 19-JAN-2023 14:58
Client ID:
Sample Info: SCV230119
Volume Injected (uL): 1.0
Column phase: Rxi-17sil

Instrument: nt8.1
Operator: JZ
Column diameter: 0.25



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

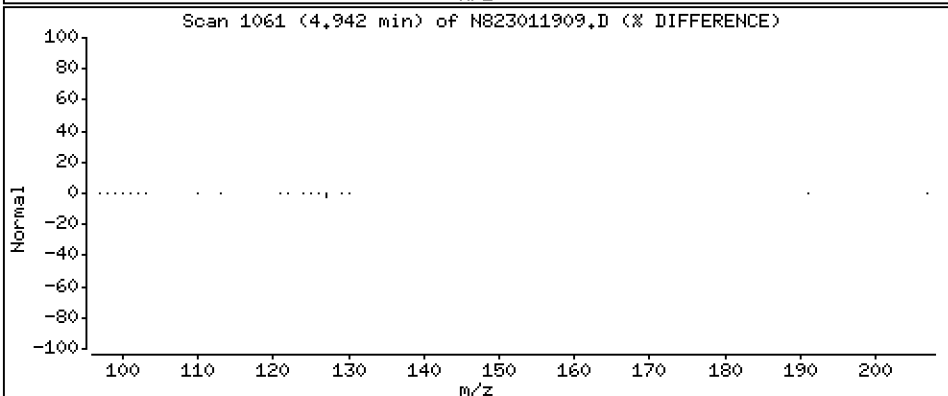
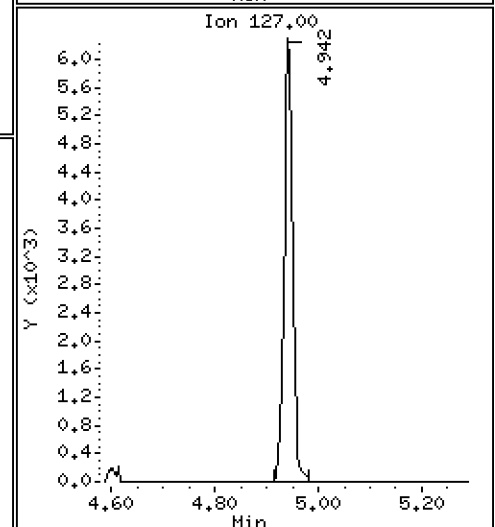
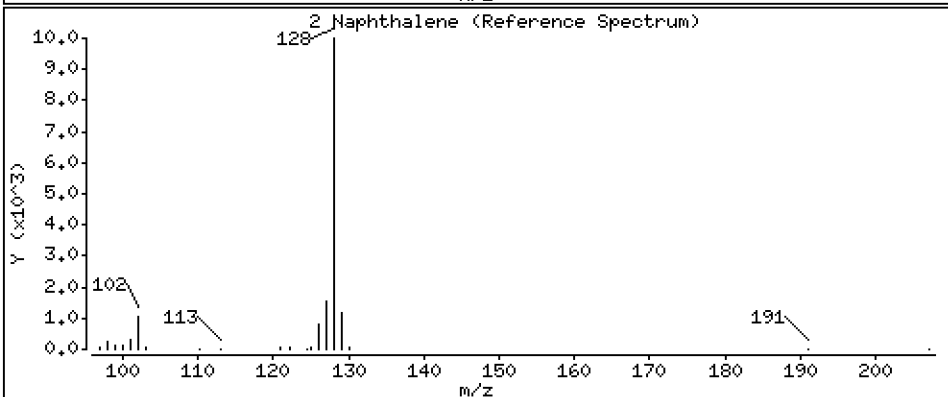
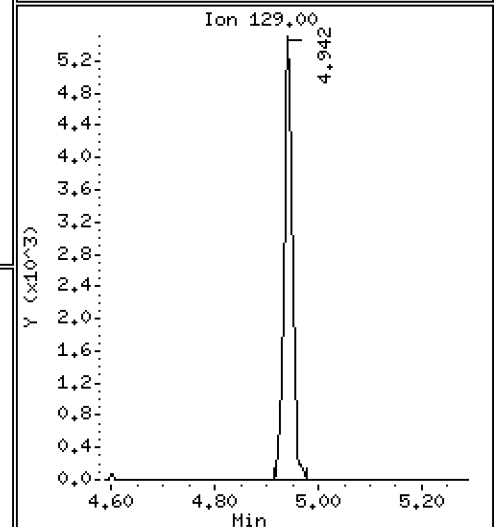
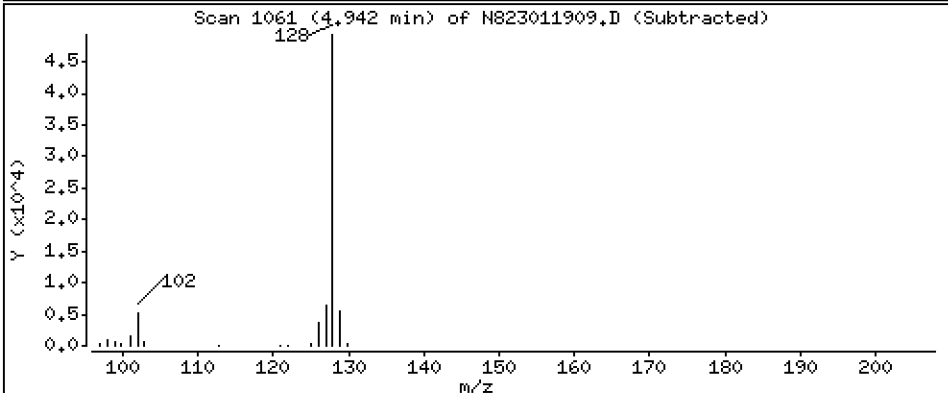
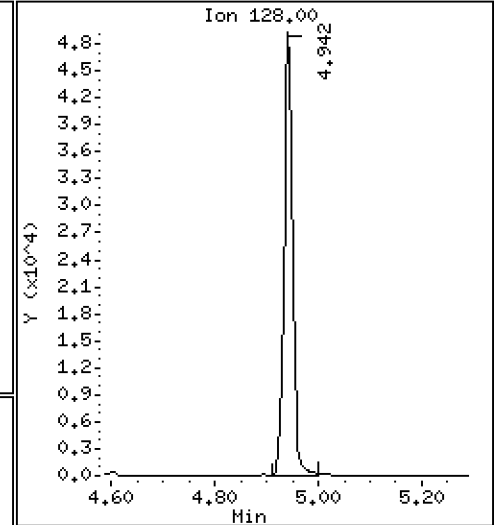
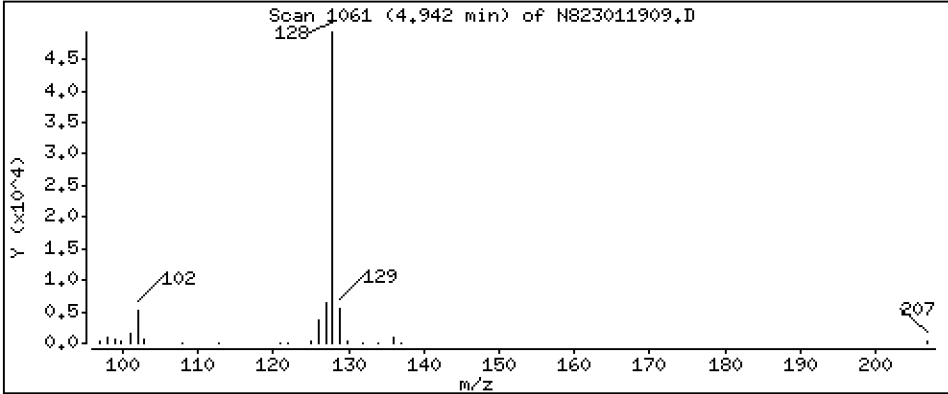
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

2 Naphthalene

Concentration: 2,626 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

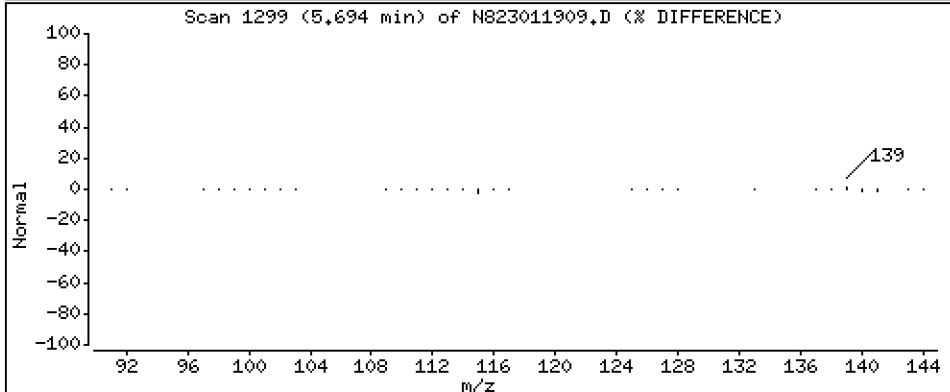
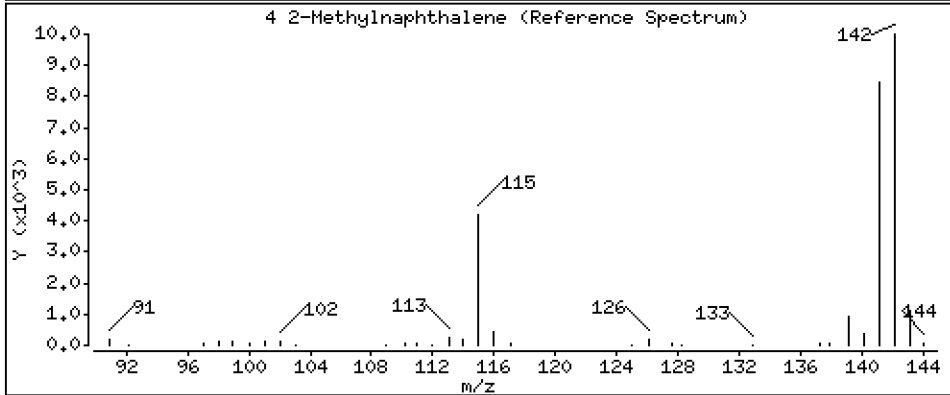
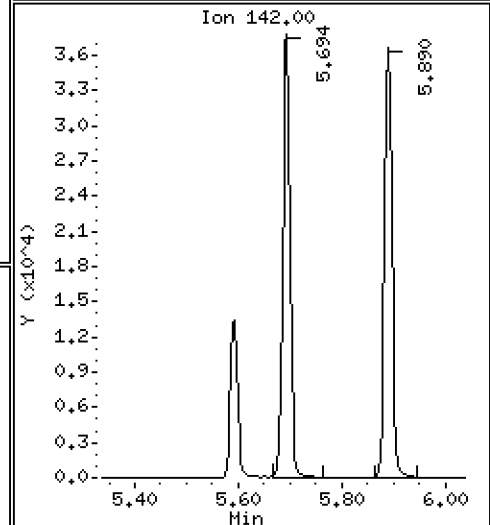
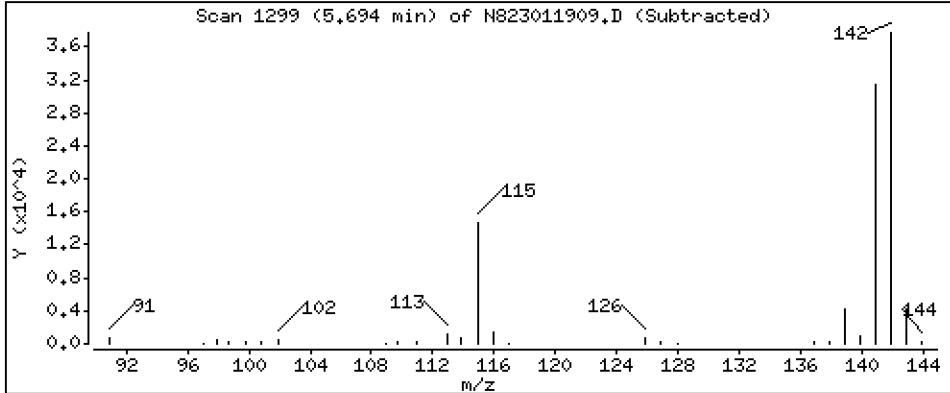
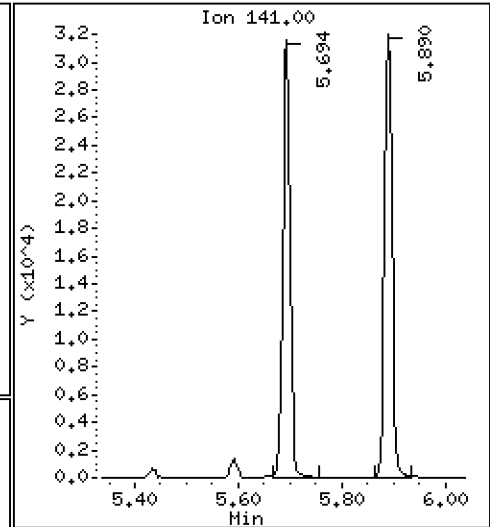
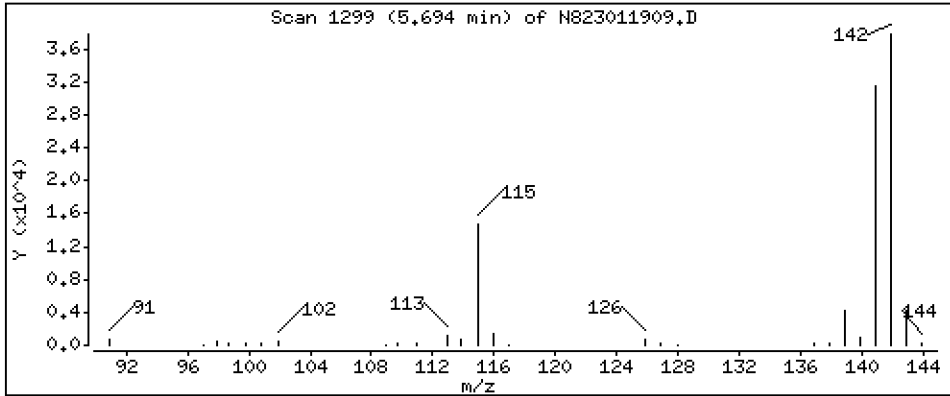
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

4 2-Methylnaphthalene

Concentration: 2,670 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

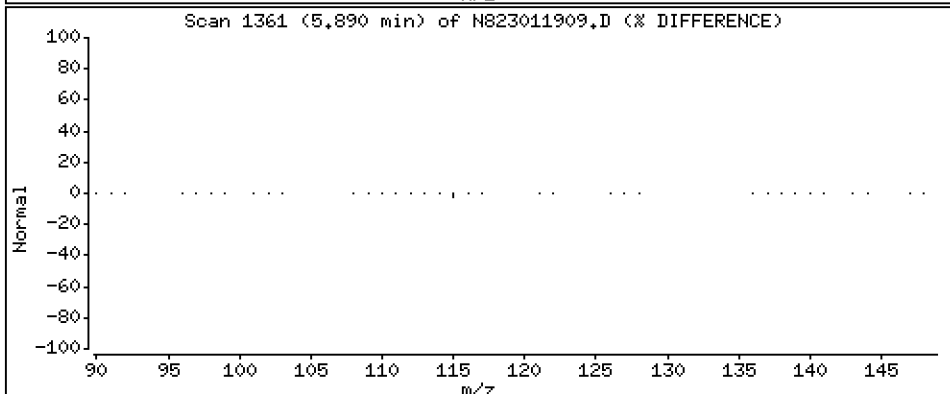
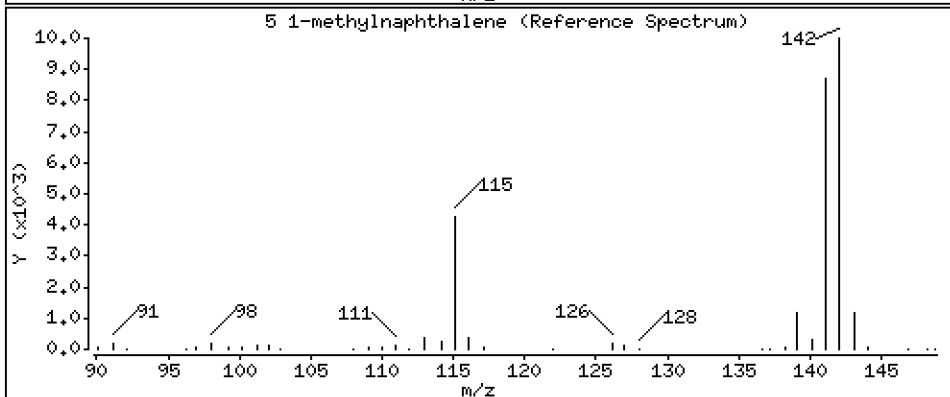
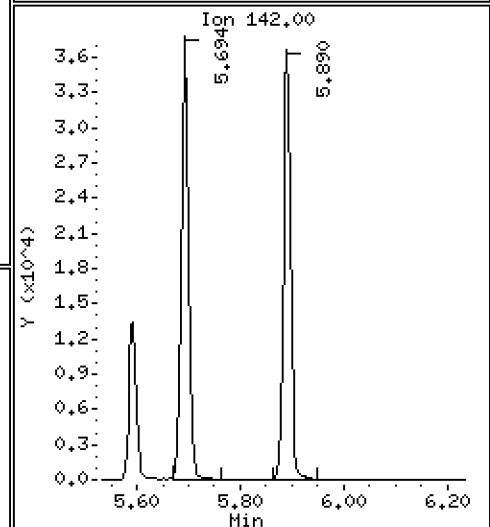
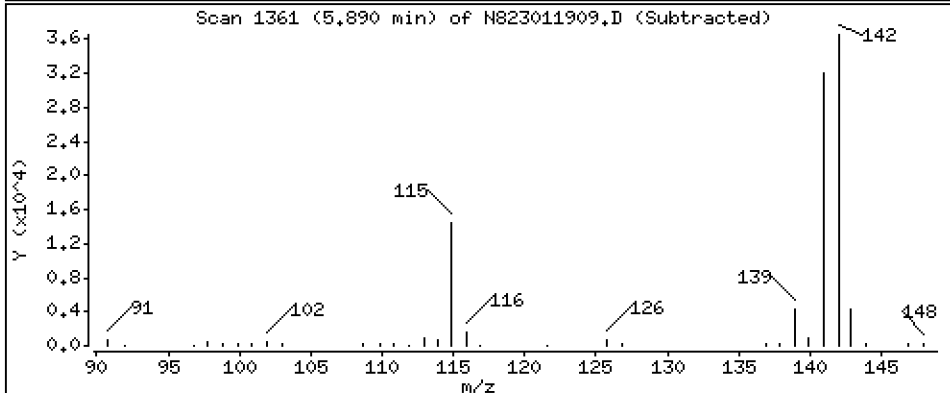
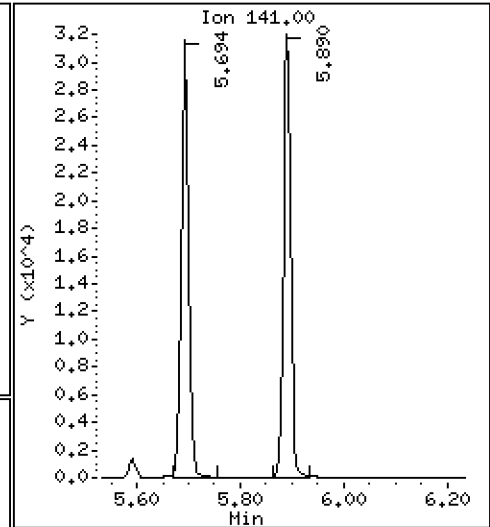
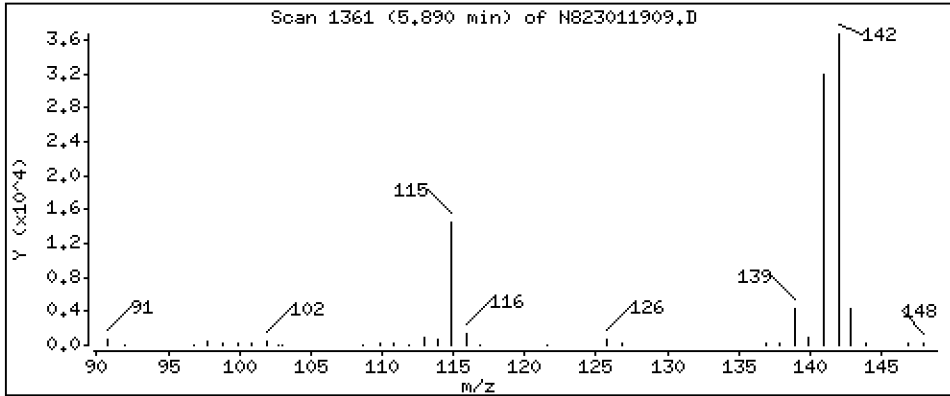
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

5 1-methylnaphthalene

Concentration: 2,649 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

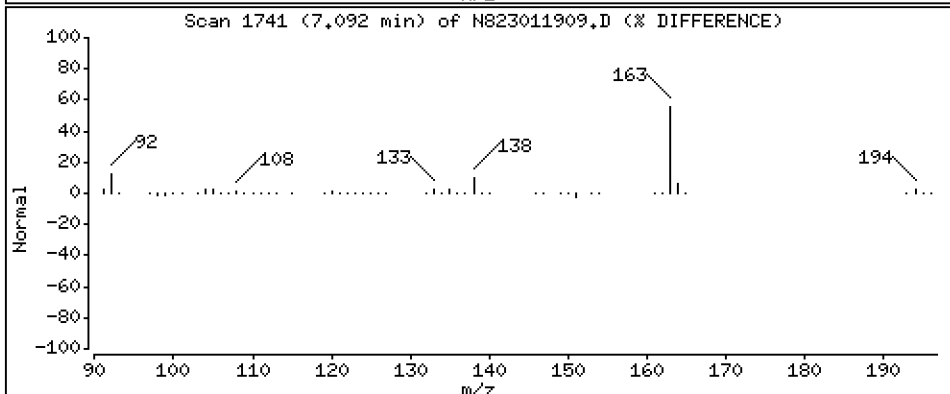
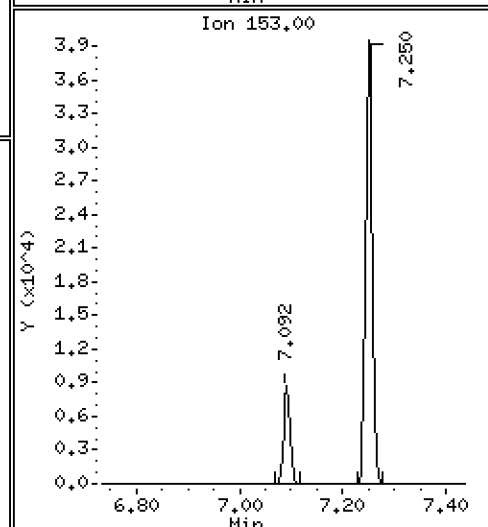
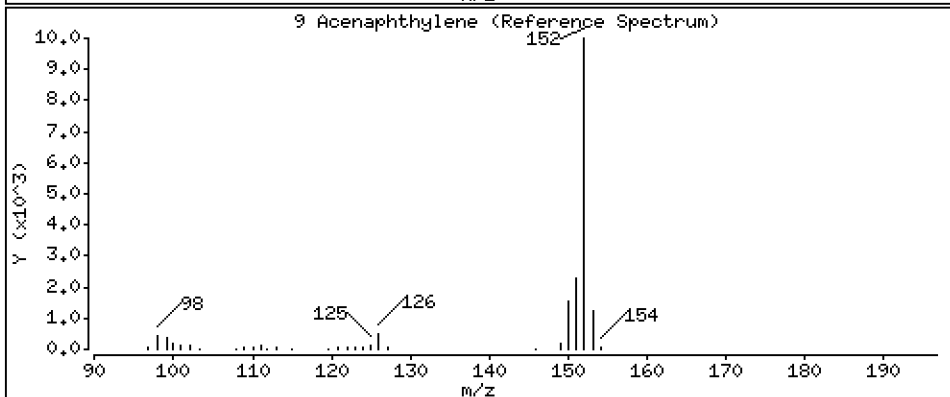
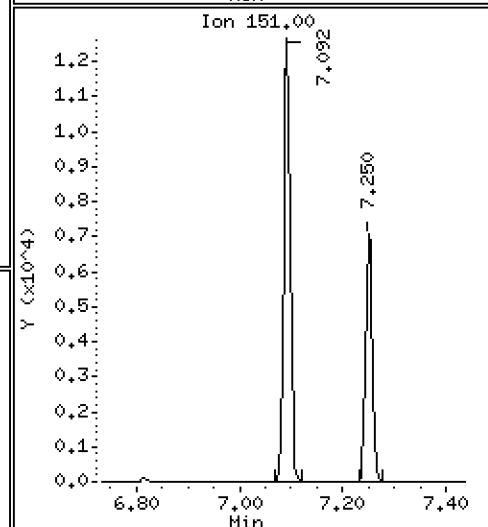
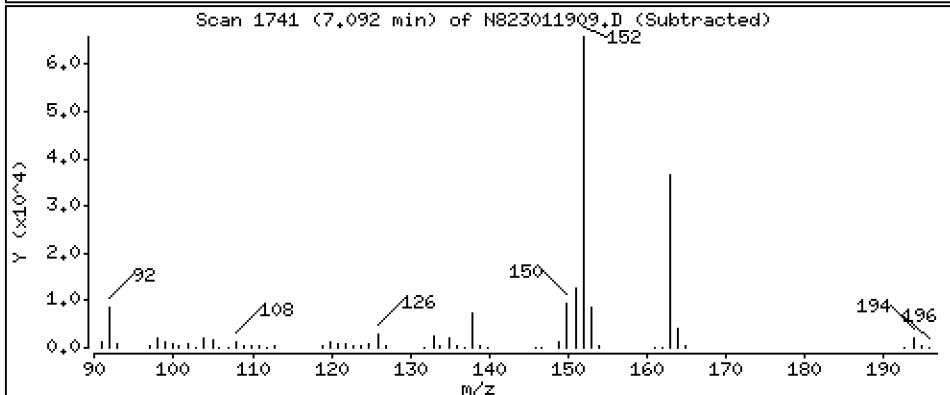
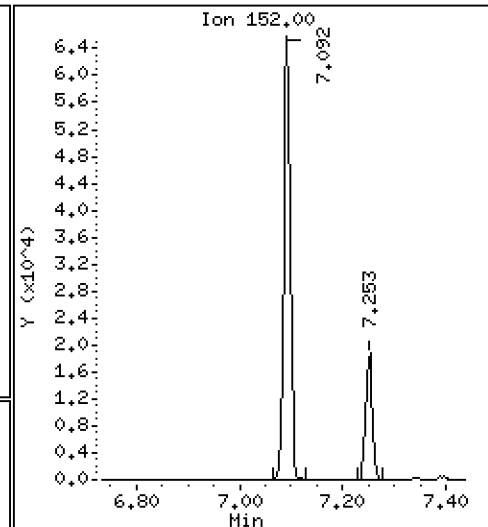
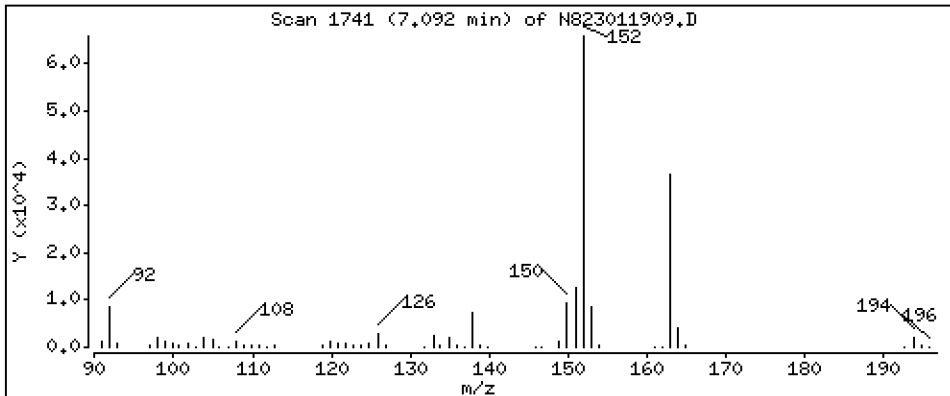
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

9 Acenaphthylene

Concentration: 2,821 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

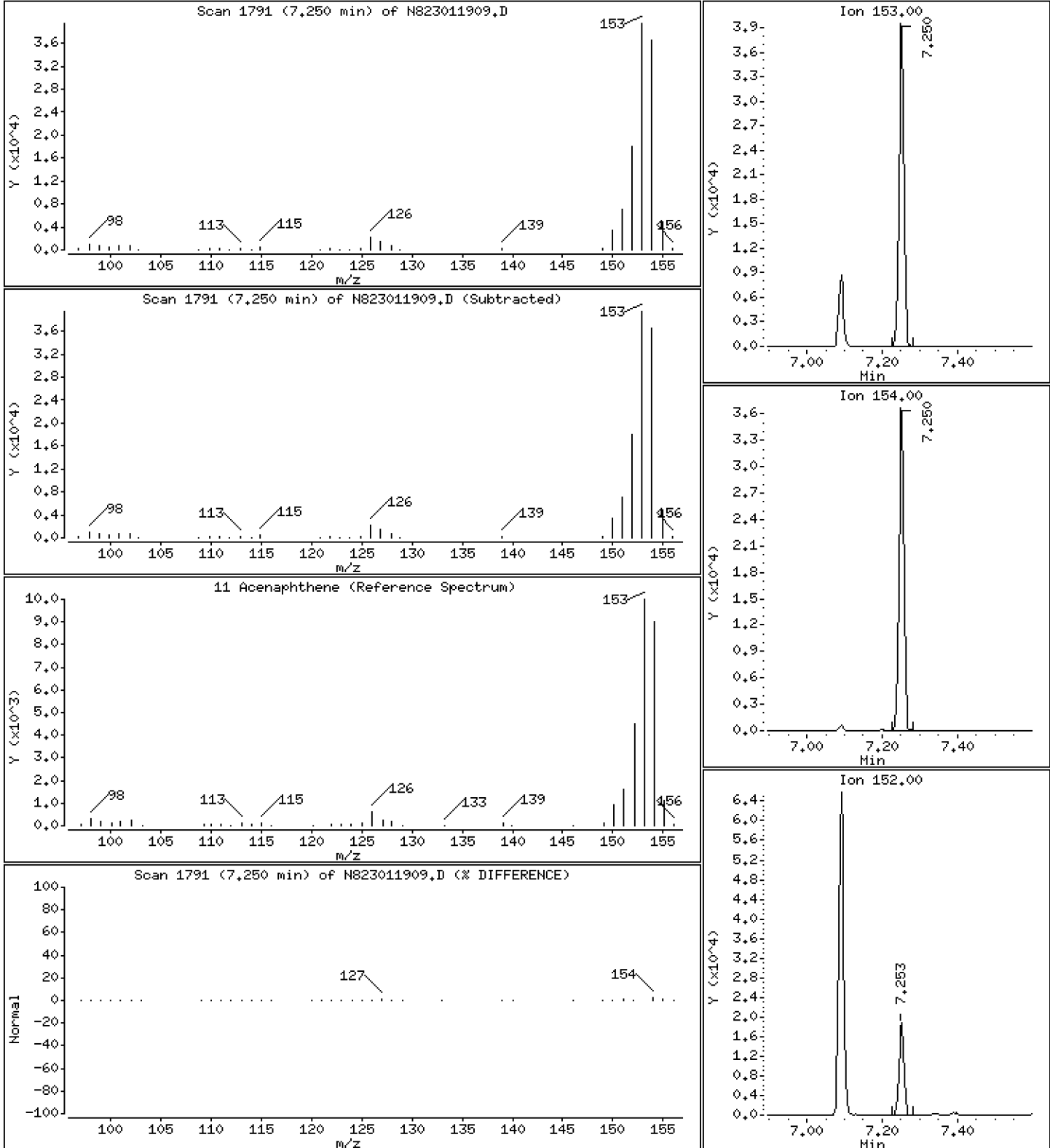
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

11 Acenaphthene

Concentration: 2,600 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

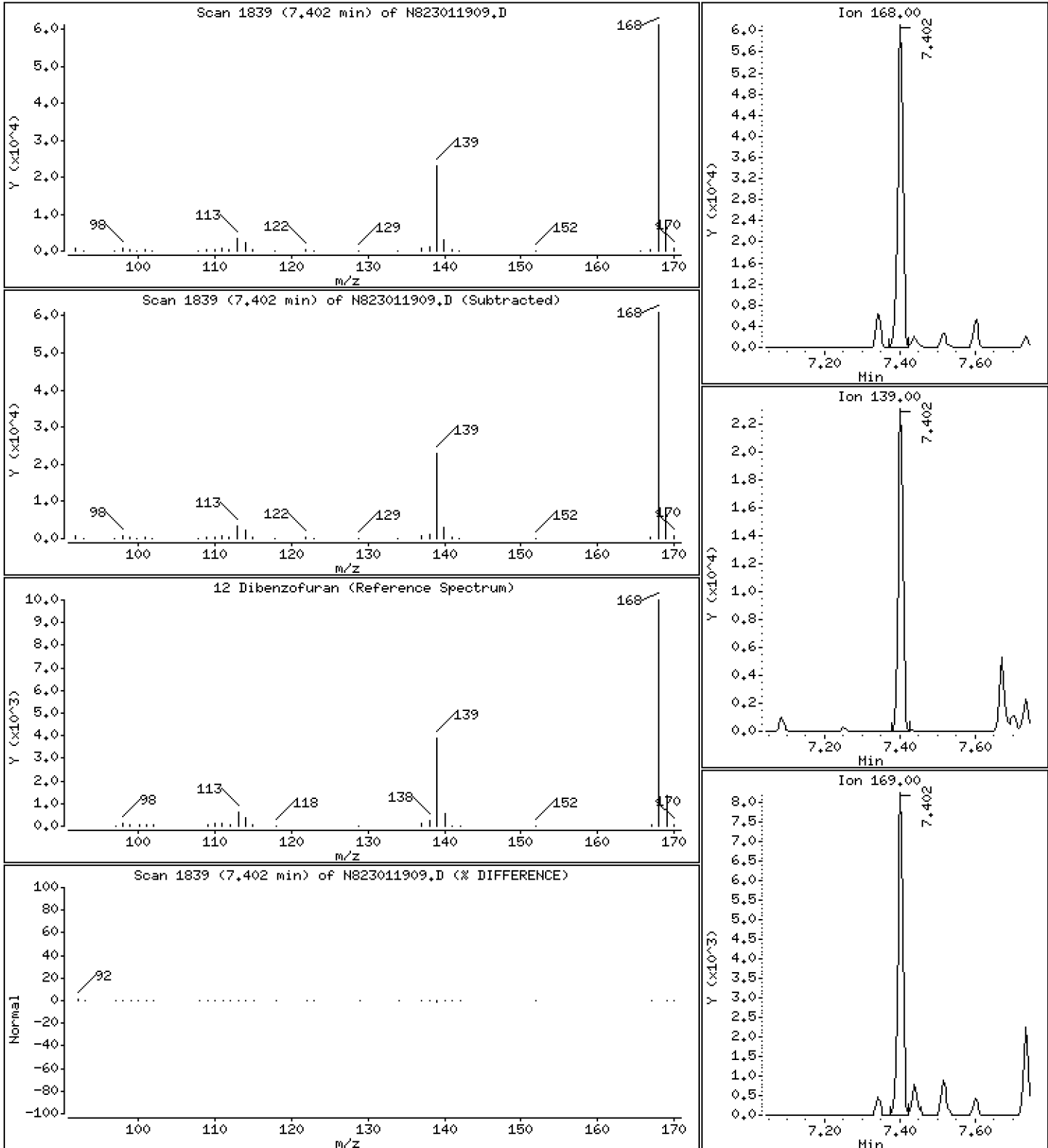
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

12 Dibenzofuran

Concentration: 2,860 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

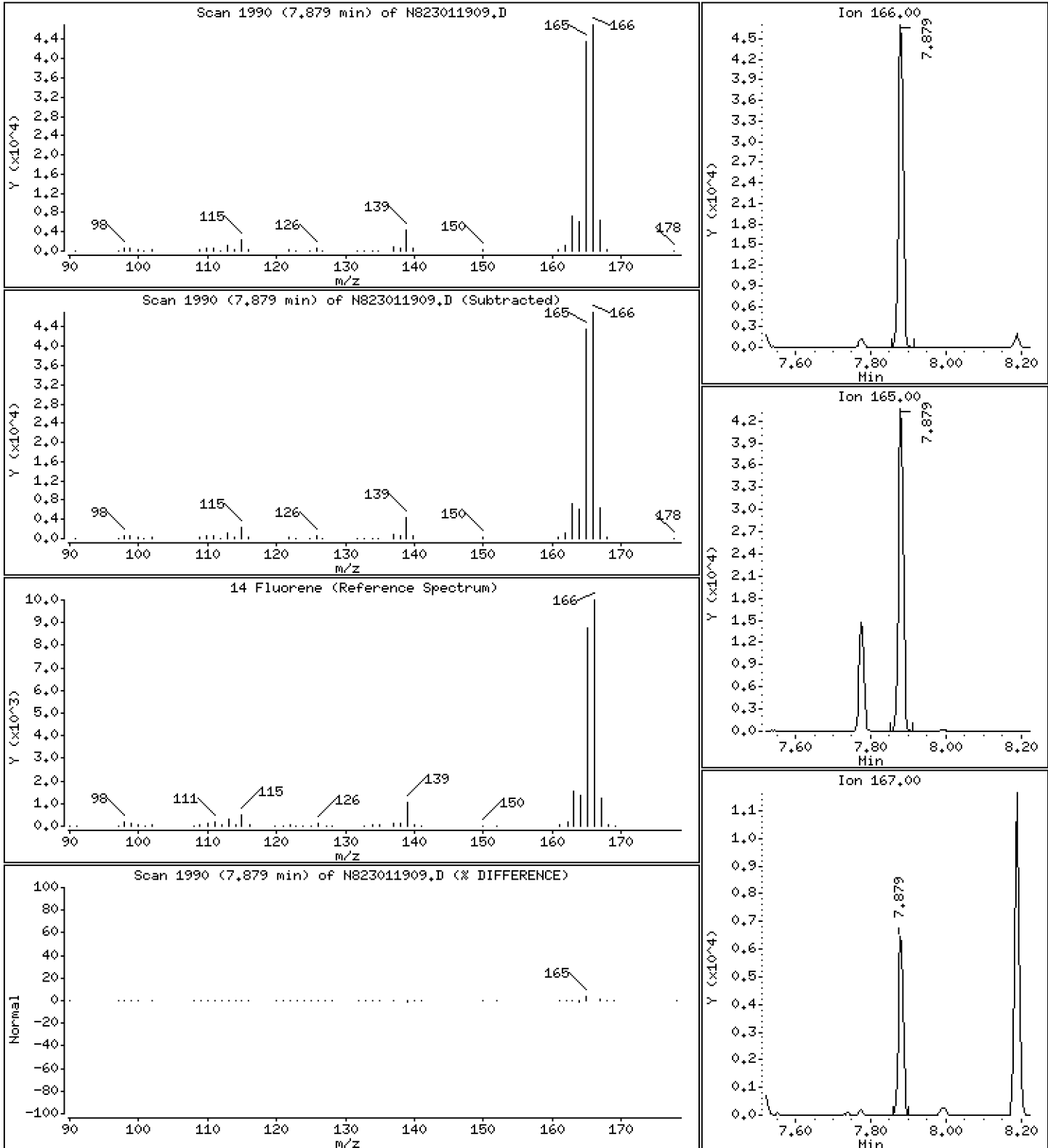
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

14 Fluorene

Concentration: 2,631 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

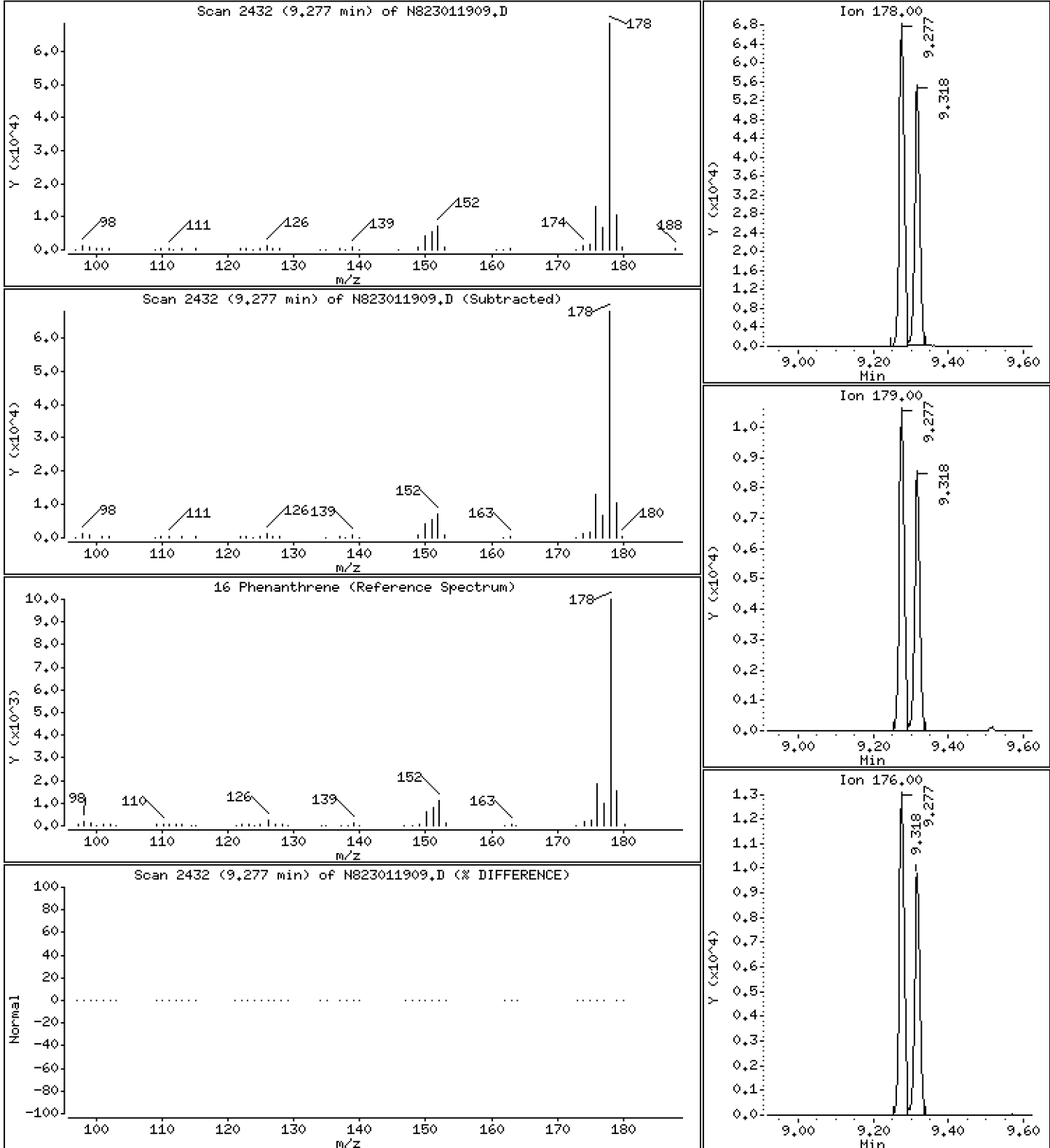
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

16 Phenanthrene

Concentration: 2,448 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

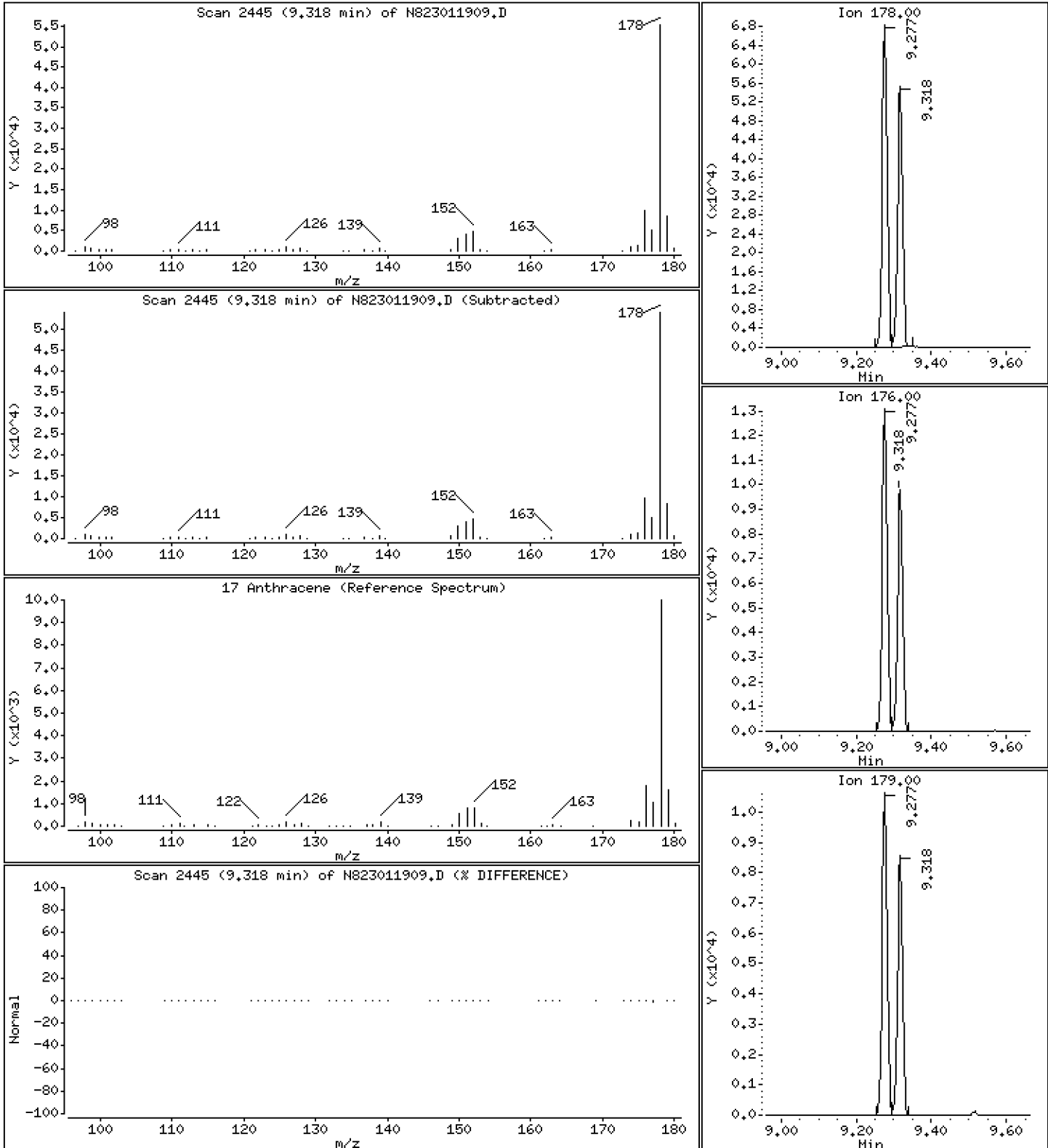
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

17 Anthracene

Concentration: 2,270 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

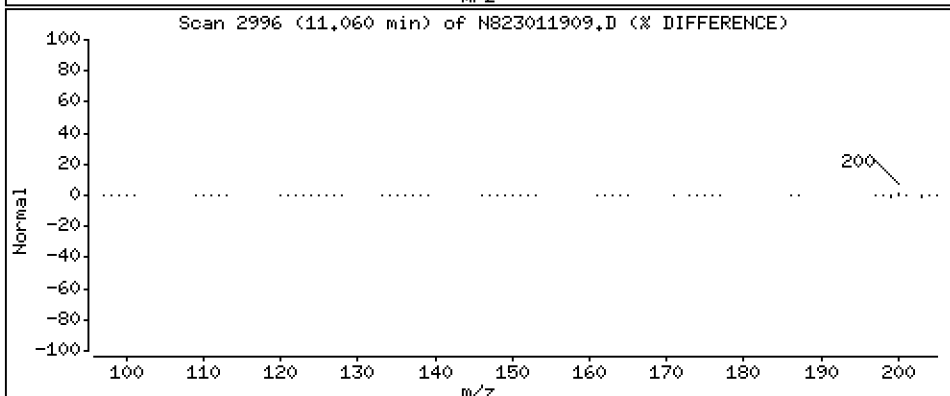
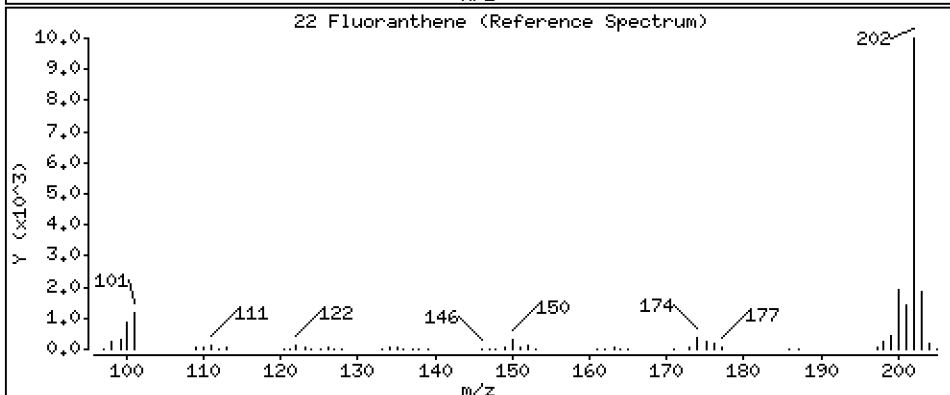
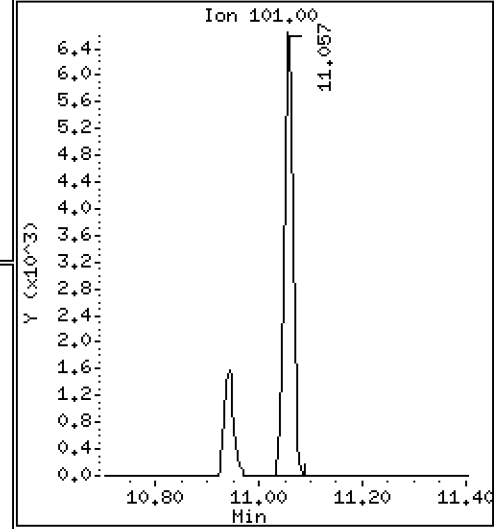
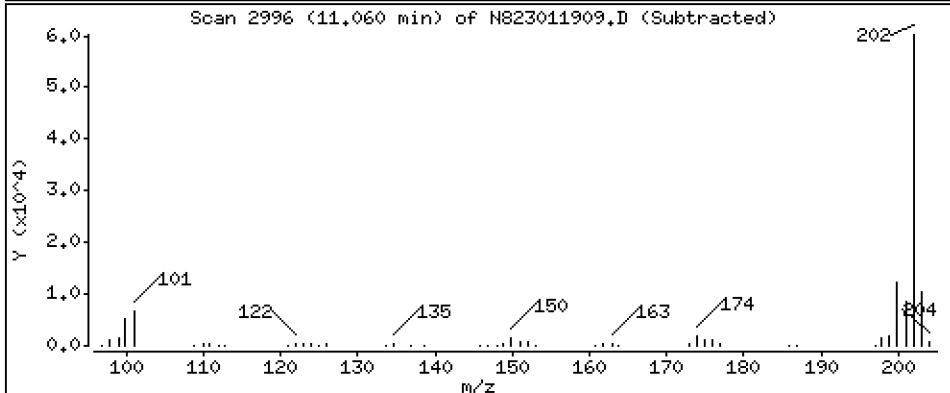
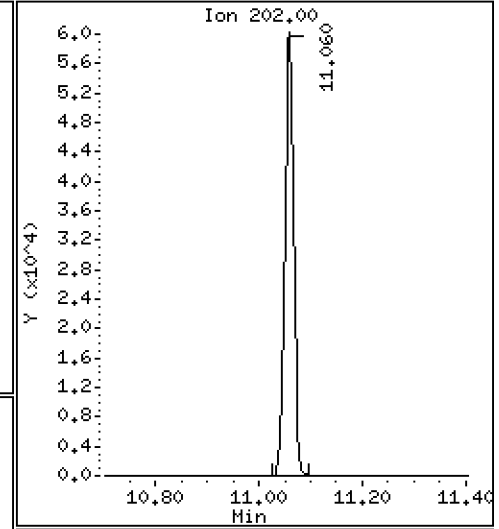
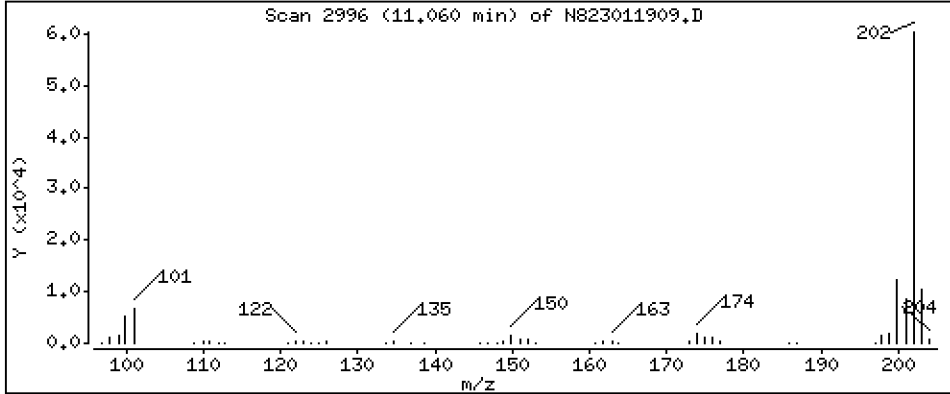
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 2,653 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

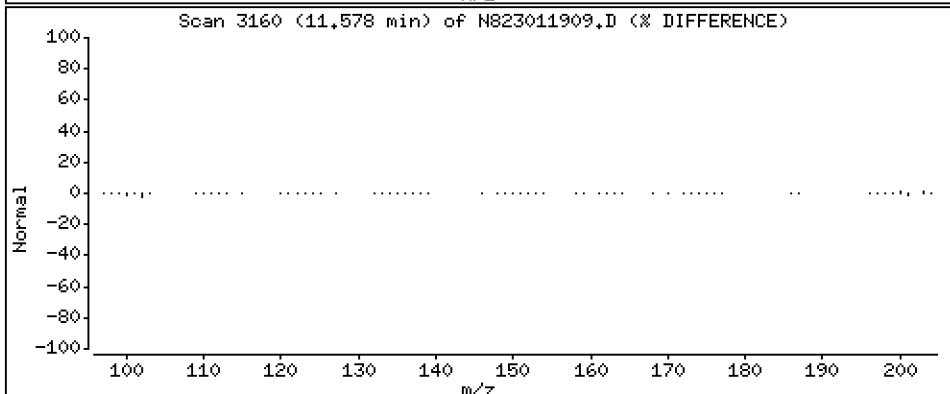
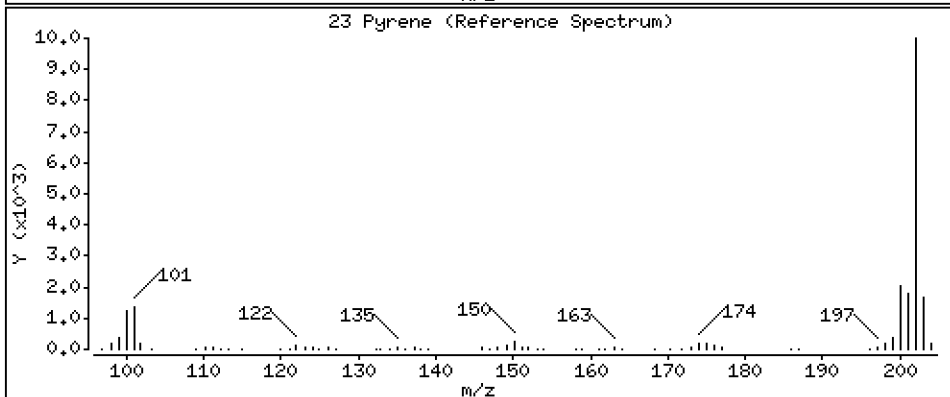
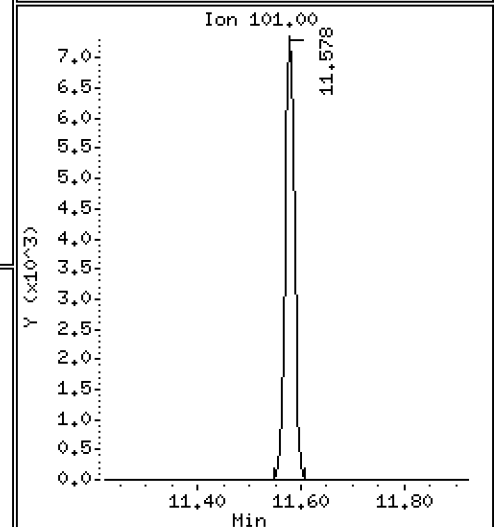
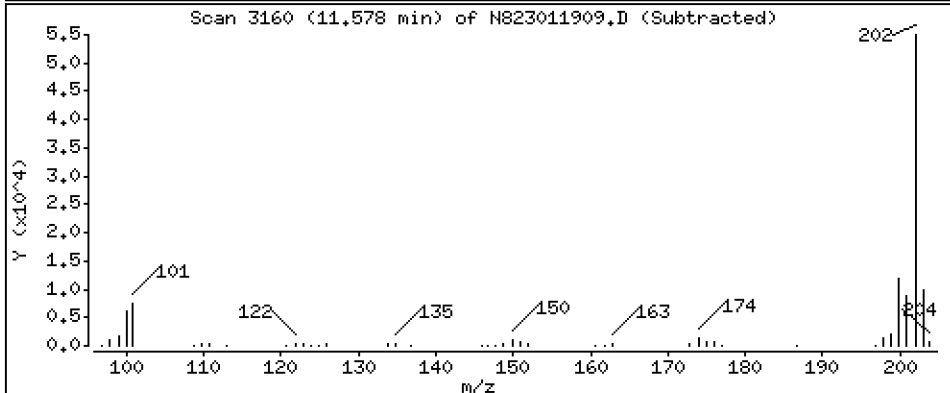
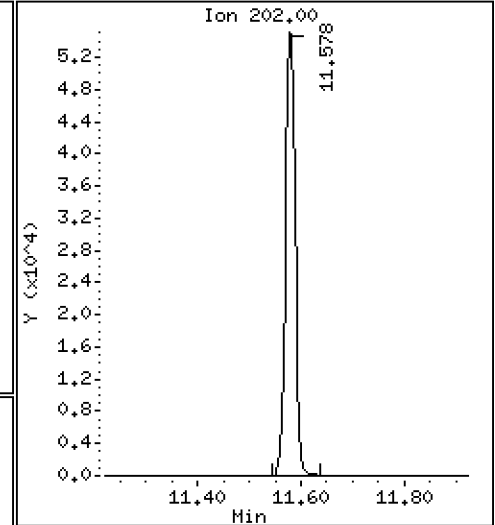
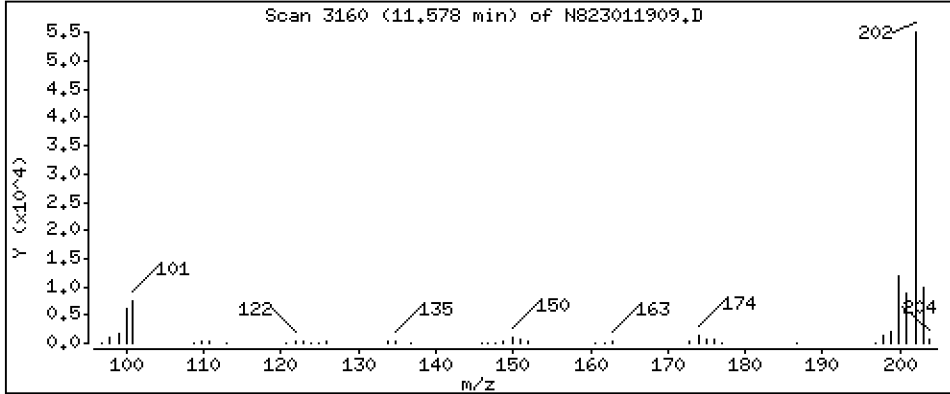
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

23 Pyrene

Concentration: 2,462 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

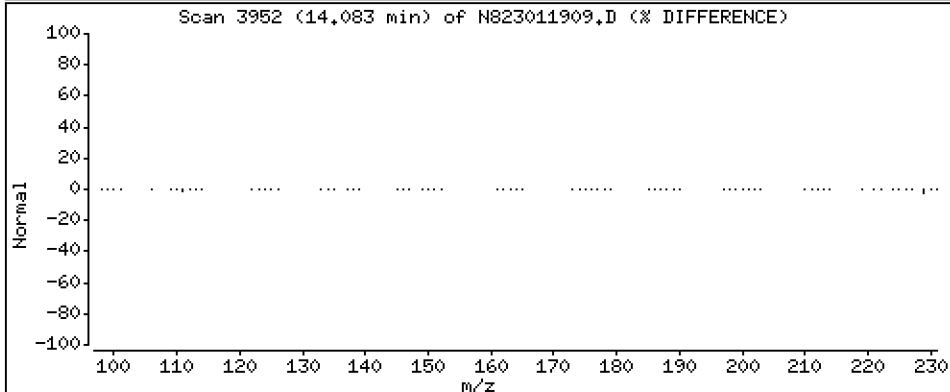
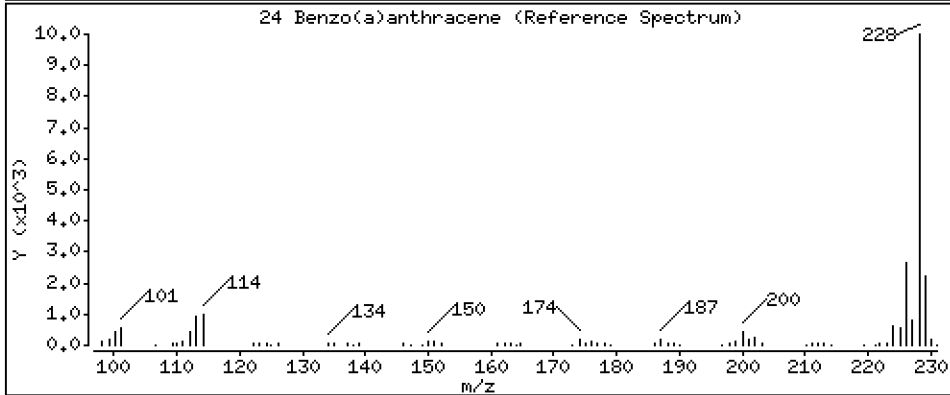
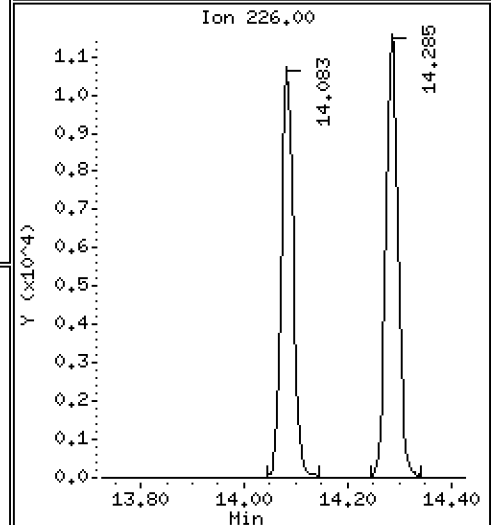
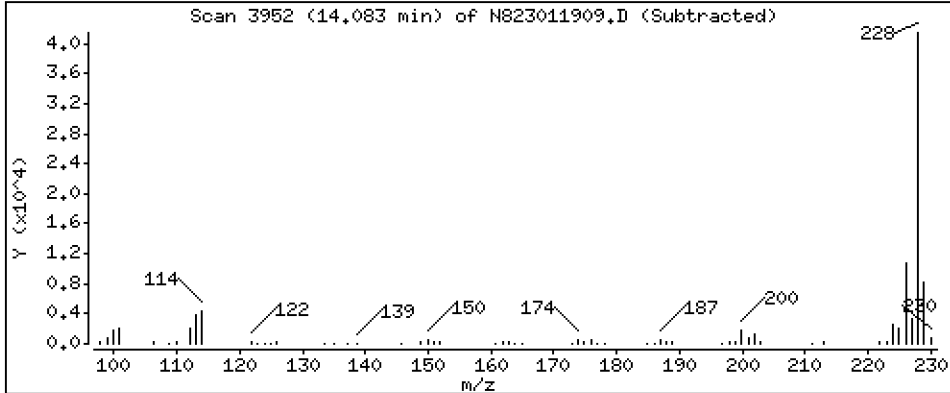
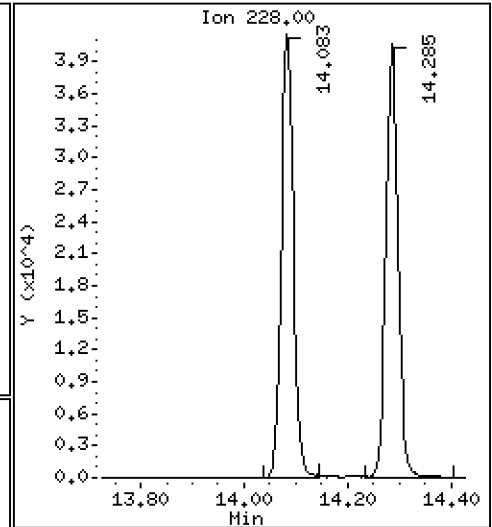
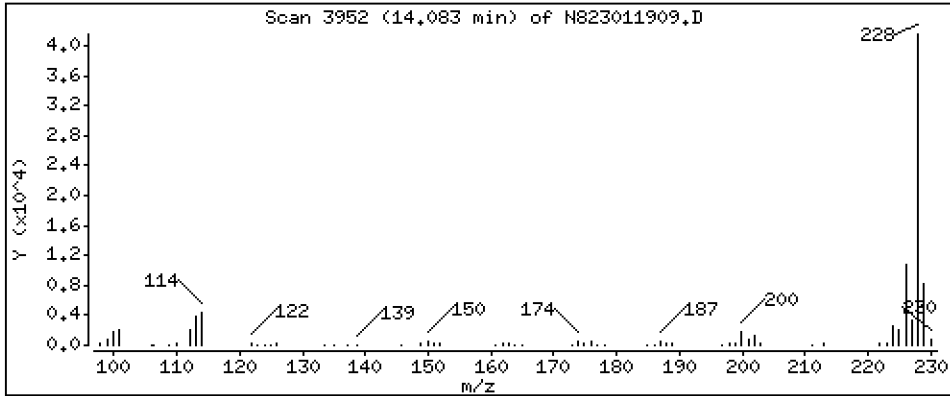
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

24 Benzo(a)anthracene

Concentration: 2,587 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

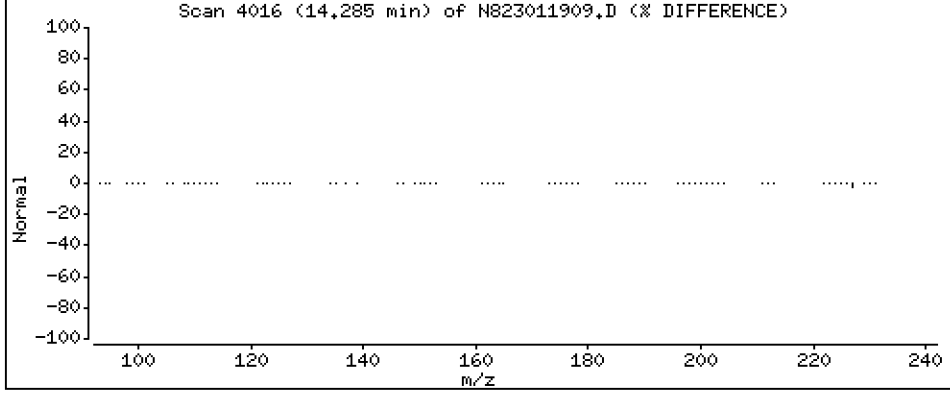
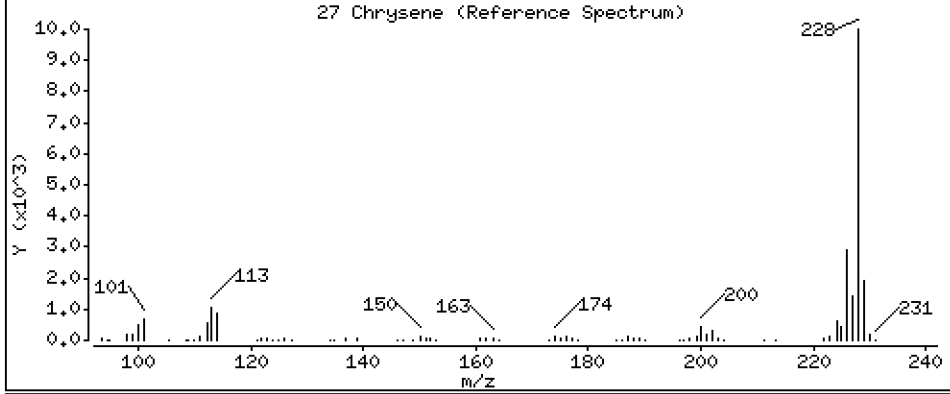
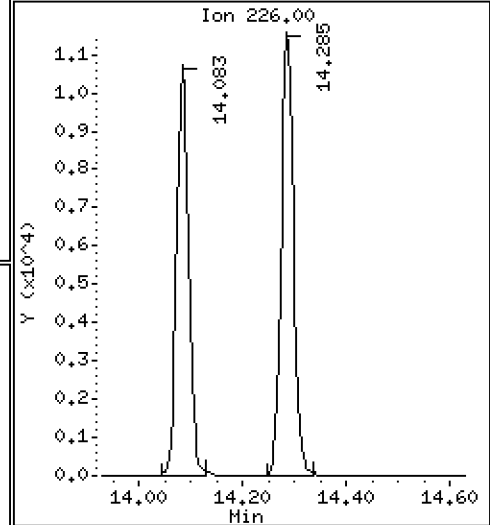
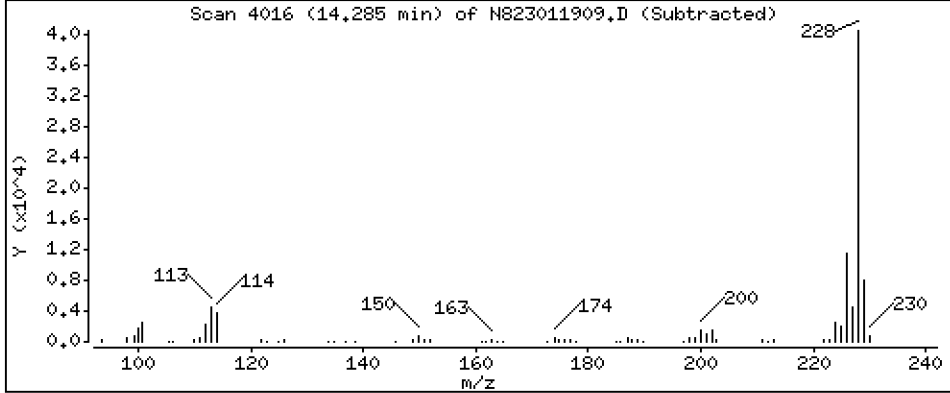
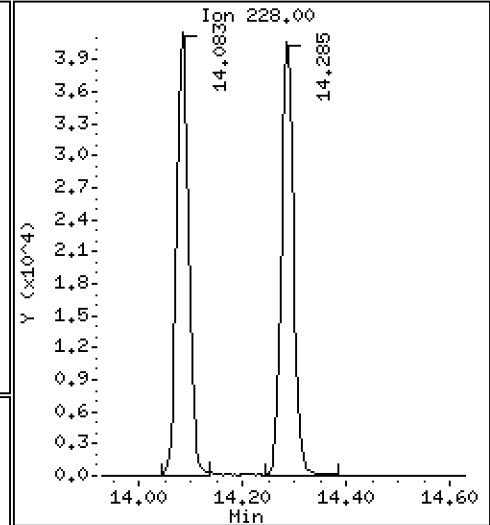
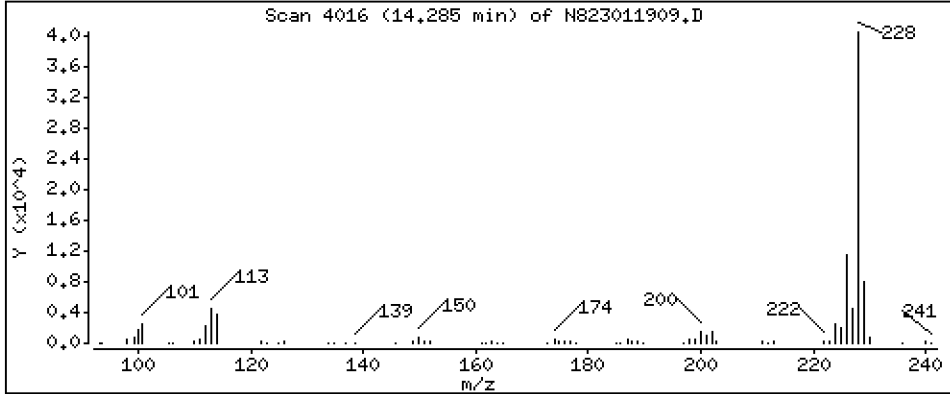
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

27 Chrysene

Concentration: 2,400 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

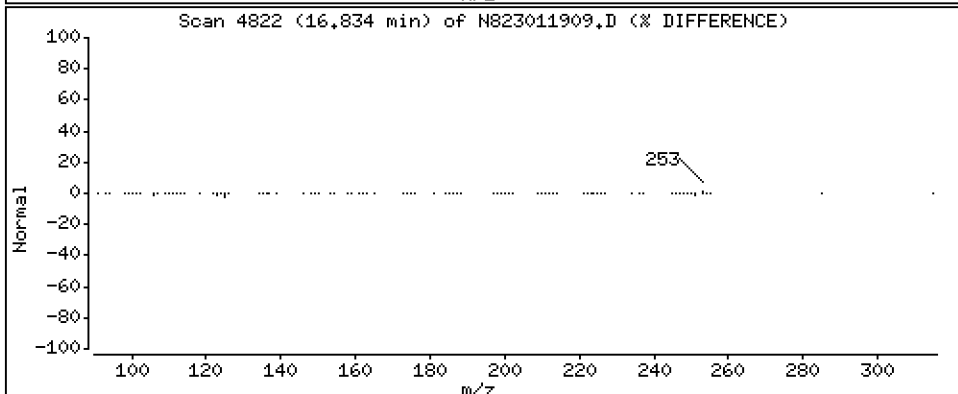
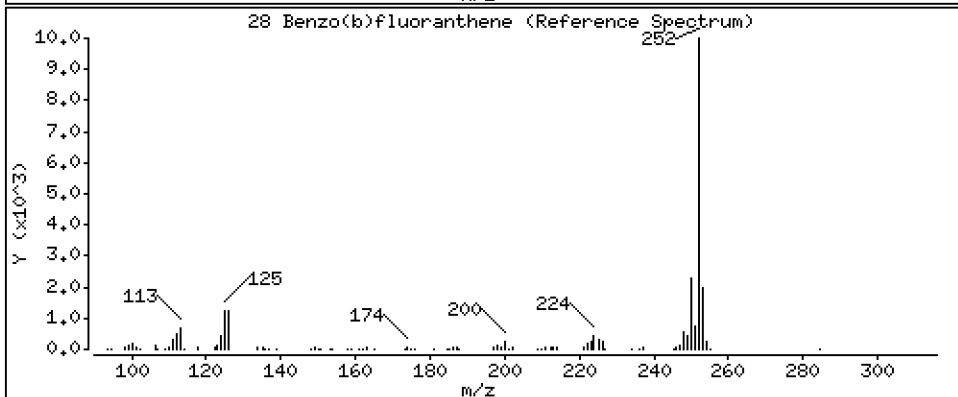
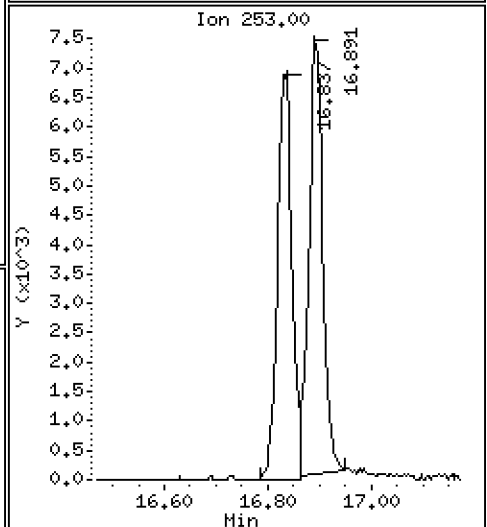
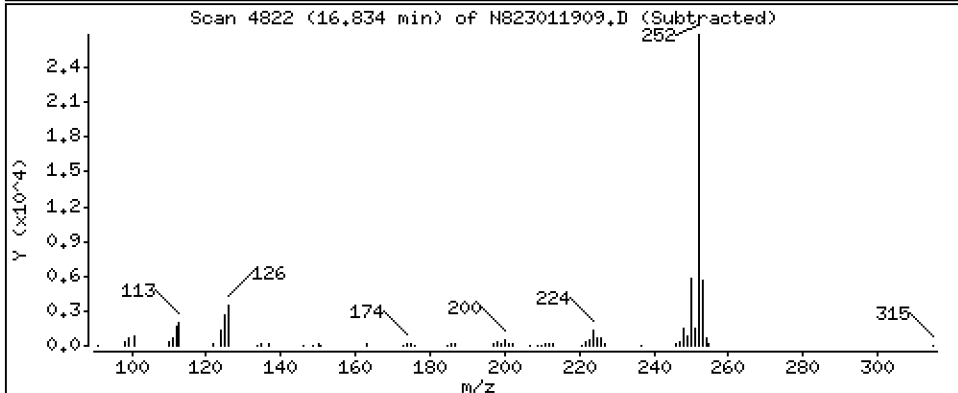
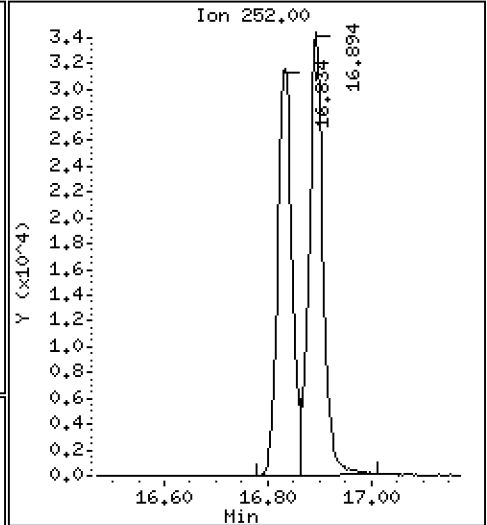
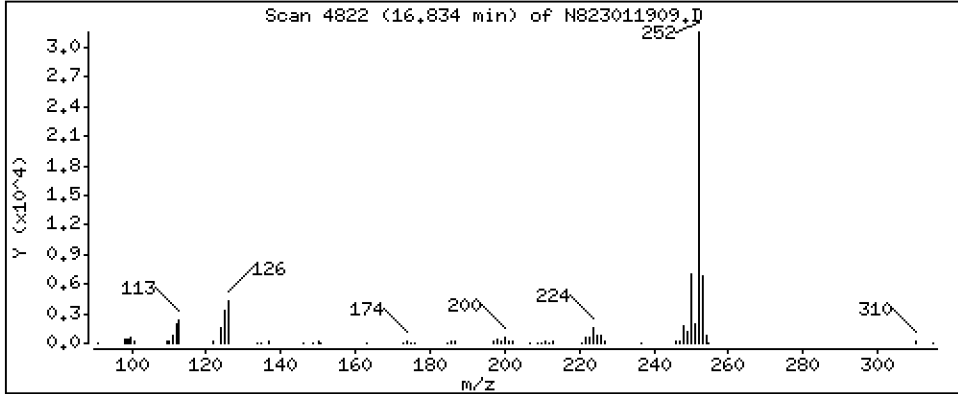
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

28 Benzo(b)fluoranthene

Concentration: 2,507 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

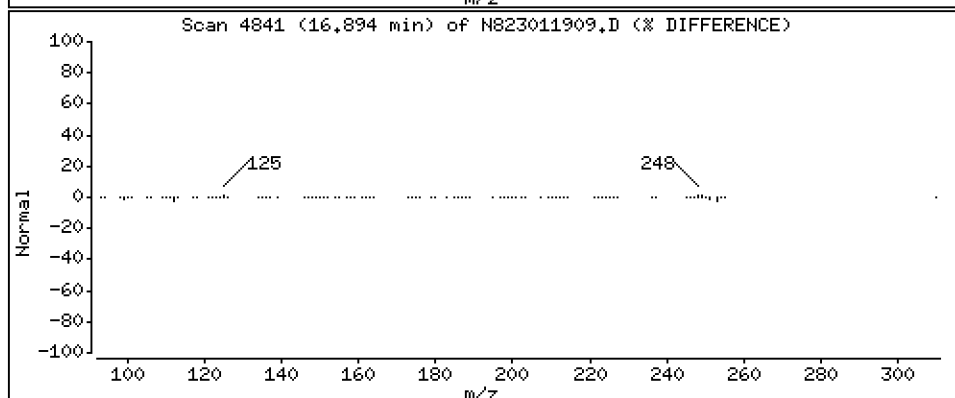
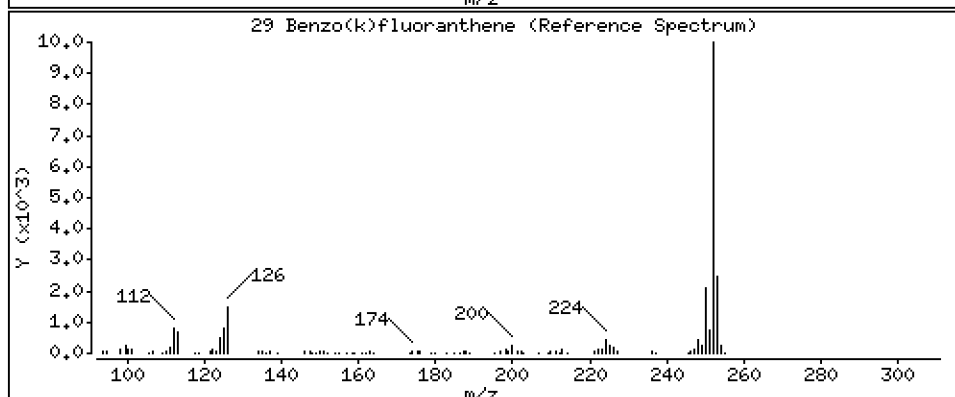
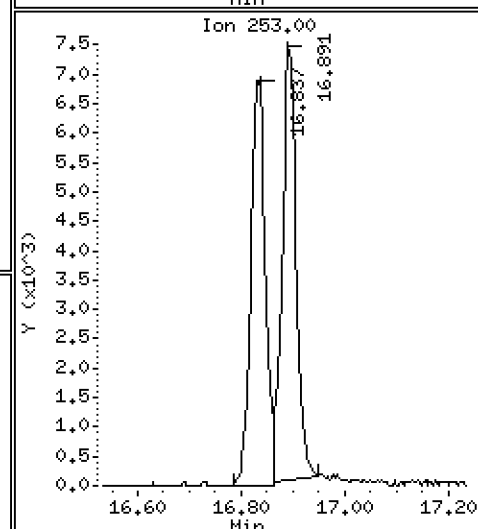
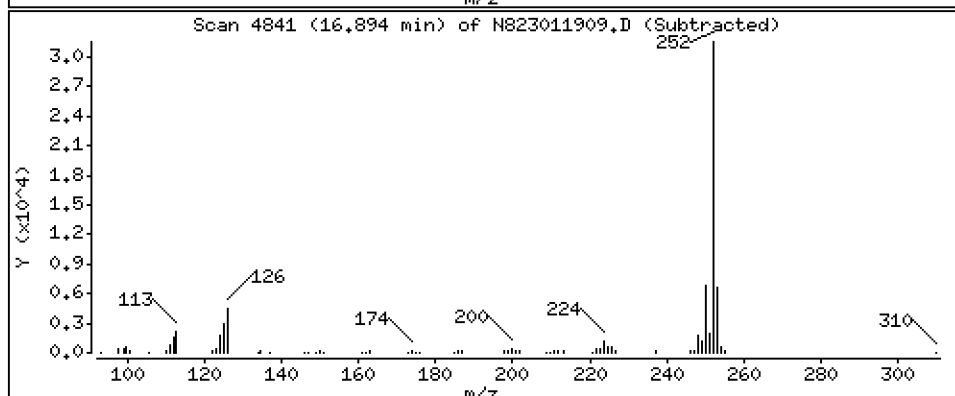
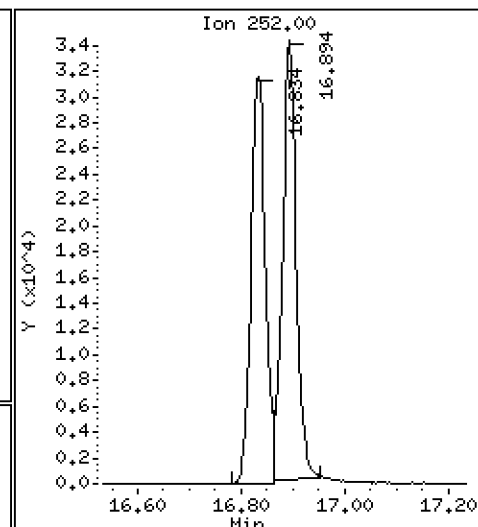
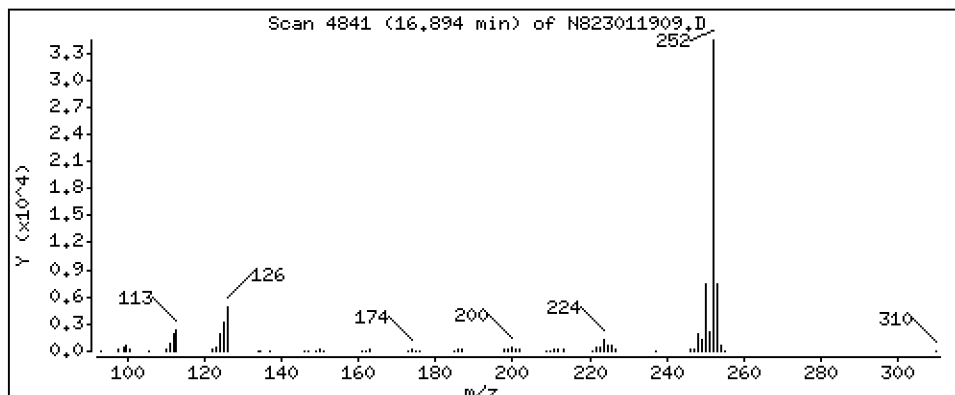
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

29 Benzo(k)fluoranthene

Concentration: 2,656 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

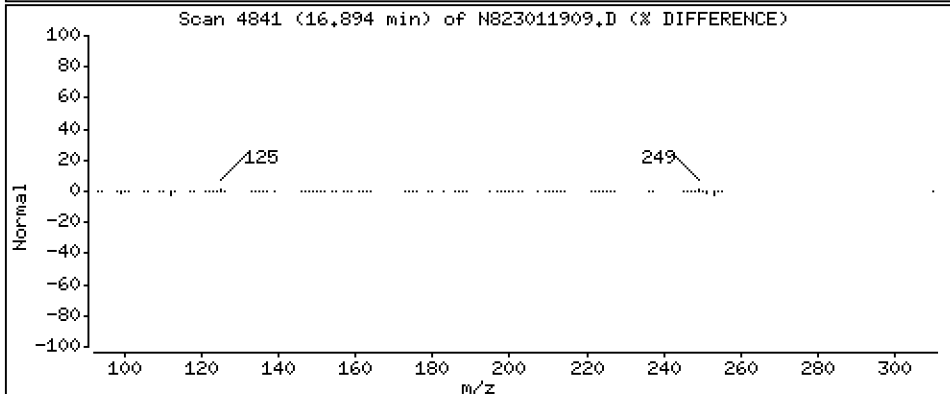
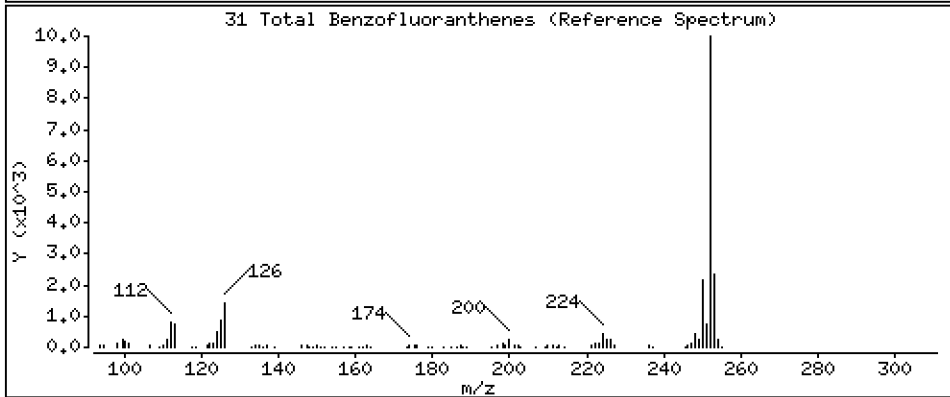
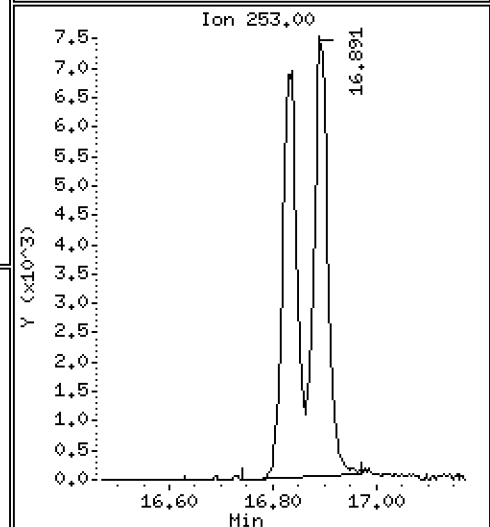
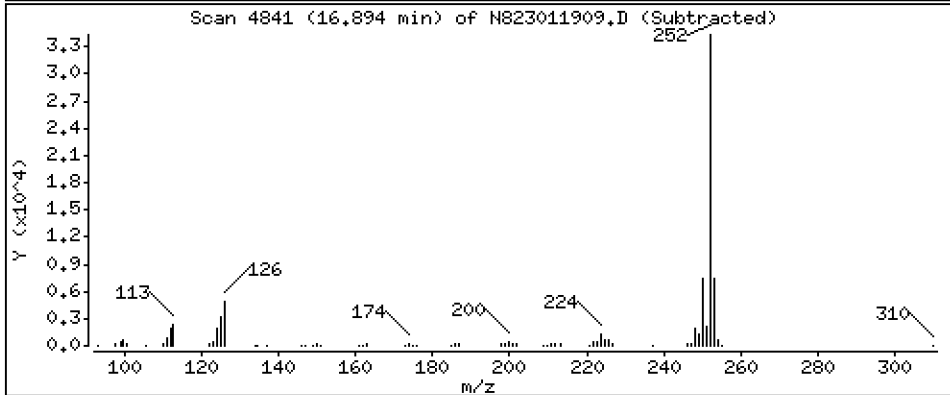
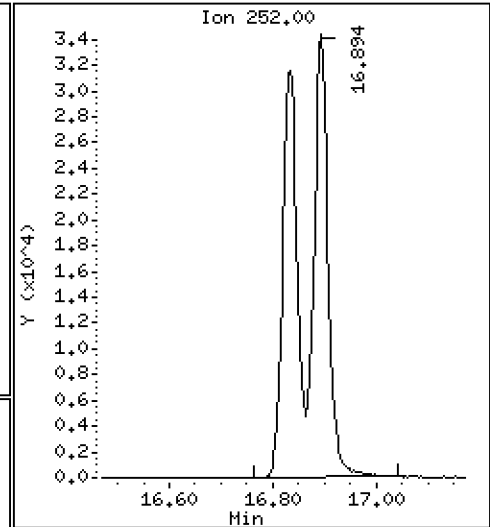
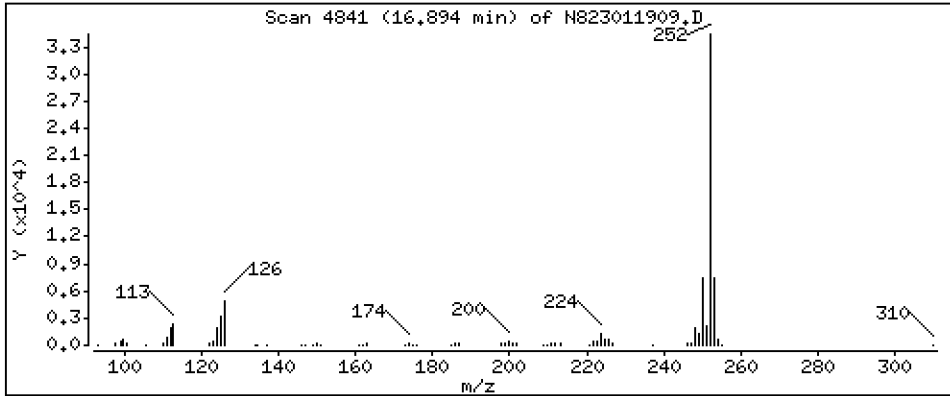
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

31 Total Benzofluoranthenes

Concentration: 5,480 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

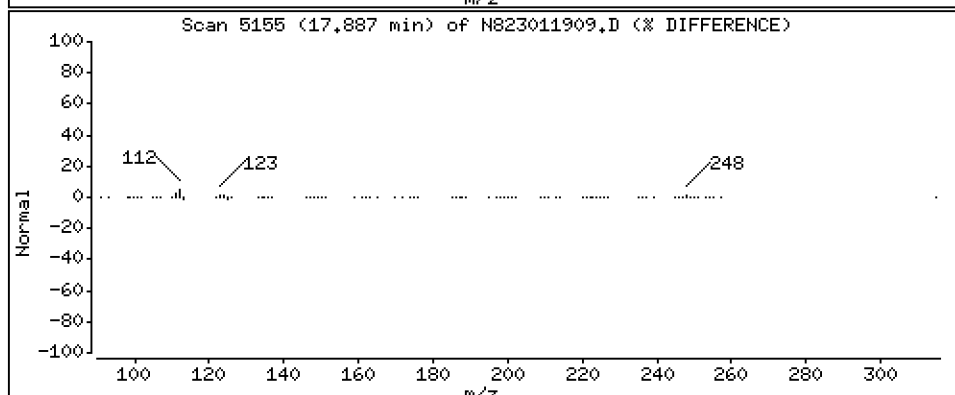
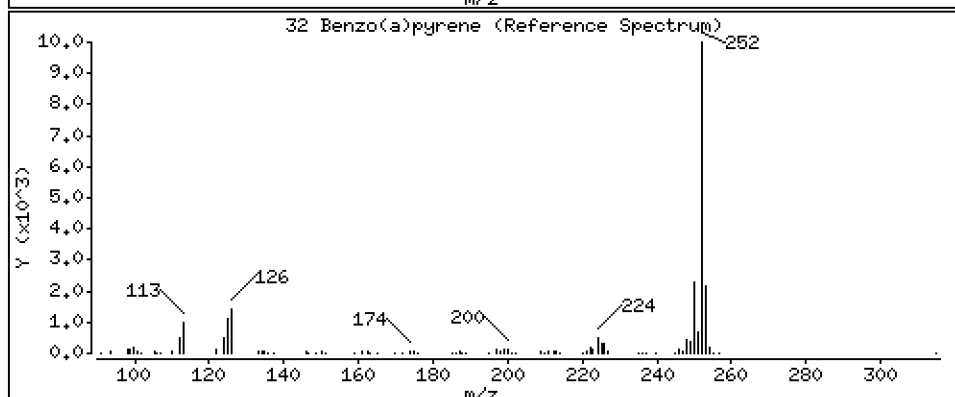
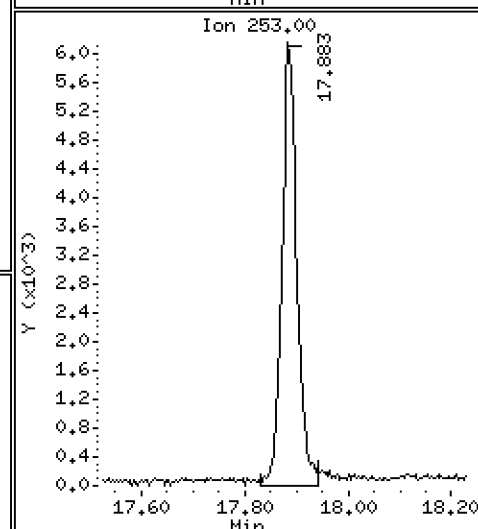
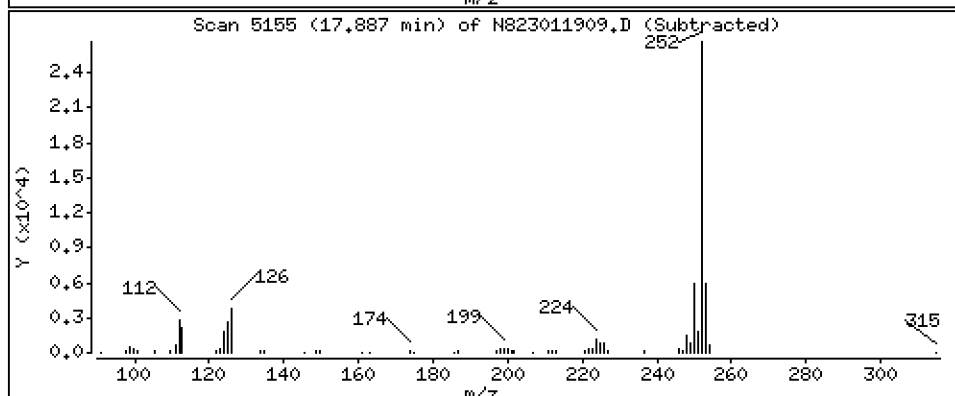
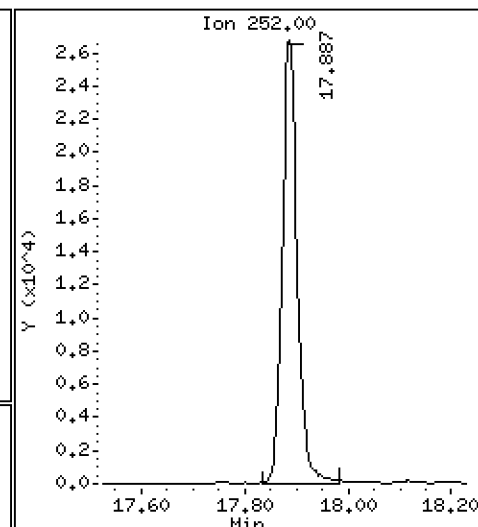
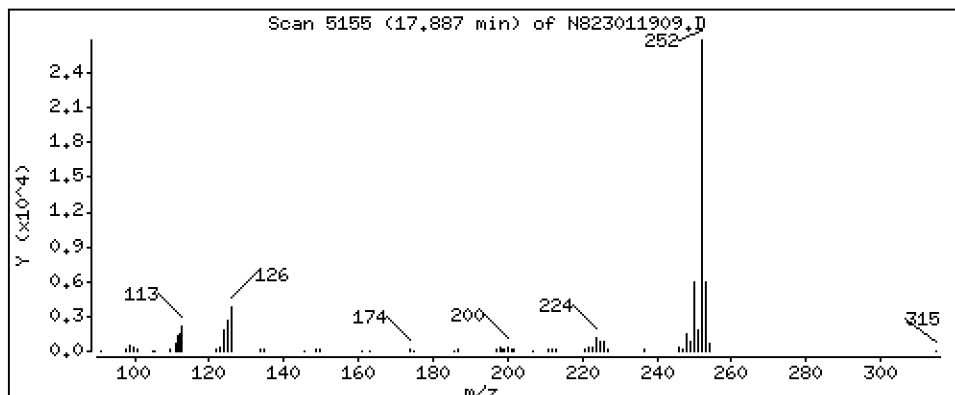
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 2,572 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

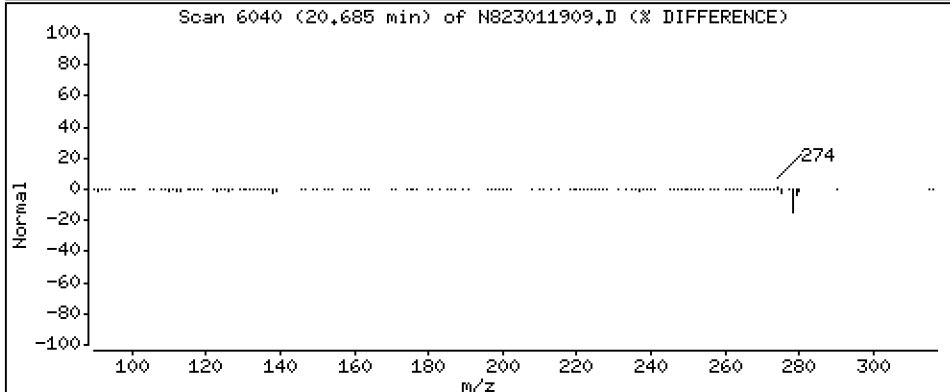
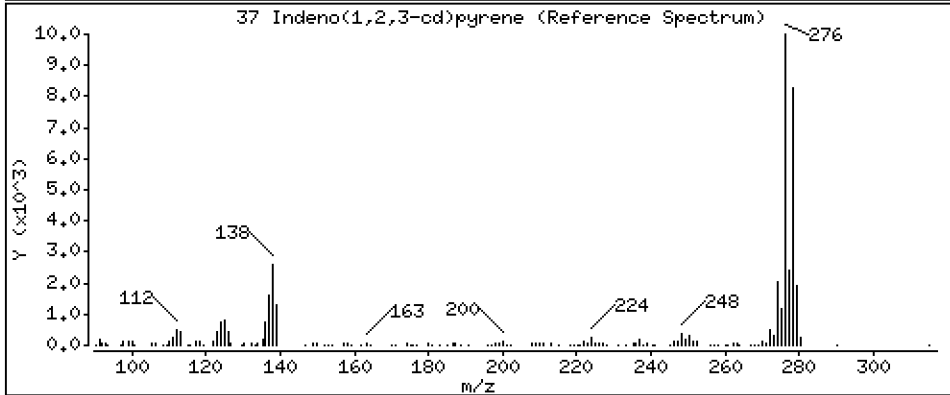
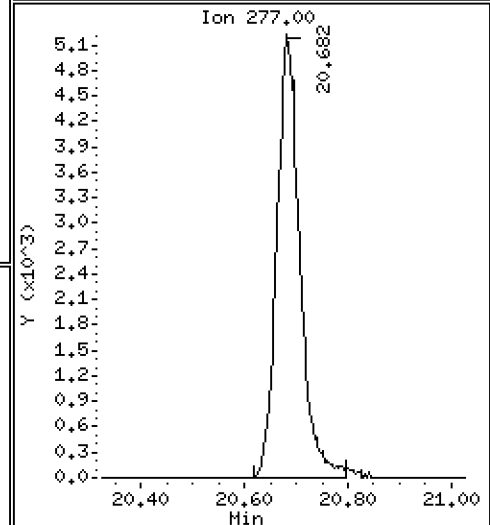
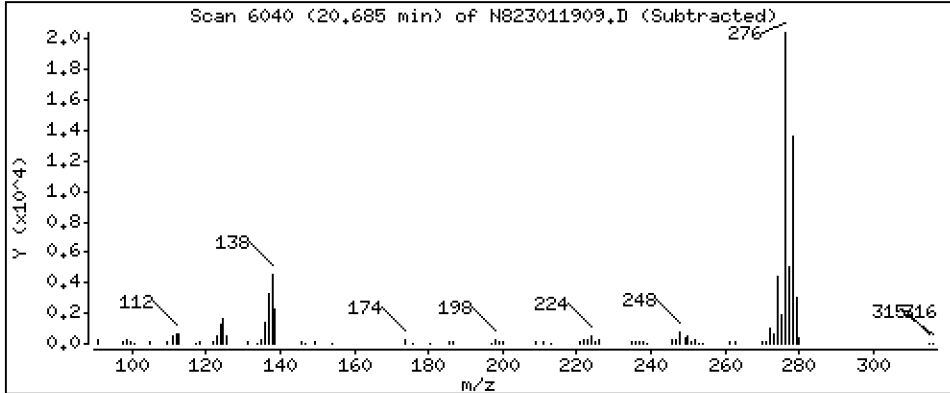
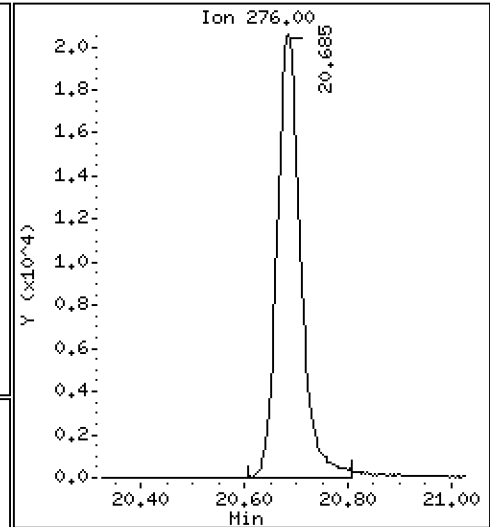
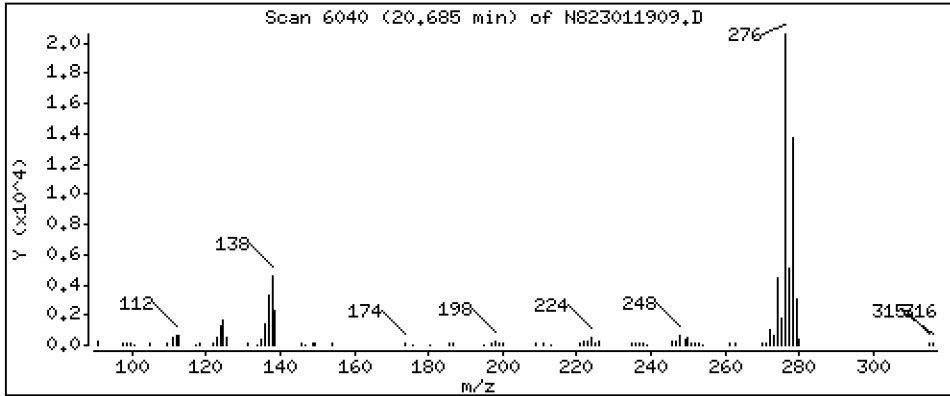
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 2,689 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

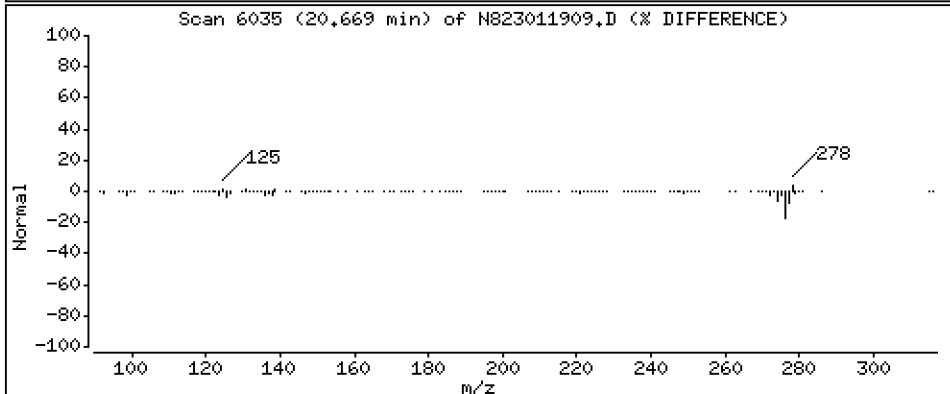
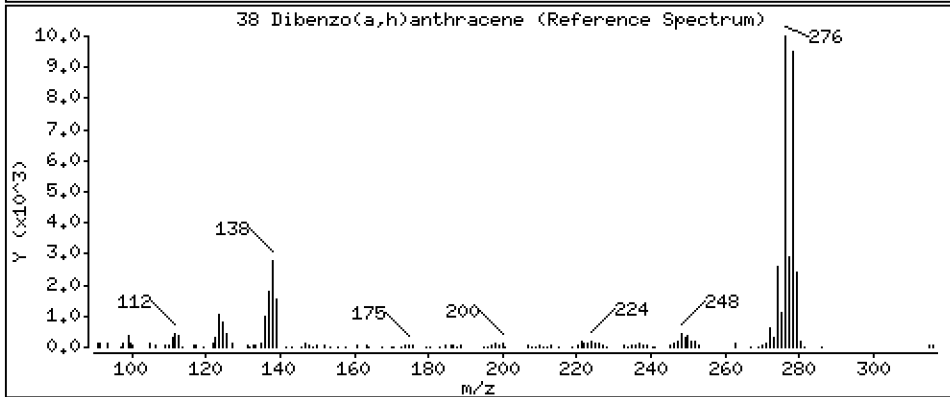
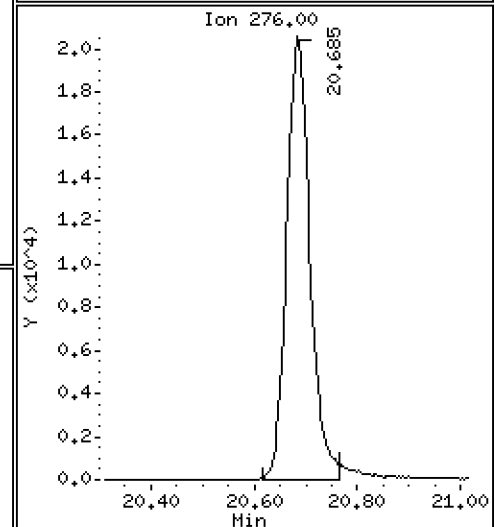
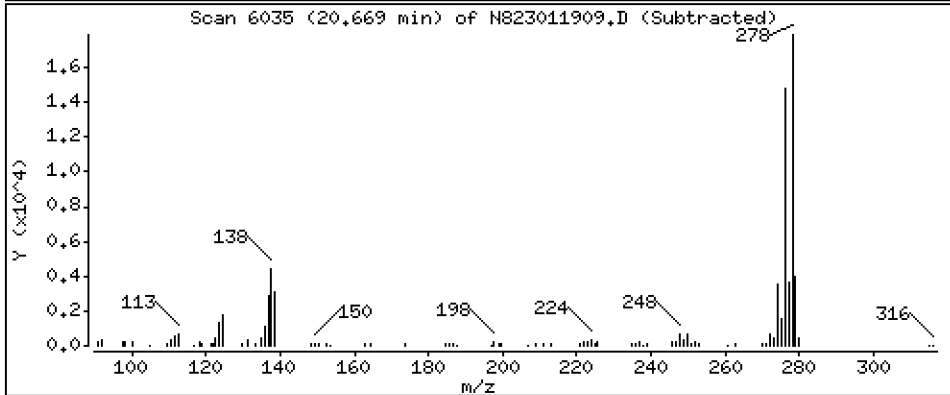
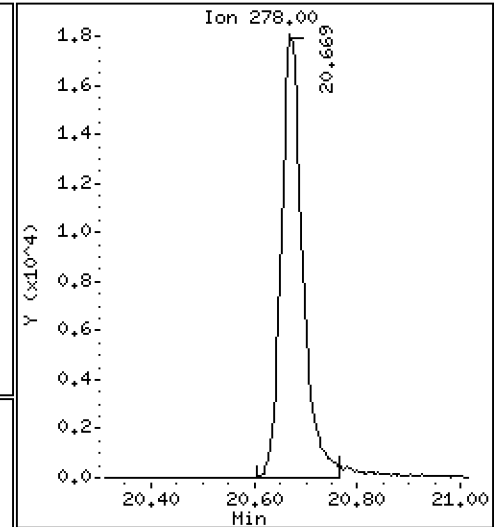
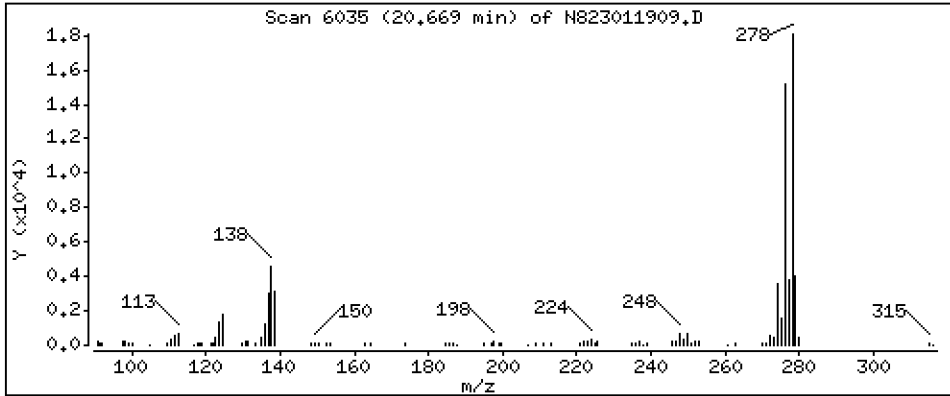
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 2,493 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

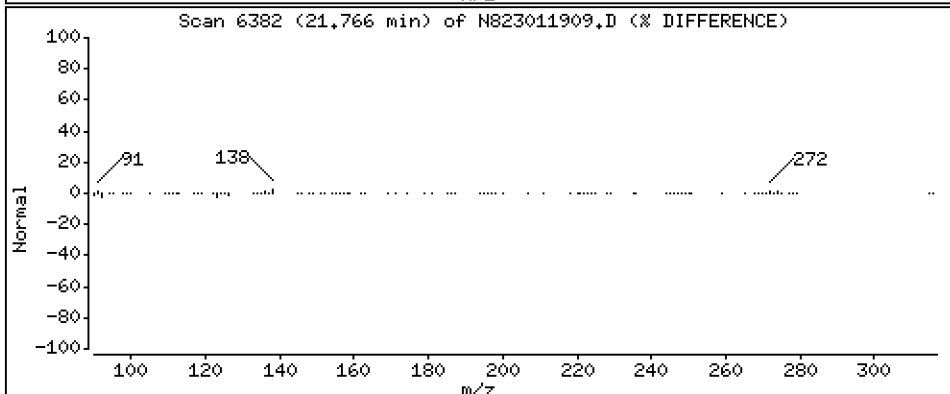
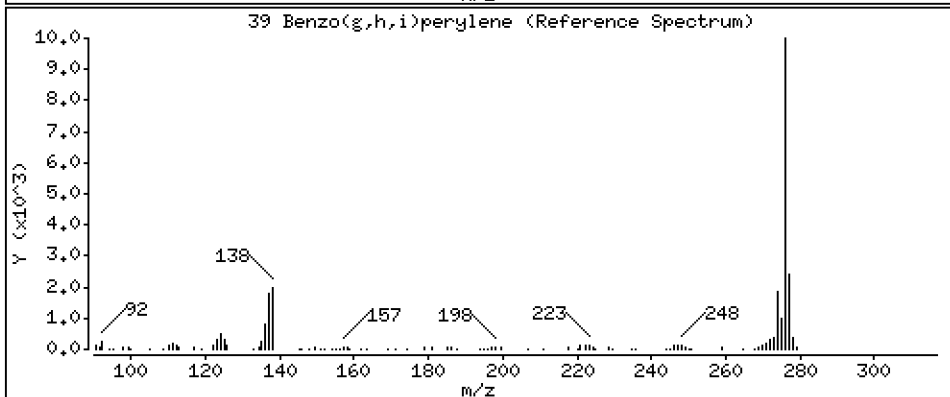
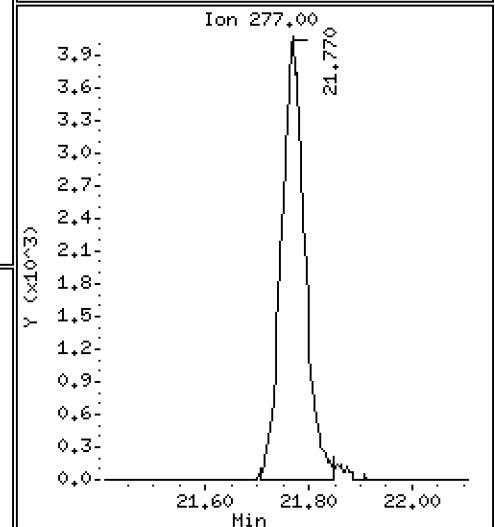
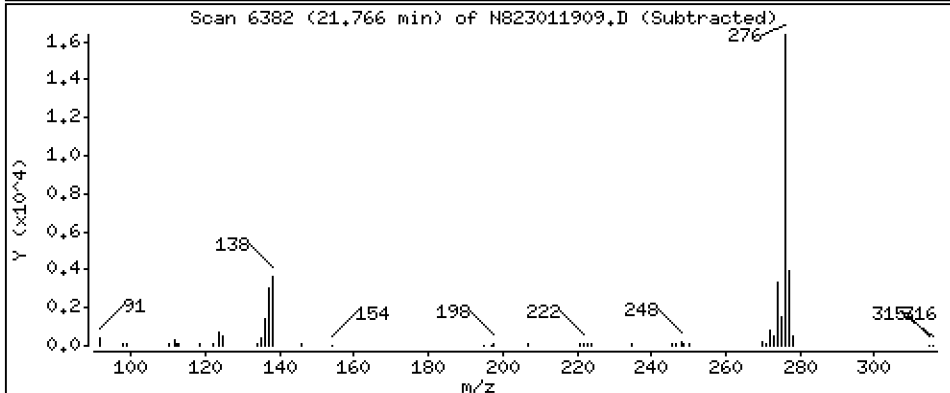
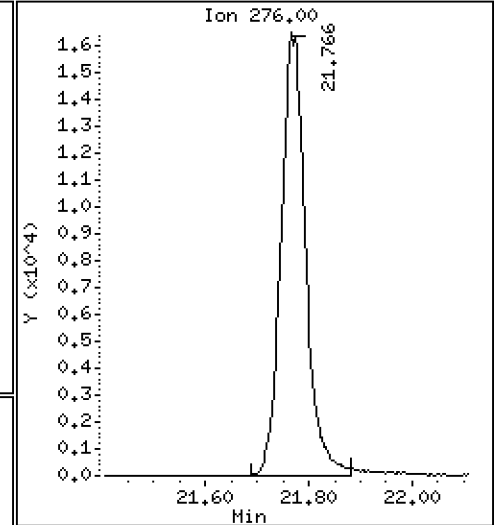
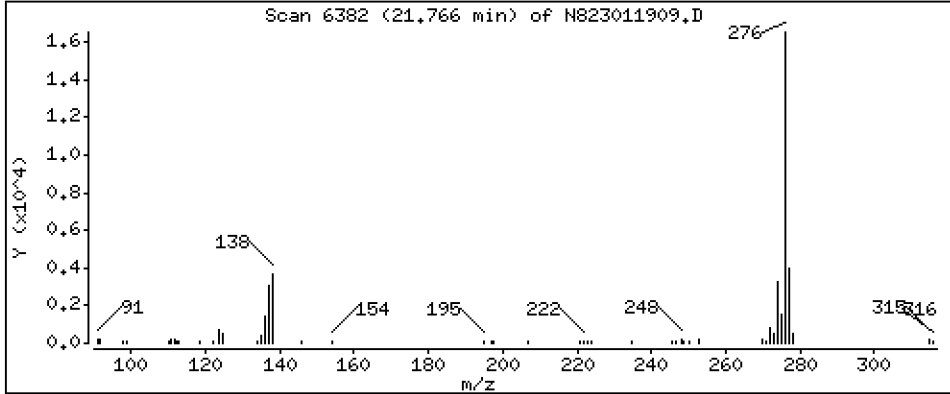
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 2,483 ug/L



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011909.D
 Lab Smp Id: SLA0213-SCV1
 Inj Date : 19-JAN-2023 14:58
 Operator : JZ Inst ID: nt8.i
 Smp Info : SCV230119
 Misc Info : 23-
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 21:57 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 9 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnascv.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
* 1 Naphthalene-d8	136		4.913	4.906	(1.000)	46346	2.00000	
2 Naphthalene	128		4.941	4.938	(1.006)	56587	2.62597	2.626
\$ 3 2-Methylnaphthalene-d10	152		Compound Not Detected.					
4 2-Methylnaphthalene	141		5.694	5.687	(1.159)	31650	2.67019	2.670
5 1-methylnaphthalene	141		5.890	5.883	(1.199)	31873	2.64949	2.649
9 Acenaphthylene	152		7.091	7.085	(0.985)	59018	2.82060	2.821
* 10 Acenaphthene-d10	164		7.202	7.196	(1.000)	27709	2.00000	
11 Acenaphthene	153		7.249	7.246	(1.007)	36454	2.60022	2.600
12 Dibenzofuran	168		7.401	7.395	(1.028)	60898	2.85987	2.860
14 Fluorene	166		7.878	7.872	(1.094)	43507	2.63066	2.631
* 15 Phenanthrene-d10	188		9.238	9.235	(1.000)	51685	2.00000	
16 Phenanthrene	178		9.276	9.270	(1.004)	61815	2.44841	2.448
17 Anthracene	178		9.317	9.311	(1.009)	52064	2.27006	2.270
22 Fluoranthene	202		11.059	11.053	(1.197)	72902	2.65276	2.653
\$ 21 Fluoranthene-d10	212		Compound Not Detected.					
23 Pyrene	202		11.578	11.572	(0.815)	71115	2.46242	2.462
24 Benzo(a)anthracene	228		14.082	14.076	(0.991)	67725	2.58725	2.587
* 25 Chrysene-d12	240		14.212	14.202	(1.000)	46582	2.00000	
27 Chrysene	228		14.285	14.278	(1.005)	66872	2.39976	2.400
28 Benzo(b)fluoranthene	252		16.833	16.821	(0.929)	60946	2.50689	2.507
29 Benzo(k)fluoranthene	252		16.893	16.884	(0.932)	63249	2.65606	2.656
31 Total Benzofluoranthenes	252		16.893	16.821	(0.932)	126178	5.48025	5.480 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/mL)	FINAL (ug/L)	
=====	=====	=====	=====	=====	=====	=====	=====	
32 Benzo(a)pyrene	252	17.886	17.877	(0.987)	55026	2.57205	2.572	
* 33 Perylene-d12	264	18.117	18.111	(1.000)	41743	2.00000		
37 Indeno(1,2,3-cd)pyrene	276	20.684	20.675	(1.142)	65545	2.68928	2.689	
\$ 36 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.						
38 Dibenzo(a,h)anthracene	278	20.669	20.662	(1.141)	52293	2.49315	2.493	
39 Benzo(g,h,i)perylene	276	21.766	21.756	(1.201)	54821	2.48258	2.483	
35 Perylene	252	Compound Not Detected.						

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011909.D Calibration Time: 12:52
 Lab Smp Id: SLA0213-SCV1
 Analysis Type: SV Level: LOW
 Quant Type: ISTD Sample Type: WATER
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	44704	22352	89408	46346	3.67
10 Acenaphthene-d10	26411	13206	52822	27709	4.91
15 Phenanthrene-d10	49210	24605	98420	51685	5.03
25 Chrysene-d12	42994	21497	85988	46582	8.35
33 Perylene-d12	40520	20260	81040	41743	3.02

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.13
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.09
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.03
25 Chrysene-d12	14.20	13.70	14.70	14.21	0.07
33 Perylene-d12	18.11	17.61	18.61	18.12	0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011909.D

Lab ID: SLA0213-SCV1

nt8.i, 20230119.b\FSIMPNA230119.m, 19-JAN-2023 14:58

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

No RRT check performed

On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, pnascv.sub = 0.0500

Exception: Benzo(b)fluoranthene 0.0300
Exception: Benzo(k)fluoranthene 0.0300
Exception: Total Benzofluoranthenes 0.0300
Exception: Fluoranthene-d10 (Surr) 0.0000

* Only compounds listed in the work order have been verified by the analyst *

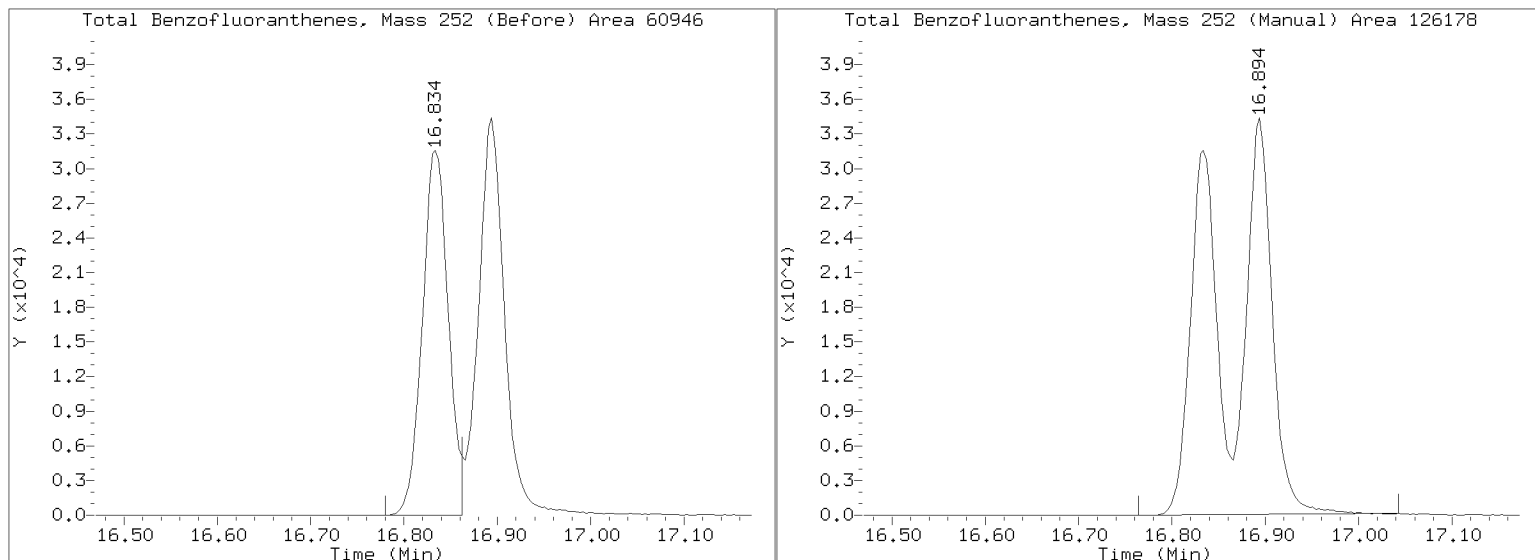
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011909.D

Injection Date: 19-JAN-2023 14:58

Lab ID:SLA0213-SCV1 Client ID:

Report Date: 01/25/2023 22:00





SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00019

Laboratory ID: SLB0106-SCV1

Sequence: SLB0106

Sequence Name: SCV 5.0

Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
1,4-Dichlorobenzene	5.0000	4.2	-15.3	20.00
1,2-Dichlorobenzene	5.0000	4.2	-15.9	20.00
Benzyl Alcohol	5.0000	4.9	-1.9	20.00
Benzoic acid	10.000	5.9	-41.2 *	20.00
2,4-Dimethylphenol	5.0000	3.4	-32.9 *	20.00
1,2,4-Trichlorobenzene	5.0000	3.9	-21.4 *	20.00
N-Nitrosodiphenylamine	5.0000	4.2	-15.9	20.00
Pentachlorophenol	5.0000	4.0	-20.1 *	20.00
2-Fluorophenol	7.5000	6.97	-7.0	
p-Terphenyl-d14	5.0000	4.24	-15.2	

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.1\NT10230207115.D

Page 1

Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.1

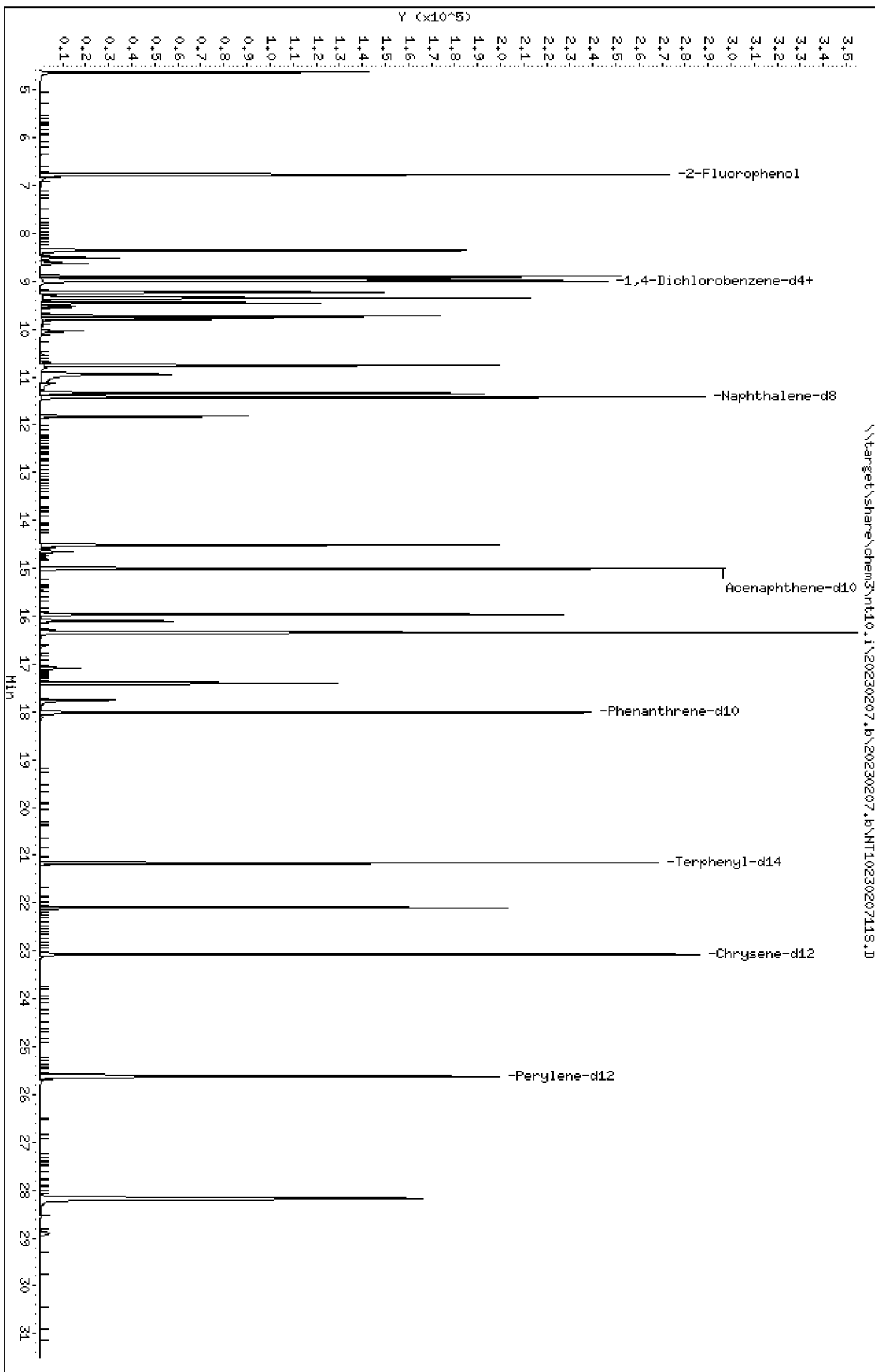
Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

Operator: USD

Column phase: ZB-5msi

Column diameter: 0.25



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

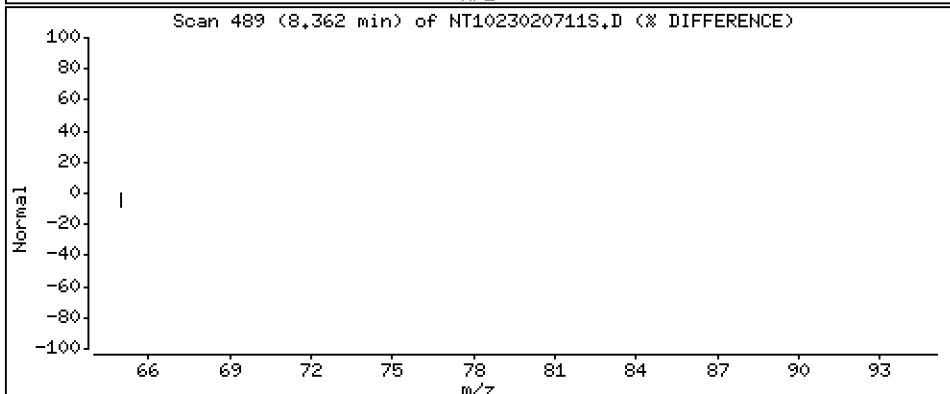
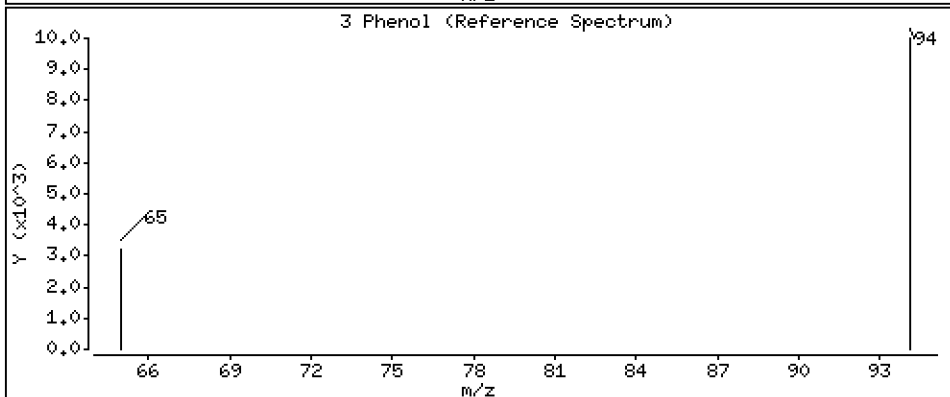
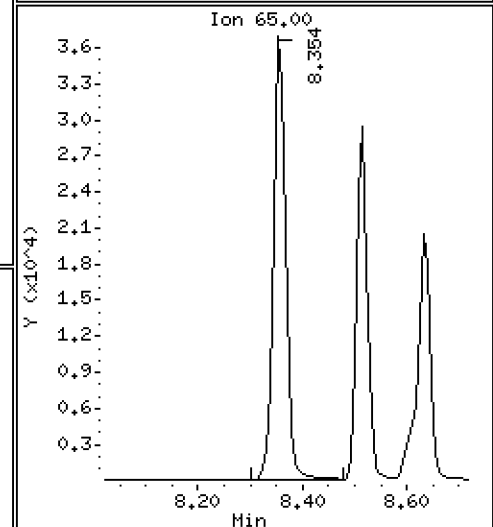
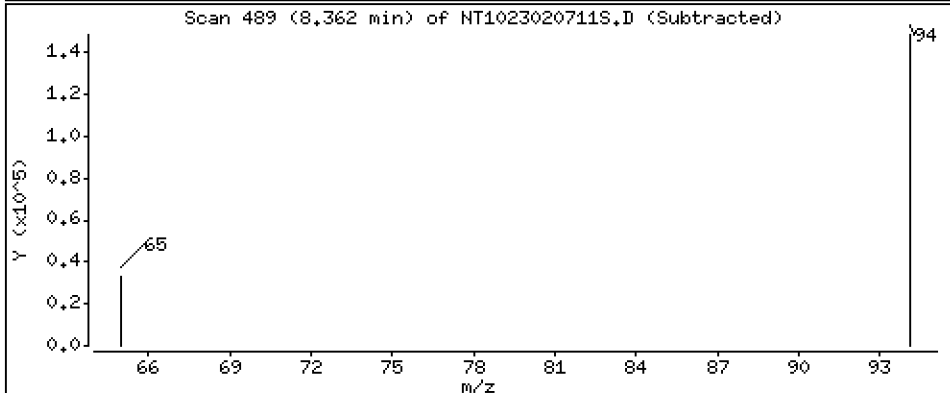
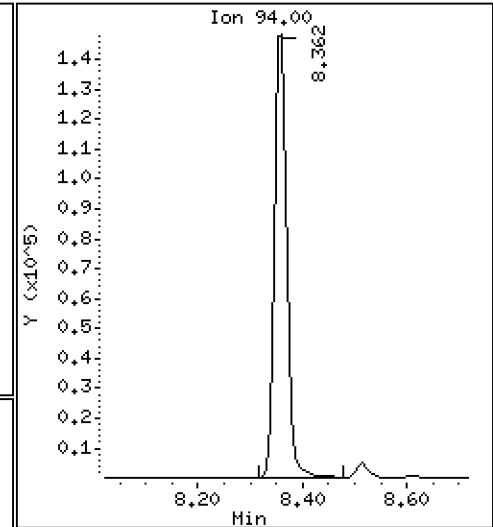
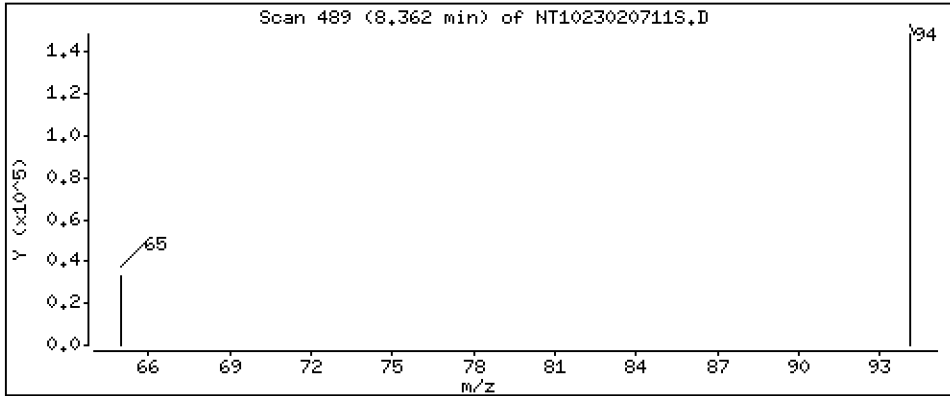
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 4.170 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

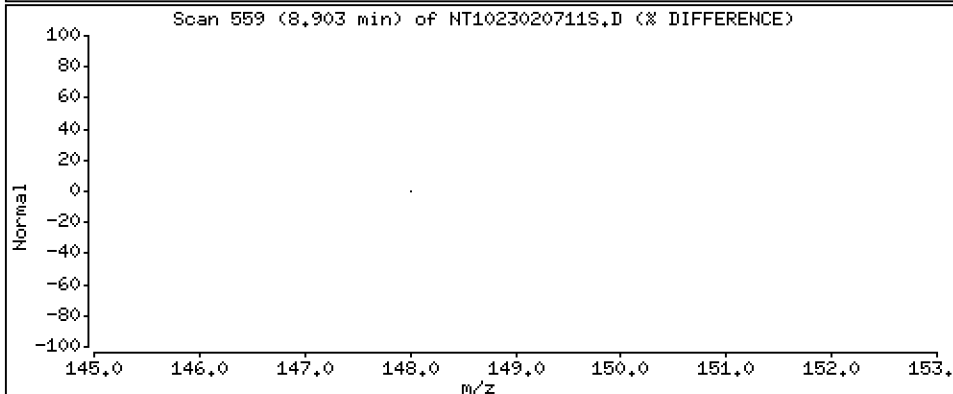
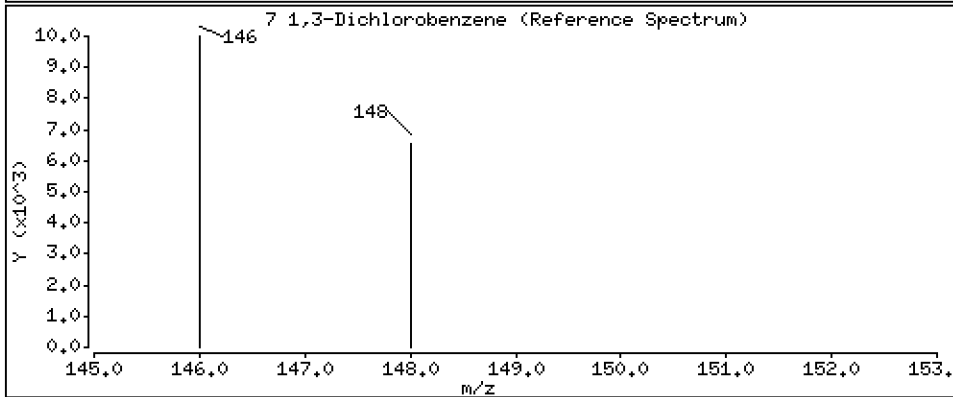
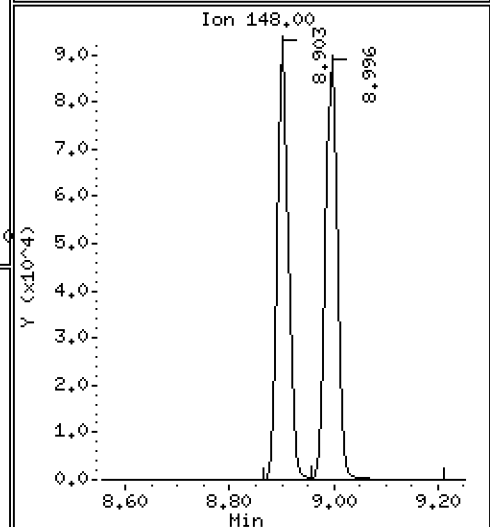
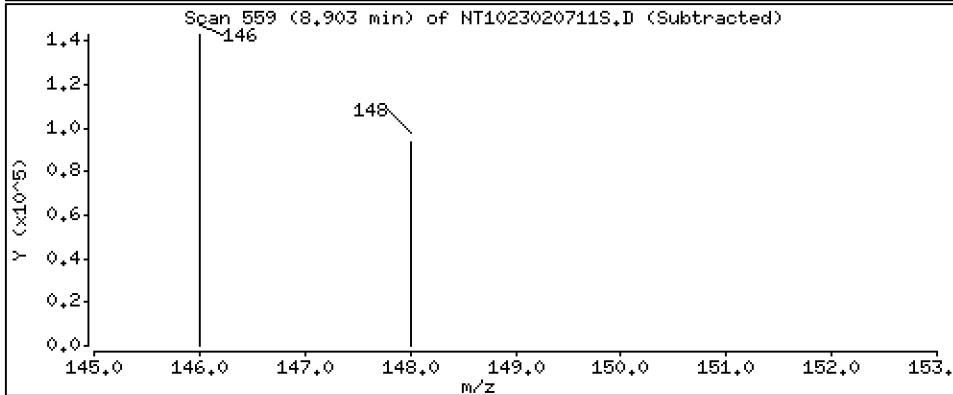
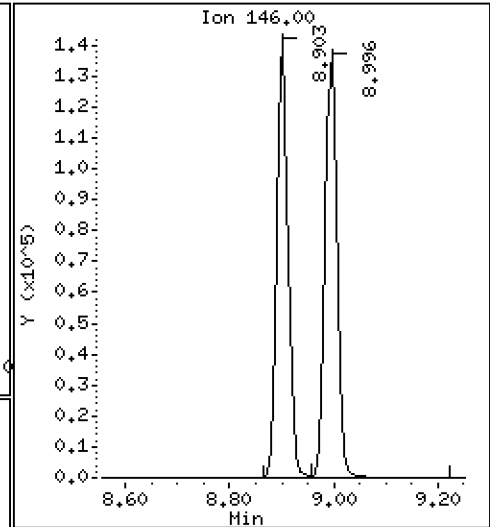
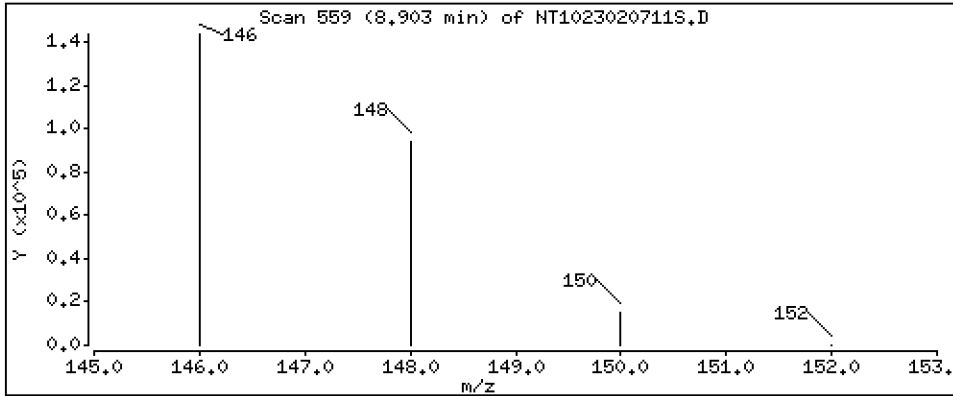
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 4,159 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

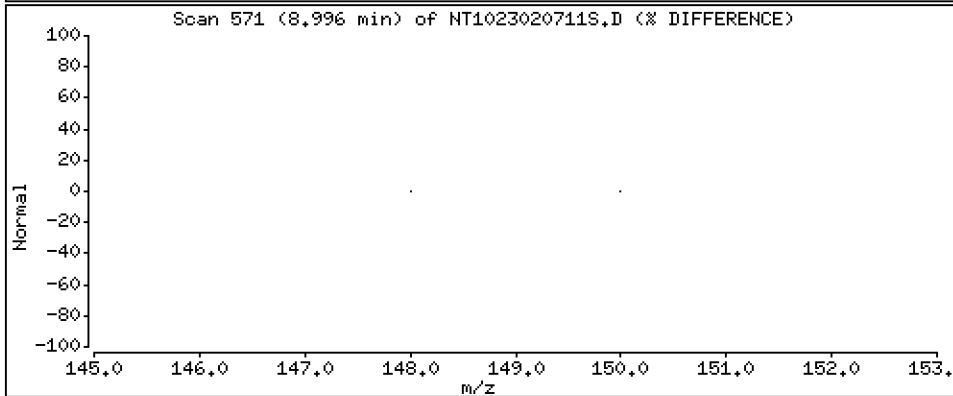
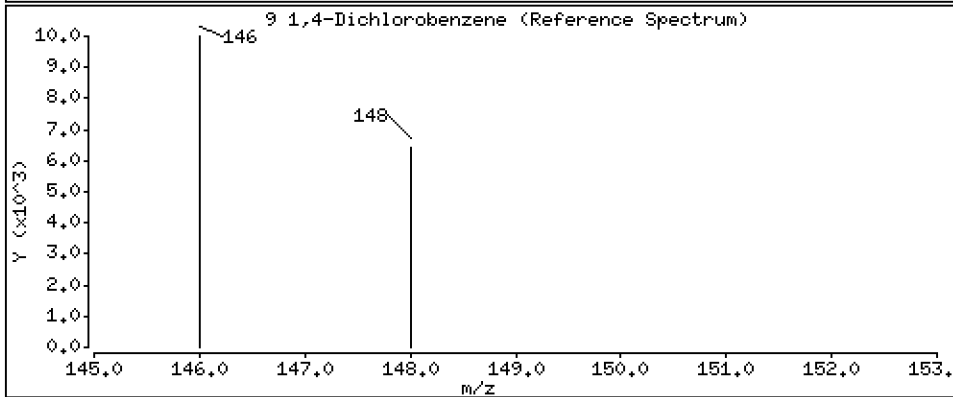
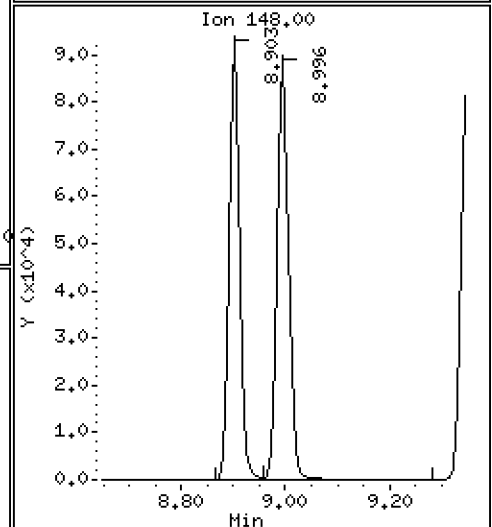
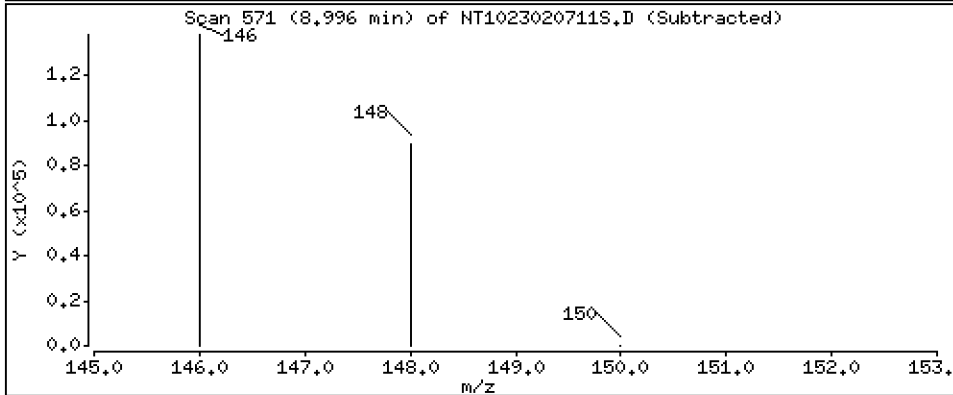
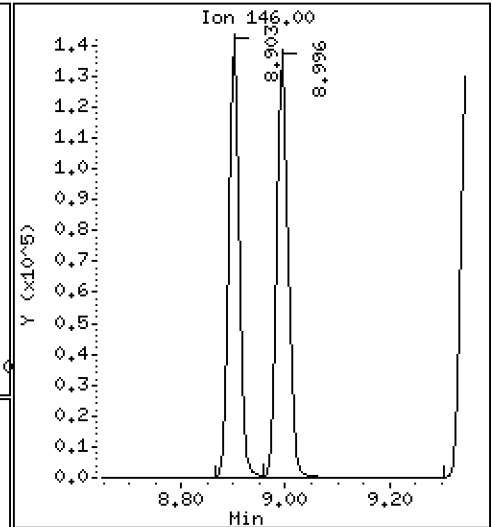
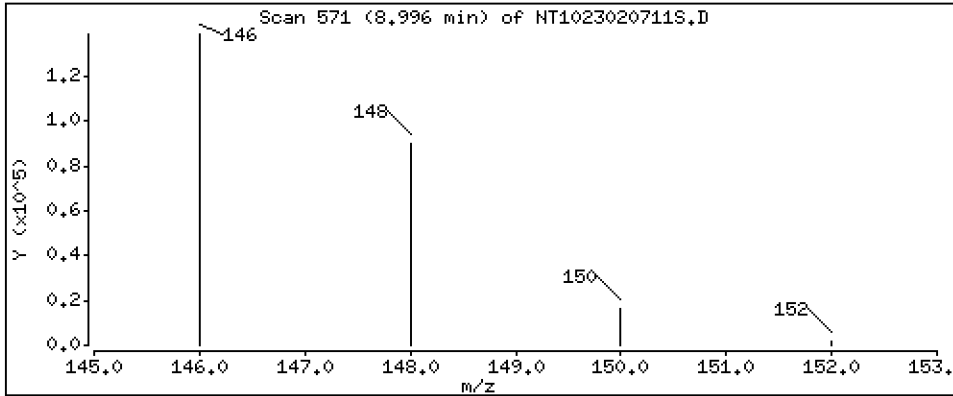
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 4.237 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

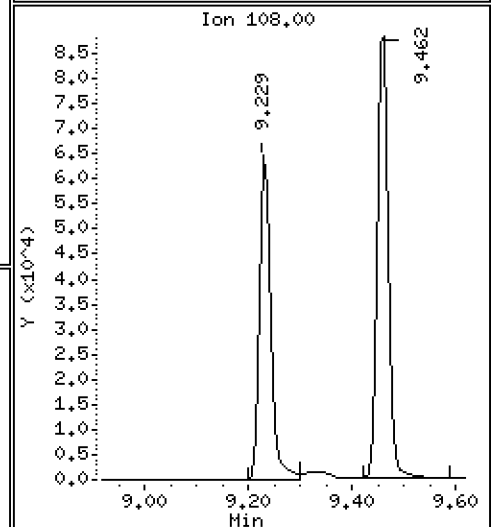
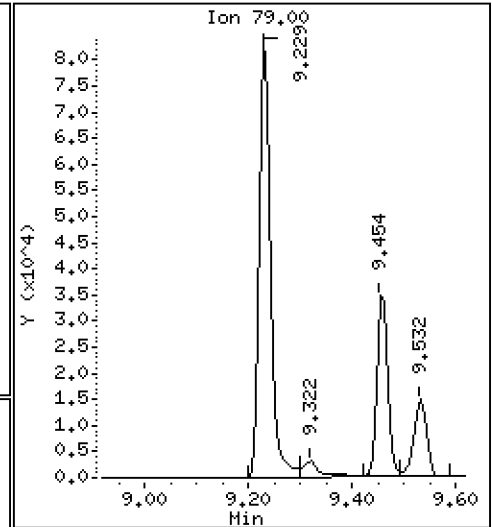
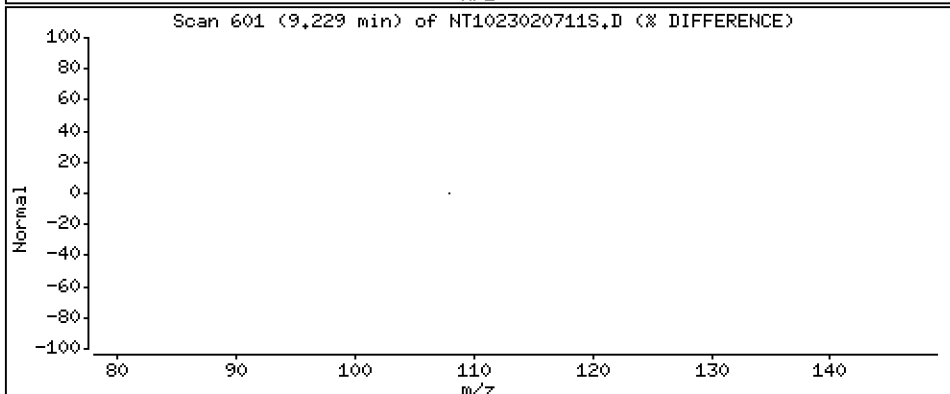
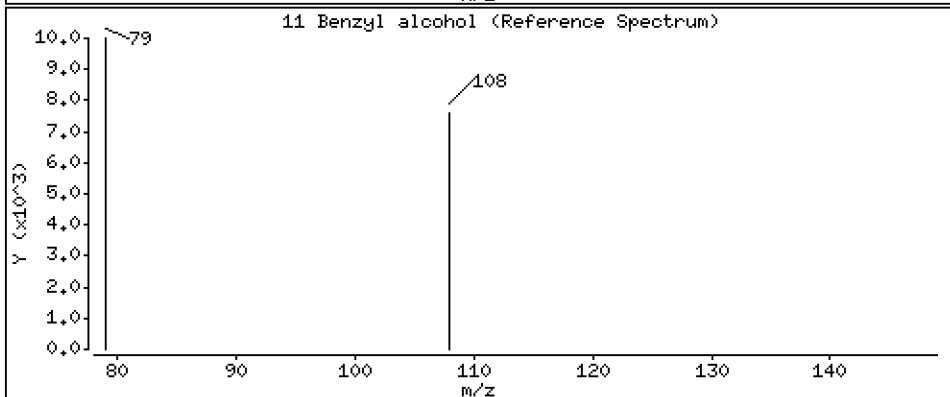
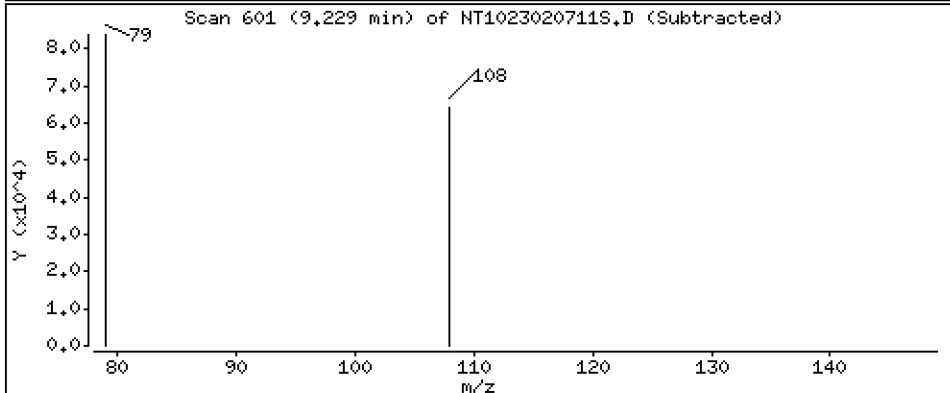
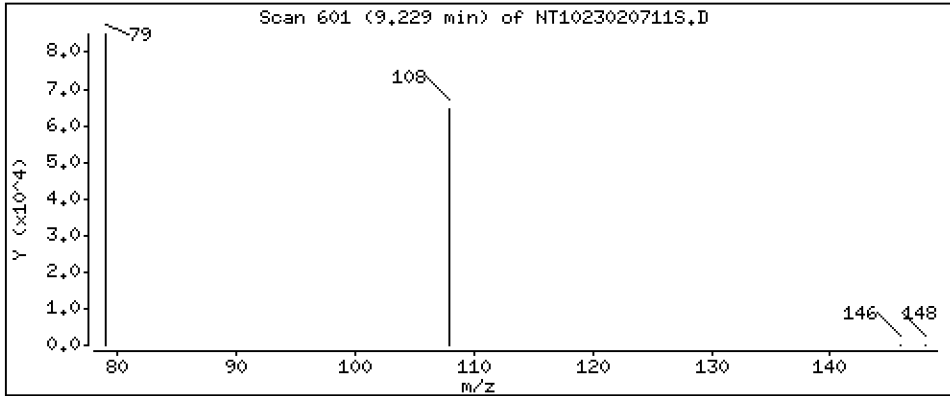
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 4.907 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

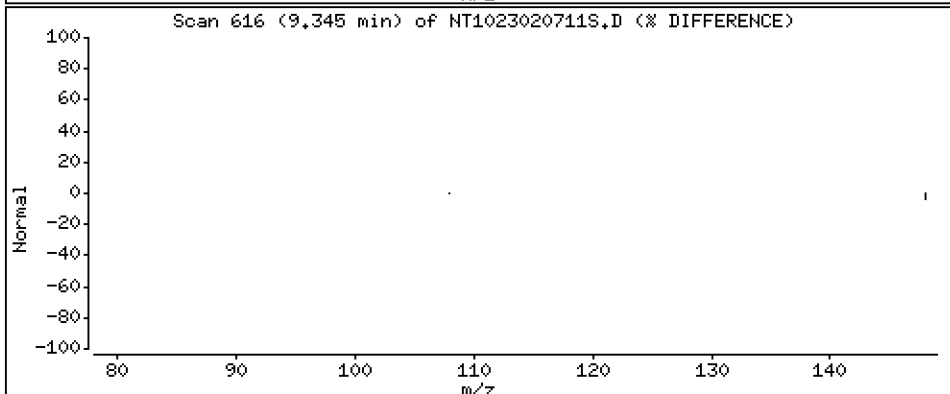
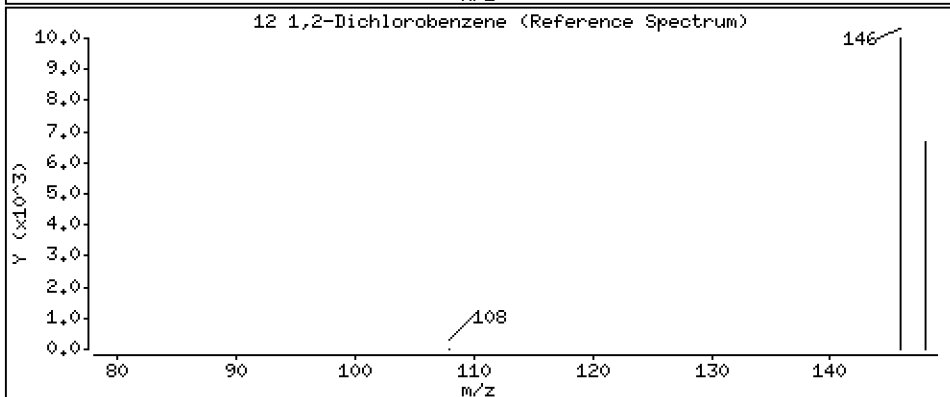
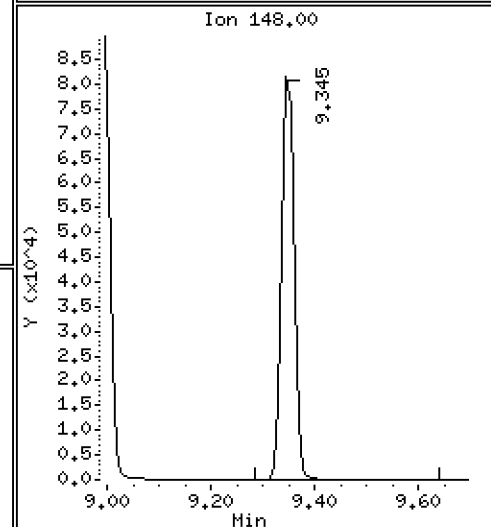
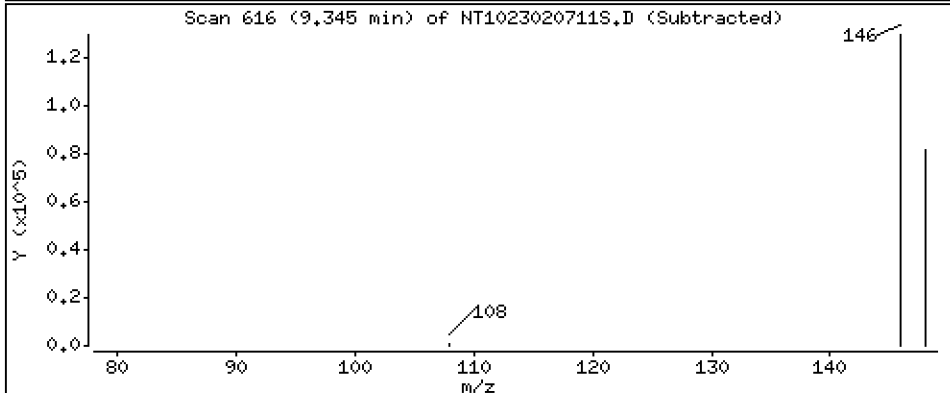
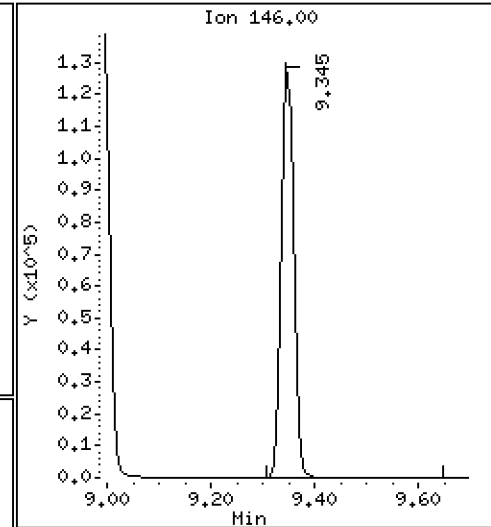
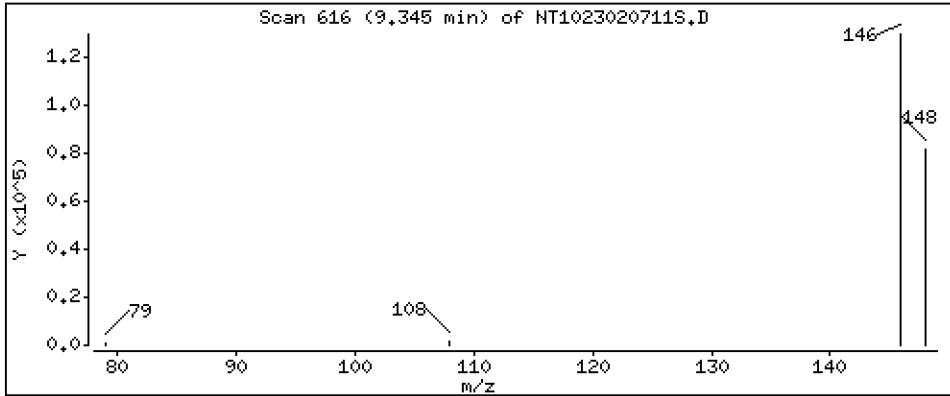
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 4.205 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

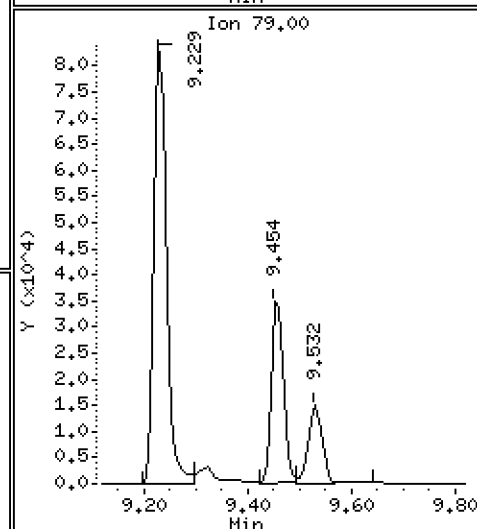
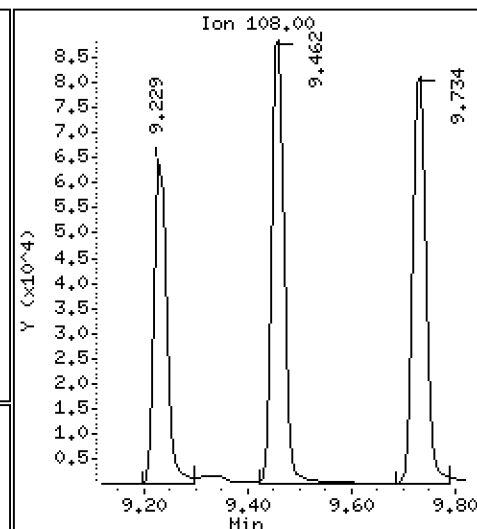
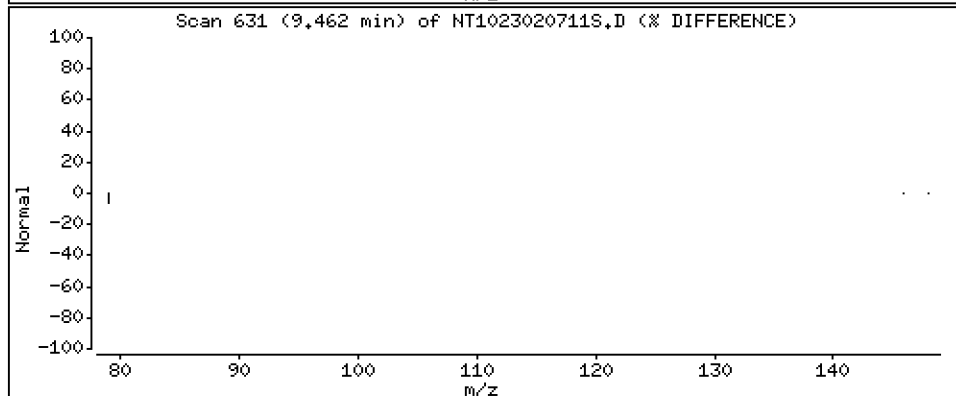
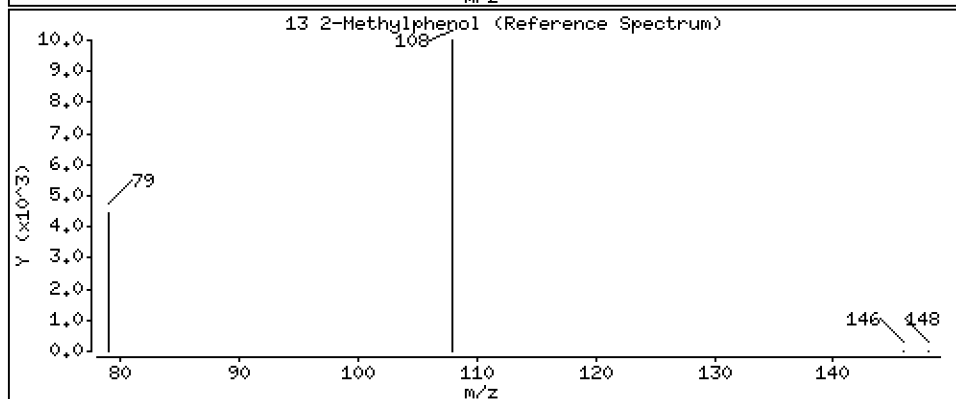
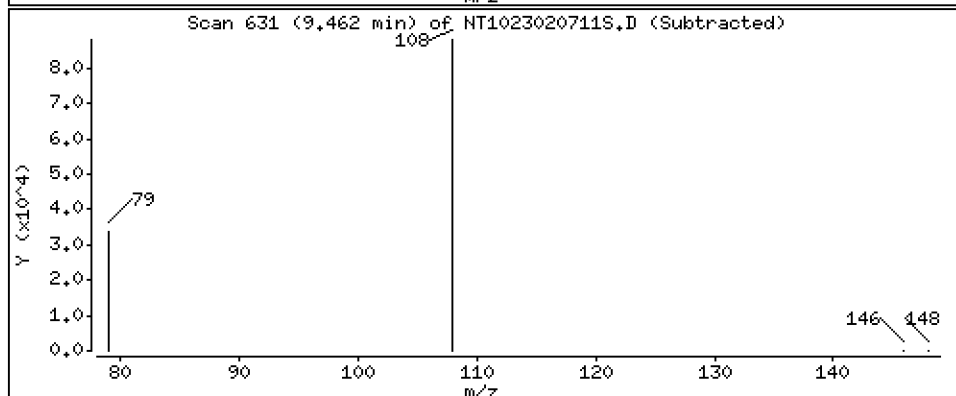
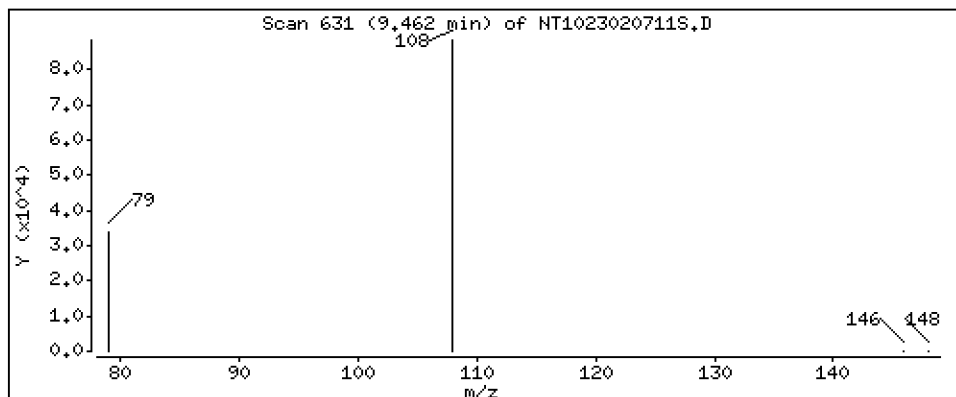
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 3,649 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

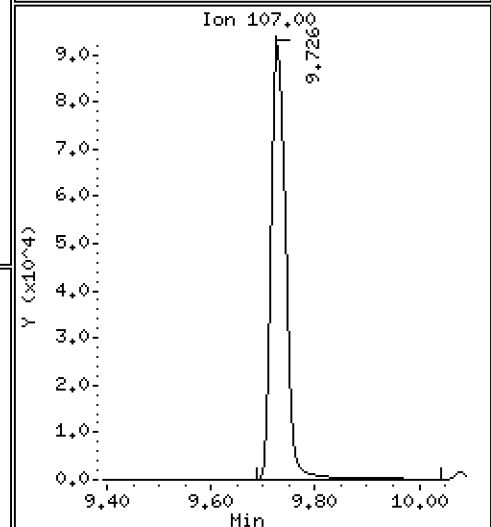
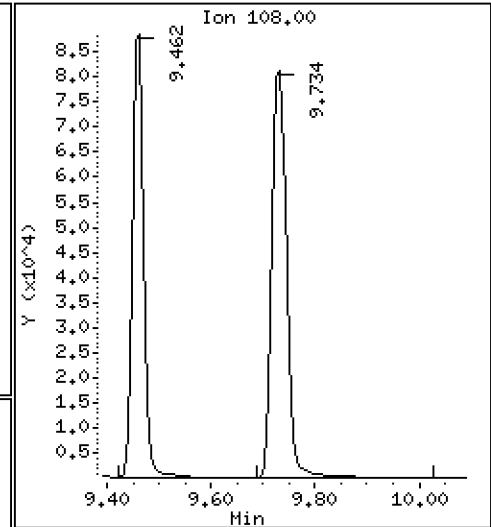
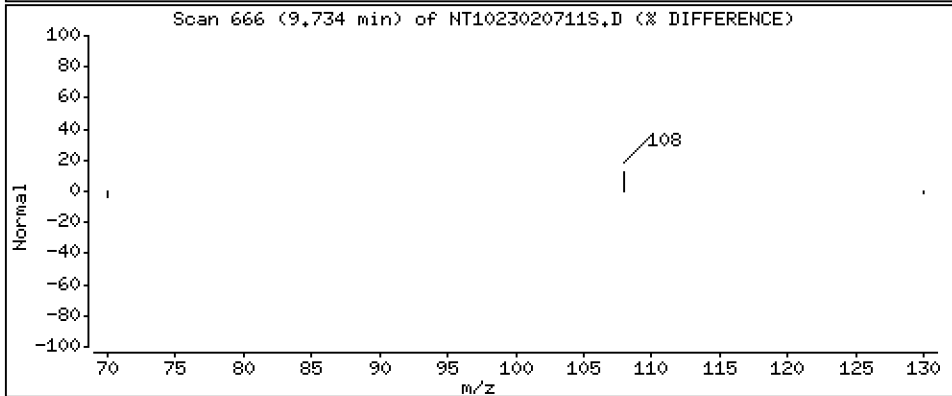
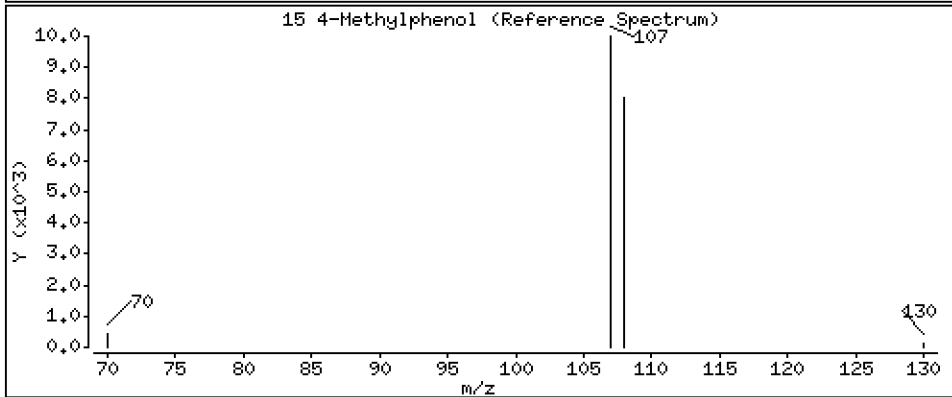
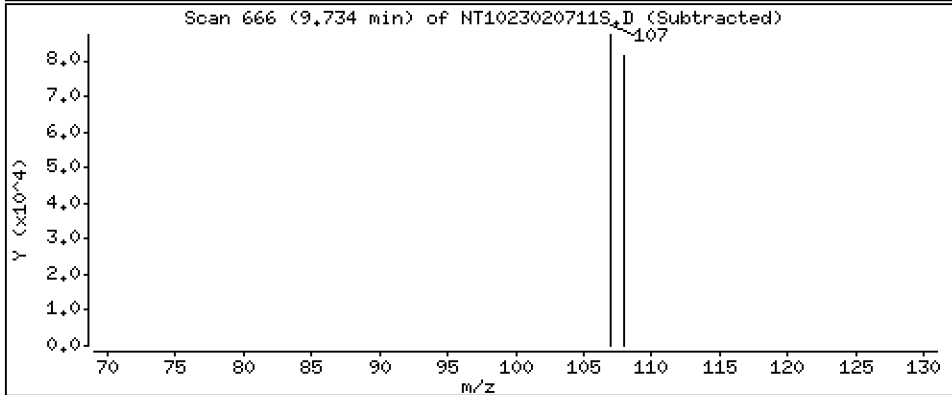
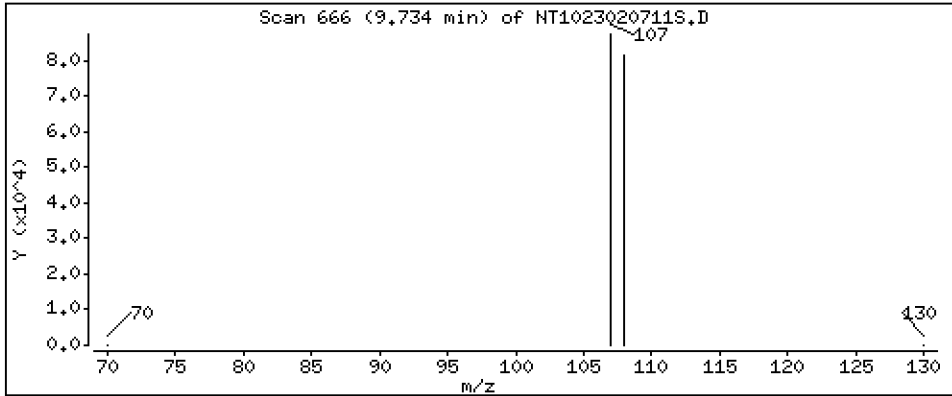
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 3,980 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

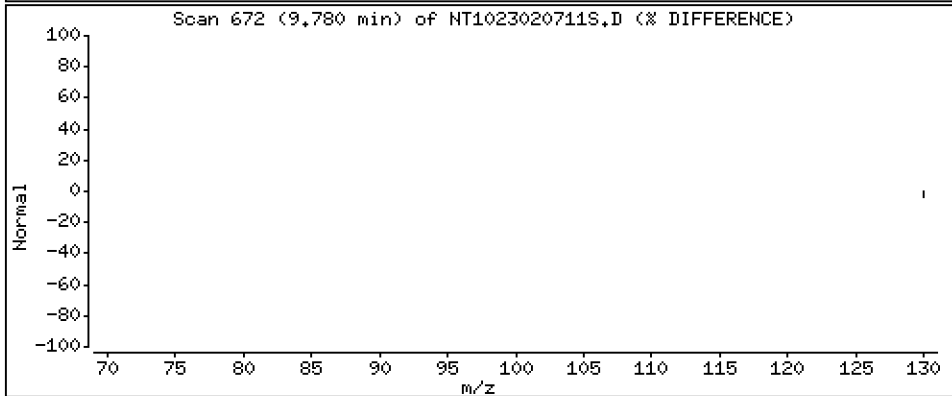
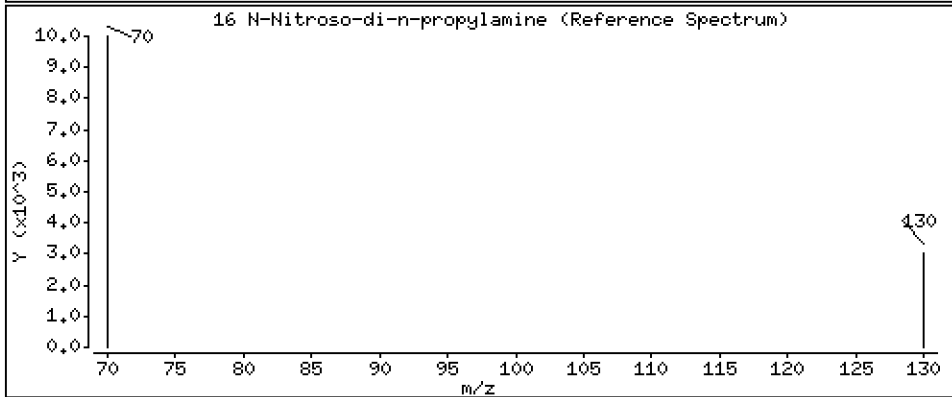
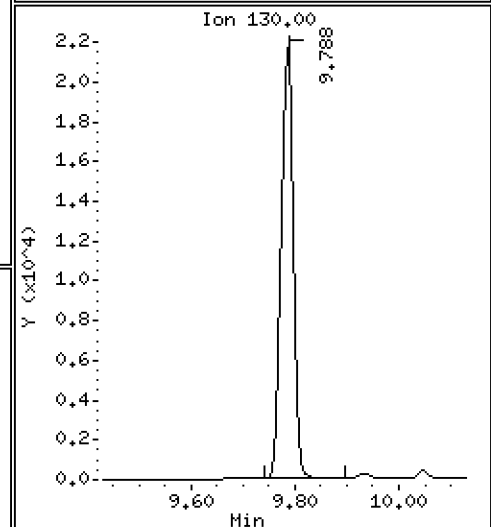
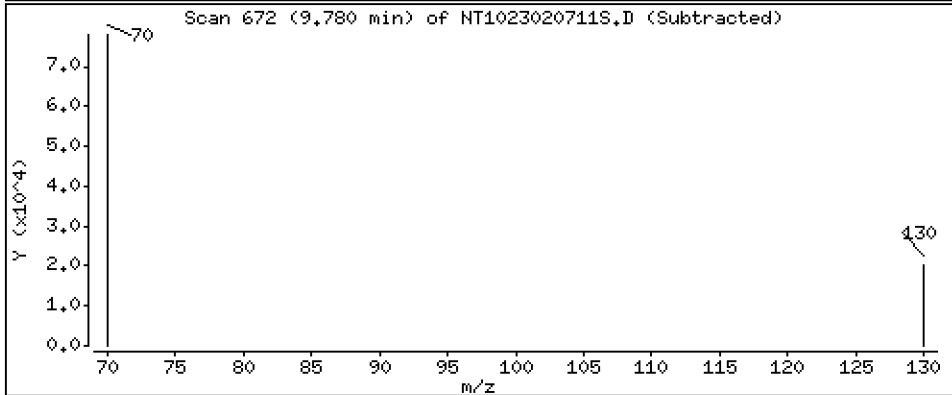
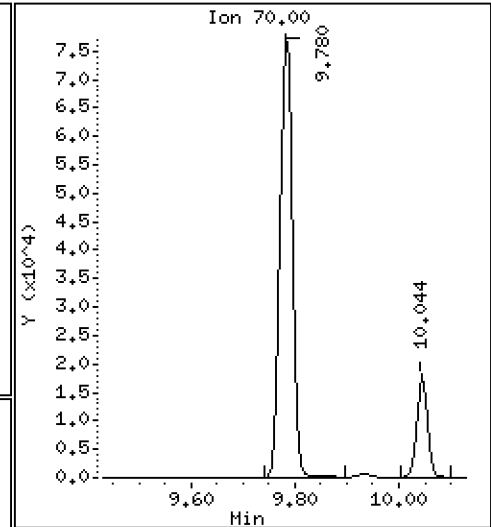
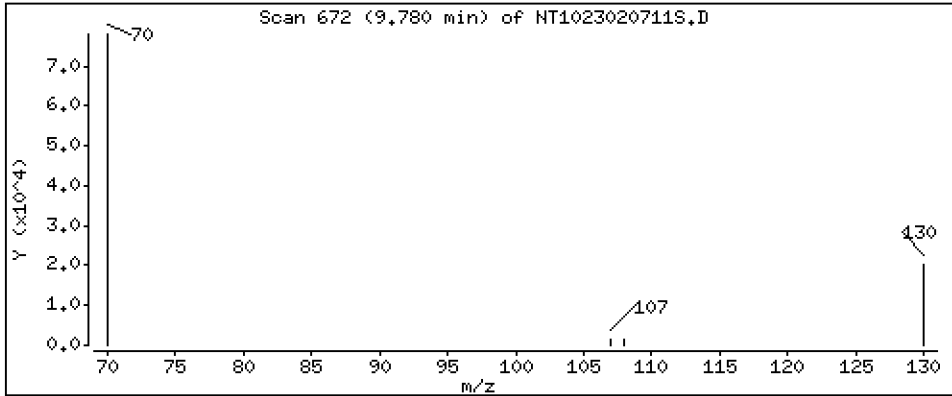
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 4.396 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

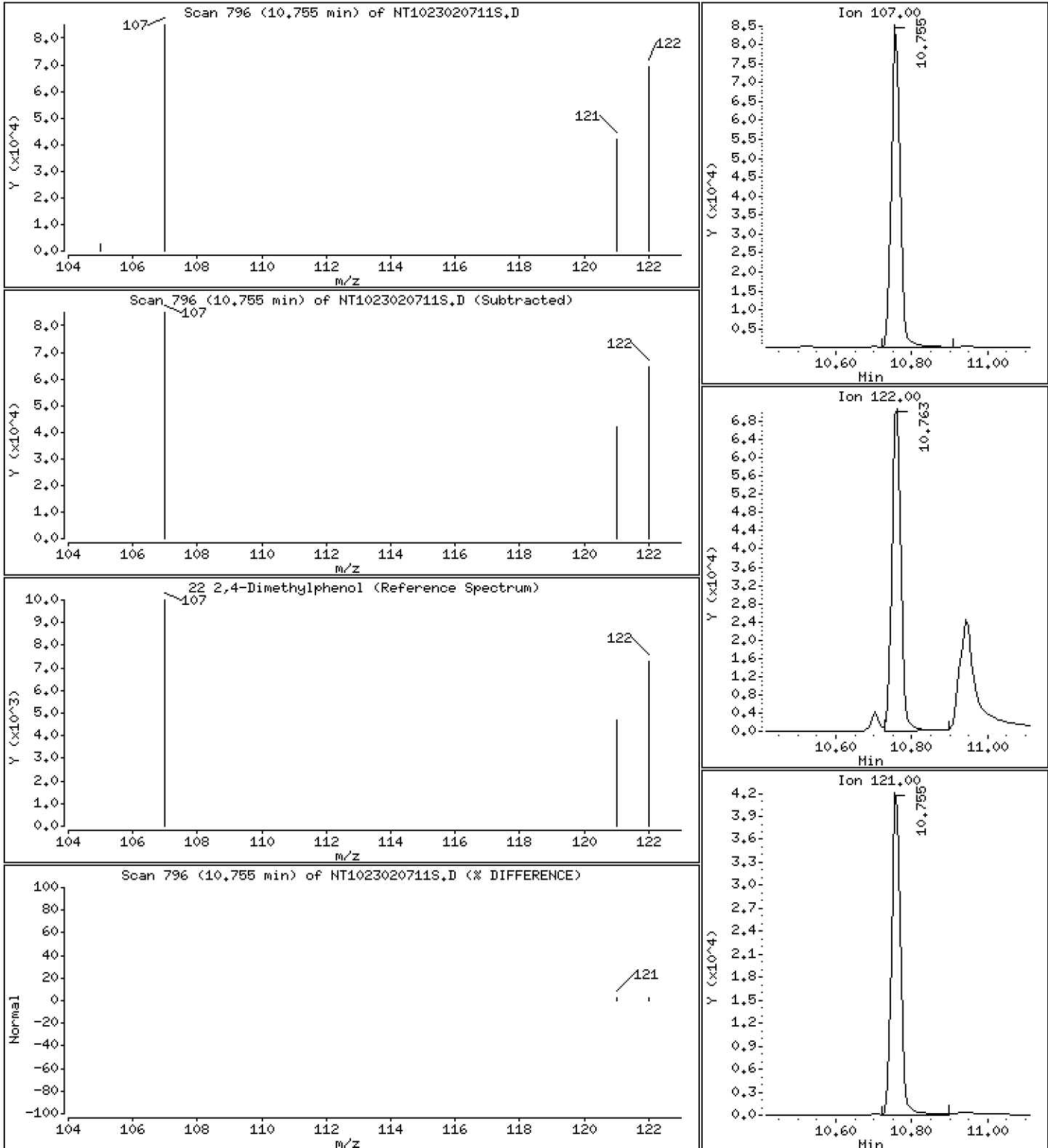
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 3,353 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

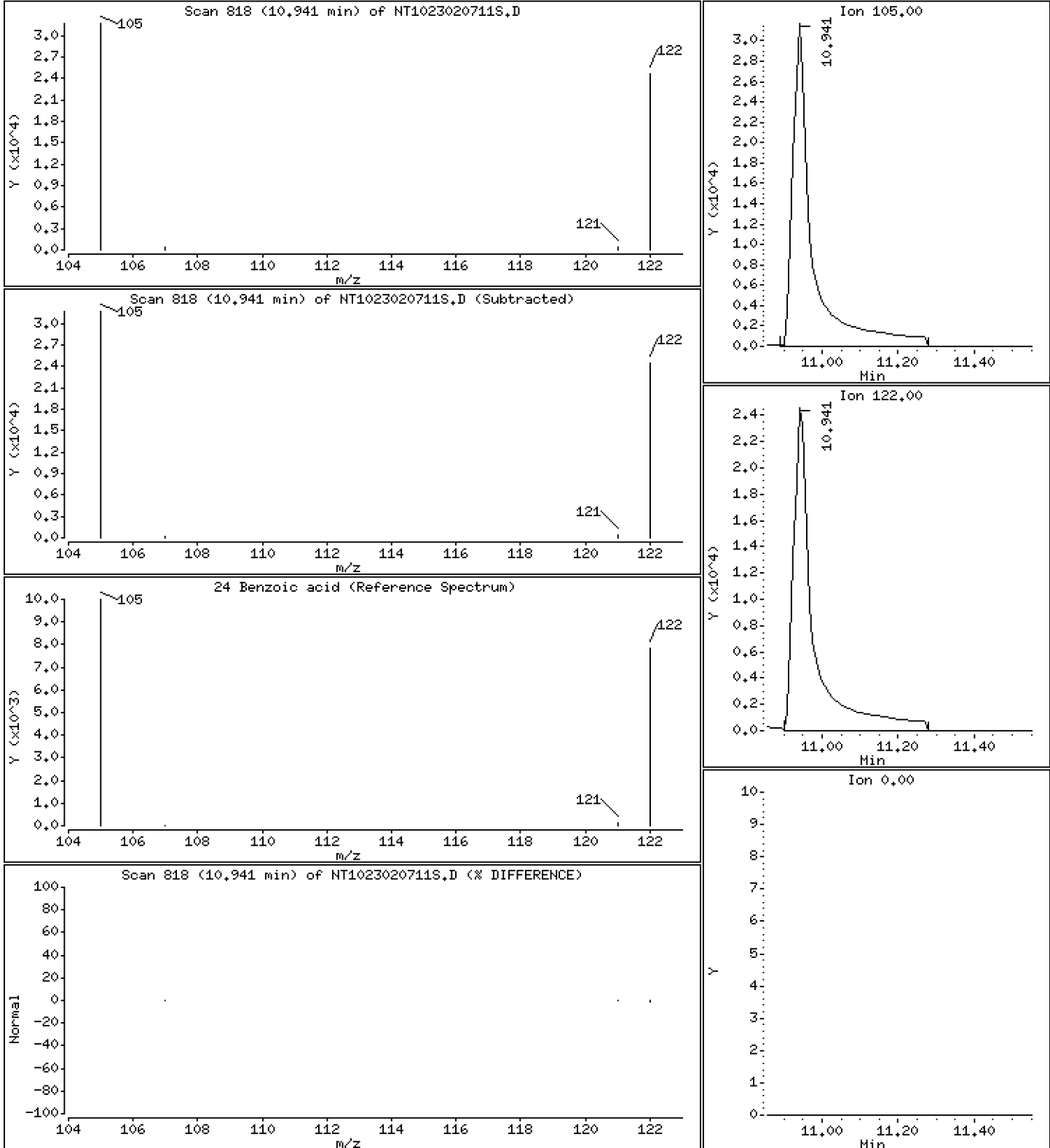
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 5,884 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

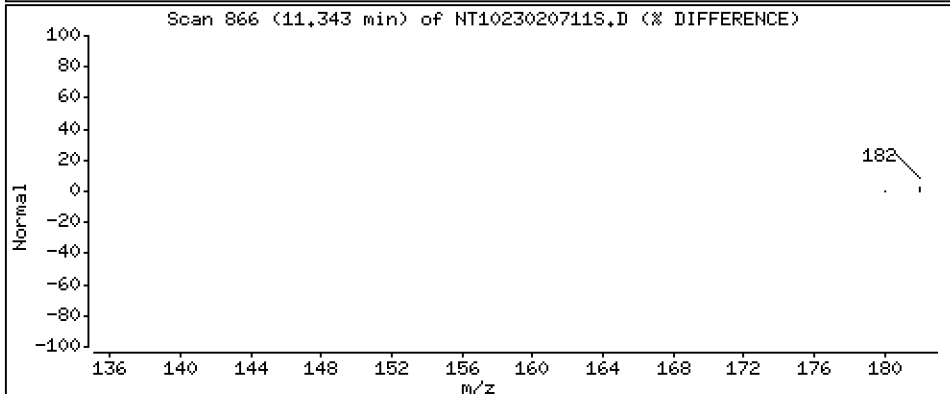
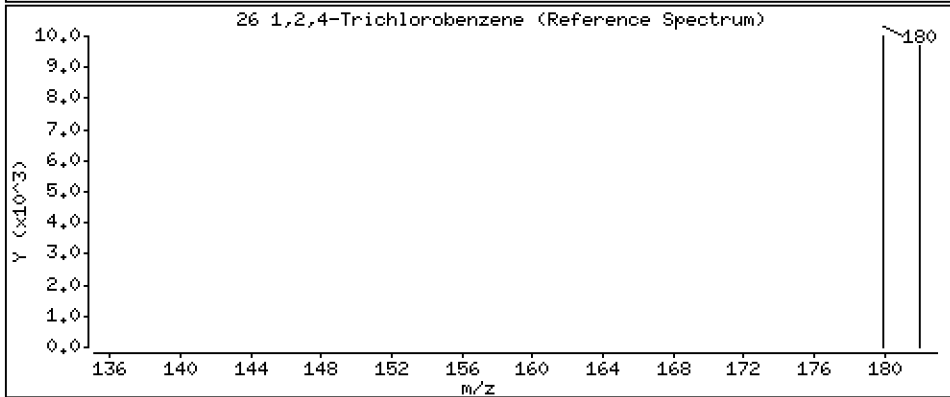
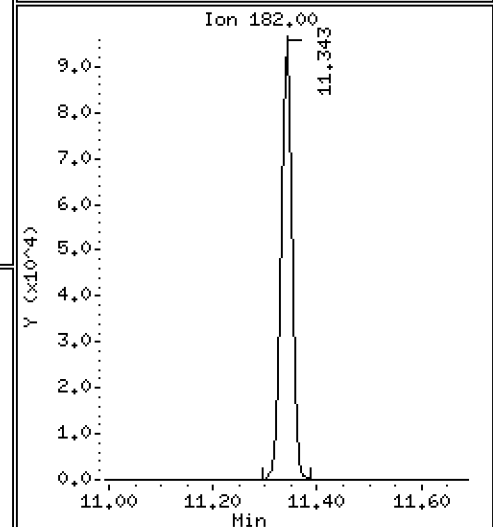
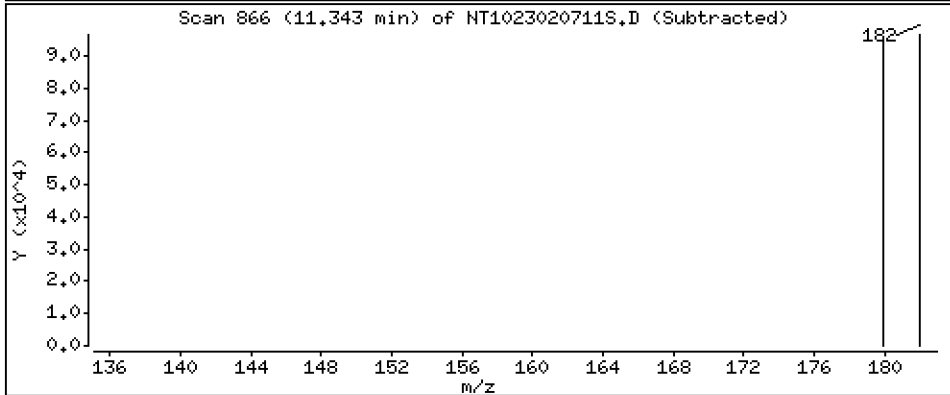
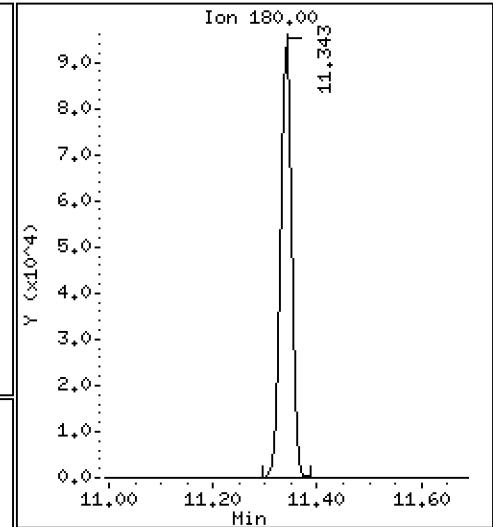
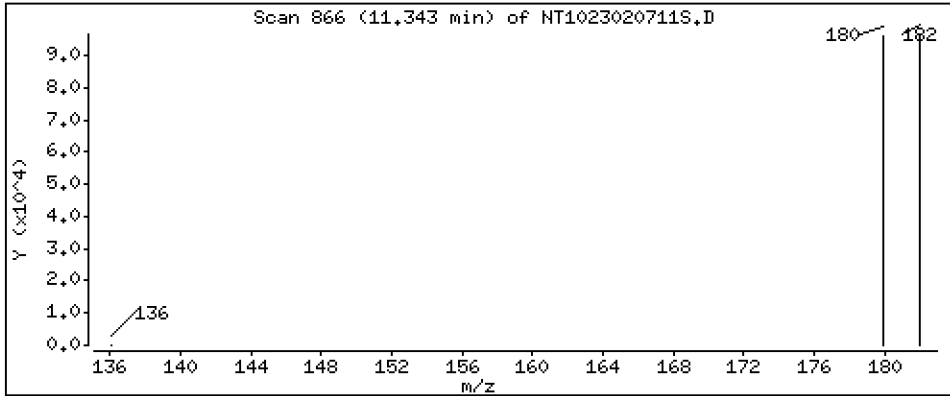
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 3,930 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

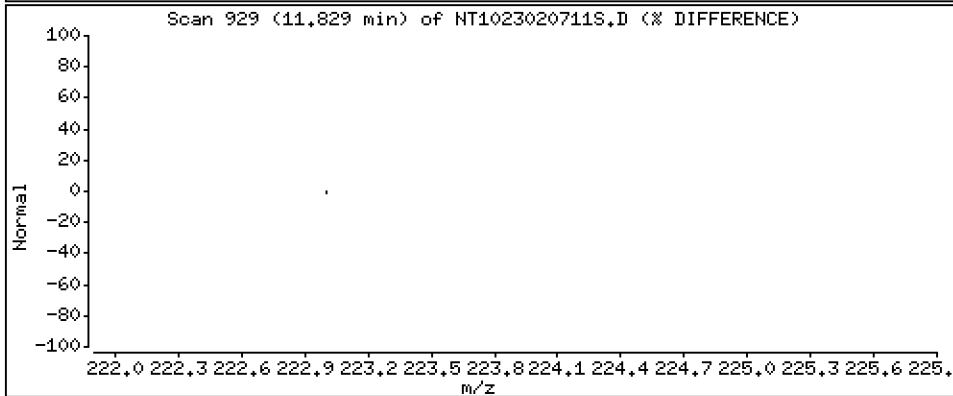
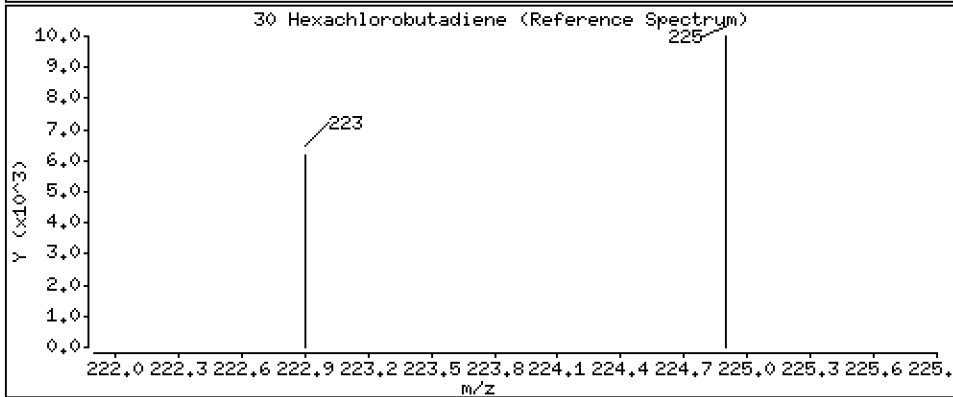
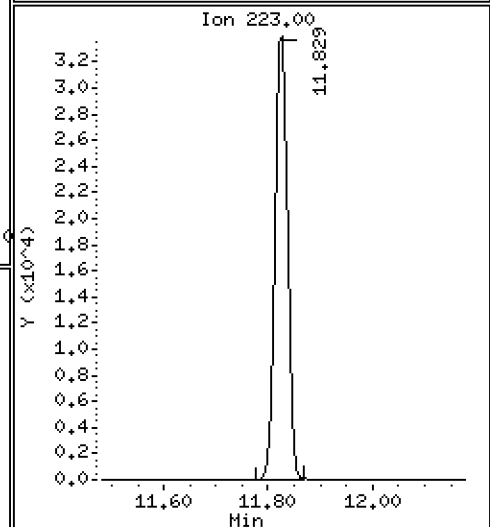
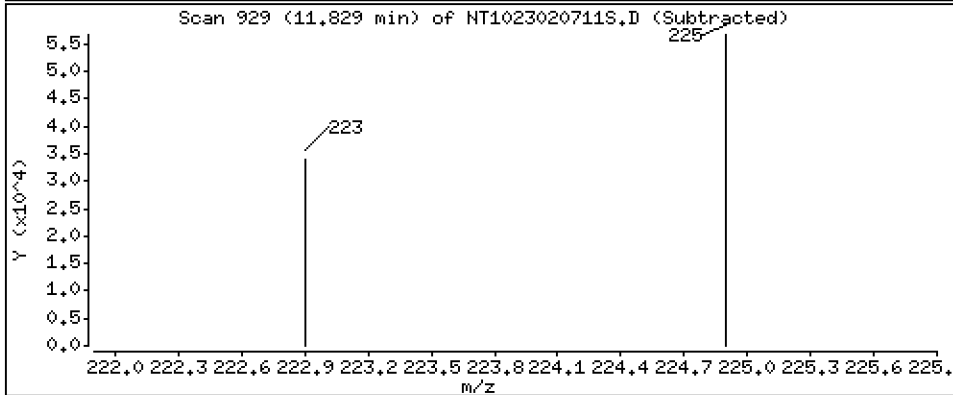
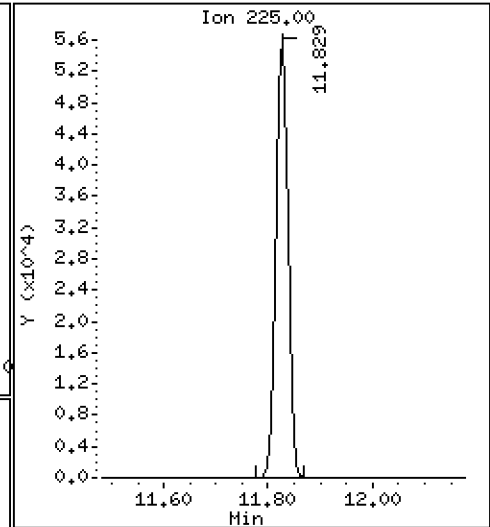
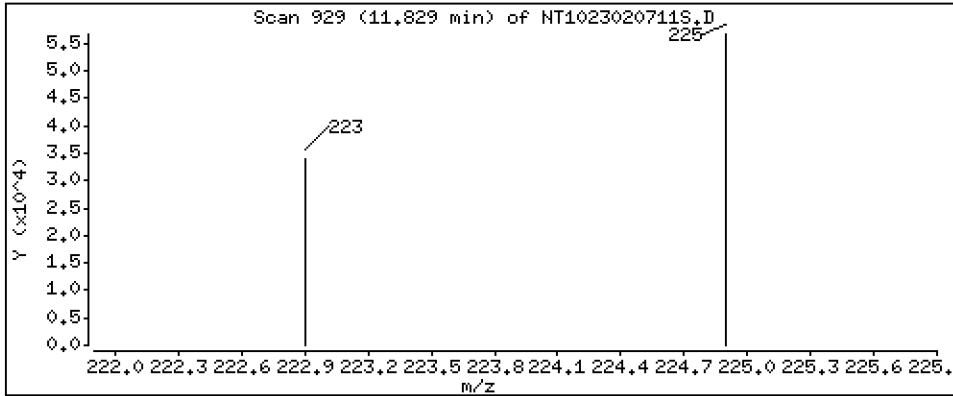
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,166 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

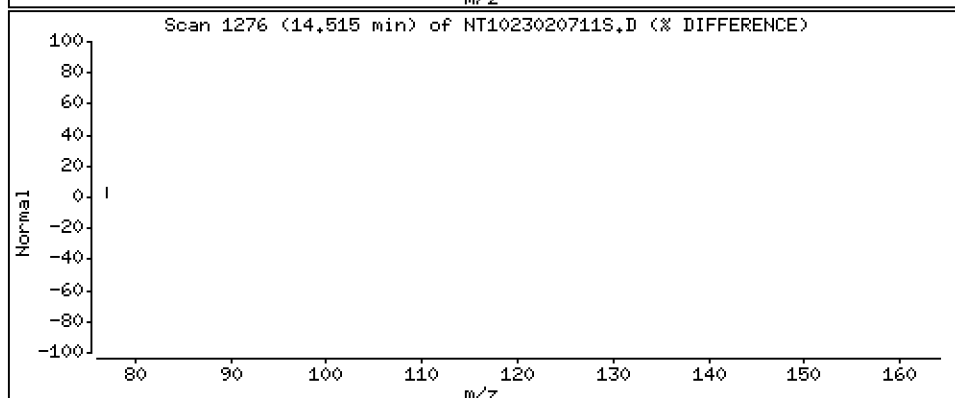
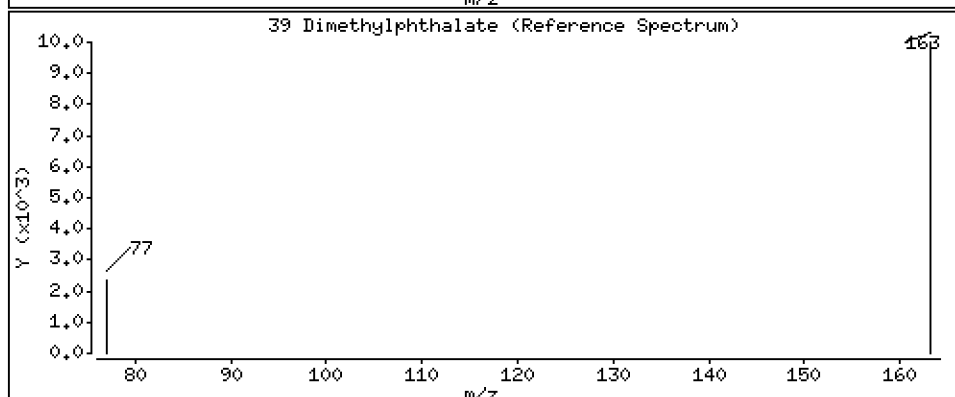
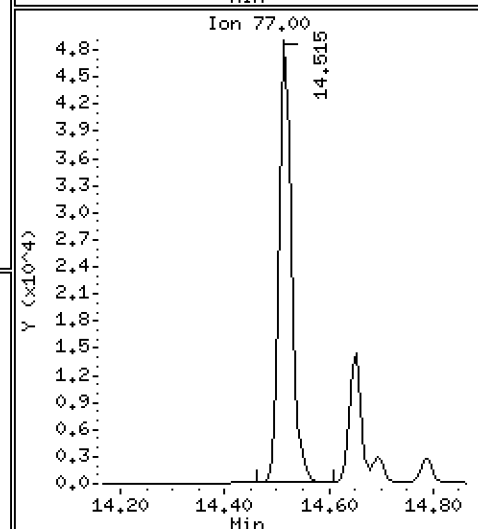
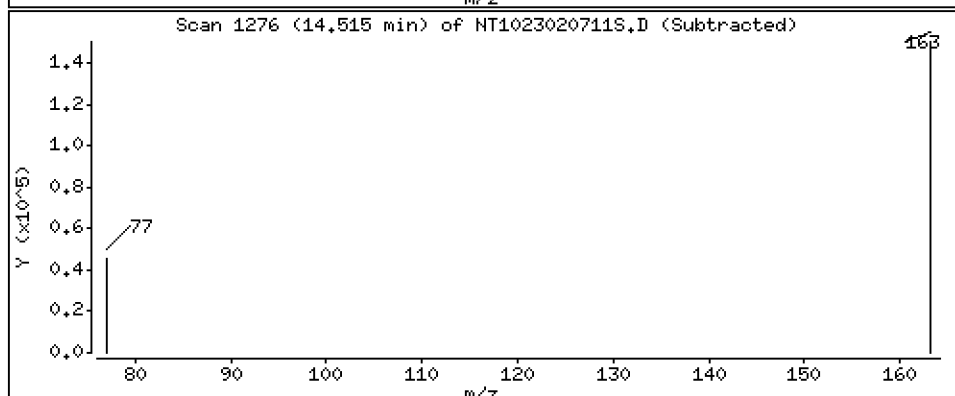
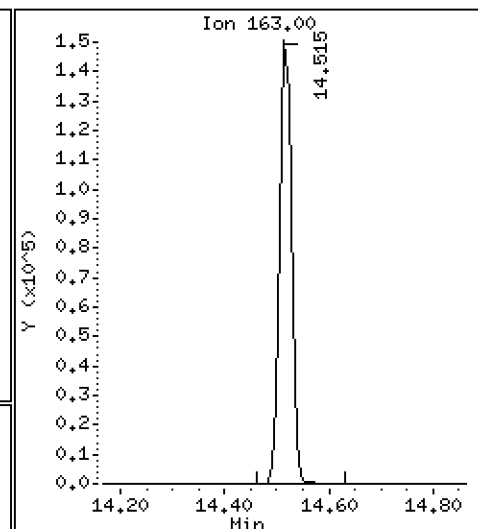
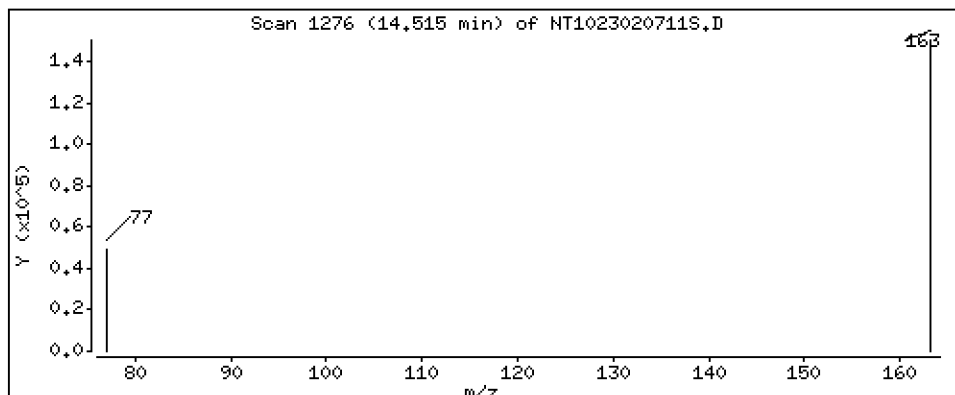
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 4.173 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

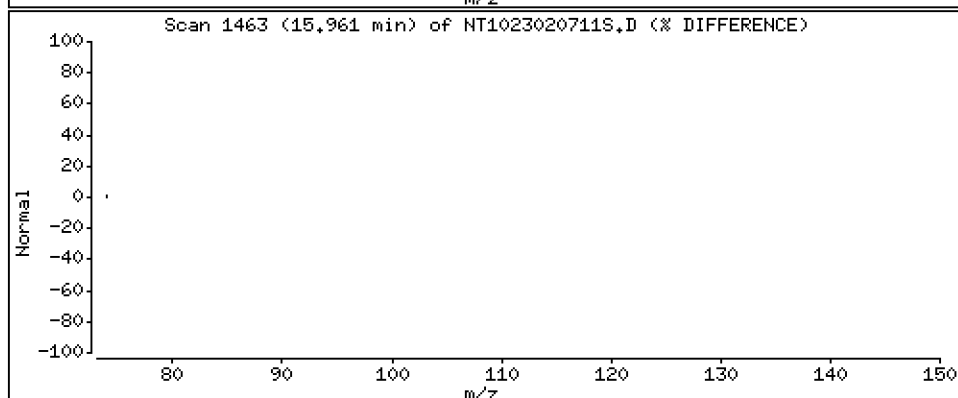
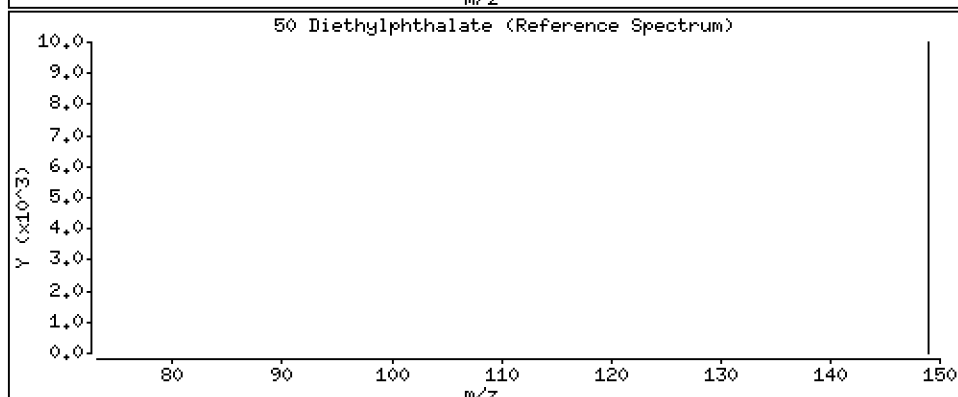
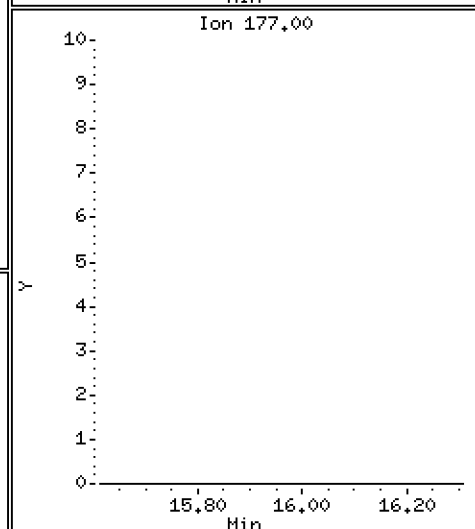
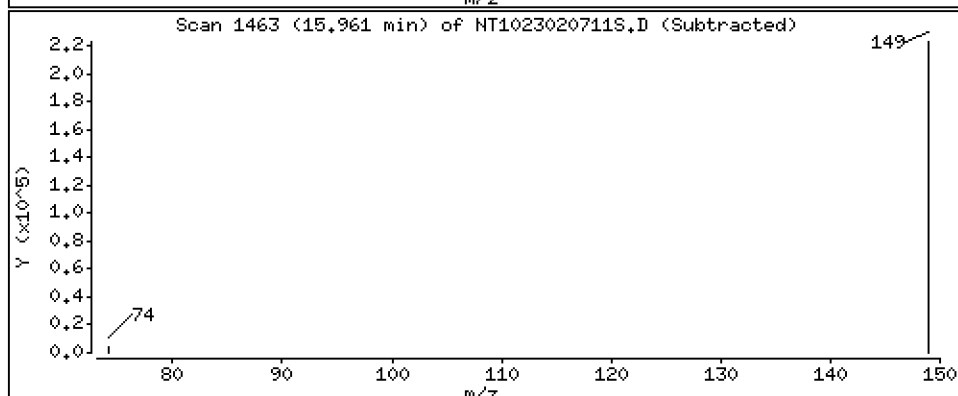
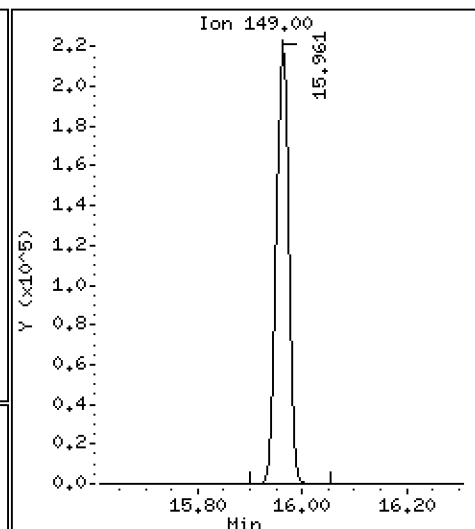
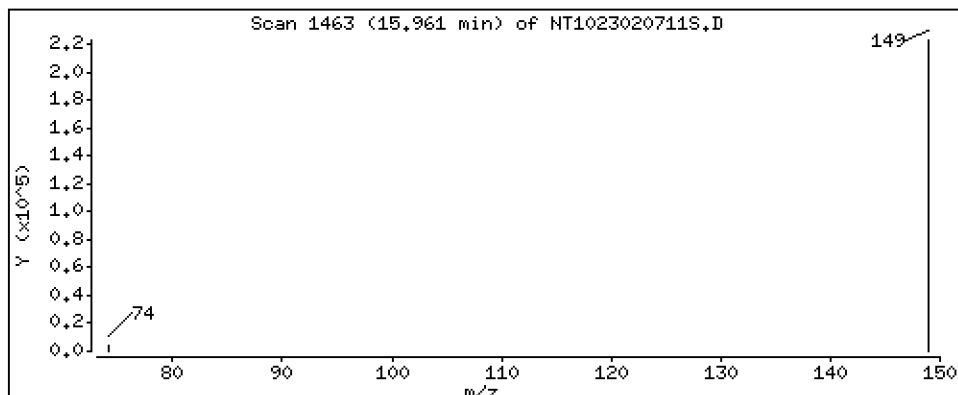
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,282 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

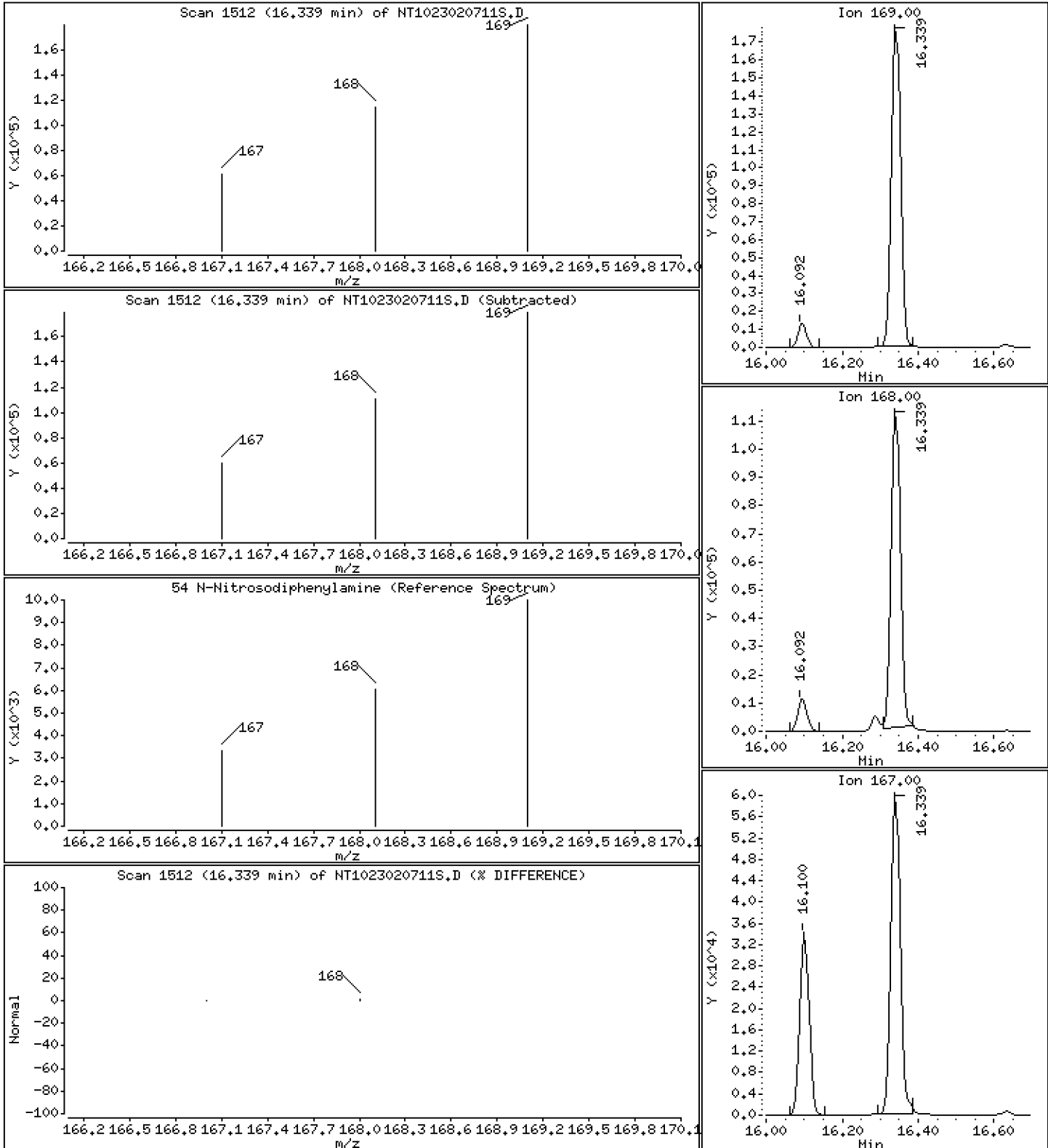
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 4.205 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

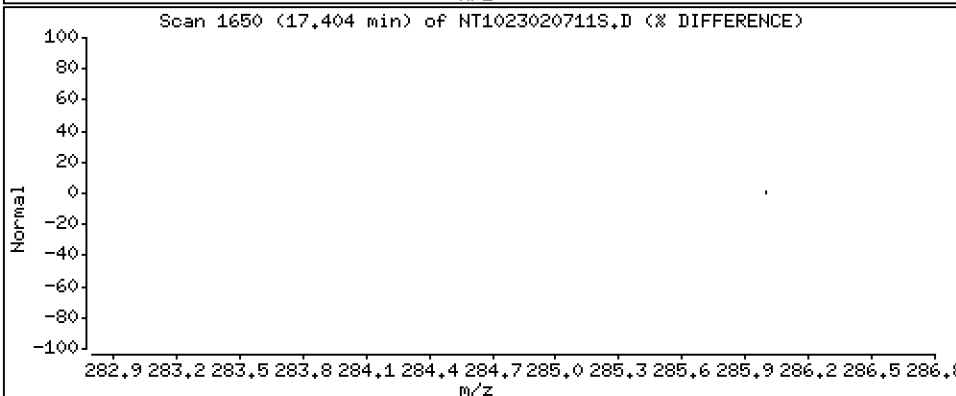
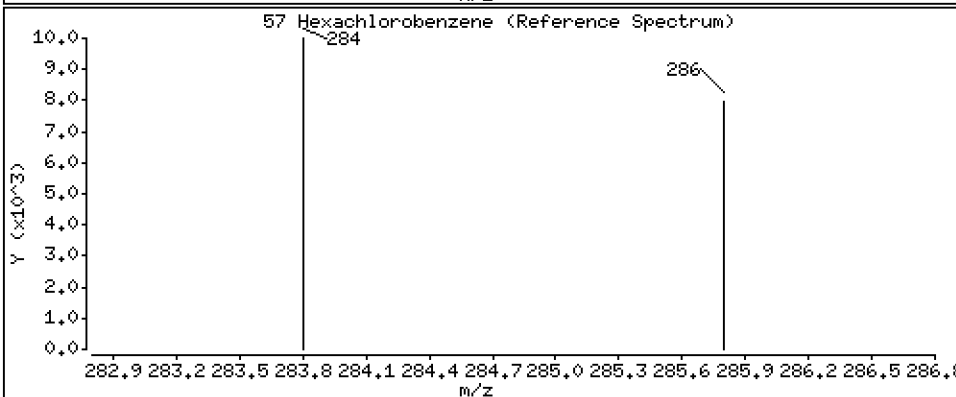
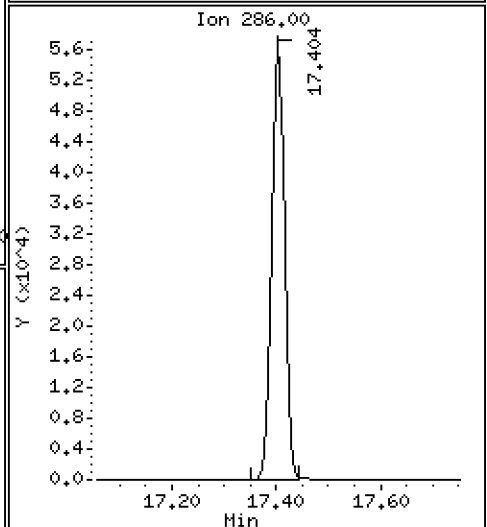
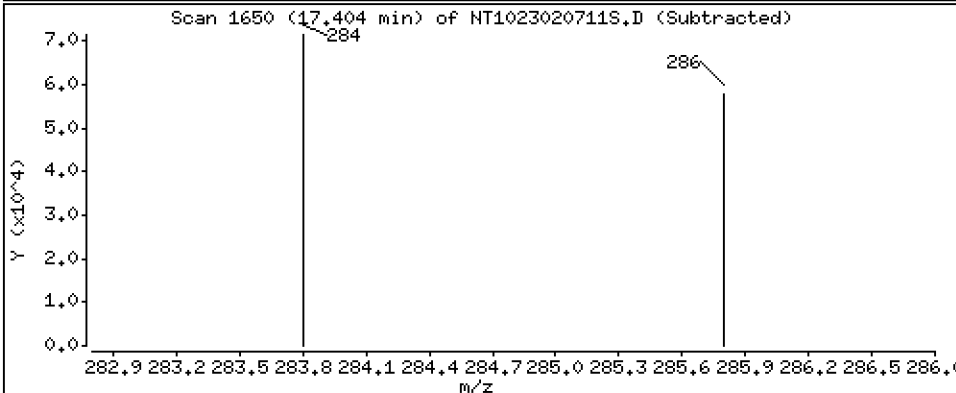
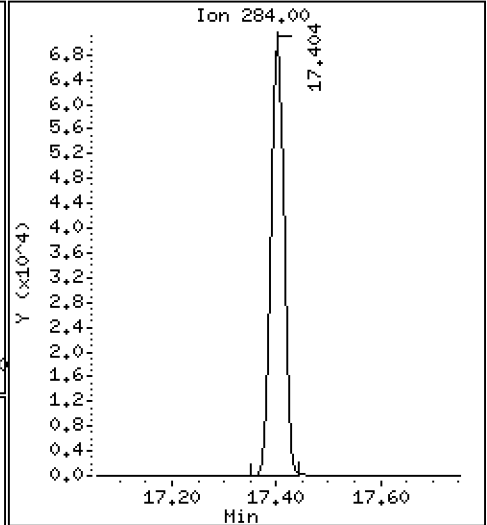
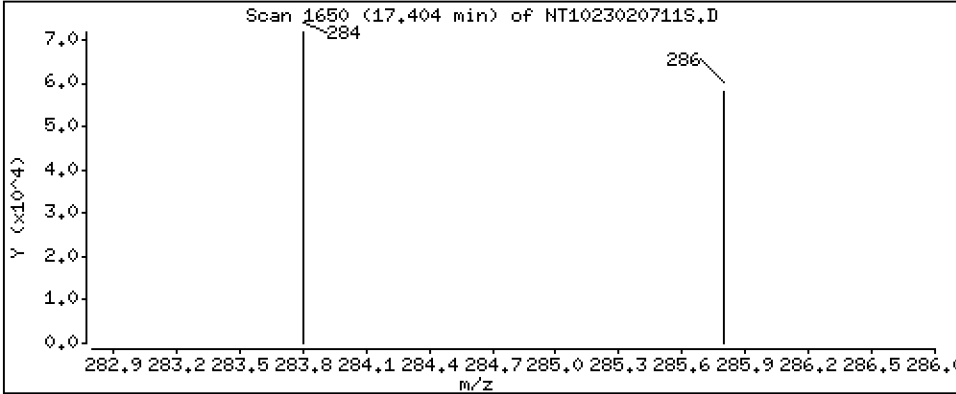
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 4.026 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Operator: DSD

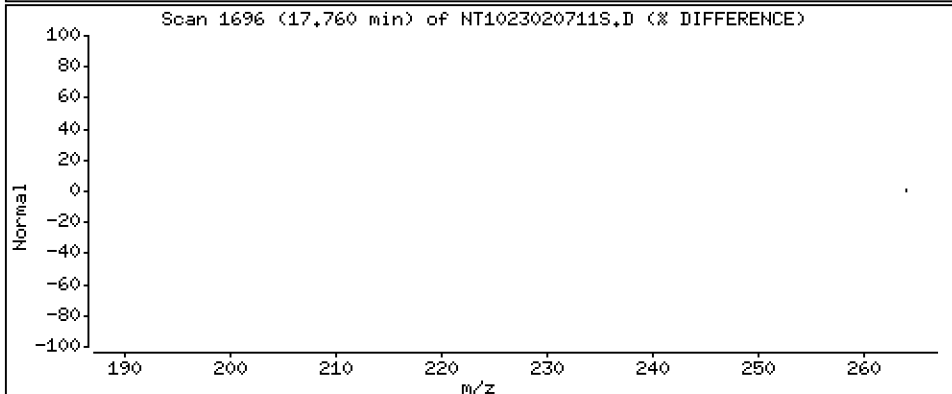
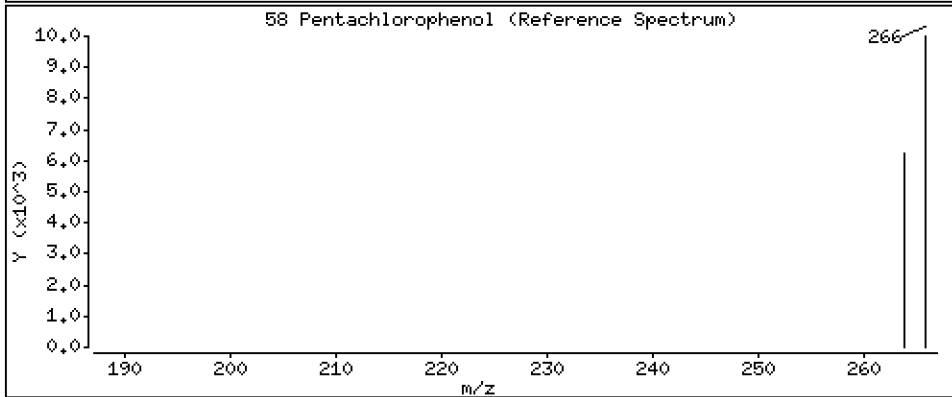
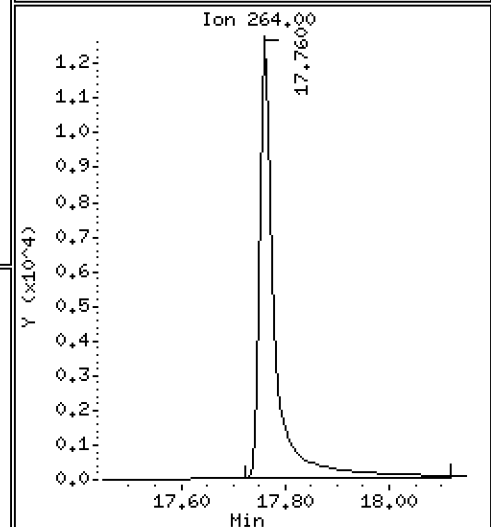
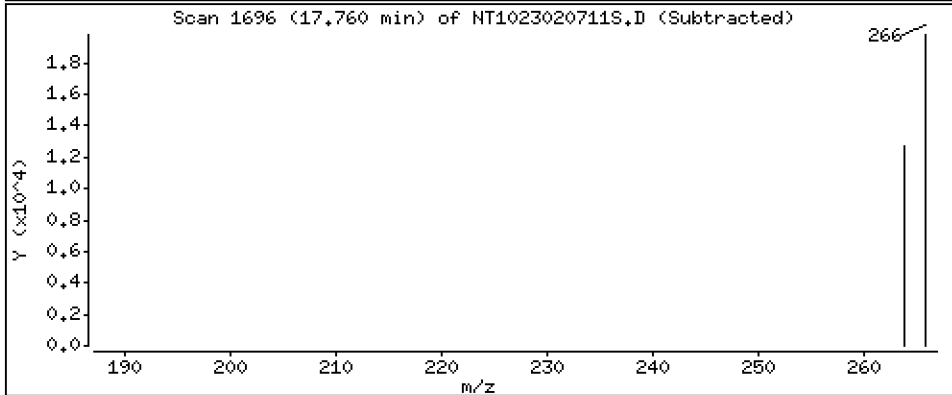
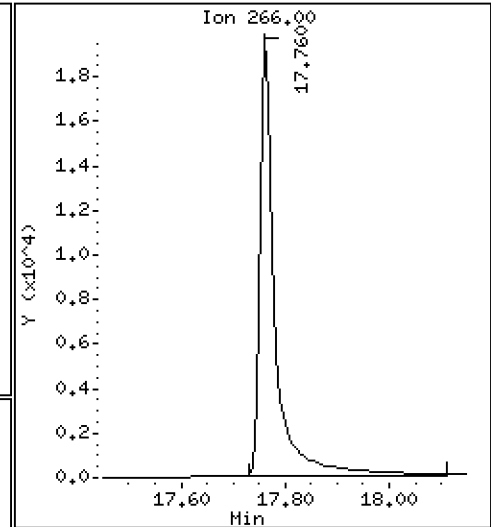
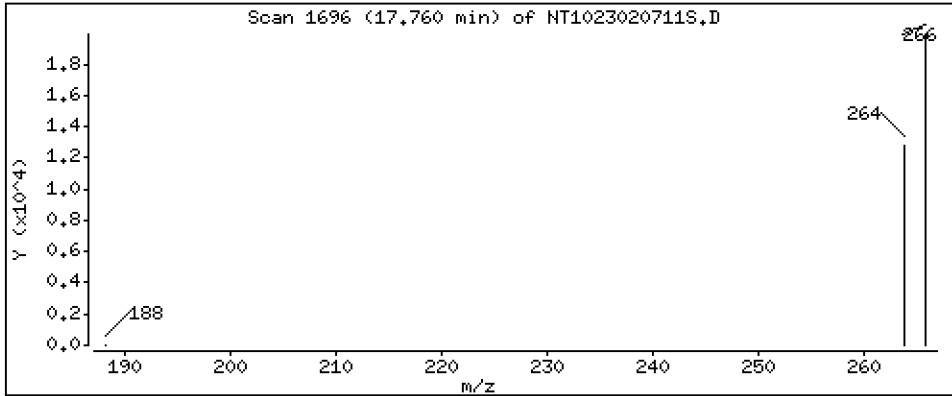
Volume Injected (uL): 1.0

Column diameter: 0.25

Column phase: ZB-5msi

Concentration: 3,994 ug/L

58 Pentachlorophenol



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

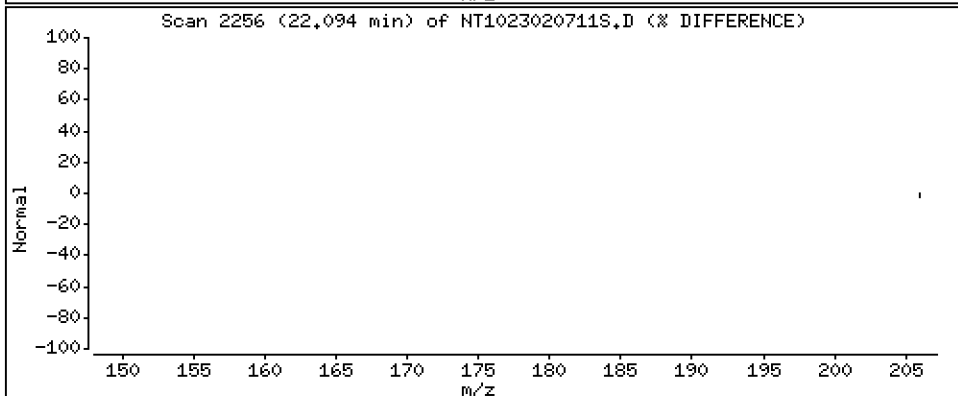
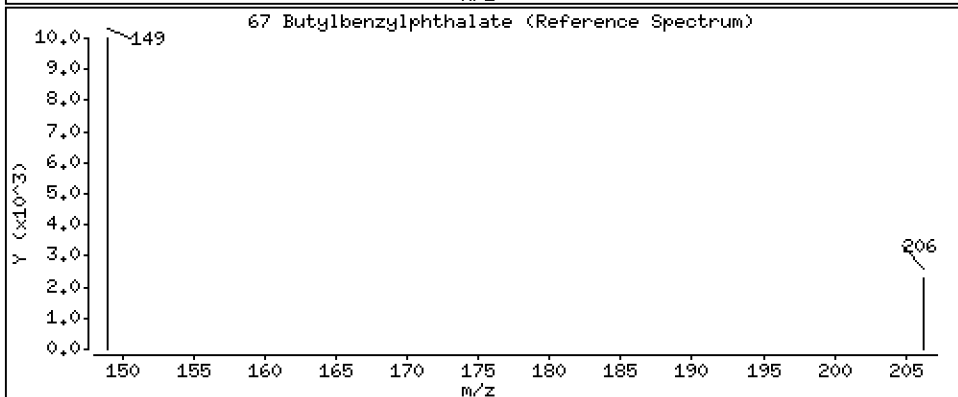
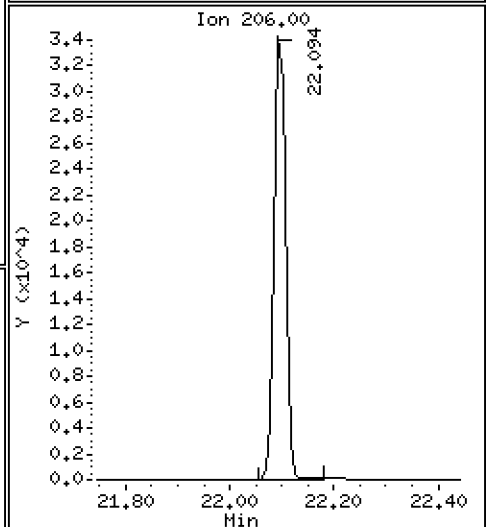
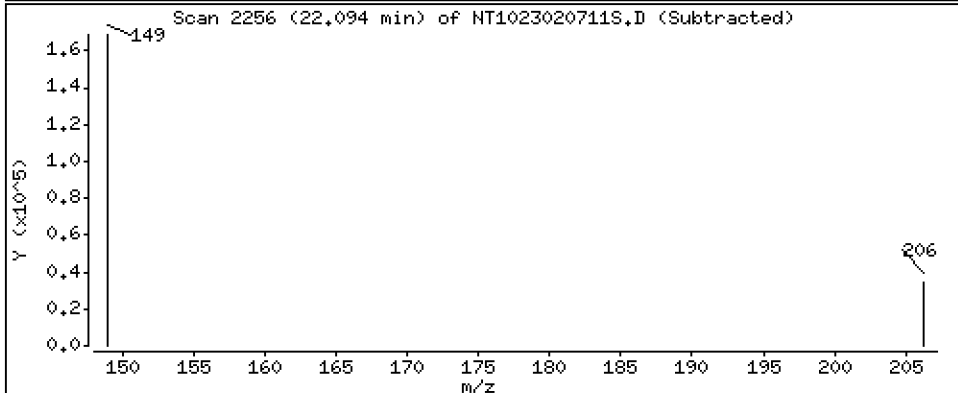
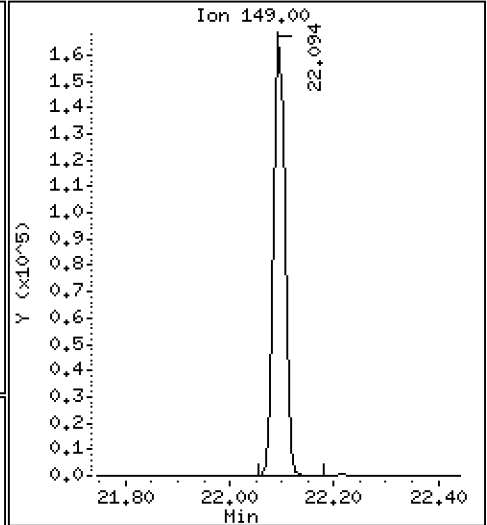
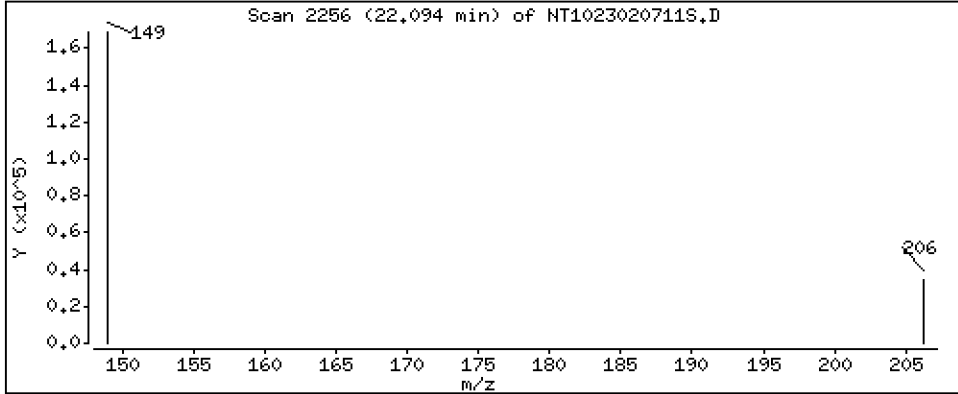
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 4.408 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

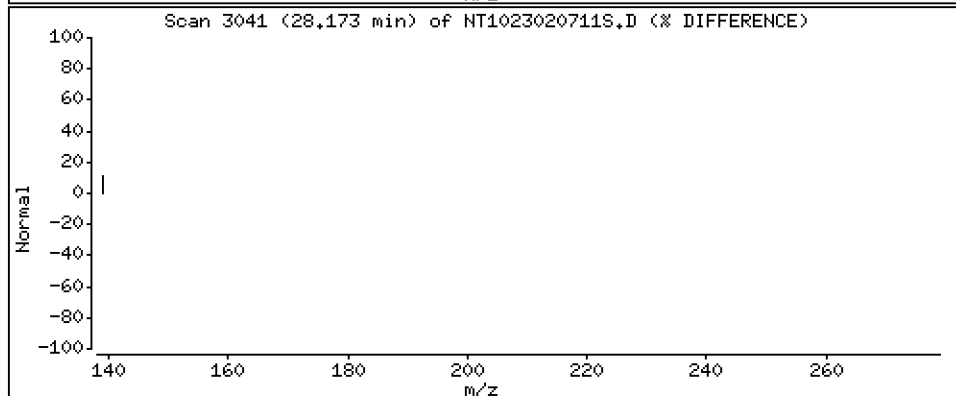
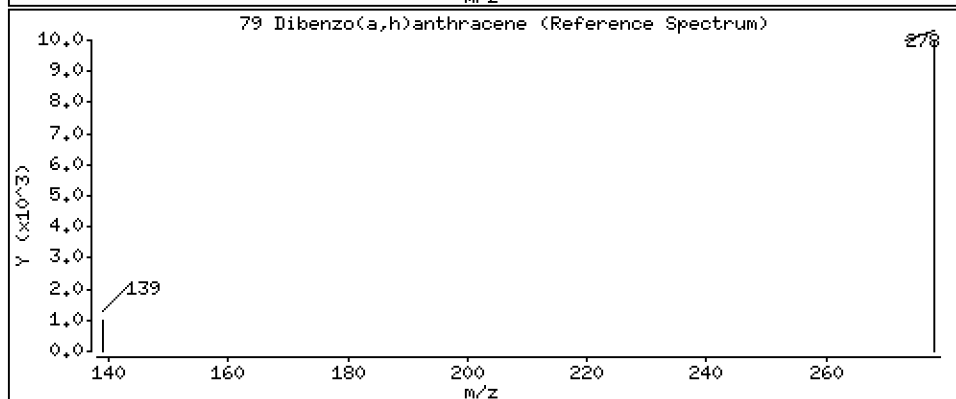
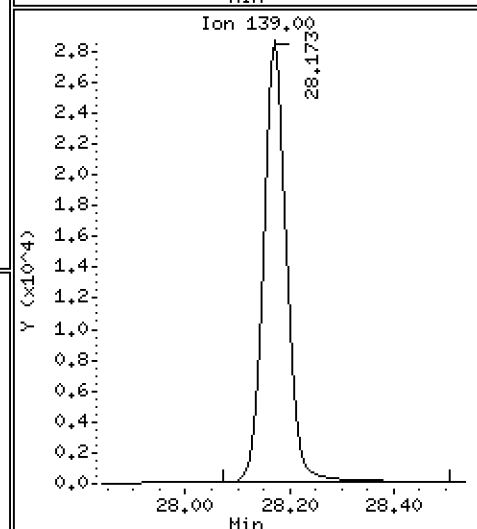
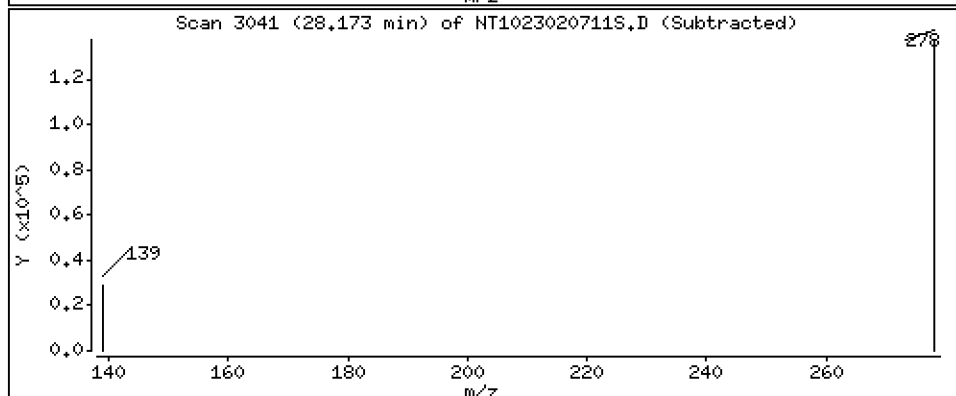
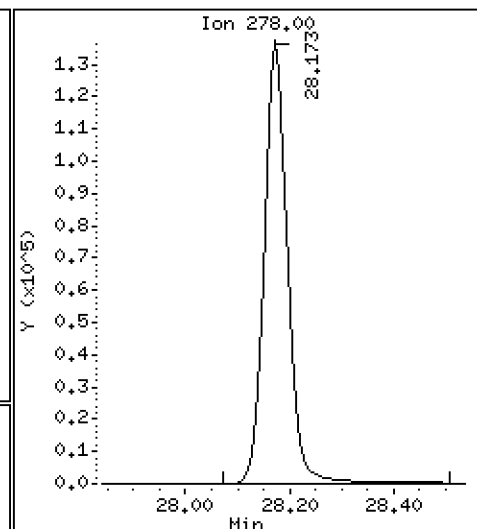
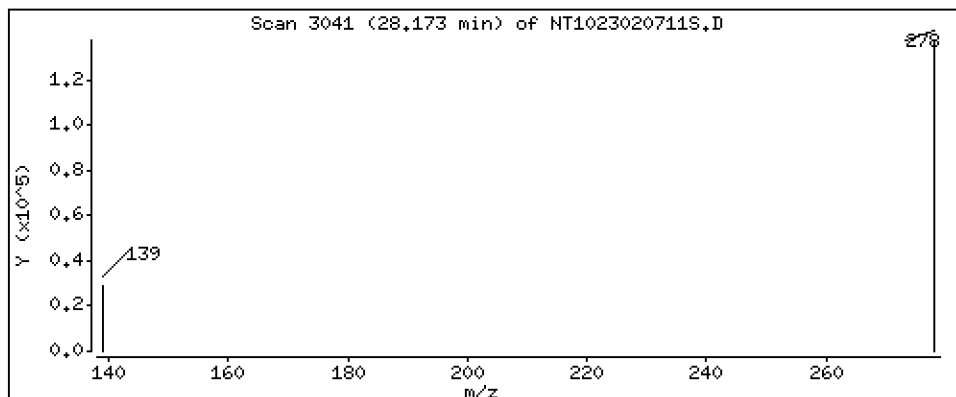
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,213 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

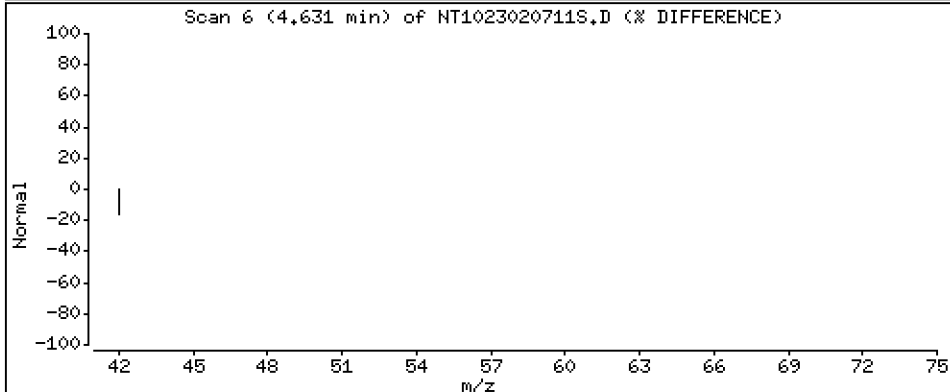
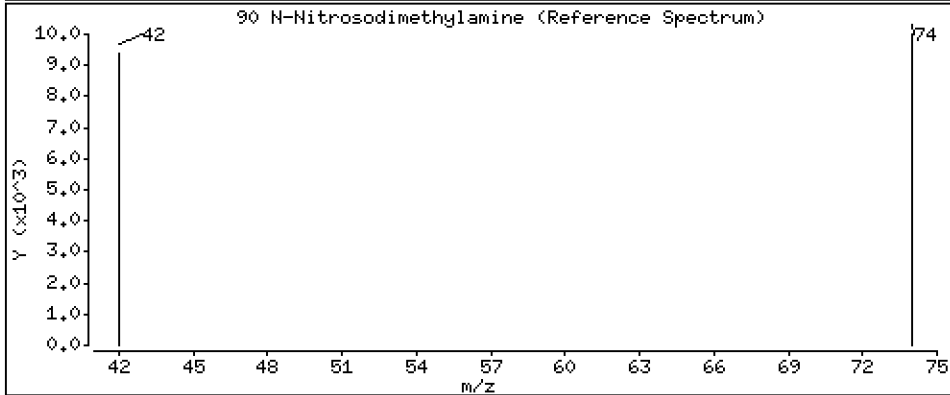
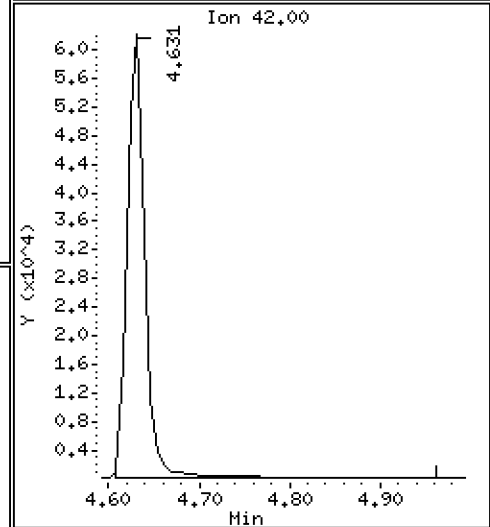
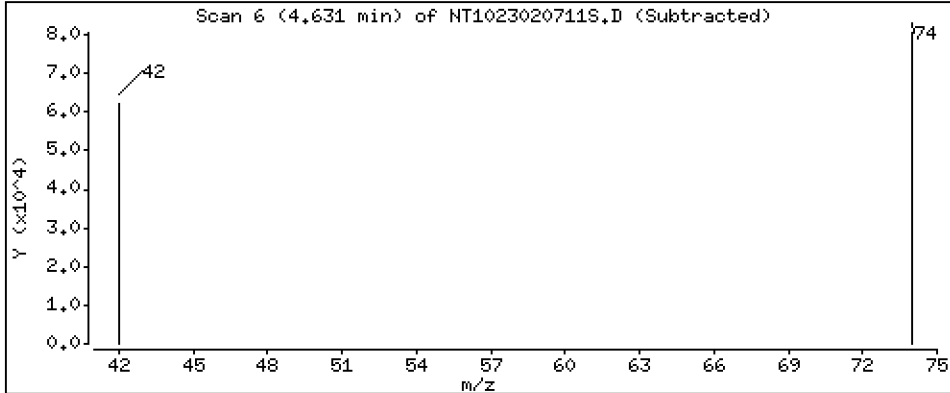
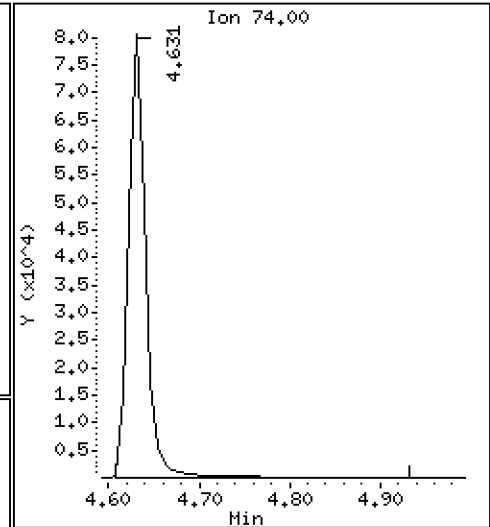
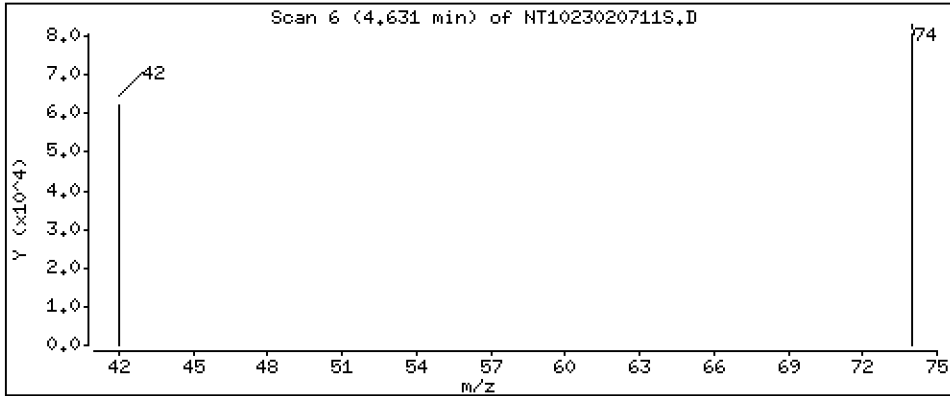
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 4.486 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020711S.D
 Lab Smp Id: SLB0106-SCV1
 Inj Date : 07-FEB-2023 18:04 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 09-Feb-2023 12:21 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: $Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
\$ 1 2-Fluorophenol	112		6.770	6.785	(0.755)	257806	6.97332	6.973 (R)
3 Phenol	94		8.362	8.369	(0.933)	232442	4.16958	4.170
7 1,3-Dichlorobenzene	146		8.903	8.903	(0.993)	208793	4.15895	4.159
* 8 1,4-Dichlorobenzene-d4	152		8.965	8.965	(1.000)	121574	4.00000	
9 1,4-Dichlorobenzene	146		8.996	8.996	(1.003)	207977	4.23719	4.237
11 Benzyl alcohol	79		9.228	9.267	(1.029)	133450	4.90710	4.907
12 1,2-Dichlorobenzene	146		9.345	9.345	(1.042)	201423	4.20453	4.205
13 2-Methylphenol	108		9.461	9.469	(1.055)	138888	3.64937	3.649
15 4-Methylphenol	108		9.733	9.741	(1.086)	154509	3.98044	3.980
16 N-Nitroso-di-n-propylamine	70		9.780	9.780	(1.091)	121809	4.39583	4.396
22 2,4-Dimethylphenol	107		10.754	10.763	(0.942)	134677	3.35264	3.353
24 Benzoic acid	105		10.941	11.204	(0.958)	112855	5.88397	5.884
26 1,2,4-Trichlorobenzene	180		11.342	11.342	(0.993)	147977	3.93002	3.930
* 27 Naphthalene-d8	136		11.419	11.419	(1.000)	457304	4.00000	
30 Hexachlorobutadiene	225		11.829	11.829	(1.036)	85644	4.16602	4.166
39 Dimethylphthalate	163		14.514	14.514	(0.967)	225259	4.17269	4.173
* 42 Acenaphthene-d10	162		15.010	15.002	(1.000)	231625	4.00000	
50 Diethylphthalate	149		15.960	15.961	(1.063)	348168	4.28244	4.282
54 N-Nitrosodiphenylamine	169		16.339	16.346	(0.907)	286918	4.20471	4.205
57 Hexachlorobenzene	284		17.404	17.404	(0.966)	116927	4.02634	4.026

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	17.760	17.799	(0.986)	41808	3.99436	3.994
* 59 Phenanthrene-d10	188	18.015	18.015	(1.000)	412906	4.00000	
\$ 66 Terphenyl-d14	244	21.164	21.164	(0.917)	336208	4.23932	4.239(R)
67 Butylbenzylphthalate	149	22.093	22.094	(0.958)	236283	4.40766	4.408
* 69 Chrysene-d12	240	23.069	23.061	(1.000)	357298	4.00000	
* 77 Perylene-d12	264	25.616	25.616	(1.000)	361150	4.00000	
79 Dibenzo(a,h)anthracene	278	28.173	28.188	(1.100)	426459	4.21339	4.213
90 N-Nitrosodimethylamine	74	4.631	4.646	(0.517)	108685	4.48609	4.486

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020711S.D
 Lab Smp Id: SLB0106-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 07-FEB-2023
 Calibration Time: 14:52
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	128794	64397	257588	121574	-5.61
27 Naphthalene-d8	469043	234522	938086	457304	-2.50
42 Acenaphthene-d10	233225	116613	466450	231625	-0.69
59 Phenanthrene-d10	433858	216929	867716	412906	-4.83
69 Chrysene-d12	361809	180905	723618	357298	-1.25
77 Perylene-d12	380407	190204	760814	361150	-5.06

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.97	0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.01	0.05
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	0.00
69 Chrysene-d12	23.06	22.56	23.56	23.07	0.03
77 Perylene-d12	25.62	25.12	26.12	25.62	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020711S.D

Lab ID: SLB0106-SCV1

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

07-FEB-2023 18:04

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.958	0.000	0.9581	Benzoic acid

RRT check based on Ccal File: 20230207.b/NT1023020710S.D

On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *



**SECOND-SOURCE
CALIBRATION VERIFICATION
EPA 8270E-SIM**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GA00050

Laboratory ID: SLA0213-SCV1

Sequence: SLA0213

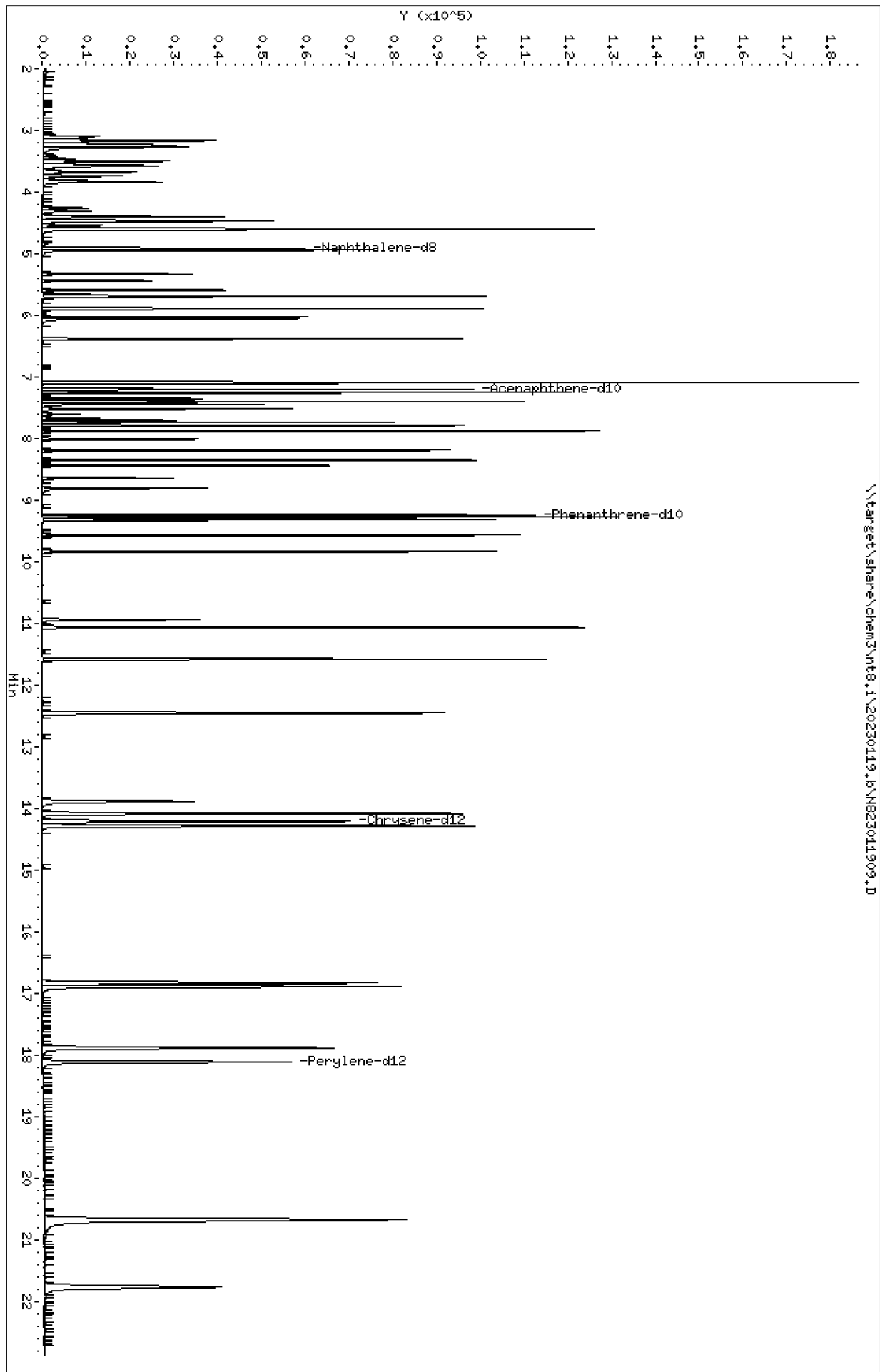
Standard ID: L000686

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Naphthalene	2.5000	2.63	5.0	
2-Methylnaphthalene	2.5000	2.67	6.8	
1-Methylnaphthalene	2.5000	2.65	6.0	
Acenaphthylene	2.5000	2.82	12.8	
Acenaphthene	2.5000	2.60	4.0	
Dibenzofuran	2.5000	2.86	14.4	
Fluorene	2.5000	2.63	5.2	
Phenanthrene	2.5000	2.45	-2.1	
Anthracene	2.5000	2.27	-9.2	
Fluoranthene	2.5000	2.65	6.1	
Pyrene	2.5000	2.46	-1.5	
Benzo(a)anthracene	2.5000	2.59	3.5	
Chrysene	2.5000	2.40	-4.0	
Benzo(b)fluoranthene	2.5000	2.51	0.3	
Benzo(k)fluoranthene	2.5000	2.66	6.2	
Benzo(a)fluoranthenes, Total	5.0000	5.48	9.6	
Benzo(a)pyrene	2.5000	2.57	2.9	
Indeno(1,2,3-cd)pyrene	2.5000	2.69	7.6	
Dibenzo(a,h)anthracene	2.5000	2.49	-0.3	
Benzo(g,h,i)perylene	2.5000	2.48	-0.7	

* Values outside of QC limits

Data File: \\target\share\chem3\nt8.1\20230119.6\N823011909.D
Date: 19-JAN-2023 14:58
Client ID:
Sample Info: SCV230119
Volume Injected (uL): 1.0
Column phase: Rxi-17sil

Instrument: nt8.1
Operator: JZ
Column diameter: 0.25



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

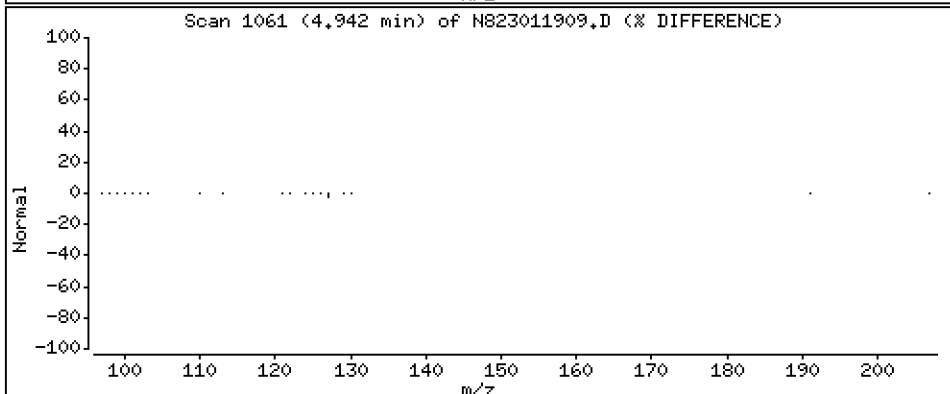
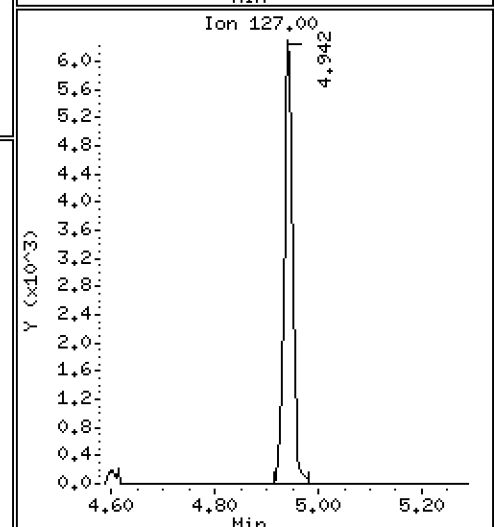
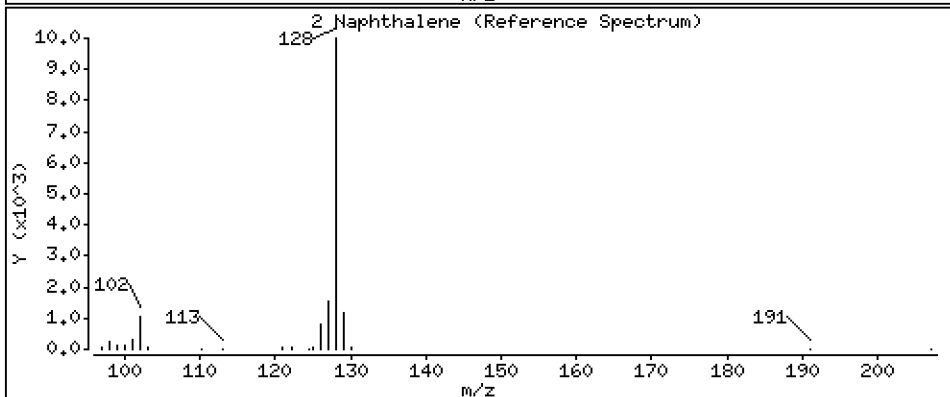
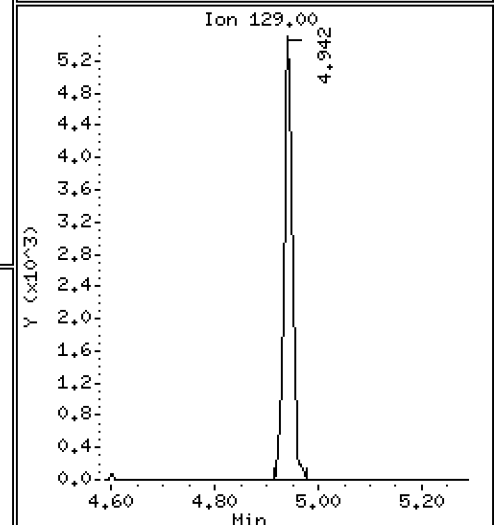
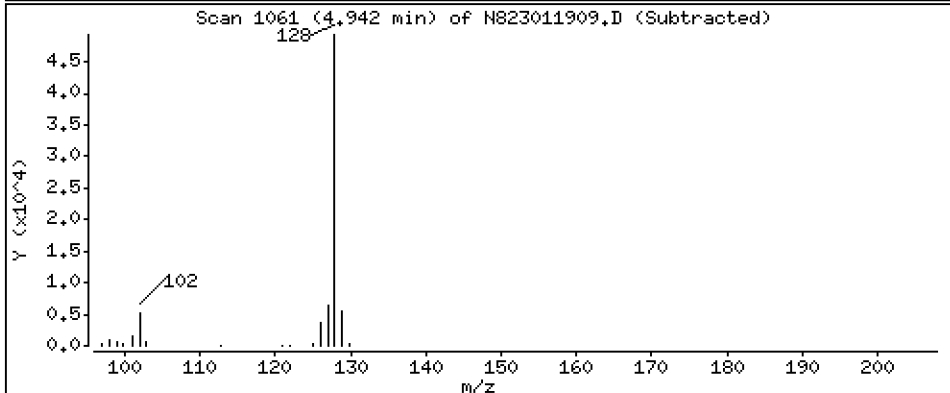
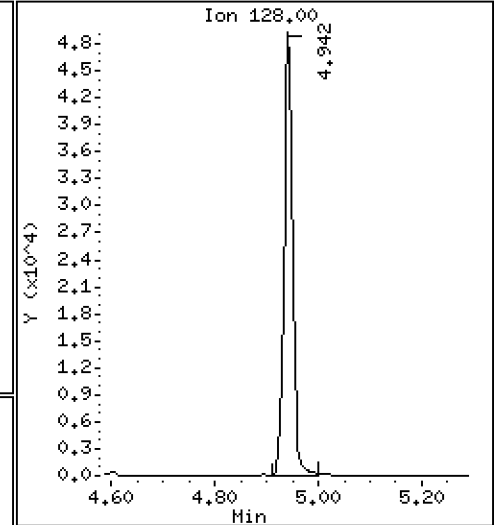
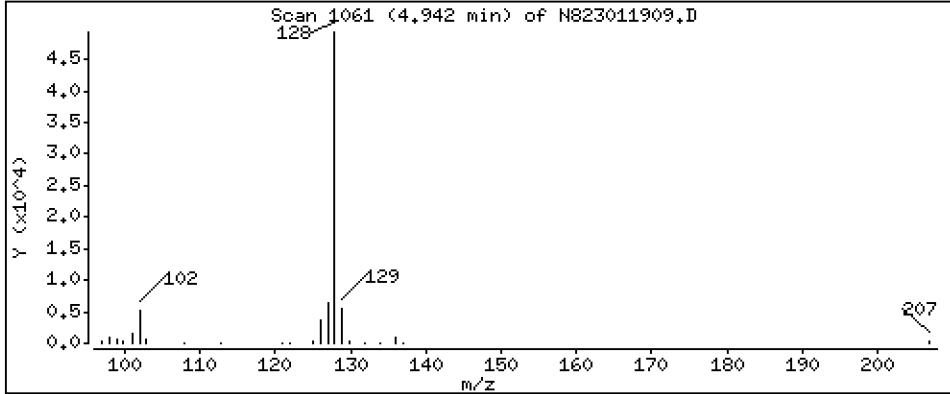
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

2 Naphthalene

Concentration: 2,626 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

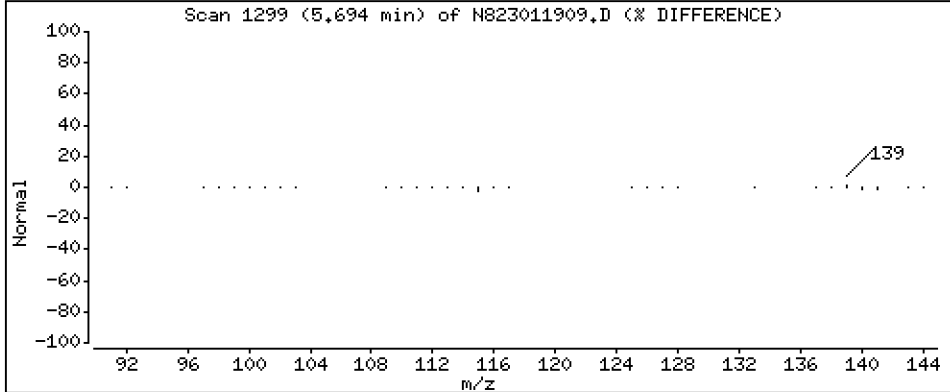
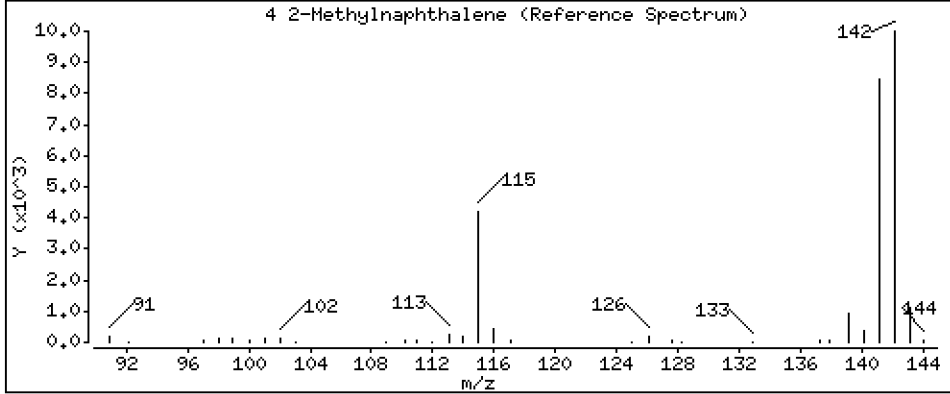
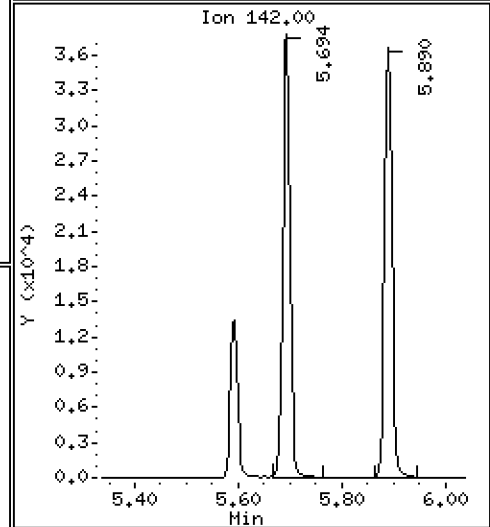
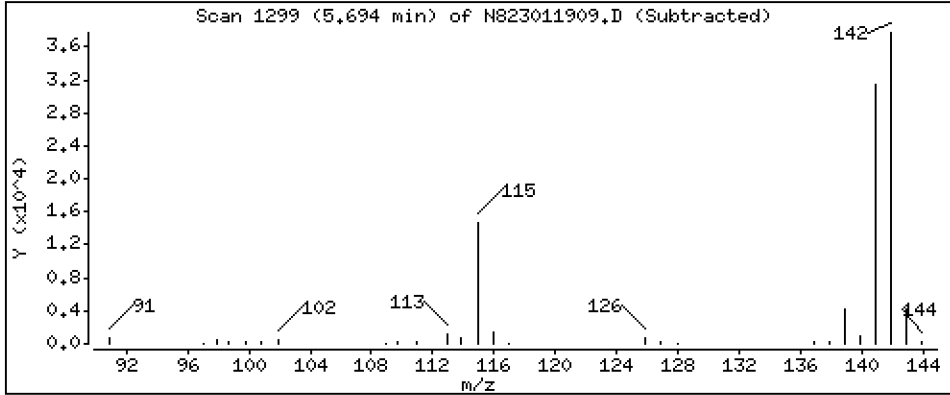
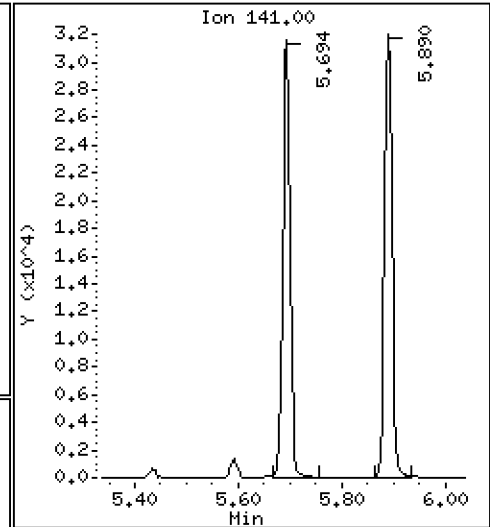
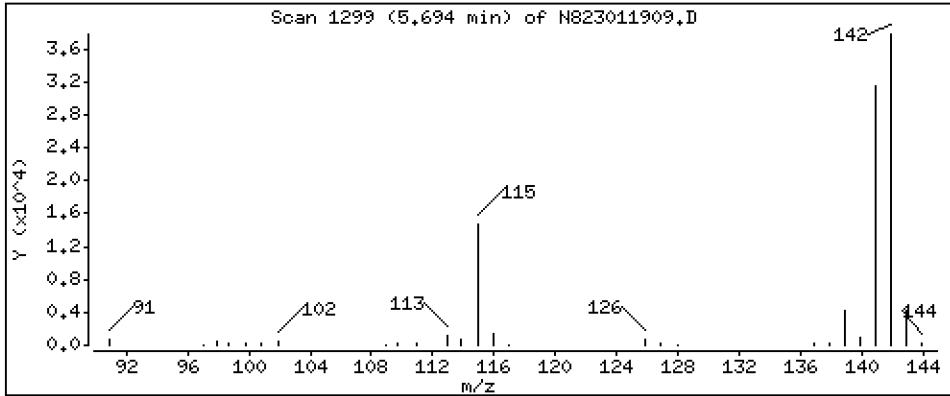
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

4 2-Methylnaphthalene

Concentration: 2,670 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

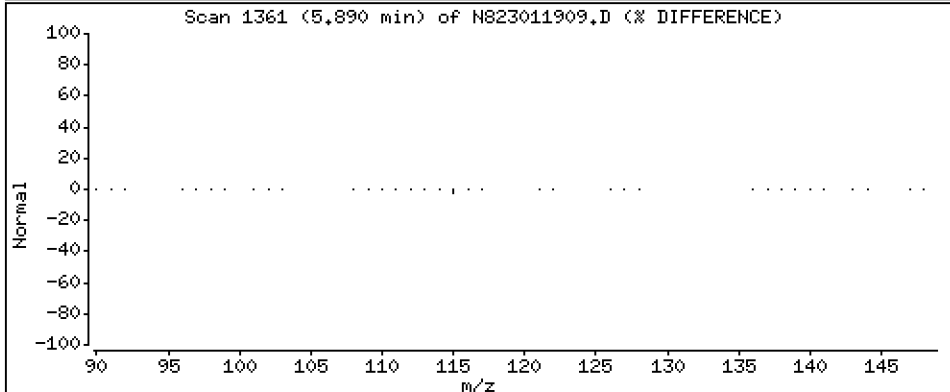
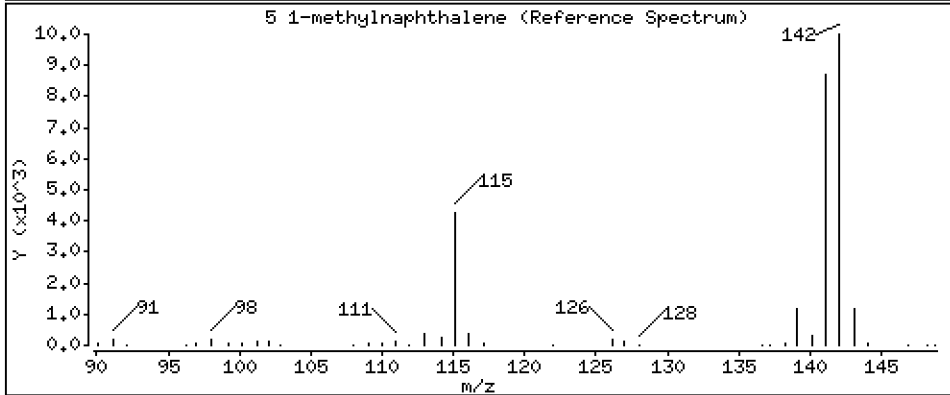
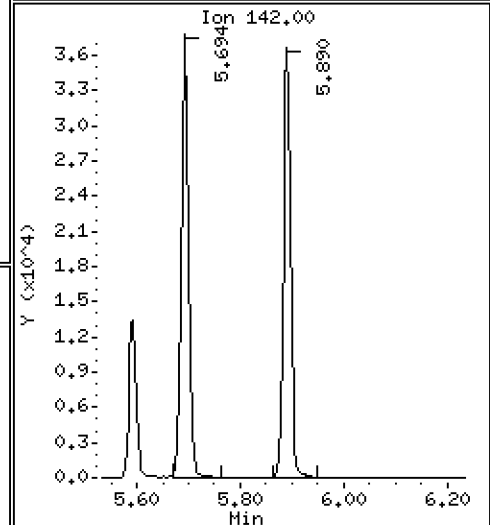
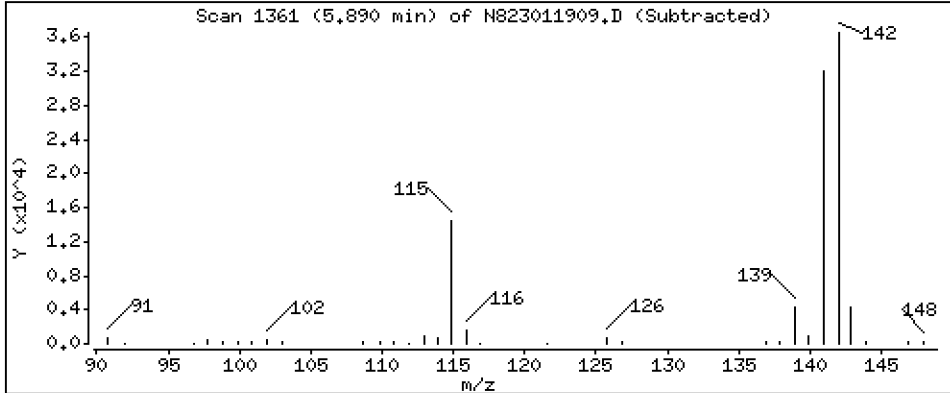
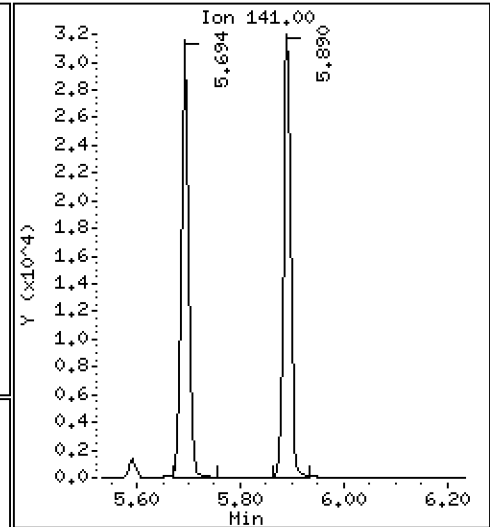
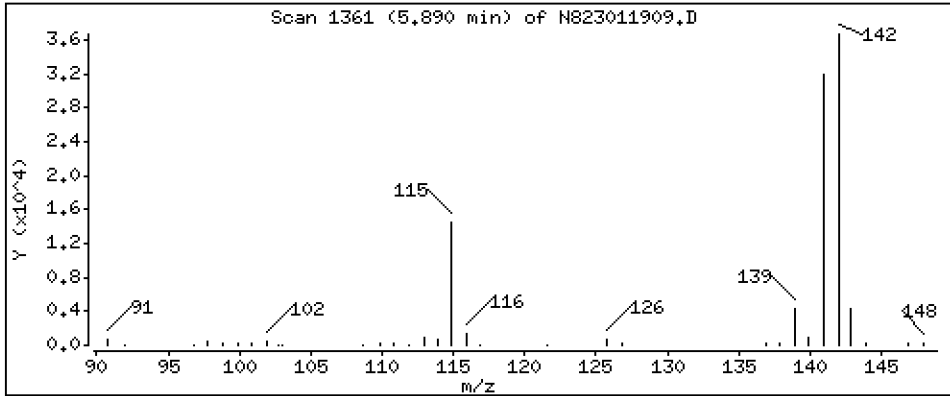
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

5 1-methylnaphthalene

Concentration: 2,649 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

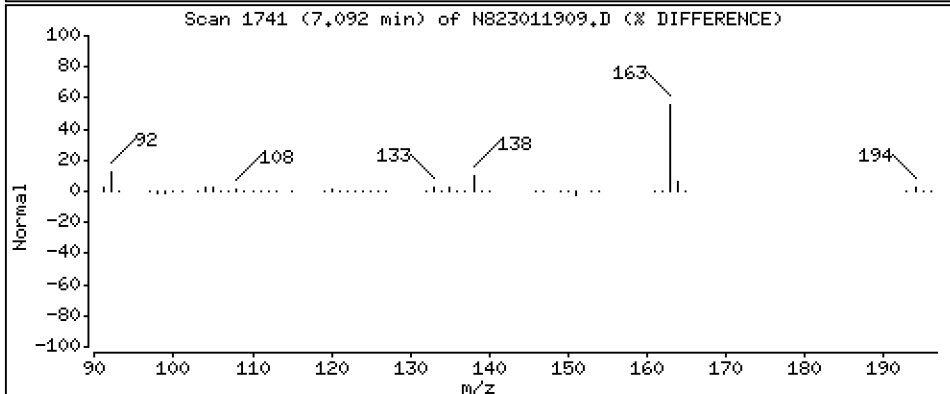
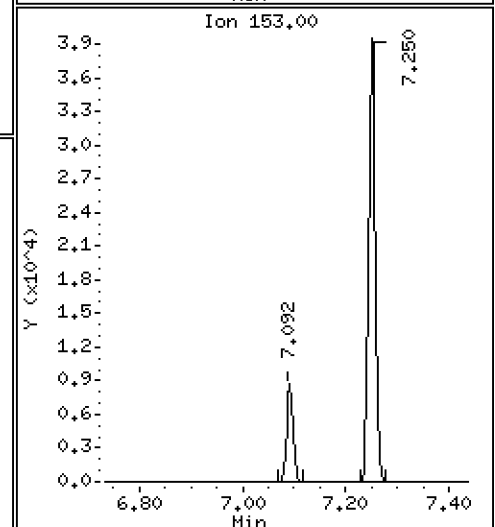
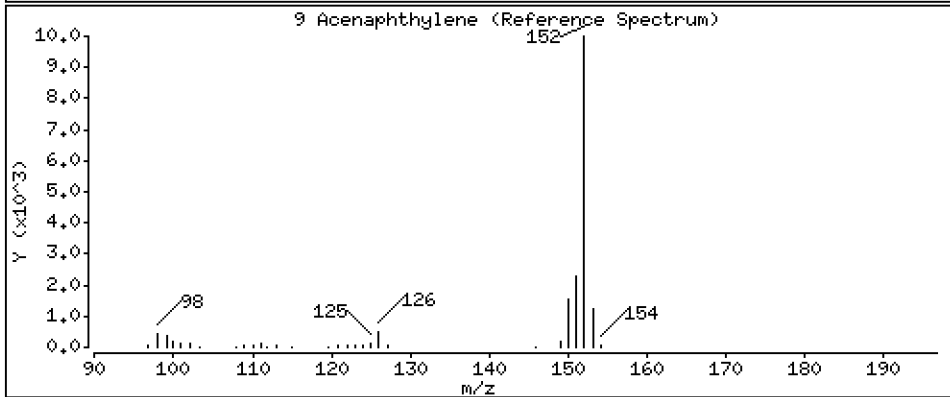
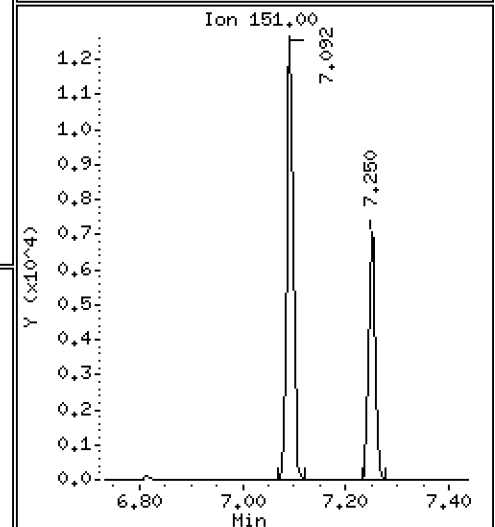
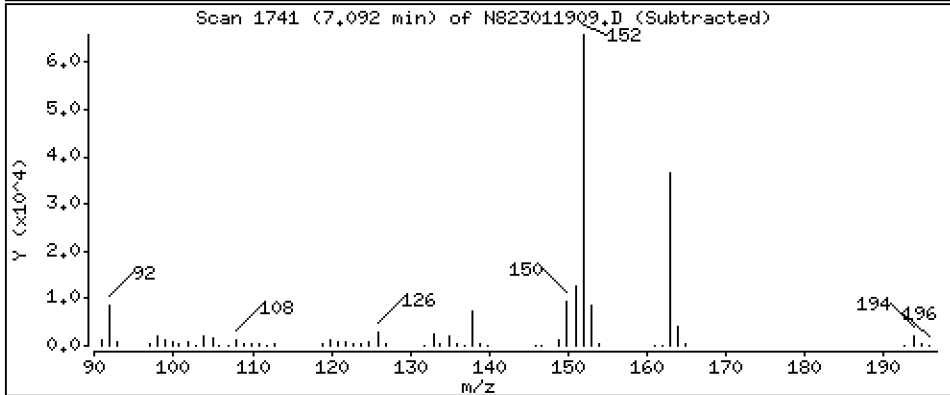
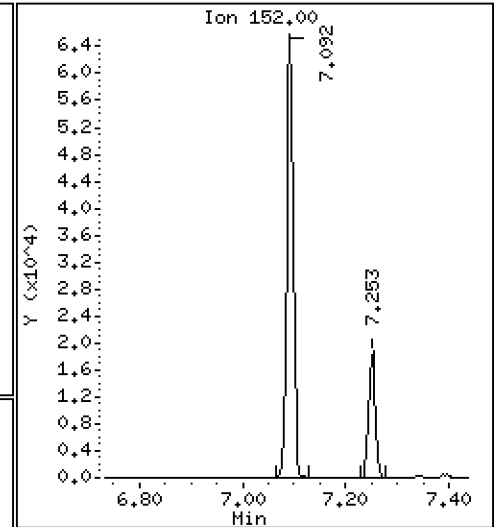
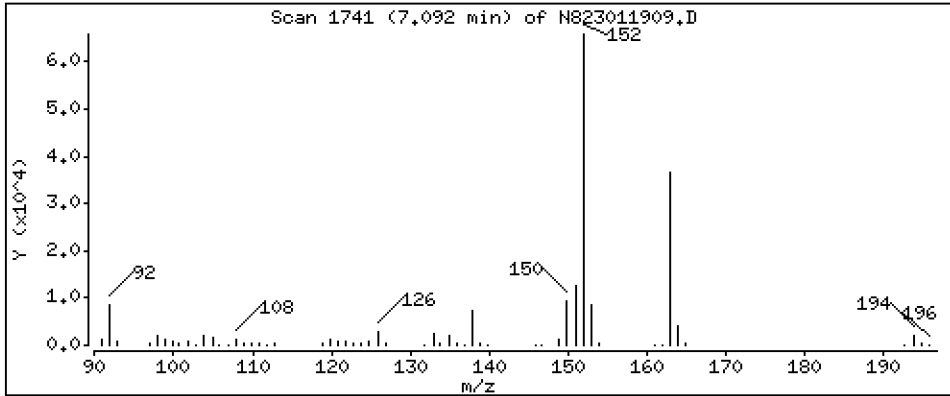
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

9 Acenaphthylene

Concentration: 2,821 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

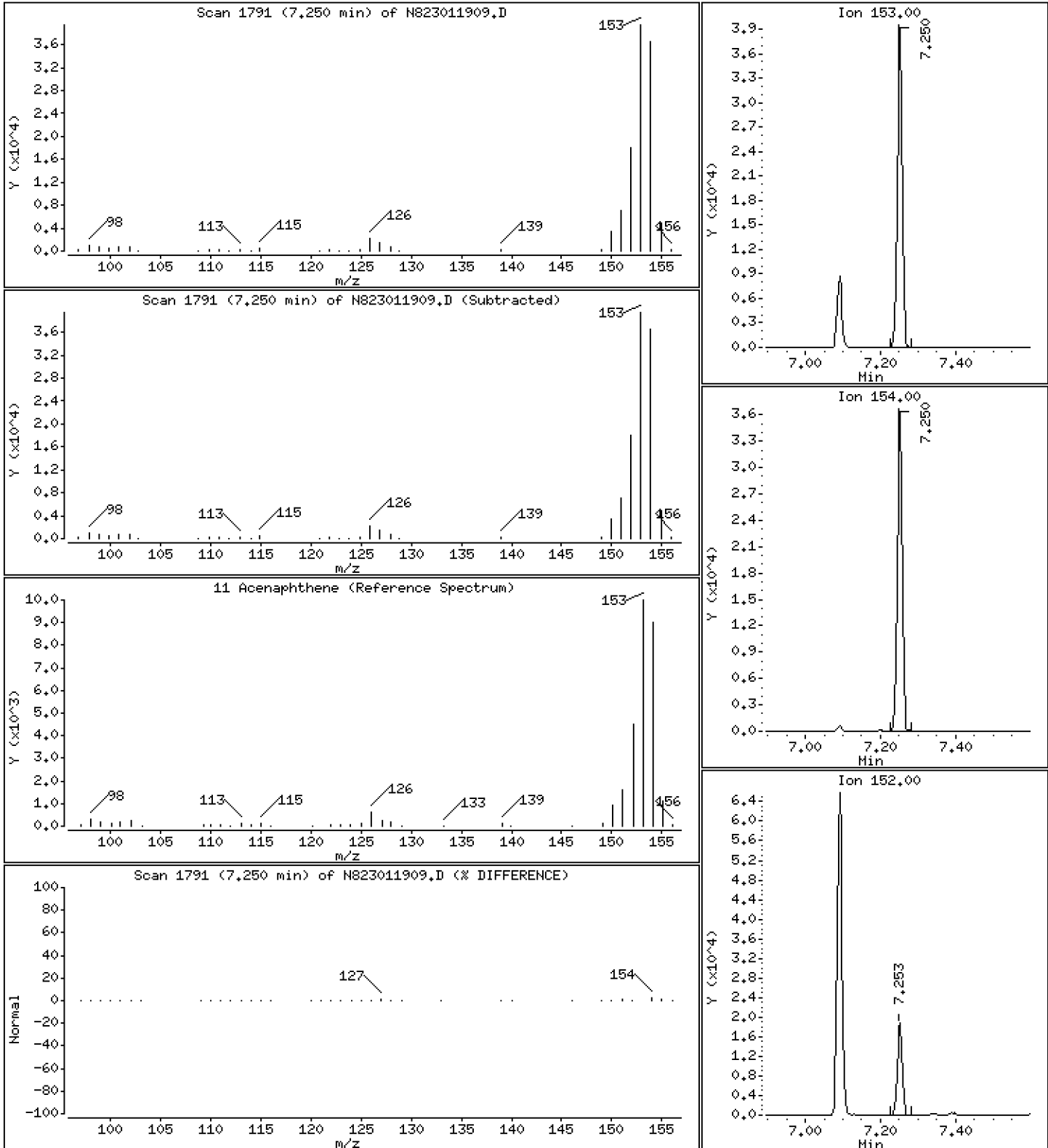
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

11 Acenaphthene

Concentration: 2,600 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

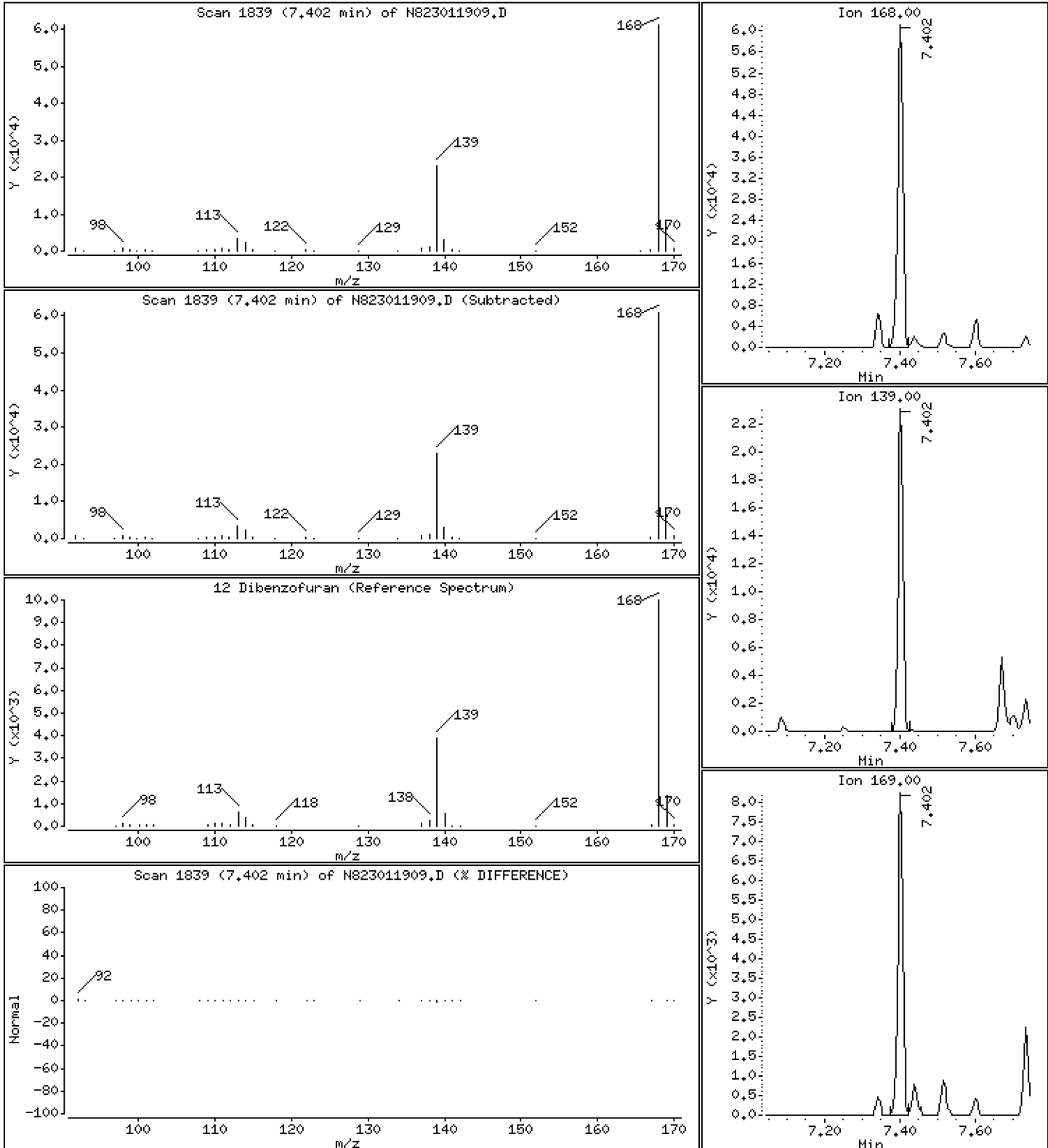
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

12 Dibenzofuran

Concentration: 2,860 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

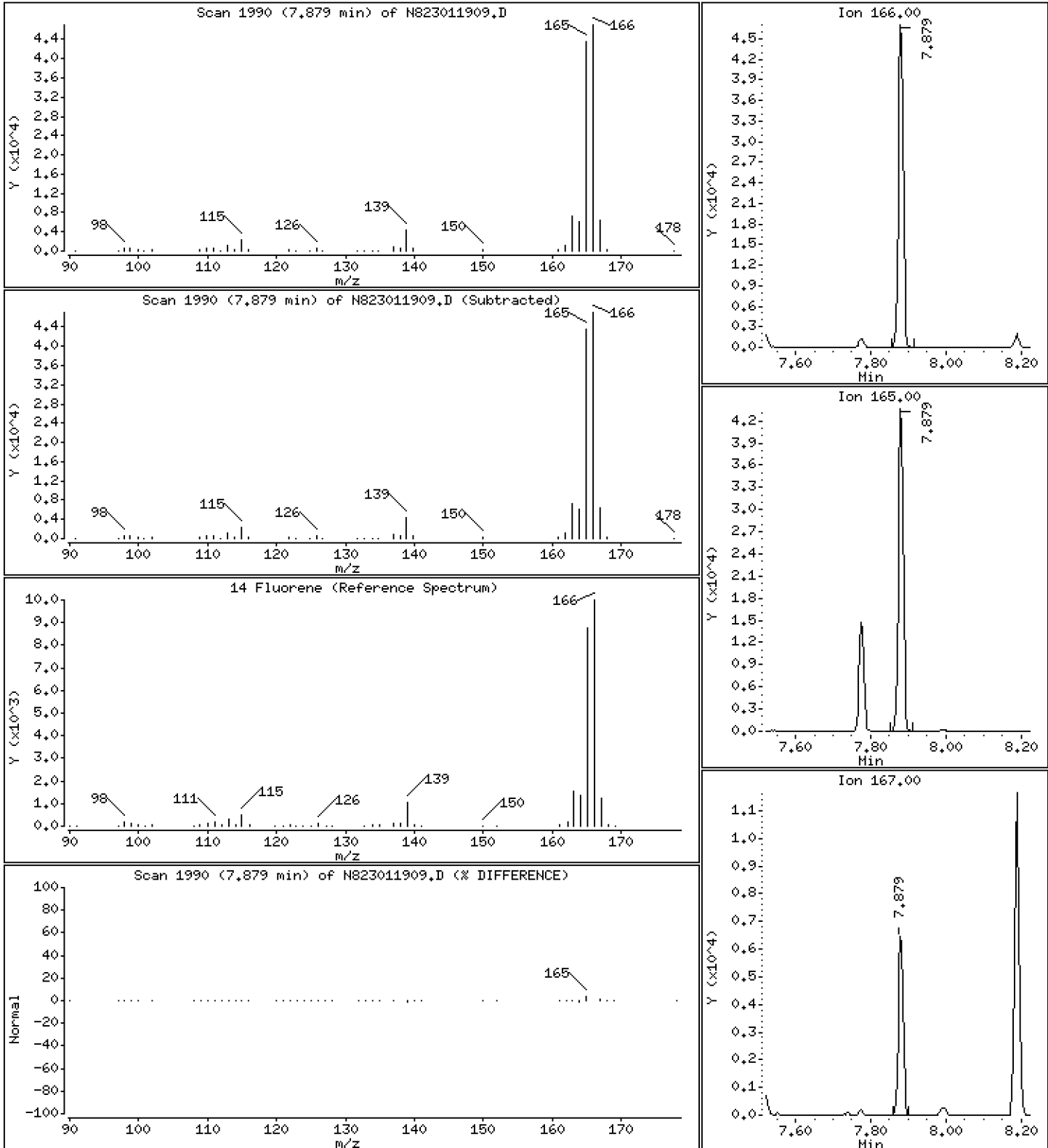
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

14 Fluorene

Concentration: 2,631 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

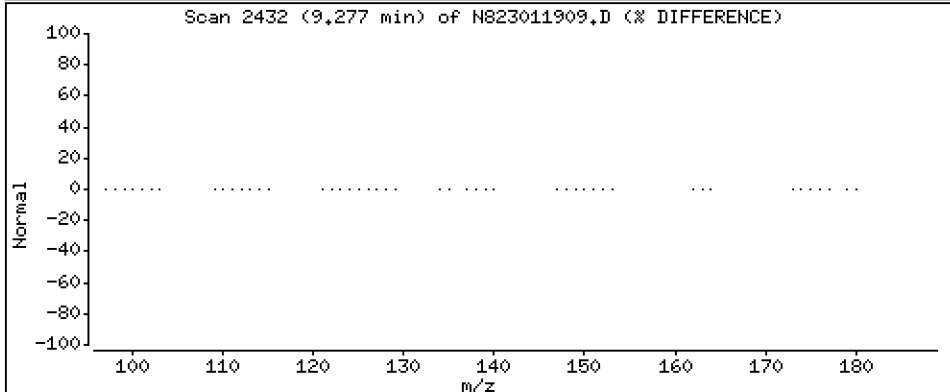
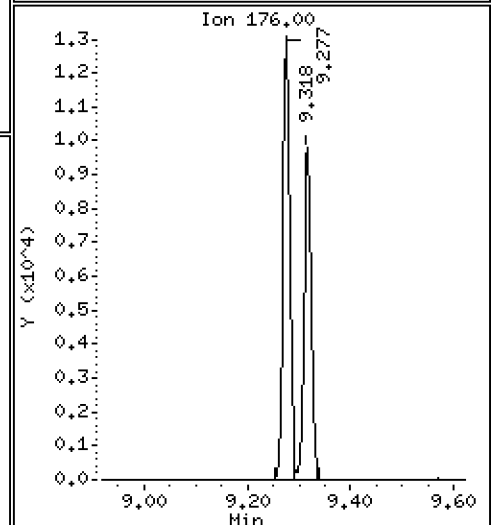
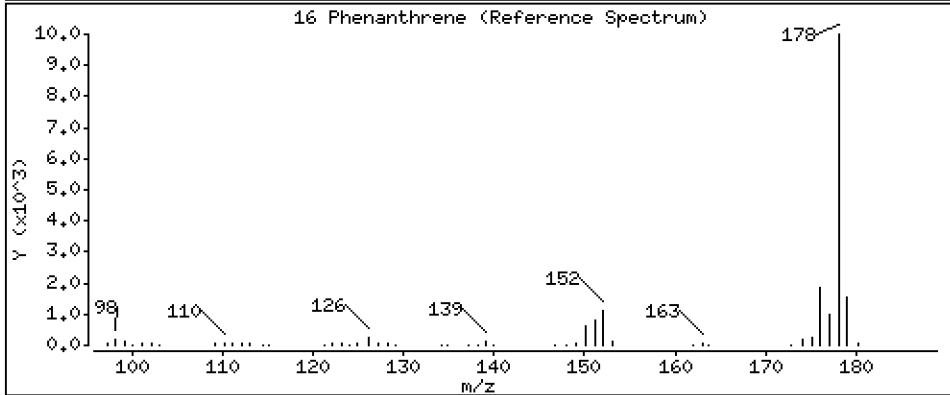
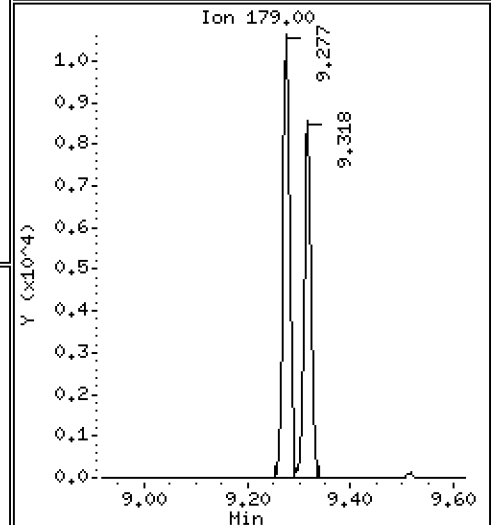
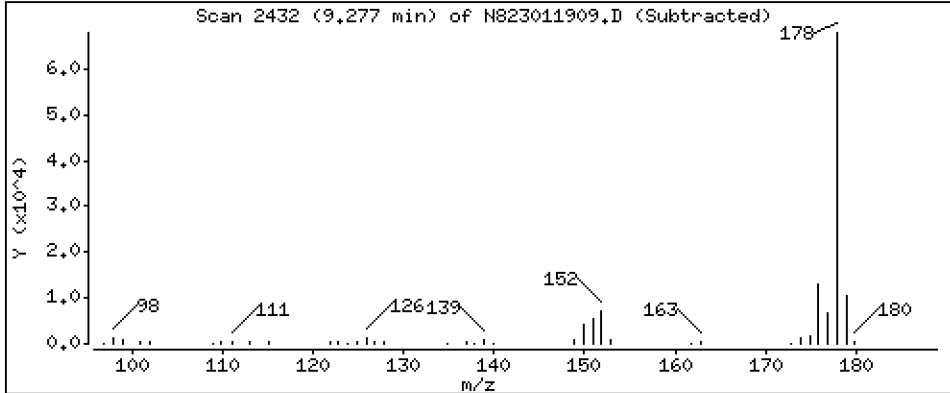
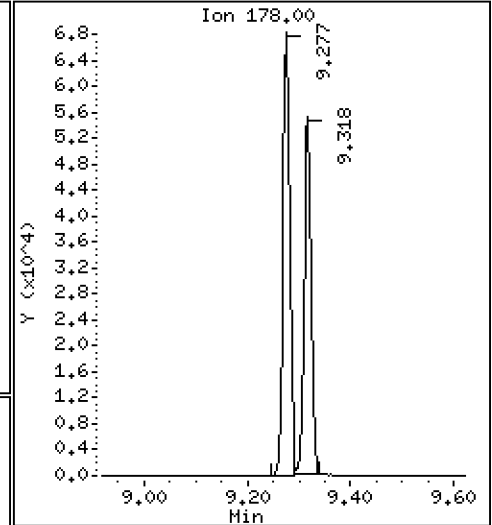
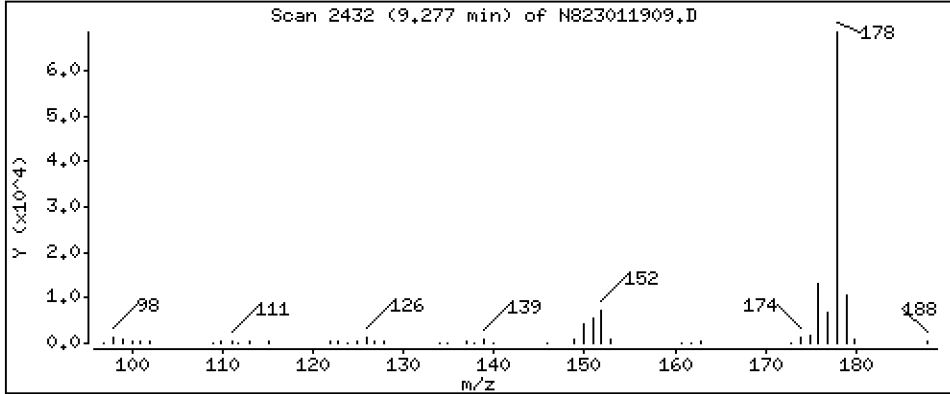
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

16 Phenanthrene

Concentration: 2,448 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

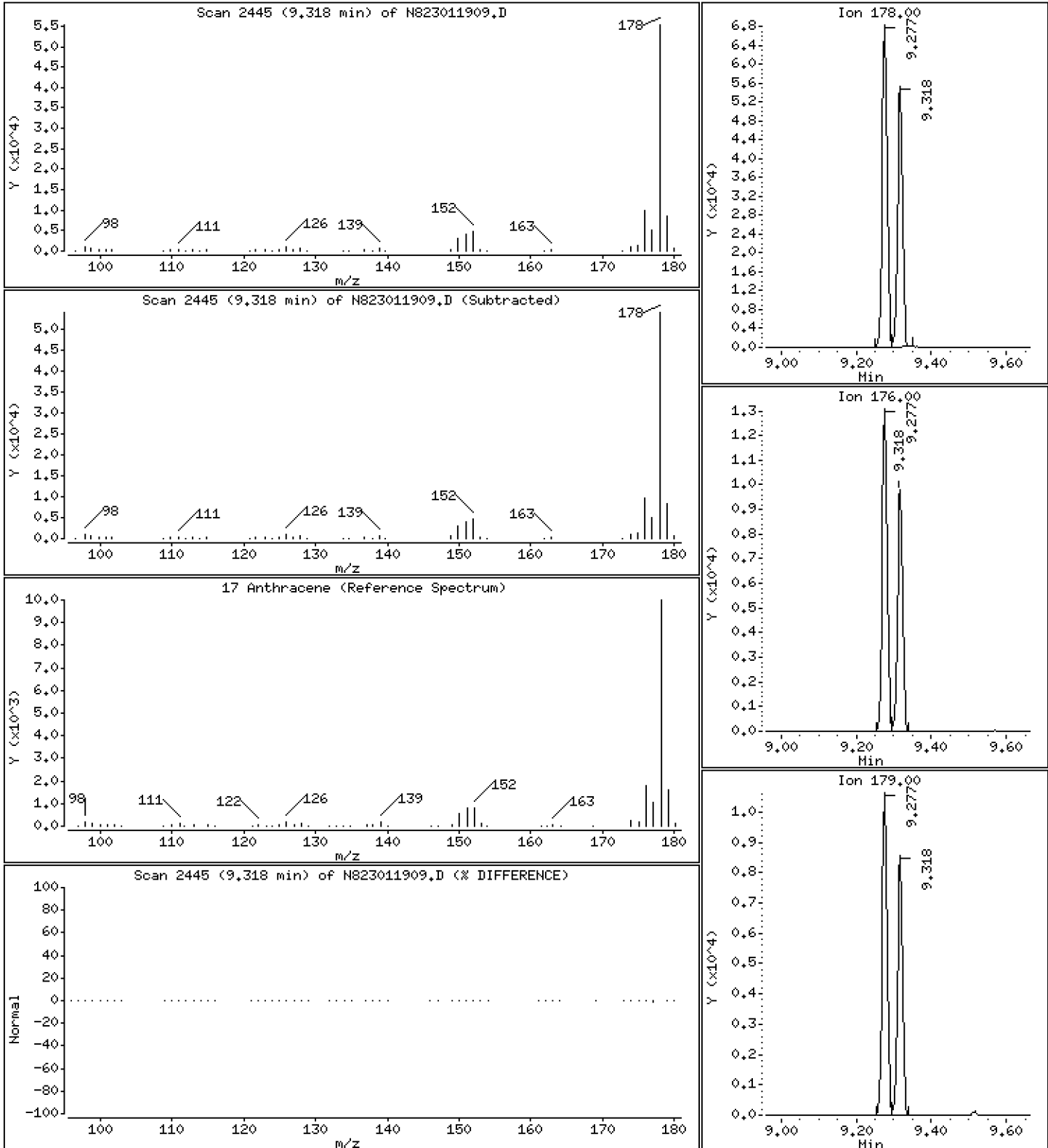
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

17 Anthracene

Concentration: 2,270 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

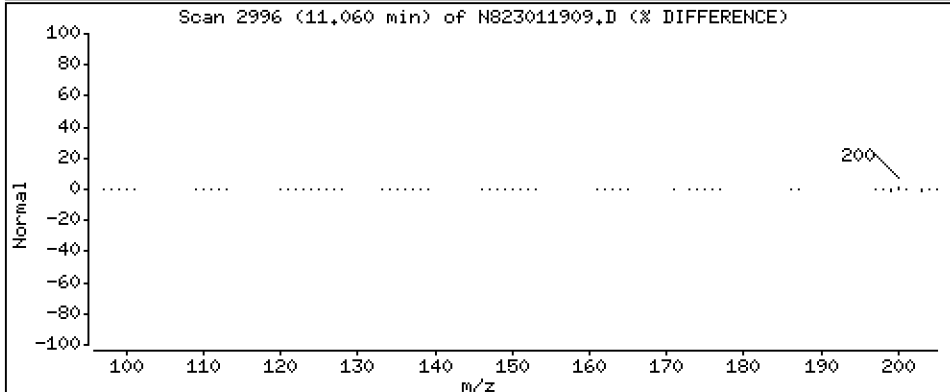
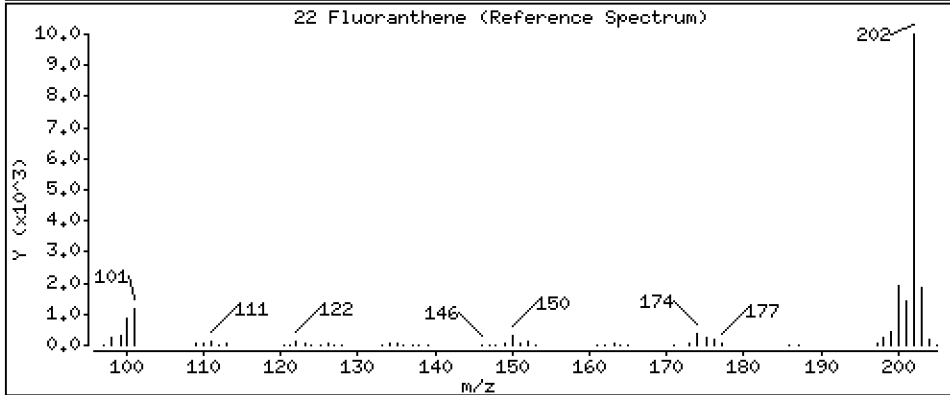
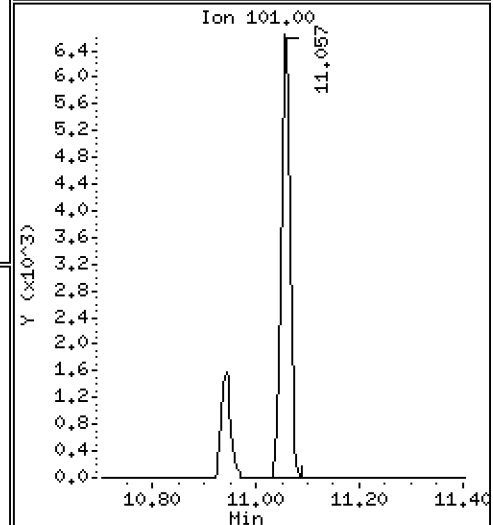
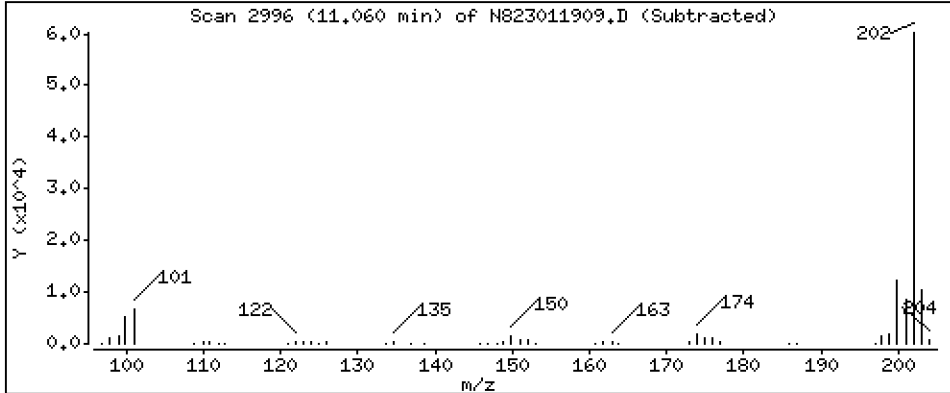
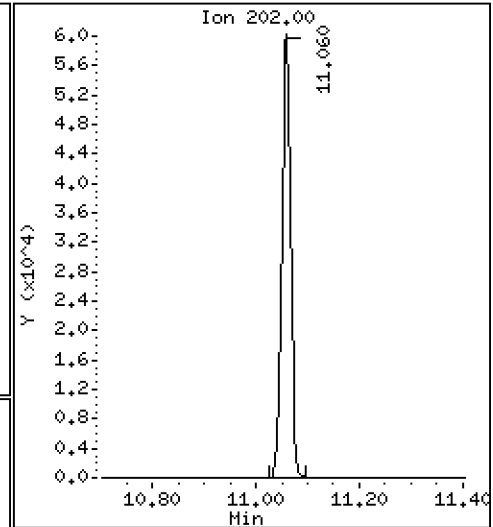
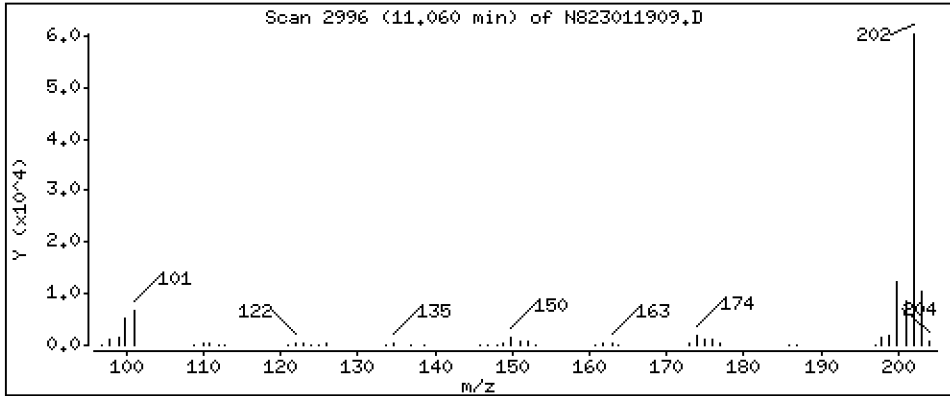
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 2,653 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

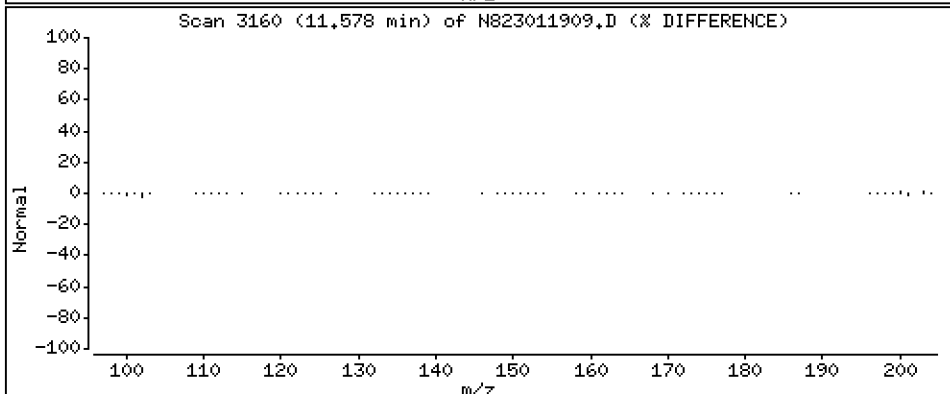
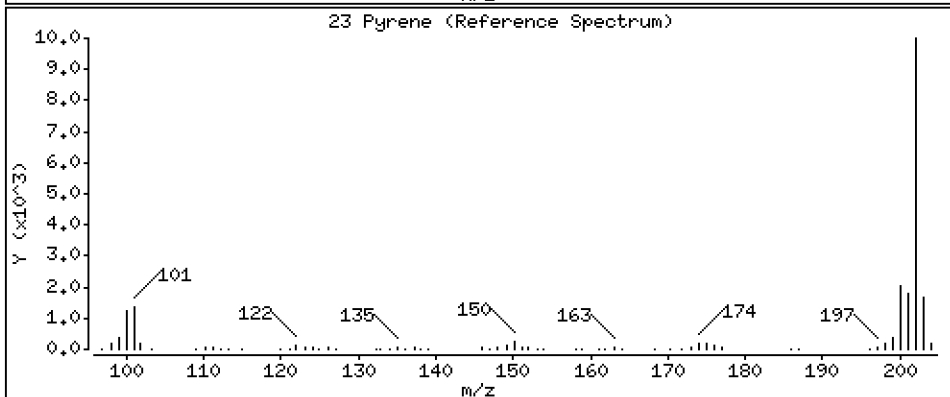
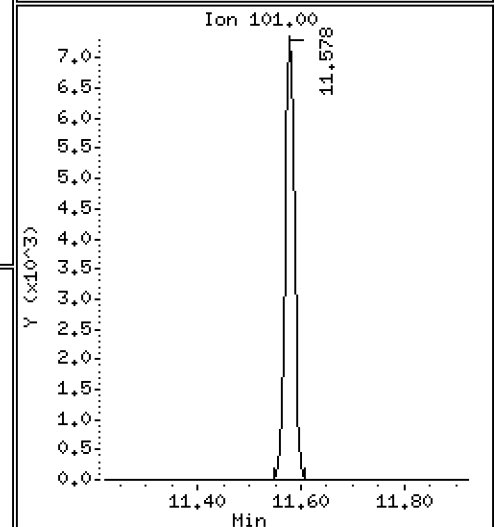
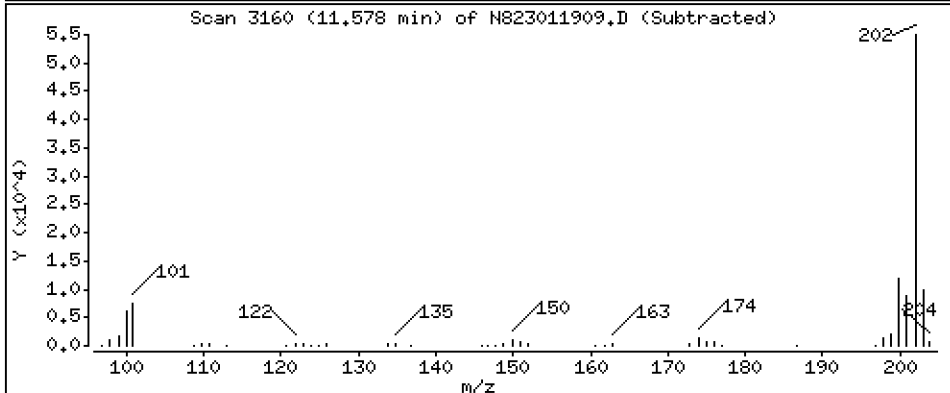
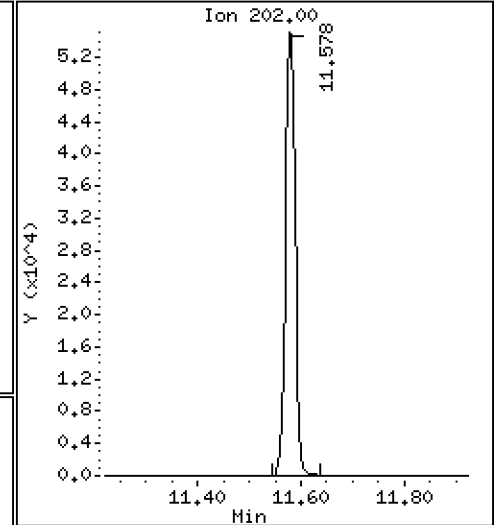
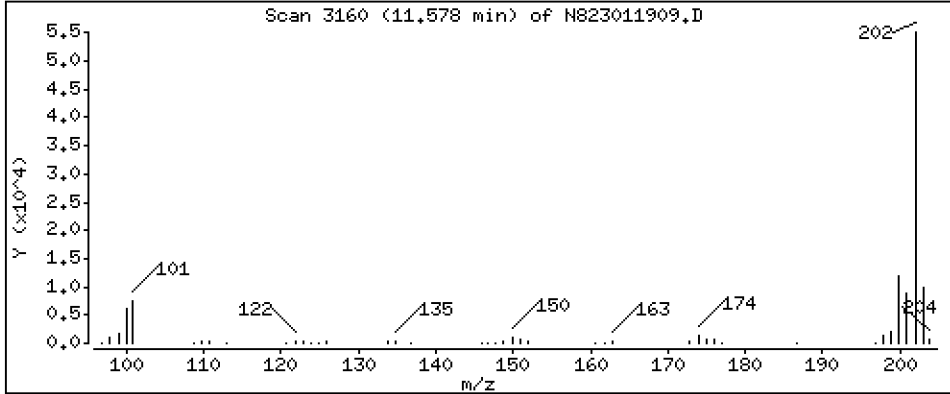
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

23 Pyrene

Concentration: 2,462 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

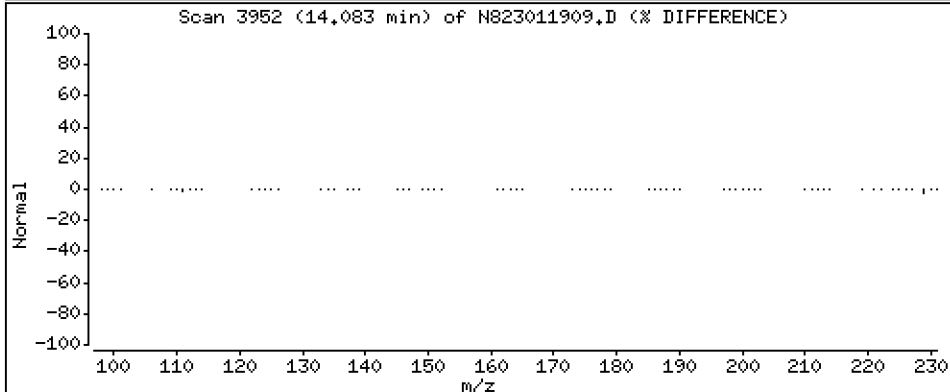
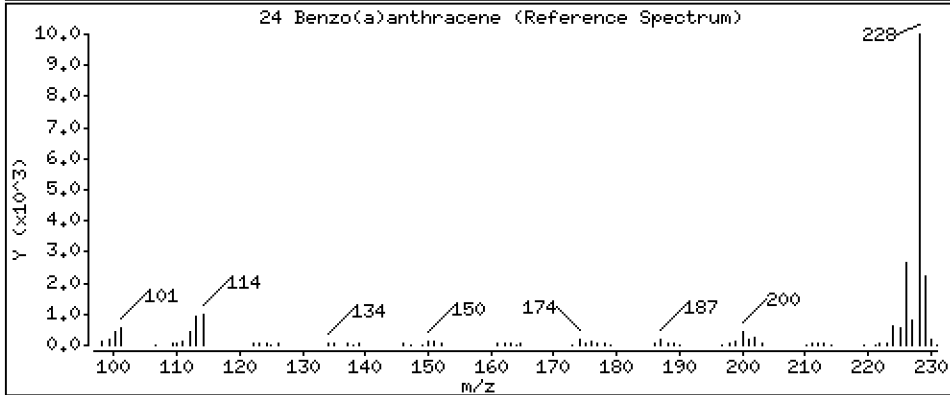
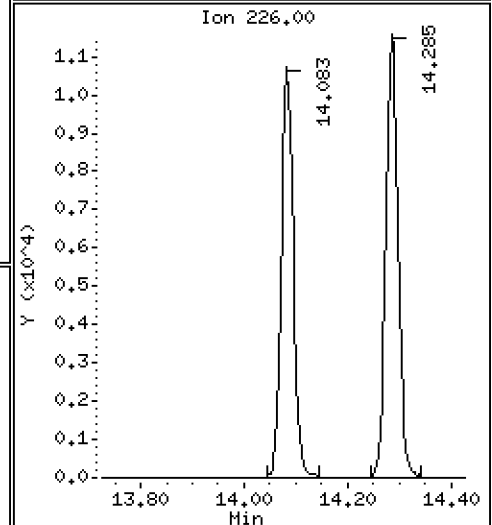
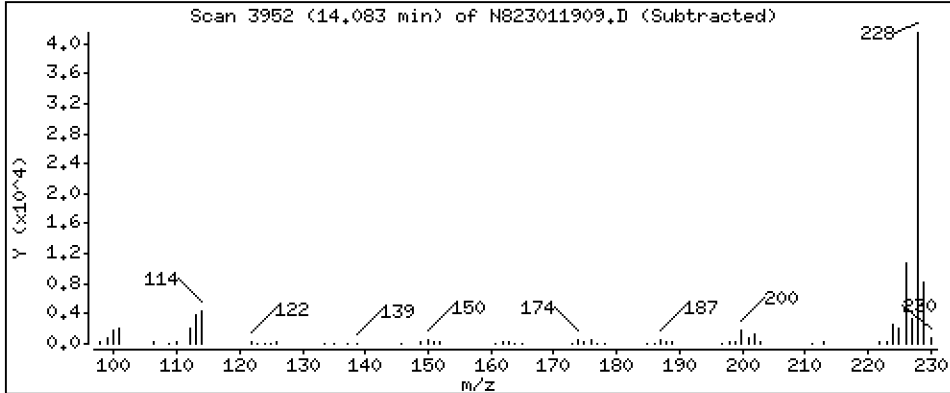
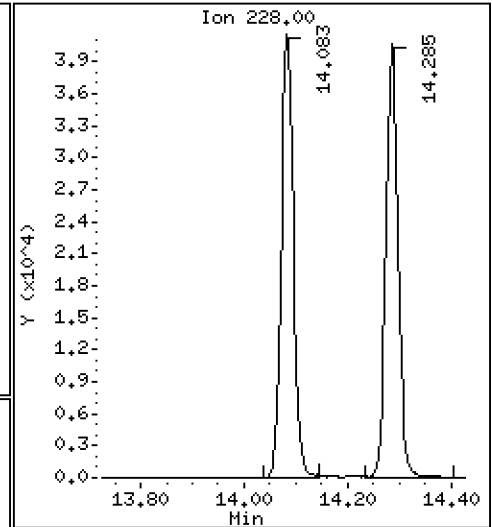
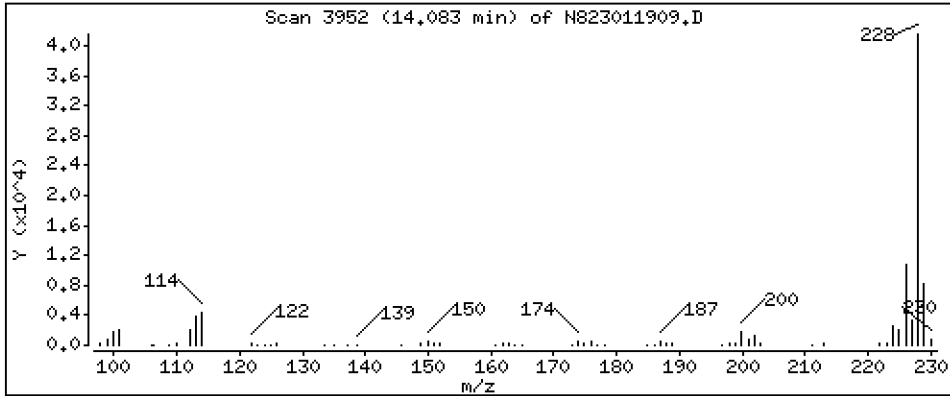
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

24 Benzo(a)anthracene

Concentration: 2,587 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

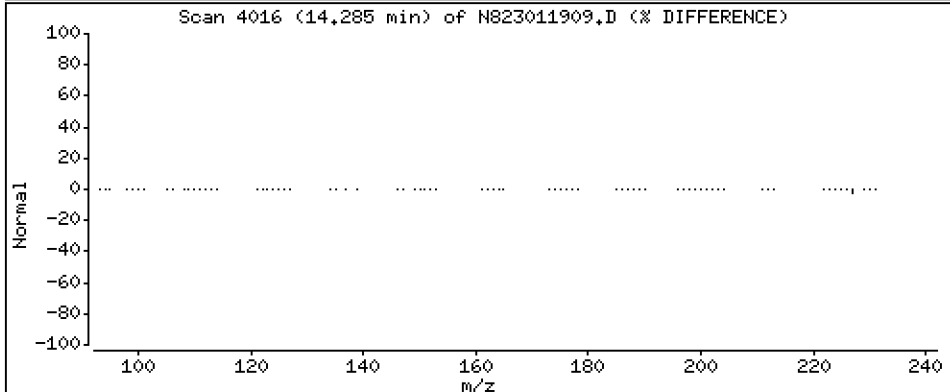
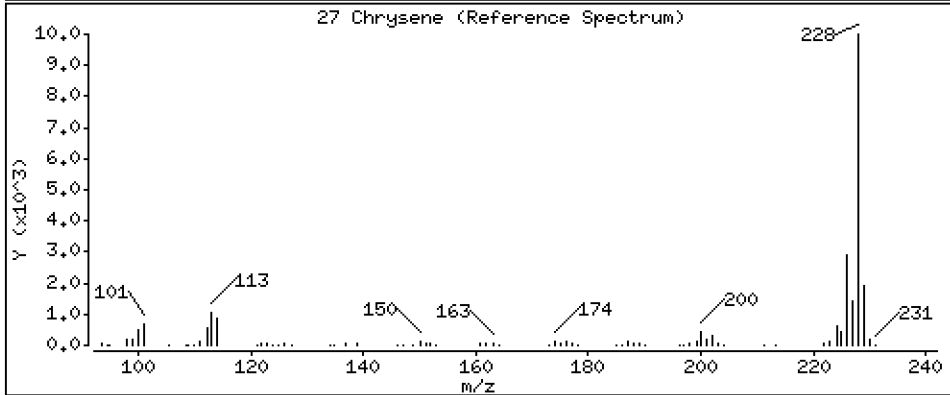
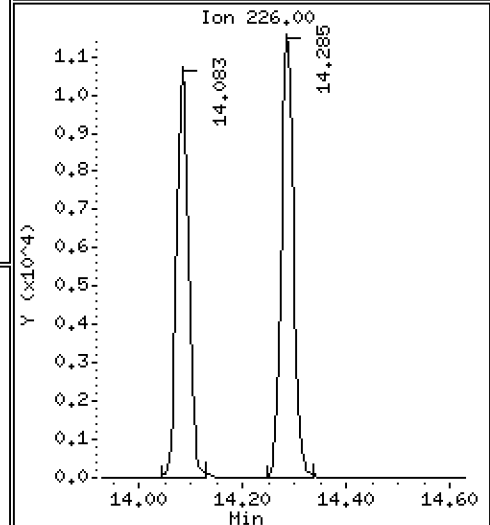
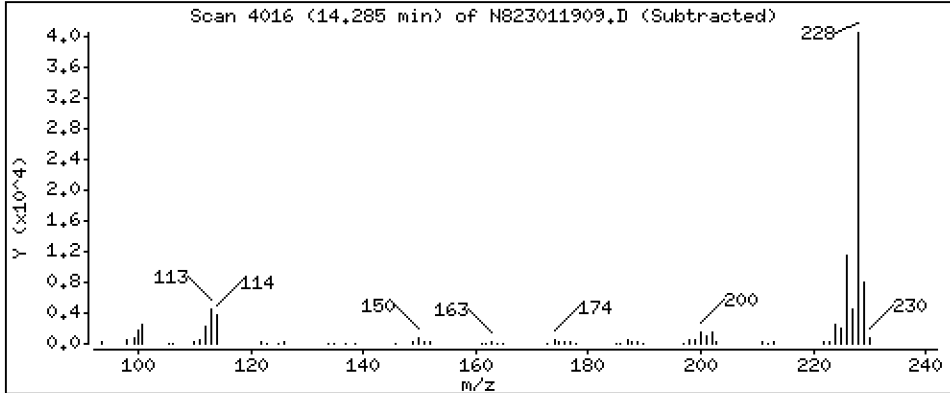
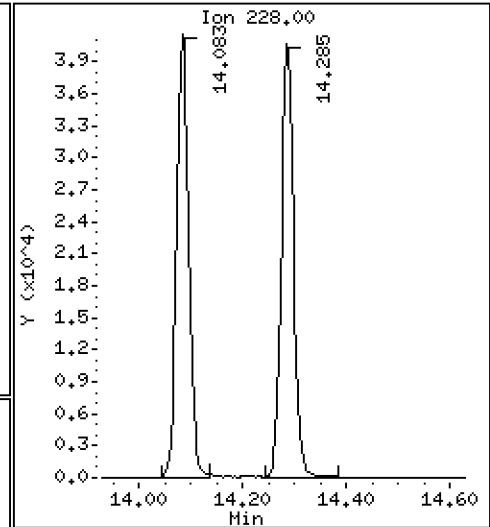
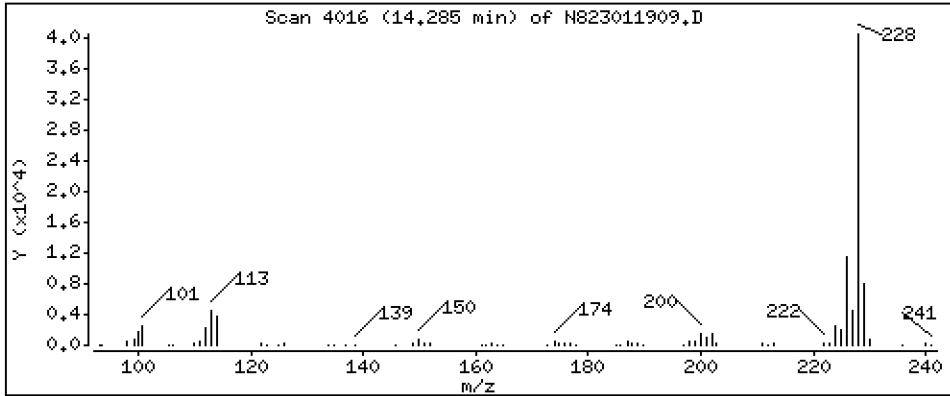
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

27 Chrysene

Concentration: 2,400 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

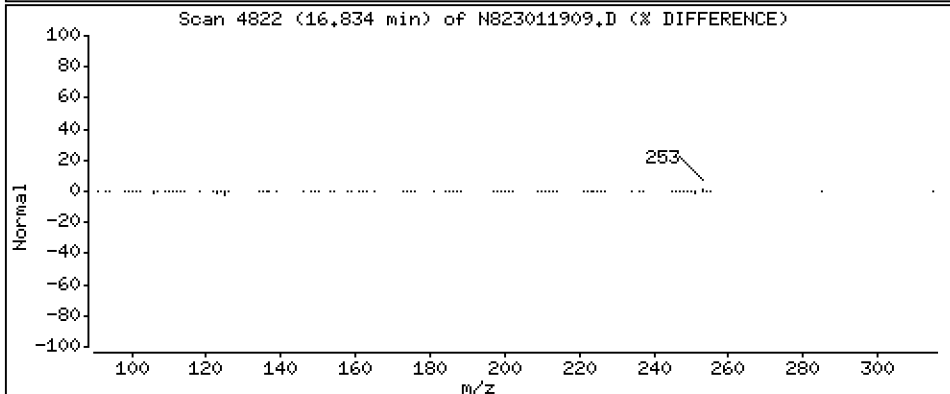
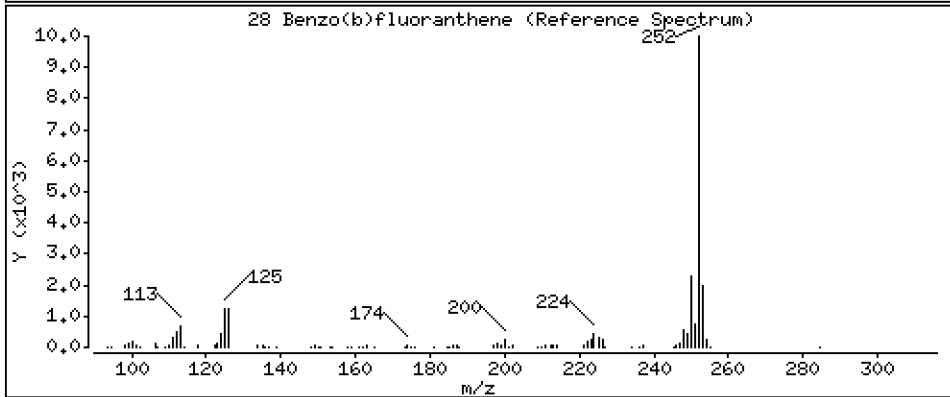
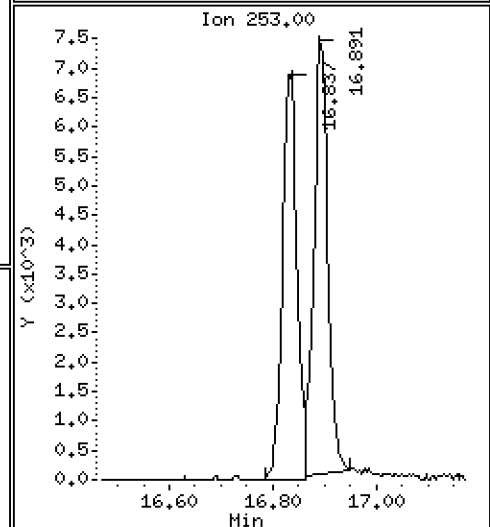
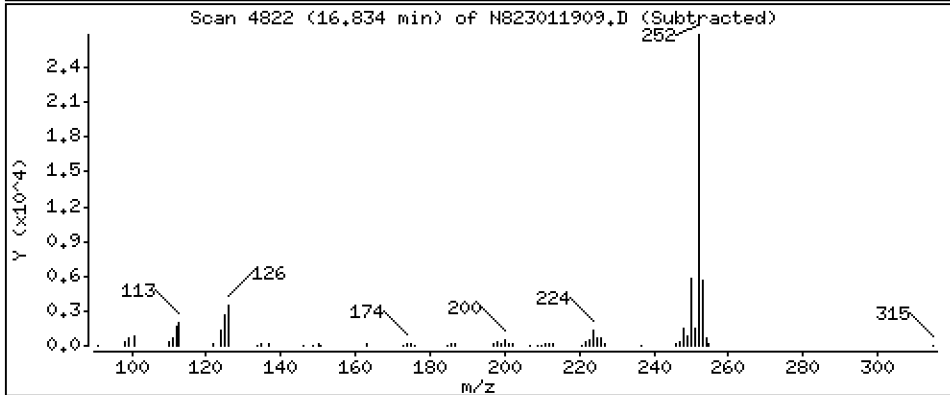
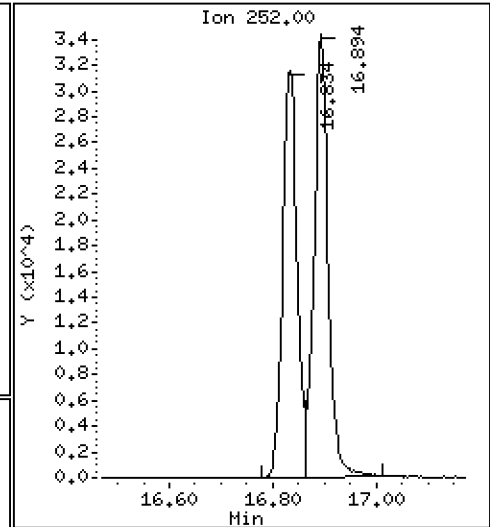
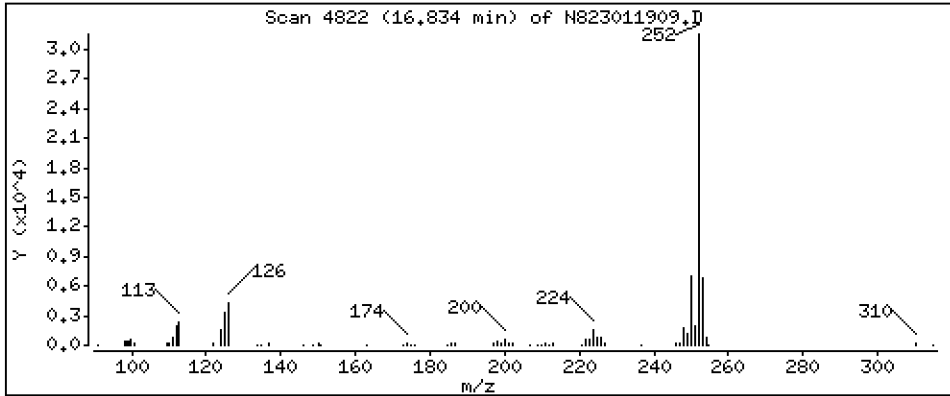
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

28 Benzo(b)fluoranthene

Concentration: 2,507 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

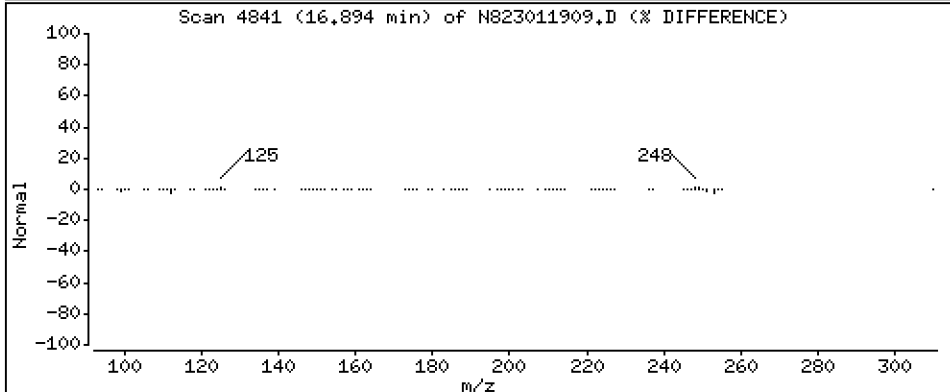
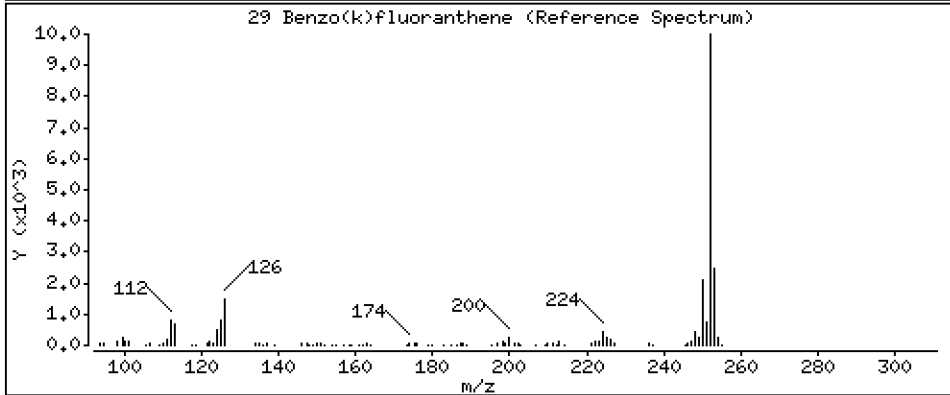
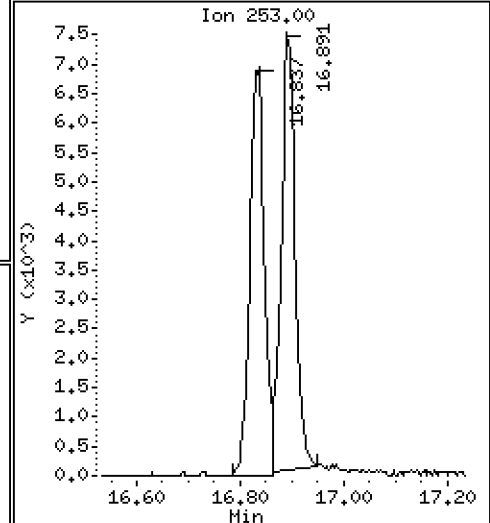
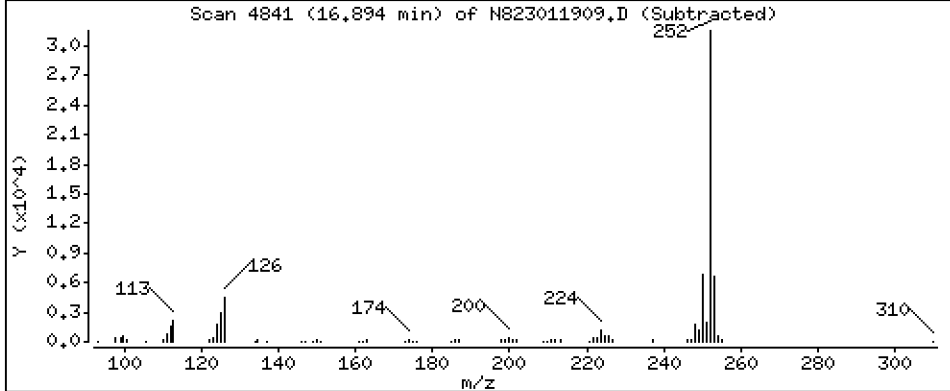
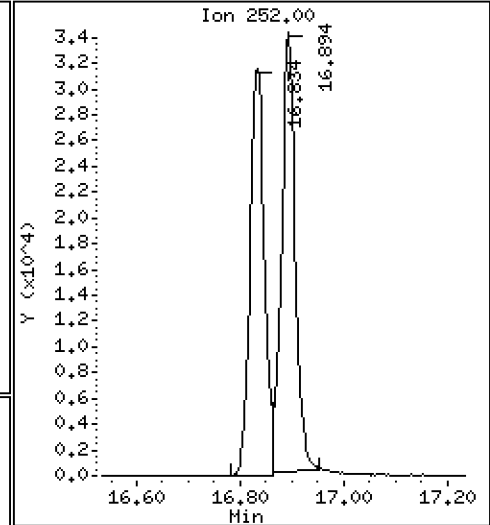
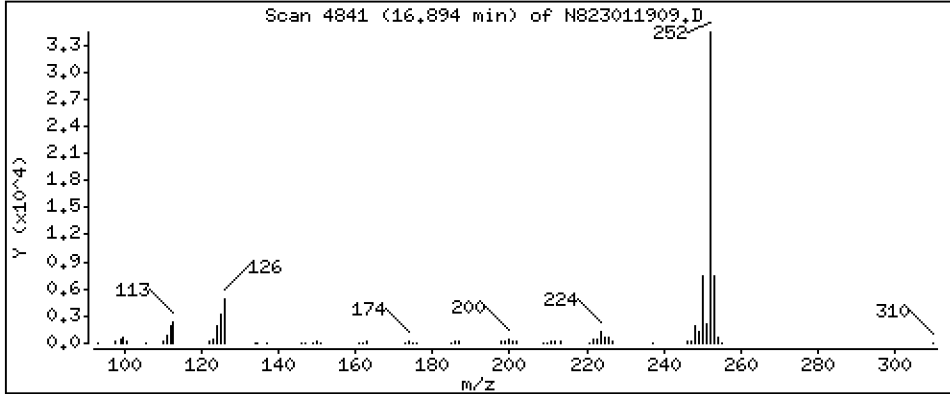
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

29 Benzo(k)fluoranthene

Concentration: 2,656 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

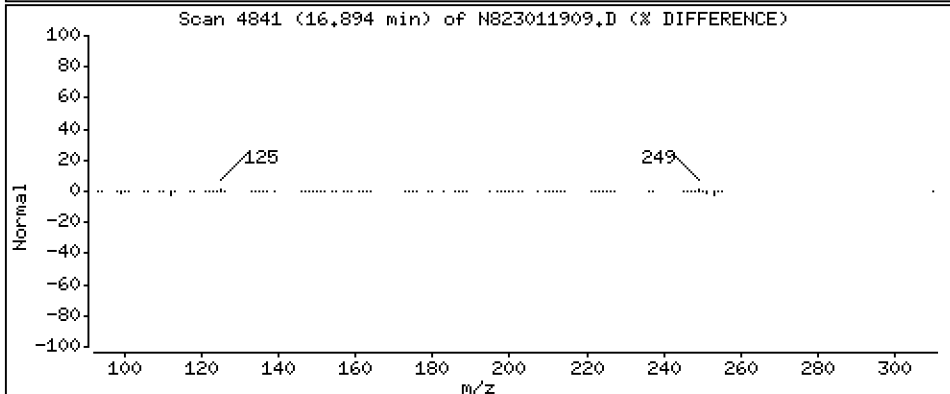
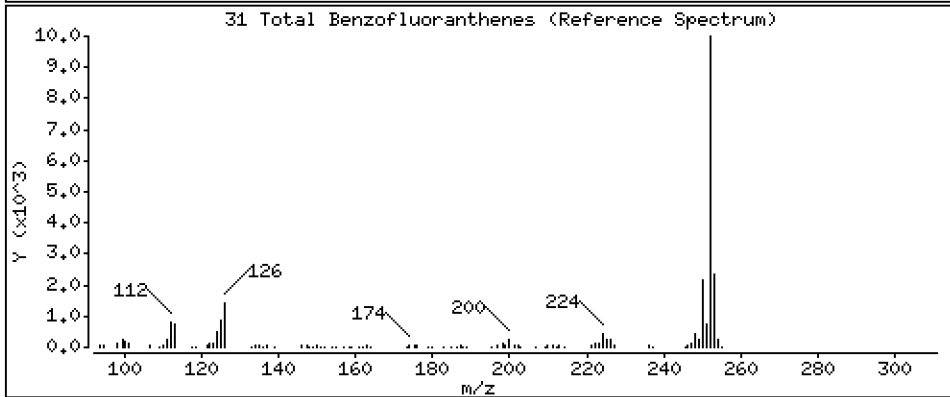
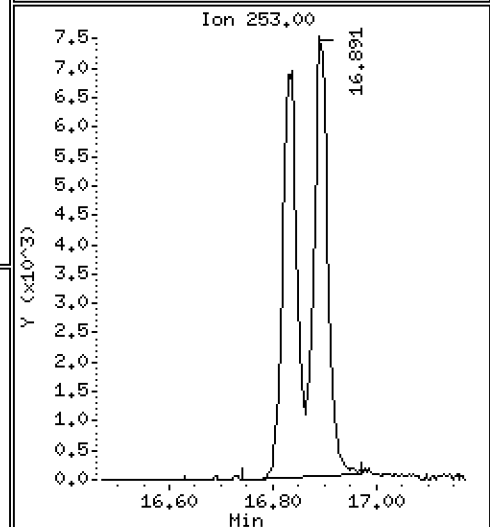
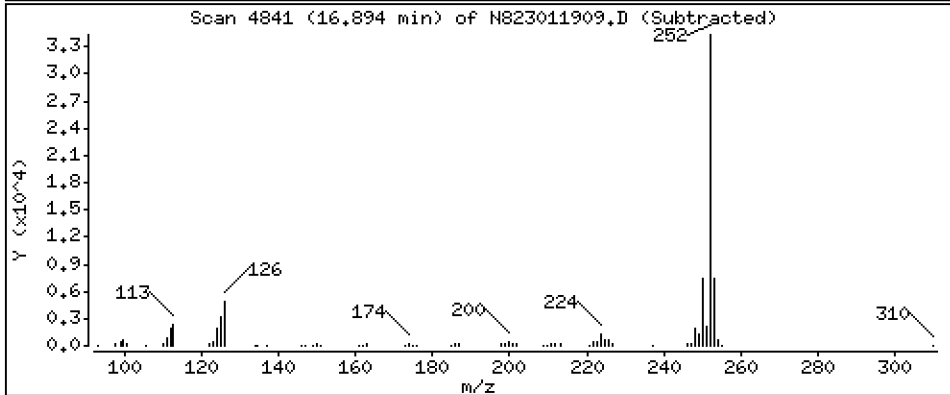
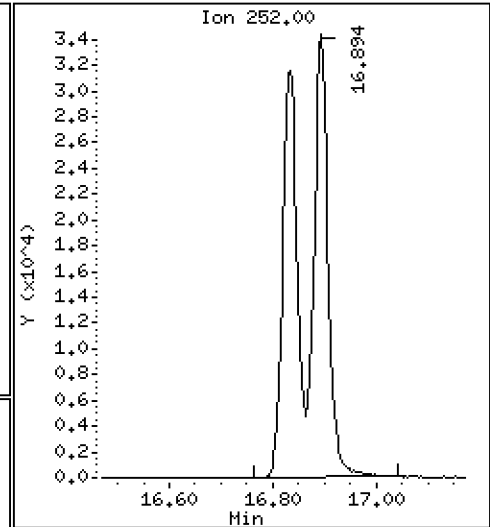
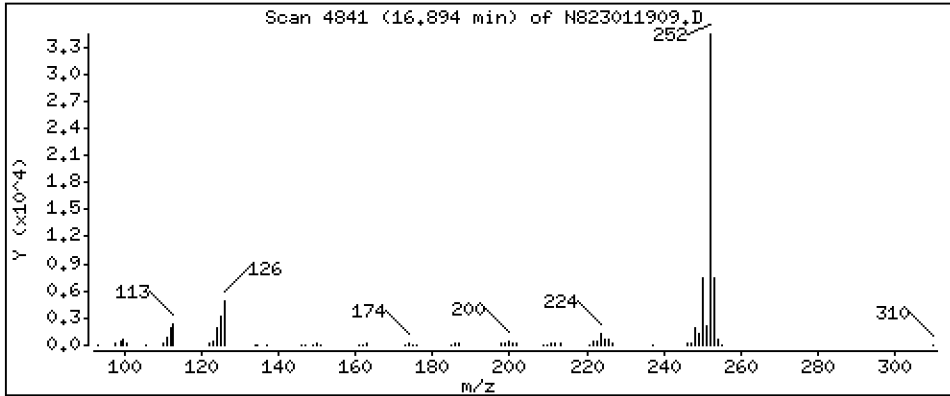
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

31 Total Benzofluoranthenes

Concentration: 5,480 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

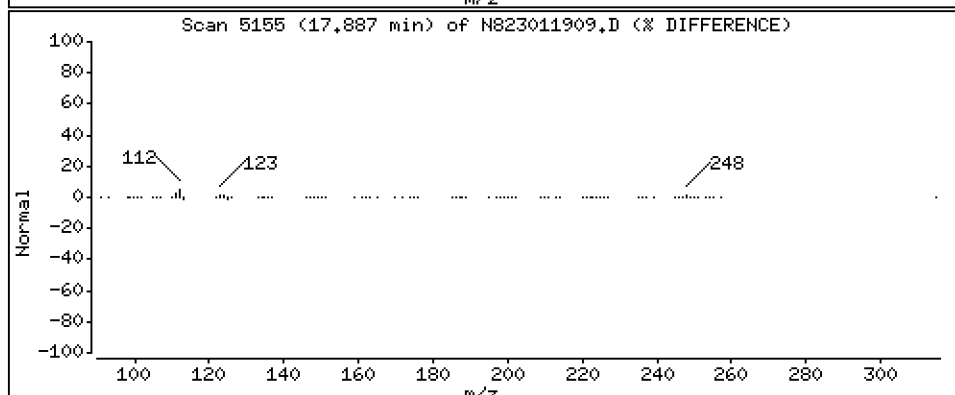
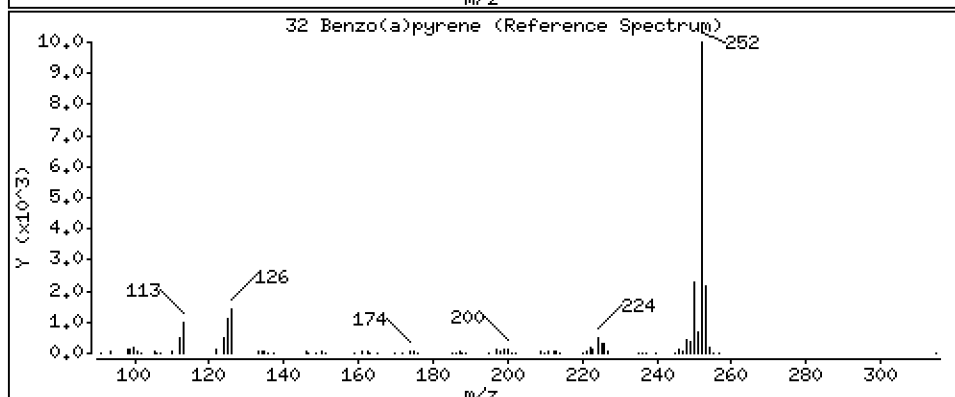
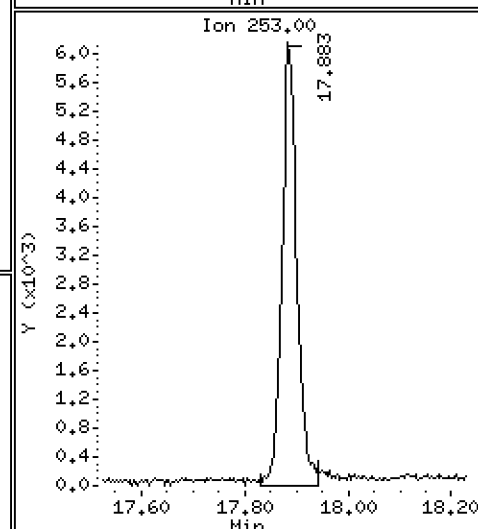
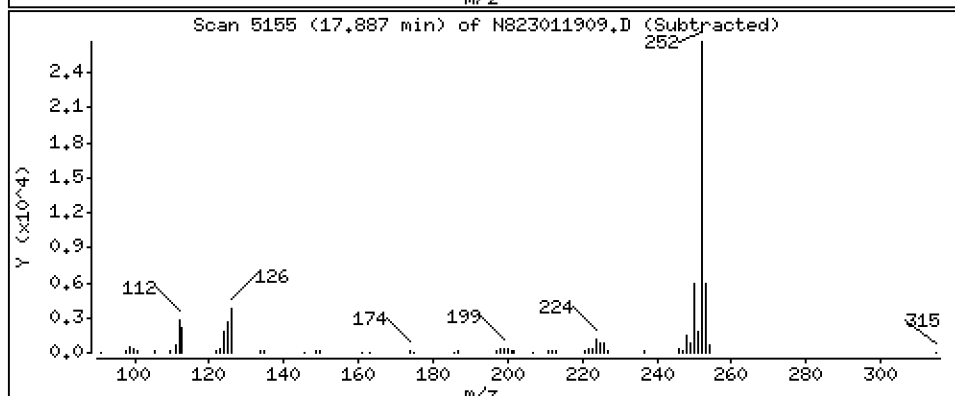
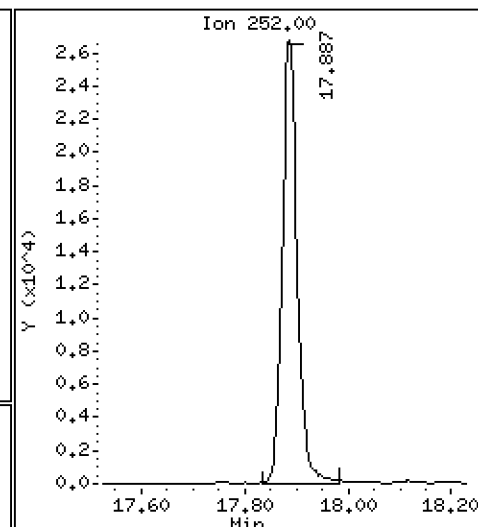
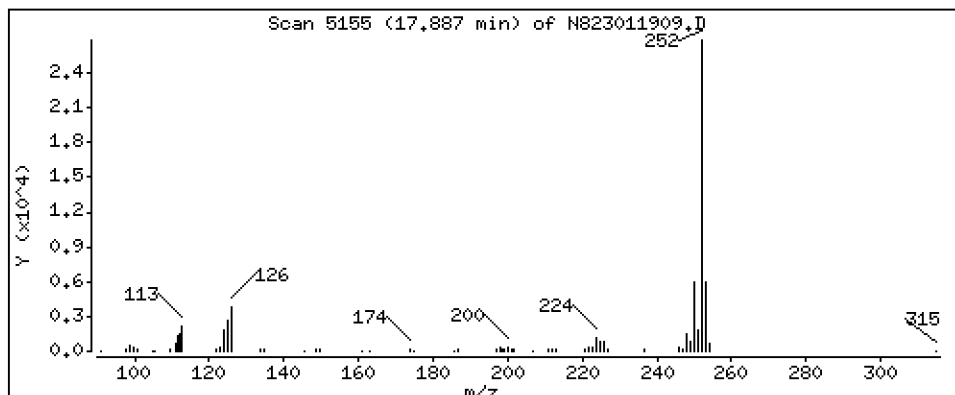
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 2,572 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

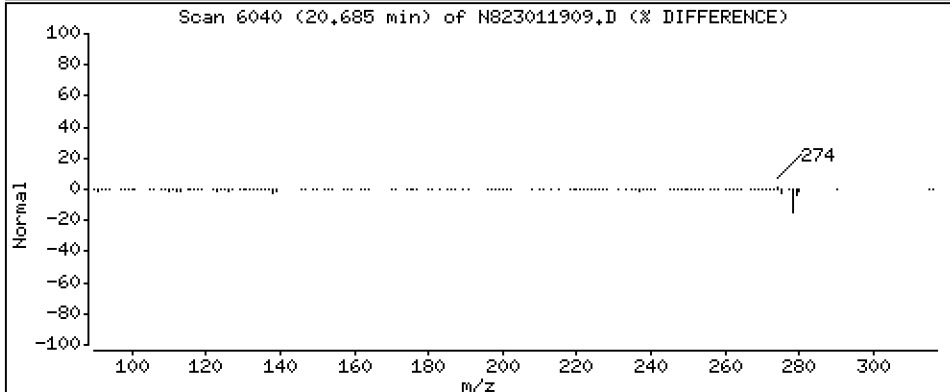
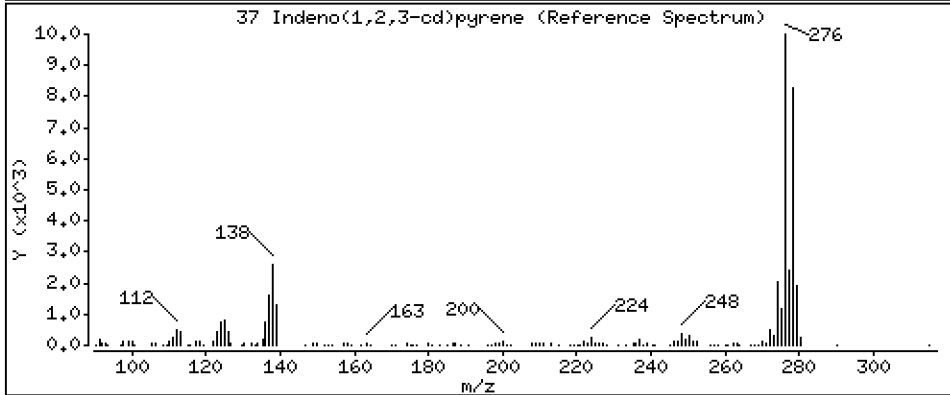
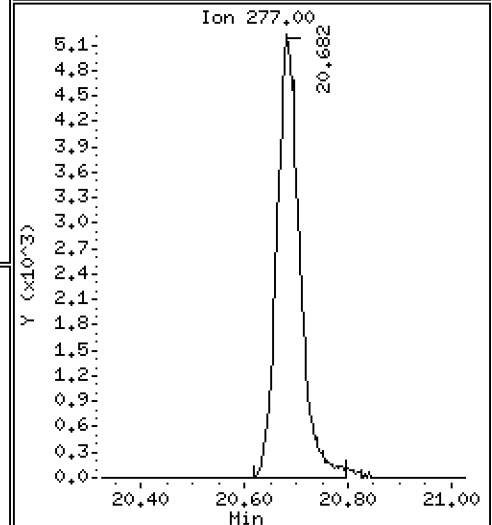
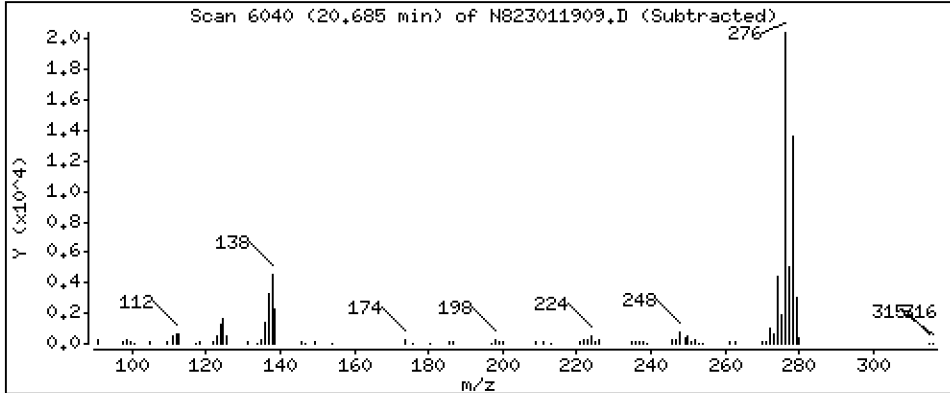
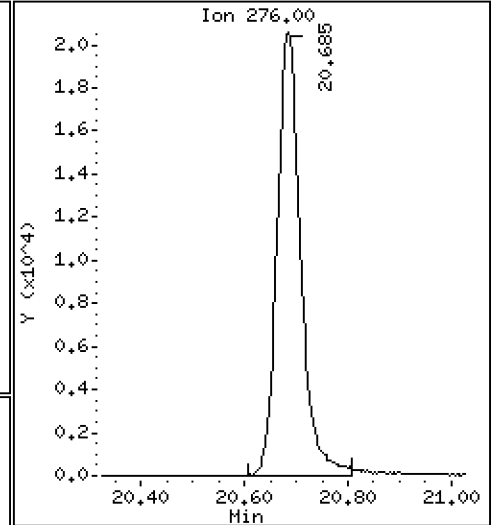
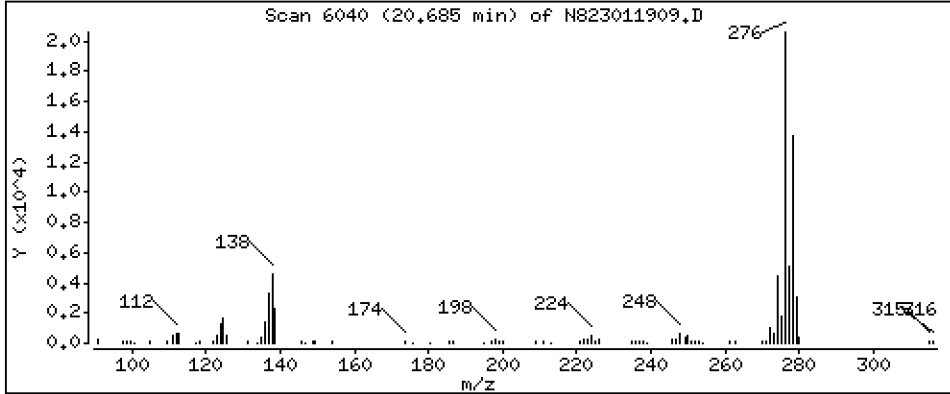
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 2,689 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

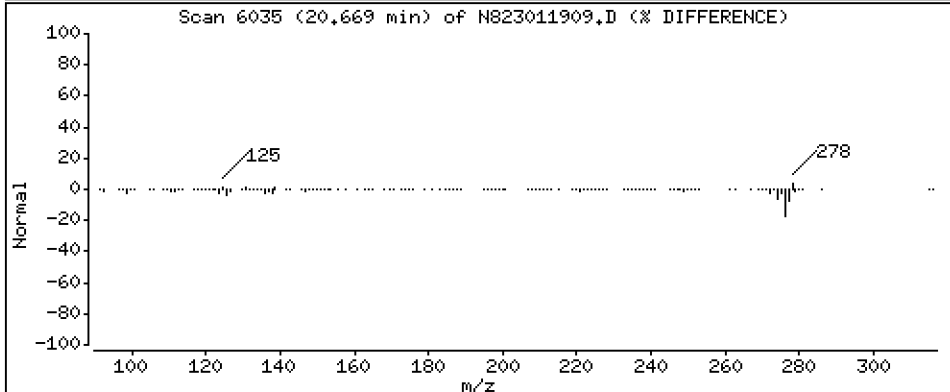
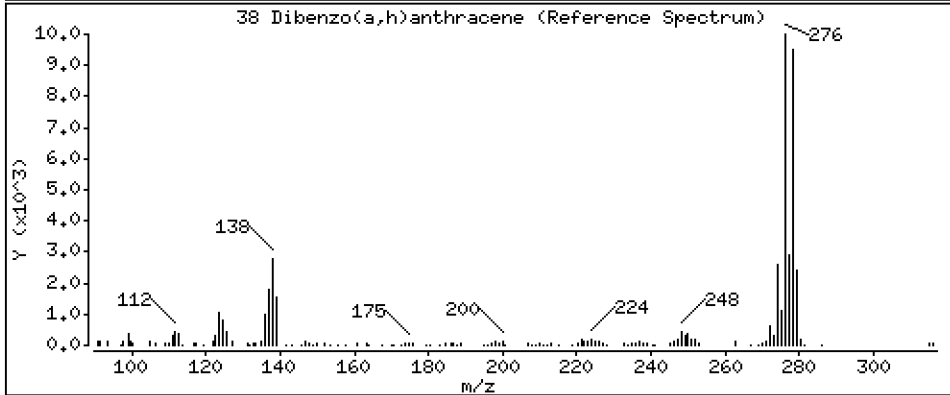
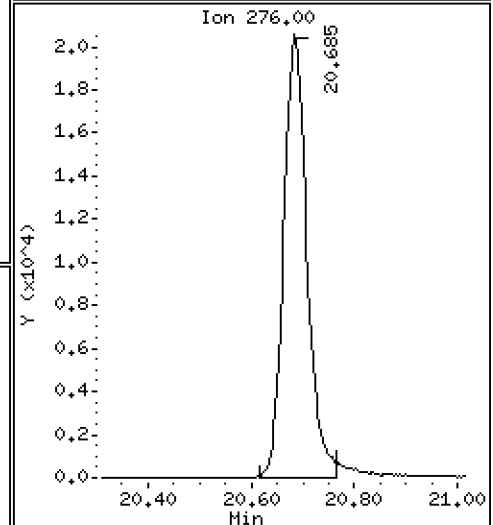
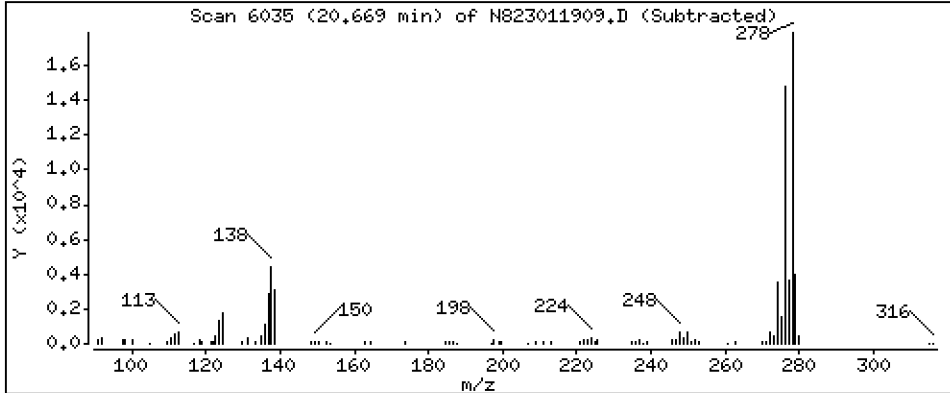
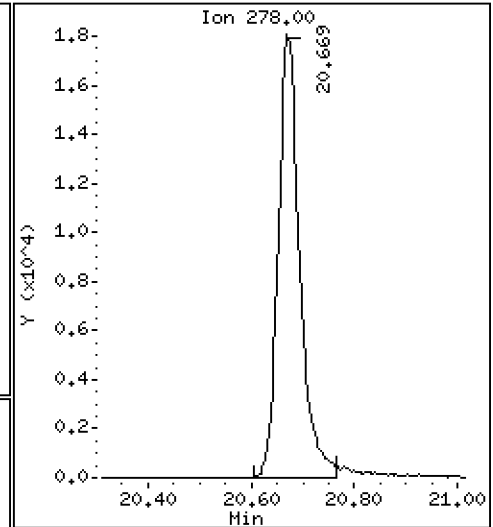
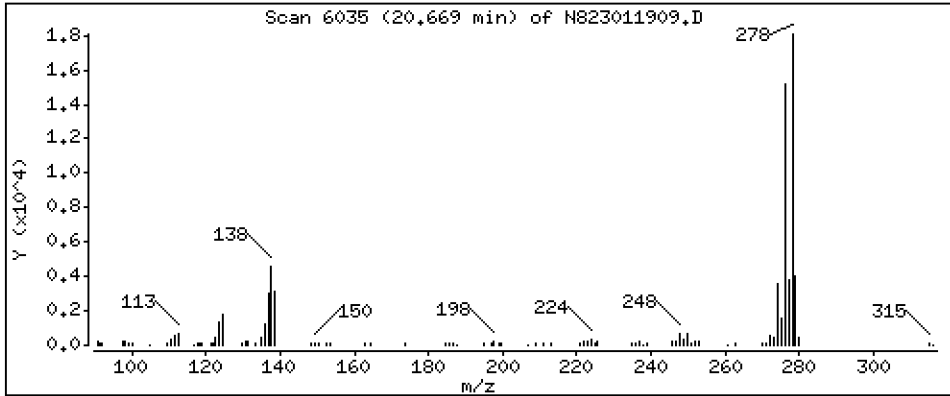
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 2,493 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

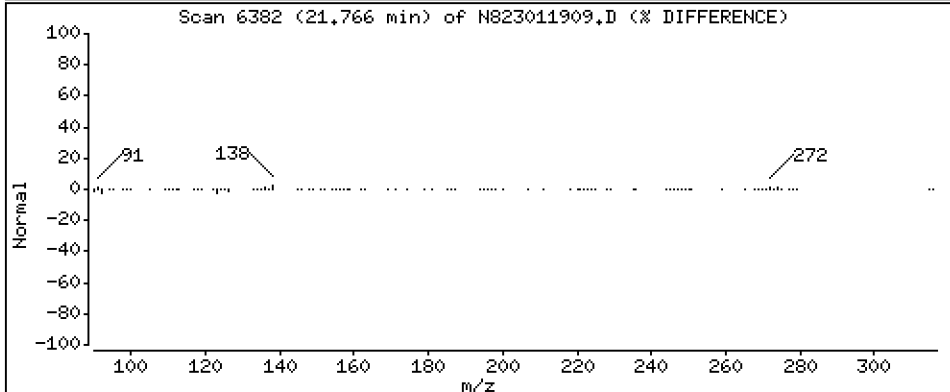
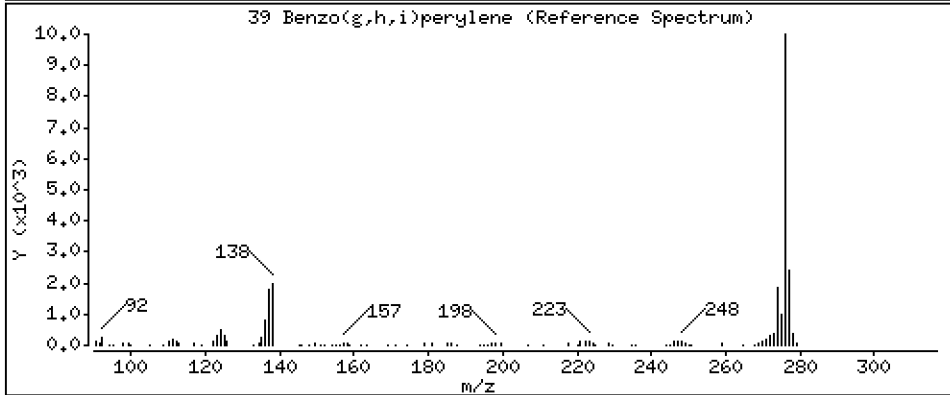
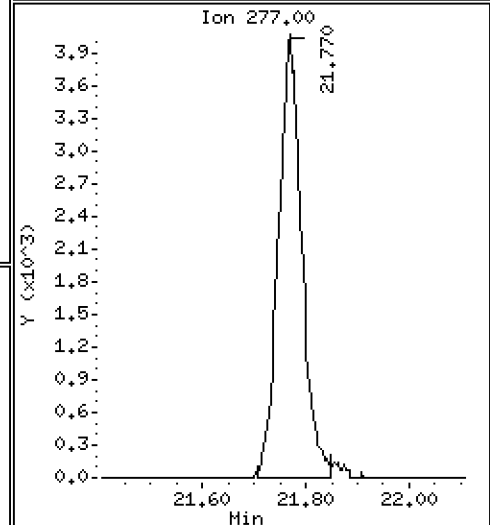
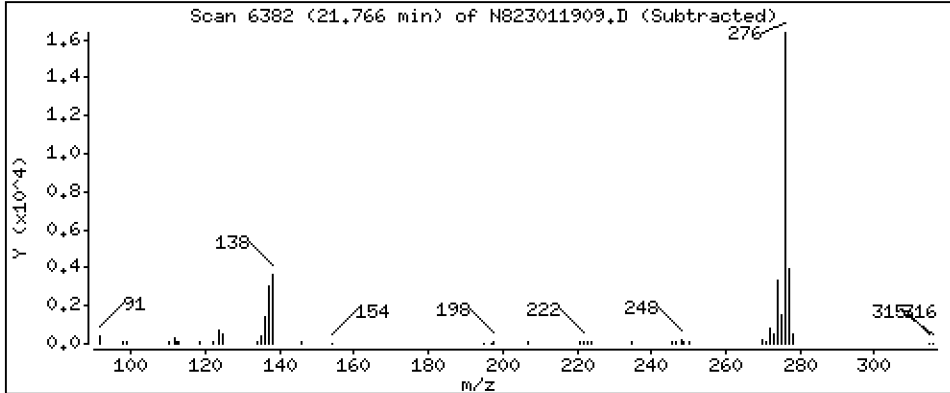
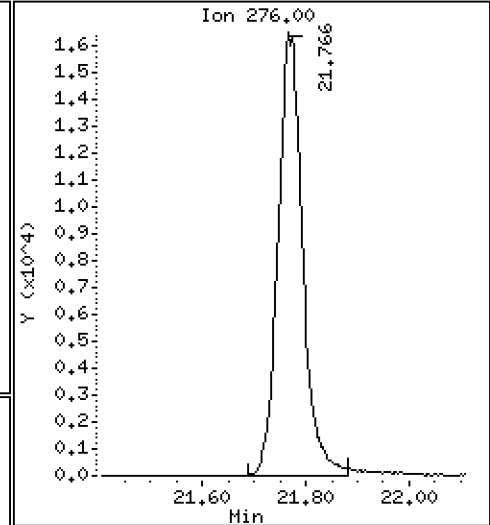
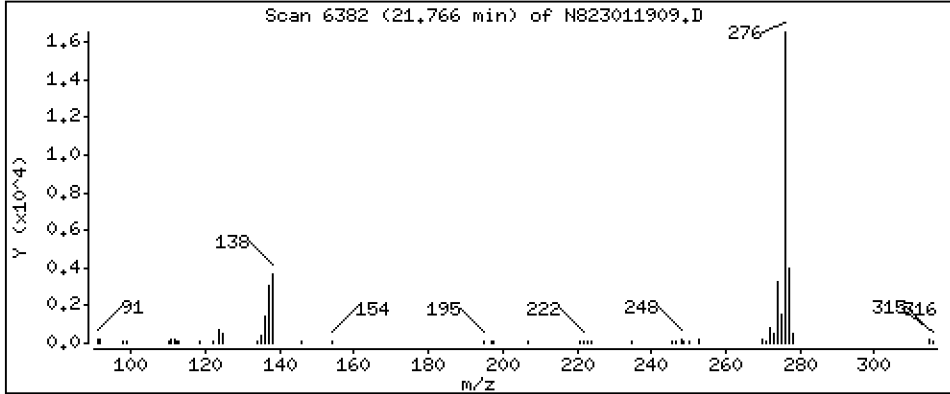
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 2,483 ug/L



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011909.D
 Lab Smp Id: SLA0213-SCV1
 Inj Date : 19-JAN-2023 14:58
 Operator : JZ Inst ID: nt8.i
 Smp Info : SCV230119
 Misc Info : 23-
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 21:57 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 9 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnascv.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
* 1 Naphthalene-d8	136		4.913	4.906	(1.000)	46346	2.00000	
2 Naphthalene	128		4.941	4.938	(1.006)	56587	2.62597	2.626
\$ 3 2-Methylnaphthalene-d10	152		Compound Not Detected.					
4 2-Methylnaphthalene	141		5.694	5.687	(1.159)	31650	2.67019	2.670
5 1-methylnaphthalene	141		5.890	5.883	(1.199)	31873	2.64949	2.649
9 Acenaphthylene	152		7.091	7.085	(0.985)	59018	2.82060	2.821
* 10 Acenaphthene-d10	164		7.202	7.196	(1.000)	27709	2.00000	
11 Acenaphthene	153		7.249	7.246	(1.007)	36454	2.60022	2.600
12 Dibenzofuran	168		7.401	7.395	(1.028)	60898	2.85987	2.860
14 Fluorene	166		7.878	7.872	(1.094)	43507	2.63066	2.631
* 15 Phenanthrene-d10	188		9.238	9.235	(1.000)	51685	2.00000	
16 Phenanthrene	178		9.276	9.270	(1.004)	61815	2.44841	2.448
17 Anthracene	178		9.317	9.311	(1.009)	52064	2.27006	2.270
22 Fluoranthene	202		11.059	11.053	(1.197)	72902	2.65276	2.653
\$ 21 Fluoranthene-d10	212		Compound Not Detected.					
23 Pyrene	202		11.578	11.572	(0.815)	71115	2.46242	2.462
24 Benzo(a)anthracene	228		14.082	14.076	(0.991)	67725	2.58725	2.587
* 25 Chrysene-d12	240		14.212	14.202	(1.000)	46582	2.00000	
27 Chrysene	228		14.285	14.278	(1.005)	66872	2.39976	2.400
28 Benzo(b)fluoranthene	252		16.833	16.821	(0.929)	60946	2.50689	2.507
29 Benzo(k)fluoranthene	252		16.893	16.884	(0.932)	63249	2.65606	2.656
31 Total Benzofluoranthenes	252		16.893	16.821	(0.932)	126178	5.48025	5.480 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/mL)	FINAL (ug/L)	
=====	=====	=====	=====	=====	=====	=====	=====	
32 Benzo(a)pyrene	252	17.886	17.877	(0.987)	55026	2.57205	2.572	
* 33 Perylene-d12	264	18.117	18.111	(1.000)	41743	2.00000		
37 Indeno(1,2,3-cd)pyrene	276	20.684	20.675	(1.142)	65545	2.68928	2.689	
\$ 36 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.						
38 Dibenzo(a,h)anthracene	278	20.669	20.662	(1.141)	52293	2.49315	2.493	
39 Benzo(g,h,i)perylene	276	21.766	21.756	(1.201)	54821	2.48258	2.483	
35 Perylene	252	Compound Not Detected.						

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011909.D Calibration Time: 12:52
 Lab Smp Id: SLA0213-SCV1 Level: LOW
 Analysis Type: SV Sample Type: WATER
 Quant Type: ISTD Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	44704	22352	89408	46346	3.67
10 Acenaphthene-d10	26411	13206	52822	27709	4.91
15 Phenanthrene-d10	49210	24605	98420	51685	5.03
25 Chrysene-d12	42994	21497	85988	46582	8.35
33 Perylene-d12	40520	20260	81040	41743	3.02

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.13
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.09
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.03
25 Chrysene-d12	14.20	13.70	14.70	14.21	0.07
33 Perylene-d12	18.11	17.61	18.61	18.12	0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011909.D

Lab ID: SLA0213-SCV1

nt8.i, 20230119.b\FSIMPNA230119.m, 19-JAN-2023 14:58

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

No RRT check performed

On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, pnascv.sub = 0.0500

Exception: Benzo(b)fluoranthene 0.0300
Exception: Benzo(k)fluoranthene 0.0300
Exception: Total Benzofluoranthenes 0.0300
Exception: Fluoranthene-d10 (Surr) 0.0000

* Only compounds listed in the work order have been verified by the analyst *

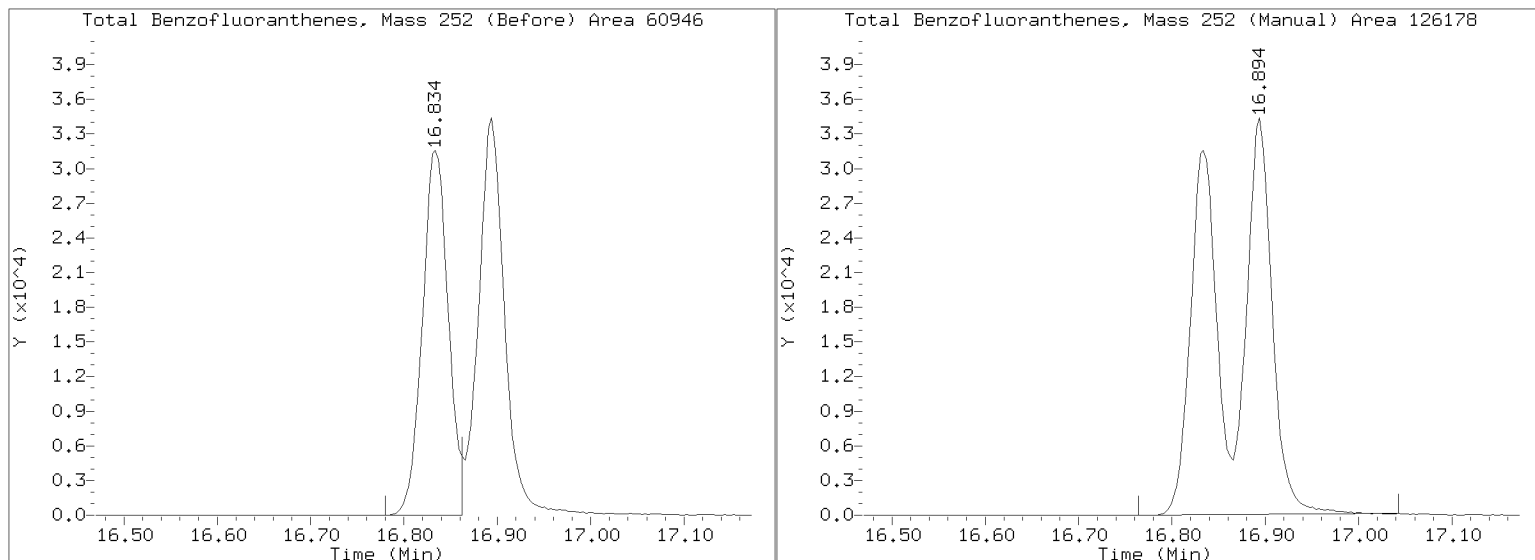
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011909.D

Injection Date: 19-JAN-2023 14:58

Lab ID:SLA0213-SCV1 Client ID:

Report Date: 01/25/2023 22:00





SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00019

Laboratory ID: SLB0106-SCV1

Sequence: SLB0106

Standard ID: K010066

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
1,4-Dichlorobenzene	5.0000	4.2	-15.3	20.00
1,2-Dichlorobenzene	5.0000	4.2	-15.9	20.00
Benzyl Alcohol	5.0000	4.9	-1.9	20.00
Benzoic acid	10.000	5.9	-41.2 *	20.00
2,4-Dimethylphenol	5.0000	3.4	-32.9 *	20.00
1,2,4-Trichlorobenzene	5.0000	3.9	-21.4 *	20.00
N-Nitrosodiphenylamine	5.0000	4.2	-15.9	20.00
Pentachlorophenol	5.0000	4.0	-20.1 *	20.00
2-Fluorophenol	7.5000	6.97	-7.0	
p-Terphenyl-d14	5.0000	4.24	-15.2	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.1\NT10230207115.D

Page 1

Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.1

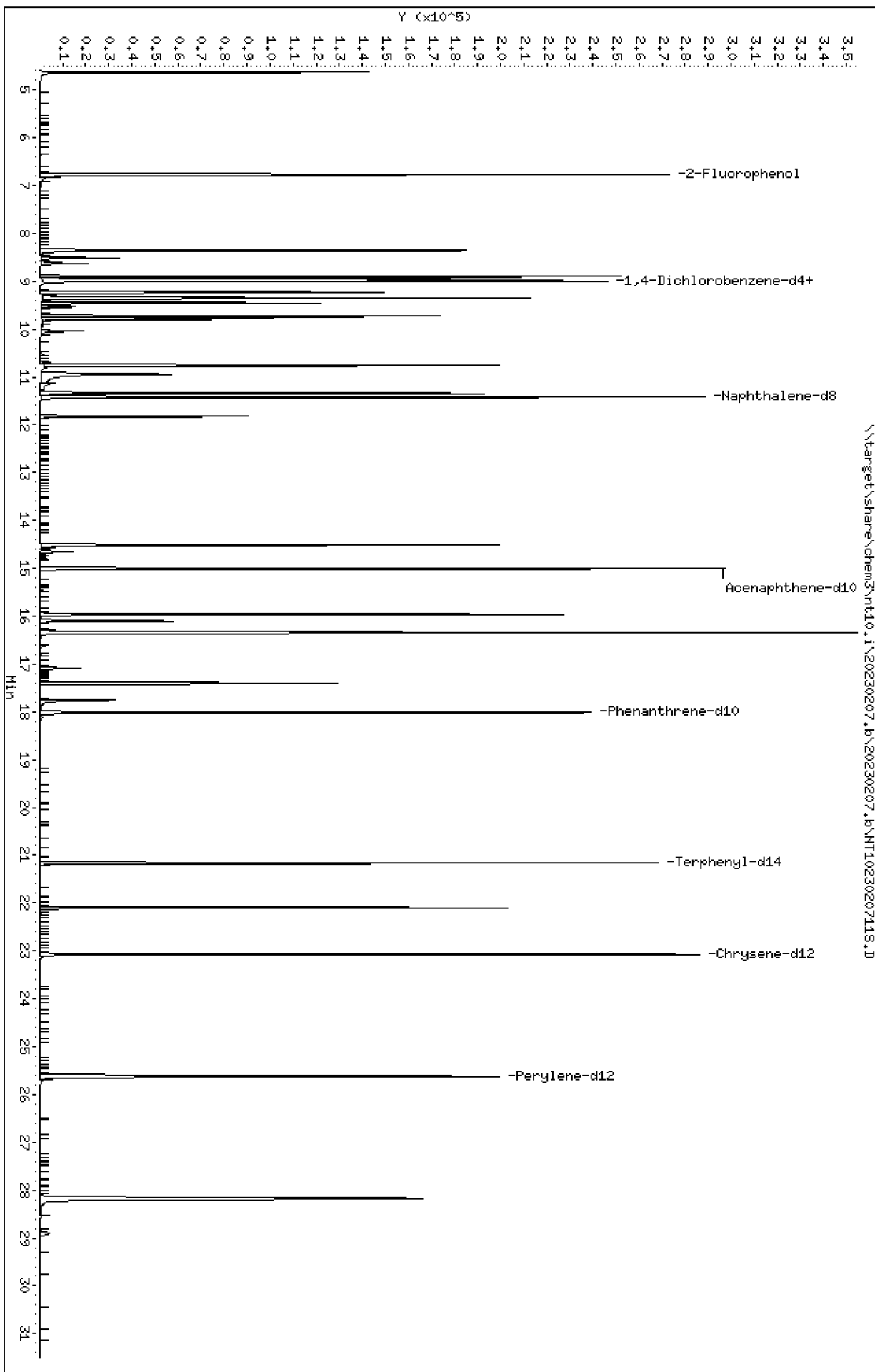
Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

Operator: USD

Column phase: ZB-5msi

Column diameter: 0.25



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

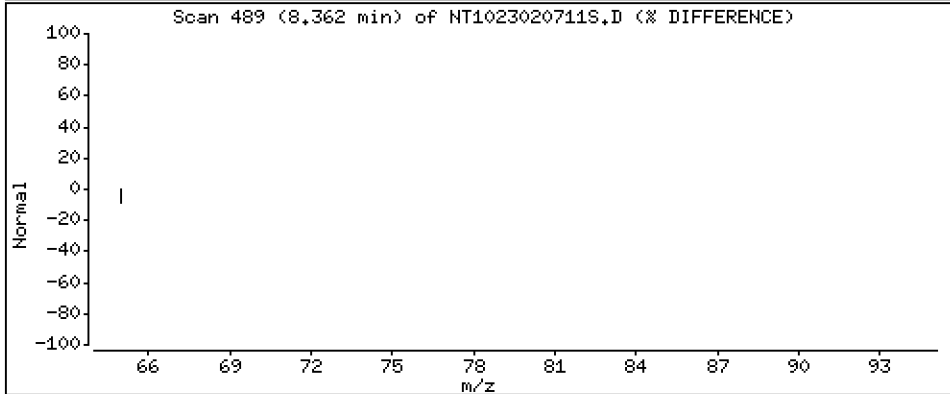
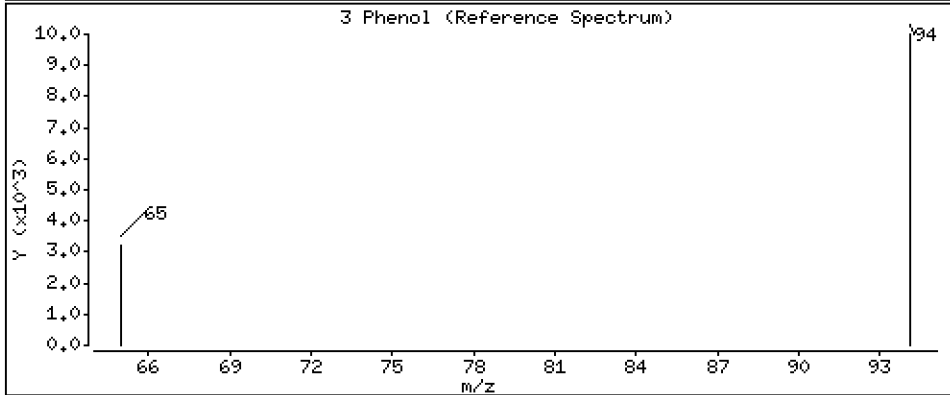
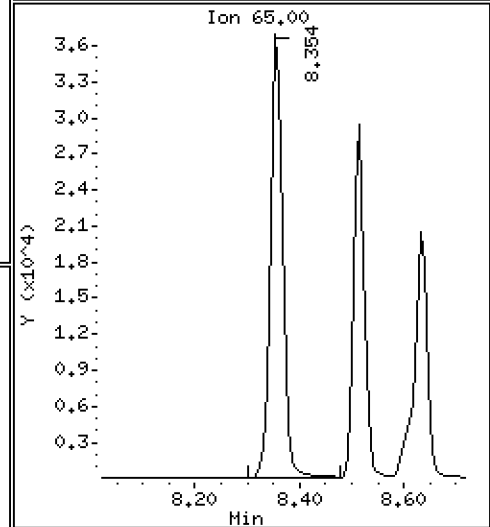
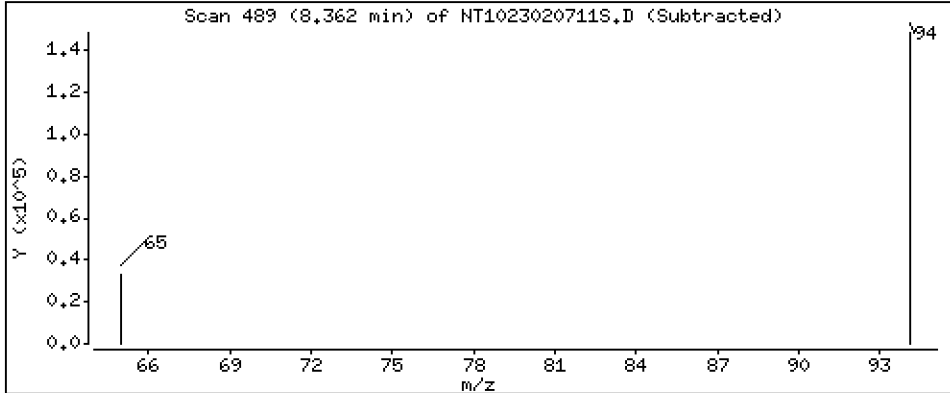
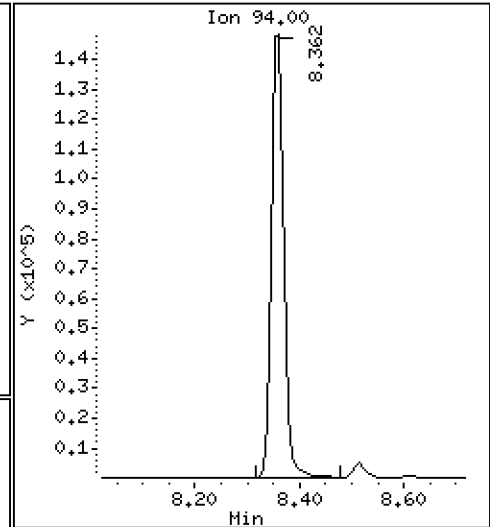
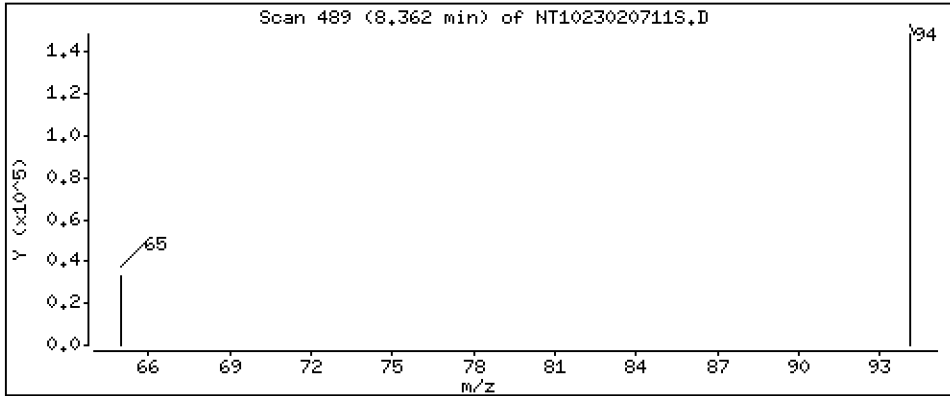
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 4.170 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

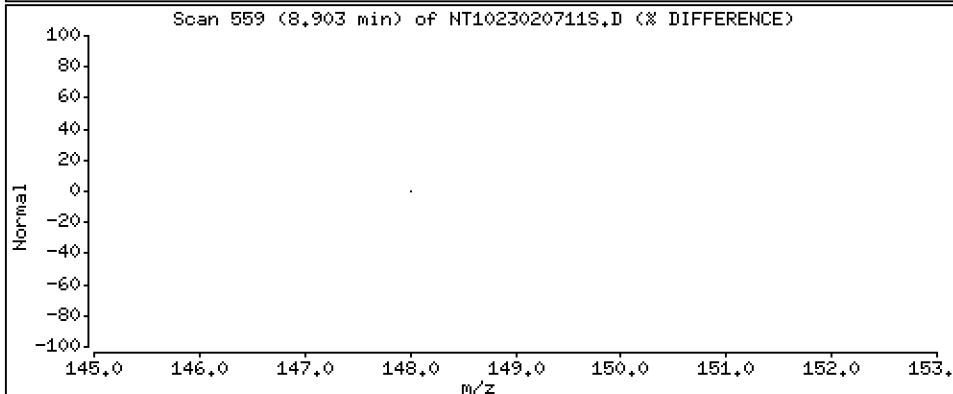
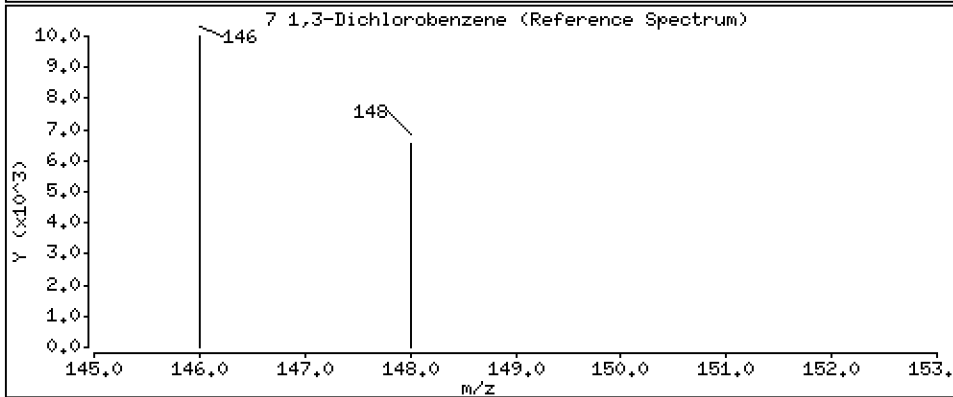
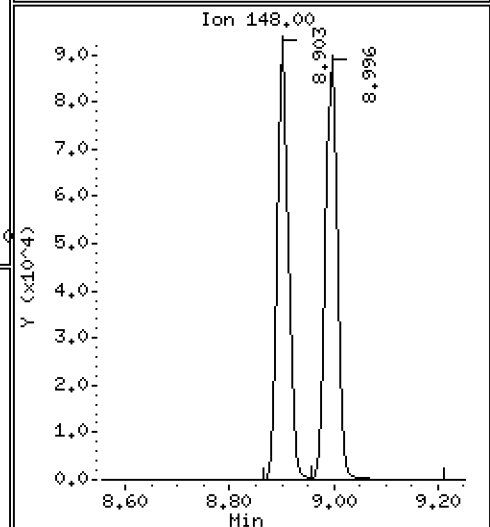
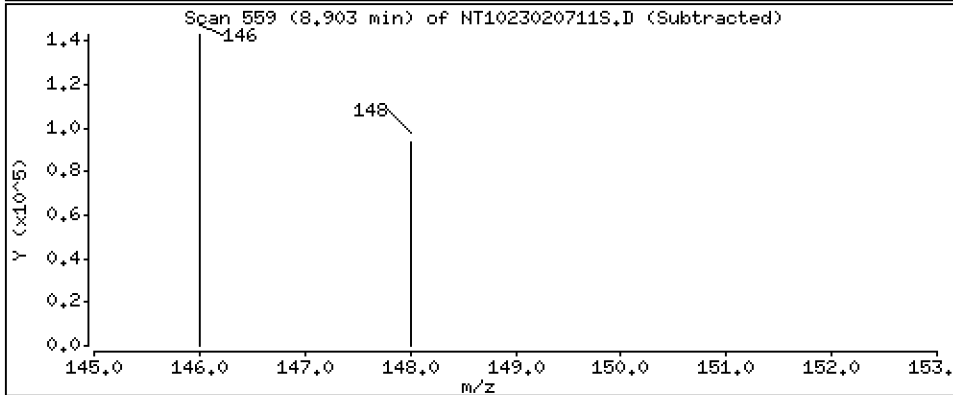
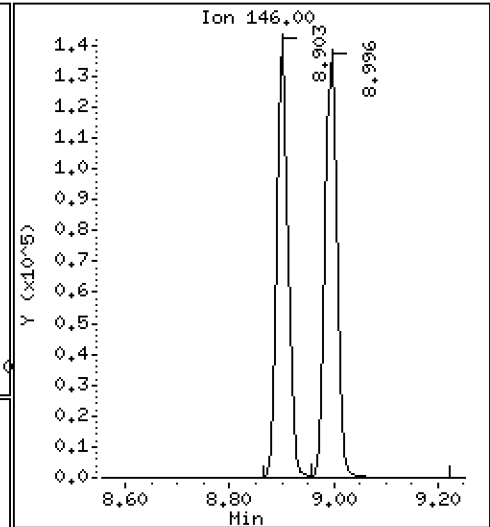
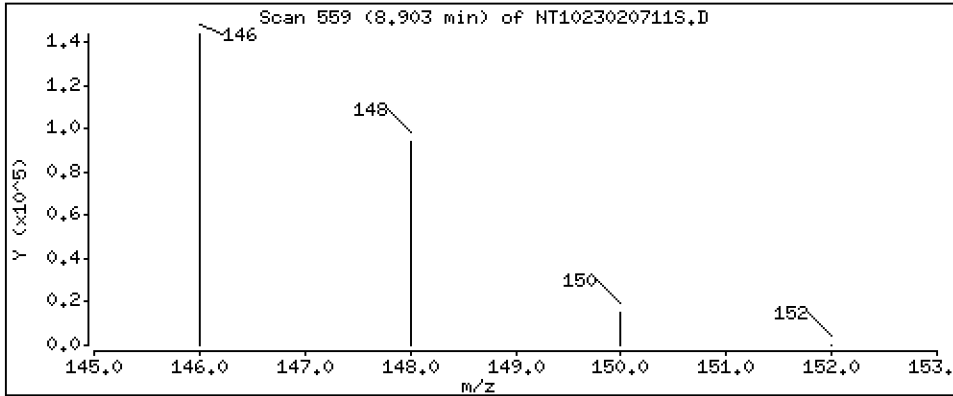
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 4,159 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

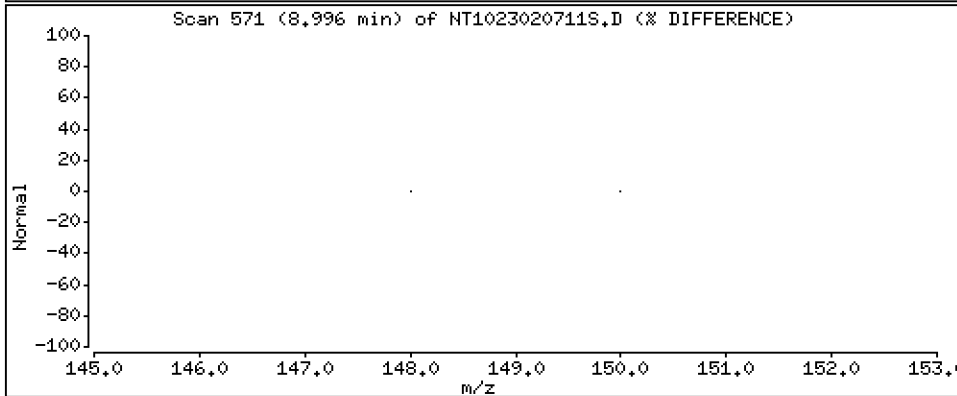
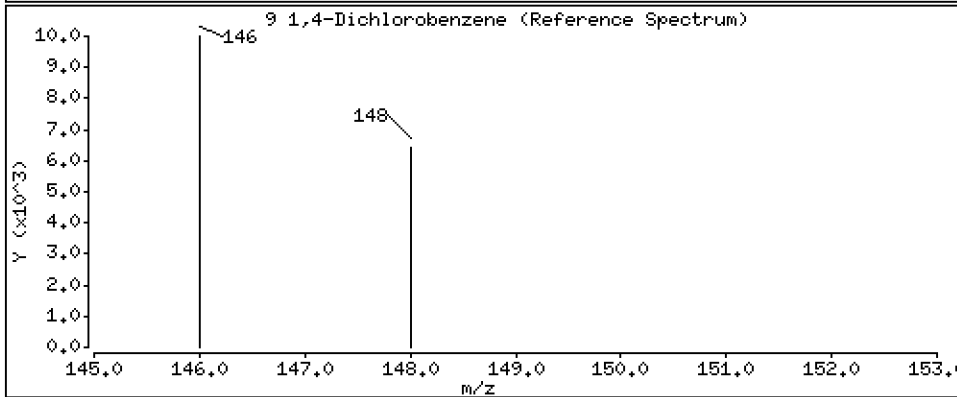
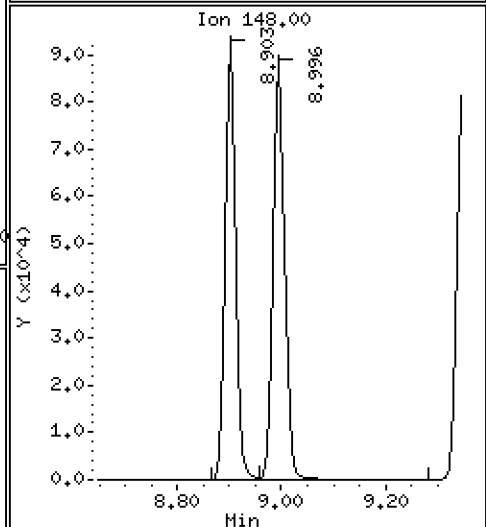
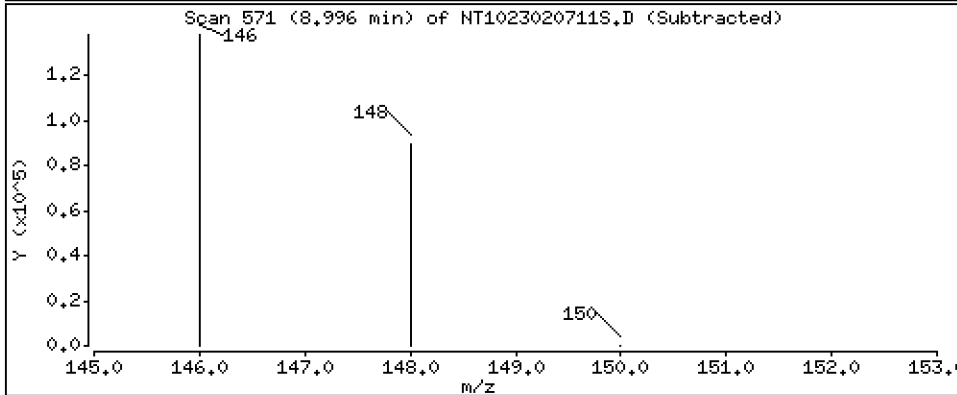
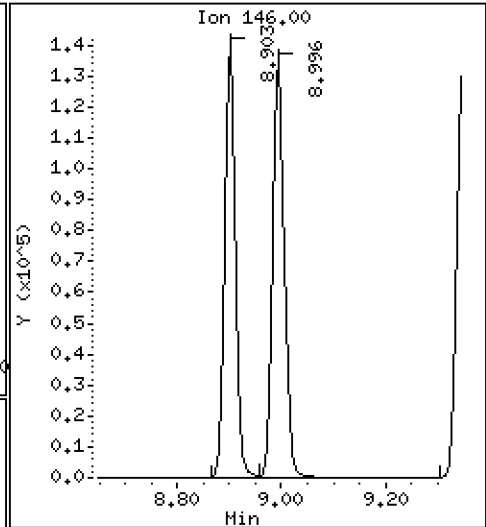
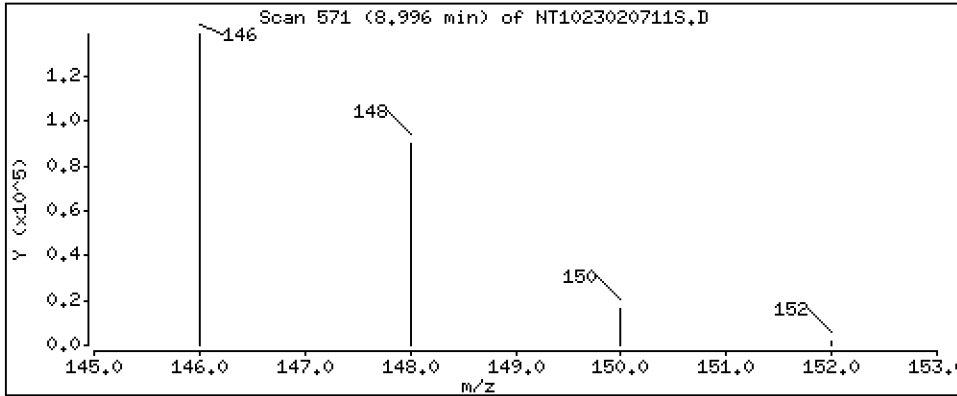
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 4.237 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

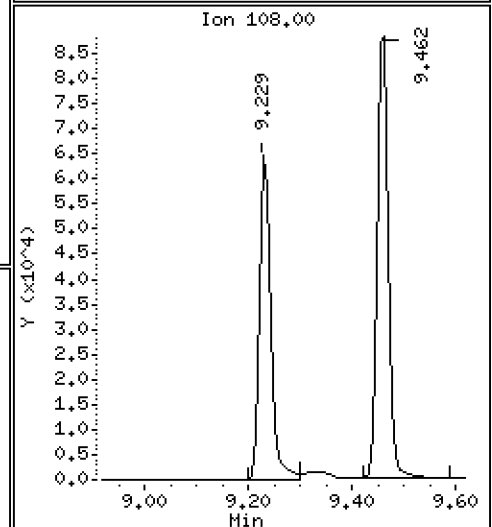
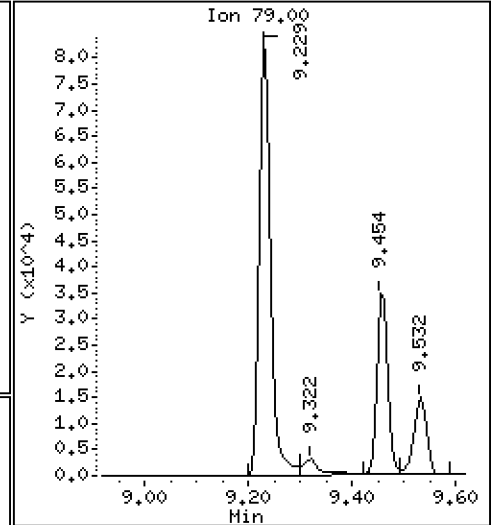
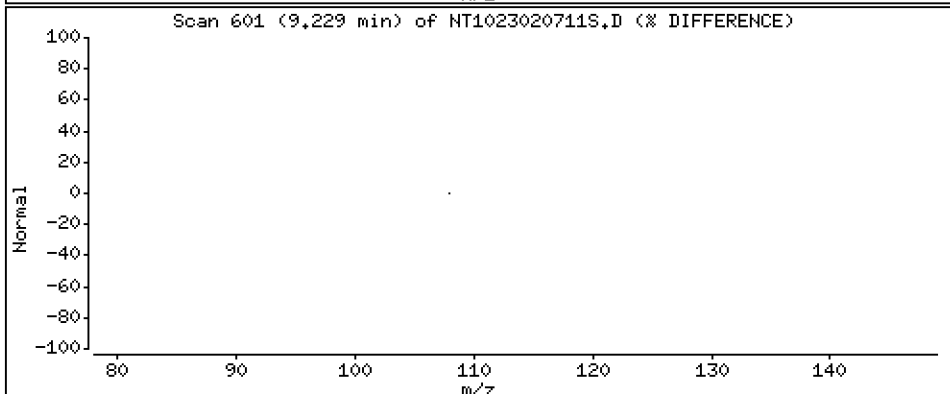
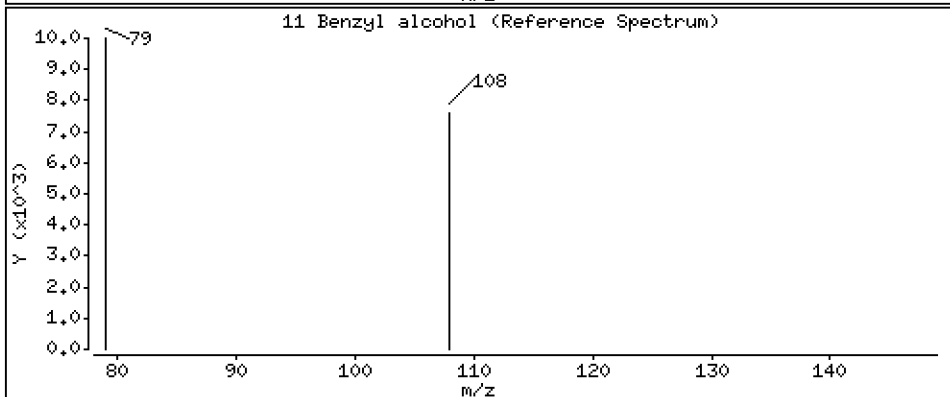
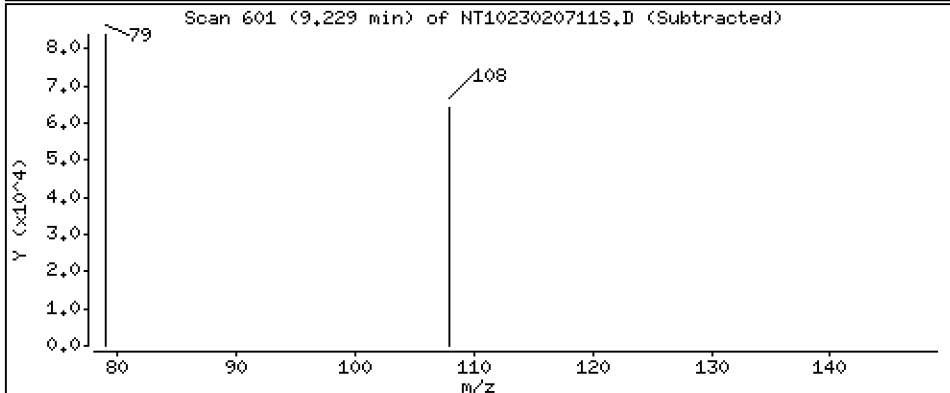
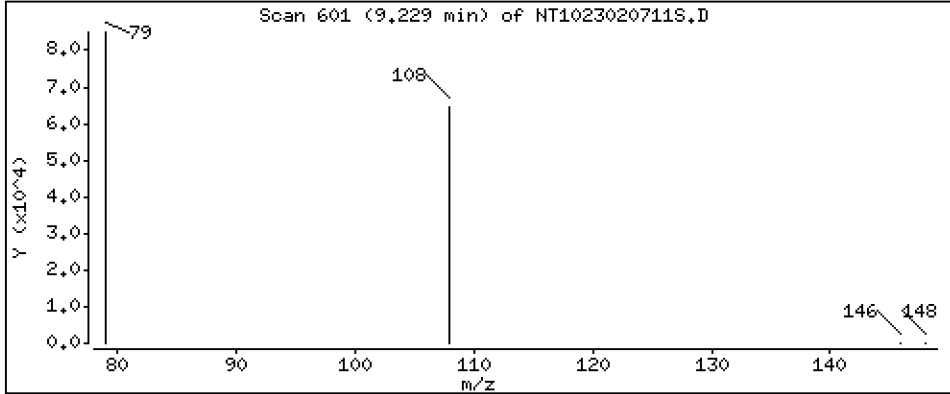
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 4.907 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

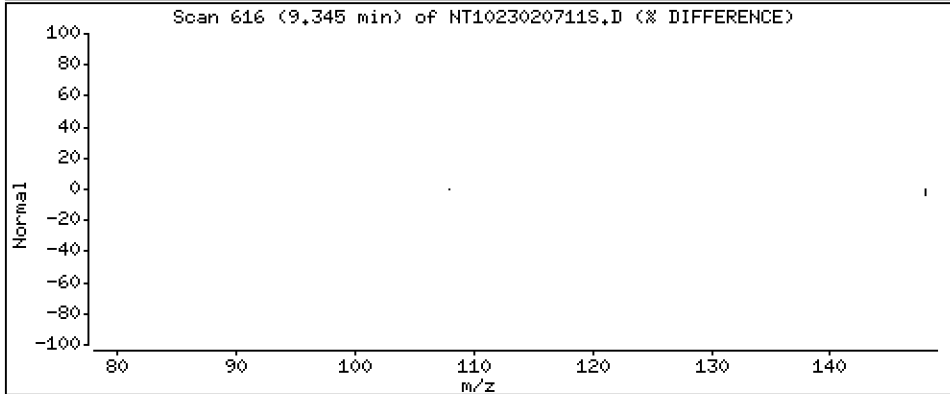
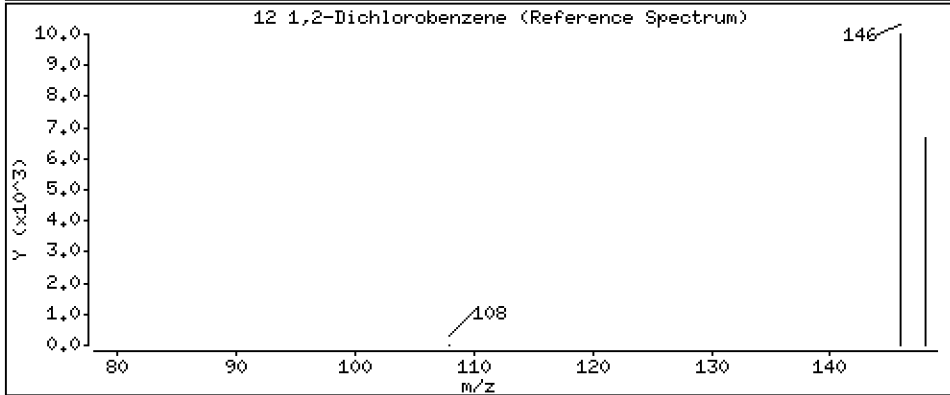
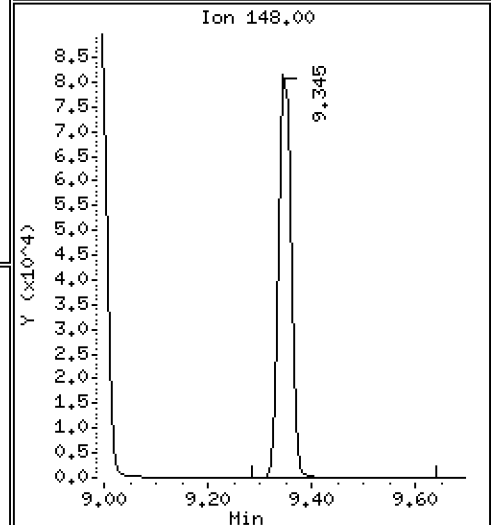
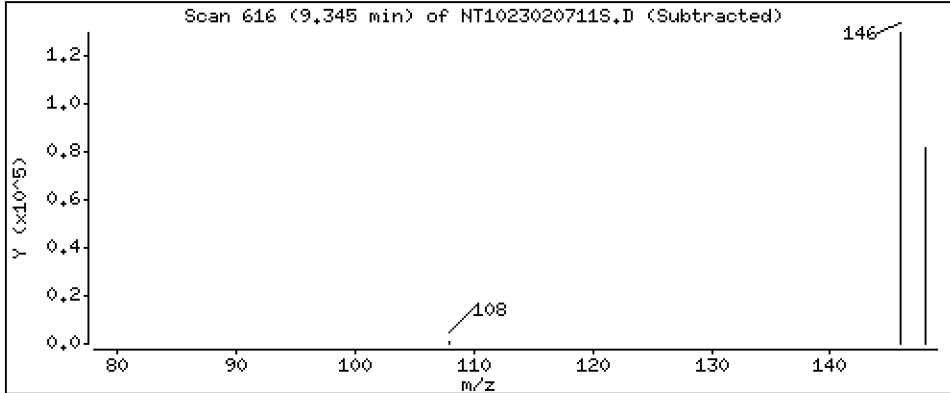
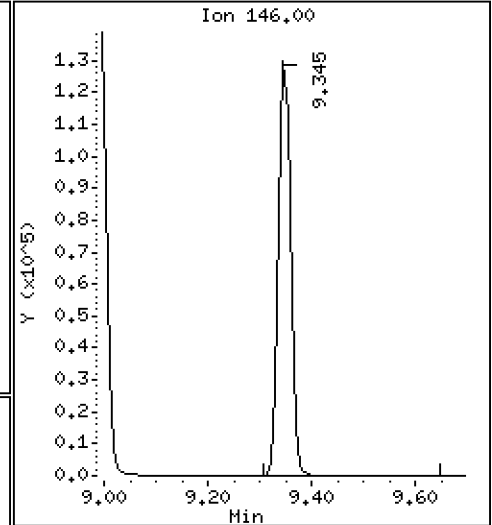
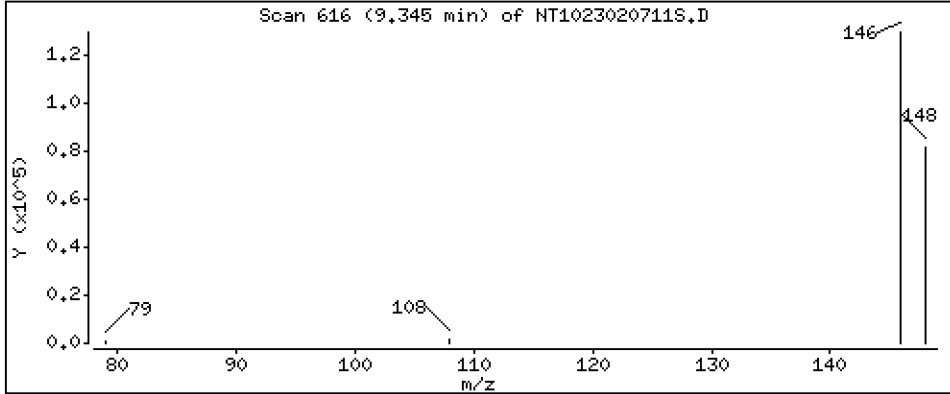
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 4.205 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

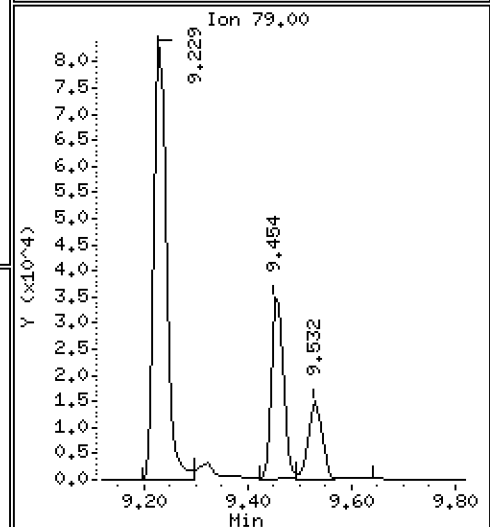
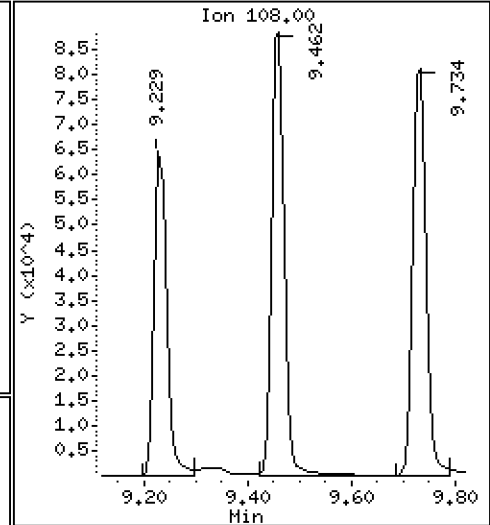
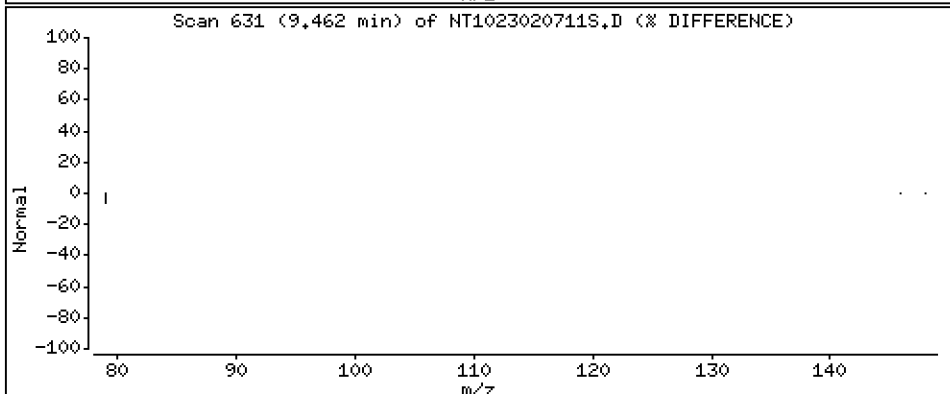
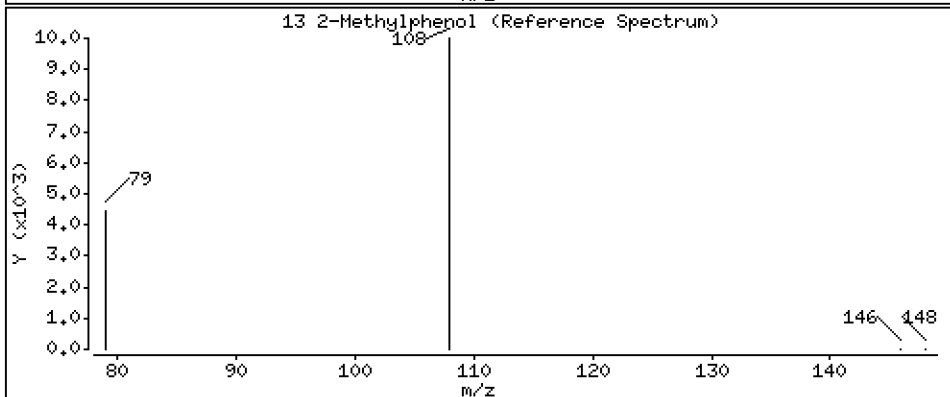
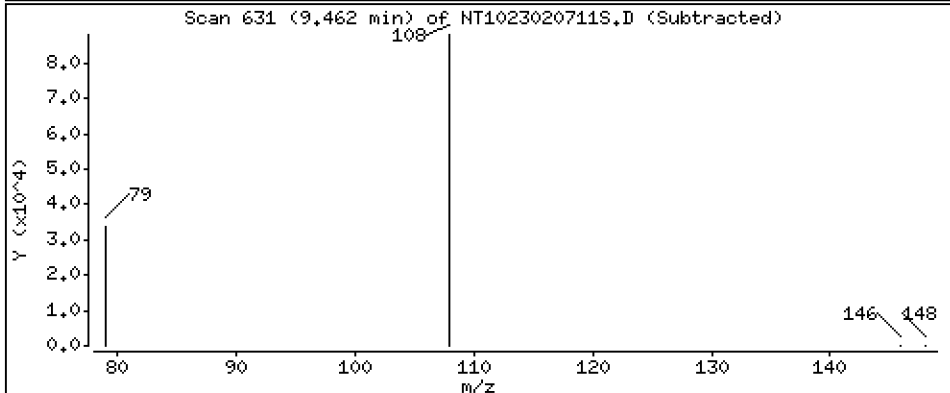
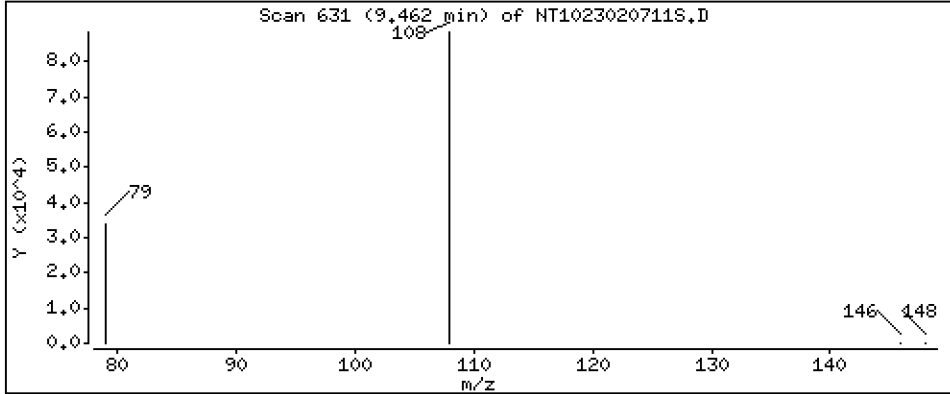
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 3,649 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

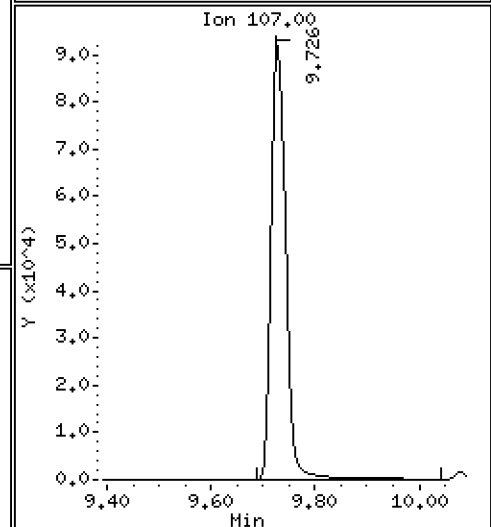
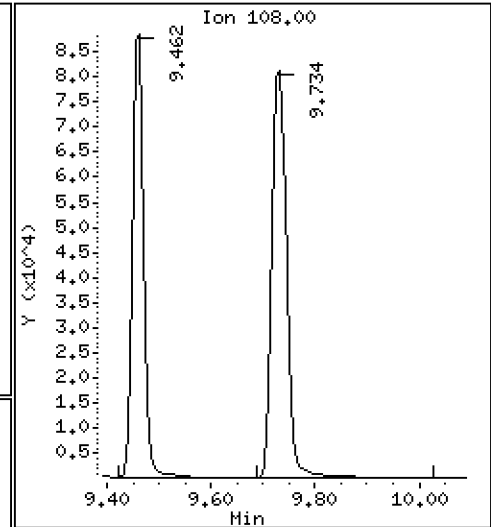
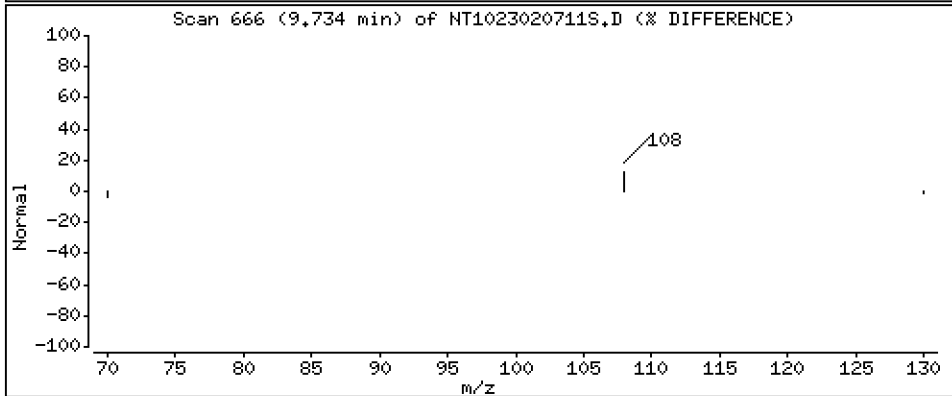
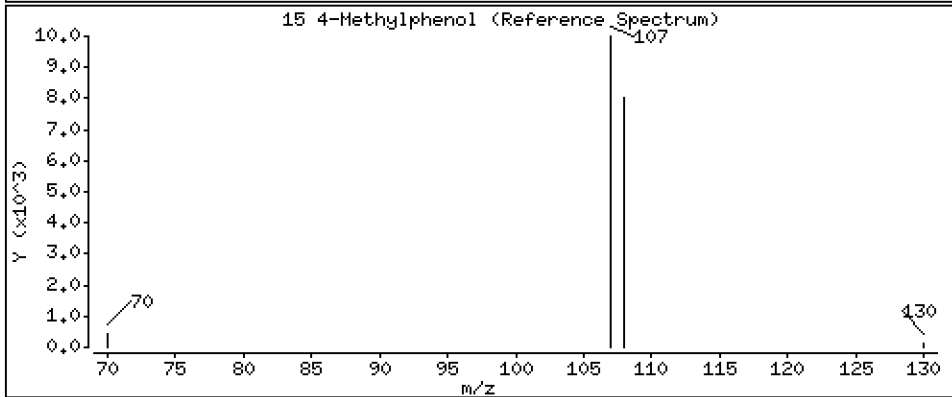
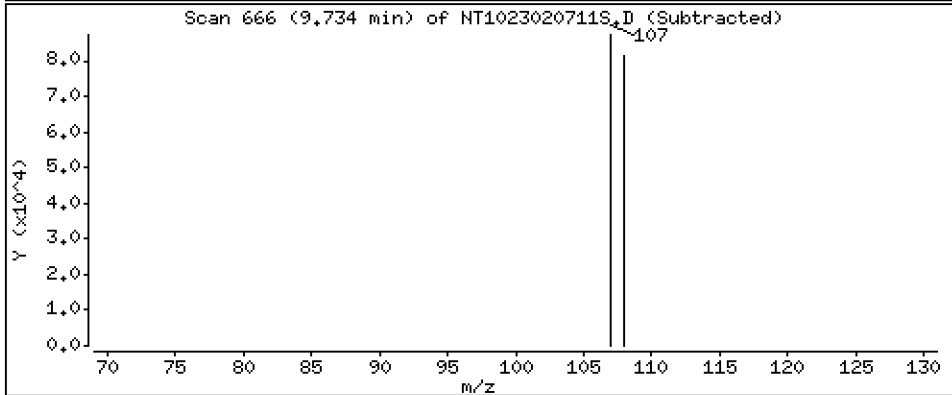
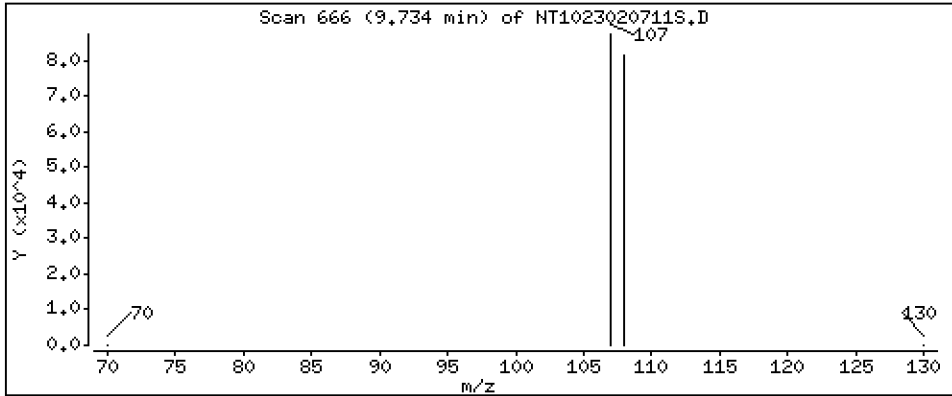
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,980 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

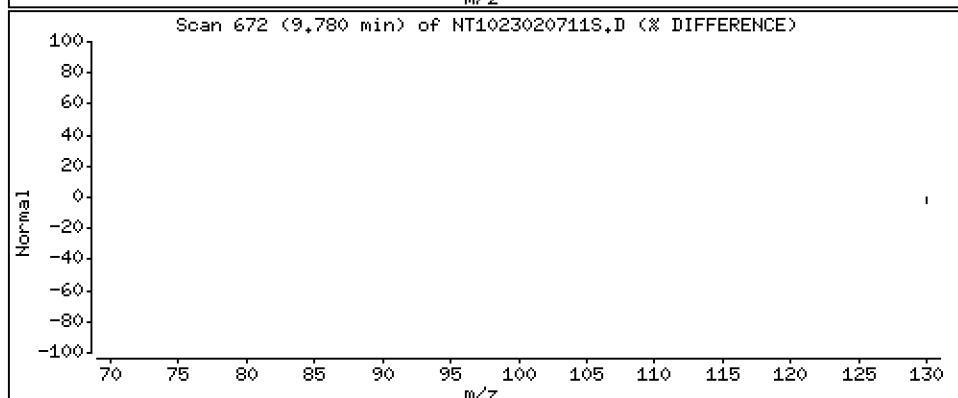
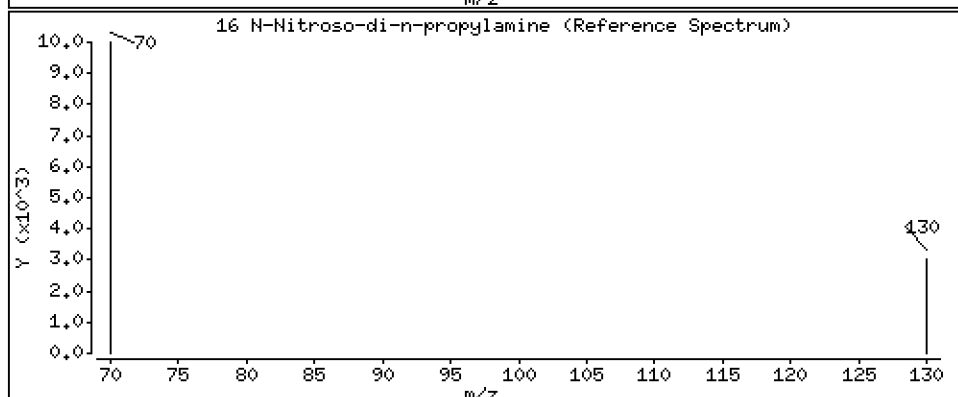
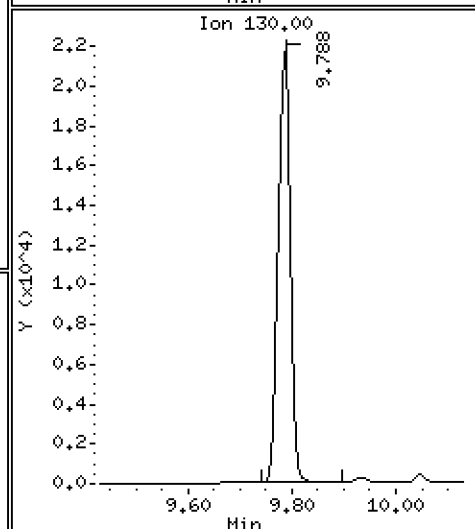
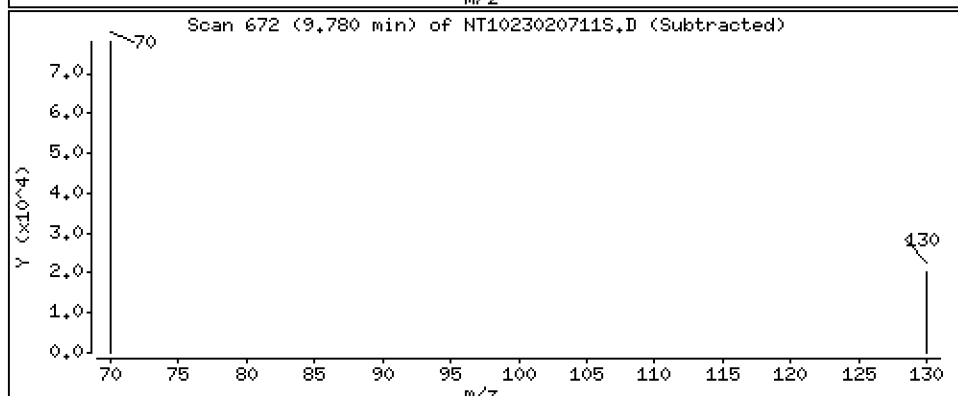
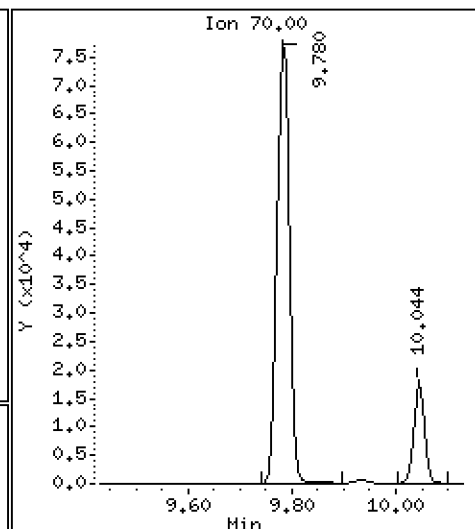
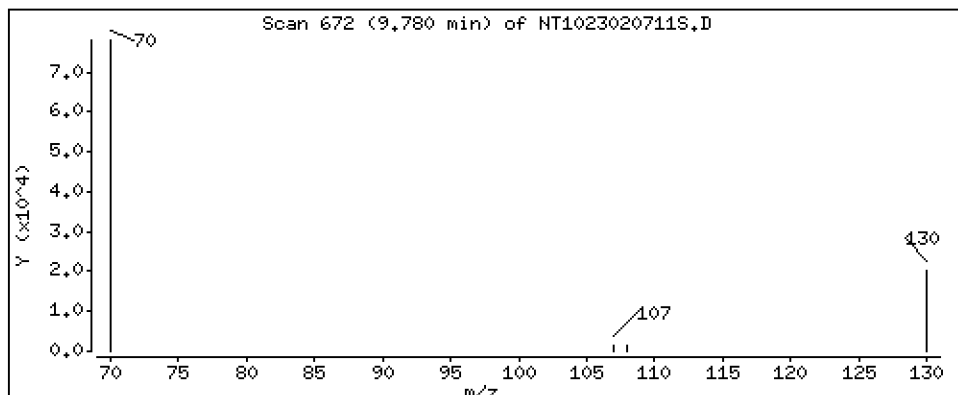
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 4,396 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

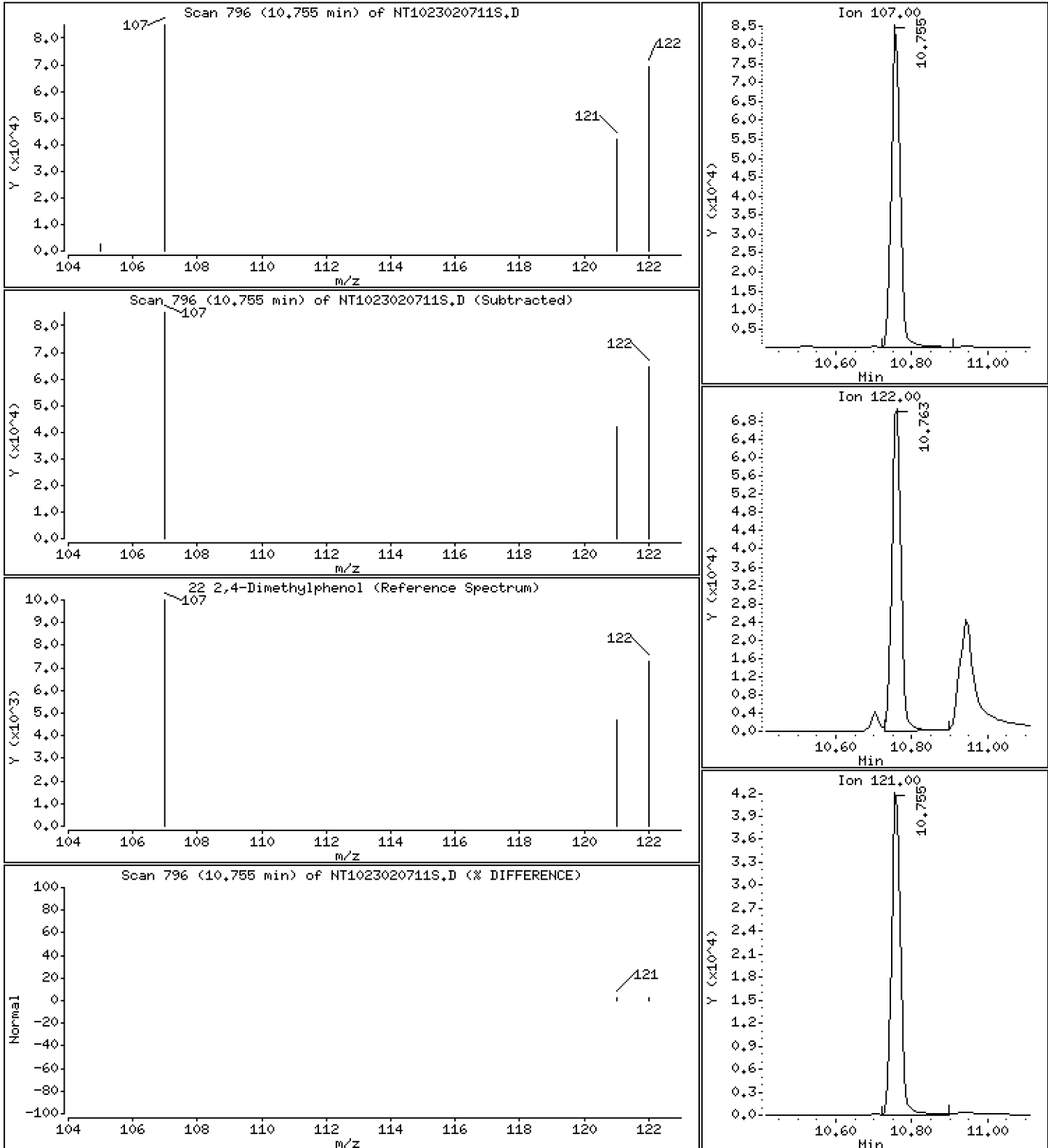
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 3,353 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

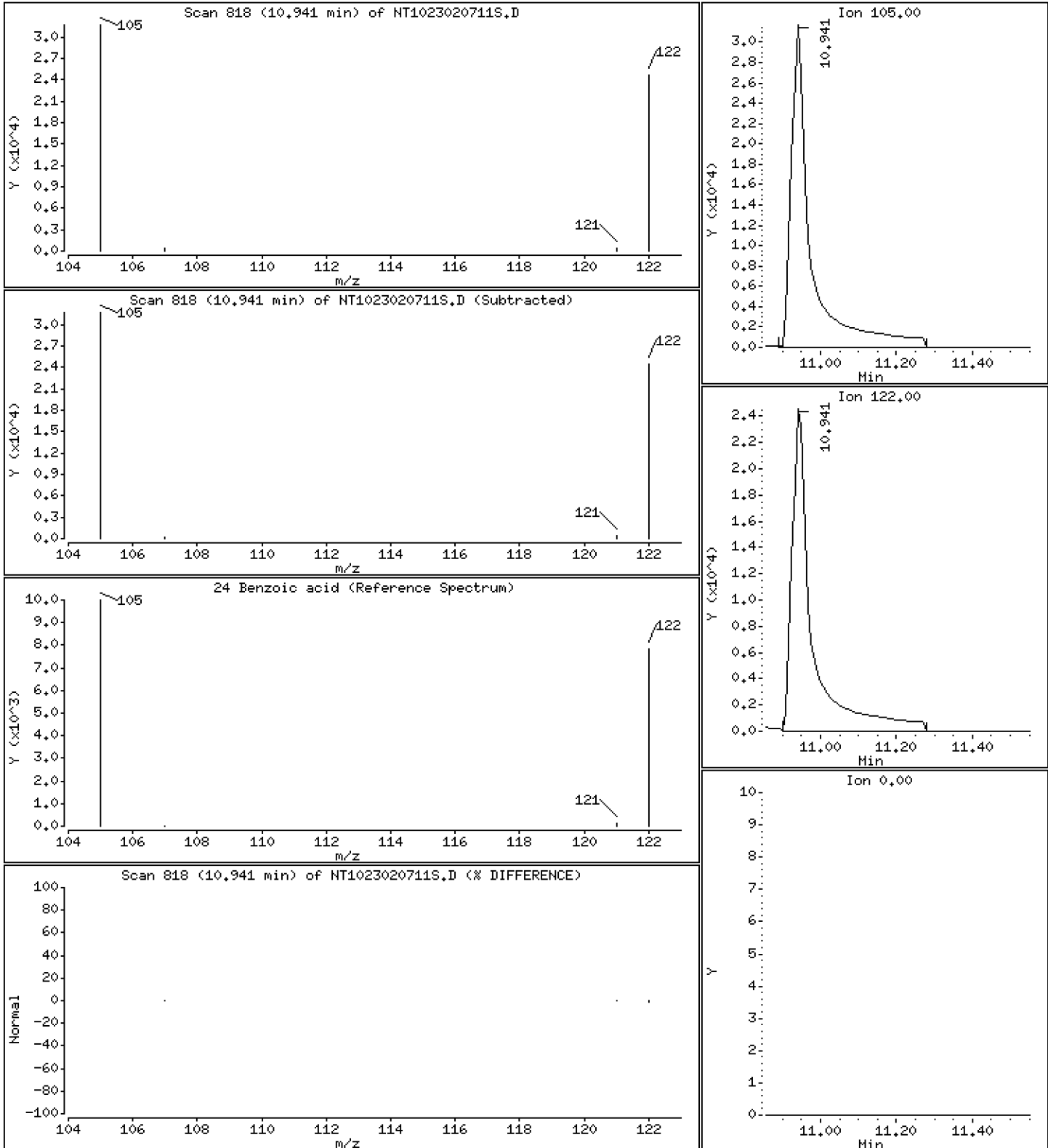
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 5,884 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

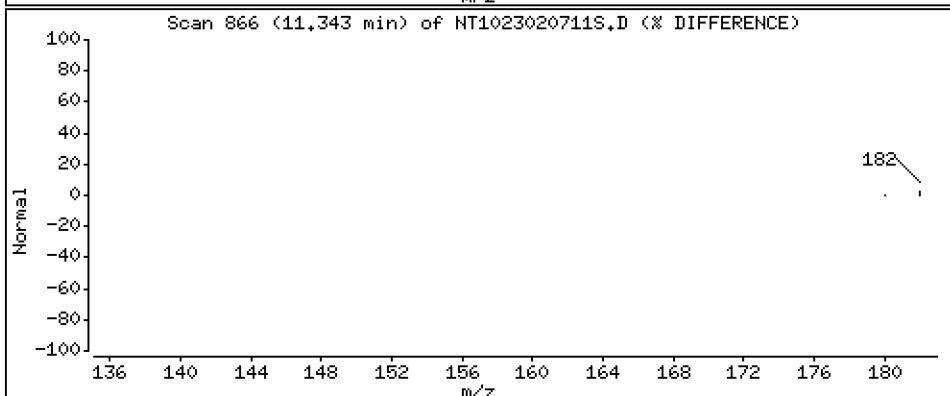
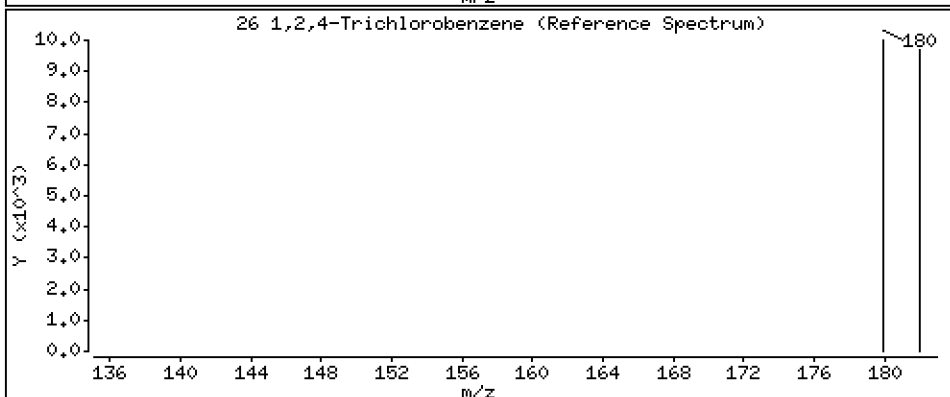
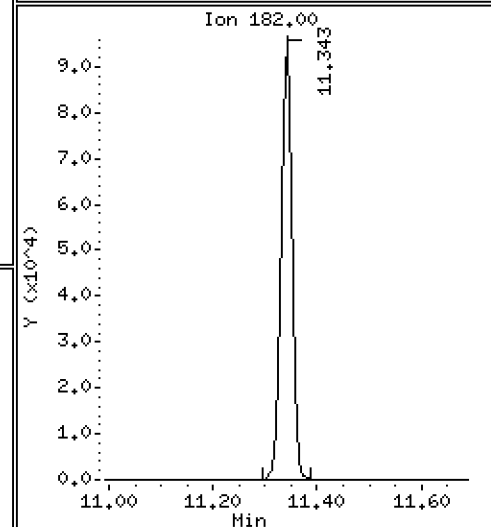
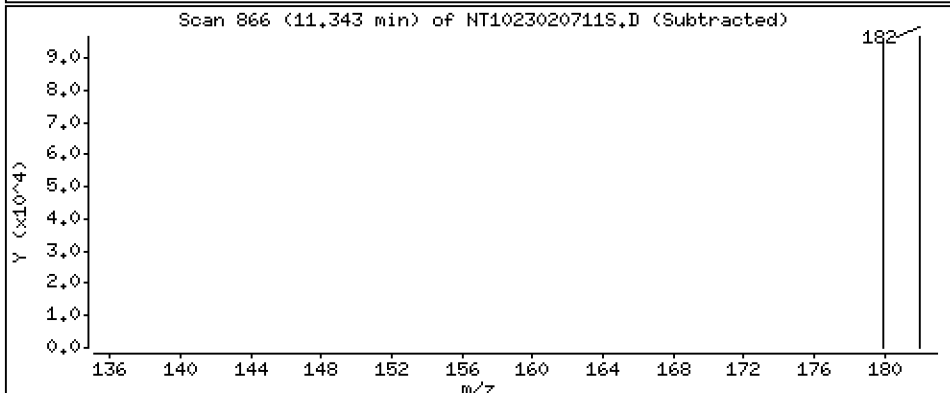
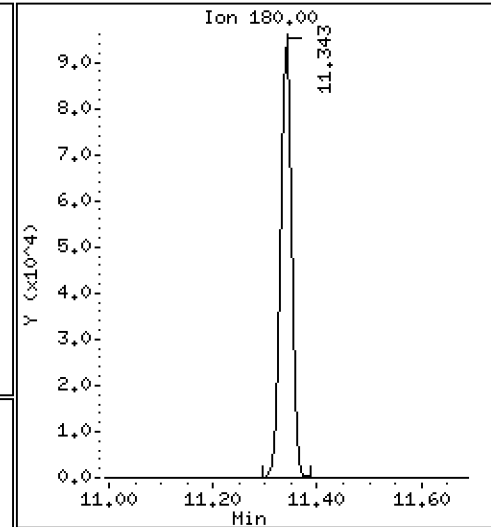
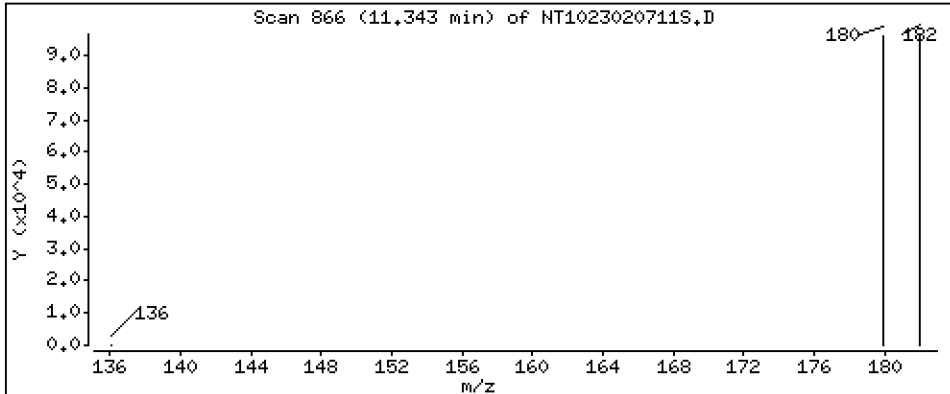
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 3,930 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

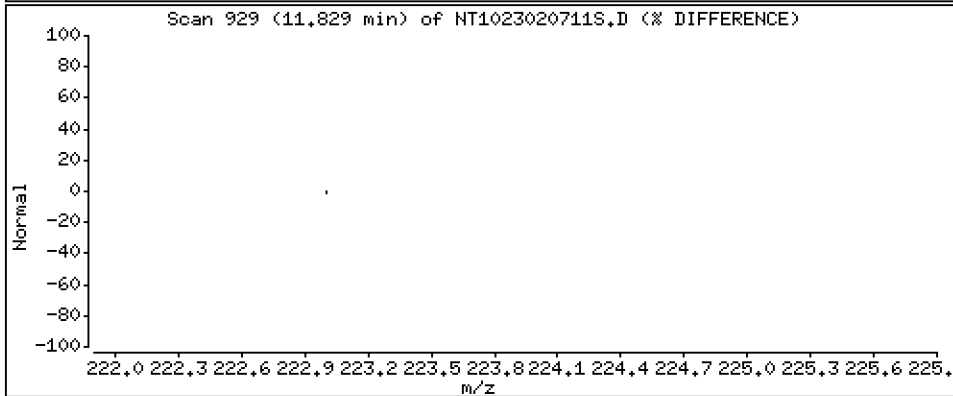
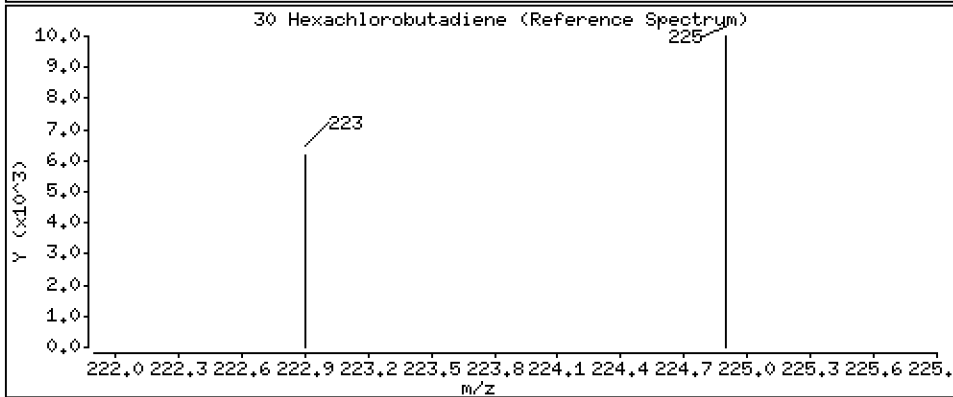
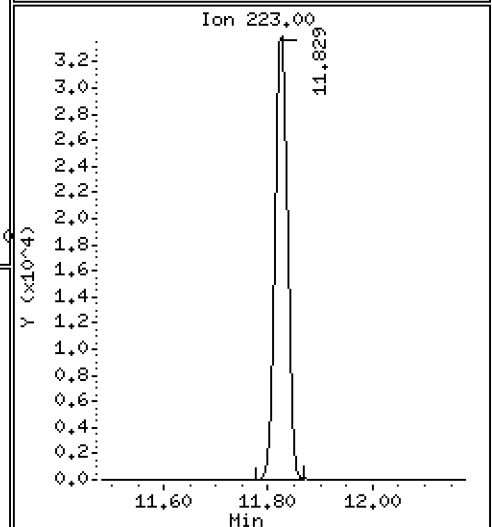
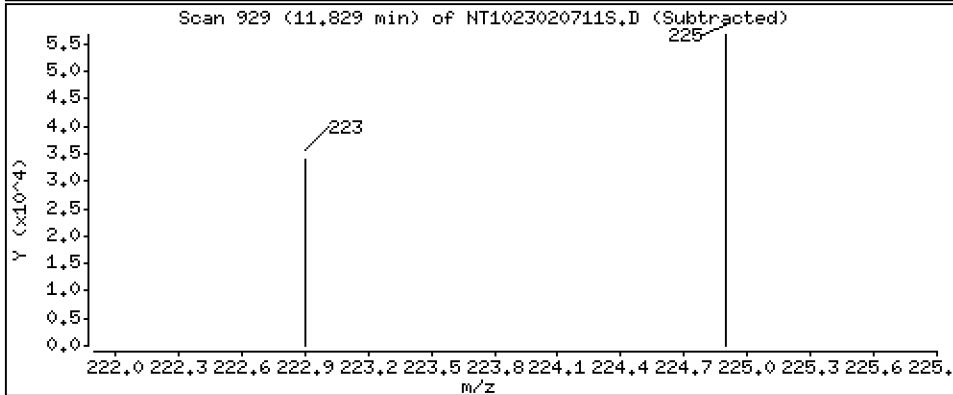
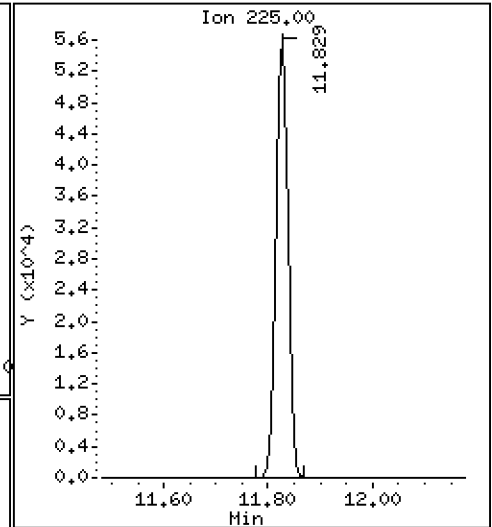
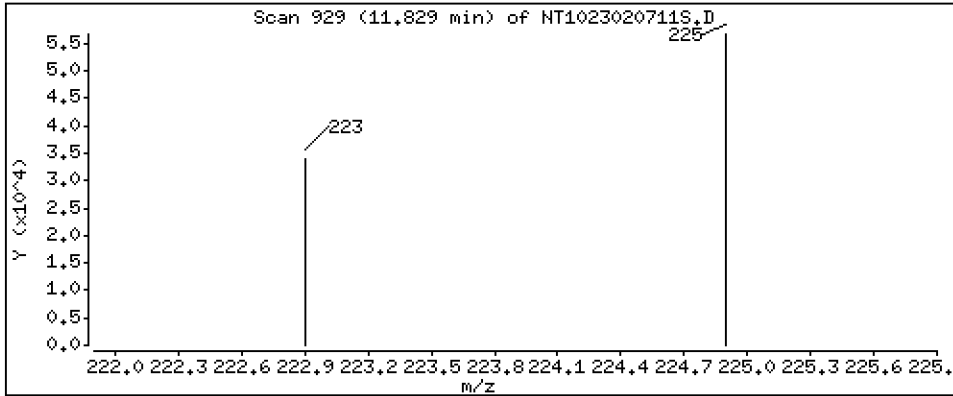
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,166 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

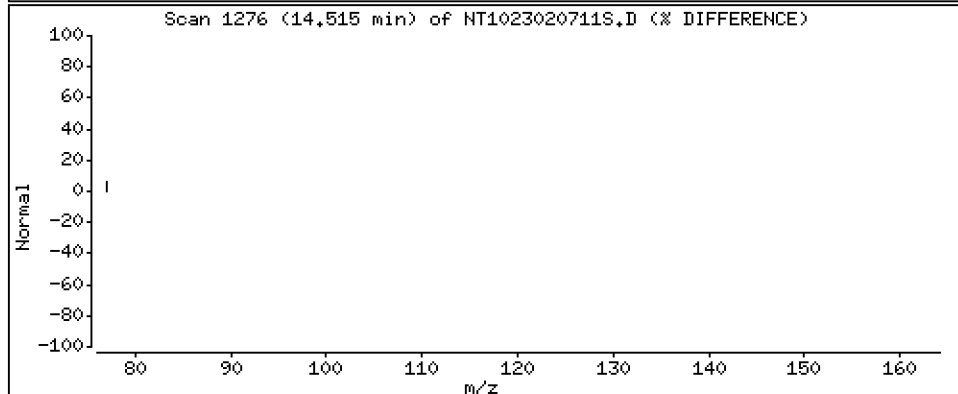
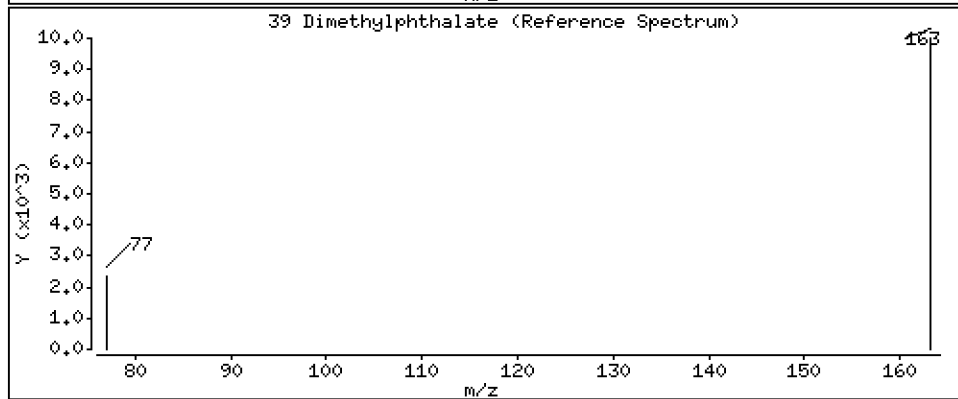
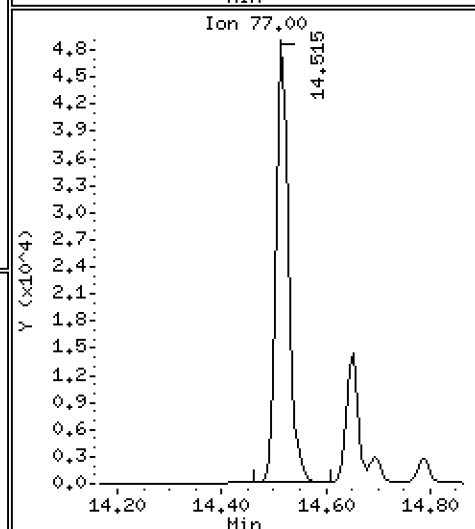
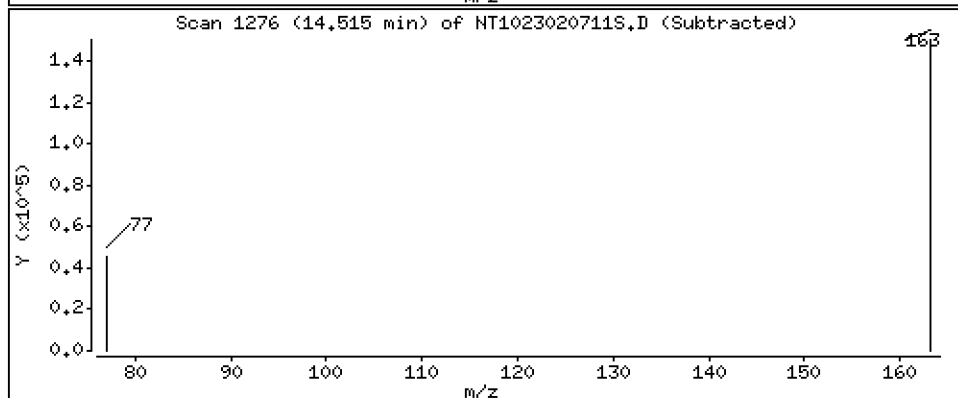
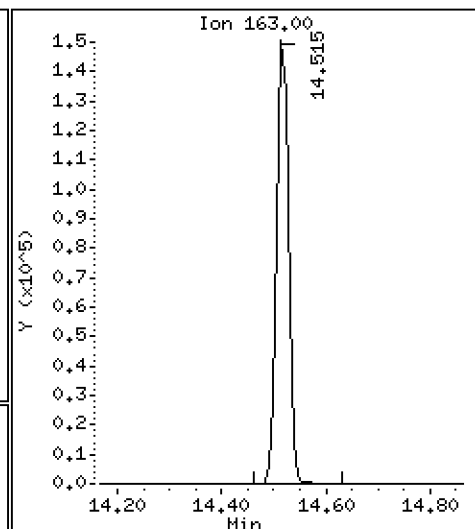
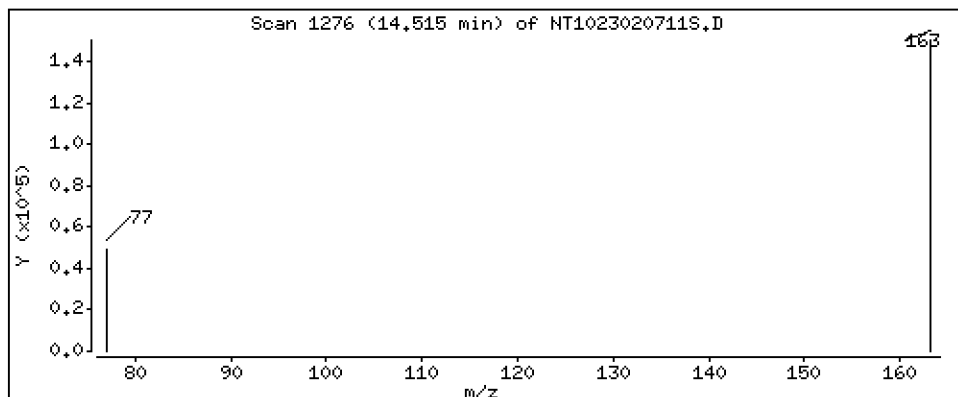
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 4.173 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

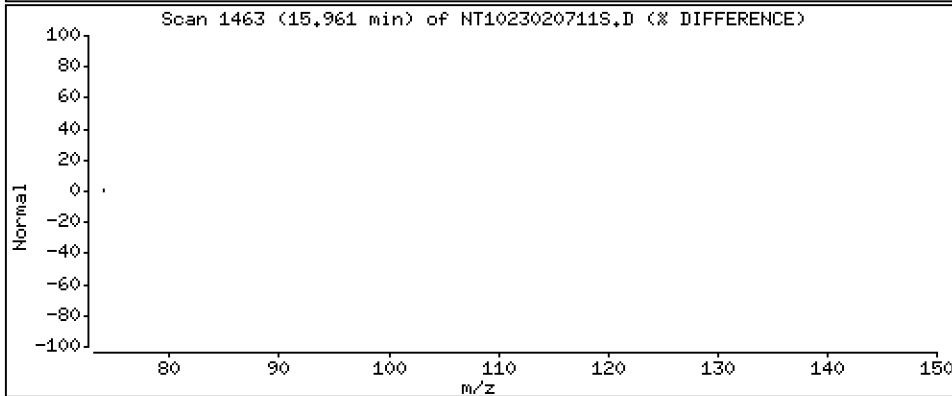
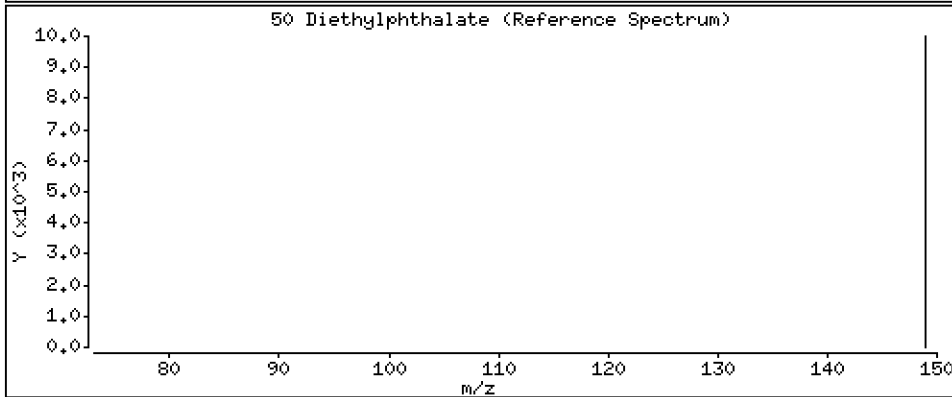
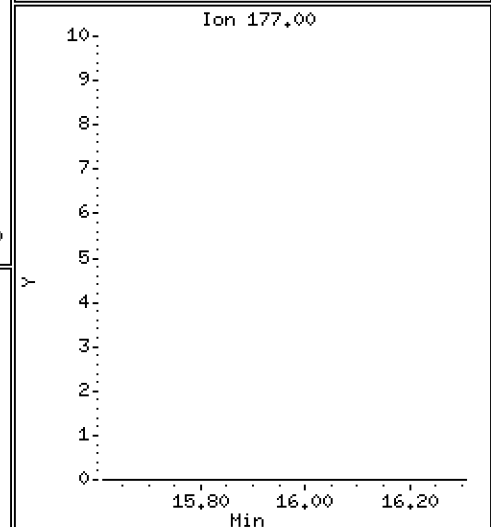
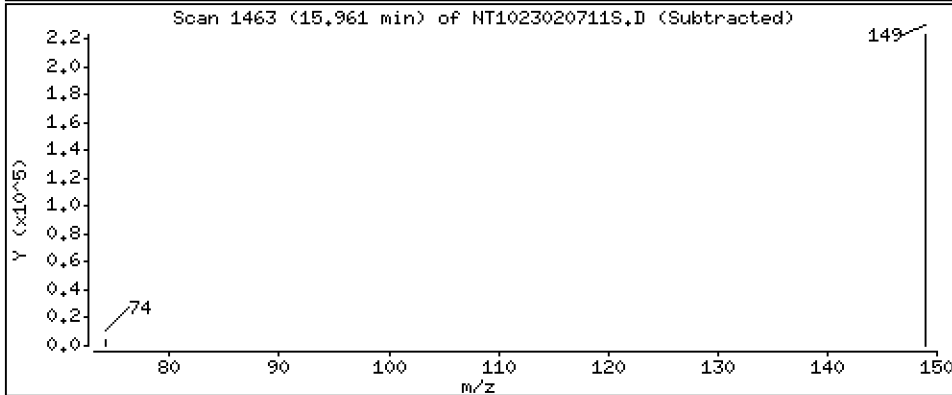
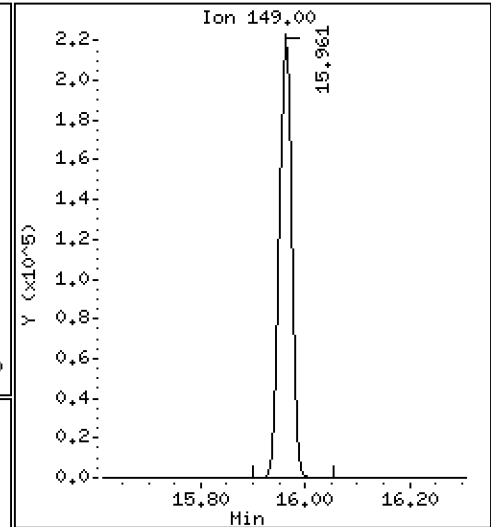
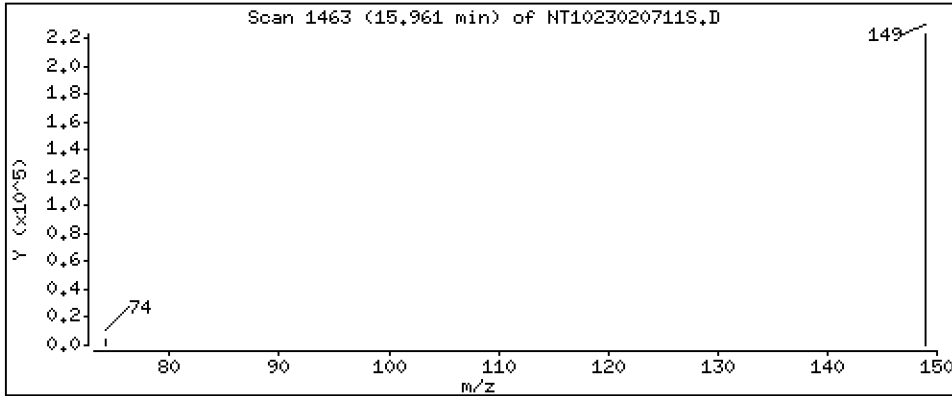
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,282 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

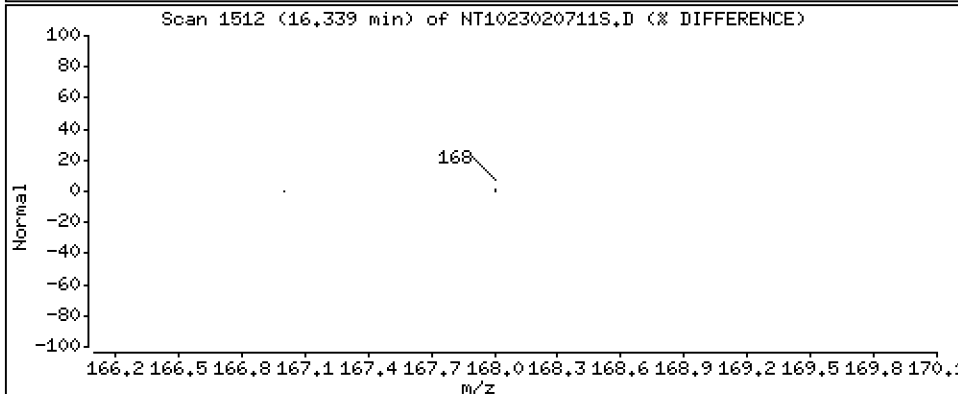
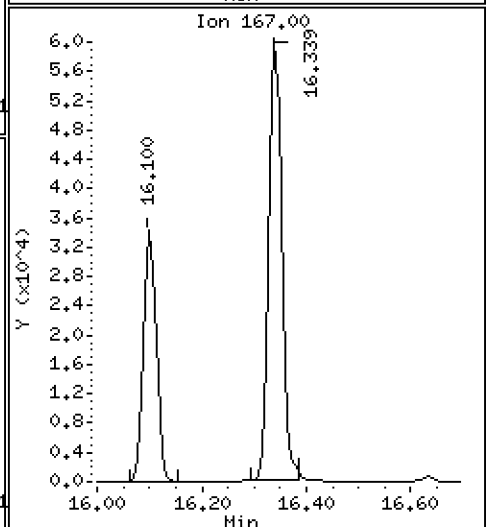
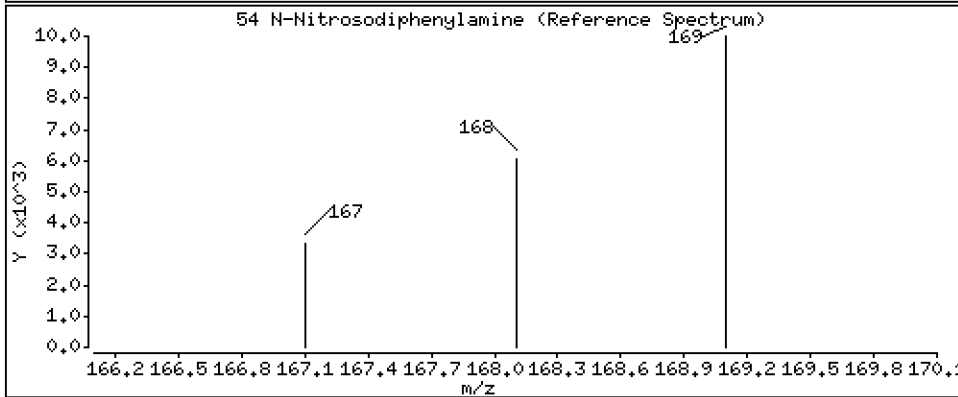
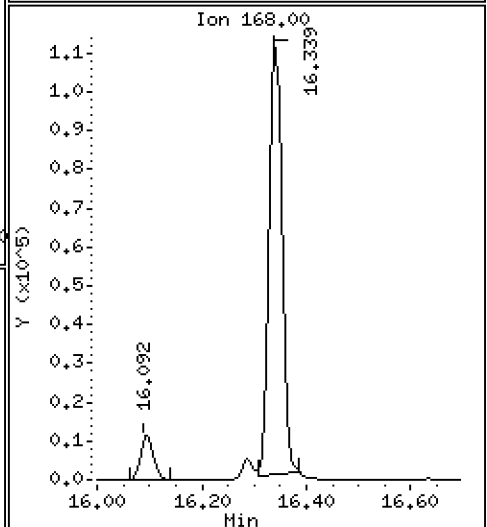
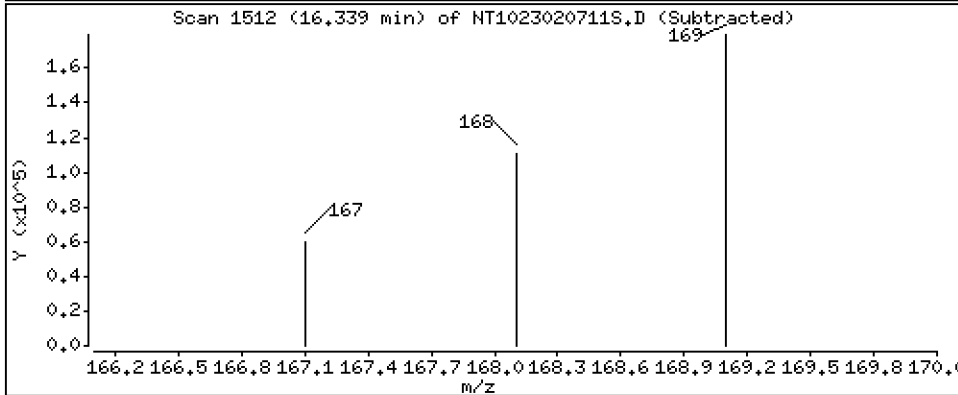
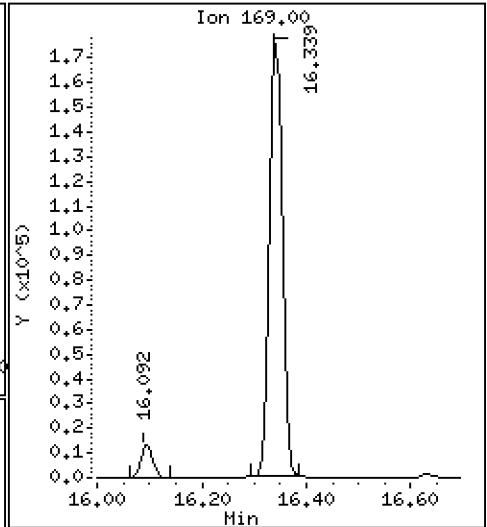
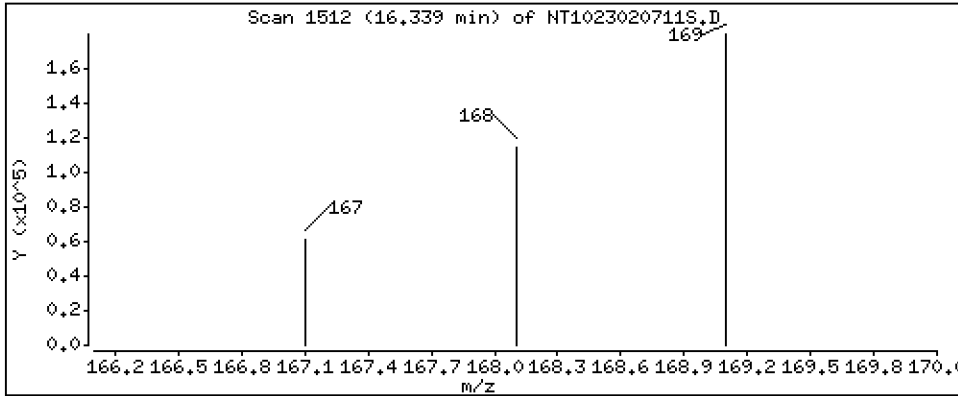
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 4.205 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

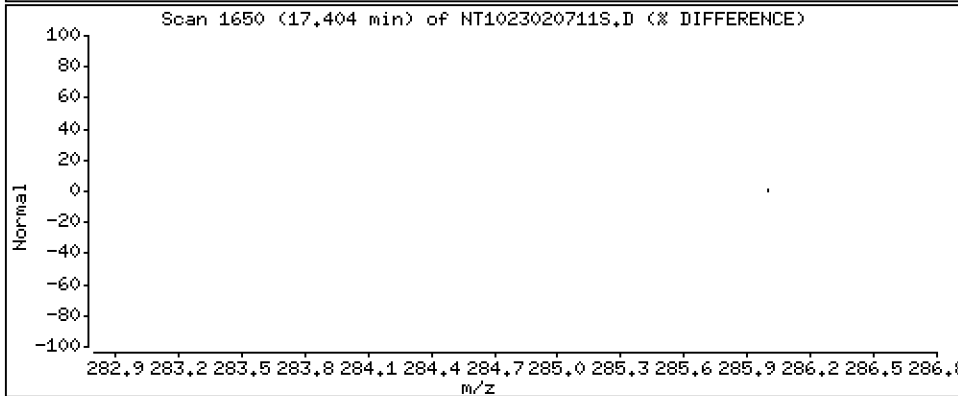
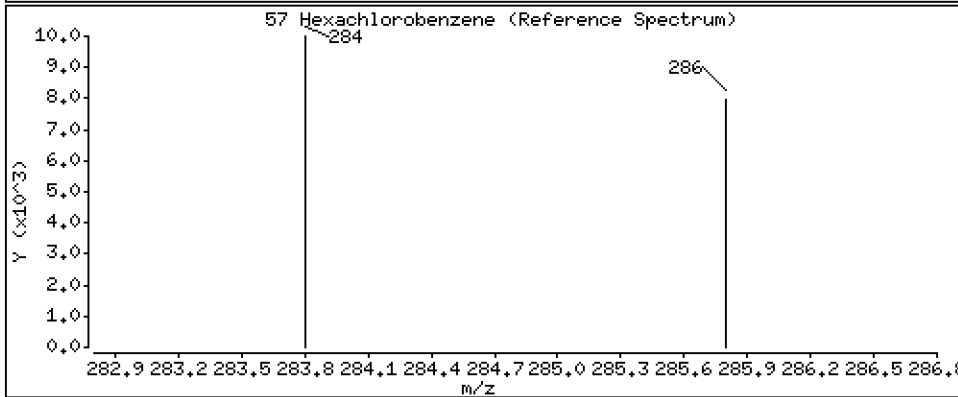
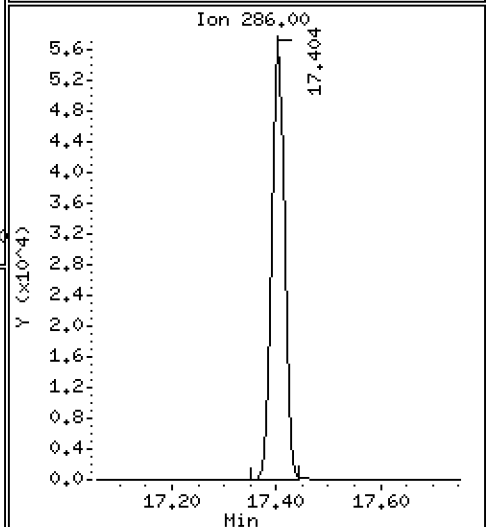
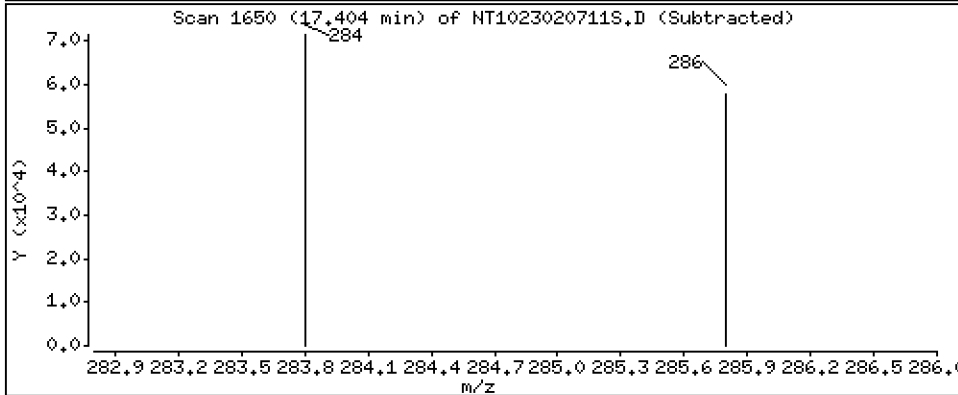
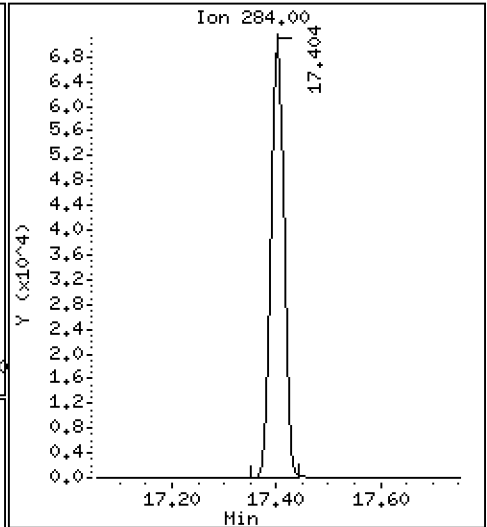
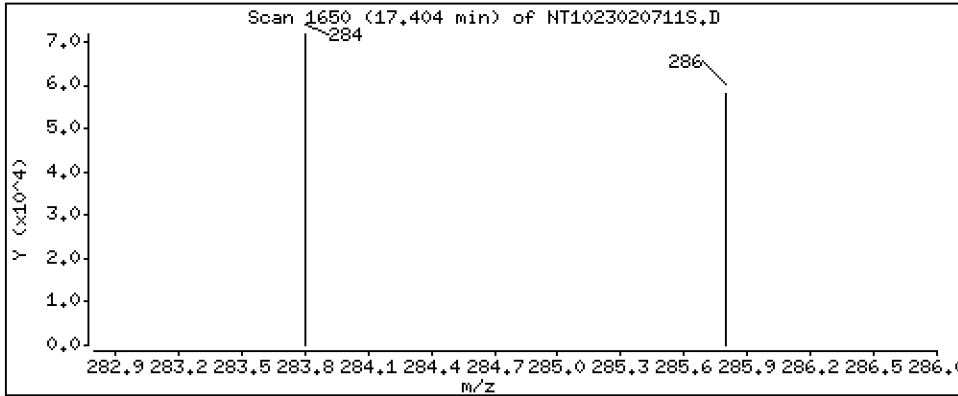
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 4.026 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

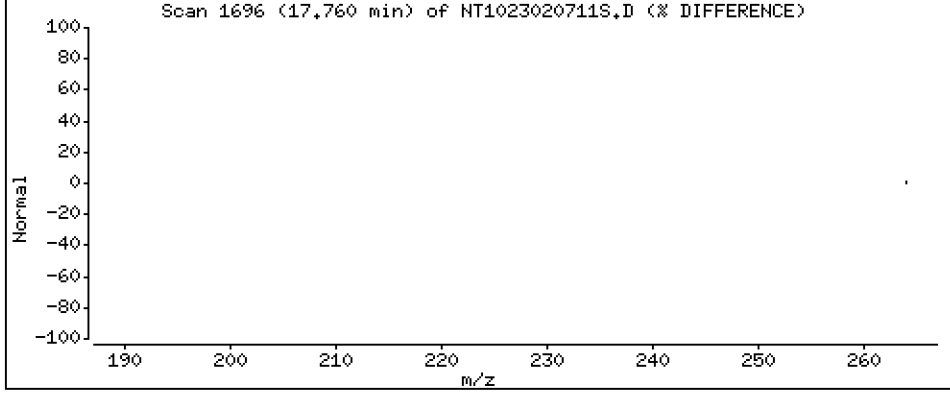
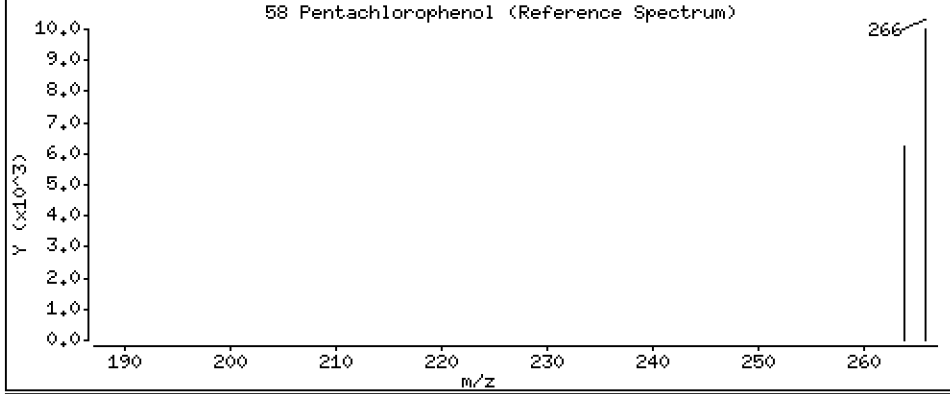
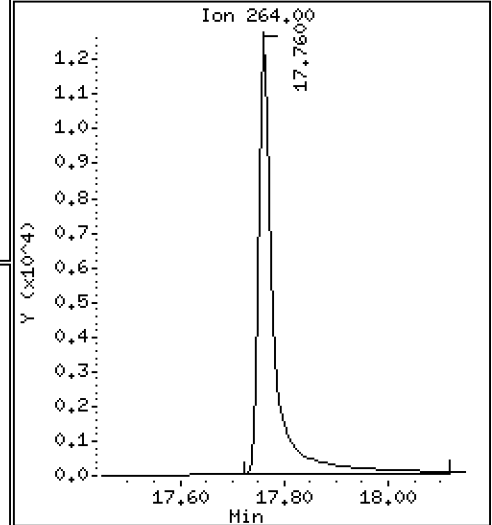
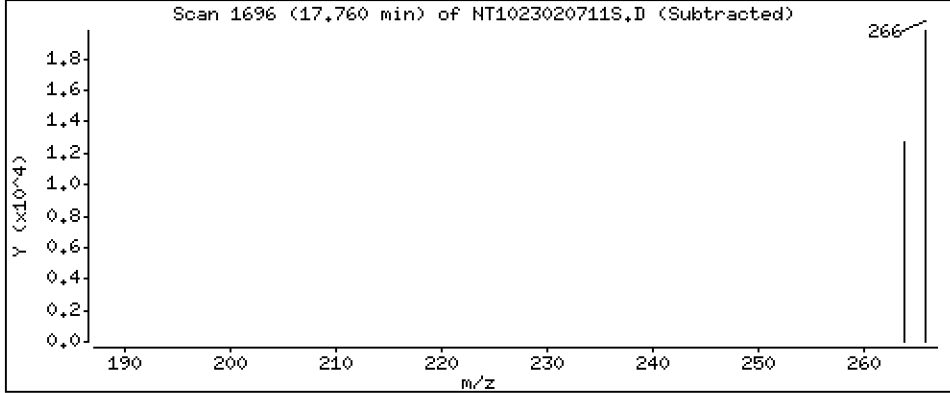
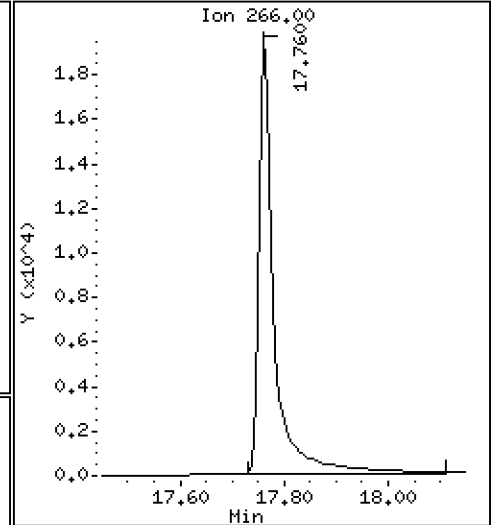
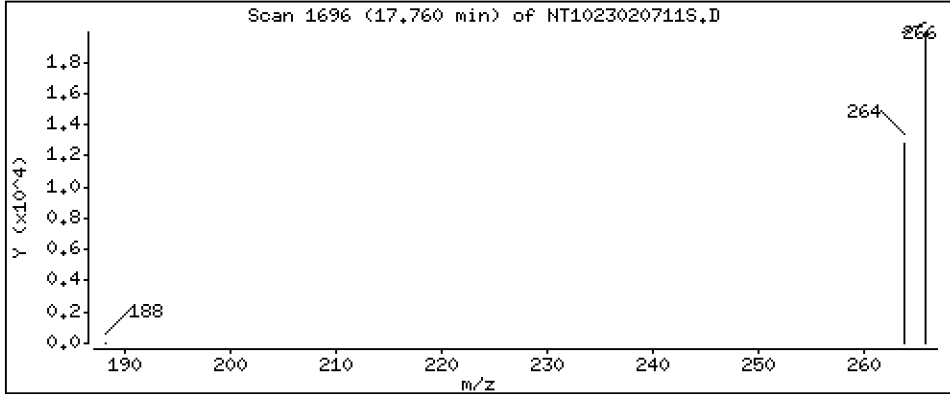
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,994 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

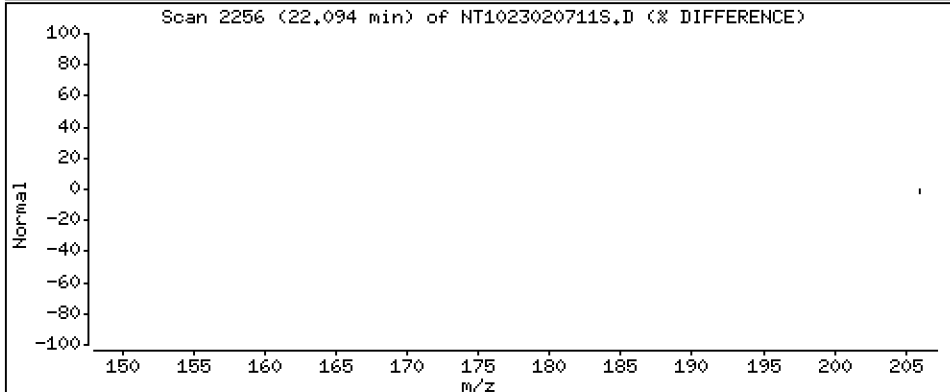
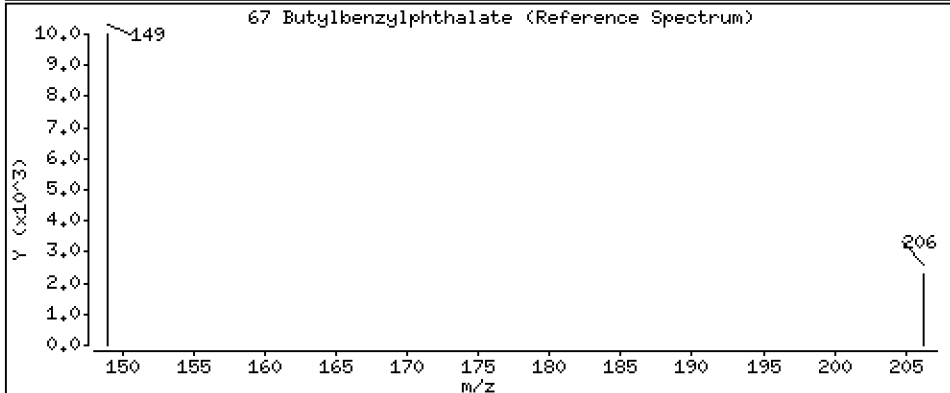
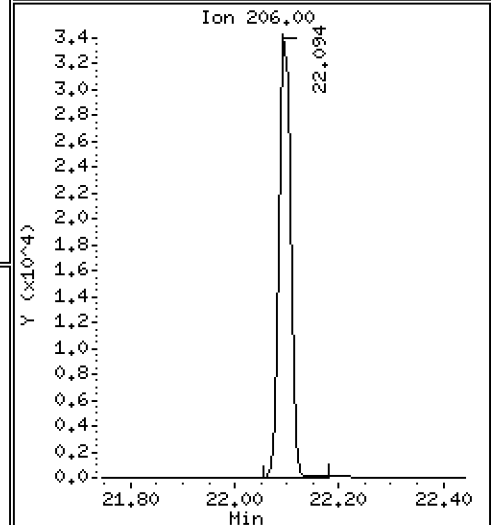
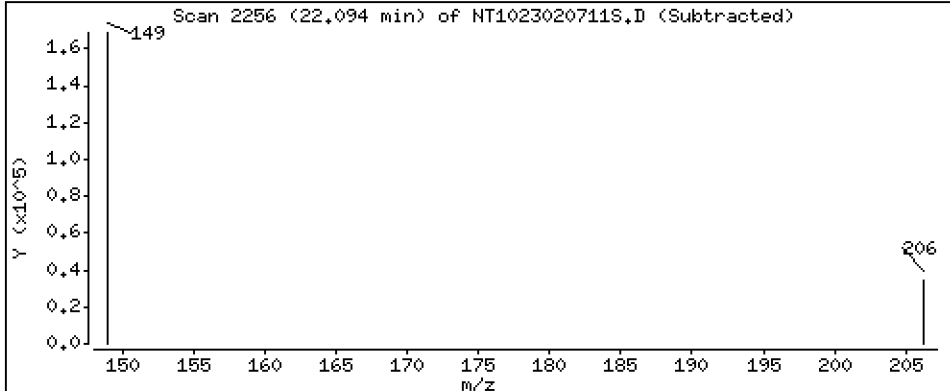
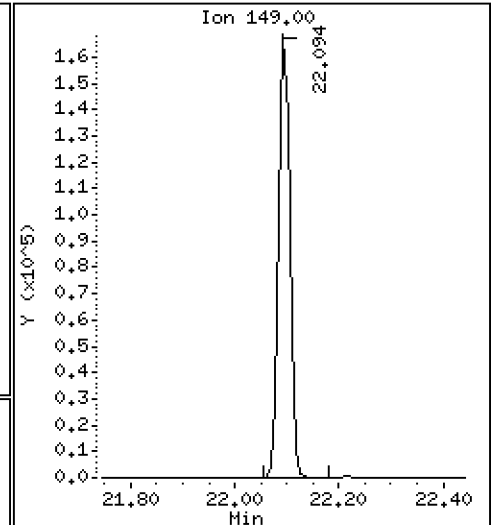
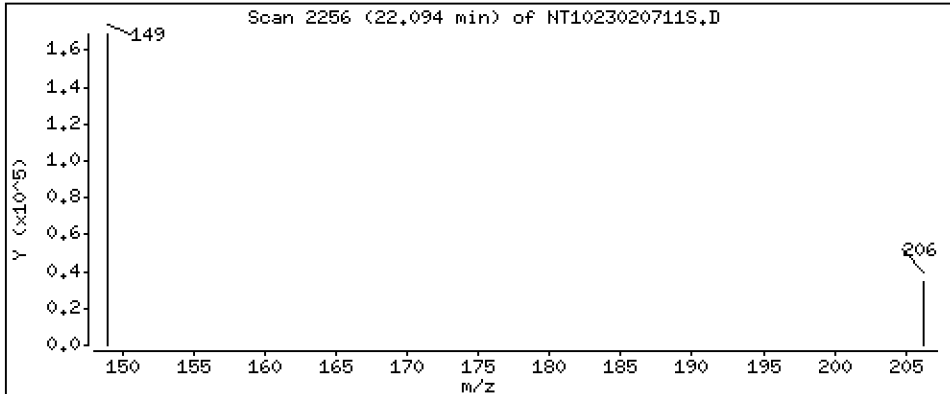
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 4.408 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

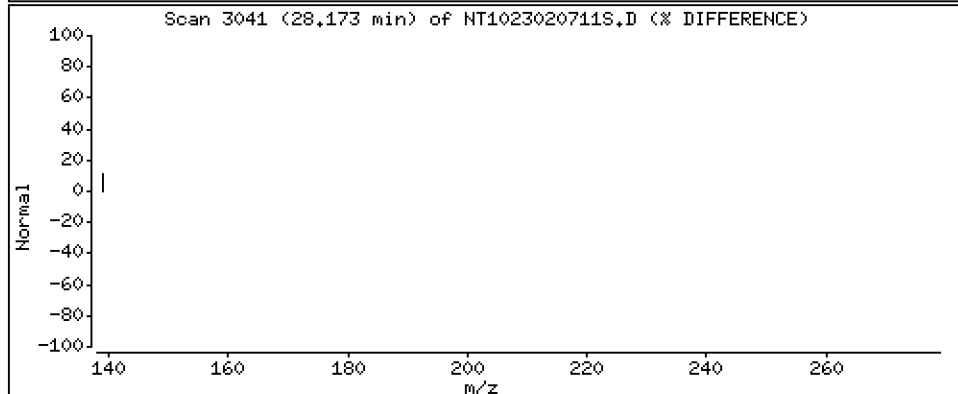
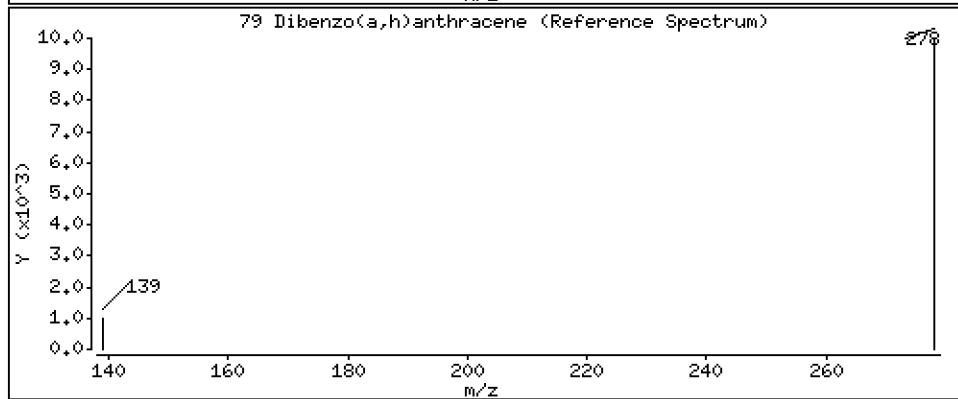
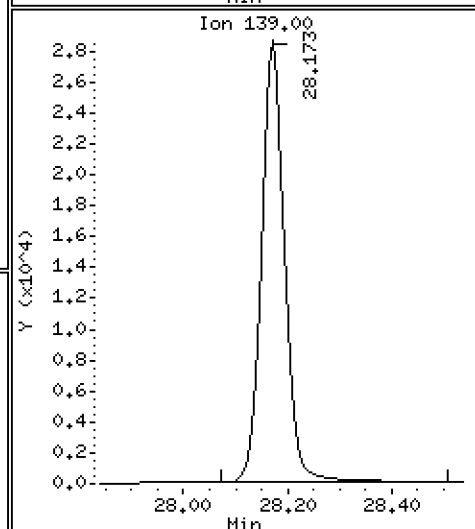
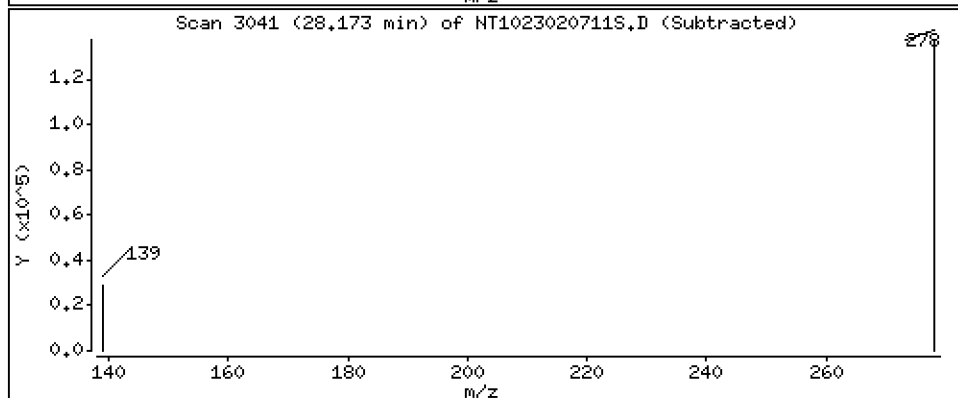
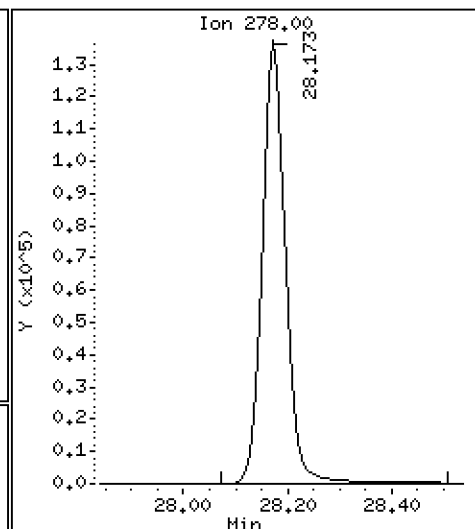
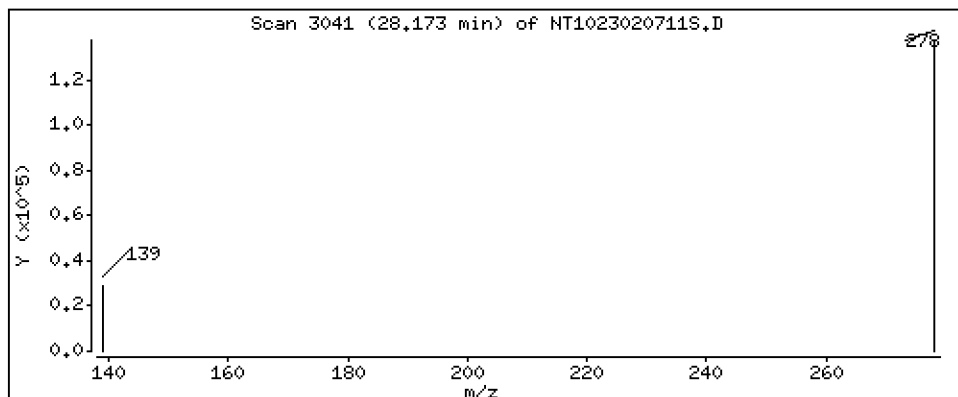
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,213 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

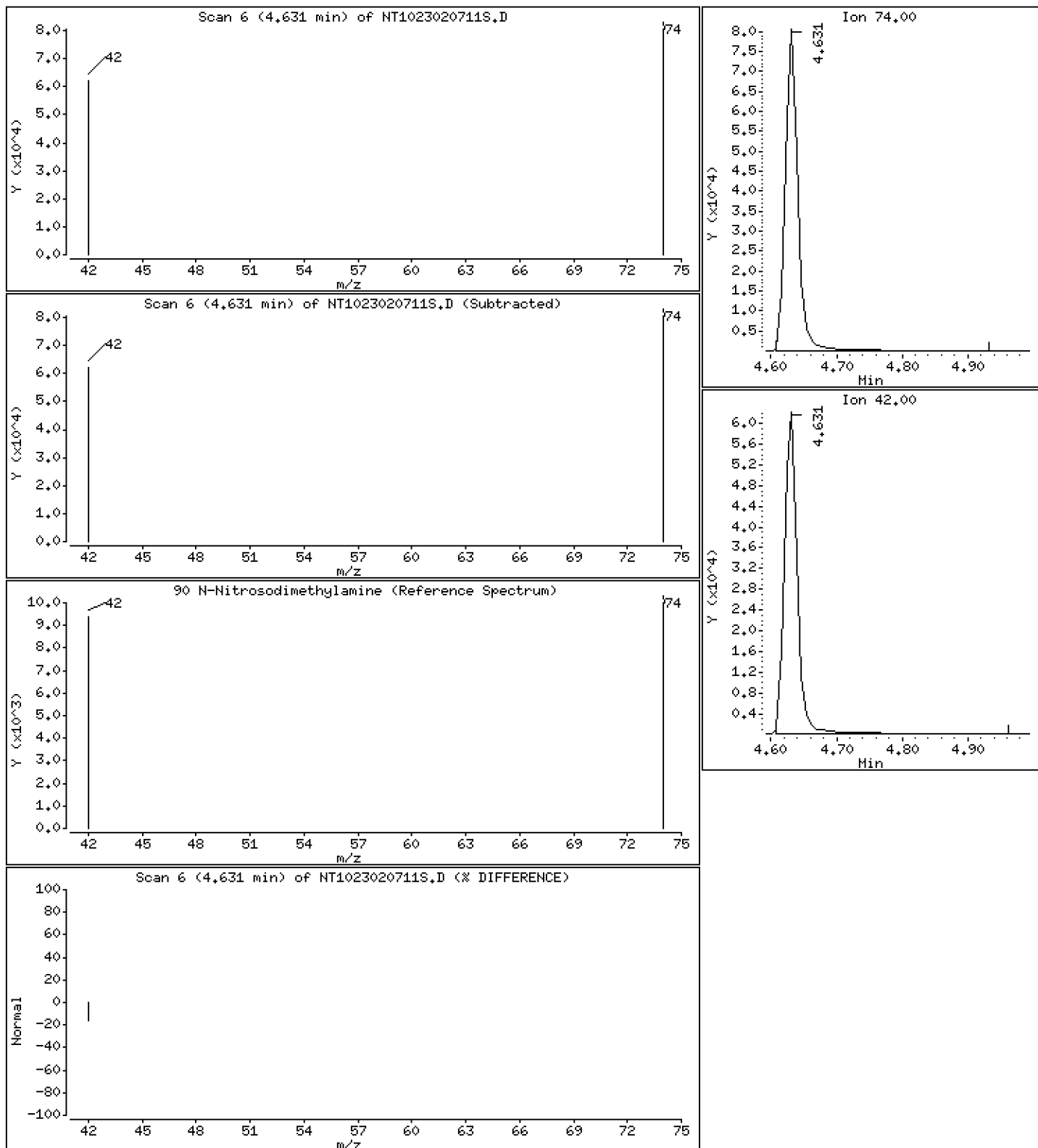
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 4,486 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020711S.D
 Lab Smp Id: SLB0106-SCV1
 Inj Date : 07-FEB-2023 18:04 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 09-Feb-2023 12:21 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
\$ 1 2-Fluorophenol	112		6.770	6.785	(0.755)	257806	6.97332	6.973 (R)
3 Phenol	94		8.362	8.369	(0.933)	232442	4.16958	4.170
7 1,3-Dichlorobenzene	146		8.903	8.903	(0.993)	208793	4.15895	4.159
* 8 1,4-Dichlorobenzene-d4	152		8.965	8.965	(1.000)	121574	4.00000	
9 1,4-Dichlorobenzene	146		8.996	8.996	(1.003)	207977	4.23719	4.237
11 Benzyl alcohol	79		9.228	9.267	(1.029)	133450	4.90710	4.907
12 1,2-Dichlorobenzene	146		9.345	9.345	(1.042)	201423	4.20453	4.205
13 2-Methylphenol	108		9.461	9.469	(1.055)	138888	3.64937	3.649
15 4-Methylphenol	108		9.733	9.741	(1.086)	154509	3.98044	3.980
16 N-Nitroso-di-n-propylamine	70		9.780	9.780	(1.091)	121809	4.39583	4.396
22 2,4-Dimethylphenol	107		10.754	10.763	(0.942)	134677	3.35264	3.353
24 Benzoic acid	105		10.941	11.204	(0.958)	112855	5.88397	5.884
26 1,2,4-Trichlorobenzene	180		11.342	11.342	(0.993)	147977	3.93002	3.930
* 27 Naphthalene-d8	136		11.419	11.419	(1.000)	457304	4.00000	
30 Hexachlorobutadiene	225		11.829	11.829	(1.036)	85644	4.16602	4.166
39 Dimethylphthalate	163		14.514	14.514	(0.967)	225259	4.17269	4.173
* 42 Acenaphthene-d10	162		15.010	15.002	(1.000)	231625	4.00000	
50 Diethylphthalate	149		15.960	15.961	(1.063)	348168	4.28244	4.282
54 N-Nitrosodiphenylamine	169		16.339	16.346	(0.907)	286918	4.20471	4.205
57 Hexachlorobenzene	284		17.404	17.404	(0.966)	116927	4.02634	4.026

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	17.760	17.799	(0.986)	41808	3.99436	3.994
* 59 Phenanthrene-d10	188	18.015	18.015	(1.000)	412906	4.00000	
\$ 66 Terphenyl-d14	244	21.164	21.164	(0.917)	336208	4.23932	4.239(R)
67 Butylbenzylphthalate	149	22.093	22.094	(0.958)	236283	4.40766	4.408
* 69 Chrysene-d12	240	23.069	23.061	(1.000)	357298	4.00000	
* 77 Perylene-d12	264	25.616	25.616	(1.000)	361150	4.00000	
79 Dibenzo(a,h)anthracene	278	28.173	28.188	(1.100)	426459	4.21339	4.213
90 N-Nitrosodimethylamine	74	4.631	4.646	(0.517)	108685	4.48609	4.486

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020711S.D
 Lab Smp Id: SLB0106-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 07-FEB-2023
 Calibration Time: 14:52
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	128794	64397	257588	121574	-5.61
27 Naphthalene-d8	469043	234522	938086	457304	-2.50
42 Acenaphthene-d10	233225	116613	466450	231625	-0.69
59 Phenanthrene-d10	433858	216929	867716	412906	-4.83
69 Chrysene-d12	361809	180905	723618	357298	-1.25
77 Perylene-d12	380407	190204	760814	361150	-5.06

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.97	0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.01	0.05
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	0.00
69 Chrysene-d12	23.06	22.56	23.56	23.07	0.03
77 Perylene-d12	25.62	25.12	26.12	25.62	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020711S.D

Lab ID: SLB0106-SCV1

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

07-FEB-2023 18:04

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
0.958	0.000	0.9581		Benzoic acid

RRT check based on Ccal File: 20230207.b/NT1023020710S.D

On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *



INITIAL CALIBRATION CHECK
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT8

Calibration: GA00050

Lab File ID: N823011912.D

Calibration Date: 01/19/2023

Sequence: SLA0228

Injection Date: 01/19/23

Lab Sample ID: SLA0228-ICV1

Injection Time: 16:16

Sequence Name: Initial Cal Check

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Naphthalene	A	2.5000	2.57	0.9299181	0.9571254		2.9	+/-20
2-Methylnaphthalene	A	2.5000	2.67	0.5115033	0.5451792		6.6	+/-20
1-Methylnaphthalene	A	2.5000	2.63	0.5191318	0.5455931		5.1	+/-20
Acenaphthylene	A	2.5000	2.69	1.5102600	1.6223280		7.4	+/-20
Acenaphthene	A	2.5000	2.60	1.0119150	1.0526050		4.0	+/-20
Dibenzofuran	A	2.5000	2.58	1.5369690	1.5872370		3.3	+/-20
Fluorene	A	2.5000	2.62	1.1937240	1.2530800		5.0	+/-20
Phenanthrene	A	2.5000	2.52	0.9769567	0.9853581		0.8	+/-20
Anthracene	A	2.5000	2.64	0.8874960	0.9380831		5.7	+/-20
Fluoranthene	A	2.5000	2.64	1.0634260	1.1237250		5.7	+/-20
Pyrene	A	2.5000	2.67	1.2399700	1.3254390		6.9	+/-20
Benzo(a)anthracene	A	2.5000	2.60	1.1238870	1.1666940		3.8	+/-20
Chrysene	A	2.5000	2.60	1.1964350	1.2460760		4.2	+/-20
Benzo(b)fluoranthene	A	2.5000	2.52	1.1648110	1.1730600		0.7	+/-20
Benzo(k)fluoranthene	A	2.5000	2.65	1.1409370	1.2092460		6.0	+/-20
Benzo(j)fluoranthene	A	2.5000	2.72	1.0271120	1.1189300		8.9	+/-20
Benzofluoranthenes, Total	A	7.5000	7.84	1.1031370	1.1526170		4.5	+/-20
Benzo(a)pyrene	A	2.5000	2.65	1.0250270	1.0845280		5.8	+/-20
Indeno(1,2,3-cd)pyrene	A	2.5000	2.74	1.1677520	1.2798320		9.6	+/-20
Dibenzo(a,h)anthracene	A	2.5000	2.67	1.0049440	1.0718510		6.6	+/-20
Benzo(g,h,i)perylene	A	2.5000	2.53	1.0580110	1.0724810		1.4	+/-20
2-Methylnaphthalene-d10	A	2.5000	2.63	0.5454499	0.5742828		5.3	+/-20
Dibenzo[a,h]anthracene-d14	A	2.5000	2.26	0.6679424	0.7076269		-9.7	+/-20
Fluoranthene-d10	A	2.5000	2.66	0.8823923	0.9398538		6.5	
Naphthalene-d8	A	2.0000	2.00	22973.6700	1.0000		0.0	
Acenaphthene-d10	A	2.0000	2.00	13579.2500	1.0000		0.0	
Phenanthrene-d10	A	2.0000	2.00	25616.1700	1.0000		0.0	
Chrysene-d12	A	2.0000	2.00	22313.2500	1.0000		0.0	
Perylene-d12	A	2.0000	2.00	21012.9200	1.0000		0.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt8.1\20230119A,B\N823011912.D

Date: 19-JAN-2023 16:16

Client ID:

Sample Info: ICW230119A

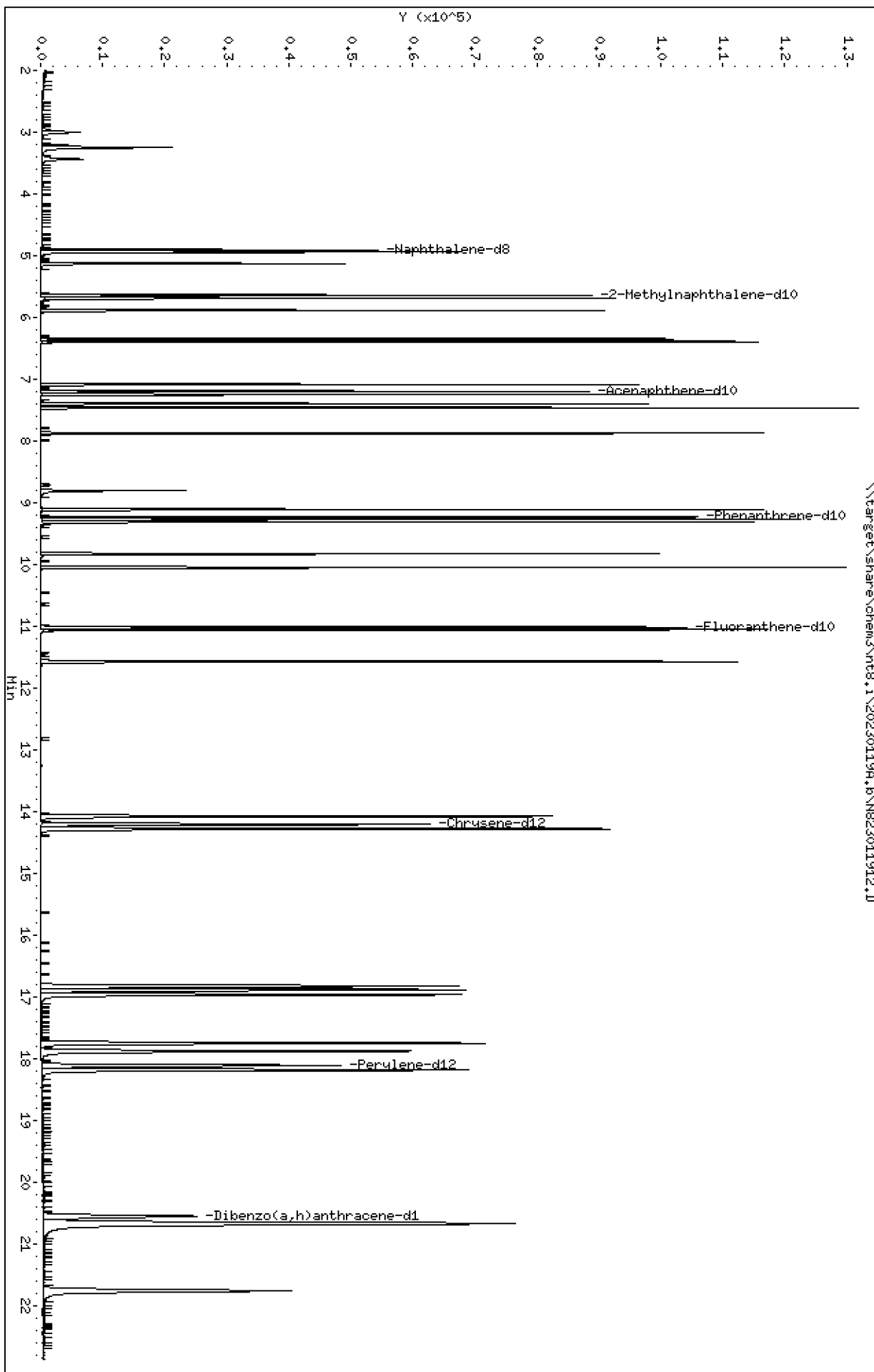
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatle Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119A.b\N823011912.D
 Lab Smp Id: SLA0228-ICV1
 Inj Date : 19-JAN-2023 16:16
 Operator : JZ Inst ID: nt8.i
 Smp Info : ICV230119A
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 22:10 Jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 2 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
* 1 Naphthalene-d8	136		4.909	4.909	(1.000)	42524	2.00000	
2 Naphthalene	128		4.938	4.938	(1.006)	50876	2.50000	2.573
§ 3 2-Methylnaphthalene-d10	152		5.643	5.643	(1.149)	30526	2.50000	2.632
4 2-Methylnaphthalene	141		5.690	5.690	(1.159)	28979	2.50000	2.665
5 1-methylnaphthalene	141		5.887	5.887	(1.199)	29001	2.50000	2.627
7 Biphenyl	154		6.348	6.348	(0.882)	42570	2.50000	2.555
8 2,6-Dimethylnaphthalene	156		6.392	6.392	(0.888)	31359	2.50000	2.659
9 Acenaphthylene	152		7.088	7.088	(0.985)	51225	2.50000	2.686
* 10 Acenaphthene-d10	164		7.199	7.199	(1.000)	25260	2.00000	
11 Acenaphthene	153		7.246	7.246	(1.007)	33236	2.50000	2.601
12 Dibenzofuran	168		7.398	7.398	(1.028)	50117	2.50000	2.582
13 1,6,7-Trimethylnaphthalene	170		7.461	7.461	(1.036)	32118	2.50000	2.624
14 Fluorene	166		7.875	7.875	(1.094)	39566	2.50000	2.624
18 Dibenzothiophene	184		9.109	9.109	(0.986)	55130	2.50000	2.605
* 15 Phenanthrene-d10	188		9.238	9.238	(1.000)	47890	2.00000	
16 Phenanthrene	178		9.270	9.270	(1.003)	58986	2.50000	2.521
17 Anthracene	178		9.311	9.311	(1.008)	56156	2.50000	2.642
19 Carbazole	167		9.826	9.826	(1.064)	51669	2.50000	2.652
20 1-Methylphenanthrene	192		10.048	10.048	(1.088)	44075	2.50000	2.615
22 Fluoranthene	202		11.053	11.053	(1.196)	67269	2.50000	2.642
§ 21 Fluoranthene-d10	212		11.015	11.015	(1.192)	56262	2.50000	2.663
23 Pyrene	202		11.575	11.575	(0.815)	67155	2.50000	2.672
24 Benzo(a)anthracene	228		14.079	14.079	(0.991)	59112	2.50000	2.595
* 25 Chrysene-d12	240		14.209	14.209	(1.000)	40533	2.00000	
27 Chrysene	228		14.282	14.282	(1.005)	63134	2.50000	2.604
28 Benzo(b)fluoranthene	252		16.827	16.827	(0.929)	55889	2.50000	2.518
29 Benzo(k)fluoranthene	252		16.890	16.890	(0.932)	57613	2.50000	2.650
30 Benzo(j)fluoranthene	252		16.969	16.969	(0.937)	53310	2.50000	2.723
31 Total Benzofluoranthenes	252		16.890	16.890	(0.932)	164745	7.50000	7.836 (M)
34 Benzo(e)pyrene	252		17.753	17.753	(0.980)	55734	2.50000	2.518
32 Benzo(a)pyrene	252		17.880	17.880	(0.987)	51671	2.50000	2.645
* 33 Perylene-d12	264		18.117	18.117	(1.000)	38115	2.00000	
35 Perylene	252		18.187	18.187	(1.004)	55022	2.50000	2.625

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 36 Dibenzo(a,h)anthracene-d14	292		20.555	20.555	(1.135)	33714	2.50000	2.257
37 Indeno(1,2,3-cd)pyrene	276		20.681	20.681	(1.142)	60976	2.50000	2.740
38 Dibenzo(a,h)anthracene	278		20.666	20.666	(1.141)	51067	2.50000	2.666
39 Benzo(g,h,i)perylene	276		21.763	21.763	(1.201)	51097	2.50000	2.534

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011912.D Calibration Time: 12:52
 Lab Smp Id: SLA0228-ICV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	44704	22352	89408	42524	-4.88
10 Acenaphthene-d10	26411	13206	52822	25260	-4.36
15 Phenanthrene-d10	49210	24605	98420	47890	-2.68
25 Chrysene-d12	42994	21497	85988	40533	-5.72
33 Perylene-d12	40520	20260	81040	38115	-5.94

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.00
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.00
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.00
25 Chrysene-d12	14.21	13.71	14.71	14.21	0.00
33 Perylene-d12	18.12	17.62	18.62	18.12	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011912.D

Lab ID: SLA0228-ICV1

nt8.i, 20230119A.b\FSIMPNA230119.m, 19-JAN-2023 16:16

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

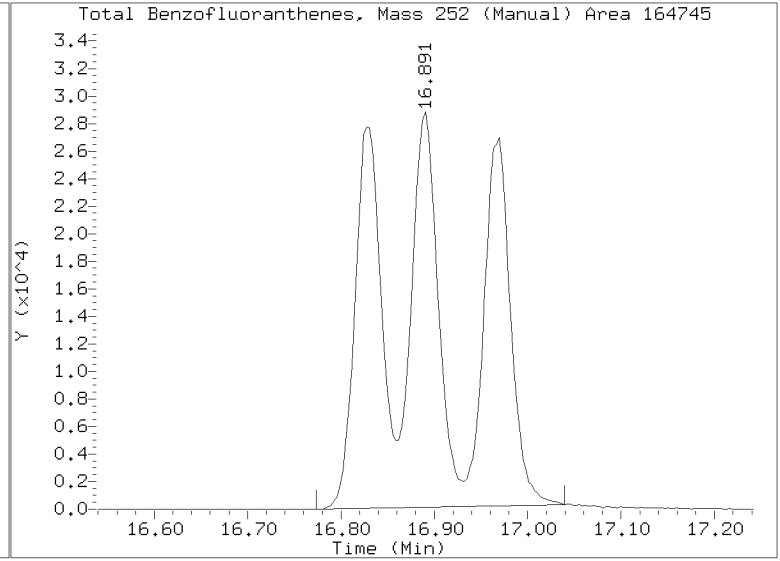
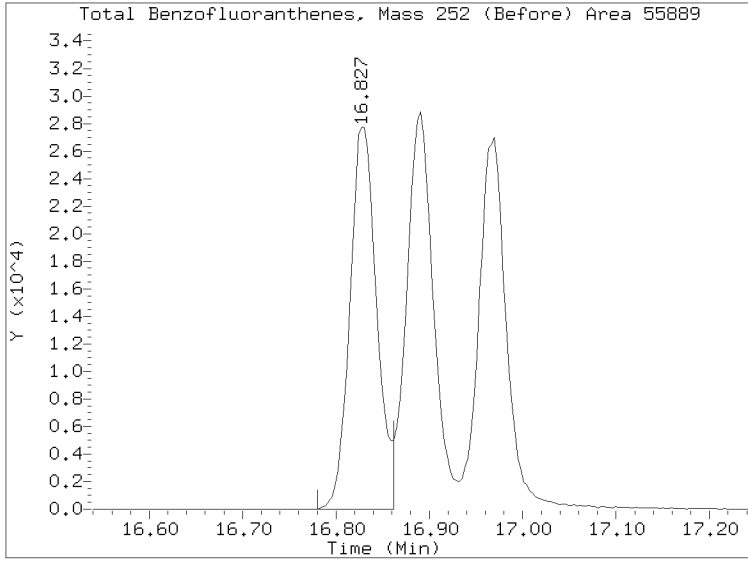
No RRT check performed

On Column LOD for nt8.i, 20230119A.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119A.b/N823011912.D
Injection Date: 19-JAN-2023 16:16
Lab ID:SLA0228-ICV1 Client ID:
Report Date: 01/25/2023 22:10



Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230119A.b

Instrument: nt8.i Date: 19-JAN-2023 Method: 20230119A.b\FSIMPNA230119.m

INITIAL CAL: 19-JAN-2023

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: N823011912.D 19-JAN-2023 16:16

Compound	%D

NO Q-FLAGS	



INITIAL CALIBRATION CHECK
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00019

Lab File ID: NT1023020714S.D

Calibration Date: 02/07/2023

Sequence: SLB0106

Injection Date: 02/07/23

Lab Sample ID: SLB0106-ICV1

Injection Time: 19:58

Sequence Name: Initial Cal Check

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene	A	1.0000	1.0	1.6149400	1.6601990		2.8	+/-20
1,2-Dichlorobenzene	A	1.0000	1.0	1.5761980	1.6285060		3.3	+/-20
Benzyl Alcohol	A	1.0000	1.0	0.8947729	0.9337136		4.4	+/-20
Benzoic acid	A	4.0000	1.8	0.1278126	0.0720782		-56.0	+/-20 *
2,4-Dimethylphenol	A	2.0000	2.1	0.3513679	0.3757299		6.9	+/-20
1,2,4-Trichlorobenzene	A	1.0000	1.0	0.3293471	0.3407554		3.5	+/-20
N-Nitrosodiphenylamine	A	1.0000	1.1	0.6610440	0.7009509		6.0	+/-20
Pentachlorophenol	A	2.0000	1.6	0.0758741	0.0794756		-19.9	+/-20
2-Fluorophenol	A	1.5000	1.55	1.2163900	1.2601210		3.6	+/-20
p-Terphenyl-d14	A	1.0000	1.04	0.8878533	0.9200419		3.6	+/-20
1,4-Dichlorobenzene-d4	A	4.0000	4.0	30973.3800	1.0000		0.0	
Naphthalene-d8	A	4.0000	4.0	113826.4000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.0	56470.7200	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.0	104263.0000	1.0000		0.0	
Chrysene-d12	A	4.0000	4.0	86682.5900	1.0000		0.0	
Perylene-d12	A	4.0000	4.0	90469.2800	1.0000		0.0	

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.145.D

Page 1

Date : 07-FEB-2023 19:58

Client ID:

Instrument: nt10.1

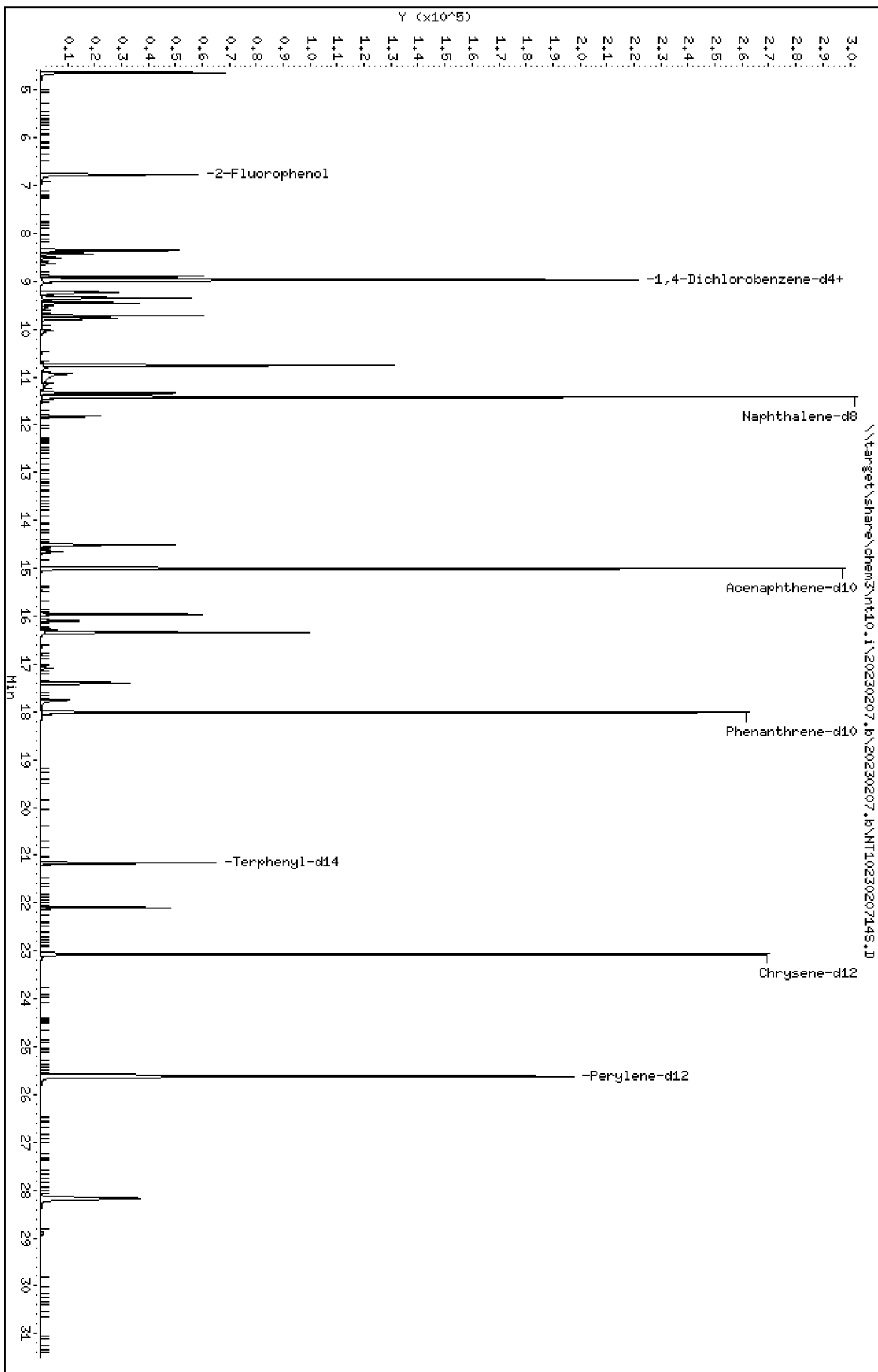
Sample Info: SLB0106-ICV1

Volume Injected (uL): 1.0

Operator: JSD

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020714S.D
 Lab Smp Id: SLB0106-ICV1
 Inj Date : 07-FEB-2023 19:58 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-ICV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 09-Feb-2023 13:28 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 6 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		6.770	6.770	(0.755)	60474	1.50000	1.554
3 Phenol	94		8.354	8.354	(0.932)	65600	1.00000	1.118
7 1,3-Dichlorobenzene	146		8.903	8.903	(0.993)	54023	1.00000	1.022
* 8 1,4-Dichlorobenzene-d4	152		8.965	8.965	(1.000)	127975	4.00000	
9 1,4-Dichlorobenzene	146		8.996	8.996	(1.003)	53116	1.00000	1.028
11 Benzyl alcohol	79		9.228	9.228	(1.029)	29873	1.00000	1.044
12 1,2-Dichlorobenzene	146		9.345	9.345	(1.042)	52102	1.00000	1.033
13 2-Methylphenol	108		9.454	9.454	(1.055)	42276	1.00000	1.055
15 4-Methylphenol	108		9.725	9.725	(1.085)	44304	1.00000	1.084
16 N-Nitroso-di-n-propylamine	70		9.780	9.780	(1.091)	31023	1.00000	1.064
22 2,4-Dimethylphenol	107		10.754	10.754	(0.942)	87351	2.00000	2.139
24 Benzoic acid	105		10.924	10.924	(0.957)	33514	4.00000	1.760
26 1,2,4-Trichlorobenzene	180		11.335	11.335	(0.993)	39610	1.00000	1.035
* 27 Naphthalene-d8	136		11.419	11.419	(1.000)	464967	4.00000	
30 Hexachlorobutadiene	225		11.821	11.821	(1.035)	22092	1.00000	1.057
39 Dimethylphthalate	163		14.514	14.514	(0.968)	58818	1.00000	1.074
* 42 Acenaphthene-d10	162		15.002	15.002	(1.000)	234978	4.00000	
50 Diethylphthalate	149		15.960	15.960	(1.064)	87142	1.00000	1.057
54 N-Nitrosodiphenylamine	169		16.339	16.339	(0.907)	75576	1.00000	1.060
57 Hexachlorobenzene	284		17.396	17.396	(0.966)	32023	1.00000	1.056

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		17.760	17.760	(0.986)	17138	2.00000	1.602
* 59 Phenanthrene-d10	188		18.015	18.015	(1.000)	431277	4.00000	
\$ 66 Terphenyl-d14	244		21.164	21.164	(0.917)	82525	1.00000	1.036
67 Butylbenzylphthalate	149		22.093	22.093	(0.958)	58223	1.00000	1.082
* 69 Chrysene-d12	240		23.069	23.069	(1.000)	358788	4.00000	
* 77 Perylene-d12	264		25.616	25.616	(1.000)	370755	4.00000	
79 Dibenzo(a,h)anthracene	278		28.173	28.173	(1.100)	106823	1.00000	1.028
90 N-Nitrosodimethylamine	74		4.638	4.638	(0.517)	53829	2.00000	2.111

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020714S.D
 Lab Smp Id: SLB0106-ICV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 07-FEB-2023
 Calibration Time: 14:52
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	128794	64397	257588	127975	-0.64
27 Naphthalene-d8	469043	234522	938086	464967	-0.87
42 Acenaphthene-d10	233225	116613	466450	234978	0.75
59 Phenanthrene-d10	433858	216929	867716	431277	-0.59
69 Chrysene-d12	361809	180905	723618	358788	-0.83
77 Perylene-d12	380407	190204	760814	370755	-2.54

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.97	0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.00	0.00
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	0.00
69 Chrysene-d12	23.06	22.56	23.56	23.07	0.03
77 Perylene-d12	25.62	25.12	26.12	25.62	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020714S.D

Lab ID: SLB0106-ICV1

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

07-FEB-2023 19:58

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b\20230207.b

Instrument: nt10.i Date: 07-FEB-2023 Method: 20230207.b\SIMABN2.m

INITIAL CAL: 07-FEB-2023

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1023020714S.D 07-FEB-2023 19:58

Compound	%D

Benzoic acid	-56.0



INITIAL CALIBRATION CHECK
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00019

Lab File ID: NT1023020734S.D

Calibration Date: 02/07/2023

Sequence: SLB0106

Injection Date: 02/08/23

Lab Sample ID: SLB0106-ICV2

Injection Time: 08:40

Sequence Name: ABN 1

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene	A	1.0000	1.0	1.6149400	1.6443900		1.8	+/-20
1,2-Dichlorobenzene	A	1.0000	1.0	1.5761980	1.6155540		2.5	+/-20
Benzyl Alcohol	A	1.0000	1.1	0.8947729	0.9707110		8.5	+/-20
Benzoic acid	A	4.0000	4.3	0.1278126	0.1802510		8.4	+/-20
2,4-Dimethylphenol	A	2.0000	2.2	0.3513679	0.3791414		7.9	+/-20
1,2,4-Trichlorobenzene	A	1.0000	1.0	0.3293471	0.3455		4.9	+/-20
N-Nitrosodiphenylamine	A	1.0000	1.1	0.6610440	0.6969592		5.4	+/-20
Pentachlorophenol	A	2.0000	2.2	0.0758741	0.1094748		9.8	+/-20
2-Fluorophenol	A	1.5000	1.64	1.2163900	1.3319090		9.5	+/-20
p-Terphenyl-d14	A	1.0000	1.12	0.8878533	0.9952966		12.1	+/-20
1,4-Dichlorobenzene-d4	A	4.0000	4.0	30973.3800	1.0000		0.0	
Naphthalene-d8	A	4.0000	4.0	113826.4000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.0	56470.7200	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.0	104263.0000	1.0000		0.0	
Chrysene-d12	A	4.0000	4.0	86682.5900	1.0000		0.0	
Perylene-d12	A	4.0000	4.0	90469.2800	1.0000		0.0	

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.1\NT10230207345.D

Page 1

Date : 08-FEB-2023 08:40

Client ID:

Instrument: nt10.1

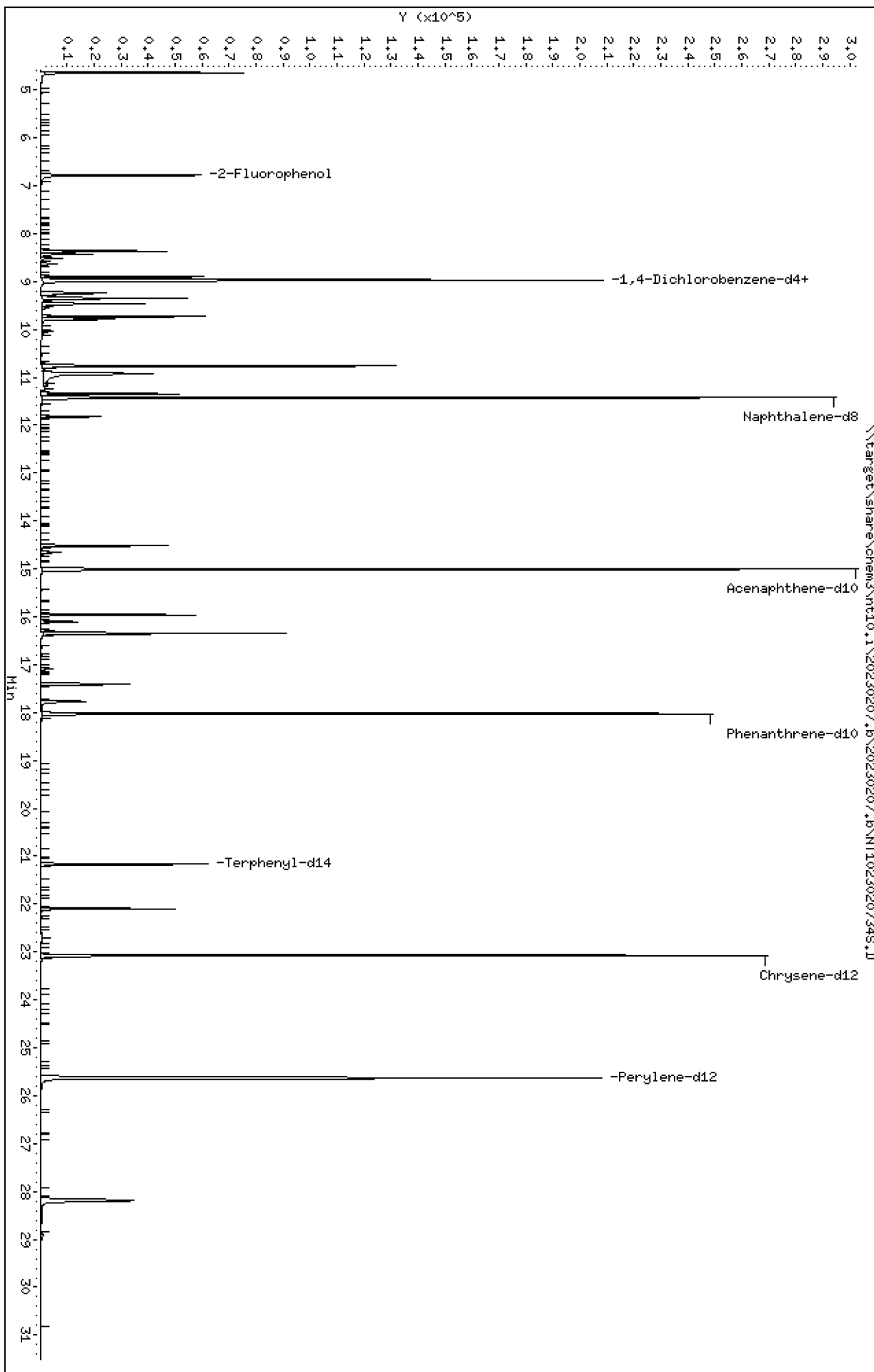
Sample Info: SLB0106-ICV2

Volume Injected (uL): 1.0

Operator: USD

Column phase: ZB-5msi

Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020734S.D
 Lab Smp Id: SLB0106-ICV2
 Inj Date : 08-FEB-2023 08:40 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-ICV2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 09-Feb-2023 13:51 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 6 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSSDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
\$ 1 2-Fluorophenol	112		6.777	6.777	(0.755)	61732	1.50000	1.642
3 Phenol	94		8.369	8.369	(0.933)	62862	1.00000	1.109
7 1,3-Dichlorobenzene	146		8.902	8.902	(0.992)	52591	1.00000	1.030
* 8 1,4-Dichlorobenzene-d4	152		8.972	8.972	(1.000)	123596	4.00000	
9 1,4-Dichlorobenzene	146		8.996	8.996	(1.003)	50810	1.00000	1.018
11 Benzyl alcohol	79		9.236	9.236	(1.029)	29994	1.00000	1.085
12 1,2-Dichlorobenzene	146		9.353	9.353	(1.042)	49919	1.00000	1.025
13 2-Methylphenol	108		9.461	9.461	(1.055)	43209	1.00000	1.117
15 4-Methylphenol	108		9.733	9.733	(1.085)	45442	1.00000	1.152
16 N-Nitroso-di-n-propylamine	70		9.780	9.780	(1.090)	31807	1.00000	1.129
22 2,4-Dimethylphenol	107		10.763	10.763	(0.942)	86205	2.00000	2.158
24 Benzoic acid	105		10.924	10.924	(0.956)	81967	4.00000	4.337
26 1,2,4-Trichlorobenzene	180		11.342	11.342	(0.993)	39278	1.00000	1.049
* 27 Naphthalene-d8	136		11.427	11.427	(1.000)	454738	4.00000	
30 Hexachlorobutadiene	225		11.829	11.829	(1.035)	21216	1.00000	1.038
39 Dimethylphthalate	163		14.514	14.514	(0.967)	57191	1.00000	1.100
* 42 Acenaphthene-d10	162		15.009	15.009	(1.000)	223117	4.00000	
50 Diethylphthalate	149		15.960	15.960	(1.063)	86499	1.00000	1.105
54 N-Nitrosodiphenylamine	169		16.346	16.346	(0.907)	71224	1.00000	1.054
57 Hexachlorobenzene	284		17.404	17.404	(0.966)	30426	1.00000	1.058

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		17.768	17.768	(0.986)	22375	2.00000	2.196
* 59 Phenanthrene-d10	188		18.023	18.023	(1.000)	408770	4.00000	
\$ 66 Terphenyl-d14	244		21.164	21.164	(0.917)	84433	1.00000	1.121
67 Butylbenzylphthalate	149		22.101	22.101	(0.958)	58568	1.00000	1.150
* 69 Chrysene-d12	240		23.069	23.069	(1.000)	339328	4.00000	
* 77 Perylene-d12	264		25.631	25.631	(1.000)	382671	4.00000	
79 Dibenzo(a,h)anthracene	278		28.188	28.188	(1.100)	98521	1.00000	0.9186
90 N-Nitrosodimethylamine	74		4.638	4.638	(0.517)	56031	2.00000	2.275

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020734S.D
 Lab Smp Id: SLB0106-ICV2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 07-FEB-2023
 Calibration Time: 19:58
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	127975	63988	255950	123596	-3.42
27 Naphthalene-d8	464967	232484	929934	454738	-2.20
42 Acenaphthene-d10	234978	117489	469956	223117	-5.05
59 Phenanthrene-d10	431277	215639	862554	408770	-5.22
69 Chrysene-d12	358788	179394	717576	339328	-5.42
77 Perylene-d12	370755	185378	741510	382671	3.21

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.97	0.08
27 Naphthalene-d8	11.42	10.92	11.92	11.43	0.07
42 Acenaphthene-d10	15.00	14.50	15.50	15.01	0.05
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	0.04
69 Chrysene-d12	23.07	22.57	23.57	23.07	-0.00
77 Perylene-d12	25.62	25.12	26.12	25.63	0.06

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020734S.D

Lab ID: SLB0106-ICV2

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

08-FEB-2023 08:40

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b\20230207.b

Instrument: nt10.i Date: 08-FEB-2023 Method: 20230207.b\SIMABN2.m

INITIAL CAL: 07-FEB-2023

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1023020734S.D 08-FEB-2023 08:40

Compound	%D

NO Q-FLAGS	



INITIAL CALIBRATION CHECK
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00019

Lab File ID: NT1023020750S.D

Calibration Date: 02/07/2023

Sequence: SLB0106

Injection Date: 02/08/23

Lab Sample ID: SLB0106-ICV3

Injection Time: 18:52

Sequence Name: ABN 1

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene	A	1.0000	1.0	1.6149400	1.6302600		0.9	+/-20
1,2-Dichlorobenzene	A	1.0000	1.0	1.5761980	1.5974090		1.3	+/-20
Benzyl Alcohol	A	1.0000	1.3	0.8947729	1.1358240		26.9	+/-20 *
Benzoic acid	A	4.0000	4.1	0.1278126	0.1711805		3.1	+/-20
2,4-Dimethylphenol	A	2.0000	2.2	0.3513679	0.3859122		9.9	+/-20
1,2,4-Trichlorobenzene	A	1.0000	1.1	0.3293471	0.3475833		5.5	+/-20
N-Nitrosodiphenylamine	A	1.0000	1.0	0.6610440	0.6565842		-0.7	+/-20
Pentachlorophenol	A	2.0000	2.0	0.0758741	0.1014981		1.9	+/-20
2-Fluorophenol	A	1.5000	1.68	1.2163900	1.3582290		11.7	+/-20
p-Terphenyl-d14	A	1.0000	1.20	0.8878533	1.0635200		19.8	+/-20
1,4-Dichlorobenzene-d4	A	4.0000	4.0	30973.3800	1.0000		0.0	
Naphthalene-d8	A	4.0000	4.0	113826.4000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.0	56470.7200	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.0	104263.0000	1.0000		0.0	
Chrysene-d12	A	4.0000	4.0	86682.5900	1.0000		0.0	
Perylene-d12	A	4.0000	4.0	90469.2800	1.0000		0.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.1\NT10230207505.D

Date: 08-FEB-2023 18:52

Client ID:

Sample Info: SLB0106-ICV3

Volume Injected (uL): 1.0

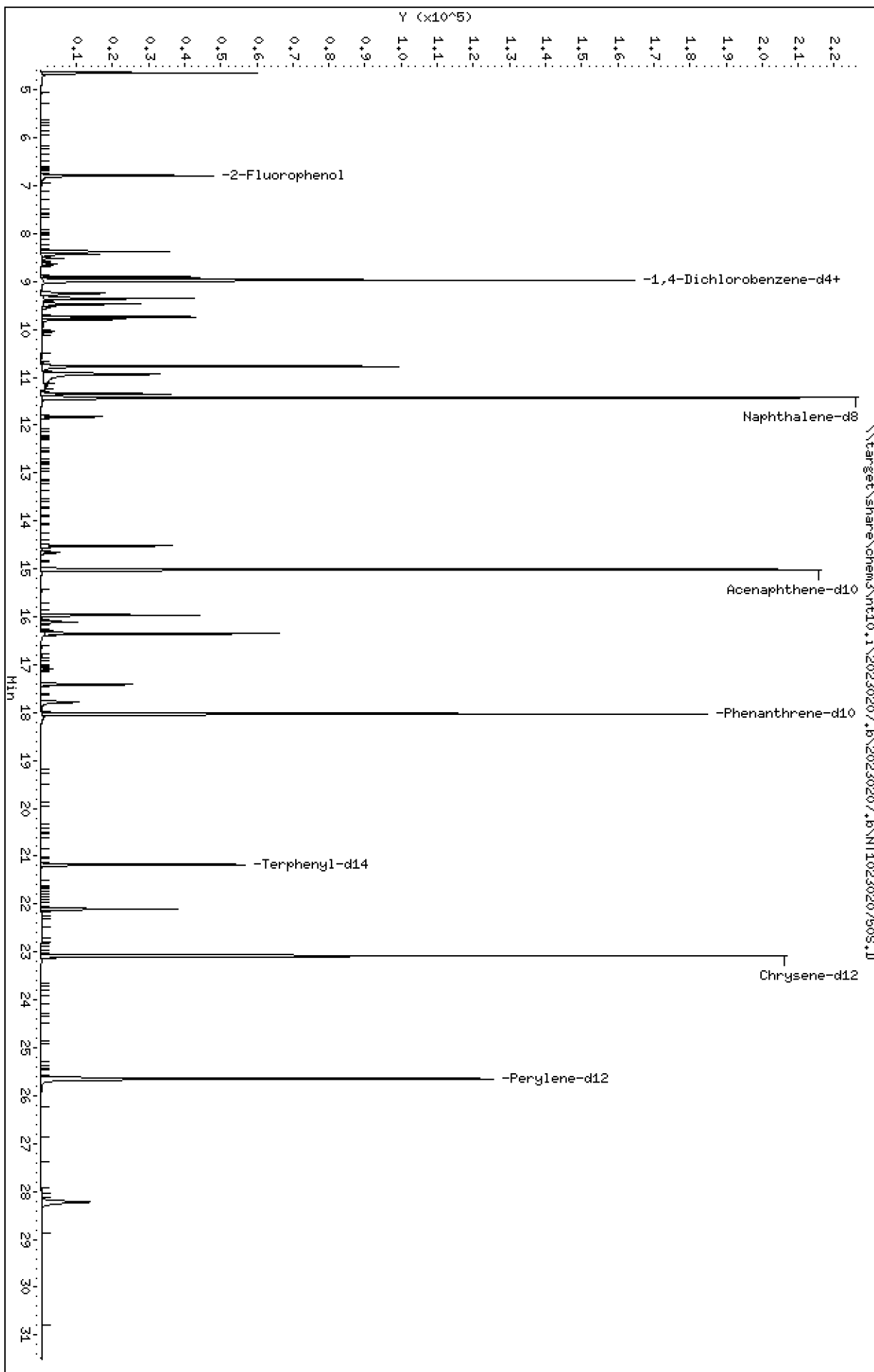
Column phase: ZB-5msi

Instrument: nt10.1

Operator: DSD

Column diameter: 0.25

Page 1



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020750S.D
 Lab Smp Id: SLB0106-ICV3
 Inj Date : 08-FEB-2023 18:52 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-ICV3
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 10-Feb-2023 07:01 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 6 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		6.785	6.785	(0.756)	48746	1.50000	1.675
3 Phenol	94		8.369	8.369	(0.933)	47417	1.00000	1.080
7 1,3-Dichlorobenzene	146		8.910	8.910	(0.993)	39873	1.00000	1.009
* 8 1,4-Dichlorobenzene-d4	152		8.972	8.972	(1.000)	95705	4.00000	
9 1,4-Dichlorobenzene	146		9.003	9.003	(1.003)	39006	1.00000	1.009
11 Benzyl alcohol	79		9.244	9.244	(1.030)	27176	1.00000	1.269
12 1,2-Dichlorobenzene	146		9.353	9.353	(1.042)	38220	1.00000	1.013
13 2-Methylphenol	108		9.469	9.469	(1.055)	33909	1.00000	1.132
15 4-Methylphenol	108		9.741	9.741	(1.086)	35339	1.00000	1.156
16 N-Nitroso-di-n-propylamine	70		9.787	9.787	(1.091)	25142	1.00000	1.153
22 2,4-Dimethylphenol	107		10.771	10.771	(0.943)	68133	2.00000	2.197
24 Benzoic acid	105		10.932	10.932	(0.957)	60444	4.00000	4.124
26 1,2,4-Trichlorobenzene	180		11.342	11.342	(0.993)	30683	1.00000	1.055
* 27 Naphthalene-d8	136		11.427	11.427	(1.000)	353101	4.00000	
30 Hexachlorobutadiene	225		11.829	11.829	(1.035)	16325	1.00000	1.028
39 Dimethylphthalate	163		14.522	14.522	(0.967)	44714	1.00000	1.123
* 42 Acenaphthene-d10	162		15.017	15.017	(1.000)	170881	4.00000	
50 Diethylphthalate	149		15.968	15.968	(1.063)	68228	1.00000	1.138
54 N-Nitrosodiphenylamine	169		16.354	16.354	(0.907)	52835	1.00000	0.9933
57 Hexachlorobenzene	284		17.411	17.411	(0.966)	23628	1.00000	1.044

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
58 Pentachlorophenol	266		17.783	17.783	(0.986)	16335	2.00000	2.038
* 59 Phenanthrene-d10	188		18.031	18.031	(1.000)	321878	4.00000	
\$ 66 Terphenyl-d14	244		21.180	21.180	(0.917)	74440	1.00000	1.198
67 Butylbenzylphthalate	149		22.101	22.101	(0.957)	48036	1.00000	1.144
* 69 Chrysene-d12	240		23.084	23.084	(1.000)	279976	4.00000	
* 77 Perylene-d12	264		25.647	25.647	(1.000)	238134	4.00000	
79 Dibenzo(a,h)anthracene	278		28.219	28.219	(1.100)	45552	1.00000	0.6825
90 N-Nitrosodimethylamine	74		4.646	4.646	(0.518)	44034	2.00000	2.309

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020750S.D
 Lab Smp Id: SLB0106-ICV3
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 08-FEB-2023
 Calibration Time: 08:40
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	123596	61798	247192	95705	-22.57
27 Naphthalene-d8	454738	227369	909476	353101	-22.35
42 Acenaphthene-d10	223117	111559	446234	170881	-23.41
59 Phenanthrene-d10	408770	204385	817540	321878	-21.26
69 Chrysene-d12	339328	169664	678656	279976	-17.49
77 Perylene-d12	382671	191336	765342	238134	-37.77

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.97	-0.00
27 Naphthalene-d8	11.43	10.93	11.93	11.43	-0.00
42 Acenaphthene-d10	15.01	14.51	15.51	15.02	0.05
59 Phenanthrene-d10	18.02	17.52	18.52	18.03	0.04
69 Chrysene-d12	23.07	22.57	23.57	23.08	0.07
77 Perylene-d12	25.63	25.13	26.13	25.65	0.06

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020750S.D

Lab ID: SLB0106-ICV3

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

08-FEB-2023 18:52

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b\20230207.b

Instrument: nt10.i Date: 08-FEB-2023 Method: 20230207.b\SIMABN2.m

INITIAL CAL: 07-FEB-2023

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1023020750S.D 08-FEB-2023 18:52

Compound	%D

Benzyl alcohol	26.9
Dibenzo(a,h)anthracene	-31.7



INITIAL CALIBRATION CHECK
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00019

Lab File ID: NT1023020904S.D

Calibration Date: 02/07/2023

Sequence: SLB0114

Injection Date: 02/09/23

Lab Sample ID: SLB0114-ICV1

Injection Time: 14:49

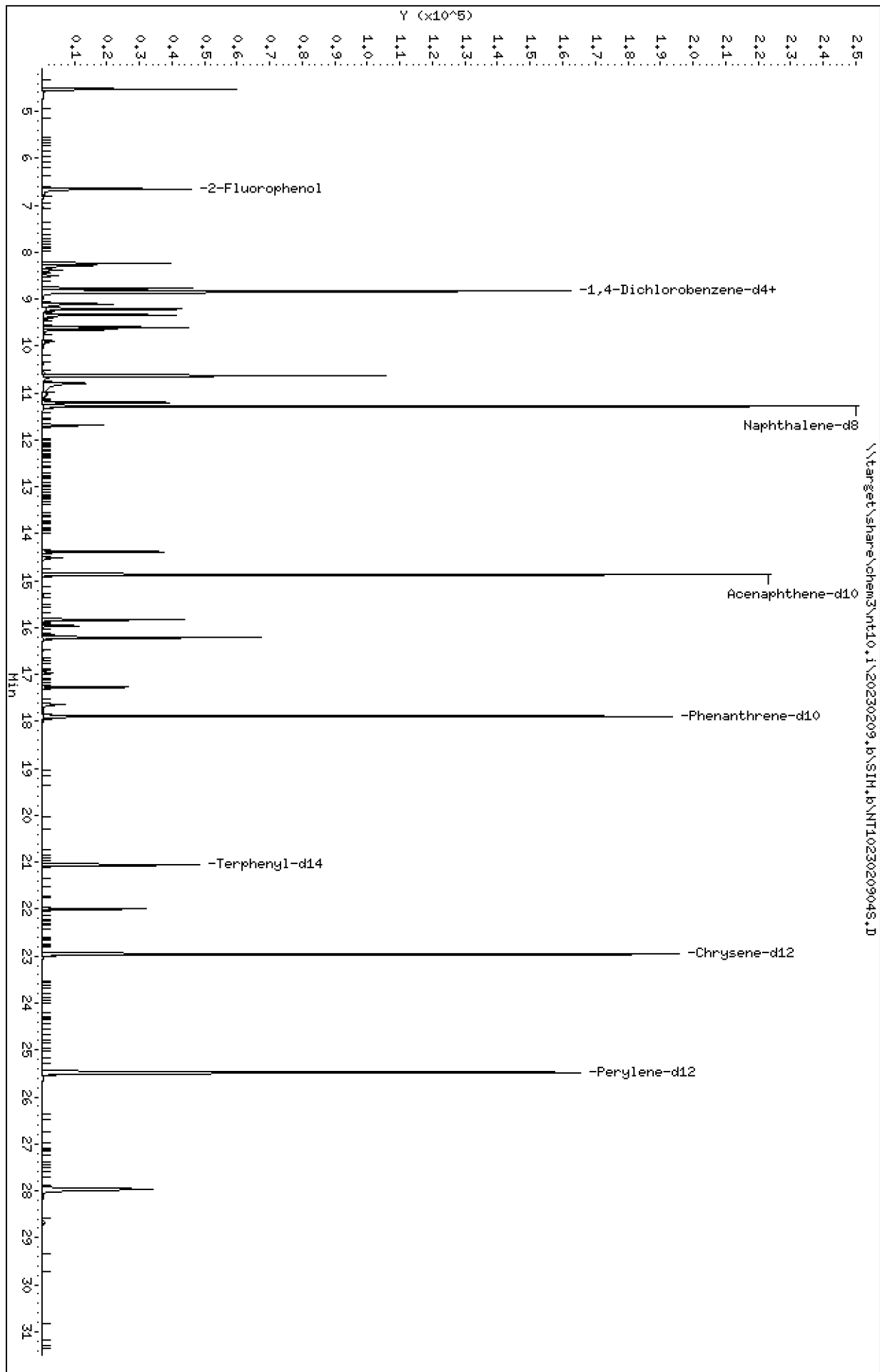
Sequence Name: Initial Cal Check

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene	A	1.0000	1.0	1.6149400	1.6399570		1.5	+/-20
1,2-Dichlorobenzene	A	1.0000	1.0	1.5761980	1.6196400		2.8	+/-20
Benzyl Alcohol	A	1.0000	1.0	0.8947729	0.8977045		0.3	+/-20
Benzoic acid	A	4.0000	1.9	0.1278126	0.0790064		-51.8	+/-20 *
2,4-Dimethylphenol	A	2.0000	2.2	0.3513679	0.3822646		8.8	+/-20
1,2,4-Trichlorobenzene	A	1.0000	1.1	0.3293471	0.3489203		5.9	+/-20
N-Nitrosodiphenylamine	A	1.0000	1.0	0.6610440	0.6796414		2.8	+/-20
Pentachlorophenol	A	2.0000	1.4	0.0758741	0.0684642		-30.9	+/-20 *
2-Fluorophenol	A	1.5000	1.66	1.2163900	1.3418120		10.3	+/-20
p-Terphenyl-d14	A	1.0000	1.18	0.8878533	1.0489800		18.1	+/-20
1,4-Dichlorobenzene-d4	A	4.0000	4.0	30973.3800	1.0000		0.0	
Naphthalene-d8	A	4.0000	4.0	113826.4000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.0	56470.7200	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.0	104263.0000	1.0000		0.0	
Chrysene-d12	A	4.0000	4.0	86682.5900	1.0000		0.0	
Perylene-d12	A	4.0000	4.0	90469.2800	1.0000		0.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230209.1\20230209.1\2023020904S.D
Date: 09-FEB-2023 14:49
Client ID:
Sample Info: SIM-ICV1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: JSD
Column diameter: 0.25



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230209.b\SIM.b\NT1023020904S.D
 Lab Smp Id: SLB0114-ICV1
 Inj Date : 09-FEB-2023 14:49 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SIM-ICV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230209.b\SIM.b\SIMABN2.m
 Meth Date : 12-Feb-2023 17:37 yev Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 4 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSSDA.sub
 Target Version: 4.14
 Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
\$ 1 2-Fluorophenol	112		6.655	6.655	(0.753)	51117	1.50000	1.655 (M)
3 Phenol	94		8.239	8.239	(0.933)	51309	1.00000	1.101
7 1,3-Dichlorobenzene	146		8.765	8.765	(0.992)	42850	1.00000	1.021
* 8 1,4-Dichlorobenzene-d4	152		8.835	8.835	(1.000)	101588	4.00000	
9 1,4-Dichlorobenzene	146		8.858	8.858	(1.003)	41650	1.00000	1.015
11 Benzyl alcohol	79		9.099	9.099	(1.030)	22799	1.00000	1.003
12 1,2-Dichlorobenzene	146		9.207	9.207	(1.042)	41134	1.00000	1.028
13 2-Methylphenol	108		9.332	9.332	(1.056)	34752	1.00000	1.093
15 4-Methylphenol	108		9.603	9.603	(1.087)	36012	1.00000	1.110
16 N-Nitroso-di-n-propylamine	70		9.650	9.650	(1.092)	24824	1.00000	1.072 (M)
22 2,4-Dimethylphenol	107		10.630	10.630	(0.942)	69748	2.00000	2.176
24 Benzoic acid	105		10.799	10.799	(0.957)	28831	4.00000	1.927
26 1,2,4-Trichlorobenzene	180		11.206	11.206	(0.993)	31832	1.00000	1.059
* 27 Naphthalene-d8	136		11.283	11.283	(1.000)	364920	4.00000	
30 Hexachlorobutadiene	225		11.685	11.685	(1.036)	17329	1.00000	1.056
39 Dimethylphthalate	163		14.386	14.386	(0.968)	43302	1.00000	1.062
* 42 Acenaphthene-d10	162		14.866	14.866	(1.000)	174973	4.00000	
50 Diethylphthalate	149		15.832	15.832	(1.065)	65085	1.00000	1.060
54 N-Nitrosodiphenylamine	169		16.210	16.210	(0.906)	53412	1.00000	1.028
57 Hexachlorobenzene	284		17.268	17.268	(0.965)	23726	1.00000	1.073

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
58 Pentachlorophenol	266		17.639	17.639	(0.986)	10761	2.00000	1.383
* 59 Phenanthrene-d10	188		17.887	17.887	(1.000)	314354	4.00000	
\$ 66 Terphenyl-d14	244		21.051	21.051	(0.917)	63532	1.00000	1.181
67 Butylbenzylphthalate	149		21.988	21.988	(0.958)	39814	1.00000	1.095
* 69 Chrysene-d12	240		22.956	22.956	(1.000)	242262	4.00000	
* 77 Perylene-d12	264		25.480	25.480	(1.000)	285281	4.00000	
79 Dibenzo(a,h)anthracene	278		27.967	27.967	(1.098)	91683	1.00000	1.147 (M)
90 N-Nitrosodimethylamine	74		4.524	4.524	(0.512)	42569	2.00000	2.103 (M)

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020904S.D
 Lab Smp Id: SLB0114-ICV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230209.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 08-FEB-2023
 Calibration Time: 18:52
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	101588	50794	203176	101588	0.00
27 Naphthalene-d8	364920	182460	729840	364920	0.00
42 Acenaphthene-d10	174973	87487	349946	174973	0.00
59 Phenanthrene-d10	314354	157177	628708	314354	0.00
69 Chrysene-d12	242262	121131	484524	242262	0.00
77 Perylene-d12	285281	142641	570562	285281	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	0.00
27 Naphthalene-d8	11.28	10.78	11.78	11.28	0.00
42 Acenaphthene-d10	14.87	14.37	15.37	14.87	0.00
59 Phenanthrene-d10	17.89	17.39	18.39	17.89	0.00
69 Chrysene-d12	22.96	22.46	23.46	22.96	0.00
77 Perylene-d12	25.48	24.98	25.98	25.48	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020904S.D

Lab ID: SLB0114-ICV1

nt10.i, 20230209.b\SIM.b\SIMABN2.m, 09-FEB-2023 14:49

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

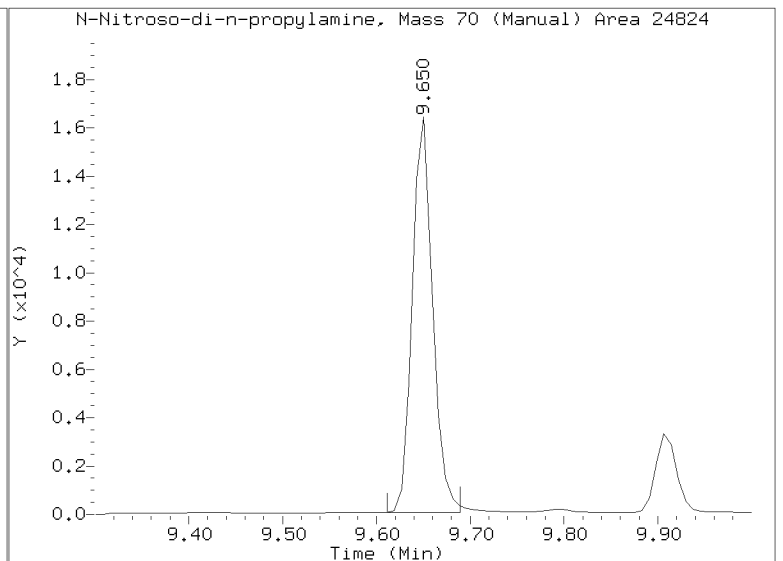
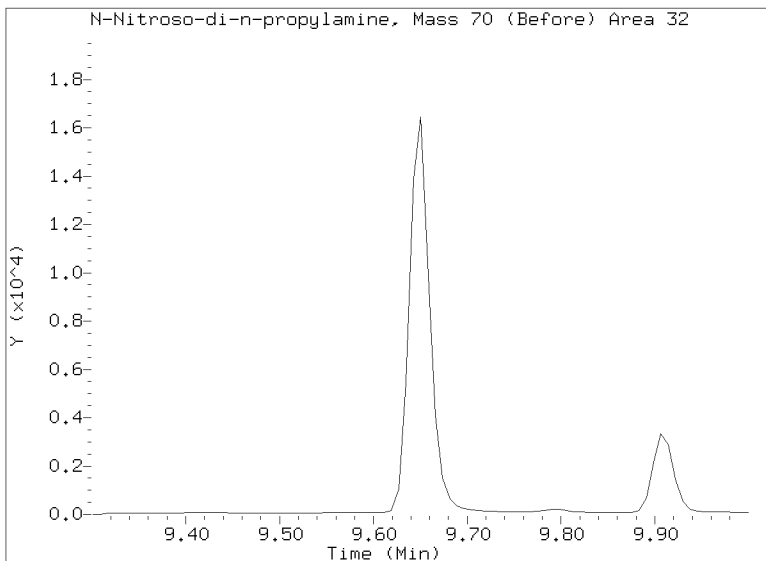
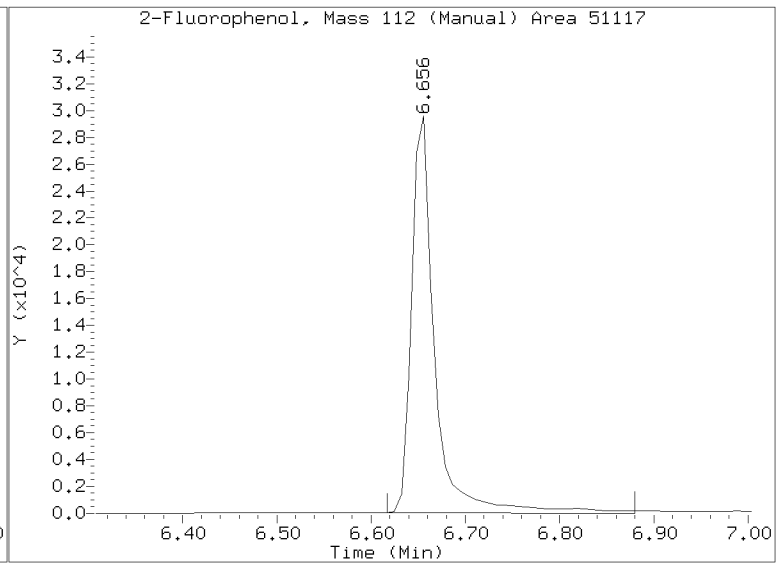
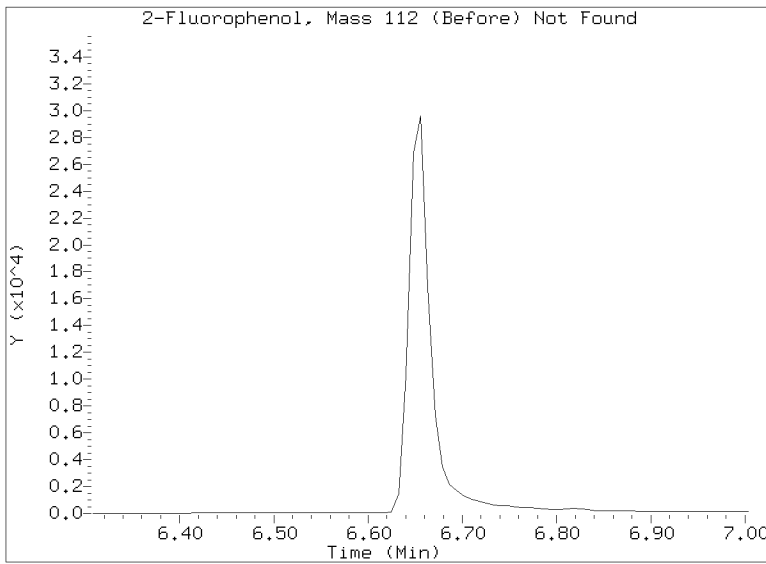
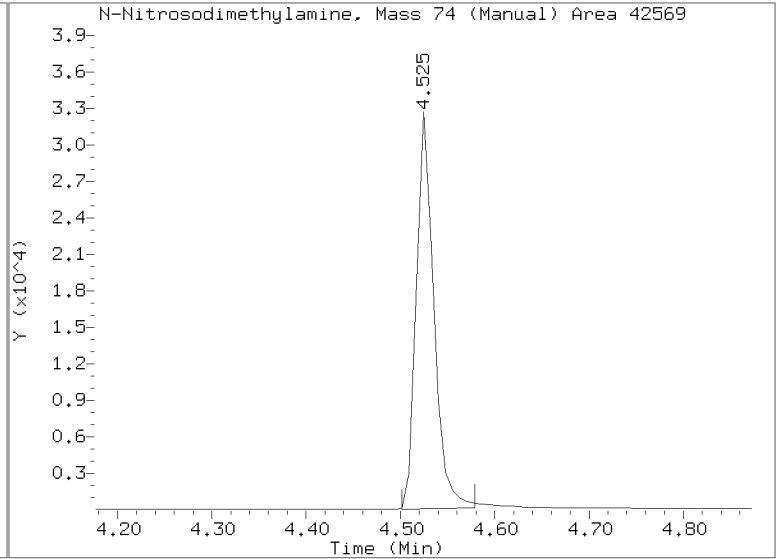
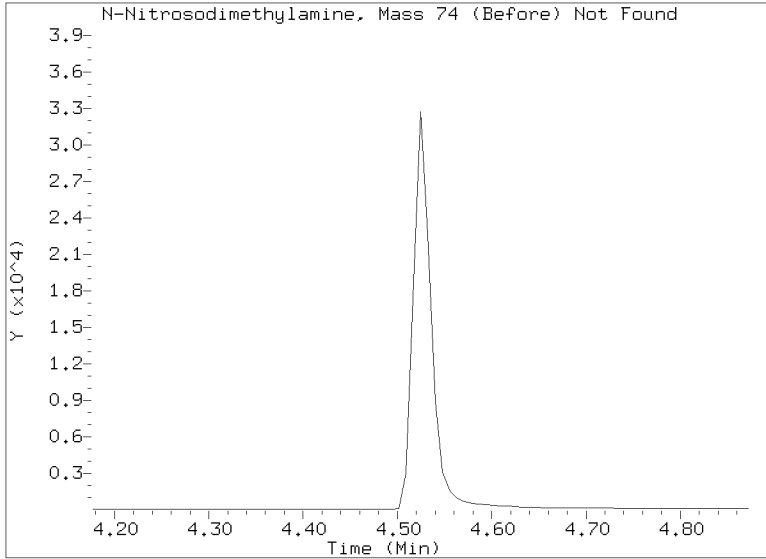
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

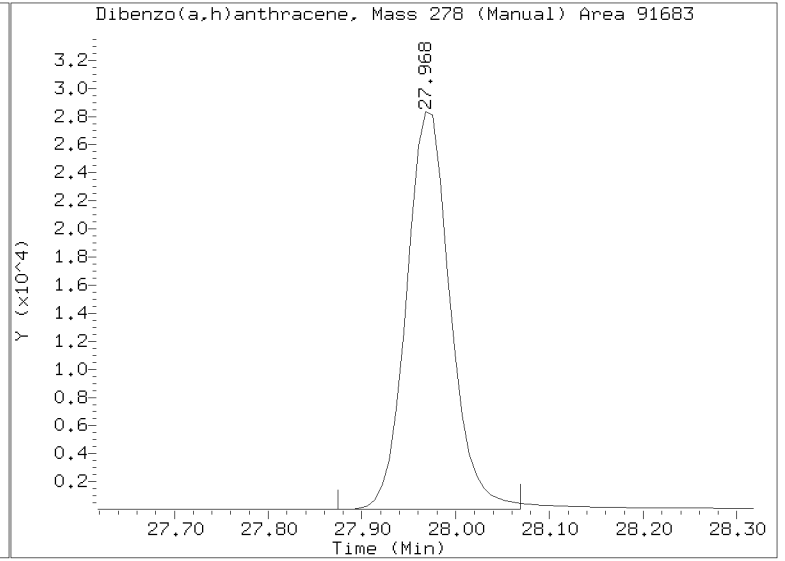
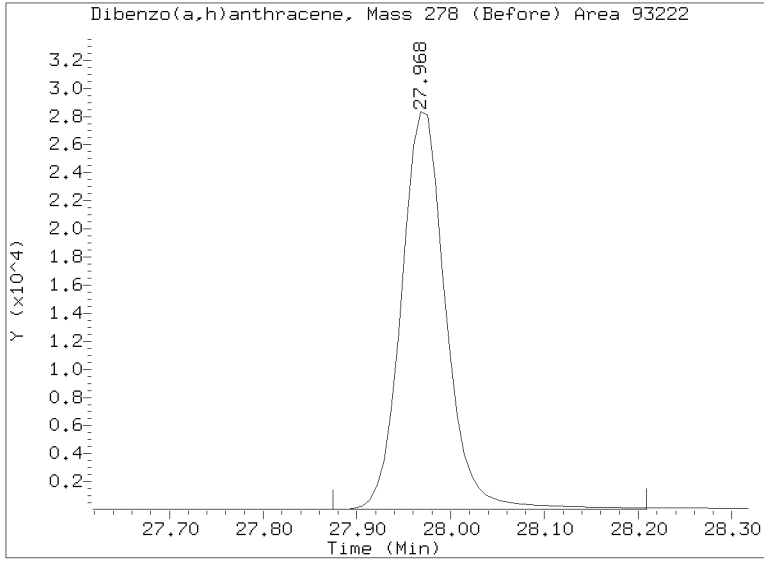
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209.b/SIM.b/NT1023020904S.D
Injection Date: 09-FEB-2023 14:49
Lab ID:SLB0114-ICV1 Client ID:
Report Date: 02/12/2023 17:37



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209.b/SIM.b/NT1023020904S.D
Injection Date: 09-FEB-2023 14:49
Lab ID:SLB0114-ICV1 Client ID:
Report Date: 02/12/2023 17:37



Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230209.b\SIM.b

Instrument: nt10.i Date: 09-FEB-2023 Method: SIM.b\SIMABN2.m

INITIAL CAL: 07-FEB-2023

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1023020904S.D 09-FEB-2023 14:49

Compound	%D

Benzoic acid	-51.8
Pentachlorophenol	-30.8



INITIAL CALIBRATION CHECK
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT10

Calibration: GB00019

Lab File ID: NT1023020922ICVS.D

Calibration Date: 02/07/2023

Sequence: SLB0157

Injection Date: 02/10/23

Lab Sample ID: SLB0157-ICV1

Injection Time: 02:26

Sequence Name: Initial Cal Check

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
1,4-Dichlorobenzene	A	1.0000	1.0	1.6149400	1.6395200		1.5	+/-20
1,2-Dichlorobenzene	A	1.0000	1.0	1.5761980	1.6056390		1.9	+/-20
Benzyl Alcohol	A	1.0000	1.2	0.8947729	1.0481990		17.1	+/-20
Benzoic acid	A	4.0000	2.7	0.1278126	0.1090989		-33.8	+/-20 *
2,4-Dimethylphenol	A	2.0000	2.1	0.3513679	0.3772479		7.4	+/-20
1,2,4-Trichlorobenzene	A	1.0000	1.1	0.3293471	0.3525337		7.0	+/-20
N-Nitrosodiphenylamine	A	1.0000	1.0	0.6610440	0.6793642		2.8	+/-20
Pentachlorophenol	A	2.0000	1.9	0.0758741	0.0939236		-5.6	+/-20
2-Fluorophenol	A	1.5000	1.57	1.2163900	1.2708300		4.5	+/-20
p-Terphenyl-d14	A	1.0000	1.07	0.8878533	0.9511193		7.1	+/-20
1,4-Dichlorobenzene-d4	A	4.0000	4.0	30973.3800	1.0000		0.0	
Naphthalene-d8	A	4.0000	4.0	113826.4000	1.0000		0.0	
Acenaphthene-d10	A	4.0000	4.0	56470.7200	1.0000		0.0	
Phenanthrene-d10	A	4.0000	4.0	104263.0000	1.0000		0.0	
Chrysene-d12	A	4.0000	4.0	86682.5900	1.0000		0.0	
Perylene-d12	A	4.0000	4.0	90469.2800	1.0000		0.0	

* Values outside of QC limits



SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC SDG: 23A0032
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Instrument ID: NT8 Calibration: GA00050
Lab File ID: N823011909.D Calibration Date: 01/19/2023
Sequence: SLA0213 Injection Date: 01/19/23
Lab Sample ID: SLA0213-SCV1 Injection Time: 14:58
Sequence Name: 8270 SIM PNA SCV

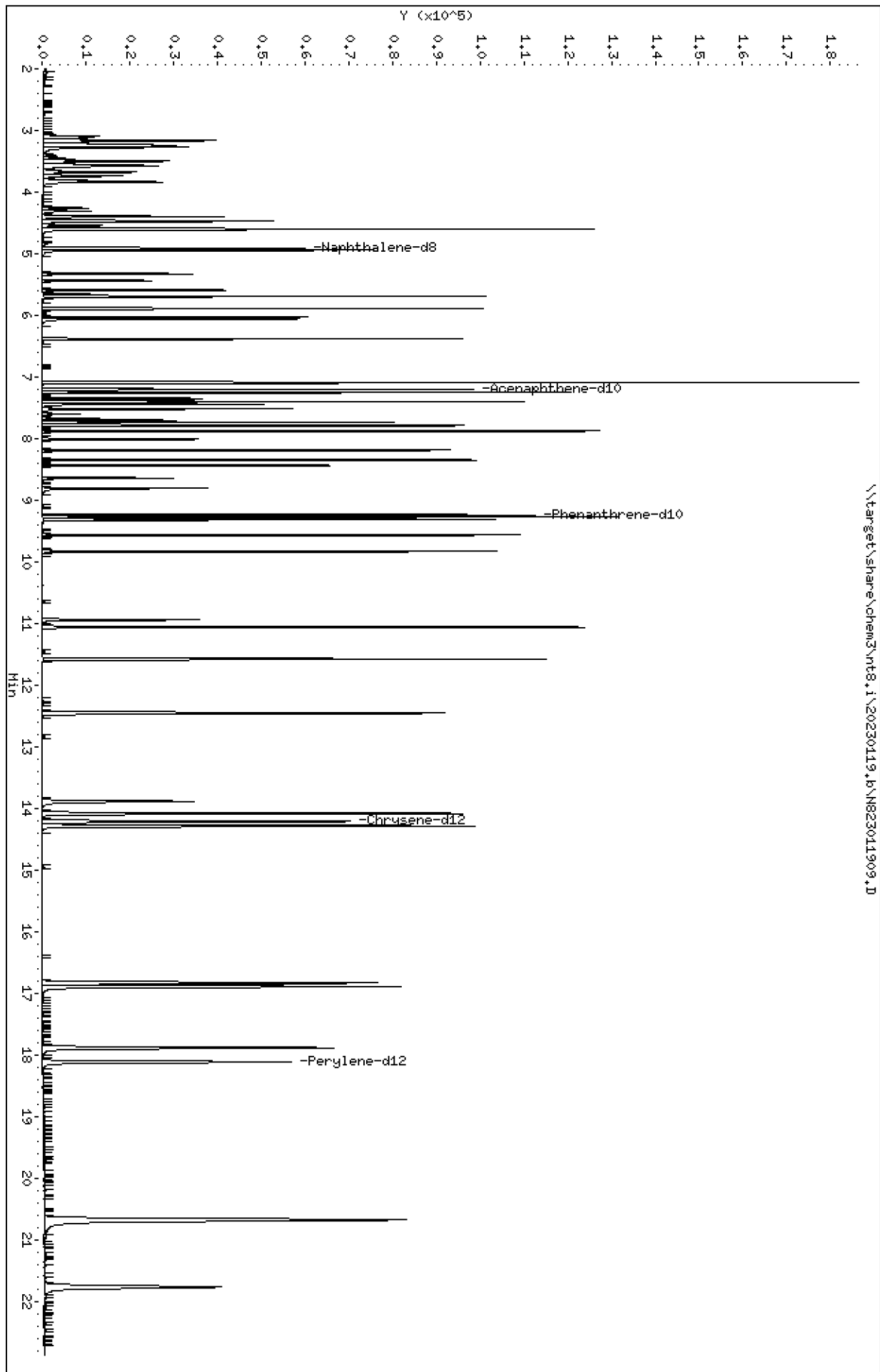
COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Naphthalene	A	2.5000	2.63	0.9299181	0.9767747		5.0	
2-Methylnaphthalene	A	2.5000	2.67	0.5115033	0.5463255		6.8	
1-Methylnaphthalene	A	2.5000	2.65	0.5191318	0.5501748		6.0	
Acenaphthylene	A	2.5000	2.82	1.5102600	1.7039370		12.8	
Acenaphthene	A	2.5000	2.60	1.0119150	1.0524810		4.0	
Dibenzofuran	A	2.5000	2.86	1.5369690	1.7582160		14.4	
Fluorene	A	2.5000	2.63	1.1937240	1.2561120		5.2	
Phenanthrene	A	2.5000	2.45	0.9769567	0.9567960		-2.1	
Anthracene	A	2.5000	2.27	0.8874960	0.8058663		-9.2	
Fluoranthene	A	2.5000	2.65	1.0634260	1.1284050		6.1	
Pyrene	A	2.5000	2.46	1.2399700	1.2213300		-1.5	
Benzo(a)anthracene	A	2.5000	2.59	1.1238870	1.1631100		3.5	
Chrysene	A	2.5000	2.40	1.1964350	1.1484610		-4.0	
Benzo(b)fluoranthene	A	2.5000	2.51	1.1648110	1.1680230		0.3	
Benzo(k)fluoranthene	A	2.5000	2.66	1.1409370	1.2121600		6.2	
Benzofluoranthenes, Total	A	5.0000	5.48	1.1031370	1.2090940		9.6	
Benzo(a)pyrene	A	2.5000	2.57	1.0250270	1.0545670		2.9	
Indeno(1,2,3-cd)pyrene	A	2.5000	2.69	1.1677520	1.2561630		7.6	
Dibenzo(a,h)anthracene	A	2.5000	2.49	1.0049440	1.0021900		-0.3	
Benzo(g,h,i)perylene	A	2.5000	2.48	1.0580110	1.0506380		-0.7	

* Values outside of QC limits

Data File: \\target\share\chem3\nt8.1\20230119.6\N823011909.D
Date: 19-JAN-2023 14:58
Client ID:
Sample Info: SCV230119
Volume Injected (uL): 1.0
Column phase: Rxi-17sil

Instrument: nt8.1
Operator: JZ
Column diameter: 0.25

\\target\share\chem3\nt8.1\20230119.6\N823011909.D



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

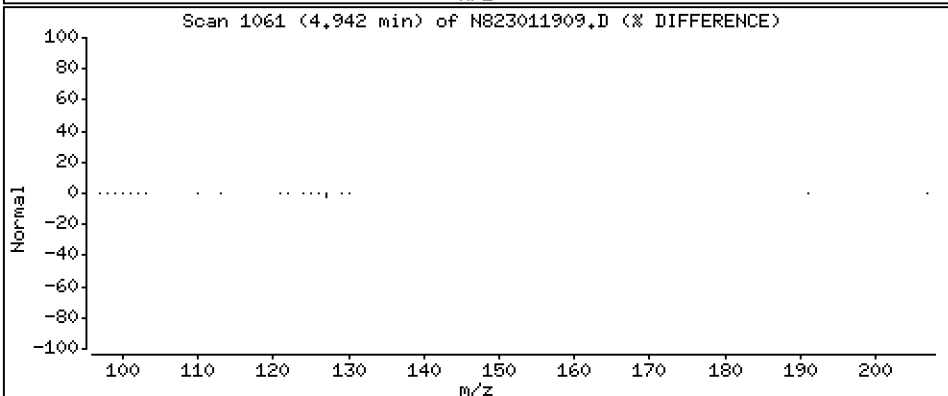
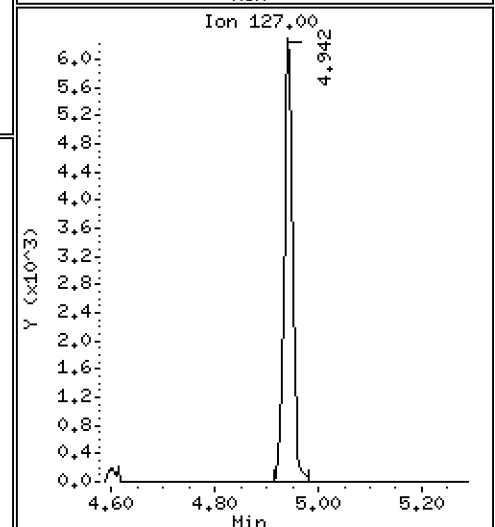
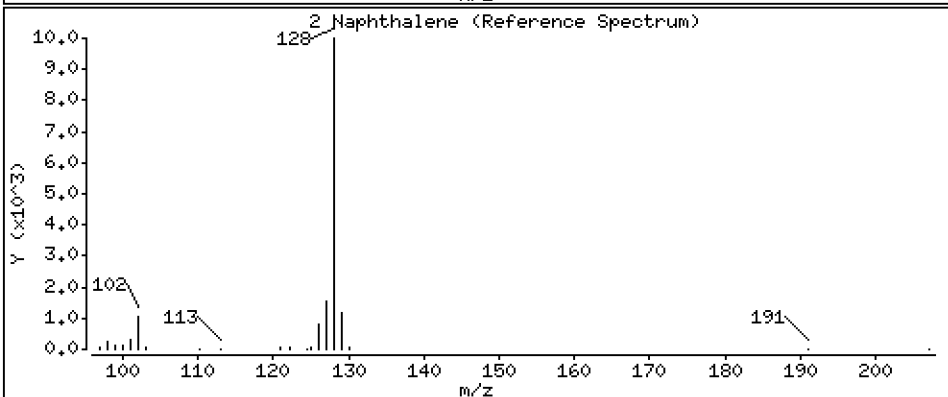
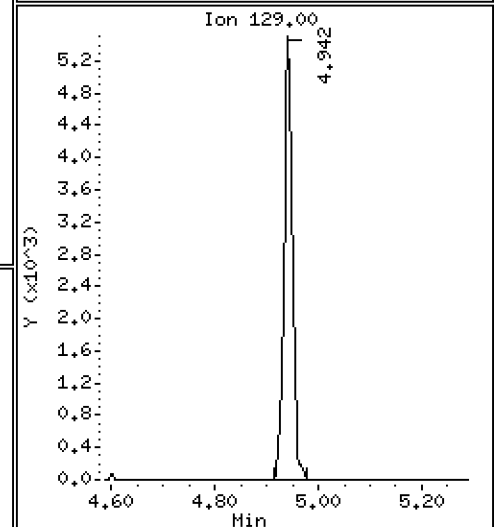
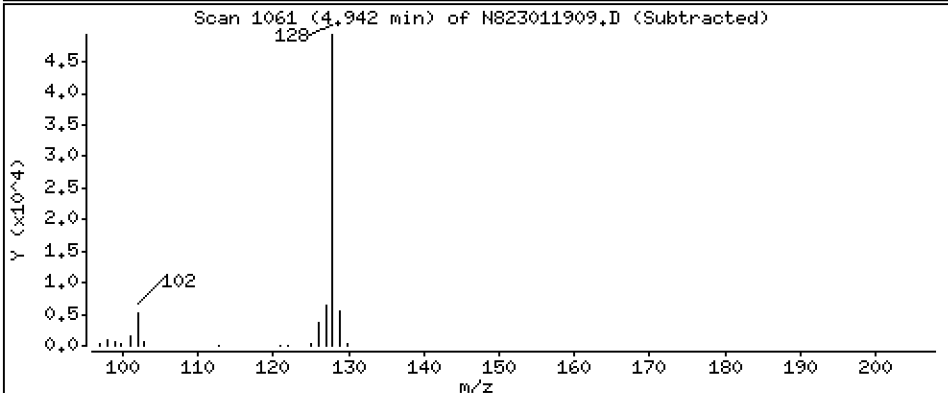
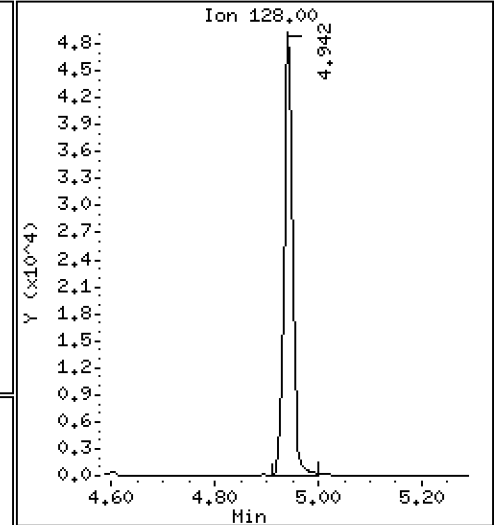
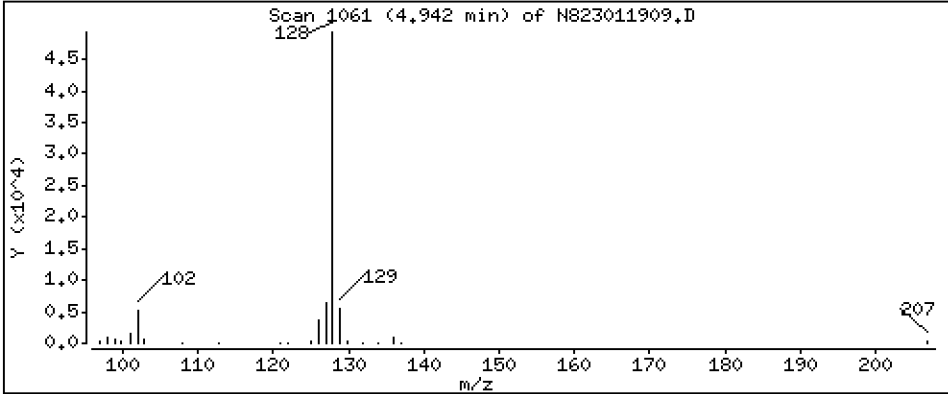
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

2 Naphthalene

Concentration: 2,626 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

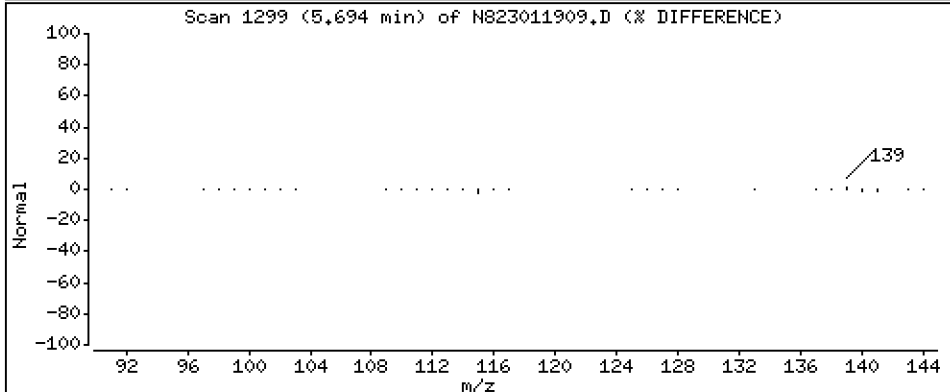
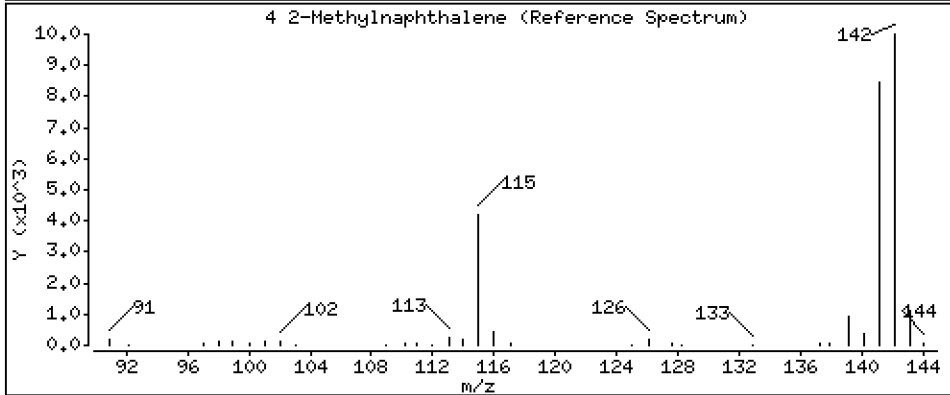
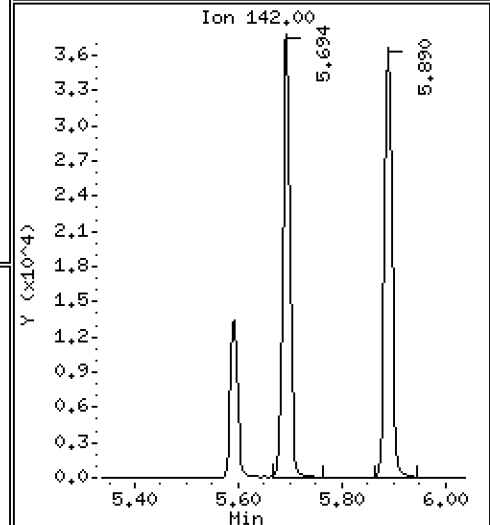
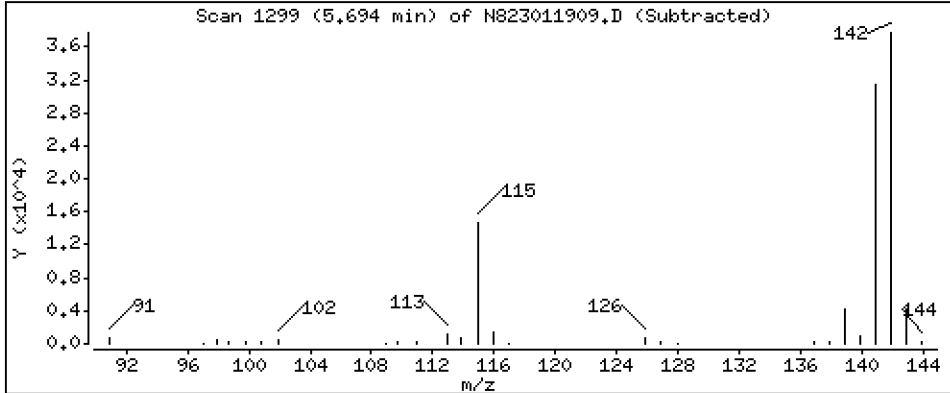
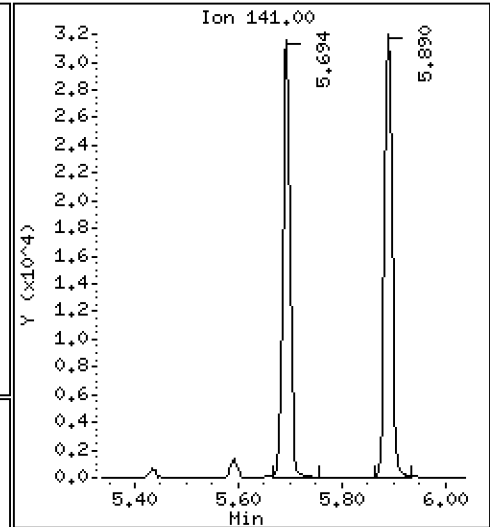
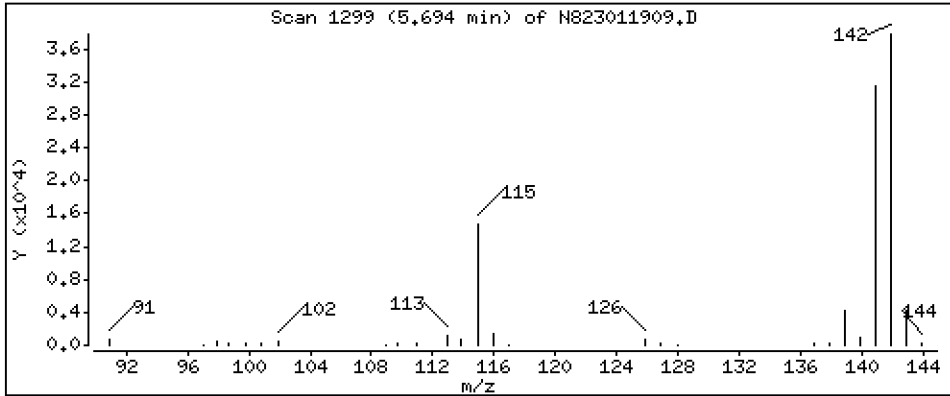
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

4 2-Methylnaphthalene

Concentration: 2,670 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

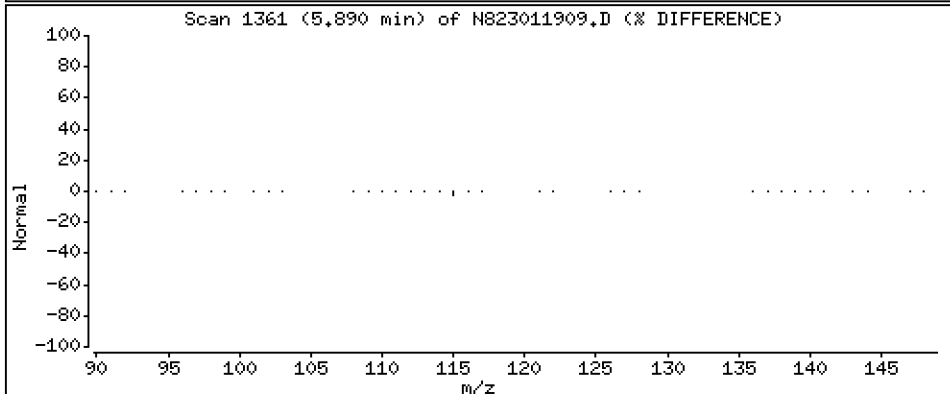
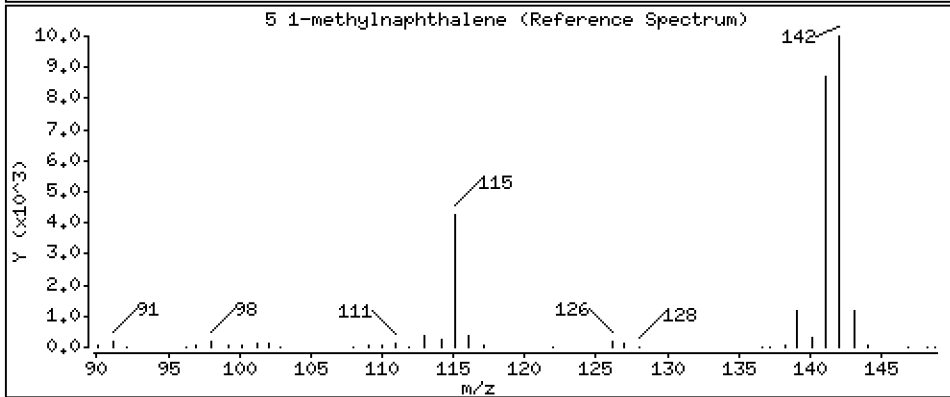
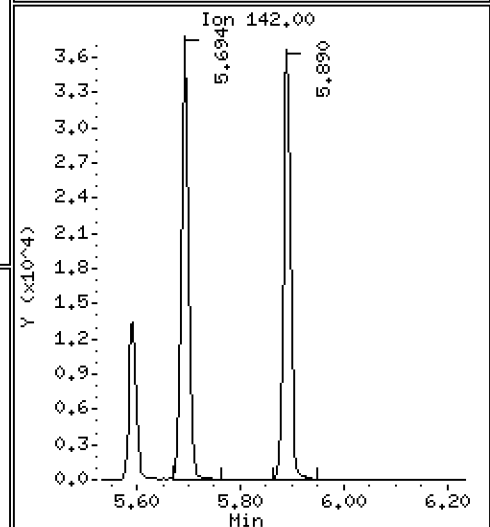
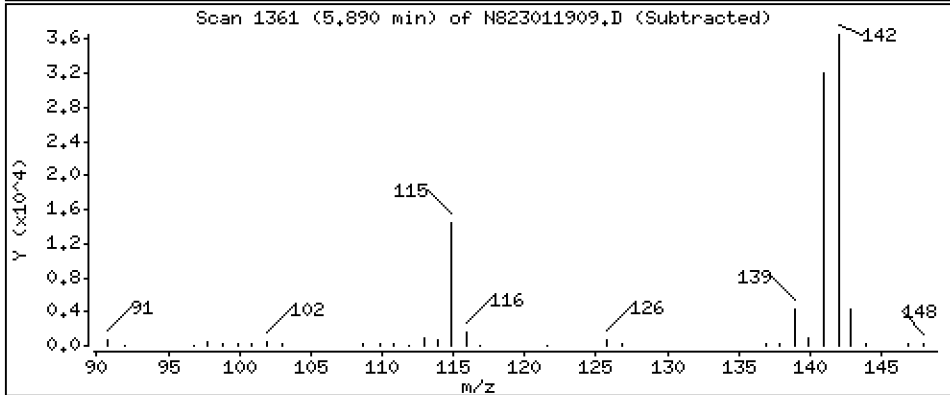
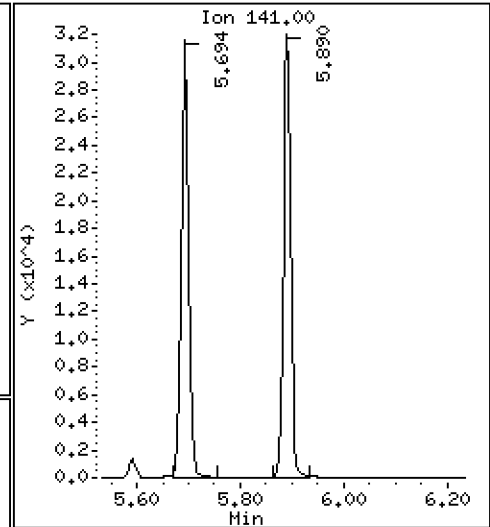
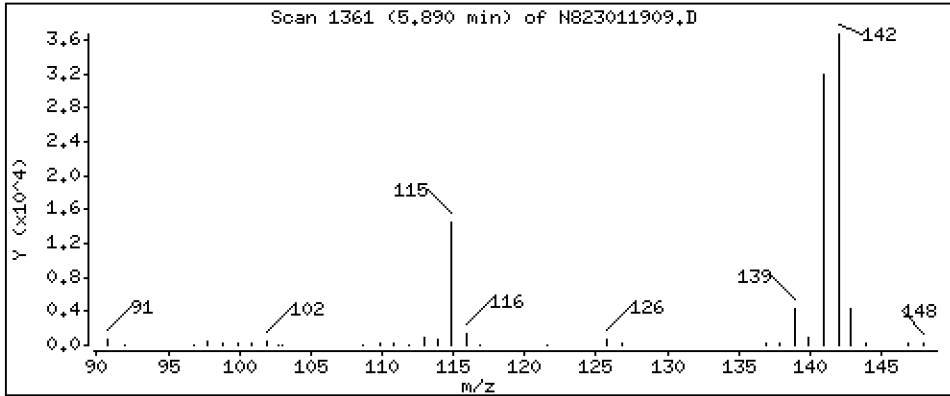
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

5 1-methylnaphthalene

Concentration: 2,649 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

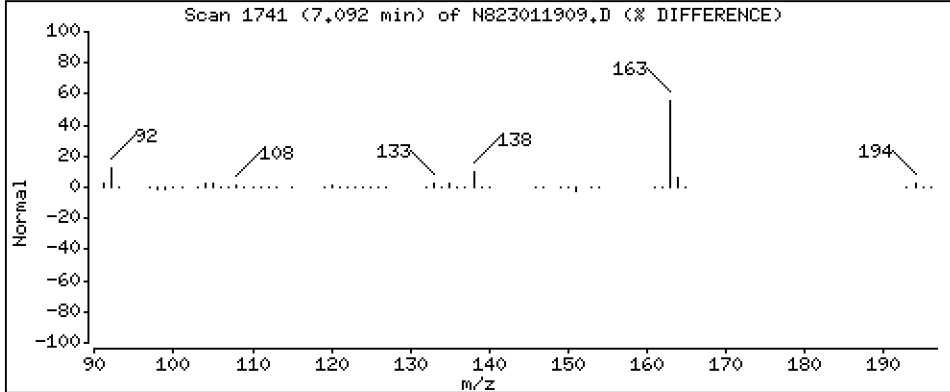
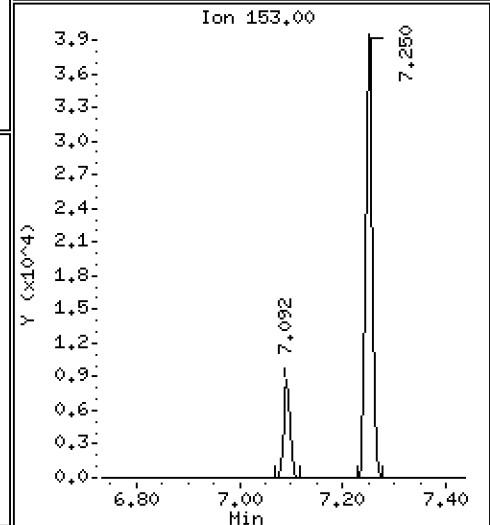
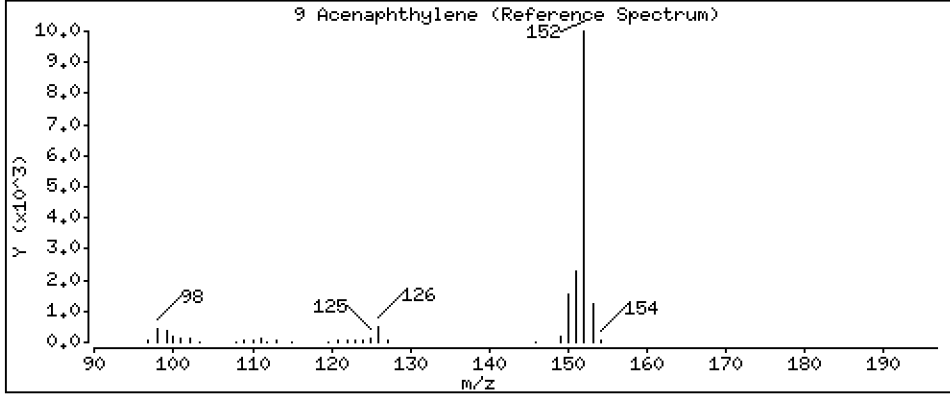
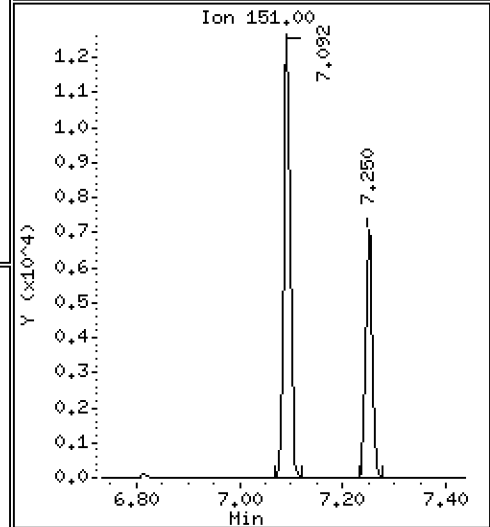
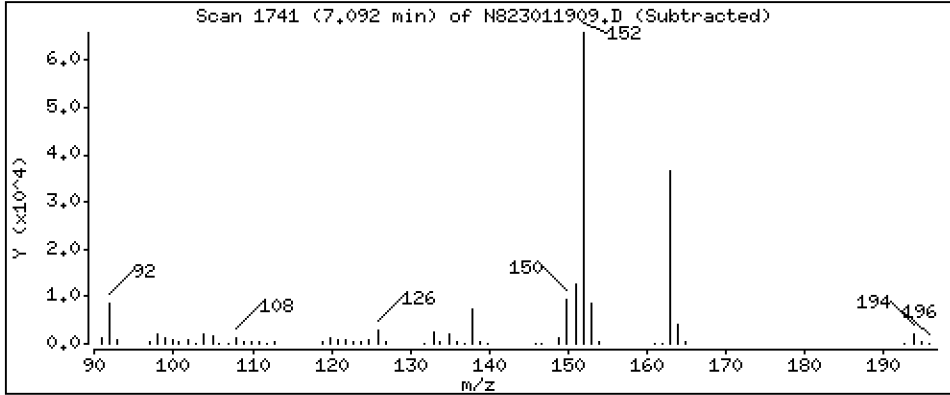
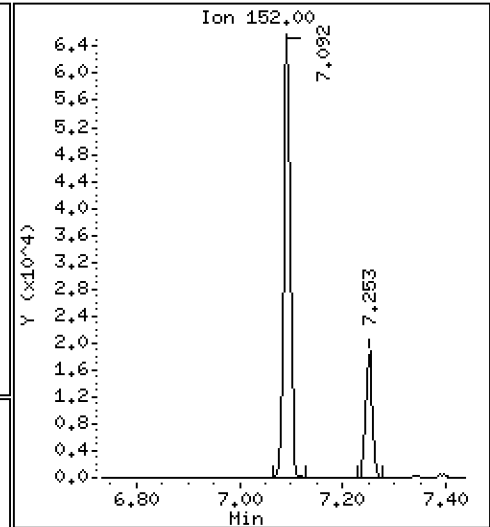
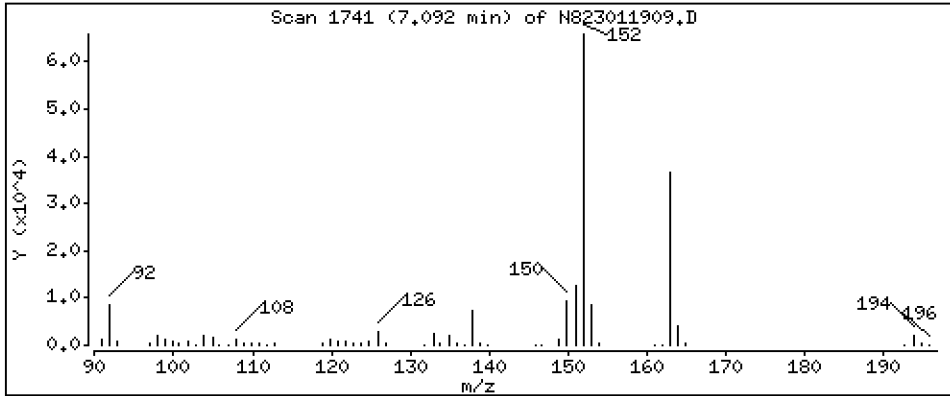
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

9 Acenaphthylene

Concentration: 2,821 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

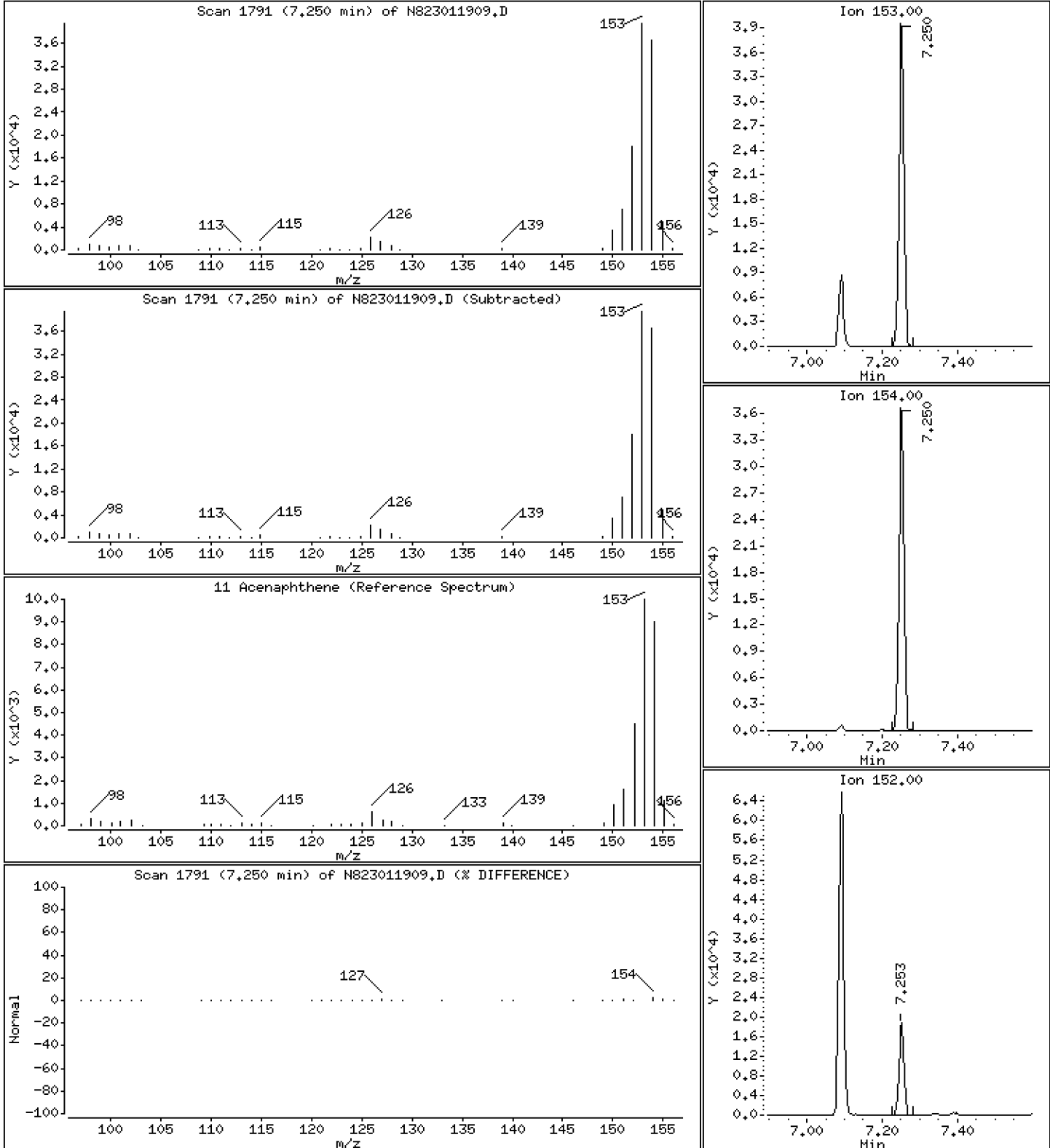
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

11 Acenaphthene

Concentration: 2,600 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

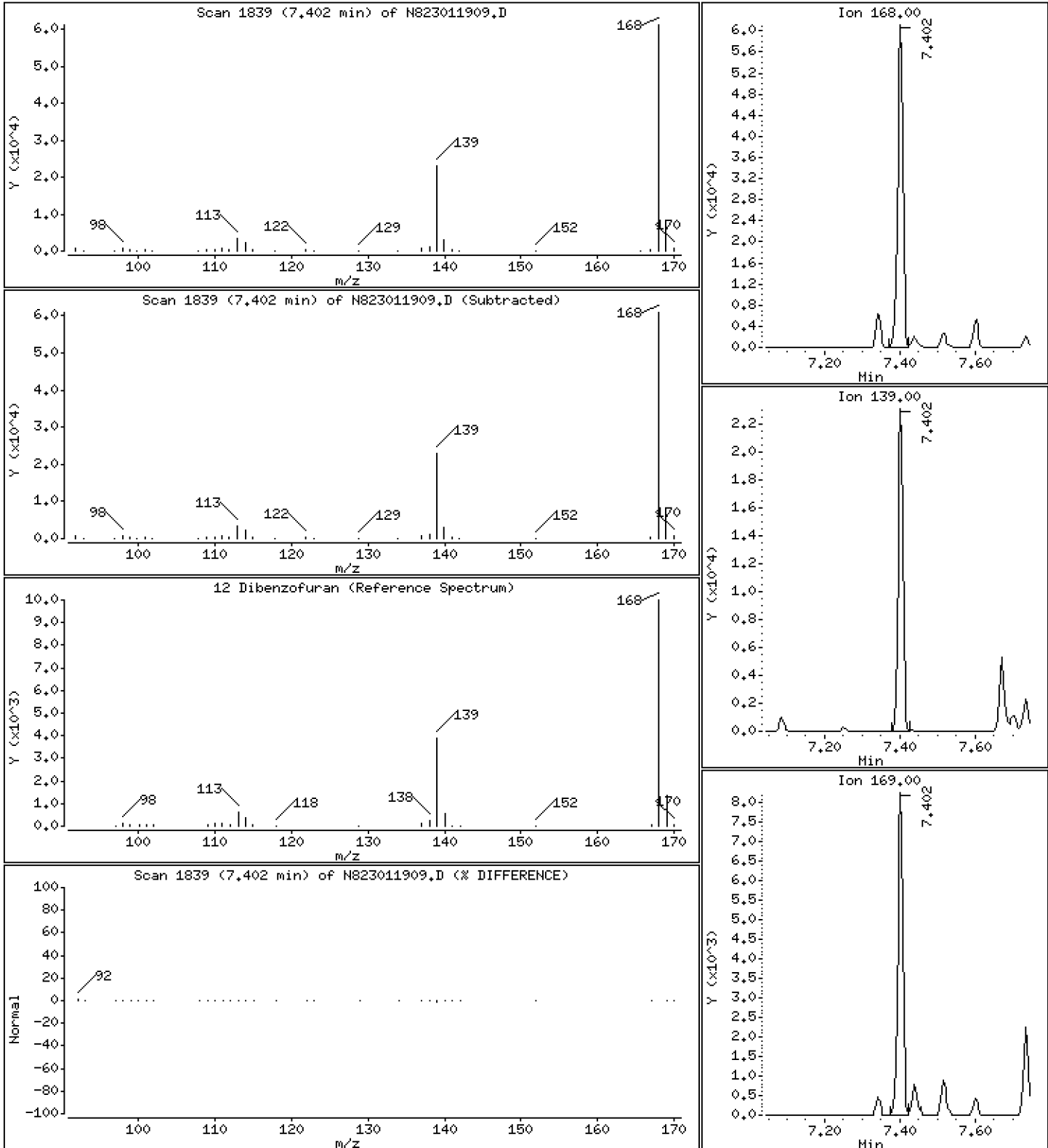
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

12 Dibenzofuran

Concentration: 2,860 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

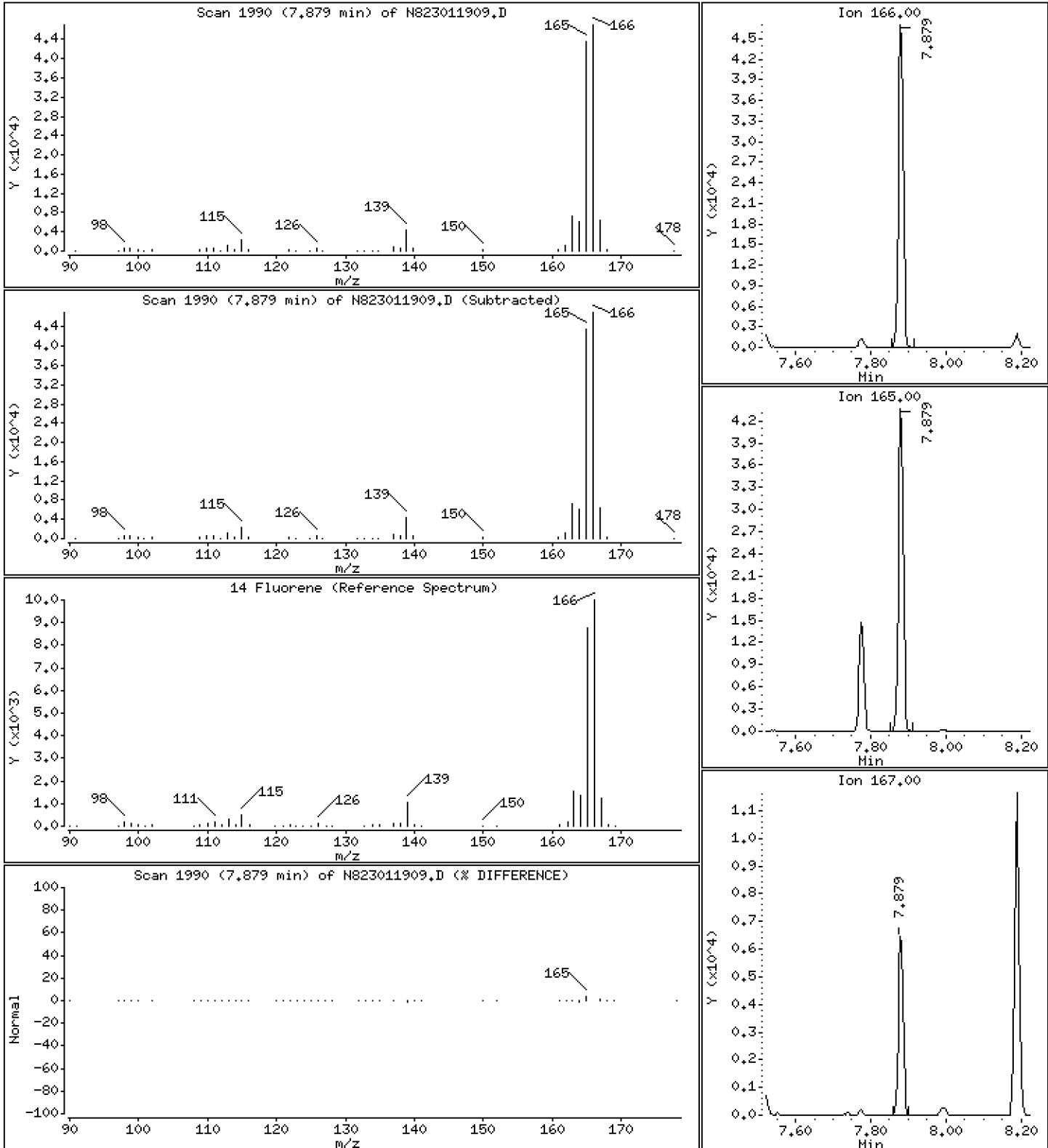
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

14 Fluorene

Concentration: 2,631 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

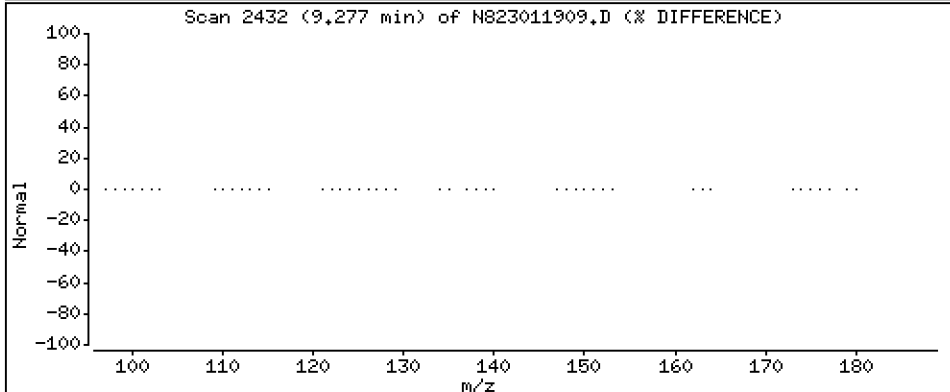
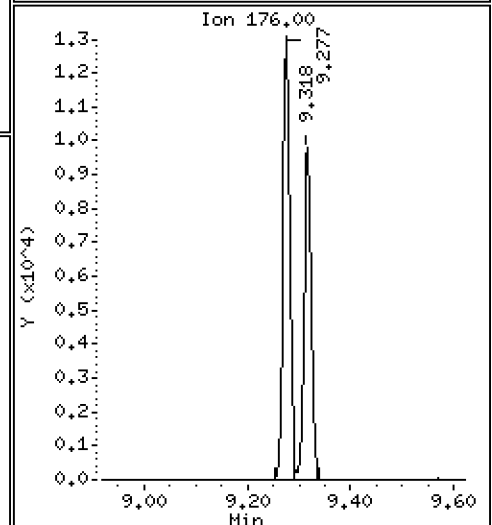
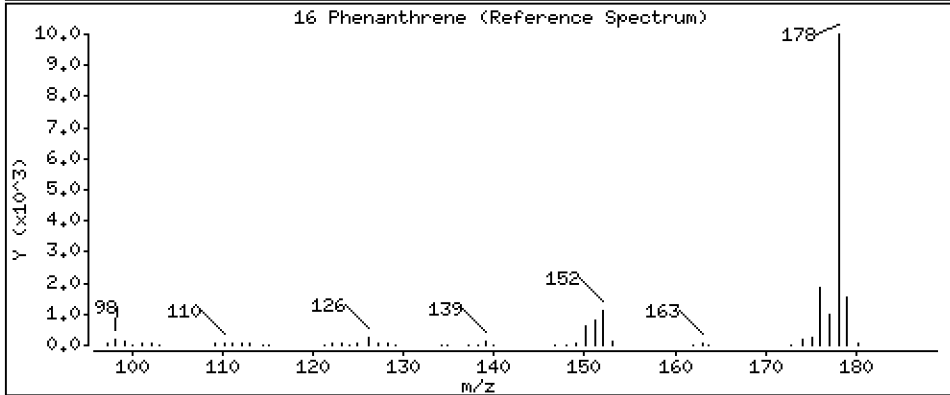
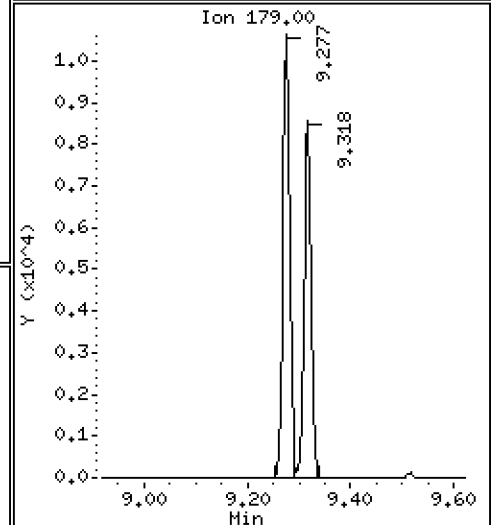
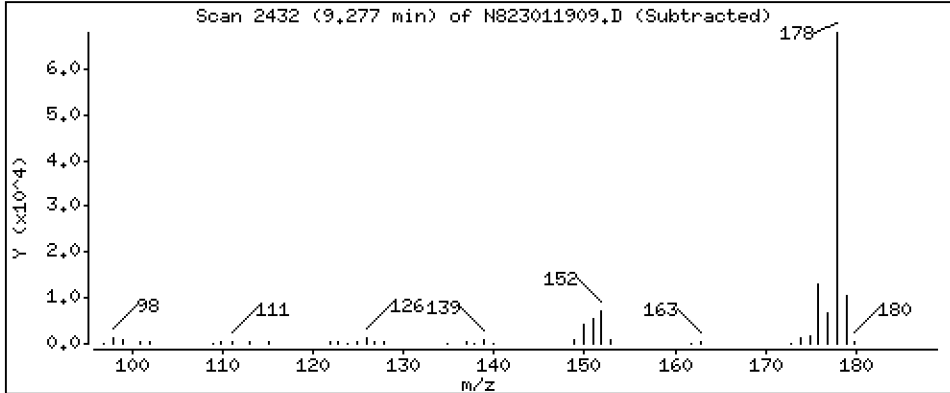
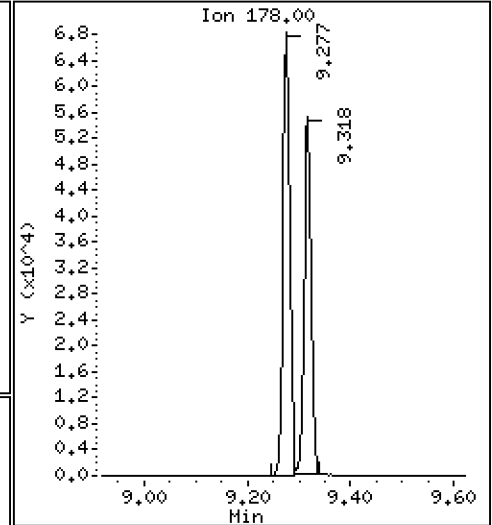
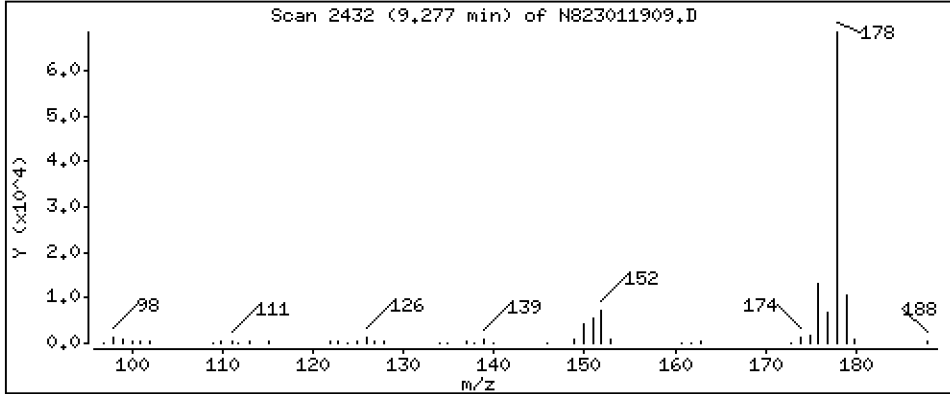
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

16 Phenanthrene

Concentration: 2,448 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

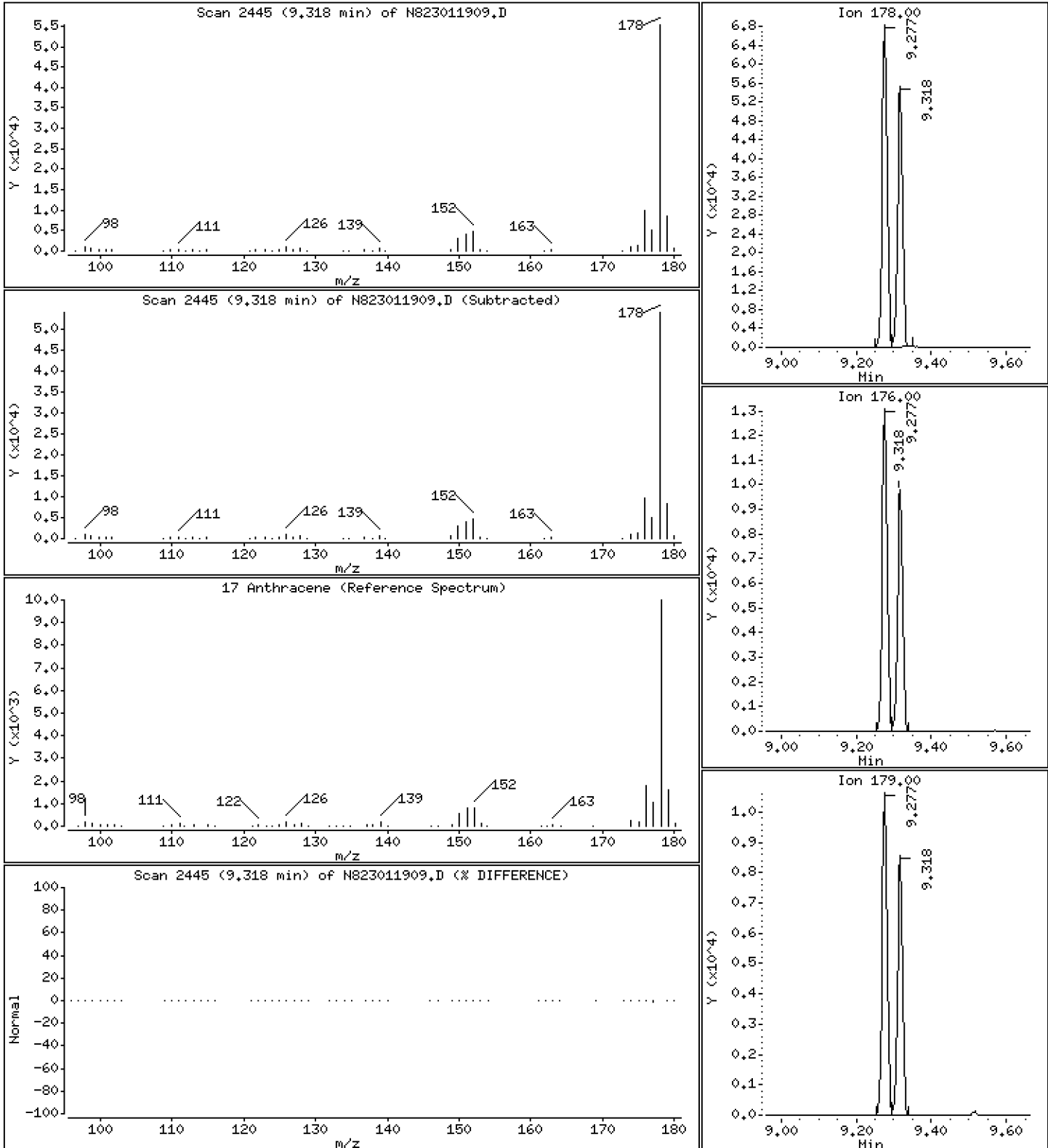
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

17 Anthracene

Concentration: 2,270 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

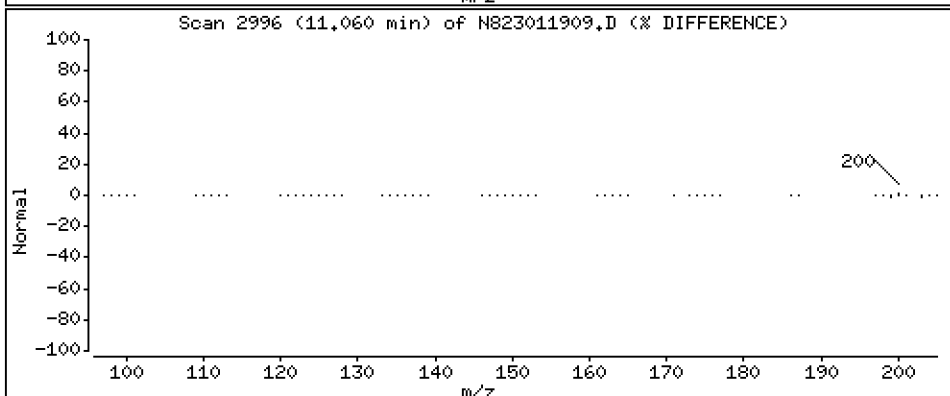
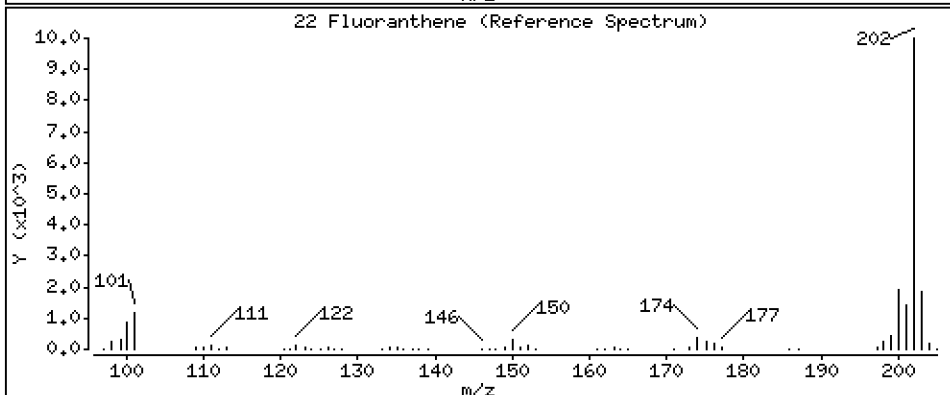
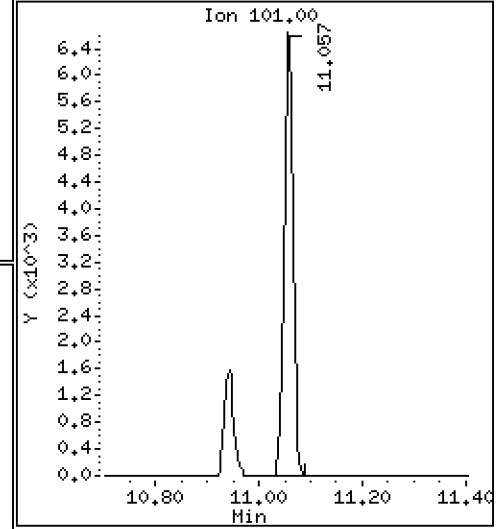
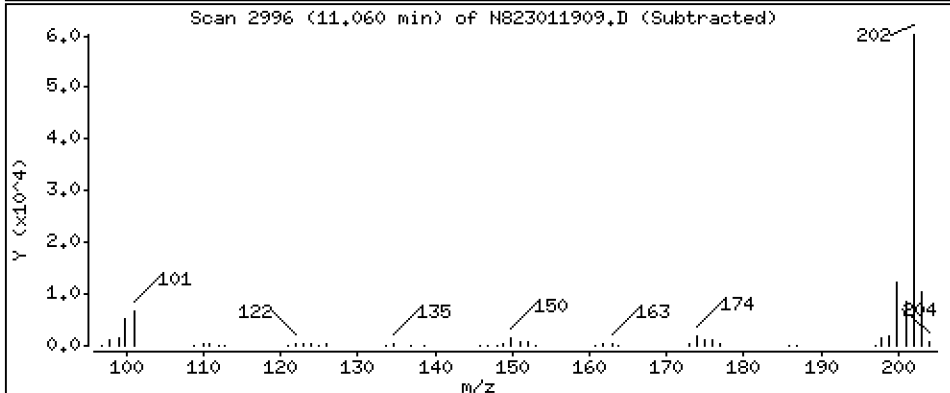
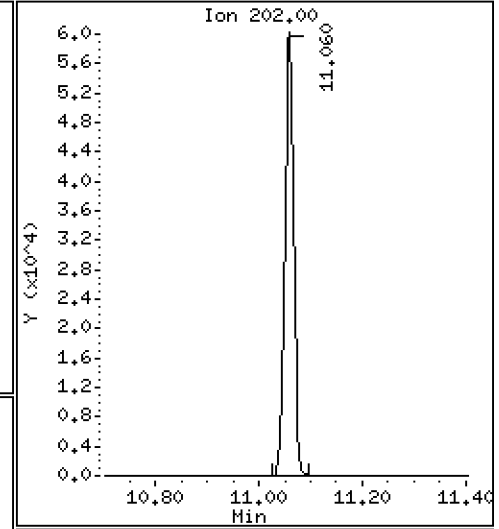
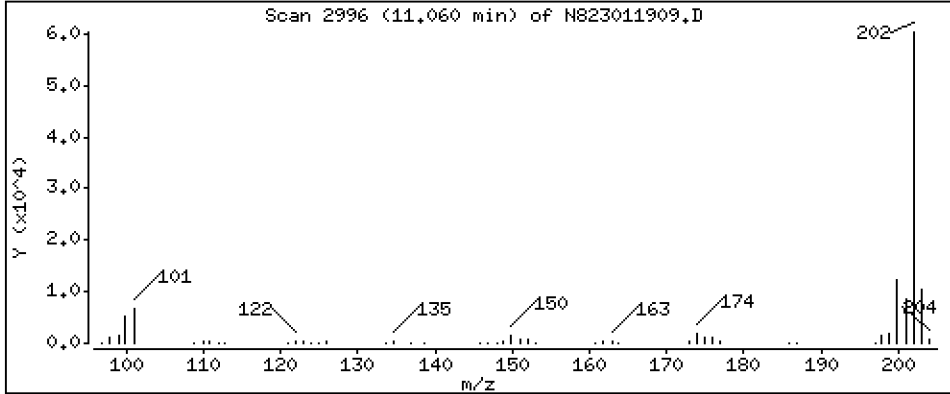
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 2,653 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

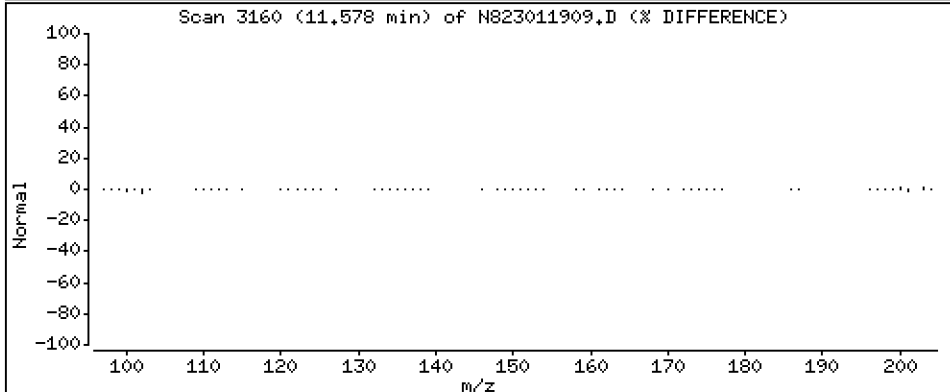
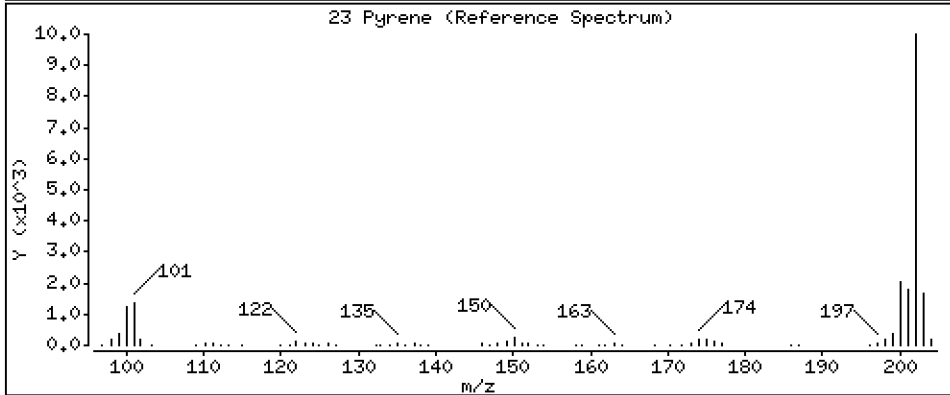
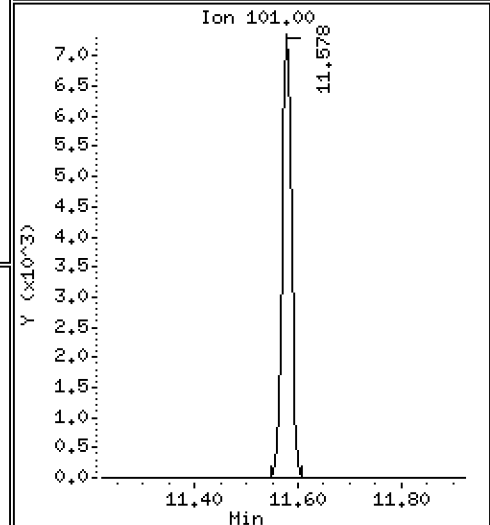
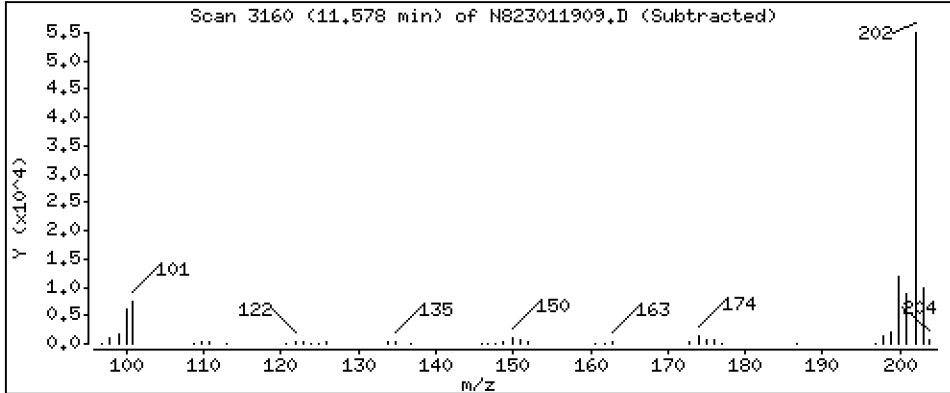
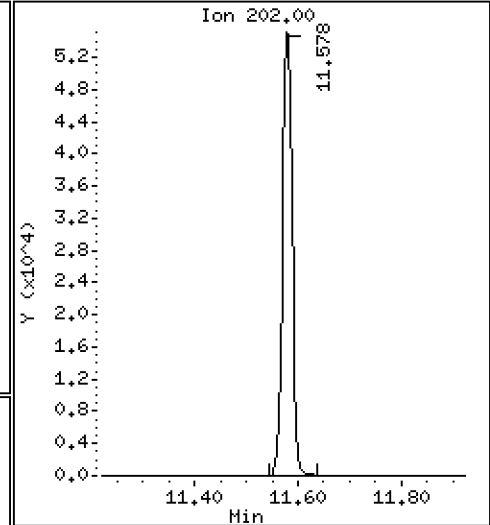
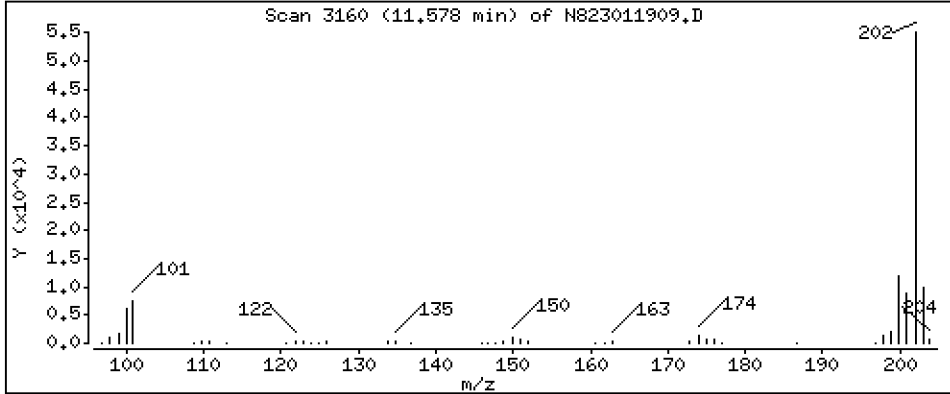
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

23 Pyrene

Concentration: 2,462 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

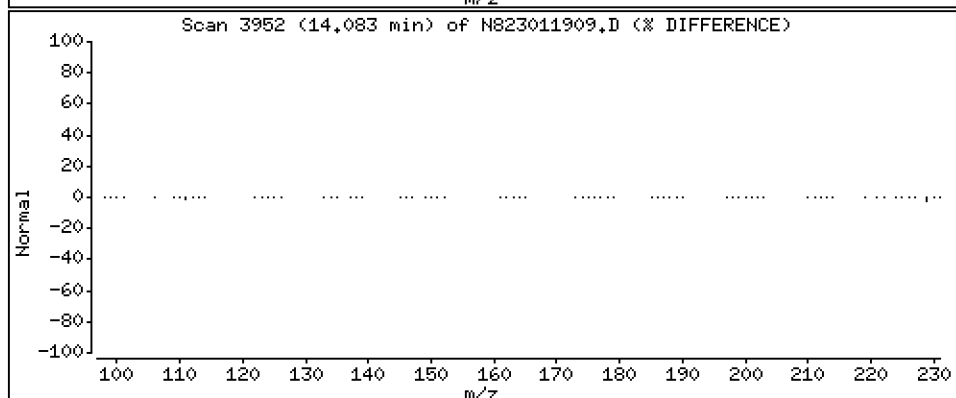
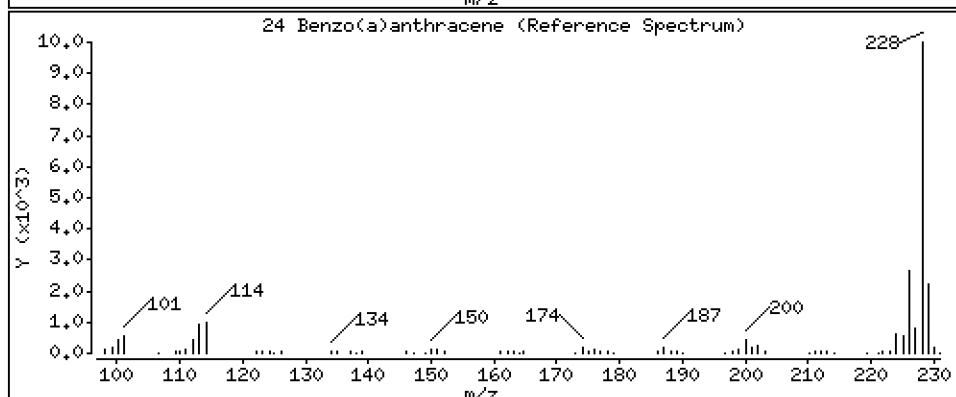
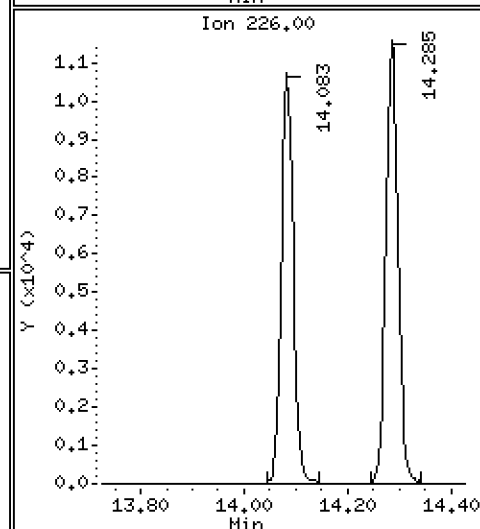
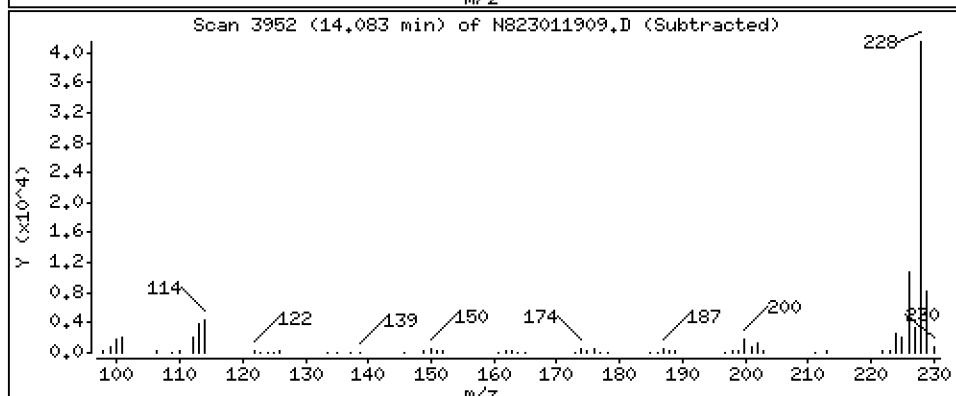
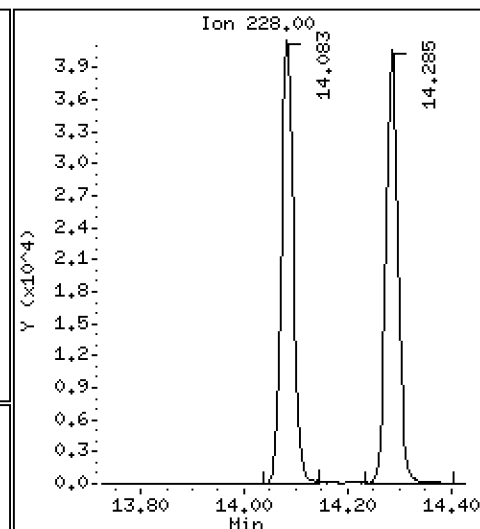
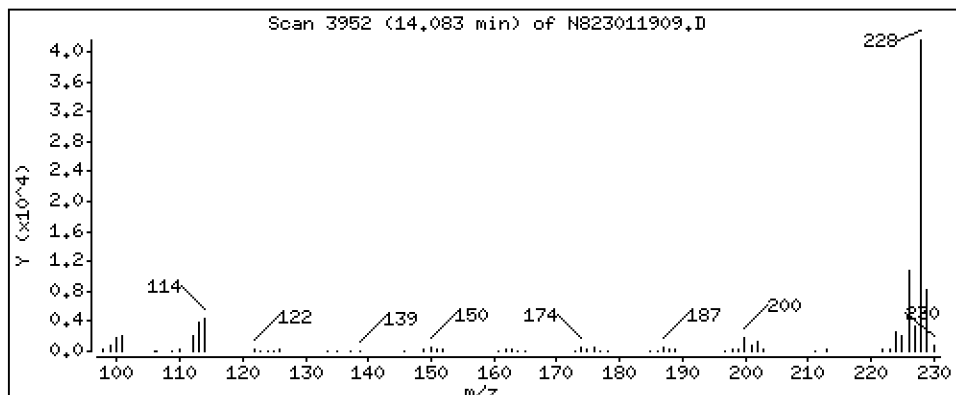
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

24 Benzo(a)anthracene

Concentration: 2,587 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

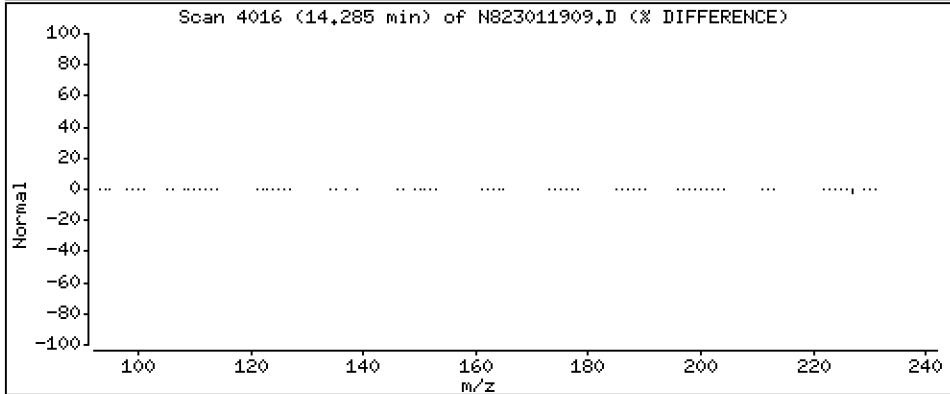
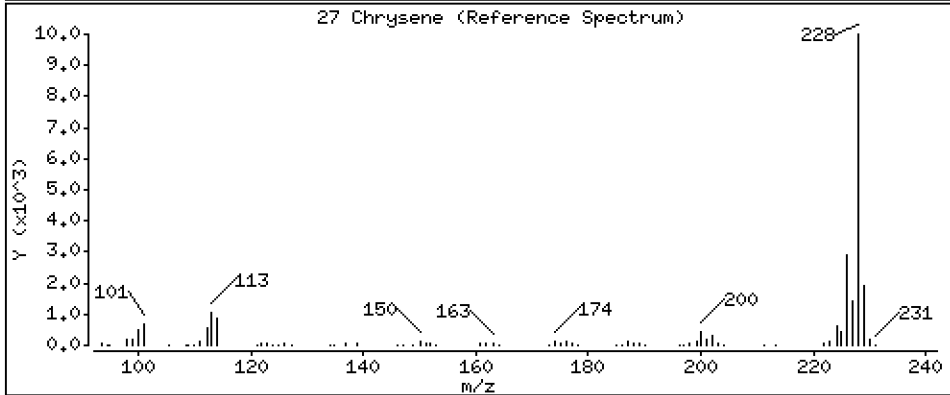
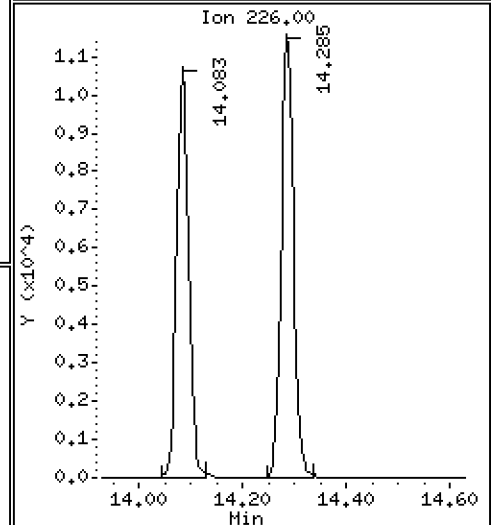
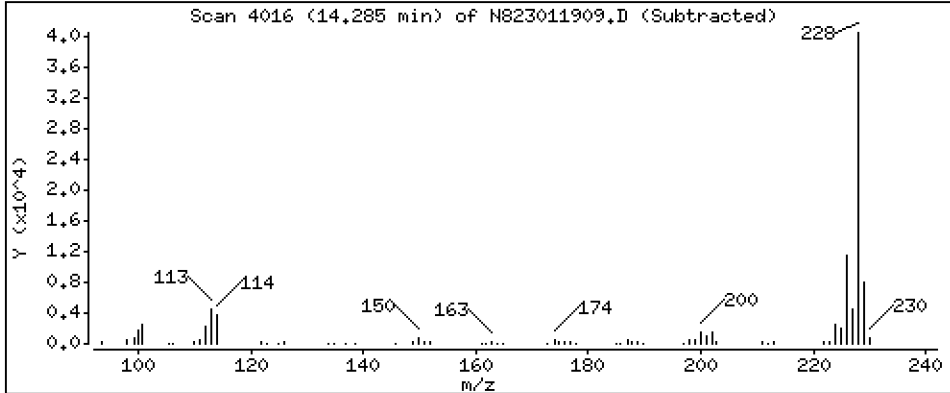
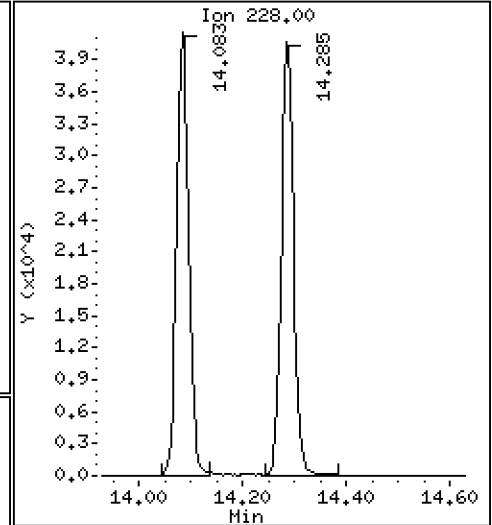
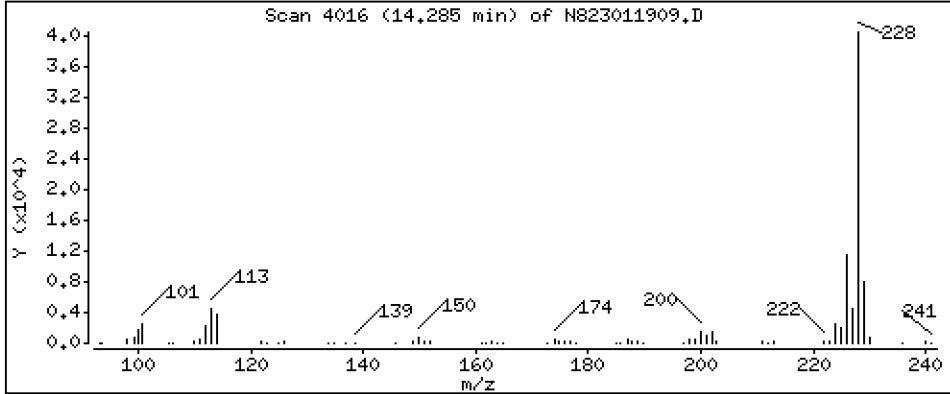
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

27 Chrysene

Concentration: 2,400 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

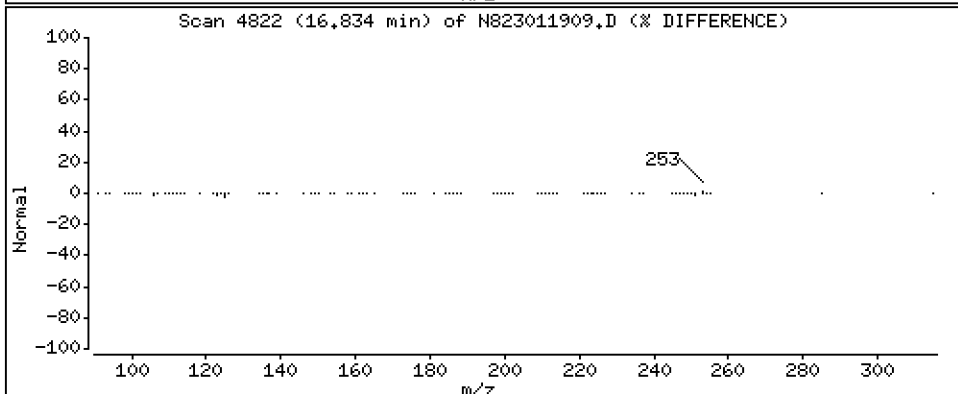
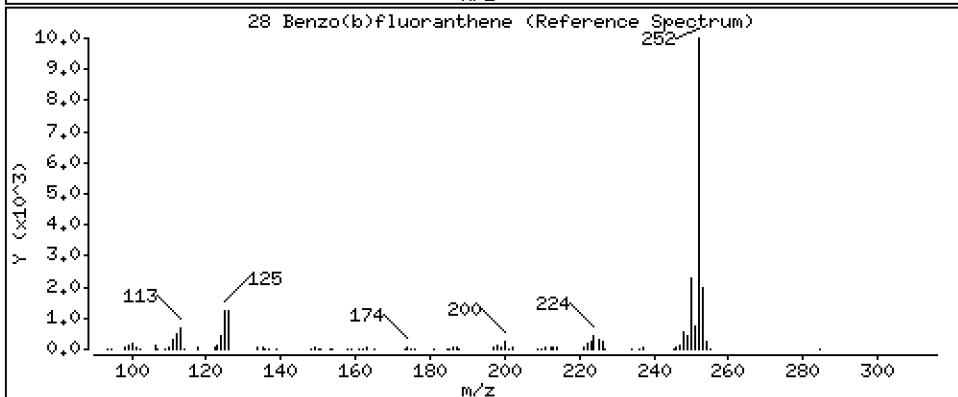
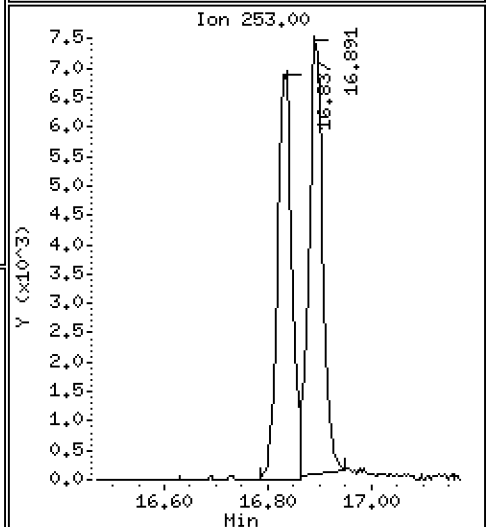
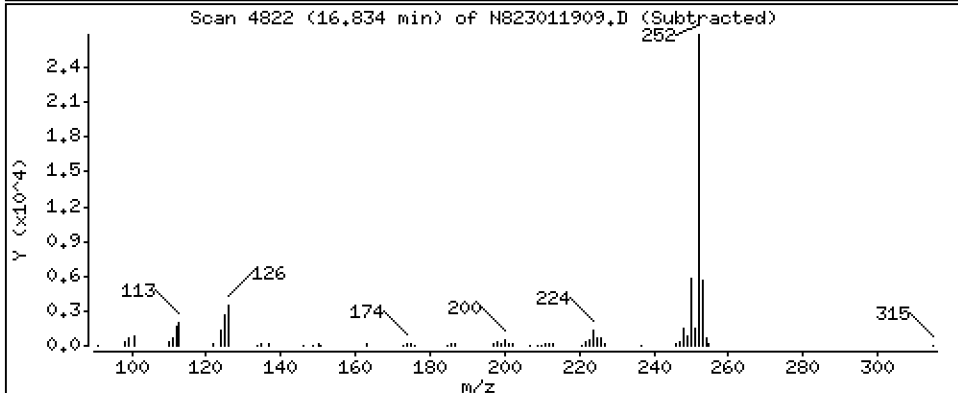
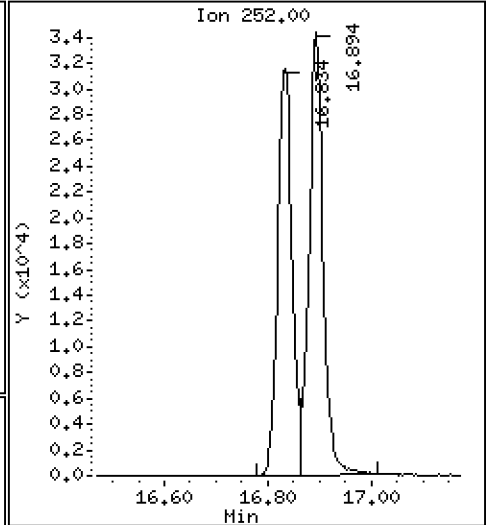
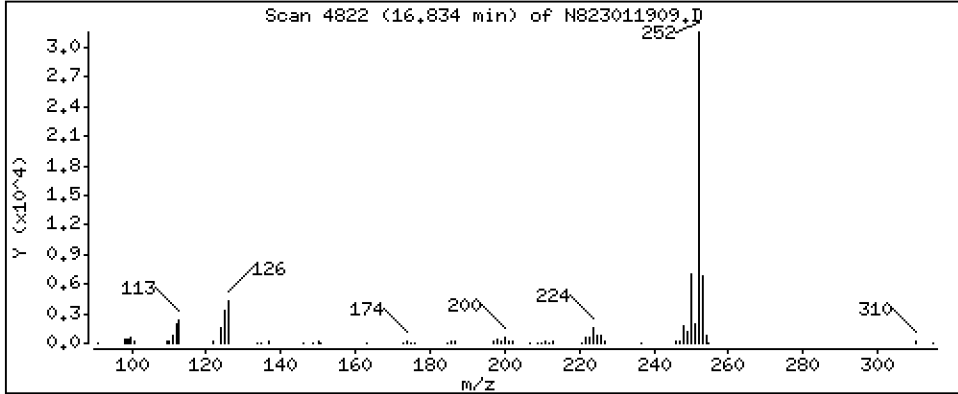
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

28 Benzo(b)fluoranthene

Concentration: 2,507 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

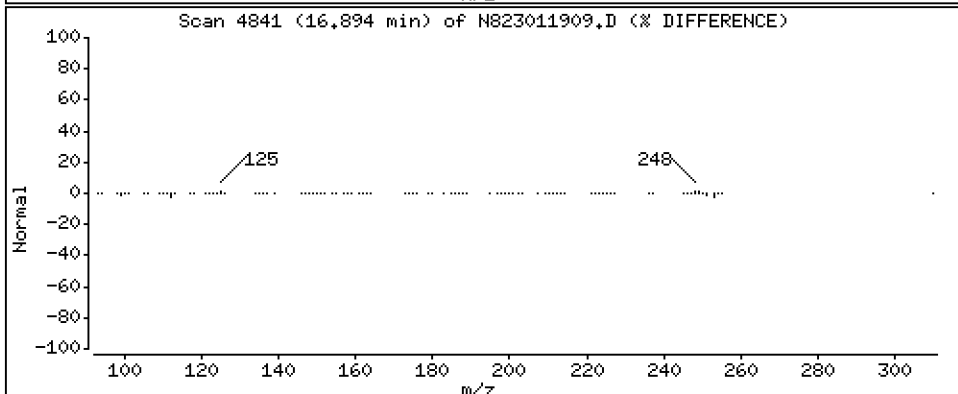
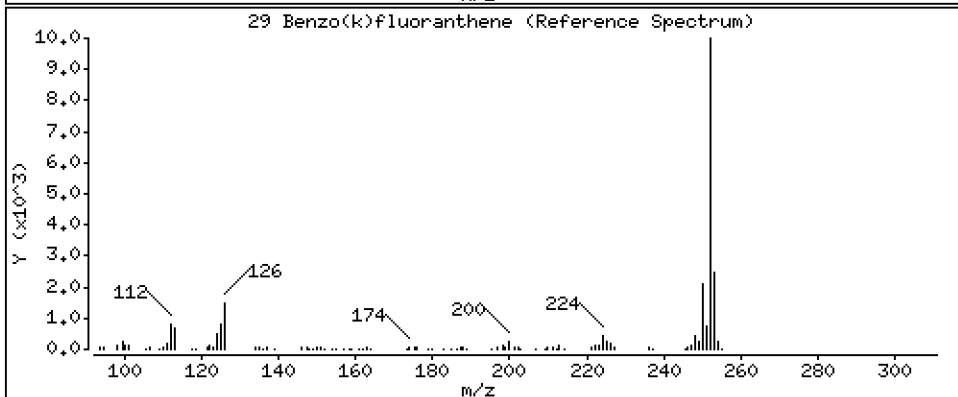
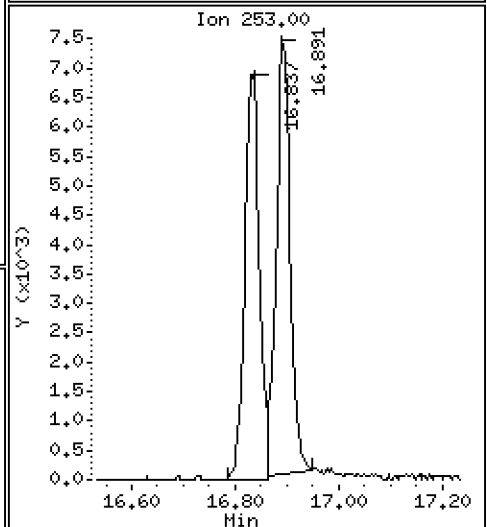
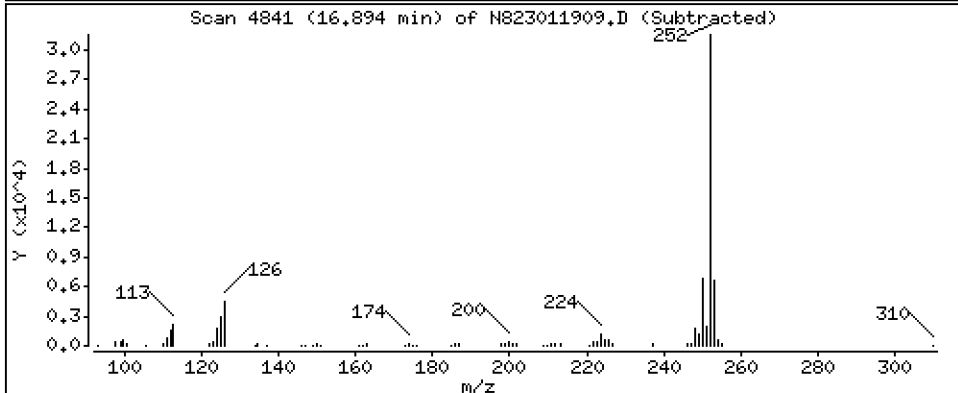
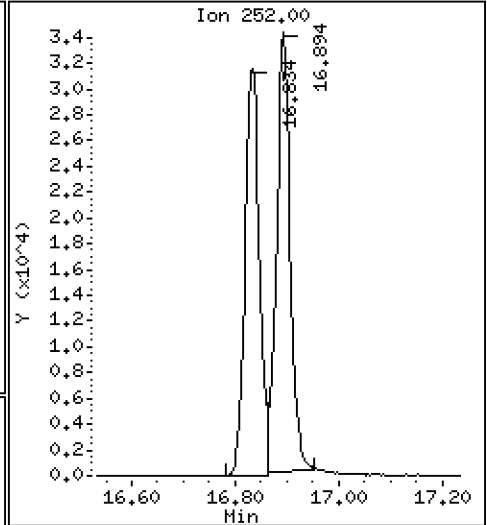
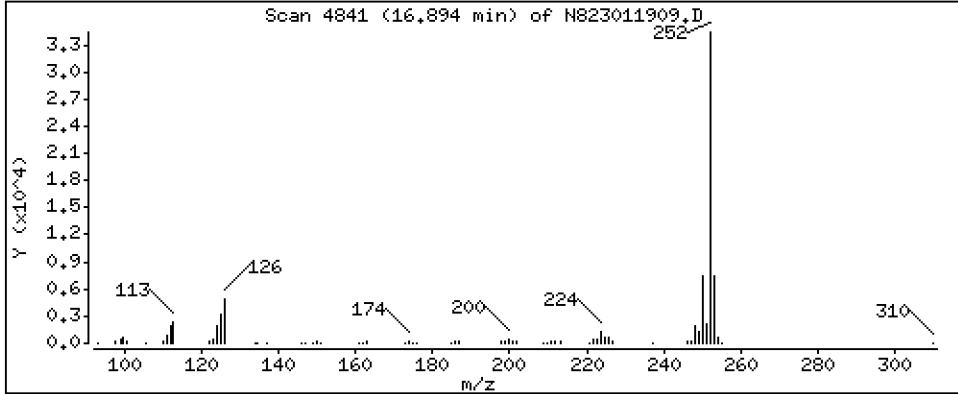
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

29 Benzo(k)fluoranthene

Concentration: 2,656 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

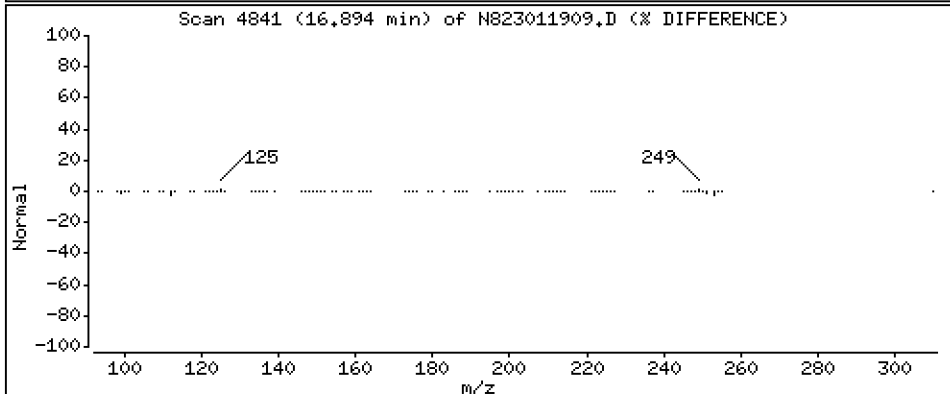
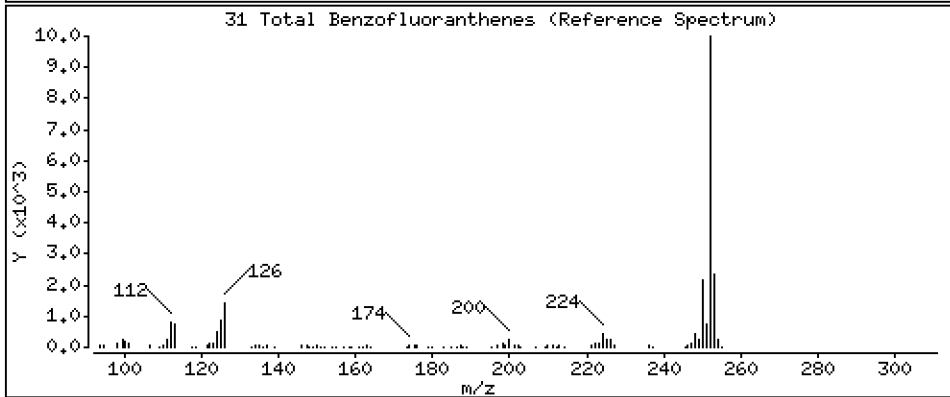
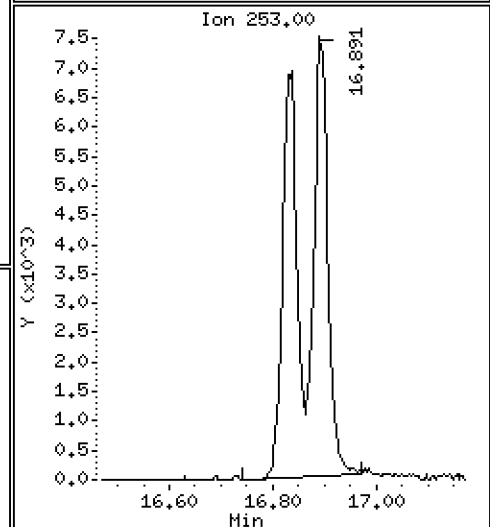
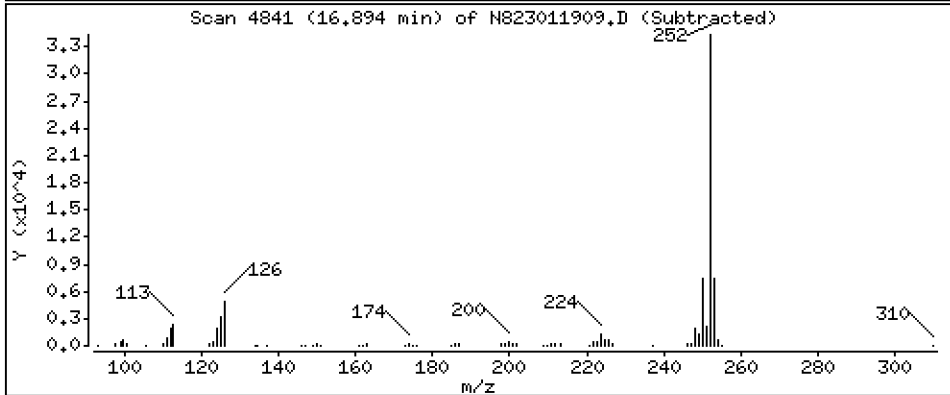
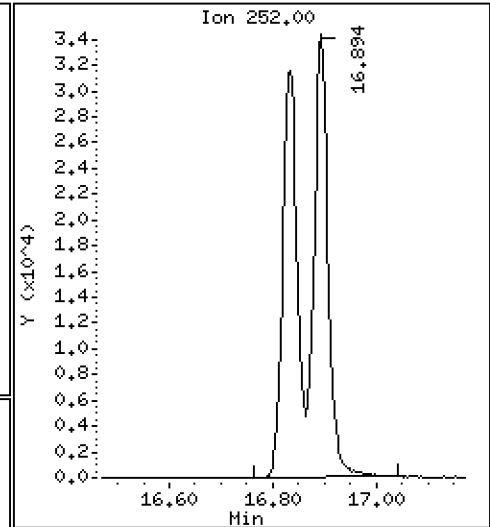
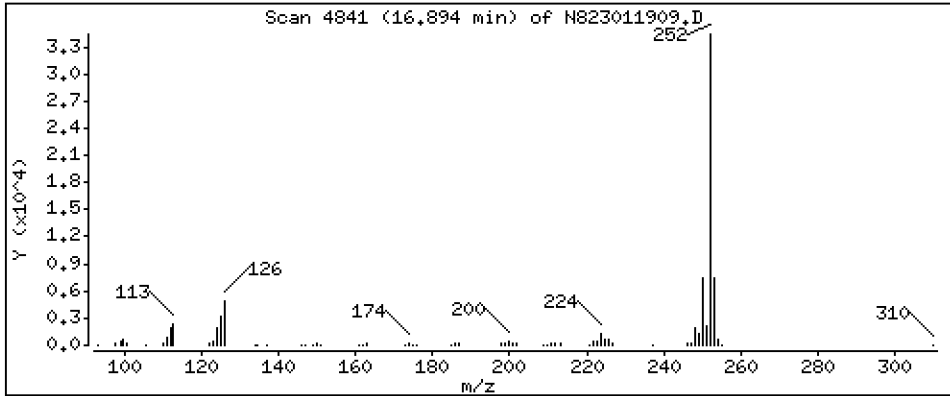
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

31 Total Benzofluoranthenes

Concentration: 5,480 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

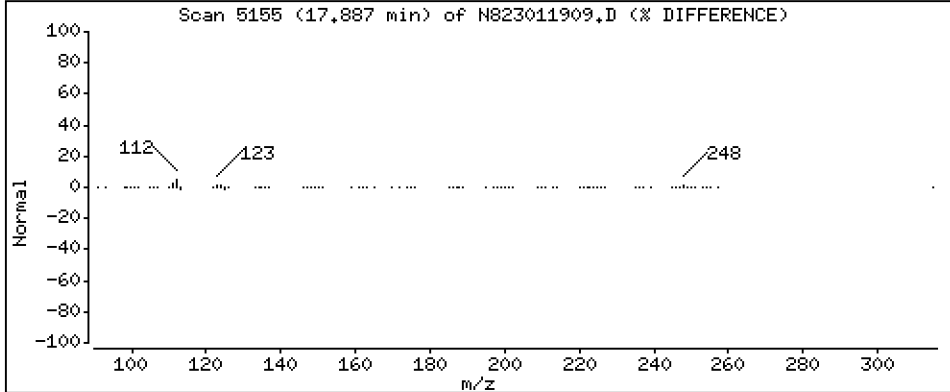
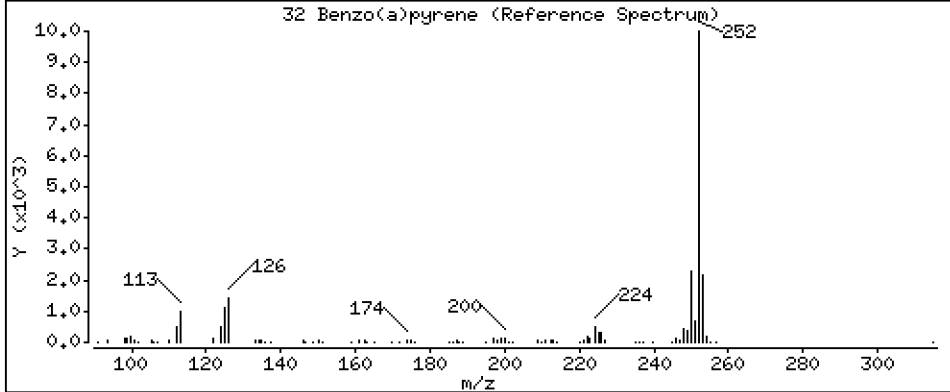
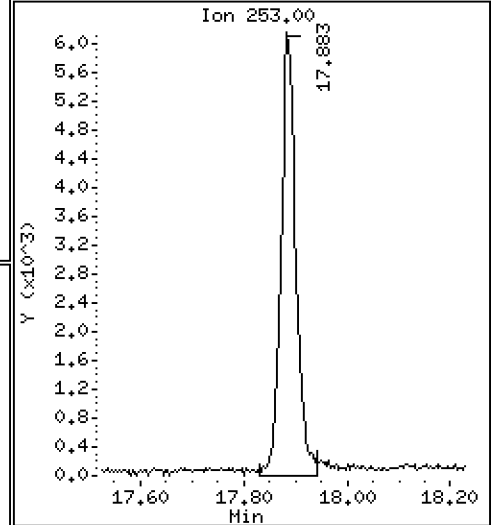
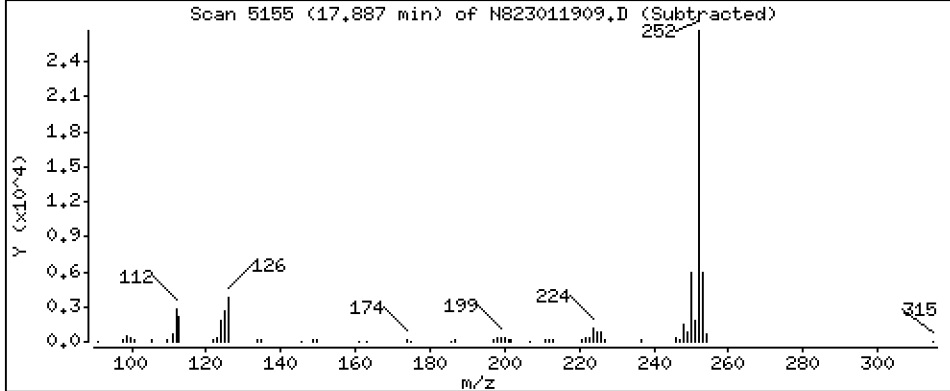
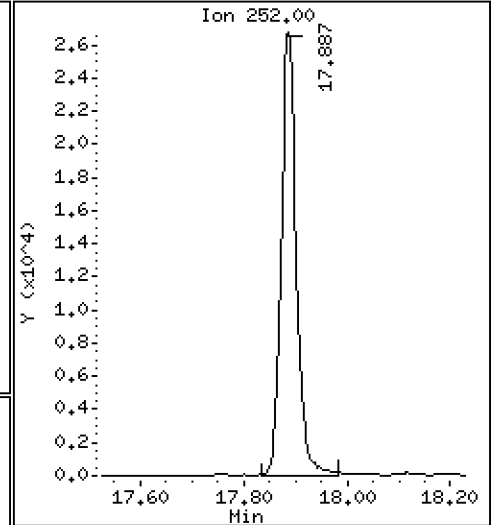
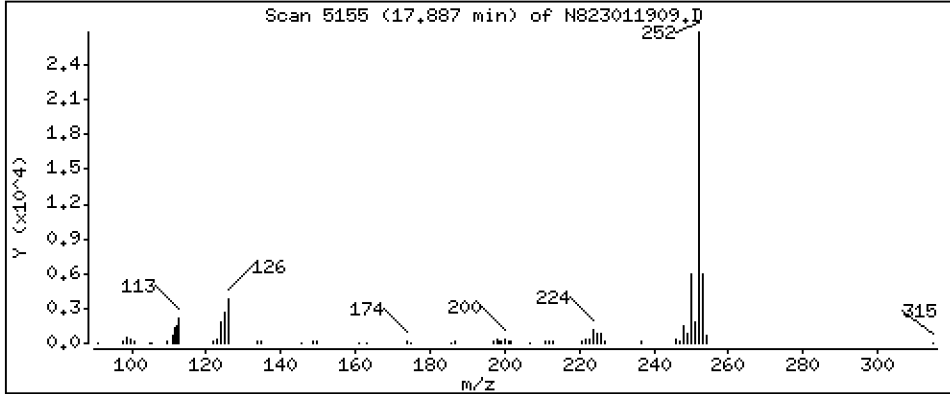
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 2,572 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

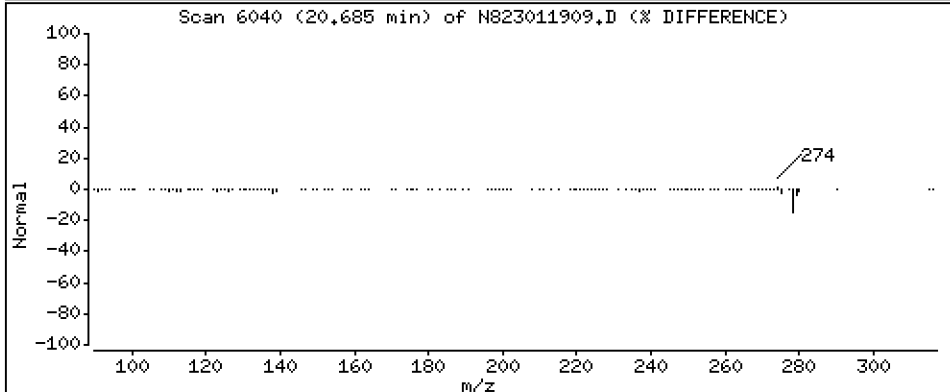
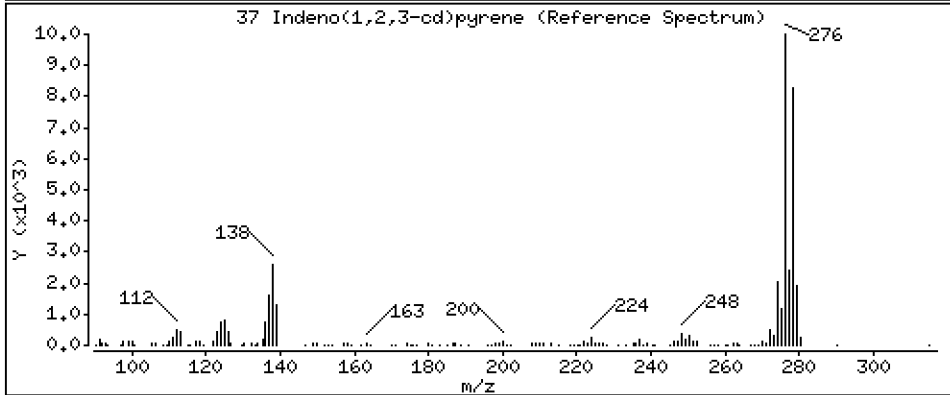
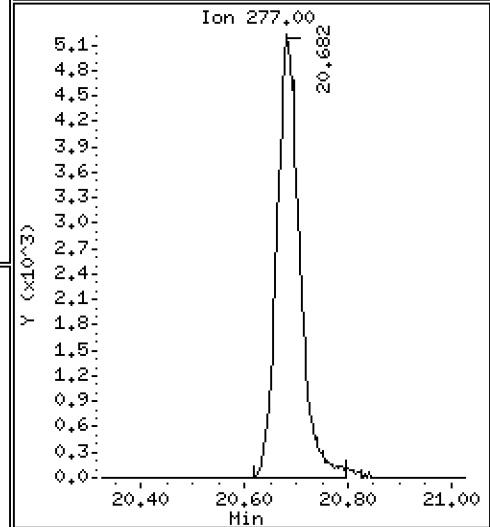
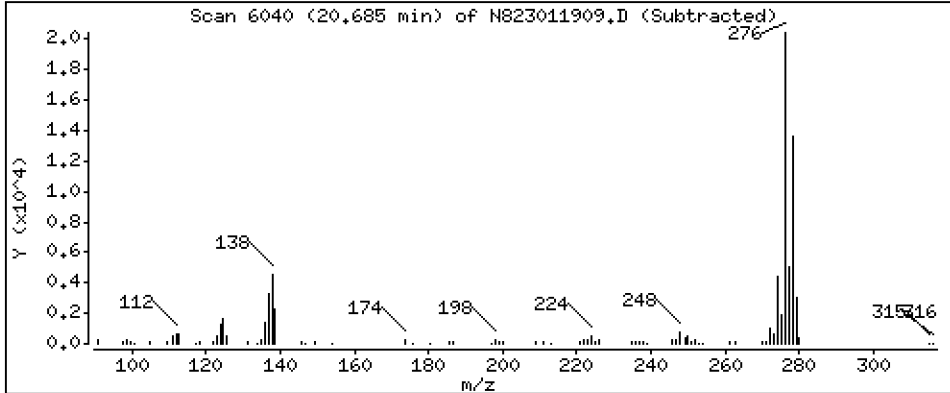
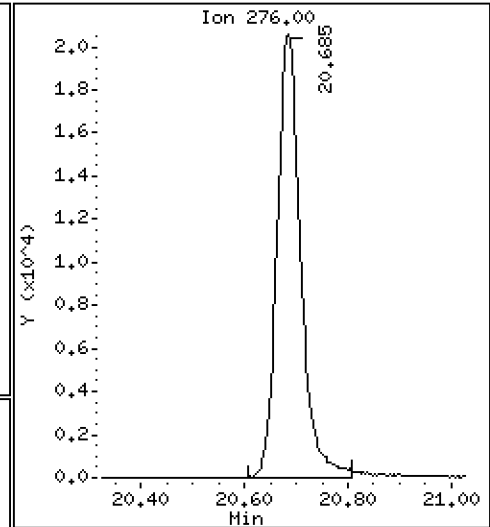
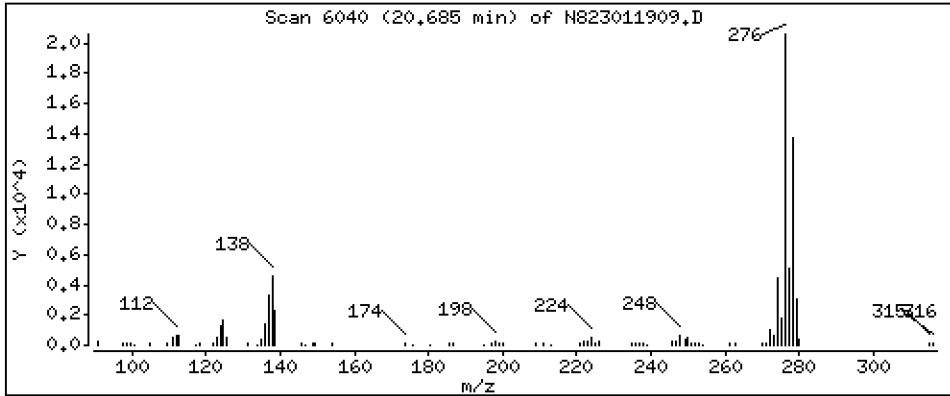
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 2,689 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

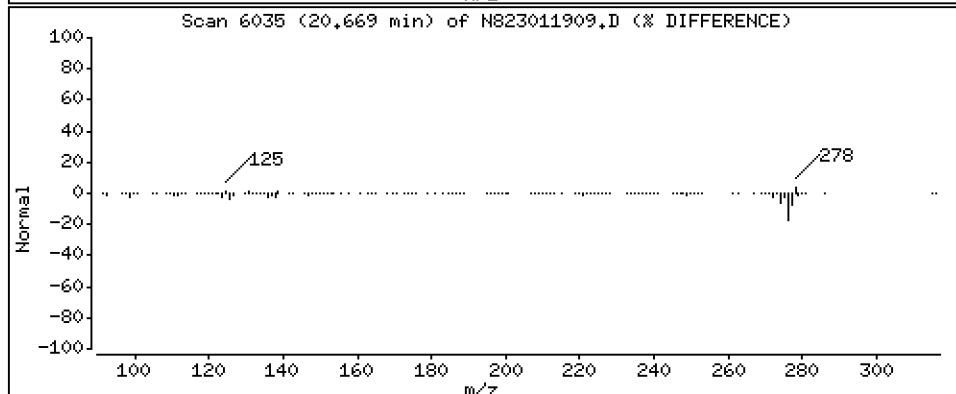
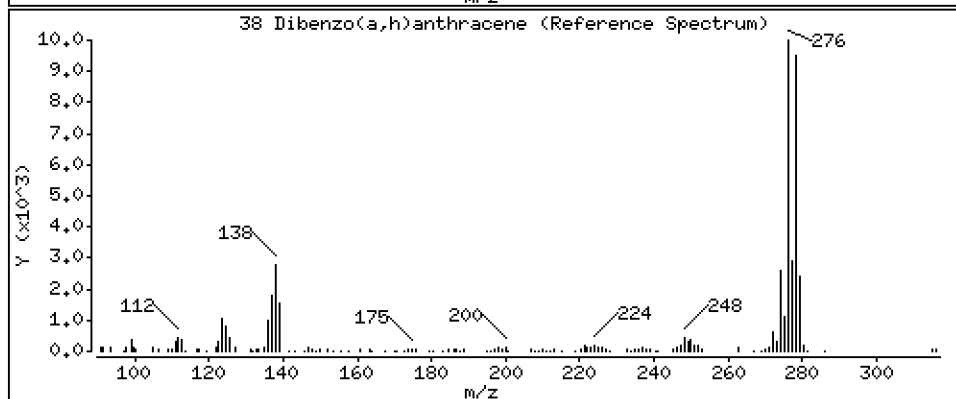
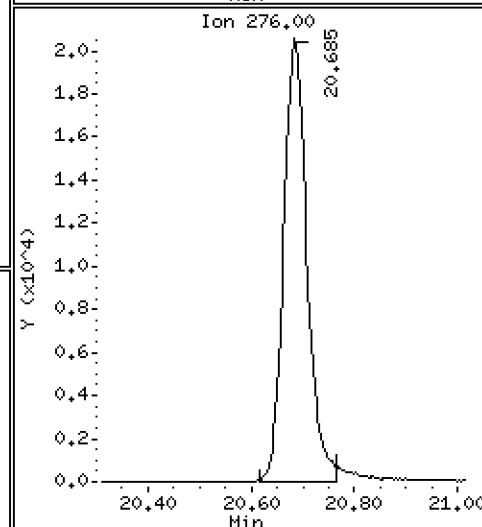
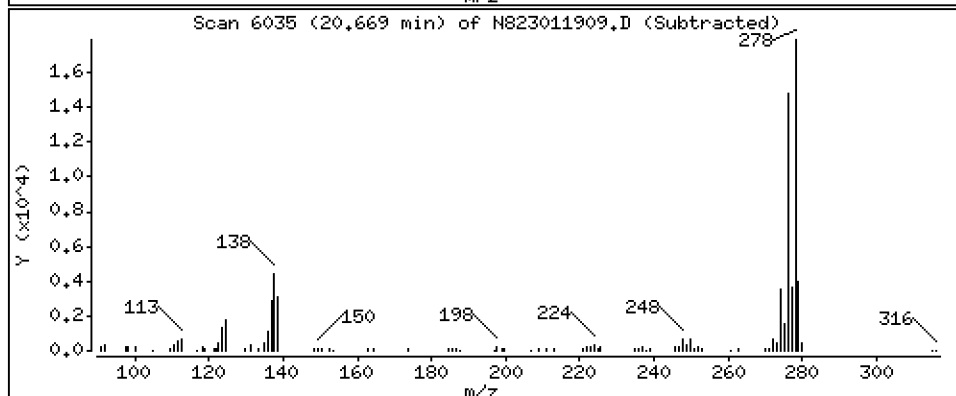
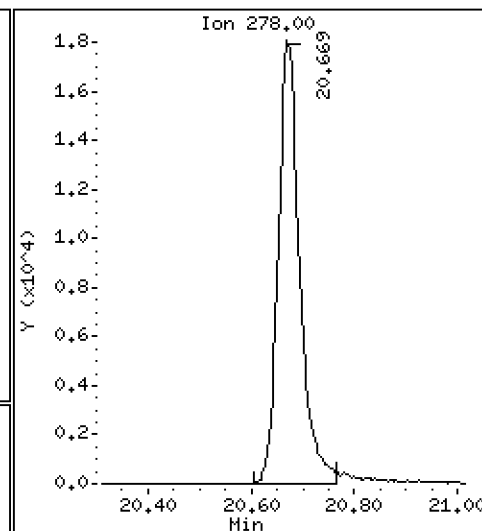
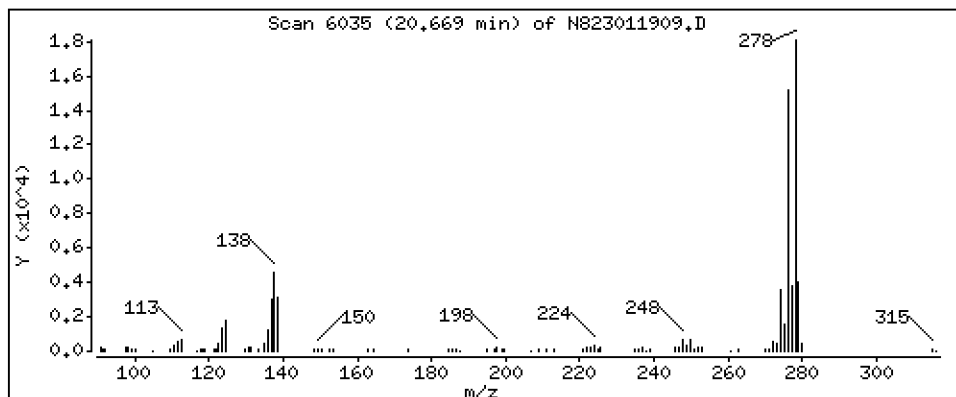
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 2,493 ug/L



Date : 19-JAN-2023 14:58

Client ID:

Instrument: nt8.i

Sample Info: SCV230119

Volume Injected (uL): 1.0

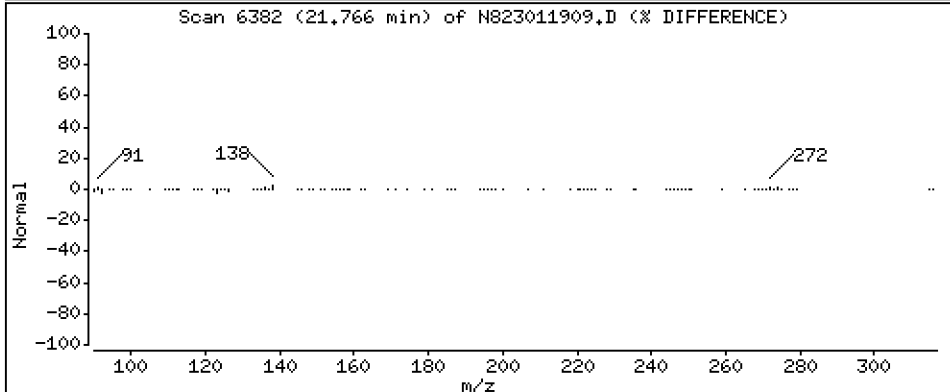
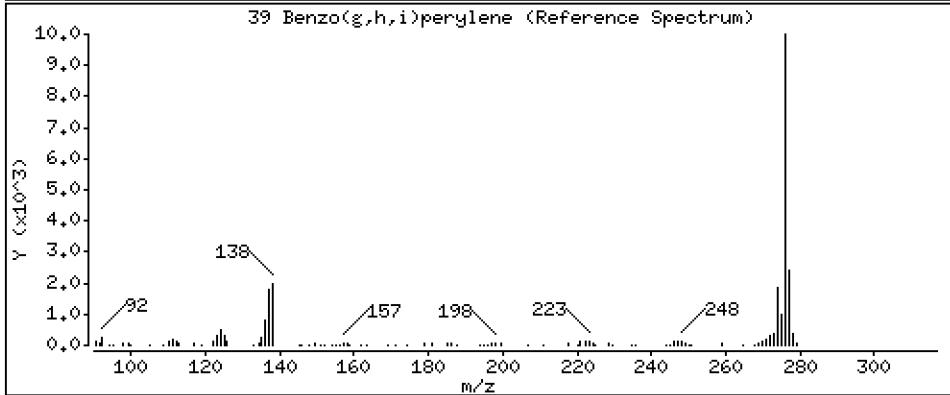
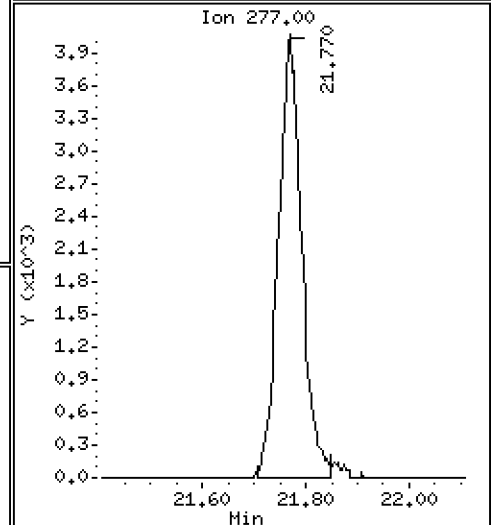
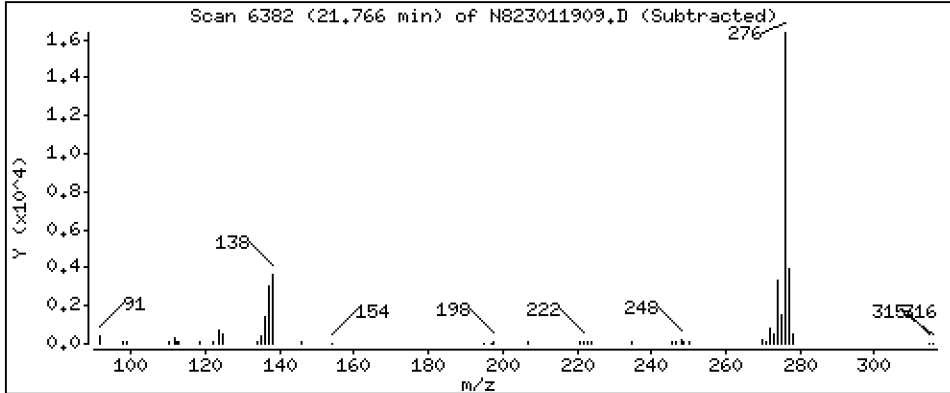
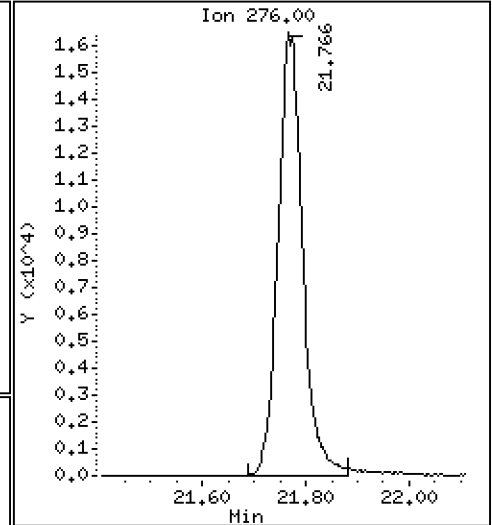
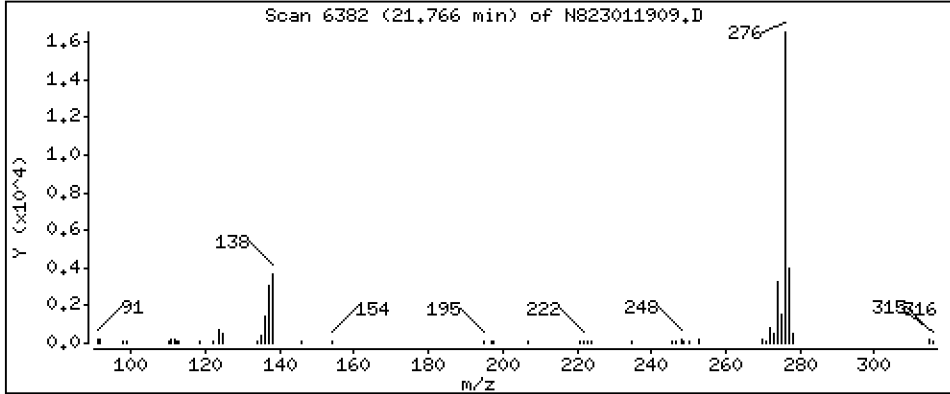
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 2,483 ug/L



ARI Labs, Inc.

Semivolatle Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119.b\N823011909.D
 Lab Smp Id: SLA0213-SCV1
 Inj Date : 19-JAN-2023 14:58
 Operator : JZ Inst ID: nt8.i
 Smp Info : SCV230119
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 21:57 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 9 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnascv.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	500.000	Volume of final extract (uL)
Vo	500.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
* 1 Naphthalene-d8	136		4.913	4.906	(1.000)	46346	2.00000	
2 Naphthalene	128		4.941	4.938	(1.006)	56587	2.62597	2.626
\$ 3 2-Methylnaphthalene-d10	152		Compound Not Detected.					
4 2-Methylnaphthalene	141		5.694	5.687	(1.159)	31650	2.67019	2.670
5 1-methylnaphthalene	141		5.890	5.883	(1.199)	31873	2.64949	2.649
9 Acenaphthylene	152		7.091	7.085	(0.985)	59018	2.82060	2.821
* 10 Acenaphthene-d10	164		7.202	7.196	(1.000)	27709	2.00000	
11 Acenaphthene	153		7.249	7.246	(1.007)	36454	2.60022	2.600
12 Dibenzofuran	168		7.401	7.395	(1.028)	60898	2.85987	2.860
14 Fluorene	166		7.878	7.872	(1.094)	43507	2.63066	2.631
* 15 Phenanthrene-d10	188		9.238	9.235	(1.000)	51685	2.00000	
16 Phenanthrene	178		9.276	9.270	(1.004)	61815	2.44841	2.448
17 Anthracene	178		9.317	9.311	(1.009)	52064	2.27006	2.270
22 Fluoranthene	202		11.059	11.053	(1.197)	72902	2.65276	2.653
\$ 21 Fluoranthene-d10	212		Compound Not Detected.					
23 Pyrene	202		11.578	11.572	(0.815)	71115	2.46242	2.462
24 Benzo(a)anthracene	228		14.082	14.076	(0.991)	67725	2.58725	2.587
* 25 Chrysene-d12	240		14.212	14.202	(1.000)	46582	2.00000	
27 Chrysene	228		14.285	14.278	(1.005)	66872	2.39976	2.400
28 Benzo(b)fluoranthene	252		16.833	16.821	(0.929)	60946	2.50689	2.507
29 Benzo(k)fluoranthene	252		16.893	16.884	(0.932)	63249	2.65606	2.656
31 Total Benzofluoranthenes	252		16.893	16.821	(0.932)	126178	5.48025	5.480 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/mL)	FINAL (ug/L)	
=====	=====	=====	=====	=====	=====	=====	=====	
32 Benzo(a)pyrene	252	17.886	17.877	(0.987)	55026	2.57205	2.572	
* 33 Perylene-d12	264	18.117	18.111	(1.000)	41743	2.00000		
37 Indeno(1,2,3-cd)pyrene	276	20.684	20.675	(1.142)	65545	2.68928	2.689	
\$ 36 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.						
38 Dibenzo(a,h)anthracene	278	20.669	20.662	(1.141)	52293	2.49315	2.493	
39 Benzo(g,h,i)perylene	276	21.766	21.756	(1.201)	54821	2.48258	2.483	
35 Perylene	252	Compound Not Detected.						

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011909.D Calibration Time: 12:52
 Lab Smp Id: SLA0213-SCV1 Level: LOW
 Analysis Type: SV Sample Type: WATER
 Quant Type: ISTD Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	44704	22352	89408	46346	3.67
10 Acenaphthene-d10	26411	13206	52822	27709	4.91
15 Phenanthrene-d10	49210	24605	98420	51685	5.03
25 Chrysene-d12	42994	21497	85988	46582	8.35
33 Perylene-d12	40520	20260	81040	41743	3.02

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.13
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	0.09
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	0.03
25 Chrysene-d12	14.20	13.70	14.70	14.21	0.07
33 Perylene-d12	18.11	17.61	18.61	18.12	0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011909.D

Lab ID: SLA0213-SCV1

nt8.i, 20230119.b\FSIMPNA230119.m, 19-JAN-2023 14:58

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

No RRT check performed

On Column LOD for nt8.i, 20230119.b\FSIMPNA230119.m, pnascv.sub = 0.0500

Exception: Benzo(b)fluoranthene 0.0300
Exception: Benzo(k)fluoranthene 0.0300
Exception: Total Benzofluoranthenes 0.0300
Exception: Fluoranthene-d10 (Surr) 0.0000

* Only compounds listed in the work order have been verified by the analyst *

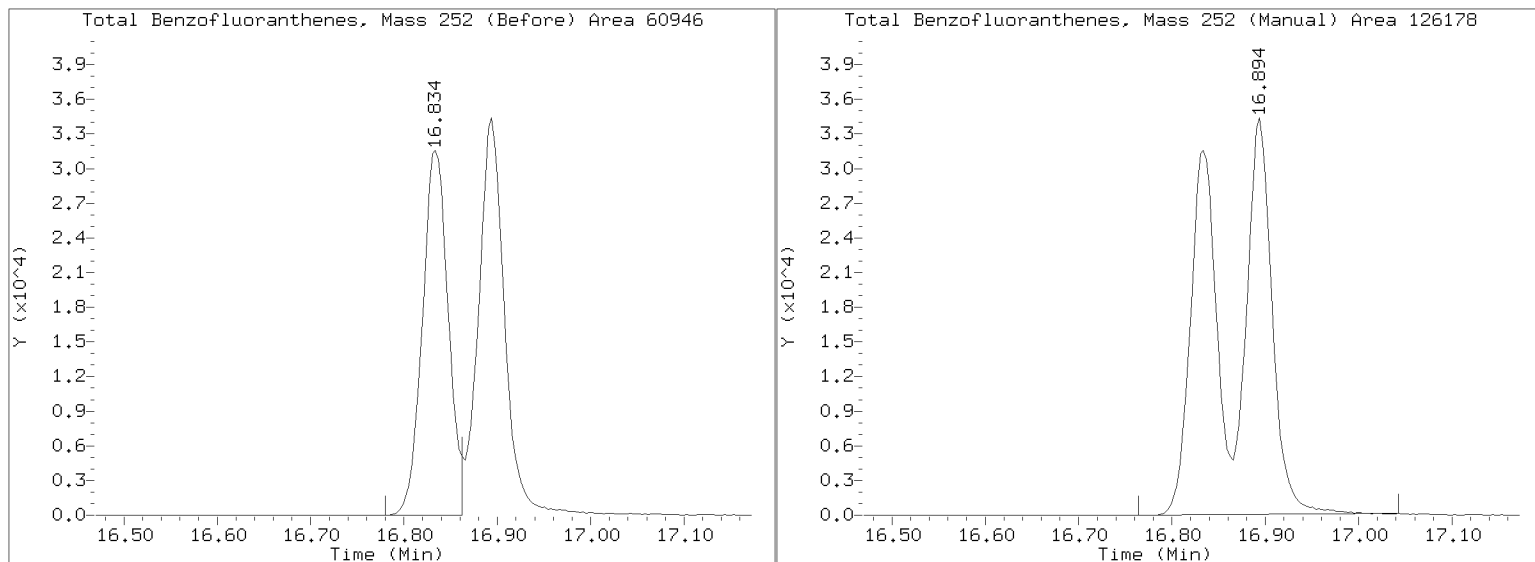
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119.b/N823011909.D

Injection Date: 19-JAN-2023 14:58

Lab ID:SLA0213-SCV1 Client ID:

Report Date: 01/25/2023 22:00





CONTINUING CALIBRATION CHECK EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: NT8

Calibration: GA00050

Lab File ID: N823011937.D

Calibration Date: 01/19/2023

Sequence: SLA0228

Injection Date: 01/20/23

Lab Sample ID: SLA0228-CCV1

Injection Time: 03:30

Sequence Name: Calibration Check

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Naphthalene	A	2.5000	2.55	0.9299181	0.9485019		2.0	+/-50
2-Methylnaphthalene	A	2.5000	2.63	0.5115033	0.5384457		5.3	+/-50
1-Methylnaphthalene	A	2.5000	2.59	0.5191318	0.5375591		3.5	+/-50
Acenaphthylene	A	2.5000	2.78	1.5102600	1.6776580		11.1	+/-50
Acenaphthene	A	2.5000	2.59	1.0119150	1.0491180		3.7	+/-50
Dibenzofuran	A	2.5000	2.57	1.5369690	1.5779010		2.7	+/-50
Fluorene	A	2.5000	2.67	1.1937240	1.2726530		6.6	+/-50
Phenanthrene	A	2.5000	2.48	0.9769567	0.9694909		-0.8	+/-50
Anthracene	A	2.5000	2.68	0.8874960	0.9500739		7.1	+/-50
Fluoranthene	A	2.5000	2.64	1.0634260	1.1215370		5.5	+/-50
Pyrene	A	2.5000	2.65	1.2399700	1.3144570		6.0	+/-50
Benzo(a)anthracene	A	2.5000	2.84	1.1238870	1.2769310		13.6	+/-50
Chrysene	A	2.5000	2.54	1.1964350	1.2140220		1.5	+/-50
Benzo(b)fluoranthene	A	2.5000	2.74	1.1648110	1.2770680		9.6	+/-50
Benzo(k)fluoranthene	A	2.5000	2.59	1.1409370	1.1810870		3.5	+/-50
Benzo(j)fluoranthene	A	2.5000	2.55	1.0271120	1.0471760		2.0	+/-50
Benzofluoranthenes, Total	A	7.5000	7.98	1.1031370	1.1734820		6.4	+/-50
Benzo(a)pyrene	A	2.5000	2.57	1.0250270	1.0524260		2.7	+/-50
Indeno(1,2,3-cd)pyrene	A	2.5000	2.21	1.1677520	1.0314780		-11.7	+/-50
Dibenzo(a,h)anthracene	A	2.5000	2.27	1.0049440	0.9114669		-9.3	+/-50
Benzo(g,h,i)perylene	A	2.5000	2.21	1.0580110	0.9346341		-11.7	+/-50
2-Methylnaphthalene-d10	A	2.5000	2.64	0.5454499	0.5769750		5.8	+/-50
Dibenzo[a,h]anthracene-d14	A	2.5000	2.13	0.6679424	0.6684666		-14.7	+/-50
Fluoranthene-d10	A	2.5000	2.78	0.8823923	0.9809399		11.2	

* Values outside of QC limits

Data File: \\target\share\chem3\nt8.1\20230119A,B\N823011937.D

Date: 20-JAN-2023 03:30

Client ID:

Sample Info: CCV230119,

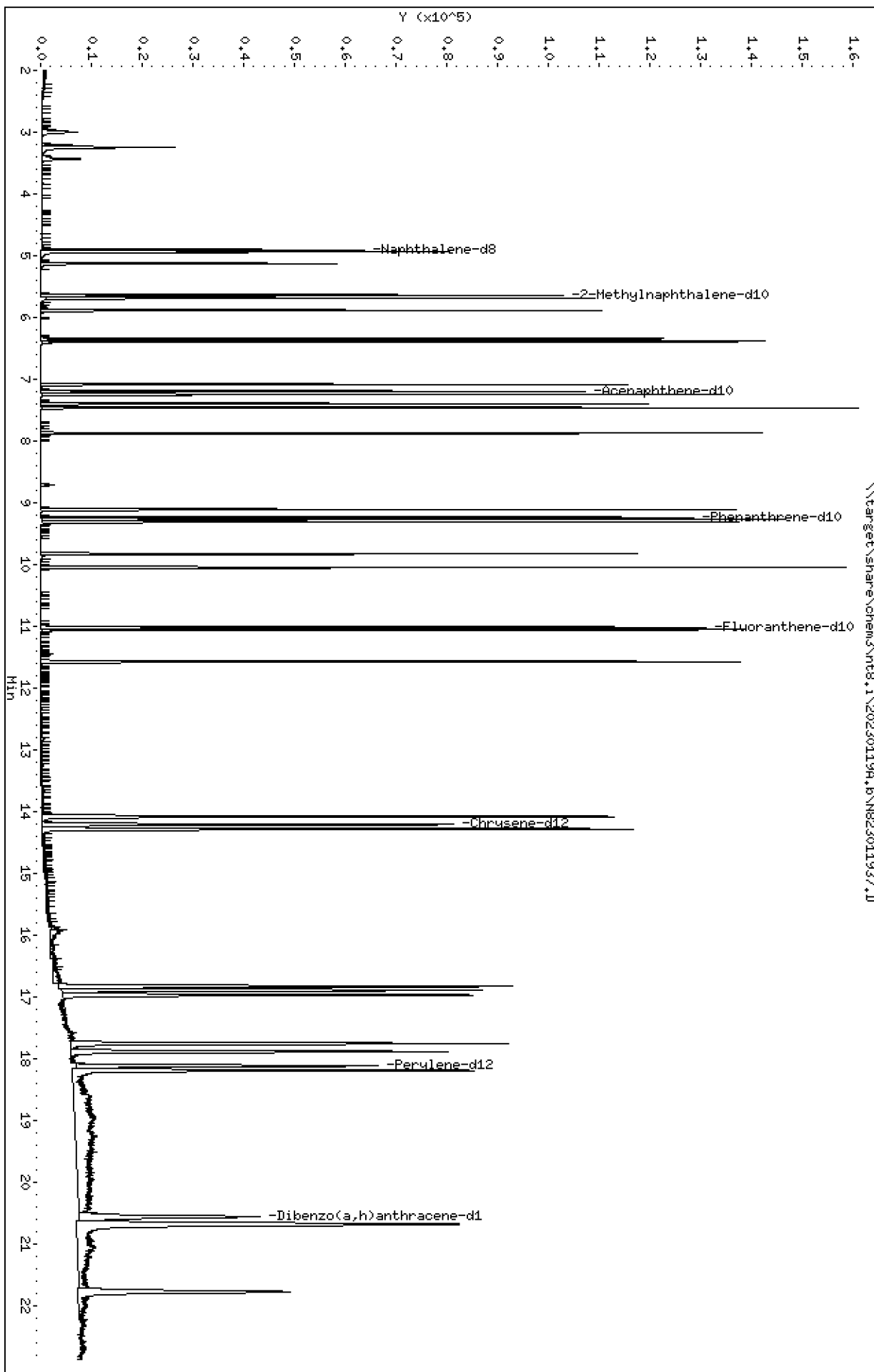
Column phase: Rxi-17s11

Instrument: nt8.1

Operator: JZ

Column diameter: 0.25

Page 1



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

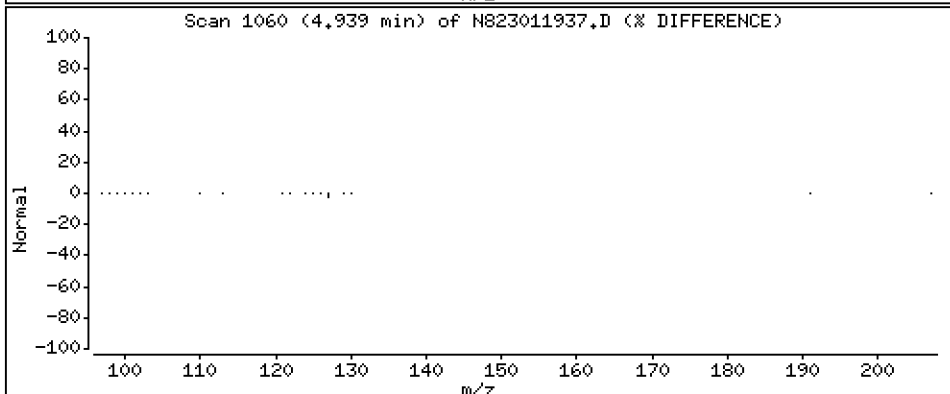
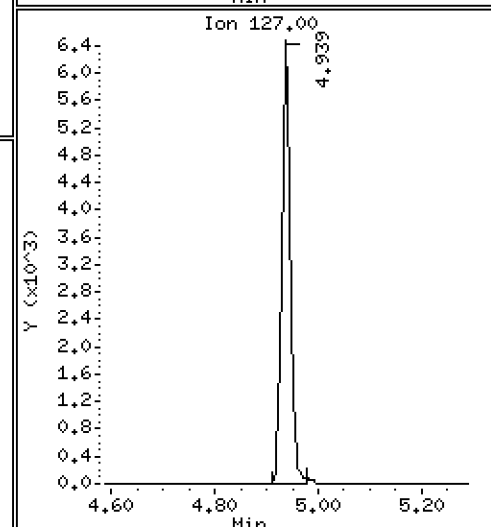
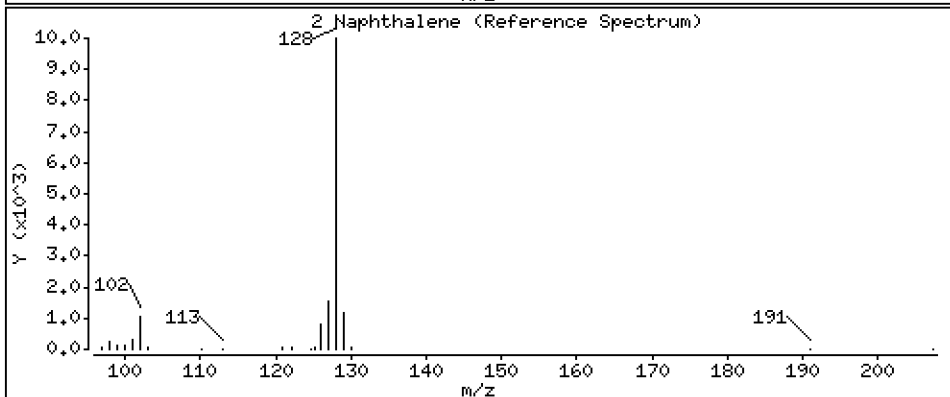
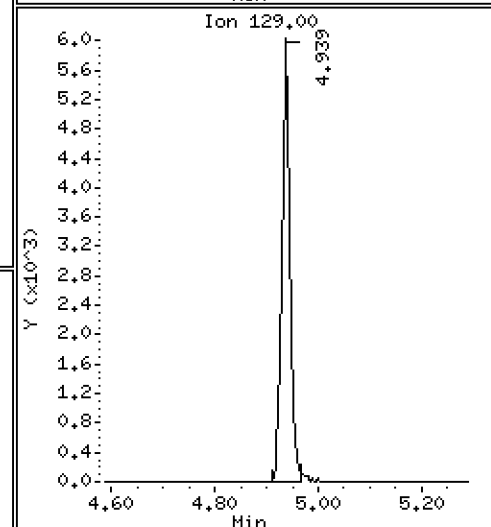
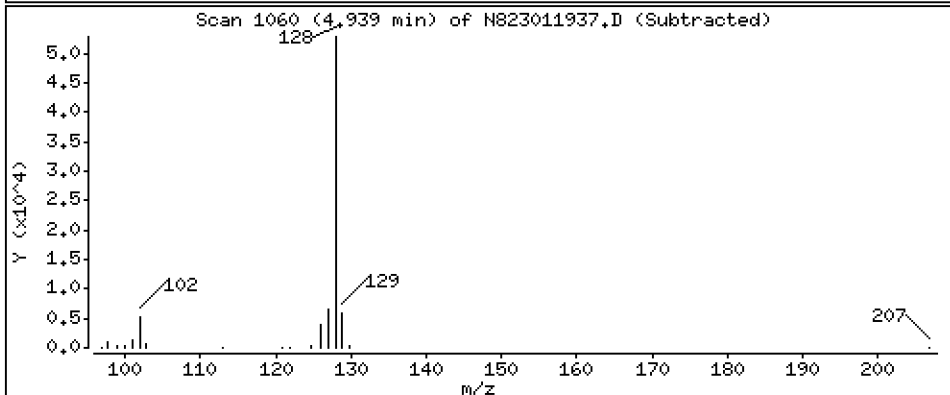
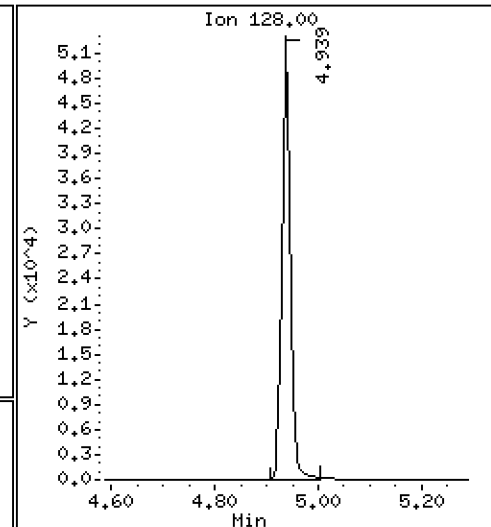
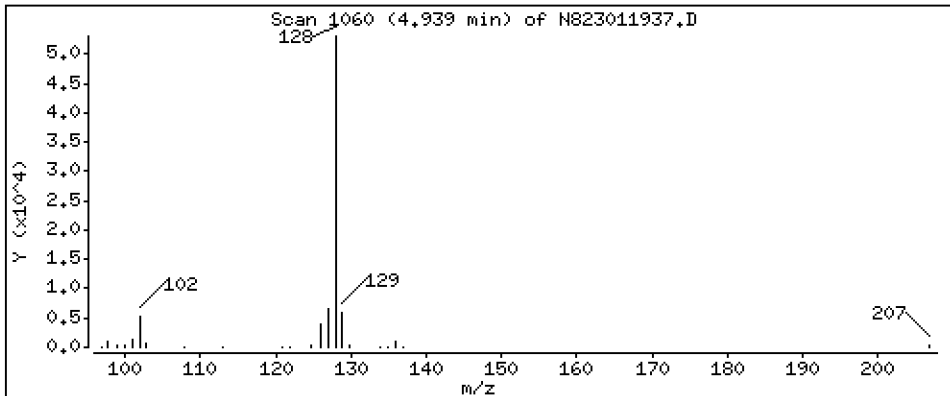
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0.25

2 Naphthalene

Concentration: 2,550 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

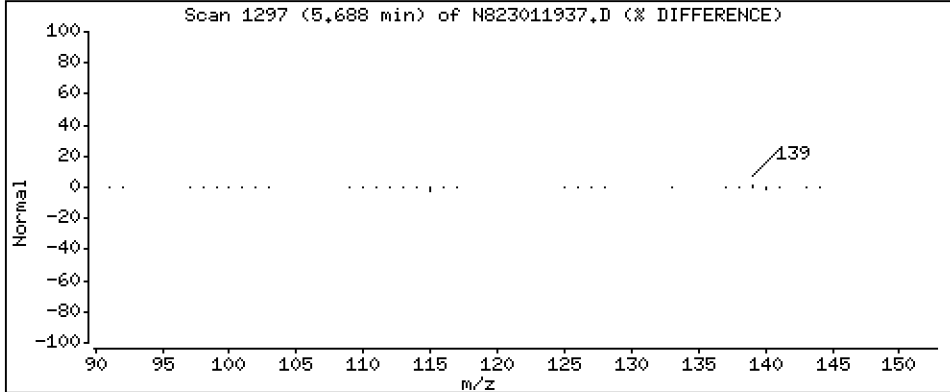
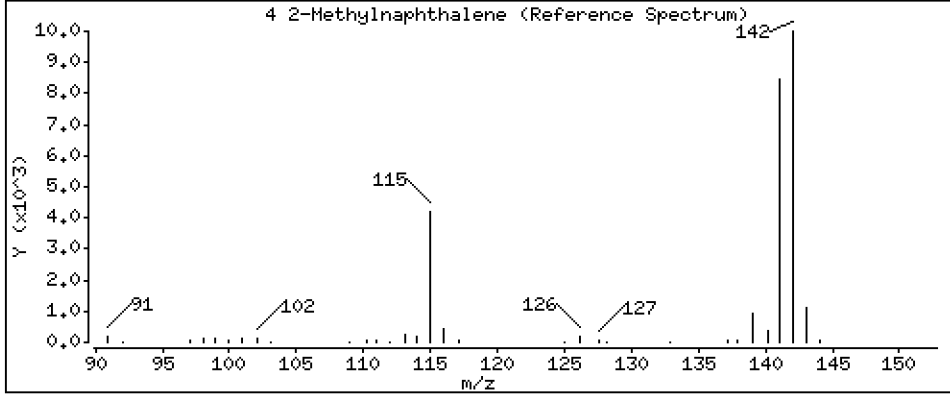
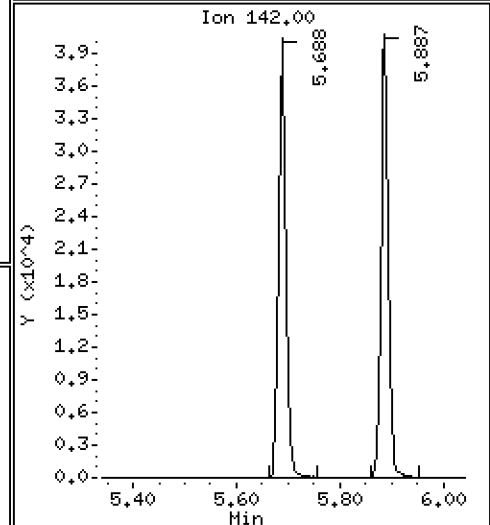
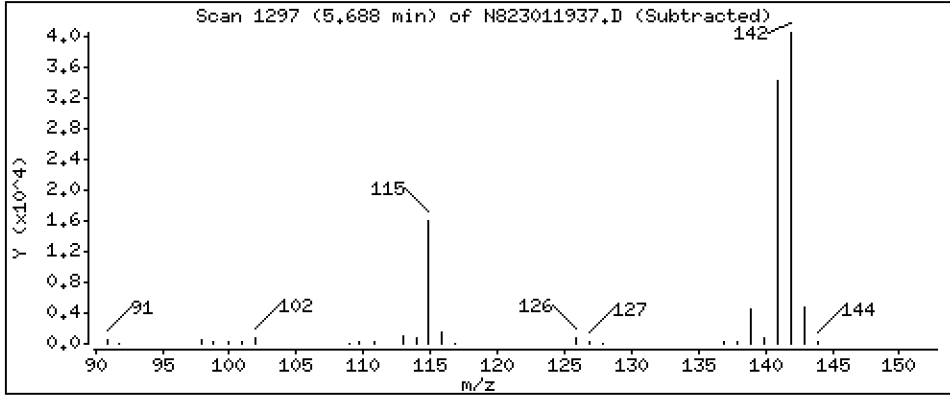
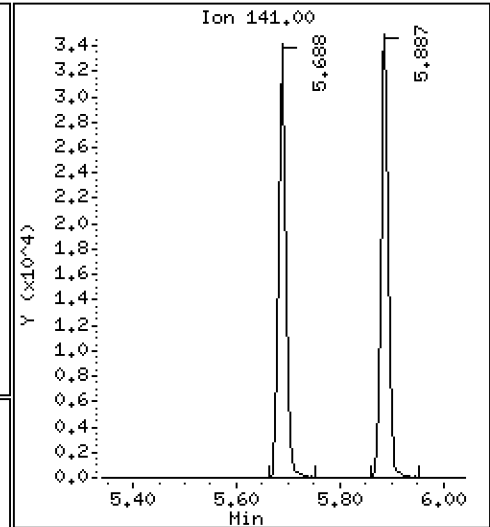
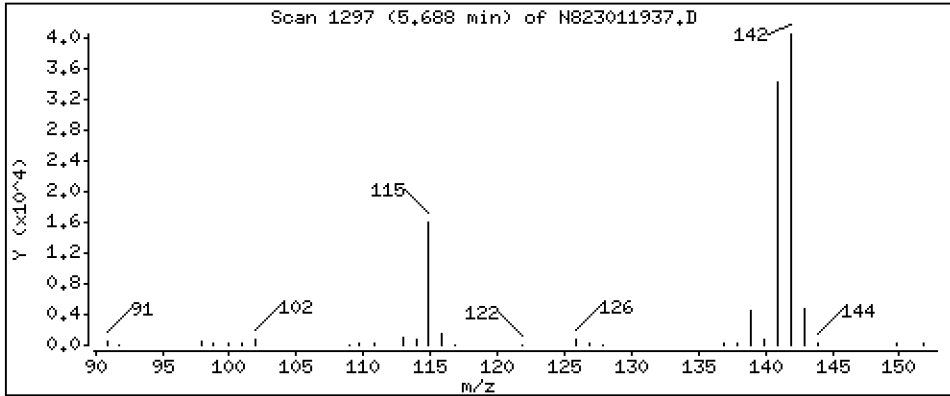
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

4 2-Methylnaphthalene

Concentration: 2,632 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

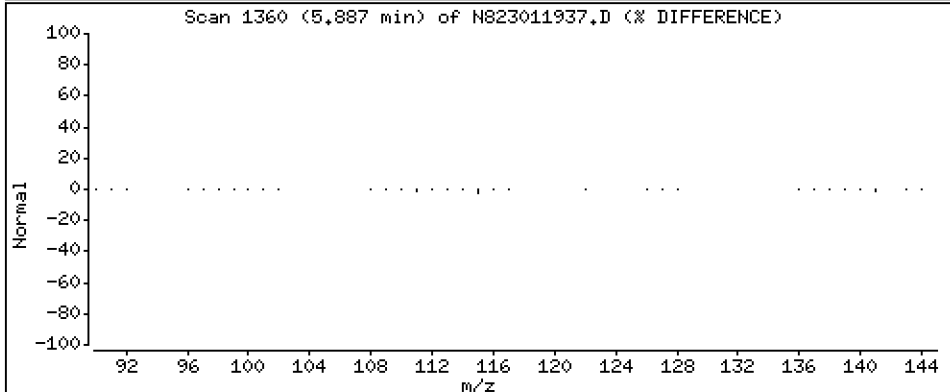
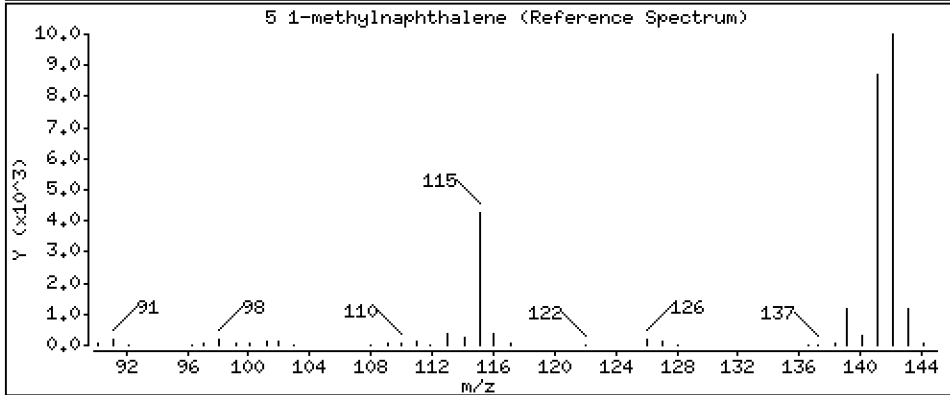
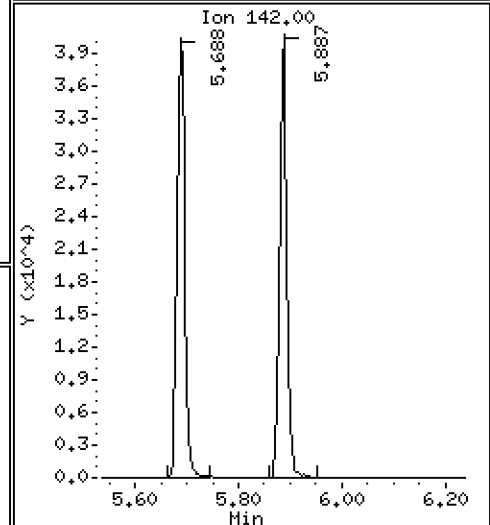
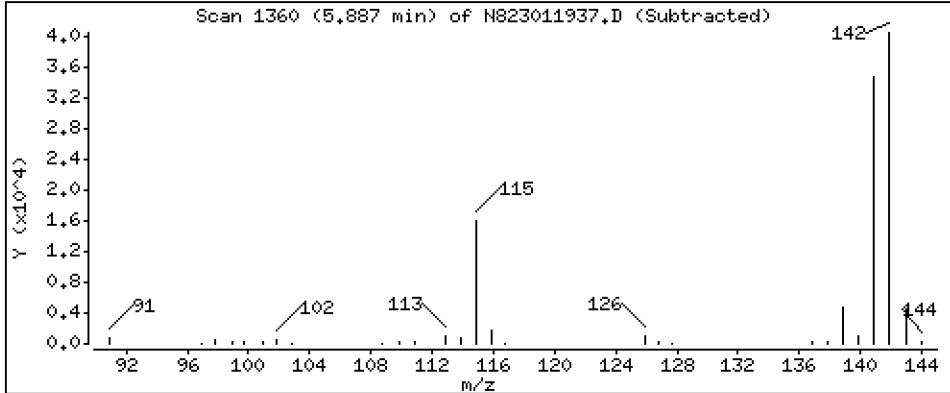
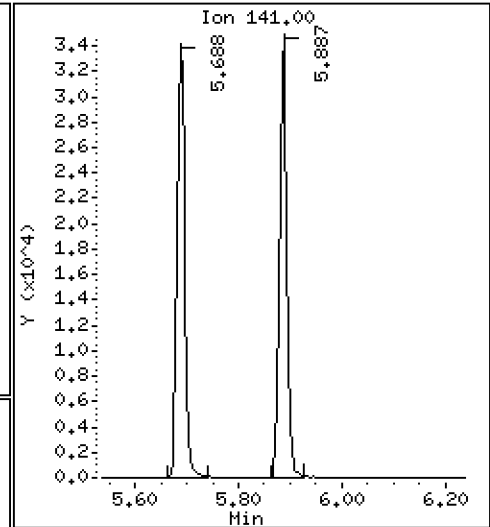
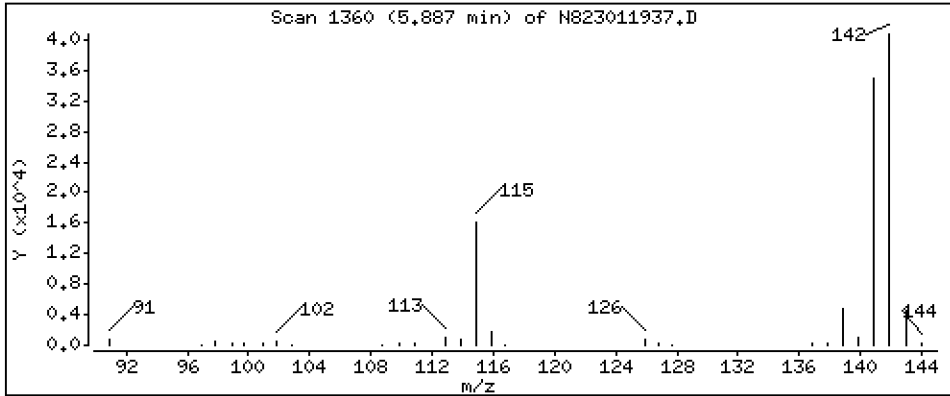
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

5 1-methylnaphthalene

Concentration: 2,589 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

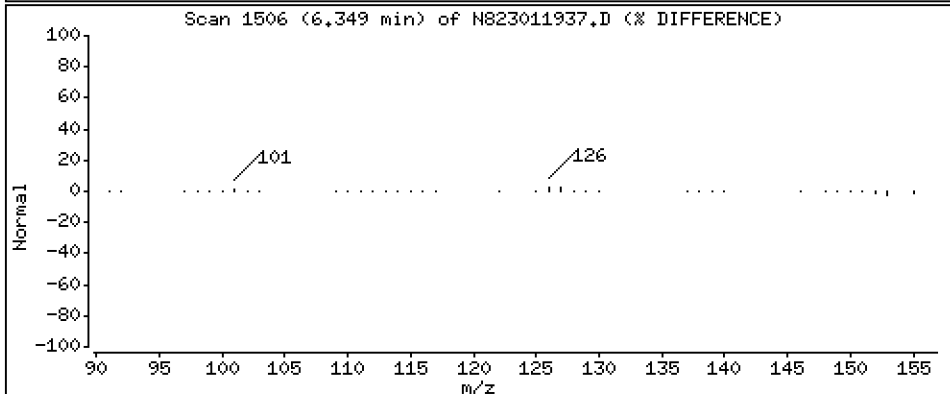
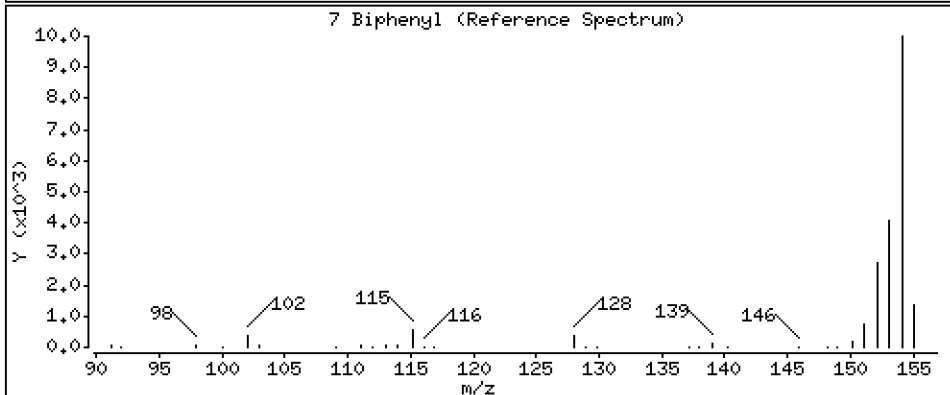
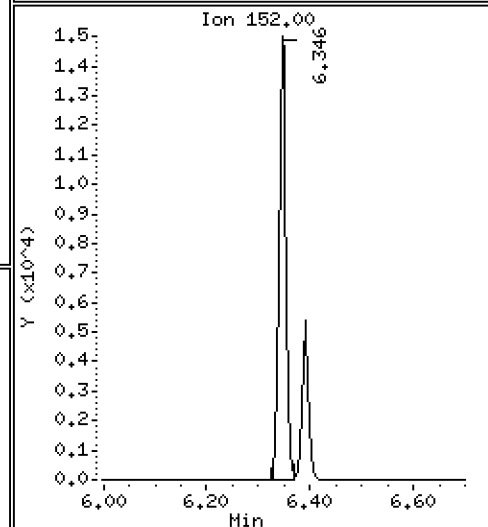
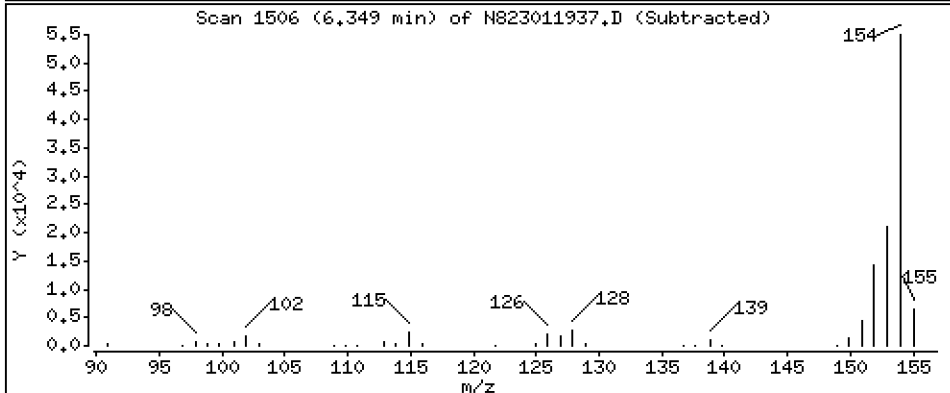
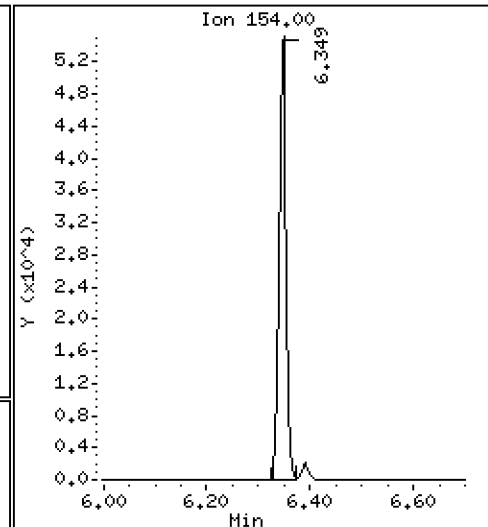
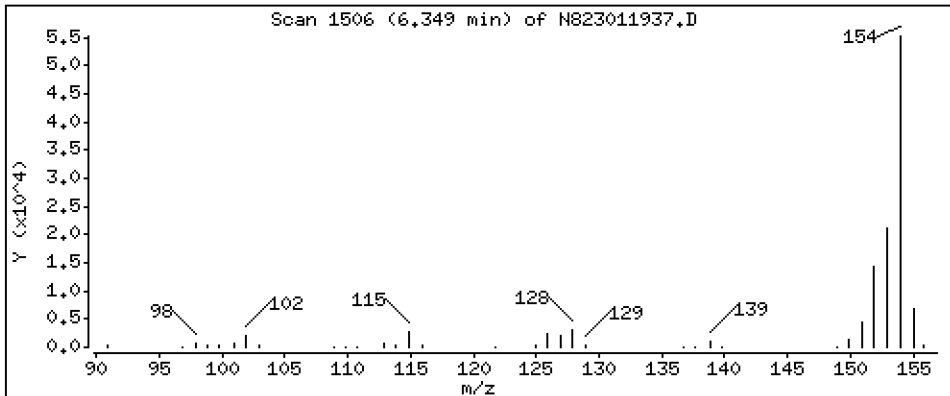
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

7 Biphenyl

Concentration: 2,553 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

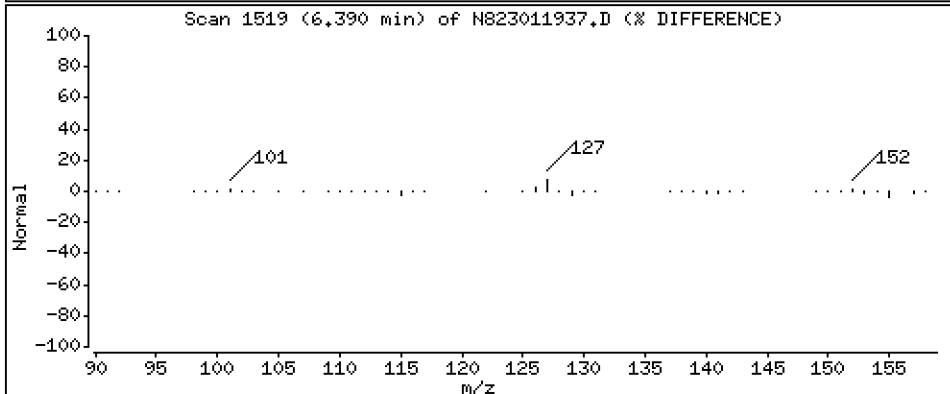
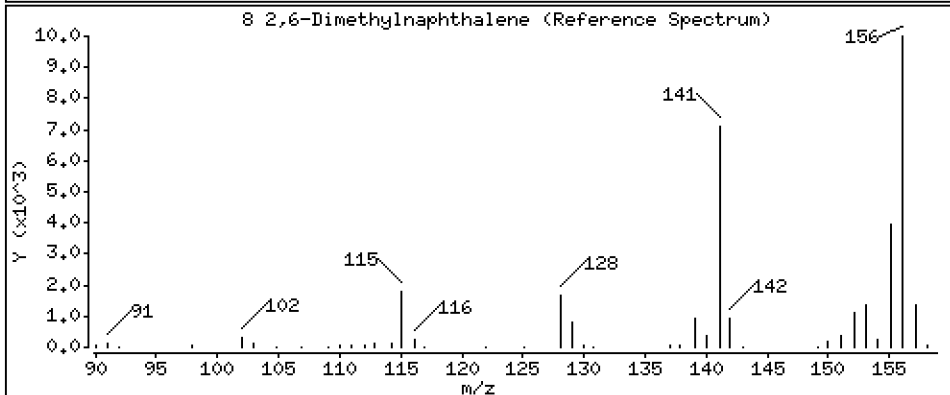
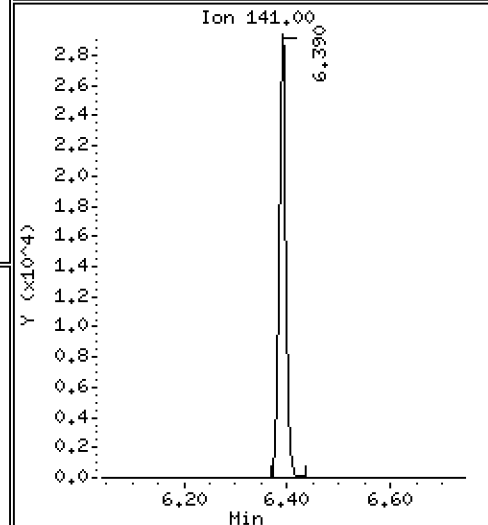
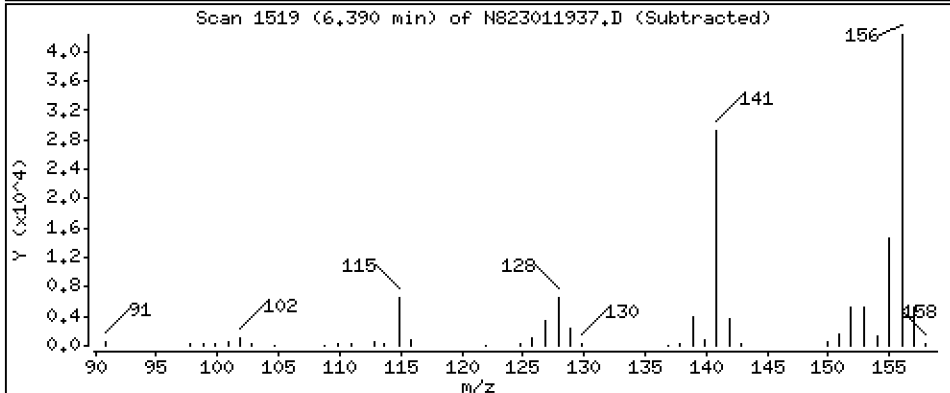
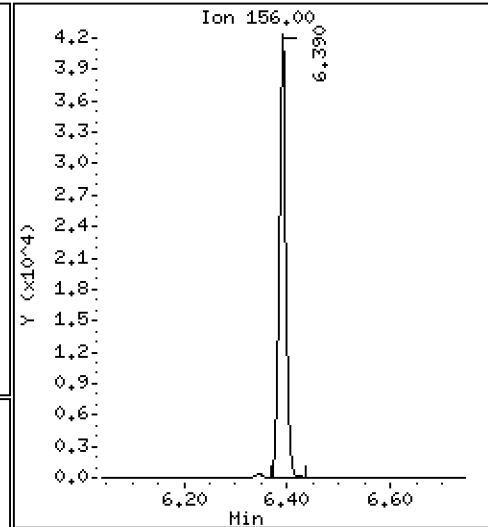
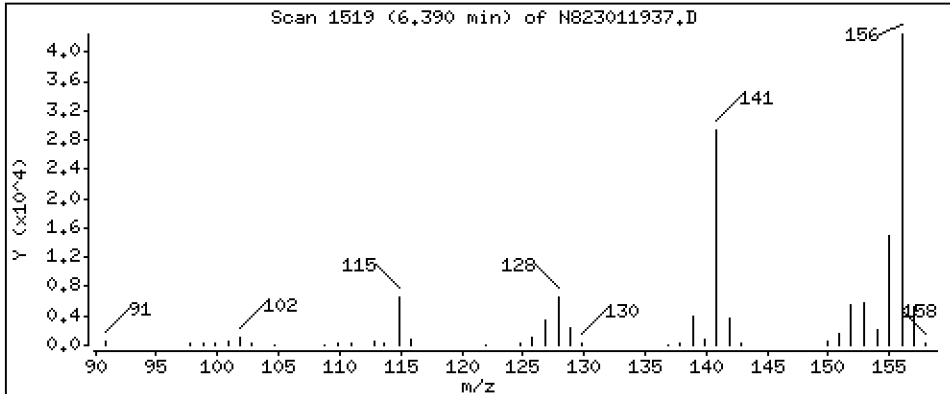
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

8 2,6-Dimethylnaphthalene

Concentration: 2,664 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

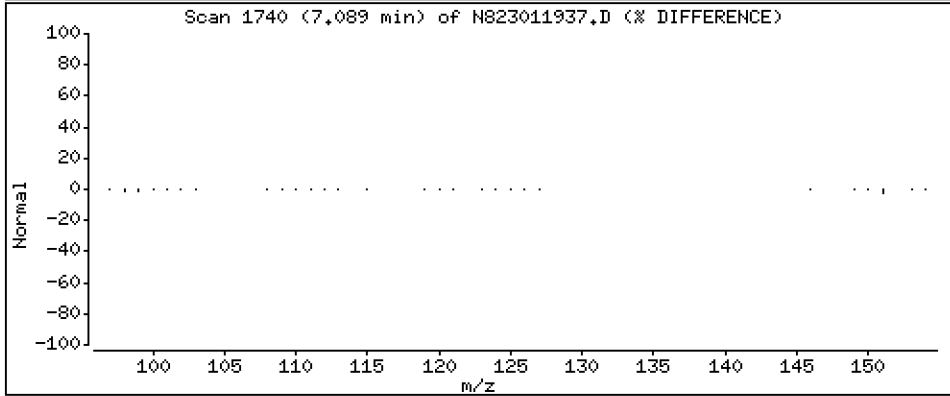
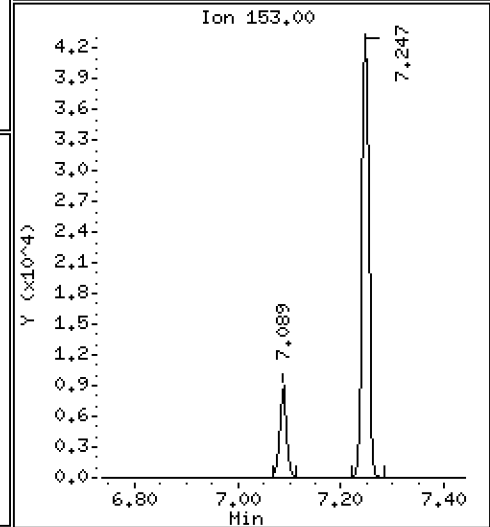
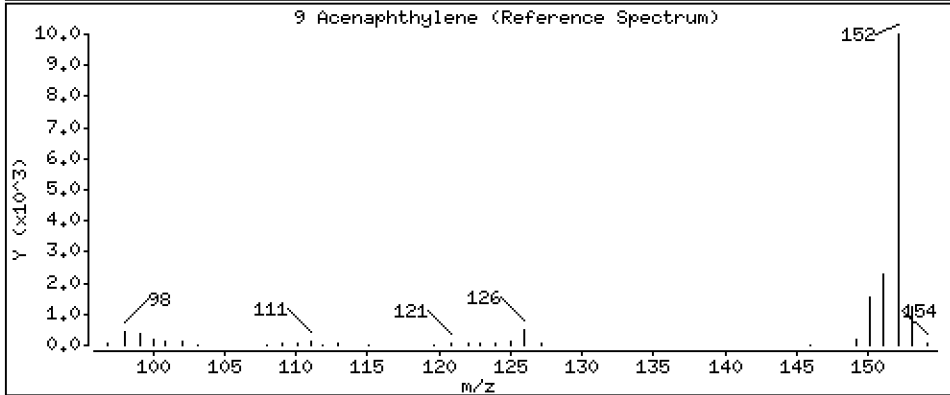
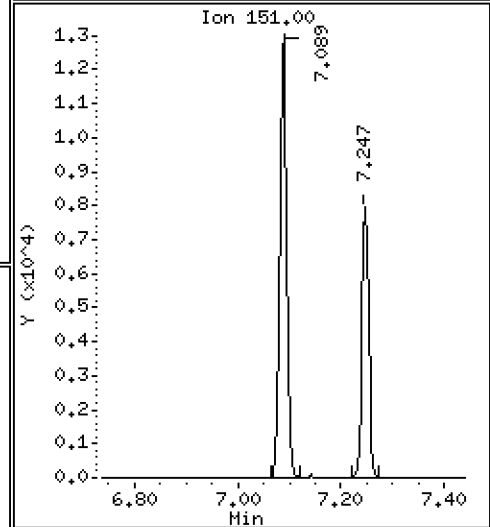
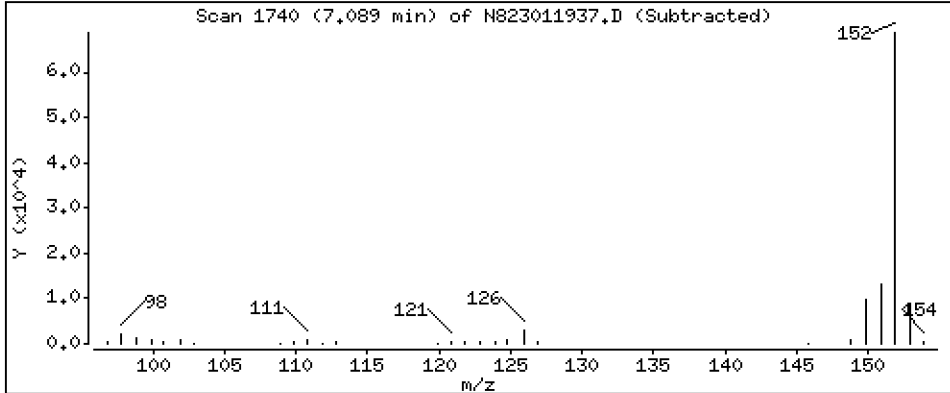
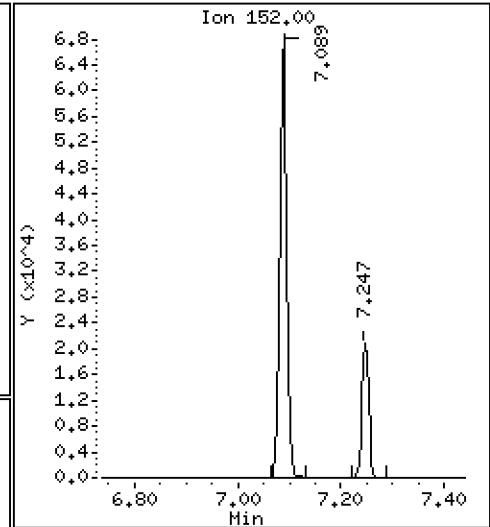
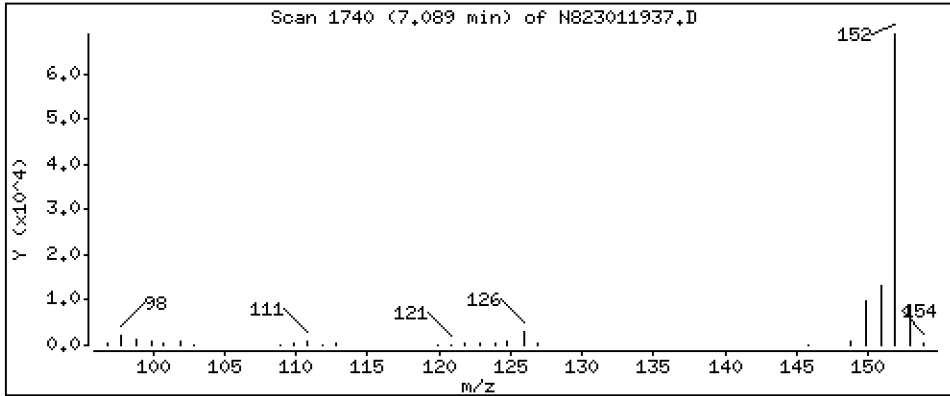
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

9 Acenaphthylene

Concentration: 2,777 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

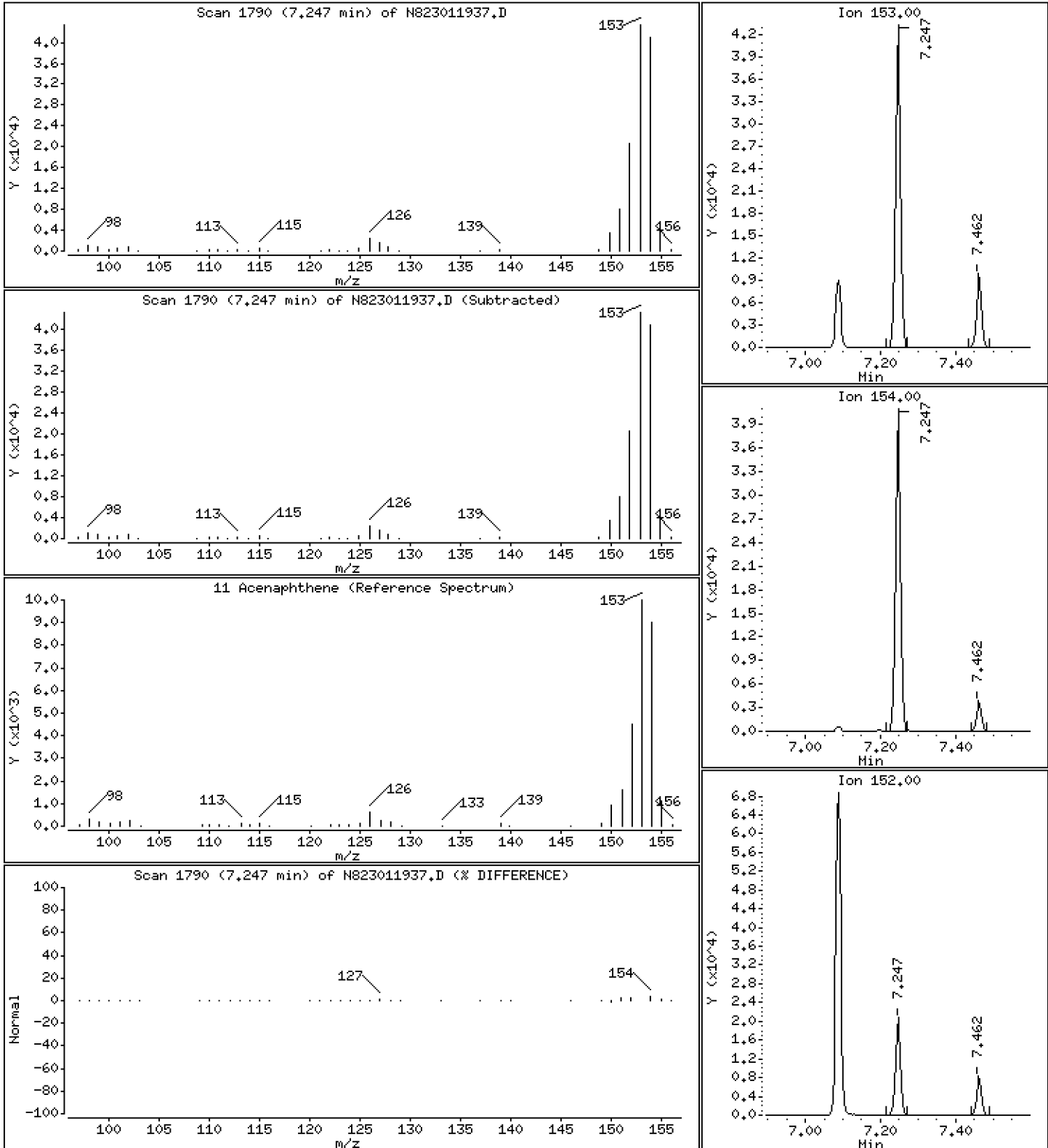
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

11 Acenaphthene

Concentration: 2,592 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

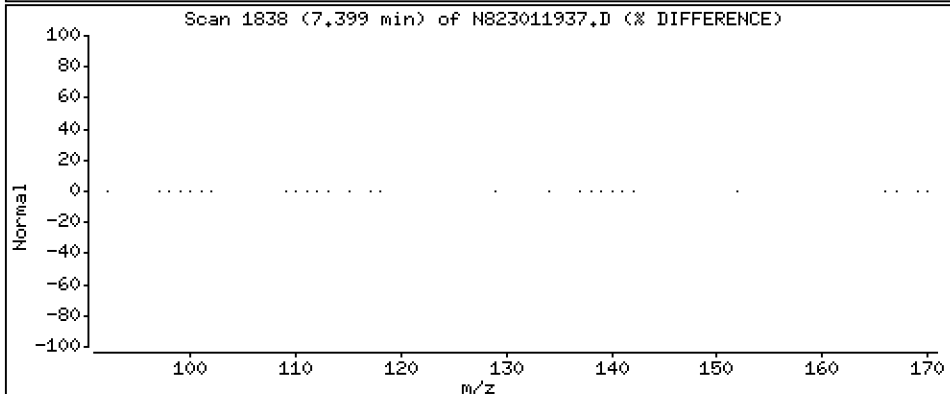
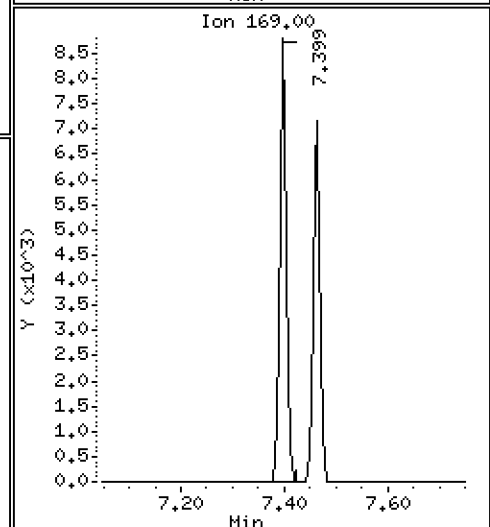
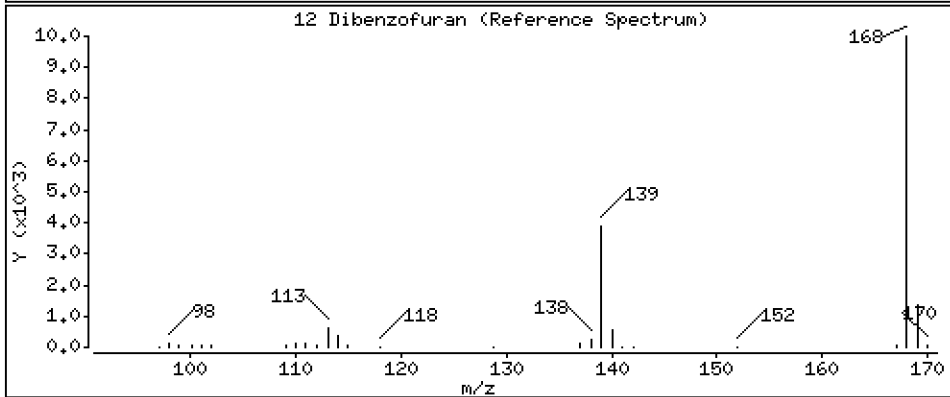
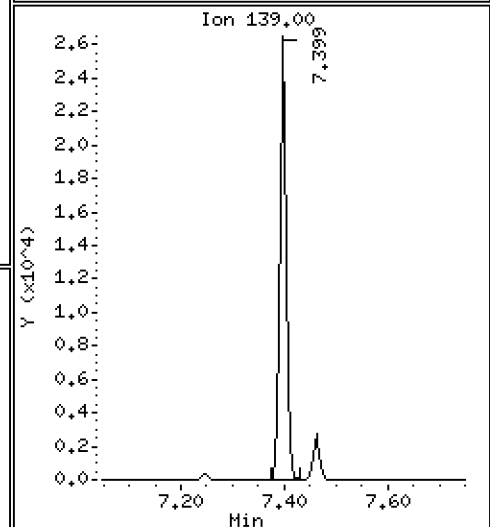
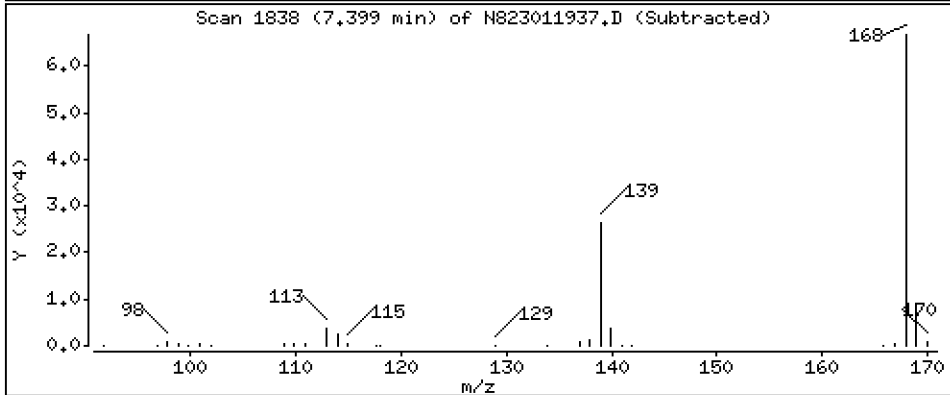
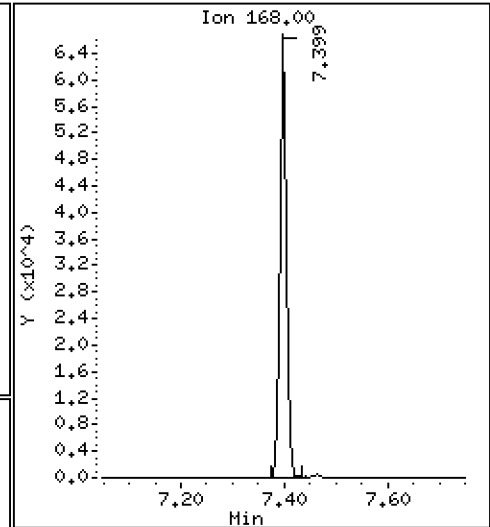
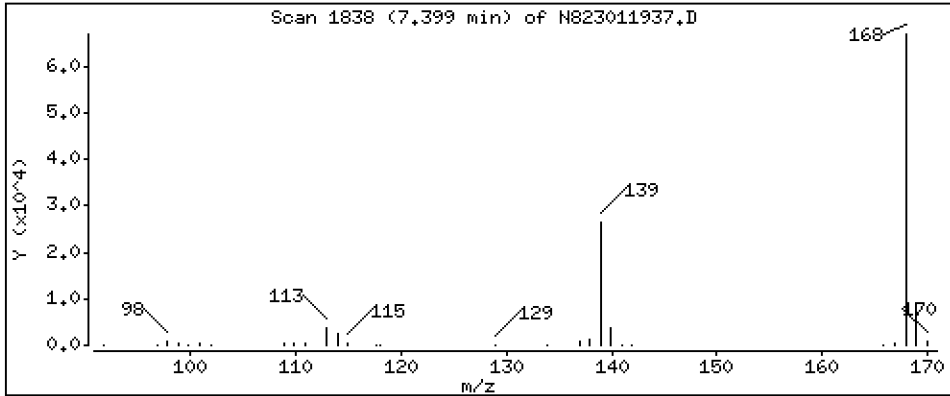
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

12 Dibenzofuran

Concentration: 2,567 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

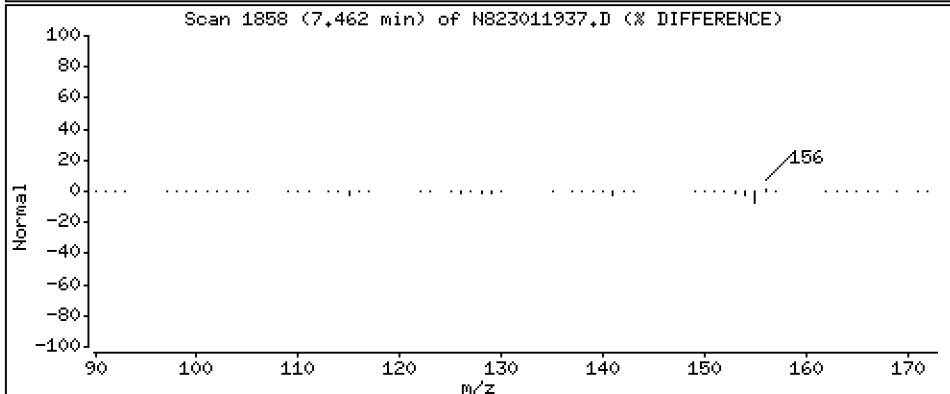
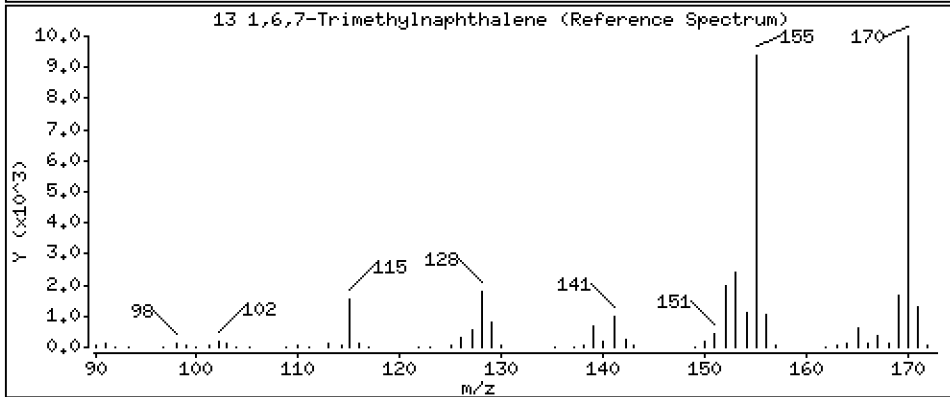
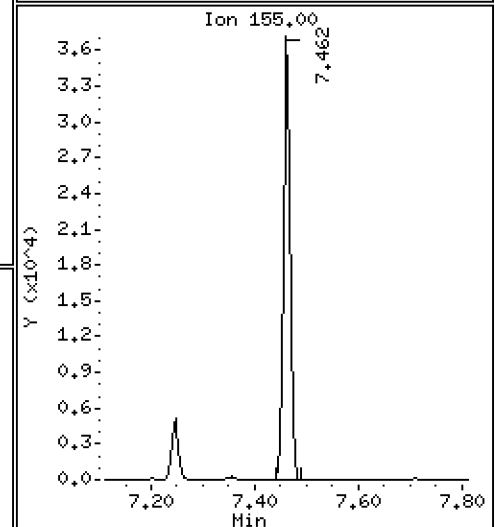
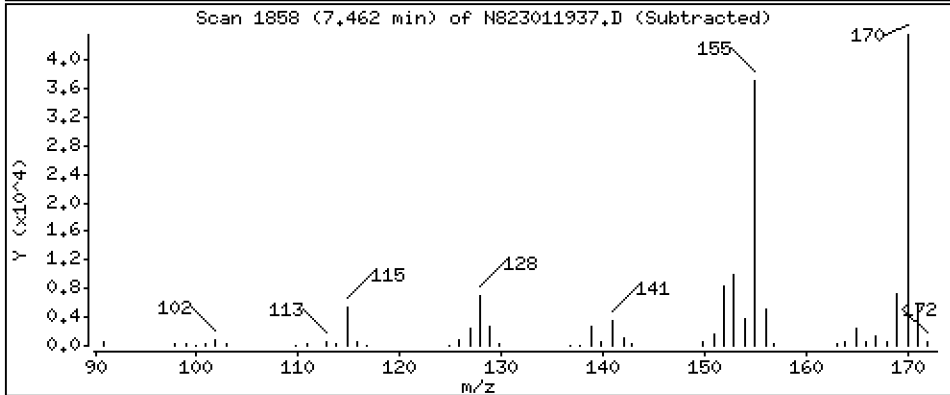
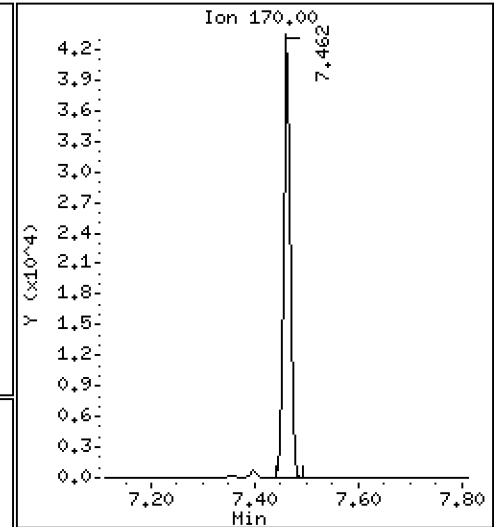
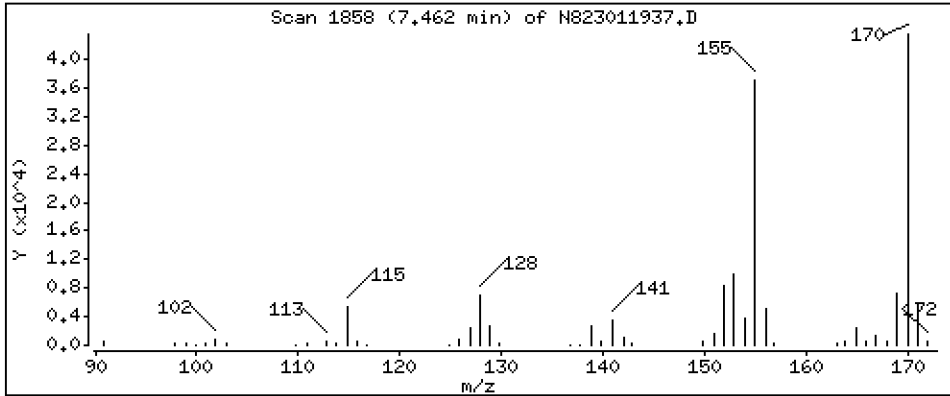
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

13 1,6,7-Trimethylnaphthalene

Concentration: 2,663 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

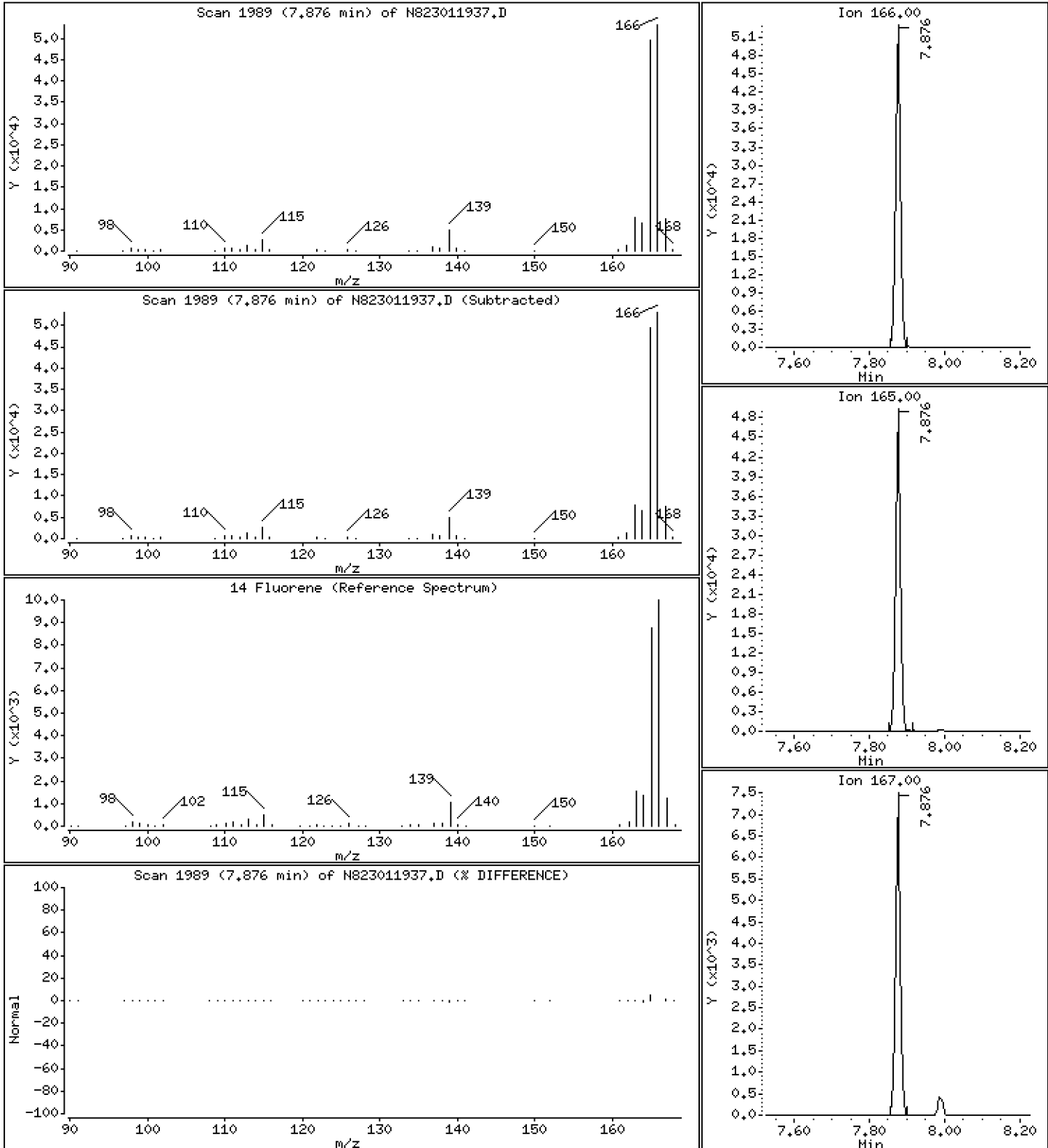
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

14 Fluorene

Concentration: 2,665 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

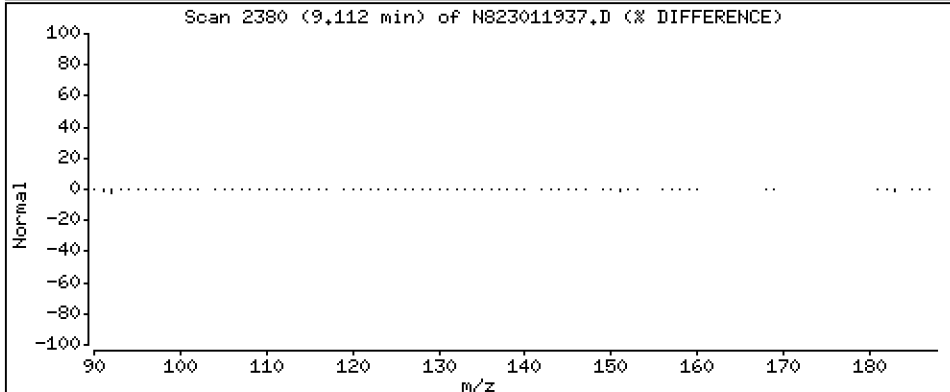
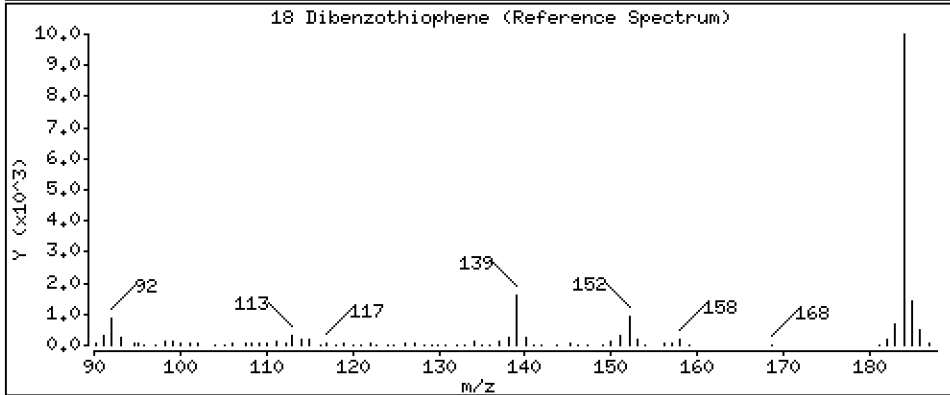
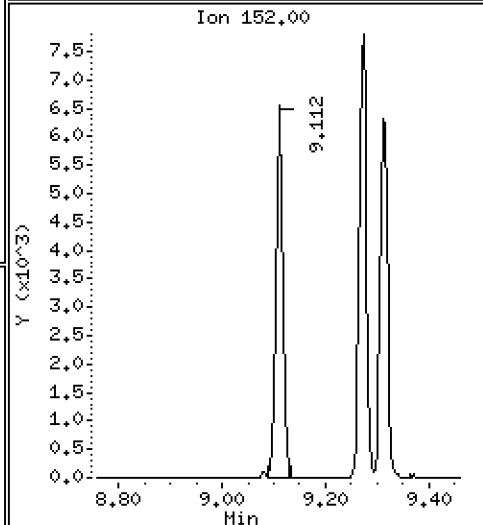
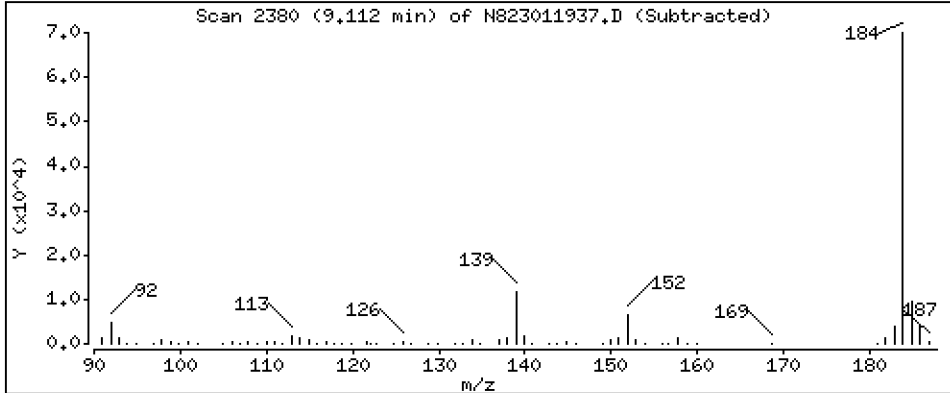
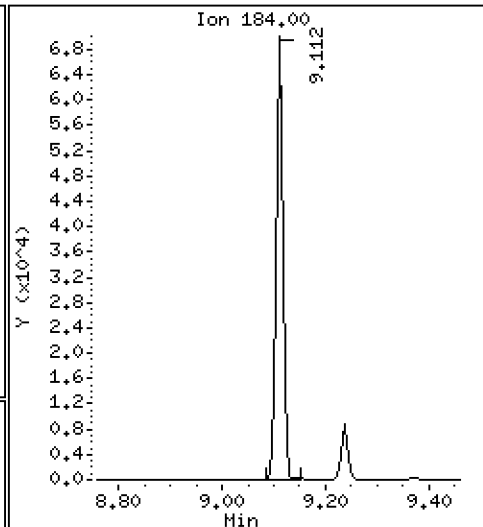
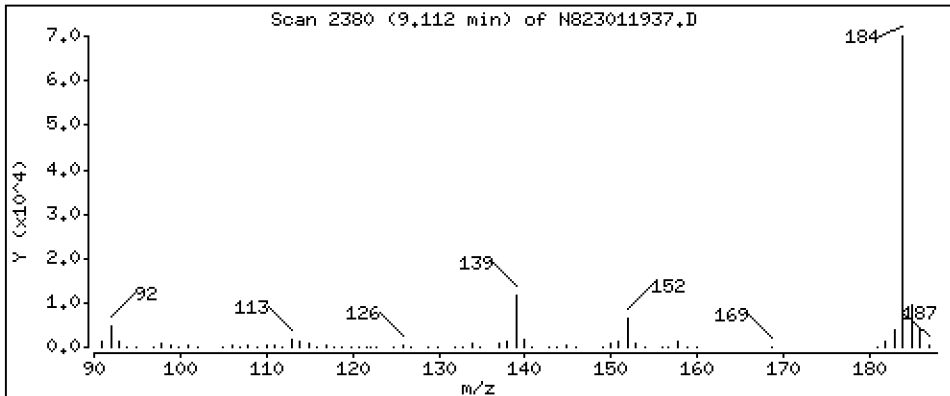
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

18 Dibenzothiophene

Concentration: 2,588 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

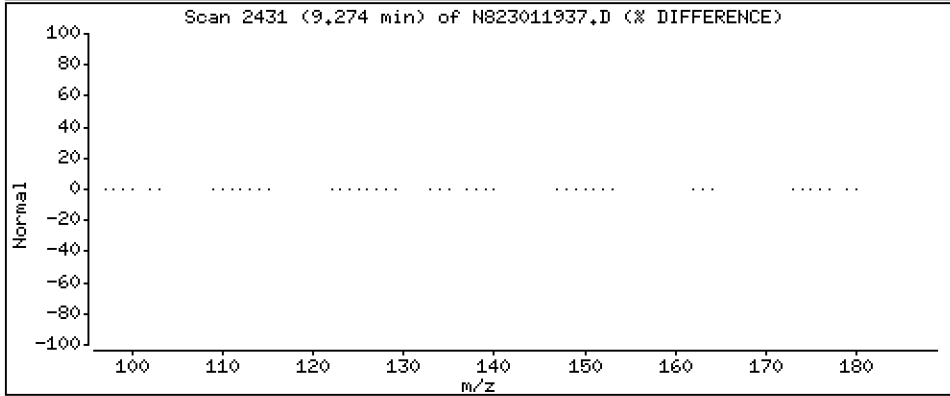
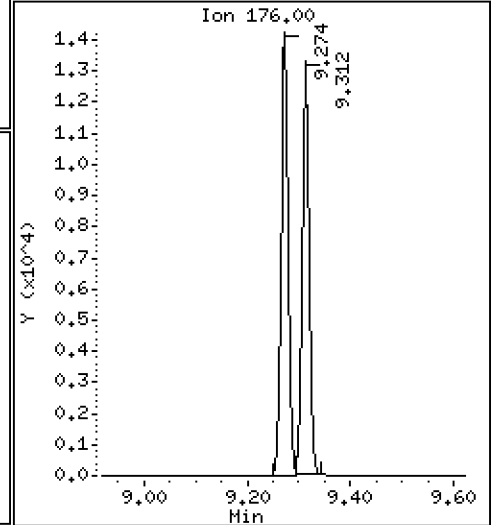
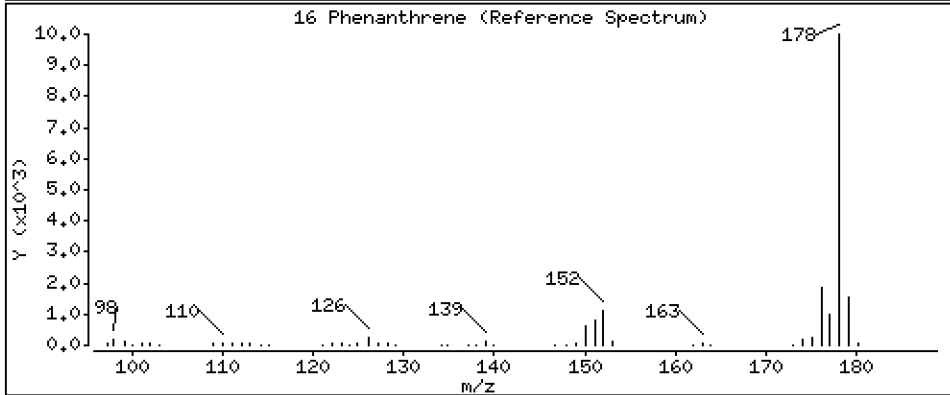
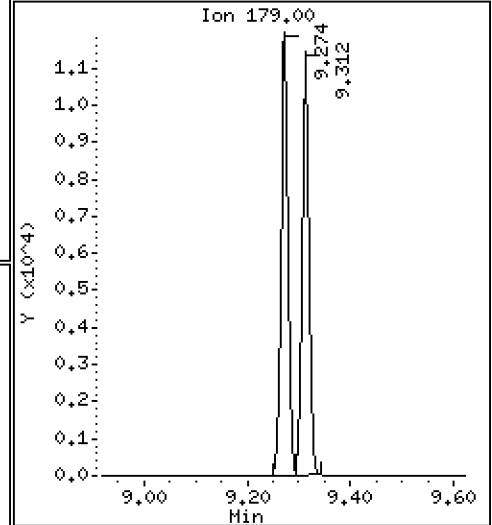
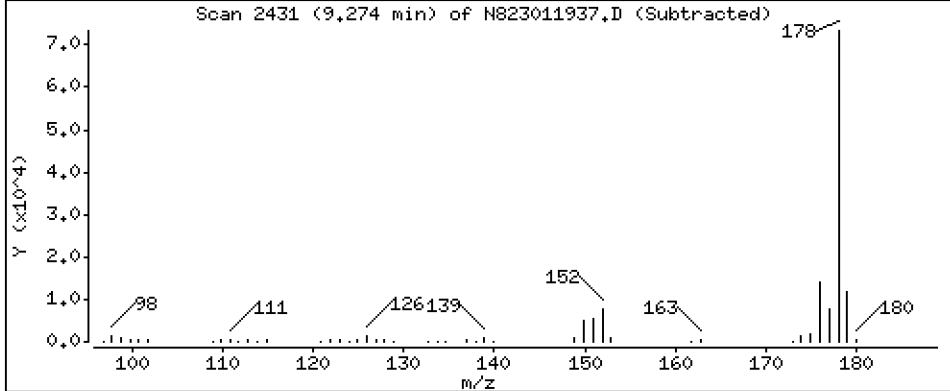
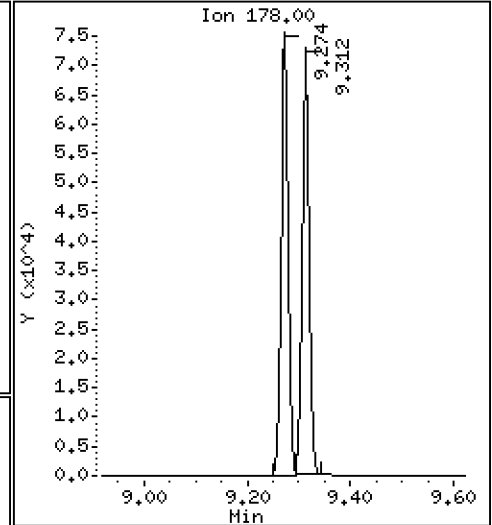
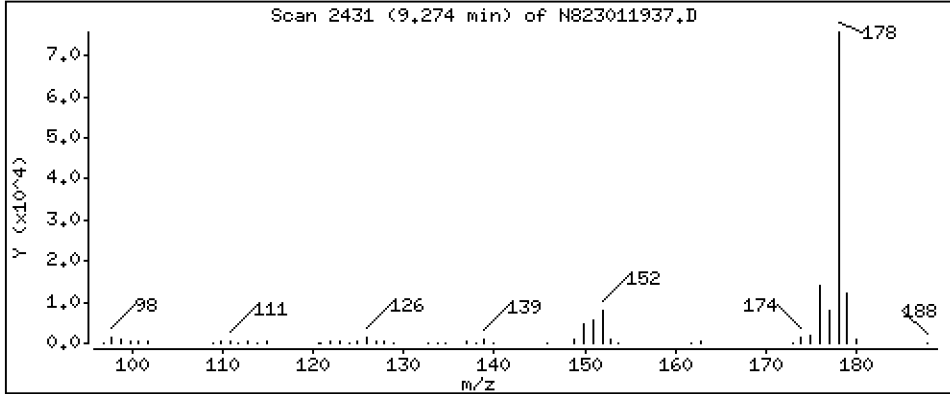
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

16 Phenanthrene

Concentration: 2,481 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

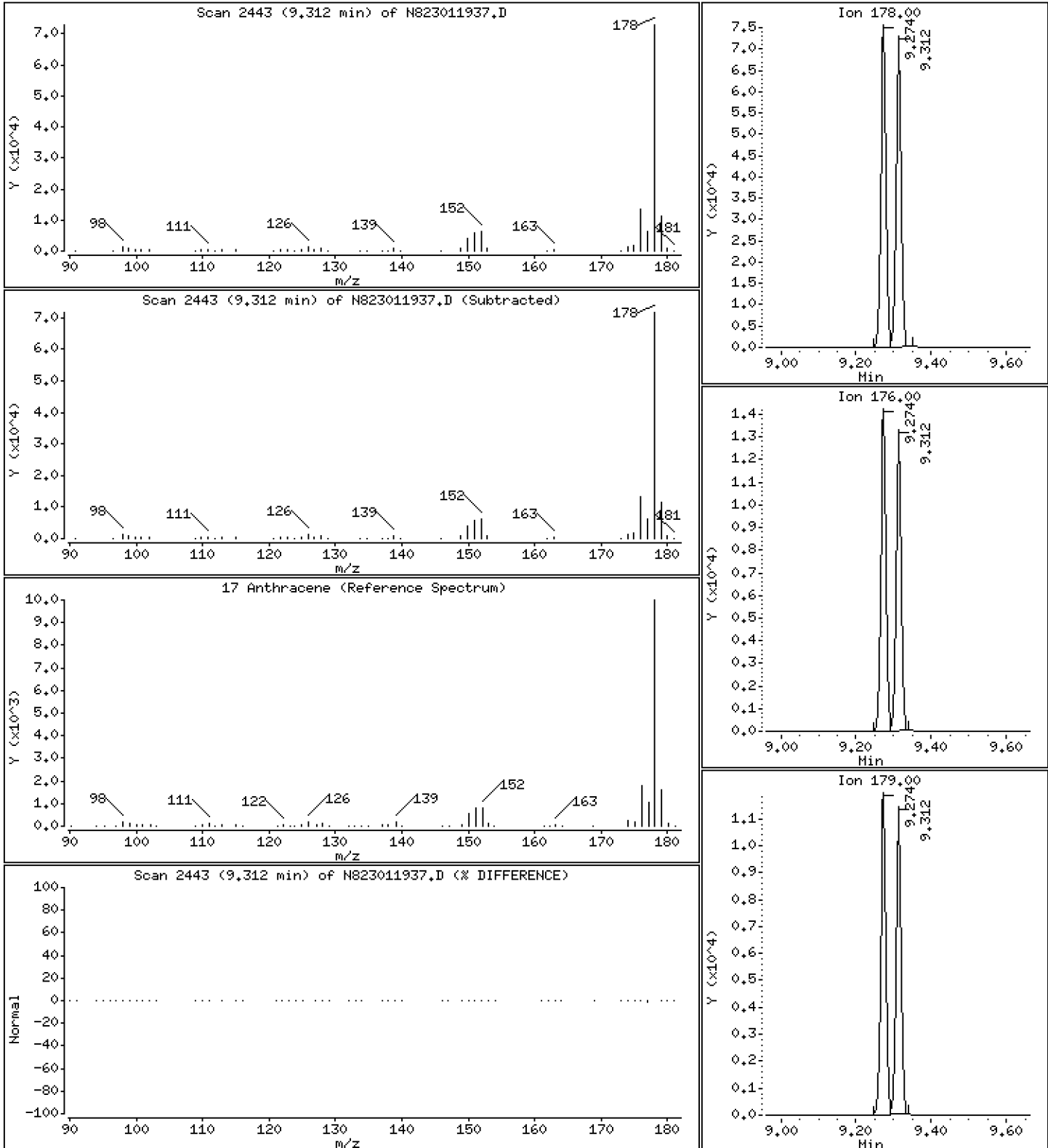
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

17 Anthracene

Concentration: 2,676 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

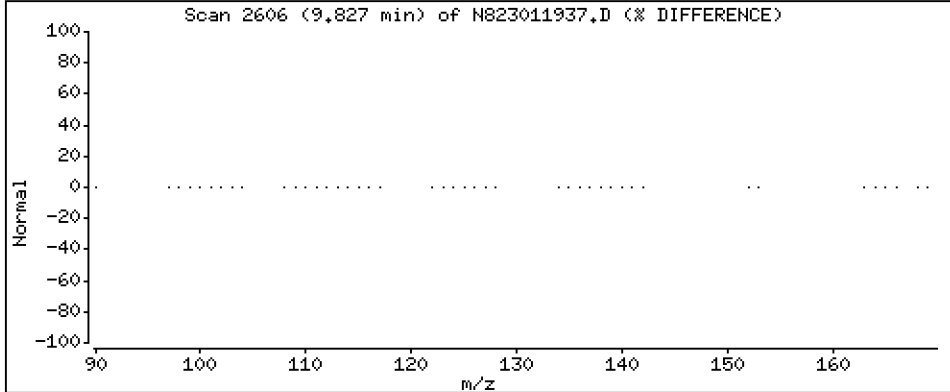
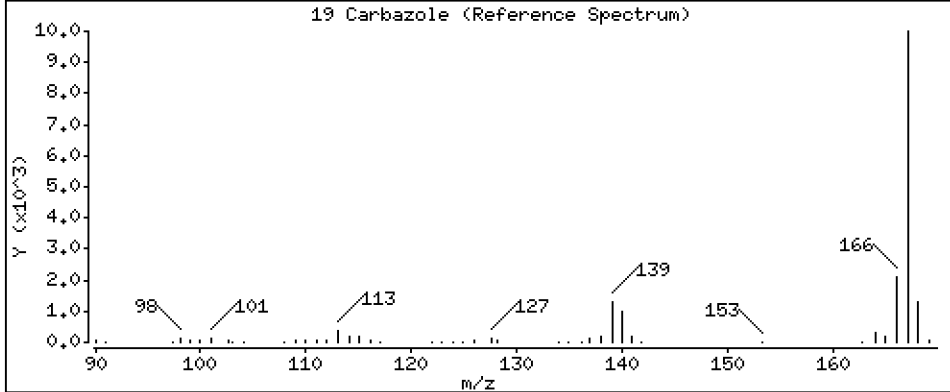
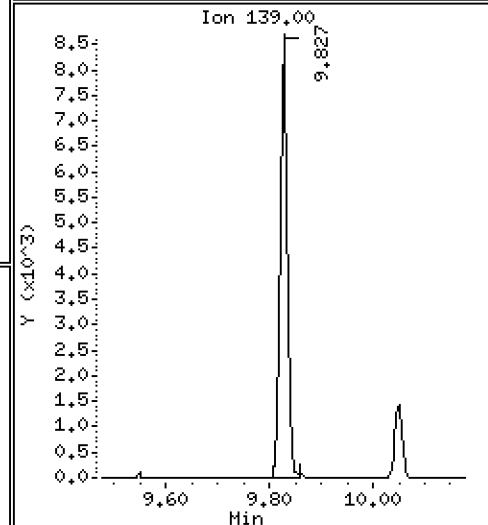
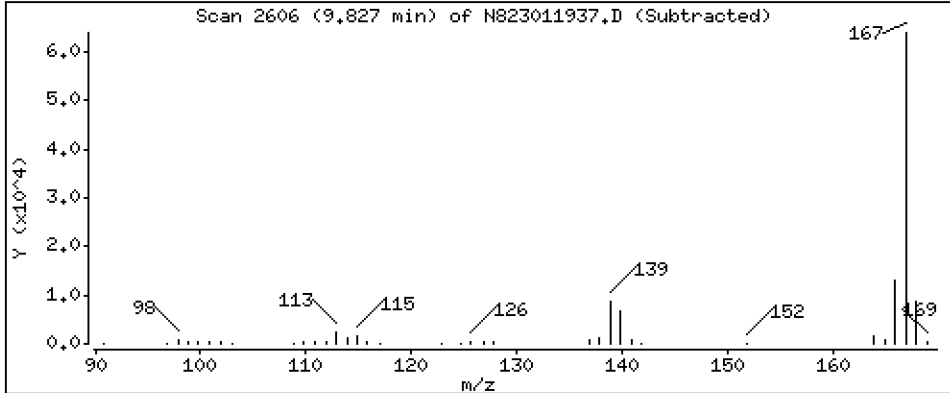
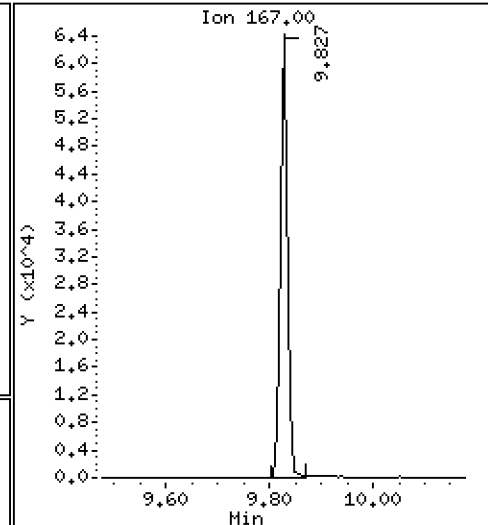
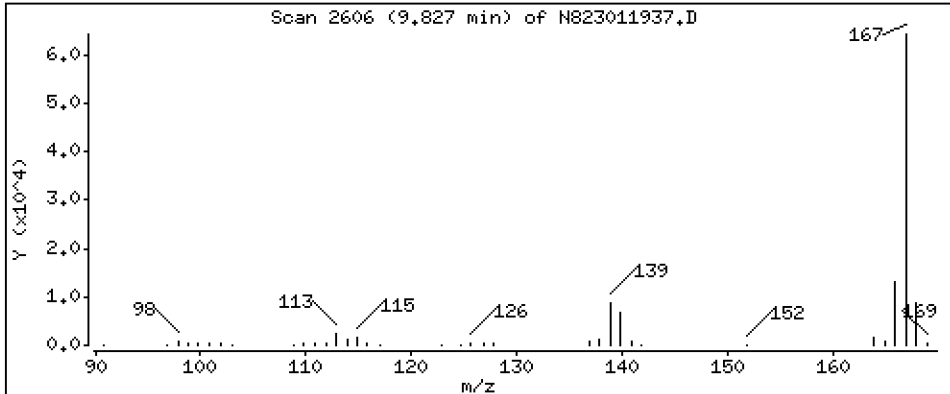
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

19 Carbazole

Concentration: 2,663 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

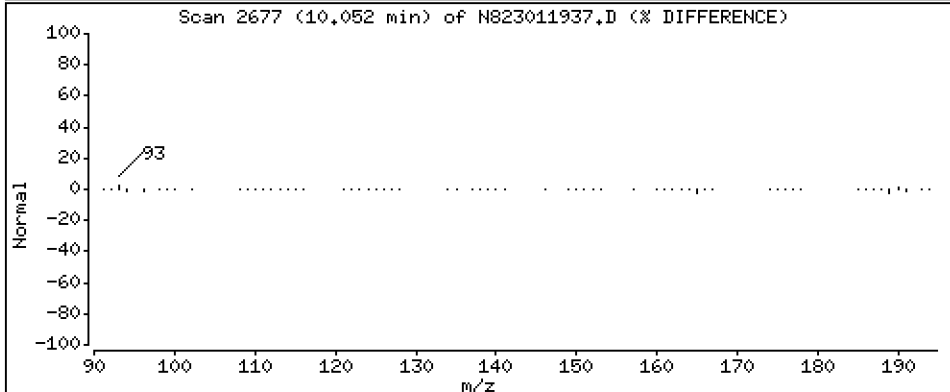
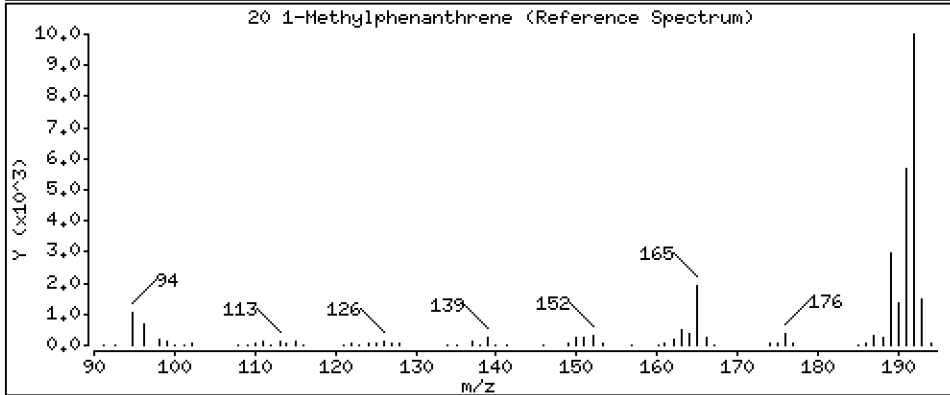
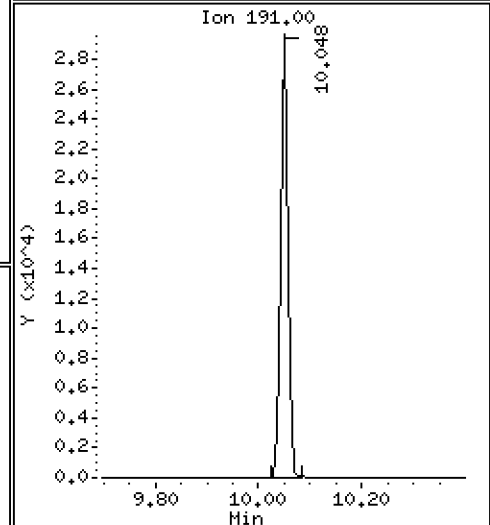
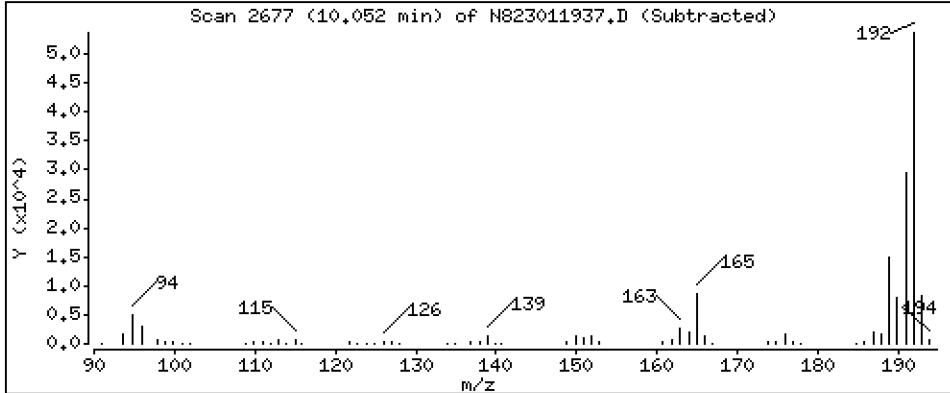
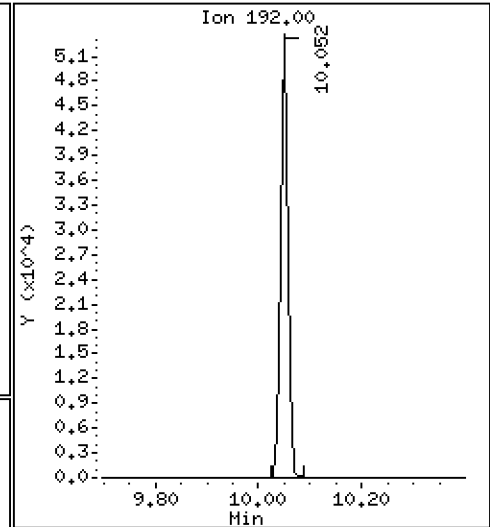
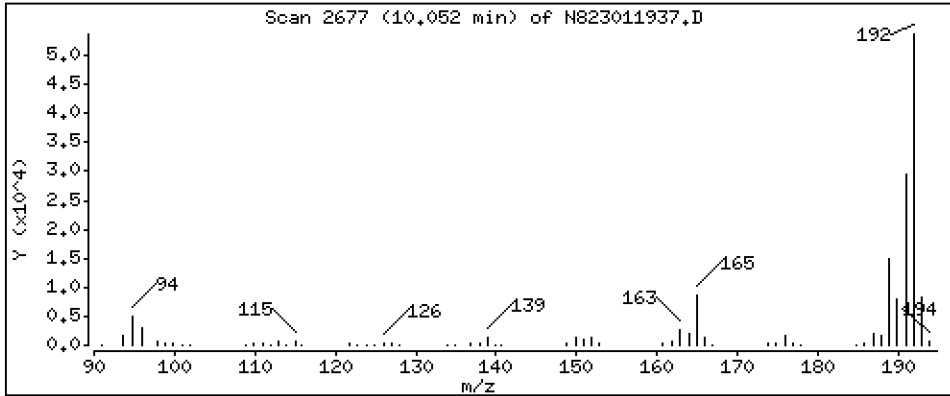
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

20 1-Methylphenanthrene

Concentration: 2,650 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

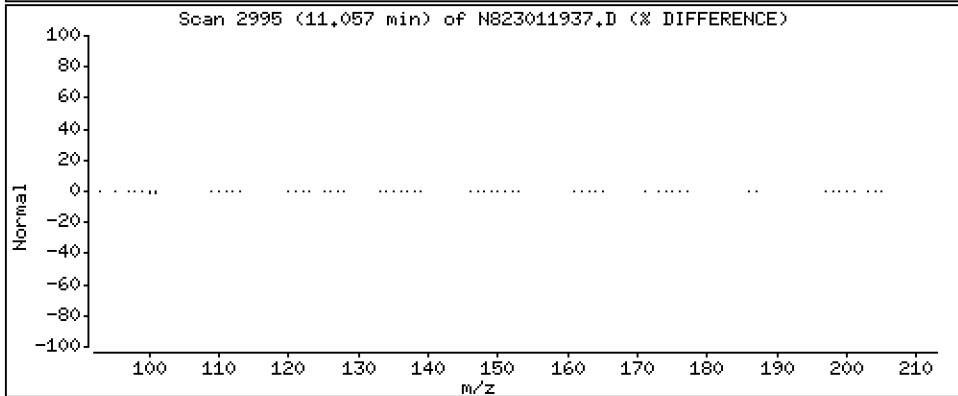
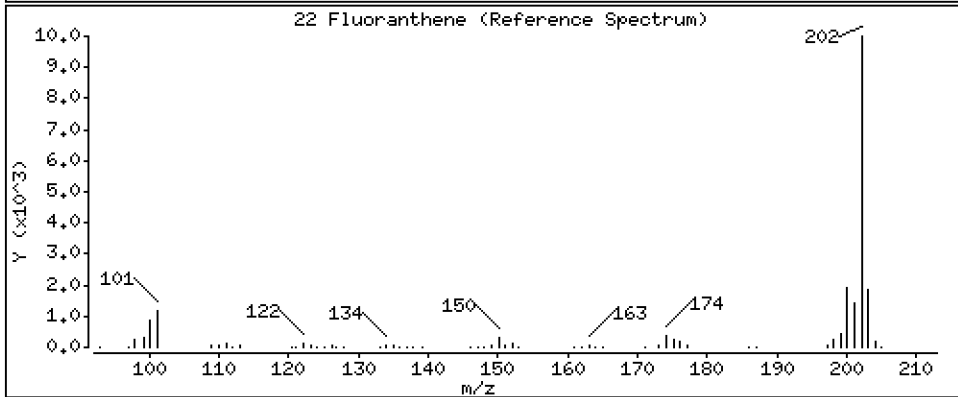
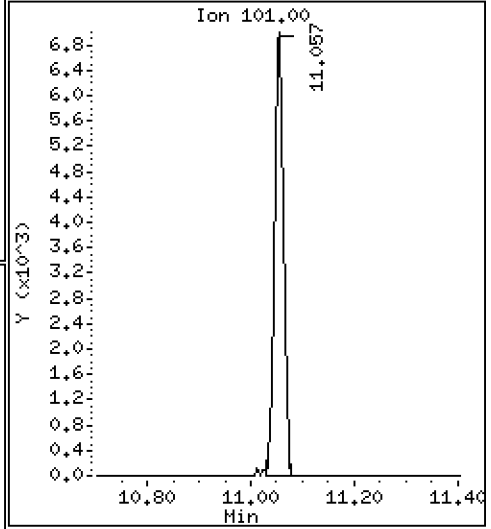
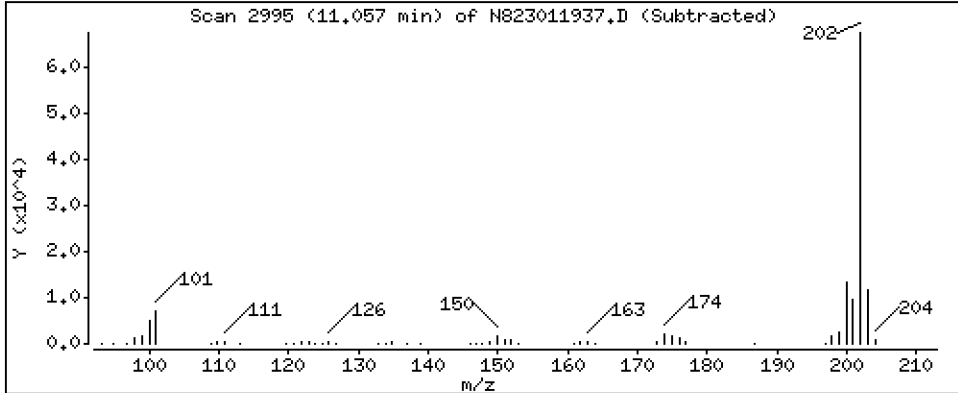
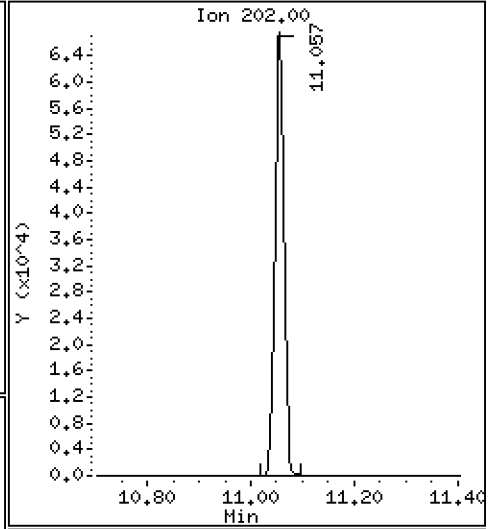
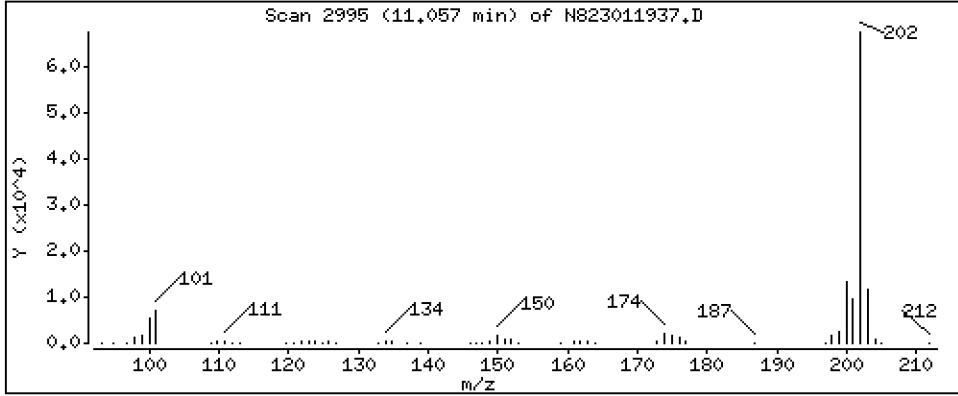
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

22 Fluoranthene

Concentration: 2,637 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

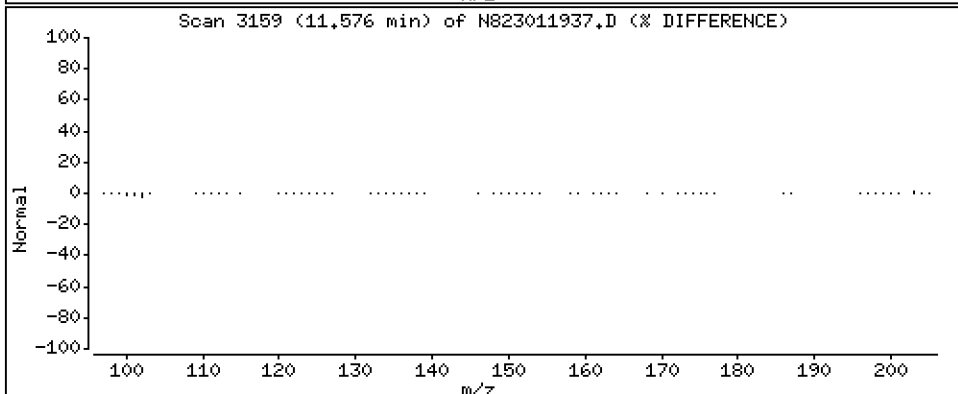
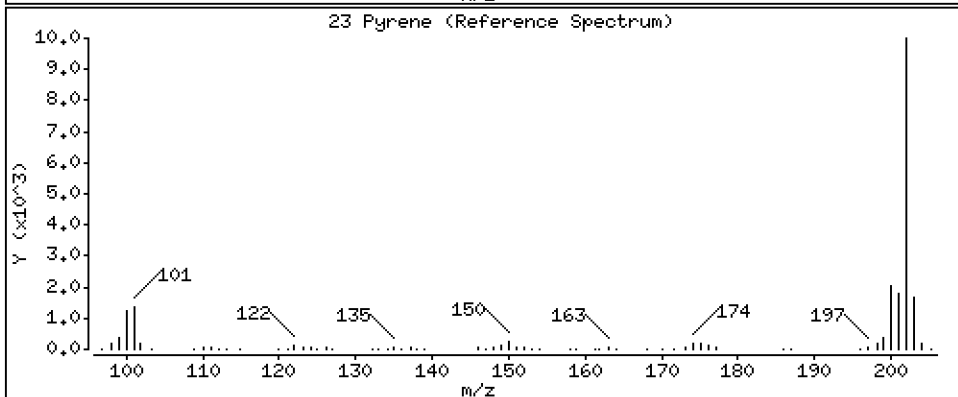
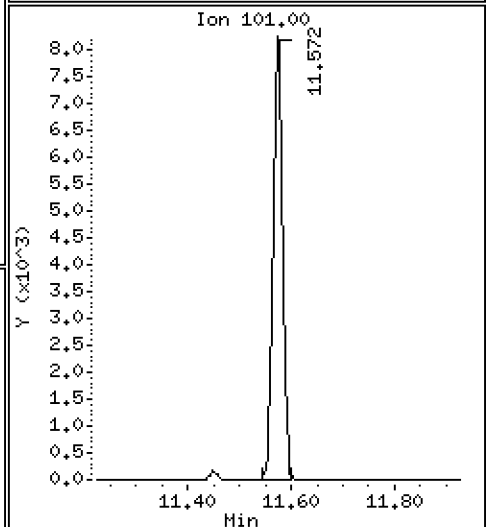
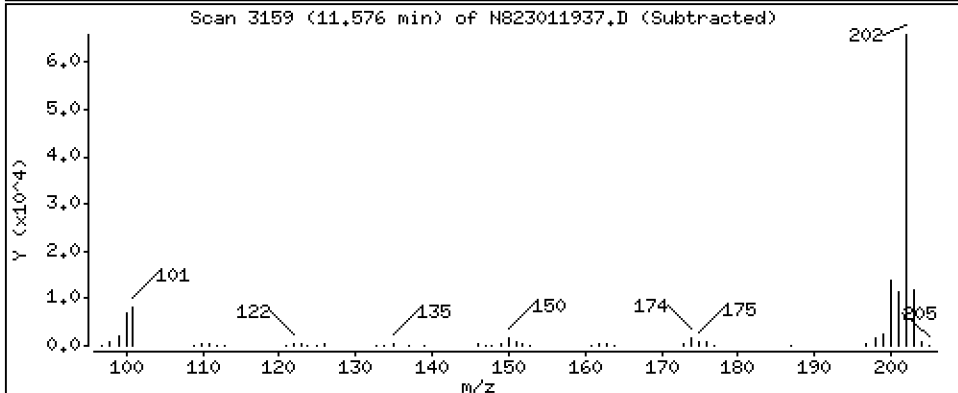
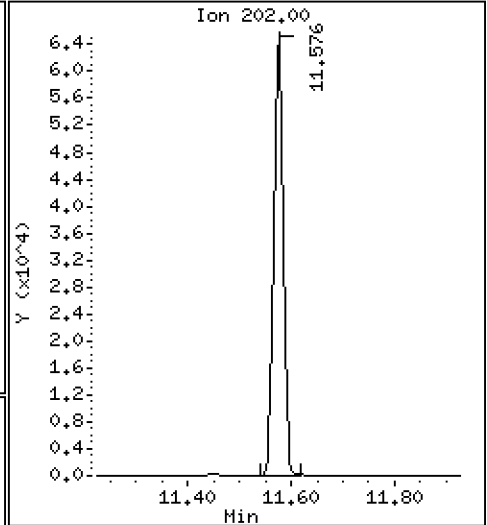
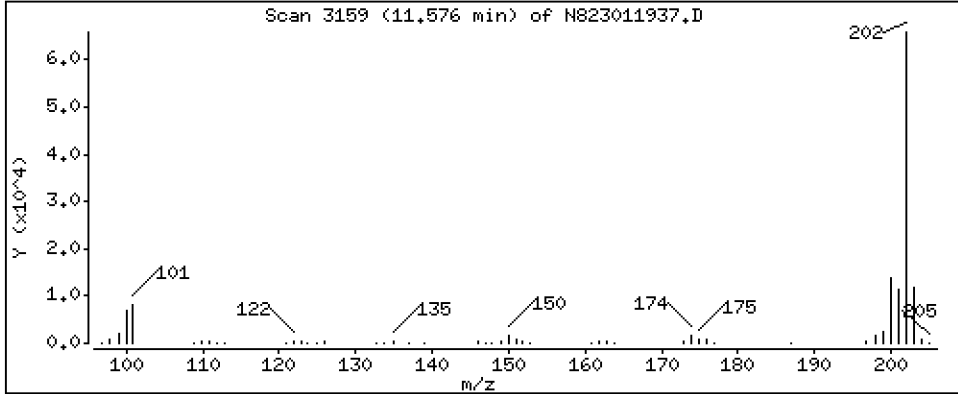
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

23 Pyrene

Concentration: 2,650 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

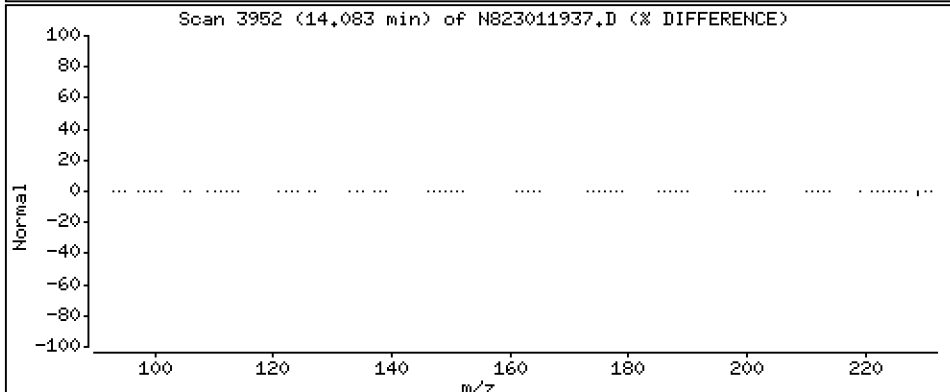
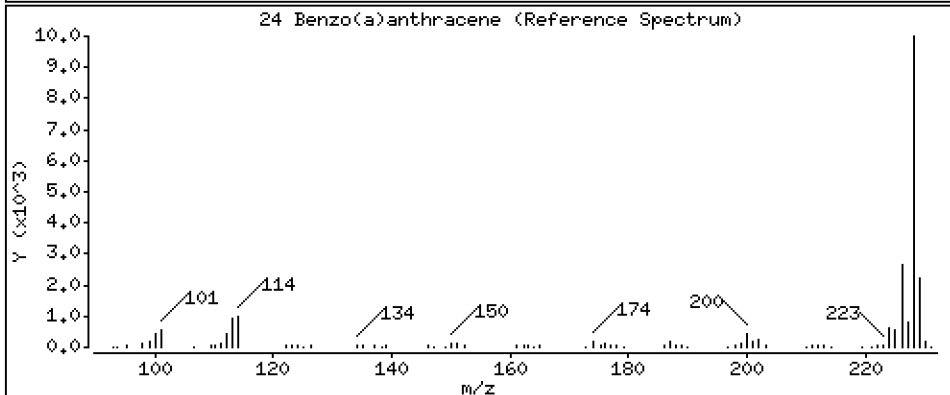
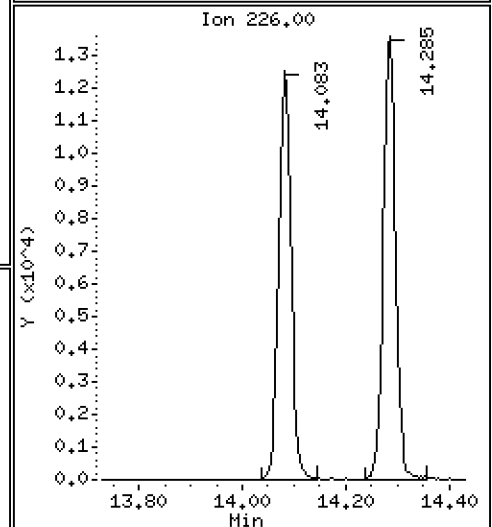
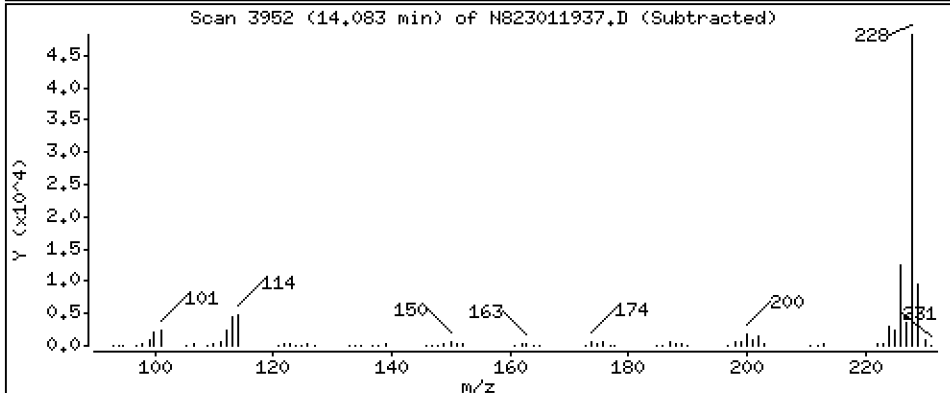
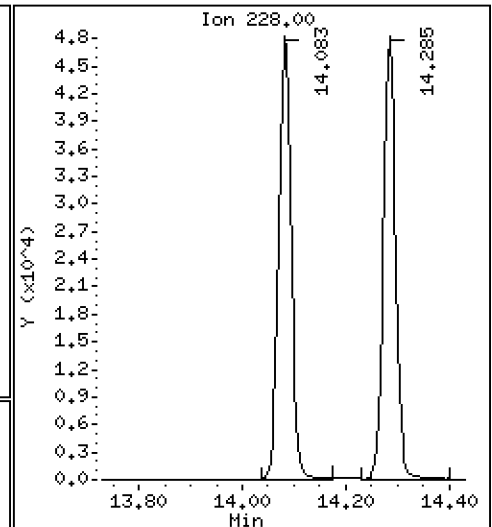
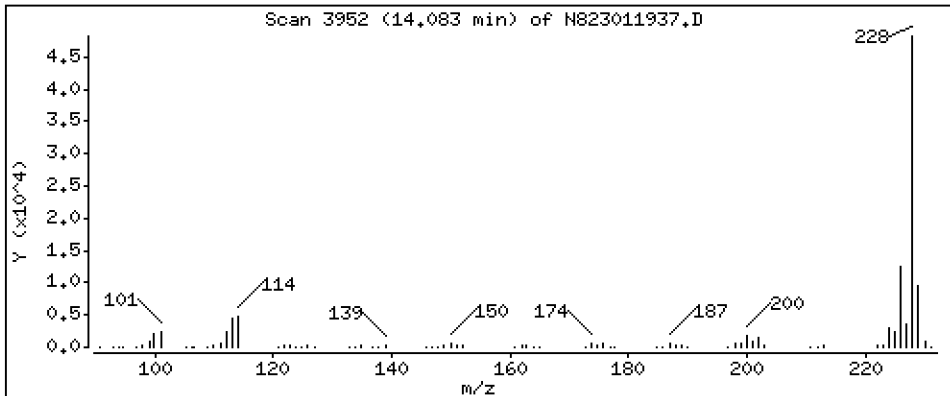
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

24 Benzo(a)anthracene

Concentration: 2,840 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

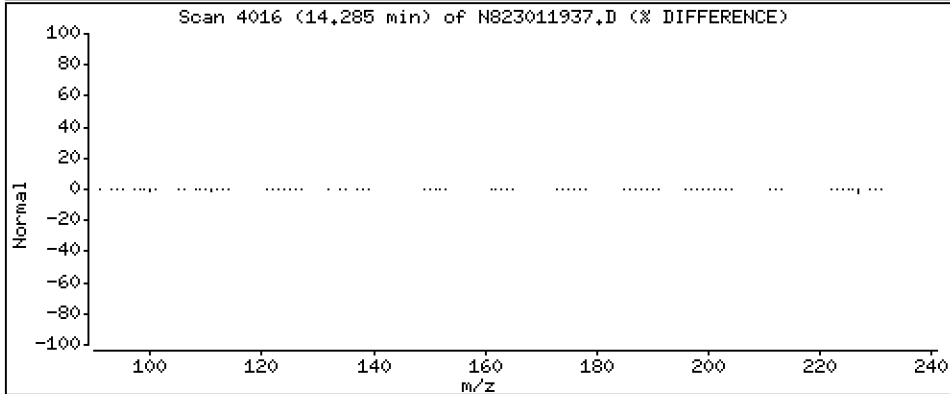
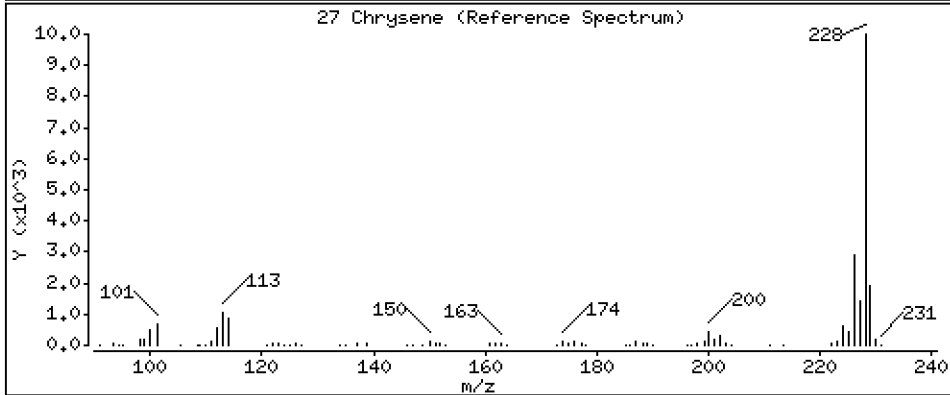
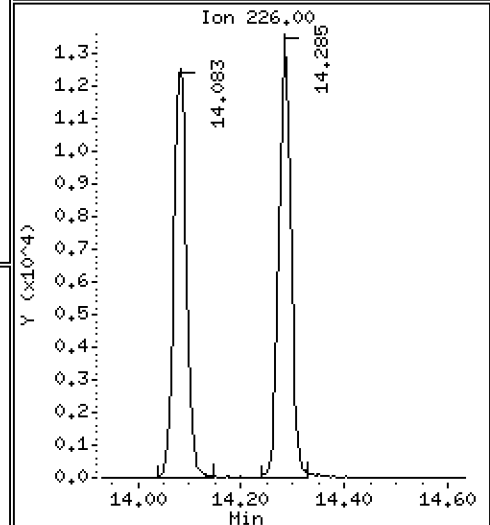
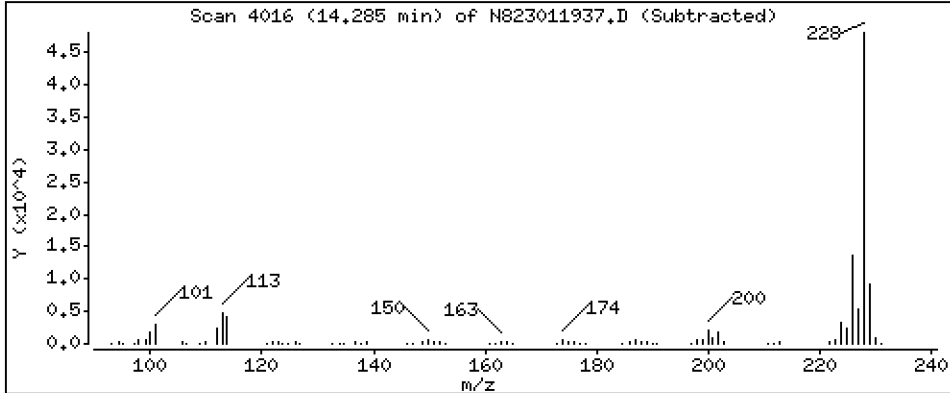
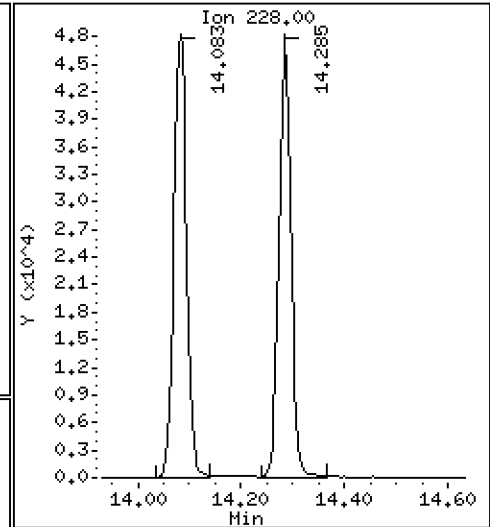
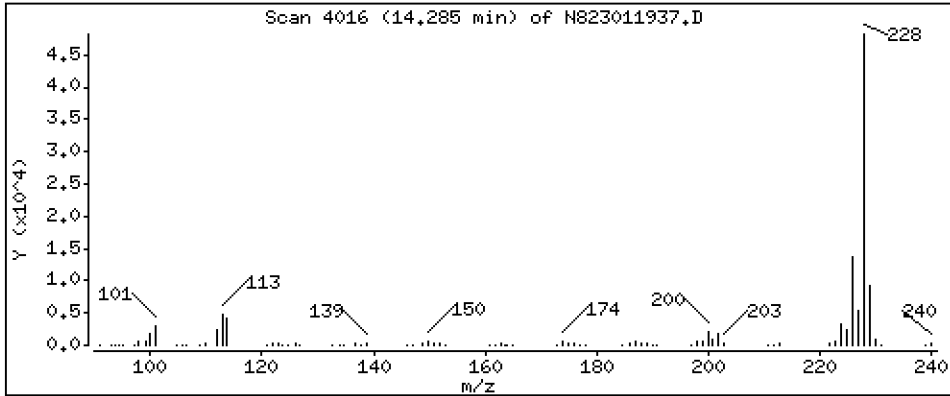
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

27 Chrysene

Concentration: 2,537 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

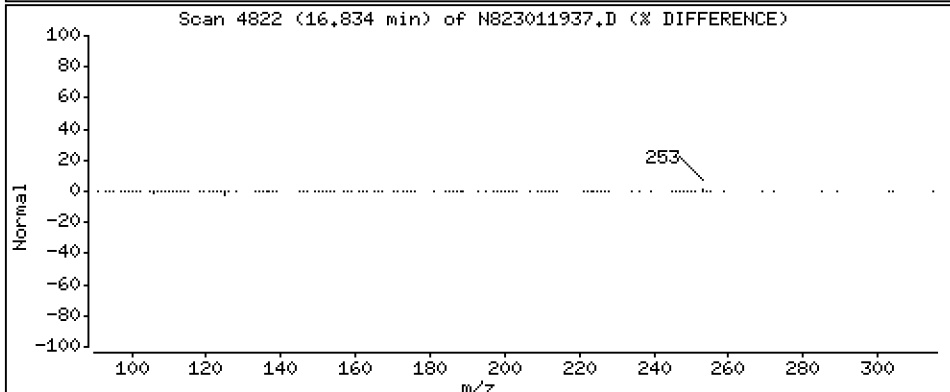
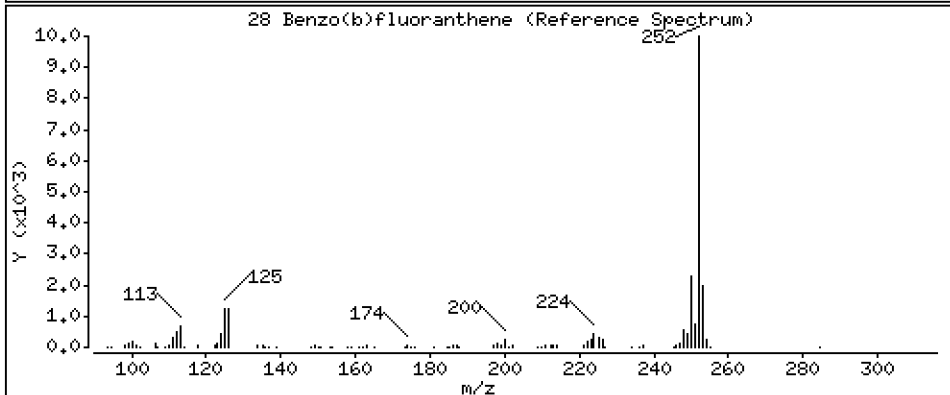
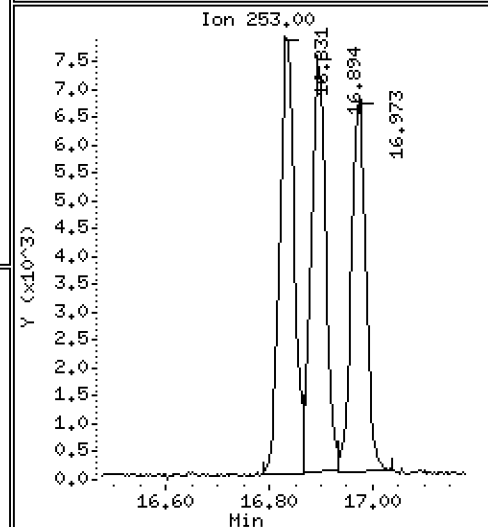
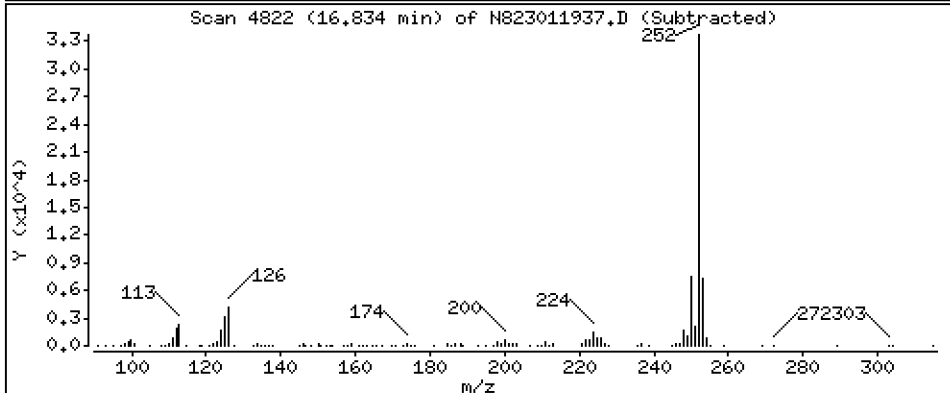
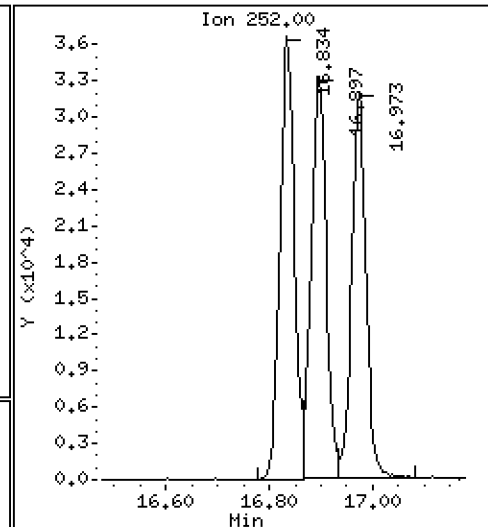
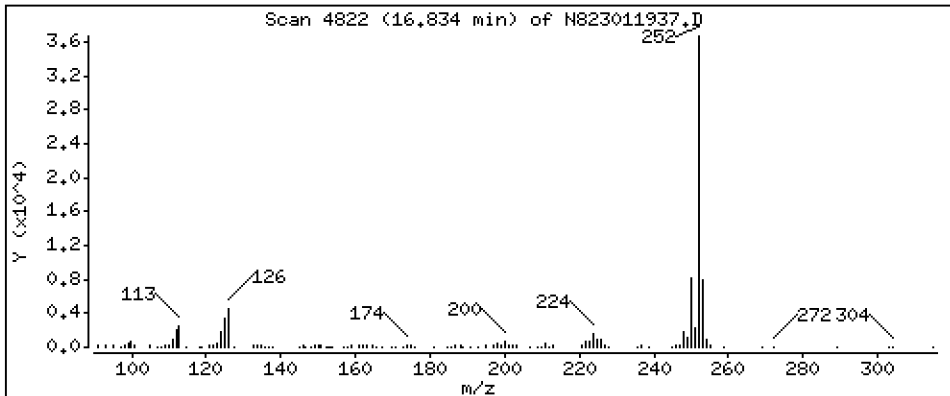
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

28 Benzo(b)fluoranthene

Concentration: 2,741 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

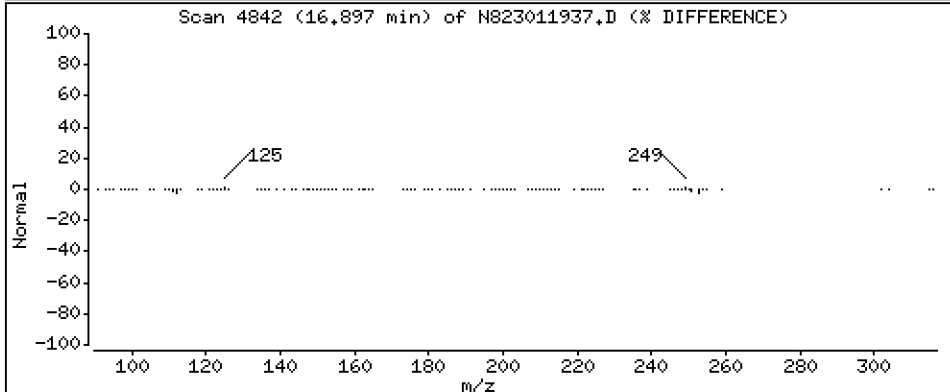
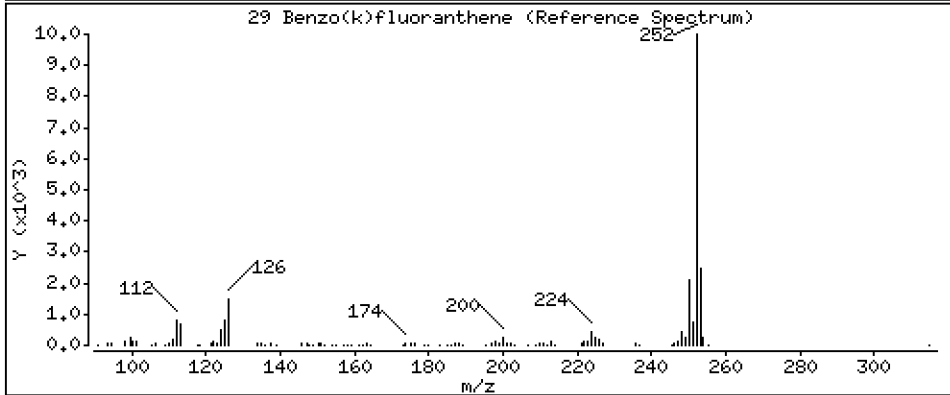
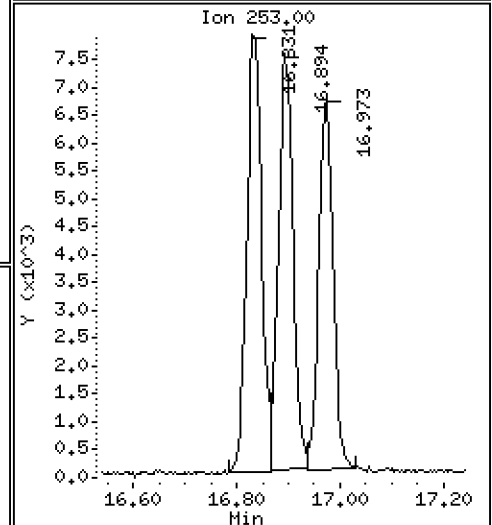
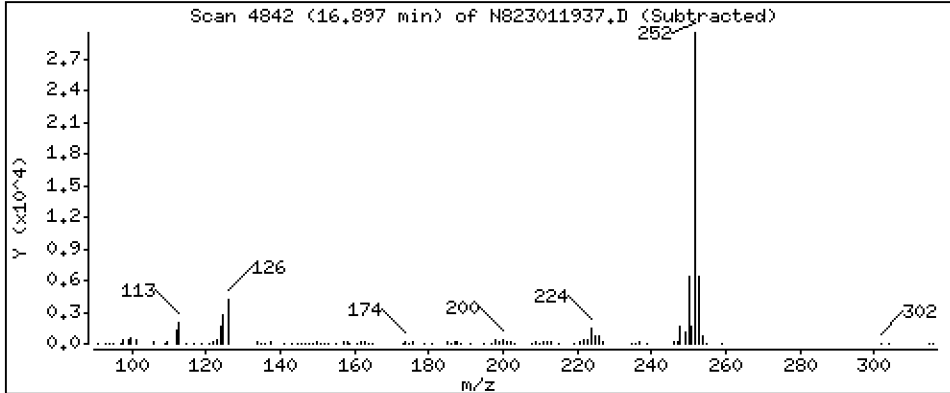
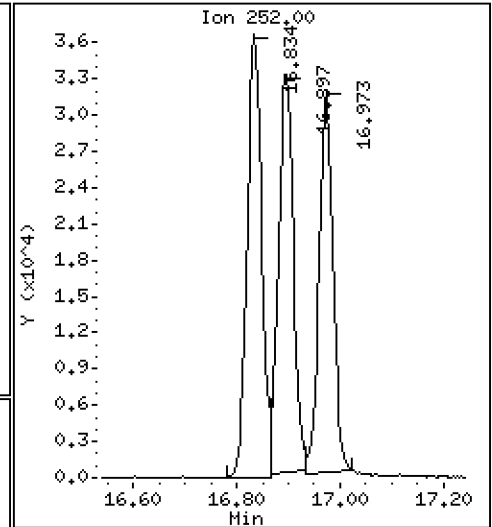
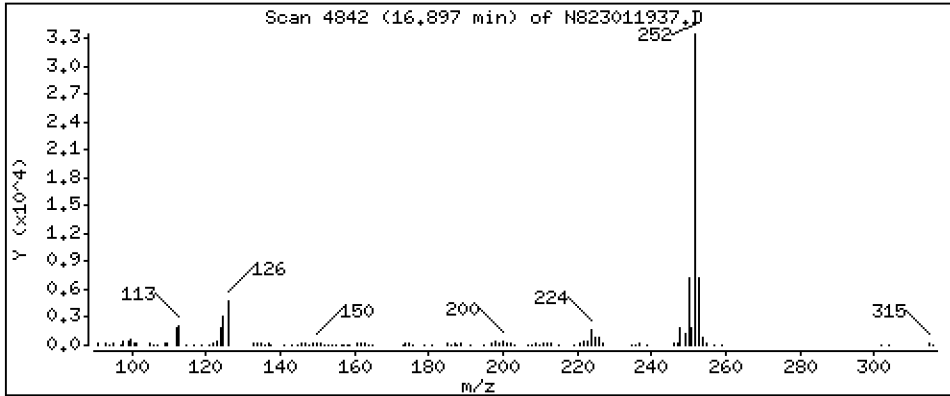
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

29 Benzo(k)fluoranthene

Concentration: 2,588 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

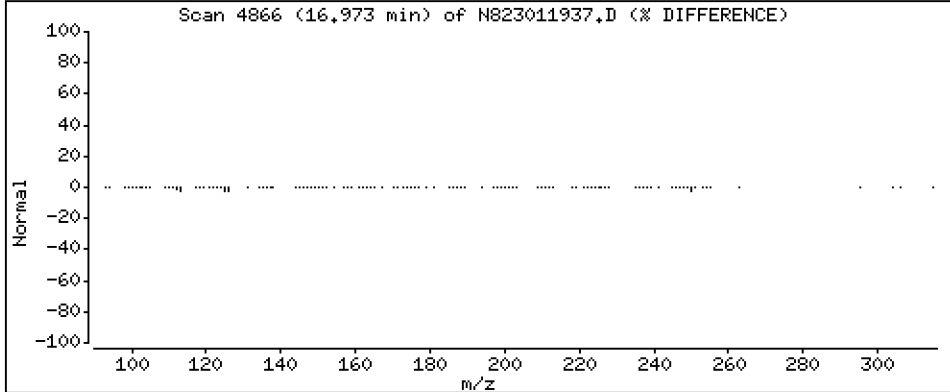
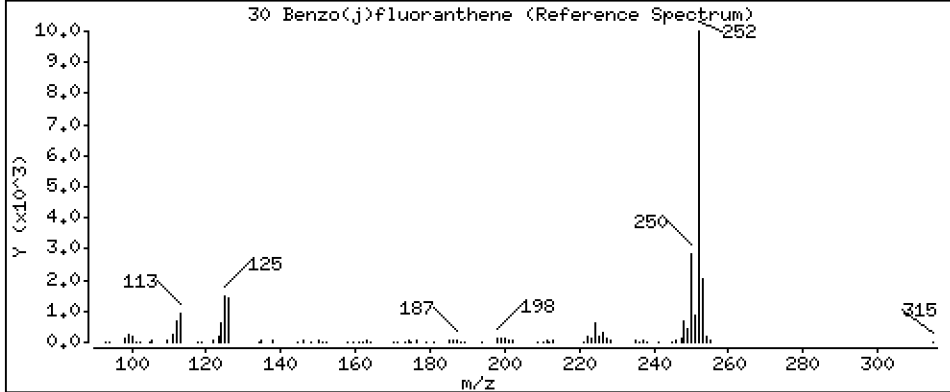
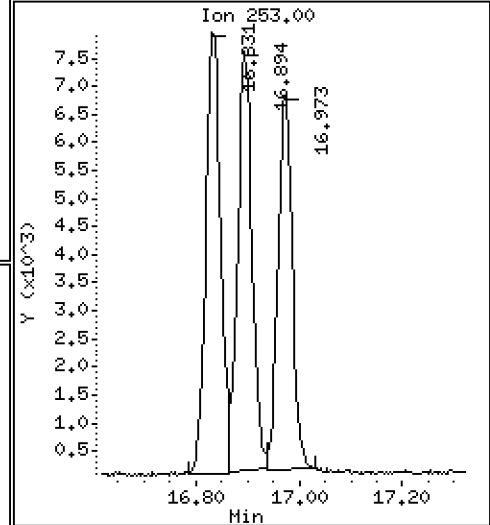
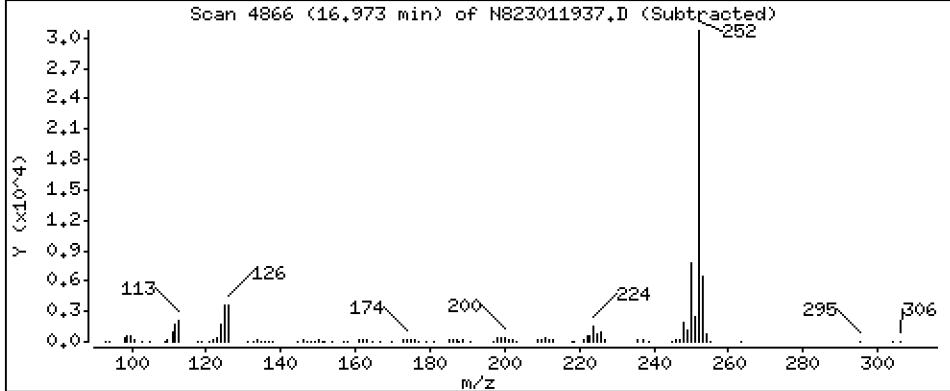
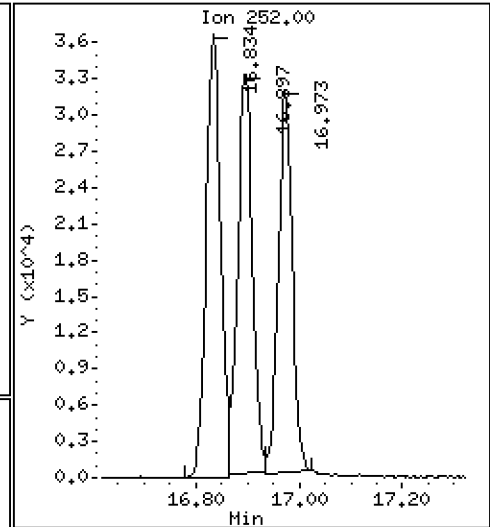
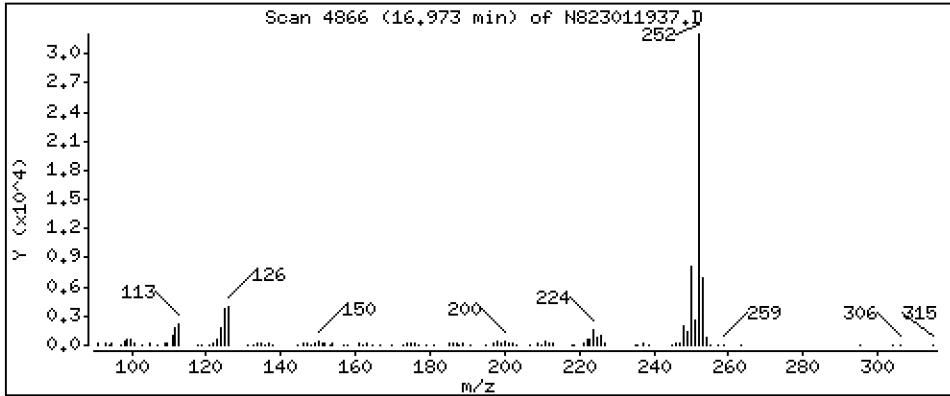
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

30 Benzo(j)fluoranthene

Concentration: 2,549 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

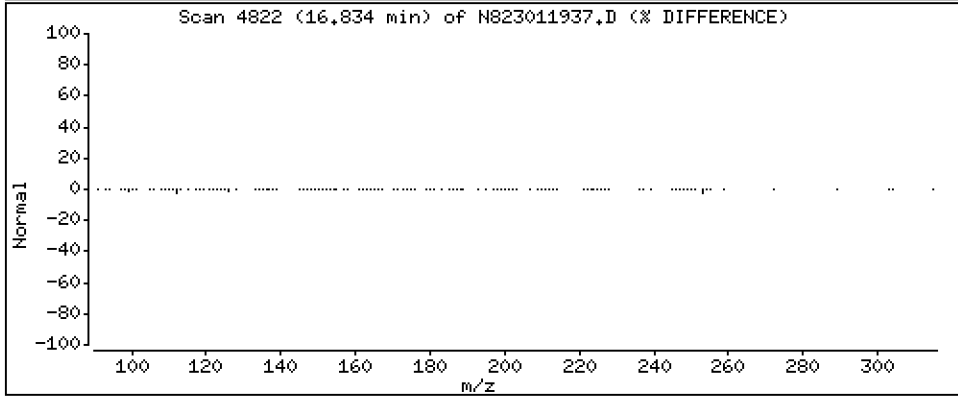
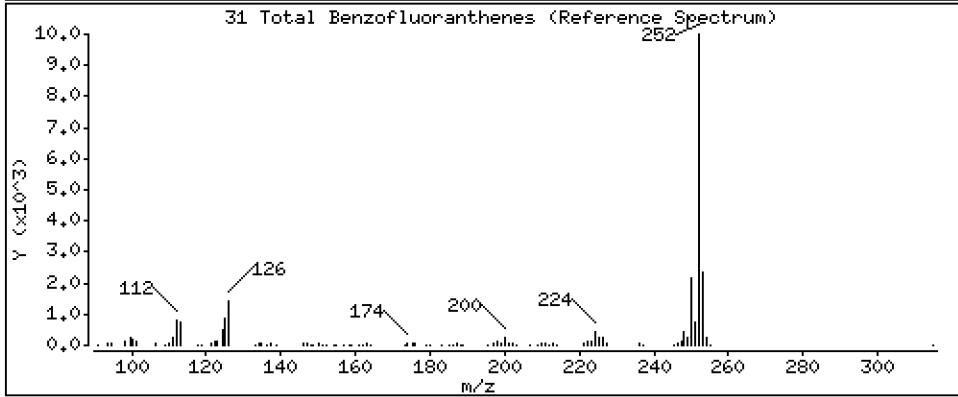
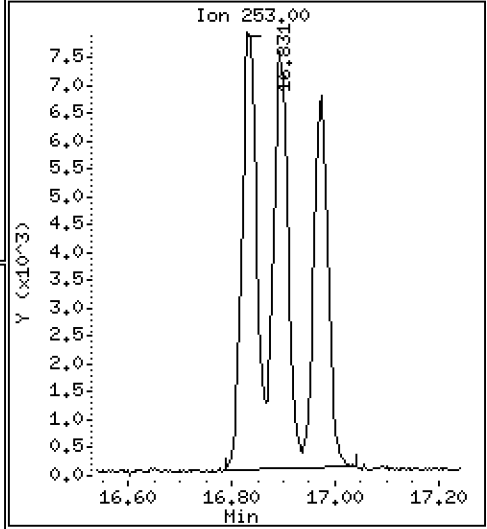
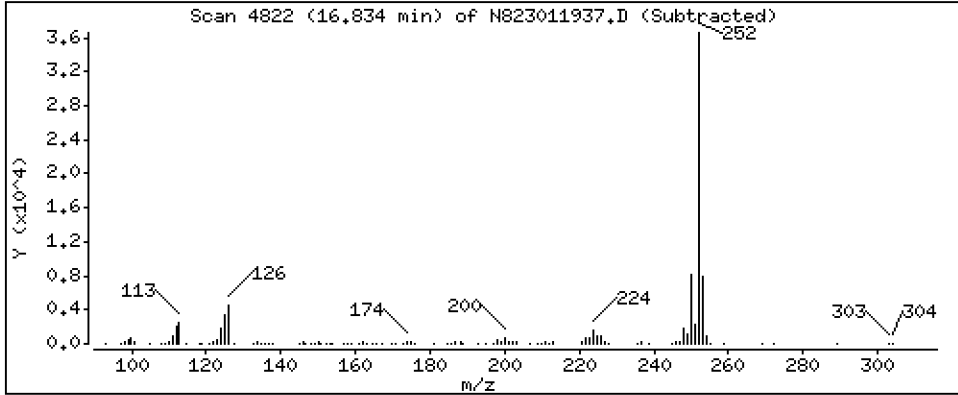
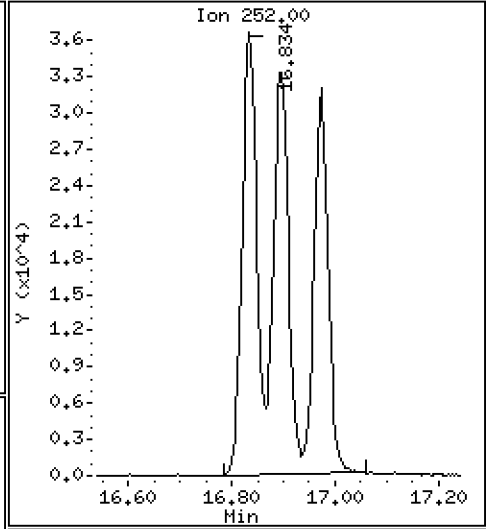
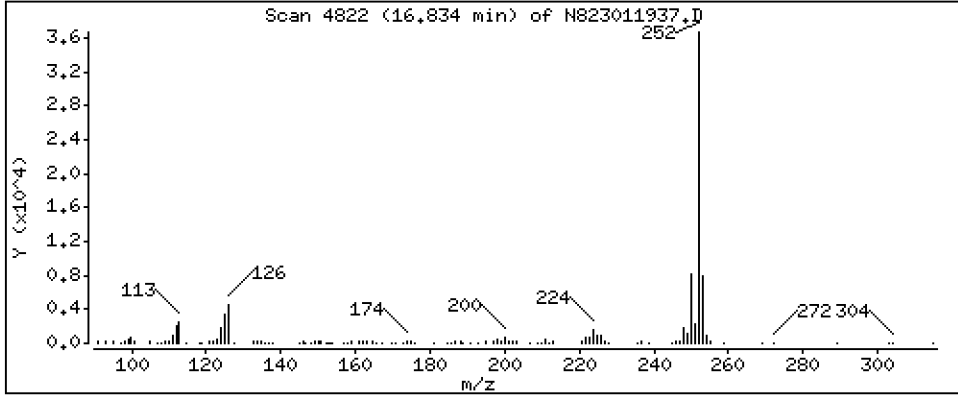
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

31 Total Benzofluoranthenes

Concentration: 7,978 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

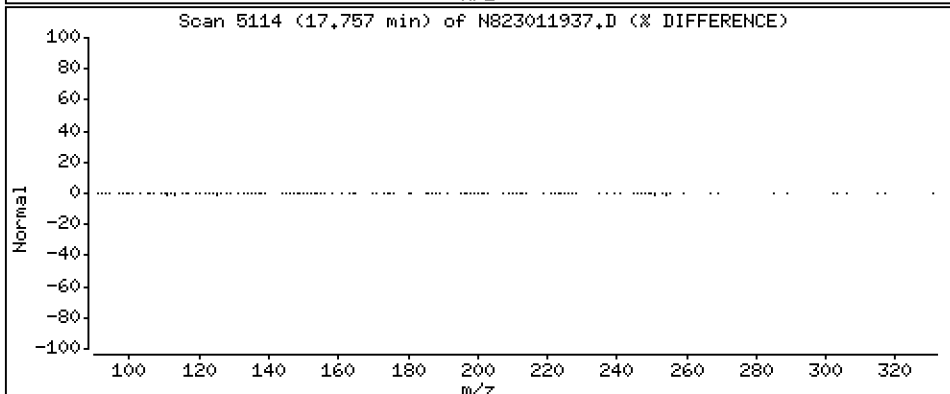
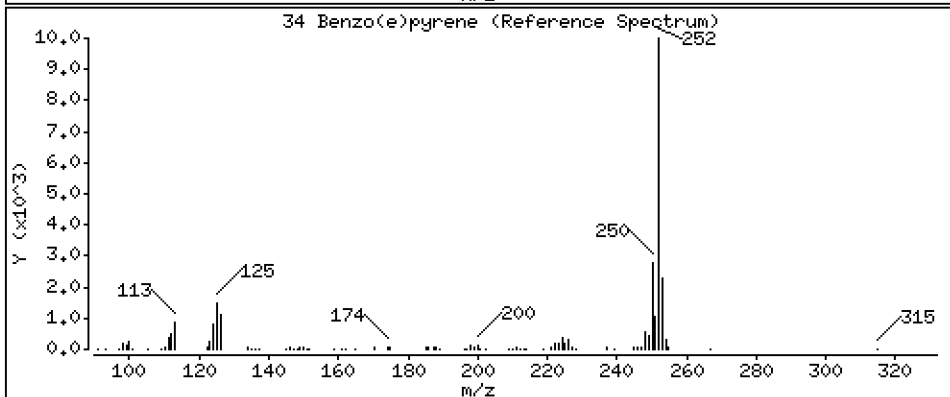
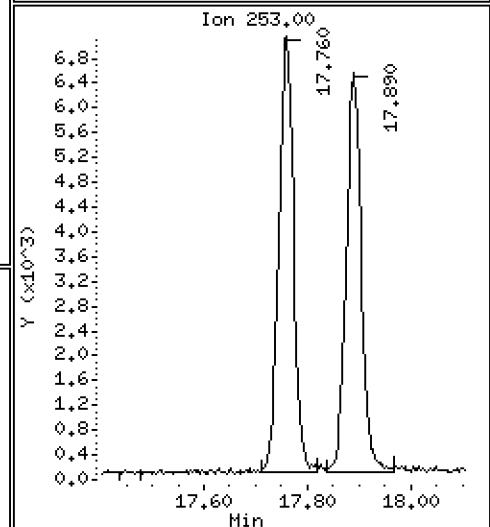
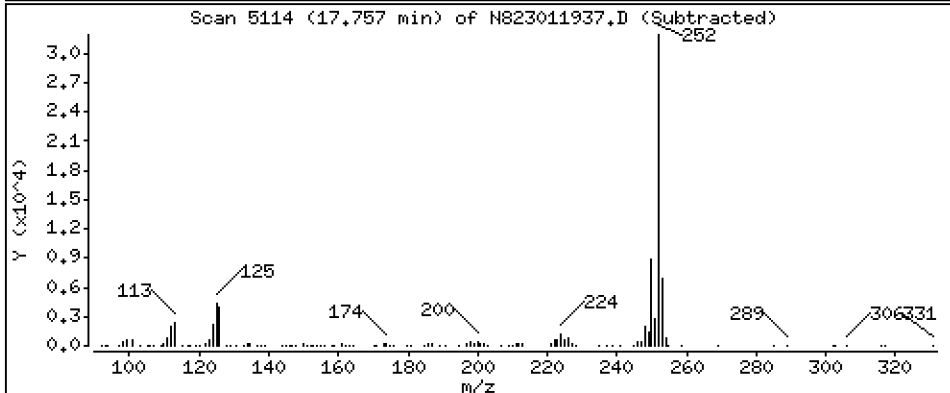
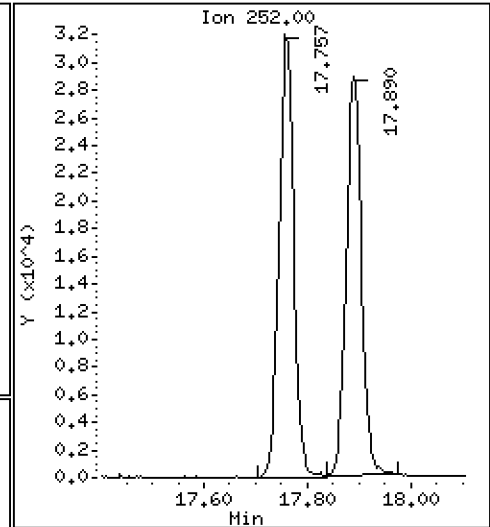
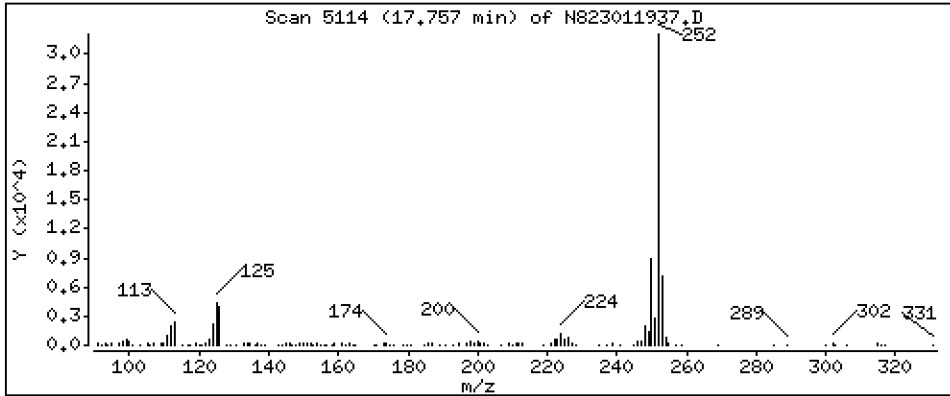
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

34 Benzo(e)pyrene

Concentration: 2,448 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

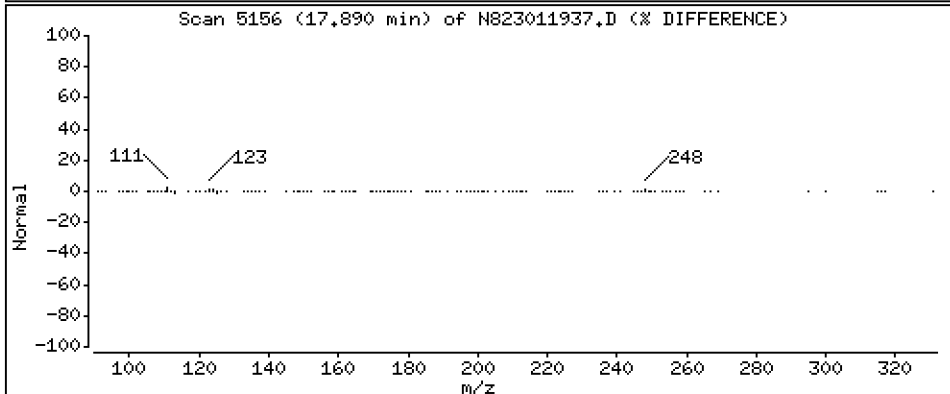
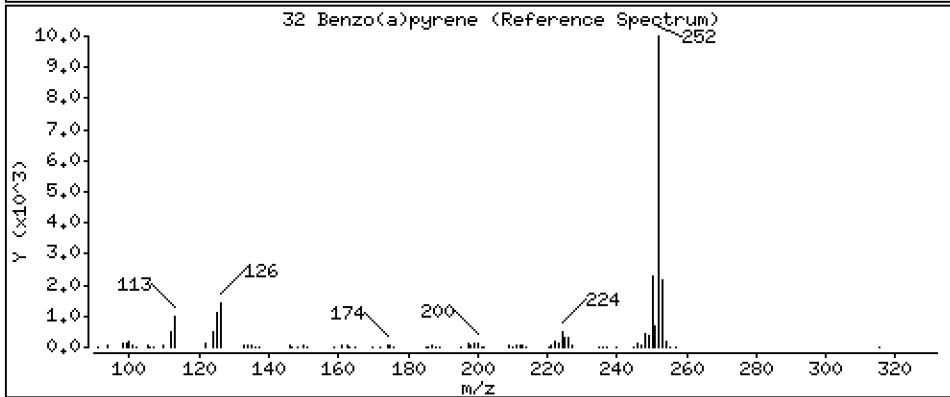
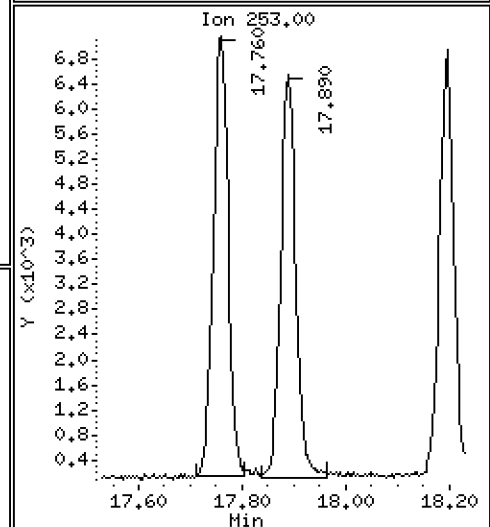
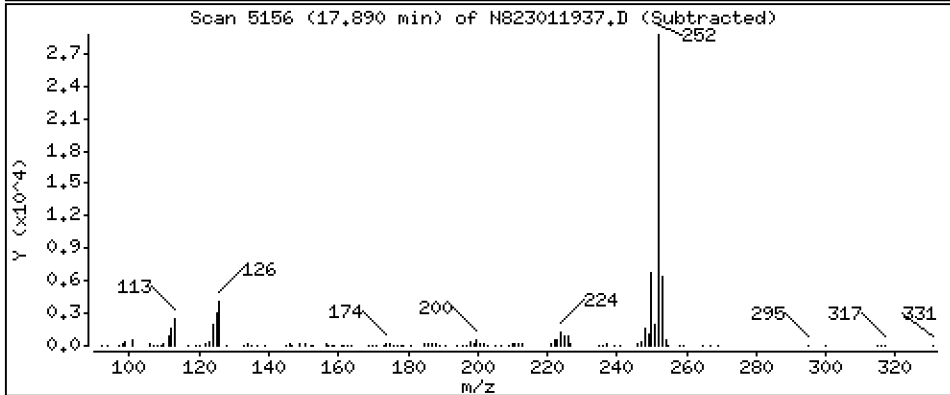
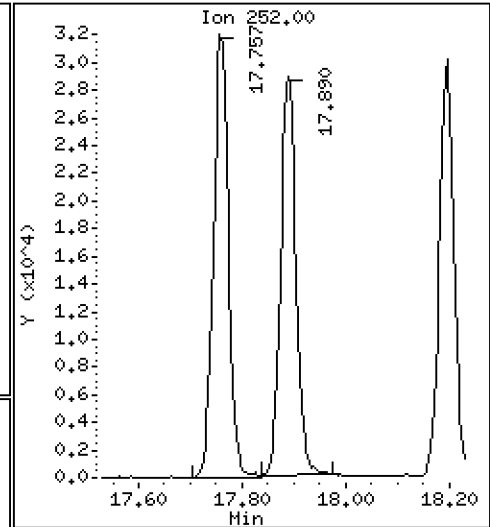
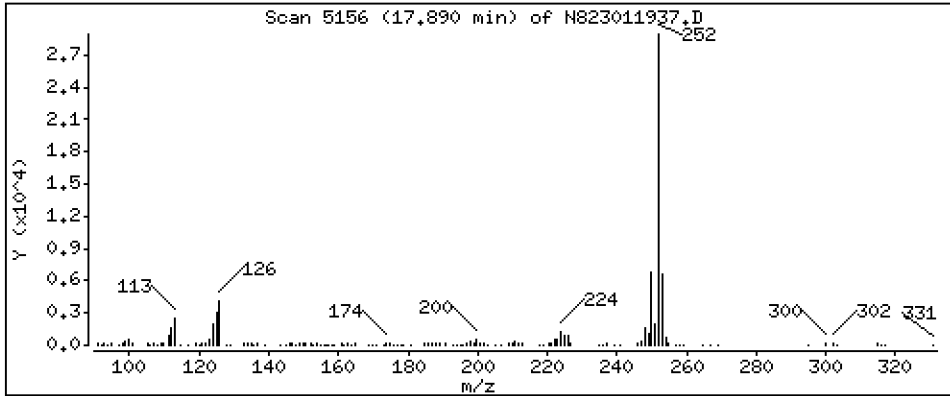
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

32 Benzo(a)pyrene

Concentration: 2,567 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

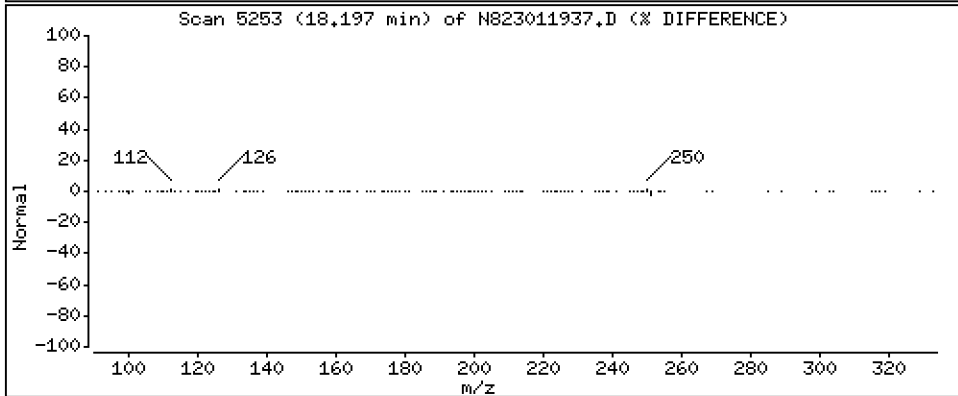
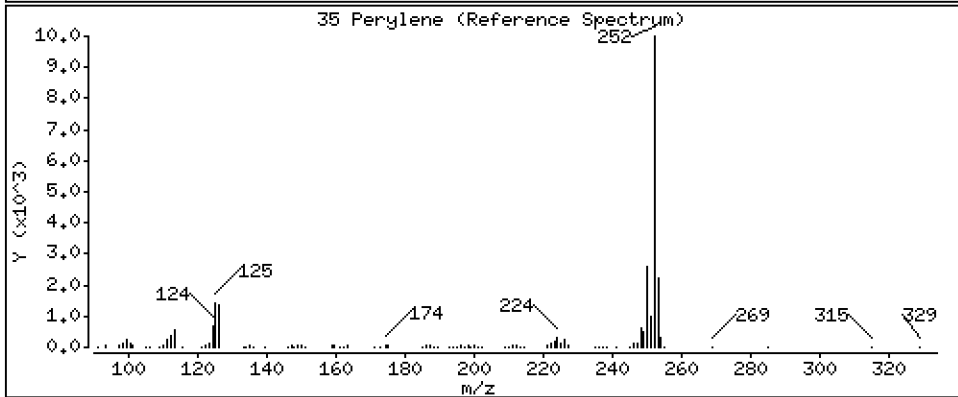
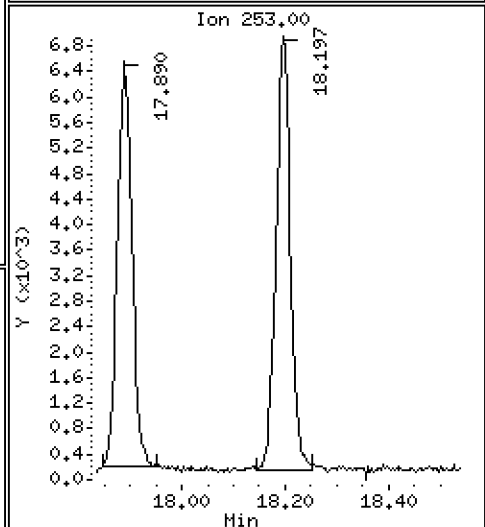
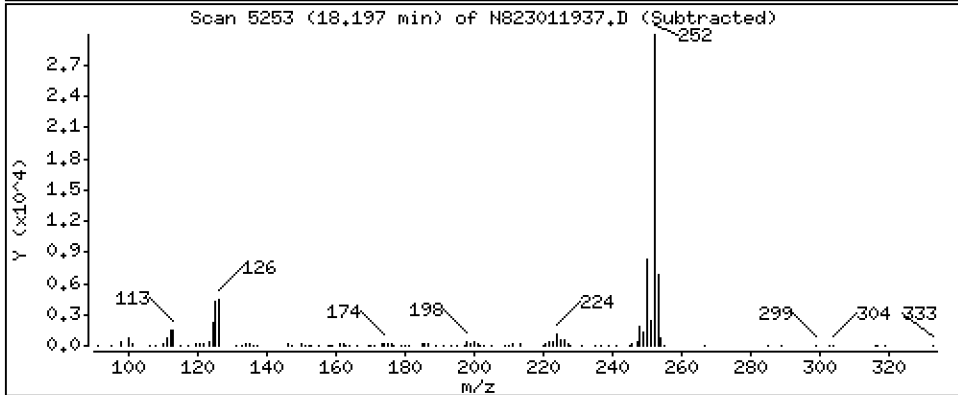
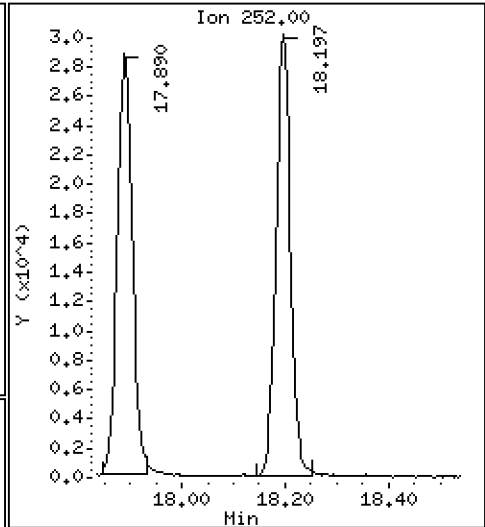
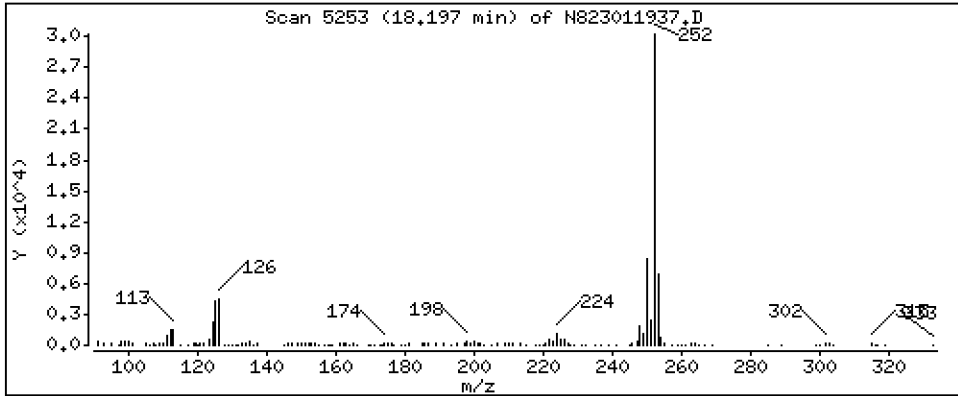
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

35 Perylene

Concentration: 2,386 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

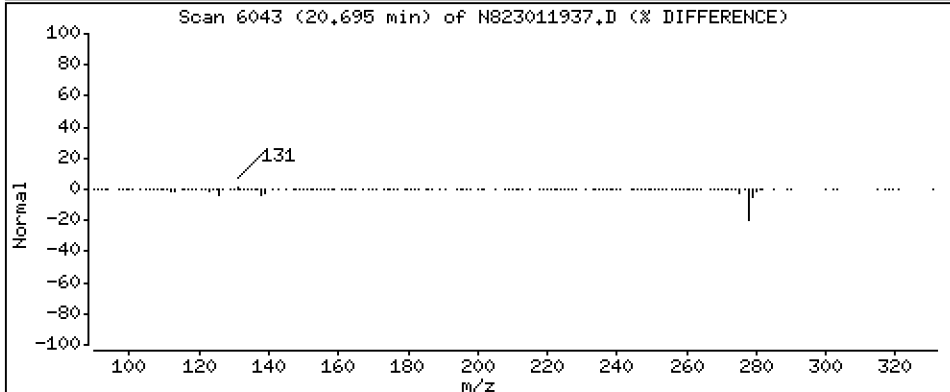
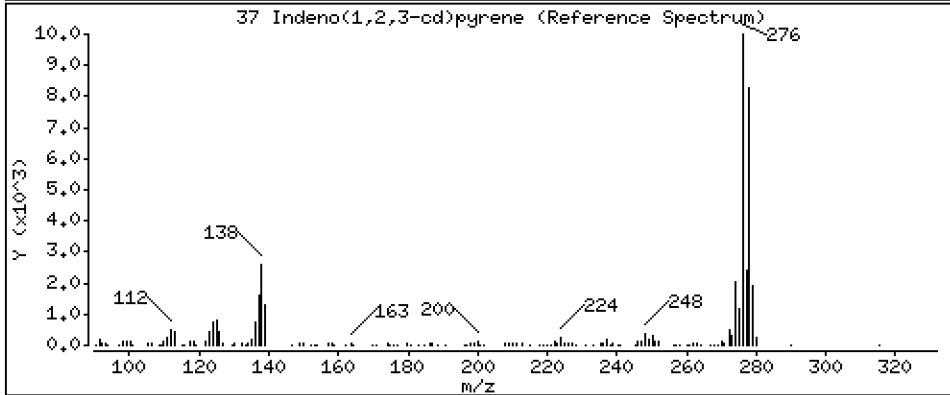
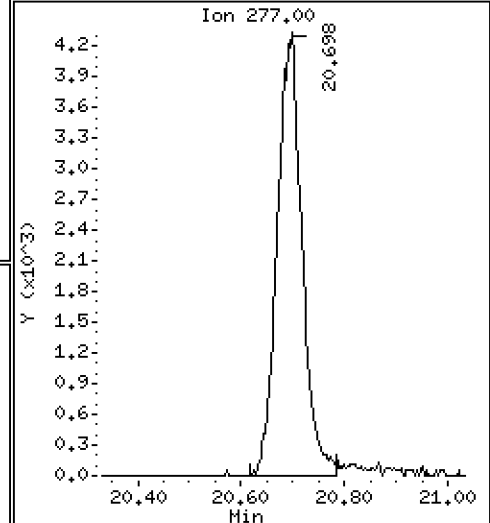
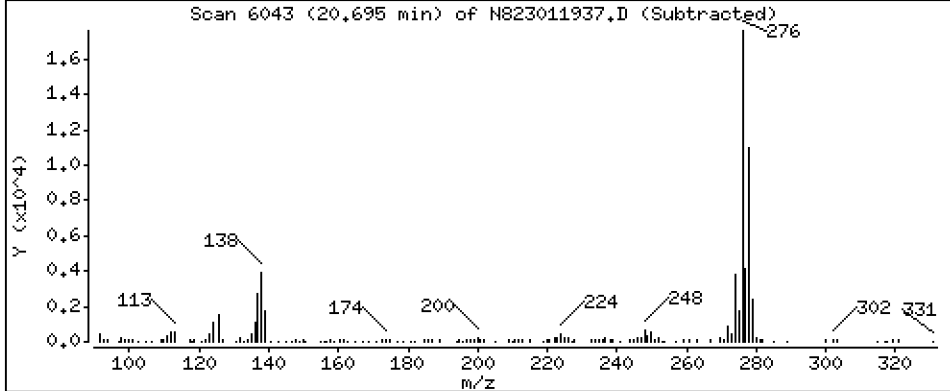
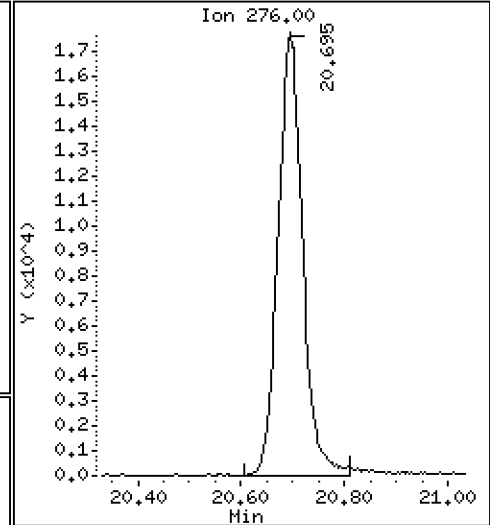
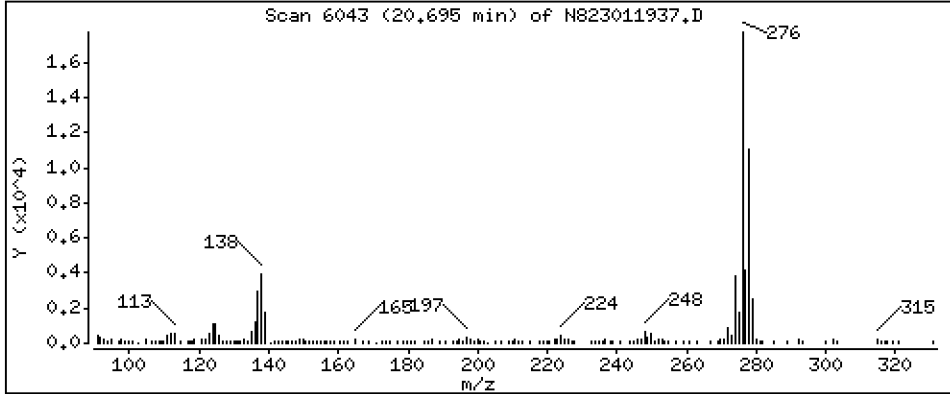
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

37 Indeno(1,2,3-cd)pyrene

Concentration: 2,208 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

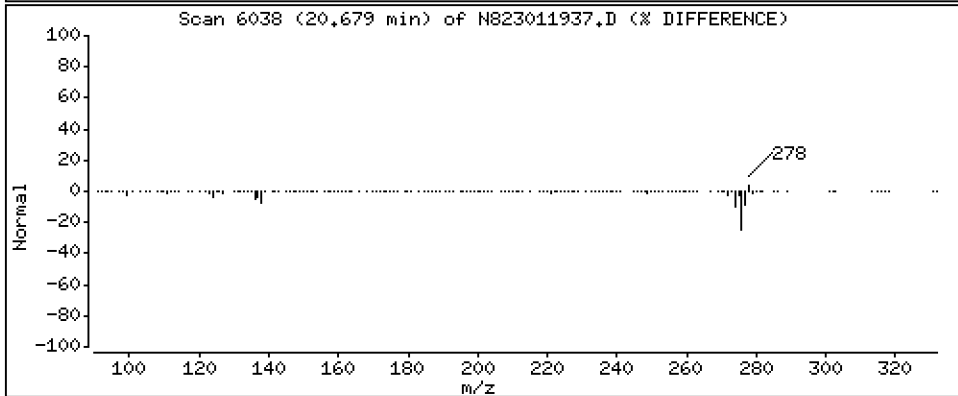
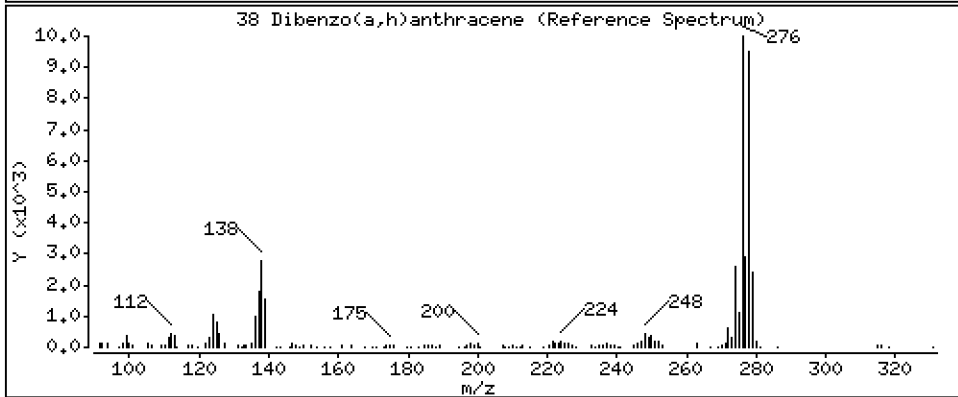
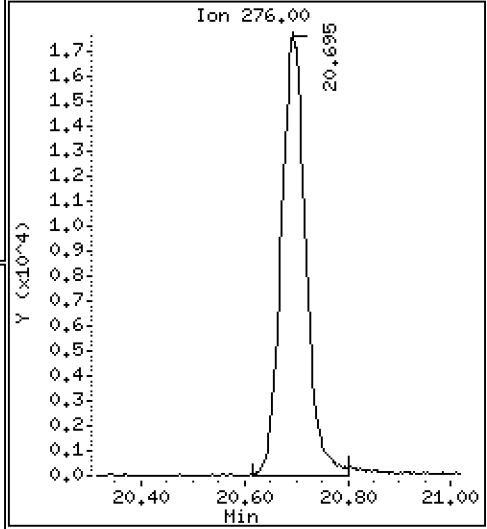
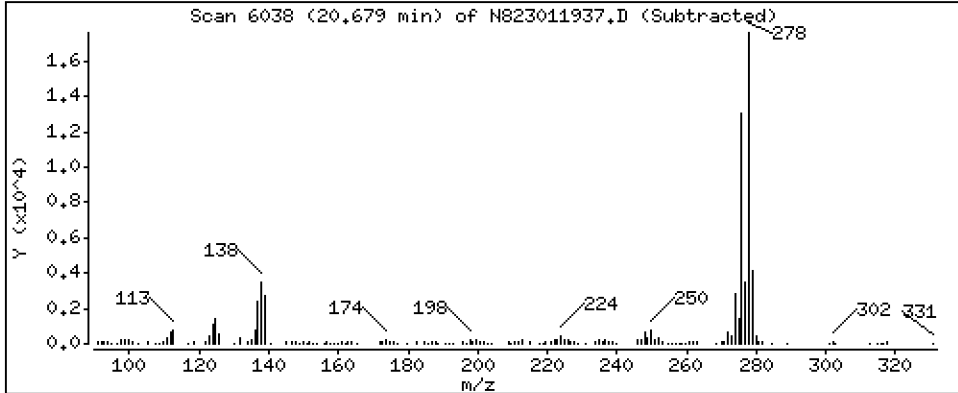
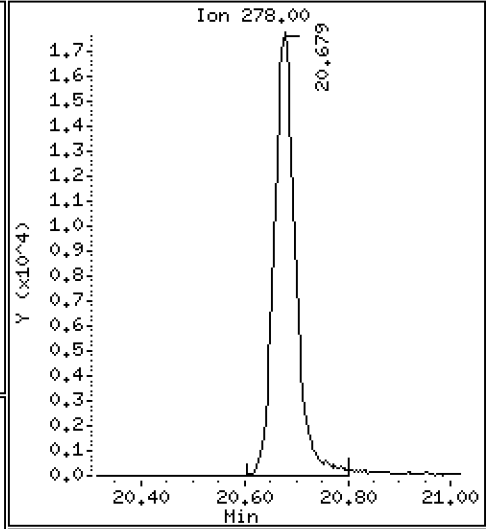
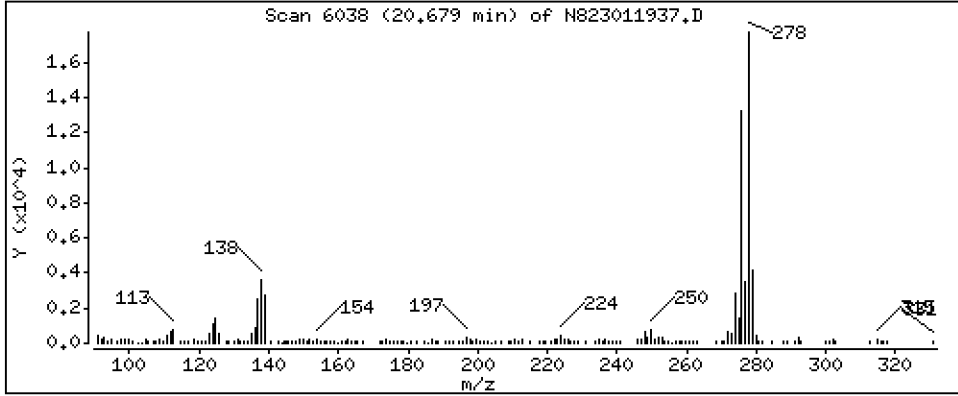
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

38 Dibenzo(a,h)anthracene

Concentration: 2,267 ug/mL



Date : 20-JAN-2023 03:30

Client ID:

Instrument: nt8.i

Sample Info: CCV230119,

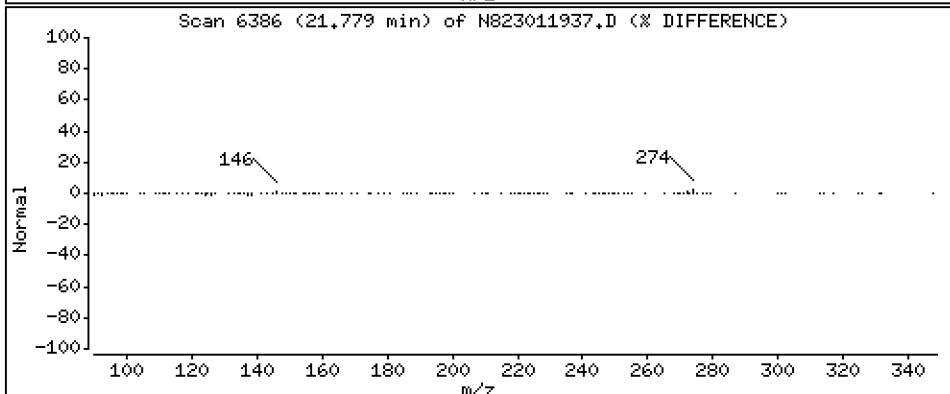
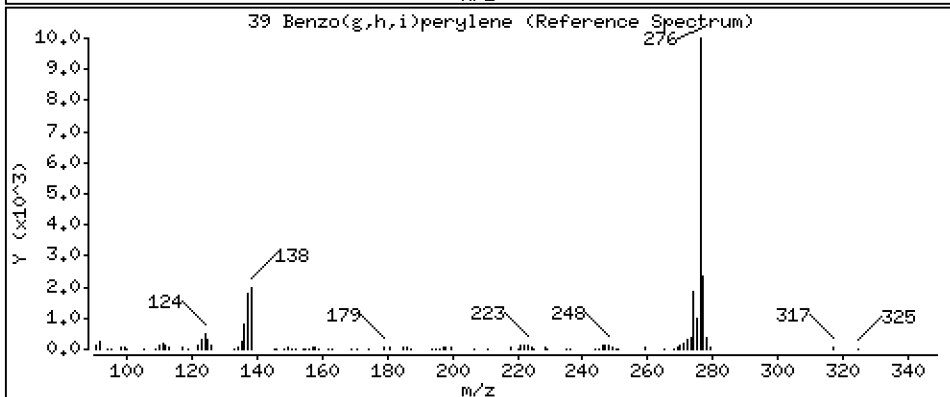
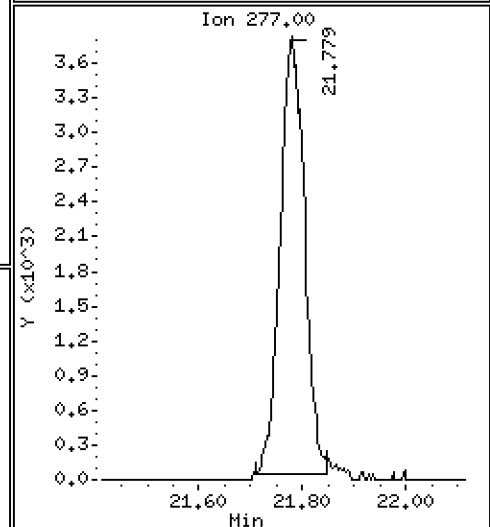
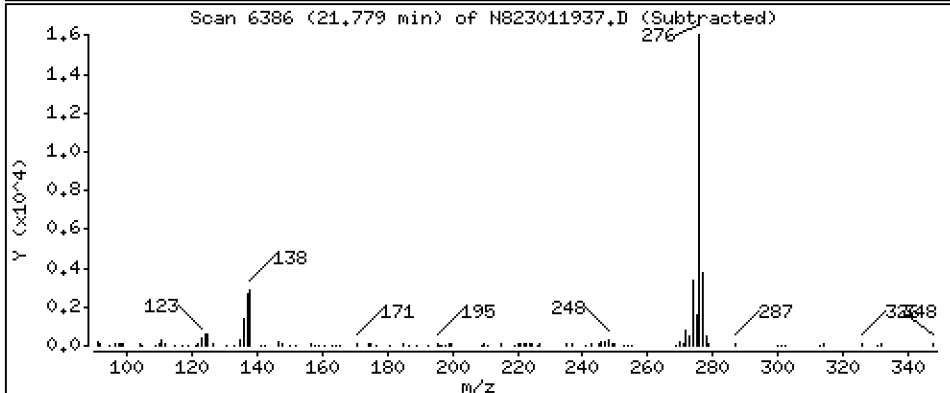
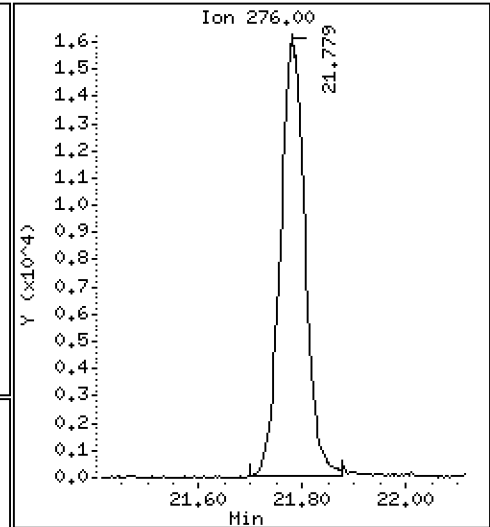
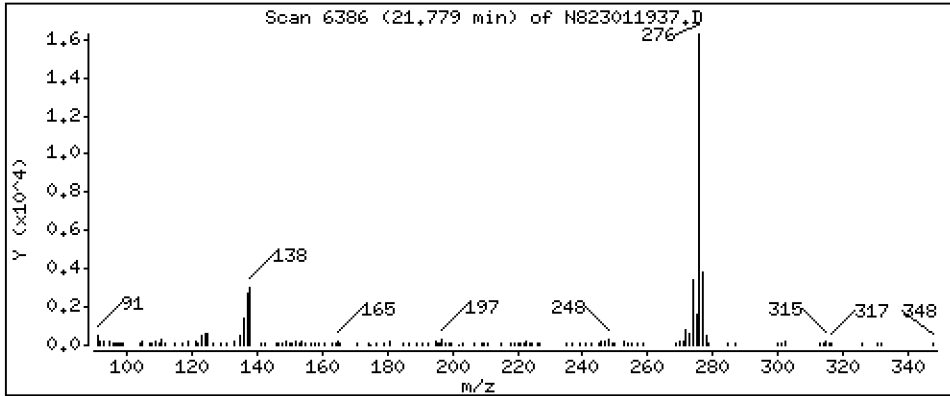
Operator: JZ

Column phase: Rxi-17sil

Column diameter: 0,25

39 Benzo(g,h,i)perylene

Concentration: 2,208 ug/mL



ARI Labs, Inc.

Semivolatle Report SW846 Method 8270D

Data file : \\target\share\chem3\nt8.i\20230119A.b\N823011937.D
 Lab Smp Id: SLA0228-CCV1
 Inj Date : 20-JAN-2023 03:30
 Operator : JZ Inst ID: nt8.i
 Smp Info : CCV230119,
 Misc Info : 23-
 Comment : lul Injection
 Method : \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Meth Date : 25-Jan-2023 22:11 jianqing Quant Type: ISTD
 Cal Date : 19-JAN-2023 13:46 Cal File: N823011908.D
 Als bottle: 27
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: FSIMPNAICLA.sub
 Target Version: 4.14
 Processing Host: JIANQING-202105

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
* 1 Naphthalene-d8	136		4.910	4.909	(1.000)	51431	2.00000	
2 Naphthalene	128		4.938	4.938	(1.006)	60978	2.54996	2.550
§ 3 2-Methylnaphthalene-d10	152		5.640	5.643	(1.149)	37093	2.64449	2.644
4 2-Methylnaphthalene	141		5.687	5.690	(1.158)	34616	2.63168	2.632
5 1-methylnaphthalene	141		5.887	5.887	(1.199)	34559	2.58874	2.589
7 Biphenyl	154		6.348	6.348	(0.882)	51826	2.55300	2.553
8 2,6-Dimethylnaphthalene	156		6.389	6.392	(0.888)	38281	2.66445	2.664
9 Acenaphthylene	152		7.088	7.088	(0.985)	64529	2.77710	2.777
* 10 Acenaphthene-d10	164		7.196	7.199	(1.000)	30771	2.00000	
11 Acenaphthene	153		7.246	7.246	(1.007)	40353	2.59191	2.592
12 Dibenzofuran	168		7.398	7.398	(1.028)	60692	2.56658	2.567
13 1,6,7-Trimethylnaphthalene	170		7.461	7.461	(1.037)	39707	2.66283	2.663
14 Fluorene	166		7.876	7.875	(1.094)	48951	2.66530	2.665
18 Dibenzothiophene	184		9.112	9.109	(0.987)	67286	2.58806	2.588
* 15 Phenanthrene-d10	188		9.235	9.238	(1.000)	58835	2.00000	
16 Phenanthrene	178		9.273	9.270	(1.004)	71300	2.48090	2.481
17 Anthracene	178		9.311	9.311	(1.008)	69872	2.67628	2.676
19 Carbazole	167		9.827	9.826	(1.064)	63727	2.66257	2.663
20 1-Methylphenanthrene	192		10.051	10.048	(1.088)	54890	2.65035	2.650
22 Fluoranthene	202		11.057	11.053	(1.197)	82482	2.63661	2.637
§ 21 Fluoranthene-d10	212		11.019	11.015	(1.193)	72142	2.77921	2.779
23 Pyrene	202		11.575	11.575	(0.814)	84978	2.65018	2.650
24 Benzo(a)anthracene	228		14.083	14.079	(0.991)	82552	2.84044	2.840
* 25 Chrysene-d12	240		14.212	14.209	(1.000)	51719	2.00000	
27 Chrysene	228		14.285	14.282	(1.005)	78485	2.53675	2.537
28 Benzo(b)fluoranthene	252		16.833	16.827	(0.929)	72488	2.74093	2.741
29 Benzo(k)fluoranthene	252		16.897	16.890	(0.932)	67040	2.58798	2.588
30 Benzo(j)fluoranthene	252		16.973	16.969	(0.937)	59439	2.54884	2.549
31 Total Benzofluoranthenes	252		16.833	16.890	(0.929)	199825	7.97827	7.978 (M)
34 Benzo(e)pyrene	252		17.757	17.753	(0.980)	64550	2.44765	2.448
32 Benzo(a)pyrene	252		17.890	17.880	(0.987)	59737	2.56682	2.567
* 33 Perylene-d12	264		18.120	18.117	(1.000)	45409	2.00000	
35 Perylene	252		18.196	18.187	(1.004)	59577	2.38556	2.386

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
\$ 36 Dibenzo(a,h)anthracene-d14	292	20.565	20.555	(1.135)	37943	2.13256	2.133
37 Indeno(1,2,3-cd)pyrene	276	20.694	20.681	(1.142)	58548	2.20826	2.208
38 Dibenzo(a,h)anthracene	278	20.678	20.666	(1.141)	51736	2.26746	2.267
39 Benzo(g,h,i)perylene	276	21.779	21.763	(1.202)	53051	2.20847	2.208

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt8.i Calibration Date: 19-JAN-2023
 Lab File ID: N823011937.D Calibration Time: 16:16
 Lab Smp Id: SLA0228-CCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: JZ
 Method File: \\target\share\chem3\nt8.i\20230119A.b\FSIMPNA230119.m
 Misc Info: 23-

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	42524	21262	85048	51431	20.95
10 Acenaphthene-d10	25260	12630	50520	30771	21.82
15 Phenanthrene-d10	47890	23945	95780	58835	22.85
25 Chrysene-d12	40533	20267	81066	51719	27.60
33 Perylene-d12	38115	19058	76230	45409	19.14

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	4.91	4.41	5.41	4.91	0.00
10 Acenaphthene-d10	7.20	6.70	7.70	7.20	-0.04
15 Phenanthrene-d10	9.24	8.74	9.74	9.24	-0.03
25 Chrysene-d12	14.21	13.71	14.71	14.21	0.02
33 Perylene-d12	18.12	17.62	18.62	18.12	0.02

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N823011937.D

Lab ID: SLA0228-CCV1

nt8.i, 20230119A.b\FSIMPNA230119.m, 20-JAN-2023 03:30

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

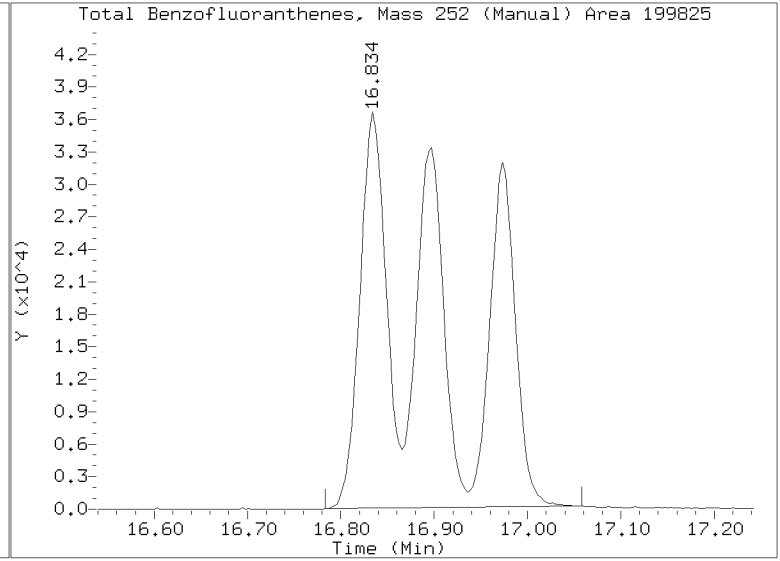
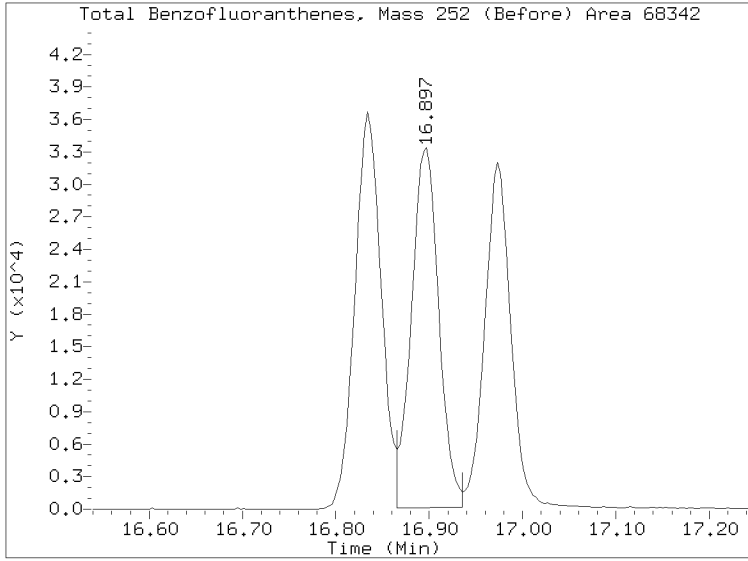
No RRT check performed

On Column LOD for nt8.i, 20230119A.b\FSIMPNA230119.m, FSIMPNAICLA.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt8.i/20230119A.b/N823011937.D
Injection Date: 20-JAN-2023 03:30
Lab ID:SLA0228-CCV1 Client ID:
Report Date: 01/25/2023 22:14





CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GB00019</u>
Lab File ID:	<u>NT1023020760S.D</u>	Calibration Date:	<u>02/07/2023</u>
Sequence:	<u>SLB0106</u>	Injection Date:	<u>02/09/23</u>
Lab Sample ID:	<u>SLB0106-CCV1</u>	Injection Time:	<u>01:13</u>
Sequence Name:	<u>ABN 1</u>		

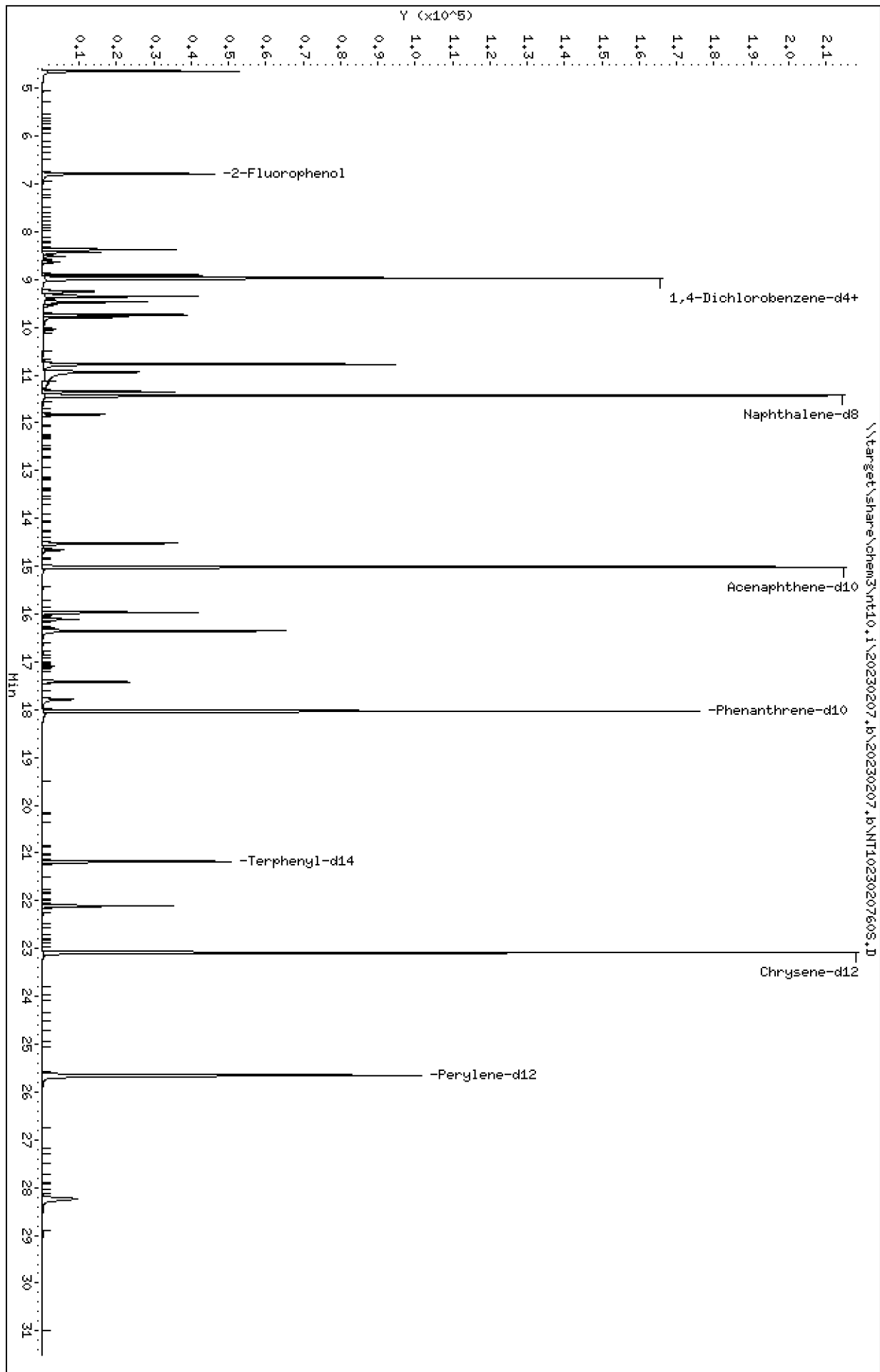
COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	1.0000	1.0	1.6149400	1.6340290		1.2	+/-50
1,2-Dichlorobenzene	A	1.0000	1.0	1.5761980	1.6069780		2.0	+/-50
Benzyl Alcohol	A	1.0000	1.2	0.8947729	1.0809470		20.8	+/-50
Benzoic acid	A	4.0000	3.6	0.1278126	0.1475239		-10.9	+/-50
2,4-Dimethylphenol	A	2.0000	2.2	0.3513679	0.3921977		11.6	+/-50
1,2,4-Trichlorobenzene	A	1.0000	1.1	0.3293471	0.3501865		6.3	+/-50
N-Nitrosodiphenylamine	A	1.0000	1.0	0.6610440	0.6757136		2.2	+/-50
Pentachlorophenol	A	2.0000	1.9	0.0758741	0.0925768		-6.9	+/-50
2-Fluorophenol	A	1.5000	1.64	1.2163900	1.3284150		9.2	+/-50
p-Terphenyl-d14	A	1.0000	1.15	0.8878533	1.0231550		15.2	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.1\NT10230207605.D
Date: 09-FEB-2023 01:13
Client ID:
Sample Info: SLB0106-CCV1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: JSD
Column diameter: 0.25



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

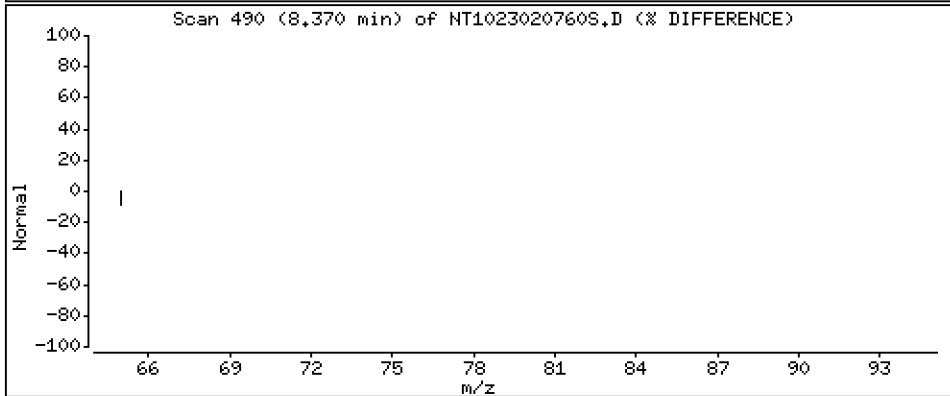
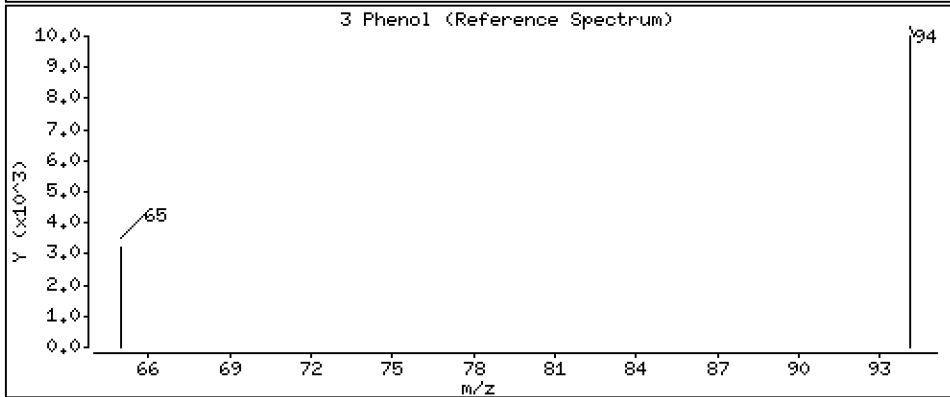
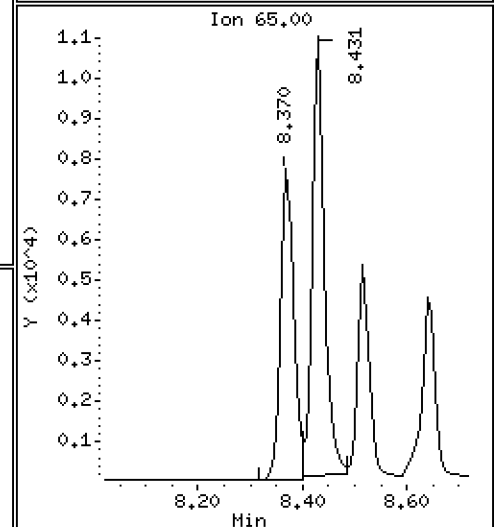
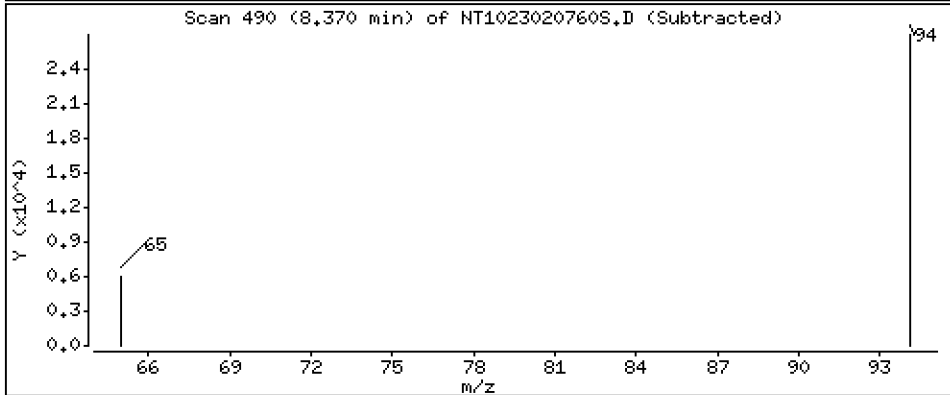
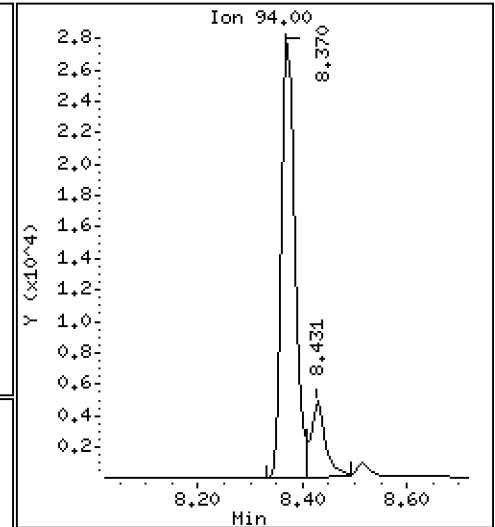
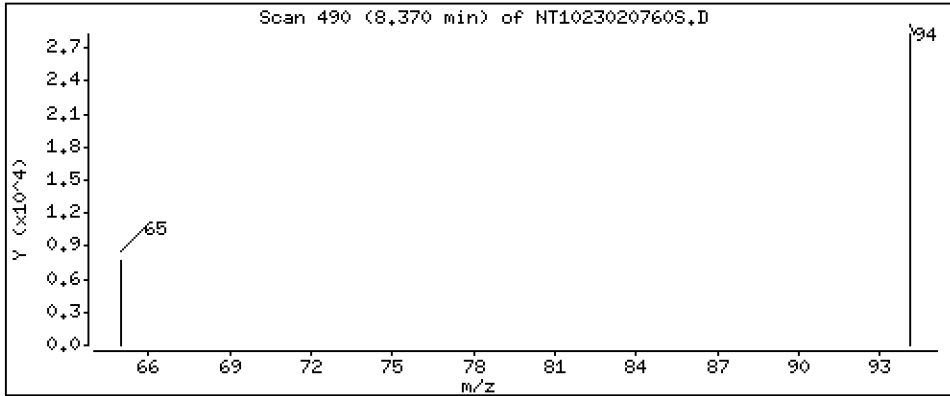
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 1.078 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

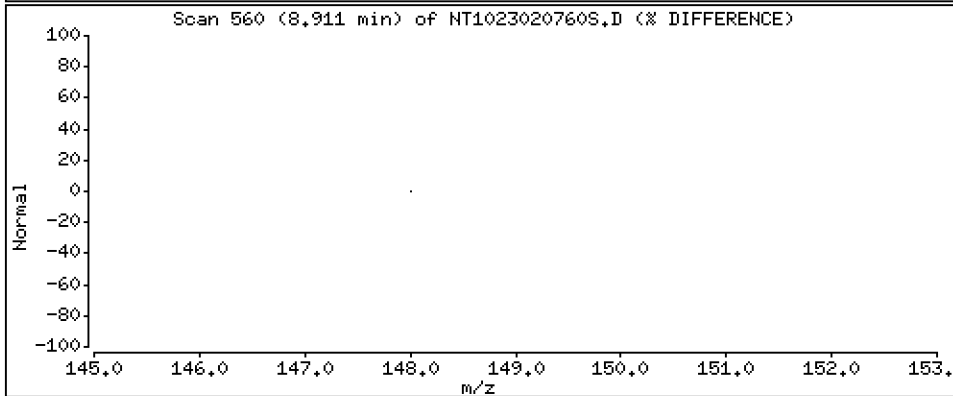
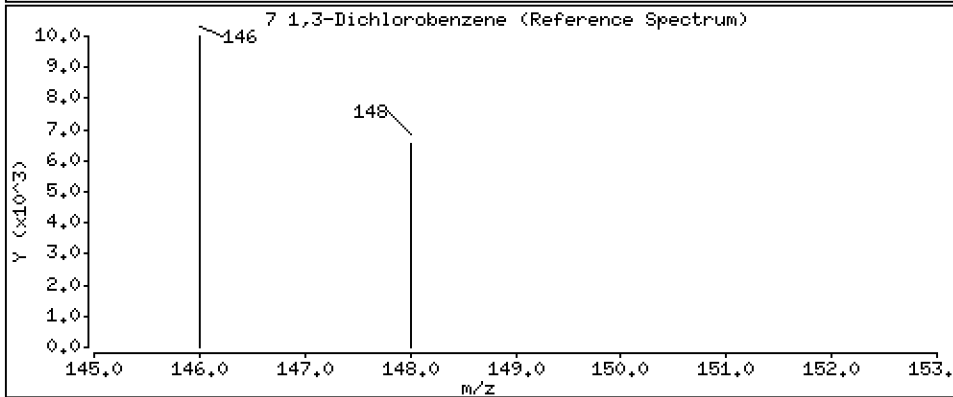
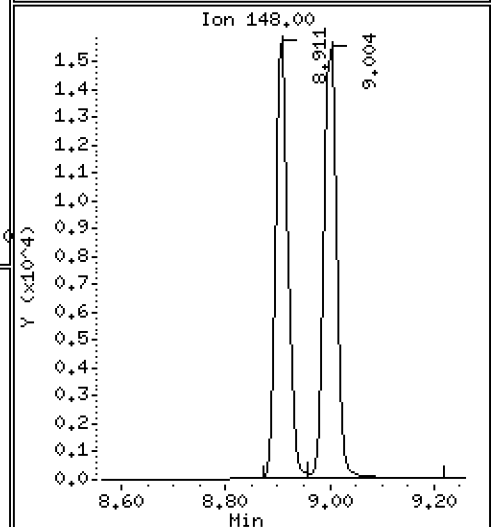
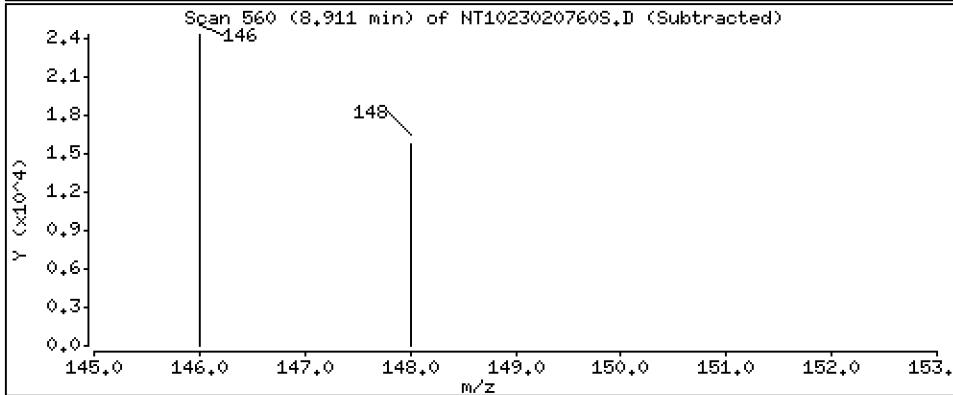
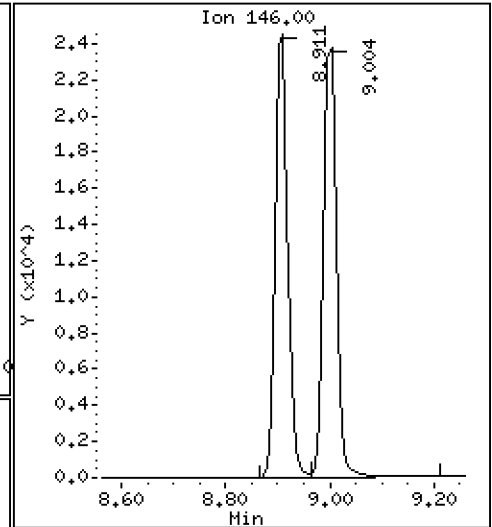
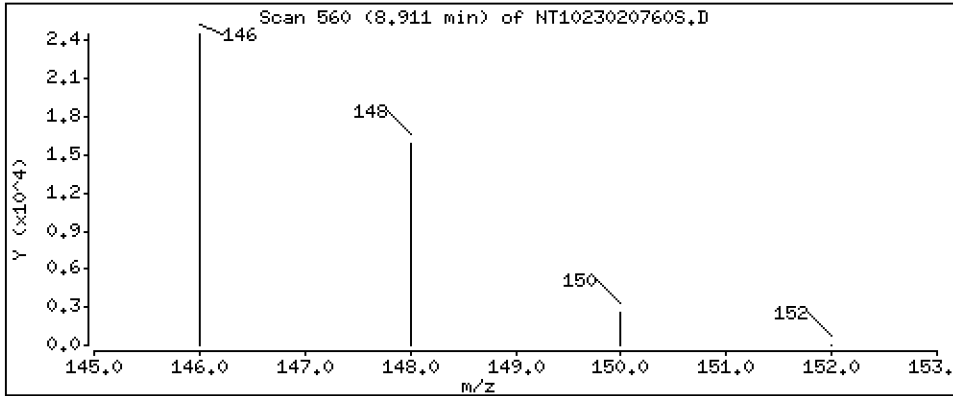
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 1.021 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

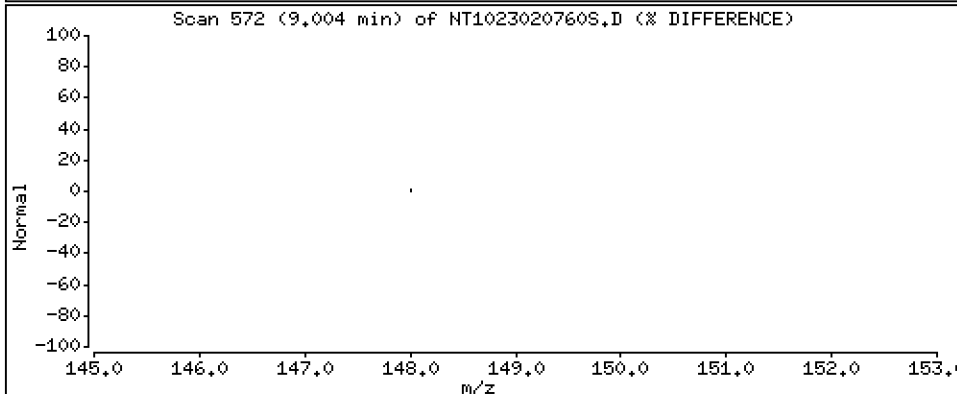
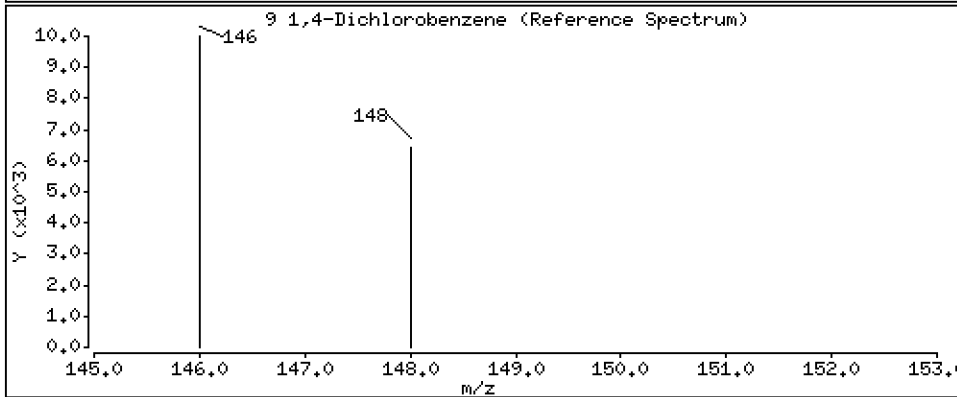
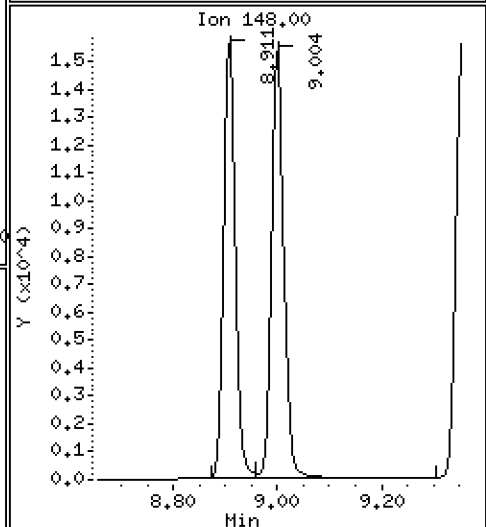
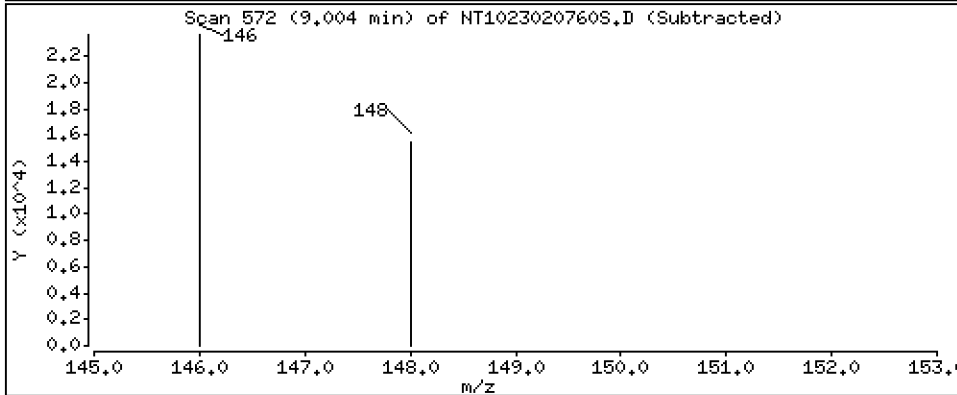
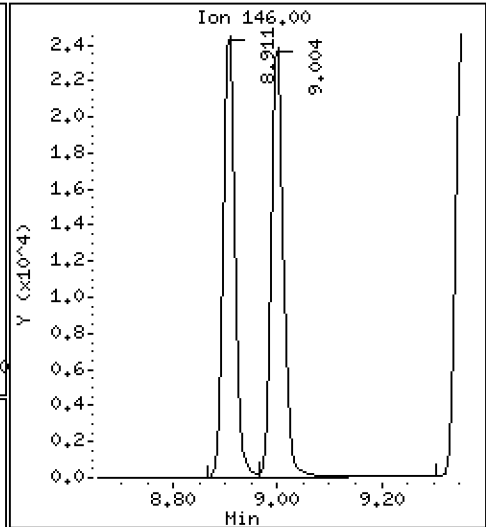
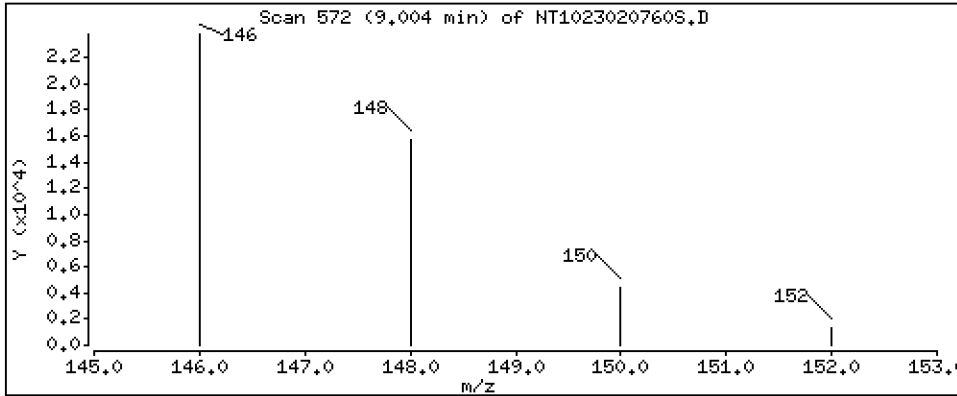
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 1.012 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

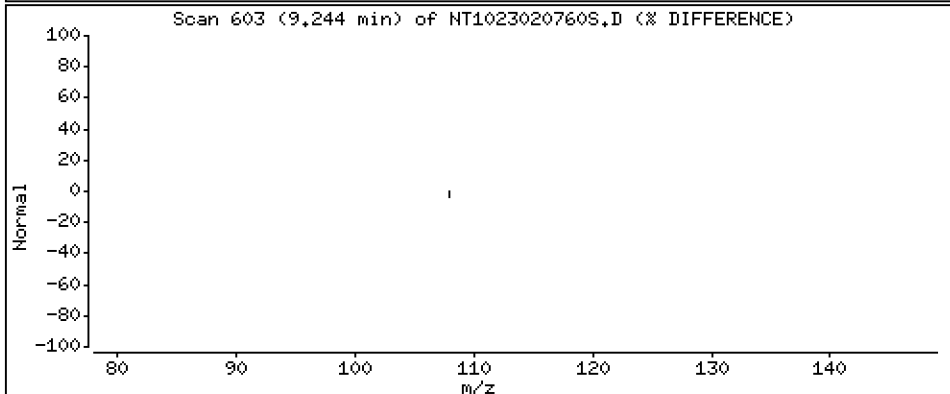
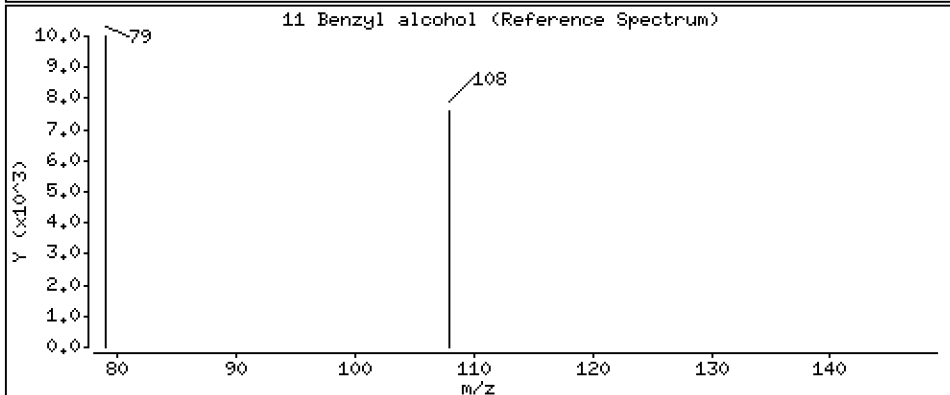
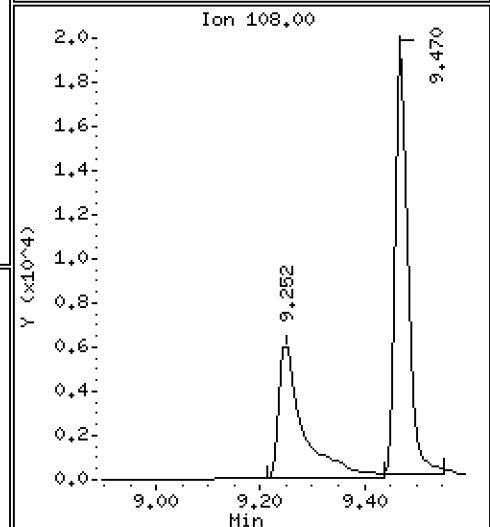
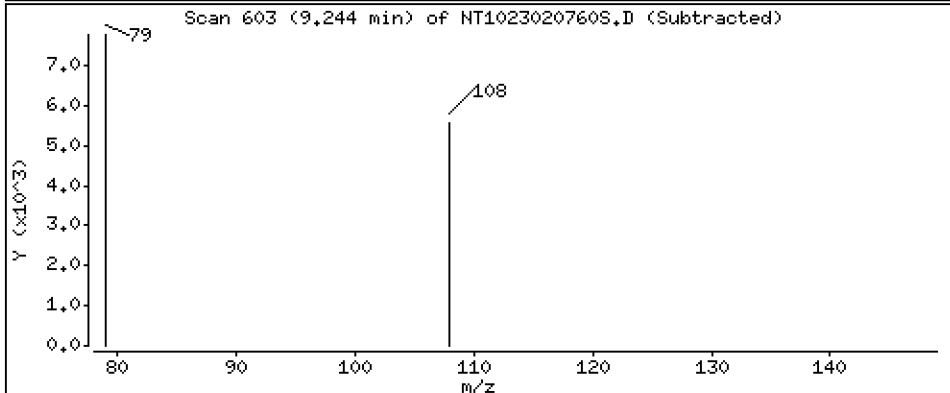
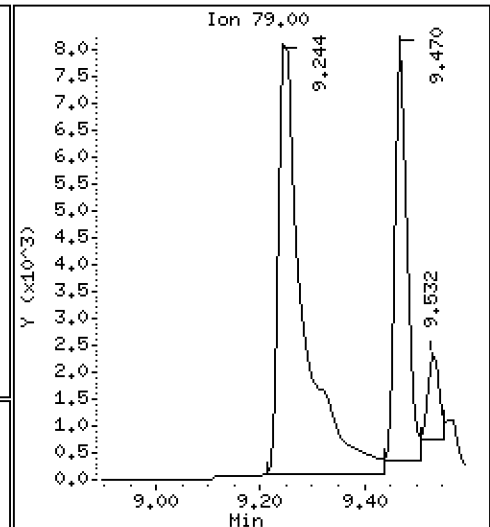
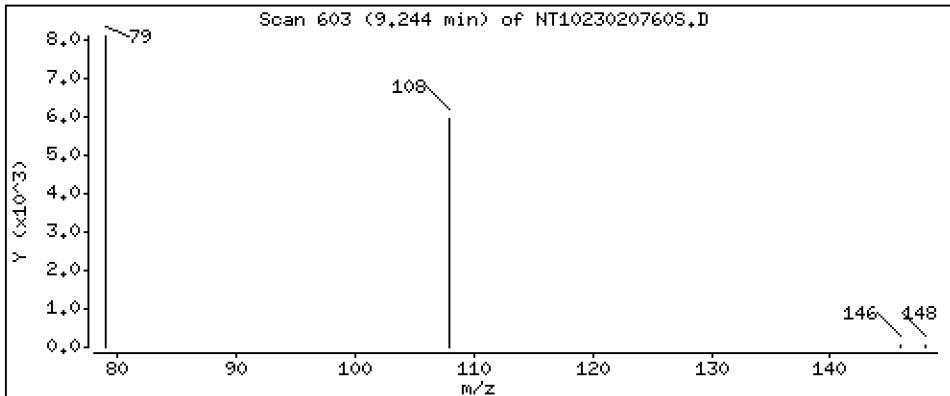
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 1.208 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

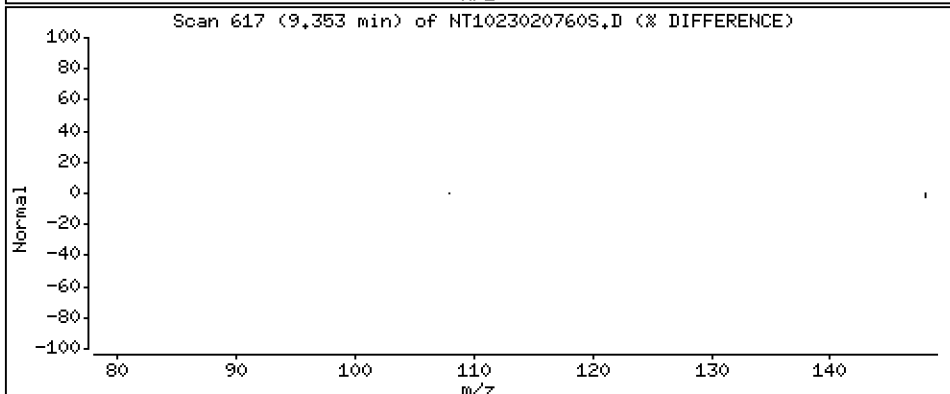
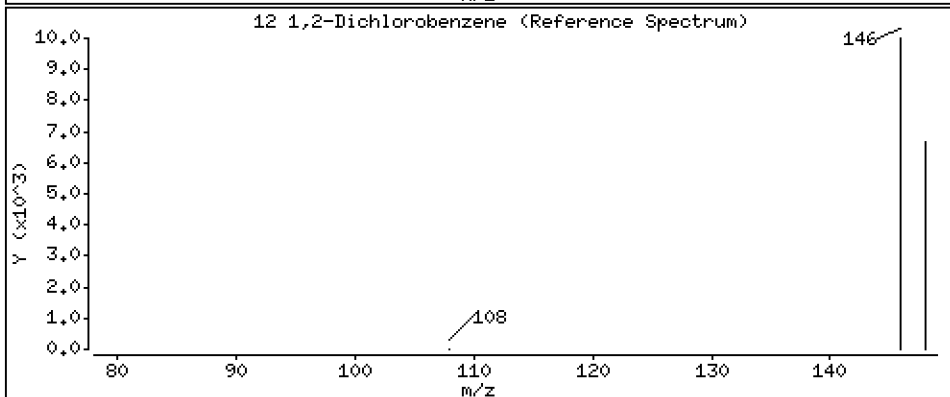
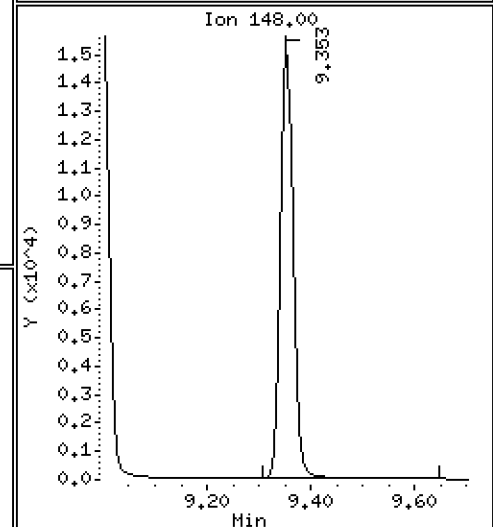
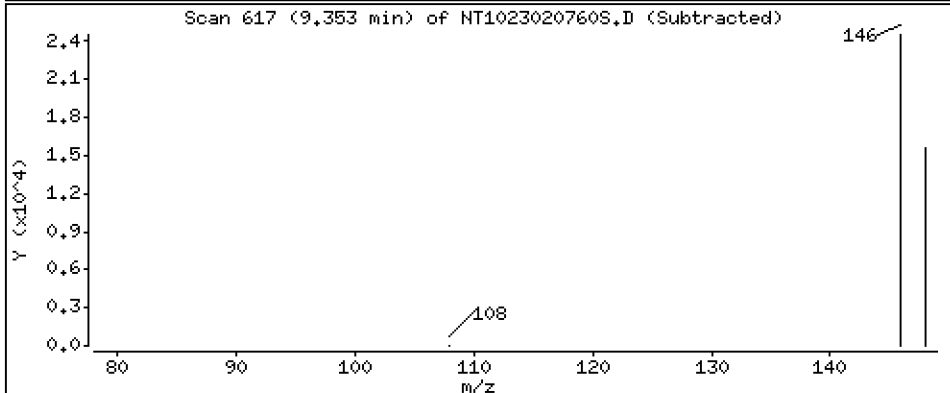
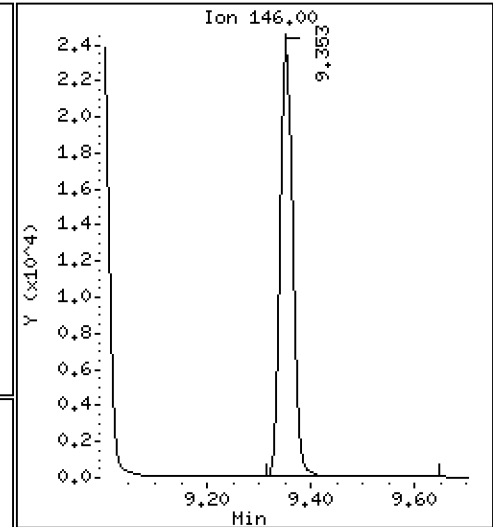
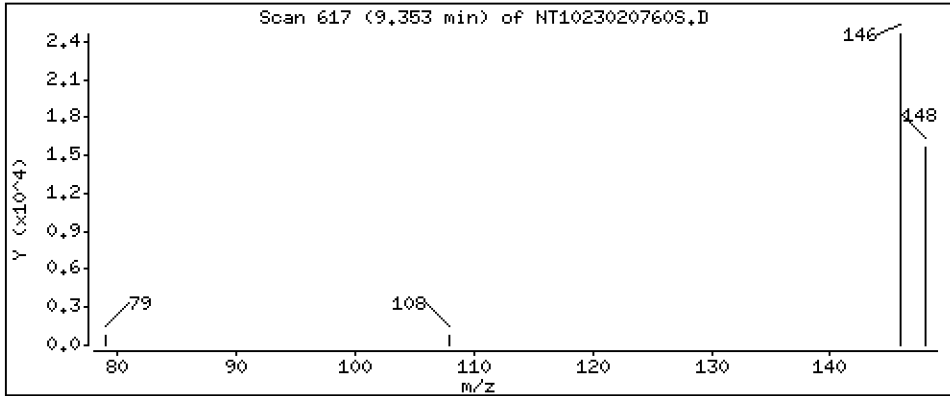
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 1.020 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

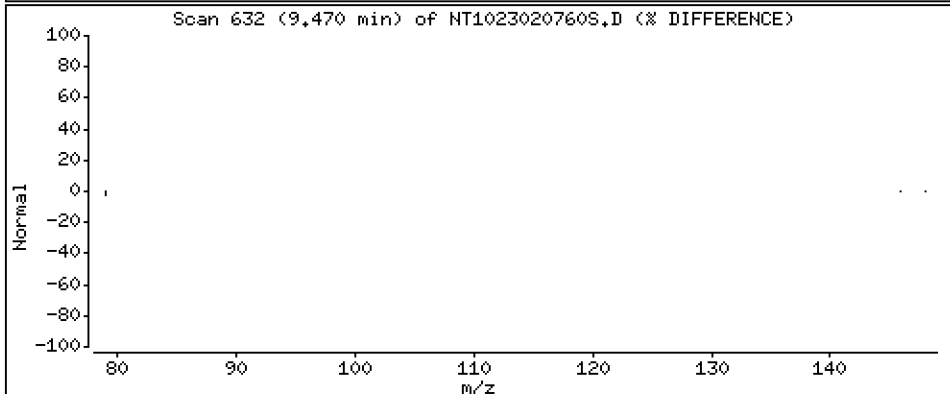
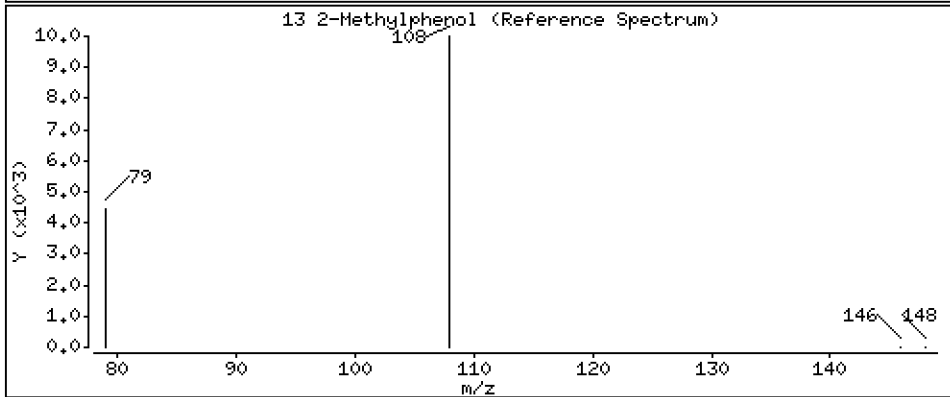
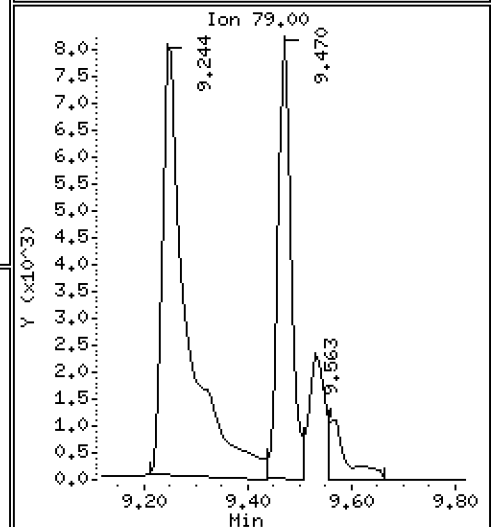
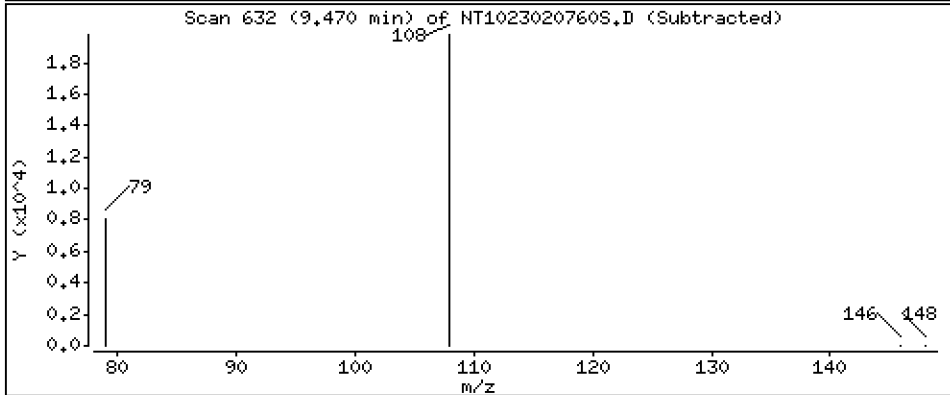
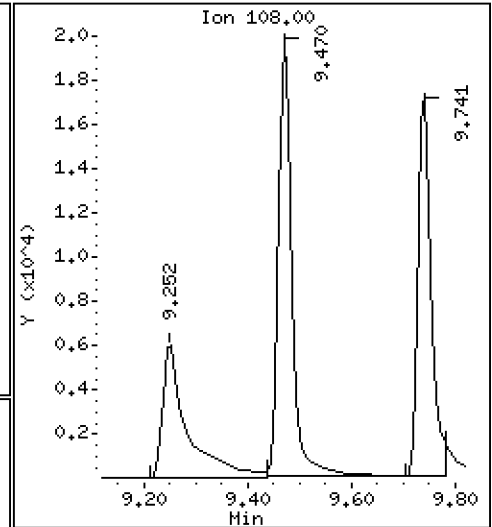
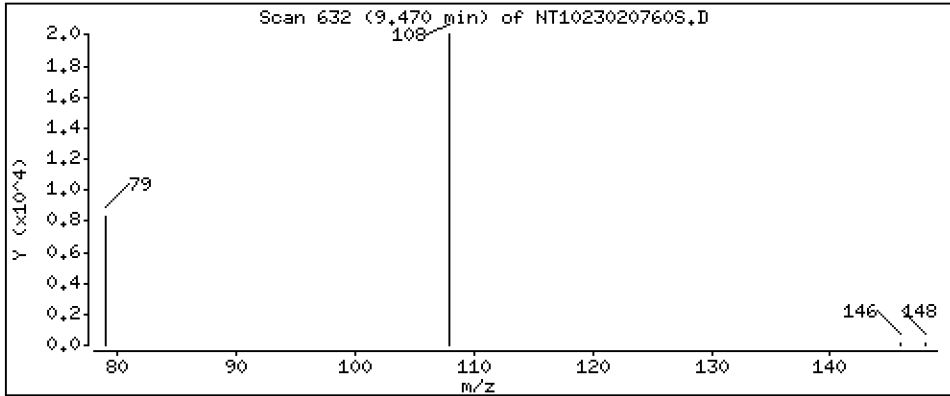
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 1.129 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

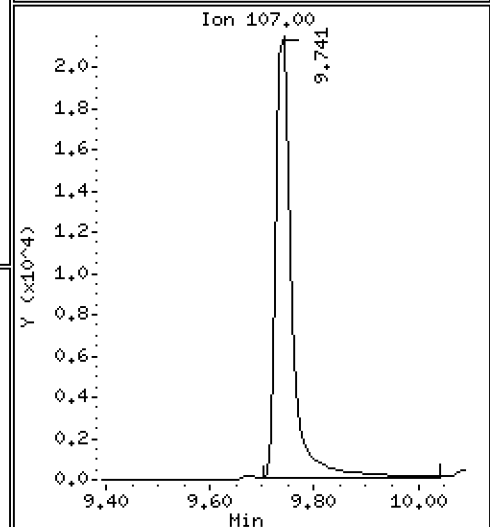
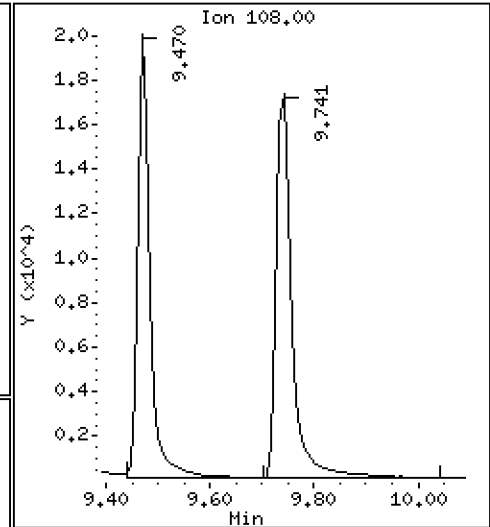
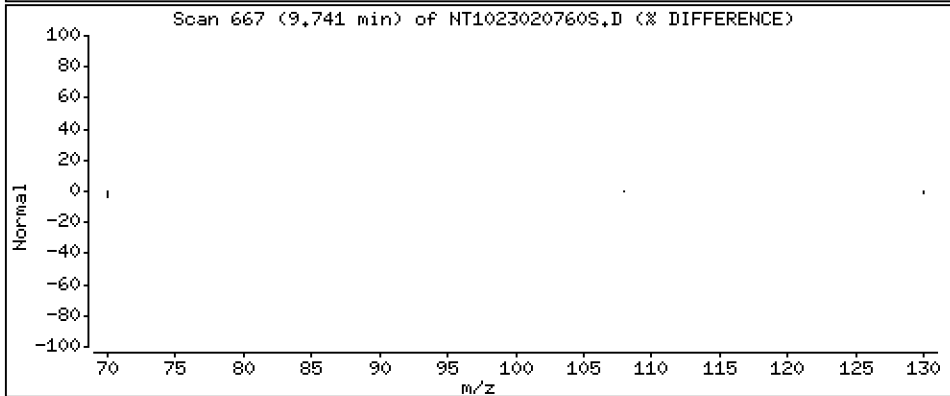
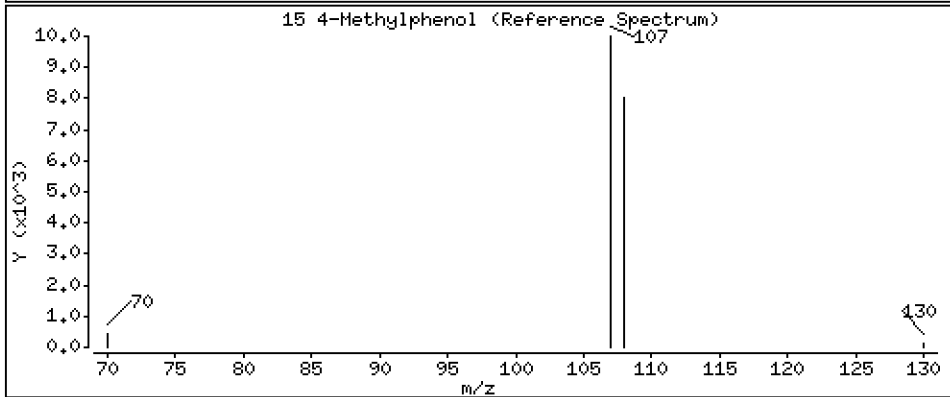
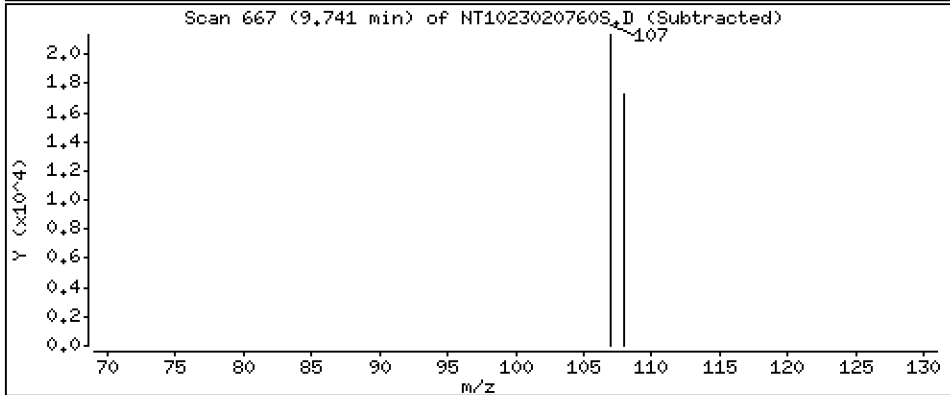
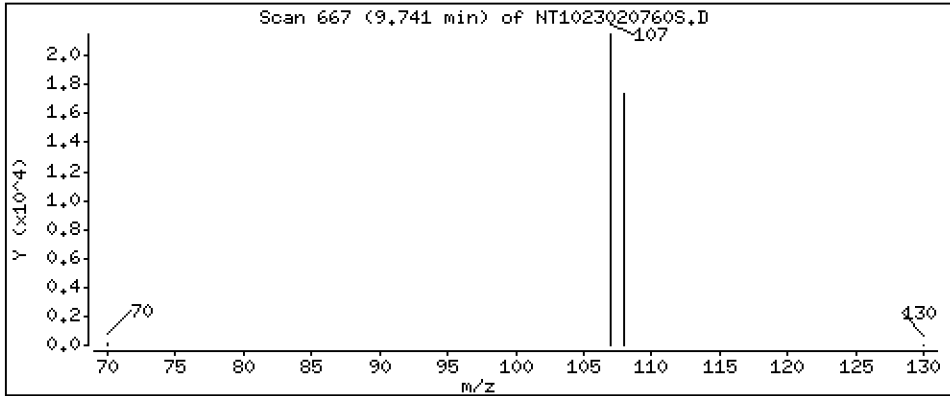
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 1.131 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

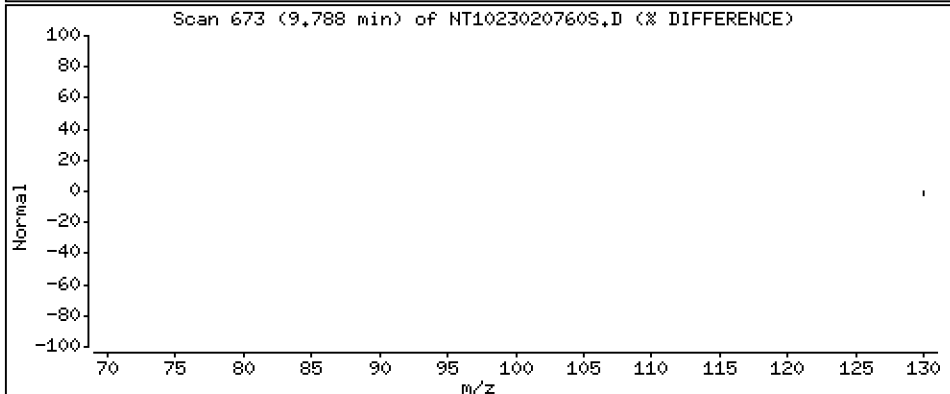
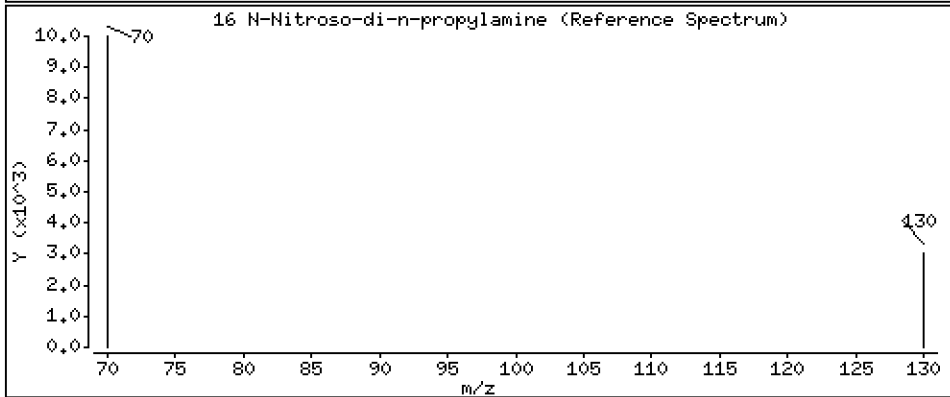
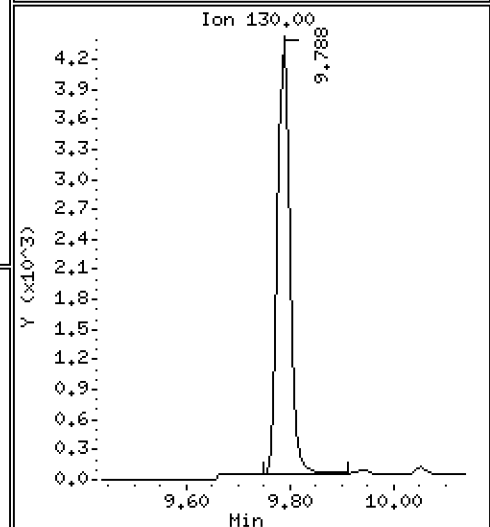
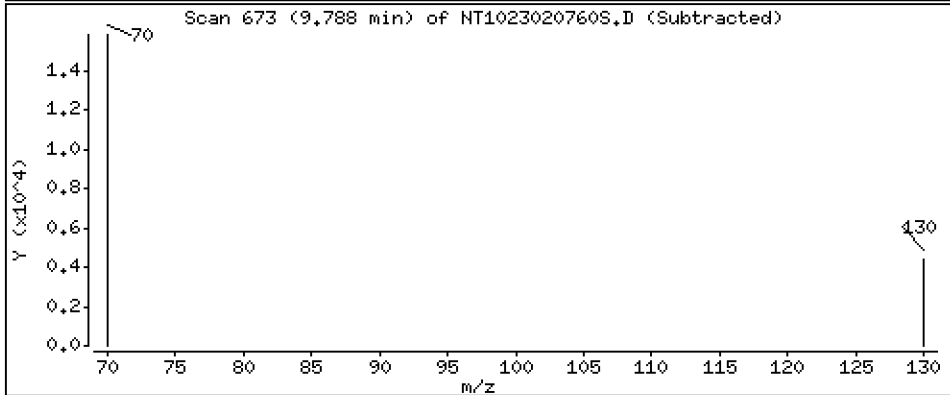
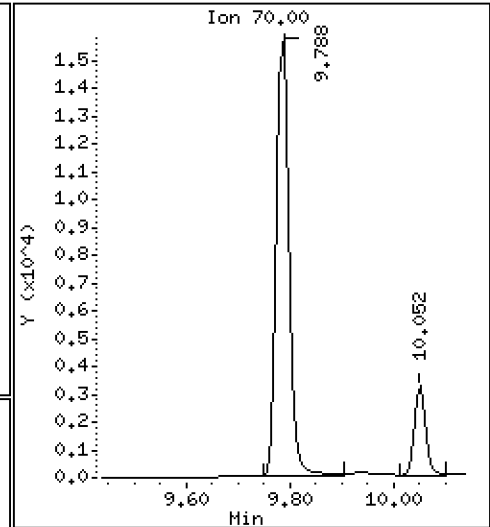
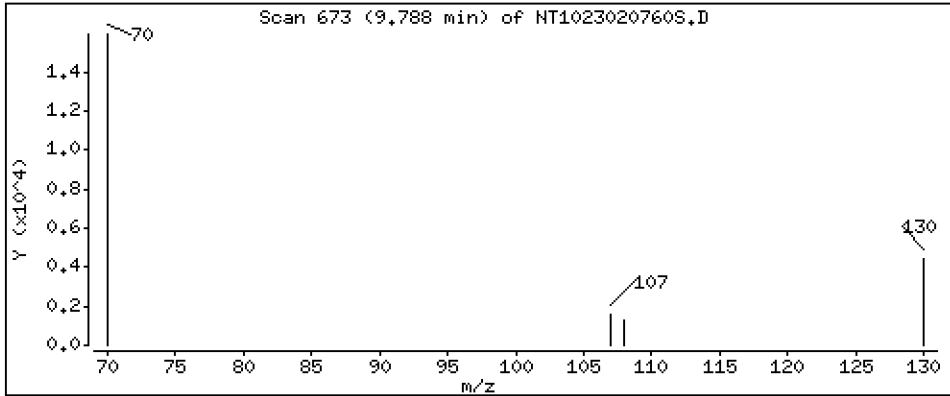
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 1.154 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

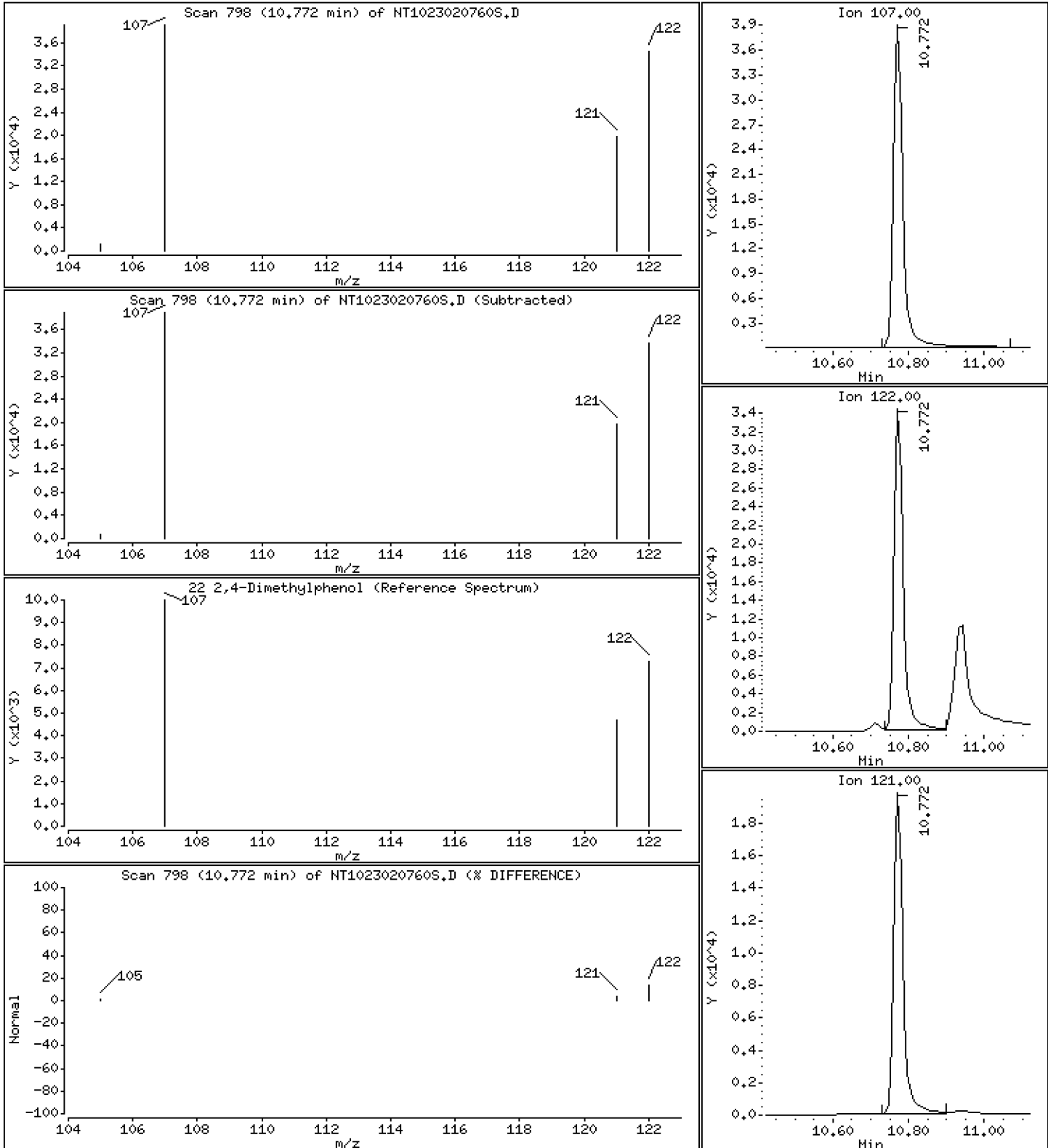
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 2,232 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

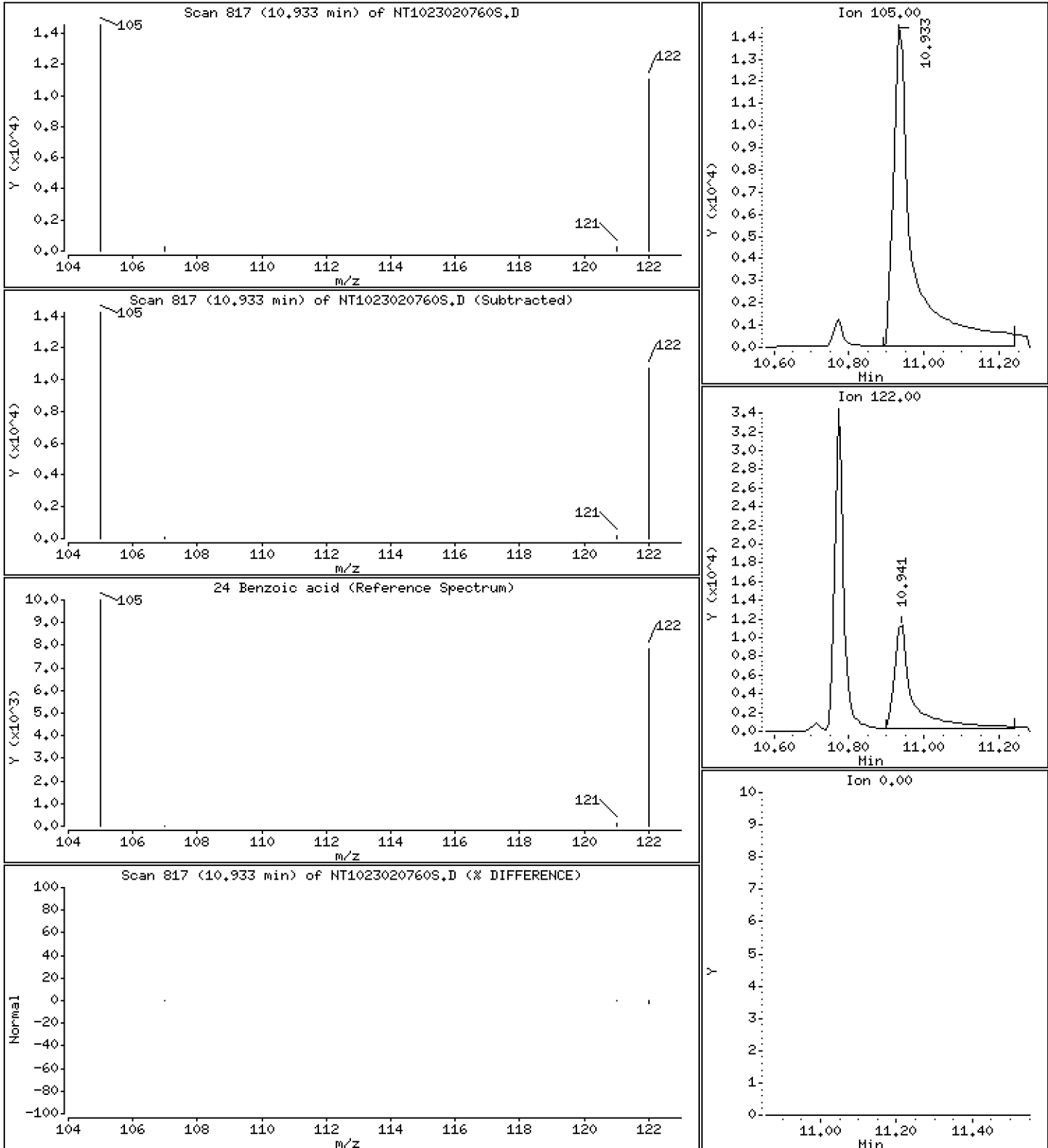
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

24 Benzoic acid

Concentration: 3,565 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

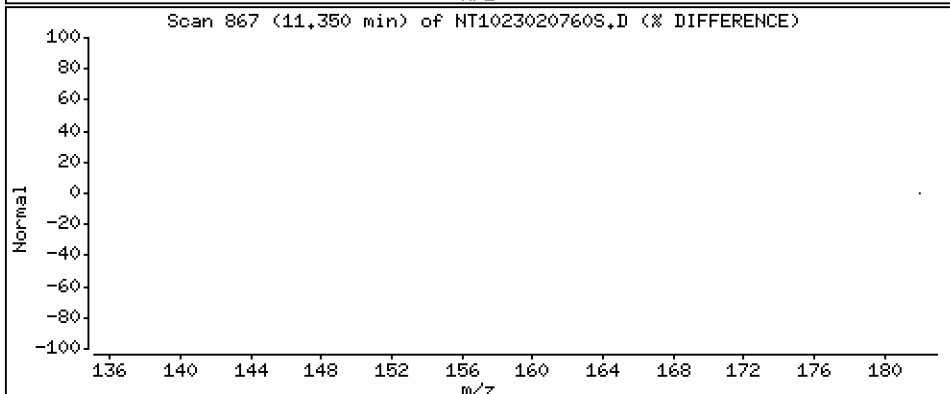
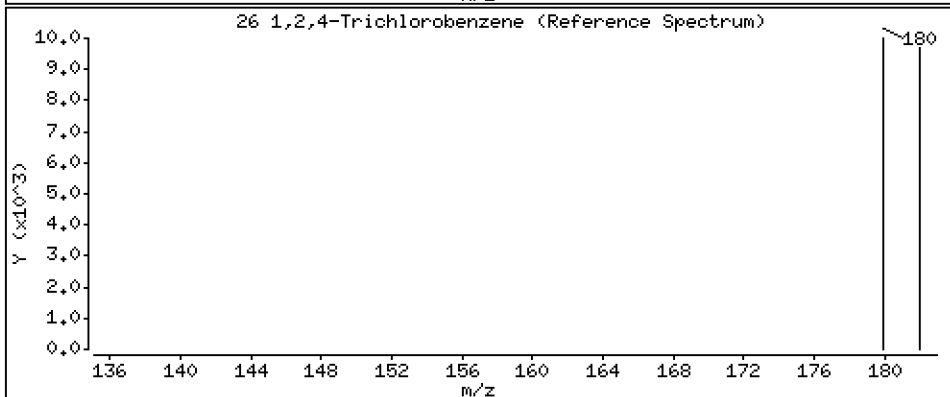
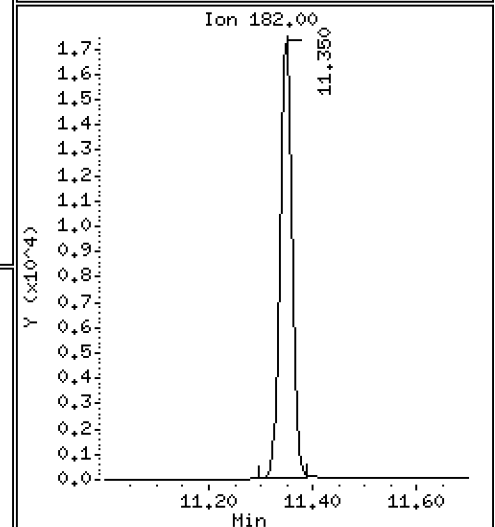
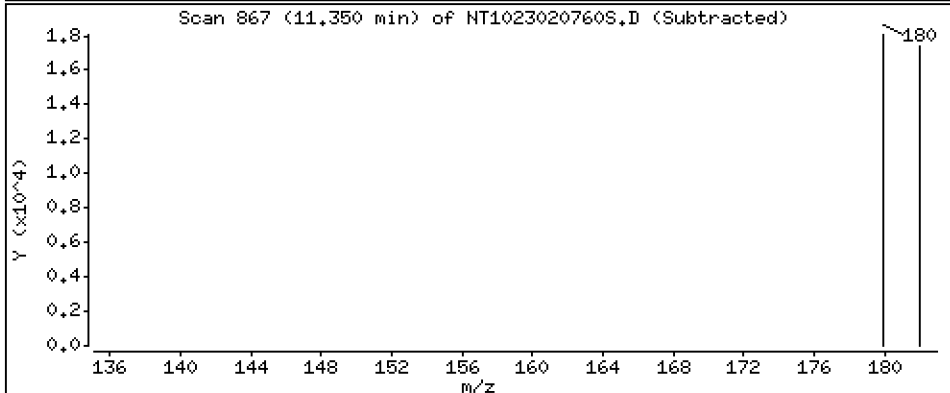
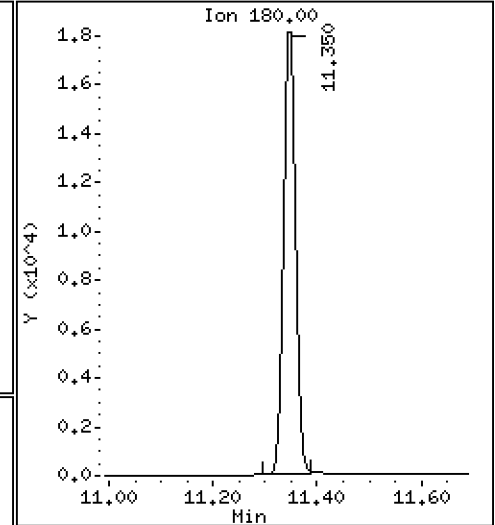
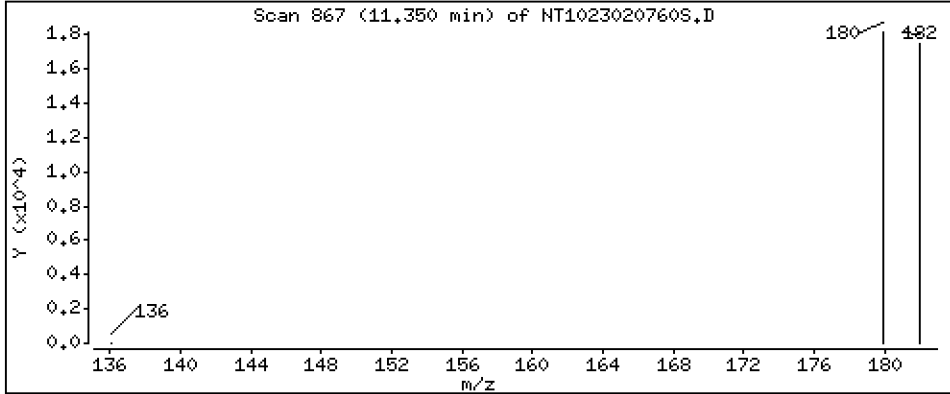
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 1.063 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

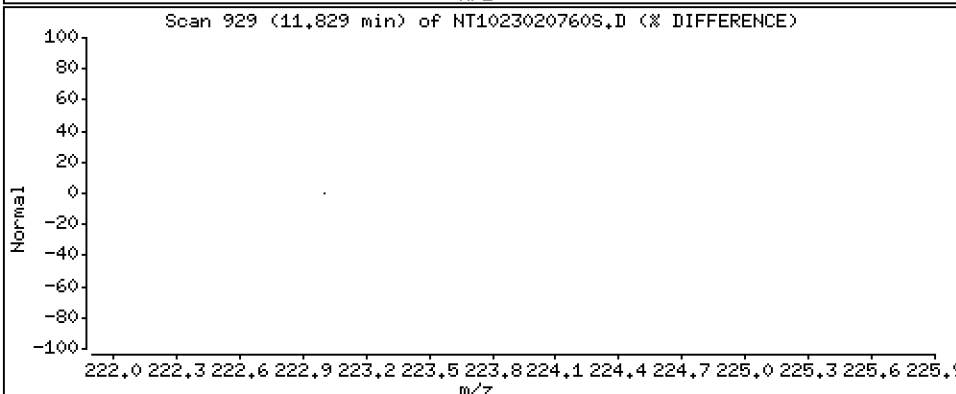
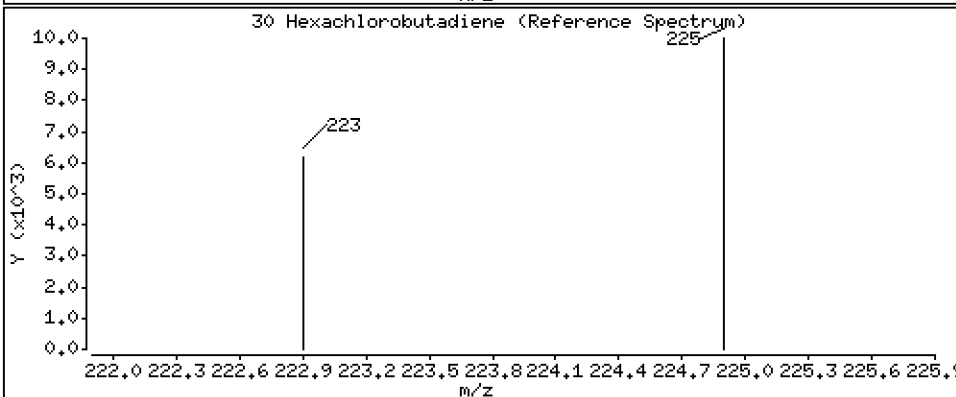
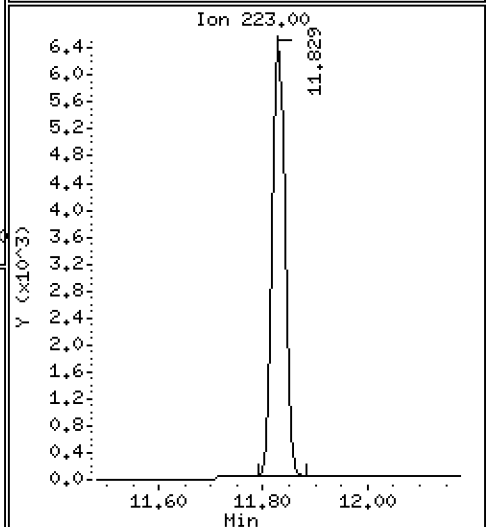
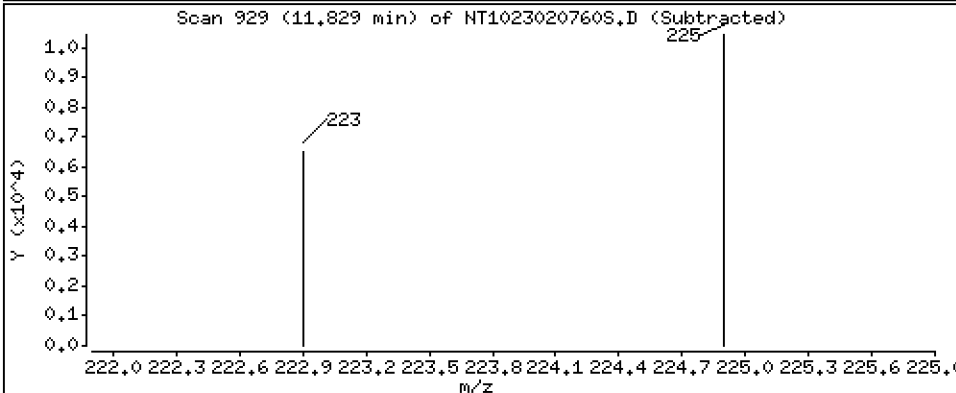
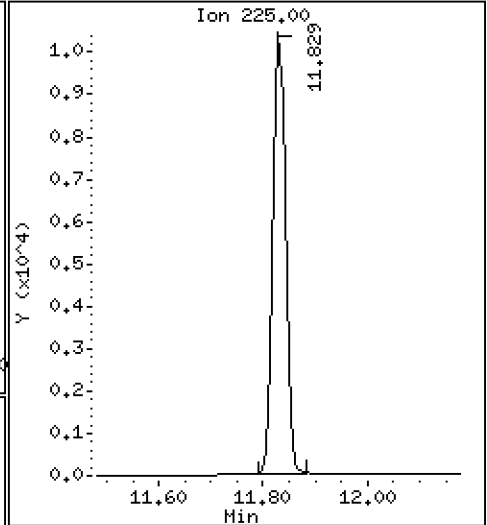
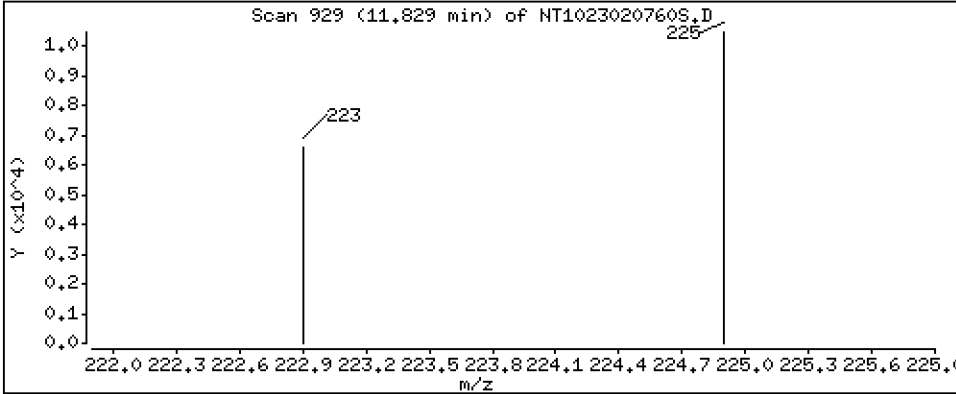
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

30 Hexachlorobutadiene

Concentration: 1.051 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

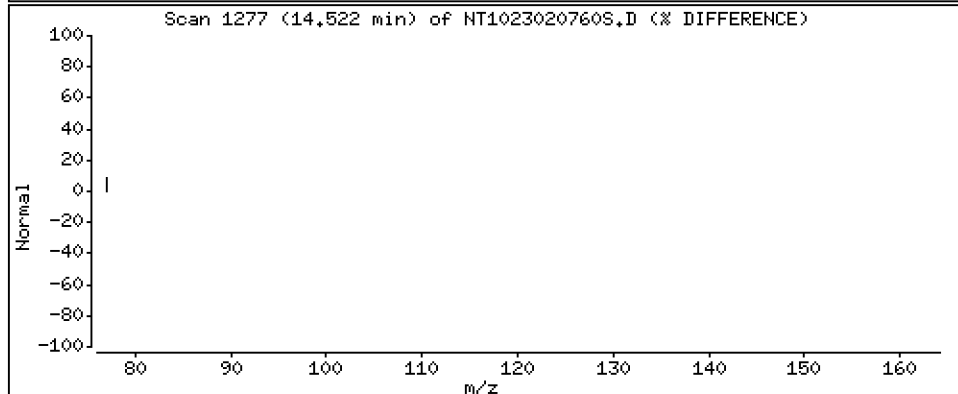
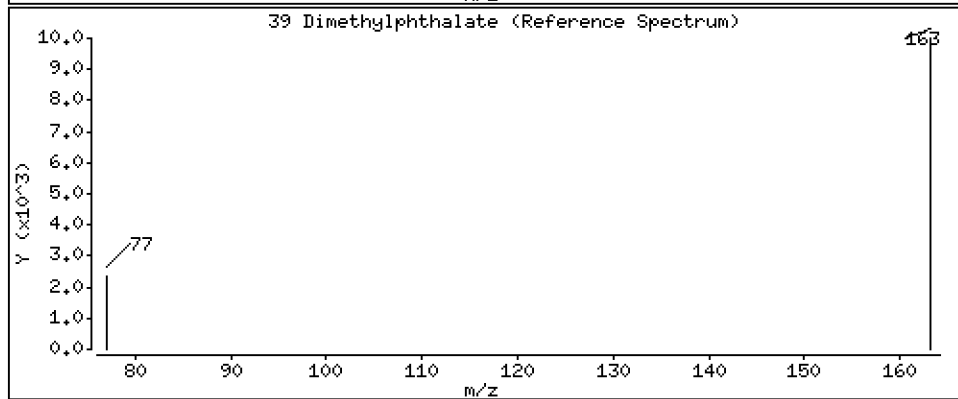
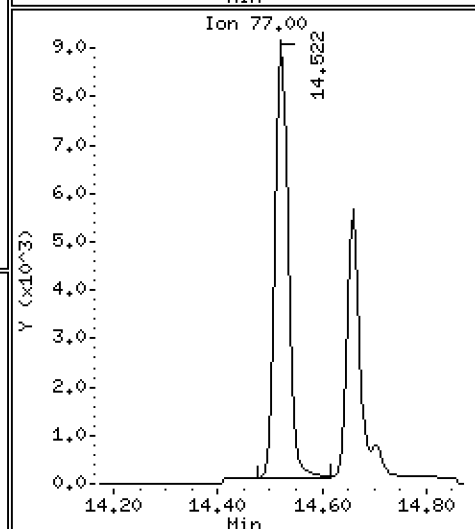
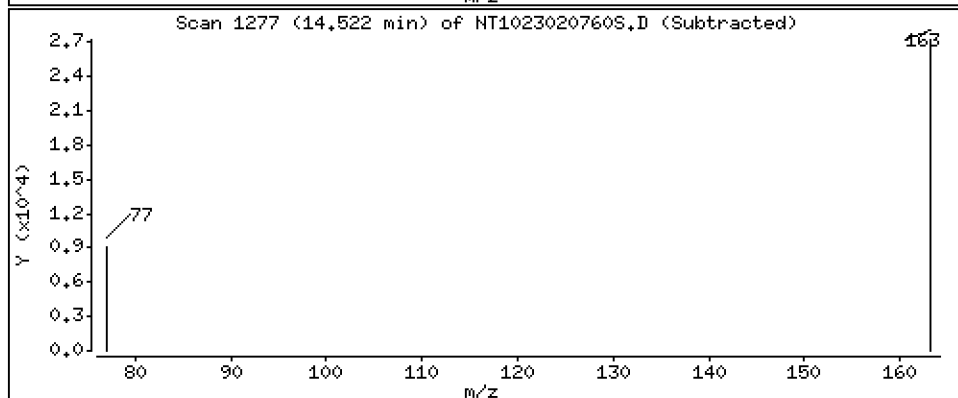
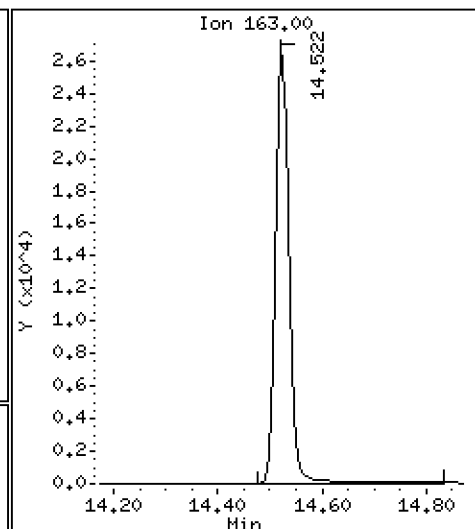
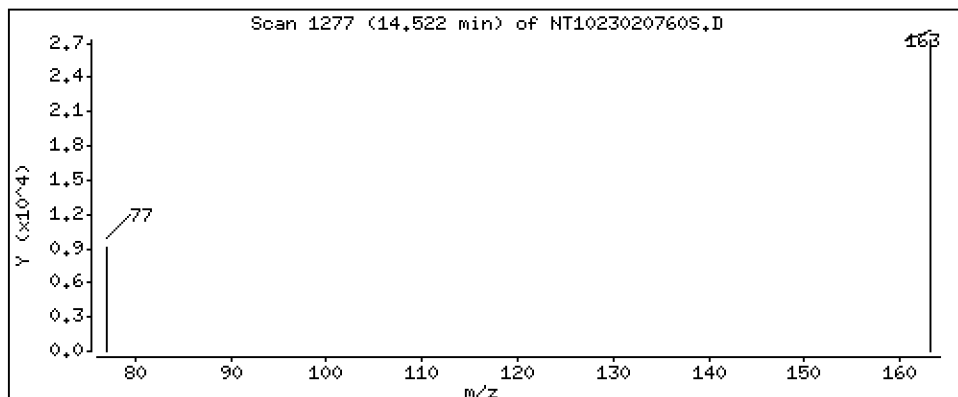
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 1,114 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

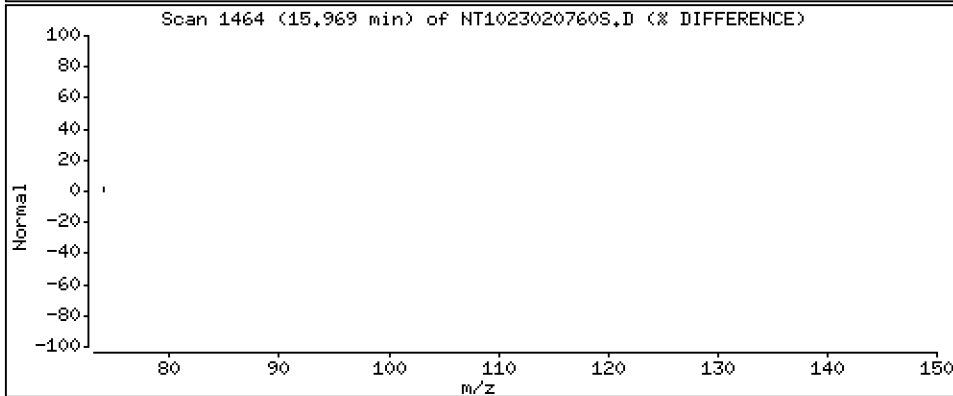
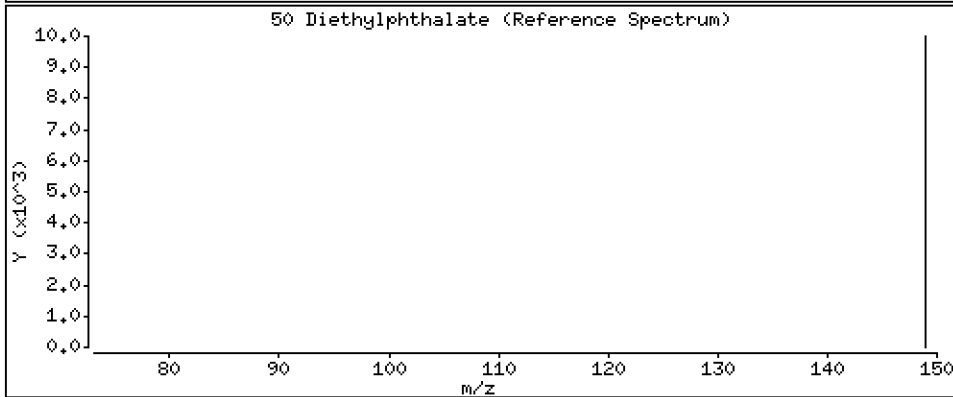
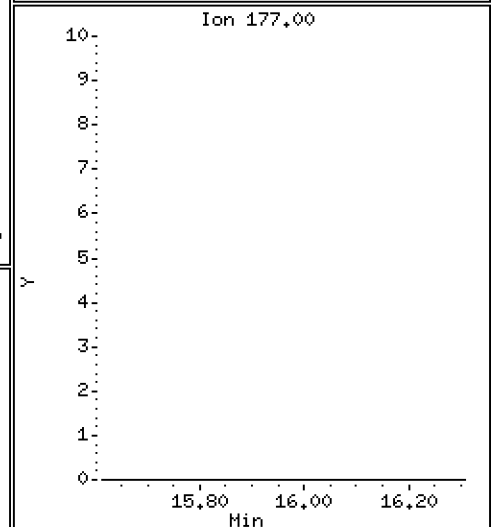
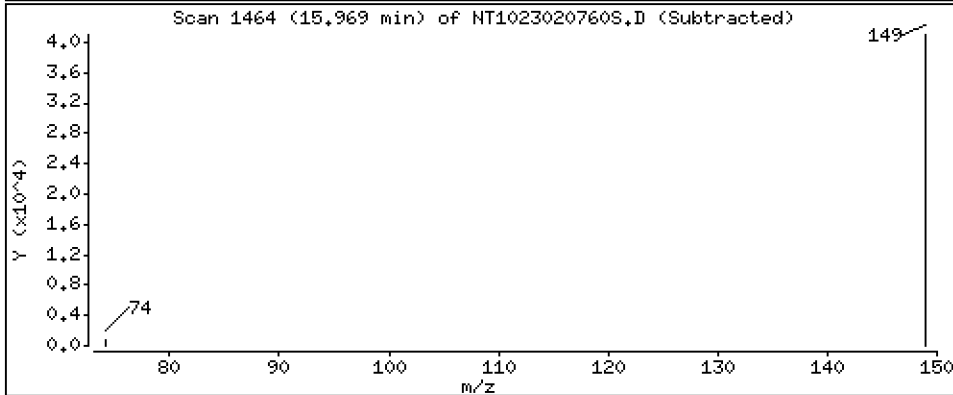
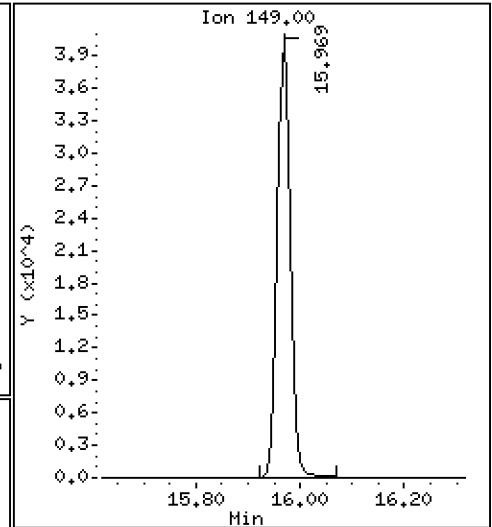
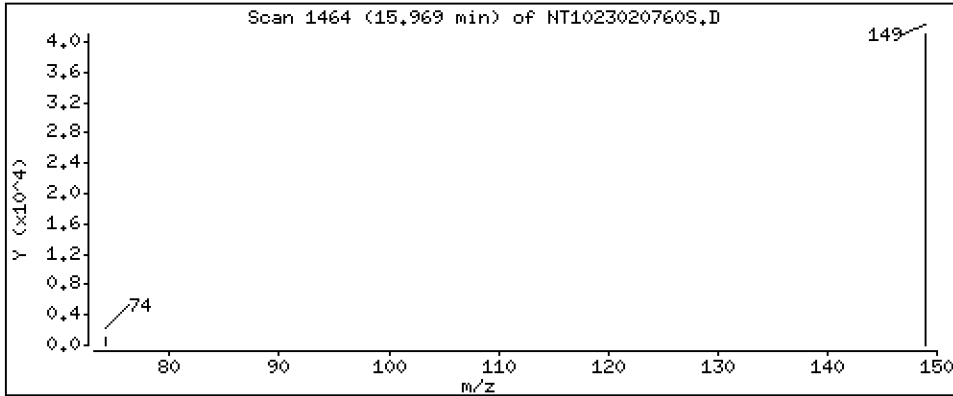
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 1,102 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

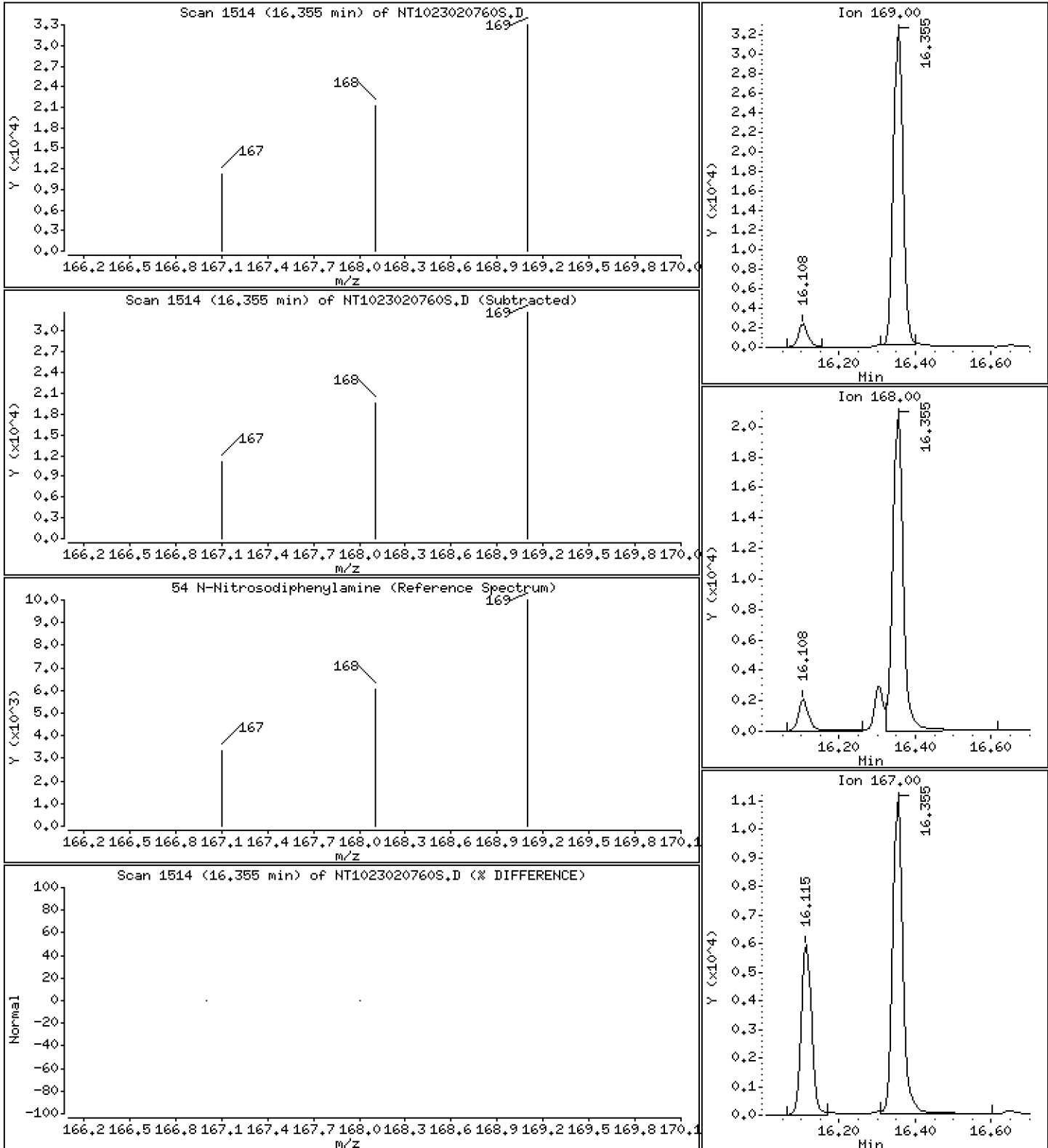
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 1.022 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

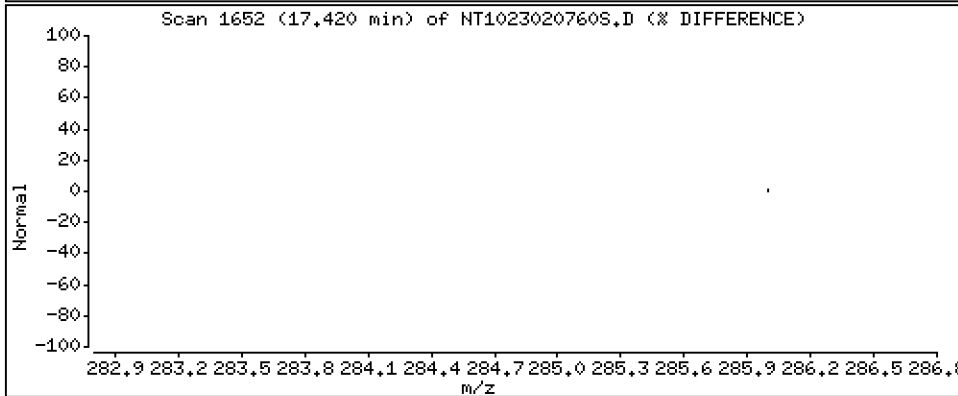
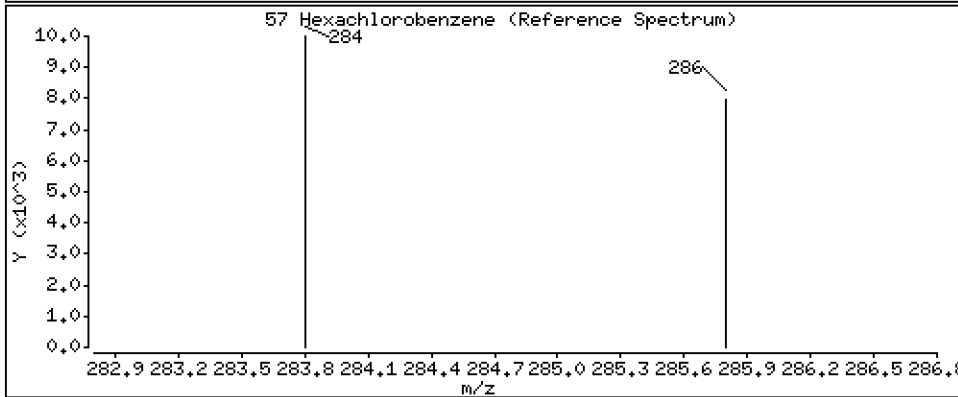
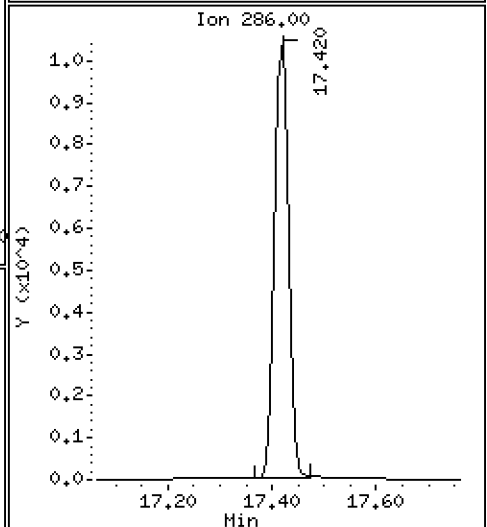
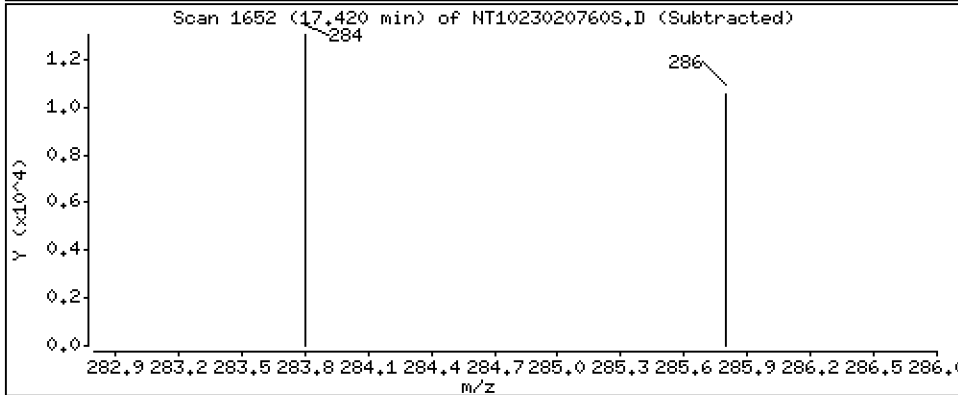
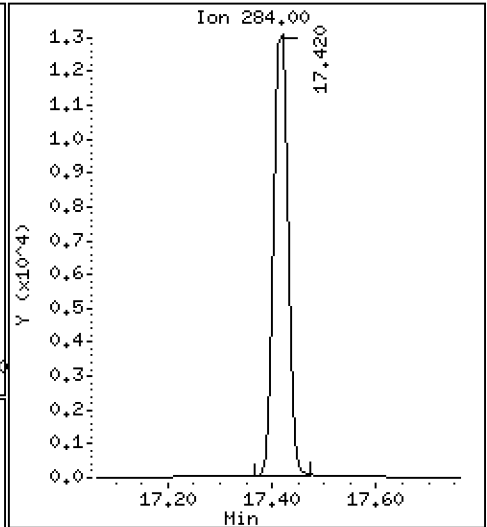
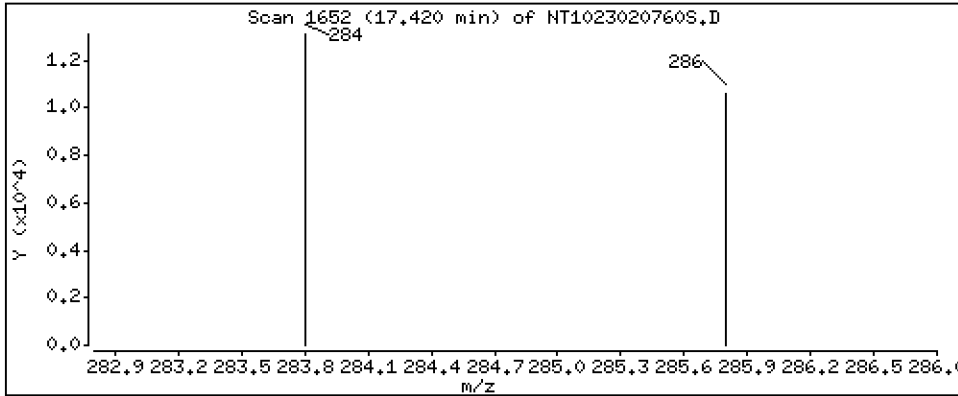
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 1.067 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

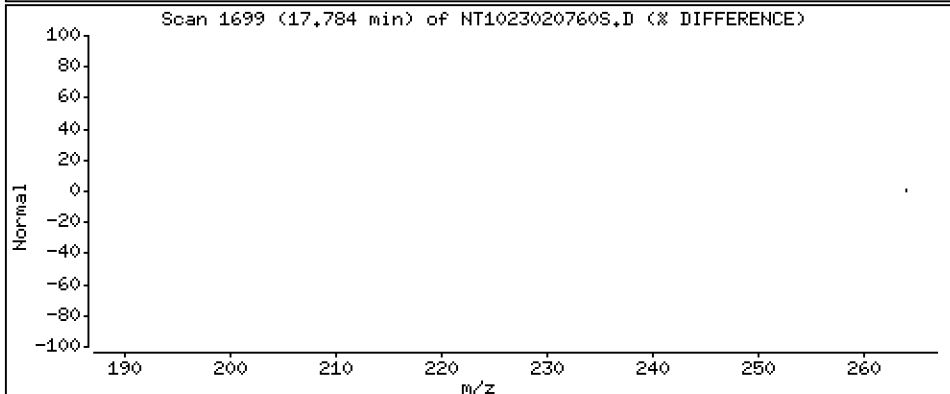
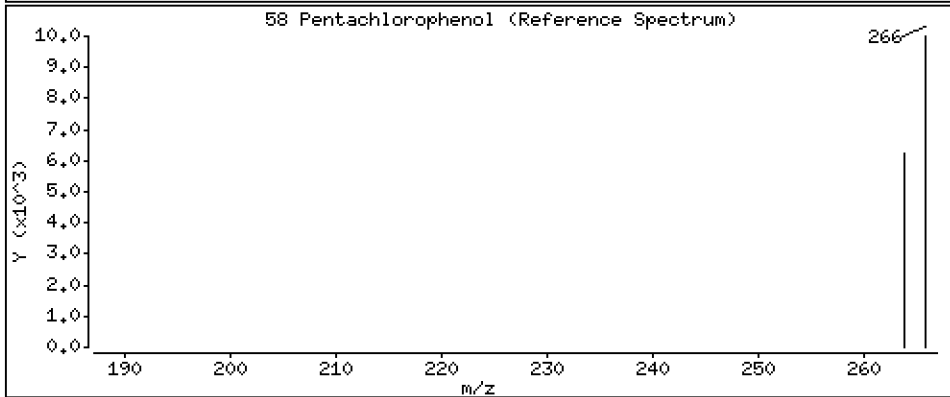
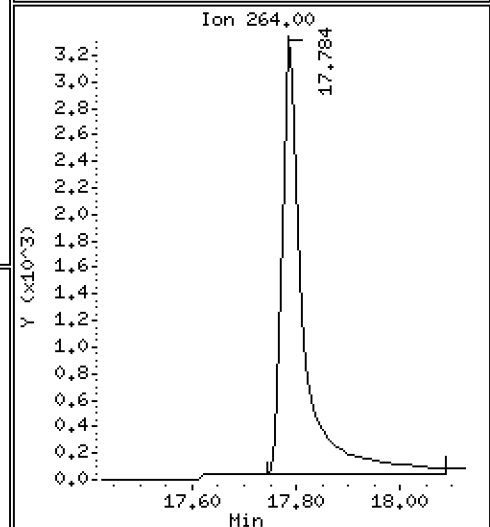
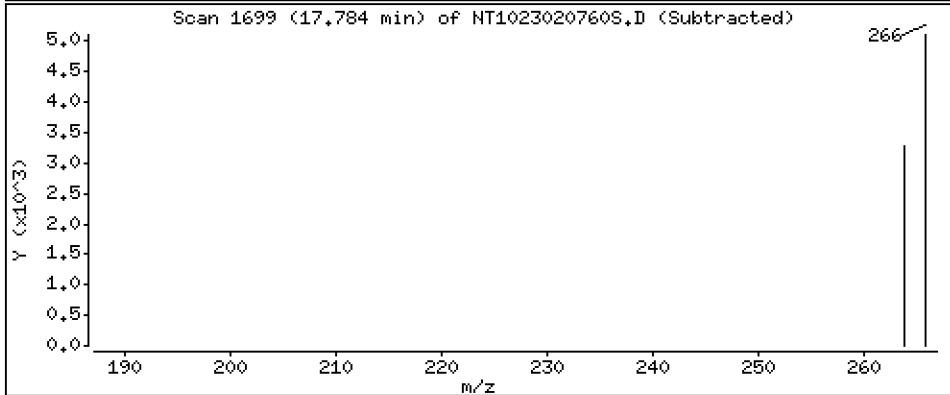
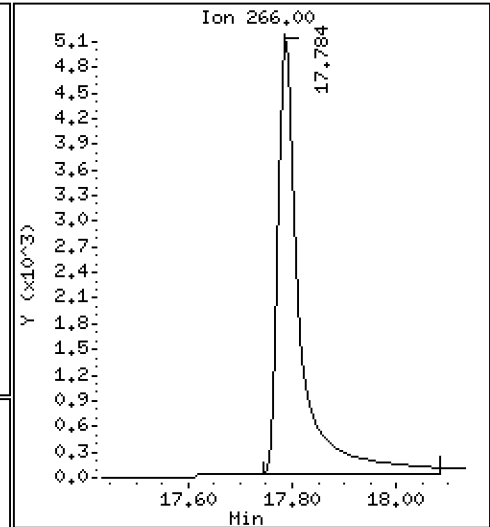
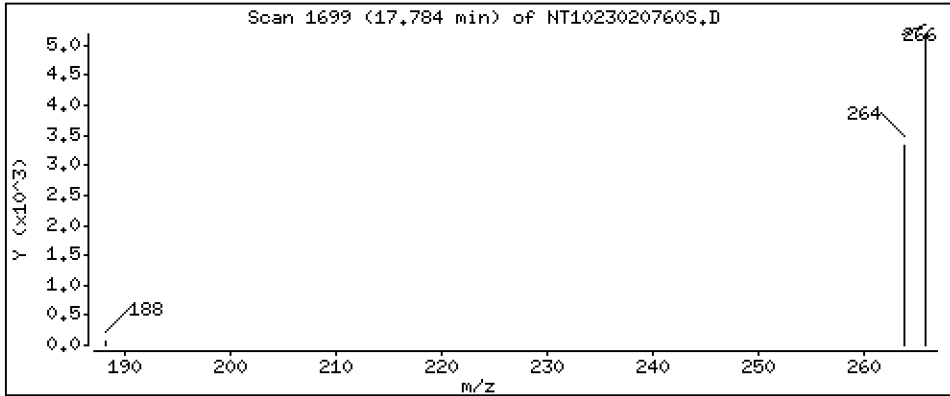
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 1,862 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

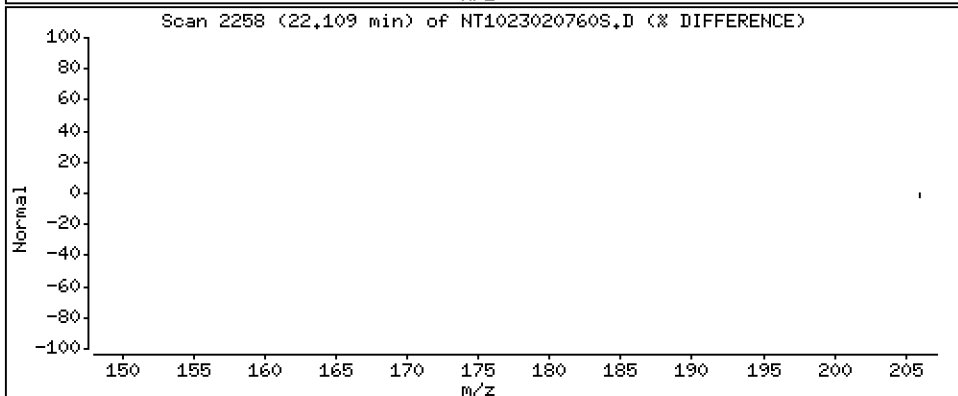
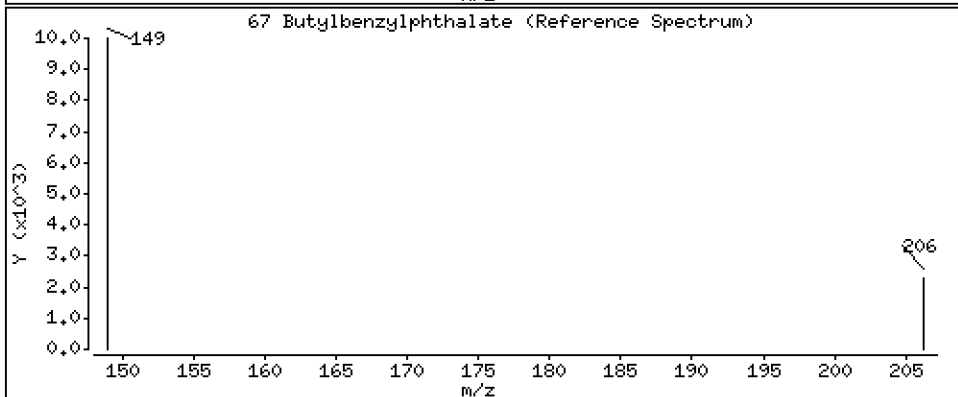
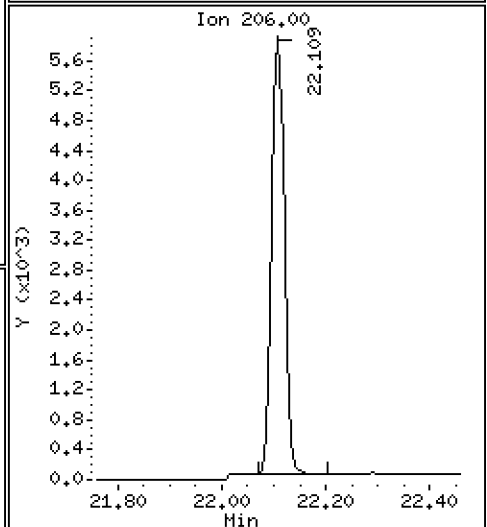
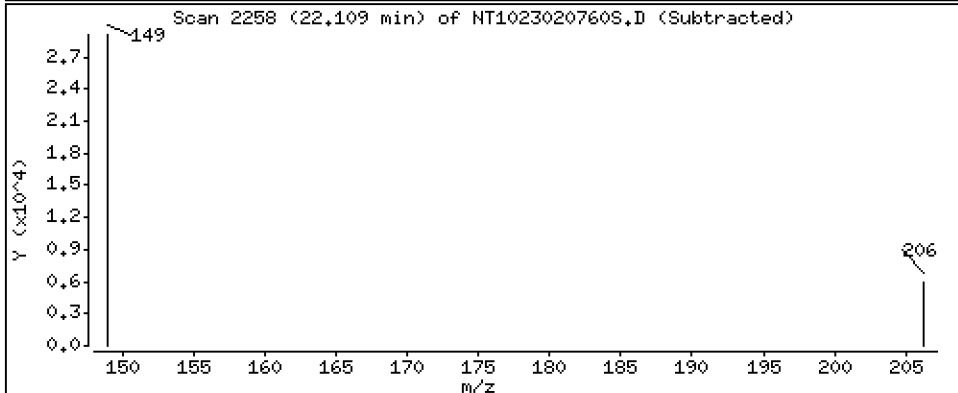
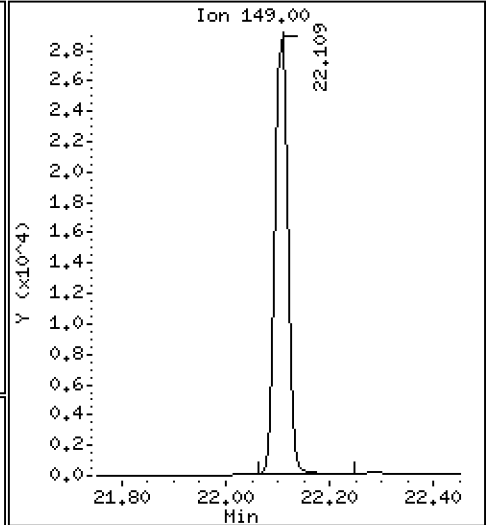
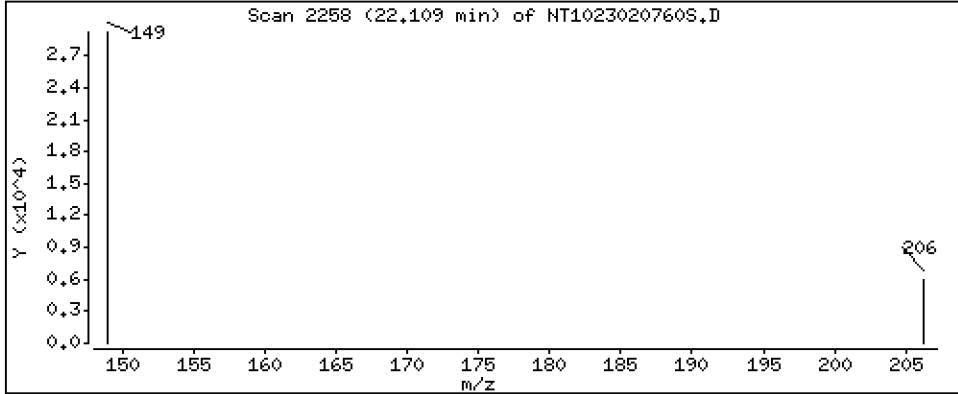
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 1.119 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

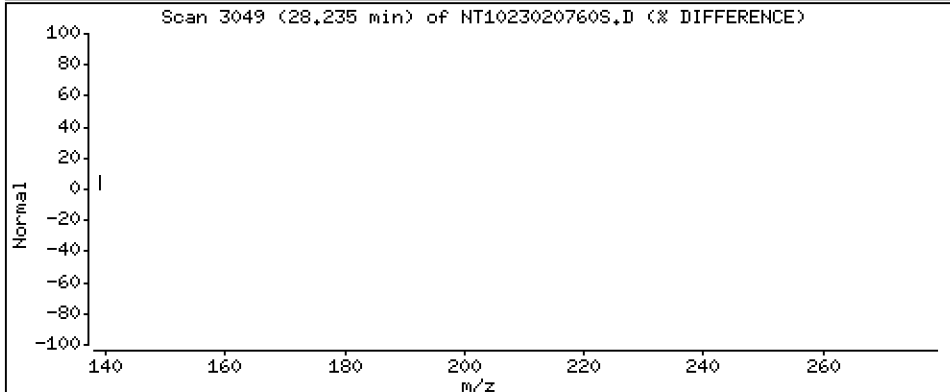
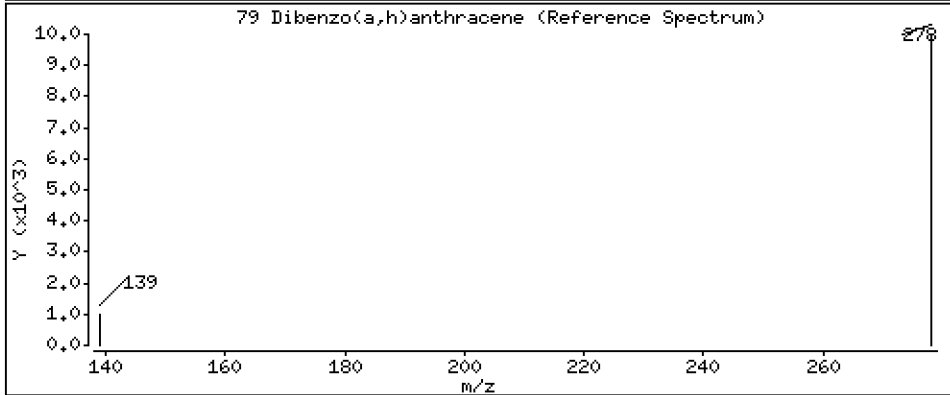
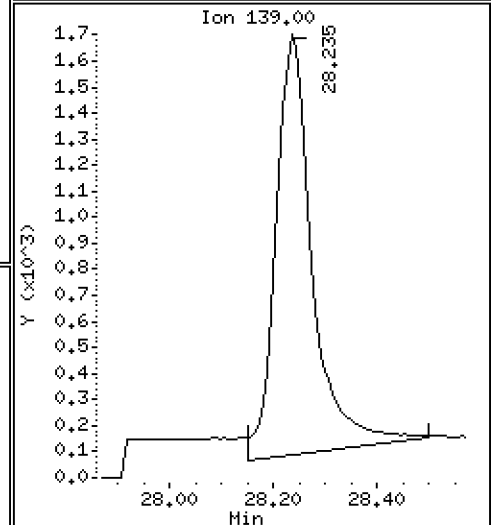
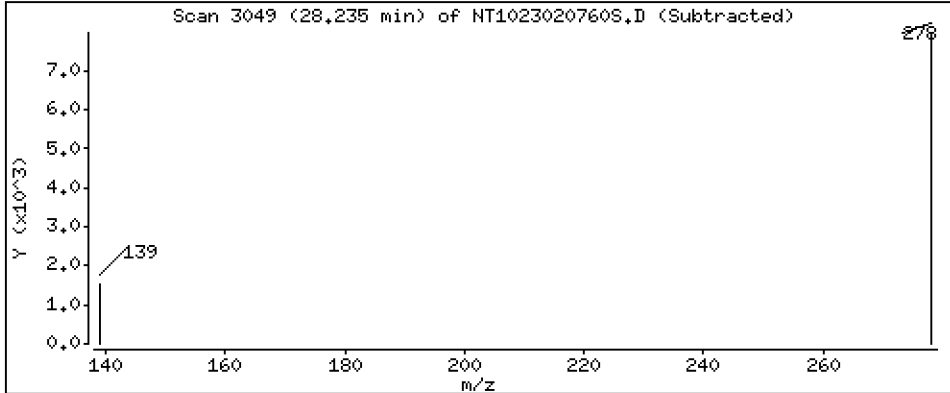
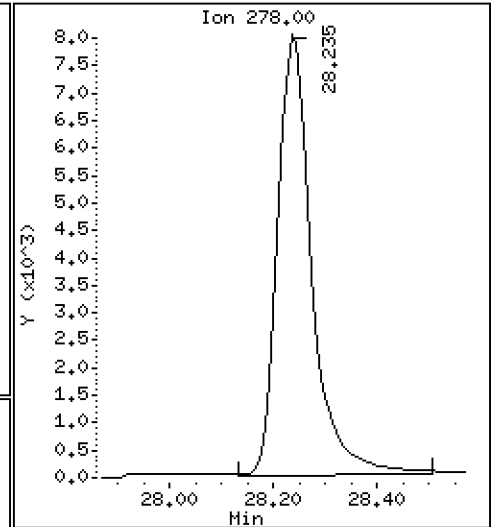
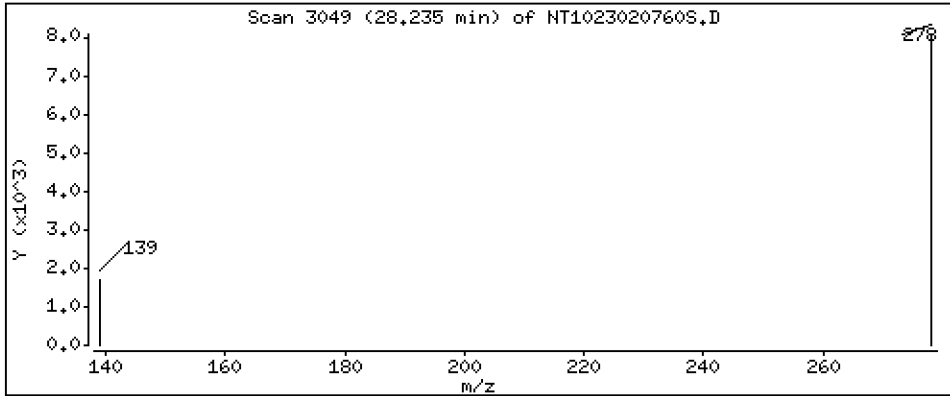
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,6091 ug/L



Date : 09-FEB-2023 01:13

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-CCV1

Volume Injected (uL): 1.0

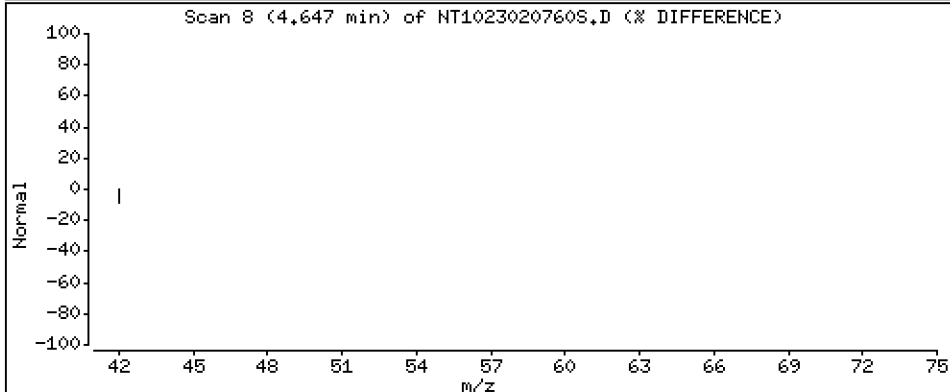
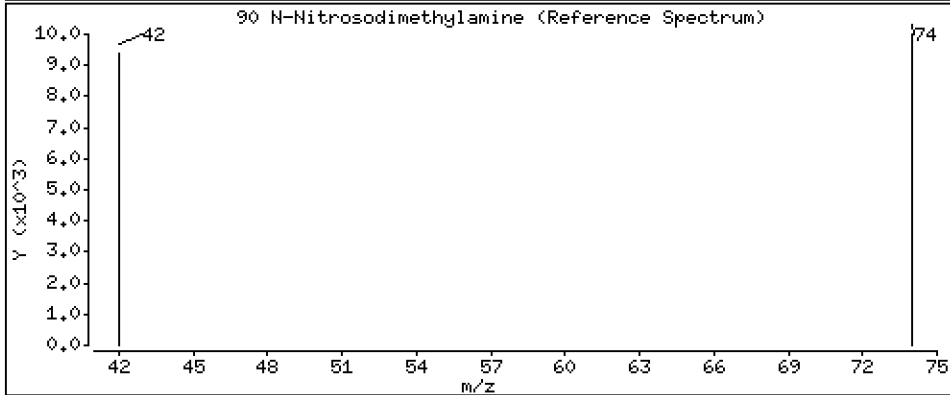
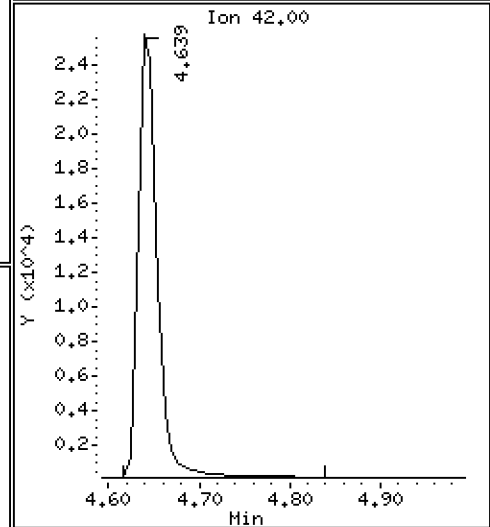
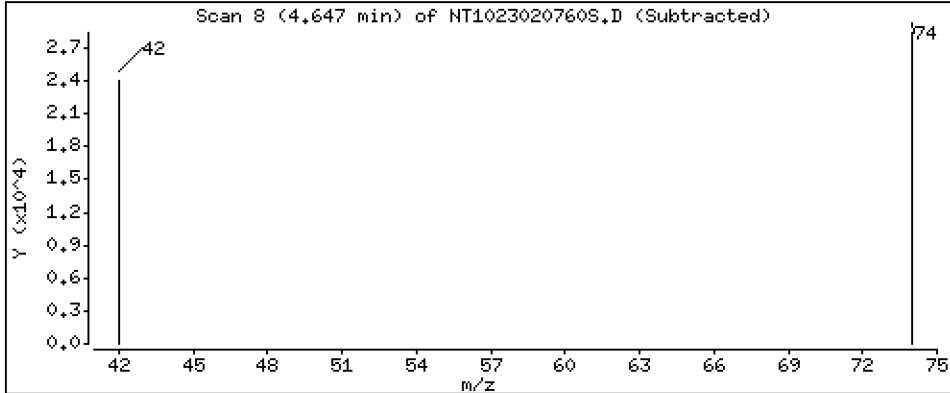
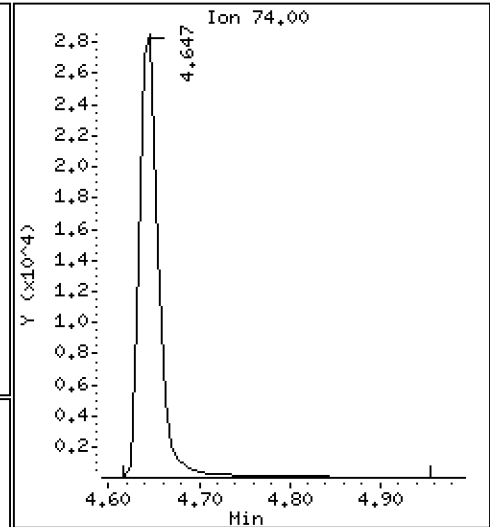
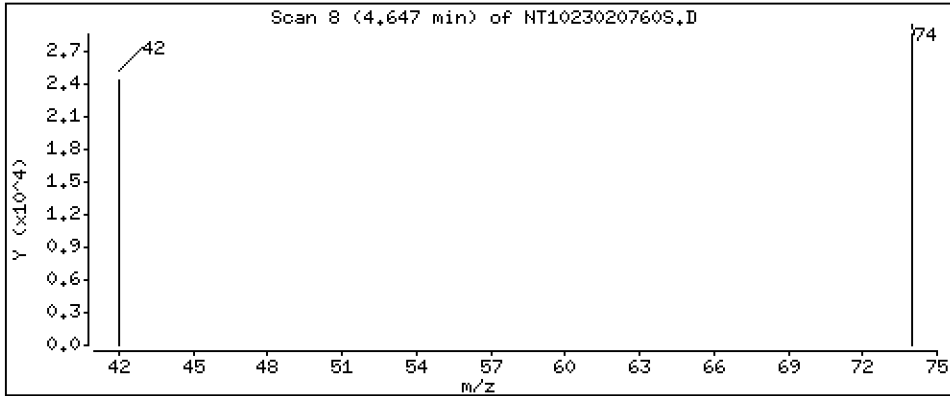
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 2,263 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020760S.D
 Lab Smp Id: SLB0106-CCV1
 Inj Date : 09-FEB-2023 01:13 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-CCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 10-Feb-2023 07:01 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: $Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
\$ 1 2-Fluorophenol	112		6.785	6.785	(0.756)	47805	1.63814	1.638 (R)
3 Phenol	94		8.369	8.369	(0.933)	47454	1.07841	1.078
7 1,3-Dichlorobenzene	146		8.910	8.910	(0.993)	40441	1.02052	1.021
* 8 1,4-Dichlorobenzene-d4	152		8.972	8.972	(1.000)	95964	4.00000	
9 1,4-Dichlorobenzene	146		9.003	9.003	(1.003)	39202	1.01182	1.012
11 Benzyl alcohol	79		9.244	9.244	(1.030)	25933	1.20807	1.208
12 1,2-Dichlorobenzene	146		9.353	9.353	(1.042)	38553	1.01953	1.020
13 2-Methylphenol	108		9.469	9.469	(1.055)	33919	1.12909	1.129
15 4-Methylphenol	108		9.741	9.741	(1.086)	34640	1.13054	1.131
16 N-Nitroso-di-n-propylamine	70		9.787	9.787	(1.091)	25241	1.15398	1.154
22 2,4-Dimethylphenol	107		10.771	10.771	(0.943)	68775	2.23240	2.232
24 Benzoic acid	105		10.932	10.932	(0.957)	51739	3.56515	3.565
26 1,2,4-Trichlorobenzene	180		11.350	11.342	(0.993)	30704	1.06327	1.063
* 27 Naphthalene-d8	136		11.427	11.427	(1.000)	350716	4.00000	
30 Hexachlorobutadiene	225		11.829	11.829	(1.035)	16578	1.05149	1.051
39 Dimethylphthalate	163		14.522	14.522	(0.967)	45176	1.11377	1.114
* 42 Acenaphthene-d10	162		15.017	15.017	(1.000)	174033	4.00000	
50 Diethylphthalate	149		15.968	15.968	(1.063)	67321	1.10206	1.102
54 N-Nitrosodiphenylamine	169		16.354	16.354	(0.907)	53640	1.02219	1.022
57 Hexachlorobenzene	284		17.419	17.411	(0.966)	23824	1.06678	1.067

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	17.783	17.783	(0.986)	14698	1.86225	1.862
* 59 Phenanthrene-d10	188	18.031	18.031	(1.000)	317531	4.00000	
\$ 66 Terphenyl-d14	244	21.180	21.180	(0.917)	71463	1.15239	1.152 (R)
67 Butylbenzylphthalate	149	22.109	22.101	(0.958)	46896	1.11877	1.119
* 69 Chrysene-d12	240	23.084	23.084	(1.000)	279383	4.00000	
* 77 Perylene-d12	264	25.655	25.647	(1.000)	215378	4.00000	
79 Dibenzo(a,h)anthracene	278	28.235	28.219	(1.101)	36766	0.60910	0.6091
90 N-Nitrosodimethylamine	74	4.646	4.646	(0.518)	43269	2.26260	2.263

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020760S.D
 Lab Smp Id: SLB0106-CCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 08-FEB-2023
 Calibration Time: 18:52
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	95705	47853	191410	95964	0.27
27 Naphthalene-d8	353101	176551	706202	350716	-0.68
42 Acenaphthene-d10	170881	85441	341762	174033	1.84
59 Phenanthrene-d10	321878	160939	643756	317531	-1.35
69 Chrysene-d12	279976	139988	559952	279383	-0.21
77 Perylene-d12	238134	119067	476268	215378	-9.56

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.97	0.00
27 Naphthalene-d8	11.43	10.93	11.93	11.43	0.00
42 Acenaphthene-d10	15.02	14.52	15.52	15.02	0.00
59 Phenanthrene-d10	18.03	17.53	18.53	18.03	0.00
69 Chrysene-d12	23.08	22.58	23.58	23.08	0.00
77 Perylene-d12	25.65	25.15	26.15	25.66	0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020760S.D

Lab ID: SLB0106-CCV1

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

09-FEB-2023 01:13

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: 20230207.b/NT1023020750S.D

On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *



**LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GB00019</u>
Lab File ID:	<u>NT1023020715S.D</u>	Calibration Date:	<u>02/07/2023</u>
Sequence:	<u>SLB0106</u>	Injection Date:	<u>02/07/23</u>
Lab Sample ID:	<u>SLB0106-LCV1</u>	Injection Time:	<u>20:36</u>
Sequence Name:	<u>LCV 0.1</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	0.10000	0.1	1.6149400	1.8168290		5.8	
1,2-Dichlorobenzene	A	0.10000	0.1	1.5761980	1.7578730		5.4	
Benzyl Alcohol	A	0.10000	0.07	0.8947729	0.6911245		-26.2	
Benzoic acid	A	0.40000	0.0	0.1278126				
2,4-Dimethylphenol	A	0.20000	0.2	0.3513679	0.3816480		8.6	
1,2,4-Trichlorobenzene	A	0.10000	0.1	0.3293471	0.3688736		12.0	
N-Nitrosodiphenylamine	A	0.10000	0.1	0.6610440	0.7143465		8.0	
Pentachlorophenol	A	0.20000	0.02	0.0758741	0.0102126		-89.6	
2-Fluorophenol	A	0.15000	0.147	1.2163900	1.2828220		-2.1	
p-Terphenyl-d14	A	0.10000	0.112	0.8878533	0.9943193		12.0	

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.1\NT10230207155.D

Page 1

Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.1

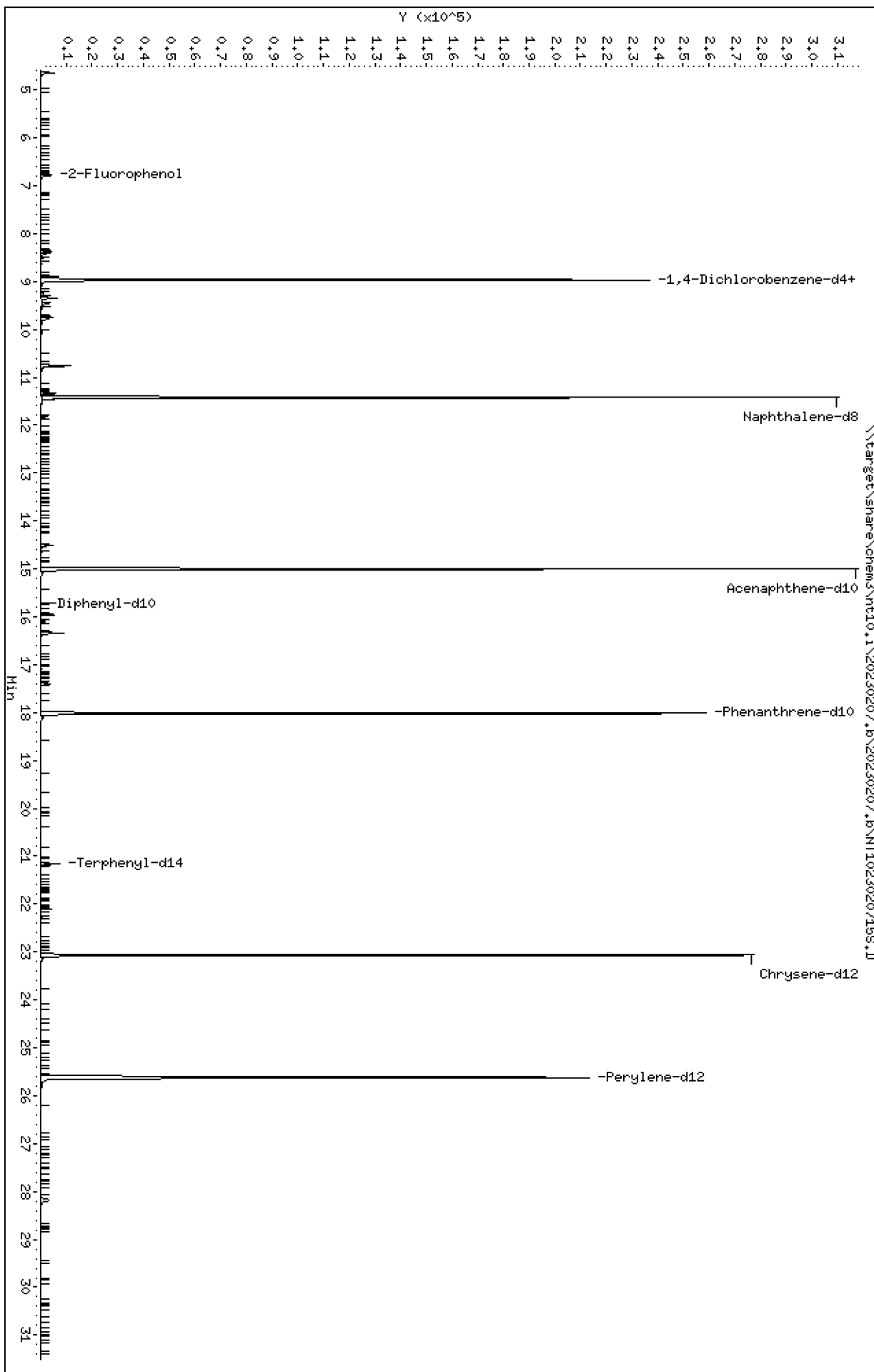
Sample Info: SLB0106-LCW1

Volume Injected (uL): 1.0

Operator: USD

Column phase: ZB-5msi

Column diameter: 0.25



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

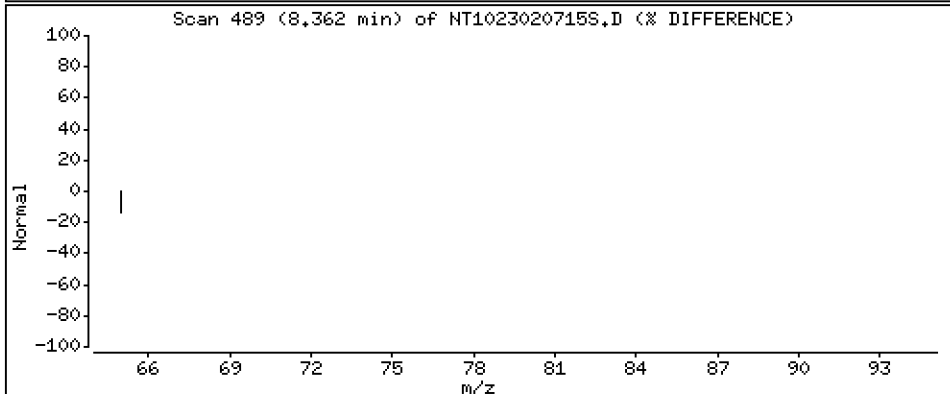
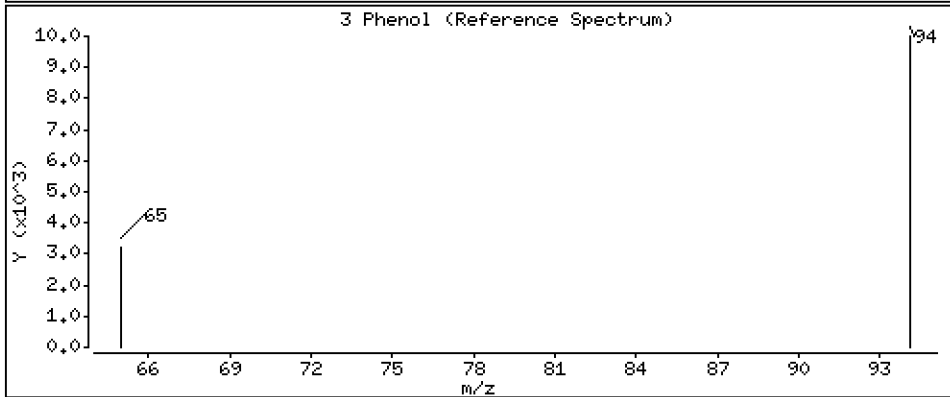
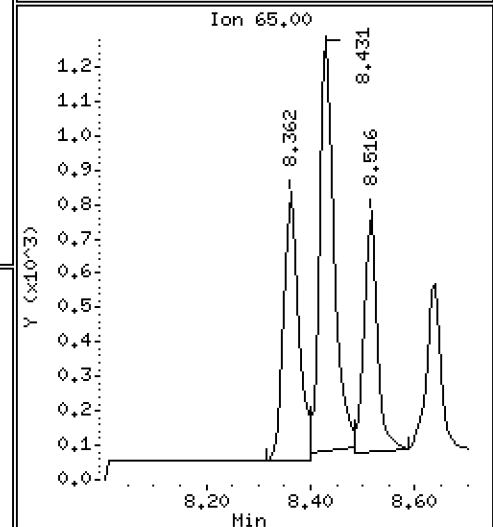
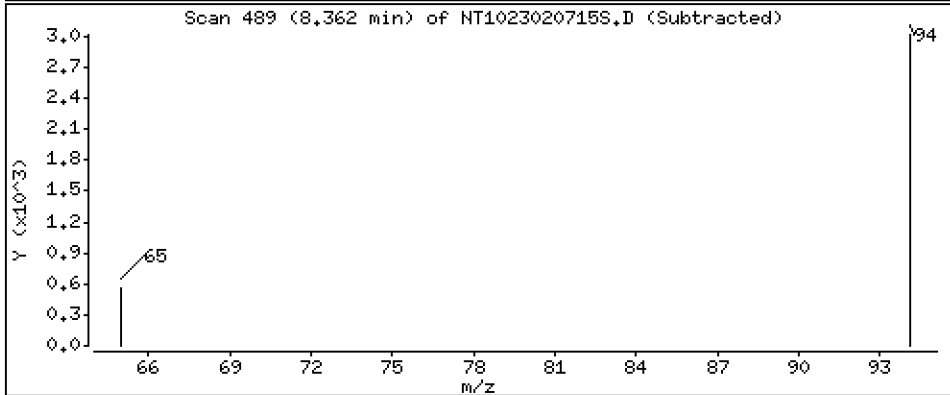
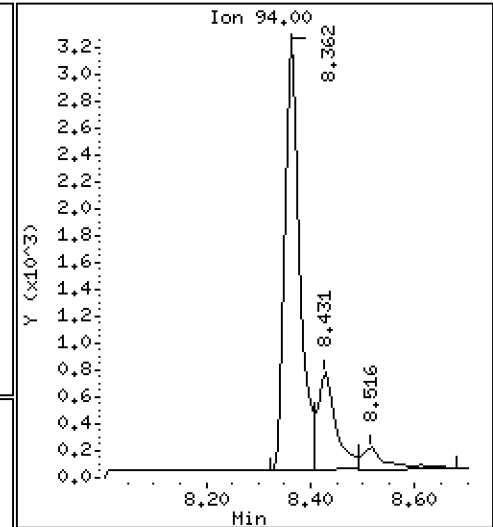
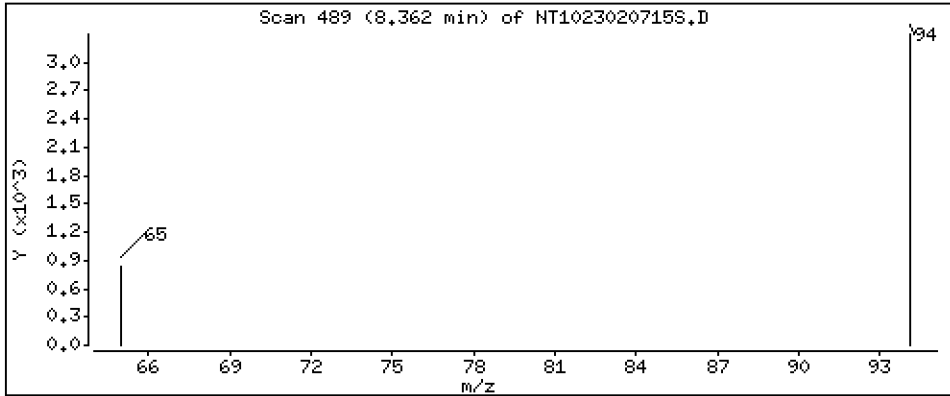
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 0.1014 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

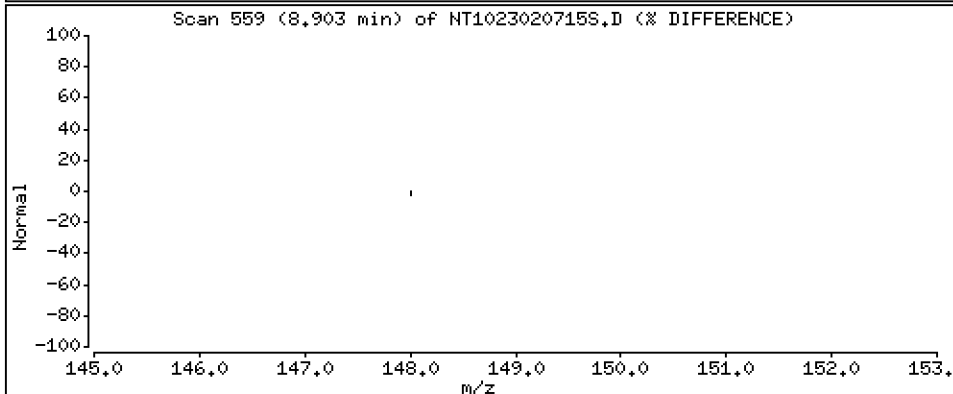
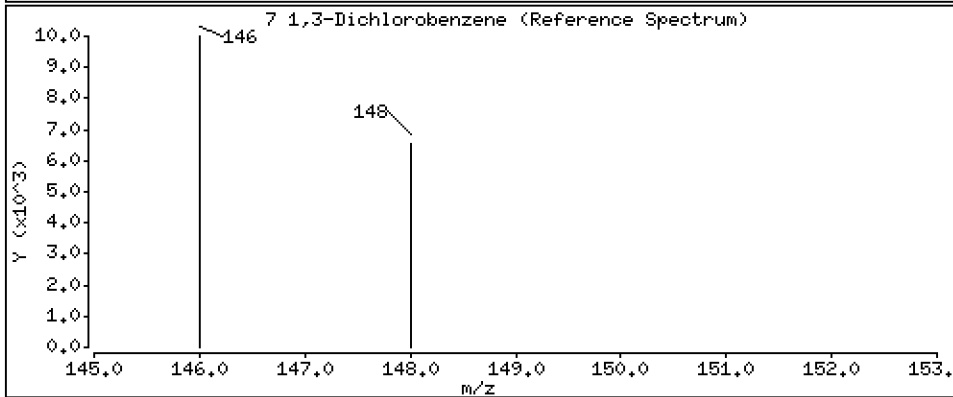
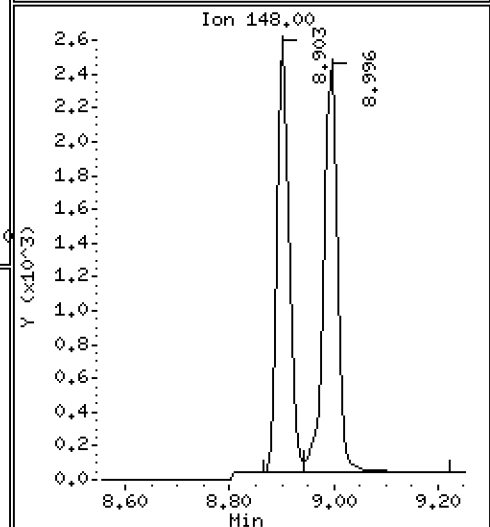
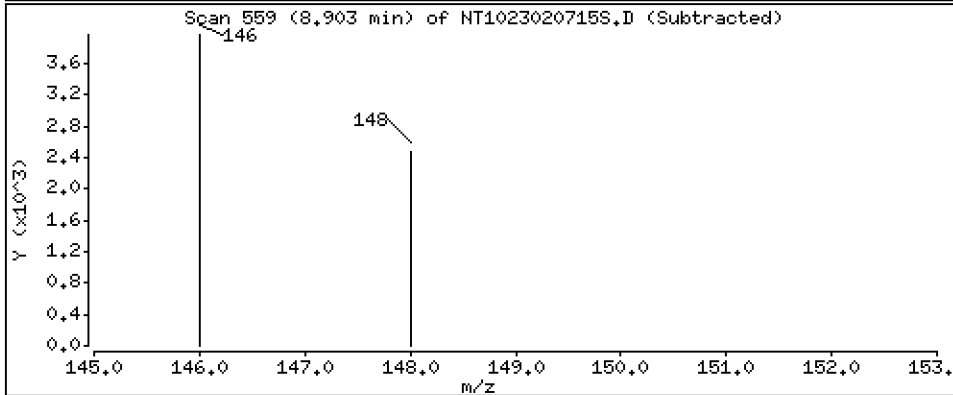
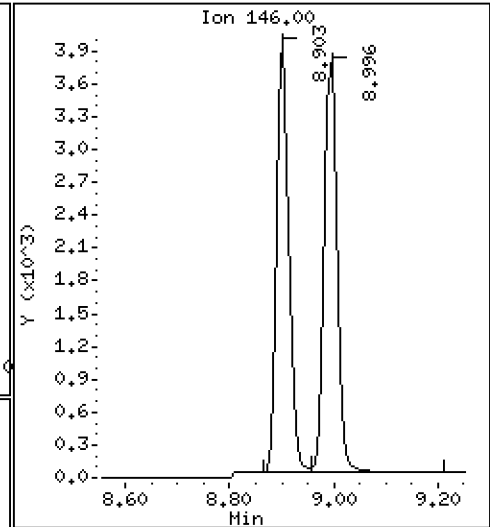
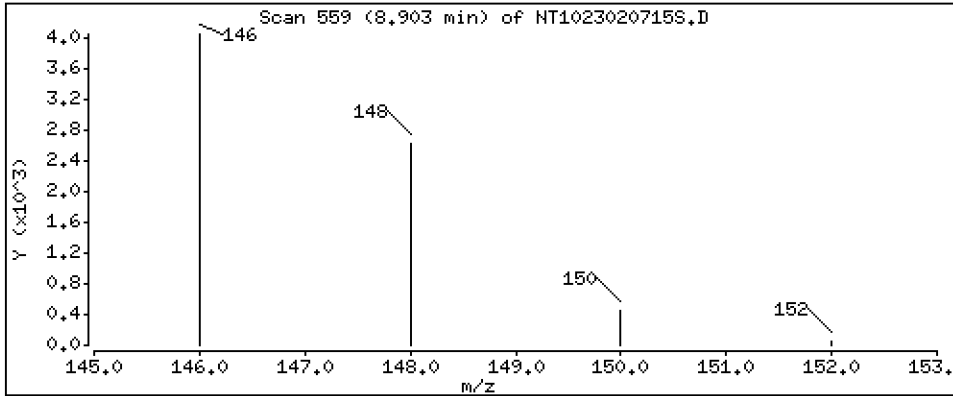
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.1120 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

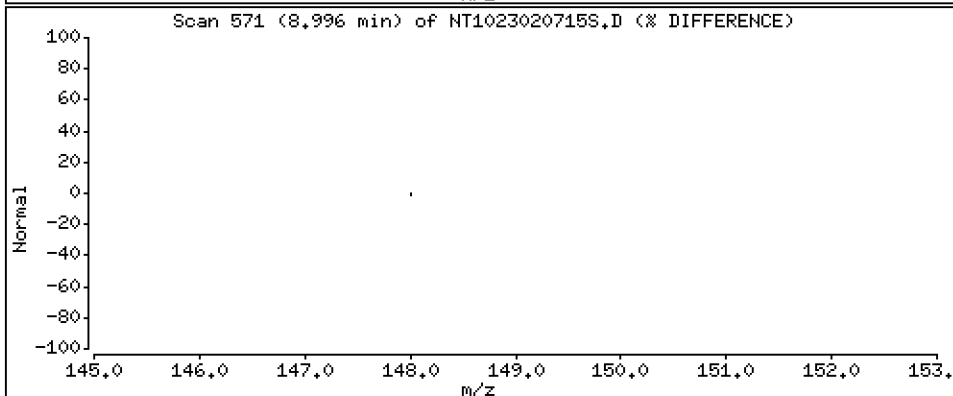
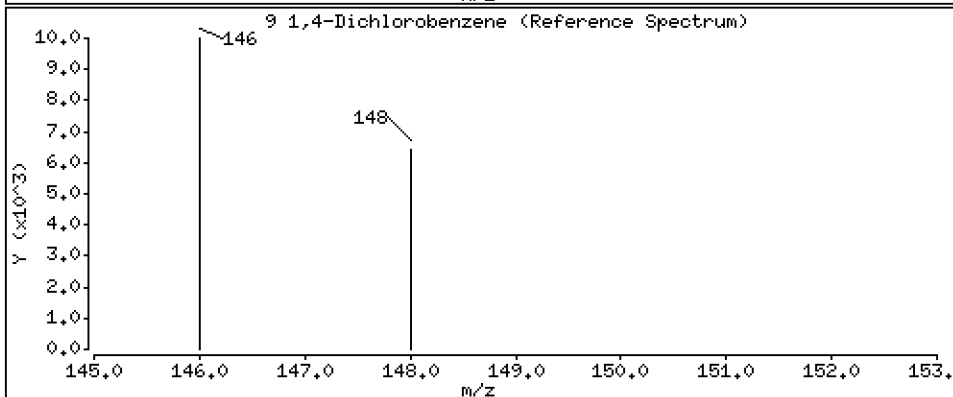
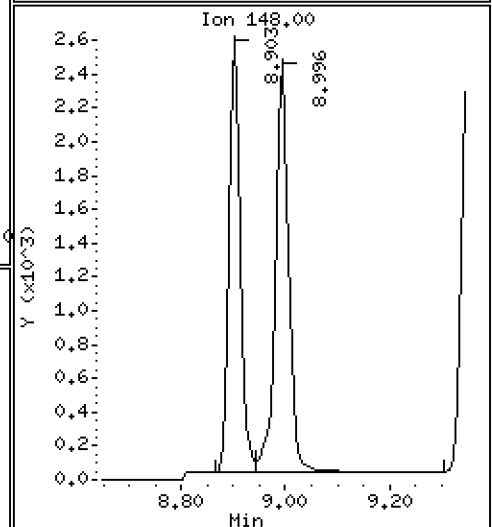
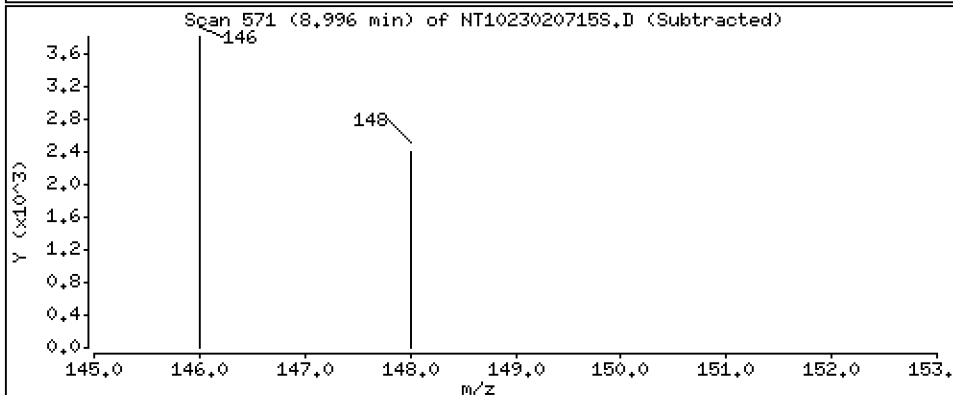
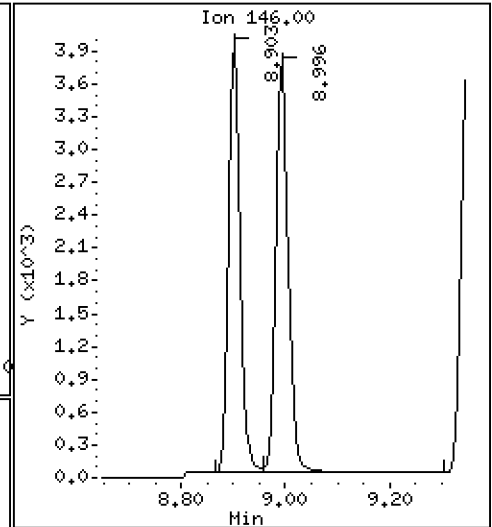
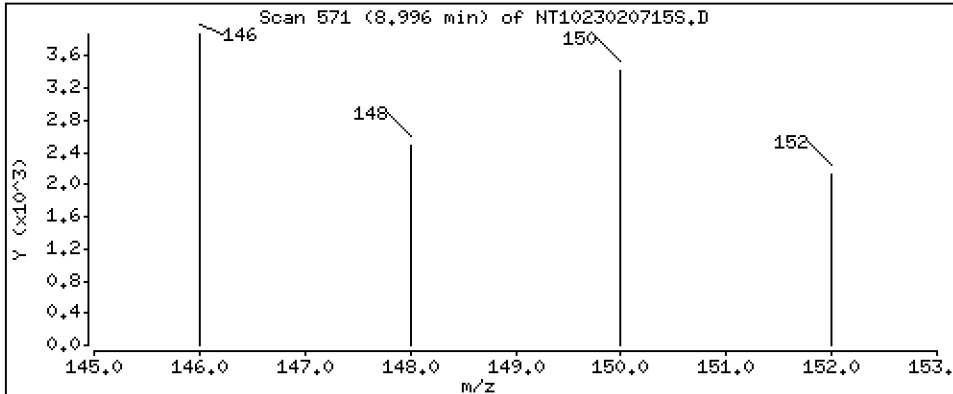
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 0.1125 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

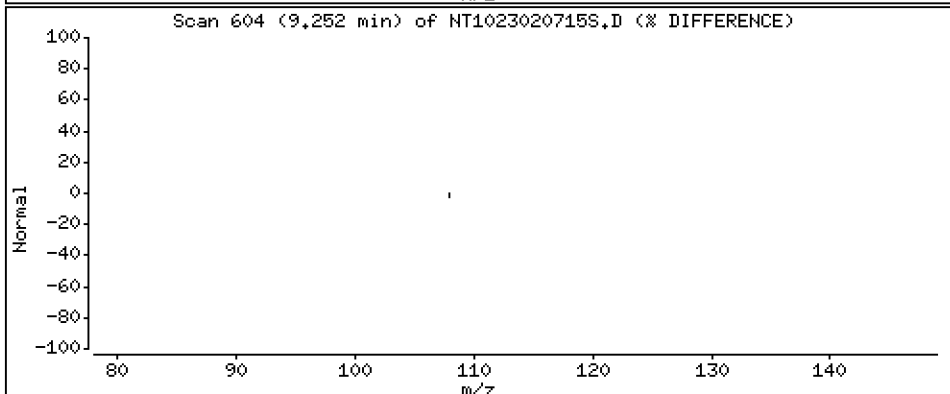
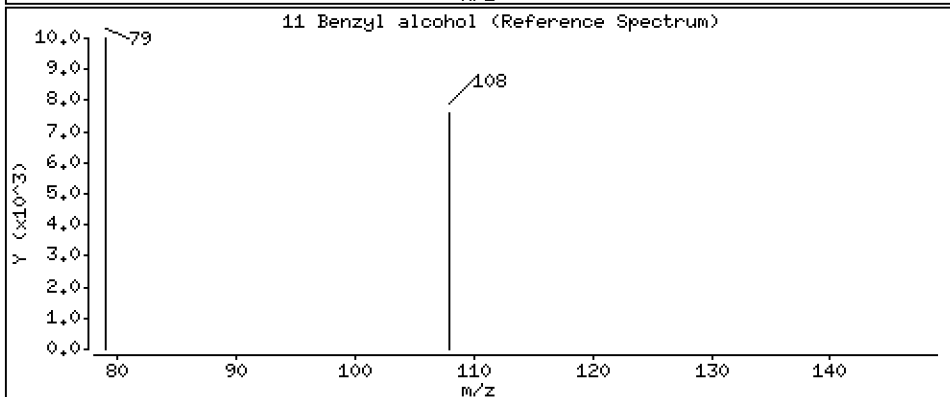
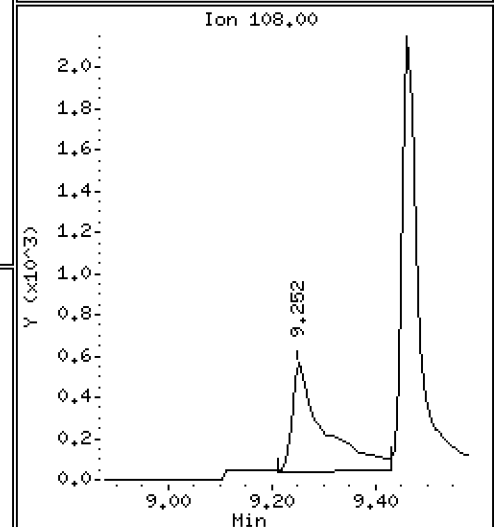
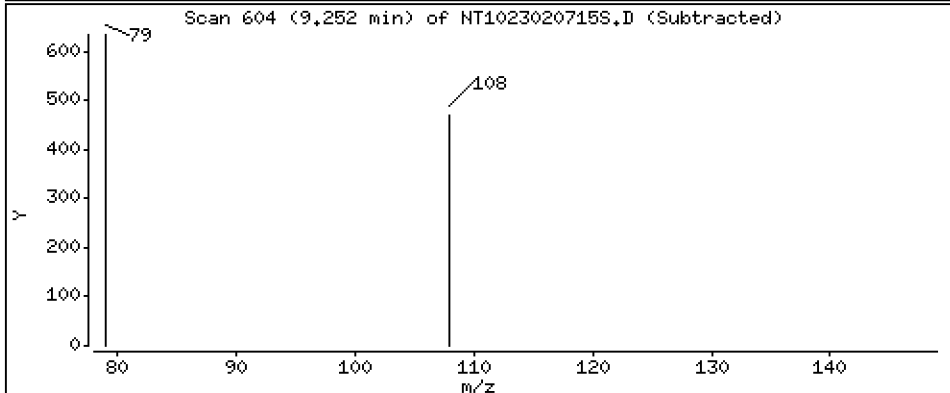
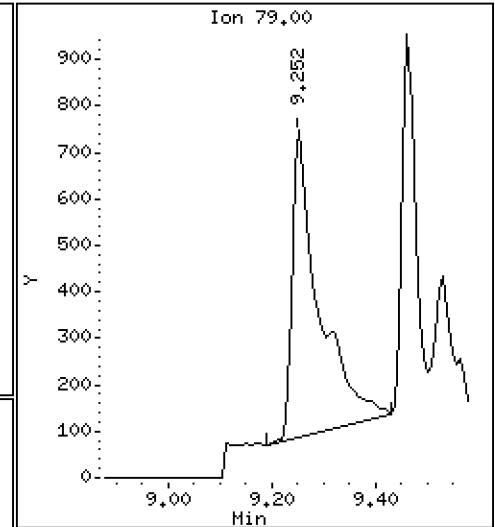
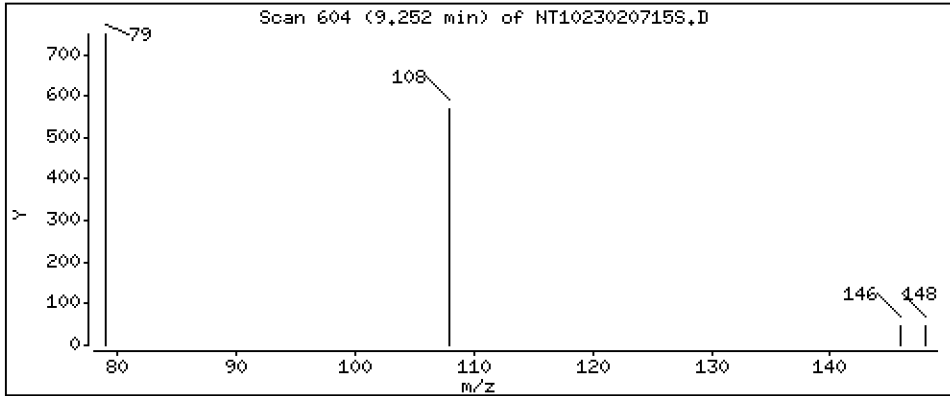
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.07724 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

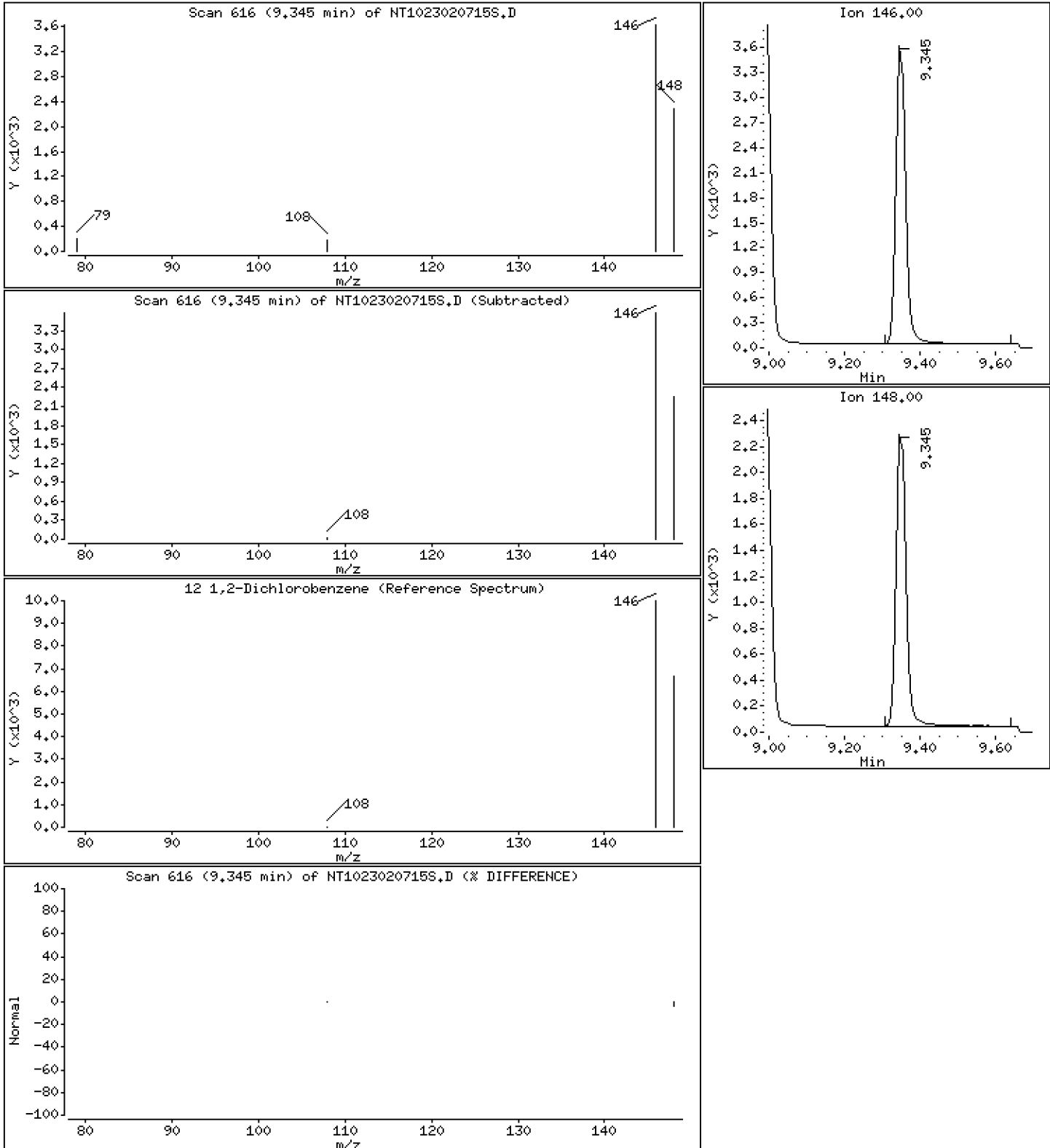
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.1115 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

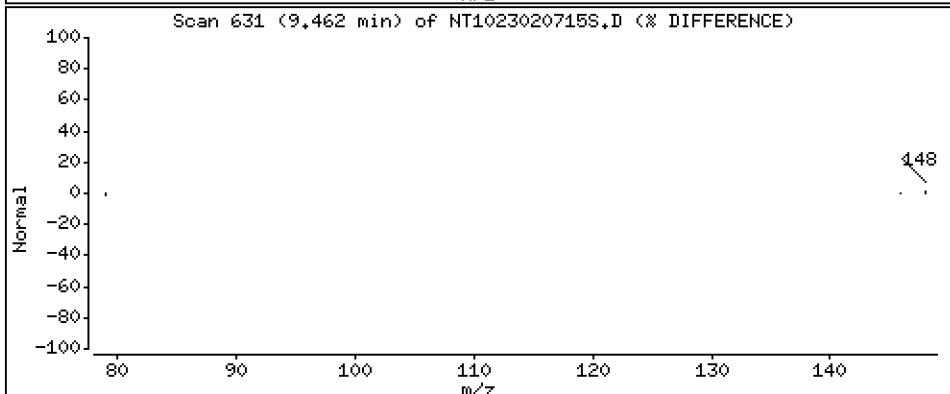
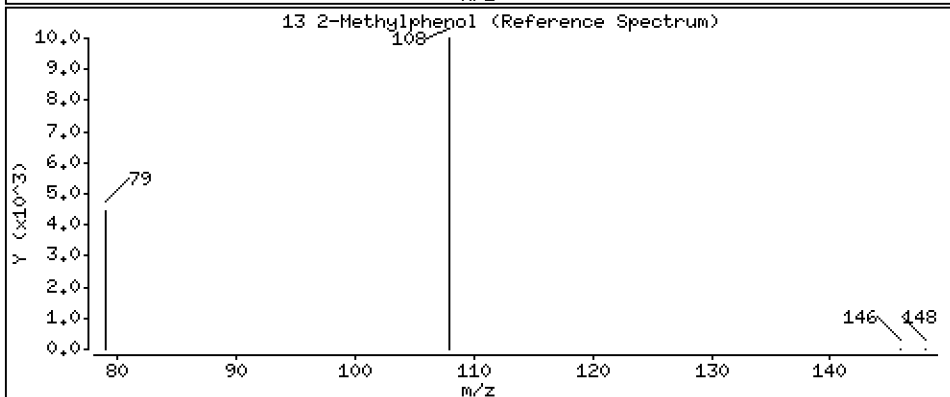
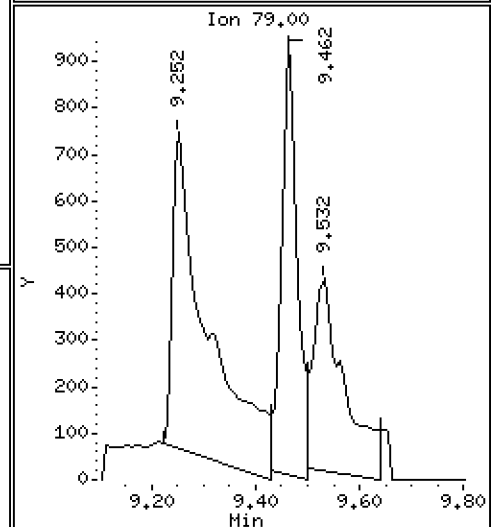
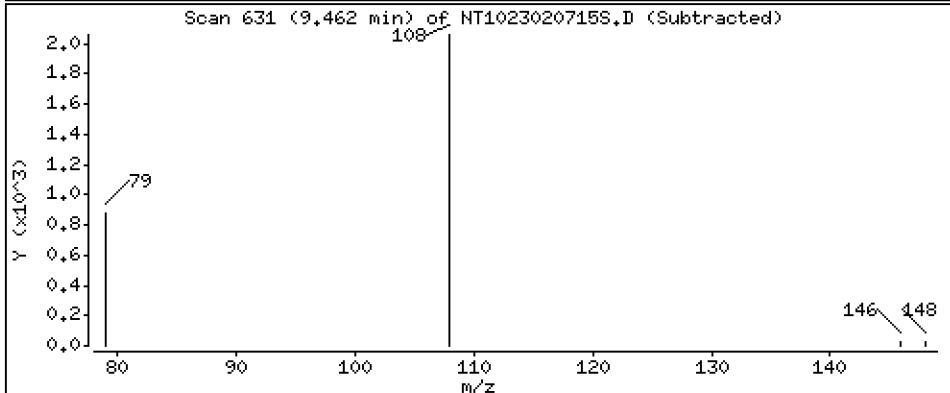
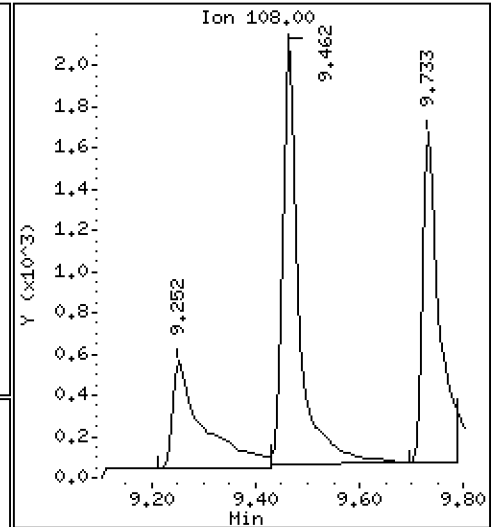
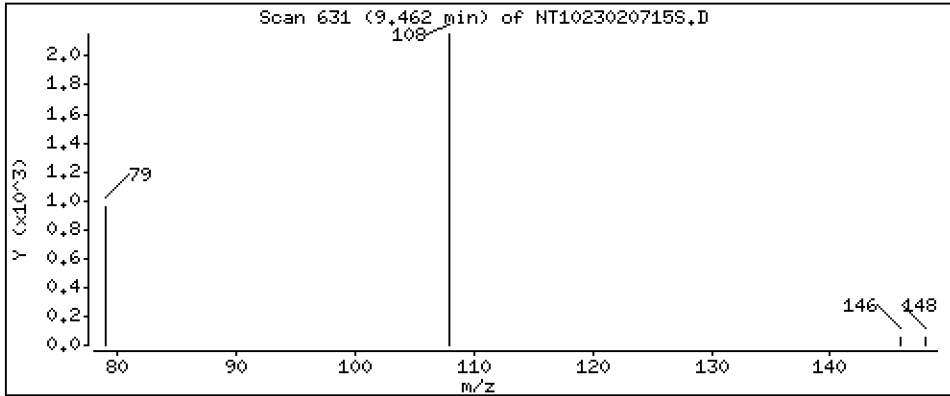
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 0,1035 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

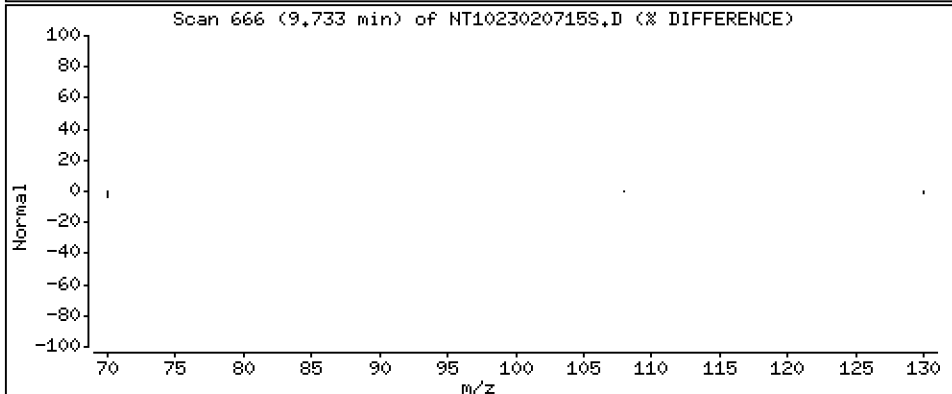
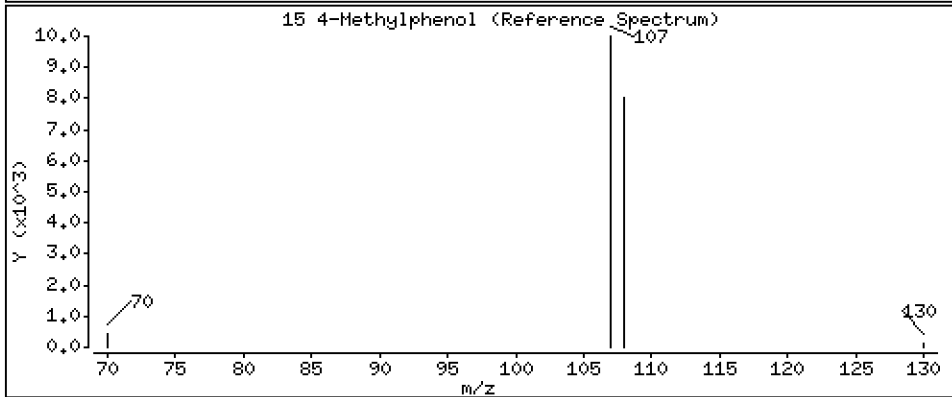
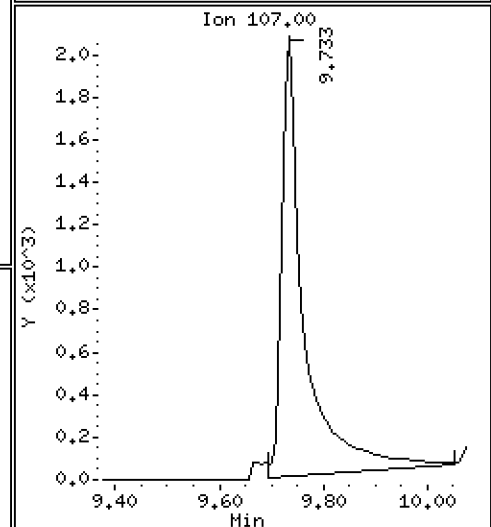
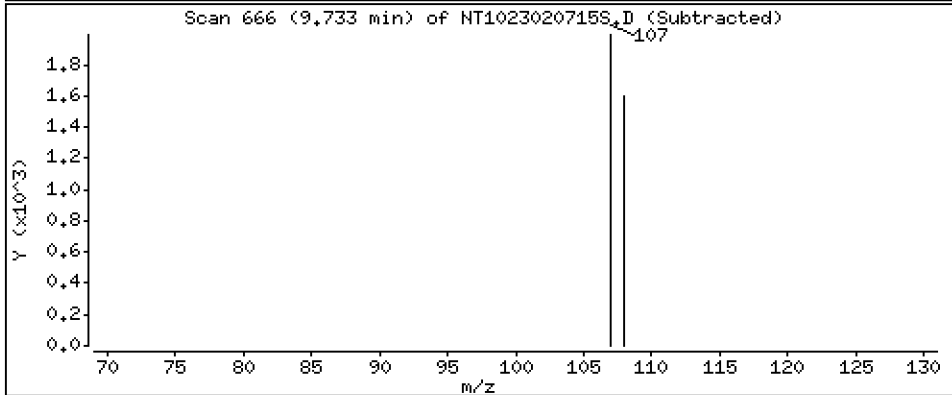
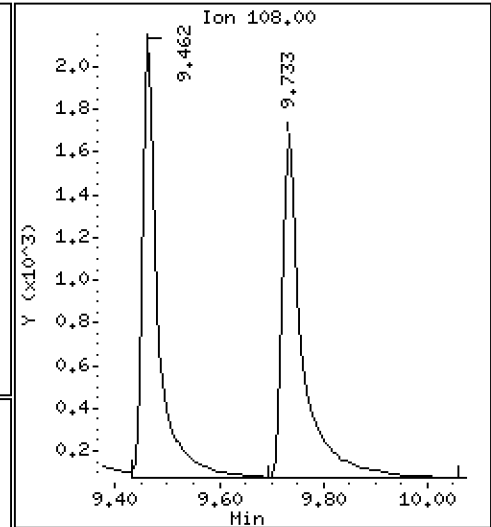
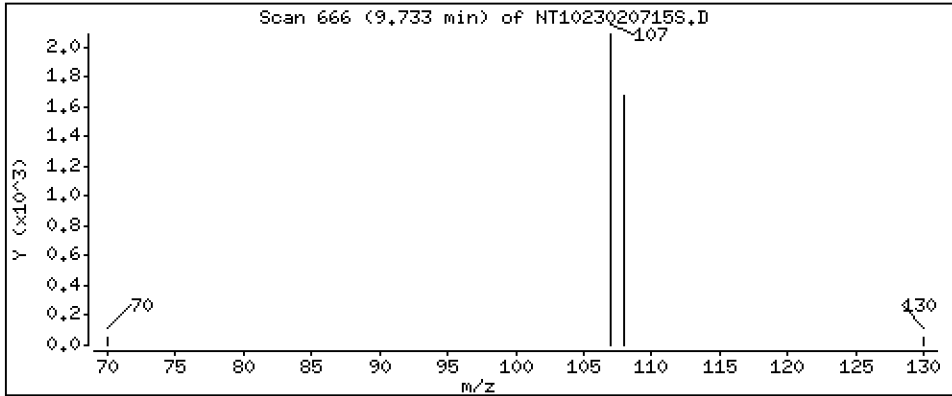
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.09840 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

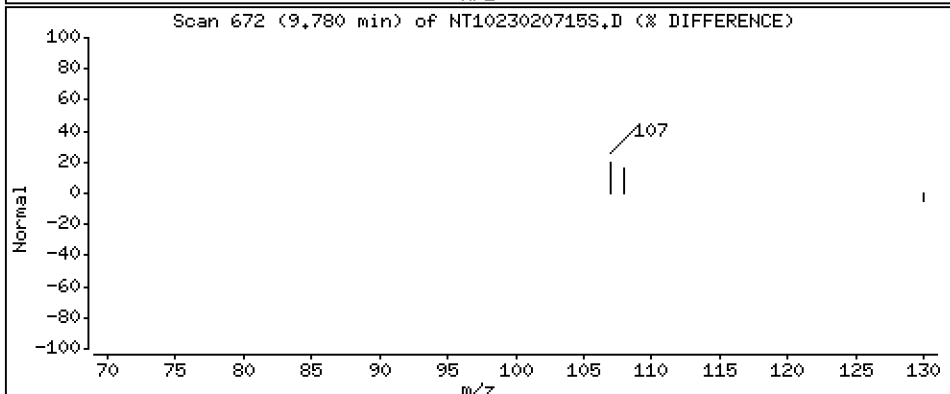
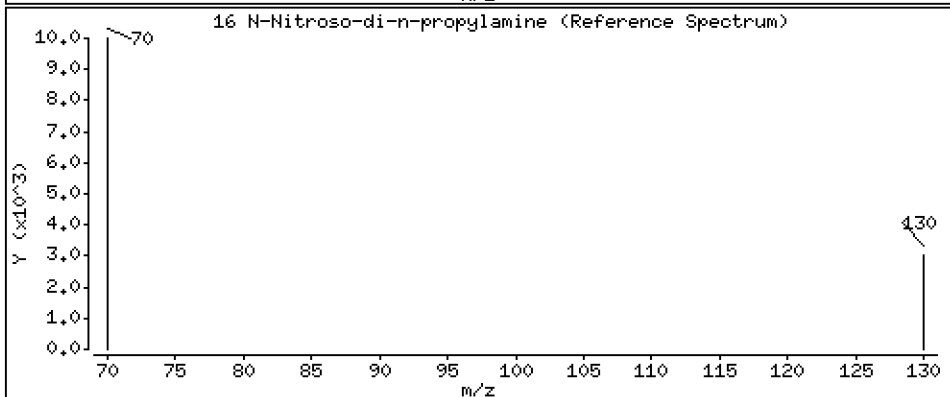
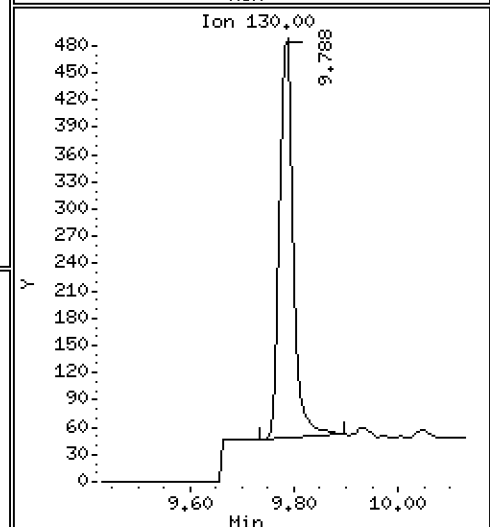
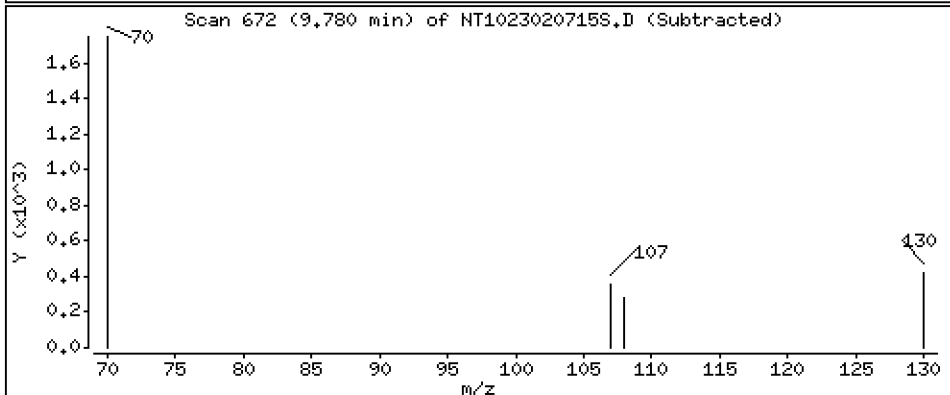
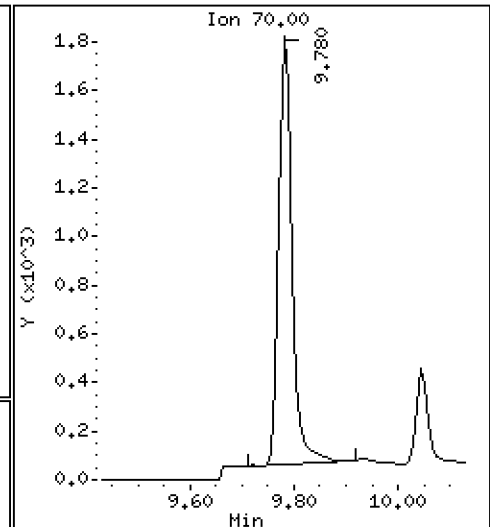
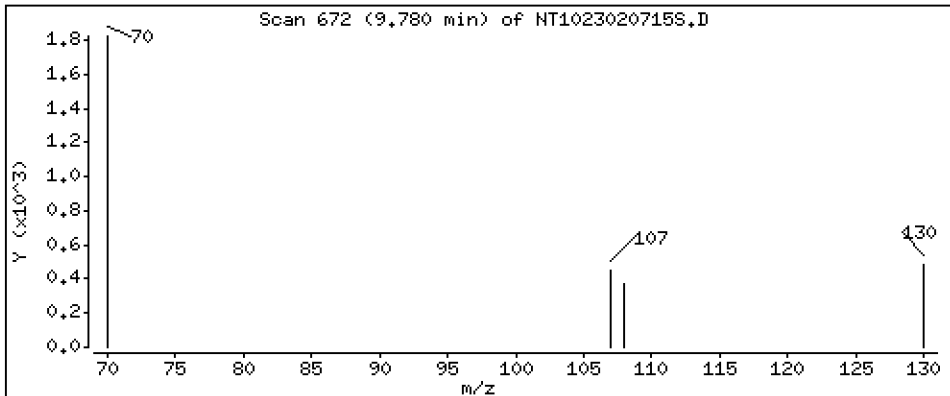
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 0.09428 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

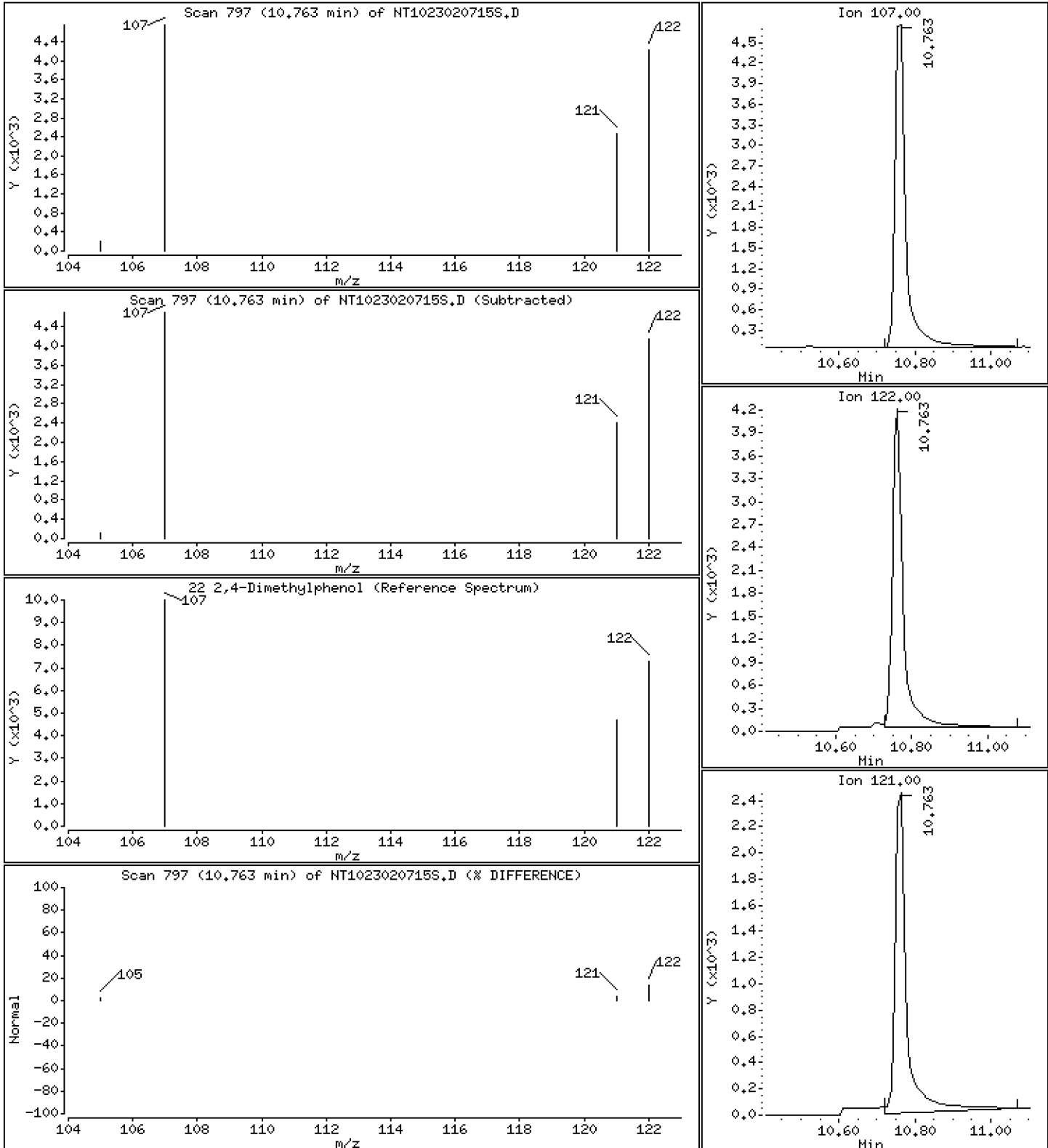
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 0,2172 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

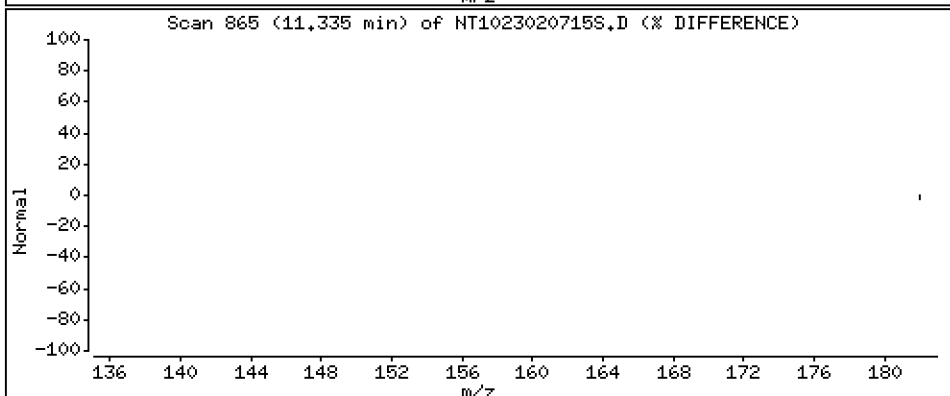
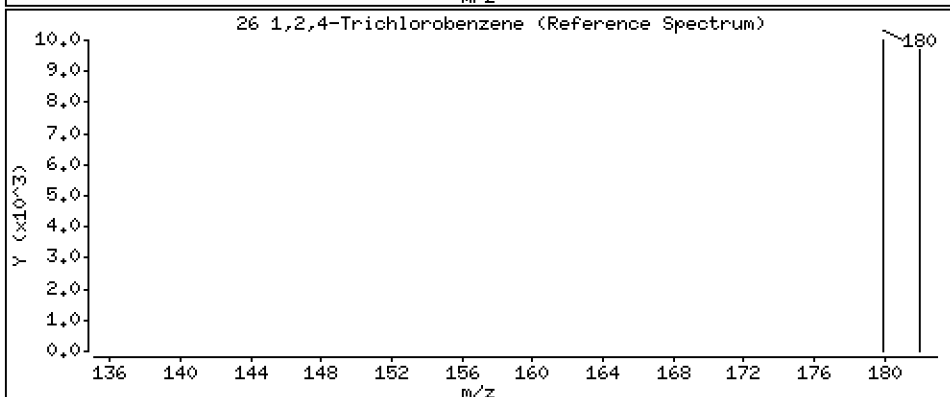
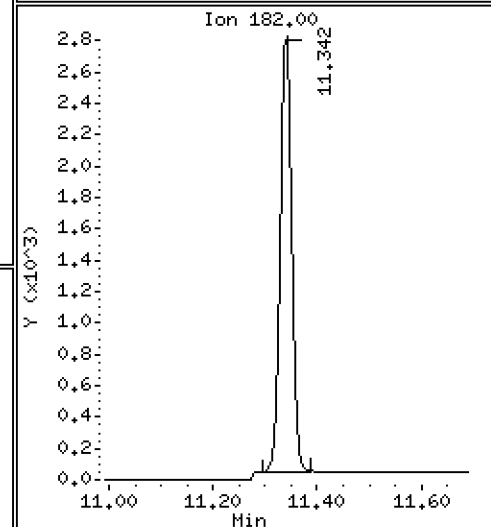
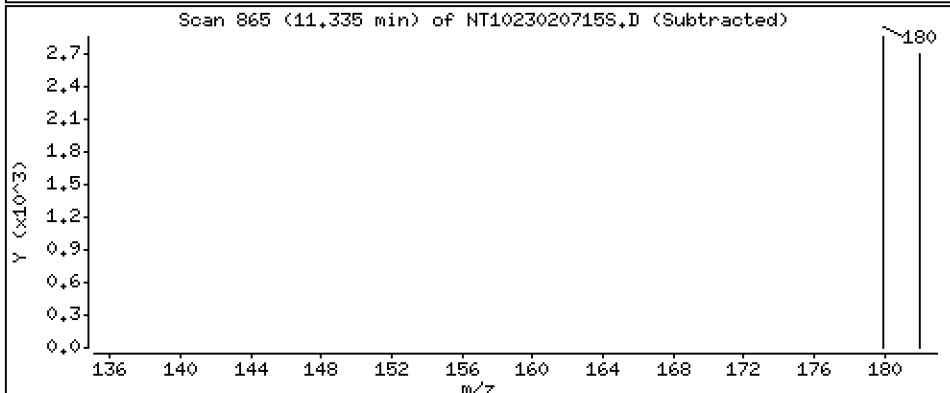
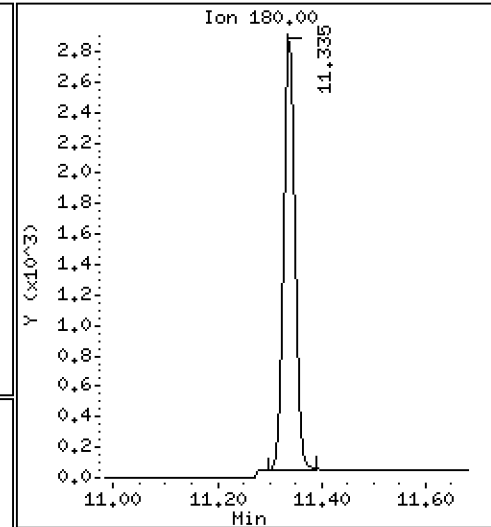
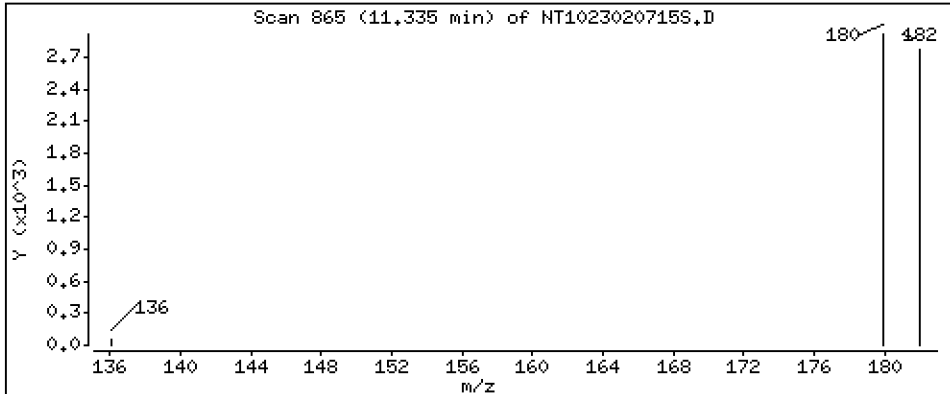
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

26 1,2,4-Trichlorobenzene

Concentration: 0,1120 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

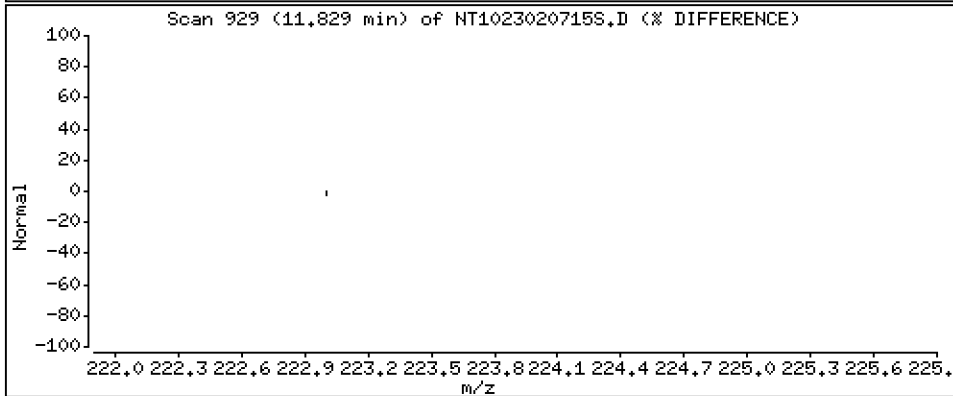
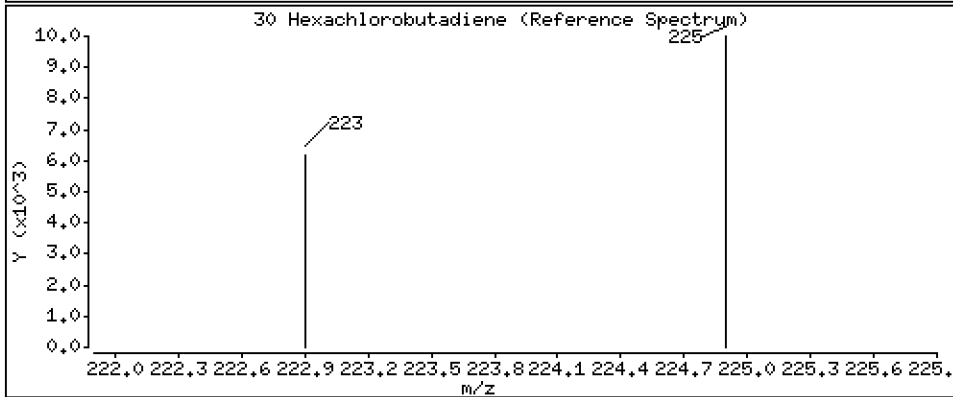
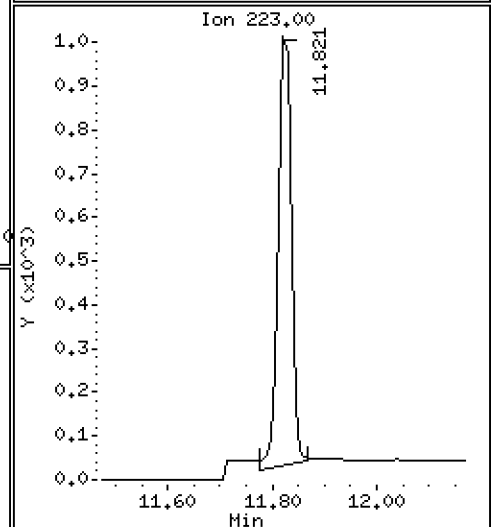
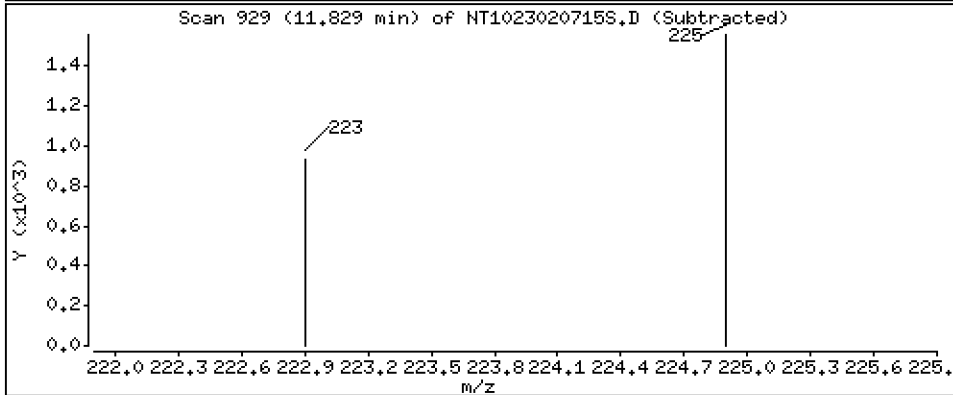
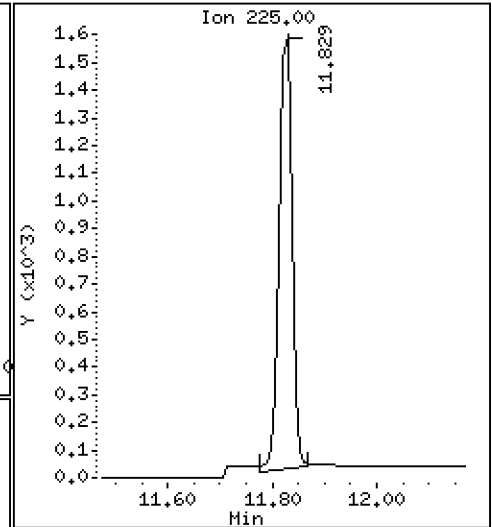
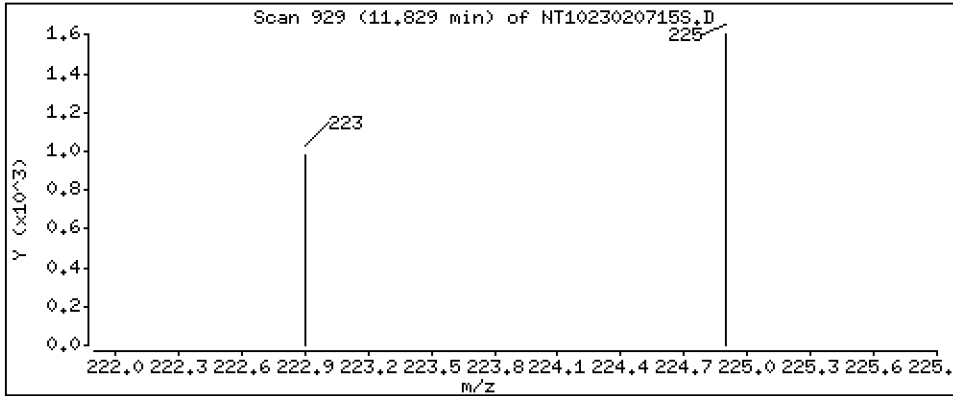
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,1152 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

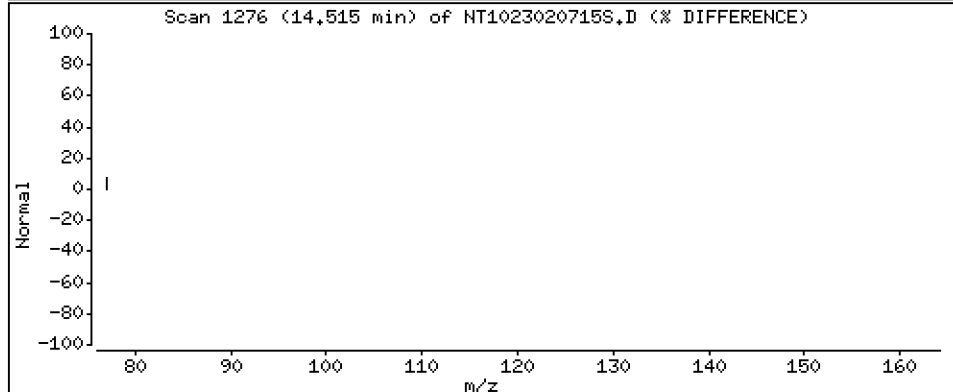
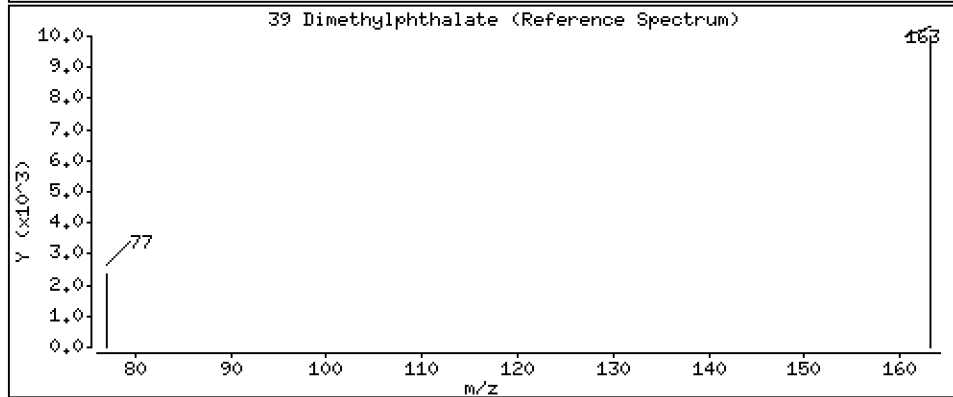
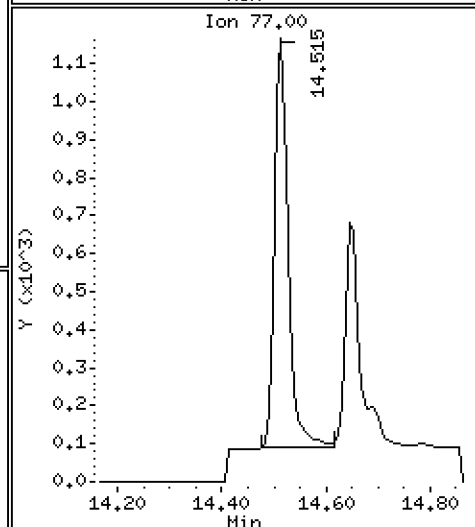
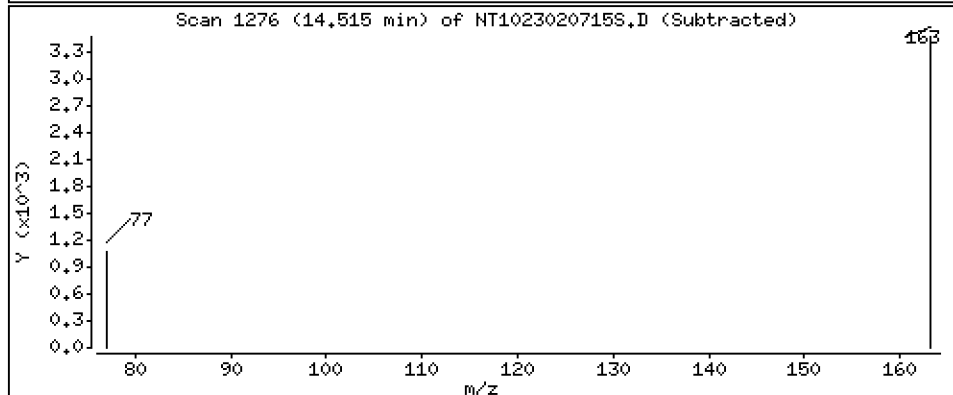
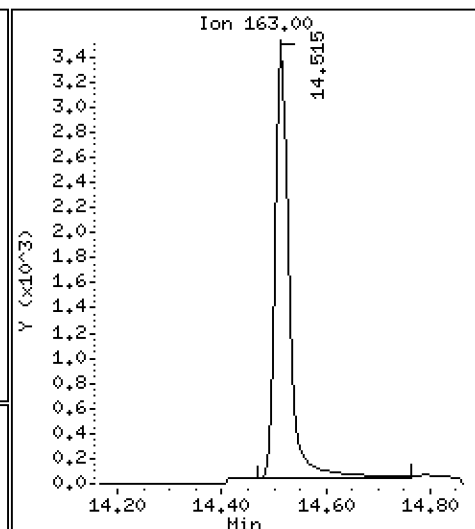
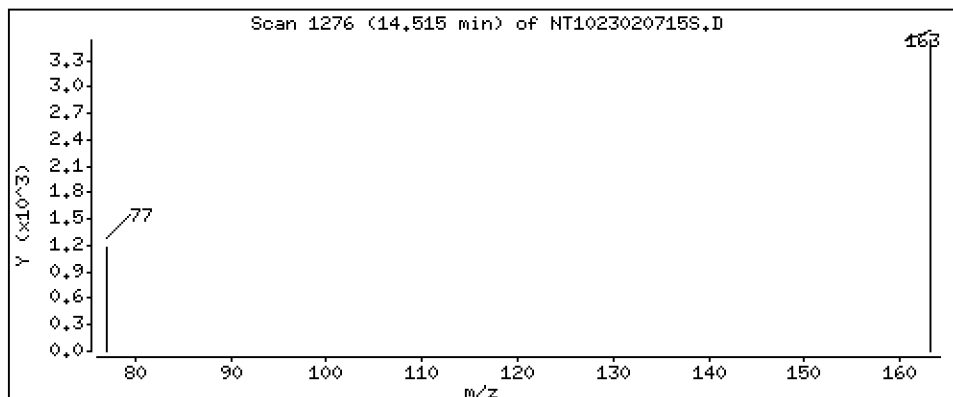
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 0.1077 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

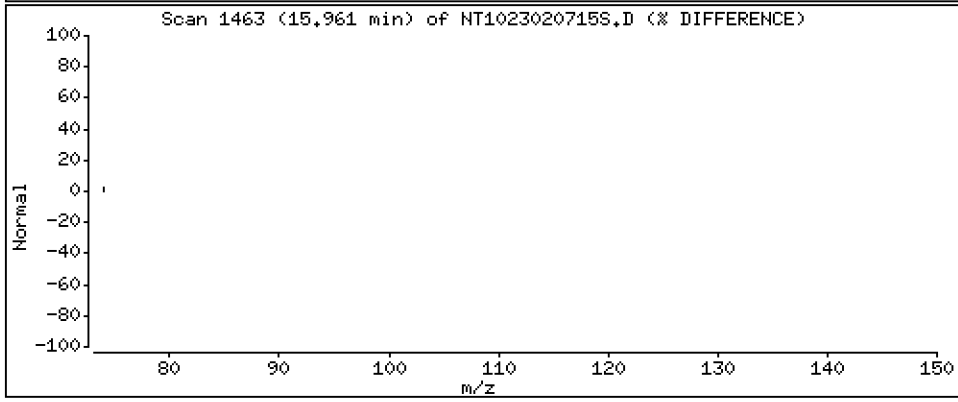
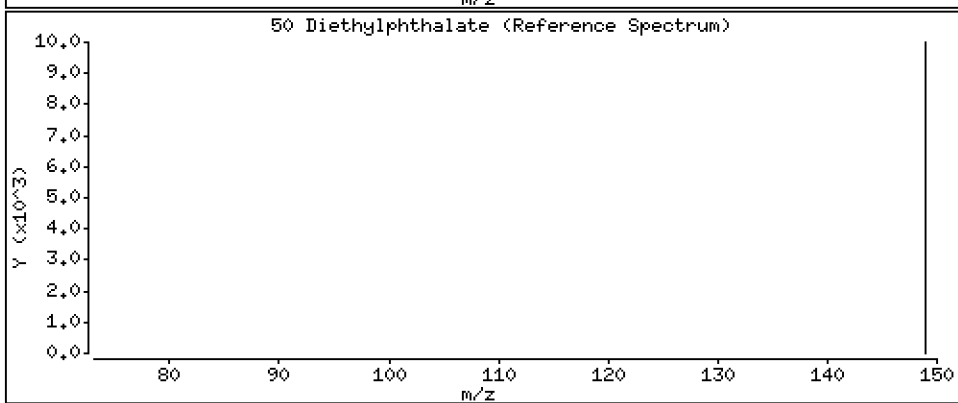
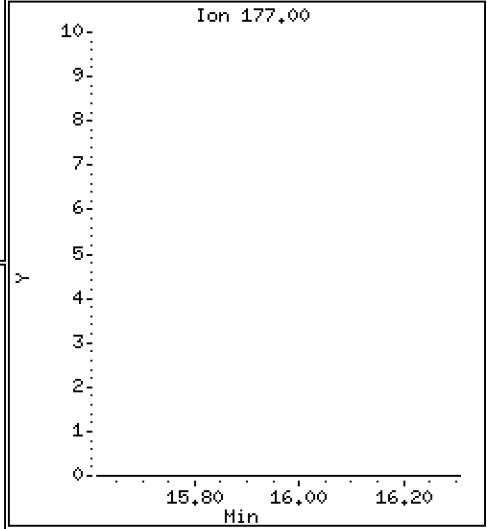
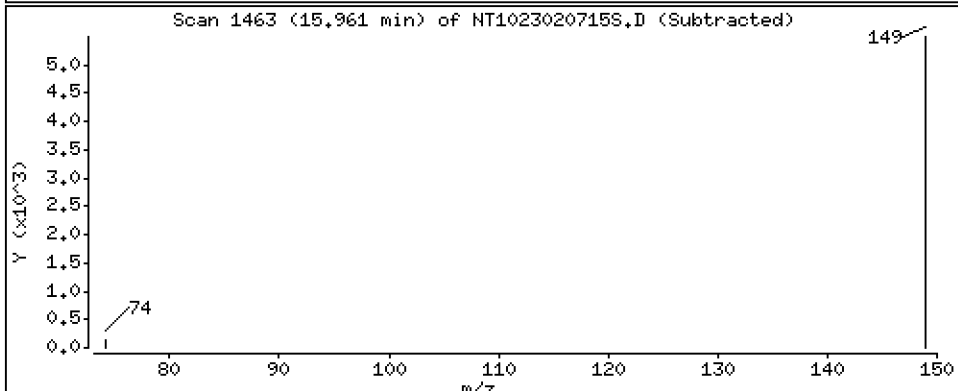
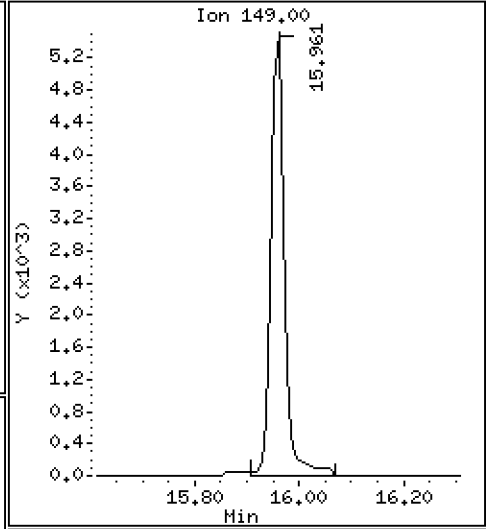
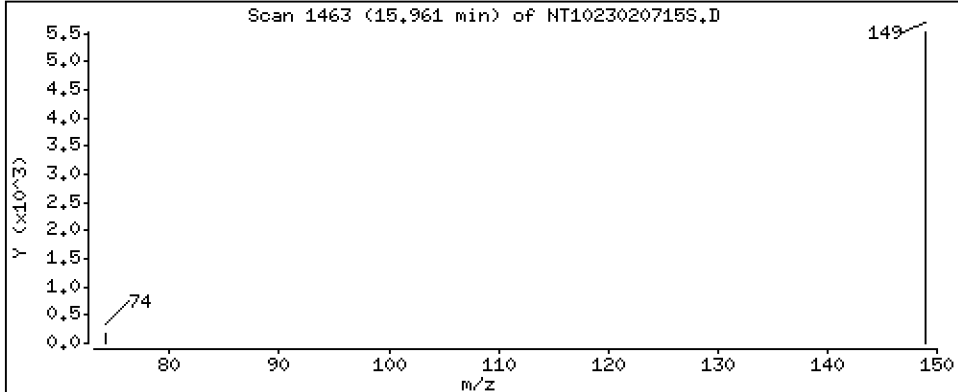
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,1087 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

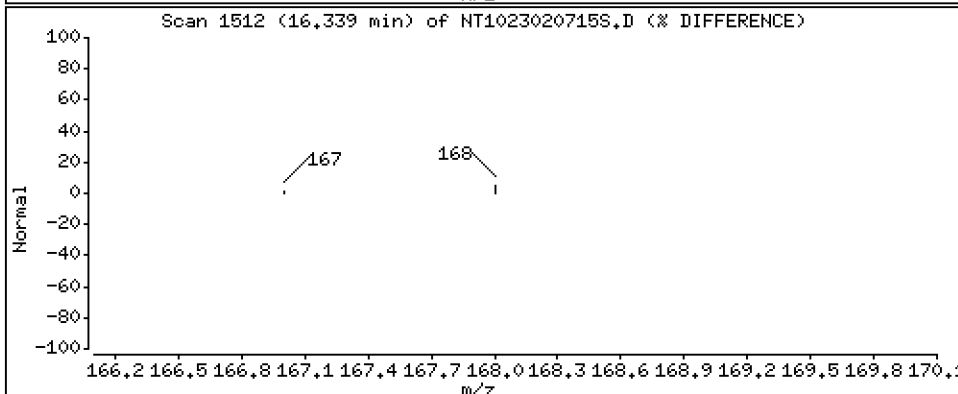
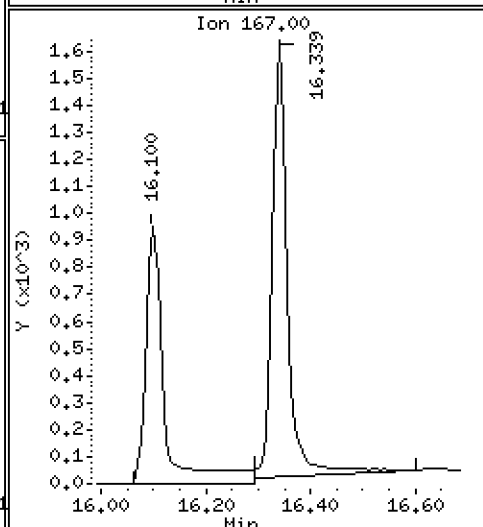
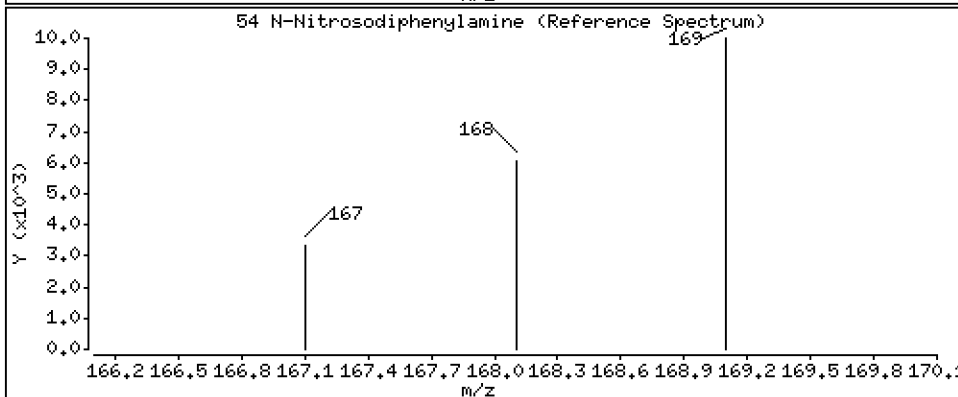
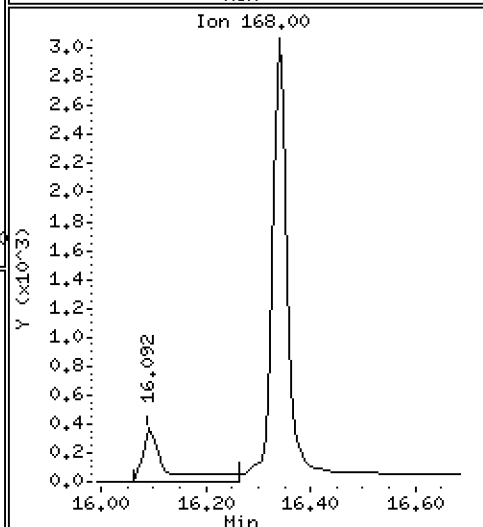
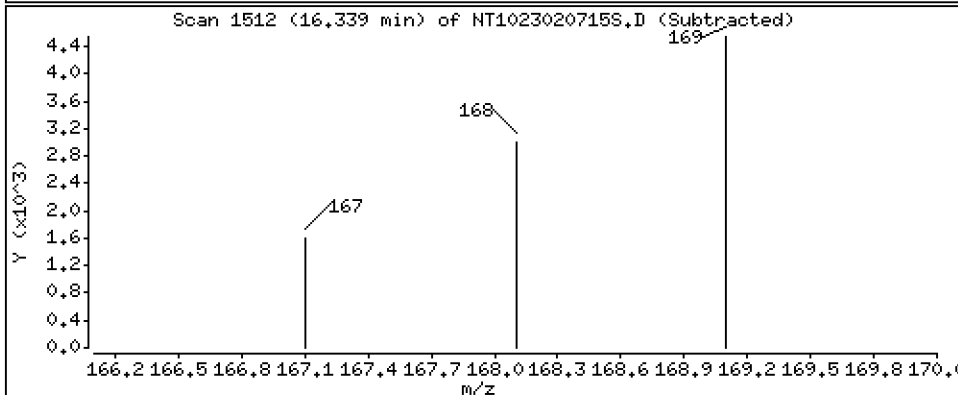
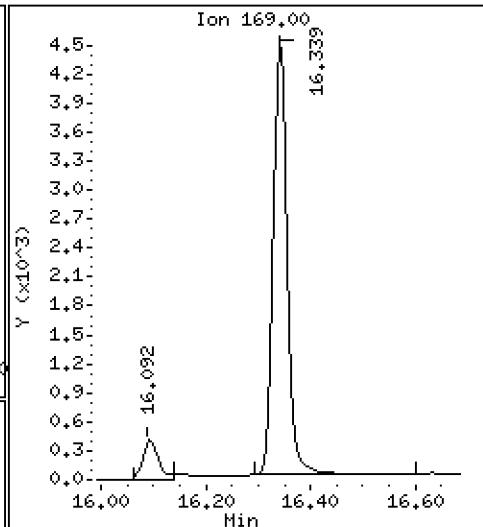
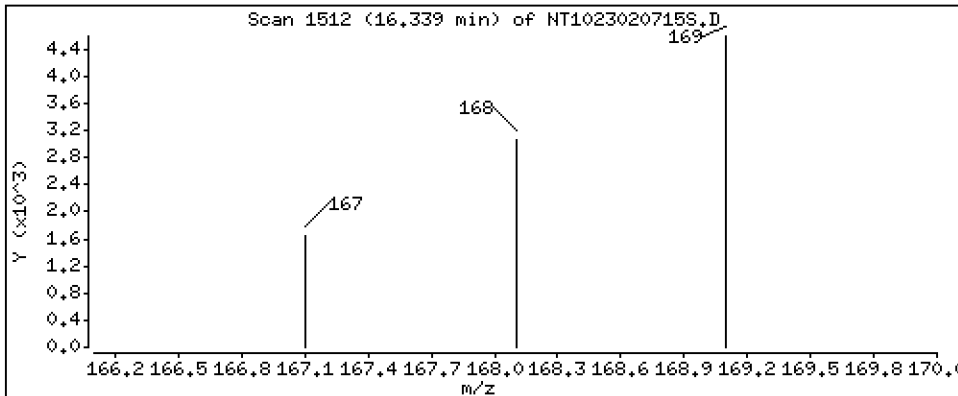
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 0.1081 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

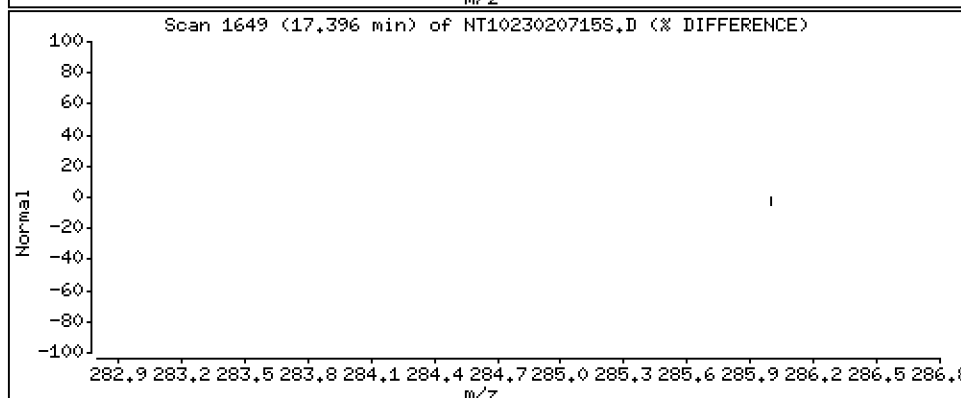
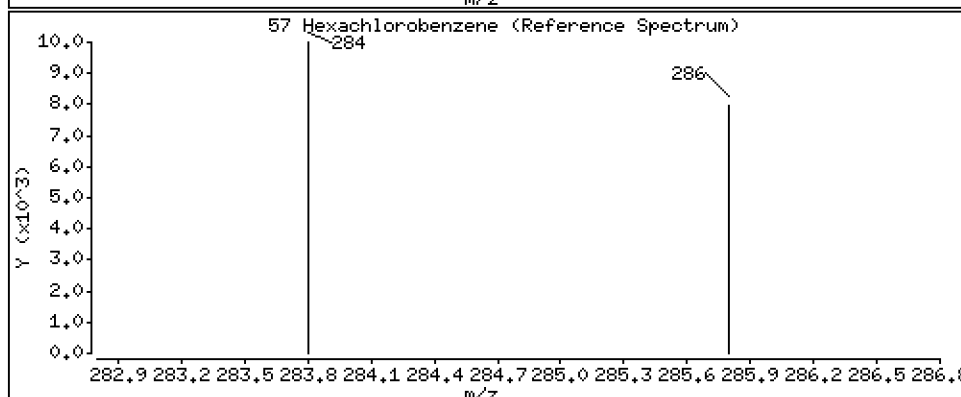
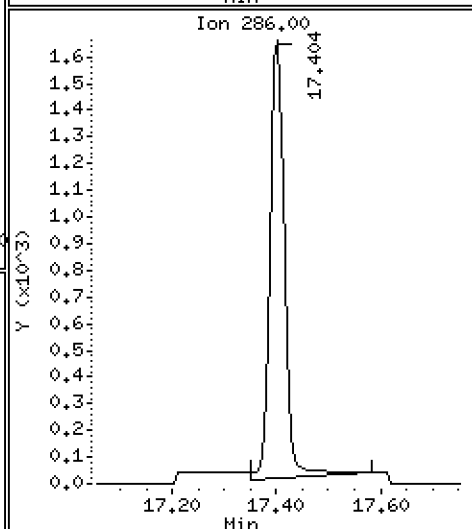
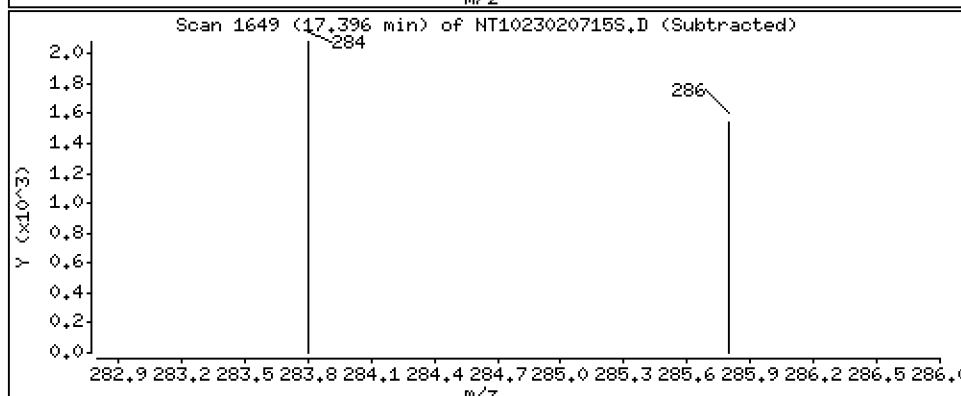
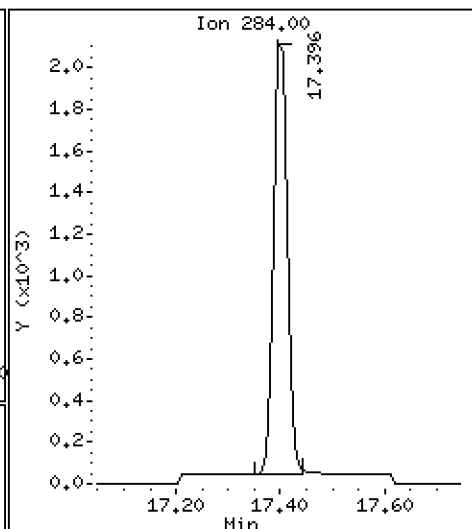
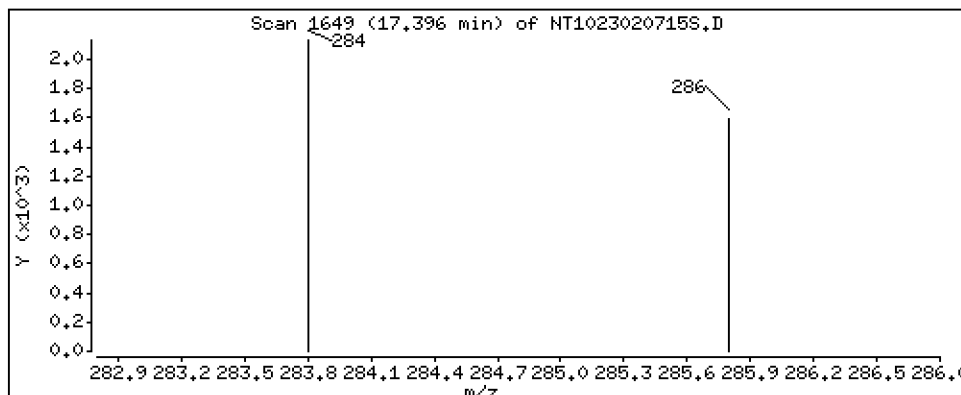
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 0.1147 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

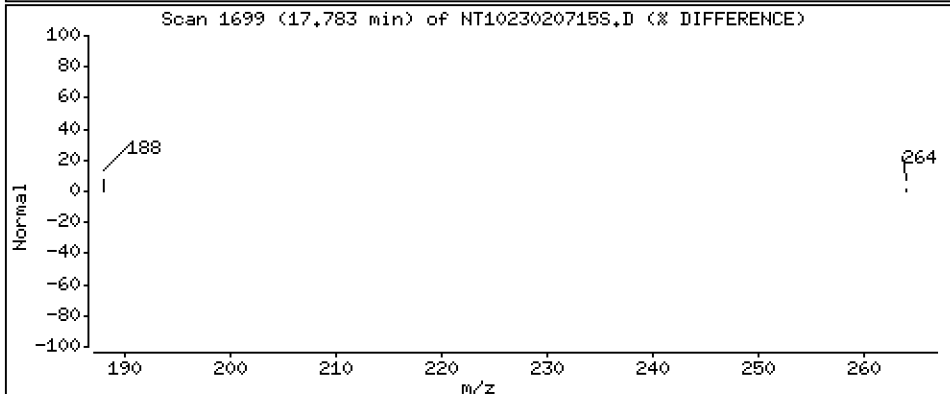
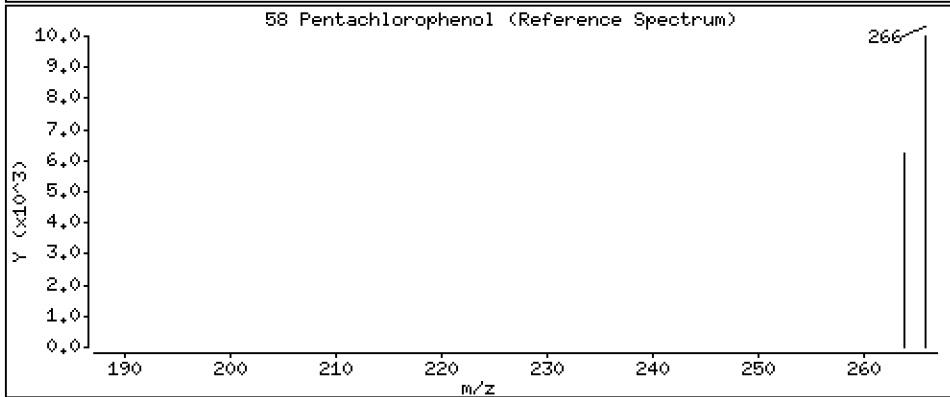
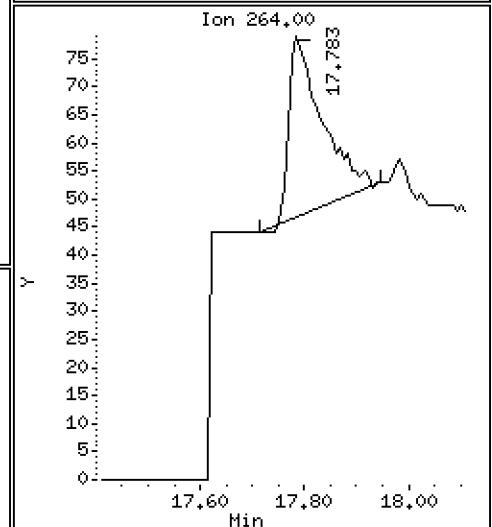
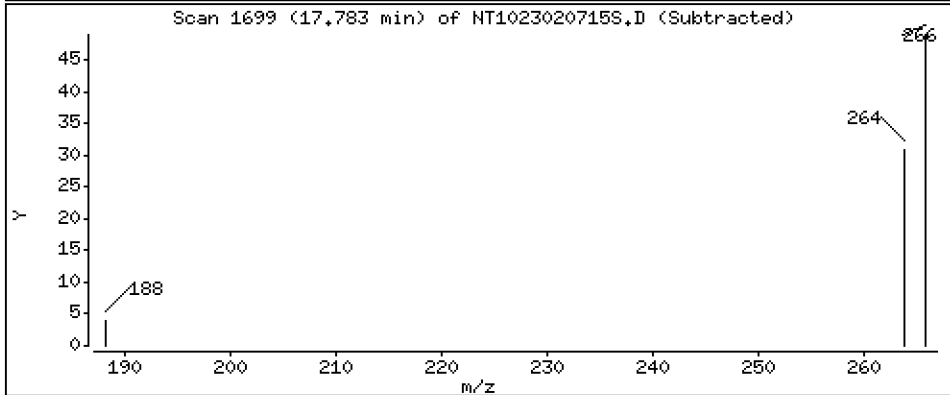
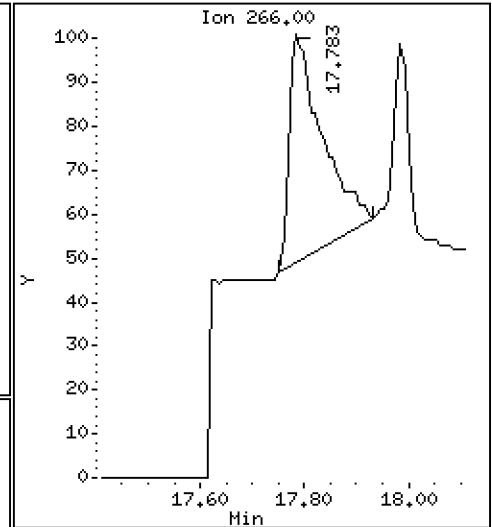
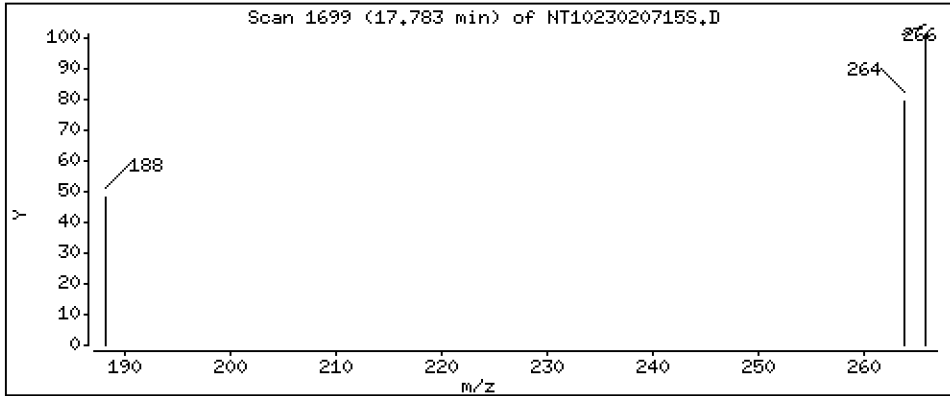
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,02088 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

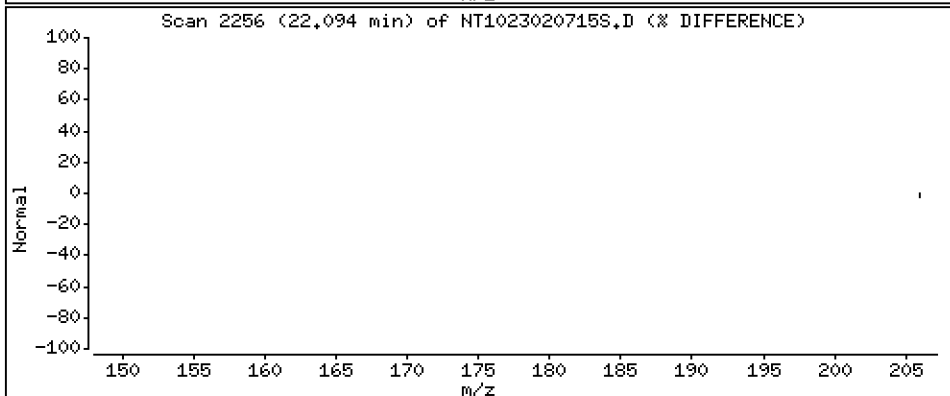
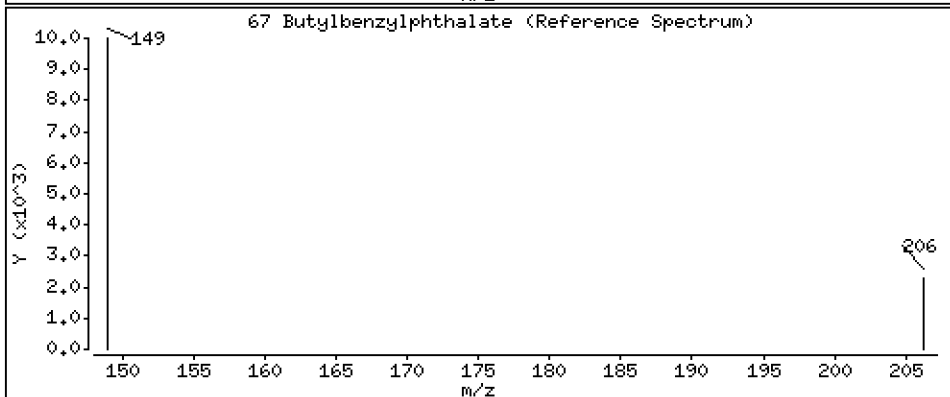
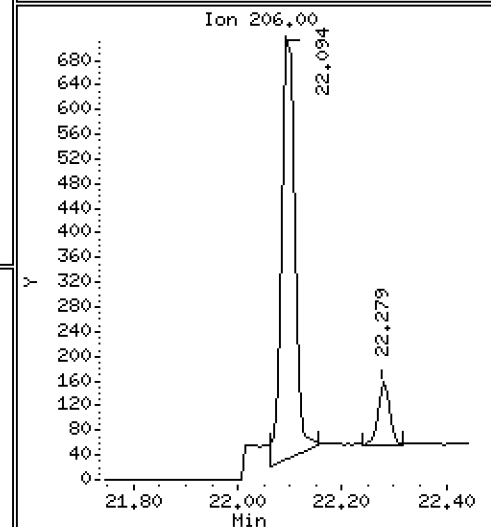
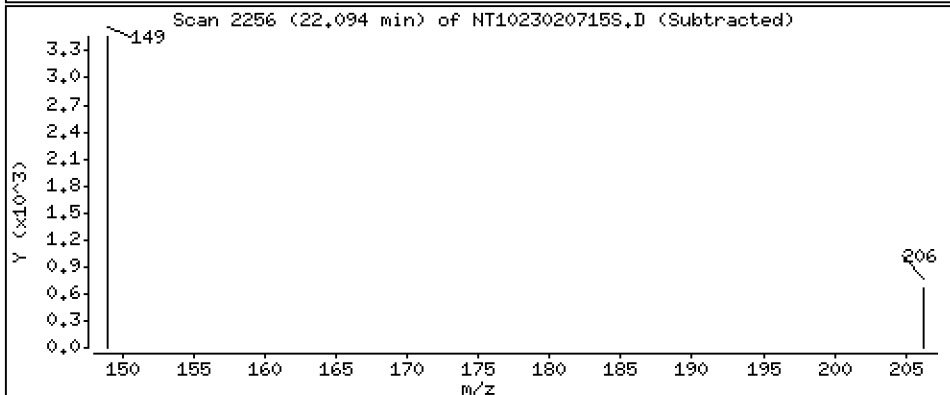
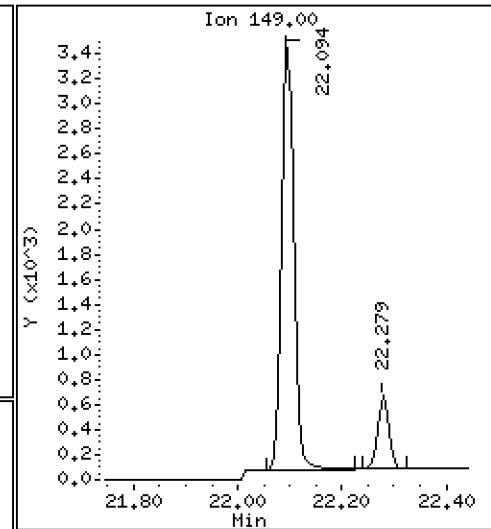
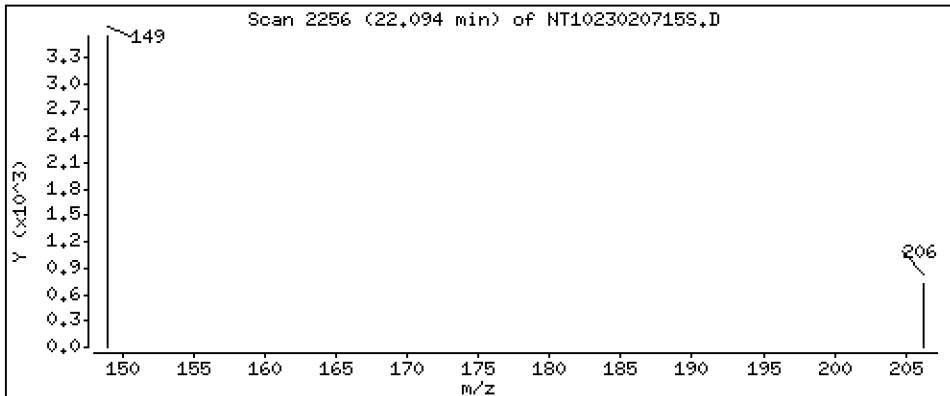
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 0.09491 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

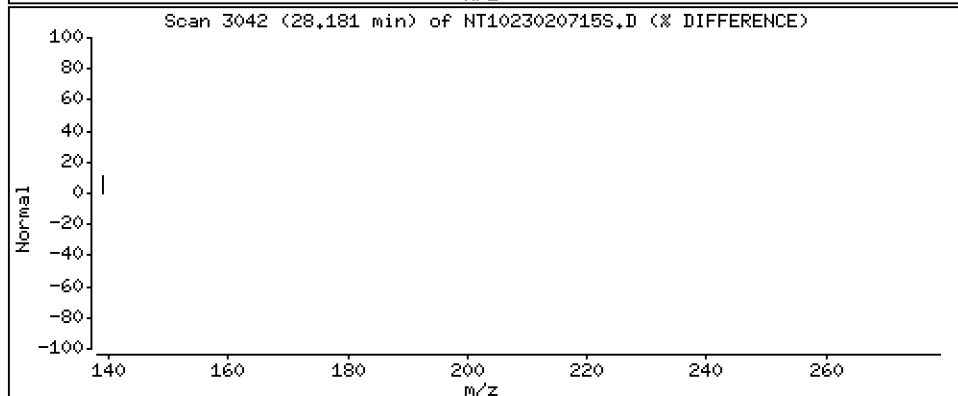
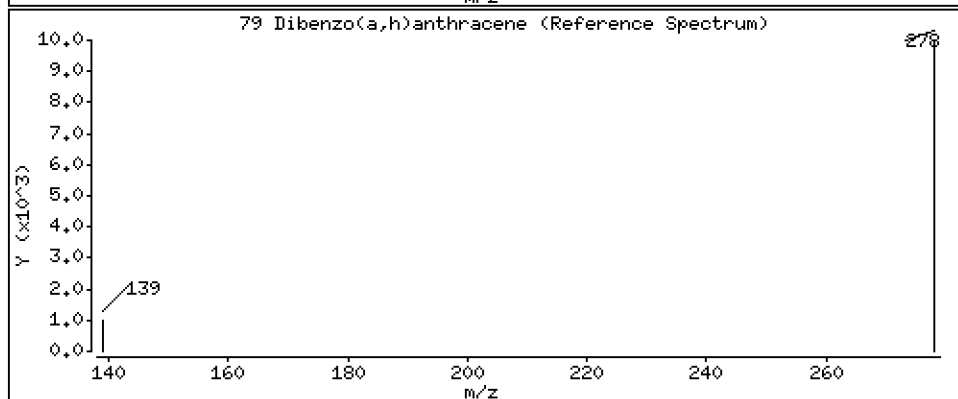
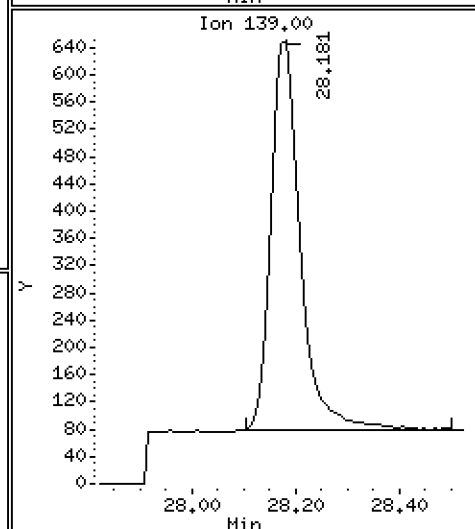
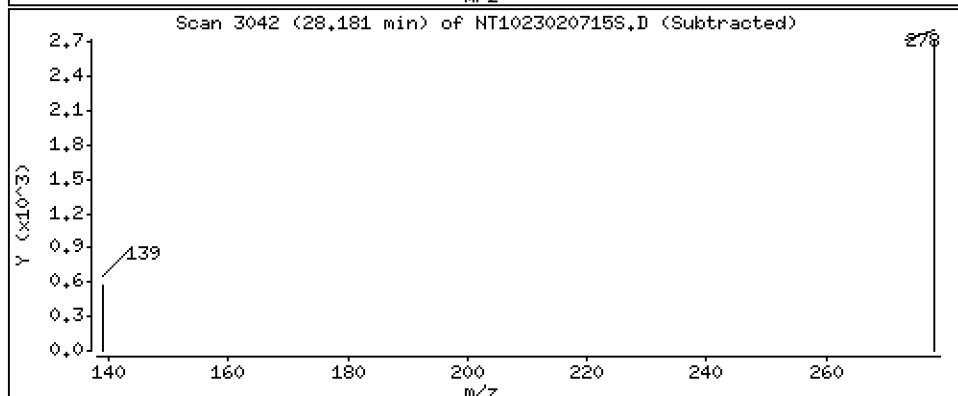
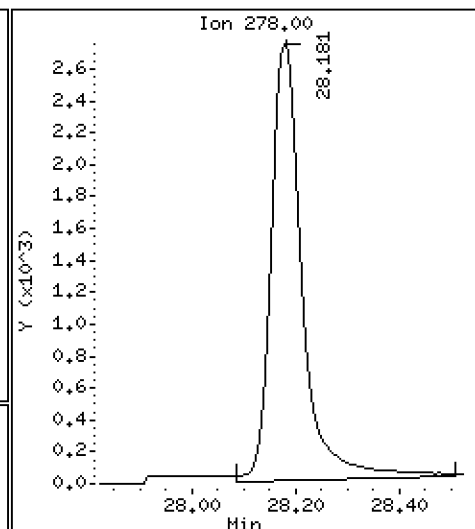
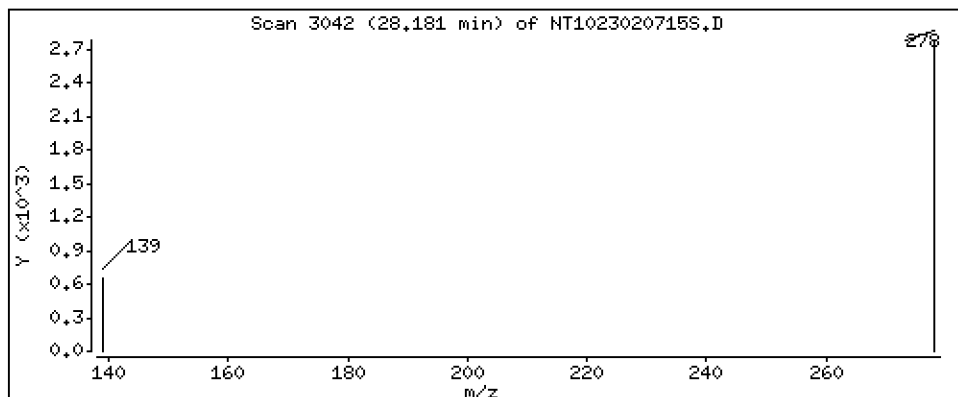
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

79 Dibenzo(a,h)anthracene

Concentration: 0.1039 ug/L



Date : 07-FEB-2023 20:36

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-LCV1

Volume Injected (uL): 1.0

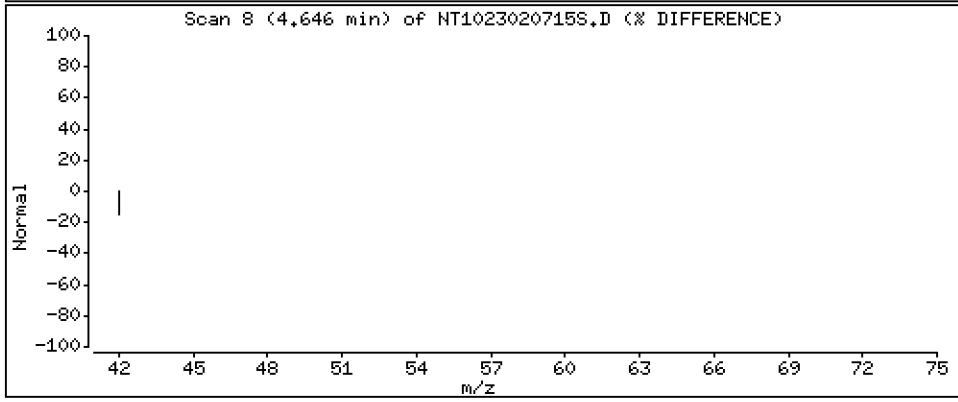
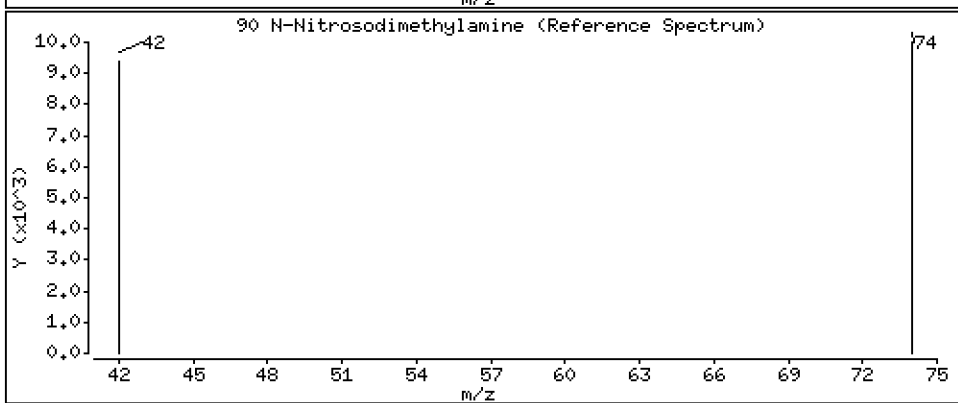
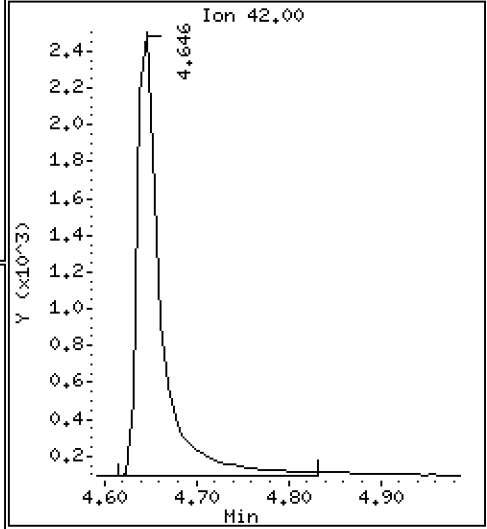
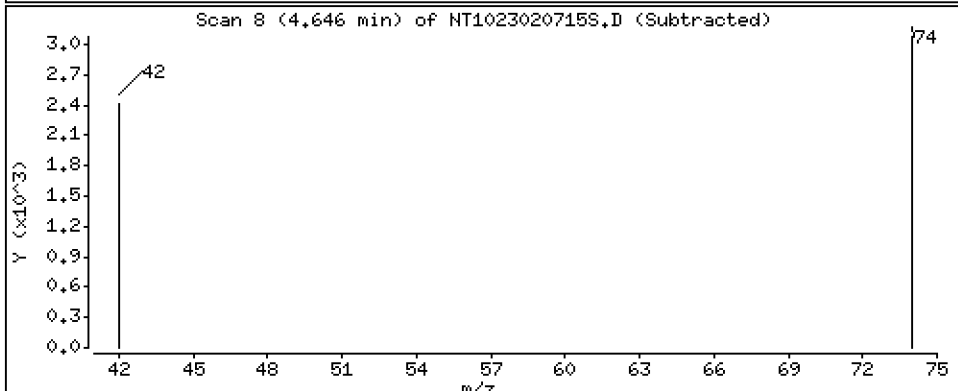
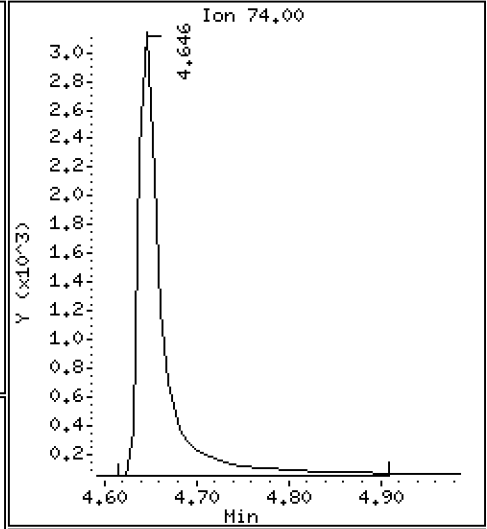
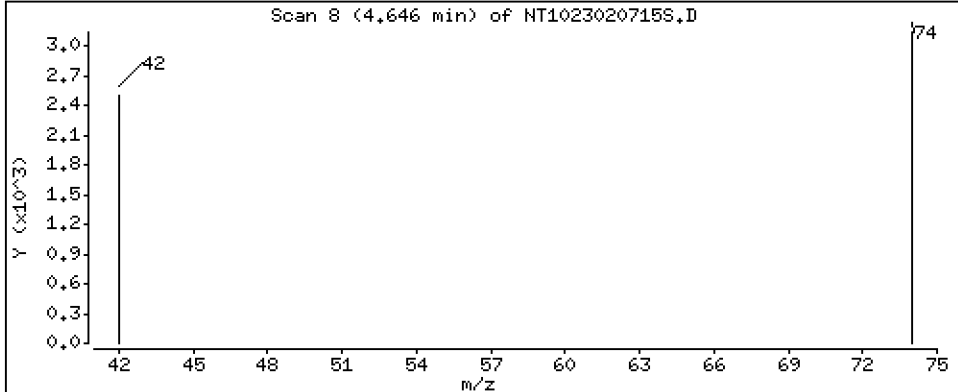
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 0.2039 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020715S.D
 Lab Smp Id: SLB0106-LCV1
 Inj Date : 07-FEB-2023 20:36 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-LCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 09-Feb-2023 13:28 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSSDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: $Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		6.777	6.770 (0.756)		6593	0.15819	0.1582 (R)
3 Phenol	94		8.361	8.354 (0.933)		6375	0.10144	0.1014
7 1,3-Dichlorobenzene	146		8.902	8.903 (0.993)		6339	0.11201	0.1120
* 8 1,4-Dichlorobenzene-d4	152		8.964	8.965 (1.000)		137052	4.00000	
9 1,4-Dichlorobenzene	146		8.995	8.996 (1.003)		6225	0.11250	0.1125
11 Benzyl alcohol	79		9.252	9.228 (1.032)		2368	0.07724	0.07724 (M)
12 1,2-Dichlorobenzene	146		9.345	9.345 (1.042)		6023	0.11153	0.1115
13 2-Methylphenol	108		9.461	9.454 (1.055)		4442	0.10353	0.1035
15 4-Methylphenol	108		9.733	9.725 (1.086)		4306	0.09840	0.09840
16 N-Nitroso-di-n-propylamine	70		9.779	9.780 (1.091)		2945	0.09428	0.09428 (M)
22 2,4-Dimethylphenol	107		10.763	10.754 (0.943)		9411	0.21724	0.2172
24 Benzoic acid	105		Compound Not Detected.					
26 1,2,4-Trichlorobenzene	180		11.334	11.335 (0.993)		4548	0.11200	0.1120
* 27 Naphthalene-d8	136		11.419	11.419 (1.000)		493177	4.00000	
30 Hexachlorobutadiene	225		11.829	11.821 (1.036)		2554	0.11520	0.1152
39 Dimethylphthalate	163		14.514	14.514 (0.968)		6113	0.10766	0.1077
* 42 Acenaphthene-d10	162		15.002	15.002 (1.000)		243620	4.00000	
50 Diethylphthalate	149		15.960	15.960 (1.064)		9298	0.10873	0.1087
54 N-Nitrosodiphenylamine	169		16.338	16.339 (0.907)		7974	0.10806	0.1081
57 Hexachlorobenzene	284		17.396	17.396 (0.966)		3603	0.11473	0.1147

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	17.783	17.760	(0.987)	228	0.02088	0.02088 (M)
* 59 Phenanthrene-d10	188	18.015	18.015	(1.000)	446506	4.00000	
\$ 66 Terphenyl-d14	244	21.164	21.164	(0.918)	9198	0.11199	0.1120 (R)
67 Butylbenzylphthalate	149	22.093	22.093	(0.958)	5269	0.09491	0.09491
* 69 Chrysene-d12	240	23.061	23.069	(1.000)	370022	4.00000	
* 77 Perylene-d12	264	25.616	25.616	(1.000)	388403	4.00000	
79 Dibenzo(a,h)anthracene	278	28.180	28.173	(1.100)	11305	0.10386	0.1039
90 N-Nitrosodimethylamine	74	4.646	4.638	(0.518)	5570	0.20394	0.2039

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020715S.D
 Lab Smp Id: SLB0106-LCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 07-FEB-2023
 Calibration Time: 19:58
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	127975	63988	255950	137052	7.09
27 Naphthalene-d8	464967	232484	929934	493177	6.07
42 Acenaphthene-d10	234978	117489	469956	243620	3.68
59 Phenanthrene-d10	431277	215639	862554	446506	3.53
69 Chrysene-d12	358788	179394	717576	370022	3.13
77 Perylene-d12	370755	185378	741510	388403	4.76

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.97	8.47	9.47	8.96	-0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	-0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.00	-0.00
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	-0.00
69 Chrysene-d12	23.07	22.57	23.57	23.06	-0.03
77 Perylene-d12	25.62	25.12	26.12	25.62	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020715S.D

Lab ID: SLB0106-LCV1

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

07-FEB-2023 20:36

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: 20230207.b/NT1023020714S.D

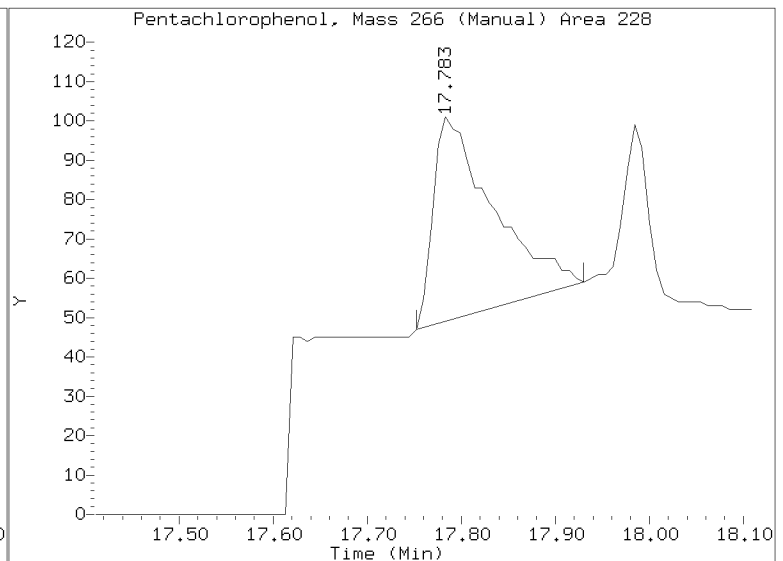
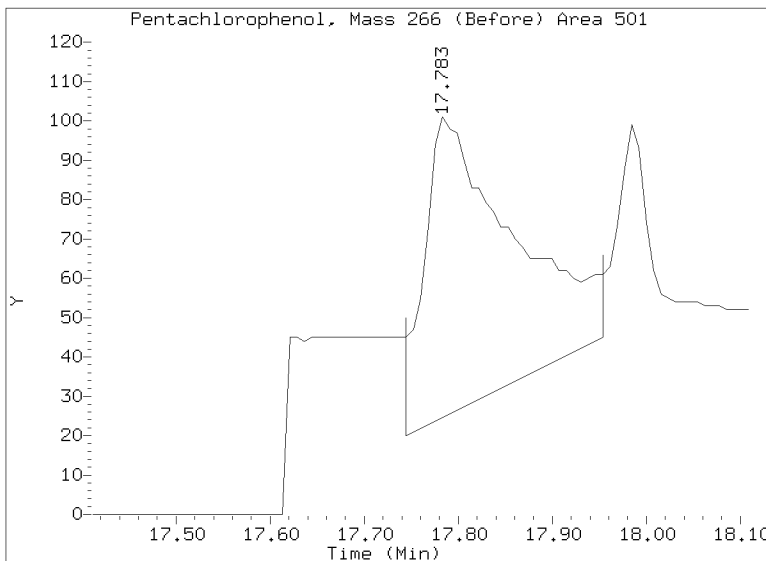
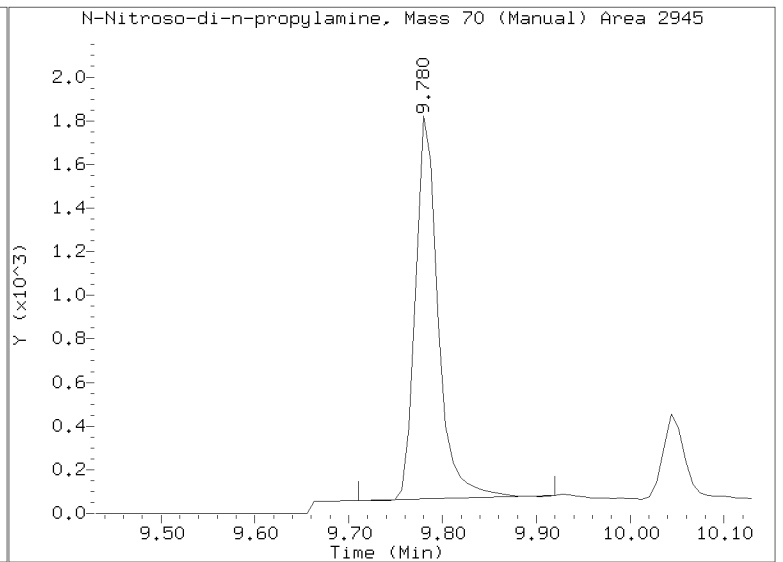
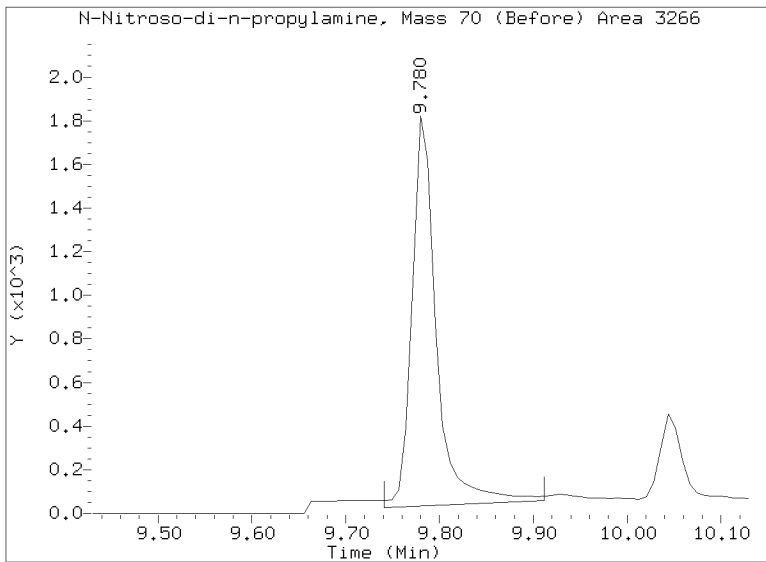
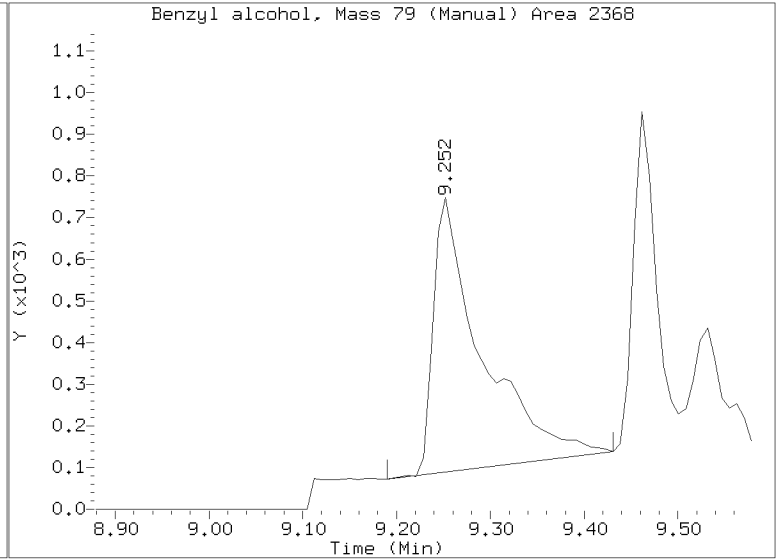
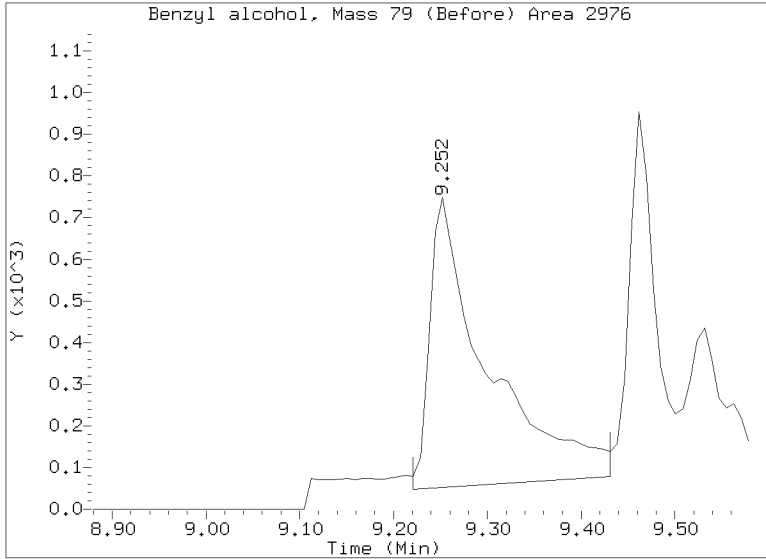
On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230207.b/20230207.b/NT1023020715S.D
Injection Date: 07-FEB-2023 20:36
Lab ID:SLB0106-LCV1 Client ID:
Report Date: 02/09/2023 13:28





**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GB00019</u>
Lab File ID:	<u>NT1023020711S.D</u>	Calibration Date:	<u>02/07/2023</u>
Sequence:	<u>SLB0106</u>	Injection Date:	<u>02/07/23</u>
Lab Sample ID:	<u>SLB0106-SCV1</u>	Injection Time:	<u>18:04</u>
Sequence Name:	<u>SCV 5.0</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	5.0000	4.2	1.6149400	1.3685620		-15.3	+/-20
1,2-Dichlorobenzene	A	5.0000	4.2	1.5761980	1.3254350		-15.9	+/-20
Benzyl Alcohol	A	5.0000	4.9	0.8947729	0.8781483		-1.9	+/-20
Benzoic acid	A	10.000	5.9	0.1278126	0.0987133		-41.2	+/-20 *
2,4-Dimethylphenol	A	5.0000	3.4	0.3513679	0.2356017		-32.9	+/-20 *
1,2,4-Trichlorobenzene	A	5.0000	3.9	0.3293471	0.2588685		-21.4	+/-20 *
N-Nitrosodiphenylamine	A	5.0000	4.2	0.6610440	0.5558999		-15.9	+/-20
Pentachlorophenol	A	5.0000	4.0	0.0758741	0.0810025		-20.1	+/-20 *
2-Fluorophenol	A	7.5000	6.97	1.2163900	1.1309700		-7.0	
p-Terphenyl-d14	A	5.0000	4.24	0.8878533	0.7527789		-15.2	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230207.1\20230207.1\NT10230207115.D

Page 1

Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.1

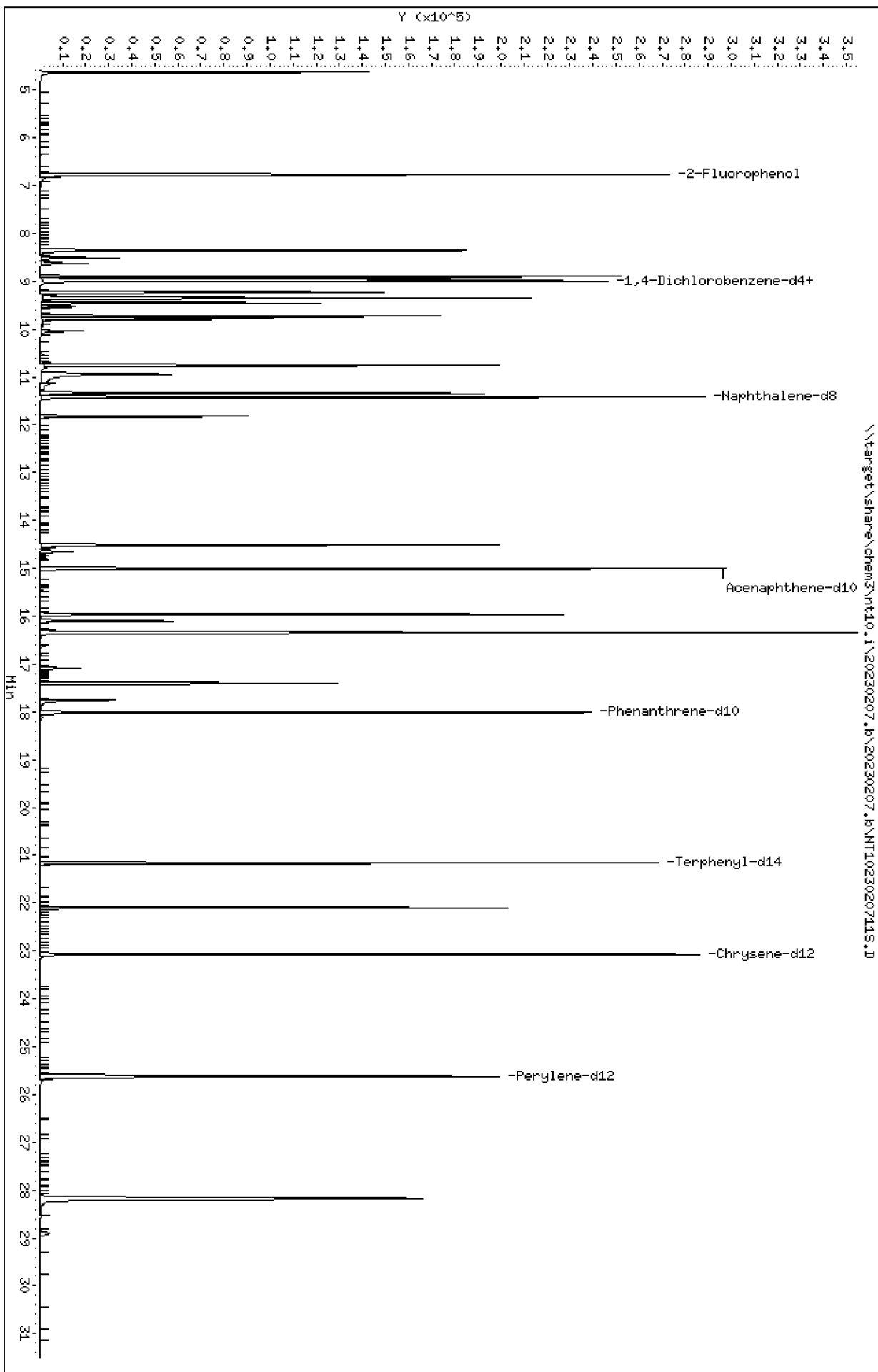
Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

Operator: USD

Column phase: ZB-5msi

Column diameter: 0.25



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

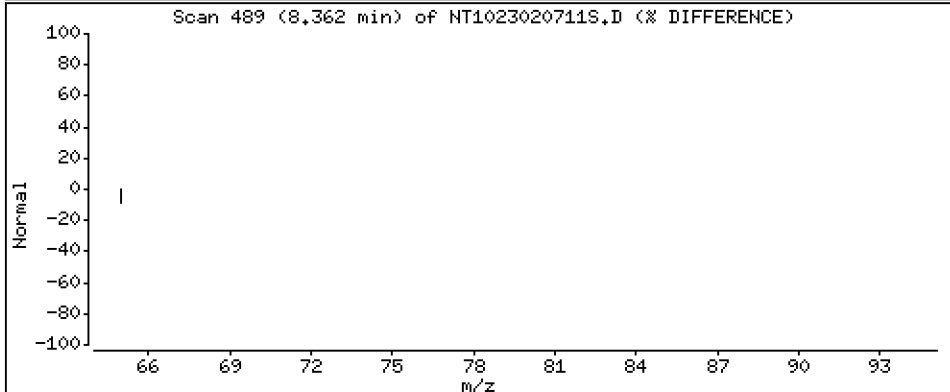
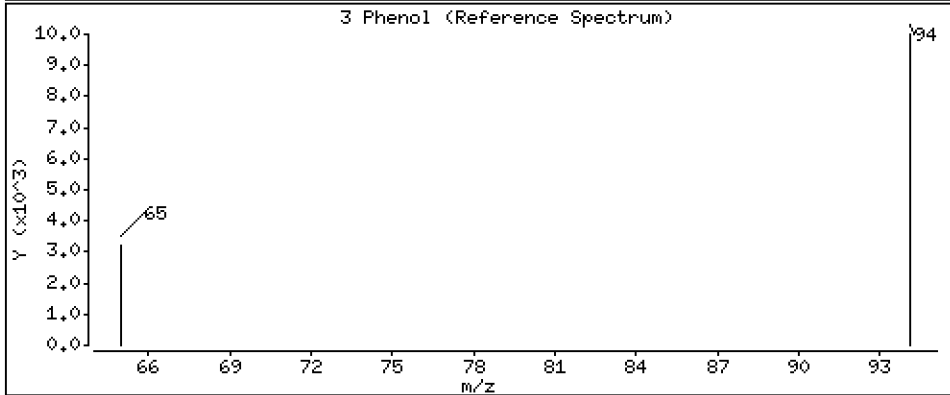
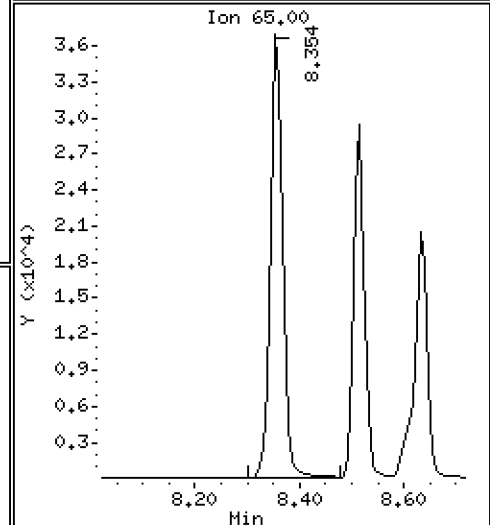
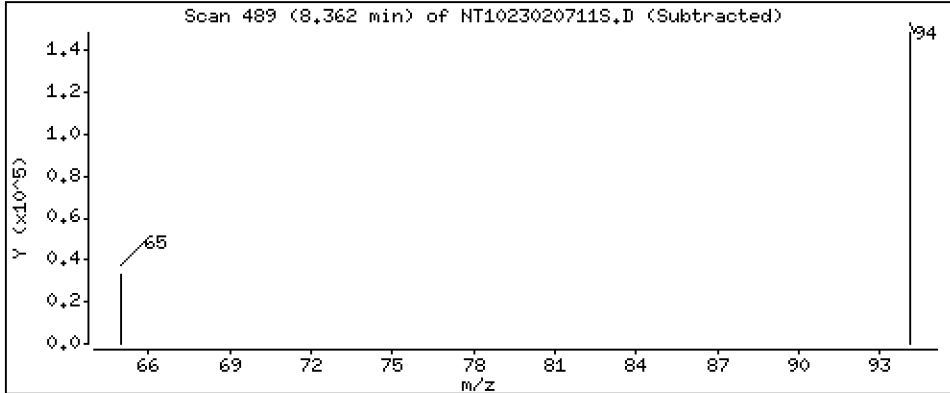
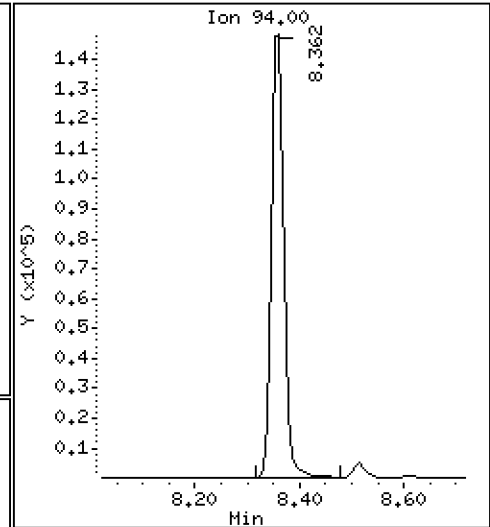
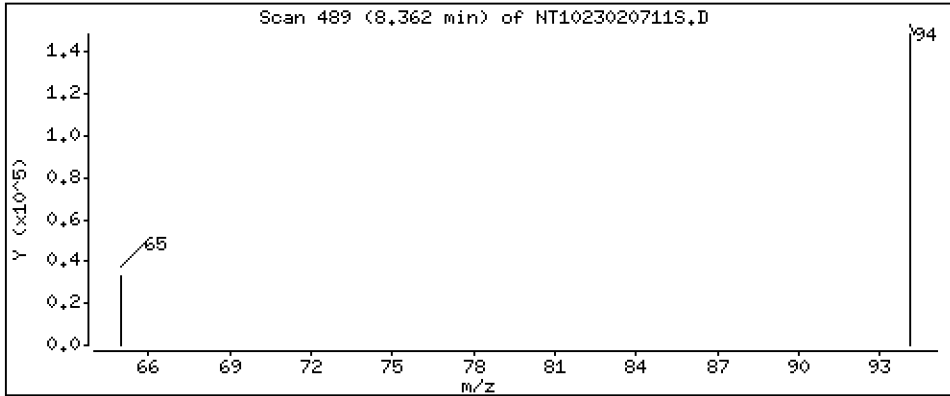
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 4.170 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

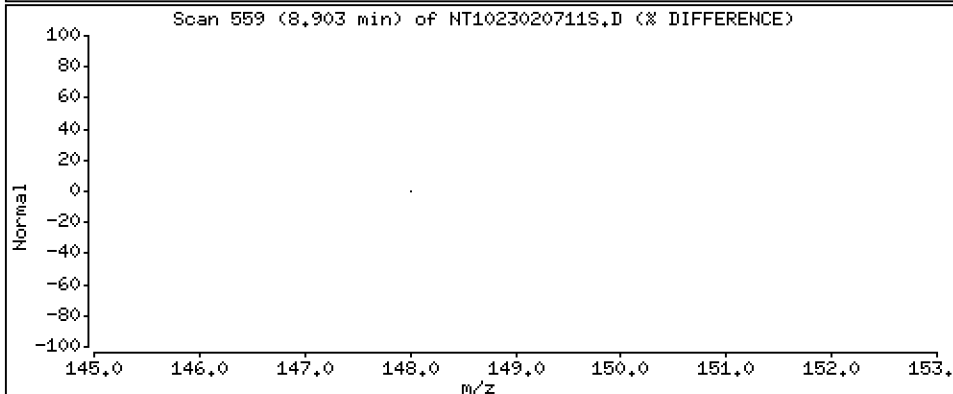
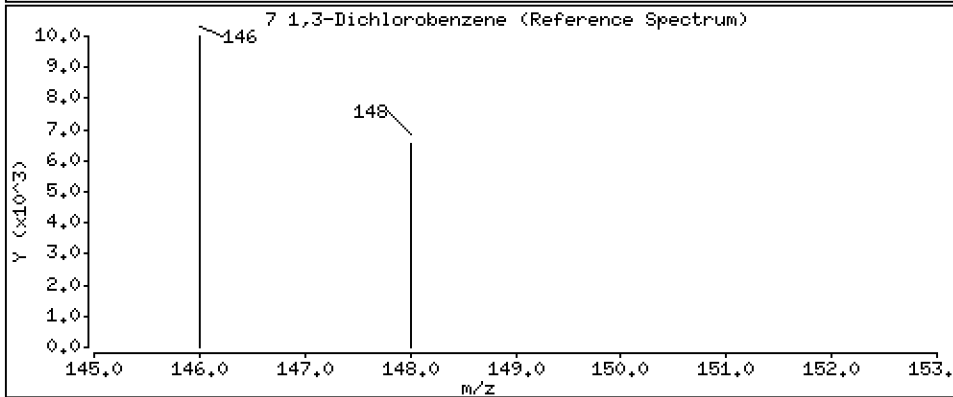
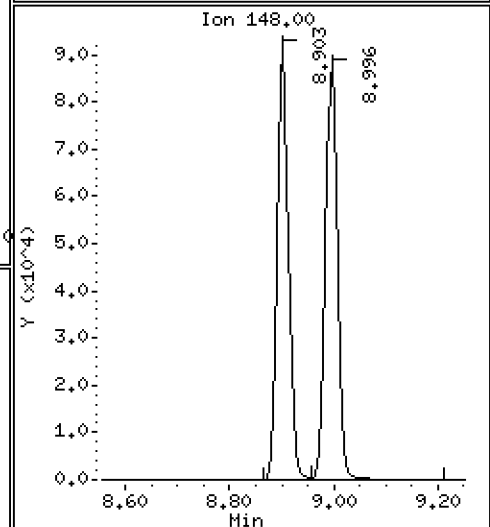
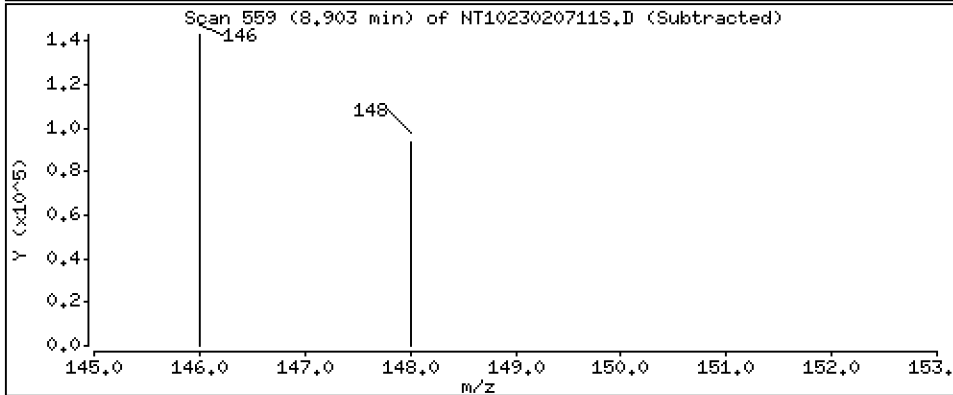
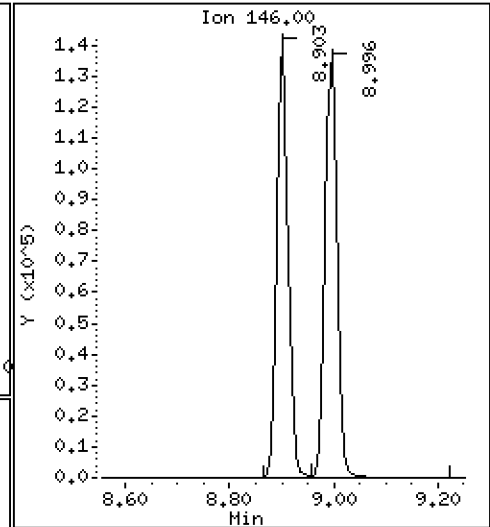
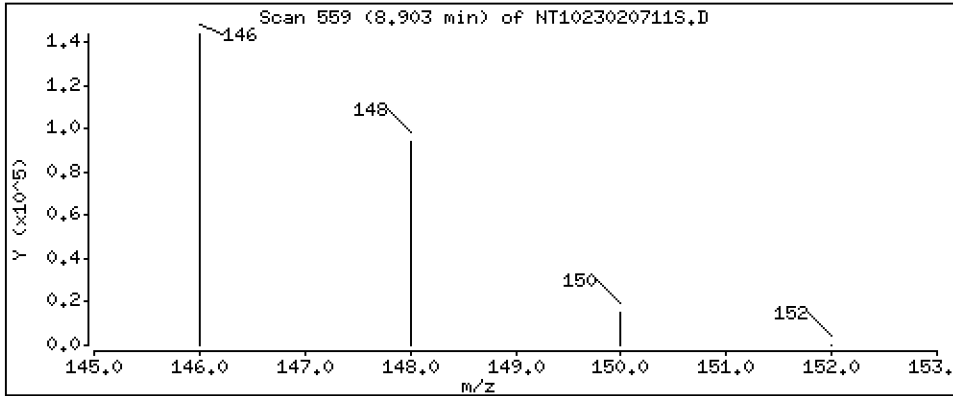
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

7 1,3-Dichlorobenzene

Concentration: 4,159 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

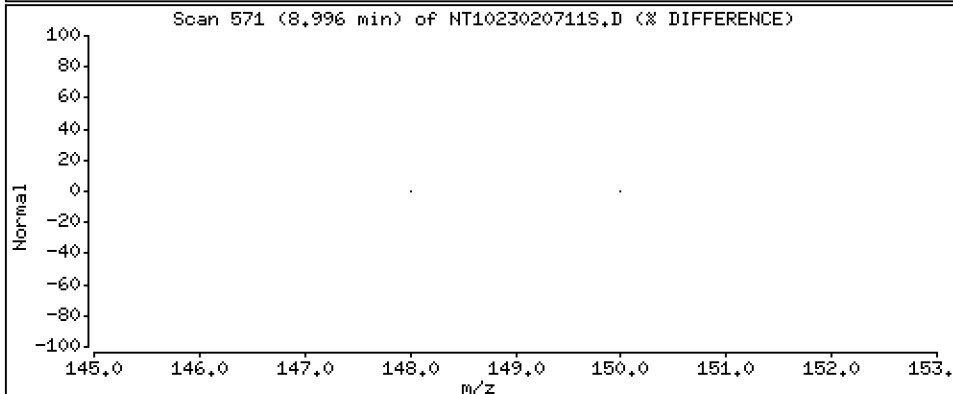
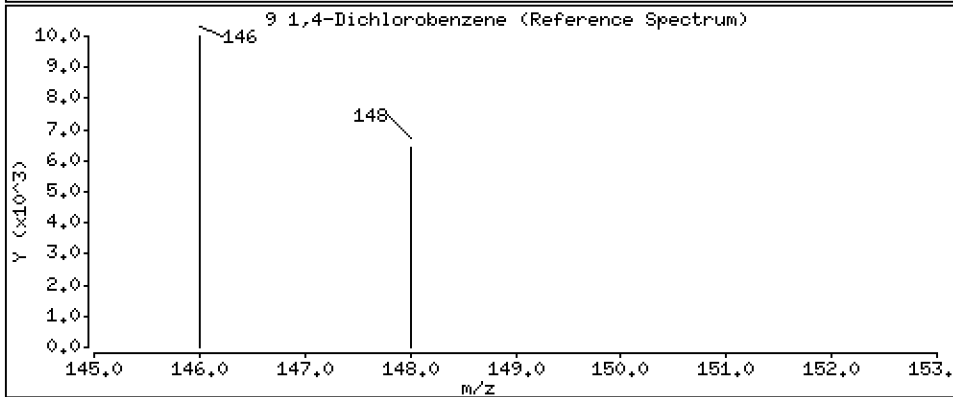
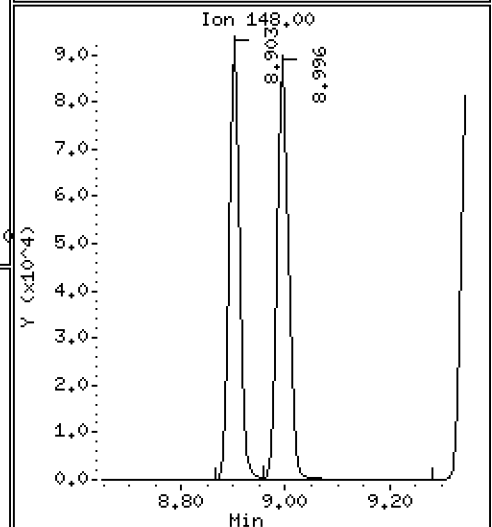
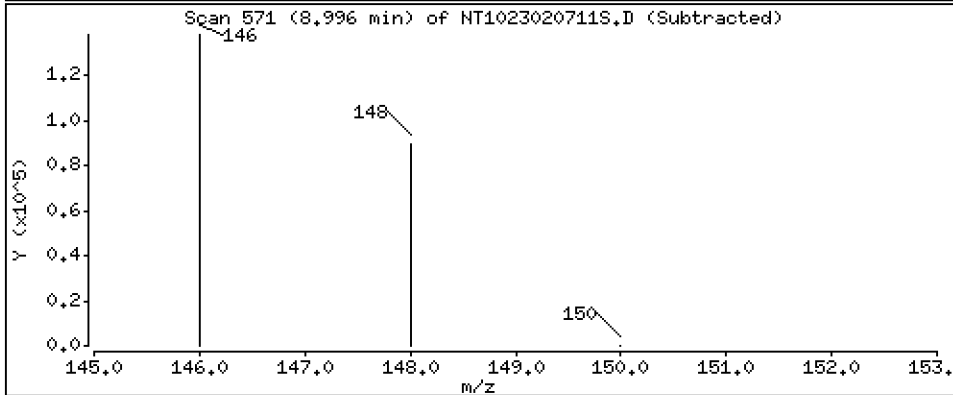
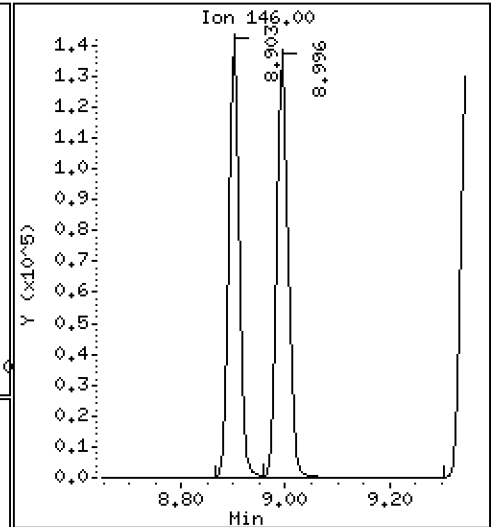
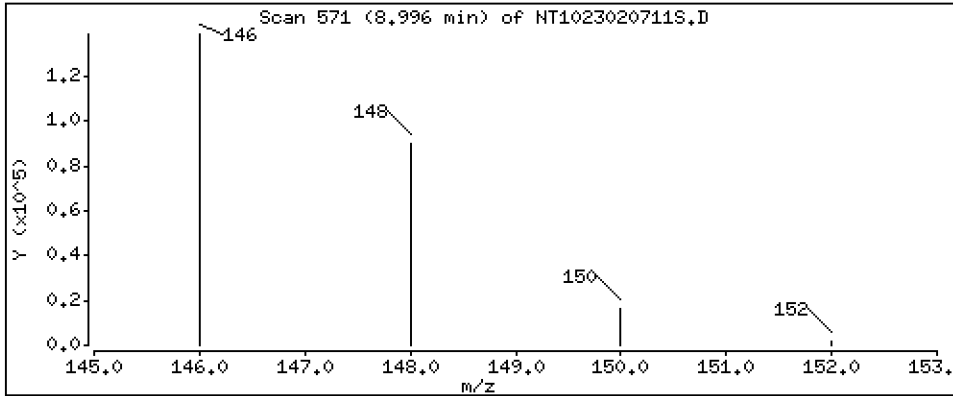
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 4.237 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

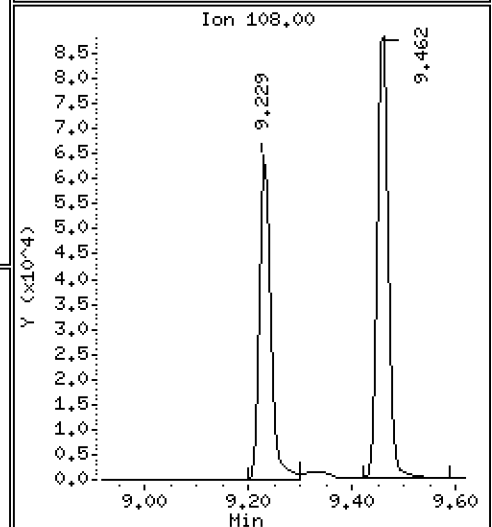
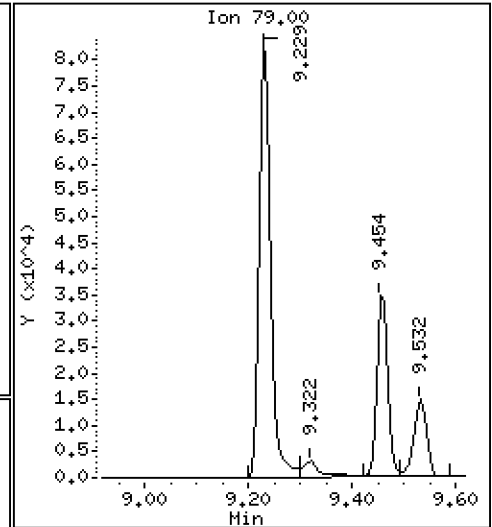
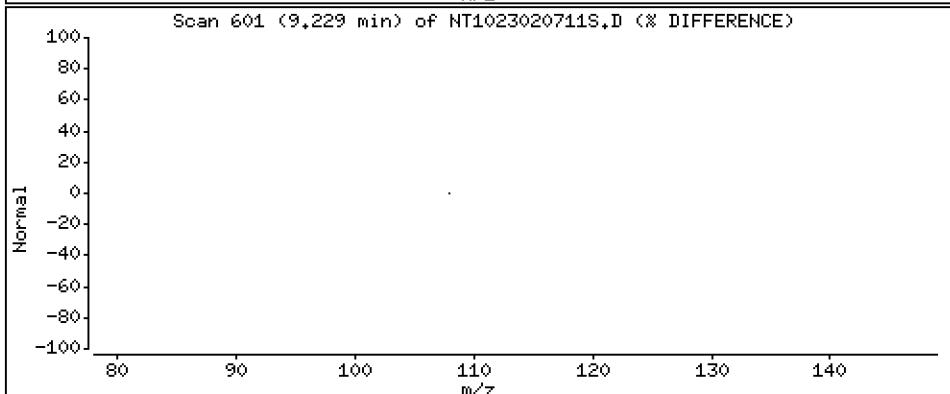
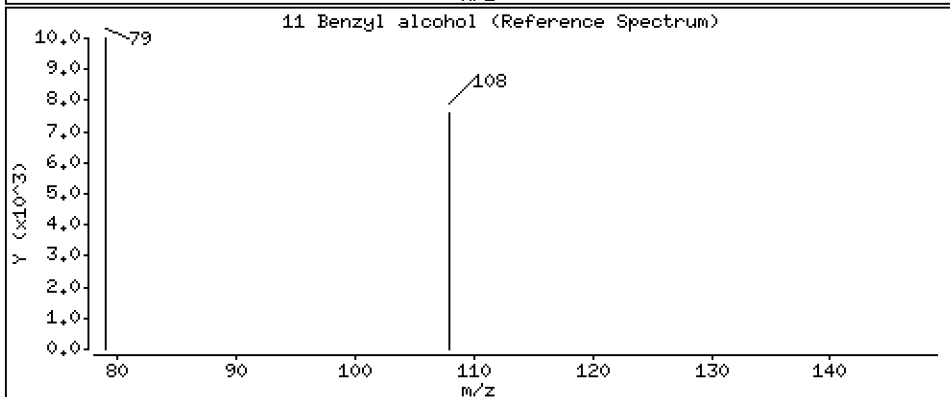
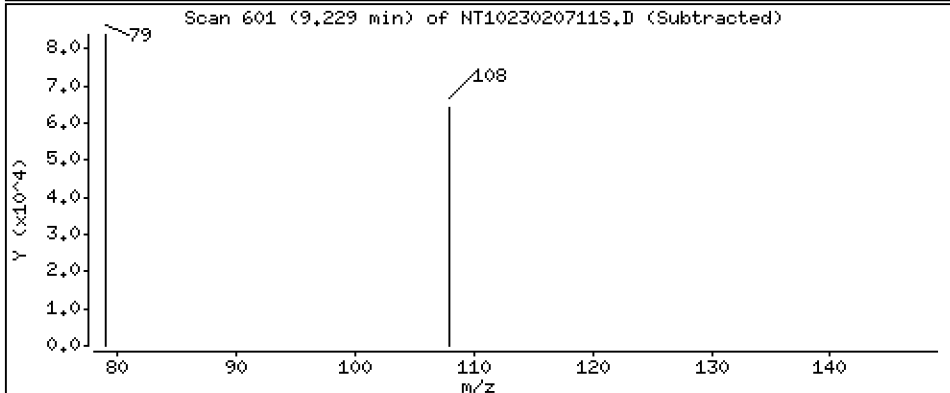
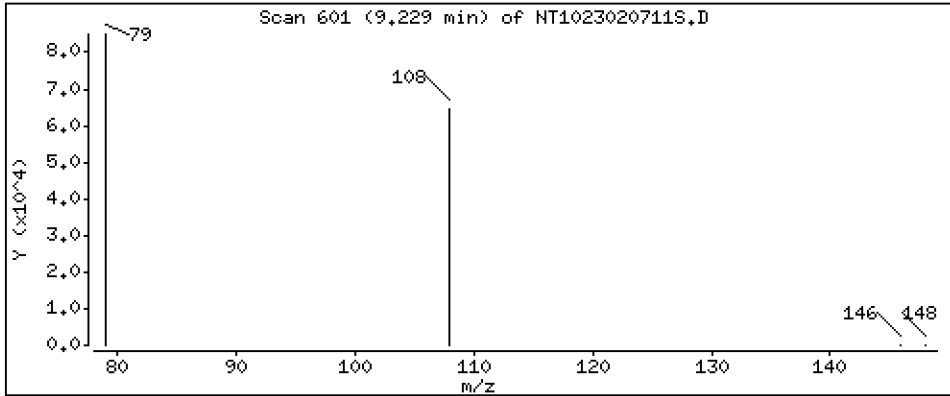
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 4.907 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

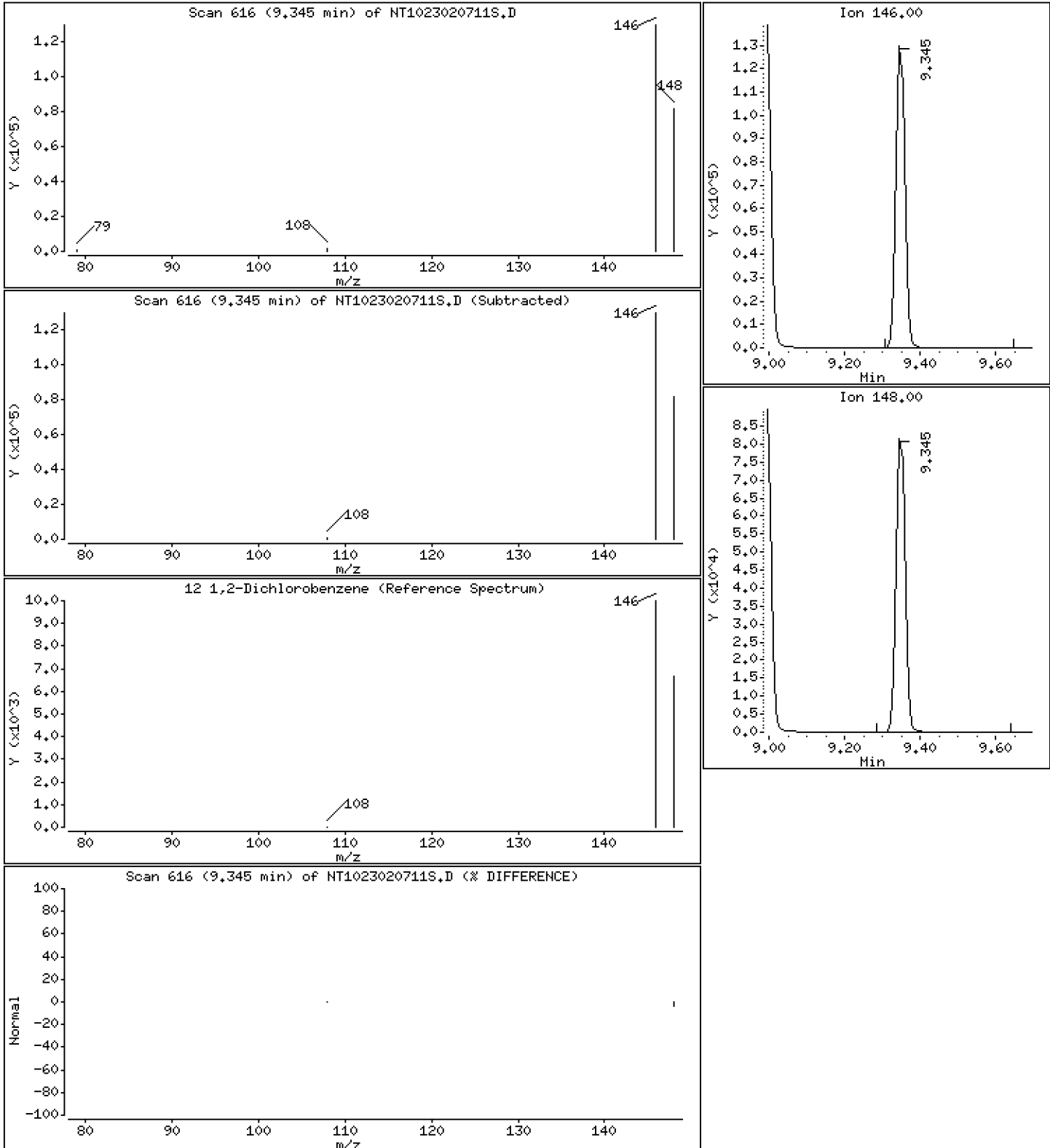
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 4.205 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

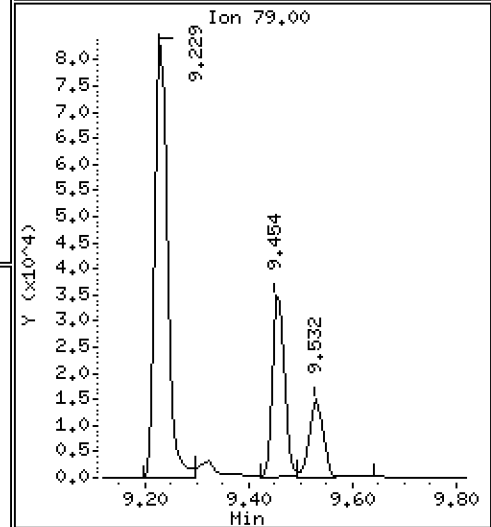
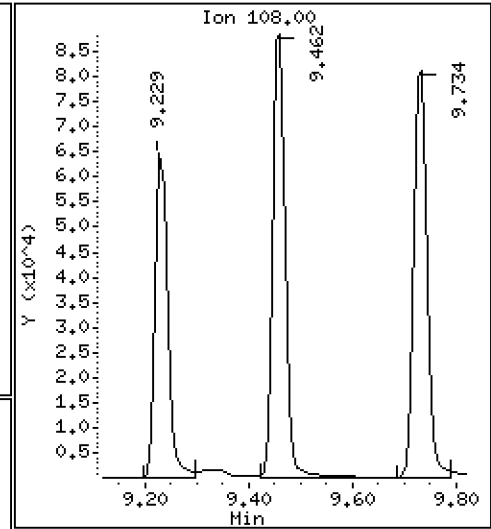
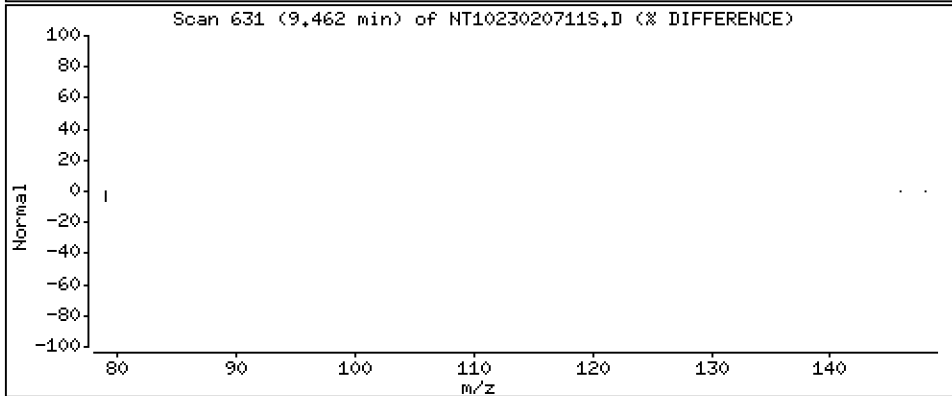
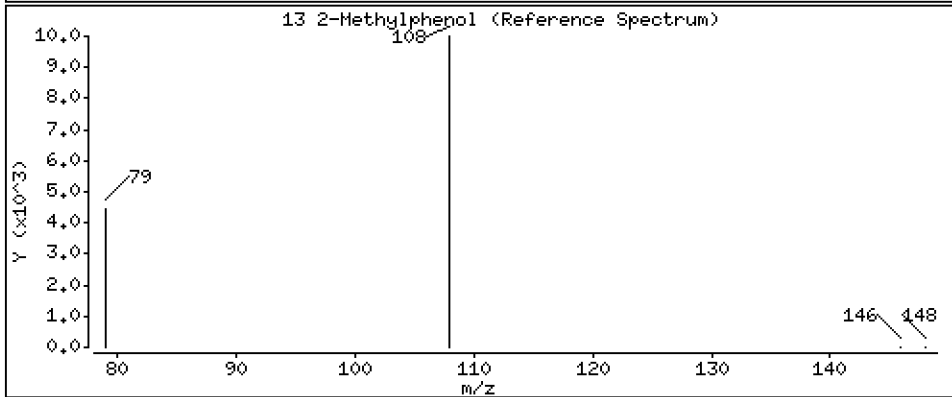
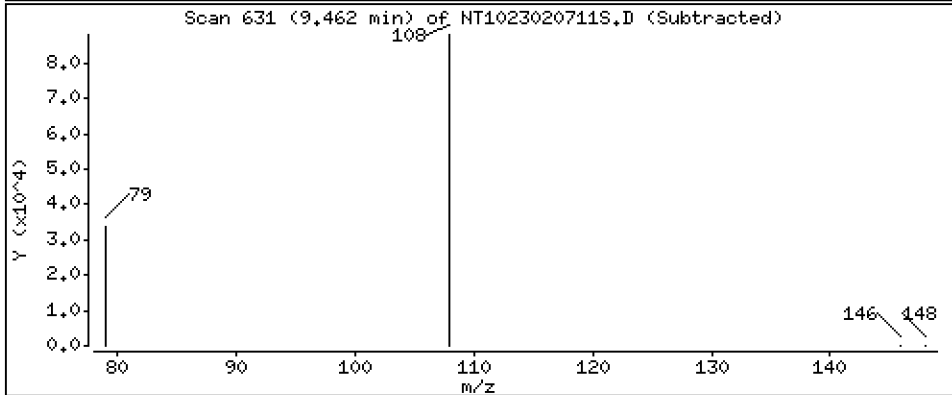
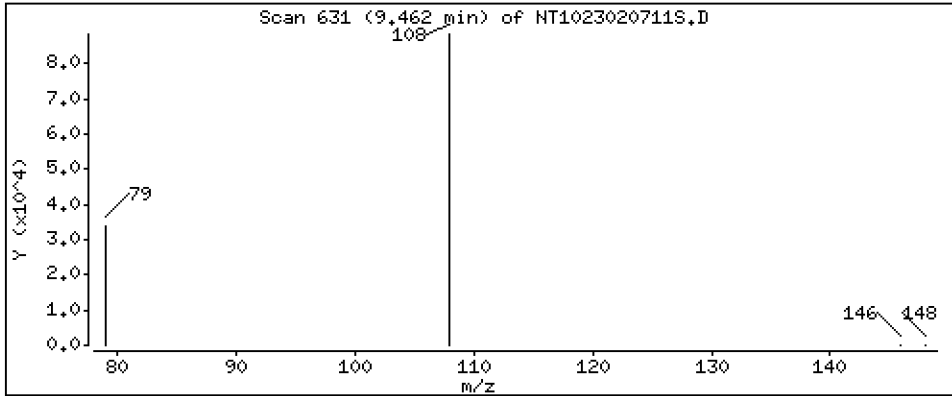
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

13 2-Methylphenol

Concentration: 3,649 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

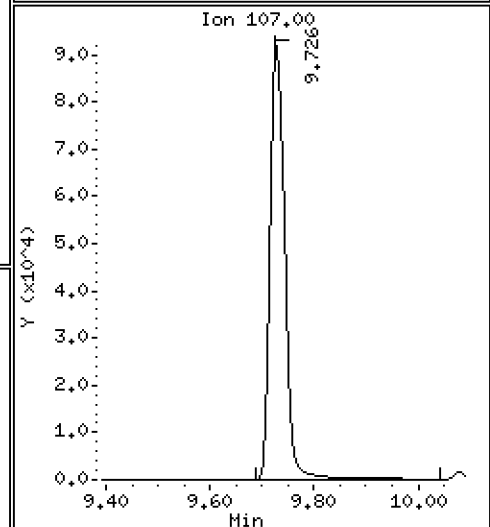
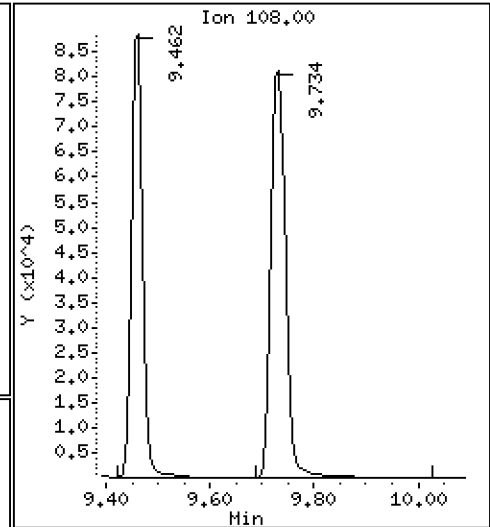
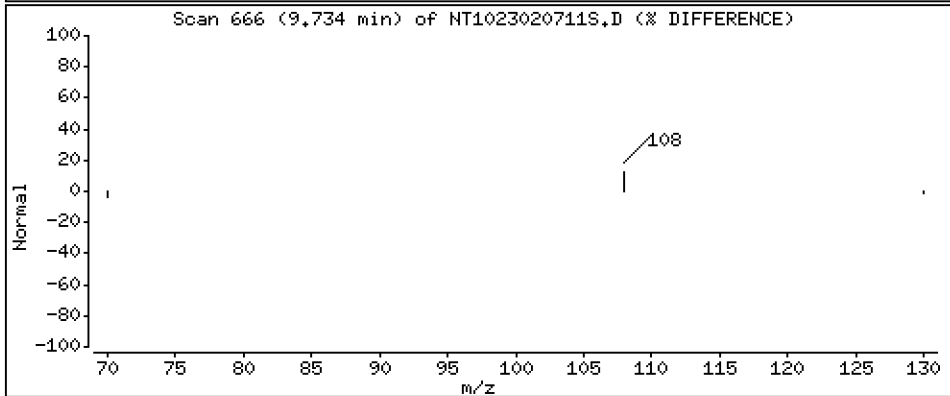
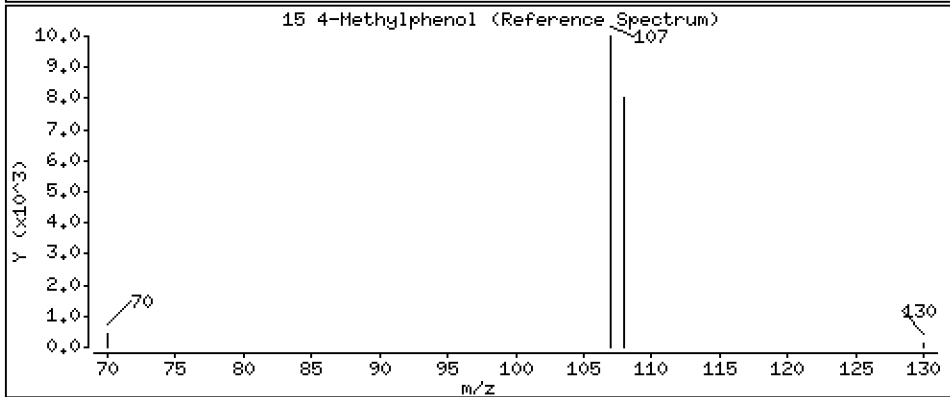
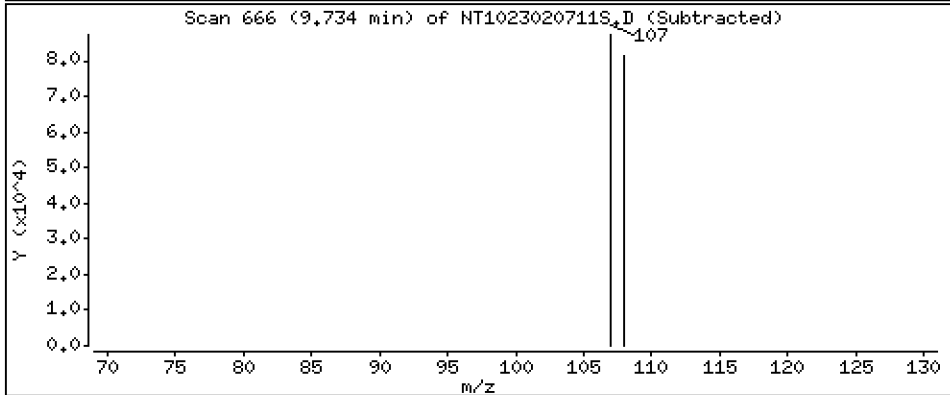
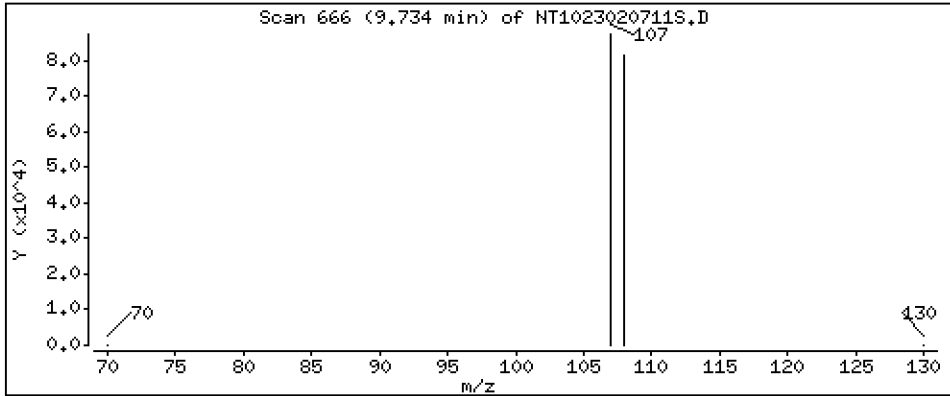
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

15 4-Methylphenol

Concentration: 3,980 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

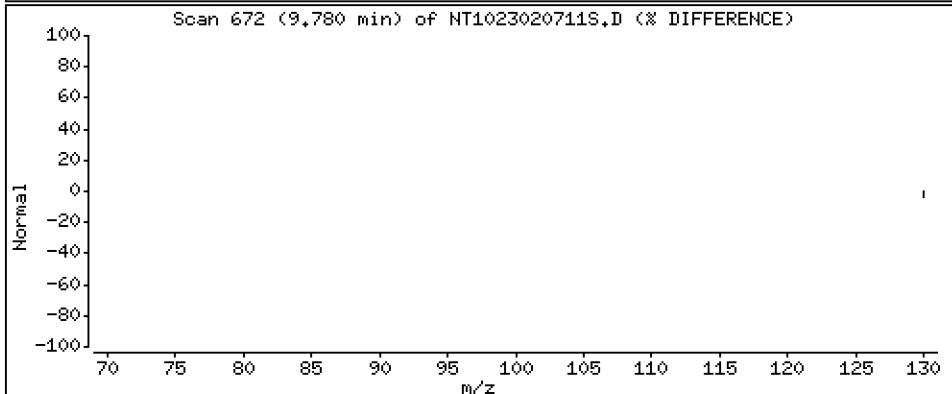
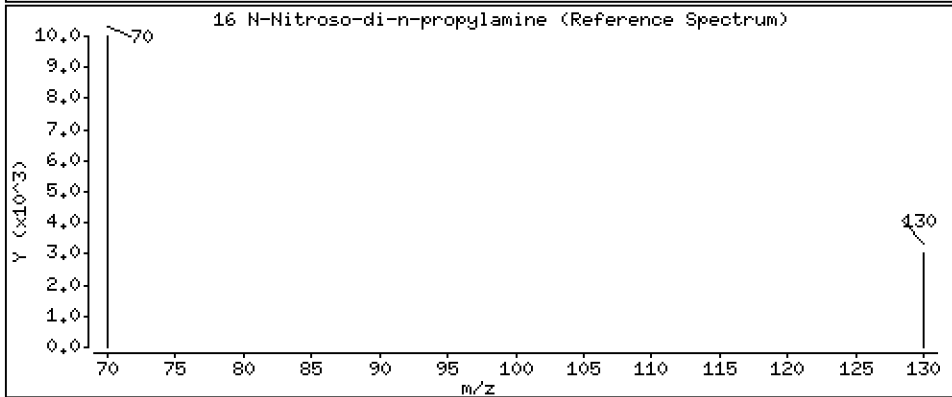
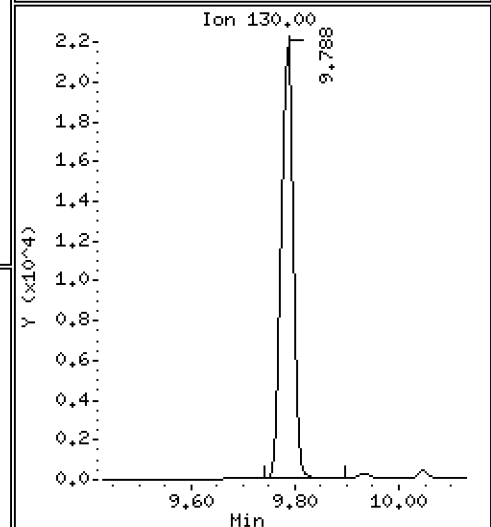
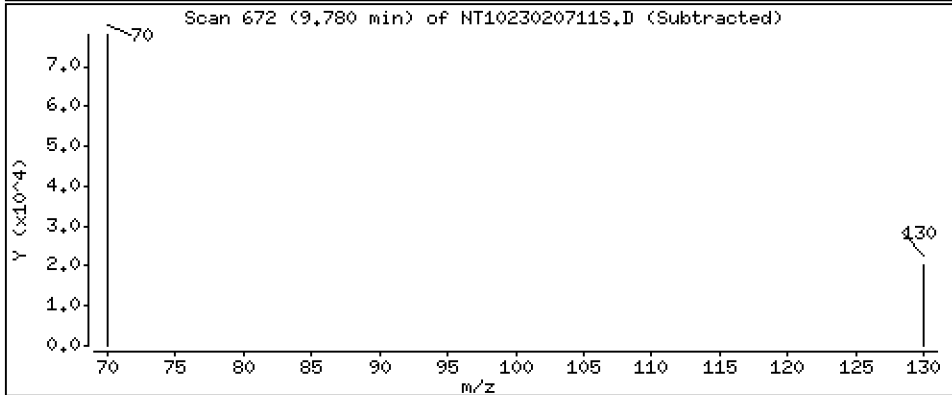
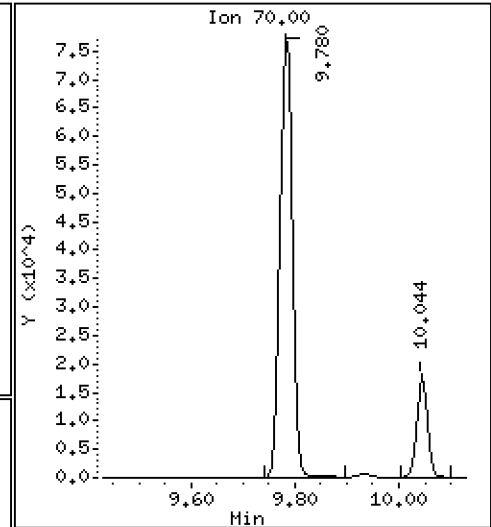
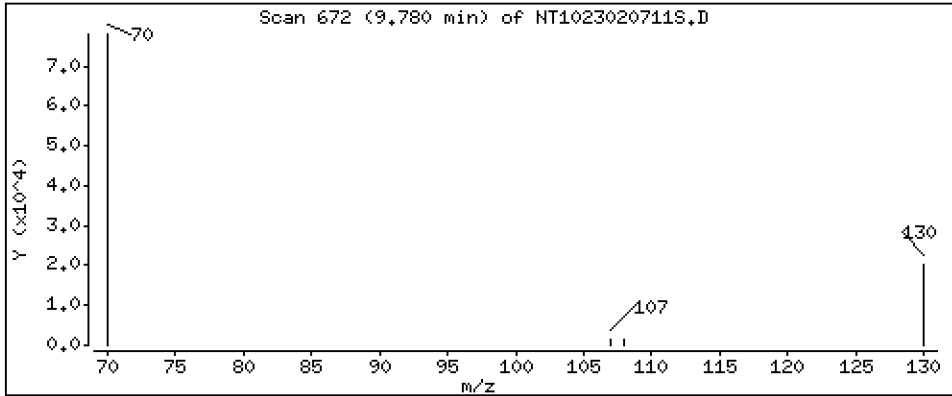
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 4.396 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

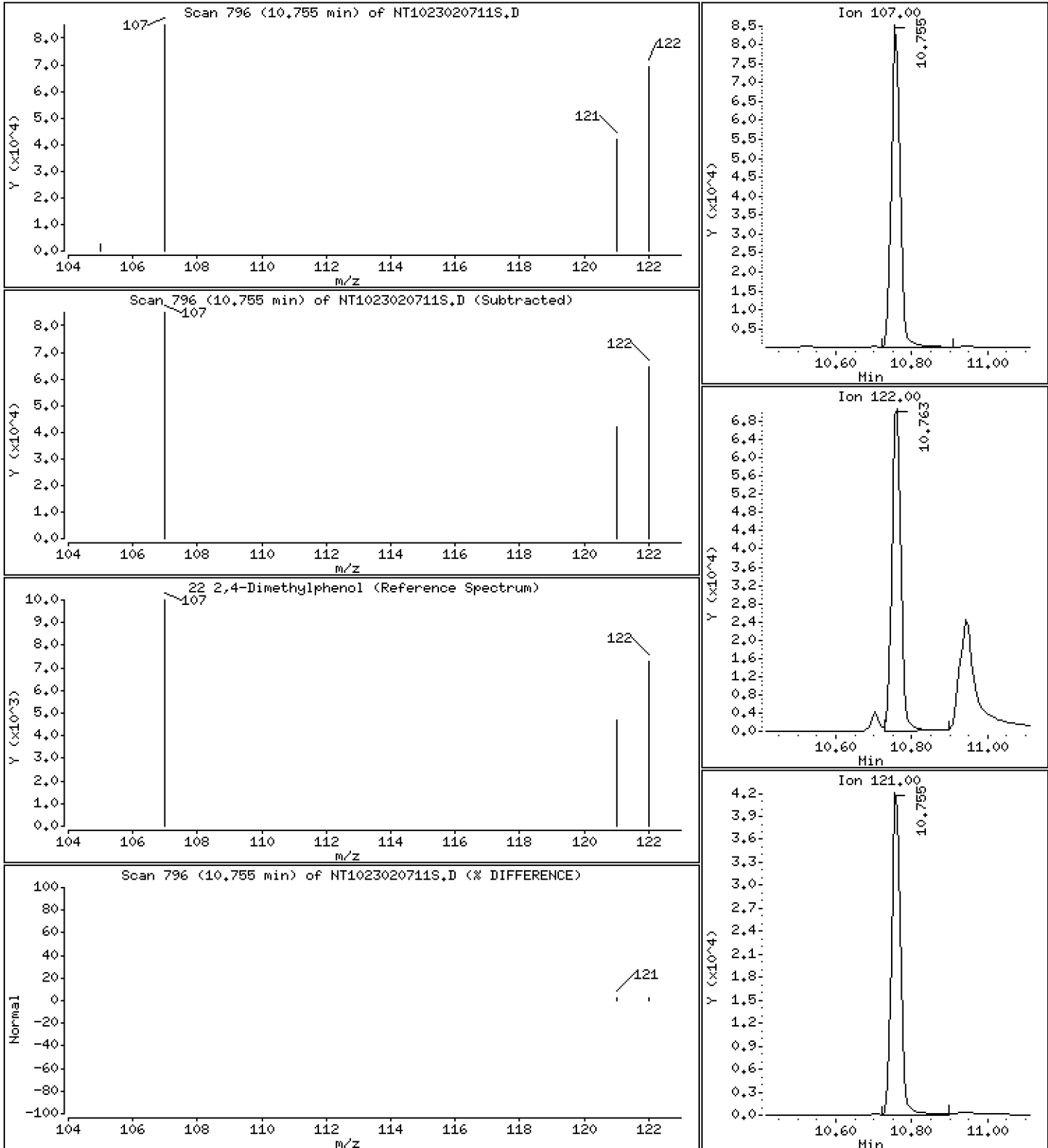
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 3,353 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

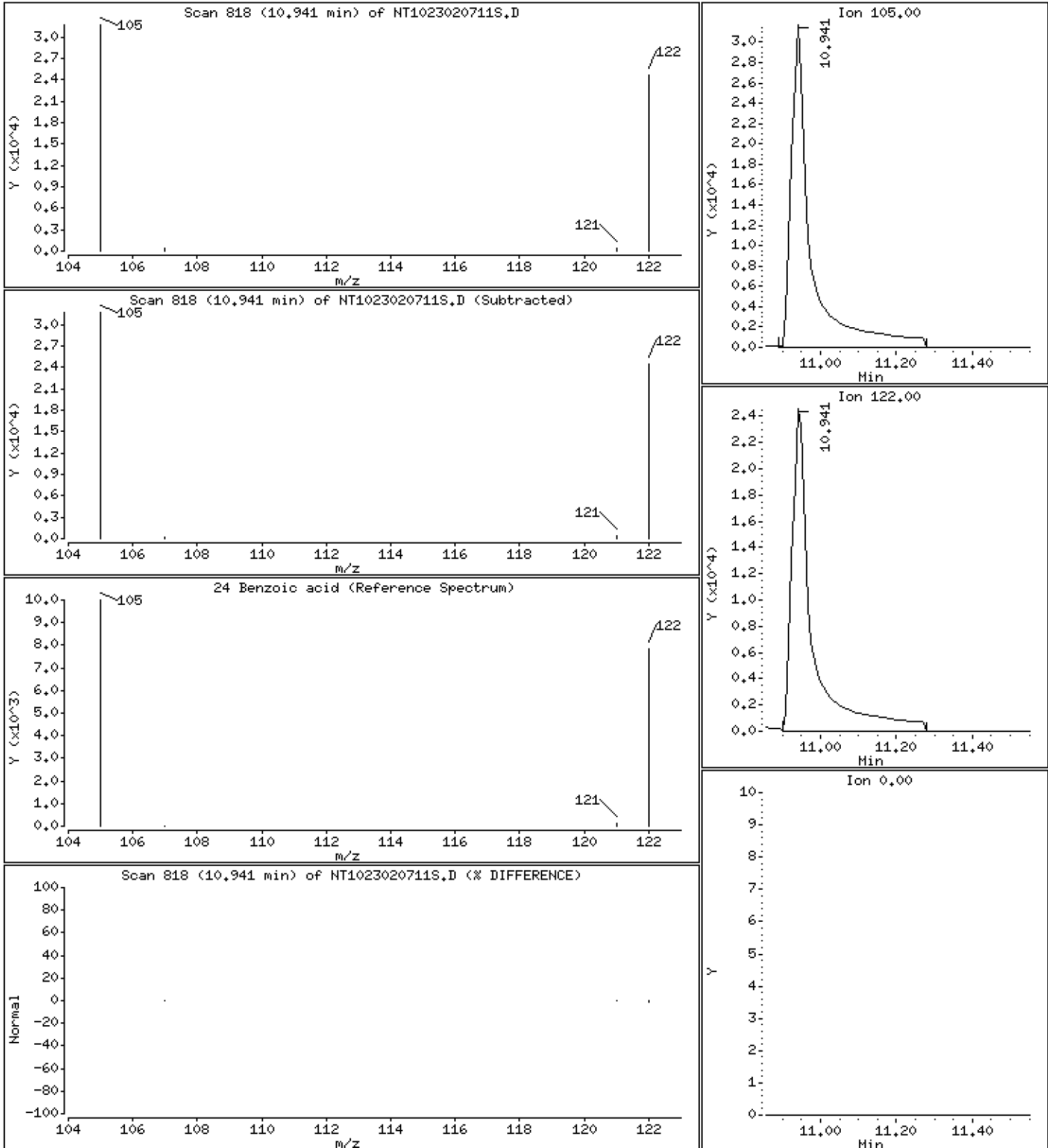
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 5,884 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

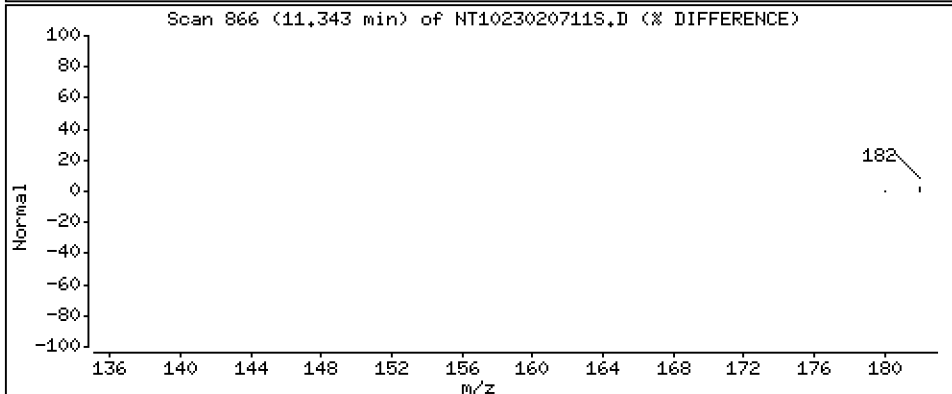
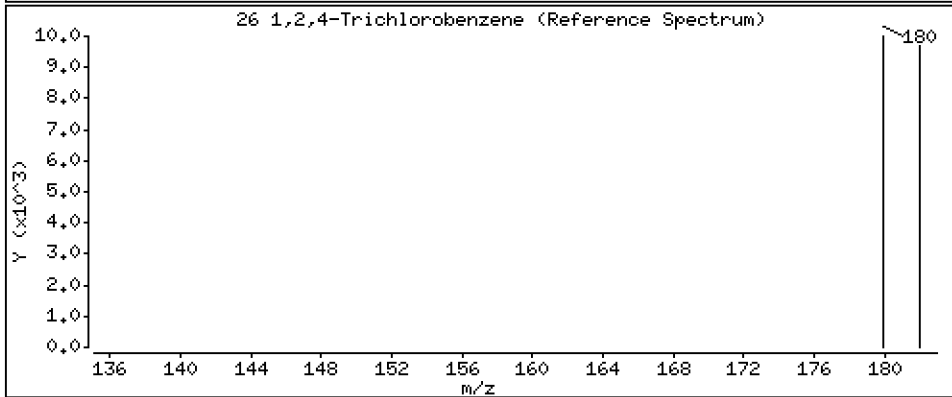
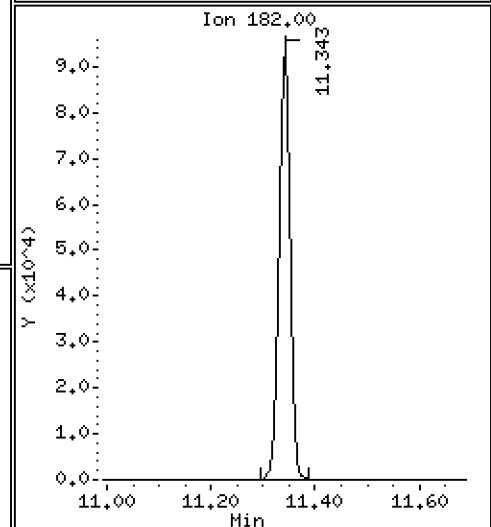
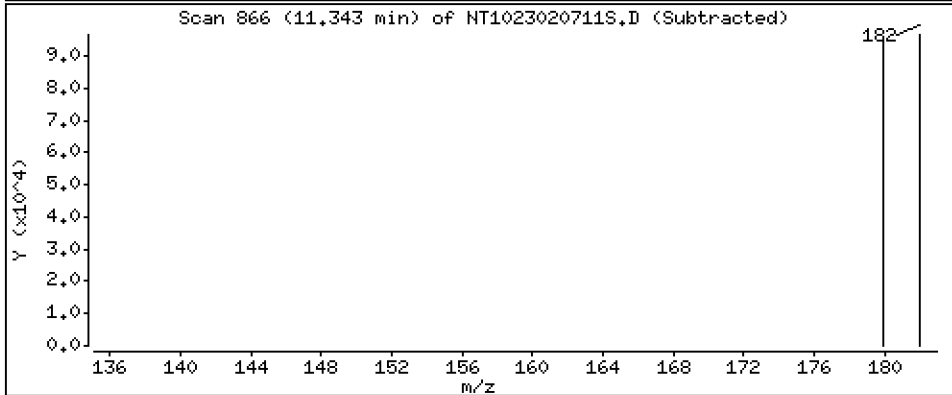
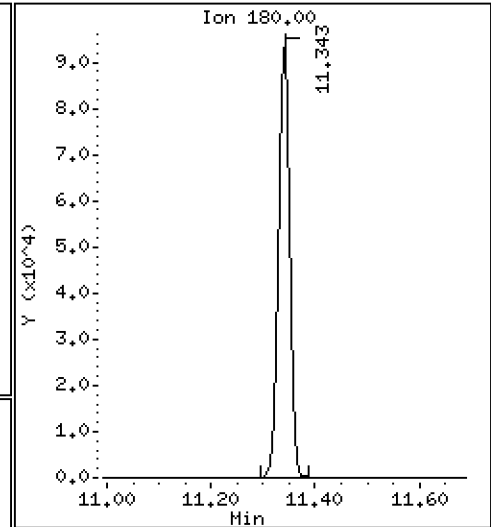
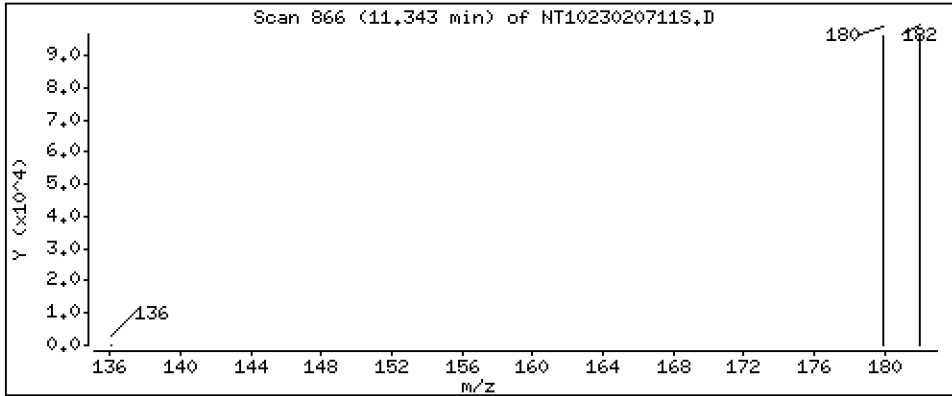
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 3.930 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

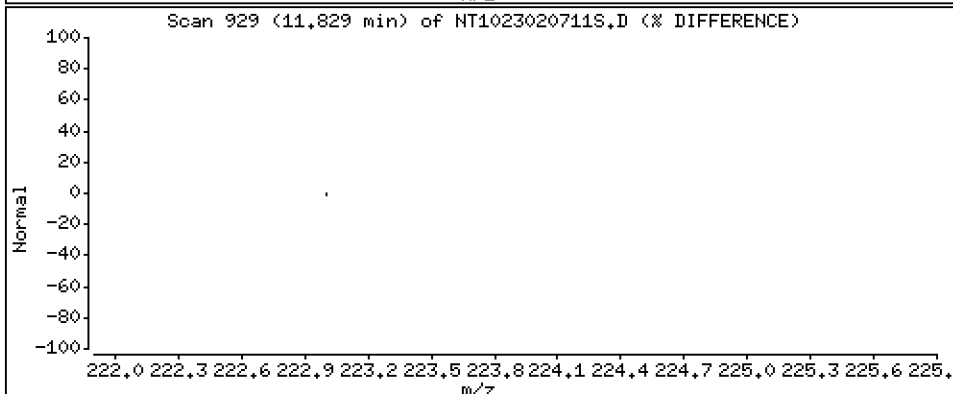
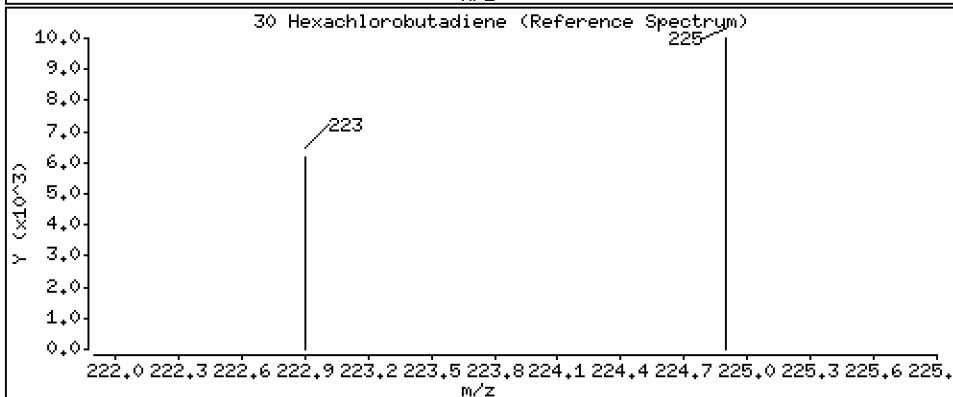
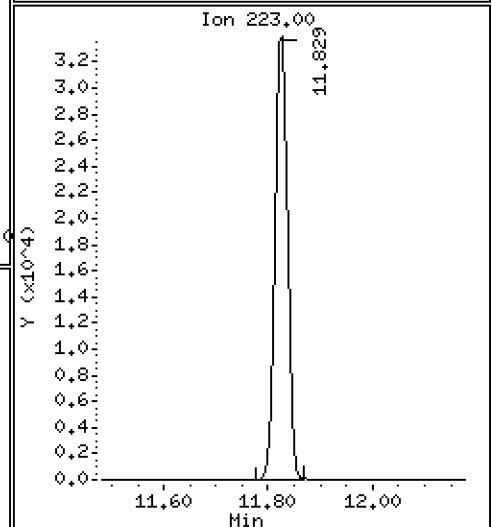
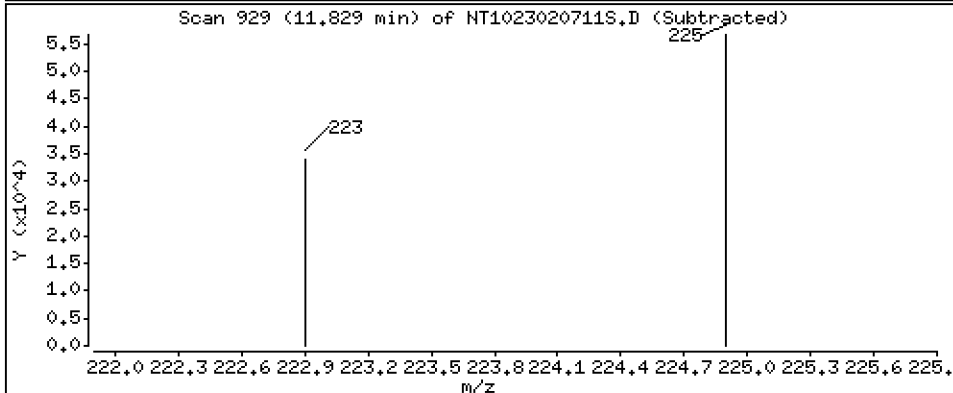
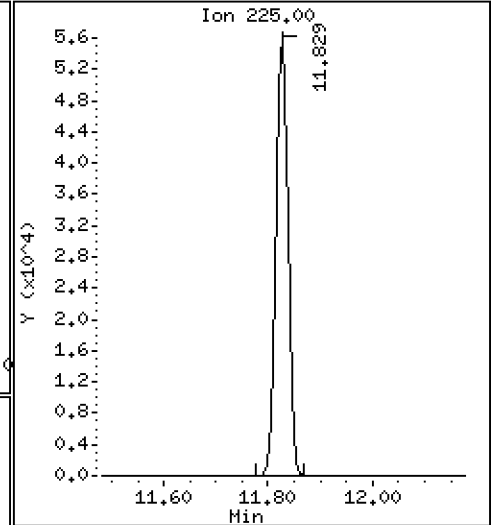
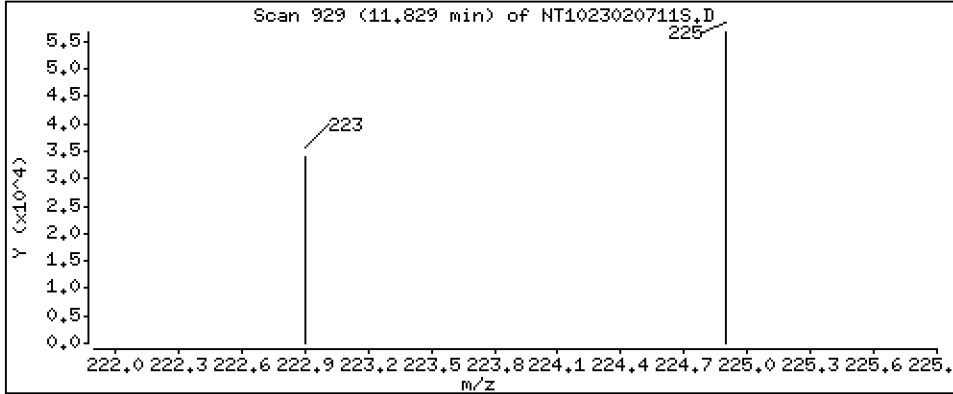
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 4,166 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

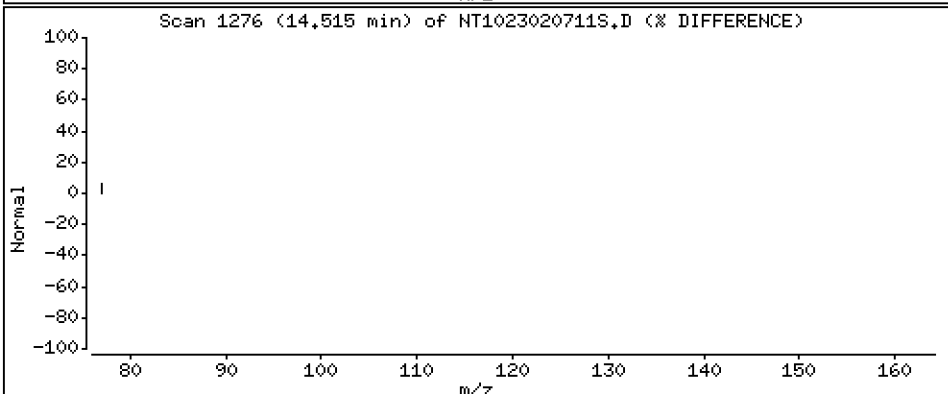
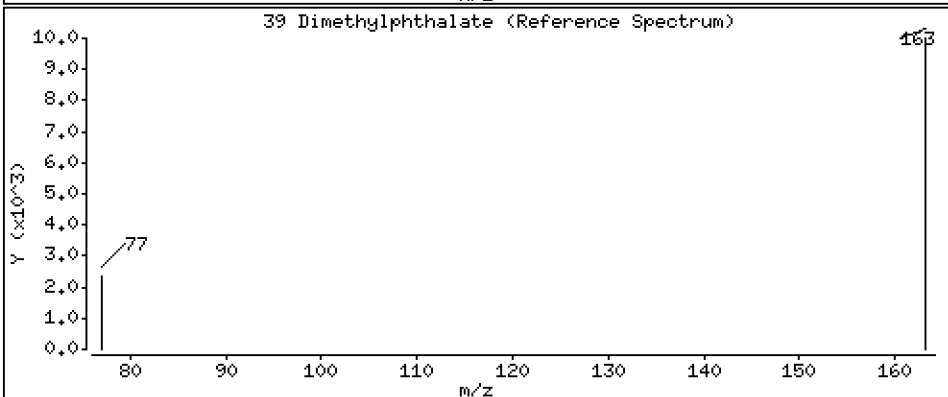
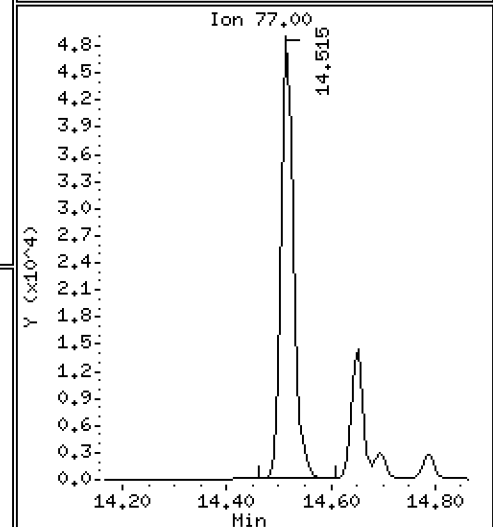
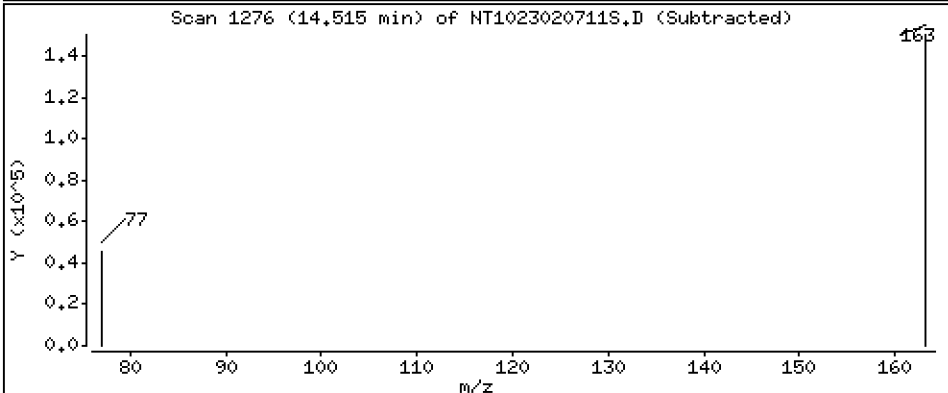
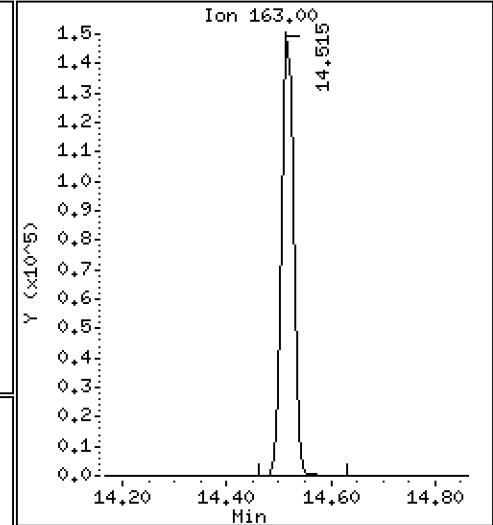
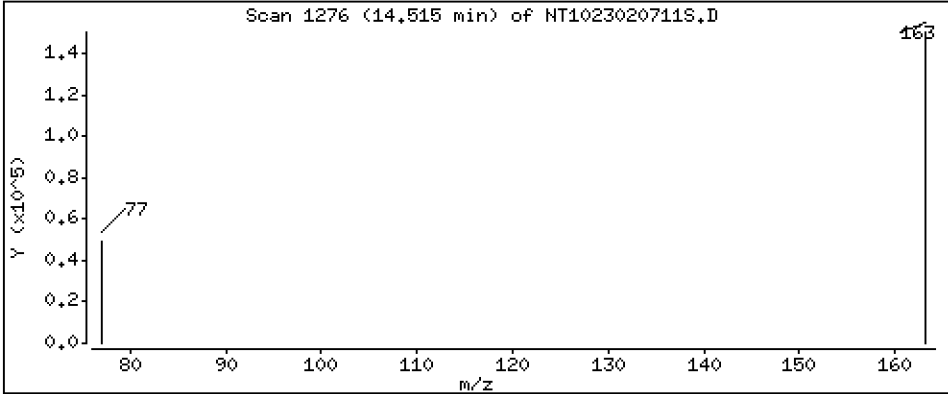
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 4,173 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

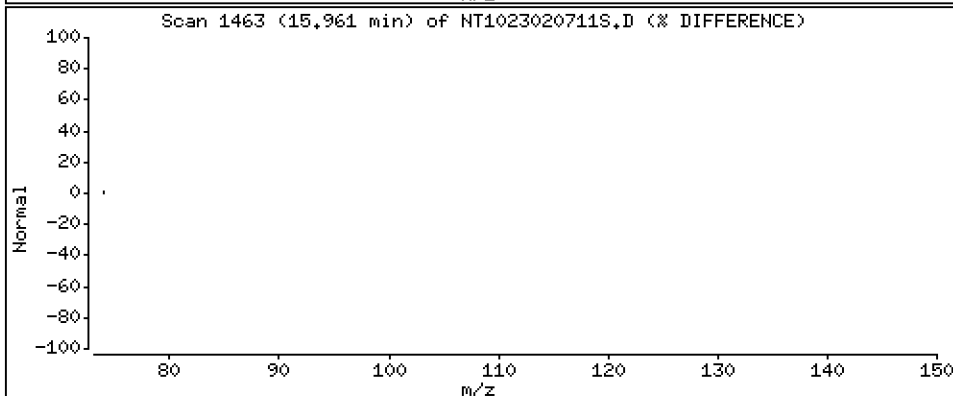
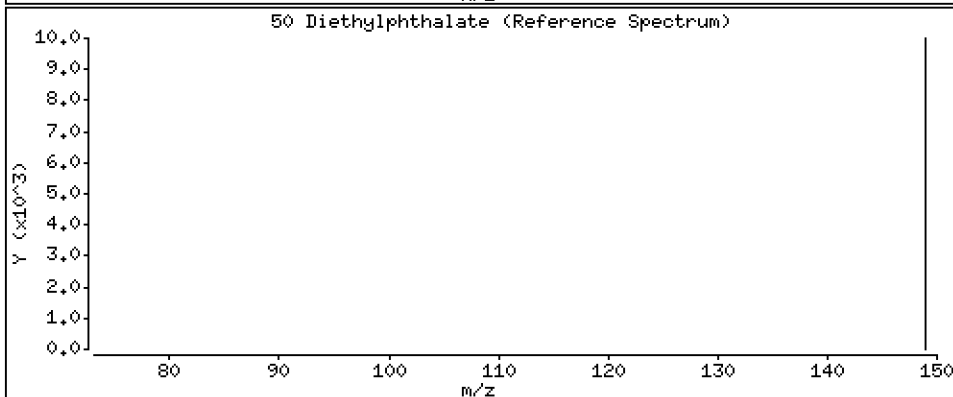
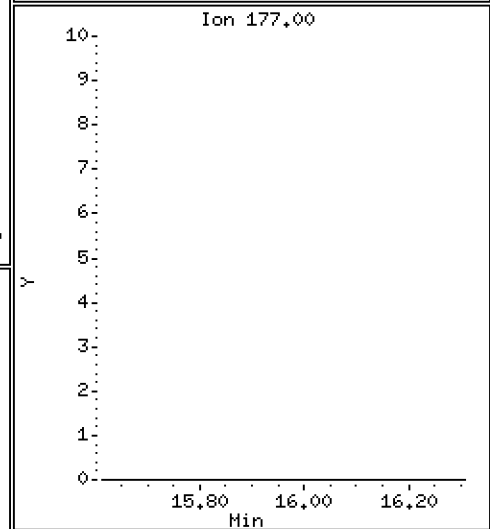
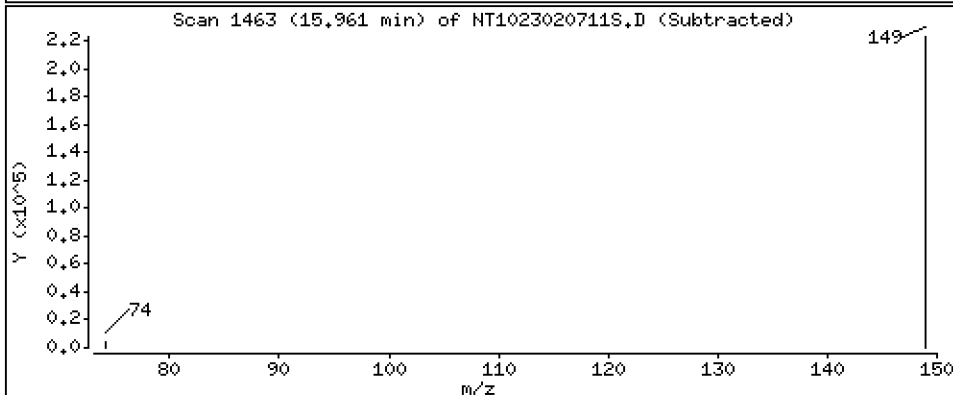
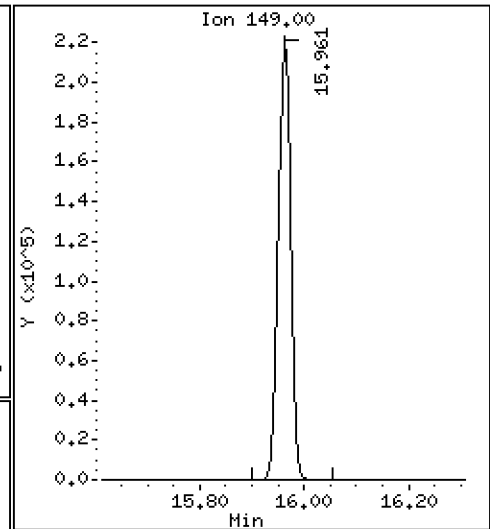
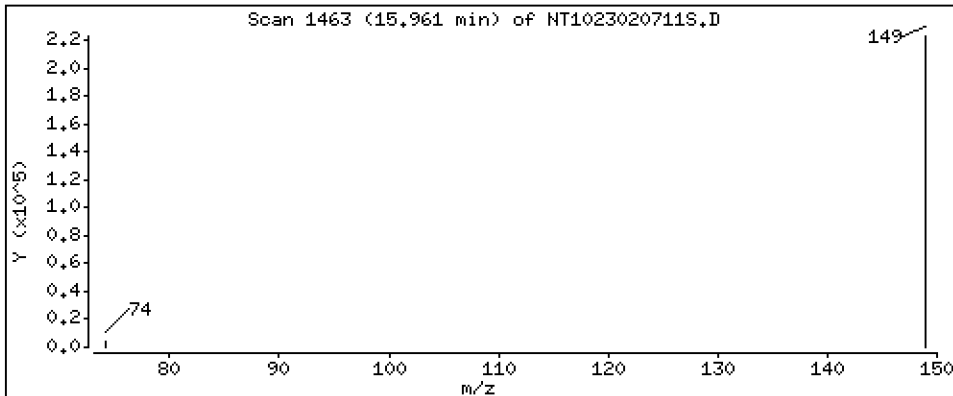
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 4,282 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

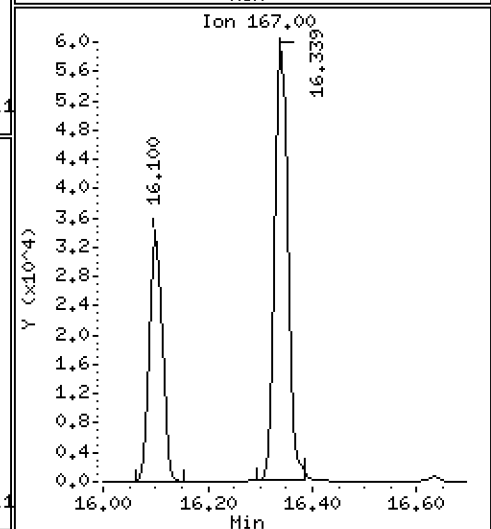
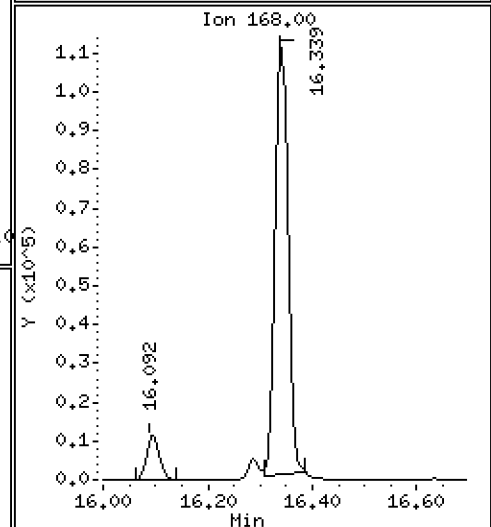
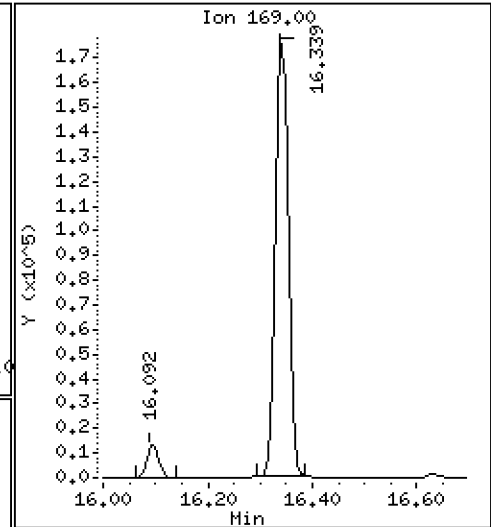
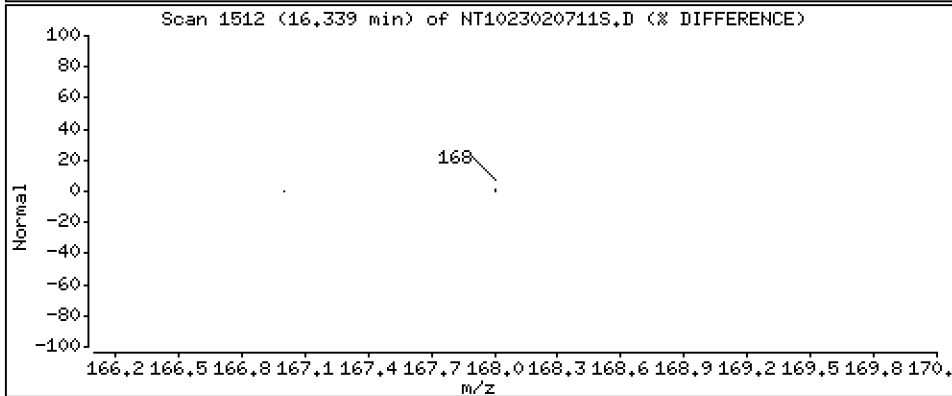
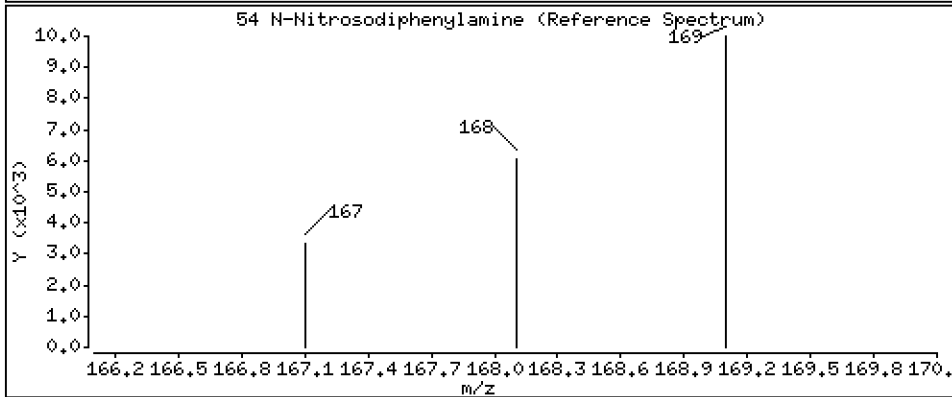
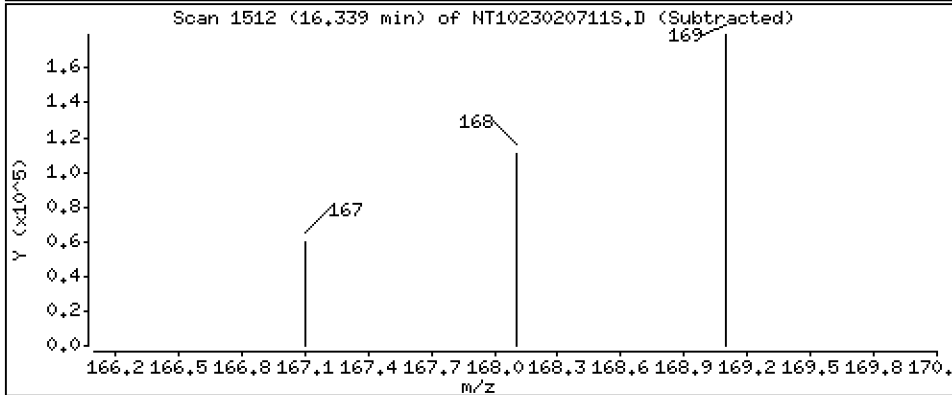
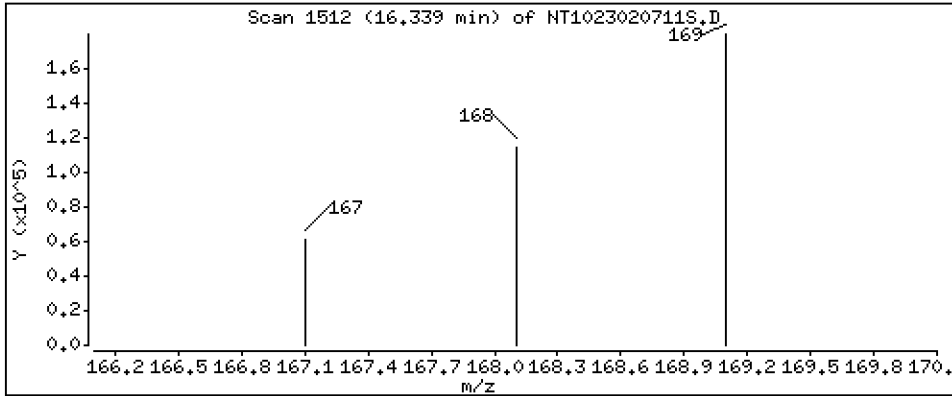
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 4.205 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

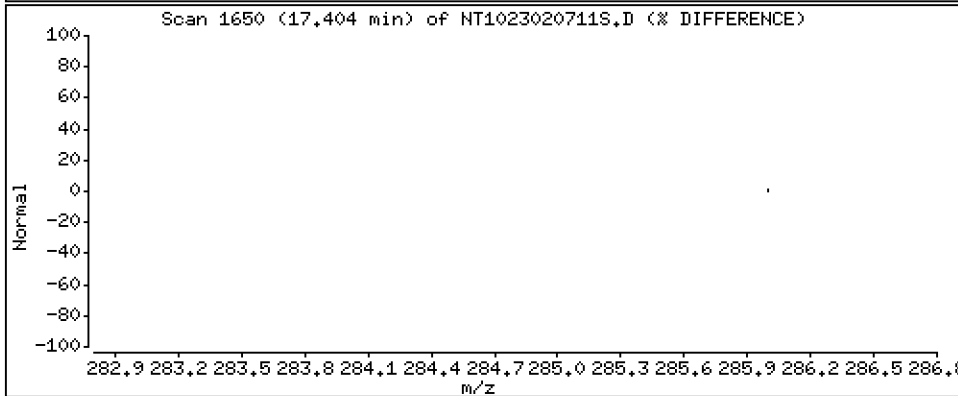
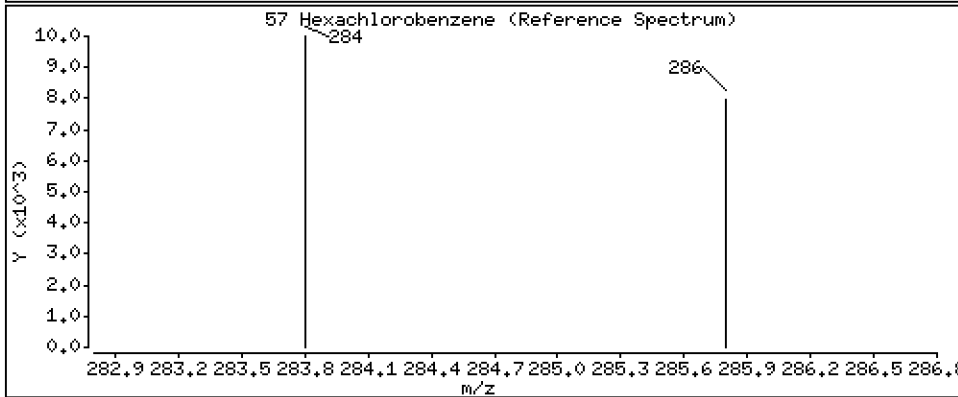
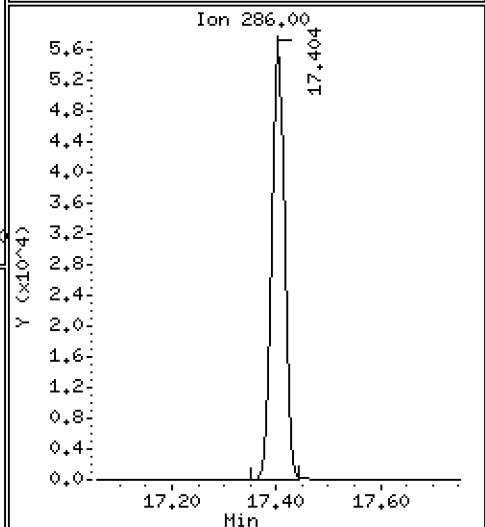
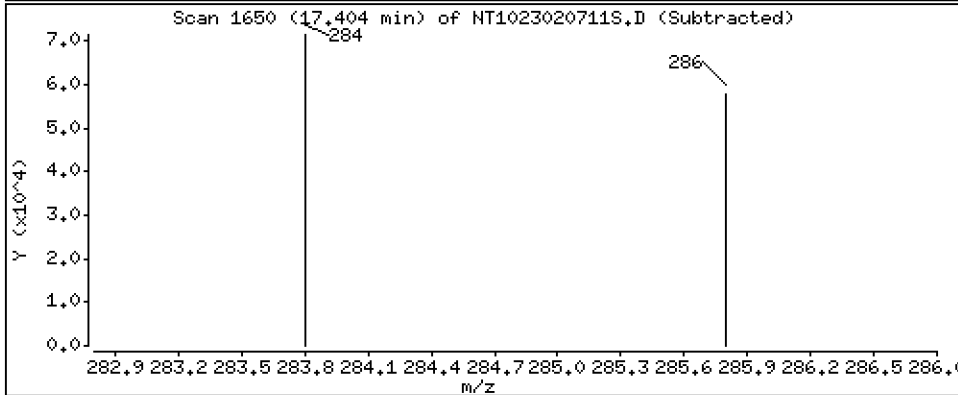
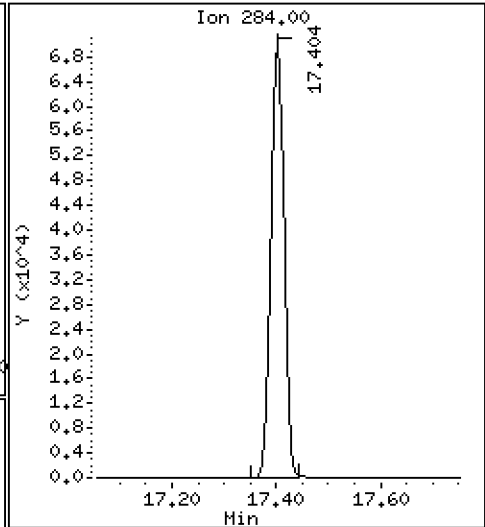
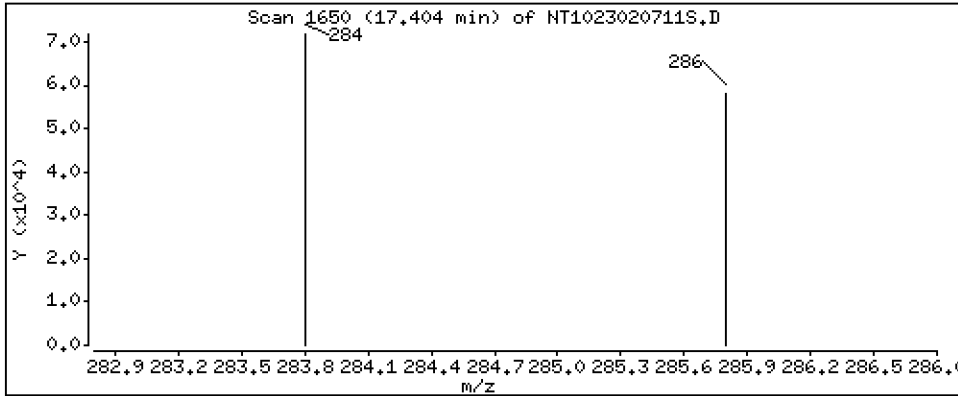
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 4.026 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

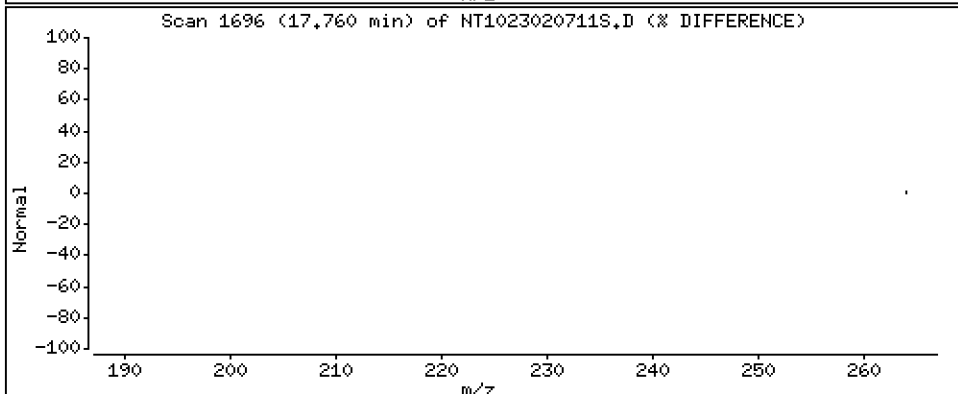
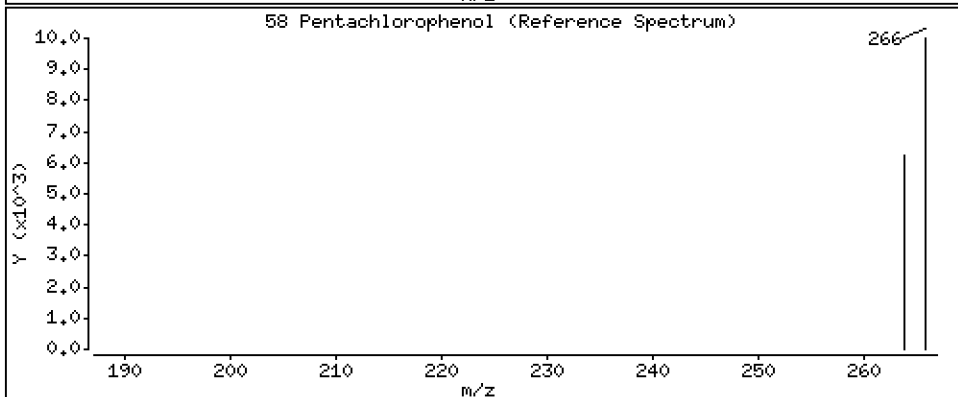
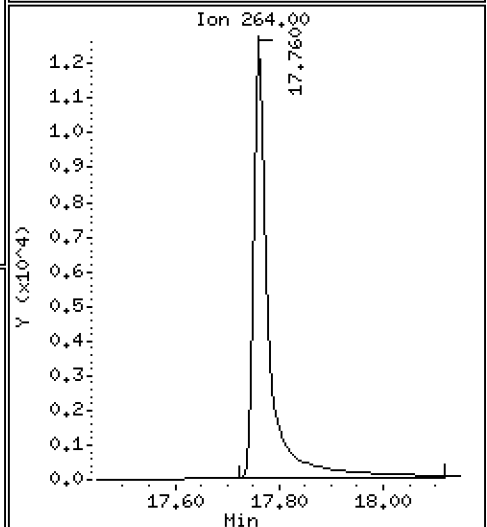
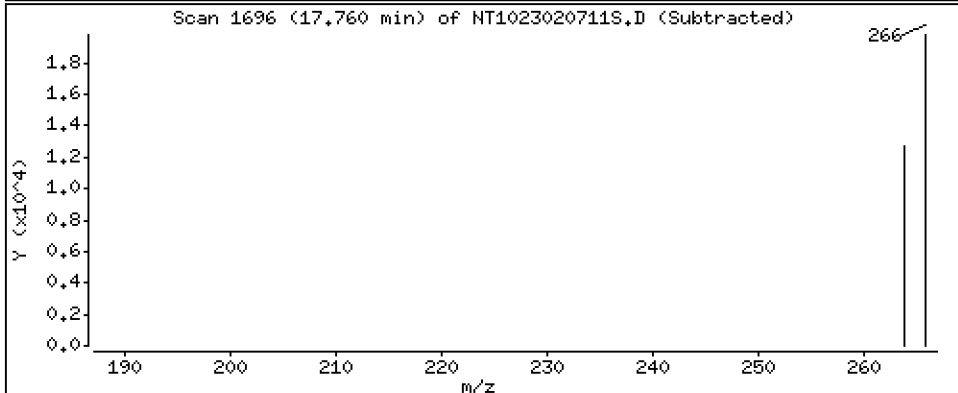
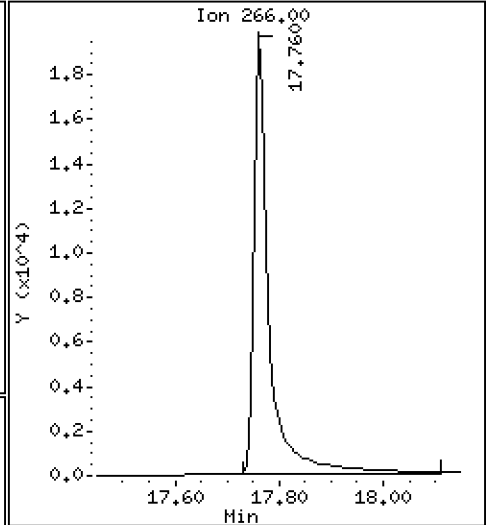
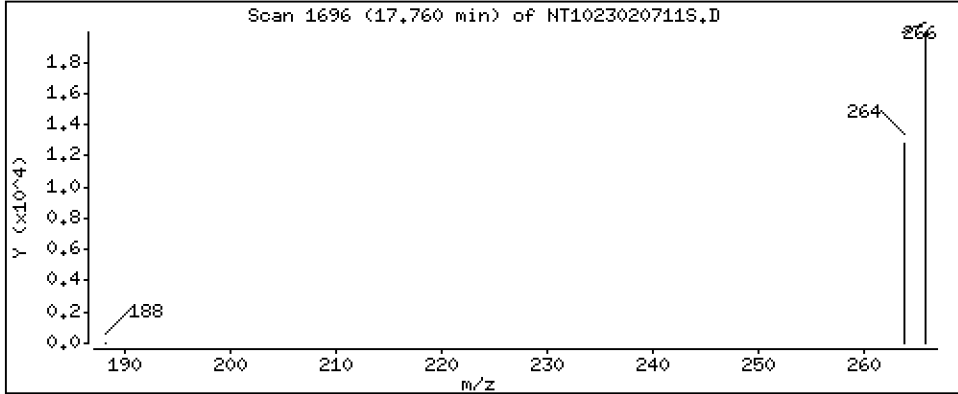
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 3,994 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

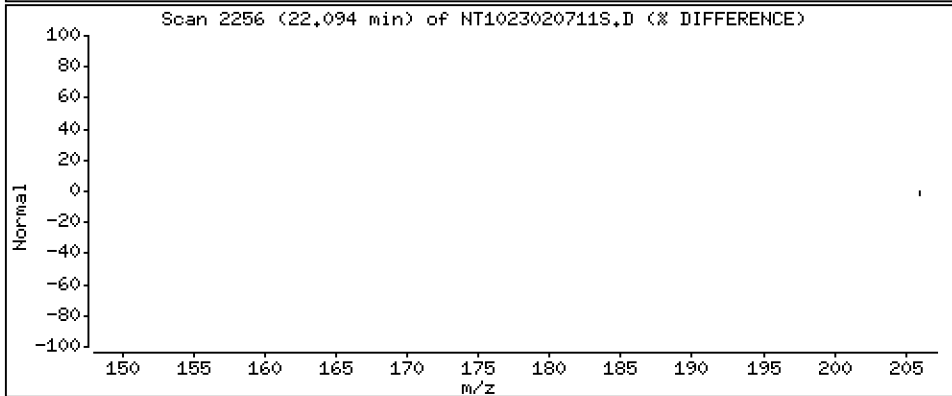
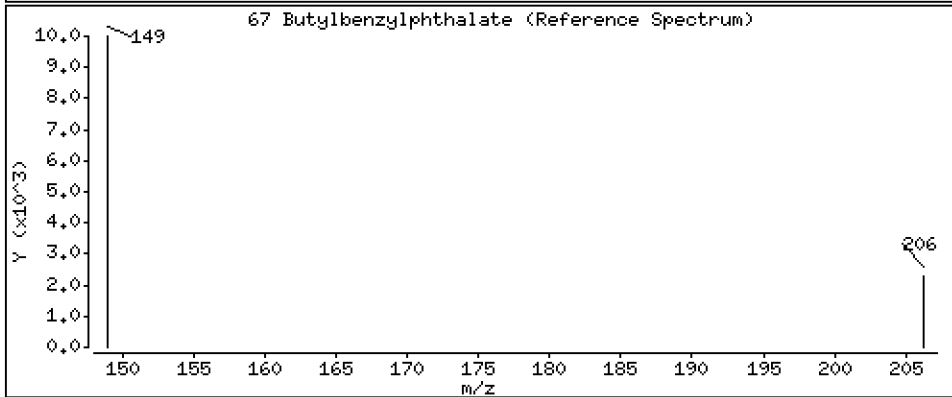
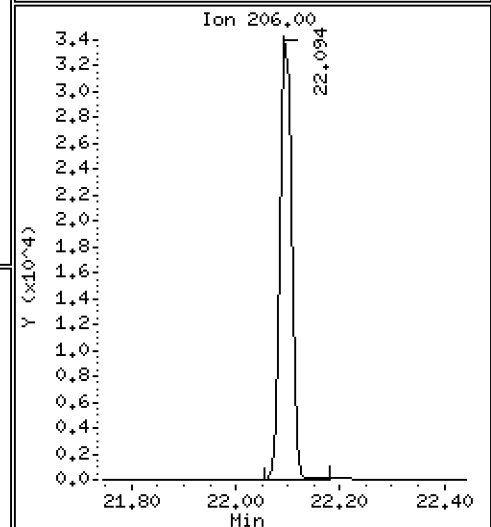
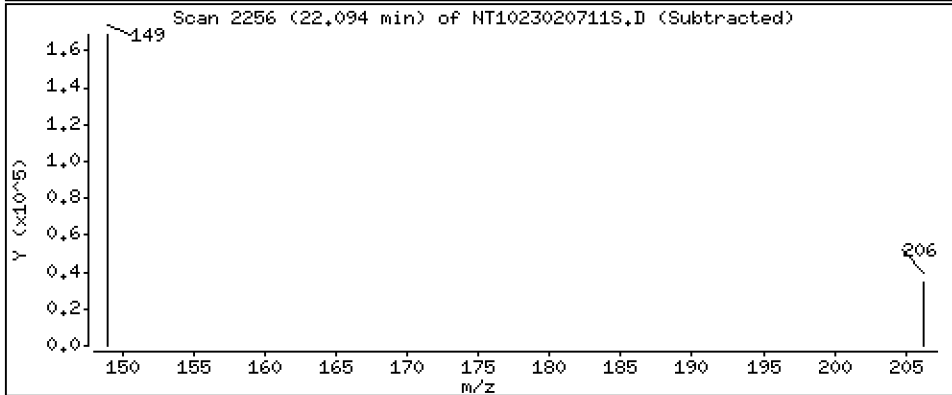
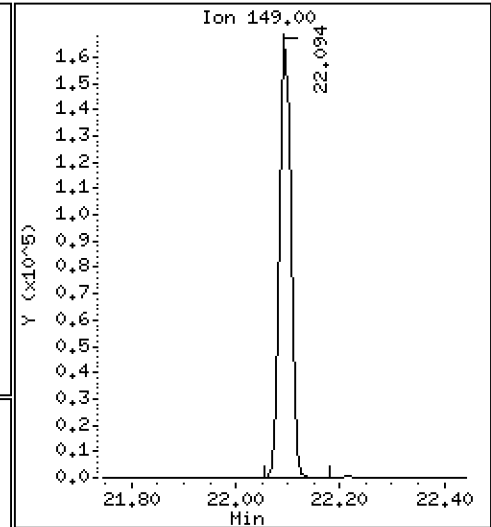
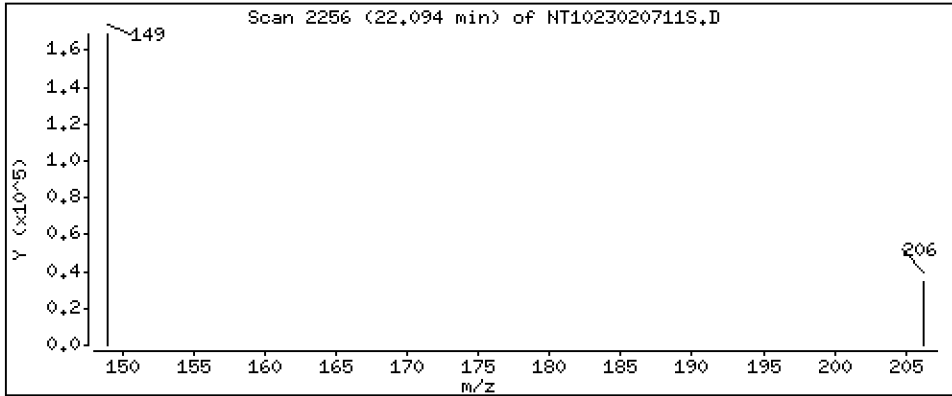
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 4.408 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

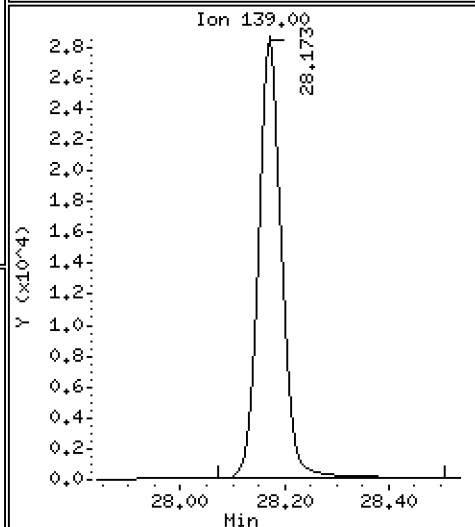
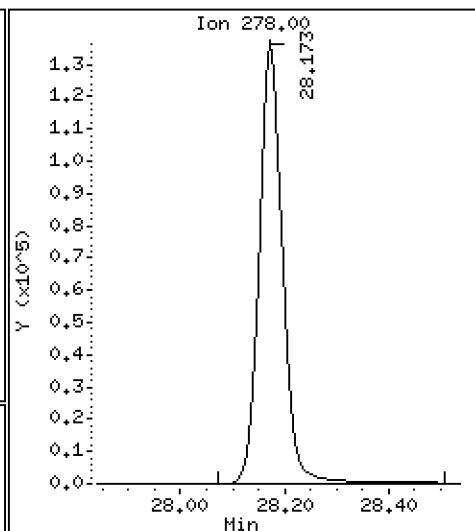
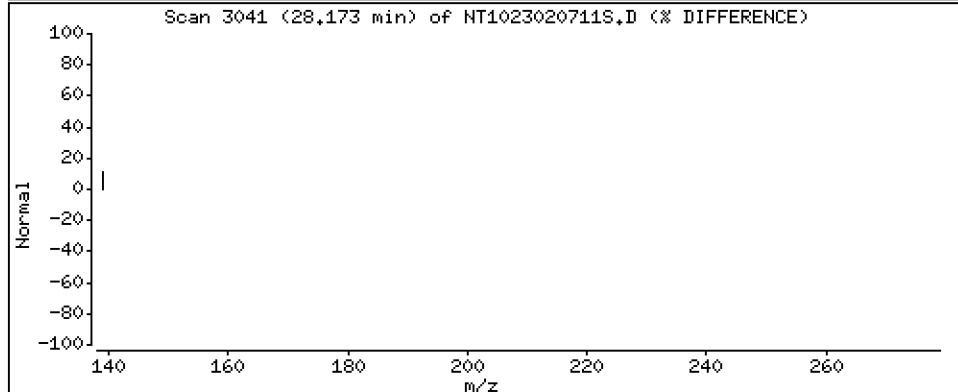
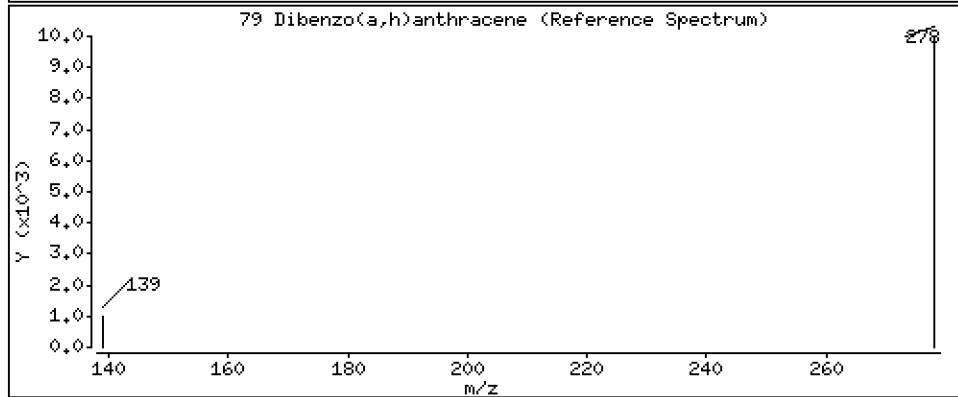
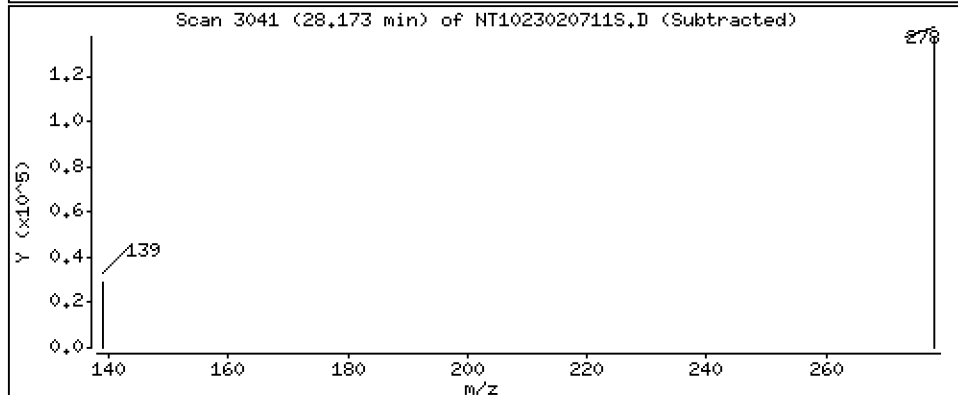
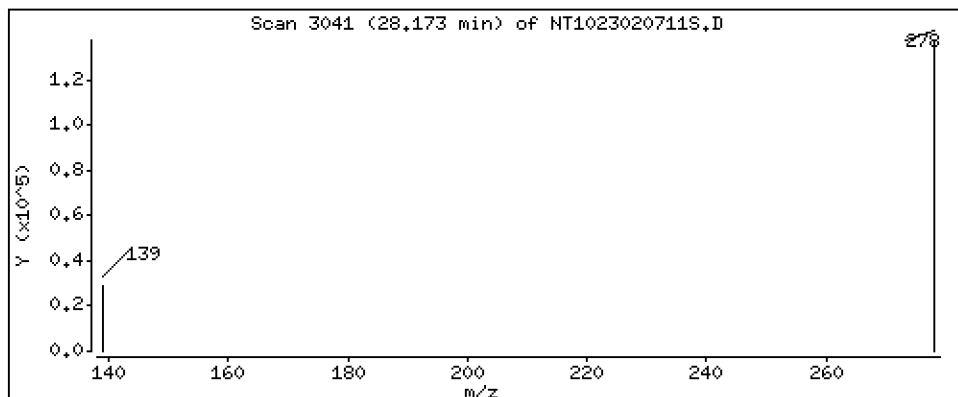
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 4,213 ug/L



Date : 07-FEB-2023 18:04

Client ID:

Instrument: nt10.i

Sample Info: SLB0106-SCV1

Volume Injected (uL): 1.0

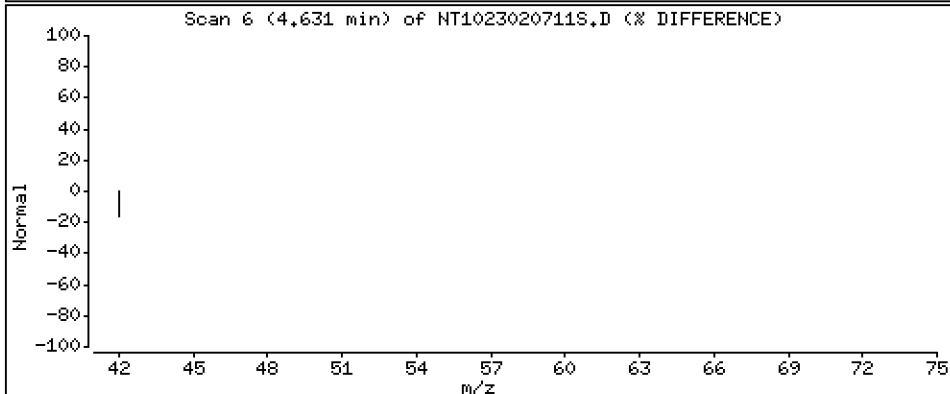
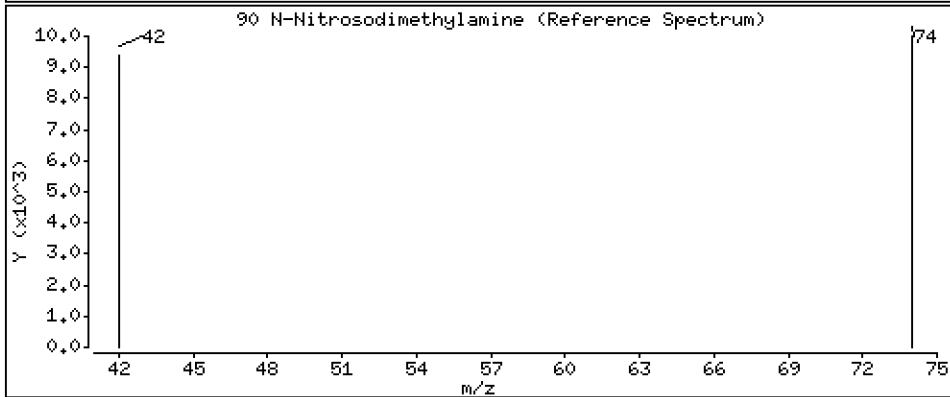
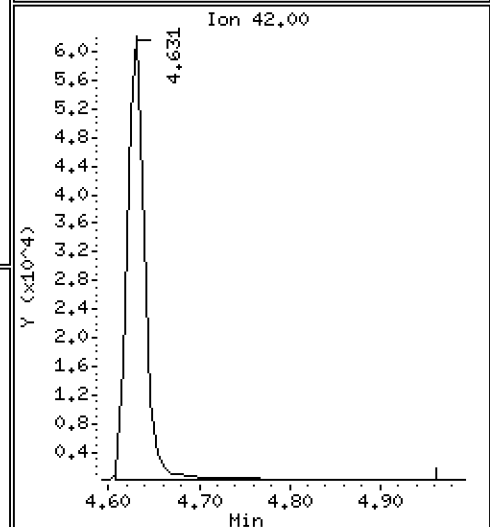
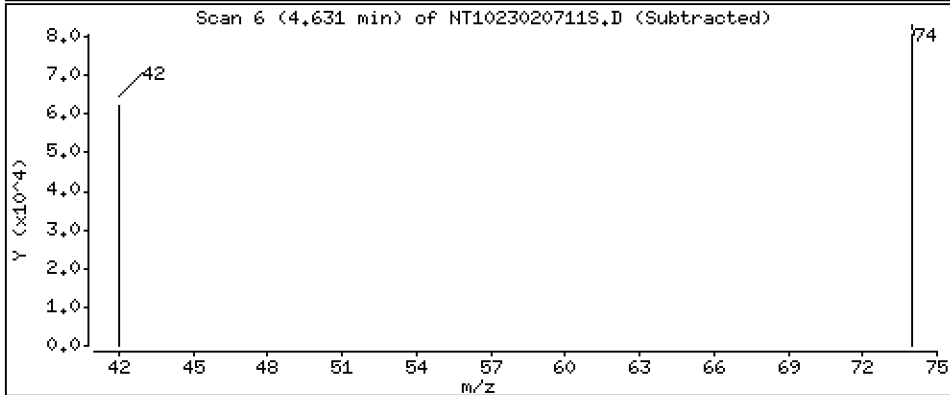
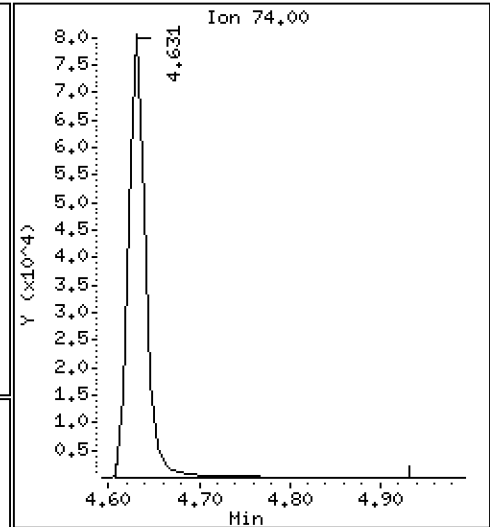
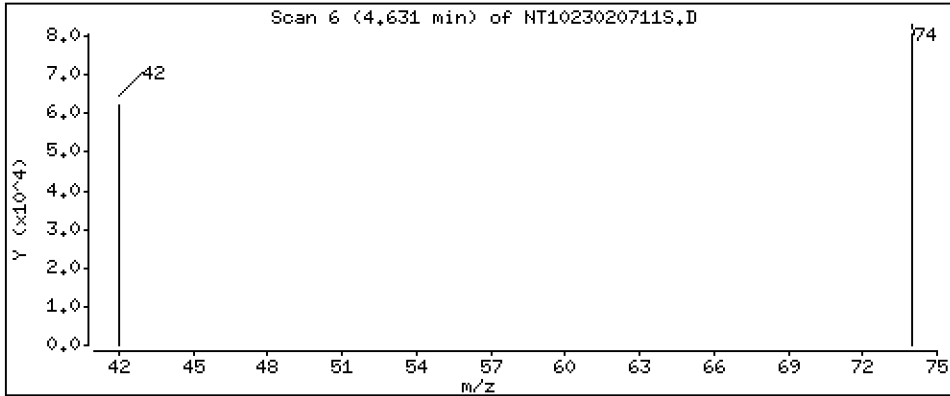
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 4,486 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230207.b\20230207.b\NT1023020711S.D
 Lab Smp Id: SLB0106-SCV1
 Inj Date : 07-FEB-2023 18:04 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SLB0106-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Meth Date : 09-Feb-2023 12:21 van Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: VANS-201906

Concentration Formula: $Amt * DF * Uf * Vt / (Vo * Vi) * CpndVariable$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/L)
\$ 1 2-Fluorophenol	112		6.770	6.785	(0.755)	257806	6.97332	6.973 (R)
3 Phenol	94		8.362	8.369	(0.933)	232442	4.16958	4.170
7 1,3-Dichlorobenzene	146		8.903	8.903	(0.993)	208793	4.15895	4.159
* 8 1,4-Dichlorobenzene-d4	152		8.965	8.965	(1.000)	121574	4.00000	
9 1,4-Dichlorobenzene	146		8.996	8.996	(1.003)	207977	4.23719	4.237
11 Benzyl alcohol	79		9.228	9.267	(1.029)	133450	4.90710	4.907
12 1,2-Dichlorobenzene	146		9.345	9.345	(1.042)	201423	4.20453	4.205
13 2-Methylphenol	108		9.461	9.469	(1.055)	138888	3.64937	3.649
15 4-Methylphenol	108		9.733	9.741	(1.086)	154509	3.98044	3.980
16 N-Nitroso-di-n-propylamine	70		9.780	9.780	(1.091)	121809	4.39583	4.396
22 2,4-Dimethylphenol	107		10.754	10.763	(0.942)	134677	3.35264	3.353
24 Benzoic acid	105		10.941	11.204	(0.958)	112855	5.88397	5.884
26 1,2,4-Trichlorobenzene	180		11.342	11.342	(0.993)	147977	3.93002	3.930
* 27 Naphthalene-d8	136		11.419	11.419	(1.000)	457304	4.00000	
30 Hexachlorobutadiene	225		11.829	11.829	(1.036)	85644	4.16602	4.166
39 Dimethylphthalate	163		14.514	14.514	(0.967)	225259	4.17269	4.173
* 42 Acenaphthene-d10	162		15.010	15.002	(1.000)	231625	4.00000	
50 Diethylphthalate	149		15.960	15.961	(1.063)	348168	4.28244	4.282
54 N-Nitrosodiphenylamine	169		16.339	16.346	(0.907)	286918	4.20471	4.205
57 Hexachlorobenzene	284		17.404	17.404	(0.966)	116927	4.02634	4.026

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	17.760	17.799	(0.986)	41808	3.99436	3.994
* 59 Phenanthrene-d10	188	18.015	18.015	(1.000)	412906	4.00000	
\$ 66 Terphenyl-d14	244	21.164	21.164	(0.917)	336208	4.23932	4.239(R)
67 Butylbenzylphthalate	149	22.093	22.094	(0.958)	236283	4.40766	4.408
* 69 Chrysene-d12	240	23.069	23.061	(1.000)	357298	4.00000	
* 77 Perylene-d12	264	25.616	25.616	(1.000)	361150	4.00000	
79 Dibenzo(a,h)anthracene	278	28.173	28.188	(1.100)	426459	4.21339	4.213
90 N-Nitrosodimethylamine	74	4.631	4.646	(0.517)	108685	4.48609	4.486

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020711S.D
 Lab Smp Id: SLB0106-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230207.b\20230207.b\SIMABN2.m
 Misc Info:

Calibration Date: 07-FEB-2023
 Calibration Time: 14:52
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	128794	64397	257588	121574	-5.61
27 Naphthalene-d8	469043	234522	938086	457304	-2.50
42 Acenaphthene-d10	233225	116613	466450	231625	-0.69
59 Phenanthrene-d10	433858	216929	867716	412906	-4.83
69 Chrysene-d12	361809	180905	723618	357298	-1.25
77 Perylene-d12	380407	190204	760814	361150	-5.06

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.96	8.46	9.46	8.97	0.00
27 Naphthalene-d8	11.42	10.92	11.92	11.42	0.00
42 Acenaphthene-d10	15.00	14.50	15.50	15.01	0.05
59 Phenanthrene-d10	18.02	17.52	18.52	18.02	0.00
69 Chrysene-d12	23.06	22.56	23.56	23.07	0.03
77 Perylene-d12	25.62	25.12	26.12	25.62	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020711S.D

Lab ID: SLB0106-SCV1

nt10.i, 20230207.b\20230207.b\SIMABN2.m,

07-FEB-2023 18:04

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.958	0.000	0.9581	Benzoic acid

RRT check based on Ccal File: 20230207.b/NT1023020710S.D

On Column LOD for nt10.i, 20230207.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *



CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GB00019</u>
Lab File ID:	<u>NT1023020922S.D</u>	Calibration Date:	<u>02/07/2023</u>
Sequence:	<u>SLB0114</u>	Injection Date:	<u>02/10/23</u>
Lab Sample ID:	<u>SLB0114-CCV1</u>	Injection Time:	<u>02:26</u>
Sequence Name:	<u>Calibration Check</u>		

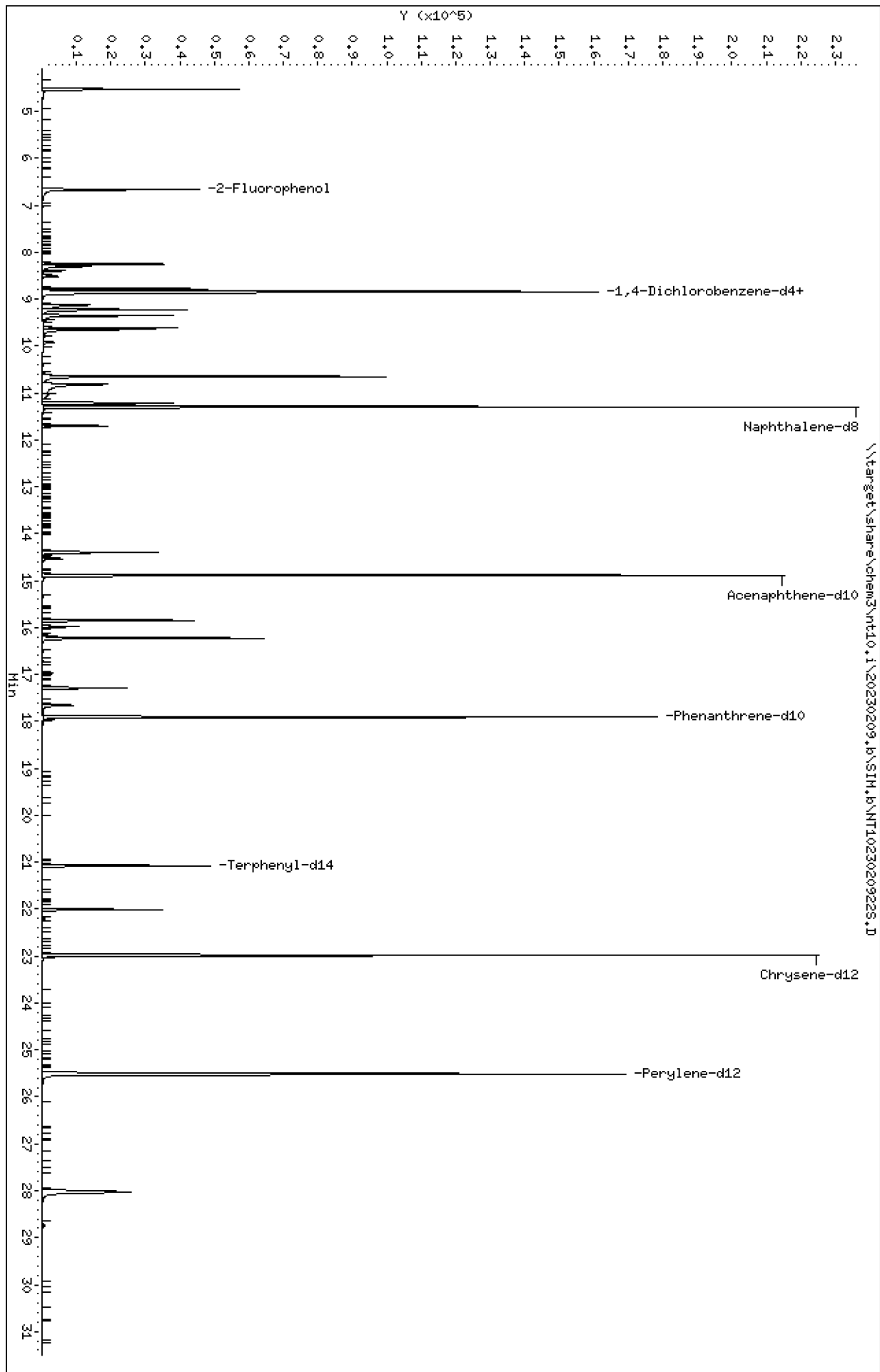
COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	1.0000	1.0	1.6149400	1.6395200		1.5	+/-50
1,2-Dichlorobenzene	A	1.0000	1.0	1.5761980	1.6056390		1.9	+/-50
Benzyl Alcohol	A	1.0000	1.2	0.8947729	1.0481990		17.1	+/-50
Benzoic acid	A	4.0000	2.7	0.1278126	0.1090989		-33.7	+/-50
2,4-Dimethylphenol	A	2.0000	2.1	0.3513679	0.3772479		7.4	+/-50
1,2,4-Trichlorobenzene	A	1.0000	1.1	0.3293471	0.3525337		7.0	+/-50
N-Nitrosodiphenylamine	A	1.0000	1.0	0.6610440	0.6793642		2.8	+/-50
Pentachlorophenol	A	2.0000	1.9	0.0758741	0.0939236		-5.6	+/-50
2-Fluorophenol	A	1.5000	1.57	1.2163900	1.2708300		4.5	+/-50
p-Terphenyl-d14	A	1.0000	1.07	0.8878533	0.9511193		7.1	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230209.1\SIH.B\NT1023020922S.D
Date: 10-FEB-2023 02:26
Client ID:
Sample Info: SIH-CV1
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: DSD
Column diameter: 0.25



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

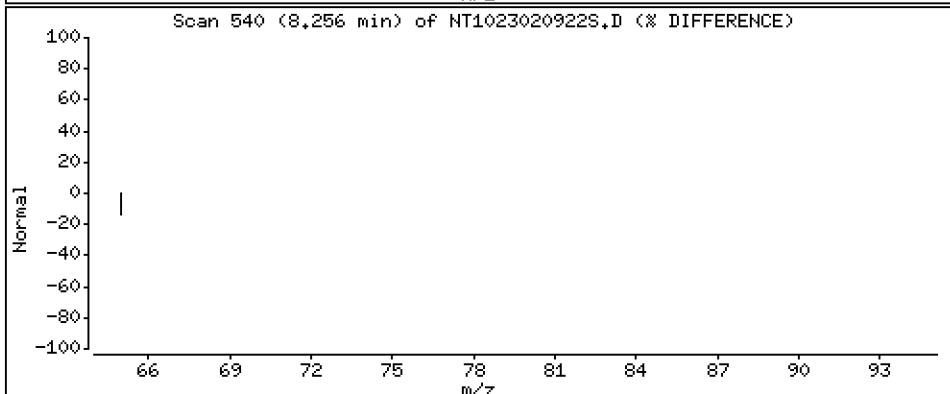
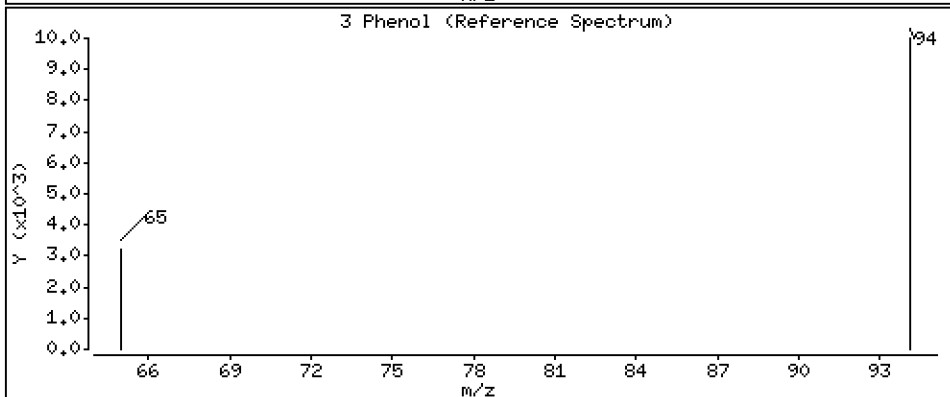
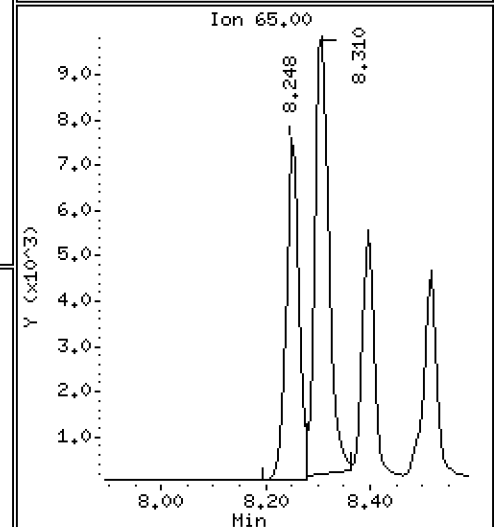
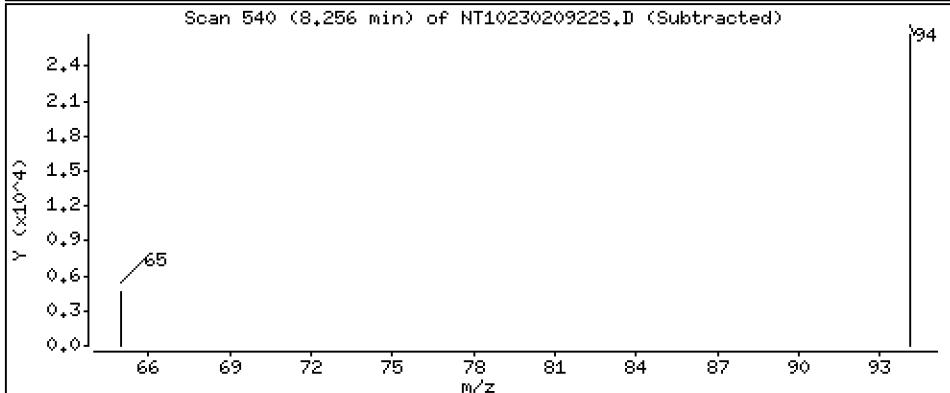
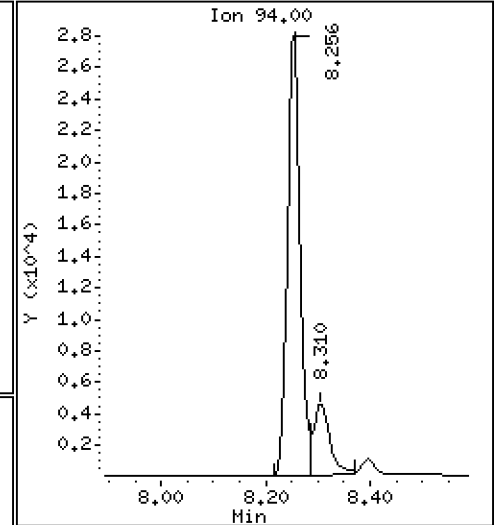
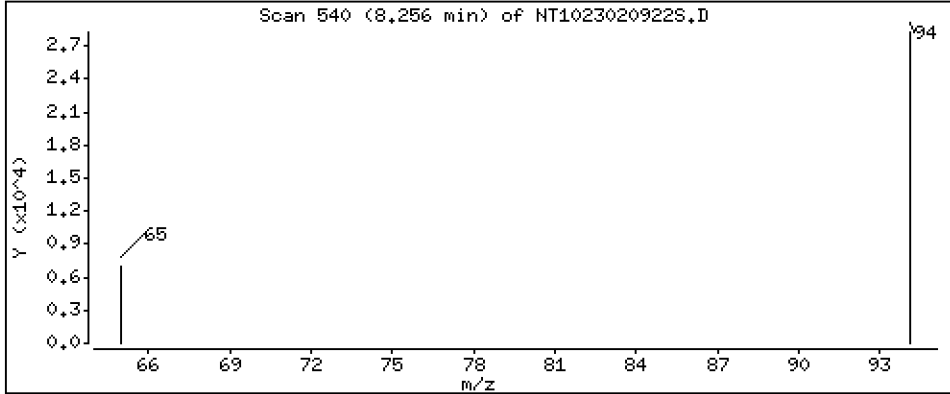
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 1.052 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

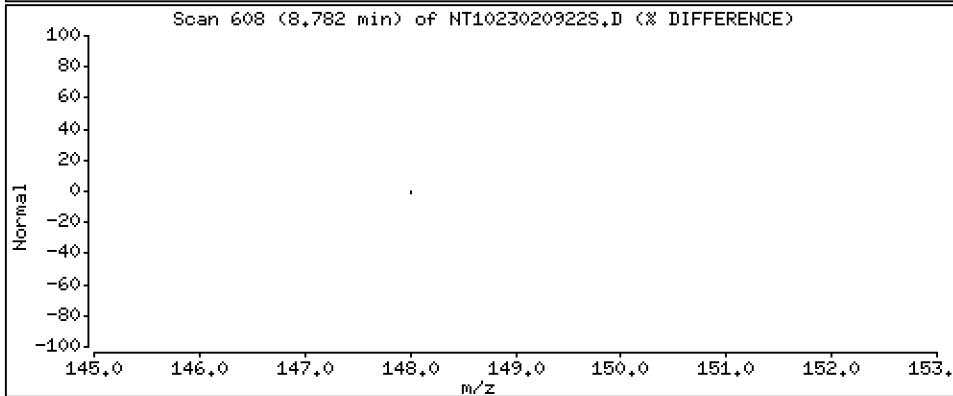
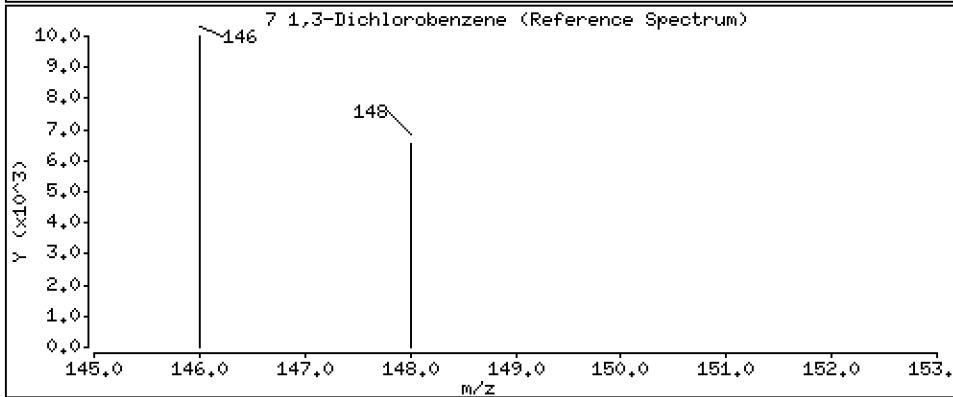
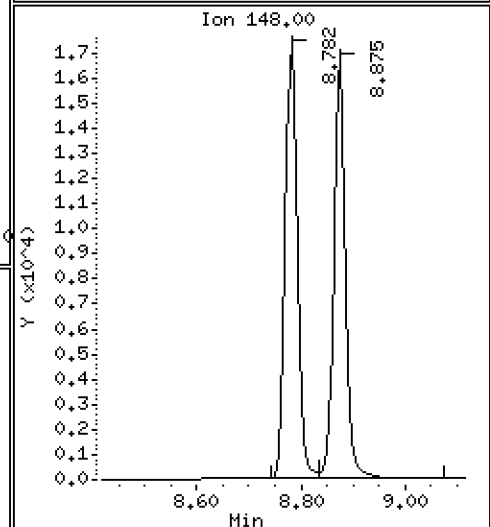
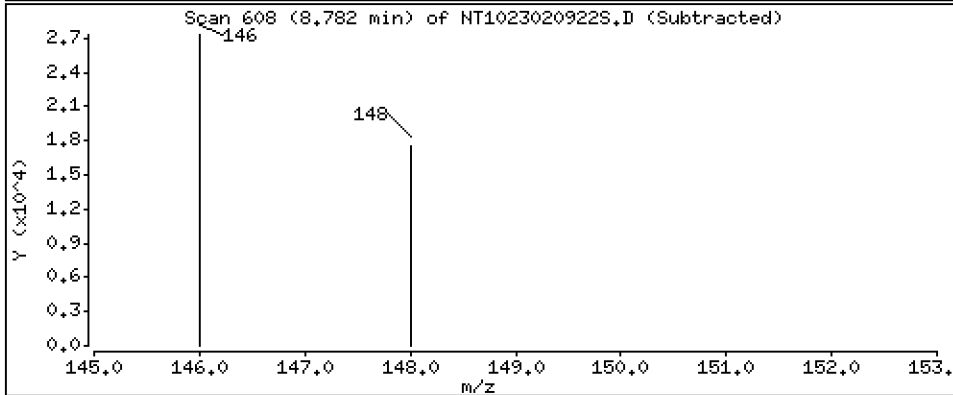
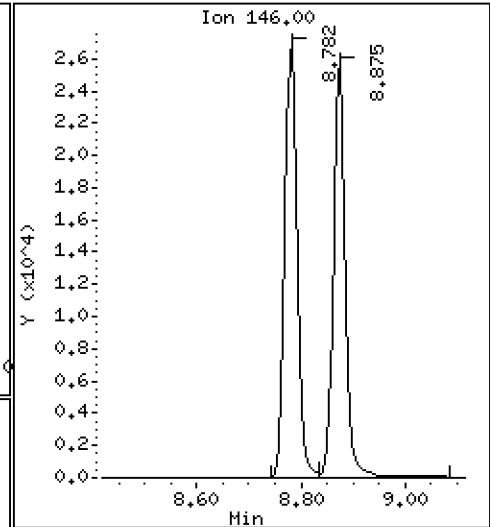
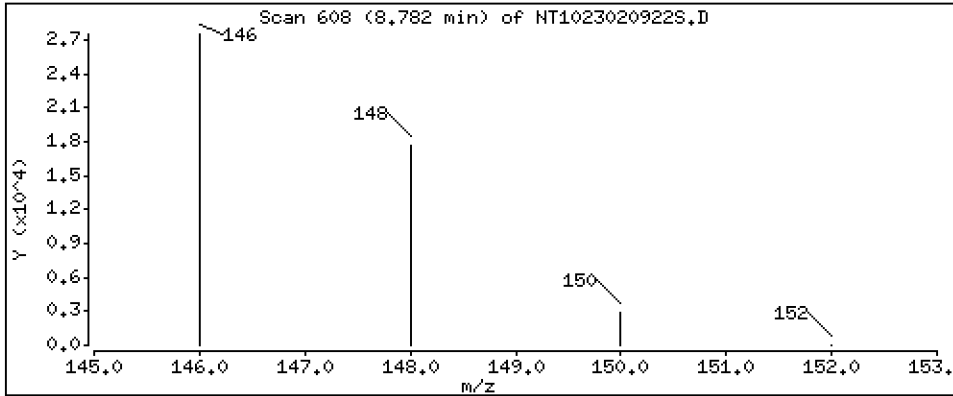
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 1.016 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

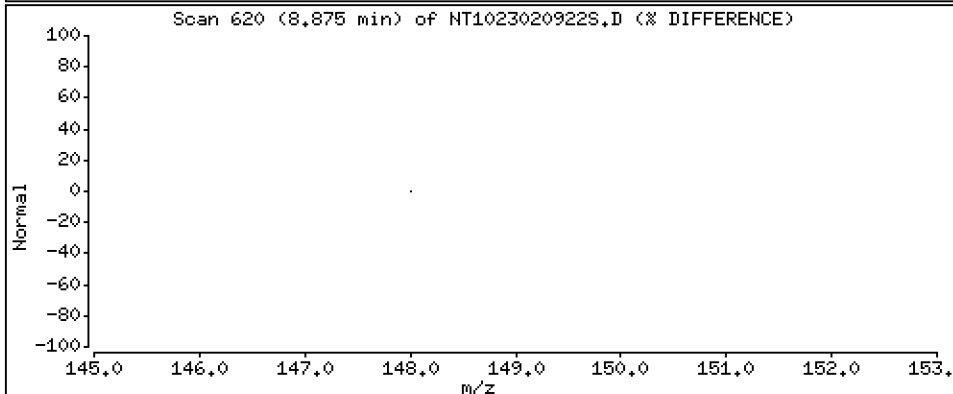
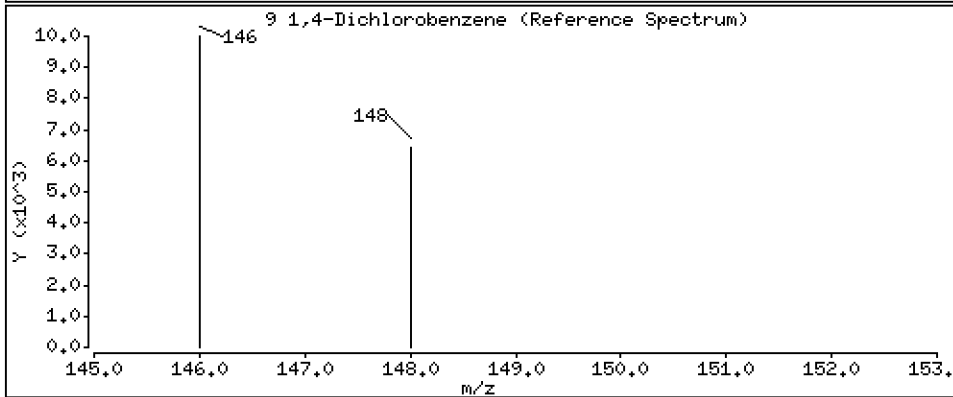
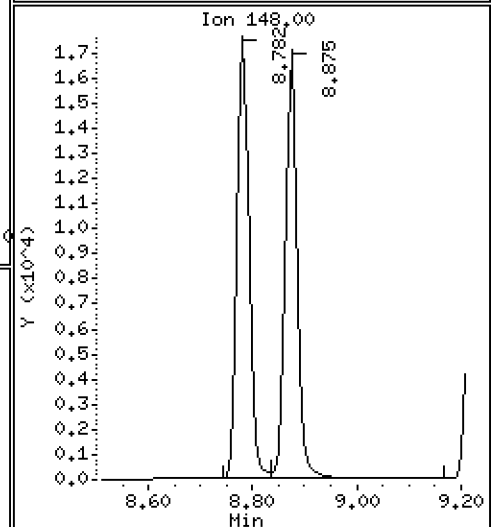
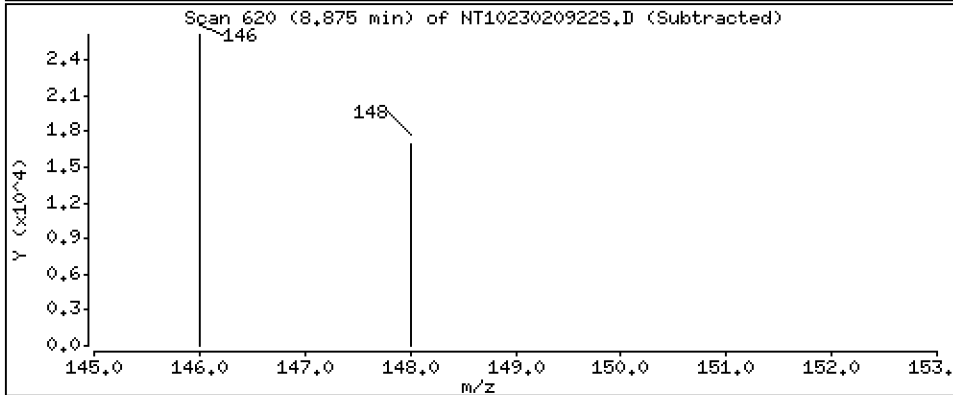
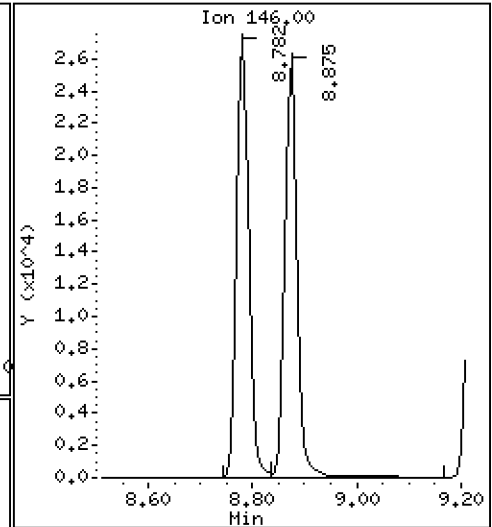
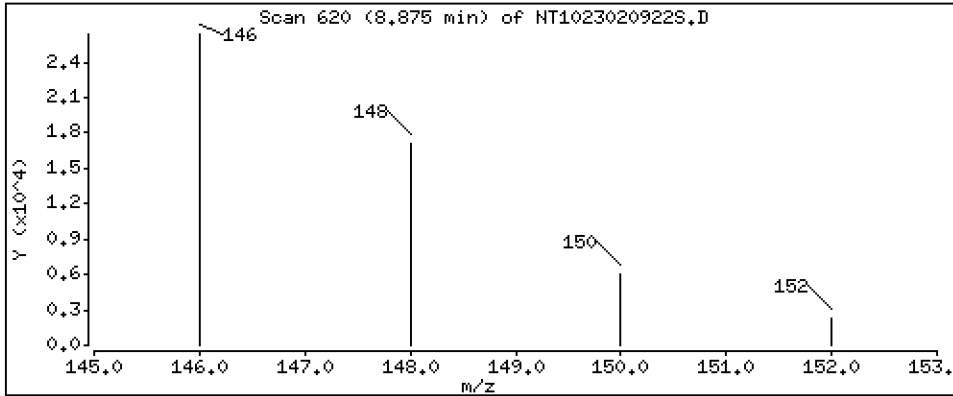
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 1.015 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

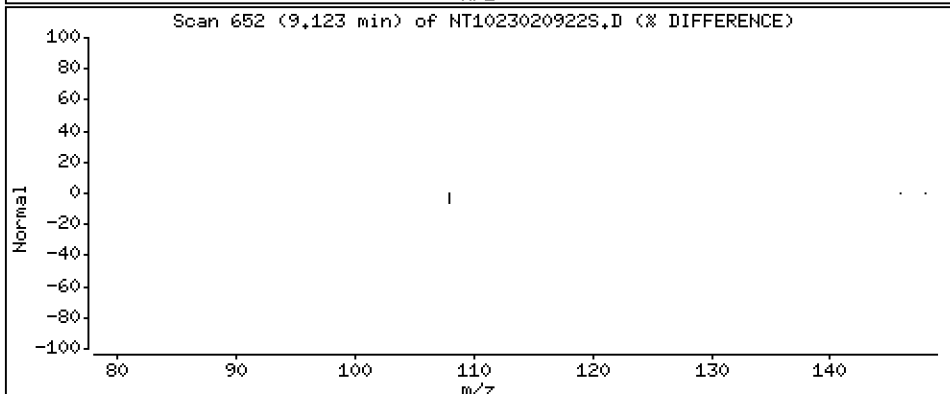
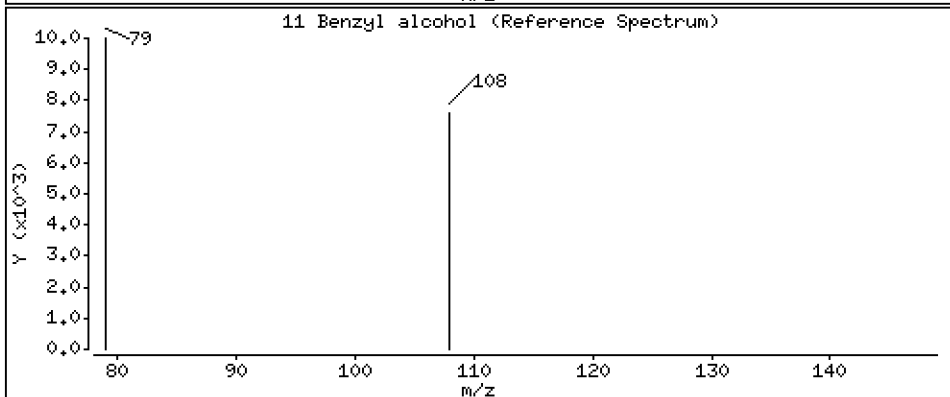
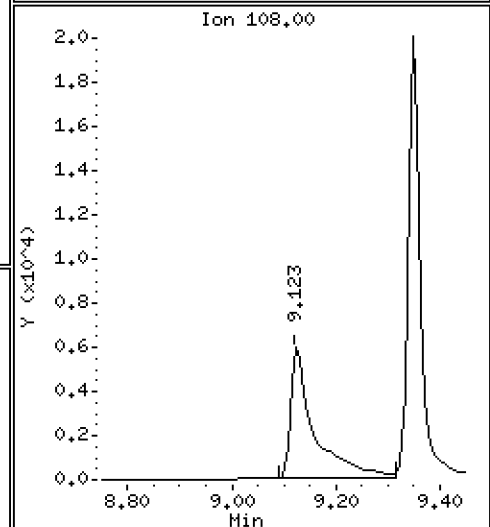
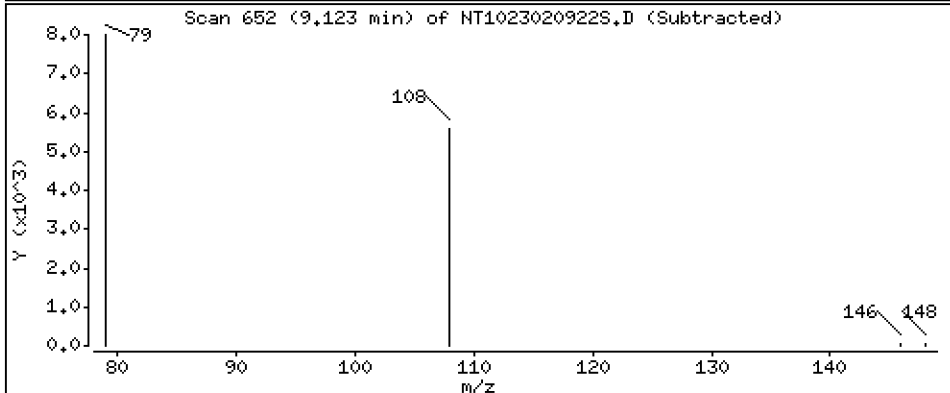
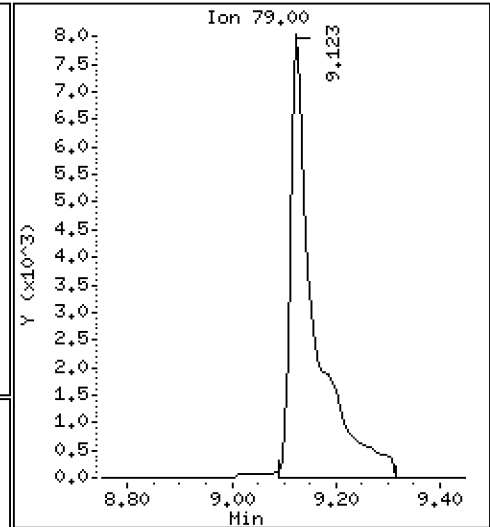
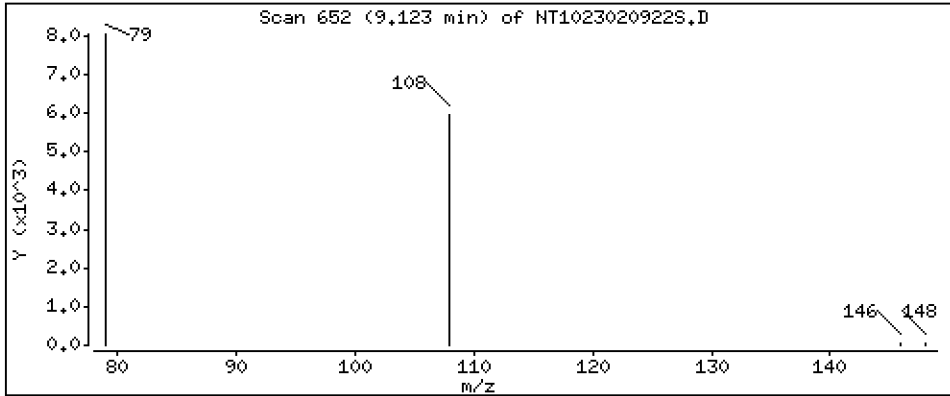
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 1.171 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

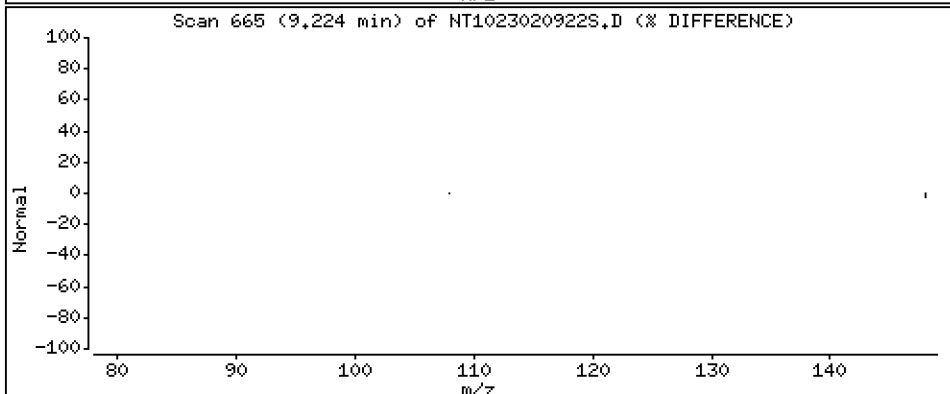
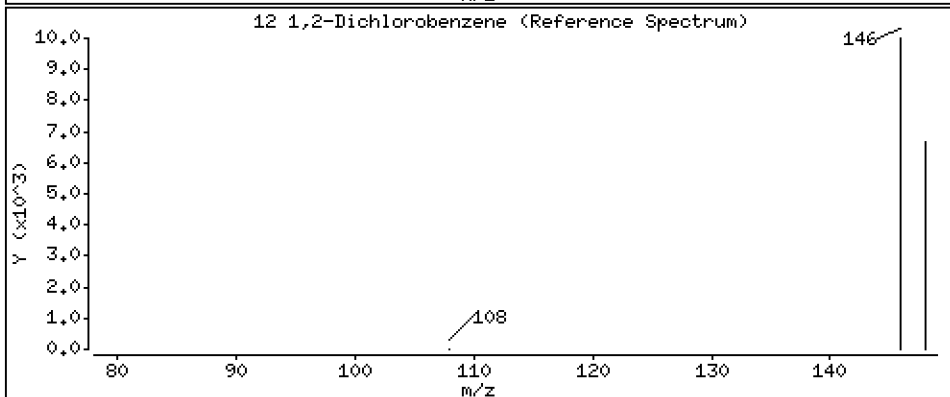
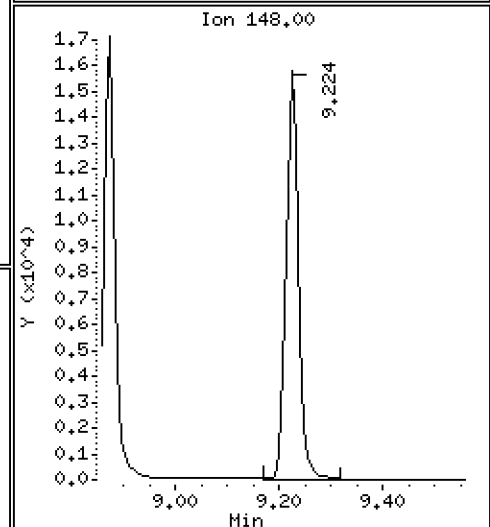
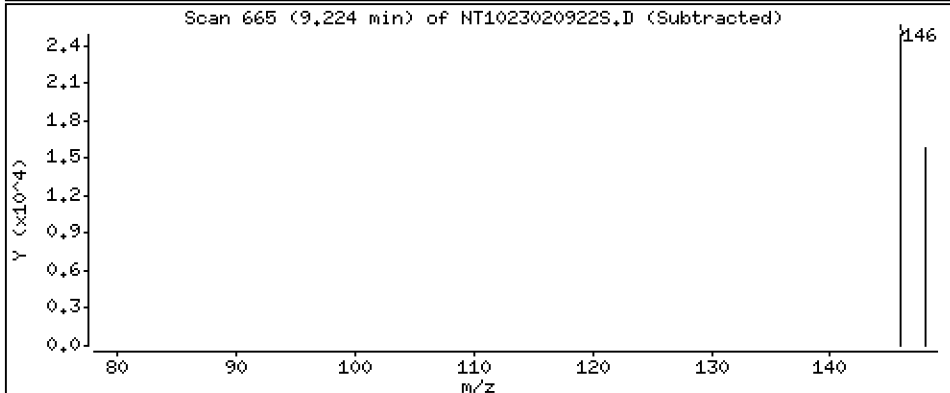
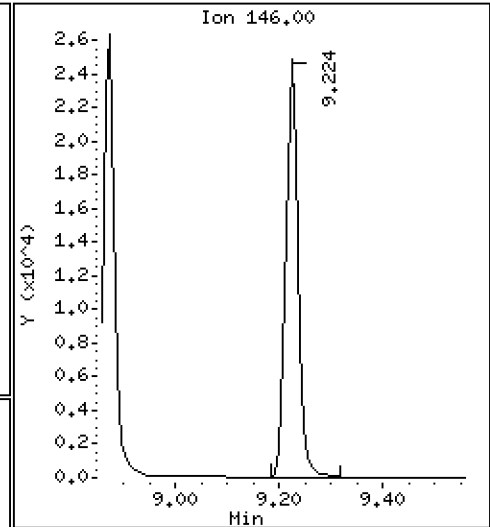
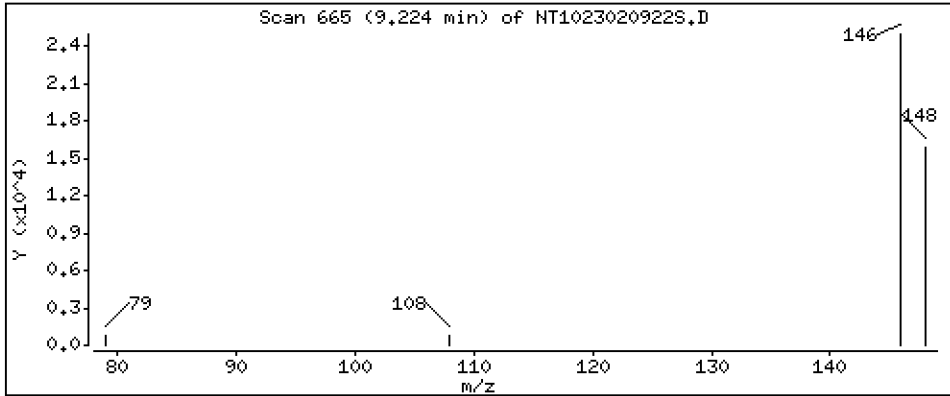
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 1.019 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

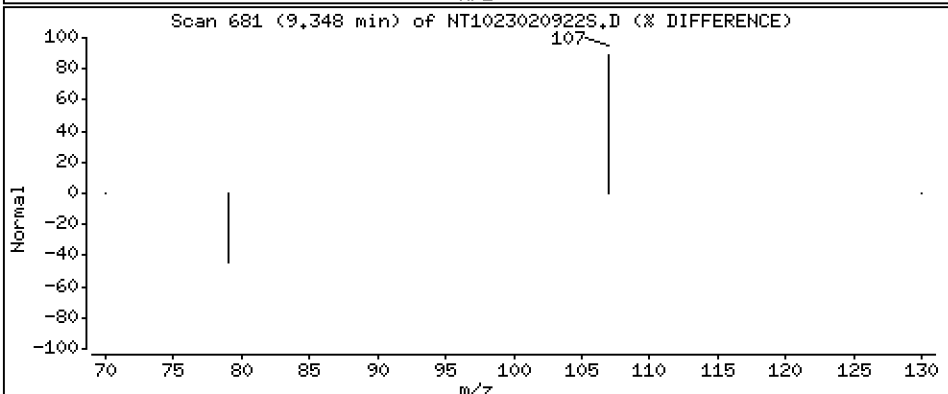
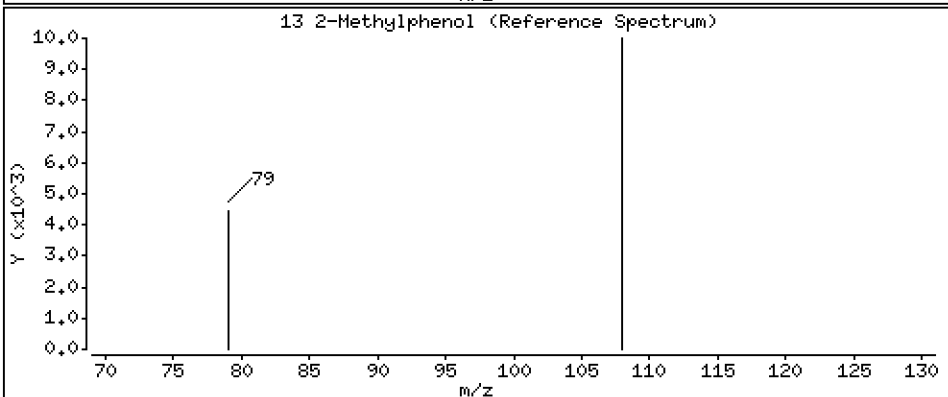
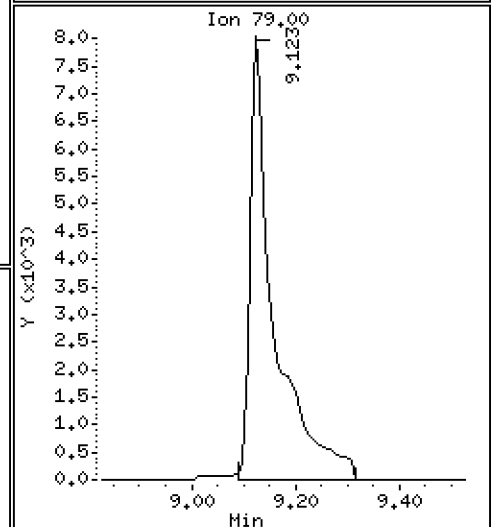
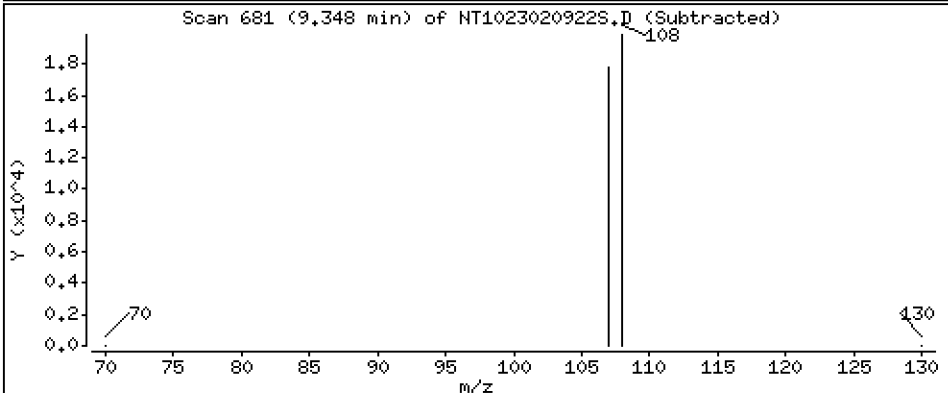
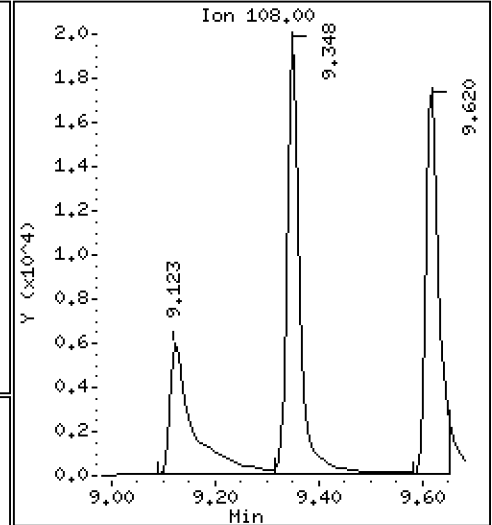
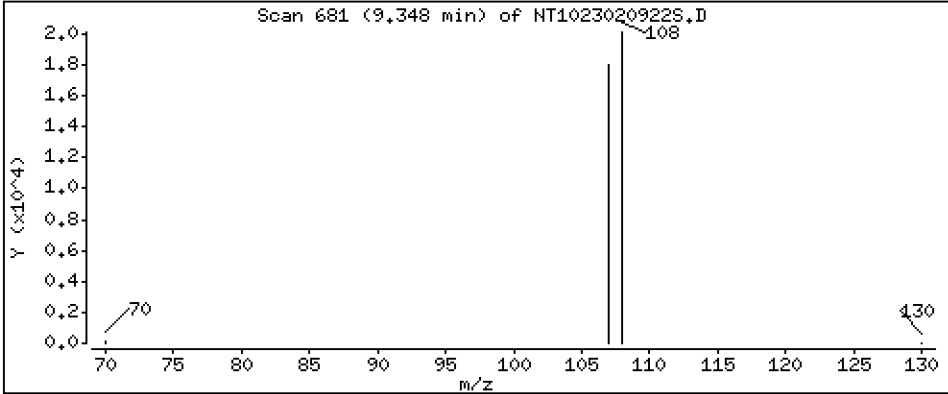
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 1.091 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

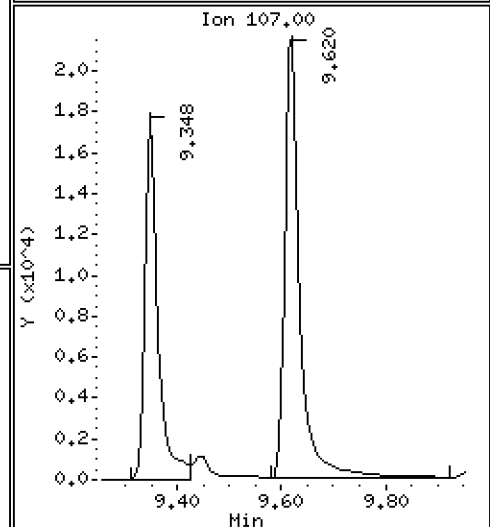
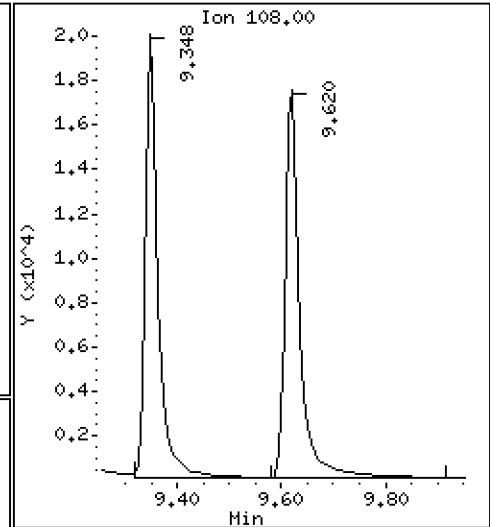
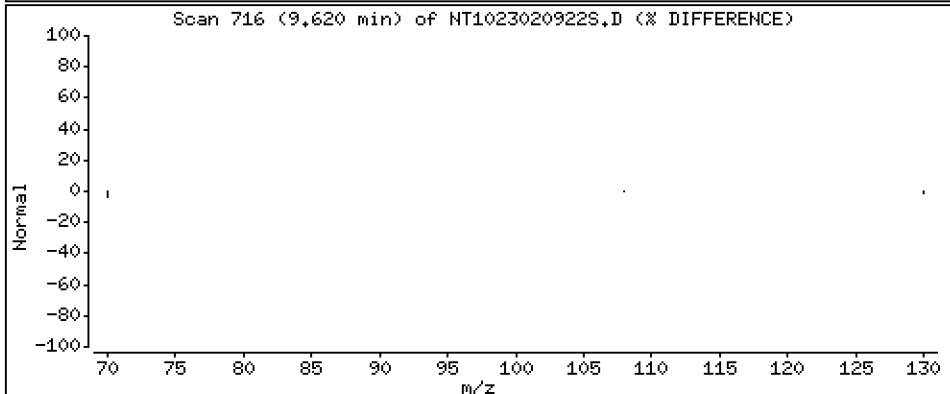
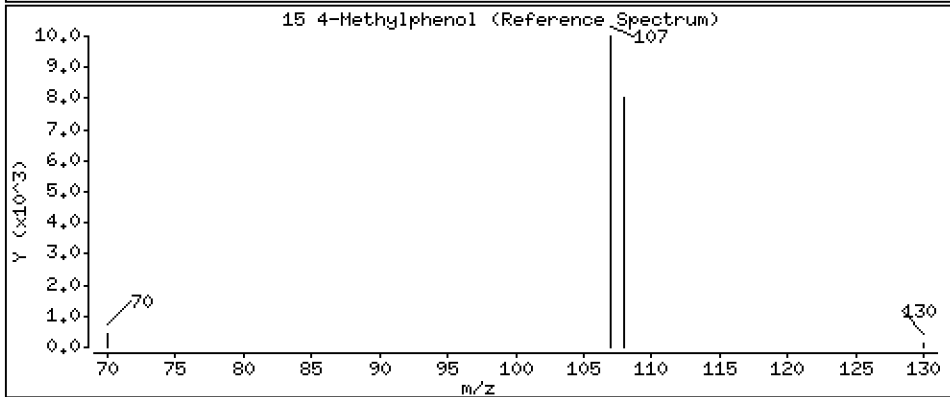
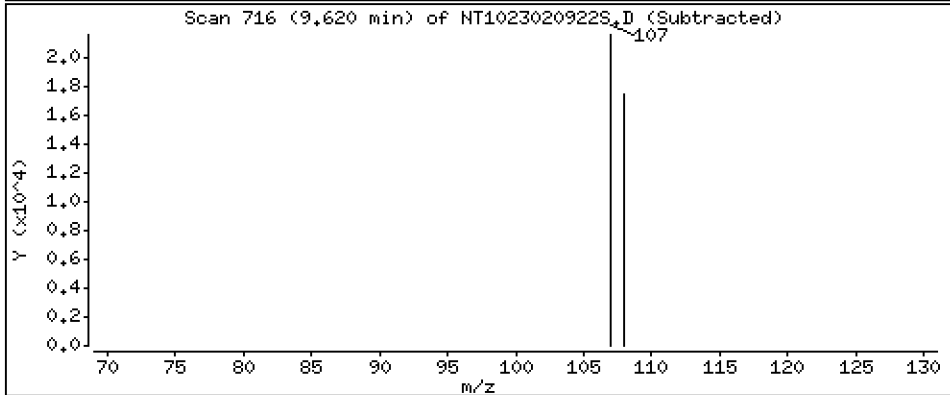
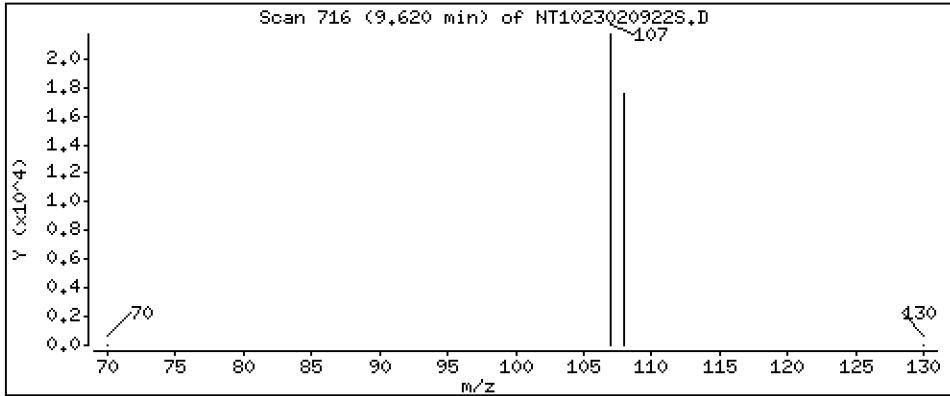
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 1.080 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

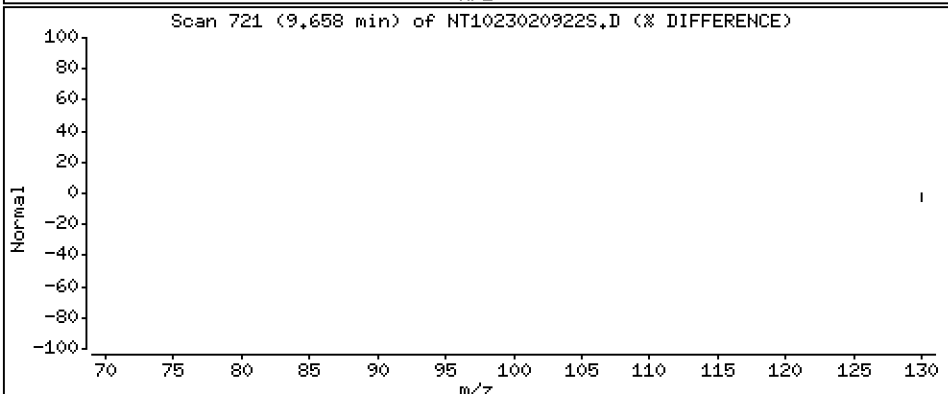
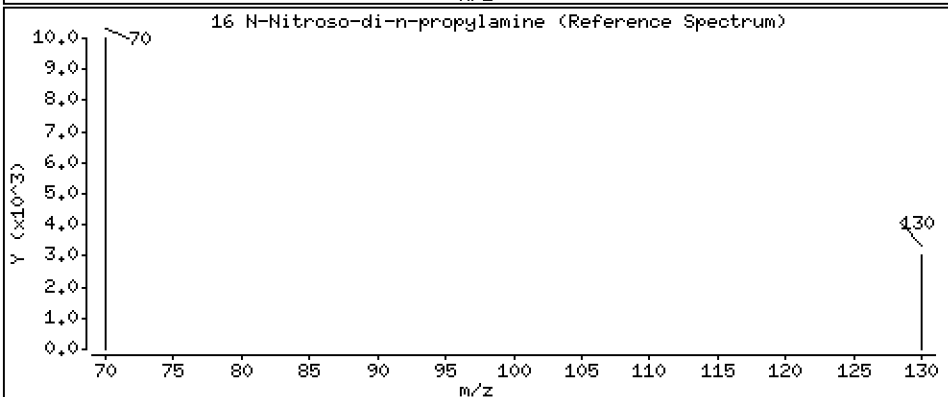
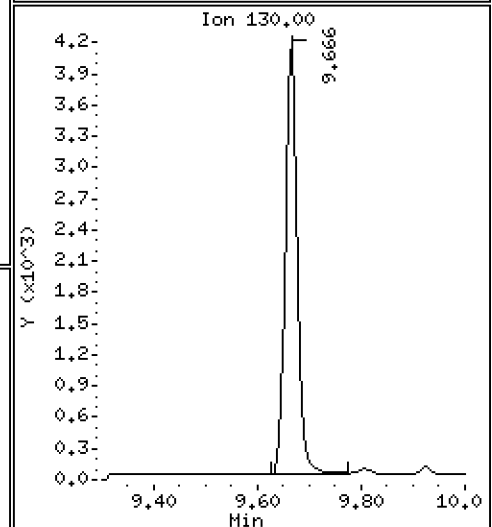
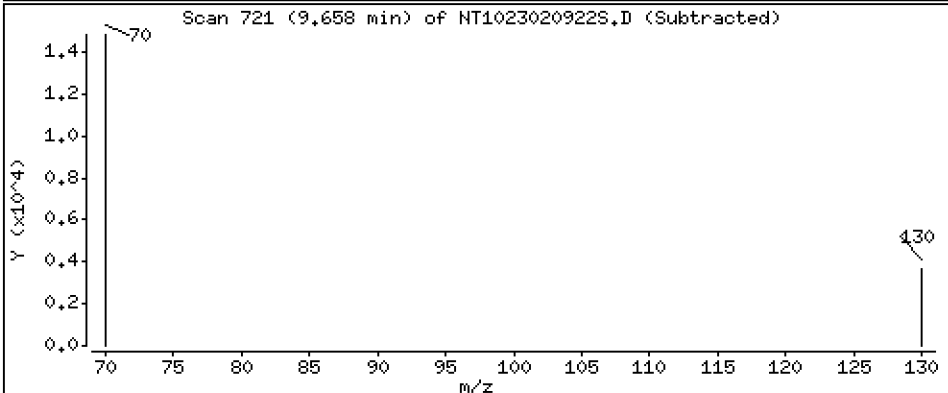
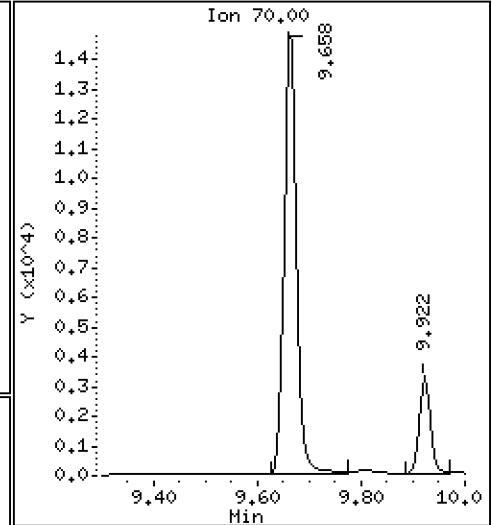
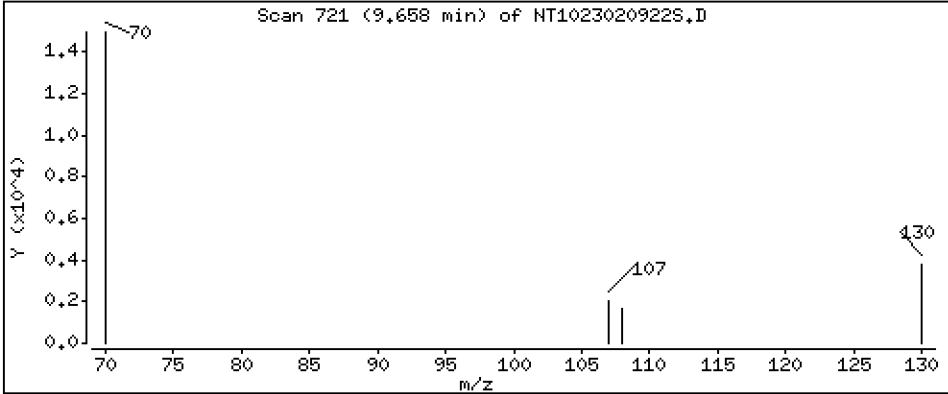
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 1.083 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

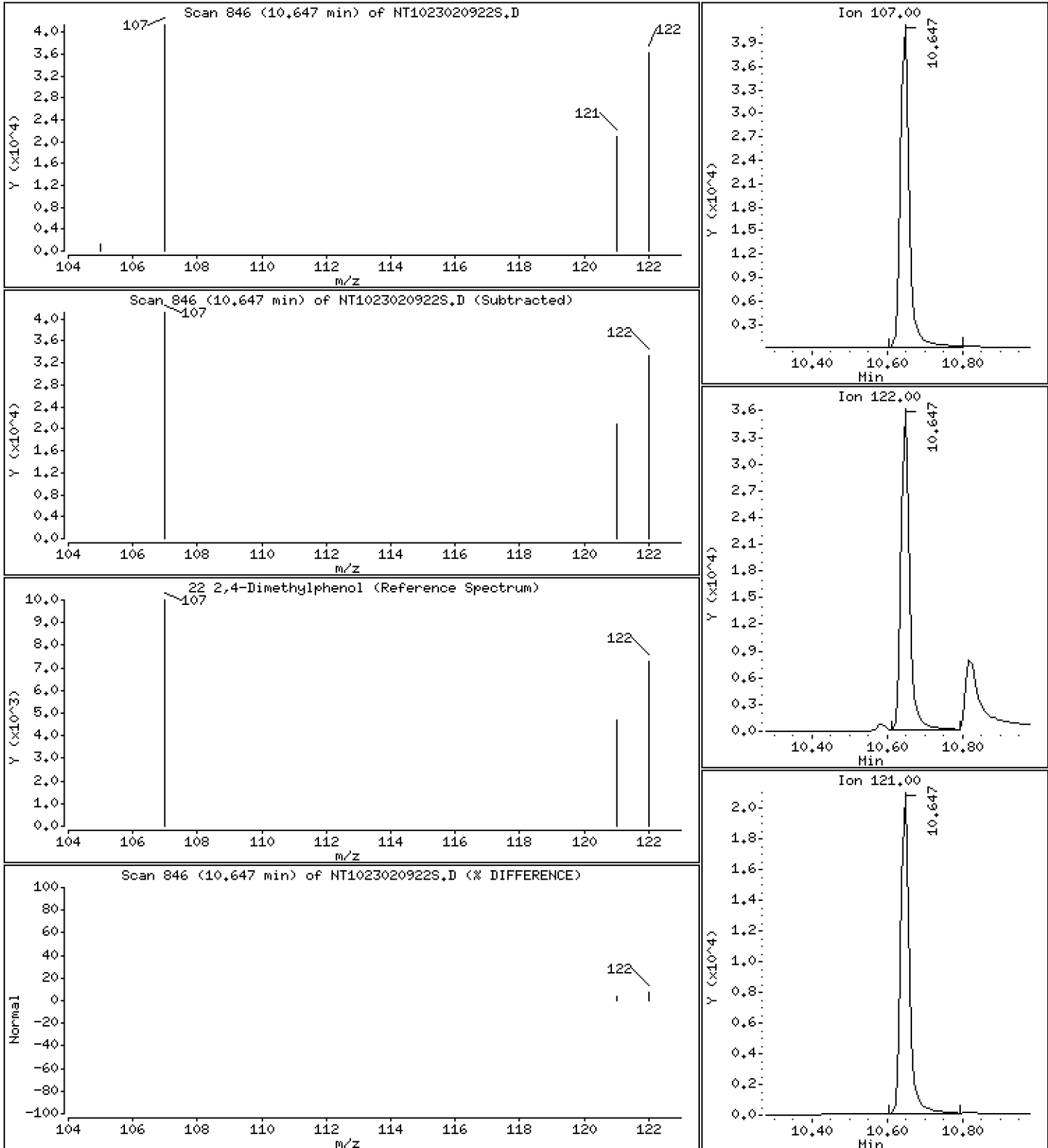
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 2,147 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

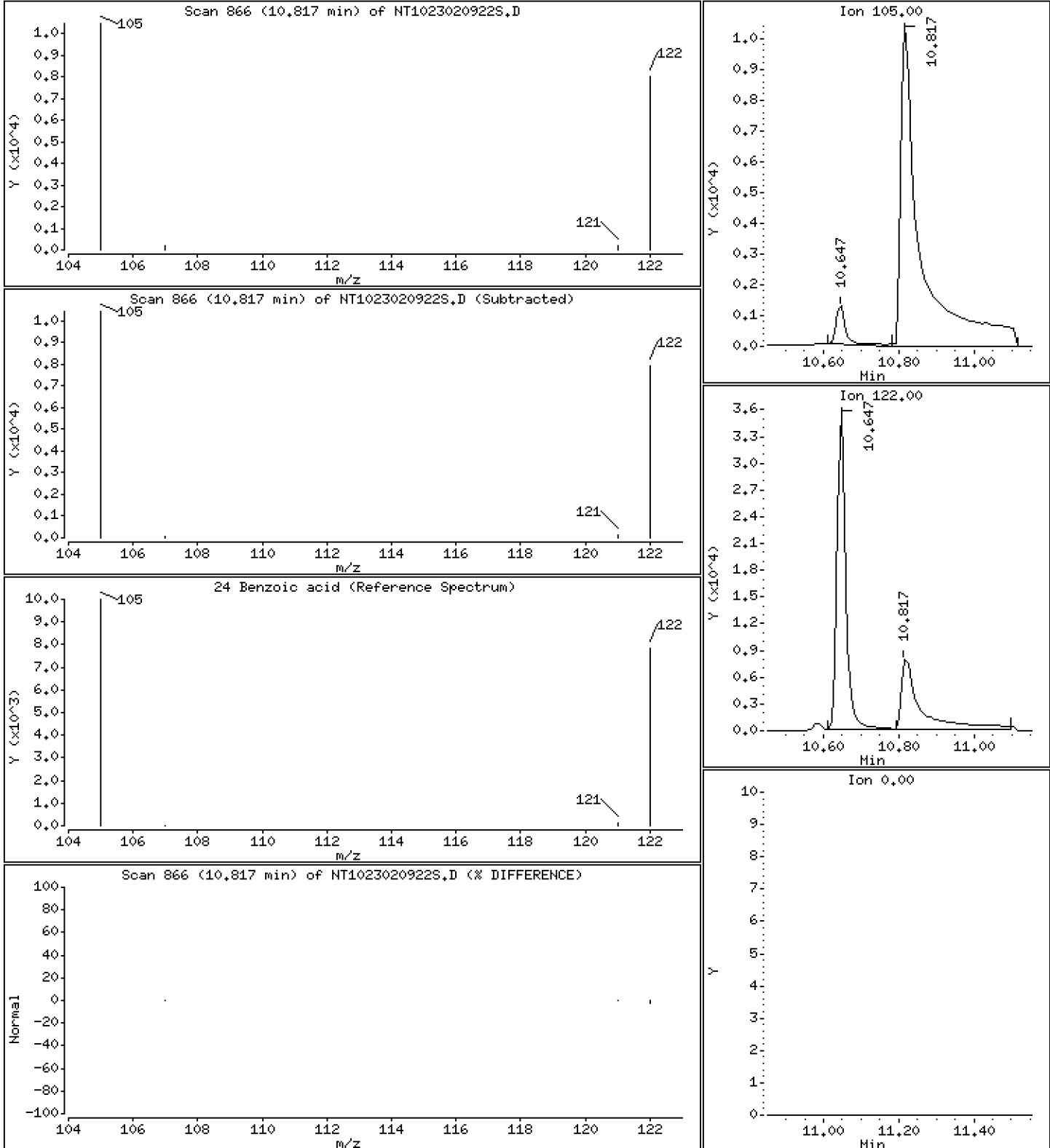
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 2,650 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

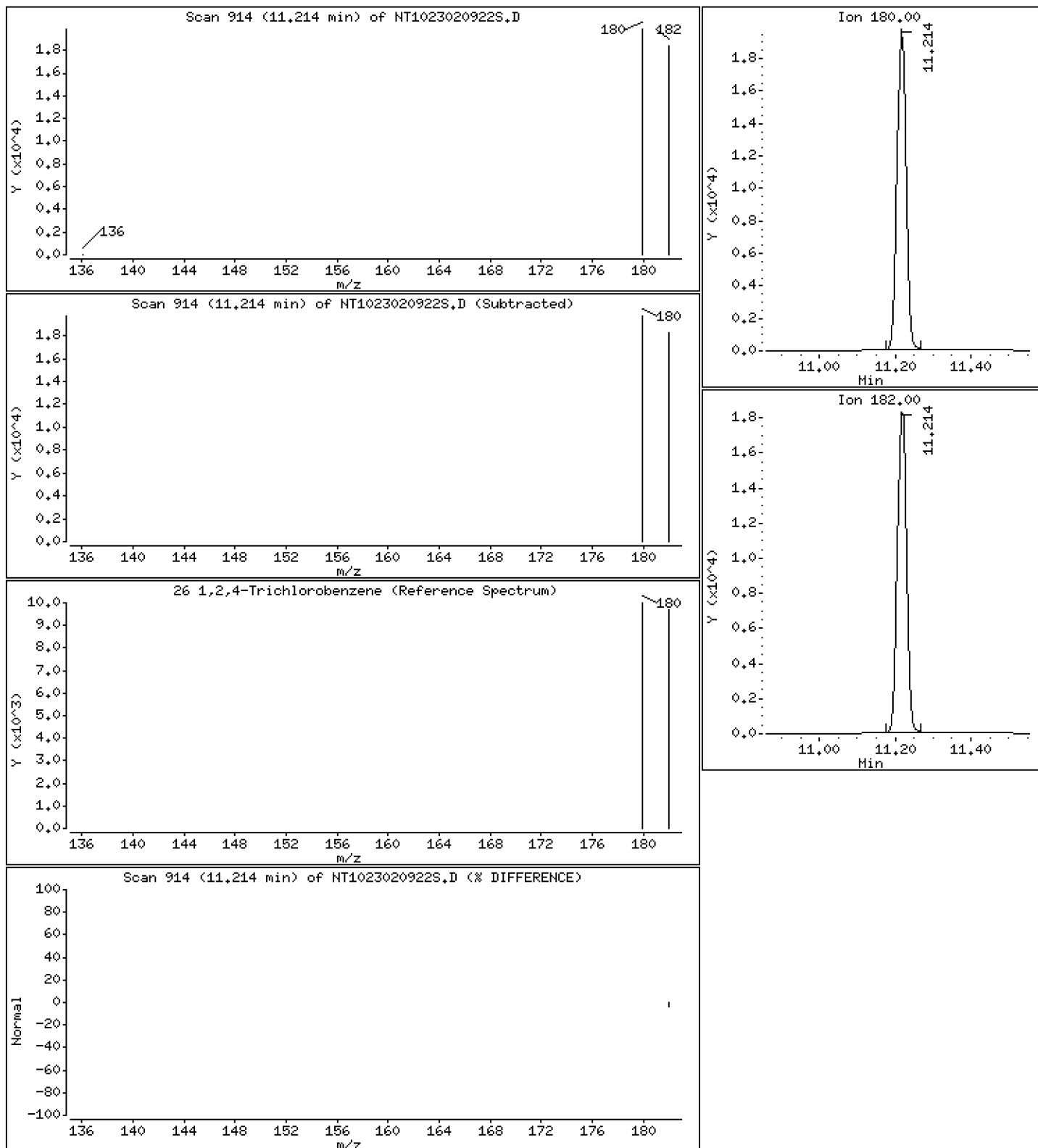
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 1.070 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

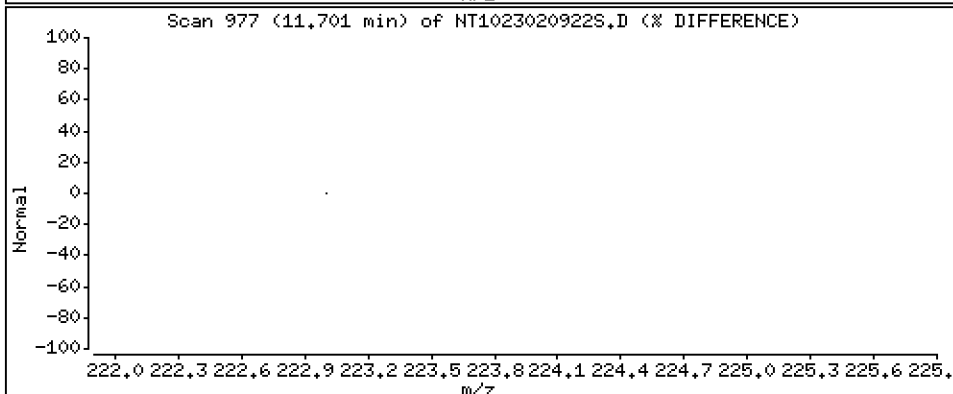
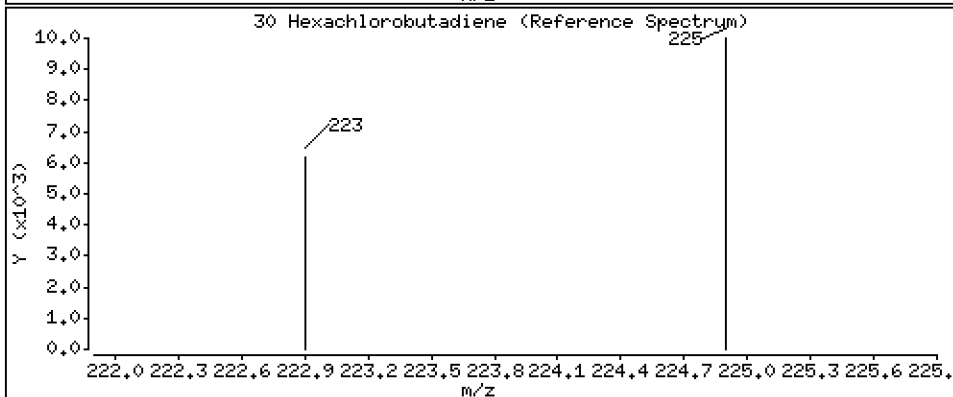
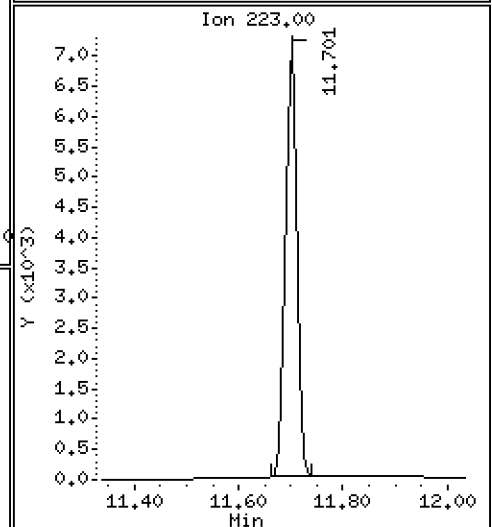
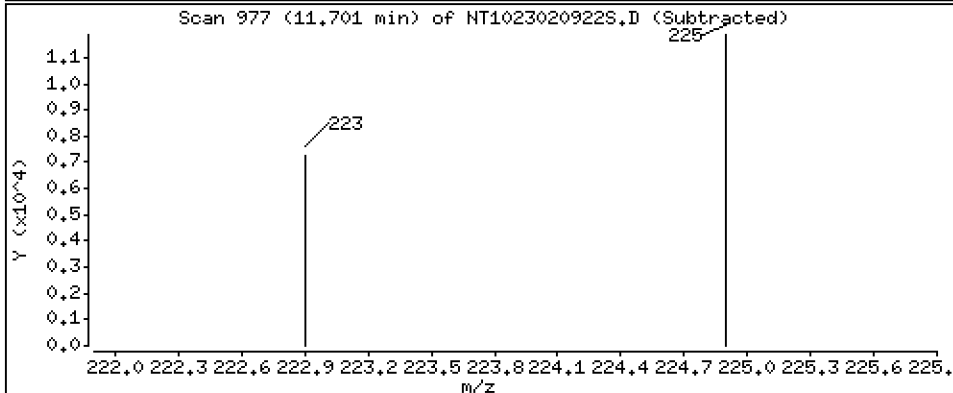
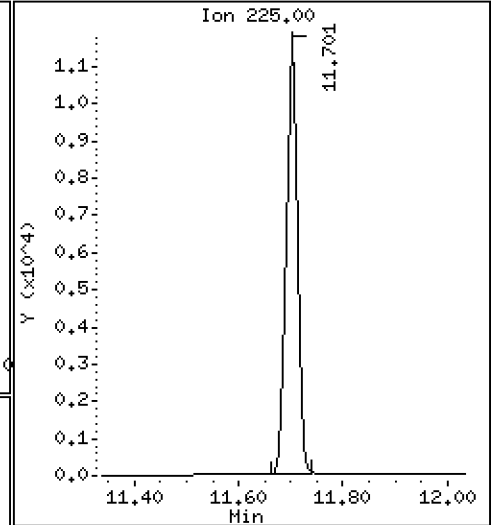
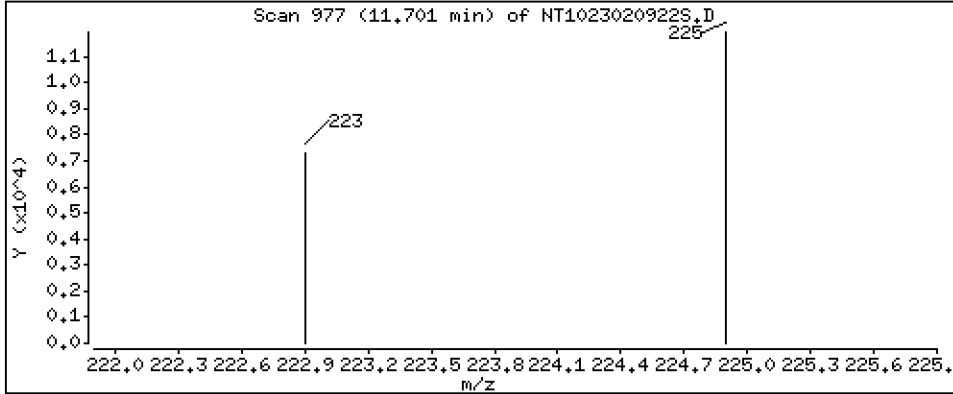
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

30 Hexachlorobutadiene

Concentration: 1.073 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

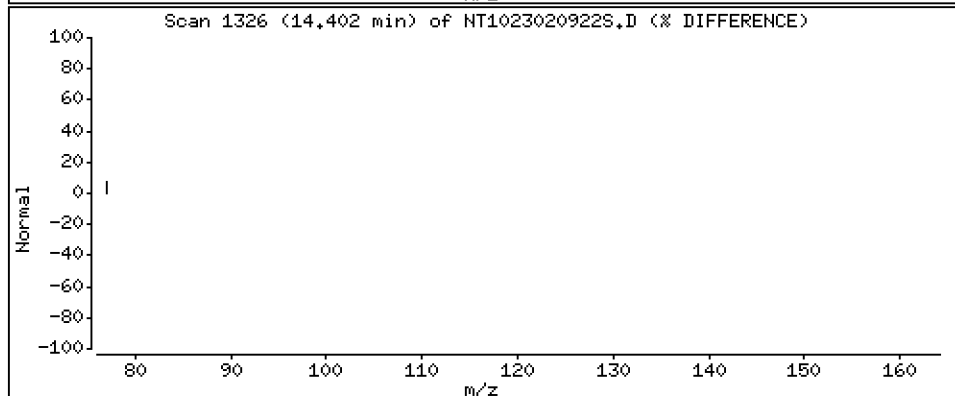
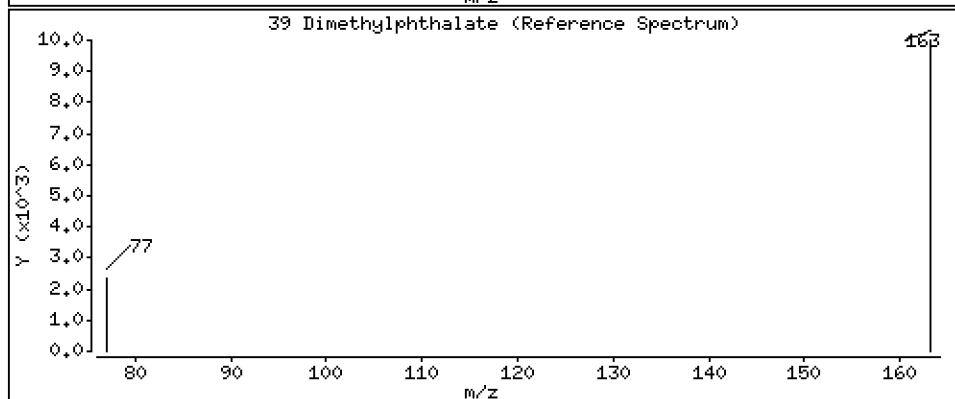
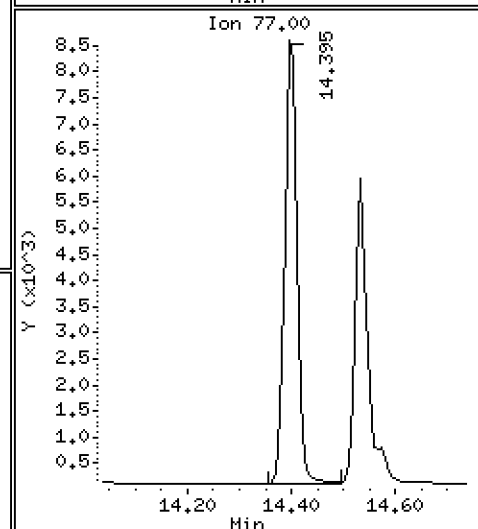
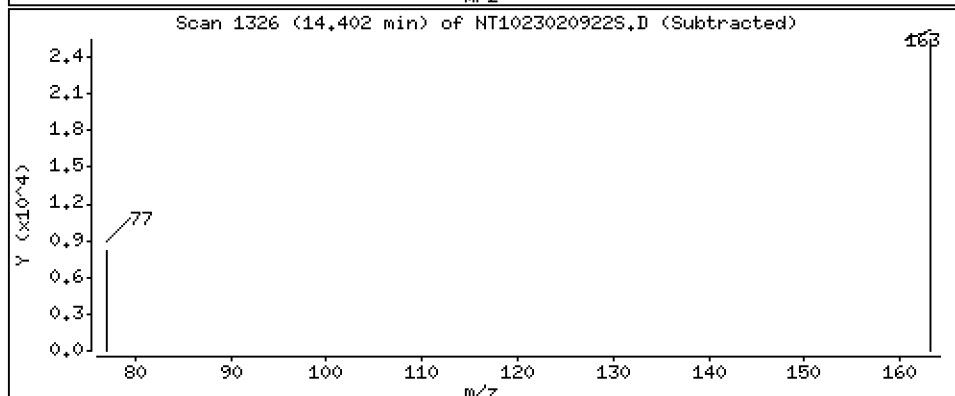
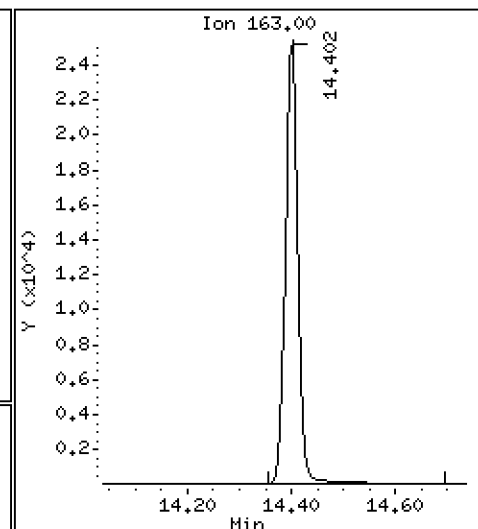
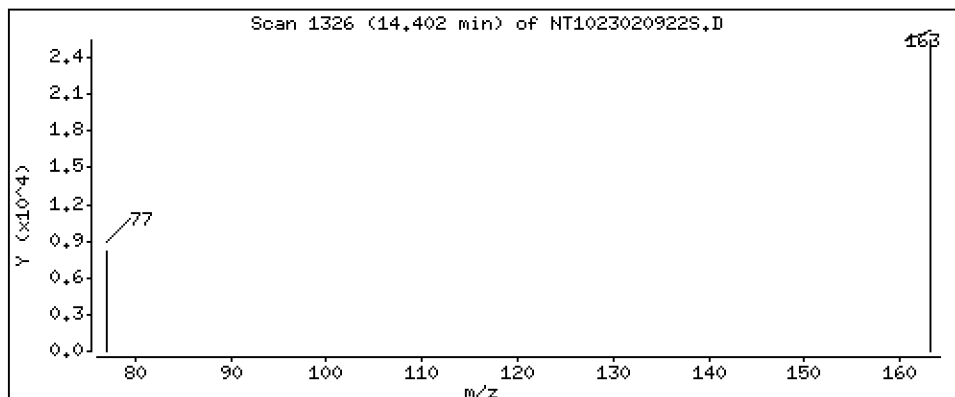
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 1.083 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

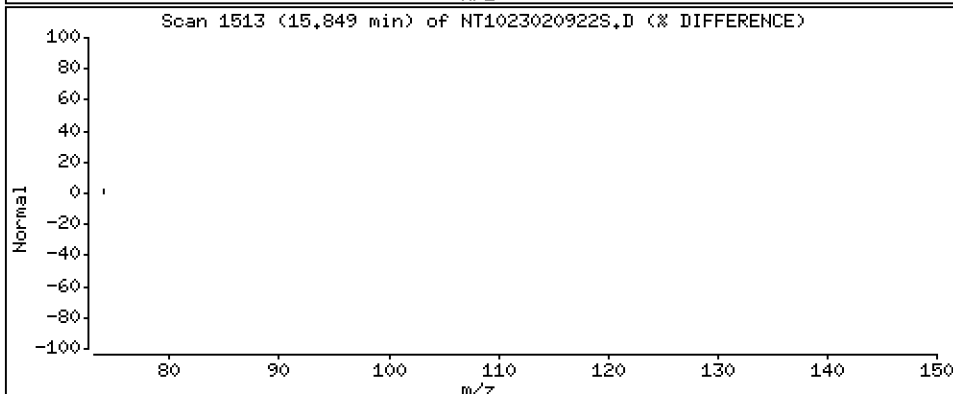
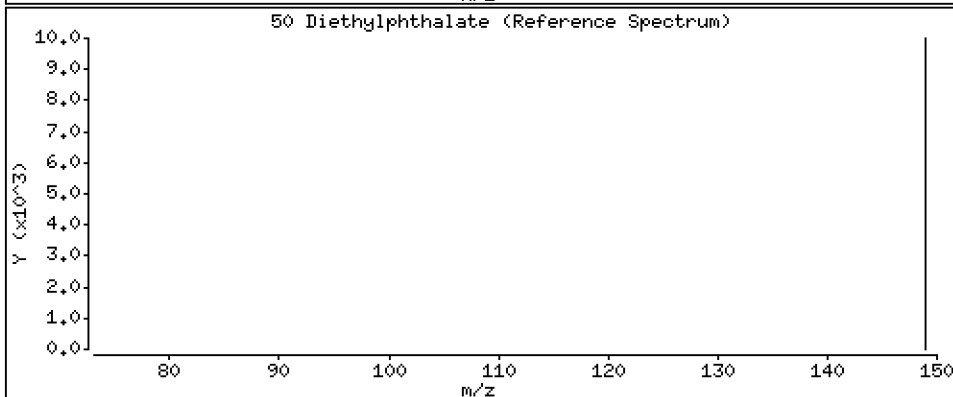
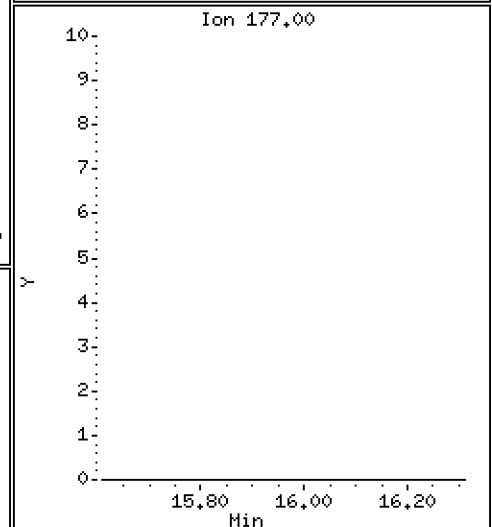
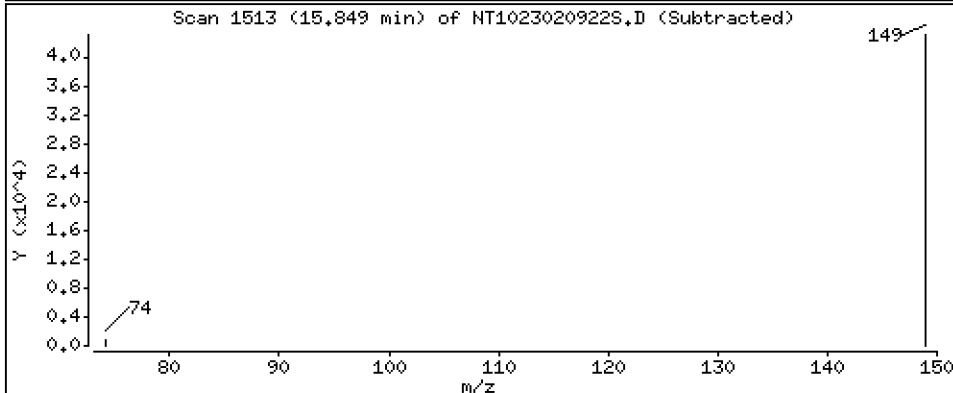
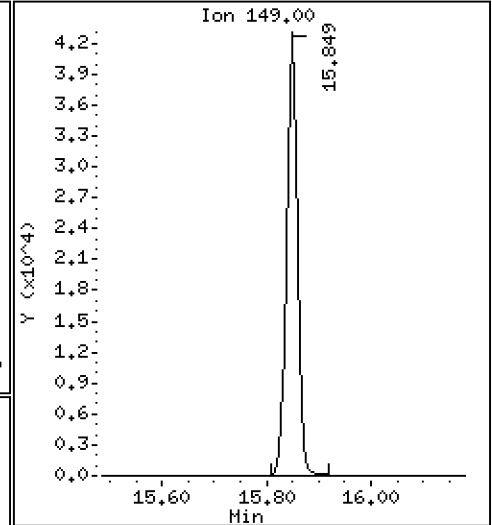
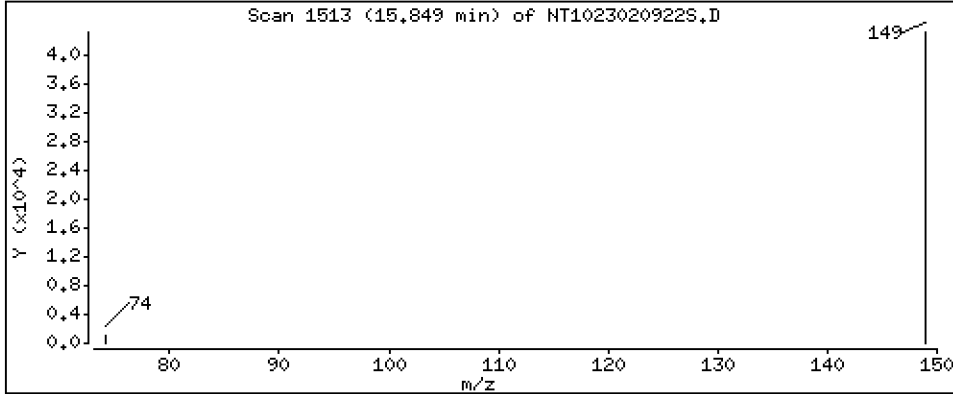
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 1,076 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

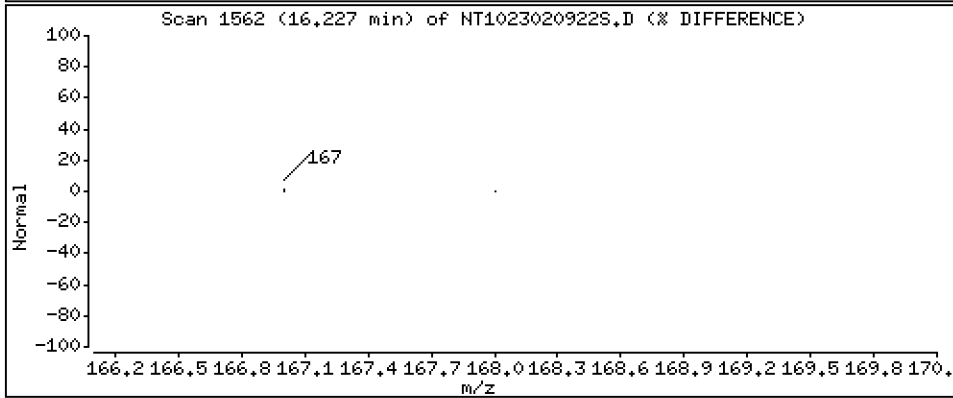
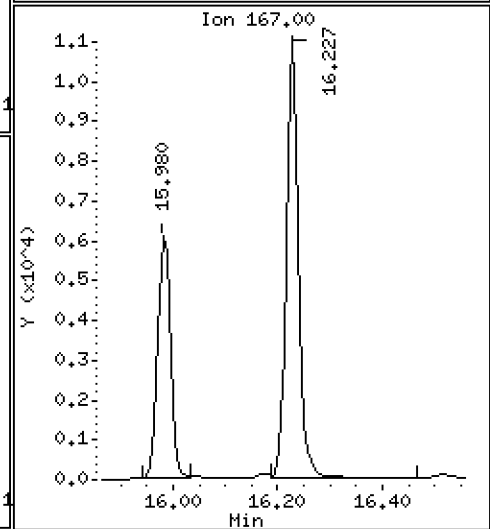
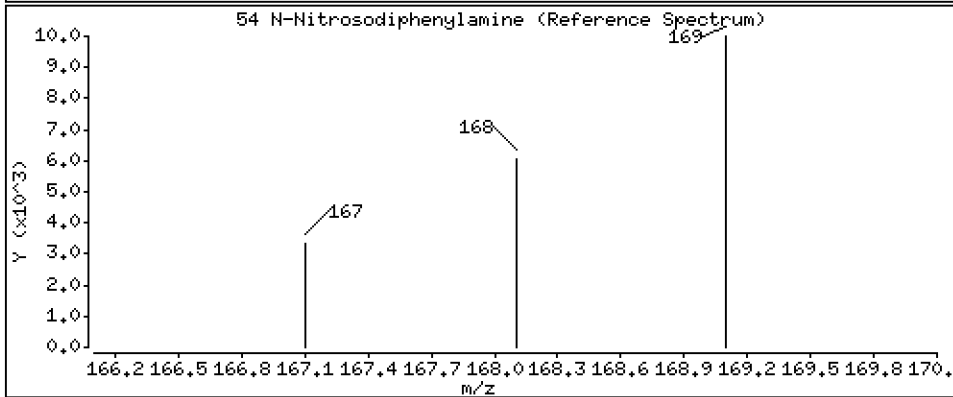
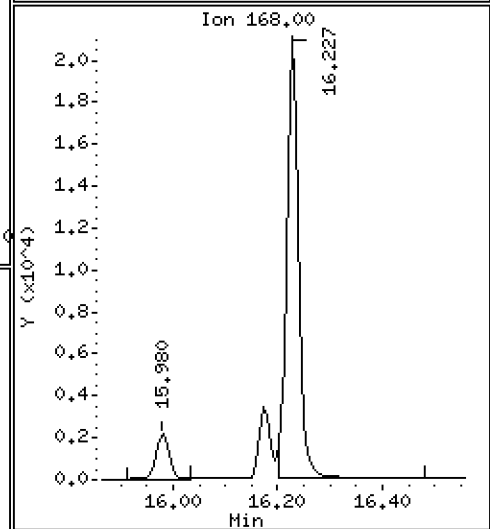
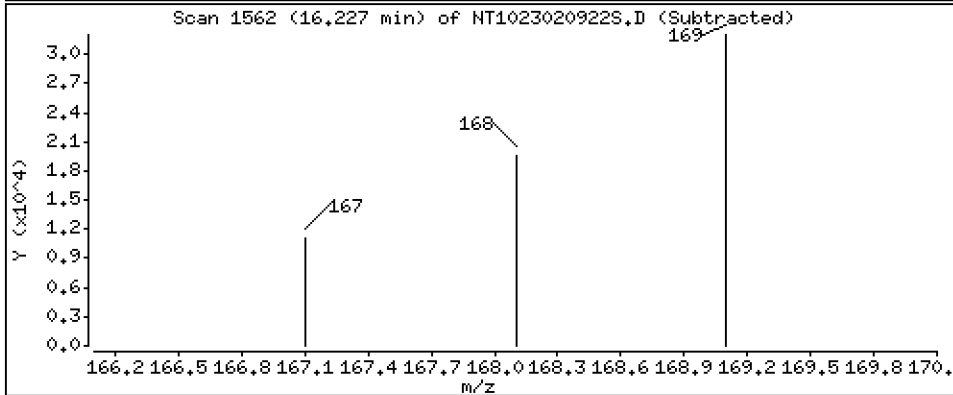
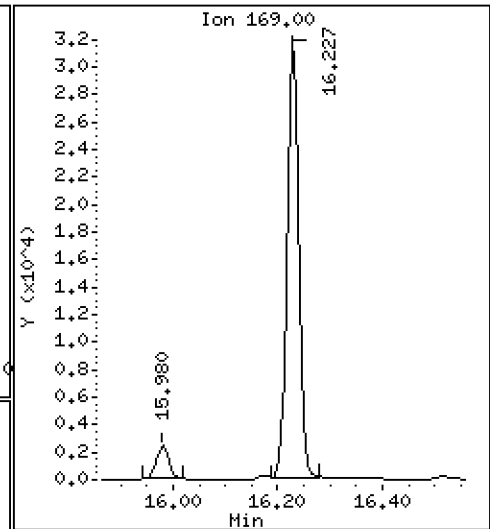
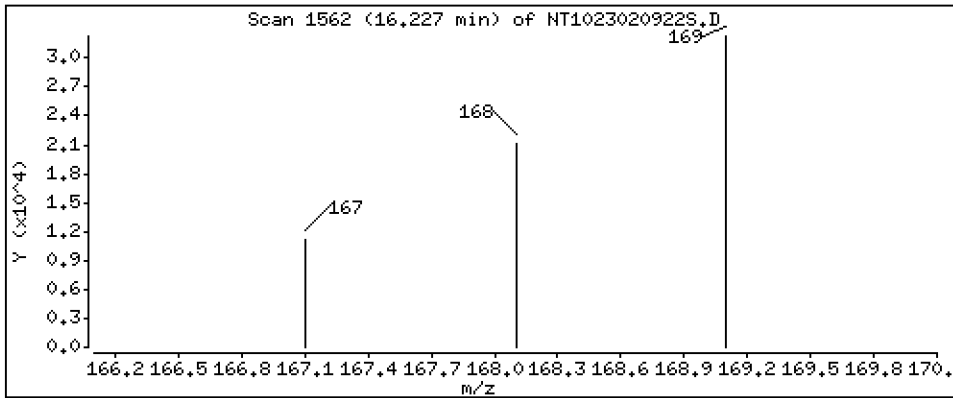
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 1.028 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

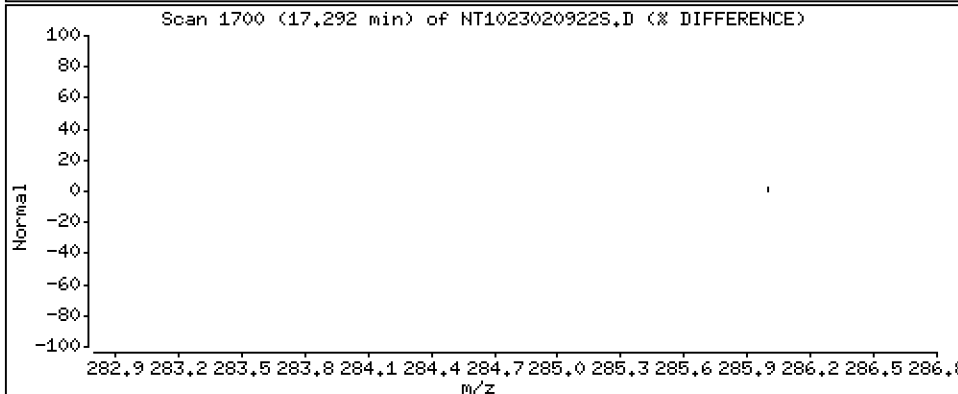
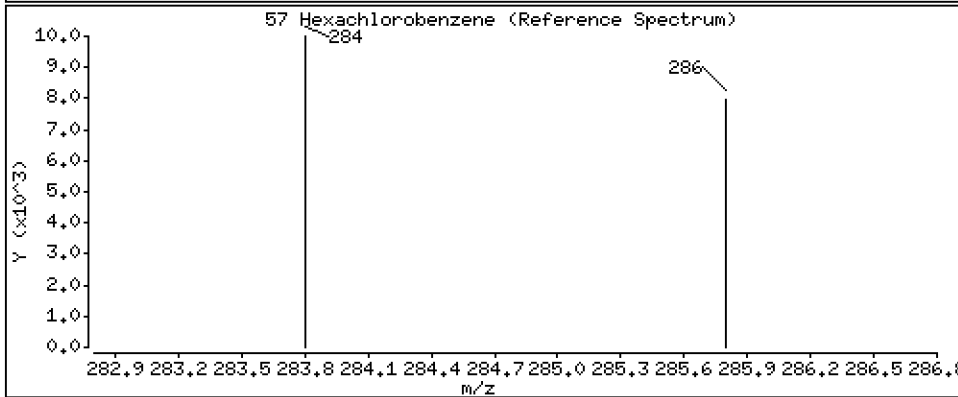
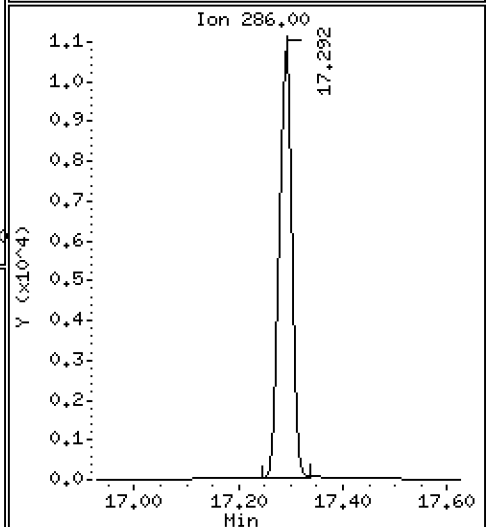
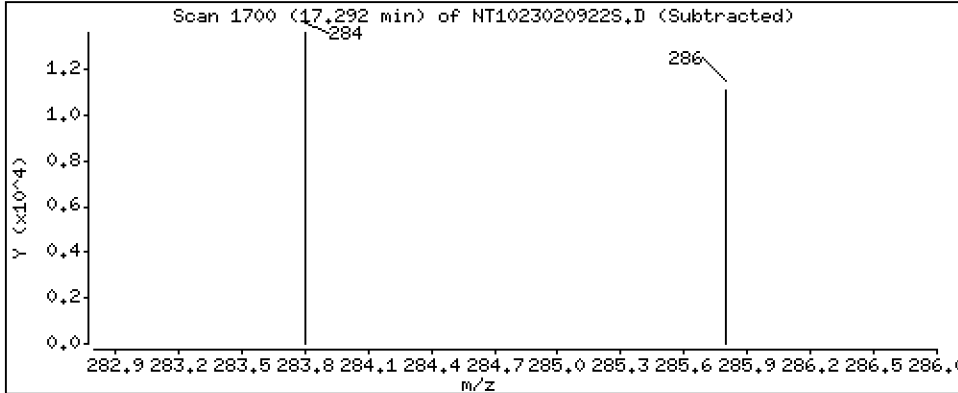
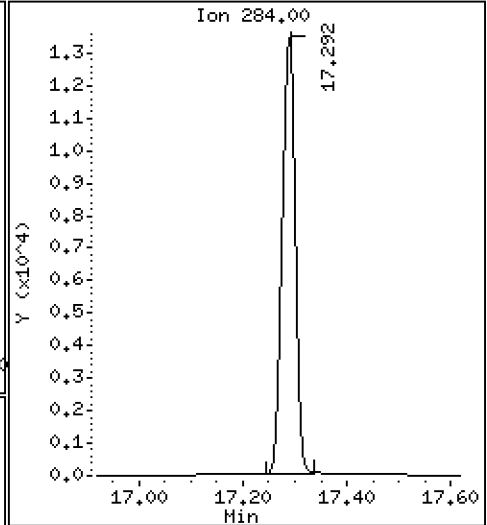
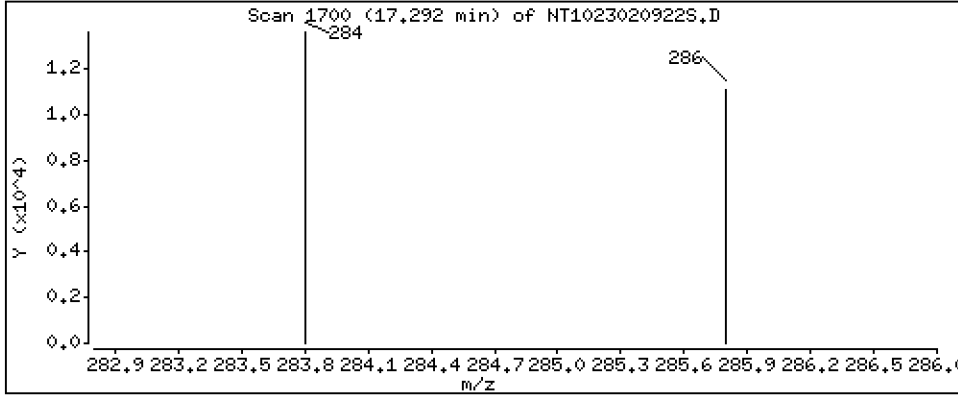
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 1.085 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

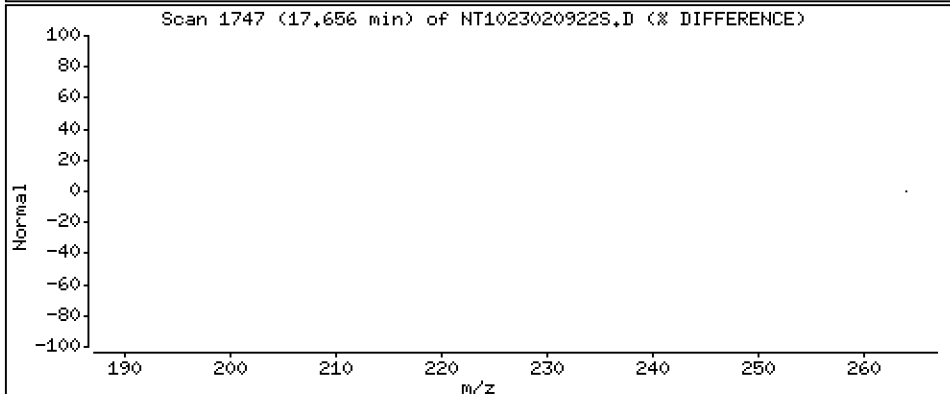
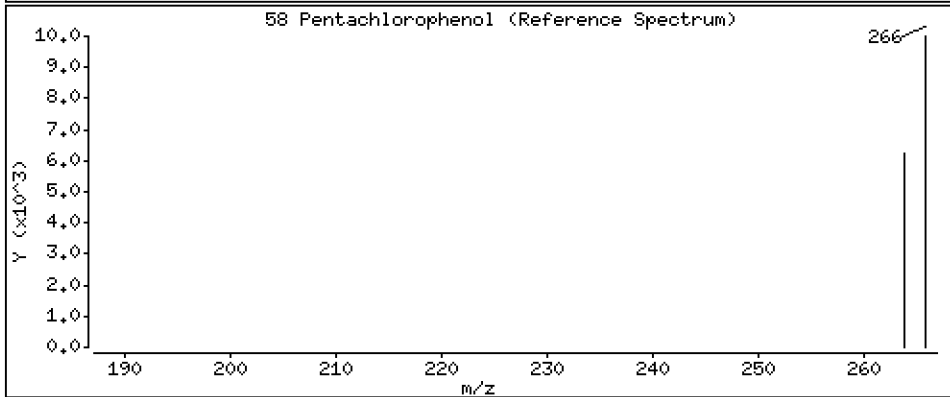
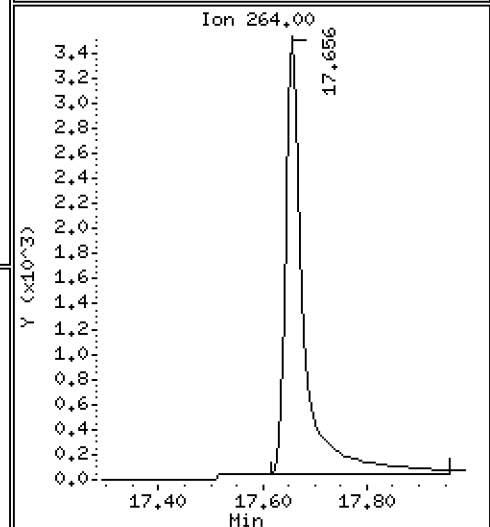
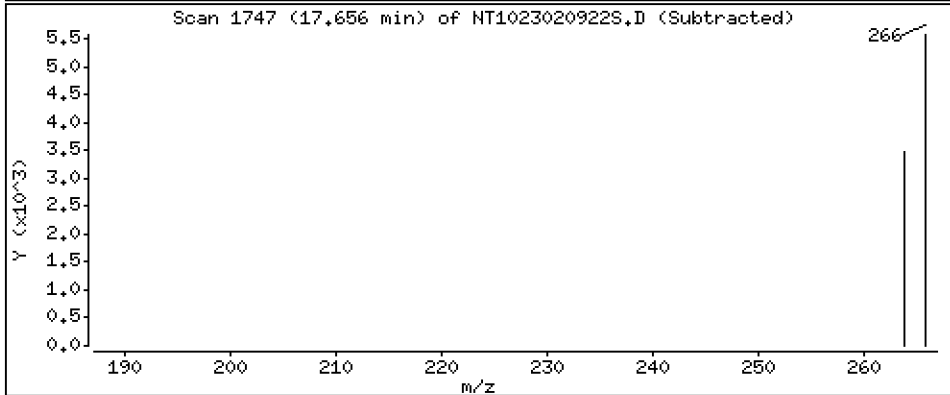
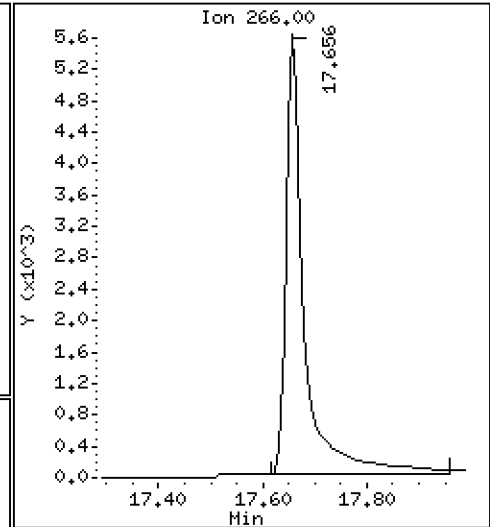
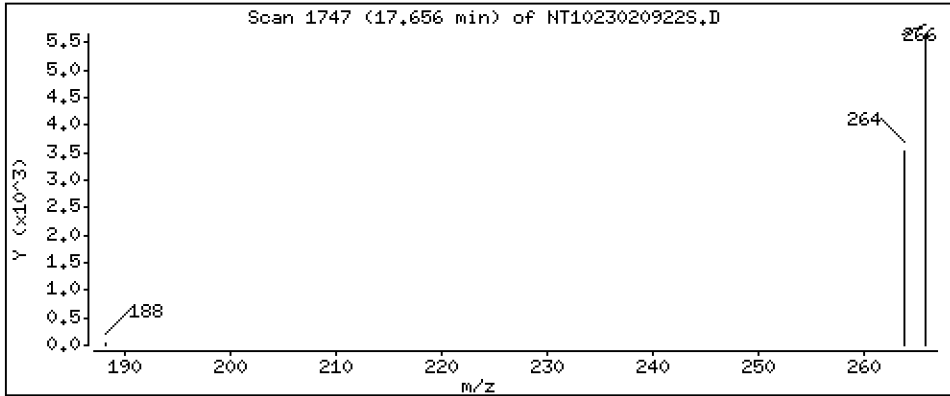
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 1,889 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

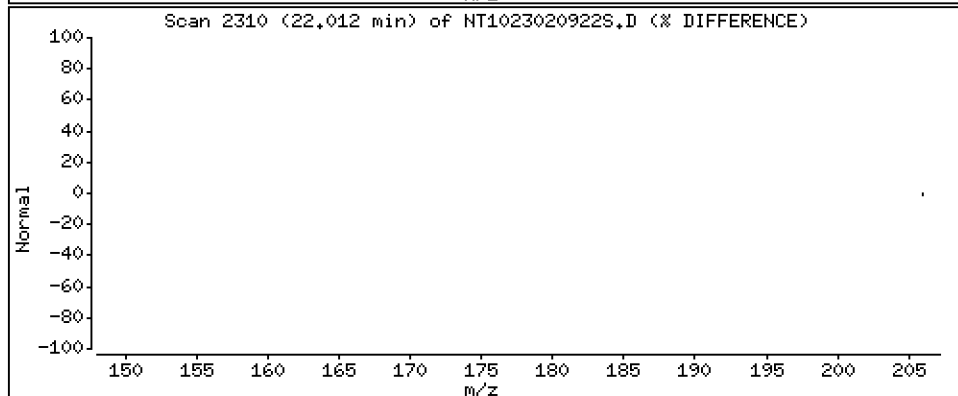
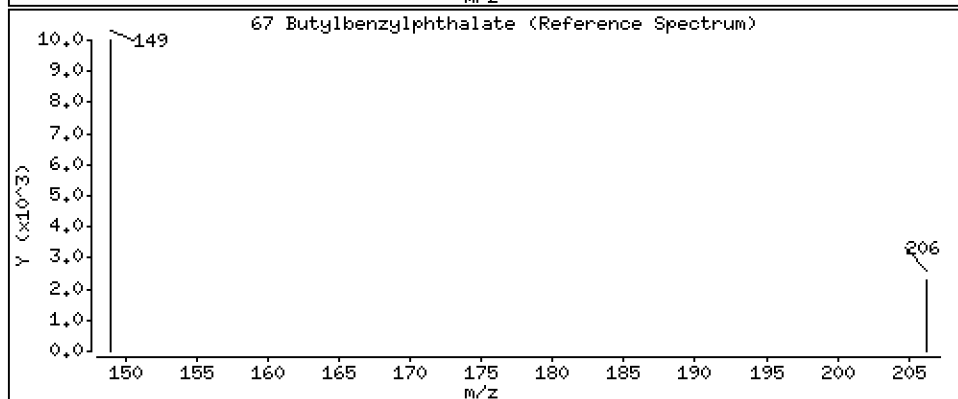
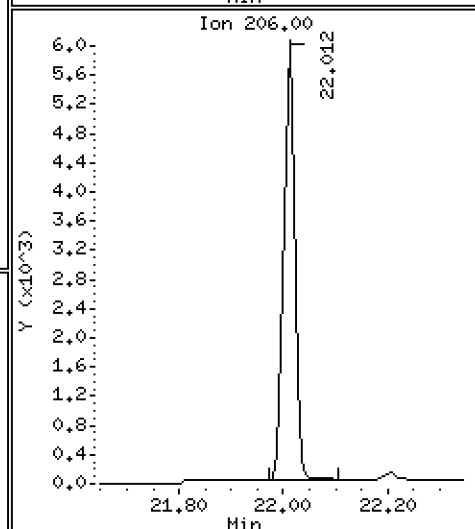
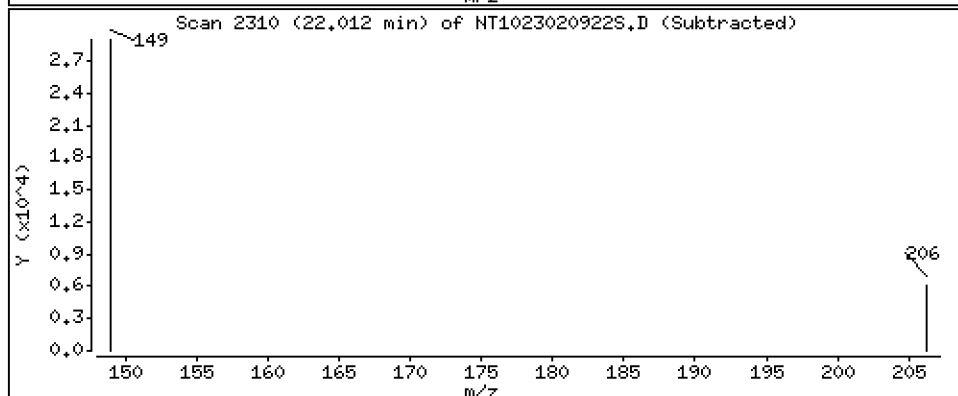
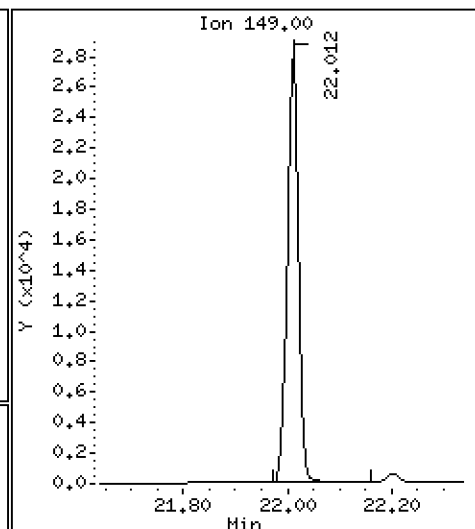
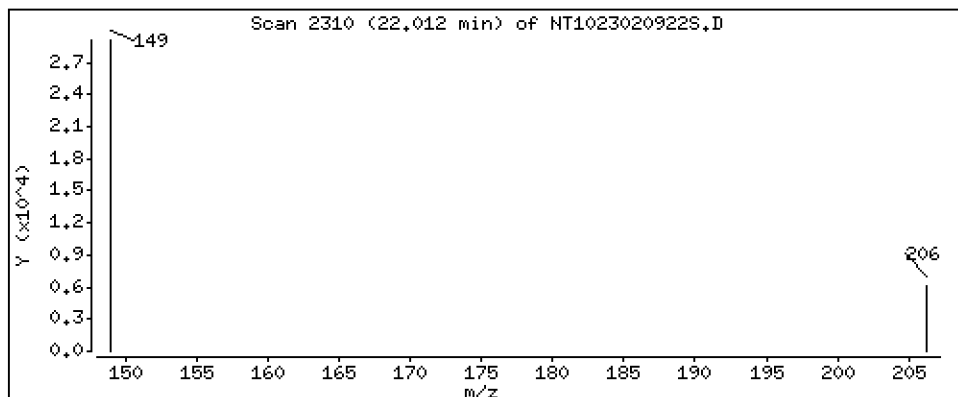
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

67 Butylbenzylphthalate

Concentration: 1.066 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

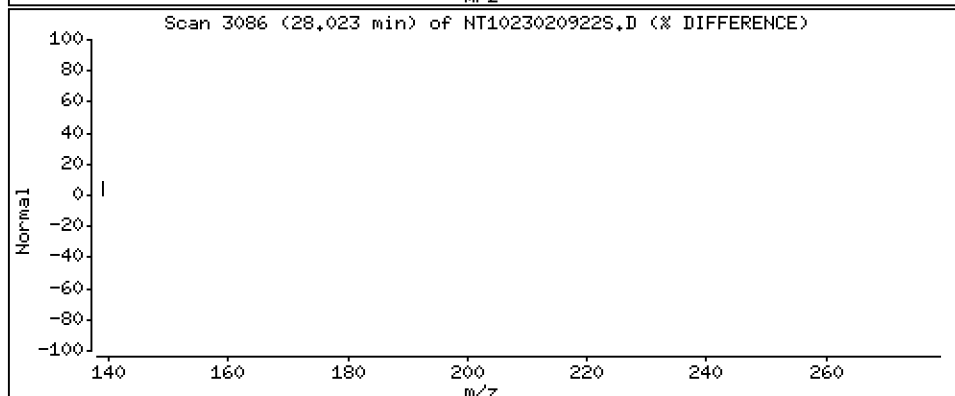
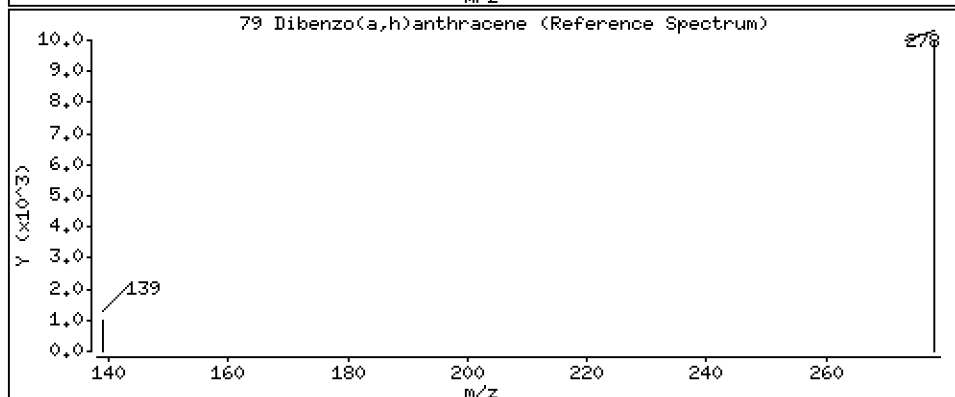
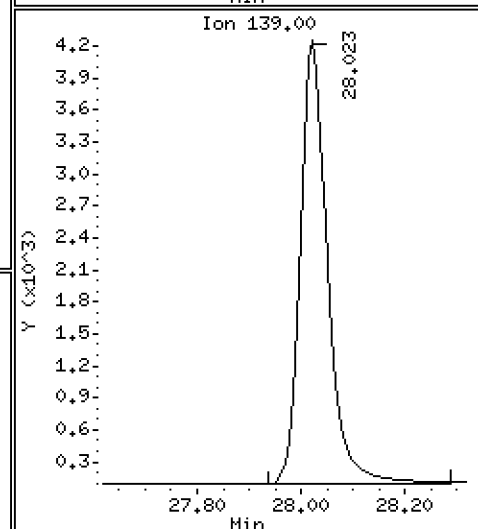
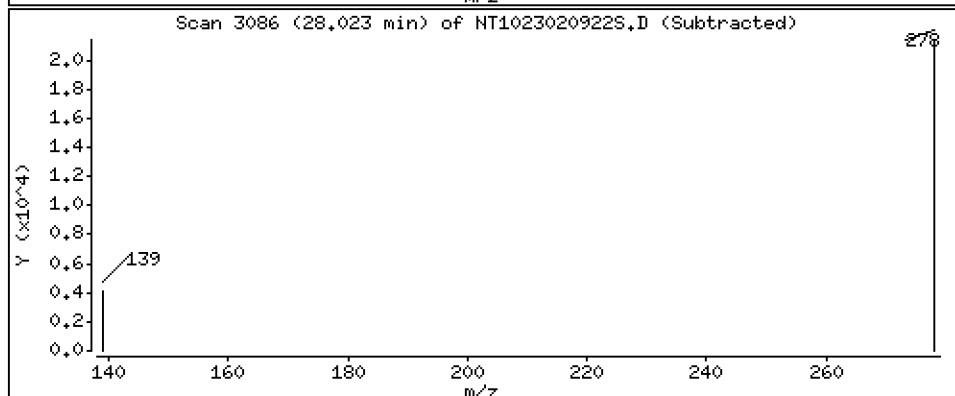
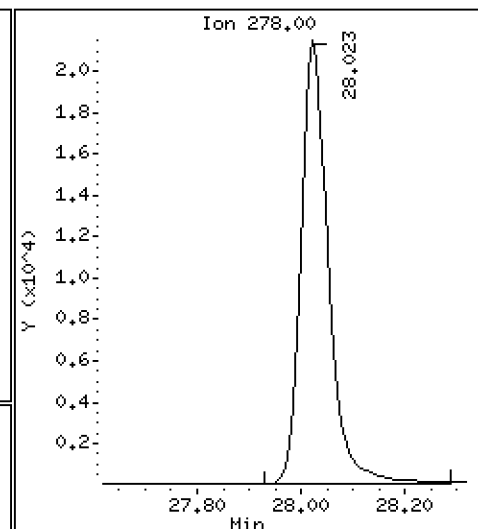
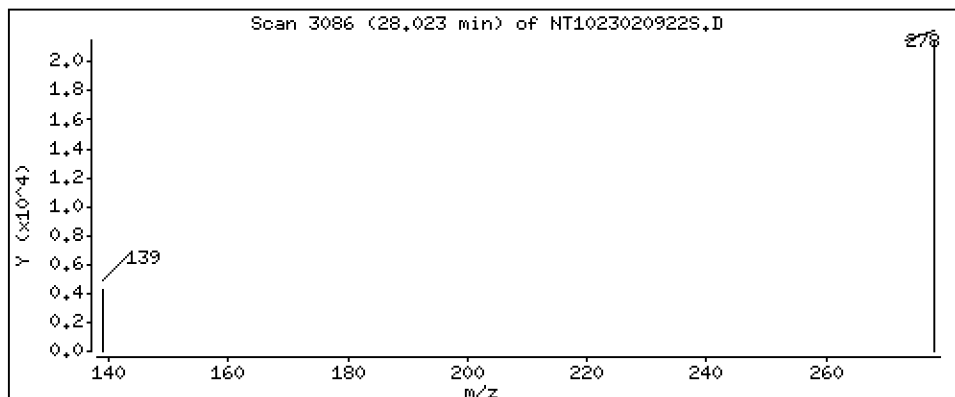
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,9228 ug/L



Date : 10-FEB-2023 02:26

Client ID:

Instrument: nt10.i

Sample Info: SIH-CCV1

Volume Injected (uL): 1.0

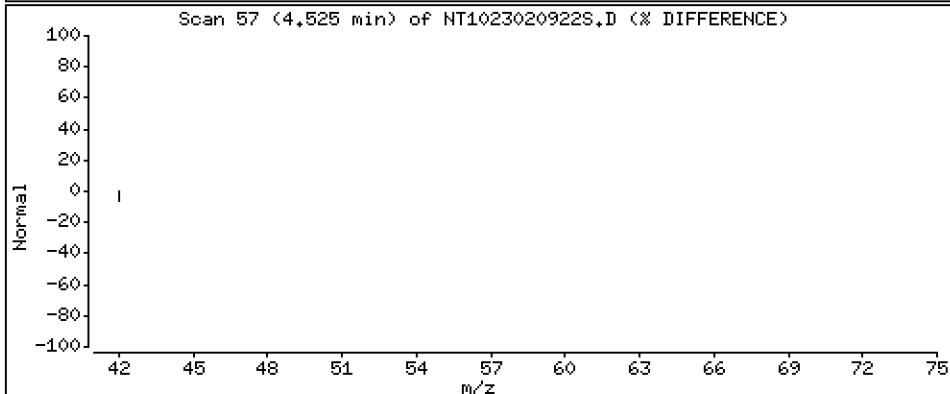
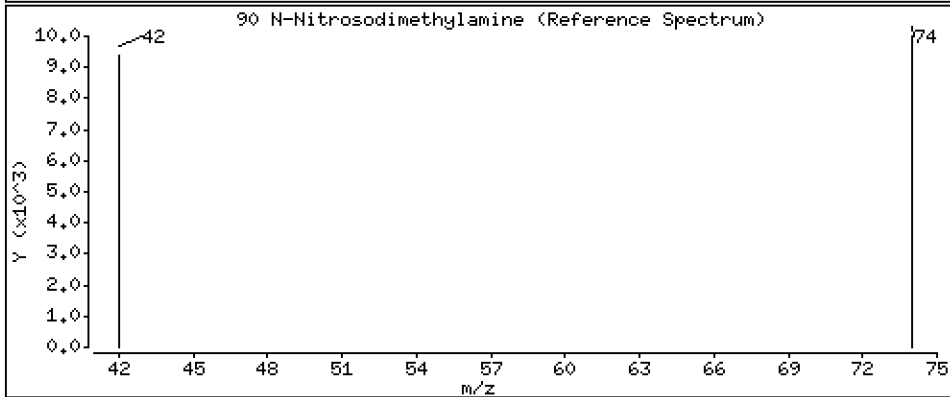
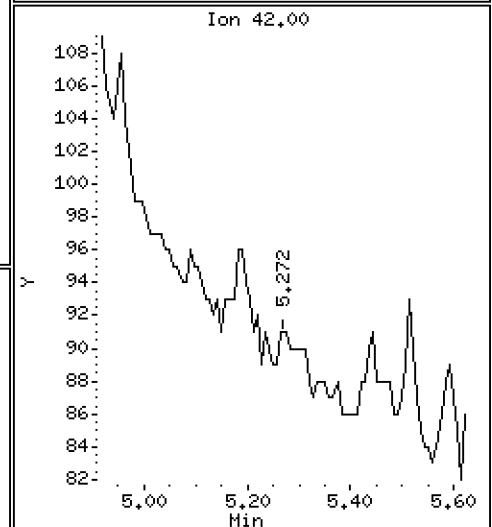
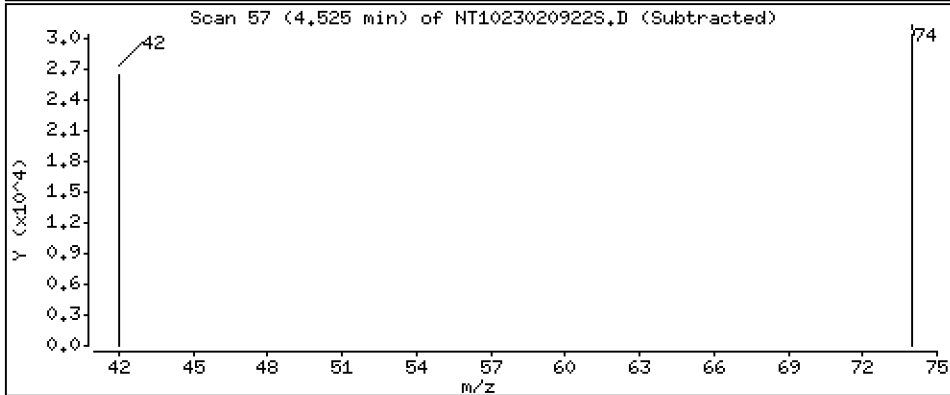
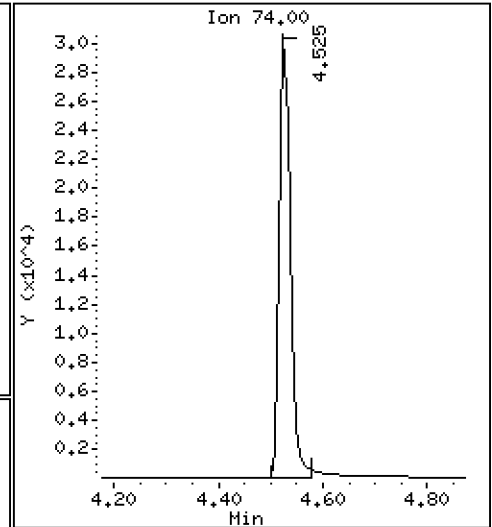
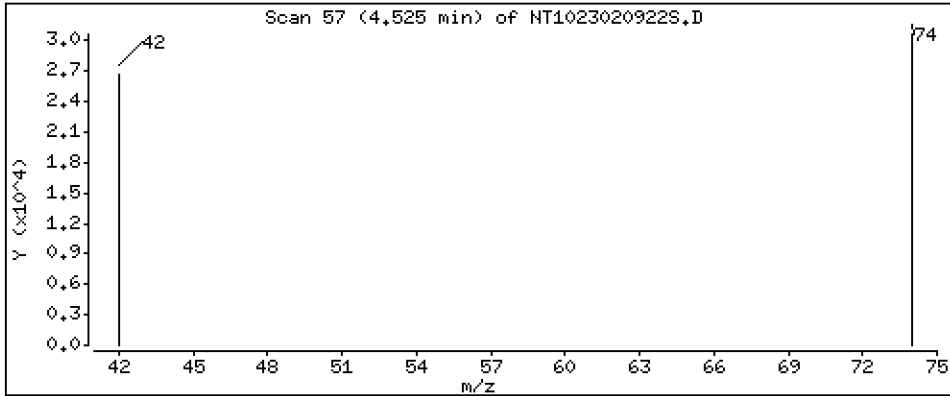
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 2.093 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230209.b\SIM.b\NT1023020922S.D
 Lab Smp Id: SLB9114-CCV1
 Inj Date : 10-FEB-2023 02:26 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SIM-CCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230209.b\SIM.b\SIMABN2.m
 Meth Date : 12-Feb-2023 17:30 yev Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: ORGDATA102

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		6.663	6.655 (0.754)		47598	1.56713	1.567 (RM)
3 Phenol	94		8.255	8.239 (0.934)		48192	1.05226	1.052
7 1,3-Dichlorobenzene	146		8.781	8.765 (0.993)		41898	1.01586	1.016
* 8 1,4-Dichlorobenzene-d4	152		8.843	8.835 (1.000)		99878	4.00000	
9 1,4-Dichlorobenzene	146		8.874	8.858 (1.004)		40938	1.01522	1.015
11 Benzyl alcohol	79		9.122	9.099 (1.032)		26173	1.17147	1.171
12 1,2-Dichlorobenzene	146		9.223	9.207 (1.043)		40092	1.01868	1.019
13 2-Methylphenol	108		9.348	9.332 (1.057)		34124	1.09140	1.091
15 4-Methylphenol	108		9.619	9.603 (1.088)		34451	1.08031	1.080
16 N-Nitroso-di-n-propylamine	70		9.658	9.650 (1.092)		24660	1.08324	1.083
22 2,4-Dimethylphenol	107		10.647	10.630 (0.942)		66721	2.14731	2.147
24 Benzoic acid	105		10.817	10.799 (0.957)		38591	2.65023	2.650
26 1,2,4-Trichlorobenzene	180		11.214	11.206 (0.992)		31175	1.07040	1.070
* 27 Naphthalene-d8	136		11.299	11.283 (1.000)		353725	4.00000	
30 Hexachlorobutadiene	225		11.701	11.685 (1.036)		17062	1.07298	1.073
39 Dimethylphthalate	163		14.402	14.386 (0.968)		42445	1.08321	1.083
* 42 Acenaphthene-d10	162		14.882	14.866 (1.000)		168125	4.00000	
50 Diethylphthalate	149		15.848	15.832 (1.065)		63501	1.07606	1.076
54 N-Nitrosodiphenylamine	169		16.226	16.210 (0.906)		50133	1.02771	1.028
57 Hexachlorobenzene	284		17.291	17.268 (0.966)		22528	1.08515	1.085

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	17.655	17.639	(0.986)	13862	1.88889	1.889
* 59 Phenanthrene-d10	188	17.903	17.887	(1.000)	295176	4.00000	
\$ 66 Terphenyl-d14	244	21.075	21.051	(0.917)	63000	1.07126	1.071 (R)
67 Butylbenzylphthalate	149	22.012	21.988	(0.958)	42367	1.06578	1.066
* 69 Chrysene-d12	240	22.980	22.956	(1.000)	264951	4.00000	
* 77 Perylene-d12	264	25.511	25.480	(1.000)	304147	4.00000	
79 Dibenzo(a,h)anthracene	278	28.022	27.967	(1.098)	78663	0.92285	0.9228
90 N-Nitrosodimethylamine	74	4.524	4.524	(0.512)	41655	2.09284	2.093 (M)

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020922S.D
 Lab Smp Id: SLB9114-CCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230209.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 09-FEB-2023
 Calibration Time: 14:49
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	101588	50794	203176	99878	-1.68
27 Naphthalene-d8	364920	182460	729840	353725	-3.07
42 Acenaphthene-d10	174973	87487	349946	168125	-3.91
59 Phenanthrene-d10	314354	157177	628708	295176	-6.10
69 Chrysene-d12	242262	121131	484524	264951	9.37
77 Perylene-d12	285281	142641	570562	304147	6.61

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	0.09
27 Naphthalene-d8	11.28	10.78	11.78	11.30	0.14
42 Acenaphthene-d10	14.87	14.37	15.37	14.88	0.11
59 Phenanthrene-d10	17.89	17.39	18.39	17.90	0.09
69 Chrysene-d12	22.96	22.46	23.46	22.98	0.10
77 Perylene-d12	25.48	24.98	25.98	25.51	0.12

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020922S.D

Lab ID: SLB9114-CCV1

nt10.i, 20230209.b\SIM.b\SIMABN2.m, 10-FEB-2023 02:26

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: SIM.b/NT1023020904S.D

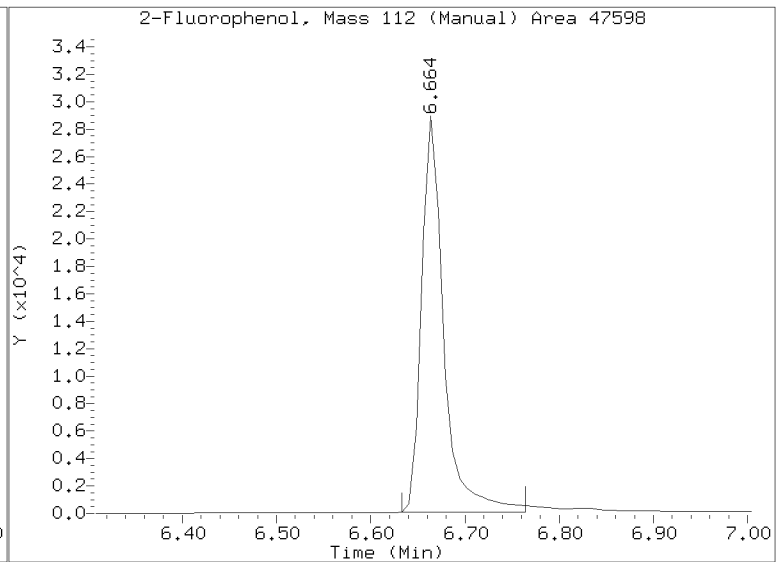
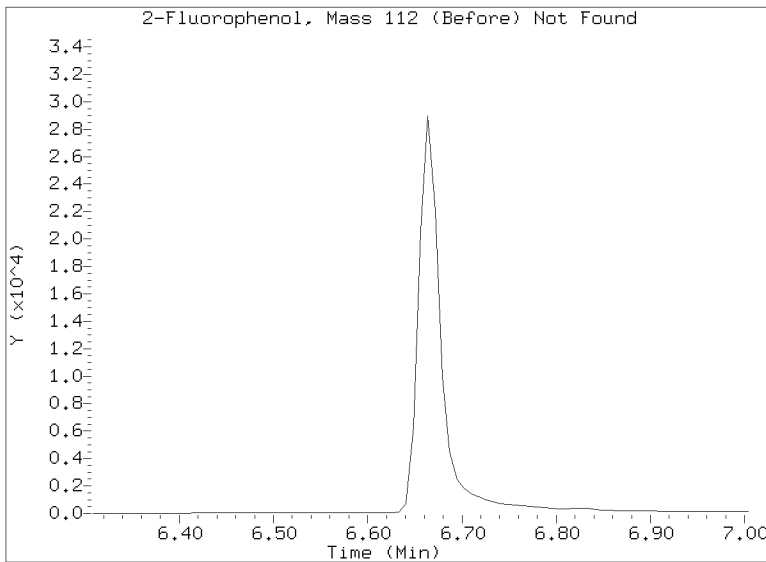
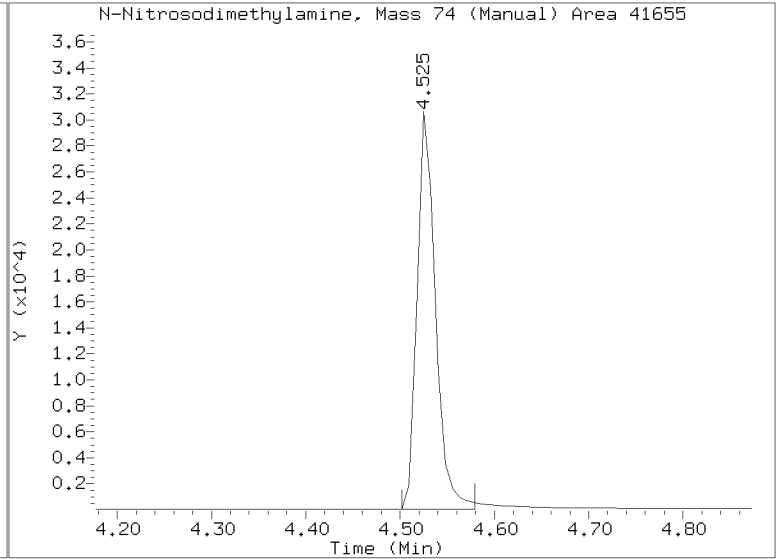
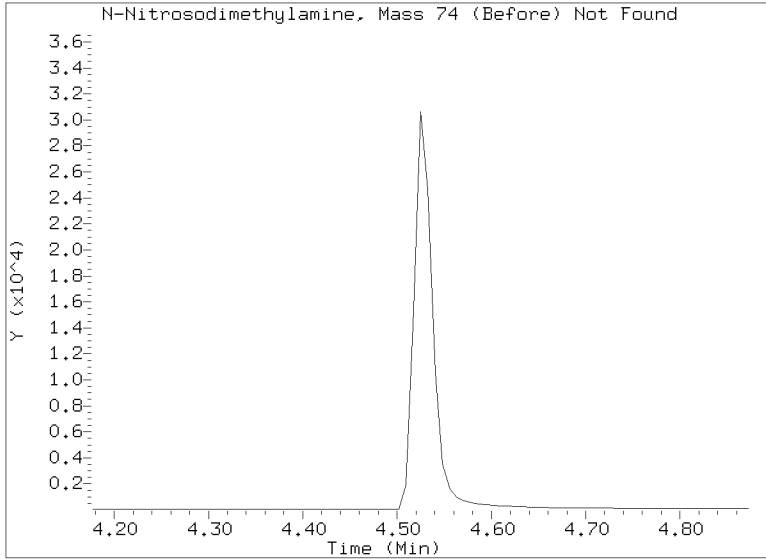
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209.b/SIM.b/NT1023020922S.D
Injection Date: 10-FEB-2023 02:26
Lab ID:SLB9114-CCV1 Client ID:
Report Date: 02/12/2023 17:36





**LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GB00019</u>
Lab File ID:	<u>NT1023020905S.D</u>	Calibration Date:	<u>02/07/2023</u>
Sequence:	<u>SLB0114</u>	Injection Date:	<u>02/09/23</u>
Lab Sample ID:	<u>SLB0114-LCV1</u>	Injection Time:	<u>15:28</u>
Sequence Name:	<u>Low Cal Check</u>		

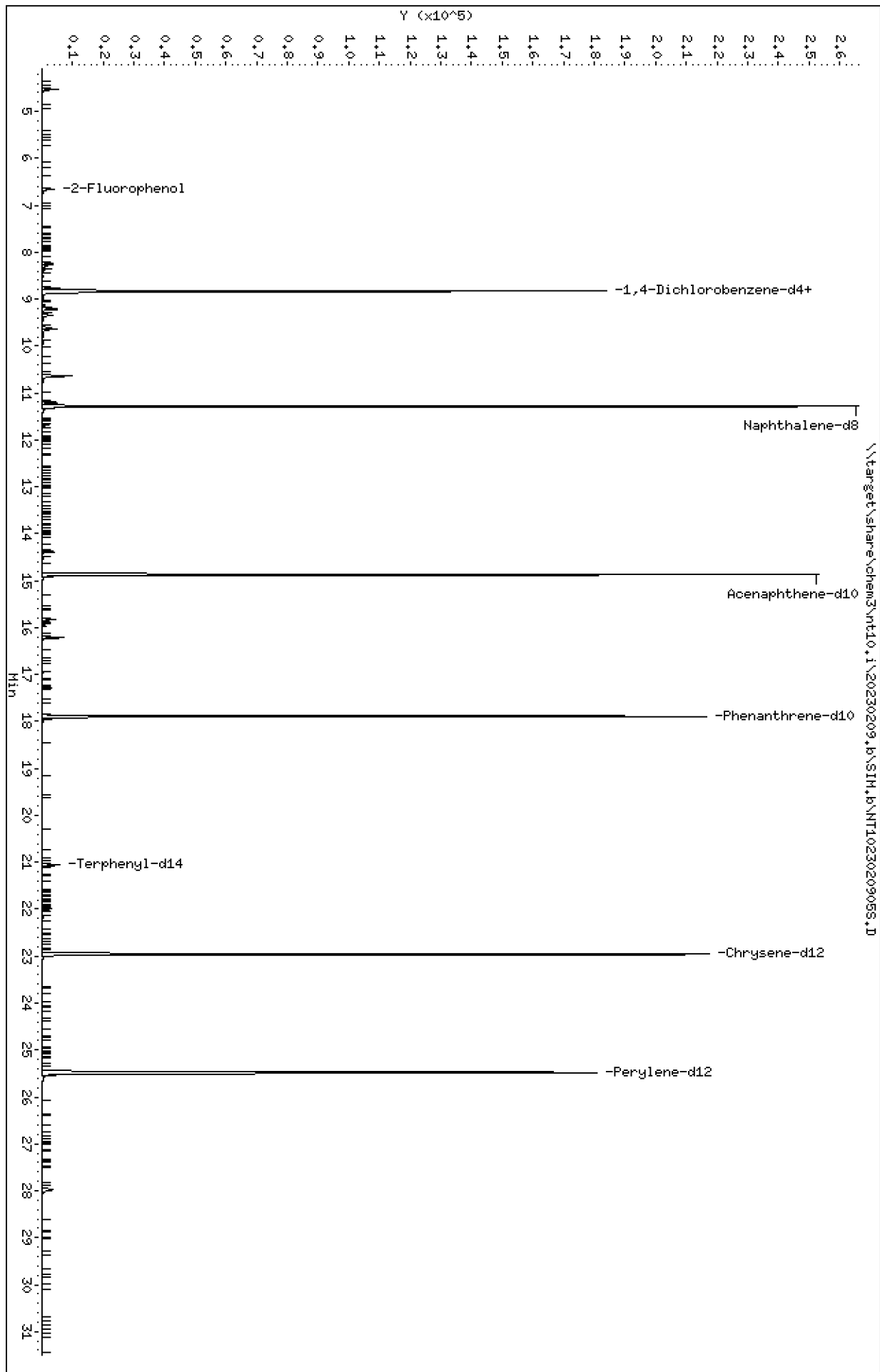
COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	0.10000	0.1	1.6149400	1.9190160		18.8	
1,2-Dichlorobenzene	A	0.10000	0.1	1.5761980	1.7271830		9.6	
Benzyl Alcohol	A	0.10000	0.1	0.8947729	1.3086080		46.3	
Benzoic acid	A	0.40000	0.01	0.1278126	0.0054350		-96.7	
2,4-Dimethylphenol	A	0.20000	0.2	0.3513679	0.4003517		13.9	
1,2,4-Trichlorobenzene	A	0.10000	0.1	0.3293471	0.3848439		16.9	
N-Nitrosodiphenylamine	A	0.10000	0.1	0.6610440	0.7256582		9.8	
Pentachlorophenol	A	0.20000	0.02	0.0758741	0.0116191		-88.1	
2-Fluorophenol	A	0.15000	0.150	1.2163900	1.2145930		-0.1	
p-Terphenyl-d14	A	0.10000	0.125	0.8878533	1.1092890		24.9	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\20230209.1\SIH.b\NT1023020905S.D
Date: 09-FEB-2023 15:28
Client ID:
Sample Info: SIH-LCWI
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: DSD
Column diameter: 0.25

\\target\share\chem3\nt10.1\20230209.1\SIH.b\NT1023020905S.D



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

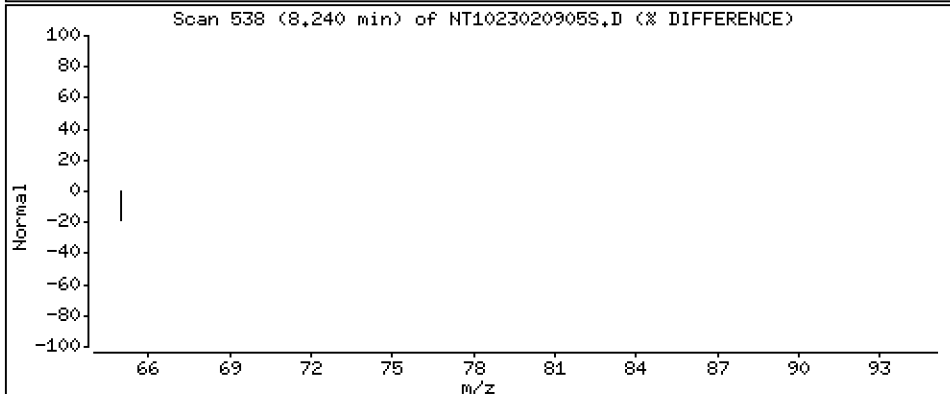
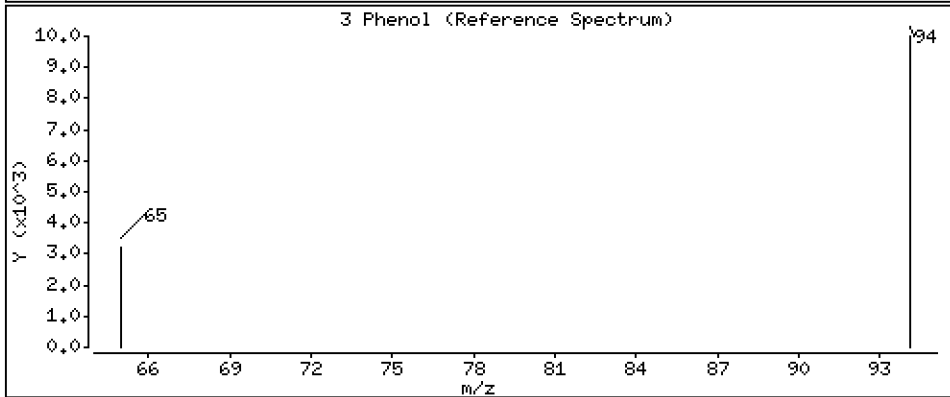
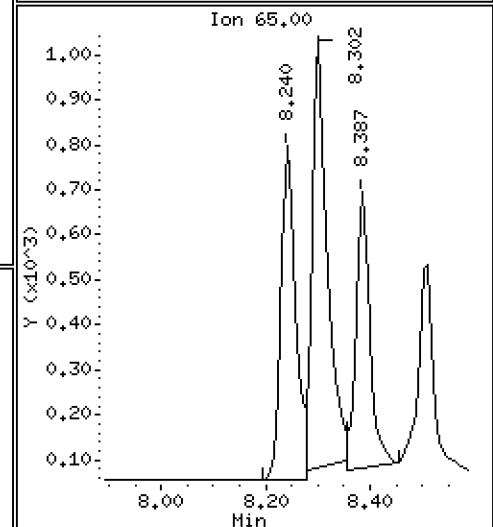
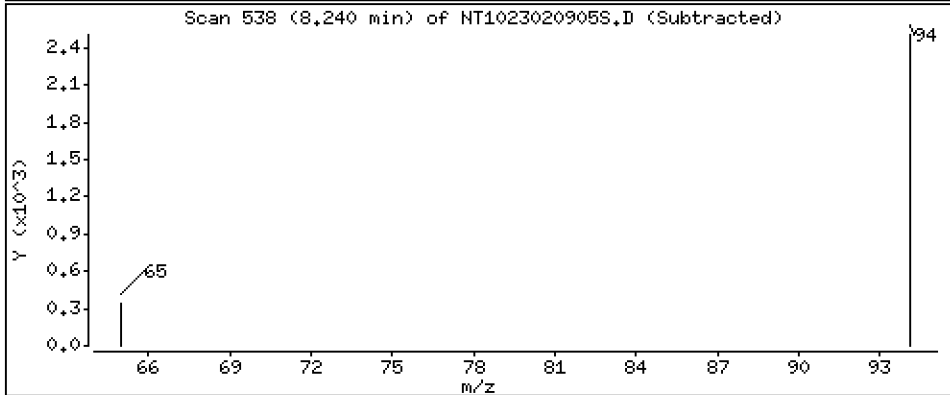
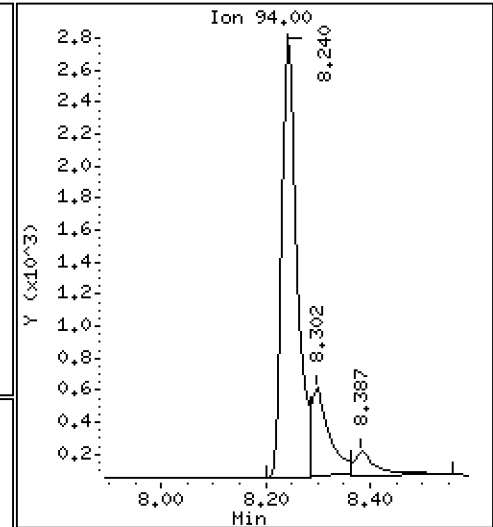
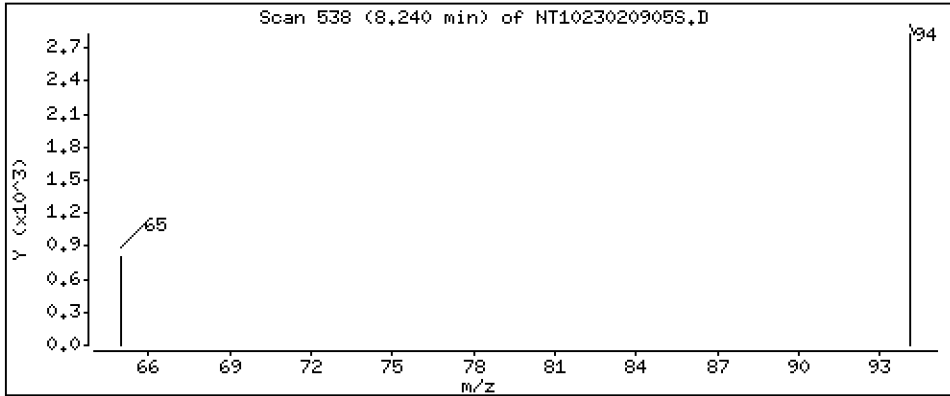
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 0.1027 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

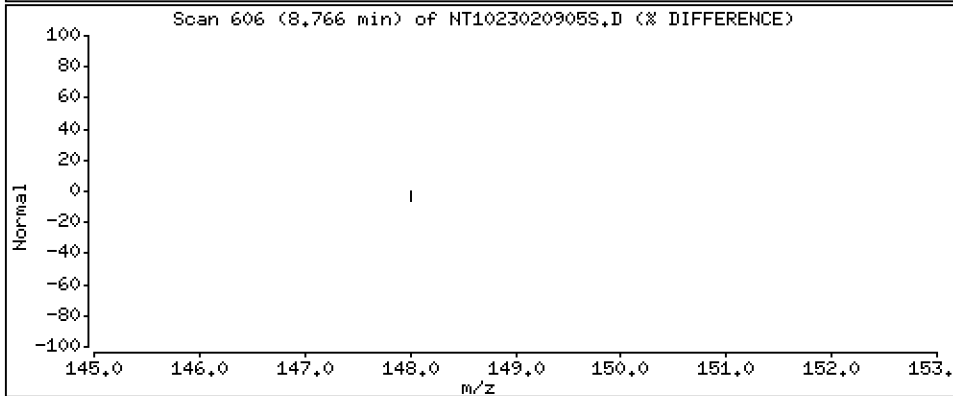
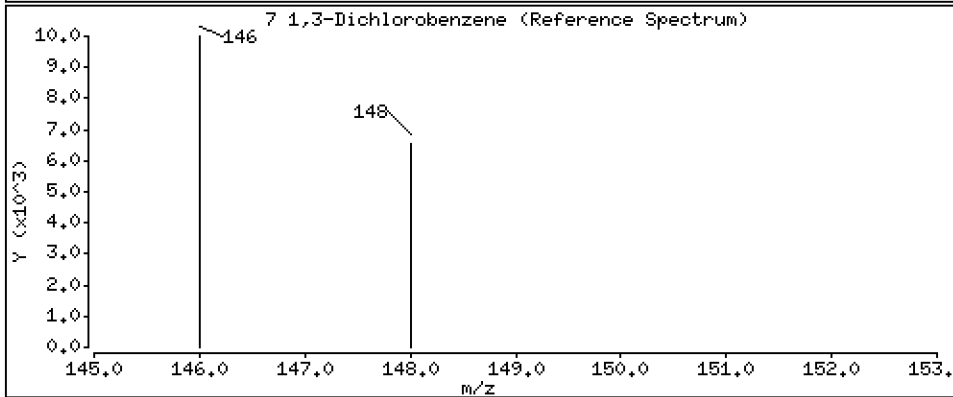
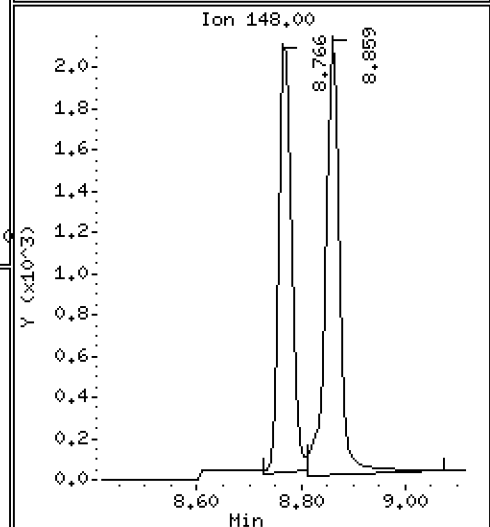
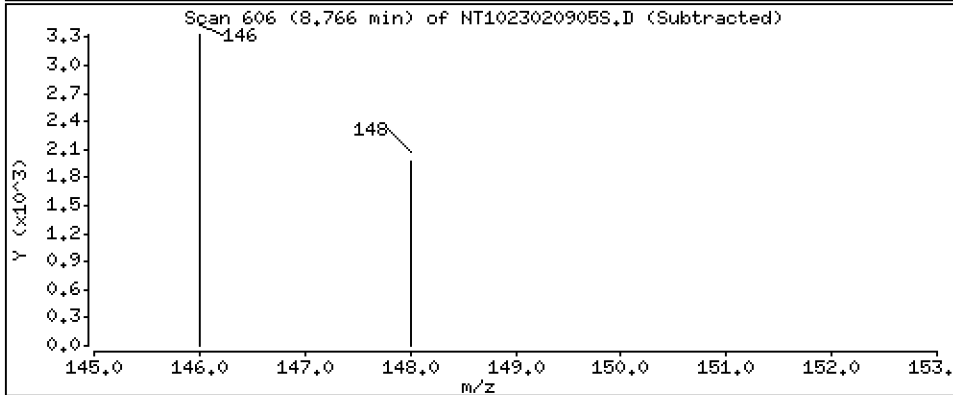
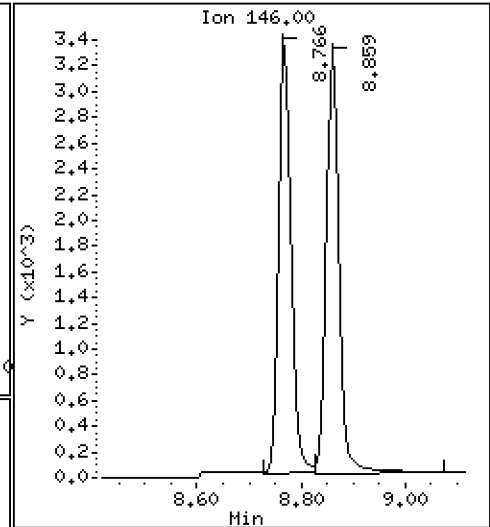
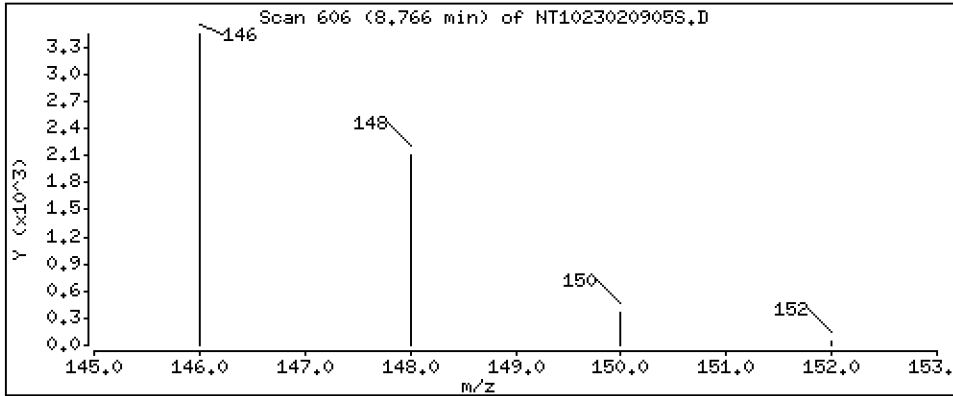
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.1134 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

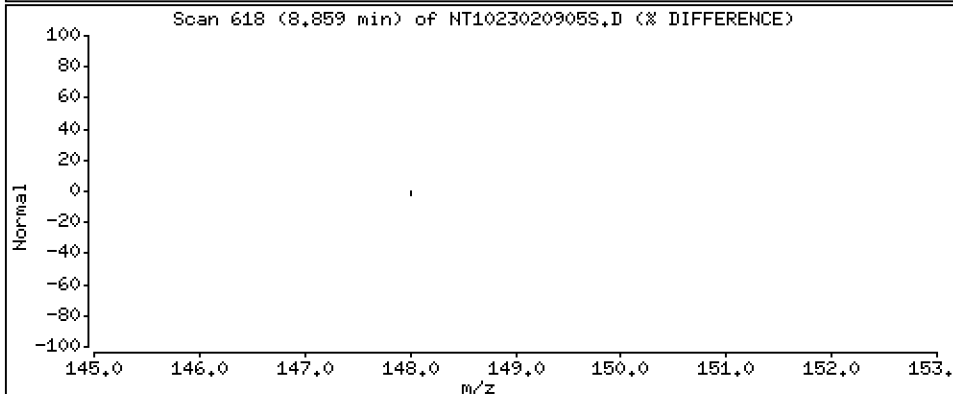
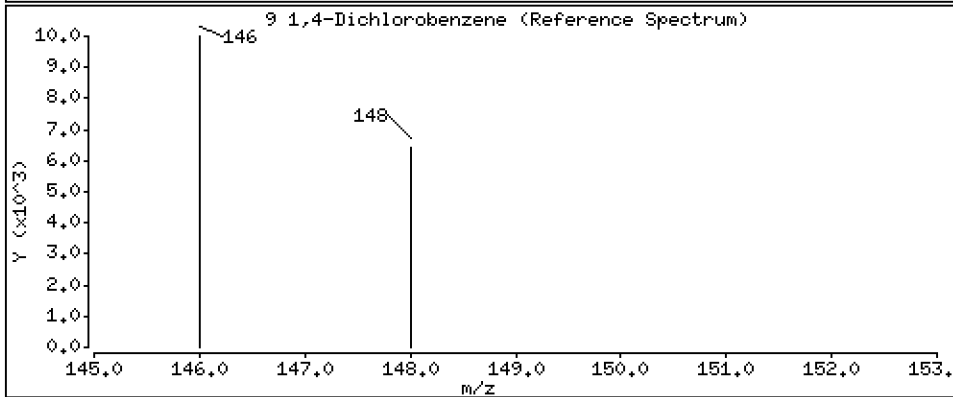
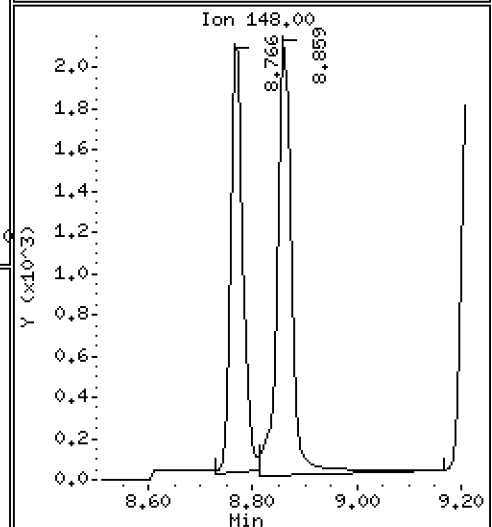
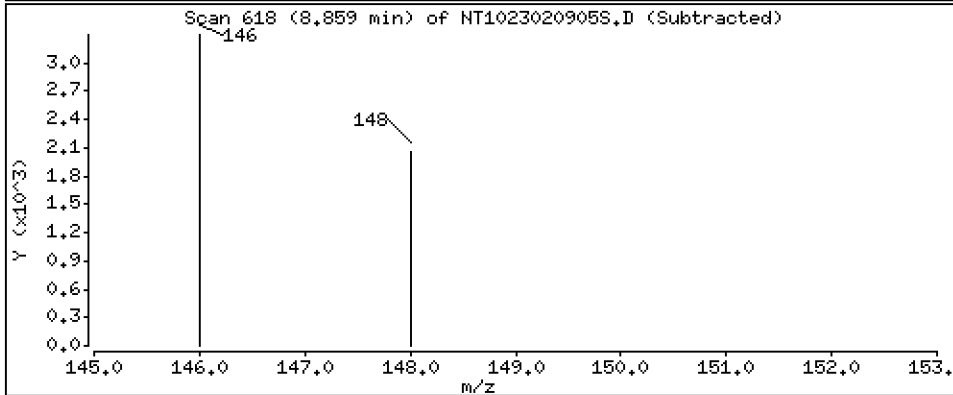
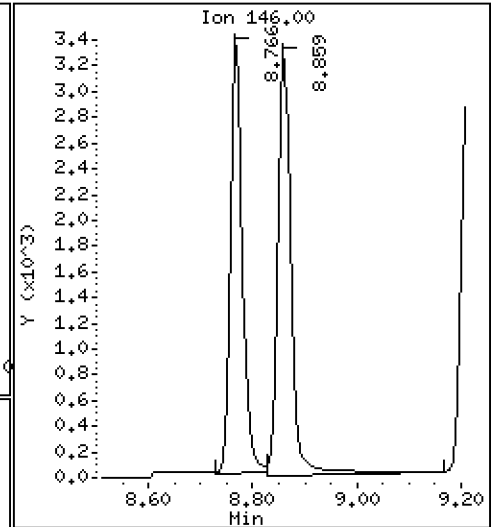
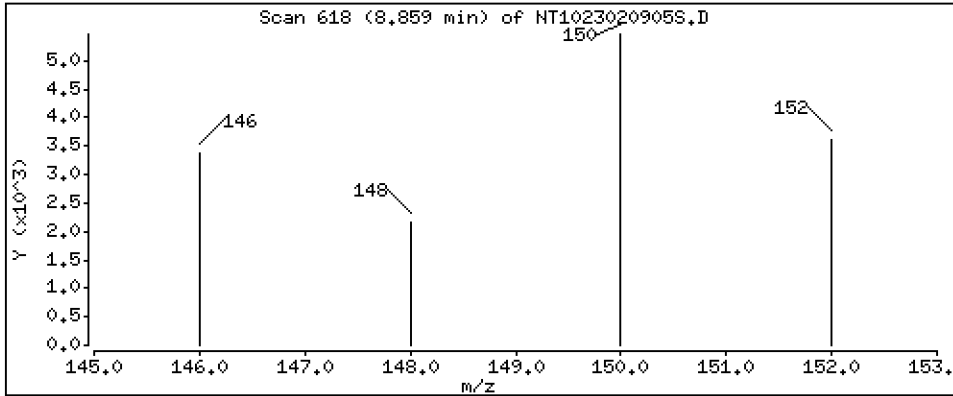
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 0.1188 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

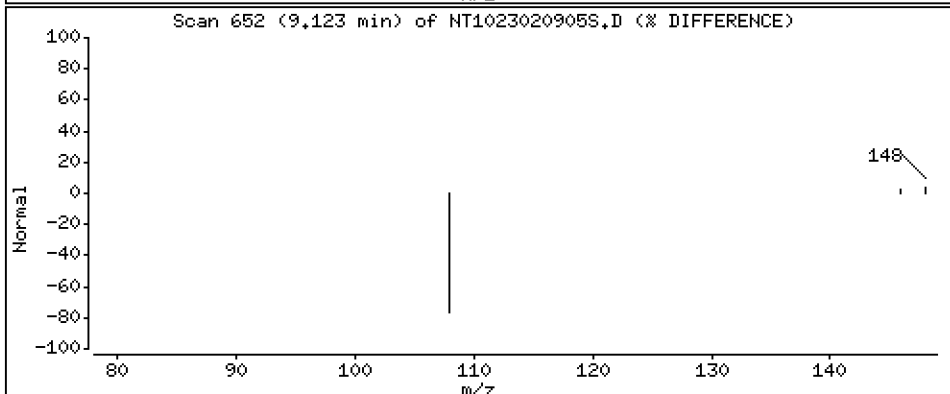
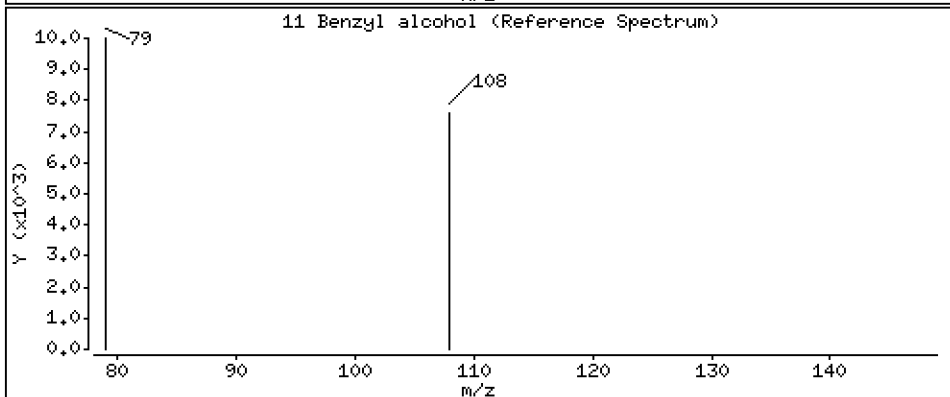
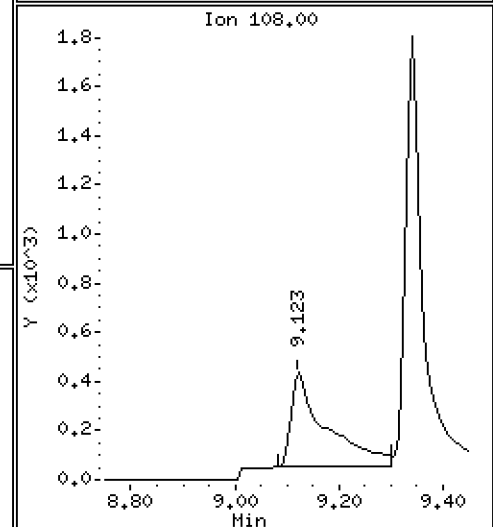
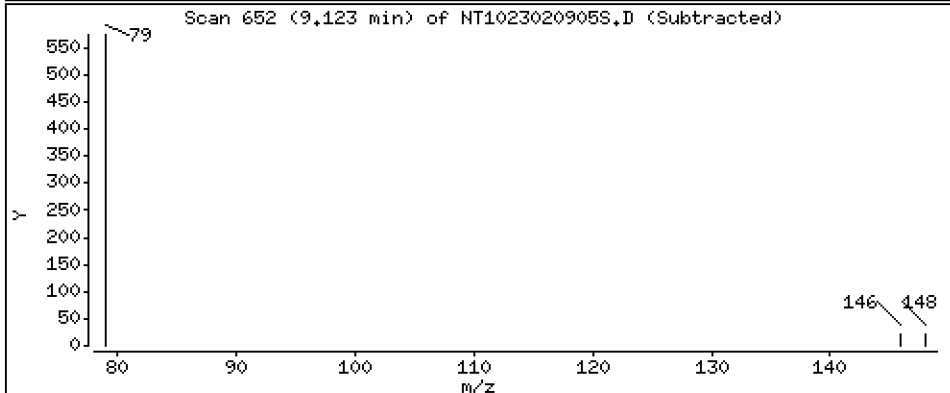
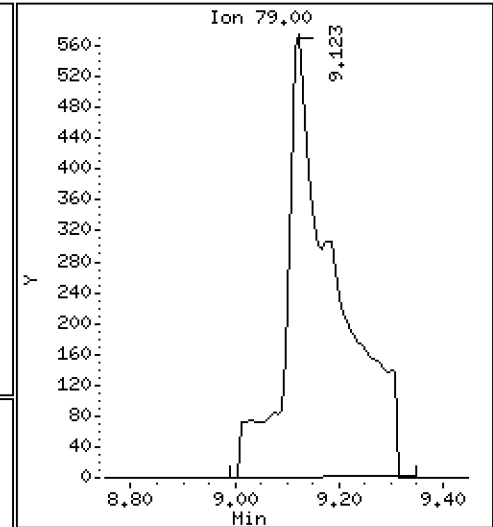
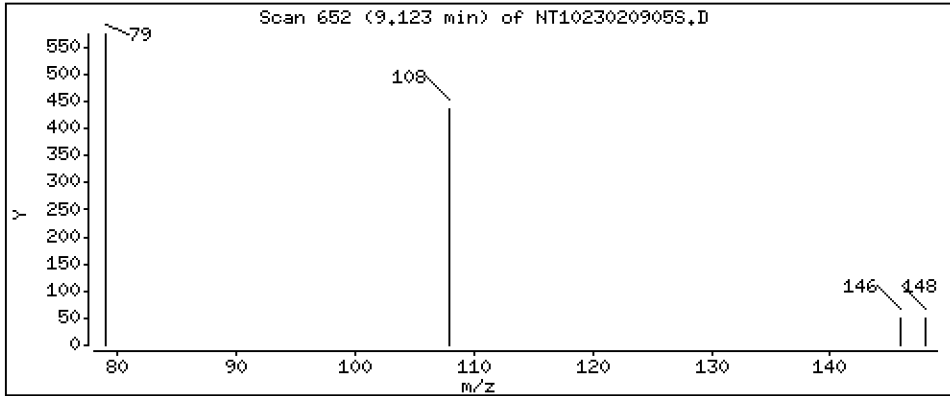
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.1463 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

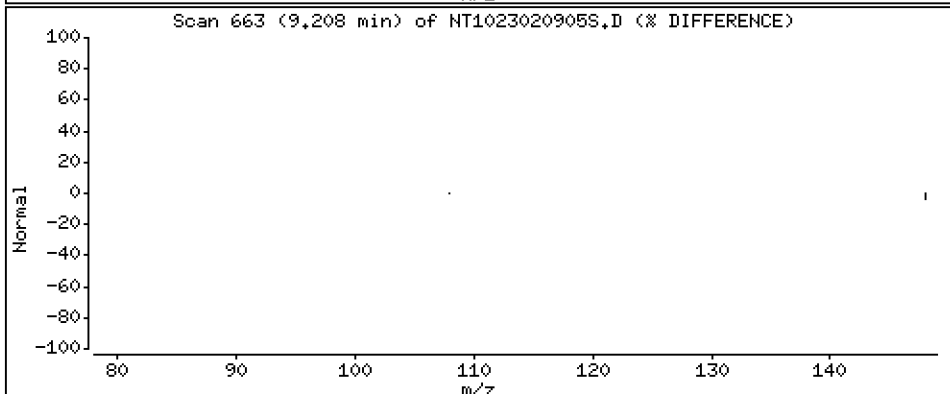
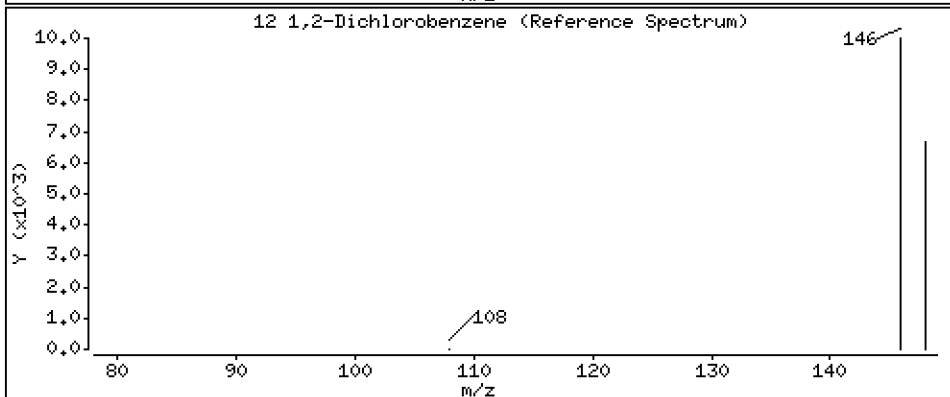
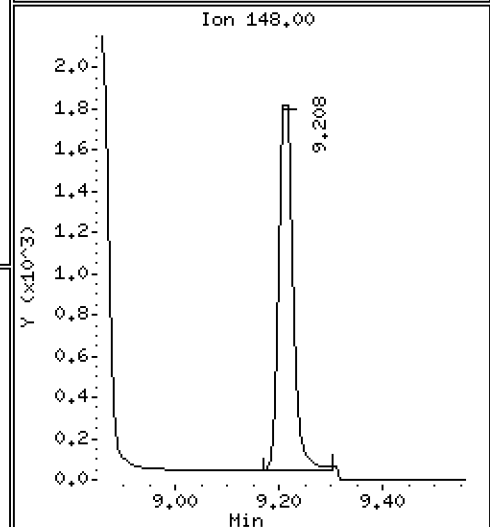
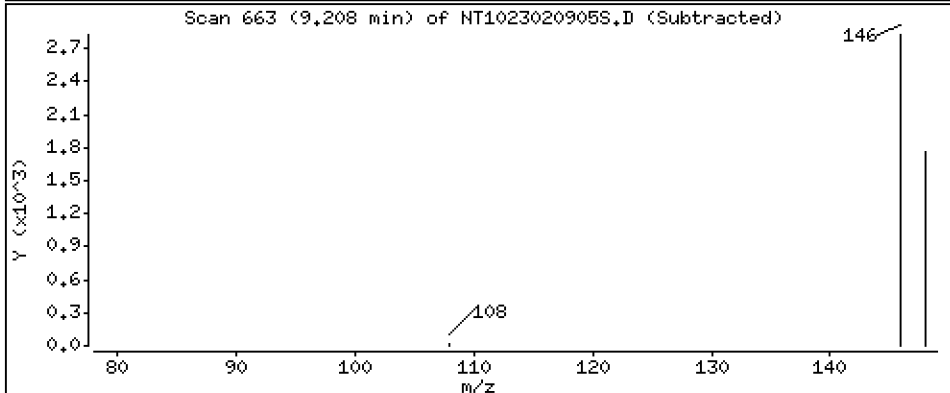
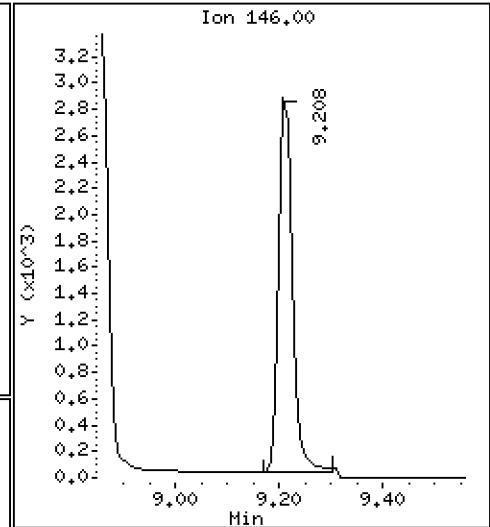
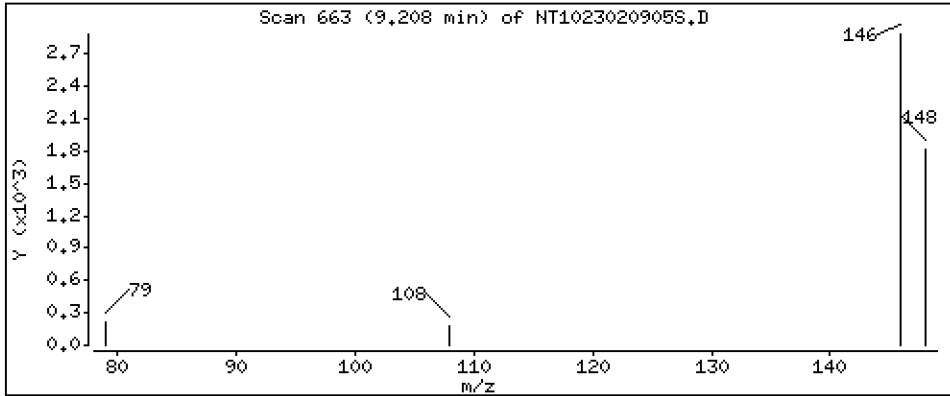
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.1096 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

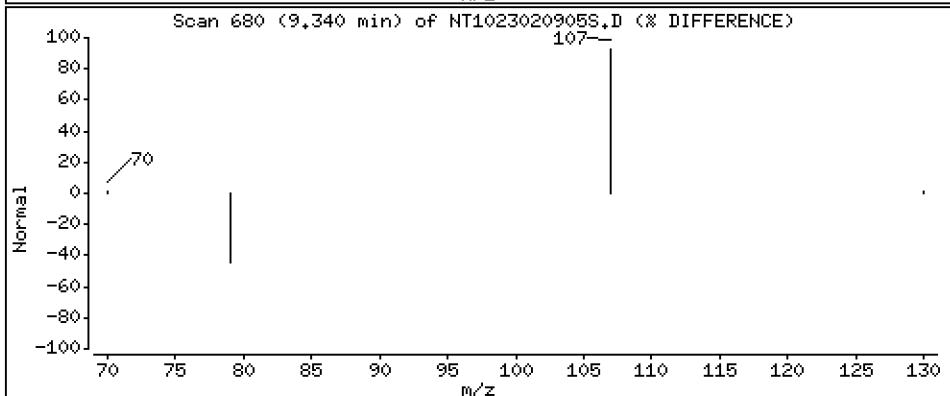
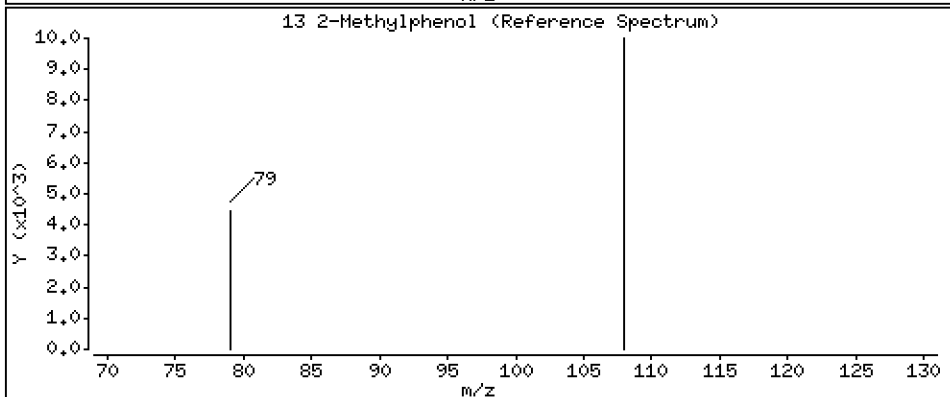
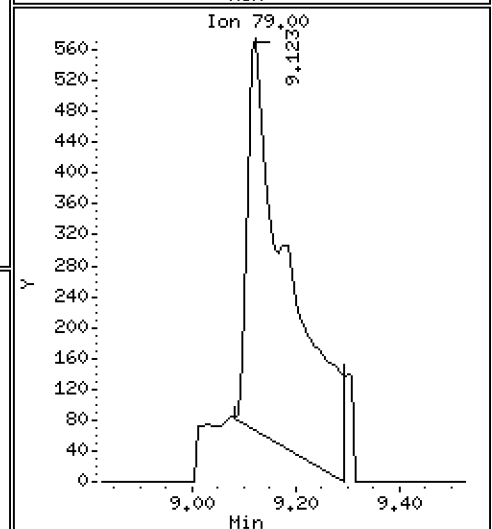
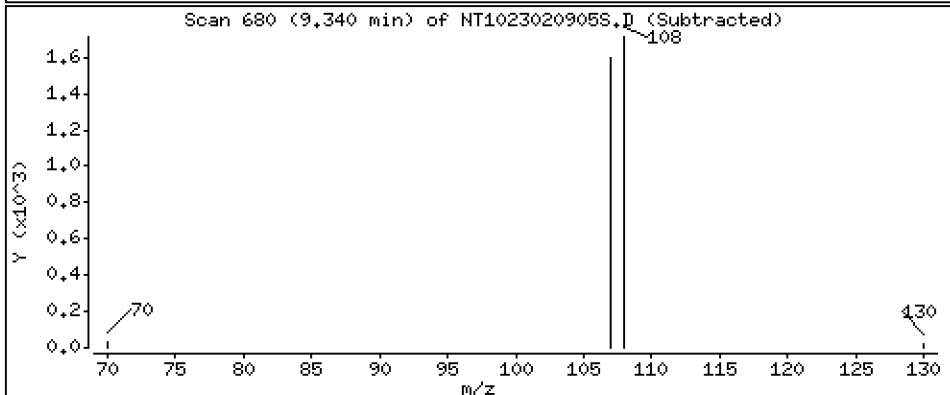
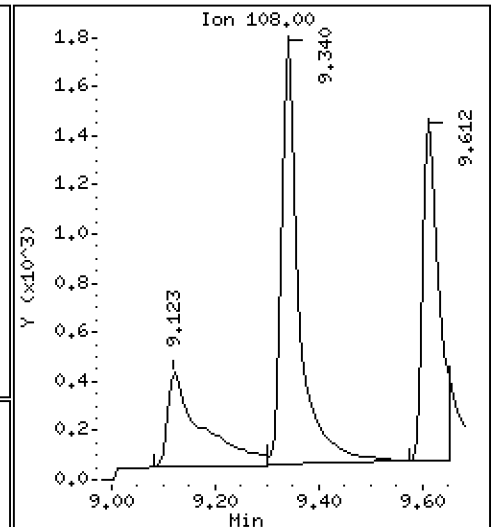
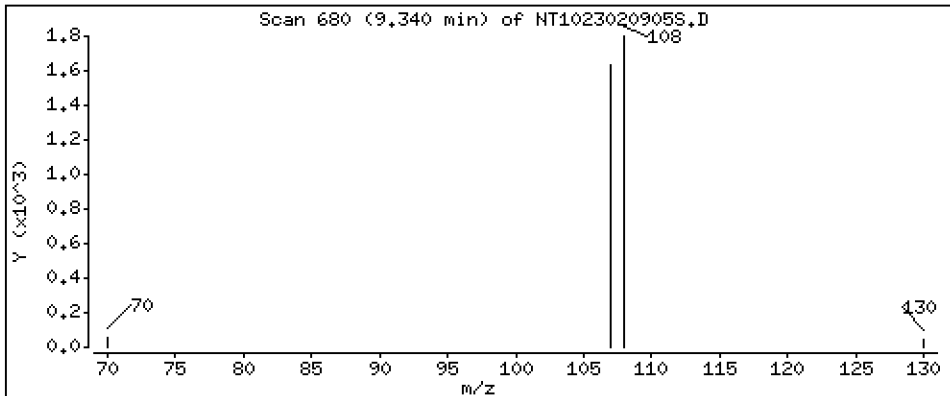
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.1108 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

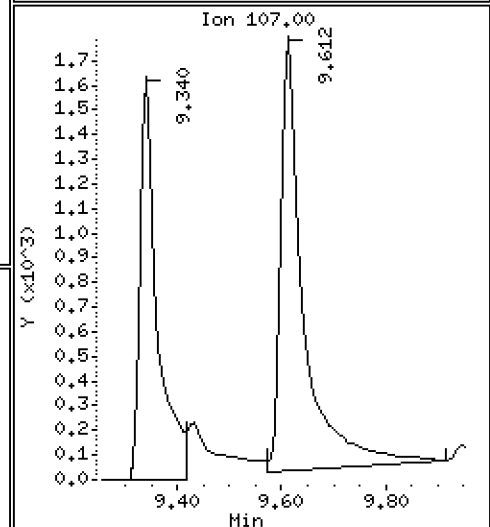
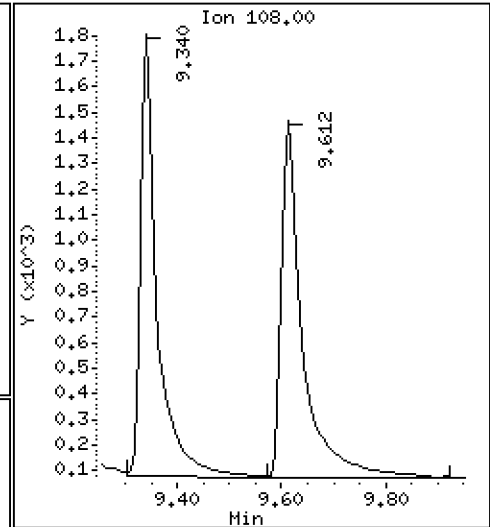
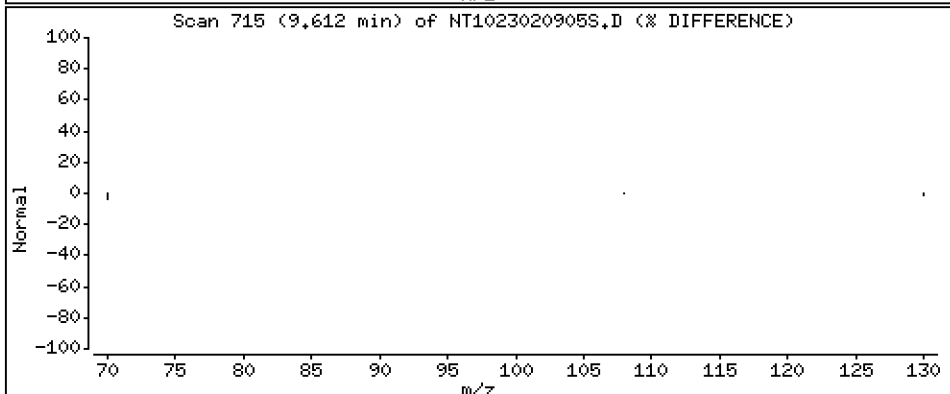
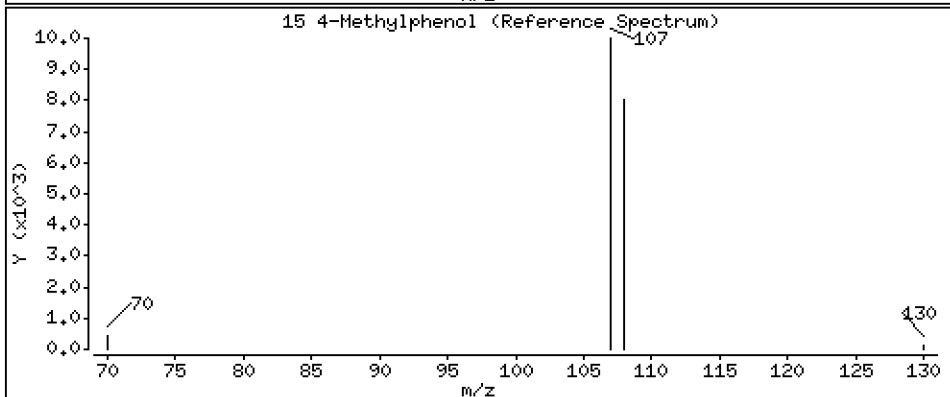
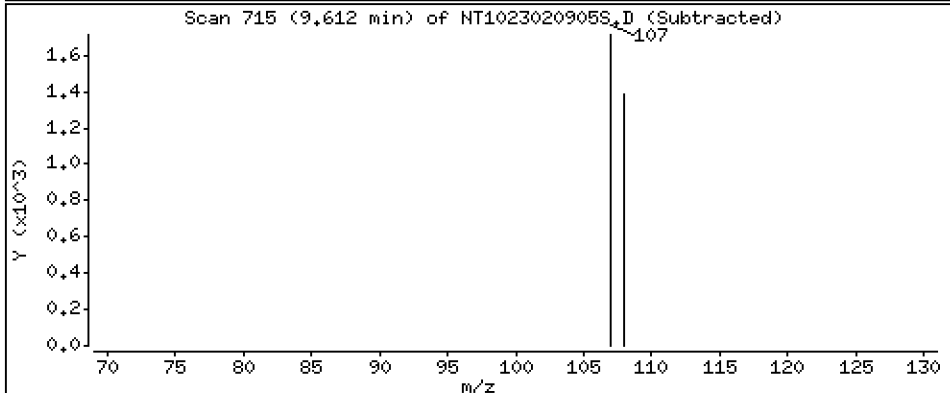
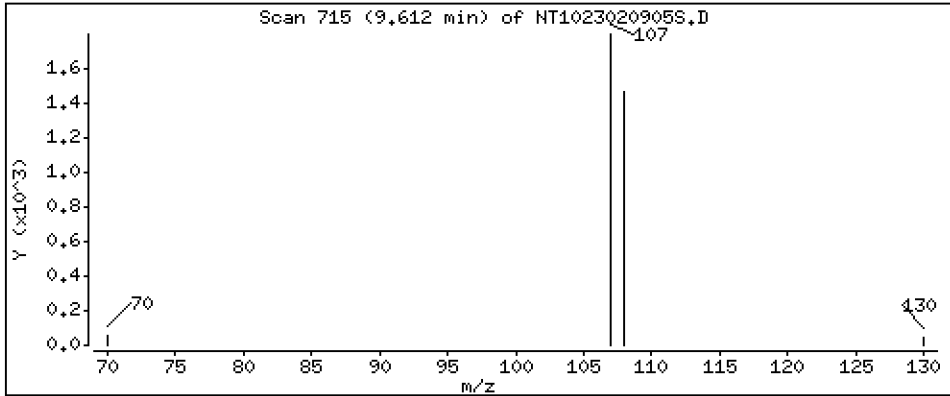
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.1049 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

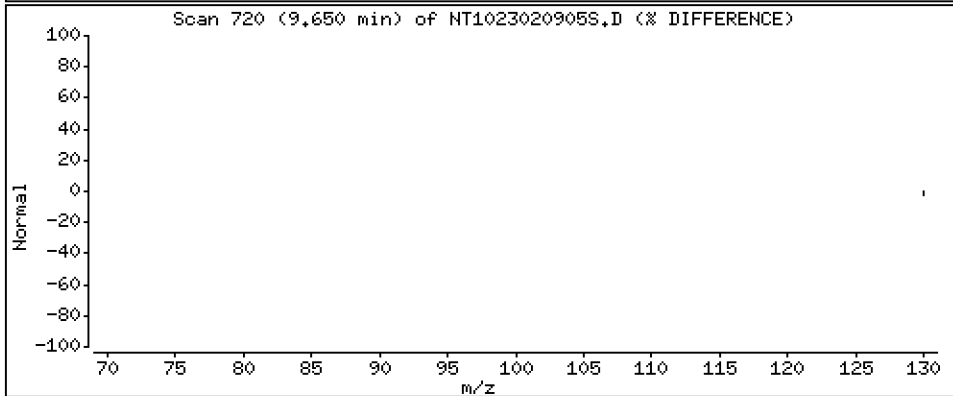
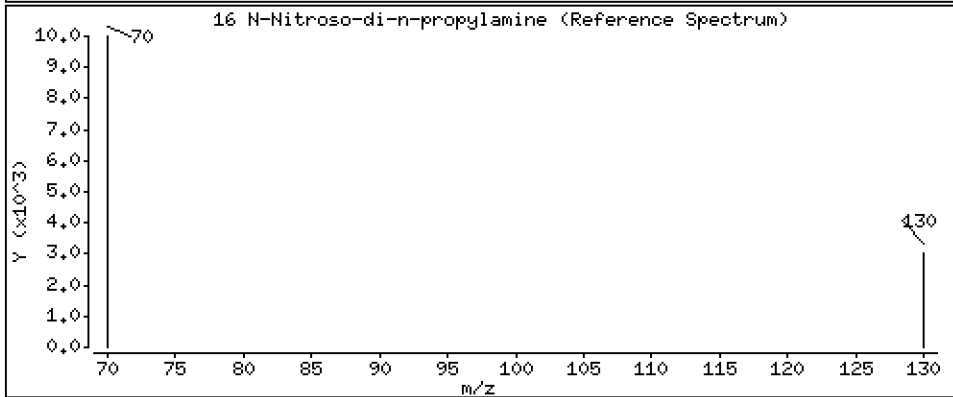
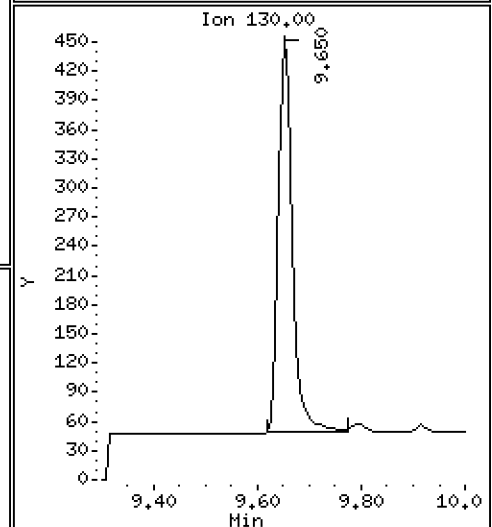
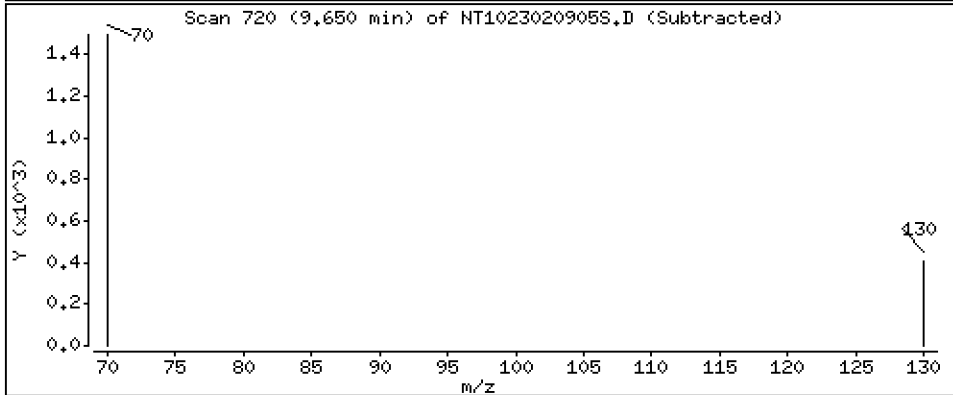
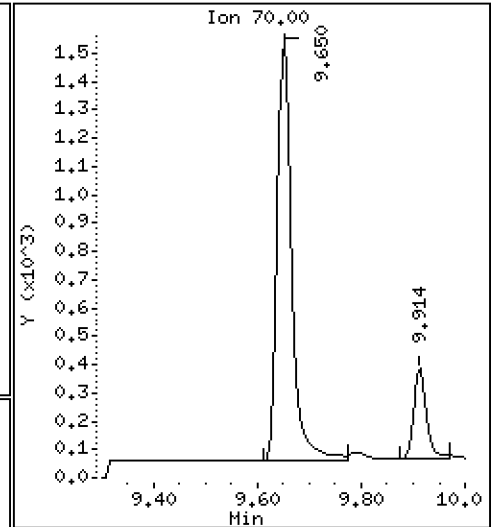
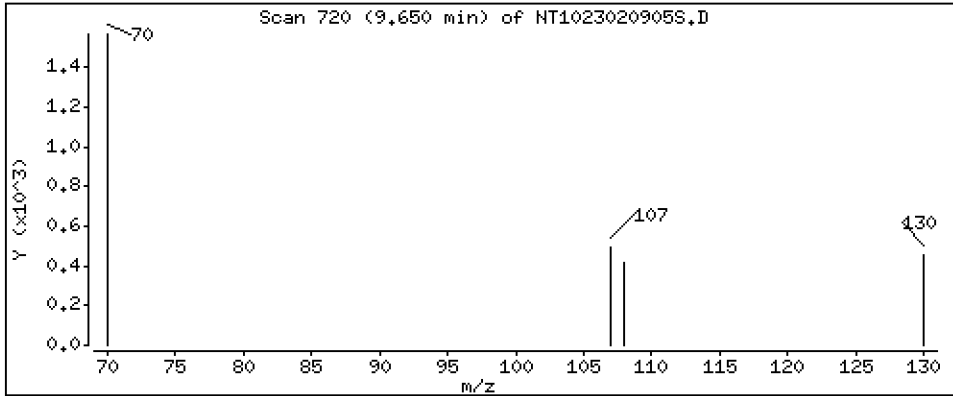
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

16 N-Nitroso-di-n-propylamine

Concentration: 0,1054 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

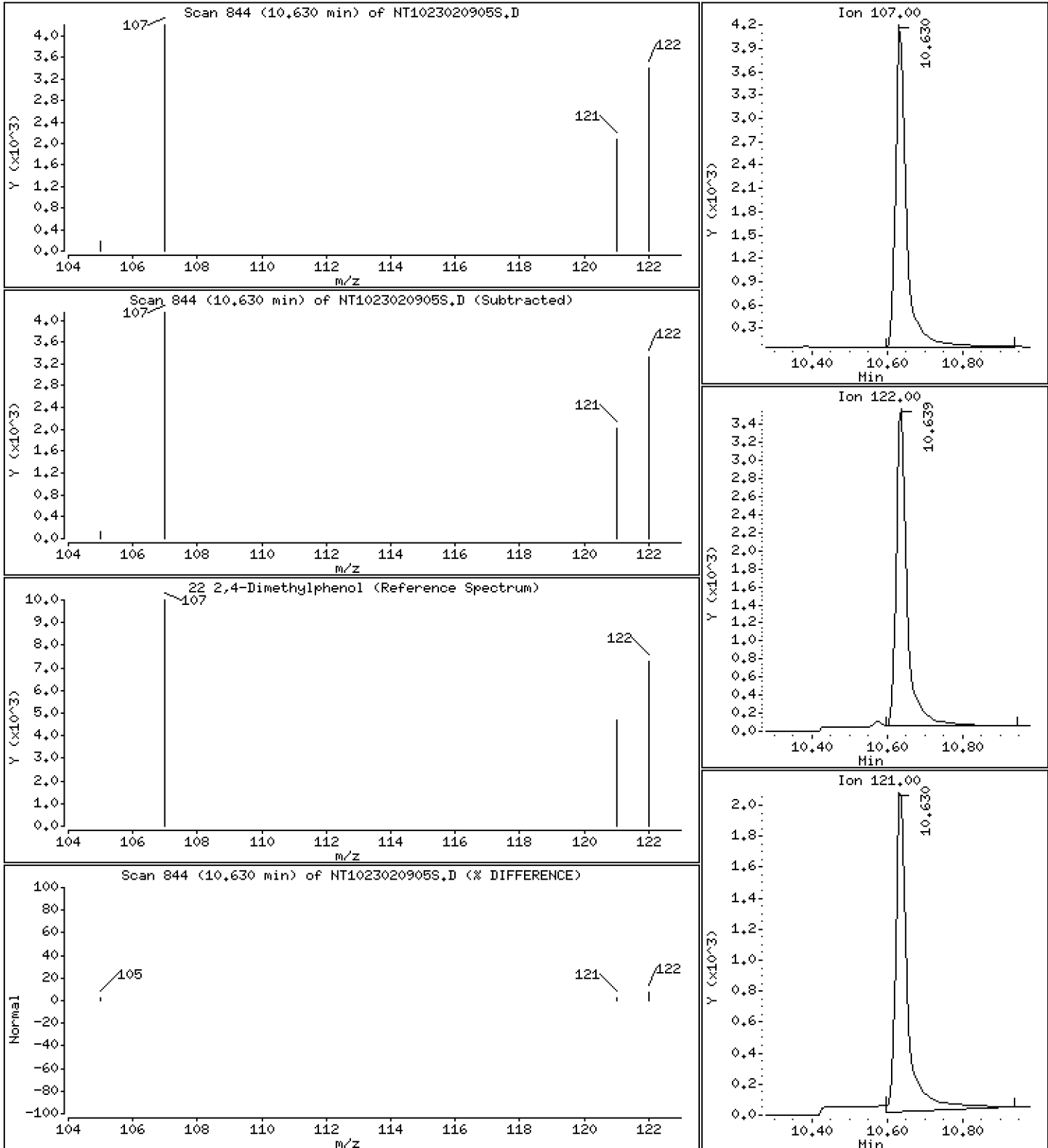
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

22 2,4-Dimethylphenol

Concentration: 0,2279 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

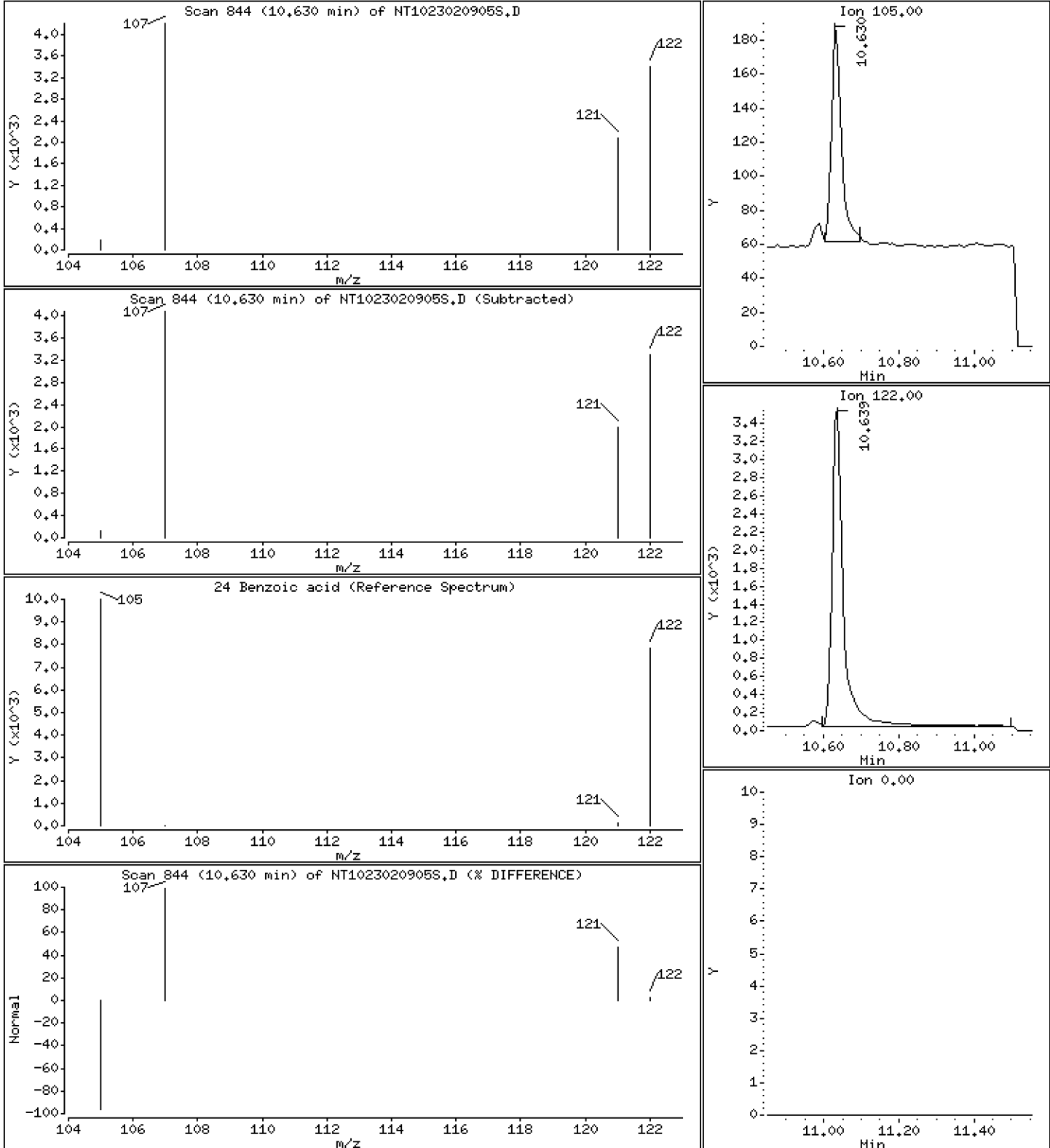
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.01340 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

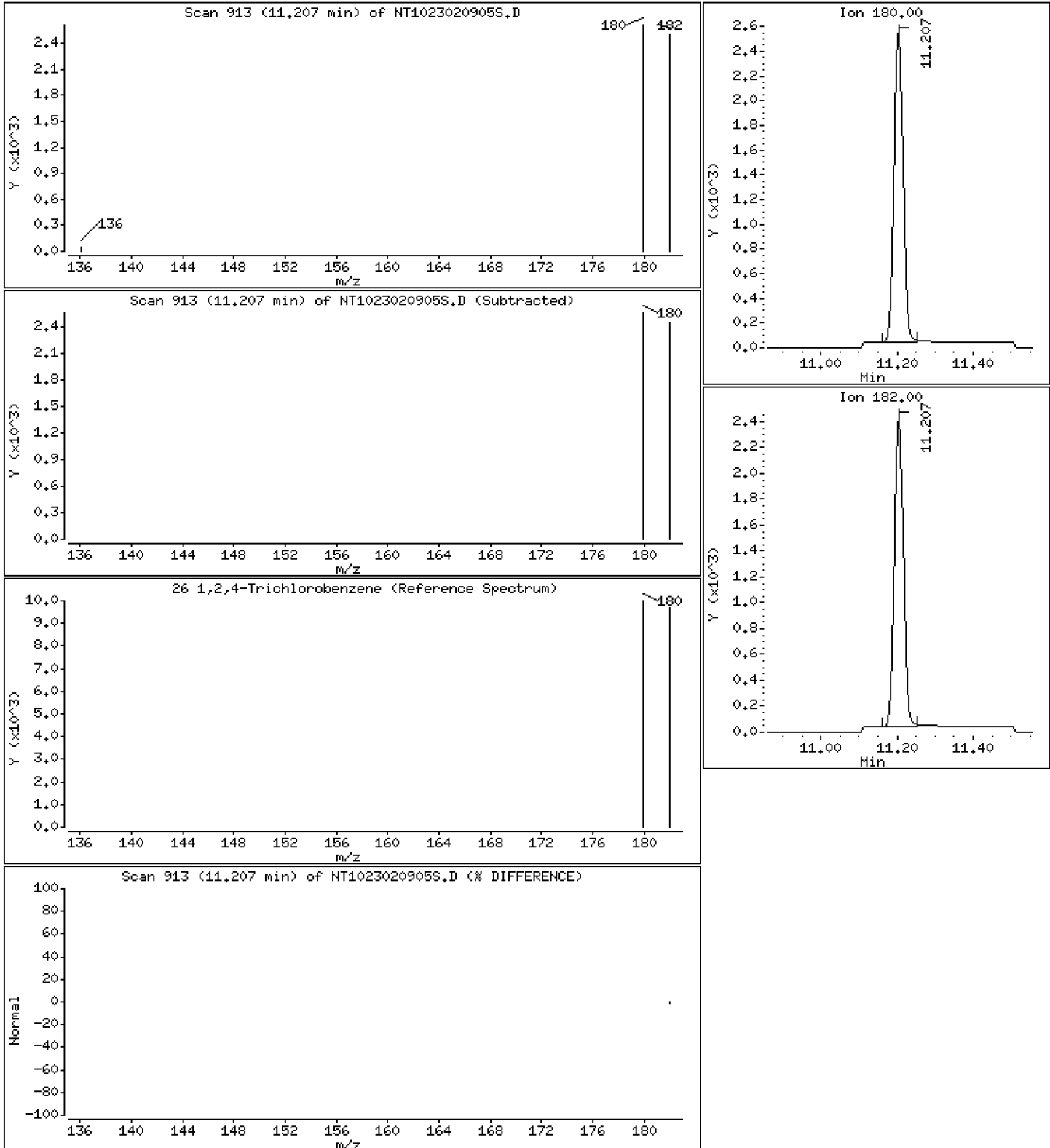
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 0.1169 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

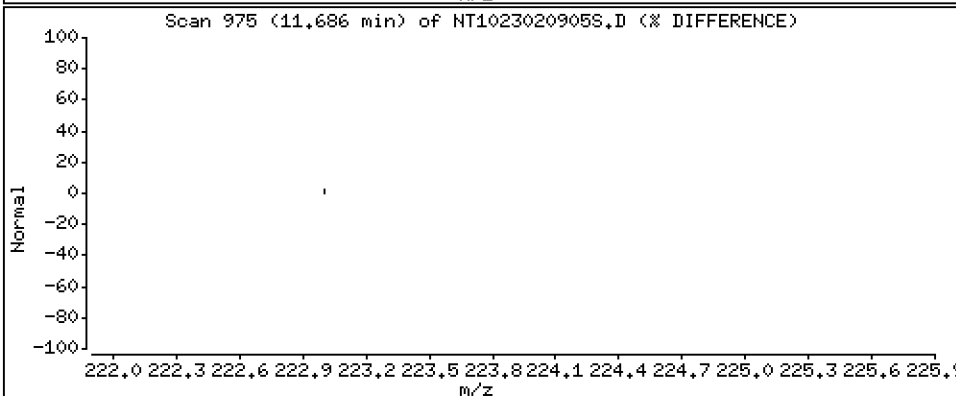
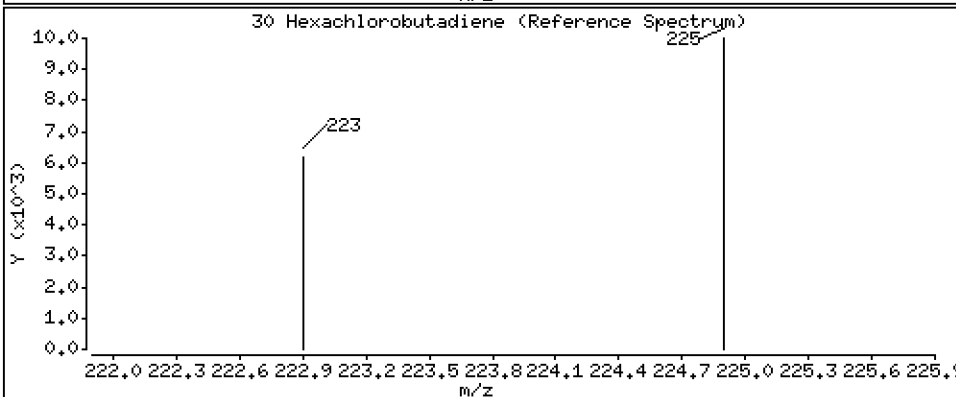
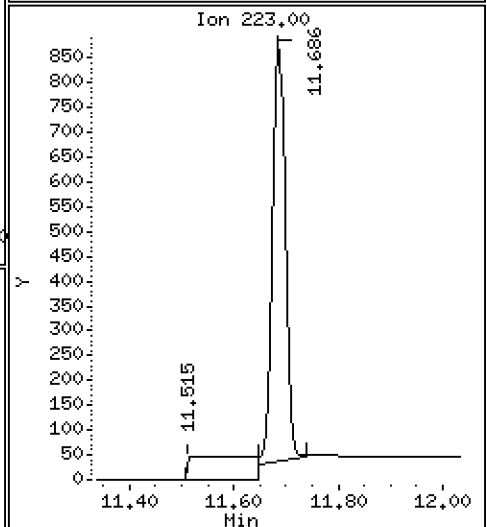
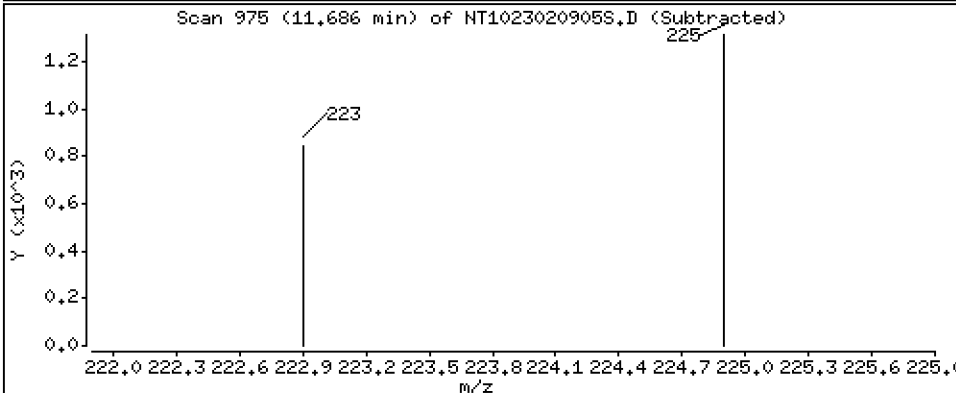
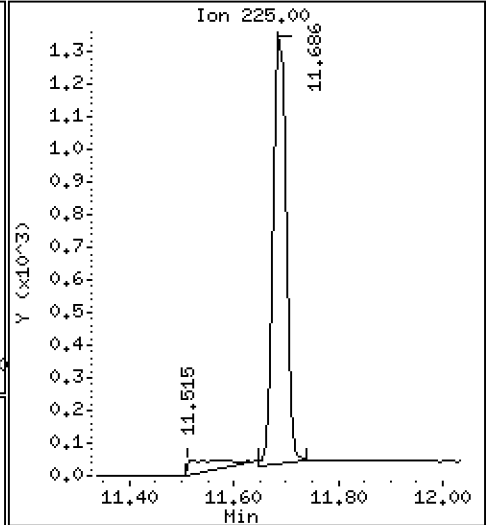
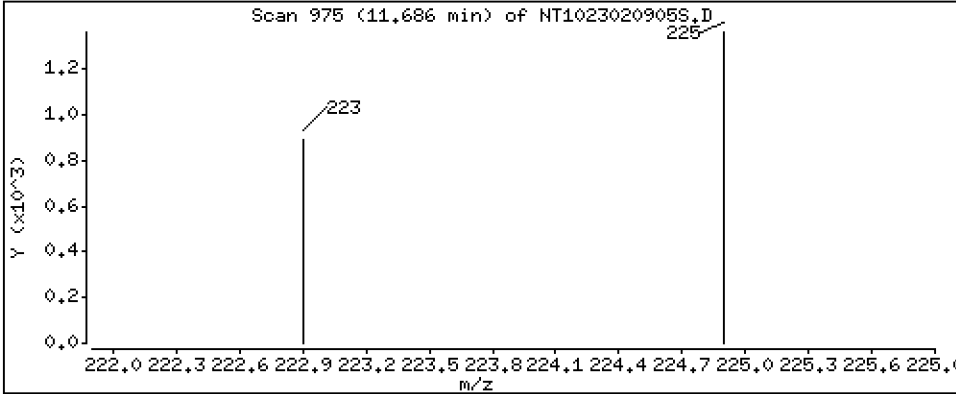
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

30 Hexachlorobutadiene

Concentration: 0,1160 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

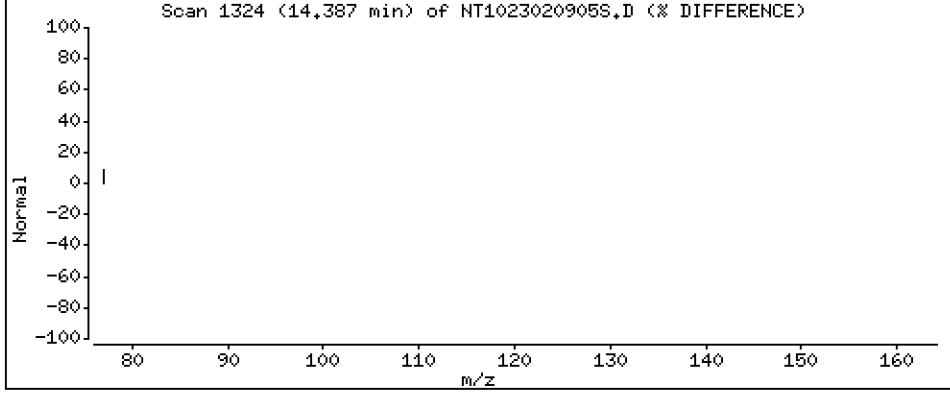
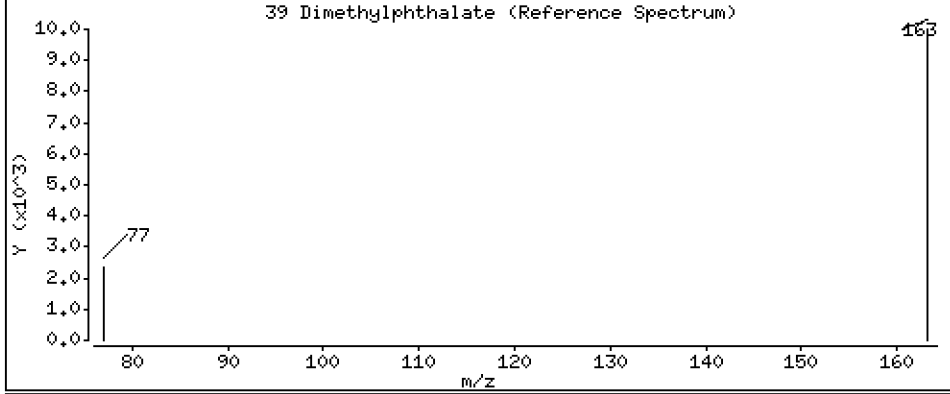
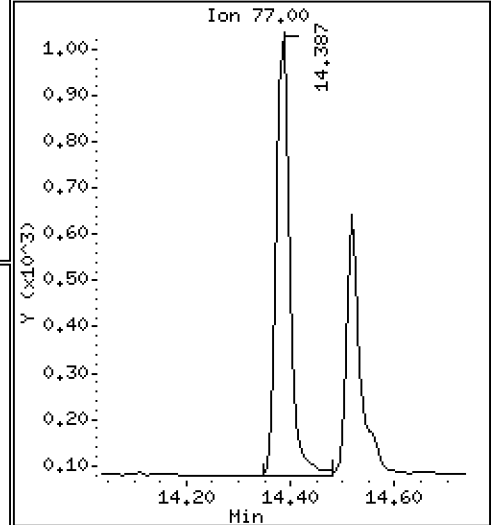
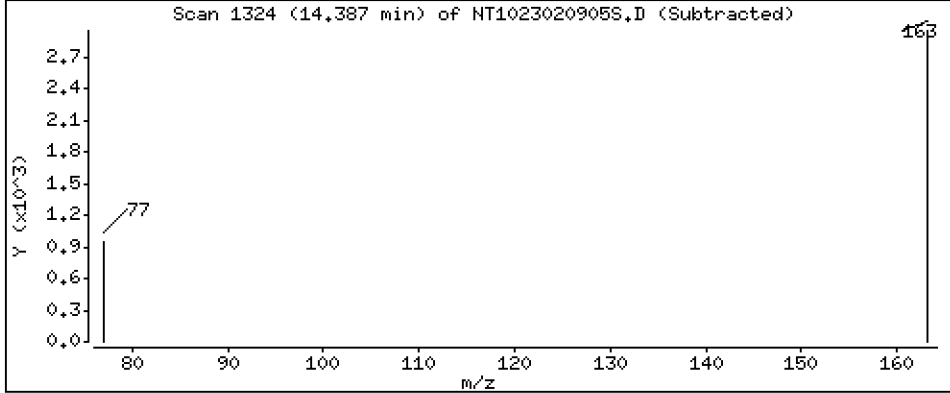
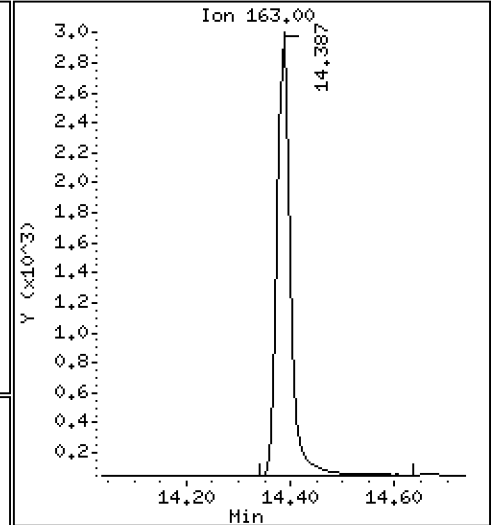
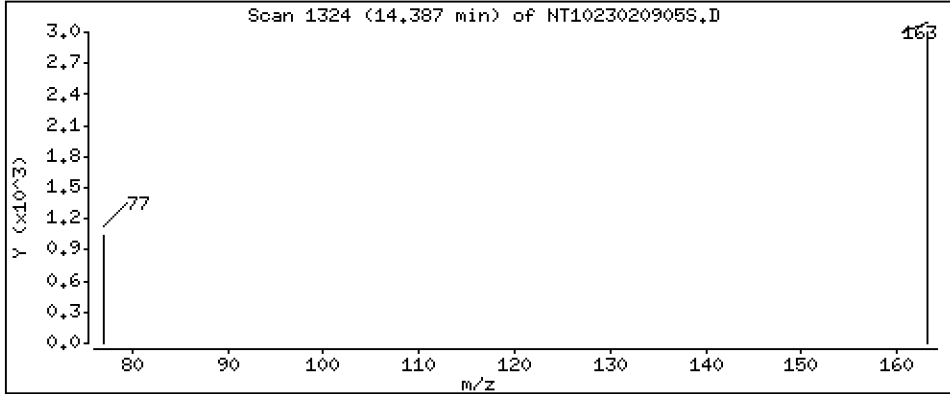
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

39 Dimethylphthalate

Concentration: 0.1083 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

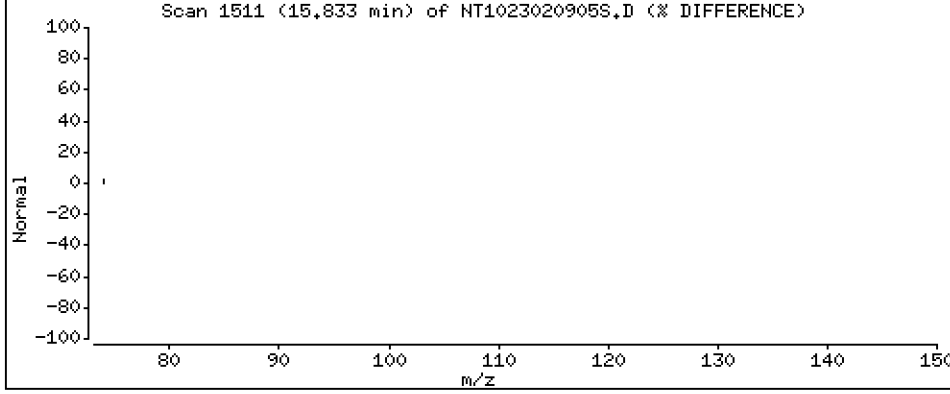
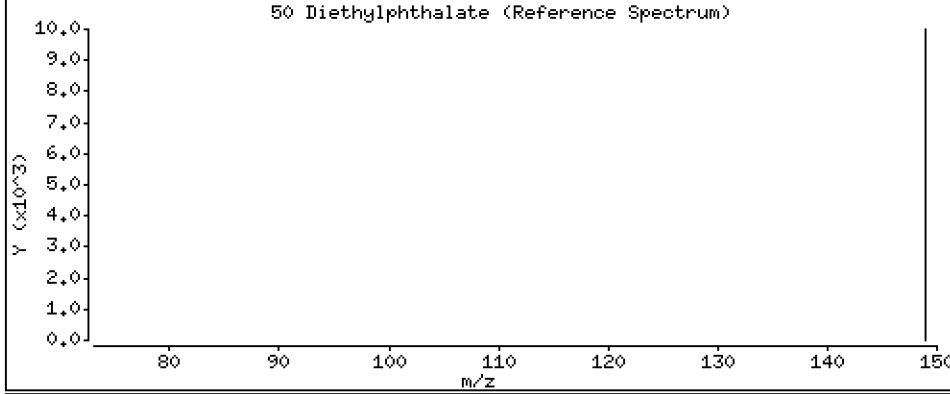
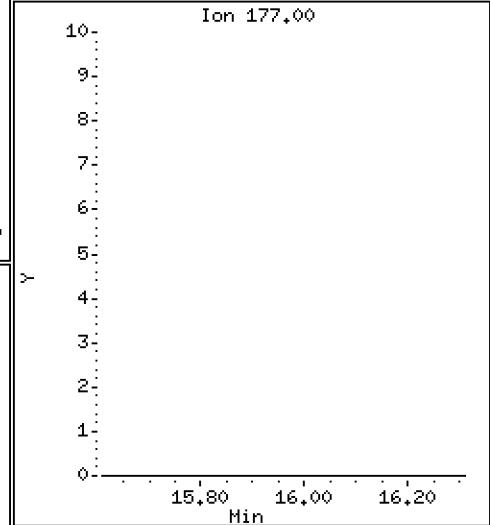
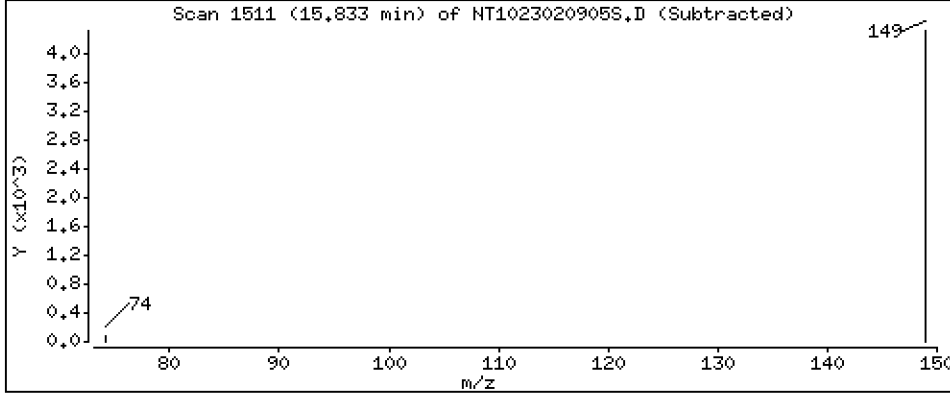
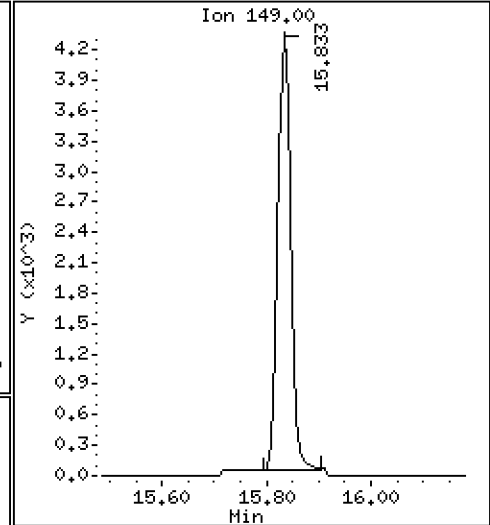
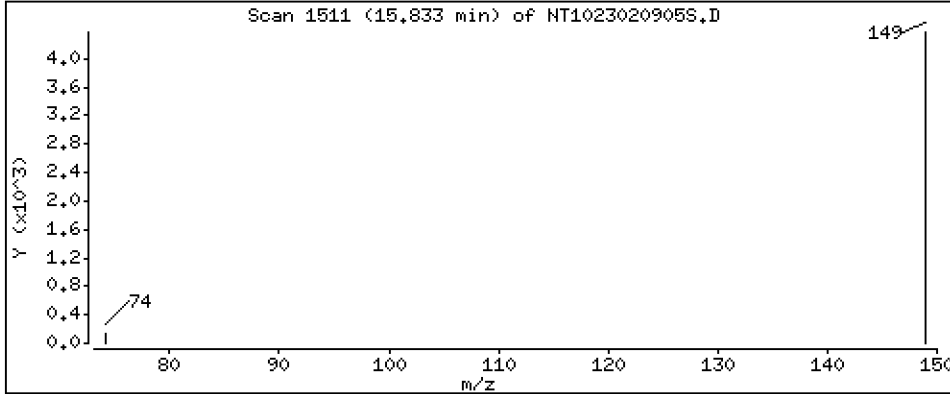
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

50 Diethylphthalate

Concentration: 0,1015 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

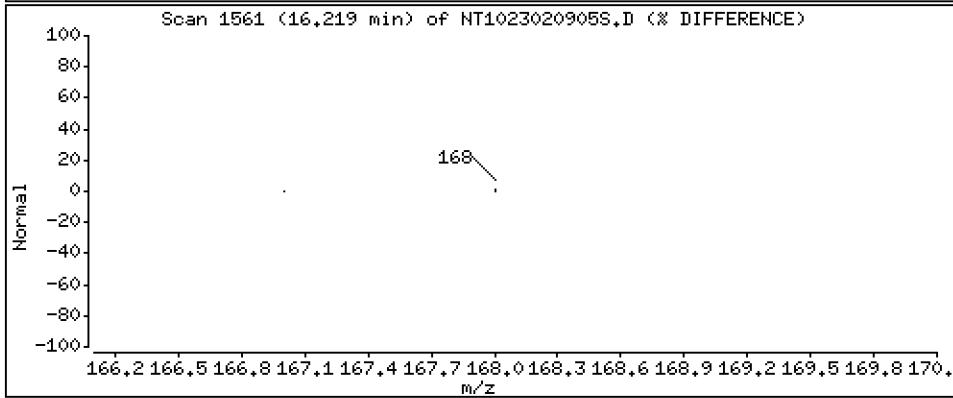
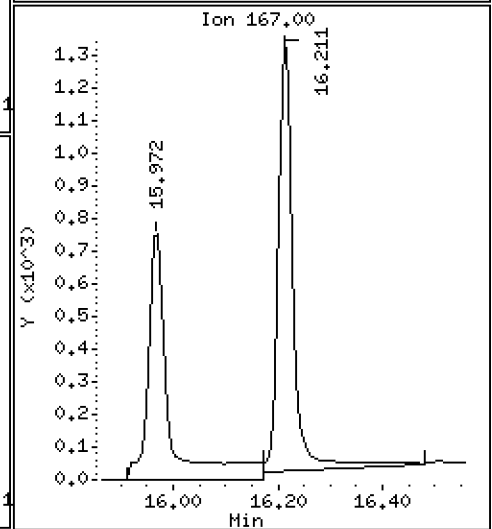
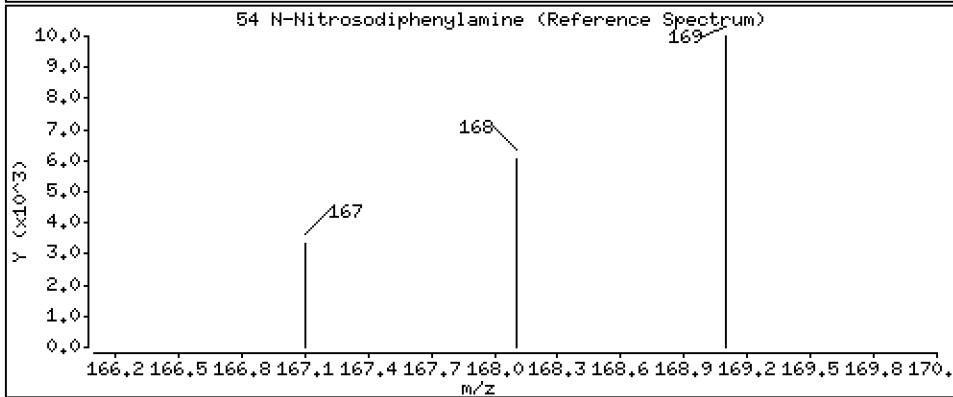
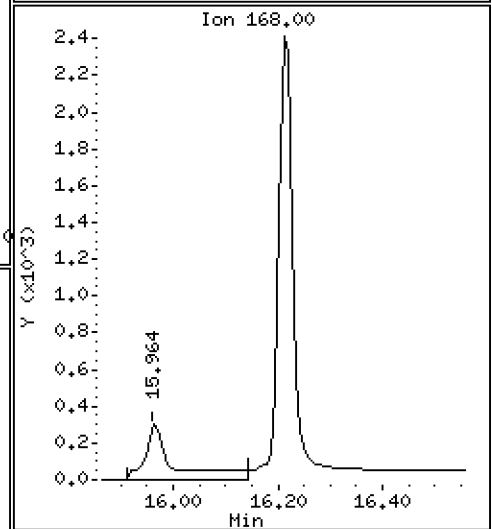
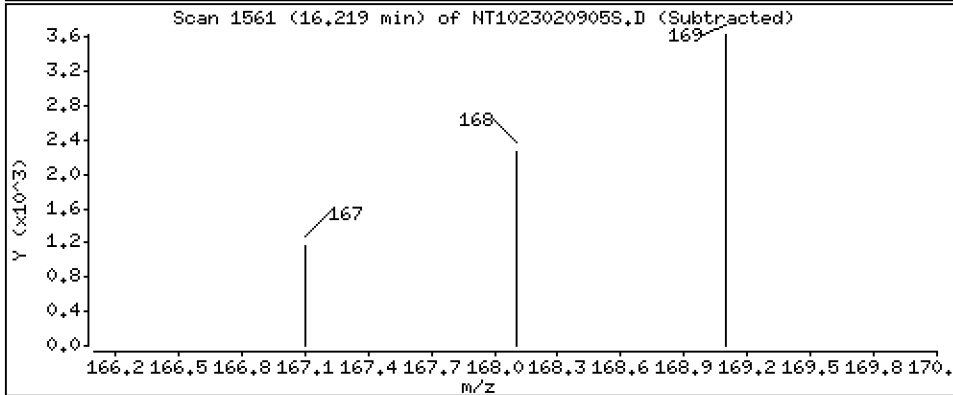
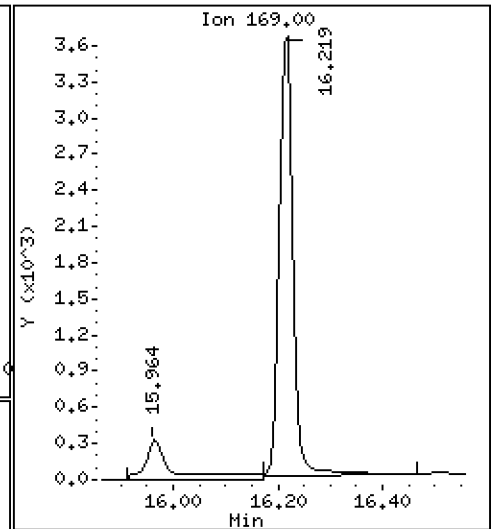
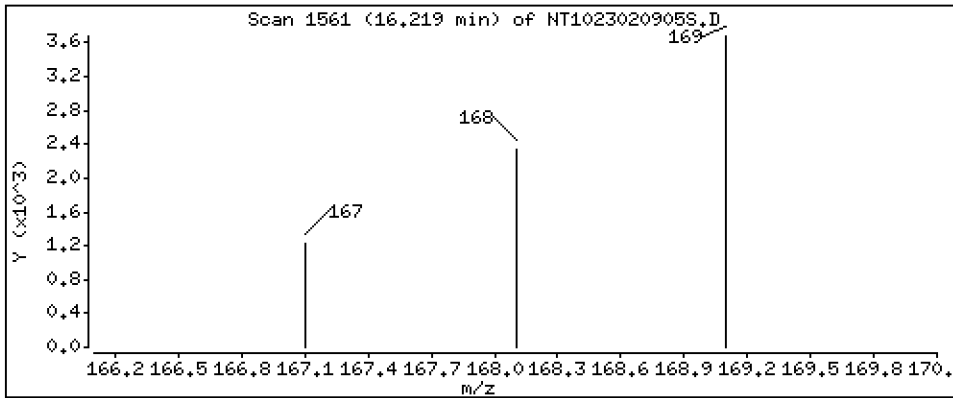
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 0.1098 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

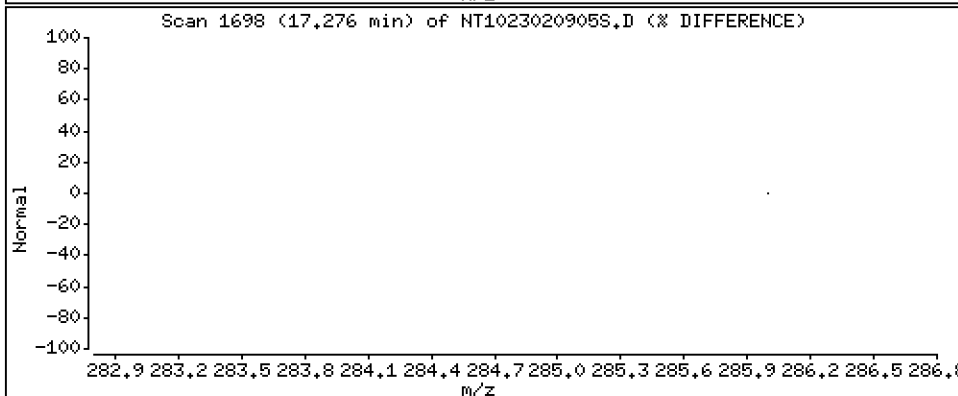
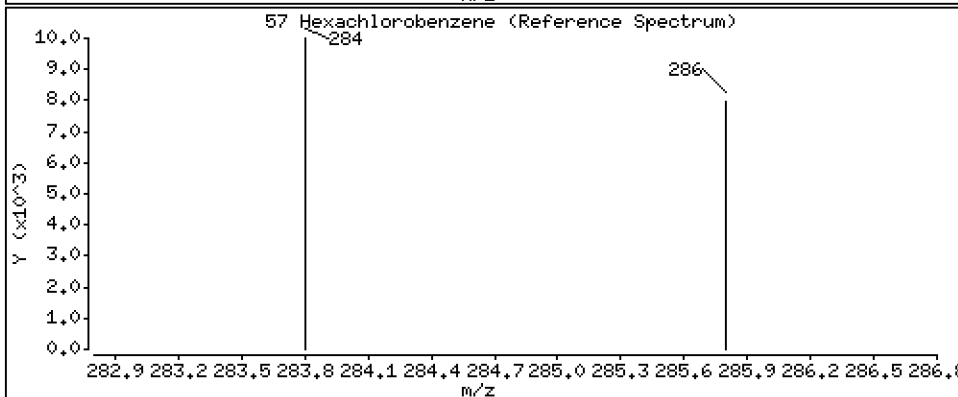
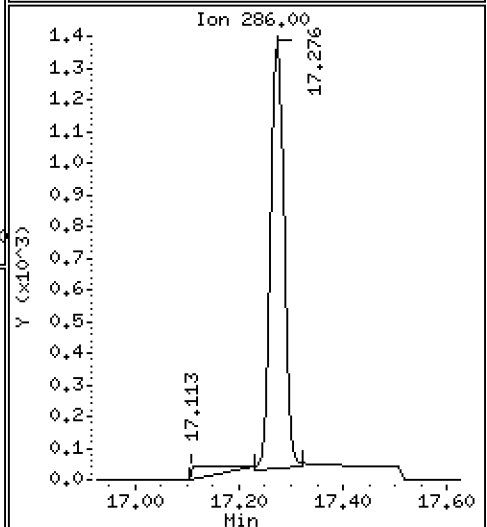
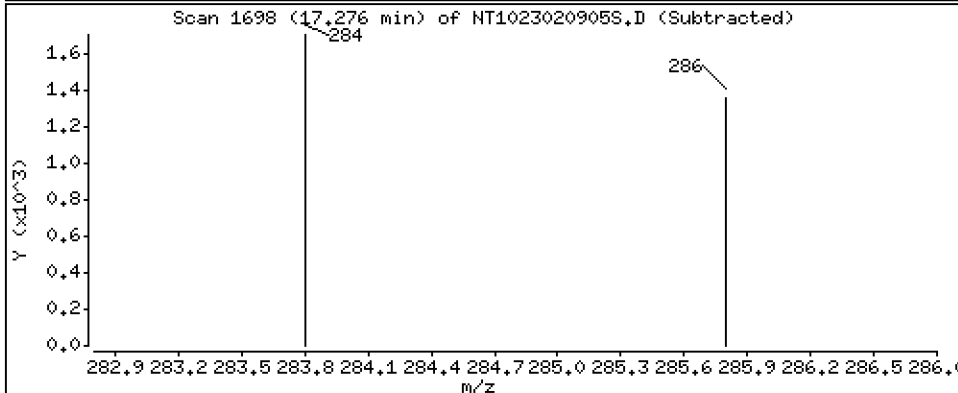
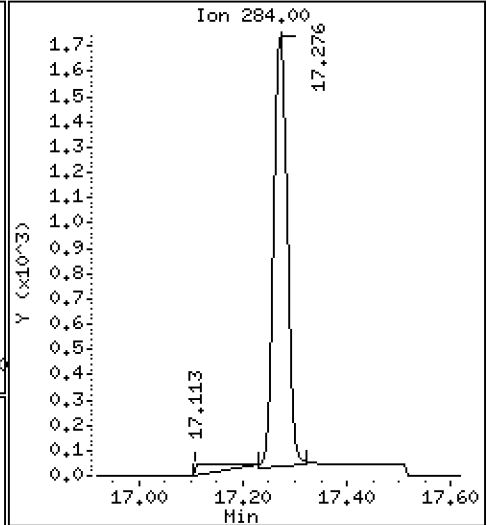
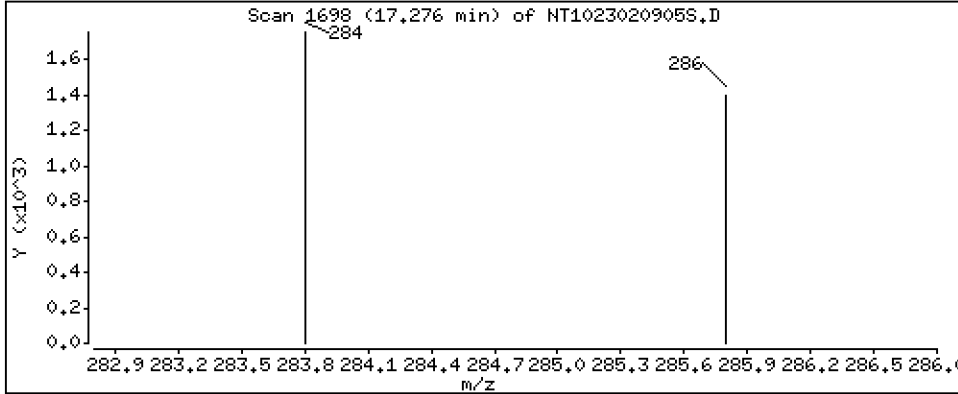
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 0.1177 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

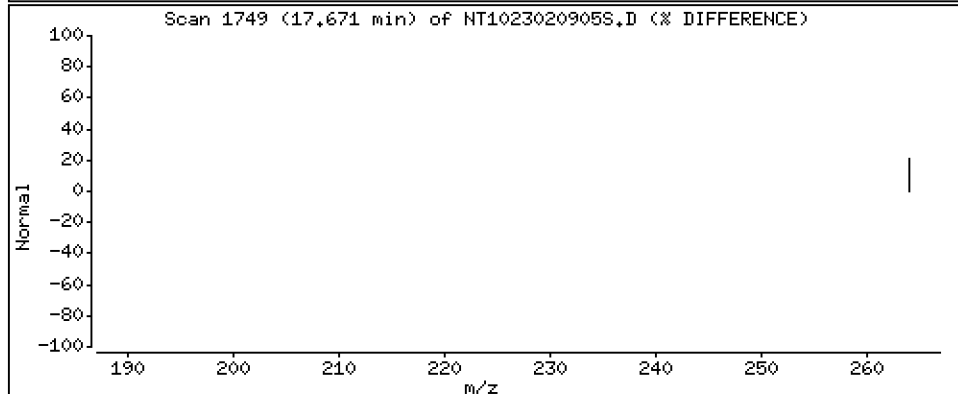
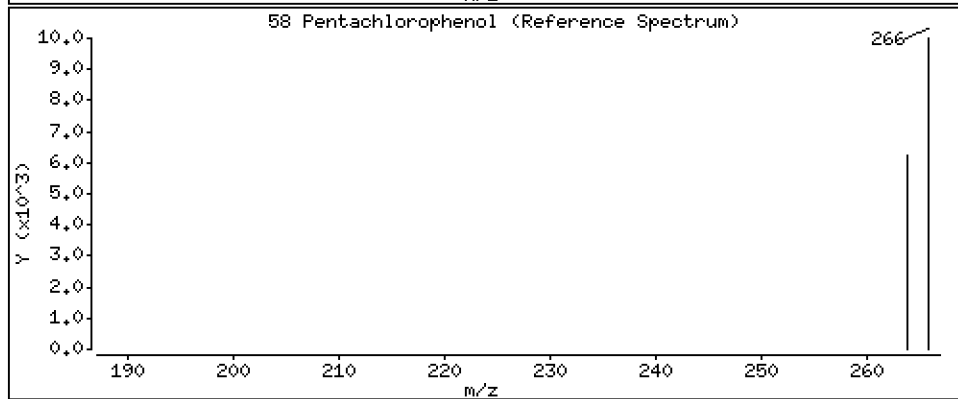
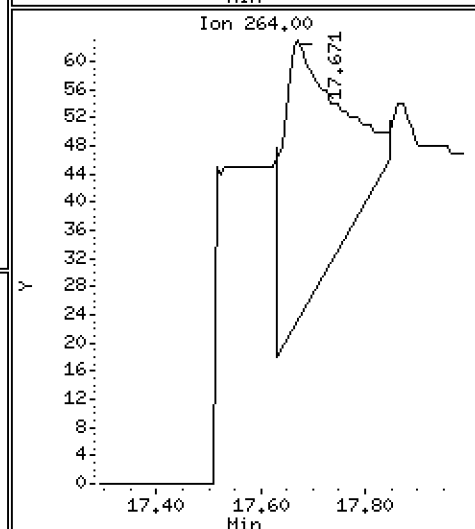
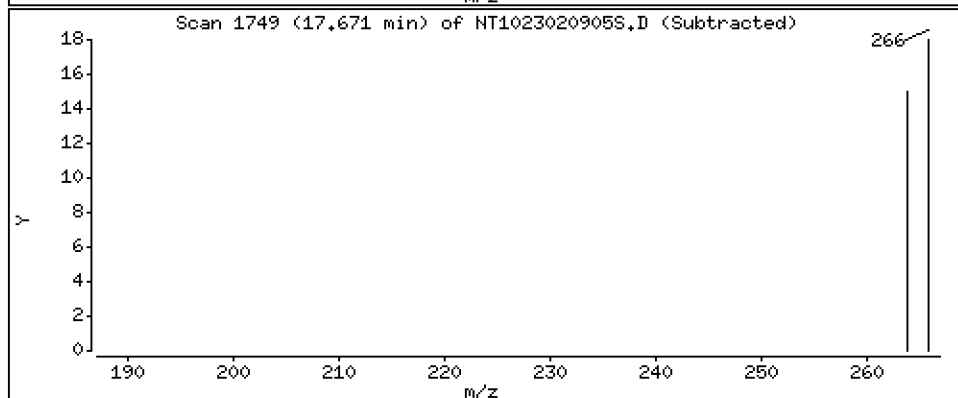
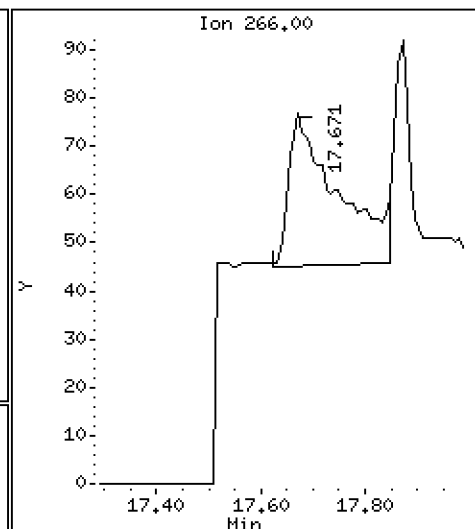
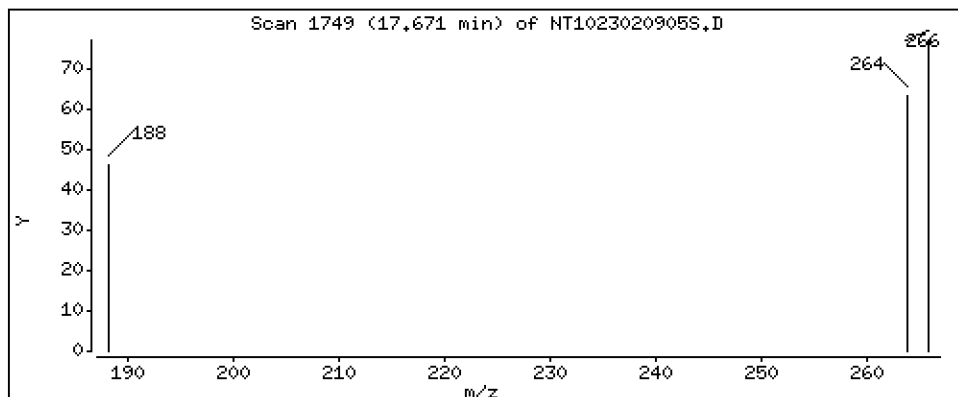
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,02375 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

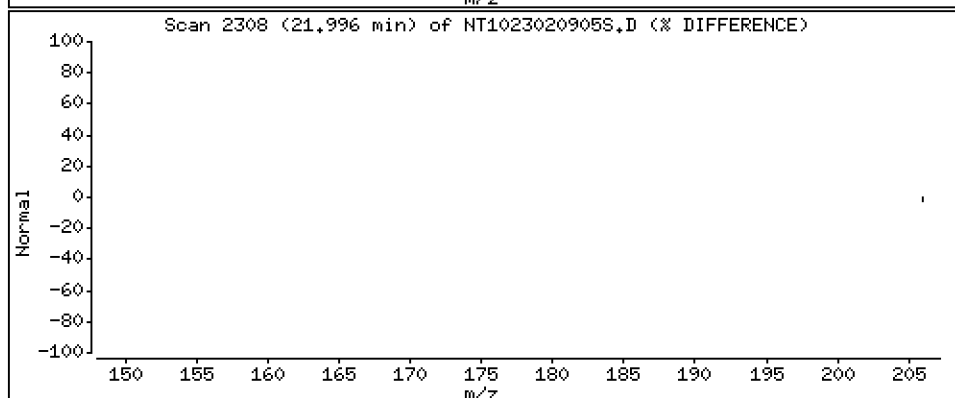
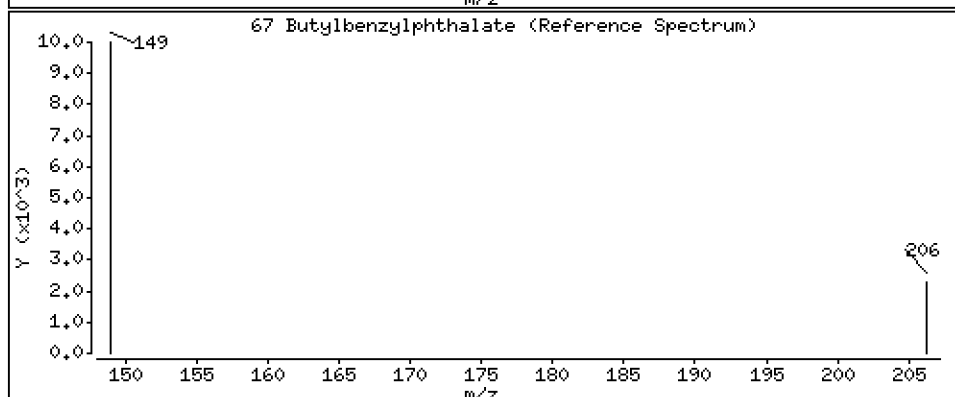
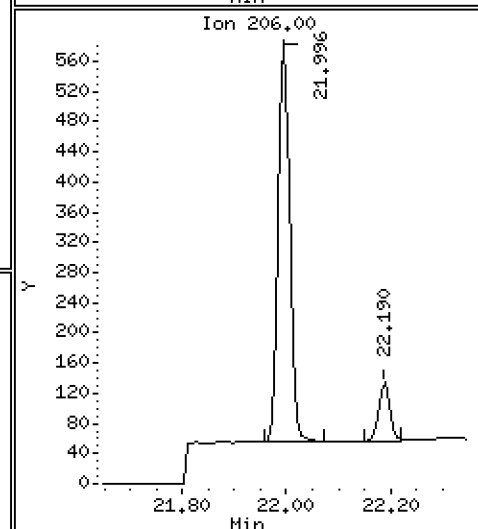
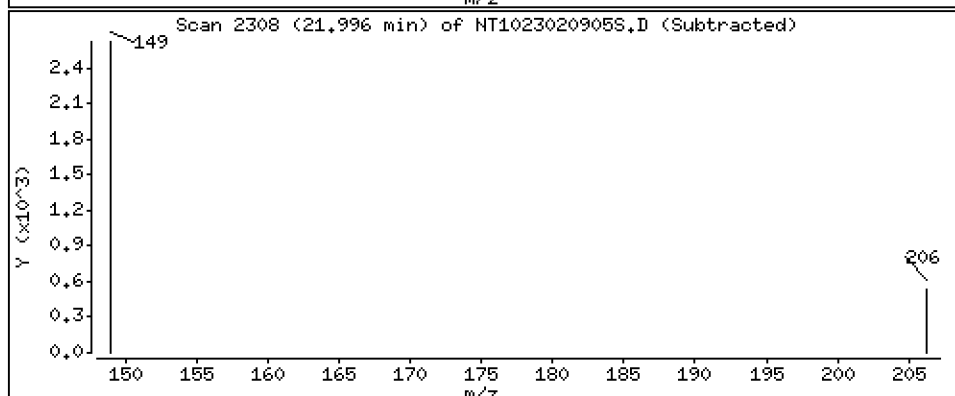
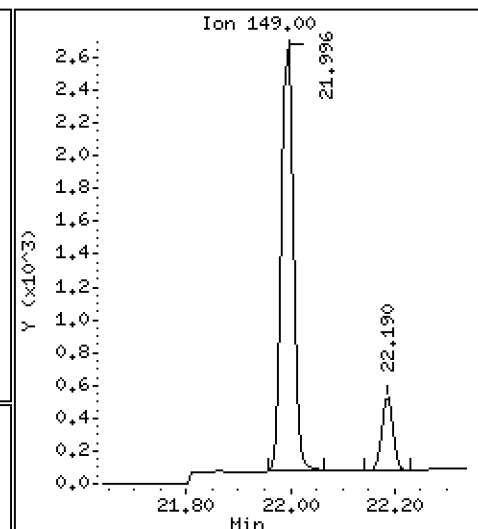
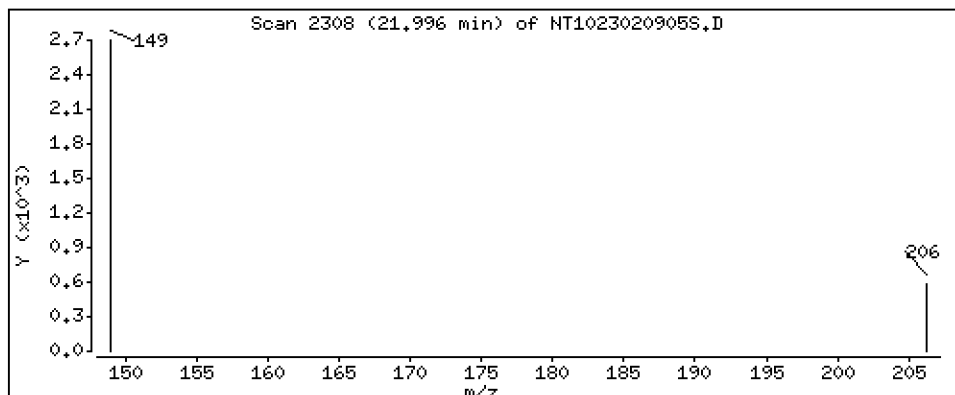
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 0,09662 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

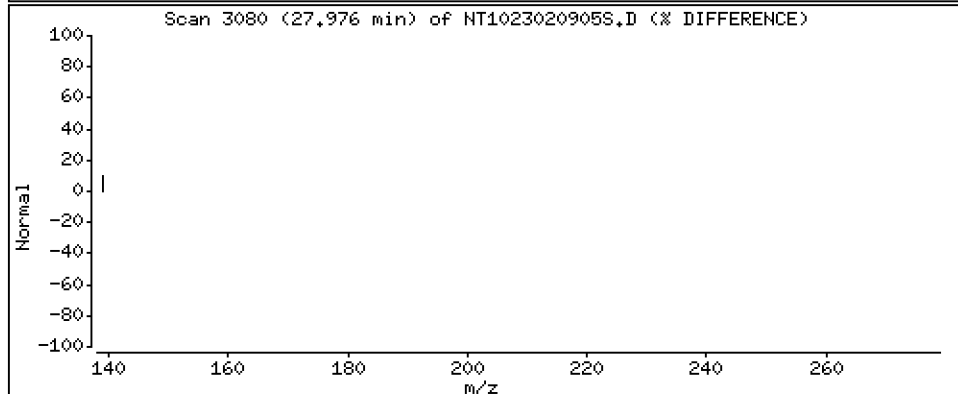
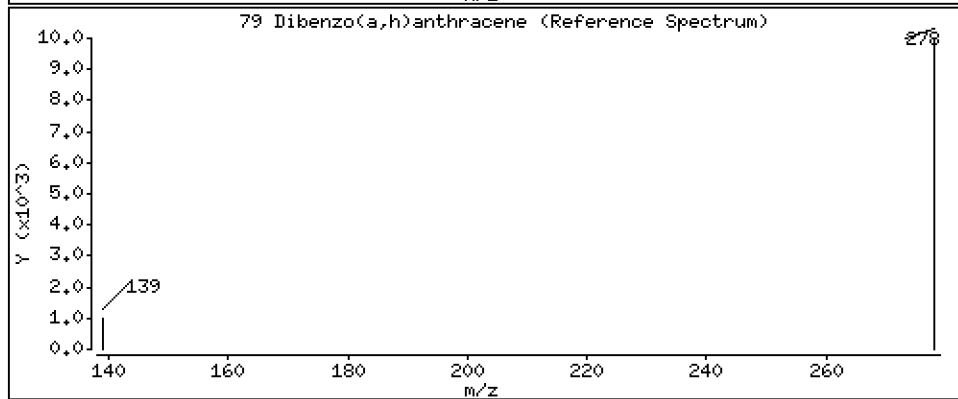
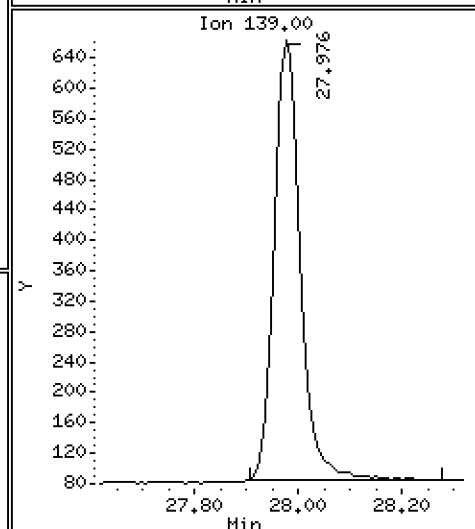
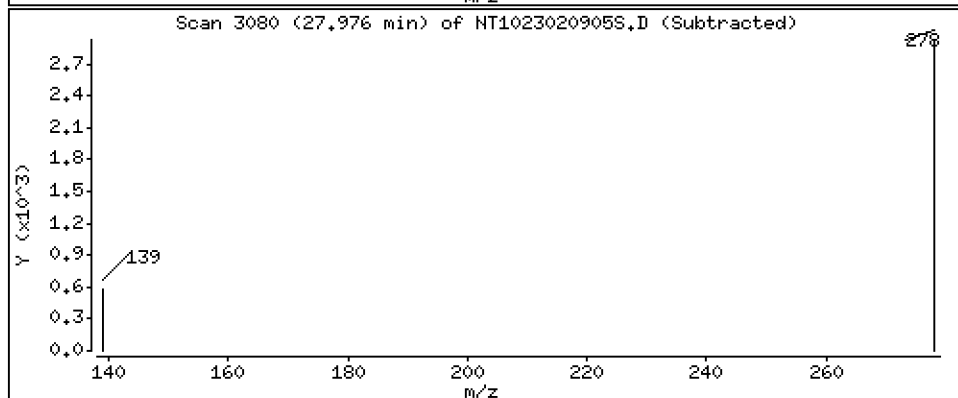
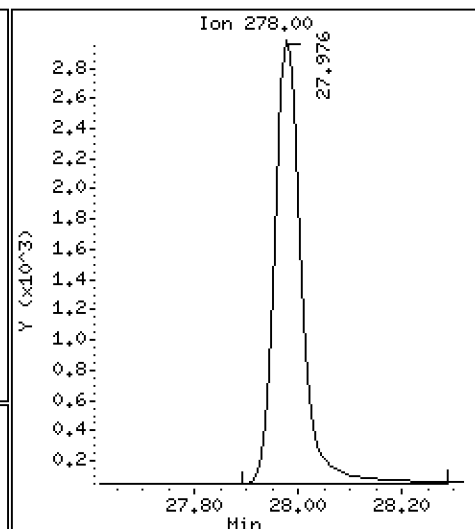
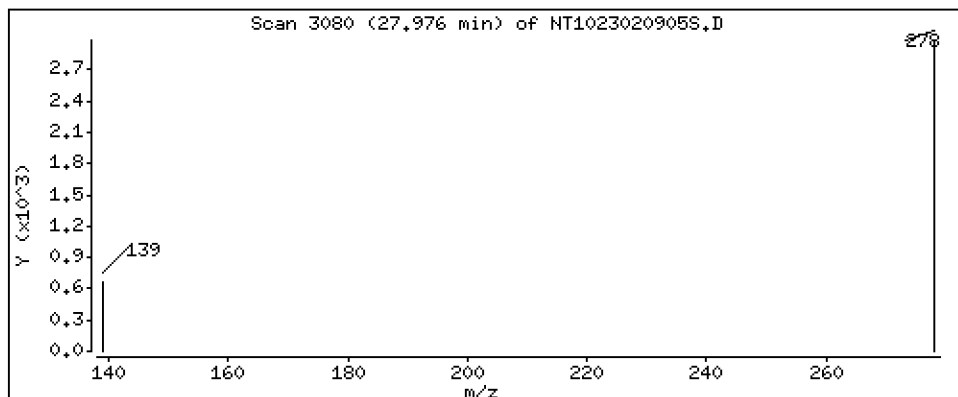
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,1192 ug/L



Date : 09-FEB-2023 15:28

Client ID:

Instrument: nt10.i

Sample Info: SIH-LCV1

Volume Injected (uL): 1.0

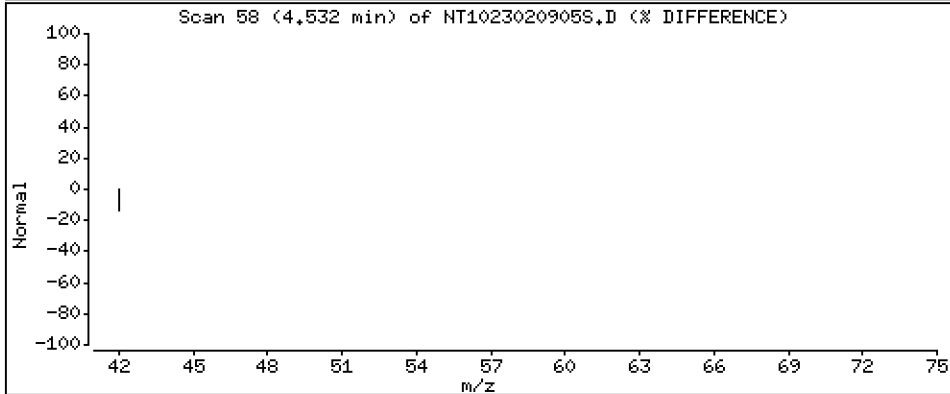
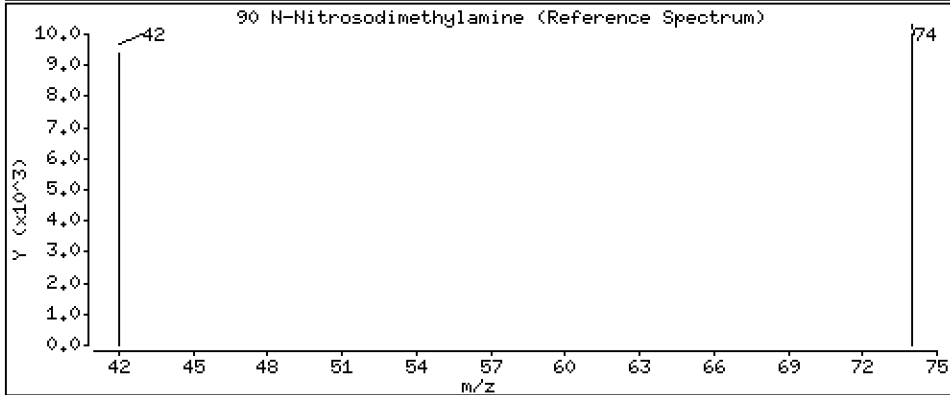
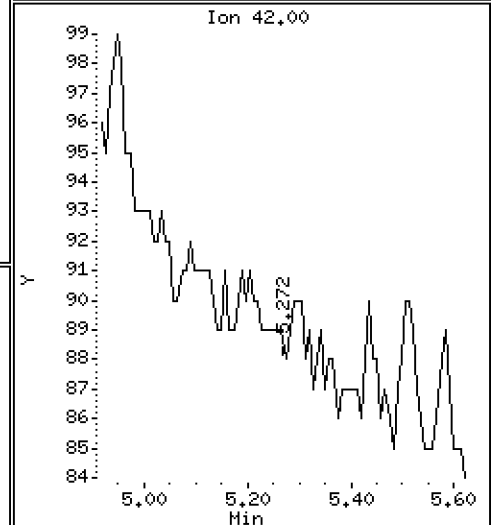
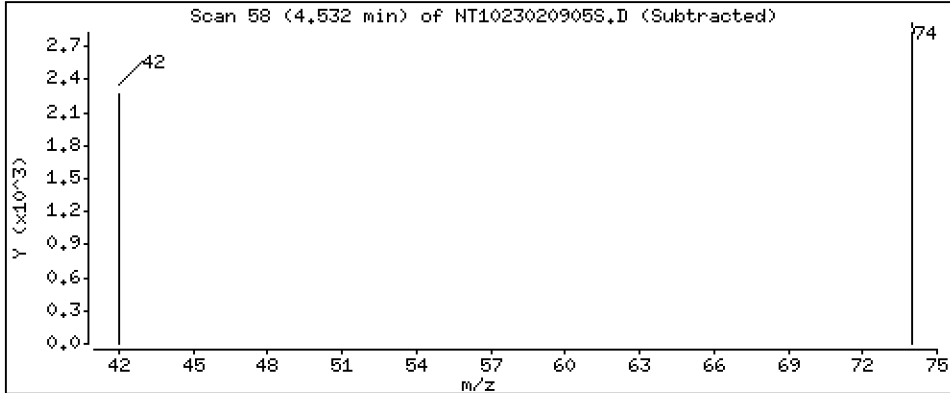
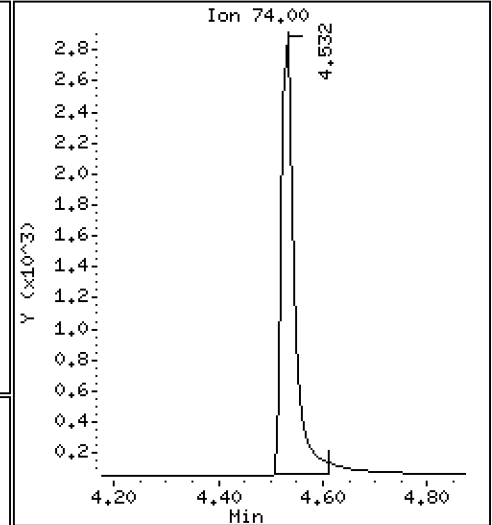
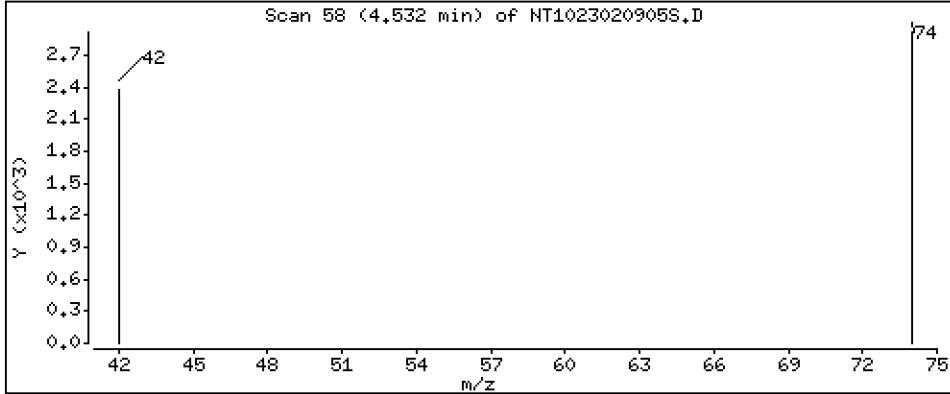
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

90 N-Nitrosodimethylamine

Concentration: 0,2000 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230209.b\SIM.b\NT1023020905S.D
 Lab Smp Id: SLB0114-LCV1
 Inj Date : 09-FEB-2023 15:28 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SIM-LCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230209.b\SIM.b\SIMABN2.m
 Meth Date : 12-Feb-2023 17:30 yev Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSSDA.sub
 Target Version: 4.14
 Processing Host: ORGDATA102

Concentration Formula: $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vo} * \text{Vi}) * \text{CpndVariable}$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		6.655	6.655	(0.754)	5271	0.14978	0.1498 (RM)
3 Phenol	94		8.239	8.239	(0.933)	5448	0.10267	0.1027
7 1,3-Dichlorobenzene	146		8.765	8.765	(0.993)	5420	0.11342	0.1134
* 8 1,4-Dichlorobenzene-d4	152		8.827	8.835	(1.000)	115726	4.00000	
9 1,4-Dichlorobenzene	146		8.858	8.858	(1.004)	5552	0.11883	0.1188
11 Benzyl alcohol	79		9.122	9.099	(1.033)	3786	0.14625	0.1463 (M)
12 1,2-Dichlorobenzene	146		9.208	9.207	(1.043)	4997	0.10958	0.1096
13 2-Methylphenol	108		9.340	9.332	(1.058)	4013	0.11077	0.1108
15 4-Methylphenol	108		9.611	9.603	(1.089)	3877	0.10493	0.1049
16 N-Nitroso-di-n-propylamine	70		9.650	9.650	(1.093)	2780	0.10539	0.1054
22 2,4-Dimethylphenol	107		10.630	10.630	(0.942)	8287	0.22788	0.2279
24 Benzoic acid	105		10.630	10.799	(0.942)	225	0.01340	0.01340 (M)
26 1,2,4-Trichlorobenzene	180		11.206	11.206	(0.993)	3983	0.11685	0.1169
* 27 Naphthalene-d8	136		11.283	11.283	(1.000)	413986	4.00000	
30 Hexachlorobutadiene	225		11.685	11.685	(1.036)	2158	0.11596	0.1160
39 Dimethylphthalate	163		14.386	14.386	(0.968)	5000	0.10826	0.1083
* 42 Acenaphthene-d10	162		14.866	14.866	(1.000)	198156	4.00000	
50 Diethylphthalate	149		15.832	15.832	(1.065)	7062	0.10153	0.1015
54 N-Nitrosodiphenylamine	169		16.218	16.210	(0.907)	6464	0.10977	0.1098
57 Hexachlorobenzene	284		17.275	17.268	(0.966)	2950	0.11772	0.1177

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	17.670	17.639	(0.988)	207	0.02375	0.02375 (M)
* 59 Phenanthrene-d10	188	17.887	17.887	(1.000)	356311	4.00000	
\$ 66 Terphenyl-d14	244	21.059	21.051	(0.917)	7543	0.12494	0.1249 (R)
67 Butylbenzylphthalate	149	21.996	21.988	(0.958)	3943	0.09662	0.09662
* 69 Chrysene-d12	240	22.956	22.956	(1.000)	271994	4.00000	
* 77 Perylene-d12	264	25.480	25.480	(1.000)	311271	4.00000	
79 Dibenzo(a,h)anthracene	278	27.975	27.967	(1.098)	10395	0.11916	0.1192
90 N-Nitrosodimethylamine	74	4.532	4.524	(0.513)	4613	0.20003	0.2000 (M)

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020905S.D
 Lab Smp Id: SLB0114-LCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230209.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 09-FEB-2023
 Calibration Time: 14:49
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	101588	50794	203176	115726	13.92
27 Naphthalene-d8	364920	182460	729840	413986	13.45
42 Acenaphthene-d10	174973	87487	349946	198156	13.25
59 Phenanthrene-d10	314354	157177	628708	356311	13.35
69 Chrysene-d12	242262	121131	484524	271994	12.27
77 Perylene-d12	285281	142641	570562	311271	9.11

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.83	-0.09
27 Naphthalene-d8	11.28	10.78	11.78	11.28	0.00
42 Acenaphthene-d10	14.87	14.37	15.37	14.87	0.00
59 Phenanthrene-d10	17.89	17.39	18.39	17.89	0.00
69 Chrysene-d12	22.96	22.46	23.46	22.96	0.00
77 Perylene-d12	25.48	24.98	25.98	25.48	0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020905S.D

Lab ID: SLB0114-LCV1

nt10.i, 20230209.b\SIM.b\SIMABN2.m, 09-FEB-2023 15:28

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.942	0.957	-0.0150	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1023020904S.D

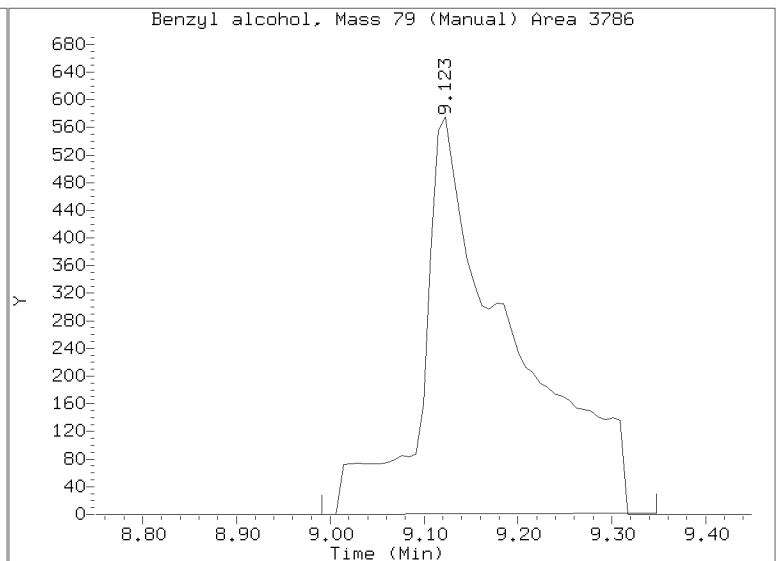
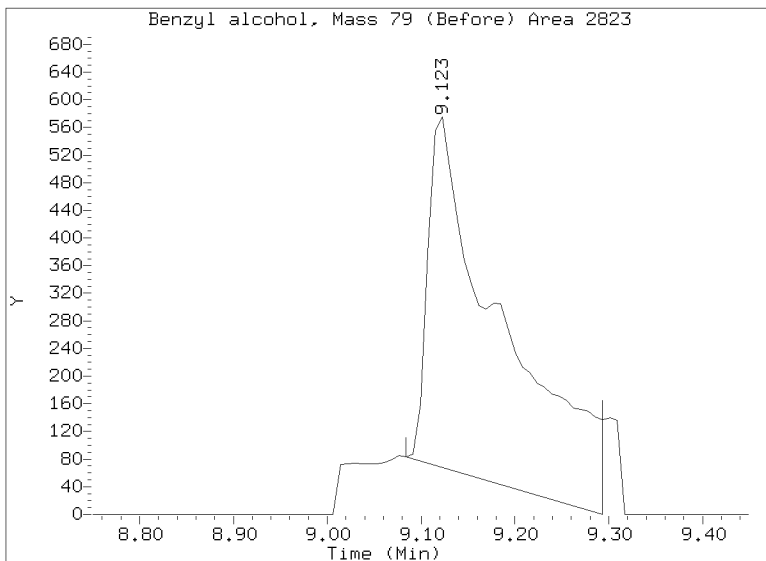
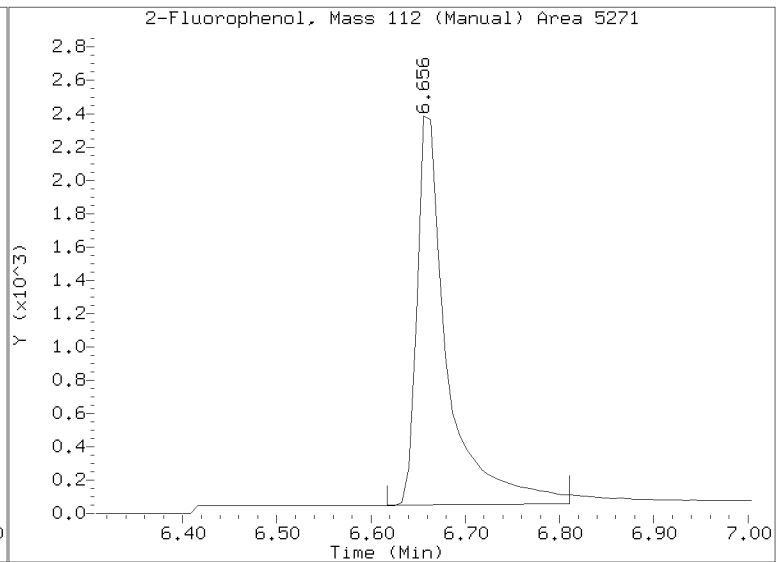
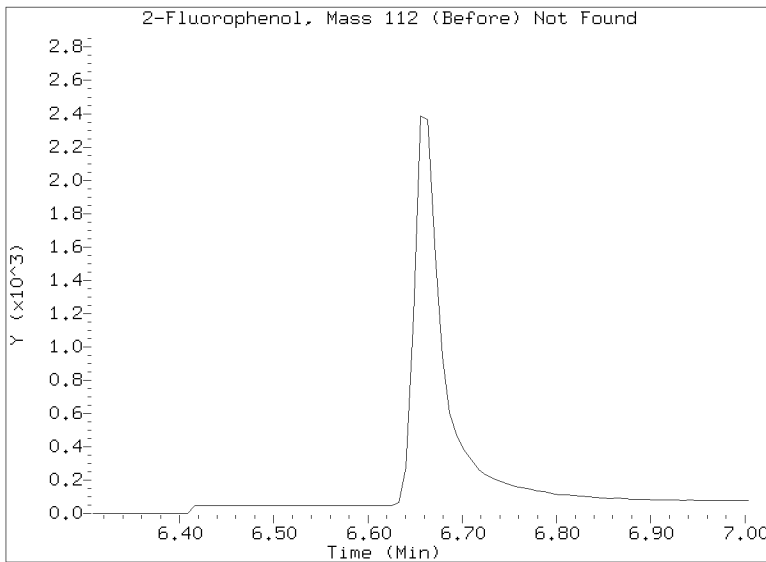
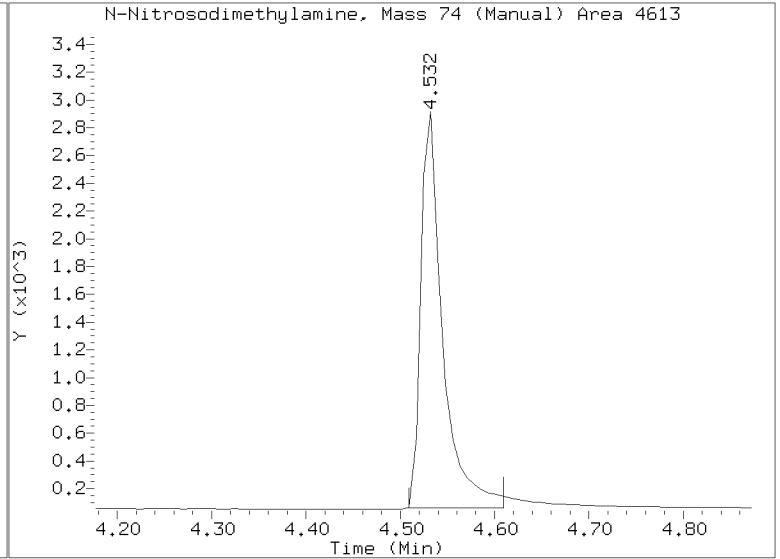
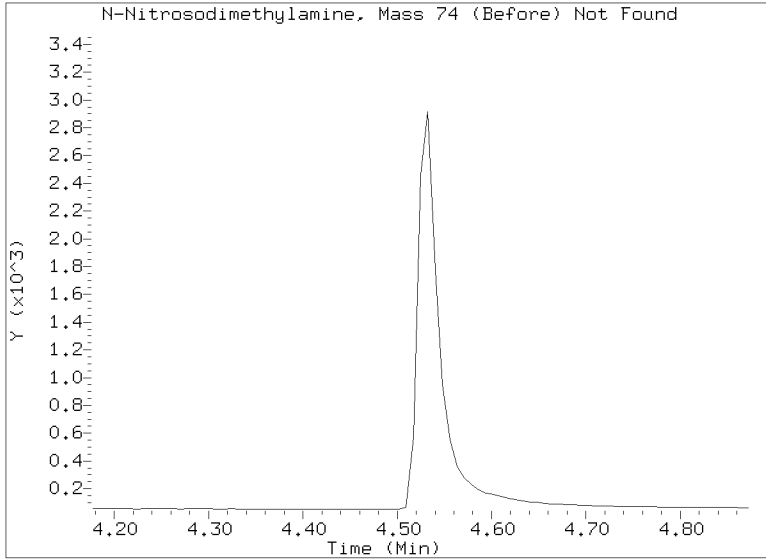
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

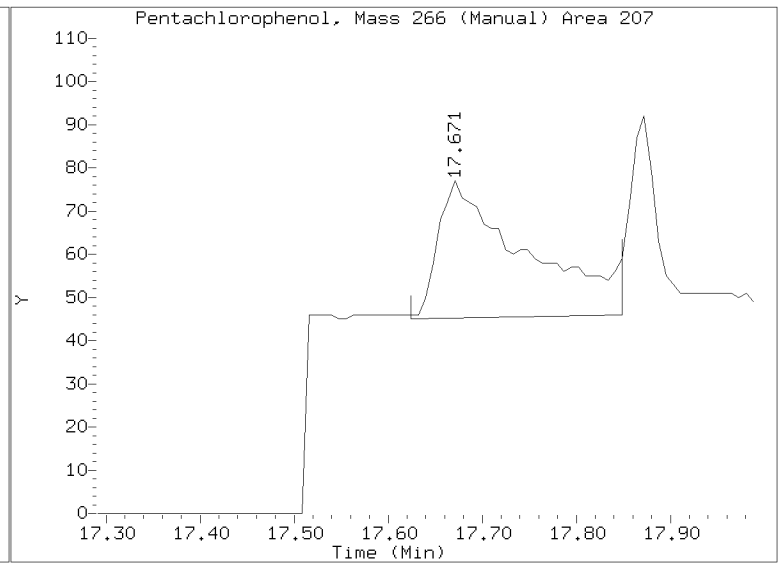
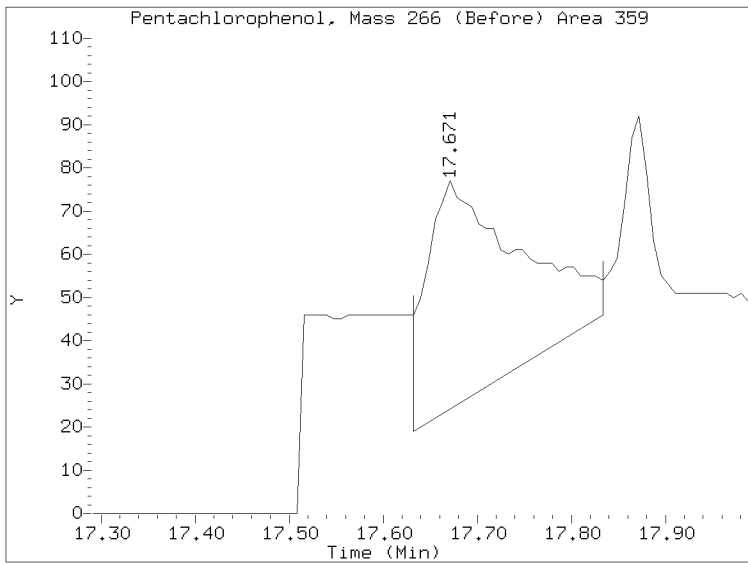
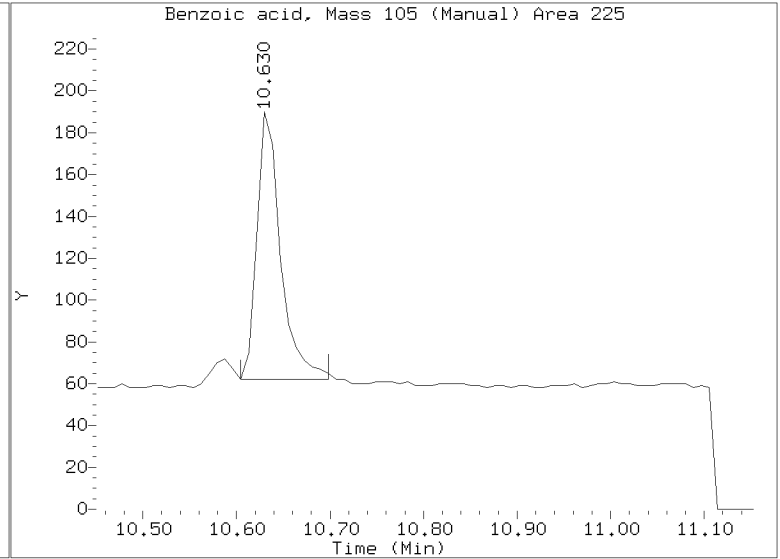
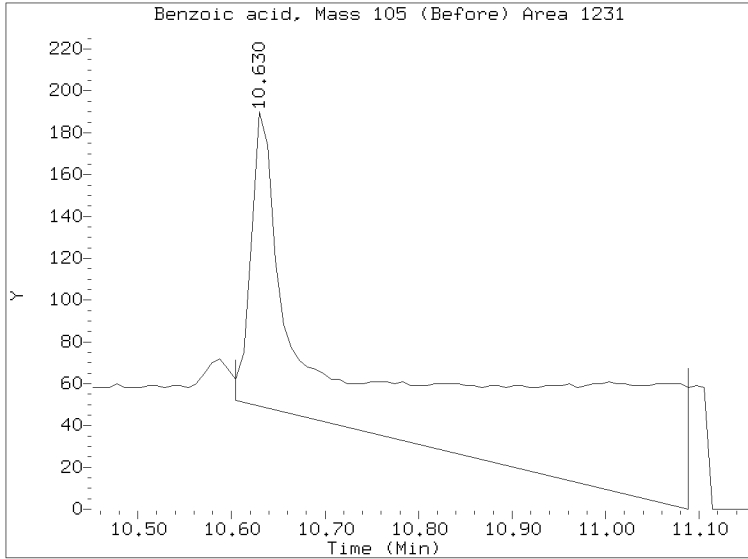
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209.b/SIM.b/NT1023020905S.D
Injection Date: 09-FEB-2023 15:28
Lab ID:SLB0114-LCV1 Client ID:
Report Date: 02/12/2023 17:35



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209.b/SIM.b/NT1023020905S.D
Injection Date: 09-FEB-2023 15:28
Lab ID:SLB0114-LCV1 Client ID:
Report Date: 02/12/2023 17:35





CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GB00019</u>
Lab File ID:	<u>NT1023020935S.D</u>	Calibration Date:	<u>02/07/2023</u>
Sequence:	<u>SLB0157</u>	Injection Date:	<u>02/10/23</u>
Lab Sample ID:	<u>SLB0157-CCV1</u>	Injection Time:	<u>10:47</u>
Sequence Name:	<u>Calibration Check</u>		

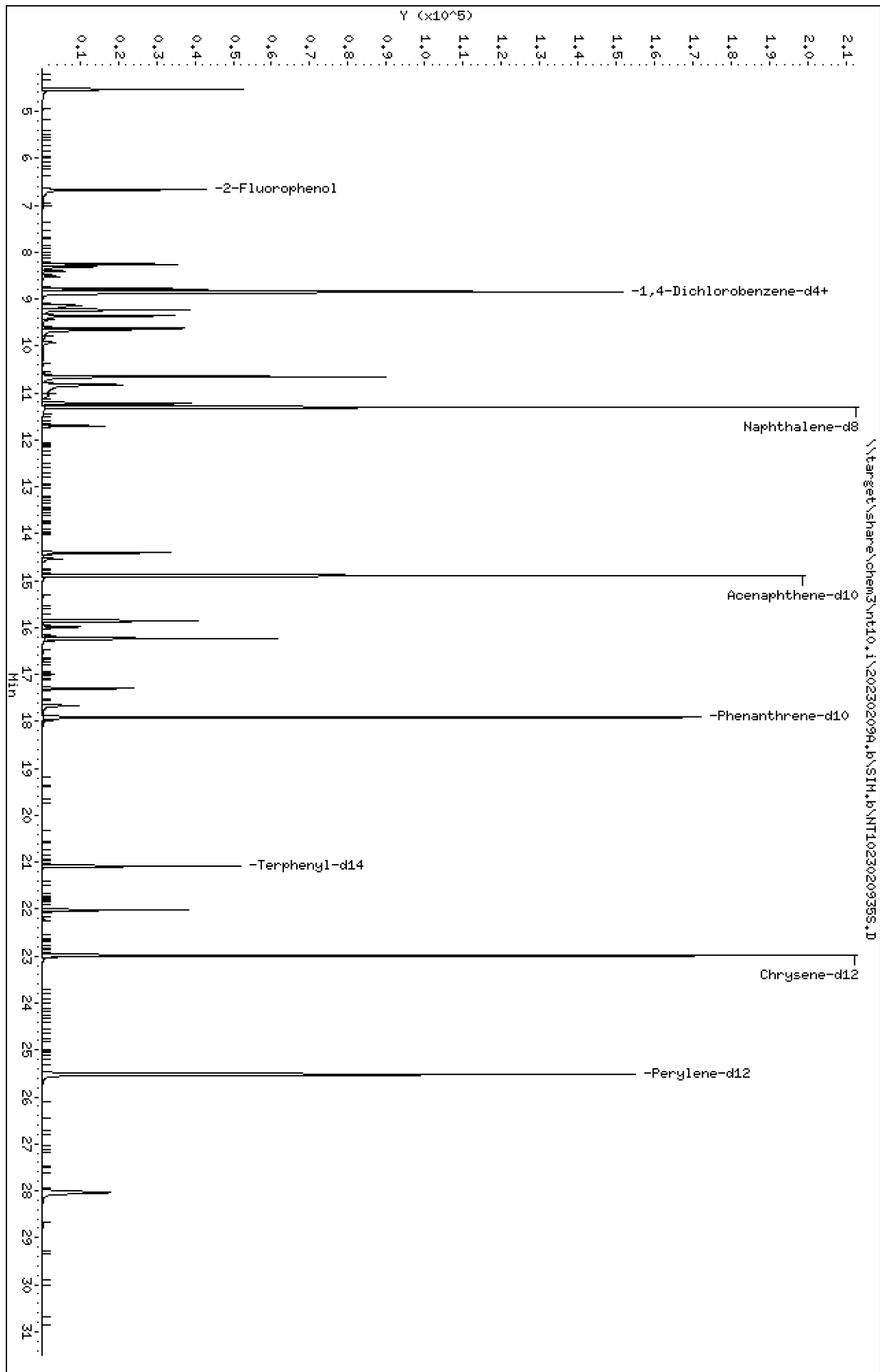
COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	1.0000	1.0	1.6149400	1.6487900		2.1	+/-50
1,2-Dichlorobenzene	A	1.0000	1.0	1.5761980	1.5982190		1.4	+/-50
Benzyl Alcohol	A	1.0000	1.2	0.8947729	1.0417260		16.4	+/-50
Benzoic acid	A	4.0000	2.8	0.1278126	0.1163116		-29.4	+/-50
2,4-Dimethylphenol	A	2.0000	2.2	0.3513679	0.3779722		7.6	+/-50
1,2,4-Trichlorobenzene	A	1.0000	1.1	0.3293471	0.3489814		6.0	+/-50
N-Nitrosodiphenylamine	A	1.0000	1.0	0.6610440	0.6635564		0.4	+/-50
Pentachlorophenol	A	2.0000	2.0	0.0758741	0.0981564		-1.4	+/-50
2-Fluorophenol	A	1.5000	1.57	1.2163900	1.2747570		4.8	+/-50
p-Terphenyl-d14	A	1.0000	1.09	0.8878533	0.9719230		9.5	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\202302094.b\SIM.b\NT10230209355.D
Date: 10-FEB-2023 10:47
Client ID:
Sample Info: SIM-ICV3
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: DSD
Column diameter: 0.25



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

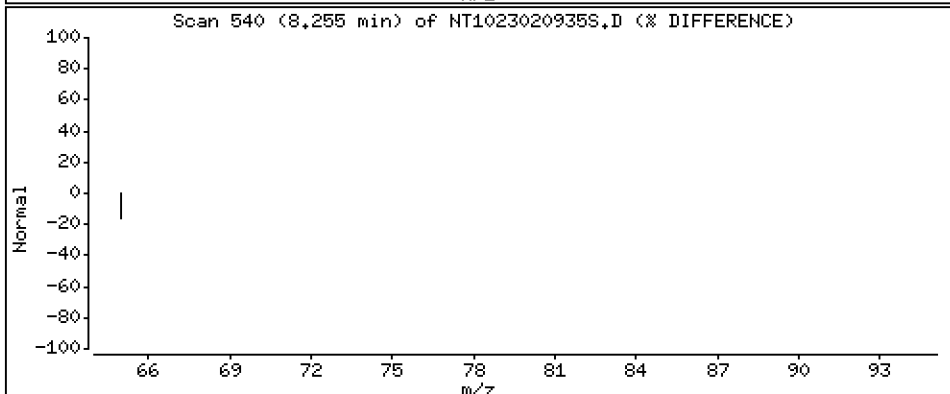
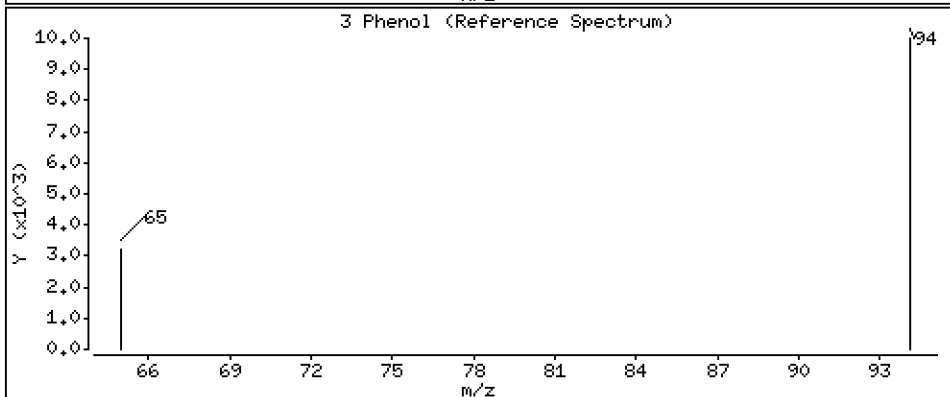
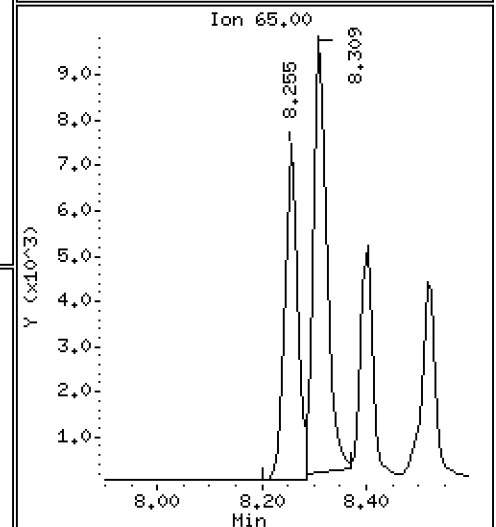
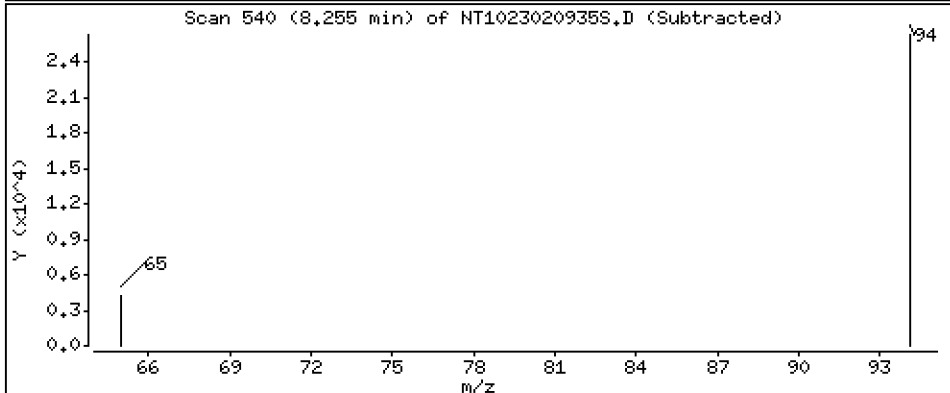
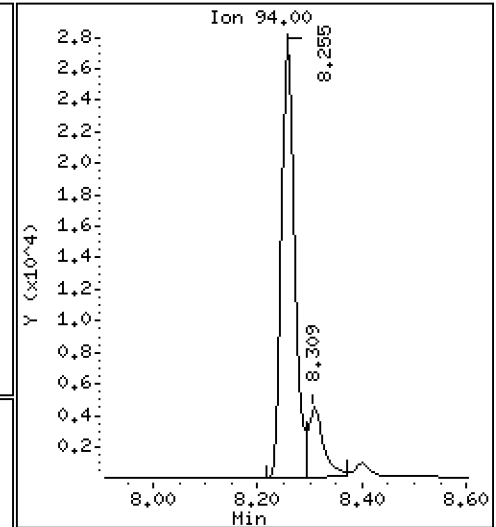
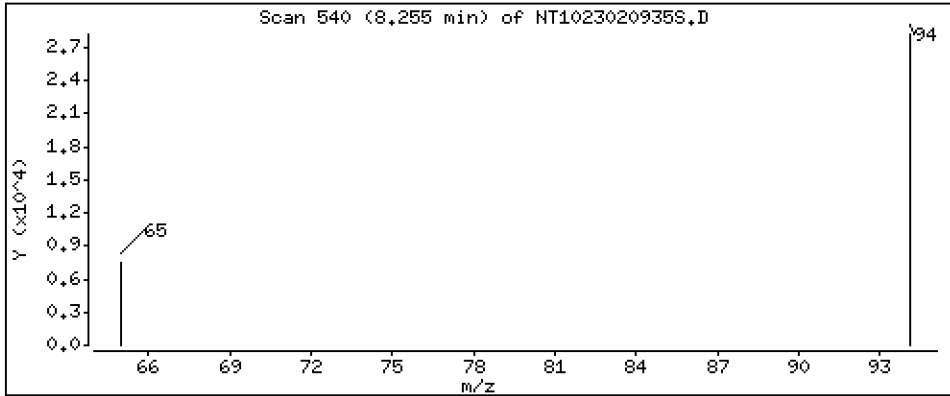
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

3 Phenol

Concentration: 1,063 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

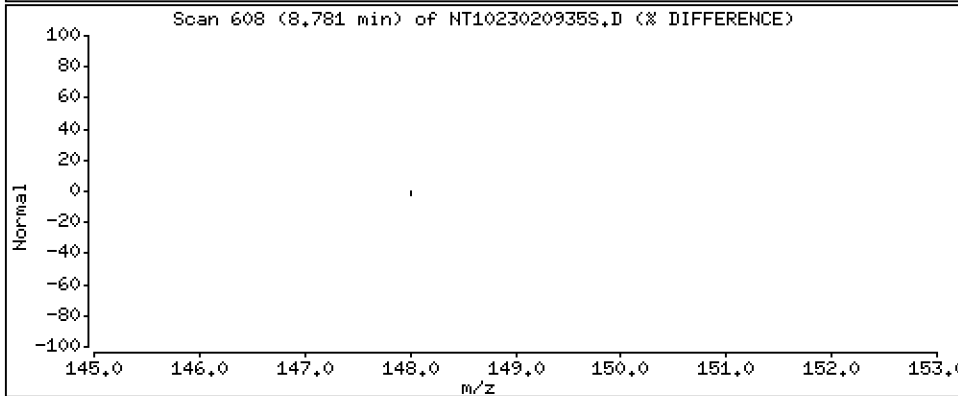
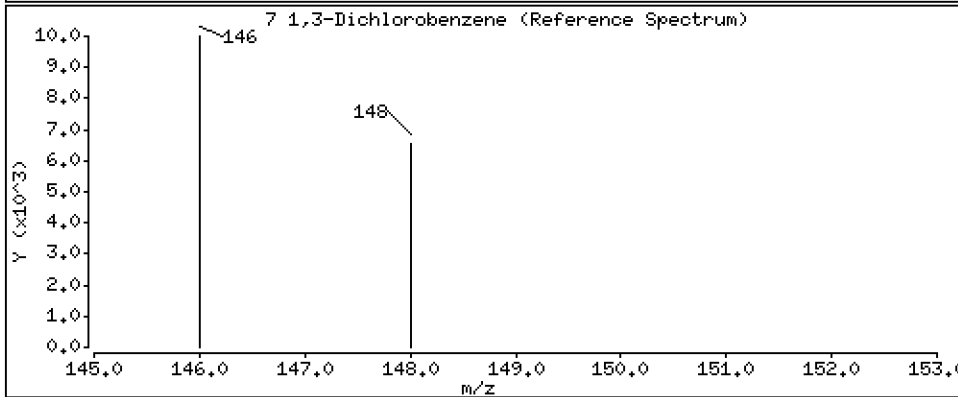
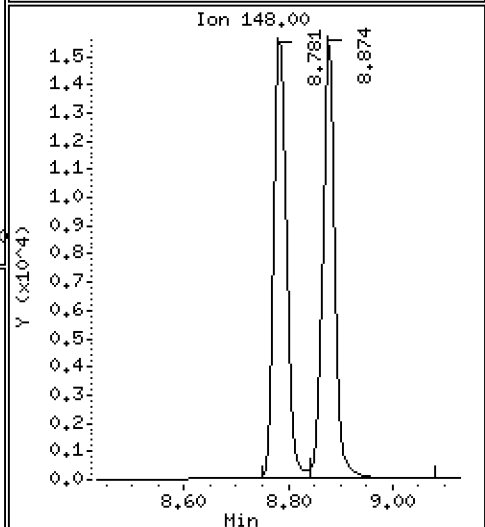
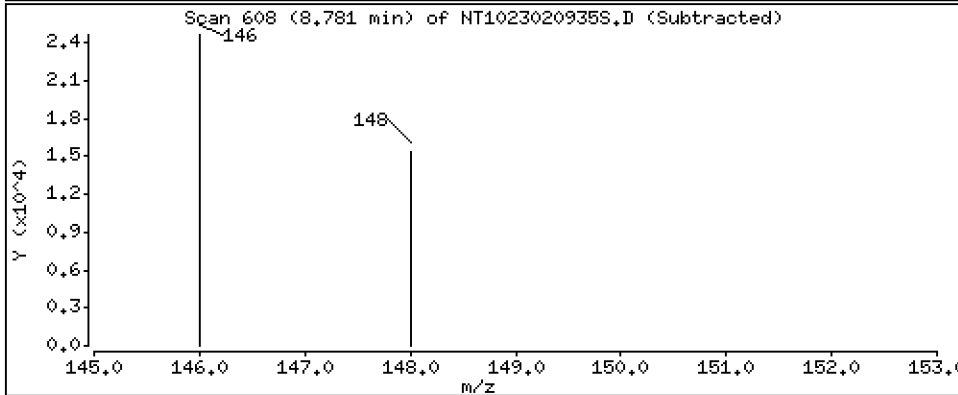
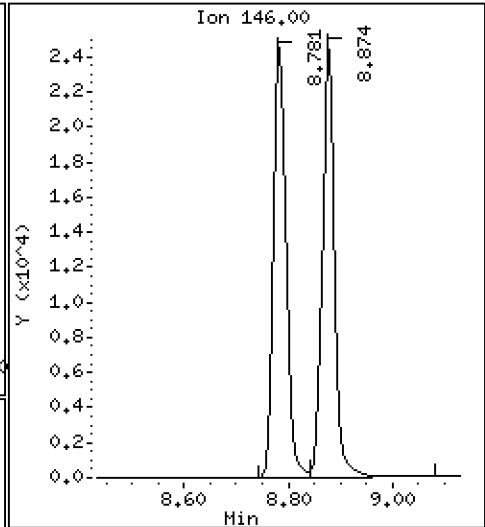
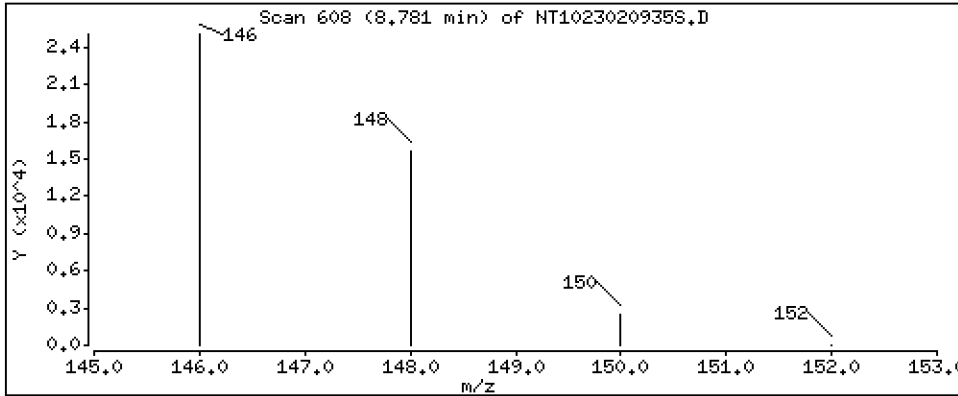
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 1.013 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

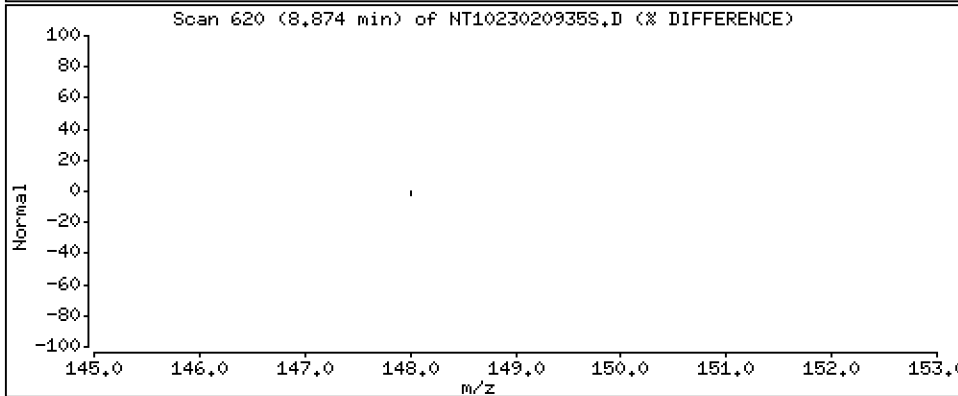
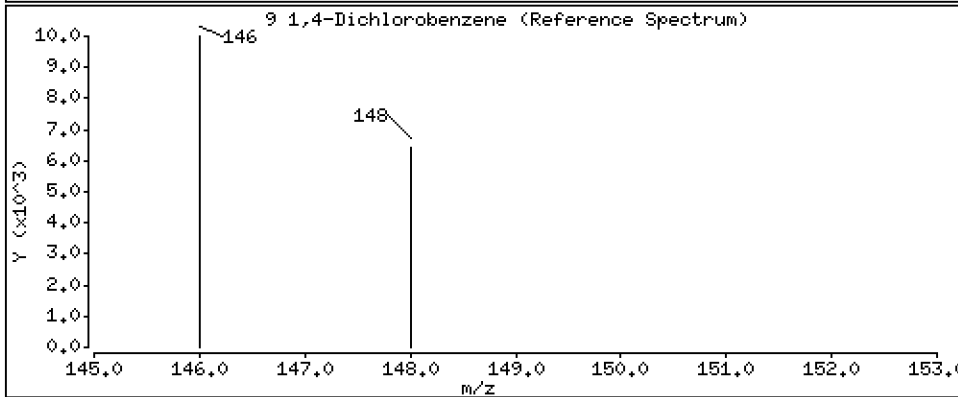
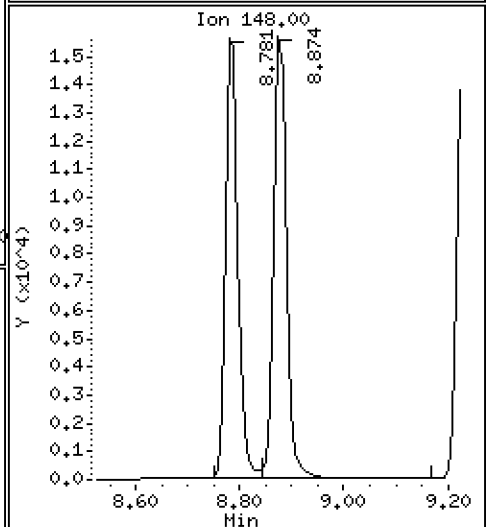
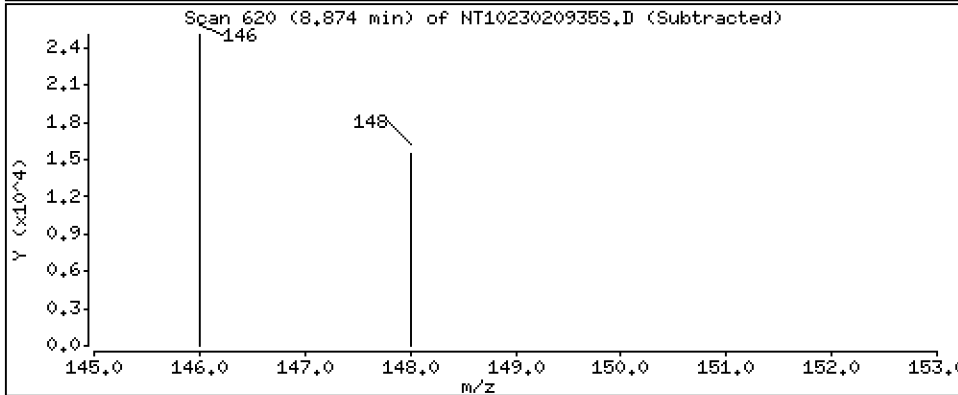
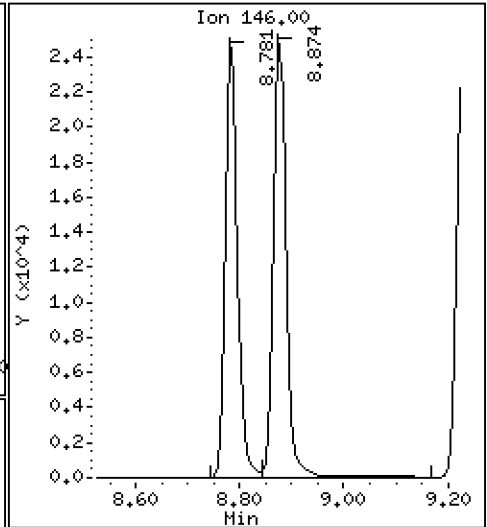
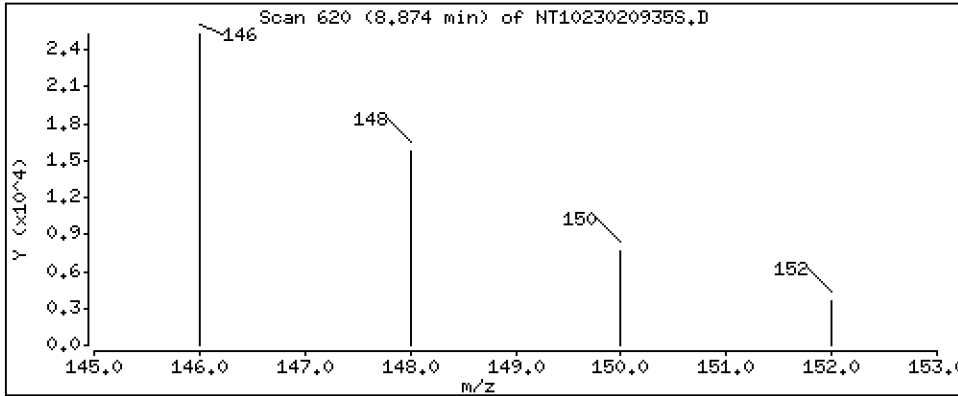
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 1.021 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

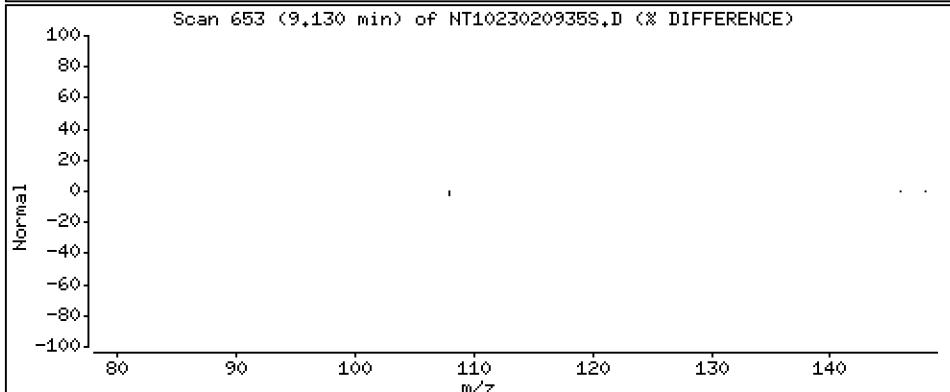
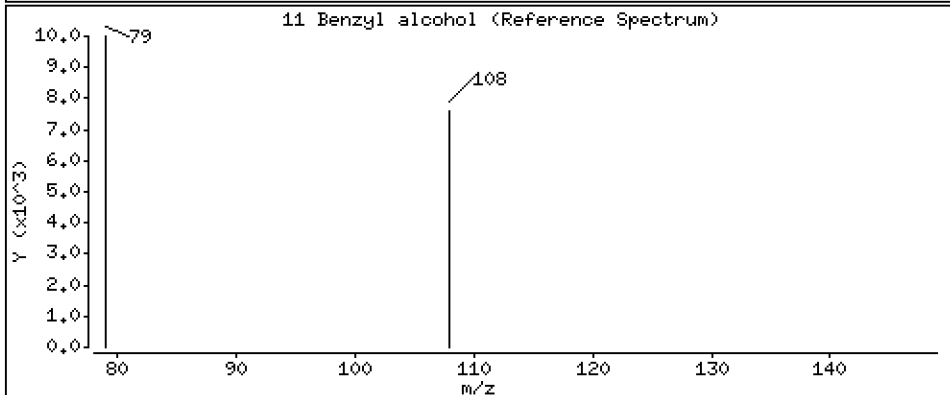
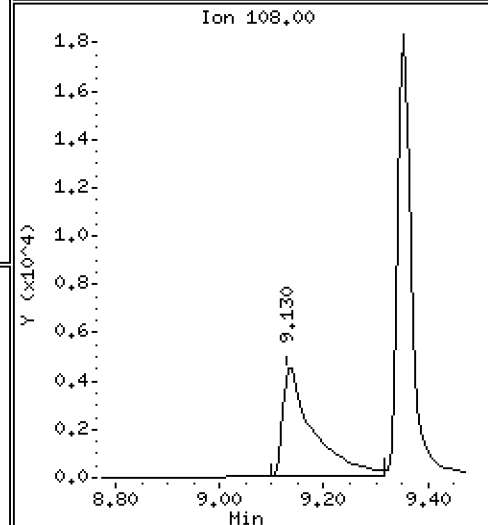
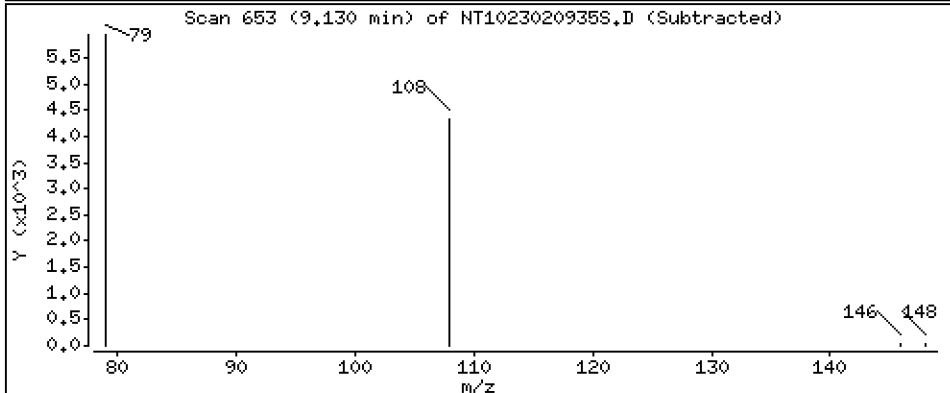
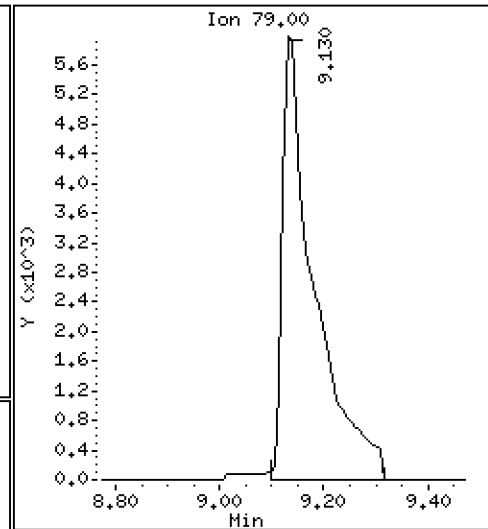
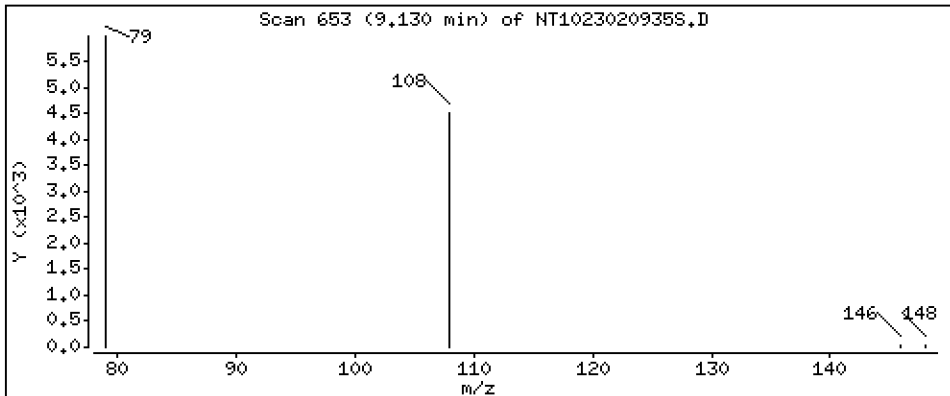
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 1.164 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

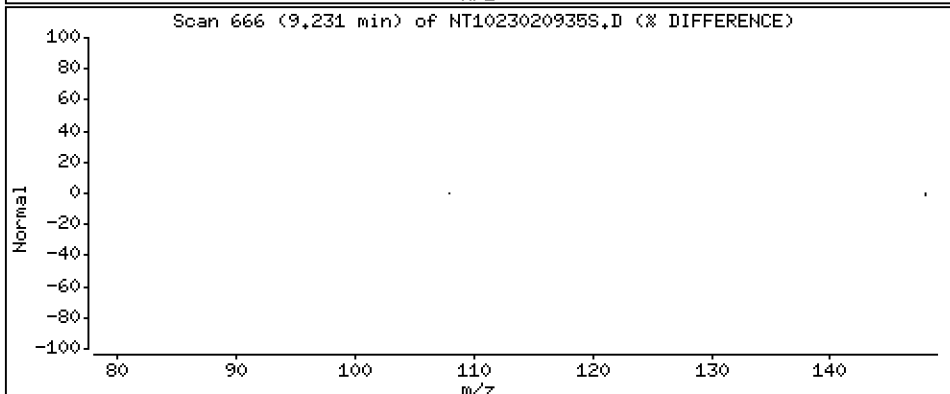
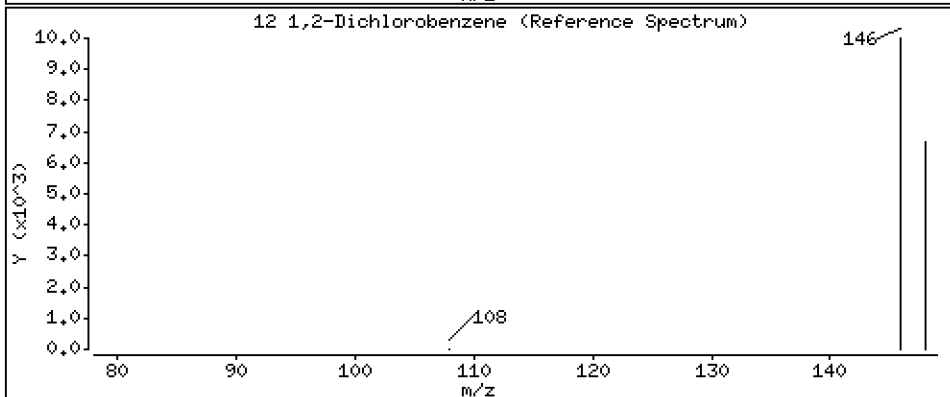
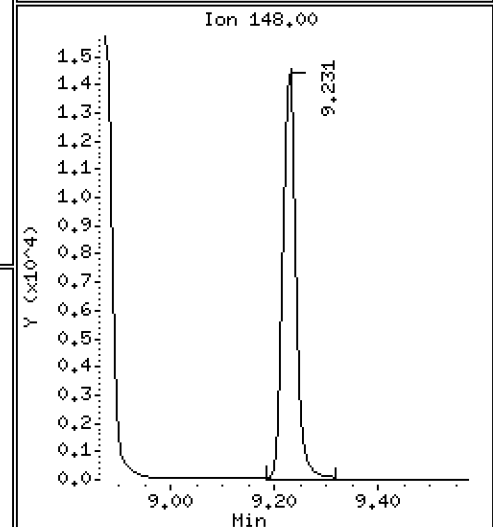
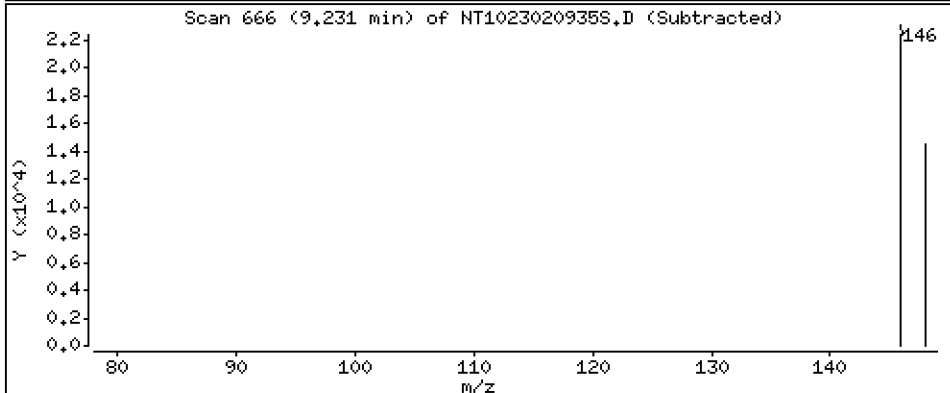
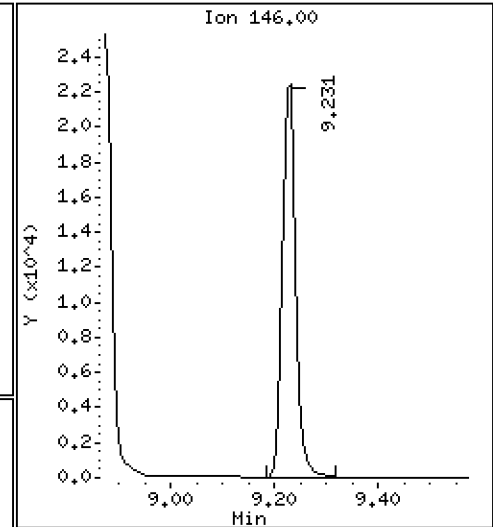
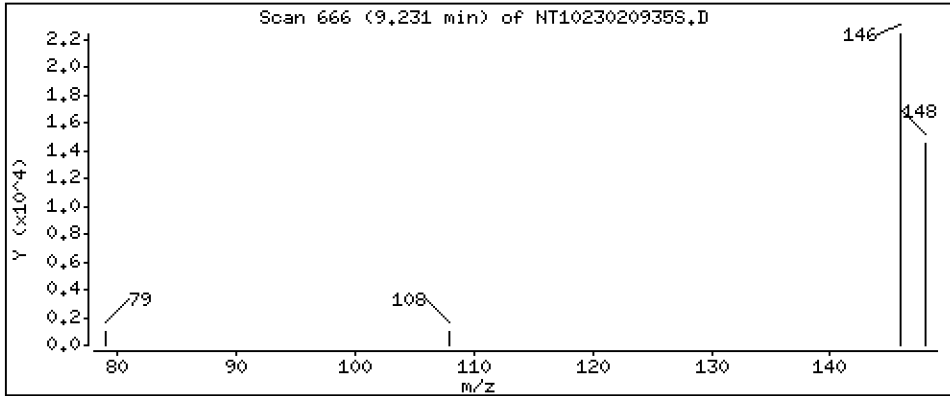
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 1.014 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

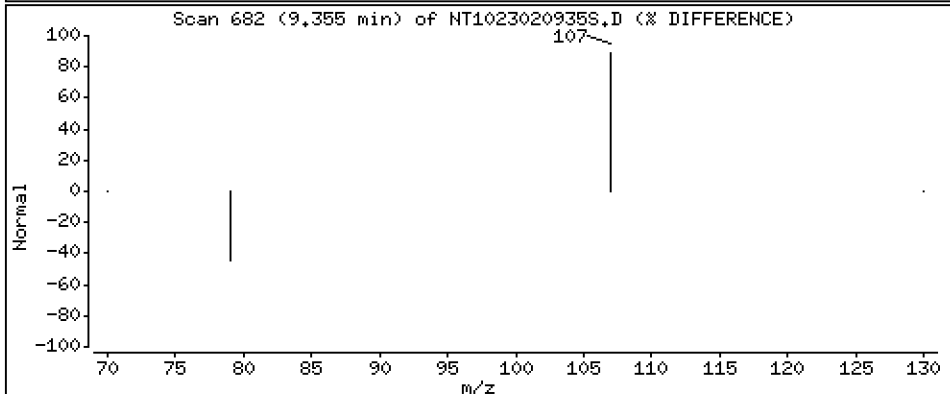
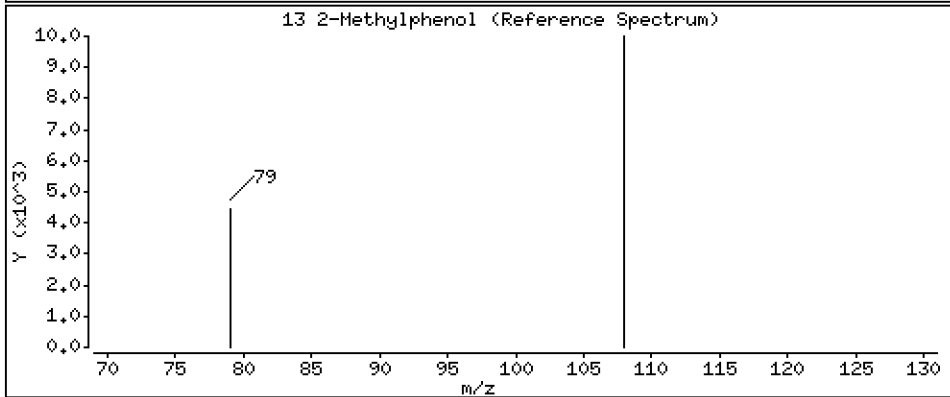
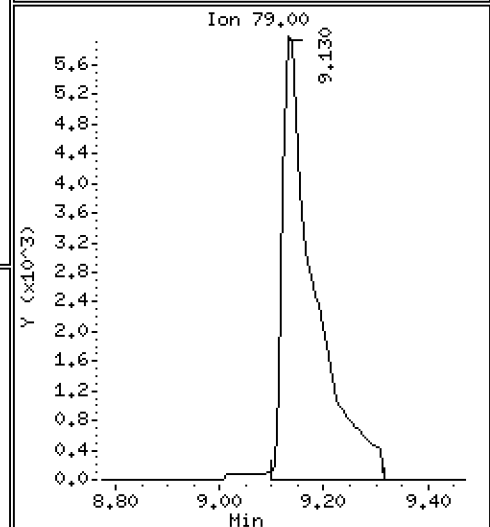
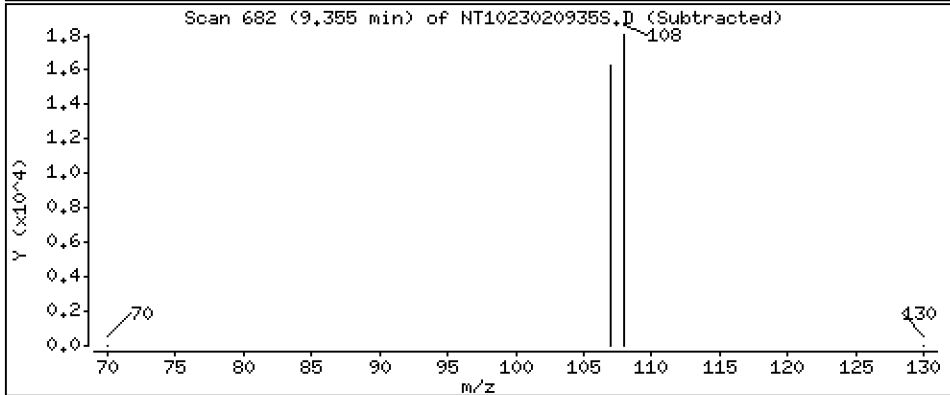
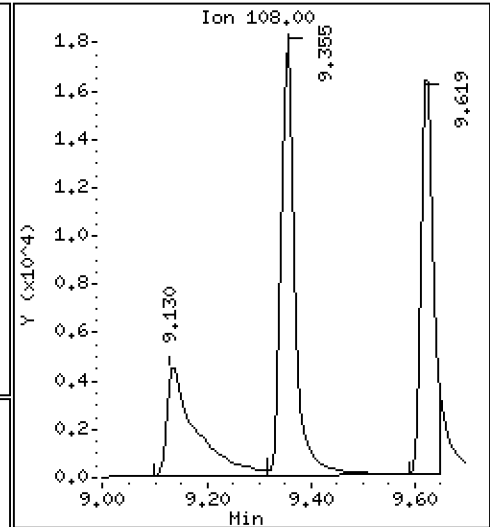
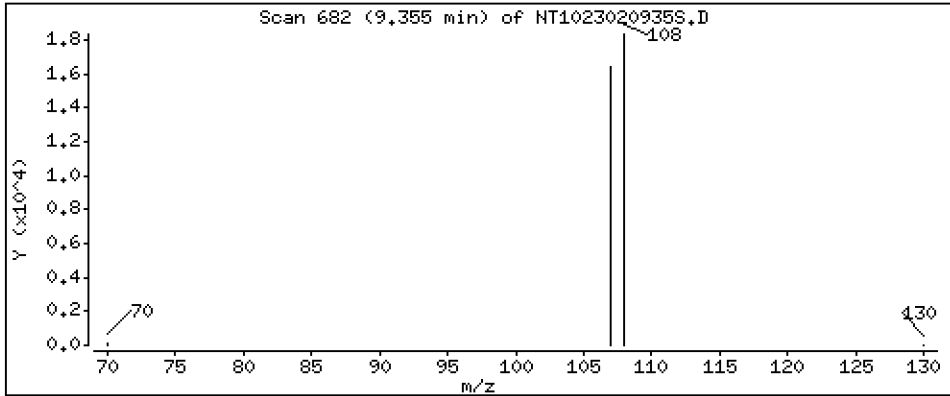
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 1.094 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

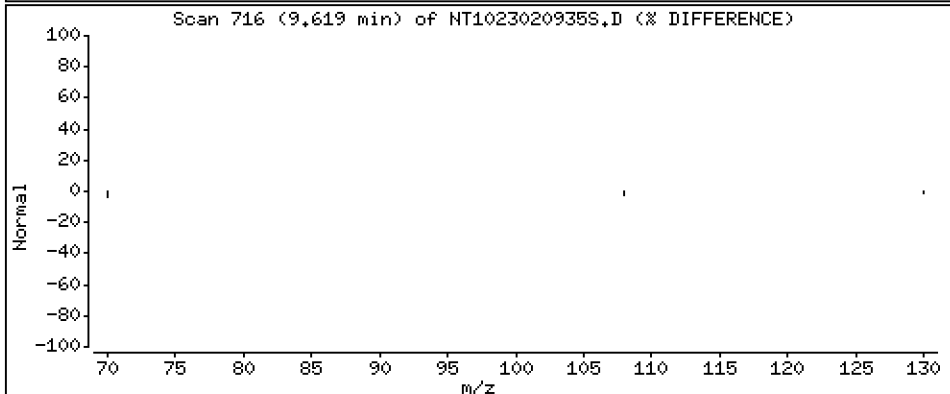
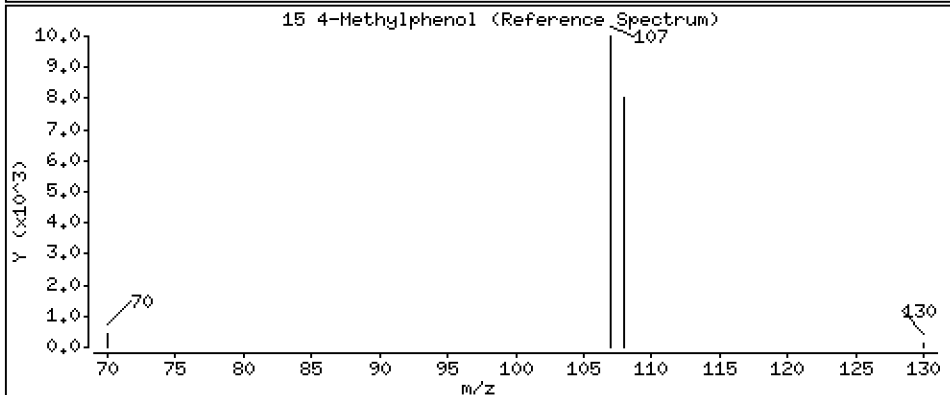
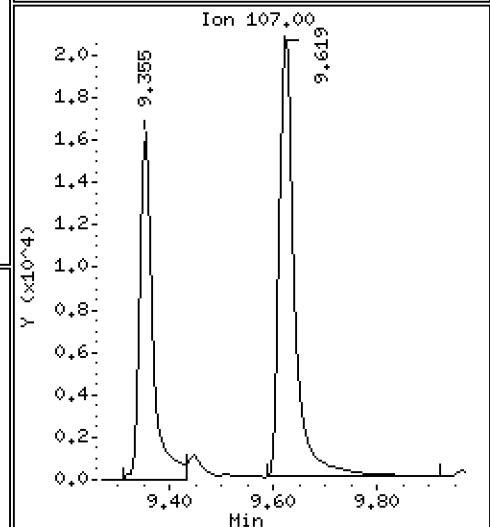
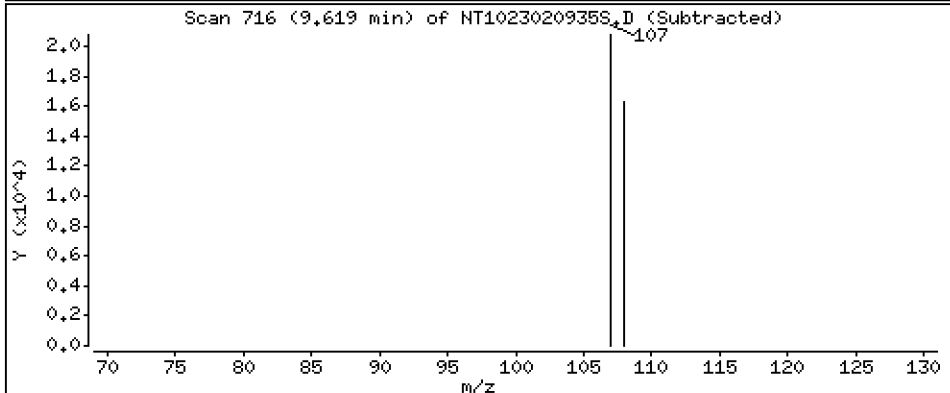
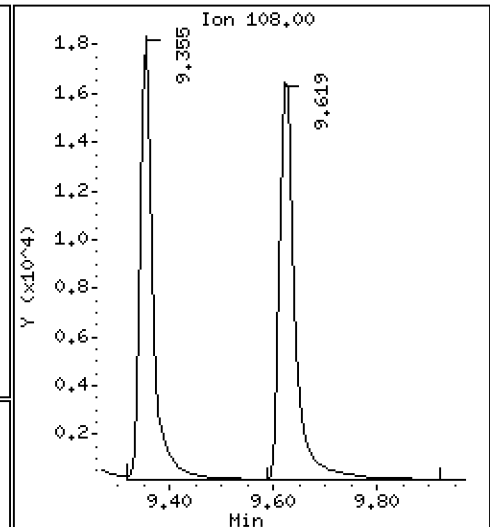
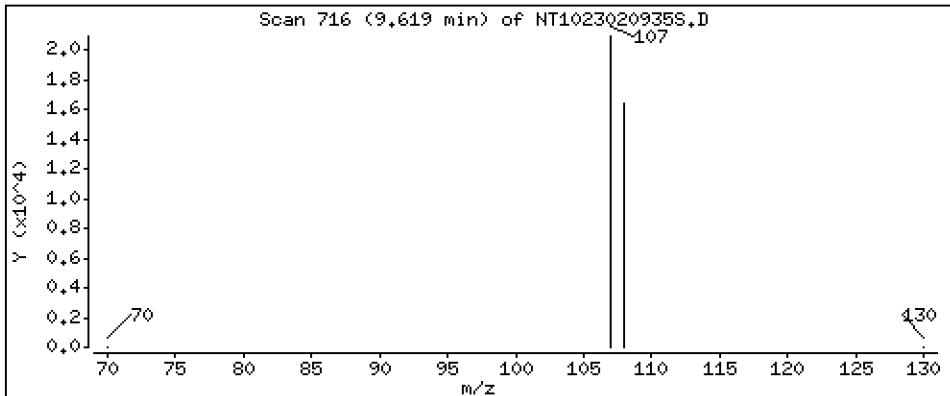
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 1.083 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

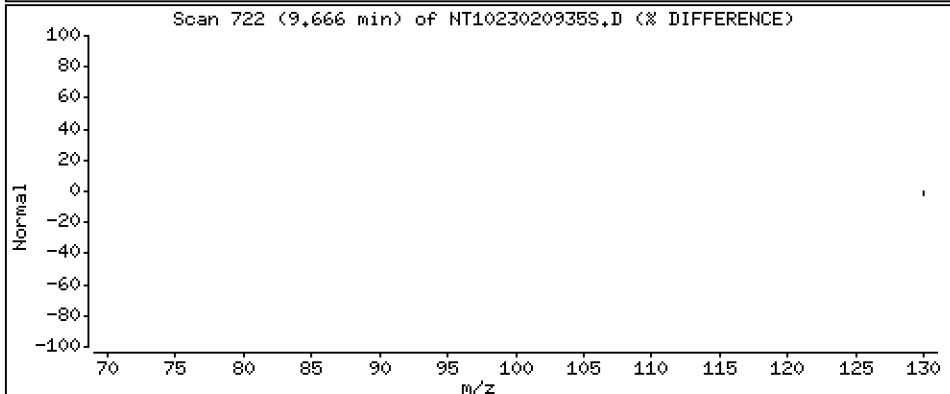
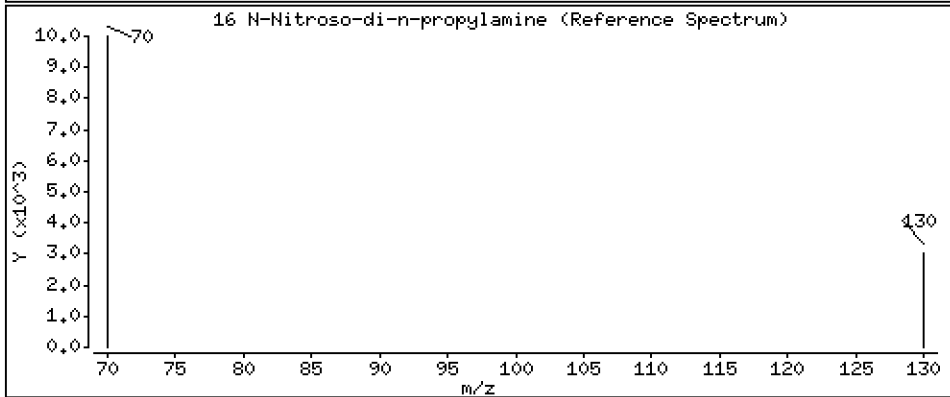
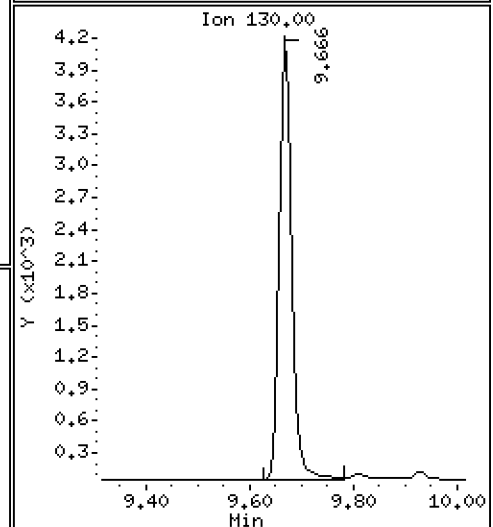
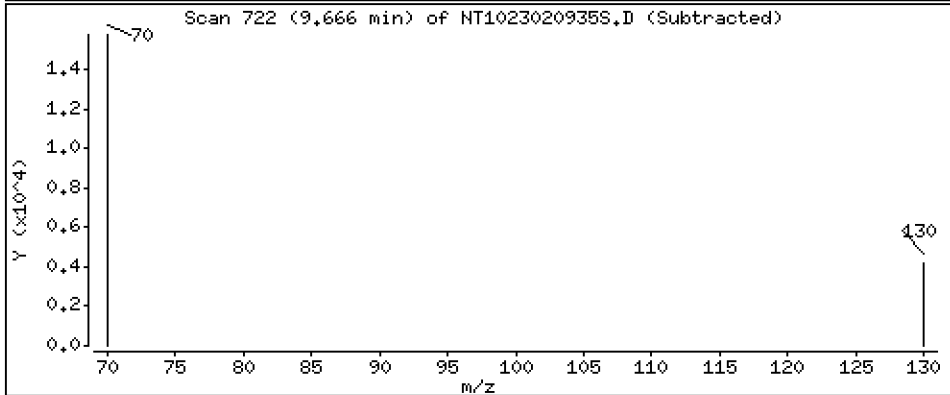
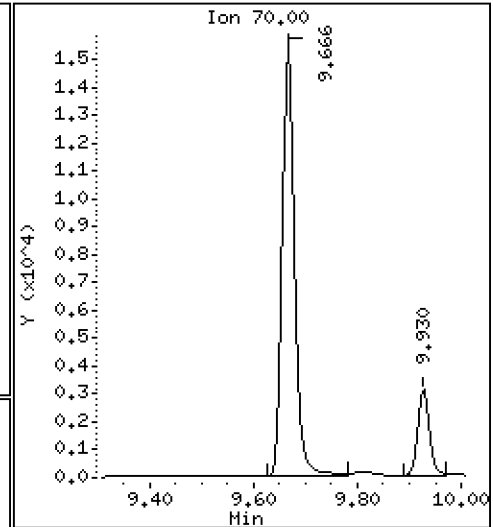
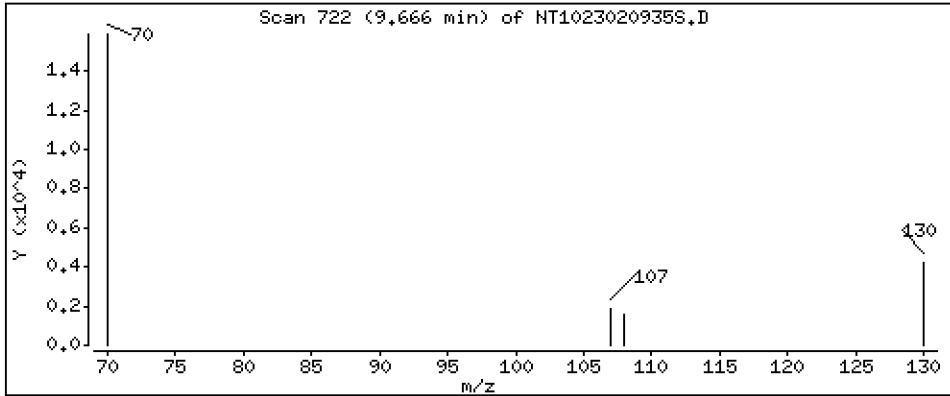
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 1.099 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

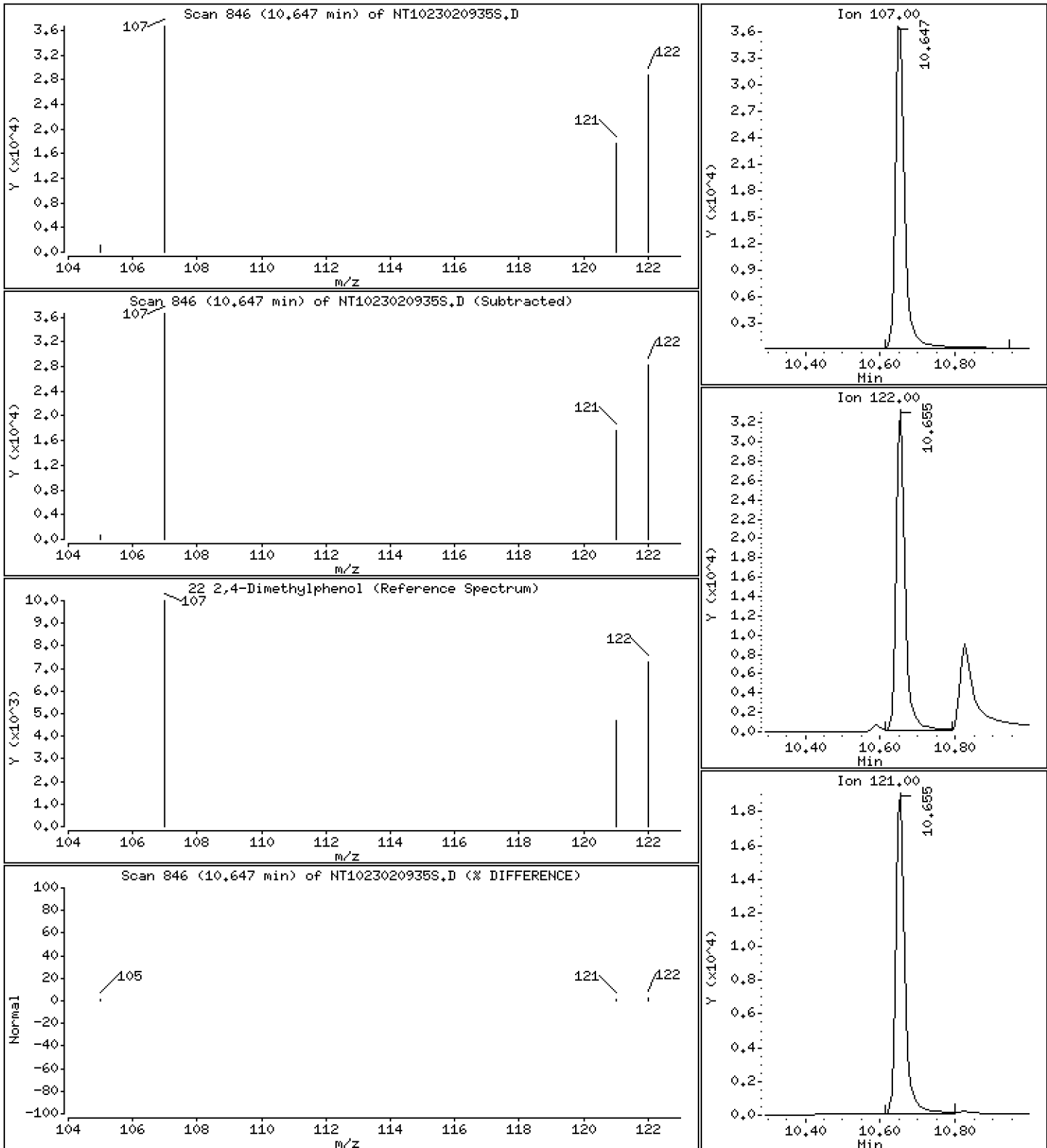
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 2,151 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

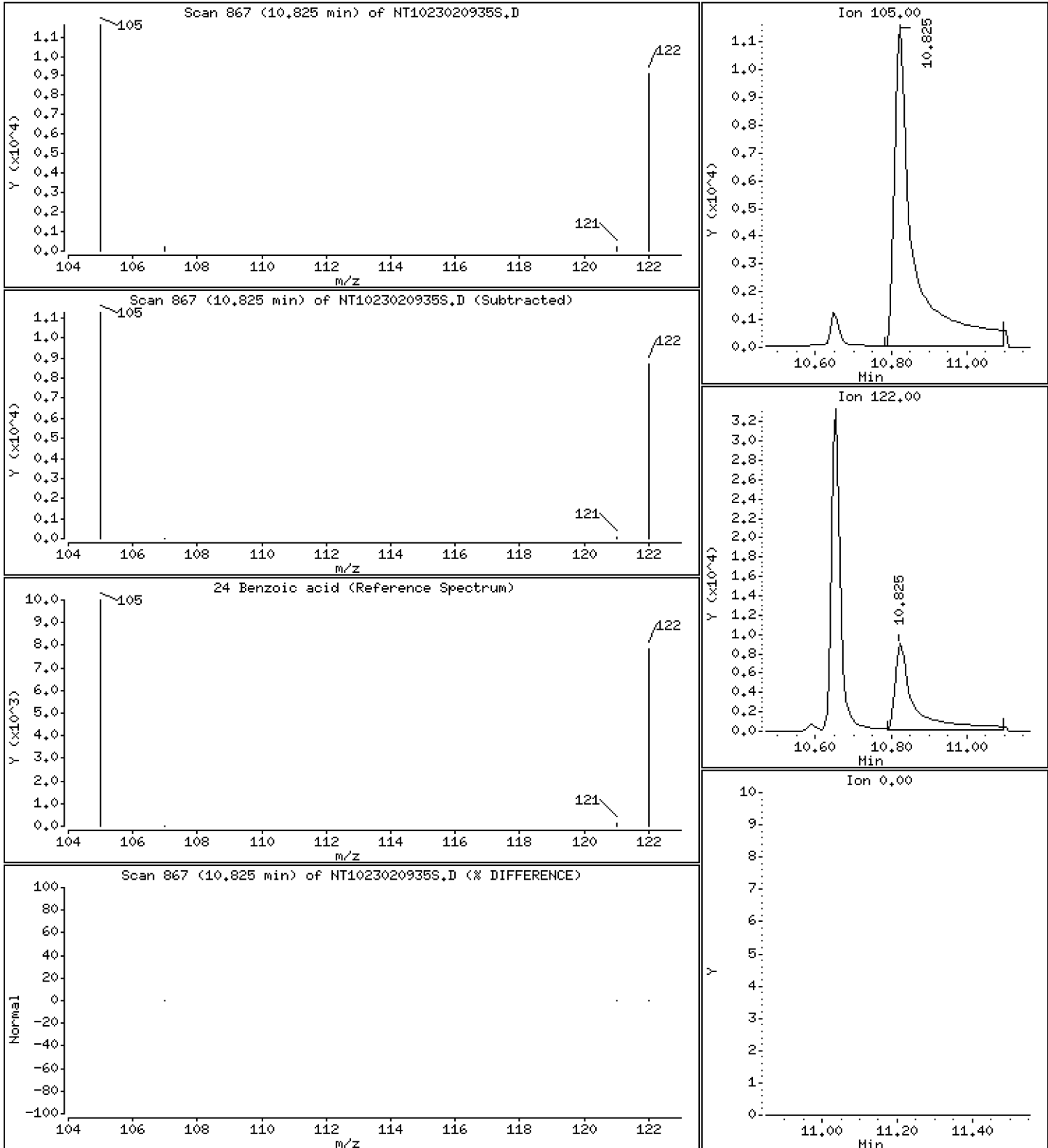
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 2,823 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

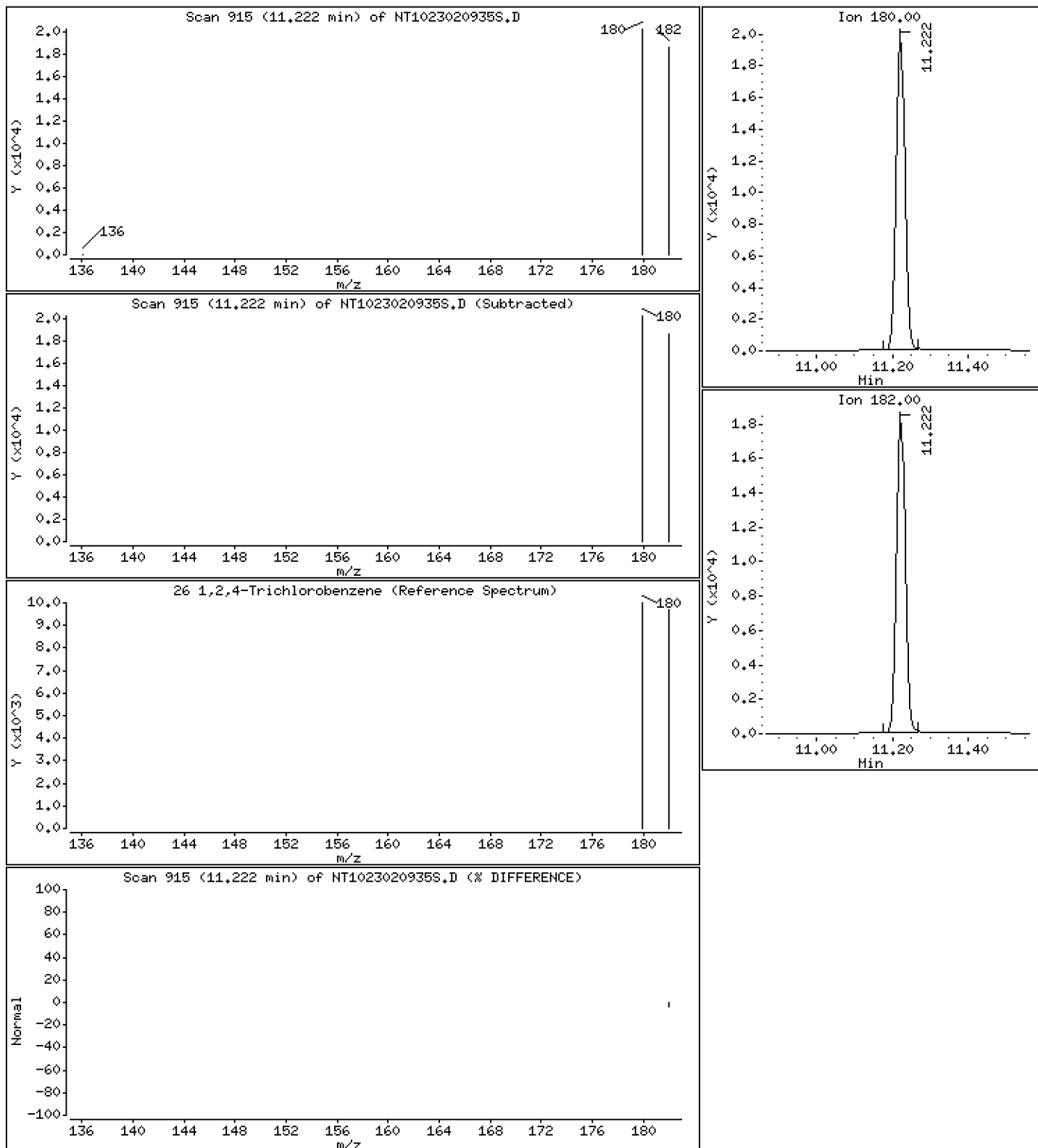
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 1.060 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

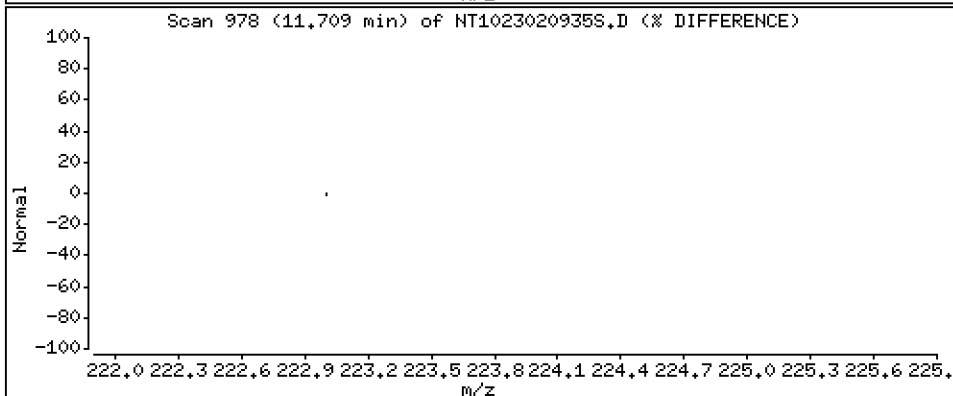
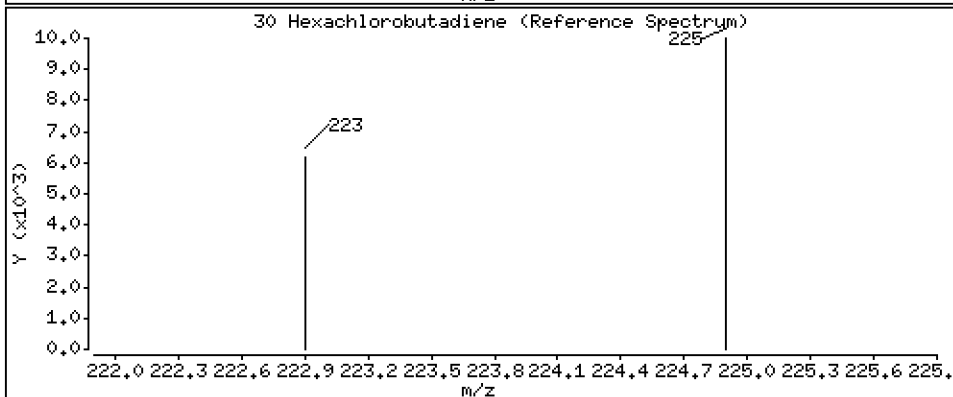
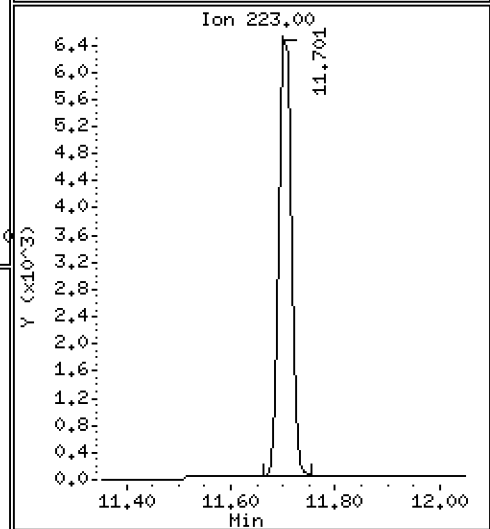
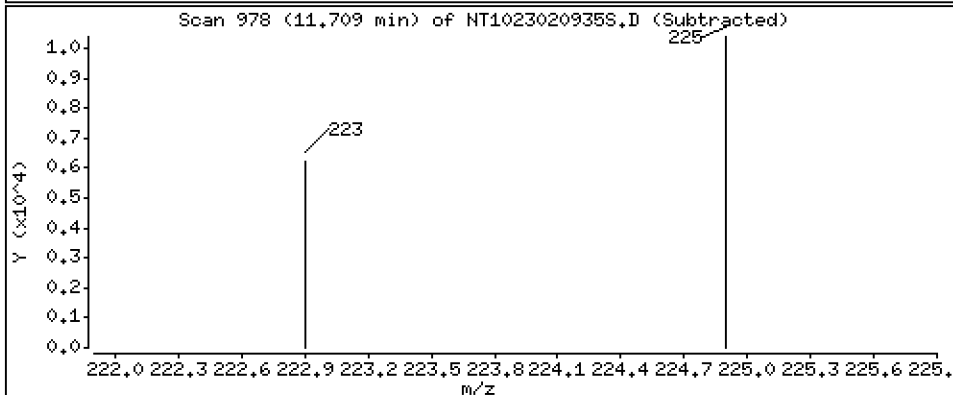
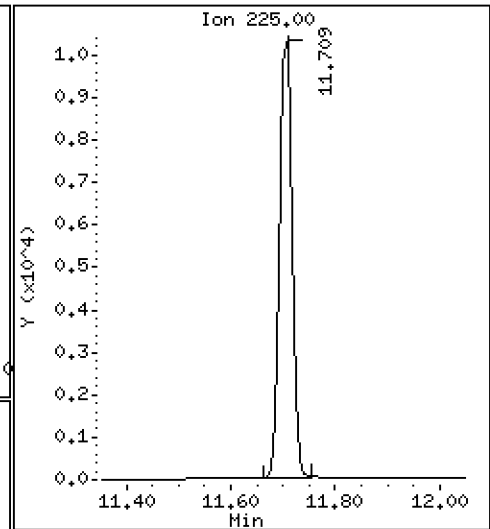
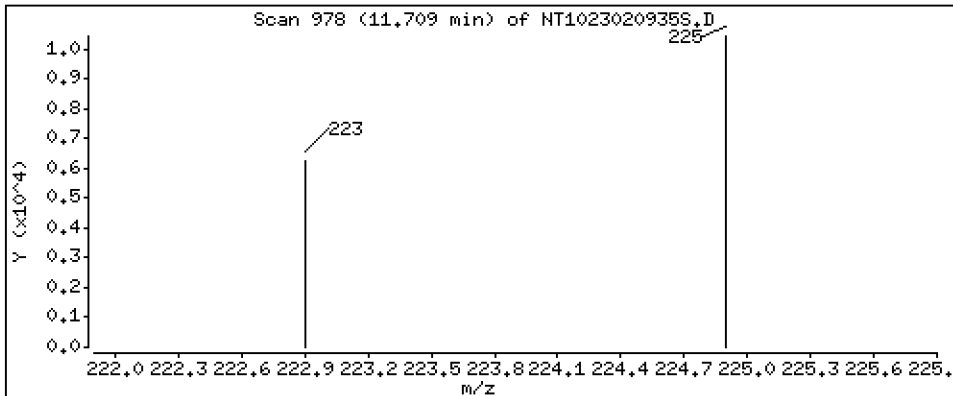
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

30 Hexachlorobutadiene

Concentration: 1.042 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

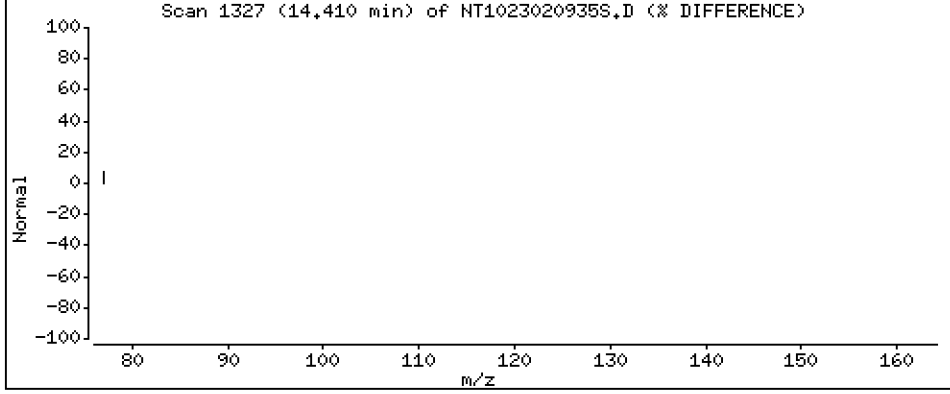
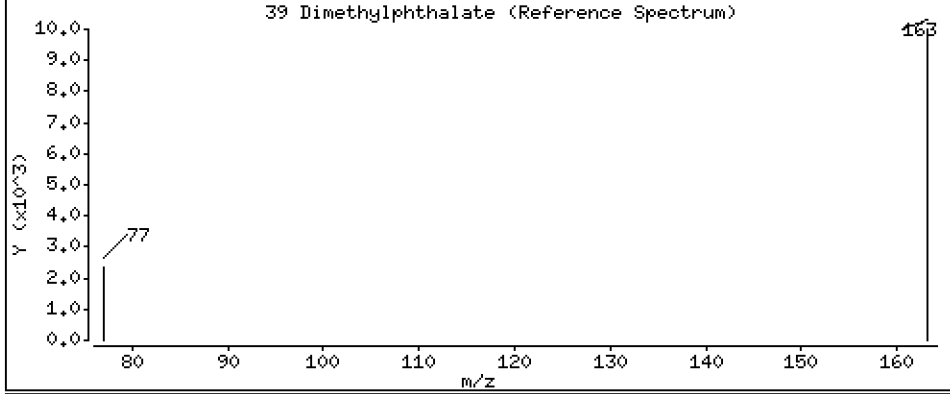
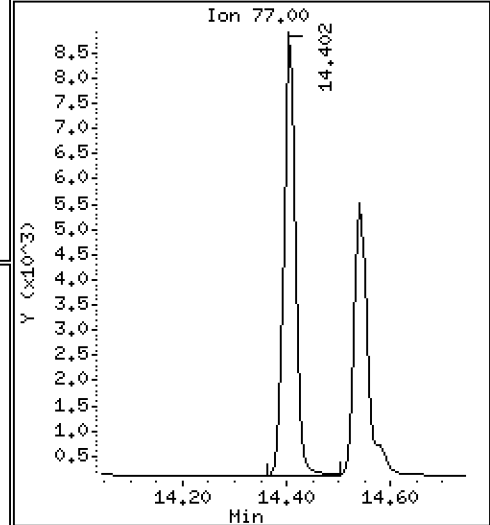
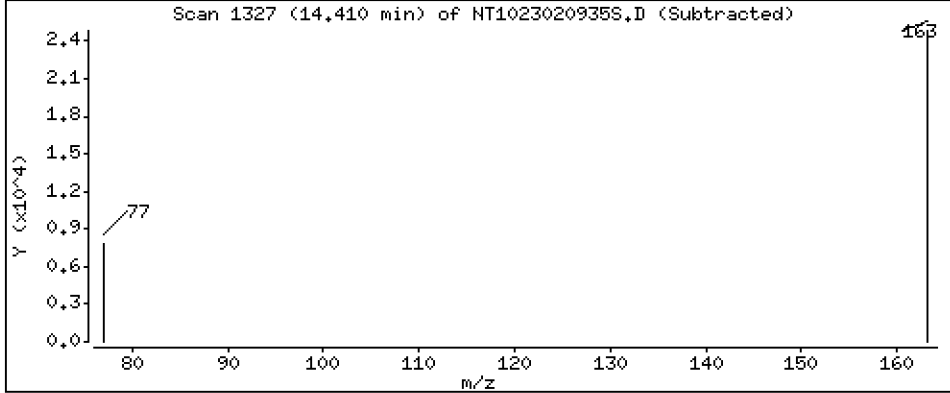
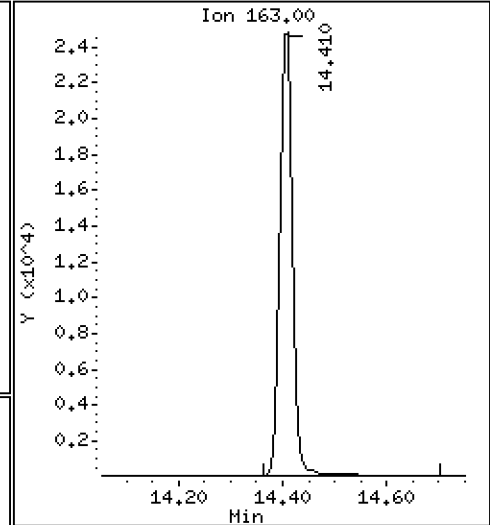
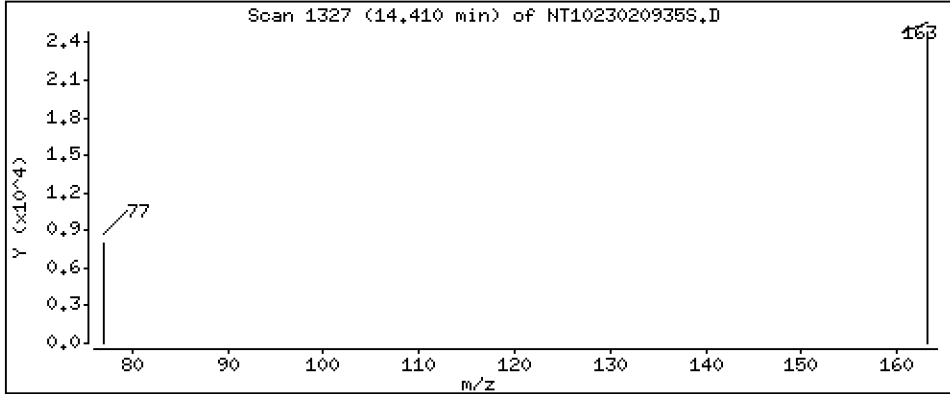
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 1,088 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

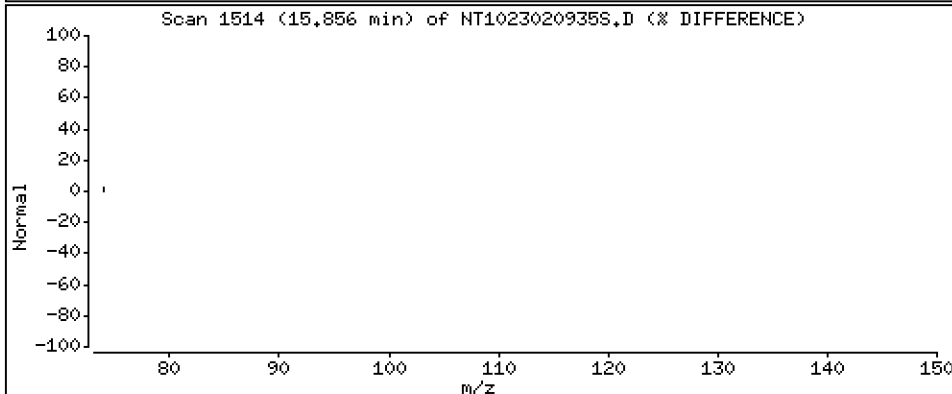
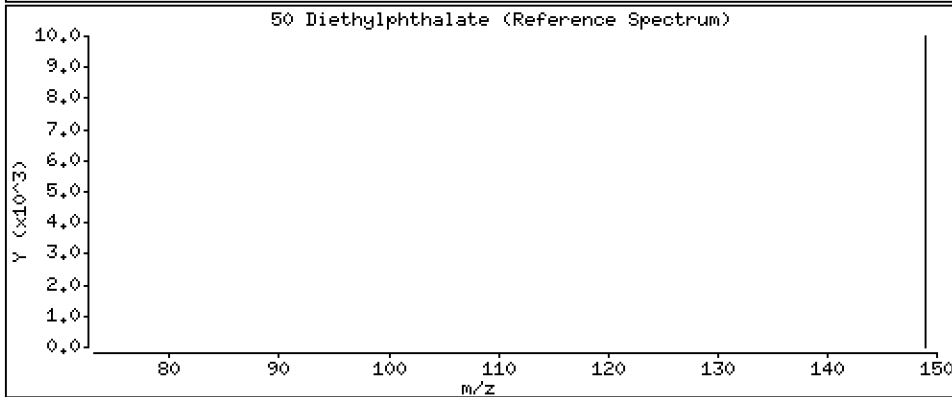
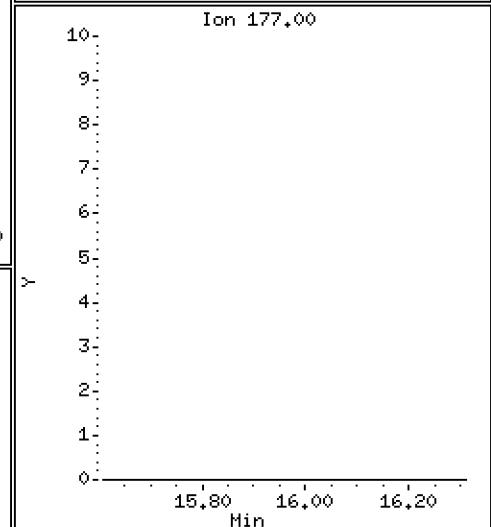
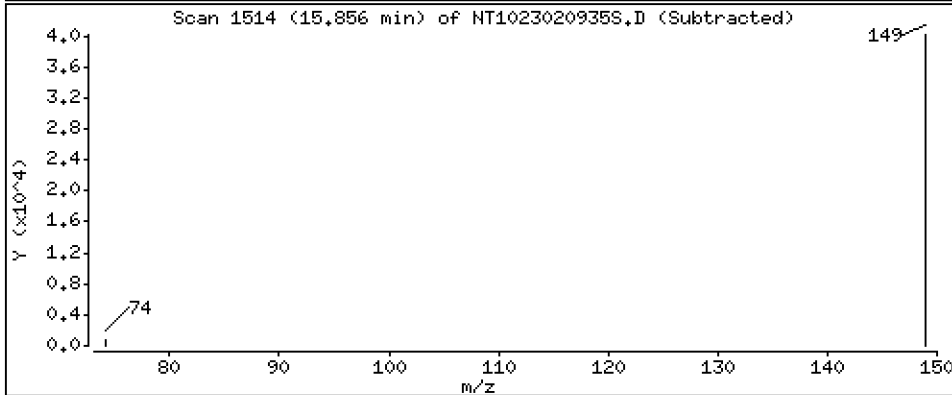
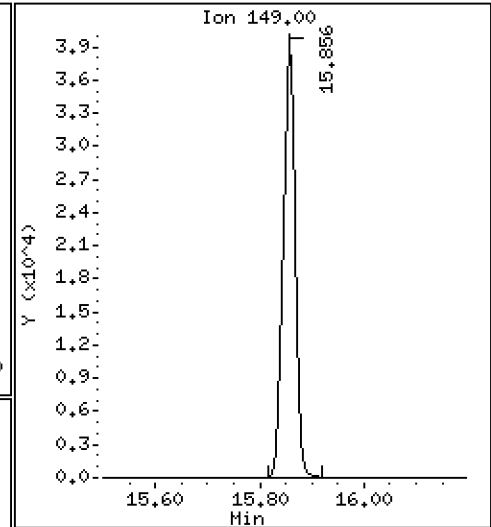
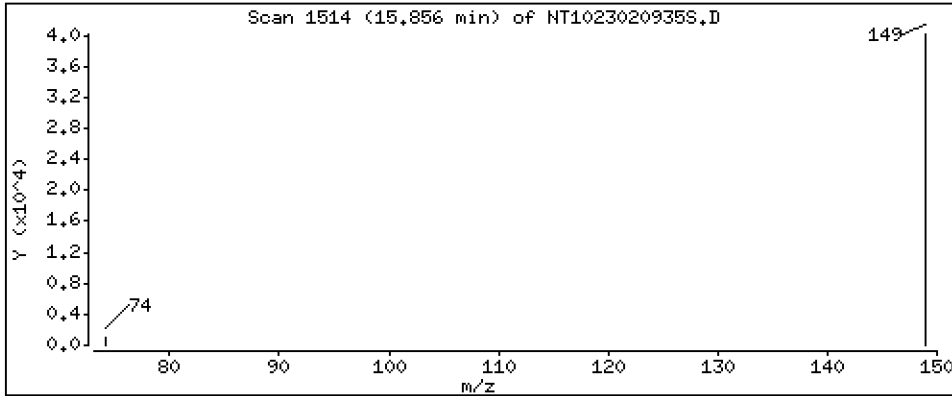
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 1.105 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

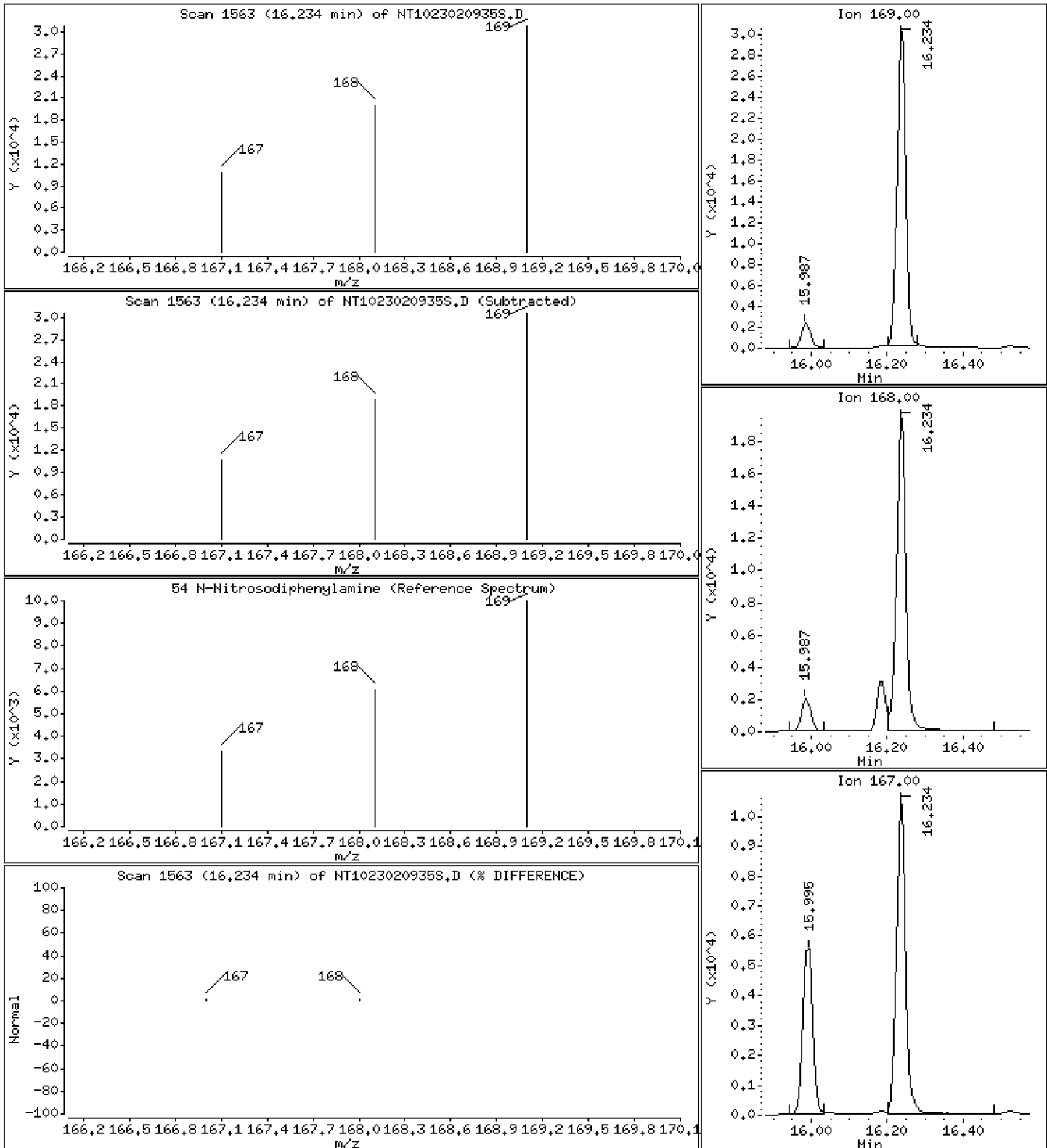
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 1.004 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

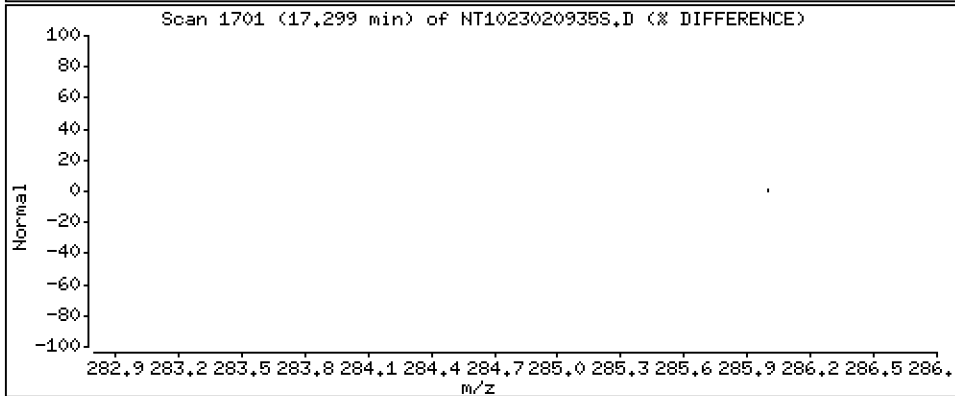
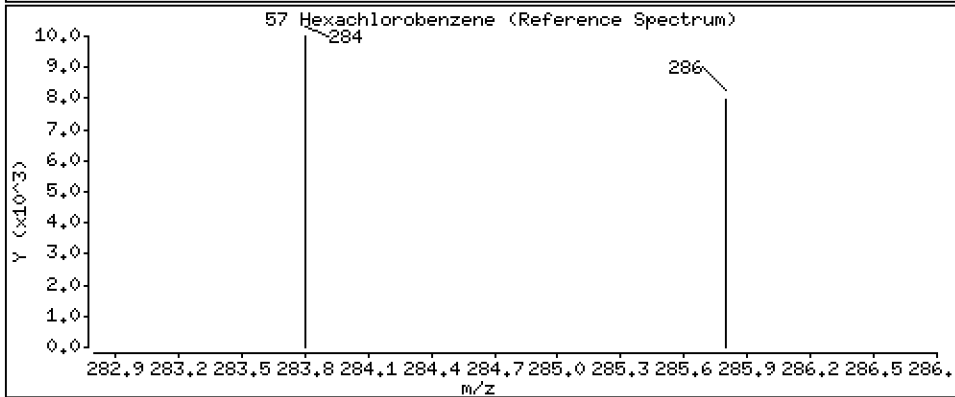
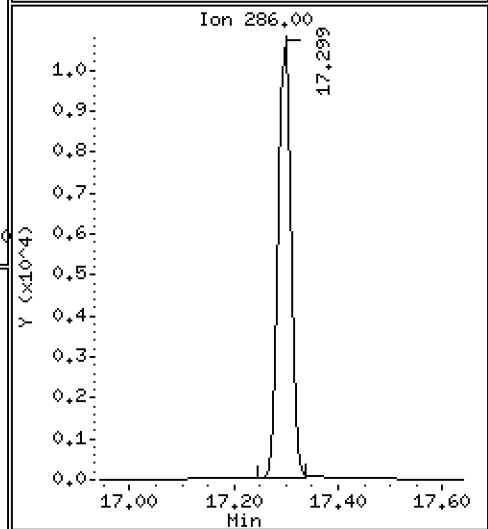
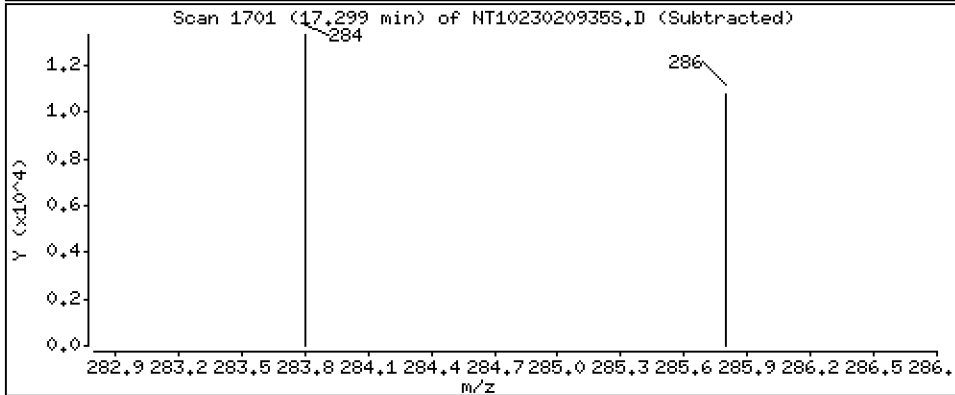
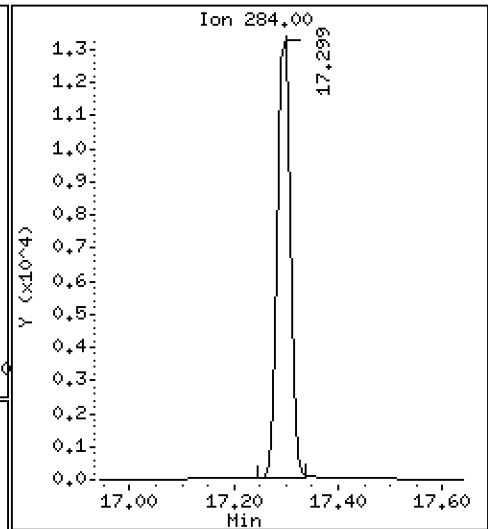
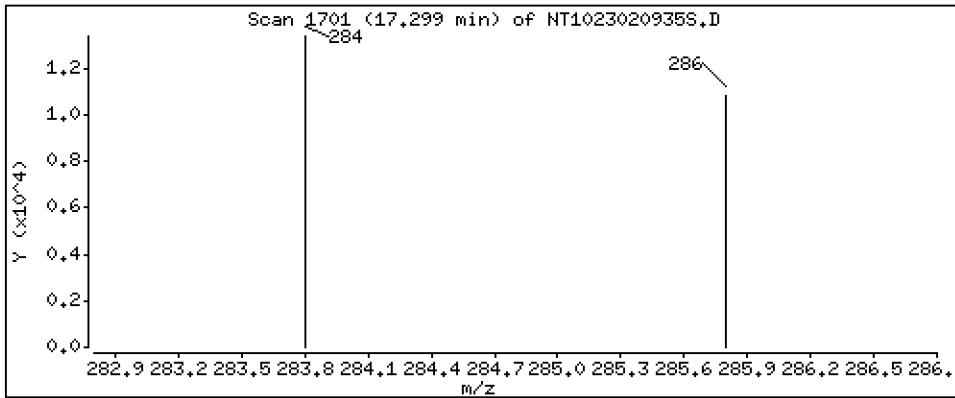
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 1.082 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

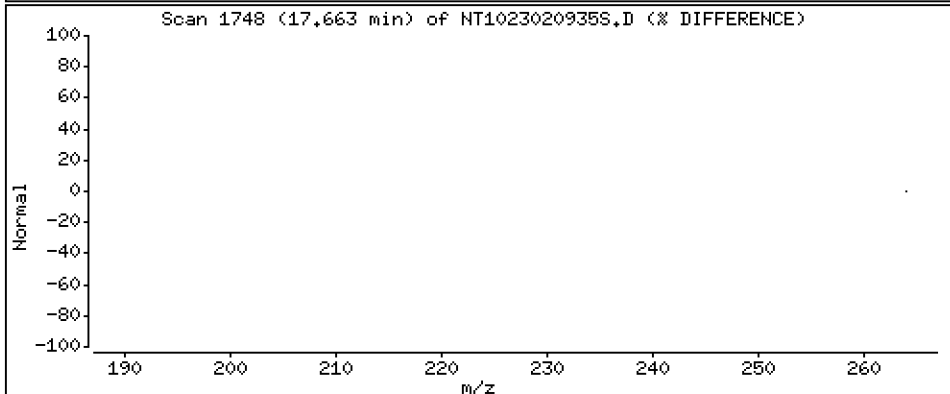
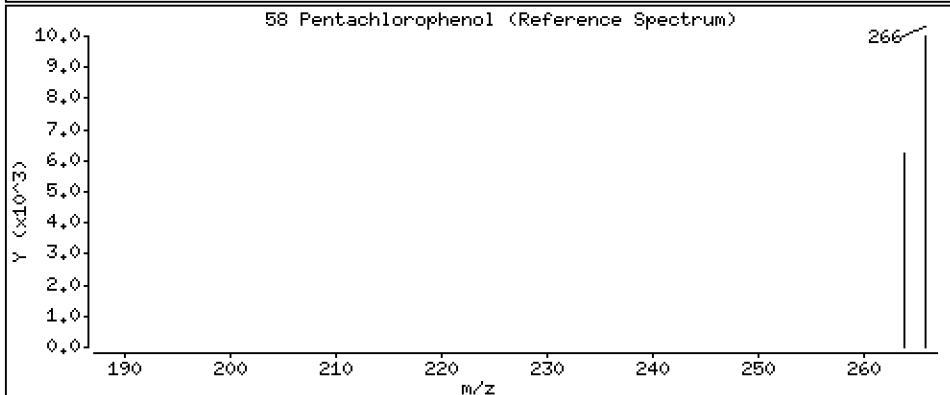
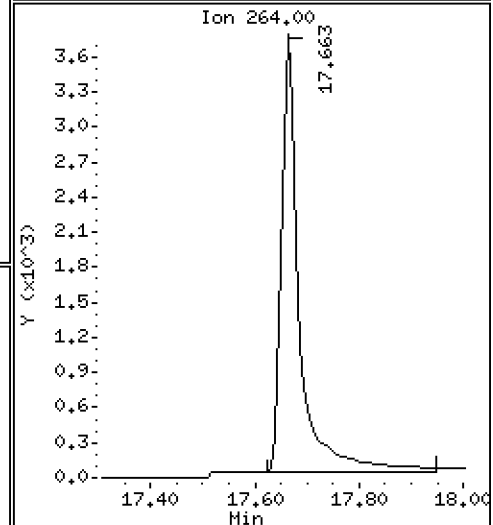
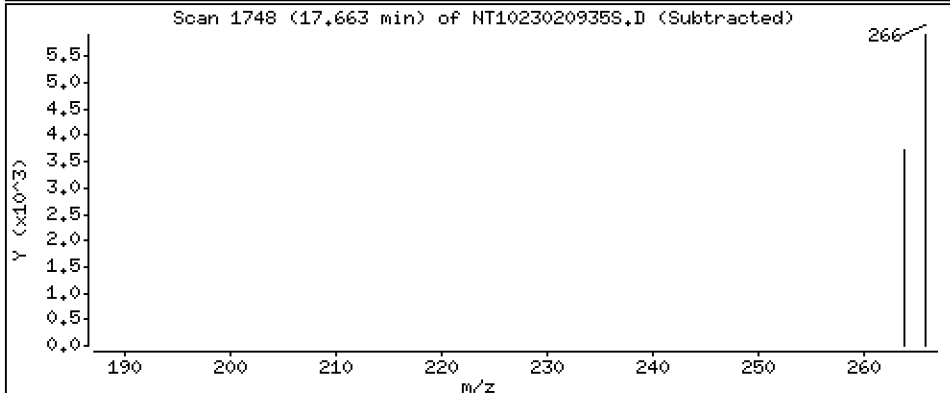
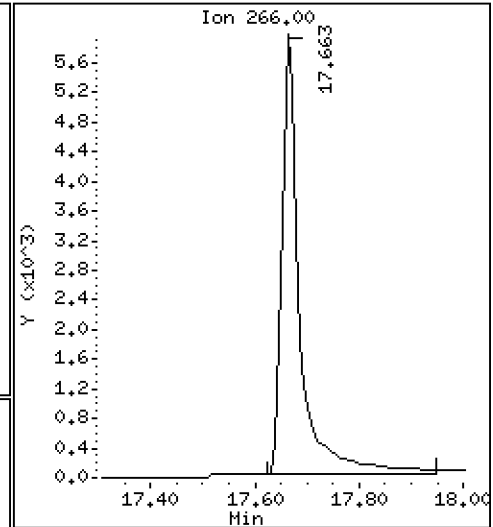
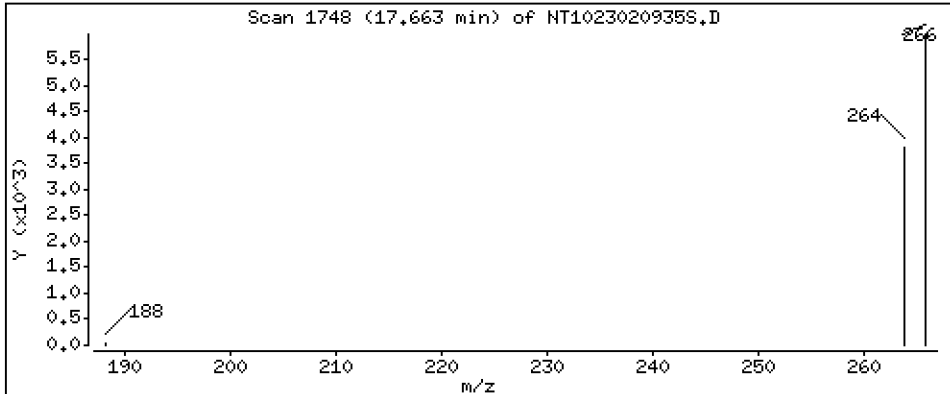
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 1,973 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

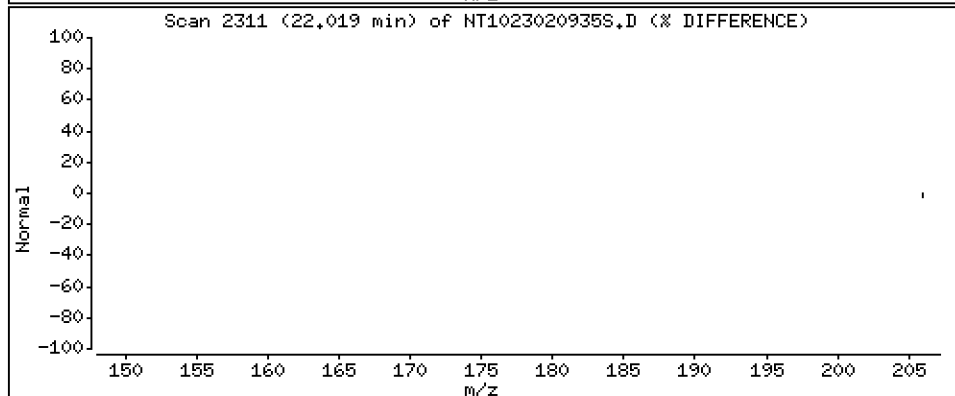
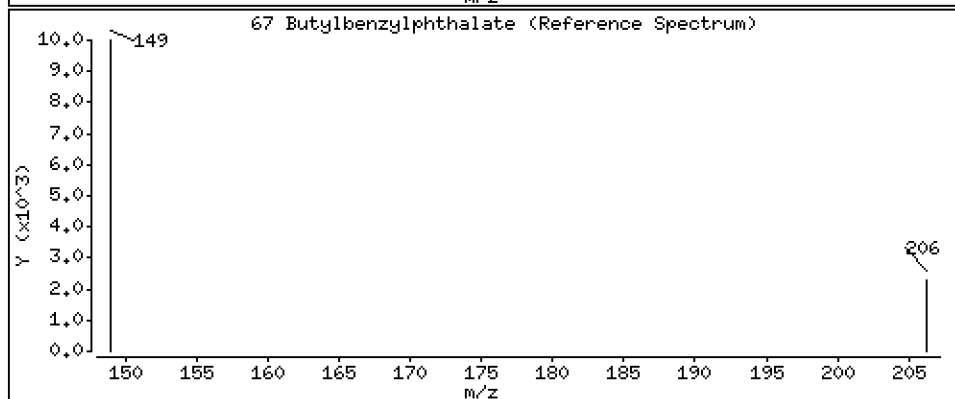
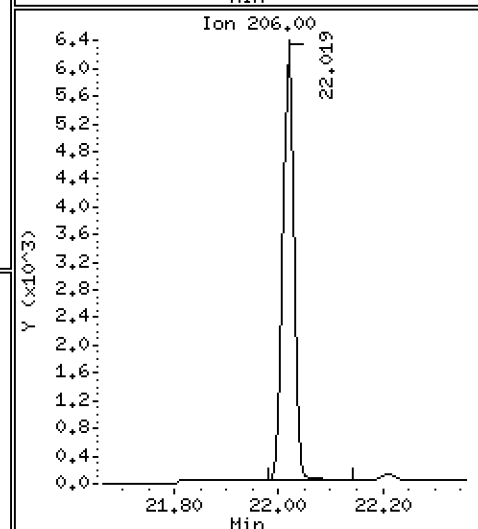
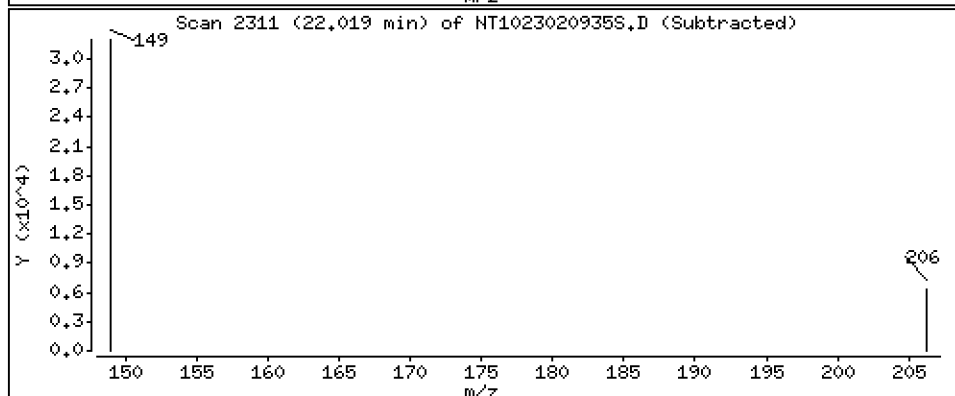
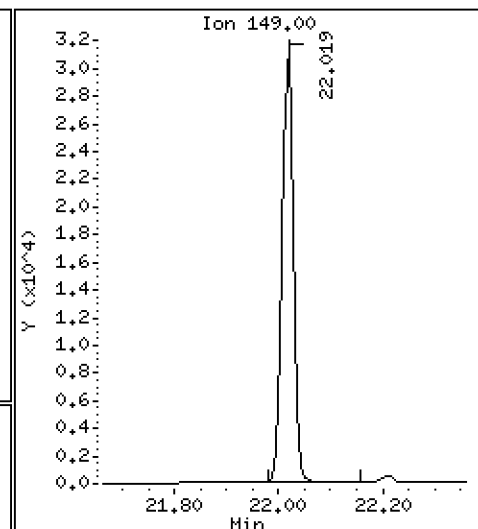
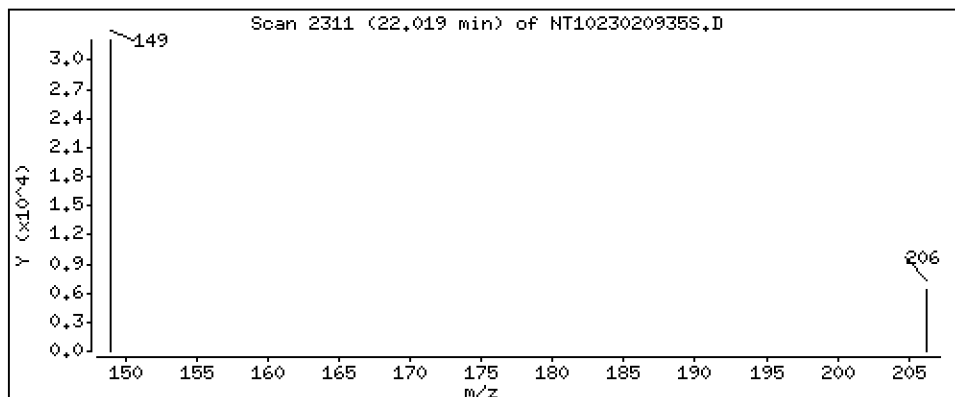
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 1,055 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

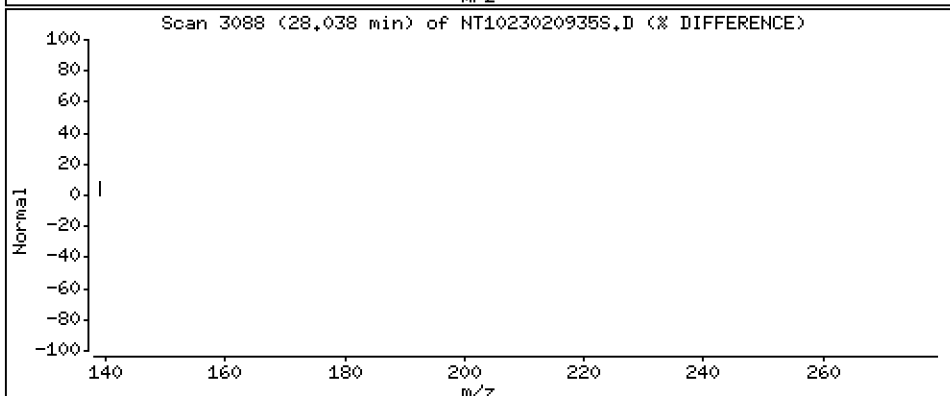
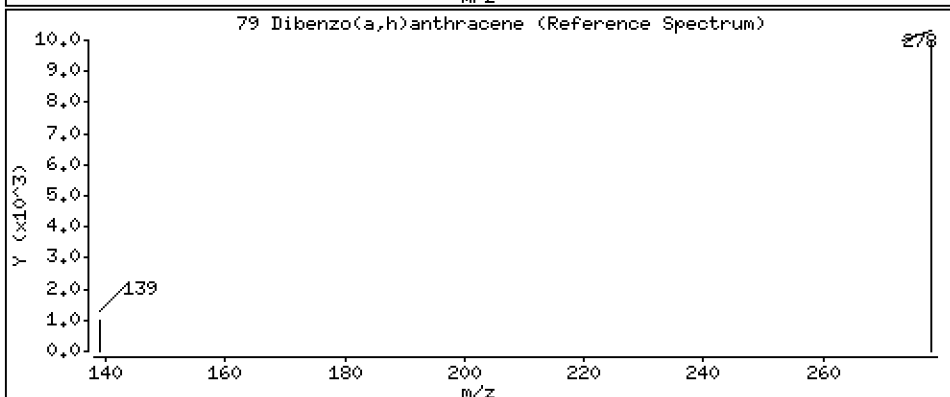
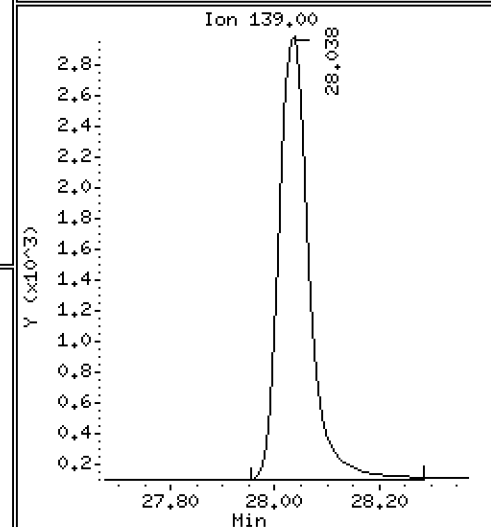
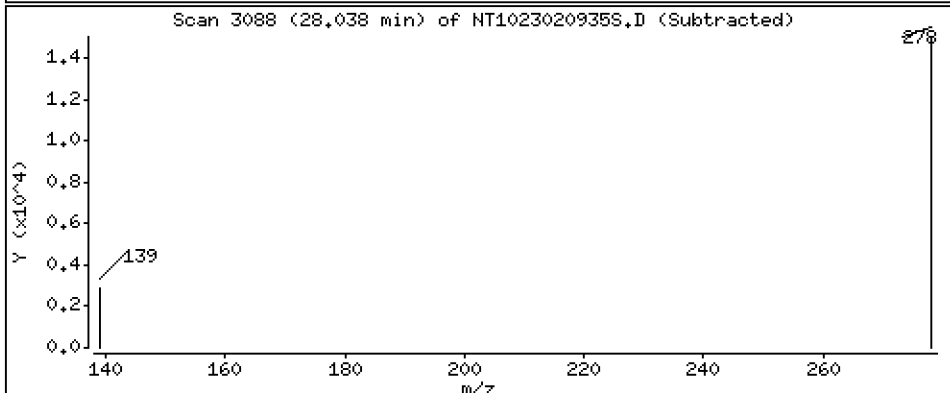
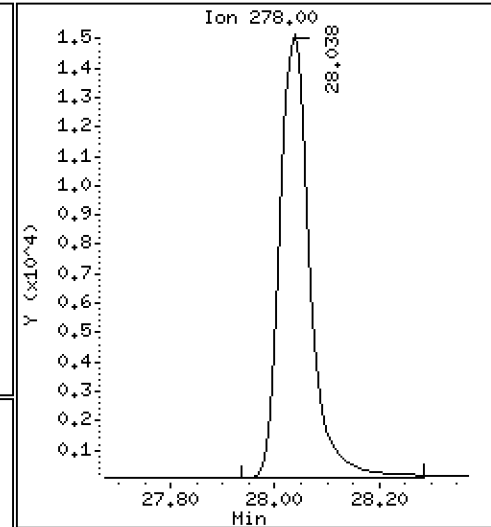
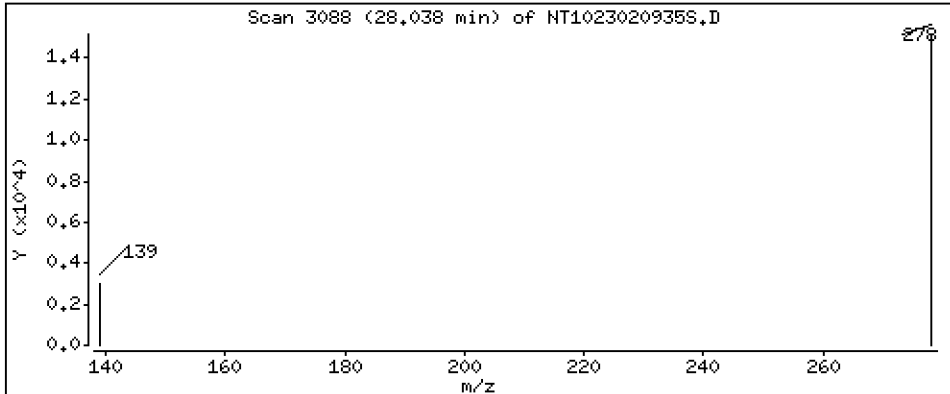
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,7919 ug/L



Date : 10-FEB-2023 10:47

Client ID:

Instrument: nt10.i

Sample Info: SIM-ICV3

Volume Injected (uL): 1.0

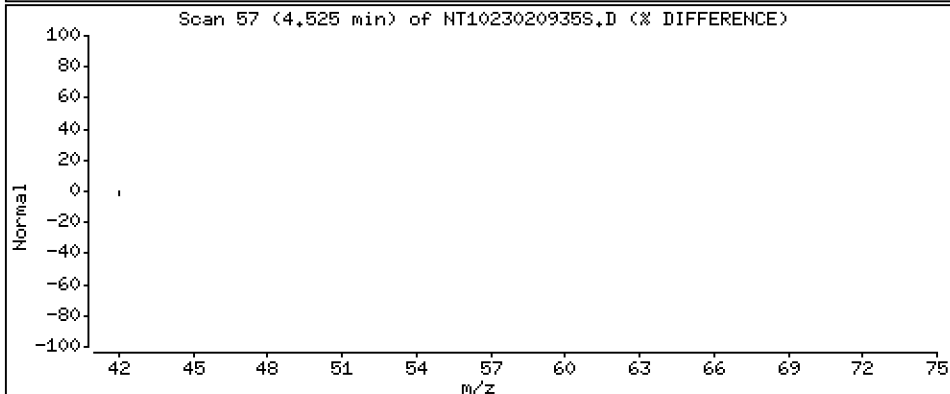
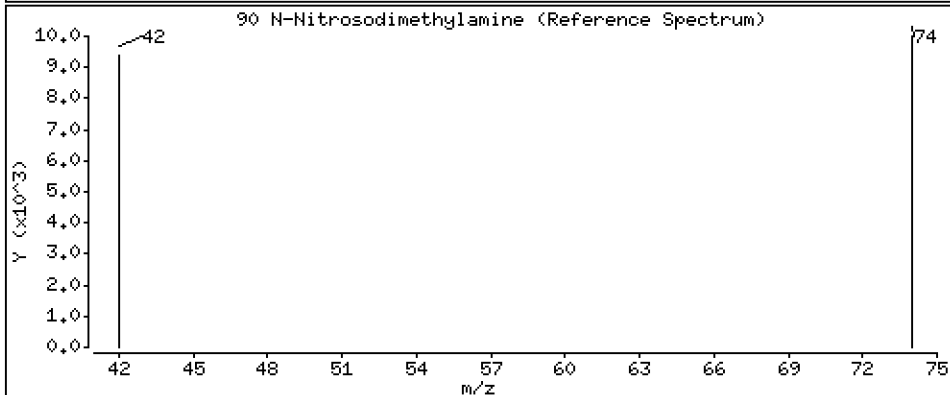
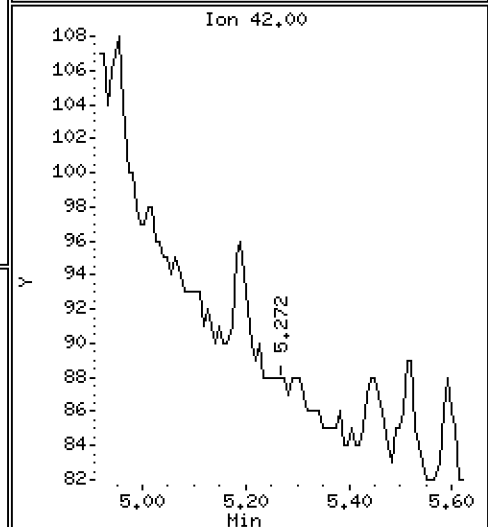
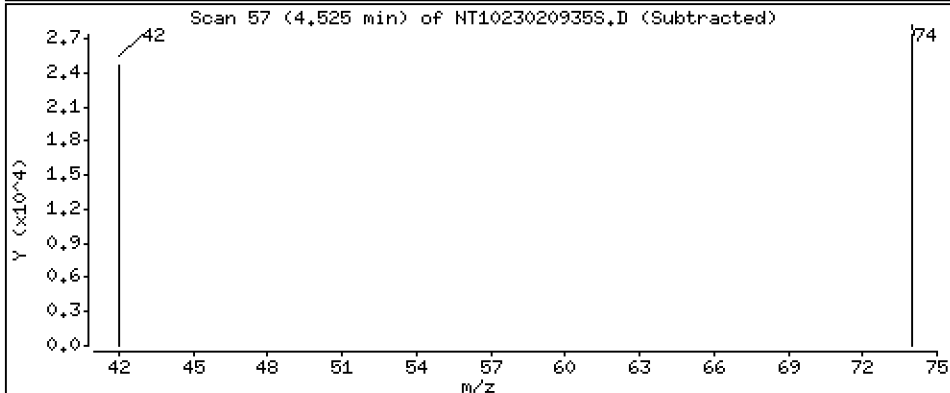
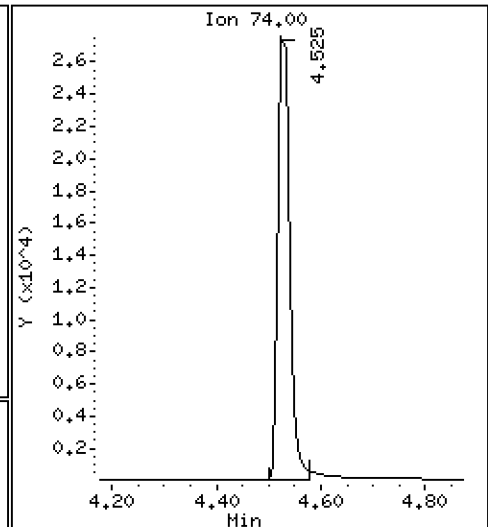
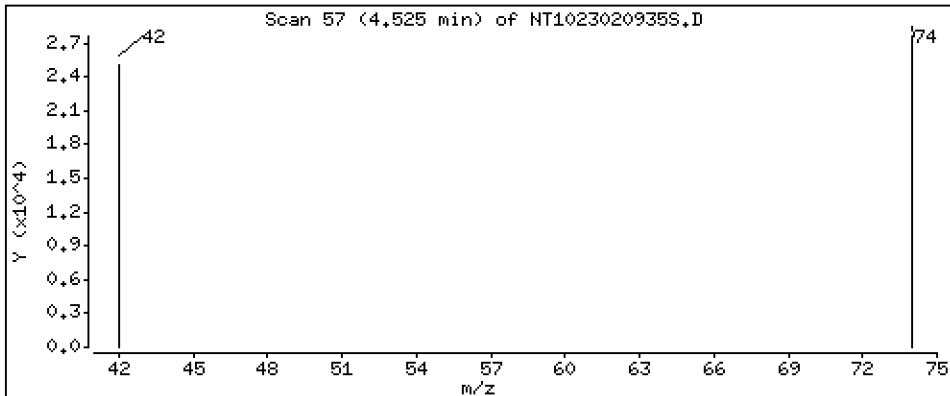
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 2,107 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230209A.b\SIM.b\NT1023020935S.D
 Lab Smp Id: SLB0157-CCV1
 Inj Date : 10-FEB-2023 10:47 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SIM-ICV3
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230209A.b\SIM.b\SIMABN2.m
 Meth Date : 12-Feb-2023 18:08 yev Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: ORGDATA102

Concentration Formula: $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vo} * \text{Vi}) * \text{CpndVariable}$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		6.663	6.663	(0.753)	45940	1.57197	1.572 (RM)
3 Phenol	94		8.255	8.255	(0.933)	46827	1.06263	1.063
7 1,3-Dichlorobenzene	146		8.781	8.781	(0.992)	40193	1.01281	1.013
* 8 1,4-Dichlorobenzene-d4	152		8.850	8.843	(1.000)	96102	4.00000	
9 1,4-Dichlorobenzene	146		8.874	8.874	(1.003)	39613	1.02096	1.021
11 Benzyl alcohol	79		9.130	9.122	(1.032)	25028	1.16424	1.164
12 1,2-Dichlorobenzene	146		9.231	9.223	(1.043)	38398	1.01397	1.014
13 2-Methylphenol	108		9.355	9.348	(1.057)	32912	1.09400	1.094
15 4-Methylphenol	108		9.619	9.619	(1.087)	33221	1.08268	1.083
16 N-Nitroso-di-n-propylamine	70		9.665	9.658	(1.092)	24080	1.09932	1.099
22 2,4-Dimethylphenol	107		10.646	10.647	(0.942)	65032	2.15143	2.151
24 Benzoic acid	105		10.825	10.817	(0.957)	40024	2.82270	2.823
26 1,2,4-Trichlorobenzene	180		11.221	11.214	(0.992)	30022	1.05962	1.060
* 27 Naphthalene-d8	136		11.306	11.299	(1.000)	344110	4.00000	
30 Hexachlorobutadiene	225		11.708	11.701	(1.036)	16114	1.04168	1.042
39 Dimethylphthalate	163		14.409	14.402	(0.968)	40429	1.08754	1.088
* 42 Acenaphthene-d10	162		14.889	14.882	(1.000)	159503	4.00000	
50 Diethylphthalate	149		15.855	15.848	(1.065)	61887	1.10540	1.105
54 N-Nitrosodiphenylamine	169		16.233	16.226	(0.906)	47754	1.00380	1.004
57 Hexachlorobenzene	284		17.298	17.291	(0.966)	21911	1.08222	1.082

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	17.662	17.655	(0.986)	14128	1.97254	1.973
* 59 Phenanthrene-d10	188	17.910	17.903	(1.000)	287867	4.00000	
\$ 66 Terphenyl-d14	244	21.082	21.075	(0.917)	66922	1.09469	1.095(R)
67 Butylbenzylphthalate	149	22.019	22.012	(0.958)	43591	1.05489	1.055
* 69 Chrysene-d12	240	22.987	22.980	(1.000)	275421	4.00000	
* 77 Perylene-d12	264	25.519	25.511	(1.000)	273270	4.00000	
79 Dibenzo(a,h)anthracene	278	28.037	28.022	(1.099)	60648	0.79189	0.7919
90 N-Nitrosodimethylamine	74	4.524	4.524	(0.511)	40348	2.10683	2.107(M)

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020935S.D
 Lab Smp Id: SLB0157-CCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230209A.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 10-FEB-2023
 Calibration Time: 02:26
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	99878	49939	199756	96102	-3.78
27 Naphthalene-d8	353725	176863	707450	344110	-2.72
42 Acenaphthene-d10	168125	84063	336250	159503	-5.13
59 Phenanthrene-d10	295176	147588	590352	287867	-2.48
69 Chrysene-d12	264951	132476	529902	275421	3.95
77 Perylene-d12	304147	152074	608294	273270	-10.15

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.85	0.08
27 Naphthalene-d8	11.30	10.80	11.80	11.31	0.06
42 Acenaphthene-d10	14.88	14.38	15.38	14.89	0.05
59 Phenanthrene-d10	17.90	17.40	18.40	17.91	0.04
69 Chrysene-d12	22.98	22.48	23.48	22.99	0.03
77 Perylene-d12	25.51	25.01	26.01	25.52	0.03

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020935S.D

Lab ID: SLB0157-CCV1

nt10.i, 20230209A.b\SIM.b\SIMABN2.m, 10-FEB-2023 10:47

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: SIM.b/NT1023020922S.D

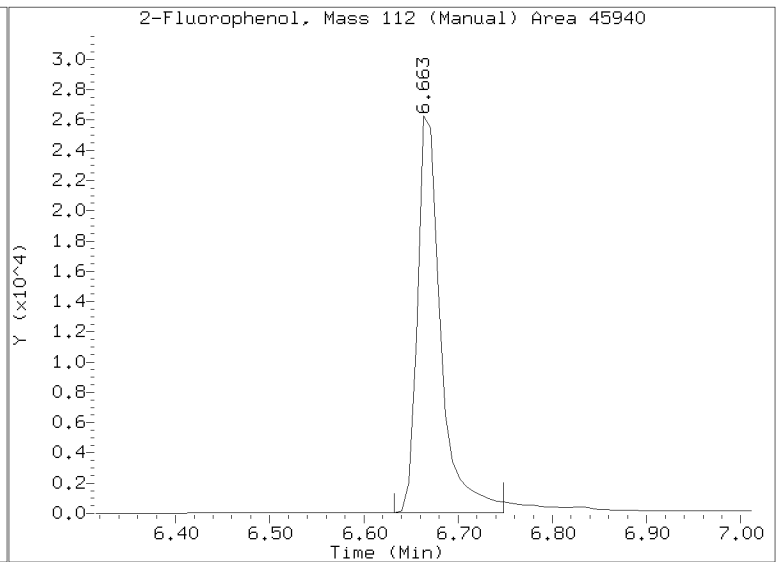
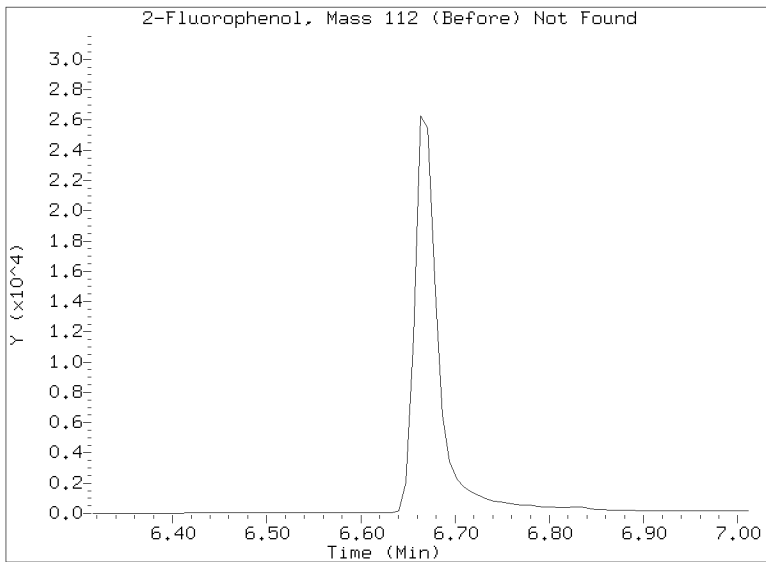
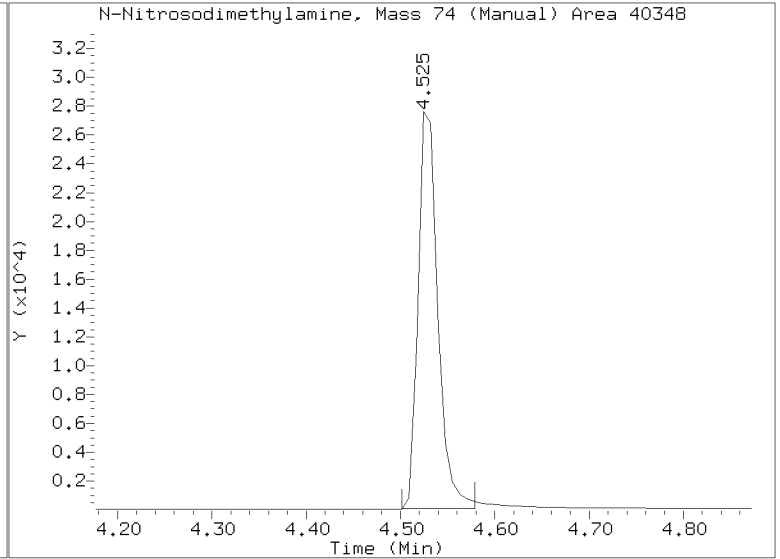
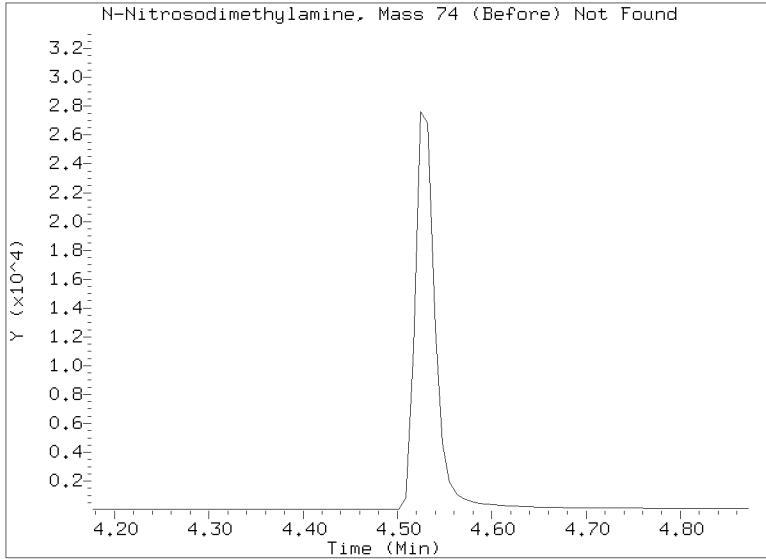
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209A.b/SIM.b/NT1023020935S.D
Injection Date: 10-FEB-2023 10:47
Lab ID:SLB0157-CCV1 Client ID:
Report Date: 02/12/2023 18:18





**LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM**

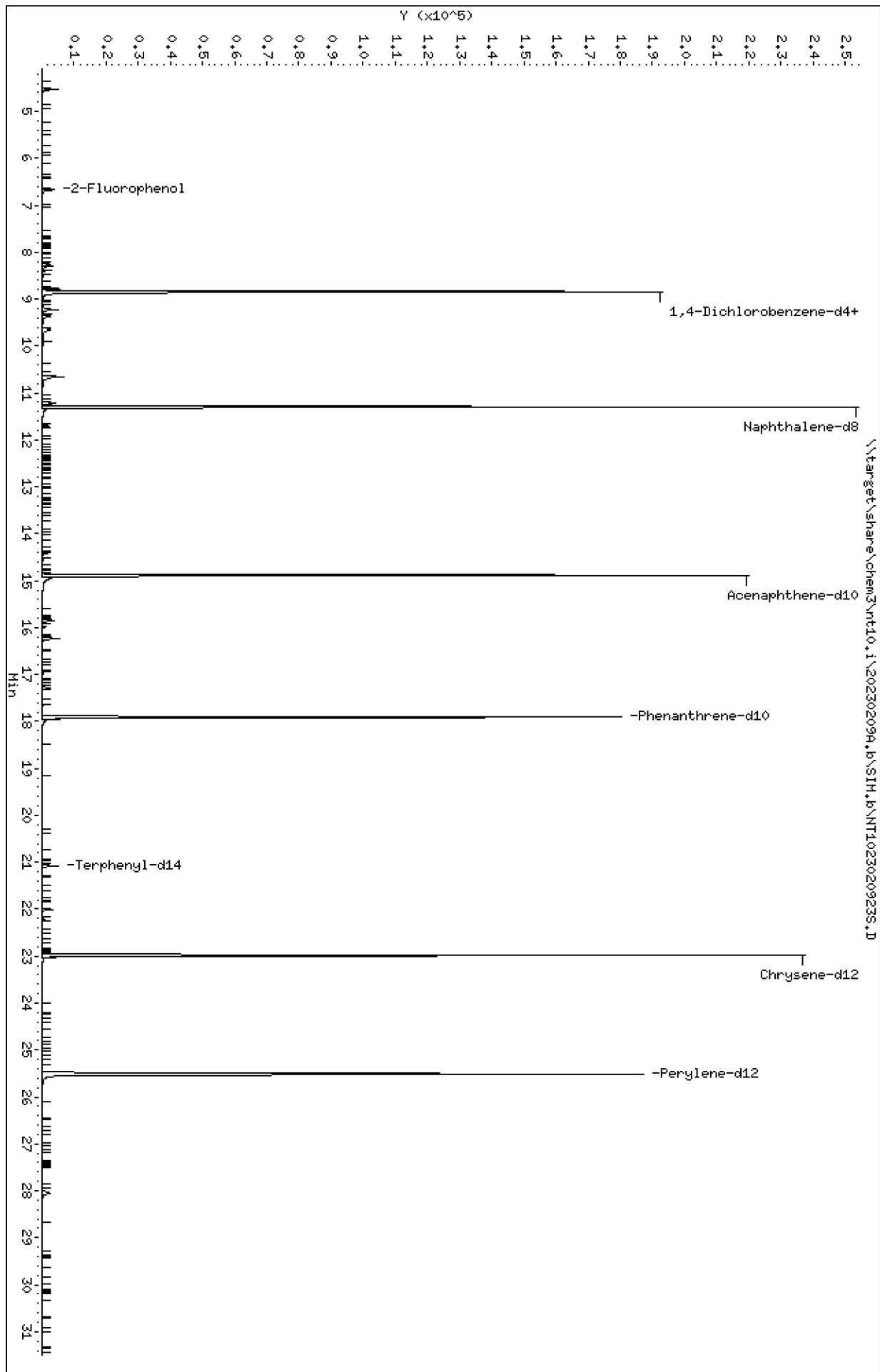
Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>NT10</u>	Calibration:	<u>GB00019</u>
Lab File ID:	<u>NT1023020923S.D</u>	Calibration Date:	<u>02/07/2023</u>
Sequence:	<u>SLB0157</u>	Injection Date:	<u>02/10/23</u>
Lab Sample ID:	<u>SLB0157-LCV1</u>	Injection Time:	<u>03:04</u>
Sequence Name:	<u>Low Cal Check</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
1,4-Dichlorobenzene	A	0.10000	0.1	1.6149400	1.8011780		11.5	
1,2-Dichlorobenzene	A	0.10000	0.1	1.5761980	1.8241550		15.7	
Benzyl Alcohol	A	0.10000	0.1	0.8947729	0.9854958		10.1	
Benzoic acid	A	0.40000	0.02	0.1278126	0.0071022		-95.6	
2,4-Dimethylphenol	A	0.20000	0.2	0.3513679	0.3788340		7.8	
1,2,4-Trichlorobenzene	A	0.10000	0.1	0.3293471	0.3793940		15.2	
N-Nitrosodiphenylamine	A	0.10000	0.1	0.6610440	0.7062736		6.8	
Pentachlorophenol	A	0.20000	0.07	0.0758741	0.0355215		-63.7	
2-Fluorophenol	A	0.15000	0.153	1.2163900	1.2429090		2.2	
p-Terphenyl-d14	A	0.10000	0.112	0.8878533	0.9931756		11.9	

* Values outside of QC limits

Data File: \\target\share\chem3\nt10.1\202302094.b\SIM.b\NT1023020923S.D
Date: 10-FEB-2023 03:04
Client ID:
Sample Info: SIM-LCV2
Volume Injected (uL): 1.0
Column phase: ZB-5msi

Instrument: nt10.1
Operator: DSD
Column diameter: 0.25



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

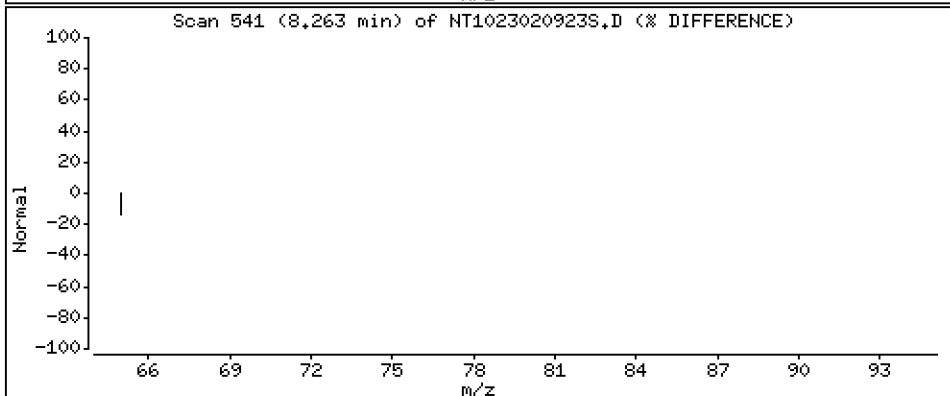
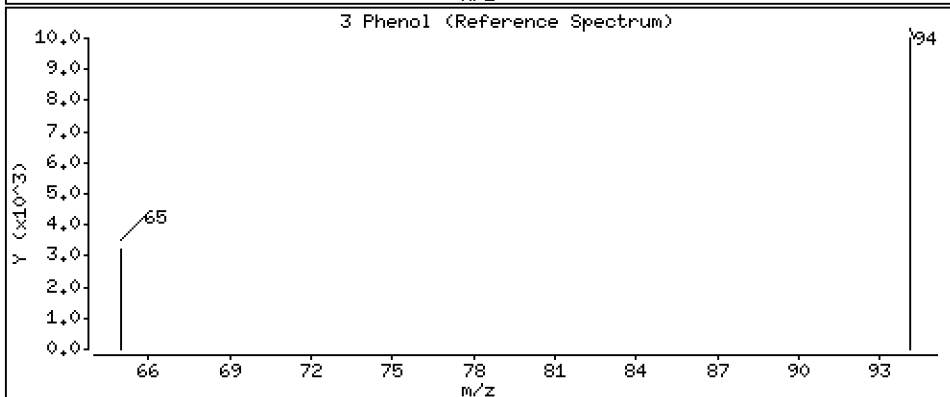
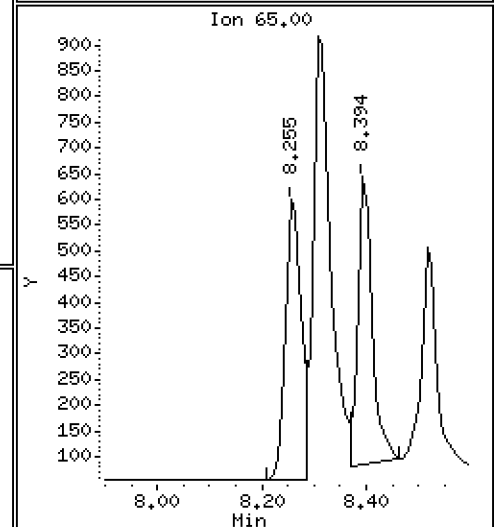
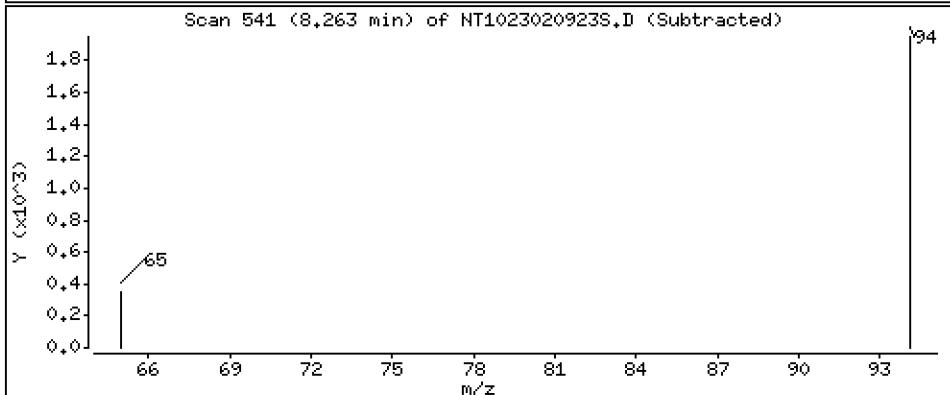
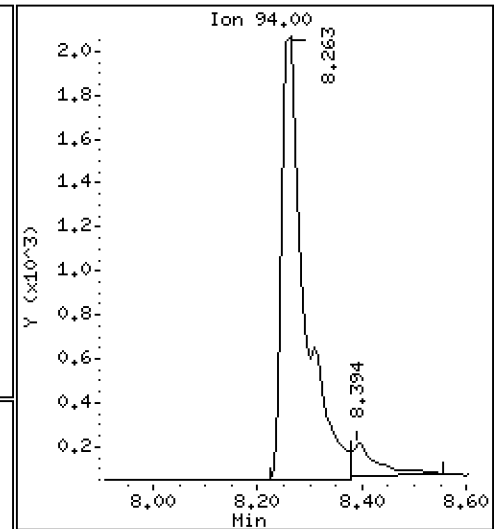
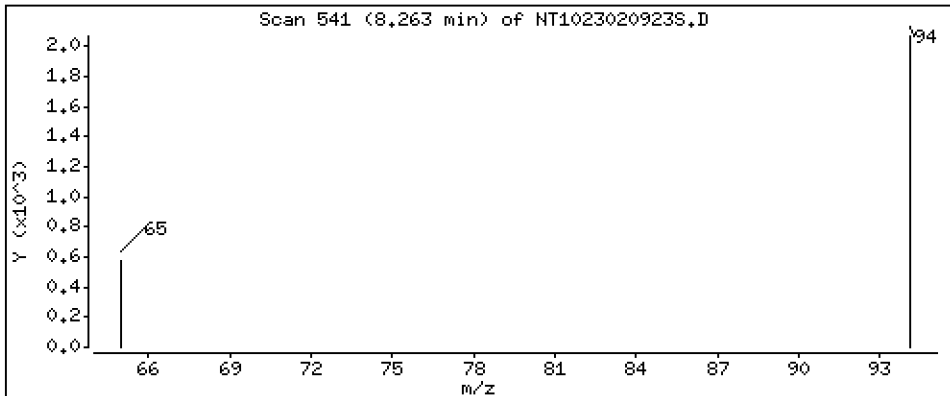
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

3 Phenol

Concentration: 0.1183 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

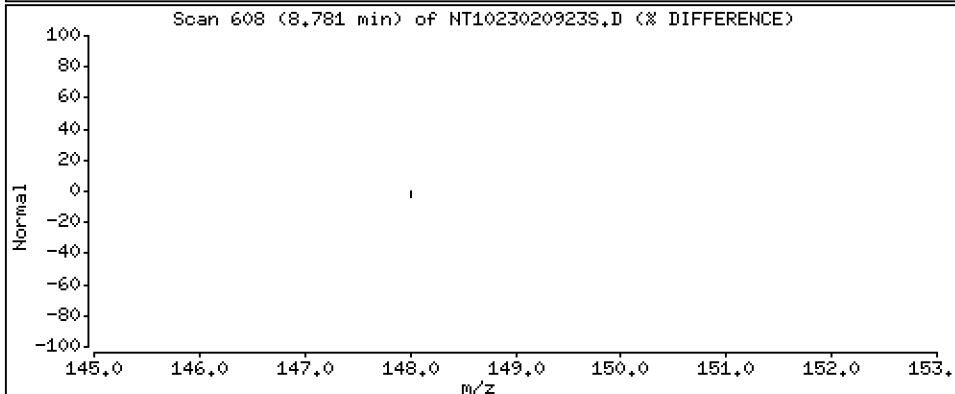
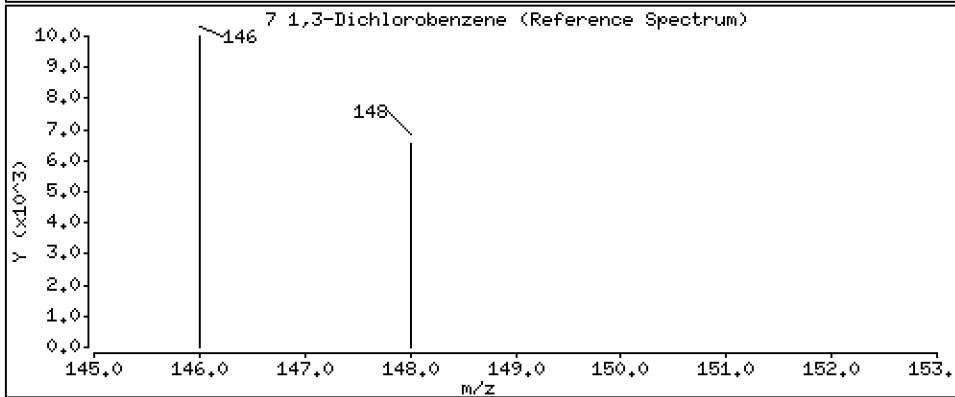
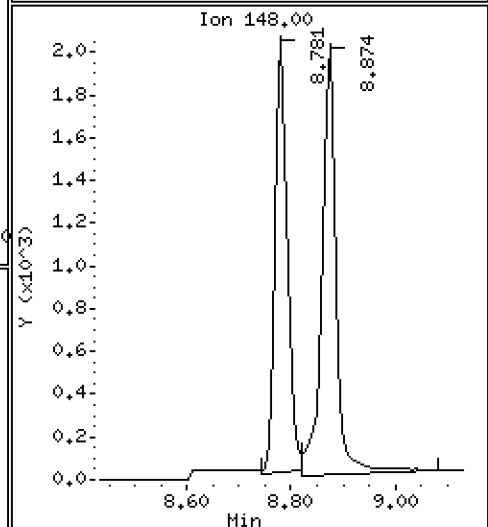
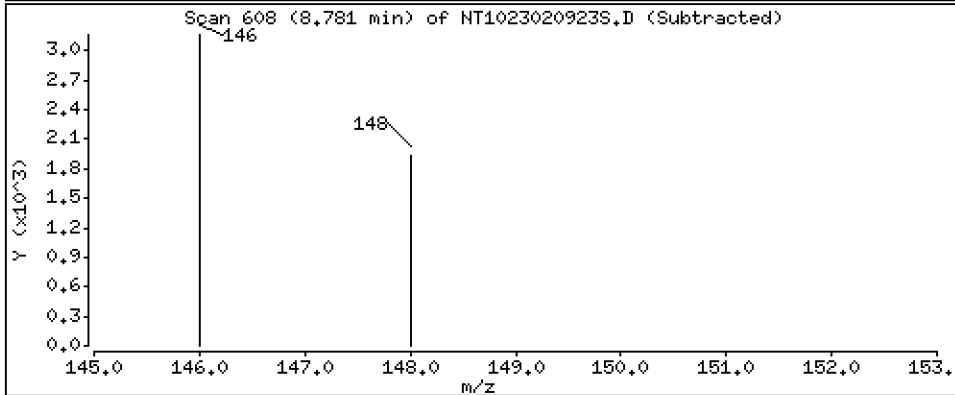
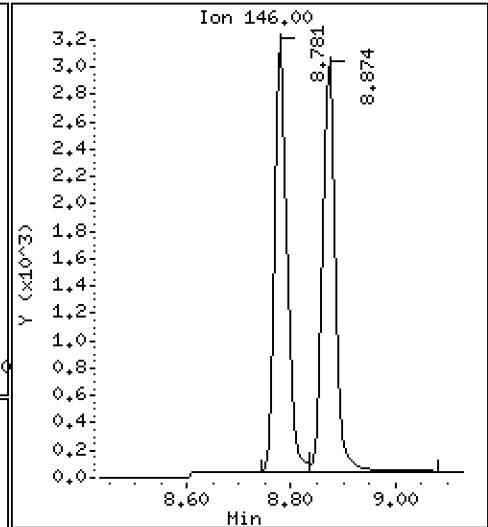
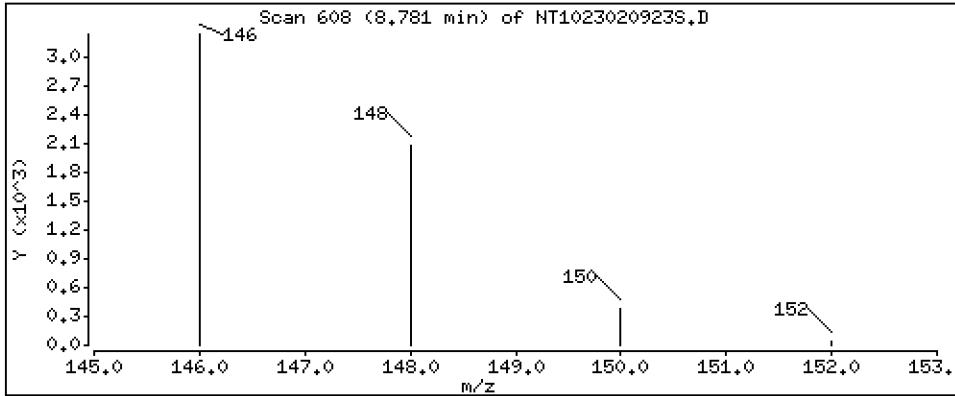
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

7 1,3-Dichlorobenzene

Concentration: 0.1111 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

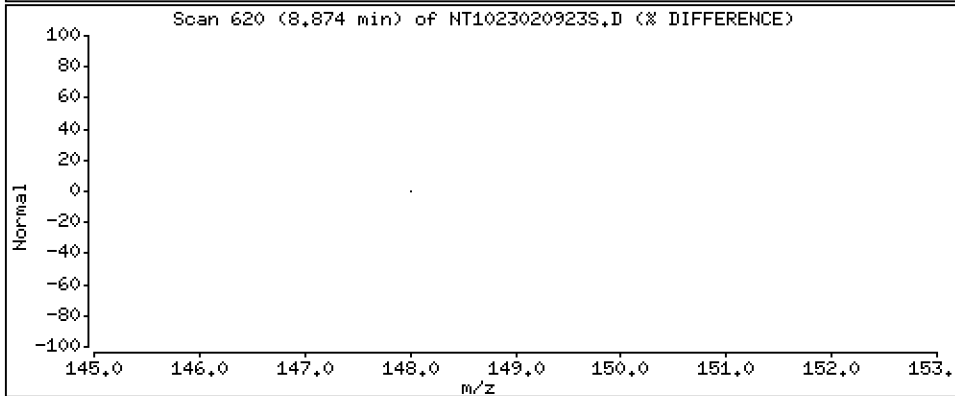
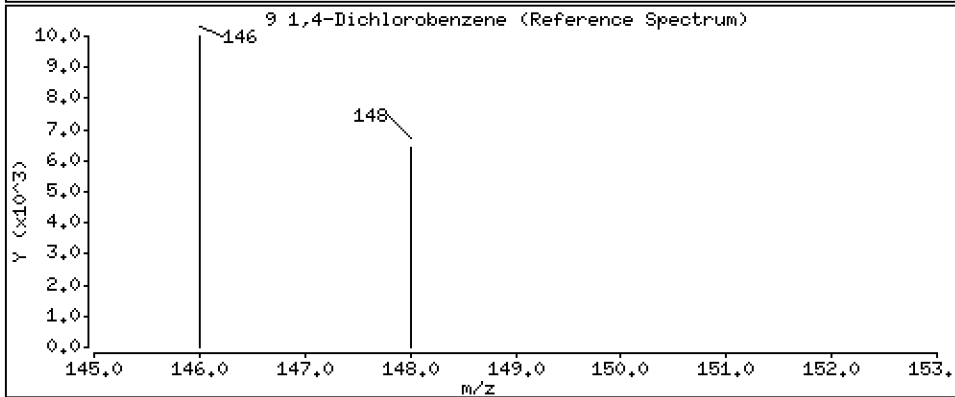
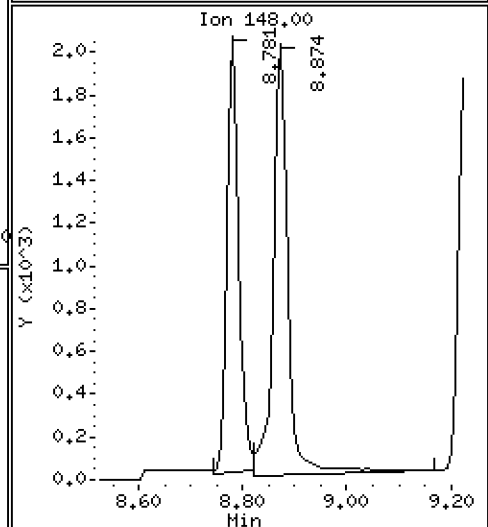
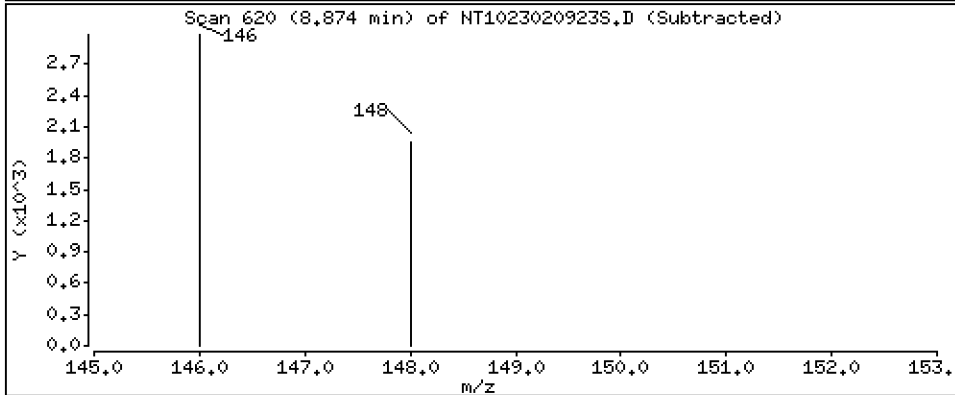
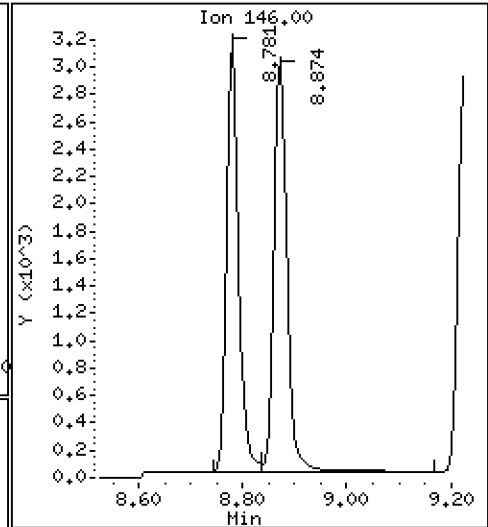
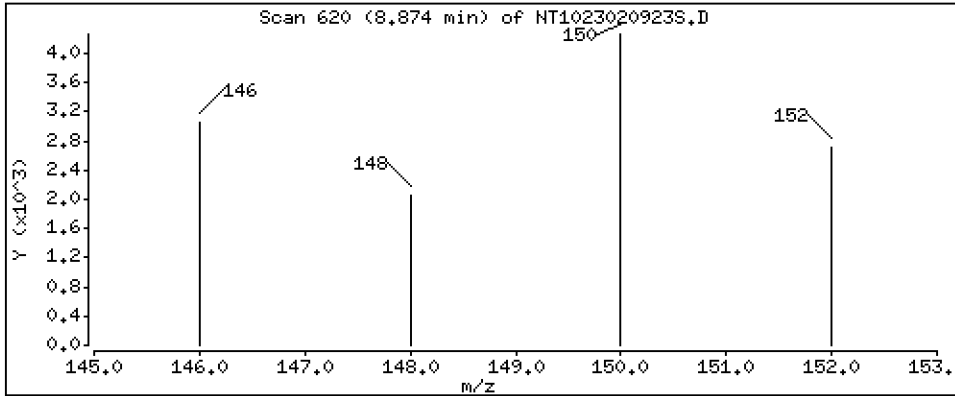
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

9 1,4-Dichlorobenzene

Concentration: 0.1115 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

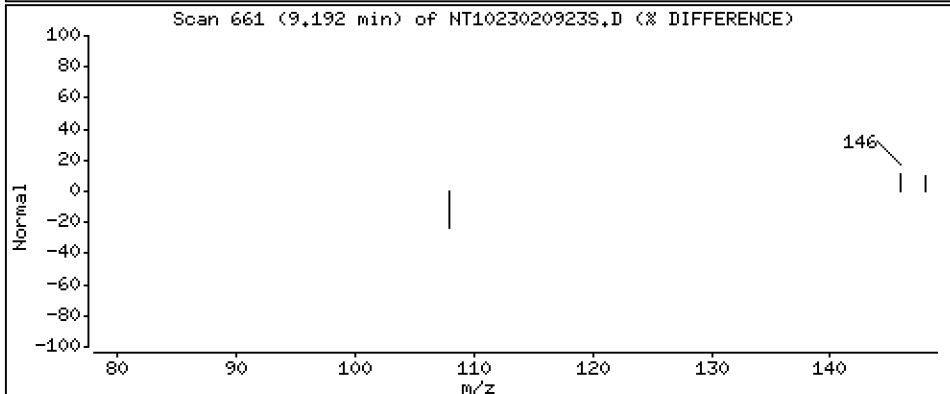
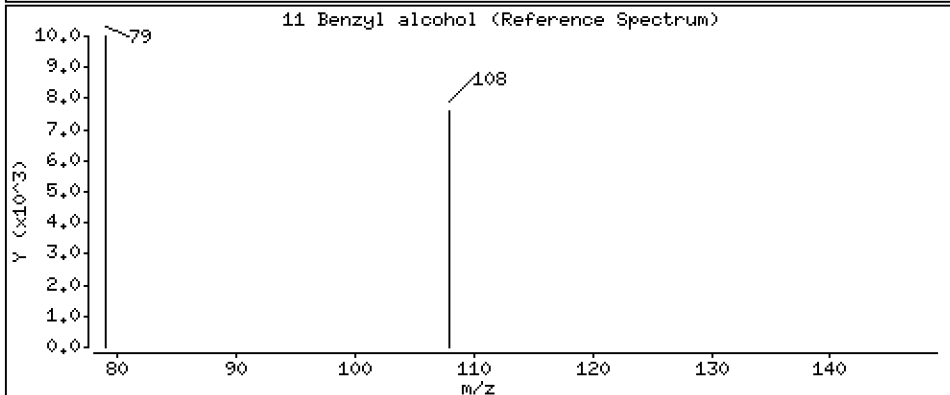
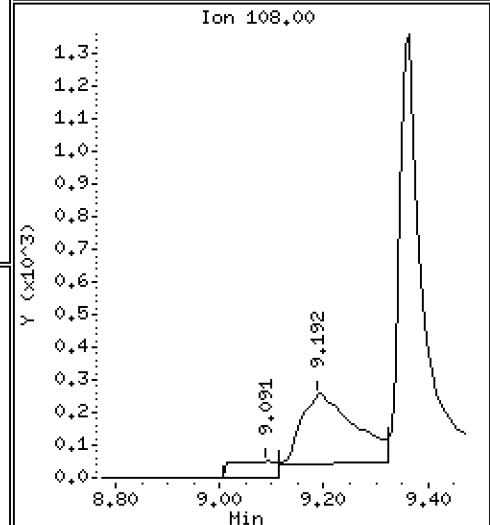
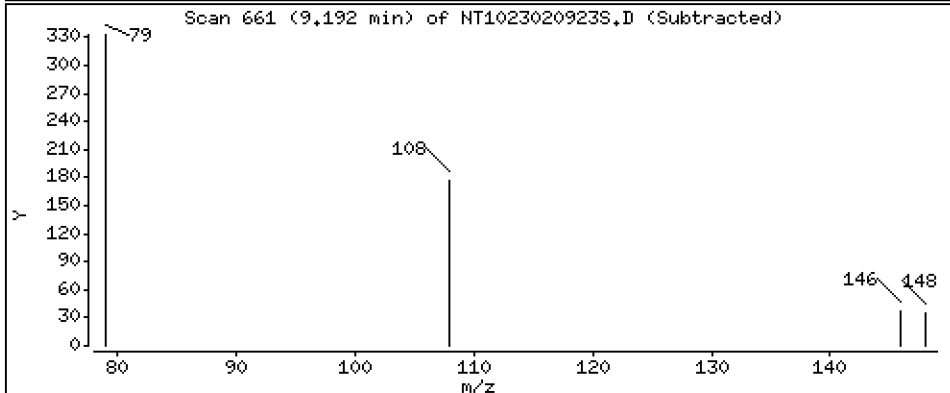
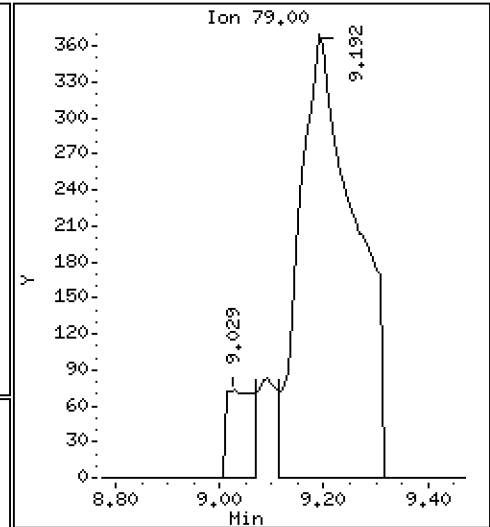
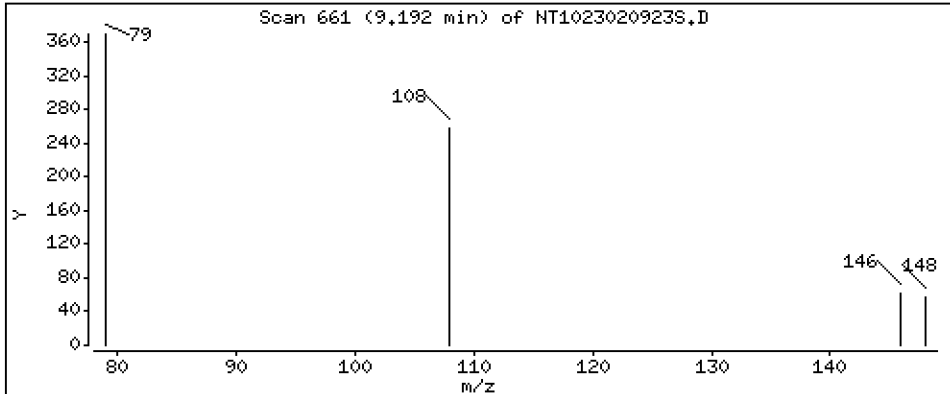
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

11 Benzyl alcohol

Concentration: 0.1101 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

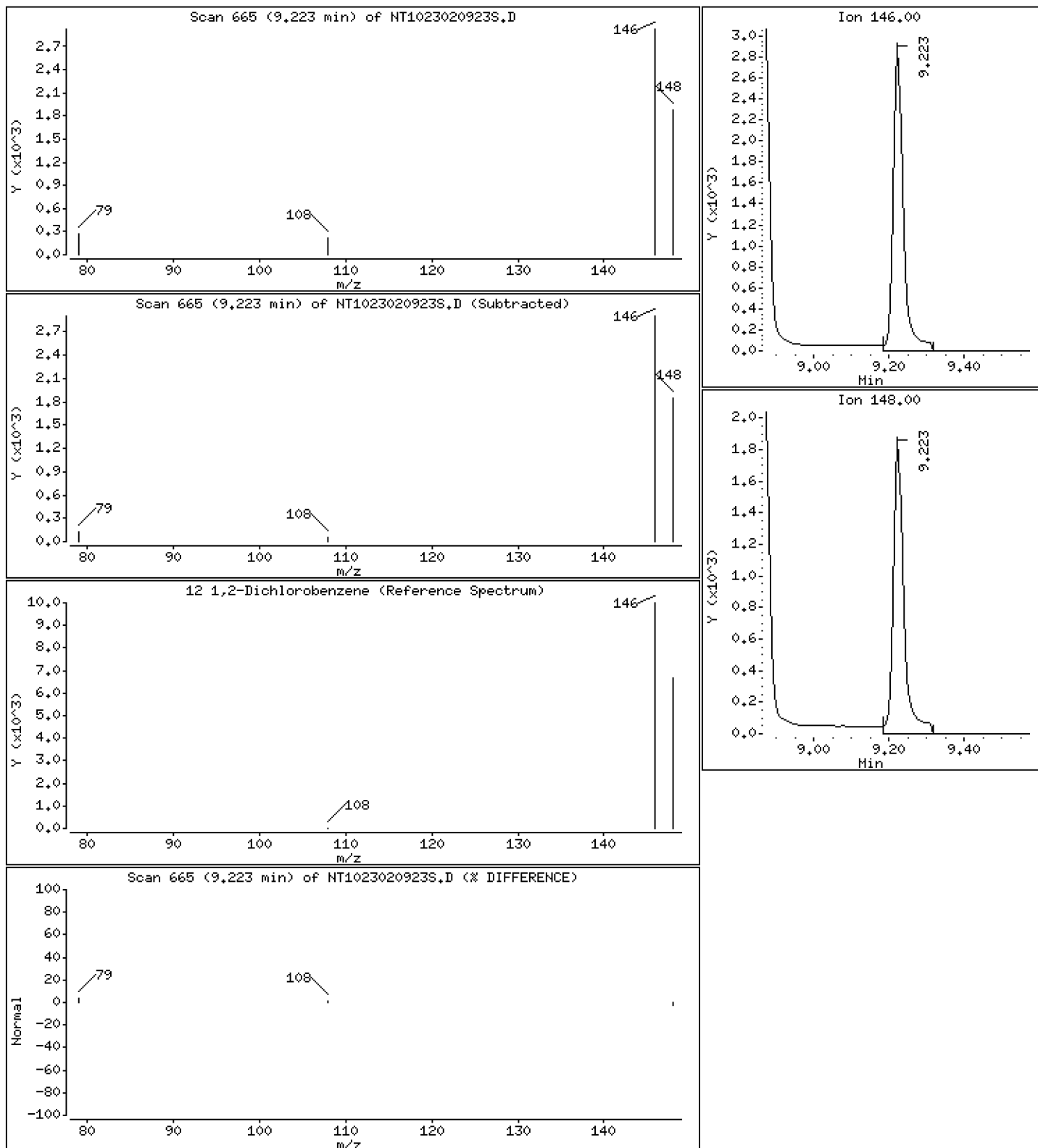
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

12 1,2-Dichlorobenzene

Concentration: 0.1157 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

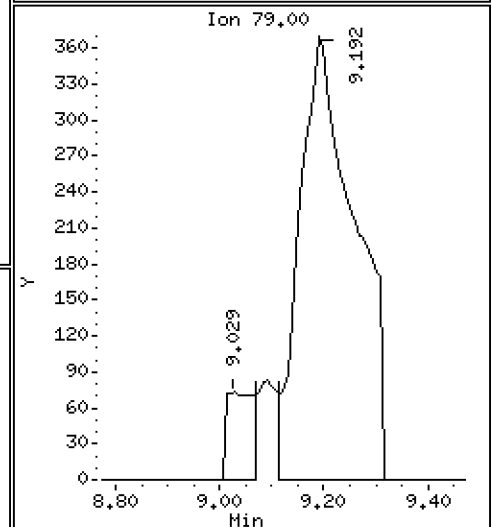
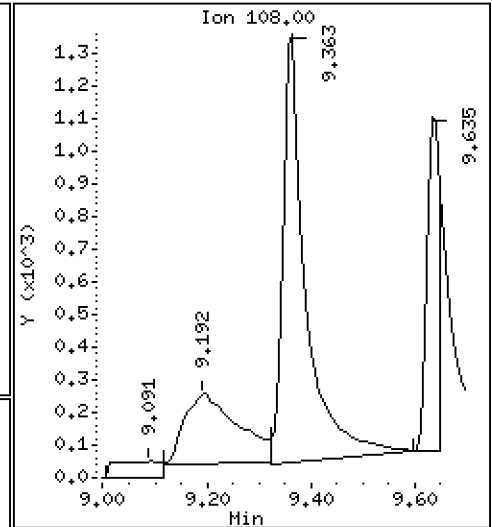
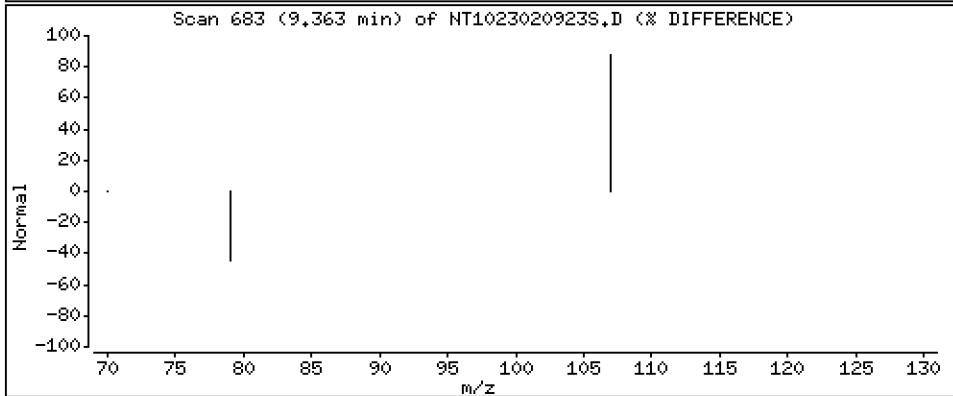
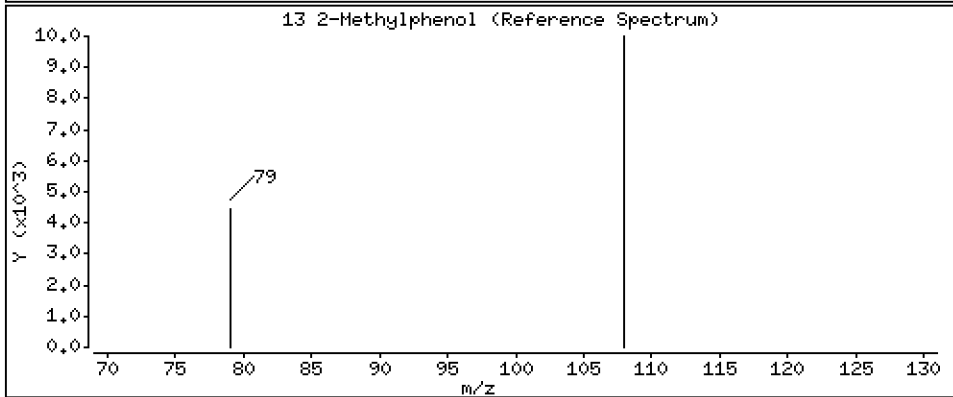
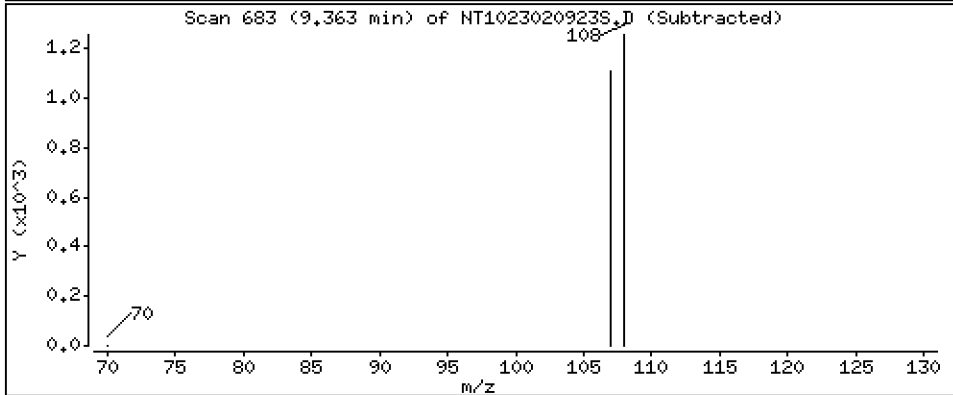
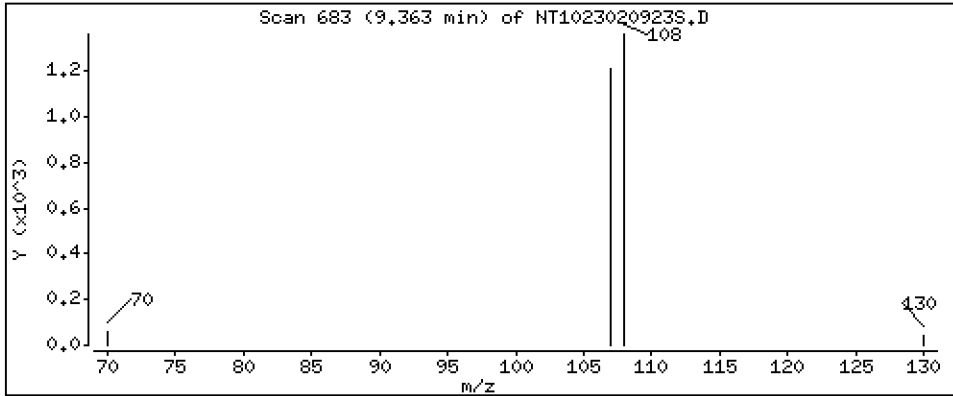
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

13 2-Methylphenol

Concentration: 0.1139 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

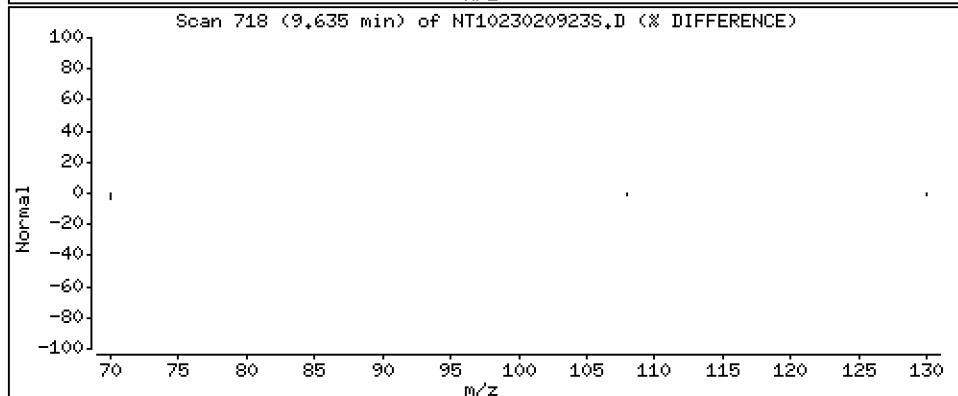
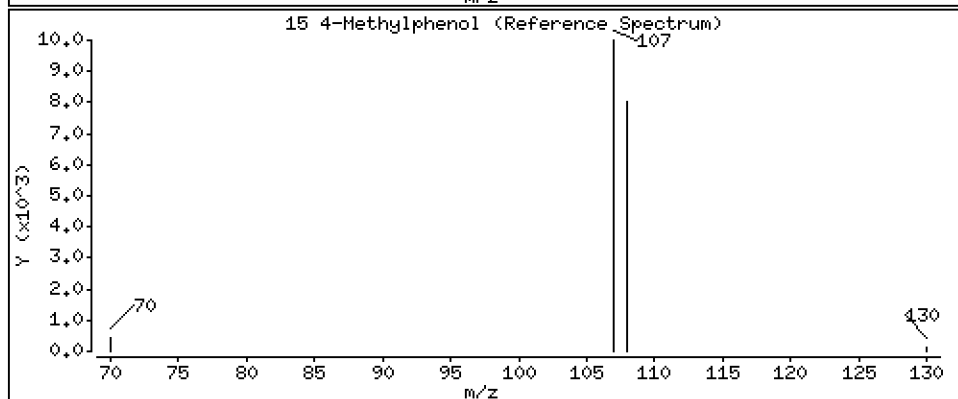
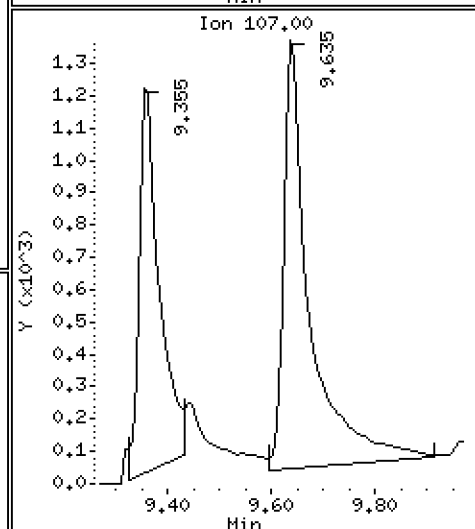
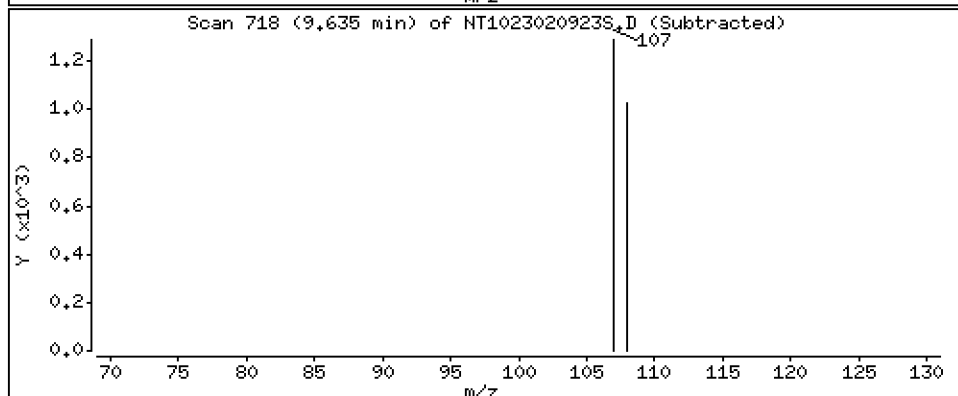
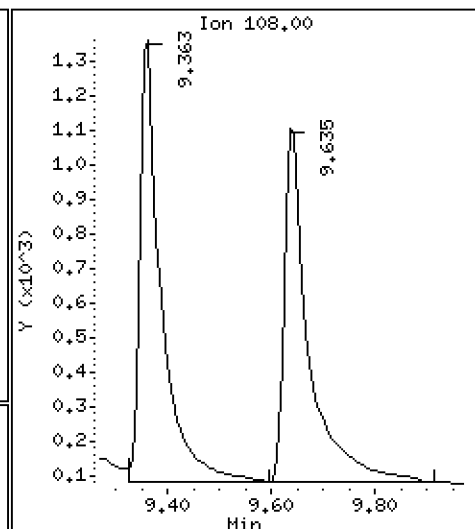
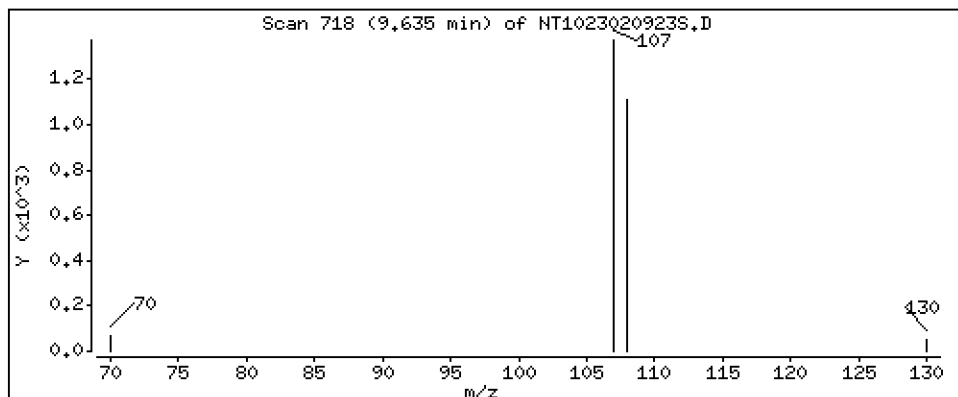
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

15 4-Methylphenol

Concentration: 0.09555 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

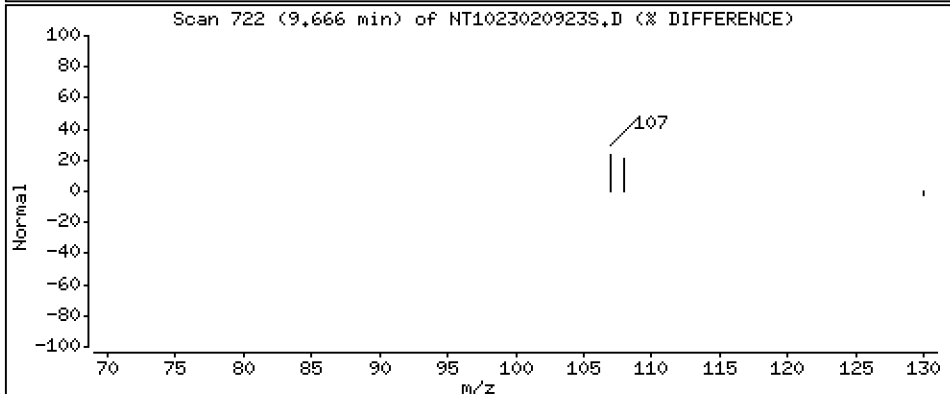
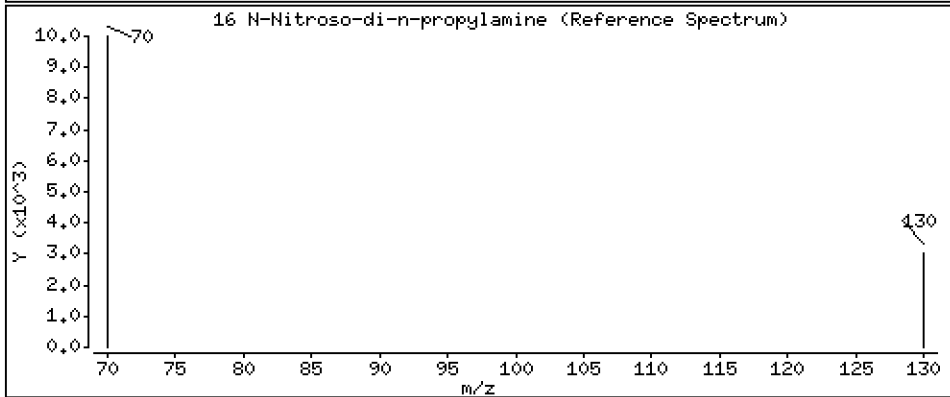
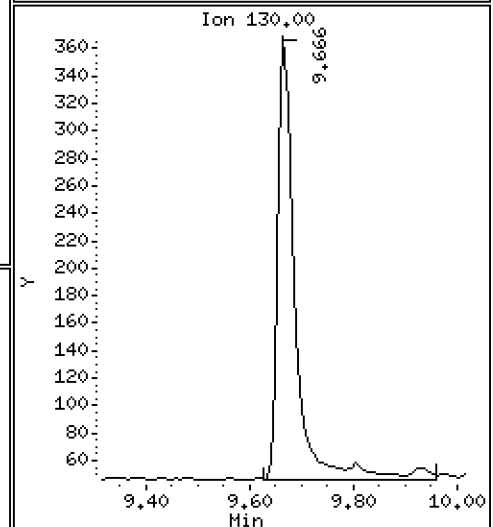
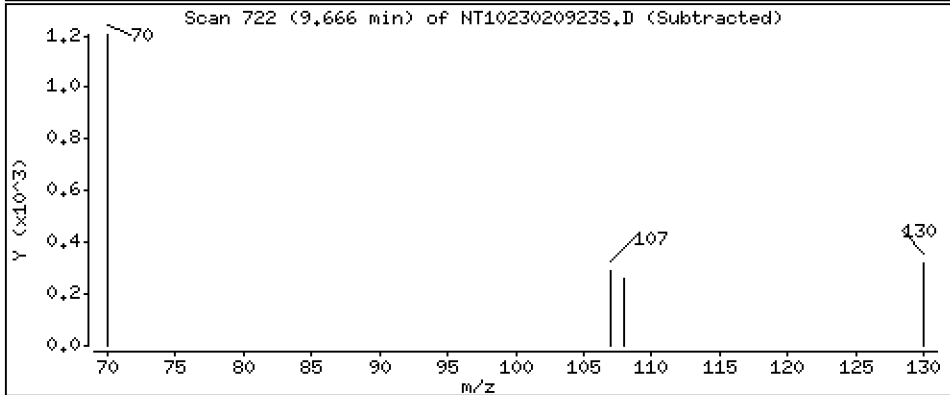
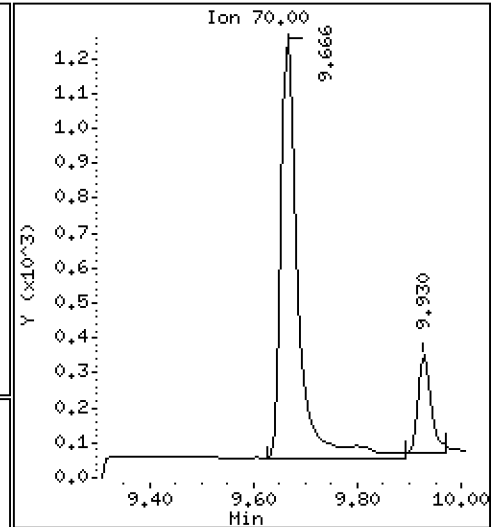
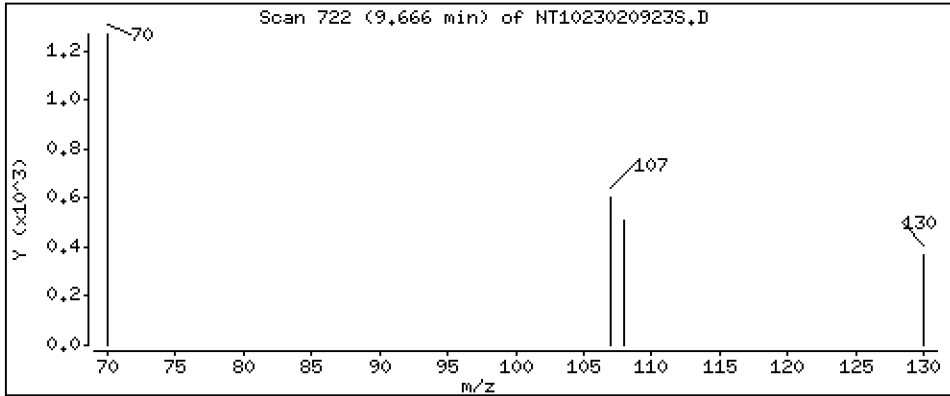
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

16 N-Nitroso-di-n-propylamine

Concentration: 0.1058 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

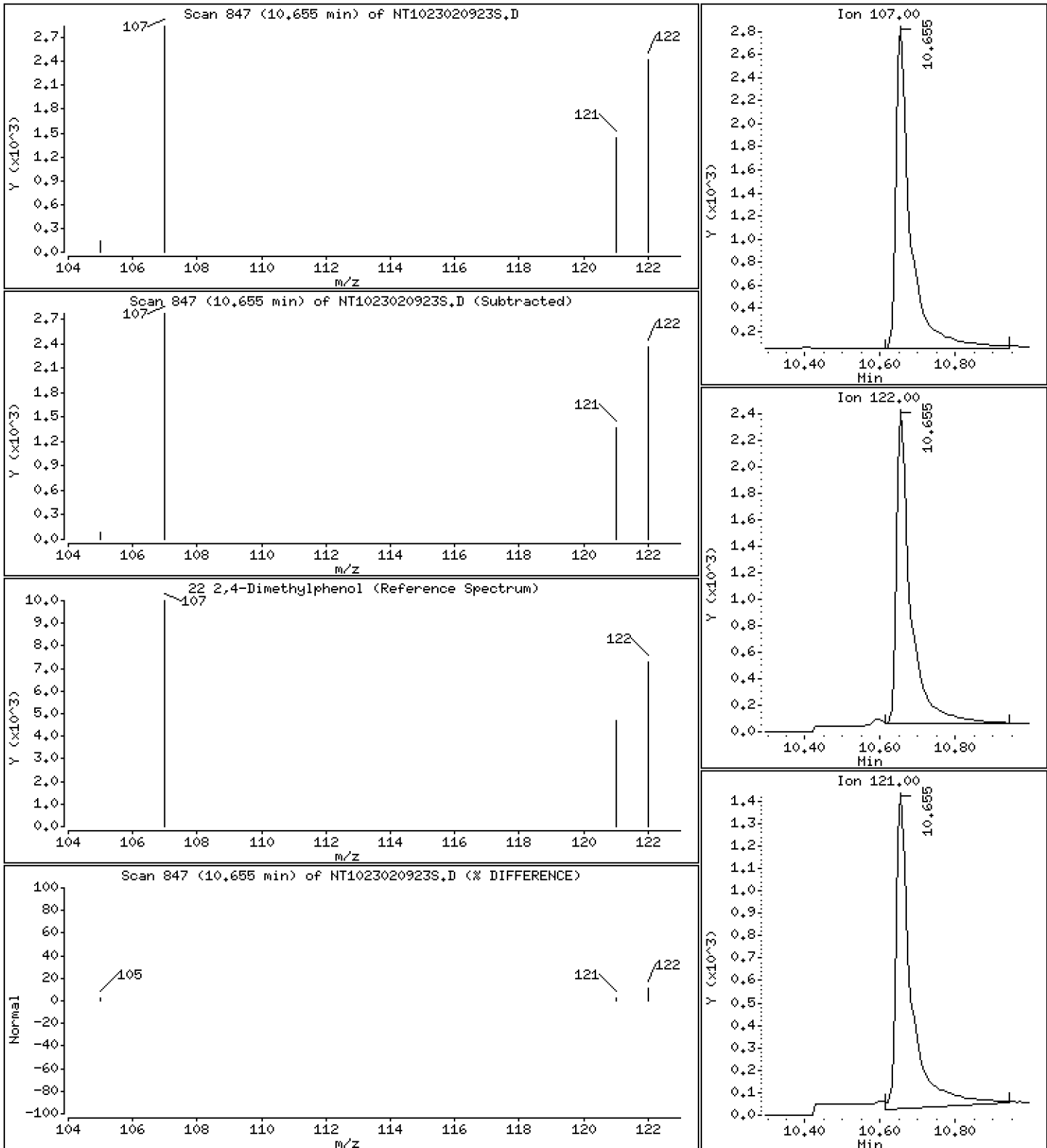
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

22 2,4-Dimethylphenol

Concentration: 0.2156 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

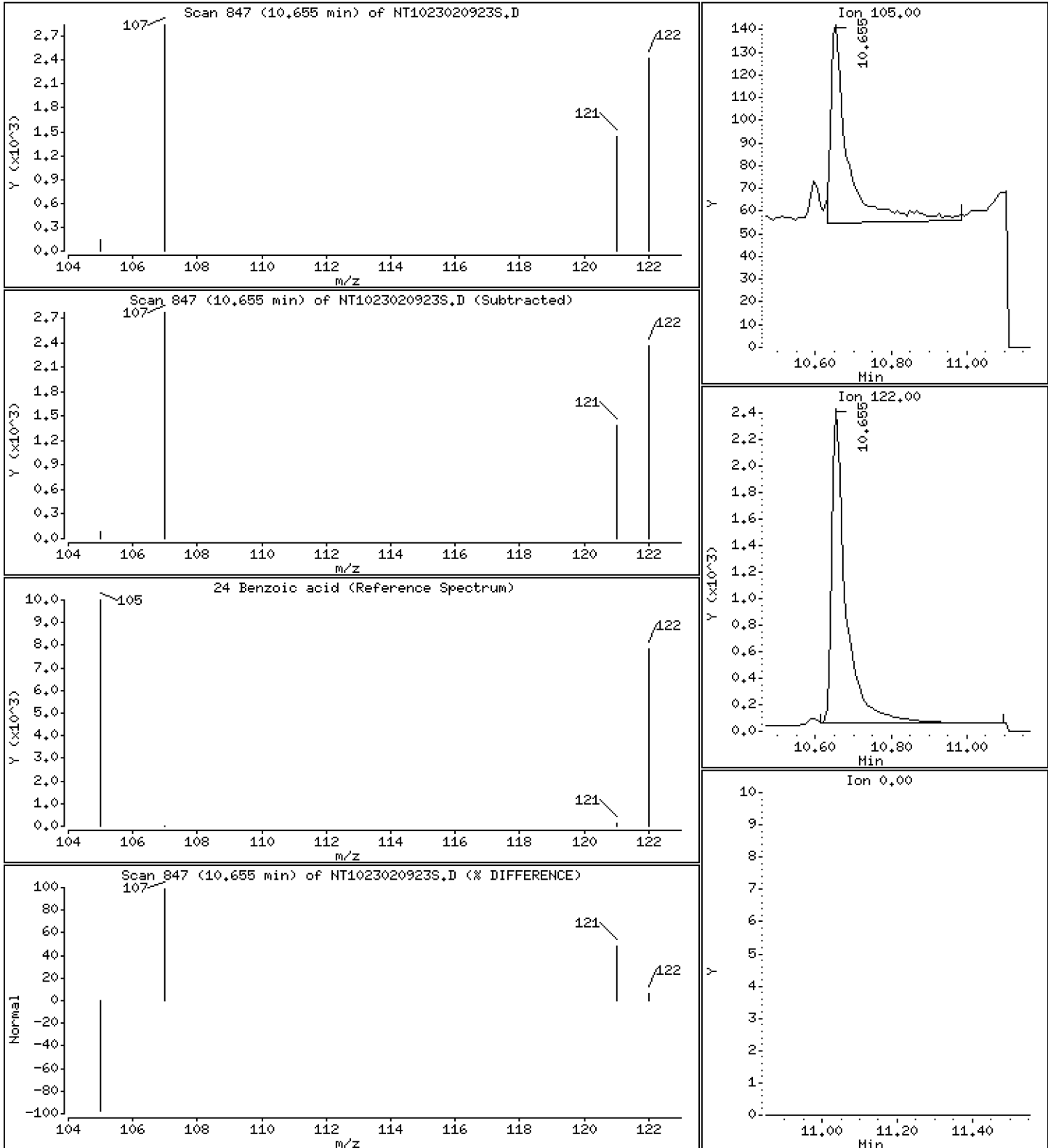
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

24 Benzoic acid

Concentration: 0.01750 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

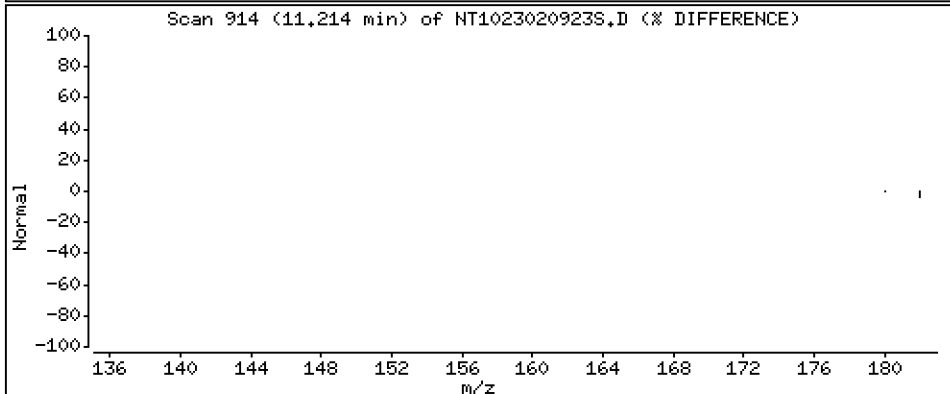
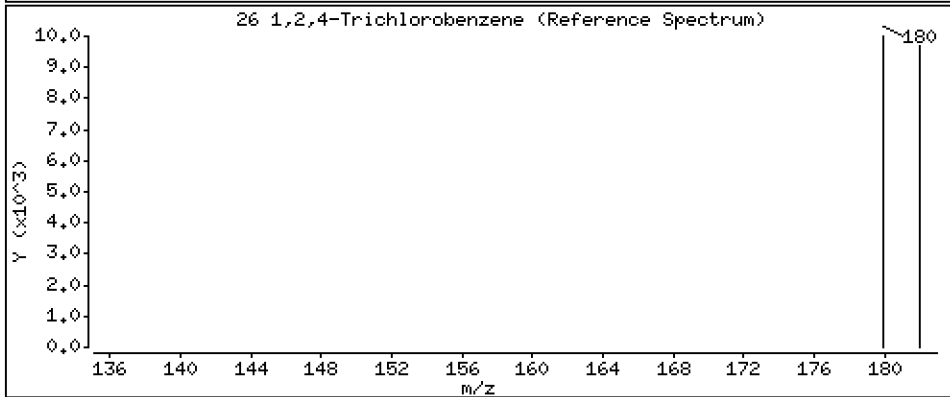
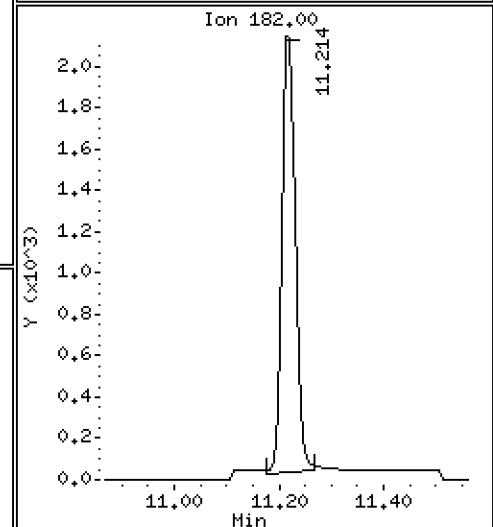
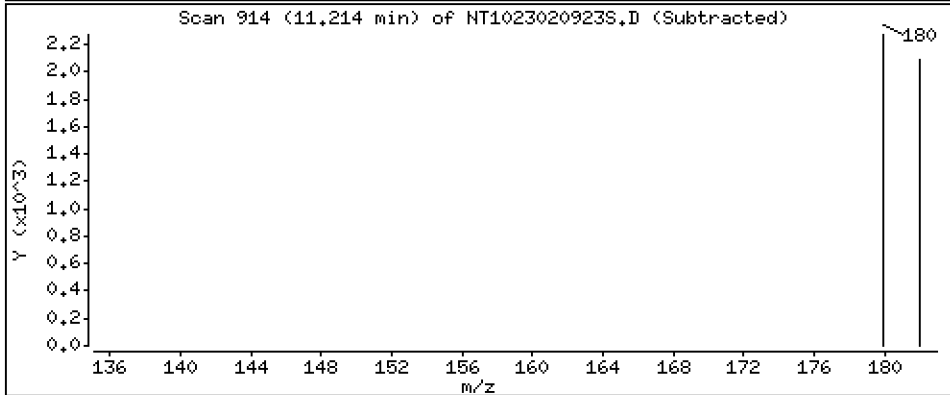
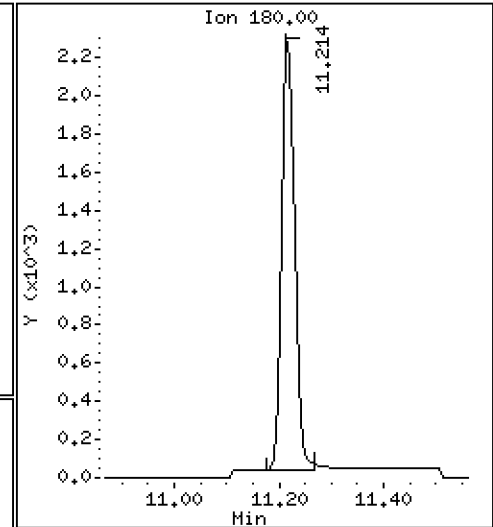
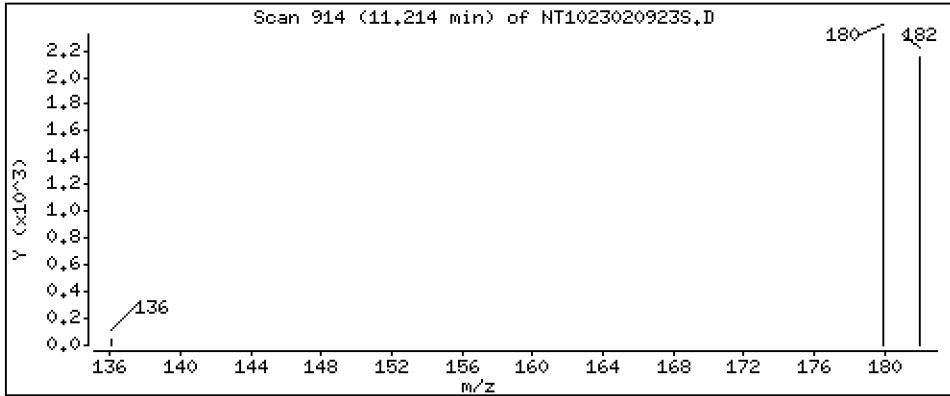
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

26 1,2,4-Trichlorobenzene

Concentration: 0.1152 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

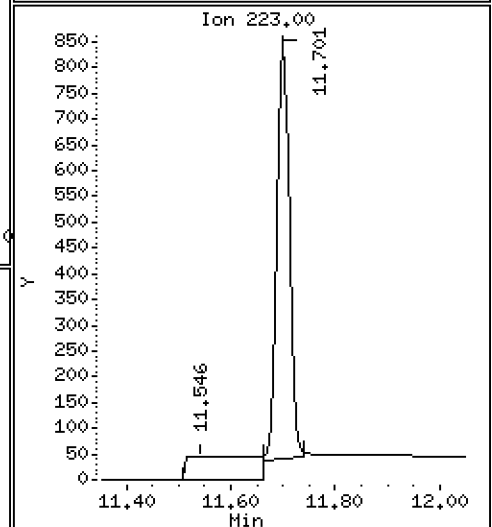
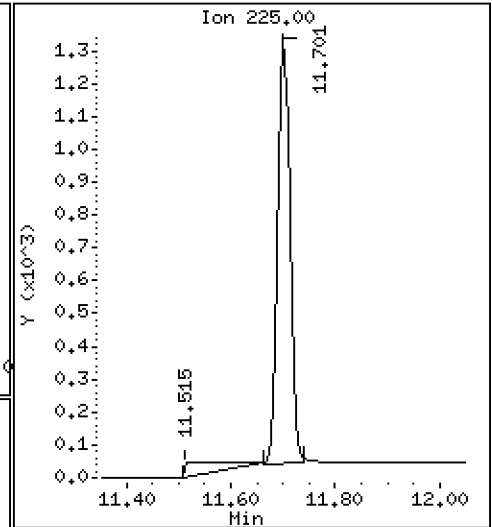
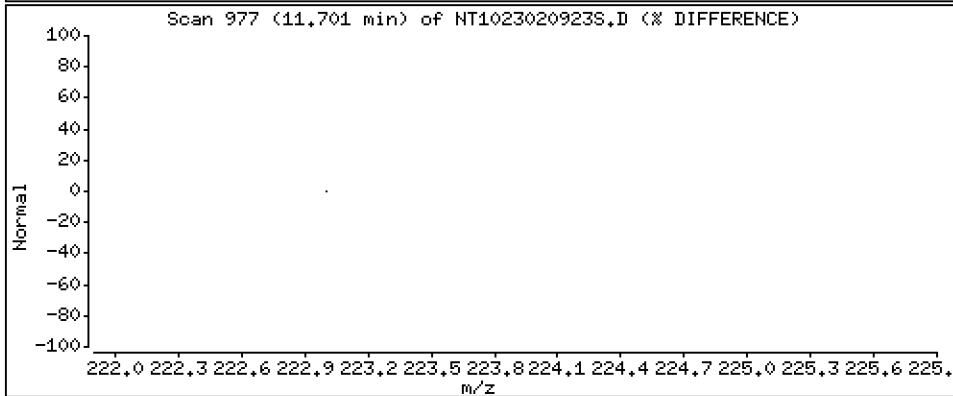
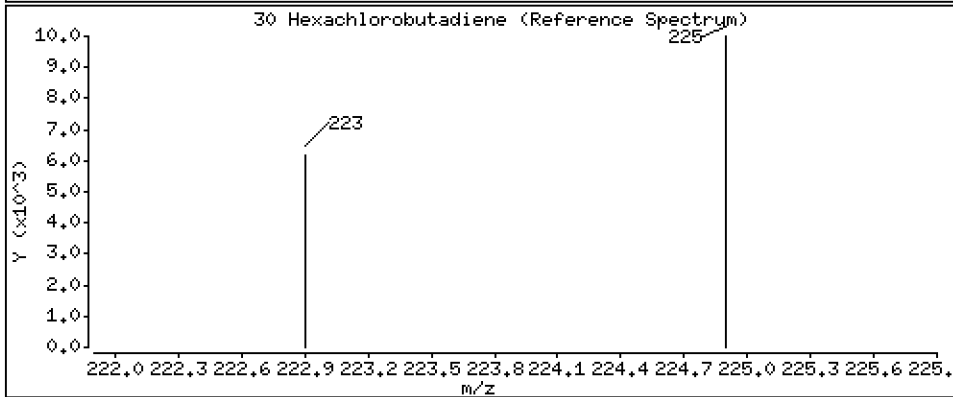
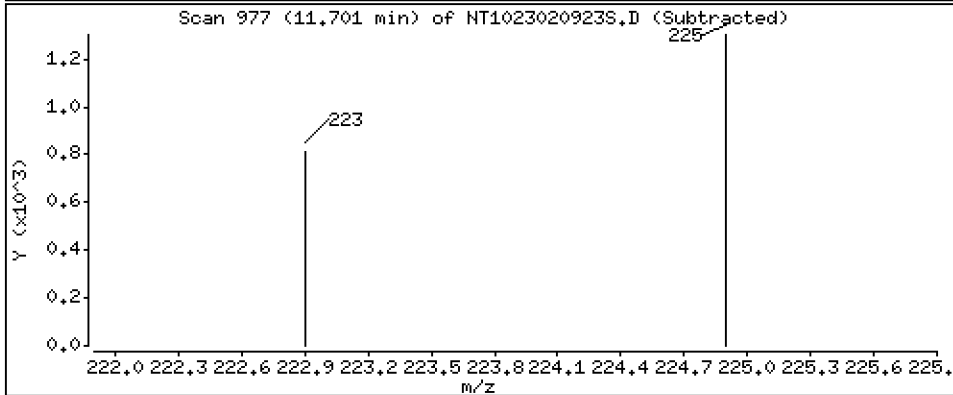
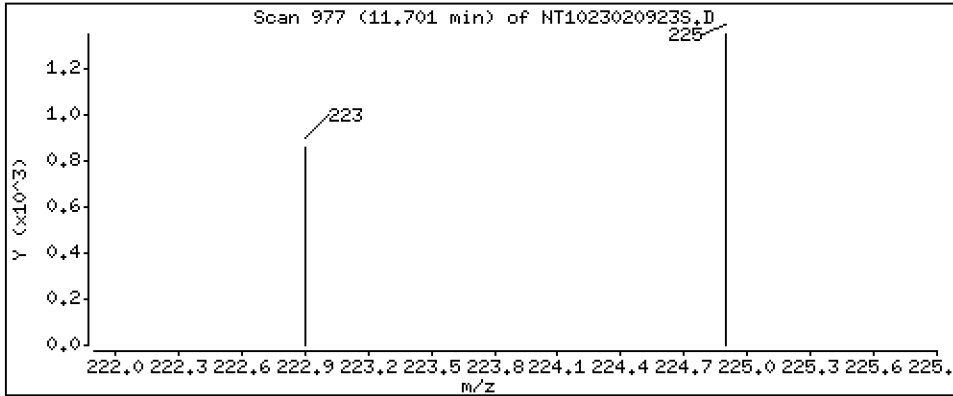
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

30 Hexachlorobutadiene

Concentration: 0.1144 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

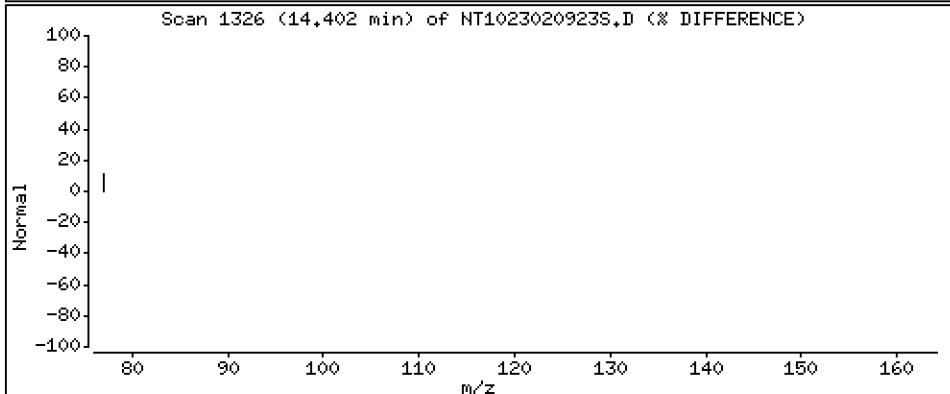
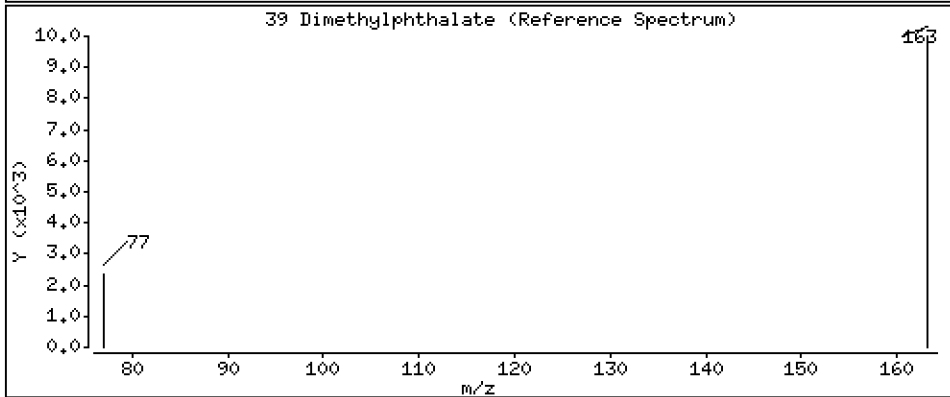
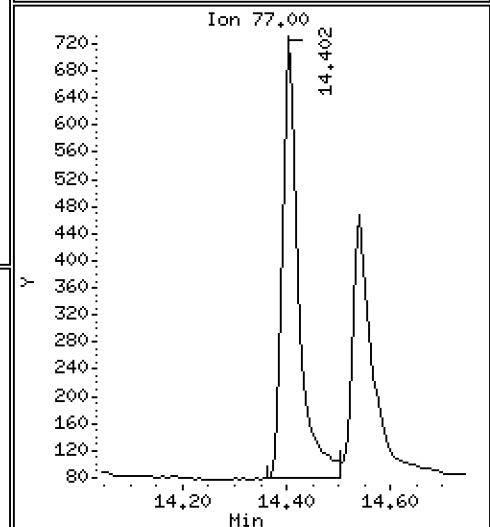
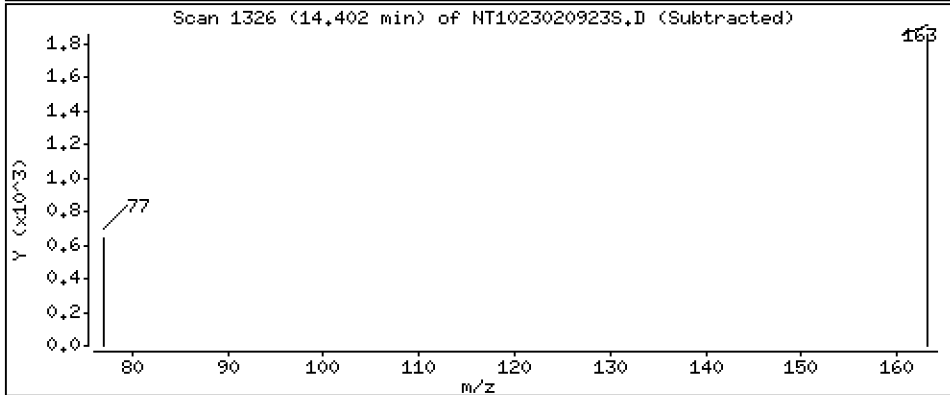
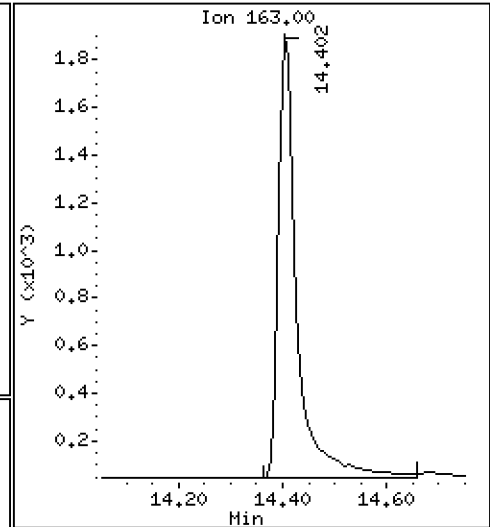
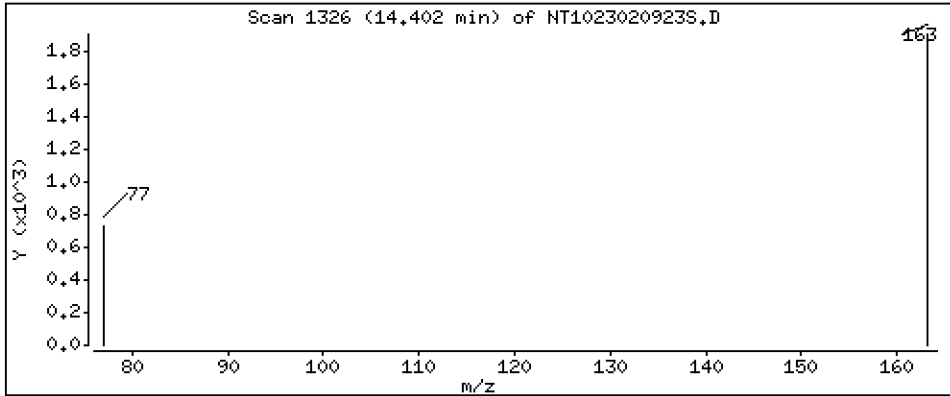
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

39 Dimethylphthalate

Concentration: 0,1070 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

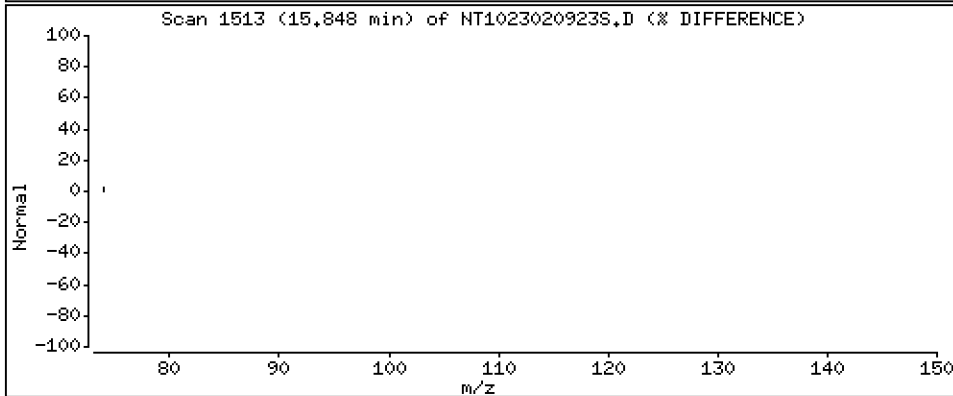
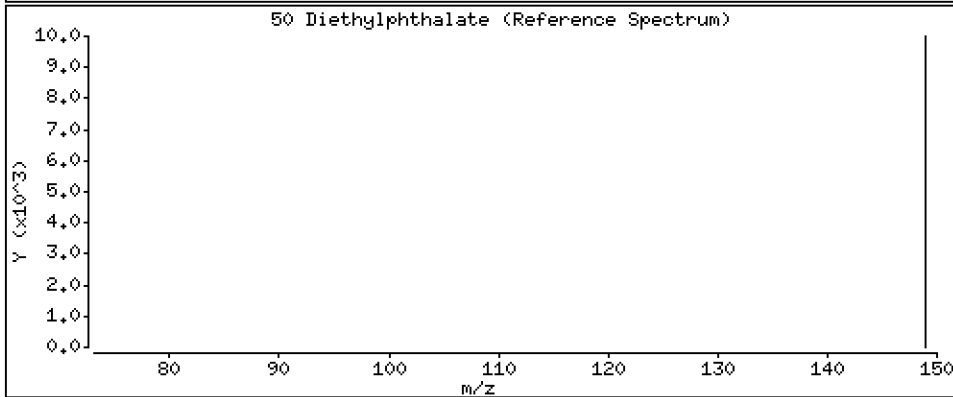
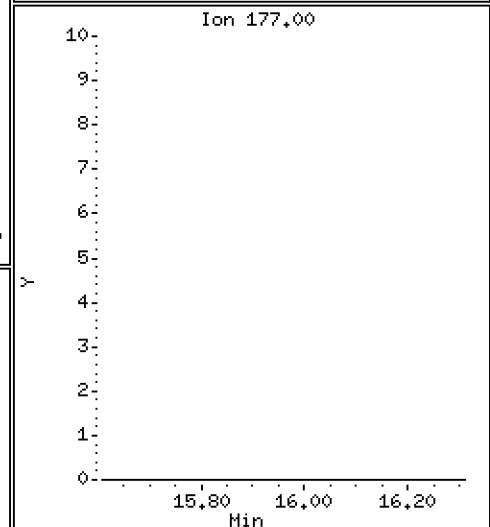
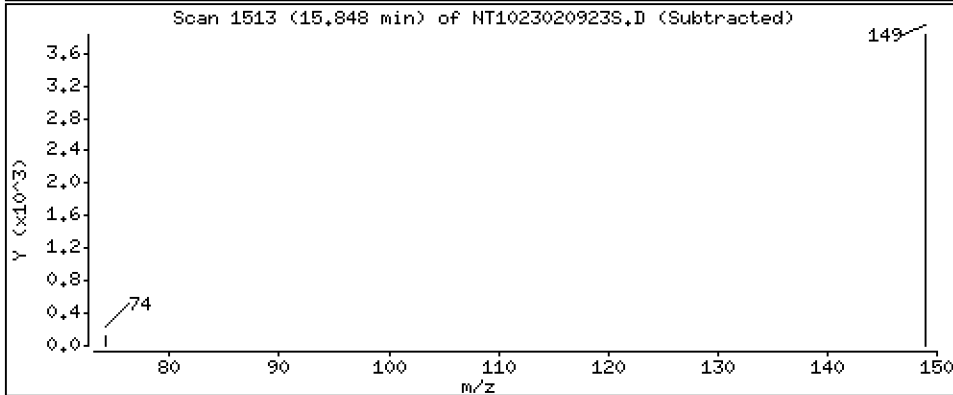
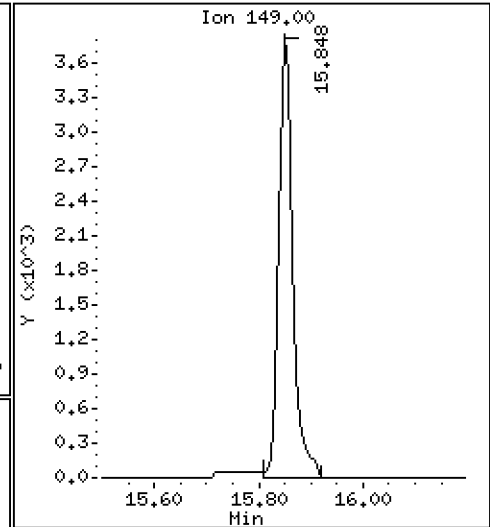
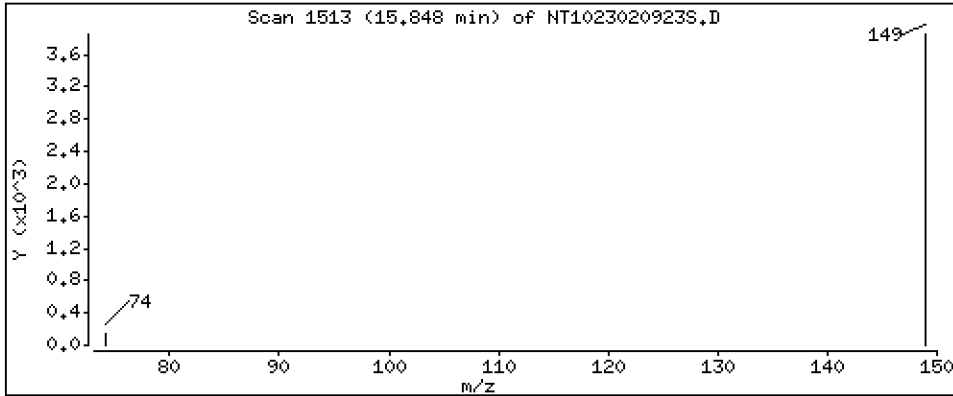
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

50 Diethylphthalate

Concentration: 0.1090 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

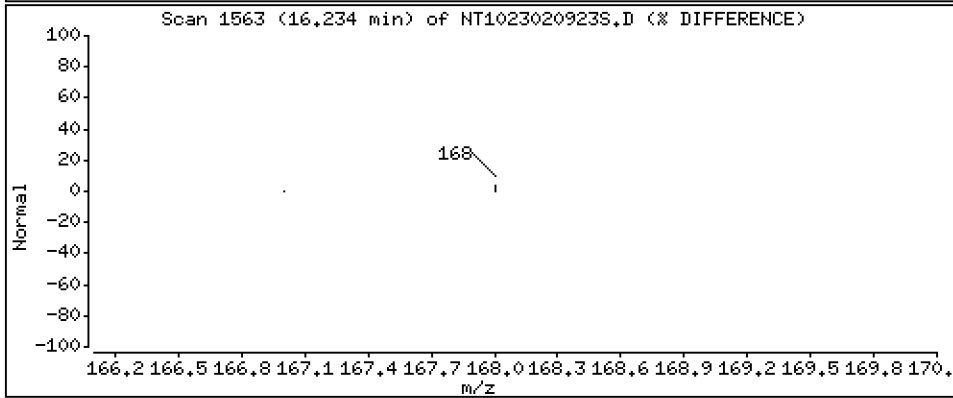
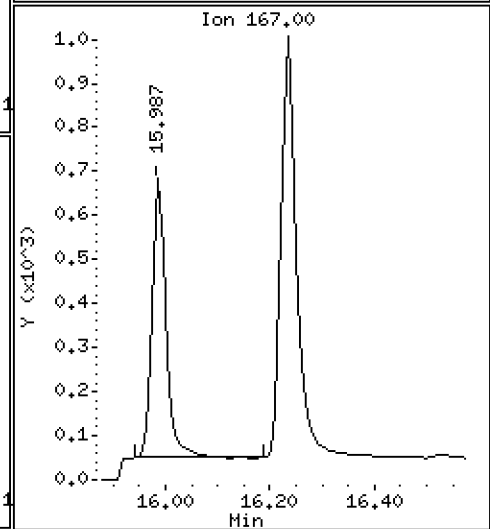
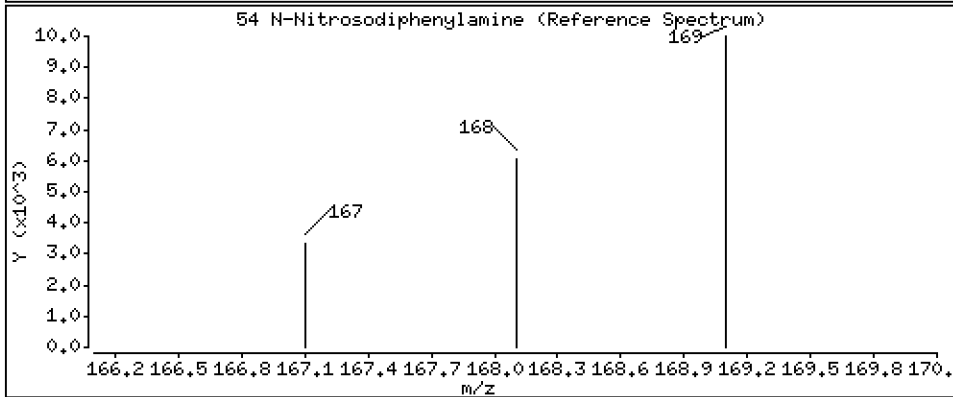
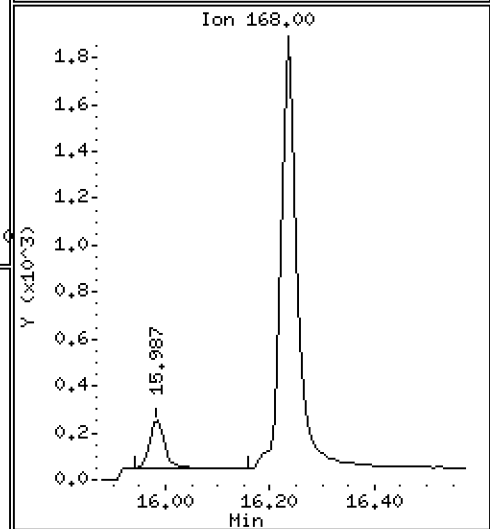
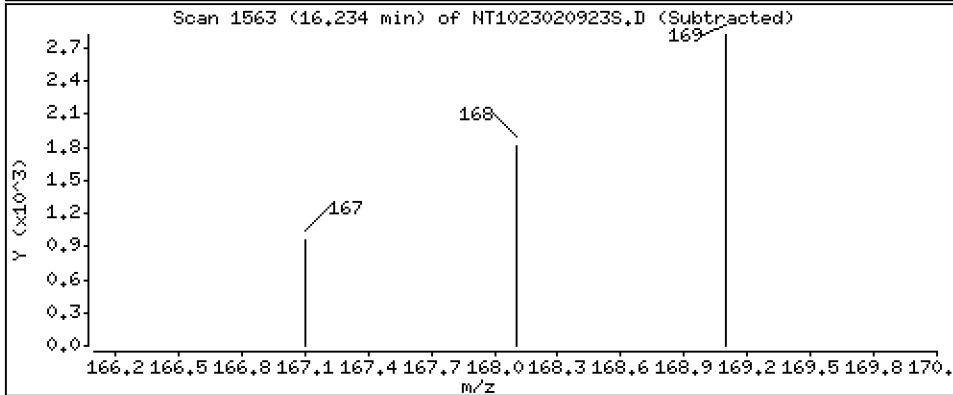
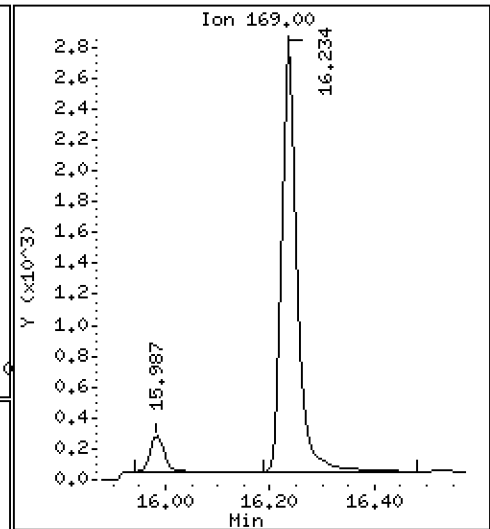
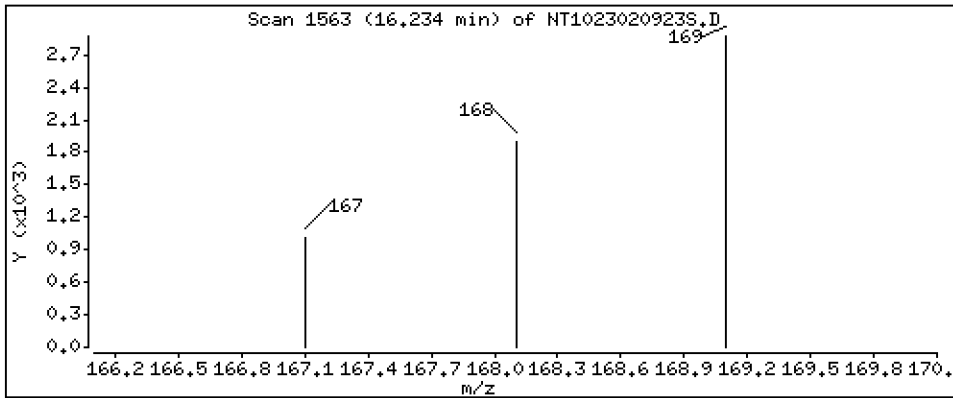
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

54 N-Nitrosodiphenylamine

Concentration: 0.1068 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

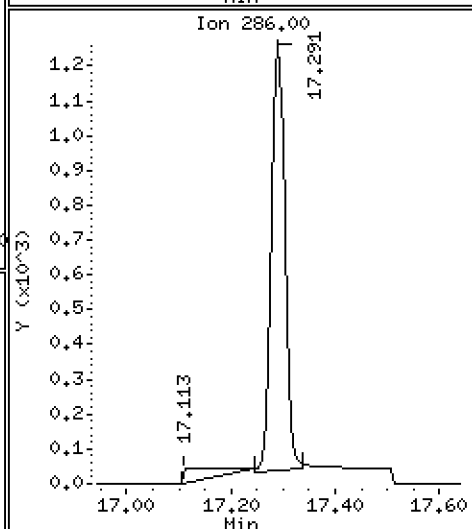
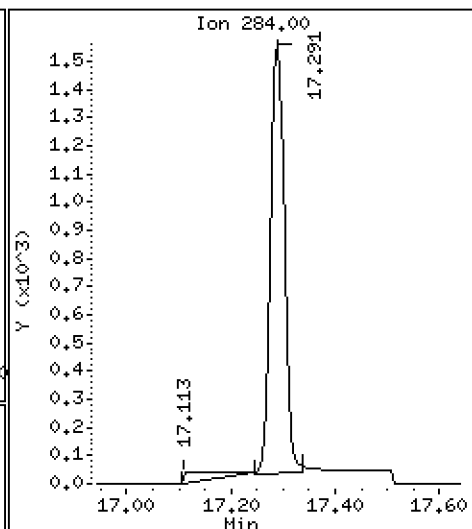
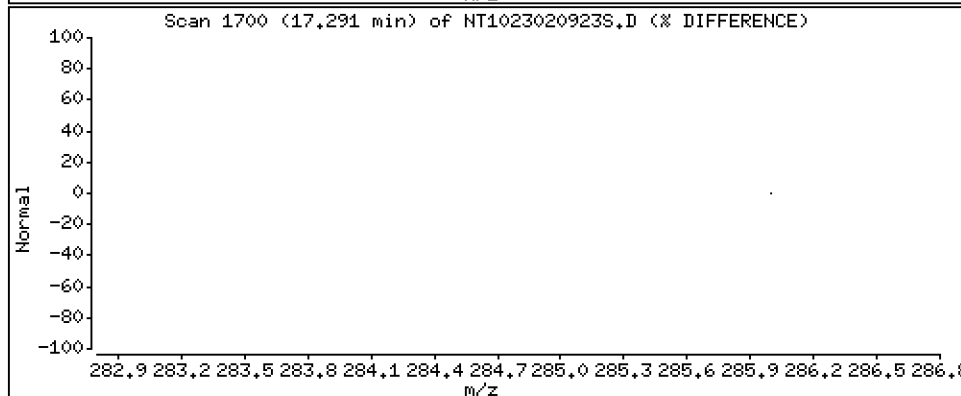
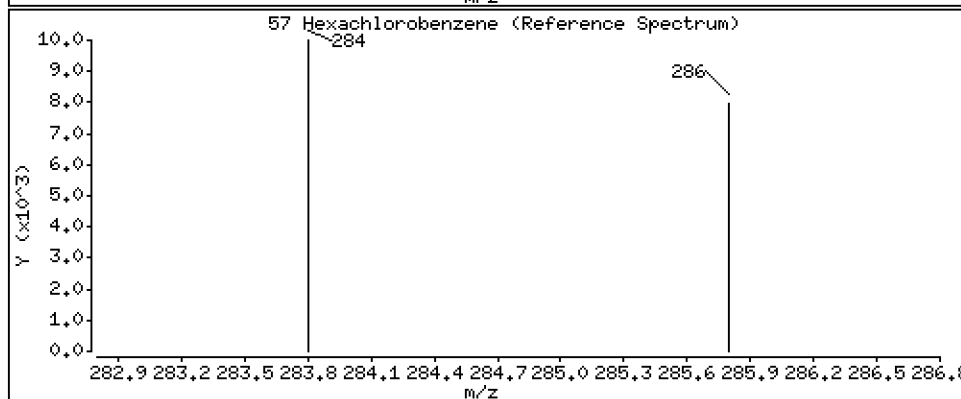
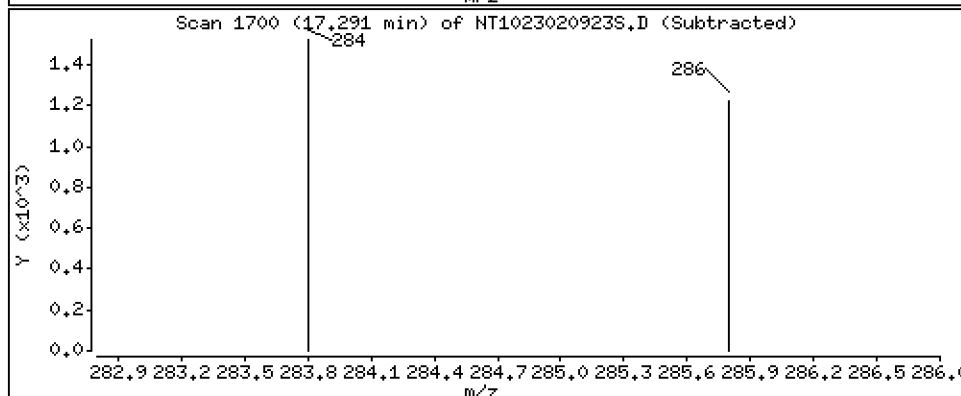
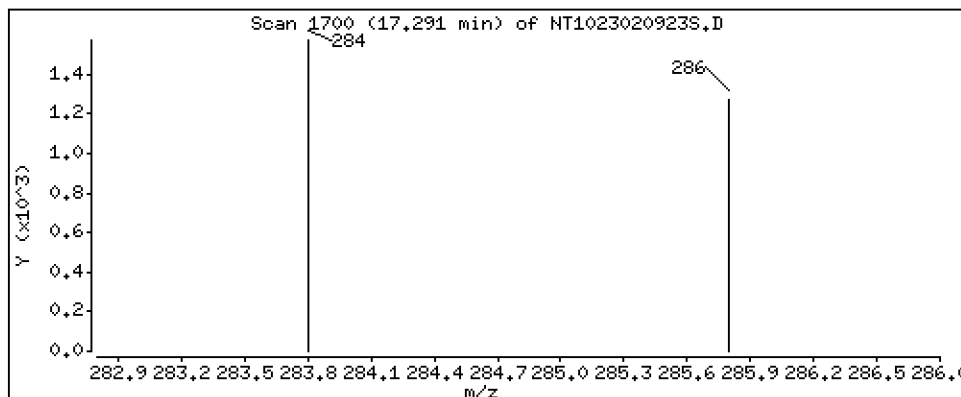
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

57 Hexachlorobenzene

Concentration: 0.1201 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

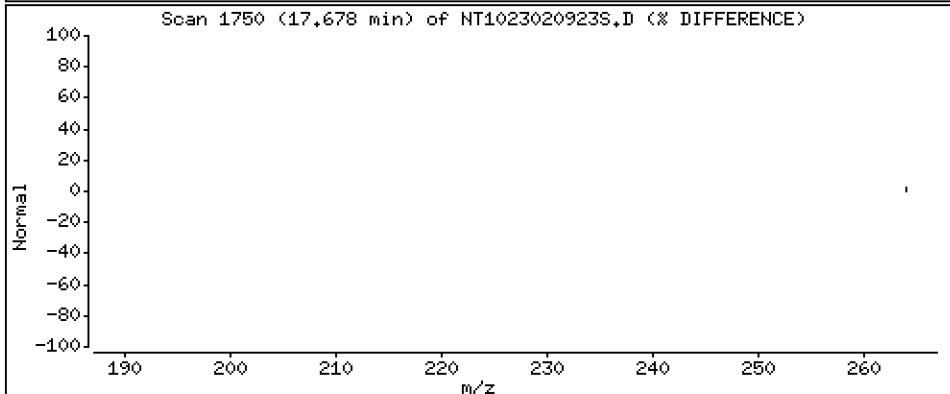
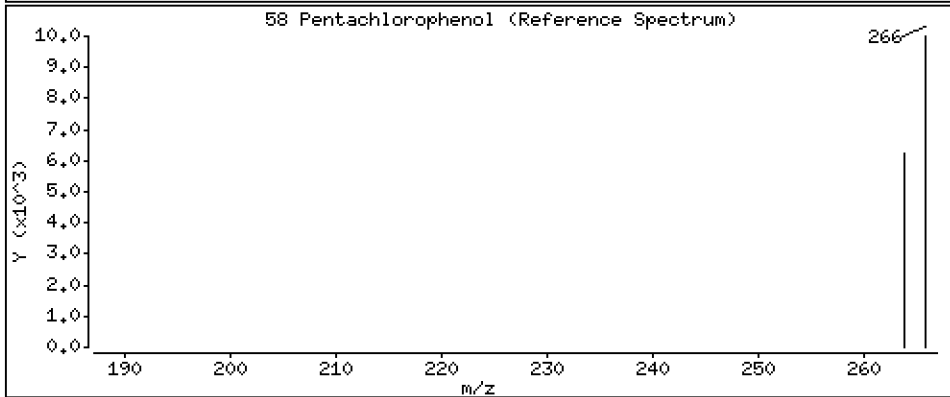
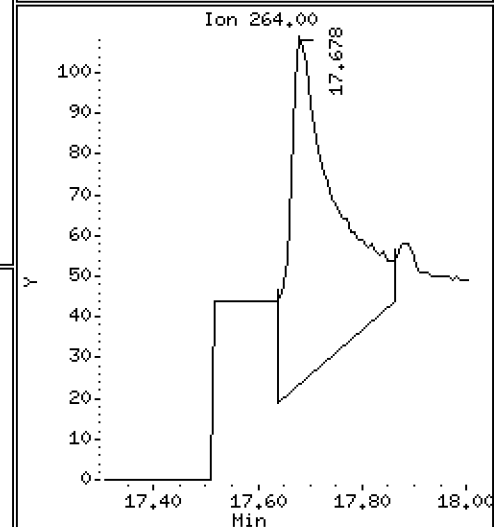
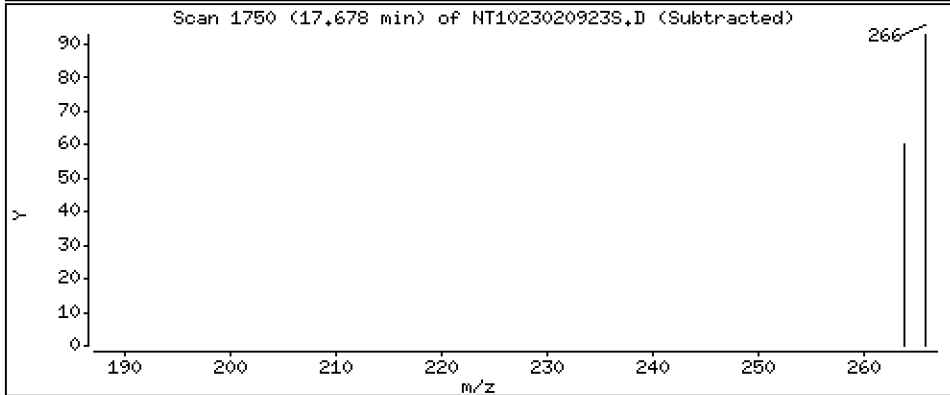
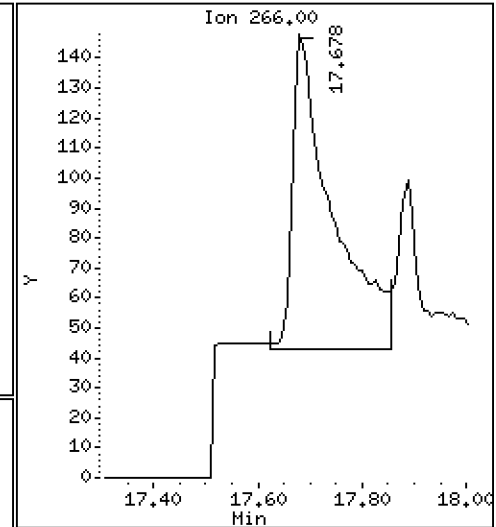
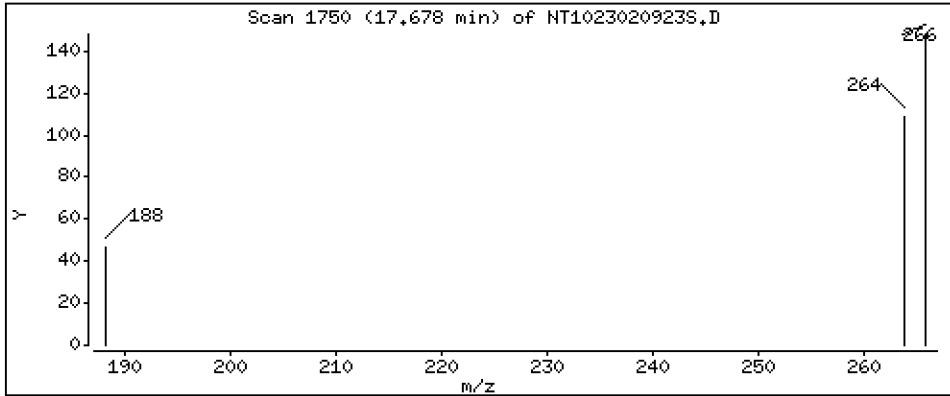
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

58 Pentachlorophenol

Concentration: 0,07258 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

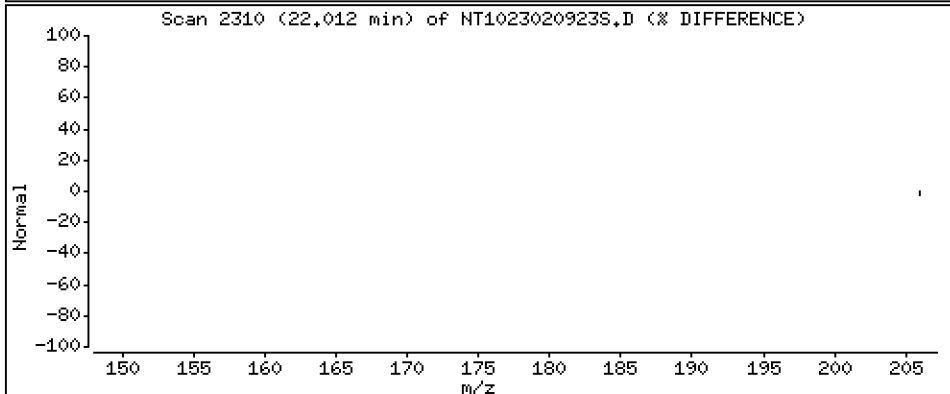
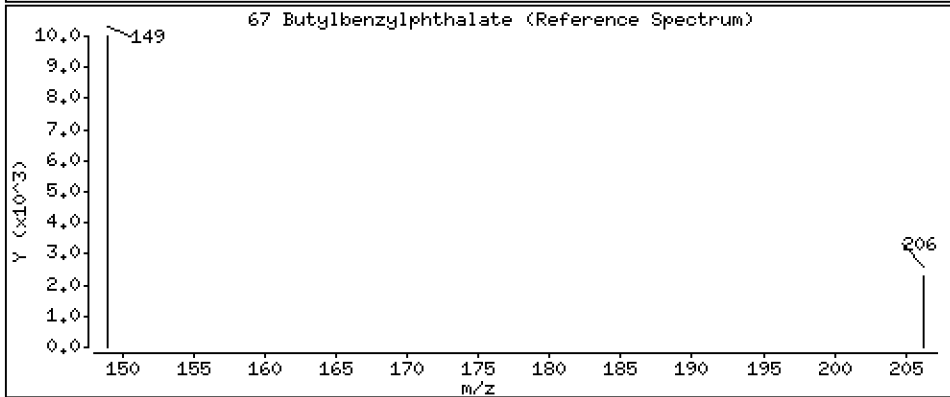
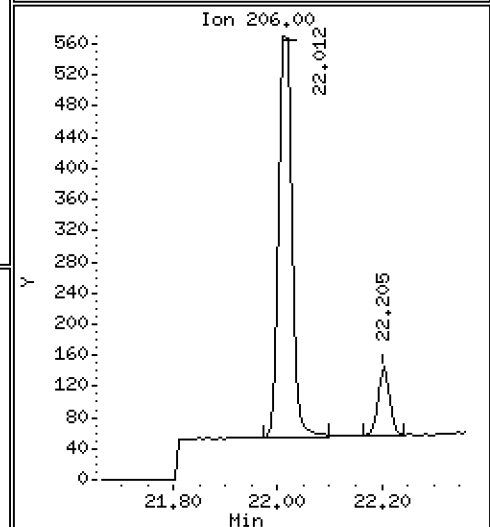
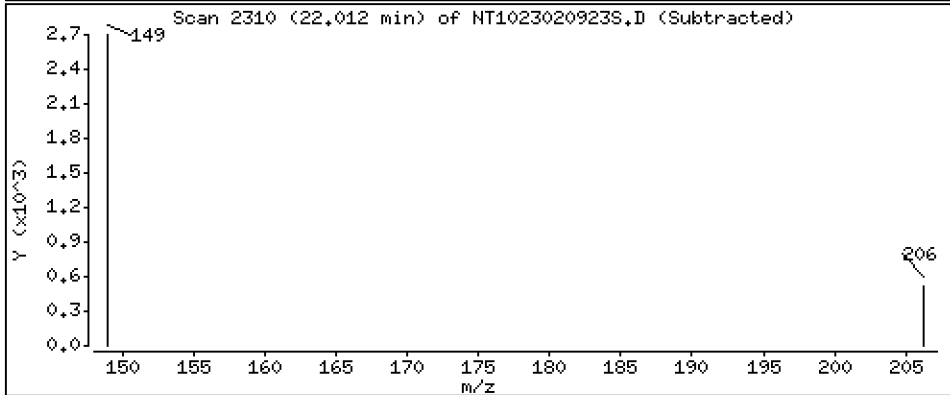
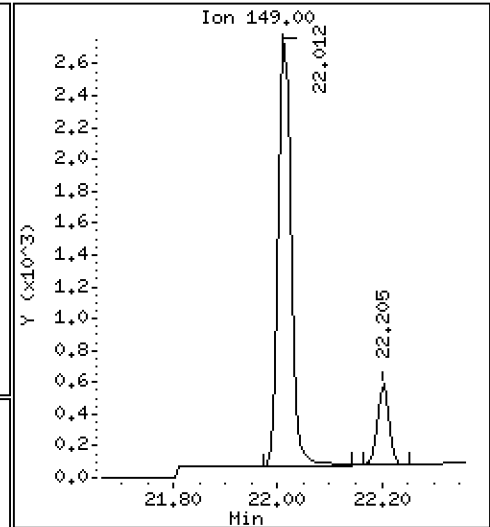
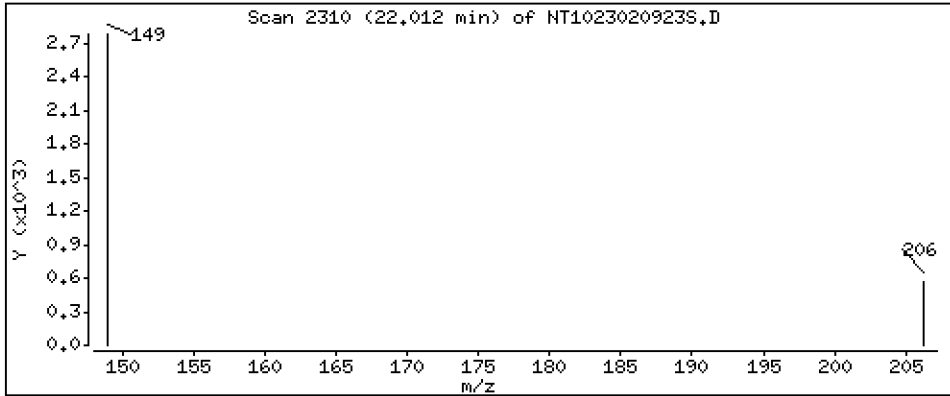
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

67 Butylbenzylphthalate

Concentration: 0,1004 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

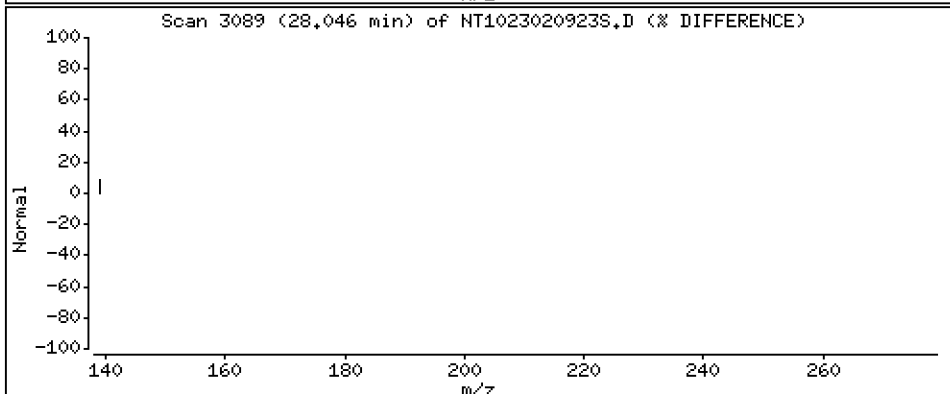
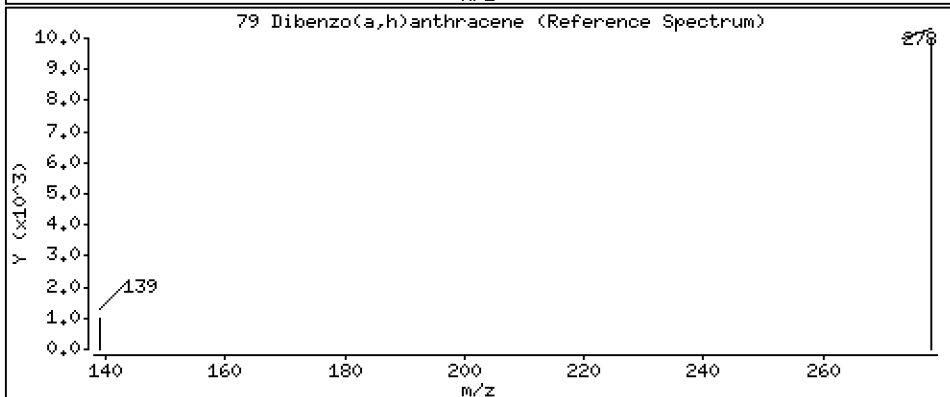
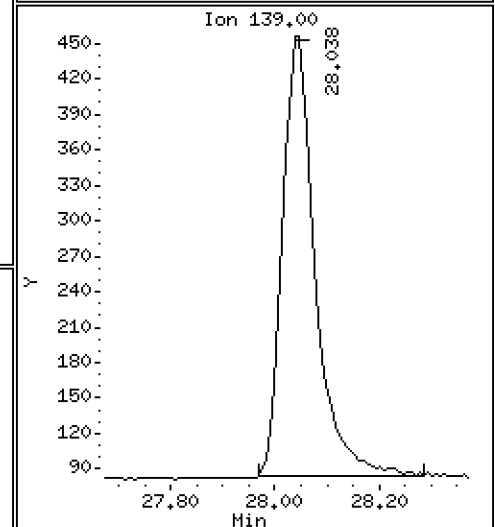
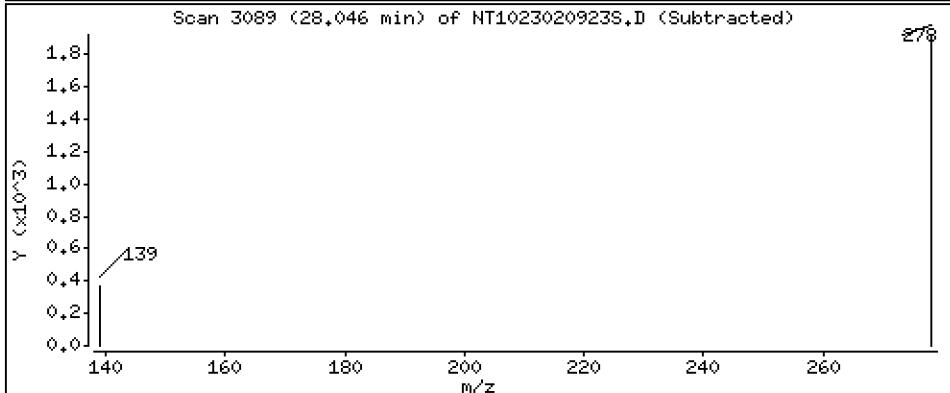
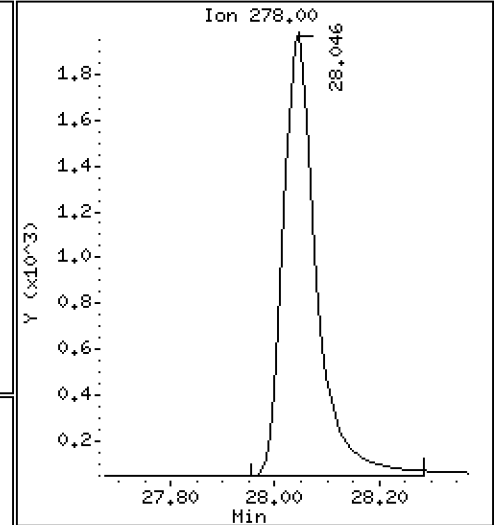
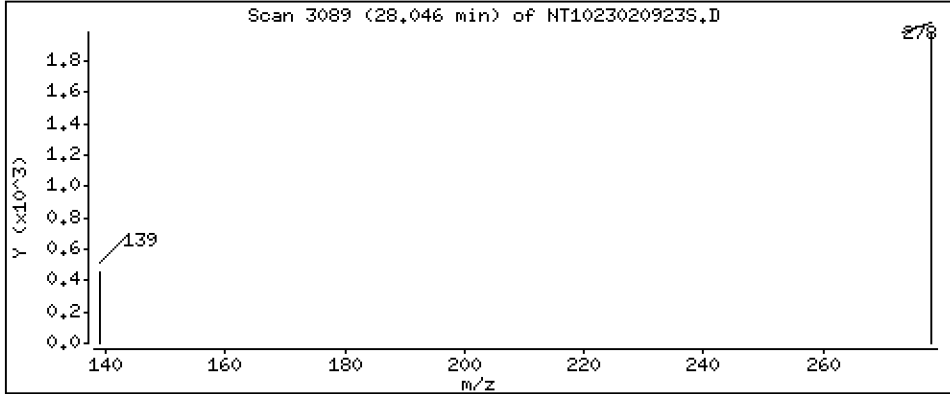
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0,25

79 Dibenzo(a,h)anthracene

Concentration: 0,09310 ug/L



Date : 10-FEB-2023 03:04

Client ID:

Instrument: nt10.i

Sample Info: SIM-LCV2

Volume Injected (uL): 1.0

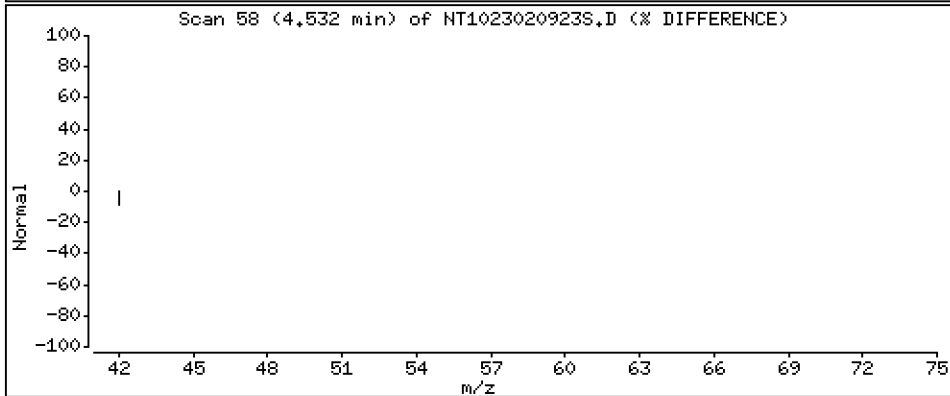
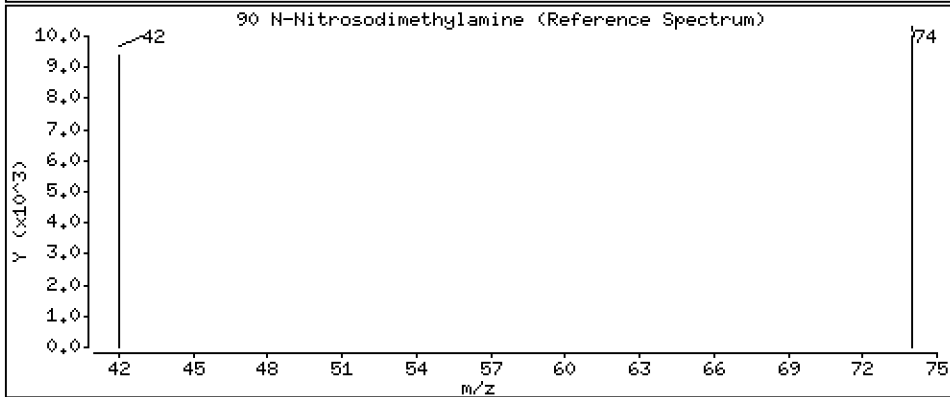
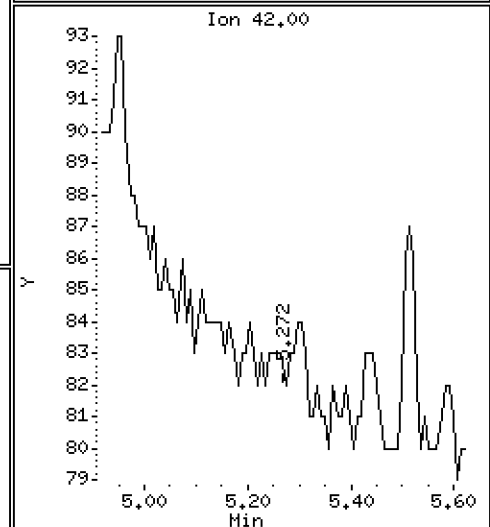
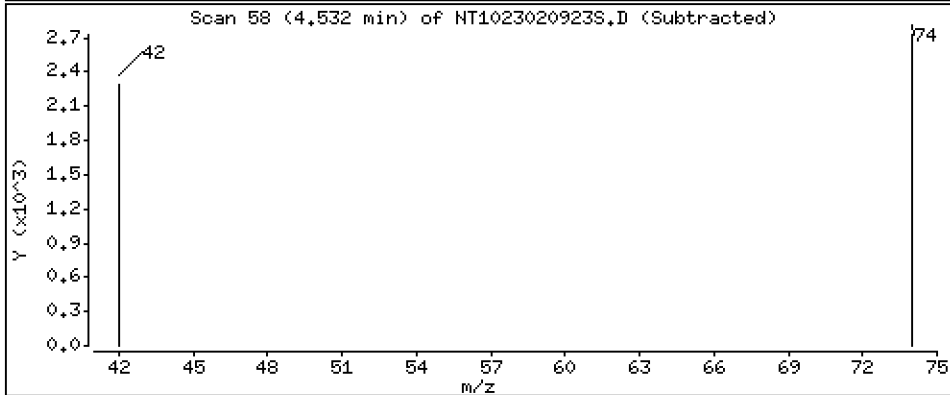
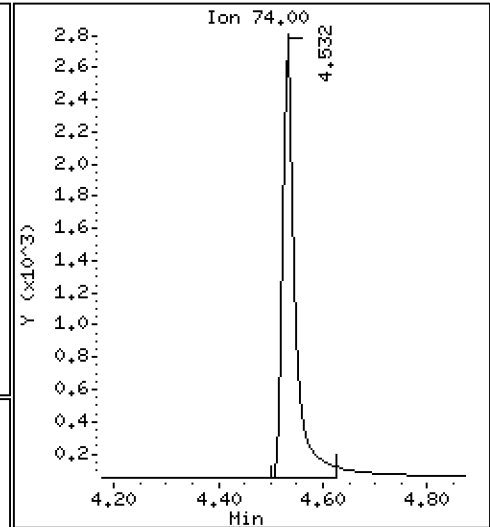
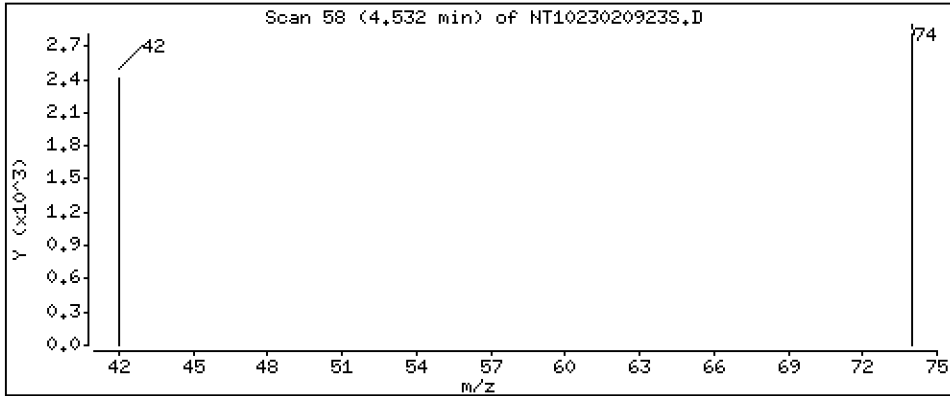
Operator: DSD

Column phase: ZB-5msi

Column diameter: 0.25

90 N-Nitrosodimethylamine

Concentration: 0.2020 ug/L



ARI Labs, Inc.

METHOD 8270D-SIM

Data file : \\target\share\chem3\nt10.i\20230209A.b\SIM.b\NT1023020923S.D
 Lab Smp Id: SLB0157-LCV2
 Inj Date : 10-FEB-2023 03:04 MS Autotune Date: 16-JAN-2023 16:42
 Operator : DSD Inst ID: nt10.i
 Smp Info : SIM-LCV2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt10.i\20230209A.b\SIM.b\SIMABN2.m
 Meth Date : 12-Feb-2023 18:08 yev Quant Type: ISTD
 Cal Date : 07-FEB-2023 17:25 Cal File: NT1023020710S.D
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PSDDA.sub
 Target Version: 4.14
 Processing Host: ORGDATA102

Concentration Formula: $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vo} * \text{Vi}) * \text{CpndVariable}$

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/L)
\$ 1 2-Fluorophenol	112		6.671	6.663 (0.754)		5193	0.15327	0.1533 (RM)
3 Phenol	94		8.262	8.255 (0.934)		6045	0.11832	0.1183
7 1,3-Dichlorobenzene	146		8.781	8.781 (0.993)		5113	0.11113	0.1111
* 8 1,4-Dichlorobenzene-d4	152		8.843	8.843 (1.000)		111416	4.00000	
9 1,4-Dichlorobenzene	146		8.874	8.874 (1.004)		5017	0.11153	0.1115
11 Benzyl alcohol	79		9.192	9.122 (1.039)		2745	0.11014	0.1101 (H)
12 1,2-Dichlorobenzene	146		9.223	9.223 (1.043)		5081	0.11573	0.1157
13 2-Methylphenol	108		9.363	9.348 (1.059)		3972	0.11388	0.1139
15 4-Methylphenol	108		9.634	9.619 (1.090)		3399	0.09555	0.09555
16 N-Nitroso-di-n-propylamine	70		9.665	9.658 (1.093)		2687	0.10581	0.1058
22 2,4-Dimethylphenol	107		10.655	10.647 (0.943)		7441	0.21563	0.2156
24 Benzoic acid	105		10.655	10.817 (0.943)		279	0.01750	0.01750 (M)
26 1,2,4-Trichlorobenzene	180		11.214	11.214 (0.992)		3726	0.11520	0.1152
* 27 Naphthalene-d8	136		11.298	11.299 (1.000)		392837	4.00000	
30 Hexachlorobutadiene	225		11.700	11.701 (1.036)		2021	0.11444	0.1144
39 Dimethylphthalate	163		14.401	14.402 (0.967)		4474	0.10696	0.1070
* 42 Acenaphthene-d10	162		14.889	14.882 (1.000)		179474	4.00000	
50 Diethylphthalate	149		15.848	15.848 (1.064)		6864	0.10896	0.1090
54 N-Nitrosodiphenylamine	169		16.233	16.226 (0.907)		5607	0.10684	0.1068
57 Hexachlorobenzene	284		17.291	17.291 (0.966)		2682	0.12008	0.1201

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/L)
58 Pentachlorophenol	266	17.678	17.655	(0.987)	564	0.07258	0.07258 (M)
* 59 Phenanthrene-d10	188	17.902	17.903	(1.000)	317554	4.00000	
\$ 66 Terphenyl-d14	244	21.074	21.075	(0.917)	7233	0.11186	0.1119 (R)
67 Butylbenzylphthalate	149	22.011	22.012	(0.958)	4387	0.10037	0.1004
* 69 Chrysene-d12	240	22.979	22.980	(1.000)	291308	4.00000	
* 77 Perylene-d12	264	25.511	25.511	(1.000)	329099	4.00000	
79 Dibenzo(a,h)anthracene	278	28.045	28.022	(1.099)	8587	0.09310	0.09310
90 N-Nitrosodimethylamine	74	4.532	4.524	(0.513)	4485	0.20200	0.2020 (M)

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt10.i
 Lab File ID: NT1023020923S.D
 Lab Smp Id: SLB0157-LCV2
 Analysis Type: SV
 Quant Type: ISTD
 Operator: DSD
 Method File: \\target\share\chem3\nt10.i\20230209A.b\SIM.b\SIMABN2.m
 Misc Info:

Calibration Date: 10-FEB-2023
 Calibration Time: 02:26
 Level: LOW
 Sample Type: AIR

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	99878	49939	199756	111416	11.55
27 Naphthalene-d8	353725	176863	707450	392837	11.06
42 Acenaphthene-d10	168125	84063	336250	179474	6.75
59 Phenanthrene-d10	295176	147588	590352	317554	7.58
69 Chrysene-d12	264951	132476	529902	291308	9.95
77 Perylene-d12	304147	152074	608294	329099	8.20

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
8 1,4-Dichlorobenze	8.84	8.34	9.34	8.84	-0.00
27 Naphthalene-d8	11.30	10.80	11.80	11.30	-0.00
42 Acenaphthene-d10	14.88	14.38	15.38	14.89	0.05
59 Phenanthrene-d10	17.90	17.40	18.40	17.90	-0.00
69 Chrysene-d12	22.98	22.48	23.48	22.98	-0.00
77 Perylene-d12	25.51	25.01	26.01	25.51	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1023020923S.D

Lab ID: SLB0157-LCV2

nt10.i, 20230209A.b\SIM.b\SIMABN2.m, 10-FEB-2023 03:04

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
1.039	1.032	0.0079	Benzyl alcohol
0.943	0.957	-0.0143	Benzoic acid

RRT check based on Ccal File: SIM.b/NT1023020922S.D

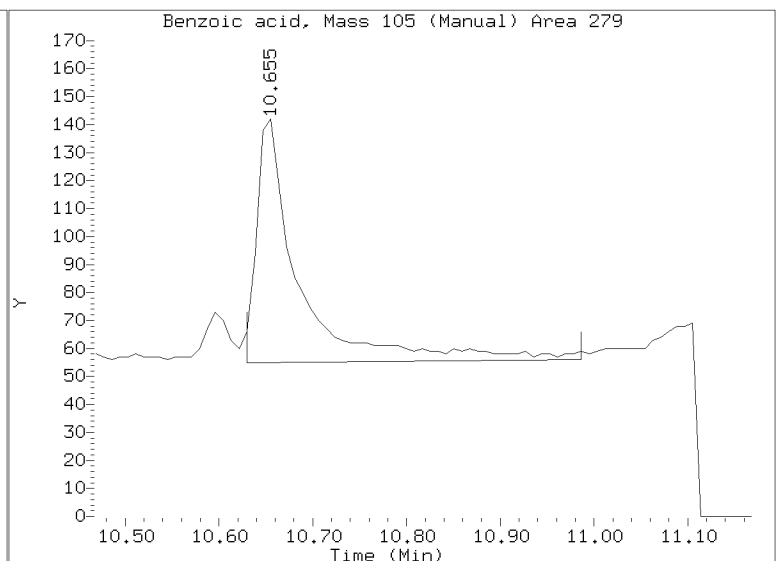
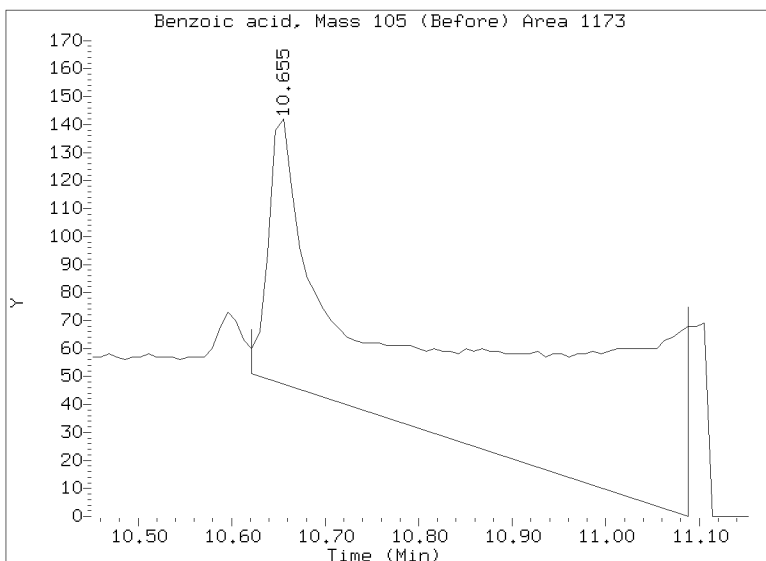
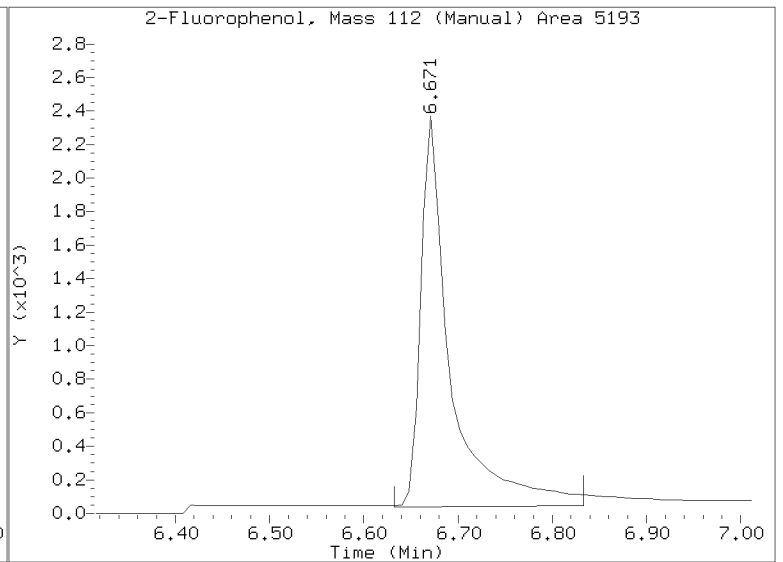
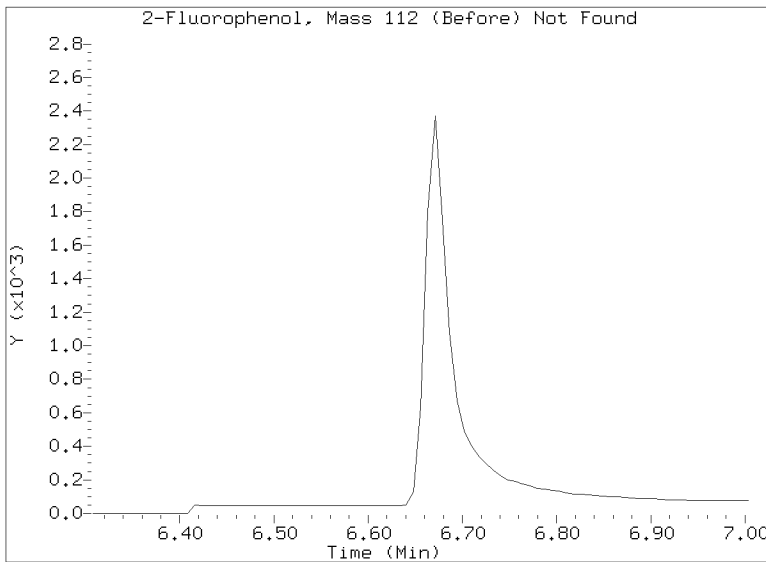
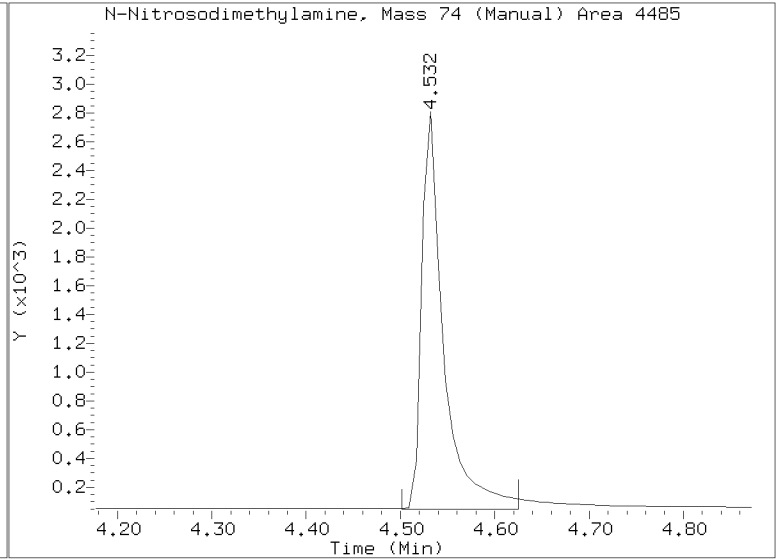
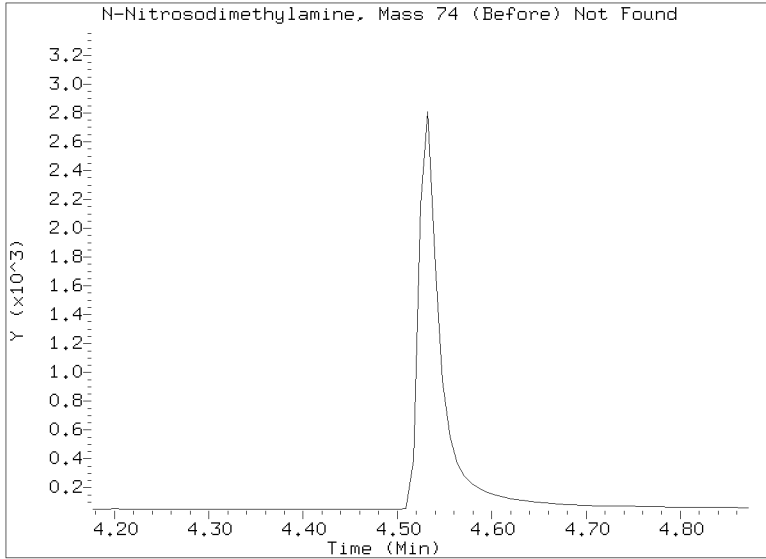
On Column LOD for nt10.i, SIM.b\SIMABN2.m, PSDDA.sub = 0.0000

Exception: 1,2,4-Trichlorobenzene 0.0010

* Only compounds listed in the work order have been verified by the analyst *

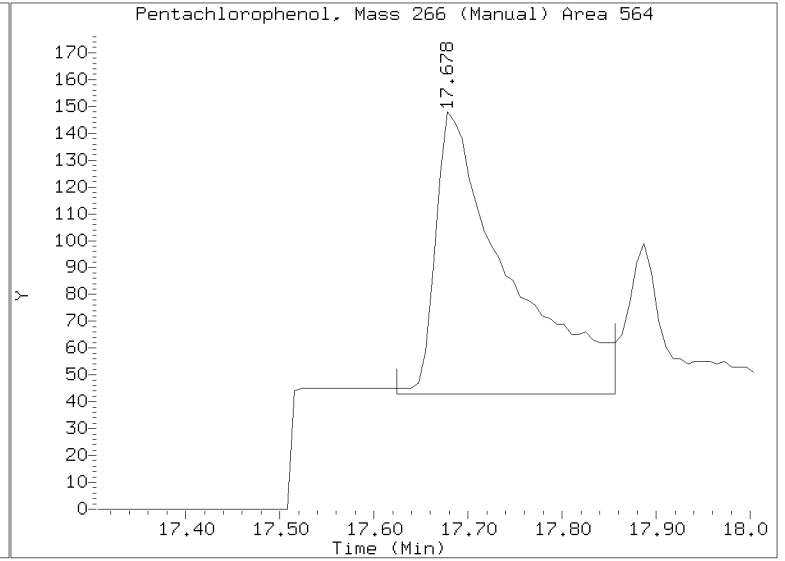
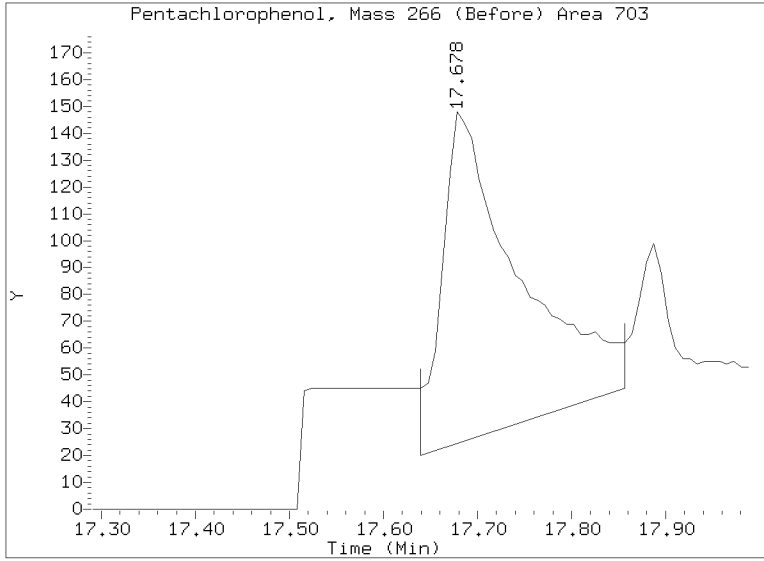
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209A.b/SIM.b/NT1023020923S.D
Injection Date: 10-FEB-2023 03:04
Lab ID:SLB0157-LCV2 Client ID:
Report Date: 02/12/2023 18:08



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt10.i/20230209A.b/SIM.b/NT1023020923S.D
Injection Date: 10-FEB-2023 03:04
Lab ID: SLB0157-LCV2 Client ID:
Report Date: 02/12/2023 18:08





ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLA0213

Instrument: NT8

Calibration: GA00050

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLA0213-TUN1	N823011901.D	NA	01/19/23 10:28
Initial Cal Blank	SLA0213-ICB1	N823011902.D	NA	01/19/23 10:59
8270 SIM PNA 0.1	SLA0213-CAL1	N823011903.D	NA	01/19/23 11:26
8270 SIM PNA 0.5	SLA0213-CAL2	N823011904.D	NA	01/19/23 11:58
8270 SIM PNA 1.0	SLA0213-CAL3	N823011905.D	NA	01/19/23 12:25
8270 SIM PNA 2.5	SLA0213-CAL4	N823011906.D	NA	01/19/23 12:52
8270 SIM PNA 5	SLA0213-CAL5	N823011907.D	NA	01/19/23 13:19
8270 SIM PNA 10	SLA0213-CAL6	N823011908.D	NA	01/19/23 13:46
8270 SIM PNA SCV	SLA0213-SCV1	N823011909.D	NA	01/19/23 14:58



ANALYSIS SEQUENCE

SLA0213

Instrument: NT8
Calibration ID: GA00050

Element Column ID: J006458

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SLA0213-TUN1	MS Tune	QC		1	K004775			
SLA0213-ICB1	Initial Cal Blank	QC		2		K008540		
SLA0213-CAL1	8270 SIM PNA 0.1	QC		3	L000603	K008540		
SLA0213-CAL2	8270 SIM PNA 0.5	QC		4	L000604	K008540		
SLA0213-CAL3	8270 SIM PNA 1.0	QC		5	L000605	K008540		
SLA0213-CAL4	8270 SIM PNA 2.5	QC		6	L000606	K008540		
SLA0213-CAL5	8270 SIM PNA 5	QC		7	L000607	K008540		
SLA0213-CAL6	8270 SIM PNA 10	QC		8	L000608	K008540		
SLA0213-SCV1	8270 SIM PNA SCV	QC		9	L000686	K008540		

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230119.b

Time	Filename	LabID	ClientId	DF											
1	1028	N823011901.D	SLA0213-TUN1	1	|	NO ISTDS FOUND|									
2	1059	N823011902.D	SLA0213-ICB1	1	|	4.92	52082|	7.20	30936|	9.24	59030|	14.22	50944|	18.12	47418|
3	1126	N823011903.D	SLA0213-CAL1	1	|	4.91	46132|	7.20	27261|	9.24	52158|	14.20	44953|	18.11	41635|
4	1158	N823011904.D	SLA0213-CAL2	1	|	4.91	45056|	7.20	26746|	9.24	50759|	14.21	44658|	18.11	42567|
5	1225	N823011905.D	SLA0213-CAL3	1	|	4.91	47180|	7.20	28206|	9.24	53233|	14.20	46493|	18.11	44587|
6	1252	N823011906.D	SLA0213-CAL4	1	|	4.91	44704|	7.20	26411|	9.24	49210|	14.20	42994|	18.11	40520|
7	1319	N823011907.D	SLA0213-CAL5	1	|	4.91	46542|	7.20	27638|	9.23	51351|	14.20	44781|	18.11	42187|
8	1346	N823011908.D	SLA0213-CAL6	1	|	4.91	46070|	7.20	26689|	9.24	50683|	14.21	43880|	18.11	40659|
9	1458	N823011909.D	SLA0213-SCV1	1	|	4.91	46346|	7.20	27709|	9.24	51685|	14.21	46582|	18.12	41743|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230119.b

ARI Job No.: SLA0 Method: FSIMPNA230119.m Instrument: nt8.i Date: 19-JAN-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1059	N823011902.D	SLA0213-ICB1		1	NO MANUAL INTEGRATION
1126	N823011903.D	SLA0213-CAL1		1	Total Benzofluoranthenes, Dibenzo(a,h)anthracene-d14,
1158	N823011904.D	SLA0213-CAL2		1	Total Benzofluoranthenes, Dibenzo(a,h)anthracene, Dibenzo(a,h)anthracene-d14,
1225	N823011905.D	SLA0213-CAL3		1	Total Benzofluoranthenes,
1252	N823011906.D	SLA0213-CAL4		1	Total Benzofluoranthenes,
1319	N823011907.D	SLA0213-CAL5		1	Total Benzofluoranthenes,
1346	N823011908.D	SLA0213-CAL6		1	Total Benzofluoranthenes,
1458	N823011909.D	SLA0213-SCV1		1	Total Benzofluoranthenes,

Security Status Report

Date: 19-Jan-2023 20:43

N823011901.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011902.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011903.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011904.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011905.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011906.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011907.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011908.D	Data Locked	jianqing, 19-Jan-2023 20:43
N823011909.D	Data Locked	jianqing, 19-Jan-2023 20:43



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLA0228</u>	Instrument:	<u>NT8</u>
		Calibration:	<u>GA00050</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLA0228-TUN1	N823011911.D	NA	01/19/23 15:28
Initial Cal Check	SLA0228-ICV1	N823011912.D	NA	01/19/23 16:16
Blank	BLA0171-BLK1	N823011913.D	Solid	01/19/23 16:45
LCS	BLA0171-BS1	N823011914.D	Solid	01/19/23 17:12
LCS Dup	BLA0171-BSD1	N823011915.D	Solid	01/19/23 17:39
Reference	BLA0171-SRM1	N823011916.D	Solid	01/19/23 18:06
LDW23-IT1246	23A0032-01	N823011917.D	Solid	01/19/23 18:33
LDW23-IT1264	23A0032-02	N823011918.D	Solid	01/19/23 19:00
LDW23-IT1269	23A0032-03	N823011919.D	Solid	01/19/23 19:27
LDW23-IT1272	23A0032-04	N823011920.D	Solid	01/19/23 19:53
LDW23-IT1235	23A0032-06	N823011921.D	Solid	01/19/23 20:20
LDW23-IT1235	BLA0171-MS1	N823011922.D	Solid	01/19/23 20:47
LDW23-IT1235	BLA0171-MSD1	N823011923.D	Solid	01/19/23 21:14
LDW23-IT1202	23A0032-07	N823011924.D	Solid	01/19/23 21:41
LDW23-IT1264	23A0032-02RE1	N823011925.D	Solid	01/19/23 22:08
ZZZZZ	BLA0285-BLK1	N823011927.D	Solid	01/19/23 23:01
ZZZZZ	BLA0285-BS1	N823011928.D	Solid	01/19/23 23:28
ZZZZZ	BLA0285-BSD1	N823011929.D	Solid	01/19/23 23:55
ZZZZZ	BLA0285-SRM1	N823011930.D	Solid	01/20/23 00:22
ZZZZZ	23A0088-01	N823011931.D	Solid	01/20/23 00:49
ZZZZZ	BLA0285-MS1	N823011932.D	Solid	01/20/23 01:16
ZZZZZ	BLA0285-MSD1	N823011933.D	Solid	01/20/23 01:42
ZZZZZ	23A0088-02	N823011934.D	Solid	01/20/23 02:09
ZZZZZ	23A0088-05	N823011935.D	Solid	01/20/23 02:36
ZZZZZ	23A0099-01	N823011936.D	Solid	01/20/23 03:03
Calibration Check	SLA0228-CCV1	N823011937.D	NA	01/20/23 03:30



ANALYSIS SEQUENCE

SLA0228

Instrument: NT8
Calibration ID: GA00050

Printed: 1/23/2023 3:25:58PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLA0228-TUN1	QC		1		K004775			
SLA0228-ICV1	QC		2		L000606	K008540		
BLA0171-BLK1	QC		3			K008540		
BLA0171-BS1	QC		4			K008540		
BLA0171-BSD1	QC		5			K008540		
BLA0171-SRM1	QC		6			K008540		
23A0032-01	DE-SIM PAH (0.1ug/L or 5ug	A 03	7			K008540	Anchor QEA, LLC	
23A0032-02	DE-SIM PAH (0.1ug/L or 5ug	A 03	8			K008540	Anchor QEA, LLC	
23A0032-02RE1	DE-SIM PAH (0.1ug/L or 5ug	A 03	9			K008540	Anchor QEA, LLC	Added 1/19/2023 by JZ
23A0032-03	DE-SIM PAH (0.1ug/L or 5ug	A 03	10			K008540	Anchor QEA, LLC	
23A0032-04	DE-SIM PAH (0.1ug/L or 5ug	A 03	11			K008540	Anchor QEA, LLC	
23A0032-06	DE-SIM PAH (0.1ug/L or 5ug	A 03	12			K008540	Anchor QEA, LLC	
BLA0171-MS1	QC		13			K008540		
BLA0171-MSD1	QC		14			K008540		
23A0032-07	DE-SIM PAH (0.1ug/L or 5ug	A 03	15			K008540	Anchor QEA, LLC	
BLA0285-BLK1	QC		16			K008540		
BLA0285-BS1	QC		17			K008540		
BLA0285-BSD1	QC		18			K008540		
BLA0285-SRM1	QC		19			K008540		
23A0088-01	DE-SIM PAH (0.1ug/L or 5ug	A 01	20			K008540	Anchor QEA, LLC	
BLA0285-MS1	QC		21			K008540		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____



ANALYSIS SEQUENCE

SLA0228

Instrument: NT8
Calibration ID: GA00050

Printed: 1/23/2023 3:25:58PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
BLA0285-MSD1	QC		22			K008540		
23A0088-02	DE-SIM PAH (0.1ug/L or 5ug	A 01	23			K008540	Anchor QEA, LLC	
23A0088-05	DE-SIM PAH (0.1ug/L or 5ug	A 01	24			K008540	Anchor QEA, LLC	
23A0099-01	DE-SIM PAH (0.1ug/L or 5ug	A 01	25			K008540	Anchor QEA, LLC	
SLA0228-CCV1	QC		26		L000606	K008540		

Samples Loaded By Date

Data Processed By Date

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230119A.b

Time	Filename	LabID	ClientId	DF									
1	1528	N823011911.D	SLA0228-TUN1		1	|	NO ISTDS FOUND|						
2	1616	N823011912.D	SLA0228-ICV1		1	|	4.91 42524|	7.20	25260|	9.24	47890|	14.21 40533|	18.12 38115|
3	1645	N823011913.D	BLA0171-BLK1		1	|	4.90 48006|	7.20	28306|	9.24	53575|	14.21 44210|	18.11 19804|
4	1712	N823011914.D	BLA0171-BS1		1	|	4.90 52345|	7.20	30657|	9.24	57385|	14.21 49446|	18.11 25229|
5	1739	N823011915.D	BLA0171-BSD1		1	|	4.90 58698|	7.19	34696|	9.24	64445|	14.21 55512|	18.11 28227|
6	1806	N823011916.D	BLA0171-SRM1		1	|	4.90 60246|	7.19	35366|	9.23	65529|	14.20 58326|	18.11 32646|
7	1833	N823011917.D	23A0032-01		1	|	4.90 55708|	7.20	32311|	9.24	56906|	14.22 35144|	18.12 33706|
8	1900	N823011918.D	23A0032-02	E	3	|	4.90 53696|	7.20	32306|	9.24	55819|	14.23 32081|	18.13 33551|
9	1927	N823011919.D	23A0032-03		3	|	4.90 54137|	7.20	33307|	9.24	59485|	14.21 40272|	18.11 39079|
10	1953	N823011920.D	23A0032-04		1	|	4.90 58598|	7.20	34679|	9.24	62632|	14.20 44634|	18.11 41054|
11	2020	N823011921.D	23A0032-06		1	|	4.90 59534|	7.20	34344|	9.24	58574|	14.21 35817|	18.12 31076|
12	2047	N823011922.D	BLA0171-MS1		1	|	4.90 57416|	7.20	32442|	9.24	53916|	14.21 31078|	18.12 29411|
13	2114	N823011923.D	BLA0171-MSD1		1	|	4.90 52331|	7.20	29663|	9.24	48346|	14.21 26832|	18.13 24071|
14	2141	N823011924.D	23A0032-07		3	|	4.91 48207|	7.20	29277|	9.24	50426|	14.22 32269|	18.12 29555|
15	2208	N823011925.D	23A0032-02RE1		45	|	4.91 56242|	7.20	34169|	9.24	65562|	14.21 53297|	18.11 48092|
16	2234	N823011926.D	23A0032-07RE1	NR	15	|	4.91 46748|	7.20	29200|	9.24	55337|	14.21 45731|	18.11 43153|
17	2301	N823011927.D	BLA0285-BLK1		1	|	4.90 47522|	7.20	27798|	9.24	53455|	14.21 47309|	18.11 31381|
18	2328	N823011928.D	BLA0285-BS1		1	|	4.90 52164|	7.20	29817|	9.24	56182|	14.21 49987|	18.11 33250|
19	2355	N823011929.D	BLA0285-BSD1		1	|	4.90 55990|	7.20	31907|	9.24	60346|	14.21 54046|	18.11 32457|
20	0022	N823011930.D	BLA0285-SRM1		1	|	4.90 49726|	7.20	28257|	9.24	49684|	14.21 46841|	18.11 32955|

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230119A.b

Time	Filename	LabID	ClientId	DF							
21	0049	N823011931.D	23A0088-01		3	| 4.91	49614|| 7.20	28735|| 9.24	48388||14.21	29972||18.12	29824|
22	0116	N823011932.D	BLA0285-MS1		1	| 4.90	56228|| 7.20	31530|| 9.24	52215||14.22	27215||18.13	25963|
23	0142	N823011933.D	BLA0285-MSD1		1	| 4.90	57463|| 7.20	31721|| 9.25	53037||14.23	26985||18.13	26410|
24	0209	N823011934.D	23A0088-02		1	| 4.90	56498|| 7.20	32407|| 9.24	51104||14.22	29002||18.13	25774|
25	0236	N823011935.D	23A0088-05		3	| 4.91	50569|| 7.20	30092|| 9.24	49333||14.21	31682||18.12	29672|
26	0303	N823011936.D	23A0099-01		3	| 4.91	55254|| 7.20	32674|| 9.24	53429||14.22	29796||18.13	28642|
27	0330	N823011937.D	SLA0228-CCV1		1	| 4.91	51431|| 7.20	30771|| 9.24	58835||14.21	51719||18.12	45409|

JZ 1/23/23

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230119A.b

ARI Job No.: SLA0 Method: FSIMPNA230119.m Instrument: nt8.i Date: 19-JAN-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1616	N823011912.D	SLA0228-ICV1		1	Total Benzofluoranthenes,
1645	N823011913.D	BLA0171-BLK1		1	NO MANUAL INTEGRATION
1712	N823011914.D	BLA0171-BS1		1	Total Benzofluoranthenes,
1739	N823011915.D	BLA0171-BSD1		1	Total Benzofluoranthenes,
1806	N823011916.D	BLA0171-SRM1		1	Benzo(g,h,i)perylene, Total Benzofluoranthenes,
1833	N823011917.D	23A0032-01		1	2-Methylnaphthalene, 1-methylnaphthalene, Total Benzofluoranthenes,
1900	N823011918.D	23A0032-02		3	Naphthalene, Total Benzofluoranthenes, Perylene-d12,
1927	N823011919.D	23A0032-03		3	Total Benzofluoranthenes,
1953	N823011920.D	23A0032-04		1	Benzo(g,h,i)perylene, Total Benzofluoranthenes,
2020	N823011921.D	23A0032-06		1	Dibenzo(a,h)anthracene, Total Benzofluoranthenes,
2047	N823011922.D	BLA0171-MS1		1	Total Benzofluoranthenes,
2114	N823011923.D	BLA0171-MSD1		1	Total Benzofluoranthenes,
2141	N823011924.D	23A0032-07		3	Total Benzofluoranthenes,
2208	N823011925.D	23A0032-02RE1		45	Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Dibenzo(a,h)anthracene-d14,
2234	N823011926.D	23A0032-07RE1		15	NO MANUAL INTEGRATION
2301	N823011927.D	BLA0285-BLK1		1	Phenanthrene,
2328	N823011928.D	BLA0285-BS1		1	Total Benzofluoranthenes,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt8.i\20230119A.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2355	N823011929.D	BLA0285-BSD1		1	Total Benzofluoranthenes,
0022	N823011930.D	BLA0285-SRM1		1	Total Benzofluoranthenes,
0049	N823011931.D	23A0088-01		3	Naphthalene, 2-Methylnaphthalene, 1-methylnaphthalene, Indeno(1,2,3-cd)pyrene, Dibenzofuran, Fluorene, Total Benzofluoranthenes,
0116	N823011932.D	BLA0285-MS1		1	Total Benzofluoranthenes,
0142	N823011933.D	BLA0285-MSD1		1	Total Benzofluoranthenes,
0209	N823011934.D	23A0088-02		1	Naphthalene, Dibenzo(a,h)anthracene, 2-Methylnaphthalene, 1-methylnaphthalene, Indeno(1,2,3-cd)pyrene, Acenaphthene, Dibenzofuran, Benzo(g,h,i)perylene, Total Benzofluoranthenes,
0236	N823011935.D	23A0088-05		3	Dibenzo(a,h)anthracene, 2-Methylnaphthalene, 1-methylnaphthalene, Total Benzofluoranthenes,
0303	N823011936.D	23A0099-01		3	Naphthalene, 2-Methylnaphthalene, 1-methylnaphthalene, Acenaphthene, Fluorene, Total Benzofluoranthenes,
0330	N823011937.D	SLA0228-CCV1		1	Total Benzofluoranthenes,

Security Status Report

Date: 23-Jan-2023 15:27

N823011911.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011912.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011913.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011914.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011915.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011916.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011917.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011918.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011919.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011920.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011921.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011922.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011923.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011924.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011925.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011926.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011927.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011928.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011929.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011930.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011931.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011932.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011933.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011934.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011935.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011936.D	Data Locked	jianqing, 23-Jan-2023 15:27
N823011937.D	Data Locked	jianqing, 23-Jan-2023 15:27



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Extract Dilution Bench Sheet

Sequence: SLA0228
Analyst: JZ Date: 1/19/23

Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor
23A0032-02	100	K005942	200	3				
23A0032-03	100		200	3				
23A0032-07	100		200	3				
23A0032-02RE1	20	from 3X	280	45				



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0106

Instrument: NT10

Calibration: GB00019

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SLB0106-TUN1	NT1023020701S.D	NA	02/07/23 11:54
CAL 10.0	SLB0106-CAL8	NT1023020703S.D	NA	02/07/23 12:57
CAL 5.0	SLB0106-CAL7	NT1023020704S.D	NA	02/07/23 13:35
CAL 2.5	SLB0106-CAL6	NT1023020705S.D	NA	02/07/23 14:14
CAL 1.0	SLB0106-CAL5	NT1023020706S.D	NA	02/07/23 14:52
CAL 0.50	SLB0106-CAL4	NT1023020707S.D	NA	02/07/23 15:30
CAL 0.20	SLB0106-CAL3	NT1023020708S.D	NA	02/07/23 16:09
CAL 0.10	SLB0106-CAL2	NT1023020709S.D	NA	02/07/23 16:47
CAL 0.05	SLB0106-CAL1	NT1023020710S.D	NA	02/07/23 17:25
SCV 5.0	SLB0106-SCV1	NT1023020711S.D	NA	02/07/23 18:04
Initial Cal Check	SLB0106-ICV1	NT1023020714S.D	NA	02/07/23 19:58
LCV 0.1	SLB0106-LCV1	NT1023020715S.D	NA	02/07/23 20:36
ZZZZZ	BLA0160-BLK3	NT1023020716S.D	Solid	02/07/23 21:14
ZZZZZ	BLA0160-BS2	NT1023020717S.D	Solid	02/07/23 21:52
ZZZZZ	BLA0160-BSD2	NT1023020718S.D	Solid	02/07/23 22:30
ZZZZZ	BLA0160-SRM2	NT1023020719S.D	Solid	02/07/23 23:09
ZZZZZ	23A0031-01	NT1023020720S.D	Solid	02/07/23 23:47
ZZZZZ	23A0031-02	NT1023020721S.D	Solid	02/08/23 00:25
ZZZZZ	23A0031-03	NT1023020722S.D	Solid	02/08/23 01:03
ZZZZZ	23A0031-04	NT1023020723S.D	Solid	02/08/23 01:41
ZZZZZ	23A0031-05	NT1023020724S.D	Solid	02/08/23 02:18
ZZZZZ	23A0031-06	NT1023020725S.D	Solid	02/08/23 02:57
ZZZZZ	23A0031-07	NT1023020726S.D	Solid	02/08/23 03:34
ZZZZZ	23A0031-08	NT1023020727S.D	Solid	02/08/23 04:13
ZZZZZ	23A0031-09	NT1023020728S.D	Solid	02/08/23 04:51
ZZZZZ	23A0031-10	NT1023020729S.D	Solid	02/08/23 05:29
ZZZZZ	23A0031-11	NT1023020730S.D	Solid	02/08/23 06:07
ZZZZZ	23A0031-12	NT1023020731S.D	Solid	02/08/23 06:45
ABN 1	SLB0106-ICV2	NT1023020734S.D	NA	02/08/23 08:40



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0106

Instrument: NT10

Calibration: GB00019

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	BLA0064-BLK2	NT1023020736S.D	Solid	02/08/23 09:56
ZZZZZ	BLA0064-BS2	NT1023020737S.D	Solid	02/08/23 10:35
ZZZZZ	BLA0064-BSD2	NT1023020738S.D	Solid	02/08/23 11:13
ZZZZZ	22L0459-01	NT1023020739S.D	Solid	02/08/23 11:51
ZZZZZ	BLA0064-MS2	NT1023020740S.D	Solid	02/08/23 12:29
ZZZZZ	BLA0064-MSD2	NT1023020741S.D	Solid	02/08/23 13:08
ZZZZZ	22L0459-02	NT1023020742S.D	Solid	02/08/23 13:46
ZZZZZ	22L0459-03	NT1023020743S.D	Solid	02/08/23 14:25
ZZZZZ	22L0459-04	NT1023020744S.D	Solid	02/08/23 15:03
ZZZZZ	22L0459-05	NT1023020745S.D	Solid	02/08/23 15:41
ZZZZZ	22L0459-06	NT1023020746S.D	Solid	02/08/23 16:20
ZZZZZ	22L0459-07	NT1023020747S.D	Solid	02/08/23 16:58
ABN 1	SLB0106-ICV3	NT1023020750S.D	NA	02/08/23 18:52
ZZZZZ	BLA0160-BLK4	NT1023020752S.D	Solid	02/08/23 20:08
ZZZZZ	23A0031-13	NT1023020754S.D	Solid	02/08/23 21:25
ZZZZZ	23A0031-14	NT1023020755S.D	Solid	02/08/23 22:03
ZZZZZ	BLA0160-MS2	NT1023020756S.D	Solid	02/08/23 22:41
ZZZZZ	BLA0160-MSD2	NT1023020757S.D	Solid	02/08/23 23:19
ABN 1	SLB0106-CCV1	NT1023020760S.D	NA	02/09/23 01:13



ANALYSIS SEQUENCE

SLB0106

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GB00019 GCMS Column ID: L000749
MS EM Level: 1000 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLB0106-TUN1	MS Tune	QC		1	K008469		02/07/2023 11:54	NT1023020701S.D	DSD	
SLB0106-CAL8	CAL 10.0	QC		2	K011110	K010831	02/07/2023 12:57	NT1023020703S.D	DSD	
SLB0106-CAL7	CAL 5.0	QC		3	K011109	K010831	02/07/2023 13:35	NT1023020704S.D	DSD	
SLB0106-CAL6	CAL 2.5	QC		4	K011108	K010831	02/07/2023 14:14	NT1023020705S.D	DSD	
SLB0106-CAL5	CAL 1.0	QC		5	K011107	K010831	02/07/2023 14:52	NT1023020706S.D	DSD	
SLB0106-CAL4	CAL 0.50	QC		6	K011106	K010831	02/07/2023 15:30	NT1023020707S.D	DSD	
SLB0106-CAL3	CAL 0.20	QC		7	K011105	K010831	02/07/2023 16:09	NT1023020708S.D	DSD	
SLB0106-CAL2	CAL 0.10	QC		8	K011452	K010831	02/07/2023 16:47	NT1023020709S.D	DSD	
SLB0106-CAL1	CAL 0.05	QC		9	K011453	K010831	02/07/2023 17:25	NT1023020710S.D	DSD	
SLB0106-SCV1	SCV 5.0	QC		10	K010066	K010831	02/07/2023 18:04	NT1023020711S.D	DSD	
SLB0106-ICV1	Initial Cal Check	QC		11	K011107	K010831	02/07/2023 19:58	NT1023020714S.D	DSD	
SLB0106-LCV1	LCV 0.1	QC		12	K011452	K010831	02/07/2023 20:36	NT1023020715S.D	DSD	
BLA0160-BLK3	Blank	QC		13		K010831	02/07/2023 21:14	NT1023020716S.D	DSD	
BLA0160-BS2	LCS	QC		14		K010831	02/07/2023 21:52	NT1023020717S.D	DSD	
BLA0160-BSD2	LCS Dup	QC		15		K010831	02/07/2023 22:30	NT1023020718S.D	DSD	
BLA0160-SRM2	Reference	QC		16		K010831	02/07/2023 23:09	NT1023020719S.D	DSD	
23A0031-01	LDW23-SS1002	270E-SIM Dual Scan SVO	A 01	17		K010831	02/07/2023 23:47	NT1023020720S.D	DSD	
23A0031-02	LDW23-SS1001	270E-SIM Dual Scan SVO	A 01	18		K010831	02/08/2023 00:25	NT1023020721S.D	DSD	
23A0031-03	LDW23-SS1199	270E-SIM Dual Scan SVO	A 01	19		K010831	02/08/2023 01:03	NT1023020722S.D	DSD	
23A0031-04	LDW23-SS1199-FD	270E-SIM Dual Scan SVO	A 01	20		K010831	02/08/2023 01:41	NT1023020723S.D	DSD	
23A0031-05	LDW23-SS1191	270E-SIM Dual Scan SVO	A 01	21		K010831	02/08/2023 02:18	NT1023020724S.D	DSD	
23A0031-06	LDW23-SS1191-FD	270E-SIM Dual Scan SVO	A 01	22		K010831	02/08/2023 02:57	NT1023020725S.D	DSD	



ANALYSIS SEQUENCE

SLB0106

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GB00019 GCMS Column ID: L000749
MS EM Level: 1000 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
23A0031-07	LDW23-SS1177	270E-SIM Dual Scan SVO	A 01	23		K010831	02/08/2023 03:34	NT1023020726S.D	DSD	
23A0031-08	LDW23-SS1177-FD	270E-SIM Dual Scan SVO	A 01	24		K010831	02/08/2023 04:13	NT1023020727S.D	DSD	
23A0031-09	LDW23-SS1156	270E-SIM Dual Scan SVO	A 01	25		K010831	02/08/2023 04:51	NT1023020728S.D	DSD	
23A0031-10	LDW23-SS1156-FD	270E-SIM Dual Scan SVO	A 01	26		K010831	02/08/2023 05:29	NT1023020729S.D	DSD	
23A0031-11	LDW23-SS1143	270E-SIM Dual Scan SVO	A 01	27		K010831	02/08/2023 06:07	NT1023020730S.D	DSD	
23A0031-12	LDW23-SS1143-FD	270E-SIM Dual Scan SVO	A 01	28		K010831	02/08/2023 06:45	NT1023020731S.D	DSD	
SLB0106-ICV2	ABN 1	QC		29	K011107	K010831	02/08/2023 08:40	NT1023020734S.D	DSD	
BLA0064-BLK2	Blank	QC		30		K010831	02/08/2023 09:56	NT1023020736S.D	DSD	
BLA0064-BS2	LCS	QC		31		K010831	02/08/2023 10:35	NT1023020737S.D	DSD	
BLA0064-BSD2	LCS Dup	QC		32		K010831	02/08/2023 11:13	NT1023020738S.D	DSD	
22L0459-01	LDW23-SC1123B	270E-SIM Dual Scan SVO	A 01	33		K010831	02/08/2023 11:51	NT1023020739S.D	DSD	
BLA0064-MS2	Matrix Spike	QC		34		K010831	02/08/2023 12:29	NT1023020740S.D	DSD	
BLA0064-MSD2	Matrix Spike Dup	QC		35		K010831	02/08/2023 13:08	NT1023020741S.D	DSD	
22L0459-02	LDW23-SC1053C	270E-SIM Dual Scan SVO	A 01	36		K010831	02/08/2023 13:46	NT1023020742S.D	DSD	
22L0459-03	LDW23-SC1039C	270E-SIM Dual Scan SVO	A 01	37		K010831	02/08/2023 14:25	NT1023020743S.D	DSD	
22L0459-04	LDW23-SC1007B	270E-SIM Dual Scan SVO	A 01	38		K010831	02/08/2023 15:03	NT1023020744S.D	DSD	
22L0459-05	LDW23-SC1002C	270E-SIM Dual Scan SVO	A 01	39		K010831	02/08/2023 15:41	NT1023020745S.D	DSD	
22L0459-06	LDW23-SC1070B	270E-SIM Dual Scan SVO	A 01	40		K010831	02/08/2023 16:20	NT1023020746S.D	DSD	
22L0459-07	LDW23-SC1091B	270E-SIM Dual Scan SVO	A 01	41		K010831	02/08/2023 16:58	NT1023020747S.D	DSD	
SLB0106-ICV3	ABN 1	QC		42	K011107	K010831	02/08/2023 18:52	NT1023020750S.D	DSD	
BLA0160-BLK4	Blank	QC		43			02/08/2023 20:08	NT1023020752S.D	DSD	
23A0031-13	LDW23-SS1137	270E-SIM Dual Scan SVO	A 01	44		K010831	02/08/2023 21:25	NT1023020754S.D	DSD	



ANALYSIS SEQUENCE

SLB0106

Instrument ID: NT10 GCMS Description: Agilent 5975/MS http://bi
Calibration ID: GB00019 GCMS Column ID: L000749
MS EM Level: 1000 EV

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
23A0031-14	LDW23-SS1138	270E-SIM Dual Scan SVO	A 01	45		K010831	02/08/2023 22:03	NT1023020755S.D	DSD	
BLA0160-MS2	Matrix Spike	QC		46		K010831	02/08/2023 22:41	NT1023020756S.D	DSD	
BLA0160-MSD2	Matrix Spike Dup	QC		47		K010831	02/08/2023 23:19	NT1023020757S.D	DSD	
SLB0106-CCV1	ABN 1	QC		48	K011107	K010831	02/09/2023 01:13	NT1023020760S.D	DSD	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b\20230207.b

Time	Filename	LabID	ClientId	DF									
21	0025	NT1023020721S.D	23A0031-02	1	|	8.97	112022||11.42	417387||15.01	206013||18.02	383214||23.07	283048||25.63	338155|	
22	0103	NT1023020722S.D	23A0031-03	1	|	8.96	100015||11.42	372094||15.00	180738||18.02	329551||23.07	244901||25.63	299557|	
23	0141	NT1023020723S.D	23A0031-04	1	|	8.97	109315||11.42	410277||15.01	199704||18.02	372823||23.07	275317||25.63	325043|	
24	0218	NT1023020724S.D	23A0031-05	1	|	8.97	102071||11.42	380853||15.01	187319||18.02	346716||23.07	258406||25.63	308547|	
25	0257	NT1023020725S.D	23A0031-06	1	|	8.97	104003||11.43	387135||15.01	189939||18.02	361779||23.07	267322||25.63	309509|	
26	0334	NT1023020726S.D	23A0031-07	1	|	8.97	98993||11.42	371726||15.01	181917||18.02	336826||23.08	253244||25.63	298568|	
27	0413	NT1023020727S.D	23A0031-08	1	|	8.97	104338||11.43	394877||15.01	194034||18.02	358656||23.08	274629||25.64	313774|	
28	0451	NT1023020728S.D	23A0031-09	1	|	8.97	103917||11.43	394505||15.01	191584||18.02	355293||23.08	276147||25.65	297452|	
29	0529	NT1023020729S.D	23A0031-10	1	|	8.97	106518||11.43	402507||15.01	194380||18.03	358489||23.08	281548||25.65	300684|	
30	0607	NT1023020730S.D	23A0031-11	1	|	8.97	92717||11.43	351247||15.01	166081||18.02	312170||23.08	243505||25.63	275249|	
31	0645	NT1023020731S.D	23A0031-12	1	|	8.97	89897||11.43	337409||15.01	161506||18.02	297891||23.08	238544||25.64	263371|	
32	0724	NT1023020732S.D	SEQ-ICV2	1	|	8.97	115715||11.43	441080||15.01	220681||18.02	400233||23.08	345619||25.63	382335|	
33	0802	NT1023020733S.D	SEQ-LCV2	1	|	8.97	120550||11.43	440099||15.01	211763||18.02	390655||23.07	319612||25.62	370093|	
34	0840	NT1023020734S.D	SLB0106-ICV2	1	|	8.97	123596||11.43	454738||15.01	223117||18.02	408770||23.07	339328||25.63	382671|	
35	0918	NT1023020735S.D	SLB0106-LCV2	1	|	8.97	136631||11.43	494473||15.01	239109||18.02	436435||23.07	359093||25.63	406370|	
36	0956	NT1023020736S.D	BLA0064-BLK3	1	|	8.97	120344||11.43	445549||15.01	215301||18.02	395423||23.07	318273||25.62	350817|	
37	1035	NT1023020737S.D	BLA0064-BS2	1	|	8.97	89632||11.43	356743||15.01	180593||18.02	334413||23.07	273402||25.62	304782|	
38	1113	NT1023020738S.D	BLA0064-BSD2	1	|	8.97	107414||11.43	407123||15.01	201603||18.02	368890||23.07	298075||25.62	333508|	
39	1151	NT1023020739S.D	22L0459-01	1	|	8.97	110965||11.43	424736||15.01	204070||18.03	369495||23.09	284476||25.66	290541|	
40	1229	NT1023020740S.D	BLA0064-MS2	1	|	8.97	113976||11.43	432968||15.02	207269||18.03	379712||23.11	262267||25.68	260261|	
41	1308	NT1023020741S.D	BLA0064-MSD2	1	|	8.97	101164||11.43	388196||15.02	184753||18.04	337160||23.11	249066||25.68	234870|	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b\20230207.b

Time	Filename	LabID	ClientId	DF									
42	1346	NT1023020742S.D	22L0459-02	1	|	8.97	100891||11.43	392038||15.01	184063||18.03	341544||23.09	262324||25.67	250582|	
43	1425	NT1023020743S.D	22L0459-03	1	|	8.97	104328||11.43	406627||15.02	190468||18.04	354546||23.11	237446||25.69	215820|	
44	1503	NT1023020744S.D	22L0459-04	1	|	8.97	93235||11.43	366510||15.02	172531||18.03	323195||23.09	243552||25.66	225418|	
45	1541	NT1023020745S.D	22L0459-05	1	|	8.97	87773||11.43	343641||15.02	161215||18.04	299100||23.10	225102||25.69	189075|	
46	1620	NT1023020746S.D	22L0459-06	1	|	8.97	89484||11.43	348042||15.02	160019||18.04	301023||23.11	230142||25.69	184992|	
47	1658	NT1023020747S.D	22L0459-07	1	|	8.97	87825||11.43	345632||15.02	161330||18.04	302095||23.10	221246||25.67	188691|	
48	1736	NT1023020748S.D	SEQ-ICV3	1	|	8.97	85503||11.43	322816||15.02	162377||18.03	296201||23.08	269910||25.65	230520|	
49	1814	NT1023020749S.D	SEQ-LCV3	1	|	8.97	92311||11.43	336993||15.02	159967||18.03	300791||23.08	265211||25.64	229502|	
50	1852	NT1023020750S.D	SLB0106-ICV3	1	|	8.97	95705||11.43	353101||15.02	170881||18.03	321878||23.08	279976||25.65	238134|	
51	1931	NT1023020751S.D	SLB0106-LCV2	1	|	8.97	106466||11.43	387137||15.02	180160||18.03	334996||23.08	298320||25.64	251310|	
52	2008	NT1023020752S.D	BLA0160-BLK4	1	|	8.97	76782||11.43	288603||15.02	136246||18.03	252608||23.08	216105||25.64	173878|	
53	2047	NT1023020753S.D	23A0031-12	1	|	8.97	67580||11.43	252826||15.02	121531||18.03	222356||23.08	185834||25.65	164863|	
54	2125	NT1023020754S.D	23A0031-13	1	|	8.97	62896||11.43	238179||15.02	113969||18.03	207414||23.08	169045||25.66	154288|	
55	2203	NT1023020755S.D	23A0031-14	1	|	8.97	65989||11.43	251708||15.02	121538||18.03	225060||23.08	180743||25.65	162217|	
56	2241	NT1023020756S.D	BLA0160-MS1	1	|	8.97	67342||11.43	253069||15.02	124418||18.04	231566||23.09	187881||25.66	166627|	
57	2319	NT1023020757S.D	BLA0160-MSD1	1	|	8.97	62997||11.43	237770||15.02	116238||18.04	216331||23.08	175285||25.66	153226|	
58	2357	NT1023020758S.D	SEQ-CCV1	1	|	8.97	87868||11.44	331321||15.02	168992||18.03	309546||23.08	279182||25.65	221462|	
59	0035	NT1023020759S.D	SEQ-LCV1	1	|	8.97	93356||11.43	344344||15.02	165502||18.03	307169||23.08	266666||25.65	211167|	
60	0113	NT1023020760S.D	SLB0106-CCV1	1	|	8.97	95964||11.43	350716||15.02	174033||18.03	317531||23.08	279383||25.66	215378|	
61	0151	NT1023020761S.D	SIM-LCV1	1	|	8.97	107874||11.43	389989||15.02	183546||18.04	339249||23.08	301426||25.66	229883|	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230207.b\20230207.b

Instrument: nt10.i Date: 07-FEB-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
1154	NT1023020701S.D	SLB0106-TUN1	1	NO MANUAL INTEGRATION
1218	NT1023020702S.D		1	NO MANUAL INTEGRATION
1257	NT1023020703S.D	SLB0106-CAL8	1	NO MANUAL INTEGRATION
1335	NT1023020704S.D	SLB0106-CAL7	1	NO MANUAL INTEGRATION
1414	NT1023020705S.D	SLB0106-CAL6	1	NO MANUAL INTEGRATION
1452	NT1023020706S.D	SLB0106-CAL5	1	NO MANUAL INTEGRATION
1530	NT1023020707S.D	SLB0106-CAL4	1	NO MANUAL INTEGRATION
1609	NT1023020708S.D	SLB0106-CAL3	1	Benzoic acid, Pentachlorophenol,
1647	NT1023020709S.D	SLB0106-CAL2	1	Pentachlorophenol,
1725	NT1023020710S.D	SLB0106-CAL1	1	Hexachlorobutadiene, Benzyl alcohol, N-Nitroso-di-n-propylamine, Hexachlorobenzene, Pentachlorophenol, Dibenzo Butylbenzylphthalate,
1804	NT1023020711S.D	SLB0106-SCV1	1	NO MANUAL INTEGRATION
1842	NT1023020712S.D		1	NO MANUAL INTEGRATION
1920	NT1023020713S.D	SEQ-LCV1	1	NO MANUAL INTEGRATION
1958	NT1023020714S.D	SLB0106-ICV1	1	NO MANUAL INTEGRATION
2036	NT1023020715S.D	SLB0106-LCV1	1	Benzyl alcohol, N-Nitroso-di-n-propylamine, Pentachlorophenol,
2114	NT1023020716S.D	BLA0160-BLK3	1	NO MANUAL INTEGRATION
2152	NT1023020717S.D	BLA0160-BS2	1	NO MANUAL INTEGRATION

Instrument: nt10.i Date: 07-FEB-2023

Time	Filename	LabID	DF	Manually Integrated Compounds					
2230	NT1023020718S.D	BLA0160-BSD2	1	NO MANUAL INTEGRATION					
2309	NT1023020719S.D	BLA0160-SRM2	1	NO MANUAL INTEGRATION					
2347	NT1023020720S.D	23A0031-01	1	1,4-Dichlorobenzene,	1,2-Dichlorobenzene,	2,4-Dimethylphenol,	Dimethylphthalate,	Diethylphthalate,	Butylbenzyl
0025	NT1023020721S.D	23A0031-02	1	1,4-Dichlorobenzene,	Dimethylphthalate,	Diethylphthalate,	Butylbenzylphthalate,		
0103	NT1023020722S.D	23A0031-03	1	1,4-Dichlorobenzene,	Benzoic acid,	Dimethylphthalate,	Pentachlorophenol,	Butylbenzylphthalate,	
0141	NT1023020723S.D	23A0031-04	1	1,4-Dichlorobenzene,	Dimethylphthalate,	Pentachlorophenol,	Butylbenzylphthalate,		
0218	NT1023020724S.D	23A0031-05	1	1,4-Dichlorobenzene,	Benzoic acid,	Diethylphthalate,	Pentachlorophenol,	Butylbenzylphthalate,	
0257	NT1023020725S.D	23A0031-06	1	1,4-Dichlorobenzene,	Benzoic acid,	Diethylphthalate,	Pentachlorophenol,	Butylbenzylphthalate,	
0334	NT1023020726S.D	23A0031-07	1	1,3-Dichlorobenzene,	1,4-Dichlorobenzene,	2-Methylphenol,	Benzoic acid,	Dimethylphthalate,	Diethylphthalate,
				Pentachlorophenol,	Butylbenzylphthalate,				
0413	NT1023020727S.D	23A0031-08	1	1,4-Dichlorobenzene,	1,2-Dichlorobenzene,	Benzoic acid,	Dimethylphthalate,	Diethylphthalate,	Pentachlorophenol
				Butylbenzylphthalate,					
0451	NT1023020728S.D	23A0031-09	1	1,3-Dichlorobenzene,	1,4-Dichlorobenzene,	Benzoic acid,	Dimethylphthalate,	Diethylphthalate,	Pentachlorophenol
				Dibenzo(a,h)anthracene,	Butylbenzylphthalate,				
0529	NT1023020729S.D	23A0031-10	1	1,4-Dichlorobenzene,	1,2-Dichlorobenzene,	Dimethylphthalate,	Diethylphthalate,	Pentachlorophenol,	Dibenzo(a,h)
				Butylbenzylphthalate,					
0607	NT1023020730S.D	23A0031-11	1	1,3-Dichlorobenzene,	1,4-Dichlorobenzene,	Benzoic acid,	Dimethylphthalate,	Pentachlorophenol,	Butylbenzylphtha
0645	NT1023020731S.D	23A0031-12	1	1,4-Dichlorobenzene,	1,2-Dichlorobenzene,	Dimethylphthalate,	Diethylphthalate,	Pentachlorophenol,	Butylbenzylp
0724	NT1023020732S.D	SEQ-ICV2	1	NO MANUAL INTEGRATION					
0802	NT1023020733S.D	SEQ-LCV2	1	NO MANUAL INTEGRATION					
0840	NT1023020734S.D	SLB0106-ICV2	1	NO MANUAL INTEGRATION					
0918	NT1023020735S.D	SLB0106-LCV2	1	Pentachlorophenol,					

Instrument: nt10.i Date: 08-FEB-2023

Time	Filename	LabID	DF	Manually Integrated Compounds
0956	NT1023020736S.D	BLA0064-BLK3	1	1,4-Dichlorobenzene, 1,2-Dichlorobenzene, Dimethylphthalate,
1035	NT1023020737S.D	BLA0064-BS2	1	Benzoic acid,
1113	NT1023020738S.D	BLA0064-BSD2	1	NO MANUAL INTEGRATION
1151	NT1023020739S.D	22L0459-01	1	1,4-Dichlorobenzene, 2-Methylphenol, 1,2,4-Trichlorobenzene, Dimethylphthalate, Diethylphthalate, N-Nitrosodip Hexachlorobenzene, Pentachlorophenol, Butylbenzylphthalate,
1229	NT1023020740S.D	BLA0064-MS2	1	NO MANUAL INTEGRATION
1308	NT1023020741S.D	BLA0064-MSD2	1	NO MANUAL INTEGRATION
1346	NT1023020742S.D	22L0459-02	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dimethylphthalate, Diethylphthalate, Hexachlorobenzene, Pentachlorop Butylbenzylphthalate,
1425	NT1023020743S.D	22L0459-03	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dimethylphthalate, Diethylphthalate, Hexachlorobenzene, Pentachlorop Butylbenzylphthalate,
1503	NT1023020744S.D	22L0459-04	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, 2-Methylphenol, Dimethylphthalate, Diethylphtha Pentachlorophenol, Butylbenzylphthalate,
1541	NT1023020745S.D	22L0459-05	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, Diethylphthalate, Butylbenzylphthalate,
1620	NT1023020746S.D	22L0459-06	1	Benzoic acid, 1,2,4-Trichlorobenzene, Diethylphthalate, N-Nitrosodiphenylamine, Pentachlorophenol, Butylbenzyl
1658	NT1023020747S.D	22L0459-07	1	Hexachlorobutadiene, 1,4-Dichlorobenzene, 1,2,4-Trichlorobenzene, Diethylphthalate, N-Nitrosodiphenylamine, Pe Butylbenzylphthalate,
1736	NT1023020748S.D	SEQ-ICV3	1	NO MANUAL INTEGRATION
1814	NT1023020749S.D	SEQ-LCV3	1	NO MANUAL INTEGRATION
1852	NT1023020750S.D	SLB0106-ICV3	1	NO MANUAL INTEGRATION
1931	NT1023020751S.D	SLB0106-LCV2	1	Benzoic acid,
2008	NT1023020752S.D	BLA0160-BLK4	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, Pentachlorophenol,
2047	NT1023020753S.D	23A0031-12	1	1,4-Dichlorobenzene, 1,2-Dichlorobenzene, Diethylphthalate, Dibenzo(a,h)anthracene, Butylbenzylphthalate,

Instrument: nt10.i Date: 08-FEB-2023

Time	Filename	LabID	DF	Manually Integrated Compounds	
2125	NT1023020754S.D	23A0031-13	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, Diethylphthalate, N-Nitrosodiphenylamine, Butylbenzylphthalate,	Penta
2203	NT1023020755S.D	23A0031-14	1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, Diethylphthalate, N-Nitrosodiphenylamine, Dibenzo(a,h)anthracene, Butylbenzylphthalate,	Penta
2241	NT1023020756S.D	BLA0160-MS1	1	NO MANUAL INTEGRATION	
2319	NT1023020757S.D	BLA0160-MSD1	1	NO MANUAL INTEGRATION	
2357	NT1023020758S.D	SEQ-CCV1	1	NO MANUAL INTEGRATION	
0035	NT1023020759S.D	SEQ-LCV1	1	NO MANUAL INTEGRATION	
0113	NT1023020760S.D	SLB0106-CCV1	1	NO MANUAL INTEGRATION	
0151	NT1023020761S.D	SIM-LCV1	1	NO MANUAL INTEGRATION	

Security Status Report

Date: 10-Feb-2023 09:08

NT1023020701S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020702S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020703S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020704S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020705S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020706S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020707S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020708S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020709S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020710S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020711S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020712S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020713S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020714S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020715S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020716S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020717S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020718S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020719S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020720S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020721S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020722S.D	Data Locked	van,	10-Feb-2023	09:07
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NT1023020730S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020731S.D	Data Locked	van,	10-Feb-2023	09:07
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NT1023020742S.D	Data Locked	van,	10-Feb-2023	09:07
NT1023020743S.D	Data Locked	van,	10-Feb-2023	09:07
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NT1023020746S.D	Data Locked	van, 10-Feb-2023 09:07
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NT1023020756S.D	Data Locked	van, 10-Feb-2023 09:07
NT1023020757S.D	Data Locked	van, 10-Feb-2023 09:07
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NT1023020759S.D	Data Locked	van, 10-Feb-2023 09:07
NT1023020760S.D	Data Locked	van, 10-Feb-2023 09:07
NT1023020761S.D	Data Locked	van, 10-Feb-2023 09:07



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLB0114</u>	Instrument:	<u>NT10</u>
		Calibration:	<u>GB00019</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Initial Cal Check	SLB0114-ICV1	NT1023020904S.D	NA	02/09/23 14:49
Low Cal Check	SLB0114-LCV1	NT1023020905S.D	NA	02/09/23 15:28
Instrument Blank	SLB0114-IBL1	NT1023020906S.D	NA	02/09/23 16:07
<i>ZZZZZ</i>	23A0031-15	NT1023020907S.D	Solid	02/09/23 16:46
<i>ZZZZZ</i>	23A0031-16	NT1023020908S.D	Solid	02/09/23 17:25
<i>ZZZZZ</i>	23A0031-17	NT1023020909S.D	Solid	02/09/23 18:04
<i>ZZZZZ</i>	23A0031-18	NT1023020910S.D	Solid	02/09/23 18:43
<i>ZZZZZ</i>	23A0031-19	NT1023020911S.D	Solid	02/09/23 19:21
<i>ZZZZZ</i>	23A0031-20	NT1023020912S.D	Solid	02/09/23 20:00
Blank	BLA0163-BLK2	NT1023020913S.D	Solid	02/09/23 20:39
LCS	BLA0163-BS2	NT1023020914S.D	Solid	02/09/23 21:17
LCS Dup	BLA0163-BSD2	NT1023020915S.D	Solid	02/09/23 21:56
Reference	BLA0163-SRM2	NT1023020916S.D	Solid	02/09/23 22:35
<i>ZZZZZ</i>	23A0087-09	NT1023020917S.D	Solid	02/09/23 23:13
Calibration Check	SLB0114-CCV1	NT1023020922S.D	NA	02/10/23 02:26



ANALYSIS SEQUENCE

SLB0114

Instrument: NT10
Calibration ID: GB00019

Printed: 2/12/2023 5:21:41PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLB0114-ICV1	QC		1		K011107	K010831		
SLB0114-LCV1	QC		2		K011452	K010831		
SLB0114-IBL1	QC		3		J008838	J012379		
23A0031-15	8270E-SIM Dual Scan SVOC	A 04	4			K010831	Anchor QEA, LLC	
23A0031-16	8270E-SIM Dual Scan SVOC	A 04	5			K010831	Anchor QEA, LLC	
23A0031-17	8270E-SIM Dual Scan SVOC	A 04	6			K010831	Anchor QEA, LLC	
23A0031-18	8270E-SIM Dual Scan SVOC	A 04	7			K010831	Anchor QEA, LLC	
23A0031-19	8270E-SIM Dual Scan SVOC	A 04	8			K010831	Anchor QEA, LLC	
23A0031-20	8270E-SIM Dual Scan SVOC	A 04	9			K010831	Anchor QEA, LLC	
BLA0163-BLK2	QC		10			K010831		
BLA0163-BSD2	QC		11			K010831		
BLA0163-BS2	QC		12			K010831		
BLA0163-SRM2	QC		13			K010831		
BLA0163-MSD2	QC		14			K010831		
BLA0163-MS2	QC		15			K010831		
23A0087-09	8270E-SIM Dual Scan SVOC	A 04	16			K010831	Anchor QEA, LLC	
SLB0114-CCV1	QC		17		K011107	K010831		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230209.b\SIM.b

Time	Filename	LabID	ClientId	DF																			
1	1449	NT1023020904S.D	SIM-ICV1		1	|	8.84	101588	||	11.28	364920	||	14.87	174973	||	17.89	314354	||	22.96	242262	||	25.48	285281
2	1528	NT1023020905S.D	SIM-LCV1		1	|	8.83	115726	||	11.28	413986	||	14.87	198156	||	17.89	356311	||	22.96	271994	||	25.48	311271
3	1607	NT1023020906S.D	SIM-IBL1		1	|	8.84	76849	||	11.28	289319	||	14.87	135925	||	17.89	244558	||	22.96	184014	||	25.49	182270
4	1646	NT1023020907S.D	23A0031-15		1	|	8.84	62190	||	11.29	228460	||	14.87	104972	||	17.90	184499	||	22.96	150157	||	25.50	185618
5	1725	NT1023020908S.D	23A0031-16		1	|	8.84	61115	||	11.29	223819	||	14.88	103481	||	17.90	188892	||	22.98	156563	||	25.51	183566
6	1804	NT1023020909S.D	23A0031-17		1	|	8.84	64024	||	11.29	235425	||	14.88	109466	||	17.90	196096	||	22.98	161043	||	25.50	193825
7	1843	NT1023020910S.D	23A0031-18		1	|	8.84	61952	||	11.29	228466	||	14.88	104790	||	17.90	192710	||	22.98	166342	||	25.52	189071
8	1921	NT1023020911S.D	23A0031-19		1	|	8.84	61716	||	11.30	226857	||	14.88	104828	||	17.90	190285	||	22.98	162669	||	25.51	184073
9	2000	NT1023020912S.D	23A0031-20		1	|	8.84	55653	||	11.30	201711	||	14.88	95120	||	17.90	169078	||	22.98	148388	||	25.52	167909
10	2039	NT1023020913S.D	BLA0163-BLK1		1	|	8.84	61922	||	11.30	227453	||	14.89	102967	||	17.90	184807	||	22.98	157715	||	25.51	186220
11	2117	NT1023020914S.D	BLA0163-BS1		1	|	8.84	61038	||	11.30	219310	||	14.89	101857	||	17.90	179728	||	22.98	157279	||	25.51	187776
12	2156	NT1023020915S.D	BLA0163-BSD1		1	|	8.84	61006	||	11.30	221416	||	14.89	102976	||	17.90	180686	||	22.98	157246	||	25.50	184824
13	2235	NT1023020916S.D	BLA0163-SRMI		1	|	8.84	63717	||	11.30	226690	||	14.88	104859	||	17.90	185643	||	22.98	158827	||	25.50	187835
14	2313	NT1023020917S.D	23A0087-09		1	|	8.84	60285	||	11.30	215094	||	14.88	99048	||	17.90	177104	||	22.98	149411	||	25.52	180663
15	2352	NT1023020918S.D	BLA0163-MS1		1	|	8.84	55147	||	11.30	198551	||	14.89	92859	||	17.90	162528	||	22.98	144535	||	25.51	170960
16	0030	NT1023020919S.D	BLA0163-MSD1		1	|	8.84	55895	||	11.30	200664	||	14.88	94369	||	17.90	164937	||	22.98	147333	||	25.51	173191
17	0226	NT1023020922S.D	SIM-CCV1		1	|	8.84	99878	||	11.30	353725	||	14.88	168125	||	17.90	295176	||	22.98	264951	||	25.51	304147

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230209.b\SIM.b

ARI Job No.: SIM- Method: SIM.b\SIMABN2.m Instrument: nt10.i Date: 09-FEB-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1449	NT1023020904S.D	SIM-ICV1		1	N-Nitroso-di-n-propylamine, N-Nitrosodimethylamine, Dibenzo(a,h)anthracene, 2-Fluorophenol,
1528	NT1023020905S.D	SIM-LCV1		1	Benzyl alcohol, Berzoic acid, N-Nitrosodimethylamine, Pentachlorophenol, 2-Fluorophenol,
1607	NT1023020906S.D	SIM-IBL1		1	2-Fluorophenol,
1646	NT1023020907S.D	23A0031-15		1	1,4-Dichlorobenzene, Benzoic acid, 2-Fluorophenol,
1725	NT1023020908S.D	23A0031-16		1	1,4-Dichlorobenzene, Benzyl alcohol, Pentachlorophenol,
1804	NT1023020909S.D	23A0031-17		1	1,4-Dichlorobenzene, Benzyl alcohol, 2-Fluorophenol,
1843	NT1023020910S.D	23A0031-18		1	1,4-Dichlorobenzene, 2,4-Dimethylphenol, Diethylphthalate, Pentachlorophenol,
1921	NT1023020911S.D	23A0031-19		1	1,4-Dichlorobenzene, Diethylphthalate, 2-Fluorophenol,
2000	NT1023020912S.D	23A0031-20		1	1,4-Dichlorobenzene, 2-Fluorophenol,
2039	NT1023020913S.D	BLA0163-BLK1		1	2-Fluorophenol,
2117	NT1023020914S.D	BLA0163-BS1		1	N-Nitrosodimethylamine, 2-Fluorophenol,
2156	NT1023020915S.D	BLA0163-BSD1		1	N-Nitrosodimethylamine, 2-Fluorophenol,
2235	NT1023020916S.D	BLA0163-SRM1		1	N-Nitrosodimethylamine, 2-Fluorophenol,
2313	NT1023020917S.D	23A0087-09		1	1,4-Dichlorobenzene, Benzyl alcohol, 2-Methylphenol, 2-Fluorophenol,
2352	NT1023020918S.D	BLA0163-MS1		1	N-Nitrosodimethylamine, 2-Fluorophenol,
0030	NT1023020919S.D	BLA0163-MSD1		1	N-Nitrosodimethylamine, 2-Fluorophenol,
0226	NT1023020922S.D	SIM-CCV1		1	N-Nitrosodimethylamine, 2-Fluorophenol,

Security Status Report

Date: 12-Feb-2023 17:08

NT1023020904S.D	Data Locked	yev, 12-
NT1023020905S.D	Data Locked	yev, 12-
NT1023020906S.D	Data Locked	yev, 12-
NT1023020907S.D	Data Locked	yev, 12-
NT1023020908S.D	Data Locked	yev, 12-
NT1023020909S.D	Data Locked	yev, 12-
NT1023020910S.D	Data Locked	yev, 12-
NT1023020911S.D	Data Locked	yev, 12-
NT1023020912S.D	Data Locked	yev, 12-
NT1023020913S.D	Data Locked	yev, 12-
NT1023020914S.D	Data Locked	yev, 12-
NT1023020915S.D	Data Locked	yev, 12-
NT1023020916S.D	Data Locked	yev, 12-
NT1023020917S.D	Data Locked	yev, 12-
NT1023020918S.D	Data Locked	yev, 12-
NT1023020919S.D	Data Locked	yev, 12-
NT1023020922S.D	Data Locked	yev, 12-

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230209A.b\SIM.b

Time	Filename	LabID	ClientId	DF									
1	0226	NT1023020922S.D	SLB0157-ICV1		1	| 8.84	99878||11.30	353725||14.88	168125||17.90	295176||22.98	264951||25.51	304147|	
2	0304	NT1023020923S.D	SLB0157-LCV2		1	| 8.84	111416||11.30	392837||14.89	179474||17.90	317554||22.98	291308||25.51	329099|	
3	0342	NT1023020924S.D	23A0031-21		1	| 8.84	55505||11.30	199113||14.88	91578||17.90	159672||22.98	138093||25.52	169314|	
4	0421	NT1023020925S.D	23A0032-05		1	| 8.84	53475||11.30	197668||14.89	91464||17.91	161591||22.98	141730||25.52	167096|	
5	0459	NT1023020926S.D	23A0032-08		1	| 8.84	57874||11.30	210252||14.89	96034||17.91	173410||23.00	136098||25.53	155917|	
6	0537	NT1023020927S.D	23A0032-11		1	| 8.84	54878||11.30	200078||14.89	91192||17.91	169411||23.01	133789||25.55	141274|	
7	0616	NT1023020928S.D	23A0087-01		1	| 8.84	52383||11.30	191049||14.89	88247||17.91	160222||22.99	137125||25.53	154322|	
8	0655	NT1023020929S.D	23A0087-02		1	| 8.84	52123||11.30	191302||14.89	86813||17.91	156841||22.99	137296||25.53	158651|	
9	0733	NT1023020930S.D	23A0087-03		1	| 8.84	56762||11.30	208698||14.89	96486||17.91	174757||22.99	154711||25.53	172429|	
10	0812	NT1023020931S.D	23A0087-04		1	| 8.84	48720||11.30	177777||14.89	84334||17.93	160385||23.03	141973||25.60	113006|	
11	0851	NT1023020932S.D	SLB0157-IBL1		1	| 8.84	57655||11.30	209676||14.89	93520||17.91	174674||22.99	156518||25.52	163082|	
12	1047	NT1023020935S.D	SLB0157-CCV1		1	| 8.85	96102||11.31	344110||14.89	159503||17.91	287867||22.99	275421||25.52	273270|	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt10.i\20230209A.b\SIM.b

ARI Job No.: SLB0 Method: SIM.b\SIMABN2.m Instrument: nt10.i Date: 10-FEB-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0226	NT1023020922S.D	SLB0157-ICV1		1	N-Nitrosodimethylamine, 2-Fluorophenol,
0304	NT1023020923S.D	SLB0157-LCV2		1	Benzoic acid, N-Nitrosodimethylamine, Pentachlorophenol, 2-Fluorophenol,
0342	NT1023020924S.D	23A0031-21		1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dibenzo(a,h)anthracene, 2-Fluorophenol,
0421	NT1023020925S.D	23A0032-05		1	Diethylphthalate, 2-Fluorophenol,
0459	NT1023020926S.D	23A0032-08		1	2-Methylphenol, 2-Fluorophenol,
0537	NT1023020927S.D	23A0032-11		1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Diethylphthalate, Pentachlorophenol, 2-Fluorophenol,
0616	NT1023020928S.D	23A0087-01		1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2-Methylphenol, Benzoic acid,
0655	NT1023020929S.D	23A0087-02		1	1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2-Methylphenol, 2-Fluorophenol,
0733	NT1023020930S.D	23A0087-03		1	2-Fluorophenol,
0812	NT1023020931S.D	23A0087-04		1	2-Fluorophenol,
0851	NT1023020932S.D	SLB0157-IBL1		1	2-Fluorophenol,
1047	NT1023020935S.D	SLB0157-CCV1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 12-Feb-2023 18:10

NT1023020922S.D	Data Locked	yev, 12-
NT1023020923S.D	Data Locked	yev, 12-
NT1023020924S.D	Data Locked	yev, 12-
NT1023020925S.D	Data Locked	yev, 12-
NT1023020926S.D	Data Locked	yev, 12-
NT1023020927S.D	Data Locked	yev, 12-
NT1023020928S.D	Data Locked	yev, 12-
NT1023020929S.D	Data Locked	yev, 12-
NT1023020930S.D	Data Locked	yev, 12-
NT1023020931S.D	Data Locked	yev, 12-
NT1023020932S.D	Data Locked	yev, 12-
NT1023020935S.D	Data Locked	yev, 12-



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG/WO:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLA0213</u>	Instrument:	<u>NT8</u>
Calibration:	<u>GA00050</u>	Calibration Date:	<u>01/19/2023</u>

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLA0213-ICB1 (Water)		Lab File ID: N823011902.D			Analyzed: 01/19/23 10:59			
2-Methylnaphthalene-d10			31 - 120		5.6415	-5.6415	N/A	
Dibenzo[a,h]anthracene-d14			10 - 125		20.5525	-20.5525	N/A	
Fluoranthene-d10			46 - 121		11.016	-11.0160	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLA0228
Calibration: GA00050

SDG/WO: 23A0032
Project: AOC5 MR Phase 1
Instrument: NT8
Calibration Date: 01/19/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
23A0032-03 (Solid) Lab File ID: N823011919.D Analyzed: 01/19/23 19:27								
2-Methylnaphthalene-d10	149.52	65.0	32 - 120	5.64	5.6415	-0.0015	N/A	
Dibenzo[a,h]anthracene-d14	149.52	90.2	21 - 133	20.552	20.5525	-0.0005	N/A	
Fluoranthene-d10	149.52	77.7	36 - 134	11.022	11.016	0.0060	N/A	
23A0032-04 (Solid) Lab File ID: N823011920.D Analyzed: 01/19/23 19:53								
2-Methylnaphthalene-d10	149.88	72.9	32 - 120	5.637	5.6415	-0.0045	N/A	
Dibenzo[a,h]anthracene-d14	149.88	113	21 - 133	20.552	20.5525	-0.0005	N/A	
Fluoranthene-d10	149.88	91.5	36 - 134	11.015	11.016	-0.0010	N/A	
23A0032-06 (Solid) Lab File ID: N823011921.D Analyzed: 01/19/23 20:20								
2-Methylnaphthalene-d10	149.97	53.4	32 - 120	5.637	5.6415	-0.0045	N/A	
Dibenzo[a,h]anthracene-d14	149.97	86.6	21 - 133	20.555	20.5525	0.0025	N/A	
Fluoranthene-d10	149.97	65.2	36 - 134	11.019	11.016	0.0030	N/A	
BLA0171-MS1 (Solid) Lab File ID: N823011922.D Analyzed: 01/19/23 20:47								
2-Methylnaphthalene-d10	149.97	68.9	32 - 120	5.637	5.6415	-0.0045	N/A	
Dibenzo[a,h]anthracene-d14	149.97	106	21 - 133	20.564	20.5525	0.0115	N/A	
Fluoranthene-d10	149.97	82.1	36 - 134	11.022	11.016	0.0060	N/A	
BLA0171-MSD1 (Solid) Lab File ID: N823011923.D Analyzed: 01/19/23 21:14								
2-Methylnaphthalene-d10	149.97	75.7	32 - 120	5.637	5.6415	-0.0045	N/A	
Dibenzo[a,h]anthracene-d14	149.97	108	21 - 133	20.574	20.5525	0.0215	N/A	
Fluoranthene-d10	149.97	88.5	36 - 134	11.022	11.016	0.0060	N/A	
23A0032-07 (Solid) Lab File ID: N823011924.D Analyzed: 01/19/23 21:41								
2-Methylnaphthalene-d10	149.13	63.8	32 - 120	5.64	5.6415	-0.0015	N/A	
Dibenzo[a,h]anthracene-d14	149.13	79.4	21 - 133	20.558	20.5525	0.0055	N/A	
Fluoranthene-d10	149.13	79.5	36 - 134	11.022	11.016	0.0060	N/A	
23A0032-02RE1 (Solid) Lab File ID: N823011925.D Analyzed: 01/19/23 22:08								
2-Methylnaphthalene-d10	149.84	50.0	32 - 120	5.64	5.6415	-0.0015	N/A	
Dibenzo[a,h]anthracene-d14	149.84	78.2	21 - 133	20.555	20.5525	0.0025	N/A	
Fluoranthene-d10	149.84	63.2	36 - 134	11.018	11.016	0.0020	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG/WO:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLB0106</u>	Instrument:	<u>NT10</u>
Calibration:	<u>GB00019</u>	Calibration Date:	<u>02/07/2023</u>

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLB0106-SCV1 (Solid) Lab File ID: NT1023020711S.D Analyzed: 02/07/23 18:04								
2-Fluorophenol	7.5000	93.0	0 - 200	6.77	6.777	-0.0070	N/A	
p-Terphenyl-d14	5.0000	84.8	0 - 200	21.164	21.165	-0.0010	N/A	
SLB0106-ICV1 (Solid) Lab File ID: NT1023020714S.D Analyzed: 02/07/23 19:58								
2-Fluorophenol	1.5000	104	80 - 120	6.77	6.777	-0.0070	N/A	
p-Terphenyl-d14	1.0000	104	80 - 120	21.164	21.165	-0.0010	N/A	
SLB0106-LCV1 (Solid) Lab File ID: NT1023020715S.D Analyzed: 02/07/23 20:36								
2-Fluorophenol	0.15000	97.9	0 - 200	6.777	6.777	0.0000	N/A	
p-Terphenyl-d14	0.10000	112	0 - 200	21.164	21.165	-0.0010	N/A	
SLB0106-ICV2 (Solid) Lab File ID: NT1023020734S.D Analyzed: 02/08/23 08:40								
2-Fluorophenol	1.5000	109	80 - 120	6.777	6.777	0.0000	N/A	
p-Terphenyl-d14	1.0000	112	80 - 120	21.164	21.165	-0.0010	N/A	
SLB0106-ICV3 (Solid) Lab File ID: NT1023020750S.D Analyzed: 02/08/23 18:52								
2-Fluorophenol	1.5000	112	80 - 120	6.785	6.777	0.0080	N/A	
p-Terphenyl-d14	1.0000	120	80 - 120	21.18	21.165	0.0150	N/A	
SLB0106-CCV1 (Solid) Lab File ID: NT1023020760S.D Analyzed: 02/09/23 01:13								
2-Fluorophenol	1.5000	109	50 - 150	6.785	6.777	0.0080	N/A	
p-Terphenyl-d14	1.0000	115	50 - 150	21.18	21.165	0.0150	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, LLC</u>	SDG/WO:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLB0157</u>	Instrument:	<u>NT10</u>
Calibration:	<u>GB00019</u>	Calibration Date:	<u>02/07/2023</u>

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLB0157-ICV1 (Solid) Lab File ID: NT1023020922ICVS.D Analyzed: 02/10/23 02:26								
2-Fluorophenol	1.5000	104	80 - 120	6.663	6.777	-0.1140	N/A	
p-Terphenyl-d14	1.0000	107	80 - 120	21.075	21.165	-0.0900	N/A	
SLB0157-LCV1 (Solid) Lab File ID: NT1023020923S.D Analyzed: 02/10/23 03:04								
2-Fluorophenol	0.15000	102	0 - 200	6.671	6.777	-0.1060	N/A	
p-Terphenyl-d14	0.10000	112	0 - 200	21.074	21.165	-0.0910	N/A	
23A0032-05 (Solid) Lab File ID: NT1023020925S.D Analyzed: 02/10/23 04:21								
2-Fluorophenol	748.35	80.1	27 - 120	6.671	6.777	-0.1060	N/A	
p-Terphenyl-d14	498.90	97.9	37 - 120	21.074	21.165	-0.0910	N/A	
23A0032-08 (Solid) Lab File ID: NT1023020926S.D Analyzed: 02/10/23 04:59								
2-Fluorophenol	747.24	73.5	27 - 120	6.671	6.777	-0.1060	N/A	
p-Terphenyl-d14	498.16	94.9	37 - 120	21.082	21.165	-0.0830	N/A	
23A0032-11 (Solid) Lab File ID: NT1023020927S.D Analyzed: 02/10/23 05:37								
2-Fluorophenol	747.88	73.8	27 - 120	6.671	6.777	-0.1060	N/A	
p-Terphenyl-d14	498.59	85.8	37 - 120	21.098	21.165	-0.0670	N/A	
SLB0157-IBL1 (Solid) Lab File ID: NT1023020932S.D Analyzed: 02/10/23 08:51								
2-Fluorophenol	7.5000	64.3	27 - 120	6.671	6.777	-0.1060	N/A	
p-Terphenyl-d14	5.0000	96.5	37 - 120	21.083	21.165	-0.0820	N/A	
SLB0157-CCV1 (Solid) Lab File ID: NT1023020935S.D Analyzed: 02/10/23 10:47								
2-Fluorophenol	1.5000	105	50 - 150	6.663	6.777	-0.1140	N/A	
p-Terphenyl-d14	1.0000	109	50 - 150	21.082	21.165	-0.0830	N/A	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLA0213

Instrument: NT8

Calibration: GA00050

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Blank (SLA0213-ICB1)		(Water)	Lab File ID: N823011902.D			Analyzed: 01/19/23 10:59			
Naphthalene-d8	52082	4.916	44704	4.906	117	50 - 200	0.010	+/-0.50	
Acenaphthene-d10	30936	7.202	26411	7.196	117	50 - 200	0.006	+/-0.50	
Phenanthrene-d10	59030	9.241	49210	9.235	120	50 - 200	0.006	+/-0.50	
Chrysene-d12	50944	14.215	42994	14.202	118	50 - 200	0.013	+/-0.50	
Perylene-d12	47418	18.12	40520	18.111	117	50 - 200	0.009	+/-0.50	
Secondary Cal Check (SLA0213-SCV1)		(Water)	Lab File ID: N823011909.D			Analyzed: 01/19/23 14:58			
Naphthalene-d8	46346	4.913	44704	4.906	104	50 - 200	0.007	+/-0.50	
Acenaphthene-d10	27709	7.202	26411	7.196	105	50 - 200	0.006	+/-0.50	
Phenanthrene-d10	51685	9.238	49210	9.235	105	50 - 200	0.003	+/-0.50	
Chrysene-d12	46582	14.212	42994	14.202	108	50 - 200	0.010	+/-0.50	
Perylene-d12	41743	18.117	40520	18.111	103	50 - 200	0.006	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLA0228

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: NT8
Calibration: GA00050

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLA0228-ICV1)		(Water)	Lab File ID: N823011912.D			Analyzed: 01/19/23 16:16			
Naphthalene-d8	42524	4.909	42524	4.909	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	25260	7.199	25260	7.199	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	47890	9.238	47890	9.238	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	40533	14.209	40533	14.209	100	50 - 200	0.000	+/-0.50	
Perylene-d12	38115	18.117	38115	18.117	100	50 - 200	0.000	+/-0.50	
Blank (BLA0171-BLK1)		(Solid)	Lab File ID: N823011913.D			Analyzed: 01/19/23 16:45			
Naphthalene-d8	48006	4.9	42524	4.909	113	50 - 200	-0.009	+/-0.50	
Acenaphthene-d10	28306	7.196	25260	7.199	112	50 - 200	-0.003	+/-0.50	
Phenanthrene-d10	53575	9.235	47890	9.238	112	50 - 200	-0.003	+/-0.50	
Chrysene-d12	44210	14.206	40533	14.209	109	50 - 200	-0.003	+/-0.50	
Perylene-d12	19804	18.114	38115	18.117	52	50 - 200	-0.003	+/-0.50	
LCS (BLA0171-BS1)		(Solid)	Lab File ID: N823011914.D			Analyzed: 01/19/23 17:12			
Naphthalene-d8	52345	4.9	42524	4.909	123	50 - 200	-0.009	+/-0.50	
Acenaphthene-d10	30657	7.196	25260	7.199	121	50 - 200	-0.003	+/-0.50	
Phenanthrene-d10	57385	9.235	47890	9.238	120	50 - 200	-0.003	+/-0.50	
Chrysene-d12	49446	14.206	40533	14.209	122	50 - 200	-0.003	+/-0.50	
Perylene-d12	25229	18.108	38115	18.117	66	50 - 200	-0.009	+/-0.50	
LCS Dup (BLA0171-BSD1)		(Solid)	Lab File ID: N823011915.D			Analyzed: 01/19/23 17:39			
Naphthalene-d8	58698	4.9	42524	4.909	138	50 - 200	-0.009	+/-0.50	
Acenaphthene-d10	34696	7.193	25260	7.199	137	50 - 200	-0.006	+/-0.50	
Phenanthrene-d10	64445	9.235	47890	9.238	135	50 - 200	-0.003	+/-0.50	
Chrysene-d12	55512	14.206	40533	14.209	137	50 - 200	-0.003	+/-0.50	
Perylene-d12	28227	18.108	38115	18.117	74	50 - 200	-0.009	+/-0.50	
Reference (BLA0171-SRM1)		(Solid)	Lab File ID: N823011916.D			Analyzed: 01/19/23 18:06			
Naphthalene-d8	60246	4.9	42524	4.909	142	50 - 200	-0.009	+/-0.50	
Acenaphthene-d10	35366	7.192	25260	7.199	140	50 - 200	-0.007	+/-0.50	
Phenanthrene-d10	65529	9.232	47890	9.238	137	50 - 200	-0.006	+/-0.50	
Chrysene-d12	58326	14.202	40533	14.209	144	50 - 200	-0.007	+/-0.50	
Perylene-d12	32646	18.108	38115	18.117	86	50 - 200	-0.009	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLA0228

Instrument: NT8

Calibration: GA00050

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-IT1246 (23A0032-01)		(Solid)	Lab File ID: N823011917.D			Analyzed: 01/19/23 18:33			
Naphthalene-d8	55708	4.9	42524	4.909	131	50 - 200	-0.009	+/-0.50	
Acenaphthene-d10	32311	7.196	25260	7.199	128	50 - 200	-0.003	+/-0.50	
Phenanthrene-d10	56906	9.238	47890	9.238	119	50 - 200	0.000	+/-0.50	
Chrysene-d12	35144	14.215	40533	14.209	87	50 - 200	0.006	+/-0.50	
Perylene-d12	33706	18.117	38115	18.117	88	50 - 200	0.000	+/-0.50	
LDW23-IT1264 (23A0032-02)		(Solid)	Lab File ID: N823011918.D			Analyzed: 01/19/23 19:00			
Naphthalene-d8	53696	4.903	42524	4.909	126	50 - 200	-0.006	+/-0.50	
Acenaphthene-d10	32306	7.196	25260	7.199	128	50 - 200	-0.003	+/-0.50	
Phenanthrene-d10	55819	9.238	47890	9.238	117	50 - 200	0.000	+/-0.50	
Chrysene-d12	32081	14.225	40533	14.209	79	50 - 200	0.016	+/-0.50	
Perylene-d12	33551	18.127	38115	18.117	88	50 - 200	0.010	+/-0.50	
LDW23-IT1269 (23A0032-03)		(Solid)	Lab File ID: N823011919.D			Analyzed: 01/19/23 19:27			
Naphthalene-d8	54137	4.903	42524	4.909	127	50 - 200	-0.006	+/-0.50	
Acenaphthene-d10	33307	7.196	25260	7.199	132	50 - 200	-0.003	+/-0.50	
Phenanthrene-d10	59485	9.235	47890	9.238	124	50 - 200	-0.003	+/-0.50	
Chrysene-d12	40272	14.209	40533	14.209	99	50 - 200	0.000	+/-0.50	
Perylene-d12	39079	18.114	38115	18.117	103	50 - 200	-0.003	+/-0.50	
LDW23-IT1272 (23A0032-04)		(Solid)	Lab File ID: N823011920.D			Analyzed: 01/19/23 19:53			
Naphthalene-d8	58598	4.9	42524	4.909	138	50 - 200	-0.009	+/-0.50	
Acenaphthene-d10	34679	7.196	25260	7.199	137	50 - 200	-0.003	+/-0.50	
Phenanthrene-d10	62632	9.235	47890	9.238	131	50 - 200	-0.003	+/-0.50	
Chrysene-d12	44634	14.203	40533	14.209	110	50 - 200	-0.006	+/-0.50	
Perylene-d12	41054	18.114	38115	18.117	108	50 - 200	-0.003	+/-0.50	
LDW23-IT1235 (23A0032-06)		(Solid)	Lab File ID: N823011921.D			Analyzed: 01/19/23 20:20			
Naphthalene-d8	59534	4.9	42524	4.909	140	50 - 200	-0.009	+/-0.50	
Acenaphthene-d10	34344	7.196	25260	7.199	136	50 - 200	-0.003	+/-0.50	
Phenanthrene-d10	58574	9.238	47890	9.238	122	50 - 200	0.000	+/-0.50	
Chrysene-d12	35817	14.209	40533	14.209	88	50 - 200	0.000	+/-0.50	
Perylene-d12	31076	18.12	38115	18.117	82	50 - 200	0.003	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLA0228

Instrument: NT8

Calibration: GA00050

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike (BLA0171-MS1)		(Solid)	Lab File ID: N823011922.D			Analyzed: 01/19/23 20:47			
Naphthalene-d8	57416	4.9	42524	4.909	135	50 - 200	-0.009	+/-0.50	
Acenaphthene-d10	32442	7.196	25260	7.199	128	50 - 200	-0.003	+/-0.50	
Phenanthrene-d10	53916	9.238	47890	9.238	113	50 - 200	0.000	+/-0.50	
Chrysene-d12	31078	14.212	40533	14.209	77	50 - 200	0.003	+/-0.50	
Perylene-d12	29411	18.123	38115	18.117	77	50 - 200	0.006	+/-0.50	
Matrix Spike Dup (BLA0171-MSD1)		(Solid)	Lab File ID: N823011923.D			Analyzed: 01/19/23 21:14			
Naphthalene-d8	52331	4.9	42524	4.909	123	50 - 200	-0.009	+/-0.50	
Acenaphthene-d10	29663	7.196	25260	7.199	117	50 - 200	-0.003	+/-0.50	
Phenanthrene-d10	48346	9.238	47890	9.238	101	50 - 200	0.000	+/-0.50	
Chrysene-d12	26832	14.212	40533	14.209	66	50 - 200	0.003	+/-0.50	
Perylene-d12	24071	18.126	38115	18.117	63	50 - 200	0.009	+/-0.50	
LDW23-IT1202 (23A0032-07)		(Solid)	Lab File ID: N823011924.D			Analyzed: 01/19/23 21:41			
Naphthalene-d8	48207	4.906	42524	4.909	113	50 - 200	-0.003	+/-0.50	
Acenaphthene-d10	29277	7.196	25260	7.199	116	50 - 200	-0.003	+/-0.50	
Phenanthrene-d10	50426	9.238	47890	9.238	105	50 - 200	0.000	+/-0.50	
Chrysene-d12	32269	14.215	40533	14.209	80	50 - 200	0.006	+/-0.50	
Perylene-d12	29555	18.123	38115	18.117	78	50 - 200	0.006	+/-0.50	
LDW23-IT1264 (23A0032-02RE1)		(Solid)	Lab File ID: N823011925.D			Analyzed: 01/19/23 22:08			
Naphthalene-d8	56242	4.906	42524	4.909	132	50 - 200	-0.003	+/-0.50	
Acenaphthene-d10	34169	7.196	25260	7.199	135	50 - 200	-0.003	+/-0.50	
Phenanthrene-d10	65562	9.235	47890	9.238	137	50 - 200	-0.003	+/-0.50	
Chrysene-d12	53297	14.209	40533	14.209	131	50 - 200	0.000	+/-0.50	
Perylene-d12	48092	18.114	38115	18.117	126	50 - 200	-0.003	+/-0.50	
Calibration Check (SLA0228-CCV1)		(Water)	Lab File ID: N823011937.D			Analyzed: 01/20/23 03:30			
Naphthalene-d8	51431	4.91	42524	4.909	121	50 - 200	0.001	+/-0.50	
Acenaphthene-d10	30771	7.196	25260	7.199	122	50 - 200	-0.003	+/-0.50	
Phenanthrene-d10	58835	9.235	47890	9.238	123	50 - 200	-0.003	+/-0.50	
Chrysene-d12	51719	14.212	40533	14.209	128	50 - 200	0.003	+/-0.50	
Perylene-d12	45409	18.12	38115	18.117	119	50 - 200	0.003	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLB0106

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: NT10
Calibration: GB00019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SLB0106-SCV1)		(Solid)	Lab File ID: NT1023020711S.D			Analyzed: 02/07/23 18:04			
1,4-Dichlorobenzene-d4	121574	8.965	127975	8.965	95	50 - 200	0.000	+/-0.50	
Naphthalene-d8	457304	11.419	464967	11.419	98	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	231625	15.01	234978	15.002	99	50 - 200	0.008	+/-0.50	
Phenanthrene-d10	412906	18.015	431277	18.015	96	50 - 200	0.000	+/-0.50	
Chrysene-d12	357298	23.069	358788	23.069	100	50 - 200	0.000	+/-0.50	
Perylene-d12	361150	25.616	370755	25.616	97	50 - 200	0.000	+/-0.50	
Initial Cal Check (SLB0106-ICV1)		(Solid)	Lab File ID: NT1023020714S.D			Analyzed: 02/07/23 19:58			
1,4-Dichlorobenzene-d4	127975	8.965	127975	8.965	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	464967	11.419	464967	11.419	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	234978	15.002	234978	15.002	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	431277	18.015	431277	18.015	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	358788	23.069	358788	23.069	100	50 - 200	0.000	+/-0.50	
Perylene-d12	370755	25.616	370755	25.616	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SLB0106-LCV1)		(Solid)	Lab File ID: NT1023020715S.D			Analyzed: 02/07/23 20:36			
1,4-Dichlorobenzene-d4	137052	8.964	127975	8.965	107	50 - 200	-0.001	+/-0.50	
Naphthalene-d8	493177	11.419	464967	11.419	106	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	243620	15.002	234978	15.002	104	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	446506	18.015	431277	18.015	104	50 - 200	0.000	+/-0.50	
Chrysene-d12	370022	23.061	358788	23.069	103	50 - 200	-0.008	+/-0.50	
Perylene-d12	388403	25.616	370755	25.616	105	50 - 200	0.000	+/-0.50	
Initial Cal Check (SLB0106-ICV2)		(Solid)	Lab File ID: NT1023020734S.D			Analyzed: 02/08/23 08:40			
1,4-Dichlorobenzene-d4	123596	8.972	127975	8.965	97	50 - 200	0.007	+/-0.50	
Naphthalene-d8	454738	11.427	464967	11.419	98	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	223117	15.009	234978	15.002	95	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	408770	18.023	431277	18.015	95	50 - 200	0.008	+/-0.50	
Chrysene-d12	339328	23.069	358788	23.069	95	50 - 200	0.000	+/-0.50	
Perylene-d12	382671	25.631	370755	25.616	103	50 - 200	0.015	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
Client: Anchor OEA, LLC
Sequence: SLB0106

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: NT10
Calibration: GB00019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLB0106-ICV3)		(Solid)	Lab File ID: NT1023020750S.D			Analyzed: 02/08/23 18:52			
1,4-Dichlorobenzene-d4	95705	8.972	127975	8.965	75	50 - 200	0.007	+/-0.50	
Naphthalene-d8	353101	11.427	464967	11.419	76	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	170881	15.017	234978	15.002	73	50 - 200	0.015	+/-0.50	
Phenanthrene-d10	321878	18.031	431277	18.015	75	50 - 200	0.016	+/-0.50	
Chrysene-d12	279976	23.084	358788	23.069	78	50 - 200	0.015	+/-0.50	
Perylene-d12	238134	25.647	370755	25.616	64	50 - 200	0.031	+/-0.50	
Calibration Check (SLB0106-CCV1)		(Solid)	Lab File ID: NT1023020760S.D			Analyzed: 02/09/23 01:13			
1,4-Dichlorobenzene-d4	95964	8.972	127975	8.965	75	50 - 200	0.007	+/-0.50	
Naphthalene-d8	350716	11.427	464967	11.419	75	50 - 200	0.008	+/-0.50	
Acenaphthene-d10	174033	15.017	234978	15.002	74	50 - 200	0.015	+/-0.50	
Phenanthrene-d10	317531	18.031	431277	18.015	74	50 - 200	0.016	+/-0.50	
Chrysene-d12	279383	23.084	358788	23.069	78	50 - 200	0.015	+/-0.50	
Perylene-d12	215378	25.655	370755	25.616	58	50 - 200	0.039	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLB0114

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: NT10
Calibration: GB00019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLB0114-ICV1)		(Solid)	Lab File ID: NT1023020904S.D			Analyzed: 02/09/23 14:49			
1,4-Dichlorobenzene-d4	101588	8.835	101588	8.835	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	364920	11.283	364920	11.283	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	174973	14.866	174973	14.866	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	314354	17.887	314354	17.887	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	242262	22.956	242262	22.956	100	50 - 200	0.000	+/-0.50	
Perylene-d12	285281	25.48	285281	25.48	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SLB0114-LCV1)		(Solid)	Lab File ID: NT1023020905S.D			Analyzed: 02/09/23 15:28			
1,4-Dichlorobenzene-d4	115726	8.827	101588	8.835	114	50 - 200	-0.008	+/-0.50	
Naphthalene-d8	413986	11.283	364920	11.283	113	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	198156	14.866	174973	14.866	113	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	356311	17.887	314354	17.887	113	50 - 200	0.000	+/-0.50	
Chrysene-d12	271994	22.956	242262	22.956	112	50 - 200	0.000	+/-0.50	
Perylene-d12	311271	25.48	285281	25.48	109	50 - 200	0.000	+/-0.50	
Instrument Blank (SLB0114-IBL1)		(Solid)	Lab File ID: NT1023020906S.D			Analyzed: 02/09/23 16:07			
1,4-Dichlorobenzene-d4	76849	8.835	101588	8.835	76	50 - 200	0.000	+/-0.50	
Naphthalene-d8	289319	11.283	364920	11.283	79	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	135925	14.874	174973	14.866	78	50 - 200	0.008	+/-0.50	
Phenanthrene-d10	244558	17.887	314354	17.887	78	50 - 200	0.000	+/-0.50	
Chrysene-d12	184014	22.964	242262	22.956	76	50 - 200	0.008	+/-0.50	
Perylene-d12	182270	25.488	285281	25.48	64	50 - 200	0.008	+/-0.50	
Blank (BLA0163-BLK2)		(Solid)	Lab File ID: NT1023020913S.D			Analyzed: 02/09/23 20:39			
1,4-Dichlorobenzene-d4	61922	8.843	101588	8.835	61	50 - 200	0.008	+/-0.50	
Naphthalene-d8	227453	11.298	364920	11.283	62	50 - 200	0.015	+/-0.50	
Acenaphthene-d10	102967	14.889	174973	14.866	59	50 - 200	0.023	+/-0.50	
Phenanthrene-d10	184807	17.902	314354	17.887	59	50 - 200	0.015	+/-0.50	
Chrysene-d12	157715	22.979	242262	22.956	65	50 - 200	0.023	+/-0.50	
Perylene-d12	186220	25.511	285281	25.48	65	50 - 200	0.031	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0114

Instrument: NT10

Calibration: GB00019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (BLA0163-BS2)		(Solid)	Lab File ID: NT1023020914S.D			Analyzed: 02/09/23 21:17			
1,4-Dichlorobenzene-d4	61038	8.843	101588	8.835	60	50 - 200	0.008	+/-0.50	
Naphthalene-d8	219310	11.299	364920	11.283	60	50 - 200	0.016	+/-0.50	
Acenaphthene-d10	101857	14.889	174973	14.866	58	50 - 200	0.023	+/-0.50	
Phenanthrene-d10	179728	17.903	314354	17.887	57	50 - 200	0.016	+/-0.50	
Chrysene-d12	157279	22.979	242262	22.956	65	50 - 200	0.023	+/-0.50	
Perylene-d12	187776	25.511	285281	25.48	66	50 - 200	0.031	+/-0.50	
LCS Dup (BLA0163-BSD2)		(Solid)	Lab File ID: NT1023020915S.D			Analyzed: 02/09/23 21:56			
1,4-Dichlorobenzene-d4	61006	8.843	101588	8.835	60	50 - 200	0.008	+/-0.50	
Naphthalene-d8	221416	11.299	364920	11.283	61	50 - 200	0.016	+/-0.50	
Acenaphthene-d10	102976	14.889	174973	14.866	59	50 - 200	0.023	+/-0.50	
Phenanthrene-d10	180686	17.902	314354	17.887	57	50 - 200	0.015	+/-0.50	
Chrysene-d12	157246	22.979	242262	22.956	65	50 - 200	0.023	+/-0.50	
Perylene-d12	184824	25.503	285281	25.48	65	50 - 200	0.023	+/-0.50	
Reference (BLA0163-SRM2)		(Solid)	Lab File ID: NT1023020916S.D			Analyzed: 02/09/23 22:35			
1,4-Dichlorobenzene-d4	63717	8.843	101588	8.835	63	50 - 200	0.008	+/-0.50	
Naphthalene-d8	226690	11.299	364920	11.283	62	50 - 200	0.016	+/-0.50	
Acenaphthene-d10	104859	14.882	174973	14.866	60	50 - 200	0.016	+/-0.50	
Phenanthrene-d10	185643	17.903	314354	17.887	59	50 - 200	0.016	+/-0.50	
Chrysene-d12	158827	22.98	242262	22.956	66	50 - 200	0.024	+/-0.50	
Perylene-d12	187835	25.504	285281	25.48	66	50 - 200	0.024	+/-0.50	
Calibration Check (SLB0114-CCV1)		(Solid)	Lab File ID: NT1023020922S.D			Analyzed: 02/10/23 02:26			
1,4-Dichlorobenzene-d4	99878	8.843	101588	8.835	98	50 - 200	0.008	+/-0.50	
Naphthalene-d8	353725	11.299	364920	11.283	97	50 - 200	0.016	+/-0.50	
Acenaphthene-d10	168125	14.882	174973	14.866	96	50 - 200	0.016	+/-0.50	
Phenanthrene-d10	295176	17.903	314354	17.887	94	50 - 200	0.016	+/-0.50	
Chrysene-d12	264951	22.98	242262	22.956	109	50 - 200	0.024	+/-0.50	
Perylene-d12	304147	25.511	285281	25.48	107	50 - 200	0.031	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLB0157

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: NT10
Calibration: GB00019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLB0157-ICV1)		(Solid)	Lab File ID: NT1023020922ICVS.D			Analyzed: 02/10/23 02:26			
1,4-Dichlorobenzene-d4	99878	8.843	99878	8.843	100	50 - 200	0.000	+/-0.50	
Naphthalene-d8	353725	11.299	353725	11.299	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	168125	14.882	168125	14.882	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	295176	17.903	295176	17.903	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	264951	22.98	264951	22.98	100	50 - 200	0.000	+/-0.50	
Perylene-d12	304147	25.511	304147	25.511	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SLB0157-LCV1)		(Solid)	Lab File ID: NT1023020923S.D			Analyzed: 02/10/23 03:04			
1,4-Dichlorobenzene-d4	111416	8.843	99878	8.843	112	50 - 200	0.000	+/-0.50	
Naphthalene-d8	392837	11.298	353725	11.299	111	50 - 200	-0.001	+/-0.50	
Acenaphthene-d10	179474	14.889	168125	14.882	107	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	317554	17.902	295176	17.903	108	50 - 200	-0.001	+/-0.50	
Chrysene-d12	291308	22.979	264951	22.98	110	50 - 200	-0.001	+/-0.50	
Perylene-d12	329099	25.511	304147	25.511	108	50 - 200	0.000	+/-0.50	
LDW23-IT1224 (23A0032-05)		(Solid)	Lab File ID: NT1023020925S.D			Analyzed: 02/10/23 04:21			
1,4-Dichlorobenzene-d4	53475	8.843	99878	8.843	54	50 - 200	0.000	+/-0.50	
Naphthalene-d8	197668	11.298	353725	11.299	56	50 - 200	-0.001	+/-0.50	
Acenaphthene-d10	91464	14.889	168125	14.882	54	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	161591	17.91	295176	17.903	55	50 - 200	0.007	+/-0.50	
Chrysene-d12	141730	22.979	264951	22.98	53	50 - 200	-0.001	+/-0.50	
Perylene-d12	167096	25.519	304147	25.511	55	50 - 200	0.008	+/-0.50	
LDW23-SC1226B (23A0032-08)		(Solid)	Lab File ID: NT1023020926S.D			Analyzed: 02/10/23 04:59			
1,4-Dichlorobenzene-d4	57874	8.843	99878	8.843	58	50 - 200	0.000	+/-0.50	
Naphthalene-d8	210252	11.299	353725	11.299	59	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	96034	14.889	168125	14.882	57	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	173410	17.91	295176	17.903	59	50 - 200	0.007	+/-0.50	
Chrysene-d12	136098	22.995	264951	22.98	51	50 - 200	0.015	+/-0.50	
Perylene-d12	155917	25.527	304147	25.511	51	50 - 200	0.016	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0157

Instrument: NT10

Calibration: GB00019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-SC1212 (23A0032-11)		(Solid)	Lab File ID: NT1023020927S.D			Analyzed: 02/10/23 05:37			
1,4-Dichlorobenzene-d4	54878	8.843	99878	8.843	55	50 - 200	0.000	+/-0.50	
Naphthalene-d8	200078	11.298	353725	11.299	57	50 - 200	-0.001	+/-0.50	
Acenaphthene-d10	91192	14.889	168125	14.882	54	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	169411	17.91	295176	17.903	57	50 - 200	0.007	+/-0.50	
Chrysene-d12	133789	23.01	264951	22.98	50	50 - 200	0.030	+/-0.50	
Perylene-d12	141274	25.55	304147	25.511	46	50 - 200	0.039	+/-0.50	*
Instrument Blank (SLB0157-IBL1)		(Solid)	Lab File ID: NT1023020932S.D			Analyzed: 02/10/23 08:51			
1,4-Dichlorobenzene-d4	57655	8.843	99878	8.843	58	50 - 200	0.000	+/-0.50	
Naphthalene-d8	209676	11.299	353725	11.299	59	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	93520	14.889	168125	14.882	56	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	174674	17.91	295176	17.903	59	50 - 200	0.007	+/-0.50	
Chrysene-d12	156518	22.987	264951	22.98	59	50 - 200	0.007	+/-0.50	
Perylene-d12	163082	25.519	304147	25.511	54	50 - 200	0.008	+/-0.50	
Calibration Check (SLB0157-CCV1)		(Solid)	Lab File ID: NT1023020935S.D			Analyzed: 02/10/23 10:47			
1,4-Dichlorobenzene-d4	96102	8.85	99878	8.843	96	50 - 200	0.007	+/-0.50	
Naphthalene-d8	344110	11.306	353725	11.299	97	50 - 200	0.007	+/-0.50	
Acenaphthene-d10	159503	14.889	168125	14.882	95	50 - 200	0.007	+/-0.50	
Phenanthrene-d10	287867	17.91	295176	17.903	98	50 - 200	0.007	+/-0.50	
Chrysene-d12	275421	22.987	264951	22.98	104	50 - 200	0.007	+/-0.50	
Perylene-d12	273270	25.519	304147	25.511	90	50 - 200	0.008	+/-0.50	



HOLDING TIME SUMMARY

Analysis: EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-IT1246 23A0032-01	01/03/23 08:52	01/03/23 16:57	01/11/23 11:45	8	365	01/19/23 18:33	8	40	
LDW23-IT1264 23A0032-02	01/03/23 09:12	01/03/23 16:57	01/11/23 11:45	8	365	01/19/23 19:00	8	40	
LDW23-IT1264 23A0032-02RE1	01/03/23 09:12	01/03/23 16:57	01/11/23 11:45	8	365	01/19/23 22:08	8	40	
LDW23-IT1269 23A0032-03	01/03/23 09:36	01/03/23 16:57	01/11/23 11:45	8	365	01/19/23 19:27	8	40	
LDW23-IT1272 23A0032-04	01/03/23 10:45	01/03/23 16:57	01/11/23 11:45	8	365	01/19/23 19:53	8	40	
LDW23-IT1224 23A0032-05	01/03/23 13:21	01/03/23 16:57	01/10/23 11:20	6	365	02/10/23 04:21	31	40	
LDW23-IT1235 23A0032-06	01/03/23 13:34	01/03/23 16:57	01/11/23 11:45	7	365	01/19/23 20:20	8	40	
LDW23-IT1202 23A0032-07	01/03/23 14:36	01/03/23 16:57	01/11/23 11:45	7	365	01/19/23 21:41	8	40	
LDW23-SC1226B 23A0032-08	01/03/23 12:35	01/03/23 16:57	01/10/23 11:20	6	365	02/10/23 04:59	31	40	
LDW23-SC1212 23A0032-11	01/03/23 14:01	01/03/23 16:57	01/10/23 11:20	6	365	02/10/23 05:37	31	40	
Matrix Spike BLA0171-MS1	01/03/23 13:34	01/03/23 16:57	01/11/23 11:45	7	365	01/19/23 20:47	8	40	
Matrix Spike Dup BLA0171-MSD1	01/03/23 13:34	01/03/23 16:57	01/11/23 11:45	7	365	01/19/23 21:14	8	40	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**
EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: NT10

Analyte	MDL	RL	Units
1,4-Dichlorobenzene	0.6	5.0	ug/kg
1,2-Dichlorobenzene	0.7	5.0	ug/kg
Benzyl Alcohol	2.5	20.0	ug/kg
Benzoic acid	13.4	100	ug/kg
2,4-Dimethylphenol	2.2	20.0	ug/kg
1,2,4-Trichlorobenzene	2.7	5.0	ug/kg
N-Nitrosodiphenylamine	1.3	5.0	ug/kg
Pentachlorophenol	2.1	20.0	ug/kg



**METHOD DETECTION
AND REPORTING LIMITS**

EPA 8270E-SIM

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: NT8

Analyte	MDL	RL	Units
Benzo(a)anthracene	0.82	5.00	ug/kg
Chrysene	1.05	5.00	ug/kg
Benzo(b)fluoranthene	1.37	5.00	ug/kg
Benzo(k)fluoranthene	0.76	5.00	ug/kg
Benzo(a)pyrene	0.61	5.00	ug/kg
Indeno(1,2,3-cd)pyrene	1.05	5.00	ug/kg
Dibenzo(a,h)anthracene	0.89	5.00	ug/kg

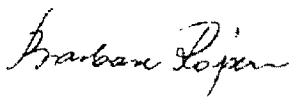
Certificate of Analysis

I 8227

SIGMA-ALDRICH

Product Name Pentachlorophenol,
97%
Product Number P2604
Product Brand ALDRICH
CAS Number 87-86-5
Molecular Formula C₆Cl₅OH
Molecular Weight 266.34

TEST	SPECIFICATION	LOT 07119HO RESULTS
APPEARANCE	WHITE TO OFF-WHITE OR LIGHT BLUE POWDER	OFF-WHITE POWDER
INFRARED SPECTRUM	CONFORMS TO STRUCTURE.	CONFORMS TO STRUCTURE AND STANDARD
TITRATION	97.5% - 102.5% (WITH AGNO ₃ AFTER OXYGEN	100.5 % (WITH AGNO ₃ AFTER OXYGEN COMBUSTION)
GAS LIQUID CHROMATOGRAPHY	97.5% (MINIMUM)	99.9 %
SOLUBILITY		100 MG/ML, 95% ETOH: VERY HAZY, FAINT YELLOW SOLUTION
QUALITY CONTROL		JUNE 2001
ACCEPTANCE DATE		



Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: NA

Chemical: Tributyl Phosphate

Manufacturer: Chemservice

Product #: 0-916

Lot #: 59-57A

Purity: 99%

Analyst: VFB

Element: B000954



Description: SVOC 4,4 DDT Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 23-Sep-13
Solvent: N/A Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 11:46 by JZ
Vendor: Chem Service Lot #: 198-128A
Vendor Catalog #:

Comments

Neat, Purity @ 99.2%. (ARI#: 790A)

Analyte	CAS Number	Concentration	Units
4,4'-DDT	50-29-3	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 4,4' DDT

Manufacturer: Chem Service

Product #: _____

Lot #: 198-128A

Purity: 99.2%

Analyst: AS



Description: SVOC alpha-Terpineol Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: N/A Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 12:13 by JZ
Vendor: ACROS Organics Lot #: AD16481201
Vendor Catalog #:

Comments

Neat, Purity @ 98%. (ARI#: I1582A)

Analyte	CAS Number	Concentration	Units
alpha-Terpineol	98-55-5	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: alpha-Terpineol

Manufacturer: Acros Organics

Product #: _____

Lot #: AD6481201

Purity: 98%

Analyst: 12



Description: SVOA Dibutyl Phenyl phosphate Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: NA Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 15:45 by JZ
Vendor: Monsanto Lot #: N/A
Vendor Catalog #:

Comments

Neat, Purity @ 98.9%.

Analyte	CAS Number	Concentration	Units
Dibutyl Phenyl Phosphate	2528-36-1	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Dibutyl Phenyl Phosphate

Manufacturer: Monsanto

Product #: NA

Lot #: NA

Purity: 98.9%

Analyst: AD



Description: SVOC Triphenyl Phosphate Expires: 31-Dec-29
Standard Type: Calibration Stan Prepared: 31-Dec-12
Solvent: NA Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 23-Sep-13 15:59 by JZ
Vendor: Aldrich Lot #: 04902CM
Vendor Catalog #:

Comments

Neat, Purity @ 99%.

Analyte	CAS Number	Concentration	Units
Triphenyl Phosphate	115-86-6	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Triphenyl phosphate

Manufacturer: Aldrich

Product #: _____

Lot #: 04902CM

Purity: 99%

Analyst: [Signature]



Description:	SVOC Butylated Hydroxytoluene	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 16:18 by JZ
Vendor:	SIGMA	Lot #:	39F-0197
Vendor Catalog #:			

Comments

neat,Purity @ 99.9%.

Analyte	CAS Number	Concentration	Units
Butylated Hydroxytoluene	128-37-0	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Bulkyated Hydroxytoluene

Manufacturer: Sigma

Product #: _____

Lot #: 39F-0197

Purity: 99.8%

Analyst: AB



Description:	SVOC Butyl Diphenyl Phosphate	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	23-Sep-13 17:02 by JZ
Vendor:	Monsanto	Lot #:	N/A
Vendor Catalog #:			

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Butyl Diphenyl Phosphate	2752-95-6	1000000	ug/mL

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Butyl Diphenyl Phosphate

Manufacturer: Monsanto

Product #: NA

Lot #: NA

Purity: 99%

Analyst: R.



Description:	SVOC 2,4-Dinitrophenol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	25-Sep-13
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 13:45 by JZ
Vendor:	SIGMA	Lot #:	65H5021
Vendor Catalog #:			

Comments

Neat, Purity @ 90-95%. (ARI#: 0466)

Analyte	CAS Number	Concentration	Units
2,4-Dinitrophenol	51-28-5	1000000	ug/mL

B001941

SVOA 2,4-Dinitrophenol
Expires 12/31/2029
Prepared By Jianqing Zhou 9/25/2013



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 2,4-Dinitrophenol

Manufacturer: Sigma

Product #: _____

Lot #: 644 5021

Purity: 90.29%

Analyst: AB



Description:	SVOC Benzoic Acid	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:23 by JZ
Vendor:	ACROS Organics	Lot #:	A0224339
Vendor Catalog #:			

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Benzoic acid	65-85-0	1000000	ug/mL

B001945

SVOC Benzoic Acid
Expires 12/31/2029

Prepared By Jianqing Zhou 12/31/2012

Reviewed By

Date



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Benzoic Acid

Manufacturer: ACROS Organics

Product #: _____

Lot #: A0224339

Purity: 98%

Analyst: AB



Description:	SVOC 4,6-Dinitro-2-Methylphenol	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	25-Sep-13
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:37 by JZ
Vendor:	Chem Service	Lot #:	179-31A
Vendor Catalog #:			

Comments

Neat, Purity @ 99%. (ARI#: 009A)

Analyte	CAS Number	Concentration	Units
4,6-Dinitro-2-methylphenol	534-52-1	1000000	ug/mL

B001948

SVOA 4,6-Dinitro-2-Methylphenol
Expires 12/31/2029
Prepared By Jianqing Zhou 9/25/2013

Reviewed By _____ Date _____



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 4,6-Dinitro-2-Methylphenol

Manufacturer: Chem Service

Product #: _____

Lot #: 179-31A

Purity: 99%

Analyst: RB



Description:	SVOA 1-Methylnaphthalene	Expires:	02-Apr-14
Standard Type:	Analyte Spike	Prepared:	13-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	04-Oct-13 18:32 by JZ
Vendor:	Chem Service	Lot #:	62-5B
Vendor Catalog #:			

Comments

Neat, Purity @ 99%

Analyte	CAS Number	Concentration	Units
1-Methylnaphthalene	90-12-0	1000000	ug/mL



B002054
SVOA 1-Methylnaphthalene
Solvent / Lot: NA
Prep: 12/13/2012 by JZ
Exp: 12/31/2029
Location:



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: 1-Methyl naphthalene

Manufacturer: Chem Service

Product #: 0787

Lot #: 62-53

Purity: 99%

Analyst: AB



Description: SVOA Benzidine Expires: 31-Dec-29
Standard Type: Analyte Spike Prepared: 15-Oct-13
Solvent: N/A Prepared By: Jianqing Zhou
Final Volume (mls): 1 Department: Organics
Vials: 1 Last Edit: 15-Oct-13 12:07 by JZ
Vendor: SIGMA Lot #: 18C0024
Vendor Catalog #:

Comments

Purity @ 95%. ARI#: 0467.

Analyte	CAS Number	Concentration	Units
Benzidine	92-87-5	1000000	ug/mL



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: _____

Chemical: Benzidine

Manufacturer: Sigma

Product #: B-3503

Lot #: 18C0024

Purity: 95%

Analyst: B.



CERTIFICATE OF ANALYSIS

Product Name: DIBENZ[A,H]ANTHRACENE
(Isotopic Label & Enrichment Specification) (D14, 97%)

Lot Number: PR-14764/09163DA2

Catalog Number: DLM-677-0

I2955

Product Information

Chemical Purity Specification: $\geq 98\%$
Labeled CAS Number: NA
Unlabeled CAS Number: 53-70-3
Molecular Weight: 292.5
Chemical Formula: C22D14
Storage: Store at room temperature away from light and moisture.
Stability: Stable if stored under recommended conditions.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible.

Approved by: Deborah E. Costa

Deborah E. Costa, Quality Assurance

Quality Control Tests and Results

GC/MS for Chemical Purity	99.3%
GC/MS for Isotopic Enrichment	97.4%
Melting Point Range Determination	263-265°C
¹ H NMR for Chemical Purity	Pass

E006466

SVOA-d14-Dibenz(a,h)anthracene-NEAT

Solvent / Lot: NA

Prep: 11/9/2016 by VS

Exp: 5/8/2030

Location:



Certificate of Analysis

Product Name: 1,2,4,5-Tetrachlorobenzene
Product Description: 98%
Product Brand: Sigma-Aldrich
Product Number: 131857
Molecular Weight: 215.89
CAS Number: 95-94-3

TEST

APPEARANCE
INFRARED SPECTRUM

GAS LIQUID

QUALITY CONTROL

SPECIFICATION

WHITE POWDER, CHIPS OR CRYSTALS
CONFORMS TO STRUCTURE.

97.5% (MINIMUM)

LOT 19309JR RESULTS

WHITE CHIPS
CONFORMS TO STRUCTURE AND
STANDARD AS
ILLUSTRATED ON PAGE 1011C OF EDITION
I,
VOLUME 1 OF "THE ALDRICH LIBRARY OF
FT-IR
SPECTRA".
99.9 %
JULY 1997



Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

F09172

SVOC 1,2,4,5-Tetrachlorobenzene
Expires 12/31/2079
Prepared By Joshua Rains 10/6/2017

CERTIFICATE OF ANALYSIS

2-Chloronaphthalene

CATALOG NUMBER N-10323-100MG
LOT NUMBER 10816400
DATE CERTIFIED 05/22/18
EXPIRATION DATE 05/31/24
CAS NUMBER 91-58-7
MOLECULAR FORMULA C₁₀H₇Cl
MOLECULAR WEIGHT 162.62
STORAGE Store at room temperature (20 - 25 °C).
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.

I010152

2-Chloronaphthalene NEAT
Expires 12/31/2079
Prepared By Joshua Rains 10/29/2020

Analytical Test	Value
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

Certificate of Composition - Analytical Standard

BASE STOCK

Product no.: 22523051
Lot no.: LRAC9813
Expiry Date: May 2023
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: Dichloromethane
Certificate version: LRAC9813.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

J005199

SVOA-ABN BASE STOCK-200-800ug/ml
 Expires 5/31/2023
 Prepared By Jiangqing Zhou 5/18/2021

Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
3,3'-DICHLOROBENZIDINE CAS# 91-94-1	802	µg/mL	99.9	LC27068
2,4-DINITROTOLUENE CAS# 121-14-2	802	µg/mL	97.8	LB46632
2,6-DINITROTOLUENE CAS# 606-20-2	801	µg/mL	99.9	LB79891
HEXACHLOROCYCLOPENTADIENE CAS# 77-47-4	802	µg/mL	96.0	LB95525
N-NITROSODIMETHYLAMINE CAS# 62-75-9	801	µg/mL	95.0	2019-030598 5
PERYLENE CAS# 198-55-0	201	µg/mL	99.6	04101PG
ANILINE CAS# 62-53-3	803	µg/mL	100.0	10126MG
4-CHLOROANILINE CAS# 106-47-8	803	µg/mL	100.0	MKBZ6909V
2-NITROANILINE CAS# 88-74-4	802	µg/mL	99.9	LC05068
3-NITROANILINE CAS# 99-09-2	802	µg/mL	99.9	LC09264
4-NITROANILINE CAS# 100-01-6	802	µg/mL	99.9	LC11400
PYRIDINE (LOW WATER) CAS# 110-86-1	802	µg/mL	100.0	SHBJ9218

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.



Health and safety information:

All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Certificate issue date:

12-May-2021



Andy Ommen - QC Manager



Mark Pooler - QA Supervisor

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAC9813.01	12-May-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.




Certificate of Composition - Analytical Standard

ACID STOCK

Product no.: 22523046
Lot no.: LRAC9812
Expiry Date: May 2023
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: Dichloromethane
Certificate version: LRAC9812.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

J005200
 SVOA-ABN ACID STOCK-200-800ug/ml
 Solvent / Lot: DCM
 Prep: 5/18/2021 by JZ
 Exp: 5/31/2023
 Location:



Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
2,4-DIMETHYLPHENOL CAS# 105-67-9	802	µg/mL	99.9	LB88935
2,4-DICHLOROPHENOL CAS# 120-83-2	802	µg/mL	100.0	BCBZ6787
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	802	µg/mL	99.9	JS00008
2,4-DINITROPHENOL CAS# 51-28-5	1806	µg/mL	75.9	MKBP5833V
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	803	µg/mL	98.7	LB82983
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	801	µg/mL	99.9	JS00013
4-NITROPHENOL CAS# 100-02-7	801	µg/mL	99.9	LC10889
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	1804	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	803	µg/mL	98.7	MKCK8156
BENZOIC ACID CAS# 65-85-0	1805	µg/mL	99.9	LC16514

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.





CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31493 **Lot No.:** A0167617

Description : CLP 04.1 BNA Surrogate Mix
CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2024 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

J005610

CLP 04.1 BNA SURR MIX
Expires 9/30/2024
Prepared By Jianqing Zhou 5/26/2021

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	2-Fluorophenol	1,506.0 µg/mL	+/-	8.9452	µg/mL	Gravimetric
	CAS # 367-12-4 (Lot STBF3761V)		+/-	43.9882	µg/mL	Unstressed
	Purity 99%		+/-	53.3632	µg/mL	Stressed
2	Phenol-d6	1,512.0 µg/mL	+/-	8.9808	µg/mL	Gravimetric
	CAS # 13127-88-3 (Lot PR-31658)		+/-	44.1635	µg/mL	Unstressed
	Purity 99%		+/-	53.5758	µg/mL	Stressed
3	2-Chlorophenol-d4	1,502.0 µg/mL	+/-	8.9214	µg/mL	Gravimetric
	CAS # 93951-73-6 (Lot PR-30568)		+/-	43.8714	µg/mL	Unstressed
	Purity 99%		+/-	53.2214	µg/mL	Stressed
4	1,2-Dichlorobenzene-d4	1,006.0 µg/mL	+/-	5.9753	µg/mL	Gravimetric
	CAS # 2199-69-1 (Lot M-2097)		+/-	29.3839	µg/mL	Unstressed
	Purity 99%		+/-	35.6463	µg/mL	Stressed
5	Nitrobenzene-d5	1,002.0 µg/mL	+/-	5.9516	µg/mL	Gravimetric
	CAS # 4165-60-0 (Lot PR-29940B)		+/-	29.2671	µg/mL	Unstressed
	Purity 99%		+/-	35.5046	µg/mL	Stressed
6	2-Fluorobiphenyl	1,002.0 µg/mL	+/-	5.9516	µg/mL	Gravimetric
	CAS # 321-60-8 (Lot 00019169)		+/-	29.2671	µg/mL	Unstressed
	Purity 99%		+/-	35.5046	µg/mL	Stressed
7	2,4,6-Tribromophenol	1,502.0 µg/mL	+/-	8.9214	µg/mL	Gravimetric
	CAS # 118-79-6 (Lot S55013V)		+/-	43.8714	µg/mL	Unstressed
	Purity 99%		+/-	53.2214	µg/mL	Stressed

8	p-Terphenyl-d14	1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
	CAS # 1718-51-0	(Lot PR-30504)	+/- 29.2671	µg/mL	Unstressed
	Purity 99%		+/- 35.5046	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
 30m x 0.25mm x 0.25µm
 Rtx-5 (cat.#10223)

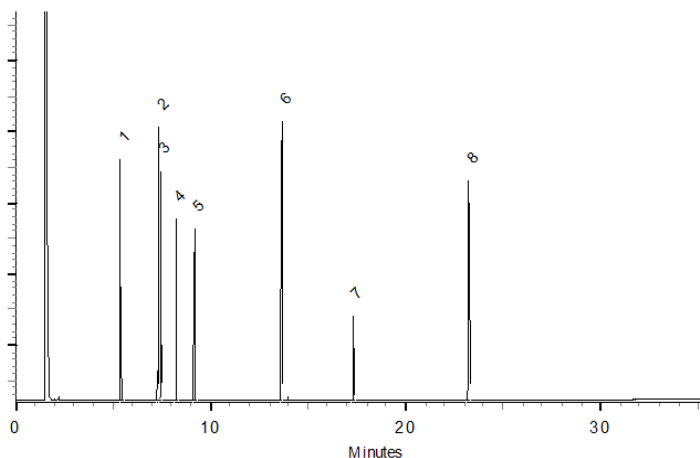
Carrier Gas:
 hydrogen-constant pressure 10 psi.

Temp. Program:
 40°C (hold 2 min.) to 330°C
 @ 10°C/min. (hold 10 min.)

Inj. Temp:
 250°C

Det. Temp:
 330°C

Det. Type:
 FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


 Tom Suckar - Mix Technician

Date Mixed: 29-Dec-2020 **Balance:** B345965662


 Justine Albertson - Operations Tech-ARM QC

Date Passed: 31-Dec-2020

Manufactured under Restek's ISO 9001:2015
 Registered Quality System
 Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.



CERTIFIED WEIGHT REPORT

Part Number: 70476
Lot Number: 092220
Description: Benzo(j)fluoranthene

Solvent(s): Methylene chloride
Lot# 104929

Expiration Date: 092225
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 23060

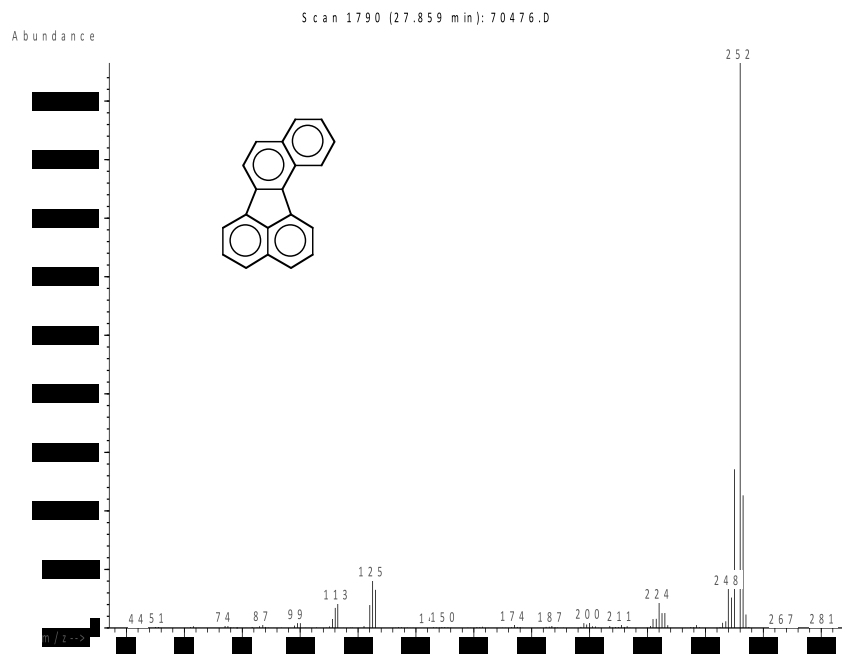
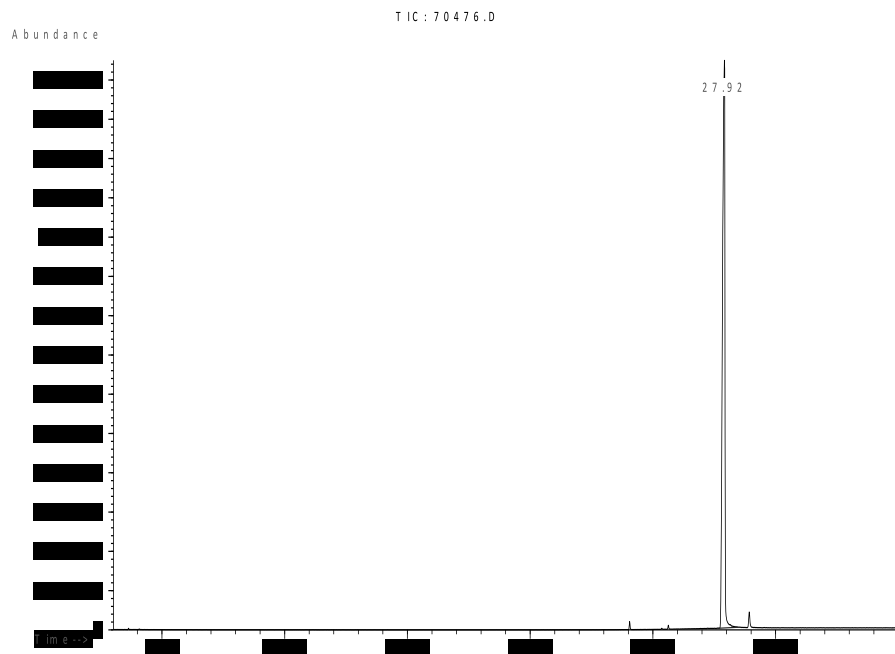
Weight(s) shown below were combined and diluted to (mL): 25.0 0.001 Flask Uncertainty

<i>Benson Chan</i>		092220
Formulated By:	Benson Chan	DATE
<i>Pedro L. Rentas</i>		092220
Reviewed By:	Pedro L. Rentas	DATE

SDS Information
(Solvent Safety Info. On Attached pg.)

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
1. Benzo(j)fluoranthene	476	3-CSZ-153-20	1000	98.1	0.2	0.02547	0.02552	1001.8	5.7	205-82-3	0.2mg/m3	N/A

Method GC8MSD1M: Column:SBB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9 min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 290°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Candice Warren.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



Run 31, "P70476 L092220 [1000µg/mL in MeCl2]"

Run Length: 40.00 min, 23999 points at 10 points/second.

Created: Thu, Sep 24, 2020 at 2:33:43 AM.

Sampled: Sequence "092120-GC9M2", Method "GC9-M2".

Analyzed using Method "GC9-M2".

Comments

GC9-M2 Analysis by Melissa Stonier

Column ID SPB-5 30 meter x 0.53mm x 1.5µm Film Thickness.

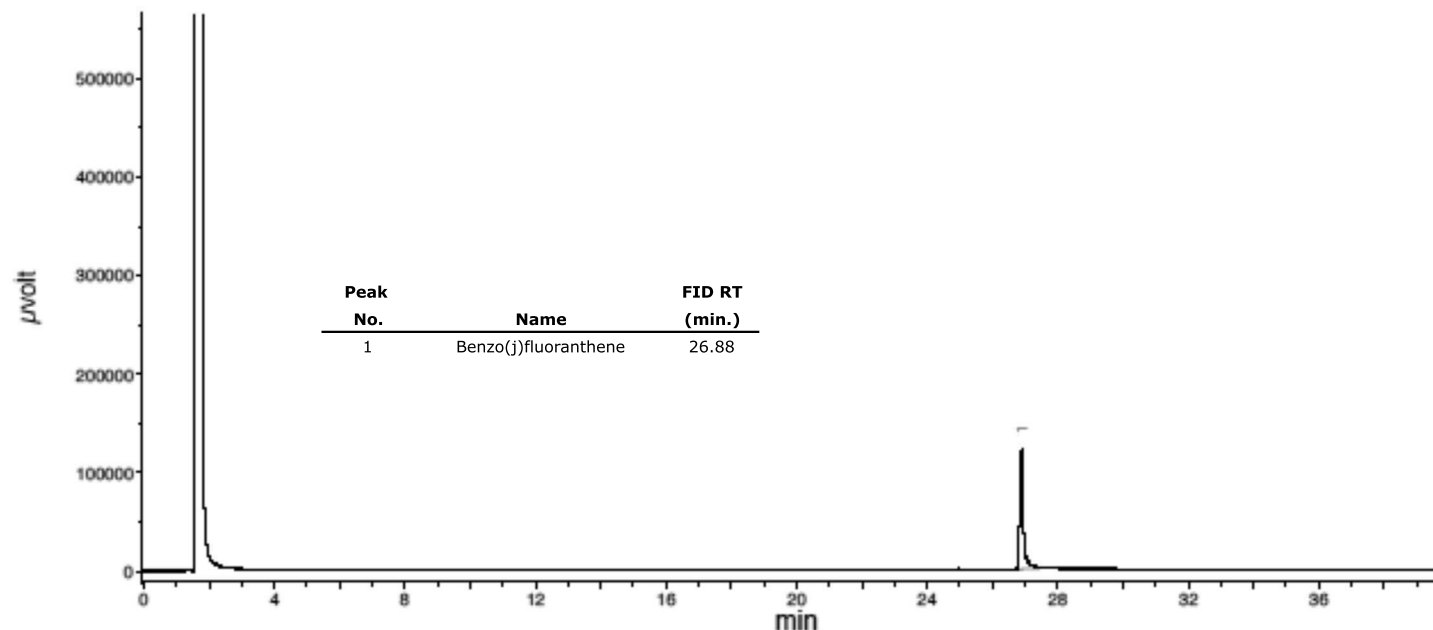
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.

Hydrogen (detector) = 30 mL, Air (detector) = 360 mL Oven Temp 1 = 50°C (1 min).

Rate = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes. Injector Temp = 250°C.

FID Temp = 300°C, FID Signal = eDaq Channel 1.

Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 3



Certificate of Analysis

J008074

SVOA PAH STD 2000ug/ml
 Expires 6/30/2023
 Prepared By Joshua Rains 8/5/2021

Product Name: PAH Standard

Product Number: US-106N-1

Lot Number: 0006540449

Lot Issue Date: 11-Jun-2020

Expiration Date: 30-Jun-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
acenaphthene	000083-32-9	RM10879	2008 ± 10 µg/mL
acenaphthylene	000208-96-8	RM10891	2003 ± 10 µg/mL
anthracene	000120-12-7	RM14212	2006 ± 10 µg/mL
benz[a]anthracene	000056-55-3	RM16072	2006 ± 10 µg/mL
benzo[b]fluoranthene	000205-99-2	RM14571	2005 ± 10 µg/mL
benzo[k]fluoranthene	000207-08-9	RM14321	2009 ± 10 µg/mL
benzo[ghi]perylene	000191-24-2	RM15761	2008 ± 10 µg/mL
benzo[a]pyrene	000050-32-8	RM12669	2009 ± 10 µg/mL
chrysene	000218-01-9	RM12260	2009 ± 10 µg/mL
dibenz[a,h]anthracene	000053-70-3	RM06786	2009 ± 10 µg/mL
fluoranthene	000206-44-0	RM12277	2004 ± 10 µg/mL
fluorene	000086-73-7	RM09441	2009 ± 10 µg/mL
indeno[1,2,3-cd]pyrene	000193-39-5	RM14192	2009 ± 10 µg/mL
naphthalene	000091-20-3	NT00970	2008 ± 10 µg/mL
phenanthrene	000085-01-8	RM10495	2009 ± 10 µg/mL
pyrene	000129-00-0	RM03479	2008 ± 10 µg/mL

Matrix: methylene chloride/benzene (1:1)



ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/



ISO 17025 Cert
No. AT-1937



Certificate of Analysis

Product Number: US-106N-1

Lot Number: 0006540449

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 2 of 2

www.agilent.com/quality/



ISO 17025 Cert
No. AT-1937

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244

Lot Number: CL16062

Description: Benzidines Standard

Certification Date: November 19, 2020

Storage: 4 °C

Expiration Date: November 30, 2030

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 2.740%
3,3'-Dichlorobenzidine	91-94-1	2000	± 3.229%

J008310

Benzidines std @2000ug/ml
Expires 11/30/2030
Prepared By Van Spohn 8/12/2021

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com

Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. Quality Standards: Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Type in Product Names, Product Numbers, or CAS Numbers to see suggestions.



Certificate of Analysis

► Sigma-Aldrich

Product Name: 2,4,6-Tribromophenol
 Product Description: 99%
 Product Brand: Sigma-Aldrich
 Product Number: 137715
 Molecular Weight: 330.80
 Molecular Formula: $\text{Br}_3\text{C}_6\text{H}_2\text{OH}$
 CAS Number: 118-79-6

TEST	SPECIFICATION	LOT 05110PD RESULTS
APPEARANCE:	WHITE TO OFF-WHITE TO PINK FLAKES, CHUNKS,	PINK BEADS
INFRARED SPECTRUM:		CONFORMS TO STRUCTURE.
GAS LIQUID:	98.5% (MINIMUM)	99.9%
QUALITY CONTROL:		NOVEMBER 2005



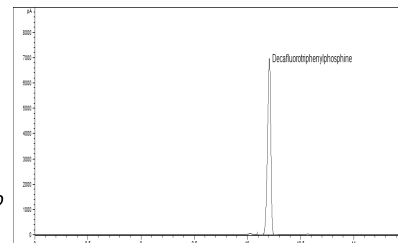
Barbara Rajzer, Supervisor
 Quality Control
 Milwaukee, Wisconsin USA

J010541
 SVOA-Tribromophenol-NEAT
 Solvent / Lot: 05110PD
 Prep: 10/1/2021 by VS
 Exp: 3/30/2040
 Location: voa freezer

Certificate of Analysis - Certified Reference Material

Decafluorotriphenylphosphine solution

Product no.: 48724-U
Lot no.: LRAD0628
Expiry Date: October 2024
Manufacturing Date: September 2021
Storage: ROOM TEMPERATURE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD0628.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

Analyte	Certified Value	Units	Raw Material Purity, %	Raw Material Lot
DFTPP CAS# 5074-71-5	25.2 ± 2.6	mg/mL	97.0	10220909

ASSAY Method

METHOD: GC (BELLEFONTE)

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness

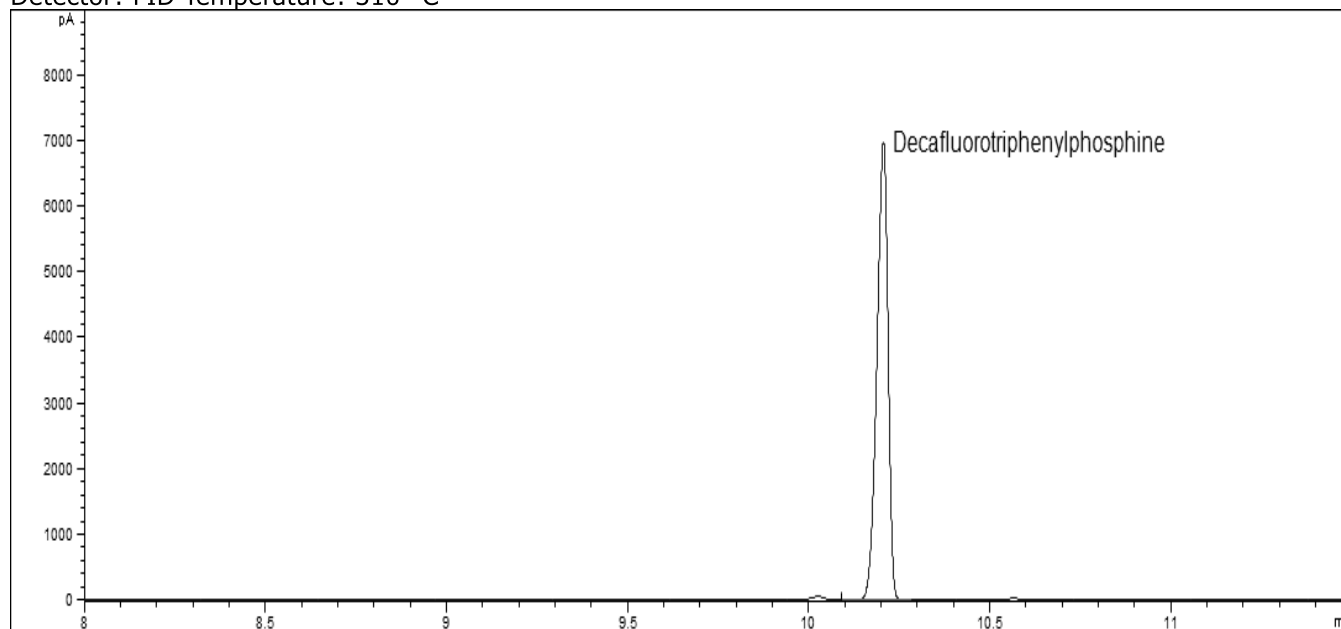
Carrier Gas: H₂ Flow Rate: 4.3 mL/min

Inlet Temperature: 250 °C Injection Volume: 1 µL

Injection Mode: 25:1

Temperature Program: 120 °C (Hold 0 min) @ 12 °C/min to 260 °C (Hold 0 min)

Detector: FID Temperature: 310 °C



Elution details:

EO	RT(MIN)	ANALYTE
1	10.206	Decafluorotriphenylphosphine

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Minimum sample size: 1 µL

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 30-Sep-2021



Andy Ommen - QC Manager

Scott Stetler - QA Manager

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment:

Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD0628.01	30-Sep-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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operates as MilliporeSigma in the US and Canada.



Certificate of Analysis

Produced by Phenova

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101246

Lot Number: CL16693

Description: Benzoic Acid

Certification Date: May 6, 2021

Storage: 4 °C

Expiration Date: April 30, 2031

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzoic acid	65-85-0	2000	± 4.383%

K3238



Reference Material Producer
Certificate No. 2427.02



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Chemical Testing Laboratory
Certificate No. 2427.03

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1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 25 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).
$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.
10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101443

Lot Number: CL17696

Description: Aniline

Certification Date: December 14, 2021

Storage: 4 °C

Expiration Date: December 31, 2029

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aniline	62-53-3	1000	± 0.760%

K 3239



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3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = k \sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
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- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty In Measurement (GUM: 1995)



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Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Certified Values

Analyte	Units	Certified ^{1,4} Value
1,2,4-Trichlorobenzene	µg/Kg	1477 ± 181
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	1625 ± 292
1-Chloronaphthalene	µg/Kg	2809 ± 84
2,3-Dimethylphenol	µg/Kg	4552 ± 137
2,4,5-Trichlorophenol	µg/Kg	3438 ± 245
2,4,6-Trichlorophenol	µg/Kg	2194 ± 251
2,4-Dichlorophenol	µg/Kg	6991 ± 394
2,4-Dimethylphenol	µg/Kg	6357 ± 879
2,4-Dinitrophenol	µg/Kg	2922 ± 523
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	3318 ± 442
2,6-Dichlorophenol	µg/Kg	4578 ± 874
2,6-Dimethylphenol	µg/Kg	7582 ± 228
2-Chloronaphthalene	µg/Kg	2223 ± 168
2-Chlorophenol	µg/Kg	1678 ± 202
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	5148 ± 685
2-Methylphenol (o-Cresol)	µg/Kg	6004 ± 573
2-Nitrophenol	µg/Kg	6456 ± 383
3,4-Dimethylphenol	µg/Kg	7185 ± 216
3+4-Methylphenol (m+p-Cresol)	µg/Kg	8033 ± 1613
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	7169 ± 310
4-Chloro-3-methylphenol	µg/Kg	2071 ± 110
4-Chlorophenyl phenylether	µg/Kg	2052 ± 113
4-Methylphenol (p-Cresol)	µg/Kg	6617 ± 1371
4-Nitrophenol	µg/Kg	6812 ± 595
Acenaphthene	µg/Kg	5489 ± 380



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Acenaphthylene	µg/Kg	1948 ± 240
Anthracene	µg/Kg	2866 ± 237
Benzo(a)anthracene	µg/Kg	5751 ± 552
Benzo(a)pyrene	µg/Kg	5902 ± 612
Benzo(b)fluoranthene	µg/Kg	3010 ± 409
Benzo(b+k)fluoranthene	µg/Kg	6534 ± 196
Benzo(g,h,i)perylene	µg/Kg	1380 ± 136
Benzo(k)fluoranthene	µg/Kg	2215 ± 237
Butyl benzyl phthalate	µg/Kg	3511 ± 384
Carbazole	µg/Kg	5412 ± 407
Chrysene	µg/Kg	1477 ± 72
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	2905 ± 321
Dibenzo(a,h)anthracene	µg/Kg	3420 ± 302
Dibenzofuran	µg/Kg	6130 ± 253
Dimethyl phthalate	µg/Kg	4537 ± 250
Di-n-butyl phthalate	µg/Kg	1721 ± 154
Di-n-octyl phthalate	µg/Kg	2744 ± 288
Fluoranthene	µg/Kg	2497 ± 222
Fluorene	µg/Kg	3724 ± 222
Hexachlorobutadiene	µg/Kg	1877 ± 245
Indeno(1,2,3-cd) pyrene	µg/Kg	3914 ± 409
Isophorone	µg/Kg	1615 ± 170
Naphthalene	µg/Kg	4458 ± 480
Nitrobenzene	µg/Kg	3539 ± 266
n-Nitrosodimethylamine	µg/Kg	1580 ± 402
n-Nitrosodiphenylamine	µg/Kg	2854 ± 379
Pentachlorophenol	µg/Kg	3411 ± 358
Phenanthrene	µg/Kg	5052 ± 385
Phenol	µg/Kg	2660 ± 184
Pyrene	µg/Kg	2964 ± 256
Pyridine	µg/Kg	1008 ± 30

Informational Values



Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Analyte	Units	Suggested Acceptance Windows	Standard Deviation
1,2,4-Trichlorobenzene	µg/Kg	148 to 2853	459
1,3-Dichlorobenzene (m-Dichlorobenzene)	µg/Kg	163 to 3440	605
1-Chloronaphthalene	µg/Kg	1123 to 4494	562
2,3-Dimethylphenol	µg/Kg	1821 to 7284	910
2,4,5-Trichlorophenol	µg/Kg	1003 to 5872	811
2,4,6-Trichlorophenol	µg/Kg	640 to 3748	518
2,4-Dichlorophenol	µg/Kg	2391 to 11591	1533
2,4-Dimethylphenol	µg/Kg	0.00 to 13959	2534
2,4-Dinitrophenol	µg/Kg	1169 to 4675	584
2,4-Dinitrotoluene (2,4-DNT)	µg/Kg	1248 to 5388	690
2,6-Dichlorophenol	µg/Kg	1831 to 7324	916
2,6-Dimethylphenol	µg/Kg	3033 to 12132	1516
2-Chloronaphthalene	µg/Kg	748 to 3699	492
2-Chlorophenol	µg/Kg	415 to 2942	421
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	µg/Kg	0.00 to 10347	1733
2-Methylphenol (o-Cresol)	µg/Kg	1306 to 10702	1566
2-Nitrophenol	µg/Kg	1534 to 11379	1641
3,4-Dimethylphenol	µg/Kg	2874 to 11495	1437
3+4-Methylphenol (m+p-Cresol)	µg/Kg	4054 to 16218	2027
4-Bromophenyl phenyl ether (BDE-3)	µg/Kg	2901 to 11437	1423
4-Chloro-3-methylphenol	µg/Kg	677 to 3464	464
4-Chlorophenyl phenylether	µg/Kg	756 to 3348	432
4-Methylphenol (p-Cresol)	µg/Kg	2647 to 10587	1323
4-Nitrophenol	µg/Kg	681 to 14762	2650
Acenaphthene	µg/Kg	2243 to 8736	1082
Acenaphthylene	µg/Kg	712 to 3183	412
Anthracene	µg/Kg	1218 to 4515	550
Benzo(a)anthracene	µg/Kg	2806 to 8696	982
Benzo(a)pyrene	µg/Kg	2512 to 9292	1130
Benzo(b)fluoranthene	µg/Kg	1197 to 4822	604
Benzo(b+k)fluoranthene	µg/Kg	2614 to 10454	1307



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Benzo(g,h,i)perylene	µg/Kg	489 to 2271	297
Benzo(k)fluoranthene	µg/Kg	892 to 3537	441
Butyl benzyl phthalate	µg/Kg	1255 to 5766	752
Carbazole	µg/Kg	2032 to 8792	1127
Chrysene	µg/Kg	669 to 2284	269
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	µg/Kg	765 to 5045	713
Dibenzo(a,h)anthracene	µg/Kg	1257 to 5583	721
Dibenzofuran	µg/Kg	2766 to 9493	1121
Dimethyl phthalate	µg/Kg	1842 to 7231	898
Di-n-butyl phthalate	µg/Kg	495 to 2947	409
Di-n-octyl phthalate	µg/Kg	690 to 4798	685
Fluoranthene	µg/Kg	984 to 4009	504
Fluorene	µg/Kg	1638 to 5810	695
Hexachlorobutadiene	µg/Kg	425 to 3329	484
Indeno(1,2,3-cd) pyrene	µg/Kg	870 to 6957	1015
Isophorone	µg/Kg	437 to 2792	392
Naphthalene	µg/Kg	1131 to 7784	1109
Nitrobenzene	µg/Kg	1024 to 6054	838
n-Nitrosodimethylamine	µg/Kg	632 to 2528	316
n-Nitrosodiphenylamine	µg/Kg	1142 to 4567	571
Pentachlorophenol	µg/Kg	341 to 7037	1209
Phenanthrene	µg/Kg	2307 to 7798	915
Phenol	µg/Kg	681 to 4639	660
Pyrene	µg/Kg	1118 to 4810	615
Pyridine	µg/Kg	403 to 1613	202

Additional Information:

DESCRIPTION

The organic sample is a soil containing extractable BNAs for analysis by 8100, 8270, 8310 or equivalent methods.

This product consist of a 5 vials each containing 10g of soil for analysis of PAHs. Each vial is identical and has been tested how homogeneity. Only one vial is need for test the remaining vials are to be used for multiple methods or routine testing.

The soil has been sterilized to minimize degradation of the sample.

The sample has been sized to 100 mesh.

Required storage condition is 4°C.

The sample has been intentionally prepared with an apparent headspace.

STORAGE

The sample should be stored at 4°C. It has been determined to be stable for the duration of the expiration date.

After sub-sampling replace cap securely and store remaining sample at 4°C.

The shelf life of the product was determined by historic stability of similar CRM's. The expiration date may be extended based on stock and popularity upon successful stability testing by a 17025 accredited laboratory.



Certificate of Analysis

BNAs - Sandy Loam 1

*Certified
Reference
Material*

Description

Product ID CRM143-50G
Lot LRAC8918
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

Stability and shelf life after opening must be determined by the user, taking into account sampling frequency/volume and all local conditions.

SAMPLE PREPARATION

Extract the complete contents of a single vial. Transfer entire contents of one vial to extraction vessel. Rinse vial and cap with extraction solvent.

Assume a 10g sample size for all calculations.

Note: Sample extracts and calibration solutions should be in the same solvent.

Report all results on a wet weight basis, do not correct for moisture.

NOTE: For method 8100 and using a packed column gas chromatographic method or cannot adequately resolve the following may coelute in four pairs of compounds: anthracene and phenanthrene; chrysene and benzo(a)anthracene; benzo(b)fluoranthene and benzo(k)fluoranthene; and dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene.

SCOPE AND APPLICATION

The BNAs in Soil Certified Reference Material (CRM) consists of 5 10mL VOA vials, with a Teflon lined closures containing approximately 10 grams of soil, fortified with BNAs. Being a natural matrix waste sample the analyst is challenged by the same preparation problems, analytical interferences, etc. as is typical for similar matrices received by the laboratory for analysis.



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Description

Lot **LRAC8918**
Expiration Date January 2024
Manufacturing Date January 2021
Storage Conditions Refrigerate
Solvent/Matrix SOIL

1 Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. K=2 unless specified. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2017 (ANAB Cert AT-1467) and ISO 17034:2016 (ANAB Cert AR-1470).



Andy Ommen - QC Manager



Mark Pooler - QA Supervisor

Certification Date January 05, 2021
Version 0-152021





CERTIFIED WEIGHT REPORT

Part Number: 93462
Lot Number: 081021
Description: PAH Standard
30 components
Expiration Date: 081026
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

Solvent(s): Methylene chloride
Lot# 105345

Volume(s) shown below were combined and diluted to (mL): 20.0
Balance Uncertainty: 5E-05
Flask Uncertainty: 0.001

K-3587

Formulated By:	<i>Prashant Chauhan</i>	081021
Reviewed By:	<i>Pedro L. Remias</i>	081021
	Pedro L. Remias	DATE

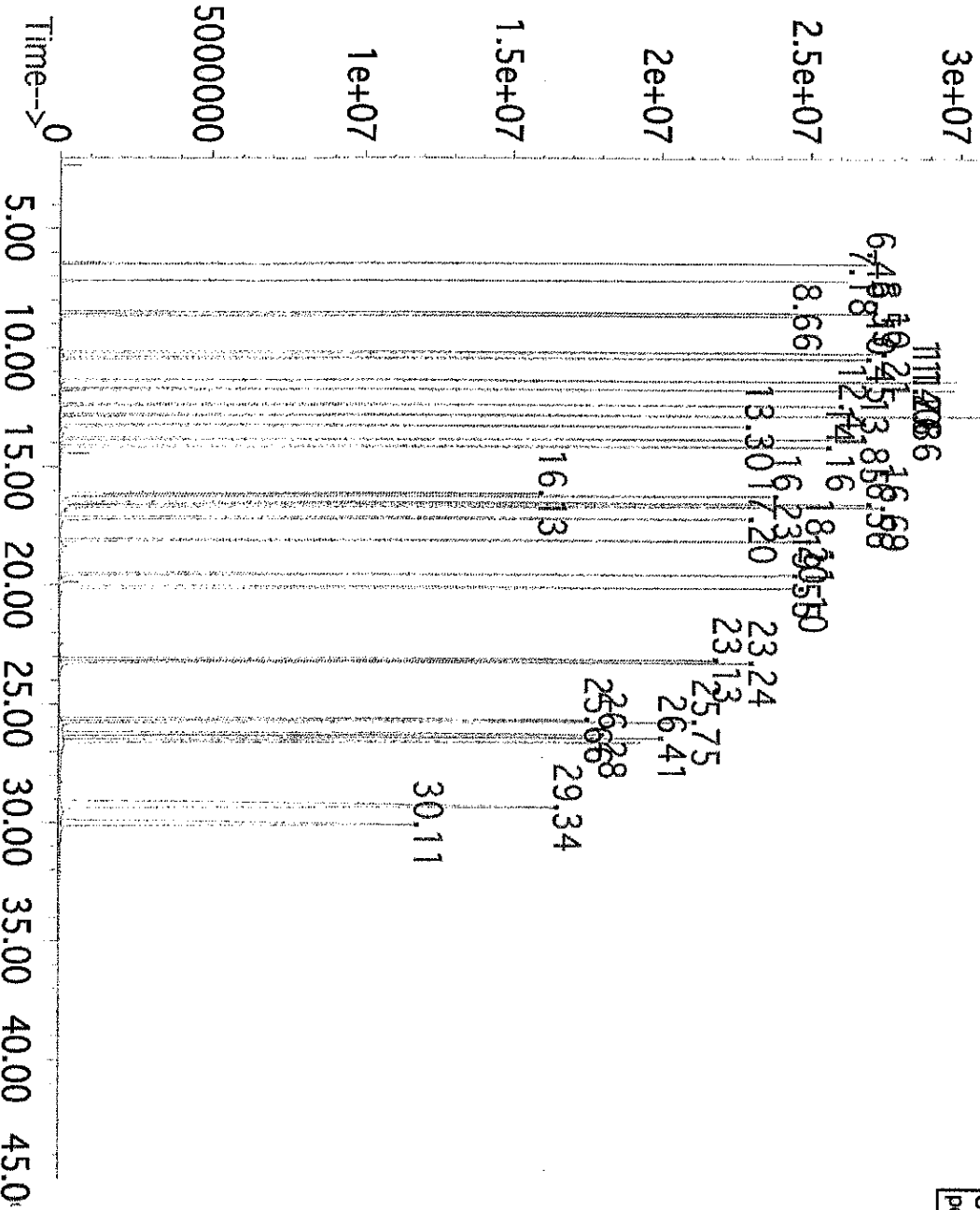
Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	(Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acenaphthene	10007	042420	0.50	10.00	0.042	2001.2	1000.4	9.4	83-32-9	N/A	ip-rat 600mg/kg
2. Acenaphthylene	10007	042420	0.50	10.00	0.042	2000.2	999.9	9.4	208-96-8	N/A	N/A
3. Anthracene	10007	042420	0.50	10.00	0.042	2000.3	999.9	9.3	120-12-7	0.2mg/m3 (8H)	ip-rms 430mg/kg
4. Benzo(a)anthracene	10007	042420	0.50	10.00	0.042	2001.3	1000.4	9.4	56-55-3	N/A	N/A
5. Benzo(a)pyrene	10007	042420	0.50	10.00	0.042	2000.0	999.8	9.3	50-32-8	0.2mg/m3 (8H)	scu-rat 50mg/kg
6. Benzo(b)fluoranthene	10007	042420	0.50	10.00	0.042	2000.9	1000.2	9.3	205-99-2	N/A	N/A
7. Benzo(k)fluoranthene	10007	042420	0.50	10.00	0.042	2001.2	1000.4	9.4	207-08-9	N/A	N/A
8. Benzo(g,h,i)perylene	10007	042420	0.50	10.00	0.042	2000.0	999.8	9.3	191-24-2	N/A	N/A
9. Carbazole	10007	042420	0.50	10.00	0.042	2000.3	999.9	9.4	86-74-8	N/A	ip-rms 200mg/kg
10. Chrysene	10007	042420	0.50	10.00	0.042	2000.8	1000.2	9.4	218-01-9	0.2mg/m3	N/A
11. Dibenzo(a,h)anthracene	10007	042420	0.50	10.00	0.042	2000.8	1000.2	9.4	53-70-3	0.2mg/m3	N/A
12. Fluoranthene	10007	042420	0.50	10.00	0.042	2000.3	999.9	9.4	206-44-0	N/A	ip-rat 2000mg/kg
13. Fluorene	10007	042420	0.50	10.00	0.042	2000.9	1000.2	9.4	86-73-7	N/A	ip-rms 2 g/kg
14. Indeno(1,2,3-cd)pyrene	10007	042420	0.50	10.00	0.042	2000.1	999.8	9.3	193-39-5	N/A	N/A
15. Naphthalene	10007	042420	0.50	10.00	0.042	2000.9	1000.2	9.3	91-20-3	10 ppm (50mg/m3/8H)	or-rat 480mg/kg
16. Phenanthrene	10007	042420	0.50	10.00	0.042	2000.9	1000.2	9.4	85-01-8	0.2mg/m3/8H	or-rms 700mg/kg
17. Pyrene	10007	042420	0.50	10.00	0.042	2001.0	1000.3	9.4	129-00-0	0.2mg/m3/8H	or-rat 2700mg/kg
18. Benzo(e)pyrene	94851	081021	0.50	10.00	0.042	2002.1	1000.8	9.4	192-97-2	N/A	N/A
19. Biphenyl	94851	081021	0.50	10.00	0.042	2001.5	1000.5	9.4	92-52-4	0.2 ppm(1mg/m3/8H)	or-rat 2400mg/kg
20. Decalin (49% cis, 51% trans)	94851	081021	0.50	10.00	0.042	2002.5	1001.0	9.4	91-17-8	N/A	N/A
21. Dibenzofuran	94851	081021	0.50	10.00	0.042	2002.3	1000.9	9.4	132-64-9	N/A	N/A
22. Dibenzothiophene	94851	081021	0.50	10.00	0.042	2002.5	1001.0	9.4	132-65-0	N/A	or-rms 470 mg/kg
23. 2,6-Dimethylnaphthalene	94851	081021	0.50	10.00	0.042	2001.9	1000.7	9.4	581-42-0	N/A	N/A
24. 1-Methylnaphthalene	94851	081021	0.50	10.00	0.042	2002.2	1000.9	9.4	90-12-0	N/A	N/A
25. 2-Methylnaphthalene	94851	081021	0.50	10.00	0.042	2000.6	1000.1	9.4	91-57-6	N/A	or-rat 1840mg/kg
26. 1-Methylphenanthrene	94851	081021	0.50	10.00	0.042	2002.3	1000.9	9.4	832-69-9	N/A	or-rat 1630mg/kg
27. Pentachlorophenol	94851	081021	0.50	10.00	0.042	3961.5	1980.3	18.6	87-86-5	0.5mg/m3/8H (skin)	or-rat 27mg/kg
28. Perylene	94851	081021	0.50	10.00	0.042	2001.9	1000.7	9.4	198-55-0	N/A	N/A
29. Thianaphthene	94851	081021	0.50	10.00	0.042	2003.1	1001.3	9.4	95-15-8	N/A	N/A
30. 2,3,5-Trimethylnaphthalene	94851	081021	0.50	10.00	0.042	2003.1	1001.3	9.5	2245-38-7	N/A	N/A

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
 * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
 * All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
 * Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



Abundance

TIC: 93462.D



Method GCxMSD-2L0ng: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1 min.), Temp 2 = 300°C (14min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Gina McLane.

Retention Time (min.)	Compound Name
6.46	Decahydronaphthalene (Decalin) (isomer)
7.18	Decahydronaphthalene (Decalin) (isomer)
8.53	Naphthalene
8.66	Thianaphthene
10.21	2-Methylnaphthalene
10.45	1-Methylnaphthalene
11.4	Biphenyl
11.76	2,6-Dimethylnaphthalene
12.41	Acenaphthylene
12.86	Acenaphthene
13.3	Dibenzofuran
13.85	2,3,5-Trimethylnaphthalene
14.16	Fluorene
16.13	Pentachlorophenol
16.23	Dibenzothiophene
16.56	Phenanthrene
16.69	Anthracene
17.2	Carbazole
18.11	1-Methylphenanthrene
19.55	Fluoranthene
20.1	Pyrene
23.13	Benzo(a)anthracene
23.24	Chrysene
25.66	Benzo(b)fluoranthene
25.75	Benzo(k)fluoranthene
26.28	Perylene
26.41	Benzo(a)pyrene
26.61	Benzo(e)pyrene
29.34	Indeno(1,2,3-cd)pyrene
29.34	Dibenzo(a,h)anthracene
30.11	Benzof(g,h,i)perylene

Certificate of Analysis



Phenova Certified Reference Materials are sold by Phenomenex.

411 Madrid Ave., Torrance, CA 90501 USA ■ Tel: 310-212-0555 ■ Fax: 310-328-7768 ■ info@phenomenex.com

Access your MSDS and digital C of A at www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101291

Lot Number: CL11000

Description: GC/MS Tuning Mix

Certification Date: May 9, 2014

Storage: 4 °C

Expiration Date: December 31, 2023

Provided As: 1 mL in 2 mL Ampoule in Methylene chloride

Revision Date: August 5, 2015

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty (%)
Benzidine	92-87-5	1000	± 0.208%
Decafluorotriphenylphosphine (DFTPP)	5074-71-5	1000	± 0.057%
4,4'-DDT	50-29-3	1000	± 0.056%
Pentachlorophenol	87-86-5	1000	± 0.061%

K003891

GC/MS Tune solution-1000ug/ml

Solvent / Lot: CL11000

Prep: 4/22/2022 by VS

Exp: 12/31/2023

Location:



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC-MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

IL11110612_us



Certificate of Analysis

Product Name: Toxic Substances Standard

Product Number: US-103N-1

Lot Issue Date: 25-May-2021

Lot Number: 0006609664

Expiration Date: 30-Jun-2024

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
benzoic acid	000065-85-0	RM01884	2005 ± 10 µg/mL
o-cresol	000095-48-7	RM12877	2005 ± 10 µg/mL
p-cresol	000106-44-5	RM01988	2005 ± 10 µg/mL
2,4,5-trichlorophenol	000095-95-4	NT00344	2004 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

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5/11/22

K004539

toxic sub mix#1

Solvent / Lot: methylene chloride

Prep: 5/11/2022 by JZ

Exp: 6/30/2024

Location:



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



Reference Material Certificate

Product Name: Phenols Standard

Lot Number: 0006648297

Product Number: US-107N-1

Lot Issue Date: 17-Nov-2021

Storage Conditions: Store at Room Temperature (15° to 30°C).

Expiration Date: 31-Dec-2024

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
4-chloro-3-methylphenol	2006	± 10 µg/mL		000059-50-7	RM01885
2-chlorophenol	2007	± 10 µg/mL		000095-57-8	RM01871
2,4-dichlorophenol	2005	± 10 µg/mL		000120-83-2	RM13878
2,4-dimethylphenol	2006	± 10 µg/mL		000105-67-9	RM13009
2,4-dinitrophenol	2006	± 10 µg/mL		000051-28-5	RM02112
2-methyl-4,6-dinitrophenol	2005	± 10 µg/mL		000534-52-1	RM02292
2-nitrophenol	2007	± 10 µg/mL		000088-75-5	RM13445
4-nitrophenol	2006	± 10 µg/mL		000100-02-7	RM03752
pentachlorophenol	2006	± 10 µg/mL		000087-86-5	RM02474
phenol	2006	± 10 µg/mL		000108-95-2	RM11471
2,4,6-trichlorophenol	2006	± 10 µg/mL		000088-06-2	RM18096

Matrix: methylene chloride (dichloromethane)

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

[Handwritten signature] 5/11/22

ISO 17034



Agilent

Trusted Answers

Reference Material Certificate

Product Name: PAH Standard

Lot Number: 0006627349

Product Number: US-106N-1

Lot Issue Date: 17-Sep-2021

Storage Conditions: Store at Room Temperature (15° to 30°C).

Expiration Date: 31-Oct-2024

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
acenaphthene	2007	± 10 µg/mL		000083-32-9	RM10879
acenaphthylene	2004	± 10 µg/mL		000208-96-8	RM10891
anthracene	2006	± 10 µg/mL		000120-12-7	RM14212
benz[a]anthracene	2006	± 10 µg/mL		000056-55-3	RM16072
benzo[b]fluoranthene	2006	± 10 µg/mL		000205-99-2	RM14571
benzo[k]fluoranthene	2006	± 10 µg/mL		000207-08-9	RM18376
benzo[ghi]perylene	2006	± 10 µg/mL		000191-24-2	RM15761
benzo[a]pyrene	2006	± 10 µg/mL		000050-32-8	RM17573
chrysene	2007	± 10 µg/mL		000218-01-9	RM13771
dibenz[a,h]anthracene	2006	± 10 µg/mL		000053-70-3	RM06786
fluoranthene	2006	± 10 µg/mL		000206-44-0	RM12277
fluorene	2006	± 10 µg/mL		000086-73-7	RM09441
indeno[1,2,3-cd]pyrene	2006	± 10 µg/mL		000193-39-5	RM14192
naphthalene	2007	± 10 µg/mL		000091-20-3	RM10445
phenanthrene	2005	± 10 µg/mL		000085-01-8	RM10495
pyrene	2005	± 10 µg/mL		000129-00-0	RM16126

Matrix: methylene chloride/benzene (1:1)

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

K004541

SVOA PAH STD 2000ug/ml

Solvent / Lot: DCM/BENZENE

Prep: 5/11/2022 by JZ

Exp: 10/31/2024

Location: Fridge 19

Page: 1 of 2

CSD-QA-015.1



Reference Materials Producer
Cert #2495.01



Certificate of Analysis



Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030 **Lot No.** AA210126005
Description: Base/Neutrals Mix 1
Matrix: Methylene Chloride **Manufactured Date:** 1-26-2021
Expiration Date: 1-26-2024

This SPEXOrganics® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

<u>Compound</u>	<u>CAS #</u>	<u>Labeled</u>	<u>Purity</u>	<u>Certified†</u>	<u>Uncertainty</u>
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	2010 µg/mL	± 50 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	2021 µg/mL	± 51 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	2012 µg/mL	± 50 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2006 µg/mL	± 50 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	99.6%	2012 µg/mL	± 50 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2022 µg/mL	± 51 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Azobenzene	103-33-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.9%	2010 µg/mL	± 50 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	2009 µg/mL	± 50 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2020 µg/mL	± 50 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99.5%	2002 µg/mL	± 50 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2006 µg/mL	± 50 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	2003 µg/mL	± 50 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	2001 µg/mL	± 50 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2004 µg/mL	± 50 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	97%	2000 µg/mL	± 50 µg/mL

Certificate of Reference Material

Catalog Number:	ECS-A-030	Lot No.	AA210126005
Description:	Base/Neutrals Mix 1	Manufactured Date:	1-26-2021
Matrix:	Methylene Chloride	Expiration Date:	1-26-2024

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 1-26-2021

Certifying Officer: Shannon Mave

Report of Certification

Catalog Number: ECS-A-030 **Lot No.** AA210126005
Description: Base/Neutrals Mix 1
Matrix: Methylene Chloride **Manufactured Date:** 1-26-2021
Expiration Date: 1-26-2024

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory, please store this product in a refrigerator (2°C to 8°C). Note: Shipping conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and is applicable only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve after one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that should be removed from this vial is 5 µL with a 25µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that come in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation have been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bottle variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = k u_c$ where k=2 is the coverage factor at the 95% confidence level
- $u_c =$ combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i , where $u_c = \sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liable for any loss of profits or any incidental, special, or consequential damages.

Distributed By SPEX CertiPrep

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Your Science is Our Passion.®

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Reference Materials Producer
Cert #2495.01



Certificate of Analysis



Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030

Lot No. AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

This SPEXOrganics® Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

<u>Compound</u>	<u>CAS #</u>	<u>Labeled</u>	<u>Purity</u>	<u>Certified†</u>	<u>Uncertainty</u>
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	2010 µg/mL	± 50 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	2021 µg/mL	± 51 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	2012 µg/mL	± 50 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2006 µg/mL	± 50 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	99.6%	2012 µg/mL	± 50 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	2004 µg/mL	± 50 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2022 µg/mL	± 51 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Azobenzene	103-33-3	2000 µg/mL	98%	2001 µg/mL	± 50 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.9%	2010 µg/mL	± 50 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	2002 µg/mL	± 50 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	2009 µg/mL	± 50 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2020 µg/mL	± 50 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99.5%	2002 µg/mL	± 50 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2006 µg/mL	± 50 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	99%	2003 µg/mL	± 50 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	2003 µg/mL	± 50 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2003 µg/mL	± 50 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	2000 µg/mL	± 50 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	2001 µg/mL	± 50 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	2001 µg/mL	± 50 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2004 µg/mL	± 50 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	97%	2000 µg/mL	± 50 µg/mL

K004542

Certificate of Reference Material

Catalog Number: ECS-A-030

Lot No. AA210126005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 1-26-2021

Expiration Date: 1-26-2024

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 1-26-2021

Certifying Officer: Shannon Nove



Certificate of Analysis

Product Name: 1-Methylnaphthalene Standard

Product Number: EPA-1225-1

Lot Issue Date: 19-Jul-2021

Lot Number: 0006624769

Expiration Date: 31-Jul-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1-methylnaphthalene	000090-12-0	RM07712	999.3 ± 5.0 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

K004543

1-Methylnaphthalene
Solvent / Lot: MEOH
Prep: 5/11/2022 by JZ
Exp: 7/31/2023
Location:

[Handwritten signature]
5/11/22

Sample lot approver:

[Handwritten signature]
Monica Bourgeois
QMS Representative



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



Certificate of Analysis

Product Name: Toxic Substances Standard

Product Number: US-104N-1

Lot Issue Date: 02-Jul-2021

Lot Number: 0006620643

Expiration Date: 31-Jul-2023

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
aniline	000062-53-3	RM12853	2005 ± 10 µg/mL
benzyl alcohol	000100-51-6	RM10547	2004 ± 10 µg/mL
4-chloroaniline	000106-47-8	RM01886	2002 ± 10 µg/mL
dibenzofuran	000132-64-9	RM02077	2002 ± 10 µg/mL
2-methylnaphthalene	000091-57-6	RM01258	2006 ± 10 µg/mL
2-nitroaniline	000088-74-4	RM02402	2003 ± 10 µg/mL
3-nitroaniline	000099-09-2	RM02424	2003 ± 10 µg/mL
4-nitroaniline	000100-01-6	RM02425	2003 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

K004544

toxic sub mix#2

Solvent / Lot: methylene chloride

Prep: 5/11/2022 by JZ

Exp: 7/31/2023

Location:

JZ 05/11/22



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No.: 31493 Lot No.: A0181243
Description: CLP 04.1 BNA Surrogate Mix
CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul
Container Size: 2 mL Pkg Amt: > 1 mL
Expiration Date: October 31, 2025 Storage: 10°C or colder
Handling: Sonicate prior to use. Ship: Ambient

Handwritten signature and date: 05/11/22

K004545
CLP 04.1 BNA SURR MIX
Solvent / Lot: AO175316
Prep: 5/11/2022 by JZ
Exp: 10/20/2025
Location:

Table with 7 columns: Elution Order, Compound, CAS #, Purity, Lot, Weight (µg/mL), and Gravimetric/Unstressed/Stressed results.

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101246

Lot Number: CL17953

Description: Benzoic Acid

Certification Date: January 31, 2022

Storage: 4 °C

Expiration Date: January 31, 2032

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzoic acid	65-85-0	2000	± 2.714%

K004603

Benzoic Acid @2000ug/ml

Solvent / Lot: N/A

Prep: 5/13/2022 by JZ

Exp: 1/31/2032

Location: GC

 5/13/22



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244

Lot Number: CL17662

Description: Benzidines Standard

Certification Date: December 2, 2021

Storage: 4 °C

Expiration Date: November 30, 2031

Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 0.211%
3,3'-Dichlorobenzidine	91-94-1	2000	± 1.305%

K004604

Benzidines std @2000ug/ml
Solvent / Lot: Mecl2
Prep: 5/13/2022 by JZ
Exp: 11/30/2031
Location: GC

JZ 5/13/22



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 33913 **Lot No.:** A0183500

Description : SOM01.0 SIM Analysis Standard
SOM01.0 SIM Analysis Standard 2000µg/mL, Methylene chloride, 1mL /ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 29, 2028 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	2-Methylnaphthalene-d10	2,003.5 µg/mL	+/-	11.7578	µg/mL	Gravimetric
	CAS # 7297-45-2 (Lot EF-135)		+/-	90.2539	µg/mL	Unstressed
	Purity 96%		+/-	100.1449	µg/mL	Stressed
2	Fluoranthene-d10	2,006.0 µg/mL	+/-	11.7723	µg/mL	Gravimetric
	CAS # 93951-69-0 (Lot PR-20668)		+/-	90.3656	µg/mL	Unstressed
	Purity 99%		+/-	100.2689	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

K004605
 SOMO 1.0 SIM DMC
 Solvent / Lot: A0183500
 Prep: 5/14/2022 by VS
 Exp: 2/29/2028
 Location:

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

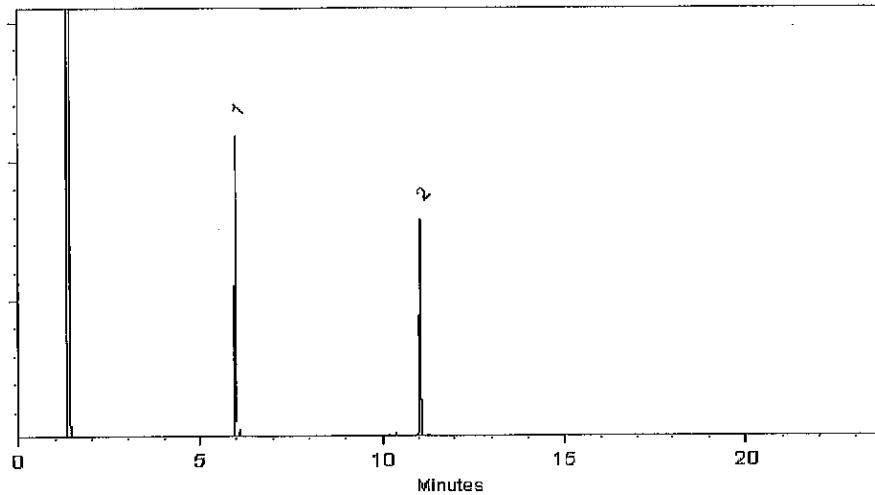
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cathleen Soltis
Cathleen Soltis - Mix Technician

Date Mixed: 29-Mar-2022 Balance: B345965662

Clara Windle
Clara Windle - Operations Technician I

Date Passed: 01-Apr-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

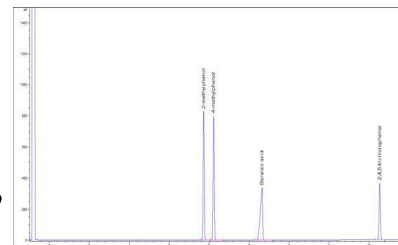
Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Certificate of Analysis - Certified Reference Material

EPA TCL Hazardous Substances Mix 1

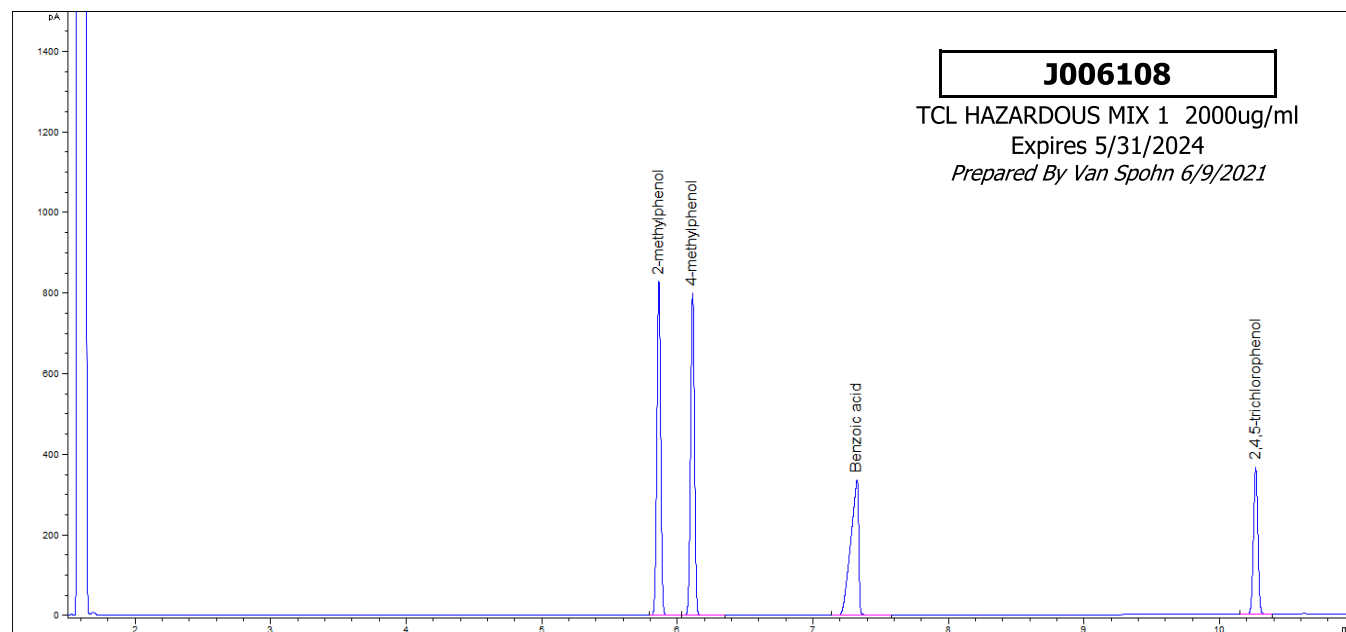
Product no.: 48907
Lot no.: LRAC9610
Expiry Date: May 2024
Manufacturing Date: May 2021
Storage: Refrigerate
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAC9610.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

Analyte	Certified Value	Units	Raw Material Purity, %	Elution order	Raw Material Lot
2-METHYLPHENOL CAS# 95-48-7	2004 ± 9	µg/mL	99.0	1	G1735A
4-METHYLPHENOL CAS# 106-44-5	2004 ± 13	µg/mL	98.9	2	06921MG
BENZOIC ACID CAS# 65-85-0	2012 ± 6	µg/mL	99.9	3	LC16514
2,4,5-TRICHLOROPHENOL CAS# 95-95-4	2003 ± 6	µg/mL	99.9	4	JS00008

Informational Values:



Additional Information:

Analytical Method Parameters:
 Column: Equity-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #98)
 Carrier Gas: H₂, Flow: 4.5 mL/min
 Inlet Temperature: 170 °C, Injection Volume: 1 µL
 Injection Mode: Split, Split Ratio: 20:1



Temperature Program: 80 °C @ 10 °C/min to 190 °C (Hold 5 min)
Detector: FID
Detector Temperature: 310 °C

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 20-May-2021



Handwritten signature of Andy Ommen in black ink.

Andy Ommen - QC Manager

Handwritten signature of Mark Pooler in black ink.

Mark Pooler - QA Supervisor

Details on metrological traceability: This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty: Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment:

Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAC9610.01	20-May-2021	Original Release Date

Disclaimer: The purchaser is required to determine the suitability of this product for any particular application. Sigma-Aldrich RTC makes no warranty of any kind, express or implied, other than its products meet all quality control standards set by Sigma-Aldrich RTC. We do not guarantee that the product can be used for any particular application.

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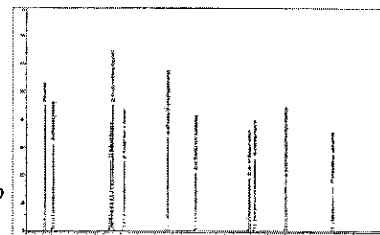
The life science business of Merck KGaA, Darmstadt, Germany
operates as MilliporeSigma in the US and Canada.



Certificate of Analysis - Certified Reference Material

EPA TCL Phenols Mix

Product no.: 48904
Lot no.: LRAD0139
Expiry Date: July 2024
Manufacturing Date: July 2021
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD0139.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)



Certified Values:

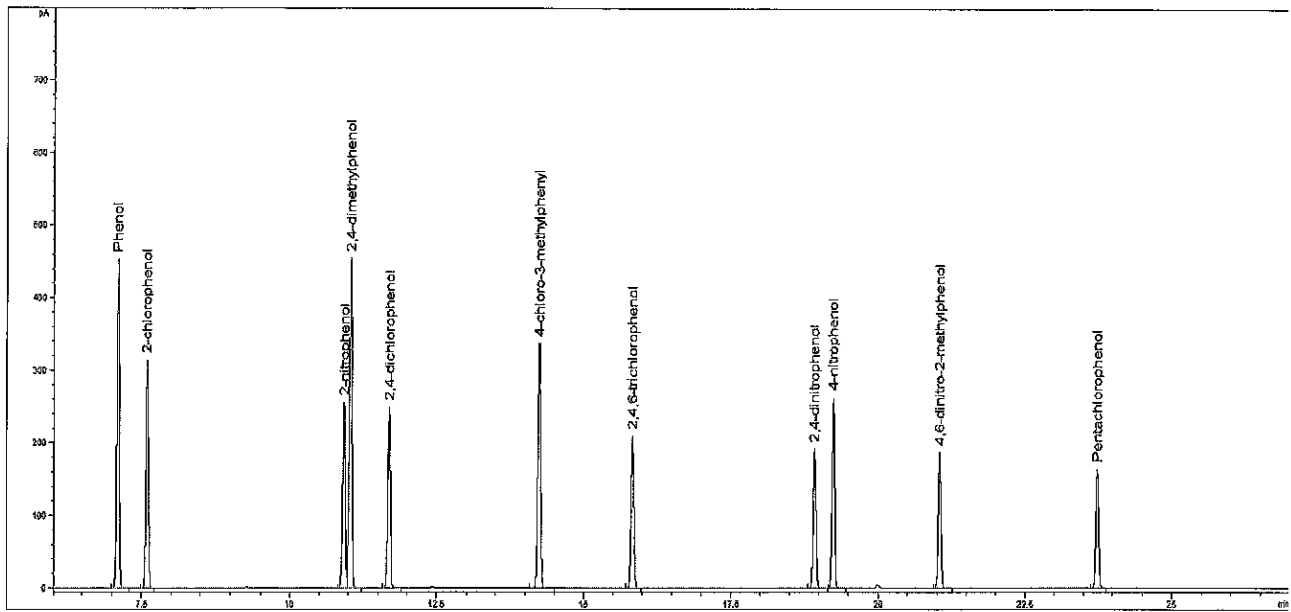
Analyte	Certified Value	Units	Raw Material Purity, %	Raw Material Lot
2-CHLOROPHENOL CAS# 95-57-8	2001 ± 25	µg/mL	99.9	STBG3033V
2-NITROPHENOL CAS# 88-75-5	1999 ± 18	µg/mL	99.3	15905BB
2,4-DIMETHYLPHENOL CAS# 105-67-9	2000 ± 14	µg/mL	99.2	05421CO
2,4-DICHLOROPHENOL CAS# 120-83-2	2000 ± 17	µg/mL	99.5	03221TN
4-CHLORO-3-METHYLPHENOL CAS# 59-50-7	2000 ± 5	µg/mL	99.9	JS00013
2,4,6-TRICHLOROPHENOL CAS# 88-06-2	2002 ± 5	µg/mL	99.5	04212PS
2,4-DINITROPHENOL CAS# 51-28-5	2000 ± 28	µg/mL	66.9	STBJ5751
4-NITROPHENOL CAS# 100-02-7	2000 ± 33	µg/mL	99.0	04628LT
2-METHYL-4,6-DINITROPHENOL CAS# 534-52-1	2000 ± 27	µg/mL	99.7	LC18338
PENTACHLOROPHENOL CAS# 87-86-5	1999 ± 25	µg/mL	97.9	MKCD2150

ASSAY Method

J013597

TCL Phenols Mix 2000ug/ml
 Solvent / Lot: LRAD0139
 Prep: 12/30/2021 by VS
 Exp: 7/31/2024
 Location:





METHOD: GC (Bellefonte Method)

Column: SPB-5, 30 m x 0.53 mm I.D., 1.5 µm film thickness

Carrier Gas: H₂ Flow Rate: 4.5 mL/min

Inlet Temperature: 200 °C Injection Volume: 1.0 µL

Injection Mode: 25:1

Temperature Program: 80 °C (Hold 2 min) @ 6 °C/min to 260 °C (Hold 5 min)

Detector: FID Temperature: 310 °C

Elution details:

EO	RT(MIN)	ANALYTE
1	7.095	Phenol
2	7.585	2-chlorophenol
3	10.925	2-nitrophenol
4	11.037	2,4-dimethylphenol
5	11.696	2,4-dichlorophenol
6	14.242	4-chloro-3-methylphenol
7	15.842	2,4,6-trichlorophenol
8	18.93	2,4-dinitrophenol
9	19.25	4-nitrophenol
10	21.05	4,6-dinitro-2-methylphenol
11	23.752	Pentachlorophenol

Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information: All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Accreditation: Sigma-Aldrich RTC is accredited by the US accreditation authority ANAB as a registered reference material producer AR-1470 in accordance with ISO 17034.

Certificate issue date: 12-Jul-2021



Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Details on metrological traceability:

This standard has been gravimetrically prepared using balances that have been fully qualified and calibrated to ISO 17025 requirements. All calibrations utilize NIST traceable weights which are calibrated externally by a qualified ISO 17025 accredited calibration laboratory to NIST standards. Qualification of each balance includes the assignment of a minimum weighing by a qualified and ISO 17025 accredited calibration vendor taking into consideration the balance and installed environmental conditions to ensure compliance with USP tolerances of NMT 0.10% relative error. Fill volume to predetermined specifications is gravimetrically verified throughout the dispensing process using qualified and calibrated balances. Further traceability to a corresponding Primary Standard may be achieved through a direct comparison assay. Where a Primary Standard is available, the assay value will be included in the specified section of the COA.

Associated uncertainty:

Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

Homogeneity assessment:

Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

Stability assessment:

Significance of the stability assessment will be demonstrated if the analytical result of the study and the range of values represented by the Expanded Uncertainty do not overlap the result of the original assay and the range of its values represented by the Expanded Uncertainty. The method employed will usually be the same method used to characterize the assay value in the initial

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD0139.01	12-Jul-2021	Original Release Date

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Certificate of Analysis

Produced by Phenova

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

K007995

SVOA-8270 LCS MIX 1000ug/ml

Solvent / Lot: N/A

Prep: 8/29/2022 by JZ

Exp: 8/31/2023

Location: FREEZER 44



Aaron Dukes, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 0.300%
Acenaphthylene	208-96-8	1000	± 0.225%
Anthracene	120-12-7	1000	± 6.858%
Azobenzene	103-33-3	1000	± 0.224%
Benzo(a)anthracene	56-55-3	1000	± 0.247%
Benzo(a)pyrene	50-32-8	1000	± 0.270%
Benzo(b)fluoranthene	205-99-2	1000	± 0.635%
Benzo(k)fluoranthene	207-08-9	1000	± 0.682%
Benzo(g,h,i)perylene	191-24-2	1000	± 0.272%
Benzyl alcohol	100-51-6	1000	± 0.231%
Benzyl butyl phthalate	85-68-7	1000	± 0.480%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 0.479%
bis(2-Chloroethyl) ether	111-44-4	1000	± 0.479%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 0.550%
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 0.479%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 0.479%
4-Bromophenyl phenyl ether	101-55-3	1000	± 0.479%
Carbazole	86-74-8	1000	± 0.146%

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Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
4-Chloroaniline	106-47-8	1000	± 0.300%
4-Chloro-3-methylphenol	59-50-7	1000	± 0.545%
2-Chloronaphthalene	91-58-7	1000	± 0.224%
2-Chlorophenol	95-57-8	1000	± 0.507%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 0.479%
Chrysene	218-01-9	1000	± 0.145%
Dibenz(a,h)anthracene	53-70-3	1000	± 1.058%
Dibenzofuran	132-64-9	1000	± 0.302%
Di-n-butyl phthalate	84-74-2	1000	± 0.518%
1,2-Dichlorobenzene	95-50-1	1000	± 0.247%
1,3-Dichlorobenzene	541-73-1	1000	± 0.225%
1,4-Dichlorobenzene	106-46-7	1000	± 0.224%
2,4-Dichlorophenol	120-83-2	1000	± 0.545%
Diethyl phthalate	84-66-2	1000	± 0.518%
2,4-Dimethylphenol	105-67-9	1000	± 0.507%
Dimethyl phthalate	131-11-3	1000	± 0.518%
1,2-Dinitrobenzene	528-29-0	1000	± 0.361%
1,3-Dinitrobenzene	99-65-0	1000	± 0.300%
1,4-Dinitrobenzene	100-25-4	1000	± 0.242%
2,4-Dinitrophenol	51-28-5	1000	± 0.545%
2,4-Dinitrotoluene	121-14-2	1000	± 1.128%

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Certified Reference Material

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Catalog No.: AL0-101444

Lot Number: CL18355

Description: 8270 Calibration Standard

Certification Date: July 25, 2022

Storage: -18 °C

Expiration Date: August 31, 2023

Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2,6-Dinitrotoluene	606-20-2	1000	± 0.224%
Di-n-octyl phthalate	117-84-0	1000	± 0.486%
Fluoranthene	206-44-0	1000	± 0.224%
Fluorene	86-73-7	1000	± 0.224%
Hexachlorobenzene	118-74-1	1000	± 0.152%
Hexachlorobutadiene	87-68-3	1000	± 0.746%
Hexachlorocyclopentadiene	77-47-4	1000	± 0.153%
Hexachloroethane	67-72-1	1000	± 0.300%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 0.883%
Isophorone	78-59-1	1000	± 0.145%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 0.508%
1-Methylnaphthalene	90-12-0	1000	± 0.479%
2-Methylnaphthalene	91-57-6	1000	± 0.487%
2-Methylphenol	95-48-7	1000	± 0.545%
3-Methylphenol	108-39-4	500	± 0.279%
4-Methylphenol	106-44-5	500	± 0.399%
Naphthalene	91-20-3	1000	± 0.226%
2-Nitroaniline	88-74-4	1000	± 0.224%
3-Nitroaniline	99-09-2	1000	± 0.235%
4-Nitroaniline	100-01-6	1000	± 0.300%
Nitrobenzene	98-95-3	1000	± 0.300%

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444 **Lot Number:** CL18355
Description: 8270 Calibration Standard **Certification Date:** July 25, 2022
Storage: -18 °C **Expiration Date:** August 31, 2023
Provided As: 1 mL in 2 mL Ampoule in MeCl₂/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 0.514%
4-Nitrophenol	100-02-7	1000	± 0.519%
N-Nitrosodimethylamine	62-75-9	1000	± 0.503%
N-Nitrosodiphenylamine	86-30-6	1000	± 0.476%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 0.461%
Pentachlorophenol	87-86-5	1000	± 0.202%
Phenanthrene	85-01-8	1000	± 0.145%
Phenol	108-95-2	1000	± 0.545%
Pyrene	129-00-0	1000	± 0.147%
Pyridine	110-86-1	1000	± 0.503%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 0.247%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 0.247%
1,2,4-Trichlorobenzene	120-82-1	1000	± 0.224%
2,4,5-Trichlorophenol	95-95-4	1000	± 0.507%
2,4,6-Trichlorophenol	88-06-2	1000	± 0.509%

Notes: The proper chemical name for Bis(2-Chloroisopropyl) ether is 2,2'-oxybis(1-chloropropane). The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.

Certificate of Analysis

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. Quality Standards: Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = \sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

Certificate of Composition - Analytical Standard

BASE STOCK

Product no.: 22523051
Lot no.: LRAD2751
Expiry Date: June 2024
Manufacturing Date: June 2022
Storage: REFRIGERATE
Solvent/Matrix: DICHLOROMETHANE
Certificate version: LRAD2751.01 *(Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)*

Analyte	Assigned Value	Units	Raw Material Purity, %	Raw Material Lot
3,3'-DICHLOROBENZIDINE, 100MG, NEAT CAS# 91-94-1	799	µg/mL	99.8	LRAD2376
2,4-DINITROTOLUENE CAS# 121-14-2	801	µg/mL	97.8	LB46632
2,6-DINITROTOLUENE CAS# 606-20-2	800	µg/mL	99.2	11231AN
HEXACHLOROCYCLOPENTADIENE CAS# 77-47-4	800	µg/mL	96.0	LB95525
N-NITROSODIMETHYLAMINE CAS# 62-75-9	800	µg/mL	95.0	2019-030598 5
PERYLENE CAS# 198-55-0	200	µg/mL	99.6	04101PG
ANILINE CAS# 62-53-3	800	µg/mL	99.9	LA41596
4-CHLOROANILINE CAS# 106-47-8	800	µg/mL	100.0	MKBZ6909V
2-NITROANILINE CAS# 88-74-4	799	µg/mL	99.9	07411KN
3-NITROANILINE CAS# 99-09-2	800	µg/mL	99.9	LC09264
4-NITROANILINE CAS# 100-01-6	800	µg/mL	99.9	15609AA
PYRIDINE (LOW WATER) CAS# 110-86-1	800	µg/mL	100.0	SHBJ9218

Measurement method: Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use: Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging: 1 mL in amber ampule

Instructions for handling and correct use: Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user's location. Open slowly and carefully to avoid dispersion of the material.



Health and safety information:

All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Certificate issue date:

03 JUN 2022



Andy Ommen - QC Manager



Scott Stetler - QA Manager

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD2751.01	03 JUN 2022	Original Release Date

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Certificate of Analysis - Analytical Standard

PAHs in Soil

Product no.: SQC017-40G
Lot no.: LRAD3953
Expiry Date: October 2025
Manufacturing Date: October 2022
Storage: REFRIGERATE
Solvent/Matrix: SOIL
Certificate version: LRAD3953.01 (Note: Certificates may be updated due to the availability of new data. Check our website at: www.sigma-aldrich.com for the most current version.)

Analyte	Units	Certified Value
Naphthalene	µg/Kg	418 ± 39
Acenaphthene	µg/Kg	478 ± 51
Acenaphthylene	µg/Kg	557 ± 63
Anthracene	µg/Kg	393 ± 23
Benzo(a)anthracene	µg/Kg	110 ± 11
Benzo(a)pyrene	µg/Kg	159 ± 23
Benzo(b)fluoranthene	µg/Kg	318 ± 49
Benzo(g,h,i)perylene	µg/Kg	103 ± 18
Benzo(k)fluoranthene	µg/Kg	95.1 ± 16.0
Chrysene	µg/Kg	231 ± 24
Dibenz(a,h) anthracene	µg/Kg	220 ± 16
Fluoranthene	µg/Kg	303 ± 24
Fluorene	µg/Kg	340 ± 27
Indeno(1,2,3-cd) pyrene	µg/Kg	119 ± 14
Phenanthrene	µg/Kg	510 ± 30
Pyrene	µg/Kg	350 ± 25



Informational Values:

Analyte	Units	Suggested Acceptance Windows	Standard Deviation
Acenaphthene	µg/Kg	192 to 1041	141
Acenaphthylene	µg/Kg	13.1 to 1101	181
Anthracene	µg/Kg	166 to 619	75.4
Benzo(a)anthracene	µg/Kg	28.4 to 191	27.2
Benzo(a)pyrene	µg/Kg	0.00 to 327	56.2
Benzo(b)fluoranthene	µg/Kg	0.00 to 672	118
Benzo(g,h,i)perylene	µg/Kg	35.9 to 170	36.0
Benzo(k)fluoranthene	µg/Kg	0.00 to 215	39.9
Chrysene	µg/Kg	100.00 to 361	43.5
Dibenz(a,h) anthracene	µg/Kg	98.0 to 341	40.5
Fluoranthene	µg/Kg	176 to 518	57.0
Fluorene	µg/Kg	128 to 644	85.9
Indeno(1,2,3-cd) pyrene	µg/Kg	52.6 to 185	22.0
Naphthalene	µg/Kg	31.3 to 910	146
Phenanthrene	µg/Kg	255 to 953	116
Pyrene	µg/Kg	184 to 654	78.2

Additional Information:**DESCRIPTION**

This product consist of a 4 vials each containing 10g of soil for analysis of PAHs. Each vial is identical and has been tested show homogeneity.

Four samples have been provided for your convenience (multiple methods, multiple analysts, etc.)

The soil has been chemically stabilized with 1 mL of acetone to minimize degradation of the sample.

SAMPLE PREPARATION

Extract the complete contents of a single vial. Transfer entire contents of one vial to extraction vessel. Rinse vial and cap with extraction solvent.

Note: Sample extracts and calibration solutions should be in the same solvent.

All values are based on a wet weight basis, do not correct for moisture.

Assume a 10g sample size for all calculations.

Measurement method:

Where applicable, the assigned value is based on a purity determination by mass balance and gravimetrically prepared value.

Intended use:

Intended for R&D and Analytical Use only. Not for drug, household or other uses.

Packaging:

Package of 4 units of 10 g in amber jar

Instructions for handling and correct use:

Use on the as is basis. The internal pressure of the container may be slightly different from the atmospheric pressure at the user`s location. Open slowly and carefully to avoid dispersion of the material.

Health and safety information:

All chemical reference materials should be considered potentially hazardous and should be used only by qualified laboratory personnel. Please refer to the Safety Data Sheet for detailed information about the nature of any hazard and appropriate precautions to be taken.

Certificate issue date:

24 OCT 2022



Andy Ommen - QC Manager



Scott Stetler - QA Manager

Certificate of analysis revision history:

Certificate version	Date	Reason for version
LRAD3953.01	24 OCT 2022	Original release date

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ORGANIC ANALYSIS DATA SHEET
EPA 8081B

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23A0032</u>
Client: <u>Anchor QEA, LLC</u>	
Project: <u>AOC5 MR Phase 1</u>	
Matrix: <u>Solid</u>	Laboratory ID: <u>23A0032-05 A</u>
Sampled: <u>01/03/23 13:21</u>	Prepared: <u>01/10/23 16:22</u>
% Solids: <u>67.90</u>	Preparation: <u>EPA 3546 (Microwave)</u>
Batch: <u>BLA0164</u>	Sequence: <u>SLA0279</u>
Instrument: <u>ECD6</u>	Column 1: <u>STX-CLP</u>
	Column 2: <u>STX-CLPII</u>
	File ID: <u>23012033.D</u>
	Analyzed: <u>01/21/23 02:29</u>
	Initial/Final: <u>18.42 g Wet / 2.5 mL</u>
	Calibration: <u>FL00041</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
118-74-1	Hexachlorobenzene	1	1	0.50	0.14	0.50	U

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9954	8.95	112	30 - 160	
<i>Decachlorobiphenyl</i>	2	7.9954	9.30	116	30 - 160	
<i>Tetrachlorometaxylene</i>	1	7.9954	6.08	76.0	30 - 160	
<i>Tetrachlorometaxylene</i>	2	7.9954	5.37	67.2	30 - 160	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230120.b/23012033.D
Data file 2: /20230120.b/B20230120.b/23012033.D
Method: \20230120.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: 23A0032-05
Client ID:
Injection Date: 21-JAN-2023 02:29
Report Date: 01/24/2023 13:42
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.324	0.010	23811	4.855	0.021	12330	1.64	0.53	102.6*	alpha-BHC
4.700	0.005	13021	5.338	0.028	224869	2.33	25.29	166.3*	beta-BHC
4.890	0.012	891757	----	----	----	75.07	0.00	---	delta-BHC
4.618	0.003	164268	5.229	-0.001	52710	13.03	2.66	132.3*	gamma-BHC (Lindane)
5.086	-0.011	171255	5.769	0.014	440136	15.27	24.48	46.3*	Heptachlor
5.441	0.022	134587	6.153	-0.006	25476	10.71	1.24	158.5*	Aldrin
6.083	-0.010	18330	6.798	-0.017	256609	1.68	15.12	159.9*	Heptachlor epoxide b
----	----	----	7.249	-0.010	11312	0.00	0.76	---	Endosulfan I
6.779	-0.016	71442	7.536	-0.017	54491	6.65	3.30	67.4*	Dieldrin
6.454	-0.000	47672	7.341	-0.001	40868	4.78	2.70	55.7*	4,4'-DDE
7.071	0.025	98162	7.907	0.030	123959	11.98	11.62	3.0	Endrin
7.311	0.029	8012	8.101	0.013	41331	1.09	3.78	110.8*	Endosulfan II
7.102	-0.001	62195	7.948	-0.001	55738	8.42	5.37	44.2*	4,4'-DDD
8.132	-0.014	9181	----	----	----	1.31	0.00	---	Endosulfan sulfate
7.368	-0.027	77676	8.275	0.008	171842	10.41	17.16	49.0*	4,4'-DDT
----	----	----	8.879	-0.030	206697	0.00	46.65	---	Methoxychlor
8.390	-0.030	63846	9.219	0.009	165074	7.96	15.92	66.7*	Endrin ketone
7.736	0.025	61241	8.414	-0.005	57881	10.41	7.51	32.4	Endrin aldehyde
----	----	----	----	----	----	0.00	0.00	---	trans-Chlordane
6.405	0.025	18459	----	----	----	1.66	0.00	---	cis-Chlordane
2.293	-0.015	1718012	2.470	-0.016	2953400	112.82	132.98	16.4	Hexachlorobutadiene
----	----	----	----	----	----	0.00	0.00	---	Hexachlorobenzene
3.805	0.002	312297	4.198	0.001	441321	30.42	26.87	12.4	Tetrachloro-m-xylene
9.326	0.003	283546	10.429	-0.001	385769	44.76	46.54	3.9	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	672426	755005	12.3
Hexabromobiphenyl	609723	625148	2.5

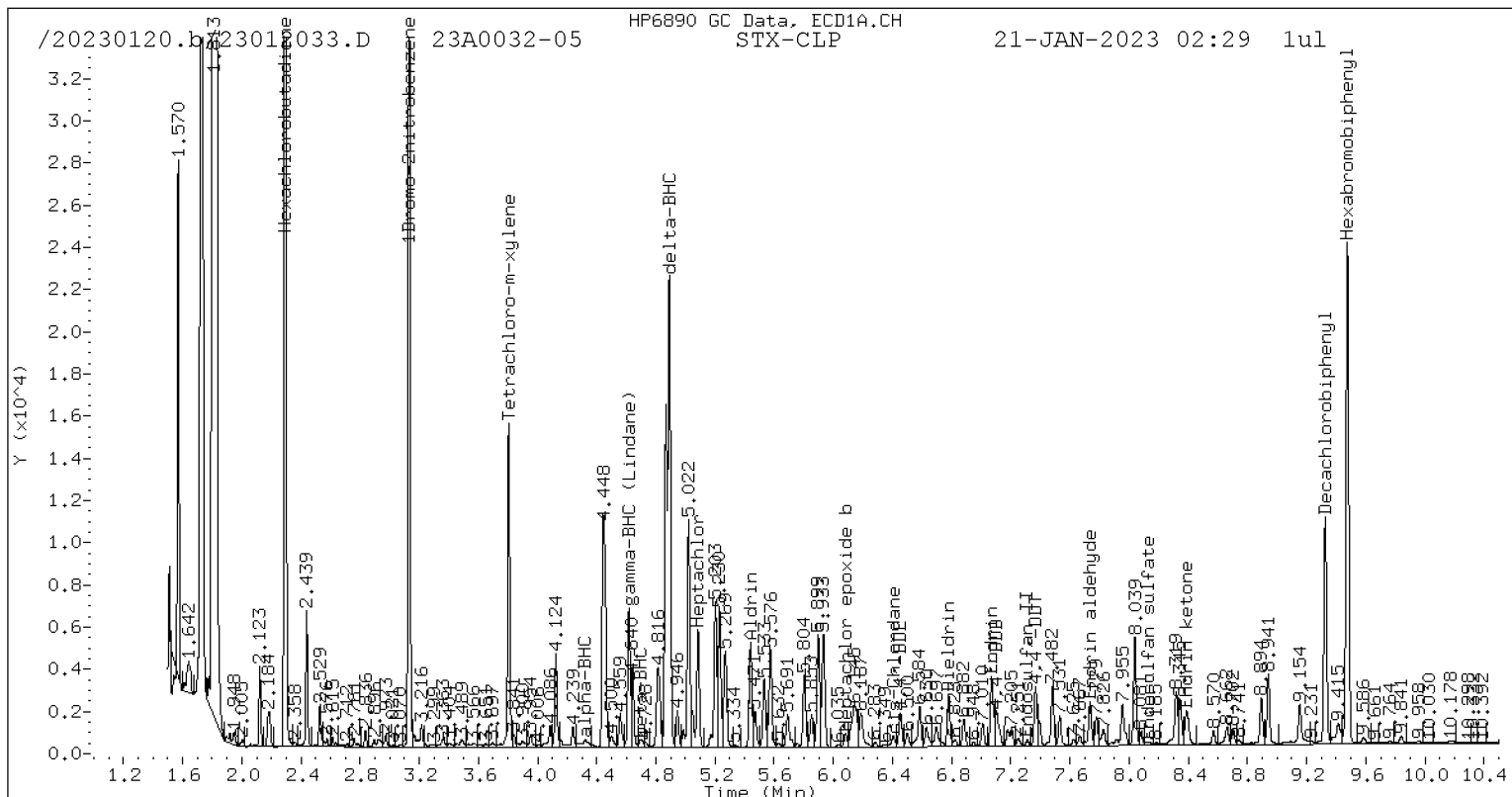
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1006482	1166990	15.9
Hexabromobiphenyl	769764	750029	-2.6

* Standard Areas taken from Initial Cal Level 5

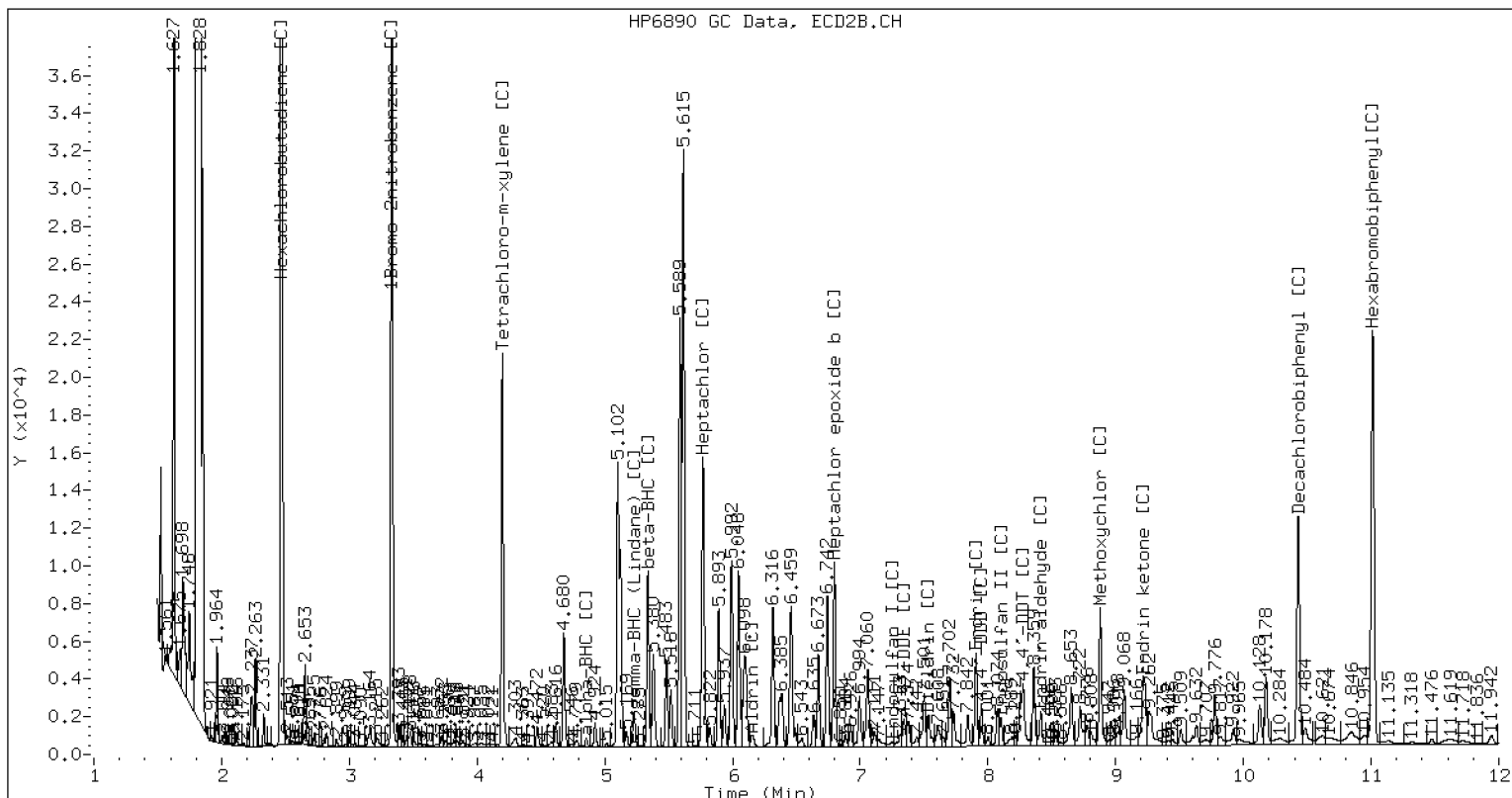
Initial Calibration Date: 14-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



/20230120.b/B20230120.b/23012033.D 23A0032-05 CLP2





ORGANIC ANALYSIS DATA SHEET
EPA 8081B

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23A0032</u>
Client: <u>Anchor QEA, LLC</u>	
Project: <u>AOC5 MR Phase 1</u>	
Matrix: <u>Solid</u>	Laboratory ID: <u>23A0032-08 A</u>
	File ID: <u>23012034.D</u>
Sampled: <u>01/03/23 12:35</u>	Prepared: <u>01/10/23 16:22</u>
	Analyzed: <u>01/21/23 02:47</u>
% Solids: <u>61.88</u>	Preparation: <u>EPA 3546 (Microwave)</u>
	Initial/Final: <u>20.2 g Wet / 2.5 mL</u>
Batch: <u>BLA0164</u>	Sequence: <u>SLA0279</u>
	Calibration: <u>FL00041</u>
Instrument: <u>ECD6</u>	Column 1: <u>STX-CLP</u>
	Column 2: <u>STX-CLPII</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
118-74-1	Hexachlorobenzene	1	1	0.50	0.15	0.50	U

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	8.0002	7.37	92.1	30 - 160	
<i>Decachlorobiphenyl</i>	2	8.0002	7.54	94.2	30 - 160	
<i>Tetrachlorometaxylene</i>	1	8.0002	4.91	61.4	30 - 160	
<i>Tetrachlorometaxylene</i>	2	8.0002	5.44	68.1	30 - 160	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230120.b/23012034.D
Data file 2: /20230120.b/B20230120.b/23012034.D
Method: \20230120.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: 23A0032-08
Client ID:
Injection Date: 21-JAN-2023 02:47
Report Date: 01/24/2023 13:42
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.335	0.021 76314	4.837 0.003 8043	4.22	0.34 170.1*	alpha-BHC	MN		
----		5.338 0.028 17097	0.00	1.91 ---	beta-BHC			
4.890	0.011 99424	----	6.73	0.00 ---	delta-BHC			
4.621	0.006 58150	5.231 0.001 8150	3.71	0.41 160.4*	gamma-BHC (Lindane)	MN		
5.085	-0.012 28586	5.767 0.011 53329	2.05	2.95 35.8	Heptachlor	MN		
5.440	0.022 100166	6.153 -0.006 25994	6.41	1.26 134.4*	Aldrin	M		
6.083	-0.009 62936	6.795 -0.020 315657	4.65	18.47 119.6*	Heptachlor epoxide b	M		
----		7.247 -0.011 25814	0.00	1.71 ---	Endosulfan I			
6.779	-0.016 249613	7.536 -0.017 138773	18.69	8.34 76.6*	Dieldrin	M		
6.453	-0.002 159171	7.341 -0.002 64325	12.84	4.21 101.2*	4,4'-DDE	M		
7.071	0.025 500715	----	59.41	0.00 ---	Endrin			
7.310	0.028 28133	8.074 -0.014 392888	3.71	35.65 162.3*	Endosulfan II	M		
----		7.948 -0.001 107837	0.00	10.31 ---	4,4'-DDD			
8.135	-0.010 13218	----	1.83	0.00 ---	Endosulfan sulfate			
7.368	-0.027 437139	8.276 0.009 607526	56.98	60.18 5.5	4,4'-DDT	M		
----		8.879 -0.030 499541	0.00	111.82 ---	Methoxychlor			
8.389	-0.030 123724	9.228 0.017 388528	14.99	37.17 85.0*	Endrin ketone	M		
7.736	0.025 152157	8.414 -0.005 117709	25.14	15.14 49.7*	Endrin aldehyde	M		
----		----	0.00	0.00 ---	trans-Chlordane			
6.403	0.023 117775	7.185 -0.001 28189	8.54	1.69 133.9*	cis-Chlordane	M		
2.291	-0.017 20097	2.515 0.029 5725	1.06	0.26 122.3*	Hexachlorobutadiene	M		
4.158	0.002 7635	4.695 0.002 71787	0.46	3.35 152.1*	Hexachlorobenzene	MN		
3.805	0.002 313503	4.198 0.001 450342	24.56	27.22 10.3	Tetrachloro-m-xylene	MN		
9.327	0.003 239903	10.430 -0.000 314982	36.83	37.68 2.3	Decachlorobiphenyl	M		

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	672426	938466	39.6
Hexabromobiphenyl	609723	642842	5.4

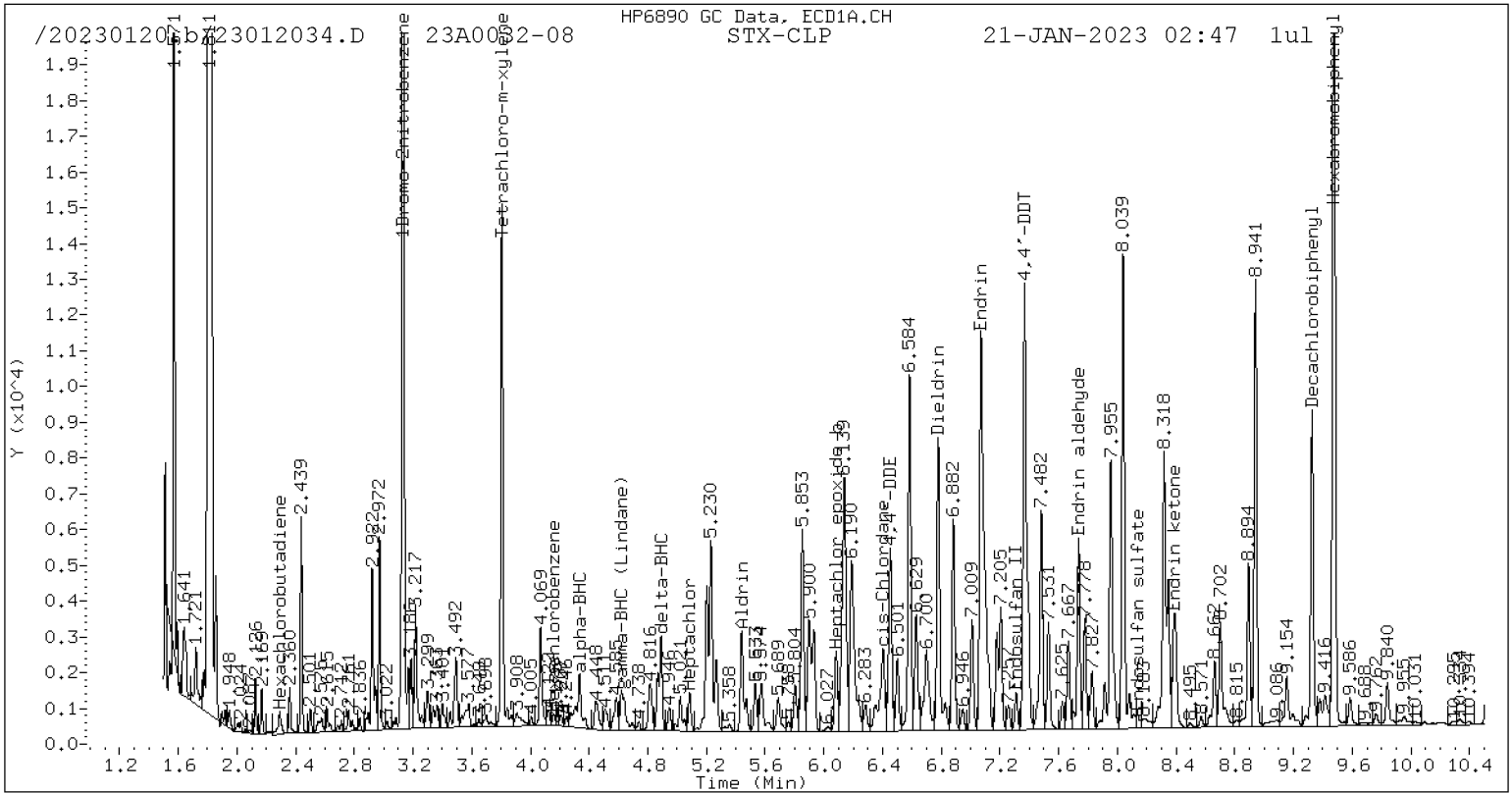
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1006482	1175157	16.8
Hexabromobiphenyl	769764	756270	-1.8

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

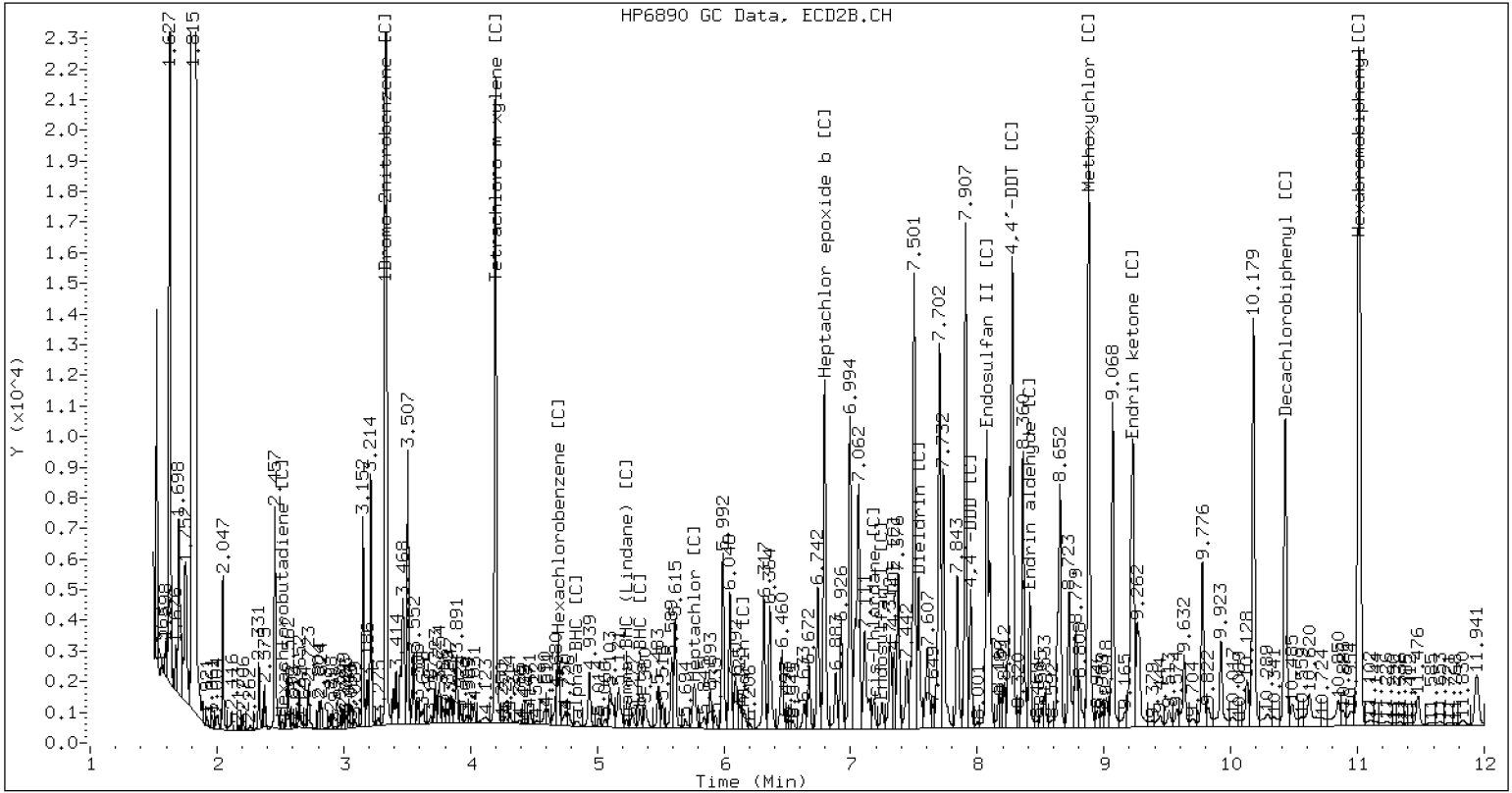
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

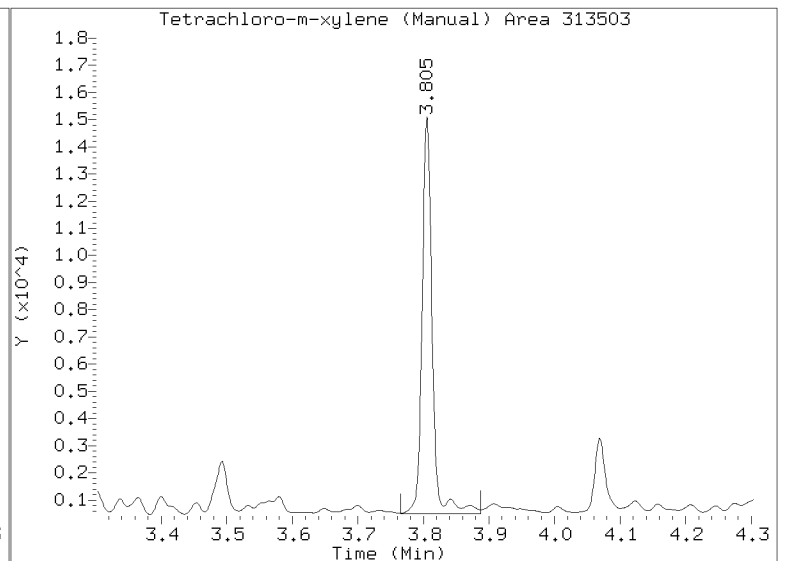
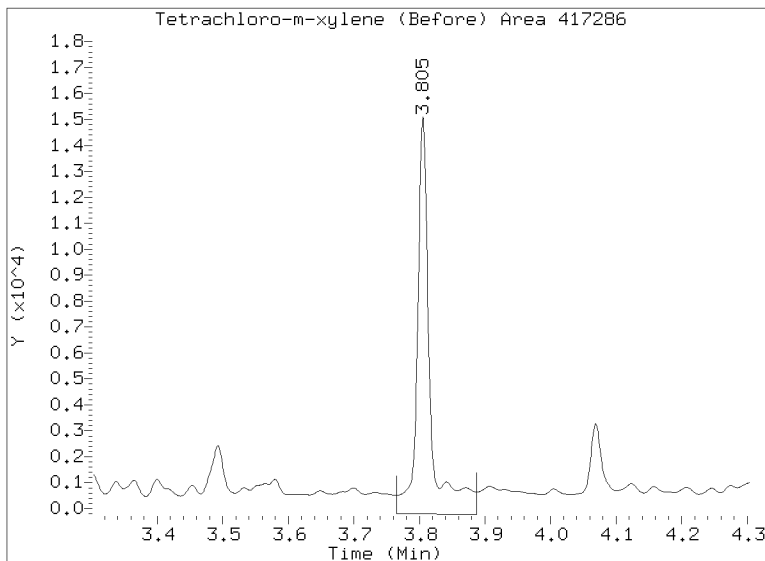
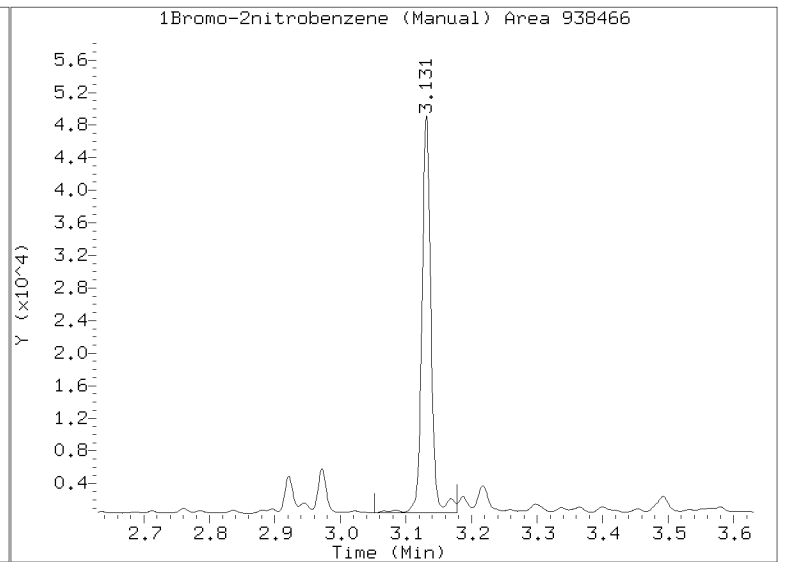
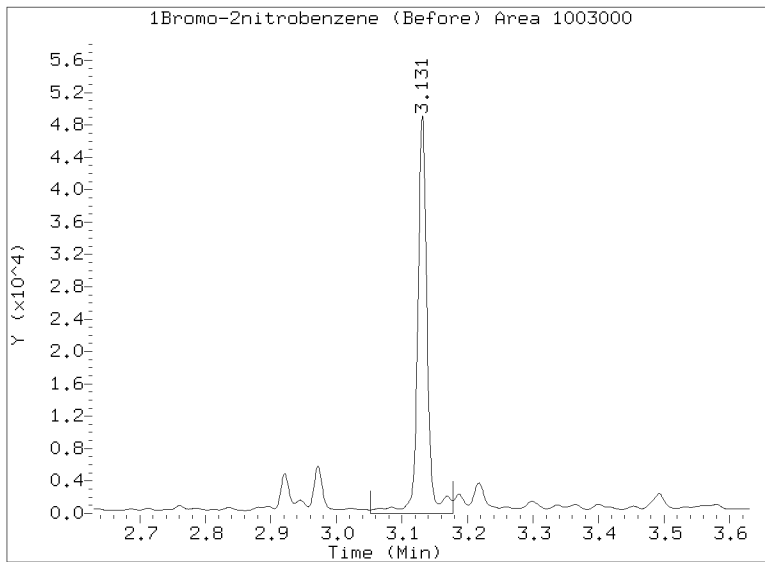
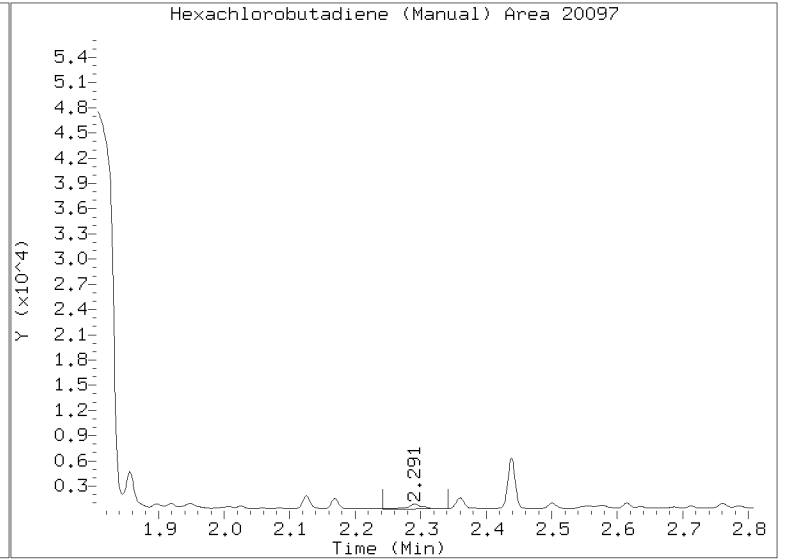
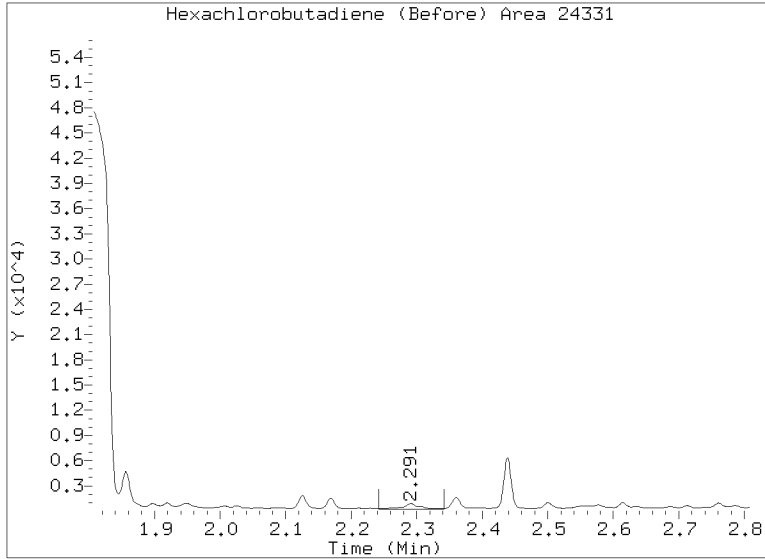
/20230120.b/B20230120.b/23012034.D 23A0032-08 CLP2



CLP-2 Manual Integration: YES

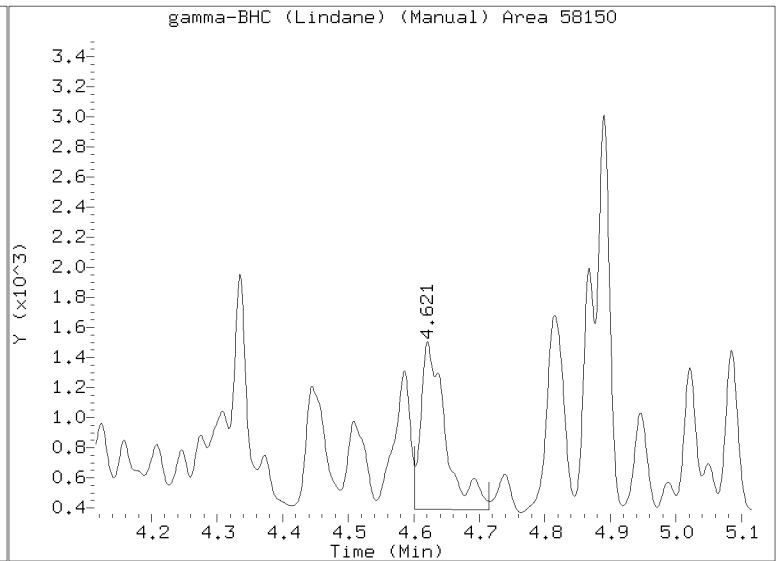
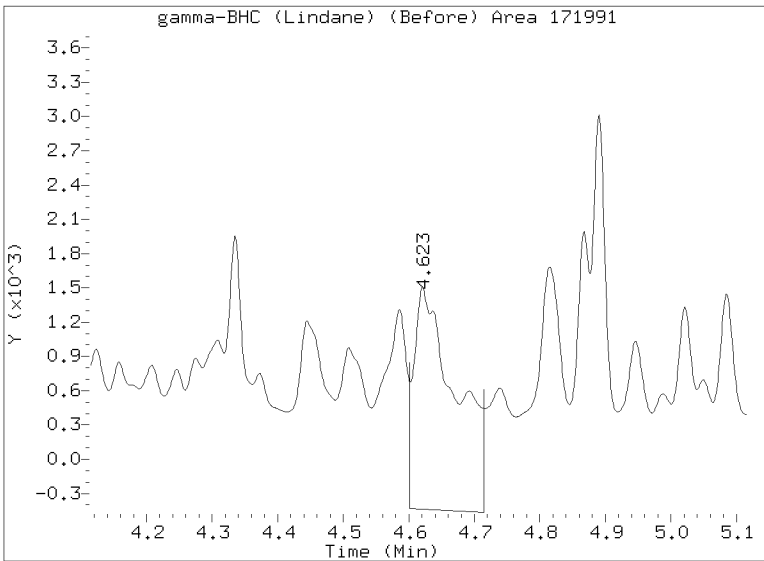
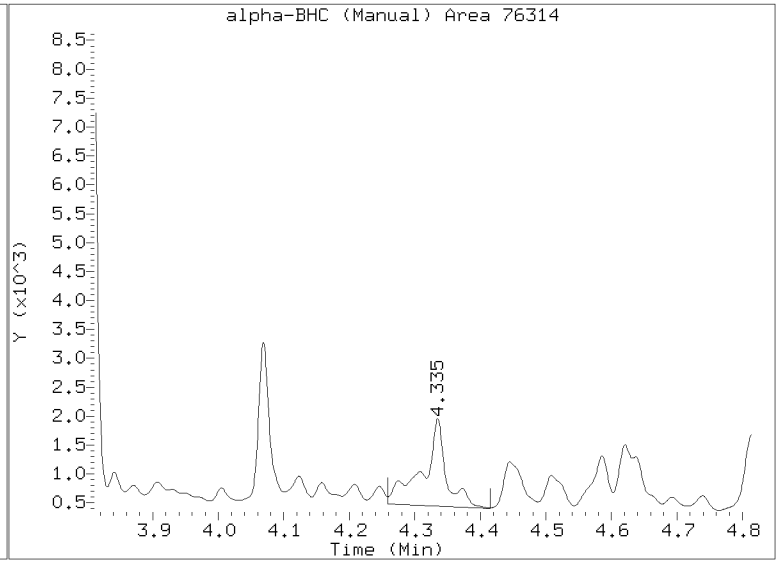
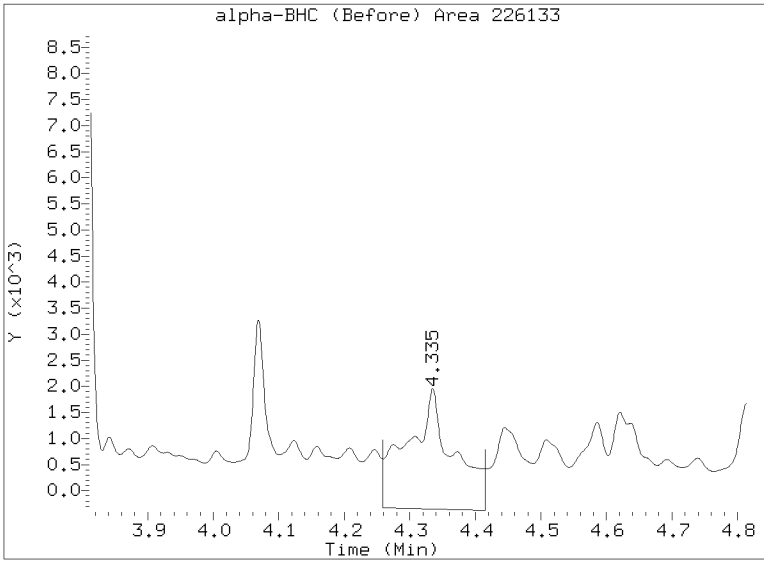
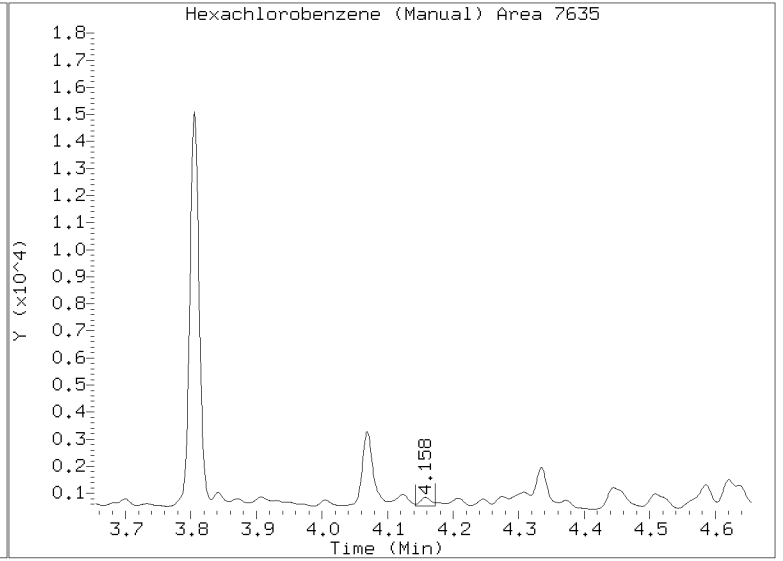
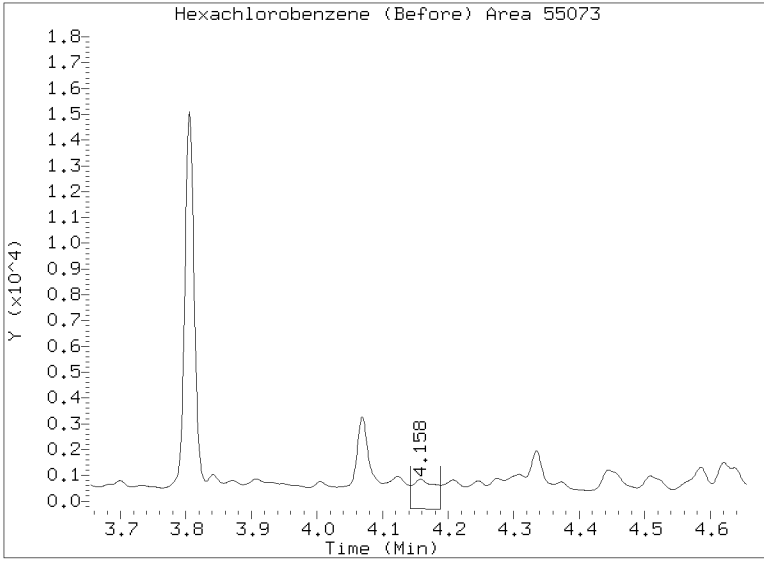
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012034.D
Injection Date: 21-JAN-2023 02:47
Lab ID:23A0032-08 Client ID:
Report Date: 01/24/2023 13:42



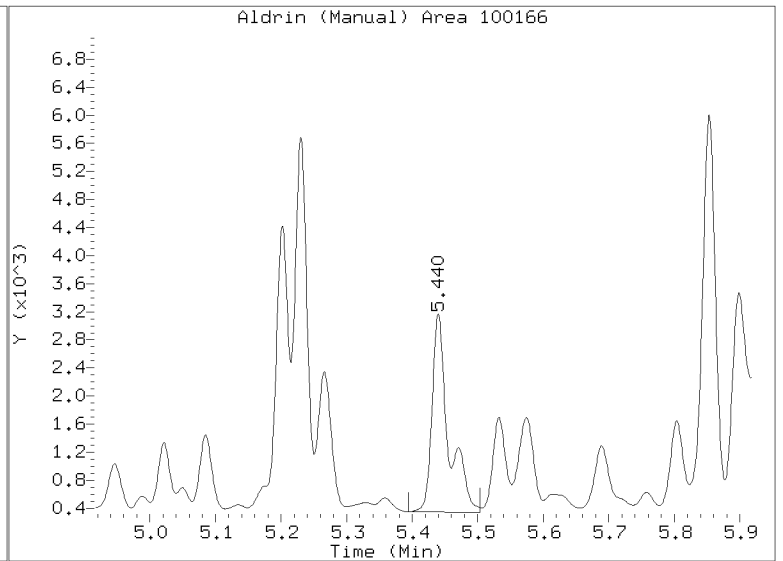
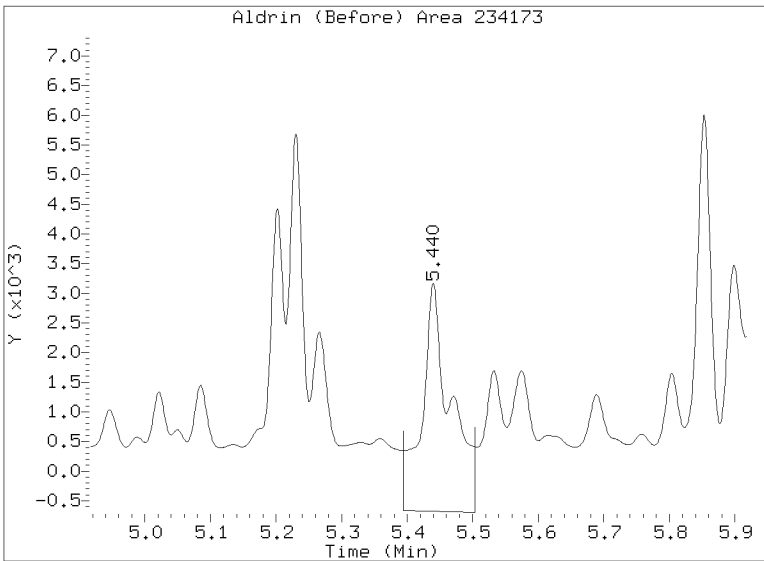
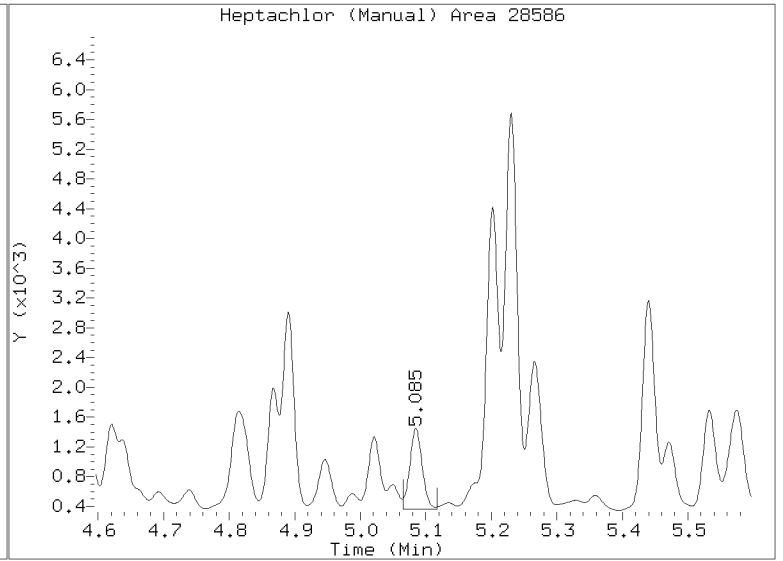
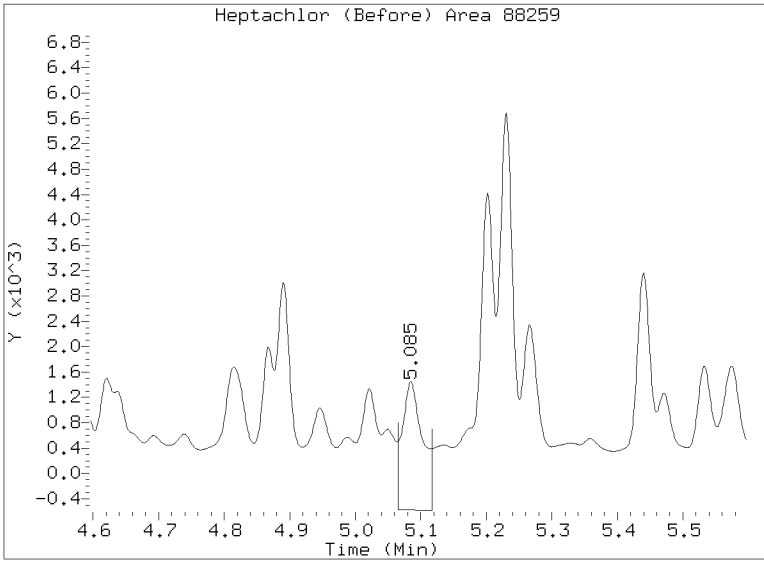
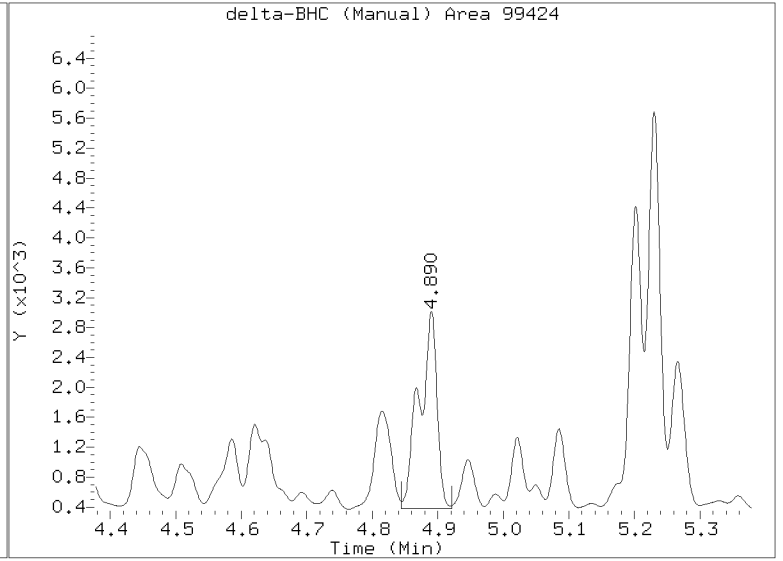
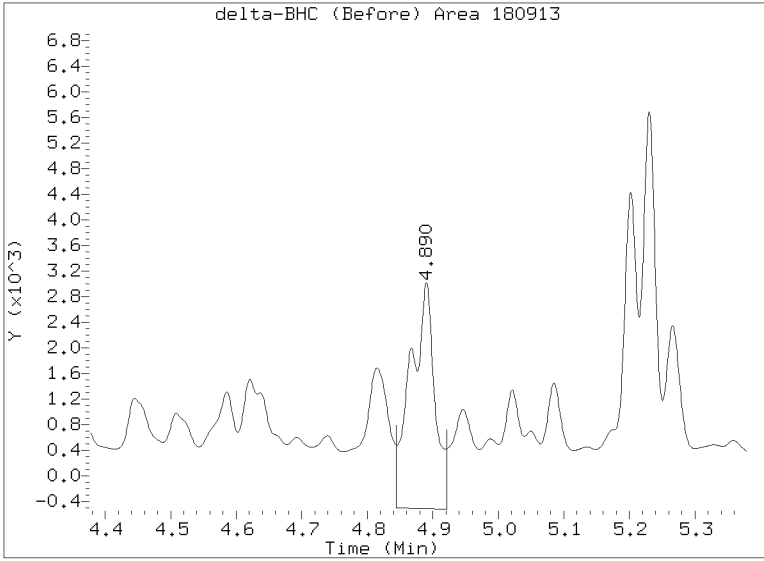
Manual Peak Adjustment Report, STX-CLP

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Lab ID:23A0032-08 Client ID:
Report Date: 01/24/2023 13:42



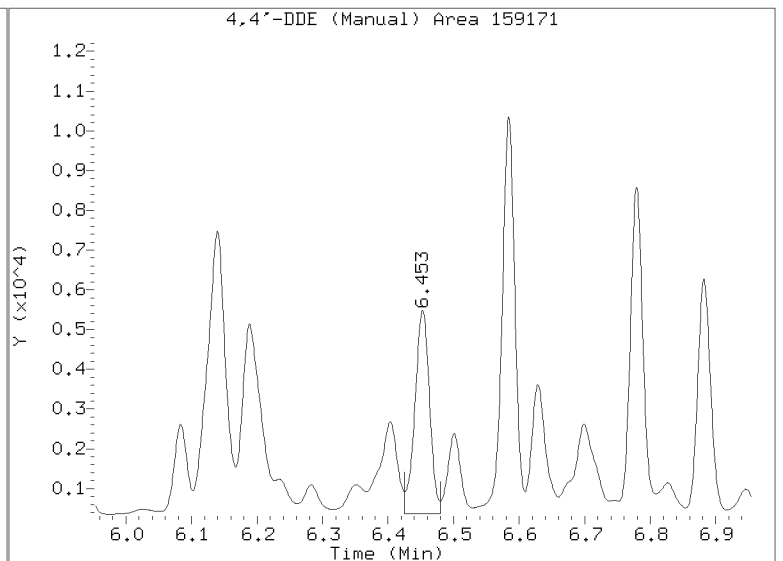
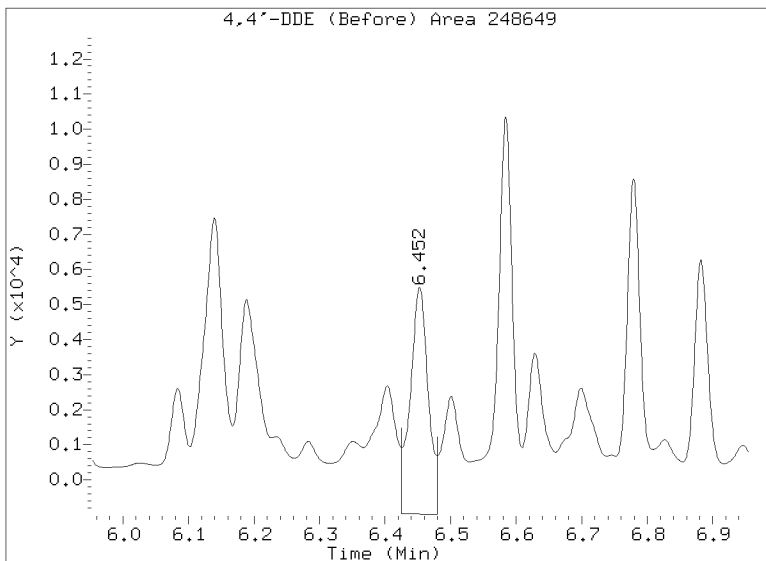
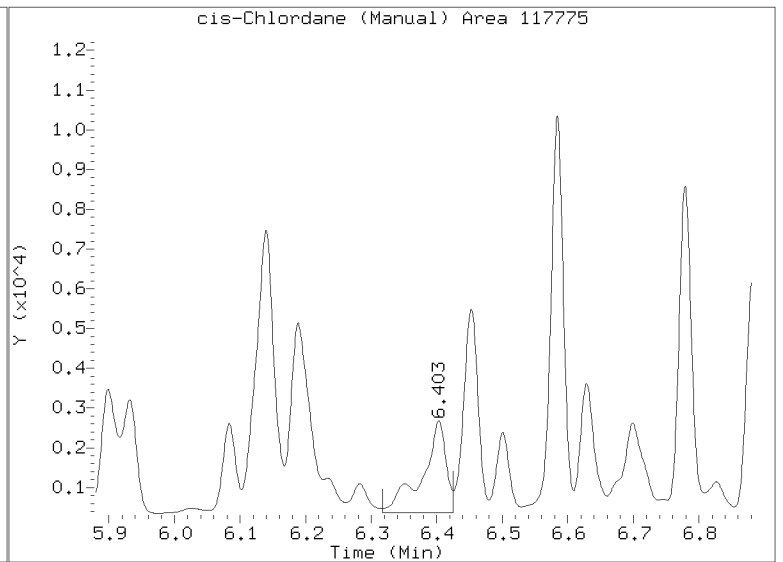
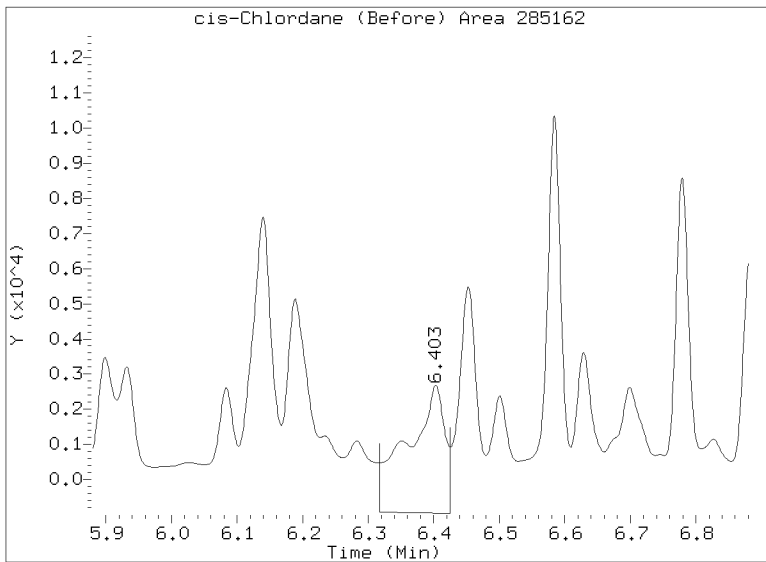
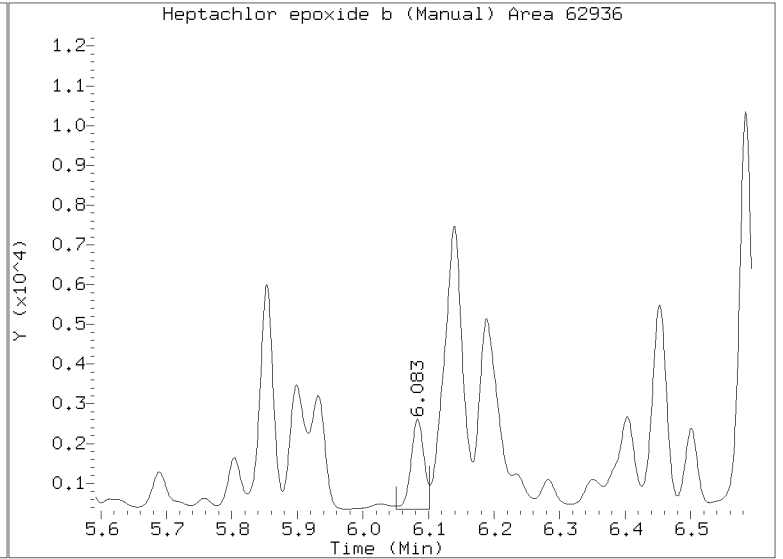
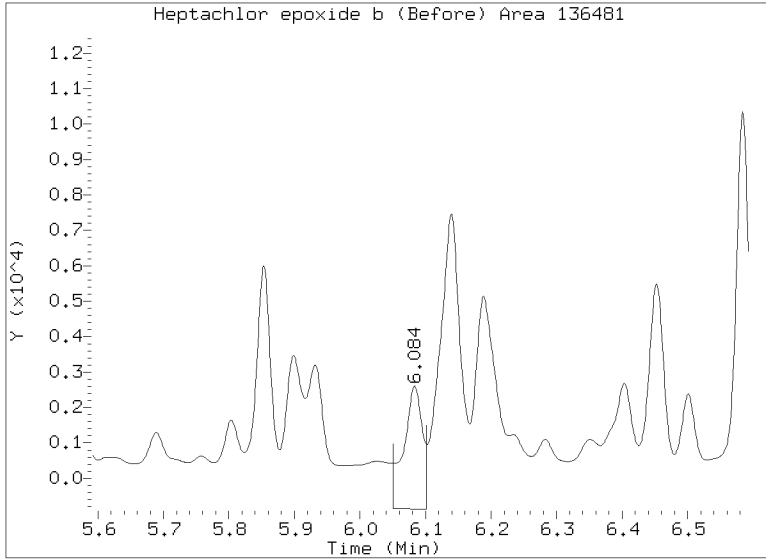
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012034.D
Injection Date: 21-JAN-2023 02:47
Lab ID:23A0032-08 Client ID:
Report Date: 01/24/2023 13:42



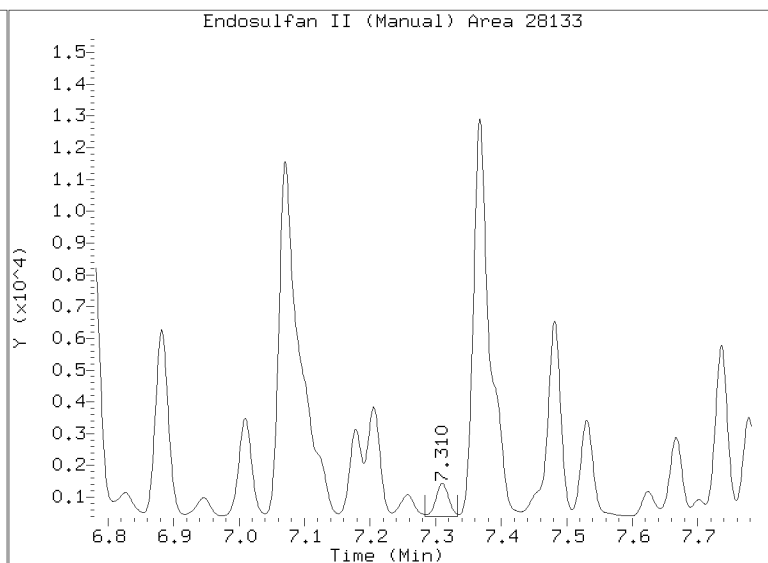
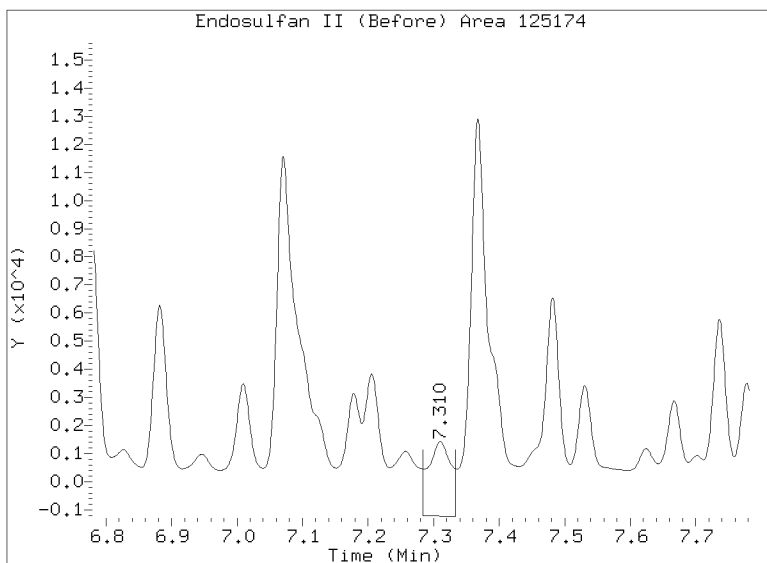
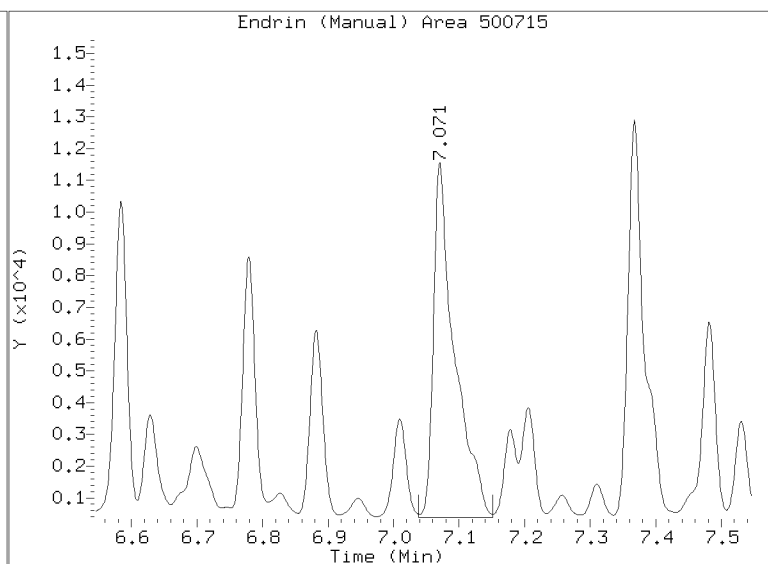
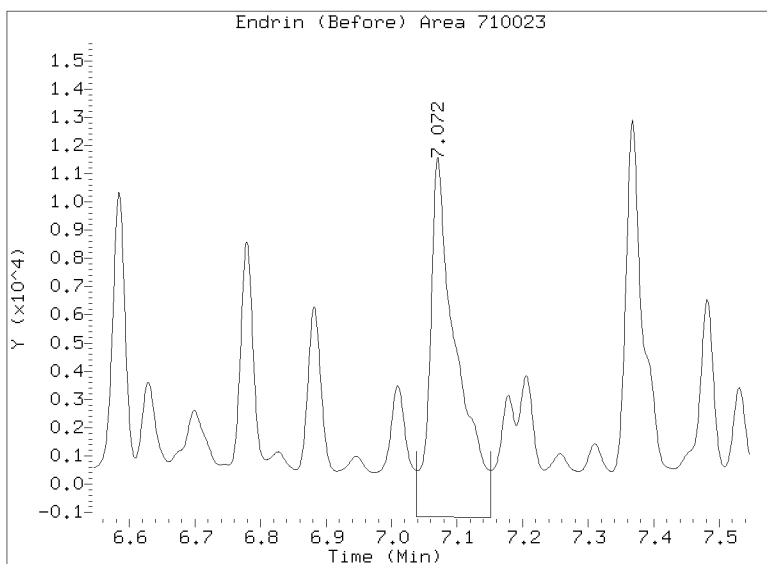
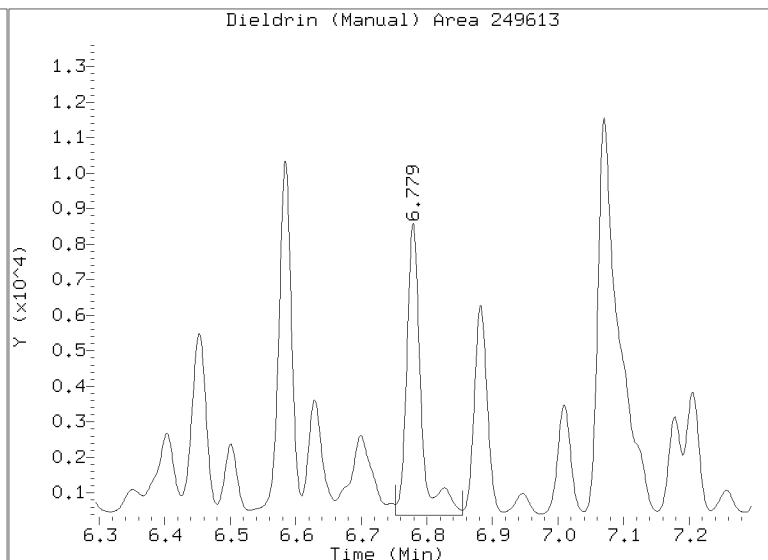
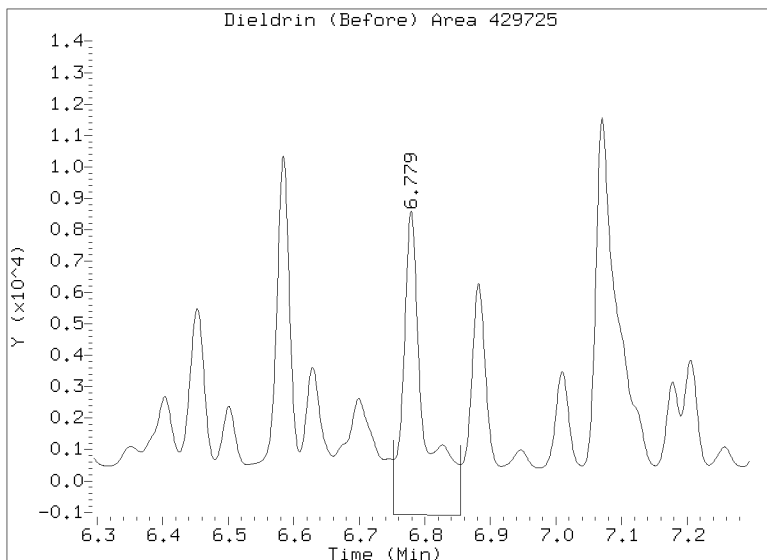
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012034.D
Injection Date: 21-JAN-2023 02:47
Lab ID:23A0032-08 Client ID:
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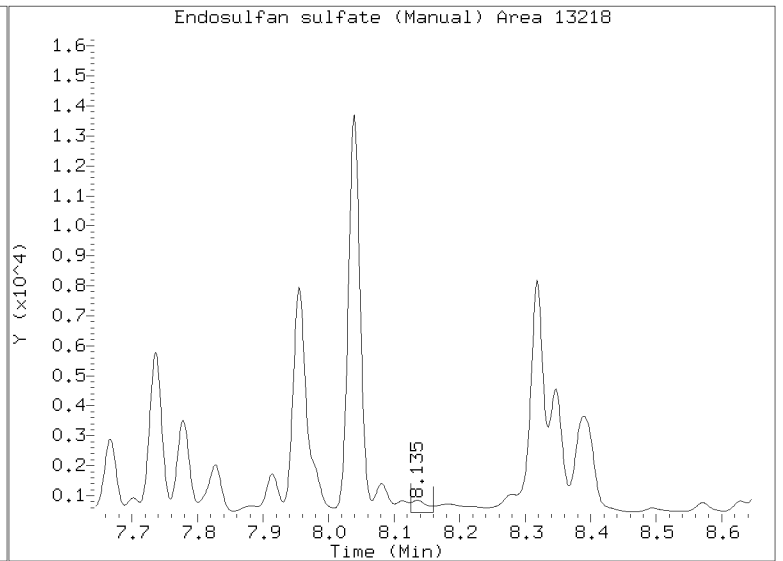
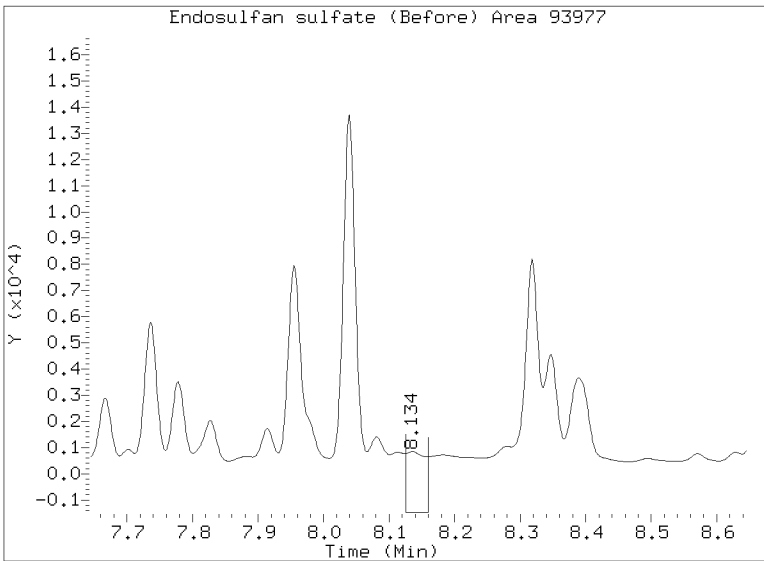
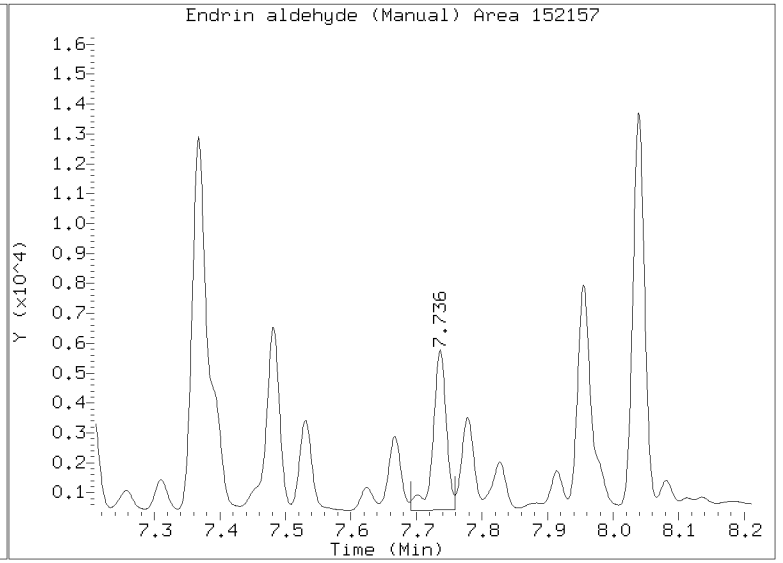
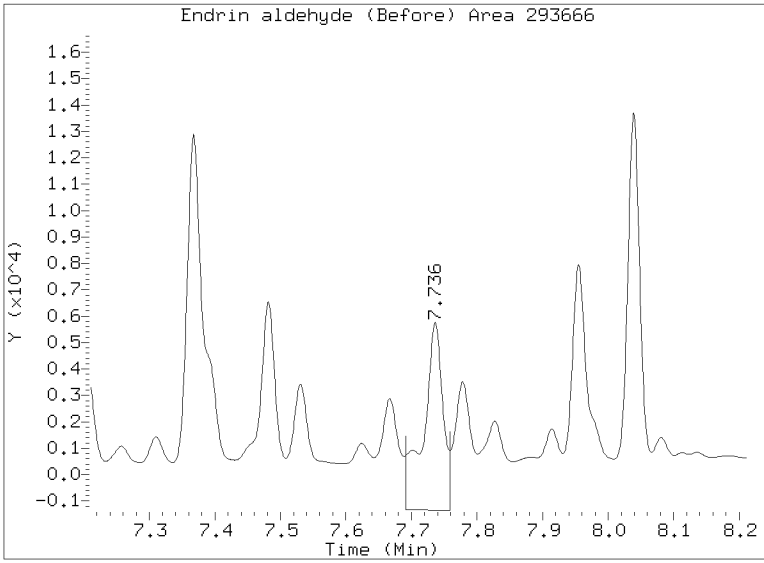
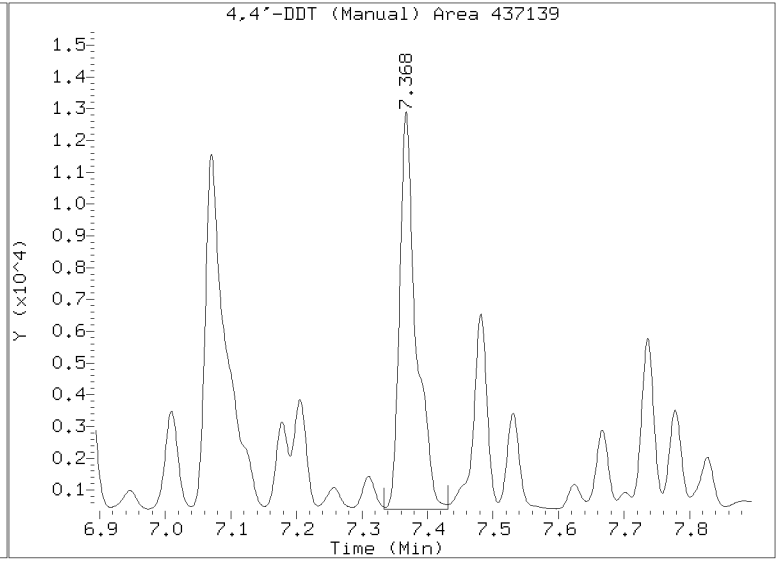
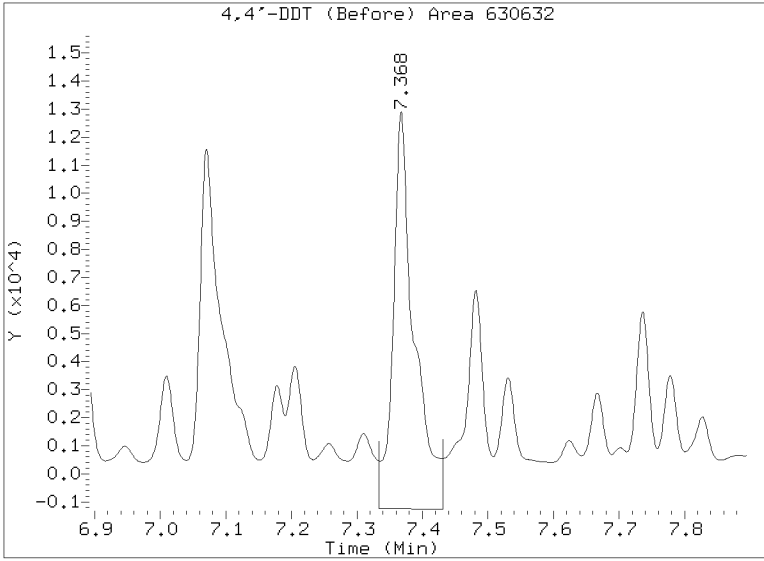
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012034.D
Injection Date: 21-JAN-2023 02:47
Lab ID:23A0032-08 Client ID:
Report Date: 01/24/2023 13:42



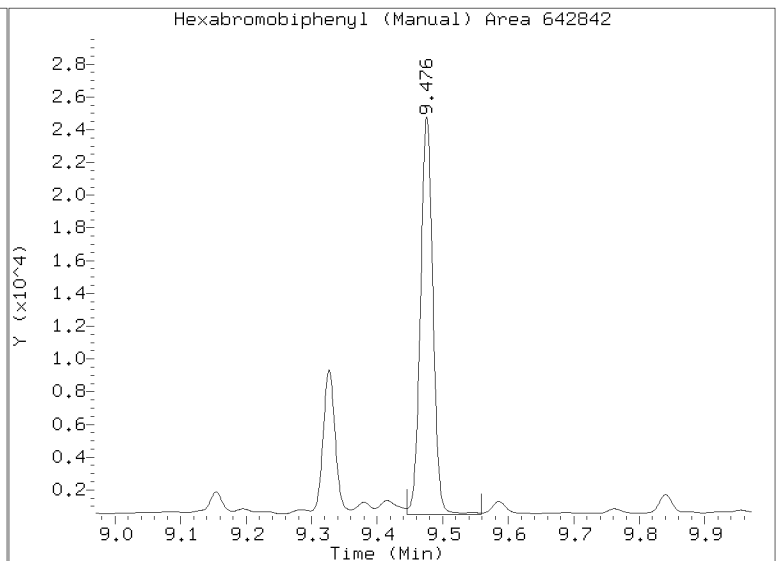
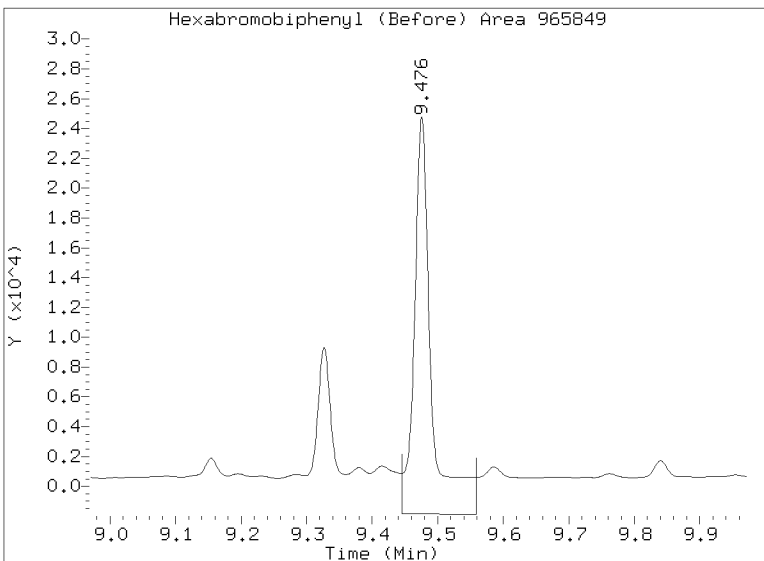
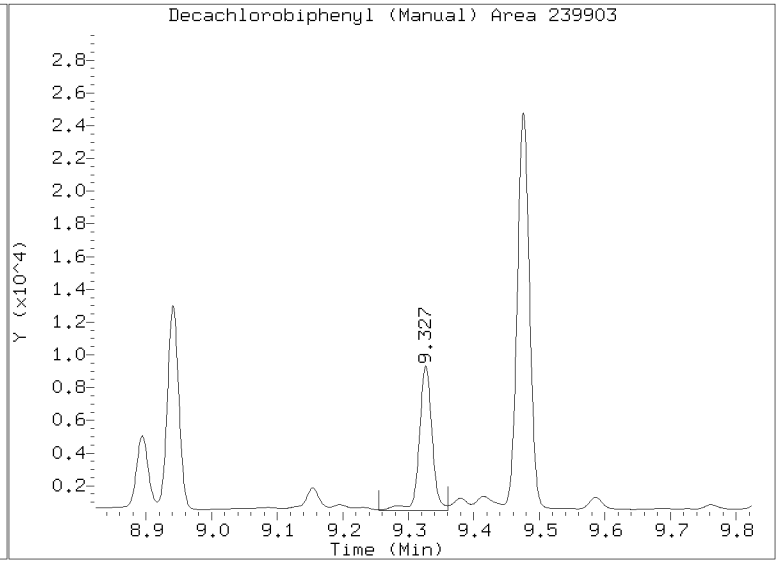
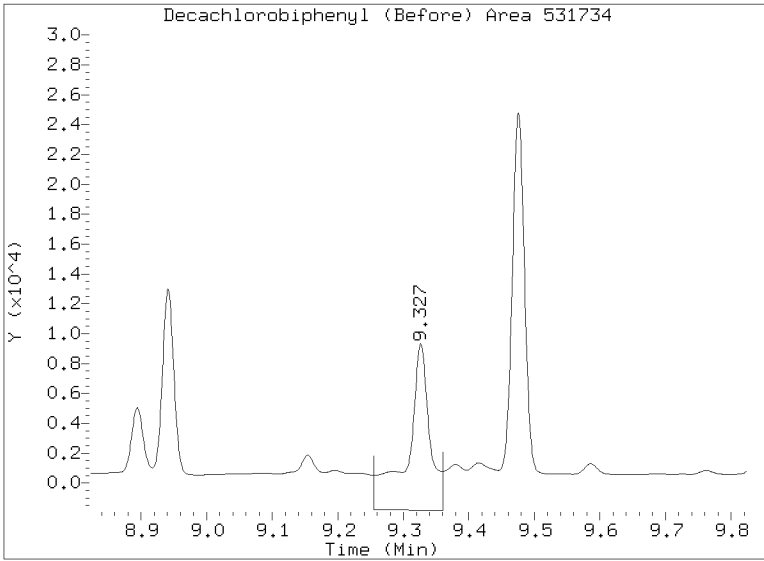
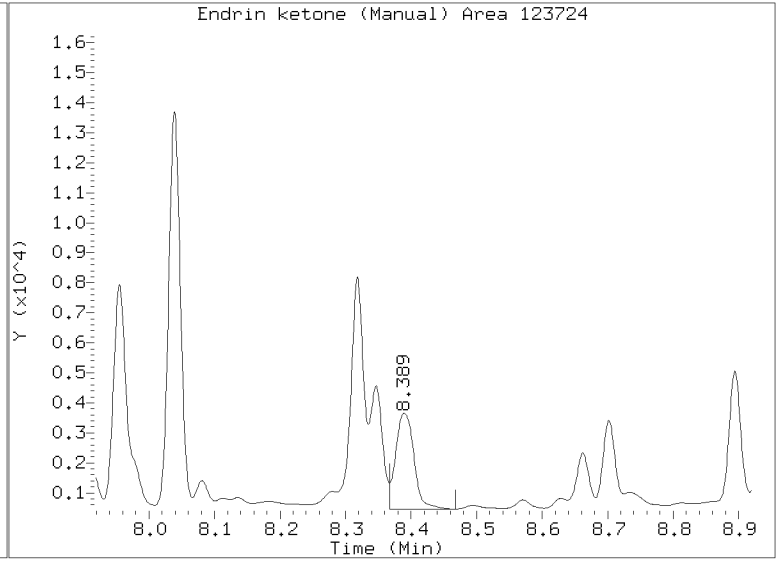
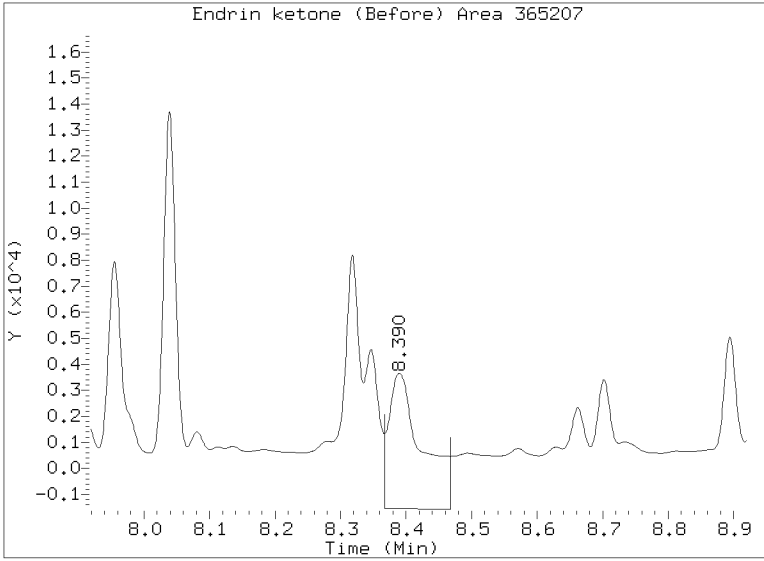
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012034.D
Injection Date: 21-JAN-2023 02:47
Lab ID:23A0032-08 Client ID:
Report Date: 01/24/2023 13:42



Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012034.D
Injection Date: 21-JAN-2023 02:47
Lab ID:23A0032-08 Client ID:
Report Date: 01/24/2023 13:42

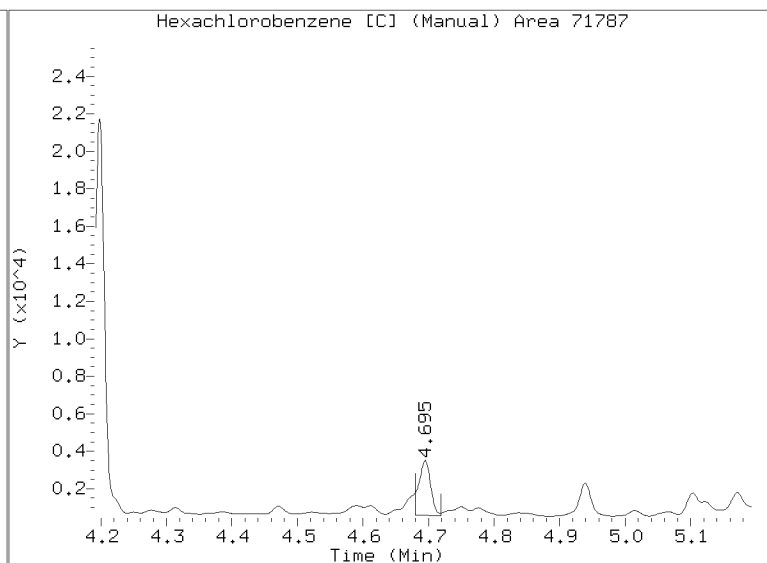
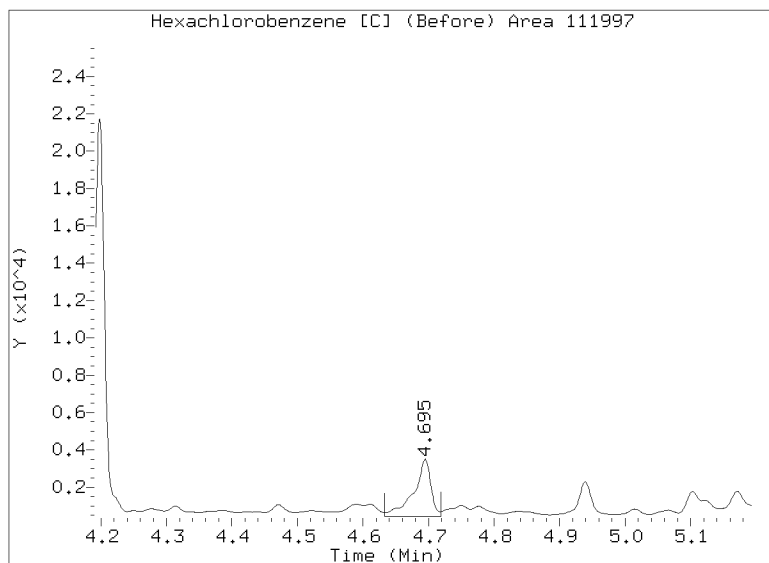
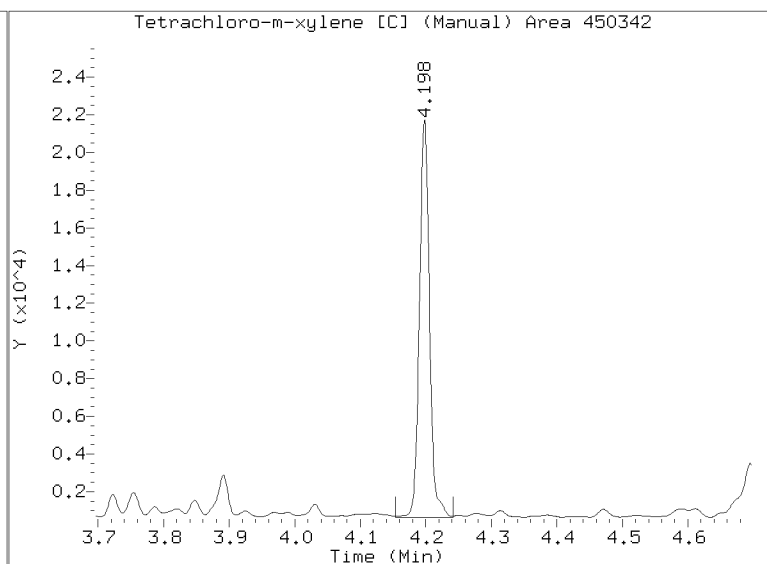
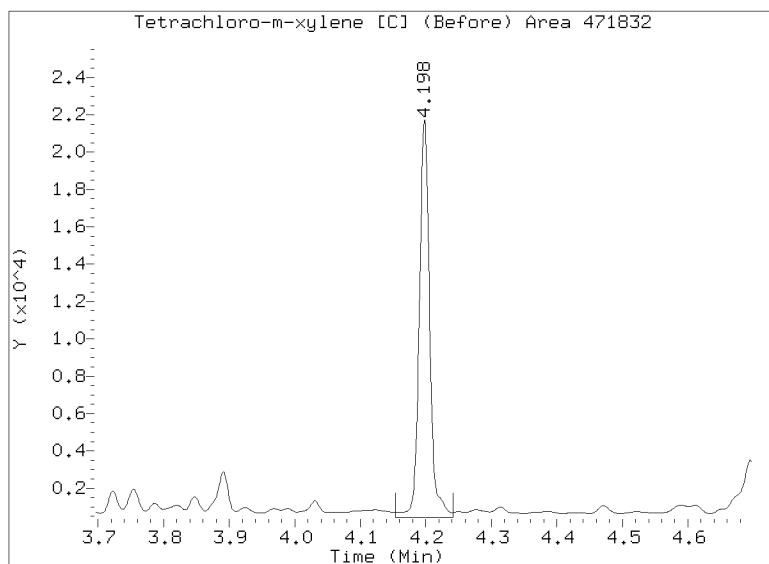
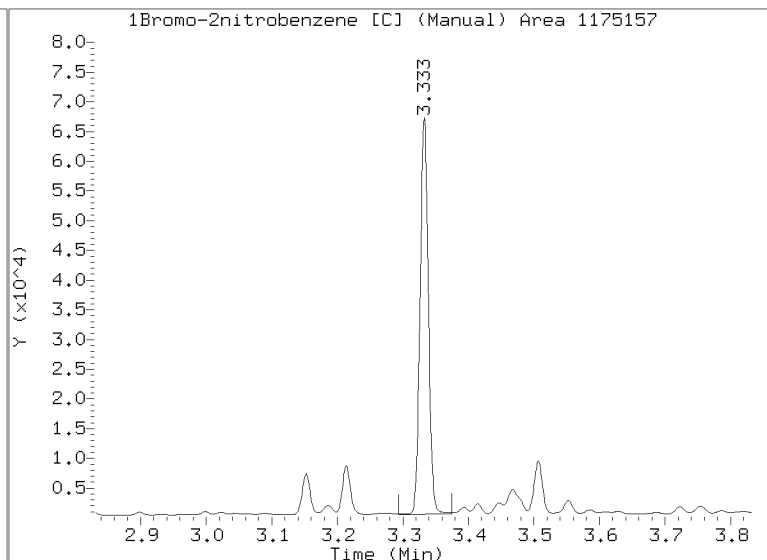
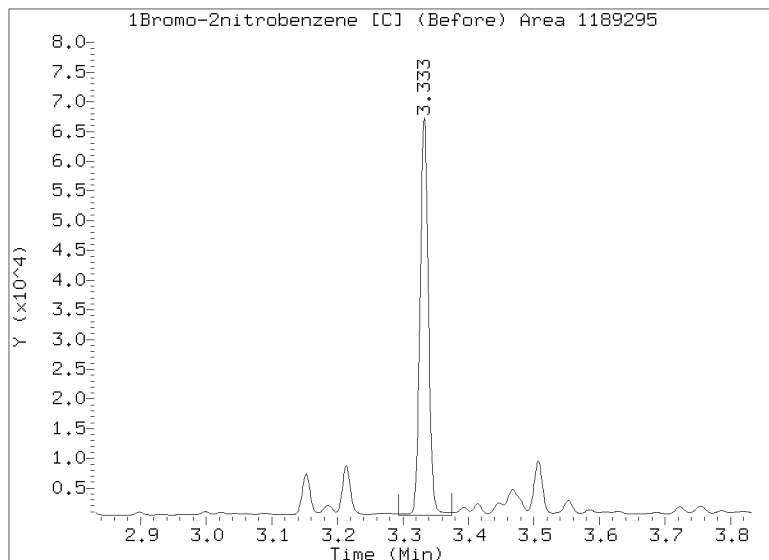


Manual Peak Adjustment Report, CLP-2

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Injection Date: 21-JAN-2023 02:47

Lab ID:23A0032-08 Client ID:

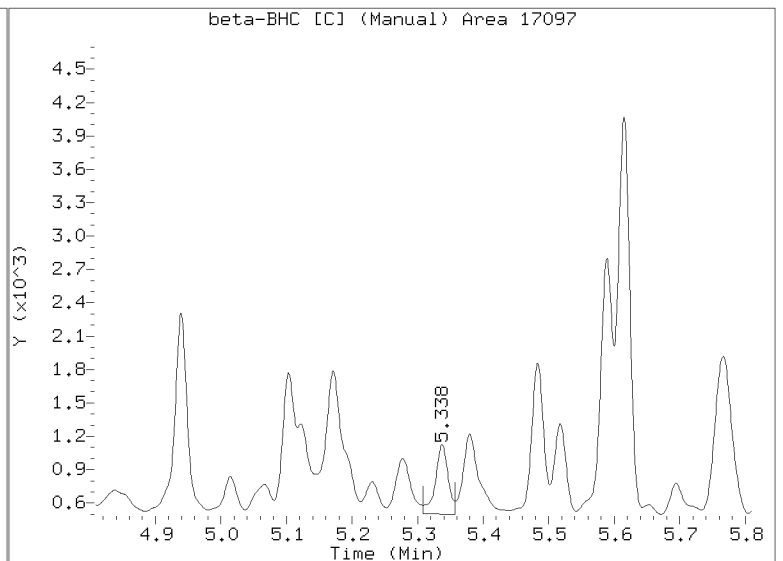
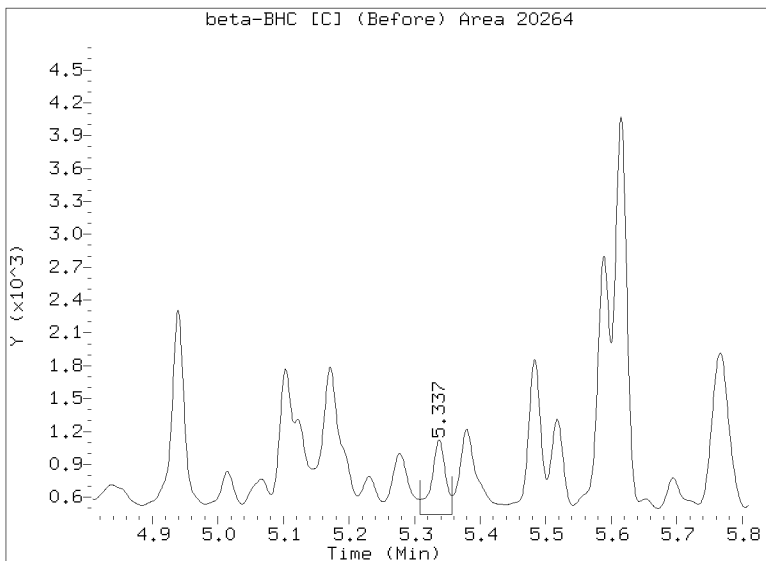
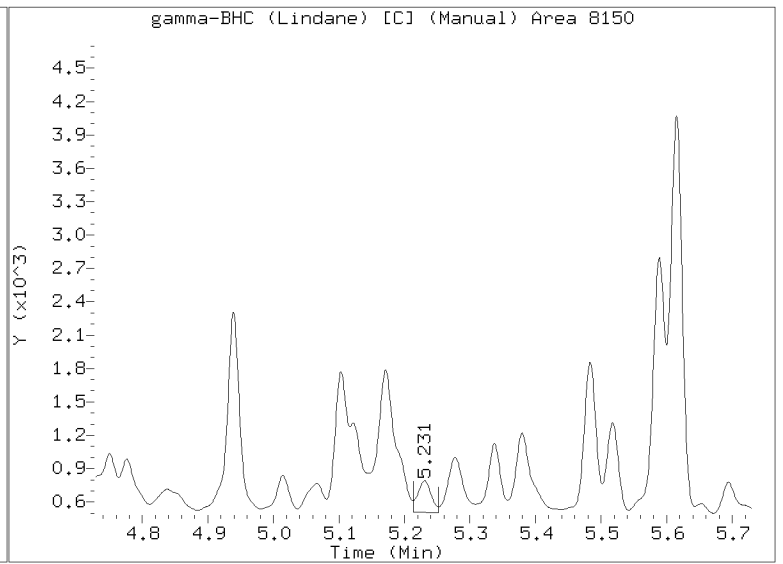
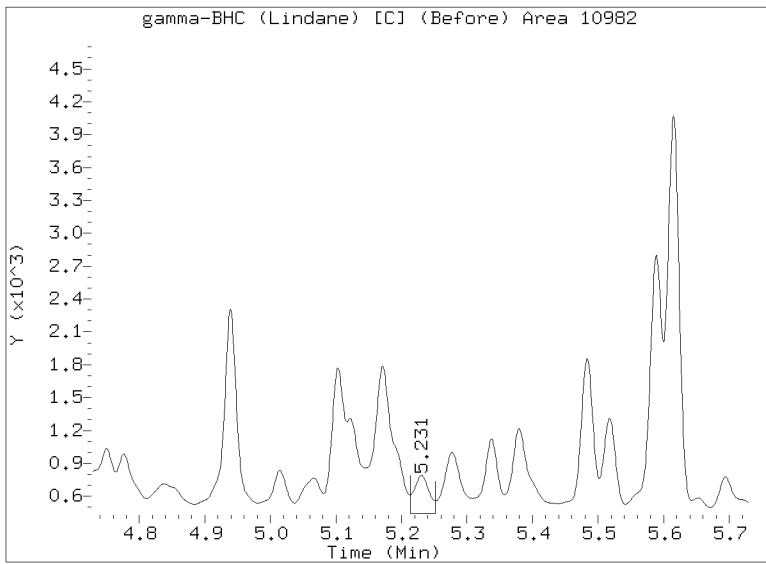
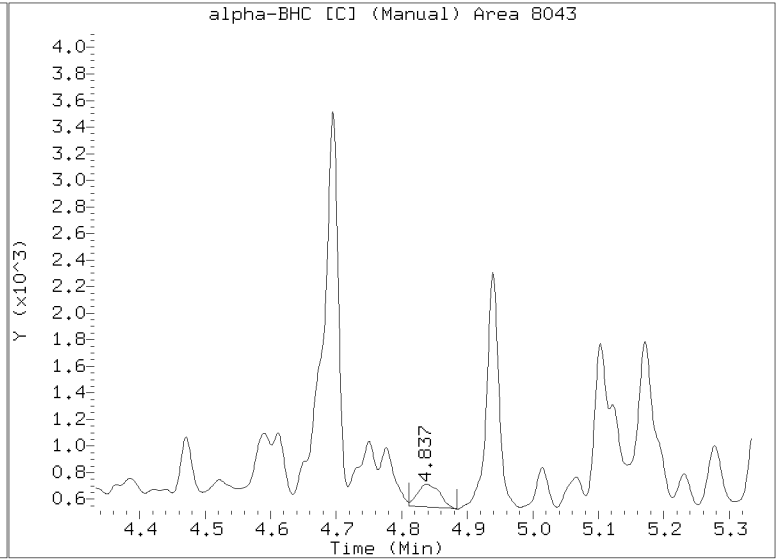
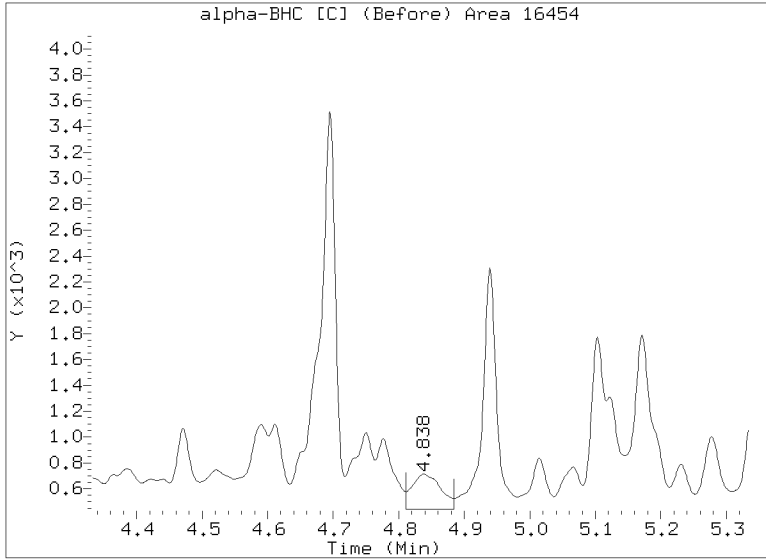


Manual Peak Adjustment Report, CLP-2

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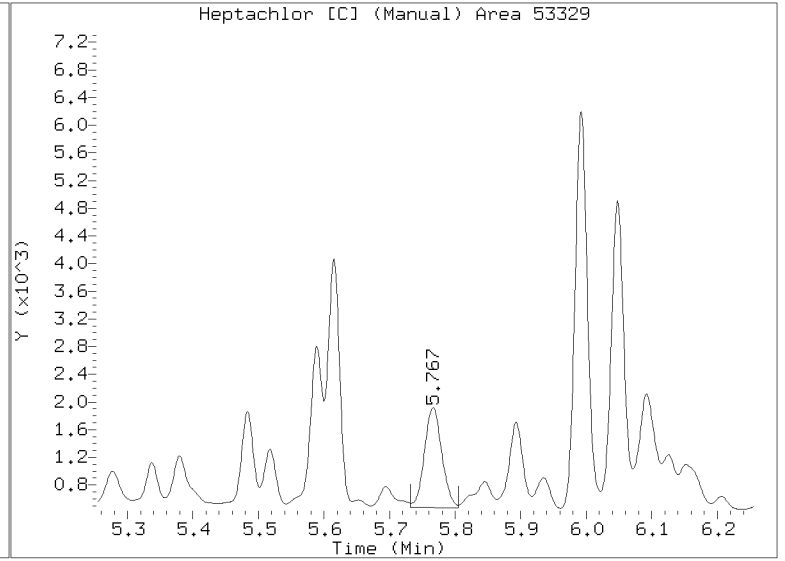
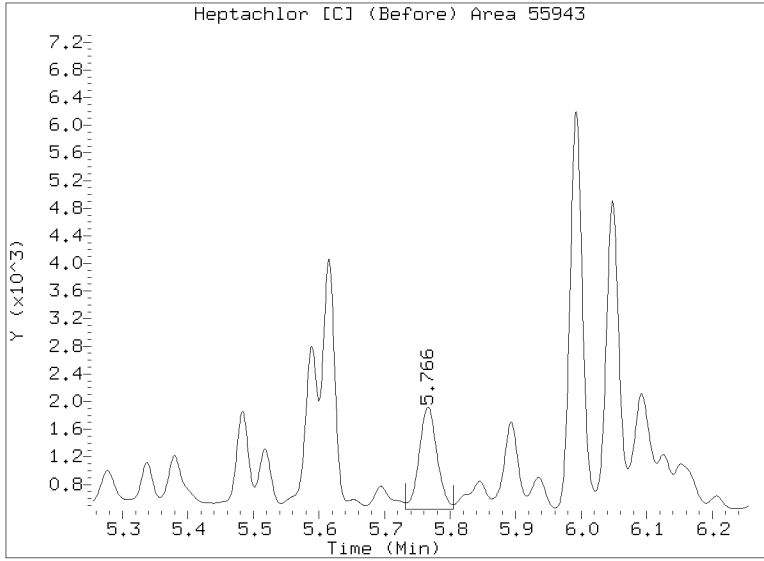


Manual Peak Adjustment Report, CLP-2

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Injection Date: 21-JAN-2023 02:47

Lab ID:23A0032-08 Client ID:





ORGANIC ANALYSIS DATA SHEET
EPA 8081B

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23A0032</u>	
Client: <u>Anchor QEA, LLC</u>		
Project: <u>AOC5 MR Phase 1</u>		
Matrix: <u>Solid</u>	Laboratory ID: <u>23A0032-11 A</u>	File ID: <u>23012035.D</u>
Sampled: <u>01/03/23 14:01</u>	Prepared: <u>01/10/23 16:22</u>	Analyzed: <u>01/21/23 03:05</u>
% Solids: <u>53.06</u>	Preparation: <u>EPA 3546 (Microwave)</u>	Initial/Final: <u>23.59 g Wet / 2.5 mL</u>
Batch: <u>BLA0164</u>	Sequence: <u>SLA0279</u>	Calibration: <u>FL00041</u>
Instrument: <u>ECD6</u>	Column 1: <u>STX-CLP</u>	Column 2: <u>STX-CLPII</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
118-74-1	Hexachlorobenzene	1	1	0.28	0.14	0.50	J

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9892	7.64	95.6	30 - 160	
<i>Decachlorobiphenyl</i>	2	7.9892	9.46	118	30 - 160	
<i>Tetrachlorometaxylene</i>	1	7.9892	4.87	61.0	30 - 160	
<i>Tetrachlorometaxylene</i>	2	7.9892	5.21	65.2	30 - 160	

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230120.b/23012035.D
Data file 2: /20230120.b/B20230120.b/23012035.D
Method: \20230120.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: 23A0032-11
Client ID:
Injection Date: 21-JAN-2023 03:05
Report Date: 01/24/2023 13:42
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	CLP2 Col Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.337	0.023	237566	4.838	0.004	10046	12.39	0.41	187.3*	alpha-BHC MN
----			5.338	0.028	22390	0.00	2.39	---	beta-BHC
4.892	0.013	117173	----			7.48	0.00	---	delta-BHC
4.641	0.026	112309	5.232	0.002	9339	6.76	0.45	175.2*	gamma-BHC (Lindane) MN
5.087	-0.010	38452	5.769	0.014	57763	2.60	3.05	15.9	Heptachlor MN
5.443	0.025	83580	6.130	-0.029	139709	5.04	6.46	24.6	Aldrin
6.094	0.002	28637	6.801	-0.014	205845	1.99	11.51	141.0*	Heptachlor epoxide b M
6.544	0.009	10292	7.254	-0.005	21610	0.78	1.37	54.9*	Endosulfan I M
6.785	-0.010	112889	7.538	-0.015	84758	7.97	4.87	48.3*	Dieldrin M
6.461	0.006	198075	7.345	0.002	89639	15.06	5.61	91.4*	4,4'-DDE M
----			----			0.00	0.00	---	Endrin
7.263	-0.019	12959	8.100	0.012	98454	1.63	9.17	139.6*	Endosulfan II M
7.077	-0.026	299142	7.951	0.001	119346	37.62	11.72	105.0*	4,4'-DDD M
8.141	-0.004	16455	----			2.18	0.00	---	Endosulfan sulfate
7.373	-0.022	277825	8.278	0.010	406421	34.58	41.35	17.8	4,4'-DDT M
----			8.884	-0.025	290797	0.00	66.86	---	Methoxychlor
8.392	-0.027	51334	9.230	0.020	208051	5.94	20.44	109.9*	Endrin ketone M
----			8.417	-0.002	68788	0.00	9.09	---	Endrin aldehyde
6.243	0.009	65379	7.039	0.013	111461	4.48	6.25	33.0	trans-Chlordane M
6.407	0.026	124840	7.189	0.003	51154	8.53	2.93	97.7*	cis-Chlordane M
2.289	-0.019	16364	2.458	-0.028	118179	0.81	5.05	144.4*	Hexachlorobutadiene
4.160	0.004	24661	4.695	0.002	139542	1.39	6.22	127.1*	Hexachlorobenzene MN
3.806	0.003	330242	4.199	0.001	451185	24.39	26.07	6.7	Tetrachloro-m-xylene MN
9.330	0.007	260920	10.432	0.002	385321	38.25	47.35	21.3	Decachlorobiphenyl M

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	672426	995762	48.1
Hexabromobiphenyl	609723	673251	10.4

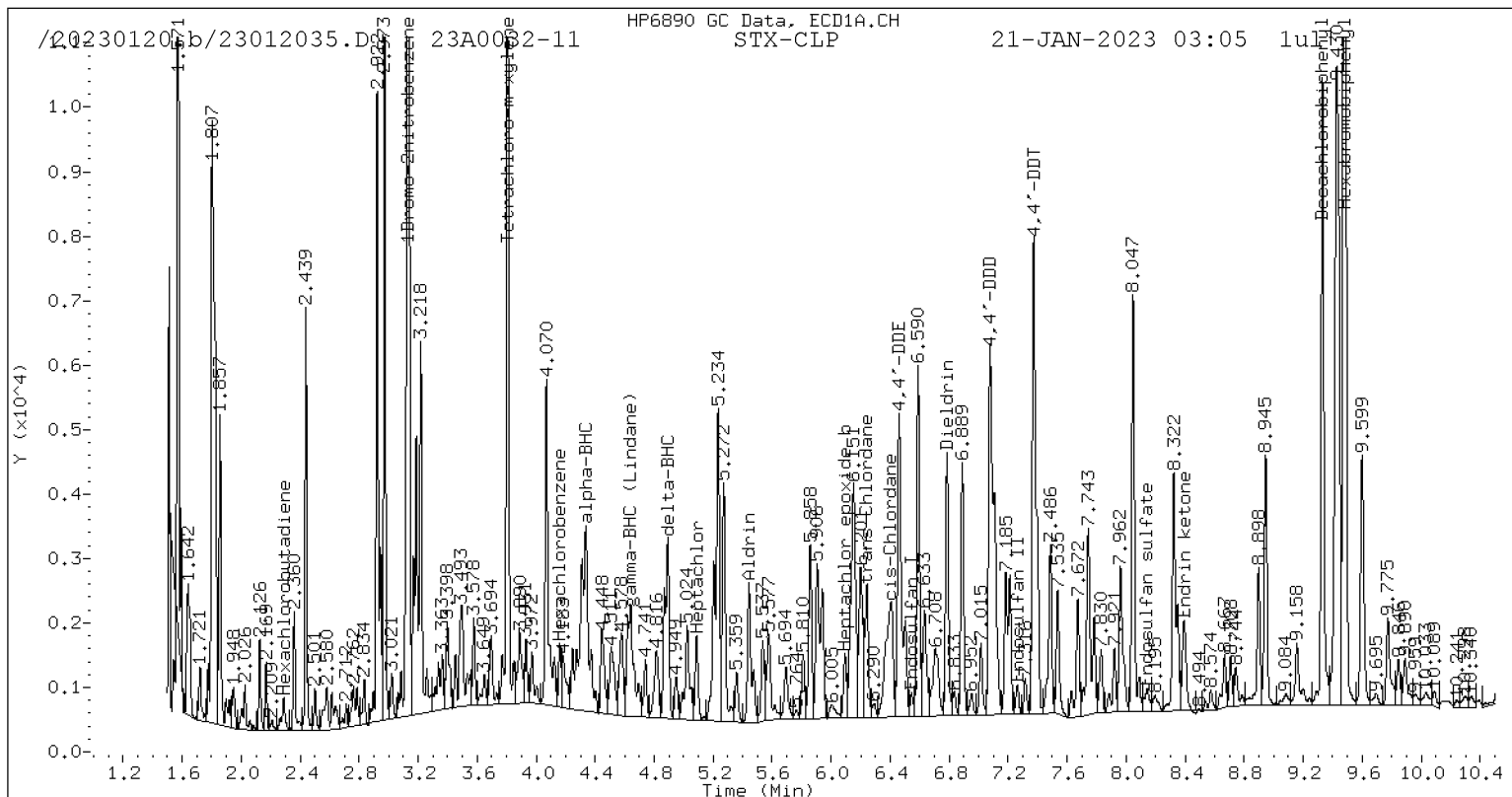
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1006482	1229607	22.2
Hexabromobiphenyl	769764	736325	-4.3

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

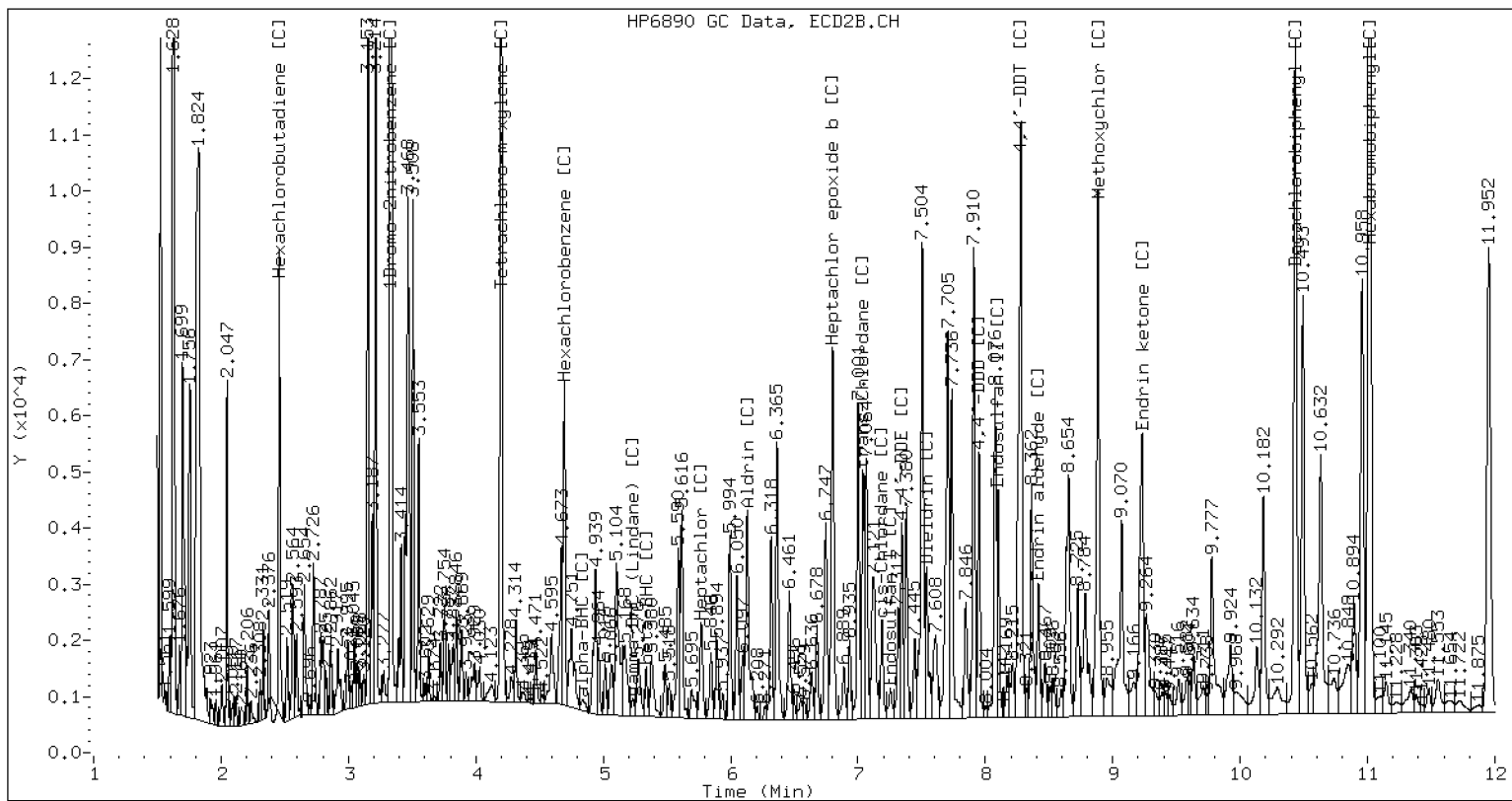
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

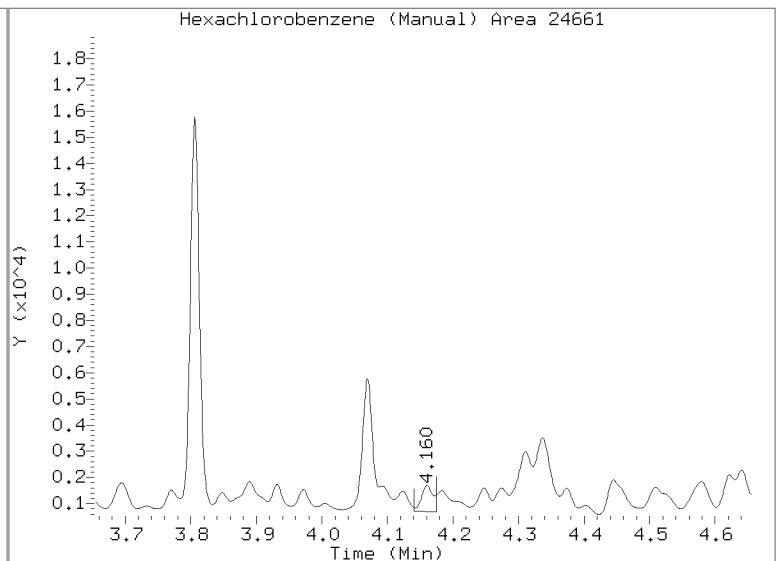
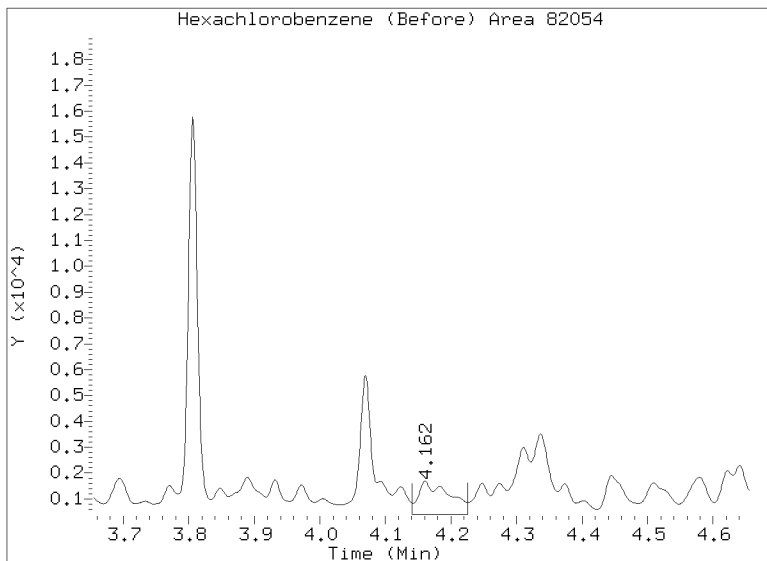
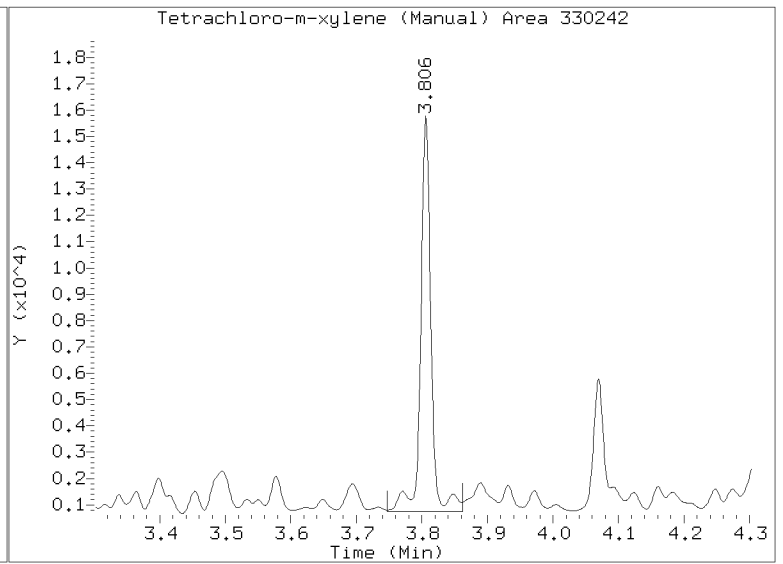
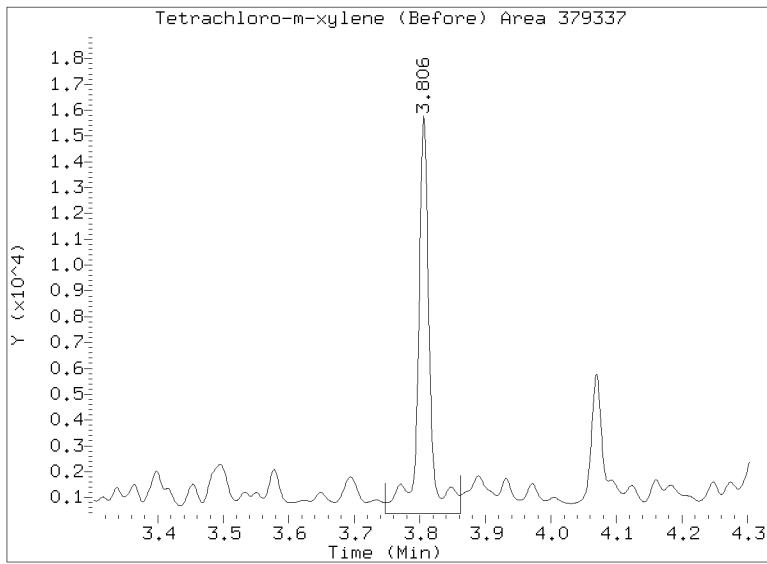
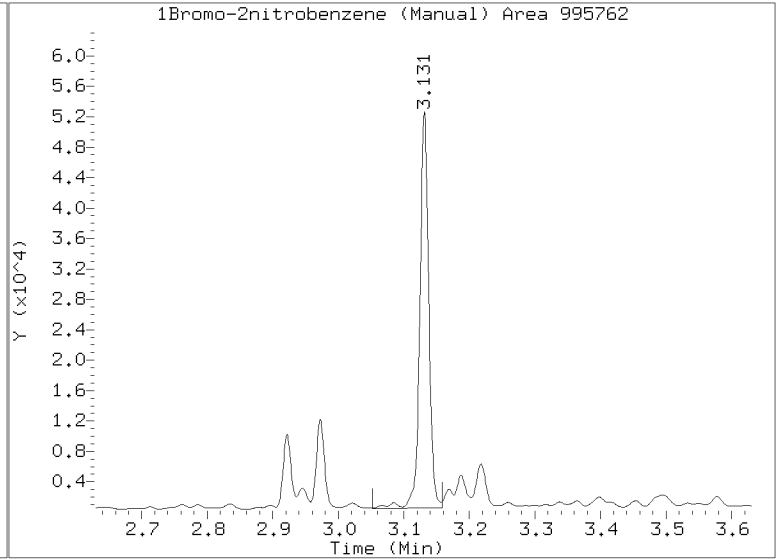
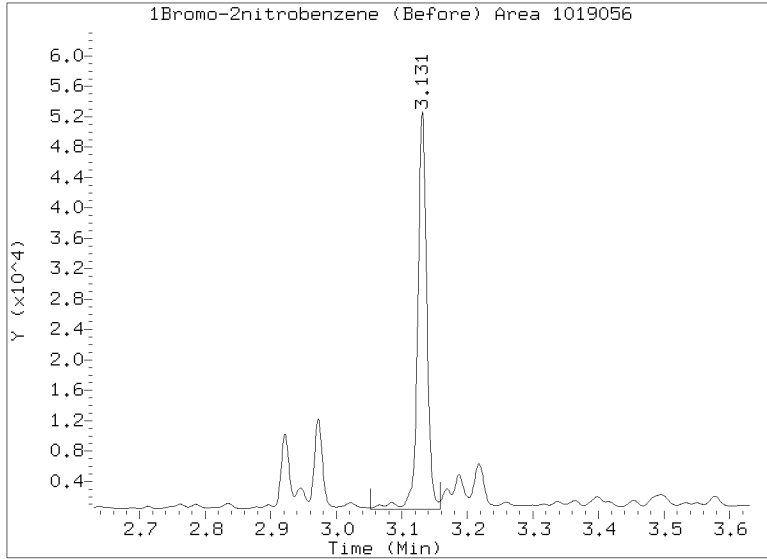
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CLP-2 Manual Integration: YES

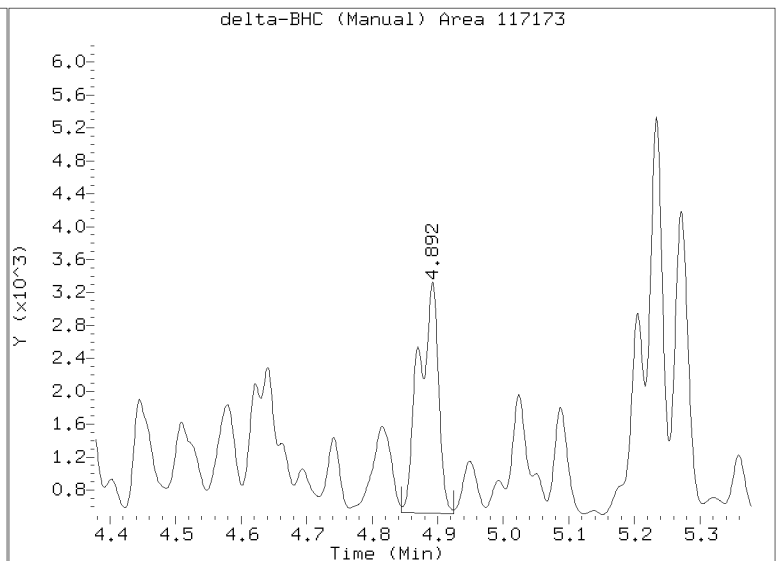
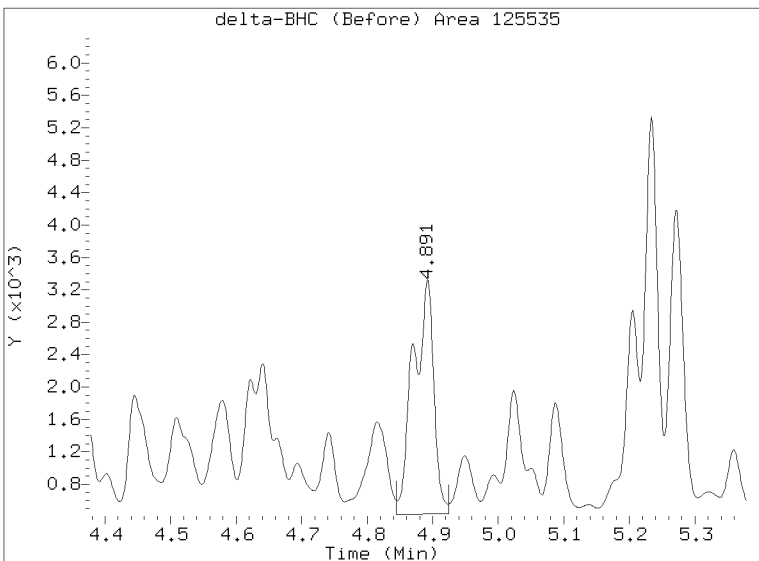
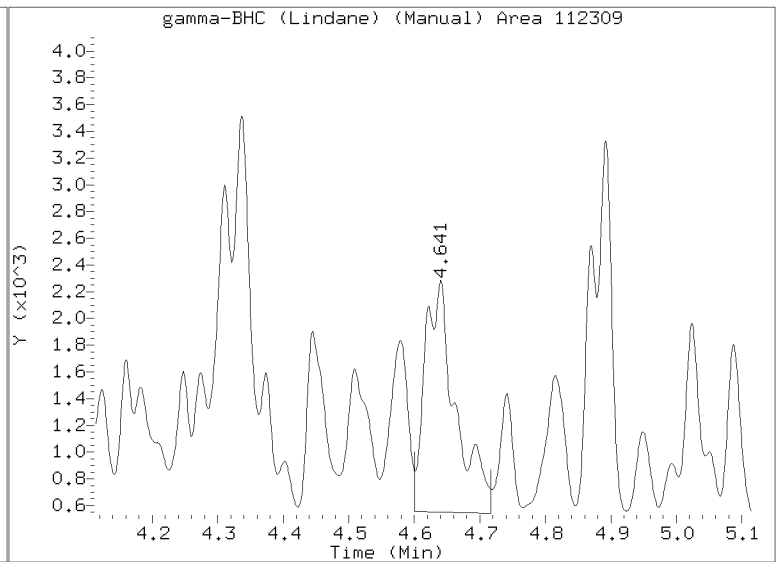
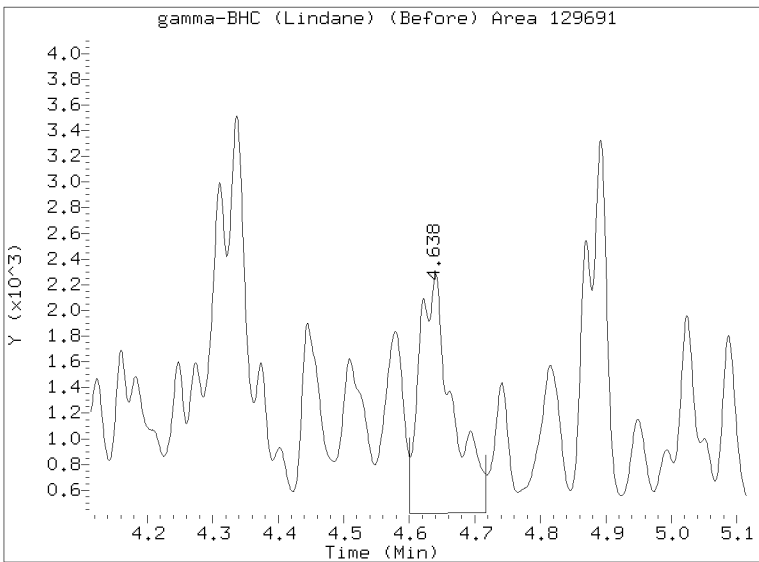
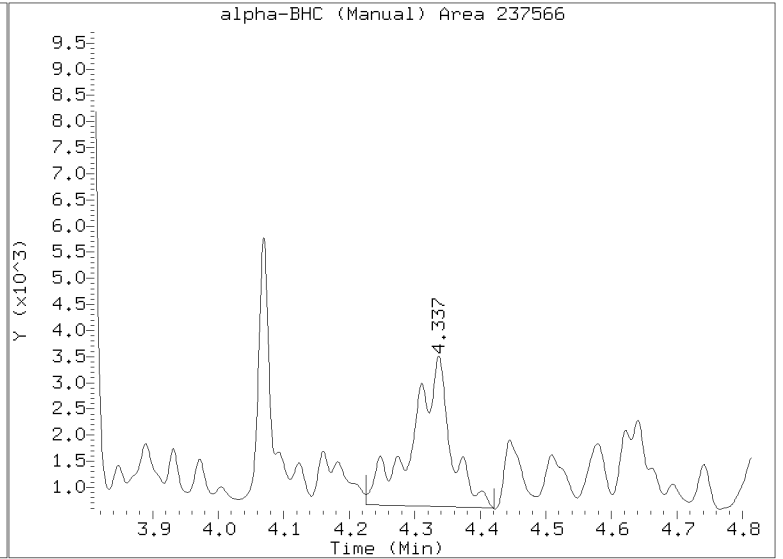
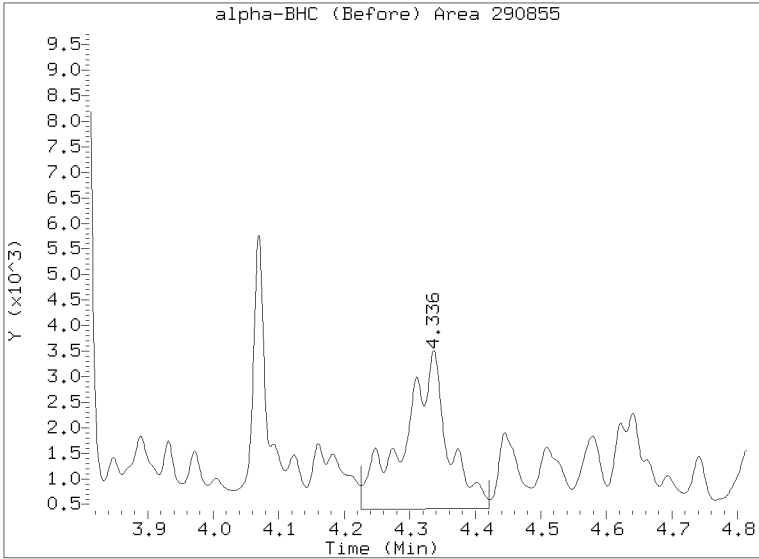
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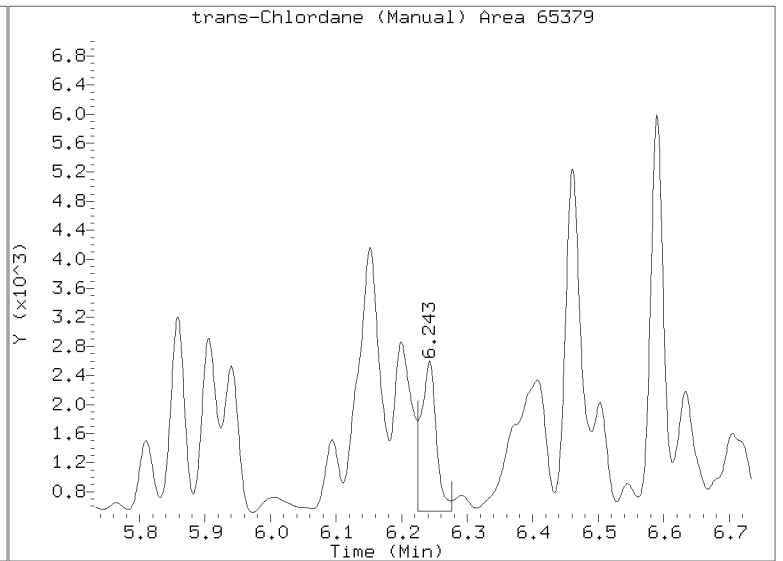
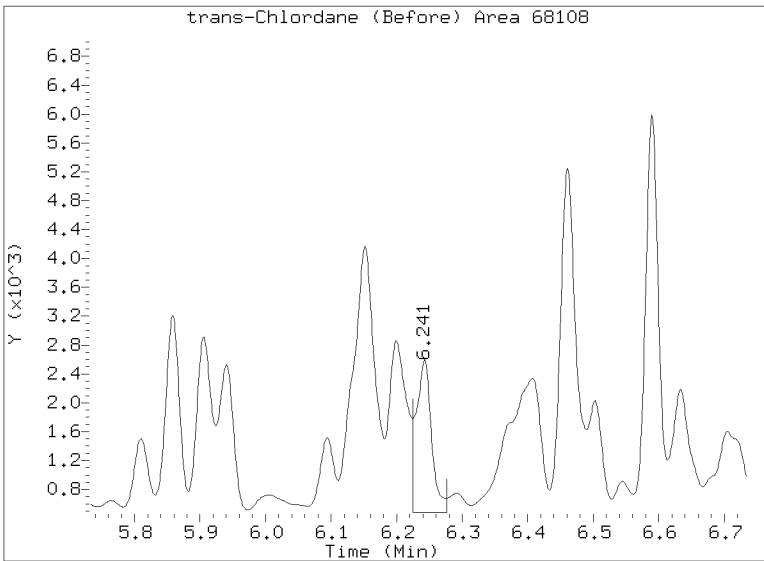
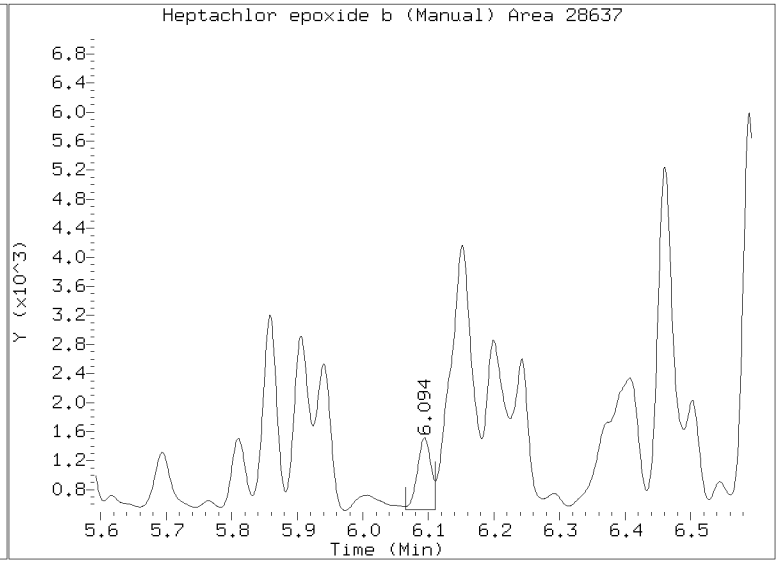
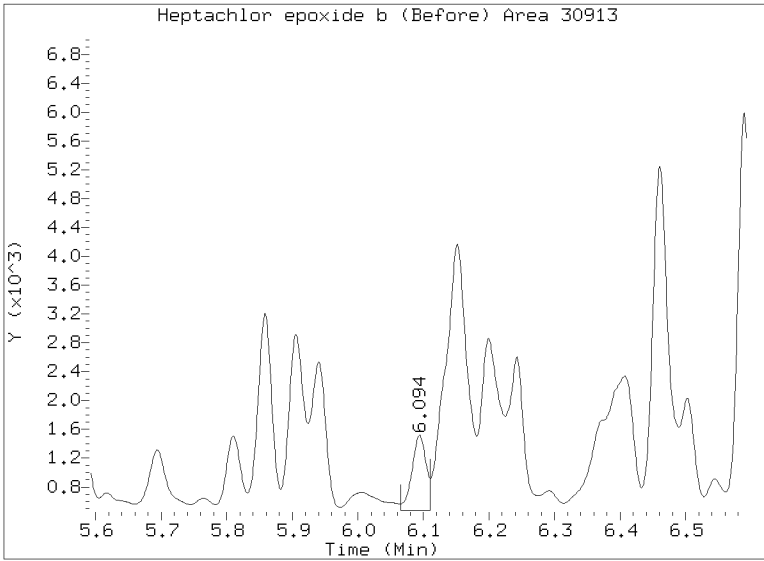
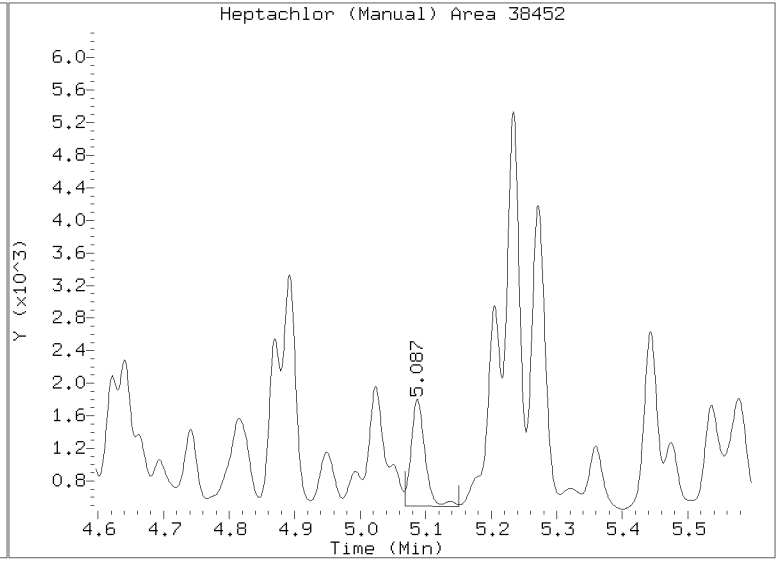
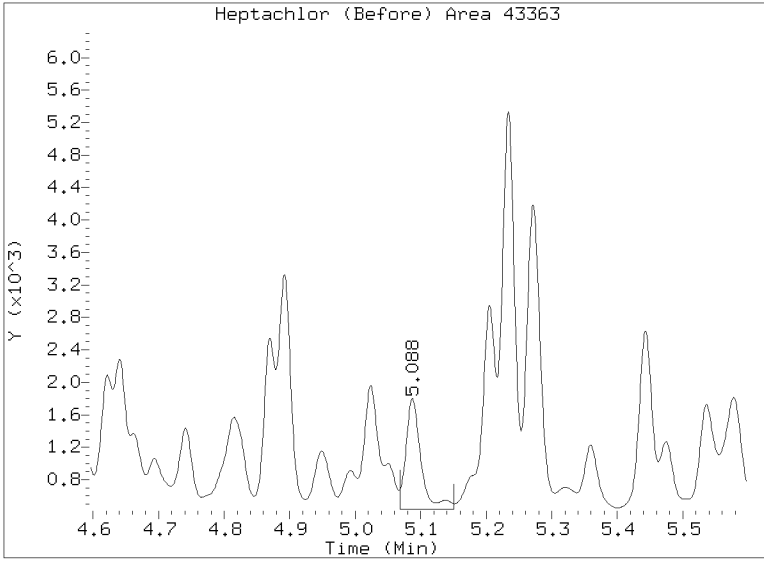
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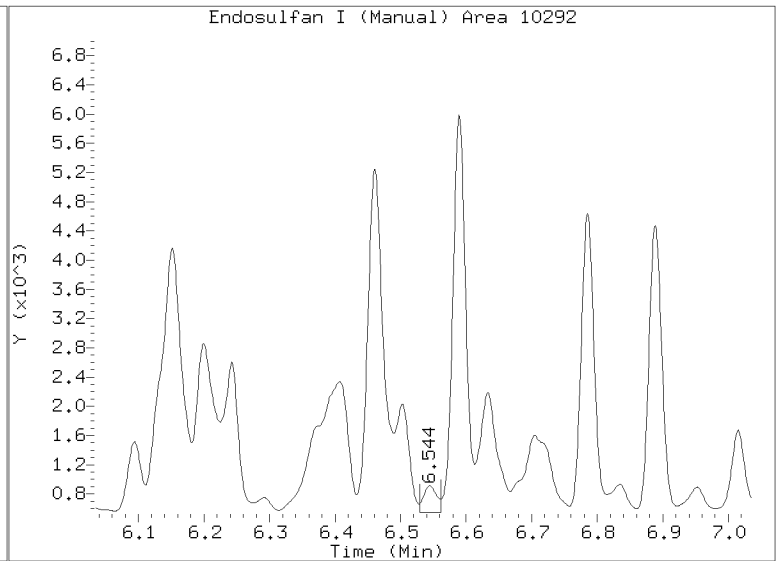
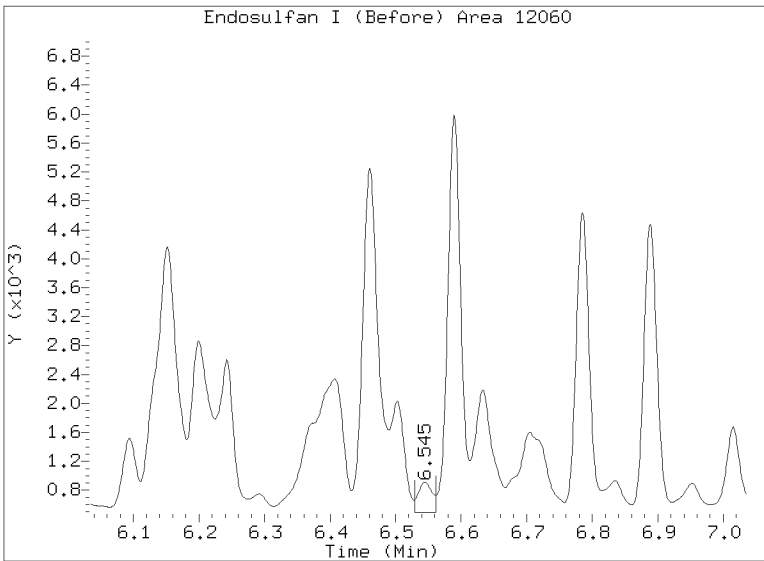
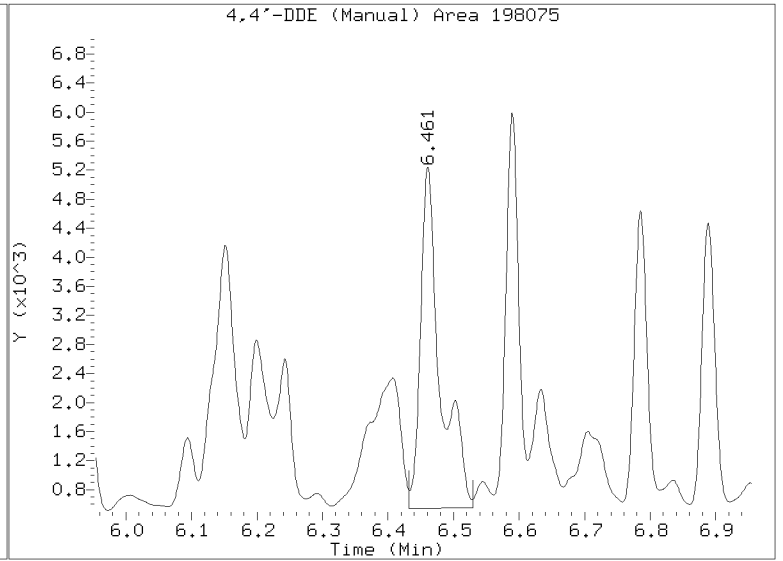
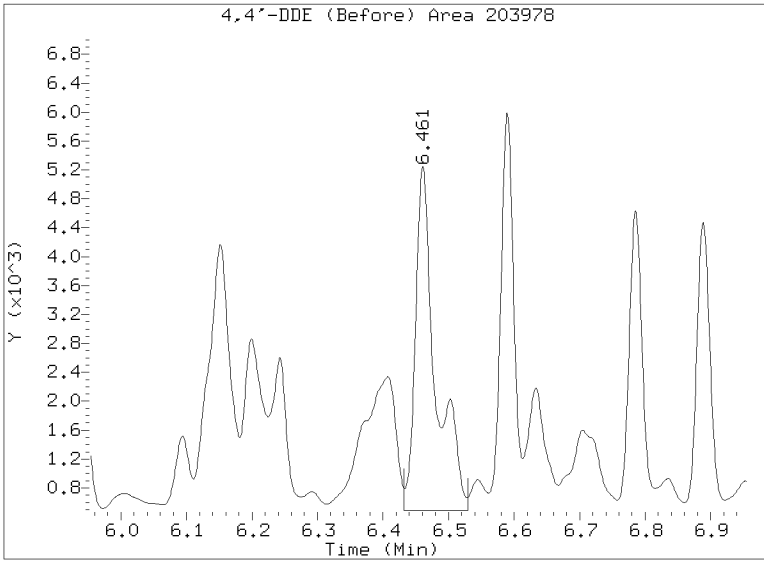
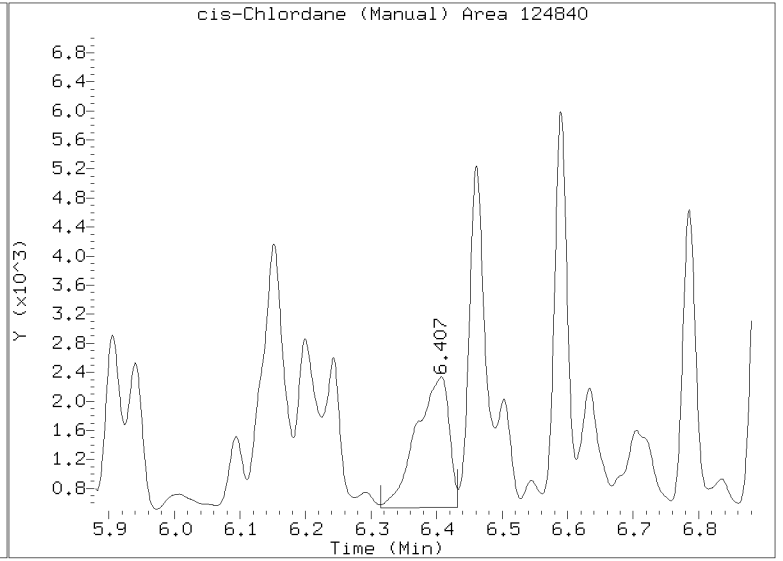
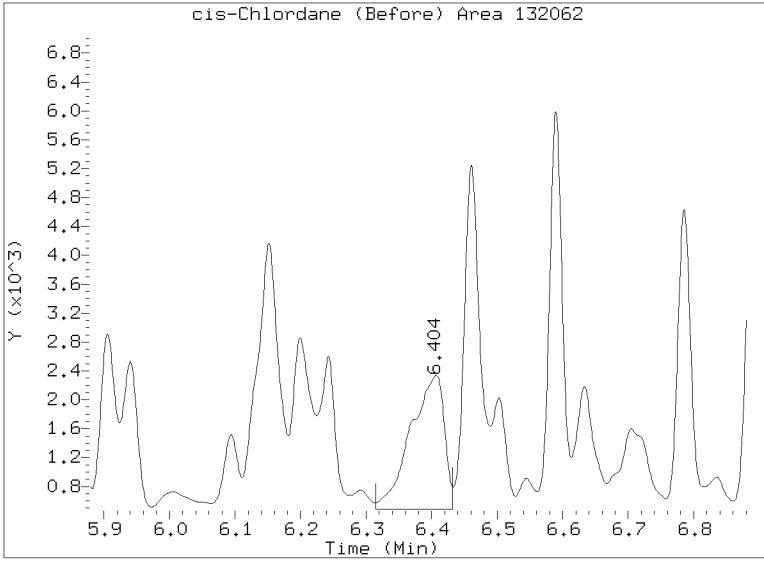
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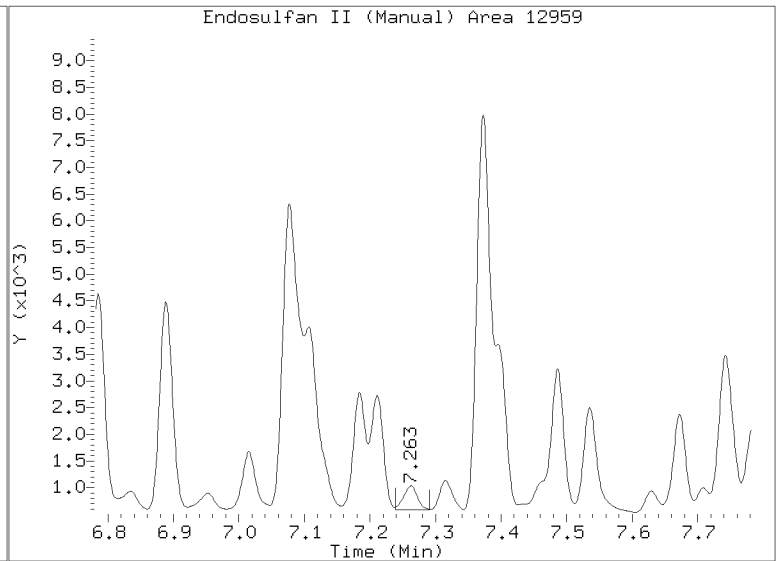
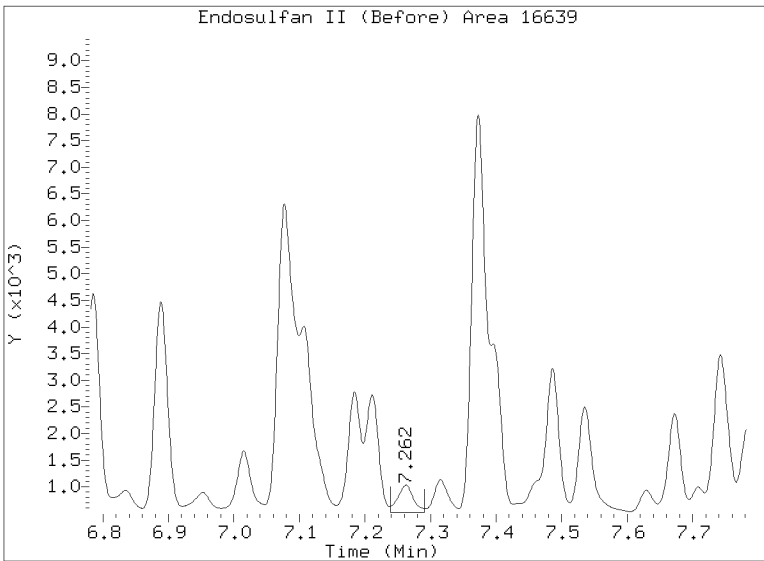
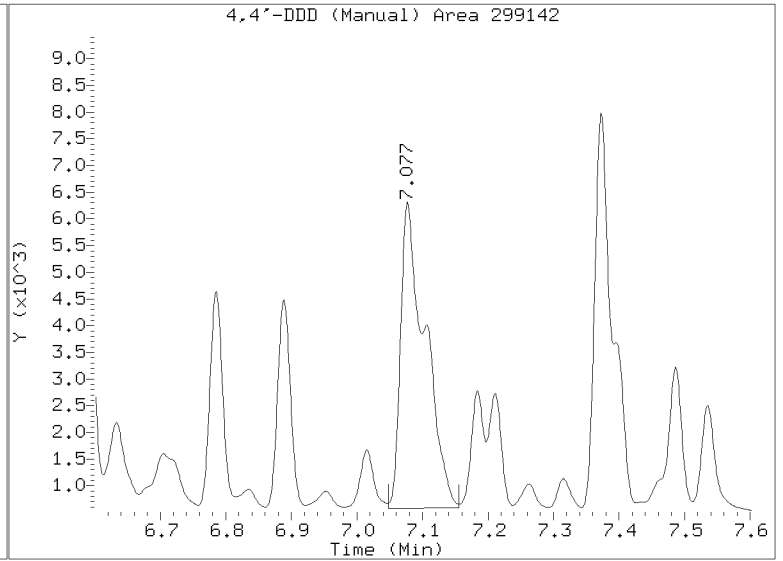
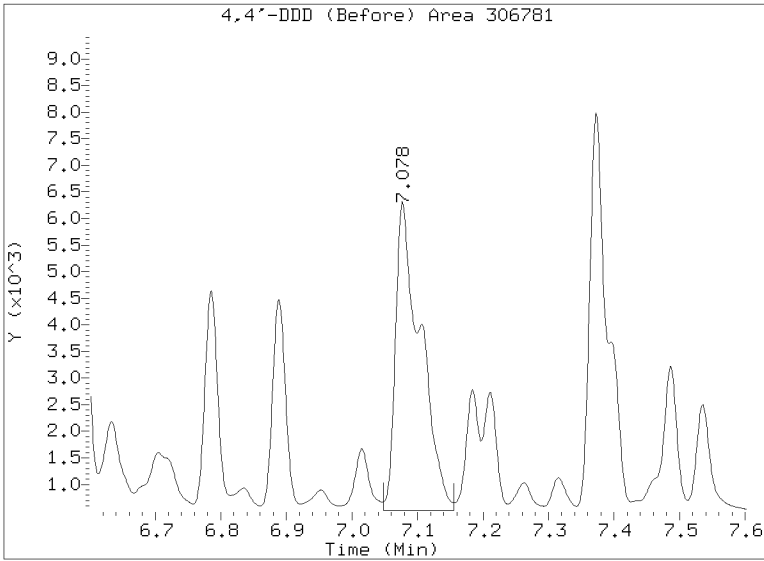
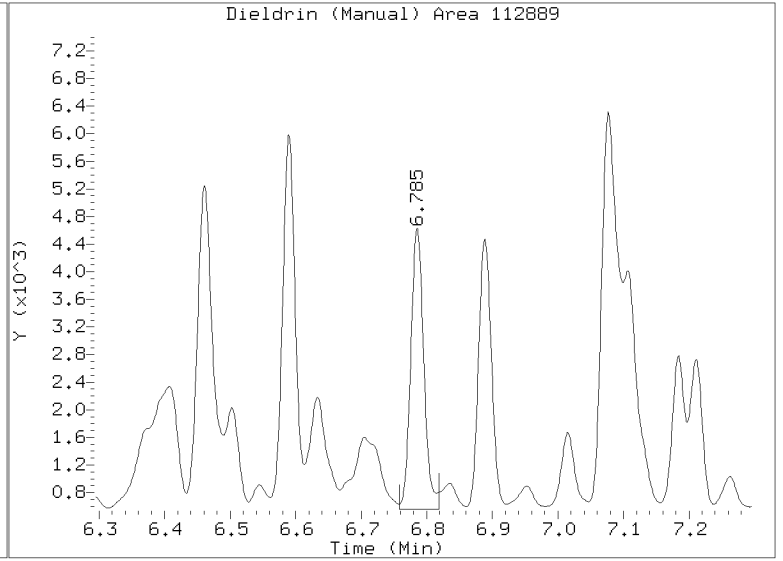
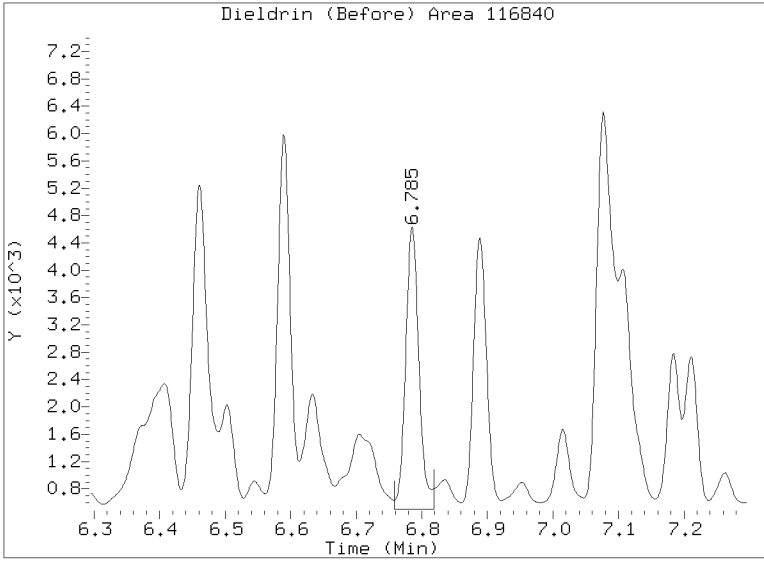
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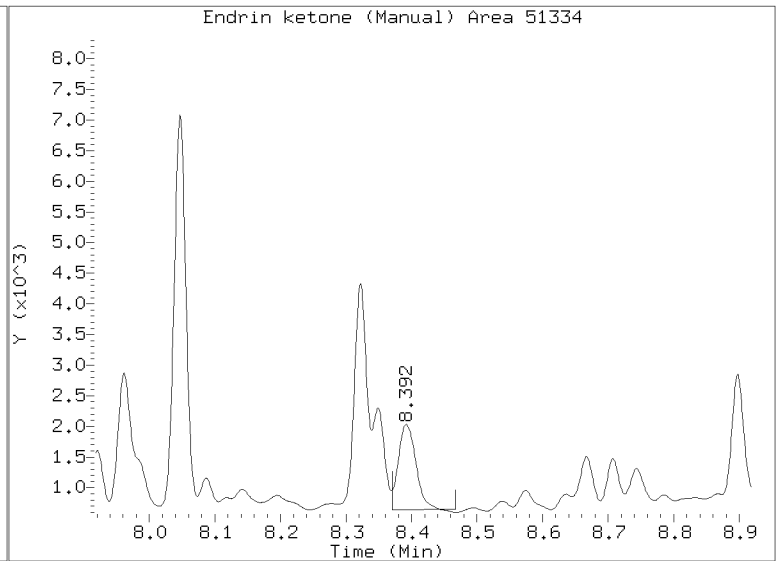
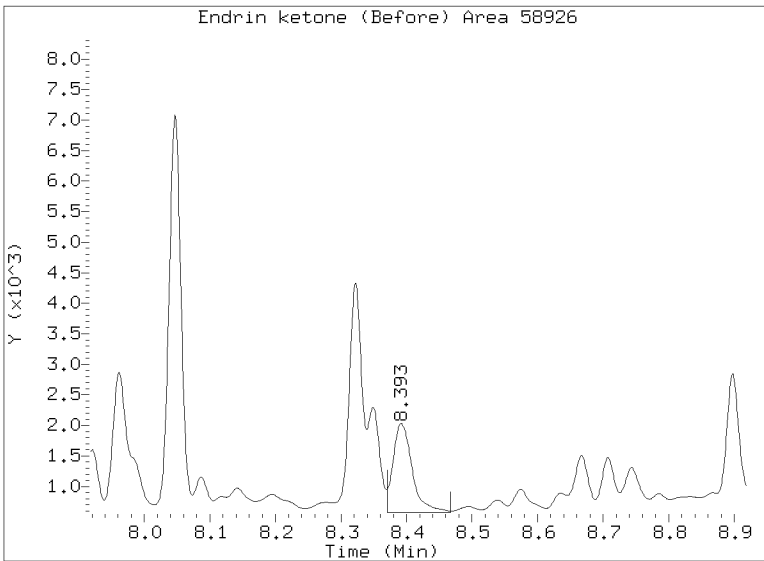
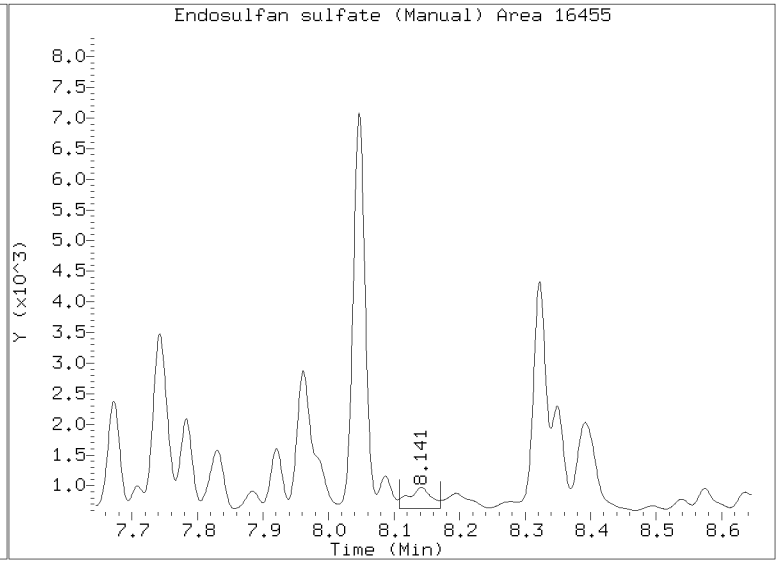
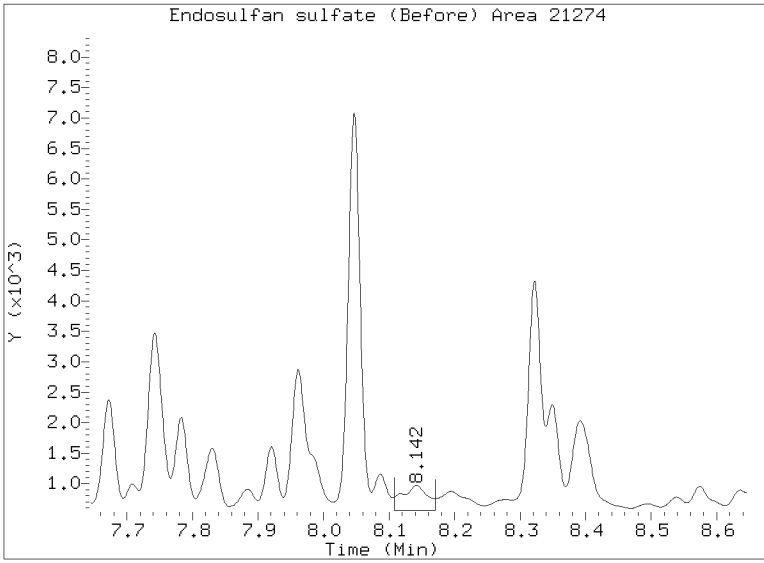
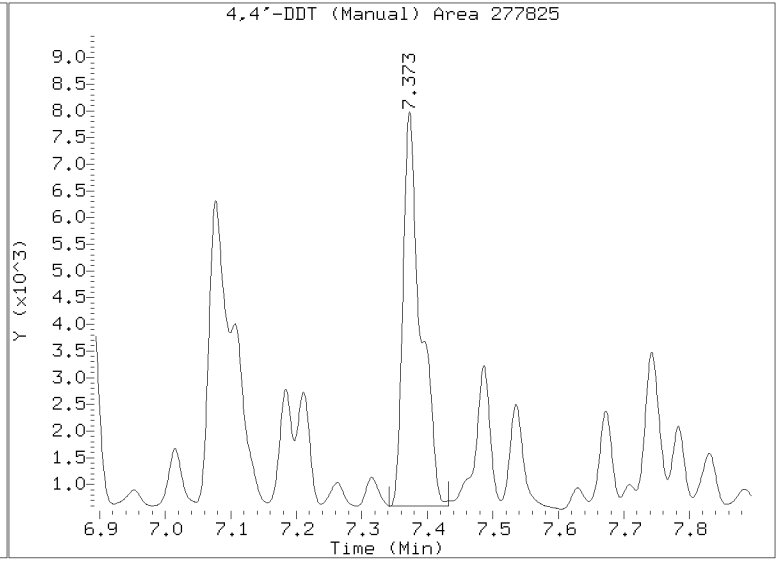
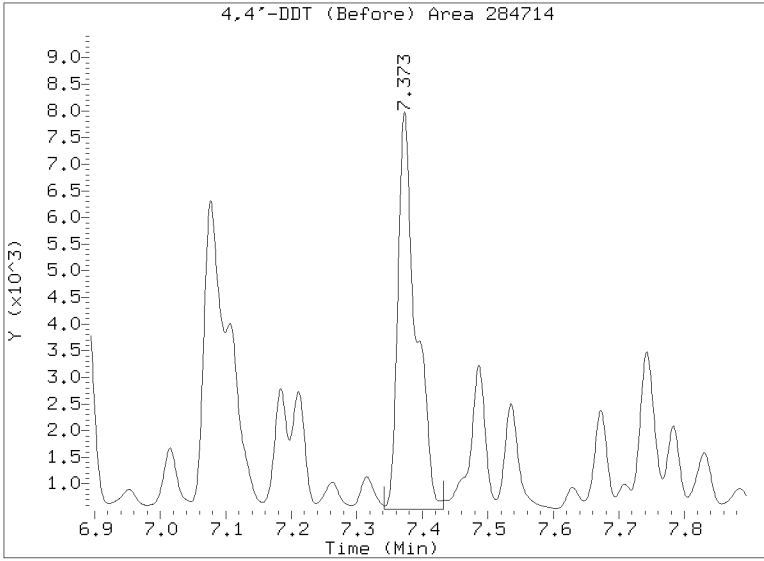
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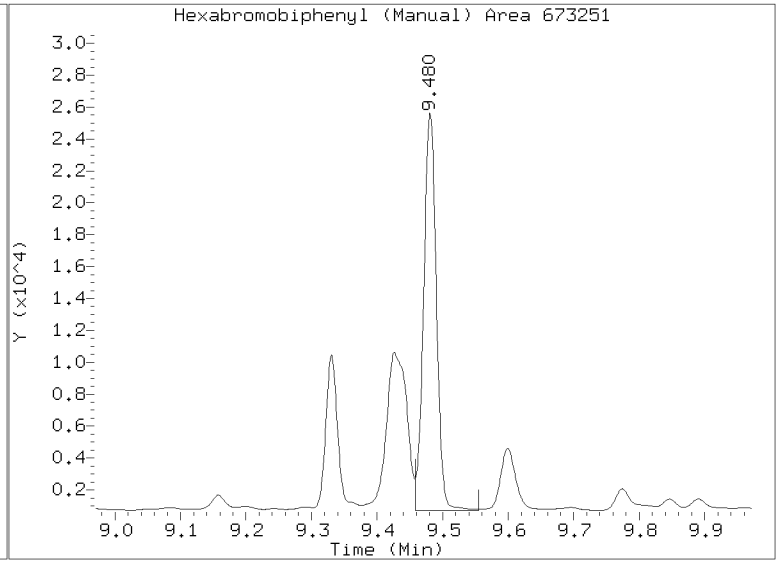
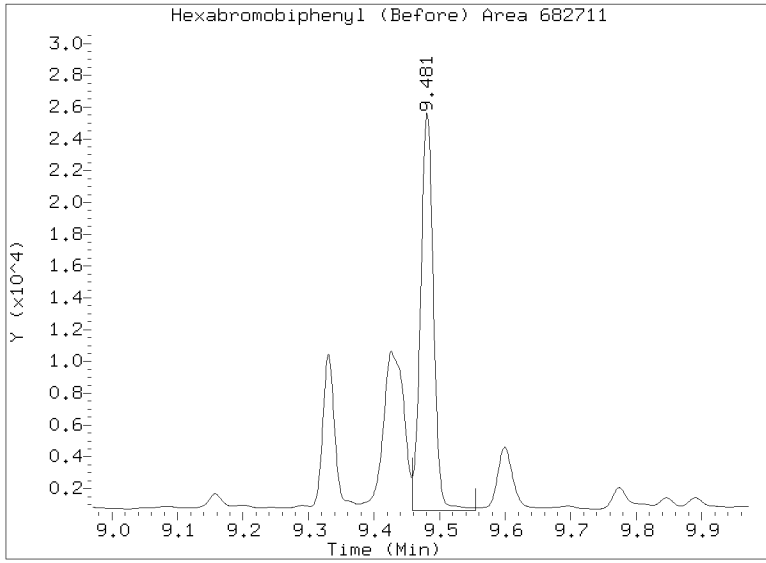
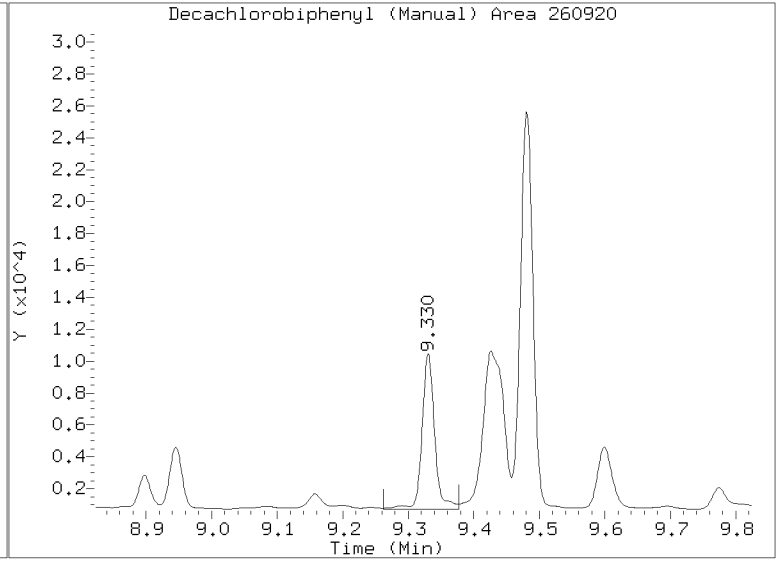
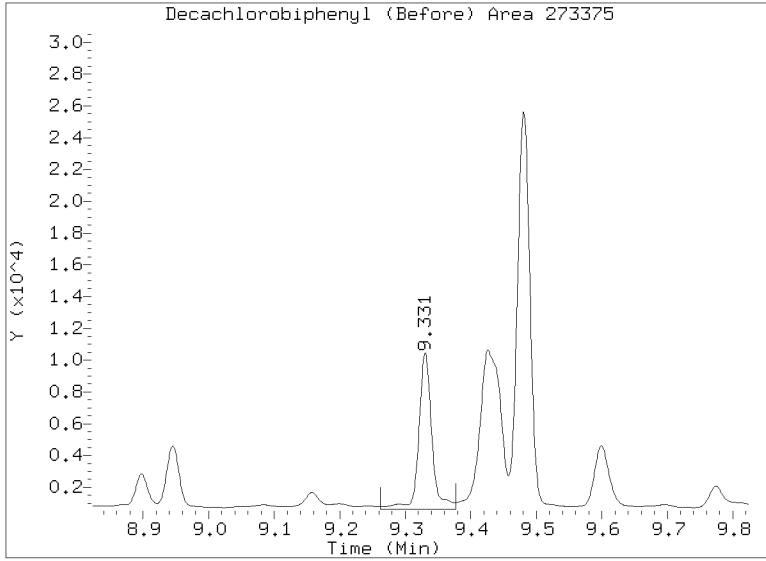
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Lab ID:23A0032-11 Client ID:
Report Date: 01/24/2023 13:42

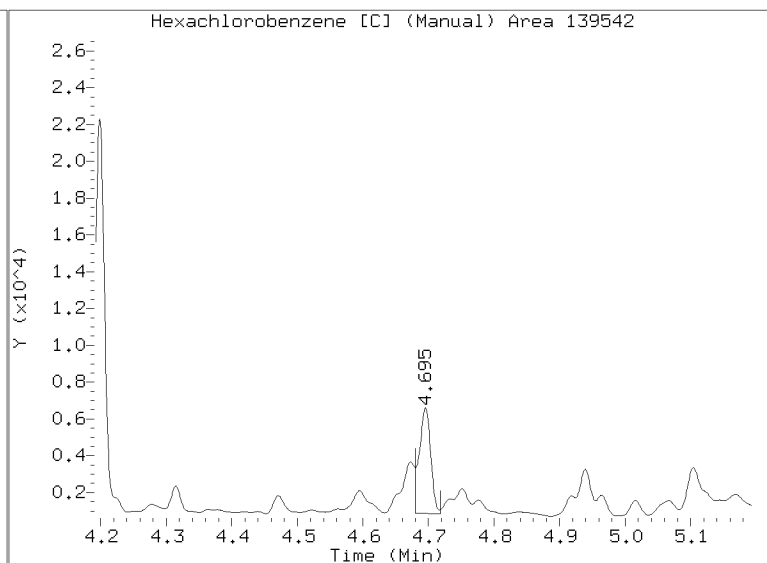
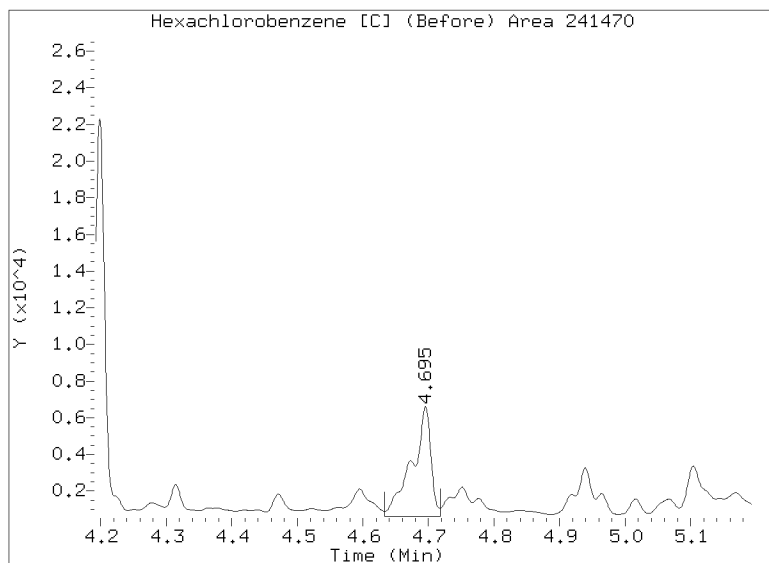
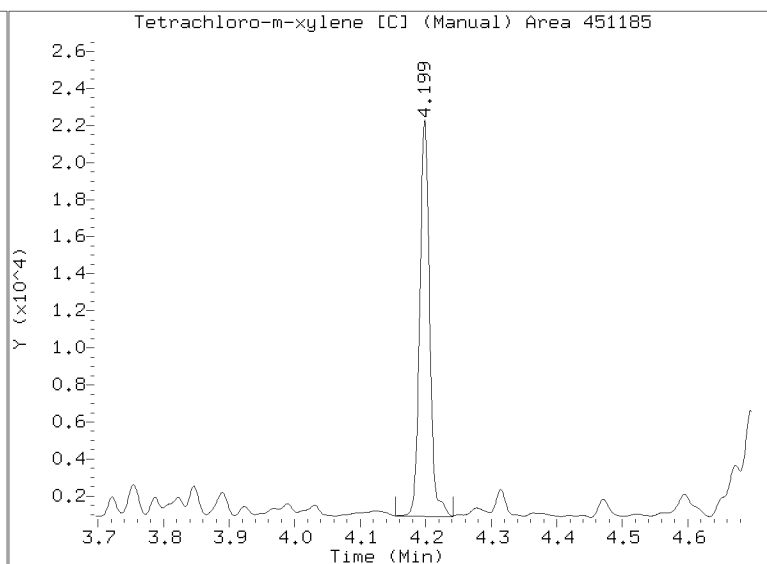
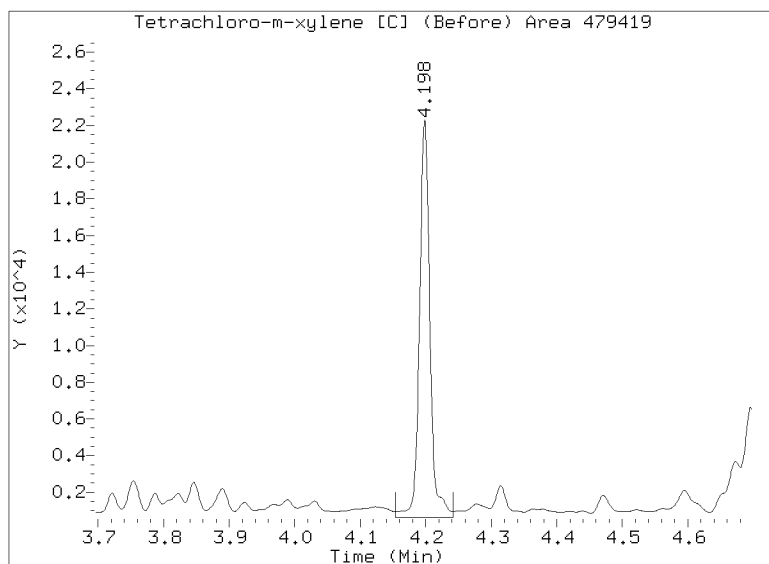
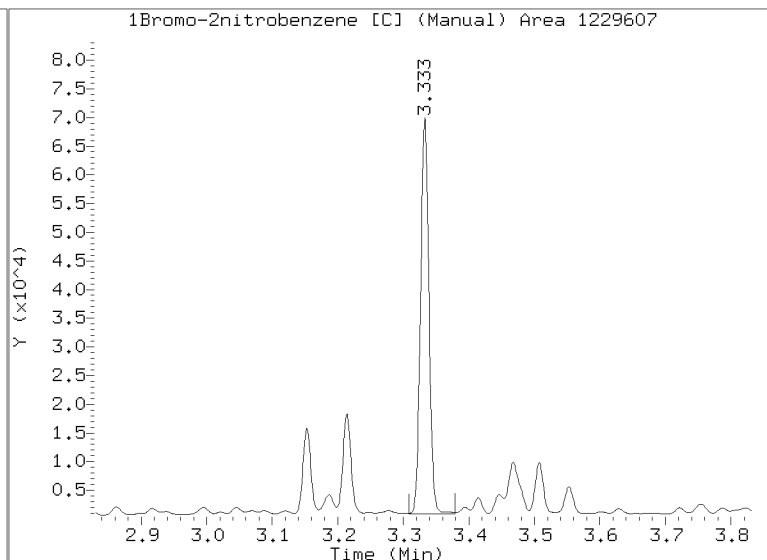
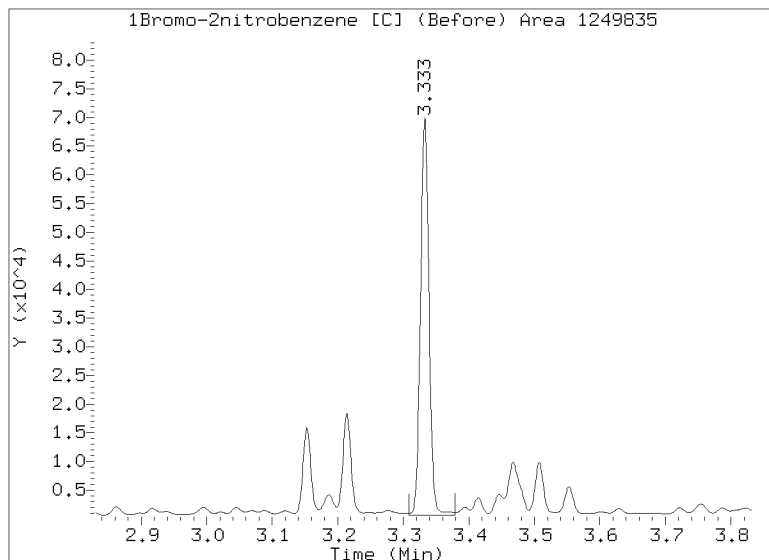


Manual Peak Adjustment Report, CLP-2

Datafile: /20230120.b/B20230120.b/23012035.D

Injection Date: 21-JAN-2023 03:05

Lab ID:23A0032-11 Client ID:

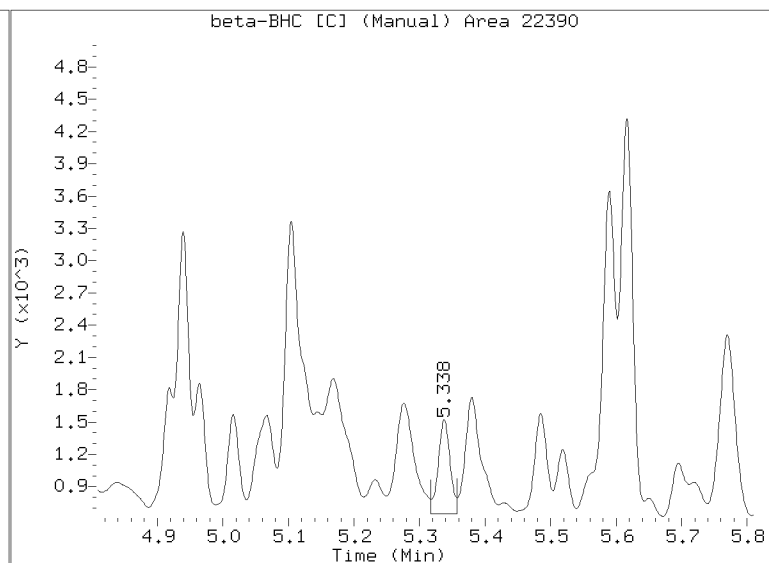
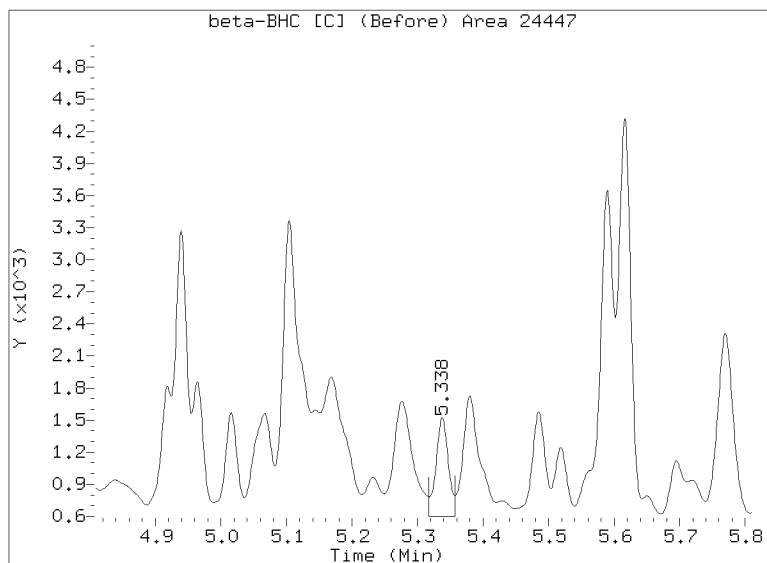
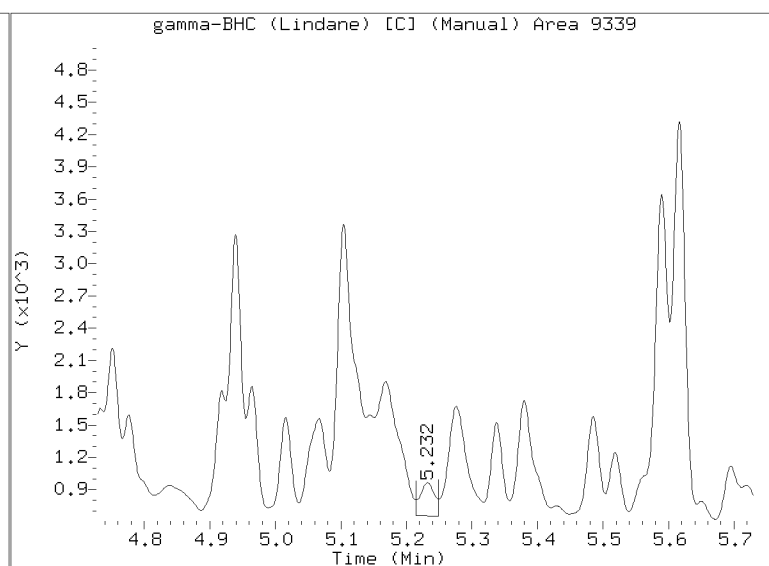
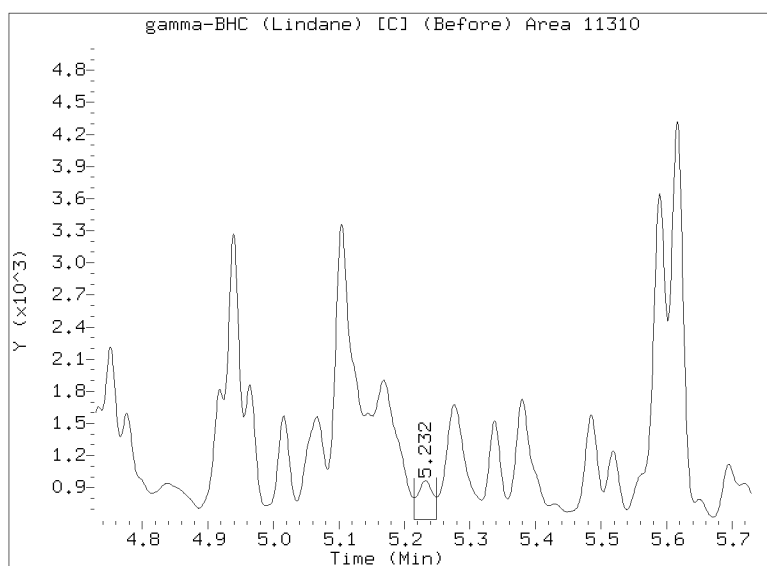
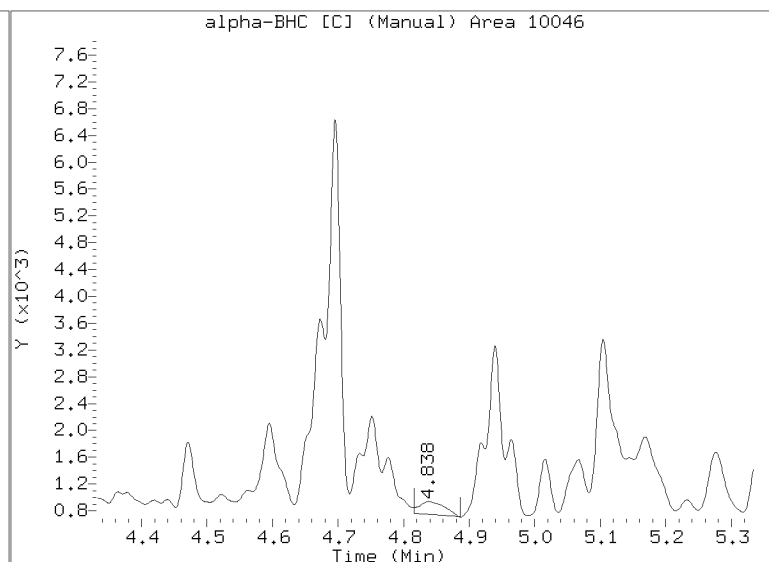
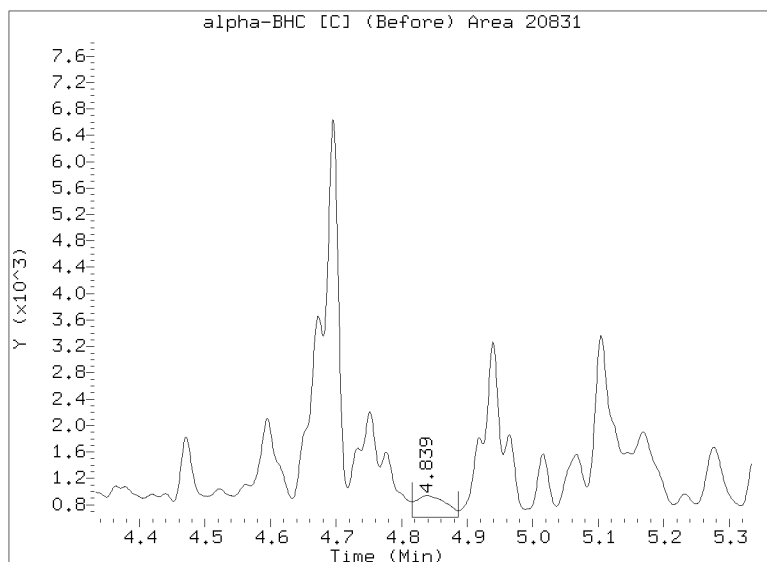


Manual Peak Adjustment Report, CLP-2

Datafile: /20230120.b/B20230120.b/23012035.D

Injection Date: 21-JAN-2023 03:05

Lab ID:23A0032-11 Client ID:

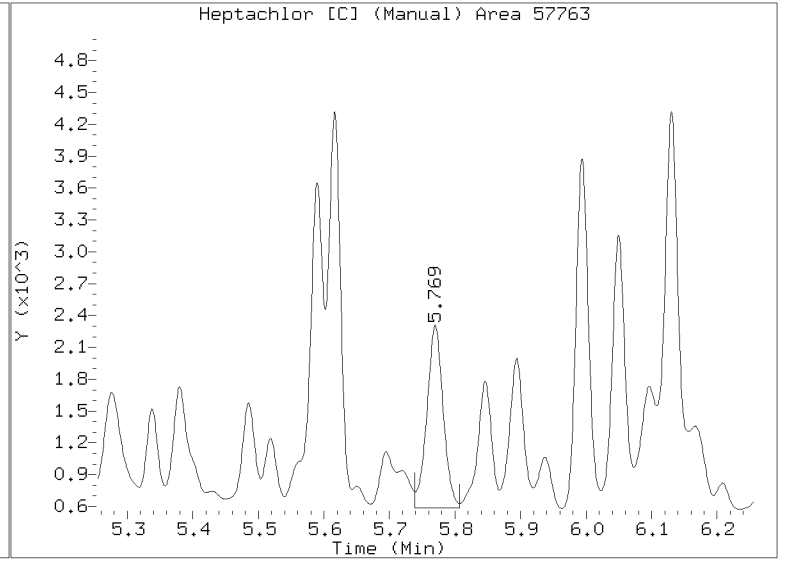
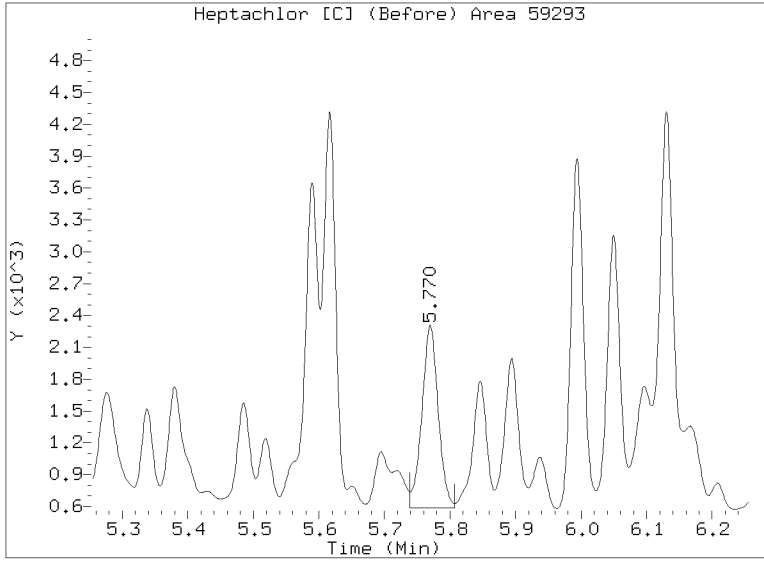


Manual Peak Adjustment Report, CLP-2

Datafile: /20230120.b/B20230120.b/23012035.D

Injection Date: 21-JAN-2023 03:05

Lab ID:23A0032-11 Client ID:





Analytical Resources, LLC
Analytical Chemists and Consultants

VIALERI DO NOT ADD ETHYL ACETATE FOR SULFUR CLEAN

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0164

Prepared using: EPA 3546 (Microwave)
8081B Pest (PSDDA) in Solid (Version: HCB Only)

WO Comments

23A0031: <C>BPR SRM: MS, DUP <C><M>BPR PS, MS/MSD <N> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36.K.011477-79, MS/MSD <E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup <H> Store in freezer (except GS)
23A0032: <C>BPR SRM: MS, DUP <C><M>BPR PS, MS/MSD <N> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36.K.011477-79, MS/MSD <E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup <H> Store in freezer (except GS)
23A0087: <C>BPR SRM: MS, DUP <C><M>BPR PS, MS/MSD <N> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36.K.011477-79, MS/MSD <E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup <H> Store in freezer (except GS)

Analysis: 8081B Pest (PSDDA)

Lab Number & Container	% Solids	Initial (g) Target Dry: 12.5 (Wet) Actual	(REQ) GPC (1:1)	(Req / No) Acid Clean 5mL	(REQ) Sulfur C/U 4.5mL+0.5 mL ethyl acetate	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
23A0031-21 A	67.4	18.56	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0032-05 A	67.9	18.41	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0032-08 A	61.9	20.20	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0032-11 A	53.1	23.56	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0087-01 A	54.3	23.02	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0087-02 A	64.9	19.29	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0087-03 A	70.9	17.63	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0087-04 A	71.8	17.42	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0087-05 A	67.4	18.55	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0087-06 A	68.6	18.23	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0087-07 A	59.4	21.05	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0087-08 A	52.7	23.76	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0087-09 A	73.7	16.96	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0087-10 A	62.8	19.91	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0087-11 A	63.9	19.56	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0087-12 A	43.0	29.05	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0087-13 A	51.9	24.09	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0087-14 A	78.2	15.98	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
23A0087-15 A	67.7	18.46	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	

Batch QC

Lab Number	% Solids	Initial (g) Target Dry: 12.5 (Wet) Actual	(REQ) GPC (1:1)	(Req / No) Acid Clean 5mL	(REQ) Sulfur C/U 4.5mL+0.5 mL ethyl acetate	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BLA0164-BLK1	100.0	12.50	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
BLA0164-BS1	100.0	12.50	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
BLA0164-BSD1	100.0	12.50	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	
BLA0164-MS1	61.9	20.20	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	Use 23A0032-08
BLA0164-MSD1	61.9	20.20	(1:1)	5mL	5mL	(2:5) 2mL	2.5	1.0	Use 23A0032-08

Client ID verified By

Date

Preparation Reviewed By

Date

Extraction Date and Time

CR

1/10/23

LJ 1/20/23

01/10/23

16:22



Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0164

Prepared using: EPA 3546 (Microwave)
8081B Pest (PSSDA) in Solid (Version: HCB Only)

WO Comments
23A0031: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD <N> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD <E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup <H> Store in freezer (except GS)
23A0032: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD <N> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD <E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup <H> Store in freezer (except GS)
23A0087: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD <N> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD <E>
<H>BPR J006840-43, 7935-36, K011477-79, Dup <H> Store in freezer (except GS)

Prep Steps

Reagents Used

Surrogates & Spike Standards Used

Station/Reagent	Standard ID
Microwave Analyst: <i>NJ</i> Date: <i>11/11/23</i>	KA011373
Hexane	KA010953
80:20 Hexane/Acetone	LA000844
1:1 Hexane/Acetone	KA010522
Neutral Glass Wool	LA000892
Anhydrous Sodium Sulfate	
Pre GPC KD	
Analyst: <i>CP</i> Date: <i>1/12/23</i>	
TurboVap Pre GPC	KA011373
1 2 3 4 5	N/A
Analyst/Date	N/A
Post GPC KD 80 - 85°C Hexane Exchange (2 X 20 mL) 100°C	KA005157
Analyst/Date	
1 2 3 4 5	
Analyst/Date	
TurboVap Pre-Cleanups	KA005942
1 2 3 4 5	KA008316
Analyst/Date	
TurboVap Post-Cleanups	KA008316
1 2 3 4 5	KA010364
Analyst/Date	
Vialing	KA011835
Analyst/Date	

Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
Surrogate	N K011752	50µL	OR	NJ
2µg/mL	Exp Date: <i>1/23/24</i>			
Spike (Freezer)	3 K011471	100µL	OR	NJ
0.5/1.5µg/mL	Exp Date: <i>6/11/24</i>			

MANUALLY ENTER EXPIRATION DATES!

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).



Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0164

Prepared using: EPA 3546 (Microwave)
8081B Pest (PSDDA) in Solid (Version:HCB Only)

WO Comments

23A0031: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD <M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD <E>
 <H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
 23A0032: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD <M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD <E>
 <H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
 23A0087: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD <M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD <E>
 <H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

21/6/20/23 Analysr/Date	Sodium Sulfite	NDP363
	Silica Gel (SPE) Darts	NDP573 NDP11 [↑]



Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0164

Prepared using: EPA 3546 (Microwave)
8081B Pest (PSDDA) in Solid (Version: HCB Only)

WO Comments

23A0031: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD <N> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM 1006840-43, 7935-36.K011477-79, MS/MSD <E>
<H>BPR 1006840-43, 7935-36, K011477-79, Dup <H> Store in freezer (except GS)
23A0032: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD <N> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM 1006840-43, 7935-36.K011477-79, MS/MSD <E>
<H>BPR 1006840-43, 7935-36, K011477-79, Dup <H> Store in freezer (except GS)
23A0087: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD <N> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM 1006840-43, 7935-36.K011477-79, MS/MSD <E>
<H>BPR 1006840-43, 7935-36, K011477-79, Dup <H> Store in freezer (except GS)

Prep Instructions

SPECIAL INSTRUCTIONS:

1. Weigh into beakers lightly dry with Sodium Sulfate.
2. Transfer to microwave vessels.
3. Add 1:1 Hex/ACE to the vessels (until solvent is 3" above soil layer after homogenization).
4. Add surt/spike.
5. Microwave on appropriate power setting determined by # of samples.
6. After microwave-re-homogenize while hot then let cool 15 min in cold water. Re-homogenize while cool.
7. Decant 1:1 Hex/ACE into Erlenmeyer flask using a funnel containing neutral glasswool.
8. Rinse with Hexane.
9. Microwave a 2nd time using 8:2 Hex/ACE (until solvent is 3" above soil layer after homogenization).
10. Let cool and decant the solvent then empty the soil into the funnel and rinse with Hexane.
11. KD to 5mL at 100°C. (NO HEXANE EXCHANGE).
12. Turbo/Vap
13. GPC
14. After GPC: KD at 80 - 85°C
15. Exchange to Hexane at 100°C 2 x 20 mL).
16. Turbo/Vap
17. Cleanups: If Acid cleaning do not add Ethyl Acetate for Sulfur Clean. Do Not Acid Clean if Acid liable compounds are requested.
18. Vial in Hexane.

A. Need Total Solids Y N

B. Archive/Freeze N



Extraction Parameter: PEST Extraction Batch BLAVAL

Total Solids Batch: BLAVAL Work Order(s): 23A0032

Screens:	Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)=	$\phi 1, \phi 4, \phi 6, \phi 7.$	NP $\phi 1/\phi 7/23$
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)=	$\phi 1, \phi 2, \phi 3, \phi 5, \phi 7, \phi 8, 11.$	NP $\phi 1/\phi 7/23$
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=		
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=		
<input checked="" type="checkbox"/> Rocks (%+size)?	$\phi 1 \quad 10\% \phi 2, \phi 3.$	NP $\phi 1/\phi 7/23$
<input checked="" type="checkbox"/> Organics (Leaves/sticks/grass)=	$5\% \phi 5$	NP $\phi 1/\phi 7/23$
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors=	$\phi 8, \phi 9, 1\phi, 11.$	NP $\phi 1/\phi 7/23$
<input type="checkbox"/> Received in 32oz Jar(s)=Homogenized in Pyrex dish=		
<input type="checkbox"/> Previously Frozen =		
<input type="checkbox"/> Other (Details)=		
Aqueous:		
<input type="checkbox"/> No Anomalies		
<input type="checkbox"/> Turbid/Color=		
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)		
<input type="checkbox"/> Emulsions (%)=		
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=		
<input type="checkbox"/> Other (Details)=		
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=		
<input type="checkbox"/> Other Notes/Comments=(Note problems, concerns, corrective actions).		
<input checked="" type="checkbox"/> Share Samples Y/N		NP $\phi 1/\phi 7/23$
<input checked="" type="checkbox"/> Multiple Jars Y/N		NP $\phi 1/\phi 7/23$
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=		
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=		



Extraction Parameter: PEST Extraction Batch RLA0664

Total Solids Batch: RLA0664 Work Order(s): 23A0087

Screens:	Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)=	<u>φ1-15.</u>	<u>N/A</u> <u>RLA 01/06/23</u>
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)=	<u>φ1-φ6, φ8-15.</u>	<u>φ</u> <u>φ1/06/23</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=		
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=		
<input type="checkbox"/> Rocks (%+size)?		
<input type="checkbox"/> Organics (Leaves/sticks/grass)=		
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=		
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=		
<input type="checkbox"/> Previously Frozen =		
<input type="checkbox"/> Other (Details)=		
Aqueous:		
<input checked="" type="checkbox"/> No Anomalies		
<input type="checkbox"/> Turbid/Color=		
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)		
<input type="checkbox"/> Emulsions (%)=		
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=		
<input type="checkbox"/> Other (Details)=		
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=		
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).		
<input checked="" type="checkbox"/> Share Samples Y/N	<u>Y</u>	<u>φ1/06/23</u>
<input checked="" type="checkbox"/> Multiple Jars Y/N	<u>Y</u>	<u>φ1/06/23</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=		
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=		



Analytical Resources, LLC
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BLA0164

Prepared using: EPA 3546 (Microwave)
8081B Pest (PSDDA) in Solid (Version: HCB Only)

Matrix: Solid

Date Prepared: 1/10/23

Balance ID: B139298002 Set Up By: CTO 1/19/23

WO Comments

23A0031: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD <M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD <E>
 <H>BPR J006840-43, 7935-36, K011477-79, Dup <H> Store in freezer (except GS)
 23A0032: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD <M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD <E>
 <H>BPR J006840-43, 7935-36, K011477-79, Dup <H> Store in freezer (except GS)
 23A0087: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD <M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD <E>
 <H>BPR J006840-43, 7935-36, K011477-79, Dup <H> Store in freezer (except GS)

The following standards may be missing from this batch!

Designator	Description
62	Toxaphene
44	WND
QLS 10	QLS Spike



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLA0190

Cleanup Type: Sulfur

Cleanup Method: EPA 3660B Sulfur Cleanup - uL

Analysis: EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LCS Dup	BLA0164-BSD1	23012029.D	01/20/2023	
LDW23-SC1226B	23A0032-08	23012034.D	01/20/2023	
LDW23-SC1212	23A0032-11	23012035.D	01/20/2023	
LDW23-IT1224	23A0032-05	23012033.D	01/20/2023	
LCS	BLA0164-BS1	23012028.D	01/20/2023	
Matrix Spike	BLA0164-MS1	23012030.D	01/20/2023	
Matrix Spike Dup	BLA0164-MSD1	23012031.D	01/20/2023	
Blank	BLA0164-BLK1	23012027.D	01/20/2023	



CLEANUP BENCH SHEET

CLA0190

Matrix: Solid

Cleanup using: Organics - EPA 3660B Sulfur Cleanup - uL

Printed: 1/20/2023 5:22:52PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0031-21	A	LDW23-SS1232	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0032-05	A	LDW23-IT1224	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0032-08	A	LDW23-SC1226B	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0032-11	A	LDW23-SC1212	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-01	A	LDW23-SS1264	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-02	A	LDW23-SS1272	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-03	A	LDW23-SS1235	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-04	A	LDW23-SS1224	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-05	A	LDW23-SS1212	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-06	A	LDW23-SS1212-FD	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-07	A	LDW23-SS1211	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-08	A	LDW23-SS1203	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-09	A	LDW23-SS1189	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-10	A	LDW23-SS1267	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-11	A	LDW23-SS1267-FD	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-12	A	LDW23-SS1251	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-13	A	LDW23-SS1240	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-14	A	LDW23-SS1229	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-15	A	LDW23-SS1228	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
BLA0164-BLK1	-	Blank	-	2.5	2.5	-	1/20/2023	LMJ	
BLA0164-BS1	-	LCS	-	2.5	2.5	-	1/20/2023	LMJ	
BLA0164-BSD1	-	LCS Dup	-	2.5	2.5	-	1/20/2023	LMJ	



CLEANUP BENCH SHEET

CLA0190

Matrix: Solid

Cleanup using: Organics - EPA 3660B Sulfur Cleanup - uL

Printed: 1/20/2023 5:22:52PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BLA0164-MS1	-	Matrix Spike	-	2.5	2.5	-	1/20/2023	LMJ	
BLA0164-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	1/20/2023	LMJ	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLA0191

Cleanup Type: Silica Gel

Cleanup Method: EPA 3630C Silica Gel Cleanup - uL

Analysis: EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Matrix Spike Dup	BLA0164-MSD1	23012031.D	01/20/2023	
Matrix Spike	BLA0164-MS1	23012030.D	01/20/2023	
Blank	BLA0164-BLK1	23012027.D	01/20/2023	
LCS Dup	BLA0164-BSD1	23012029.D	01/20/2023	
LCS	BLA0164-BS1	23012028.D	01/20/2023	
LDW23-SC1226B	23A0032-08	23012034.D	01/20/2023	
LDW23-SC1212	23A0032-11	23012035.D	01/20/2023	
LDW23-IT1224	23A0032-05	23012033.D	01/20/2023	



CLEANUP BENCH SHEET

CLA0191

Matrix: Solid Cleanup using: Organics - EPA 3660C Silica Gel Cleanup - uL Printed: 1/20/2023 5:23:45PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0031-21	A	LDW23-SS1232	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0032-05	A	LDW23-IT1224	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0032-08	A	LDW23-SC1226B	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0032-11	A	LDW23-SC1212	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-01	A	LDW23-SS1264	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-02	A	LDW23-SS1272	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-03	A	LDW23-SS1235	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-04	A	LDW23-SS1224	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-05	A	LDW23-SS1212	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-06	A	LDW23-SS1212-FD	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-07	A	LDW23-SS1211	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-08	A	LDW23-SS1203	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-09	A	LDW23-SS1189	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-10	A	LDW23-SS1267	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-11	A	LDW23-SS1267-FD	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-12	A	LDW23-SS1251	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-13	A	LDW23-SS1240	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-14	A	LDW23-SS1229	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-15	A	LDW23-SS1228	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
BLA0164-BLK1	-	Blank	-	2.5	2.5	-	1/20/2023	LMJ	
BLA0164-BS1	-	LCS	-	2.5	2.5	-	1/20/2023	LMJ	
BLA0164-BSD1	-	LCS Dup	-	2.5	2.5	-	1/20/2023	LMJ	



CLEANUP BENCH SHEET

CLA0191

Matrix: Solid

Cleanup using: Organics - EPA 3660C Silica Gel Cleanup - uL

Printed: 1/20/2023 5:23:45PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BLA0164-MS1	-	Matrix Spike	-	2.5	2.5	-	1/20/2023	LMJ	
BLA0164-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	1/20/2023	LMJ	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLA0192

Cleanup Type: Sulfuric Acid

Cleanup Method: EPA 3665 Sulfuric Acid Cleanup - uL

Analysis: EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1224	23A0032-05	23012033.D	01/20/2023	
LDW23-SC1212	23A0032-11	23012035.D	01/20/2023	
LDW23-SC1226B	23A0032-08	23012034.D	01/20/2023	
Matrix Spike	BLA0164-MS1	23012030.D	01/20/2023	
LCS Dup	BLA0164-BSD1	23012029.D	01/20/2023	
LCS	BLA0164-BS1	23012028.D	01/20/2023	
Blank	BLA0164-BLK1	23012027.D	01/20/2023	
Matrix Spike Dup	BLA0164-MSD1	23012031.D	01/20/2023	



CLEANUP BENCH SHEET

CLA0192

Matrix: Solid Cleanup using: Organics - EPA 3665 Sulfuric Acid Cleanup - uL Printed: 1/20/2023 5:24:43PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0031-21	A	LDW23-SS1232	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0032-05	A	LDW23-IT1224	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0032-08	A	LDW23-SC1226B	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0032-11	A	LDW23-SC1212	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-01	A	LDW23-SS1264	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-02	A	LDW23-SS1272	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-03	A	LDW23-SS1235	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-04	A	LDW23-SS1224	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-05	A	LDW23-SS1212	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-06	A	LDW23-SS1212-FD	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-07	A	LDW23-SS1211	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-08	A	LDW23-SS1203	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-09	A	LDW23-SS1189	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-10	A	LDW23-SS1267	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-11	A	LDW23-SS1267-FD	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-12	A	LDW23-SS1251	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-13	A	LDW23-SS1240	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-14	A	LDW23-SS1229	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-15	A	LDW23-SS1228	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
BLA0164-BLK1	-	Blank	-	2.5	2.5	-	1/20/2023	LMJ	
BLA0164-BS1	-	LCS	-	2.5	2.5	-	1/20/2023	LMJ	
BLA0164-BSD1	-	LCS Dup	-	2.5	2.5	-	1/20/2023	LMJ	



CLEANUP BENCH SHEET

CLA0192

Matrix: Solid

Cleanup using: Organics - EPA 3665 Sulfuric Acid Cleanup - uL

Printed: 1/20/2023 5:24:43PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BLA0164-MS1	-	Matrix Spike	-	2.5	2.5	-	1/20/2023	LMJ	
BLA0164-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	1/20/2023	LMJ	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLA0193

Cleanup Type: GPC

Cleanup Method: EPA 3640A GPC Cleanup 1:1

Analysis: EPA 8081B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1224	23A0032-05	23012033.D	01/20/2023	
Matrix Spike	BLA0164-MS1	23012030.D	01/20/2023	
LCS Dup	BLA0164-BSD1	23012029.D	01/20/2023	
LCS	BLA0164-BS1	23012028.D	01/20/2023	
Blank	BLA0164-BLK1	23012027.D	01/20/2023	
LDW23-SC1212	23A0032-11	23012035.D	01/20/2023	
Matrix Spike Dup	BLA0164-MSD1	23012031.D	01/20/2023	
LDW23-SC1226B	23A0032-08	23012034.D	01/20/2023	



CLEANUP BENCH SHEET

CLA0193

Matrix: Solid Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1 Check Standard: CLA0086-GPC1 Printed: 1/20/2023 5:26:30PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0031-21	A	LDW23-SS1232	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0032-05	A	LDW23-IT1224	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0032-08	A	LDW23-SC1226B	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0032-11	A	LDW23-SC1212	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-01	A	LDW23-SS1264	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-02	A	LDW23-SS1272	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-03	A	LDW23-SS1235	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-04	A	LDW23-SS1224	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-05	A	LDW23-SS1212	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-06	A	LDW23-SS1212-FD	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-07	A	LDW23-SS1211	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-08	A	LDW23-SS1203	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-09	A	LDW23-SS1189	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-10	A	LDW23-SS1267	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-11	A	LDW23-SS1267-FD	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-12	A	LDW23-SS1251	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-13	A	LDW23-SS1240	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-14	A	LDW23-SS1229	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
23A0087-15	A	LDW23-SS1228	A 02	2.5	2.5	8081B Pest (PSDDA)	1/20/2023	LMJ	
BLA0164-BLK1	-	Blank	-	2.5	2.5	-	1/20/2023	LMJ	
BLA0164-BS1	-	LCS	-	2.5	2.5	-	1/20/2023	LMJ	
BLA0164-BSD1	-	LCS Dup	-	2.5	2.5	-	1/20/2023	LMJ	



CLEANUP BENCH SHEET

CLA0193

Matrix: Solid Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1 Check Standard: CLA0086-GPC1 Printed: 1/20/2023 5:26:30PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BLA0164-MS1	-	Matrix Spike	-	2.5	2.5	-	1/20/2023	LMJ	
BLA0164-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	1/20/2023	LMJ	



Form I
METHOD BLANK DATA SHEET
EPA 8081B

Blank

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BLA0164-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>01/10/23 16:22</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BLA0164</u>	Sequence:	<u>SLA0279</u>
Instrument:	<u>ECD6</u>	Column:	<u>STX-CLP</u>
		File ID:	<u>23012027.D</u>
		Analyzed:	<u>01/21/23 00:42</u>
		Initial/Final:	<u>12.5 g / 2.5 mL</u>
		Calibration:	<u>FL00041</u>
		Cleanups:	<u>GPC, Silica Gel, Sulfur, Sulfuric Acid</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
118-74-1	Hexachlorobenzene	1	0.50	U	0.15	0.50
SURROGATES		ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Decachlorobiphenyl		8.0000	7.26	90.8	30 - 160	
Decachlorobiphenyl [2C]		8.0000	7.73	96.6	30 - 160	
Tetrachlorometaxylene		8.0000	5.65	70.6	30 - 160	
Tetrachlorometaxylene [2C]		8.0000	5.41	67.6	30 - 160	

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230120.b/23012027.D
Data file 2: /20230120.b/B20230120.b/23012027.D
Method: \20230120.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: BIA0164-BLK1
Client ID:
Injection Date: 21-JAN-2023 00:42
Report Date: 01/24/2023 13:42
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.310	-0.003	8706	4.833	-0.001	895	0.55	0.04	176.2*	alpha-BHC N
----			5.283	-0.027	2143	0.00	0.22	---	beta-BHC
----			----			0.00	0.00	---	delta-BHC
----			5.223	-0.006	610	0.00	0.03	---	gamma-BHC (Lindane)
----			5.783	0.027	1936	0.00	0.10	---	Heptachlor
----			6.160	0.002	25417	0.00	1.13	---	Aldrin
----			6.818	0.003	2711	0.00	0.15	---	Heptachlor epoxide b
----			7.285	0.027	1813	0.00	0.11	---	Endosulfan I
----			7.567	0.015	907	0.00	0.05	---	Dieldrin
----			7.341	-0.001	626	0.00	0.04	---	4,4'-DDE
----			7.857	-0.020	459	0.00	0.04	---	Endrin
----			8.075	-0.013	1110	0.00	0.11	---	Endosulfan II
----			7.946	-0.004	487	0.00	0.05	---	4,4'-DDD
----			8.687	-0.001	1635	0.00	0.18	---	Endosulfan sulfate
----			8.276	0.009	3631	0.00	0.38	---	4,4'-DDT
----			8.914	0.005	12001	0.00	2.82	---	Methoxychlor
8.415	-0.005	4994	9.200	-0.010	11510	0.57	1.16	68.3*	Endrin ketone
----			8.410	-0.009	8864	0.00	1.20	---	Endrin aldehyde
6.256	0.022	2900	----			0.24	0.00	---	trans-Chlordane
----			7.168	-0.018	1173	0.00	0.06	---	cis-Chlordane
2.315	0.007	12339	2.458	-0.028	181008	0.75	7.47	163.5*	Hexachlorobutadiene
4.158	0.003	6394	----			0.44	0.00	---	Hexachlorobenzene
3.806	0.003	313291	4.198	0.001	484825	28.25	27.05	4.4	Tetrachloro-m-xylene N
9.325	0.002	252138	10.429	-0.002	307615	36.31	38.63	6.2	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	672426	815511	21.3
Hexabromobiphenyl	609723	685353	12.4

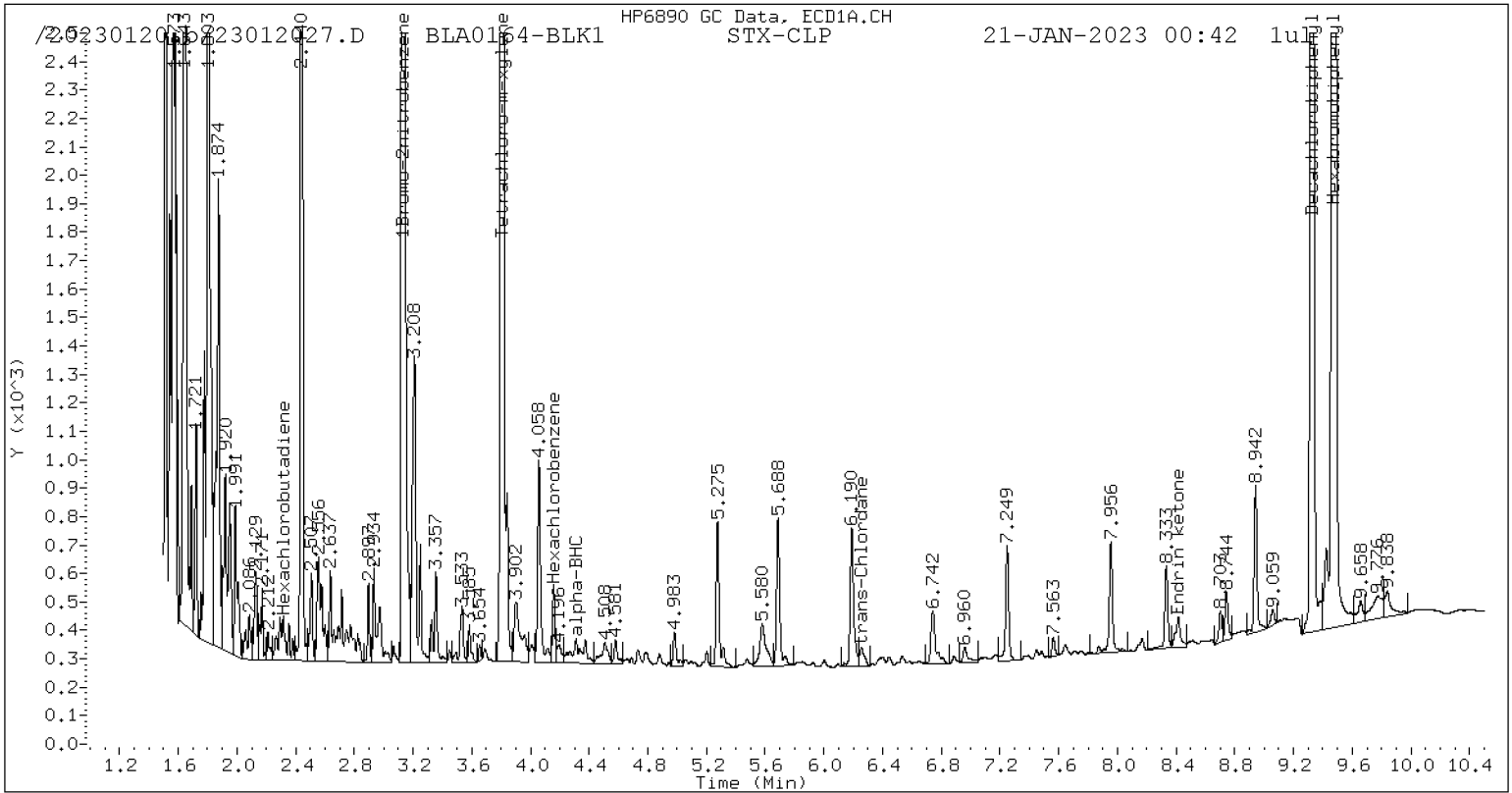
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1006482	1273526	26.5
Hexabromobiphenyl	769764	720442	-6.4

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

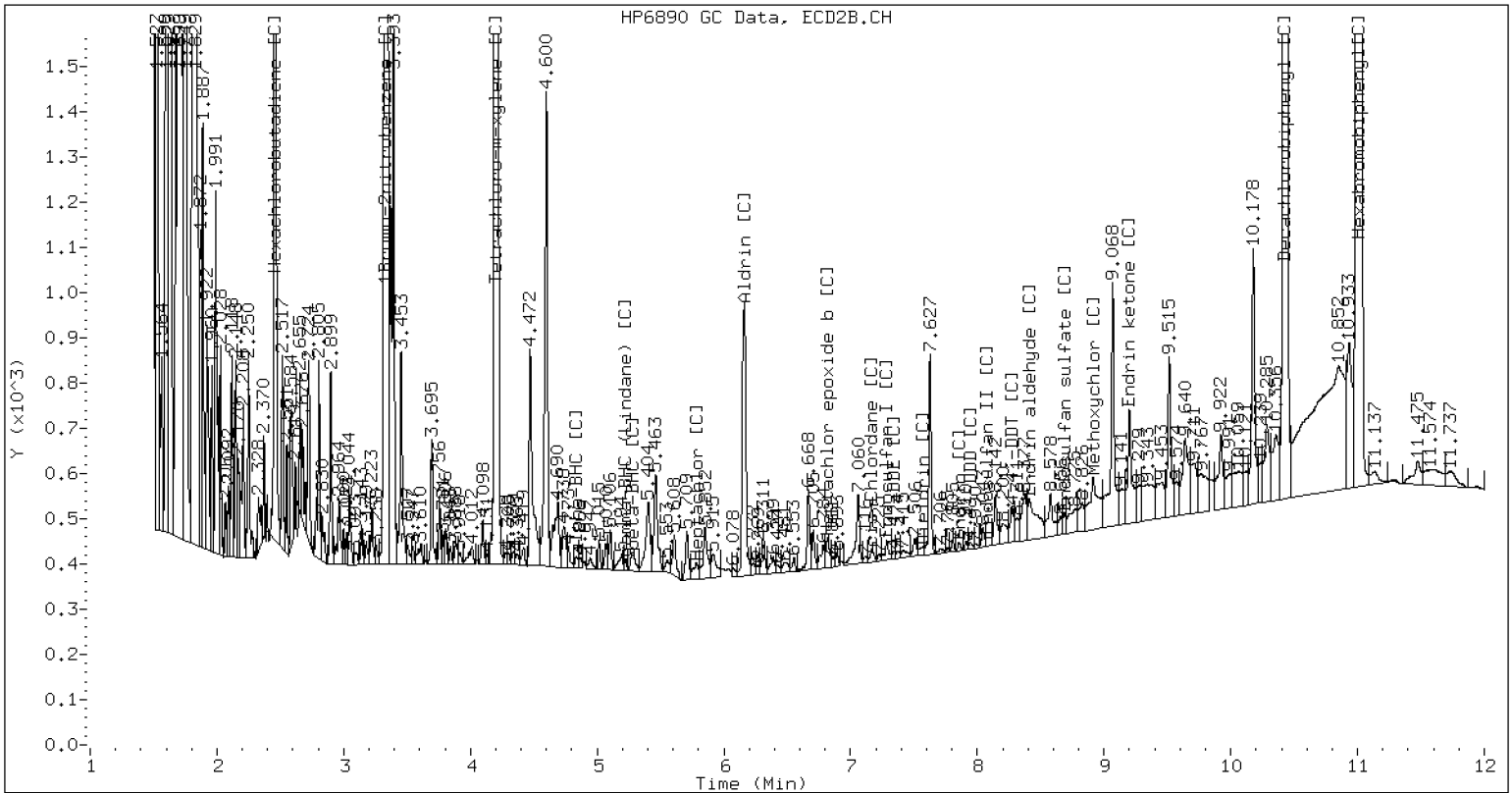
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

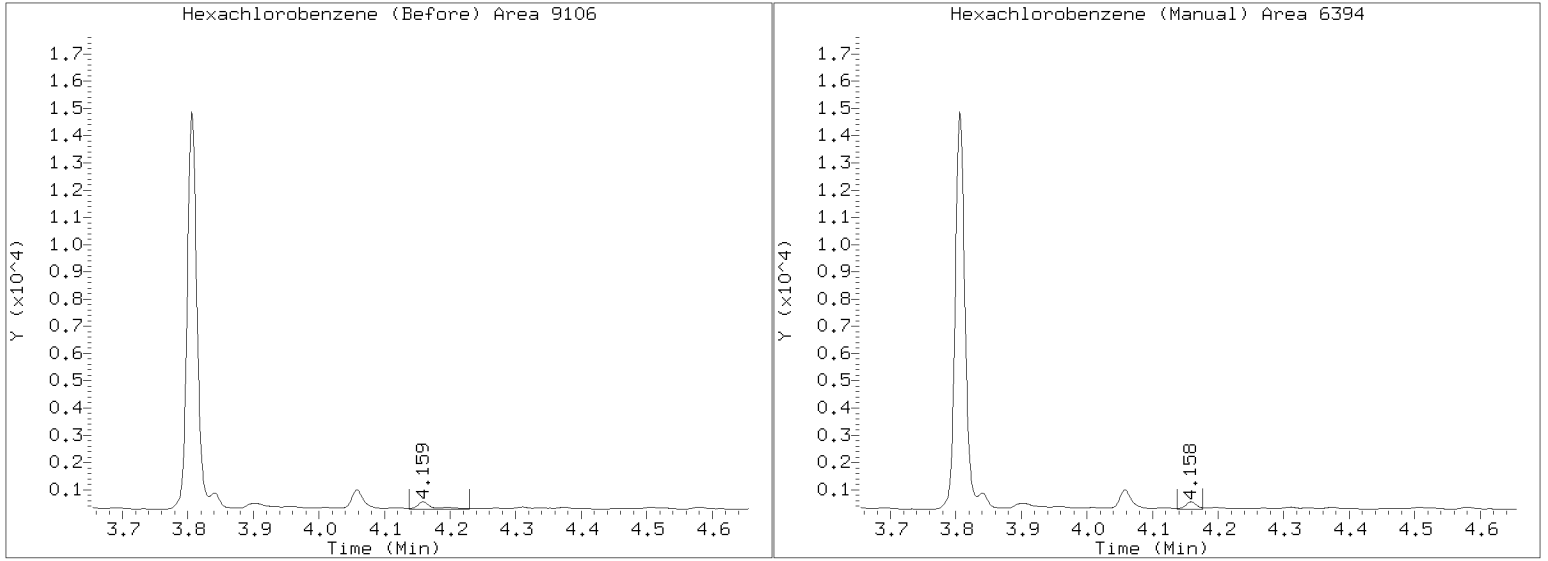
/20230120.b/B20230120.b/23012027.D BLA0164-BLK1 CLP2



CLP-2 Manual Integration: YES

Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012027.D
Injection Date: 21-JAN-2023 00:42
Lab ID:BLA0164-BLK1 Client ID:
Report Date: 01/24/2023 13:42

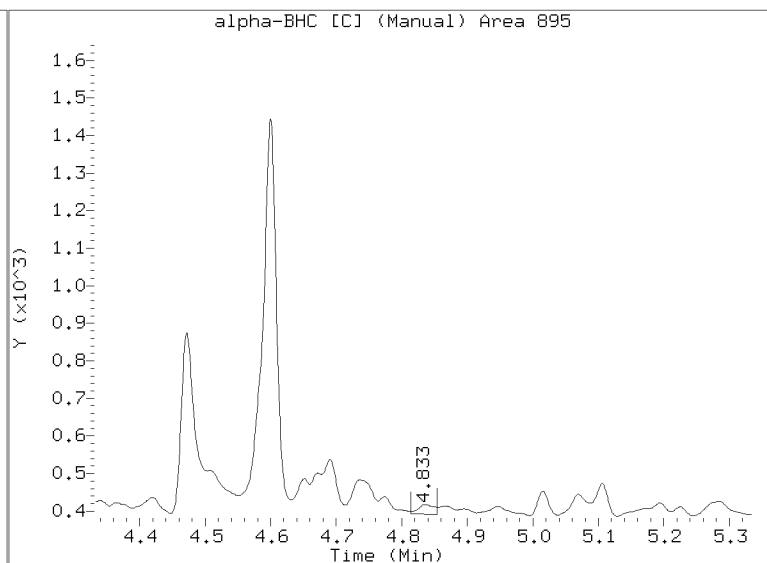
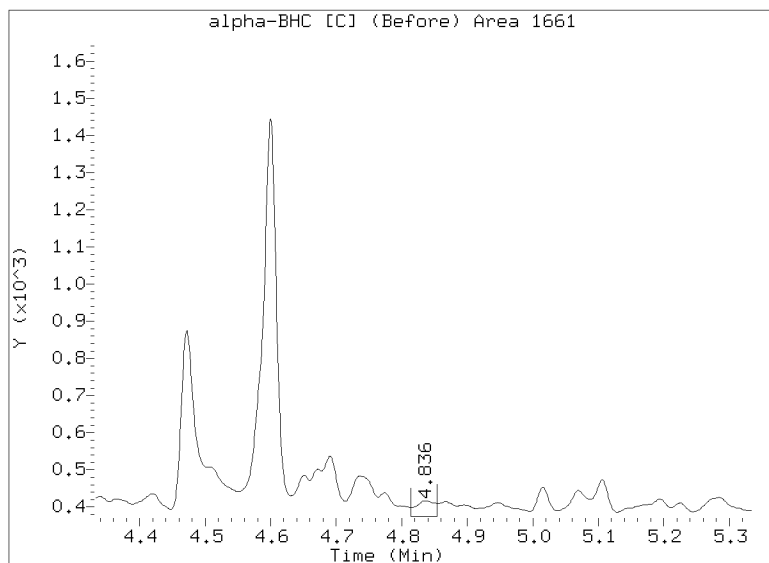
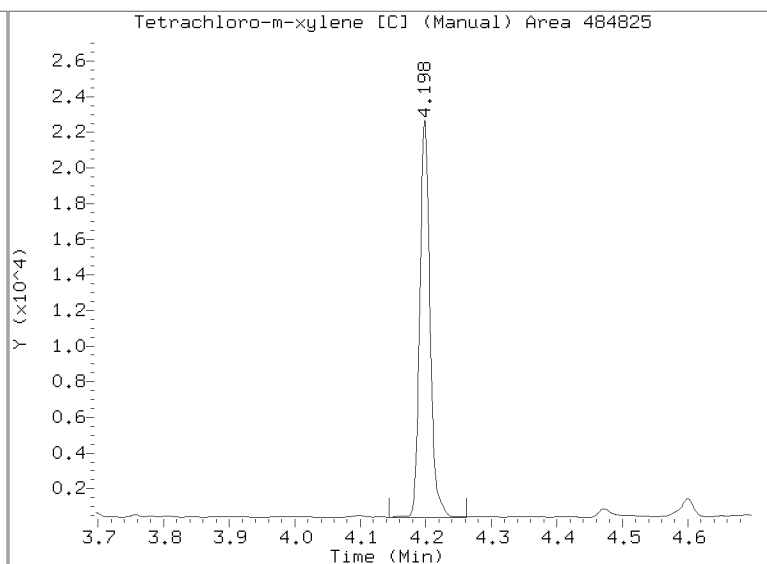
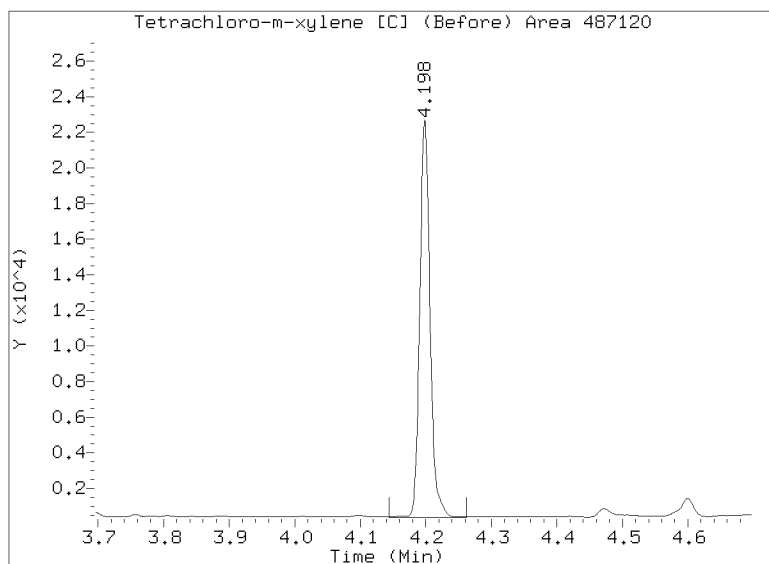
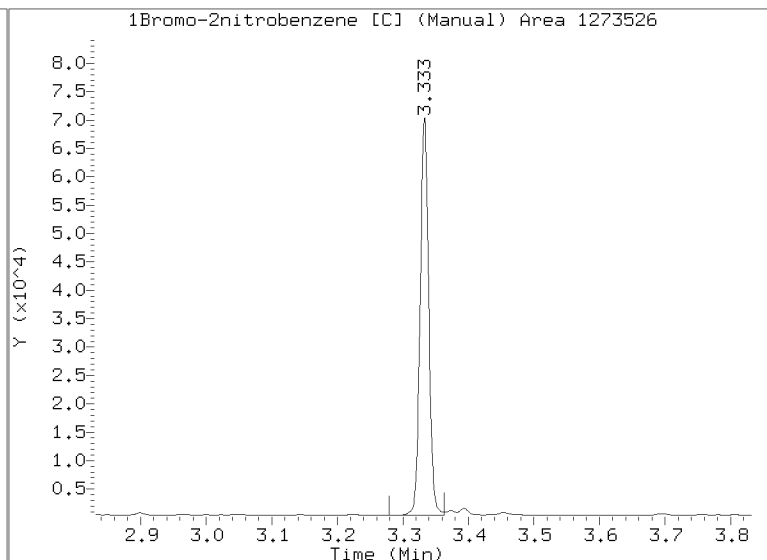
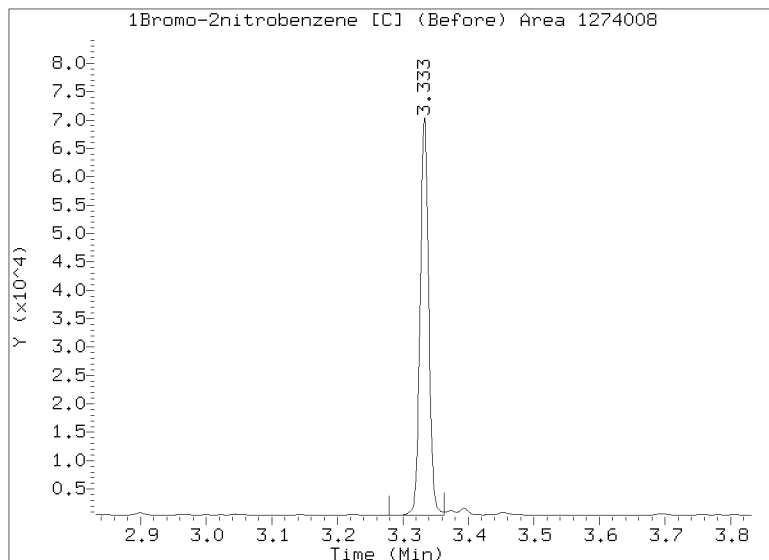


Manual Peak Adjustment Report, CLP-2

Datafile: /20230120.b/B20230120.b/23012027.D

Injection Date: 21-JAN-2023 00:42

Lab ID:BLA0164-BLK1 Client ID:

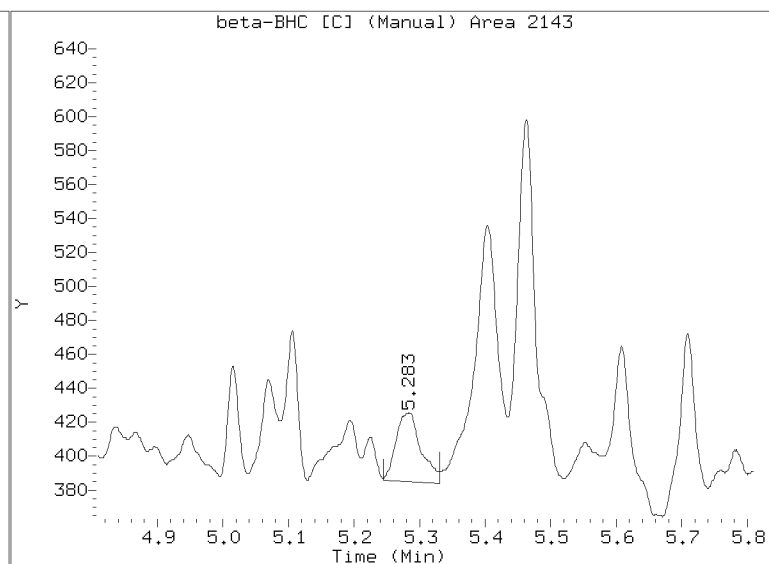
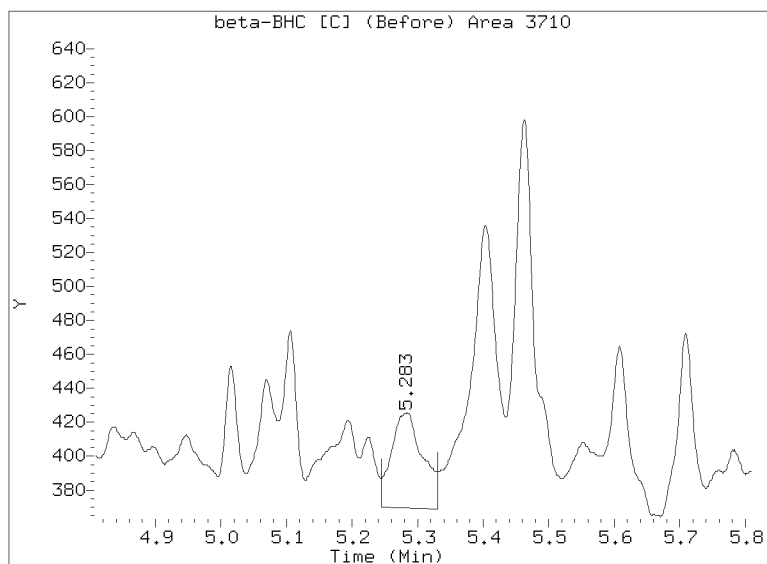
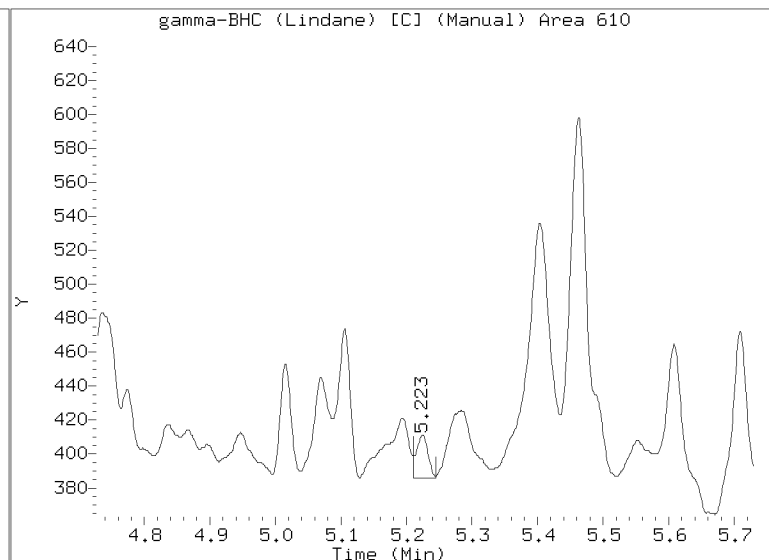
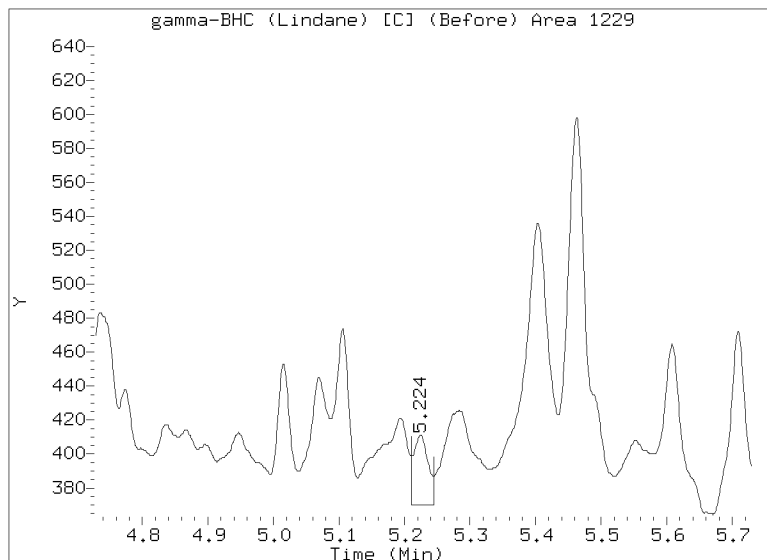


Manual Peak Adjustment Report, CLP-2

Datafile: /20230120.b/B20230120.b/23012027.D

Injection Date: 21-JAN-2023 00:42

Lab ID:BLA0164-BLK1 Client ID:





LCS / LCS DUPLICATE RECOVERY
EPA 8081B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>01/21/23 01:00</u>
Batch:	<u>BLA0164</u>	Laboratory ID:	<u>BLA0164-BS1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>12.5 g / 2.5 mL</u>		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Hexachlorobenzene	4.00	3.09		77.2	26 - 128

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Hexachlorobenzene	4.00	3.07		76.8	0.505	30	26 - 128

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230120.b/23012028.D
Data file 2: /20230120.b/B20230120.b/23012028.D
Method: \20230120.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: BIA0164-BS1
Client ID:
Injection Date: 21-JAN-2023 01:00
Report Date: 01/24/2023 13:42
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.316	0.002	267781	4.834	0.000	400257	16.90	15.94	5.9	alpha-BHC
4.699	0.003	105300	5.311	0.001	156062	17.26	16.34	5.5	beta-BHC
4.881	0.002	245854	5.662	-0.000	327894	18.99	15.85	18.0	delta-BHC
4.618	0.003	244878	5.230	0.000	354292	17.83	16.62	7.0	gamma-BHC (Lindane)
5.099	0.003	225941	5.757	0.001	324430	18.49	16.80	9.5	Heptachlor
5.421	0.003	225386	6.159	0.000	296067	16.45	13.43	20.2	Aldrin
6.096	0.003	203188	6.814	-0.000	291566	17.11	16.00	6.7	Heptachlor epoxide b
6.538	0.003	321954	7.258	-0.001	424996	29.54	26.45	11.0	Endosulfan I
----			7.561	0.008	1111	0.00	0.06	---	Dieldrin
6.458	0.003	392927	7.342	-0.001	517061	36.14	31.76	12.9	4,4'-DDE
----			7.884	0.007	2310	0.00	0.22	---	Endrin
7.285	0.003	105843	8.088	-0.001	114499	13.18	10.77	20.1	Endosulfan II
7.105	0.003	328278	7.949	-0.000	418955	40.84	41.52	1.6	4,4'-DDD
8.148	0.002	230963	8.686	-0.001	288470	30.28	30.89	2.0	Endosulfan sulfate
7.398	0.003	347302	8.267	-0.000	415820	42.76	42.69	0.2	4,4'-DDT
7.882	0.001	46776	8.908	-0.001	53389	13.00	12.39	4.8	Methoxychlor
8.421	0.002	316703	9.209	-0.001	364202	36.25	36.11	0.4	Endrin ketone
7.713	0.002	34357	8.418	-0.001	38234	5.36	5.10	5.1	Endrin aldehyde
6.237	0.003	214260	7.026	-0.001	294938	17.76	16.23	9.0	trans-Chlordane
6.383	0.003	212299	7.185	-0.001	273699	17.55	15.39	13.1	cis-Chlordane
2.308	0.000	238854	2.485	-0.001	327929	14.39	13.75	4.5	Hexachlorobutadiene
4.159	0.003	227080	4.694	0.001	330950	15.44	14.48	6.4	Hexachlorobenzene
3.806	0.003	330011	4.198	0.001	512455	29.49	29.05	1.5	Tetrachloro-m-xylene
9.326	0.002	251441	10.429	-0.002	321588	36.46	39.88	8.9	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	672426	822979	22.4
Hexabromobiphenyl	609723	680534	11.6

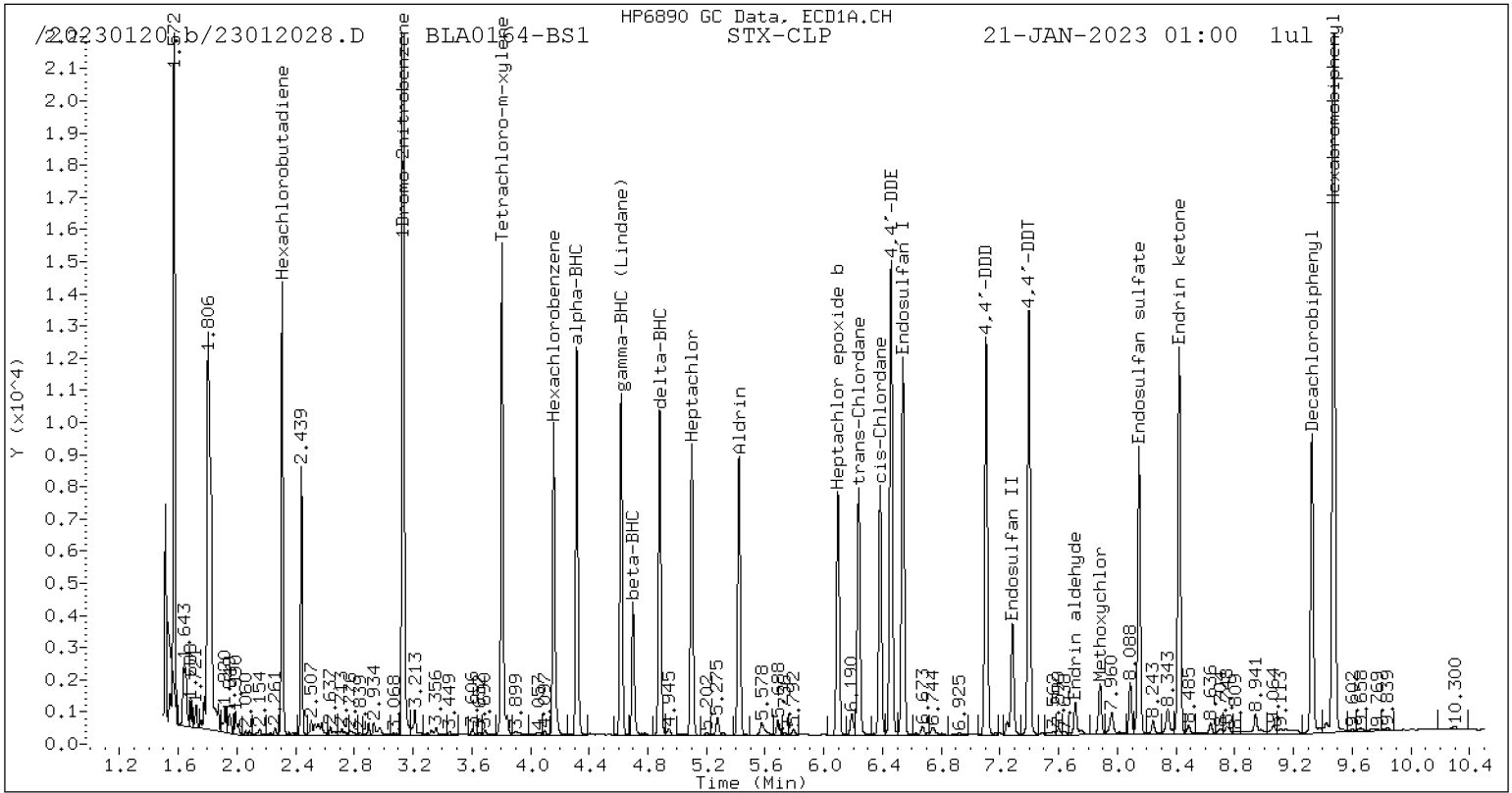
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1006482	1253160	24.5
Hexabromobiphenyl	769764	729652	-5.2

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

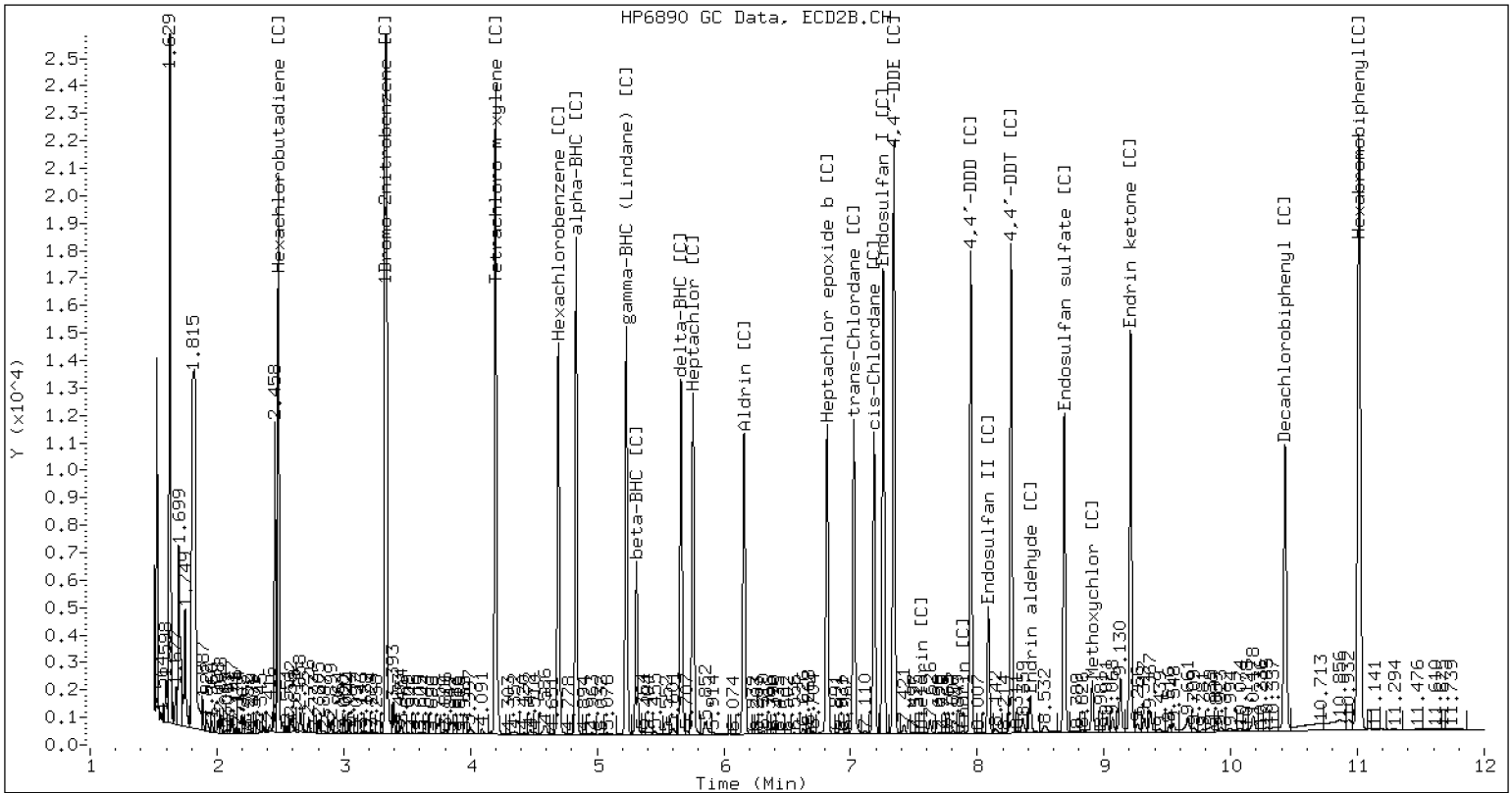
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230120.b/B20230120.b/23012028.D BLA0164-BS1 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230120.b/23012029.D
Data file 2: /20230120.b/B20230120.b/23012029.D
Method: \20230120.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: BIA0164-BSD1
Client ID:
Injection Date: 21-JAN-2023 01:18
Report Date: 01/24/2023 13:42
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.316	0.002	257660	4.834	-0.000	391638	16.57	15.79 4.8 alpha-BHC
4.698	0.002	83600	5.310	0.000	147771	13.97	15.68 11.5 beta-BHC
4.881	0.002	231286	5.661	-0.001	250799	18.20	12.28 38.9 delta-BHC
4.618	0.002	231765	5.229	-0.000	341165	17.20	16.21 5.9 gamma-BHC (Lindane)
5.098	0.002	216147	5.756	-0.000	318735	18.02	16.72 7.5 Heptachlor
5.421	0.003	217231	6.158	-0.001	288409	16.16	13.25 19.8 Aldrin
6.095	0.002	190701	6.815	-0.000	276156	16.36	15.35 6.4 Heptachlor epoxide b
6.538	0.003	289323	7.258	-0.001	381256	27.05	24.04 11.8 Endosulfan I
----			7.561	0.008	965	0.00	0.06 --- Dieldrin
6.456	0.002	373454	7.341	-0.001	498484	35.01	31.02 12.1 4,4'-DDE
----			7.884	0.007	2059	0.00	0.19 --- Endrin
7.284	0.002	72227	8.087	-0.001	76562	9.05	7.07 24.7 Endosulfan II
7.105	0.002	312783	7.948	-0.001	403168	39.17	39.21 0.1 4,4'-DDD
8.146	0.001	210058	8.686	-0.001	269261	27.72	28.30 2.0 Endosulfan sulfate
7.397	0.002	328398	8.266	-0.001	402421	40.70	40.54 0.4 4,4'-DDT
7.879	-0.002	19514	8.907	-0.001	19776	5.46	4.50 19.2 Methoxychlor
8.420	0.001	244604	9.209	-0.001	287802	28.18	28.00 0.6 Endrin ketone
7.713	0.002	31940	8.417	-0.002	34447	5.02	4.51 10.8 Endrin aldehyde
6.236	0.002	203596	7.025	-0.001	282374	17.20	15.73 8.9 trans-Chlordane
6.383	0.002	201508	7.185	-0.001	262993	16.98	14.98 12.5 cis-Chlordane
2.308	-0.000	235505	2.485	-0.001	326068	14.46	13.85 4.3 Hexachlorobutadiene
4.158	0.002	221683	4.693	-0.000	326581	15.36	14.47 5.9 Hexachlorobenzene
3.806	0.002	341639	4.198	0.001	529290	31.11	30.39 2.3 Tetrachloro-m-xylene
9.325	0.002	238611	10.428	-0.002	348852	34.83	42.45 19.7 Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	672426	807487	20.1
Hexabromobiphenyl	609723	676108	10.9

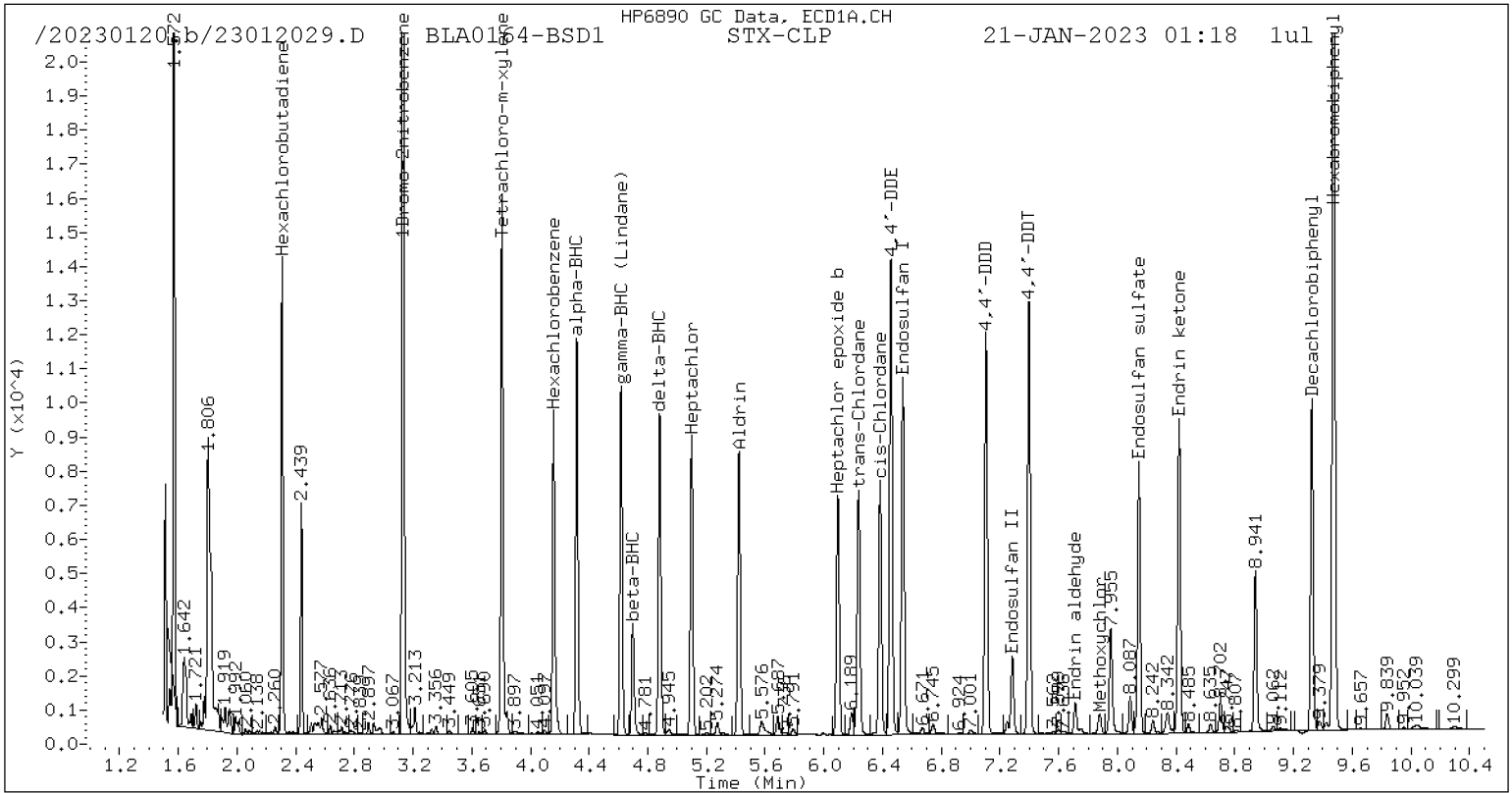
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1006482	1237248	22.9
Hexabromobiphenyl	769764	743554	-3.4

* Standard Areas taken from Initial Cal Level 5

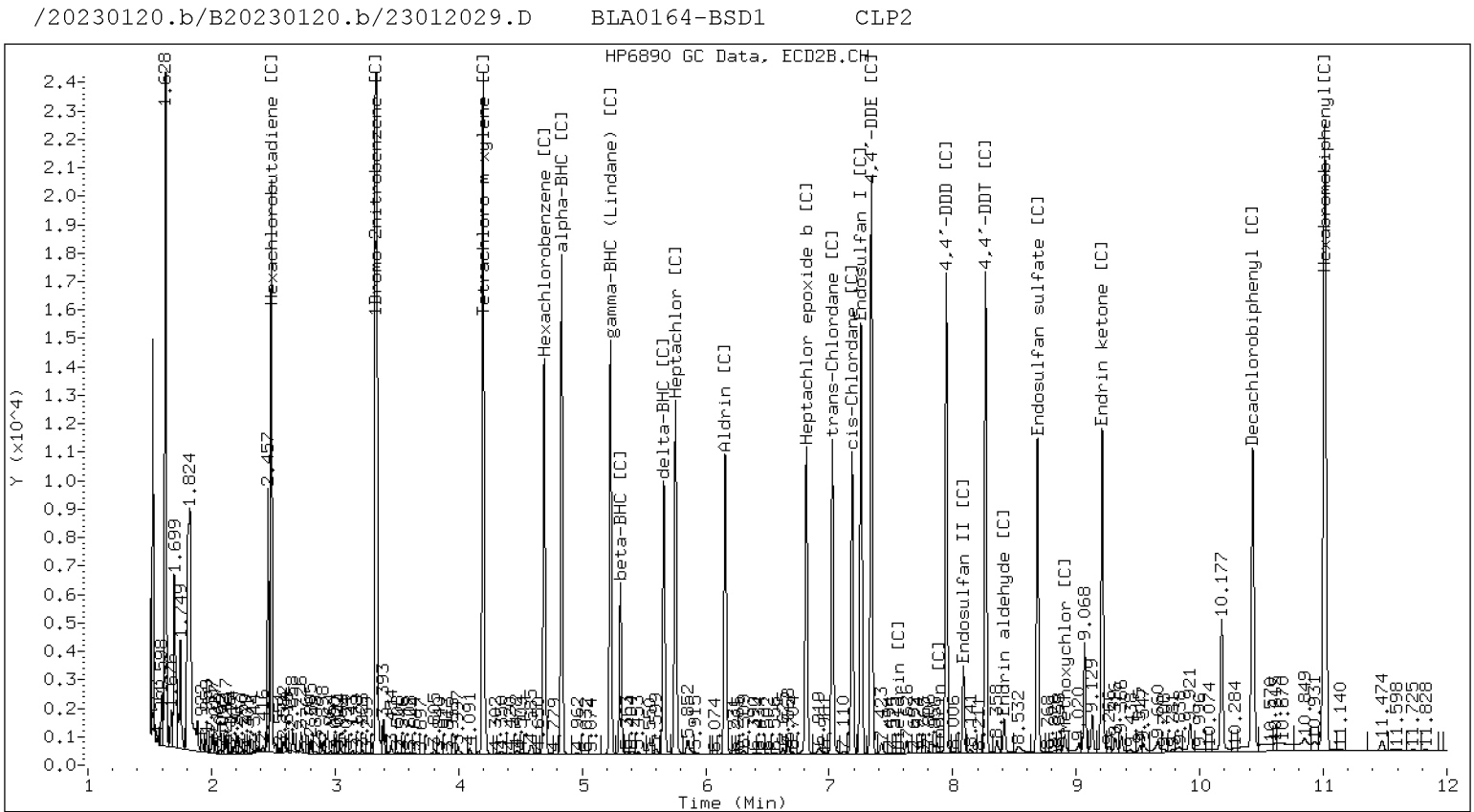
Initial Calibration Date: 14-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO



MS / MS DUPLICATE RECOVERY
EPA 8081B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>01/21/23 01:36</u>
Batch:	<u>BLA0164</u>	Laboratory ID:	<u>BLA0164-MS1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>Matrix Spike</u>
Initial/Final:	<u>20.2 g / 2.5 mL</u>	Source Sample:	<u>LDW23-SC1226B</u>

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Hexachlorobenzene	4.00	ND	U	2.60		65.0	26 - 128

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230120.b/23012030.D
Data file 2: /20230120.b/B20230120.b/23012030.D
Method: \20230120.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: BIA0164-MS1
Client ID:
Injection Date: 21-JAN-2023 01:36
Report Date: 01/24/2023 13:42
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	CLP2 Col Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.316	0.002	296004	4.834	-0.000	312661	16.78	13.03	25.2	alpha-BHC MN
4.698	0.002	88469	5.310	-0.000	129884	13.02	14.23	8.9	beta-BHC MN
4.881	0.002	260040	5.661	-0.001	272668	18.03	13.79	26.7	delta-BHC MN
4.616	0.001	273274	5.229	-0.001	281459	17.86	13.82	25.5	gamma-BHC (Lindane) MN
5.099	0.002	196252	5.756	0.001	314445	14.42	17.04	16.7	Heptachlor MN
5.421	0.003	276856	6.158	-0.001	281577	18.15	13.37	30.4	Aldrin MN
6.092	-0.000	219239	6.795	-0.020	594887	16.58	34.15	69.3*	Heptachlor epoxide b M
6.537	0.002	218292	7.258	-0.001	326517	17.99	21.27	16.7	Endosulfan I M
6.779	-0.016	260696	7.535	-0.018	142805	19.99	8.42	81.5*	Dieldrin M
6.456	0.001	545631	7.342	-0.001	613642	45.07	39.45	13.3	4,4'-DDE M
----			7.907	0.030	407463	0.00	39.02	---	Endrin
7.284	0.002	107156	8.075	-0.013	528506	14.40	49.38	109.7*	Endosulfan II M
7.103	0.001	743339	7.948	-0.001	461643	99.79	45.45	74.8*	4,4'-DDD M
8.146	0.001	199802	8.685	-0.002	239907	28.27	25.53	10.2	Endosulfan sulfate M
7.396	0.001	696586	8.271	0.004	984992	92.54	100.48	8.2	4,4'-DDT M
----			----			0.00	0.00	---	Methoxychlor
8.421	0.001	258111	9.211	0.001	520140	31.88	51.24	46.6*	Endrin ketone M
7.735	0.024	121574	8.414	-0.005	100586	20.48	13.32	42.3*	Endrin aldehyde M
6.236	0.002	216670	7.027	0.001	323727	16.13	18.64	14.4	trans-Chlordane M
6.384	0.003	286710	7.185	-0.001	246848	21.28	14.53	37.7	cis-Chlordane M
2.307	-0.001	237631	2.485	-0.001	319073	12.86	14.00	8.5	Hexachlorobutadiene
4.157	0.002	213093	4.693	0.000	370337	13.01	16.96	26.3	Hexachlorobenzene MN
3.805	0.001	337426	4.198	0.001	484212	27.07	28.72	5.9	Tetrachloro-m-xylene MN
9.326	0.003	286959	10.430	-0.000	373861	44.91	46.06	2.5	Decachlorobiphenyl M

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	672426	916432	36.3
Hexabromobiphenyl	609723	630666	3.4

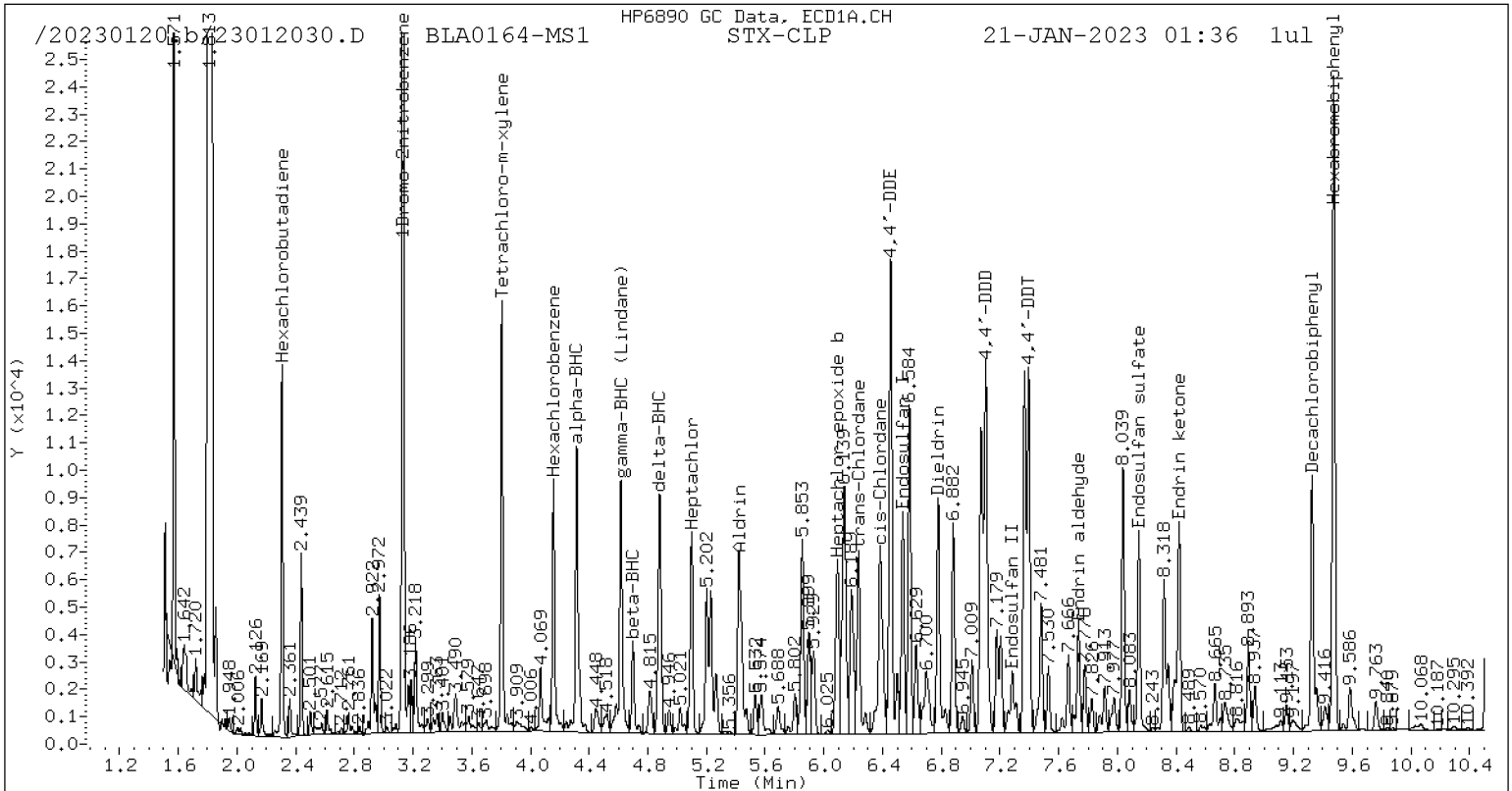
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1006482	1197557	19.0
Hexabromobiphenyl	769764	734340	-4.6

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

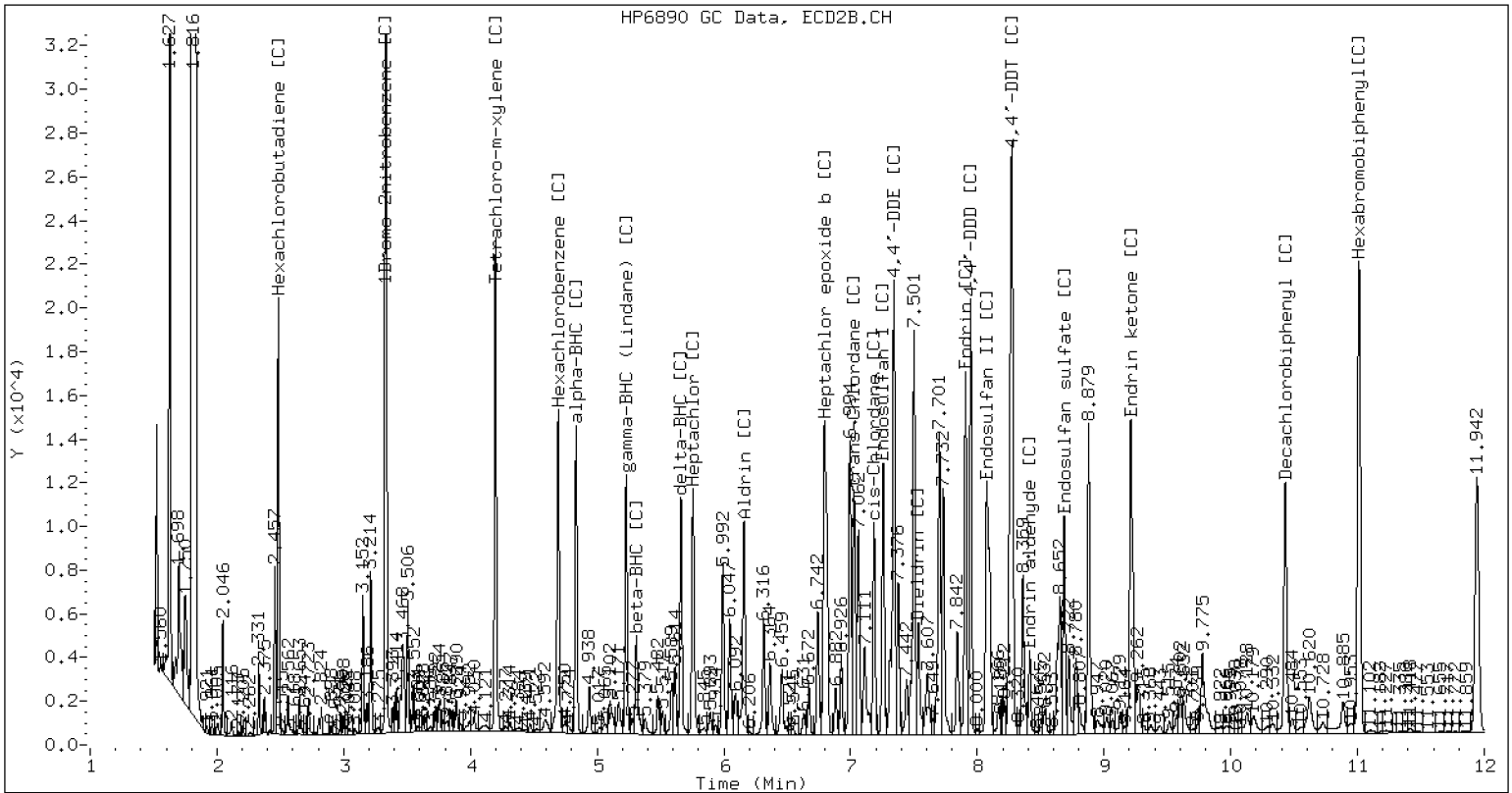
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

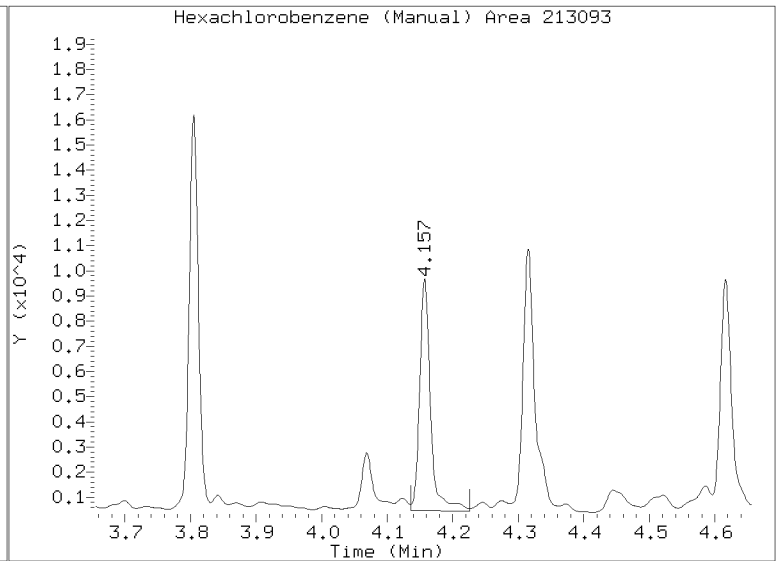
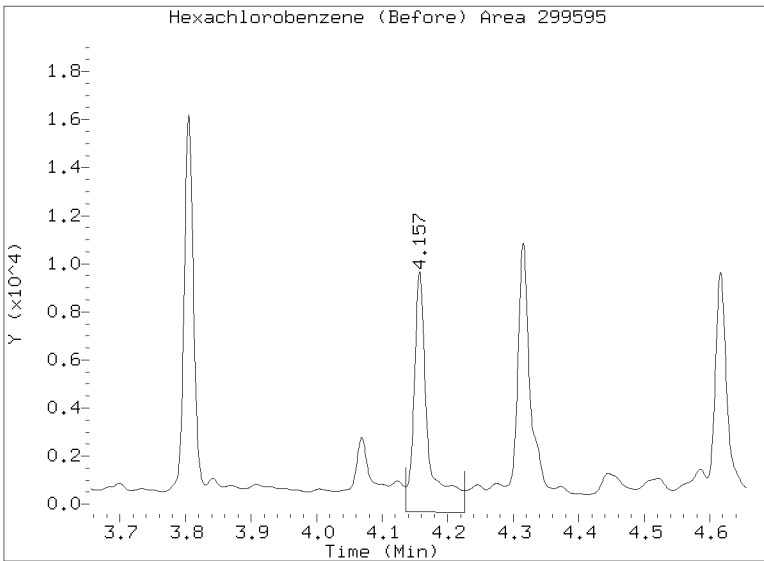
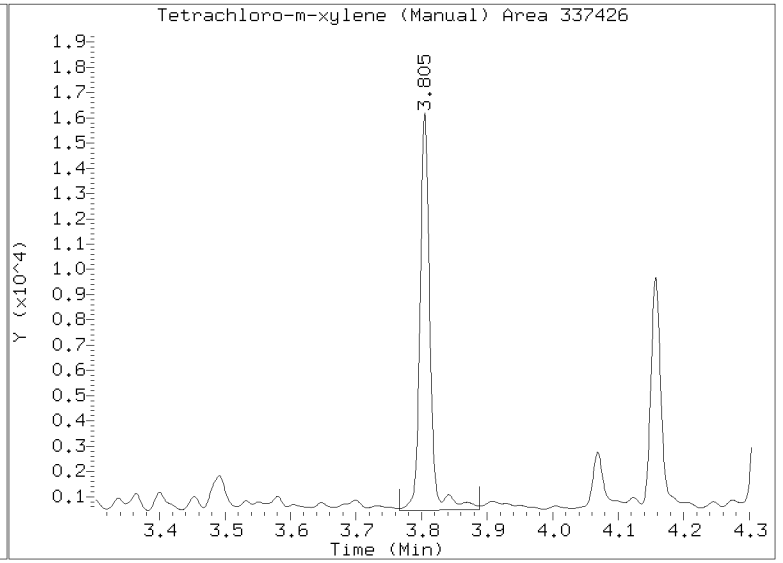
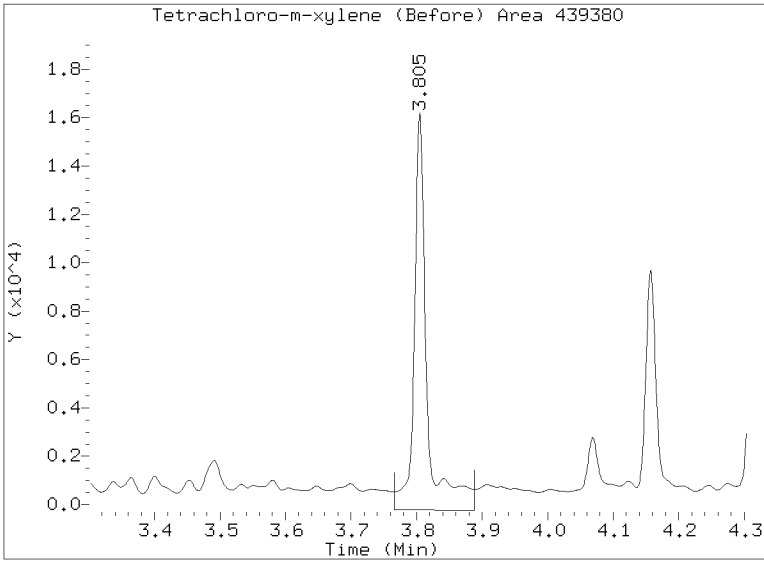
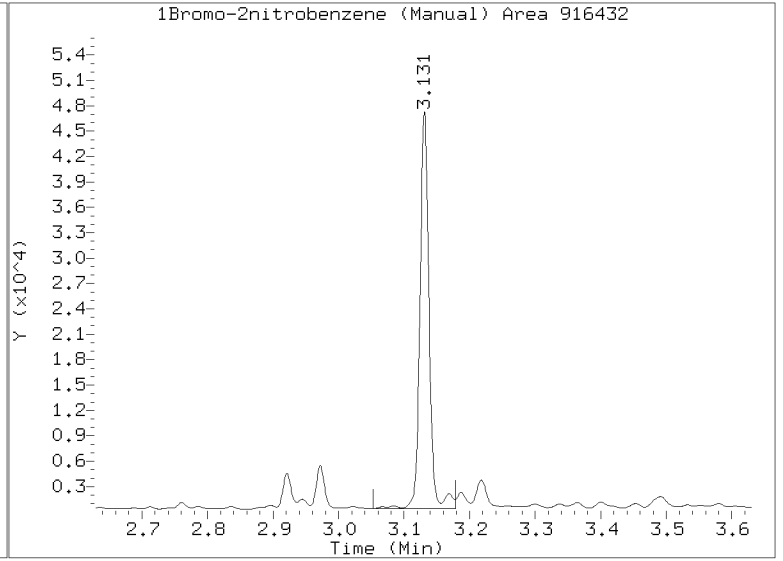
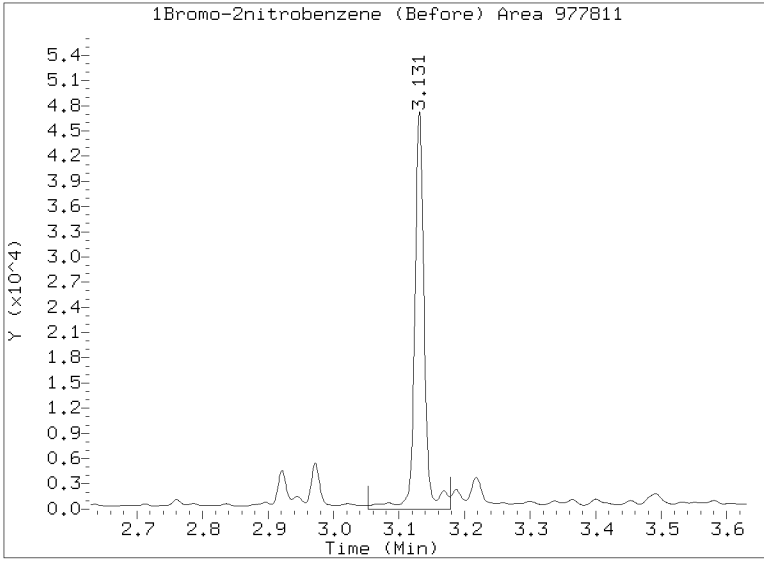
/20230120.b/B20230120.b/23012030.D BLA0164-MS1 CLP2



CLP-2 Manual Integration: YES

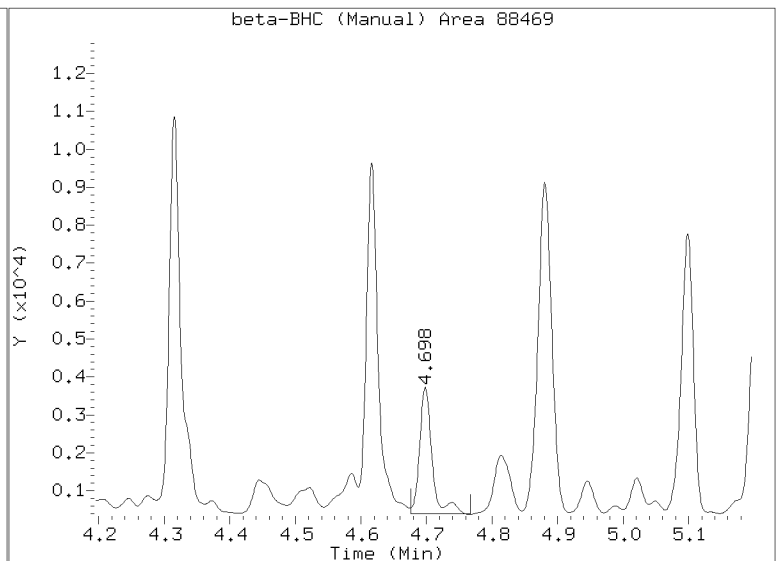
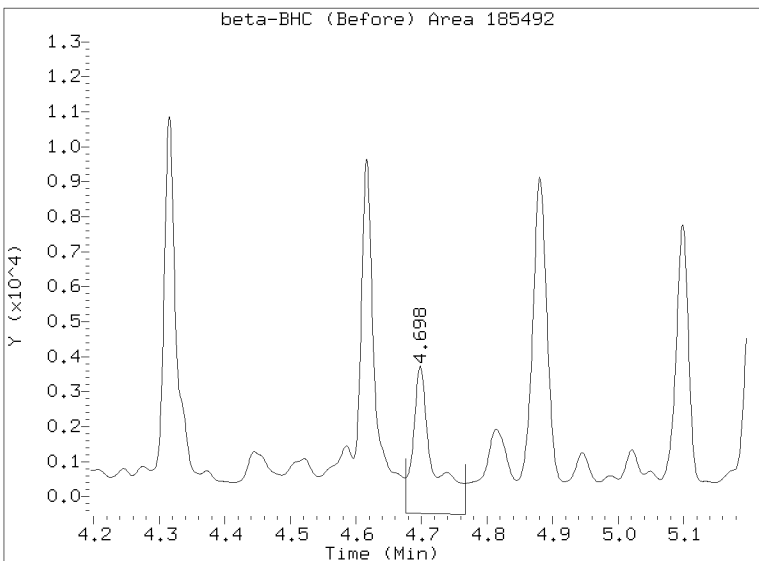
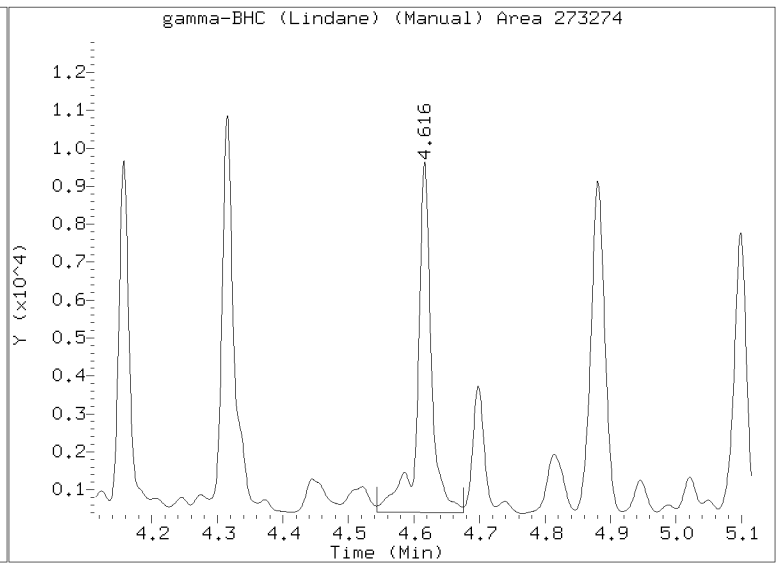
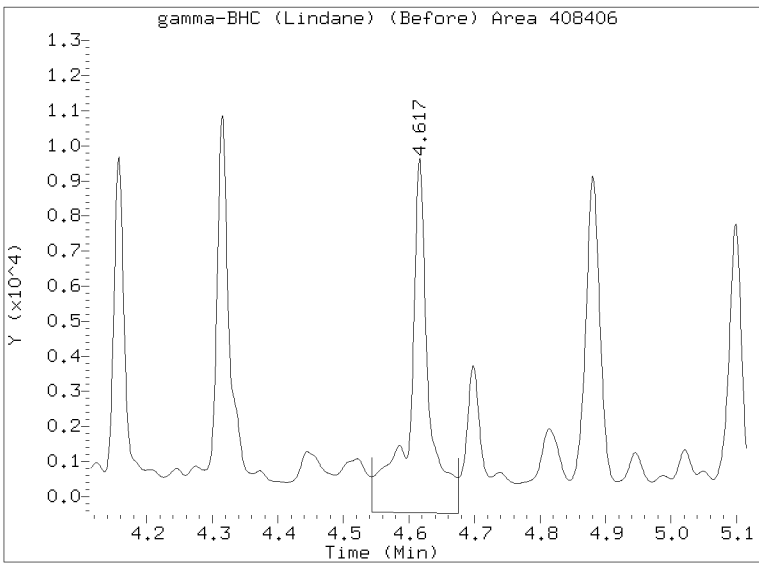
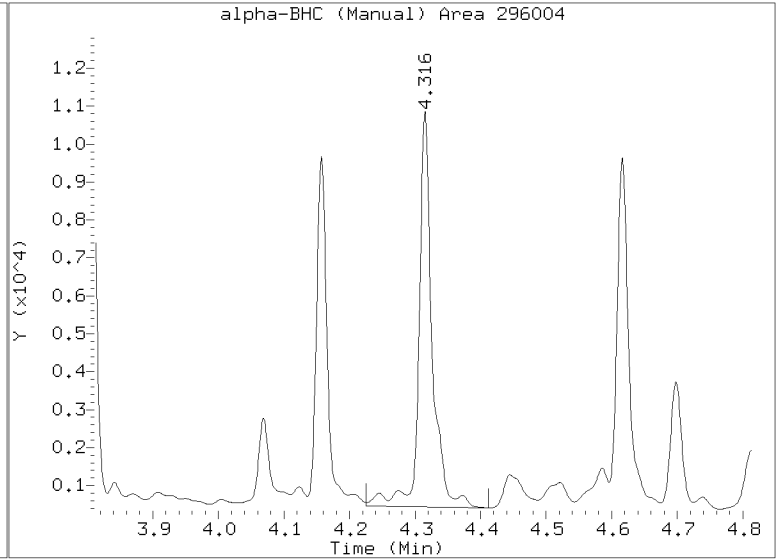
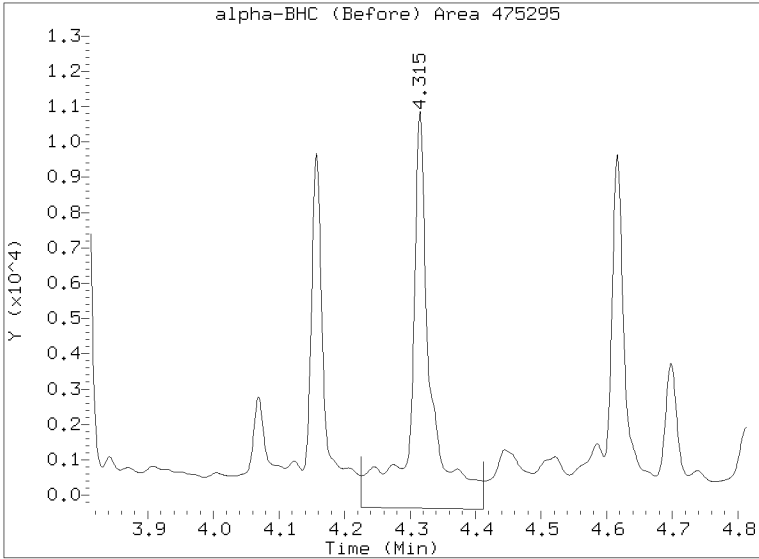
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012030.D
Injection Date: 21-JAN-2023 01:36
Lab ID:BLA0164-MS1 Client ID:
Report Date: 01/24/2023 13:42



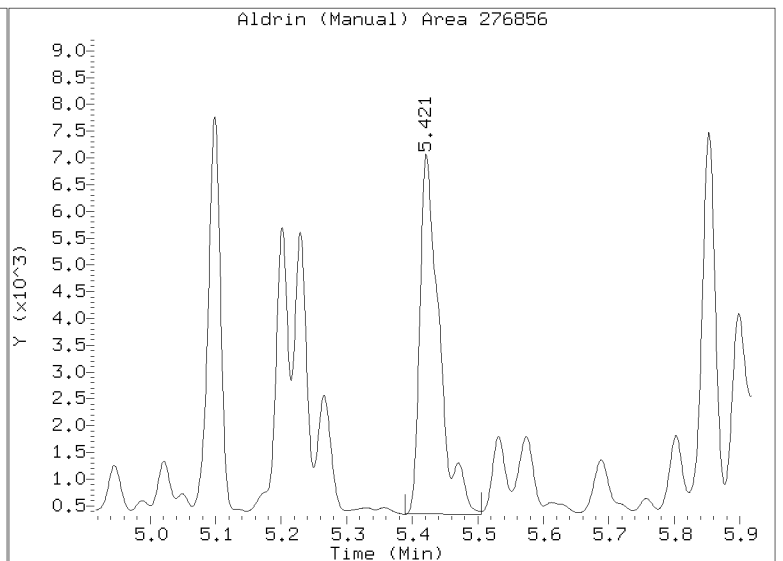
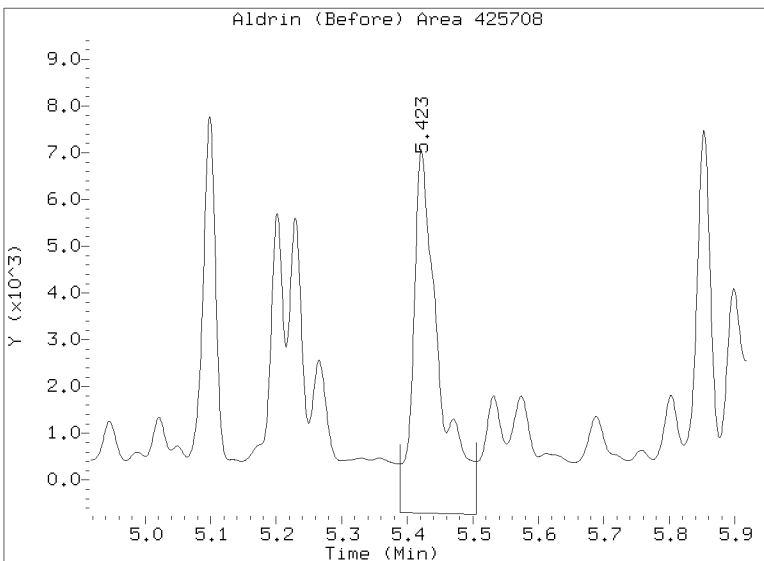
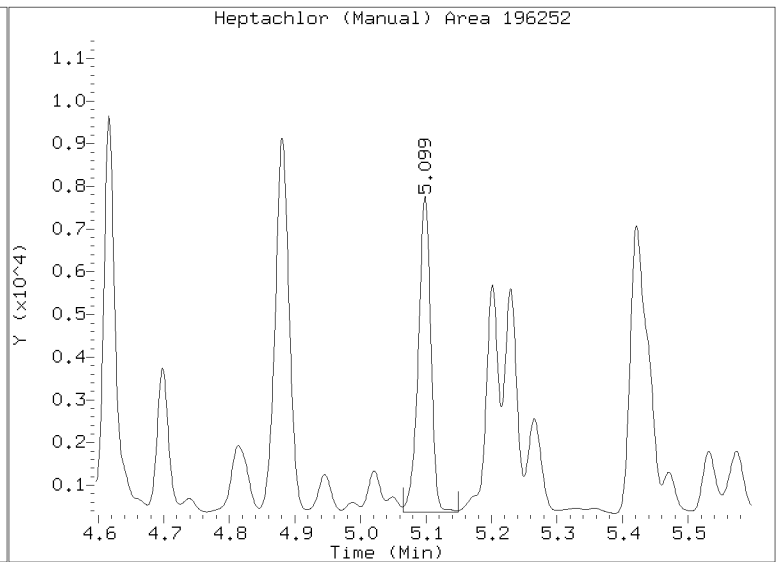
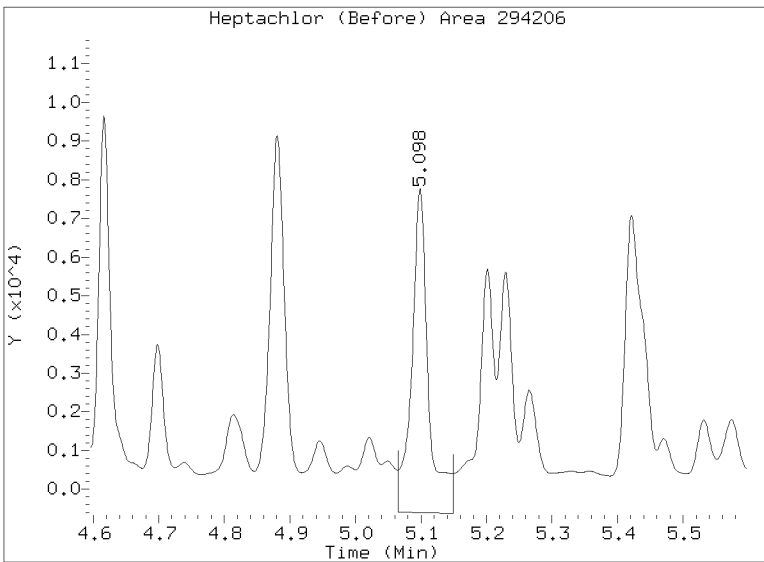
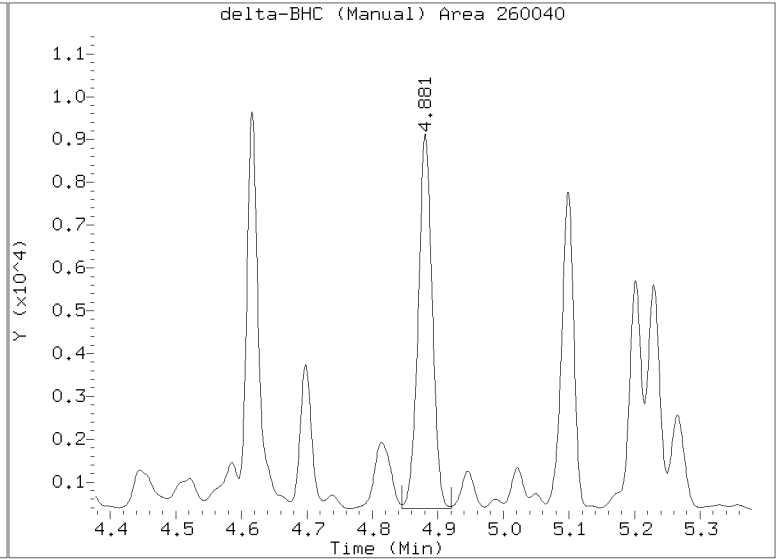
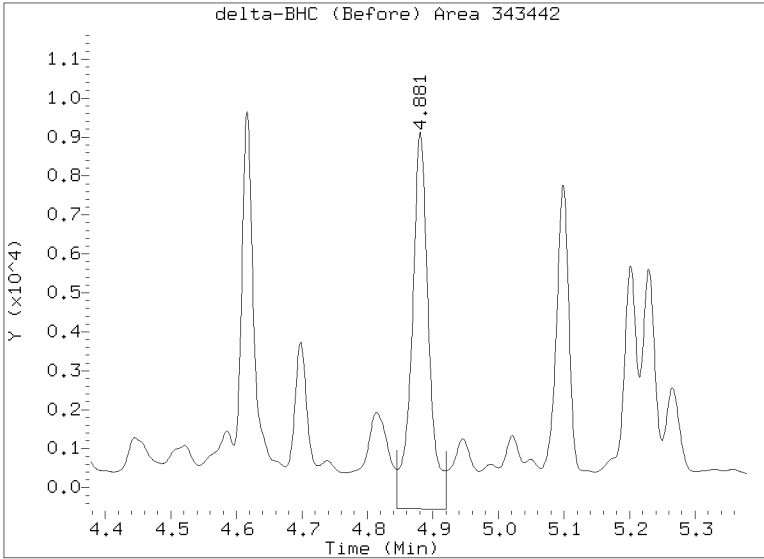
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012030.D
Injection Date: 21-JAN-2023 01:36
Lab ID:BLA0164-MS1 Client ID:
Report Date: 01/24/2023 13:42



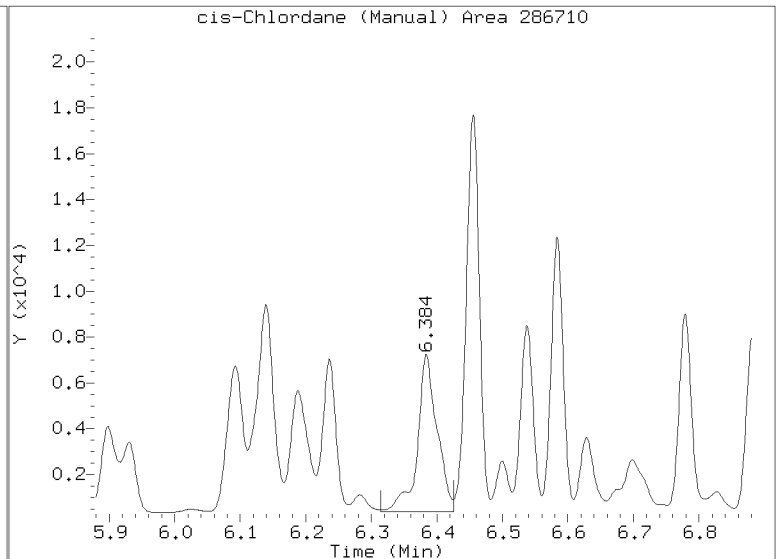
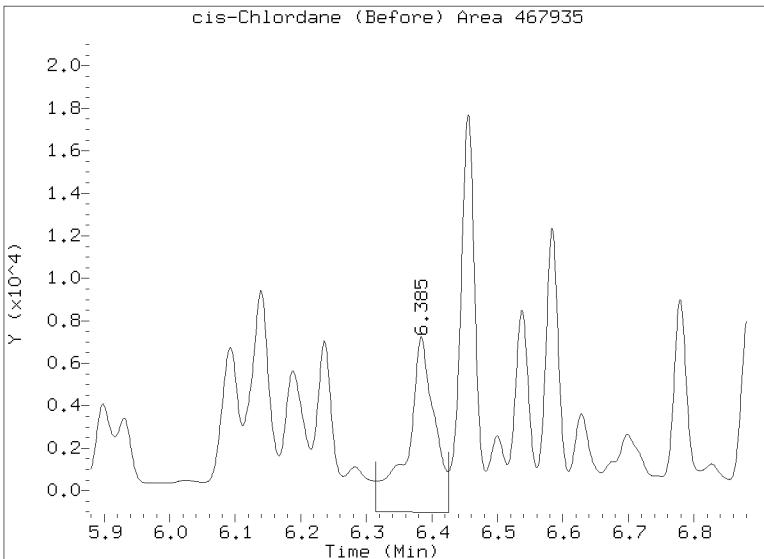
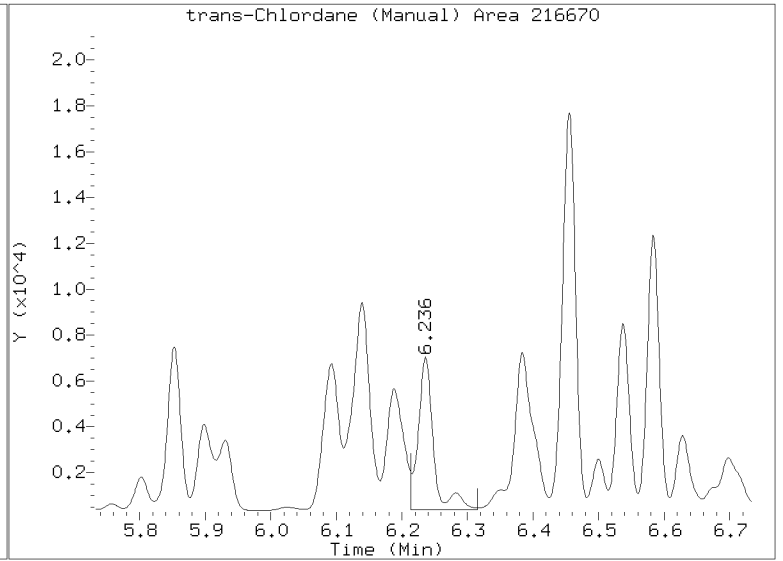
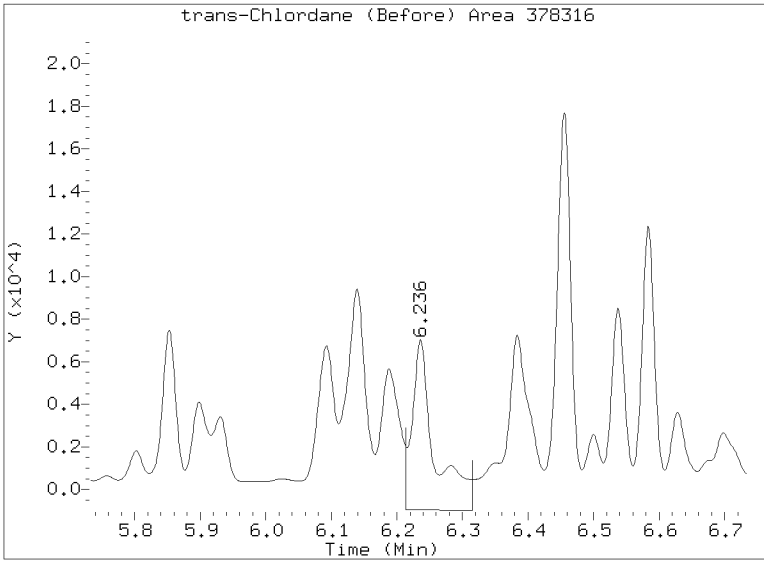
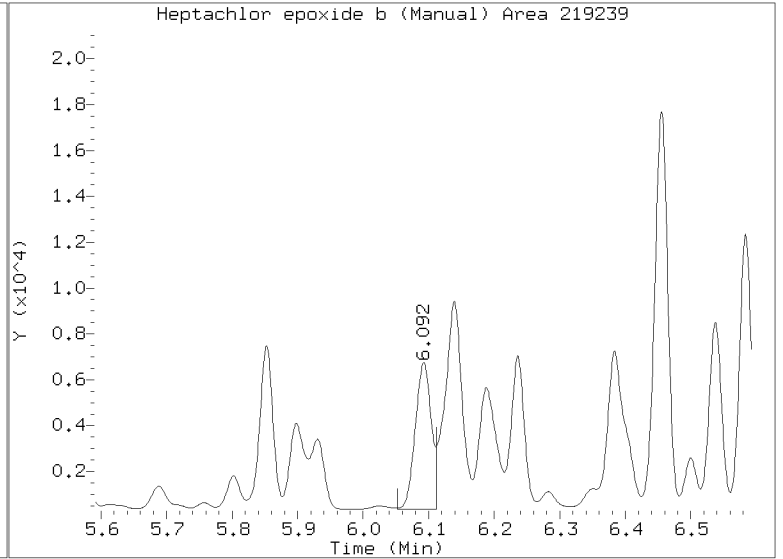
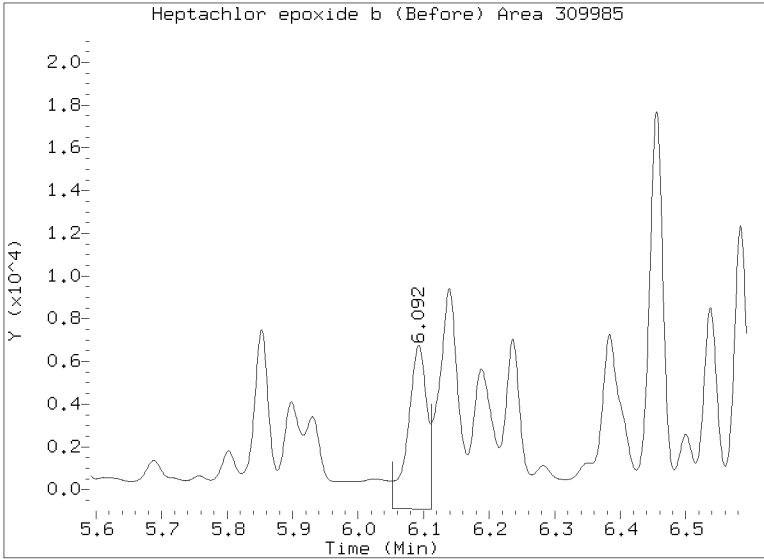
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012030.D
Injection Date: 21-JAN-2023 01:36
Lab ID:BLA0164-MS1 Client ID:
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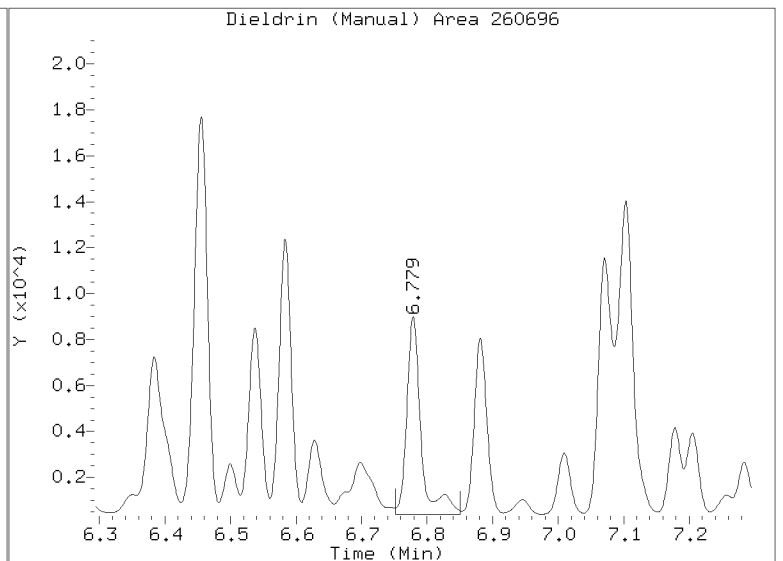
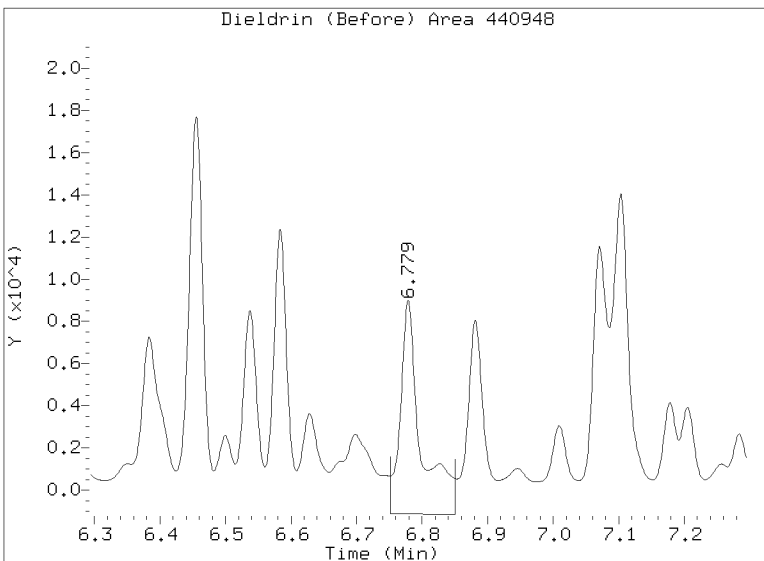
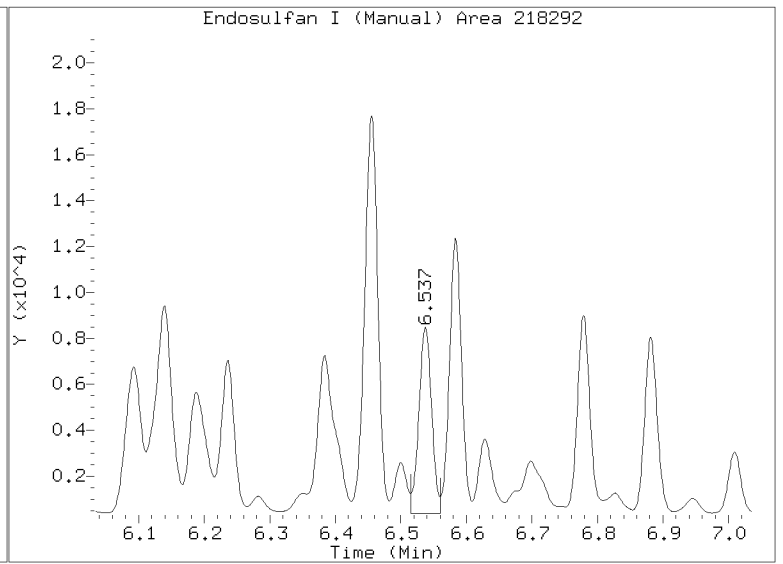
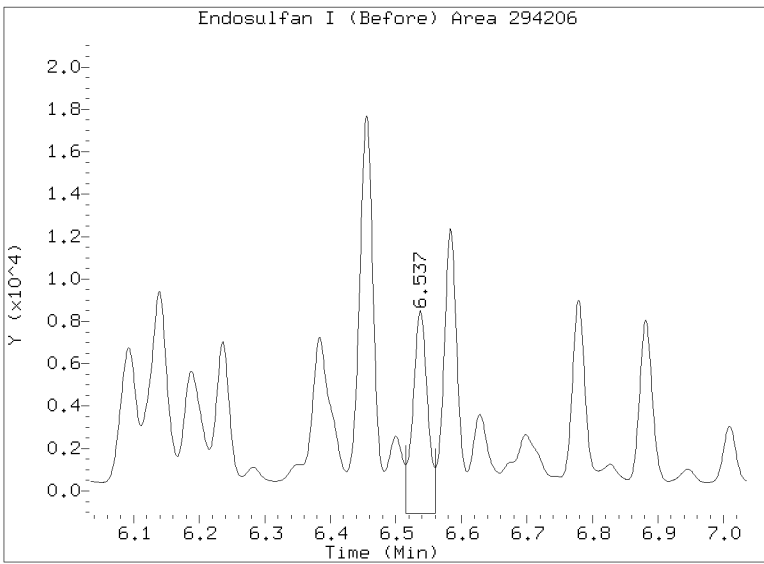
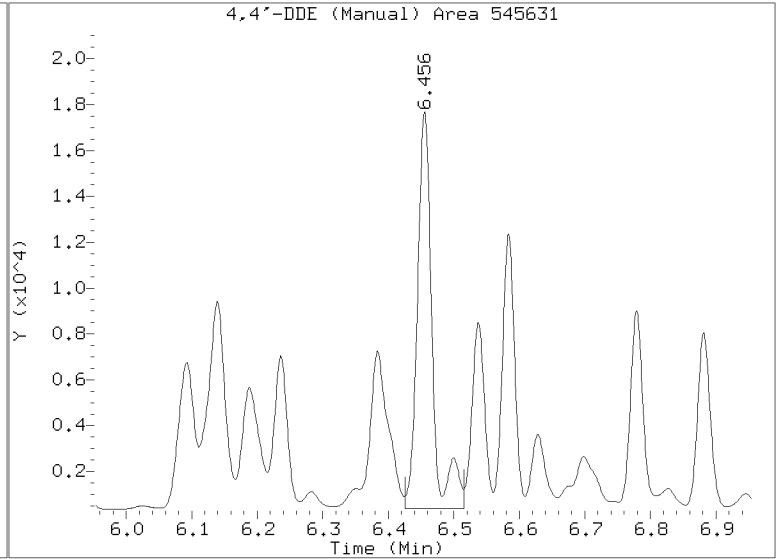
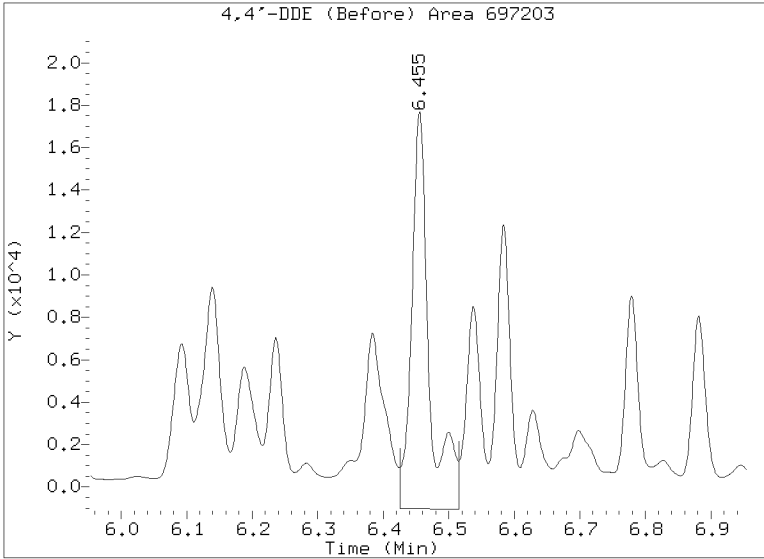
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012030.D
Injection Date: 21-JAN-2023 01:36
Lab ID:BLA0164-MS1 Client ID:
Report Date: 01/24/2023 13:42



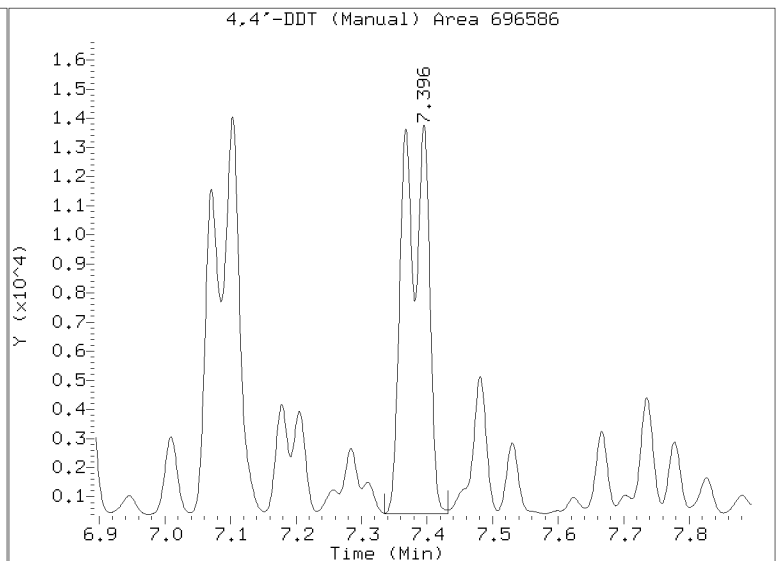
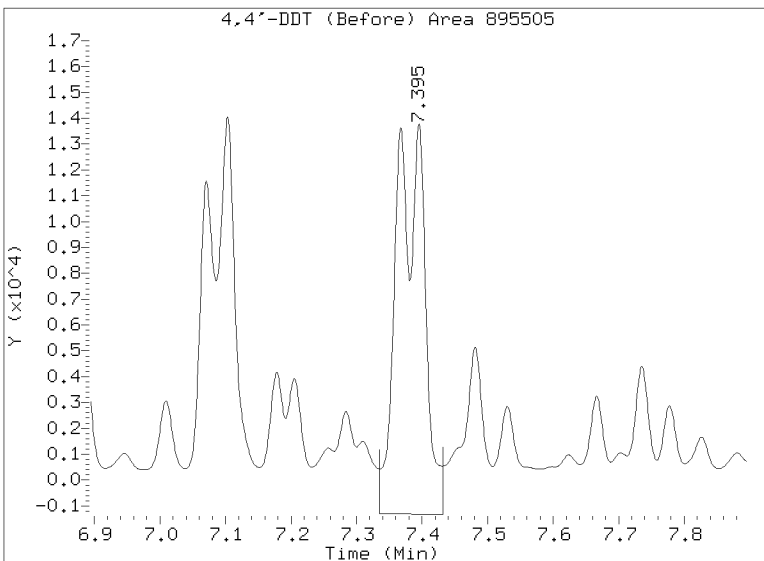
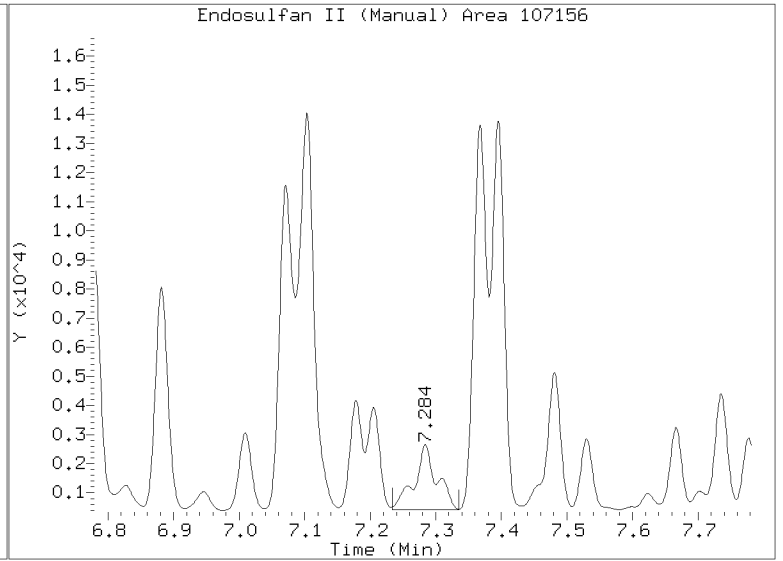
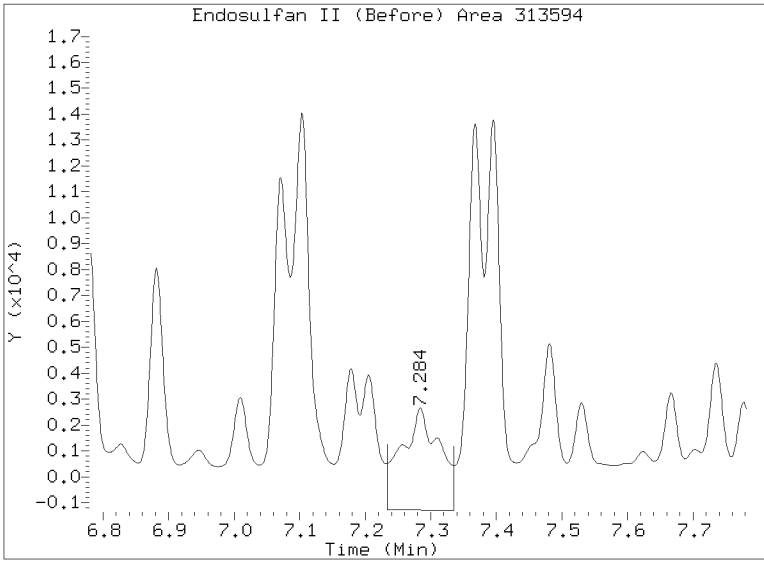
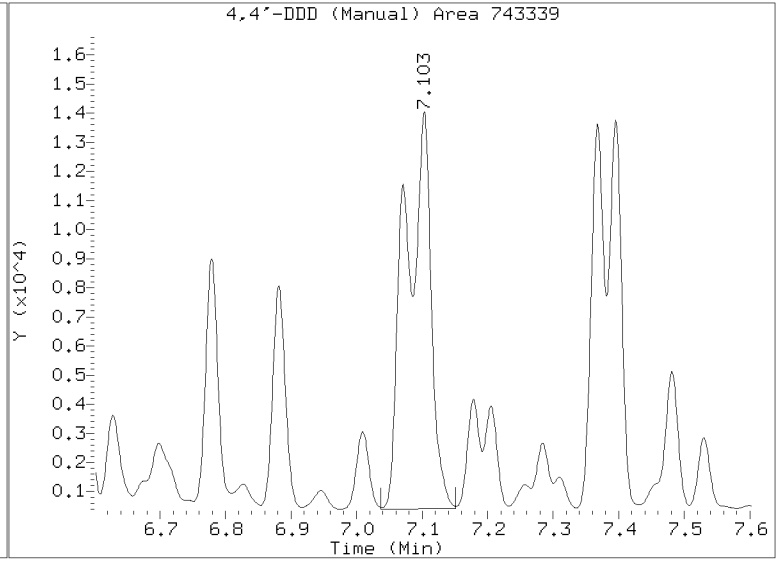
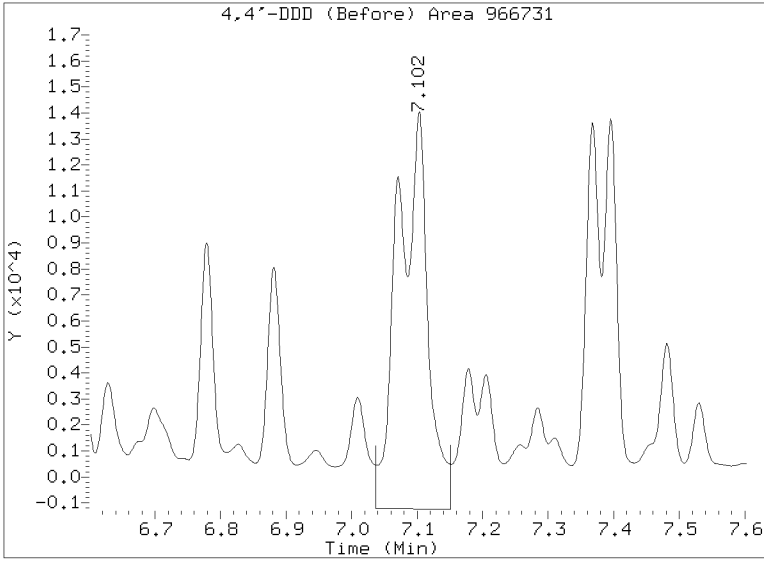
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012030.D
Injection Date: 21-JAN-2023 01:36
Lab ID:BLA0164-MS1 Client ID:
Report Date: 01/24/2023 13:42



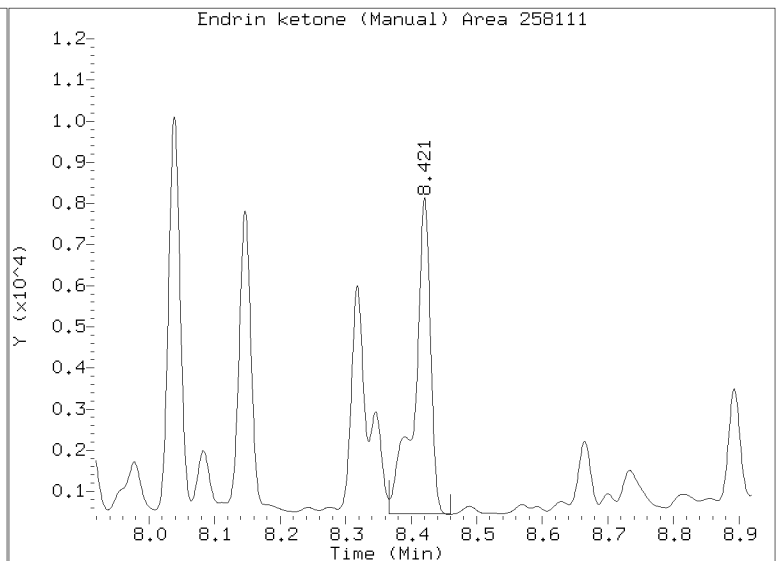
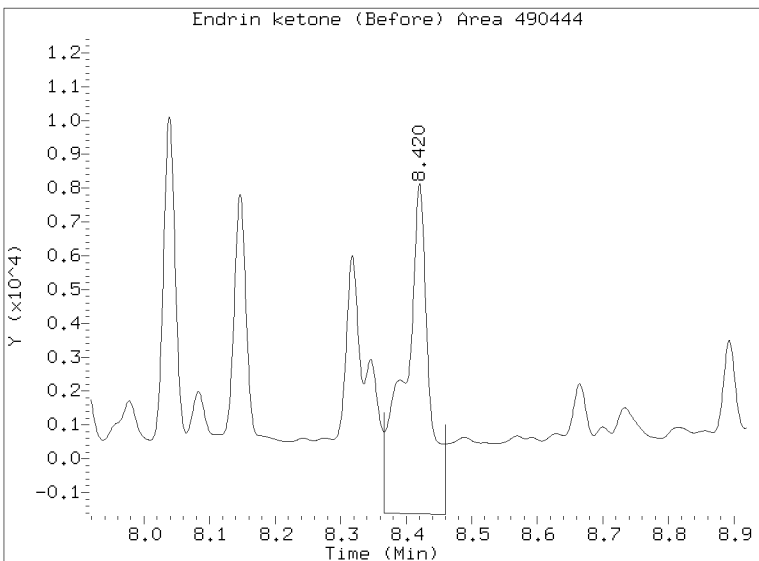
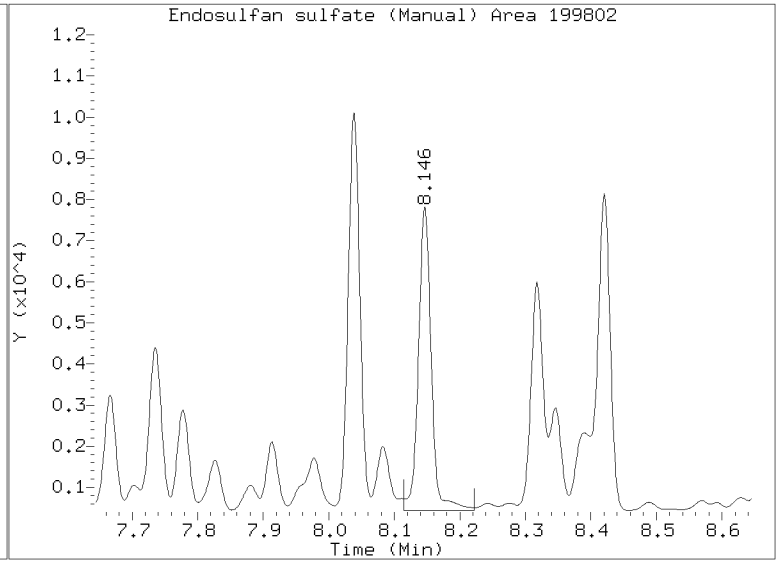
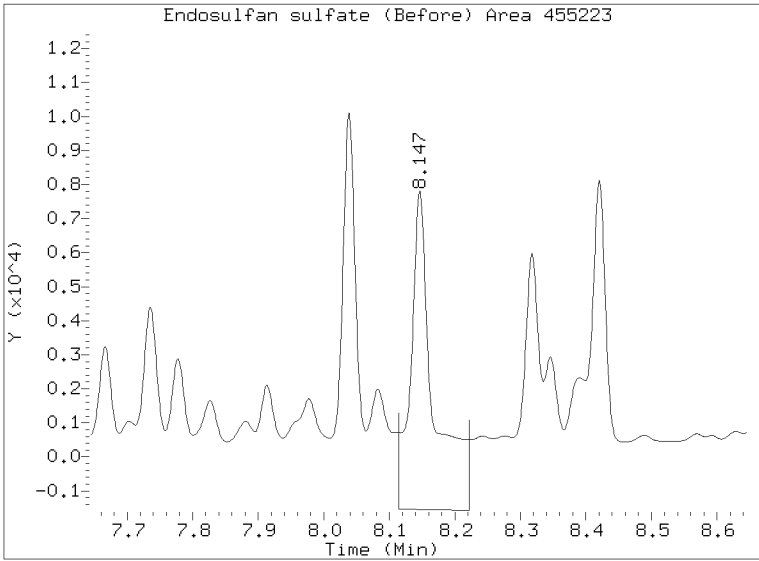
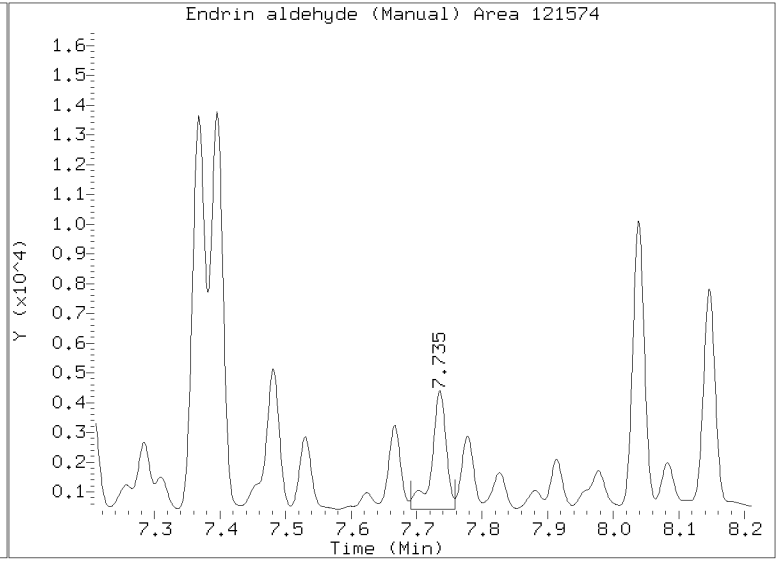
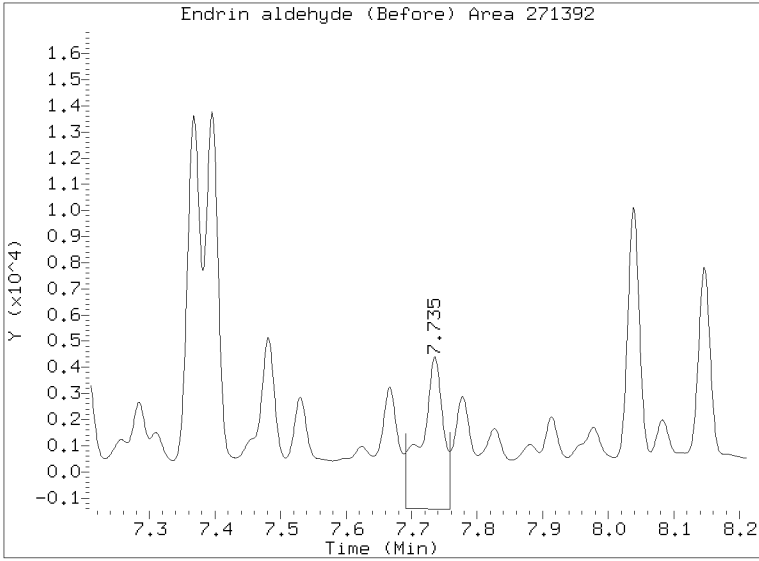
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012030.D
Injection Date: 21-JAN-2023 01:36
Lab ID:BLA0164-MS1 Client ID:
Report Date: 01/24/2023 13:42



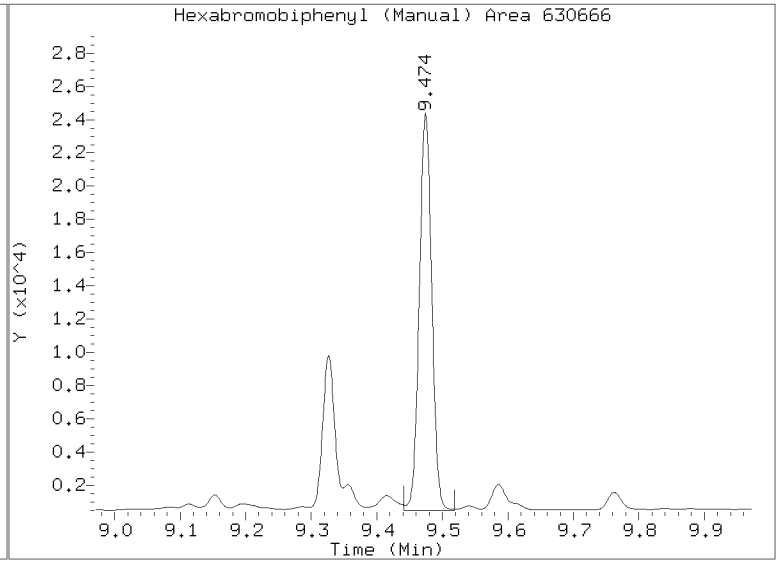
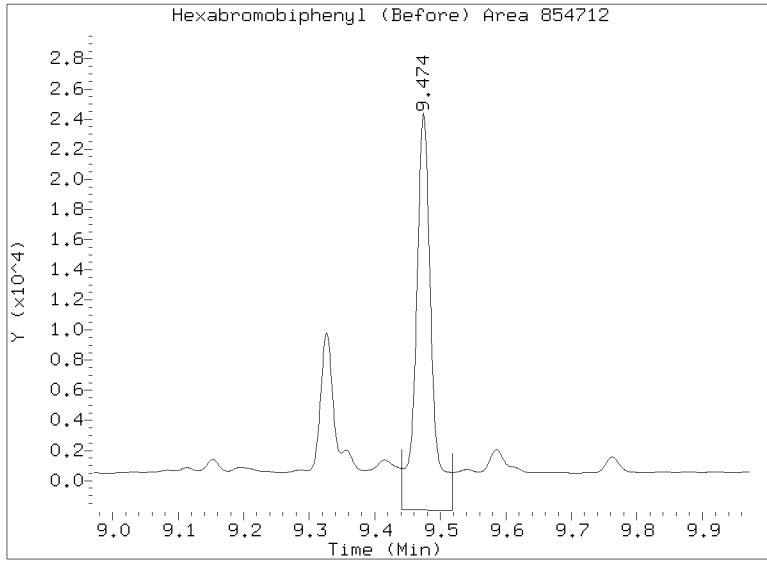
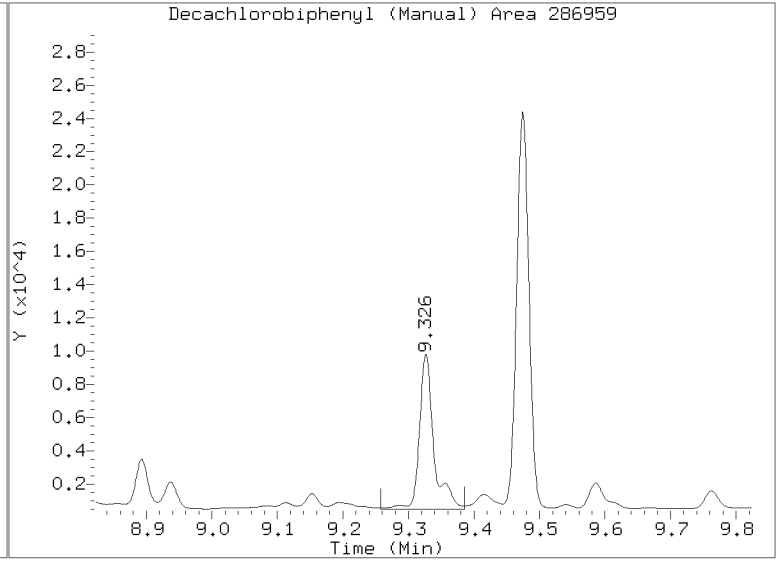
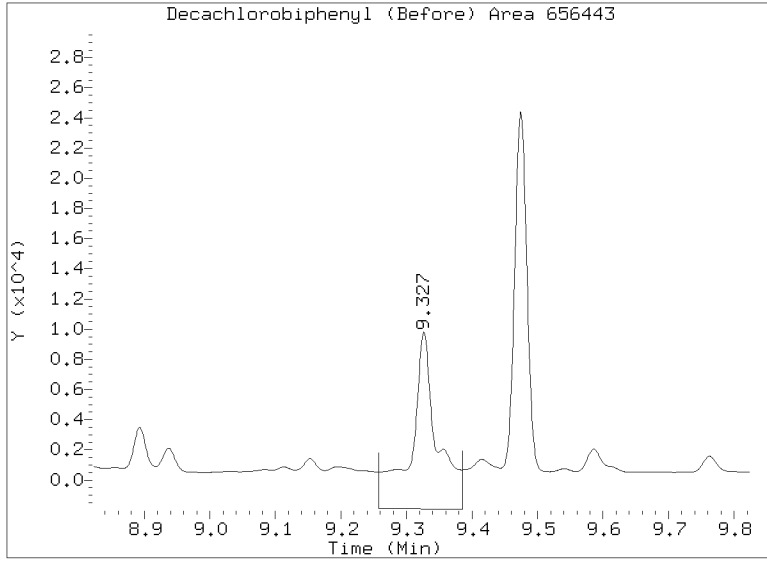
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012030.D
Injection Date: 21-JAN-2023 01:36
Lab ID:BLA0164-MS1 Client ID:
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Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012030.D
Injection Date: 21-JAN-2023 01:36
Lab ID:BLA0164-MS1 Client ID:
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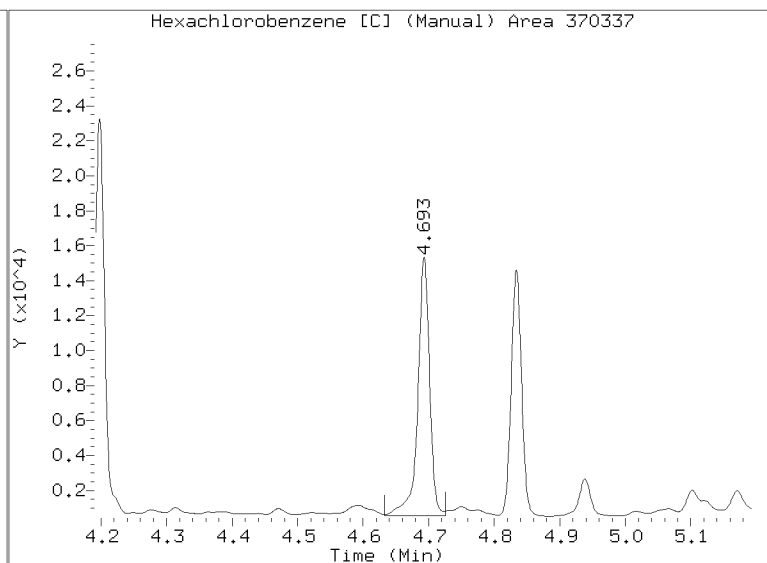
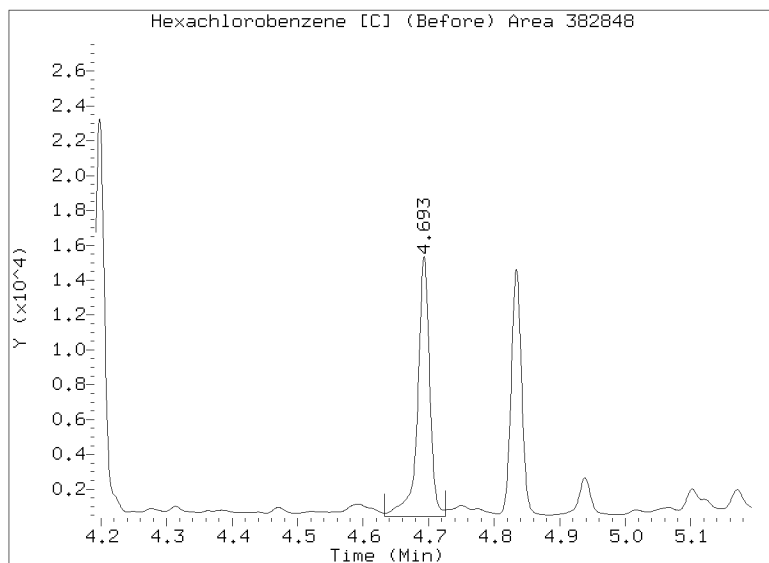
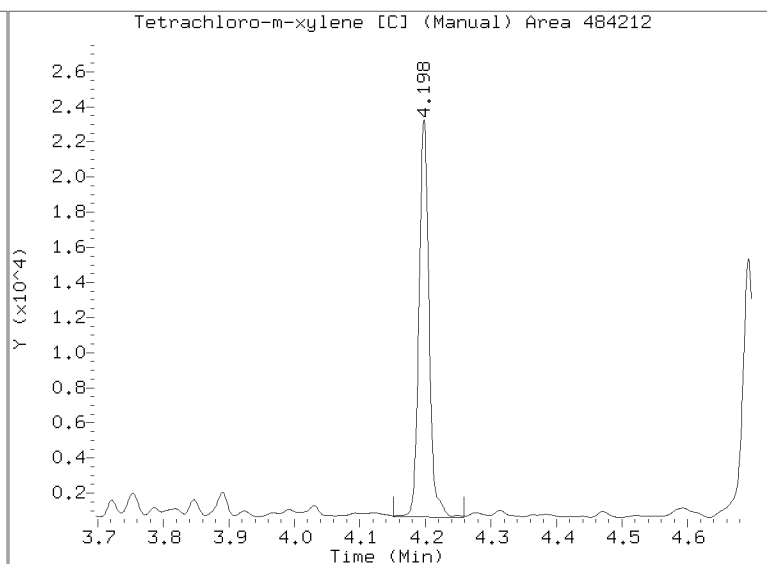
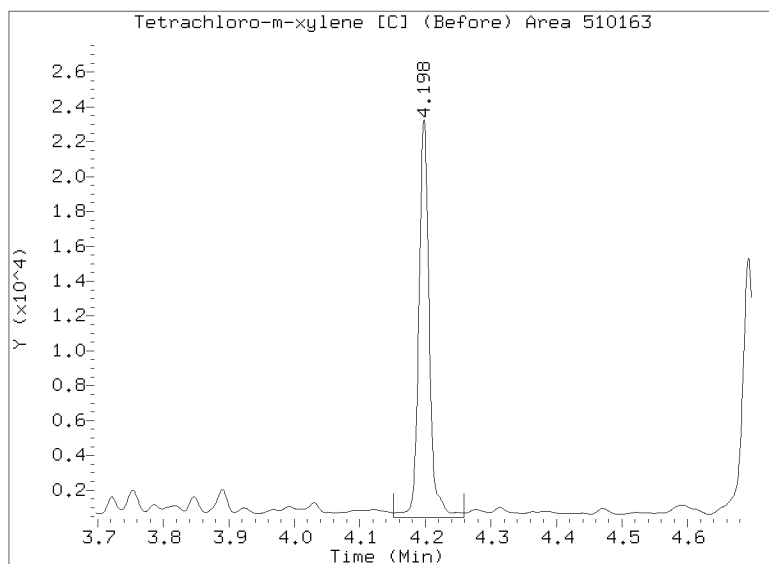
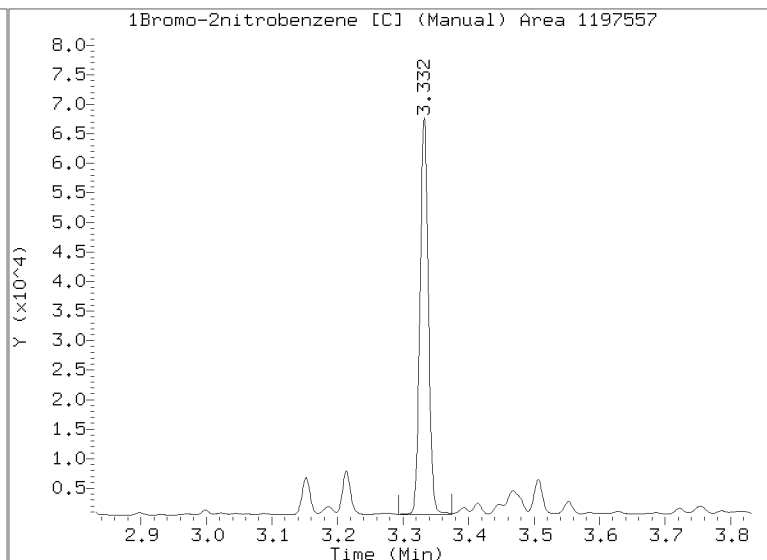
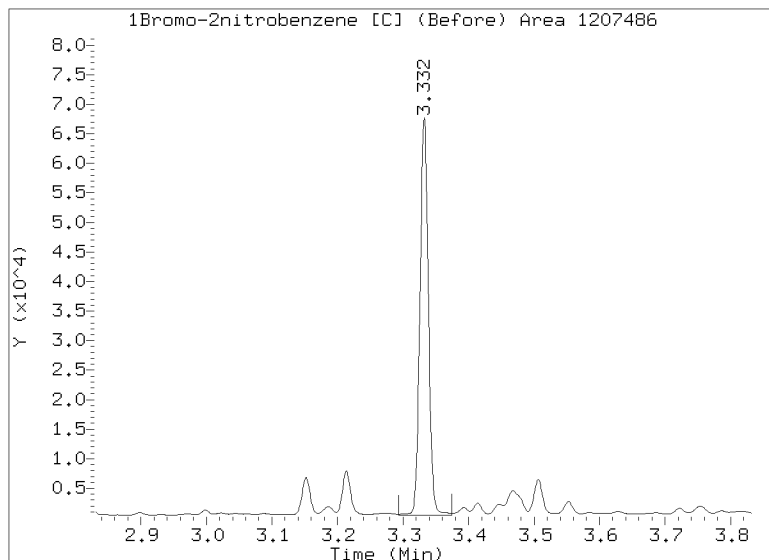


Manual Peak Adjustment Report, CLP-2

Datafile: /20230120.b/B20230120.b/23012030.D

Injection Date: 21-JAN-2023 01:36

Lab ID:BLA0164-MS1 Client ID:

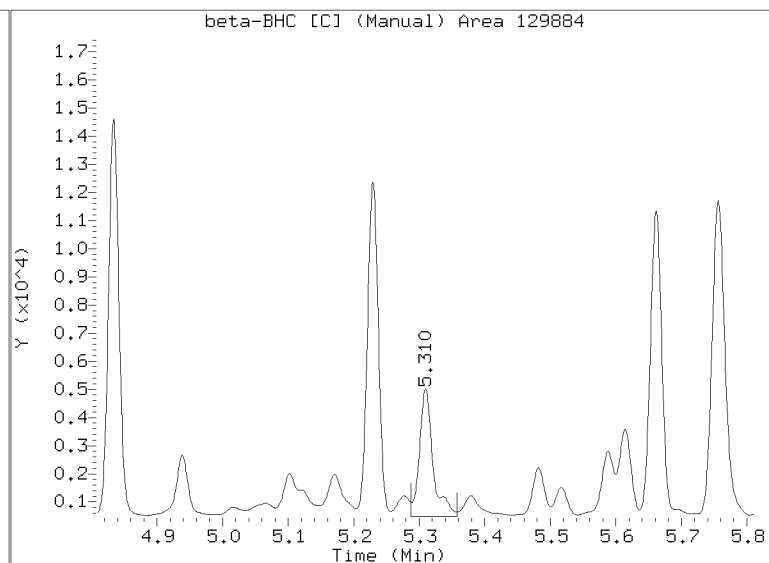
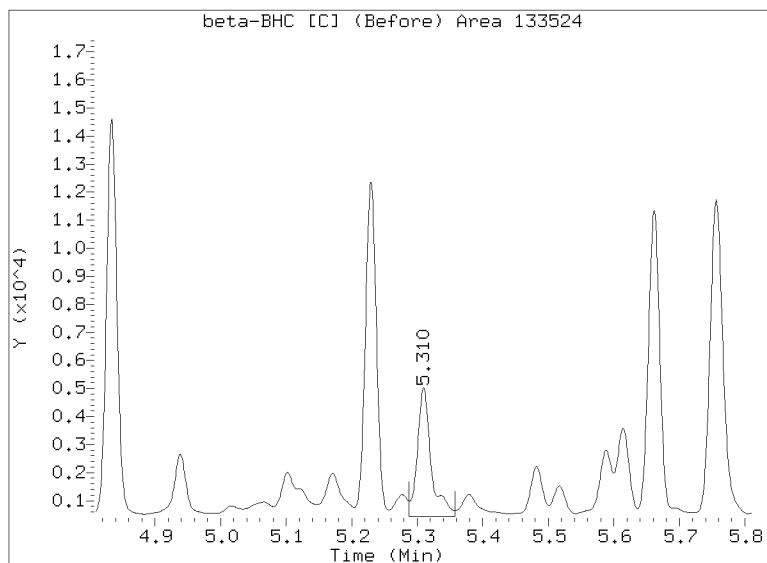
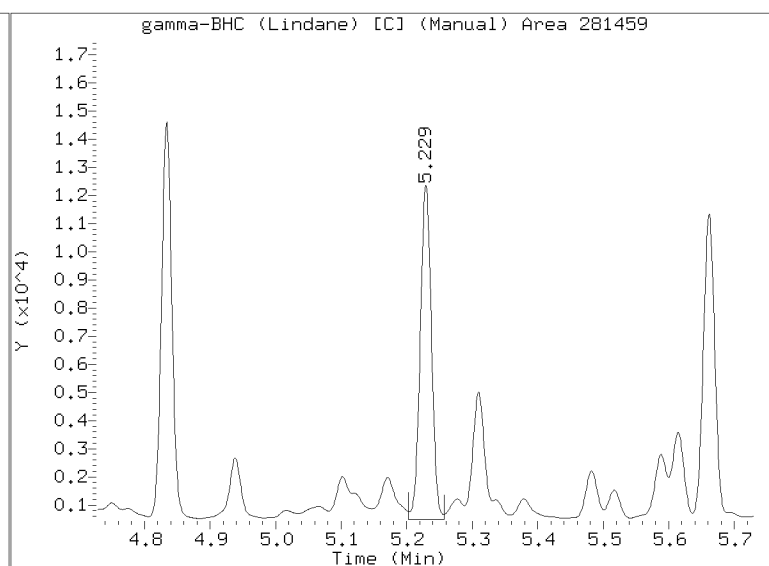
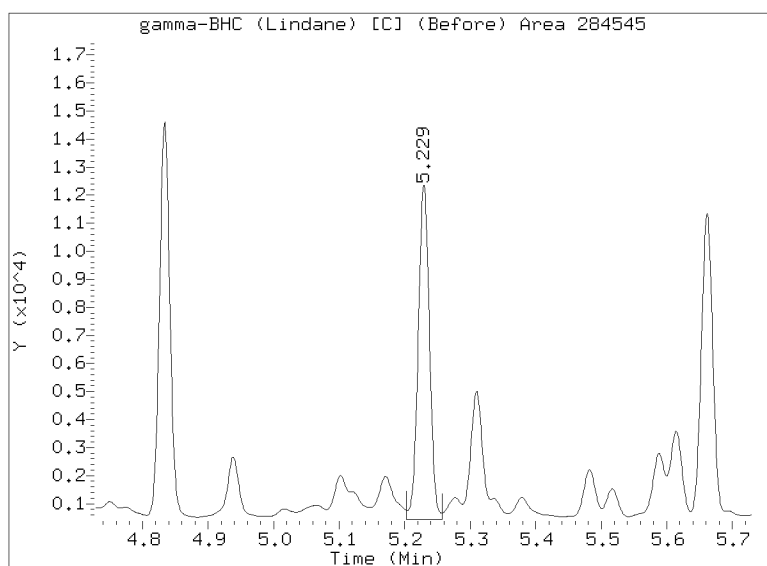
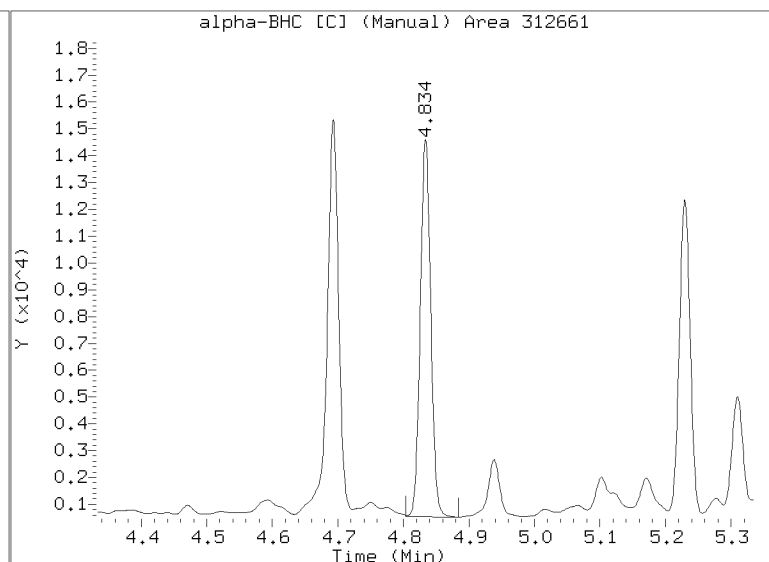
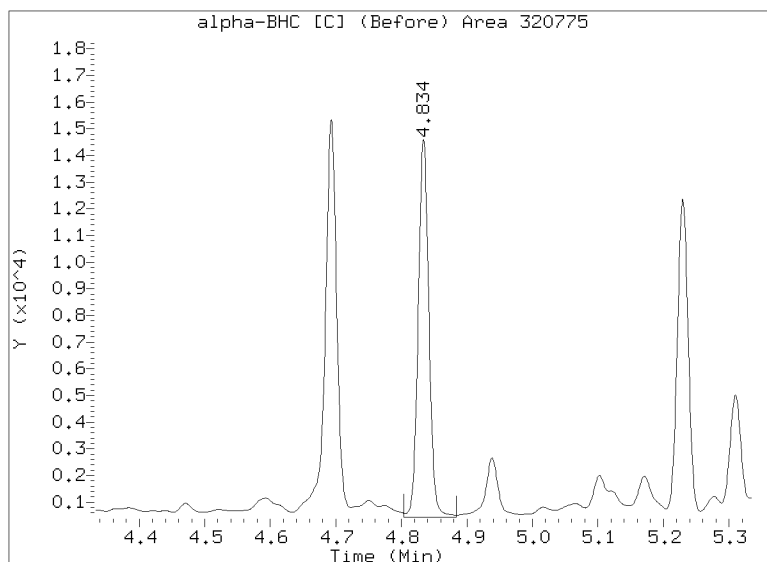


Manual Peak Adjustment Report, CLP-2

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Injection Date: 21-JAN-2023 01:36

Lab ID:BLA0164-MS1 Client ID:

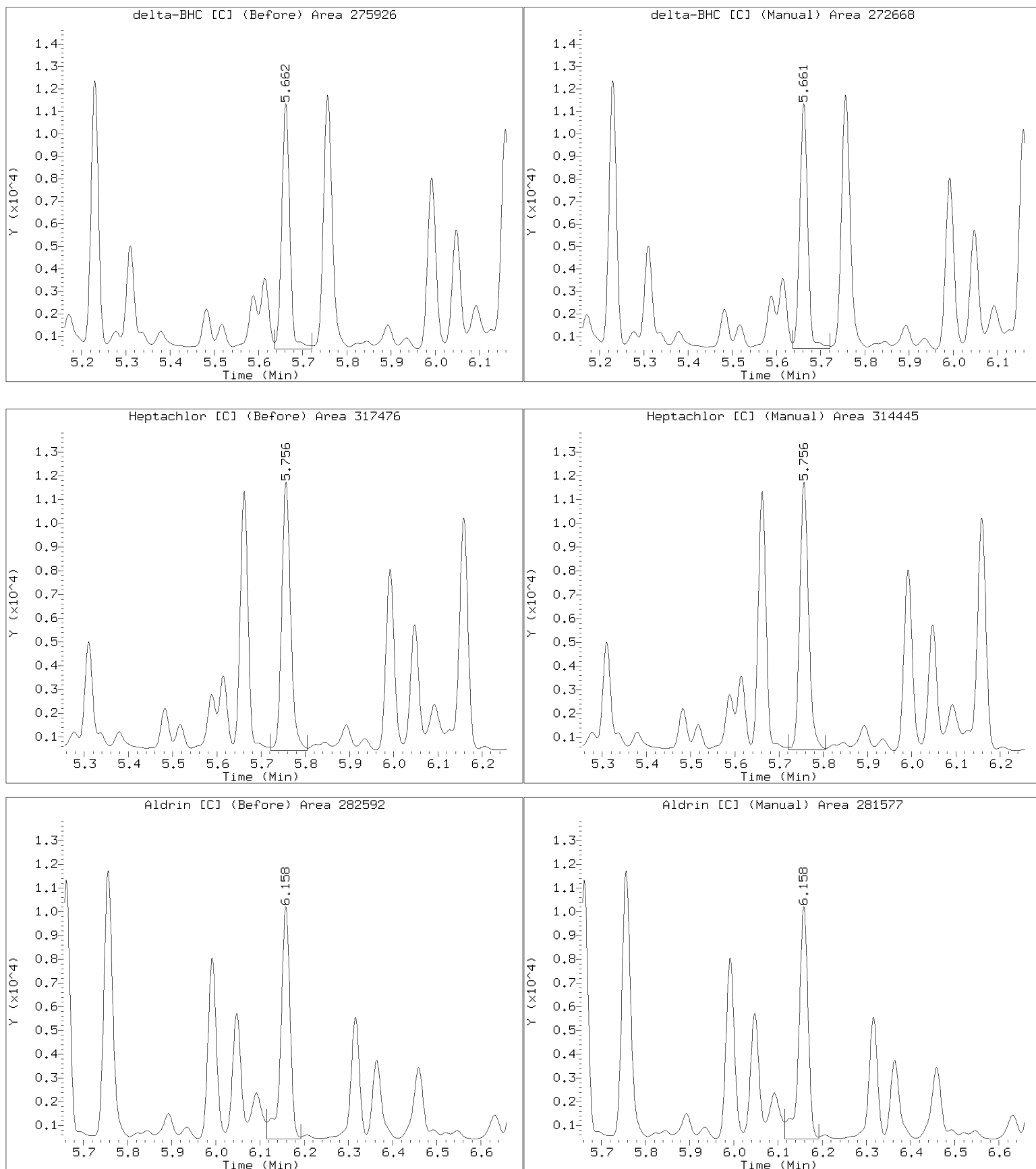


Manual Peak Adjustment Report, CLP-2

Datafile: /20230120.b/B20230120.b/23012030.D

Injection Date: 21-JAN-2023 01:36

Lab ID:BLA0164-MS1 Client ID:



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230120.b/23012031.D
Data file 2: /20230120.b/B20230120.b/23012031.D
Method: \20230120.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: BIA0164-MSD1
Client ID:
Injection Date: 21-JAN-2023 01:54
Report Date: 01/24/2023 13:42
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.316	0.002	292072	4.834	-0.000	296024	16.09	11.86	30.2	alpha-BHC MN
4.698	0.002	88661	5.311	0.001	122845	12.68	12.95	2.1	beta-BHC M
4.881	0.003	246968	5.662	0.000	257442	16.64	12.53	28.2	delta-BHC M
4.617	0.002	262432	5.230	0.000	263593	16.67	12.45	29.0	gamma-BHC (Lindane) M
5.099	0.002	190677	5.757	0.001	291424	13.61	15.19	11.0	Heptachlor M
5.421	0.003	245514	6.159	0.001	270412	15.64	12.35	23.5	Aldrin M
6.094	0.001	206306	6.798	-0.017	490815	15.16	27.10	56.5*	Heptachlor epoxide b M
6.539	0.004	259256	7.259	-0.000	306581	20.76	19.21	7.8	Endosulfan I M
6.780	-0.016	477553	7.536	-0.016	282186	35.59	16.00	75.9*	Dieldrin M
6.456	0.001	473632	7.342	-0.001	564158	38.02	34.88	8.6	4,4'-DDE M
7.071	0.026	1294673	----	----	150.56	0.00	----	----	Endrin
7.285	0.003	104062	8.075	-0.013	944679	13.44	83.14	144.3*	Endosulfan II M
----	----	----	7.949	-0.000	435925	0.00	40.43	----	4,4'-DDD
8.148	0.003	174486	8.686	-0.001	210387	23.74	21.09	11.8	Endosulfan sulfate M
7.369	-0.026	1251442	8.274	0.007	1774344	159.86	170.50	6.4	4,4'-DDT M
----	----	----	8.880	-0.029	1690239	0.00	367.02	----	Methoxychlor
8.390	-0.029	444624	9.228	0.018	1392588	52.80	129.22	84.0*	Endrin ketone M
7.736	0.025	454675	8.415	-0.004	389194	73.64	48.56	41.1*	Endrin aldehyde M
6.237	0.003	180545	7.028	0.002	316831	13.06	17.54	29.3	trans-Chlordane M
6.385	0.004	258348	7.186	-0.000	238196	18.63	13.48	32.1	cis-Chlordane M
2.307	-0.000	229482	2.485	-0.001	308323	12.06	13.01	7.6	Hexachlorobutadiene M
4.157	0.002	217299	4.693	0.000	351407	12.89	15.47	18.2	Hexachlorobenzene MN
3.805	0.001	330044	4.198	0.001	474979	25.73	27.10	5.2	Tetrachloro-m-xylene MN
9.326	0.003	247999	10.430	-0.000	335889	37.32	38.98	4.4	Decachlorobiphenyl M

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	672426	943093	40.3
Hexabromobiphenyl	609723	655901	7.6

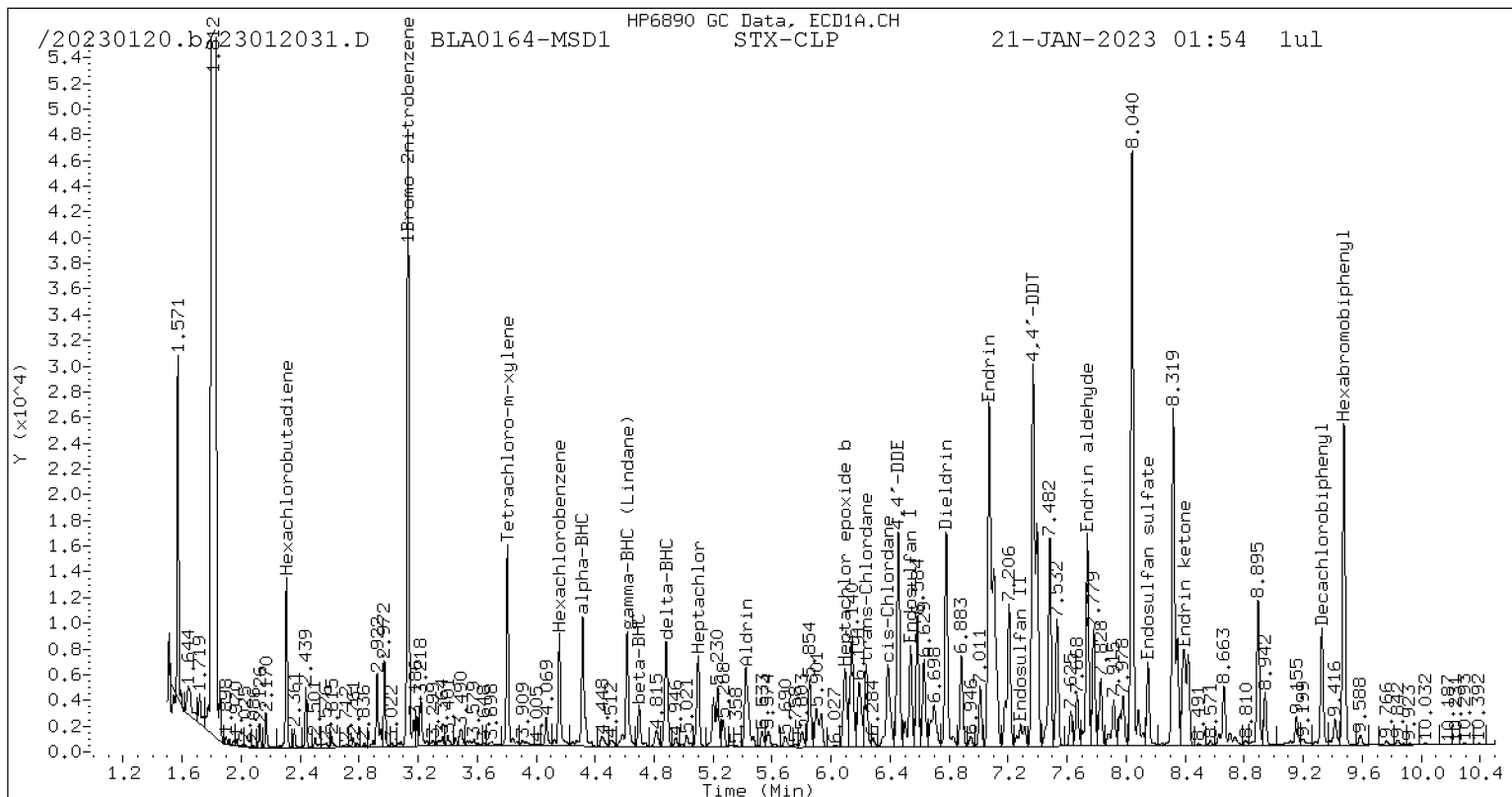
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1006482	1245056	23.7
Hexabromobiphenyl	769764	779608	1.3

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

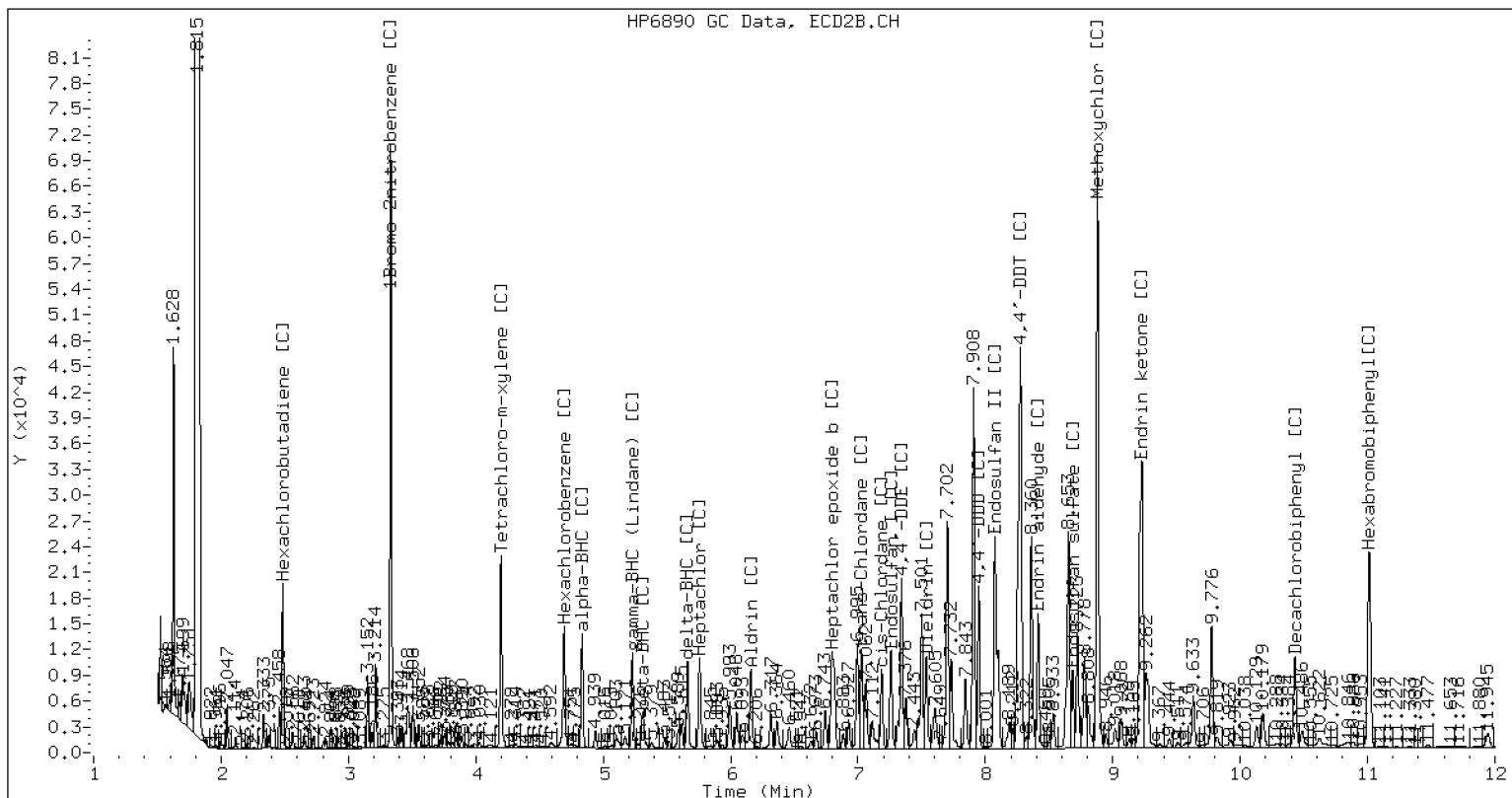
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: YES

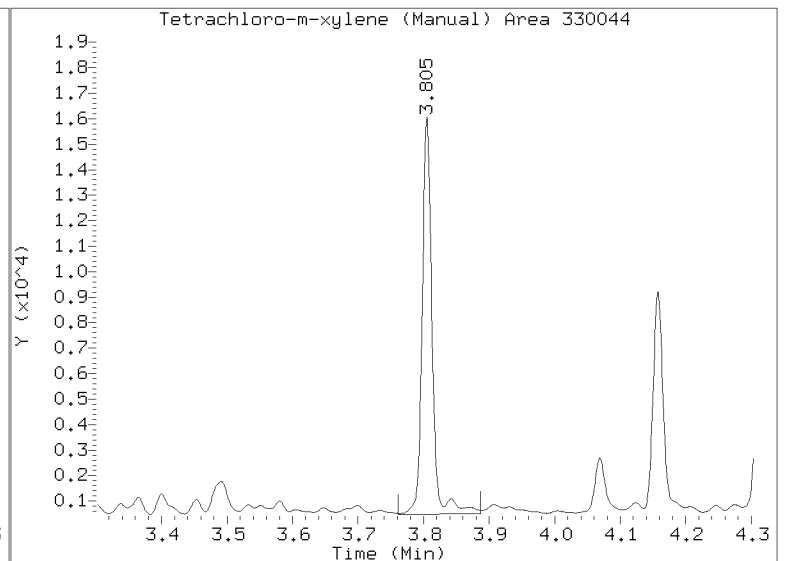
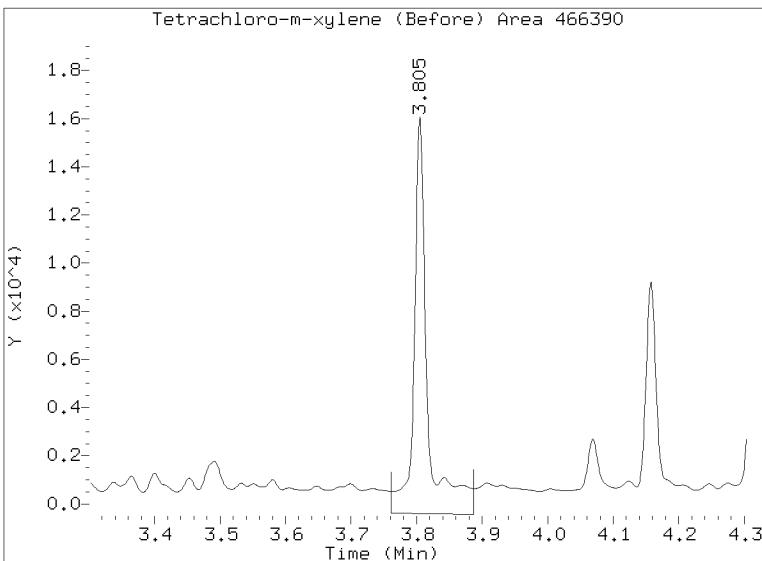
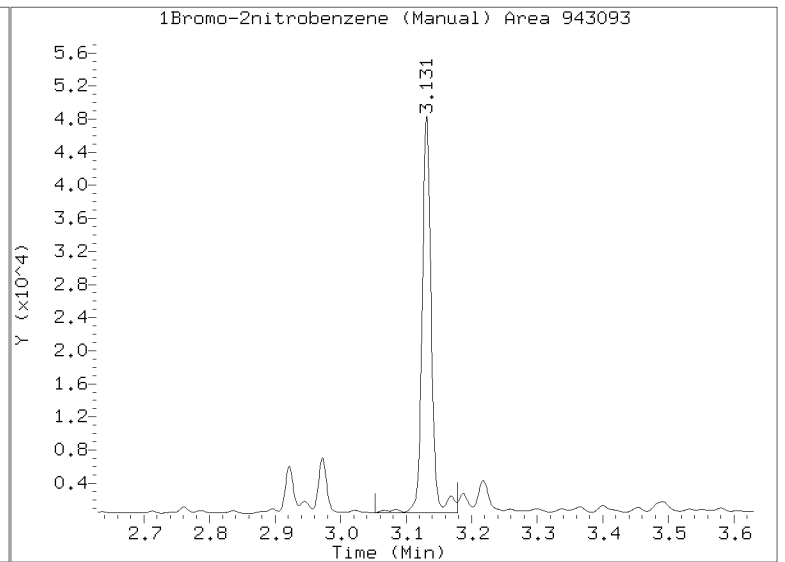
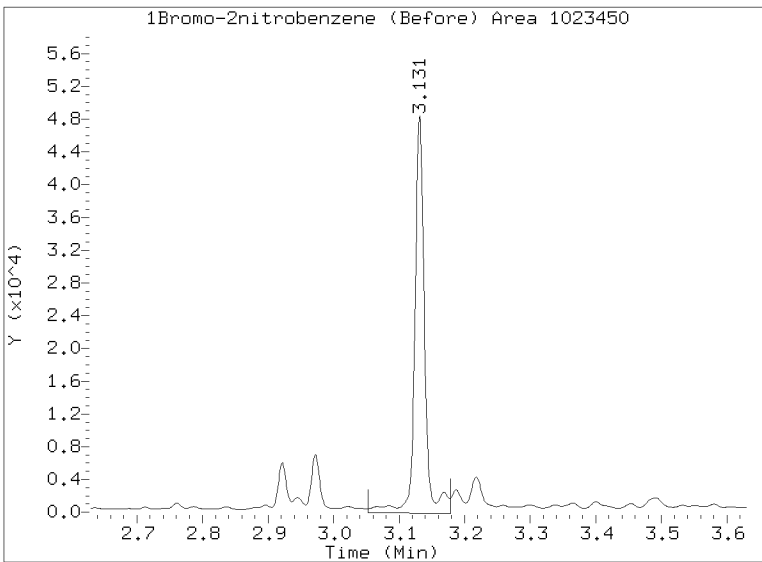
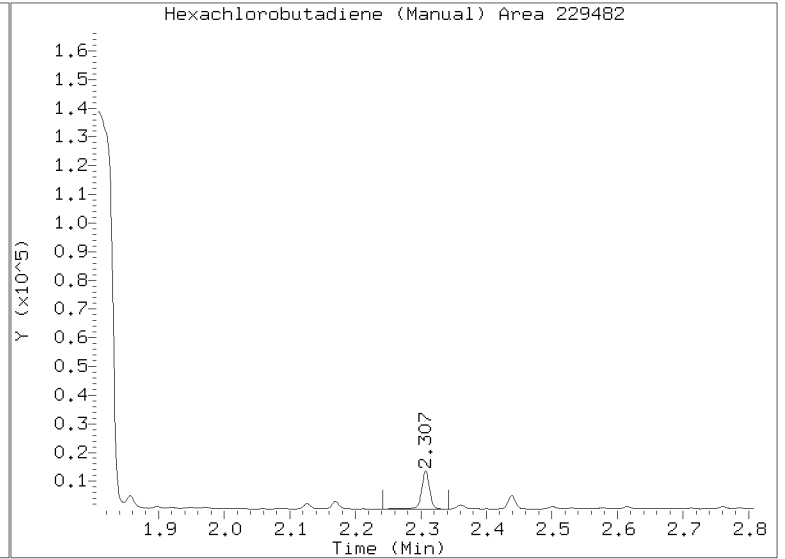
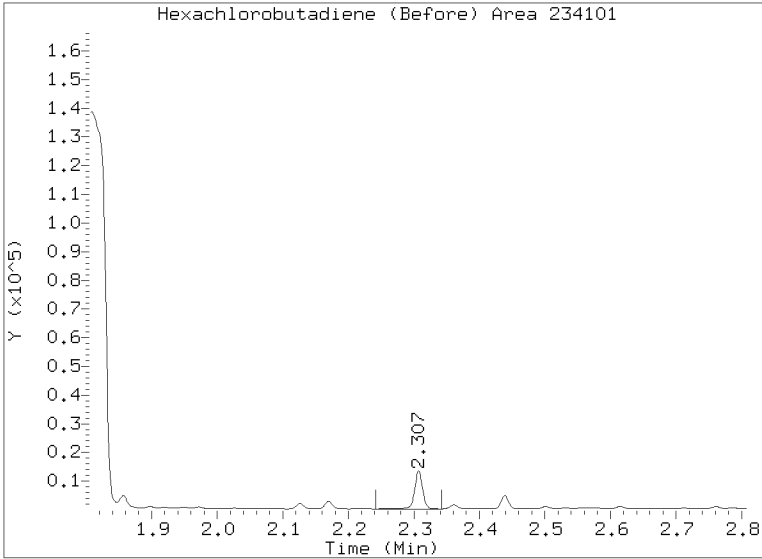
/20230120.b/B20230120.b/23012031.D BLA0164-MSD1 CLP2



CLP-2 Manual Integration: YES

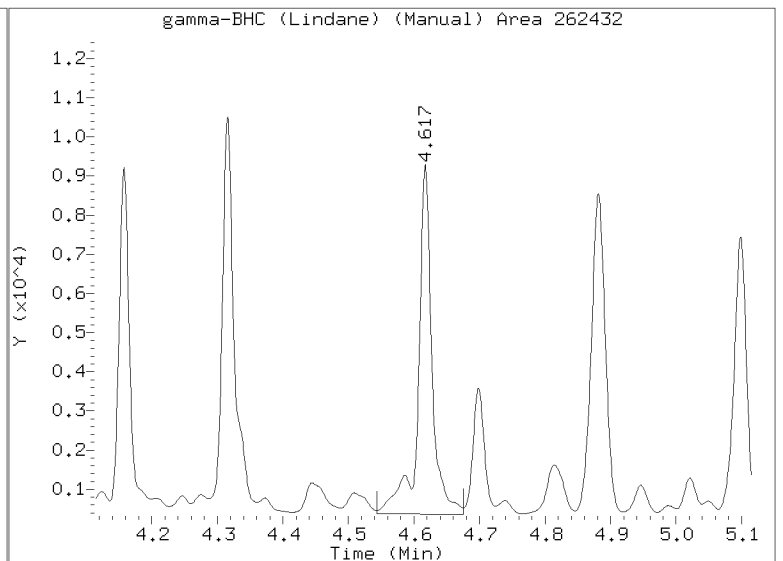
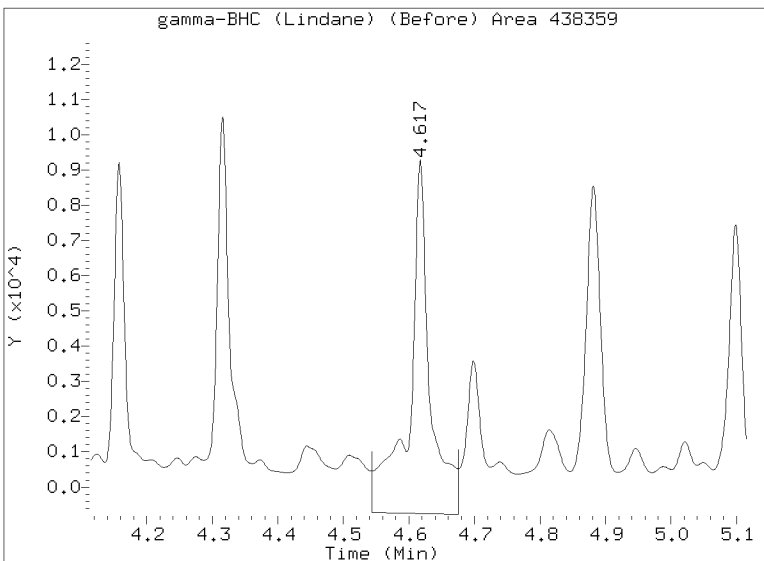
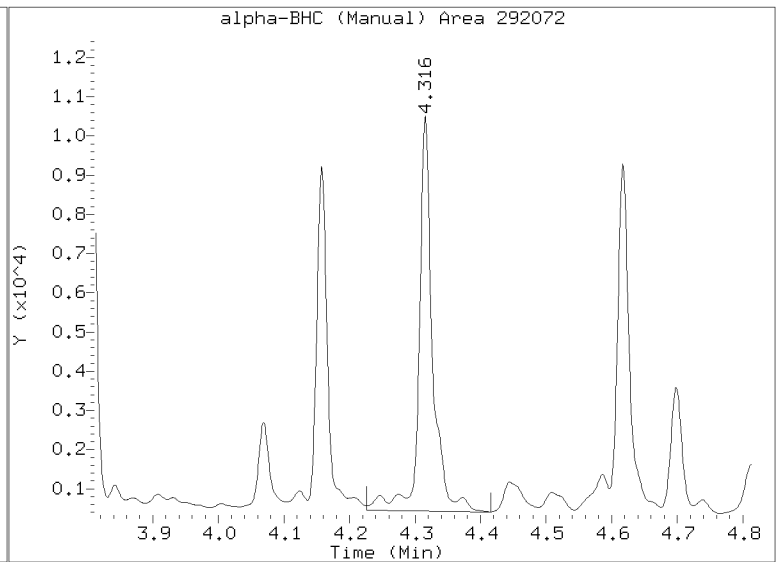
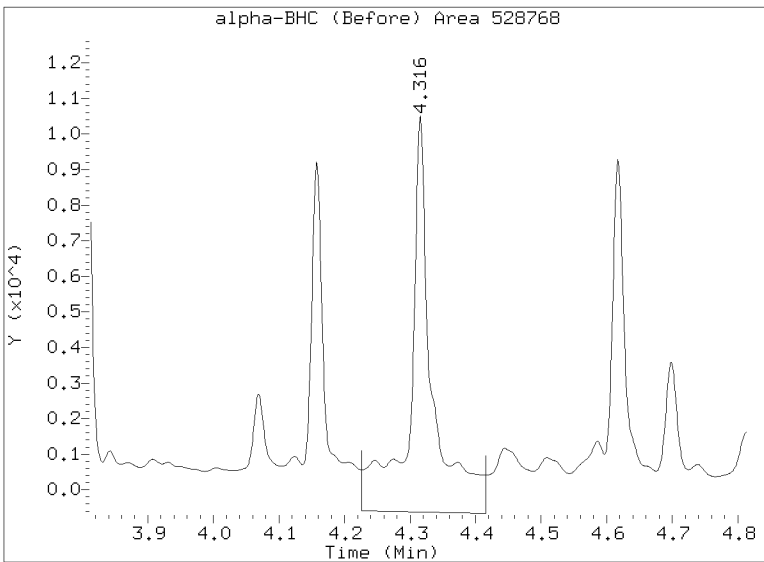
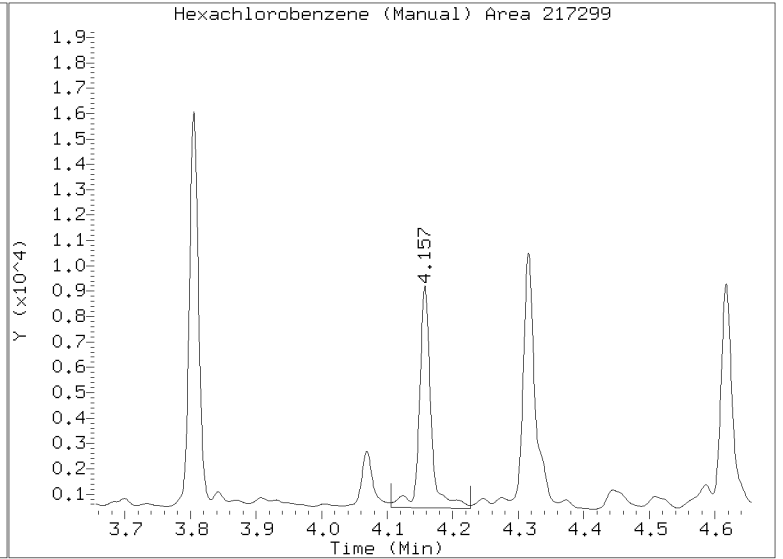
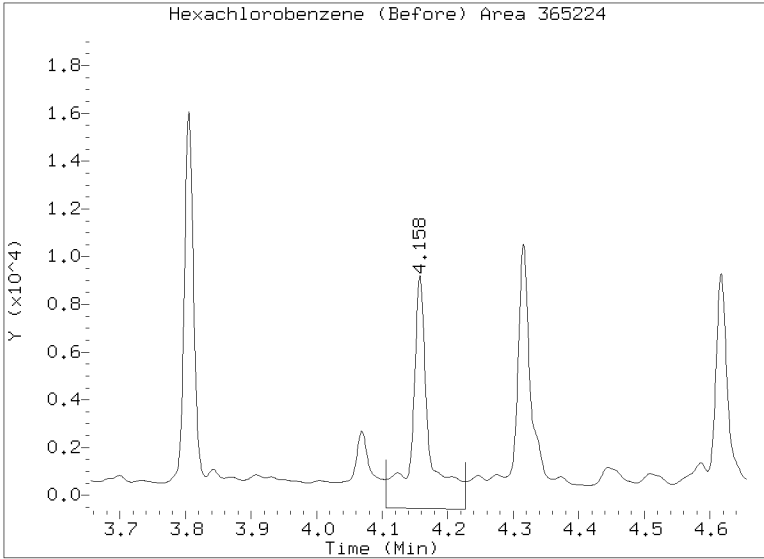
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012031.D
Injection Date: 21-JAN-2023 01:54
Lab ID:BLA0164-MSD1 Client ID:
Report Date: 01/24/2023 13:42



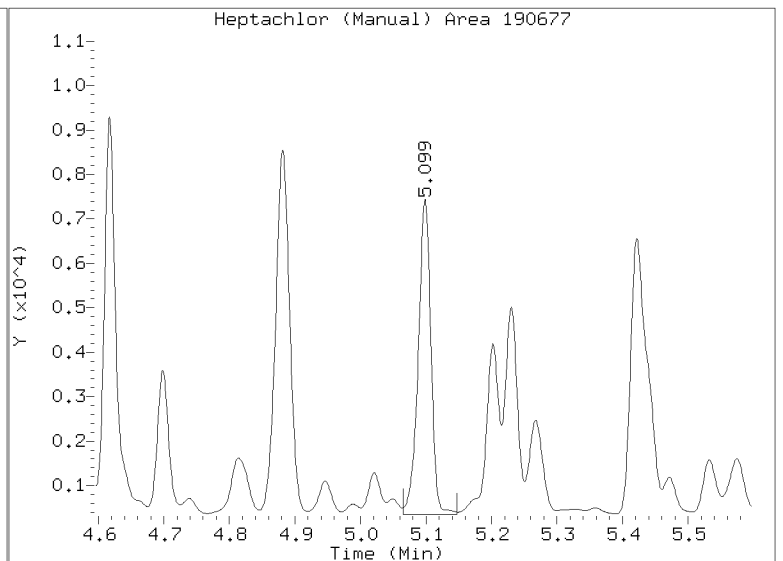
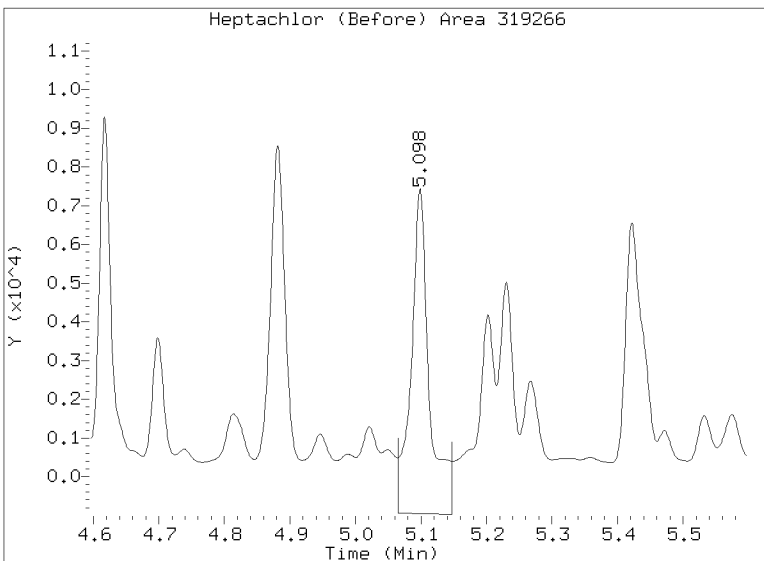
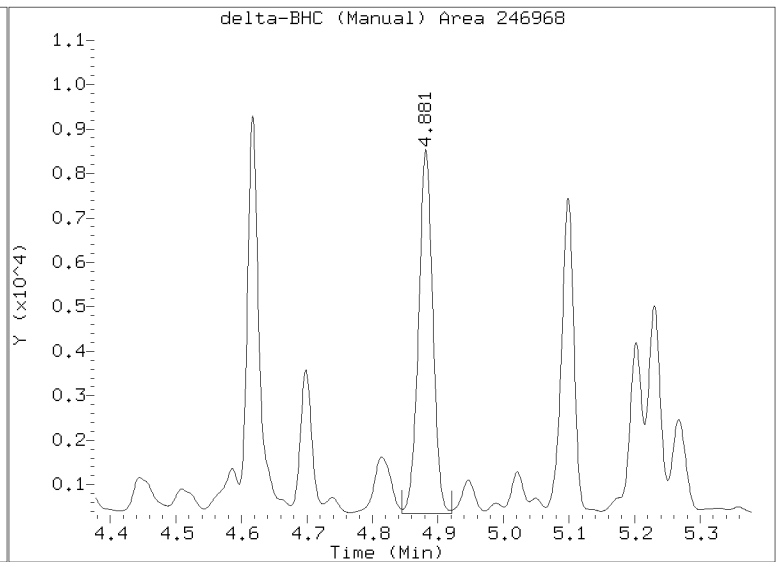
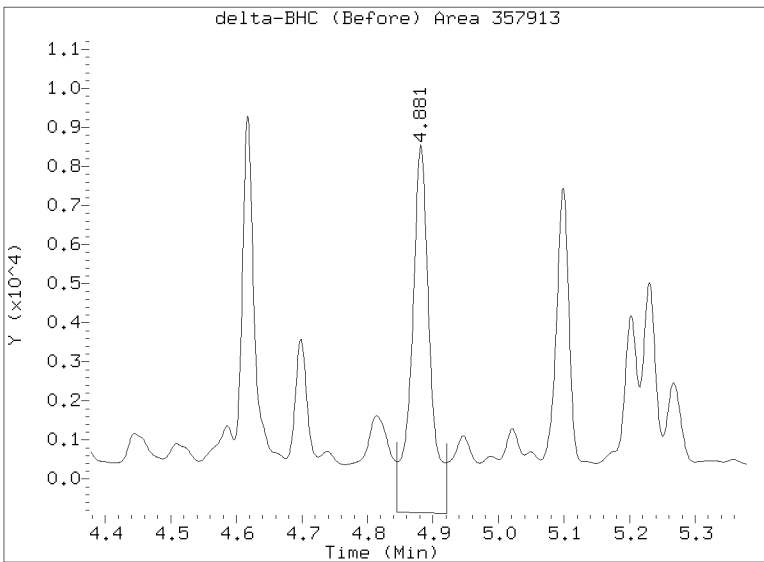
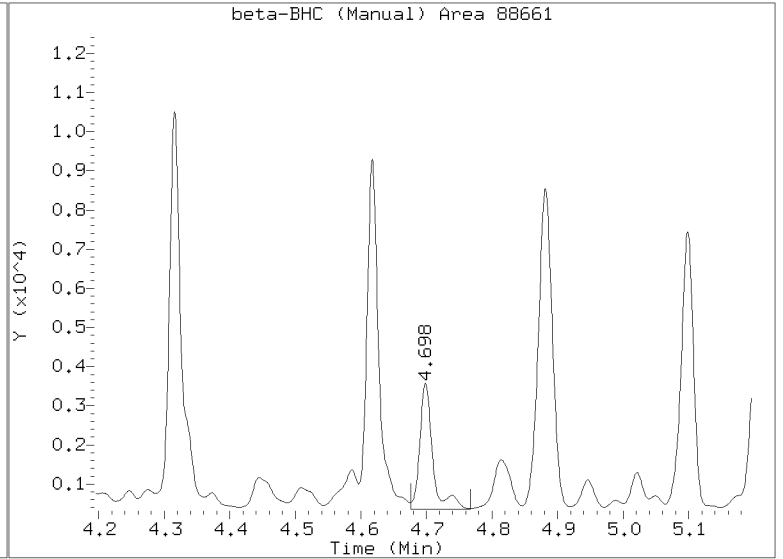
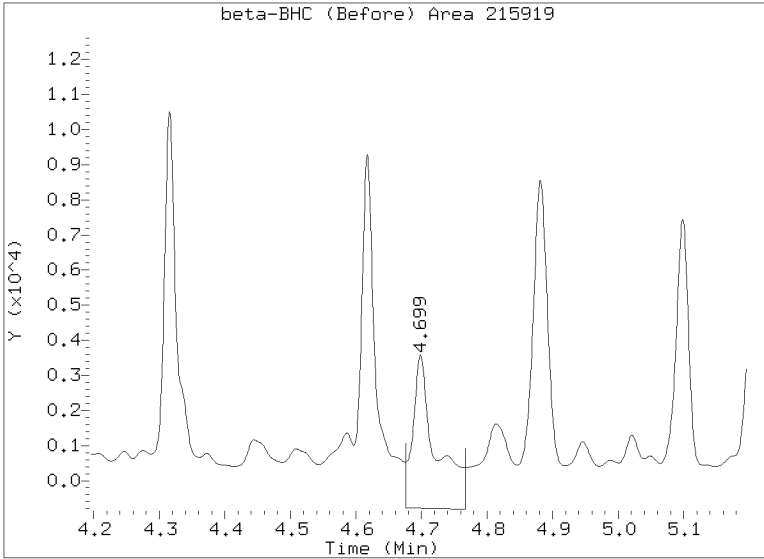
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Lab ID:BLA0164-MSD1 Client ID:
Report Date: 01/24/2023 13:42



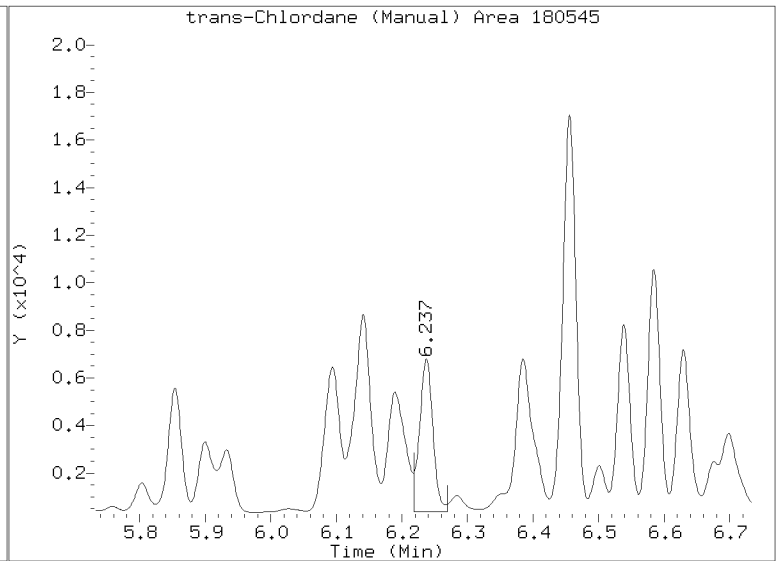
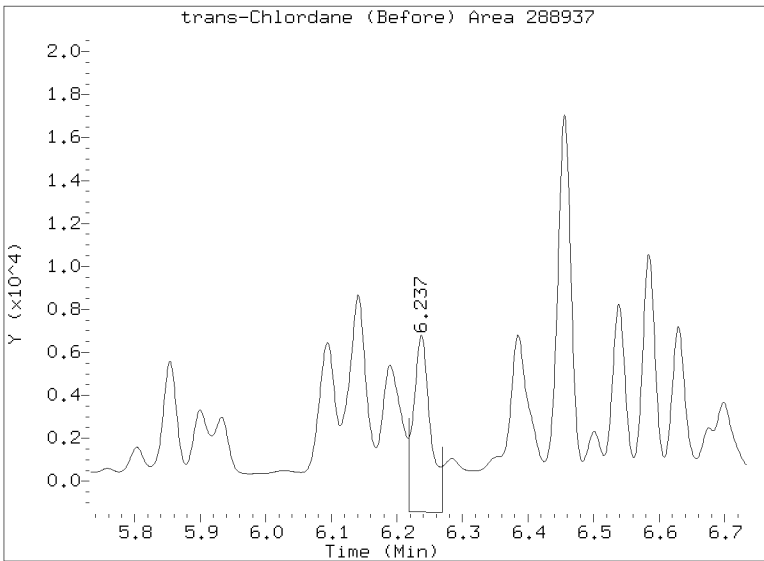
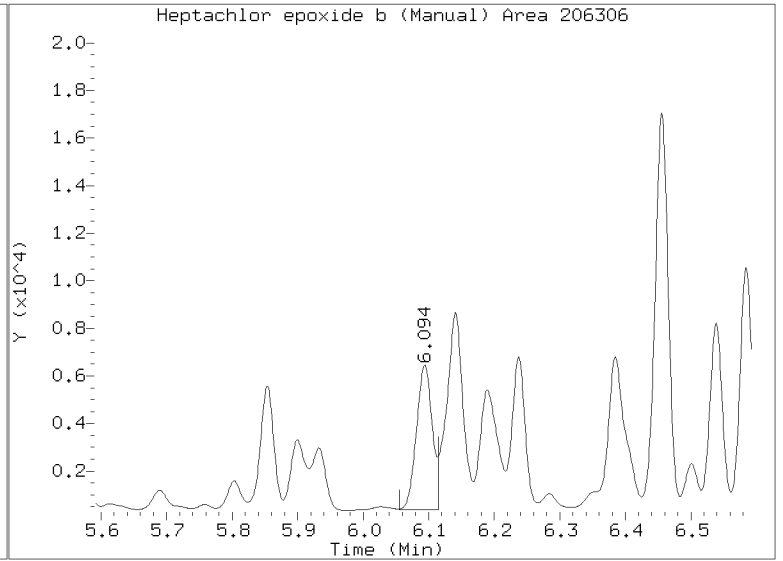
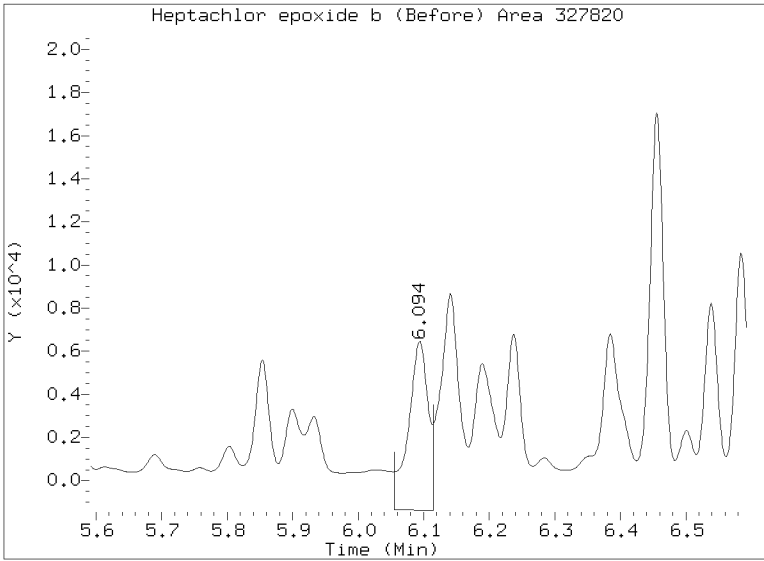
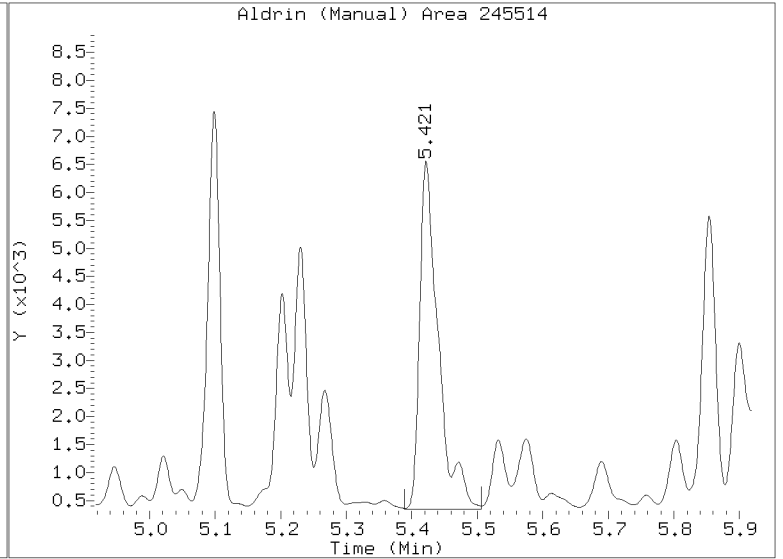
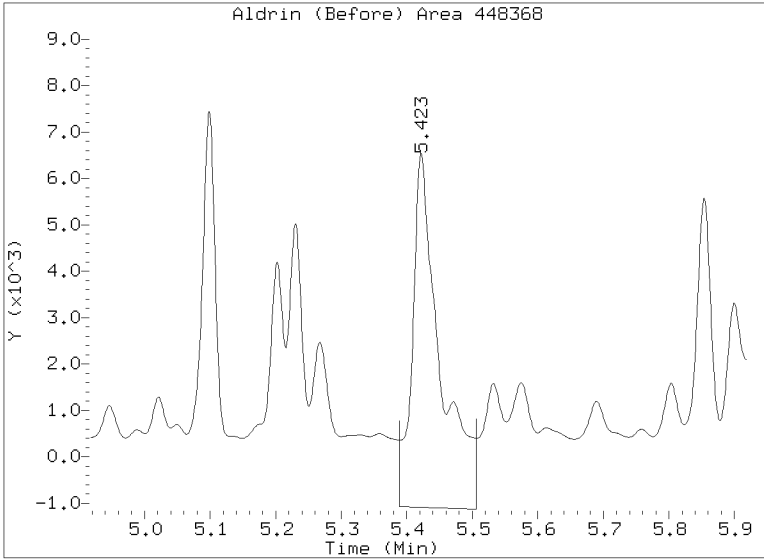
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012031.D
Injection Date: 21-JAN-2023 01:54
Lab ID:BLA0164-MSD1 Client ID:
Report Date: 01/24/2023 13:42



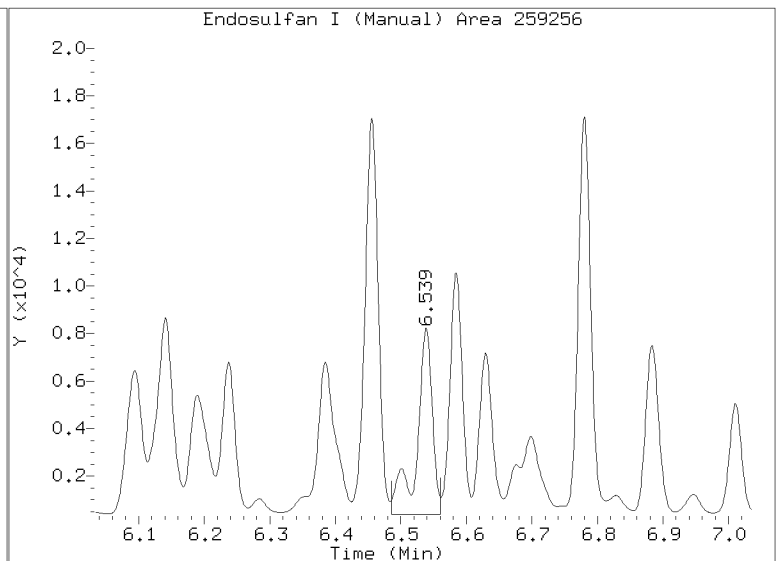
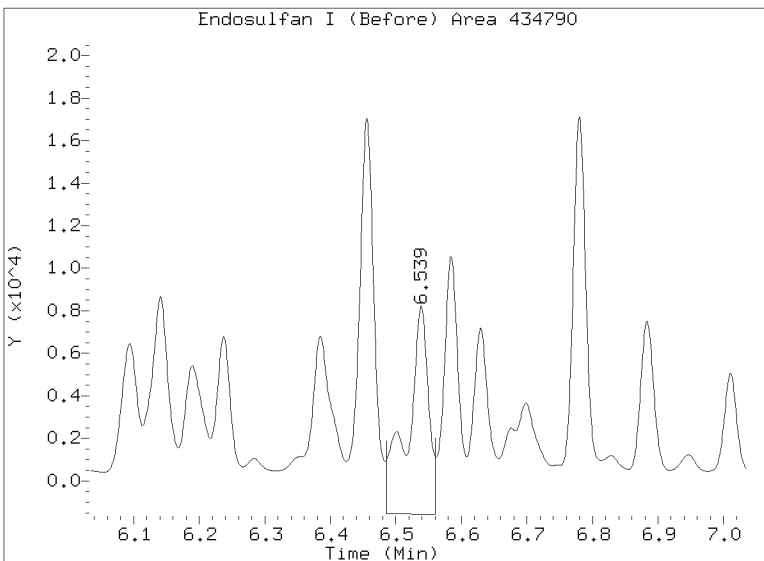
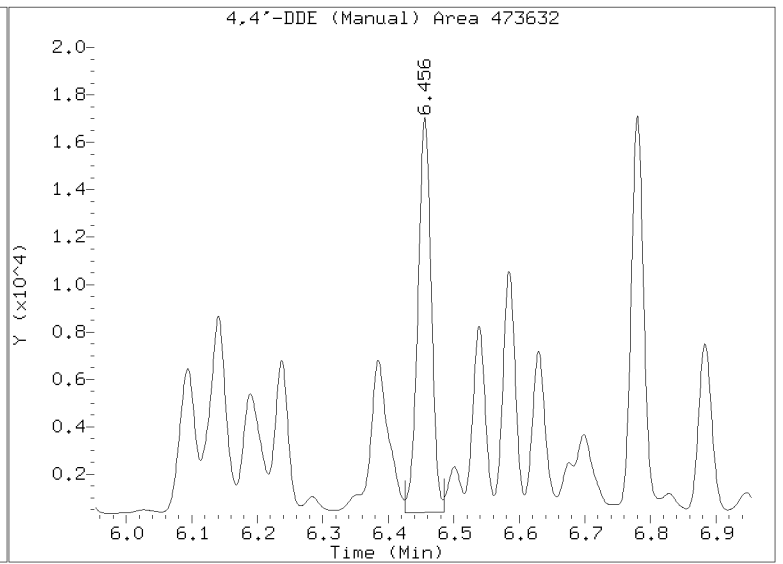
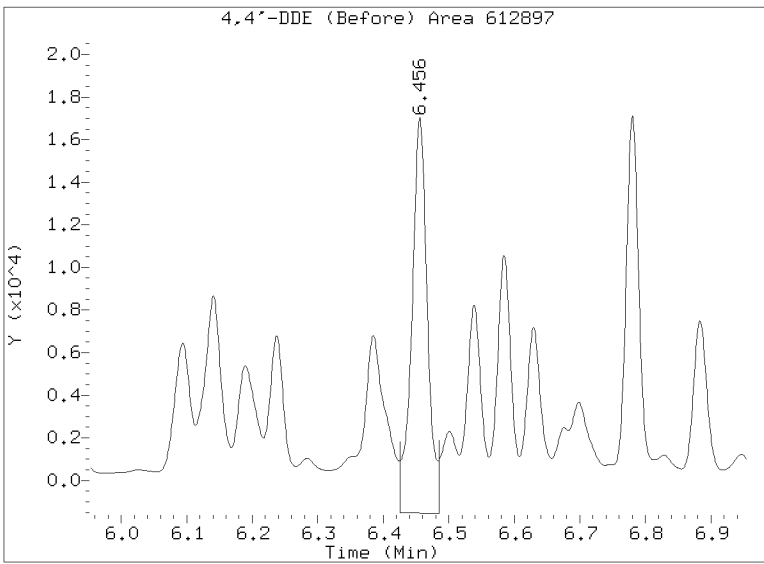
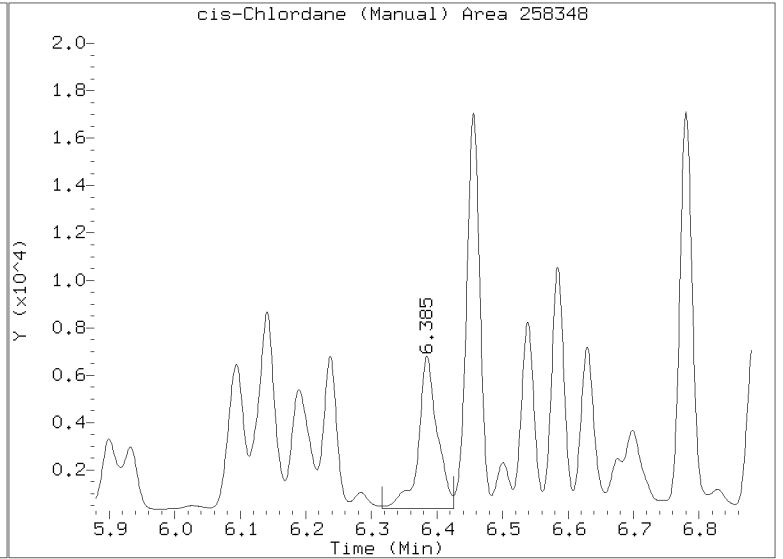
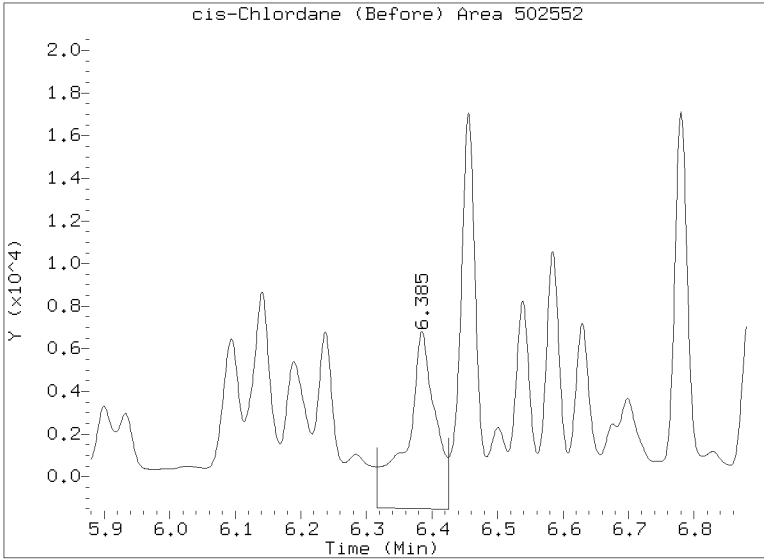
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012031.D
Injection Date: 21-JAN-2023 01:54
Lab ID:BLA0164-MSD1 Client ID:
Report Date: 01/24/2023 13:42



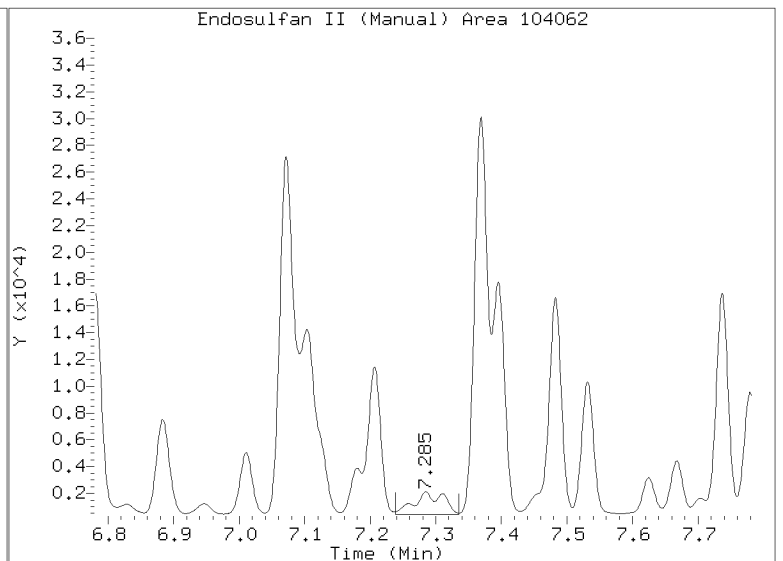
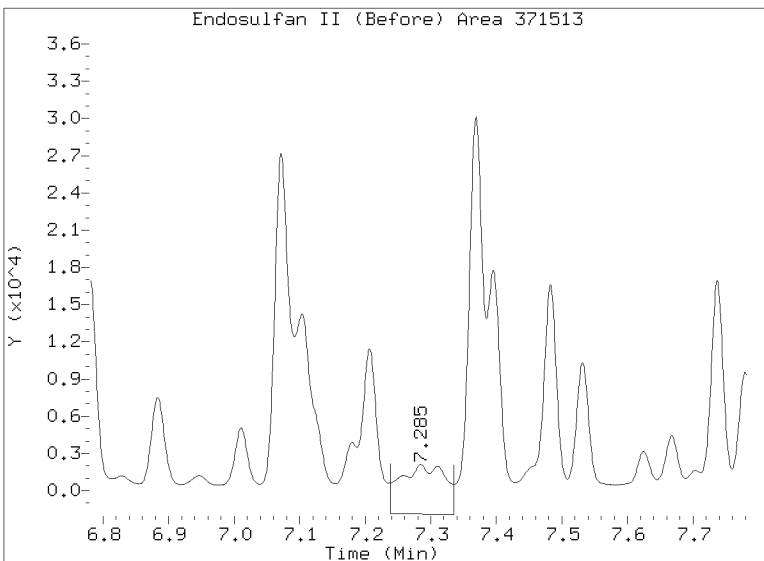
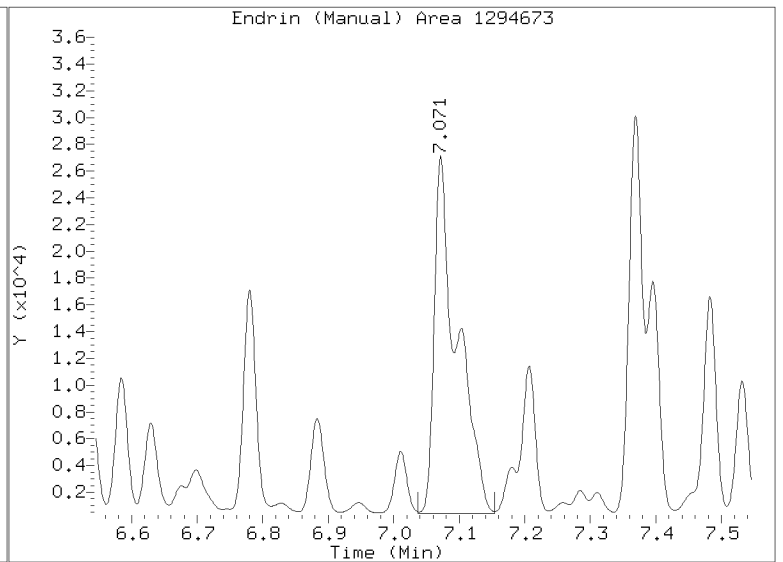
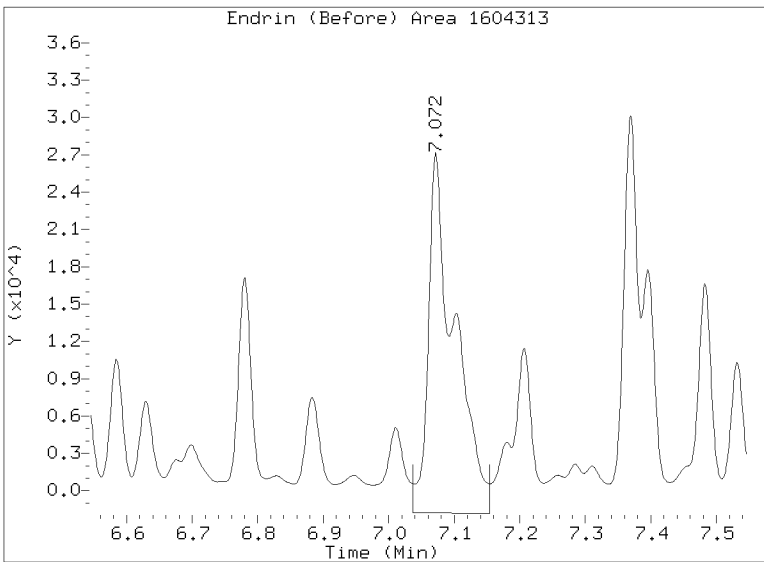
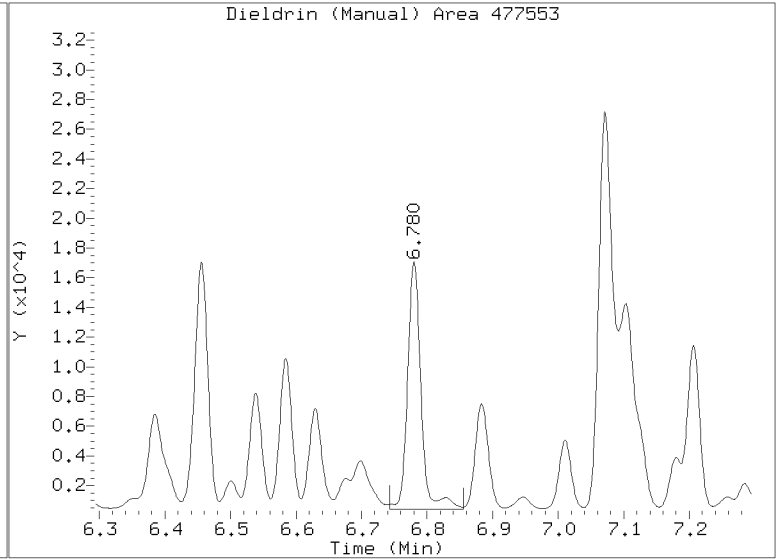
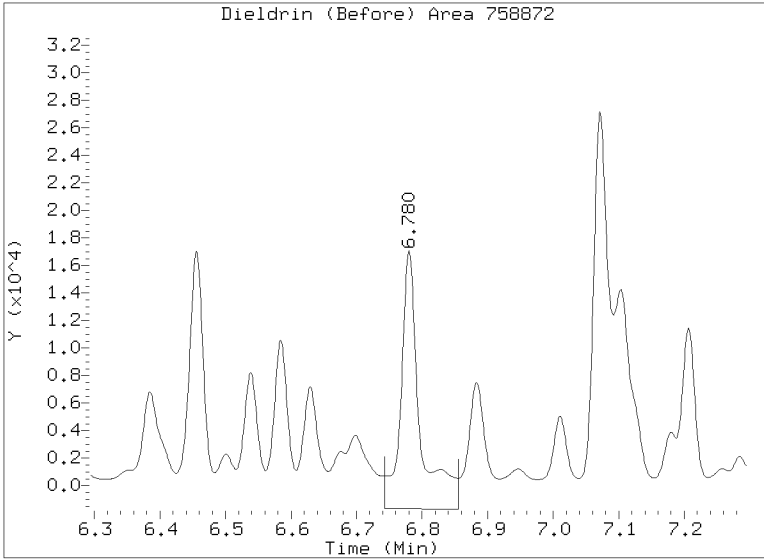
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012031.D
Injection Date: 21-JAN-2023 01:54
Lab ID:BLA0164-MSD1 Client ID:
Report Date: 01/24/2023 13:42



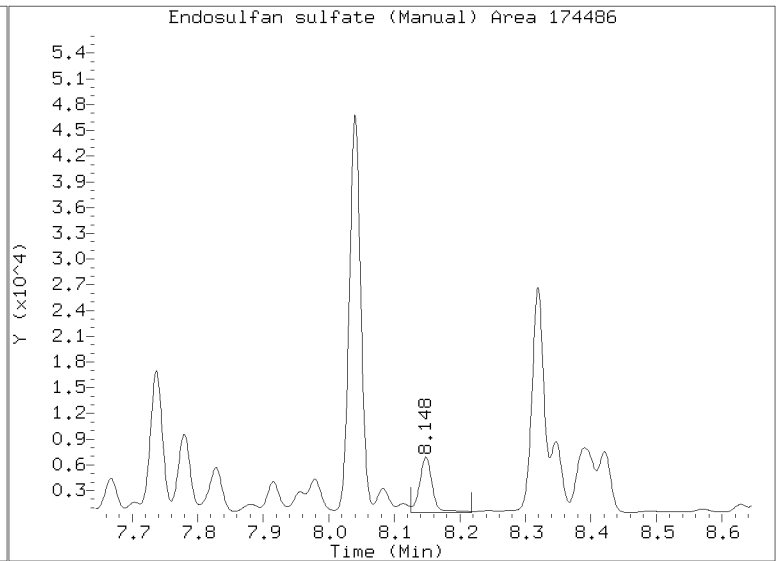
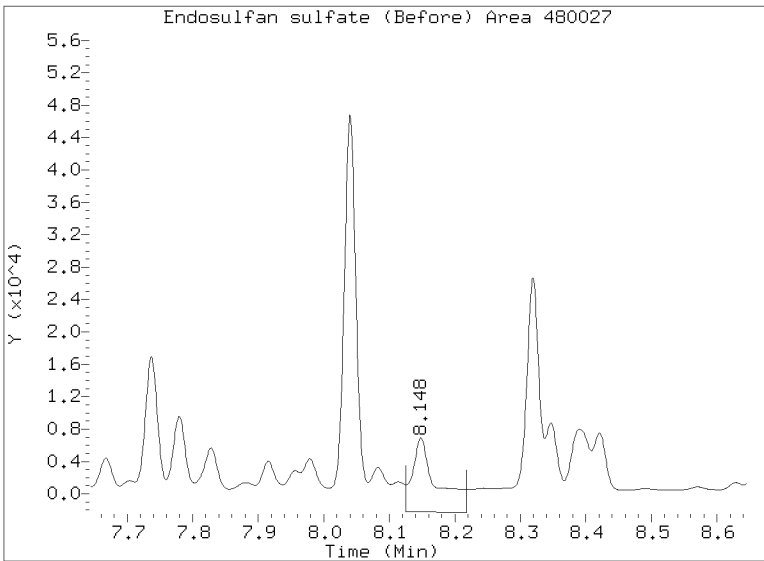
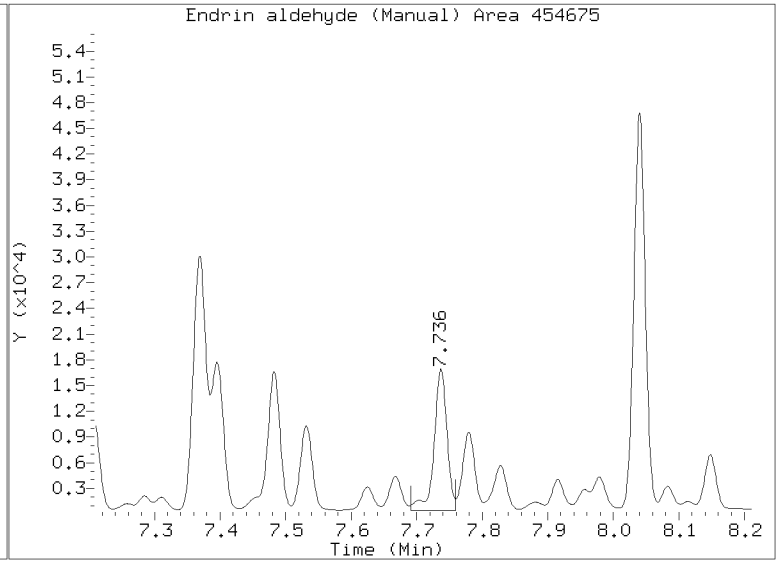
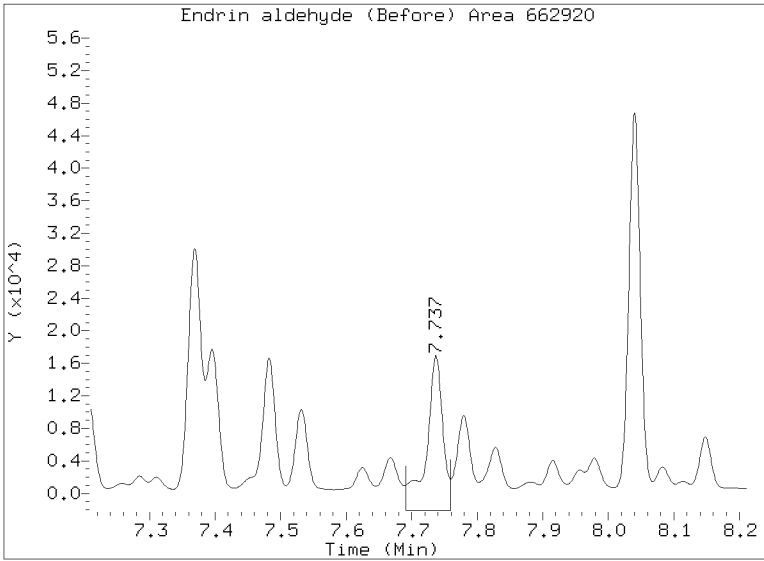
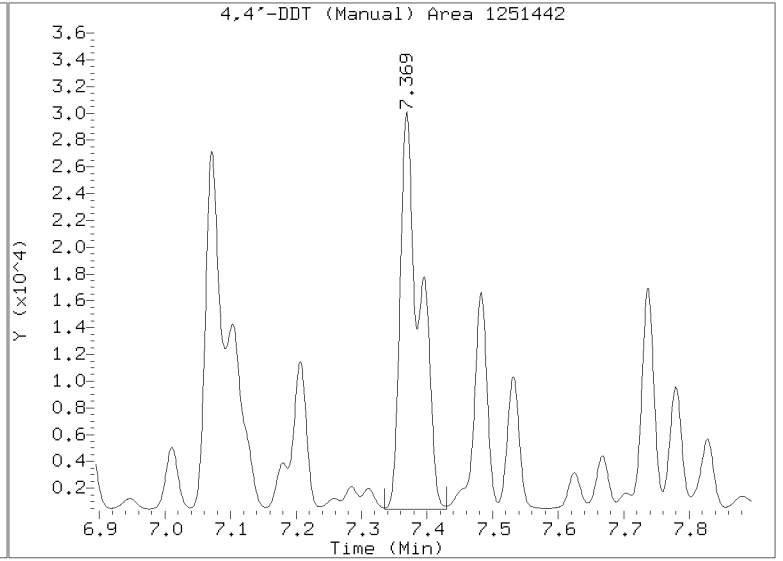
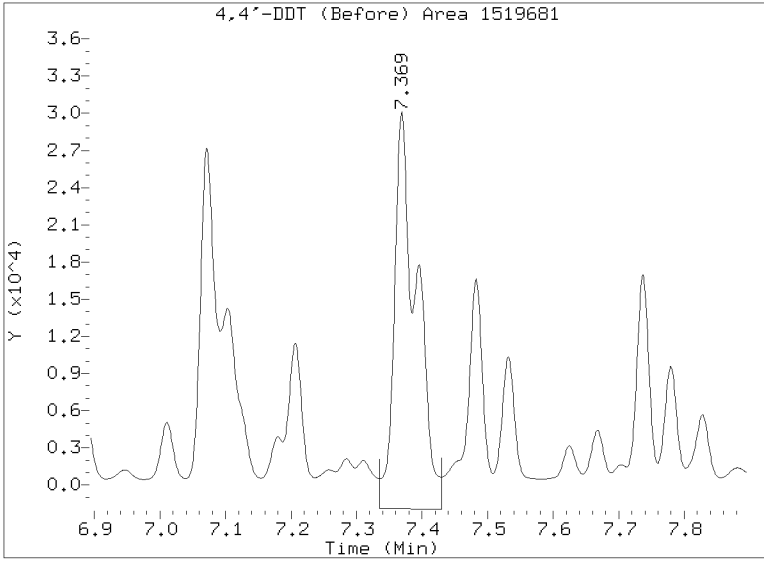
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012031.D
Injection Date: 21-JAN-2023 01:54
Lab ID:BLA0164-MSD1 Client ID:
Report Date: 01/24/2023 13:42



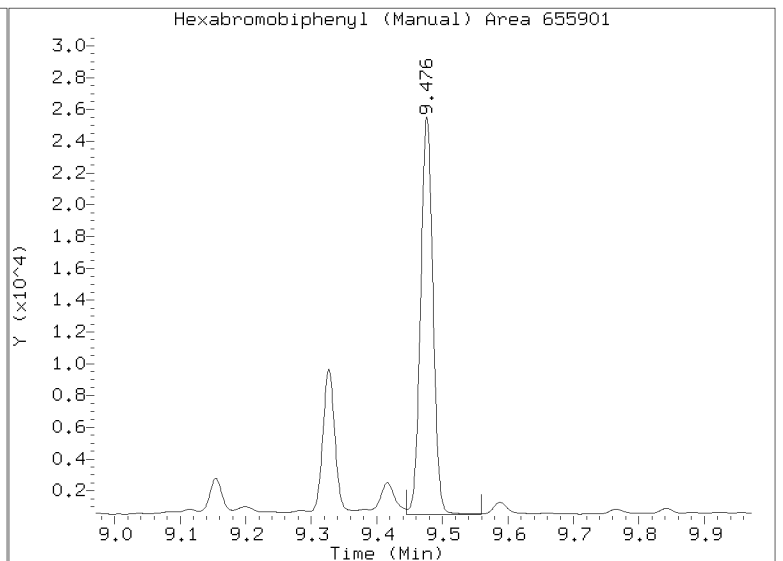
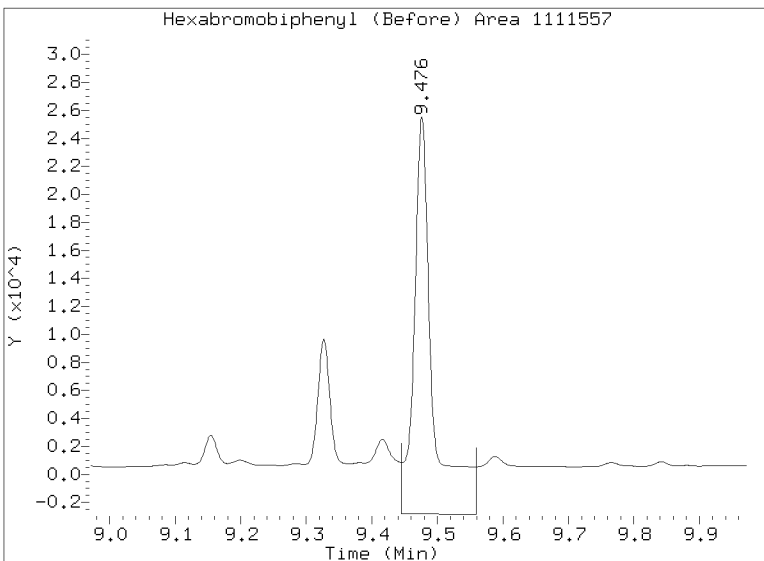
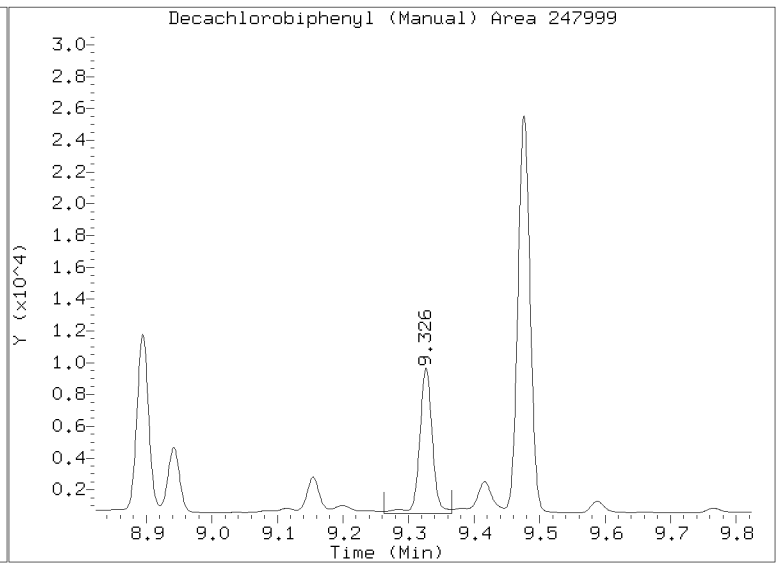
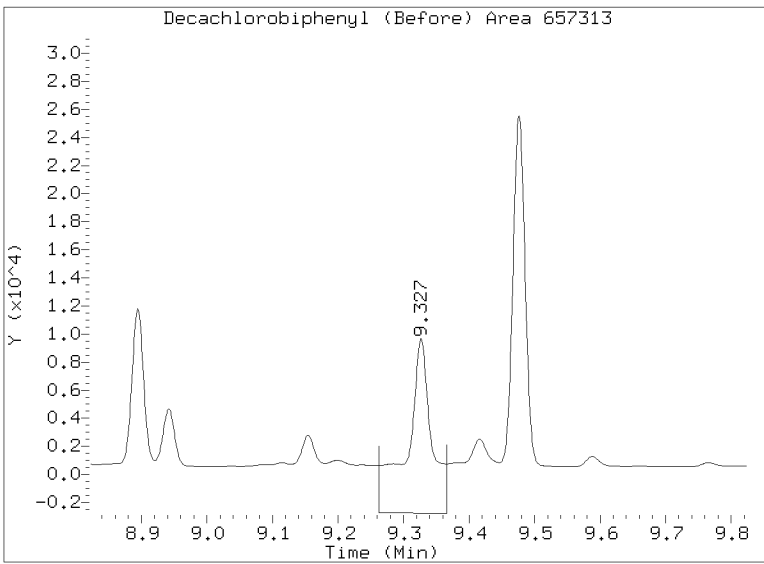
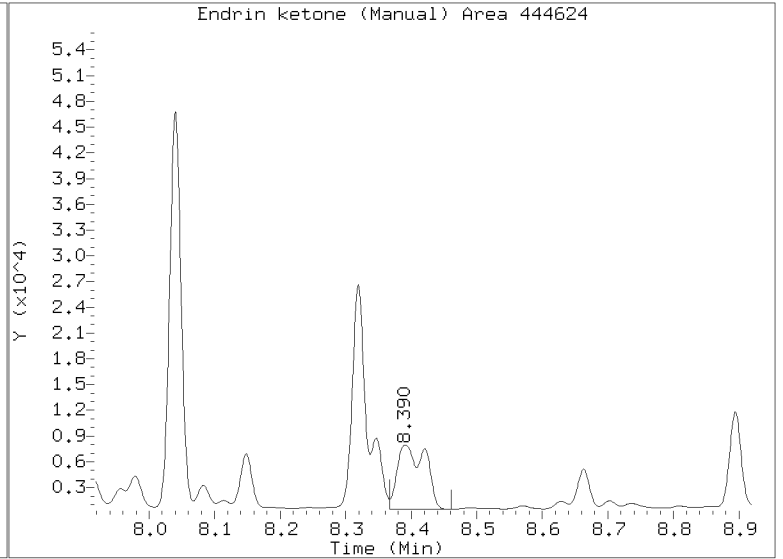
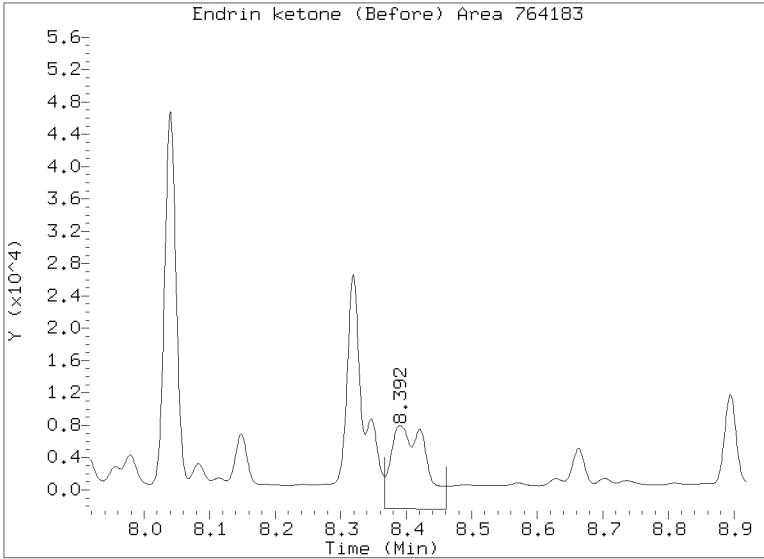
Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012031.D
Injection Date: 21-JAN-2023 01:54
Lab ID:BLA0164-MSD1 Client ID:
Report Date: 01/24/2023 13:42



Manual Peak Adjustment Report, STX-CLP

Datafile: /20230120.b/23012031.D
Injection Date: 21-JAN-2023 01:54
Lab ID:BLA0164-MSD1 Client ID:
Report Date: 01/24/2023 13:42

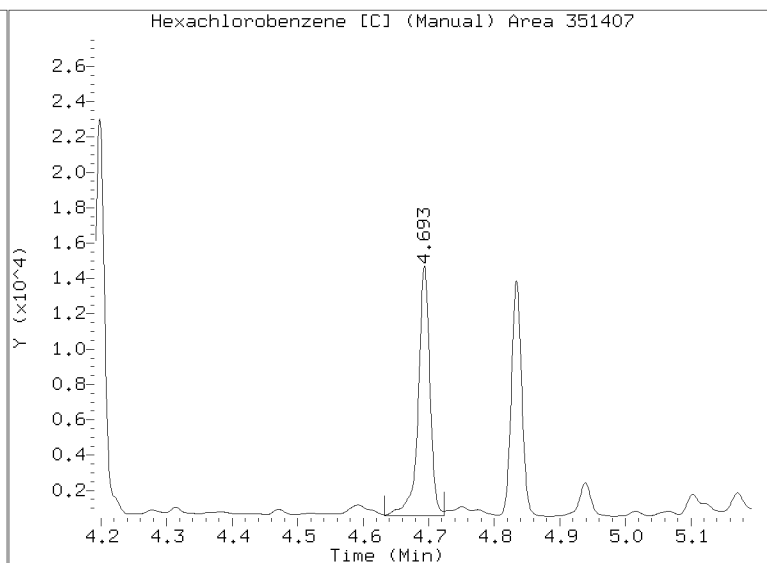
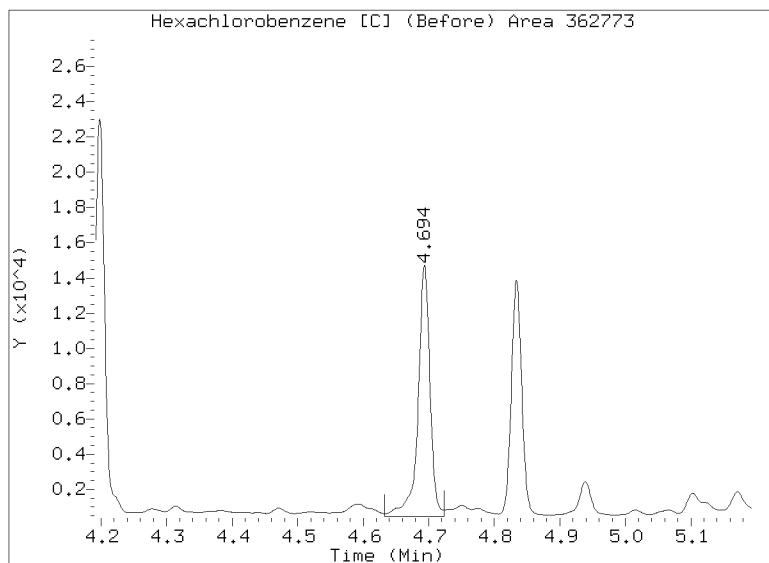
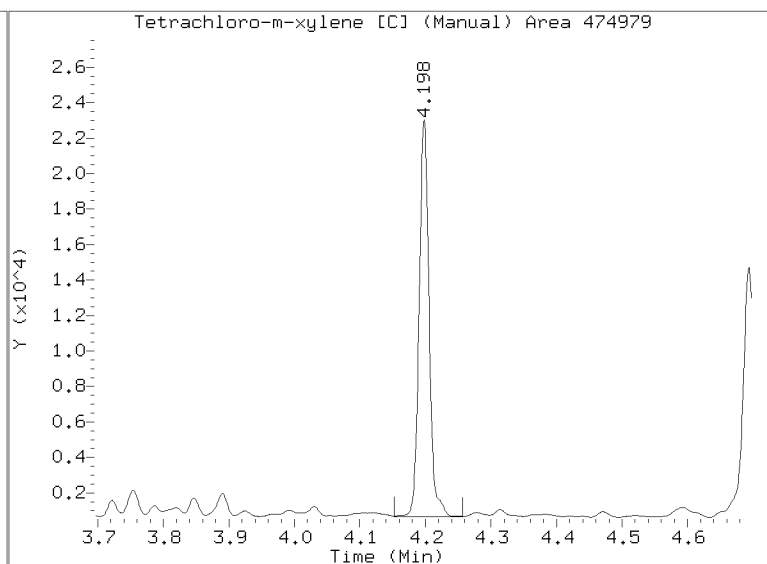
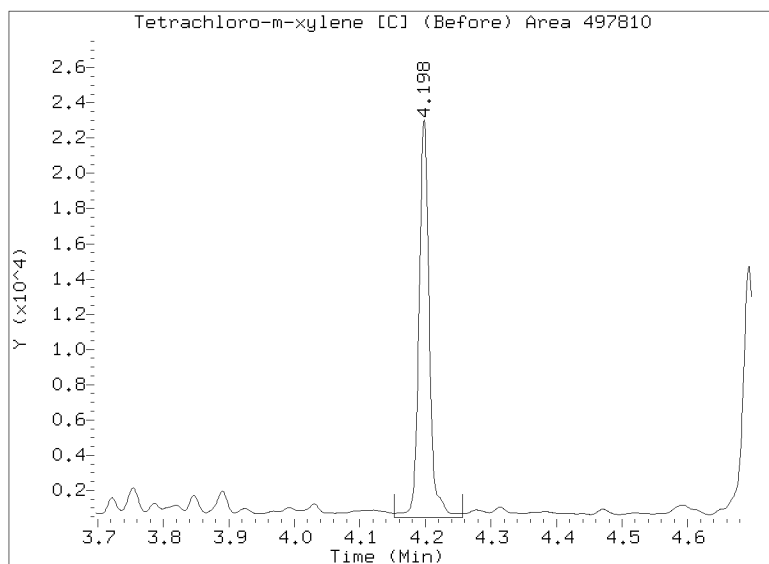
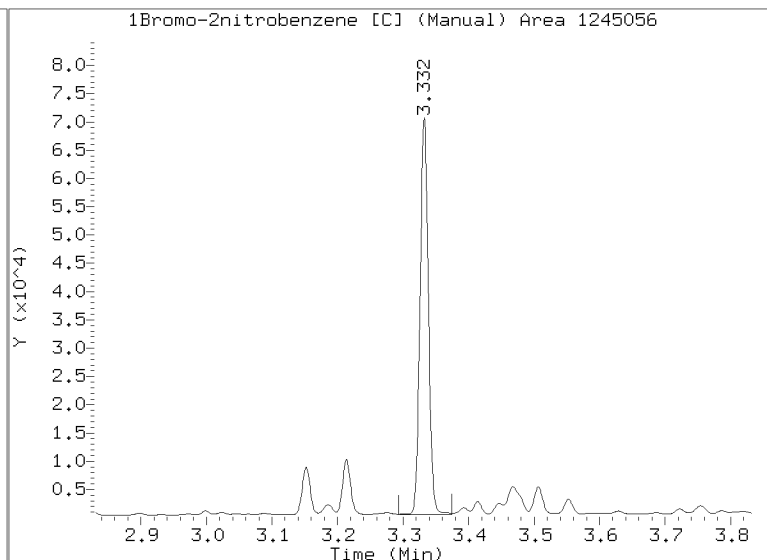
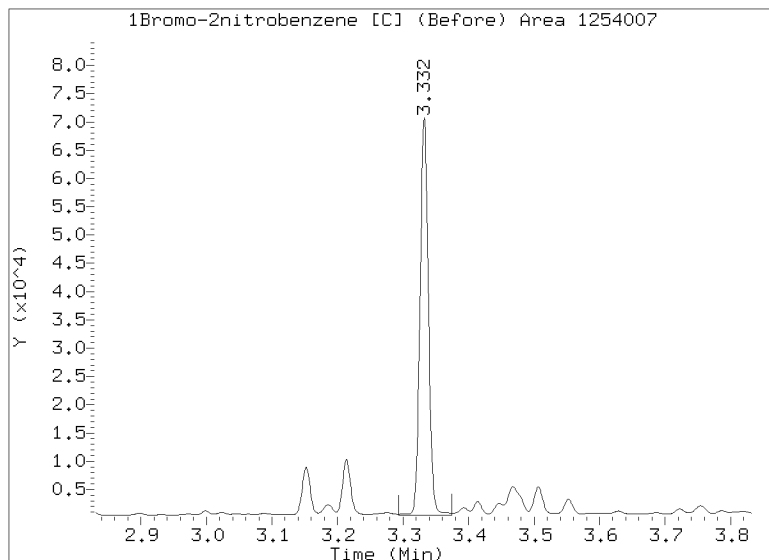


Manual Peak Adjustment Report, CLP-2

Datafile: /20230120.b/B20230120.b/23012031.D

Injection Date: 21-JAN-2023 01:54

Lab ID:BLA0164-MSD1 Client ID:

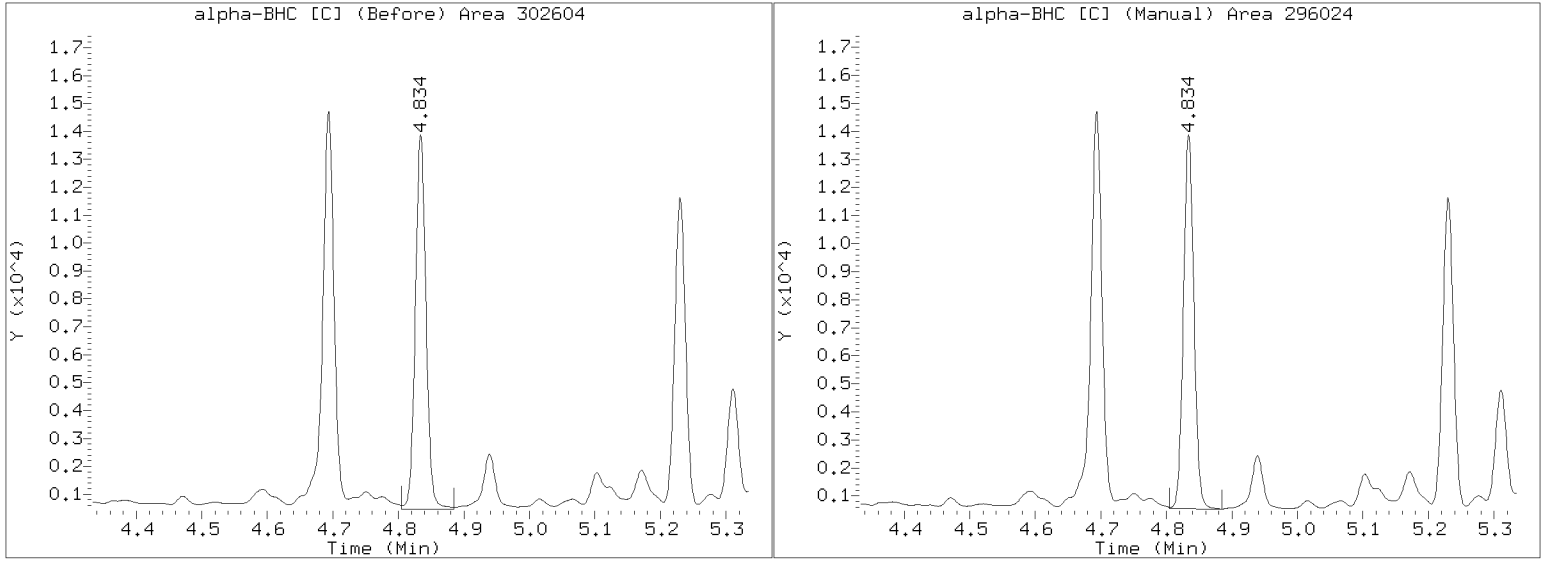


Manual Peak Adjustment Report, CLP-2

Datafile: /20230120.b/B20230120.b/23012031.D

Injection Date: 21-JAN-2023 01:54

Lab ID:BLA0164-MSD1 Client ID:





INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (1):	STX-CLP

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
alpha-BHC	80	1.449687										
beta-BHC	80	0.5324503										
gamma-BHC (Lindane)	80	1.246178										
delta-BHC	80	1.199667										
Heptachlor	80	1.064858										
Aldrin	80	1.204866										
Heptachlor Epoxide	80	1.016142										
trans-Chlordane (beta-Chlordane)	80	1.050129										
cis-Chlordane (alpha-chlordane)	80	1.036345										
Endosulfan I	80	0.9344351										
4,4'-DDE	160	0.9196699										
Dieldrin	160	0.9953457										
Endrin	160	0.903669										
Endosulfan II	160	0.8694106										
4,4'-DDD	160	0.8394108										
Endrin Aldehyde	160	0.6754471										
4,4'-DDT	160	0.8666848										
Endosulfan Sulfate	160	0.808554										
Endrin Ketone	160	0.9150773										
Methoxychlor	800	0.3710888										
Hexachlorobutadiene	80	1.368623										
Hexachlorobenzene	80	1.259233										
2,4'-DDE					5	0.8703192	10	0.8471901	20	0.8231684	40	0.7887622
2,4'-DDD					5	0.761682	10	0.7418629	20	0.7301989	40	0.7053717
2,4'-DDT					5	0.8194572	10	0.8004965	20	0.7842725	40	0.7616258
Oxychlordane					5	1.016746	10	1.011016	20	0.9890796	40	0.9530961
cis-Nonachlor					5	1.323191	10	1.277938	20	1.243982	40	1.217703



INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (1):	STX-CLP

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
trans-Nonachlor					5	1.347777	10	1.328677	20	1.28535	40	1.249062
Mirex					5	0.8317764	10	0.8043457	20	0.7641487	40	0.7481553
Decachlorobiphenyl	160	0.7008722										
Tetrachlorometaxylene	160	0.9437243										



INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (1):	STX-CLP

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
2,4'-DDE	80	0.7262802	160	0.6559468								
2,4'-DDD	80	0.6522807	160	0.6001736								
2,4'-DDT	80	0.7135595	160	0.6495601								
Oxychlorane	80	0.9018234	160	0.8351028								
cis-Nonachlor	80	1.140435	160	1.065099								
trans-Nonachlor	80	1.167639	160	1.085646								
Mirex	80	0.706171	160	0.6667706								



INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (1):	STX-CLP

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
alpha-BHC	1.540148	3.1			RSD (20)	
beta-BHC	0.5929524	6.8			RSD (20)	
gamma-BHC (Lindane)	1.33534	3.5			RSD (20)	
delta-BHC	1.258744	2.5			RSD (20)	
Heptachlor	1.188151	6.1			RSD (20)	
Aldrin	1.331535	5.2			RSD (20)	
Heptachlor Epoxide	1.15453	6.9			RSD (20)	
trans-Chlordane (beta-Chlordane)	1.172613	6.3			RSD (20)	
cis-Chlordane (alpha-chlordane)	1.176038	8.0			RSD (20)	
Endosulfan I	1.059517	7.1			RSD (20)	
4,4'-DDE	1.056843	7.9			RSD (20)	
Dieldrin	1.138281	7.6			RSD (20)	
Endrin	1.048819	9.0			RSD (20)	
Endosulfan II	0.944155	5.2			RSD (20)	
4,4'-DDD	0.9449058	6.9			RSD (20)	
Endrin Aldehyde	0.7530726	6.7			RSD (20)	
4,4'-DDT	0.9548168	5.7			RSD (20)	
Endosulfan Sulfate	0.8965158	6.2			RSD (20)	
Endrin Ketone	1.027011	7.7			RSD (20)	
Methoxychlor	0.4231113	10.6			RSD (20)	
Hexachlorobutadiene	1.613515	13.2			RSD (20)	
Hexachlorobenzene	1.429894	8.1			RSD (20)	
2,4'-DDE	0.7852778	10.3			RSD (20)	
2,4'-DDD	0.698595	8.8			RSD (20)	
2,4'-DDT	0.7548286	8.4			RSD (20)	
Oxychlordane	0.951144	7.5			RSD (20)	
cis-Nonachlor	1.211391	7.8			RSD (20)	
trans-Nonachlor	1.244025	8.1			RSD (20)	
Mirex	0.7535613	8.1			RSD (20)	
Decachlorobiphenyl	0.8105886	11.4			RSD (20)	
Tetrachlorometaxylene	1.087951	9.2			RSD (20)	



INITIAL CALIBRATION DATA EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (2):	STX-CLPII

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
alpha-BHC [2C]			2.5	1.582358	5	1.586238	10	1.633164	20	1.640486	40	1.615441
beta-BHC [2C]			2.5	0.652782	5	0.6172948	10	0.6184608	20	0.6125812	40	0.5918008
gamma-BHC (Lindane) [2C]			2.5	1.355071	5	1.348783	10	1.381456	20	1.392772	40	1.366606
delta-BHC [2C]			2.5	1.323764	5	1.307234	10	1.339425	20	1.328433	40	1.331977
Heptachlor [2C]			2.5	1.270249	5	1.234236	10	1.258409	20	1.272245	40	1.215755
Aldrin [2C]			2.5	1.511397	5	1.416724	10	1.432636	20	1.430376	40	1.370917
Heptachlor Epoxide [2C]			2.5	1.2977	5	1.174596	10	1.174288	20	1.174706	40	1.114434
trans-Chlordane (beta-Chlordane) [2C]			2.5	1.25449	5	1.176102	10	1.164843	20	1.168848	40	1.125534
cis-Chlordane (alpha-chlordane) [2C]			2.5	1.258498	5	1.153199	10	1.135052	20	1.136251	40	1.089792
Endosulfan I [2C]			2.5	1.118263	5	1.044155	10	1.035412	20	1.034697	40	0.9885012
4,4'-DDE [2C]			5	1.120237	10	1.069625	20	1.064387	40	1.055415	80	0.9897135
Dieldrin [2C]			5	1.270008	10	1.162844	20	1.139359	40	1.136098	80	1.071389
Endrin [2C]			5	1.256912	10	1.17909	20	1.159477	40	1.149599	80	1.066056
Endosulfan II [2C]			5	1.296819	10	1.202961	20	1.188491	40	1.160501	80	1.099056
4,4'-DDD [2C]			5	1.234482	10	1.121556	20	1.117792	40	1.112003	80	1.04628
Endrin Aldehyde [2C]			5	0.9430111	10	0.8430348	20	0.8249196	40	0.8129946	80	0.7727701
4,4'-DDT [2C]			5	1.175911	10	1.077825	20	1.067612	40	1.073272	80	1.019364
Endosulfan Sulfate [2C]			5	1.137768	10	1.042553	20	1.030373	40	1.023023	80	0.9721732
Endrin Ketone [2C]			5	1.235631	10	1.119988	20	1.114405	40	1.100852	80	1.047659
Methoxychlor [2C]			25	0.5184064	50	0.4866753	100	0.4751666	200	0.4681736	400	0.4433957
Hexachlorobutadiene [2C]			2.5	1.975612	5	1.648845	10	1.492482	20	1.376096	40	1.341211
Hexachlorobenzene [2C]			2.5	1.602215	5	1.520618	10	1.491402	20	1.450251	40	1.385947
Decachlorobiphenyl [2C]			5	1.087142	10	0.9391597	20	0.8562421	40	0.8499592	80	0.8013928
Tetrachlorometaxylene [2C]			5	1.220863	10	1.179368	20	1.164832	40	1.127982	80	1.06878



INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (2):	STX-CLPII

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
trans-Nonachlor [2C]					5	1.488853	10	1.51762	20	1.451789	40	1.447663
Mirex [2C]					5	0.9331395	10	0.8115521	20	0.7946205	40	0.762682
Decachlorobiphenyl [2C]	160	0.7711875										
Tetrachlorometaxylene [2C]	160	0.9948184										



INITIAL CALIBRATION DATA EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (2):	STX-CLPII

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
2,4'-DDE [2C]	80	0.6667087	160	0.6020159								
2,4'-DDD [2C]	80	0.76623	160	0.7136982								
2,4'-DDT [2C]	80	0.7977257	160	0.7424898								
Oxychlorane [2C]	80	0.8433342	160	0.7909247								
cis-Nonachlor [2C]	80	1.313286	160	1.248174								
trans-Nonachlor [2C]	80	1.376815	160	1.306683								
Mirex [2C]	80	0.7399752	160	0.7075065								



INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (2):	STX-CLPII

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	Conc		Conc		Conc		Conc		Conc		Conc	



INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (2):	STX-CLPII

Compound	Level 25		Level 26		Level 27		Level 28		Level 29		Level 30	
	Conc		Conc		Conc		Conc		Conc		Conc	



INITIAL CALIBRATION DATA
EPA 8081B

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	FL00041	Instrument:	ECD6
Calibration Date:	12/14/2022	Column (2):	STX-CLPII

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
alpha-BHC [2C]	1.603265	1.9			RSD (20)	
beta-BHC [2C]	0.6095359	4.9			RSD (20)	
gamma-BHC (Lindane) [2C]	1.3606	1.9			RSD (20)	
delta-BHC [2C]	1.320624	1.3			RSD (20)	
Heptachlor [2C]	1.232502	3.9			RSD (20)	
Aldrin [2C]	1.407219	5.4			RSD (20)	
Heptachlor Epoxide [2C]	1.163645	7.1			RSD (20)	
trans-Chlordane (beta-Chlordane) [2C]	1.160417	5.2			RSD (20)	
cis-Chlordane (alpha-chlordane) [2C]	1.13523	6.5			RSD (20)	
Endosulfan I [2C]	1.025602	6.0			RSD (20)	
4,4'-DDE [2C]	1.039168	6.3			RSD (20)	
Dieldrin [2C]	1.133177	7.5			RSD (20)	
Endrin [2C]	1.137486	7.6			RSD (20)	
Endosulfan II [2C]	1.165938	7.4			RSD (20)	
4,4'-DDD [2C]	1.106416	7.0			RSD (20)	
Endrin Aldehyde [2C]	0.8224595	8.5			RSD (20)	
4,4'-DDT [2C]	1.067896	5.9			RSD (20)	
Endosulfan Sulfate [2C]	1.023857	6.7			RSD (20)	
Endrin Ketone [2C]	1.10585	6.8			RSD (20)	
Methoxychlor [2C]	0.4725766	6.0			RSD (20)	
Hexachlorobutadiene [2C]	1.52251	16.8			RSD (20)	
Hexachlorobenzene [2C]	1.459109	7.2			RSD (20)	
2,4'-DDE [2C]	0.7295523	11.8			RSD (20)	
2,4'-DDD [2C]	0.8188656	8.8			RSD (20)	
2,4'-DDT [2C]	0.8432439	8.1			RSD (20)	
Oxychlordane [2C]	0.8909094	7.3			RSD (20)	
cis-Nonachlor [2C]	1.361061	5.2			RSD (20)	
trans-Nonachlor [2C]	1.43157	5.4			RSD (20)	
Mirex [2C]	0.7915793	9.9			RSD (20)	
Decachlorobiphenyl [2C]	0.8841805	13.0			RSD (20)	
Tetrachlorometaxylene [2C]	1.126107	7.3			RSD (20)	



ANALYSIS SEQUENCE

SKL0233

Instrument: ECD6
Calibration ID: FL00041

Element Column ID:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SKL0233-PEM1	DS1	QC		1	K007286	K006953		
SKL0233-CAL1	INDAA	QC		2	K011594	K006953		
SKL0233-CAL2	INDAB	QC		3	K011593	K006953		
SKL0233-CAL3	INDAC	QC		4	K011592	K006953		
SKL0233-CAL4	INDAD	QC		5	K011591	K006953		
SKL0233-CAL5	INDAE	QC		6	K011590	K006953		
SKL0233-CAL6	INDAF	QC		7	K011589	K006953		
SKL0233-CAL7	INDAG	QC		8	K011463	K006953		
SKL0233-CAL8	WNDA	QC		9	K011595	K006953		
SKL0233-CAL9	WNDB	QC		10	K007148	K006953		
SKL0233-CALA	WNDC	QC		11	K007147	K006953		
SKL0233-CALB	WNDD	QC		12	K007146	K006953		
SKL0233-CALC	WNDE	QC		13	K007145	K006953		
SKL0233-CALD	WPDF	QC		14	K007144	K006953		
SKL0233-CALE	WNDG	QC		15	K007093	K006953		
SKL0233-CALM	NOS1	QC		16	K007375	K006953		
SKL0233-CALN	NOS2	QC		17	K007374	K006953		
SKL0233-CALO	NOS3	QC		18	K007373	K006953		
SKL0233-CALP	NOS4	QC		19	K007372	K006953		
SKL0233-CALQ	NOS5	QC		20	K007371	K006953		
SKL0233-CALR	NOS6	QC		21	K007370	K006953		
SKL0233-CALS	NOS7	QC		22	K007287	K006953		



ANALYSIS SEQUENCE

SKL0233

Instrument: ECD6
Calibration ID: FL00041

Element Column ID:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SKL0233-CALF	TOXAPH1	QC		23	K011601	K006953		
SKL0233-CALG	TOXAPH2	QC		24	K011600	K006953		
SKL0233-CALH	TOXAPH3	QC		25	K011599	K006953		
SKL0233-CALI	TOXAPH4	QC		26	K011598	K006953		
SKL0233-CALJ	TOXAPH5	QC		27	K011597	K006953		
SKL0233-CALK	TOXAPH6	QC		28	K011596	K006953		
SKL0233-CALL	TOXAPH7	QC		29	K008546	K006953		

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	14-DEC-2022	19:27	22121401.D	1	RINSE	
2	14-DEC-2022	19:44	22121402.D	1	RINSE	
3	14-DEC-2022	20:02	22121403.D	1	SEQ-IBL1	
4	14-DEC-2022	20:20	22121404.D	1	SEQ-PEM1	
5	14-DEC-2022	20:38	22121405.D	1	SEQ-CAL1	
6	14-DEC-2022	20:56	22121406.D	1	SEQ-CAL2	
7	14-DEC-2022	21:14	22121407.D	1	SEQ-CAL3	
8	14-DEC-2022	21:31	22121408.D	1	SEQ-CAL4	
9	14-DEC-2022	21:49	22121409.D	1	SEQ-CAL5	
10	14-DEC-2022	22:07	22121410.D	1	SEQ-CAL6	
11	14-DEC-2022	22:25	22121411.D	1	SEQ-CAL7	
12	14-DEC-2022	22:43	22121412.D	1	SEQ-CAL8	
13	14-DEC-2022	23:01	22121413.D	1	SEQ-CAL9	
14	14-DEC-2022	23:19	22121414.D	1	SEQ-CALA	
15	14-DEC-2022	23:36	22121415.D	1	SEQ-CALB	
16	14-DEC-2022	23:54	22121416.D	1	SEQ-CALC	
17	15-DEC-2022	00:12	22121417.D	1	SEQ-CALD	
18	15-DEC-2022	00:30	22121418.D	1	SEQ-CALE	
19	15-DEC-2022	00:48	22121419.D	1	SEQ-SCV1	
20	15-DEC-2022	01:06	22121420.D	1	SEQ-SCV2	
21	15-DEC-2022	01:24	22121421.D	1	SEQ-CAL1A	
22	15-DEC-2022	01:42	22121422.D	1	SEQ-CAL2A	
23	15-DEC-2022	01:59	22121423.D	1	SEQ-CAL3A	
24	15-DEC-2022	02:17	22121424.D	1	SEQ-CAL4A	
25	15-DEC-2022	02:35	22121425.D	1	SEQ-CAL5A	
26	15-DEC-2022	02:53	22121426.D	1	SEQ-CAL6A	
27	15-DEC-2022	03:11	22121427.D	1	SEQ-CAL7A	
28	15-DEC-2022	03:29	22121428.D	1	SEQ-CAL8A	
29	15-DEC-2022	03:46	22121429.D	1	SEQ-CAL9A	
30	15-DEC-2022	04:04	22121430.D	1	SEQ-CALAA	
31	15-DEC-2022	04:22	22121431.D	1	SEQ-CALAB	
32	15-DEC-2022	04:40	22121432.D	1	SEQ-CALAC	
33	15-DEC-2022	04:58	22121433.D	1	SEQ-CALAD	
34	15-DEC-2022	05:16	22121434.D	1	SEQ-CALAE	
35	15-DEC-2022	05:33	22121435.D	1	SEQ-PEM2	
36	15-DEC-2022	05:51	22121436.D	1	SEQ-ICV1	
37	15-DEC-2022	06:09	22121437.D	1	SEQ-ICV2	
38	15-DEC-2022	06:27	22121438.D	1	SEQ-ICV3	
39	15-DEC-2022	06:45	22121439.D	1	SEQ-ICV4	
40	15-DEC-2022	07:03	22121440.D	1	BKK0688-BLK1	
41	15-DEC-2022	07:21	22121441.D	1	BKK0688-BS1	
42	15-DEC-2022	07:39	22121442.D	1	BKK0688-BS2	
43	15-DEC-2022	07:57	22121443.D	1	BKK0688-BS3	
44	15-DEC-2022	08:15	22121444.D	1	BKK0688-BSD1	
45	15-DEC-2022	08:32	22121445.D	1	BKK0142-BLK1	
46	15-DEC-2022	08:50	22121446.D	1	BKK0142-BS1	
47	15-DEC-2022	09:08	22121447.D	1	BKK0142-BS2	
48	15-DEC-2022	09:26	22121448.D	1	BKK0142-BSD1	
49	15-DEC-2022	09:44	22121449.D	1	BKK0142-MS1	
50	15-DEC-2022	10:02	22121450.D	1	BKK0142-MSD1	

	Inject Date/Time	Filename	DF	LabID	ClientID
51	15-DEC-2022 10:20	22121451.D	1	22J0513-01	
52	15-DEC-2022 10:38	22121452.D	1	22J0513-04	
53	15-DEC-2022 10:55	22121453.D	1	22J0535-01	
54	15-DEC-2022 11:13	22121454.D	1	22K0429-01	
55	15-DEC-2022 11:31	22121455.D	1	22K0429-02	
56	15-DEC-2022 11:49	22121456.D	1	22K0429-03	
57	15-DEC-2022 12:07	22121457.D	1	SEQ-PEM3	
58	15-DEC-2022 12:25	22121458.D	1	SEQ-CCV1	
59	15-DEC-2022 12:43	22121459.D	1	SEQ-CCV2	
60	15-DEC-2022 13:01	22121460.D	1	SEQ-CCV3	
61	15-DEC-2022 13:19	22121461.D	1	SEQ-CCV4	
62	15-DEC-2022 13:36	22121462.D	1	BKK0380-BLK1	
63	15-DEC-2022 13:54	22121463.D	1	BKK0380-BS1	
64	15-DEC-2022 14:12	22121464.D	1	BKK0380-BSD1	
65	15-DEC-2022 14:30	22121465.D	1	22K0157-01	
66	15-DEC-2022 14:48	22121466.D	1	22K0230-01	
67	15-DEC-2022 15:06	22121467.D	1	22K0231-01	
68	15-DEC-2022 15:24	22121468.D	1	BKK0382-BLK1	
69	15-DEC-2022 15:42	22121469.D	1	BKK0382-BS1	
70	15-DEC-2022 16:00	22121470.D	1	BKK0382-BS2	
71	15-DEC-2022 16:18	22121471.D	1	BKK0382-BSD1	
72	15-DEC-2022 16:35	22121472.D	1	22K0075-01	
73	15-DEC-2022 16:53	22121473.D	1	SEQ-PEM4	
74	15-DEC-2022 17:11	22121474.D	1	SEQ-CCV5	
75	15-DEC-2022 17:29	22121475.D	1	SEQ-CCV6	
76	15-DEC-2022 17:47	22121476.D	1	SEQ-CCV7	
77	15-DEC-2022 18:05	22121477.D	1	SEQ-CCV8	
78	15-DEC-2022 18:23	22121478.D	1	BKK0537-BLK1	
79	15-DEC-2022 18:40	22121479.D	1	BKK0537-BS1	
80	15-DEC-2022 18:58	22121480.D	1	BKK0537-BS2	
81	15-DEC-2022 19:16	22121481.D	1	22K0194-01	
82	15-DEC-2022 19:34	22121482.D	1	22K0194-01RE1	10
83	15-DEC-2022 19:52	22121483.D	1	SEQ-PEM5	
84	15-DEC-2022 20:09	22121484.D	1	SEQ-CCV9	
85	15-DEC-2022 20:27	22121485.D	1	SEQ-CCVA	
86	15-DEC-2022 20:45	22121486.D	1	SEQ-CCVB	
87	15-DEC-2022 21:03	22121487.D	1	SEQ-CCVC	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

ARI Job No.: RINS Method: PEST.m Instrument: ecd6.i Date: 14-DEC-2022

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1927	22121401.D	RINSE		1	NO MANUAL INTEGRATION
1944	22121402.D	RINSE		1	NO MANUAL INTEGRATION
2002	22121403.D	SEQ-IBL1		1	NO MANUAL INTEGRATION
2020	22121404.D	SEQ-PEM1		1	NO MANUAL INTEGRATION
2038	22121405.D	SEQ-CAL1		1	NO MANUAL INTEGRATION
2056	22121406.D	SEQ-CAL2		1	NO MANUAL INTEGRATION
2114	22121407.D	SEQ-CAL3		1	NO MANUAL INTEGRATION
2131	22121408.D	SEQ-CAL4		1	NO MANUAL INTEGRATION
2149	22121409.D	SEQ-CAL5		1	NO MANUAL INTEGRATION
2207	22121410.D	SEQ-CAL6		1	NO MANUAL INTEGRATION
2225	22121411.D	SEQ-CAL7		1	NO MANUAL INTEGRATION
2243	22121412.D	SEQ-CAL8		1	NO MANUAL INTEGRATION
2301	22121413.D	SEQ-CAL9		1	NO MANUAL INTEGRATION
2319	22121414.D	SEQ-CALA		1	NO MANUAL INTEGRATION
2336	22121415.D	SEQ-CALB		1	NO MANUAL INTEGRATION
2354	22121416.D	SEQ-CALC		1	NO MANUAL INTEGRATION
0012	22121417.D	SEQ-CALD		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0030	22121418.D	SEQ-CALE	1		NO MANUAL INTEGRATION
0048	22121419.D	SEQ-SCV1	1		NO MANUAL INTEGRATION
0106	22121420.D	SEQ-SCV2	1		NO MANUAL INTEGRATION
0124	22121421.D	SEQ-CAL1A	1		NO MANUAL INTEGRATION
0142	22121422.D	SEQ-CAL2A	1		NO MANUAL INTEGRATION
0159	22121423.D	SEQ-CAL3A	1		NO MANUAL INTEGRATION
0217	22121424.D	SEQ-CAL4A	1		NO MANUAL INTEGRATION
0235	22121425.D	SEQ-CAL5A	1		NO MANUAL INTEGRATION
0253	22121426.D	SEQ-CAL6A	1		NO MANUAL INTEGRATION
0311	22121427.D	SEQ-CAL7A	1		NO MANUAL INTEGRATION
0329	22121428.D	SEQ-CAL8A	1		NO MANUAL INTEGRATION
0346	22121429.D	SEQ-CAL9A	1		NO MANUAL INTEGRATION
0404	22121430.D	SEQ-CALAA	1		NO MANUAL INTEGRATION
0422	22121431.D	SEQ-CALAB	1		NO MANUAL INTEGRATION
0440	22121432.D	SEQ-CALAC	1		NO MANUAL INTEGRATION
0458	22121433.D	SEQ-CALAD	1		NO MANUAL INTEGRATION
0516	22121434.D	SEQ-CALAE	1		NO MANUAL INTEGRATION
0533	22121435.D	SEQ-PEM2	1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0551	22121436.D	SEQ-ICV1	1		NO MANUAL INTEGRATION
0609	22121437.D	SEQ-ICV2	1		NO MANUAL INTEGRATION
0627	22121438.D	SEQ-ICV3	1		NO MANUAL INTEGRATION
0645	22121439.D	SEQ-ICV4	1		NO MANUAL INTEGRATION
0703	22121440.D	BKK0688-BLK1	1		NO MANUAL INTEGRATION
0721	22121441.D	BKK0688-BS1	1		NO MANUAL INTEGRATION
0739	22121442.D	BKK0688-BS2	1		NO MANUAL INTEGRATION
0757	22121443.D	BKK0688-BS3	1		NO MANUAL INTEGRATION
0815	22121444.D	BKK0688-BSD1	1		NO MANUAL INTEGRATION
0832	22121445.D	BKK0142-BLK1	1		NO MANUAL INTEGRATION
0850	22121446.D	BKK0142-BS1	1		NO MANUAL INTEGRATION
0908	22121447.D	BKK0142-BS2	1		NO MANUAL INTEGRATION
0926	22121448.D	BKK0142-BSD1	1		NO MANUAL INTEGRATION
0944	22121449.D	BKK0142-MS1	1		NO MANUAL INTEGRATION
1002	22121450.D	BKK0142-MSD1	1		NO MANUAL INTEGRATION
1020	22121451.D	22J0513-01	1		NO MANUAL INTEGRATION
1038	22121452.D	22J0513-04	1		NO MANUAL INTEGRATION
1055	22121453.D	22J0535-01	1		trans-Chlordane,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1113	22121454.D	22K0429-01	1		Heptachlor epoxide b,
1131	22121455.D	22K0429-02	1		Heptachlor epoxide b,
1149	22121456.D	22K0429-03	1		Hexachlorobenzene,
1207	22121457.D	SEQ-PEM3	1		NO MANUAL INTEGRATION
1225	22121458.D	SEQ-CCV1	1		NO MANUAL INTEGRATION
1243	22121459.D	SEQ-CCV2	1		NO MANUAL INTEGRATION
1301	22121460.D	SEQ-CCV3	1		NO MANUAL INTEGRATION
1319	22121461.D	SEQ-CCV4	1		NO MANUAL INTEGRATION
1336	22121462.D	BKK0380-BLK1	1		NO MANUAL INTEGRATION
1354	22121463.D	BKK0380-BS1	1		NO MANUAL INTEGRATION
1412	22121464.D	BKK0380-BSD1	1		NO MANUAL INTEGRATION
1430	22121465.D	22K0157-01	1		NO MANUAL INTEGRATION
1448	22121466.D	22K0230-01	1		NO MANUAL INTEGRATION
1506	22121467.D	22K0231-01	1		NO MANUAL INTEGRATION
1524	22121468.D	BKK0382-BLK1	1		NO MANUAL INTEGRATION
1542	22121469.D	BKK0382-BS1	1		NO MANUAL INTEGRATION
1600	22121470.D	BKK0382-BS2	1		NO MANUAL INTEGRATION
1618	22121471.D	BKK0382-BSD1	1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1635	22121472.D	22K0075-01		1	NO MANUAL INTEGRATION
1653	22121473.D	SEQ-PEM4		1	NO MANUAL INTEGRATION
1711	22121474.D	SEQ-CCV5		1	NO MANUAL INTEGRATION
1729	22121475.D	SEQ-CCV6		1	NO MANUAL INTEGRATION
1747	22121476.D	SEQ-CCV7		1	NO MANUAL INTEGRATION
1805	22121477.D	SEQ-CCV8		1	NO MANUAL INTEGRATION
1823	22121478.D	BKK0537-BLK1		1	NO MANUAL INTEGRATION
1840	22121479.D	BKK0537-BS1		1	NO MANUAL INTEGRATION
1858	22121480.D	BKK0537-BS2		1	NO MANUAL INTEGRATION
1916	22121481.D	22K0194-01		1	NO MANUAL INTEGRATION
1934	22121482.D	22K0194-01RE1 10		1	NO MANUAL INTEGRATION
1952	22121483.D	SEQ-PEM5		1	NO MANUAL INTEGRATION
2009	22121484.D	SEQ-CCV9		1	NO MANUAL INTEGRATION
2027	22121485.D	SEQ-CCVA		1	NO MANUAL INTEGRATION
2045	22121486.D	SEQ-CCVB		1	NO MANUAL INTEGRATION
2103	22121487.D	SEQ-CCVC		1	NO MANUAL INTEGRATION
1927	22121401.D	RINSE		1	NO MANUAL INTEGRATION
1944	22121402.D	RINSE		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2002	22121403.D SEQ-IBL1		1		NO MANUAL INTEGRATION
2020	22121404.D SEQ-PEM1		1		NO MANUAL INTEGRATION
2038	22121405.D SEQ-CAL1		1		NO MANUAL INTEGRATION
2056	22121406.D SEQ-CAL2		1		NO MANUAL INTEGRATION
2114	22121407.D SEQ-CAL3		1		NO MANUAL INTEGRATION
2131	22121408.D SEQ-CAL4		1		NO MANUAL INTEGRATION
2149	22121409.D SEQ-CAL5		1		NO MANUAL INTEGRATION
2207	22121410.D SEQ-CAL6		1		NO MANUAL INTEGRATION
2225	22121411.D SEQ-CAL7		1		NO MANUAL INTEGRATION
2243	22121412.D SEQ-CAL8		1		NO MANUAL INTEGRATION
2301	22121413.D SEQ-CAL9		1		NO MANUAL INTEGRATION
2319	22121414.D SEQ-CALA		1		NO MANUAL INTEGRATION
2336	22121415.D SEQ-CALB		1		NO MANUAL INTEGRATION
2354	22121416.D SEQ-CALC		1		NO MANUAL INTEGRATION
0012	22121417.D SEQ-CALD		1		NO MANUAL INTEGRATION
0030	22121418.D SEQ-CALE		1		NO MANUAL INTEGRATION
0048	22121419.D SEQ-SCV1		1		NO MANUAL INTEGRATION
0106	22121420.D SEQ-SCV2		1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0124	22121421.D	SEQ-CAL1A	1		NO MANUAL INTEGRATION
0142	22121422.D	SEQ-CAL2A	1		NO MANUAL INTEGRATION
0159	22121423.D	SEQ-CAL3A	1		NO MANUAL INTEGRATION
0217	22121424.D	SEQ-CAL4A	1		NO MANUAL INTEGRATION
0235	22121425.D	SEQ-CAL5A	1		NO MANUAL INTEGRATION
0253	22121426.D	SEQ-CAL6A	1		NO MANUAL INTEGRATION
0311	22121427.D	SEQ-CAL7A	1		NO MANUAL INTEGRATION
0329	22121428.D	SEQ-CAL8A	1		NO MANUAL INTEGRATION
0346	22121429.D	SEQ-CAL9A	1		NO MANUAL INTEGRATION
0404	22121430.D	SEQ-CALAA	1		NO MANUAL INTEGRATION
0422	22121431.D	SEQ-CALAB	1		NO MANUAL INTEGRATION
0440	22121432.D	SEQ-CALAC	1		NO MANUAL INTEGRATION
0458	22121433.D	SEQ-CALAD	1		NO MANUAL INTEGRATION
0516	22121434.D	SEQ-CALAE	1		NO MANUAL INTEGRATION
0533	22121435.D	SEQ-PEM2	1		NO MANUAL INTEGRATION
0551	22121436.D	SEQ-ICV1	1		NO MANUAL INTEGRATION
0609	22121437.D	SEQ-ICV2	1		NO MANUAL INTEGRATION
0627	22121438.D	SEQ-ICV3	1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0645	22121439.D	SEQ-ICV4	1		NO MANUAL INTEGRATION
0703	22121440.D	BKK0688-BLK1	1		NO MANUAL INTEGRATION
0721	22121441.D	BKK0688-BS1	1		NO MANUAL INTEGRATION
0739	22121442.D	BKK0688-BS2	1		NO MANUAL INTEGRATION
0757	22121443.D	BKK0688-BS3	1		NO MANUAL INTEGRATION
0815	22121444.D	BKK0688-BSD1	1		NO MANUAL INTEGRATION
0832	22121445.D	BKK0142-BLK1	1		NO MANUAL INTEGRATION
0850	22121446.D	BKK0142-BS1	1		NO MANUAL INTEGRATION
0908	22121447.D	BKK0142-BS2	1		NO MANUAL INTEGRATION
0926	22121448.D	BKK0142-BSD1	1		NO MANUAL INTEGRATION
0944	22121449.D	BKK0142-MS1	1		NO MANUAL INTEGRATION
1002	22121450.D	BKK0142-MSD1	1		NO MANUAL INTEGRATION
1020	22121451.D	22J0513-01	1		NO MANUAL INTEGRATION
1038	22121452.D	22J0513-04	1		NO MANUAL INTEGRATION
1055	22121453.D	22J0535-01	1		trans-Chlordane [C],
1113	22121454.D	22K0429-01	1		NO MANUAL INTEGRATION
1131	22121455.D	22K0429-02	1		Aldrin [C], Heptachlor epoxide b [C], trans-Chlordane [C],
1149	22121456.D	22K0429-03	1		Aldrin [C],

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1207	22121457.D SEQ-PEM3		1		NO MANUAL INTEGRATION
1225	22121458.D SEQ-CCV1		1		NO MANUAL INTEGRATION
1243	22121459.D SEQ-CCV2		1		NO MANUAL INTEGRATION
1301	22121460.D SEQ-CCV3		1		NO MANUAL INTEGRATION
1319	22121461.D SEQ-CCV4		1		NO MANUAL INTEGRATION
1336	22121462.D BKK0380-BLK1		1		NO MANUAL INTEGRATION
1354	22121463.D BKK0380-BS1		1		NO MANUAL INTEGRATION
1412	22121464.D BKK0380-BSD1		1		NO MANUAL INTEGRATION
1430	22121465.D 22K0157-01		1		NO MANUAL INTEGRATION
1448	22121466.D 22K0230-01		1		NO MANUAL INTEGRATION
1506	22121467.D 22K0231-01		1		NO MANUAL INTEGRATION
1524	22121468.D BKK0382-BLK1		1		NO MANUAL INTEGRATION
1542	22121469.D BKK0382-BS1		1		NO MANUAL INTEGRATION
1600	22121470.D BKK0382-BS2		1		NO MANUAL INTEGRATION
1618	22121471.D BKK0382-BSD1		1		NO MANUAL INTEGRATION
1635	22121472.D 22K0075-01		1		NO MANUAL INTEGRATION
1653	22121473.D SEQ-PEM4		1		NO MANUAL INTEGRATION
1711	22121474.D SEQ-CCV5		1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1729	22121475.D	SEQ-CCV6		1	NO MANUAL INTEGRATION
1747	22121476.D	SEQ-CCV7		1	NO MANUAL INTEGRATION
1805	22121477.D	SEQ-CCV8		1	NO MANUAL INTEGRATION
1823	22121478.D	BKK0537-BLK1		1	NO MANUAL INTEGRATION
1840	22121479.D	BKK0537-BS1		1	NO MANUAL INTEGRATION
1858	22121480.D	BKK0537-BS2		1	NO MANUAL INTEGRATION
1916	22121481.D	22K0194-01		1	NO MANUAL INTEGRATION
1934	22121482.D	22K0194-01RE1 10		1	NO MANUAL INTEGRATION
1952	22121483.D	SEQ-PEM5		1	NO MANUAL INTEGRATION
2010	22121484.D	SEQ-CCV9		1	NO MANUAL INTEGRATION
2027	22121485.D	SEQ-CCVA		1	NO MANUAL INTEGRATION
2045	22121486.D	SEQ-CCVB		1	NO MANUAL INTEGRATION
2103	22121487.D	SEQ-CCVC		1	NO MANUAL INTEGRATION

Security Status Report

Date: 17-Dec-2022 10:57

22121401.D	Data Locked	j rains, 17-Dec-2022 10:57
22121402.D	Data Locked	j rains, 17-Dec-2022 10:57
22121403.D	Data Locked	j rains, 17-Dec-2022 10:57
22121404.D	Data Locked	j rains, 17-Dec-2022 10:57
22121405.D	Data Locked	j rains, 17-Dec-2022 10:57
22121406.D	Data Locked	j rains, 17-Dec-2022 10:57
22121407.D	Data Locked	j rains, 17-Dec-2022 10:57
22121408.D	Data Locked	j rains, 17-Dec-2022 10:57
22121409.D	Data Locked	j rains, 17-Dec-2022 10:57
22121410.D	Data Locked	j rains, 17-Dec-2022 10:57
22121411.D	Data Locked	j rains, 17-Dec-2022 10:57
22121412.D	Data Locked	j rains, 17-Dec-2022 10:57
22121413.D	Data Locked	j rains, 17-Dec-2022 10:57
22121414.D	Data Locked	j rains, 17-Dec-2022 10:57
22121415.D	Data Locked	j rains, 17-Dec-2022 10:57
22121416.D	Data Locked	j rains, 17-Dec-2022 10:57
22121417.D	Data Locked	j rains, 17-Dec-2022 10:57
22121418.D	Data Locked	j rains, 17-Dec-2022 10:57
22121419.D	Data Locked	j rains, 17-Dec-2022 10:57
22121420.D	Data Locked	j rains, 17-Dec-2022 10:57
22121421.D	Data Locked	j rains, 17-Dec-2022 10:57
22121422.D	Data Locked	j rains, 17-Dec-2022 10:57
22121423.D	Data Locked	j rains, 17-Dec-2022 10:57
22121424.D	Data Locked	j rains, 17-Dec-2022 10:57
22121425.D	Data Locked	j rains, 17-Dec-2022 10:57
22121426.D	Data Locked	j rains, 17-Dec-2022 10:57
22121427.D	Data Locked	j rains, 17-Dec-2022 10:57
22121428.D	Data Locked	j rains, 17-Dec-2022 10:57
22121429.D	Data Locked	j rains, 17-Dec-2022 10:57
22121430.D	Data Locked	j rains, 17-Dec-2022 10:57
22121431.D	Data Locked	j rains, 17-Dec-2022 10:57
22121432.D	Data Locked	j rains, 17-Dec-2022 10:57
22121433.D	Data Locked	j rains, 17-Dec-2022 10:57
22121434.D	Data Locked	j rains, 17-Dec-2022 10:57

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2022 20:38
 End Cal Date : 15-DEC-2022 05:16
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
 Last Edit : 15-Dec-2022 08:33 jrains
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem4\ecd6.i\20221214.b\20221214.b\22121428.D
 Level 2: \\target\share\chem4\ecd6.i\20221214.b\20221214.b\22121429.D
 Level 3: \\target\share\chem4\ecd6.i\20221214.b\20221214.b\22121430.D
 Level 4: \\target\share\chem4\ecd6.i\20221214.b\20221214.b\22121431.D
 Level 5: \\target\share\chem4\ecd6.i\20221214.b\20221214.b\22121432.D
 Level 6: \\target\share\chem4\ecd6.i\20221214.b\20221214.b\22121433.D
 Level 7: \\target\share\chem4\ecd6.i\20221214.b\20221214.b\22121434.D

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
1 Hexachlorobutadiene [C]	++++ 1.30081	1.97561	1.64885	1.49248	1.37610	1.34121	1.52251	16.761
5 Hexachlorobenzene [C]	++++ 1.30422	1.60221	1.52062	1.49140	1.45025	1.38595	1.45911	7.170
6 alpha-BHC [C]	++++ 1.56190	1.58236	1.58624	1.63316	1.64049	1.61544	1.60327	1.946
7 gamma-BHC (Lindane) [C]	++++ 1.31891	1.35507	1.34878	1.38146	1.39277	1.36661	1.36060	1.921
8 beta-BHC [C]	++++ 0.56430	0.65278	0.61729	0.61846	0.61258	0.59180	0.60954	4.856
9 delta-BHC [C]	++++ 1.29291	1.32376	1.30723	1.33943	1.32843	1.33198	1.32062	1.312
10 Heptachlor [C]	++++ 1.14412	1.27025	1.23424	1.25841	1.27225	1.21576	1.23250	3.937
11 Chlorthalonil	++++ ++++	++++	++++	++++	++++	++++	++++	++++

ARI Labs, Inc.

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Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
80.000 Level 7								
12 Aldrin [C]	++++ 1.28126	1.51140	1.41672	1.43264	1.43038	1.37092	1.40722	5.441
13 Heptachlor Epoxide a	++++ ++++	++++	++++	++++	++++	++++	++++	++++
14 Heptachlor epoxide b [C]	++++ 1.04614	1.29770	1.17460	1.17429	1.17471	1.11443	1.16364	7.144
15 cis-Chlordane [C]	++++ 1.03859	1.25850	1.15320	1.13505	1.13625	1.08979	1.13523	6.464
16 trans-Chlordane [C]	++++ 1.07269	1.25449	1.17610	1.16484	1.16885	1.12553	1.16042	5.185
17 Endosulfan I [C]	++++ 0.93258	1.11826	1.04415	1.03541	1.03470	0.98850	1.02560	6.032
18 4,4'-DDE [C]	++++ 0.93563	1.12024	1.06963	1.06439	1.05541	0.98971	1.03917	6.320
19 Dieldrin [C]	++++ 1.01937	1.27001	1.16284	1.13936	1.13610	1.07139	1.13318	7.532
20 Endrin [C]	++++ 1.01378	1.25691	1.17909	1.15948	1.14960	1.06606	1.13749	7.566
21 4,4'-DDD [C]	++++ 1.00638	1.23448	1.12156	1.11779	1.11200	1.04628	1.10642	7.049
22 Endosulfan II [C]	++++ 1.04780	1.29682	1.20296	1.18849	1.16050	1.09906	1.16594	7.425

ARI Labs, Inc.

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Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
23 4,4'-DDT [C]	++++ 0.99339	1.17591	1.07782	1.06761	1.07327	1.01936	1.06790	5.878
24 Endrin aldehyde [C]	++++ 0.73803	0.94301	0.84303	0.82492	0.81299	0.77277	0.82246	8.537
25 Endosulfan sulfate [C]	++++ 0.93725	1.13777	1.04255	1.03037	1.02302	0.97217	1.02386	6.702
26 Methoxychlor [C]	++++ 0.44364	0.51841	0.48668	0.47517	0.46817	0.44340	0.47258	5.996
27 Endrin ketone [C]	++++ 1.01657	1.23563	1.11999	1.11440	1.10085	1.04766	1.10585	6.827
29 Aroclor-1016(1)	++++	++++	++++	++++	++++	++++	++++	++++
(2)	++++	++++	++++	++++	++++	++++	++++	++++
(3)	++++	++++	++++	++++	++++	++++	++++	++++
(4)	++++	++++	++++	++++	++++	++++	++++	++++
(5)	++++	++++	++++	++++	++++	++++	++++	++++
30 Aroclor-1221(1)	++++	++++	++++	++++	++++	++++	++++	++++

ARI Labs, Inc.

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 Last Edit : 15-Dec-2022 08:33 j rains
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
31 Aroclor-1232 (1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
32 Aroclor-1242 (1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++

ARI Labs, Inc.

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 Last Edit : 15-Dec-2022 08:33 j rains
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
33 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
34 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
 Last Edit : 15-Dec-2022 08:33 j rains
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
36 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2022 20:38
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 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
 Last Edit : 15-Dec-2022 08:33 jrains
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
37 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Toxaphene [C] (1)	0.01492 0.01387	0.01529	0.01573	0.01558	0.01527	0.01455	0.01503	4.285
(2)	0.03524 0.03010	0.03538	0.03581	0.03480	0.03351	0.03170	0.03379	6.368
(3)	0.02615 0.02387	0.02659	0.02671	0.02640	0.02571	0.02464	0.02572	4.197
(4)	0.08868 0.07782	0.08690	0.08740	0.08502	0.08225	0.07926	0.08390	5.022
(5)	0.04138 0.04062	0.04124	0.04193	0.04145	0.04102	0.04046	0.04116	1.227
39 2,4-DDE [C]	+++++ 0.60202	0.83433	0.80524	0.74313	0.72589	0.66671	0.72955	11.810

ARI Labs, Inc.

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 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
 Last Edit : 15-Dec-2022 08:33 jrains
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
40 2,4-DDD [C]	++++ 0.71370	0.90975	0.87971	0.82738	0.81642	0.76623	0.81887	8.785
41 2,4-DDT [C]	++++ 0.74249	0.94001	0.88046	0.85026	0.84852	0.79773	0.84324	8.052
42 Hexachloroethane [C]	++++ ++++	++++	++++	++++	++++	++++	++++	++++
43 Oxychlordan [C]	++++ 0.79092	0.96447	0.94678	0.90333	0.89663	0.84333	0.89091	7.271
44 trans-Nonachlor [C]	++++ 1.30668	1.48885	1.51762	1.45179	1.44766	1.37681	1.43157	5.406
45 cis-Nonachlor [C]	++++ 1.24817	1.44924	1.40707	1.37647	1.37212	1.31329	1.36106	5.224
46 Mirex [C]	++++ 0.70751	0.93314	0.81155	0.79462	0.76268	0.73998	0.79158	9.949
47 bis-(2-ethylhexyl) Phthalate	++++ ++++	++++	++++	++++	++++	++++	++++	++++
48 Chlordane (NOS) [C] (1)	0.03877 0.03764	0.03690	0.03764	0.03840	0.03761	0.03805	0.03786	1.615
(2)	0.04647 0.03825	0.04439	0.04416	0.04357	0.04103	0.03978	0.04252	6.844
(3)	0.14135 0.13812	0.14252	0.14927	0.15059	0.14418	0.14081	0.14383	3.173

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2022 20:38
 End Cal Date : 15-DEC-2022 05:16
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
 Last Edit : 15-Dec-2022 08:33 j rains
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Kepone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 4 Tetrachloro-m-xylene [C]	+++++	1.22086	1.17937	1.16483	1.12798	1.06878	1.12611	7.306
\$ 28 Decachlorobiphenyl [C]	+++++	1.08714	0.93916	0.85624	0.84996	0.80139	0.88418	12.973

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
 End Cal Date : 13-DEC-2022 22:43
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
 Last Edit : 14-Dec-2022 10:32
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem4\ecd6.i\20220809.b\22080909.D
 Level 2: \\target\share\chem4\ecd6.i\20220809.b\22080910.D
 Level 3: \\target\share\chem4\ecd6.i\20220809.b\22080911.D
 Level 4: \\target\share\chem4\ecd6.i\20220809.b\22080912.D
 Level 5: \\target\share\chem4\ecd6.i\20220809.b\22080913.D
 Level 6: \\target\share\chem4\ecd6.i\20220809.b\22080914.D
 Level 7: \\target\share\chem4\ecd6.i\20220809.b\22080915.D

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
1 Hexachlorobutadiene	+++++ 1.30292	1.64215	1.55667	1.51049	1.47308	1.40536	1.48178	7.988
5 Hexachlorobenzene	+++++ 1.15582	1.48647	1.40778	1.36481	1.31957	1.25458	1.33150	8.750
6 alpha-BHC	+++++ 1.29587	1.41183	1.40802	1.42270	1.42790	1.37811	1.39074	3.567
7 gamma-BHC (Lindane)	+++++ 1.11861	1.20108	1.18733	1.20704	1.21598	1.18532	1.18589	2.948
8 beta-BHC	+++++ 0.50588	0.65244	0.60612	0.58927	0.57533	0.54649	0.57925	8.684
9 delta-BHC	+++++ 1.16159	1.15252	1.13315	1.18185	1.21952	1.21492	1.17726	2.950
10 Heptachlor	+++++ 0.94214	1.18674	1.12881	1.11527	1.09009	1.03076	1.08230	7.897
11 Aldrin	+++++ 0.96536	1.14505	1.10493	1.10576	1.09698	1.04621	1.07738	5.877

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
 End Cal Date : 13-DEC-2022 22:43
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
 Last Edit : 14-Dec-2022 10:32
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
80.000 Level 7								
12 Chlorthalonil	++++	++++	++++	++++	++++	++++	++++	++++
13 Heptachlor Epoxide a	++++	++++	++++	++++	++++	++++	++++	++++
14 Heptachlor epoxide b	++++	1.05278	0.99602	0.98316	0.95413	0.89408	0.94959	8.751
15 cis-Chlordane	++++	1.00217	0.95563	0.94931	0.93343	0.89233	0.92705	6.424
16 trans-Chlordane	++++	1.02223	0.96054	0.95840	0.94631	0.90606	0.93937	6.420
17 Endosulfan I	++++	1.10444	1.01004	0.97510	0.92642	0.86761	0.94287	12.207
18 4,4'-DDE	++++	0.85783	0.84618	0.86175	0.85068	0.80349	0.82557	6.027
19 Dieldrin	++++	1.02112	0.97469	0.96064	0.93395	0.87876	0.92773	8.553
20 Endrin	++++	1.03359	0.99258	1.01493	1.03951	0.95184	0.99228	4.755
21 4,4'-DDD	++++	1.26749	1.21690	1.21140	1.19455	1.09258	1.16763	7.815
22 Endosulfan II	++++	1.32213	1.30831	1.28817	1.25191	1.14300	1.22841	8.614

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
 End Cal Date : 13-DEC-2022 22:43
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
 Last Edit : 14-Dec-2022 10:32
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
23 4,4'-DDT	++++ 1.06544	1.20278	1.19912	1.21231	1.21971	1.13284	1.17203	5.186
24 Endrin aldehyde	++++ 0.84575	1.05042	1.01673	1.00197	0.99460	0.91340	0.97048	7.836
25 Methoxychlor	++++ 0.43428	0.56408	0.54010	0.51985	0.50693	0.45626	0.50358	9.854
26 Endosulfan sulfate	++++ 0.94888	1.14290	1.11216	1.09802	1.09968	1.00734	1.06816	6.922
27 Endrin ketone	++++ 1.12695	1.47959	1.40243	1.34455	1.31335	1.19489	1.31029	9.966
29 Aroclor-1016(1)	++++	++++	++++	++++	++++	++++	++++	++++
(2)	++++	++++	++++	++++	++++	++++	++++	++++
(3)	++++	++++	++++	++++	++++	++++	++++	++++
(4)	++++	++++	++++	++++	++++	++++	++++	++++
(5)	++++	++++	++++	++++	++++	++++	++++	++++
30 Aroclor-1221(1)	++++	++++	++++	++++	++++	++++	++++	++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
 End Cal Date : 13-DEC-2022 22:43
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
 Last Edit : 14-Dec-2022 10:32
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
31 Aroclor-1232 (1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
32 Aroclor-1242 (1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
 End Cal Date : 13-DEC-2022 22:43
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
 Last Edit : 14-Dec-2022 10:32
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(6)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
33 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
34 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
 End Cal Date : 13-DEC-2022 22:43
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
 Last Edit : 14-Dec-2022 10:32
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
35 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
36 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
 End Cal Date : 13-DEC-2022 22:43
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
 Last Edit : 14-Dec-2022 10:32
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	80.000 Level 7	RRF	% RSD
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
37 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++
38 Toxaphene(1)	0.02824|	0.03896|	0.03693|	0.03480|	0.03418|	0.02891|		0.03285|	13.645|
(2)	0.08343|	0.10636|	0.10204|	0.09499|	0.09608|	0.08394|		0.09278|	10.362|
(3)	0.04776|	0.06283|	0.06069|	0.06020|	0.06090|	0.05141|		0.05643|	10.755|
(4)	0.05098|	0.07225|	0.07089|	0.06844|	0.06847|	0.06296|		0.06541|	11.021|
(5)	0.04955|	0.06896|	0.06748|	0.06372|	0.06603|	0.05846|		0.06194|	10.880|

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
 End Cal Date : 13-DEC-2022 22:43
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
 Last Edit : 14-Dec-2022 10:32
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
39 2,4-DDE	0.89319	1.14103	1.08072	1.09005	1.06169	0.88466	1.02522	10.614
40 2,4-DDD	0.85318	1.08881	1.01841	0.99599	0.98400	0.85150	0.96531	9.816
41 2,4-DDT	0.88215	0.97799	0.97179	0.97332	0.98841	0.88743	0.94685	5.117
42 Hexachloroethane	++++	++++	++++	++++	++++	++++	++++	++++
43 Oxychlordane	1.05015	1.32927	1.24890	1.22496	1.20236	1.04785	1.18392	9.540
44 trans-Nonachlor	1.36253	1.68629	1.57989	1.58456	1.55669	1.34437	1.51906	8.949
45 cis-Nonachlor	1.35527	1.62941	1.55213	1.53413	1.52347	1.34758	1.49033	7.639
46 Mirex	0.85786	1.20478	1.11168	1.05006	1.00932	0.85381	1.01459	13.749
47 bis-(2-ethylhexyl) Phthalate	++++	++++	++++	++++	++++	++++	++++	++++
48 Chlordane (NOS) (1)	0.04531	0.06029	0.05735	0.05369	0.05005	0.04581	0.04808	11.230
(2)	0.12030	0.15038	0.14213	0.13501	0.13074	0.12020	0.12674	8.482

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
 End Cal Date : 13-DEC-2022 22:43
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
 Last Edit : 14-Dec-2022 10:32
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
(3)	0.17221	0.15459	0.13623	0.13893	0.12753	0.13518	0.14232	11.024
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Tetrachloro-m-xylene	0.85040	1.10401	1.05839	1.02629	0.99588	0.93352	0.99475	9.166

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-AUG-2022 11:03
 End Cal Date : 13-DEC-2022 22:43
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd6.i\20221214.b\PEST.m
 Last Edit : 14-Dec-2022 10:32
 Curve Type : Average

Compound	1.250 Level 1	2.500 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	40.000 Level 6	RRF	% RSD
80.000 Level 7								
\$ 28 Decachlorobiphenyl	+++++	0.99444	0.96249	0.90111	0.87014	0.79161	0.87939	10.607
	0.75653							

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

Table with 7 columns: ID, RT01, RT02, RT03, RT04, RT05, RT06, RT07. Rows include FILENAME, INJ. DATE, and INJ. TIME for each RT column.

Main data table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Lists 17 compounds with their retention times and standard deviations.

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE	6.489	6.489	6.490	6.490	6.489	6.489	6.490	6.489	6.459-6.519	6.489	0.000
19 Dieldrin	6.831	6.832	6.832	6.832	6.831	6.832	6.832	6.831	6.801-6.861	6.832	0.000
20 Endrin	7.081	7.081	7.082	7.082	7.081	7.082	7.082	7.081	7.051-7.111	7.082	0.000
21 4,4'-DDD	7.135	7.136	7.136	7.136	7.135	7.136	7.135	7.135	7.105-7.165	7.136	0.000
22 Endosulfan II	7.318	7.317	7.318	7.318	7.317	7.317	7.317	7.317	7.287-7.347	7.317	0.000
23 4,4'-DDT	7.427	7.427	7.428	7.428	7.427	7.427	7.428	7.427	7.397-7.457	7.428	0.000
24 Endrin aldehyde	7.746	7.746	7.746	7.746	7.746	7.746	7.746	7.746	7.716-7.776	7.746	0.000
25 Methoxychlor	7.912	7.912	7.913	7.912	7.912	7.912	7.912	7.912	7.882-7.942	7.912	0.000
26 Endosulfan sulfate	8.180	8.179	8.180	8.180	8.180	8.179	8.180	8.180	8.150-8.210	8.180	0.000
27 Endrin ketone	8.453	8.452	8.454	8.453	8.453	8.453	8.454	8.453	8.423-8.483	8.453	0.001
28 Decachlorobiphenyl	9.355	9.354	9.355	9.355	9.355	9.355	9.356	9.355	9.325-9.385	9.355	0.000
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.851-4.911	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.329-5.389	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.388-4.448	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.227-5.287	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	6.015-6.075	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.271-8.331	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.229-11.289	+++++	+++++
38 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.931	6.901-6.961	+++++	+++++
39 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.106	6.076-6.136	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.681	6.651-6.711	+++++	+++++
41 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.957	6.927-6.987	+++++	+++++
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.774	1.744-1.804	+++++	+++++
43 Oxychlorane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.014	5.984-6.044	+++++	+++++
44 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.397	6.367-6.427	+++++	+++++
45 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.112	7.082-7.142	+++++	+++++
46 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.082	8.052-8.112	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.126-20.186	+++++	+++++
48 Chlordane (NOS)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.593	5.563-5.623	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.289-6.349	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.906-9.966	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.861-11.921	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.797-14.857	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.720-9.780	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.077-9.137	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.221-10.281	+++++	+++++
56 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.588	6.558-6.618	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.953	6.923-6.983	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07
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INJ. DATE: 14-DEC-2022 14-DEC-2022 14-DEC-2022 14-DEC-2022 14-DEC-2022 14-DEC-2022 14-DEC-2022
INJ. TIME: 20:38 20:56 21:14 21:31 21:49 22:07 22:25

Table with 12 columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include compounds like Hexachlorobutadiene, 1Bromo-2nitrobenzene, Hexabromobiphenyl, Tetrachloro-m-xylene, Hexachlorobenzene, alpha-BHC, gamma-BHC (Lindane), beta-BHC, delta-BHC, Heptachlor, Chlorthalonil, Aldrin, Heptachlor Epoxide a, Heptachlor epoxide b, cis-Chlordane, trans-Chlordane, and Endosulfan I.

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE [C]	7.370	7.370	7.371	7.371	7.370	7.371	7.371	7.371	7.341-7.401	7.371	0.000
19 Dieldrin [C]	7.582	7.582	7.583	7.583	7.582	7.582	7.583	7.583	7.553-7.613	7.582	0.000
20 Endrin [C]	7.906	7.906	7.906	7.907	7.907	7.907	7.907	7.907	7.877-7.937	7.907	0.000
21 4,4'-DDD [C]	7.976	7.976	7.976	7.977	7.976	7.976	7.976	7.976	7.946-8.006	7.976	0.000
22 Endosulfan II [C]	8.117	8.116	8.117	8.117	8.117	8.117	8.117	8.117	8.087-8.147	8.117	0.000
23 4,4'-DDT [C]	8.294	8.294	8.294	8.295	8.295	8.295	8.295	8.295	8.265-8.325	8.295	0.000
24 Endrin aldehyde [C]	8.448	8.447	8.448	8.448	8.448	8.448	8.448	8.448	8.418-8.478	8.448	0.000
25 Endosulfan sulfate [C]	8.715	8.714	8.715	8.715	8.715	8.715	8.715	8.715	8.685-8.745	8.715	0.000
26 Methoxychlor [C]	8.935	8.934	8.935	8.936	8.935	8.935	8.936	8.936	8.906-8.966	8.935	0.001
27 Endrin ketone [C]	9.239	9.239	9.239	9.240	9.239	9.239	9.240	9.240	9.210-9.270	9.239	0.000
28 Decachlorobiphenyl [C]	10.466	10.465	10.466	10.466	10.466	10.466	10.467	10.467	10.437-10.497	10.466	0.001
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.150-4.210	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.021-5.081	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.141-5.201	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.940-5.000	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.255-5.315	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.938-5.998	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.737-6.797	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.684-9.744	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.761-11.821	+++++	+++++
38 Toxaphene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.126	7.096-7.156	+++++	+++++
39 2,4-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.036	7.006-7.066	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
 Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
 Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.591	7.561-7.621	+++++	+++++
41 2,4-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.913	7.883-7.943	+++++	+++++
42 Hexachloroethane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.676	1.646-1.706	+++++	+++++
43 Oxychlorane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.741	6.711-6.771	+++++	+++++
44 trans-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.155	7.125-7.185	+++++	+++++
45 cis-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.975	7.945-8.005	+++++	+++++
46 Mirex [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.223	9.193-9.253	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.469-21.529	+++++	+++++
48 Chlordane (NOS) [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.612	5.582-5.642	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.841-4.901	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.610-6.670	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.085-8.145	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.256-11.316	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.497-6.557	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.312-6.372	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.811-6.871	+++++	+++++
56 Kepone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.336	7.306-7.366	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.715-7.775	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

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INJ. DATE: 14-DEC-2022 14-DEC-2022 14-DEC-2022 14-DEC-2022 14-DEC-2022 15-DEC-2022 15-DEC-2022
INJ. TIME: 22:43 23:01 23:19 23:36 23:54 00:12 00:30

Table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include compounds like Hexachlorobutadiene, Bromo-2nitrobenzene, Hexabromobiphenyl, Tetrachloro-m-xylene, Hexachlorobenzene, alpha-BHC, gamma-BHC (Lindane), beta-BHC, delta-BHC, Heptachlor, Aldrin, Chlorthalonil, Heptachlor Epoxide a, Heptachlor epoxide b, cis-Chlordane, trans-Chlordane, and Endosulfan I.

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.489	6.459-6.519	+++++	+++++
19 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.831	6.801-6.861	+++++	+++++
20 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.081	7.051-7.111	+++++	+++++
21 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.135	7.105-7.165	+++++	+++++
22 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.317	7.287-7.347	+++++	+++++
23 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.427	7.397-7.457	+++++	+++++
24 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.746	7.716-7.776	+++++	+++++
25 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.912	7.882-7.942	+++++	+++++
26 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.180	8.150-8.210	+++++	+++++
27 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.453	8.423-8.483	+++++	+++++
28 Decachlorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.355	9.325-9.385	+++++	+++++
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.851-4.911	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.329-5.389	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.388-4.448	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.227-5.287	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	6.015-6.075	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.271-8.331	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.229-11.289	+++++	+++++
38 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.931	6.901-6.961	+++++	+++++
39 2,4-DDE	6.106	6.106	6.106	6.106	6.106	6.106	6.106	6.106	6.076-6.136	6.106	0.000

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	6.681	6.681	6.681	6.681	6.681	6.681	6.680	6.681	6.651-6.711	6.681	0.000
41 2,4-DDT	6.956	6.957	6.956	6.956	6.957	6.956	6.956	6.957	6.927-6.987	6.956	0.000
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.774	1.744-1.804	+++++	+++++
43 Oxychlorane	6.014	6.015	6.014	6.015	6.014	6.014	6.014	6.014	5.984-6.044	6.015	0.000
44 trans-Nonachlor	6.397	6.398	6.398	6.398	6.397	6.397	6.397	6.397	6.367-6.427	6.398	0.000
45 cis-Nonachlor	7.112	7.112	7.111	7.112	7.112	7.112	7.112	7.112	7.082-7.142	7.112	0.000
46 Mirex	8.082	8.082	8.082	8.082	8.082	8.082	8.082	8.082	8.052-8.112	8.082	0.000
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.126-20.186	+++++	+++++
48 Chlordane (NOS)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.593	5.563-5.623	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.289-6.349	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.906-9.966	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.861-11.921	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.797-14.857	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.720-9.780	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.077-9.137	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.221-10.281	+++++	+++++
56 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.588	6.558-6.618	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.953	6.923-6.983	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
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ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07
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INJ. DATE: 14-DEC-2022 14-DEC-2022 14-DEC-2022 14-DEC-2022 14-DEC-2022 15-DEC-2022 15-DEC-2022
INJ. TIME: 22:43 23:01 23:19 23:36 23:54 00:12 00:30

Table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include compounds like Hexachlorobutadiene, Bromo-2nitrobenzene, Hexabromobiphenyl, Tetrachloro-m-xylene, Hexachlorobenzene, alpha-BHC, gamma-BHC (Lindane), beta-BHC, delta-BHC, Heptachlor, Chlorthalonil, Aldrin, Heptachlor Epoxide a, Heptachlor epoxide b, cis-Chlordane, trans-Chlordane, and Endosulfan I.

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.371	7.341-7.401	+++++	+++++
19 Dieldrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.583	7.553-7.613	+++++	+++++
20 Endrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.907	7.877-7.937	+++++	+++++
21 4,4'-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.976	7.946-8.006	+++++	+++++
22 Endosulfan II [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.117	8.087-8.147	+++++	+++++
23 4,4'-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.295	8.265-8.325	+++++	+++++
24 Endrin aldehyde [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.448	8.418-8.478	+++++	+++++
25 Endosulfan sulfate [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.715	8.685-8.745	+++++	+++++
26 Methoxychlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.936	8.906-8.966	+++++	+++++
27 Endrin ketone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.240	9.210-9.270	+++++	+++++
28 Decachlorobiphenyl [C]	+++++	+++++	+++++	+++++	+++++	+++++	10.471	10.467	10.437-10.497	10.471	0.000
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.150-4.210	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.021-5.081	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.141-5.201	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.940-5.000	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.255-5.315	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.938-5.998	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.737-6.797	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.684-9.744	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.761-11.821	+++++	+++++
38 Toxaphene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.126	7.096-7.156	+++++	+++++
39 2,4-DDE [C]	7.036	7.036	7.035	7.036	7.036	7.036	7.036	7.036	7.006-7.066	7.036	0.000

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD [C]	7.591	7.590	7.590	7.591	7.590	7.591	7.591	7.591	7.561-7.621	7.591	0.000
41 2,4-DDT [C]	7.913	7.914	7.913	7.913	7.913	7.914	7.913	7.913	7.883-7.943	7.913	0.000
42 Hexachloroethane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.676	1.646-1.706	+++++	+++++
43 Oxychlorane [C]	6.741	6.741	6.741	6.741	6.741	6.741	6.741	6.741	6.711-6.771	6.741	0.000
44 trans-Nonachlor [C]	7.154	7.154	7.154	7.155	7.154	7.155	7.155	7.155	7.125-7.185	7.154	0.000
45 cis-Nonachlor [C]	7.975	7.975	7.975	7.975	7.975	7.975	7.975	7.975	7.945-8.005	7.975	0.000
46 Mirex [C]	9.223	9.223	9.222	9.223	9.222	9.223	9.223	9.223	9.193-9.253	9.223	0.000
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.469-21.529	+++++	+++++
48 Chlordane (NOS) [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.612	5.582-5.642	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.841-4.901	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.610-6.670	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.085-8.145	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.256-11.316	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.497-6.557	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.312-6.372	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.811-6.871	+++++	+++++
56 Kepone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.336	7.306-7.366	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.715-7.775	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07
FILENAME: 22121421 22121422 22121423 22121424 22121425 22121426 22121427
INJ. DATE: 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022
INJ. TIME: 01:24 01:42 01:59 02:17 02:35 02:53 03:11

Table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include compounds like Hexachlorobutadiene, Bromo-2nitrobenzene, Hexabromobiphenyl, etc.

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.489	6.459-6.519	+++++	+++++
19 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.831	6.801-6.861	+++++	+++++
20 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.081	7.051-7.111	+++++	+++++
21 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.135	7.105-7.165	+++++	+++++
22 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.317	7.287-7.347	+++++	+++++
23 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.427	7.397-7.457	+++++	+++++
24 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.746	7.716-7.776	+++++	+++++
25 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.912	7.882-7.942	+++++	+++++
26 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.180	8.150-8.210	+++++	+++++
27 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.453	8.423-8.483	+++++	+++++
28 Decachlorobiphenyl	+++++	+++++	+++++	+++++	+++++	+++++	9.380	9.355	9.325-9.385	9.380	0.000
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.851-4.911	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.329-5.389	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.388-4.448	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.227-5.287	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	6.015-6.075	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.271-8.331	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.229-11.289	+++++	+++++
38 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.931	6.901-6.961	+++++	+++++
39 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.106	6.076-6.136	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.681	6.651-6.711	+++++	+++++
41 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.957	6.927-6.987	+++++	+++++
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.774	1.744-1.804	+++++	+++++
43 Oxychlorane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.014	5.984-6.044	+++++	+++++
44 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.397	6.367-6.427	+++++	+++++
45 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.112	7.082-7.142	+++++	+++++
46 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.082	8.052-8.112	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.126-20.186	+++++	+++++
48 Chlordane (NOS)	5.593	5.593	5.593	5.593	5.593	5.592	5.593	5.593	5.563-5.623	5.593	0.000
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.289-6.349	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.906-9.966	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.861-11.921	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.797-14.857	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.720-9.780	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.077-9.137	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.221-10.281	+++++	+++++
56 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.588	6.558-6.618	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.953	6.923-6.983	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07
FILENAME: 22121421 22121422 22121423 22121424 22121425 22121426 22121427
INJ. DATE: 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022
INJ. TIME: 01:24 01:42 01:59 02:17 02:35 02:53 03:11

Table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include compounds like Hexachlorobutadiene, Bromo-2nitrobenzene, Hexabromobiphenyl, Tetrachloro-m-xylene, Hexachlorobenzene, alpha-BHC, gamma-BHC (Lindane), beta-BHC, delta-BHC, Heptachlor, Chlorthalonil, Aldrin, Heptachlor Epoxide a, Heptachlor epoxide b, cis-Chlordane, trans-Chlordane, and Endosulfan I.

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
 Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
 Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.371	7.341-7.401	+++++	+++++
19 Dieldrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.583	7.553-7.613	+++++	+++++
20 Endrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.907	7.877-7.937	+++++	+++++
21 4,4'-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.976	7.946-8.006	+++++	+++++
22 Endosulfan II [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.117	8.087-8.147	+++++	+++++
23 4,4'-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.295	8.265-8.325	+++++	+++++
24 Endrin aldehyde [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.448	8.418-8.478	+++++	+++++
25 Endosulfan sulfate [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.715	8.685-8.745	+++++	+++++
26 Methoxychlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.936	8.906-8.966	+++++	+++++
27 Endrin ketone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.240	9.210-9.270	+++++	+++++
28 Decachlorobiphenyl [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.467	10.437-10.497	+++++	+++++
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.150-4.210	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.021-5.081	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.141-5.201	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.940-5.000	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.255-5.315	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.938-5.998	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.737-6.797	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.684-9.744	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.761-11.821	+++++	+++++
38 Toxaphene [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.126	7.096-7.156	+++++	+++++
39 2,4-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.036	7.006-7.066	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
 Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
 Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.591	7.561-7.621	+++++	+++++
41 2,4-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.913	7.883-7.943	+++++	+++++
42 Hexachloroethane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.676	1.646-1.706	+++++	+++++
43 Oxychlorane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.741	6.711-6.771	+++++	+++++
44 trans-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.155	7.125-7.185	+++++	+++++
45 cis-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.975	7.945-8.005	+++++	+++++
46 Mirex [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.223	9.193-9.253	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.469-21.529	+++++	+++++
48 Chlordane (NOS) [C]	5.612	5.612	5.612	5.611	5.612	5.612	5.612	5.612	5.582-5.642	5.612	0.000
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.841-4.901	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.610-6.670	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.085-8.145	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.256-11.316	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.497-6.557	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.312-6.372	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.811-6.871	+++++	+++++
56 Kepone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.336	7.306-7.366	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.715-7.775	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07
FILENAME: 22121428 22121429 22121430 22121431 22121432 22121433 22121434
INJ. DATE: 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022
INJ. TIME: 03:29 03:46 04:04 04:22 04:40 04:58 05:16

Table with 12 columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows list various compounds like Hexachlorobutadiene, Bromo-2nitrobenzene, Hexabromobiphenyl, etc., with their respective retention times and standard deviations.

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.489	6.459-6.519	+++++	+++++
19 Dieldrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.831	6.801-6.861	+++++	+++++
20 Endrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.081	7.051-7.111	+++++	+++++
21 4,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.135	7.105-7.165	+++++	+++++
22 Endosulfan II	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.317	7.287-7.347	+++++	+++++
23 4,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.427	7.397-7.457	+++++	+++++
24 Endrin aldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.746	7.716-7.776	+++++	+++++
25 Methoxychlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.912	7.882-7.942	+++++	+++++
26 Endosulfan sulfate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.180	8.150-8.210	+++++	+++++
27 Endrin ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.453	8.423-8.483	+++++	+++++
§ 28 Decachlorobiphenyl	9.355	9.355	9.355	9.355	9.356	9.356	9.355	9.355	9.325-9.385	9.356	0.000
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.881	4.851-4.911	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.359	5.329-5.389	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	3.765	3.735-3.795	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.418	4.388-4.448	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.257	5.227-5.287	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.045	6.015-6.075	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.301	8.271-8.331	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.259	11.229-11.289	+++++	+++++
38 Toxaphene	6.931	6.931	6.931	6.931	6.931	6.931	6.931	6.931	6.901-6.961	6.931	0.000
39 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.106	6.076-6.136	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.681	6.651-6.711	+++++	+++++
41 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.957	6.927-6.987	+++++	+++++
42 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.774	1.744-1.804	+++++	+++++
43 Oxychlorane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.014	5.984-6.044	+++++	+++++
44 trans-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.397	6.367-6.427	+++++	+++++
45 cis-Nonachlor	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.112	7.082-7.142	+++++	+++++
46 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.082	8.052-8.112	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.156	20.126-20.186	+++++	+++++
48 Chlordane (NOS)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.593	5.563-5.623	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.319	6.289-6.349	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.936	9.906-9.966	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.891	11.861-11.921	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.827	14.797-14.857	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.750	9.720-9.780	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.107	9.077-9.137	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.251	10.221-10.281	+++++	+++++
56 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.588	6.558-6.618	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.953	6.923-6.983	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

ID: RT01 RT02 RT03 RT04 RT05 RT06 RT07
FILENAME: 22121428 22121429 22121430 22121431 22121432 22121433 22121434
INJ. DATE: 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022 15-DEC-2022
INJ. TIME: 03:29 03:46 04:04 04:22 04:40 04:58 05:16

Table with 12 columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, RT07, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows list various compounds like Hexachlorobutadiene, Bromo-2nitrobenzene, Hexabromobiphenyl, etc., with their respective retention times and quality indicators.

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
18 4,4'-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.371	7.341-7.401	+++++	+++++
19 Dieldrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.583	7.553-7.613	+++++	+++++
20 Endrin [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.907	7.877-7.937	+++++	+++++
21 4,4'-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.976	7.946-8.006	+++++	+++++
22 Endosulfan II [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.117	8.087-8.147	+++++	+++++
23 4,4'-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.295	8.265-8.325	+++++	+++++
24 Endrin aldehyde [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.448	8.418-8.478	+++++	+++++
25 Endosulfan sulfate [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.715	8.685-8.745	+++++	+++++
26 Methoxychlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.936	8.906-8.966	+++++	+++++
27 Endrin ketone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.240	9.210-9.270	+++++	+++++
\$ 28 Decachlorobiphenyl [C]	10.467	10.467	10.467	10.466	10.466	10.466	10.467	10.467	10.437-10.497	10.466	0.000
29 Aroclor-1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.180	4.150-4.210	+++++	+++++
30 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.051	5.021-5.081	+++++	+++++
31 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.171	5.141-5.201	+++++	+++++
32 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.970	4.940-5.000	+++++	+++++
33 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.285	5.255-5.315	+++++	+++++
34 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.968	5.938-5.998	+++++	+++++
35 Aroclor-1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.767	6.737-6.797	+++++	+++++
36 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.714	9.684-9.744	+++++	+++++
37 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.791	11.761-11.821	+++++	+++++
38 Toxaphene [C]	7.125	7.125	7.125	7.125	7.126	7.126	7.126	7.126	7.096-7.156	7.125	0.000
39 2,4-DDE [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.036	7.006-7.066	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd6.i\20221214.b\PEST.m\PESTB.m
 Batch File: \\target\share\chem4\ecd6.i\20221214.b\B20221214.b
 Inst ID: ecd6.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 2,4-DDD [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.591	7.561-7.621	+++++	+++++
41 2,4-DDT [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.913	7.883-7.943	+++++	+++++
42 Hexachloroethane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.676	1.646-1.706	+++++	+++++
43 Oxychlorane [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.741	6.711-6.771	+++++	+++++
44 trans-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.155	7.125-7.185	+++++	+++++
45 cis-Nonachlor [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.975	7.945-8.005	+++++	+++++
46 Mirex [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.223	9.193-9.253	+++++	+++++
47 bis-(2-ethylhexyl) Pht	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.499	21.469-21.529	+++++	+++++
48 Chlordane (NOS) [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.612	5.582-5.642	+++++	+++++
49 Trifluralin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.871	4.841-4.901	+++++	+++++
50 Dacthal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.640	6.610-6.670	+++++	+++++
51 Oxadiazon	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.115	8.085-8.145	+++++	+++++
52 Kelthane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.286	11.256-11.316	+++++	+++++
53 Chlorpyrifos	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.527	6.497-6.557	+++++	+++++
54 Methyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.342	6.312-6.372	+++++	+++++
55 Ethyl Parathion	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.841	6.811-6.871	+++++	+++++
56 Kepone [C]	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.336	7.306-7.366	+++++	+++++
57 1-Chloropyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.745	7.715-7.775	+++++	+++++

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121403.D
Data file 2: /20221214.b/B20221214.b/22121403.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-IBL1
Client ID:
Injection Date: 14-DEC-2022 20:02
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
----			----			0.00	0.00	---	alpha-BHC
----			----			0.00	0.00	---	beta-BHC
----			----			0.00	0.00	---	delta-BHC
----			----			0.00	0.00	---	gamma-BHC (Lindane)
----			----			0.00	0.00	---	Heptachlor
----			----			0.00	0.00	---	Aldrin
----			6.824	-0.021	2291	0.00	0.14	---	Heptachlor epoxide b
----			----			0.00	0.00	---	Endosulfan I
----			7.597	0.015	1696	0.00	0.11	---	Dieldrin
----			----			0.00	0.00	---	4,4'-DDE
----			----			0.00	0.00	---	Endrin
----			8.135	0.018	285	0.00	0.02	---	Endosulfan II
----			7.975	-0.002	1369	0.00	0.12	---	4,4'-DDD
----			8.720	0.005	243	0.00	0.02	---	Endosulfan sulfate
----			----			0.00	0.00	---	4,4'-DDT
----			8.924	-0.013	546	0.00	0.11	---	Methoxychlor
8.444	-0.009	1962	9.226	-0.013	2888	0.23	0.25	10.1	Endrin ketone
----			----			0.00	0.00	---	Endrin aldehyde
----			7.070	0.014	4708	0.00	0.30	---	trans-Chlordane
----			7.219	0.003	810	0.00	0.05	---	cis-Chlordane
2.351	0.028	6378	2.512	0.012	33421	0.42	1.60	116.6*	Hexachlorobutadiene
4.183	0.001	4869	4.721	0.003	421	0.36	0.02	178.1*	Hexachlorobenzene
3.828	0.000	375293	4.220	-0.000	579767	36.70	37.46	2.1	Tetrachloro-m-xylene
9.356	0.001	243291	10.467	0.000	323668	35.86	35.40	1.3	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	751998	5.8
Hexabromobiphenyl	641833	669495	4.3

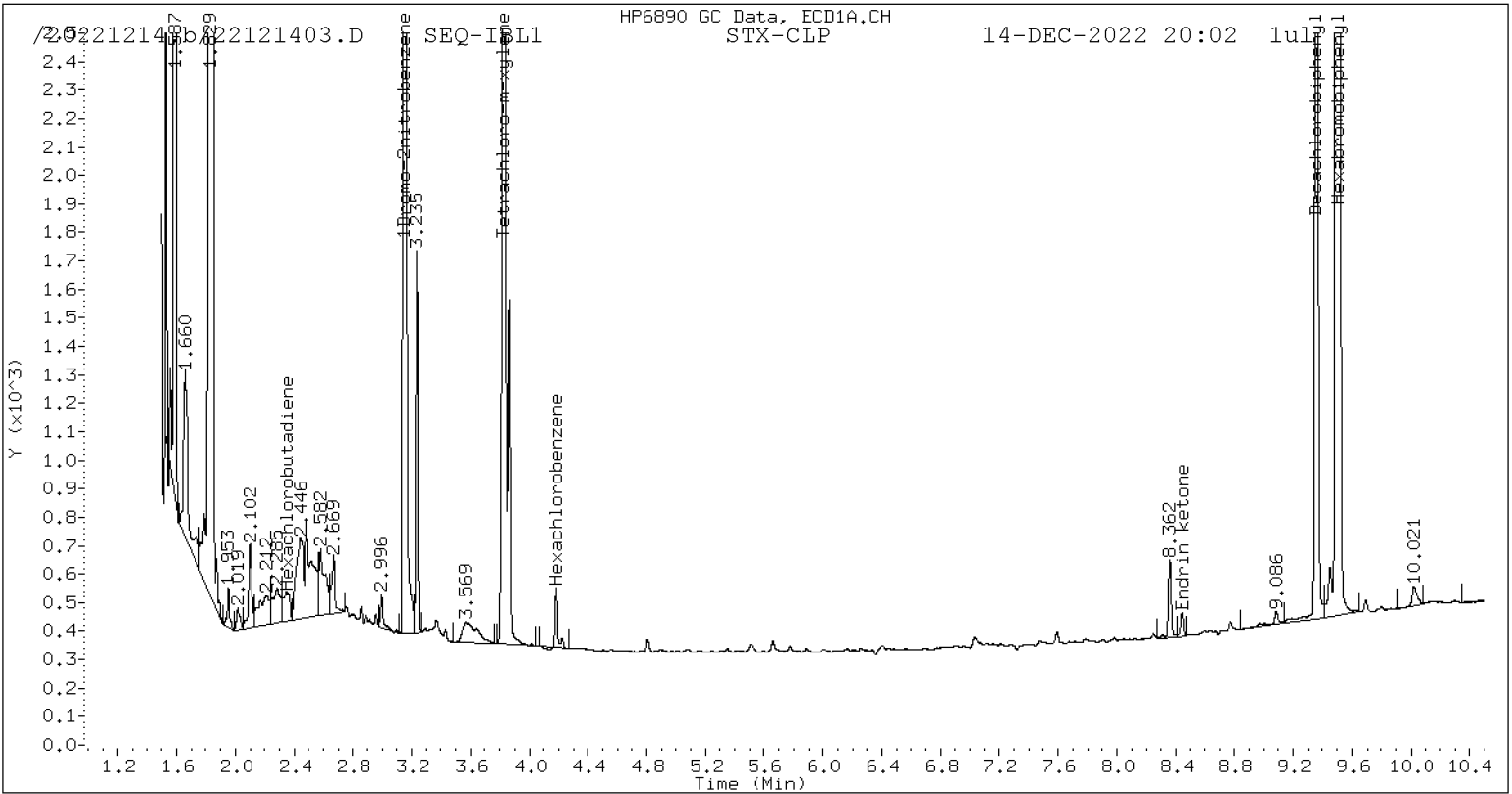
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1099555	3.8
Hexabromobiphenyl	797125	827325	3.8

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

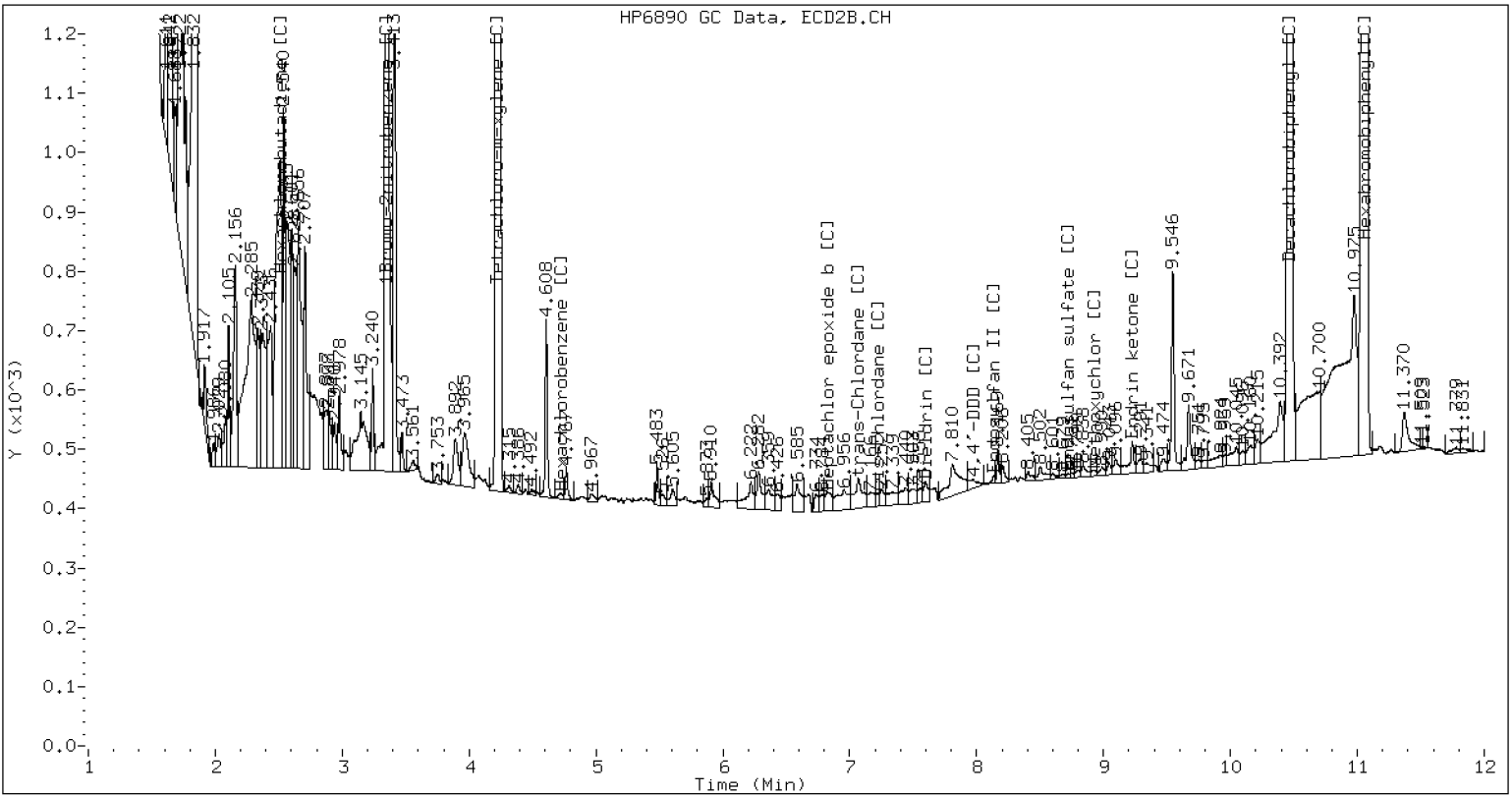
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121403.D SEQ-IBL1 CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121403.D
Data file 2: /20221214.b/B20221214.b/22121403.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-IBL1
Client ID:
Injection Date: 14-DEC-2022 20:02
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag		
RT	Shift Response	RT	Shift Response	on col	on col		

=====

7E
8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: SEQ-PEM1 InstID,Data File: ecd6.i, 22121404.D
Analysis Date: 14-DEC-2022 20:20 Init. Calib. Date: 14-DEC-2022

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
1Bromo-2nitrobenzene	3.151	683485
4,4'-DDE	6.490	6258
Endrin	7.082	745471
4,4'-DDD	7.136	15566
4,4'-DDT	7.428	629664
Endrin ketone	8.453	19276
Endrin aldehyde	7.747	21328
Hexabromobiphenyl	9.504	619012
Tetrachloro-m-xylene	3.828	1161664
Decachlorobiphenyl	9.355	833312

DDT Percent Breakdown = 3.3 %
((6258+15566) * 100)/(6258+15566+629664)

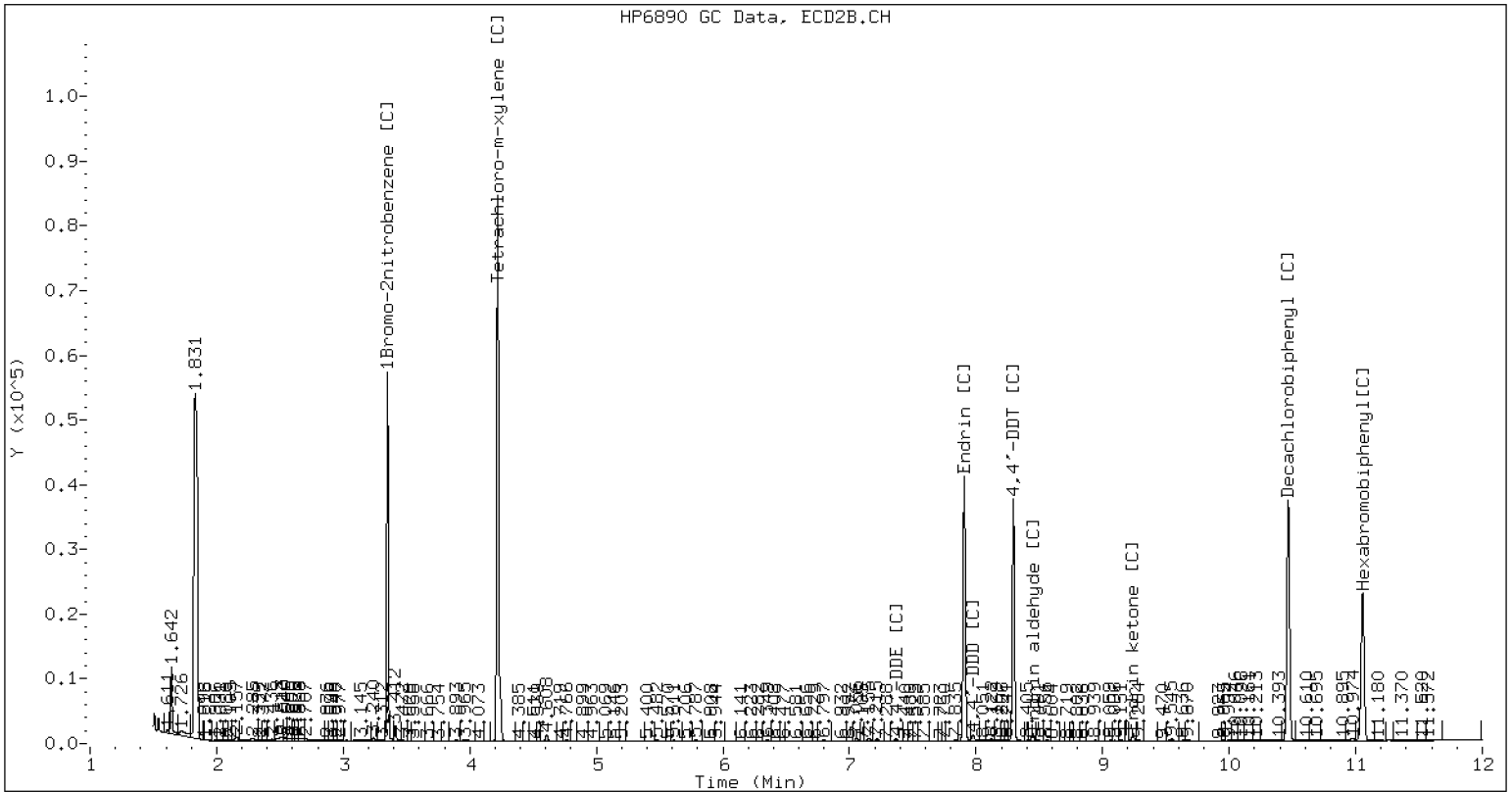
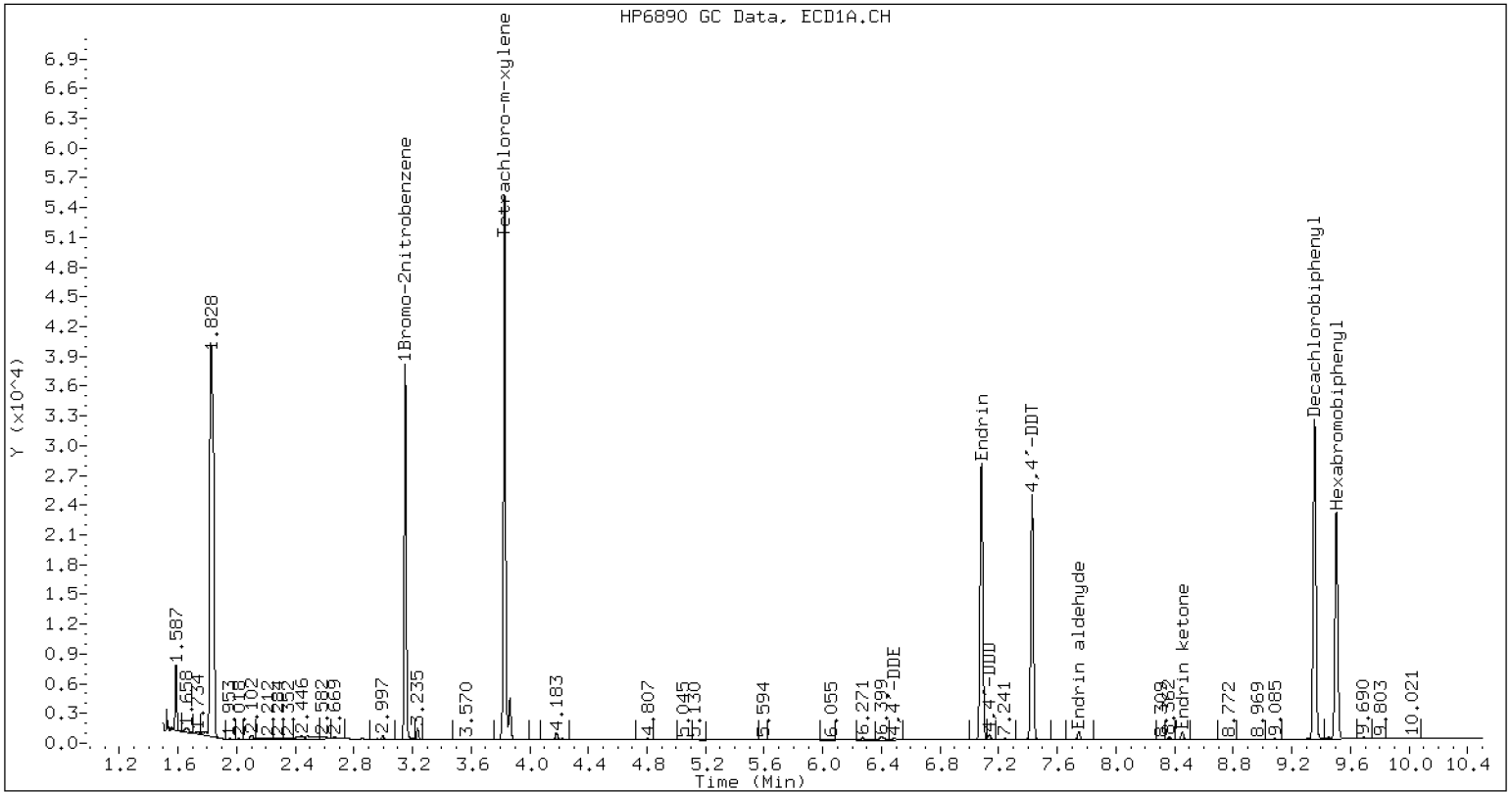
Endrin Percent Breakdown = 5.2 %
((21328+19276) * 100)/(21328+19276+745471)

GC Column: STX-CLP2 ID: 0.53(mm)

COMPOUND	RT	AREA
1Bromo-2nitrobenzene [C]	3.350	1005375
4,4'-DDE [C]	7.370	11906
Endrin [C]	7.907	1029194
4,4'-DDD [C]	7.977	32697
4,4'-DDT [C]	8.295	890195
Endrin ketone [C]	9.239	28268
Endrin aldehyde [C]	8.448	31426
Hexabromobiphenyl [C]	11.054	772586
Tetrachloro-m-xylene [C]	4.220	1890294
Decachlorobiphenyl [C]	10.467	1140978

DDT Percent Breakdown = 4.8 %
((11906+32697) * 100)/(11906+32697+890195)

Endrin Percent Breakdown = 5.5 %
((31426+28268) * 100)/(31426+28268+1029194)



7E
8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: SEQ-PEM1 InstID,Data File: ecd6.i, 22121404.D
Analysis Date: 14-DEC-2022 20:20 Init. Calib. Date: 14-DEC-2022

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
1Bromo-2nitrobenzene	3.151	683485
4,4'-DDE	6.490	6258
Endrin	7.082	745471
4,4'-DDD	7.136	15566
4,4'-DDT	7.428	629664
Endrin ketone	8.453	19276
Endrin aldehyde	7.747	21328
Hexabromobiphenyl	9.504	619012
Tetrachloro-m-xylene	3.828	1161664
Decachlorobiphenyl	9.355	833312

DDT Percent Breakdown = 3.3 %
 $((6258+15566) * 100)/(6258+15566+629664)$

Endrin Percent Breakdown = 5.2 %
 $((21328+19276) * 100)/(21328+19276+745471)$

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312

Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121405.D
Data file 2: /20221214.b/B20221214.b/22121405.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL1
Client ID:
Injection Date: 14-DEC-2022 20:38
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
4.342	-0.000	17720	4.860	-0.001	25579	1.30	1.22	6.4	alpha-BHC
4.726	-0.000	7513	5.337	-0.000	10927	1.43	1.37	4.4	beta-BHC
4.909	-0.000	14050	5.690	-0.000	21188	1.26	1.23	2.8	delta-BHC
4.645	-0.000	15329	5.257	-0.001	21981	1.30	1.24	4.9	gamma-BHC (Lindane)
5.130	-0.000	14540	5.786	-0.000	20395	1.38	1.27	8.9	Heptachlor
5.453	-0.001	15026	6.190	-0.001	24413	1.28	1.33	3.9	Aldrin
6.130	0.000	13937	6.845	-0.000	21959	1.37	1.44	5.6	Heptachlor epoxide b
6.572	-0.000	13220	7.288	-0.000	19257	1.41	1.44	1.8	Endosulfan I
6.831	0.000	27285	7.582	-0.001	43580	2.71	2.94	8.2	Dieldrin
6.489	0.000	25951	7.370	-0.001	37722	2.78	2.78	0.0	4,4'-DDE
7.081	0.000	24429	7.906	-0.001	31381	2.94	2.78	5.3	Endrin
7.318	0.001	19827	8.117	-0.000	30675	2.65	2.66	0.3	Endosulfan II
7.135	0.000	20434	7.976	-0.000	28995	2.73	2.65	3.0	4,4'-DDD
8.180	-0.000	19661	8.715	-0.000	26689	2.76	2.63	4.9	Endosulfan sulfate
7.427	0.000	20071	8.294	-0.001	26950	2.65	2.55	3.9	4,4'-DDT
7.912	-0.000	52385	8.935	-0.001	65896	15.60	14.07	10.3	Methoxychlor
8.453	-0.001	24276	9.239	-0.000	30129	2.98	2.75	8.0	Endrin ketone
7.746	-0.000	17209	8.448	-0.000	21218	2.88	2.60	10.1	Endrin aldehyde
6.270	-0.001	14829	7.056	-0.000	22517	1.43	1.48	3.7	trans-Chlordane
6.417	0.000	15767	7.215	-0.000	22150	1.52	1.49	1.6	cis-Chlordane
2.323	-0.001	27320	2.500	-0.001	42655	1.92	2.14	11.3	Hexachlorobutadiene
4.182	0.000	18555	4.718	-0.000	27377	1.47	1.44	2.2	Hexachlorobenzene
3.828	-0.000	28792	4.220	-0.001	41270	2.99	2.80	6.5	Tetrachloro-m-xylene
9.355	-0.000	21954	10.466	-0.000	30646	3.41	3.50	2.5	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	707324	-0.5
Hexabromobiphenyl	641833	634819	-1.1

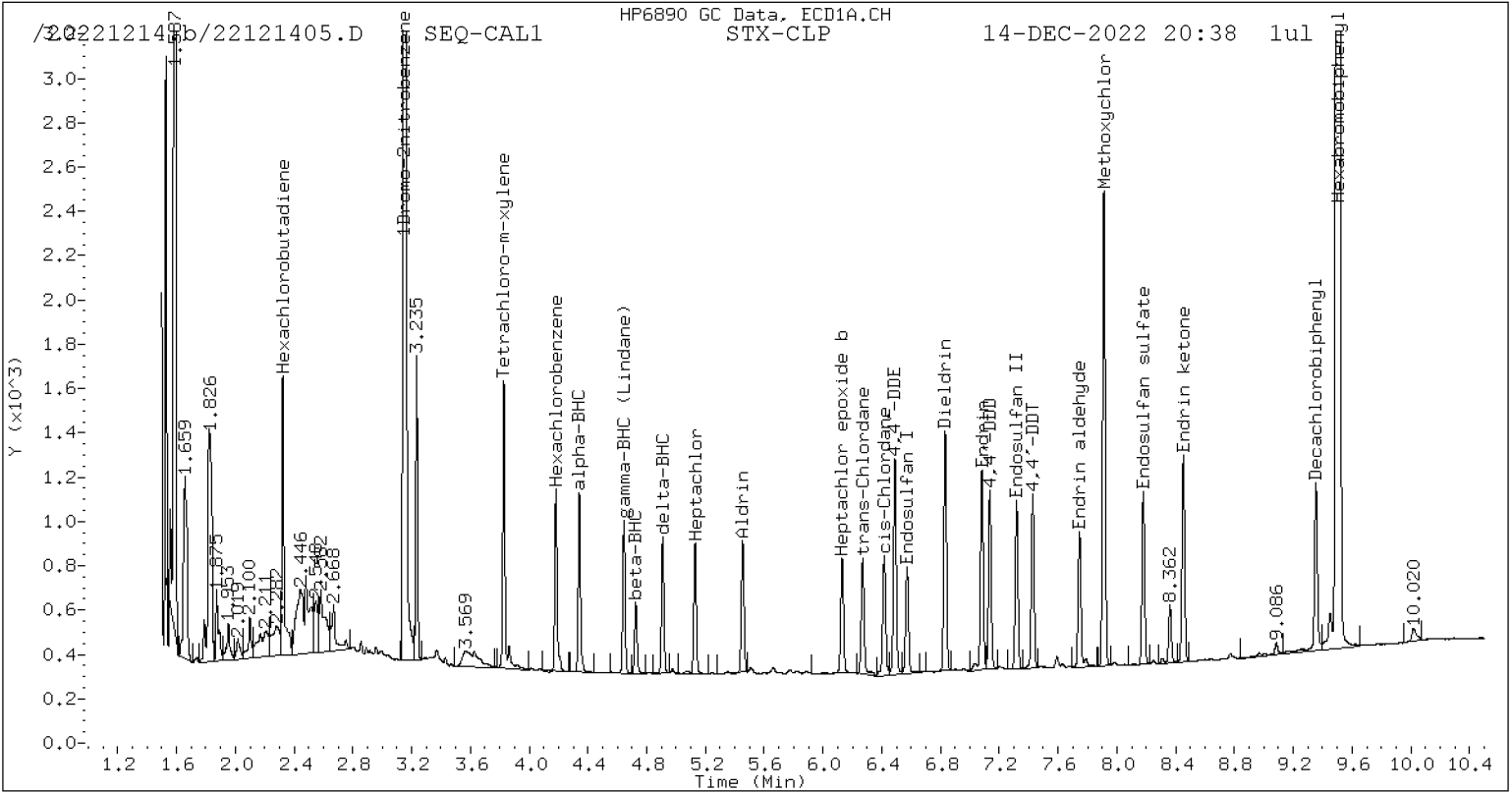
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1045524	-1.3
Hexabromobiphenyl	797125	792558	-0.6

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121405.D
Data file 2: /20221214.b/B20221214.b/22121405.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL1
Client ID:
Injection Date: 14-DEC-2022 20:38
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col		CLP2 Col		STX-CLP	CLP2		
RT	Shift Response	RT	Shift Response	on col	on col	RPD	Compound/Flag

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Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121406.D
Data file 2: /20221214.b/B20221214.b/22121406.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL2
Client ID:
Injection Date: 14-DEC-2022 20:56
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.342	-0.000	35088	4.859	-0.001	52514	2.54	2.47	2.9	alpha-BHC
4.726	-0.000	14580	5.337	-0.000	21664	2.74	2.68	2.4	beta-BHC
4.909	-0.000	28429	5.691	-0.000	43932	2.52	2.51	0.5	delta-BHC
4.645	0.000	30588	5.257	-0.001	44971	2.55	2.49	2.5	gamma-BHC (Lindane)
5.129	-0.001	28458	5.787	-0.000	42156	2.67	2.58	3.6	Heptachlor
5.453	-0.001	30273	6.190	-0.001	50159	2.53	2.69	5.8	Aldrin
6.130	-0.001	27608	6.845	-0.001	43067	2.67	2.79	4.5	Heptachlor epoxide b
6.572	-0.000	25650	7.288	-0.001	37112	2.70	2.73	1.0	Endosulfan I
6.832	0.000	54960	7.582	-0.001	84296	5.38	5.60	4.0	Dieldrin
6.489	-0.000	51182	7.370	-0.001	74355	5.40	5.39	0.2	4,4'-DDE
7.081	0.000	46577	7.906	-0.001	63434	5.52	5.52	0.1	Endrin
7.317	0.001	37804	8.116	-0.001	65448	4.98	5.56	11.1	Endosulfan II
7.136	0.001	40399	7.976	-0.001	62302	5.32	5.58	4.8	4,4'-DDD
8.179	-0.001	38342	8.714	-0.001	57421	5.32	5.56	4.4	Endosulfan sulfate
7.427	-0.000	40499	8.294	-0.001	59346	5.27	5.51	4.3	4,4'-DDT
7.912	-0.000	98271	8.934	-0.002	130815	28.88	27.42	5.2	Methoxychlor
8.452	-0.001	45639	9.239	-0.001	62360	5.53	5.59	1.1	Endrin ketone
7.746	0.000	32847	8.447	-0.001	47592	5.42	5.73	5.6	Endrin aldehyde
6.271	0.000	28307	7.055	-0.001	41633	2.69	2.70	0.4	trans-Chlordane
6.417	0.000	29336	7.215	-0.000	41766	2.78	2.77	0.3	cis-Chlordane
2.323	-0.001	44113	2.500	-0.001	65565	3.05	3.24	6.2	Hexachlorobutadiene
4.182	-0.000	35520	4.718	-0.000	53173	2.77	2.75	0.9	Hexachlorobenzene
3.828	-0.000	54873	4.220	-0.001	81034	5.62	5.42	3.7	Tetrachloro-m-xylene
9.354	-0.001	38477	10.465	-0.001	54866	5.90	6.15	4.1	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	717600	1.0
Hexabromobiphenyl	641833	643445	0.3

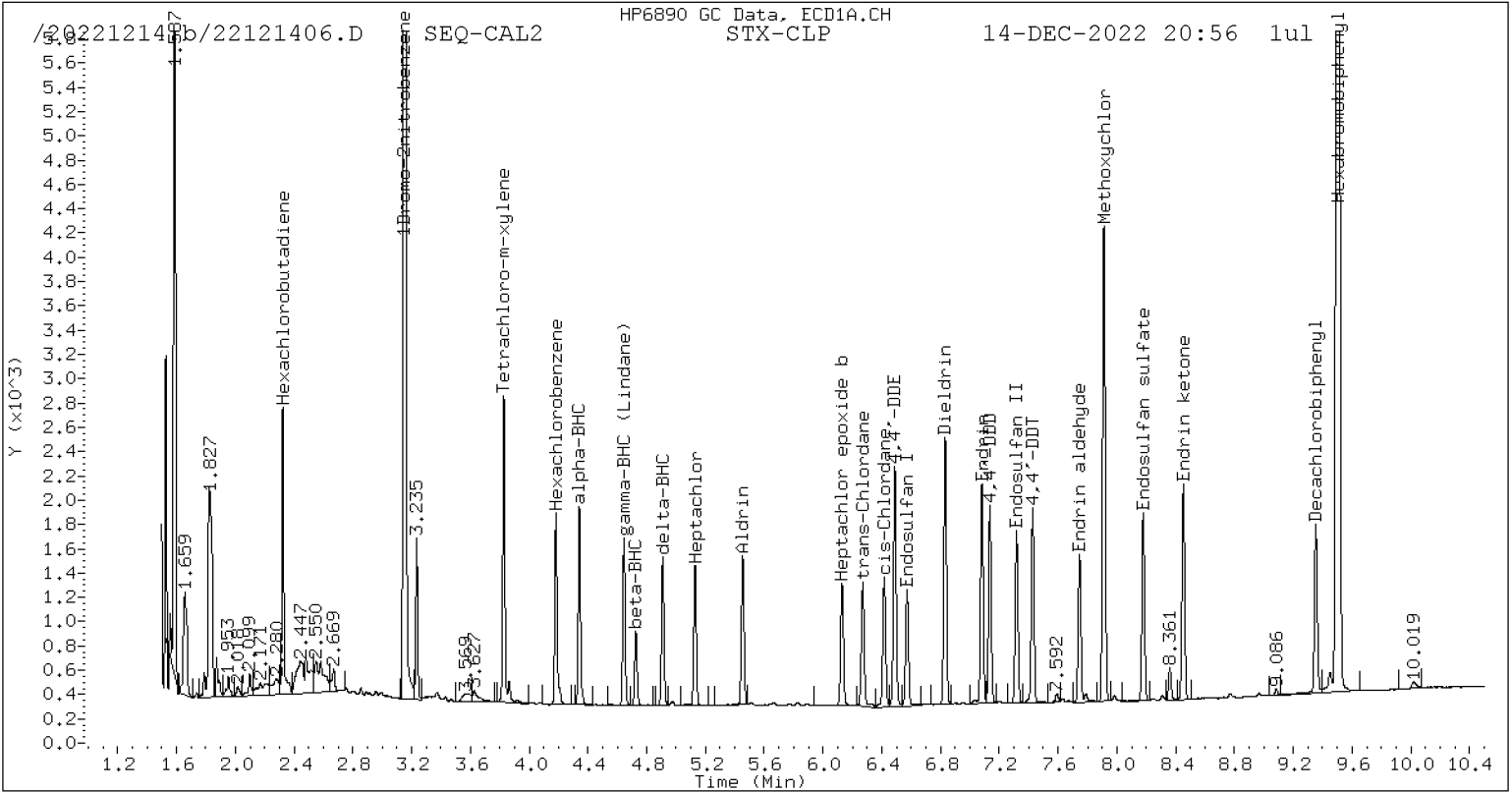
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1061990	0.3
Hexabromobiphenyl	797125	807490	1.3

* Standard Areas taken from Initial Cal Level 5

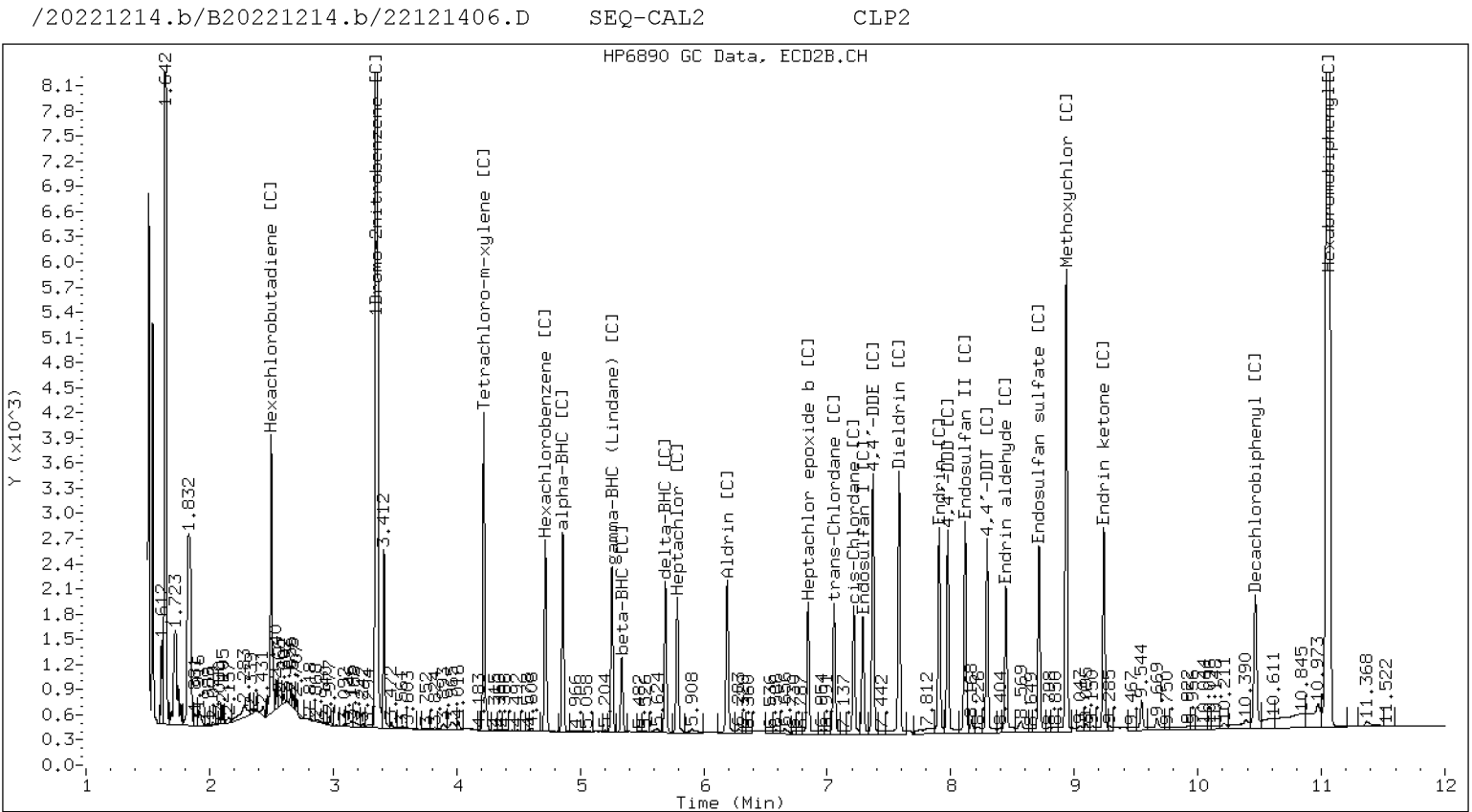
Initial Calibration Date: 14-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121406.D
Data file 2: /20221214.b/B20221214.b/22121406.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL2
Client ID:
Injection Date: 14-DEC-2022 20:56
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag		
RT	Shift Response	RT	Shift Response	on col	on col		

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Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121407.D
Data file 2: /20221214.b/B20221214.b/22121407.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL3
Client ID:
Injection Date: 14-DEC-2022 21:14
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Shift Response	103195	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.343	0.001	68202	4.860	-0.000	103195	5.06	4.95	2.2	alpha-BHC
4.727	0.000	26774	5.338	0.000	40159	5.16	5.06	1.8	beta-BHC
4.910	0.001	55344	5.691	0.000	85044	5.02	4.95	1.5	delta-BHC
4.646	0.001	59491	5.258	0.000	87747	5.09	4.96	2.6	gamma-BHC (Lindane)
5.130	0.000	53529	5.787	0.000	80295	5.15	5.01	2.7	Heptachlor
5.455	0.001	59061	6.191	0.000	92167	5.07	5.03	0.7	Aldrin
6.132	0.001	52071	6.845	-0.000	76415	5.15	5.05	2.1	Heptachlor epoxide b
6.573	0.001	48052	7.289	-0.000	67929	5.18	5.09	1.8	Endosulfan I
6.832	0.001	104217	7.583	-0.000	151301	10.46	10.26	1.9	Dieldrin
6.490	0.001	97042	7.371	0.000	139172	10.49	10.29	1.9	4,4'-DDE
7.082	0.001	87185	7.906	-0.001	115830	10.66	10.37	2.8	Endrin
7.318	0.001	77341	8.117	0.000	118175	10.50	10.32	1.8	Endosulfan II
7.136	0.001	77451	7.976	0.000	110178	10.51	10.14	3.6	4,4'-DDD
8.180	0.001	73440	8.715	0.000	102417	10.50	10.18	3.1	Endosulfan sulfate
7.428	0.001	77522	8.294	-0.001	105882	10.41	10.09	3.1	4,4'-DDT
7.913	0.001	178164	8.935	-0.001	239047	53.98	51.49	4.7	Methoxychlor
8.454	0.000	84510	9.239	-0.000	110024	10.55	10.13	4.1	Endrin ketone
7.746	0.001	61122	8.448	-0.000	82817	10.40	10.25	1.5	Endrin aldehyde
6.271	0.001	52622	7.056	-0.000	76513	5.13	5.07	1.1	trans-Chlordane
6.417	0.001	53515	7.216	0.000	75023	5.20	5.08	2.3	cis-Chlordane
2.324	-0.000	75632	2.500	-0.000	107268	5.35	5.41	1.1	Hexachlorobutadiene
4.183	0.001	66090	4.718	-0.000	98926	5.28	5.21	1.3	Hexachlorobenzene
3.828	0.000	101081	4.220	-0.000	153451	10.61	10.47	1.3	Tetrachloro-m-xylene
9.355	-0.000	67797	10.466	-0.000	92260	10.72	10.62	0.9	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	700354	-1.4
Hexabromobiphenyl	641833	624108	-2.8

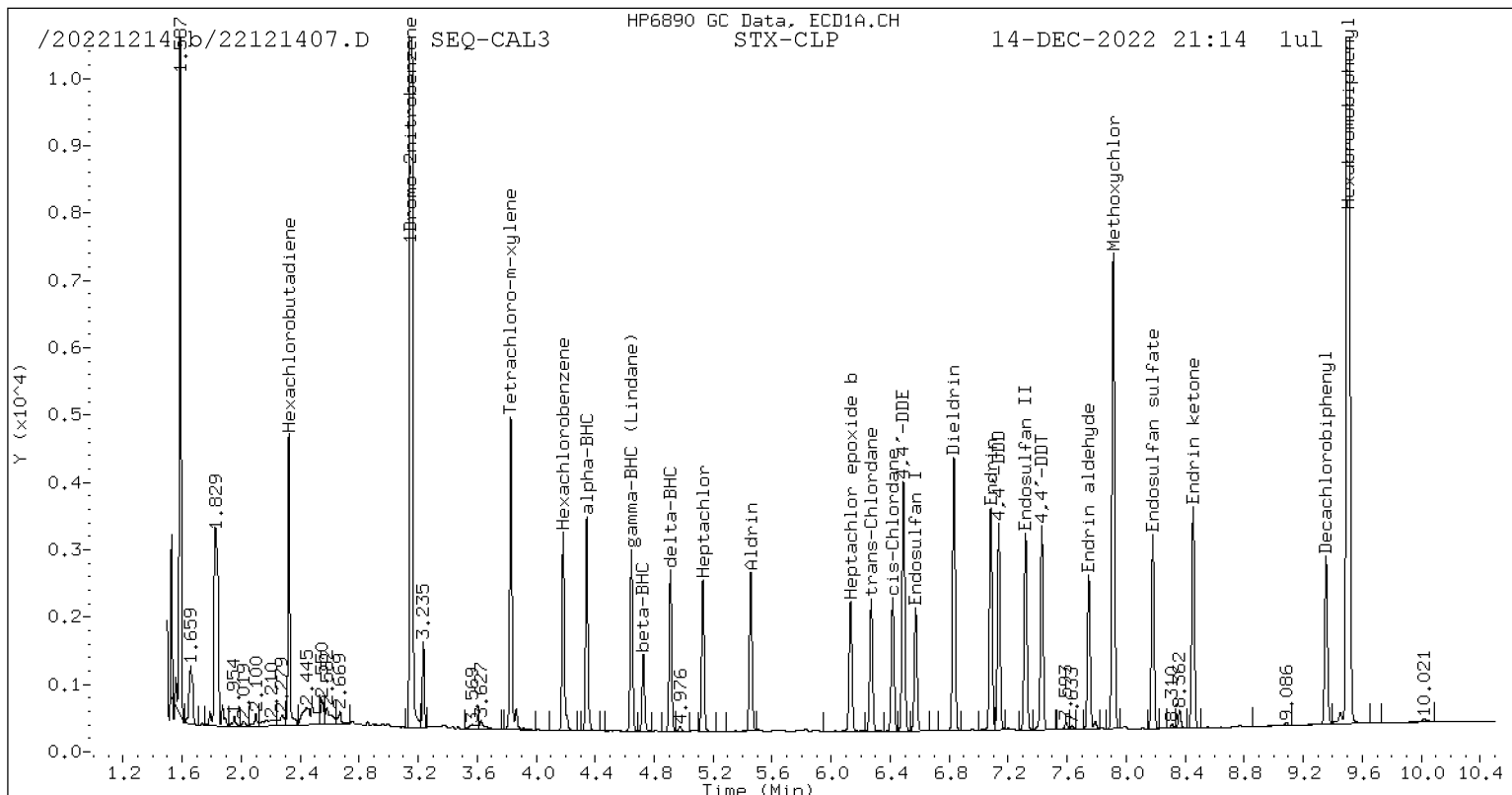
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1040903	-1.7
Hexabromobiphenyl	797125	785894	-1.4

* Standard Areas taken from Initial Cal Level 5

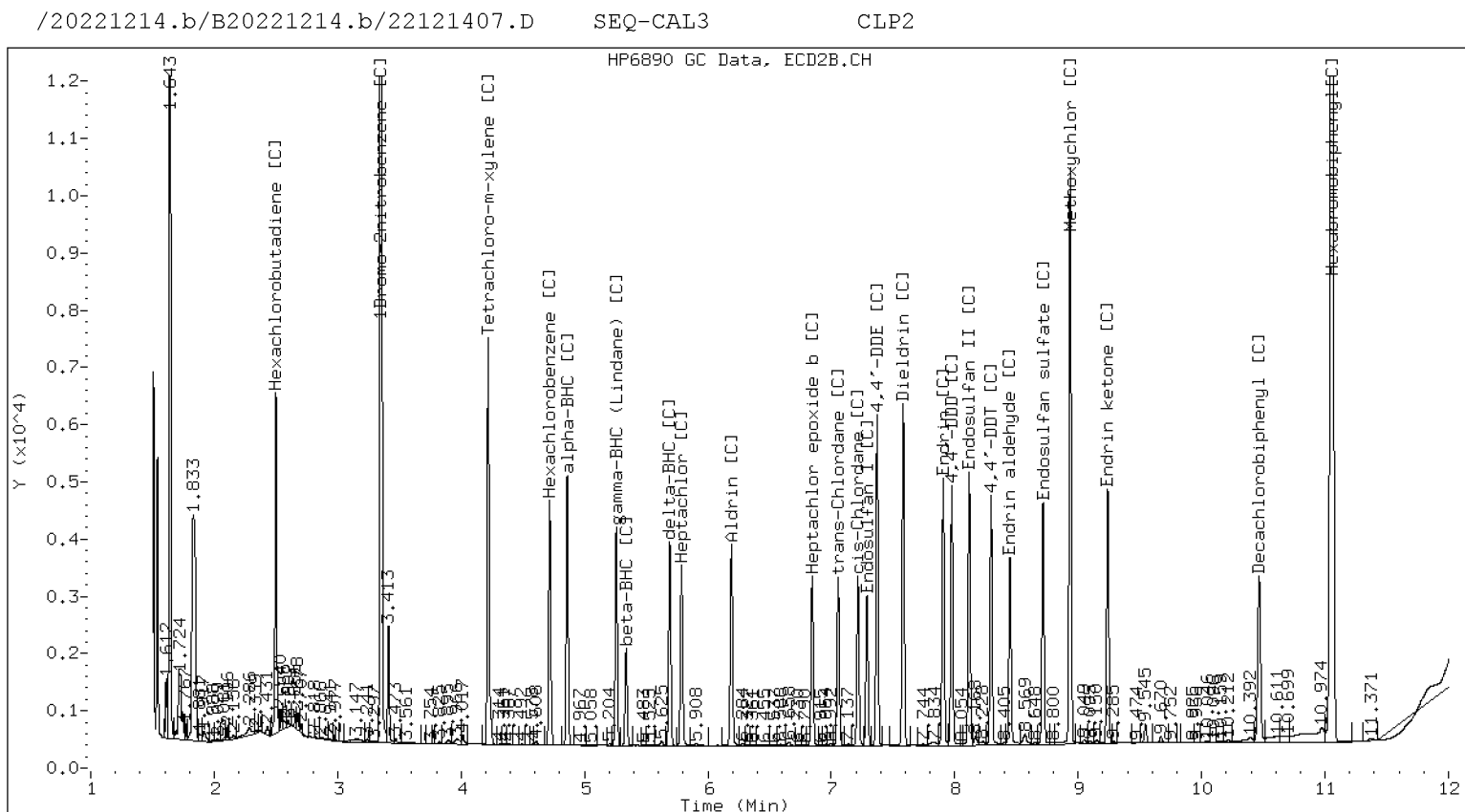
Initial Calibration Date: 14-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121407.D
Data file 2: /20221214.b/B20221214.b/22121407.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL3
Client ID:
Injection Date: 14-DEC-2022 21:14
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col		CLP2 Col		STX-CLP	CLP2		
RT	Shift Response	RT	Shift Response	on col	on col	RPD	Compound/Flag

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Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121408.D
Data file 2: /20221214.b/B20221214.b/22121408.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL4
Client ID:
Injection Date: 14-DEC-2022 21:31
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag		
4.343	0.000	139784	4.860	-0.000	216159	10.22	10.19	0.3	alpha-BHC
4.726	0.000	53742	5.337	0.000	81857	10.20	10.15	0.6	beta-BHC
4.910	0.001	113586	5.691	0.000	177281	10.16	10.14	0.2	delta-BHC
4.646	0.000	121488	5.258	0.000	182844	10.24	10.15	0.9	gamma-BHC (Lindane)
5.130	0.000	108260	5.787	-0.000	166558	10.26	10.21	0.5	Heptachlor
5.454	0.000	124839	6.191	0.000	189618	10.55	10.18	3.6	Aldrin
6.131	0.001	107301	6.846	0.001	155424	10.46	10.09	3.6	Heptachlor epoxide b
6.573	0.000	97151	7.289	0.000	137043	10.32	10.10	2.2	Endosulfan I
6.832	0.001	210564	7.583	0.000	301602	20.82	20.11	3.5	Dieldrin
6.490	0.001	195139	7.371	0.000	281756	20.79	20.49	1.5	4,4'-DDE
7.082	0.001	173216	7.907	-0.000	231062	20.59	20.39	1.0	Endrin
7.318	0.001	161303	8.117	0.001	236844	21.29	20.39	4.4	Endosulfan II
7.136	0.001	157301	7.977	0.001	222755	20.75	20.21	2.7	4,4'-DDD
8.180	0.000	146955	8.715	0.000	205334	20.43	20.13	1.5	Endosulfan sulfate
7.428	0.001	156744	8.295	-0.000	212755	20.46	19.99	2.3	4,4'-DDT
7.912	0.001	344324	8.936	-0.001	473459	101.43	100.55	0.9	Methoxychlor
8.453	-0.000	167384	9.240	0.000	222080	20.31	20.15	0.8	Endrin ketone
7.746	0.000	123653	8.448	0.000	164391	20.47	20.06	2.0	Endrin aldehyde
6.271	0.001	106805	7.056	0.000	154174	10.25	10.04	2.1	trans-Chlordane
6.418	0.001	106651	7.216	0.001	150231	10.21	10.00	2.1	cis-Chlordane
2.323	-0.000	142895	2.500	-0.001	197539	9.97	9.80	1.7	Hexachlorobutadiene
4.183	0.000	130020	4.718	0.000	197396	10.24	10.22	0.1	Hexachlorobenzene
3.828	0.000	199446	4.220	-0.000	308345	20.64	20.69	0.2	Tetrachloro-m-xylene
9.355	0.000	130210	10.466	-0.000	170633	20.02	19.37	3.3	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	710650	0.0
Hexabromobiphenyl	641833	641833	0.0

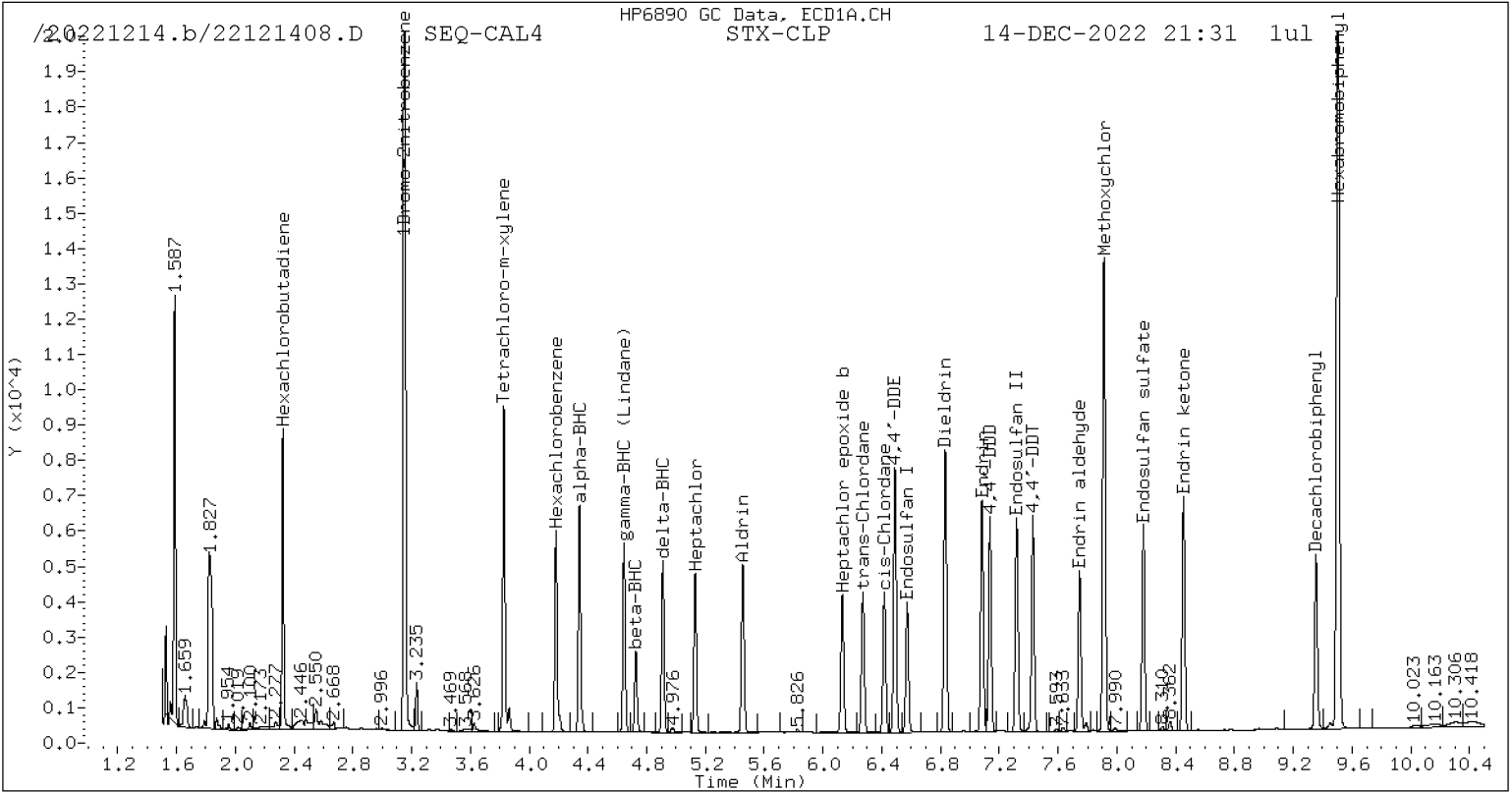
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1058848	0.0
Hexabromobiphenyl	797125	797125	0.0

* Standard Areas taken from Initial Cal Level 5

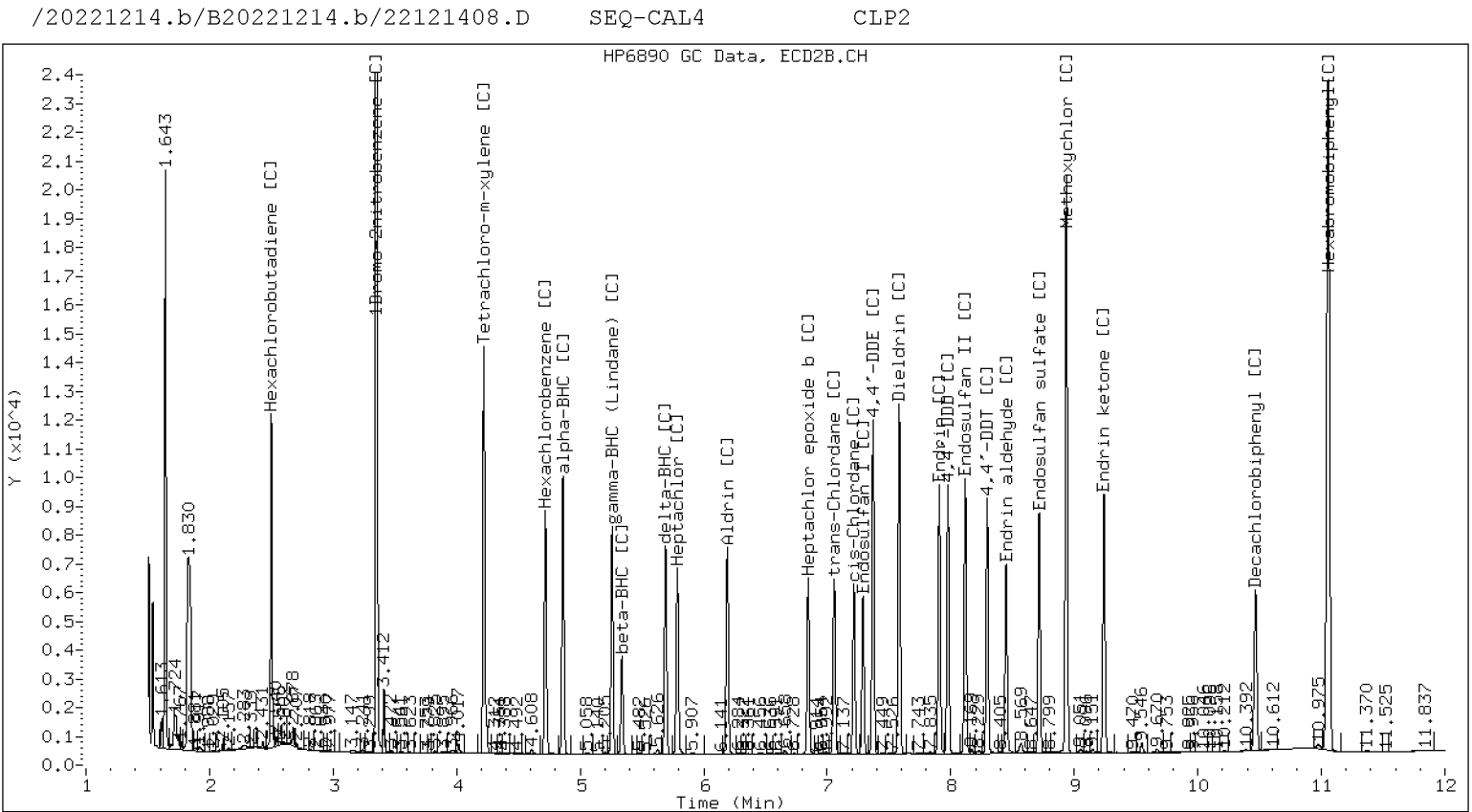
Initial Calibration Date: 14-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121408.D
Data file 2: /20221214.b/B20221214.b/22121408.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL4
Client ID:
Injection Date: 14-DEC-2022 21:31
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col	

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Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121409.D
Data file 2: /20221214.b/B20221214.b/22121409.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL5
Client ID:
Injection Date: 14-DEC-2022 21:49
Report Date: 12/16/2022 15:30
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.342	0.000	263355	4.860	-0.001	412780	20.34	20.46	0.6	alpha-BHC
4.726	0.000	99355	5.337	-0.000	154138	19.93	20.10	0.8	beta-BHC
4.909	0.000	216224	5.690	-0.000	334261	20.44	20.12	1.6	delta-BHC
4.645	0.000	228274	5.258	-0.000	350450	20.34	20.47	0.7	gamma-BHC (Lindane)
5.130	0.000	203067	5.787	-0.000	320123	20.33	20.64	1.5	Heptachlor
5.454	0.000	230734	6.191	-0.000	359912	20.62	20.33	1.4	Aldrin
6.130	0.000	198033	6.845	-0.000	295580	20.41	20.19	1.1	Heptachlor epoxide b
6.572	0.000	180905	7.289	-0.000	260351	20.31	20.18	0.7	Endosulfan I
6.831	0.000	388583	7.582	-0.000	571731	40.61	40.10	1.3	Dieldrin
6.489	0.000	362177	7.370	-0.000	531128	40.77	40.63	0.4	4,4'-DDE
7.081	0.000	323576	7.907	-0.000	442460	40.48	40.43	0.1	Endrin
7.317	0.000	282010	8.117	-0.000	446656	39.19	39.81	1.6	Endosulfan II
7.135	0.000	292251	7.976	-0.000	427990	40.58	40.20	0.9	4,4'-DDD
8.180	0.000	276113	8.715	0.000	393743	40.41	39.97	1.1	Endosulfan sulfate
7.427	0.000	296413	8.295	-0.000	413083	40.73	40.20	1.3	4,4'-DDT
7.912	0.000	628619	8.935	-0.001	900958	194.94	198.14	1.6	Methoxychlor
8.453	0.000	311305	9.239	-0.000	423698	39.77	39.82	0.1	Endrin ketone
7.746	0.000	230881	8.448	0.000	312907	40.23	39.54	1.7	Endrin aldehyde
6.271	0.000	200151	7.056	-0.000	294106	20.31	20.15	0.8	trans-Chlordane
6.417	0.000	197892	7.216	-0.000	285904	20.02	20.02	0.0	cis-Chlordane
2.324	0.000	260716	2.500	-0.000	346254	19.22	18.08	6.2	Hexachlorobutadiene
4.182	0.000	237746	4.718	-0.000	364913	19.78	19.88	0.5	Hexachlorobenzene
3.828	0.000	357836	4.220	-0.000	567647	39.13	40.07	2.4	Tetrachloro-m-xylene
9.355	0.000	239428	10.466	-0.001	327134	38.76	38.45	0.8	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	672426	672426	0.0
Hexabromobiphenyl	609723	609723	0.0

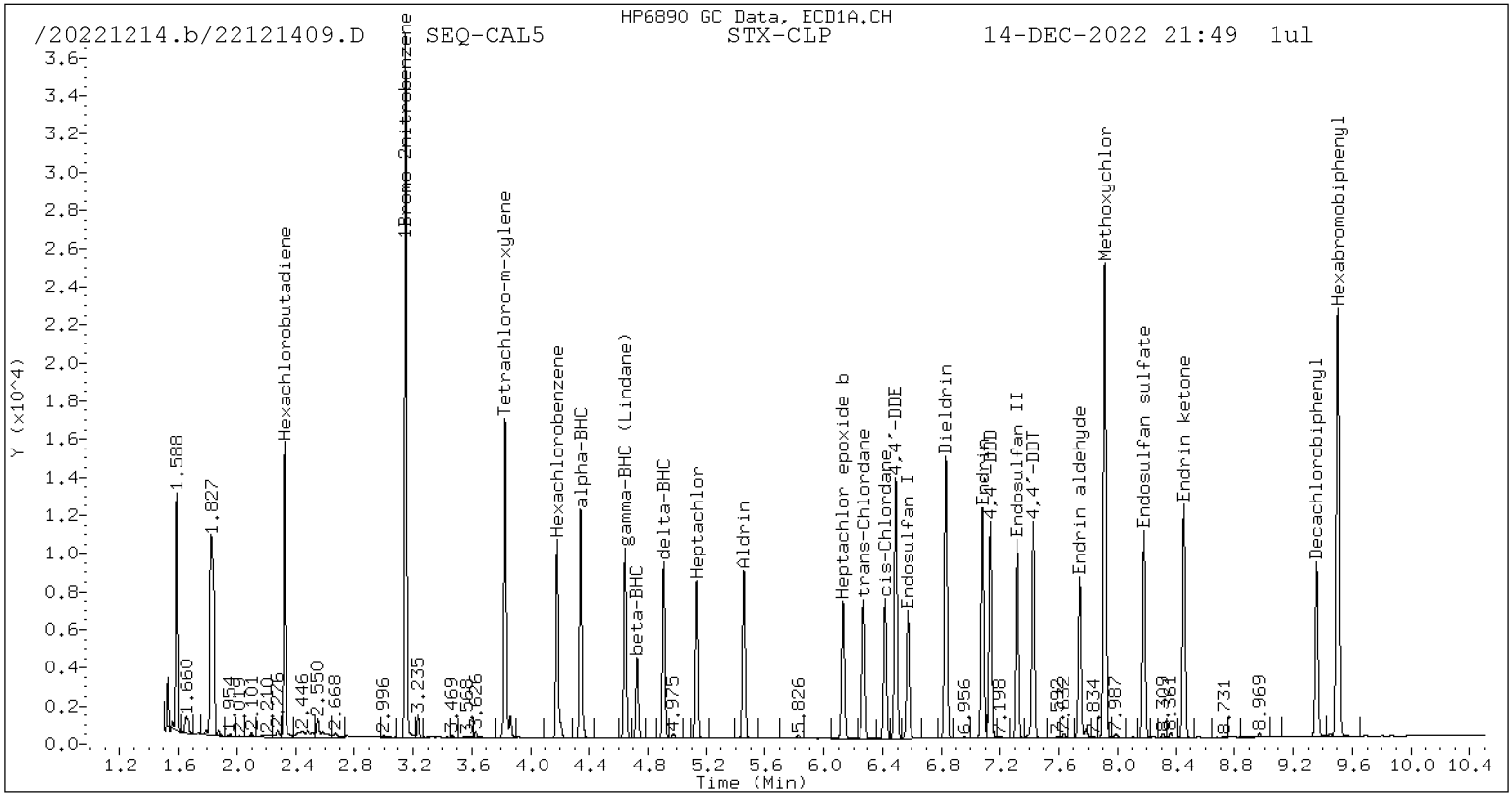
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1006482	1006482	0.0
Hexabromobiphenyl	769764	769764	0.0

* Standard Areas taken from Initial Cal Level 5

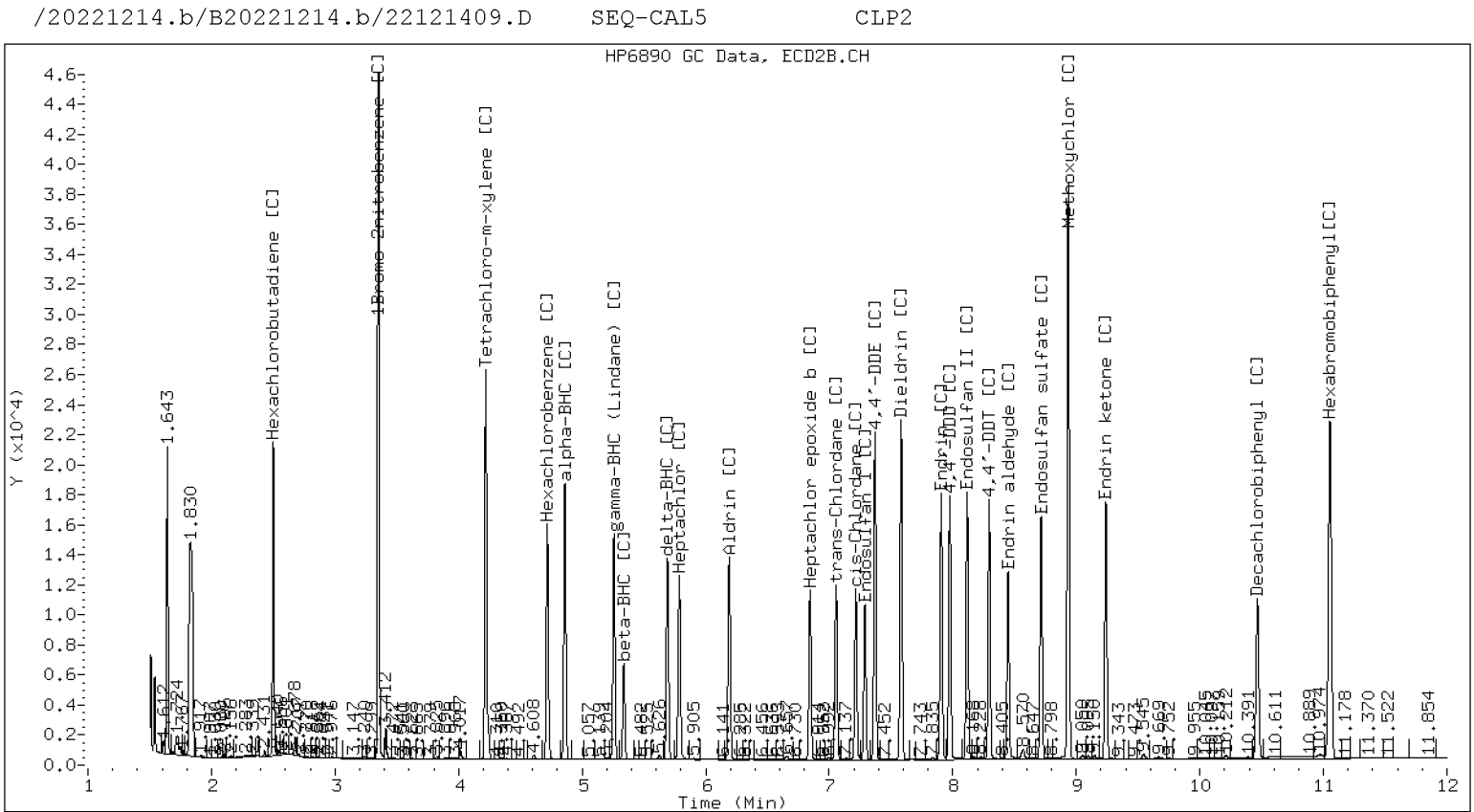
Initial Calibration Date: 14-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121409.D
Data file 2: /20221214.b/B20221214.b/22121409.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL5
Client ID:
Injection Date: 14-DEC-2022 21:49
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col		CLP2 Col		STX-CLP	CLP2		
RT	Shift Response	RT	Shift Response	on col	on col	RPD	Compound/Flag

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Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121410.D
Data file 2: /20221214.b/B20221214.b/22121410.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL6
Client ID:
Injection Date: 14-DEC-2022 22:07
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.342	0.000	535902	4.860	-0.000	849533	39.69	40.30	1.5	alpha-BHC
4.726	0.000	198976	5.337	-0.000	311218	38.28	38.84	1.4	beta-BHC
4.910	0.000	440370	5.691	0.000	700464	39.91	40.34	1.1	delta-BHC
4.646	0.000	461905	5.258	0.000	718675	39.46	40.18	1.8	gamma-BHC (Lindane)
5.130	0.000	401672	5.787	0.000	639345	38.56	39.46	2.3	Heptachlor
5.454	0.000	458396	6.190	-0.000	720942	39.27	38.97	0.8	Aldrin
6.130	0.000	387273	6.846	0.000	586062	38.26	38.31	0.1	Heptachlor epoxide b
6.572	-0.000	354629	7.288	-0.001	519836	38.18	38.55	1.0	Endosulfan I
6.832	0.000	755708	7.582	-0.000	1126850	75.73	75.64	0.1	Dieldrin
6.489	0.000	698620	7.371	-0.000	1040947	75.40	76.19	1.0	4,4'-DDE
7.082	0.000	615481	7.907	-0.000	858461	74.19	74.98	1.1	Endrin
7.317	0.000	590923	8.117	-0.000	885035	79.12	75.41	4.8	Endosulfan II
7.136	0.000	565557	7.976	-0.000	842536	75.67	75.65	0.0	4,4'-DDD
8.179	-0.001	540557	8.715	0.000	782860	76.22	75.96	0.3	Endosulfan sulfate
7.427	0.000	577337	8.295	-0.000	820861	76.44	76.36	0.1	4,4'-DDT
7.912	-0.000	1204040	8.935	-0.001	1785262	359.75	375.30	4.2	Methoxychlor
8.453	-0.001	610387	9.239	-0.000	843646	75.13	75.79	0.9	Endrin ketone
7.746	-0.000	452325	8.448	0.000	622287	75.93	75.17	1.0	Endrin aldehyde
6.271	0.000	395598	7.056	-0.000	591899	38.48	38.80	0.8	trans-Chlordane
6.417	0.001	389712	7.215	-0.000	573103	37.80	38.40	1.6	cis-Chlordane
2.324	0.000	511265	2.500	-0.000	705320	36.14	35.24	2.5	Hexachlorobutadiene
4.183	0.001	472841	4.718	0.000	728846	37.72	37.99	0.7	Hexachlorobenzene
3.828	-0.000	714634	4.221	0.000	1124106	74.93	75.93	1.3	Tetrachloro-m-xylene
9.355	-0.000	468280	10.466	-0.001	645336	73.03	72.51	0.7	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	701342	-1.3
Hexabromobiphenyl	641833	632821	-1.4

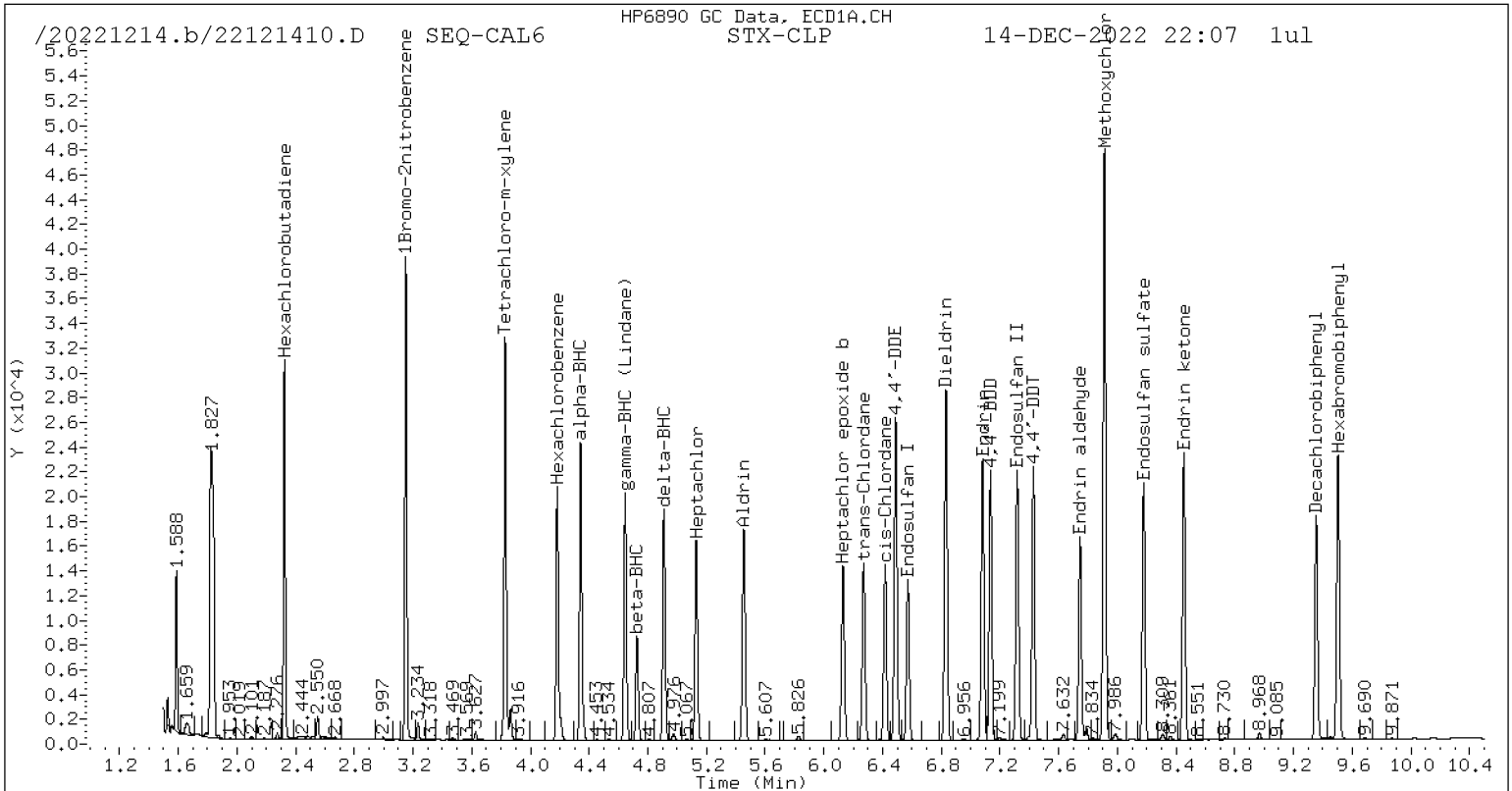
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1051766	-0.7
Hexabromobiphenyl	797125	805268	1.0

* Standard Areas taken from Initial Cal Level 5

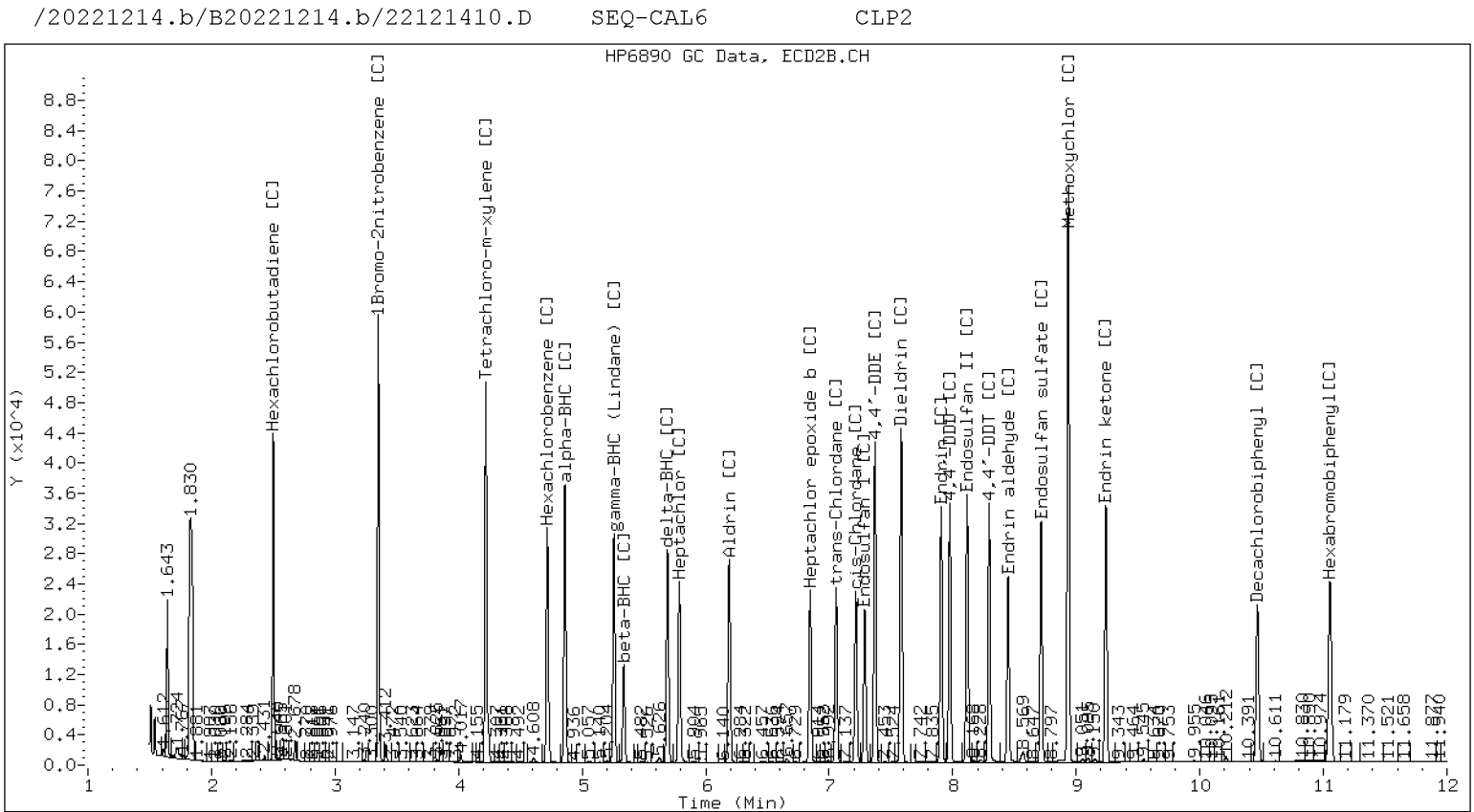
Initial Calibration Date: 14-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121410.D
Data file 2: /20221214.b/B20221214.b/22121410.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL6
Client ID:
Injection Date: 14-DEC-2022 22:07
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag				
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121411.D
Data file 2: /20221214.b/B20221214.b/22121411.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL7
Client ID:
Injection Date: 14-DEC-2022 22:25
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.342	0.000	1012605	4.861	0.000	1623058	75.30 77.94 3.4 alpha-BHC
4.726	0.000	371916	5.337	0.000	586390	71.84 74.06 3.1 beta-BHC
4.910	0.000	837966	5.691	0.000	1343533	76.25 78.32 2.7 delta-BHC
4.645	-0.000	870454	5.258	0.000	1370551	74.66 77.55 3.8 gamma-BHC (Lindane)
5.130	0.000	743802	5.787	0.000	1188915	71.70 74.26 3.5 Heptachlor
5.454	0.000	841598	6.191	0.000	1331430	72.39 72.84 0.6 Aldrin
6.130	-0.000	709774	6.845	0.000	1087105	70.41 71.92 2.1 Heptachlor epoxide b
6.573	0.000	652702	7.289	0.000	969098	70.56 72.74 3.1 Endosulfan I
6.832	0.000	1390496	7.583	0.000	2118555	139.91 143.93 2.8 Dieldrin
6.490	0.001	1284777	7.371	0.000	1944530	139.23 144.06 3.4 4,4'-DDE
7.082	0.001	1132487	7.907	0.000	1618631	137.86 142.60 3.4 Endrin
7.317	0.000	1089554	8.117	0.000	1672946	147.33 143.79 2.4 Endosulfan II
7.135	0.000	1051958	7.976	0.000	1606815	142.14 145.53 2.4 4,4'-DDD
8.180	0.000	1013288	8.715	0.000	1496440	144.30 146.47 1.5 Endosulfan sulfate
7.428	0.001	1086138	8.295	0.000	1586078	145.23 148.84 2.5 4,4'-DDT
7.912	0.001	2325261	8.936	0.000	3541650	701.64 751.02 6.8 Methoxychlor
8.454	0.000	1146784	9.240	0.000	1623077	142.56 147.08 3.1 Endrin ketone
7.746	-0.000	846477	8.448	0.000	1178353	143.51 143.57 0.0 Endrin aldehyde
6.271	0.000	733514	7.056	0.000	1114685	71.64 73.95 3.2 trans-Chlordane
6.417	0.001	723886	7.216	0.000	1079255	70.50 73.19 3.7 cis-Chlordane
2.324	0.000	955982	2.501	0.000	1351745	67.86 68.35 0.7 Hexachlorobutadiene
4.182	0.000	879573	4.718	0.000	1355289	70.45 71.51 1.5 Hexachlorobenzene
3.828	0.000	1318381	4.220	0.000	2067539	138.79 141.35 1.8 Tetrachloro-m-xylene
9.356	0.000	878340	10.467	0.000	1231298	138.34 139.55 0.9 Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	698499	-1.7
Hexabromobiphenyl	641833	626605	-2.4

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1039154	-1.9
Hexabromobiphenyl	797125	798313	0.1

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121411.D
Data file 2: /20221214.b/B20221214.b/22121411.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL7
Client ID:
Injection Date: 14-DEC-2022 22:25
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag				
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121412.D
Data file 2: /20221214.b/B20221214.b/22121412.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL8
Client ID:
Injection Date: 14-DEC-2022 22:43
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag		
6.014	-0.000	22184	6.741	-0.000	34211	2.89	2.85	1.2	Oxychlorthane
6.106	-0.000	18661	7.036	-0.000	30817	2.94	3.14	6.5	2,4-DDE
6.397	-0.000	30616	7.154	-0.001	41466	3.05	2.82	7.5	trans-Nonachlor
6.681	0.000	16263	7.591	0.000	26177	2.88	3.12	7.9	2,4-DDD
6.956	-0.001	17569	7.913	-0.000	24398	2.88	2.82	2.1	2,4-DDT
7.112	-0.000	29417	7.975	-0.000	37972	3.01	2.72	9.9	cis-Nonachlor
8.082	-0.000	18819	9.223	-0.000	24312	3.09	3.00	3.1	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	713898	0.5
Hexabromobiphenyl	641833	646441	0.7

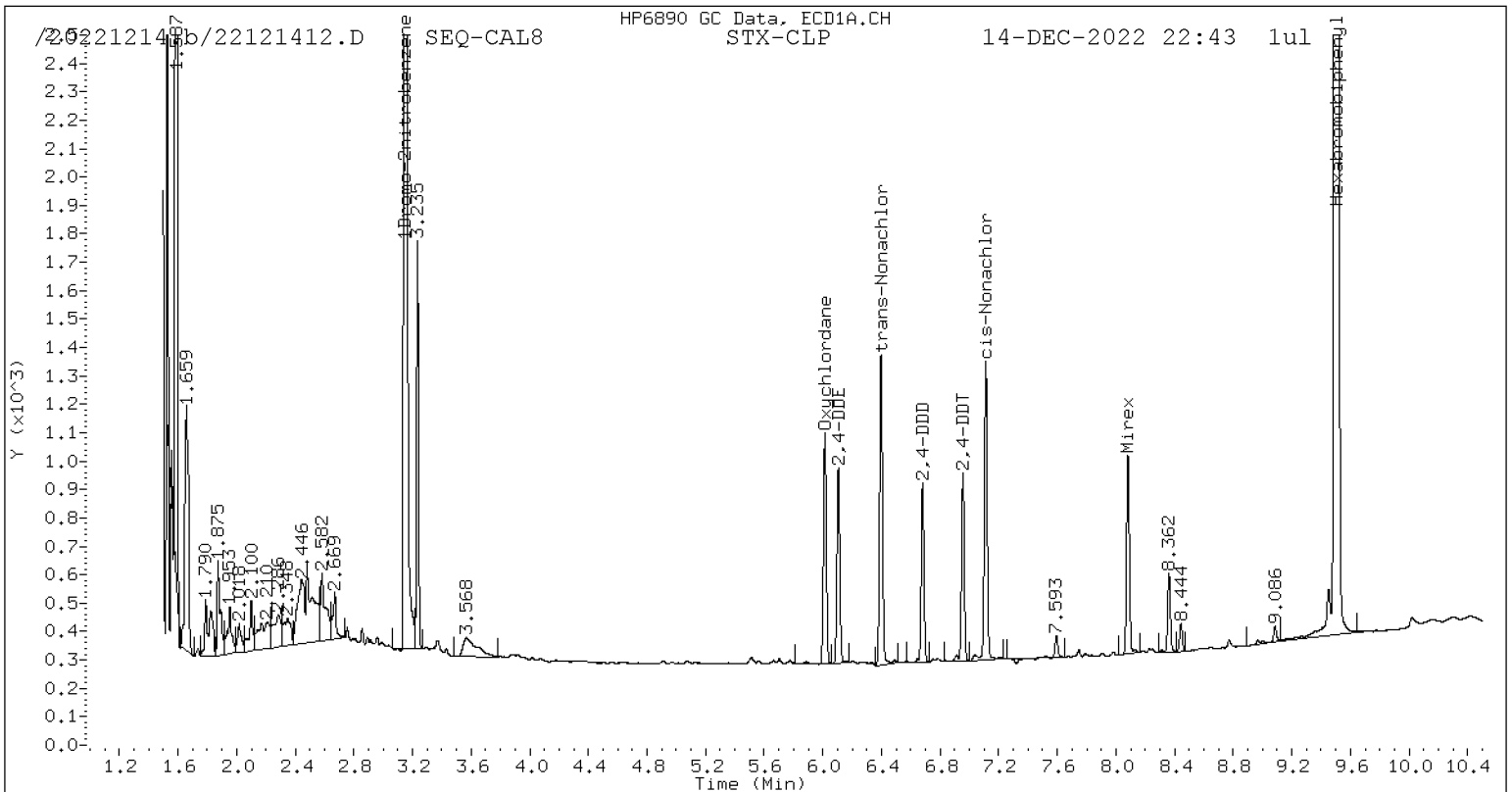
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1076864	1.7
Hexabromobiphenyl	797125	820275	2.9

* Standard Areas taken from Initial Cal Level 5

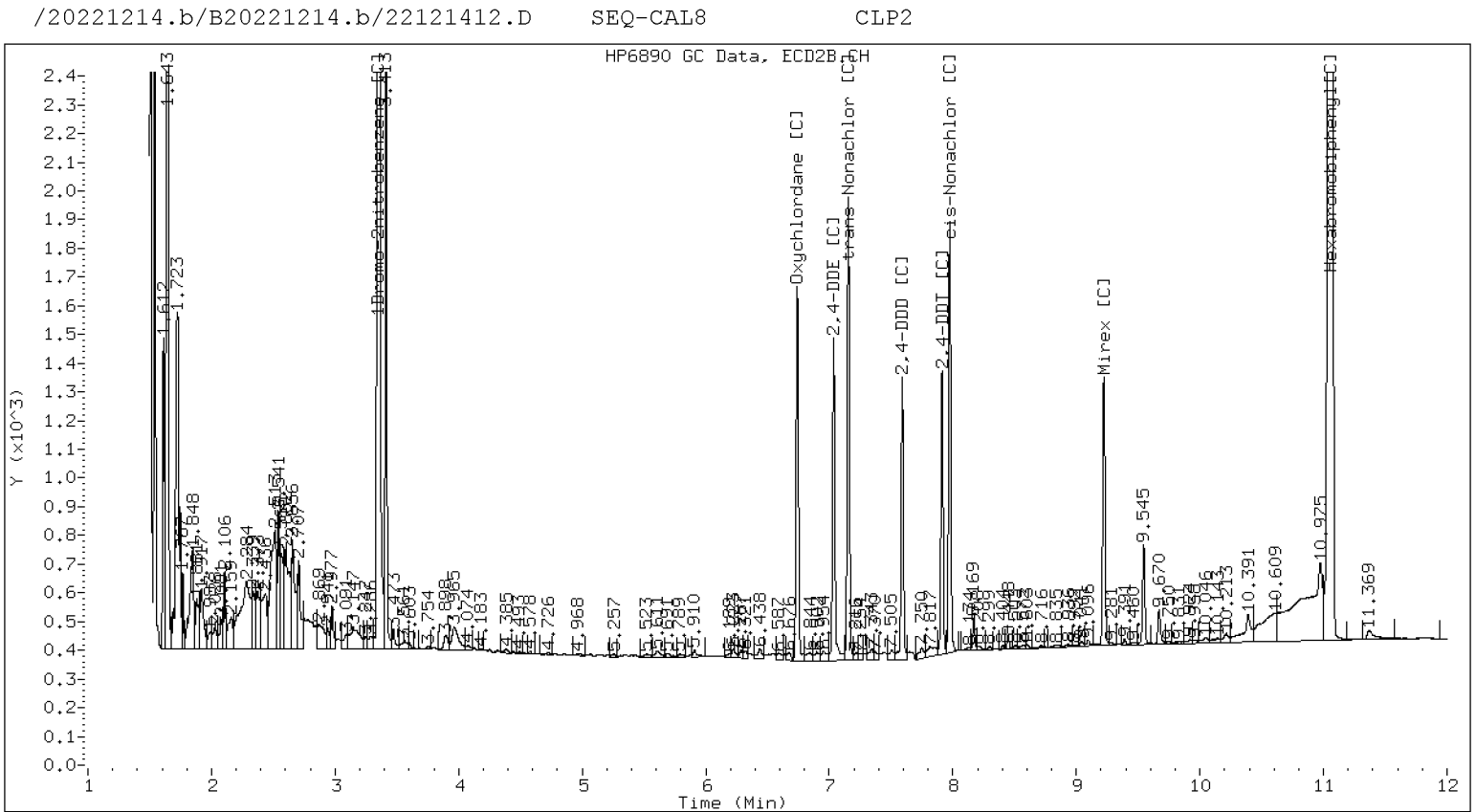
Initial Calibration Date: 14-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121412.D
Data file 2: /20221214.b/B20221214.b/22121412.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL8
Client ID:
Injection Date: 14-DEC-2022 22:43
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col	

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121413.D
Data file 2: /20221214.b/B20221214.b/22121413.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL9
Client ID:
Injection Date: 14-DEC-2022 23:01
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
6.015	0.000 39121	6.741 -0.000 61505	5.34	5.41	1.3	Oxychlorthane
6.106	0.000 33487	7.036 -0.000 53206	5.54	5.72	3.1	2,4-DDE
6.398	0.000 51858	7.154 -0.001 72836	5.42	5.20	4.1	trans-Nonachlor
6.681	0.000 29307	7.590 -0.000 44506	5.45	5.55	1.9	2,4-DDD
6.957	-0.000 31530	7.914 0.000 45986	5.43	5.57	2.6	2,4-DDT
7.112	-0.000 50912	7.975 0.000 70898	5.46	5.32	2.6	cis-Nonachlor
8.082	-0.000 32004	9.223 -0.000 45650	5.52	5.89	6.6	Mirex
----		----	0.00	0.00	---	Tetrachloro-m-xylene
----		----	0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	672507	-5.4
Hexabromobiphenyl	641833	615627	-4.1

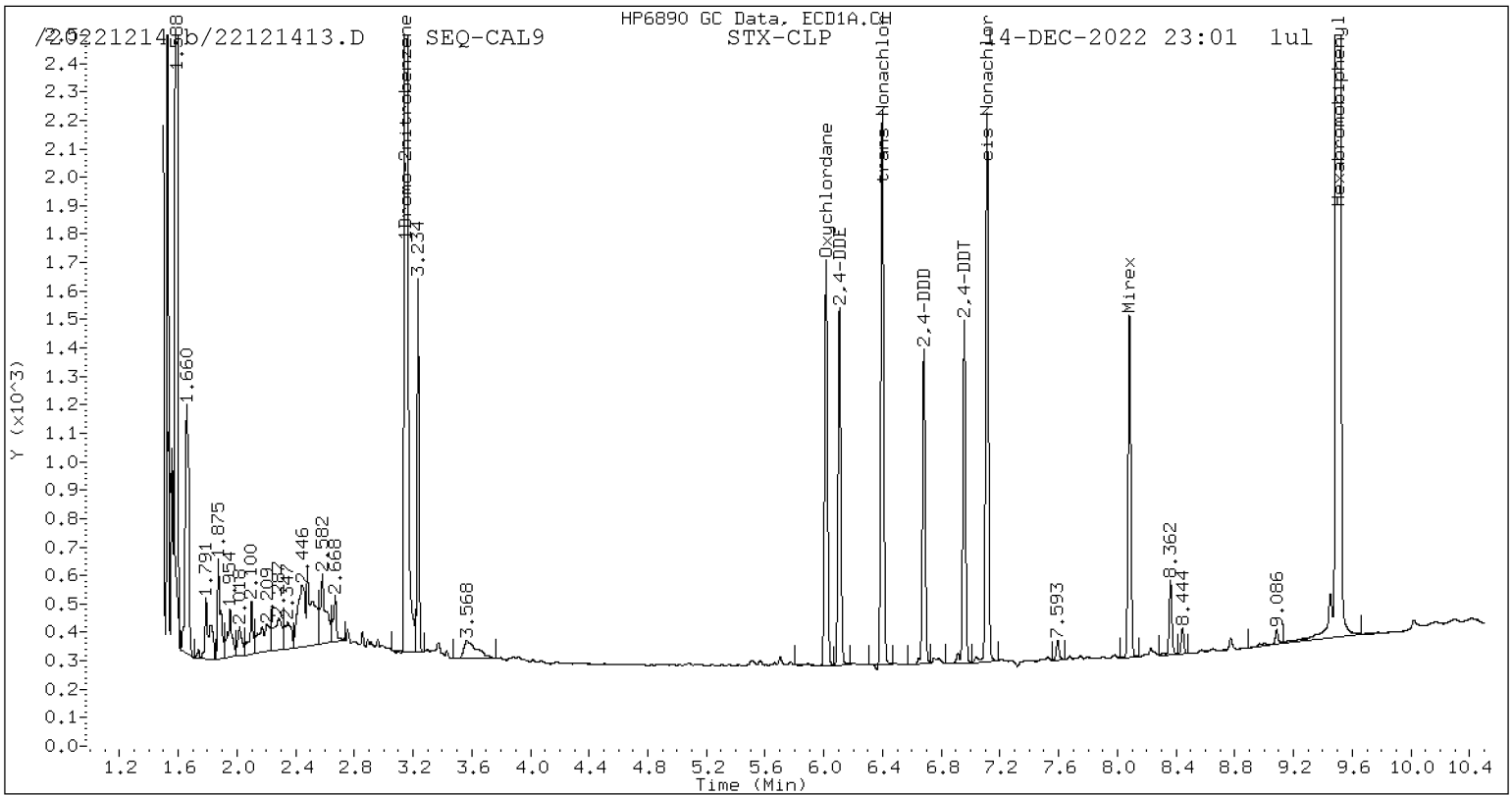
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1020334	-3.6
Hexabromobiphenyl	797125	782734	-1.8

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

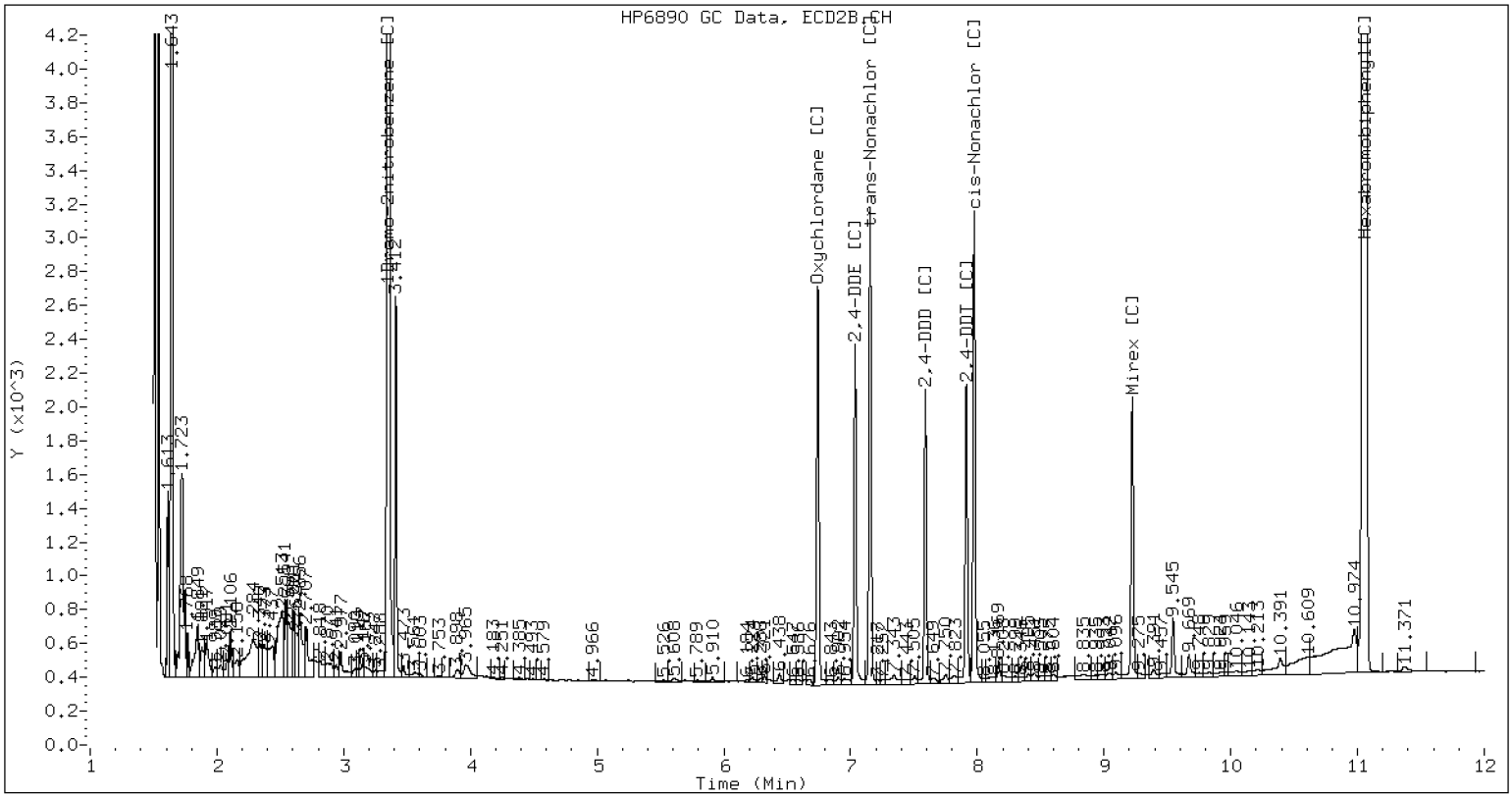
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121413.D SEQ-CAL9 CLP2



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121413.D
Data file 2: /20221214.b/B20221214.b/22121413.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL9
Client ID:
Injection Date: 14-DEC-2022 23:01
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col		CLP2 Col		STX-CLP	CLP2		
RT	Shift Response	RT	Shift Response	on col	on col	RPD	Compound/Flag

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Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121414.D
Data file 2: /20221214.b/B20221214.b/22121414.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALA
Client ID:
Injection Date: 14-DEC-2022 23:19
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
6.014	-0.000	82473	6.741	-0.001	127500	10.63	10.63	0.0	Oxychlorane
6.106	-0.000	69109	7.035	-0.001	108440	10.79	11.04	2.3	2,4-DDE
6.398	0.000	108386	7.154	-0.001	157712	10.68	10.60	0.7	trans-Nonachlor
6.681	0.000	60517	7.590	-0.000	91420	10.62	10.74	1.2	2,4-DDD
6.956	-0.001	65300	7.913	0.000	91498	10.61	10.44	1.6	2,4-DDT
7.111	-0.001	104247	7.975	-0.000	146224	10.55	10.34	2.0	cis-Nonachlor
8.082	-0.000	65614	9.222	-0.000	84337	10.67	10.25	4.0	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	712122	0.2
Hexabromobiphenyl	641833	652595	1.7

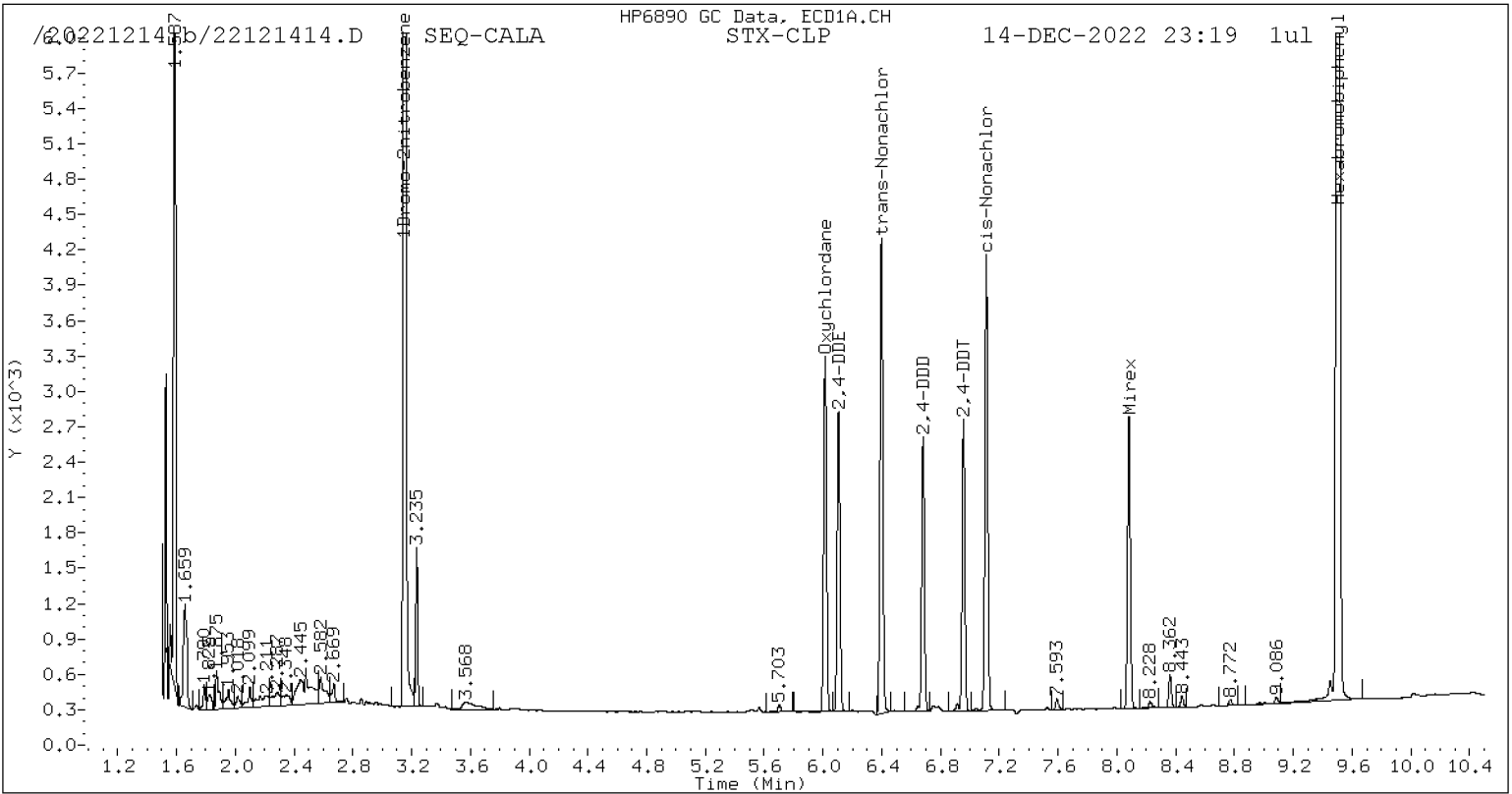
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1077341	1.7
Hexabromobiphenyl	797125	831365	4.3

* Standard Areas taken from Initial Cal Level 5

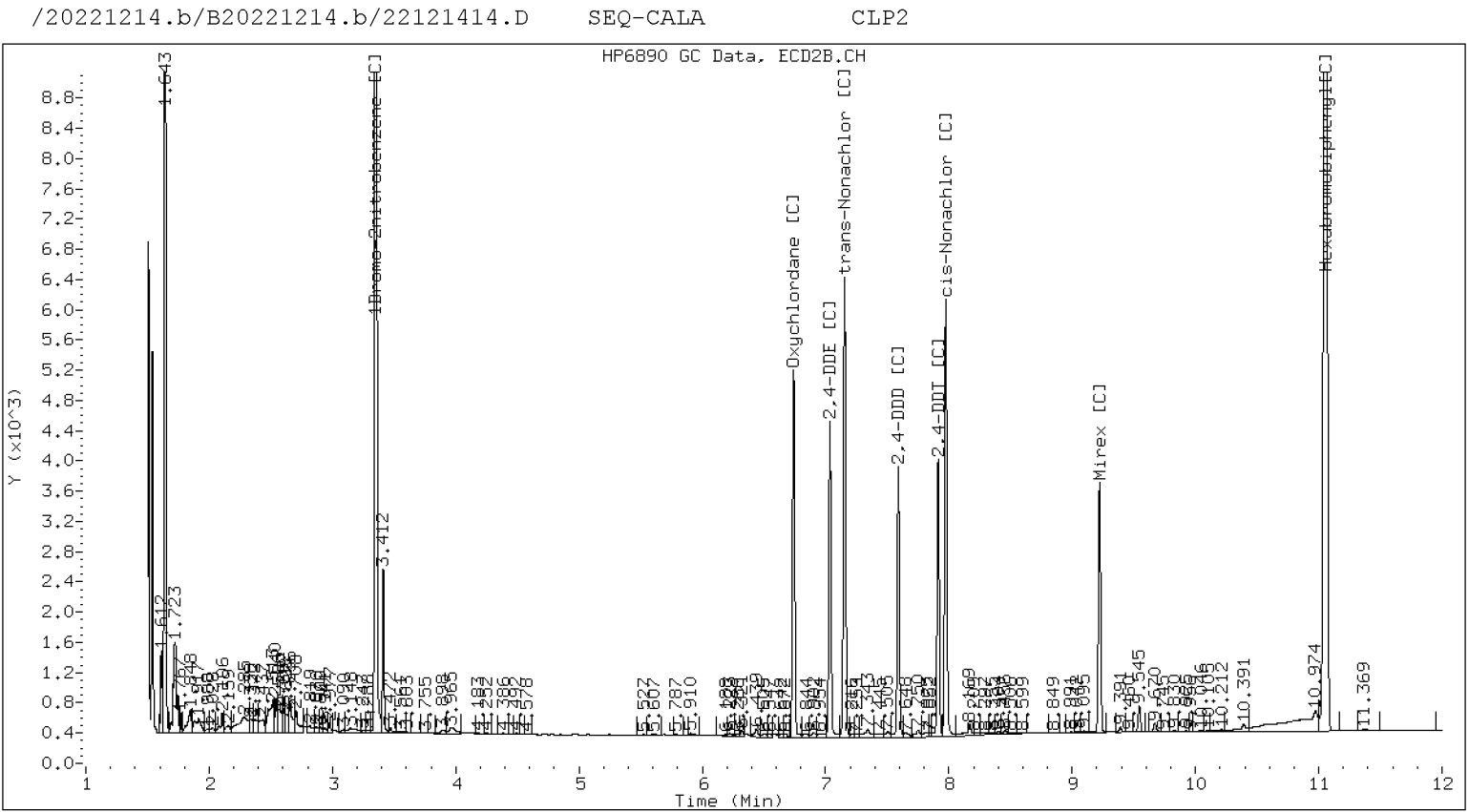
Initial Calibration Date: 14-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121414.D
Data file 2: /20221214.b/B20221214.b/22121414.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALA
Client ID:
Injection Date: 14-DEC-2022 23:19
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag		
RT	Shift Response	RT	Shift Response	on col	on col		

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121415.D
Data file 2: /20221214.b/B20221214.b/22121415.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALB
Client ID:
Injection Date: 14-DEC-2022 23:36
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
6.015	0.001 154379	6.741 -0.000 238017	20.80	20.28	2.5	Oxychlorthane		
6.106	-0.000 128483	7.036 -0.000 195807	20.97	20.37	2.9	2,4-DDE		
6.398	0.000 200622	7.155 -0.000 289952	20.66	20.28	1.9	trans-Nonachlor		
6.681	0.000 113972	7.591 0.000 165245	20.90	20.21	3.4	2,4-DDD		
6.956	-0.001 122412	7.913 0.000 169814	20.78	20.17	3.0	2,4-DDT		
7.112	-0.000 194165	7.975 -0.000 274910	20.54	20.23	1.5	cis-Nonachlor		
8.082	-0.000 119271	9.223 0.000 158702	20.28	20.08	1.0	Mirex		
----		----	0.00	0.00	---	Tetrachloro-m-xylene		
----		----	0.00	0.00	---	Decachlorobiphenyl		

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	693450	-2.4
Hexabromobiphenyl	641833	624334	-2.7

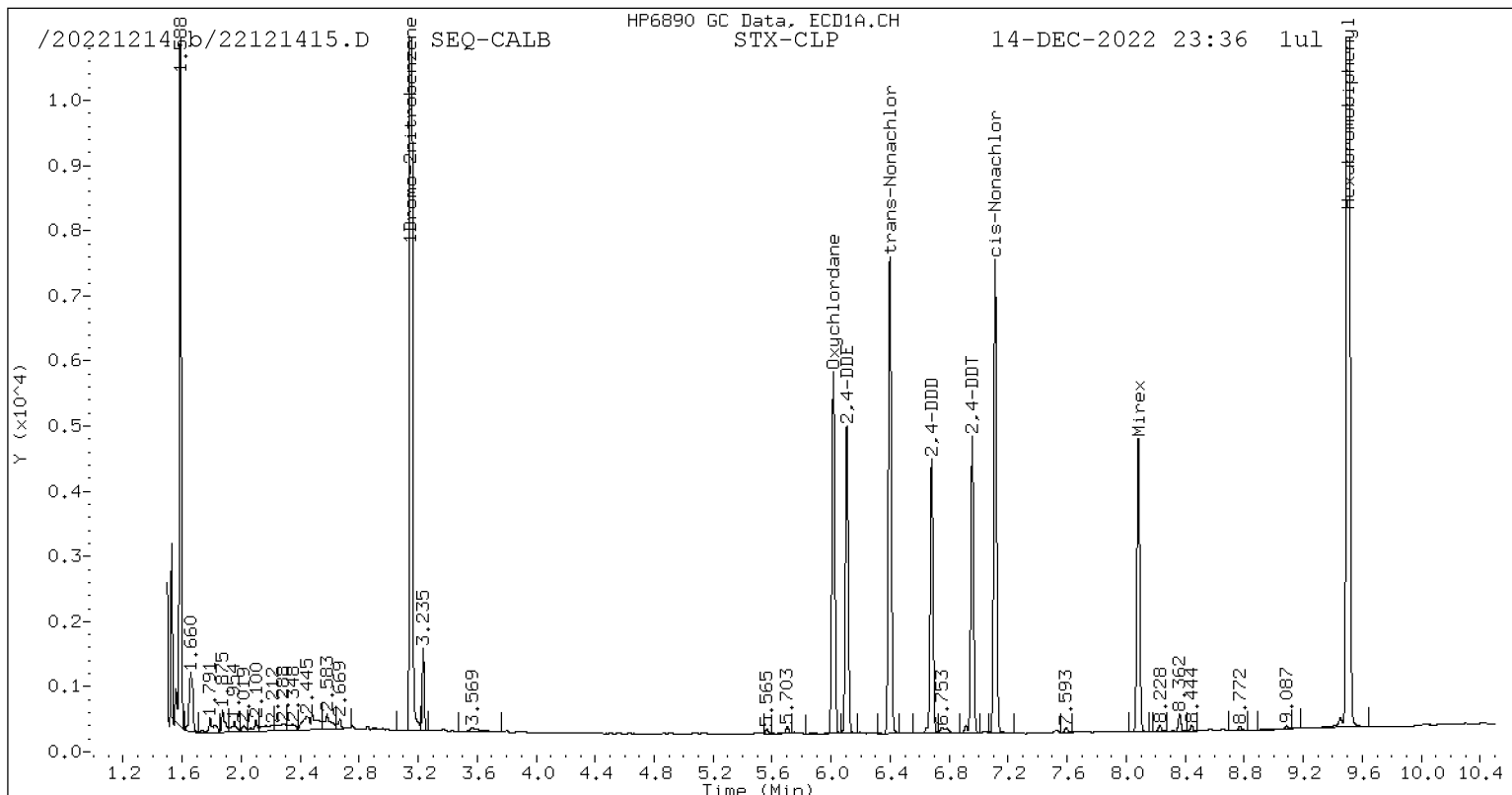
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1053959	-0.5
Hexabromobiphenyl	797125	798882	0.2

* Standard Areas taken from Initial Cal Level 5

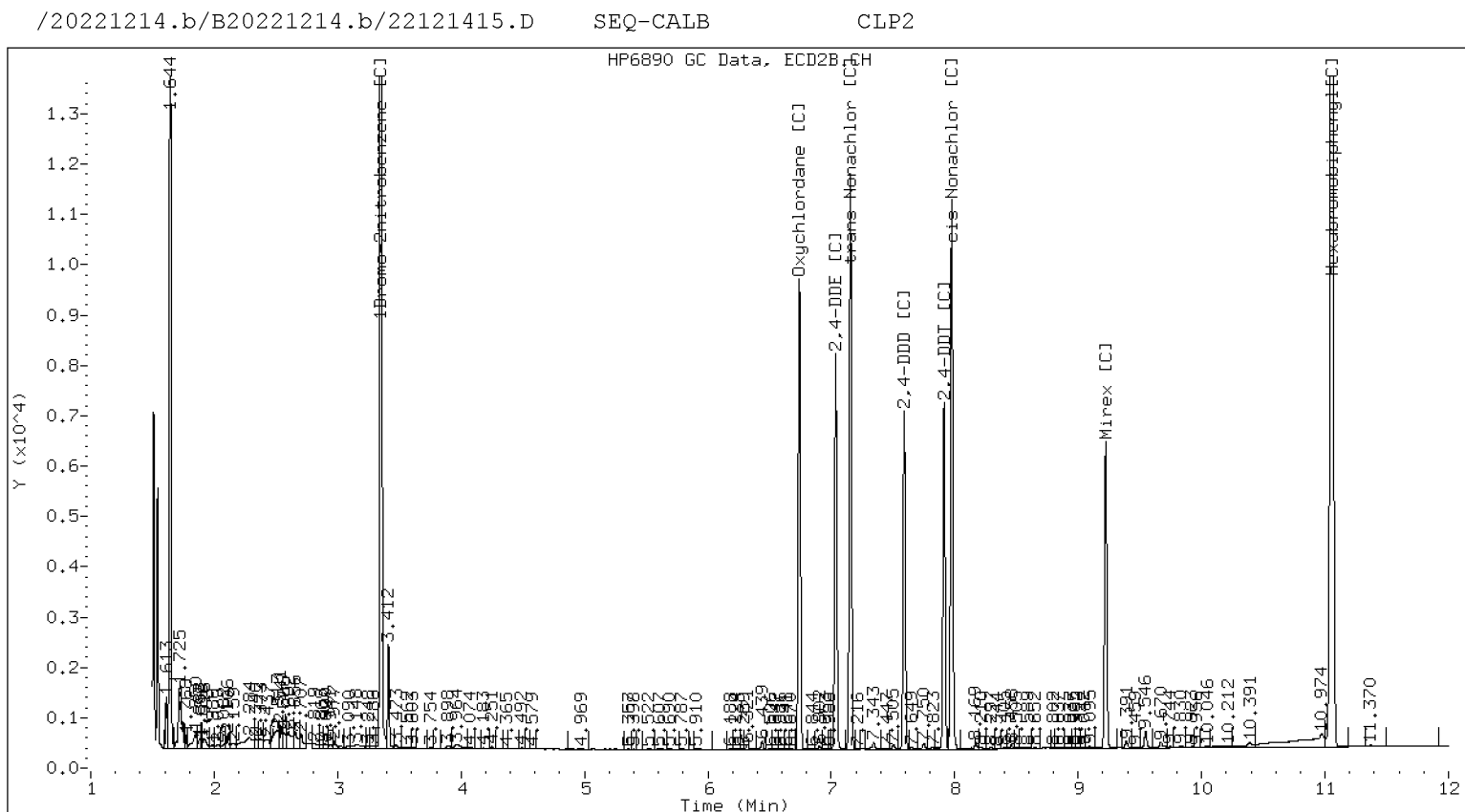
Initial Calibration Date: 14-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121415.D
Data file 2: /20221214.b/B20221214.b/22121415.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALB
Client ID:
Injection Date: 14-DEC-2022 23:36
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col	

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121416.D
Data file 2: /20221214.b/B20221214.b/22121416.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALC
Client ID:
Injection Date: 14-DEC-2022 23:54
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
6.014	0.000 292499	6.741 -0.000 460731	40.08	40.26	0.4	Oxychlorthane	
6.106	0.000 242066	7.036 -0.000 372996	40.18	39.80	0.9	2,4-DDE	
6.397	0.000 383329	7.154 -0.001 567971	40.16	40.45	0.7	trans-Nonachlor	
6.681	0.000 216474	7.590 -0.000 320311	40.39	39.88	1.3	2,4-DDD	
6.957	0.000 233738	7.913 -0.000 332906	40.36	40.25	0.3	2,4-DDT	
7.112	0.000 373705	7.975 -0.000 538334	40.21	40.33	0.3	cis-Nonachlor	
8.082	0.000 229604	9.222 -0.000 299228	39.71	38.54	3.0	Mirex	
3.800	-0.028 1151	----	0.13	0.00	---	Tetrachloro-m-xylene	
----		----	0.00	0.00	---	Decachlorobiphenyl	

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	674573	-5.1
Hexabromobiphenyl	641833	613787	-4.4

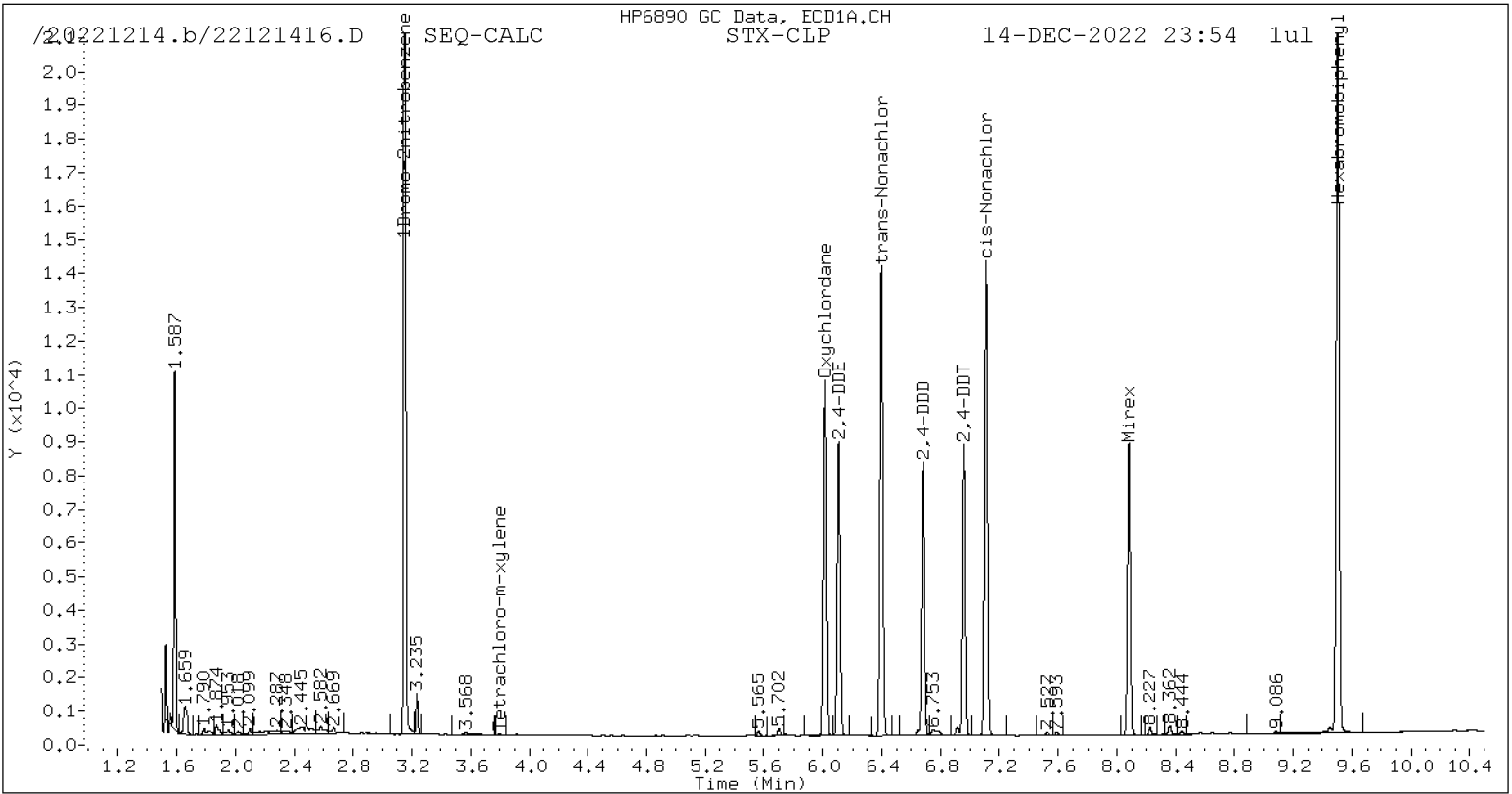
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1027697	-2.9
Hexabromobiphenyl	797125	784673	-1.6

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

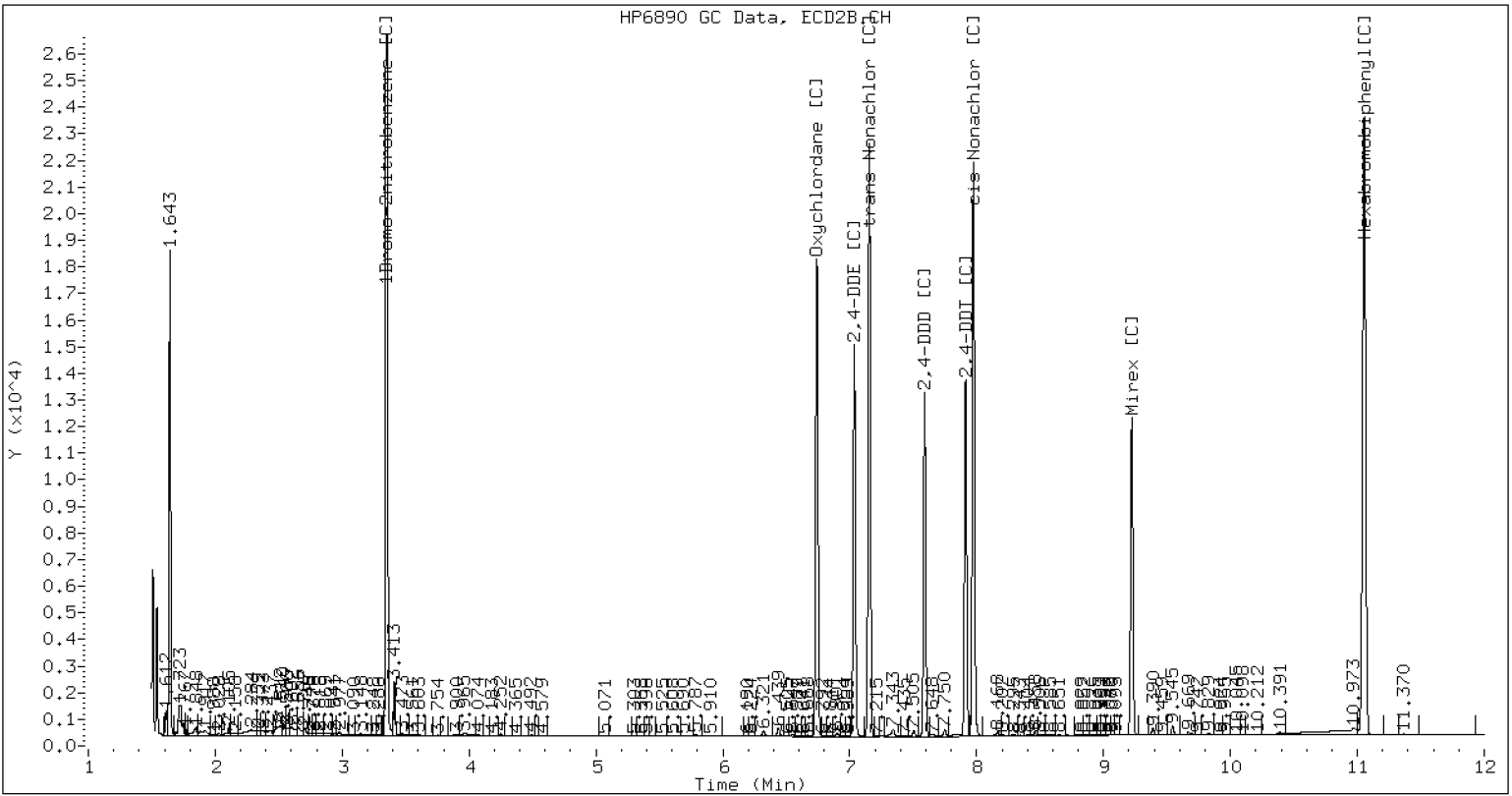
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121416.D SEQ-CALC CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121416.D
Data file 2: /20221214.b/B20221214.b/22121416.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALC
Client ID:
Injection Date: 14-DEC-2022 23:54
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col	

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121417.D
 Data file 2: /20221214.b/B20221214.b/22121417.D
 Method: \20221214.b\PEST.m
 Compound Sublist: WND.sub
 Instrument, Inj. Vol.: ecd6.i, 1ul
 Operator: JGR

ARI ID: SEQ-CALD
 Client ID:
 Injection Date: 15-DEC-2022 00:12
 Report Date: 12/16/2022 15:19
 Units: ng/mL
 Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
6.014	-0.000	544254	6.741	-0.000	856443	75.85	75.73	0.2	Oxychlorane
6.106	-0.000	438313	7.036	-0.000	677072	73.99	73.11	1.2	2,4-DDE
6.397	-0.000	704675	7.155	0.000	1067899	75.09	76.94	2.4	trans-Nonachlor
6.681	0.000	393654	7.591	0.000	594311	74.70	74.86	0.2	2,4-DDD
6.956	-0.001	430636	7.914	0.000	618740	75.63	75.68	0.1	2,4-DDT
7.112	-0.000	688257	7.975	0.000	1018624	75.31	77.19	2.5	cis-Nonachlor
8.082	-0.001	426177	9.223	0.000	573947	74.97	74.78	0.2	Mirex
3.800	-0.028	2109	----			0.23	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	664375	-6.5
Hexabromobiphenyl	641833	603504	-6.0

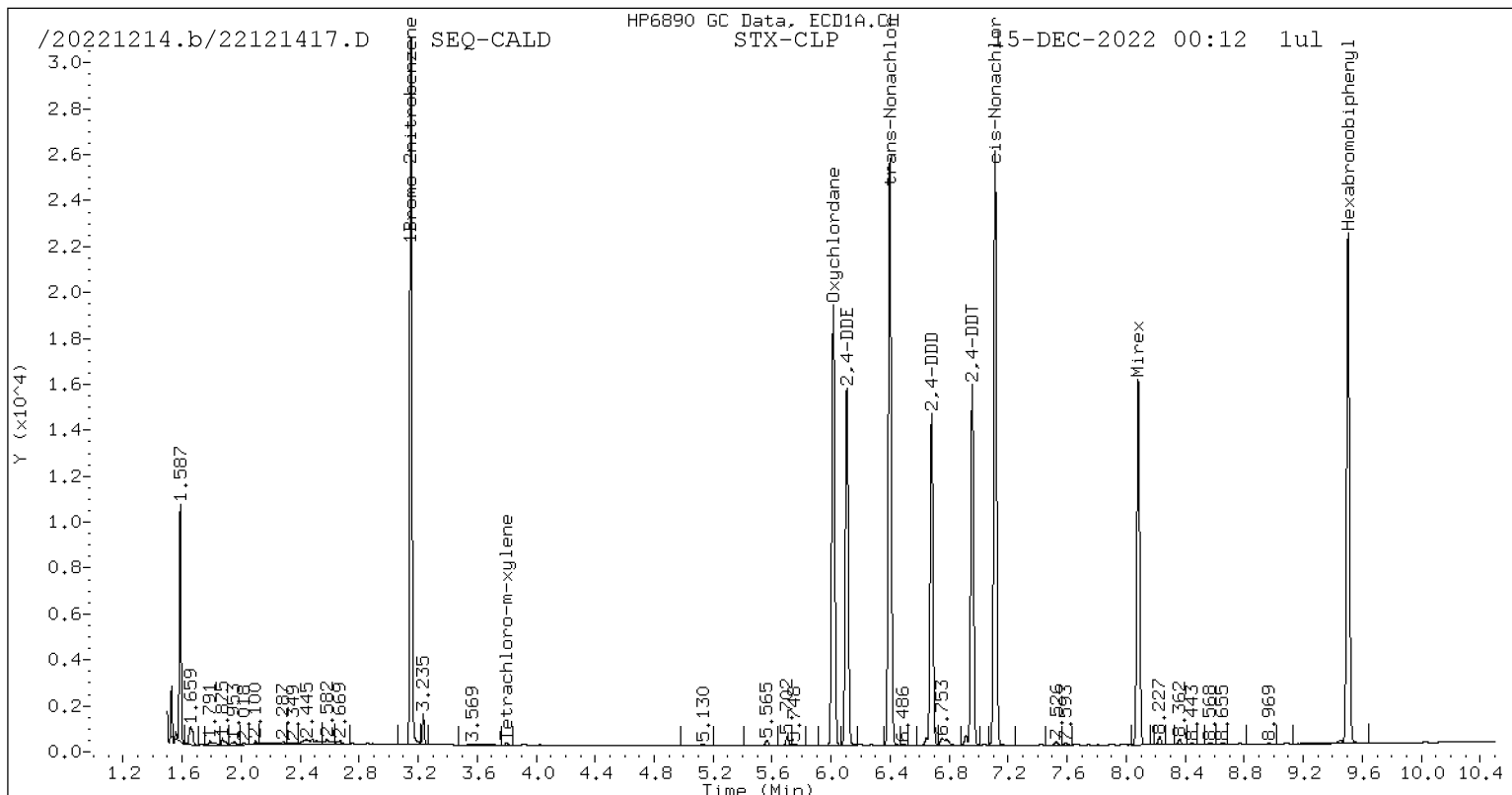
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1015544	-4.1
Hexabromobiphenyl	797125	775630	-2.7

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

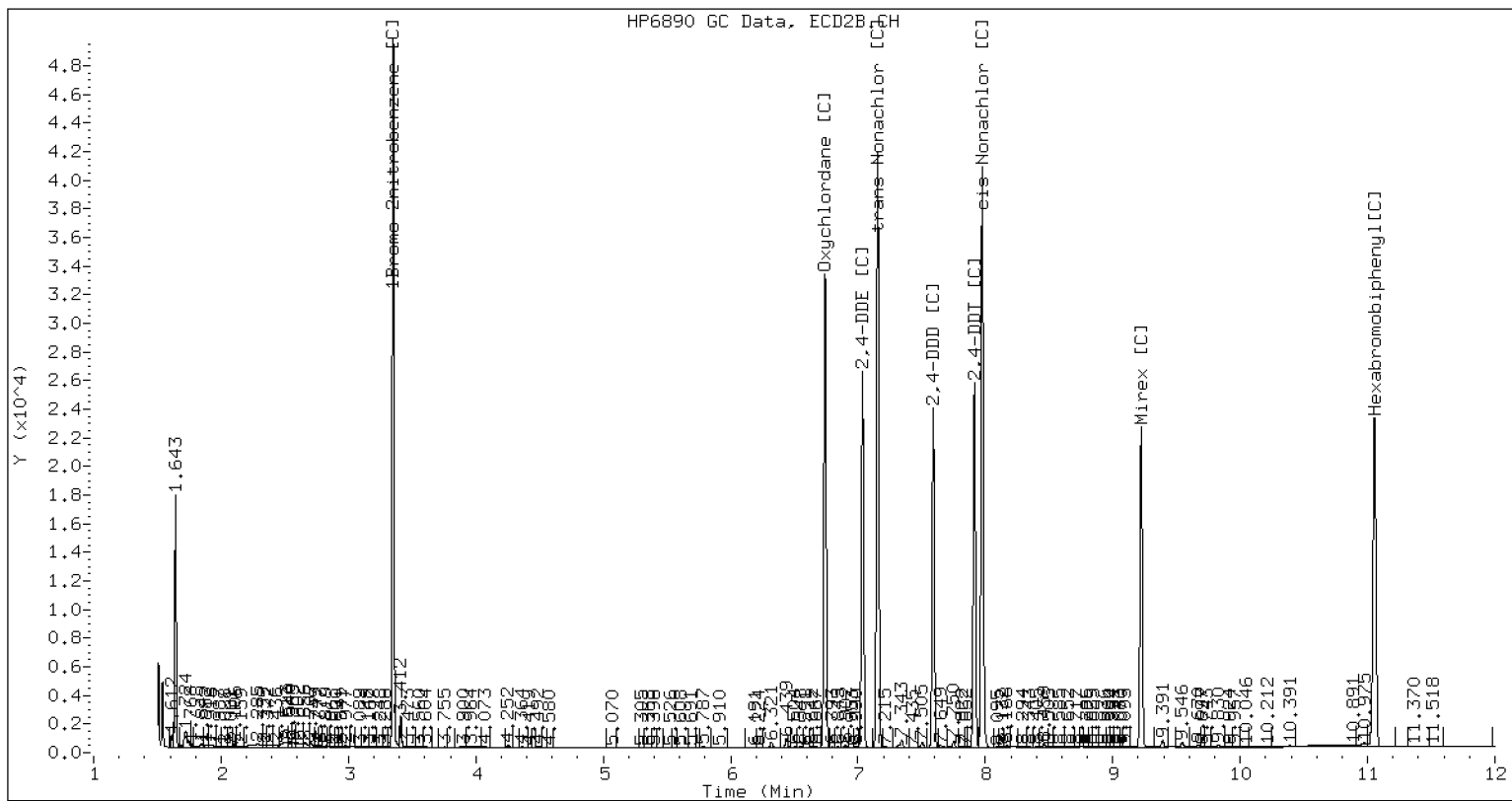
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121417.D SEQ-CALD CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121417.D
Data file 2: /20221214.b/B20221214.b/22121417.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALD
Client ID:
Injection Date: 15-DEC-2022 00:12
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col	

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121418.D
Data file 2: /20221214.b/B20221214.b/22121418.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALE
Client ID:
Injection Date: 15-DEC-2022 00:30
Report Date: 12/16/2022 15:19
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
6.014	0.000	1020828	6.741	0.000	1630330	140.48	142.04	1.1	Oxychlorane
6.106	-0.000	801828	7.036	0.000	1240933	133.65	132.03	1.2	2,4-DDE
6.397	0.000	1327091	7.155	0.000	2047915	139.63	146.04	4.5	trans-Nonachlor
6.680	-0.000	733651	7.591	0.000	1118552	137.46	139.45	1.4	2,4-DDD
6.956	-0.001	794021	7.913	0.000	1163676	137.69	140.88	2.3	2,4-DDT
7.112	-0.000	1301975	7.975	0.000	1956215	140.68	146.73	4.2	cis-Nonachlor
8.082	-0.001	815059	9.223	0.000	1108848	141.57	143.01	1.0	Mirex
3.800	-0.028	3997	----			0.43	0.00	---	Tetrachloro-m-xylene
----			10.471	0.004	3393	0.00	0.39	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	675789	-4.9
Hexabromobiphenyl	641833	611199	-4.8

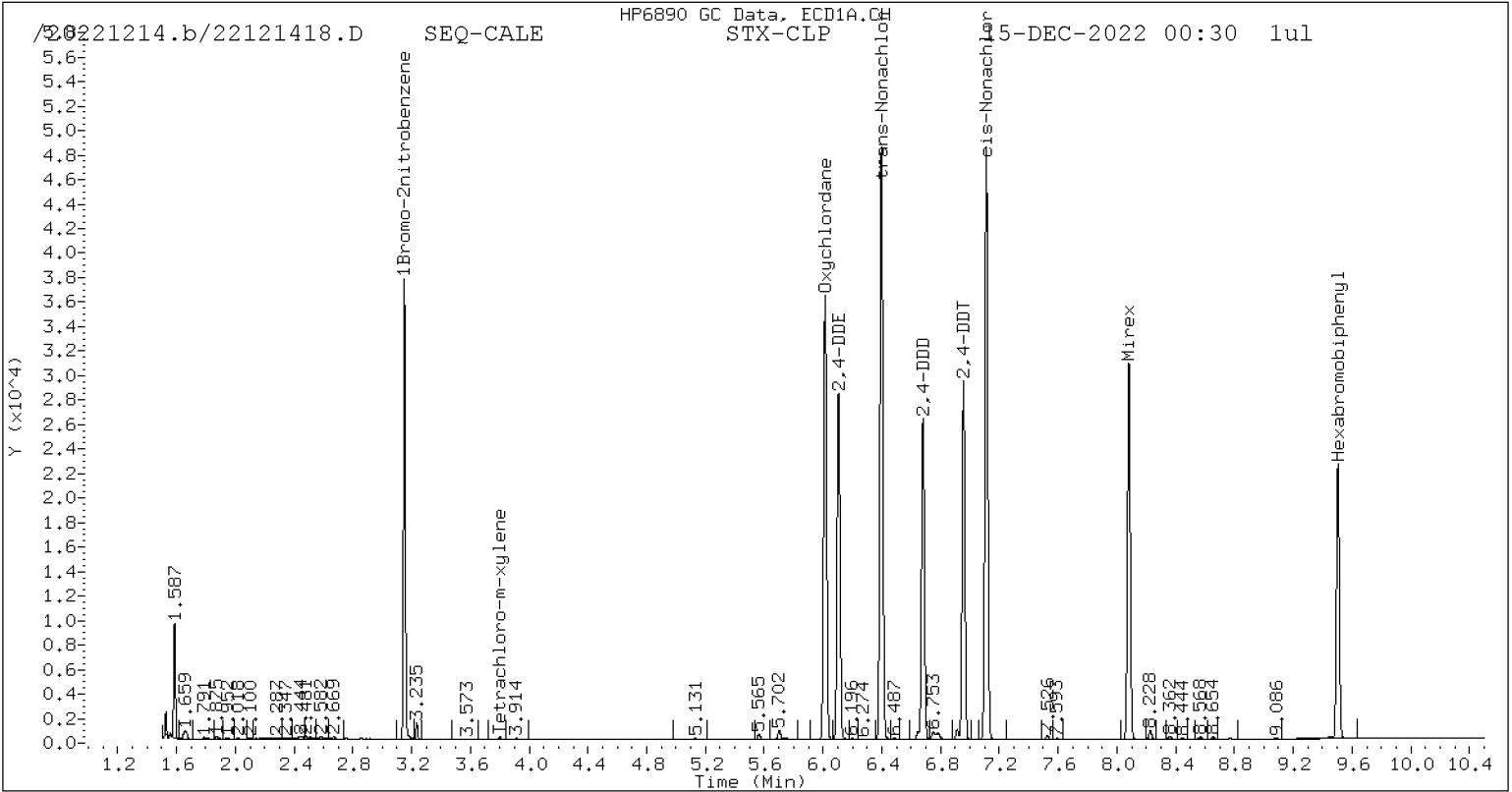
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1030648	-2.7
Hexabromobiphenyl	797125	783631	-1.7

* Standard Areas taken from Initial Cal Level 5

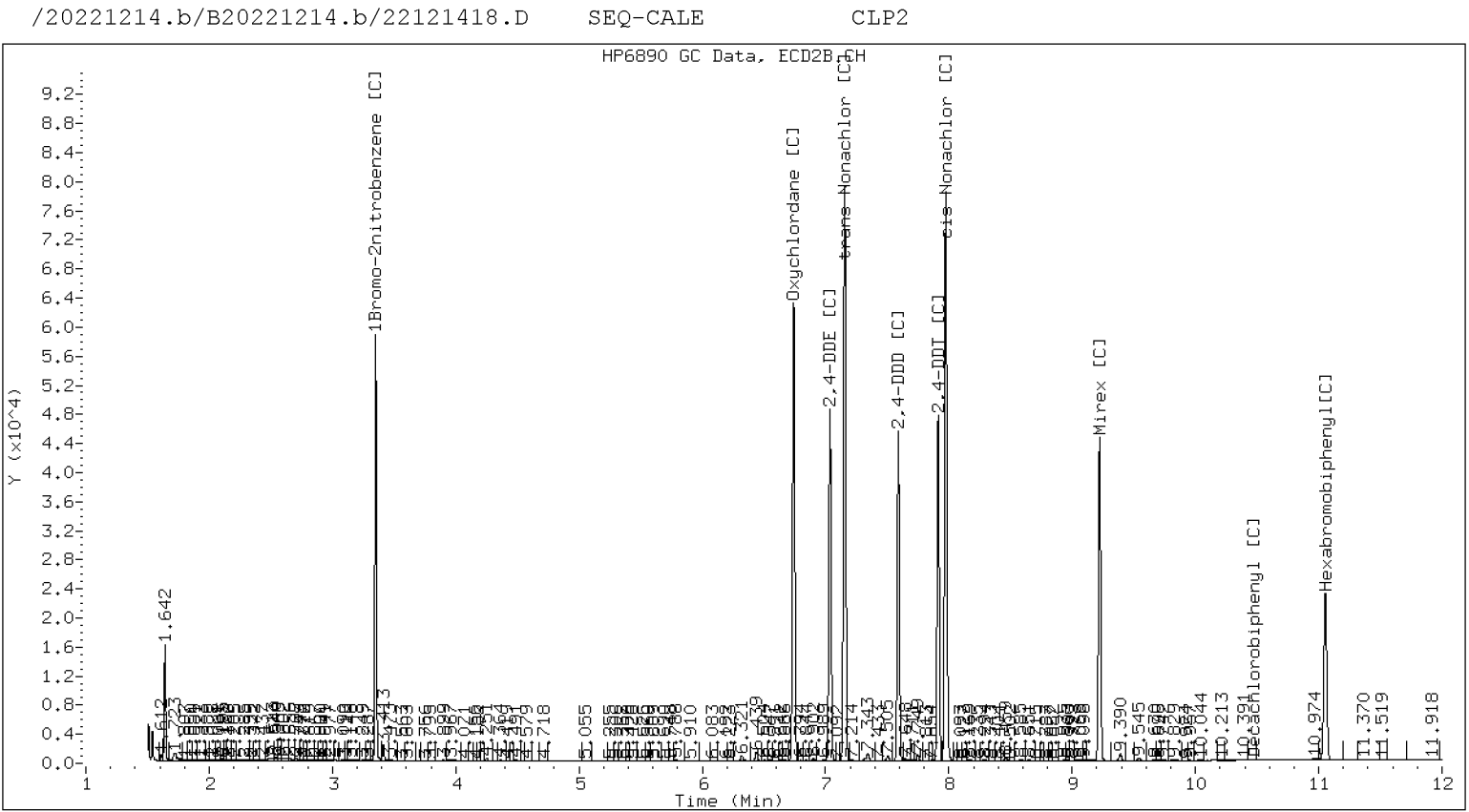
Initial Calibration Date: 14-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121418.D
Data file 2: /20221214.b/B20221214.b/22121418.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALE
Client ID:
Injection Date: 15-DEC-2022 00:30
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col	

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121419.D
 Data file 2: /20221214.b/B20221214.b/22121419.D
 Method: \20221214.b\PEST.m
 Compound Sublist: INDA.sub
 Instrument, Inj. Vol.: ecd6.i, 1ul
 Operator: JGR

ARI ID: SEQ-SCV1
 Client ID:
 Injection Date: 15-DEC-2022 00:48
 Report Date: 12/16/2022 15:19
 Units: ng/mL
 Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
4.342	0.000	643235	4.860	-0.000	1047709	49.66	51.22	3.1	alpha-BHC
4.726	-0.000	242617	5.337	0.000	386388	48.66	49.69	2.1	beta-BHC
4.909	0.000	554797	5.692	0.001	897343	52.41	53.26	1.6	delta-BHC
4.646	0.001	573983	5.258	0.000	915596	51.11	52.75	3.1	gamma-BHC (Lindane)
5.130	0.000	495138	5.788	0.001	804002	49.55	51.13	3.1	Heptachlor
5.454	0.000	526615	6.191	0.000	842909	47.03	46.95	0.2	Aldrin
6.130	0.000	469481	6.846	0.000	724932	48.36	48.83	1.0	Heptachlor epoxide b
6.573	0.000	423102	7.289	-0.000	632890	47.49	48.37	1.8	Endosulfan I
6.832	0.000	478299	7.583	0.000	724854	49.97	50.14	0.3	Dieldrin
6.489	0.000	448741	7.371	0.000	670346	50.49	50.56	0.1	4,4'-DDE
7.082	0.001	396143	7.907	0.000	551004	50.36	50.73	0.7	Endrin
7.318	0.001	350431	8.118	0.001	537104	49.49	48.24	2.6	Endosulfan II
7.136	0.001	355688	7.977	0.001	525927	50.19	49.78	0.8	4,4'-DDD
8.180	0.000	347949	8.716	0.001	502438	51.75	51.39	0.7	Endosulfan sulfate
7.428	0.001	368644	8.295	-0.000	524685	51.48	51.45	0.1	4,4'-DDT
7.913	0.001	174306	8.935	-0.001	238791	54.93	52.91	3.7	Methoxychlor
8.454	0.000	394474	9.240	-0.000	540431	51.21	51.18	0.1	Endrin ketone
7.746	0.001	316262	8.448	0.000	449269	56.00	57.20	2.1	Endrin aldehyde
6.271	0.000	490842	7.056	0.000	748350	49.78	50.55	1.5	trans-Chlordane
6.417	0.001	469513	7.216	0.000	700871	47.47	48.39	1.9	cis-Chlordane
----			2.512	0.011	11364	0.00	0.59	---	Hexachlorobutadiene
----			4.719	0.001	634	0.00	0.03	---	Hexachlorobenzene
----			4.220	-0.000	1724	0.00	0.12	---	Tetrachloro-m-xylene
----			10.468	0.001	643	0.00	0.08	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	672755	-5.3
Hexabromobiphenyl	641833	599983	-6.5

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1020655	-3.6
Hexabromobiphenyl	797125	763949	-4.2

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121419.D
Data file 2: /20221214.b/B20221214.b/22121419.D
Method: \20221214.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-SCV1
Client ID:
Injection Date: 15-DEC-2022 00:48
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col		CLP2 Col		STX-CLP	CLP2		
RT	Shift Response	RT	Shift Response	on col	on col	RPD	Compound/Flag

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Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121420.D
Data file 2: /20221214.b/B20221214.b/22121420.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-SCV2
Client ID:
Injection Date: 15-DEC-2022 01:06
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
6.014	-0.000	374516	6.741	0.000	591348	51.08	50.07	2.0	Oxychlorane
6.106	-0.000	261097	7.036	-0.000	403824	43.13	41.76	3.2	2,4-DDE
6.397	-0.000	444133	7.155	-0.000	657777	46.31	45.91	0.9	trans-Nonachlor
6.681	0.000	222534	7.591	0.000	334706	41.32	40.84	1.2	2,4-DDD
6.956	-0.001	262722	7.914	0.000	382016	45.15	45.26	0.2	2,4-DDT
7.111	-0.001	455894	7.975	0.000	655718	48.82	48.13	1.4	cis-Nonachlor
8.081	-0.001	256593	9.223	0.000	343173	44.17	43.31	2.0	Mirex
----			----			0.00	0.00	---	Tetrachloro-m-xylene
----			----			0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	687052	-3.3
Hexabromobiphenyl	641833	616730	-3.9

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1060438	0.2
Hexabromobiphenyl	797125	800740	0.5

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121420.D
Data file 2: /20221214.b/B20221214.b/22121420.D
Method: \20221214.b\PEST.m
Compound Sublist: WND.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-SCV2
Client ID:
Injection Date: 15-DEC-2022 01:06
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
----	-------------------------------	----------------------------	-------------------	----------------	-----	---------------

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Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121421.D
Data file 2: /20221214.b/B20221214.b/22121421.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL1A
Client ID:
Injection Date: 15-DEC-2022 01:24
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	361	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
----	| 4.215	-0.006	361	| 0.00	0.02	---	Tetrachloro-m-xylene
----	| ----			| 0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

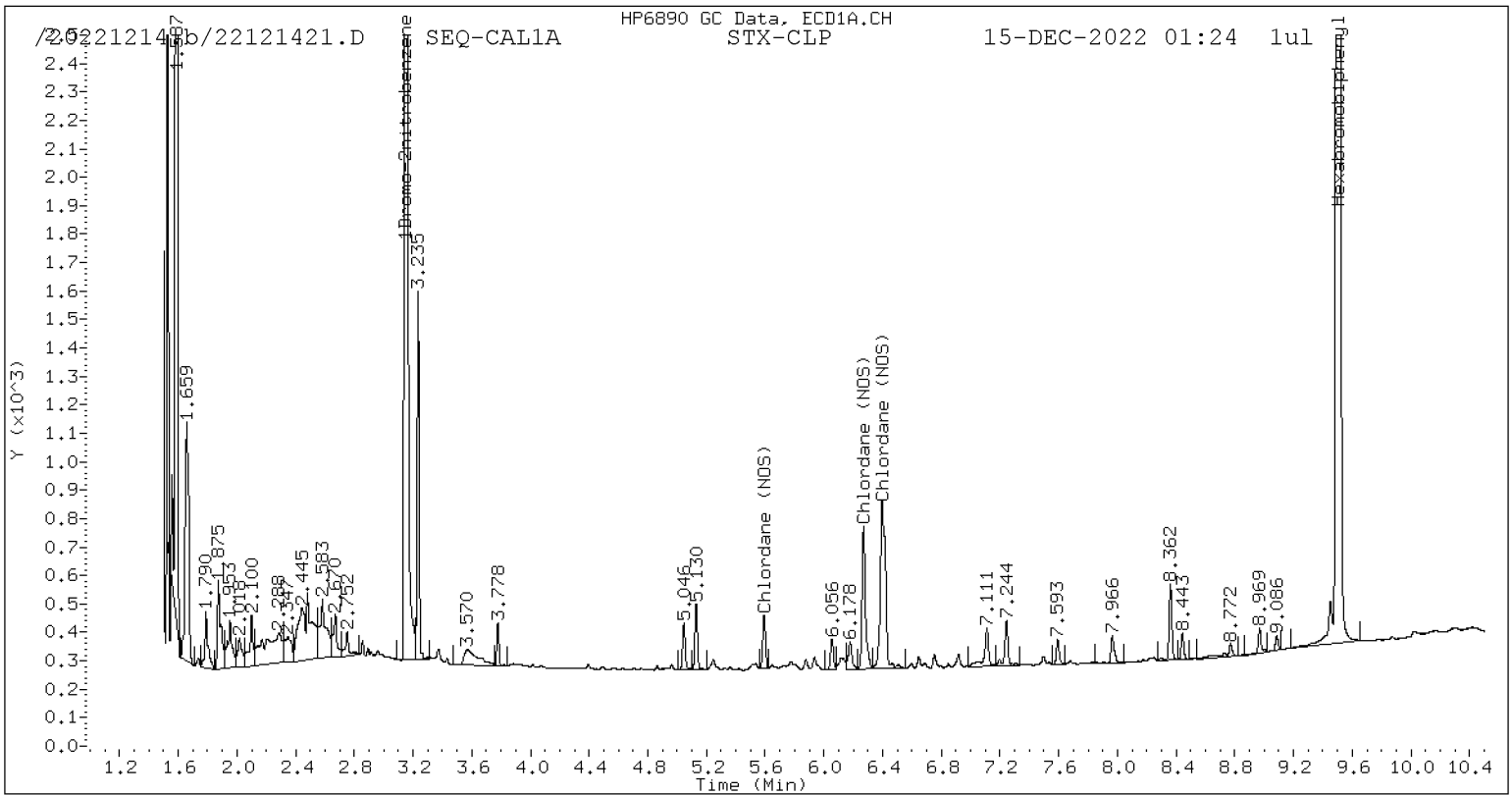
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	601512	-15.4
Hexabromobiphenyl	641833	690103	7.5

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	776759	-26.6
Hexabromobiphenyl	797125	1058847	32.8

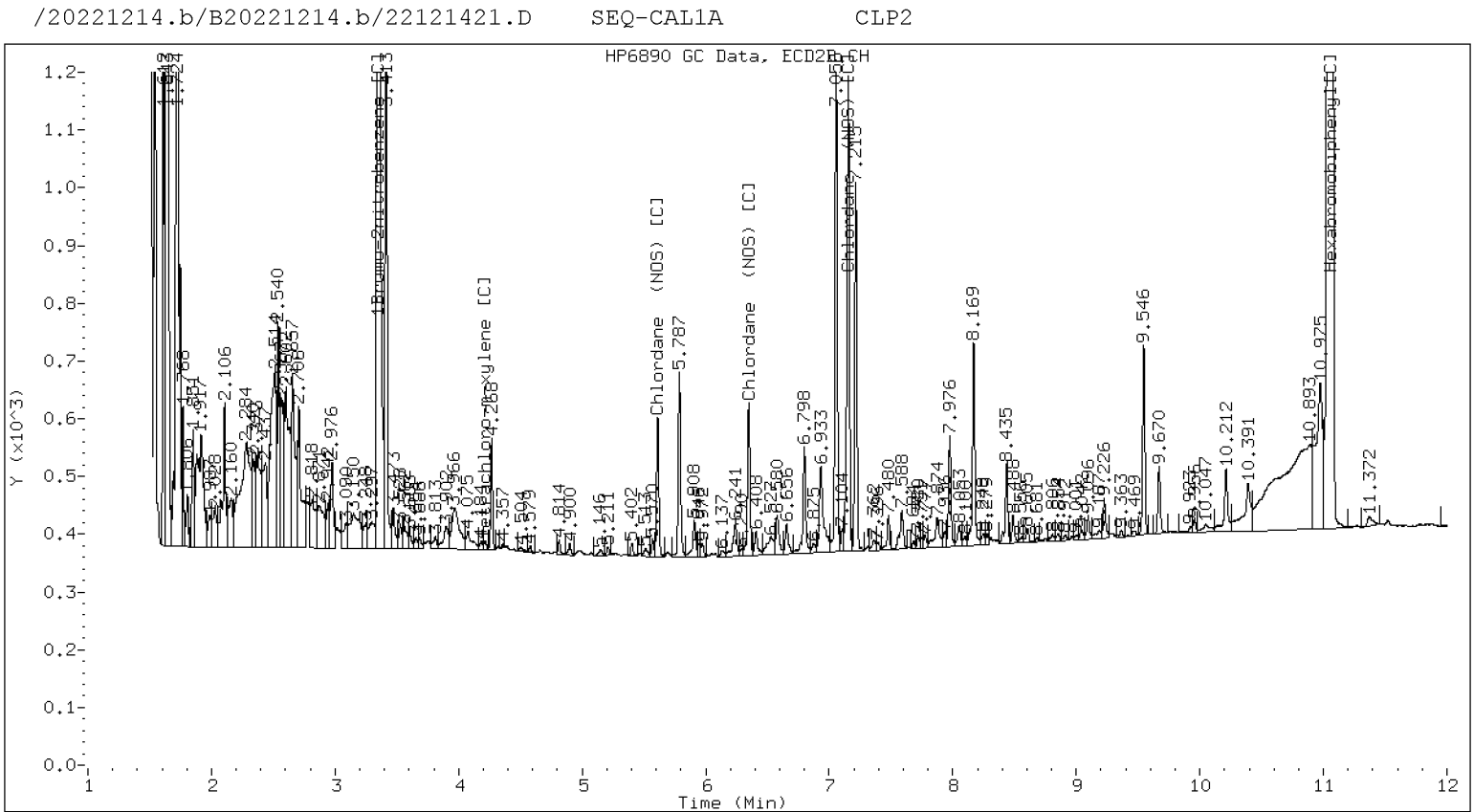
* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 14-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col		
			Shift	Height	Amount			Shift	Height	Amount
Chlordane (NOS)	1	5.593	0.000	5054	13.1	1	5.612	-0.000	6415	12.8
Chlordane (NOS)	2	6.271	-0.000	15913	12.4	2	6.349	-0.000	7689	13.7
Chlordane (NOS)	3	6.399	0.000	29332	13.1	3	7.155	-0.001	23386	12.3
Total STX-CLPAve (3 peaks): 12.882					Total CLP2Ave (3 peaks): 12.916					RPD = 0
Corrected Ave (3 peaks): 12.882					Corrected Ave (3 peaks): 12.916					RPD = 0

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121421.D
Data file 2: /20221214.b/B20221214.b/22121421.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL1A
Client ID:
Injection Date: 15-DEC-2022 01:24
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag		
RT	Shift Response	RT	Shift Response	on col	on col		

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121422.D
Data file 2: /20221214.b/B20221214.b/22121422.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL2A
Client ID:
Injection Date: 15-DEC-2022 01:42
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
----	|	----	|	0.00	0.00	---	Tetrachloro-m-xylene
----	|	----	|	0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

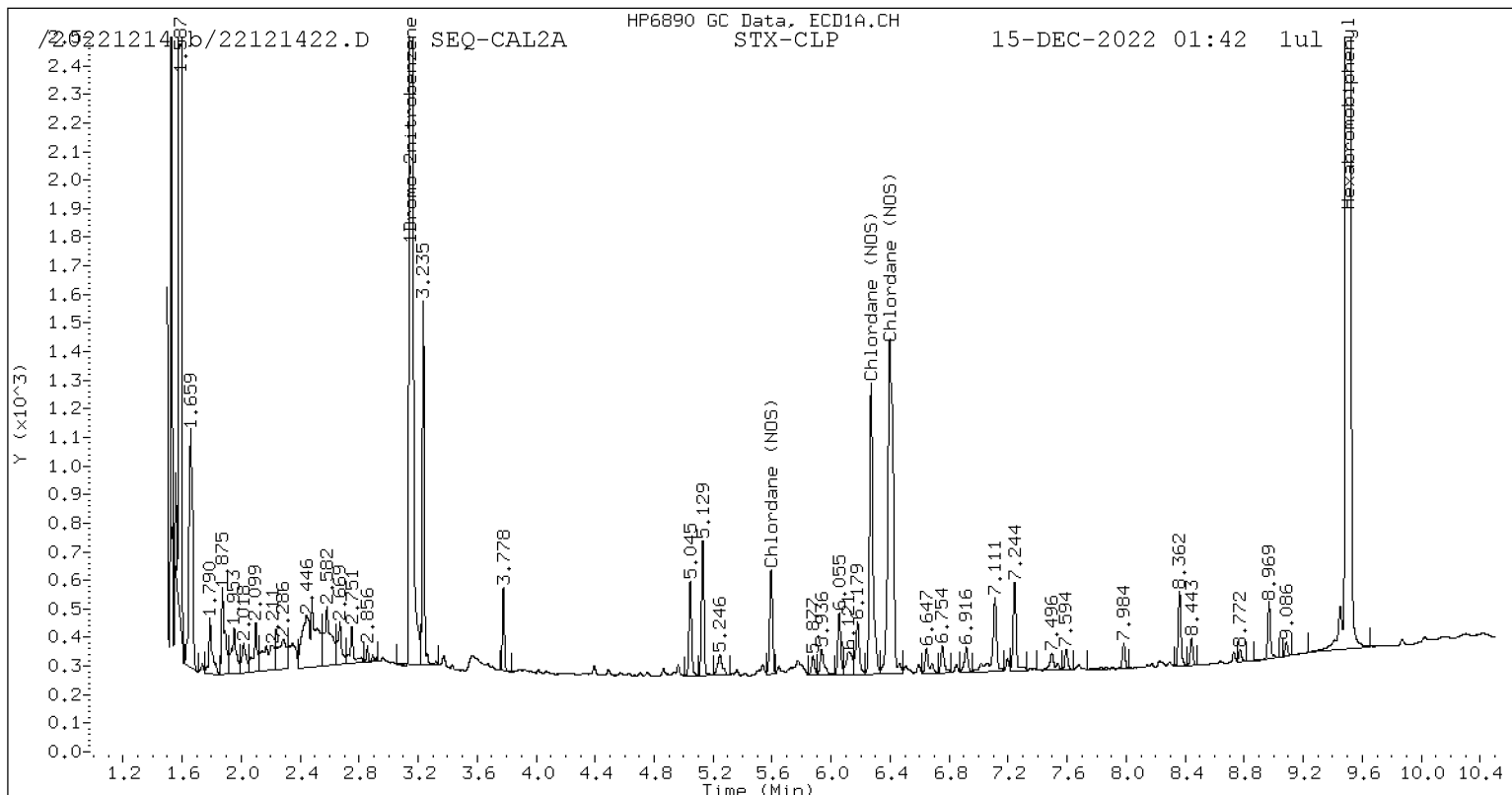
Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	611280	-14.0
Hexabromobiphenyl	641833	704720	9.8

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	793365	-25.1
Hexabromobiphenyl	797125	1083049	35.9

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 14-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

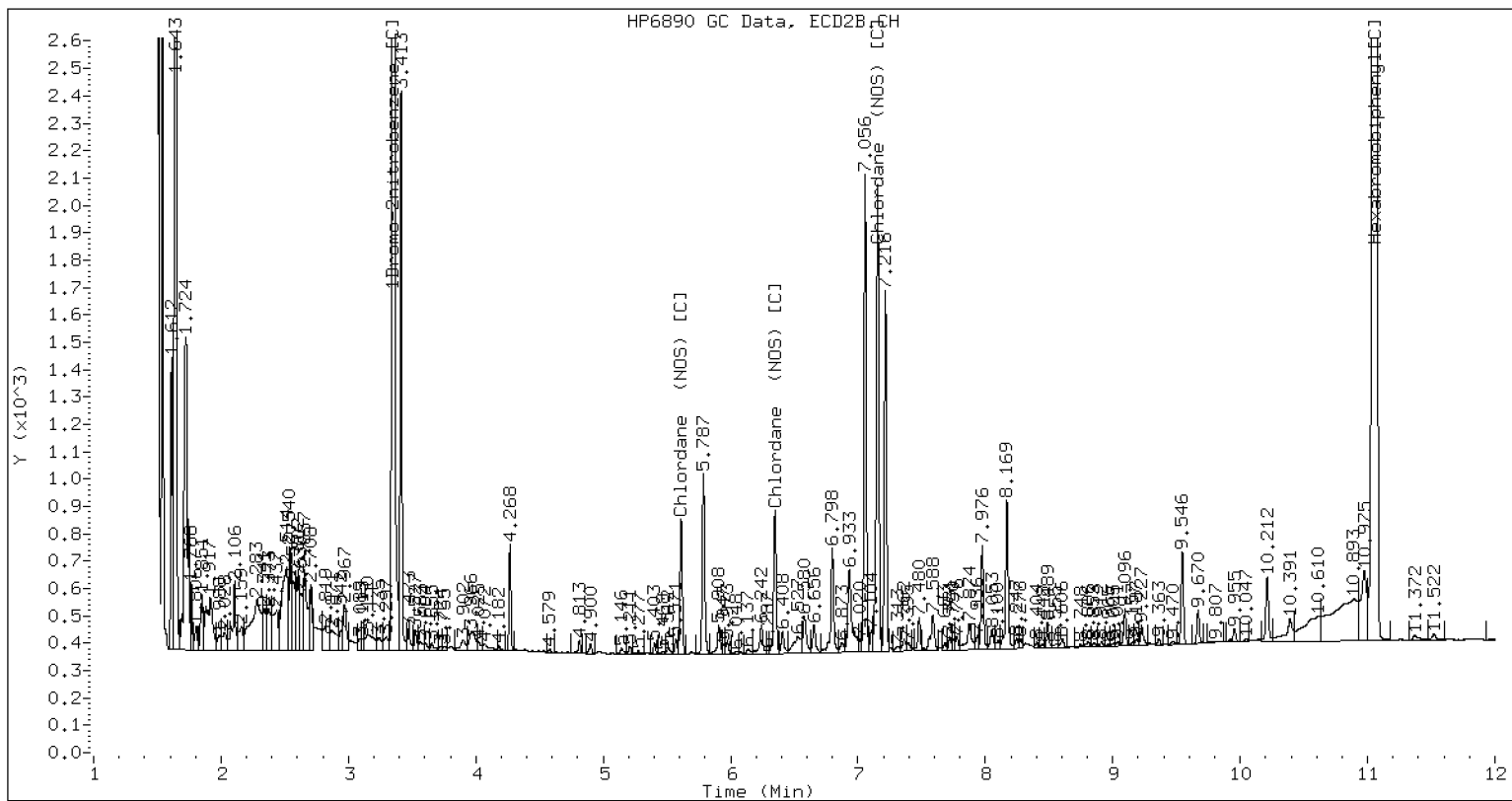
Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col		
			Shift	Height	Amount			Shift	Height	Amount
Chlordane (NOS)	1	5.593	0.000	10046	25.5	1	5.612	-0.000	12488	24.4
Chlordane (NOS)	2	6.271	-0.000	32715	25.0	2	6.348	-0.001	15023	26.1
Chlordane (NOS)	3	6.399	0.000	58016	25.4	3	7.155	-0.000	48236	24.8
Total STX-CLPAve (3 peaks): 25.309					Total CLP2Ave (3 peaks): 25.077					RPD = 1
Corrected Ave (3 peaks): 25.309					Corrected Ave (3 peaks): 25.077					RPD = 1

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121422.D SEQ-CAL2A CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121422.D
Data file 2: /20221214.b/B20221214.b/22121422.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL2A
Client ID:
Injection Date: 15-DEC-2022 01:42
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col	

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121423.D
 Data file 2: /20221214.b/B20221214.b/22121423.D
 Method: \20221214.b\PEST.m
 Compound Sublist: TECHCHLOR.sub
 Instrument, Inj. Vol.: ecd6.i, 1ul
 Operator: JGR

ARI ID: SEQ-CAL3A
 Client ID:
 Injection Date: 15-DEC-2022 01:59
 Report Date: 12/16/2022 15:20
 Units: ng/mL
 Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	RT	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
----	|	----	|	0.00	0.00	---	Tetrachloro-m-xylene
----	|	----	|	0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

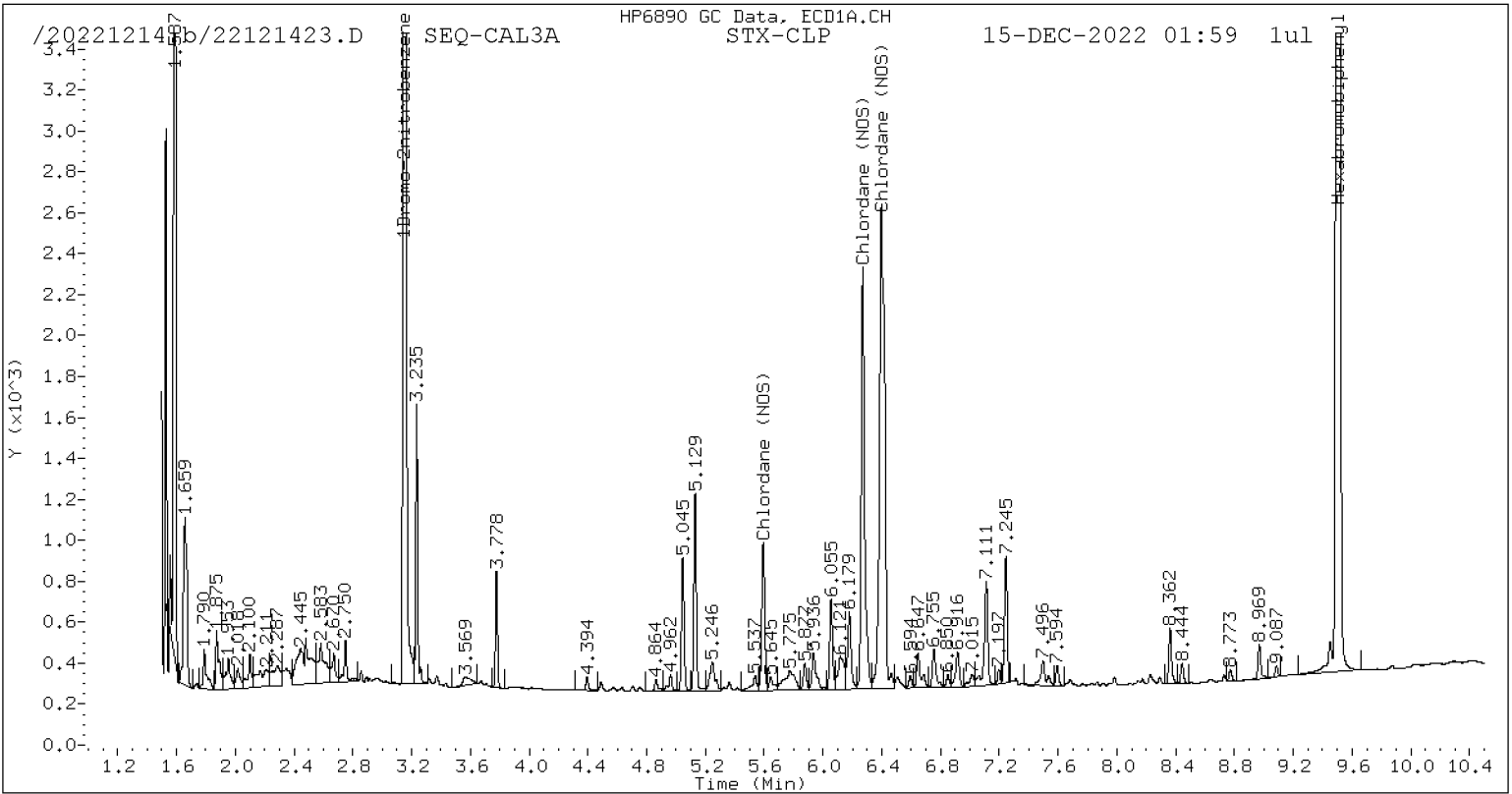
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	592438	-16.6
Hexabromobiphenyl	641833	685225	6.8

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	769029	-27.4
Hexabromobiphenyl	797125	1054742	32.3

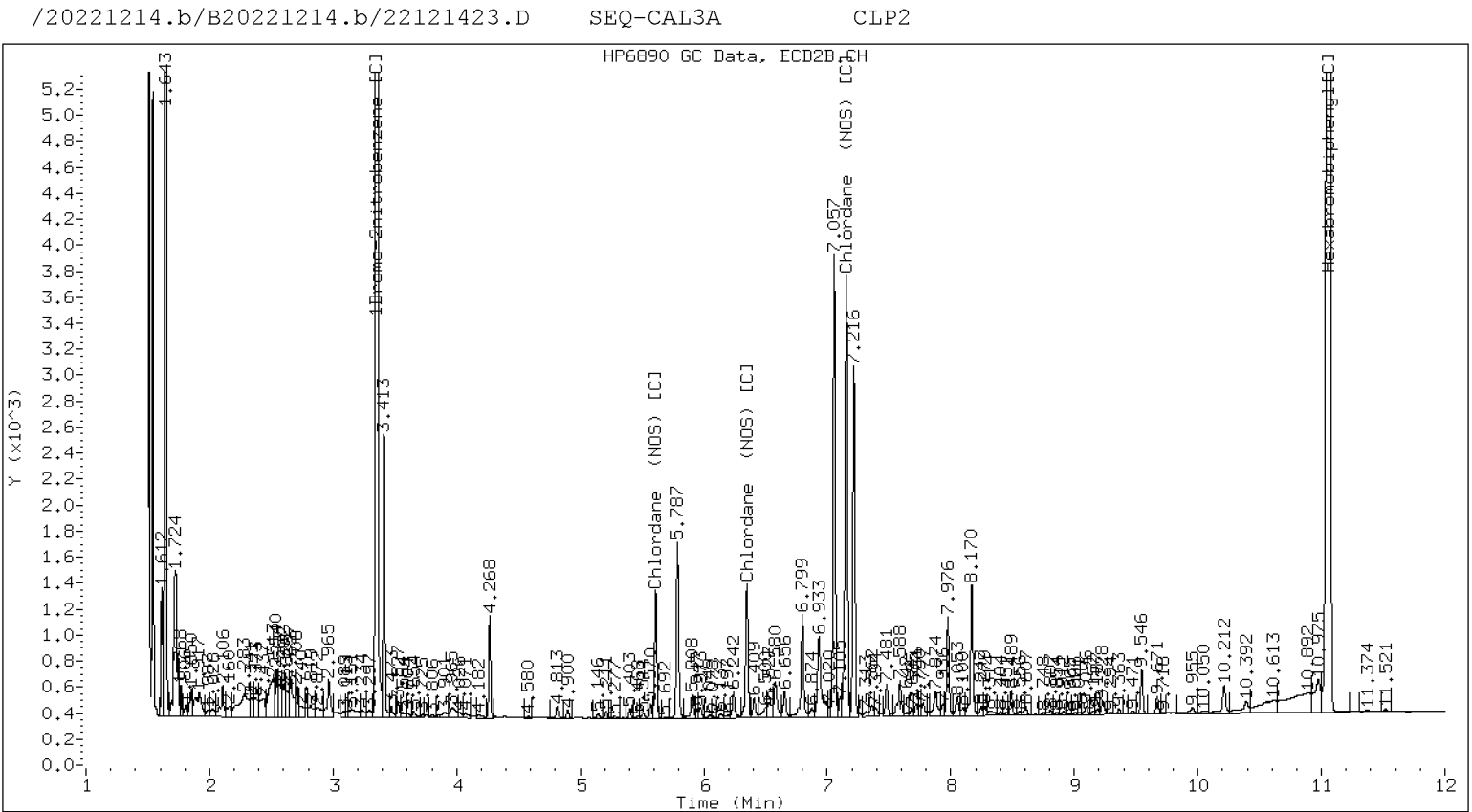
* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 14-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col		
			Shift	Height	Amount			Shift	Height	Amount
Chlordane (NOS)	1	5.593	0.001	20502	53.5	1	5.612	-0.000	24816	49.7
Chlordane (NOS)	2	6.271	-0.000	66320	52.2	2	6.349	0.000	29114	51.9
Chlordane (NOS)	3	6.399	0.000	116820	52.6	3	7.155	-0.000	98401	51.9
Total STX-CLPAve (3 peaks): 52.767					Total CLP2Ave (3 peaks): 51.179					RPD = 3
Corrected Ave (3 peaks): 52.767					Corrected Ave (3 peaks): 51.179					RPD = 3

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121423.D
Data file 2: /20221214.b/B20221214.b/22121423.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL3A
Client ID:
Injection Date: 15-DEC-2022 01:59
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col	

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121424.D
Data file 2: /20221214.b/B20221214.b/22121424.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL4A
Client ID:
Injection Date: 15-DEC-2022 02:17
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
----	|	----	|	0.00	0.00	---	Tetrachloro-m-xylene
----	|	----	|	0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

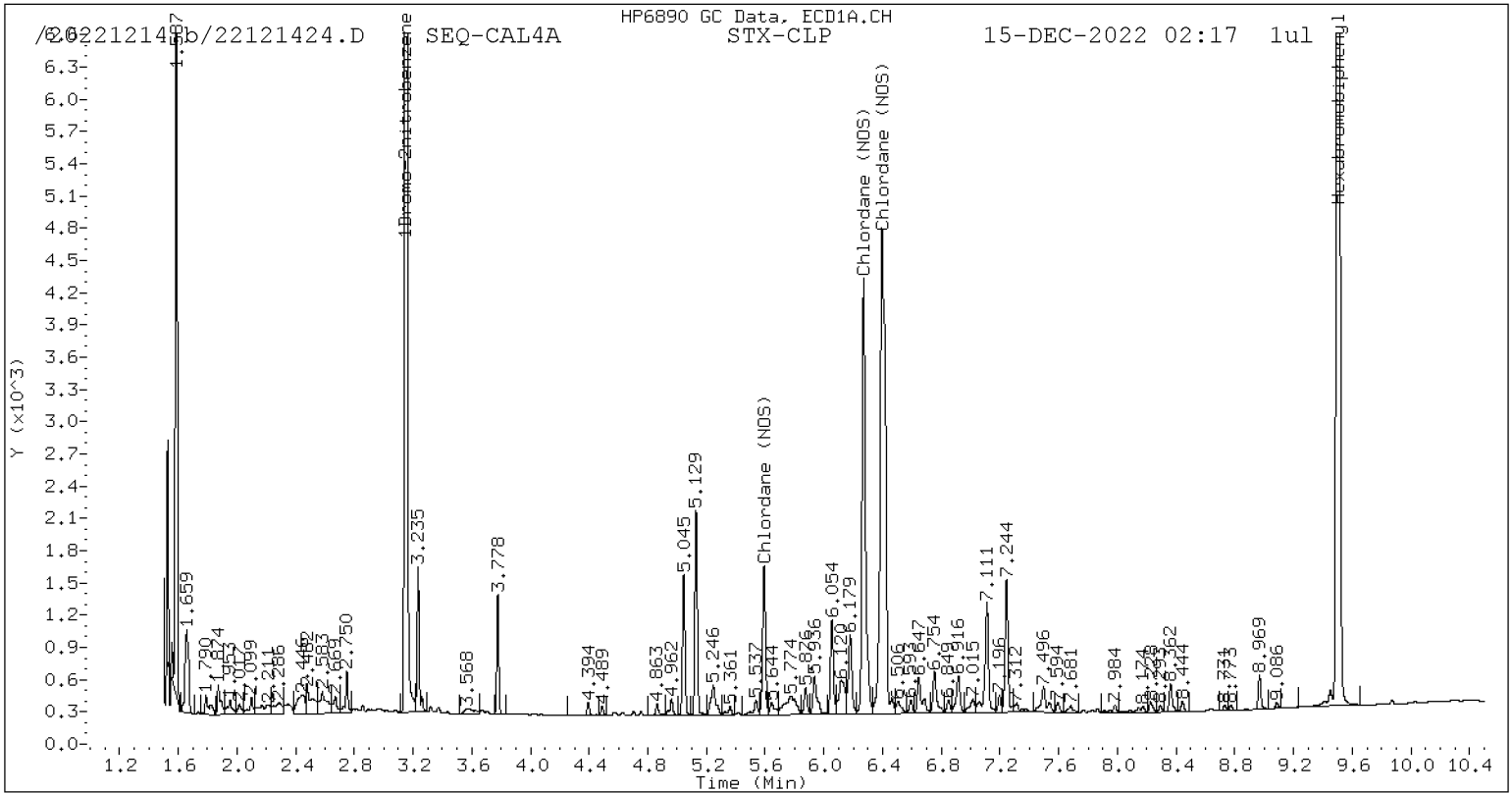
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	584808	-17.7
Hexabromobiphenyl	641833	675665	5.3

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	758204	-28.4
Hexabromobiphenyl	797125	1039488	30.4

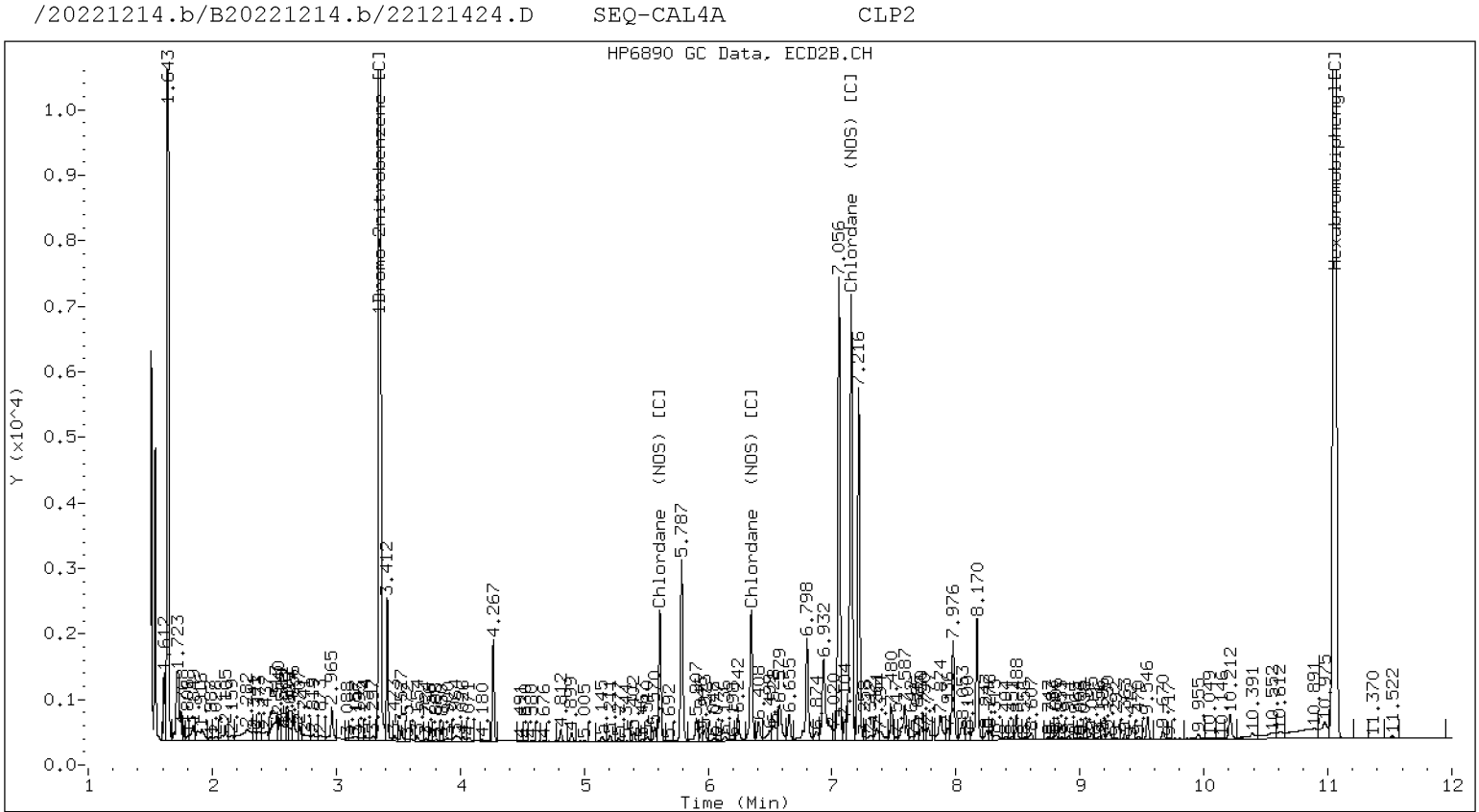
* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 14-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col		
			Shift	Height	Amount			Shift	Height	Amount
Chlordane (NOS)	1	5.593	-0.000	39696	105.0	1	5.611	-0.001	49889	101.4
Chlordane (NOS)	2	6.271	-0.000	131726	105.2	2	6.348	-0.001	56608	102.5
Chlordane (NOS)	3	6.398	-0.001	229050	104.6	3	7.155	-0.000	195665	104.7
Total STX-CLPAve (3 peaks): 104.931					Total CLP2Ave (3 peaks): 102.854					RPD = 2
Corrected Ave (3 peaks): 104.931					Corrected Ave (3 peaks): 102.854					RPD = 2

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121424.D
Data file 2: /20221214.b/B20221214.b/22121424.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL4A
Client ID:
Injection Date: 15-DEC-2022 02:17
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col	

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121425.D
Data file 2: /20221214.b/B20221214.b/22121425.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL5A
Client ID:
Injection Date: 15-DEC-2022 02:35
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
----	|	----	|	0.00	0.00	---	Tetrachloro-m-xylene
----	|	----	|	0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

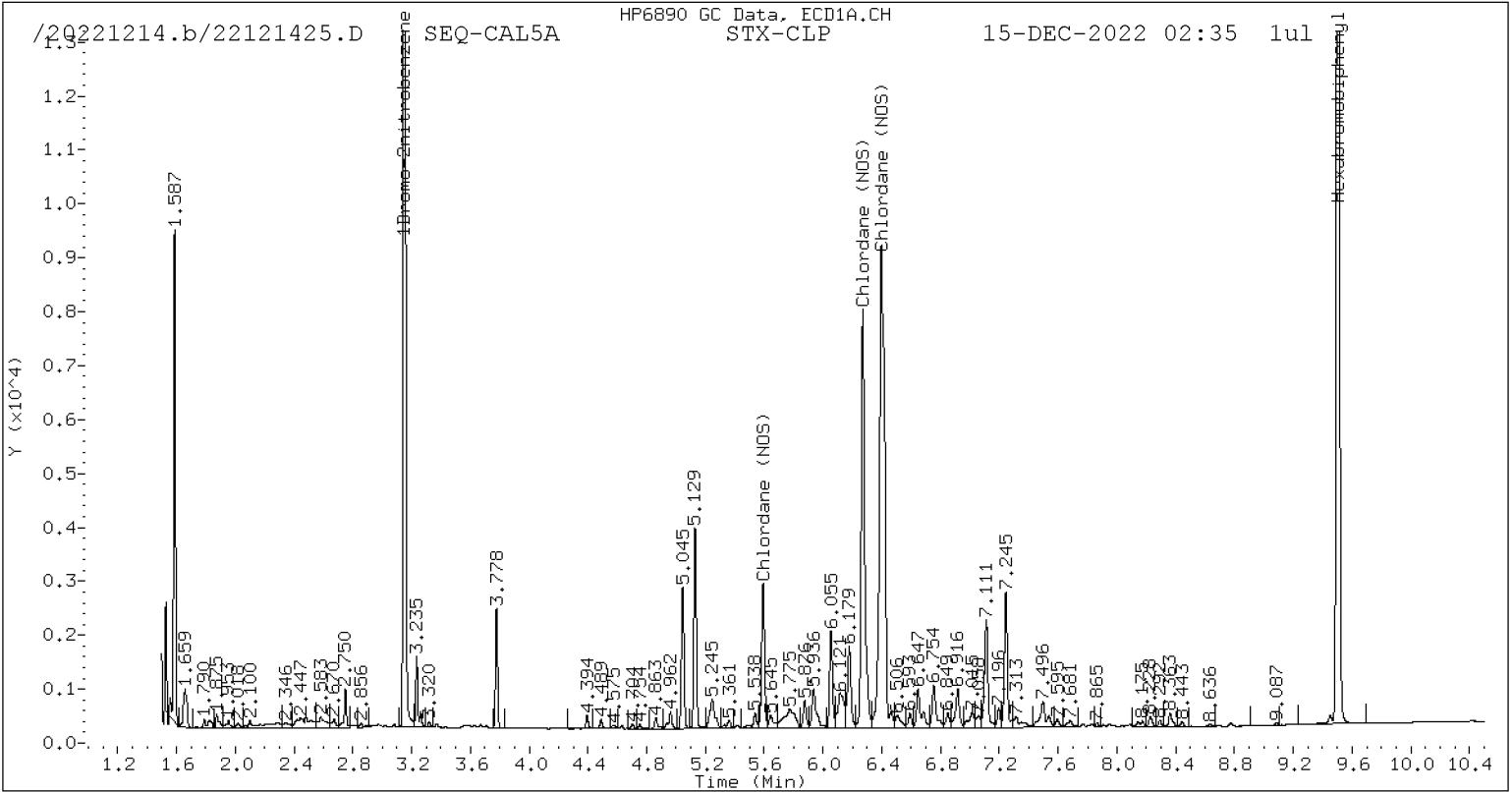
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	612592	-13.8
Hexabromobiphenyl	641833	705251	9.9

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	792856	-25.1
Hexabromobiphenyl	797125	1079718	35.5

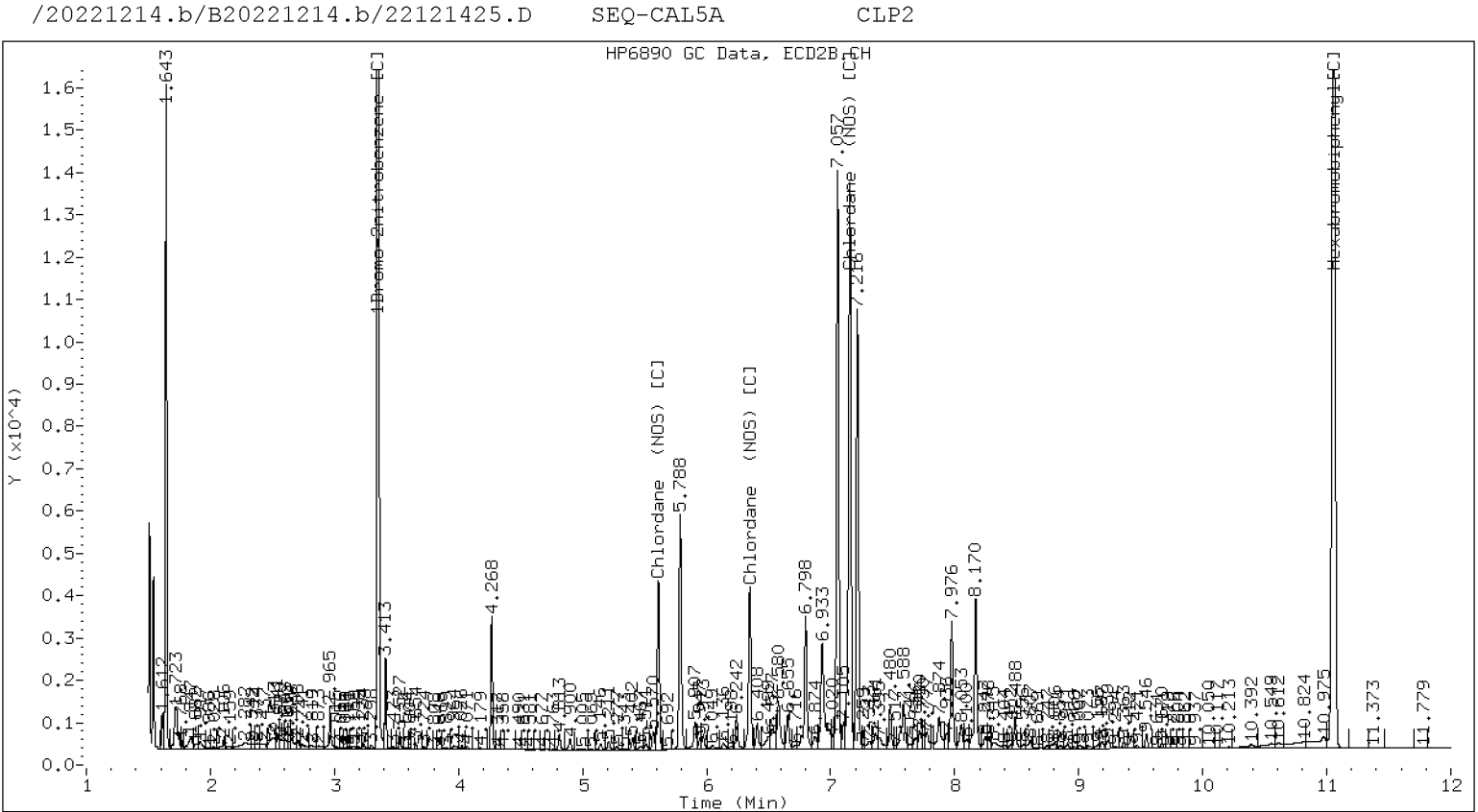
* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 14-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col		
			Shift	Height	Amount			Shift	Height	Amount
Chlordane (NOS)	1	5.593	0.000	77307	196.0	1	5.612	-0.000	101527	198.7
Chlordane (NOS)	2	6.271	0.000	261078	199.7	2	6.349	-0.001	110757	193.0
Chlordane (NOS)	3	6.399	0.000	449301	196.5	3	7.155	-0.000	389197	200.5
Total STX-CLPAve (3 peaks): 197.408					Total CLP2Ave (3 peaks): 197.390					RPD = 0
Corrected Ave (3 peaks): 197.408					Corrected Ave (3 peaks): 197.390					RPD = 0

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121425.D
Data file 2: /20221214.b/B20221214.b/22121425.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL5A
Client ID:
Injection Date: 15-DEC-2022 02:35
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col		CLP2 Col		STX-CLP	CLP2		
RT	Shift Response	RT	Shift Response	on col	on col	RPD	Compound/Flag

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121426.D
Data file 2: /20221214.b/B20221214.b/22121426.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL6A
Client ID:
Injection Date: 15-DEC-2022 02:53
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
----	|	----	|	0.00	0.00	---	Tetrachloro-m-xylene
----	|	----	|	0.00	0.00	---	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

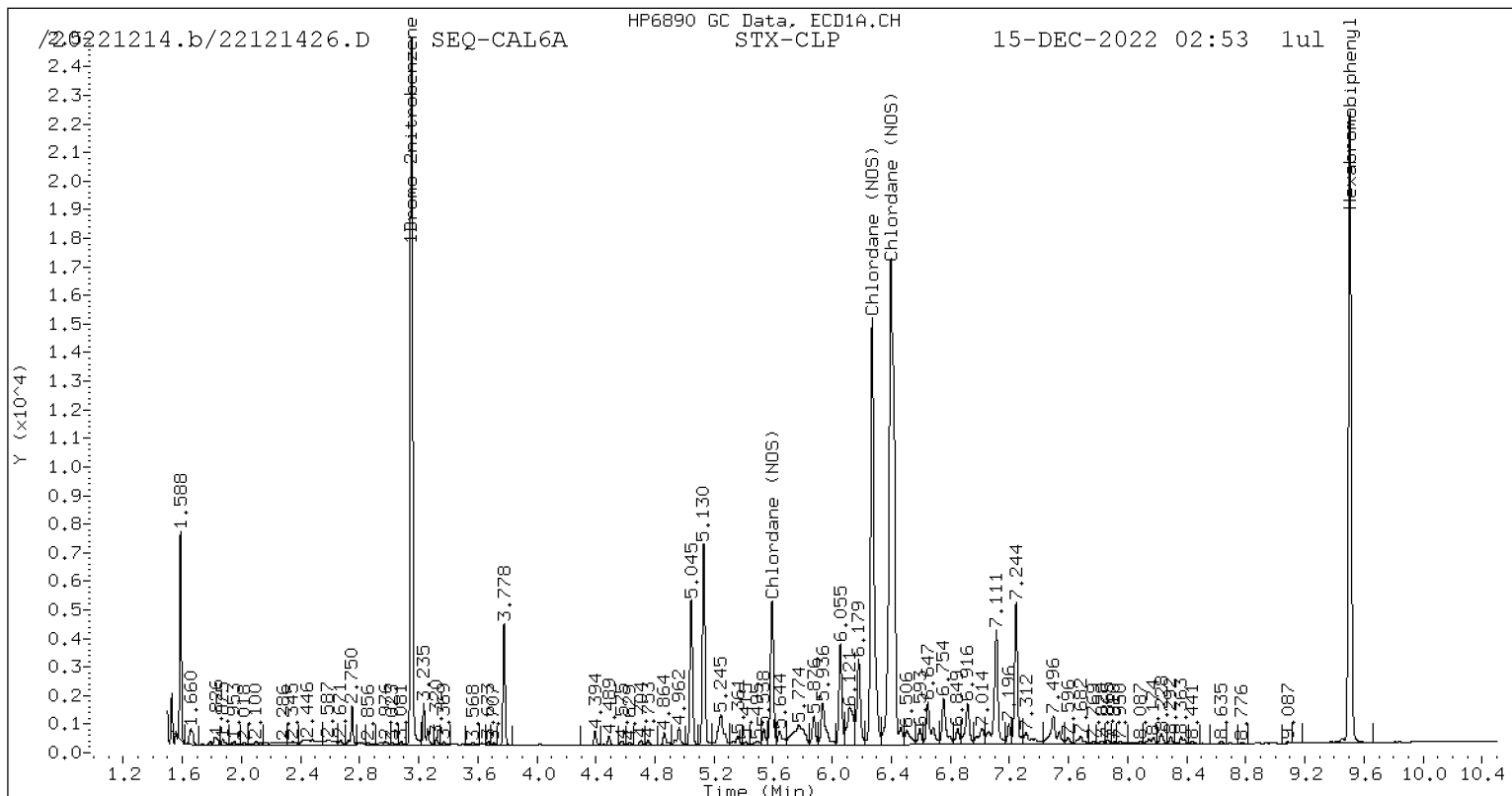
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	603526	-15.1
Hexabromobiphenyl	641833	699031	8.9

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	779405	-26.4
Hexabromobiphenyl	797125	1068976	34.1

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 14-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

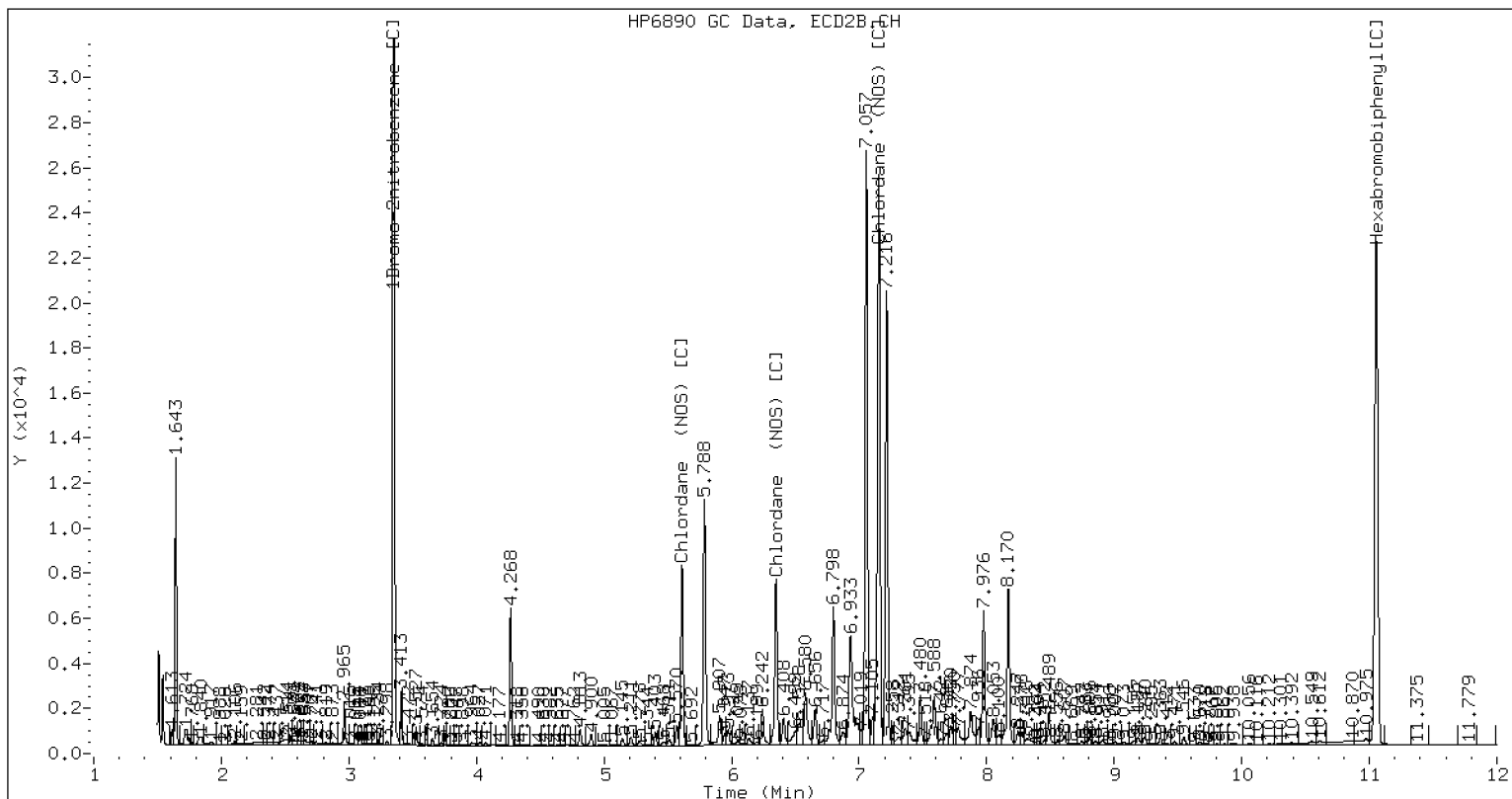
Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col		
			Shift	Height	Amount			Shift	Height	Amount
Chlordane (NOS)	1	5.592	-0.000	146950	375.8	1	5.612	-0.000	203386	402.0
Chlordane (NOS)	2	6.271	-0.000	503310	388.5	2	6.349	-0.000	212637	374.2
Chlordane (NOS)	3	6.399	0.000	857451	378.4	3	7.155	-0.000	752631	391.6
Total STX-CLPAve (3 peaks): 380.894					Total CLP2Ave (3 peaks): 389.290					RPD = 2
Corrected Ave (3 peaks): 380.894					Corrected Ave (3 peaks): 389.290					RPD = 2

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121426.D SEQ-CAL6A CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121426.D
Data file 2: /20221214.b/B20221214.b/22121426.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL6A
Client ID:
Injection Date: 15-DEC-2022 02:53
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col	

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121427.D
Data file 2: /20221214.b/B20221214.b/22121427.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL7A
Client ID:
Injection Date: 15-DEC-2022 03:11
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
9.380	0.025	1930				0.31	0.00	---	Decachlorobiphenyl
						0.00	0.00	---	Tetrachloro-m-xylene

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

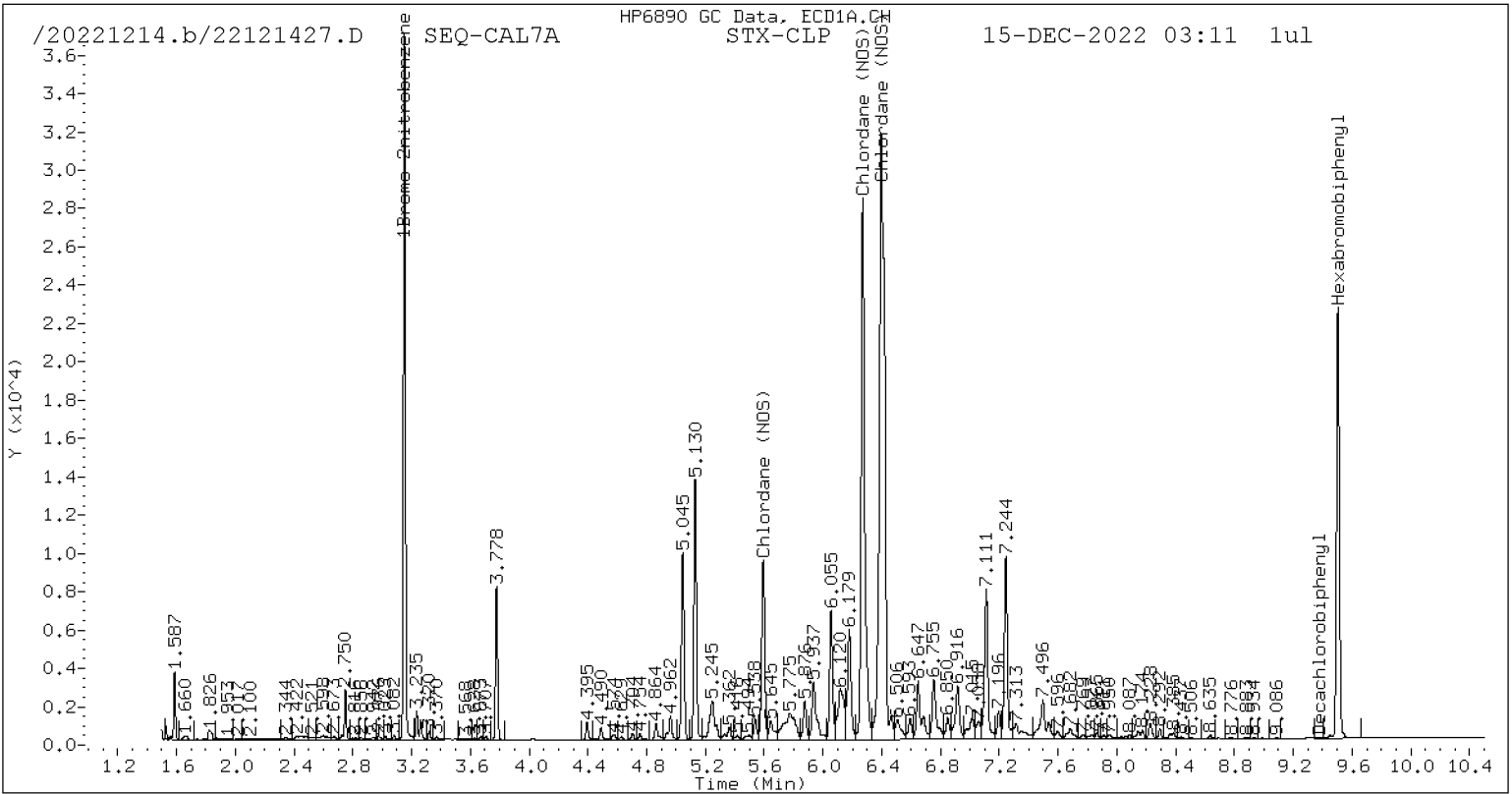
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	610159	-14.1
Hexabromobiphenyl	641833	692215	7.8

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	790388	-25.4
Hexabromobiphenyl	797125	1059143	32.9

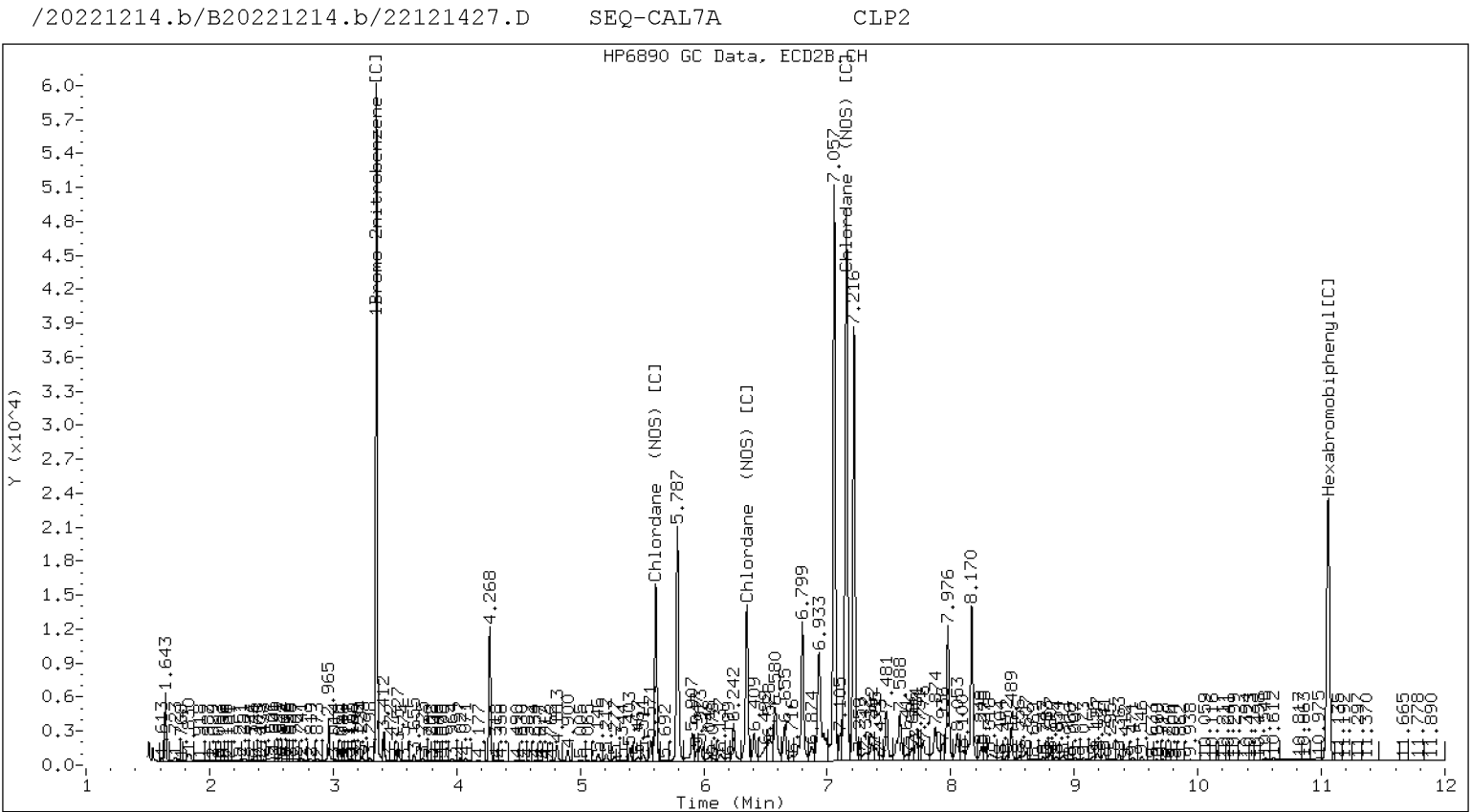
* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 14-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col		
			Shift	Height	Amount			Shift	Height	Amount
Chlordane (NOS)	1	5.593	0.001	276980	715.3	1	5.612	0.000	398620	795.3
Chlordane (NOS)	2	6.271	-0.000	961368	749.3	2	6.349	0.000	405170	719.7
Chlordane (NOS)	3	6.399	-0.000	1631241	727.0	3	7.155	0.000	1462876	768.2
Total STX-CLPAve (3 peaks): 730.539					Total CLP2Ave (3 peaks): 761.064					RPD = 4
Corrected Ave (3 peaks): 730.539					Corrected Ave (3 peaks): 761.064					RPD = 4

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121427.D
Data file 2: /20221214.b/B20221214.b/22121427.D
Method: \20221214.b\PEST.m
Compound Sublist: TECHCHLOR.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL7A
Client ID:
Injection Date: 15-DEC-2022 03:11
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col		CLP2 Col		STX-CLP	CLP2		
RT	Shift Response	RT	Shift Response	on col	on col	RPD	Compound/Flag

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121428.D
Data file 2: /20221214.b/B20221214.b/22121428.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL8A
Client ID:
Injection Date: 15-DEC-2022 03:29
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.828	0.000	8893	4.221	0.000	14795	0.95	0.98	4.0	Tetrachloro-m-xylene
9.355	0.000	15511	10.467	0.000	24896	2.54	2.86	11.7	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

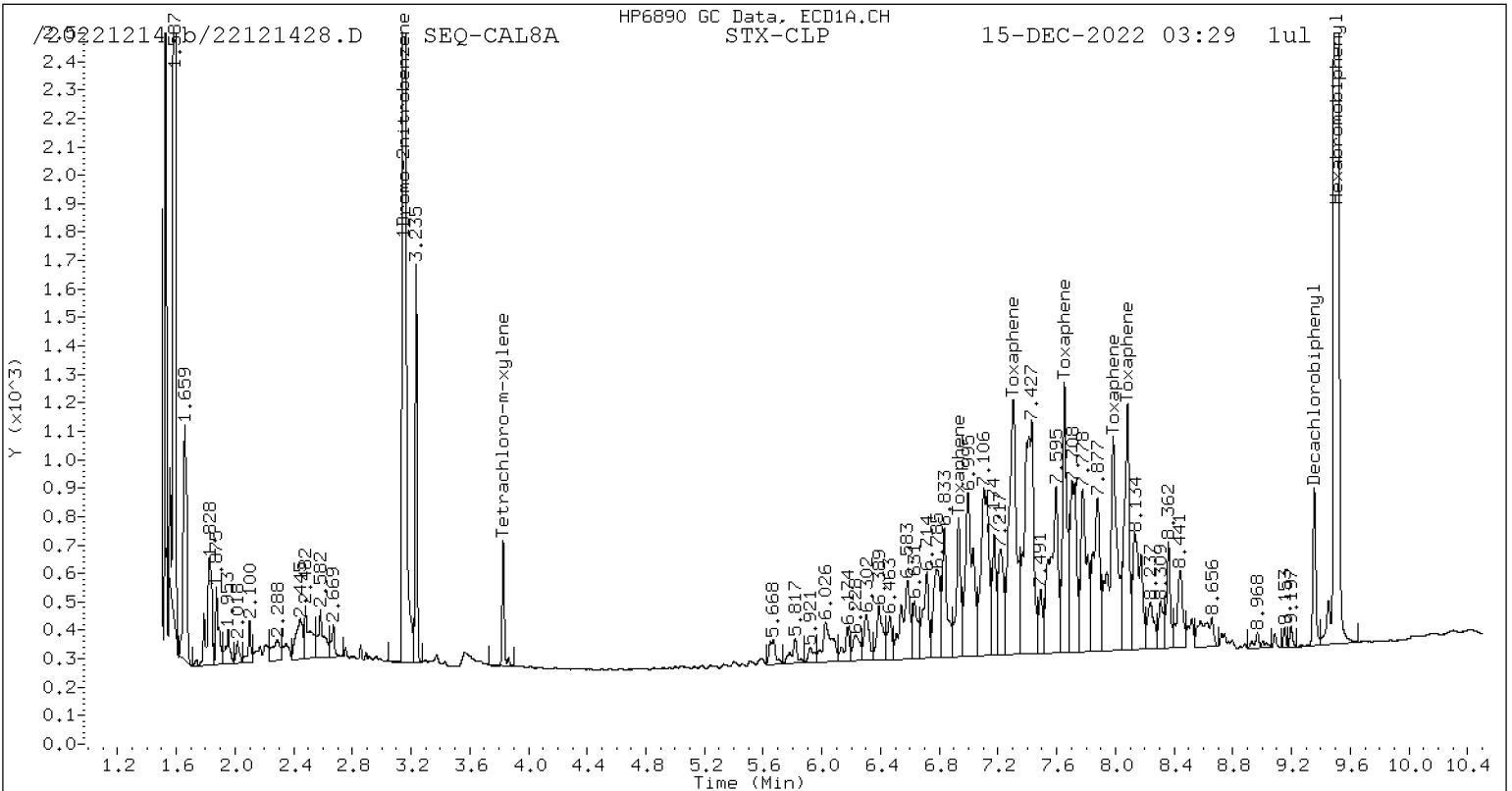
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	691781	-2.7
Hexabromobiphenyl	641833	602865	-6.1

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1068328	0.9
Hexabromobiphenyl	797125	788806	-1.0

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 14-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

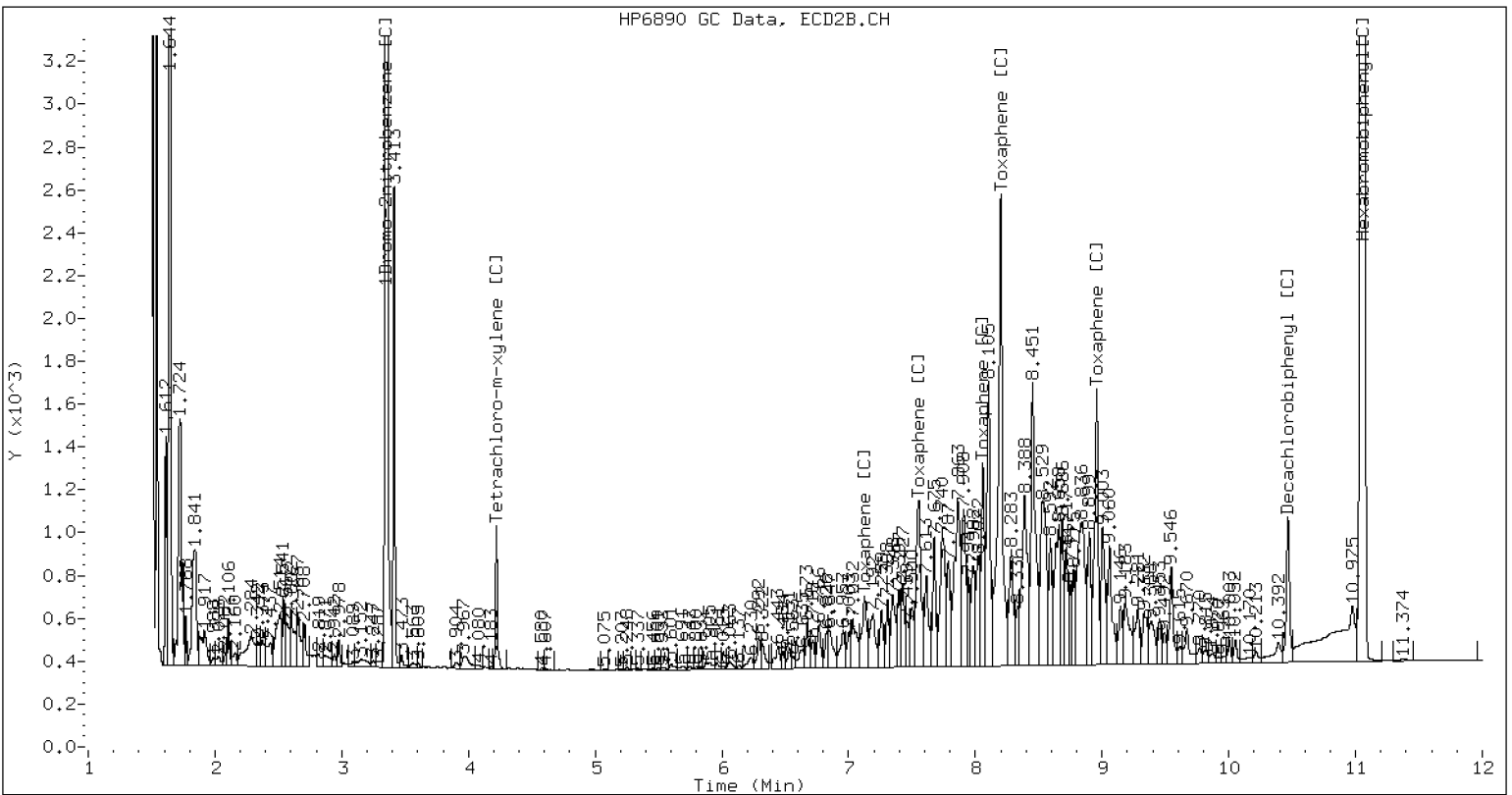
Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col			Amount	
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	6.931	0.000	20939	118.9	1	7.125	-0.000	18390	124.1		
Toxaphene	2	7.304	0.000	62921	127.5	2	7.553	-0.000	43437	130.4		
Toxaphene	3	7.653	-0.000	40147	126.2	3	8.059	-0.001	32235	127.1		
Toxaphene	4	7.985	-0.001	56816	133.6	4	8.201	-0.001	109296	132.1		
Toxaphene	5	8.082	-0.000	39643	123.4	5	8.958	-0.001	50997	125.7		
Total STX-CLPAve (5 peaks):					125.907	Total CLP2Ave (5 peaks):					127.865	RPD = 2
Corrected Ave (5 peaks):					125.907	Corrected Ave (5 peaks):					127.865	RPD = 2

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121428.D SEQ-CAL8A CLP2



Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121428.D
Data file 2: /20221214.b/B20221214.b/22121428.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL8A
Client ID:
Injection Date: 15-DEC-2022 03:29
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col	

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121429.D
Data file 2: /20221214.b/B20221214.b/22121429.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL9A
Client ID:
Injection Date: 15-DEC-2022 03:46
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.828	-0.000 18632	4.220 -0.000 29829	4.220	1.92	1.92	0.1	Tetrachloro-m-xylene
9.355	0.000 29179	10.467 0.000 44716	10.467	4.64	4.98	7.1	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

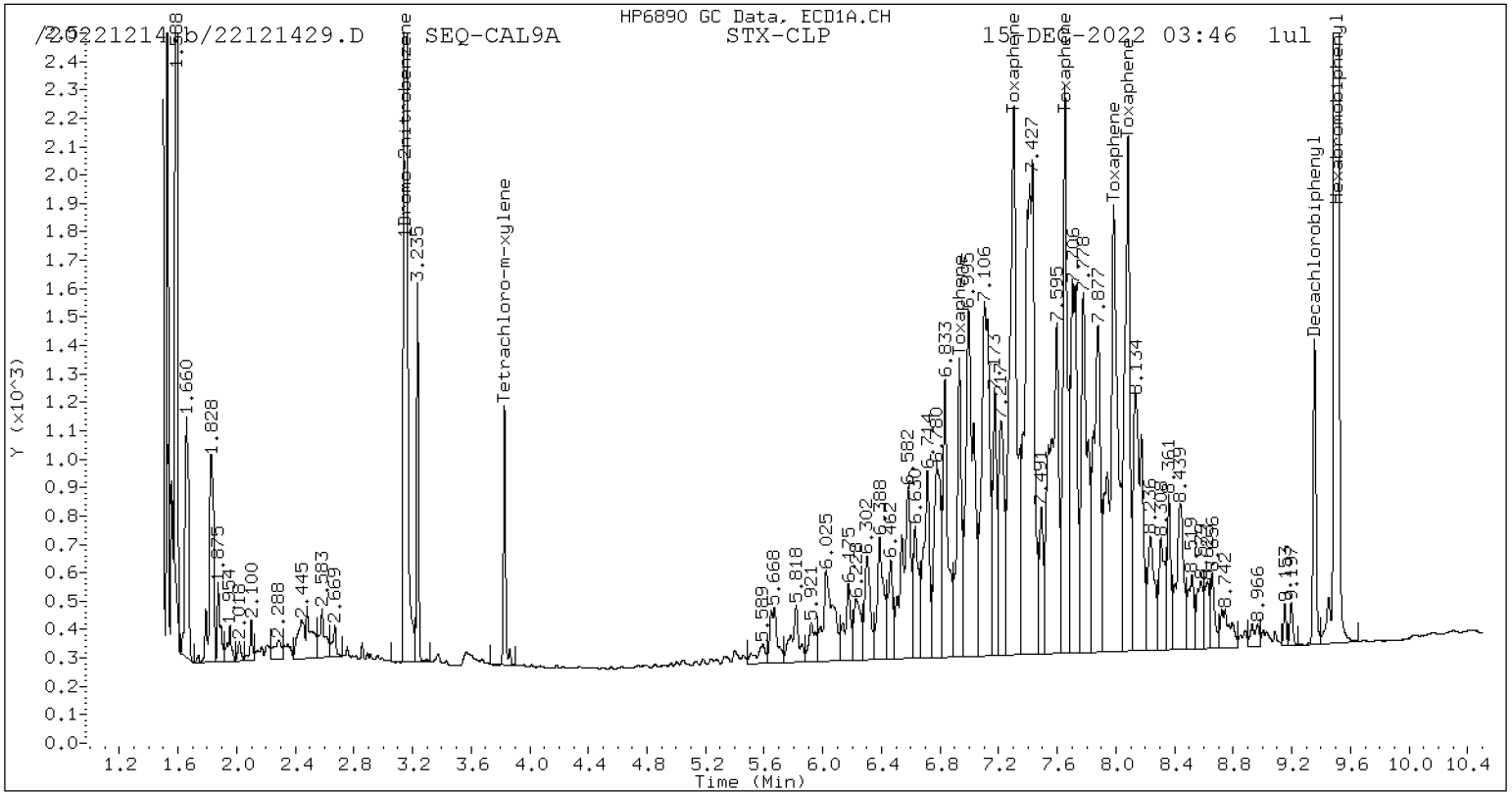
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	713620	0.4
Hexabromobiphenyl	641833	620026	-3.4

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1104488	4.3
Hexabromobiphenyl	797125	811719	1.8

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 14-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

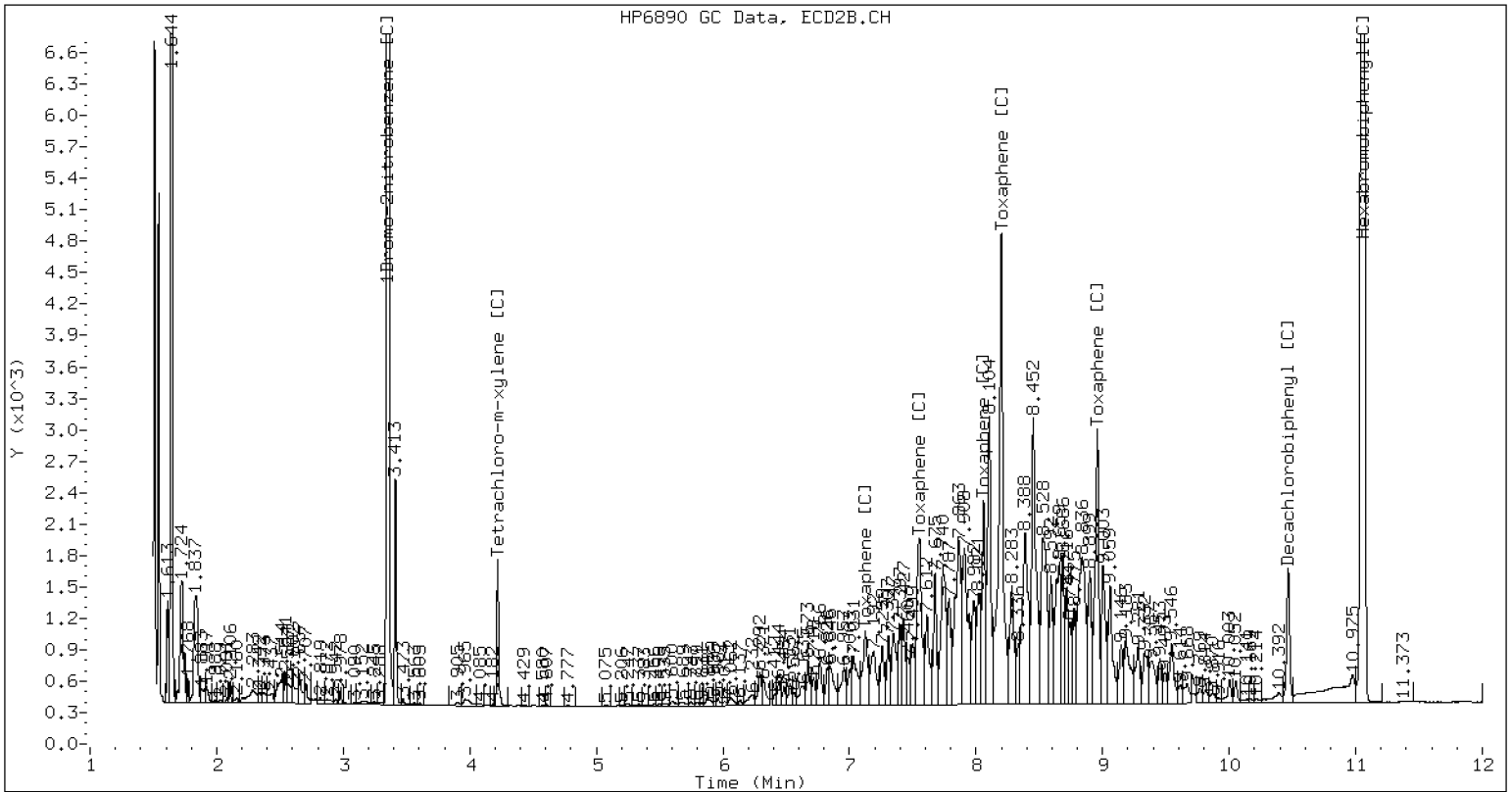
Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col			Amount
			Shift	Height	Amount			Shift	Height	Amount	
Toxaphene	1	6.931	0.000	47415	261.8	1	7.125	-0.001	38790	254.4	
Toxaphene	2	7.302	-0.001	134642	265.2	2	7.552	-0.001	89754	261.8	
Toxaphene	3	7.652	-0.001	86679	264.9	3	8.059	-0.001	67442	258.4	
Toxaphene	4	7.985	-0.001	125891	287.7	4	8.200	-0.001	220426	258.9	
Toxaphene	5	8.081	-0.000	85903	260.0	5	8.958	-0.001	104601	250.5	
Total STX-CLPAve (5 peaks): 267.939					Total CLP2Ave (5 peaks): 256.784					RPD = 4	
Corrected Ave (5 peaks): 267.939					Corrected Ave (5 peaks): 256.784					RPD = 4	

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121429.D SEQ-CAL9A CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121429.D
Data file 2: /20221214.b/B20221214.b/22121429.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CAL9A
Client ID:
Injection Date: 15-DEC-2022 03:46
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col	

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121430.D
Data file 2: /20221214.b/B20221214.b/22121430.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAA
Client ID:
Injection Date: 15-DEC-2022 04:04
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.828	-0.000	37717	4.220	0.000	60469	3.98	3.98	0.0	Tetrachloro-m-xylene
9.355	0.000	57106	10.467	0.000	82418	9.20	9.32	1.3	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

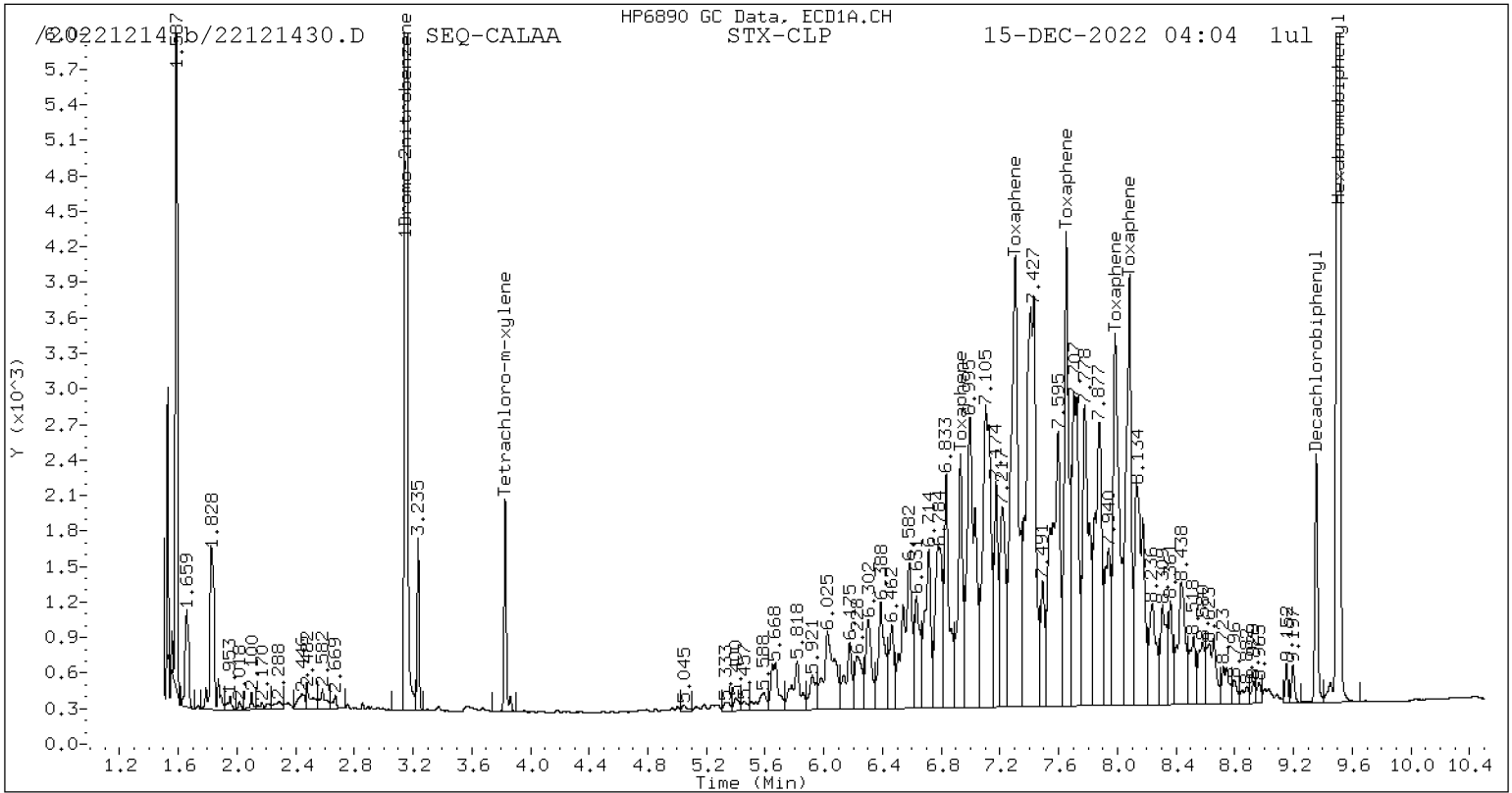
Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	696179	-2.0
Hexabromobiphenyl	641833	612804	-4.5

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1078803	1.9
Hexabromobiphenyl	797125	800071	0.4

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 14-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

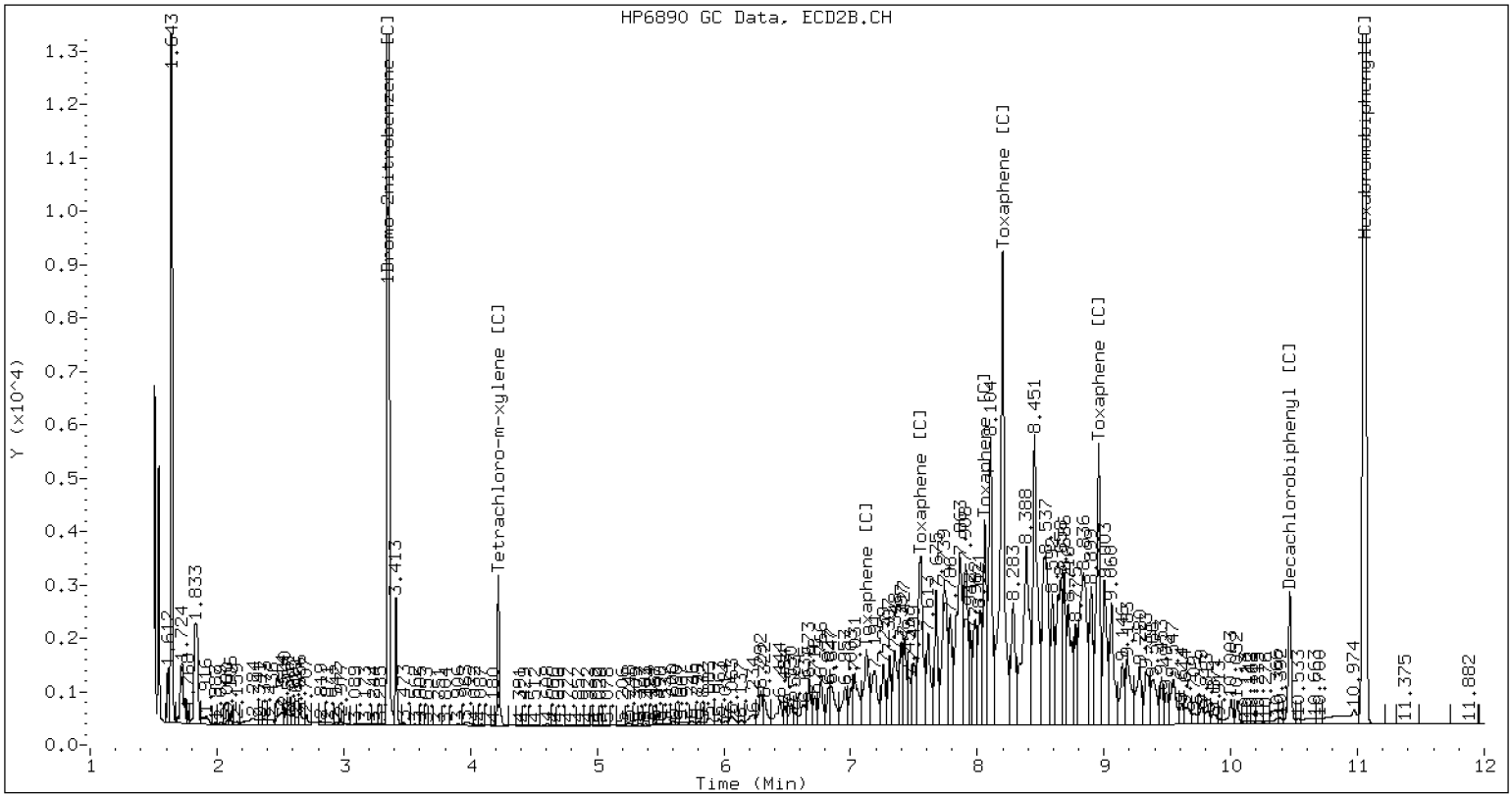
Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	6.931	-0.000	96535	539.4	1	7.125	-0.001	78635	523.1		
Toxaphene	2	7.304	0.000	273576	545.2	2	7.553	-0.001	179081	529.9		
Toxaphene	3	7.652	-0.001	177095	547.7	3	8.059	-0.001	133547	519.1		
Toxaphene	4	7.985	-0.001	190443	440.4	4	8.200	-0.001	437035	520.8		
Toxaphene	5	8.082	-0.000	175009	535.8	5	8.958	-0.001	209659	509.4		
Total STX-CLPAve (5 peaks):					521.711	Total CLP2Ave (5 peaks):					520.468	RPD = 0
Corrected Ave (5 peaks):					521.711	Corrected Ave (5 peaks):					520.468	RPD = 0

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121430.D SEQ-CALAA CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121430.D
Data file 2: /20221214.b/B20221214.b/22121430.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAA
Client ID:
Injection Date: 15-DEC-2022 04:04
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag				
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121431.D
Data file 2: /20221214.b/B20221214.b/22121431.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAB
Client ID:
Injection Date: 15-DEC-2022 04:22
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.828	0.000	74347	4.221	0.000	119694	7.73	7.77	0.5	Tetrachloro-m-xylene
9.355	-0.000	107024	10.466	-0.000	151970	17.00	17.11	0.7	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

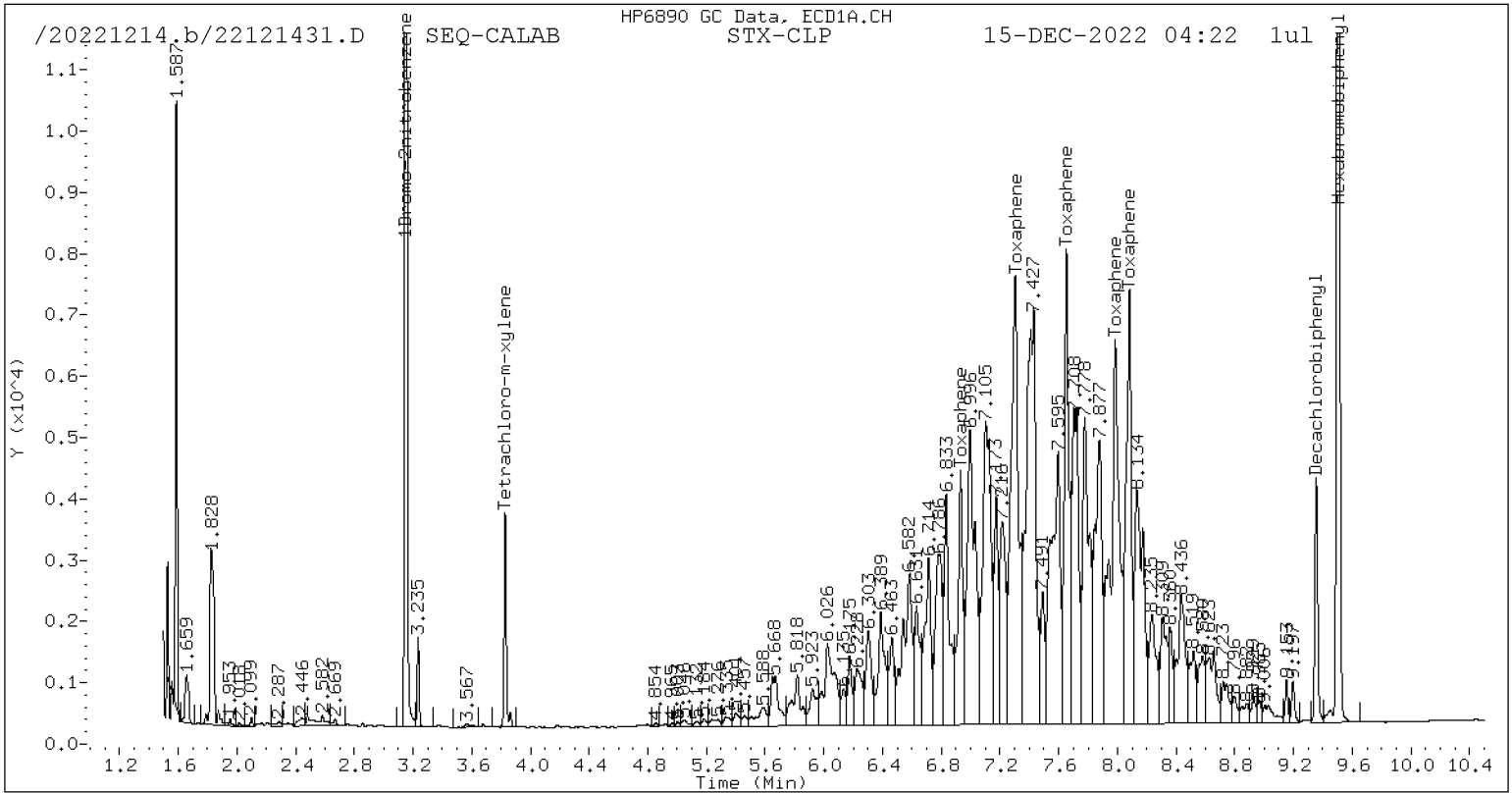
Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	706924	-0.5
Hexabromobiphenyl	641833	621486	-3.2

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1093936	3.3
Hexabromobiphenyl	797125	803782	0.8

* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 14-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

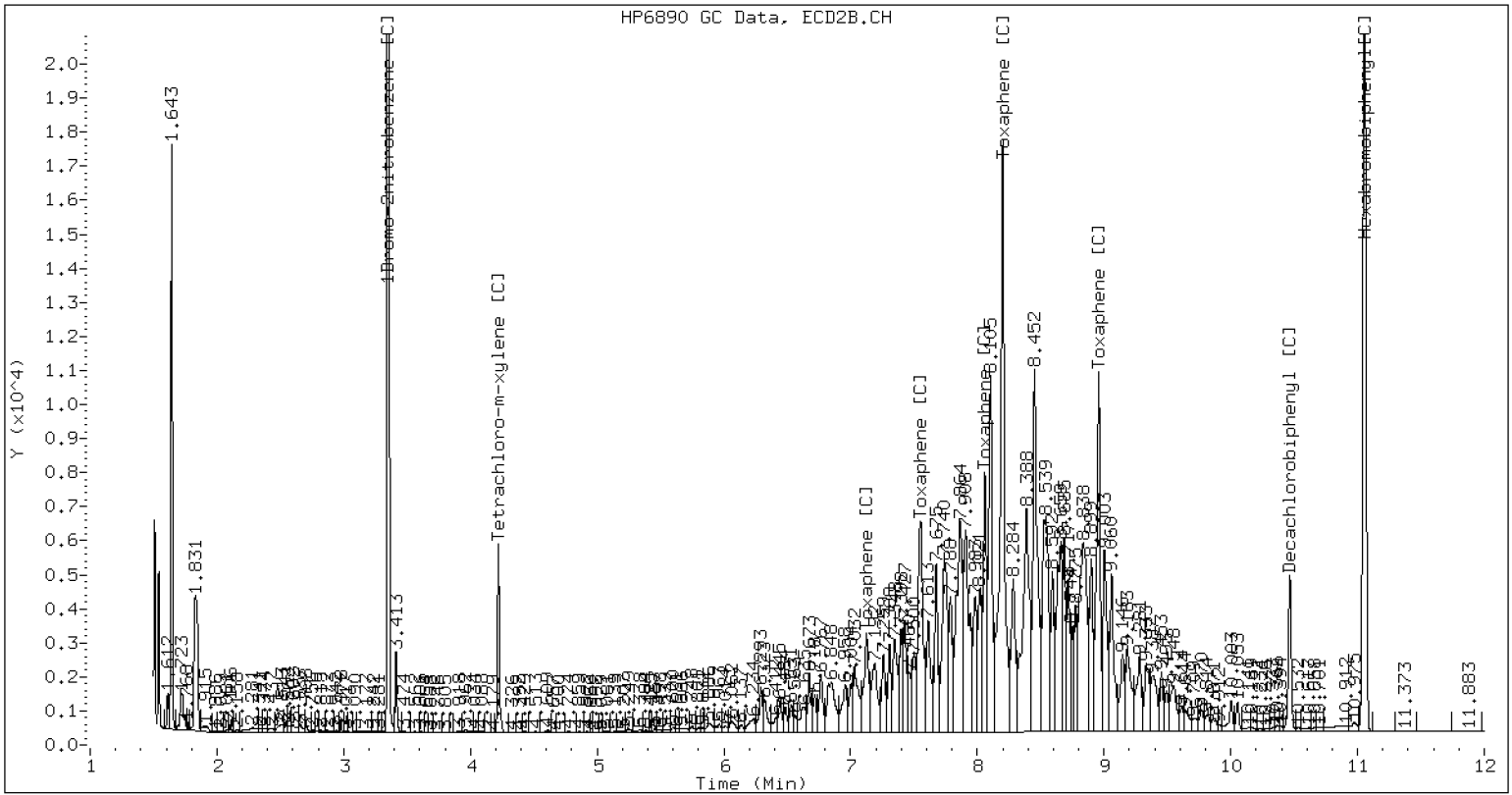
Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	6.931	0.000	192757	1062.0	1	7.125	-0.000	156515	1036.5		
Toxaphene	2	7.303	-0.000	530863	1043.2	2	7.553	-0.001	349637	1029.8		
Toxaphene	3	7.653	-0.000	344194	1049.6	3	8.059	-0.000	265296	1026.5		
Toxaphene	4	7.986	-0.000	522105	1190.6	4	8.201	-0.001	854255	1013.3		
Toxaphene	5	8.082	-0.000	345477	1043.0	5	8.958	-0.001	416452	1007.1		
Total STX-CLPAve (5 peaks):					1077.665	Total CLP2Ave (5 peaks):					1022.630	RPD = 5
Corrected Ave (5 peaks):					1077.665	Corrected Ave (5 peaks):					1022.630	RPD = 5

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20221214.b/B20221214.b/22121431.D SEQ-CALAB CLP2



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121431.D
Data file 2: /20221214.b/B20221214.b/22121431.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAB
Client ID:
Injection Date: 15-DEC-2022 04:22
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col	

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121432.D
 Data file 2: /20221214.b/B20221214.b/22121432.D
 Method: \20221214.b\PEST.m
 Compound Sublist: TOXAPH.sub
 Instrument, Inj. Vol.: ecd6.i, 1ul
 Operator: JGR

ARI ID: SEQ-CALAC
 Client ID:
 Injection Date: 15-DEC-2022 04:40
 Report Date: 12/16/2022 15:20
 Units: ng/mL
 Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.828	0.000	169388	4.221	0.000	273030	18.51	18.69	1.0	Tetrachloro-m-xylene
9.356	0.001	234532	10.466	-0.000	332716	40.53	40.11	1.0	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

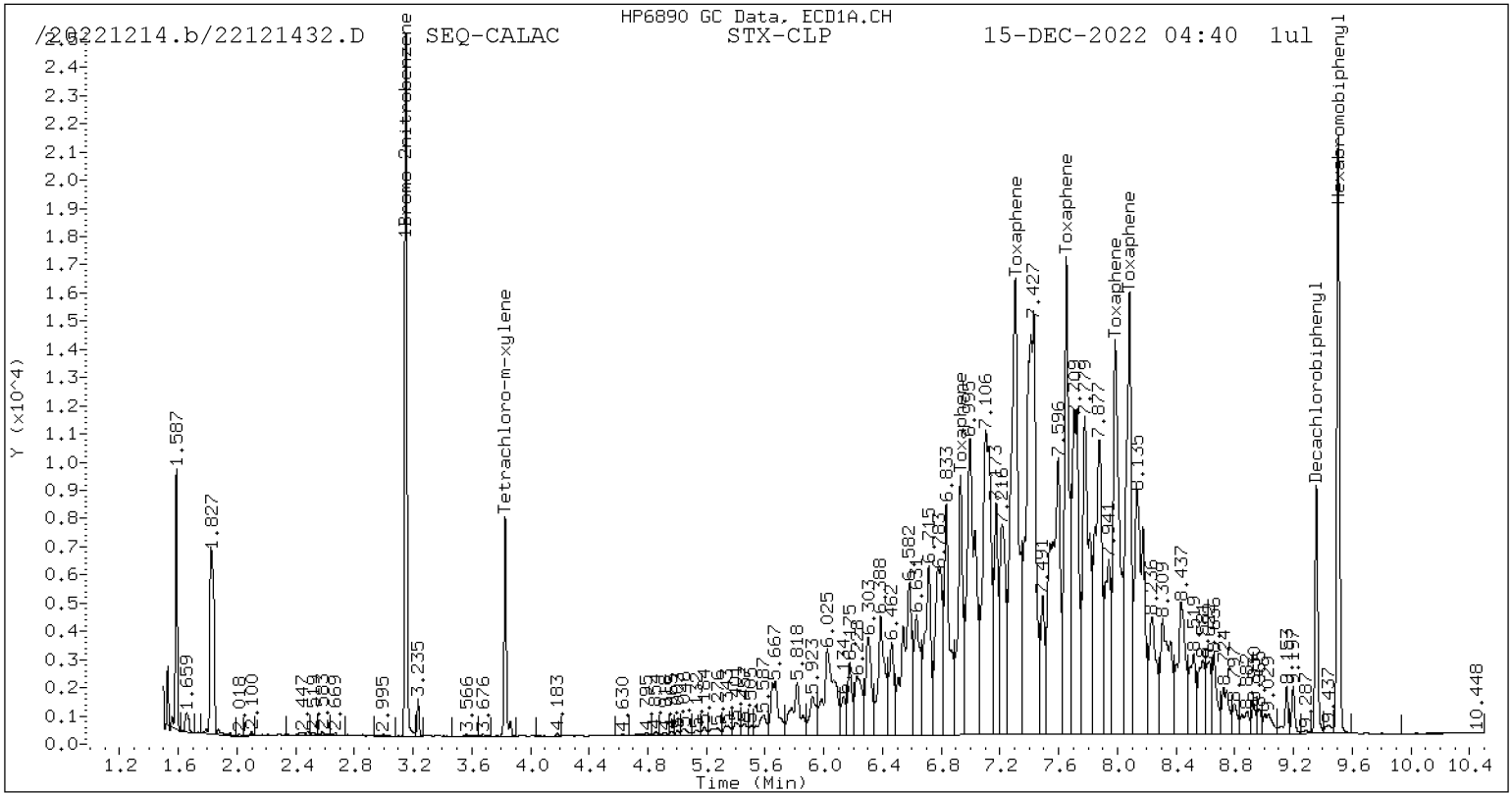
Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	710650	672958	-5.3
Hexabromobiphenyl	641833	571112	-11.0

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	1058848	1037593	-2.0
Hexabromobiphenyl	797125	750492	-5.9

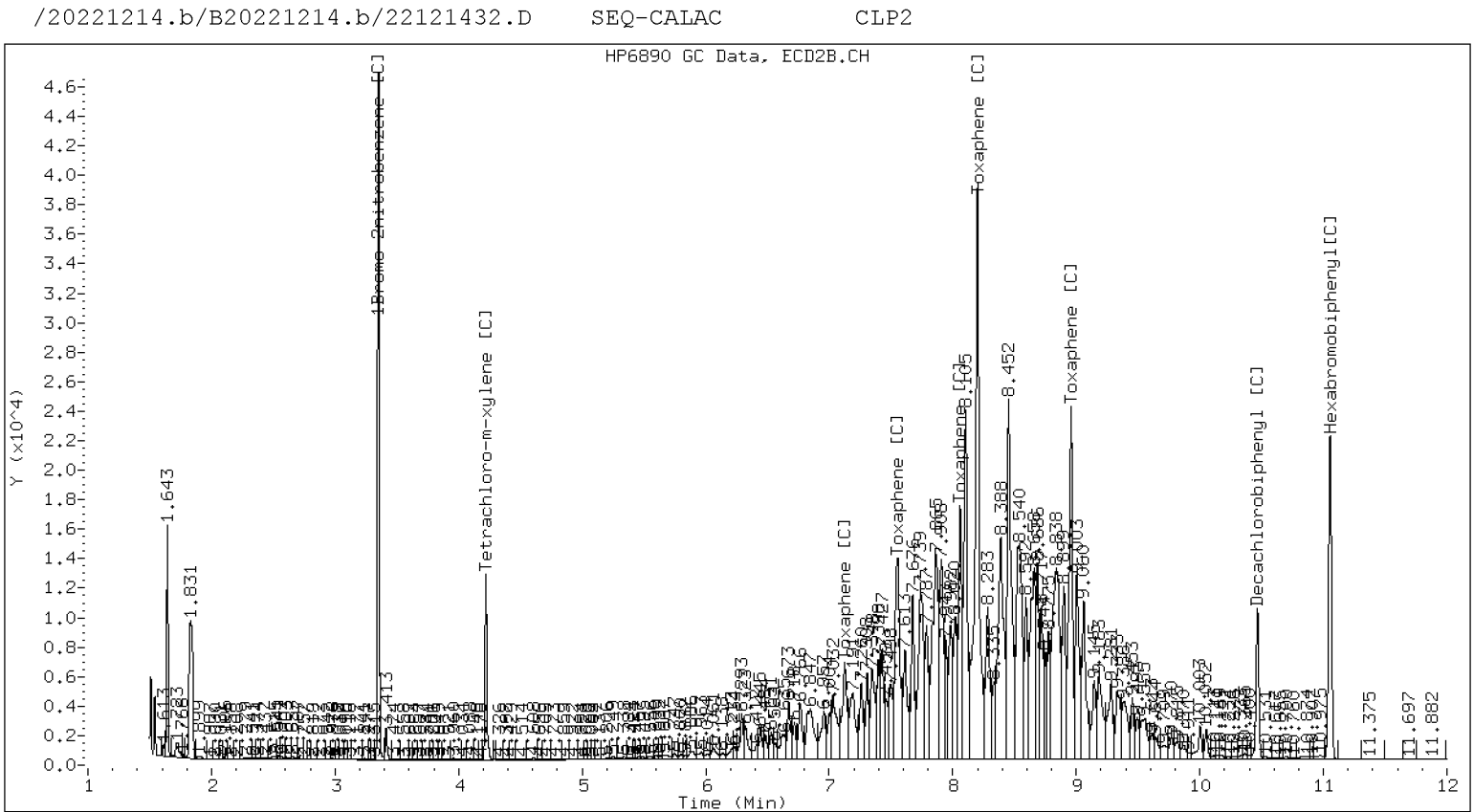
* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 14-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	6.931	0.000	432250	2591.5	1	7.126	-0.000	358061	2539.5		
Toxaphene	2	7.303	0.000	1180375	2524.1	2	7.553	0.000	785942	2479.1		
Toxaphene	3	7.653	0.000	762221	2529.4	3	8.059	-0.000	602985	2498.7		
Toxaphene	4	7.986	0.000	863552	2142.9	4	8.201	-0.001	1929083	2450.8		
Toxaphene	5	8.082	0.000	777497	2554.3	5	8.958	-0.001	962132	2492.0		
Total STX-CLPAve (5 peaks):					2468.427	Total CLP2Ave (5 peaks):					2492.024	RPD = 1
Corrected Ave (5 peaks):					2468.427	Corrected Ave (5 peaks):					2492.024	RPD = 1

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121432.D
Data file 2: /20221214.b/B20221214.b/22121432.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAC
Client ID:
Injection Date: 15-DEC-2022 04:40
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col	CLP2 Col	STX-CLP	CLP2	RPD	Compound/Flag				
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121433.D
Data file 2: /20221214.b/B20221214.b/22121433.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAD
Client ID:
Injection Date: 15-DEC-2022 04:58
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
3.828	-0.000 329284	4.221 0.000 536251	34.78	35.63	2.4	Tetrachloro-m-xylene	
9.356	0.000 464116	10.466 -0.000 660536	76.95	77.19	0.3	Decachlorobiphenyl	

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

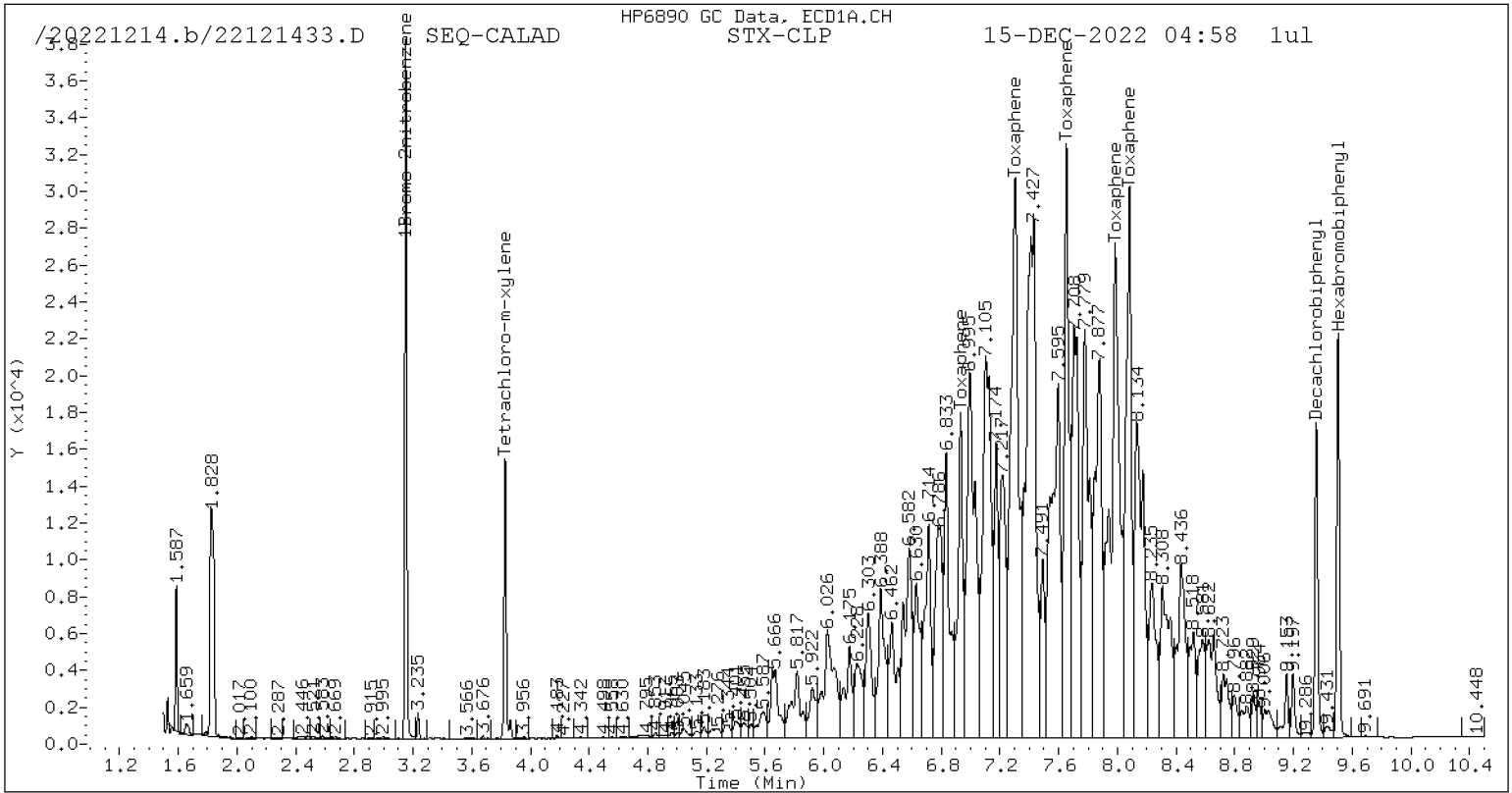
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	696178	-2.0
Hexabromobiphenyl	641833	595287	-7.3

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1069205	1.0
Hexabromobiphenyl	797125	774218	-2.9

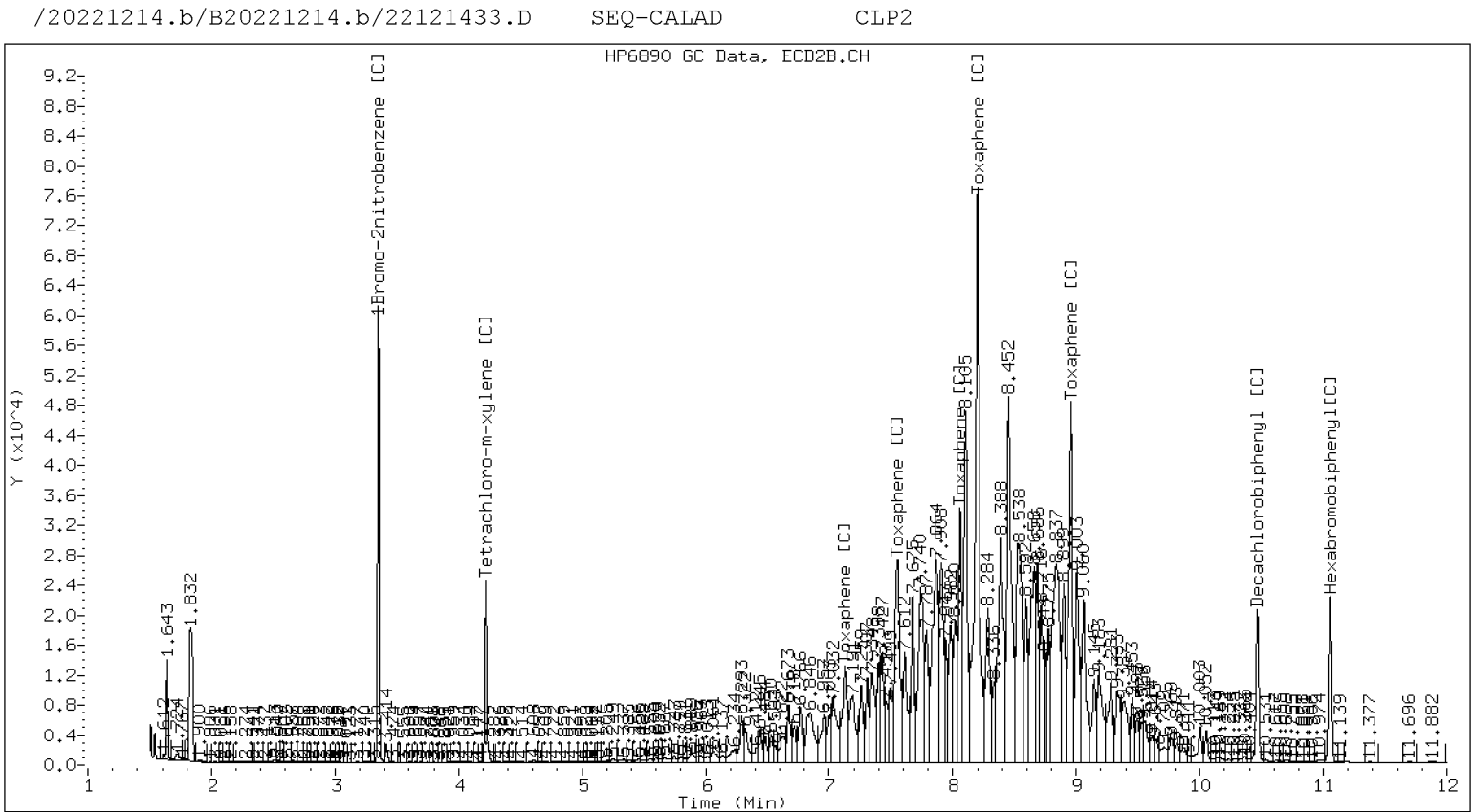
* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 14-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	6.931	0.000	828531	4765.6	1	7.126	-0.000	704213	4841.5		
Toxaphene	2	7.303	-0.000	2275106	4667.4	2	7.554	0.000	1533921	4690.3		
Toxaphene	3	7.653	-0.000	1493693	4755.4	3	8.059	-0.001	1192086	4788.5		
Toxaphene	4	7.986	0.000	2318449	5519.5	4	8.201	-0.001	3835448	4723.4		
Toxaphene	5	8.081	-0.000	1509568	4758.0	5	8.958	-0.000	1957568	4914.8		
Total STX-CLPAve (5 peaks):					4893.192	Total CLP2Ave (5 peaks):					4791.694	RPD = 2
Corrected Ave (5 peaks):					4893.192	Corrected Ave (5 peaks):					4791.694	RPD = 2

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121433.D
Data file 2: /20221214.b/B20221214.b/22121433.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAD
Client ID:
Injection Date: 15-DEC-2022 04:58
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col		CLP2 Col		STX-CLP	CLP2		
RT	Shift Response	RT	Shift Response	on col	on col	RPD	Compound/Flag

=====

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121434.D
Data file 2: /20221214.b/B20221214.b/22121434.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAE
Client ID:
Injection Date: 15-DEC-2022 05:16
Report Date: 12/16/2022 15:20
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col			CLP2 Col			STX-CLP	CLP2	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
3.828	-0.000	626937	4.221	0.000	1016753	65.66	67.54	2.8	Tetrachloro-m-xylene
9.355	0.000	899917	10.467	0.000	1293767	145.37	151.89	4.4	Decachlorobiphenyl

- * Indicates RPD > 40%
- A Indicates Peak Height was used for Column 1 quantitation instead of Area
- B Indicates Peak Height was used for Column 2 quantitation instead of Area
- M Indicates Column 1 peak was manually integrated
- N Indicates Column 2 peak was manually integrated

- ~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

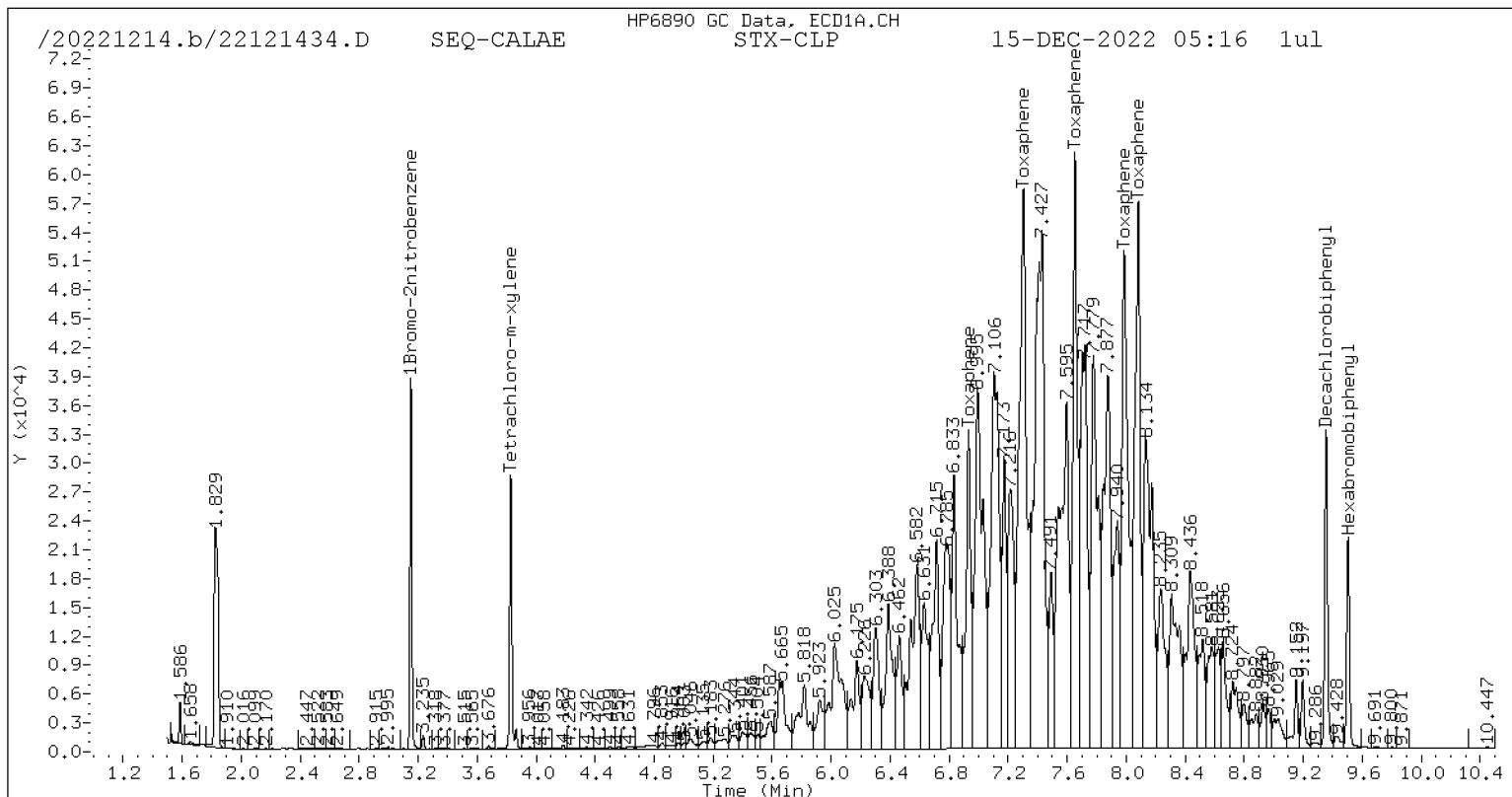
Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	710650	702143	-1.2
Hexabromobiphenyl	641833	610983	-4.8

Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1058848	1069521	1.0
Hexabromobiphenyl	797125	770702	-3.3

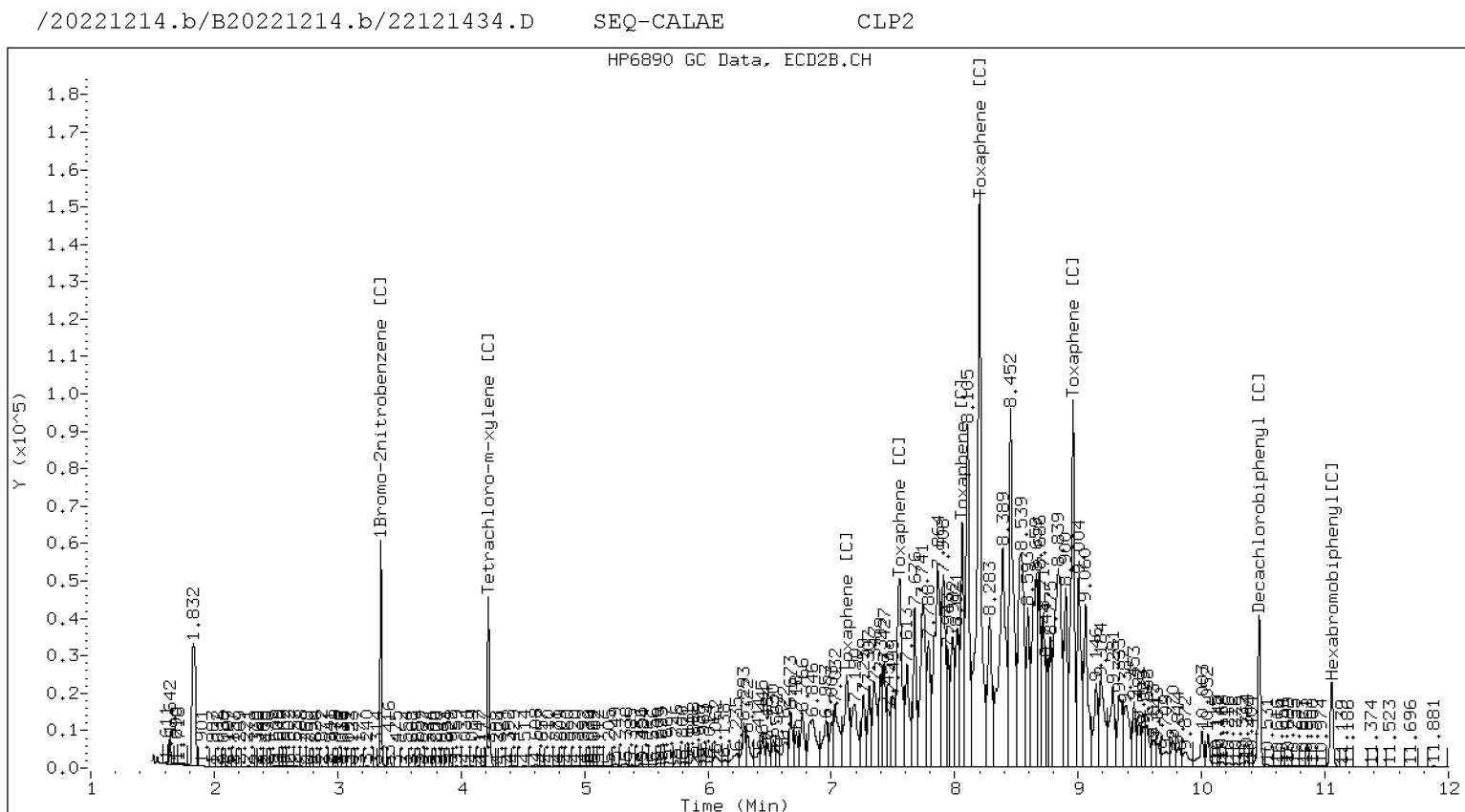
* Standard Areas taken from Initial Cal Level 5
 Initial Calibration Date: 14-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

Cpnd	Peak#	RT	STX-CLP Col			Peak#	RT	CLP2 Col				
			Shift	Height	Amount			Shift	Height	Amount		
Toxaphene	1	6.931	0.000	1553785	8707.6	1	7.126	0.000	1336419	9229.8		
Toxaphene	2	7.303	-0.000	4216546	8428.1	2	7.553	0.000	2900195	8908.4		
Toxaphene	3	7.653	-0.000	2652265	8227.0	3	8.060	0.000	2299294	9278.2		
Toxaphene	4	7.987	0.001	3225164	7480.8	4	8.201	0.000	7496819	9274.6		
Toxaphene	5	8.082	-0.000	2882252	8851.2	5	8.959	0.000	3913616	9870.7		
Total STX-CLPAve (5 peaks):					8338.950	Total CLP2Ave (5 peaks):					9312.318	RPD = 11
Corrected Ave (5 peaks):					8338.950	Corrected Ave (5 peaks):					9312.318	RPD = 11

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO



CLP-2 Manual Integration: NO

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20221214.b/22121434.D
Data file 2: /20221214.b/B20221214.b/22121434.D
Method: \20221214.b\PEST.m
Compound Sublist: TOXAPH.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-CALAE
Client ID:
Injection Date: 15-DEC-2022 05:16
Report Date: 12/15/2022 09:09
Units: ng/mL
Dilution Factor: 1.000

STX-CLP Col		CLP2 Col		STX-CLP	CLP2		
RT	Shift Response	RT	Shift Response	on col	on col	RPD	Compound/Flag

=====



INITIAL CALIBRATION CHECK
EPA 8081B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD6</u>	Calibration:	<u>FL00041</u>
Lab File ID:	<u>23012012.D</u>	Calibration Date:	<u>12/14/2022</u>
Sequence:	<u>SLA0279</u>	Injection Date:	<u>01/20/23</u>
Lab Sample ID:	<u>SLA0279-ICV1</u>	Injection Time:	<u>20:15</u>
Sequence Name:	<u>INDAE</u>		

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Hexachlorobenzene	A	20.000	20.8	1.4298940	1.4902870		4.2	+/-20
Hexachlorobenzene [2C]	A	20.000	19.8	1.4591090	1.4416980		-1.2	+/-20
Decachlorobiphenyl	A	40.000	38.8	0.8105886	0.7862760		-3.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	37.8	0.8841805	0.8356478		-5.5	+/-20
Tetrachlorometaxylene	A	40.000	40.1	1.0879510	1.0903240		0.2	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.4	1.1261070	1.1094550		-1.5	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230120.b/23012012.D
Data file 2: /20230120.b/B20230120.b/23012012.D
Method: \20230120.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-INDAICV1
Client ID:
Injection Date: 20-JAN-2023 20:15
Report Date: 01/24/2023 13:41
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	CLP2 Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag	
4.317	0.003	330819	4.835	0.001	505354	21.32	20.36	4.6	alpha-BHC
4.700	0.004	128491	5.311	0.001	189359	21.51	20.07	6.9	beta-BHC
4.882	0.004	280776	5.663	0.001	369489	22.15	18.08	20.2	delta-BHC
4.618	0.003	285938	5.230	0.001	435270	21.26	20.67	2.8	gamma-BHC (Lindane)
5.100	0.003	268568	5.757	0.001	402910	22.44	21.12	6.1	Heptachlor
5.422	0.004	285174	6.160	0.001	428227	21.26	19.66	7.8	Aldrin
6.096	0.003	245069	6.815	0.000	353734	21.07	19.64	7.0	Heptachlor epoxide b
6.539	0.003	226484	7.258	-0.001	303829	21.22	19.14	10.3	Endosulfan I
6.798	0.003	477076	7.552	-0.001	666707	41.61	38.01	9.0	Dieldrin
6.459	0.004	445257	7.342	-0.000	628092	41.83	39.05	6.9	4,4'-DDE
7.048	0.002	373670	7.877	-0.001	474365	36.90	37.38	1.3	Endrin
7.285	0.003	366965	8.088	-0.000	520063	40.26	39.99	0.7	Endosulfan II
7.106	0.004	374965	7.949	-0.000	506942	41.10	41.07	0.1	4,4'-DDD
8.148	0.002	334035	8.686	-0.001	452962	38.59	39.66	2.7	Endosulfan sulfate
7.398	0.003	388131	8.267	-0.000	518293	42.10	43.51	3.3	4,4'-DDT
7.884	0.003	812194	8.909	-0.000	1090122	198.82	206.79	3.9	Methoxychlor
8.421	0.002	383319	9.210	-0.000	480694	38.66	38.97	0.8	Endrin ketone
7.713	0.002	296720	8.419	-0.000	381491	40.81	41.58	1.9	Endrin aldehyde
6.237	0.003	250399	7.026	0.000	349191	21.20	19.44	8.7	trans-Chlordane
6.384	0.003	244157	7.185	-0.001	334336	20.61	19.03	8.0	cis-Chlordane
2.308	0.000	323621	2.486	-0.000	346080	19.91	14.69	30.2	Hexachlorobutadiene
4.159	0.003	300222	4.695	0.002	446287	20.84	19.76	5.3	Hexachlorobenzene
3.806	0.002	439297	4.199	0.001	686878	40.09	39.41	1.7	Tetrachloro-m-xylene
9.326	0.002	303659	10.429	-0.002	372874	38.80	37.80	2.6	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	672426	805810	19.8
Hexabromobiphenyl	609723	772398	26.7

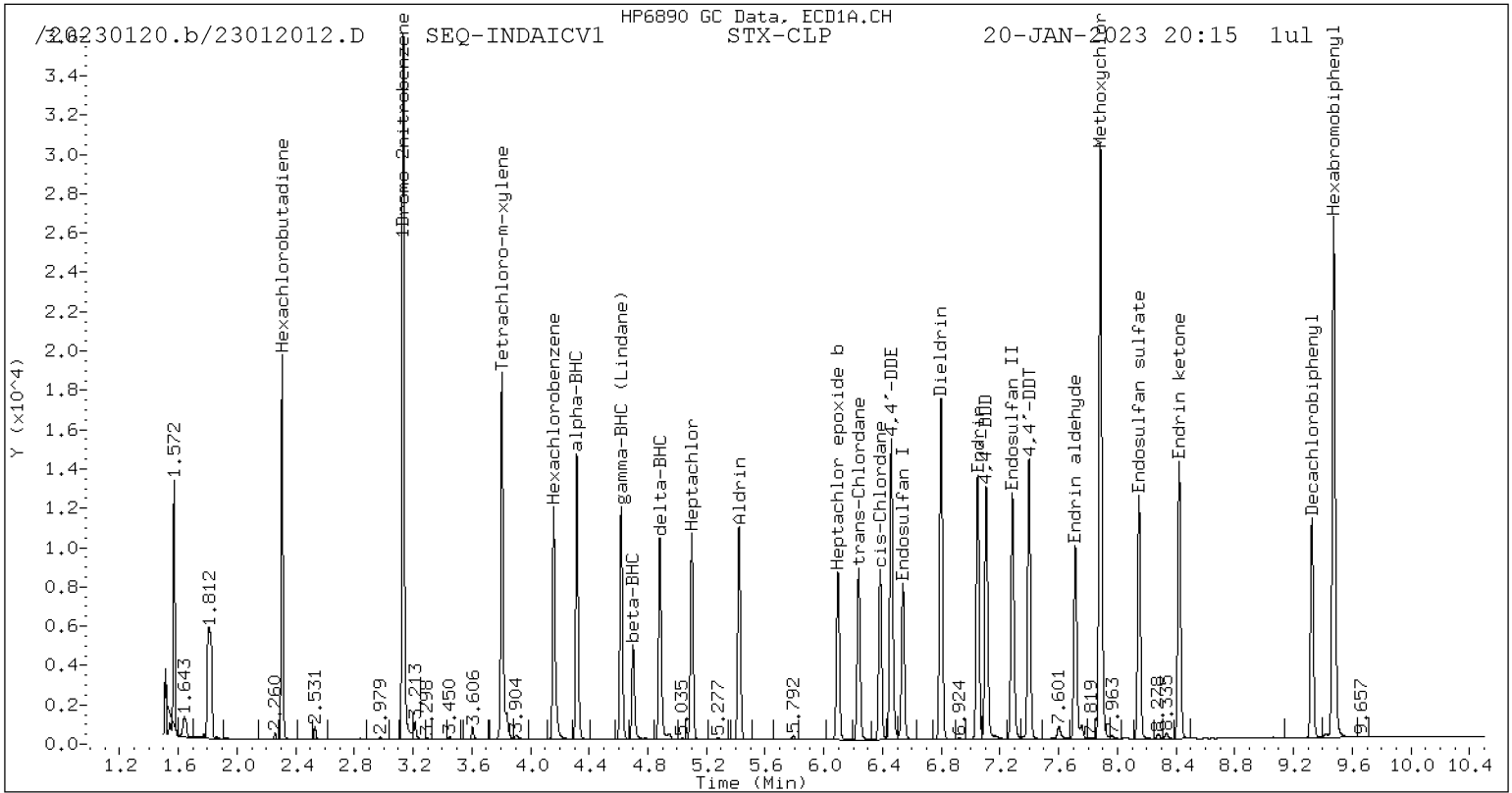
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1006482	1238226	23.0
Hexabromobiphenyl	769764	892419	15.9

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

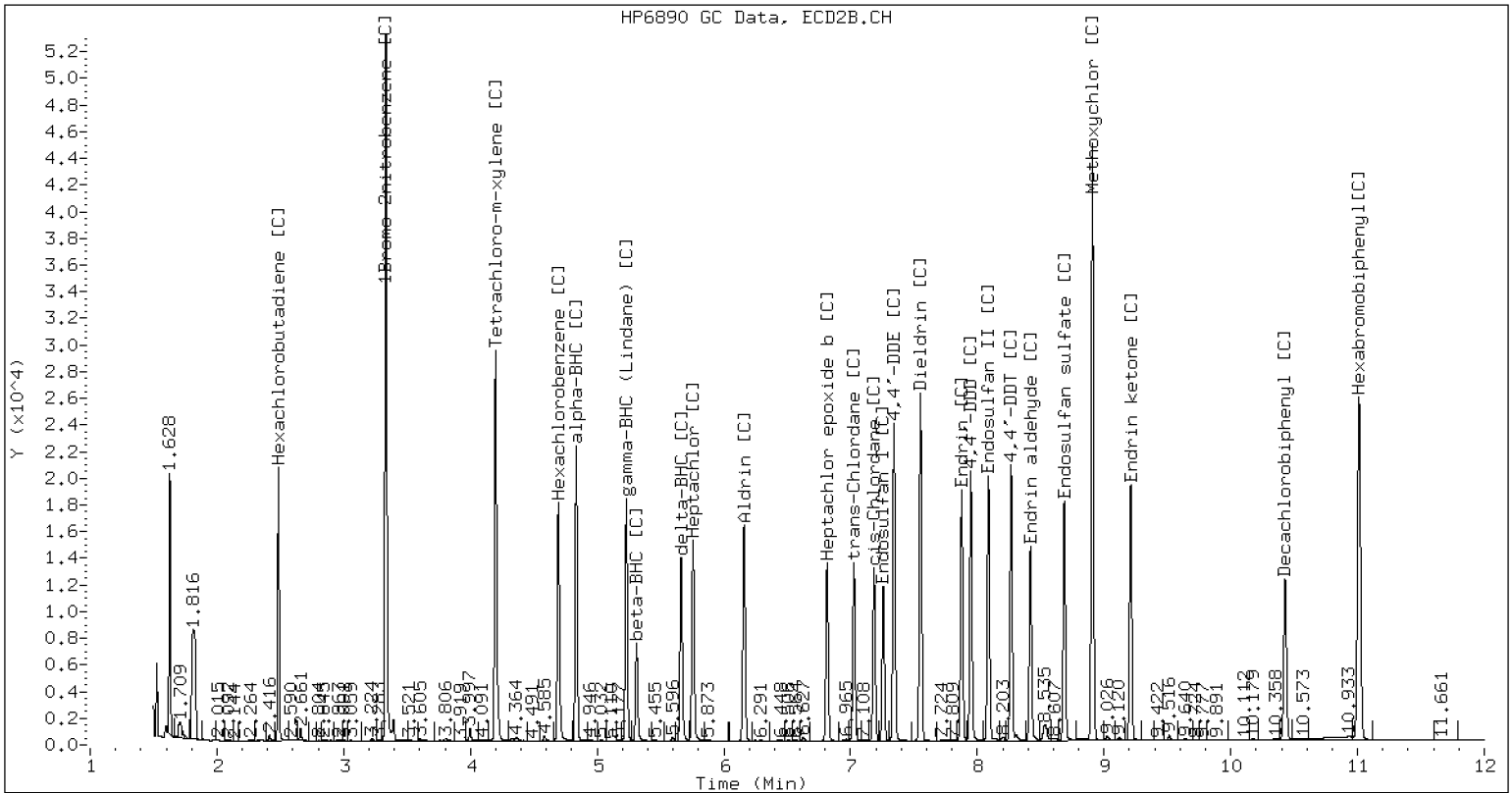
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230120.b/B20230120.b/23012012.D SEQ-INDAICV1 CLP2



CLP-2 Manual Integration: NO



**CONTINUING CALIBRATION CHECK
EPA 8081B**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD6</u>	Calibration:	<u>FL00041</u>
Lab File ID:	<u>23012026.D</u>	Calibration Date:	<u>12/14/2022</u>
Sequence:	<u>SLA0279</u>	Injection Date:	<u>01/21/23</u>
Lab Sample ID:	<u>SLA0279-CCV1</u>	Injection Time:	<u>00:25</u>
Sequence Name:	<u>INDAE</u>		

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Hexachlorobenzene	A	20.000	20.6	1.4298940	1.4735670		3.1	+/-20
Hexachlorobenzene [2C]	A	20.000	19.2	1.4591090	1.3983260		-4.2	+/-20
Decachlorobiphenyl	A	40.000	38.5	0.8105886	0.7793014		-3.9	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.8	0.8841805	0.9010134		1.9	+/-20
Tetrachlorometaxylene	A	40.000	40.2	1.0879510	1.0947380		0.6	+/-20
Tetrachlorometaxylene [2C]	A	40.000	38.8	1.1261070	1.0920840		-3.0	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230120.b/23012026.D
Data file 2: /20230120.b/B20230120.b/23012026.D
Method: \20230120.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-INDACCV1
Client ID:
Injection Date: 21-JAN-2023 00:25
Report Date: 01/24/2023 13:42
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Response	RT	CLP2 Col Shift Response	CLP2 Col Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.317	0.003	330539	4.835	0.001	496889	21.28	19.84	7.0	alpha-BHC
4.700	0.004	124948	5.311	0.001	179711	20.89	18.87	10.2	beta-BHC
4.882	0.004	277049	5.663	0.001	358769	21.82	17.39	22.6	delta-BHC
4.618	0.003	285482	5.230	0.001	419158	21.20	19.72	7.2	gamma-BHC (Lindane)
5.100	0.003	266336	5.757	0.001	367631	22.22	19.09	15.2	Heptachlor
5.422	0.004	280153	6.159	0.000	391462	20.86	17.81	15.8	Aldrin
6.096	0.003	237207	6.815	0.000	319079	20.37	17.55	14.9	Heptachlor epoxide b
6.539	0.004	217386	7.259	-0.000	262018	20.34	16.35	21.7	Endosulfan I
6.798	0.003	459510	7.552	-0.000	576532	40.02	32.57	20.5	Dieldrin
6.459	0.004	434912	7.343	-0.000	541531	40.80	33.36	20.1	4,4'-DDE
7.049	0.003	342284	7.877	-0.000	388941	36.97	35.37	4.4	Endrin
7.285	0.003	349981	8.088	0.000	453997	41.99	40.28	4.2	Endosulfan II
7.107	0.004	356889	7.949	0.000	433340	42.79	40.51	5.5	4,4'-DDD
8.148	0.003	333834	8.686	-0.001	415736	42.18	42.00	0.4	Endosulfan sulfate
7.398	0.003	363655	8.267	0.000	443981	43.15	43.01	0.3	4,4'-DDT
7.885	0.003	787741	8.909	0.000	992135	210.91	217.17	2.9	Methoxychlor
8.422	0.003	371445	9.210	-0.000	450660	40.97	42.16	2.8	Endrin ketone
7.714	0.003	285947	8.419	-0.000	339072	43.01	42.65	0.9	Endrin aldehyde
6.237	0.004	242222	7.026	-0.000	302743	20.48	16.70	20.3	trans-Chlordane
6.384	0.003	235645	7.186	-0.000	288364	19.87	16.26	20.0	cis-Chlordane
2.308	-0.000	326793	2.485	-0.001	348569	20.08	14.65	31.2	Hexachlorobutadiene
4.159	0.003	297262	4.694	0.001	436929	20.61	19.17	7.3	Hexachlorobenzene
3.806	0.003	441682	4.199	0.001	682478	40.25	38.79	3.7	Tetrachloro-m-xylene
9.326	0.002	275169	10.429	-0.001	348407	38.46	40.76	5.8	Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	672426	806918	20.0
Hexabromobiphenyl	609723	706194	15.8

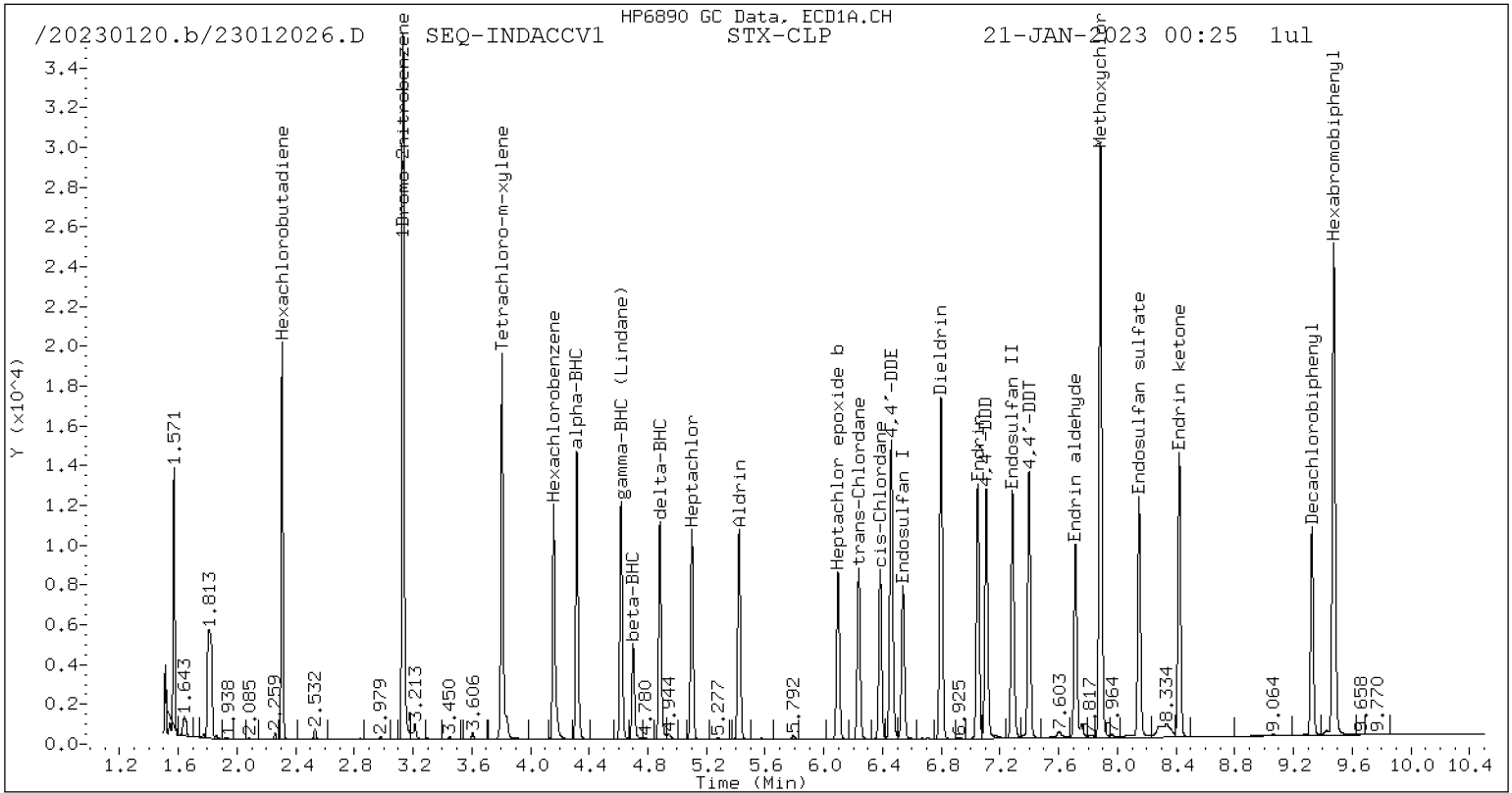
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1006482	1249863	24.2
Hexabromobiphenyl	769764	773367	0.5

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

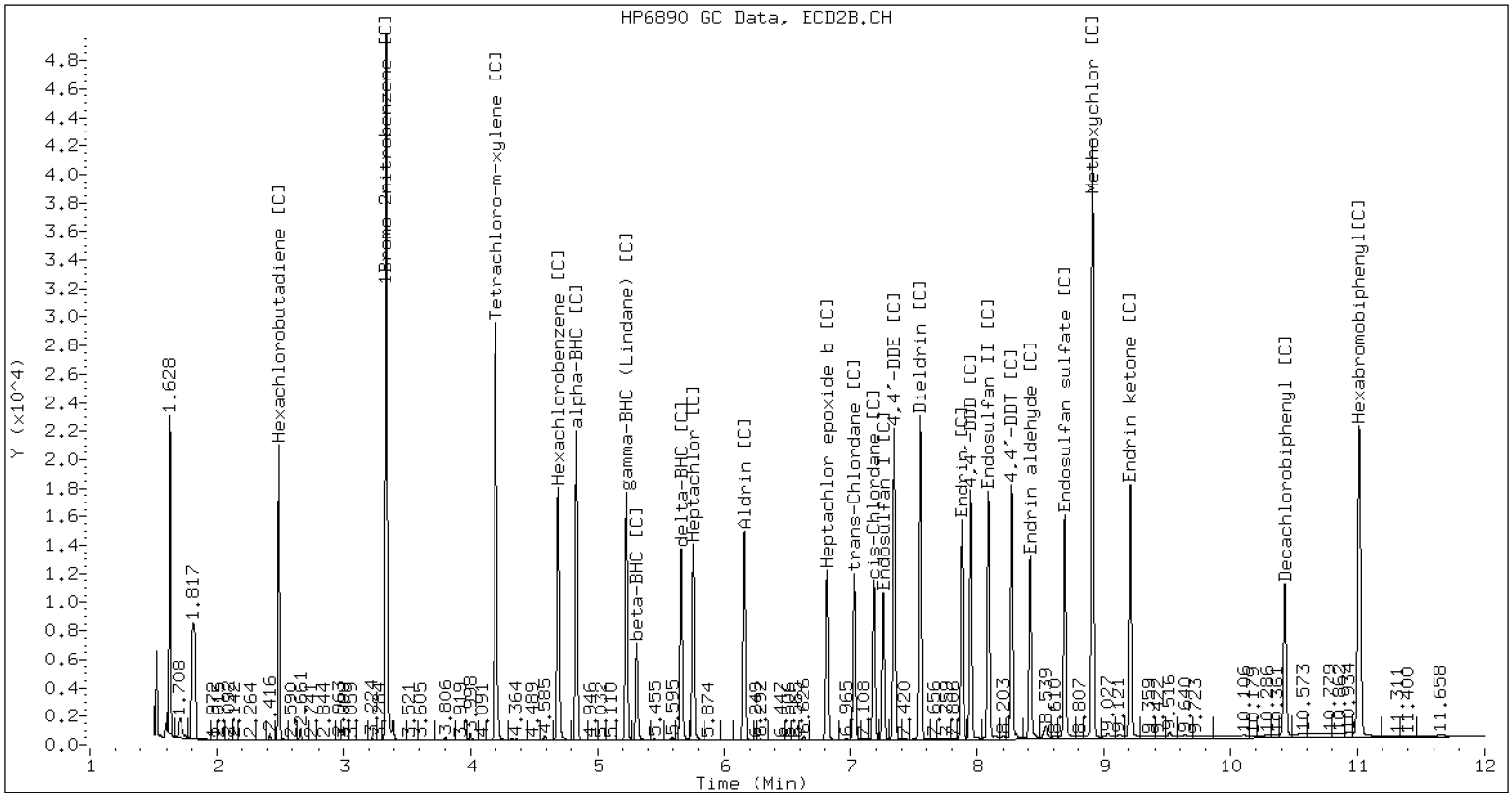
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230120.b/B20230120.b/23012026.D SEQ-INDACCV1 CLP2



CLP-2 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD6</u>	Calibration:	<u>FL00041</u>
Lab File ID:	<u>23012042.D</u>	Calibration Date:	<u>12/14/2022</u>
Sequence:	<u>SLA0279</u>	Injection Date:	<u>01/21/23</u>
Lab Sample ID:	<u>SLA0279-CCV2</u>	Injection Time:	<u>05:10</u>
Sequence Name:	<u>INDAE</u>		

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Hexachlorobenzene	A	20.000	20.4	1.4298940	1.4618330		2.2	+/-20
Hexachlorobenzene [2C]	A	20.000	19.8	1.4591090	1.4433180		-1.1	+/-20
Decachlorobiphenyl	A	40.000	38.3	0.8105886	0.7756756		-4.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.4	0.8841805	0.8488742		-4.0	+/-20
Tetrachlorometaxylene	A	40.000	39.8	1.0879510	1.0830120		-0.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.6	1.1261070	1.1141530		-1.1	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230120.b/23012042.D
Data file 2: /20230120.b/B20230120.b/23012042.D
Method: \20230120.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-INDACCV2
Client ID:
Injection Date: 21-JAN-2023 05:10
Report Date: 01/24/2023 13:43
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	RT	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.316	0.003	339445	4.834	0.000	523625	21.14	20.43 3.4 alpha-BHC
4.699	0.003	129333	5.310	0.000	192357	20.92	19.75 5.8 beta-BHC
4.882	0.003	296995	5.662	0.000	382339	22.63	18.11 22.2 delta-BHC
4.618	0.003	294379	5.230	0.000	441599	21.14	20.31 4.0 gamma-BHC (Lindane)
5.099	0.002	278397	5.756	0.000	403698	22.47	20.49 9.2 Heptachlor
5.421	0.003	288686	6.158	-0.001	420538	20.80	18.70 10.6 Aldrin
6.095	0.002	245740	6.814	-0.001	340270	20.42	18.30 11.0 Heptachlor epoxide b
6.538	0.002	225434	7.258	-0.001	277072	20.41	16.90 18.8 Endosulfan I
6.797	0.002	474289	7.552	-0.001	608562	39.97	33.60 17.3 Dieldrin
6.458	0.004	448252	7.342	-0.000	571199	40.68	34.39 16.8 4,4'-DDE
7.048	0.002	327897	7.876	-0.001	375417	33.99	31.56 7.4 Endrin
7.285	0.003	361389	8.088	-0.000	468705	41.61	38.44 7.9 Endosulfan II
7.106	0.003	369415	7.949	-0.000	462685	42.50	39.98 6.1 4,4'-DDD
8.147	0.002	413080	8.686	-0.001	415378	50.09	38.79 25.4 Endosulfan sulfate
7.398	0.003	372947	8.267	-0.000	478417	42.46	42.83 0.9 4,4'-DDT
7.884	0.003	807344	8.908	-0.000	1031771	207.43	208.75 0.6 Methoxychlor
8.421	0.002	396999	9.210	-0.001	477435	42.02	41.28 1.8 Endrin ketone
7.714	0.002	292599	8.418	-0.001	355805	42.24	41.36 2.1 Endrin aldehyde
6.236	0.003	250330	7.026	-0.001	322297	20.48	17.38 16.4 trans-Chlordane
6.383	0.003	241512	7.185	-0.001	305687	19.70	16.85 15.6 cis-Chlordane
2.308	0.000	335197	2.486	-0.000	364318	19.93	14.97 28.4 Hexachlorobutadiene
4.158	0.002	304817	4.694	0.001	461359	20.45	19.78 3.3 Hexachlorobenzene
3.806	0.002	451653	4.198	0.001	712282	39.82	39.58 0.6 Tetrachloro-m-xylene
9.325	0.002	285418	10.429	-0.002	355135	38.28	38.40 0.3 Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	672426	834068	24.0
Hexabromobiphenyl	609723	735921	20.7

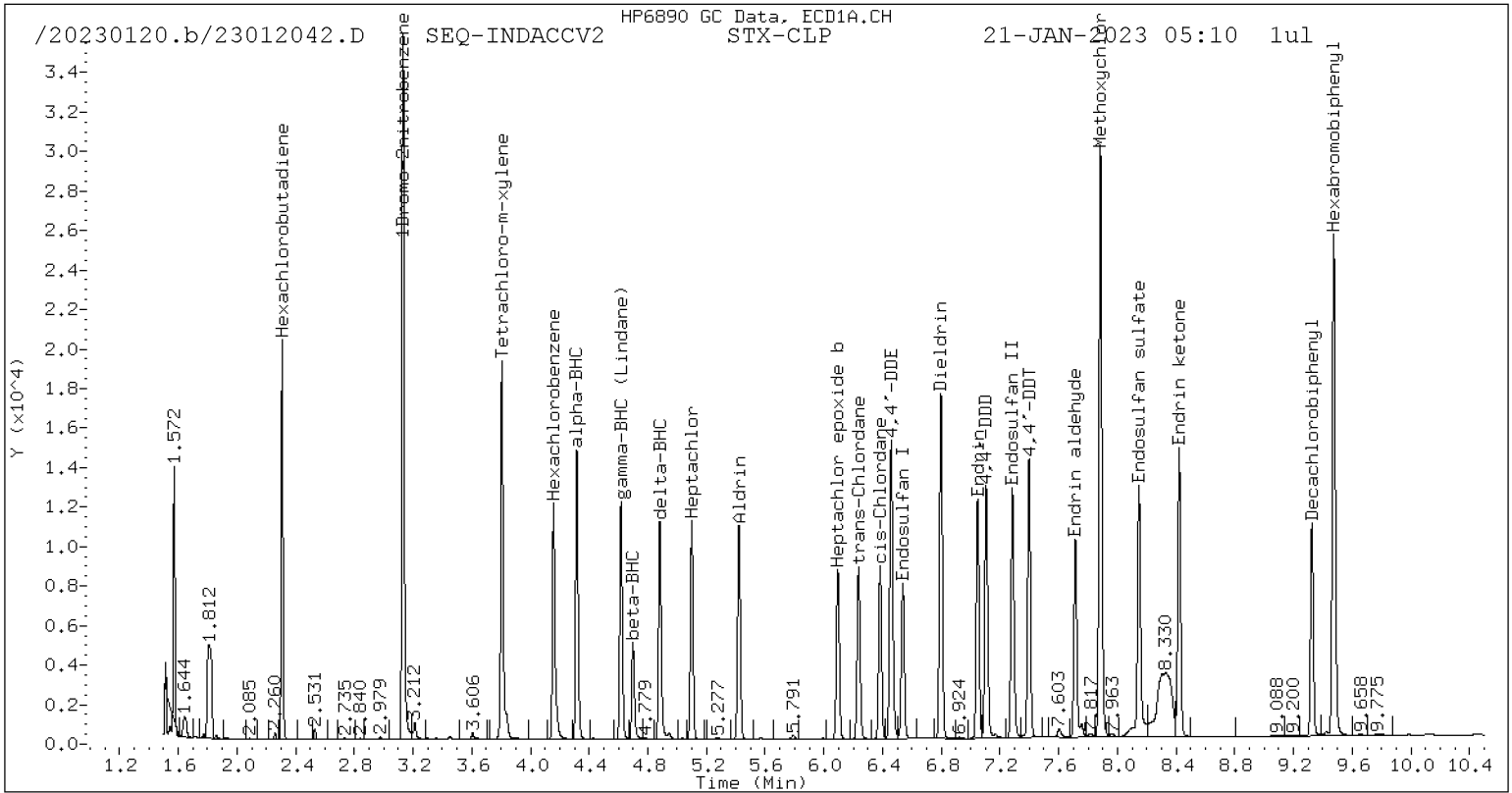
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1006482	1278607	27.0
Hexabromobiphenyl	769764	836720	8.7

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

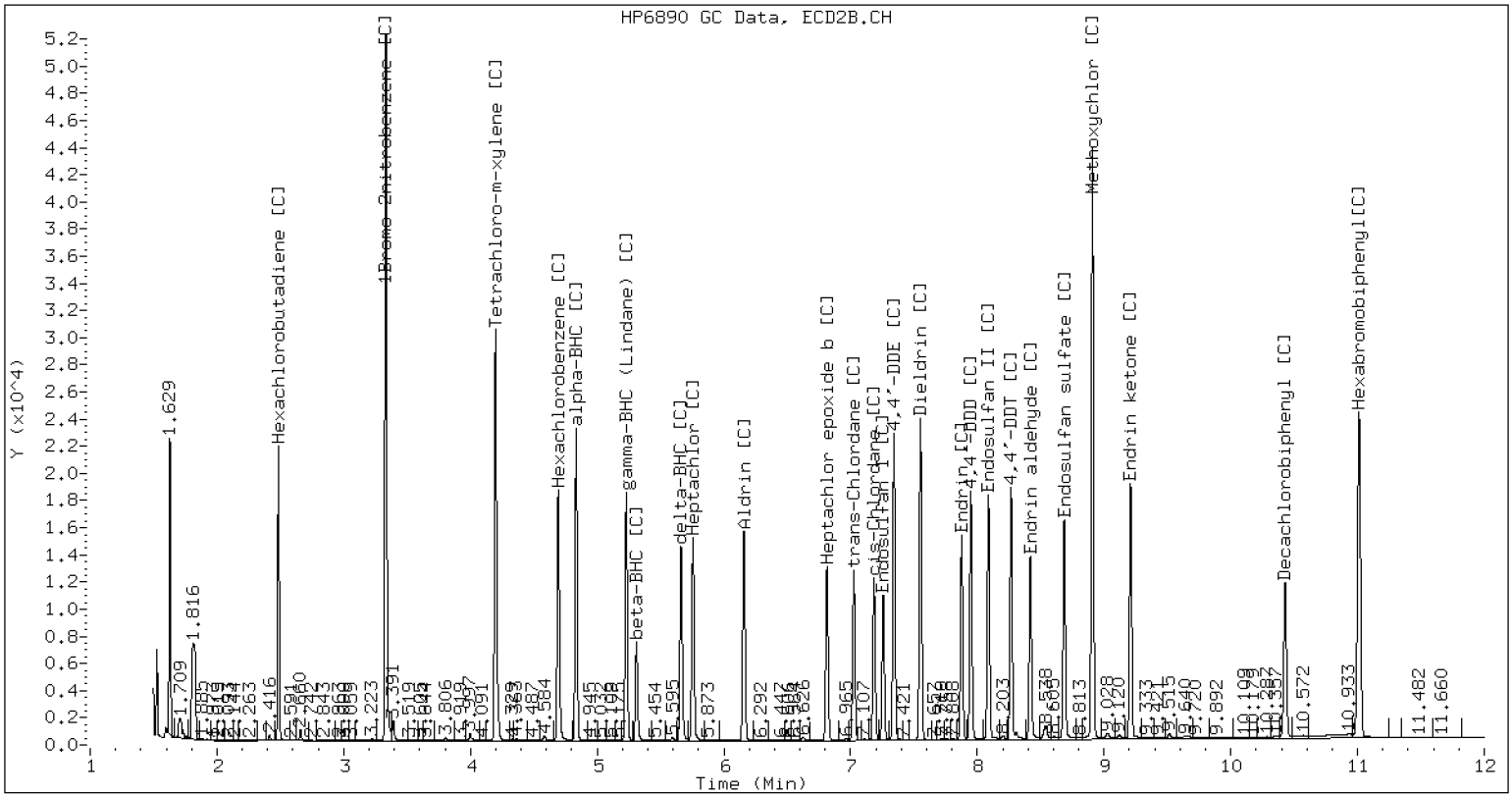
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230120.b/B20230120.b/23012042.D SEQ-INDACCV2 CLP2



CLP-2 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8081B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD6</u>	Calibration:	<u>FL00041</u>
Lab File ID:	<u>23012054.D</u>	Calibration Date:	<u>12/14/2022</u>
Sequence:	<u>SLA0279</u>	Injection Date:	<u>01/21/23</u>
Lab Sample ID:	<u>SLA0279-CCV3</u>	Injection Time:	<u>08:44</u>
Sequence Name:	<u>INDAE</u>		

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Hexachlorobenzene	A	20.000	20.4	1.4298940	1.4574410		1.9	+/-20
Hexachlorobenzene [2C]	A	20.000	19.7	1.4591090	1.4382880		-1.4	+/-20
Decachlorobiphenyl	A	40.000	38.4	0.8105886	0.7775342		-4.1	+/-20
Decachlorobiphenyl [2C]	A	40.000	37.6	0.8841805	0.8320677		-5.9	+/-20
Tetrachlorometaxylene	A	40.000	39.9	1.0879510	1.0859460		-0.2	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.4	1.1261070	1.1083160		-1.6	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 8081 Pesticide Quantitation Report

Data file 1: /20230120.b/23012054.D
Data file 2: /20230120.b/B20230120.b/23012054.D
Method: \20230120.b\PEST.m
Compound Sublist: INDA.sub
Instrument, Inj. Vol.: ecd6.i, 1ul
Operator: JGR

ARI ID: SEQ-INDACCV3
Client ID:
Injection Date: 21-JAN-2023 08:44
Report Date: 01/24/2023 13:44
Units: ng/mL
Dilution Factor: 1.000

RT	STX-CLP Col Shift Response	CLP2 Col Shift Response	STX-CLP on col	CLP2 on col	RPD	Compound/Flag
4.316	0.002	338558	4.834	-0.000	535194	21.02 20.58 2.1 alpha-BHC
4.699	0.003	128011	5.311	0.001	195893	20.64 19.81 4.1 beta-BHC
4.881	0.002	295148	5.662	0.000	396698	22.42 18.52 19.1 delta-BHC
4.617	0.002	292414	5.230	0.000	457582	20.94 20.73 1.0 gamma-BHC (Lindane)
5.099	0.002	275906	5.756	0.000	417389	22.20 20.88 6.2 Heptachlor
5.421	0.003	290308	6.159	-0.000	426098	20.84 18.66 11.0 Aldrin
6.095	0.002	246834	6.814	-0.001	349815	20.44 18.53 9.8 Heptachlor epoxide b
6.538	0.003	226262	7.258	-0.000	297074	20.42 17.86 13.4 Endosulfan I
6.797	0.002	478959	7.552	-0.001	641866	40.23 34.92 14.1 Dieldrin
6.458	0.004	450414	7.342	-0.000	608185	40.75 36.08 12.2 4,4'-DDE
7.047	0.001	310544	7.876	-0.001	380666	31.37 29.87 4.9 Endrin
7.285	0.003	372447	8.088	-0.000	507603	41.80 38.85 7.3 Endosulfan II
7.105	0.003	378221	7.949	-0.000	487970	42.41 39.36 7.5 4,4'-DDD
8.147	0.001	336719	8.686	-0.001	455099	39.80 39.67 0.3 Endosulfan sulfate
7.397	0.002	373718	8.267	-0.000	502556	41.47 42.00 1.3 4,4'-DDT
7.883	0.002	790098	8.909	-0.000	1077115	197.86 203.41 2.8 Methoxychlor
8.421	0.002	401418	9.210	-0.001	505253	41.41 40.78 1.6 Endrin ketone
7.713	0.002	313143	8.419	-0.001	392838	44.06 42.63 3.3 Endrin aldehyde
6.237	0.003	251587	7.026	-0.001	340532	20.51 18.09 12.6 trans-Chlordane
6.382	0.002	242915	7.185	-0.001	326290	19.75 17.72 10.8 cis-Chlordane
2.307	-0.000	336605	2.485	-0.001	369038	19.95 14.94 28.7 Hexachlorobutadiene
4.158	0.002	304878	4.694	0.001	466655	20.39 19.71 3.3 Hexachlorobenzene
3.806	0.002	454332	4.198	0.001	719190	39.93 39.37 1.4 Tetrachloro-m-xylene
9.325	0.002	293525	10.429	-0.001	372934	38.37 37.64 1.9 Decachlorobiphenyl

* Indicates RPD > 40%

A Indicates Peak Height was used for Column 1 quantitation instead of Area

B Indicates Peak Height was used for Column 2 quantitation instead of Area

M Indicates Column 1 peak was manually integrated

N Indicates Column 2 peak was manually integrated

~ Indicates recovery outside QC Limits

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	672426	836749	24.4
Hexabromobiphenyl	609723	755015	23.8

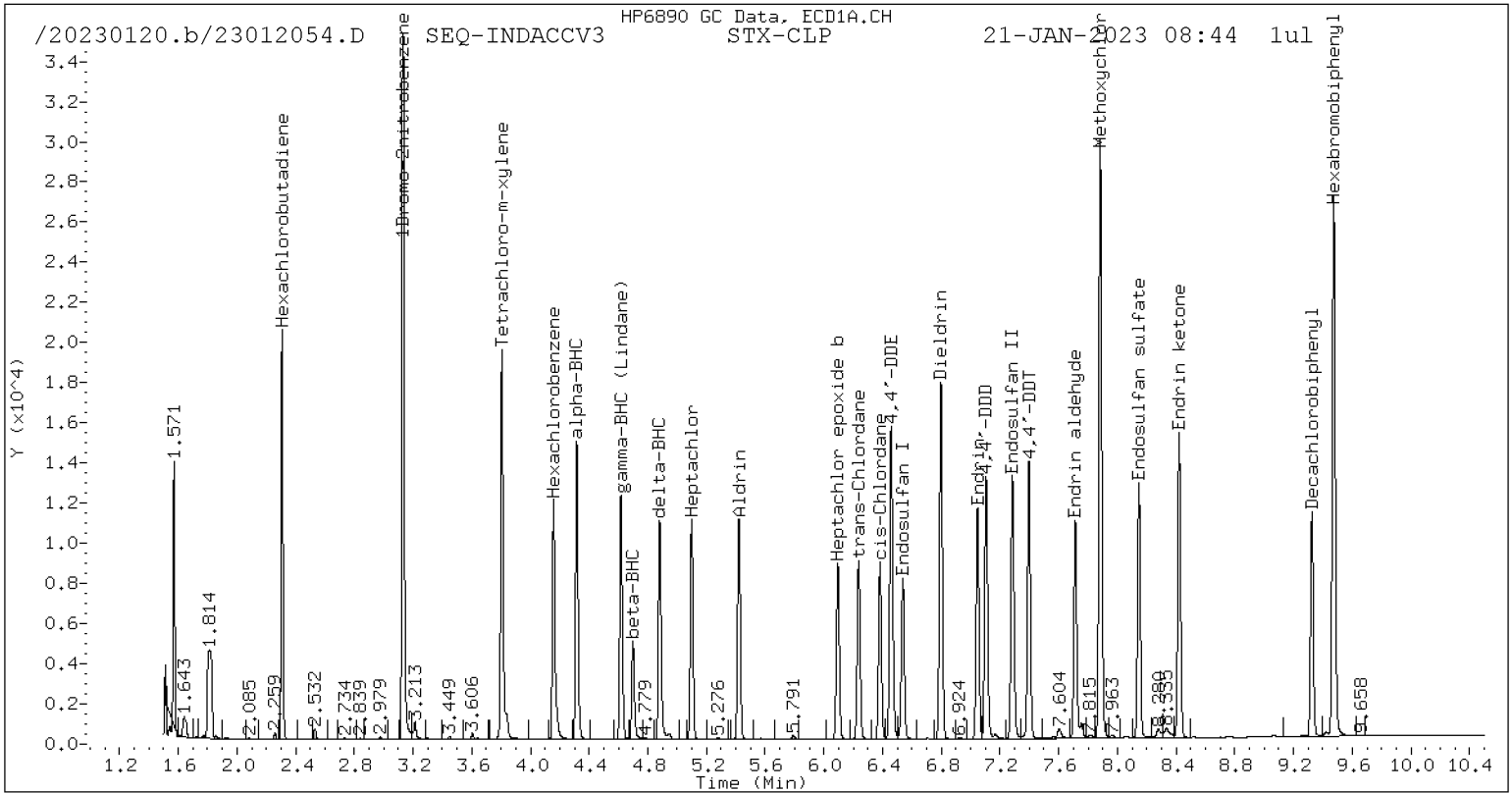
Standard Cpnd	Column 2		%D
	Standard Area*	Sample Area	
Bromo-Nitrobenzene	1006482	1297807	28.9
Hexabromobiphenyl	769764	896403	16.5

* Standard Areas taken from Initial Cal Level 5

Initial Calibration Date: 14-DEC-2022

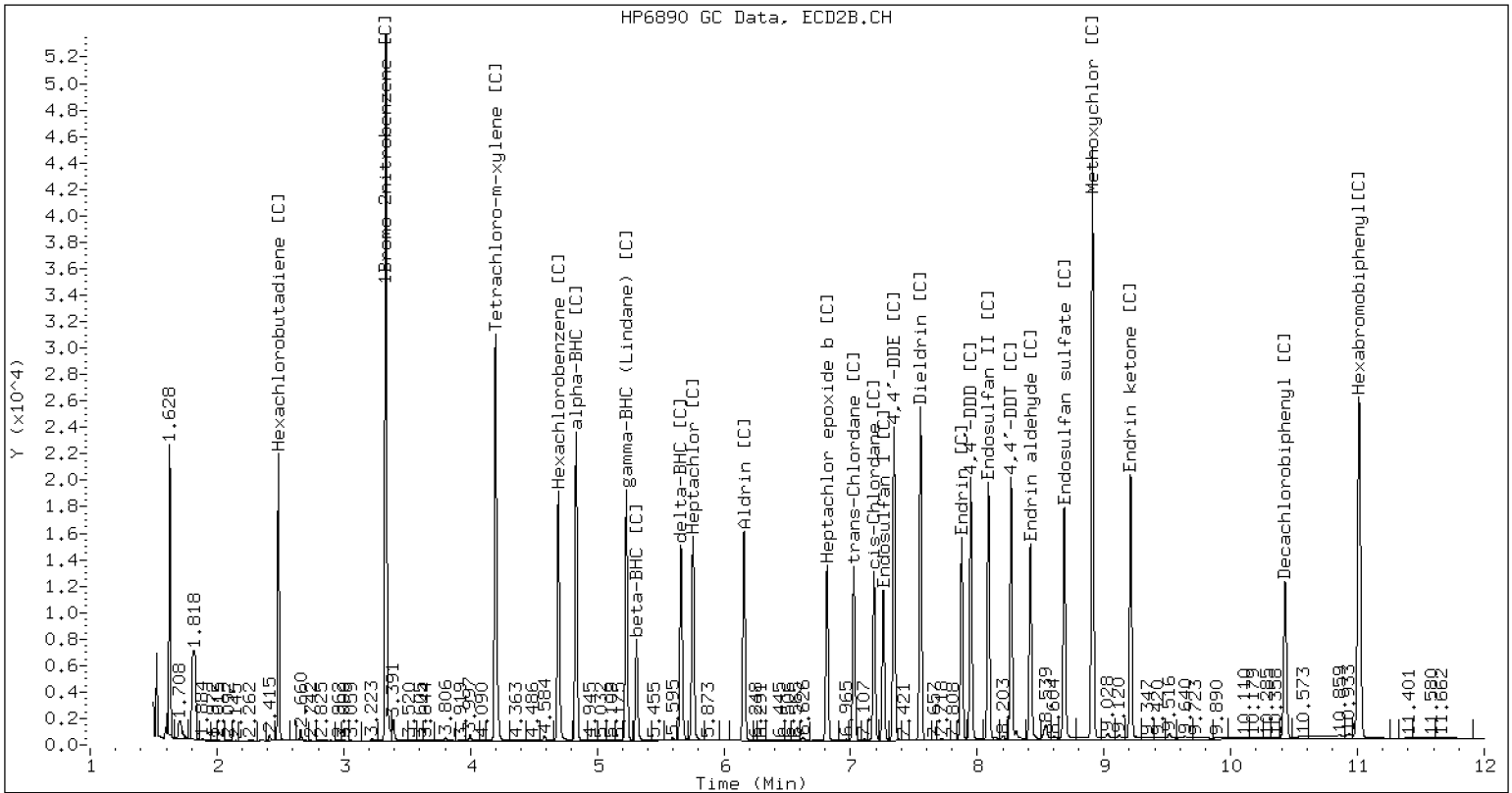
<- Indicates standard response outside Limits (-50 to +100%)

Pesticide Dual Column Chromatograms



STX-CLP Manual Integration: NO

/20230120.b/B20230120.b/23012054.D SEQ-INDACCV3 CLP2



CLP-2 Manual Integration: NO



PERFORMANCE EVALUATION DATA SHEET

DS1

EPA 8081B

Laboratory: Analytical Resources, LLC

Laboratory ID: SKL0233-PEM1

File ID: 22121404.D

Client: Anchor QEA, LLC

Matrix: Water

Instrument: ECD6

Project: AOC5 MR Phase 1

Analyzed: 12/14/2022

Sequence: SKL0233

SDG: 23A0032

Calibration: FL00041

Column: 1

PEM COMPOUND	RT	Response
4,4'-DDE	6.49	6258
Endrin	7.08	745471
4,4'-DDD	7.14	15566
Endrin Aldehyde	7.75	21328
4,4'-DDT	7.43	629664
Endrin Ketone	8.45	19276

4,4'-DDT %Breakdown (1): 3.3

Endrin %Breakdown (1): 5.2



PERFORMANCE EVALUATION DATA SHEET

DS1

EPA 8081B

Laboratory: Analytical Resources, LLC

Laboratory ID: SKL0233-PEM1

File ID: 22121404.D

Client: Anchor QEA, LLC

Matrix: Water

Instrument: ECD6

Project: AOC5 MR Phase 1

Analyzed: 12/14/2022

Sequence: SKL0233

SDG: 23A0032

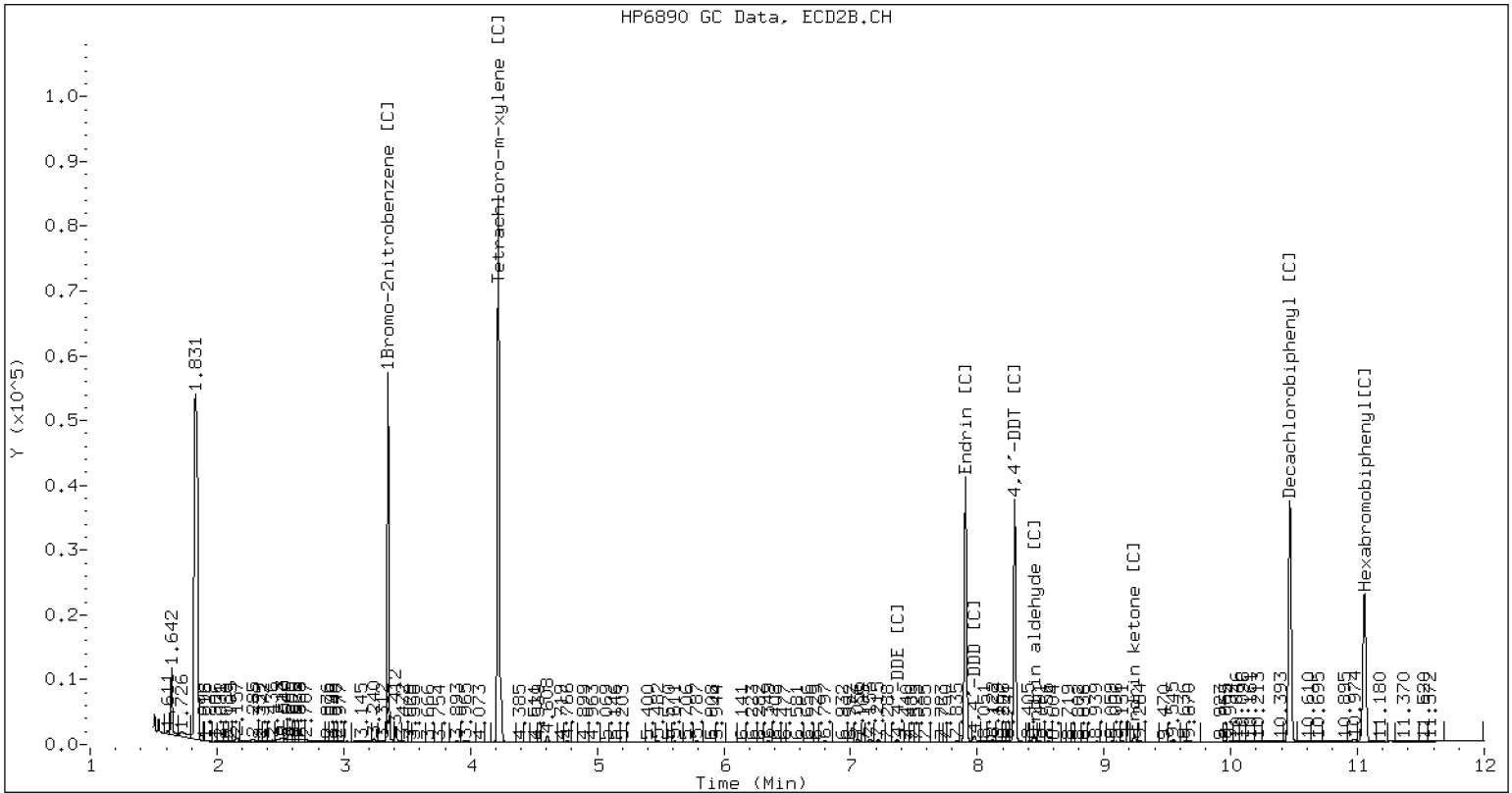
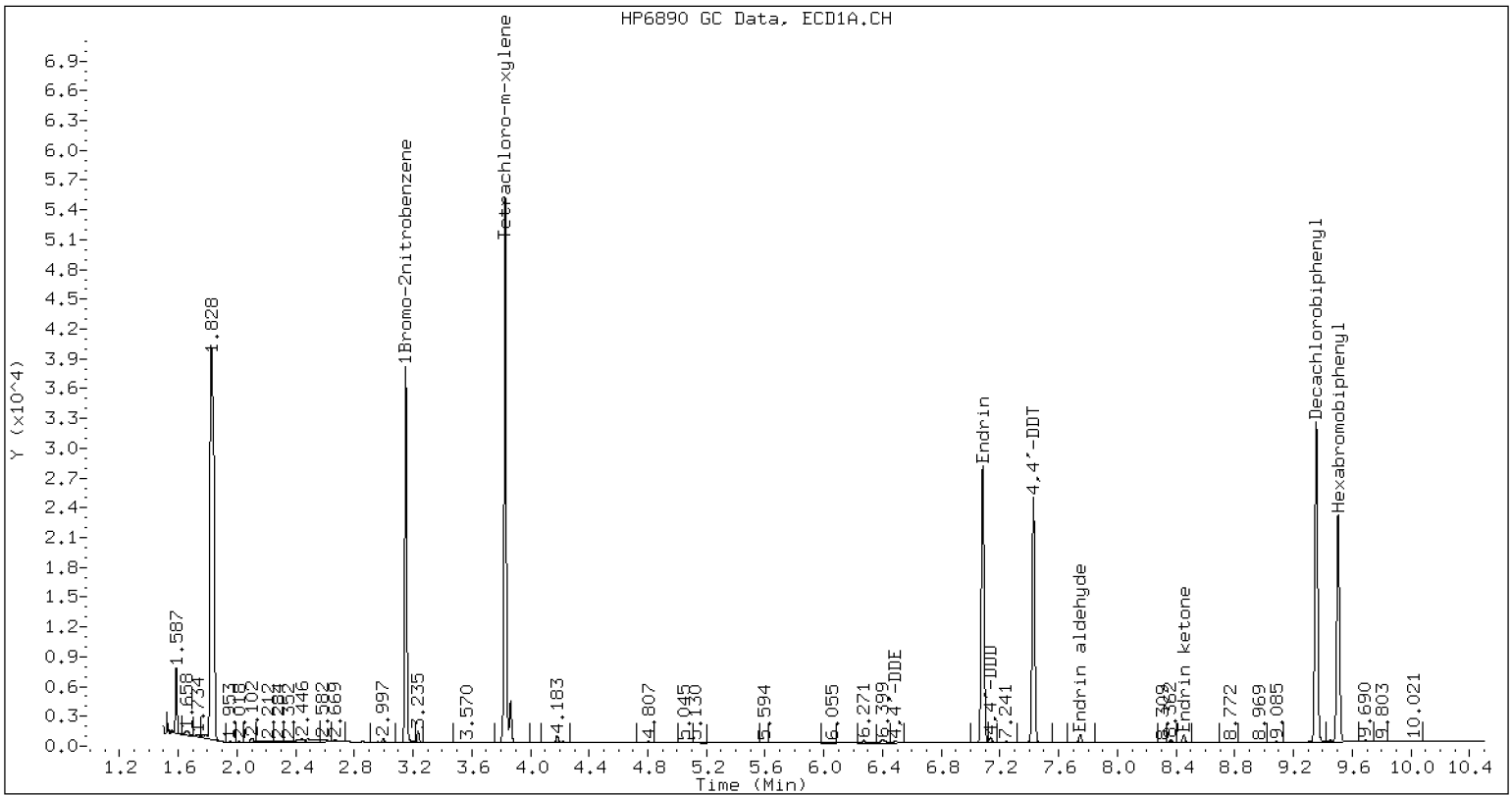
Calibration: FL00041

Column: 2

PEM COMPOUND	RT	Response
4,4'-DDE	7.37	11906
Endrin	7.91	1029194
4,4'-DDD	7.98	32697
Endrin Aldehyde	8.45	31426
4,4'-DDT	8.30	890195
Endrin Ketone	9.24	28268

4,4'-DDT %Breakdown (1): 4.8

Endrin %Breakdown (1): 5.5



7E
8081 DDT/ENDRIN BREAKDOWN VERIFICATION SUMMARY

Lab ID: SEQ-PEM1 InstID,Data File: ecd6.i, 22121404.D
Analysis Date: 14-DEC-2022 20:20 Init. Calib. Date: 14-DEC-2022

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
1Bromo-2nitrobenzene	3.151	683485
4,4'-DDE	6.490	6258
Endrin	7.082	745471
4,4'-DDD	7.136	15566
4,4'-DDT	7.428	629664
Endrin ketone	8.453	19276
Endrin aldehyde	7.747	21328
Hexabromobiphenyl	9.504	619012
Tetrachloro-m-xylene	3.828	1161664
Decachlorobiphenyl	9.355	833312

DDT Percent Breakdown = 3.3 %
 $((6258+15566) * 100)/(6258+15566+629664)$

Endrin Percent Breakdown = 5.2 %
 $((21328+19276) * 100)/(21328+19276+745471)$

GC Column: STX-CLP1 ID: 0.53(mm)

COMPOUND	RT	AREA
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312

Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312
Decachlorobiphenyl	9.355	833312



Dual Column
ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SKL0233

Instrument: ECD6

Calibration: FL00041

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Performance Mix	SKL0233-PEM1	22121404.D	22121404.D	NA	12/14/22 20:20
Cal Standard	SKL0233-CAL1	22121405.D	22121405.D	NA	12/14/22 20:38
Cal Standard	SKL0233-CAL2	22121406.D	22121406.D	NA	12/14/22 20:56
Cal Standard	SKL0233-CAL3	22121407.D	22121407.D	NA	12/14/22 21:14
Cal Standard	SKL0233-CAL4	22121408.D	22121408.D	NA	12/14/22 21:31
Cal Standard	SKL0233-CAL5	22121409.D	22121409.D	NA	12/14/22 21:49
Cal Standard	SKL0233-CAL6	22121410.D	22121410.D	NA	12/14/22 22:07
Cal Standard	SKL0233-CAL7	22121411.D	22121411.D	NA	12/14/22 22:25
Cal Standard	SKL0233-CAL8	22121412.D	22121412.D	NA	12/14/22 22:43
Cal Standard	SKL0233-CAL9	22121413.D	22121413.D	NA	12/14/22 23:01
Cal Standard	SKL0233-CALA	22121414.D	22121414.D	NA	12/14/22 23:19
Cal Standard	SKL0233-CALB	22121415.D	22121415.D	NA	12/14/22 23:36
Cal Standard	SKL0233-CALC	22121416.D	22121416.D	NA	12/14/22 23:54
Cal Standard	SKL0233-CALD	22121417.D	22121417.D	NA	12/15/22 00:12
Cal Standard	SKL0233-CALE	22121418.D	22121418.D	NA	12/15/22 00:30



ANALYSIS SEQUENCE

SKL0233

Instrument: ECD6
Calibration ID: FL00041

Element Column ID:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SKL0233-PEM1	DS1	QC		1	K007286	K006953		
SKL0233-CAL1	INDAA	QC		2	K011594	K006953		
SKL0233-CAL2	INDAB	QC		3	K011593	K006953		
SKL0233-CAL3	INDAC	QC		4	K011592	K006953		
SKL0233-CAL4	INDAD	QC		5	K011591	K006953		
SKL0233-CAL5	INDAE	QC		6	K011590	K006953		
SKL0233-CAL6	INDAF	QC		7	K011589	K006953		
SKL0233-CAL7	INDAG	QC		8	K011463	K006953		
SKL0233-CAL8	WNDA	QC		9	K011595	K006953		
SKL0233-CAL9	WNDB	QC		10	K007148	K006953		
SKL0233-CALA	WNDC	QC		11	K007147	K006953		
SKL0233-CALB	WNDD	QC		12	K007146	K006953		
SKL0233-CALC	WNDE	QC		13	K007145	K006953		
SKL0233-CALD	WPDF	QC		14	K007144	K006953		
SKL0233-CALE	WNDG	QC		15	K007093	K006953		
SKL0233-CALM	NOS1	QC		16	K007375	K006953		
SKL0233-CALN	NOS2	QC		17	K007374	K006953		
SKL0233-CALO	NOS3	QC		18	K007373	K006953		
SKL0233-CALP	NOS4	QC		19	K007372	K006953		
SKL0233-CALQ	NOS5	QC		20	K007371	K006953		
SKL0233-CALR	NOS6	QC		21	K007370	K006953		
SKL0233-CALS	NOS7	QC		22	K007287	K006953		



ANALYSIS SEQUENCE

SKL0233

Instrument: ECD6
Calibration ID: FL00041

Element Column ID:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SKL0233-CALF	TOXAPH1	QC		23	K011601	K006953		
SKL0233-CALG	TOXAPH2	QC		24	K011600	K006953		
SKL0233-CALH	TOXAPH3	QC		25	K011599	K006953		
SKL0233-CALI	TOXAPH4	QC		26	K011598	K006953		
SKL0233-CALJ	TOXAPH5	QC		27	K011597	K006953		
SKL0233-CALK	TOXAPH6	QC		28	K011596	K006953		
SKL0233-CALL	TOXAPH7	QC		29	K008546	K006953		

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	14-DEC-2022	19:27	22121401.D	1	RINSE	
2	14-DEC-2022	19:44	22121402.D	1	RINSE	
3	14-DEC-2022	20:02	22121403.D	1	SEQ-IBL1	
4	14-DEC-2022	20:20	22121404.D	1	SEQ-PEM1	
5	14-DEC-2022	20:38	22121405.D	1	SEQ-CAL1	
6	14-DEC-2022	20:56	22121406.D	1	SEQ-CAL2	
7	14-DEC-2022	21:14	22121407.D	1	SEQ-CAL3	
8	14-DEC-2022	21:31	22121408.D	1	SEQ-CAL4	
9	14-DEC-2022	21:49	22121409.D	1	SEQ-CAL5	
10	14-DEC-2022	22:07	22121410.D	1	SEQ-CAL6	
11	14-DEC-2022	22:25	22121411.D	1	SEQ-CAL7	
12	14-DEC-2022	22:43	22121412.D	1	SEQ-CAL8	
13	14-DEC-2022	23:01	22121413.D	1	SEQ-CAL9	
14	14-DEC-2022	23:19	22121414.D	1	SEQ-CALA	
15	14-DEC-2022	23:36	22121415.D	1	SEQ-CALB	
16	14-DEC-2022	23:54	22121416.D	1	SEQ-CALC	
17	15-DEC-2022	00:12	22121417.D	1	SEQ-CALD	
18	15-DEC-2022	00:30	22121418.D	1	SEQ-CALE	
19	15-DEC-2022	00:48	22121419.D	1	SEQ-SCV1	
20	15-DEC-2022	01:06	22121420.D	1	SEQ-SCV2	
21	15-DEC-2022	01:24	22121421.D	1	SEQ-CAL1A	
22	15-DEC-2022	01:42	22121422.D	1	SEQ-CAL2A	
23	15-DEC-2022	01:59	22121423.D	1	SEQ-CAL3A	
24	15-DEC-2022	02:17	22121424.D	1	SEQ-CAL4A	
25	15-DEC-2022	02:35	22121425.D	1	SEQ-CAL5A	
26	15-DEC-2022	02:53	22121426.D	1	SEQ-CAL6A	
27	15-DEC-2022	03:11	22121427.D	1	SEQ-CAL7A	
28	15-DEC-2022	03:29	22121428.D	1	SEQ-CAL8A	
29	15-DEC-2022	03:46	22121429.D	1	SEQ-CAL9A	
30	15-DEC-2022	04:04	22121430.D	1	SEQ-CALAA	
31	15-DEC-2022	04:22	22121431.D	1	SEQ-CALAB	
32	15-DEC-2022	04:40	22121432.D	1	SEQ-CALAC	
33	15-DEC-2022	04:58	22121433.D	1	SEQ-CALAD	
34	15-DEC-2022	05:16	22121434.D	1	SEQ-CALAE	
35	15-DEC-2022	05:33	22121435.D	1	SEQ-PEM2	
36	15-DEC-2022	05:51	22121436.D	1	SEQ-ICV1	
37	15-DEC-2022	06:09	22121437.D	1	SEQ-ICV2	
38	15-DEC-2022	06:27	22121438.D	1	SEQ-ICV3	
39	15-DEC-2022	06:45	22121439.D	1	SEQ-ICV4	
40	15-DEC-2022	07:03	22121440.D	1	BKK0688-BLK1	
41	15-DEC-2022	07:21	22121441.D	1	BKK0688-BS1	
42	15-DEC-2022	07:39	22121442.D	1	BKK0688-BS2	
43	15-DEC-2022	07:57	22121443.D	1	BKK0688-BS3	
44	15-DEC-2022	08:15	22121444.D	1	BKK0688-BSD1	
45	15-DEC-2022	08:32	22121445.D	1	BKK0142-BLK1	
46	15-DEC-2022	08:50	22121446.D	1	BKK0142-BS1	
47	15-DEC-2022	09:08	22121447.D	1	BKK0142-BS2	
48	15-DEC-2022	09:26	22121448.D	1	BKK0142-BSD1	
49	15-DEC-2022	09:44	22121449.D	1	BKK0142-MS1	
50	15-DEC-2022	10:02	22121450.D	1	BKK0142-MSD1	

	Inject Date/Time	Filename	DF	LabID	ClientID
51	15-DEC-2022 10:20	22121451.D	1	22J0513-01	
52	15-DEC-2022 10:38	22121452.D	1	22J0513-04	
53	15-DEC-2022 10:55	22121453.D	1	22J0535-01	
54	15-DEC-2022 11:13	22121454.D	1	22K0429-01	
55	15-DEC-2022 11:31	22121455.D	1	22K0429-02	
56	15-DEC-2022 11:49	22121456.D	1	22K0429-03	
57	15-DEC-2022 12:07	22121457.D	1	SEQ-PEM3	
58	15-DEC-2022 12:25	22121458.D	1	SEQ-CCV1	
59	15-DEC-2022 12:43	22121459.D	1	SEQ-CCV2	
60	15-DEC-2022 13:01	22121460.D	1	SEQ-CCV3	
61	15-DEC-2022 13:19	22121461.D	1	SEQ-CCV4	
62	15-DEC-2022 13:36	22121462.D	1	BKK0380-BLK1	
63	15-DEC-2022 13:54	22121463.D	1	BKK0380-BS1	
64	15-DEC-2022 14:12	22121464.D	1	BKK0380-BSD1	
65	15-DEC-2022 14:30	22121465.D	1	22K0157-01	
66	15-DEC-2022 14:48	22121466.D	1	22K0230-01	
67	15-DEC-2022 15:06	22121467.D	1	22K0231-01	
68	15-DEC-2022 15:24	22121468.D	1	BKK0382-BLK1	
69	15-DEC-2022 15:42	22121469.D	1	BKK0382-BS1	
70	15-DEC-2022 16:00	22121470.D	1	BKK0382-BS2	
71	15-DEC-2022 16:18	22121471.D	1	BKK0382-BSD1	
72	15-DEC-2022 16:35	22121472.D	1	22K0075-01	
73	15-DEC-2022 16:53	22121473.D	1	SEQ-PEM4	
74	15-DEC-2022 17:11	22121474.D	1	SEQ-CCV5	
75	15-DEC-2022 17:29	22121475.D	1	SEQ-CCV6	
76	15-DEC-2022 17:47	22121476.D	1	SEQ-CCV7	
77	15-DEC-2022 18:05	22121477.D	1	SEQ-CCV8	
78	15-DEC-2022 18:23	22121478.D	1	BKK0537-BLK1	
79	15-DEC-2022 18:40	22121479.D	1	BKK0537-BS1	
80	15-DEC-2022 18:58	22121480.D	1	BKK0537-BS2	
81	15-DEC-2022 19:16	22121481.D	1	22K0194-01	
82	15-DEC-2022 19:34	22121482.D	1	22K0194-01RE1	10
83	15-DEC-2022 19:52	22121483.D	1	SEQ-PEM5	
84	15-DEC-2022 20:09	22121484.D	1	SEQ-CCV9	
85	15-DEC-2022 20:27	22121485.D	1	SEQ-CCVA	
86	15-DEC-2022 20:45	22121486.D	1	SEQ-CCVB	
87	15-DEC-2022 21:03	22121487.D	1	SEQ-CCVC	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

ARI Job No.: RINS Method: PEST.m Instrument: ecd6.i Date: 14-DEC-2022

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1927	22121401.D	RINSE		1	NO MANUAL INTEGRATION
1944	22121402.D	RINSE		1	NO MANUAL INTEGRATION
2002	22121403.D	SEQ-IBL1		1	NO MANUAL INTEGRATION
2020	22121404.D	SEQ-PEM1		1	NO MANUAL INTEGRATION
2038	22121405.D	SEQ-CAL1		1	NO MANUAL INTEGRATION
2056	22121406.D	SEQ-CAL2		1	NO MANUAL INTEGRATION
2114	22121407.D	SEQ-CAL3		1	NO MANUAL INTEGRATION
2131	22121408.D	SEQ-CAL4		1	NO MANUAL INTEGRATION
2149	22121409.D	SEQ-CAL5		1	NO MANUAL INTEGRATION
2207	22121410.D	SEQ-CAL6		1	NO MANUAL INTEGRATION
2225	22121411.D	SEQ-CAL7		1	NO MANUAL INTEGRATION
2243	22121412.D	SEQ-CAL8		1	NO MANUAL INTEGRATION
2301	22121413.D	SEQ-CAL9		1	NO MANUAL INTEGRATION
2319	22121414.D	SEQ-CALA		1	NO MANUAL INTEGRATION
2336	22121415.D	SEQ-CALB		1	NO MANUAL INTEGRATION
2354	22121416.D	SEQ-CALC		1	NO MANUAL INTEGRATION
0012	22121417.D	SEQ-CALD		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0030	22121418.D	SEQ-CALE	1		NO MANUAL INTEGRATION
0048	22121419.D	SEQ-SCV1	1		NO MANUAL INTEGRATION
0106	22121420.D	SEQ-SCV2	1		NO MANUAL INTEGRATION
0124	22121421.D	SEQ-CAL1A	1		NO MANUAL INTEGRATION
0142	22121422.D	SEQ-CAL2A	1		NO MANUAL INTEGRATION
0159	22121423.D	SEQ-CAL3A	1		NO MANUAL INTEGRATION
0217	22121424.D	SEQ-CAL4A	1		NO MANUAL INTEGRATION
0235	22121425.D	SEQ-CAL5A	1		NO MANUAL INTEGRATION
0253	22121426.D	SEQ-CAL6A	1		NO MANUAL INTEGRATION
0311	22121427.D	SEQ-CAL7A	1		NO MANUAL INTEGRATION
0329	22121428.D	SEQ-CAL8A	1		NO MANUAL INTEGRATION
0346	22121429.D	SEQ-CAL9A	1		NO MANUAL INTEGRATION
0404	22121430.D	SEQ-CALAA	1		NO MANUAL INTEGRATION
0422	22121431.D	SEQ-CALAB	1		NO MANUAL INTEGRATION
0440	22121432.D	SEQ-CALAC	1		NO MANUAL INTEGRATION
0458	22121433.D	SEQ-CALAD	1		NO MANUAL INTEGRATION
0516	22121434.D	SEQ-CALAE	1		NO MANUAL INTEGRATION
0533	22121435.D	SEQ-PEM2	1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0551	22121436.D	SEQ-ICV1	1		NO MANUAL INTEGRATION
0609	22121437.D	SEQ-ICV2	1		NO MANUAL INTEGRATION
0627	22121438.D	SEQ-ICV3	1		NO MANUAL INTEGRATION
0645	22121439.D	SEQ-ICV4	1		NO MANUAL INTEGRATION
0703	22121440.D	BKK0688-BLK1	1		NO MANUAL INTEGRATION
0721	22121441.D	BKK0688-BS1	1		NO MANUAL INTEGRATION
0739	22121442.D	BKK0688-BS2	1		NO MANUAL INTEGRATION
0757	22121443.D	BKK0688-BS3	1		NO MANUAL INTEGRATION
0815	22121444.D	BKK0688-BSD1	1		NO MANUAL INTEGRATION
0832	22121445.D	BKK0142-BLK1	1		NO MANUAL INTEGRATION
0850	22121446.D	BKK0142-BS1	1		NO MANUAL INTEGRATION
0908	22121447.D	BKK0142-BS2	1		NO MANUAL INTEGRATION
0926	22121448.D	BKK0142-BSD1	1		NO MANUAL INTEGRATION
0944	22121449.D	BKK0142-MS1	1		NO MANUAL INTEGRATION
1002	22121450.D	BKK0142-MSD1	1		NO MANUAL INTEGRATION
1020	22121451.D	22J0513-01	1		NO MANUAL INTEGRATION
1038	22121452.D	22J0513-04	1		NO MANUAL INTEGRATION
1055	22121453.D	22J0535-01	1		trans-Chlordane,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1113	22121454.D	22K0429-01	1		Heptachlor epoxide b,
1131	22121455.D	22K0429-02	1		Heptachlor epoxide b,
1149	22121456.D	22K0429-03	1		Hexachlorobenzene,
1207	22121457.D	SEQ-PEM3	1		NO MANUAL INTEGRATION
1225	22121458.D	SEQ-CCV1	1		NO MANUAL INTEGRATION
1243	22121459.D	SEQ-CCV2	1		NO MANUAL INTEGRATION
1301	22121460.D	SEQ-CCV3	1		NO MANUAL INTEGRATION
1319	22121461.D	SEQ-CCV4	1		NO MANUAL INTEGRATION
1336	22121462.D	BKK0380-BLK1	1		NO MANUAL INTEGRATION
1354	22121463.D	BKK0380-BS1	1		NO MANUAL INTEGRATION
1412	22121464.D	BKK0380-BSD1	1		NO MANUAL INTEGRATION
1430	22121465.D	22K0157-01	1		NO MANUAL INTEGRATION
1448	22121466.D	22K0230-01	1		NO MANUAL INTEGRATION
1506	22121467.D	22K0231-01	1		NO MANUAL INTEGRATION
1524	22121468.D	BKK0382-BLK1	1		NO MANUAL INTEGRATION
1542	22121469.D	BKK0382-BS1	1		NO MANUAL INTEGRATION
1600	22121470.D	BKK0382-BS2	1		NO MANUAL INTEGRATION
1618	22121471.D	BKK0382-BSD1	1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1635	22121472.D	22K0075-01		1	NO MANUAL INTEGRATION
1653	22121473.D	SEQ-PEM4		1	NO MANUAL INTEGRATION
1711	22121474.D	SEQ-CCV5		1	NO MANUAL INTEGRATION
1729	22121475.D	SEQ-CCV6		1	NO MANUAL INTEGRATION
1747	22121476.D	SEQ-CCV7		1	NO MANUAL INTEGRATION
1805	22121477.D	SEQ-CCV8		1	NO MANUAL INTEGRATION
1823	22121478.D	BKK0537-BLK1		1	NO MANUAL INTEGRATION
1840	22121479.D	BKK0537-BS1		1	NO MANUAL INTEGRATION
1858	22121480.D	BKK0537-BS2		1	NO MANUAL INTEGRATION
1916	22121481.D	22K0194-01		1	NO MANUAL INTEGRATION
1934	22121482.D	22K0194-01RE1 10		1	NO MANUAL INTEGRATION
1952	22121483.D	SEQ-PEM5		1	NO MANUAL INTEGRATION
2009	22121484.D	SEQ-CCV9		1	NO MANUAL INTEGRATION
2027	22121485.D	SEQ-CCVA		1	NO MANUAL INTEGRATION
2045	22121486.D	SEQ-CCVB		1	NO MANUAL INTEGRATION
2103	22121487.D	SEQ-CCVC		1	NO MANUAL INTEGRATION
1927	22121401.D	RINSE		1	NO MANUAL INTEGRATION
1944	22121402.D	RINSE		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2002	22121403.D	SEQ-IBL1	1		NO MANUAL INTEGRATION
2020	22121404.D	SEQ-PEM1	1		NO MANUAL INTEGRATION
2038	22121405.D	SEQ-CAL1	1		NO MANUAL INTEGRATION
2056	22121406.D	SEQ-CAL2	1		NO MANUAL INTEGRATION
2114	22121407.D	SEQ-CAL3	1		NO MANUAL INTEGRATION
2131	22121408.D	SEQ-CAL4	1		NO MANUAL INTEGRATION
2149	22121409.D	SEQ-CAL5	1		NO MANUAL INTEGRATION
2207	22121410.D	SEQ-CAL6	1		NO MANUAL INTEGRATION
2225	22121411.D	SEQ-CAL7	1		NO MANUAL INTEGRATION
2243	22121412.D	SEQ-CAL8	1		NO MANUAL INTEGRATION
2301	22121413.D	SEQ-CAL9	1		NO MANUAL INTEGRATION
2319	22121414.D	SEQ-CALA	1		NO MANUAL INTEGRATION
2336	22121415.D	SEQ-CALB	1		NO MANUAL INTEGRATION
2354	22121416.D	SEQ-CALC	1		NO MANUAL INTEGRATION
0012	22121417.D	SEQ-CALD	1		NO MANUAL INTEGRATION
0030	22121418.D	SEQ-CALE	1		NO MANUAL INTEGRATION
0048	22121419.D	SEQ-SCV1	1		NO MANUAL INTEGRATION
0106	22121420.D	SEQ-SCV2	1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0124	22121421.D	SEQ-CAL1A	1		NO MANUAL INTEGRATION
0142	22121422.D	SEQ-CAL2A	1		NO MANUAL INTEGRATION
0159	22121423.D	SEQ-CAL3A	1		NO MANUAL INTEGRATION
0217	22121424.D	SEQ-CAL4A	1		NO MANUAL INTEGRATION
0235	22121425.D	SEQ-CAL5A	1		NO MANUAL INTEGRATION
0253	22121426.D	SEQ-CAL6A	1		NO MANUAL INTEGRATION
0311	22121427.D	SEQ-CAL7A	1		NO MANUAL INTEGRATION
0329	22121428.D	SEQ-CAL8A	1		NO MANUAL INTEGRATION
0346	22121429.D	SEQ-CAL9A	1		NO MANUAL INTEGRATION
0404	22121430.D	SEQ-CALAA	1		NO MANUAL INTEGRATION
0422	22121431.D	SEQ-CALAB	1		NO MANUAL INTEGRATION
0440	22121432.D	SEQ-CALAC	1		NO MANUAL INTEGRATION
0458	22121433.D	SEQ-CALAD	1		NO MANUAL INTEGRATION
0516	22121434.D	SEQ-CALAE	1		NO MANUAL INTEGRATION
0533	22121435.D	SEQ-PEM2	1		NO MANUAL INTEGRATION
0551	22121436.D	SEQ-ICV1	1		NO MANUAL INTEGRATION
0609	22121437.D	SEQ-ICV2	1		NO MANUAL INTEGRATION
0627	22121438.D	SEQ-ICV3	1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0645	22121439.D	SEQ-ICV4	1		NO MANUAL INTEGRATION
0703	22121440.D	BKK0688-BLK1	1		NO MANUAL INTEGRATION
0721	22121441.D	BKK0688-BS1	1		NO MANUAL INTEGRATION
0739	22121442.D	BKK0688-BS2	1		NO MANUAL INTEGRATION
0757	22121443.D	BKK0688-BS3	1		NO MANUAL INTEGRATION
0815	22121444.D	BKK0688-BSD1	1		NO MANUAL INTEGRATION
0832	22121445.D	BKK0142-BLK1	1		NO MANUAL INTEGRATION
0850	22121446.D	BKK0142-BS1	1		NO MANUAL INTEGRATION
0908	22121447.D	BKK0142-BS2	1		NO MANUAL INTEGRATION
0926	22121448.D	BKK0142-BSD1	1		NO MANUAL INTEGRATION
0944	22121449.D	BKK0142-MS1	1		NO MANUAL INTEGRATION
1002	22121450.D	BKK0142-MSD1	1		NO MANUAL INTEGRATION
1020	22121451.D	22J0513-01	1		NO MANUAL INTEGRATION
1038	22121452.D	22J0513-04	1		NO MANUAL INTEGRATION
1055	22121453.D	22J0535-01	1		trans-Chlordane [C],
1113	22121454.D	22K0429-01	1		NO MANUAL INTEGRATION
1131	22121455.D	22K0429-02	1		Aldrin [C], Heptachlor epoxide b [C], trans-Chlordane [C],
1149	22121456.D	22K0429-03	1		Aldrin [C],

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1207	22121457.D SEQ-PEM3		1		NO MANUAL INTEGRATION
1225	22121458.D SEQ-CCV1		1		NO MANUAL INTEGRATION
1243	22121459.D SEQ-CCV2		1		NO MANUAL INTEGRATION
1301	22121460.D SEQ-CCV3		1		NO MANUAL INTEGRATION
1319	22121461.D SEQ-CCV4		1		NO MANUAL INTEGRATION
1336	22121462.D BKK0380-BLK1		1		NO MANUAL INTEGRATION
1354	22121463.D BKK0380-BS1		1		NO MANUAL INTEGRATION
1412	22121464.D BKK0380-BSD1		1		NO MANUAL INTEGRATION
1430	22121465.D 22K0157-01		1		NO MANUAL INTEGRATION
1448	22121466.D 22K0230-01		1		NO MANUAL INTEGRATION
1506	22121467.D 22K0231-01		1		NO MANUAL INTEGRATION
1524	22121468.D BKK0382-BLK1		1		NO MANUAL INTEGRATION
1542	22121469.D BKK0382-BS1		1		NO MANUAL INTEGRATION
1600	22121470.D BKK0382-BS2		1		NO MANUAL INTEGRATION
1618	22121471.D BKK0382-BSD1		1		NO MANUAL INTEGRATION
1635	22121472.D 22K0075-01		1		NO MANUAL INTEGRATION
1653	22121473.D SEQ-PEM4		1		NO MANUAL INTEGRATION
1711	22121474.D SEQ-CCV5		1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20221214.b\B20221214.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1729	22121475.D	SEQ-CCV6		1	NO MANUAL INTEGRATION
1747	22121476.D	SEQ-CCV7		1	NO MANUAL INTEGRATION
1805	22121477.D	SEQ-CCV8		1	NO MANUAL INTEGRATION
1823	22121478.D	BKK0537-BLK1		1	NO MANUAL INTEGRATION
1840	22121479.D	BKK0537-BS1		1	NO MANUAL INTEGRATION
1858	22121480.D	BKK0537-BS2		1	NO MANUAL INTEGRATION
1916	22121481.D	22K0194-01		1	NO MANUAL INTEGRATION
1934	22121482.D	22K0194-01RE1 10		1	NO MANUAL INTEGRATION
1952	22121483.D	SEQ-PEM5		1	NO MANUAL INTEGRATION
2010	22121484.D	SEQ-CCV9		1	NO MANUAL INTEGRATION
2027	22121485.D	SEQ-CCVA		1	NO MANUAL INTEGRATION
2045	22121486.D	SEQ-CCVB		1	NO MANUAL INTEGRATION
2103	22121487.D	SEQ-CCVC		1	NO MANUAL INTEGRATION

Security Status Report

Date: 17-Dec-2022 10:57

22121401.D	Data Locked	jrains,	17-Dec-2022	10:57
22121402.D	Data Locked	jrains,	17-Dec-2022	10:57
22121403.D	Data Locked	jrains,	17-Dec-2022	10:57
22121404.D	Data Locked	jrains,	17-Dec-2022	10:57
22121405.D	Data Locked	jrains,	17-Dec-2022	10:57
22121406.D	Data Locked	jrains,	17-Dec-2022	10:57
22121407.D	Data Locked	jrains,	17-Dec-2022	10:57
22121408.D	Data Locked	jrains,	17-Dec-2022	10:57
22121409.D	Data Locked	jrains,	17-Dec-2022	10:57
22121410.D	Data Locked	jrains,	17-Dec-2022	10:57
22121411.D	Data Locked	jrains,	17-Dec-2022	10:57
22121412.D	Data Locked	jrains,	17-Dec-2022	10:57
22121413.D	Data Locked	jrains,	17-Dec-2022	10:57
22121414.D	Data Locked	jrains,	17-Dec-2022	10:57
22121415.D	Data Locked	jrains,	17-Dec-2022	10:57
22121416.D	Data Locked	jrains,	17-Dec-2022	10:57
22121417.D	Data Locked	jrains,	17-Dec-2022	10:57
22121418.D	Data Locked	jrains,	17-Dec-2022	10:57
22121419.D	Data Locked	jrains,	17-Dec-2022	10:57
22121420.D	Data Locked	jrains,	17-Dec-2022	10:57
22121421.D	Data Locked	jrains,	17-Dec-2022	10:57
22121422.D	Data Locked	jrains,	17-Dec-2022	10:57
22121423.D	Data Locked	jrains,	17-Dec-2022	10:57
22121424.D	Data Locked	jrains,	17-Dec-2022	10:57
22121425.D	Data Locked	jrains,	17-Dec-2022	10:57
22121426.D	Data Locked	jrains,	17-Dec-2022	10:57
22121427.D	Data Locked	jrains,	17-Dec-2022	10:57
22121428.D	Data Locked	jrains,	17-Dec-2022	10:57
22121429.D	Data Locked	jrains,	17-Dec-2022	10:57
22121430.D	Data Locked	jrains,	17-Dec-2022	10:57
22121431.D	Data Locked	jrains,	17-Dec-2022	10:57
22121432.D	Data Locked	jrains,	17-Dec-2022	10:57
22121433.D	Data Locked	jrains,	17-Dec-2022	10:57
22121434.D	Data Locked	jrains,	17-Dec-2022	10:57



Dual Column
ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLA0279

Instrument: ECD6

Calibration: FL00041

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Initial Cal Check	SLA0279-ICV1	23012012.D	23012012.D	NA	01/20/23 20:15
Calibration Check	SLA0279-CCV1	23012026.D	23012026.D	NA	01/21/23 00:25
Blank	BLA0164-BLK1	23012027.D	23012027.D	Solid	01/21/23 00:42
LCS	BLA0164-BS1	23012028.D	23012028.D	Solid	01/21/23 01:00
LCS Dup	BLA0164-BSD1	23012029.D	23012029.D	Solid	01/21/23 01:18
LDW23-SC1226B	BLA0164-MS1	23012030.D	23012030.D	Solid	01/21/23 01:36
LDW23-SC1226B	BLA0164-MSD1	23012031.D	23012031.D	Solid	01/21/23 01:54
LDW23-IT1224	23A0032-05	23012033.D	23012033.D	Solid	01/21/23 02:29
LDW23-SC1226B	23A0032-08	23012034.D	23012034.D	Solid	01/21/23 02:47
LDW23-SC1212	23A0032-11	23012035.D	23012035.D	Solid	01/21/23 03:05
Calibration Check	SLA0279-CCV2	23012042.D	23012042.D	NA	01/21/23 05:10
Calibration Check	SLA0279-CCV3	23012054.D	23012054.D	NA	01/21/23 08:44



ANALYSIS SEQUENCE

SLA0279

Instrument: ECD6
Calibration ID: FL00041

Printed: 1/25/2023 10:37:15AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLA0279-PEM1	QC		1		K007286	L000844		
SLA0279-ICV1	QC		2		L000845	L000844		
BLA0068-BLK1	QC		3			L000844		
BLA0068-BS1	QC		4			L000844		
BLA0068-BSD1	QC		5			L000844		
22L0459-01	8081B Pest (PSDDA)	A 02	6			L000844	Anchor QEA, LLC	
22L0459-02	8081B Pest (PSDDA)	A 02	7			L000844	Anchor QEA, LLC	
BLA0068-MS1	QC		8			L000844		
BLA0068-MSD1	QC		9			L000844		
22L0459-03	8081B Pest (PSDDA)	A 02	10			L000844	Anchor QEA, LLC	
22L0459-04	8081B Pest (PSDDA)	A 02	11			L000844	Anchor QEA, LLC	
22L0459-05	8081B Pest (PSDDA)	A 02	12			L000844	Anchor QEA, LLC	
22L0459-06	8081B Pest (PSDDA)	A 02	13			L000844	Anchor QEA, LLC	
22L0459-07	8081B Pest (PSDDA)	A 02	14			L000844	Anchor QEA, LLC	
SLA0279-PEM2	QC		15		K007286	L000844		
SLA0279-CCV1	QC		16		L000845	L000844		
BLA0164-BLK1	QC		17			L000844		
BLA0164-BS1	QC		18			L000844		
BLA0164-BSD1	QC		19			L000844		
BLA0164-MS1	QC		20			L000844		
BLA0164-MSD1	QC		21			L000844		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____



ANALYSIS SEQUENCE

SLA0279

Instrument: ECD6
Calibration ID: FL00041

Printed: 1/25/2023 10:37:15AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
23A0031-21	8081B Pest (PSDDA)	A 02	22			L000844	Anchor QEA, LLC	
23A0032-05	8081B Pest (PSDDA)	A 02	23			L000844	Anchor QEA, LLC	
23A0032-08	8081B Pest (PSDDA)	A 02	24			L000844	Anchor QEA, LLC	
23A0032-11	8081B Pest (PSDDA)	A 02	25			L000844	Anchor QEA, LLC	
23A0087-01	8081B Pest (PSDDA)	A 02	26			L000844	Anchor QEA, LLC	
23A0087-02	8081B Pest (PSDDA)	A 02	27			L000844	Anchor QEA, LLC	
23A0087-03	8081B Pest (PSDDA)	A 02	28			L000844	Anchor QEA, LLC	
23A0087-04	8081B Pest (PSDDA)	A 02	29			L000844	Anchor QEA, LLC	
23A0087-05	8081B Pest (PSDDA)	A 02	30			L000844	Anchor QEA, LLC	
SLA0279-PEM3	QC		31		K007286	L000844		
SLA0279-CCV2	QC		32		L000845	L000844		
23A0087-06	8081B Pest (PSDDA)	A 02	33			L000844	Anchor QEA, LLC	
23A0087-07	8081B Pest (PSDDA)	A 02	34			L000844	Anchor QEA, LLC	
23A0087-08	8081B Pest (PSDDA)	A 02	35			L000844	Anchor QEA, LLC	
23A0087-09	8081B Pest (PSDDA)	A 02	36			L000844	Anchor QEA, LLC	
23A0087-10	8081B Pest (PSDDA)	A 02	37			L000844	Anchor QEA, LLC	
23A0087-11	8081B Pest (PSDDA)	A 02	38			L000844	Anchor QEA, LLC	
23A0087-12	8081B Pest (PSDDA)	A 02	39			L000844	Anchor QEA, LLC	
23A0087-13	8081B Pest (PSDDA)	A 02	40			L000844	Anchor QEA, LLC	
23A0087-14	8081B Pest (PSDDA)	A 02	41			L000844	Anchor QEA, LLC	
23A0087-15	8081B Pest (PSDDA)	A 02	42			L000844	Anchor QEA, LLC	

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230120.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	20-JAN-2023	11:44	23012001.D	20	22K0243-05	20
2	20-JAN-2023	12:02	23012002.D	20	22K0243-05	20
3	20-JAN-2023	17:35	23012003.D	1	RINSE	
4	20-JAN-2023	17:52	23012004.D	1	CLPIB	
5	20-JAN-2023	18:10	23012005.D	1	CLPPEM1	
6	20-JAN-2023	18:28	23012006.D	1	CLPPEST1	
7	20-JAN-2023	18:46	23012007.D	1	CLA0166-GPC1	
8	20-JAN-2023	19:04	23012008.D	1	CLA0166-GPC2	
9	20-JAN-2023	19:22	23012009.D	1	CLPPEM2	
10	20-JAN-2023	19:39	23012010.D	1	CLPPEST2	
11	20-JAN-2023	19:57	23012011.D	1	SEQ-DS1	
12	20-JAN-2023	20:15	23012012.D	1	SEQ-INDAICV1	
13	20-JAN-2023	20:33	23012013.D	1	BLA0068-BLK1	
14	20-JAN-2023	20:51	23012014.D	1	BLA0068-BS1	
15	20-JAN-2023	21:09	23012015.D	1	BLA0068-BSD1	
16	20-JAN-2023	21:26	23012016.D	1	22L0459-01	
17	20-JAN-2023	21:44	23012017.D	1	22L0459-02	
18	20-JAN-2023	22:02	23012018.D	1	BLA0068-MS1	
19	20-JAN-2023	22:20	23012019.D	1	BLA0068-MSD1	
20	20-JAN-2023	22:38	23012020.D	1	22L0459-03	
21	20-JAN-2023	22:56	23012021.D	1	22L0459-04	
22	20-JAN-2023	23:13	23012022.D	1	22L0459-05	
23	20-JAN-2023	23:31	23012023.D	1	22L0459-06	
24	20-JAN-2023	23:49	23012024.D	1	22L0459-07	
25	21-JAN-2023	00:07	23012025.D	1	SEQ-DS2	
26	21-JAN-2023	00:25	23012026.D	1	SEQ-INDACCV1	
27	21-JAN-2023	00:42	23012027.D	1	BLA0164-BLK1	
28	21-JAN-2023	01:00	23012028.D	1	BLA0164-BS1	
29	21-JAN-2023	01:18	23012029.D	1	BLA0164-BSD1	
30	21-JAN-2023	01:36	23012030.D	1	BLA0164-MS1	
31	21-JAN-2023	01:54	23012031.D	1	BLA0164-MSD1	
32	21-JAN-2023	02:12	23012032.D	1	23A0031-21	
33	21-JAN-2023	02:29	23012033.D	1	23A0032-05	
34	21-JAN-2023	02:47	23012034.D	1	23A0032-08	
35	21-JAN-2023	03:05	23012035.D	1	23A0032-11	
36	21-JAN-2023	03:23	23012036.D	1	23A0087-01	
37	21-JAN-2023	03:41	23012037.D	1	23A0087-02	
38	21-JAN-2023	03:59	23012038.D	1	23A0087-03	
39	21-JAN-2023	04:16	23012039.D	1	23A0087-04	
40	21-JAN-2023	04:34	23012040.D	1	23A0087-05	
41	21-JAN-2023	04:52	23012041.D	1	SEQ-DS3	
42	21-JAN-2023	05:10	23012042.D	1	SEQ-INDACCV2	
43	21-JAN-2023	05:28	23012043.D	1	23A0087-06	
44	21-JAN-2023	05:46	23012044.D	1	23A0087-07	
45	21-JAN-2023	06:04	23012045.D	1	23A0087-08	
46	21-JAN-2023	06:21	23012046.D	1	23A0087-09	
47	21-JAN-2023	06:39	23012047.D	1	23A0087-10	
48	21-JAN-2023	06:57	23012048.D	1	23A0087-11	
49	21-JAN-2023	07:15	23012049.D	1	23A0087-12	
50	21-JAN-2023	07:33	23012050.D	1	23A0087-13	

	Inject	Date/Time	Filename	DF	LabID	ClientID
51	21-JAN-2023	07:51	23012051.D	1	23A0087-14	
52	21-JAN-2023	08:09	23012052.D	1	23A0087-15	
53	21-JAN-2023	08:27	23012053.D	1	SEQ-DS4	
54	21-JAN-2023	08:44	23012054.D	1	SEQ-INDACCV3	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230120.b

ARI Job No.: 22K0 Method: PEST.m Instrument: ecd6.i Date: 20-JAN-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1144	23012001.D	22K0243-05	20	20	NO MANUAL INTEGRATION
1202	23012002.D	22K0243-05	20	20	NO MANUAL INTEGRATION
1735	23012003.D	RINSE		1	NO MANUAL INTEGRATION
1752	23012004.D	CLPIB		1	NO MANUAL INTEGRATION
1810	23012005.D	CLPPEM1		1	NO MANUAL INTEGRATION
1828	23012006.D	CLPPEST1		1	NO MANUAL INTEGRATION
1846	23012007.D	CLA0166-GPC1		1	NO MANUAL INTEGRATION
1904	23012008.D	CLA0166-GPC2		1	NO MANUAL INTEGRATION
1922	23012009.D	CLPPEM2		1	NO MANUAL INTEGRATION
1939	23012010.D	CLPPEST2		1	NO MANUAL INTEGRATION
1957	23012011.D	SEQ-DS1		1	NO MANUAL INTEGRATION
2015	23012012.D	SEQ-INDAICV1		1	NO MANUAL INTEGRATION
2033	23012013.D	BLA0068-BLK1		1	NO MANUAL INTEGRATION
2051	23012014.D	BLA0068-BS1		1	NO MANUAL INTEGRATION
2109	23012015.D	BLA0068-BSD1		1	NO MANUAL INTEGRATION
2126	23012016.D	22L0459-01		1	1Bromo-2nitrobenzene, alpha-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Heptachlor epoxide b, Tetrachloro-m-xylene,
2144	23012017.D	22L0459-02		1	1Bromo-2nitrobenzene, alpha-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Tetrachloro-m-xylene,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230120.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2202	23012018.D	BLA0068-MS1		1	1Bromo-2nitrobenzene, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Hexachlorobenzene, Tetrachloro-m-xylene,
2220	23012019.D	BLA0068-MSD1		1	1Bromo-2nitrobenzene, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Hexachlorobutadiene, Hexachlorobenzene, Tetrachloro-m-xylene,
2238	23012020.D	22L0459-03		1	1Bromo-2nitrobenzene, alpha-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Heptachlor epoxide b, Tetrachloro-m-xylene,
2256	23012021.D	22L0459-04		1	1Bromo-2nitrobenzene, alpha-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Tetrachloro-m-xylene,
2313	23012022.D	22L0459-05		1	1Bromo-2nitrobenzene, alpha-BHC, delta-BHC, Heptachlor, Tetrachloro-m-xylene,
2331	23012023.D	22L0459-06		1	1Bromo-2nitrobenzene, alpha-BHC, delta-BHC, gamma-BHC (Lindane), Tetrachloro-m-xylene,
2349	23012024.D	22L0459-07		1	1Bromo-2nitrobenzene, alpha-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Heptachlor epoxide b, Dieldrin, 4,4'-DDE, Endrin, Endosulfan II, Endosulfan sulfate, 4,4'-DDT, Endrin ketone, Endrin aldehyde, cis-Chlordane, Hexachlorobutadiene, Hexabromobiphenyl, Tetrachloro-m-xylene, Decachlorob
0007	23012025.D	SEQ-DS2		1	NO MANUAL INTEGRATION
0025	23012026.D	SEQ-INDACCV1		1	NO MANUAL INTEGRATION
0042	23012027.D	BLA0164-BLK1		1	NO MANUAL INTEGRATION
0100	23012028.D	BLA0164-BS1		1	NO MANUAL INTEGRATION
0118	23012029.D	BLA0164-BSD1		1	NO MANUAL INTEGRATION
0136	23012030.D	BLA0164-MS1		1	1Bromo-2nitrobenzene, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Heptachlor epoxide b, Endosulfan I, Dieldrin, 4,4'-DDE, Endosulfan II, 4,4'-DDD, Endosulfan sulfate, 4,4'-DDT, Endrin ketone, Endrin aldehyde, trans-Chlordane, cis-Chlordane, Hexachlorobenzene, Hexabro
0154	23012031.D	BLA0164-MSD1		1	1Bromo-2nitrobenzene, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Heptachlor epoxide b, Endosulfan I, Dieldrin, 4,4'-DDE, Endrin, Endosulfan II, Endosulfan sulfate, 4,4'-DDT, Endrin ketone, Endrin aldehyde, trans-Chlordane, cis-Chlordane, Hexachlorobutadiene,
0212	23012032.D	23A0031-21		1	1Bromo-2nitrobenzene, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Heptachlor epoxide b, Dieldrin, 4,4'-DDE, Endrin, Endosulfan II, Endosulfan sulfate, 4,4'-DDT, Methoxychlor, Endrin ketone, Endrin aldehyde, cis-Chlordane, Hexachlorobutadiene, Hexachlorobenzene,
0229	23012033.D	23A0032-05		1	NO MANUAL INTEGRATION

0247 23012034.D 23A0032-08

1 1Bromo-2nitrobenzene, alpha-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Heptachlor epoxide b, Dieldrin, 4,4'-DDE, Endrin, Endosulfan II, Endosulfan sulfate, 4,4'-DDT, Endrin ketone, Endrin aldehyde, cis-Chlordane, Hexachlorobutadiene, Hexachlorobenzene, Hexabromobiphenyl, Tetrachloro-m-

0305 23012035.D 23A0032-11

1 1Bromo-2nitrobenzene, alpha-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Heptachlor epoxide b, Endosulfan I, Dieldrin, 4,4'-DDE, Endosulfan II, 4,4'-DDD, Endosulfan sulfate, 4,4'-DDT, Endrin ketone, trans-Chlordane, cis-Chlordane, Hexachlorobenzene, Hexabromobiphenyl, Tetrachloro-m-xylene, Decachlorobip

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230120.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0323	23012036.D	23A0087-01	1		1Bromo-2nitrobenzene, alpha-BHC, delta-BHC, Heptachlor, Aldrin, Heptachlor epoxide b, Dieldrin, 4,4'-DDE, Endrin, Endosulfan II, 4,4'-DDD, 4,4'-DDT, Endrin aldehyde, trans-Chlordane, cis-Chlordane, Hexachlorobutadiene, Hexachlorobenzene, Hexabromobiphenyl, Tetrachloro-m-xylene,
0341	23012037.D	23A0087-02	1		1Bromo-2nitrobenzene, alpha-BHC, beta-BHC, delta-BHC, Heptachlor, Hexachlorobenzene, Tetrachloro-m-xylene,
0359	23012038.D	23A0087-03	1		1Bromo-2nitrobenzene, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Hexachlorobenzene, Tetrachloro-m-xylene,
0416	23012039.D	23A0087-04	1		NO MANUAL INTEGRATION
0434	23012040.D	23A0087-05	1		1Bromo-2nitrobenzene, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Hexachlorobenzene, Tetrachloro-m-xylene,
0452	23012041.D	SEQ-DS3	1		NO MANUAL INTEGRATION
0510	23012042.D	SEQ-INDACCV2	1		NO MANUAL INTEGRATION
0528	23012043.D	23A0087-06	1		1Bromo-2nitrobenzene, cis-Chlordane, Hexachlorobenzene, Tetrachloro-m-xylene,
0546	23012044.D	23A0087-07	1		1Bromo-2nitrobenzene, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Hexachlorobenzene, Tetrachloro-m-xylene,
0604	23012045.D	23A0087-08	1		1Bromo-2nitrobenzene, alpha-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Heptachlor epoxide b, Dieldrin, 4,4'-DDE, Endrin, Endosulfan II, Endosulfan sulfate, 4,4'-DDT, Endrin aldehyde, trans-Chlordane, cis-Chlordane, Hexachlorobenzene, Hexabromobiphenyl, Tetrachloro-m-xylene, Decachlorobiphenyl,
0621	23012046.D	23A0087-09	1		Hexachlorobenzene,
0639	23012047.D	23A0087-10	1		1Bromo-2nitrobenzene, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Hexachlorobenzene, Tetrachloro-m-xylene,
0657	23012048.D	23A0087-11	1		1Bromo-2nitrobenzene, alpha-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Hexachlorobutadiene, Hexachlorobenzene, Tetrachloro-m-xylene,
0715	23012049.D	23A0087-12	1		1Bromo-2nitrobenzene, alpha-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Hexachlorobenzene, Tetrachloro-m-xylene,
0733	23012050.D	23A0087-13	1		1Bromo-2nitrobenzene, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Heptachlor epoxide b, Dieldrin, 4,4'-DDE, Endrin, Endosulfan II, Endosulfan sulfate, 4,4'-DDT, Endrin aldehyde, cis-Chlordane, Hexachlorobutadiene, Hexachlorobenzene, Hexabromobiphenyl, Tetrachloro-m-xylene,

0751 23012051.D 23A0087-14 1 NO MANUAL INTEGRATION

0809 23012052.D 23A0087-15 1 1Bromo-2nitrobenzene, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor,
Aldrin, Hexachlorobenzene, Tetrachloro-m-xylene,

0827 23012053.D SEQ-DS4 1 NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230120.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0844	23012054.D	SEQ-INDACCV3		1	NO MANUAL INTEGRATION
1144	23012001.D	22K0243-05	20		NO MANUAL INTEGRATION
1202	23012002.D	22K0243-05	20		NO MANUAL INTEGRATION
1735	23012003.D	RINSE		1	NO MANUAL INTEGRATION
1752	23012004.D	CLPIB		1	NO MANUAL INTEGRATION
1810	23012005.D	CLPPEM1		1	NO MANUAL INTEGRATION
1828	23012006.D	CLPPEST1		1	NO MANUAL INTEGRATION
1846	23012007.D	CLA0166-GPC1		1	NO MANUAL INTEGRATION
1904	23012008.D	CLA0166-GPC2		1	NO MANUAL INTEGRATION
1922	23012009.D	CLPPEM2		1	NO MANUAL INTEGRATION
1939	23012010.D	CLPPEST2		1	NO MANUAL INTEGRATION
1957	23012011.D	SEQ-DS1		1	NO MANUAL INTEGRATION
2015	23012012.D	SEQ-INDAICV1		1	NO MANUAL INTEGRATION
2033	23012013.D	BLA0068-BLK1		1	NO MANUAL INTEGRATION
2051	23012014.D	BLA0068-BS1		1	NO MANUAL INTEGRATION
2109	23012015.D	BLA0068-BSD1		1	NO MANUAL INTEGRATION
2126	23012016.D	22L0459-01		1	1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], gamma-BHC (Lindane) [C], Heptachlor [C], Tetrachloro-m-xylene [C],
2144	23012017.D	22L0459-02		1	1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], gamma-BHC (Lindane) [C], Heptachlor [C], Aldrin [C], Tetrachloro-m-xylene [C],

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230120.b\B20230120.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2202	23012018.D	BLA0068-MS1		1	1Bromo-2nitrobenzene [C], alpha-BHC [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
2220	23012019.D	BLA0068-MSD1		1	1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], gamma-BHC (Lindane) [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
2238	23012020.D	22L0459-03		1	1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], gamma-BHC (Lindane) [C], Heptachlor [C], Aldrin [C], Tetrachloro-m-xylene [C],
2256	23012021.D	22L0459-04		1	1Bromo-2nitrobenzene [C], alpha-BHC [C], Tetrachloro-m-xylene [C],
2313	23012022.D	22L0459-05		1	1Bromo-2nitrobenzene [C], alpha-BHC [C], Tetrachloro-m-xylene [C],
2331	23012023.D	22L0459-06		1	1Bromo-2nitrobenzene [C], alpha-BHC [C], Tetrachloro-m-xylene [C],
2349	23012024.D	22L0459-07		1	1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], gamma-BHC (Lindane) [C], Heptachlor [C], Tetrachloro-m-xylene [C],
0007	23012025.D	SEQ-DS2		1	NO MANUAL INTEGRATION
0025	23012026.D	SEQ-INDACC1		1	NO MANUAL INTEGRATION
0042	23012027.D	BLA0164-BLK1		1	1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], gamma-BHC (Lindane) [C], Tetrachloro-m-xylene [C],
0100	23012028.D	BLA0164-BS1		1	NO MANUAL INTEGRATION
0118	23012029.D	BLA0164-BSD1		1	NO MANUAL INTEGRATION
0136	23012030.D	BLA0164-MS1		1	1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], delta-BHC [C], gamma-BHC (Lindane) [C], Heptachlor [C], Aldrin [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0154	23012031.D	BLA0164-MSD1		1	1Bromo-2nitrobenzene [C], alpha-BHC [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0212	23012032.D	23A0031-21		1	1Bromo-2nitrobenzene [C], alpha-BHC [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0229	23012033.D	23A0032-05		1	NO MANUAL INTEGRATION
0247	23012034.D	23A0032-08		1	1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], gamma-BHC (Lindane) [C], Heptachlor [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0305	23012035.D	23A0032-11		1	1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], gamma-BHC (Lindane) [C], Heptachlor [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230120.b\B20230120.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0323	23012036.D	23A0087-01	1		1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], gamma-BHC (Lindane) [C], Heptachlor [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0341	23012037.D	23A0087-02	1		1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], gamma-BHC (Lindane) [C], Heptachlor [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0359	23012038.D	23A0087-03	1		1Bromo-2nitrobenzene [C], alpha-BHC [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0416	23012039.D	23A0087-04	1		NO MANUAL INTEGRATION
0434	23012040.D	23A0087-05	1		1Bromo-2nitrobenzene [C], alpha-BHC [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0452	23012041.D	SEQ-DS3	1		NO MANUAL INTEGRATION
0510	23012042.D	SEQ-INDACCV2	1		NO MANUAL INTEGRATION
0528	23012043.D	23A0087-06	1		1Bromo-2nitrobenzene [C], alpha-BHC [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0546	23012044.D	23A0087-07	1		1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], delta-BHC [C], gamma-BHC (Lindane) [C], Heptachlor [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0604	23012045.D	23A0087-08	1		1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], gamma-BHC (Lindane) [C], Heptachlor [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0621	23012046.D	23A0087-09	1		1Bromo-2nitrobenzene [C], alpha-BHC [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0639	23012047.D	23A0087-10	1		1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], gamma-BHC (Lindane) [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0657	23012048.D	23A0087-11	1		1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], Heptachlor [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0715	23012049.D	23A0087-12	1		1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], gamma-BHC (Lindane) [C], Heptachlor [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0733	23012050.D	23A0087-13	1		1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], gamma-BHC (Lindane) [C], Heptachlor [C], Hexachlorobenzene [C], Tetrachloro-m-xylene [C],
0751	23012051.D	23A0087-14	1		1Bromo-2nitrobenzene [C], alpha-BHC [C], Tetrachloro-m-xylene [C],
0809	23012052.D	23A0087-15	1		1Bromo-2nitrobenzene [C], alpha-BHC [C], beta-BHC [C], gamma-BHC (Lindane) [C], Heptachlor [C], Aldrin [C], Tetrachloro-m-xylene [C],
0827	23012053.D	SEQ-DS4	1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd6.i\20230120.b\B20230120.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0844	23012054.D	SEQ-INDACCV3		1	NO MANUAL INTEGRATION

Security Status Report

Date: 25-Jan-2023 10:35

23012001.D	Data Locked	j rains, 25-Jan-2023 10:35
23012002.D	Data Locked	j rains, 25-Jan-2023 10:35
23012003.D	Data Locked	j rains, 25-Jan-2023 10:35
23012004.D	Data Locked	j rains, 25-Jan-2023 10:35
23012005.D	Data Locked	j rains, 25-Jan-2023 10:35
23012006.D	Data Locked	j rains, 25-Jan-2023 10:35
23012007.D	Data Locked	j rains, 25-Jan-2023 10:35
23012008.D	Data Locked	j rains, 25-Jan-2023 10:35
23012009.D	Data Locked	j rains, 25-Jan-2023 10:35
23012010.D	Data Locked	j rains, 25-Jan-2023 10:35
23012011.D	Data Locked	j rains, 25-Jan-2023 10:35
23012012.D	Data Locked	j rains, 25-Jan-2023 10:35
23012013.D	Data Locked	j rains, 25-Jan-2023 10:35
23012014.D	Data Locked	j rains, 25-Jan-2023 10:35
23012015.D	Data Locked	j rains, 25-Jan-2023 10:35
23012016.D	Data Locked	j rains, 25-Jan-2023 10:35
23012017.D	Data Locked	j rains, 25-Jan-2023 10:35
23012018.D	Data Locked	j rains, 25-Jan-2023 10:35
23012019.D	Data Locked	j rains, 25-Jan-2023 10:35
23012020.D	Data Locked	j rains, 25-Jan-2023 10:35
23012021.D	Data Locked	j rains, 25-Jan-2023 10:35
23012022.D	Data Locked	j rains, 25-Jan-2023 10:35
23012023.D	Data Locked	j rains, 25-Jan-2023 10:35
23012024.D	Data Locked	j rains, 25-Jan-2023 10:35
23012025.D	Data Locked	j rains, 25-Jan-2023 10:35
23012026.D	Data Locked	j rains, 25-Jan-2023 10:35
23012027.D	Data Locked	j rains, 25-Jan-2023 10:35
23012028.D	Data Locked	j rains, 25-Jan-2023 10:35
23012029.D	Data Locked	j rains, 25-Jan-2023 10:35
23012030.D	Data Locked	j rains, 25-Jan-2023 10:35
23012031.D	Data Locked	j rains, 25-Jan-2023 10:35
23012032.D	Data Locked	j rains, 25-Jan-2023 10:35
23012033.D	Data Locked	j rains, 25-Jan-2023 10:35
23012034.D	Data Locked	j rains, 25-Jan-2023 10:35
23012035.D	Data Locked	j rains, 25-Jan-2023 10:35
23012036.D	Data Locked	j rains, 25-Jan-2023 10:35
23012037.D	Data Locked	j rains, 25-Jan-2023 10:35
23012038.D	Data Locked	j rains, 25-Jan-2023 10:35
23012039.D	Data Locked	j rains, 25-Jan-2023 10:35
23012040.D	Data Locked	j rains, 25-Jan-2023 10:35
23012041.D	Data Locked	j rains, 25-Jan-2023 10:35
23012042.D	Data Locked	j rains, 25-Jan-2023 10:35
23012043.D	Data Locked	j rains, 25-Jan-2023 10:35
23012044.D	Data Locked	j rains, 25-Jan-2023 10:35

23012045.D	Data Locked	jrains, 25-Jan-2023 10:35
23012046.D	Data Locked	jrains, 25-Jan-2023 10:35
23012047.D	Data Locked	jrains, 25-Jan-2023 10:35
23012048.D	Data Locked	jrains, 25-Jan-2023 10:35
23012049.D	Data Locked	jrains, 25-Jan-2023 10:35
23012050.D	Data Locked	jrains, 25-Jan-2023 10:35
23012051.D	Data Locked	jrains, 25-Jan-2023 10:35
23012052.D	Data Locked	jrains, 25-Jan-2023 10:35
23012053.D	Data Locked	jrains, 25-Jan-2023 10:35
23012054.D	Data Locked	jrains, 25-Jan-2023 10:35



SURROGATE RECOVERY AND RT SUMMARY
EPA 8081B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG/WO:	<u>23A0032</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SKL0233</u>	Instrument:	<u>ECD6</u>
Calibration:	<u>FL00041</u>	Calibration Date:	<u>12/15/2022</u>

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SKL0233-PEM1 (Water)		Lab File ID: 22121404.D			Analyzed: 12/14/22 20:20			
Decachlorobiphenyl	160.00	83.0	0 - 200	9.355	9.354666	0.0003	+/-0.1	
Decachlorobiphenyl [2C]	160.00	83.5	0 - 200	10.466	10.4655	0.0005	+/-0.1	
Tetrachlorometaxylene	160.00	78.1	0 - 200	3.828	3.827833	0.0002	+/-0.1	
Tetrachlorometaxylene [2C]	160.00	83.5	0 - 200	4.22	4.219666	0.0003	+/-0.1	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLA0279
Calibration: FL00041

SDG/WO: 23A0032
Project: AOC5 MR Phase 1
Instrument: ECD6
Calibration Date: 12/14/2022

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLA0279-ICV1 (Solid) Lab File ID: 23012012.D Analyzed: 01/20/23 20:15								
Decachlorobiphenyl	40.000	97.0	80 - 120	9.325	9.354666	-0.0297	+/-0.1	
Decachlorobiphenyl [2C]	40.000	94.5	80 - 120	10.428	10.4655	-0.0375	+/-0.1	
Tetrachlorometaxylyene	40.000	100	80 - 120	3.805	3.827833	-0.0228	+/-0.1	
Tetrachlorometaxylyene [2C]	40.000	98.5	80 - 120	4.198	4.219666	-0.0217	+/-0.1	
SLA0279-CCV1 (Solid) Lab File ID: 23012026.D Analyzed: 01/21/23 00:25								
Decachlorobiphenyl	40.000	96.1	80 - 120	9.325	9.354666	-0.0297	+/-0.1	
Decachlorobiphenyl [2C]	40.000	102	80 - 120	10.429	10.4655	-0.0365	+/-0.1	
Tetrachlorometaxylyene	40.000	101	80 - 120	3.806	3.827833	-0.0218	+/-0.1	
Tetrachlorometaxylyene [2C]	40.000	97.0	80 - 120	4.198	4.219666	-0.0217	+/-0.1	
BLA0164-BLK1 (Solid) Lab File ID: 23012027.D Analyzed: 01/21/23 00:42								
Decachlorobiphenyl	8.0000	90.8	30 - 160	9.325	9.354666	-0.0297	+/-0.1	
Decachlorobiphenyl [2C]	8.0000	96.6	30 - 160	10.428	10.4655	-0.0375	+/-0.1	
Tetrachlorometaxylyene	8.0000	70.6	30 - 160	3.806	3.827833	-0.0218	+/-0.1	
Tetrachlorometaxylyene [2C]	8.0000	67.6	30 - 160	4.198	4.219666	-0.0217	+/-0.1	
BLA0164-BS1 (Solid) Lab File ID: 23012028.D Analyzed: 01/21/23 01:00								
Decachlorobiphenyl	8.0000	91.2	30 - 160	9.325	9.354666	-0.0297	+/-0.1	
Decachlorobiphenyl [2C]	8.0000	99.7	30 - 160	10.428	10.4655	-0.0375	+/-0.1	
Tetrachlorometaxylyene	8.0000	73.7	30 - 160	3.806	3.827833	-0.0218	+/-0.1	
Tetrachlorometaxylyene [2C]	8.0000	72.6	30 - 160	4.198	4.219666	-0.0217	+/-0.1	
BLA0164-BSD1 (Solid) Lab File ID: 23012029.D Analyzed: 01/21/23 01:18								
Decachlorobiphenyl	8.0000	87.1	30 - 160	9.325	9.354666	-0.0297	+/-0.1	
Decachlorobiphenyl [2C]	8.0000	106	30 - 160	10.428	10.4655	-0.0375	+/-0.1	
Tetrachlorometaxylyene	8.0000	77.8	30 - 160	3.805	3.827833	-0.0228	+/-0.1	
Tetrachlorometaxylyene [2C]	8.0000	76.0	30 - 160	4.198	4.219666	-0.0217	+/-0.1	
BLA0164-MS1 (Solid) Lab File ID: 23012030.D Analyzed: 01/21/23 01:36								
Decachlorobiphenyl	8.0002	112	30 - 160	9.326	9.354666	-0.0287	+/-0.1	
Decachlorobiphenyl [2C]	8.0002	115	30 - 160	10.429	10.4655	-0.0365	+/-0.1	
Tetrachlorometaxylyene	8.0002	67.7	30 - 160	3.804	3.827833	-0.0238	+/-0.1	
Tetrachlorometaxylyene [2C]	8.0002	71.8	30 - 160	4.198	4.219666	-0.0217	+/-0.1	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC

SDG/WO: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLA0279

Instrument: ECD6

Calibration: FL00041

Calibration Date: 12/15/2022

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BLA0164-MSD1 (Solid)			Lab File ID: 23012031.D		Analyzed: 01/21/23 01:54			
Decachlorobiphenyl	8.0002	93.3	30 - 160	9.326	9.354666	-0.0287	+/-0.1	
Decachlorobiphenyl [2C]	8.0002	97.5	30 - 160	10.429	10.4655	-0.0365	+/-0.1	
Tetrachlorometaxylene	8.0002	64.3	30 - 160	3.804	3.827833	-0.0238	+/-0.1	
Tetrachlorometaxylene [2C]	8.0002	67.8	30 - 160	4.198	4.219666	-0.0217	+/-0.1	
23A0032-05 (Solid)			Lab File ID: 23012033.D		Analyzed: 01/21/23 02:29			
Decachlorobiphenyl	7.9954	112	30 - 160	9.326	9.354666	-0.0287	+/-0.1	
Decachlorobiphenyl [2C]	7.9954	116	30 - 160	10.429	10.4655	-0.0365	+/-0.1	
Tetrachlorometaxylene	7.9954	76.0	30 - 160	3.805	3.827833	-0.0228	+/-0.1	
Tetrachlorometaxylene [2C]	7.9954	67.2	30 - 160	4.198	4.219666	-0.0217	+/-0.1	
23A0032-08 (Solid)			Lab File ID: 23012034.D		Analyzed: 01/21/23 02:47			
Decachlorobiphenyl	8.0002	92.1	30 - 160	9.326	9.354666	-0.0287	+/-0.1	
Decachlorobiphenyl [2C]	8.0002	94.2	30 - 160	10.43	10.4655	-0.0355	+/-0.1	
Tetrachlorometaxylene	8.0002	61.4	30 - 160	3.805	3.827833	-0.0228	+/-0.1	
Tetrachlorometaxylene [2C]	8.0002	68.1	30 - 160	4.198	4.219666	-0.0217	+/-0.1	
23A0032-11 (Solid)			Lab File ID: 23012035.D		Analyzed: 01/21/23 03:05			
Decachlorobiphenyl	7.9892	95.6	30 - 160	9.33	9.354666	-0.0247	+/-0.1	
Decachlorobiphenyl [2C]	7.9892	118	30 - 160	10.432	10.4655	-0.0335	+/-0.1	
Tetrachlorometaxylene	7.9892	61.0	30 - 160	3.806	3.827833	-0.0218	+/-0.1	
Tetrachlorometaxylene [2C]	7.9892	65.2	30 - 160	4.198	4.219666	-0.0217	+/-0.1	
SLA0279-CCV2 (Solid)			Lab File ID: 23012042.D		Analyzed: 01/21/23 05:10			
Decachlorobiphenyl	40.000	95.7	80 - 120	9.325	9.354666	-0.0297	+/-0.1	
Decachlorobiphenyl [2C]	40.000	96.0	80 - 120	10.428	10.4655	-0.0375	+/-0.1	
Tetrachlorometaxylene	40.000	99.5	80 - 120	3.805	3.827833	-0.0228	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	98.9	80 - 120	4.198	4.219666	-0.0217	+/-0.1	
SLA0279-CCV3 (Solid)			Lab File ID: 23012054.D		Analyzed: 01/21/23 08:44			
Decachlorobiphenyl	40.000	95.9	80 - 120	9.325	9.354666	-0.0297	+/-0.1	
Decachlorobiphenyl [2C]	40.000	94.1	80 - 120	10.428	10.4655	-0.0375	+/-0.1	
Tetrachlorometaxylene	40.000	99.8	80 - 120	3.805	3.827833	-0.0228	+/-0.1	
Tetrachlorometaxylene [2C]	40.000	98.4	80 - 120	4.198	4.219666	-0.0217	+/-0.1	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SKL0233

Instrument: ECD6

Calibration: FL00041

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Performance Mix (SKL0233-PEM1)		(Water)	Lab File ID: 22121404.D			Analyzed: 12/14/22 20:20			
1-Bromo-2-Nitrobenzene	683485	3.15	672426	3.15	102	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	619012	9.503	609723	9.504	102	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1005375	3.35	1006482	3.35	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	772586	11.054	769764	11.053	100	50 - 200	0.001	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLA0279

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: ECD6
Calibration: FL00041

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLA0279-ICV1)		(Solid)	Lab File ID: 23012012.D			Analyzed: 01/20/23 20:15			
1-Bromo-2-Nitrobenzene	805810	3.132	805810	3.132	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	772398	9.474	772398	9.474	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1238226	3.333	1238226	3.333	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	892419	11.011	892419	11.011	100	50 - 200	0.000	+/-0.50	
Blank (BLA0164-BLK1)		(Solid)	Lab File ID: 23012027.D			Analyzed: 01/21/23 00:42			
1-Bromo-2-Nitrobenzene	815511	3.132	805810	3.132	101	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	685353	9.474	772398	9.474	89	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1273526	3.333	1238226	3.333	103	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	720442	11.011	892419	11.011	81	50 - 200	0.000	+/-0.50	
LCS (BLA0164-BS1)		(Solid)	Lab File ID: 23012028.D			Analyzed: 01/21/23 01:00			
1-Bromo-2-Nitrobenzene	822979	3.131	805810	3.132	102	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	680534	9.474	772398	9.474	88	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1253160	3.333	1238226	3.333	101	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	729652	11.012	892419	11.011	82	50 - 200	0.001	+/-0.50	
LCS Dup (BLA0164-BSD1)		(Solid)	Lab File ID: 23012029.D			Analyzed: 01/21/23 01:18			
1-Bromo-2-Nitrobenzene	807487	3.131	805810	3.132	100	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	676108	9.473	772398	9.474	88	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1237248	3.332	1238226	3.333	100	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	743554	11.01	892419	11.011	83	50 - 200	-0.001	+/-0.50	
Matrix Spike (BLA0164-MS1)		(Solid)	Lab File ID: 23012030.D			Analyzed: 01/21/23 01:36			
1-Bromo-2-Nitrobenzene	916432	3.13	805810	3.132	114	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	630666	9.473	772398	9.474	82	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1197557	3.332	1238226	3.333	97	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	734340	11.011	892419	11.011	82	50 - 200	0.000	+/-0.50	
Matrix Spike Dup (BLA0164-MSD1)		(Solid)	Lab File ID: 23012031.D			Analyzed: 01/21/23 01:54			
1-Bromo-2-Nitrobenzene	943093	3.131	805810	3.132	117	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	655901	9.476	772398	9.474	85	50 - 200	0.002	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1245056	3.332	1238226	3.333	101	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	779608	11.013	892419	11.011	87	50 - 200	0.002	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLA0279

Instrument: ECD6

Calibration: FL00041

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-IT1224 (23A0032-05)		(Solid)		Lab File ID: 23012033.D		Analyzed: 01/21/23 02:29			
1-Bromo-2-Nitrobenzene	755005	3.131	805810	3.132	94	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	625148	9.475	772398	9.474	81	50 - 200	0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1166990	3.332	1238226	3.333	94	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	750029	11.012	892419	11.011	84	50 - 200	0.001	+/-0.50	
LDW23-SC1226B (23A0032-08)		(Solid)		Lab File ID: 23012034.D		Analyzed: 01/21/23 02:47			
1-Bromo-2-Nitrobenzene	938466	3.13	805810	3.132	116	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	642842	9.475	772398	9.474	83	50 - 200	0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1175157	3.332	1238226	3.333	95	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	756270	11.012	892419	11.011	85	50 - 200	0.001	+/-0.50	
LDW23-SC1212 (23A0032-11)		(Solid)		Lab File ID: 23012035.D		Analyzed: 01/21/23 03:05			
1-Bromo-2-Nitrobenzene	995762	3.131	805810	3.132	124	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	673251	9.48	772398	9.474	87	50 - 200	0.006	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	1229607	3.332	1238226	3.333	99	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	736325	11.016	892419	11.011	83	50 - 200	0.005	+/-0.50	



HOLDING TIME SUMMARY

Analysis: EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-IT1224 23A0032-05	01/03/23 13:21	01/03/23 16:57	01/10/23 16:22	7	365	01/21/23 02:29	10	40	
LDW23-SC1226B 23A0032-08	01/03/23 12:35	01/03/23 16:57	01/10/23 16:22	7	365	01/21/23 02:47	10	40	
LDW23-SC1212 23A0032-11	01/03/23 14:01	01/03/23 16:57	01/10/23 16:22	7	365	01/21/23 03:05	10	40	
Matrix Spike BLA0164-MS1	01/03/23 12:35	01/03/23 16:57	01/10/23 16:22	7	365	01/21/23 01:36	10	40	
Matrix Spike Dup BLA0164-MSD1	01/03/23 12:35	01/03/23 16:57	01/10/23 16:22	7	365	01/21/23 01:54	10	40	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**

EPA 8081B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: ECD6

Analyte	MDL	RL	Units
Hexachlorobenzene	0.15	0.50	ug/kg
Hexachlorobenzene [2C]	0.15	0.50	ug/kg

CERTIFICATE OF ANALYSIS

Catalog No: S-279N
Description: Tetrachloro-m-xylene
Lot: 0052481B-1
Solvent: N/A
Hazards: Refer to SDS for complete safety information

Date Certified: Jul 28, 2005
Expiration: Jul 28, 2015
Sample Size: 100 mg
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Warning

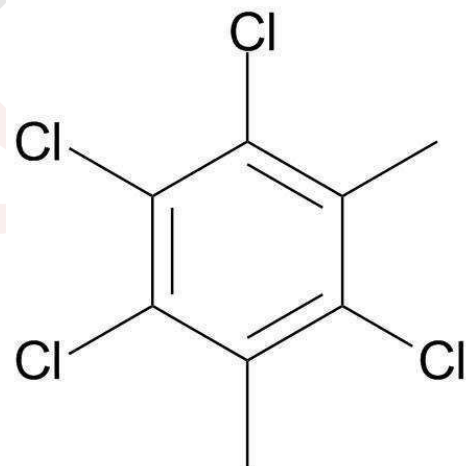
Certified Reference Material



Component	CAS #	Purity % (GC/FID)	Prepared Concentration	Certified Analyte Concentration ¹
Tetrachloro-meta-xylene	877-09-8	96.0	N/A	N/A

Identification:

Molecular formula: C₈H₆Cl₄
Molecular weight: 243.94



C000147

tetrachlorometaxylene

Expires 1/15/2020

Prepared By Joshua Rains 1/15/2014

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

¹ The Uncertainty calculated for this product is ±2.4%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Metrological traceability is established through in-house validated methods.

Purity, if stated, is equal to 100% minus found impurity components. Impurity components have not been identified.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager



AccuStandard

125 Market Street
New Haven, CT 06513
(203) 786-5290

CERTIFICATE OF PRODUCT DATA

PRODUCT: C-209N

EXPIRATION: Jul 28, 2015

DESCRIPTION: 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl

LOT #: 990521LB-AC

SOLVENT: N/A

This product is guaranteed accurate to $\pm 0.5\%$ of the Certified Analyte concentration through the Expiration Date on the Label.

Component	CAS #	Purity % (GC/MS)	Prepared Concentration ¹	Certified Analyte Concentration ²
2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	2051-24-3	100	N/A	N/A

2;

C000148

decachlorobiphenyl

Expires 1/15/2020

Prepared By Joshua Rains 1/15/2014

** I 1768 A*

Certified by:

R. Cooper

Please note: AccuStandard follows the U.S. conventions in reporting numerical values, on both certificates and labels.

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through National Institute of Standards & Technology, Test No. 822/254480
 2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty calculated for this product is $\pm 0.5\%$ which is the Combined Uncertainty $U_c(y)$. It represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The Expanded Uncertainty is U which is $U_c(y) * K$ where K is the coverage factor at the 95% confidence level ($K=2$).
 3. A product with a suffix (-1A, -2B, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

This product was manufactured in accordance to quality system requirements of ISO 9001:2000 and ISO 17025

** Recertified ~ 4-6-09 (S)*



Analytical Standard Record
Standard ID: C000148

Printed: 4/23/2015 11:54:44AM

Description:	decachlorobiphenyl	Expires:	15-Jan-2020
Standard Type:	Other	Prepared:	15-Jan-2014
Solvent:	na/a	Prepared By:	Joshua Rains
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	27-Feb-2015 13:03 by JGR
Vendor:	Accustandard	Lot #:	9905211b-ac
Vendor Catalog #:			

Comments

see i1768a
SOM calibrations added 06/12/14 sdrd

Analyte	CAS Number	Concentration	Units
Decachlorobiphenyl [2C]	2051-24-3	1000000	ug/mL
Decachlorobiphenyl	2051-24-3	1000000	ug/mL
DCB 1660 [2C]	2051-24-3	1000000	ug/mL
DCB 1660	2051-24-3	1000000	ug/mL
DCB [2C]	2051-24-3	1000000	ug/mL
DCB (A) [2C]	2051-24-3	1000000	ug/mL
DCB (A)	2051-24-3	1000000	ug/mL
DCB	2051-24-3	1000000	ug/mL

Reviewed By

Date

CERTIFICATE OF ANALYSIS

Catalog No: P-066S
Description: Mirex
Lot: 219051741-01
Solvent: Methanol
Hazards: Refer to SDS for complete safety information

Date Certified: Jun 5, 2020
Expiration: Jun 5, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Mirex	2385-85-5	98.2	100.2	98.4



1007970

Mirex 2d source
Solvent / Lot: MeOH
Prep: 9/7/2020 by JR
Exp: 6/5/2024
Location:

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: 

Larry Decker, Organic QC Manager

CERTIFICATE OF ANALYSIS

Catalog No: P-026S
Description: o,p'-DDE
Lot: 218021093-01
Solvent: Methanol
Hazards: Refer to SDS for complete safety information

Date Certified: Feb 10, 2020
Expiration: Feb 10, 2023
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity %	Prepared	Certified Analyte
		(GC/MS)	Concentration ² (µg/mL)	Concentration ¹ (µg/mL)
o,p'-DDE	3424-82-6	99.9	100.4	100.3

I7971

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 822-275872-11

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By:

Larry Decker, Organic QC Manager

CERTIFICATE OF ANALYSIS

Catalog No: P-184S
Description: trans-Nonachlor
Lot: 218011470
Solvent: Methanol
Hazards: Refer to SDS for complete safety information

Date Certified: Jan 30, 2018
Expiration: Jan 30, 2028
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
trans-Nonachlor	39765-80-5	99.0	100.2	99.2

I 7974

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.


² All weights are traceable through NIST, Test No. 822-275872-11

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: 
Larry Decker, Organic QC Manager

CERTIFICATE OF ANALYSIS

Catalog No: P-024S
Description: o,p'-DDD
Lot: 220051307
Solvent: Methanol
Hazards: Refer to SDS for complete safety information

Date Certified: May 27, 2020
Expiration: Jun 27, 2022
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
o,p'-DDD	53-19-0	100.0	100.2	100.2



I010773

o,p-²DDD
Solvent / Lot: methanol
Prep: 11/20/2020 by VS
Exp: 6/27/2022
Location:

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.


² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: 
Larry Decker, Organic QC Manager

1. Quality Standards:

ISO 17034 – General Requirements for the Competence of Reference Material Producers ANAB Certificate Number AR-1463

ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories ANAB Certificate Number AT-1339

ISO 9001:2015 – Quality Management System – Requirements
Eagle Registrations Certificate Number 3774

2 Intended Use: The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7

3 Manufacturing: All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this

4 Homogeneity: This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5 Stability: The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6 Uncertainty: The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7 Legal Notice and Limit of Liability: This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

CERTIFICATE OF ANALYSIS

Catalog No: P-331S
Description: Oxychlordane Isomer
Lot: 218101131
Solvent: Methanol
Hazards: Refer to SDS for complete safety information

Date Certified: Oct 8, 2018
Expiration: Nov 8, 2020
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Oxychlordane Isomer	27304-13-8	97.7	102.4*	100.0



I010795

Oxychlordane isomer
Solvent / Lot: methanol
Prep: 11/20/2020 by VS
Exp: 6/20/2022
Location:

* Weight compensated to 100% purity.

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: 
Larry Decker, Organic QC Manager

1. Quality Standards:

ISO 17034 – General Requirements for the Competence of Reference Material Producers ANAB Certificate Number AR-1463

ISO/IEC 17025 – General Requirements for the Competence of Testing And Calibration Laboratories ANAB Certificate Number AT-1339

ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations Certificate Number 3774

2 Intended Use: The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7

3 Manufacturing: All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards and calibrated using an in-house procedure. Good Laboratory Practices have been used throughout the preparation of this CRM.

4 Homogeneity: This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5 Stability: The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6 Uncertainty: The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7 Legal Notice and Limit of Liability: This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

CERTIFICATE OF ANALYSIS

Catalog No: P-297S
Description: cis-Nonachlor
Lot: 217121240
Solvent: Methanol
Hazards: Refer to SDS for complete safety information

Date Certified: Dec 13, 2017
Expiration: Dec 13, 2020
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ¹ (µg/mL)	Certified Analyte Concentration ² (µg/mL)
cis-Nonachlor	5103-73-1	98.6	100.4	99.0

I010796

cis-Nonochlor-Accustd-100ug/ml

Solvent / Lot: methanol

Prep: 11/20/2020 by VS

Exp: 11/27/2022

Location:



A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

¹ All weights are traceable through NIST, Test No. 822-275872-11

² Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By:

Larry Decker, Organic QC Manager

1. Quality Standards:

ISO 17034 – General Requirements for the Competence of Reference Material Producers ANAB Certificate Number AR-1463

ISO/IEC 17025 – General Requirements for the Competence of Testing And Calibration Laboratories ANAB Certificate Number AT-1339

ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations Certificate Number 3774

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 11.
3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards and calibrated using an in-house procedure. Good Laboratory Practices have been used throughout the preparation of this CRM.
4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.
5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label
6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.
7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

CERTIFICATE OF ANALYSIS

Catalog No: APP-9-112-D-20X
Description: Hexachlorobenzene in Dichloromethane
Lot: 219051389
Solvent: Dichloromethane
Hazards: Refer to SDS for complete safety information

Date Certified: May 13, 2019
Expiration: May 13, 2029
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Hexachlorobenzene	118-74-1	99.0	2002	1982



J006504

Hexachlorobenzene
Solvent / Lot: Dichloromethane
Prep: 6/21/2021 by YZ
Exp: 5/13/2029
Location:

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: 
Larry Decker, Organic QC Manager

1. Quality Standards:

ISO 17034 – General Requirements for the Competence of Reference Material Producers ANAB Certificate Number AR-1463

ISO/IEC 17025 – General Requirements for the Competence of Testing And Calibration Laboratories ANAB Certificate Number AT-1339

ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations Certificate Number 3774

2 Intended Use: The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7

3 Manufacturing: All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards and calibrated using an in-house procedure. Good Laboratory Practices have been used throughout the preparation of this

4 Homogeneity: This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5 Stability: The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6 Uncertainty: The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7 Legal Notice and Limit of Liability: This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

CERTIFICATE OF ANALYSIS

Catalog No: P-028S
Description: o,p'-DDT
Lot: 221071322
Solvent: Methanol
Hazards: Refer to SDS for complete safety information

Date Certified: Jul 21, 2021
Expiration: Aug 21, 2023
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Certified Reference Material



AR-1463

Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
o,p'-DDT	789-02-6	99.9	100.1	100.0

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.


The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 
Larry Decker, Organic QC Manager

1. Quality Standards:

ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

ISO 9001:2015 – Quality Management System – Requirements
Eagle Registrations

- 2. Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.
- 3. Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.
- 4. Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.
- 5. Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label
- 6. Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of $k=2$ is chosen using approximately a 95% confidence level.
- 7. Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

CERTIFICATE OF ANALYSIS

Catalog No: P-024S
Description: o,p'-DDD
Lot: 220051307-01
Solvent: Methanol
Hazards: Refer to SDS for complete safety information

Date Certified: Jul 6, 2021
Expiration: Aug 6, 2023
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
o,p'-DDD	53-19-0	100.0	100.2	100.2

K 0448

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

CERTIFICATE OF ANALYSIS

Catalog No: P-331S
Description: Oxychlordane Isomer
Lot: 221051706
Solvent: Methanol
Hazards: Refer to SDS for complete safety information

Date Certified: May 28, 2021
Expiration: Jun 28, 2023
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



AR-1463

Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Oxychlordane Isomer	27304-13-8	99.2	100.1	99.3

K000449

Oxychlordane isomer
Solvent / Lot: methanol
Prep: 1/13/2022 by YZ
Exp: 6/28/2023
Location:

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 
Larry Decker, Organic QC Manager

1. Quality Standards:

ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

ISO 9001:2015 – Quality Management System – Requirements
Eagle Registrations

- 2. Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.
- 3. Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.
- 4. Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.
- 5. Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label
- 6. Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of $k=2$ is chosen using approximately a 95% confidence level.
- 7. Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

CERTIFICATE OF ANALYSIS

Catalog No: P-297S
Description: cis-Nonachlor
Lot: 221041461
Solvent: Methanol
Hazards: Refer to SDS for complete safety information

Date Certified: Apr 22, 2021
Expiration: Apr 22, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
cis-Nonachlor	5103-73-1	98.6	101.1	99.7

K 000450

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

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Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

CERTIFICATE OF ANALYSIS

Catalog No: P-184S
Description: trans-Nonachlor
Lot: 220091107
Solvent: Methanol
Hazards: Refer to SDS for complete safety information

Date Certified: Sep 11, 2020
Expiration: Sep 11, 2030
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
trans-Nonachlor	39765-80-5	99.0	100.2	99.2

K-00451

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

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Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

CERTIFICATE OF ANALYSIS

Catalog No: P-066S

Description: Mirex

Lot: 219051741-01

Solvent: Methanol

Hazards: Refer to SDS for complete safety information

Date Certified: Jun 5, 2020

Expiration: Jun 5, 2024

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Mirex	2385-85-5	98.2	100.2	98.4

K 000952

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of $K=2$ is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

K 000 452

CERTIFICATE OF ANALYSIS

Catalog No: P-066S

Description: Mirex

Lot: 221121451

Solvent: Methanol

Hazards: Refer to SDS for complete safety information

Date Certified: Dec 27, 2021

Expiration: Dec 27, 2025

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Mirex	2385-85-5	98.2	100.0	98.2

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

CERTIFICATE OF ANALYSIS

Catalog No: M-8081-DS
Description: 4,4'-DDT & Endrin
Lot: 221031488-04
Solvent: Hexane
Hazards: Refer to SDS for complete safety information

Date Certified: Apr 8, 2022
Expiration: May 8, 2023
Sample Size: 1 mL
Components: 2
Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
4,4'-DDT	50-29-3	100.0	200.9	200.9
Endrin	72-20-8	99.8	200.0	199.6

K7002

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

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Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:



Larry Decker, Organic QC Manager



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32292 **Lot No.:** A0185477

Description : Organochlorine Pesticide Mix AB # 2
Organochlorine Pesticide Mix AB # 2 8-80 µg/mL, Hexane/Toluene(1:1), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	alpha-BHC	8.1 µg/mL	+/-	0.0660	µg/mL	Gravimetric
	CAS # 319-84-6 (Lot 12307600)		+/-	0.3703	µg/mL	Unstressed
	Purity 99%		+/-	0.5325	µg/mL	Stressed
2	gamma-BHC (Lindane)	8.0 µg/mL	+/-	0.0654	µg/mL	Gravimetric
	CAS # 58-89-9 (Lot 13087200)		+/-	0.3672	µg/mL	Unstressed
	Purity 99%		+/-	0.5281	µg/mL	Stressed
3	beta-BHC	8.1 µg/mL	+/-	0.0660	µg/mL	Gravimetric
	CAS # 319-85-7 (Lot 0588007-4)		+/-	0.3703	µg/mL	Unstressed
	Purity 99%		+/-	0.5325	µg/mL	Stressed
4	delta-BHC	8.1 µg/mL	+/-	0.0660	µg/mL	Gravimetric
	CAS # 319-86-8 (Lot 13112400)		+/-	0.3703	µg/mL	Unstressed
	Purity 99%		+/-	0.5325	µg/mL	Stressed
5	Heptachlor	8.0 µg/mL	+/-	0.0654	µg/mL	Gravimetric
	CAS # 76-44-8 (Lot 803759)		+/-	0.3672	µg/mL	Unstressed
	Purity 99%		+/-	0.5281	µg/mL	Stressed
6	Aldrin	8.1 µg/mL	+/-	0.0660	µg/mL	Gravimetric
	CAS # 309-00-2 (Lot 12983100)		+/-	0.3702	µg/mL	Unstressed
	Purity 96%		+/-	0.5323	µg/mL	Stressed
7	Heptachlor epoxide (isomer B)	8.1 µg/mL	+/-	0.0660	µg/mL	Gravimetric
	CAS # 1024-57-3 (Lot 13168200)		+/-	0.3703	µg/mL	Unstressed
	Purity 99%		+/-	0.5325	µg/mL	Stressed

8	trans-Chlordane CAS # 5103-74-2 Purity 98%	(Lot 32943)	8.0 µg/mL	+/- 0.0657 +/- 0.3689 +/- 0.5305	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	cis-Chlordane CAS # 5103-71-9 Purity 98%	(Lot 31766)	8.0 µg/mL	+/- 0.0657 +/- 0.3689 +/- 0.5305	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Endosulfan I CAS # 959-98-8 Purity 99%	(Lot BCCF4060)	8.0 µg/mL	+/- 0.0654 +/- 0.3672 +/- 0.5281	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	4,4'-DDE CAS # 72-55-9 Purity 99%	(Lot GHYQG)	16.1 µg/mL	+/- 0.1314 +/- 0.7375 +/- 1.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Dieldrin CAS # 60-57-1 Purity 98%	(Lot 11129900)	16.1 µg/mL	+/- 0.1320 +/- 0.7408 +/- 1.0653	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Endrin CAS # 72-20-8 Purity 99%	(Lot 13157400)	16.1 µg/mL	+/- 0.1320 +/- 0.7406 +/- 1.0650	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	4,4'-DDD CAS # 72-54-8 Purity 99%	(Lot HAN02)	16.1 µg/mL	+/- 0.1320 +/- 0.7406 +/- 1.0650	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Endosulfan II CAS # 33213-65-9 Purity 99%	(Lot 12448900)	16.0 µg/mL	+/- 0.1309 +/- 0.7345 +/- 1.0562	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	4,4'-DDT CAS # 50-29-3 Purity 98%	(Lot 220428JLM)	16.1 µg/mL	+/- 0.1315 +/- 0.7378 +/- 1.0610	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Endrin aldehyde CAS # 7421-93-4 Purity 99%	(Lot 30720)	16.1 µg/mL	+/- 0.1314 +/- 0.7375 +/- 1.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Endosulfan sulfate CAS # 1031-07-8 Purity 99%	(Lot BCCB0424)	16.1 µg/mL	+/- 0.1320 +/- 0.7406 +/- 1.0650	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Methoxychlor CAS # 72-43-5 Purity 98%	(Lot 13027000)	80.2 µg/mL	+/- 0.5781 +/- 3.6697 +/- 5.2871	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Endrin ketone CAS # 53494-70-5 Purity 99%	(Lot 13026800)	16.1 µg/mL	+/- 0.1314 +/- 0.7375 +/- 1.0606	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Hexane/Toluene (50:50)
CAS # 110-54-3/108-88-3
Purity 99%

Column:
30m x .25mm x .2um
Rtx-CLP II (cat.# 11323)

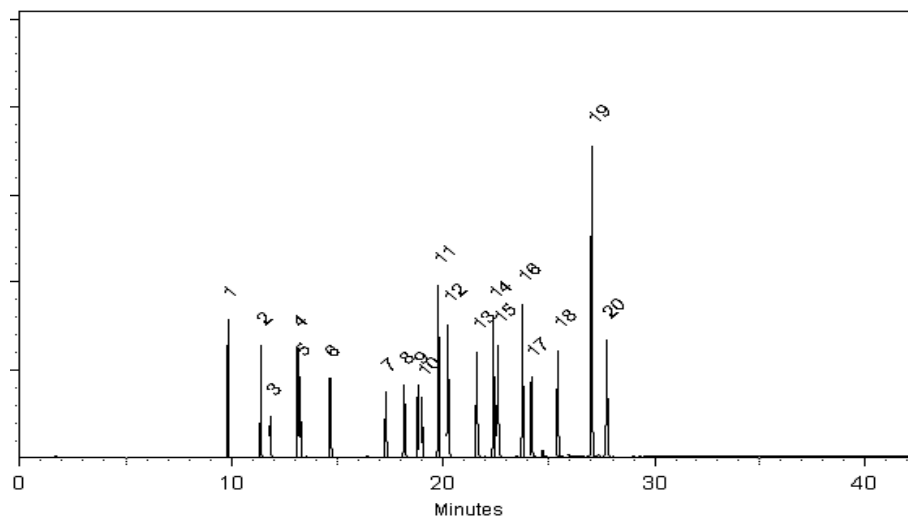
Carrier Gas:
helium-constant pressure 20 psi.

Temp. Program:
150°C to 300°C
@ 4°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
300°C


Det. Type:
ECD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Morgan Craighead - Mix Technician

Date Mixed: 19-May-2022 **Balance:** B442140311


Fang-Yun Lo - GC Analyst

Date Passed: 26-May-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.



CERTIFICATE OF ANALYSIS

Catalog No: M-502-36-10X

Description: Hexachlorobutadiene

Lot: 222031188

Solvent: Methanol

Hazards: Refer to SDS for complete safety information

Date Certified: Mar 11, 2022

Expiration: Apr 11, 2024

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Hexachlorobutadiene	87-68-3	98.0	2002	1962

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: 
Larry Decker, Organic QC Manager

1. Quality Standards:

ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

ISO 9001:2015 – Quality Management System – Requirements
Eagle Registrations

2. Intended Use: The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. Manufacturing: All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. Homogeneity: This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. Stability: The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. Uncertainty: The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of $k=2$ is chosen using approximately a 95% confidence level.

7. Legal Notice and Limit of Liability: This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

CERTIFICATE OF ANALYSIS

Catalog No: M-502-36-10X

Description: Hexachlorobutadiene

Lot: 222031188

Solvent: Methanol

Hazards: Refer to SDS for complete safety information

Date Certified: Mar 11, 2022

Expiration: Apr 11, 2024

Sample Size: 1 mL

Components: 1

Storage Condition: Ambient (>5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Hexachlorobutadiene	87-68-3	98.0	2002	1962

K011468

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

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Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262315ECD7.D
Data file 2: /230126.b/230126.b/01262315ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0032-01
Client ID:
Injection Date: 26-JAN-2023 15:01
Report Date: 01/27/2023 15:36
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.806	-0.003	157010	5.682	-0.004	126820	30.1	35.1	15.1	Tetrachloro-m-xylene
13.883	-0.009	125990	14.113	-0.007	142244	36.7	36.7	0.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	368760	-26.7
Hexabromobiphenyl	647433	320870	-50.4 <-

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	267611	-20.6
Hexabromobiphenyl	382032	244338	-36.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.395	-0.010	12145	65.8	1	8.299	-0.007	9186	75.9	
Aroclor-1248	2	8.563	-0.017	9008	38.3	2	8.705	-0.007	7539	57.9	
Aroclor-1248	3	8.984	-0.015	28538	63.4	3	9.138	-0.018	10646	66.9	
Aroclor-1248	4	9.285	-0.008	33782	151.6	4	9.532	-0.050	22260	113.1	
Total CollAve (4 peaks):				79.8	Total Col2Ave (4 peaks):				78.5	RPD = 2	
Corrected Ave (3 peaks):				55.8	Corrected Ave (3 peaks):				66.9	RPD = 18	
Aroclor-1254	1	9.285	-0.014	33782	89.9	1	9.438	-0.010	26975	138.9	
Aroclor-1254	2	9.361	-0.017	13939	86.9	2	9.957	-0.012	13016	82.9	
Aroclor-1254	3	9.658	-0.011	30000	124.6	3	10.105	-0.016	44446	129.8	
Aroclor-1254	4	9.786	-0.023	50901	107.9	4	10.354	-0.017	54228	158.4	
Aroclor-1254	5	10.238	0.061	21450	69.9	5	10.554	-0.015	41761	219.0	
Total CollAve (5 peaks):				95.8	Total Col2Ave (5 peaks):				145.8	RPD = 41*	
Corrected Ave (4 peaks):				88.6	Corrected Ave (4 peaks):				127.5	RPD = 36	
Aroclor-1260	1	11.032	-0.011	24416	135.6	1	11.643	-0.010	23620	134.0	
Aroclor-1260	2	11.348	-0.013	20958	113.2	2	11.904	-0.013	46662	104.6	
Aroclor-1260	3	11.717	-0.017	51318	105.3	3	12.419	-0.017	32491	292.3	
Aroclor-1260	4	12.117	-0.022	26452	105.1	4	12.488	-0.014	34256	118.7	
Aroclor-1260	5	12.232	-0.012	17767	161.9	NS	---			---	
Total CollAve (5 peaks):				124.2	Total Col2Ave (4 peaks):				162.4	RPD = 27	
Corrected Ave (4 peaks):				114.8	Corrected Ave (3 peaks):				119.1	RPD = 4	
Aroclor-1262	1	10.806	-0.026	75135	579.0	1	---			0.0	
Aroclor-1262	2	12.232	-0.013	17767	86.7	2	---			0.0	
Aroclor-1262	3	12.306	-0.015	22318	100.4	3	---			0.0	
Aroclor-1262	4	12.969	-0.020	21559	106.4	4	---			0.0	
Total CollAve (4 peaks):					218.1	Col2Ave: <3 Quant Peaks					
Aroclor-1268	1	12.232	-0.013	17767	33.5	1	---			0.0	
Aroclor-1268	2	12.306	-0.012	22318	42.2	2	---			0.0	
Aroclor-1268	3	12.709	0.010	11486	26.2	3	---			0.0	
Aroclor-1268	4	13.476	-0.013	10965	8.4	4	---			0.0	
Total CollAve (4 peaks):					27.6	Col2Ave: <3 Quant Peaks					

Total PCB Area Col1 (5.909 - 13.792) = 1142483 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 869505 Col2 Total PCB = 0.3 ppm*

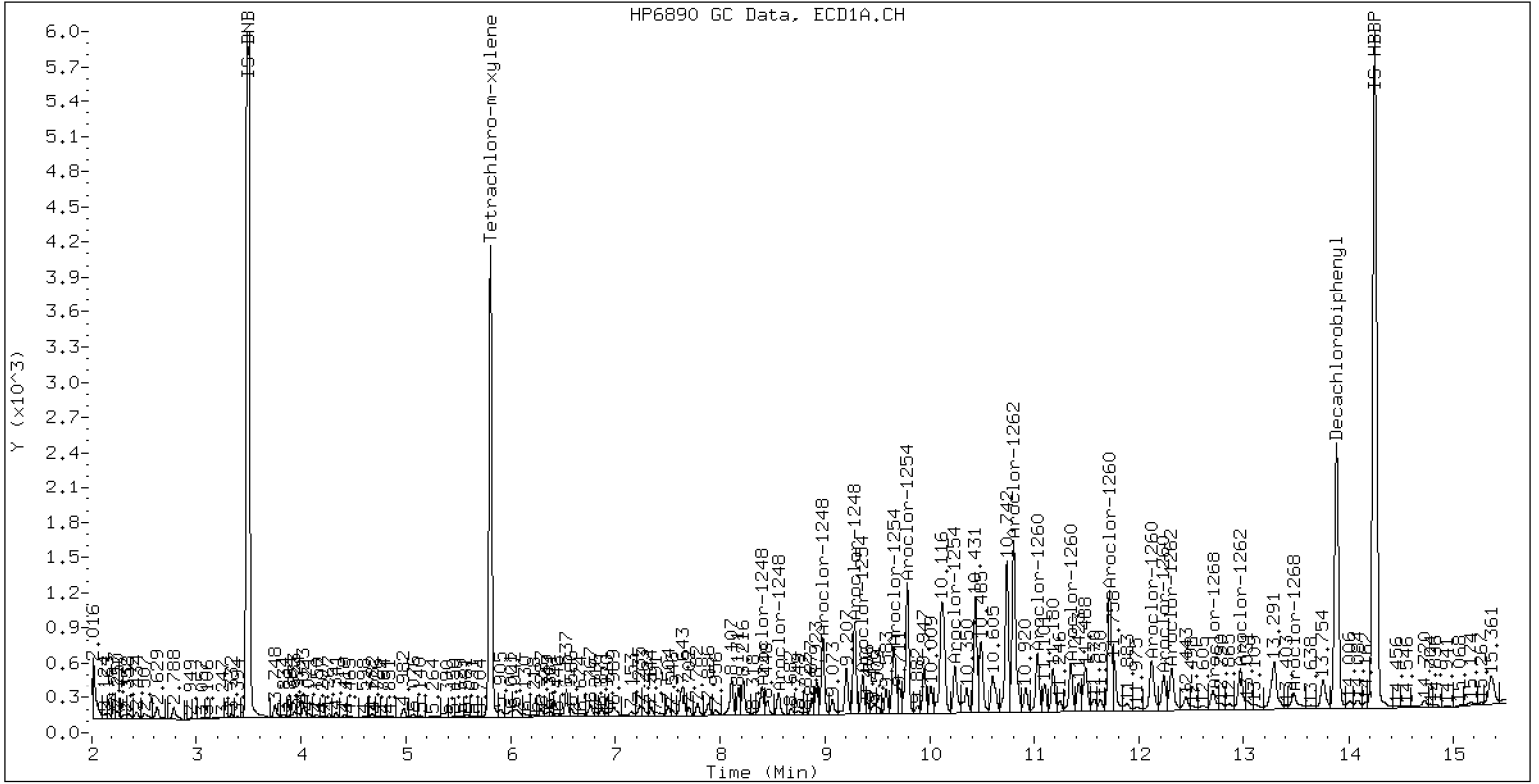
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23A0032-01

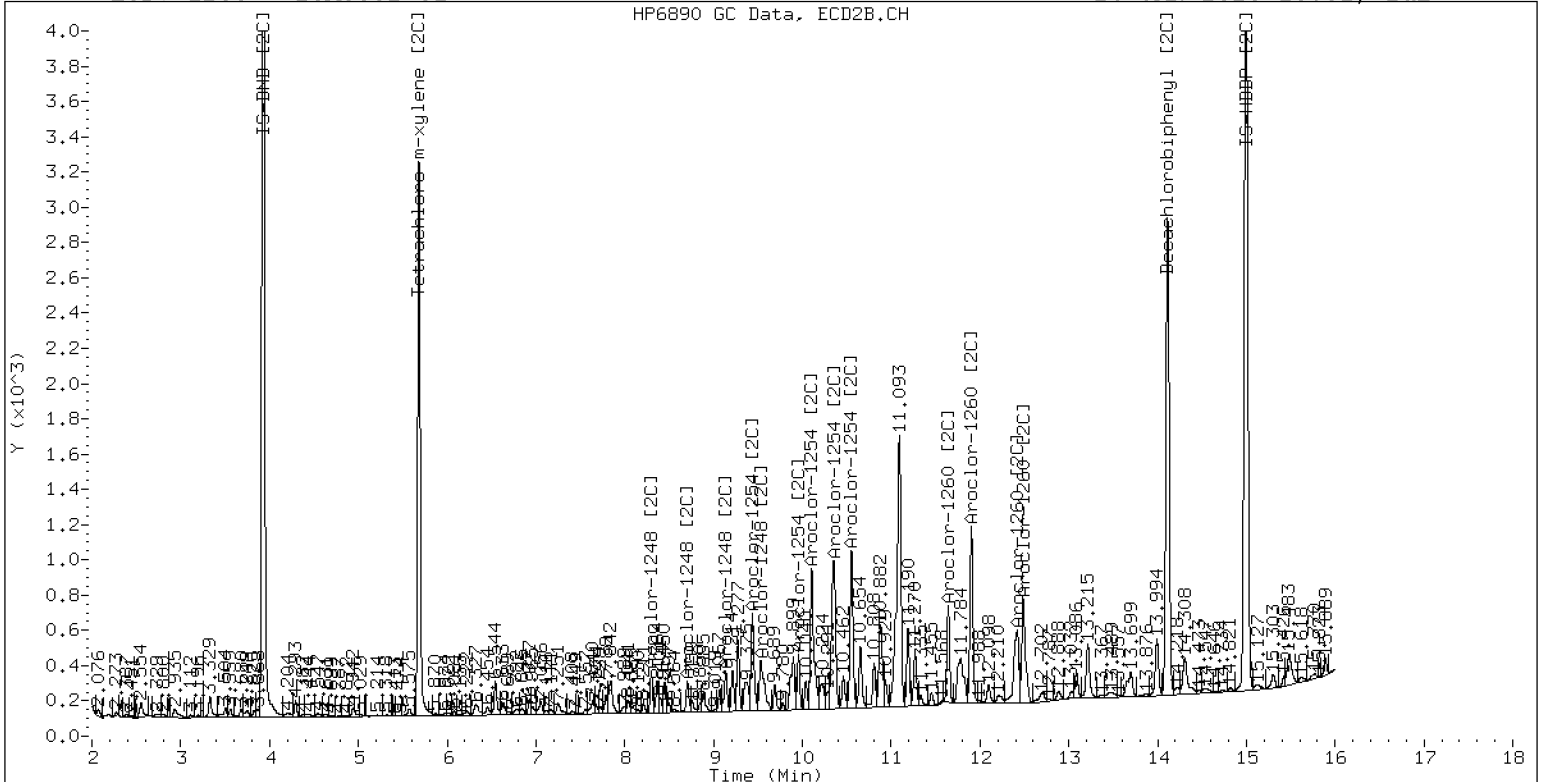
26-JAN-2023 15:01, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0032-01

26-JAN-2023 15:01, 2u1



ZB-35 Manual Integration: NO



Dual Column

LDW23-IT1264

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23A0032</u>	
Client: <u>Anchor QEA, LLC</u>		
Project: <u>AOC5 MR Phase 1</u>		
Matrix: <u>Solid</u>	Laboratory ID: <u>23A0032-02 A</u>	File ID: <u>01262316ECD7.D</u>
Sampled: <u>01/03/23 09:12</u>	Prepared: <u>01/11/23 11:11</u>	Analyzed: <u>01/26/23 15:22</u>
% Solids: <u>61.49</u>	Preparation: <u>EPA 3546 (Microwave)</u>	Initial/Final: <u>20.38 g Wet / 2.5 mL</u>
Batch: <u>BLA0165</u>	Sequence: <u>SLA0304</u>	Calibration: <u>GA00061</u>
Instrument: <u>ECD7</u>	Column 1: <u>ZB5</u>	Column 2: <u>ZB35</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	15.0	1.6	4.0	
11097-69-1	Aroclor 1254	2	1	20.8	1.6	4.0	
11096-82-5	Aroclor 1260	2	1	21.0	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9798	7.59	95.2	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9798	6.18	77.5	44 - 120	
<i>Decachlorobiphenyl</i>	2	7.9798	7.60	95.3	40 - 126	
<i>Tetrachlorometaxylene</i>	2	7.9798	7.41	92.8	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262316ECD7.D
Data file 2: /230126.b/230126.b/01262316ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0032-02
Client ID:
Injection Date: 26-JAN-2023 15:22
Report Date: 01/27/2023 15:36
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col			ZB35 Col			ZB5	ZB35	RPD	Compound/Flag
RT	Shift	Response	RT	Shift	Response	on col	on col		
5.806	-0.003	151426	5.682	-0.004	123201	31.0	37.1	18.1	Tetrachloro-m-xylene
13.884	-0.008	110177	14.113	-0.007	127801	38.1	38.1	0.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	345801	-31.3
Hexabromobiphenyl	647433	270599	-58.2 <-

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	245396	-27.2
Hexabromobiphenyl	382032	211258	-44.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.396	-0.009	14466	83.6	1	8.299	-0.007	9212	83.0	
Aroclor-1248	2	8.562	-0.018	9916	44.9	2	8.704	-0.008	6859	57.4	
Aroclor-1248	3	8.984	-0.015	21637	51.3	3	9.137	-0.019	7706	52.8	
Aroclor-1248	4	9.285	-0.009	25066	120.0	4	9.531	-0.051	18039	100.0	
Total CollAve (4 peaks):				74.9	Total Col2Ave (4 peaks):				73.3	RPD = 2	
Corrected Ave (3 peaks):				59.9	Corrected Ave (3 peaks):				64.4	RPD = 7	
Aroclor-1254	1	9.285	-0.014	25066	71.1	1	9.438	-0.010	19544	109.8	
Aroclor-1254	2	9.361	-0.017	9654	64.2	2	9.956	-0.013	9339	64.9	
Aroclor-1254	3	9.662	-0.008	23705	105.0	3	10.105	-0.016	34107	108.7	
Aroclor-1254	4	9.785	-0.023	38425	86.8	4	10.356	-0.016	42021	133.9	
Aroclor-1254	5	10.236	0.059	21945	76.3	5	10.554	-0.015	32553	186.2	
Total CollAve (5 peaks):				80.7	Total Col2Ave (5 peaks):				120.7	RPD = 40	
Corrected Ave (4 peaks):				74.6	Corrected Ave (4 peaks):				104.3	RPD = 33	
Aroclor-1260	1	11.031	-0.012	16303	107.4	1	11.643	-0.010	18600	122.0	
Aroclor-1260	2	11.348	-0.013	14498	92.9	2	11.904	-0.014	35531	92.2	
Aroclor-1260	3	11.717	-0.018	33864	82.4	3	12.400	-0.036	28929	301.0	
Aroclor-1260	4	12.117	-0.022	19076	89.9	4	12.488	-0.014	25398	101.8	
Aroclor-1260	5	12.231	-0.013	11796	127.5	NS	---			---	
Total CollAve (5 peaks):				100.0	Total Col2Ave (4 peaks):				154.2	RPD = 43*	
Corrected Ave (4 peaks):				93.1	Corrected Ave (3 peaks):				105.3	RPD = 12	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.909 - 13.792) = 1067134 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 840639 Col2 Total PCB = 0.3 ppm*

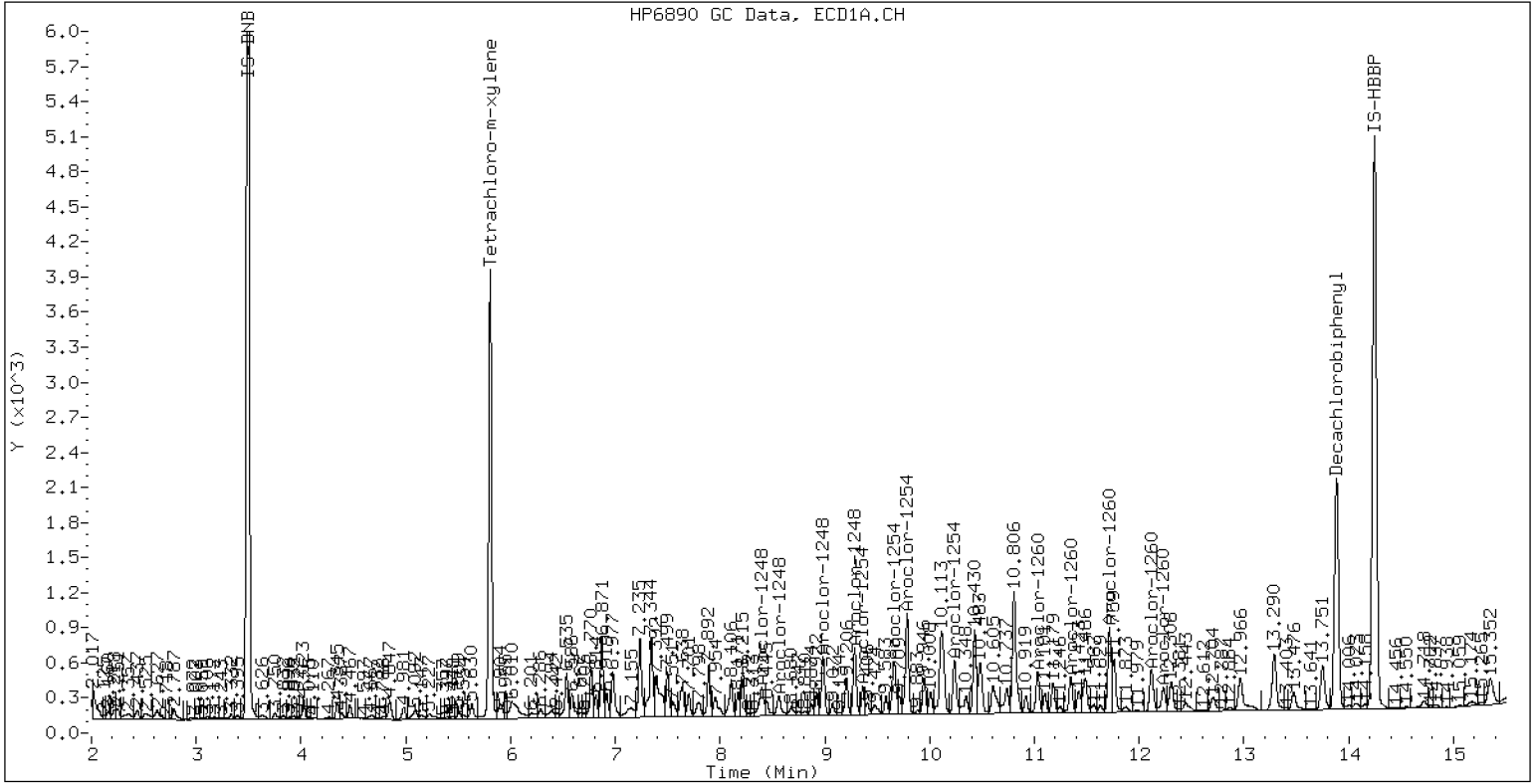
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23A0032-02

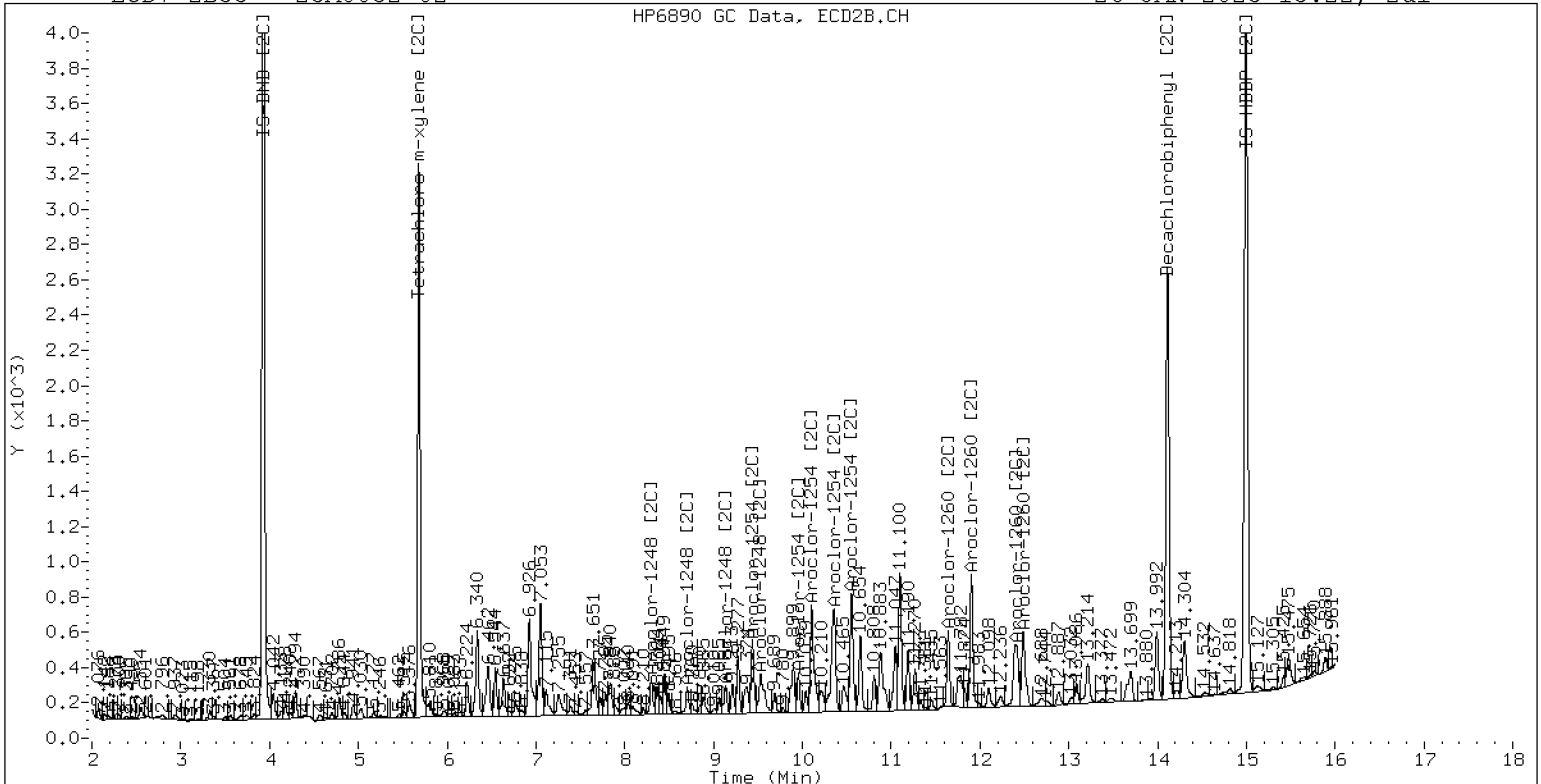
26-JAN-2023 15:22, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0032-02

26-JAN-2023 15:22, 2ul



ZB-35 Manual Integration: NO



Dual Column

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: Analytical Resources, LLC SDG: 23A0032
Client: Anchor QEA, LLC
Project: AOC5 MR Phase 1
Matrix: Solid Laboratory ID: 23A0032-03 A File ID: 01262317ECD7.D
Sampled: 01/03/23 09:36 Prepared: 01/11/23 11:11 Analyzed: 01/26/23 15:43
% Solids: 65.27 Preparation: EPA 3546 (Microwave) Initial/Final: 19.16 g Wet / 2.5 mL
Batch: BLA0165 Sequence: SLA0304 Calibration: GA00061
Instrument: ECD7 Column 1: ZB5 Column 2: ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	10.6	1.6	4.0	
11097-69-1	Aroclor 1254	2	1	15.6	1.6	4.0	
11096-82-5	Aroclor 1260	2	1	17.3	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	<i>1</i>	<i>7.9963</i>	<i>7.32</i>	<i>91.5</i>	<i>40 - 126</i>	
<i>Tetrachlorometaxylene</i>	<i>1</i>	<i>7.9963</i>	<i>6.24</i>	<i>78.0</i>	<i>44 - 120</i>	
<i>Decachlorobiphenyl</i>	<i>2</i>	<i>7.9963</i>	<i>7.11</i>	<i>89.0</i>	<i>40 - 126</i>	
<i>Tetrachlorometaxylene</i>	<i>2</i>	<i>7.9963</i>	<i>7.31</i>	<i>91.4</i>	<i>44 - 120</i>	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262317ECD7.D
Data file 2: /230126.b/230126.b/01262317ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0032-03
Client ID:
Injection Date: 26-JAN-2023 15:43
Report Date: 01/27/2023 15:36
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.806	-0.003	164926	5.683	-0.004	132426	31.2	36.6	15.8	Tetrachloro-m-xylene
13.884	-0.008	111580	14.113	-0.007	125946	36.6	35.6	2.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	373922	-25.7
Hexabromobiphenyl	647433	285108	-56.0 <-

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	268000	-20.5
Hexabromobiphenyl	382032	222973	-41.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.395	-0.011	10388	55.5	1	8.299	-0.006	7347	60.6	
Aroclor-1248	2	8.564	-0.016	7447	31.2	2	8.705	-0.007	6206	47.6	
Aroclor-1248	3	8.985	-0.014	17315	37.9	3	9.139	-0.017	7081	44.4	
Aroclor-1248	4	9.286	-0.008	19867	87.9	4	9.532	-0.049	13432	68.2	
Total CollAve (4 peaks):				53.2	Total Col2Ave (4 peaks):				55.2	RPD = 4	
Corrected Ave (3 peaks):				41.6	Corrected Ave (3 peaks):				50.9	RPD = 20	
Aroclor-1254	1	9.286	-0.013	19867	52.1	1	9.438	-0.010	16653	85.7	
Aroclor-1254	2	9.362	-0.016	7675	47.2	2	9.957	-0.012	7340	46.7	
Aroclor-1254	3	9.660	-0.009	16682	68.3	3	10.106	-0.015	28081	81.9	
Aroclor-1254	4	9.787	-0.021	31168	65.1	4	10.357	-0.015	33367	97.3	
Aroclor-1254	5	10.238	0.061	12454	40.0	5	10.555	-0.014	25976	136.0	
Total CollAve (5 peaks):				54.6	Total Col2Ave (5 peaks):				89.5	RPD = 49*	
Corrected Ave (4 peaks):				51.1	Corrected Ave (4 peaks):				77.9	RPD = 42*	
Aroclor-1260	1	11.033	-0.011	14188	88.7	1	11.644	-0.010	16018	99.6	
Aroclor-1260	2	11.349	-0.012	12511	76.1	2	11.904	-0.013	31297	76.9	
Aroclor-1260	3	11.719	-0.016	30526	70.5	3	12.402	-0.034	24240	239.0	
Aroclor-1260	4	12.119	-0.021	18034	80.6	4	12.488	-0.014	21798	82.8	
Aroclor-1260	5	12.232	-0.012	8887	91.2	NS	---			---	
Total CollAve (5 peaks):				81.4	Total Col2Ave (4 peaks):				124.6	RPD = 42*	
Corrected Ave (4 peaks):				79.0	Corrected Ave (3 peaks):				86.4	RPD = 9	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.909 - 13.792) = 771462 Col1 Total PCB = 0.2 ppm*
Total PCB Area Col2 (5.787 - 14.020) = 616829 Col2 Total PCB = 0.2 ppm*

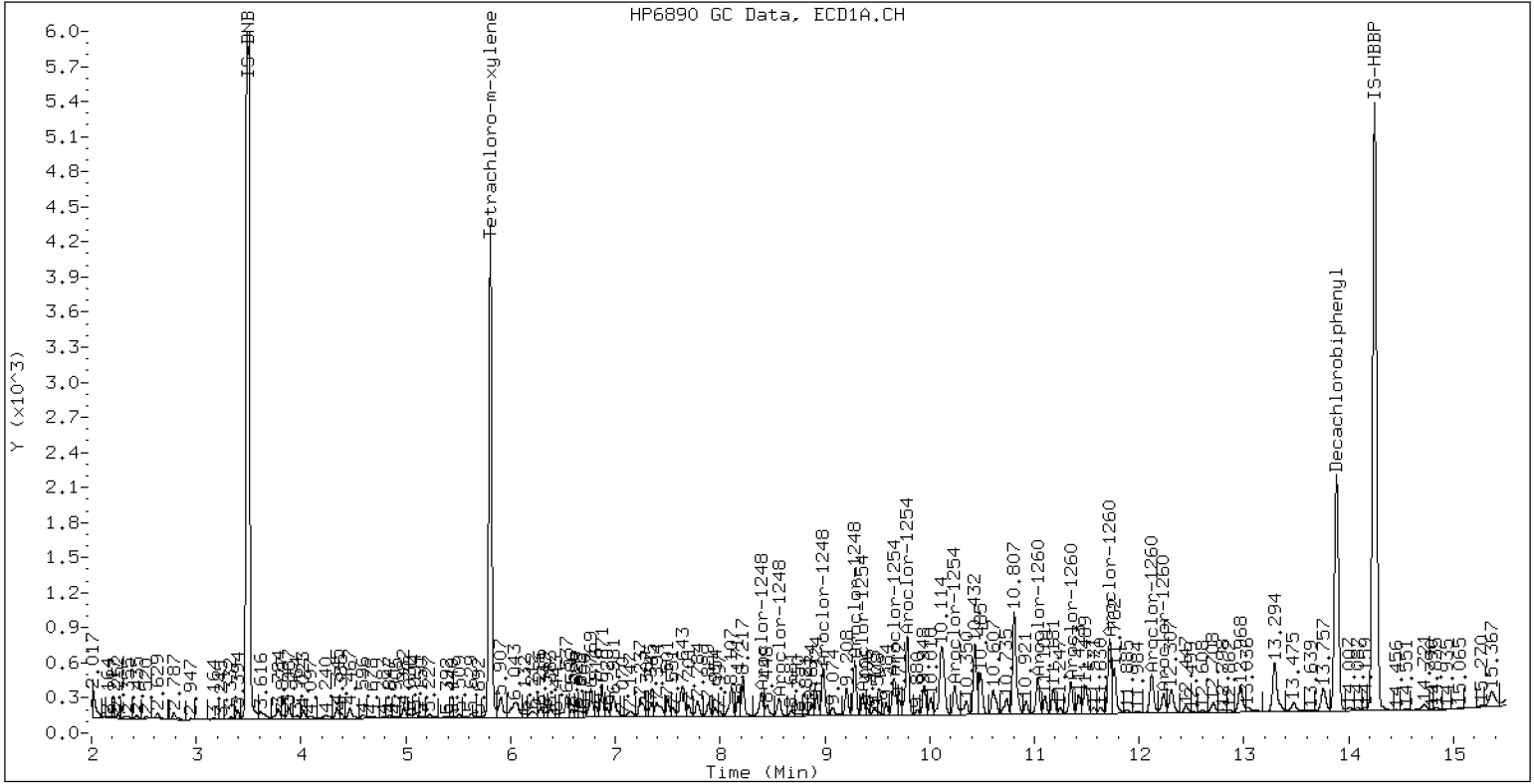
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23A0032-03

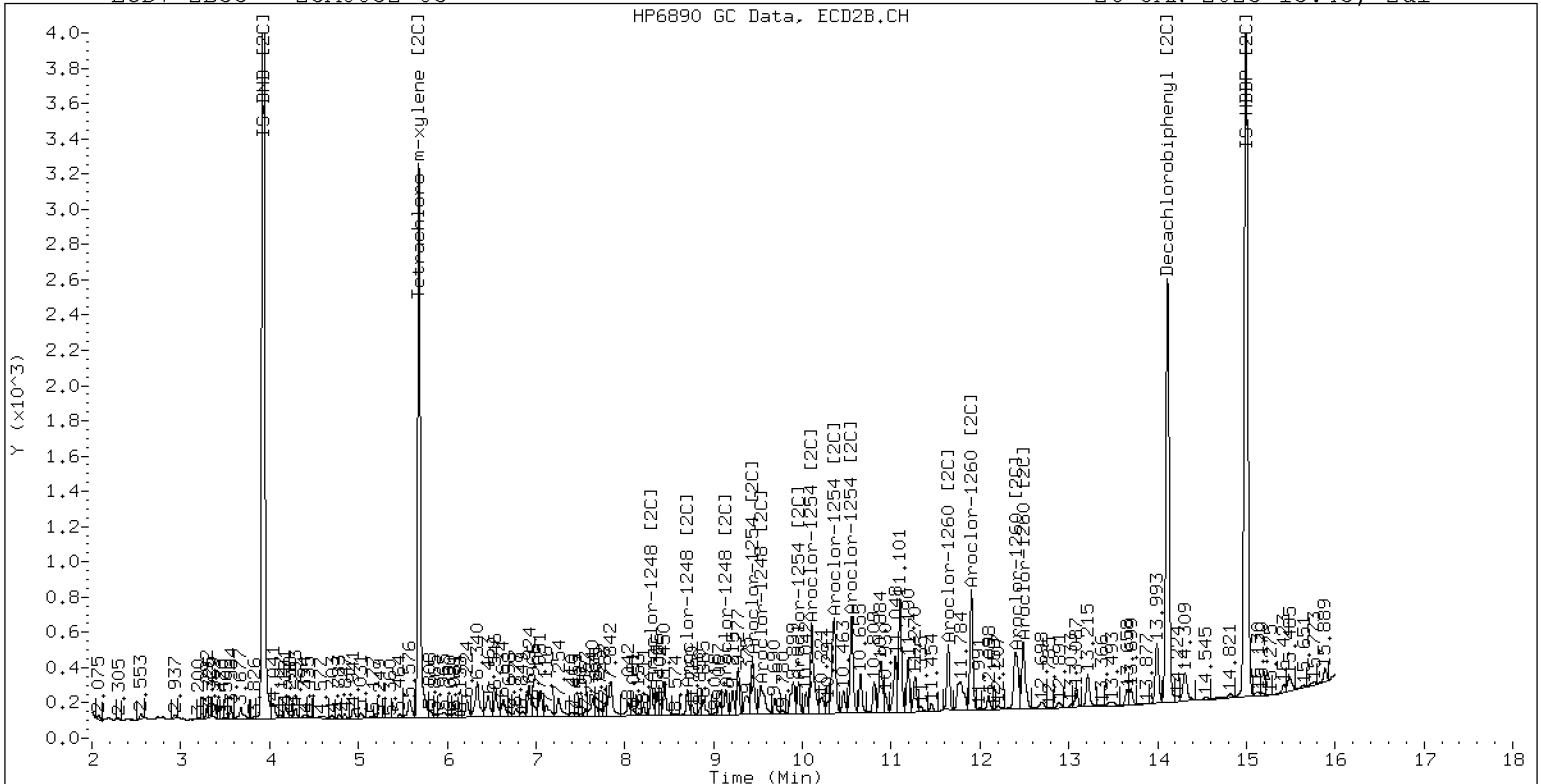
26-JAN-2023 15:43, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0032-03

26-JAN-2023 15:43, 2ul



ZB-35 Manual Integration: NO



Dual Column

LDW23-IT1272

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23A0032</u>
Client: <u>Anchor QEA, LLC</u>	
Project: <u>AOC5 MR Phase 1</u>	
Matrix: <u>Solid</u>	Laboratory ID: <u>23A0032-04 A</u>
	File ID: <u>01262318ECD7.D</u>
Sampled: <u>01/03/23 10:45</u>	Prepared: <u>01/11/23 11:11</u>
	Analyzed: <u>01/26/23 16:04</u>
% Solids: <u>80.13</u>	Preparation: <u>EPA 3546 (Microwave)</u>
	Initial/Final: <u>15.69 g Wet / 2.5 mL</u>
Batch: <u>BLA0165</u>	Sequence: <u>SLA0304</u>
	Calibration: <u>GA00061</u>
Instrument: <u>ECD7</u>	Column 1: <u>ZB5</u>
	Column 2: <u>ZB35</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	4.0	1.6	4.0	U
11097-69-1	Aroclor 1254	1	1	9.0	1.6	4.0	
11096-82-5	Aroclor 1260	2	1	7.1	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9539	8.16	103	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9539	7.48	94.0	44 - 120	
<i>Decachlorobiphenyl</i>	2	7.9539	7.79	98.0	40 - 126	
<i>Tetrachlorometaxylene</i>	2	7.9539	7.43	93.4	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262318ECD7.D
 Data file 2: /230126.b/230126.b/01262318ECD7.D
 Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
 Compound Sublist: PCB.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: 23A0032-04
 Client ID:
 Injection Date: 26-JAN-2023 16:04
 Report Date: 01/27/2023 15:36
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.807	-0.002	190029	5.684	-0.003	134687	37.6	37.3	0.7	Tetrachloro-m-xylene
13.885	-0.007	131620	14.115	-0.005	139943	41.0	39.2	4.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	357382	-29.0
Hexabromobiphenyl	647433	300063	-53.7 <-

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	266810	-20.8
Hexabromobiphenyl	382032	225013	-41.1

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 24-JAN-2023
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	7.260	0.005	841	5.8
Aroclor-1016	2	---			0.0	2	7.794	-0.057	4863	15.3
Aroclor-1016	3	---			0.0	3	8.044	-0.006	994	7.7
Aroclor-1016	4	---			0.0	4	8.301	-0.004	1016	10.0
CollAve: <3 Quant Peaks						Col2Ave: 9.7				
Aroclor-1221	1	---			0.0	1	4.941	-0.018	267	13.7
Aroclor-1221	2	---			0.0	2	6.325	0.027	2796	65.2
Aroclor-1221	3	---			0.0	3	6.636	0.013	744	10.3
CollAve: <3 Quant Peaks						Col2Ave: 29.7				
Aroclor-1232	1	---			0.0	1	4.941	-0.018	267	22.5
Aroclor-1232	2	---			0.0	2	7.260	0.003	841	12.7
Aroclor-1232	3	---			0.0	3	7.794	-0.060	4863	36.0
Aroclor-1232	4	---			0.0	4	8.708	-0.005	903	24.0
CollAve: <3 Quant Peaks						Col2Ave: 23.8				
Aroclor-1242	1	---			0.0	1	7.260	0.004	841	7.2
Aroclor-1242	2	---			0.0	2	7.794	-0.059	4863	18.8
Aroclor-1242	3	---			0.0	3	9.146	-0.013	1797	22.1
Aroclor-1242	4	---			0.0	4	9.534	-0.053	7178	66.7
CollAve: <3 Quant Peaks						Col2Ave: 28.7				
Aroclor-1248	1	---			0.0	1	8.301	-0.004	1016	8.4
Aroclor-1248	2	---			0.0	2	8.708	-0.004	903	7.0
Aroclor-1248	3	---			0.0	3	9.146	-0.010	1797	11.3
Aroclor-1248	4	---			0.0	4	9.534	-0.048	7178	36.6
CollAve: <3 Quant Peaks						Col2Ave: 15.8				
Aroclor-1254	1	9.290	-0.008	10347	28.4	1	9.442	-0.006	7498	38.7
Aroclor-1254	2	9.366	-0.011	7605	48.9	2	9.960	-0.009	2905	18.6
Aroclor-1254	3	9.663	-0.007	6982	29.9	3	10.111	-0.010	13835	40.5
Aroclor-1254	4	9.793	-0.015	18071	39.5	4	10.359	-0.012	16892	49.5
Aroclor-1254	5	10.113	-0.064	23982	80.6	5	10.558	-0.011	12255	64.5
Total CollAve (5 peaks):				45.5	Total Col2Ave (5 peaks):				42.4	RPD = 7
Corrected Ave (4 peaks):				36.7	Corrected Ave (4 peaks):				36.8	RPD = 0
Aroclor-1260	1	11.036	-0.008	5663	33.6	1	11.648	-0.006	7765	47.8
Aroclor-1260	2	11.353	-0.008	4970	28.7	2	11.909	-0.009	10608	25.8
Aroclor-1260	3	11.722	-0.012	11222	24.6	3	12.409	-0.027	12022	117.4
Aroclor-1260	4	12.128	-0.011	10072	42.8	4	12.492	-0.010	8891	33.5
Aroclor-1260	5	12.234	-0.010	3688	35.9	NS	---			---
Total CollAve (5 peaks):				33.1	Total Col2Ave (4 peaks):				56.1	RPD = 52*
Corrected Ave (4 peaks):				30.7	Corrected Ave (3 peaks):				35.7	RPD = 15
Aroclor-1262	1	---			0.0	1	11.193	-0.008	4939	22.4
Aroclor-1262	2	---			0.0	2	11.648	-0.005	7765	41.5
Aroclor-1262	3	---			0.0	3	12.409	-0.025	12022	60.3
Aroclor-1262	4	---			0.0	4	12.492	-0.012	8891	27.8
CollAve: <3 Quant Peaks						Col2Ave: 38.0				
Aroclor-1268	1	---			0.0	1	12.409	-0.024	12022	22.9
Aroclor-1268	2	---			0.0	2	12.492	-0.010	8891	15.9
Aroclor-1268	3	---			0.0	3	12.886	-0.007	588	1.3
Aroclor-1268	4	---			0.0	4	13.698	-0.011	2269	1.6
CollAve: <3 Quant Peaks						Col2Ave: 10.4				

Total PCB Area Col1 (5.909 - 13.792) = 349999 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 223672 Col2 Total PCB = 0.1 ppm*

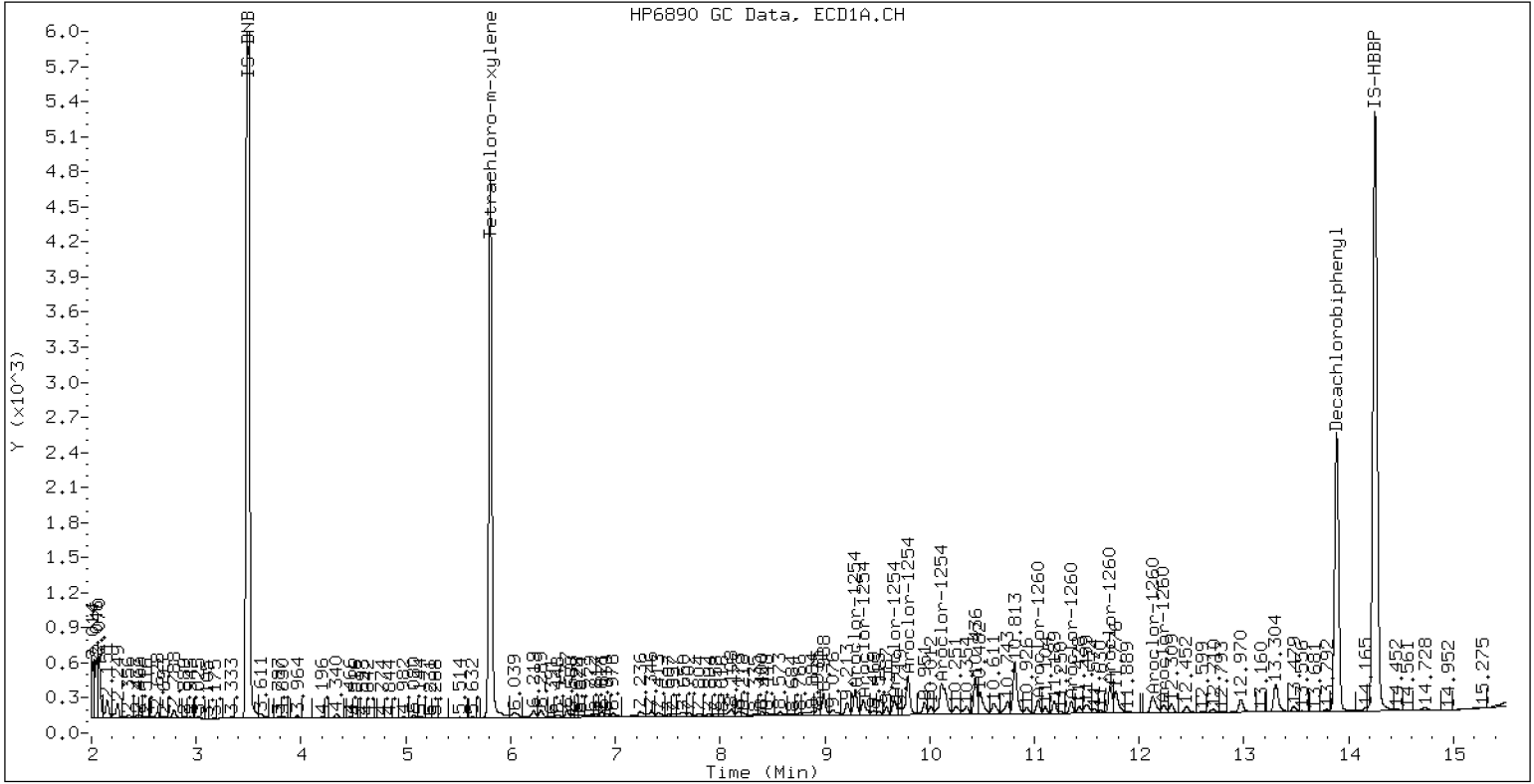
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23A0032-04

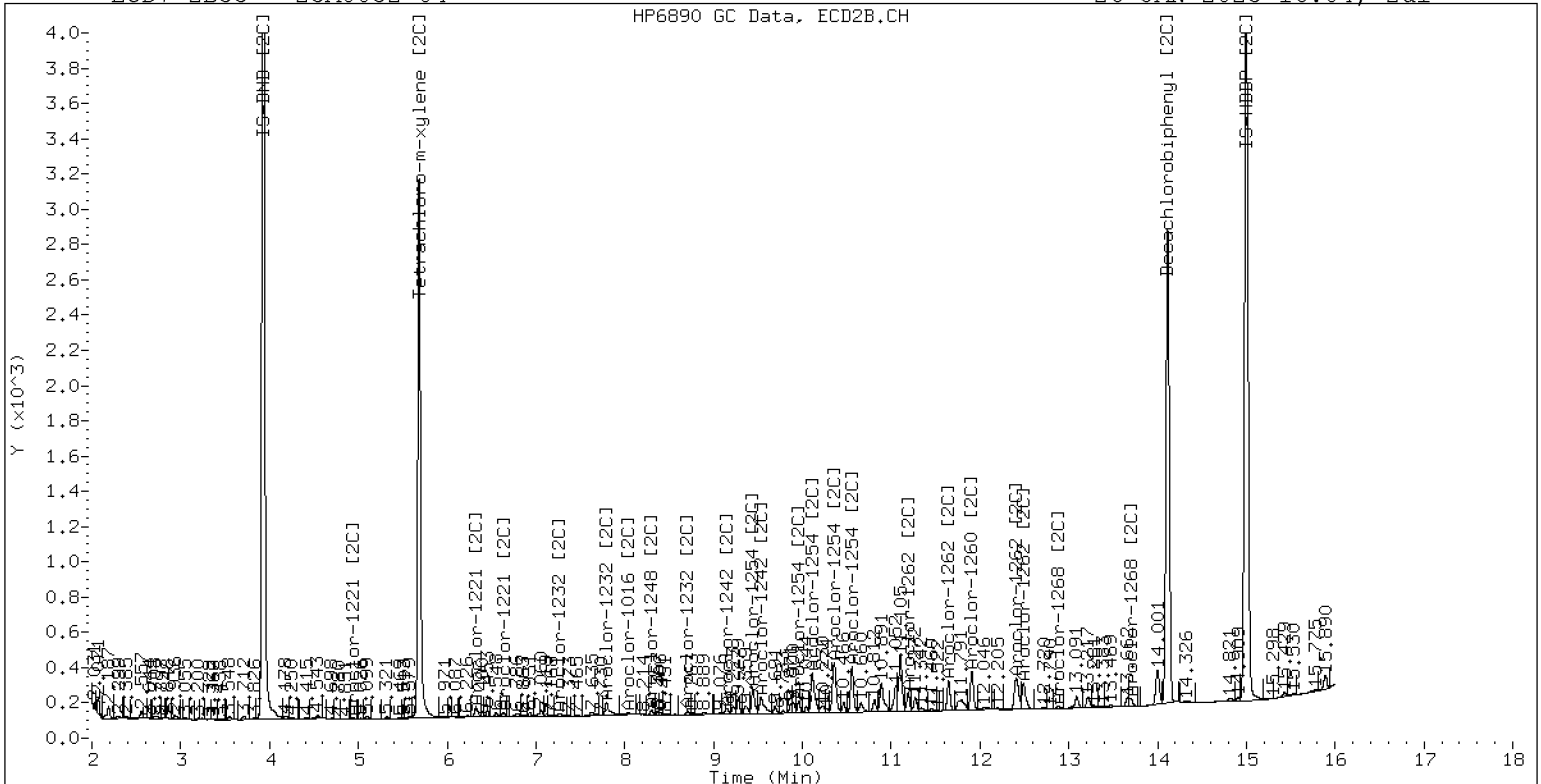
26-JAN-2023 16:04, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0032-04

26-JAN-2023 16:04, 2ul



ZB-35 Manual Integration: NO



LDW23-IT1224

Dual Column

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23A0032</u>
Client: <u>Anchor QEA, LLC</u>	
Project: <u>AOC5 MR Phase 1</u>	
Matrix: <u>Solid</u>	Laboratory ID: <u>23A0032-05 A</u>
	File ID: <u>01262319ECD7.D</u>
Sampled: <u>01/03/23 13:21</u>	Prepared: <u>01/11/23 11:11</u>
	Analyzed: <u>01/26/23 16:25</u>
% Solids: <u>67.90</u>	Preparation: <u>EPA 3546 (Microwave)</u>
	Initial/Final: <u>18.43 g Wet / 2.5 mL</u>
Batch: <u>BLA0165</u>	Sequence: <u>SLA0304</u>
	Calibration: <u>GA00061</u>
Instrument: <u>ECD7</u>	Column 1: <u>ZB5</u>
	Column 2: <u>ZB35</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	2	1	16.0	1.6	4.0	
11097-69-1	Aroclor 1254	2	1	26.6	1.6	4.0	
11096-82-5	Aroclor 1260	2	1	38.9	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9911	8.32	104	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9911	6.08	76.1	44 - 120	
<i>Decachlorobiphenyl</i>	2	7.9911	7.96	99.6	40 - 126	
<i>Tetrachlorometaxylene</i>	2	7.9911	6.86	85.8	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262319ECD7.D
Data file 2: /230126.b/230126.b/01262319ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0032-05
Client ID:
Injection Date: 26-JAN-2023 16:25
Report Date: 01/27/2023 15:36
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.805	-0.004	145743	5.682	-0.005	112674	30.4	34.3	12.1	Tetrachloro-m-xylene
13.882	-0.009	130279	14.113	-0.007	146653	41.7	39.9	4.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	338922	-32.7
Hexabromobiphenyl	647433	292408	-54.8 <-

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	242762	-27.9
Hexabromobiphenyl	382032	231859	-39.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1248	1	8.395	-0.011	11337	66.9	1	8.299	-0.007	17783	162.1
Aroclor-1248	2	8.562	-0.018	9156	42.3	2	8.704	-0.008	8561	72.5
Aroclor-1248	3	8.982	-0.017	27254	65.9	3	9.136	-0.020	10599	73.4
Aroclor-1248	4	9.285	-0.009	29015	141.7	4	9.616	0.034	2089	11.7
Total CollAve (4 peaks):				79.2	Total Col2Ave (4 peaks):				79.9	RPD = 1
Corrected Ave (3 peaks):				58.4	Corrected Ave (3 peaks):				52.5	RPD = 10
Aroclor-1254	1	9.285	-0.014	29015	84.0	1	9.437	-0.011	22337	126.8
Aroclor-1254	2	9.359	-0.018	15304	103.8	2	9.955	-0.014	7879	55.3
Aroclor-1254	3	9.663	-0.007	24359	110.1	3	10.104	-0.017	34608	111.5
Aroclor-1254	4	9.785	-0.024	39842	91.9	4	10.358	-0.014	44165	142.2
Aroclor-1254	5	10.235	0.058	24341	86.3	5	10.553	-0.016	39632	229.1
Total CollAve (5 peaks):				95.2	Total Col2Ave (5 peaks):				133.0	RPD = 33
Corrected Ave (4 peaks):				91.5	Corrected Ave (4 peaks):				109.0	RPD = 17
Aroclor-1260	1	11.031	-0.012	34863	212.5	1	11.642	-0.011	23869	142.7
Aroclor-1260	2	11.348	-0.013	23545	139.6	2	11.904	-0.014	64240	151.8
Aroclor-1260	3	11.716	-0.018	76870	173.1	3	12.421	-0.015	33754	320.0
Aroclor-1260	4	12.117	-0.023	27510	119.9	4	12.488	-0.014	44993	164.3
Aroclor-1260	5	12.231	-0.012	22456	224.6	NS	---			---
Total CollAve (5 peaks):				173.9	Total Col2Ave (4 peaks):				194.7	RPD = 11
Corrected Ave (4 peaks):				161.3	Corrected Ave (3 peaks):				152.9	RPD = 5
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					

Total PCB Area Col1 (5.909 - 13.792) = 1036227 Col1 Total PCB = 0.3 ppm*
Total PCB Area Col2 (5.787 - 14.020) = 867460 Col2 Total PCB = 0.3 ppm*

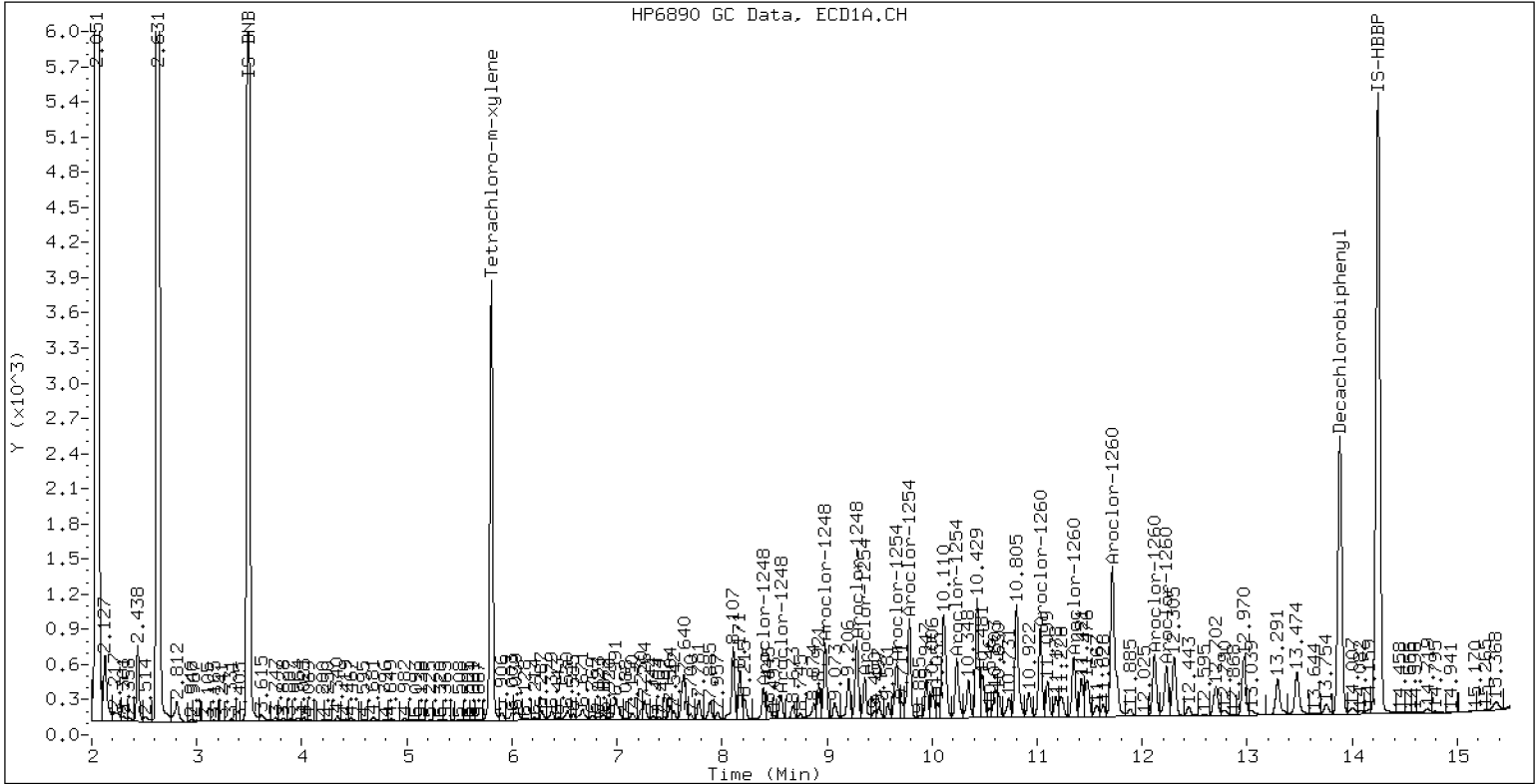
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23A0032-05

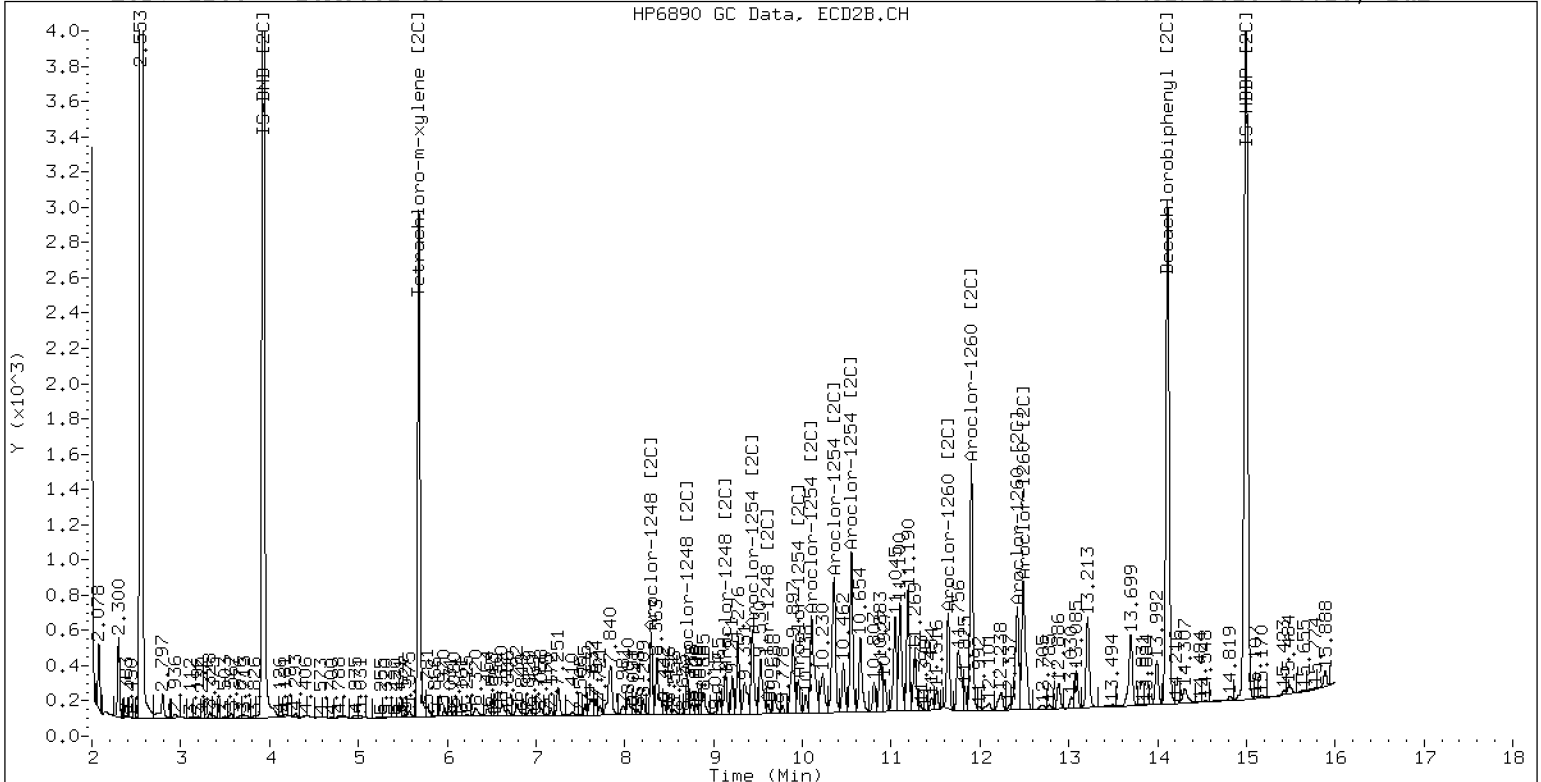
26-JAN-2023 16:25, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0032-05

26-JAN-2023 16:25, 2ul



ZB-35 Manual Integration: NO



Dual Column

LDW23-IT1235

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23A0032</u>
Client: <u>Anchor QEA, LLC</u>	
Project: <u>AOC5 MR Phase 1</u>	
Matrix: <u>Solid</u>	Laboratory ID: <u>23A0032-06 A</u>
Sampled: <u>01/03/23 13:34</u>	Prepared: <u>01/11/23 11:11</u>
% Solids: <u>74.20</u>	Preparation: <u>EPA 3546 (Microwave)</u>
Batch: <u>BLA0165</u>	Sequence: <u>SLA0304</u>
Instrument: <u>ECD7</u>	Column 1: <u>ZB5</u>
	File ID: <u>01262320ECD7.D</u>
	Analyzed: <u>01/26/23 16:46</u>
	Initial/Final: <u>16.88 g Wet / 2.5 mL</u>
	Calibration: <u>GA00061</u>
	Column 2: <u>ZB35</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	14.6	1.6	4.0	
11097-69-1	Aroclor 1254	2	1	18.1	1.6	4.0	
11096-82-5	Aroclor 1260	2	1	20.9	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9841	7.35	92.1	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9841	6.58	82.4	44 - 120	
<i>Decachlorobiphenyl</i>	2	7.9841	7.10	88.9	40 - 126	
<i>Tetrachlorometaxylene</i>	2	7.9841	7.51	94.0	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262320ECD7.D
Data file 2: /230126.b/230126.b/01262320ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0032-06
Client ID:
Injection Date: 26-JAN-2023 16:46
Report Date: 01/27/2023 15:36
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col		ZB5	ZB35	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col			
5.805	-0.003	120872	5.683 -0.004	92926	33.0	37.6	13.1	Tetrachloro-m-xylene
13.883	-0.009	86038	14.114 -0.006	93171	36.8	35.6	3.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	259302	-48.5
Hexabromobiphenyl	647433	218442	-66.3 <-

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	182762	-45.8
Hexabromobiphenyl	382032	165027	-56.8 <-

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.377	-0.029	53235	410.4	1	8.300	-0.006	4449	53.9	
Aroclor-1248	2	8.553	-0.027	10562	63.8	2	8.705	-0.007	3500	39.4	
Aroclor-1248	3	8.985	-0.014	15100	47.7	3	9.139	-0.018	3843	35.4	
Aroclor-1248	4	9.285	-0.008	16994	108.5	4	9.532	-0.050	11103	82.6	
Total CollAve (4 peaks):				157.6	Total Col2Ave (4 peaks):				52.8	RPD = 100*	
Corrected Ave (3 peaks):				73.3	Corrected Ave (3 peaks):				42.9	RPD = 52*	
Aroclor-1254	1	9.285	-0.014	16994	64.3	1	9.439	-0.009	13471	101.6	
Aroclor-1254	2	9.362	-0.016	6686	59.3	2	9.957	-0.012	5240	48.9	
Aroclor-1254	3	9.658	-0.012	11507	68.0	3	10.106	-0.015	24299	103.9	
Aroclor-1254	4	9.786	-0.022	26308	79.3	4	10.359	-0.013	25101	107.4	
Aroclor-1254	5	10.239	0.062	7823	36.3	5	10.554	-0.014	20811	159.8	
Total CollAve (5 peaks):				61.4	Total Col2Ave (5 peaks):				104.3	RPD = 52*	
Corrected Ave (4 peaks):				56.9	Corrected Ave (4 peaks):				90.5	RPD = 45*	
Aroclor-1260	1	11.032	-0.012	10873	88.7	1	11.644	-0.010	12333	103.6	
Aroclor-1260	2	11.350	-0.011	11191	88.8	2	11.904	-0.013	21551	71.6	
Aroclor-1260	3	11.717	-0.018	28983	87.4	3	12.419	-0.017	12534	167.0	
Aroclor-1260	4	12.119	-0.021	13318	77.7	4	12.488	-0.015	15026	77.1	
Aroclor-1260	5	12.233	-0.011	6822	91.3	NS	---			---	
Total CollAve (5 peaks):				86.8	Total Col2Ave (4 peaks):				104.8	RPD = 19	
Corrected Ave (4 peaks):				85.7	Corrected Ave (3 peaks):				84.1	RPD = 2	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.909 - 13.792) = 573045 Col1 Total PCB = 0.2 ppm*
Total PCB Area Col2 (5.787 - 14.020) = 457064 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242377ECD7.D
Data file 2: /230124.b/230124.b/01242377ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0032-07RE1
Client ID:
Injection Date: 25-JAN-2023 14:23
Report Date: 01/26/2023 08:49
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.805	-0.004	38789	5.681	-0.004	31582	6.1	7.5	21.5	Tetrachloro-m-xylene
13.883	-0.008	39640	14.114	-0.006	41540	8.5	8.0	5.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	452276	-10.1
Hexabromobiphenyl	647433	438511	-32.3
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	310225	-7.9
Hexabromobiphenyl	382032	326696	-14.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.396	-0.009	25385	112.2	1	8.299	-0.006	24875	177.4	
Aroclor-1248	2	8.562	-0.018	18943	65.6	2	8.705	-0.007	20436	135.4	
Aroclor-1248	3	8.984	-0.015	55612	100.7	3	9.138	-0.019	20338	110.3	
Aroclor-1248	4	9.285	-0.009	67757	248.0	4	9.618	0.038	2990	13.1	
Total CollAve (4 peaks):				131.6	Total Col2Ave (4 peaks):				109.0	RPD = 19	
Corrected Ave (3 peaks):				92.9	Corrected Ave (3 peaks):				86.3	RPD = 7	
141.03											
Aroclor-1254	1	9.285	-0.014	67757	147.0	1	9.438	-0.010	40182	178.5	
Aroclor-1254	2	9.362	-0.015	27633	140.4	2	9.957	-0.012	23065	126.8	
Aroclor-1254	3	9.657	-0.012	52107	176.4	3	10.106	-0.015	80530	202.9	
Aroclor-1254	4	9.787	-0.022	94763	163.7	4	10.349	-0.023	87863	221.4	
Aroclor-1254	5	10.120	-0.057	102718	279.0	5	10.556	-0.013	50660	229.2	
Total CollAve (5 peaks):				130.1	Total Col2Ave (5 peaks):				191.8	RPD = 6	
Corrected Ave (4 peaks):				156.9	Corrected Ave (4 peaks):				182.4	RPD = 15	
Aroclor-1260	1	11.031	-0.013	20972	85.2	1	11.645	-0.008	29794	126.4	
Aroclor-1260	2	11.349	-0.012	20704	81.9	2	11.905	-0.014	45991	77.1	
Aroclor-1260	3	11.717	-0.017	55933	84.0	3	12.424	-0.013	16623	111.8	
Aroclor-1260	4	12.120	-0.020	28283	82.2	4	12.489	-0.014	30351	78.6	
Aroclor-1260	5	12.233	-0.011	11253	75.0	NS	---			---	
Total CollAve (5 peaks):				81.7	Total Col2Ave (4 peaks):				98.5	RPD = 19	
Corrected Ave (4 peaks):				80.8	Corrected Ave (3 peaks):				89.2	RPD = 10	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.909 - 13.792) = 1396980 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.786 - 14.020) = 1088822 Col2 Total PCB = 0.3 ppm*

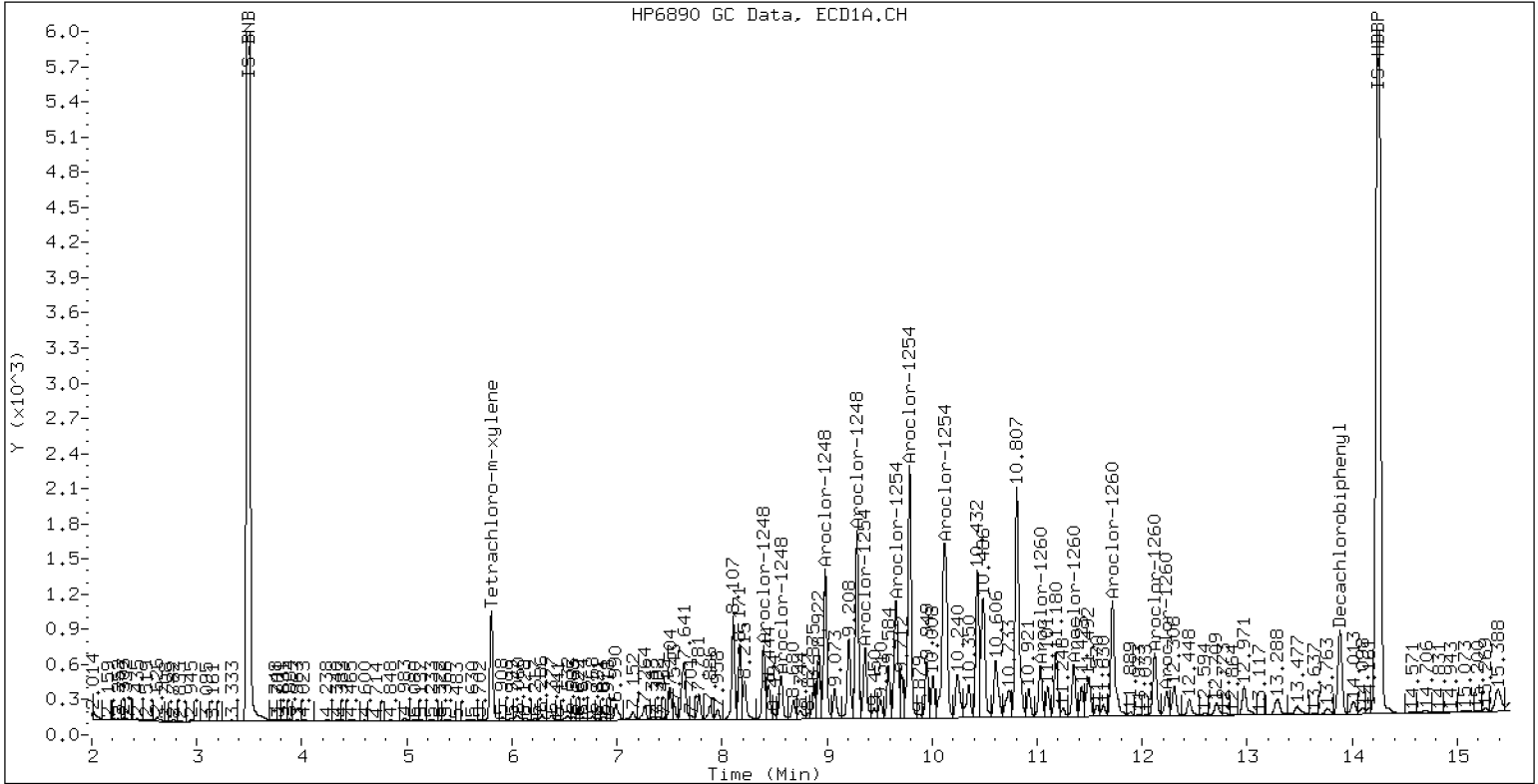
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23A0032-07RE1

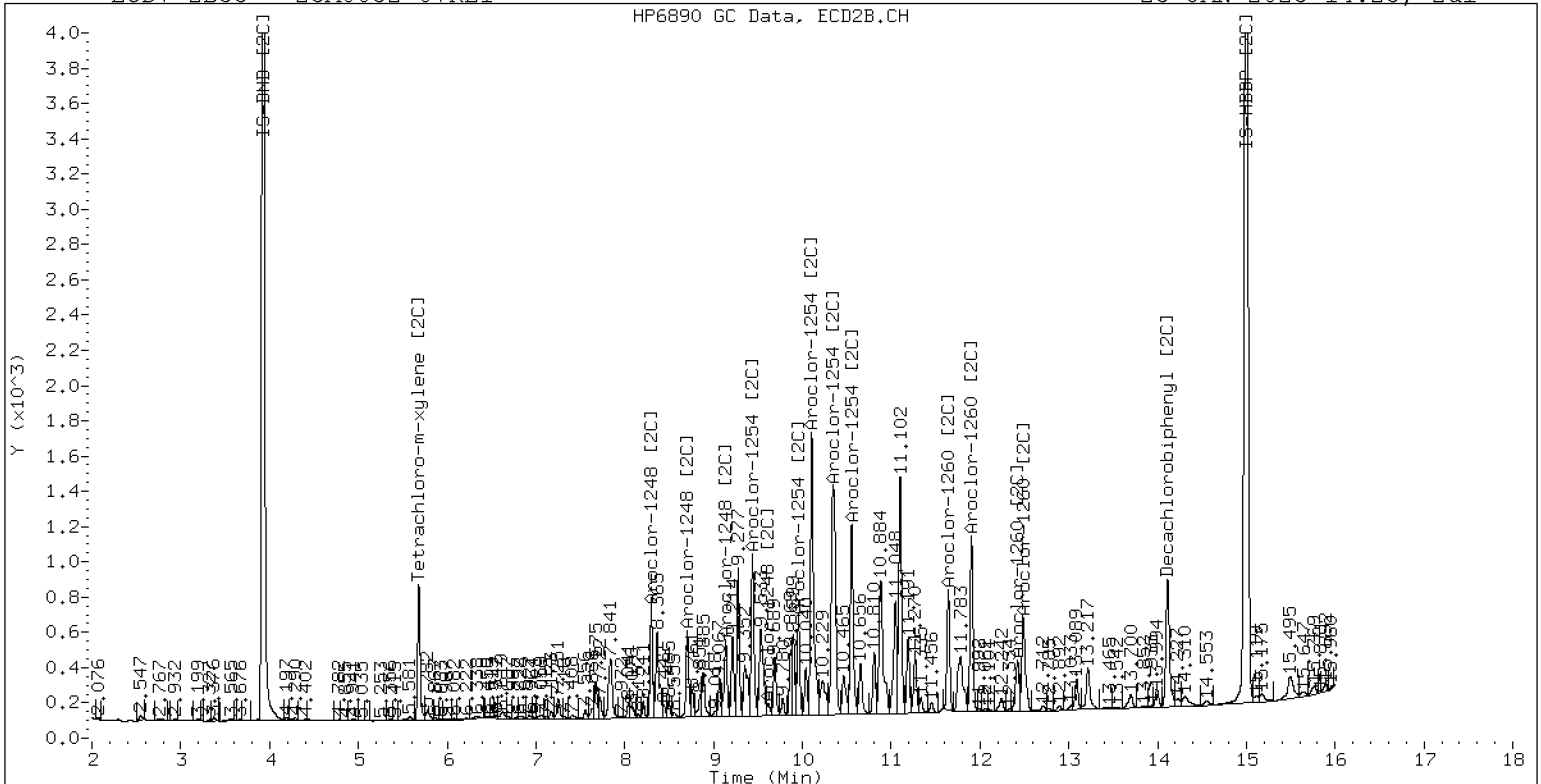
25-JAN-2023 14:23, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0032-07RE1

25-JAN-2023 14:23, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242378ECD7.D
Data file 2: /230124.b/230124.b/01242378ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0032-08RE1
Client ID:
Injection Date: 25-JAN-2023 14:44
Report Date: 01/26/2023 15:40
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

ZB5 Col		ZB35 Col		ZB5	ZB35	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col			
5.807	-0.001	39466	5.685 -0.001	30732	6.1	6.9	12.7	Tetrachloro-m-xylene
13.884	-0.008	37743	14.114 -0.006	35360	7.3	6.4	12.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	458509	-8.9
Hexabromobiphenyl	647433	485035	-25.1

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	328643	-2.5
Hexabromobiphenyl	382032	345568	-9.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.398	-0.008	10682	46.6	1	8.300	-0.006	11017	74.2	
Aroclor-1248	2	8.567	-0.014	8105	27.7	2	8.707	-0.005	7906	49.4	
Aroclor-1248	3	8.987	-0.013	28797	51.5	3	9.142	-0.016	9724	49.8	
Aroclor-1248	4	9.289	-0.007	33612	121.3	4	9.534	-0.049	12178	50.4	
Total CollAve (4 peaks):				61.8	Total Col2Ave (4 peaks):				55.9	RPD = 10	
Corrected Ave (3 peaks):				41.9	Corrected Ave (3 peaks):				49.9	RPD = 17	
Aroclor-1254	1	9.289	-0.011	33612	71.9	1	9.440	-0.008	23238	97.5	
Aroclor-1254	2	9.364	-0.017	17703	88.7	2	9.958	-0.010	9208	47.8	
Aroclor-1254	3	9.658	-0.012	17697	59.1	3	10.109	-0.013	36075	85.8	
Aroclor-1254	4	9.790	-0.021	44039	75.1	4	10.358	-0.014	40390	96.1	
Aroclor-1254	5	10.122	-0.059	25555	67.0	5	10.557	-0.011	28269	120.7	
Total CollAve (5 peaks):				72.4	Total Col2Ave (5 peaks):				89.6	RPD = 21	
Corrected Ave (4 peaks):				68.3	Corrected Ave (4 peaks):				81.8	RPD = 18	
73.7											
Aroclor-1260	1	11.034	-0.011	15716	57.7	1	11.646	-0.009	13855	55.6	
Aroclor-1260	2	11.350	-0.012	11375	40.7	2	11.906	-0.013	24800	39.3	
Aroclor-1260	3	11.721	-0.016	33953	46.1	3	12.424	-0.012	11264	71.6	
Aroclor-1260	4	12.121	-0.022	16256	42.7	4	12.490	-0.014	17031	41.7	
Aroclor-1260	5	12.234	-0.012	7579	45.7	NS	---			---	
Total CollAve (5 peaks):				46.6	Total Col2Ave (4 peaks):				52.1	RPD = 11	
Corrected Ave (4 peaks):				43.8	Corrected Ave (3 peaks):				45.5	RPD = 4	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.908 - 13.793) = 728883 Col1 Total PCB = 0.1 ppm*
Total PCB Area Col2 (5.785 - 14.020) = 563056 Col2 Total PCB = 0.2 ppm*

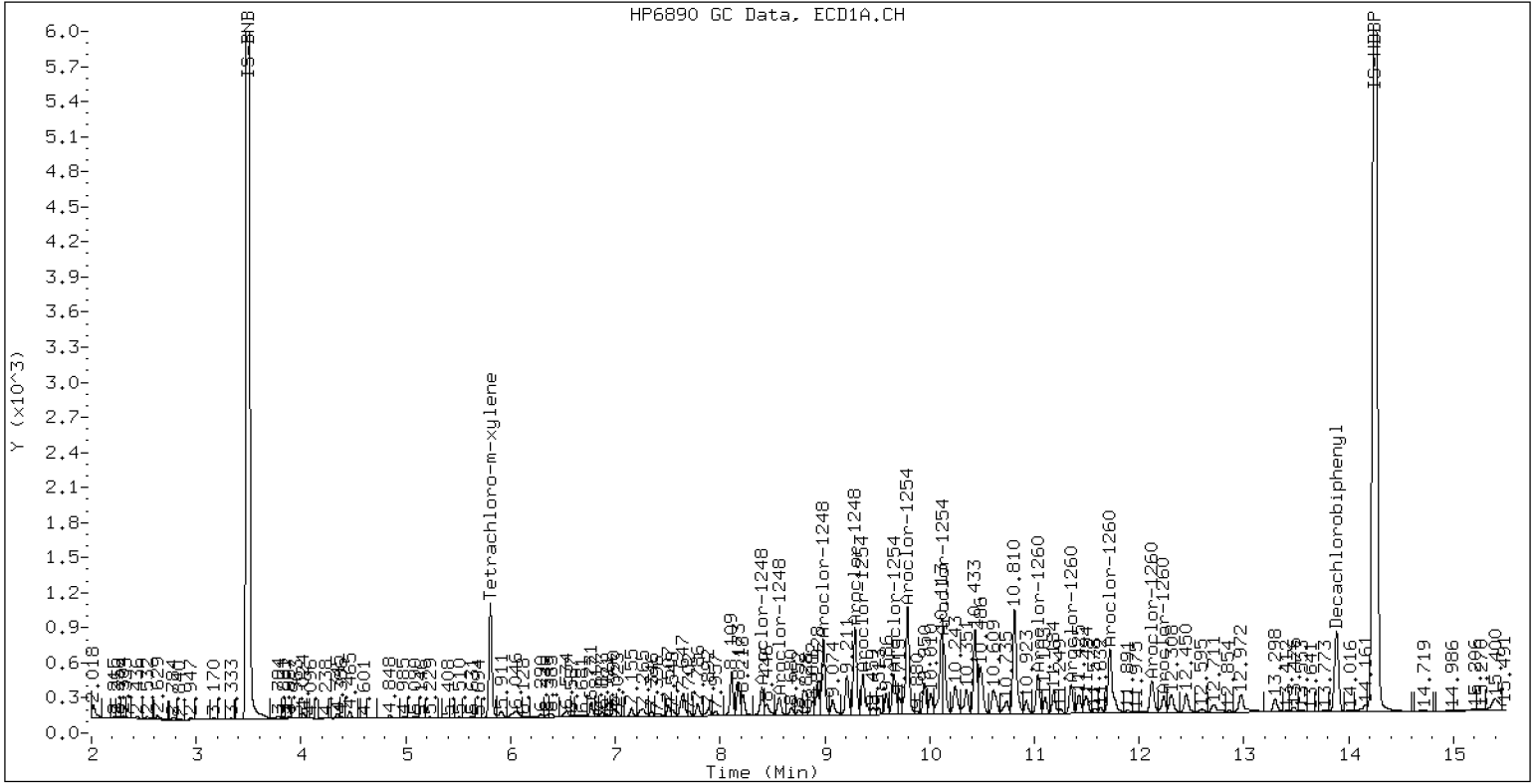
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23A0032-08RE1

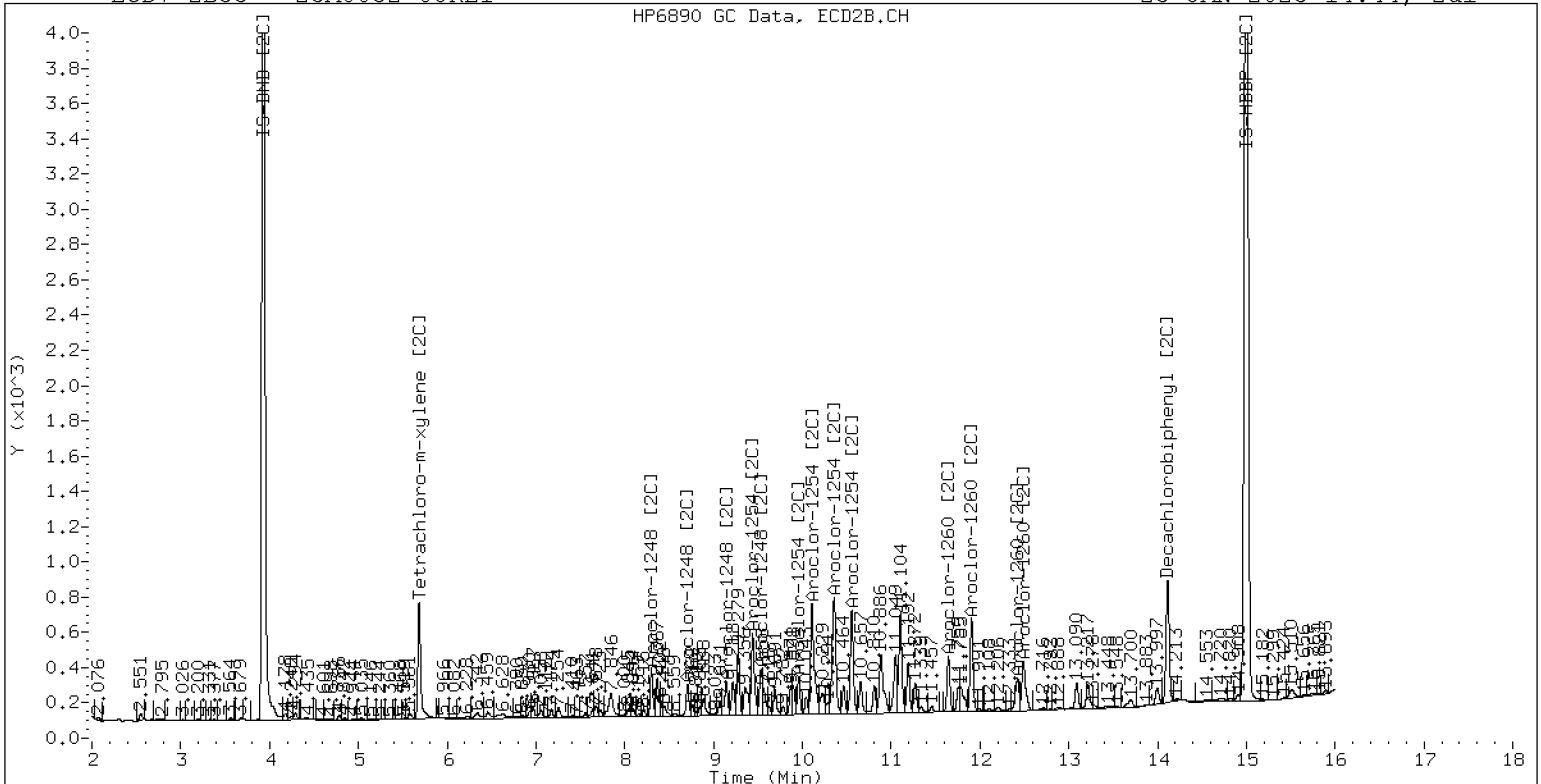
25-JAN-2023 14:44, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 23A0032-08RE1

25-JAN-2023 14:44, 2ul



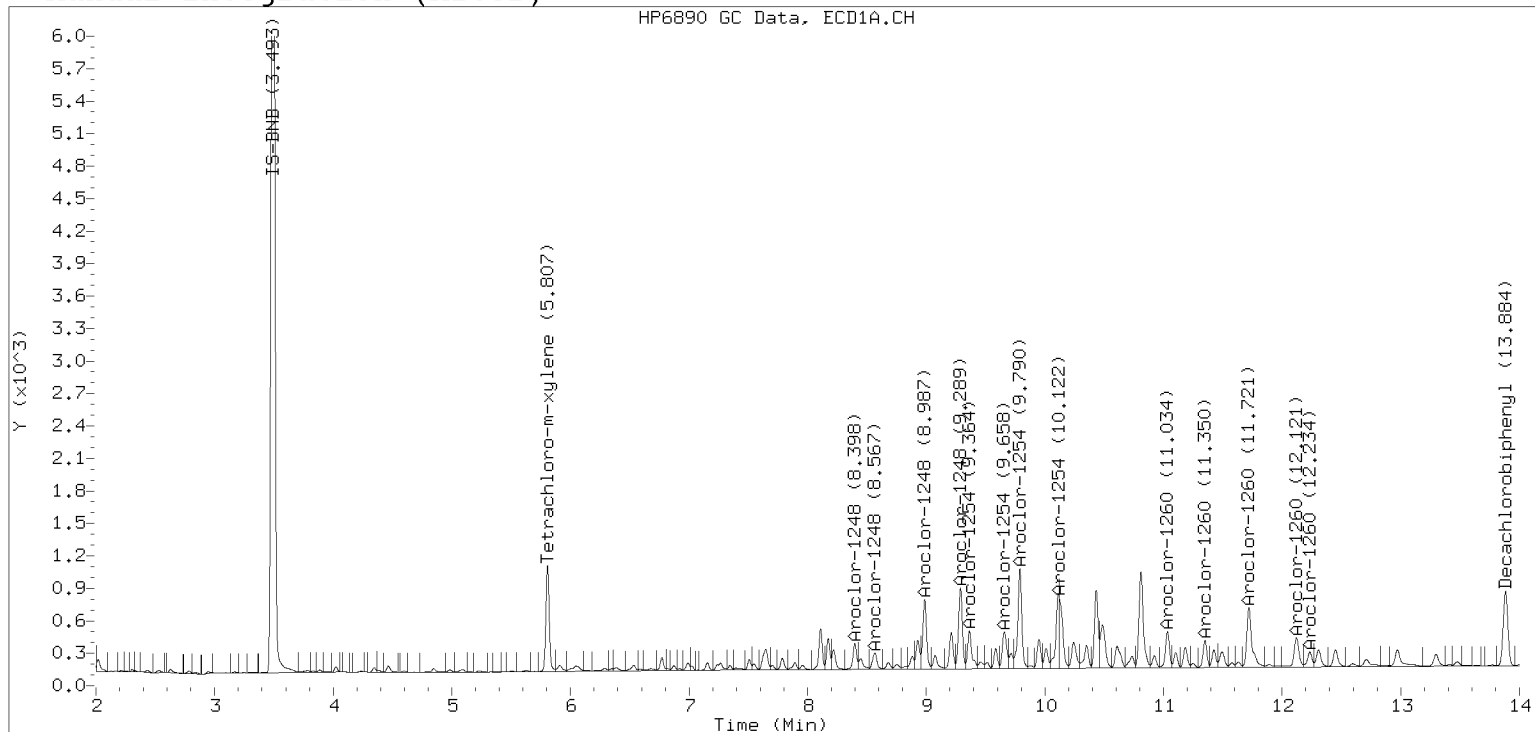
ZB-35 Manual Integration: YES

Manual Peak Adjustment, ZB-5

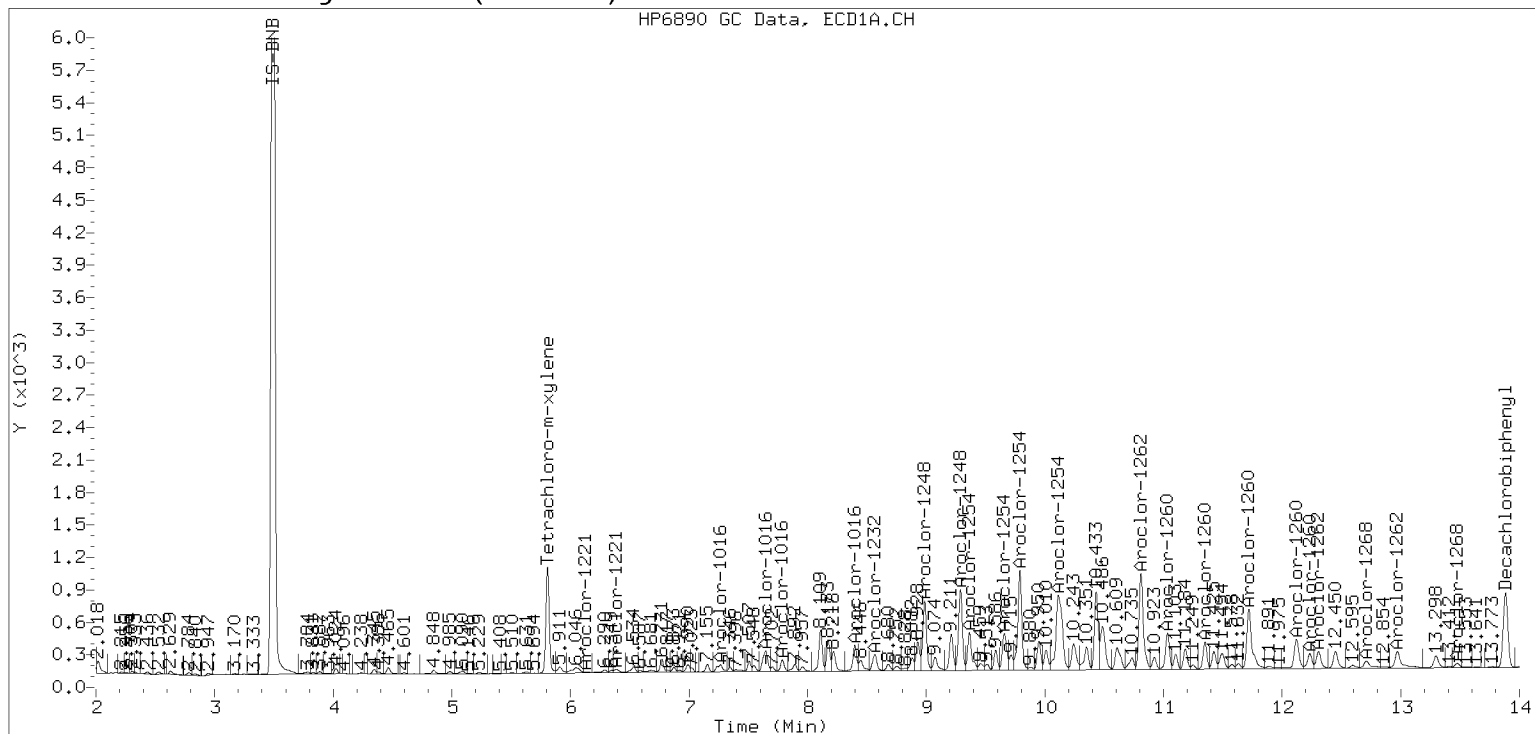
Datafile: ecd7.i/230124.b/01242378ECD7.D

Injection Date: 25-JAN-2023 14:44

Manual Integration (After)



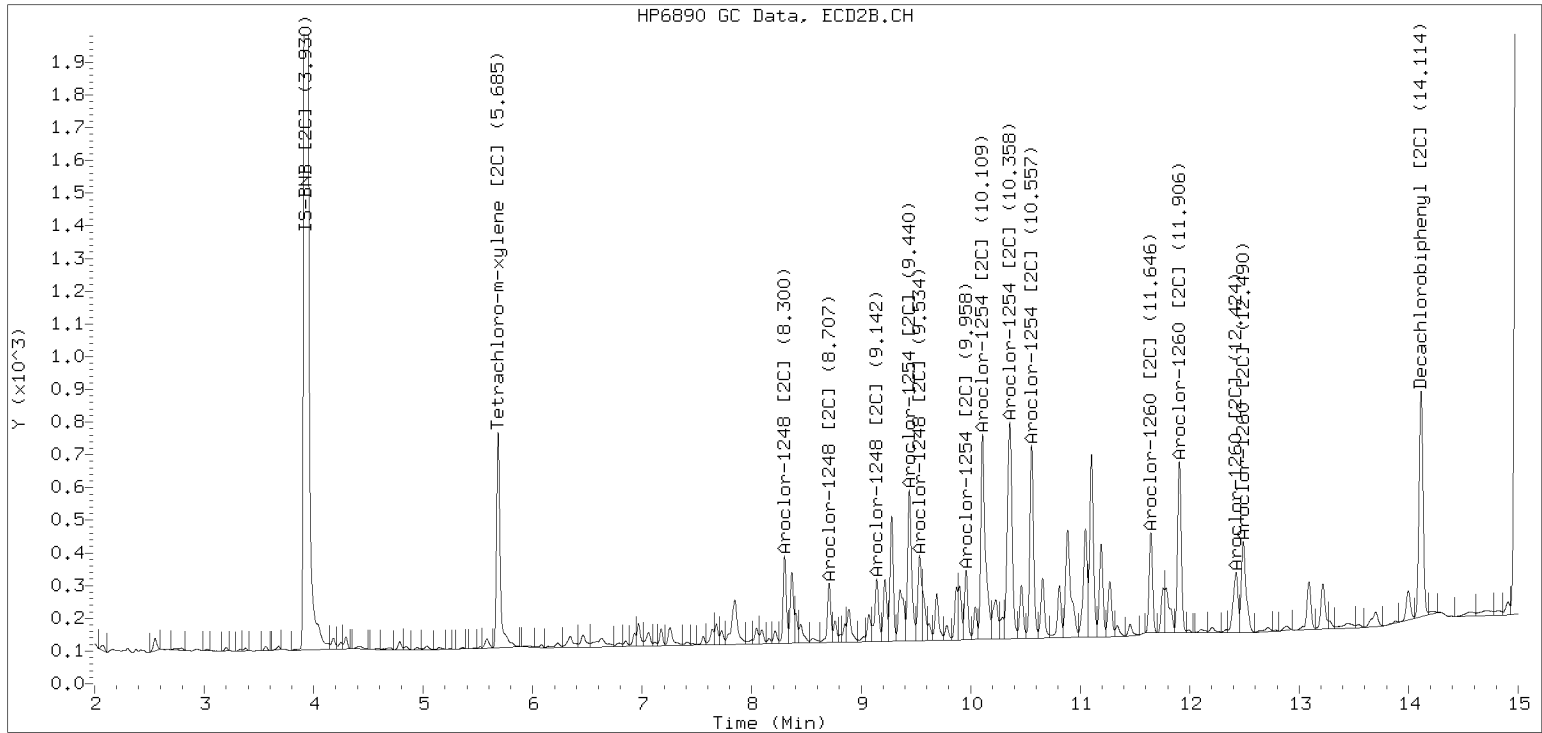
Processed Integration (Before)



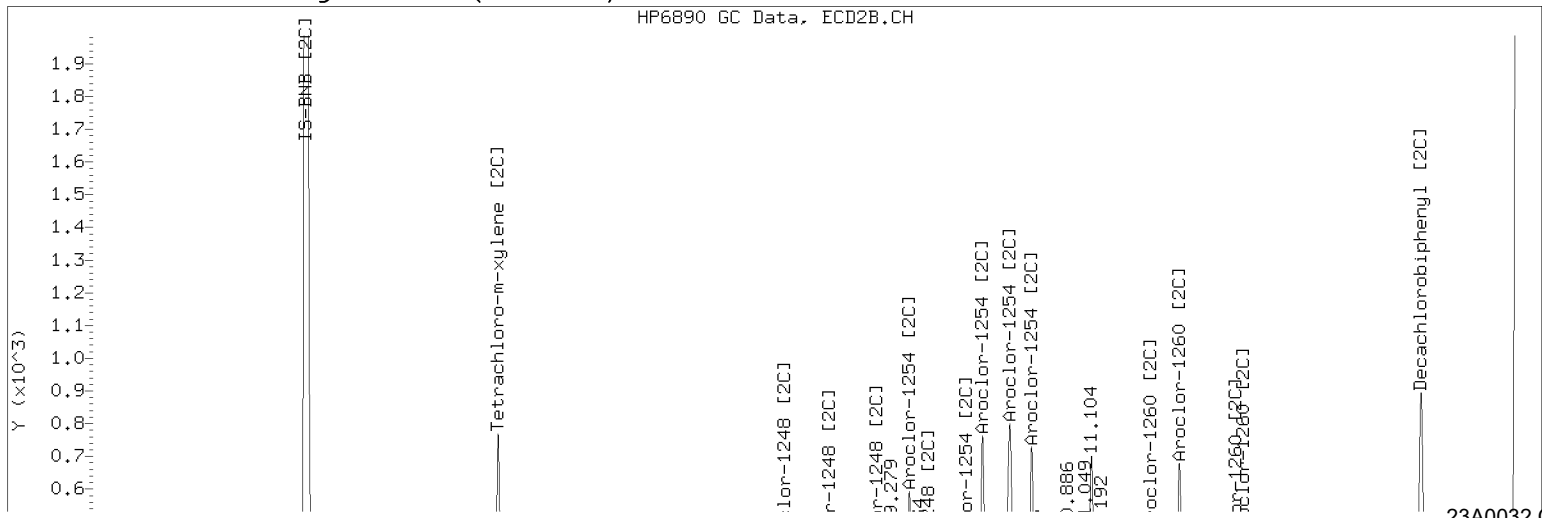
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230124.b/230124.b/01242378ECD7.D Injection Date: 25-JAN-2023 14:44

Manual Integration (After)



Processed Integration (Before)





Dual Column

LDW23-SC1203

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: Analytical Resources, LLC SDG: 23A0032
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Solid Laboratory ID: 23A0032-09 A File ID: 01242379ECD7.D
 Sampled: 01/03/23 14:21 Prepared: 01/11/23 11:11 Analyzed: 01/25/23 15:05
 % Solids: 67.20 Preparation: EPA 3546 (Microwave) Initial/Final: 18.65 g Wet / 2.5 mL
 Batch: BLA0165 Sequence: SLA0298 Calibration: GA00061
 Instrument: ECD7 Column 1: ZB5 Column 2: ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	5	19.9	7.8	19.9	U
11104-28-2	Aroclor 1221	1	5	19.9	7.8	19.9	U
11141-16-5	Aroclor 1232	1	5	19.9	7.8	19.9	U
53469-21-9	Aroclor 1242	1	5	19.9	7.8	19.9	U
12672-29-6	Aroclor 1248	2	5	32.8	7.8	19.9	D
11097-69-1	Aroclor 1254	2	5	56.1	7.8	19.9	D
11096-82-5	Aroclor 1260	2	5	38.8	2.9	19.9	D

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9791	7.93	99.3	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9791	6.71	84.1	44 - 120	
<i>Decachlorobiphenyl</i>	2	7.9791	6.99	87.6	40 - 126	
<i>Tetrachlorometaxylene</i>	2	7.9791	7.43	93.1	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242379ECD7.D
Data file 2: /230124.b/230124.b/01242379ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0032-09RE1
Client ID:
Injection Date: 25-JAN-2023 15:05
Report Date: 01/26/2023 08:49
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.807	-0.002	42376	5.684	-0.001	31741	6.7	7.4	10.2	Tetrachloro-m-xylene
13.884	-0.008	40835	14.115	-0.005	38423	7.9	7.0	12.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	445802	-11.4
Hexabromobiphenyl	647433	480521	-25.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	315273	-6.4
Hexabromobiphenyl	382032	345411	-9.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.397	-0.008	5698	25.6	1	8.300	-0.005	5370	37.7	
Aroclor-1248	2	8.567	-0.013	3967	13.9	2	8.707	-0.005	3619	23.6	
Aroclor-1248	3	8.987	-0.012	14081	25.9	3	9.142	-0.015	4750	25.3	
Aroclor-1248	4	9.287	-0.006	17690	65.7	4	9.534	-0.046	10452	45.1	
Total CollAve (4 peaks):				32.8	Total Col2Ave (4 peaks):				32.9	RPD = 0	
Corrected Ave (3 peaks):				21.8	Corrected Ave (3 peaks):				28.9	RPD = 28	
Aroclor-1254	1	9.287	-0.011	17690	38.9	1	9.440	-0.008	12682	55.4	
Aroclor-1254	2	9.364	-0.014	8397	43.3	2	9.958	-0.010	6203	33.6	
Aroclor-1254	3	9.660	-0.010	13179	45.3	3	10.108	-0.014	20547	51.0	
Aroclor-1254	4	9.790	-0.019	26258	46.0	4	10.357	-0.014	25494	63.2	
Aroclor-1254	5	10.117	-0.060	31523	85.0	5	10.556	-0.012	17498	77.9	
Total CollAve (5 peaks):				51.7	Total Col2Ave (5 peaks):				56.2	RPD = 8	
Corrected Ave (4 peaks):				43.4	Corrected Ave (4 peaks):				50.8	RPD = 16	
Aroclor-1260	1	11.034	-0.010	8865	32.9	1	11.645	-0.008	9693	38.9	
Aroclor-1260	2	11.350	-0.011	7987	28.8	2	11.906	-0.013	17042	27.0	
Aroclor-1260	3	11.720	-0.015	25461	34.9	3	12.422	-0.015	9254	58.9	
Aroclor-1260	4	12.121	-0.019	12060	32.0	4	12.489	-0.013	12512	30.7	
Aroclor-1260	5	12.233	-0.011	5792	35.2	NS	---			---	
Total CollAve (5 peaks):				32.8	Total Col2Ave (4 peaks):				38.9	RPD = 17	
Corrected Ave (4 peaks):				32.1	Corrected Ave (3 peaks):				32.2	RPD = 0	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.909 - 13.792) = 465902 Col1 Total PCB = 0.1 ppm*
Total PCB Area Col2 (5.786 - 14.020) = 344091 Col2 Total PCB = 0.1 ppm*

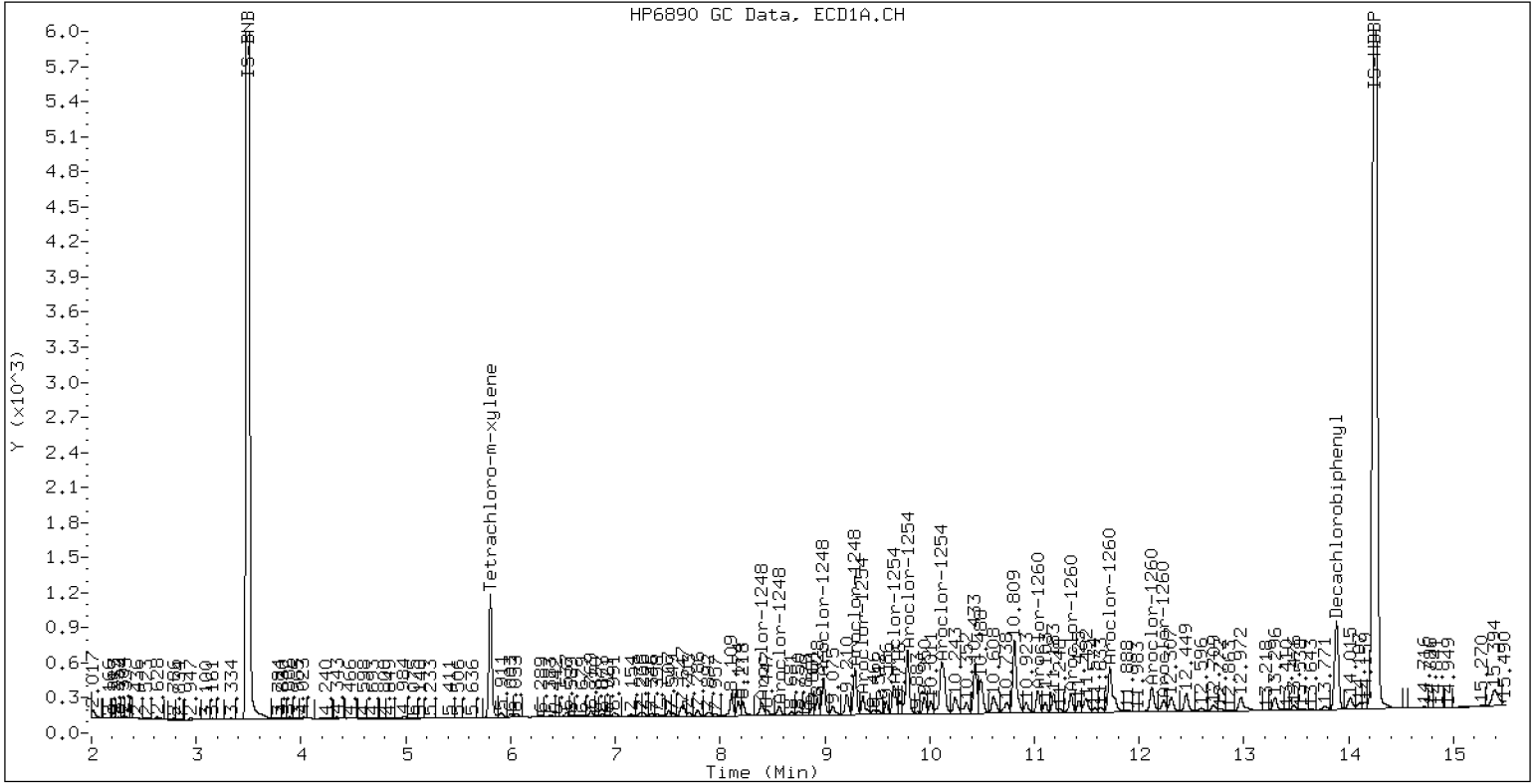
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23A0032-09RE1

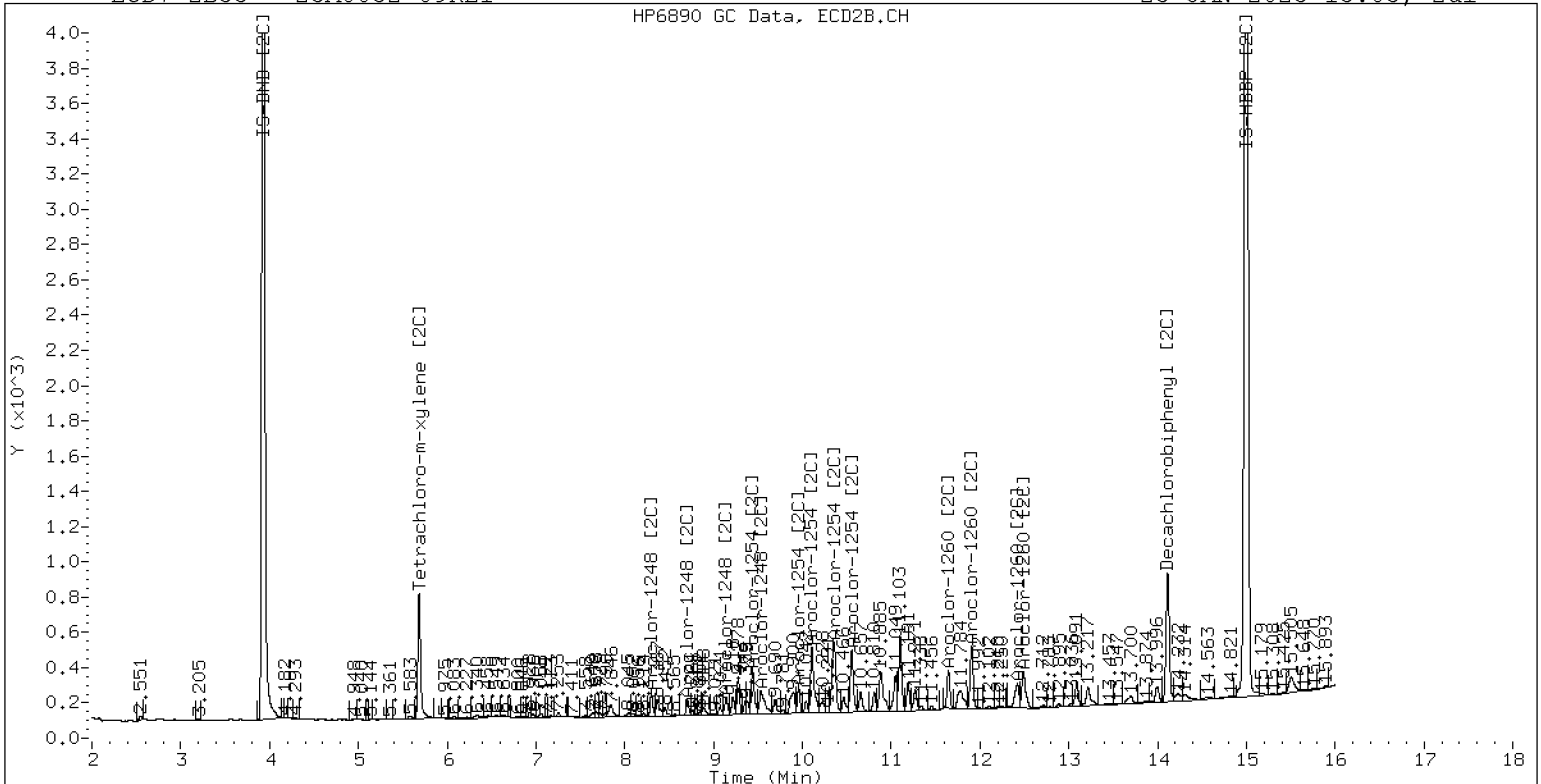
25-JAN-2023 15:05, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0032-09RE1

25-JAN-2023 15:05, 2u1



ZB-35 Manual Integration: NO



ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23A0032</u>
Client: <u>Anchor QEA, LLC</u>	
Project: <u>AOC5 MR Phase 1</u>	
Matrix: <u>Solid</u>	Laboratory ID: <u>23A0032-10 A</u>
	File ID: <u>01262321ECD7.D</u>
Sampled: <u>01/03/23 14:21</u>	Prepared: <u>01/11/23 11:11</u>
	Analyzed: <u>01/26/23 17:07</u>
% Solids: <u>68.93</u>	Preparation: <u>EPA 3546 (Microwave)</u>
	Initial/Final: <u>18.13 g Wet / 2.5 mL</u>
Batch: <u>BLA0165</u>	Sequence: <u>SLA0304</u>
	Calibration: <u>GA00061</u>
Instrument: <u>ECD7</u>	Column 1: <u>ZB5</u>
	Column 2: <u>ZB35</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	2	1	24.8	1.6	4.0	
11097-69-1	Aroclor 1254	2	1	36.0	1.6	4.0	
11096-82-5	Aroclor 1260	2	1	28.4	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	8.0019	7.50	93.7	40 - 126	
<i>Tetrachlorometaxylene</i>	1	8.0019	6.20	77.5	44 - 120	
<i>Decachlorobiphenyl</i>	2	8.0019	6.96	87.0	40 - 126	
<i>Tetrachlorometaxylene</i>	2	8.0019	7.44	93.0	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262321ECD7.D
Data file 2: /230126.b/230126.b/01262321ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0032-10
Client ID:
Injection Date: 26-JAN-2023 17:07
Report Date: 01/27/2023 15:36
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.805	-0.004	150052	5.682	-0.005	121984	31.0	37.2	18.1	Tetrachloro-m-xylene
13.882	-0.010	119228	14.113	-0.007	134539	37.5	34.8	7.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	342357	-32.0
Hexabromobiphenyl	647433	297374	-54.1 <-

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	242618	-28.0
Hexabromobiphenyl	382032	243689	-36.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.395	-0.011	18309	106.9	1	8.299	-0.007	16960	154.6	
Aroclor-1248	2	8.562	-0.018	11487	52.6	2	8.704	-0.008	12865	109.0	
Aroclor-1248	3	8.983	-0.016	42241	101.1	3	9.136	-0.020	15702	108.9	
Aroclor-1248	4	9.284	-0.009	45594	220.4	4	9.613	0.032	2420	13.6	
Total CollAve (4 peaks):				120.2	Total Col2Ave (4 peaks):				96.5	RPD = 22	
Corrected Ave (3 peaks):				86.9	Corrected Ave (3 peaks):				77.1	RPD = 12	
Aroclor-1254	1	9.284	-0.014	45594	130.7	1	9.437	-0.011	32696	185.8	
Aroclor-1254	2	9.360	-0.018	16898	113.4	2	9.955	-0.014	16014	112.6	
Aroclor-1254	3	9.658	-0.011	37828	169.2	3	10.103	-0.018	57061	183.9	
Aroclor-1254	4	9.785	-0.024	70414	160.7	4	10.353	-0.018	73848	238.0	
Aroclor-1254	5	10.236	0.059	22040	77.4	5	10.552	-0.017	48454	280.3	
Total CollAve (5 peaks):				130.3	Total Col2Ave (5 peaks):				200.1	RPD = 42*	
Corrected Ave (4 peaks):				120.6	Corrected Ave (4 peaks):				180.0	RPD = 40	
Aroclor-1260	1	11.032	-0.012	22509	134.9	1	11.643	-0.010	25030	142.4	
Aroclor-1260	2	11.347	-0.014	18893	110.2	2	11.904	-0.014	46852	105.3	
Aroclor-1260	3	11.717	-0.018	55869	123.7	3	12.422	-0.014	22642	204.2	
Aroclor-1260	4	12.117	-0.023	26421	113.3	4	12.487	-0.015	33292	115.7	
Aroclor-1260	5	12.232	-0.011	14252	140.1	NS	---			----	
Total CollAve (5 peaks):				124.4	Total Col2Ave (4 peaks):				141.9	RPD = 13	
Corrected Ave (4 peaks):				120.5	Corrected Ave (3 peaks):				121.1	RPD = 1	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.909 - 13.792) = 1187572 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 999501 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262322ECD7.D
Data file 2: /230126.b/230126.b/01262322ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 23A0032-11
Client ID:
Injection Date: 26-JAN-2023 17:28
Report Date: 01/27/2023 15:36
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.805	-0.004	141496	5.682	-0.004	110474	28.2	32.5	14.1	Tetrachloro-m-xylene
13.884	-0.008	109498	14.113	-0.007	133516	36.1	33.9	6.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	354728	-29.5
Hexabromobiphenyl	647433	283588	-56.2 <-

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	251334	-25.4
Hexabromobiphenyl	382032	248099	-35.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1242	1	7.264	-0.007	17400	160.2	1	---			0.0
Aroclor-1242	2	7.640	-0.015	41664	117.2	2	---			0.0
Aroclor-1242	3	8.377	-0.030	61650	583.7	3	---			0.0
Aroclor-1242	4	8.562	-0.020	16582	103.9	4	---			0.0
Total CollAve (4 peaks): 241.3					Col2Ave: <3 Quant Peaks					
Aroclor-1248	1	8.377	-0.029	61650	347.4	1	8.298	-0.007	15866	139.7
Aroclor-1248	2	8.562	-0.018	16582	73.3	2	8.705	-0.007	16696	136.5
Aroclor-1248	3	8.980	-0.019	39698	91.7	3	9.136	-0.021	21270	142.3
Aroclor-1248	4	9.284	-0.010	40512	189.0	4	9.562	-0.020	22961	124.2
Total CollAve (4 peaks): 175.3					Total Col2Ave (4 peaks): 135.7 RPD = 25					
Corrected Ave (3 peaks): 118.0					Corrected Ave (3 peaks): 133.5 RPD = 12					
Aroclor-1254	1	9.284	-0.015	40512	112.1	1	9.437	-0.011	35976	197.3
Aroclor-1254	2	9.359	-0.019	14408	93.3	2	9.955	-0.014	14047	95.3
Aroclor-1254	3	9.660	-0.010	39391	170.1	3	10.103	-0.018	51455	160.1
Aroclor-1254	4	9.783	-0.025	62245	137.1	4	10.355	-0.016	59403	184.8
Aroclor-1254	5	10.233	0.056	28123	95.3	5	10.553	-0.016	52839	295.1
Total CollAve (5 peaks): 121.6					Total Col2Ave (5 peaks): 186.5 RPD = 42*					
Corrected Ave (4 peaks): 109.5					Corrected Ave (4 peaks): 159.4 RPD = 37					
Aroclor-1260	1	11.032	-0.012	25334	159.2	1	11.643	-0.011	27405	153.1
Aroclor-1260	2	11.347	-0.014	23321	142.6	2	11.904	-0.014	56135	124.0
Aroclor-1260	3	11.717	-0.018	56923	132.2	3	12.417	-0.019	40166	355.9
Aroclor-1260	4	12.116	-0.023	36773	165.3	4	12.487	-0.015	39791	135.8
Aroclor-1260	5	12.232	-0.012	19134	197.3	NS	---			---
Total CollAve (5 peaks): 159.3					Total Col2Ave (4 peaks): 192.2 RPD = 19					
Corrected Ave (4 peaks): 149.8					Corrected Ave (3 peaks): 137.6 RPD = 8					
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					

Total PCB Area Col1 (5.909 - 13.792) = 1504008 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 1206243 Col2 Total PCB = 0.5 ppm*

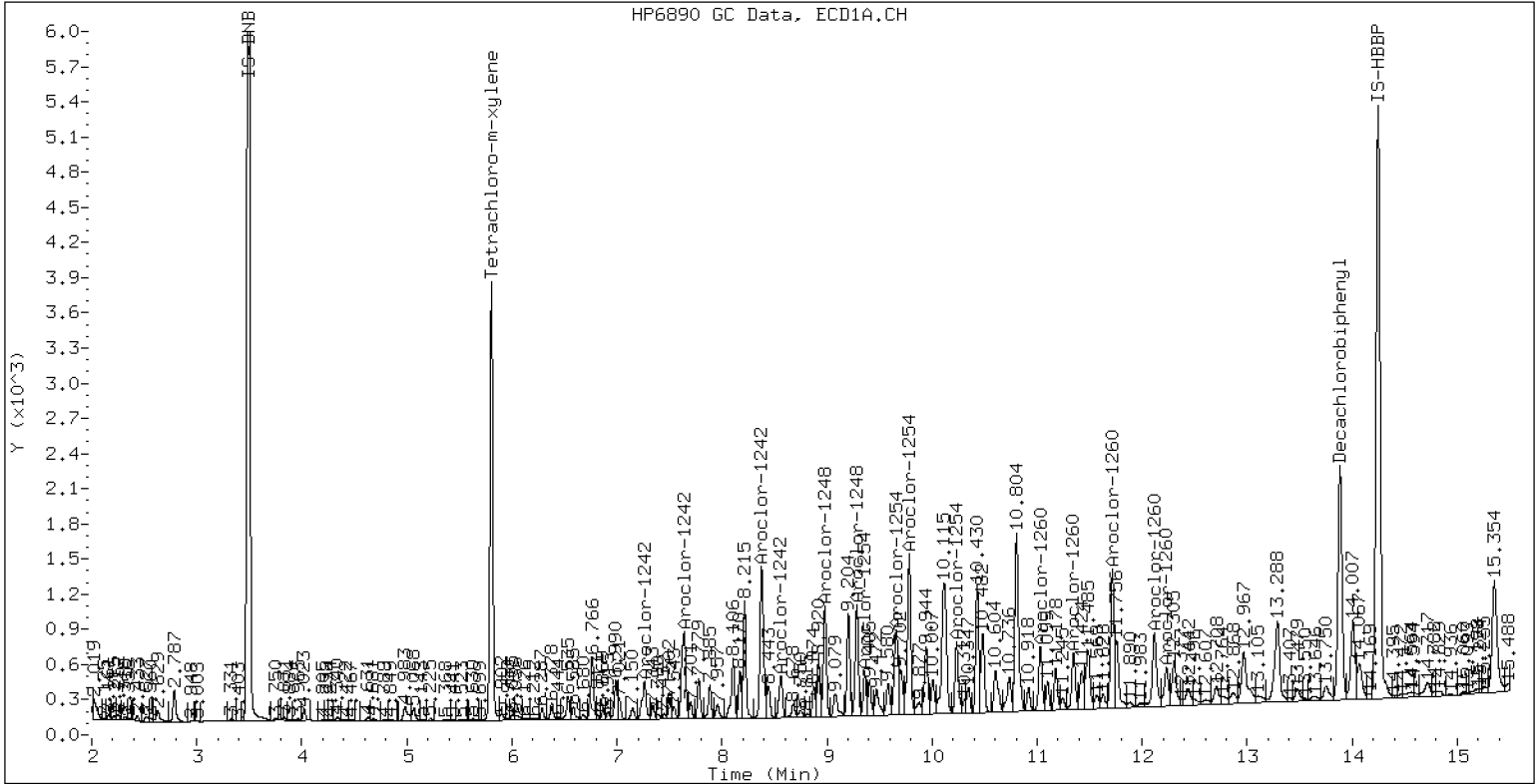
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 23A0032-11

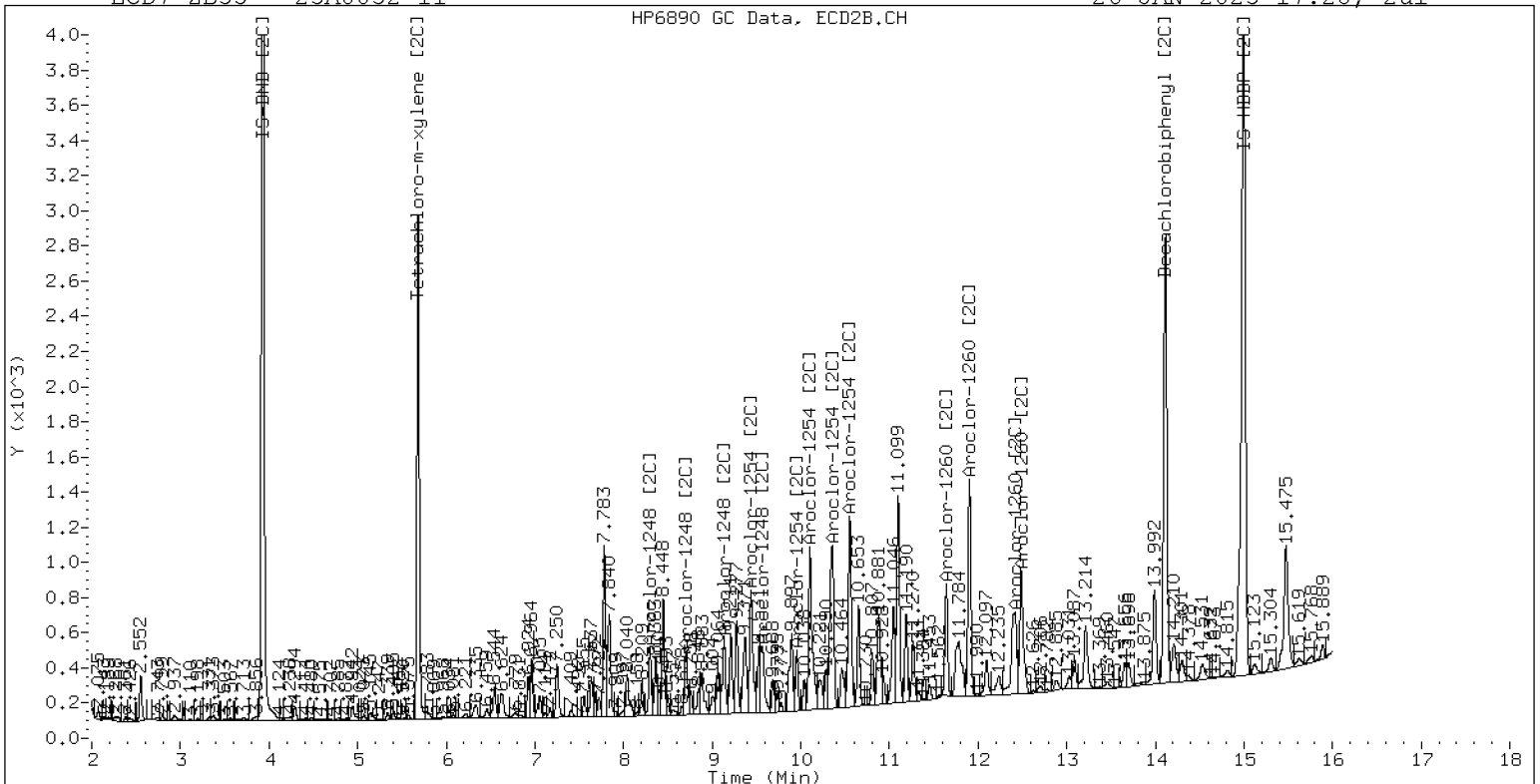
26-JAN-2023 17:28, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 23A0032-11

26-JAN-2023 17:28, 2u1



ZB-35 Manual Integration: NO



Batch: BLA0165

Prepared using: EPA 3546 (Microwave)

8082A PCB Solid 4 in Solid (Version:7 Aroclors)

Matrix: Solid Date Prepared: 01/11/23

Balance ID: 3146462614 Set Up By: CJO 1/9/23

WO Comments
 23A0031: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E>
 <H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
 23A0032: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E>
 <H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

The following standards may be missing from this batch!

Designator	Description
QLS 5	QLS Spike

Analysis: 8082A PCB Solid 4

Lab Number & Container	% Solids	Initial (g)		(REQ) Acid C/U (5mL)	(REQ) Sulfur C/U (5mL)	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 12.5 (Wet)	Actual						
23A0031-21 A	67.4	(18.56)	18.59	5mL	5mL	2mL	2.5	1.0	
23A0032-01 A	58.4	(21.40)	21.54	5mL	5mL	2mL	2.5	1.0	
23A0032-02 A	61.5	(20.33)	20.38	5mL	5mL	2mL	2.5	1.0	
23A0032-03 A	65.3	(19.15)	19.16	5mL	5mL	2mL	2.5	1.0	
23A0032-04 A	80.1	(15.60)	15.69	5mL	5mL	2mL	2.5	1.0	
23A0032-05 A	67.9	(18.41)	18.43	5mL	5mL	2mL	2.5	1.0	
23A0032-06 A	74.2	(16.85)	16.88	5mL	5mL	2mL	2.5	1.0	
23A0032-07 A	63.7	(19.62)	19.63	5mL	5mL	2mL	2.5	1.0	
23A0032-08 A	61.9	(20.20)	20.25	5mL	5mL	2mL	2.5	1.0	
23A0032-09 A	67.2	(18.60)	18.65	5mL	5mL	2mL	2.5	1.0	
23A0032-10 A	68.9	(18.13)	18.13	5mL	5mL	2mL	2.5	1.0	
23A0032-11 A	53.1	(23.56)	23.59	5mL	5mL	2mL	2.5	1.0	

Batch QC

Lab Number	% Solids	Initial (g)		(REQ) Acid C/U (5mL)	(REQ) Sulfur C/U (5mL)	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 12.5 (Wet)	Actual						
BLA0165-BLK1	100.0	(12.50)	12.54	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BLA0165-BS1	100.0	(12.50)	12.54	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BLA0165-BSD1	100.0	(12.50)	12.54	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BLA0165-MS1	74.2	(16.85)	16.86	5mL	5mL	2mL	2.5	1.0	Use 23A0032-06
BLA0165-MSD1	74.2	(16.85)	16.86	5mL	5mL	2mL	2.5	1.0	Use 23A0032-06
BLA0165-SRM1	100.0	(12.50) ^(2.50)	2.54	5mL	5mL	2mL	2.5	1.0	Use K010816

+1g DI WATER

Client ID verified By: [Signature] Date: 01/11/23
 Preparation Reviewed By: [Signature] Date: 1/9/23
 Extraction Date and Time: 01/11/23 11:11



Batch: BLA0165

Prepared using: EPA 3546 (Microwave)
8082A PCB Solid 4 in Solid (Version:7 Aroclors)

WO Comments
 23A0031: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E>
 <H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
 23A0032: <C>BPR SRM, MS, DUP <C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM I009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E>
 <H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Steps	Reagents Used	Surrogates & Spike Standards Used																					
Microwave 1 2 3 Analyst/Date: 1/11/23	Station/Reagent Standard ID Microwave Analyst: J/CJ Date: 1/11/23 Neutral Glass Wool K010562 1:1 Hexane/Acetone L000044 Hexane K011373 Anhydrous Sodium Sulfate L000092	<table border="1"> <thead> <tr> <th>Type</th> <th>Vial ID / Standard ID</th> <th>Vol uL</th> <th>Analyst</th> <th>Witness</th> </tr> </thead> <tbody> <tr> <td>Surrogate</td> <td>N K011752</td> <td>50µL</td> <td rowspan="2">CT</td> <td rowspan="2">J</td> </tr> <tr> <td>2µg/mL</td> <td>Exp Date: 1/23/2023</td> <td></td> </tr> <tr> <td>Spike</td> <td>1 K008150</td> <td>63µL</td> <td rowspan="2">CT</td> <td rowspan="2">J</td> </tr> <tr> <td>20µg/mL</td> <td>Exp Date: 3/5/2023</td> <td></td> </tr> </tbody> </table>	Type	Vial ID / Standard ID	Vol uL	Analyst	Witness	Surrogate	N K011752	50µL	CT	J	2µg/mL	Exp Date: 1/23/2023		Spike	1 K008150	63µL	CT	J	20µg/mL	Exp Date: 3/5/2023	
Type	Vial ID / Standard ID	Vol uL	Analyst	Witness																			
Surrogate	N K011752	50µL	CT	J																			
2µg/mL	Exp Date: 1/23/2023																						
Spike	1 K008150	63µL	CT	J																			
20µg/mL	Exp Date: 3/5/2023																						
KD 100°C Hexane Exchange (2 X 20 mL) 1 2 3 4 5 6 Analyst/Date: AA 1-17-23	KD Analyst: AA Date: 1-17-23 Anhydrous Sodium Sulfate MA Hexane K008310	<p>MANUALLY ENTER EXPIRATION DATES!</p> <p>(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.</p> <p>If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).</p>																					
TurboVap Pre Cleanups 1 2 3 4 5 Analyst/Date: LS 1/18/23	Vialing Analyst: ZH Date: 1/19/23 Hexane K008310 Concentrated Sulfuric Acid K010364																						
TurboVap Post Cleanups 1 2 3 4 5 Analyst/Date: ZH 1/19/23	Silica Gel (SPE) Darts K011573 Sodium Sulfite K010363 Tetrabutylammonium hydrogensulfate (TBAS) K011885																						
Vialing Analyst/Date: ZH 1/19/23																							



Batch: BLA0165

Prepared using: EPA 3546 (Microwave)
8082A PCB Solid 4 in Solid (Version:7 Aroclors)

WO Comments
 23A0031: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E>
 <H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)
 23A0032: <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM K000591, SIM PAH RM 1009127 PCB RM J006840-43, 7935-36, K011477-79, MS/MSD </E>
 <H>BPR J006840-43, 7935-36, K011477-79, Dup </H> Store in freezer (except GS)

Prep Instructions

SPECIAL INSTRUCTIONS:

1. Weigh soil/sed into beakers-lightly dry with sodium sulfate.
2. Transfer to microwave vessel(s). Note: (do not fill vessels more than 2/3rd full. Some samples may require two vessels).
3. Add 1:1 Hexane/Acetone until the solvent layer is 3 inches above the soil layer after homogenization.
4. Add surr/spike.
5. Microwave on appropriate power setting determined by # of samples.
6. After microwave-Re-homogenize while hot then cool vessels in R-05 15 minutes. Re-homogenize while cool.
7. Decant 1:1 Hex/Ace into Erlenmeyer flask with sodium sulfate in bottom and funnel with neutral glasswool plug.
8. Re-homogenize and rinse with 1:1 Hexane/Acetone.
9. Let cool and decant solvent then empty the soil into the funnel and rinse with Hexane.
10. KD on 100° bath.
11. Exchange (2 X with 20mL) Hexane.
12. TurboVap.
13. Clean-ups.
14. TurboVap.
15. Vial with Hexane.

A. Need Total Solids Y N

B. Archive/Freeze N



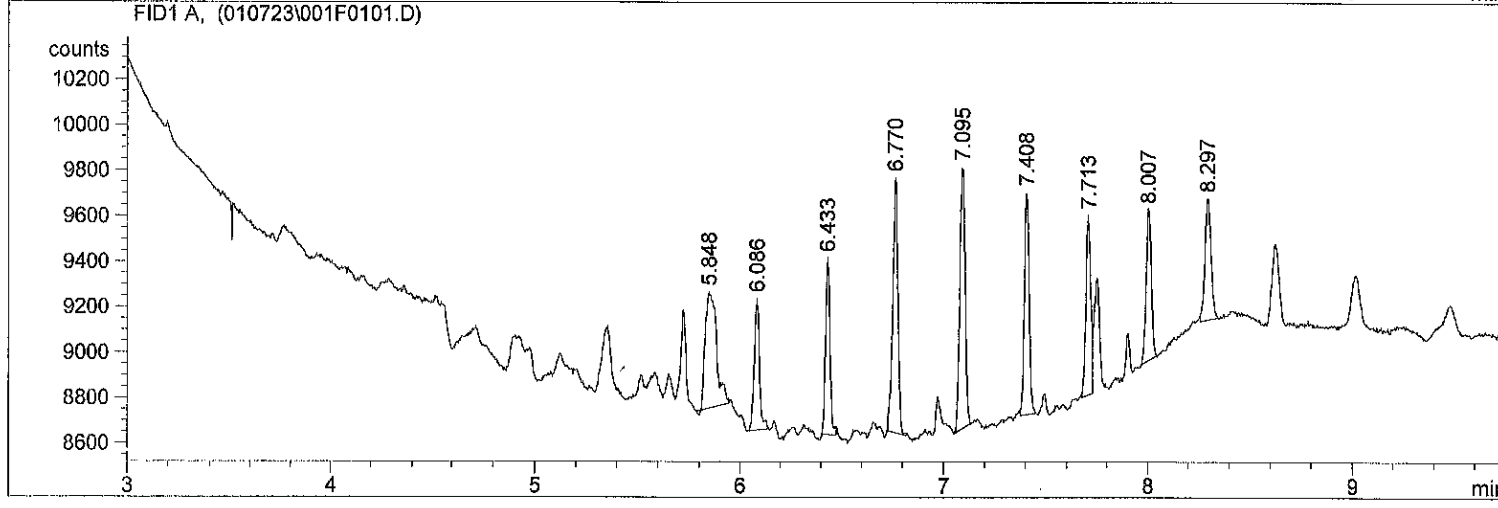
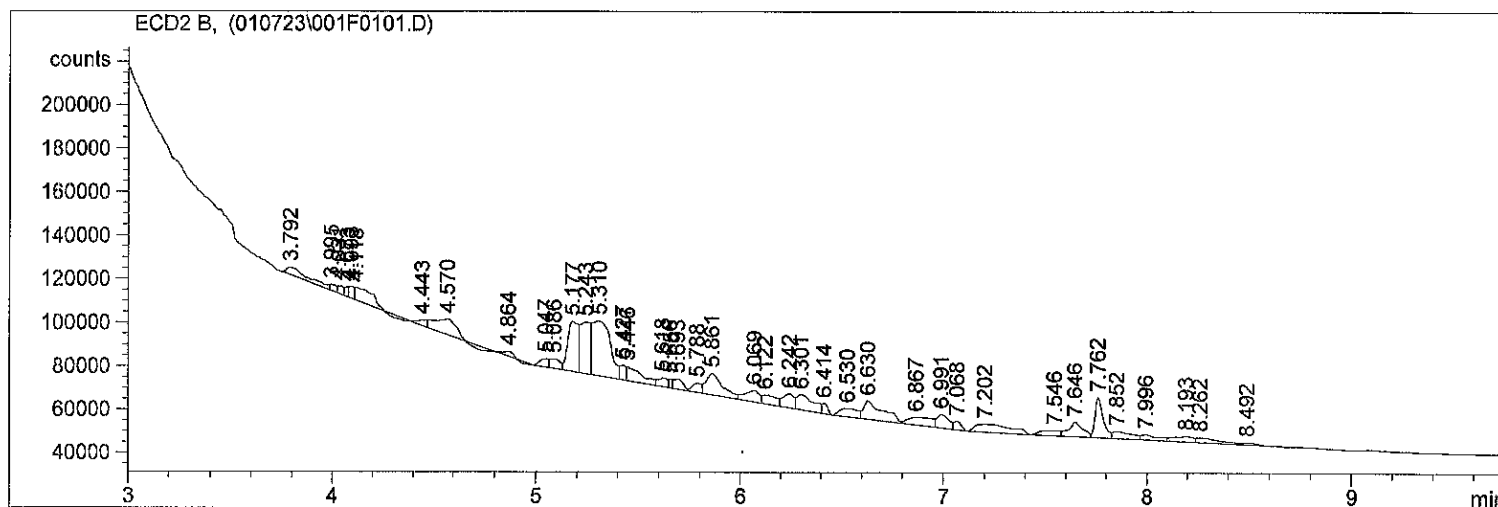
Extraction Parameter: PCB Extraction Batch BLA0165

Total Solids Batch: BLA0147 Work Order(s): 23A0032

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= $\phi 1, \phi 4, \phi 6, \phi 7$.	N $\phi 1 / \phi 7 / 23$
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= $\phi 1, \phi 2, \phi 3, \phi 5, \phi 7, \phi 8, 11$.	$\phi 1 / \phi 7 / 23$
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input checked="" type="checkbox"/> Rocks (%+size)? $\phi 11 = 10.9\%$ = $\phi 2, \phi 3$.	N $\phi 1 / \phi 7 / 23$
<input checked="" type="checkbox"/> Organics (Leaves/sticks/grass)= $\phi 5 = 5.9\%$	N $\phi 1 / \phi 7 / 23$
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors= $\phi 8, \phi 9, 1\phi, 11$.	N $\phi 1 / \phi 7 / 23$
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / N	N $\phi 1 / \phi 7 / 23$
<input checked="" type="checkbox"/> Multiple Jars Y / N	N $\phi 1 / \phi 7 / 23$
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	

=====
Injection Date : 1/7/2023 12:44:00 PM Seq. Line : 1
Sample Name : DCM RINSE Location : Vial 1
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

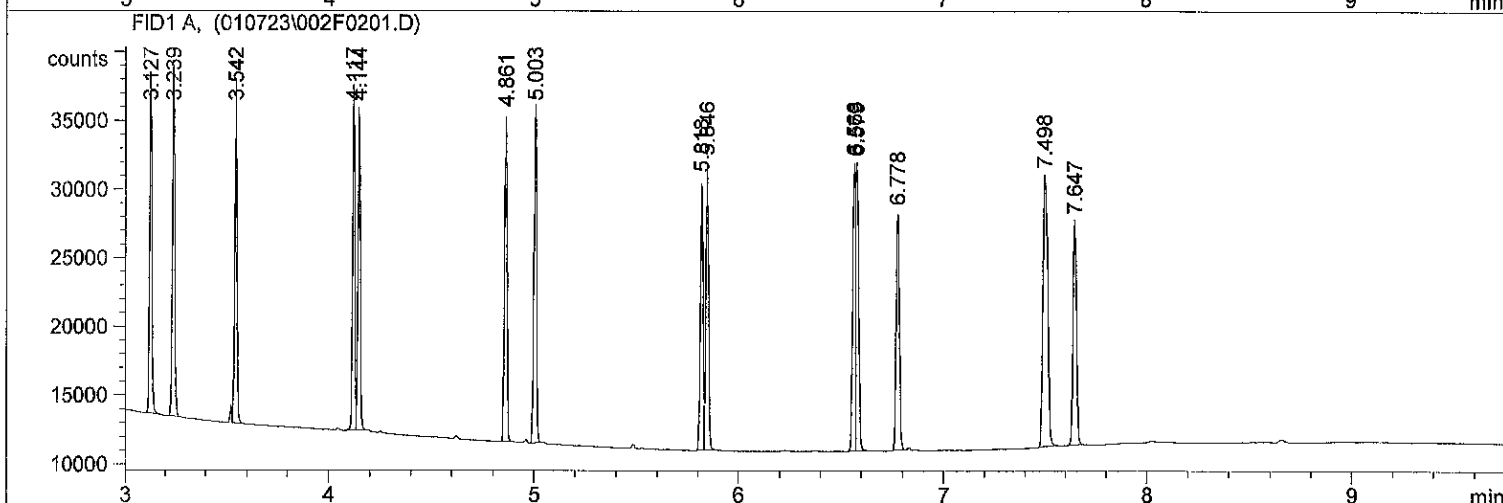
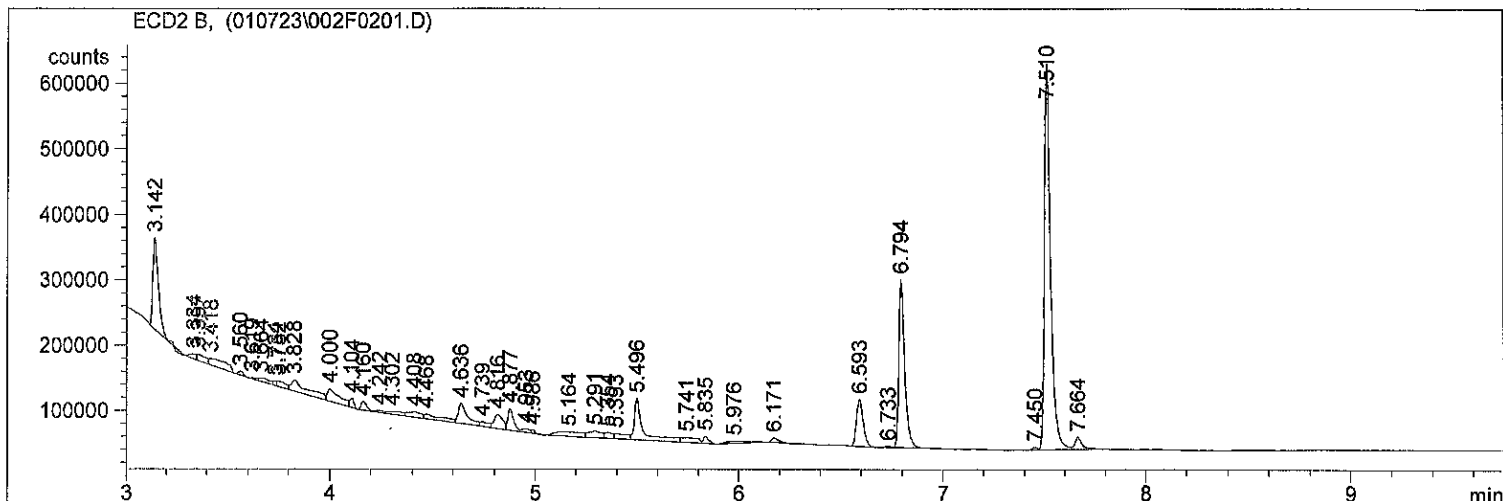
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Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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*** End of Report ***

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Injection Date : 1/7/2023 12:58:42 PM Seq. Line : 2
Sample Name : PNA STD 10PPM Location : Vial 2
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

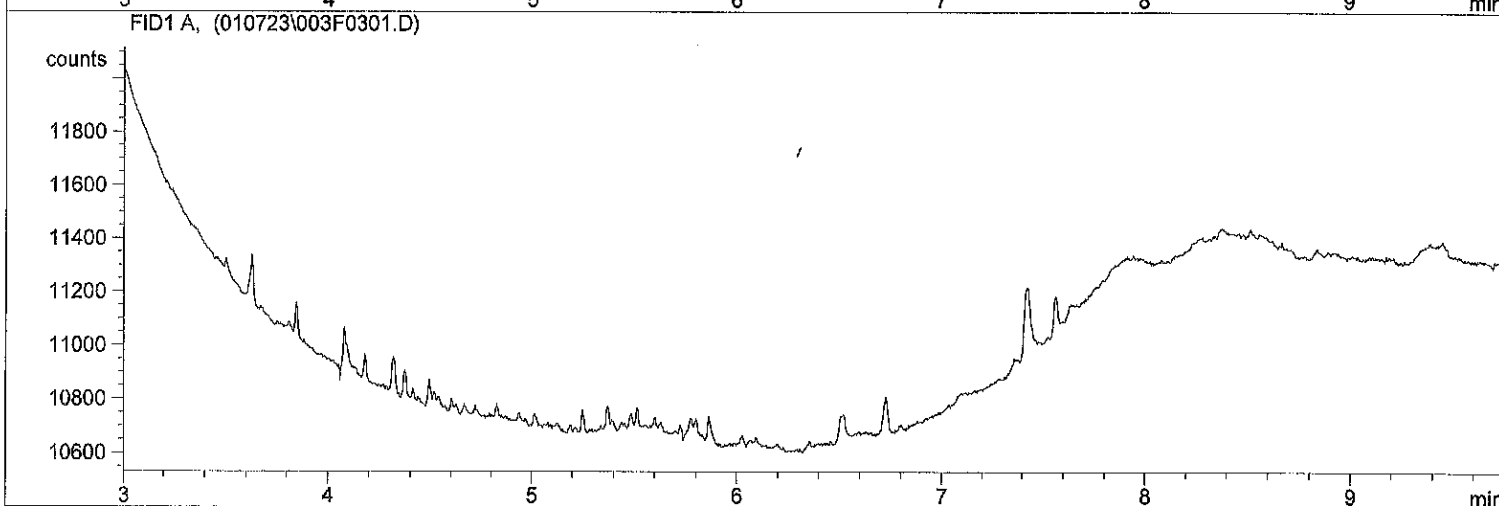
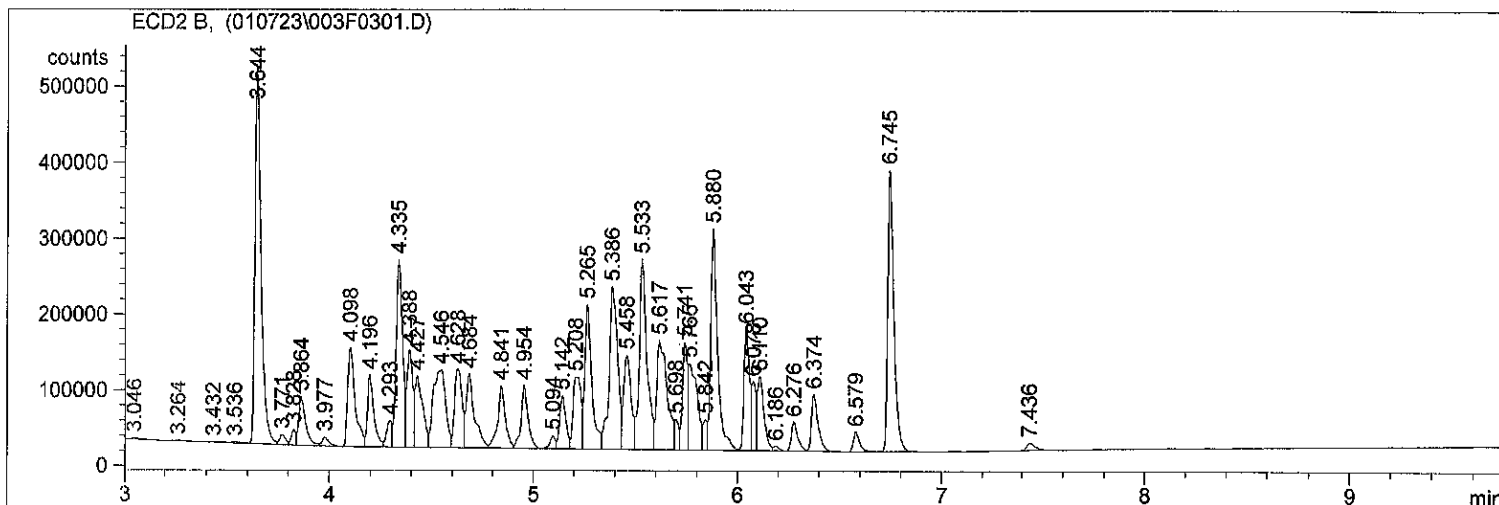
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Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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*** End of Report ***

=====
Injection Date : 1/7/2023 1:12:37 PM Seq. Line : 3
Sample Name : AR1660 1PPM Location : Vial 3
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

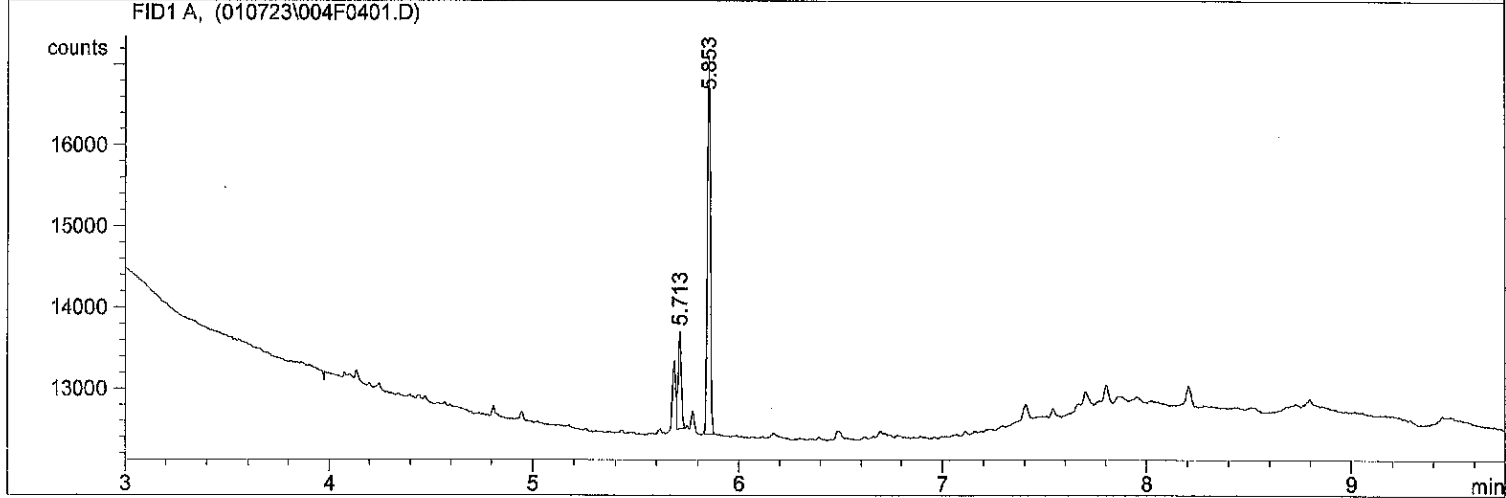
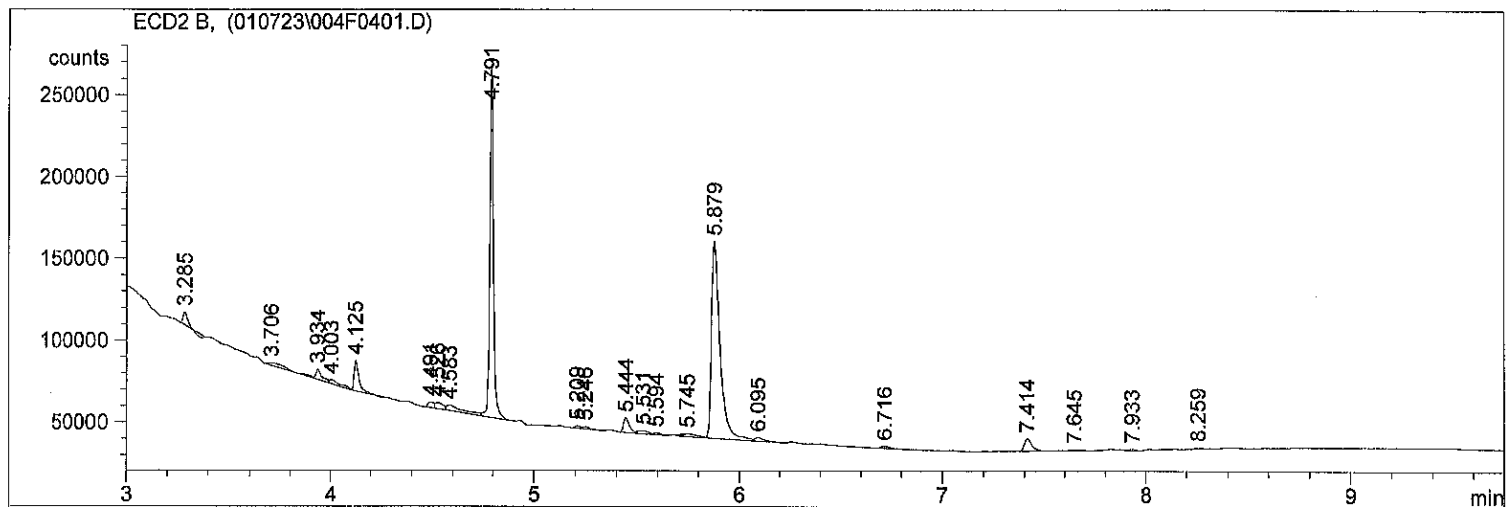
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Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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*** End of Report ***

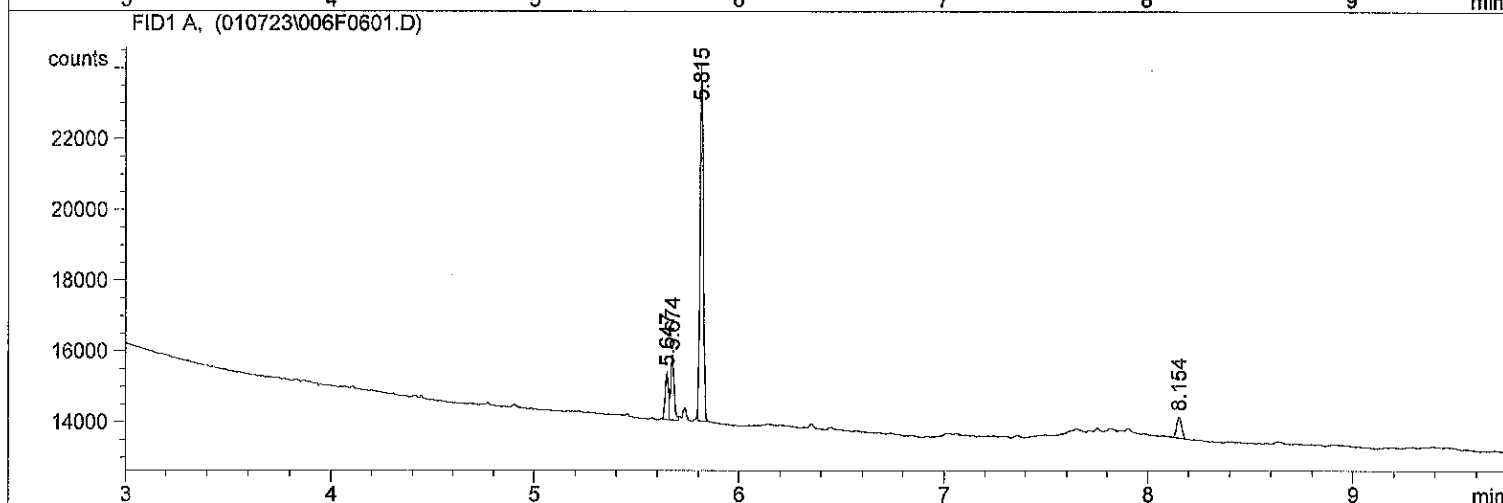
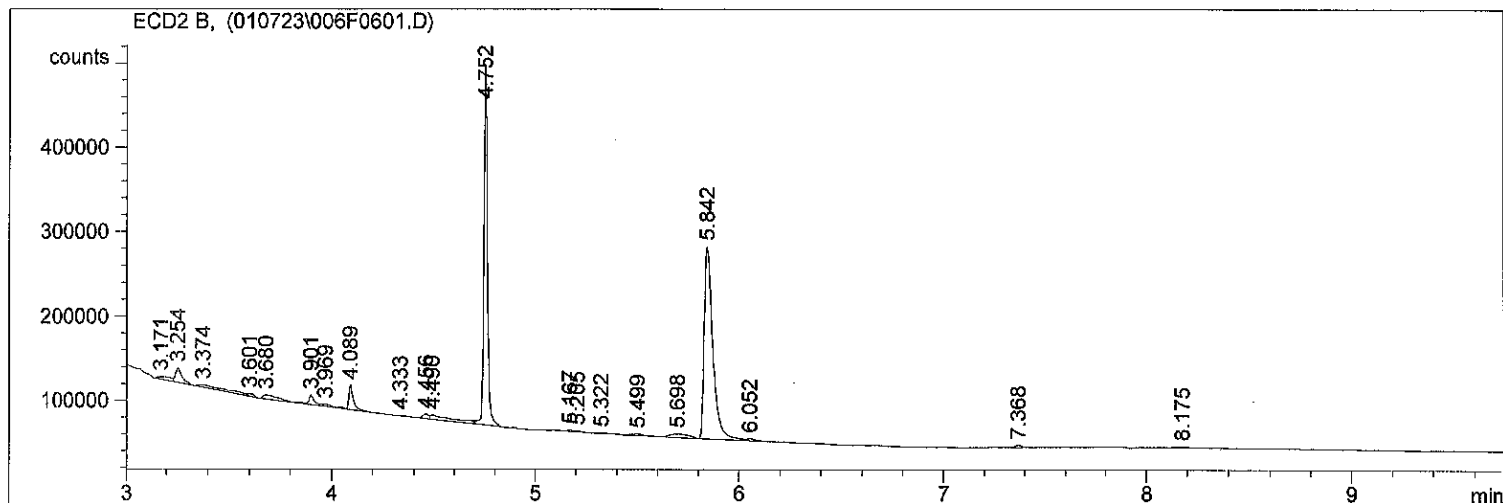
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Injection Date : 1/7/2023 1:27:08 PM Seq. Line : 4
Sample Name : 23A0032 01 Location : Vial 4
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\010723.S
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Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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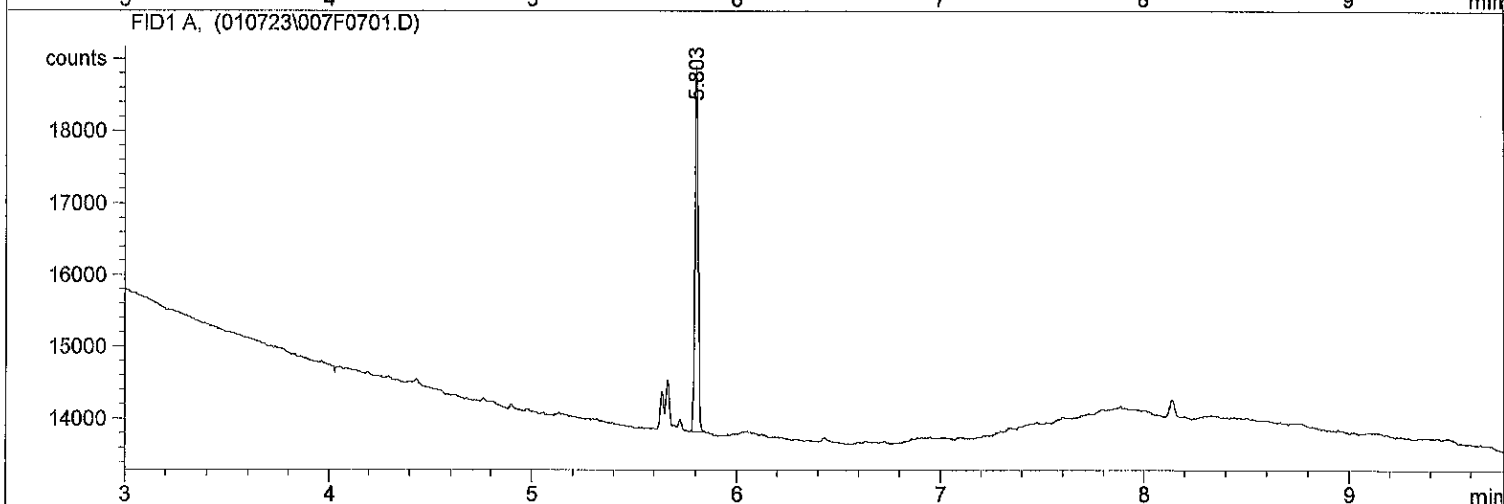
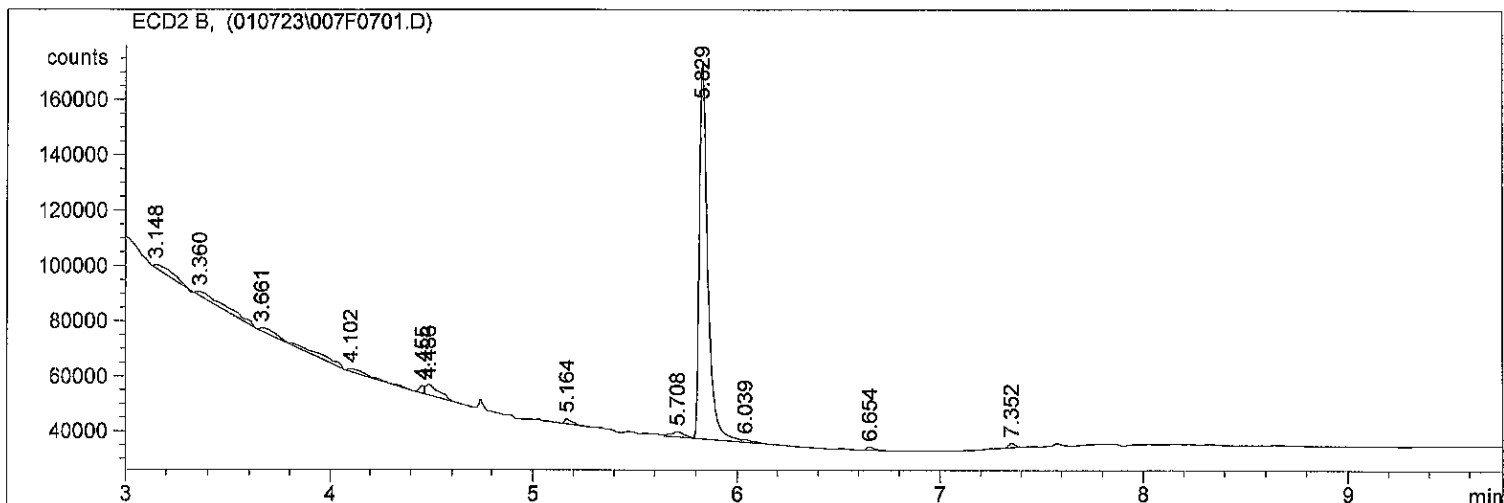
*** End of Report ***

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Injection Date : 1/7/2023 1:55:37 PM Seq. Line : 6
Sample Name : 23A0032 03 Location : Vial 6
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\010723.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
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*** End of Report ***

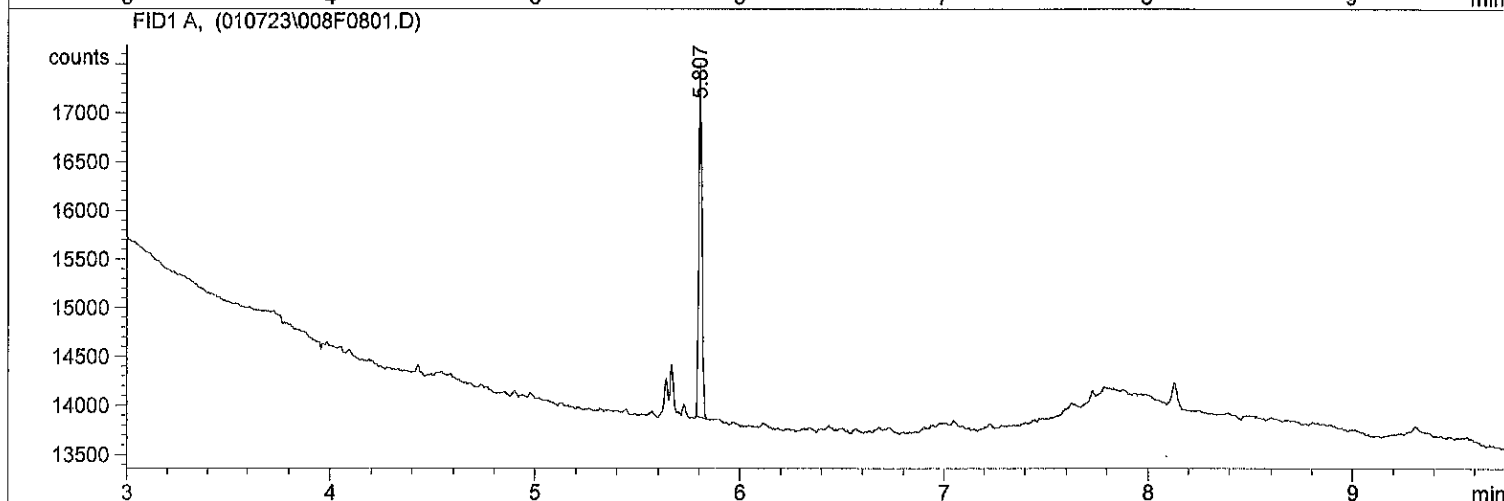
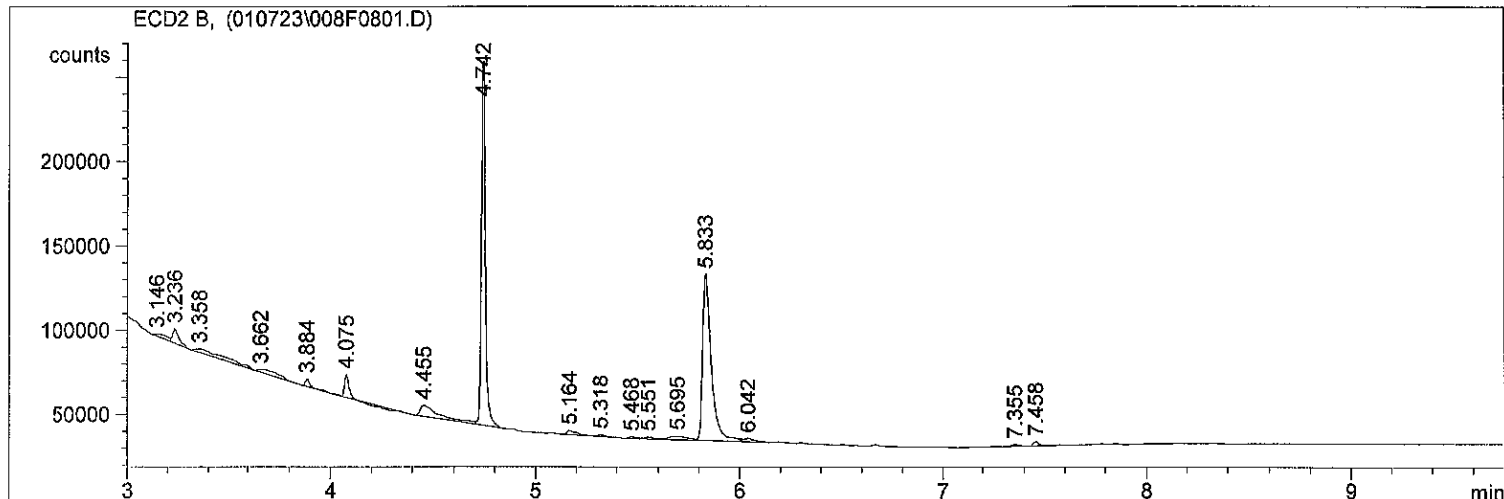
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Injection Date : 1/7/2023 2:09:37 PM Seq. Line : 7
Sample Name : 23A0032 04 Location : Vial 7
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\010723.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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*** End of Report ***

=====
Injection Date : 1/7/2023 2:24:11 PM Seq. Line : 8
Sample Name : 23A0032 05 Location : Vial 8
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\010723.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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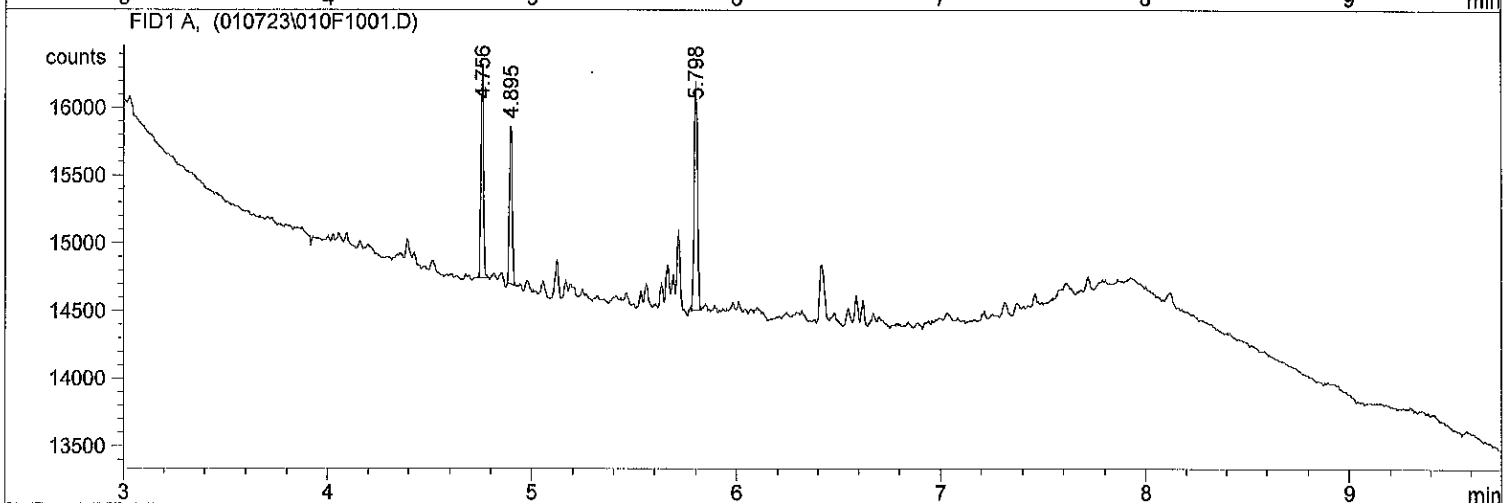
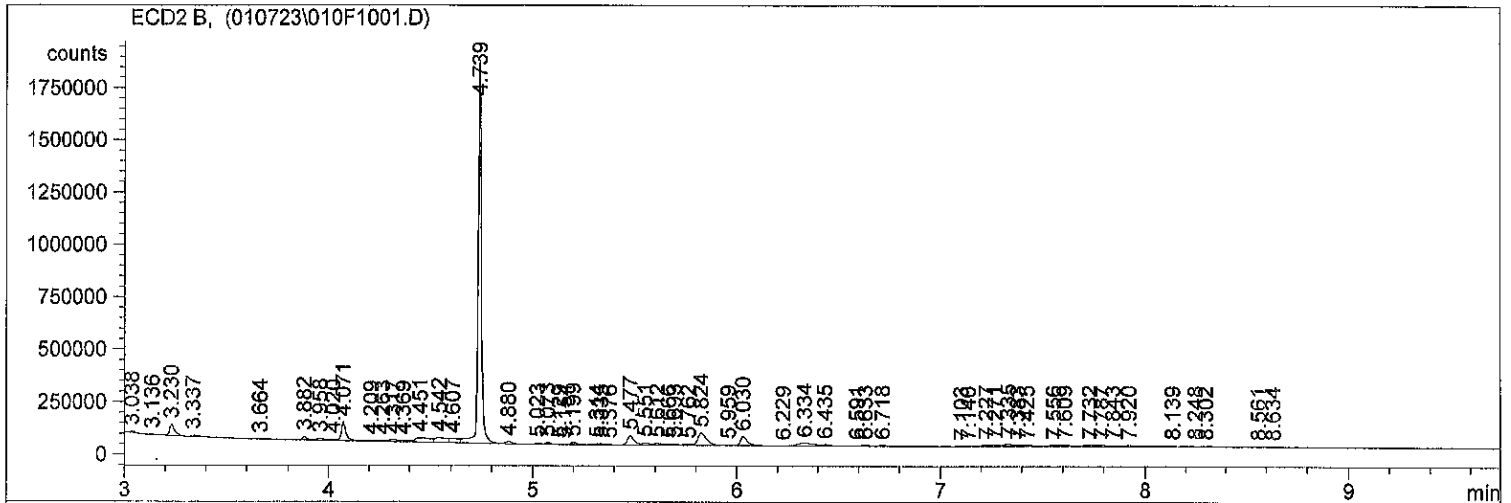


*** End of Report ***


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=====
Injection Date : 1/7/2023 2:52:44 PM      Seq. Line : 10
Sample Name    : 23A0032 07                Location  : Vial 10
Acq. Operator  : YL                        Inj      : 1
                                           Inj Volume: 1 µl

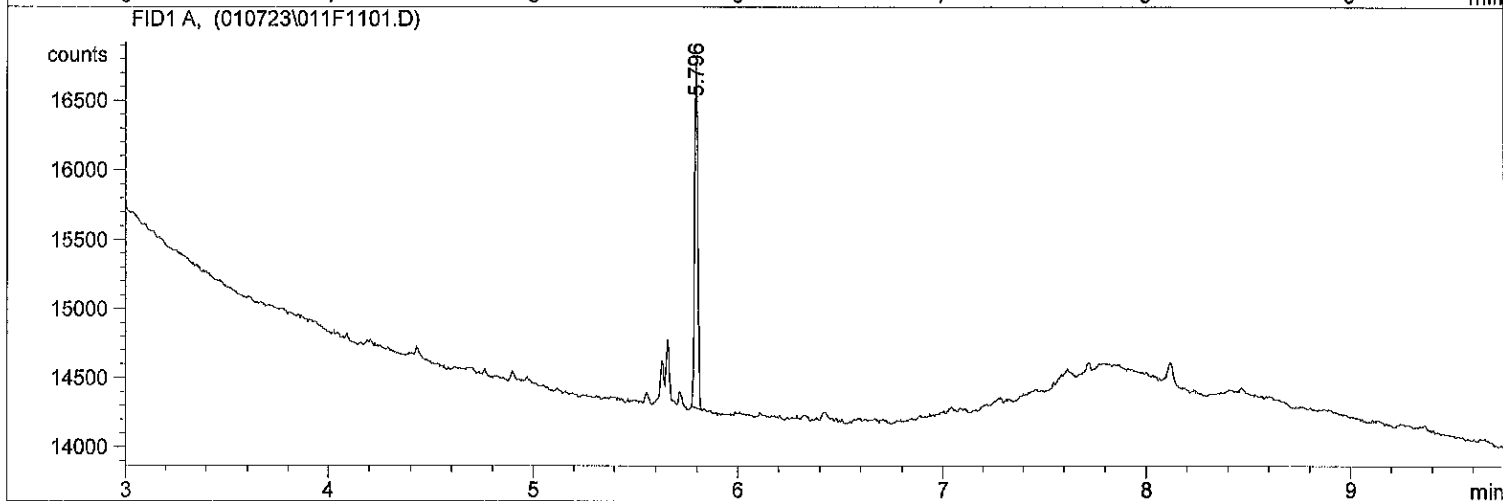
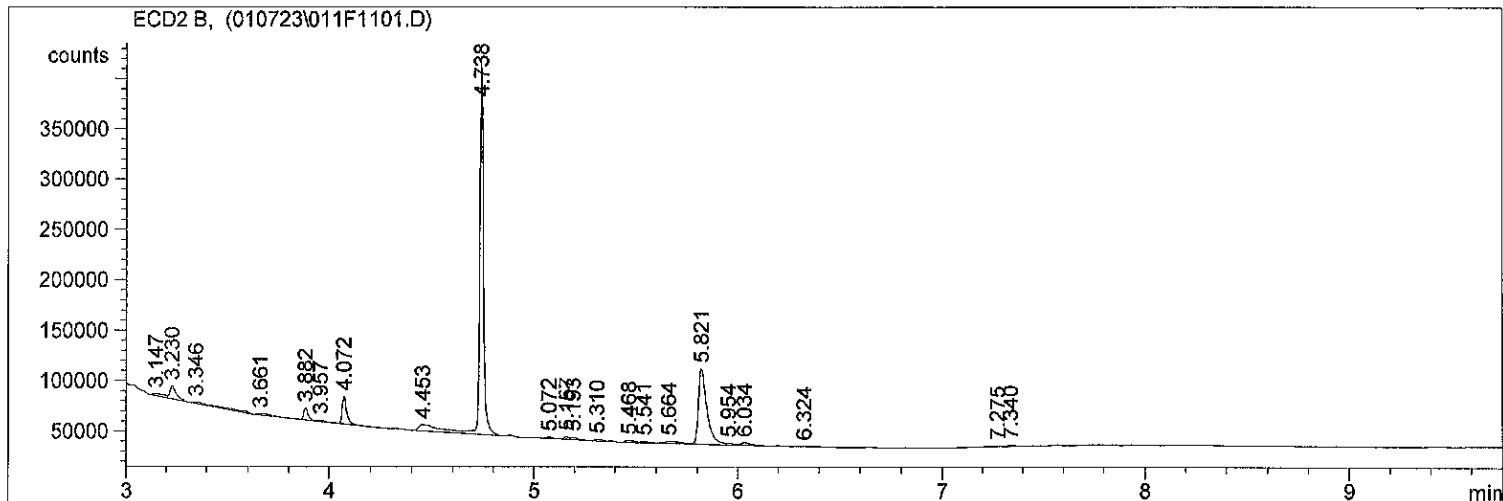
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Last changed   : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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*** End of Report ***

=====
Injection Date : 1/7/2023 3:06:43 PM Seq. Line : 11
Sample Name : 23A0032 08 Location : Vial 11
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

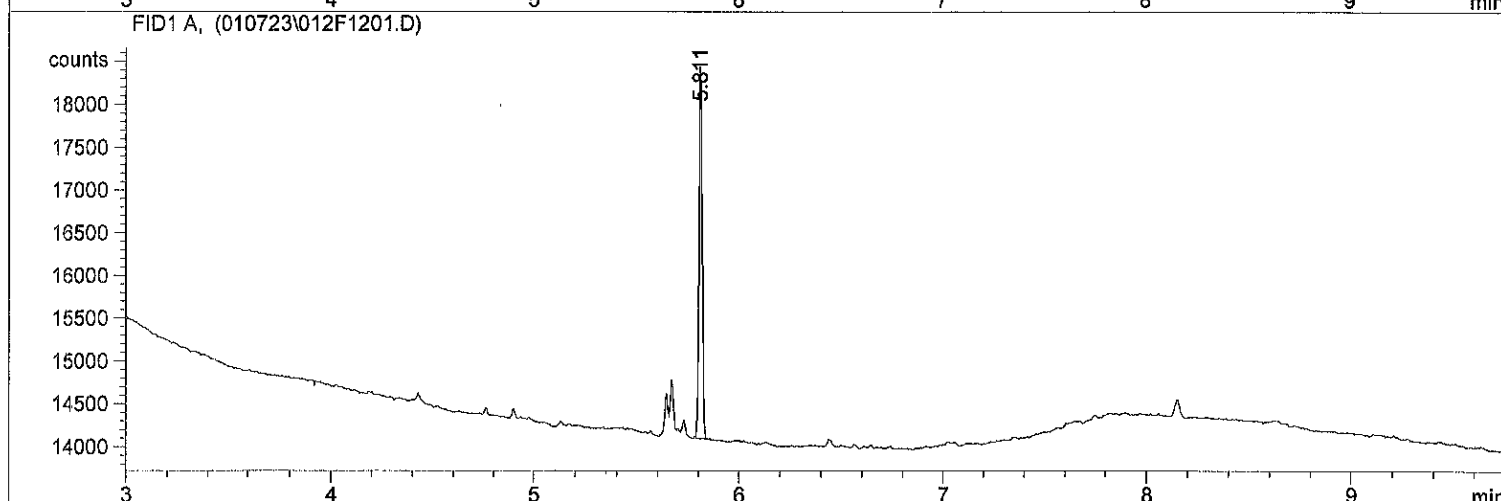
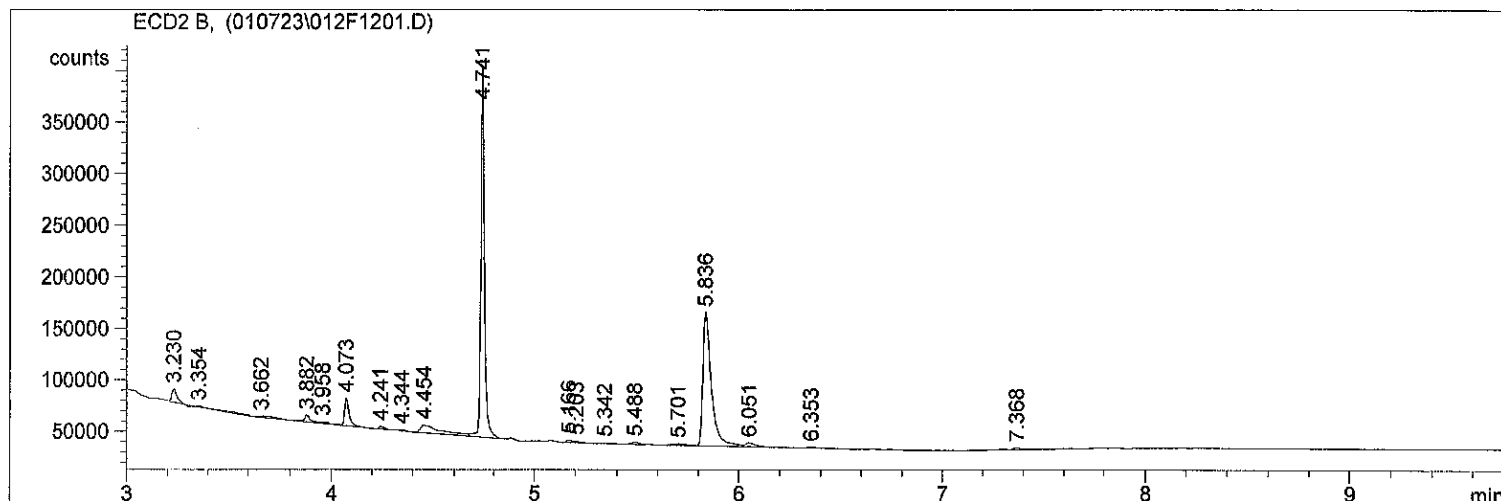
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SCREEN METHOD
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*** End of Report ***

=====
Injection Date : 1/7/2023 3:21:18 PM Seq. Line : 12
Sample Name : 23A0032 09 Location : Vial 12
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\010723.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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*** End of Report ***



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLA0167

Cleanup Type: Sulfuric Acid

Cleanup Method: EPA 3665 Sulfuric Acid Cleanup - uL

Analysis: EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1235	23A0032-06	01262320ECD7.D	01/19/2023	
Matrix Spike Dup	BLA0165-MSD1	01242376ECD7.D	01/19/2023	
Matrix Spike	BLA0165-MS1	01242375ECD7.D	01/19/2023	
LCS Dup	BLA0165-BSD1	01242364ECD7.D	01/19/2023	
LCS	BLA0165-BS1	01242363ECD7.D	01/19/2023	
Blank	BLA0165-BLK1	01242362ECD7.D	01/19/2023	
LDW23-IT1269	23A0032-03	01262317ECD7.D	01/19/2023	
LDW23-IT1246	23A0032-01	01262315ECD7.D	01/19/2023	
LDW23-IT1224	23A0032-05	01262319ECD7.D	01/19/2023	
LDW23-IT1264	23A0032-02	01262316ECD7.D	01/19/2023	
LDW23-SC1226B	23A0032-08	01242378ECD7.D	01/19/2023	
LDW23-SC1212	23A0032-11	01262322ECD7.D	01/19/2023	
LDW23-SC1203-FD	23A0032-10	01262321ECD7.D	01/19/2023	
LDW23-SC1203	23A0032-09	01242379ECD7.D	01/19/2023	
LDW23-IT1272	23A0032-04	01262318ECD7.D	01/19/2023	
LDW23-IT1202	23A0032-07	01242377ECD7.D	01/19/2023	
Reference	BLA0165-SRM1	01242365ECD7.D	01/19/2023	



CLEANUP BENCH SHEET

CLA0167

Matrix: Solid Cleanup using: Organics - EPA 3665 Sulfuric Acid Cleanup - uL Printed: 1/19/2023 1:09:50PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0031-21	A	LDW23-SS1232	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-01	A	LDW23-IT1246	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-02	A	LDW23-IT1264	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-03	A	LDW23-IT1269	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-04	A	LDW23-IT1272	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-05	A	LDW23-IT1224	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-06	A	LDW23-IT1235	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-07	A	LDW23-IT1202	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-08	A	LDW23-SC1226B	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-09	A	LDW23-SC1203	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-10	A	LDW23-SC1203-FD	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-11	A	LDW23-SC1212	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
BLA0165-BLK1	-	Blank	-	2.5	2.5	-	1/19/2023	ZH	
BLA0165-BS1	-	LCS	-	2.5	2.5	-	1/19/2023	ZH	
BLA0165-BSD1	-	LCS Dup	-	2.5	2.5	-	1/19/2023	ZH	
BLA0165-MS1	-	Matrix Spike	-	2.5	2.5	-	1/19/2023	ZH	
BLA0165-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	1/19/2023	ZH	
BLA0165-SRM1	-	Reference	-	2.5	2.5	-	1/19/2023	ZH	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLA0168

Cleanup Type: Sulfur

Cleanup Method: EPA 3660B Sulfur Cleanup - uL

Analysis: EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	BLA0165-BLK1	01242362ECD7.D	01/19/2023	
LDW23-SC1212	23A0032-11	01262322ECD7.D	01/19/2023	
LDW23-IT1202	23A0032-07	01242377ECD7.D	01/19/2023	
LDW23-IT1224	23A0032-05	01262319ECD7.D	01/19/2023	
LDW23-IT1235	23A0032-06	01262320ECD7.D	01/19/2023	
LDW23-IT1246	23A0032-01	01262315ECD7.D	01/19/2023	
LDW23-SC1226B	23A0032-08	01242378ECD7.D	01/19/2023	
LDW23-IT1272	23A0032-04	01262318ECD7.D	01/19/2023	
LDW23-SC1203	23A0032-09	01242379ECD7.D	01/19/2023	
LDW23-IT1264	23A0032-02	01262316ECD7.D	01/19/2023	
LCS	BLA0165-BS1	01242363ECD7.D	01/19/2023	
LCS Dup	BLA0165-BSD1	01242364ECD7.D	01/19/2023	
Matrix Spike	BLA0165-MS1	01242375ECD7.D	01/19/2023	
Matrix Spike Dup	BLA0165-MSD1	01242376ECD7.D	01/19/2023	
Reference	BLA0165-SRM1	01242365ECD7.D	01/19/2023	
LDW23-SC1203-FD	23A0032-10	01262321ECD7.D	01/19/2023	
LDW23-IT1269	23A0032-03	01262317ECD7.D	01/19/2023	



CLEANUP BENCH SHEET

CLA0168

Matrix: Solid

Cleanup using: Organics - EPA 3660B Sulfur Cleanup - uL

Printed: 1/19/2023 1:10:57PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0031-21	A	LDW23-SS1232	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-01	A	LDW23-IT1246	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-02	A	LDW23-IT1264	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-03	A	LDW23-IT1269	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-04	A	LDW23-IT1272	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-05	A	LDW23-IT1224	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-06	A	LDW23-IT1235	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-07	A	LDW23-IT1202	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-08	A	LDW23-SC1226B	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-09	A	LDW23-SC1203	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-10	A	LDW23-SC1203-FD	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-11	A	LDW23-SC1212	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
BLA0165-BLK1	-	Blank	-	2.5	2.5	-	1/19/2023	ZH	
BLA0165-BS1	-	LCS	-	2.5	2.5	-	1/19/2023	ZH	
BLA0165-BSD1	-	LCS Dup	-	2.5	2.5	-	1/19/2023	ZH	
BLA0165-MS1	-	Matrix Spike	-	2.5	2.5	-	1/19/2023	ZH	
BLA0165-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	1/19/2023	ZH	
BLA0165-SRM1	-	Reference	-	2.5	2.5	-	1/19/2023	ZH	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLA0169

Cleanup Type: Silica Gel

Cleanup Method: EPA 3630C Silica Gel Cleanup - uL

Analysis: EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Matrix Spike Dup	BLA0165-MSD1	01242376ECD7.D	01/19/2023	
LDW23-SC1212	23A0032-11	01262322ECD7.D	01/19/2023	
LDW23-IT1202	23A0032-07	01242377ECD7.D	01/19/2023	
LCS Dup	BLA0165-BSD1	01242364ECD7.D	01/19/2023	
LDW23-IT1264	23A0032-02	01262316ECD7.D	01/19/2023	
Reference	BLA0165-SRM1	01242365ECD7.D	01/19/2023	
LDW23-IT1224	23A0032-05	01262319ECD7.D	01/19/2023	
LDW23-SC1203-FD	23A0032-10	01262321ECD7.D	01/19/2023	
Matrix Spike	BLA0165-MS1	01242375ECD7.D	01/19/2023	
Blank	BLA0165-BLK1	01242362ECD7.D	01/19/2023	
LDW23-IT1246	23A0032-01	01262315ECD7.D	01/19/2023	
LDW23-IT1235	23A0032-06	01262320ECD7.D	01/19/2023	
LDW23-IT1269	23A0032-03	01262317ECD7.D	01/19/2023	
LCS	BLA0165-BS1	01242363ECD7.D	01/19/2023	
LDW23-IT1272	23A0032-04	01262318ECD7.D	01/19/2023	
LDW23-SC1203	23A0032-09	01242379ECD7.D	01/19/2023	
LDW23-SC1226B	23A0032-08	01242378ECD7.D	01/19/2023	



CLEANUP BENCH SHEET

CLA0169

Matrix: Solid

Cleanup using: Organics - EPA 3660C Silica Gel Cleanup - uL

Printed: 1/19/2023 1:11:52PM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0031-21	A	LDW23-SS1232	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-01	A	LDW23-IT1246	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-02	A	LDW23-IT1264	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-03	A	LDW23-IT1269	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-04	A	LDW23-IT1272	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-05	A	LDW23-IT1224	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-06	A	LDW23-IT1235	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-07	A	LDW23-IT1202	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-08	A	LDW23-SC1226B	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-09	A	LDW23-SC1203	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-10	A	LDW23-SC1203-FD	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
23A0032-11	A	LDW23-SC1212	A 03	2.5	2.5	8082A PCB Solid 4	1/19/2023	ZH	
BLA0165-BLK1	-	Blank	-	2.5	2.5	-	1/19/2023	ZH	
BLA0165-BS1	-	LCS	-	2.5	2.5	-	1/19/2023	ZH	
BLA0165-BSD1	-	LCS Dup	-	2.5	2.5	-	1/19/2023	ZH	
BLA0165-MS1	-	Matrix Spike	-	2.5	2.5	-	1/19/2023	ZH	
BLA0165-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	1/19/2023	ZH	
BLA0165-SRM1	-	Reference	-	2.5	2.5	-	1/19/2023	ZH	



Form I
METHOD BLANK DATA SHEET
EPA 8082A

Blank

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BLA0165-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>01/11/23 11:11</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BLA0165</u>	Sequence:	<u>SLA0298</u>
Instrument:	<u>ECD7</u>	Column:	<u>ZB5</u>
		File ID:	<u>01242362ECD7.D</u>
		Analyzed:	<u>01/25/23 09:08</u>
		Initial/Final:	<u>12.5 g / 2.5 mL</u>
		Calibration:	<u>GA00061</u>
		Cleanups:	<u>Silica Gel, Sulfur, Sulfuric Acid</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
12674-11-2	Aroclor 1016	1	4.0	U	1.6	4.0
11104-28-2	Aroclor 1221	1	4.0	U	1.6	4.0
11141-16-5	Aroclor 1232	1	4.0	U	1.6	4.0
53469-21-9	Aroclor 1242	1	4.0	U	1.6	4.0
12672-29-6	Aroclor 1248	1	4.0	U	1.6	4.0
11097-69-1	Aroclor 1254	1	4.0	U	1.6	4.0
11096-82-5	Aroclor 1260	1	4.0	U	0.6	4.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Decachlorobiphenyl	8.0000	8.58	107	40 - 126	
Tetrachlorometaxylene	8.0000	7.40	92.5	44 - 120	
Decachlorobiphenyl [2C]	8.0000	8.37	105	40 - 126	
Tetrachlorometaxylene [2C]	8.0000	7.28	91.0	44 - 120	

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242362ECD7.D
Data file 2: /230124.b/230124.b/01242362ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLA0165-BLK1
Client ID:
Injection Date: 25-JAN-2023 09:08
Report Date: 01/26/2023 08:48
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.808	-0.001	246812	5.685	-0.001	164365	37.0	36.4	1.7	Tetrachloro-m-xylene
13.887	-0.005	362339	14.116	-0.003	314336	42.9	41.9	2.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	471754	-6.3
Hexabromobiphenyl	647433	790051	22.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	334025	-0.9
Hexabromobiphenyl	382032	473070	23.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	---			0.0	1	---			0.0
Aroclor-1260	2	---			0.0	2	---			0.0
Aroclor-1260	3	---			0.0	3	---			0.0
Aroclor-1260	4	---			0.0	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				

Total PCB Area Coll (5.909 - 13.792) = 128152

Coll Total PCB = 0.0 ppm*

Total PCB Area Col2 (5.786 - 14.020) = 40899 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



LCS / LCS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>01/25/23 09:29</u>
Batch:	<u>BLA0165</u>	Laboratory ID:	<u>BLA0165-BS1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>12.5 g / 2.5 mL</u>		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Aroclor 1016	101	90.7		90.0	56 - 120
Aroclor 1260 [2C]	101	84.4		83.8	58 - 120

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Aroclor 1016 [2C]	101	94.0		93.3	4.16	30	56 - 120
Aroclor 1260 [2C]	101	84.0		83.3	0.509	30	58 - 120

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242363ECD7.D
Data file 2: /230124.b/230124.b/01242363ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLA0165-BS1
Client ID:
Injection Date: 25-JAN-2023 09:29
Report Date: 01/26/2023 08:48
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.808	-0.001	231506	5.685	-0.001	154240	37.4	37.1	1.0	Tetrachloro-m-xylene
13.887	-0.004	346698	14.117	-0.003	300132	42.6	42.6	0.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	437498	-13.1
Hexabromobiphenyl	647433	760546	17.5

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	307789	-8.6
Hexabromobiphenyl	382032	444055	16.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	-0.001	74014	455.3	1	7.254	-0.000	73118	438.0
Aroclor-1016	2	7.649	-0.002	252459	468.7	2	7.847	-0.004	171349	468.4
Aroclor-1016	3	7.786	-0.003	101397	409.1	3	8.048	-0.004	69719	467.0
Aroclor-1016	4	8.401	-0.003	76827	481.9	4	8.304	-0.002	50356	430.3
Total CollAve (4 peaks):				453.7		Total Col2Ave (4 peaks):				450.9 RPD = 1
Corrected Ave (3 peaks):				444.4		Corrected Ave (3 peaks):				445.1 RPD = 0
Aroclor-1221	1	4.734	0.002	1742	53.9	1	4.958	-0.001	268	11.9
Aroclor-1221	2	6.131	-0.003	9107	137.7	2	6.298	-0.000	7209	145.8
Aroclor-1221	3	6.382	-0.002	47166	307.3	3	6.621	-0.002	31425	376.6
Total CollAve (3 peaks):				166.3		Total Col2Ave (3 peaks):				178.1 RPD = 7
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.734	0.001	1742	86.3	1	4.958	-0.002	268	19.6
Aroclor-1232	2	6.131	-0.003	9107	200.2	2	7.254	-0.002	73118	954.7
Aroclor-1232	3	7.649	-0.010	252459	1109.6	3	7.847	-0.007	171349	1098.5
Aroclor-1232	4	8.573	-0.011	96318	989.0	4	8.710	-0.003	51674	1192.3
Total CollAve (4 peaks):				596.3		Total Col2Ave (4 peaks):				816.3 RPD = 31
Corrected Ave (3 peaks):				425.2		Corrected Ave (3 peaks):				690.9 RPD = 48*
Aroclor-1242	1	7.269	-0.002	74014	552.5	1	7.254	-0.000	73118	543.2
Aroclor-1242	2	7.649	-0.007	252459	575.8	2	7.847	-0.004	171349	573.1
Aroclor-1242	3	8.401	-0.005	76827	589.8	3	9.149	-0.010	9234	98.6
Aroclor-1242	4	8.573	-0.008	96318	489.5	4	9.572	-0.013	6119	49.3
Total CollAve (4 peaks):				551.9		Total Col2Ave (4 peaks):				316.1 RPD = 54*
Corrected Ave (3 peaks):				539.3		Corrected Ave (3 peaks):				230.4 RPD = 80*
Aroclor-1248	1	8.401	-0.004	76827	351.0	1	8.304	-0.001	50356	361.9
Aroclor-1248	2	8.573	-0.007	96318	345.0	2	8.710	-0.002	51674	345.1
Aroclor-1248	3	8.990	-0.009	75740	141.8	3	9.149	-0.008	9234	50.5
Aroclor-1248	4	9.294	-0.000	74063	280.2	4	9.572	-0.008	6119	27.0
Total CollAve (4 peaks):				279.5		Total Col2Ave (4 peaks):				196.1 RPD = 35
Corrected Ave (3 peaks):				255.7		Corrected Ave (3 peaks):				140.9 RPD = 58*
Aroclor-1254	1	9.294	-0.005	74063	166.1	1	9.444	-0.004	44846	200.8
Aroclor-1254	2	---			0.0	2	9.964	-0.005	9790	54.2
Aroclor-1254	3	9.661	-0.008	16647	58.3	3	10.142	0.020	99998	254.0
Aroclor-1254	4	9.797	-0.011	47307	84.5	4	10.366	-0.005	132609	336.8
Aroclor-1254	5	10.115	-0.062	209454	575.4	5	10.561	-0.007	174138	794.1
Total CollAve (4 peaks):				221.1		Total Col2Ave (5 peaks):				328.0 RPD = 39
Corrected Ave (3 peaks):				103.0		Corrected Ave (4 peaks):				211.5 RPD = 69*
Aroclor-1260	1	11.038	-0.005	162893	381.7	1	11.649	-0.004	129777	405.1
Aroclor-1260	2	11.355	-0.005	166978	380.7	2	11.911	-0.008	316093	390.0
Aroclor-1260	3	11.726	-0.009	431758	373.9	3	12.431	-0.006	97506	482.7
Aroclor-1260	4	12.128	-0.011	221022	370.4	4	12.494	-0.008	215602	411.0
Aroclor-1260	5	12.237	-0.007	90183	346.7	NS	---			----
Total CollAve (5 peaks):				370.7		Total Col2Ave (4 peaks):				422.2 RPD = 13
Corrected Ave (4 peaks):				367.9		Corrected Ave (3 peaks):				402.1 RPD = 9
Aroclor-1262	1	10.817	-0.015	322674	1049.1	1	11.196	-0.004	121054	278.5
Aroclor-1262	2	12.237	-0.008	90183	185.8	2	11.649	-0.004	129777	351.1
Aroclor-1262	3	12.312	-0.009	108956	206.7	3	12.431	-0.003	97506	247.8
Aroclor-1262	4	12.979	-0.010	103049	214.6	4	12.494	-0.009	215602	342.1
Total CollAve (4 peaks):				414.0		Total Col2Ave (4 peaks):				304.9 RPD = 30
Corrected Ave (3 peaks):				202.4		Corrected Ave (3 peaks):				289.5 RPD = 35
Aroclor-1268	1	12.237	-0.007	90183	71.8	1	12.431	-0.003	97506	94.0
Aroclor-1268	2	12.312	-0.006	108956	87.0	2	12.494	-0.007	215602	195.4
Aroclor-1268	3	12.716	0.017	51195	49.3	3	12.890	-0.003	5009	5.5
Aroclor-1268	4	13.482	-0.007	37962	12.3	4	13.705	-0.004	25897	9.1
Total CollAve (4 peaks):				55.1		Total Col2Ave (4 peaks):				76.0 RPD = 32

Corrected Ave (3 peaks): 44.5 Corrected Ave (3 peaks): 36.2 RPD = 21

Total PCB Area Col1 (5.909 - 13.792) = 4635440 Col1 Total PCB = 0.9 ppm*
Total PCB Area Col2 (5.786 - 14.020) = 3100444 Col2 Total PCB = 1.0 ppm*

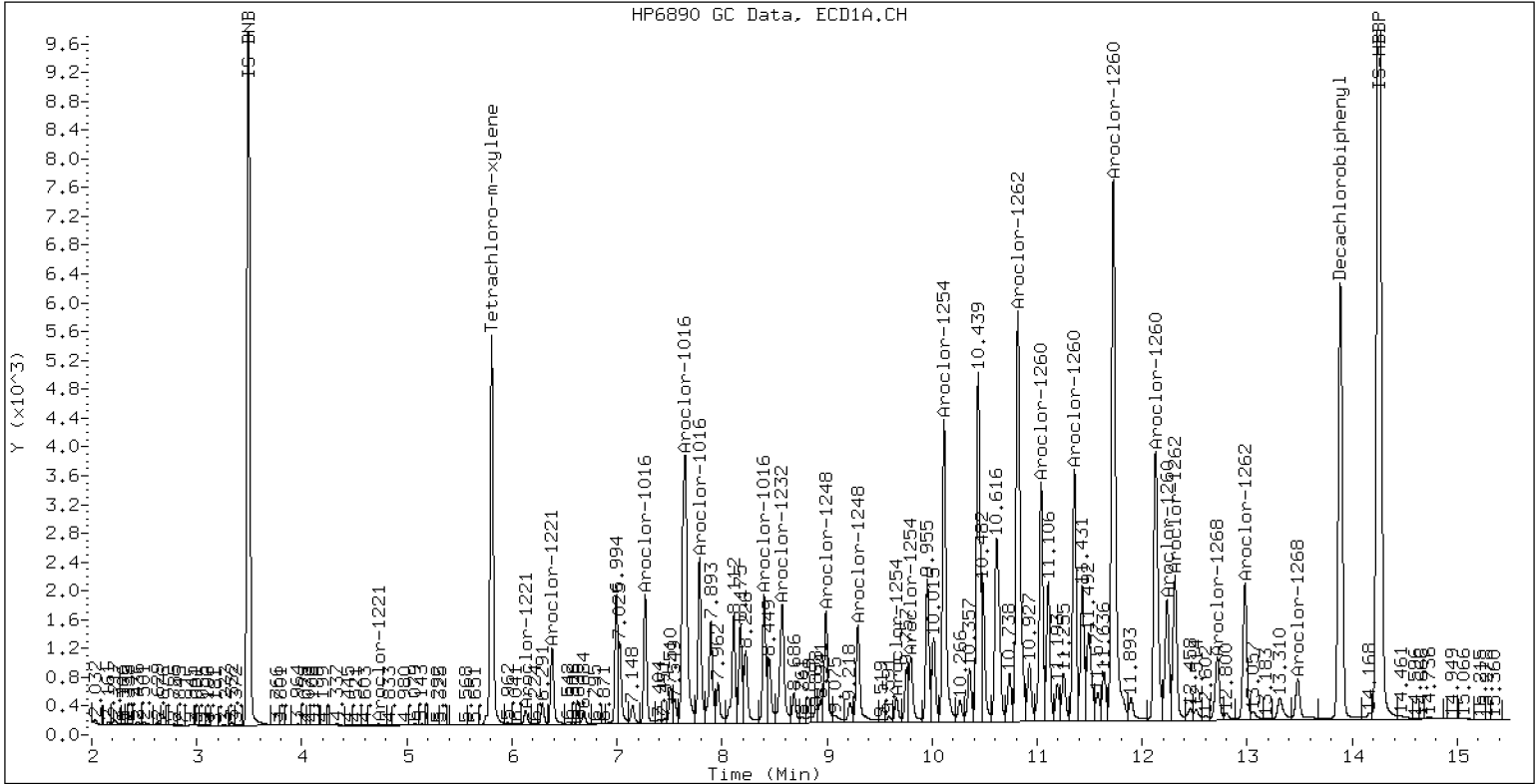
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BLA0165-BS1

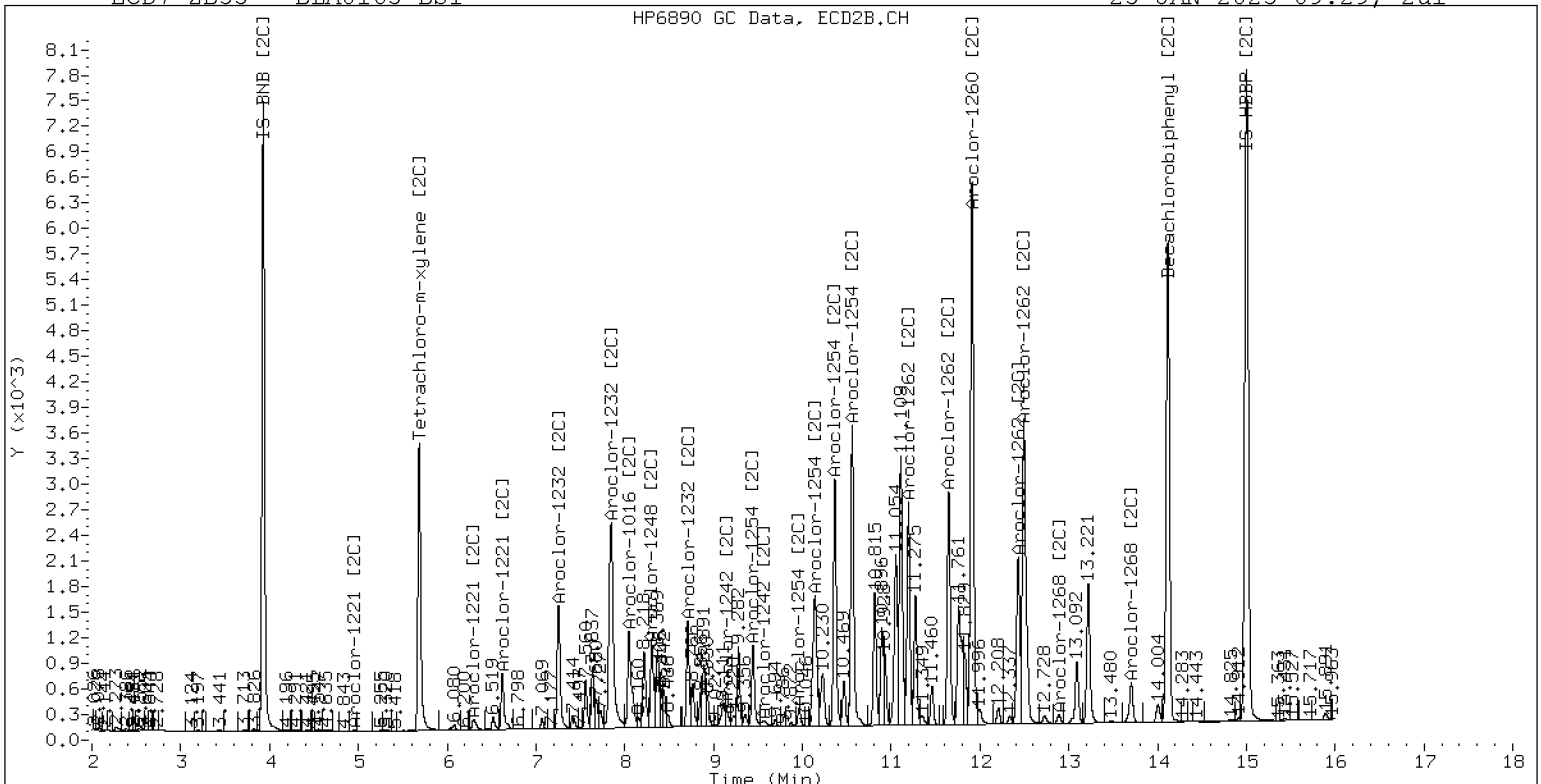
25-JAN-2023 09:29, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 BLA0165-BS1

25-JAN-2023 09:29, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242364ECD7.D
Data file 2: /230124.b/230124.b/01242364ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLA0165-BSD1
Client ID:
Injection Date: 25-JAN-2023 09:50
Report Date: 01/26/2023 08:48
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.807	-0.002	242809	5.685	-0.001	161457	38.1	37.2	2.3	Tetrachloro-m-xylene
13.887	-0.005	334765	14.117	-0.003	293993	40.3	40.5	0.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	450750	-10.4
Hexabromobiphenyl	647433	776028	19.9

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	320750	-4.8
Hexabromobiphenyl	382032	457109	19.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	-0.001	76757	458.3	1	7.254	-0.001	79126	454.8
Aroclor-1016	2	7.648	-0.003	266616	480.4	2	7.847	-0.004	188291	493.9
Aroclor-1016	3	7.786	-0.003	107059	419.3	3	8.047	-0.004	75801	487.2
Aroclor-1016	4	8.400	-0.003	80058	487.4	4	8.303	-0.003	54187	444.3
Total CollAve (4 peaks):				461.3		Total Col2Ave (4 peaks):				470.1 RPD = 2
Corrected Ave (3 peaks):				452.6		Corrected Ave (3 peaks):				462.1 RPD = 2
Aroclor-1221	1	4.733	0.000	1484	44.5	1	4.959	-0.000	284	12.1
Aroclor-1221	2	6.130	-0.004	9327	136.9	2	6.297	-0.001	7736	150.1
Aroclor-1221	3	6.382	-0.002	49339	312.0	3	6.621	-0.002	34276	394.1
Total CollAve (3 peaks):				164.5		Total Col2Ave (3 peaks):				185.5 RPD = 12
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.733	0.000	1484	71.4	1	4.959	-0.001	284	19.9
Aroclor-1232	2	6.130	-0.004	9327	199.0	2	7.254	-0.003	79126	991.4
Aroclor-1232	3	7.648	-0.011	266616	1137.4	3	7.847	-0.008	188291	1158.3
Aroclor-1232	4	8.573	-0.011	99127	987.9	4	8.709	-0.004	56136	1242.9
Total CollAve (4 peaks):				598.9		Total Col2Ave (4 peaks):				853.1 RPD = 35
Corrected Ave (3 peaks):				419.4		Corrected Ave (3 peaks):				723.2 RPD = 53*
Aroclor-1242	1	7.269	-0.002	76757	556.1	1	7.254	-0.001	79126	564.1
Aroclor-1242	2	7.648	-0.007	266616	590.2	2	7.847	-0.005	188291	604.3
Aroclor-1242	3	8.400	-0.006	80058	596.5	3	9.146	-0.013	10130	103.8
Aroclor-1242	4	8.573	-0.008	99127	489.0	4	9.572	-0.014	7091	54.8
Total CollAve (4 peaks):				558.0		Total Col2Ave (4 peaks):				331.8 RPD = 51*
Corrected Ave (3 peaks):				545.1		Corrected Ave (3 peaks):				240.9 RPD = 77*
Aroclor-1248	1	8.400	-0.005	80058	355.0	1	8.303	-0.002	54187	373.7
Aroclor-1248	2	8.573	-0.007	99127	344.6	2	8.709	-0.003	56136	359.7
Aroclor-1248	3	8.990	-0.009	78072	141.9	3	9.146	-0.011	10130	53.1
Aroclor-1248	4	9.294	-0.000	76783	281.9	4	9.572	-0.008	7091	30.1
Total CollAve (4 peaks):				280.9		Total Col2Ave (4 peaks):				204.2 RPD = 32
Corrected Ave (3 peaks):				256.2		Corrected Ave (3 peaks):				147.6 RPD = 54*
Aroclor-1254	1	9.294	-0.005	76783	167.1	1	9.443	-0.005	46769	201.0
Aroclor-1254	2	9.455	0.078	1912	9.7	2	9.963	-0.006	10347	55.0
Aroclor-1254	3	9.661	-0.009	15622	53.1	3	10.142	0.021	101772	248.1
Aroclor-1254	4	9.796	-0.012	48456	84.0	4	10.366	-0.005	137702	335.6
Aroclor-1254	5	10.115	-0.062	214670	572.4	5	10.561	-0.008	181105	792.5
Total CollAve (5 peaks):				177.3		Total Col2Ave (5 peaks):				326.4 RPD = 59*
Corrected Ave (4 peaks):				78.5		Corrected Ave (4 peaks):				209.9 RPD = 91*
Aroclor-1260	1	11.038	-0.005	168395	386.7	1	11.648	-0.005	132419	401.6
Aroclor-1260	2	11.355	-0.005	173145	386.8	2	11.911	-0.008	323677	388.0
Aroclor-1260	3	11.726	-0.008	440871	374.2	3	12.431	-0.006	100033	481.0
Aroclor-1260	4	12.128	-0.011	223506	367.1	4	12.494	-0.008	221222	409.7
Aroclor-1260	5	12.238	-0.006	91362	344.3	NS	---			----
Total CollAve (5 peaks):				371.8		Total Col2Ave (4 peaks):				420.1 RPD = 12
Corrected Ave (4 peaks):				368.1		Corrected Ave (3 peaks):				399.7 RPD = 8
Aroclor-1262	1	10.816	-0.016	335435	1068.8	1	11.196	-0.005	125392	280.3
Aroclor-1262	2	12.238	-0.007	91362	184.4	2	11.648	-0.005	132419	348.1
Aroclor-1262	3	12.312	-0.009	109816	204.2	3	12.431	-0.004	100033	246.9
Aroclor-1262	4	12.979	-0.010	103469	211.1	4	12.494	-0.009	221222	341.0
Total CollAve (4 peaks):				417.2		Total Col2Ave (4 peaks):				304.1 RPD = 31
Corrected Ave (3 peaks):				199.9		Corrected Ave (3 peaks):				289.4 RPD = 37
Aroclor-1268	1	12.238	-0.006	91362	71.3	1	12.431	-0.003	100033	93.7
Aroclor-1268	2	12.312	-0.006	109816	85.9	2	12.494	-0.007	221222	194.7
Aroclor-1268	3	12.716	0.017	51091	48.2	3	12.889	-0.004	5171	5.5
Aroclor-1268	4	13.482	-0.007	34775	11.1	4	13.703	-0.005	25908	8.9
Total CollAve (4 peaks):				54.1		Total Col2Ave (4 peaks):				75.7 RPD = 33

Corrected Ave (3 peaks): 43.5 Corrected Ave (3 peaks): 36.0 RPD = 19

Total PCB Area Col1 (5.909 - 13.792) = 4744718 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (5.786 - 14.020) = 3240764 Col2 Total PCB = 1.0 ppm*

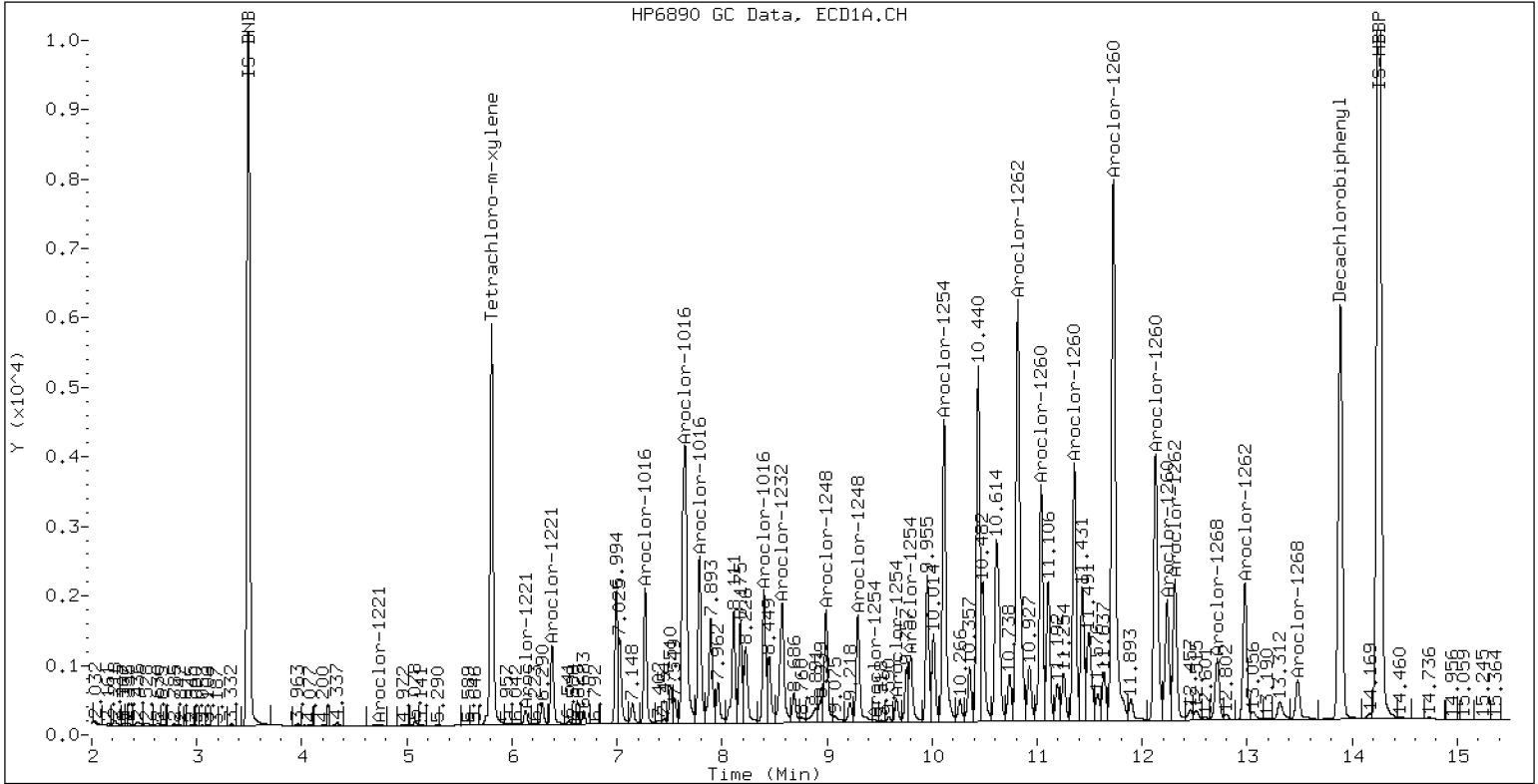
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BLA0165-BSD1

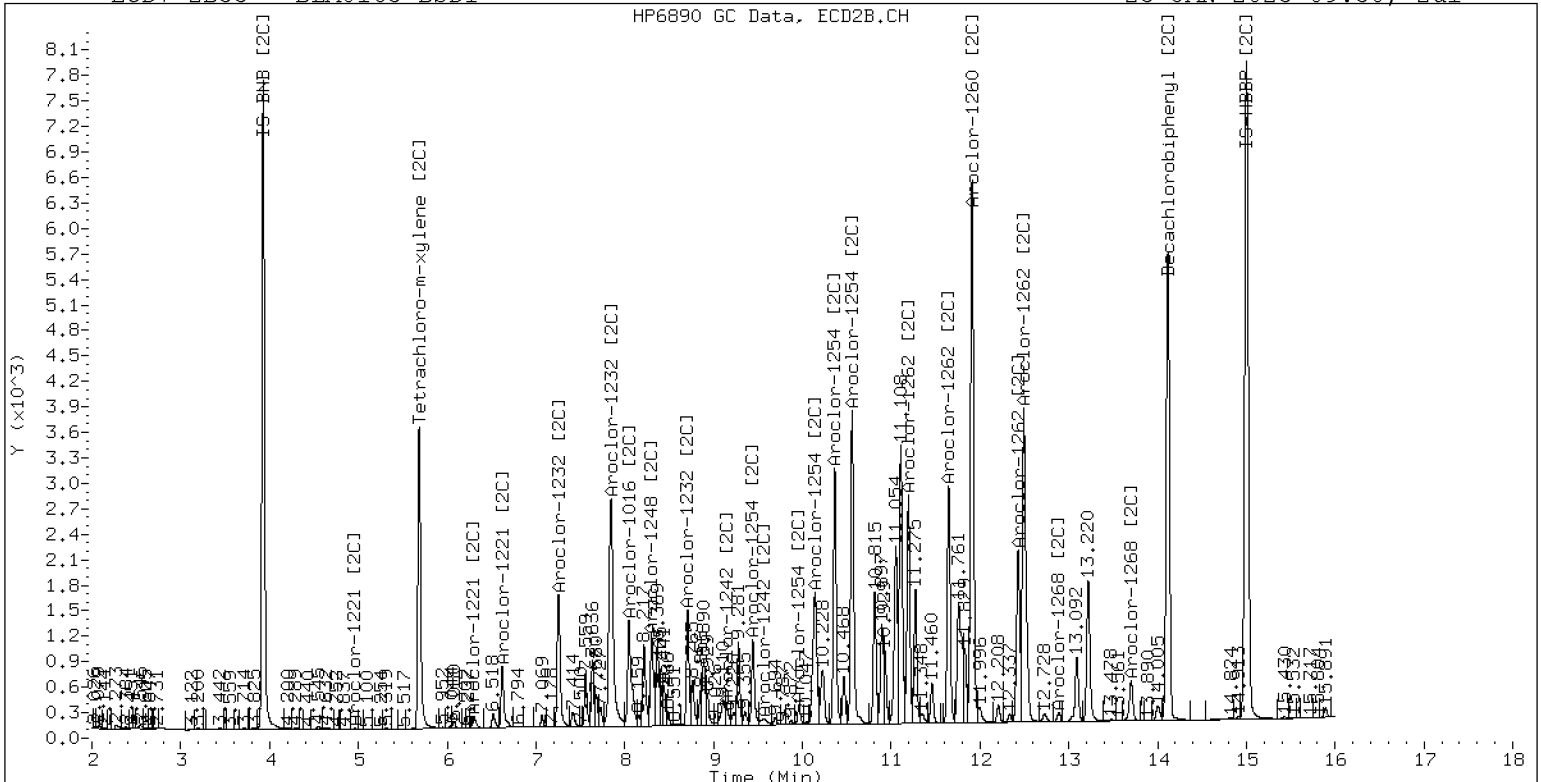
25-JAN-2023 09:50, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 BLA0165-BSD1

25-JAN-2023 09:50, 2u1



ZB-35 Manual Integration: NO



MS / MS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>01/25/23 13:41</u>
Batch:	<u>BLA0165</u>	Laboratory ID:	<u>BLA0165-MS1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>Matrix Spike</u>
Initial/Final:	<u>16.86 g / 2.5 mL</u>	Source Sample:	<u>LDW23-IT1235</u>

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Aroclor 1016	101	ND	U	121	D	120	56 - 120
Aroclor 1260 [2C]	101	20.9		124	D	102	58 - 120

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.



MS / MS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>01/25/23 14:02</u>
Batch:	<u>BLA0165</u>	Laboratory ID:	<u>BLA0165-MSD1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>Matrix Spike Dup</u>
Initial/Final:	<u>16.86 g / 2.5 mL</u>	Source Sample:	<u>LDW23-IT1235</u>

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Aroclor 1016	101	106	D	105	12.4	30	56 - 120
Aroclor 1260 [2C]	101	96.0	D	74.4	25.7	30	58 - 120

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242375ECD7.D
Data file 2: /230124.b/230124.b/01242375ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLA0165-MS1RE1
Client ID:
Injection Date: 25-JAN-2023 13:41
Report Date: 01/26/2023 08:49
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	ZB5 Col Response	RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.807	-0.002	48672	5.684	-0.001	33107	7.4	7.5	1.6	Tetrachloro-m-xylene
13.883	-0.008	41295	14.114	-0.006	38539	8.2	7.5	9.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	467392	-7.1
Hexabromobiphenyl	647433	471654	-27.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	327015	-2.9
Hexabromobiphenyl	382032	325634	-14.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.268	-0.002	16892	97.3	1	7.252	-0.002	16636	93.8
Aroclor-1016	2	7.645	-0.005	54167	94.1	2	7.845	-0.006	38928	100.2
Aroclor-1016	3	7.785	-0.004	21220	80.1	3	8.046	-0.005	16903	106.6
Aroclor-1016	4	8.389	-0.015	35930	210.9	4	8.302	-0.004	12106	97.4
Total CollAve (4 peaks):				120.6		Total Col2Ave (4 peaks):				99.5 RPD = 19
Corrected Ave (3 peaks):				90.5		Corrected Ave (3 peaks):				97.1 RPD = 7
Aroclor-1221	1	4.733	0.000	155	4.5	1	4.950	-0.009	335	14.0
Aroclor-1221	2	6.130	-0.004	2279	32.3	2	6.298	0.000	1700	32.4
Aroclor-1221	3	6.382	-0.003	11236	68.5	3	6.638	0.015	25888	292.0
Total CollAve (3 peaks):				35.1		Total Col2Ave (3 peaks):				112.8 RPD = 105*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.733	-0.000	155	7.2	1	4.950	-0.010	335	23.0
Aroclor-1232	2	6.130	-0.003	2279	46.9	2	7.252	-0.004	16636	204.4
Aroclor-1232	3	7.645	-0.013	54167	222.8	3	7.845	-0.009	38928	234.9
Aroclor-1232	4	8.568	-0.016	19330	185.8	4	8.708	-0.006	11940	259.3
Total CollAve (4 peaks):				115.7		Total Col2Ave (4 peaks):				180.4 RPD = 44*
Corrected Ave (3 peaks):				80.0		Corrected Ave (3 peaks):				154.1 RPD = 63*
Aroclor-1242	1	7.268	-0.003	16892	118.0	1	7.252	-0.002	16636	116.3
Aroclor-1242	2	7.645	-0.010	54167	115.6	2	7.845	-0.006	38928	122.5
Aroclor-1242	3	8.389	-0.018	35930	258.2	3	9.144	-0.015	2838	28.5
Aroclor-1242	4	8.568	-0.013	19330	92.0	4	9.569	-0.016	2882	21.9
Total CollAve (4 peaks):				146.0		Total Col2Ave (4 peaks):				72.3 RPD = 67*
Corrected Ave (3 peaks):				108.5		Corrected Ave (3 peaks):				55.6 RPD = 65*
Aroclor-1248	1	8.389	-0.017	35930	153.7	1	8.302	-0.003	12106	81.9
Aroclor-1248	2	8.568	-0.012	19330	64.8	2	8.708	-0.004	11940	75.0
Aroclor-1248	3	8.987	-0.012	20037	35.1	3	9.144	-0.013	2838	14.6
Aroclor-1248	4	9.289	-0.004	20342	72.0	4	9.569	-0.011	2882	12.0
Total CollAve (4 peaks):				81.4		Total Col2Ave (4 peaks):				45.9 RPD = 56*
Corrected Ave (3 peaks):				57.3		Corrected Ave (3 peaks):				33.9 RPD = 51*
Aroclor-1254	1	9.289	-0.010	20342	42.7	1	9.441	-0.007	14119	59.5
Aroclor-1254	2	9.366	-0.012	5636	27.7	2	9.960	-0.009	3995	20.8
Aroclor-1254	3	9.660	-0.009	8282	27.1	3	10.136	0.015	27478	65.7
Aroclor-1254	4	9.790	-0.018	27062	45.2	4	10.362	-0.009	33037	79.0
Aroclor-1254	5	10.111	-0.066	46489	119.5	5	10.557	-0.011	36672	157.4
Total CollAve (5 peaks):				52.5		Total Col2Ave (5 peaks):				76.5 RPD = 37
Corrected Ave (4 peaks):				35.7		Corrected Ave (4 peaks):				56.3 RPD = 45*
Aroclor-1260	1	11.035	-0.009	29510	111.5	1	11.645	-0.008	24848	105.8
Aroclor-1260	2	11.350	-0.011	28476	104.7	2	11.906	-0.013	56129	94.4
Aroclor-1260	3	11.720	-0.014	88687	123.8	3	12.420	-0.016	29971	202.3
Aroclor-1260	4	12.121	-0.018	35183	95.1	4	12.490	-0.013	36498	94.9
Aroclor-1260	5	12.233	-0.011	14705	91.2	NS	---			----
Total CollAve (5 peaks):				105.3		Total Col2Ave (4 peaks):				124.4 RPD = 17
Corrected Ave (4 peaks):				100.6		Corrected Ave (3 peaks):				98.4 RPD = 2
Aroclor-1262	1	10.810	-0.022	64704	339.2	1	11.191	-0.009	22975	72.1
Aroclor-1262	2	12.233	-0.012	14705	48.8	2	11.645	-0.008	24848	91.7
Aroclor-1262	3	12.307	-0.014	18244	55.8	3	12.420	-0.014	29971	103.8
Aroclor-1262	4	12.970	-0.019	22761	76.4	4	12.490	-0.014	36498	79.0
Total CollAve (4 peaks):				130.1		Total Col2Ave (4 peaks):				86.6 RPD = 40*
Corrected Ave (3 peaks):				60.4		Corrected Ave (3 peaks):				80.9 RPD = 29
Aroclor-1268	1	12.233	-0.012	14705	18.9	1	12.420	-0.013	29971	39.4
Aroclor-1268	2	12.307	-0.011	18244	23.5	2	12.490	-0.012	36498	45.1
Aroclor-1268	3	12.709	0.010	7514	11.7	3	12.889	-0.004	964	1.4
Aroclor-1268	4	13.476	-0.013	5113	2.7	4	13.698	-0.011	4538	2.2
Total CollAve (4 peaks):				14.2		Total Col2Ave (4 peaks):				22.0 RPD = 43*

Corrected Ave (3 peaks): 11.1 Corrected Ave (3 peaks): 14.3 RPD = 26

Total PCB Area Col1 (5.909 - 13.792) = 1073514 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.786 - 14.020) = 733682 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242376ECD7.D
Data file 2: /230124.b/230124.b/01242376ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLA0165-MSD1RE
Client ID:
Injection Date: 25-JAN-2023 14:02
Report Date: 01/26/2023 08:49
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.806	-0.003	44004	5.683	-0.003	31705	6.7	7.2	6.6	Tetrachloro-m-xylene
13.884	-0.007	36810	14.114	-0.005	35489	7.6	7.1	7.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	462171	-8.2
Hexabromobiphenyl	647433	454358	-29.8

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	326002	-3.2
Hexabromobiphenyl	382032	316586	-17.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.267	-0.003	14776	86.0	1	7.251	-0.003	14861	84.0
Aroclor-1016	2	7.646	-0.004	48226	84.7	2	7.845	-0.006	35250	91.0
Aroclor-1016	3	7.784	-0.004	18548	70.8	3	8.045	-0.006	14872	94.1
Aroclor-1016	4	8.388	-0.016	31102	184.7	4	8.301	-0.004	11031	89.0
Total CollAve (4 peaks):				106.6		Total Col2Ave (4 peaks):				89.5 RPD = 17
Corrected Ave (3 peaks):				80.5		Corrected Ave (3 peaks):				88.0 RPD = 9
Aroclor-1221	1	4.735	0.002	189	5.5	1	4.946	-0.013	269	11.3
Aroclor-1221	2	6.129	-0.004	1880	26.9	2	6.297	-0.001	1348	25.7
Aroclor-1221	3	6.381	-0.003	9758	60.2	3	6.620	-0.003	6911	78.2
Total CollAve (3 peaks):				30.9		Total Col2Ave (3 peaks):				38.4 RPD = 22
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.735	0.001	189	8.9	1	4.946	-0.013	269	18.6
Aroclor-1232	2	6.129	-0.004	1880	39.1	2	7.251	-0.006	14861	183.2
Aroclor-1232	3	7.646	-0.012	48226	200.6	3	7.845	-0.010	35250	213.4
Aroclor-1232	4	8.567	-0.017	17296	168.1	4	8.707	-0.006	11001	239.7
Total CollAve (4 peaks):				104.2		Total Col2Ave (4 peaks):				163.7 RPD = 44*
Corrected Ave (3 peaks):				72.0		Corrected Ave (3 peaks):				138.4 RPD = 63*
Aroclor-1242	1	7.267	-0.004	14776	104.4	1	7.251	-0.003	14861	104.2
Aroclor-1242	2	7.646	-0.009	48226	104.1	2	7.845	-0.007	35250	111.3
Aroclor-1242	3	8.388	-0.018	31102	226.0	3	9.142	-0.017	2847	28.7
Aroclor-1242	4	8.567	-0.014	17296	83.2	4	9.535	-0.050	5753	43.8
Total CollAve (4 peaks):				129.4		Total Col2Ave (4 peaks):				72.0 RPD = 57*
Corrected Ave (3 peaks):				97.2		Corrected Ave (3 peaks):				58.9 RPD = 49*
Aroclor-1248	1	8.388	-0.017	31102	134.5	1	8.301	-0.004	11031	74.9
Aroclor-1248	2	8.567	-0.013	17296	58.6	2	8.707	-0.005	11001	69.4
Aroclor-1248	3	8.987	-0.012	15644	27.7	3	9.142	-0.015	2847	14.7
Aroclor-1248	4	9.288	-0.006	18601	66.6	4	9.535	-0.045	5753	24.0
Total CollAve (4 peaks):				71.9		Total Col2Ave (4 peaks):				45.7 RPD = 44*
Corrected Ave (3 peaks):				51.0		Corrected Ave (3 peaks):				36.0 RPD = 34
Aroclor-1254	1	9.288	-0.011	18601	39.5	1	9.440	-0.009	13843	58.5
Aroclor-1254	2	9.364	-0.014	4371	21.7	2	9.959	-0.010	4205	22.0
Aroclor-1254	3	9.657	-0.012	6804	22.5	3	10.135	0.014	26545	63.7
Aroclor-1254	4	9.790	-0.019	23108	39.1	4	10.361	-0.010	31302	75.1
Aroclor-1254	5	10.111	-0.066	39600	103.0	5	10.556	-0.012	33421	143.9
Total CollAve (5 peaks):				45.2		Total Col2Ave (5 peaks):				72.6 RPD = 47*
Corrected Ave (4 peaks):				30.7		Corrected Ave (4 peaks):				54.8 RPD = 56*
Aroclor-1260	1	11.034	-0.010	25211	98.9	1	11.645	-0.008	22124	96.9
Aroclor-1260	2	11.350	-0.010	24223	92.4	2	11.906	-0.013	49034	84.9
Aroclor-1260	3	11.720	-0.014	62147	90.1	3	12.426	-0.011	16905	117.4
Aroclor-1260	4	12.121	-0.018	29834	83.7	4	12.490	-0.013	31817	85.1
Aroclor-1260	5	12.234	-0.010	12114	78.0	NS	---			----
Total CollAve (5 peaks):				88.6		Total Col2Ave (4 peaks):				96.0 RPD = 8
Corrected Ave (4 peaks):				86.0		Corrected Ave (3 peaks):				88.9 RPD = 3
Aroclor-1262	1	10.810	-0.022	55762	303.5	1	11.191	-0.009	20068	64.8
Aroclor-1262	2	12.234	-0.011	12114	41.8	2	11.645	-0.008	22124	84.0
Aroclor-1262	3	12.307	-0.014	14844	47.1	3	12.426	-0.009	16905	60.2
Aroclor-1262	4	12.972	-0.017	13661	47.6	4	12.490	-0.014	31817	70.8
Total CollAve (4 peaks):				110.0		Total Col2Ave (4 peaks):				69.9 RPD = 45*
Corrected Ave (3 peaks):				45.5		Corrected Ave (3 peaks):				65.3 RPD = 36
Aroclor-1268	1	12.234	-0.011	12114	16.1	1	12.426	-0.008	16905	22.9
Aroclor-1268	2	12.307	-0.011	14844	19.8	2	12.490	-0.012	31817	40.4
Aroclor-1268	3	12.710	0.011	6138	9.9	3	12.888	-0.005	858	1.3
Aroclor-1268	4	13.477	-0.012	4350	2.4	4	13.701	-0.008	5027	2.5
Total CollAve (4 peaks):				12.1		Total Col2Ave (4 peaks):				16.8 RPD = 33

Corrected Ave (3 peaks): 9.5 Corrected Ave (3 peaks): 8.9 RPD = 6

Total PCB Area Col1 (5.909 - 13.792) = 845533 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.786 - 14.020) = 641443 Col2 Total PCB = 0.2 ppm*

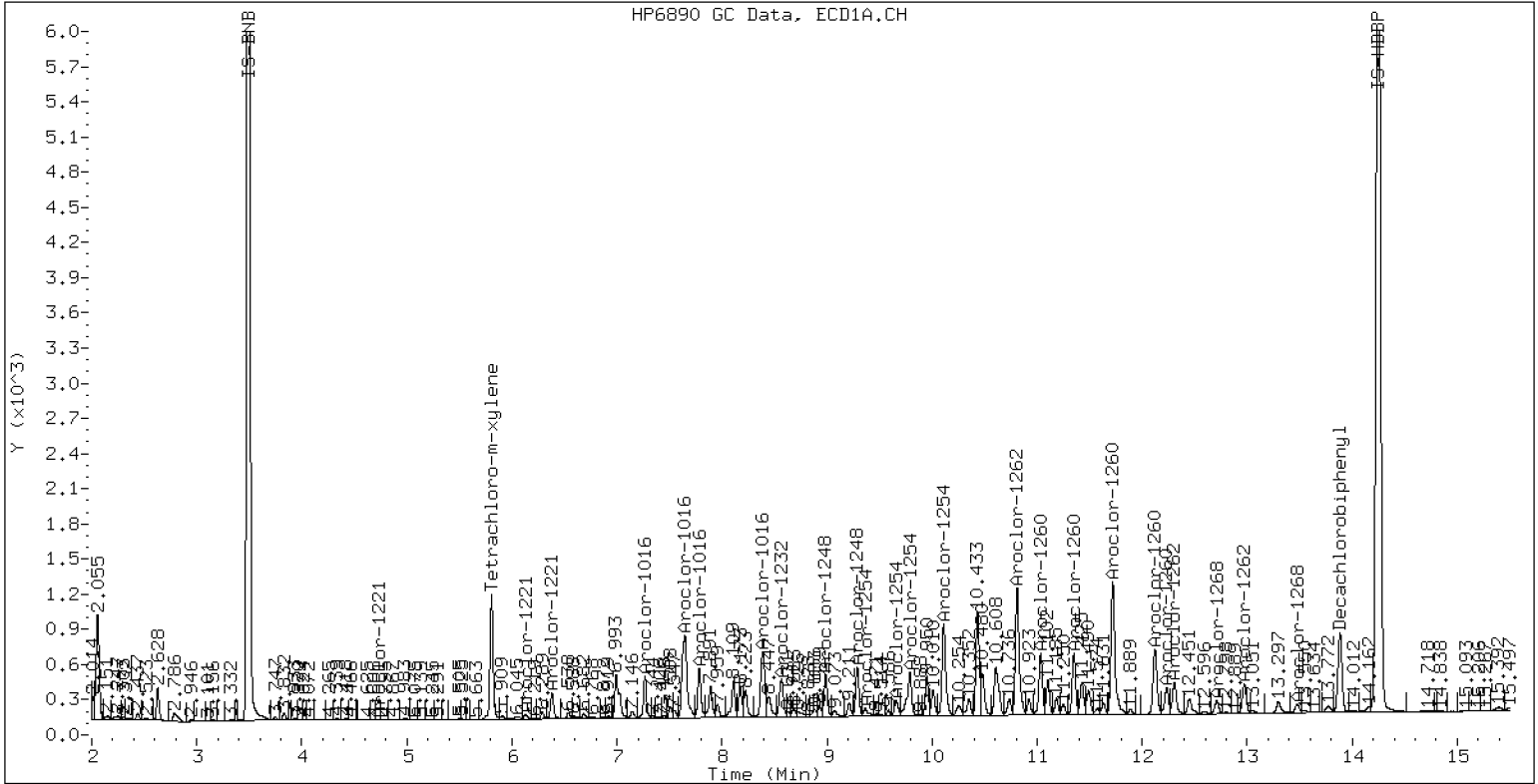
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BLA0165-MSD1RE

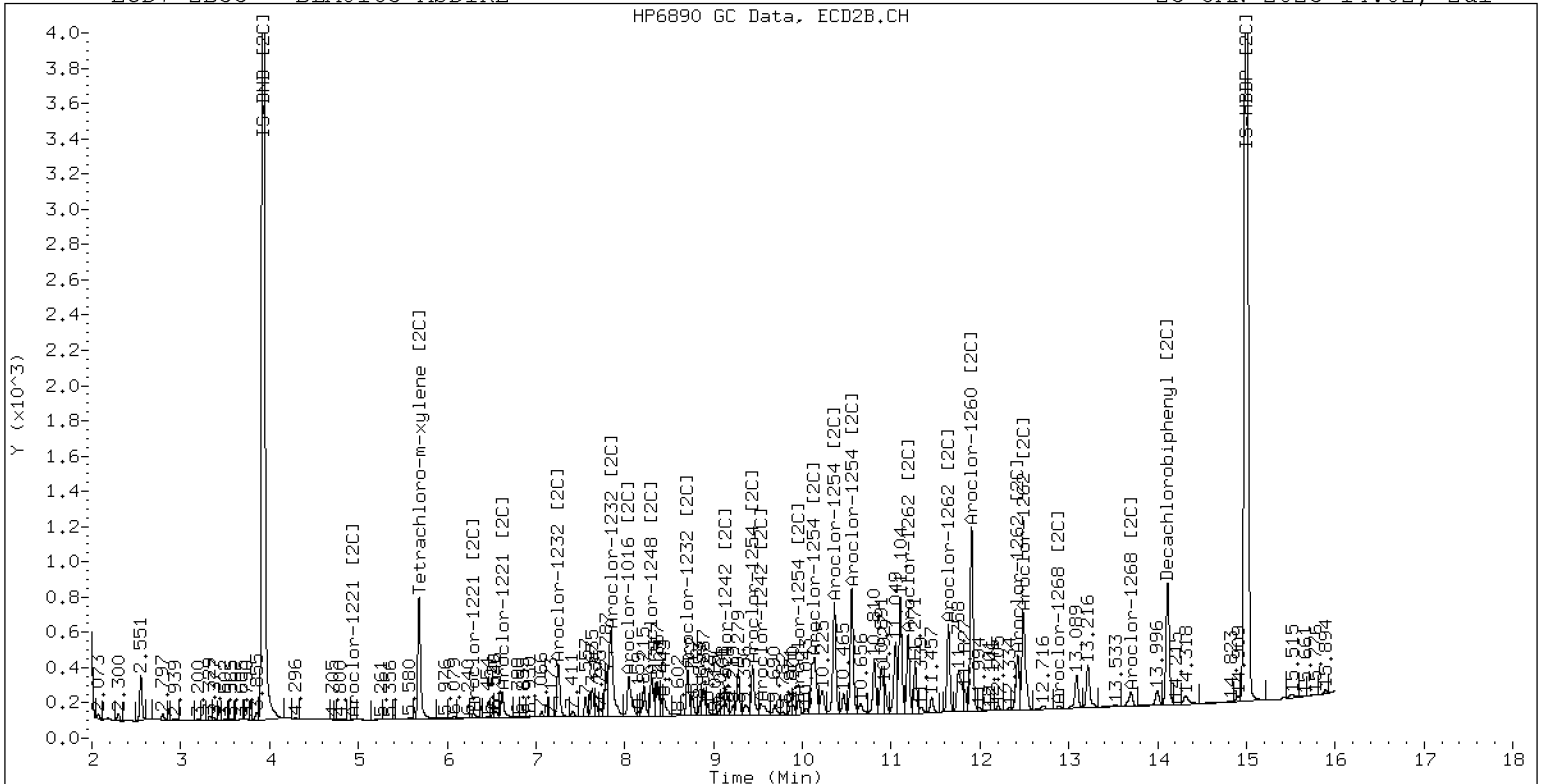
25-JAN-2023 14:02, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 BLA0165-MSD1RE

25-JAN-2023 14:02, 2u1



ZB-35 Manual Integration: NO



STANDARD REFERENCE MATERIAL RECOVERY

EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLA0165-SRM1

Batch: BLA0165

Initial/Final: 2.5 g / 2.5 mL

Preparation: EPA 3546 (Microwave)

Analyzed: 01/25/2023 10:11

Standard ID: K010816

Expires: 05/17/2023

Standard Lot#: PSRM0165

Description: Puget Sound reference-SRM

ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Aroclor 1260	108.00	129	2.9	20.0		119	38 - 167
Aroclor 1260 [2C]	108.00	140	2.9	20.0		130	38 - 167

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242365ECD7.D
Data file 2: /230124.b/230124.b/01242365ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BLA0165-SRM1
Client ID:
Injection Date: 25-JAN-2023 10:11
Report Date: 01/26/2023 08:48
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.807	-0.002	221854	5.685	-0.001	164304	33.2	37.1	11.1	Tetrachloro-m-xylene
13.884	-0.007	250804	14.116	-0.004	239889	38.8	36.3	6.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	473021	-6.0
Hexabromobiphenyl	647433	604634	-6.6

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	327902	-2.7
Hexabromobiphenyl	382032	415918	8.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.301	0.031	4100	23.3	1	7.260	0.005	6101	34.3
Aroclor-1016	2	7.647	-0.004	10875	18.7	2	7.844	-0.007	11381	29.2
Aroclor-1016	3	7.791	0.002	8172	30.5	3	8.041	-0.010	7426	46.7
Aroclor-1016	4	8.400	-0.003	13019	75.5	4	8.302	-0.004	9267	74.3
Total CollAve (4 peaks):				37.0	Total Col2Ave (4 peaks):				46.1	RPD = 22
Corrected Ave (3 peaks):				24.2	Corrected Ave (3 peaks):				36.7	RPD = 41*
Aroclor-1221	1	4.734	0.001	424	12.1	1	4.944	-0.015	536	22.3
Aroclor-1221	2	6.114	-0.019	1783	24.9	2	6.342	0.044	12692	241.0
Aroclor-1221	3	6.396	0.012	4555	27.4	3	6.631	0.008	4411	49.6
Total CollAve (3 peaks):				21.5	Total Col2Ave (3 peaks):				104.3	RPD = 132*
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	4.734	0.000	424	19.4	1	4.944	-0.015	536	36.8
Aroclor-1232	2	6.114	-0.019	1783	36.2	2	7.260	0.003	6101	74.8
Aroclor-1232	3	7.647	-0.012	10875	44.2	3	7.844	-0.011	11381	68.5
Aroclor-1232	4	8.569	-0.016	7716	73.3	4	8.707	-0.007	6477	140.3
Total CollAve (4 peaks):				43.3	Total Col2Ave (4 peaks):				80.1	RPD = 60*
Corrected Ave (3 peaks):				33.3	Corrected Ave (3 peaks):				60.0	RPD = 57*
Aroclor-1242	1	7.301	0.031	4100	28.3	1	7.260	0.005	6101	42.5
Aroclor-1242	2	7.647	-0.009	10875	22.9	2	7.844	-0.007	11381	35.7
Aroclor-1242	3	8.400	-0.006	13019	92.4	3	9.144	-0.015	9316	93.4
Aroclor-1242	4	8.569	-0.013	7716	36.3	4	9.536	-0.050	14444	109.3
Total CollAve (4 peaks):				45.0	Total Col2Ave (4 peaks):				70.2	RPD = 44*
Corrected Ave (3 peaks):				29.2	Corrected Ave (3 peaks):				57.2	RPD = 65*
Aroclor-1248	1	8.400	-0.005	13019	55.0	1	8.302	-0.003	9267	62.5
Aroclor-1248	2	8.569	-0.011	7716	25.6	2	8.707	-0.005	6477	40.6
Aroclor-1248	3	8.988	-0.011	24071	41.7	3	9.144	-0.013	9316	47.8
Aroclor-1248	4	9.289	-0.005	30497	106.7	4	9.536	-0.044	14444	59.9
Total CollAve (4 peaks):				57.2	Total Col2Ave (4 peaks):				52.7	RPD = 8
Corrected Ave (3 peaks):				40.8	Corrected Ave (3 peaks):				49.4	RPD = 19
Aroclor-1254	1	9.289	-0.010	30497	63.3	1	9.441	-0.007	22095	92.9
Aroclor-1254	2	9.365	-0.013	12475	60.6	2	9.960	-0.008	9078	47.2
Aroclor-1254	3	9.659	-0.010	17888	57.9	3	10.111	-0.010	39871	95.1
Aroclor-1254	4	9.790	-0.018	46973	77.6	4	10.362	-0.009	50694	120.9
Aroclor-1254	5	10.111	-0.066	69984	177.8	5	10.557	-0.011	50971	218.2
Total CollAve (5 peaks):				87.4	Total Col2Ave (5 peaks):				114.8	RPD = 27
Corrected Ave (4 peaks):				64.8	Corrected Ave (4 peaks):				89.0	RPD = 31
Aroclor-1260	1	11.034	-0.010	45838	135.1	1	11.646	-0.007	37339	124.4
Aroclor-1260	2	11.348	-0.013	38561	110.6	2	11.907	-0.012	88801	117.0
Aroclor-1260	3	11.720	-0.014	131290	143.0	3	12.425	-0.012	36871	194.9
Aroclor-1260	4	12.121	-0.018	63994	134.9	4	12.491	-0.012	61642	125.5
Aroclor-1260	5	12.234	-0.010	24707	119.5	NS	---			----
Total CollAve (5 peaks):				128.6	Total Col2Ave (4 peaks):				140.4	RPD = 9
Corrected Ave (4 peaks):				125.0	Corrected Ave (3 peaks):				122.3	RPD = 2
Aroclor-1262	1	10.811	-0.021	90901	371.8	1	11.192	-0.008	35106	86.2
Aroclor-1262	2	12.234	-0.012	24707	64.0	2	11.646	-0.007	37339	107.9
Aroclor-1262	3	12.308	-0.013	29850	71.2	3	12.425	-0.010	36871	100.0
Aroclor-1262	4	12.974	-0.015	29972	78.5	4	12.491	-0.013	61642	104.4
Total CollAve (4 peaks):				146.4	Total Col2Ave (4 peaks):				99.6	RPD = 38
Corrected Ave (3 peaks):				71.3	Corrected Ave (3 peaks):				96.9	RPD = 30
Aroclor-1268	1	12.234	-0.011	24707	24.7	1	12.425	-0.009	36871	38.0
Aroclor-1268	2	12.308	-0.010	29850	30.0	2	12.491	-0.011	61642	59.6
Aroclor-1268	3	12.712	0.013	13869	16.8	3	12.889	-0.005	1354	1.6
Aroclor-1268	4	13.478	-0.011	6727	2.7	4	13.701	-0.008	13089	4.9
Total CollAve (4 peaks):				18.6	Total Col2Ave (4 peaks):				26.0	RPD = 33

Corrected Ave (3 peaks): 14.8 Corrected Ave (3 peaks): 14.8 RPD = 0

Total PCB Area Col1 (5.909 - 13.792) = 1365991 Col1 Total PCB = 0.2 ppm*
Total PCB Area Col2 (5.786 - 14.020) = 1038473 Col2 Total PCB = 0.3 ppm*

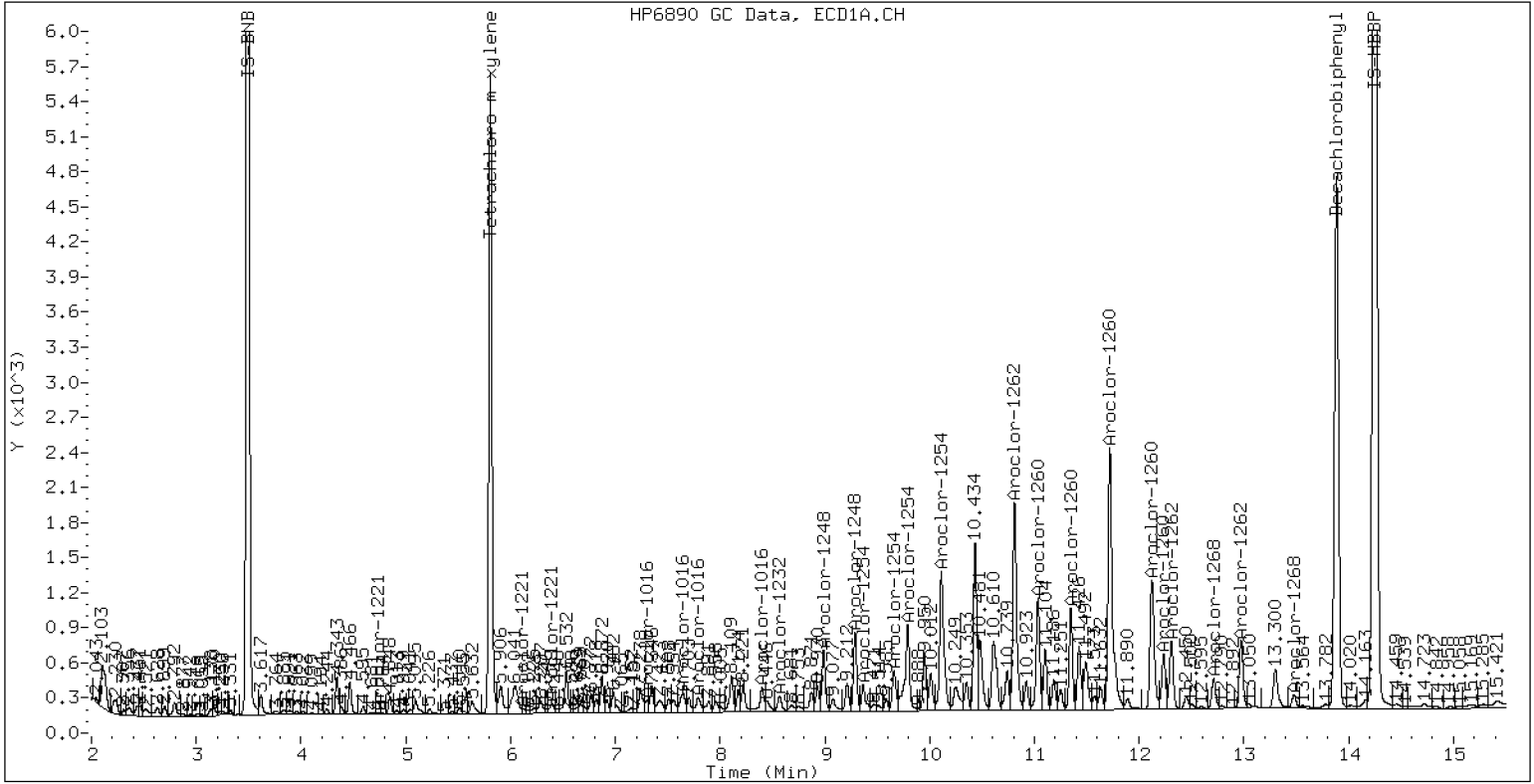
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BLA0165-SRM1

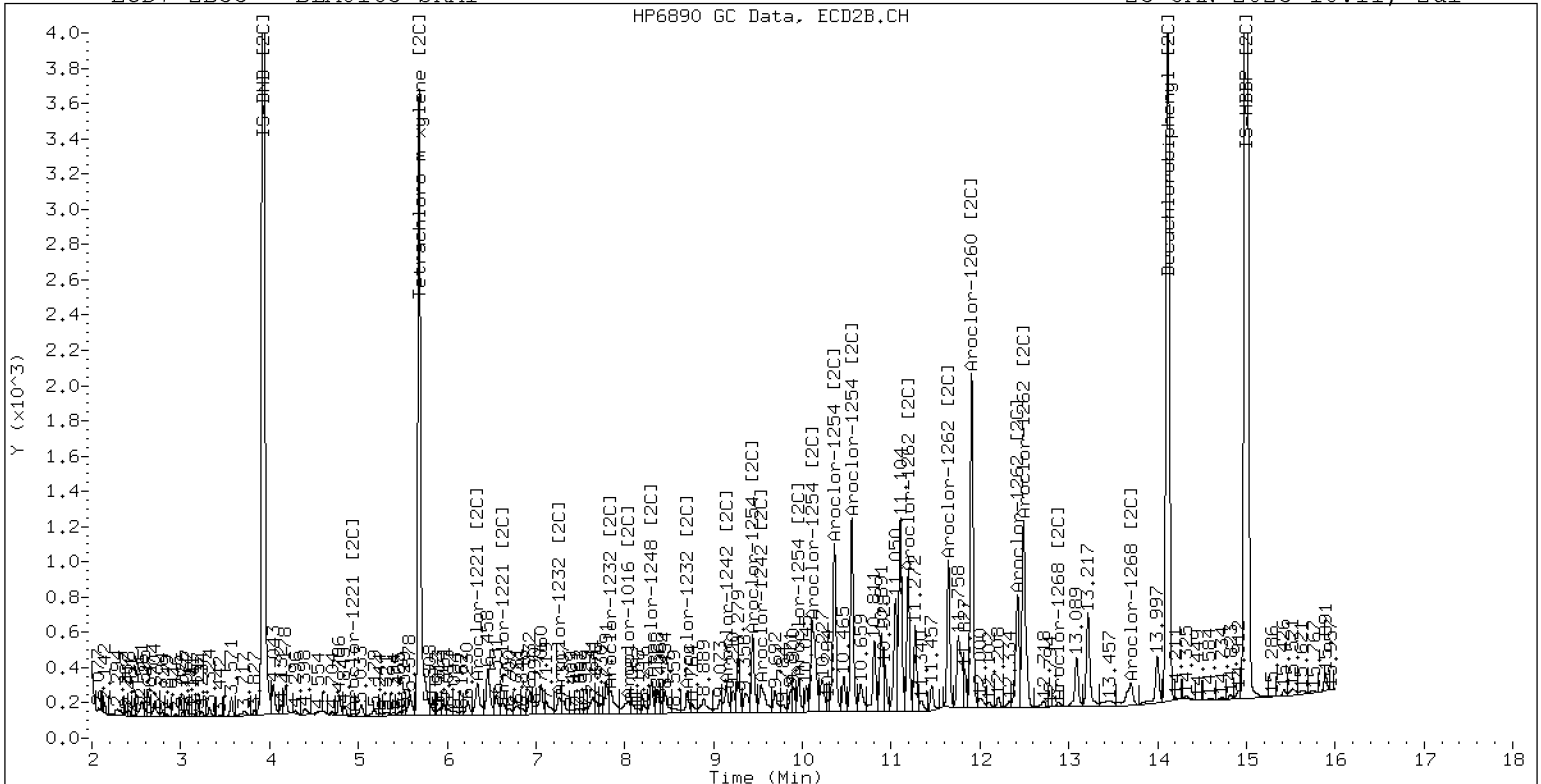
25-JAN-2023 10:11, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 BLA0165-SRM1

25-JAN-2023 10:11, 2u1



ZB-35 Manual Integration: NO



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (1):	ZB5

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor 1016	250	5.167707E-02	20	4.942809E-02	50	5.153925E-02	1000	4.662732E-02	100	5.549196E-02	500	4.928929E-02
Aroclor-1016 (1)	250	3.017861E-02	20	2.947465E-02	50	3.102226E-02	1000	2.635254E-02	100	3.309682E-02	500	2.824148E-02
Aroclor-1016 (2)	250	0.1020346	20	9.270426E-02	50	9.811961E-02	1000	9.356138E-02	100	0.1059789	500	0.0986114
Aroclor-1016 (3)	250	4.399859E-02	20	4.877736E-02	50	4.899883E-02	1000	3.795541E-02	100	0.0512744	500	4.091133E-02
Aroclor-1016 (4)	250	3.049651E-02	20	2.675607E-02	50	2.801628E-02	1000	2.863996E-02	100	3.161774E-02	500	2.939295E-02
Aroclor 1260	250	6.608884E-02	20	6.779653E-02	50	6.325495E-02	1000	5.469674E-02	100	5.850835E-02	500	5.278897E-02
Aroclor-1260 (1)	250	5.181373E-02	20	4.727423E-02	50	4.542797E-02	1000	0.0403981	100	0.0442757	500	0.0401323
Aroclor-1260 (2)	250	5.350015E-02	20	4.939797E-02	50	4.636355E-02	1000	4.208491E-02	100	4.449674E-02	500	4.100371E-02
Aroclor-1260 (3)	250	0.1331674	20	0.1373712	50	0.1282887	1000	0.1078965	100	0.1173998	500	0.1046798
Aroclor-1260 (4)	250	6.473121E-02	20	7.197922E-02	50	0.0663805	1000	5.863707E-02	100	5.997377E-02	500	5.485394E-02
Aroclor-1260 (5)	250	2.723173E-02	20	3.295998E-02	50	2.981405E-02	1000	2.446709E-02	100	2.639578E-02	500	2.327509E-02
Decachlorobiphenyl	40	0.8481341	3.2	0.8644195	8	0.9030151	160	0.7914512	16	0.9308139	80	0.7957625
Tetrachlorometaxylene	40	1.149655	3.2	1.100393	8	1.102173	160	1.094607	16	1.219974	80	1.117921



INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (1):	ZB5

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor 1221							250	0.0153579				
Aroclor-1221 (1)							250	5.913051E-03				
Aroclor-1221 (2)							250	1.209121E-02				
Aroclor-1221 (3)							250	2.806945E-02				
Aroclor 1232									250	1.785602E-02		
Aroclor-1232 (1)									250	3.691407E-03		
Aroclor-1232 (2)									250	8.319285E-03		
Aroclor-1232 (3)									250	4.160486E-02		
Aroclor-1232 (4)									250	1.780851E-02		
Aroclor 1242	250	0.0411165										
Aroclor-1242 (1)	250	2.449677E-02										
Aroclor-1242 (2)	250	8.016926E-02										
Aroclor-1242 (3)	250	2.381903E-02										
Aroclor-1242 (4)	250	3.598092E-02										
Aroclor 1248			250	0.0592639								
Aroclor-1248 (1)			250	4.001993E-02								
Aroclor-1248 (2)			250	5.105008E-02								
Aroclor-1248 (3)			250	9.765126E-02								
Aroclor-1248 (4)			250	4.833435E-02								
Aroclor 1254					250	6.750332E-02						
Aroclor-1254 (1)					250	8.153293E-02						
Aroclor-1254 (2)					250	0.0348121						
Aroclor-1254 (3)					250	5.224052E-02						
Aroclor-1254 (4)					250	0.1023658						
Aroclor-1254 (5)					250	6.656523E-02						
Aroclor-1262 (1)							250	3.235265E-02				
Aroclor-1262 (2)							250	5.106336E-02				
Aroclor-1262 (3)							250	5.543866E-02				



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (1):	ZB5

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor-1262 (4)							250	5.051654E-02				
Aroclor-1268 (1)									250	0.132157		
Aroclor-1268 (2)									250	0.1317955		
Aroclor-1268 (3)									250	0.1091938		
Aroclor-1268 (4)									250	0.3237404		



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (1):	ZB5

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor 1016	0.0506755	5.9			RSD (20)	
Aroclor-1016 (1)	2.972773E-02	7.8			RSD (20)	
Aroclor-1016 (2)	9.850169E-02	5.1			RSD (20)	
Aroclor-1016 (3)	4.531932E-02	11.5			RSD (20)	
Aroclor-1016 (4)	2.915325E-02	6.0			RSD (20)	
Aroclor 1221		0.0			RSD (20)	
Aroclor-1221 (1)		0.0			RSD (20)	
Aroclor-1221 (2)		0.0			RSD (20)	
Aroclor-1221 (3)		0.0			RSD (20)	
Aroclor 1232		0.0			RSD (20)	
Aroclor-1232 (1)		0.0			RSD (20)	
Aroclor-1232 (2)		0.0			RSD (20)	
Aroclor-1232 (3)		0.0			RSD (20)	
Aroclor-1232 (4)		0.0			RSD (20)	
Aroclor 1242		0.0			RSD (20)	
Aroclor-1242 (1)		0.0			RSD (20)	
Aroclor-1242 (2)		0.0			RSD (20)	
Aroclor-1242 (3)		0.0			RSD (20)	
Aroclor-1242 (4)		0.0			RSD (20)	
Aroclor 1248		0.0			RSD (20)	
Aroclor-1248 (1)		0.0			RSD (20)	
Aroclor-1248 (2)		0.0			RSD (20)	
Aroclor-1248 (3)		0.0			RSD (20)	
Aroclor-1248 (4)		0.0			RSD (20)	
Aroclor 1254		0.0			RSD (20)	
Aroclor-1254 (1)		0.0			RSD (20)	
Aroclor-1254 (2)		0.0			RSD (20)	
Aroclor-1254 (3)		0.0			RSD (20)	
Aroclor-1254 (4)		0.0			RSD (20)	
Aroclor-1254 (5)		0.0			RSD (20)	
Aroclor 1260	0.0605224	10.2			RSD (20)	



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (1):	ZB5

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor-1260 (1)	0.044887	9.8			RSD (20)	
Aroclor-1260 (2)	4.614117E-02	10.2			RSD (20)	
Aroclor-1260 (3)	0.1214672	11.2			RSD (20)	
Aroclor-1260 (4)	6.275928E-02	9.8			RSD (20)	
Aroclor-1260 (5)	2.735729E-02	13.0			RSD (20)	
Aroclor-1262 (1)		0.0			RSD (20)	
Aroclor-1262 (2)		0.0			RSD (20)	
Aroclor-1262 (3)		0.0			RSD (20)	
Aroclor-1262 (4)		0.0			RSD (20)	
Aroclor-1268 (1)		0.0			RSD (20)	
Aroclor-1268 (2)		0.0			RSD (20)	
Aroclor-1268 (3)		0.0			RSD (20)	
Aroclor-1268 (4)		0.0			RSD (20)	
Decachlorobiphenyl	0.8555994	6.6			RSD (20)	
Tetrachlorometaxylene	1.130787	4.2			RSD (20)	



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (2):	ZB35

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor 1016 [2C]	250	5.292579E-02	20	4.676037E-02	50	5.470557E-02	1000	4.853417E-02	100	5.747899E-02	500	5.114174E-02
Aroclor-1016 (1) [2C]	250	4.314113E-02	20	4.423802E-02	50	4.724251E-02	1000	3.795138E-02	100	4.677646E-02	500	4.099489E-02
Aroclor-1016 (2) [2C]	250	9.823746E-02	20	8.511696E-02	50	9.615173E-02	1000	9.129912E-02	100	0.1041709	500	9.554107E-02
Aroclor-1016 (3) [2C]	250	4.028886E-02	20	2.918885E-02	50	0.0416533	1000	3.764267E-02	100	4.478001E-02	500	3.925449E-02
Aroclor-1016 (4) [2C]	250	3.003571E-02	20	2.849763E-02	50	3.377476E-02	1000	2.724351E-02	100	3.418865E-02	500	0.0287764
Aroclor 1260 [2C]	250	0.0868269	20	8.456297E-02	50	8.682148E-02	1000	7.954321E-02	100	8.639013E-02	500	7.778218E-02
Aroclor-1260 (1) [2C]	250	6.129497E-02	20	6.075052E-02	50	5.973709E-02	1000	5.307059E-02	100	5.911734E-02	500	5.231082E-02
Aroclor-1260 (2) [2C]	250	0.1536701	20	0.147481	50	0.1510614	1000	0.1380864	100	0.1518107	500	0.1339581
Aroclor-1260 (3) [2C]	250	3.647192E-02	20	3.683006E-02	50	3.729426E-02	1000	3.693906E-02	100	3.582131E-02	500	3.500995E-02
Aroclor-1260 (4) [2C]	250	0.0958705	20	9.319031E-02	50	9.919317E-02	1000	9.007677E-02	100	9.881117E-02	500	8.984983E-02
Decachlorobiphenyl [2C]	40	1.292085	3.2	1.209146	8	1.271224	160	1.30389	16	1.311901	80	1.229614
Tetrachlorometaxylene [2C]	40	1.096753	3.2	1.043423	8	1.105211	160	1.038509	16	1.153217	80	1.051873



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (2):	ZB35

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor 1016 [2C]	5.192444E-02	7.6			RSD (20)	
Aroclor-1016 (1) [2C]	4.339073E-02	8.1			RSD (20)	
Aroclor-1016 (2) [2C]	9.508621E-02	6.8			RSD (20)	
Aroclor-1016 (3) [2C]	3.880136E-02	13.6			RSD (20)	
Aroclor-1016 (4) [2C]	3.041944E-02	9.5			RSD (20)	
Aroclor 1221 [2C]		0.0			RSD (20)	
Aroclor-1221 (1) [2C]		0.0			RSD (20)	
Aroclor-1221 (2) [2C]		0.0			RSD (20)	
Aroclor-1221 (3) [2C]		0.0			RSD (20)	
Aroclor 1232 [2C]		0.0			RSD (20)	
Aroclor-1232 (1) [2C]		0.0			RSD (20)	
Aroclor-1232 (2) [2C]		0.0			RSD (20)	
Aroclor-1232 (3) [2C]		0.0			RSD (20)	
Aroclor-1232 (4) [2C]		0.0			RSD (20)	
Aroclor 1242 [2C]		0.0			RSD (20)	
Aroclor-1242 (1) [2C]		0.0			RSD (20)	
Aroclor-1242 (2) [2C]		0.0			RSD (20)	
Aroclor-1242 (3) [2C]		0.0			RSD (20)	
Aroclor-1242 (4) [2C]		0.0			RSD (20)	
Aroclor 1248 [2C]		0.0			RSD (20)	
Aroclor-1248 (1) [2C]		0.0			RSD (20)	
Aroclor-1248 (2) [2C]		0.0			RSD (20)	
Aroclor-1248 (3) [2C]		0.0			RSD (20)	
Aroclor-1248 (4) [2C]		0.0			RSD (20)	
Aroclor 1254 [2C]		0.0			RSD (20)	
Aroclor-1254 (1) [2C]		0.0			RSD (20)	
Aroclor-1254 (2) [2C]		0.0			RSD (20)	
Aroclor-1254 (3) [2C]		0.0			RSD (20)	
Aroclor-1254 (4) [2C]		0.0			RSD (20)	
Aroclor-1254 (5) [2C]		0.0			RSD (20)	
Aroclor 1260 [2C]	8.365448E-02	4.8			RSD (20)	



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GA00061	Instrument:	ECD7
Calibration Date:	01/24/2023	Column (2):	ZB35

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor-1260 (1) [2C]	5.771356E-02	6.9			RSD (20)	
Aroclor-1260 (2) [2C]	0.1460113	5.5			RSD (20)	
Aroclor-1260 (3) [2C]	3.639443E-02	2.3			RSD (20)	
Aroclor-1260 (4) [2C]	9.449863E-02	4.4			RSD (20)	
Aroclor-1262 (1) [2C]		0.0			RSD (20)	
Aroclor-1262 (2) [2C]		0.0			RSD (20)	
Aroclor-1262 (3) [2C]		0.0			RSD (20)	
Aroclor-1262 (4) [2C]		0.0			RSD (20)	
Aroclor-1268 (1) [2C]		0.0			RSD (20)	
Aroclor-1268 (2) [2C]		0.0			RSD (20)	
Aroclor-1268 (3) [2C]		0.0			RSD (20)	
Aroclor-1268 (4) [2C]		0.0			RSD (20)	
Decachlorobiphenyl [2C]	1.269643	3.3			RSD (20)	
Tetrachlorometaxylene [2C]	1.081498	4.2			RSD (20)	

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230124.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	24-JAN-2023	15:39	01242312ECD7.D	1	IB	
2	24-JAN-2023	16:00	01242313ECD7.D	1	0.25PPM	AR1660
3	24-JAN-2023	16:21	01242314ECD7.D	1	0.02PPM	AR1660
4	24-JAN-2023	16:42	01242315ECD7.D	1	0.05PPM	AR1660
5	24-JAN-2023	17:03	01242316ECD7.D	1	1.0PPM	AR1660
6	24-JAN-2023	17:24	01242317ECD7.D	1	0.1PPM	AR1660
7	24-JAN-2023	17:45	01242318ECD7.D	1	0.5PPM	AR1660
8	24-JAN-2023	18:06	01242319ECD7.D	1	0.25PPM	1242
9	24-JAN-2023	18:27	01242320ECD7.D	1	0.25PPM	1248
10	24-JAN-2023	18:48	01242321ECD7.D	1	0.25PPM	1254
11	24-JAN-2023	19:09	01242322ECD7.D	1	0.25PPM	2162
12	24-JAN-2023	19:30	01242323ECD7.D	1	0.25PPM	3268
13	24-JAN-2023	19:51	01242324ECD7.D	1	AR1660	SCV
14	24-JAN-2023	20:12	01242325ECD7.D	1	AR1242	SCV
15	24-JAN-2023	20:33	01242326ECD7.D	1	AR1248	SCV
16	24-JAN-2023	20:54	01242327ECD7.D	1	AR1254	SCV
17	24-JAN-2023	21:15	01242328ECD7.D	1	AR2162	SCV
18	24-JAN-2023	21:36	01242329ECD7.D	1	AR3268	SCV
19	24-JAN-2023	21:57	01242330ECD7.D	1	DDTS	
20	24-JAN-2023	22:18	01242331ECD7.D	1	DDT	BD

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230124.b

ARI Job No.: IB Method: PCB.m Instrument: ecd7.i Date: 24-JAN-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1539	01242312ECD7.D	IB		1	NO MANUAL INTEGRATION
1600	01242313ECD7.D	0.25PPM	AR1660	1	NO MANUAL INTEGRATION
1621	01242314ECD7.D	0.02PPM	AR1660	1	NO MANUAL INTEGRATION
1642	01242315ECD7.D	0.05PPM	AR1660	1	NO MANUAL INTEGRATION
1703	01242316ECD7.D	1.0PPM	AR1660	1	NO MANUAL INTEGRATION
1724	01242317ECD7.D	0.1PPM	AR1660	1	NO MANUAL INTEGRATION
1745	01242318ECD7.D	0.5PPM	AR1660	1	NO MANUAL INTEGRATION
1806	01242319ECD7.D	0.25PPM	1242	1	NO MANUAL INTEGRATION
1827	01242320ECD7.D	0.25PPM	1248	1	NO MANUAL INTEGRATION
1848	01242321ECD7.D	0.25PPM	1254	1	NO MANUAL INTEGRATION
1909	01242322ECD7.D	0.25PPM	2162	1	NO MANUAL INTEGRATION
1930	01242323ECD7.D	0.25PPM	3268	1	NO MANUAL INTEGRATION
1951	01242324ECD7.D	AR1660	SCV	1	NO MANUAL INTEGRATION
2012	01242325ECD7.D	AR1242	SCV	1	NO MANUAL INTEGRATION
2033	01242326ECD7.D	AR1248	SCV	1	NO MANUAL INTEGRATION
2054	01242327ECD7.D	AR1254	SCV	1	NO MANUAL INTEGRATION
2115	01242328ECD7.D	AR2162	SCV	1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230124.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2136	01242329ECD7.D	AR3268	SCV	1	NO MANUAL INTEGRATION
2157	01242330ECD7.D	DDTS		1	NO MANUAL INTEGRATION
2218	01242331ECD7.D	DDT	BD	1	NO MANUAL INTEGRATION

Security Status Report

Date: 26-Jan-2023 11:55

01242301ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242302ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242303ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242304ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242305ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242306ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242307ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242308ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242309ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242310ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242311ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242312ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242313ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242314ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242315ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242316ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242317ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242318ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242319ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242320ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242321ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242322ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242323ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242324ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242325ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242326ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242327ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242328ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242329ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242330ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44
01242331ECD7.D	Data Locked	richardl, 25-Jan-2023 12:44

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
 End Cal Date : 24-JAN-2023 21:57
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
 Last Edit : 25-Jan-2023 10:02 JoshuaR
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem4\ecd7.i\230124.b\01242314ECD7.D
 Level 2: \\target\share\chem4\ecd7.i\230124.b\01242315ECD7.D
 Level 3: \\target\share\chem4\ecd7.i\230124.b\01242317ECD7.D
 Level 4: \\target\share\chem4\ecd7.i\230124.b\01242313ECD7.D
 Level 5: \\target\share\chem4\ecd7.i\230124.b\01242318ECD7.D
 Level 6: \\target\share\chem4\ecd7.i\230124.b\01242316ECD7.D
 Level 7: \\target\share\chem4\ecd7.i\230124.b\01242323ECD7.D
 Level 8: \\target\share\chem4\ecd7.i\230124.b\01242330ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
2 Aroclor-1221(1)	0.00591	0.000e+00					0.00591	0.000
(2)	0.01209						0.01209	0.000
(3)	0.02807						0.02807	0.000
3 Aroclor-1242(1)	0.02450						0.02450	0.000

(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	0.08017	+++++						0.08017	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	0.02382	+++++						0.02382	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03598	+++++						0.03598	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	0.00369	+++++						0.00369	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
 End Cal Date : 24-JAN-2023 21:57
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
 Last Edit : 25-Jan-2023 10:02 JoshuaR
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
(2)	0.00832	0.000e+00					0.00832	0.000
(3)	0.04160						0.04160	0.000
(4)	0.01781						0.01781	0.000
7 Aroclor-1016(1)	0.02947	0.03102	0.03310	0.03018	0.02824	0.02635	0.02973	7.802
(2)	0.09270	0.09812	0.10598	0.10203	0.09861	0.09356	0.09850	5.108
(3)	0.04878	0.04900	0.05127	0.04400	0.04091	0.03796	0.04532	11.523
(4)	0.02676	0.02802	0.03162	0.03050	0.02939	0.02864	0.02915	5.988
6 Aroclor-1248(1)								

	0.04002	+++++					0.04002	0.000

(2)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.05105	+++++					0.05105	0.000

(3)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.09765	+++++					0.09765	0.000

(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04833	+++++					0.04833	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
 End Cal Date : 24-JAN-2023 21:57
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
 Last Edit : 25-Jan-2023 10:02 JoshuaR
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.08153	0.000
(2)	0.03481	+++++					0.03481	0.000
(3)	0.05224	+++++					0.05224	0.000
(4)	0.10237	+++++					0.10237	0.000
(5)	0.06657	+++++					0.06657	0.000
9 Aroclor-1260(1)	0.04727	0.04543	0.04428	0.05181	0.04013	0.04040	0.04489	9.818
(2)	0.04940	0.04636	0.04450	0.05350	0.04100	0.04208	0.04614	10.182
(3)	0.13737	0.12829	0.11740	0.13317	0.10468	0.10790		

	+++++	+++++					0.12147	11.161
(4)	0.07198	0.06638	0.05997	0.06473	0.05485	0.05864		
	+++++	+++++					0.06276	9.803
(5)	0.03296	0.02981	0.02640	0.02723	0.02328	0.02447		
	+++++	+++++					0.02736	13.015
10 Aroclor-1262 (1)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03235	+++++					0.03235	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
 End Cal Date : 24-JAN-2023 21:57
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
 Last Edit : 25-Jan-2023 10:02 JoshuaR
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.05106	0.000
	0.05106	+++++						
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.05544	0.000
	0.05544	+++++						
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.05052	0.000
	0.05052	+++++						
11 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.13216	0.000
	0.13216	+++++						
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.13180	0.000
	0.13180	+++++						
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.10919	0.000
	0.10919	+++++						
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.32374	0.000
	0.32374	+++++						
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		

	+++++	904					904	0.000

43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1034					1034	0.000

44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	2557					2557	0.000

46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1539					1539	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
 End Cal Date : 24-JAN-2023 21:57
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m
 Last Edit : 25-Jan-2023 10:02 JoshuaR
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 4,4-DDT	+++++	1484	+++++	+++++	+++++	+++++	1484	0.000
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 1 Tetrachloro-m-xylene	1.10039	1.10217	1.21997	1.14965	1.11792	1.09461	1.13079	4.246
\$ 13 Decachlorobiphenyl	0.86442	0.90302	0.93081	0.84813	0.79576	0.79145	0.85560	6.556

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
 End Cal Date : 24-JAN-2023 21:57
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
 Last Edit : 25-Jan-2023 09:58 JoshuaR
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242314ECD7.D
 Level 2: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242315ECD7.D
 Level 3: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242317ECD7.D
 Level 4: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242313ECD7.D
 Level 5: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242318ECD7.D
 Level 6: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242316ECD7.D
 Level 7: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242323ECD7.D
 Level 8: \\target\share\chem4\ecd7.i\230124.b\230124.b\01242330ECD7.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
1 Aroclor-1221 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00586	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01285	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02169	0.000
4 Aroclor-1232 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00356	0.000

(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01991	+++++						0.01991	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	0.04054	+++++						0.04054	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	0.01126	+++++						0.01126	0.000
3 Aroclor-1242 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	0.03499	+++++						0.03499	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
 End Cal Date : 24-JAN-2023 21:57
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
 Last Edit : 25-Jan-2023 09:58 JoshuaR
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.07771	0.000
(3)	0.02434	+++++					0.02434	0.000
(4)	0.03226	+++++					0.03226	0.000
6 Aroclor-1248 [2C] (1)	0.03616	+++++					0.03616	0.000
(2)	0.03892	+++++					0.03892	0.000
(3)	0.04756	+++++					0.04756	0.000
(4)	0.05882	+++++					0.05882	0.000
7 Aroclor-1016 [2C] (1)	0.04424	0.04724	0.04678	0.04314	0.04099	0.03795		

	+++++	+++++					0.04339	8.142
(2)	0.08512	0.09615	0.10417	0.09824	0.09554	0.09130		
	+++++	+++++					0.09509	6.775
(3)	0.02919	0.04165	0.04478	0.04029	0.03925	0.03764		
	+++++	+++++					0.03880	13.639
(4)	0.02850	0.03377	0.03419	0.03004	0.02878	0.02724		
	+++++	+++++					0.03042	9.538

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
 End Cal Date : 24-JAN-2023 21:57
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
 Last Edit : 25-Jan-2023 09:58 JoshuaR
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
8 Aroclor-1254 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.05804	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.04691	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.10233	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.10233	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++	0.05700	0.000
10 Aroclor-1262 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.07830	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.06658	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++		

	0.07090	+++++					0.07090	0.000

(4)	+++++	+++++	+++++	+++++	+++++	+++++		
	0.11355	+++++					0.11355	0.000

9 Aroclor-1260 [2C] (1)	0.06075	0.05974	0.05912	0.06129	0.05231	0.05307		
	+++++	+++++					0.05771	6.881

(2)	0.14748	0.15106	0.15181	0.15367	0.13396	0.13809		
	+++++	+++++					0.14601	5.547

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
 End Cal Date : 24-JAN-2023 21:57
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
 Last Edit : 25-Jan-2023 09:58 JoshuaR
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000	0.000e+00						
	Level 7	Level 8						
(3)	0.03683	0.03729	0.03582	0.03647	0.03501	0.03694	0.03639	2.314
	+++++	+++++						
(4)	0.09319	0.09919	0.09881	0.09587	0.08985	0.09008	0.09450	4.373
	+++++	+++++						
11 Aroclor-1268 [2C] (1)	+++++	+++++	+++++	+++++	+++++	+++++	0.18682	0.000
	0.18682	+++++					0.18682	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.19880	0.000
	0.19880	+++++					0.19880	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.16548	0.000
	0.16548	+++++					0.16548	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.51118	0.000
	0.51118	+++++					0.51118	0.000
41 2,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	1528	0.000
	+++++	1528					1528	0.000
42 2,4-DDD [2C]	+++++	+++++	+++++	+++++	+++++	+++++		

	+++++	866					866	0.000

44 4,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	863					863	0.000

45 4,4-DDD/2,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1162					1162	0.000

46 4,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	1277					1277	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2023 16:00
 End Cal Date : 24-JAN-2023 21:57
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP Genie
 Method file : \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
 Last Edit : 25-Jan-2023 09:58 JoshuaR
 Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 2 Tetrachloro-m-xylene [2C]	1.04342	1.10521	1.15322	1.09675	1.05187	1.03851	1.08150	4.159
\$ 13 Decachlorobiphenyl [2C]	1.20915	1.27122	1.31190	1.29209	1.22961	1.30389	1.26964	3.291

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Batch File: \\target\share\chem4\ecd7.i\230124.b
Inst ID: ecd7.i

ID: RT01 RT02 RT03 RT04 RT05 RT06
FILENAME: 01242313ECD7 01242314ECD7 01242315ECD7 01242316ECD7 01242317ECD7 01242318ECD7
INJ. DATE: 24-JAN-2023 24-JAN-2023 24-JAN-2023 24-JAN-2023 24-JAN-2023 24-JAN-2023
INJ. TIME: 16:00 16:21 16:42 17:03 17:24 17:45

Table with columns: Compound, RT01, RT02, RT03, RT04, RT05, RT06, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include various chemical compounds like IS-BNB, Tetrachloro-m-xylene, Aroclor-1221, etc.

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230124.b\PCB.m
 Batch File: \\target\share\chem4\ecd7.i\230124.b
 Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	10.281	10.181-10.381	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	10.758	10.658-10.858	+++++	+++++
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.842	1.742-1.942	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	6.708	6.608-6.808	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd7.i\230124.b\230124.b
Inst ID: ecd7.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	01242313ECD7	01242314ECD7	01242315ECD7	01242316ECD7	01242317ECD7	01242318ECD7
INJ. DATE:	24-JAN-2023	24-JAN-2023	24-JAN-2023	24-JAN-2023	24-JAN-2023	24-JAN-2023
INJ. TIME:	16:00	16:21	16:42	17:03	17:24	17:45

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 40 IS-BNB [2C]	3.928	3.929	3.929	3.929	3.928	3.929	3.929	3.829-4.029	3.929	0.001
\$ 2 Tetrachloro-m-xylene [	5.685	5.686	5.687	5.685	5.686	5.687	5.687	5.587-5.787	5.686	0.001
1 Aroclor-1221 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	4.959	4.859-5.059	+++++	+++++
4 Aroclor-1232 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	4.960	4.860-5.060	+++++	+++++
3 Aroclor-1242 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	7.256	7.156-7.356	+++++	+++++
6 Aroclor-1248 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	8.305	8.205-8.405	+++++	+++++
7 Aroclor-1016 [2C]	7.255	7.257	7.256	7.254	7.255	7.254	7.255	7.155-7.355	7.255	0.001
8 Aroclor-1254 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.448	9.348-9.548	+++++	+++++
10 Aroclor-1262 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.200	11.100-11.300	+++++	+++++
9 Aroclor-1260 [2C]	11.653	11.655	11.655	11.653	11.655	11.653	11.653	11.553-11.753	11.654	0.001
11 Aroclor-1268 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	12.434	12.334-12.534	+++++	+++++
\$ 13 Decachlorobiphenyl [2C]	14.120	14.121	14.120	14.122	14.119	14.120	14.120	14.020-14.220	14.120	0.001
* 12 IS-HBBP [2C]	15.008	15.008	15.009	15.007	15.008	15.009	15.009	14.909-15.109	15.008	0.000
41 2,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.912	9.862-9.962	+++++	+++++
42 2,4-DDD [2C]	+++++	+++++	+++++	+++++	+++++	+++++	9.538	9.488-9.588	+++++	+++++
44 4,4-DDE [2C]	+++++	+++++	+++++	+++++	+++++	+++++	10.211	10.111-10.311	+++++	+++++
45 4,4-DDD/2,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	10.666	10.566-10.766	+++++	+++++

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd7.i\230124.b\PCB.m\PCB2.m
 Batch File: \\target\share\chem4\ecd7.i\230124.b\230124.b
 Inst ID: ecd7.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.095	10.995-11.195	+++++	+++++
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.703	1.603-1.803	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	7.178	7.078-7.278	+++++	+++++

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242312ECD7.D
Data file 2: /230124.b/230124.b/01242312ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 24-JAN-2023 15:39
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.822	0.013	272340	5.680	-0.007	171573	36.5	36.4	0.1	Tetrachloro-m-xylene
13.900	0.008	252989	14.120	-0.000	223176	37.3	38.6	3.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	528068	4.9
Hexabromobiphenyl	647433	634177	-2.0

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	348301	3.4
Hexabromobiphenyl	382032	364259	-4.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	7.852	0.064	162	0.5	3	---			0.0	
Aroclor-1016	4	8.431	0.027	495	2.6	4	---			0.0	
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	6.317	0.019	1908	34.1	
Aroclor-1221	3	---			0.0	3	6.630	0.007	299	3.2	
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	7.208	-0.049	26	0.3	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	8.730	0.017	33	0.7	
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.0	1	7.208	-0.048	26	0.2	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	8.431	0.024	495	3.1	3	9.151	-0.008	93	0.9	
Aroclor-1242	4	8.630	0.049	1101	4.6	4	---			0.0	
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks					
Aroclor-1248	1	8.431	0.025	495	1.9	1	---			0.0	
Aroclor-1248	2	8.630	0.050	1101	3.3	2	8.730	0.018	33	0.2	
Aroclor-1248	3	---			0.0	3	9.151	-0.005	93	0.4	
Aroclor-1248	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks					
Aroclor-1254	1	---			0.0	1	9.474	0.026	9010	35.7	
Aroclor-1254	2	---			0.0	2	---			0.0	
Aroclor-1254	3	9.571	-0.099	114	0.3	3	---			0.0	
Aroclor-1254	4	9.770	-0.038	104	0.2	4	---			0.0	
Aroclor-1254	5	---			0.0	5	10.525	-0.044	482	1.9	
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks					
Aroclor-1260	1	11.066	0.023	262	0.7	1	11.703	0.050	189	0.7	
Aroclor-1260	2	---			0.0	2	11.832	-0.086	97	0.1	
Aroclor-1260	3	11.803	0.069	4470	4.6	3	12.414	-0.022	2209	13.3	
Aroclor-1260	4	12.089	-0.051	661	1.3	4	---			0.0	
Aroclor-1260	5	12.282	0.038	5183	23.9	NS	---			----	
Total CollAve (4 peaks):				7.7		Total Col2Ave (3 peaks):				4.7	RPD = 47*
Corrected Ave (3 peaks):				2.2		Corrected Ave: < 3 Peaks					
Aroclor-1262	1	10.789	-0.043	941	3.7	1	---			0.0	
Aroclor-1262	2	12.282	0.036	5183	12.8	2	11.703	0.051	189	0.6	
Aroclor-1262	3	---			0.0	3	12.414	-0.020	2209	6.8	
Aroclor-1262	4	12.982	-0.007	2811	7.0	4	---			0.0	
Total CollAve (3 peaks):					7.8	Col2Ave: <3 Quant Peaks					
Aroclor-1268	1	12.282	0.037	5183	4.9	1	12.414	-0.020	2209	2.6	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	12.705	0.006	3092	3.6	3	12.894	0.001	724	1.0	
Aroclor-1268	4	13.500	0.011	13310	5.2	4	13.708	-0.000	2974	1.3	
Total CollAve (3 peaks):				4.6		Total Col2Ave (3 peaks):				1.6	RPD = 96*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks					

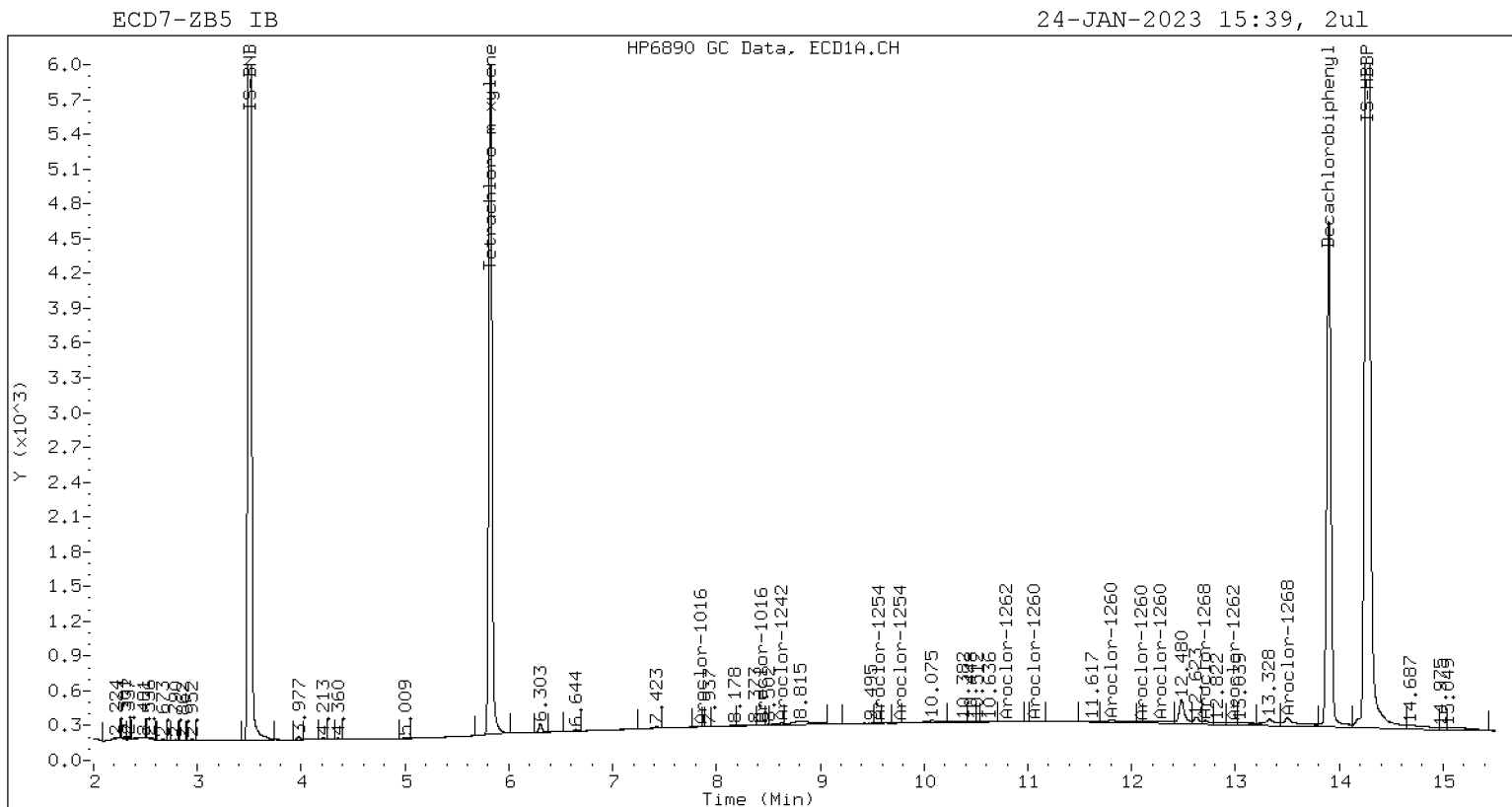
Total PCB Area Col1 (5.909 - 13.792) = 89790 Col1 Total PCB = 0.0 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 40020 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242313ECD7.D
Data file 2: /230124.b/230124.b/01242313ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM AR1660
Client ID:
Injection Date: 24-JAN-2023 16:00
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.810	0.001	289321	5.685	-0.002	184754	40.7	40.6	0.3	Tetrachloro-m-xylene
13.894	0.002	274555	14.120	0.000	246809	39.7	40.7	2.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	503318	0.0
Hexabromobiphenyl	647433	647433	0.0
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	336911	0.0
Hexabromobiphenyl	382032	382032	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.272	0.002	47467	253.8	1	7.255	0.000	45421	248.6
Aroclor-1016	2	7.654	0.004	160487	259.0	2	7.851	0.000	103429	258.3
Aroclor-1016	3	7.791	0.003	69204	242.7	3	8.050	0.000	42418	259.6
Aroclor-1016	4	8.406	0.003	47967	261.5	4	8.305	0.000	31623	246.8
Total CollAve (4 peaks):				254.2		Total Col2Ave (4 peaks):				253.3 RPD = 0
Corrected Ave (3 peaks):				251.8		Corrected Ave (3 peaks):				251.2 RPD = 0

CalAmt %D: 1.7

CalAmt %D: 1.3

Aroclor-1260	1	11.047	0.003	104831	288.6	1	11.653	0.000	73177	265.5
Aroclor-1260	2	11.362	0.002	108243	289.9	2	11.918	0.000	183459	263.1
Aroclor-1260	3	11.738	0.004	269428	274.1	3	12.436	0.000	43542	250.5
Aroclor-1260	4	12.142	0.002	130966	257.9	4	12.502	0.000	114455	253.6
Aroclor-1260	5	12.246	0.002	55096	248.9	NS	---			----
Total CollAve (5 peaks):				271.8		Total Col2Ave (4 peaks):				258.2 RPD = 5
Corrected Ave (4 peaks):				267.3		Corrected Ave (3 peaks):				255.8 RPD = 4

CalAmt %D: 8.7

CalAmt %D: 3.3

Total PCB Area Coll (5.909 - 13.792) = 2930230 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 1777050 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242314ECD7.D
Data file 2: /230124.b/230124.b/01242314ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02PPM AR1660
Client ID:
Injection Date: 24-JAN-2023 16:21
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	0.000	21307	5.686	-0.000	13767	3.1	3.1	0.9	Tetrachloro-m-xylene
13.892	0.000	23054	14.121	0.001	19257	3.2	3.0	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	484077	-3.8
Hexabromobiphenyl	647433	666748	3.0
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	329852	-2.1
Hexabromobiphenyl	382032	398153	4.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.272	0.002	3567	19.8	1	7.257	0.002	3648	20.4	
Aroclor-1016	2	7.663	0.012	11219	18.8	2	7.858	0.007	7019	17.9	
Aroclor-1016	3	7.796	0.008	5903	21.5	3	8.058	0.007	2407	15.0	
Aroclor-1016	4	8.410	0.006	3238	18.4	4	8.308	0.003	2350	18.7	
Total CollAve (4 peaks):				19.6	Total Col2Ave (4 peaks):				18.0	RPD = 9	
Corrected Ave (3 peaks):				19.0	Corrected Ave (3 peaks):				17.2	RPD = 10	
CalAmt %D:				-1.8	CalAmt %D:				-9.9		
Aroclor-1260	1	11.049	0.005	7880	21.1	1	11.655	0.002	6047	21.1	
Aroclor-1260	2	11.365	0.005	8234	21.4	2	11.923	0.005	14680	20.2	
Aroclor-1260	3	11.742	0.008	22898	22.6	3	12.438	0.002	3666	20.2	
Aroclor-1260	4	12.149	0.009	11998	22.9	4	12.506	0.004	9276	19.7	
Aroclor-1260	5	12.247	0.003	5494	24.1	NS	---			----	
Total CollAve (5 peaks):				22.4	Total Col2Ave (4 peaks):				20.3	RPD = 10	
Corrected Ave (4 peaks):				22.0	Corrected Ave (3 peaks):				20.1	RPD = 9	
CalAmt %D:				12.1	CalAmt %D:				1.5		

Total PCB Area Coll (5.909 - 13.792) = 256211 Coll Total PCB = 0.0 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 146434 Col2 Total PCB = 0.0 ppm*

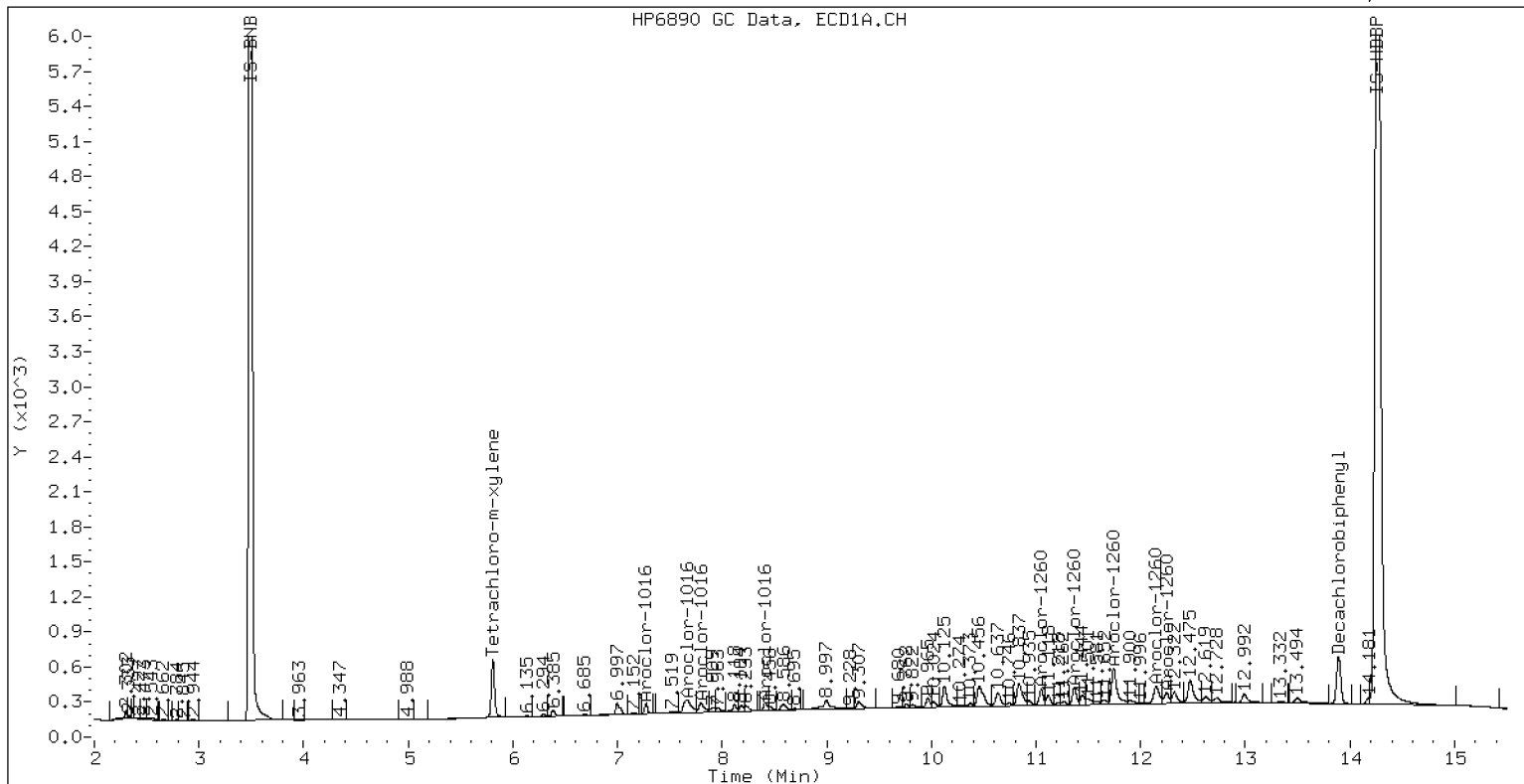
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.02PPM AR1660

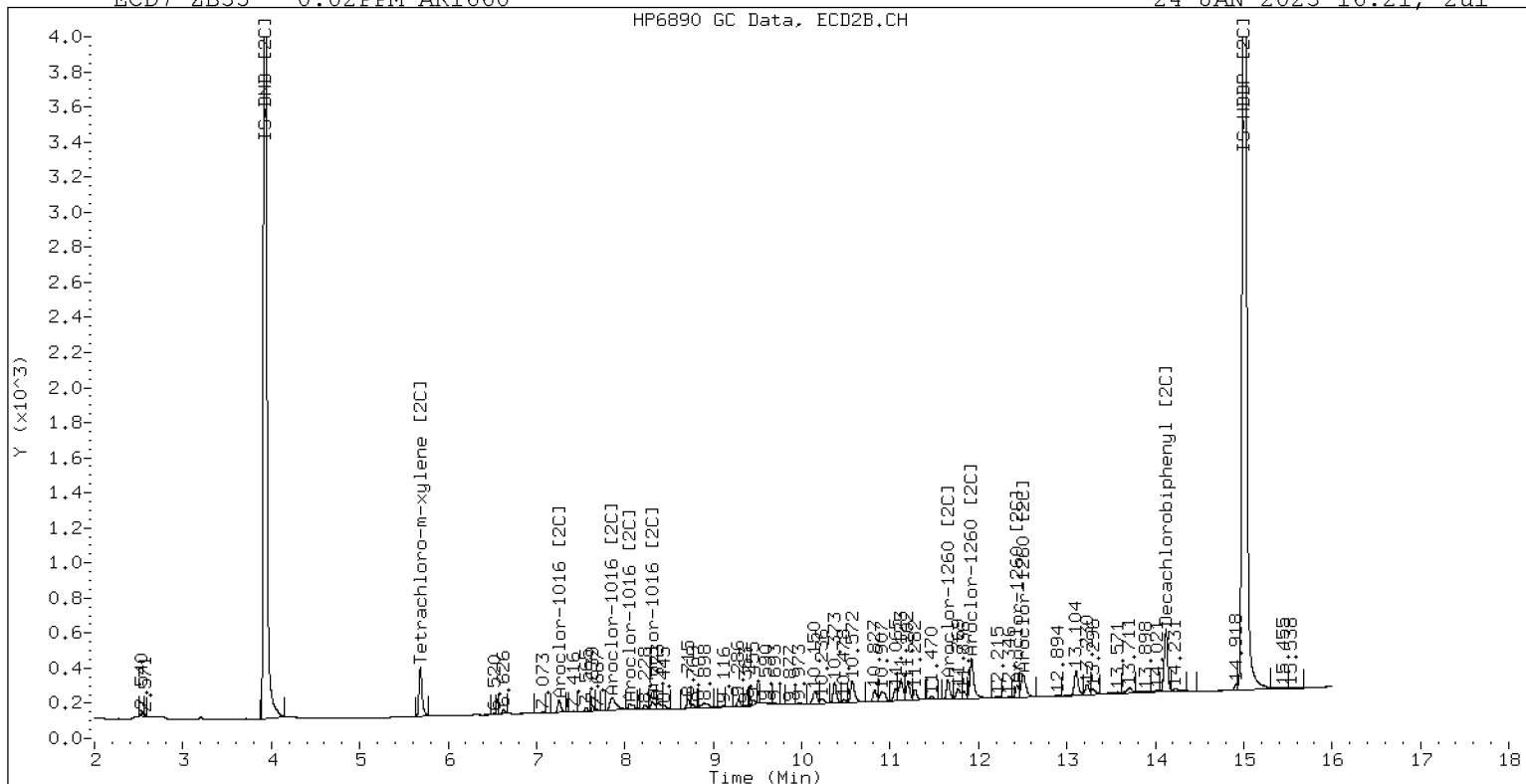
24-JAN-2023 16:21, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 0.02PPM AR1660

24-JAN-2023 16:21, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242315ECD7.D
Data file 2: /230124.b/230124.b/01242315ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.05PPM AR1660
Client ID:
Injection Date: 24-JAN-2023 16:42
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	-0.000	53503	5.687	-0.000	36922	7.8	8.2	4.7	Tetrachloro-m-xylene
13.893	0.001	62544	14.120	-0.000	52782	8.4	8.0	5.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	485432	-3.6
Hexabromobiphenyl	647433	692613	7.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	334072	-0.8
Hexabromobiphenyl	382032	415206	8.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.271	0.002	9412	52.2	1	7.256	0.001	9864	54.4	
Aroclor-1016	2	7.657	0.007	29769	49.8	2	7.855	0.004	20076	50.6	
Aroclor-1016	3	7.795	0.006	14866	54.1	3	8.055	0.004	8697	53.7	
Aroclor-1016	4	8.409	0.005	8500	48.1	4	8.308	0.003	7052	55.5	
Total CollAve (4 peaks):				51.0	Total Col2Ave (4 peaks):				53.5	RPD = 5	
Corrected Ave (3 peaks):				50.0	Corrected Ave (3 peaks):				52.9	RPD = 6	
CalAmt %D:				2.0	CalAmt %D:				7.1		
Aroclor-1260	1	11.048	0.005	19665	50.6	1	11.655	0.002	15502	51.8	
Aroclor-1260	2	11.364	0.003	20070	50.2	2	11.921	0.003	39201	51.7	
Aroclor-1260	3	11.740	0.006	55534	52.8	3	12.439	0.003	9678	51.2	
Aroclor-1260	4	12.145	0.006	28735	52.9	4	12.506	0.004	25741	52.5	
Aroclor-1260	5	12.246	0.002	12906	54.5	NS	---			----	
Total CollAve (5 peaks):				52.2	Total Col2Ave (4 peaks):				51.8	RPD = 1	
Corrected Ave (4 peaks):				51.6	Corrected Ave (3 peaks):				51.6	RPD = 0	
CalAmt %D:				4.4	CalAmt %D:				3.6		

Total PCB Area Coll (5.909 - 13.792) = 600311 Coll Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 383666 Col2 Total PCB = 0.1 ppm*

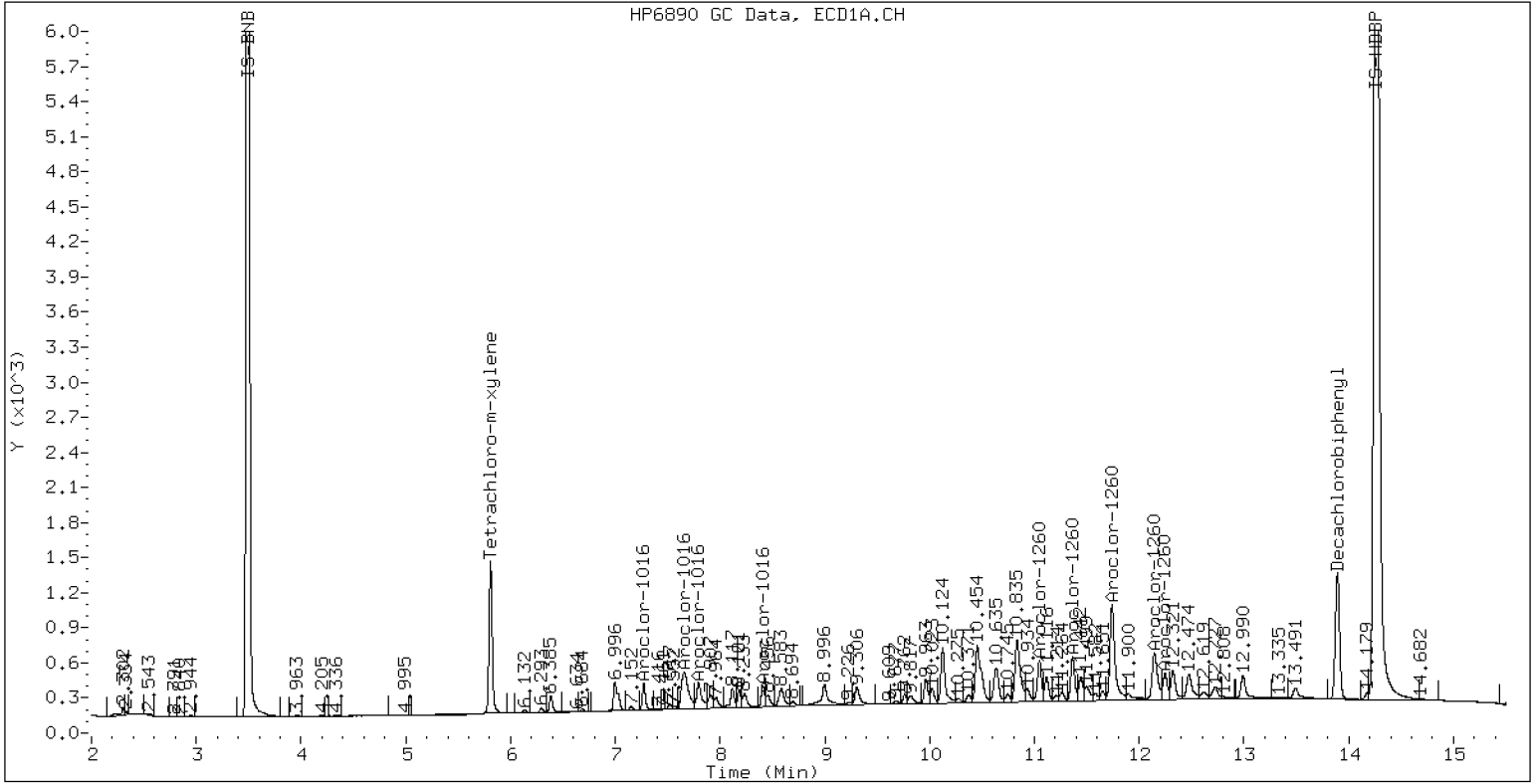
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.05PPM AR1660

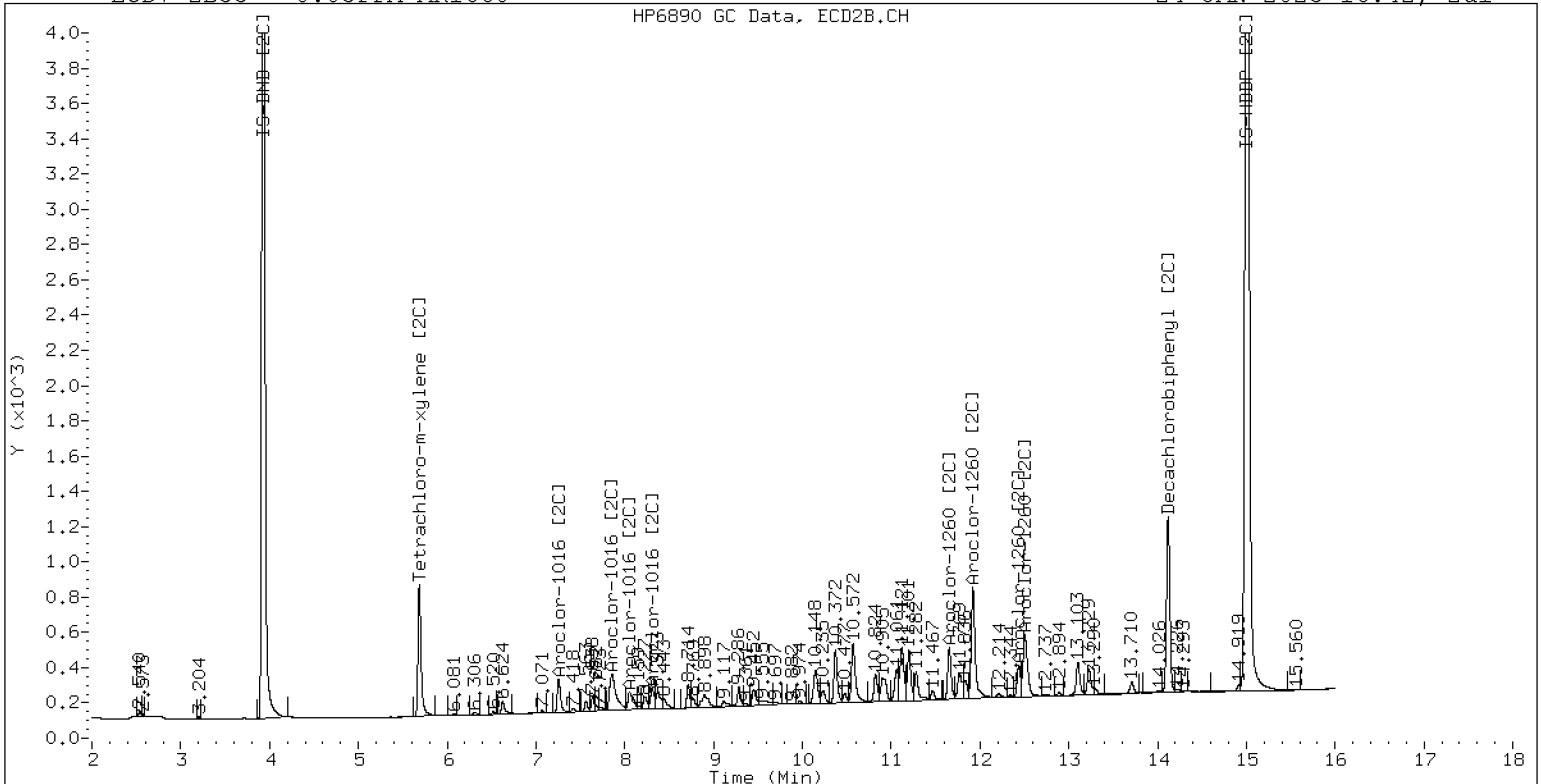
24-JAN-2023 16:42, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 0.05PPM AR1660

24-JAN-2023 16:42, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242316ECD7.D ARI ID: 1.0PPM AR1660
Data file 2: /230124.b/230124.b/01242316ECD7.D Client ID:
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m Injection Date: 24-JAN-2023 17:03
Compound Sublist: AR1660.sub Report Date: 01/25/2023 11:34
Instrument, Inj. Vol.: ecd7.i, 2ul Matrix: NONE
Quant Method: Internal Std Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	0.000	1033475	5.685	-0.002	672800	154.9	153.6	0.8	Tetrachloro-m-xylene
13.892	0.000	1125556	14.122	0.002	1078539	148.0	164.3	10.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	472076	-6.2
Hexabromobiphenyl	647433	711071	9.8
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	323926	-3.9
Hexabromobiphenyl	382032	413585	8.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col ZB35 Col

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	-0.000	155505	886.5	1	7.254	-0.001	153668	874.6
Aroclor-1016	2	7.649	-0.001	552101	949.8	2	7.849	-0.002	369677	960.2
Aroclor-1016	3	7.786	-0.002	223973	837.5	3	8.048	-0.003	152418	970.1
Aroclor-1016	4	8.402	-0.001	169003	982.4	4	8.304	-0.001	110311	895.6
Total CollAve (4 peaks):				914.1		Total Col2Ave (4 peaks):				925.1 RPD = 1
Corrected Ave (3 peaks):				891.3		Corrected Ave (3 peaks):				910.1 RPD = 2

CalAmt %D: -8.6

CalAmt %D: -7.5

Aroclor-1260	1	11.043	-0.001	359074	900.0	1	11.653	-0.001	274365	919.6
Aroclor-1260	2	11.360	-0.000	374067	912.1	2	11.917	-0.000	713881	945.7
Aroclor-1260	3	11.733	-0.001	959026	888.3	3	12.436	-0.000	190968	1015.0
Aroclor-1260	4	12.137	-0.002	521189	934.3	4	12.502	-0.000	465680	953.2
Aroclor-1260	5	12.242	-0.002	217473	894.4	NS	---			----
Total CollAve (5 peaks):				905.8		Total Col2Ave (4 peaks):				958.4 RPD = 6
Corrected Ave (4 peaks):				898.7		Corrected Ave (3 peaks):				939.5 RPD = 4

CalAmt %D: -9.4

CalAmt %D: -4.2

Total PCB Area Coll (5.909 - 13.792) = 10234908 Coll Total PCB = 1.9 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 6685547 Col2 Total PCB = 2.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242317ECD7.D
Data file 2: /230124.b/230124.b/01242317ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.1PPM AR1660
Client ID:
Injection Date: 24-JAN-2023 17:24
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.808	-0.001	117058	5.686	-0.001	76340	17.3	17.1	1.2	Tetrachloro-m-xylene
13.892	0.000	140818	14.119	-0.001	113773	17.4	16.5	5.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	479756	-4.7
Hexabromobiphenyl	647433	756424	16.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	330987	-1.8
Hexabromobiphenyl	382032	433619	13.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	19848	111.3	1	7.255	0.000	19353	107.8
Aroclor-1016	2	7.656	0.005	63555	107.6	2	7.853	0.002	43099	109.6
Aroclor-1016	3	7.793	0.004	30749	113.1	3	8.053	0.003	18527	115.4
Aroclor-1016	4	8.406	0.003	18961	108.5	4	8.307	0.002	14145	112.4
Total CollAve (4 peaks):				110.1		Total Col2Ave (4 peaks):				111.3 RPD = 1
Corrected Ave (3 peaks):				109.1		Corrected Ave (3 peaks):				109.9 RPD = 1
CalAmt %D:				10.1		CalAmt %D:				11.3
Aroclor-1260	1	11.046	0.002	41864	98.6	1	11.655	0.001	32043	102.4
Aroclor-1260	2	11.362	0.001	42073	96.4	2	11.920	0.002	82285	104.0
Aroclor-1260	3	11.739	0.004	111005	96.7	3	12.437	0.001	19416	98.4
Aroclor-1260	4	12.144	0.004	56707	95.6	4	12.504	0.002	53558	104.6
Aroclor-1260	5	12.245	0.001	24958	96.5	NS	---			----
Total CollAve (5 peaks):				96.8		Total Col2Ave (4 peaks):				102.3 RPD = 6
Corrected Ave (4 peaks):				96.3		Corrected Ave (3 peaks):				101.6 RPD = 5
CalAmt %D:				-3.2		CalAmt %D:				2.3

Total PCB Area Coll (5.909 - 13.792) = 1238855 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 777713 Col2 Total PCB = 0.2 ppm*

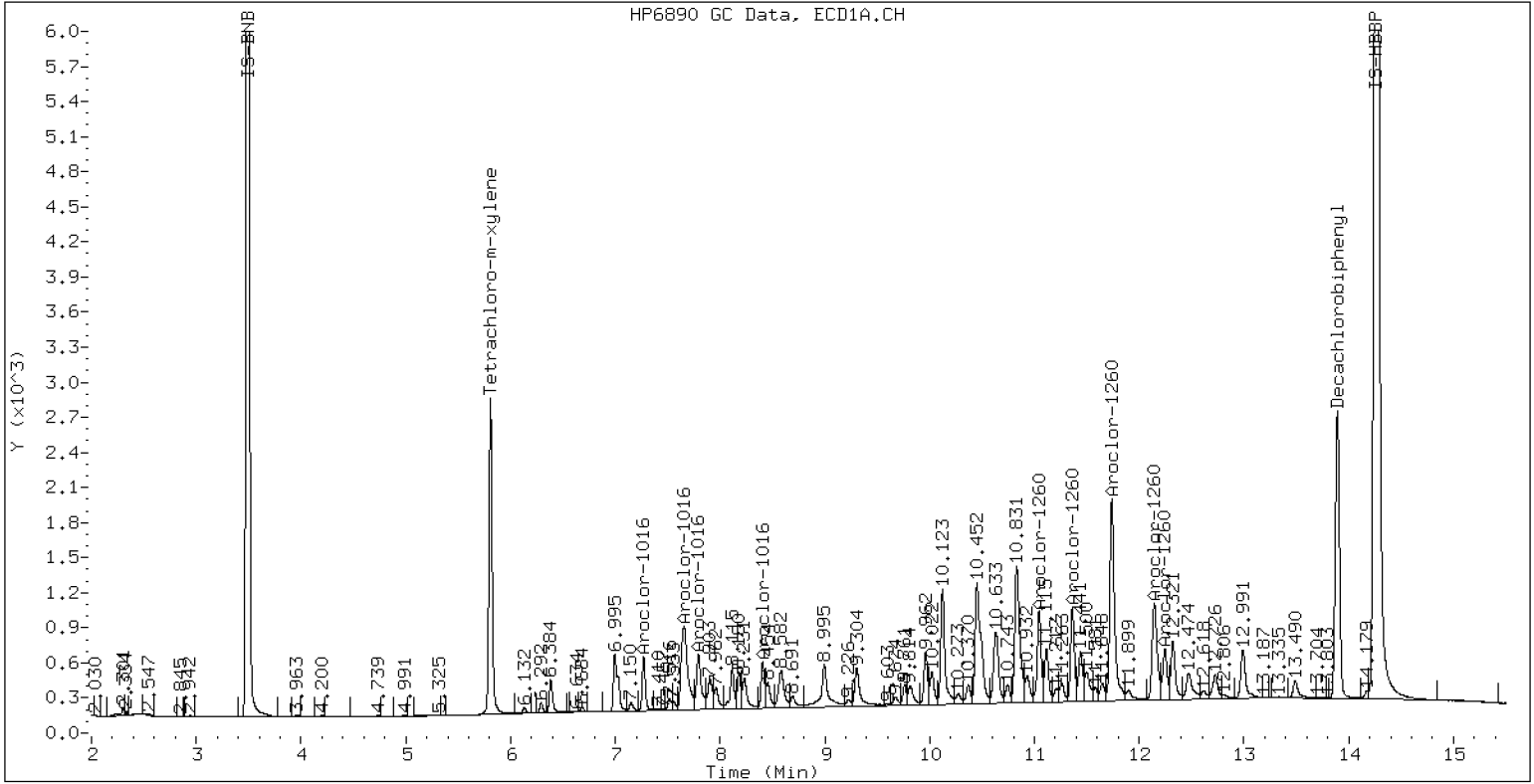
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.1PPM AR1660

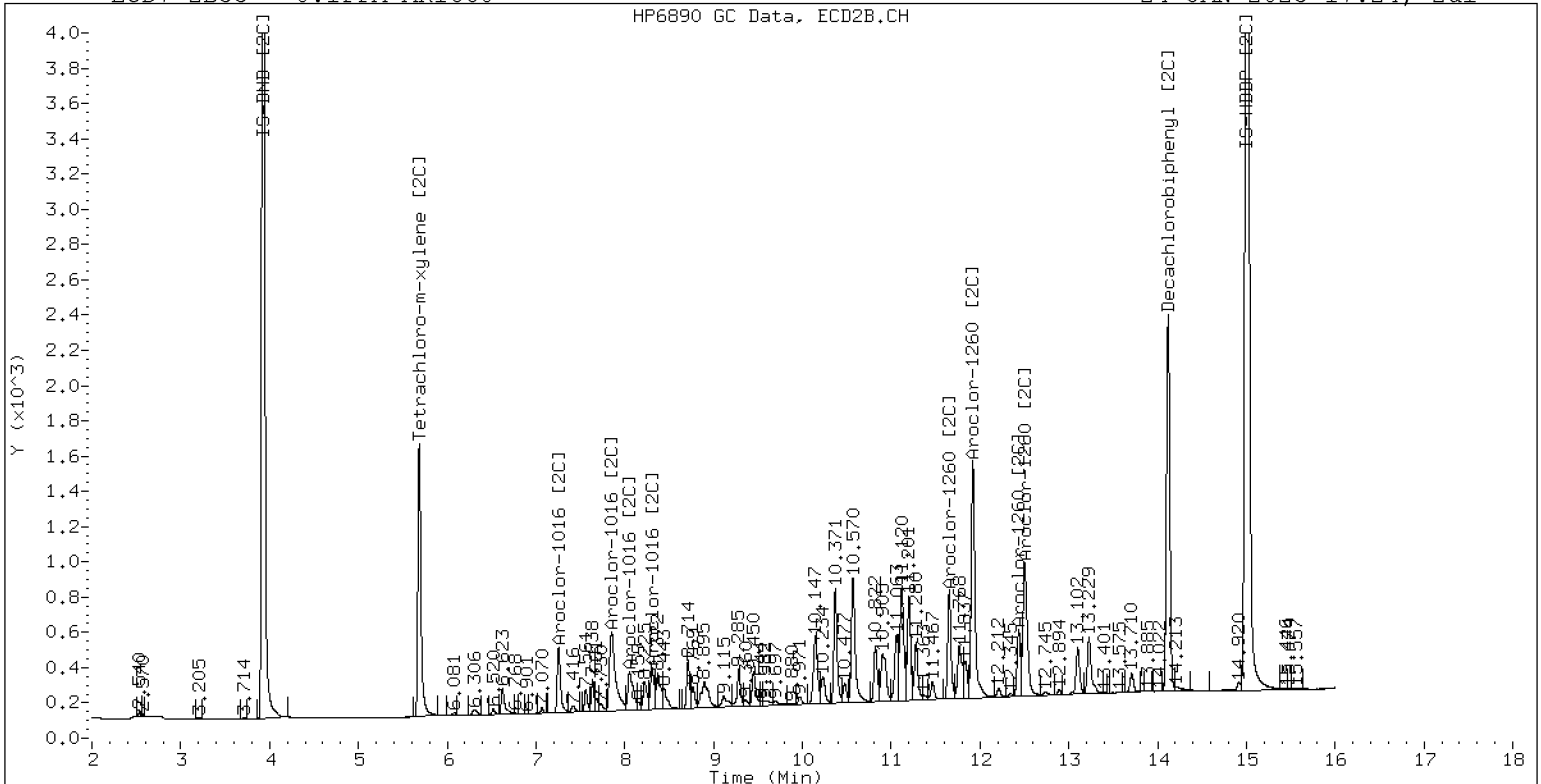
24-JAN-2023 17:24, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.1PPM AR1660

24-JAN-2023 17:24, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242318ECD7.D
Data file 2: /230124.b/230124.b/01242318ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5PPM AR1660
Client ID:
Injection Date: 24-JAN-2023 17:45
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	0.000	534053	5.686	-0.000	348900	79.1	77.8	1.6	Tetrachloro-m-xylene
13.891	-0.001	614978	14.120	0.000	552784	74.4	77.5	4.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	477720	-5.1
Hexabromobiphenyl	647433	772816	19.4
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	331694	-1.5
Hexabromobiphenyl	382032	449559	17.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.000	84322	475.0	1	7.254	-0.000	84986	472.4
Aroclor-1016	2	7.650	0.000	294429	500.6	2	7.850	-0.001	198065	502.4
Aroclor-1016	3	7.789	0.000	122151	451.4	3	8.050	-0.000	81378	505.8
Aroclor-1016	4	8.404	0.000	87760	504.1	4	8.305	-0.000	59656	473.0
Total CollAve (4 peaks):				482.8		Total Col2Ave (4 peaks):				488.4 RPD = 1
Corrected Ave (3 peaks):				475.6		Corrected Ave (3 peaks):				482.6 RPD = 1

CalAmt %D: -3.4

CalAmt %D: -2.3

Aroclor-1260	1	11.044	0.000	193843	447.0	1	11.653	-0.000	146980	453.2
Aroclor-1260	2	11.361	0.000	198052	444.3	2	11.917	-0.001	376388	458.7
Aroclor-1260	3	11.734	0.000	505614	430.9	3	12.436	-0.000	98369	481.0
Aroclor-1260	4	12.139	0.000	264950	437.0	4	12.501	-0.001	252455	475.4
Aroclor-1260	5	12.244	0.000	112421	425.4	NS	---			----
Total CollAve (5 peaks):				436.9		Total Col2Ave (4 peaks):				467.1 RPD = 7
Corrected Ave (4 peaks):				434.4		Corrected Ave (3 peaks):				462.4 RPD = 6

CalAmt %D: -12.6

CalAmt %D: -6.6

Total PCB Area Coll (5.909 - 13.792) = 5412241 Coll Total PCB = 1.0 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 3551064 Col2 Total PCB = 1.0 ppm*

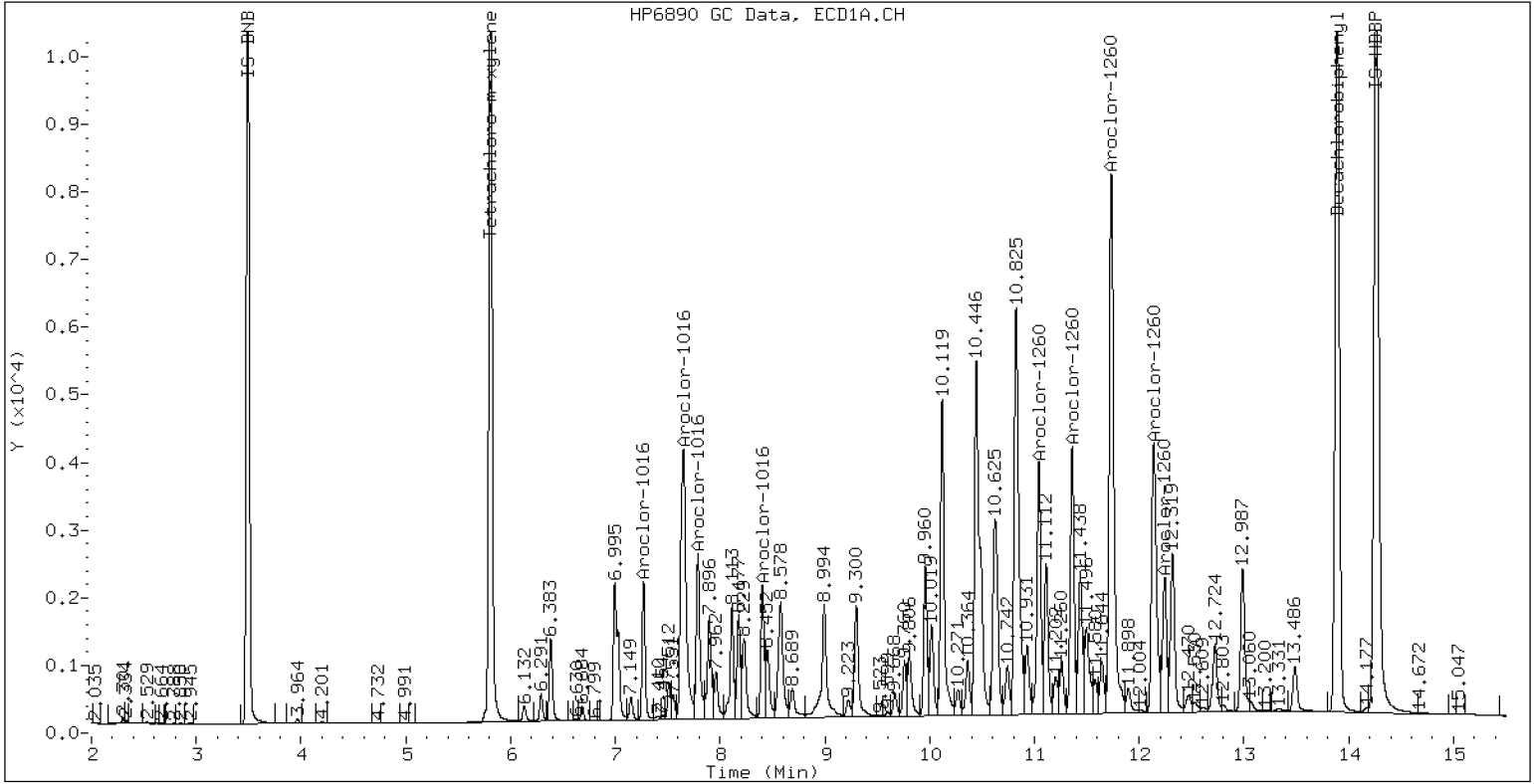
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.5PPM AR1660

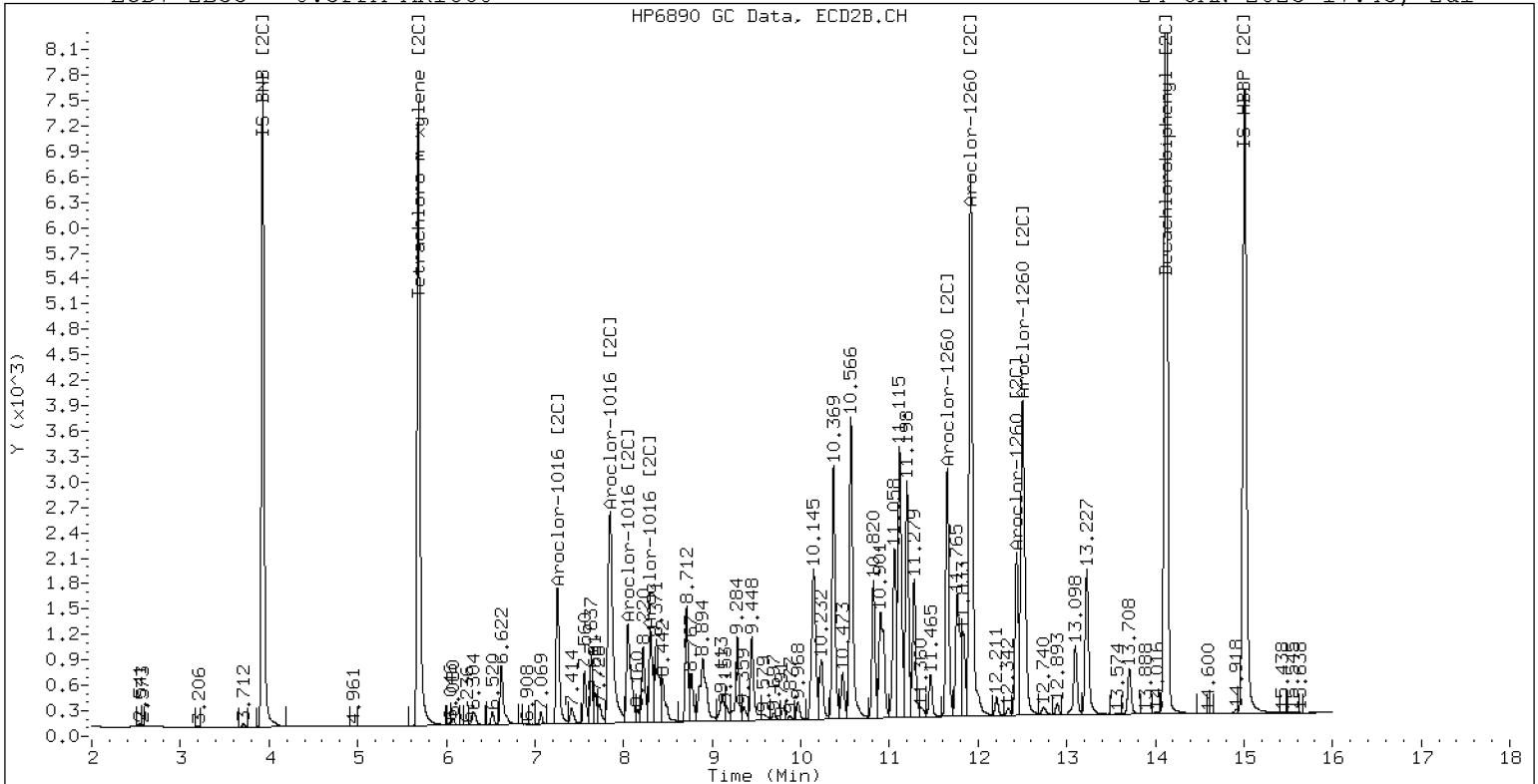
24-JAN-2023 17:45, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.5PPM AR1660

24-JAN-2023 17:45, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242319ECD7.D
Data file 2: /230124.b/230124.b/01242319ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM 1242
Client ID:
Injection Date: 24-JAN-2023 18:06
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	-0.000	317773	5.686	-0.000	205627	47.7	46.6	2.2	Tetrachloro-m-xylene
13.892	-0.000	322814	14.121	0.001	269935	36.0	36.5	1.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	471690	-6.3
Hexabromobiphenyl	647433	839322	29.6
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	326260	-3.2
Hexabromobiphenyl	382032	466396	22.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.271	0.000	36109	250.0	1	7.256	0.000	35672	250.0
Aroclor-1242	2	7.655	0.000	118172	250.0	2	7.853	0.000	79233	250.0
Aroclor-1242	3	8.407	0.000	35110	250.0	3	9.160	0.000	24814	250.0
Aroclor-1242	4	8.581	0.000	53037	250.0	4	9.587	0.000	32887	250.0
Total CollAve (4 peaks):				250.0	Total Col2Ave (4 peaks):				250.0	RPD = 0
Corrected Ave (3 peaks):				250.0	Corrected Ave (3 peaks):				250.0	RPD = 0

Total PCB Area Coll (5.909 - 13.792) = 930958 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 567613 Col2 Total PCB = 0.2 ppm*

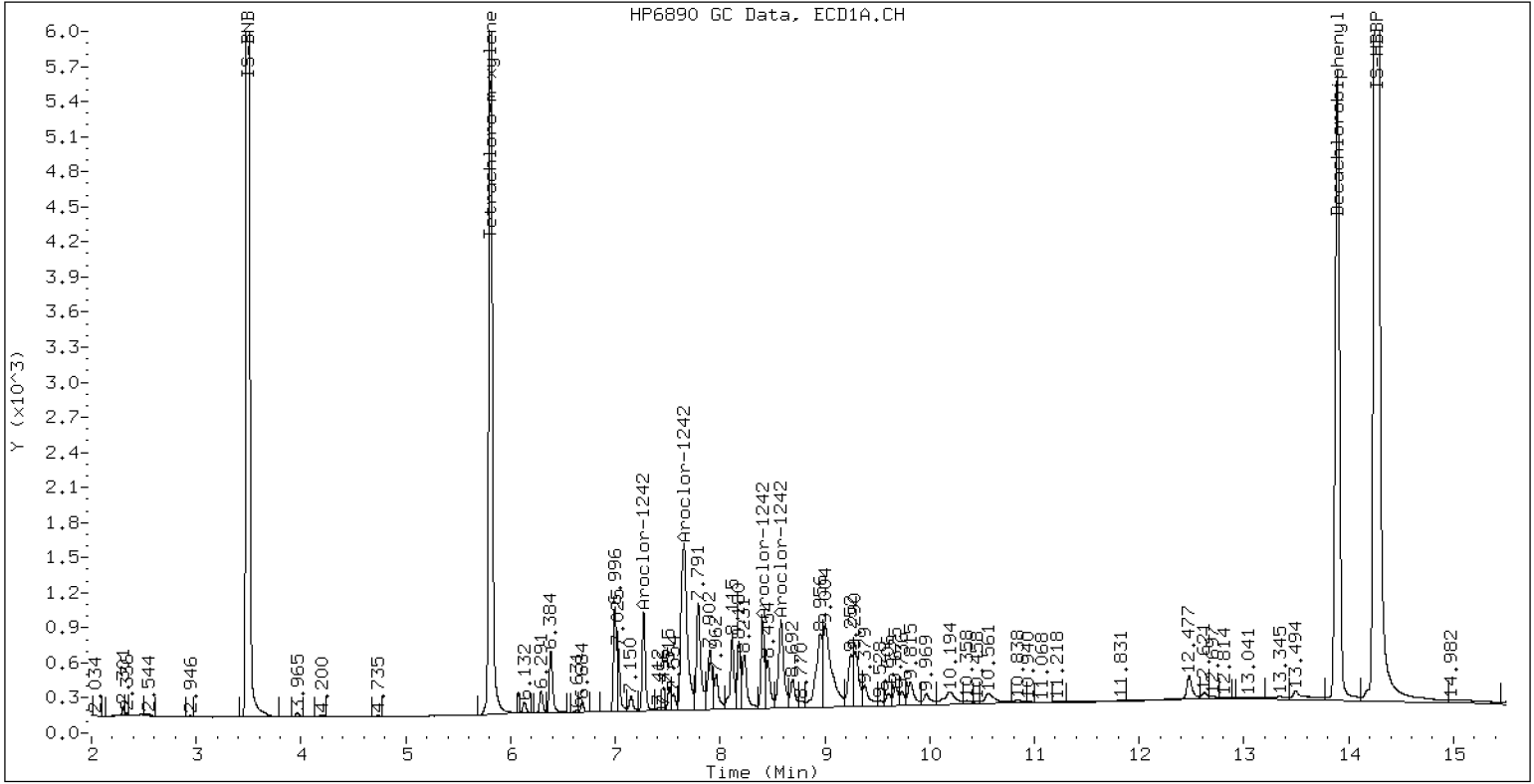
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPM 1242

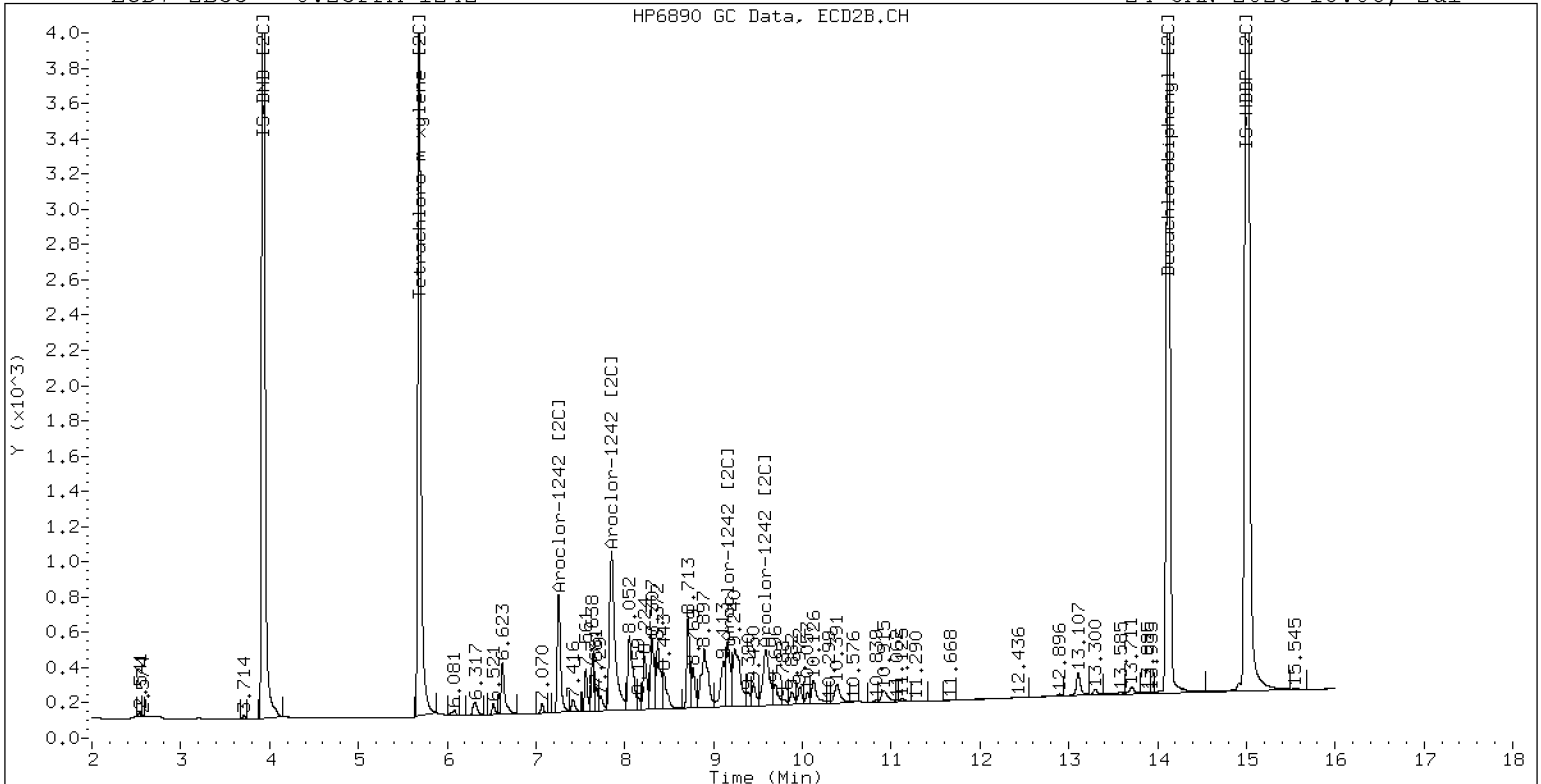
24-JAN-2023 18:06, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPM 1242

24-JAN-2023 18:06, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242320ECD7.D
Data file 2: /230124.b/230124.b/01242320ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM 1248
Client ID:
Injection Date: 24-JAN-2023 18:27
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	-0.000	266561	5.686	-0.001	171841	38.5	38.0	1.3	Tetrachloro-m-xylene
13.892	0.001	334524	14.120	0.000	281569	36.6	37.7	3.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	489828	-2.7
Hexabromobiphenyl	647433	855612	32.2
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	334539	-0.7
Hexabromobiphenyl	382032	470415	23.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.406	0.000	61259	250.0	1	8.305	0.000	37805	250.0
Aroclor-1248	2	8.580	0.000	78143	250.0	2	8.712	0.000	40692	250.0
Aroclor-1248	3	8.999	0.000	149476	250.0	3	9.156	0.000	49723	250.0
Aroclor-1248	4	9.294	0.000	73986	250.0	4	9.582	0.000	61494	250.0
Total CollAve (4 peaks):				250.0		Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Coll (5.909 - 13.792) = 1237662 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 773955 Col2 Total PCB = 0.2 ppm*

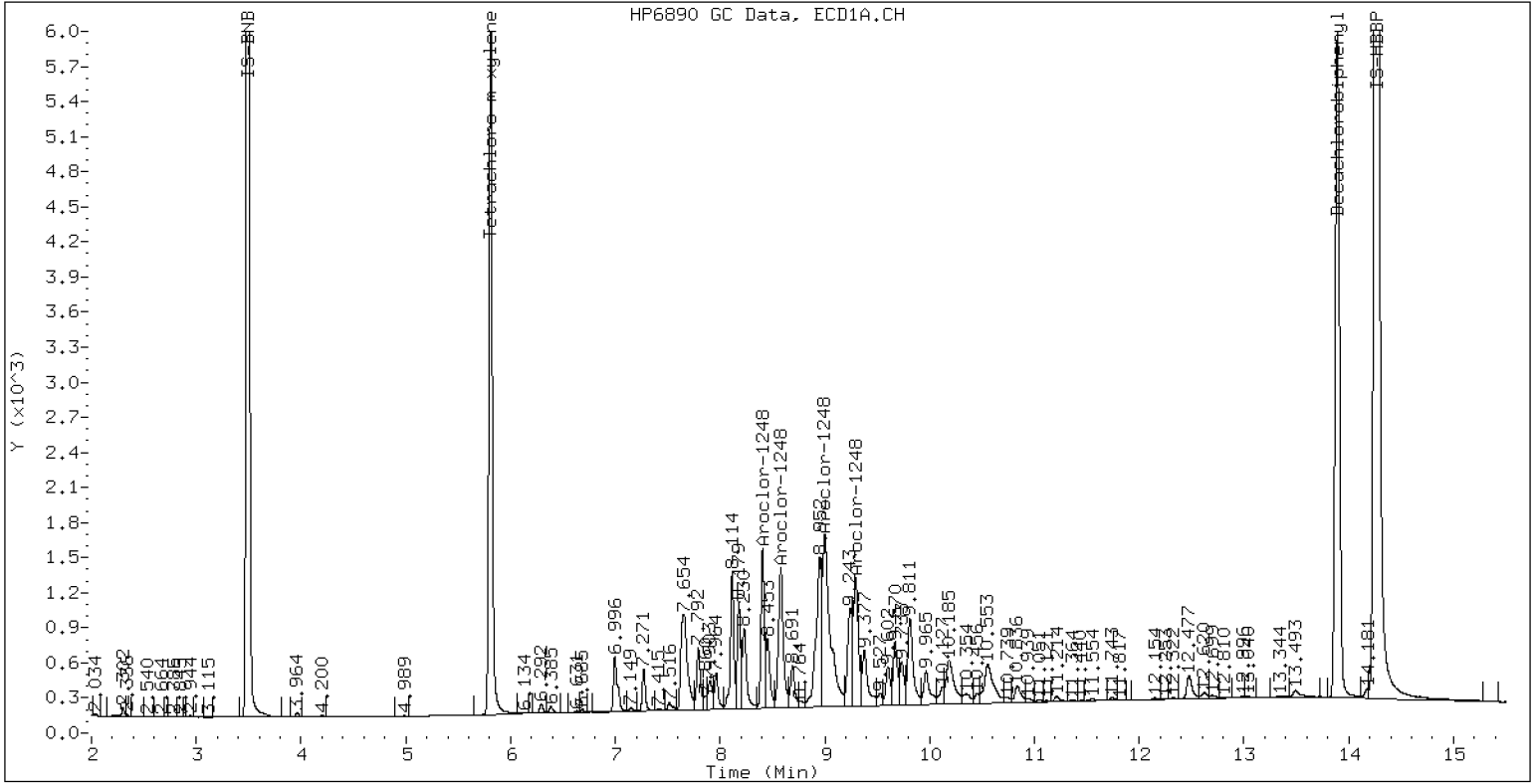
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPM 1248

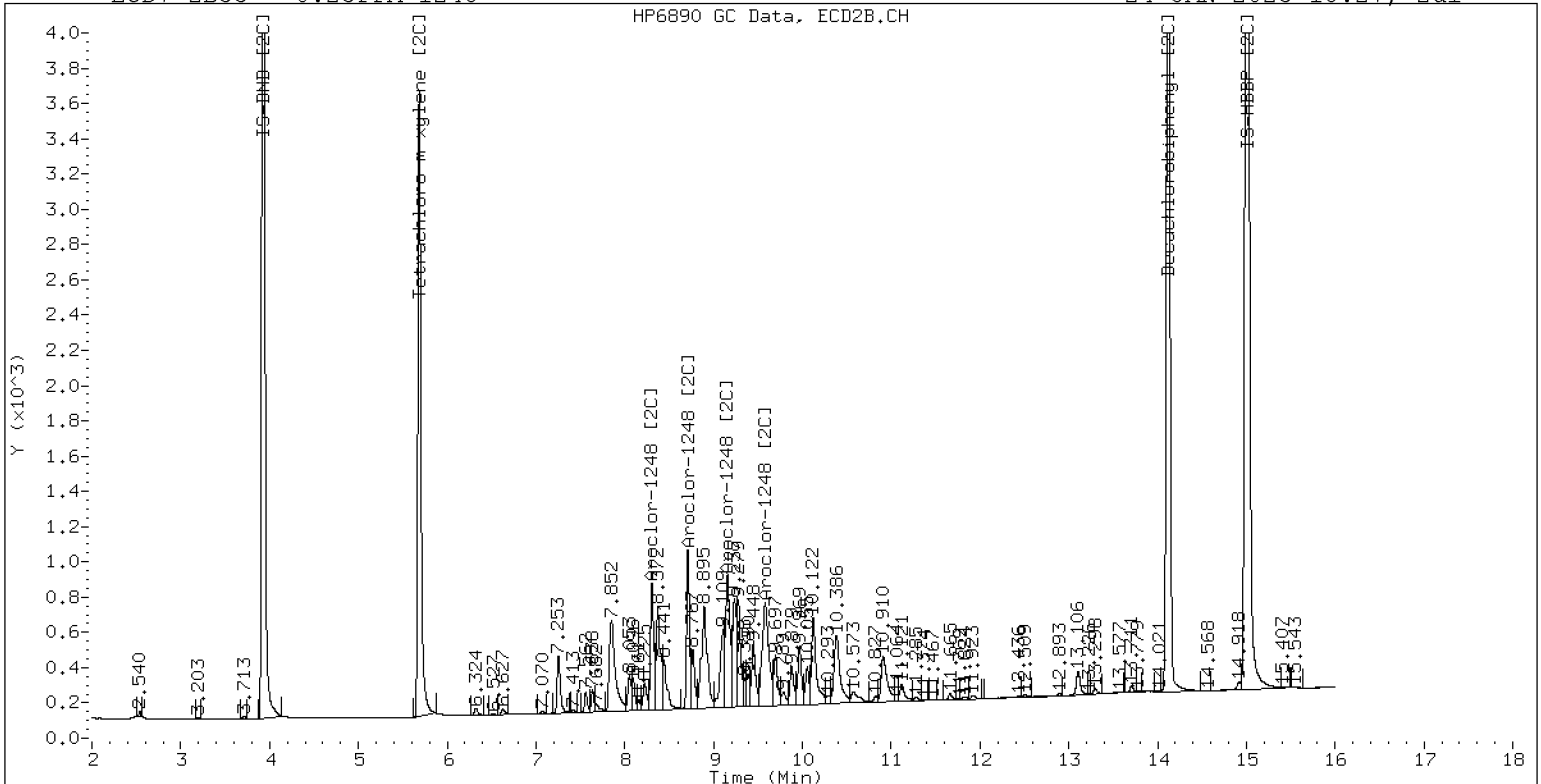
24-JAN-2023 18:27, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPM 1248

24-JAN-2023 18:27, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242321ECD7.D
Data file 2: /230124.b/230124.b/01242321ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM 1254
Client ID:
Injection Date: 24-JAN-2023 18:48
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.808	-0.001	258819	5.684	-0.002	171764	37.7	38.1	1.1	Tetrachloro-m-xylene
13.893	0.001	343162	14.119	-0.001	283996	36.8	37.9	2.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	486231	-3.4
Hexabromobiphenyl	647433	871523	34.6

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	333658	-1.0
Hexabromobiphenyl	382032	471925	23.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	9.299	0.000	123887	250.0	1	9.448	0.000	60516	250.0
Aroclor-1254	2	9.378	0.000	52896	250.0	2	9.969	0.000	48914	250.0
Aroclor-1254	3	9.669	0.000	79378	250.0	3	10.121	0.000	106698	250.0
Aroclor-1254	4	9.808	0.000	155542	250.0	4	10.372	0.000	106700	250.0
Aroclor-1254	5	10.177	0.000	101144	250.0	5	10.569	0.000	59429	250.0
Total CollAve (5 peaks):				250.0		Total Col2Ave (5 peaks):				250.0 RPD = 0
Corrected Ave (4 peaks):				250.0		Corrected Ave (4 peaks):				250.0 RPD = 0

Total PCB Area Coll (5.909 - 13.792) = 1659821 Coll Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 1016659 Col2 Total PCB = 0.3 ppm*

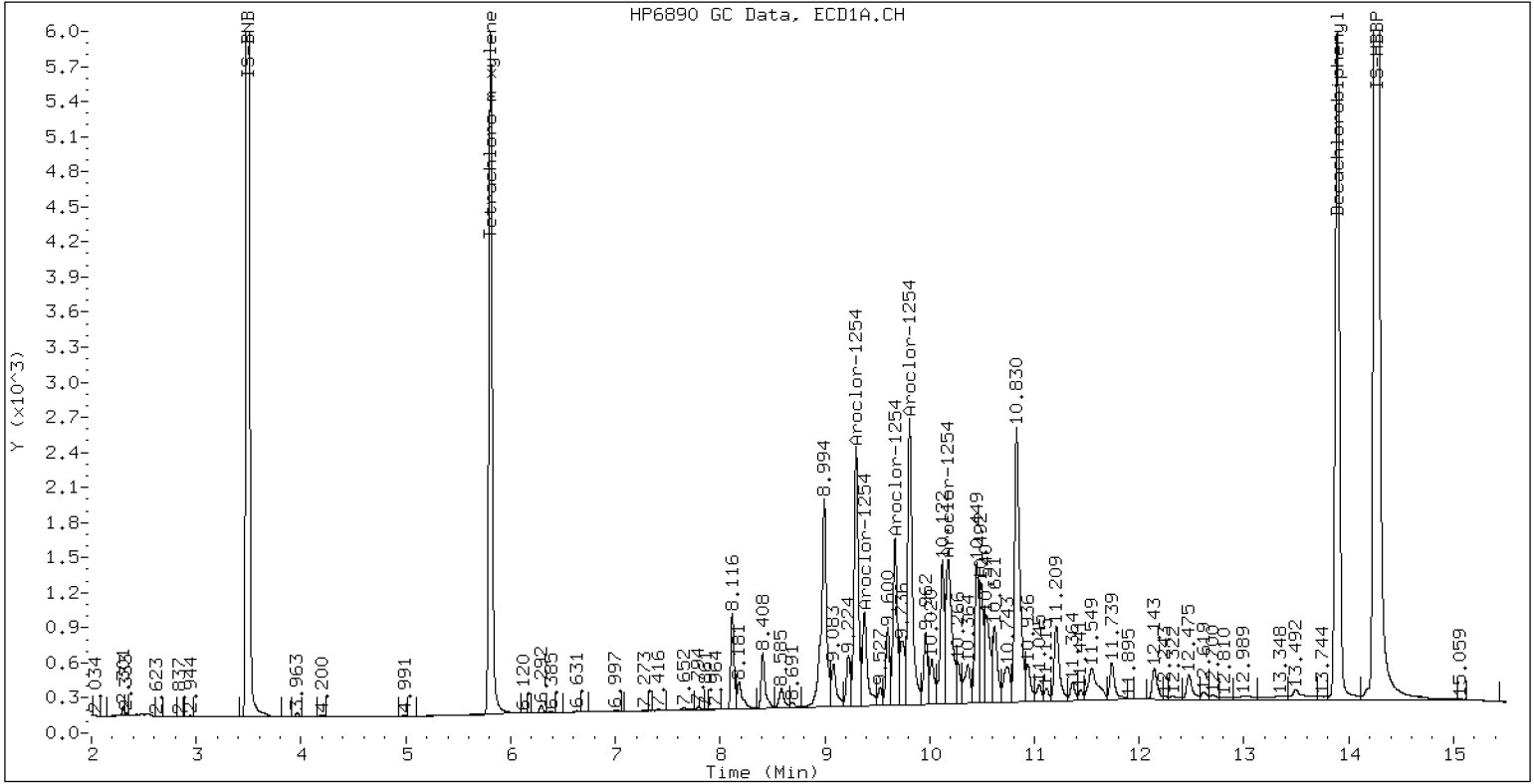
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPM 1254

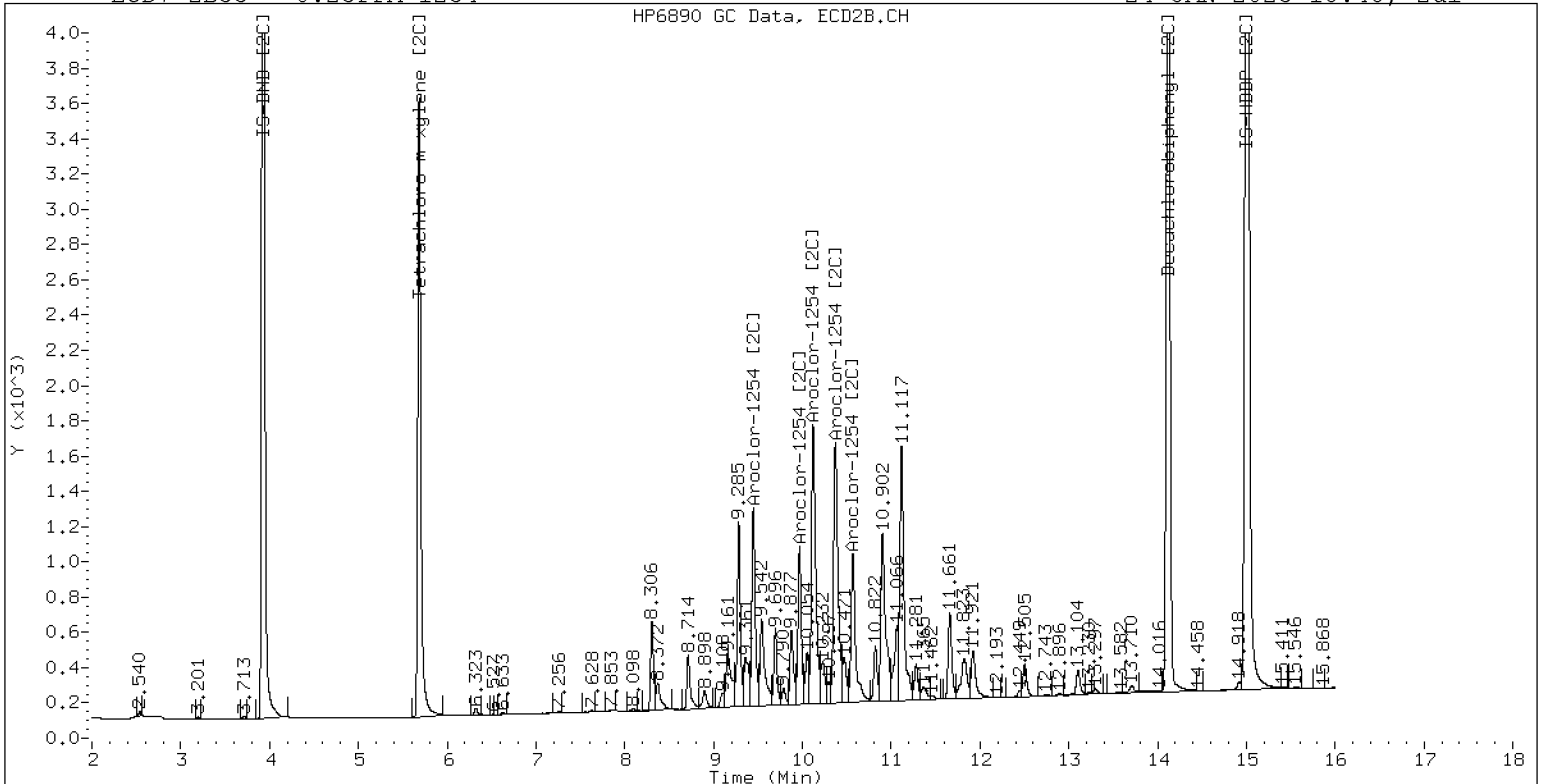
24-JAN-2023 18:48, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPM 1254

24-JAN-2023 18:48, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242322ECD7.D
Data file 2: /230124.b/230124.b/01242322ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR2162.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM 2162
Client ID:
Injection Date: 24-JAN-2023 19:09
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	-0.000	272296	5.686	-0.001	173237	39.1	38.6	1.3	Tetrachloro-m-xylene
13.893	0.001	347331	14.120	-0.000	282892	36.8	37.2	1.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	492470	-2.2
Hexabromobiphenyl	647433	883652	36.5

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	331807	-1.5
Hexabromobiphenyl	382032	479356	25.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1221	1	4.733	0.000	9100	250.0	1	4.959	0.000	6081	250.0
Aroclor-1221	2	6.134	0.000	18608	250.0	2	6.298	0.000	13325	250.0
Aroclor-1221	3	6.384	0.000	43198	250.0	3	6.623	0.000	22491	250.0
Total CollAve (3 peaks):				250.0		Total Col2Ave (3 peaks):				250.0 RPD = 0
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Aroclor-1262	1	10.832	0.000	89339	250.0	1	11.200	0.000	117288	250.0
Aroclor-1262	2	12.246	0.000	141007	250.0	2	11.653	0.000	99740	250.0
Aroclor-1262	3	12.321	0.000	153089	250.0	3	12.434	0.000	106212	250.0
Aroclor-1262	4	12.989	0.000	139497	250.0	4	12.504	0.000	170096	250.0
Total CollAve (4 peaks):				250.0		Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Coll (5.909 - 13.792) = 2446612 Coll Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 1558387 Col2 Total PCB = 0.4 ppm*

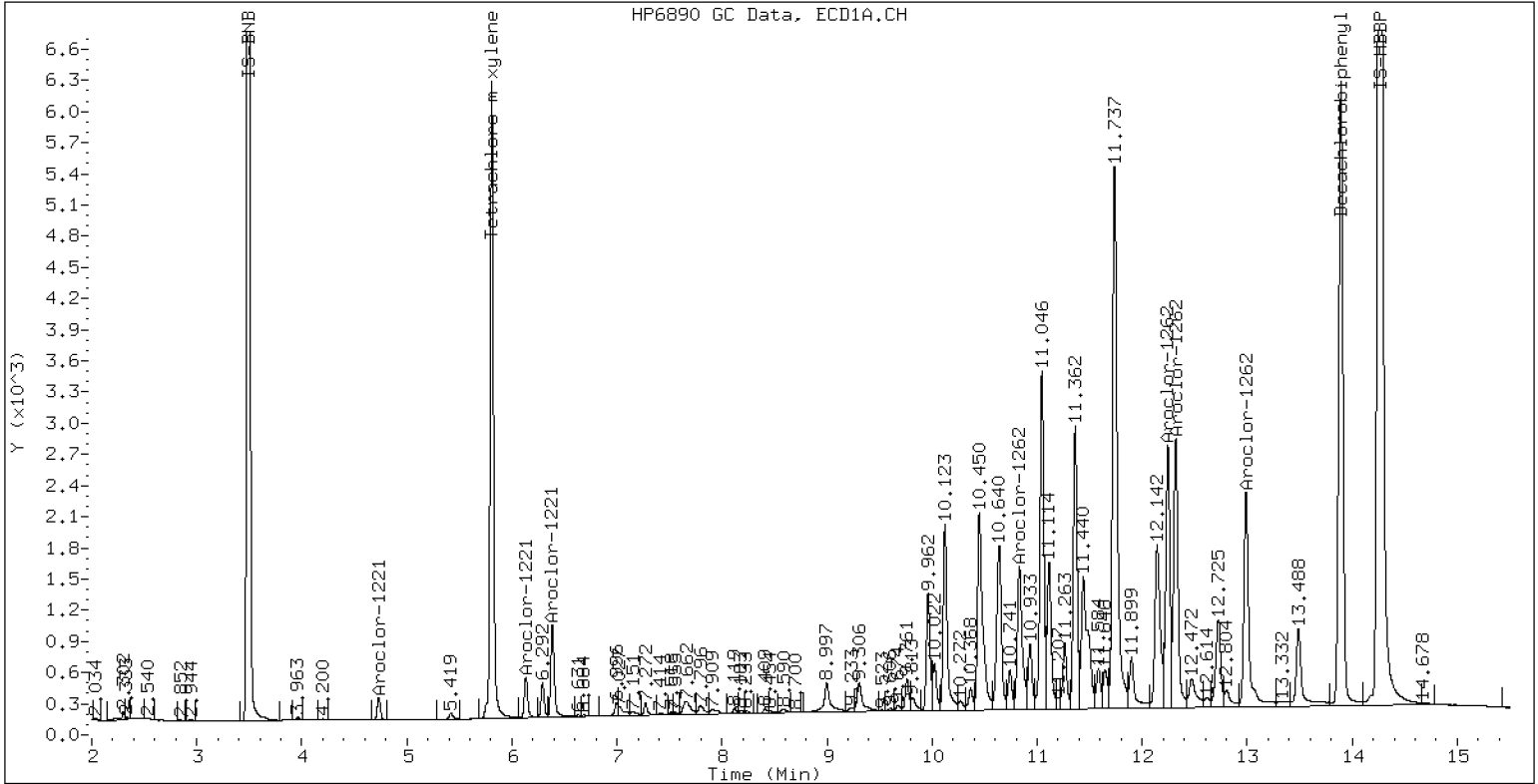
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPM 2162

24-JAN-2023 19:09, 2u1



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242323ECD7.D
Data file 2: /230124.b/230124.b/01242323ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR3268.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPM 3268
Client ID:
Injection Date: 24-JAN-2023 19:30
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	0.000	277108	5.687	0.000	177359	39.7	39.1	1.5	Tetrachloro-m-xylene
13.892	0.000	525503	14.120	0.000	438987	53.8	57.7	7.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	493427	-2.0
Hexabromobiphenyl	647433	913614	41.1

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	335121	-0.5
Hexabromobiphenyl	382032	479458	25.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1232	1	4.733	0.000	5692	250.0	1	4.960	0.000	3725	250.0
Aroclor-1232	2	6.133	0.000	12828	250.0	2	7.257	0.000	20847	250.0
Aroclor-1232	3	7.658	0.000	64153	250.0	3	7.854	0.000	42459	250.0
Aroclor-1232	4	8.584	0.000	27460	250.0	4	8.714	0.000	11797	250.0
Total CollAve (4 peaks):				250.0		Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	12.245	0.000	377314	250.0	1	12.434	0.000	279910	250.0
Aroclor-1268	2	12.318	0.000	376282	250.0	2	12.501	0.000	297867	250.0
Aroclor-1268	3	12.699	0.000	311753	250.0	3	12.893	0.000	247943	250.0
Aroclor-1268	4	13.489	0.000	924293	250.0	4	13.709	0.000	765898	250.0
Total CollAve (4 peaks):				250.0		Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.909 - 13.792) = 3136879 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 2269104 Col2 Total PCB = 0.6 ppm*

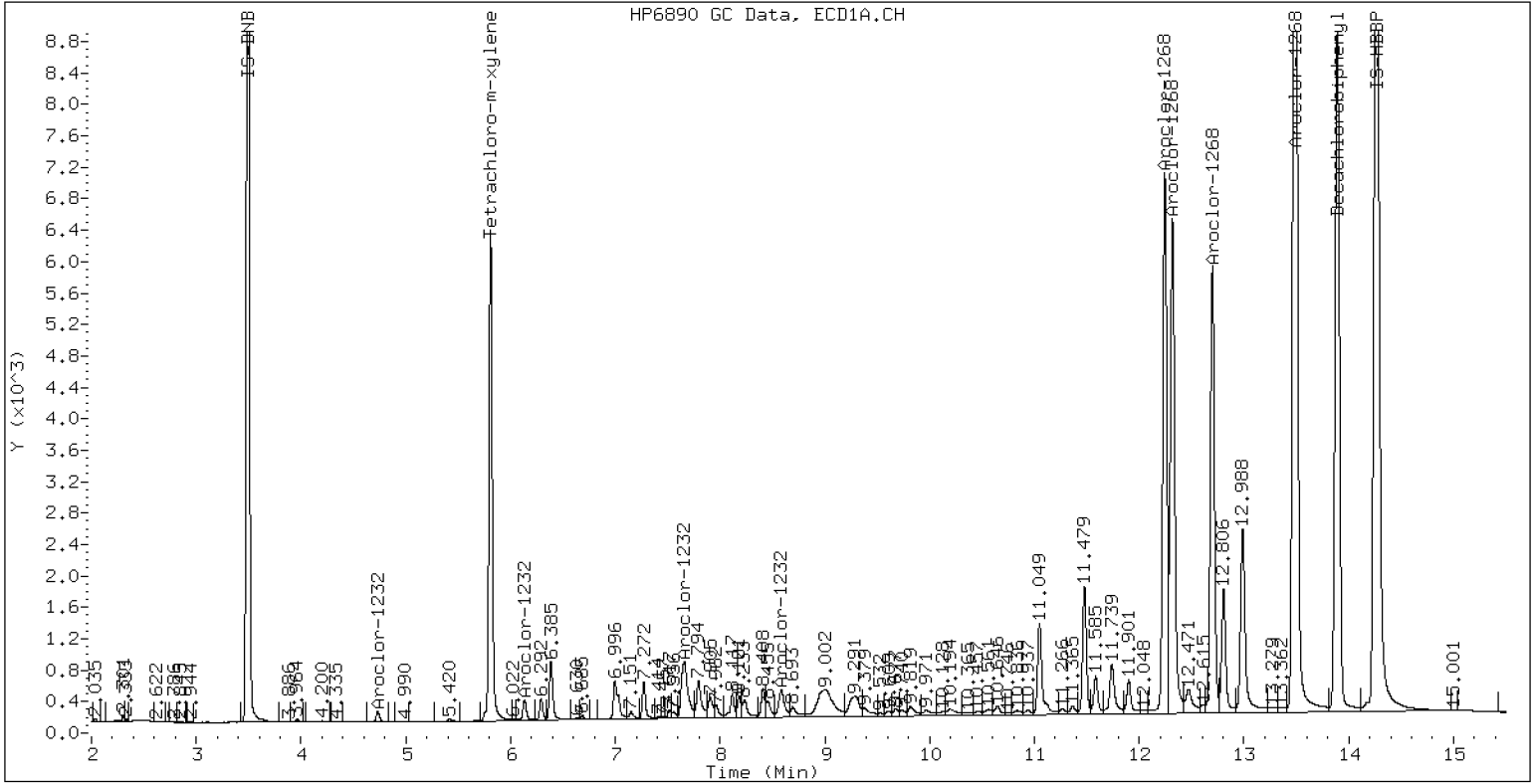
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPM 3268

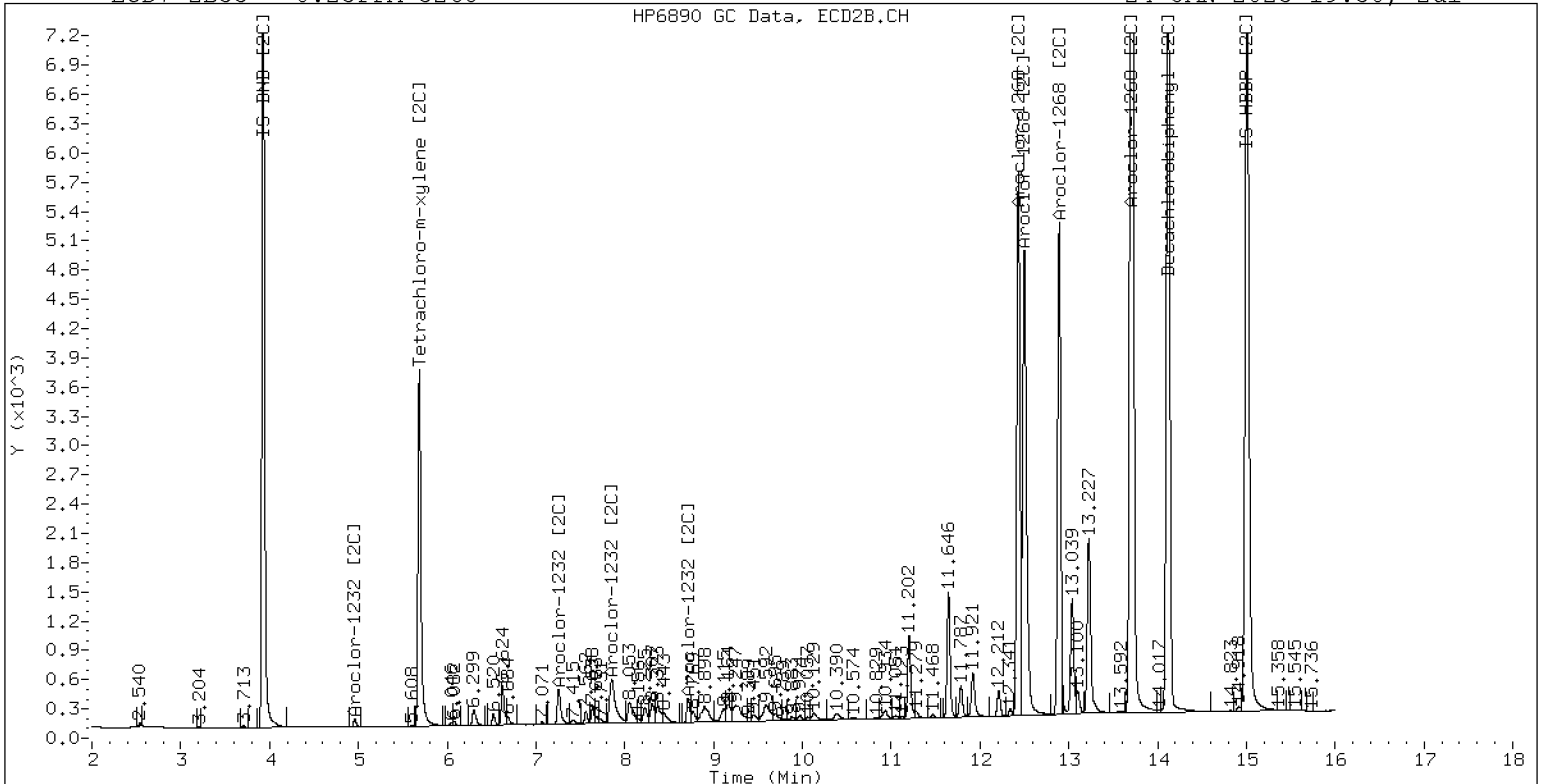
24-JAN-2023 19:30, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPM 3268

24-JAN-2023 19:30, 2u1

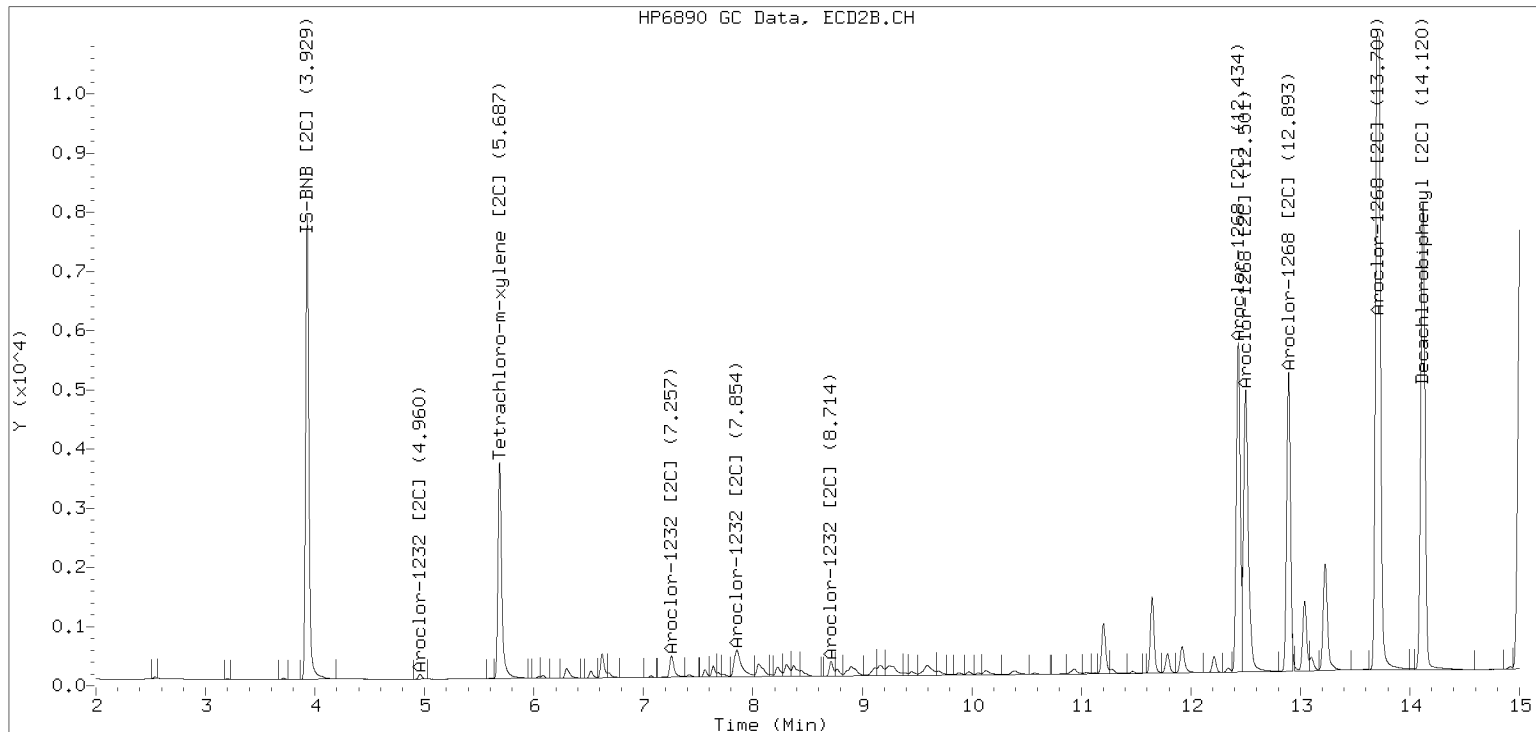


ZB-35 Manual Integration: YES

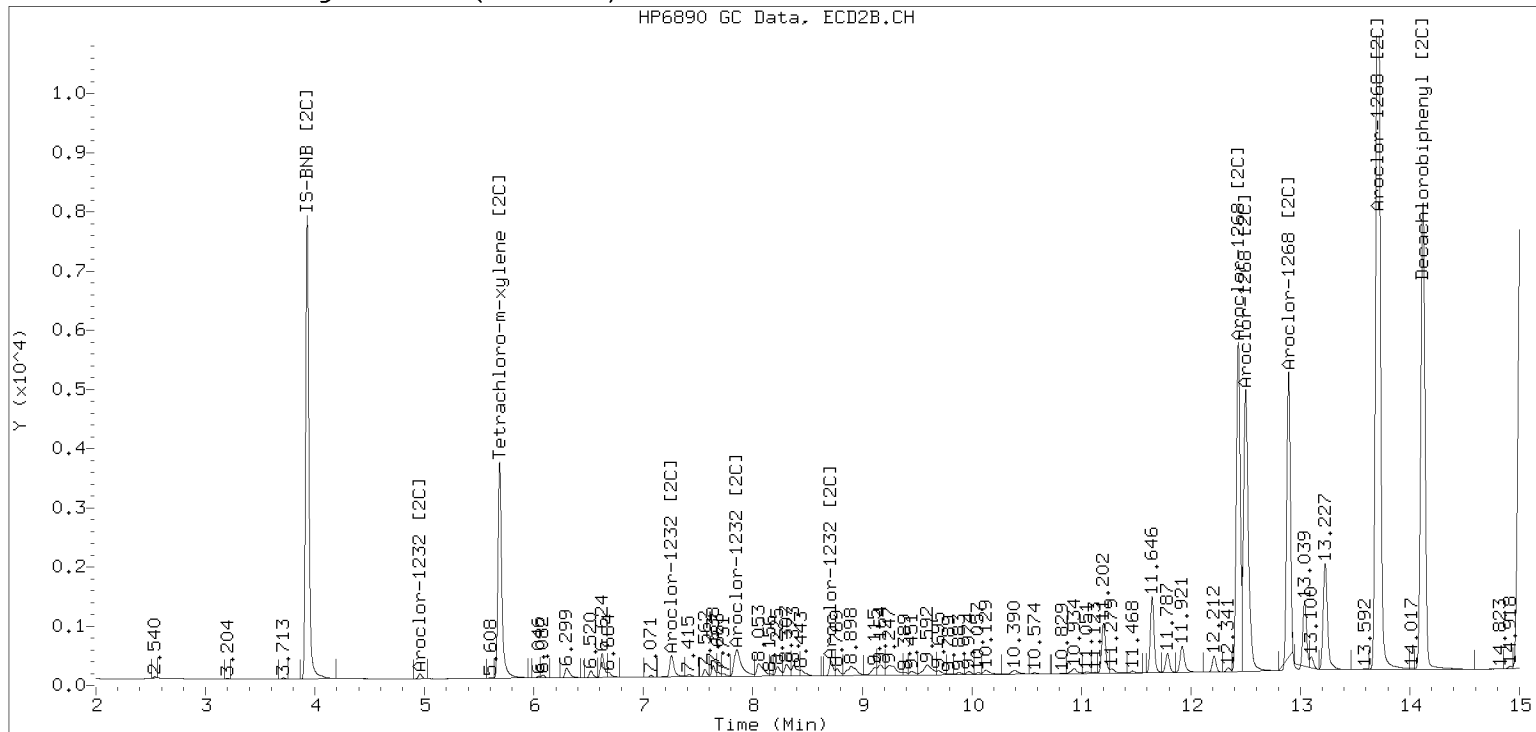
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230124.b/230124.b/01242323ECD7.D Injection Date: 24-JAN-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242324ECD7.D
Data file 2: /230124.b/230124.b/01242324ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 SCV
Client ID:
Injection Date: 24-JAN-2023 19:51
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	-0.000	268739	5.686	-0.001	172961	37.5	37.3	0.6	Tetrachloro-m-xylene
13.891	-0.000	381489	14.121	0.001	320416	37.9	40.2	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	506576	0.6
Hexabromobiphenyl	647433	940129	45.2
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	343102	1.8
Hexabromobiphenyl	382032	501702	31.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	40958	217.6	1	7.255	0.001	40190	216.0
Aroclor-1016	2	7.655	0.004	135282	216.9	2	7.852	0.001	90338	221.5
Aroclor-1016	3	7.791	0.003	61557	214.5	3	8.052	0.002	37810	227.2
Aroclor-1016	4	8.406	0.002	40372	218.7	4	8.306	0.000	28171	215.9
Total CollAve (4 peaks):				216.9		Total Col2Ave (4 peaks):				220.2 RPD = 1
Corrected Ave (3 peaks):				216.3		Corrected Ave (3 peaks):				217.8 RPD = 1
Aroclor-1221	1	4.732	-0.001	256	6.8	1	---			0.0
Aroclor-1221	2	6.131	-0.002	4742	61.9	2	6.302	0.004	5037	91.4
Aroclor-1221	3	6.384	-0.000	27448	154.4	3	6.623	-0.000	18931	203.5
Total CollAve (3 peaks):				74.4		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.732	-0.001	256	11.0	1	---			0.0
Aroclor-1232	2	6.131	-0.002	4742	90.0	2	7.255	-0.001	40190	470.8
Aroclor-1232	3	7.655	-0.004	135282	513.5	3	7.852	-0.002	90338	519.5
Aroclor-1232	4	8.581	-0.003	56938	504.9	4	8.713	-0.001	27776	574.9
Total CollAve (4 peaks):				279.8		Total Col2Ave (3 peaks):				521.7 RPD = 60*
Corrected Ave (3 peaks):				202.0		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	-0.000	40958	264.0	1	7.255	-0.000	40190	267.8
Aroclor-1242	2	7.655	-0.001	135282	266.5	2	7.852	-0.001	90338	271.0
Aroclor-1242	3	8.406	-0.001	40372	267.7	3	9.115	-0.045	15827	151.6
Aroclor-1242	4	8.581	-0.000	56938	249.9	4	9.587	0.001	3186	23.0
Total CollAve (4 peaks):				262.0		Total Col2Ave (4 peaks):				178.4 RPD = 38
Corrected Ave (3 peaks):				260.1		Corrected Ave (3 peaks):				147.5 RPD = 55*
Aroclor-1248	1	8.406	0.000	40372	159.3	1	8.306	0.000	28171	181.6
Aroclor-1248	2	8.581	0.001	56938	176.1	2	8.713	0.000	27776	166.4
Aroclor-1248	3	8.995	-0.004	58213	94.1	3	9.115	-0.042	15827	77.6
Aroclor-1248	4	9.304	0.010	36620	119.6	4	9.587	0.006	3186	12.6
Total CollAve (4 peaks):				137.3		Total Col2Ave (4 peaks):				109.6 RPD = 22
Corrected Ave (3 peaks):				124.4		Corrected Ave (3 peaks):				85.5 RPD = 37
Aroclor-1254	1	9.304	0.005	36620	70.9	1	9.450	0.002	20792	83.5
Aroclor-1254	2	---			0.0	2	9.972	0.003	2640	13.1
Aroclor-1254	3	9.673	0.003	4075	12.3	3	10.148	0.027	52902	120.5
Aroclor-1254	4	9.813	0.004	14733	22.7	4	10.372	0.000	71680	163.3
Aroclor-1254	5	10.122	-0.055	119528	283.6	5	10.569	-0.000	98559	403.2
Total CollAve (4 peaks):				97.4		Total Col2Ave (5 peaks):				156.7 RPD = 47*
Corrected Ave (3 peaks):				35.3		Corrected Ave (4 peaks):				95.1 RPD = 92*
Aroclor-1260	1	11.045	0.002	116435	220.7	1	11.654	0.000	81795	226.0
Aroclor-1260	2	11.362	0.001	116918	215.6	2	11.920	0.002	217887	238.0
Aroclor-1260	3	11.738	0.003	303264	212.5	3	12.437	0.001	56212	246.3
Aroclor-1260	4	12.143	0.004	141534	191.9	4	12.502	0.000	142689	240.8
Aroclor-1260	5	12.246	0.002	68446	212.9	NS	---			----
Total CollAve (5 peaks):				210.7		Total Col2Ave (4 peaks):				237.8 RPD = 12
Corrected Ave (4 peaks):				208.2		Corrected Ave (3 peaks):				234.9 RPD = 12
Aroclor-1262	1	10.830	-0.002	169725	446.4	1	11.200	0.000	83995	171.1
Aroclor-1262	2	12.246	0.000	68446	114.1	2	11.654	0.001	81795	195.9
Aroclor-1262	3	12.320	-0.000	84201	129.2	3	12.437	0.003	56212	126.4
Aroclor-1262	4	12.989	-0.000	78065	131.5	4	12.502	-0.001	142689	200.4
Total CollAve (4 peaks):				205.3		Total Col2Ave (4 peaks):				173.4 RPD = 17
Corrected Ave (3 peaks):				124.9		Corrected Ave (3 peaks):				164.5 RPD = 27
Aroclor-1268	1	12.246	0.001	68446	44.1	1	12.437	0.003	56212	48.0
Aroclor-1268	2	12.320	0.002	84201	54.4	2	12.502	0.001	142689	114.4
Aroclor-1268	3	12.726	0.027	33020	25.7	3	12.894	0.001	1495	1.4
Aroclor-1268	4	13.490	0.001	16019	4.2	4	13.709	0.001	10120	3.2
Total CollAve (4 peaks):				32.1		Total Col2Ave (4 peaks):				41.8 RPD = 26
Corrected Ave (3 peaks):				24.7		Corrected Ave (3 peaks):				17.5 RPD = 34

Total PCB Area Col1 (5.909 - 13.792) = 2789370 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 1810543 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242325ECD7.D
Data file 2: /230124.b/230124.b/01242325ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242 SCV
Client ID:
Injection Date: 24-JAN-2023 20:12
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.809	-0.000	268580	5.686	-0.001	172592	37.8	37.4	1.1	Tetrachloro-m-xylene
13.892	0.001	392918	14.121	0.001	323869	38.5	40.3	4.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	503089	-0.0
Hexabromobiphenyl	647433	953137	47.2
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	341704	1.4
Hexabromobiphenyl	382032	505860	32.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	29901	159.9	1	7.255	0.000	32077	173.1
Aroclor-1016	2	7.653	0.003	107333	173.3	2	7.851	-0.000	71438	175.9
Aroclor-1016	3	7.790	0.002	45013	157.9	3	8.051	0.001	29072	175.4
Aroclor-1016	4	8.406	0.002	32958	179.8	4	8.306	0.001	21761	167.5
Total CollAve (4 peaks):				167.7		Total Col2Ave (4 peaks):				173.0 RPD = 3
Corrected Ave (3 peaks):				163.7		Corrected Ave (3 peaks):				172.0 RPD = 5
Aroclor-1221	1	4.737	0.004	141	3.8	1	---			0.0
Aroclor-1221	2	6.133	-0.001	3649	48.0	2	6.317	0.018	4290	78.2
Aroclor-1221	3	6.384	-0.000	21189	120.0	3	6.624	0.001	14613	157.7
Total CollAve (3 peaks):				57.3		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.737	0.003	141	6.1	1	---			0.0
Aroclor-1232	2	6.133	-0.001	3649	69.7	2	7.255	-0.002	32077	377.3
Aroclor-1232	3	7.653	-0.005	107333	410.2	3	7.851	-0.004	71438	412.5
Aroclor-1232	4	8.581	-0.003	59617	532.3	4	8.713	-0.000	22563	468.9
Total CollAve (4 peaks):				254.6		Total Col2Ave (3 peaks):				419.6 RPD = 49*
Corrected Ave (3 peaks):				162.0		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	0.000	29901	194.1	1	7.255	-0.001	32077	214.6
Aroclor-1242	2	7.653	-0.002	107333	212.9	2	7.851	-0.002	71438	215.2
Aroclor-1242	3	8.406	-0.000	32958	220.0	3	9.156	-0.004	27374	263.3
Aroclor-1242	4	8.581	-0.000	59617	263.5	4	9.581	-0.006	34156	247.9
Total CollAve (4 peaks):				222.6		Total Col2Ave (4 peaks):				235.3 RPD = 6
Corrected Ave (3 peaks):				209.0		Corrected Ave (3 peaks):				225.9 RPD = 8
Aroclor-1248	1	8.406	0.001	32958	131.0	1	8.306	0.001	21761	140.9
Aroclor-1248	2	8.581	0.001	59617	185.7	2	8.713	0.001	22563	135.7
Aroclor-1248	3	9.003	0.004	72557	118.2	3	9.156	-0.000	27374	134.7
Aroclor-1248	4	9.296	0.003	28122	92.5	4	9.581	-0.001	34156	135.9
Total CollAve (4 peaks):				131.8		Total Col2Ave (4 peaks):				136.8 RPD = 4
Corrected Ave (3 peaks):				113.9		Corrected Ave (3 peaks):				135.5 RPD = 17
Aroclor-1254	1	9.296	-0.002	28122	54.8	1	9.448	0.000	11650	47.0
Aroclor-1254	2	9.380	0.002	9292	42.4	2	9.968	-0.001	7642	38.1
Aroclor-1254	3	9.671	0.001	12871	39.2	3	10.120	-0.001	16012	36.6
Aroclor-1254	4	9.808	-0.000	22113	34.4	4	10.378	0.007	16300	37.3
Aroclor-1254	5	10.176	-0.001	17771	42.5	5	10.572	0.004	4439	18.2
Total CollAve (5 peaks):				42.7		Total Col2Ave (5 peaks):				35.5 RPD = 18
Corrected Ave (4 peaks):				39.6		Corrected Ave (4 peaks):				32.6 RPD = 19
Aroclor-1260	1	11.047	0.003	741	1.4	1	11.663	0.010	1794	4.9
Aroclor-1260	2	11.366	0.006	379	0.7	2	11.923	0.005	1208	1.3
Aroclor-1260	3	11.745	0.011	860	0.6	3	12.507	0.071	977	4.2
Aroclor-1260	4	12.154	0.014	1536	2.1	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
Total CollAve (4 peaks):				1.2		Total Col2Ave (3 peaks):				3.5 RPD = 99*
Corrected Ave (3 peaks):				0.9		Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.836	0.004	10654	27.6	1	11.120	-0.080	8071	16.3
Aroclor-1262	2	12.154	-0.092	1536	2.5	2	11.663	0.010	1794	4.3
Aroclor-1262	3	---			0.0	3	12.507	0.073	977	2.2
Aroclor-1262	4	13.040	0.051	1739	2.9	4	---			0.0
Total CollAve (3 peaks):				11.0		Total Col2Ave (3 peaks):				7.6 RPD = 37
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.154	-0.091	1536	1.0	1	12.507	0.073	977	0.8
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.623	-0.076	5080	3.9	3	12.894	0.001	98	0.1
Aroclor-1268	4	13.501	0.012	2725	0.7	4	13.707	-0.001	1566	0.5
Total CollAve (3 peaks):				1.9		Total Col2Ave (3 peaks):				0.5 RPD = 120*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.909 - 13.792) = 915887 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 575897 Col2 Total PCB = 0.2 ppm*

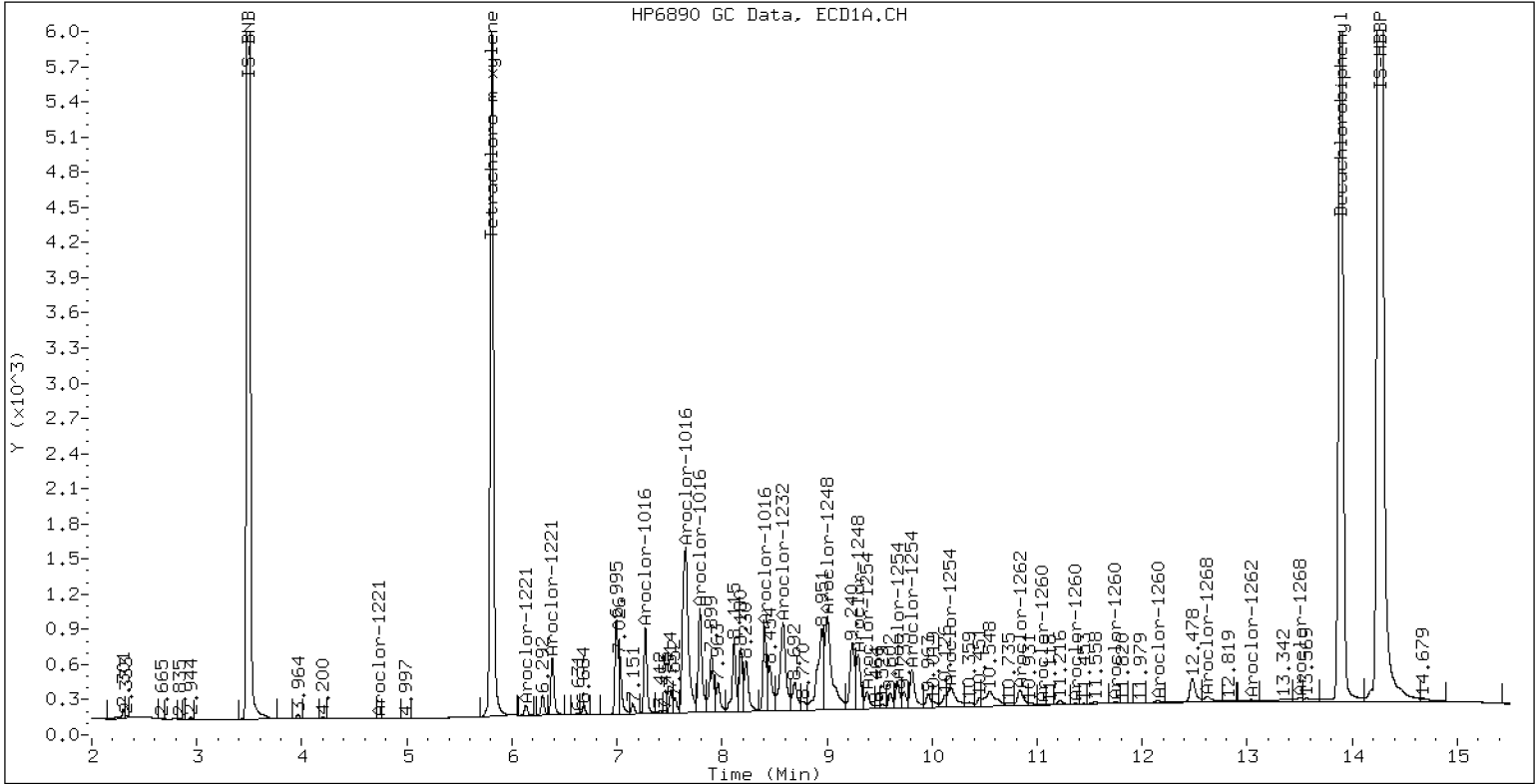
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242 SCV

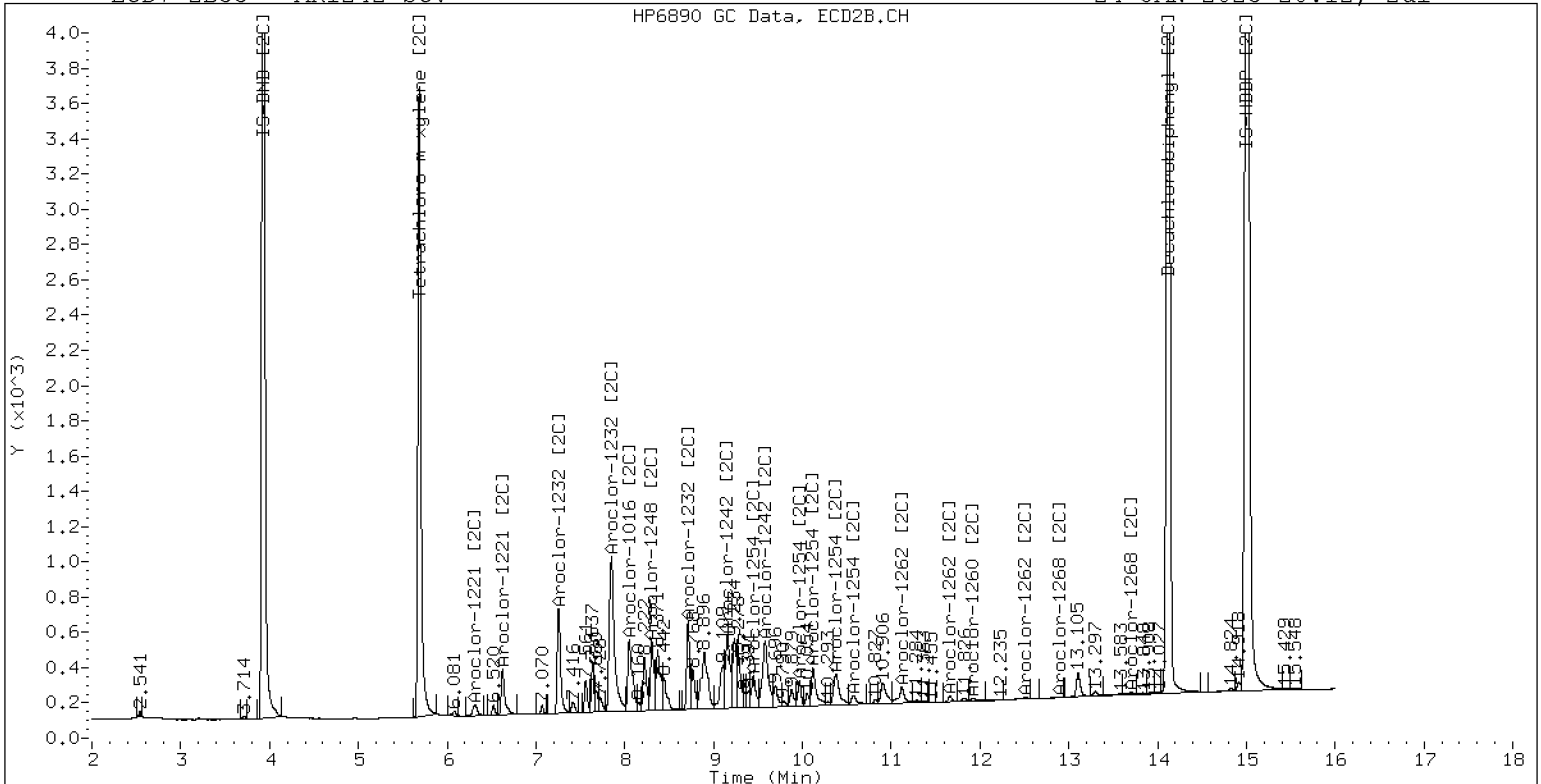
24-JAN-2023 20:12, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242 SCV

24-JAN-2023 20:12, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242326ECD7.D
Data file 2: /230124.b/230124.b/01242326ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248 SCV
Client ID:
Injection Date: 24-JAN-2023 20:33
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	0.000	263982	5.686	-0.001	169991	36.8	36.5	0.6	Tetrachloro-m-xylene
13.892	0.001	400655	14.121	0.001	316171	38.3	39.6	3.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	508189	1.0
Hexabromobiphenyl	647433	979067	51.2
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	344105	2.1
Hexabromobiphenyl	382032	503378	31.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	14777	78.3	1	7.254	-0.001	16100	86.3
Aroclor-1016	2	7.655	0.004	70114	112.1	2	7.853	0.002	47184	115.4
Aroclor-1016	3	7.794	0.006	27212	94.5	3	8.053	0.003	9427	56.5
Aroclor-1016	4	8.406	0.003	59884	323.4	4	8.306	0.001	36680	280.3
Total CollAve (4 peaks):				152.0		Total Col2Ave (4 peaks):				134.6 RPD = 12
Corrected Ave (3 peaks):				94.9		Corrected Ave (3 peaks):				86.0 RPD = 10
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.133	-0.000	591	7.7	2	6.323	0.025	1820	32.9
Aroclor-1221	3	6.386	0.001	2453	13.8	3	6.627	0.004	1477	15.8
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.133	-0.000	591	11.2	2	7.254	-0.002	16100	188.0
Aroclor-1232	3	7.655	-0.004	70114	265.3	3	7.853	-0.001	47184	270.6
Aroclor-1232	4	8.581	-0.003	76286	674.3	4	8.714	0.000	39330	811.7
Total CollAve (3 peaks):				316.9		Total Col2Ave (3 peaks):				423.4 RPD = 29
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	0.000	14777	95.0	1	7.254	-0.002	16100	107.0
Aroclor-1242	2	7.655	-0.001	70114	137.7	2	7.853	0.000	47184	141.2
Aroclor-1242	3	8.406	-0.000	59884	395.8	3	9.159	-0.001	46988	448.9
Aroclor-1242	4	8.581	-0.000	76286	333.8	4	9.584	-0.003	56615	408.1
Total CollAve (4 peaks):				240.5		Total Col2Ave (4 peaks):				276.3 RPD = 14
Corrected Ave (3 peaks):				188.8		Corrected Ave (3 peaks):				218.7 RPD = 15
Aroclor-1248	1	8.406	0.001	59884	235.6	1	8.306	0.001	36680	235.8
Aroclor-1248	2	8.581	0.001	76286	235.2	2	8.714	0.002	39330	234.9
Aroclor-1248	3	9.000	0.001	148805	239.9	3	9.159	0.003	46988	229.7
Aroclor-1248	4	9.295	0.001	73114	238.1	4	9.584	0.002	56615	223.8
Total CollAve (4 peaks):				237.2		Total Col2Ave (4 peaks):				231.0 RPD = 3
Corrected Ave (3 peaks):				236.3		Corrected Ave (3 peaks):				229.5 RPD = 3
Aroclor-1254	1	9.295	-0.004	73114	141.2	1	9.449	0.001	20314	81.4
Aroclor-1254	2	9.378	0.000	36561	165.3	2	9.970	0.000	18678	92.6
Aroclor-1254	3	9.672	0.003	30736	92.6	3	10.124	0.003	35321	80.2
Aroclor-1254	4	9.813	0.004	53537	82.3	4	10.387	0.015	35188	79.9
Aroclor-1254	5	10.192	0.015	40119	94.9	5	10.575	0.006	7386	30.1
Total CollAve (5 peaks):				115.3		Total Col2Ave (5 peaks):				72.9 RPD = 45*
Corrected Ave (4 peaks):				102.7		Corrected Ave (4 peaks):				67.9 RPD = 41*
Aroclor-1260	1	11.054	0.010	1868	3.4	1	11.664	0.011	2055	5.7
Aroclor-1260	2	11.366	0.005	1375	2.4	2	11.926	0.009	1303	1.4
Aroclor-1260	3	11.745	0.010	2137	1.4	3	12.439	0.003	395	1.7
Aroclor-1260	4	12.147	0.008	1650	2.1	4	12.507	0.005	890	1.5
Aroclor-1260	5	12.255	0.011	558	1.7	NS	---			----
Total CollAve (5 peaks):				2.2		Total Col2Ave (4 peaks):				2.6 RPD = 15
Corrected Ave (4 peaks):				1.9		Corrected Ave (3 peaks):				1.5 RPD = 22
Aroclor-1262	1	10.837	0.005	12736	32.2	1	11.122	-0.078	7136	14.5
Aroclor-1262	2	12.255	0.010	558	0.9	2	11.664	0.011	2055	4.9
Aroclor-1262	3	12.327	0.006	596	0.9	3	12.439	0.004	395	0.9
Aroclor-1262	4	12.996	0.007	1113	1.8	4	12.507	0.003	890	1.2
Total CollAve (4 peaks):				8.9		Total Col2Ave (4 peaks):				5.4 RPD = 50*
Corrected Ave (3 peaks):				1.2		Corrected Ave (3 peaks):				2.3 RPD = 65*
Aroclor-1268	1	12.255	0.010	558	0.3	1	12.439	0.005	395	0.3
Aroclor-1268	2	12.327	0.009	596	0.4	2	12.507	0.005	890	0.7
Aroclor-1268	3	12.706	0.007	1161	0.9	3	12.896	0.003	166	0.2
Aroclor-1268	4	13.504	0.016	3330	0.8	4	13.717	0.009	469	0.1
Total CollAve (4 peaks):				0.6		Total Col2Ave (4 peaks):				0.3 RPD = 57*
Corrected Ave (3 peaks):				0.5		Corrected Ave (3 peaks):				0.2 RPD = 83*

Total PCB Area Col1 (5.909 - 13.792) = 1230760 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 742749 Col2 Total PCB = 0.2 ppm*

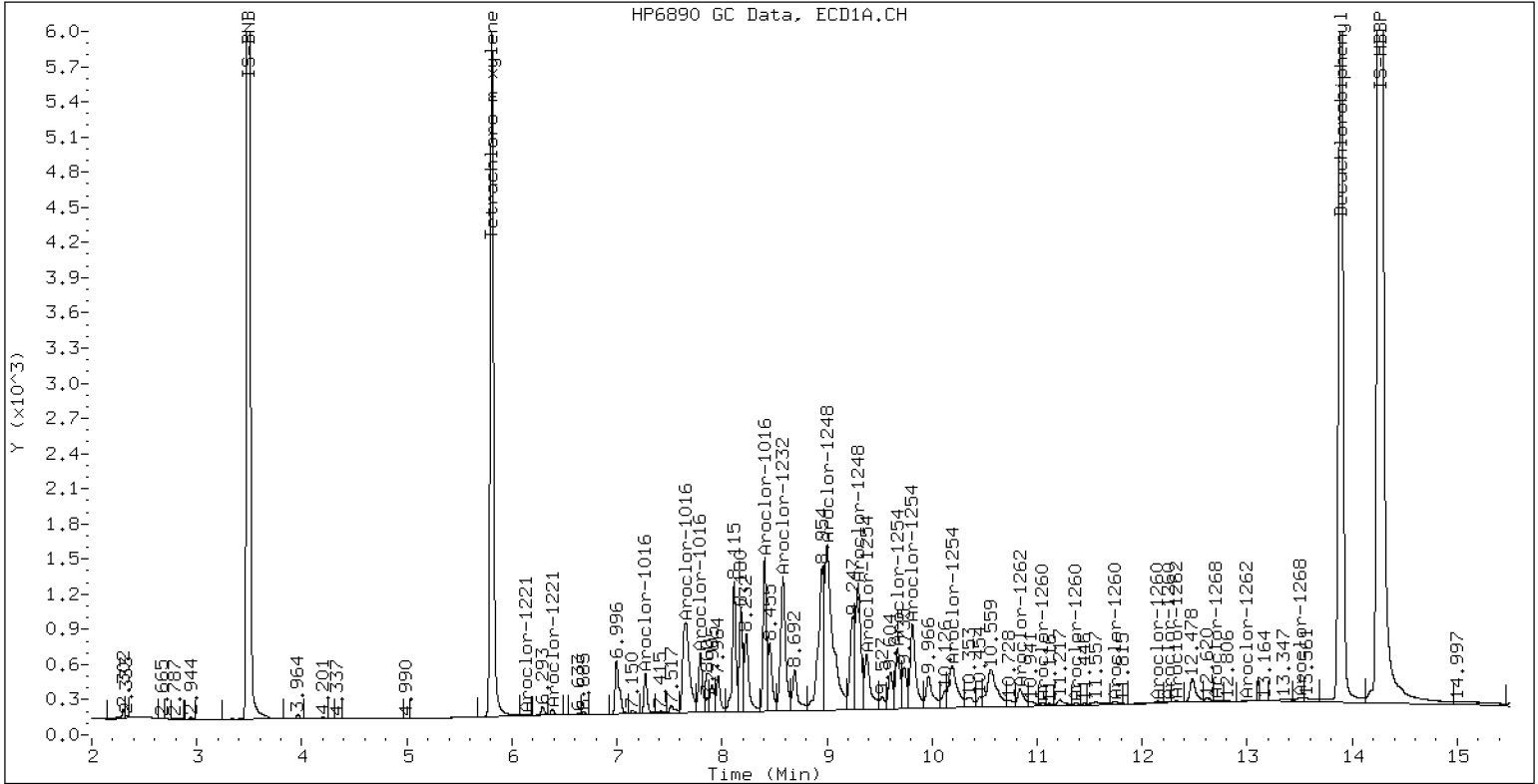
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248 SCV

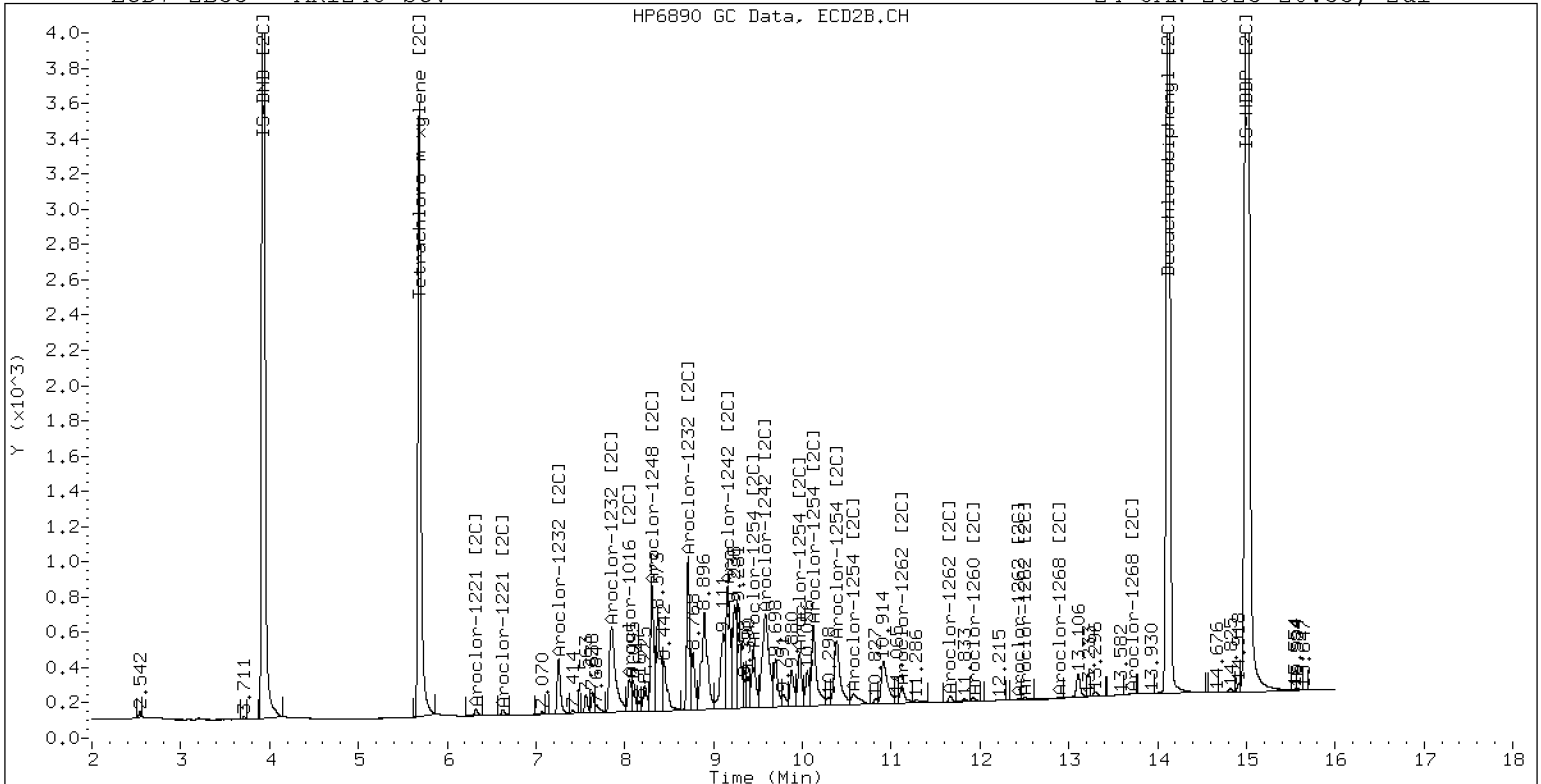
24-JAN-2023 20:33, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248 SCV

24-JAN-2023 20:33, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242327ECD7.D
Data file 2: /230124.b/230124.b/01242327ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254 SCV
Client ID:
Injection Date: 24-JAN-2023 20:54
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.809	-0.000	261398	5.686	-0.001	169839	36.7	36.6	0.1	Tetrachloro-m-xylene
13.892	0.001	383983	14.121	0.001	323233	37.1	39.5	6.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	504424	0.2
Hexabromobiphenyl	647433	968338	49.6

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	342969	1.8
Hexabromobiphenyl	382032	515045	34.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.273	0.003	320	1.7	1	7.258	0.003	332	1.8	
Aroclor-1016	2	7.658	0.008	991	1.6	2	---			0.0	
Aroclor-1016	3	7.795	0.007	662	2.3	3	8.097	0.047	515	3.1	
Aroclor-1016	4	8.408	0.005	21378	116.3	4	8.307	0.002	20446	156.8	
Total CollAve (4 peaks):				30.5	Total Col2Ave (3 peaks):				53.9	RPD = 55*	
Corrected Ave (3 peaks):				1.9	Corrected Ave: < 3 Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	6.325	0.026	1749	31.7	
Aroclor-1221	3	---			0.0	3	6.633	0.011	321	3.5	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	7.258	0.001	332	3.9	
Aroclor-1232	3	7.658	-0.000	991	3.8	3	---			0.0	
Aroclor-1232	4	8.587	0.003	8887	79.1	4	8.715	0.001	14030	290.5	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	7.273	0.002	320	2.1	1	7.258	0.002	332	2.2	
Aroclor-1242	2	7.658	0.003	991	2.0	2	---			0.0	
Aroclor-1242	3	8.408	0.002	21378	142.3	3	9.164	0.004	26593	254.9	
Aroclor-1242	4	8.587	0.006	8887	39.2	4	9.543	-0.043	34385	248.7	
Total CollAve (4 peaks):				46.4	Total Col2Ave (3 peaks):				168.6	RPD = 114*	
Corrected Ave (3 peaks):				14.4	Corrected Ave: < 3 Peaks						
Aroclor-1248	1	8.408	0.003	21378	84.7	1	8.307	0.001	20446	131.9	
Aroclor-1248	2	8.587	0.007	8887	27.6	2	8.715	0.003	14030	84.1	
Aroclor-1248	3	8.995	-0.004	110289	179.1	3	9.164	0.007	26593	130.4	
Aroclor-1248	4	9.300	0.007	113143	371.2	4	9.543	-0.038	34385	136.4	
Total CollAve (4 peaks):				165.7	Total Col2Ave (4 peaks):				120.7	RPD = 31	
Corrected Ave (3 peaks):				97.2	Corrected Ave (3 peaks): 115.5 RPD = 17						
Aroclor-1254	1	9.300	0.002	113143	220.1	1	9.449	0.001	56453	226.9	
Aroclor-1254	2	9.379	0.001	49468	225.4	2	9.970	0.001	45325	225.4	
Aroclor-1254	3	9.671	0.002	72811	221.0	3	10.122	0.002	97044	221.2	
Aroclor-1254	4	9.811	0.002	140530	217.7	4	10.374	0.002	98778	225.2	
Aroclor-1254	5	10.182	0.005	92254	219.8	5	10.570	0.001	57171	234.0	
Total CollAve (5 peaks):				220.8	Total Col2Ave (5 peaks):				226.5	RPD = 3	
Corrected Ave (4 peaks):				219.7	Corrected Ave (4 peaks): 224.7 RPD = 2						
Aroclor-1260	1	11.045	0.002	8960	16.5	1	11.661	0.008	26985	72.6	
Aroclor-1260	2	11.364	0.004	9237	16.5	2	11.923	0.006	19882	21.2	
Aroclor-1260	3	11.741	0.007	21268	14.5	3	12.505	0.069	13190	56.3	
Aroclor-1260	4	12.146	0.007	19041	25.1	4	---			0.0	
Aroclor-1260	5	12.321	0.077	1835	5.5	NS	---			---	
Total CollAve (5 peaks):				15.6	Total Col2Ave (3 peaks):				50.0	RPD = 105*	
Corrected Ave (4 peaks):				13.3	Corrected Ave: < 3 Peaks						
Aroclor-1262	1	10.832	0.000	157590	402.4	1	11.119	-0.081	92414	183.3	
Aroclor-1262	2	12.321	0.075	1835	3.0	2	11.661	0.008	26985	63.0	
Aroclor-1262	3	---			0.0	3	12.505	0.071	13190	28.9	
Aroclor-1262	4	12.995	0.006	843	1.4	4	---			0.0	
Total CollAve (3 peaks):				135.6	Total Col2Ave (3 peaks):				91.7	RPD = 39	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1268	1	12.321	0.076	1835	1.1	1	12.505	0.072	13190	11.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	12.720	0.021	1314	1.0	3	12.891	-0.002	169	0.2	
Aroclor-1268	4	13.504	0.016	1169	0.3	4	13.706	-0.002	1132	0.3	
Total CollAve (3 peaks):				0.8	Total Col2Ave (3 peaks):				3.8	RPD = 130*	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						

Total PCB Area Col1 (5.909 - 13.792) = 1507519 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 951047 Col2 Total PCB = 0.3 ppm*

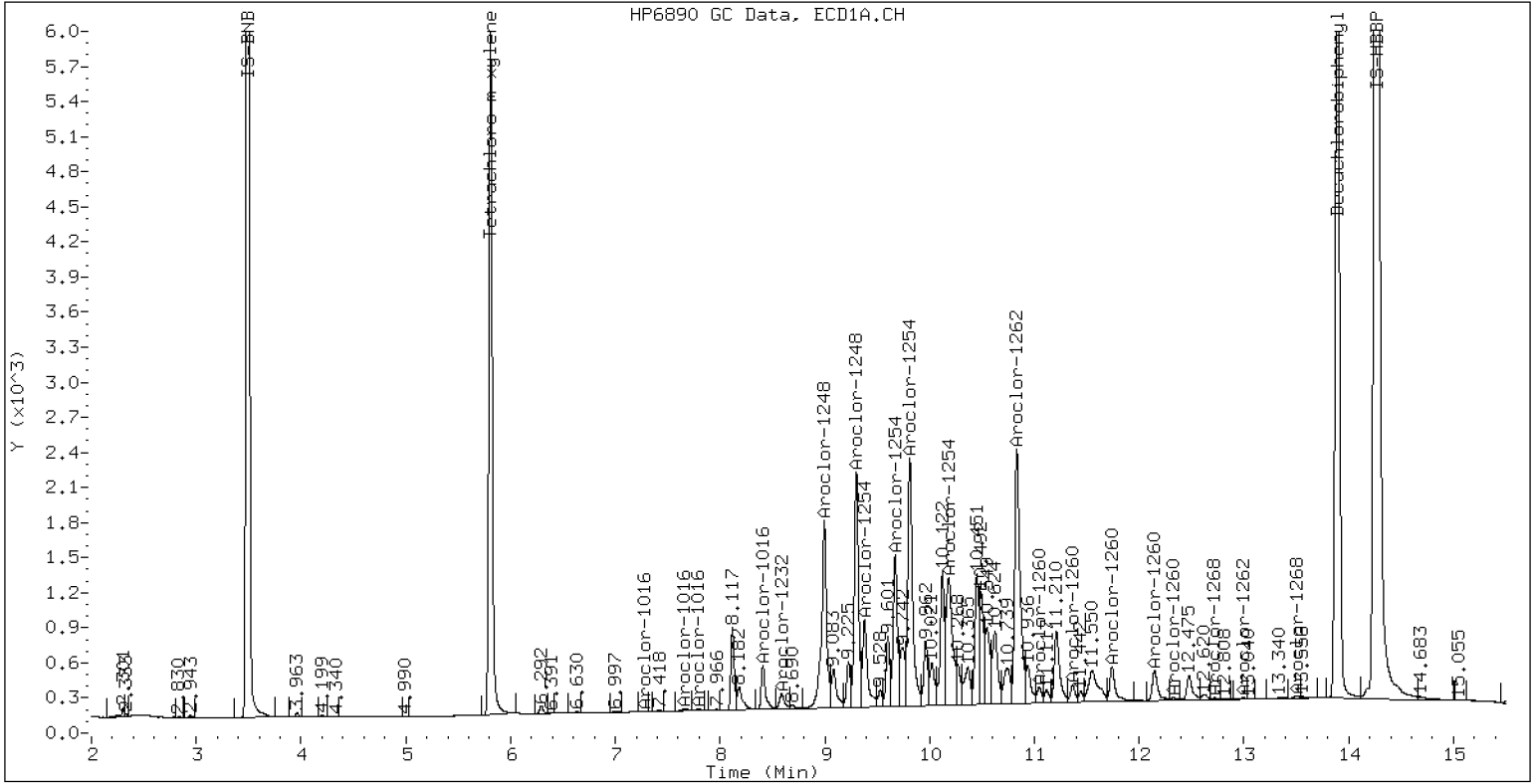
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254 SCV

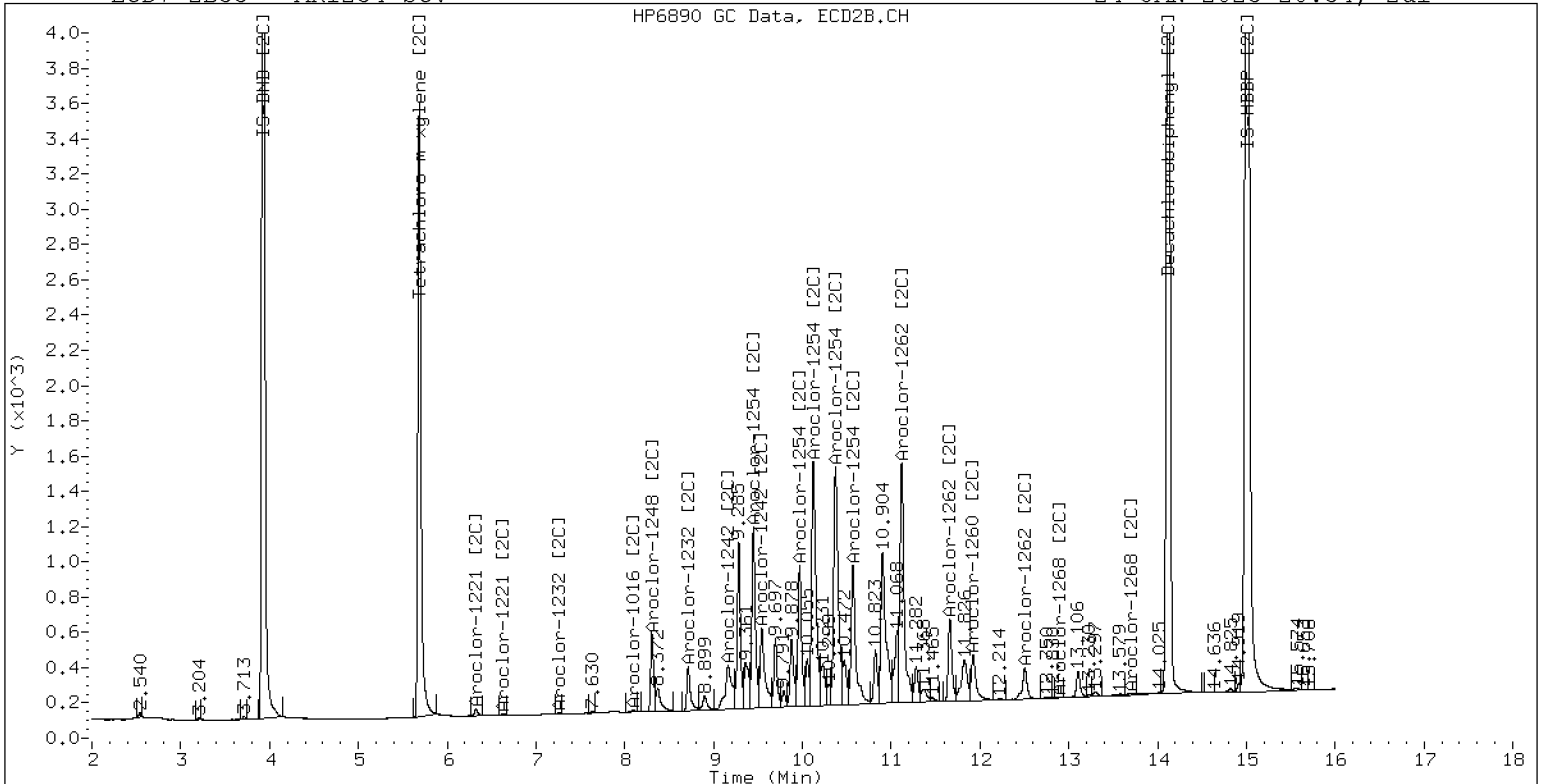
24-JAN-2023 20:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254 SCV

24-JAN-2023 20:54, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242328ECD7.D
Data file 2: /230124.b/230124.b/01242328ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162 SCV
Client ID:
Injection Date: 24-JAN-2023 21:15
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.809	-0.000	265357	5.685	-0.001	170984	37.3	37.2	0.3	Tetrachloro-m-xylene
13.891	-0.001	397332	14.119	-0.001	326981	37.5	39.5	5.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	503473	0.0
Hexabromobiphenyl	647433	991997	53.2

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	340361	1.0
Hexabromobiphenyl	382032	521975	36.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.272	0.002	5326	28.5	1	7.257	0.002	6708	36.3	
Aroclor-1016	2	7.664	0.013	11965	19.3	2	7.856	0.005	7233	17.9	
Aroclor-1016	3	7.797	0.009	6015	21.1	3	8.058	0.008	2997	18.2	
Aroclor-1016	4	8.410	0.006	3771	20.6	4	8.308	0.002	2065	16.0	
Total CollAve (4 peaks):				22.4	Total Col2Ave (4 peaks):				22.1	RPD = 1	
Corrected Ave (3 peaks):				20.3	Corrected Ave (3 peaks):				17.3	RPD = 16	
Aroclor-1221	1	4.732	-0.000	9097	244.5	1	4.959	-0.000	6157	246.8	
Aroclor-1221	2	6.133	-0.000	16114	211.8	2	6.297	-0.001	12807	234.2	
Aroclor-1221	3	6.384	0.000	40299	228.1	3	6.622	-0.000	21707	235.2	
Total CollAve (3 peaks):				228.1	Total Col2Ave (3 peaks):				238.7	RPD = 5	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.732	-0.001	9097	391.6	1	4.959	-0.001	6157	406.9	
Aroclor-1232	2	6.133	0.000	16114	307.8	2	7.257	0.000	6708	79.2	
Aroclor-1232	3	7.664	0.005	11965	45.7	3	7.856	0.001	7233	41.9	
Aroclor-1232	4	8.589	0.004	2837	25.3	4	8.716	0.002	1869	39.0	
Total CollAve (4 peaks):				192.6	Total Col2Ave (4 peaks):				141.7	RPD = 30	
Corrected Ave (3 peaks):				126.3	Corrected Ave (3 peaks):				53.4	RPD = 81*	
Aroclor-1242	1	7.272	0.001	5326	34.5	1	7.257	0.001	6708	45.1	
Aroclor-1242	2	7.664	0.008	11965	23.7	2	7.856	0.003	7233	21.9	
Aroclor-1242	3	8.410	0.004	3771	25.2	3	9.169	0.009	1956	18.9	
Aroclor-1242	4	8.589	0.007	2837	12.5	4	9.544	-0.043	5978	43.6	
Total CollAve (4 peaks):				24.0	Total Col2Ave (4 peaks):				32.3	RPD = 30	
Corrected Ave (3 peaks):				20.5	Corrected Ave (3 peaks):				28.1	RPD = 31	
Aroclor-1248	1	8.410	0.005	3771	15.0	1	8.308	0.002	2065	13.4	
Aroclor-1248	2	8.589	0.008	2837	8.8	2	8.716	0.004	1869	11.3	
Aroclor-1248	3	8.997	-0.002	36022	58.6	3	9.169	0.012	1956	9.7	
Aroclor-1248	4	9.305	0.011	30853	101.4	4	9.544	-0.038	5978	23.9	
Total CollAve (4 peaks):				46.0	Total Col2Ave (4 peaks):				14.6	RPD = 104*	
Corrected Ave (3 peaks):				27.5	Corrected Ave (3 peaks):				11.5	RPD = 82*	
Aroclor-1254	1	9.305	0.006	30853	60.1	1	9.451	0.003	17617	71.3	
Aroclor-1254	2	9.376	-0.002	5370	24.5	2	9.970	0.001	2849	14.3	
Aroclor-1254	3	9.673	0.003	5543	16.9	3	10.146	0.026	88151	202.5	
Aroclor-1254	4	9.810	0.002	14544	22.6	4	10.370	-0.002	107074	245.9	
Aroclor-1254	5	10.121	-0.056	180016	429.7	5	10.567	-0.002	141725	584.5	
Total CollAve (5 peaks):				110.8	Total Col2Ave (5 peaks):				223.7	RPD = 68*	
Corrected Ave (4 peaks):				31.0	Corrected Ave (4 peaks):				133.5	RPD = 125*	
Aroclor-1260	1	11.044	0.001	310806	558.4	1	11.652	-0.001	187682	498.4	
Aroclor-1260	2	11.361	0.000	263161	460.0	2	11.917	-0.000	450612	473.0	
Aroclor-1260	3	11.735	0.000	629605	418.0	3	12.433	-0.003	206042	867.7	
Aroclor-1260	4	12.141	0.001	210012	269.9	4	12.502	-0.000	326457	529.5	
Aroclor-1260	5	12.244	-0.000	268425	791.3	NS	---			----	
Total CollAve (5 peaks):				499.5	Total Col2Ave (4 peaks):				592.1	RPD = 17	
Corrected Ave (4 peaks):				426.6	Corrected Ave (3 peaks):				500.3	RPD = 16	
Aroclor-1262	1	10.828	-0.005	171094	426.5	1	11.200	0.000	219731	430.1	
Aroclor-1262	2	12.244	-0.002	268425	423.9	2	11.652	-0.001	187682	432.0	
Aroclor-1262	3	12.319	-0.002	291581	424.2	3	12.433	-0.001	206042	445.4	
Aroclor-1262	4	12.988	-0.001	257735	411.5	4	12.502	-0.002	326457	440.6	
Total CollAve (4 peaks):				421.5	Total Col2Ave (4 peaks):				437.0	RPD = 4	
Corrected Ave (3 peaks):				419.8	Corrected Ave (3 peaks):				434.3	RPD = 3	
Aroclor-1268	1	12.244	-0.001	268425	163.8	1	12.433	-0.000	206042	169.0	
Aroclor-1268	2	12.319	0.001	291581	178.4	2	12.502	0.000	326457	251.7	
Aroclor-1268	3	12.725	0.026	108693	80.3	3	12.892	-0.001	10062	9.3	
Aroclor-1268	4	13.486	-0.003	95646	23.8	4	13.710	0.001	59437	17.8	
Total CollAve (4 peaks):				111.6	Total Col2Ave (4 peaks):				112.0	RPD = 0	

Corrected Ave (3 peaks): 89.3 Corrected Ave (3 peaks): 65.4 RPD = 31

Total PCB Area Col1 (5.909 - 13.792) = 4409992 Col1 Total PCB = 0.8 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 2874073 Col2 Total PCB = 0.8 ppm*

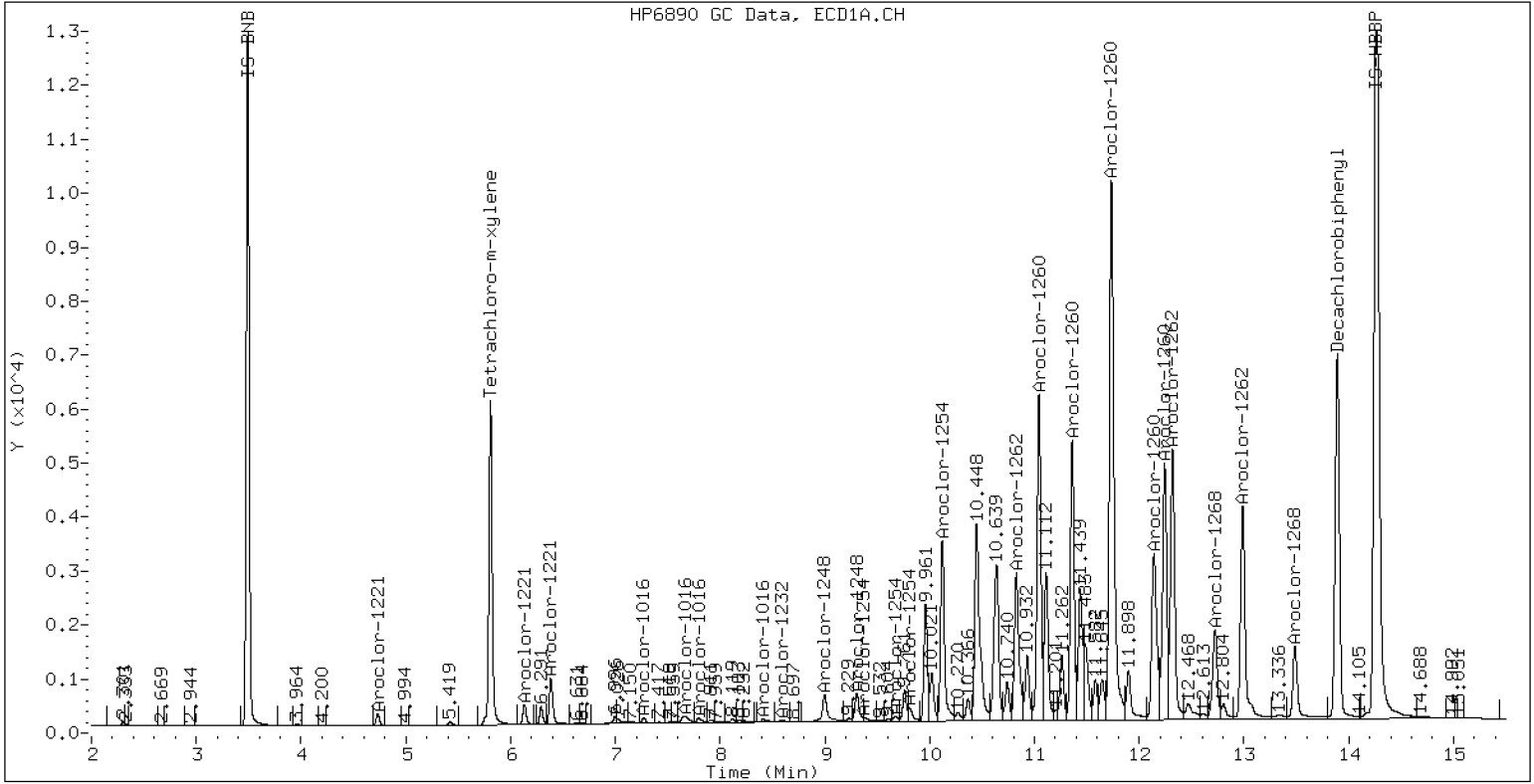
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR2162 SCV

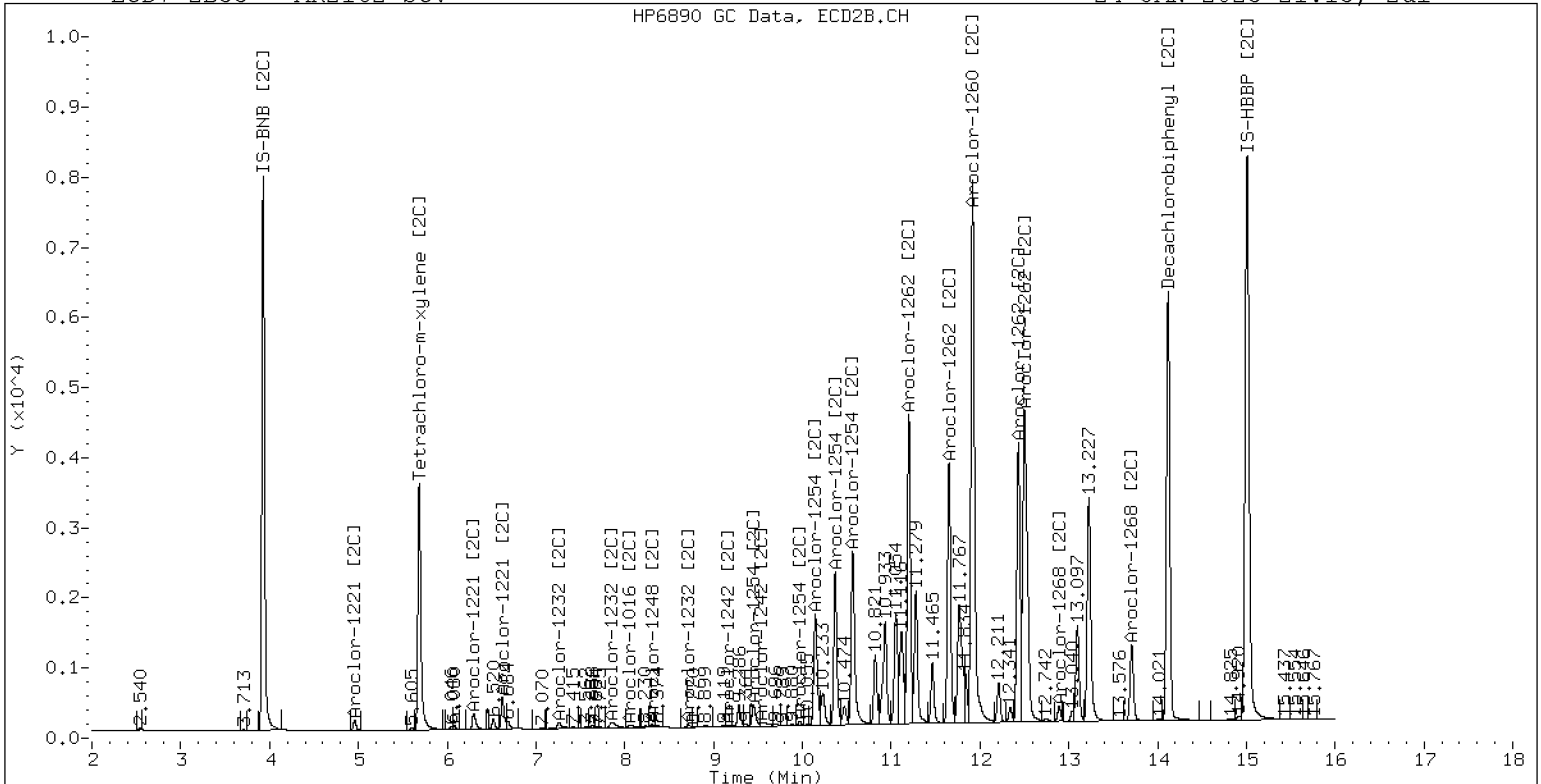
24-JAN-2023 21:15, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162 SCV

24-JAN-2023 21:15, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242329ECD7.D
Data file 2: /230124.b/230124.b/01242329ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268 SCV
Client ID:
Injection Date: 24-JAN-2023 21:36
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.810	0.001	250455	5.687	0.000	162795	36.4	36.3	0.2	Tetrachloro-m-xylene
13.892	0.000	551946	14.120	0.000	461901	54.6	57.9	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	487061	-3.2
Hexabromobiphenyl	647433	944934	46.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	331721	-1.5
Hexabromobiphenyl	382032	502401	31.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.272	0.002	19363	107.0	1	7.256	0.001	19791	110.0
Aroclor-1016	2	7.659	0.009	58630	97.8	2	7.856	0.005	40139	101.8
Aroclor-1016	3	7.794	0.006	28286	102.5	3	8.055	0.005	17412	108.2
Aroclor-1016	4	8.408	0.004	17373	97.9	4	8.308	0.003	11962	94.8
Total CollAve (4 peaks):				101.3		Total Col2Ave (4 peaks):				103.7 RPD = 2
Corrected Ave (3 peaks):				99.4		Corrected Ave (3 peaks):				101.6 RPD = 2
Aroclor-1221	1	4.735	0.002	5022	139.5	1	4.961	0.002	3409	140.2
Aroclor-1221	2	6.134	0.001	8987	122.1	2	6.299	0.001	7677	144.1
Aroclor-1221	3	6.385	0.001	29368	171.8	3	6.624	0.001	16198	180.1
Total CollAve (3 peaks):				144.5		Total Col2Ave (3 peaks):				154.8 RPD = 7
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.735	0.002	5022	223.5	1	4.961	0.002	3409	231.1
Aroclor-1232	2	6.134	0.001	8987	177.4	2	7.256	-0.001	19791	239.8
Aroclor-1232	3	7.659	0.001	58630	231.5	3	7.856	0.001	40139	238.8
Aroclor-1232	4	8.585	0.000	24991	230.5	4	8.715	0.001	11476	245.7
Total CollAve (4 peaks):				215.7		Total Col2Ave (4 peaks):				238.8 RPD = 10
Corrected Ave (3 peaks):				210.5		Corrected Ave (3 peaks):				236.6 RPD = 12
Aroclor-1242	1	7.272	0.001	19363	129.8	1	7.256	0.000	19791	136.4
Aroclor-1242	2	7.659	0.004	58630	120.1	2	7.856	0.002	40139	124.6
Aroclor-1242	3	8.408	0.001	17373	119.8	3	9.166	0.006	11813	117.1
Aroclor-1242	4	8.585	0.003	24991	114.1	4	9.595	0.009	16549	123.7
Total CollAve (4 peaks):				121.0		Total Col2Ave (4 peaks):				125.4 RPD = 4
Corrected Ave (3 peaks):				118.0		Corrected Ave (3 peaks):				121.8 RPD = 3
Aroclor-1248	1	8.408	0.002	17373	71.3	1	8.308	0.003	11962	79.8
Aroclor-1248	2	8.585	0.005	24991	80.4	2	8.715	0.003	11476	71.1
Aroclor-1248	3	9.001	0.002	67631	113.8	3	9.166	0.009	11813	59.9
Aroclor-1248	4	9.293	-0.001	30983	105.3	4	9.595	0.014	16549	67.9
Total CollAve (4 peaks):				92.7		Total Col2Ave (4 peaks):				69.7 RPD = 28
Corrected Ave (3 peaks):				85.7		Corrected Ave (3 peaks):				66.3 RPD = 26
Aroclor-1254	1	9.293	-0.006	30983	62.4	1	9.451	0.003	3749	15.6
Aroclor-1254	2	9.381	0.003	9071	42.8	2	9.974	0.005	2452	12.6
Aroclor-1254	3	9.678	0.009	5199	16.3	3	10.131	0.010	4718	11.1
Aroclor-1254	4	9.820	0.012	8864	14.2	4	10.389	0.018	4224	10.0
Aroclor-1254	5	10.195	0.018	8085	19.9	5	10.573	0.004	1573	6.7
Total CollAve (5 peaks):				31.1		Total Col2Ave (5 peaks):				11.2 RPD = 94*
Corrected Ave (4 peaks):				23.3		Corrected Ave (4 peaks):				10.1 RPD = 79*
Aroclor-1260	1	11.050	0.006	66852	126.1	1	11.647	-0.006	57235	157.9
Aroclor-1260	2	11.366	0.006	6269	11.5	2	11.919	0.002	25368	27.7
Aroclor-1260	3	11.741	0.007	41446	28.9	3	12.434	-0.002	262014	1146.4
Aroclor-1260	4	12.052	-0.088	2691	3.6	4	12.502	-0.000	277060	466.9
Aroclor-1260	5	12.245	0.002	349286	1080.9	NS	---			----
Total CollAve (5 peaks):				250.2		Total Col2Ave (4 peaks):				449.7 RPD = 57*
Corrected Ave (4 peaks):				42.5		Corrected Ave (3 peaks):				217.5 RPD = 135*
Aroclor-1262	1	10.838	0.006	4520	11.8	1	11.203	0.003	40576	82.5
Aroclor-1262	2	12.245	-0.000	349286	579.1	2	11.647	-0.006	57235	136.9
Aroclor-1262	3	12.318	-0.002	349715	534.1	3	12.434	-0.001	262014	588.4
Aroclor-1262	4	12.988	-0.001	141905	237.8	4	12.502	-0.002	277060	388.5
Total CollAve (4 peaks):				340.7		Total Col2Ave (4 peaks):				299.1 RPD = 13
Corrected Ave (3 peaks):				261.2		Corrected Ave (3 peaks):				202.6 RPD = 25
Aroclor-1268	1	12.245	0.001	349286	223.8	1	12.434	0.000	262014	223.3
Aroclor-1268	2	12.318	0.000	349715	224.6	2	12.502	0.000	277060	221.9
Aroclor-1268	3	12.699	0.000	289328	224.3	3	12.893	-0.000	208928	201.0
Aroclor-1268	4	13.490	0.001	849299	222.1	4	13.710	0.002	725831	226.1
Total CollAve (4 peaks):				223.7		Total Col2Ave (4 peaks):				218.1 RPD = 3

Corrected Ave (3 peaks): 223.4 Corrected Ave (3 peaks): 215.4 RPD = 4

Total PCB Area Col1 (5.909 - 13.792) = 2866092 Col1 Total PCB = 0.5 ppm*
Total PCB Area Col2 (5.787 - 14.020) = 2084481 Col2 Total PCB = 0.6 ppm*

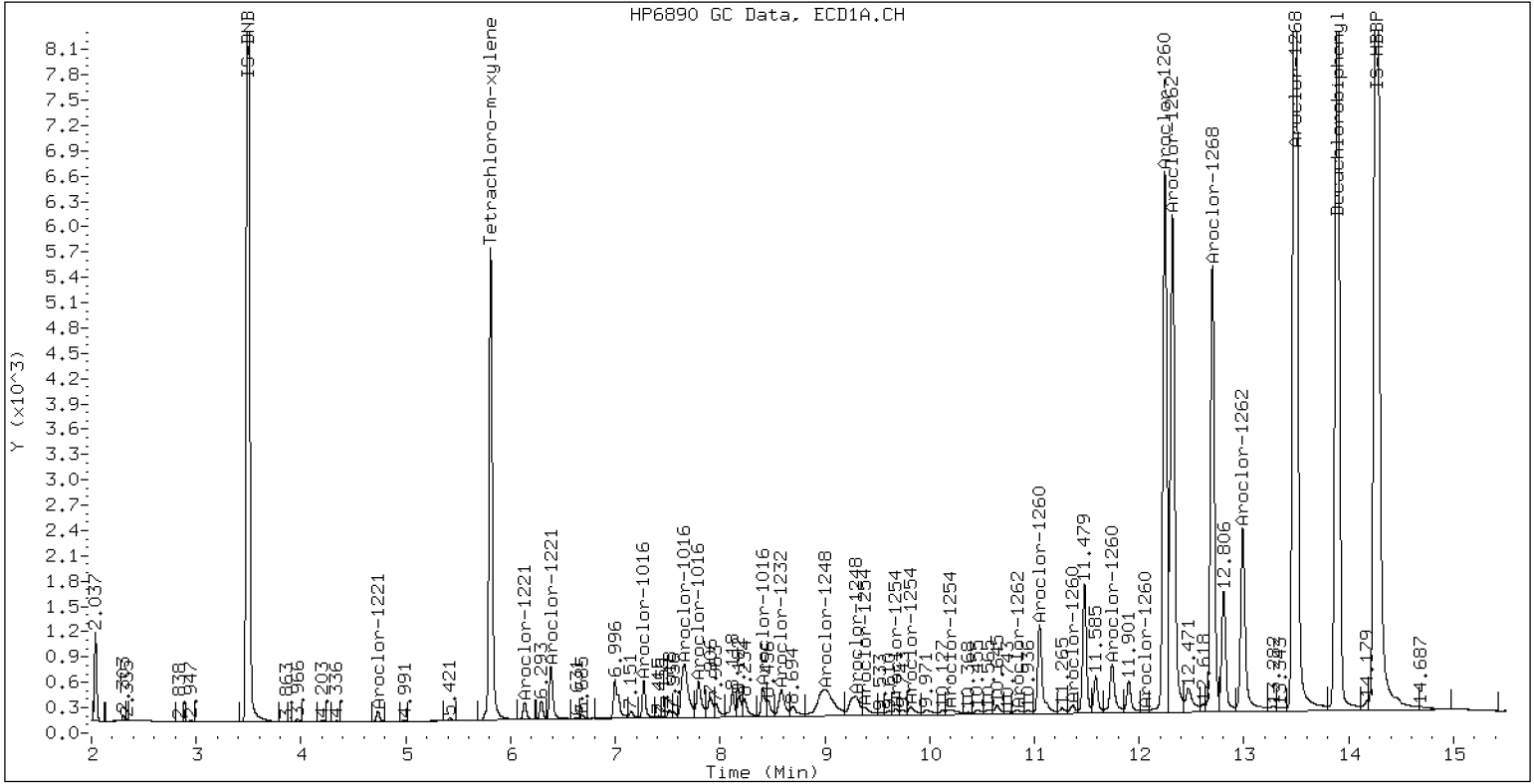
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR3268 SCV

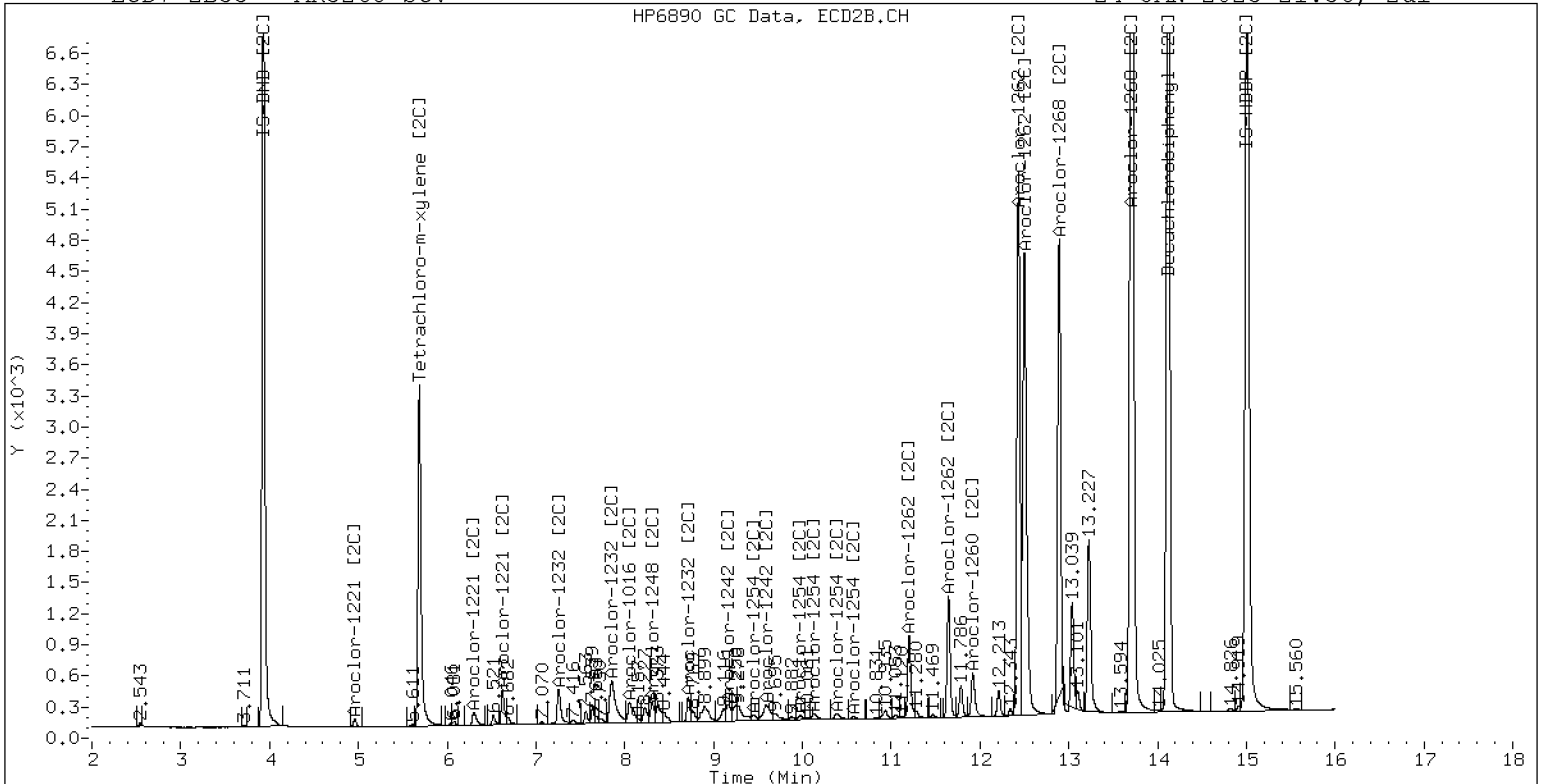
24-JAN-2023 21:36, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268 SCV

24-JAN-2023 21:36, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /230124.b/01242330ECD7.D

ARI ID: DDTS

RT	ZB5 Col Shift Response	ZB35 Col Shift Response	RT	ZB5 on col	ZB35 on col	RPD	Compound/Flag
9.263	0.000	519078	9.912	0.100	0.100	0.0	2,4-DDE
10.296	0.000	1468204	10.666	0.100	0.200#	66.7*	2,4-DDT
9.687	0.000	883988	10.211	0.100	0.100	0.0	4,4-DDE
0.000	-10.281	0	10.666	0.000	0.200#	----	4,4-DDD

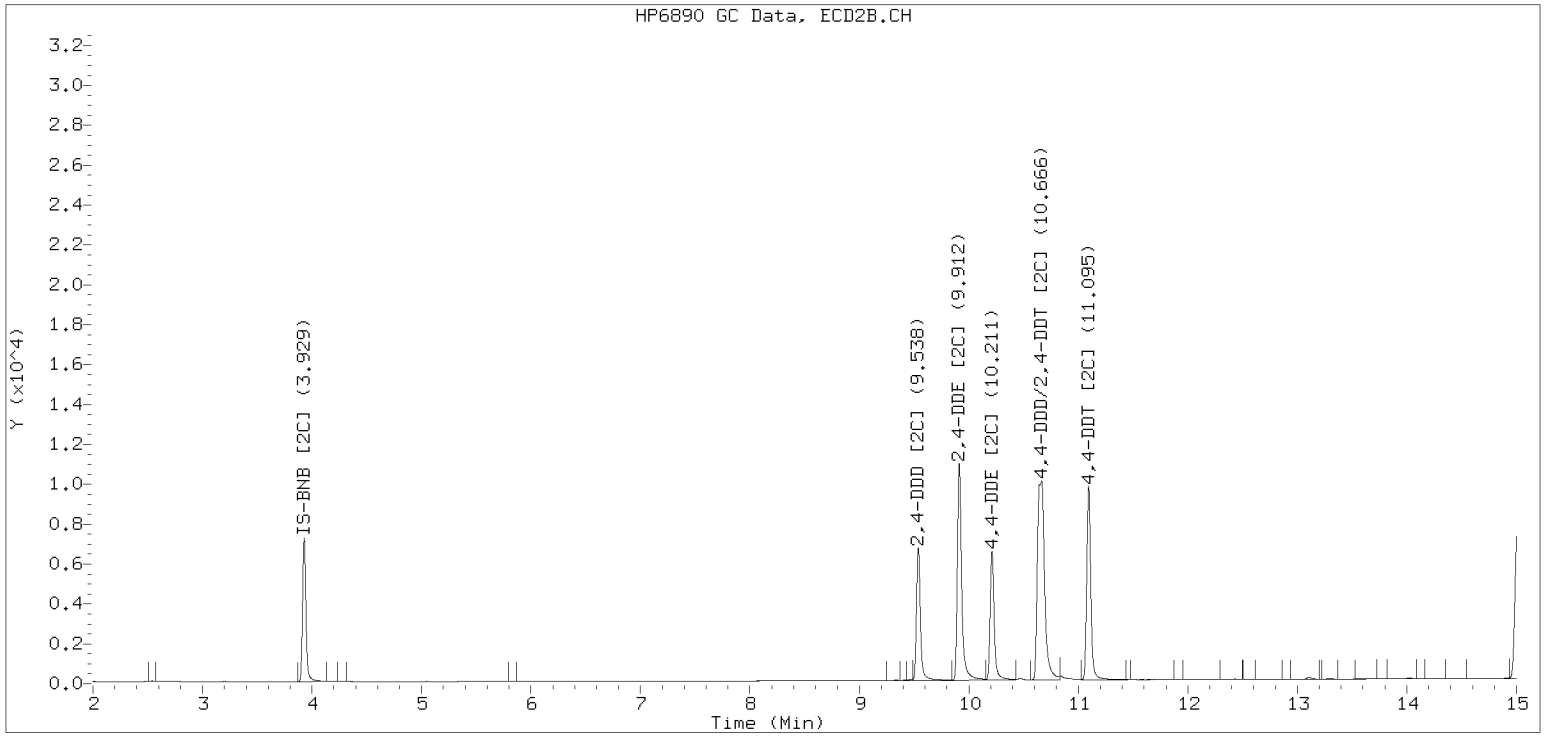
Indicates value is from co-eluting peaks

* Indicates RPD > 40%

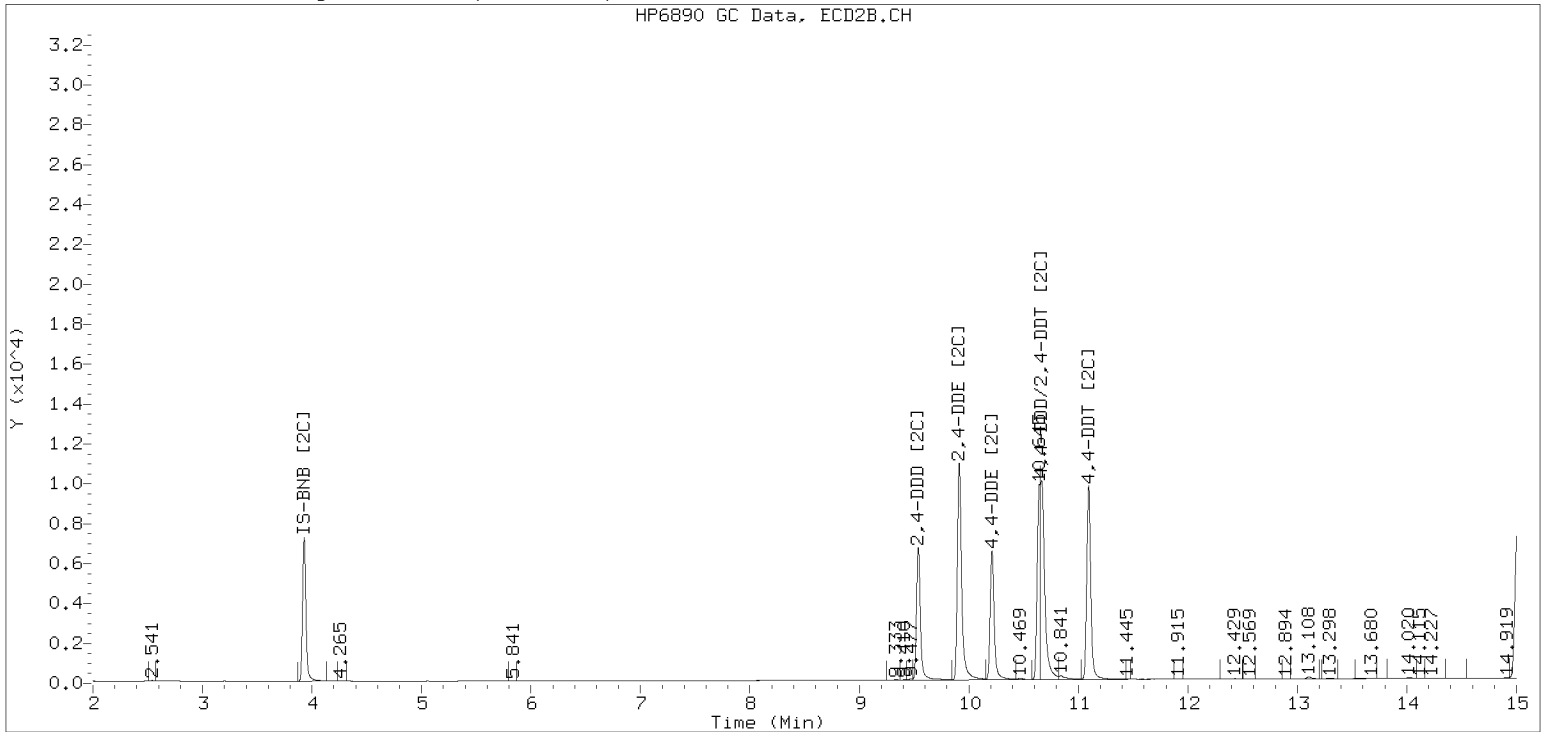
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/230124.b/230124.b/01242330ECD7.D Injection Date: 24-JAN-2023

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242331ECD7.D
 Data file 2: /230124.b/230124.b/01242331ECD7.D
 Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
 Compound Sublist: PCB.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: DDT BD
 Client ID:
 Injection Date: 24-JAN-2023 22:18
 Report Date: 01/25/2023 10:54
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	-0.000	249607	0.000	0.000	0	36.2	0.1	198.6*	Tetrachloro-m-xylene
13.893	0.001	342925	0.000	0.000	0	33.3	0.1	198.4*	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	488086	-3.0
Hexabromobiphenyl	647433	963404	48.8
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	334787	-0.6
Hexabromobiphenyl	382032	334787	-12.4

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 24-JAN-2023
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	3.929	-0.000	334787	80.0
Aroclor-1016	2	---			0.0	NS	---			----
Aroclor-1016	3	---			0.0	NS	---			----
Aroclor-1016	4	---			0.0	NS	---			----
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	9.924	0.012	8335	0.0
Aroclor-1221	2	---			0.0	NS	---			----
Aroclor-1221	3	---			0.0	NS	---			----
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	NS	---			----
Aroclor-1232	3	---			0.0	NS	---			----
Aroclor-1232	4	---			0.0	NS	---			----
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	NS	---			----
Aroclor-1242	3	---			0.0	NS	---			----
Aroclor-1242	4	---			0.0	NS	---			----
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	10.681	0.016	29738	0.0
Aroclor-1248	2	---			0.0	NS	---			----
Aroclor-1248	3	8.973	-0.026	2304	3.9	NS	---			----
Aroclor-1248	4	9.235	-0.059	1484	5.0	NS	---			----
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	9.235	-0.064	1484	3.0	1	11.098	0.003	696435	0.1
Aroclor-1254	2	9.378	-0.000	295	1.4	NS	---			----
Aroclor-1254	3	9.703	0.034	11396	35.8	NS	---			----
Aroclor-1254	4	---			0.0	NS	---			----
Aroclor-1254	5	10.272	0.095	32481	80.0	NS	---			----
Total CollAve (4 peaks):				30.0		Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	11.115	0.071	9308	17.2	1	---			0.0
Aroclor-1260	2	11.344	-0.016	232461	418.4	NS	---			----
Aroclor-1260	3	11.698	-0.036	294	0.2	NS	---			----
Aroclor-1260	4	---			0.0	NS	---			----
Aroclor-1260	5	---			0.0	NS	---			----
Total CollAve (3 peaks):				145.3		Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	10.763	-0.070	892438	2290.6	1	---			0.0
Aroclor-1262	2	---			0.0	NS	---			----
Aroclor-1262	3	---			0.0	NS	---			----
Aroclor-1262	4	12.990	0.001	748	1.2	NS	---			----
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	NS	---			----
Aroclor-1268	3	12.620	-0.079	4678	3.6	NS	---			----
Aroclor-1268	4	13.510	0.021	3115	0.8	NS	---			----
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				

Total PCB Area Coll1 (5.909 - 13.792) = 1961348

Coll1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.909 - 13.792) = 1177441 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GA00061

Laboratory ID: SLA0281-SCV1

Sequence: SLA0281

Sequence Name: AR1660SCV1

Standard ID: K007655

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1016	250.00	217	-13.2	20.00
Aroclor 1016 [2C]	250.00	220	-11.9	20.00
Aroclor 1260	250.00	211	-15.7	20.00
Aroclor 1260 [2C]	250.00	238	-4.9	20.00
Decachlorobiphenyl	40.000	37.9	-5.1	20.00
Tetrachlorometaxylene	40.000	37.5	-6.2	20.00
Decachlorobiphenyl [2C]	40.000	40.2	0.6	20.00
Tetrachlorometaxylene [2C]	40.000	37.3	-6.8	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242324ECD7.D
Data file 2: /230124.b/230124.b/01242324ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 SCV
Client ID:
Injection Date: 24-JAN-2023 19:51
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.809	-0.000	268739	5.686	-0.001	172961	37.5	37.3	0.6	Tetrachloro-m-xylene
13.891	-0.000	381489	14.121	0.001	320416	37.9	40.2	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	506576	0.6
Hexabromobiphenyl	647433	940129	45.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	343102	1.8
Hexabromobiphenyl	382032	501702	31.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	40958	217.6	1	7.255	0.001	40190	216.0
Aroclor-1016	2	7.655	0.004	135282	216.9	2	7.852	0.001	90338	221.5
Aroclor-1016	3	7.791	0.003	61557	214.5	3	8.052	0.002	37810	227.2
Aroclor-1016	4	8.406	0.002	40372	218.7	4	8.306	0.000	28171	215.9
Total CollAve (4 peaks):				216.9		Total Col2Ave (4 peaks):				220.2 RPD = 1
Corrected Ave (3 peaks):				216.3		Corrected Ave (3 peaks):				217.8 RPD = 1
Aroclor-1221	1	4.732	-0.001	256	6.8	1	---			0.0
Aroclor-1221	2	6.131	-0.002	4742	61.9	2	6.302	0.004	5037	91.4
Aroclor-1221	3	6.384	-0.000	27448	154.4	3	6.623	-0.000	18931	203.5
Total CollAve (3 peaks):				74.4		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.732	-0.001	256	11.0	1	---			0.0
Aroclor-1232	2	6.131	-0.002	4742	90.0	2	7.255	-0.001	40190	470.8
Aroclor-1232	3	7.655	-0.004	135282	513.5	3	7.852	-0.002	90338	519.5
Aroclor-1232	4	8.581	-0.003	56938	504.9	4	8.713	-0.001	27776	574.9
Total CollAve (4 peaks):				279.8		Total Col2Ave (3 peaks):				521.7 RPD = 60*
Corrected Ave (3 peaks):				202.0		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	-0.000	40958	264.0	1	7.255	-0.000	40190	267.8
Aroclor-1242	2	7.655	-0.001	135282	266.5	2	7.852	-0.001	90338	271.0
Aroclor-1242	3	8.406	-0.001	40372	267.7	3	9.115	-0.045	15827	151.6
Aroclor-1242	4	8.581	-0.000	56938	249.9	4	9.587	0.001	3186	23.0
Total CollAve (4 peaks):				262.0		Total Col2Ave (4 peaks):				178.4 RPD = 38
Corrected Ave (3 peaks):				260.1		Corrected Ave (3 peaks):				147.5 RPD = 55*
Aroclor-1248	1	8.406	0.000	40372	159.3	1	8.306	0.000	28171	181.6
Aroclor-1248	2	8.581	0.001	56938	176.1	2	8.713	0.000	27776	166.4
Aroclor-1248	3	8.995	-0.004	58213	94.1	3	9.115	-0.042	15827	77.6
Aroclor-1248	4	9.304	0.010	36620	119.6	4	9.587	0.006	3186	12.6
Total CollAve (4 peaks):				137.3		Total Col2Ave (4 peaks):				109.6 RPD = 22
Corrected Ave (3 peaks):				124.4		Corrected Ave (3 peaks):				85.5 RPD = 37
Aroclor-1254	1	9.304	0.005	36620	70.9	1	9.450	0.002	20792	83.5
Aroclor-1254	2	---			0.0	2	9.972	0.003	2640	13.1
Aroclor-1254	3	9.673	0.003	4075	12.3	3	10.148	0.027	52902	120.5
Aroclor-1254	4	9.813	0.004	14733	22.7	4	10.372	0.000	71680	163.3
Aroclor-1254	5	10.122	-0.055	119528	283.6	5	10.569	-0.000	98559	403.2
Total CollAve (4 peaks):				97.4		Total Col2Ave (5 peaks):				156.7 RPD = 47*
Corrected Ave (3 peaks):				35.3		Corrected Ave (4 peaks):				95.1 RPD = 92*
Aroclor-1260	1	11.045	0.002	116435	220.7	1	11.654	0.000	81795	226.0
Aroclor-1260	2	11.362	0.001	116918	215.6	2	11.920	0.002	217887	238.0
Aroclor-1260	3	11.738	0.003	303264	212.5	3	12.437	0.001	56212	246.3
Aroclor-1260	4	12.143	0.004	141534	191.9	4	12.502	0.000	142689	240.8
Aroclor-1260	5	12.246	0.002	68446	212.9	NS	---			----
Total CollAve (5 peaks):				210.7		Total Col2Ave (4 peaks):				237.8 RPD = 12
Corrected Ave (4 peaks):				208.2		Corrected Ave (3 peaks):				234.9 RPD = 12
Aroclor-1262	1	10.830	-0.002	169725	446.4	1	11.200	0.000	83995	171.1
Aroclor-1262	2	12.246	0.000	68446	114.1	2	11.654	0.001	81795	195.9
Aroclor-1262	3	12.320	-0.000	84201	129.2	3	12.437	0.003	56212	126.4
Aroclor-1262	4	12.989	-0.000	78065	131.5	4	12.502	-0.001	142689	200.4
Total CollAve (4 peaks):				205.3		Total Col2Ave (4 peaks):				173.4 RPD = 17
Corrected Ave (3 peaks):				124.9		Corrected Ave (3 peaks):				164.5 RPD = 27
Aroclor-1268	1	12.246	0.001	68446	44.1	1	12.437	0.003	56212	48.0
Aroclor-1268	2	12.320	0.002	84201	54.4	2	12.502	0.001	142689	114.4
Aroclor-1268	3	12.726	0.027	33020	25.7	3	12.894	0.001	1495	1.4
Aroclor-1268	4	13.490	0.001	16019	4.2	4	13.709	0.001	10120	3.2
Total CollAve (4 peaks):				32.1		Total Col2Ave (4 peaks):				41.8 RPD = 26
Corrected Ave (3 peaks):				24.7		Corrected Ave (3 peaks):				17.5 RPD = 34

Total PCB Area Col1 (5.909 - 13.792) = 2789370 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 1810543 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GA00061

Laboratory ID: SLA0281-SCV2

Sequence: SLA0281

Sequence Name: AR1242SCV2

Standard ID: K007656

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1242	250.00	223	-10.9	20.00
Aroclor 1242 [2C]	250.00	235	-5.9	20.00
Decachlorobiphenyl	40.000	38.5	-3.6	20.00
Tetrachlorometaxylene	40.000	37.8	-5.6	20.00
Decachlorobiphenyl [2C]	40.000	40.3	0.9	20.00
Tetrachlorometaxylene [2C]	40.000	37.4	-6.6	20.00

* Indicates values outside of QC limits

[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242325ECD7.D
Data file 2: /230124.b/230124.b/01242325ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242 SCV
Client ID:
Injection Date: 24-JAN-2023 20:12
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.809	-0.000	268580	5.686	-0.001	172592	37.8	37.4	1.1	Tetrachloro-m-xylene
13.892	0.001	392918	14.121	0.001	323869	38.5	40.3	4.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	503089	-0.0
Hexabromobiphenyl	647433	953137	47.2

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	341704	1.4
Hexabromobiphenyl	382032	505860	32.4

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 24-JAN-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	29901	159.9	1	7.255	0.000	32077	173.1
Aroclor-1016	2	7.653	0.003	107333	173.3	2	7.851	-0.000	71438	175.9
Aroclor-1016	3	7.790	0.002	45013	157.9	3	8.051	0.001	29072	175.4
Aroclor-1016	4	8.406	0.002	32958	179.8	4	8.306	0.001	21761	167.5
Total CollAve (4 peaks):				167.7		Total Col2Ave (4 peaks):				173.0 RPD = 3
Corrected Ave (3 peaks):				163.7		Corrected Ave (3 peaks):				172.0 RPD = 5
Aroclor-1221	1	4.737	0.004	141	3.8	1	---			0.0
Aroclor-1221	2	6.133	-0.001	3649	48.0	2	6.317	0.018	4290	78.2
Aroclor-1221	3	6.384	-0.000	21189	120.0	3	6.624	0.001	14613	157.7
Total CollAve (3 peaks):				57.3		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.737	0.003	141	6.1	1	---			0.0
Aroclor-1232	2	6.133	-0.001	3649	69.7	2	7.255	-0.002	32077	377.3
Aroclor-1232	3	7.653	-0.005	107333	410.2	3	7.851	-0.004	71438	412.5
Aroclor-1232	4	8.581	-0.003	59617	532.3	4	8.713	-0.000	22563	468.9
Total CollAve (4 peaks):				254.6		Total Col2Ave (3 peaks):				419.6 RPD = 49*
Corrected Ave (3 peaks):				162.0		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	0.000	29901	194.1	1	7.255	-0.001	32077	214.6
Aroclor-1242	2	7.653	-0.002	107333	212.9	2	7.851	-0.002	71438	215.2
Aroclor-1242	3	8.406	-0.000	32958	220.0	3	9.156	-0.004	27374	263.3
Aroclor-1242	4	8.581	-0.000	59617	263.5	4	9.581	-0.006	34156	247.9
Total CollAve (4 peaks):				222.6		Total Col2Ave (4 peaks):				235.3 RPD = 6
Corrected Ave (3 peaks):				209.0		Corrected Ave (3 peaks):				225.9 RPD = 8
Aroclor-1248	1	8.406	0.001	32958	131.0	1	8.306	0.001	21761	140.9
Aroclor-1248	2	8.581	0.001	59617	185.7	2	8.713	0.001	22563	135.7
Aroclor-1248	3	9.003	0.004	72557	118.2	3	9.156	-0.000	27374	134.7
Aroclor-1248	4	9.296	0.003	28122	92.5	4	9.581	-0.001	34156	135.9
Total CollAve (4 peaks):				131.8		Total Col2Ave (4 peaks):				136.8 RPD = 4
Corrected Ave (3 peaks):				113.9		Corrected Ave (3 peaks):				135.5 RPD = 17
Aroclor-1254	1	9.296	-0.002	28122	54.8	1	9.448	0.000	11650	47.0
Aroclor-1254	2	9.380	0.002	9292	42.4	2	9.968	-0.001	7642	38.1
Aroclor-1254	3	9.671	0.001	12871	39.2	3	10.120	-0.001	16012	36.6
Aroclor-1254	4	9.808	-0.000	22113	34.4	4	10.378	0.007	16300	37.3
Aroclor-1254	5	10.176	-0.001	17771	42.5	5	10.572	0.004	4439	18.2
Total CollAve (5 peaks):				42.7		Total Col2Ave (5 peaks):				35.5 RPD = 18
Corrected Ave (4 peaks):				39.6		Corrected Ave (4 peaks):				32.6 RPD = 19
Aroclor-1260	1	11.047	0.003	741	1.4	1	11.663	0.010	1794	4.9
Aroclor-1260	2	11.366	0.006	379	0.7	2	11.923	0.005	1208	1.3
Aroclor-1260	3	11.745	0.011	860	0.6	3	12.507	0.071	977	4.2
Aroclor-1260	4	12.154	0.014	1536	2.1	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
Total CollAve (4 peaks):				1.2		Total Col2Ave (3 peaks):				3.5 RPD = 99*
Corrected Ave (3 peaks):				0.9		Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.836	0.004	10654	27.6	1	11.120	-0.080	8071	16.3
Aroclor-1262	2	12.154	-0.092	1536	2.5	2	11.663	0.010	1794	4.3
Aroclor-1262	3	---			0.0	3	12.507	0.073	977	2.2
Aroclor-1262	4	13.040	0.051	1739	2.9	4	---			0.0
Total CollAve (3 peaks):				11.0		Total Col2Ave (3 peaks):				7.6 RPD = 37
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.154	-0.091	1536	1.0	1	12.507	0.073	977	0.8
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.623	-0.076	5080	3.9	3	12.894	0.001	98	0.1
Aroclor-1268	4	13.501	0.012	2725	0.7	4	13.707	-0.001	1566	0.5
Total CollAve (3 peaks):				1.9		Total Col2Ave (3 peaks):				0.5 RPD = 120*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.909 - 13.792) = 915887 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 575897 Col2 Total PCB = 0.2 ppm*

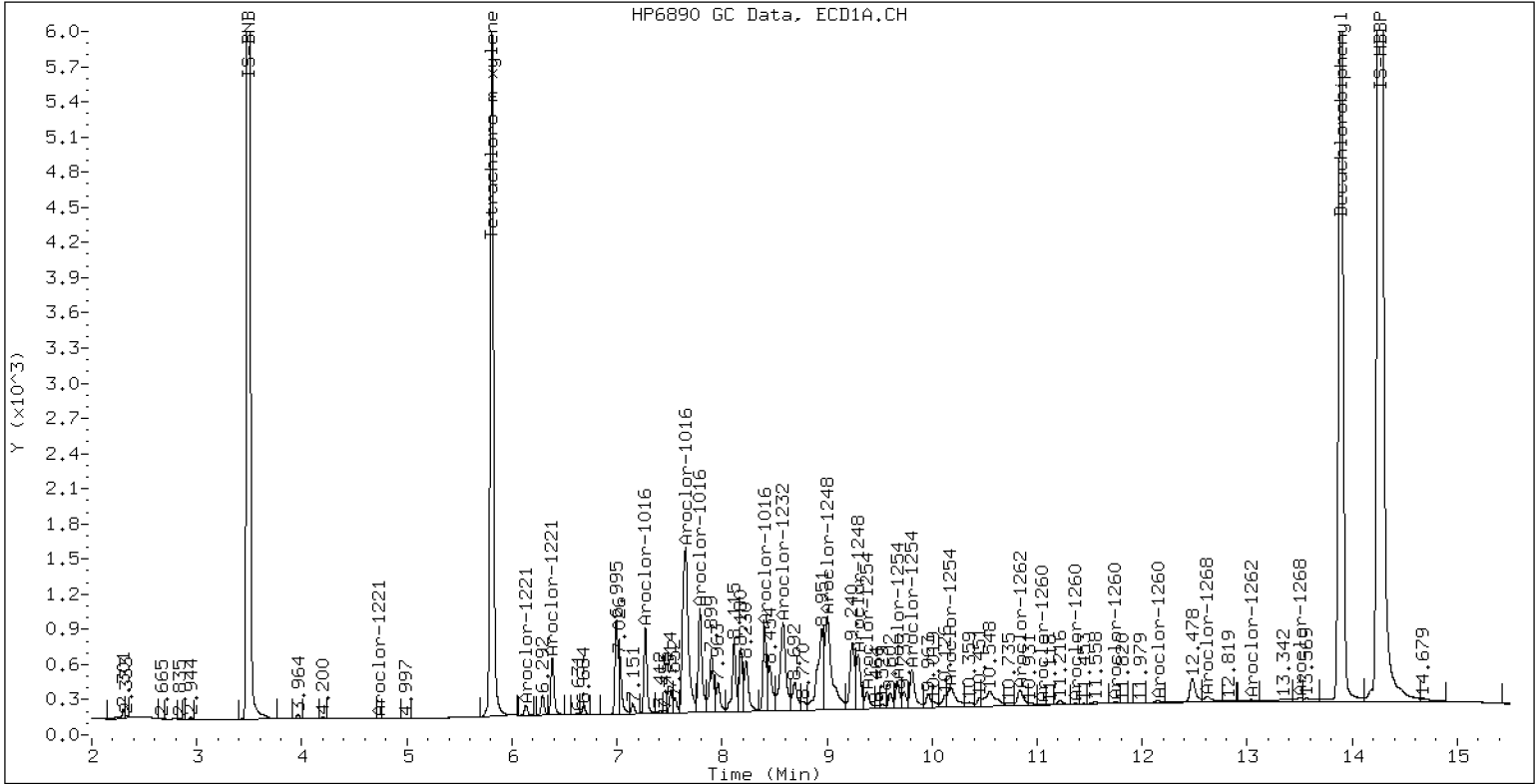
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242 SCV

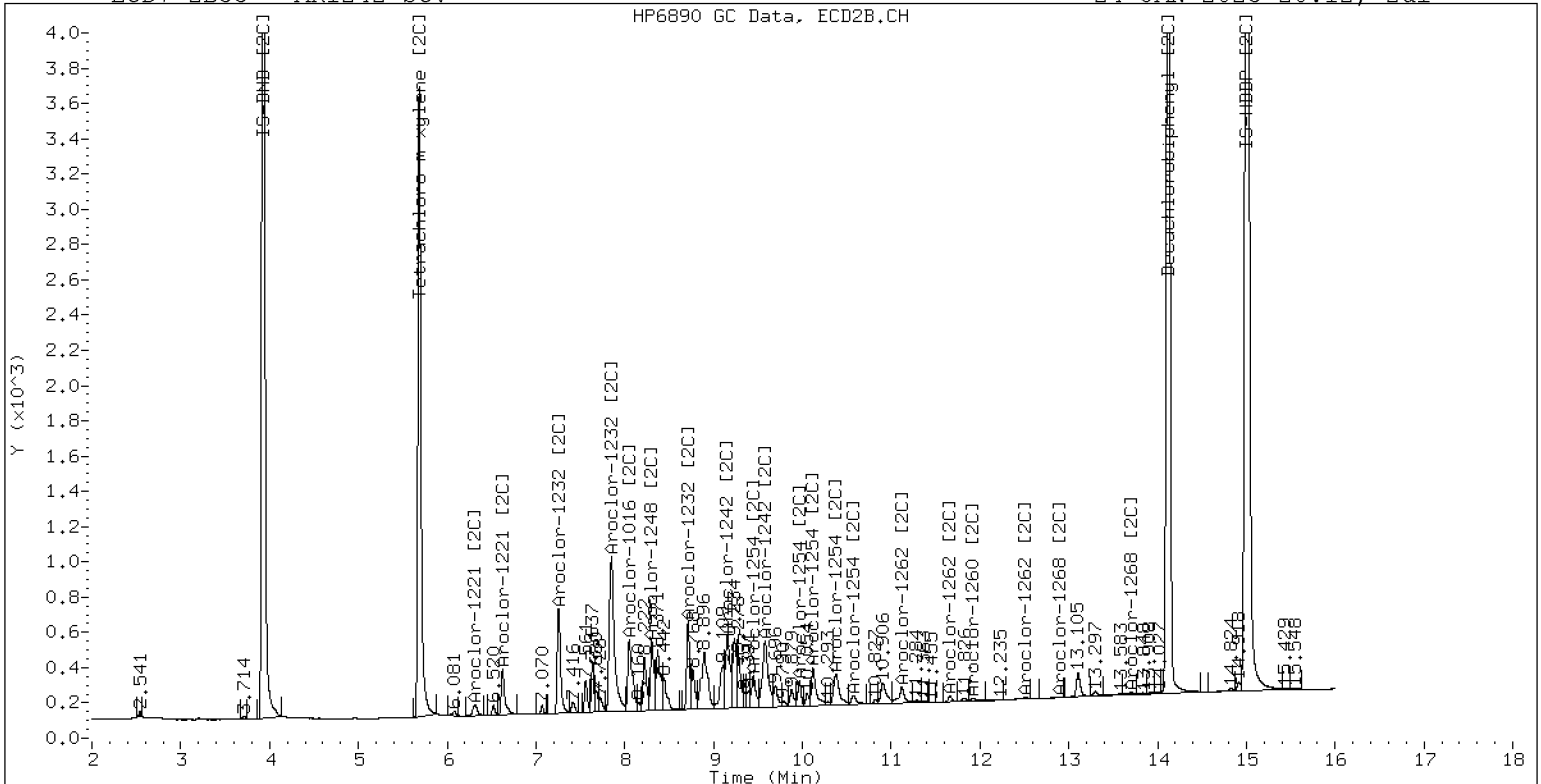
24-JAN-2023 20:12, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242 SCV

24-JAN-2023 20:12, 2ul



ZB-35 Manual Integration: NO



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GA00061

Laboratory ID: SLA0281-SCV3

Sequence: SLA0281

Sequence Name: AR1248SCV3

Standard ID: K007657

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1248	250.00	237	-5.1	20.00
Aroclor 1248 [2C]	250.00	231	-7.6	20.00
Decachlorobiphenyl	40.000	38.3	-4.3	20.00
Tetrachlorometaxylene	40.000	36.8	-8.1	20.00
Decachlorobiphenyl [2C]	40.000	39.6	-1.1	20.00
Tetrachlorometaxylene [2C]	40.000	36.5	-8.6	20.00

* Indicates values outside of QC limits

[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242326ECD7.D
Data file 2: /230124.b/230124.b/01242326ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248 SCV
Client ID:
Injection Date: 24-JAN-2023 20:33
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	0.000	263982	5.686	-0.001	169991	36.8	36.5	0.6	Tetrachloro-m-xylene
13.892	0.001	400655	14.121	0.001	316171	38.3	39.6	3.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	508189	1.0
Hexabromobiphenyl	647433	979067	51.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	344105	2.1
Hexabromobiphenyl	382032	503378	31.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	14777	78.3	1	7.254	-0.001	16100	86.3
Aroclor-1016	2	7.655	0.004	70114	112.1	2	7.853	0.002	47184	115.4
Aroclor-1016	3	7.794	0.006	27212	94.5	3	8.053	0.003	9427	56.5
Aroclor-1016	4	8.406	0.003	59884	323.4	4	8.306	0.001	36680	280.3
Total CollAve (4 peaks):				152.0		Total Col2Ave (4 peaks):				134.6 RPD = 12
Corrected Ave (3 peaks):				94.9		Corrected Ave (3 peaks):				86.0 RPD = 10
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.133	-0.000	591	7.7	2	6.323	0.025	1820	32.9
Aroclor-1221	3	6.386	0.001	2453	13.8	3	6.627	0.004	1477	15.8
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.133	-0.000	591	11.2	2	7.254	-0.002	16100	188.0
Aroclor-1232	3	7.655	-0.004	70114	265.3	3	7.853	-0.001	47184	270.6
Aroclor-1232	4	8.581	-0.003	76286	674.3	4	8.714	0.000	39330	811.7
Total CollAve (3 peaks):				316.9		Total Col2Ave (3 peaks):				423.4 RPD = 29
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	0.000	14777	95.0	1	7.254	-0.002	16100	107.0
Aroclor-1242	2	7.655	-0.001	70114	137.7	2	7.853	0.000	47184	141.2
Aroclor-1242	3	8.406	-0.000	59884	395.8	3	9.159	-0.001	46988	448.9
Aroclor-1242	4	8.581	-0.000	76286	333.8	4	9.584	-0.003	56615	408.1
Total CollAve (4 peaks):				240.5		Total Col2Ave (4 peaks):				276.3 RPD = 14
Corrected Ave (3 peaks):				188.8		Corrected Ave (3 peaks):				218.7 RPD = 15
Aroclor-1248	1	8.406	0.001	59884	235.6	1	8.306	0.001	36680	235.8
Aroclor-1248	2	8.581	0.001	76286	235.2	2	8.714	0.002	39330	234.9
Aroclor-1248	3	9.000	0.001	148805	239.9	3	9.159	0.003	46988	229.7
Aroclor-1248	4	9.295	0.001	73114	238.1	4	9.584	0.002	56615	223.8
Total CollAve (4 peaks):				237.2		Total Col2Ave (4 peaks):				231.0 RPD = 3
Corrected Ave (3 peaks):				236.3		Corrected Ave (3 peaks):				229.5 RPD = 3
Aroclor-1254	1	9.295	-0.004	73114	141.2	1	9.449	0.001	20314	81.4
Aroclor-1254	2	9.378	0.000	36561	165.3	2	9.970	0.000	18678	92.6
Aroclor-1254	3	9.672	0.003	30736	92.6	3	10.124	0.003	35321	80.2
Aroclor-1254	4	9.813	0.004	53537	82.3	4	10.387	0.015	35188	79.9
Aroclor-1254	5	10.192	0.015	40119	94.9	5	10.575	0.006	7386	30.1
Total CollAve (5 peaks):				115.3		Total Col2Ave (5 peaks):				72.9 RPD = 45*
Corrected Ave (4 peaks):				102.7		Corrected Ave (4 peaks):				67.9 RPD = 41*
Aroclor-1260	1	11.054	0.010	1868	3.4	1	11.664	0.011	2055	5.7
Aroclor-1260	2	11.366	0.005	1375	2.4	2	11.926	0.009	1303	1.4
Aroclor-1260	3	11.745	0.010	2137	1.4	3	12.439	0.003	395	1.7
Aroclor-1260	4	12.147	0.008	1650	2.1	4	12.507	0.005	890	1.5
Aroclor-1260	5	12.255	0.011	558	1.7	NS	---			----
Total CollAve (5 peaks):				2.2		Total Col2Ave (4 peaks):				2.6 RPD = 15
Corrected Ave (4 peaks):				1.9		Corrected Ave (3 peaks):				1.5 RPD = 22
Aroclor-1262	1	10.837	0.005	12736	32.2	1	11.122	-0.078	7136	14.5
Aroclor-1262	2	12.255	0.010	558	0.9	2	11.664	0.011	2055	4.9
Aroclor-1262	3	12.327	0.006	596	0.9	3	12.439	0.004	395	0.9
Aroclor-1262	4	12.996	0.007	1113	1.8	4	12.507	0.003	890	1.2
Total CollAve (4 peaks):				8.9		Total Col2Ave (4 peaks):				5.4 RPD = 50*
Corrected Ave (3 peaks):				1.2		Corrected Ave (3 peaks):				2.3 RPD = 65*
Aroclor-1268	1	12.255	0.010	558	0.3	1	12.439	0.005	395	0.3
Aroclor-1268	2	12.327	0.009	596	0.4	2	12.507	0.005	890	0.7
Aroclor-1268	3	12.706	0.007	1161	0.9	3	12.896	0.003	166	0.2
Aroclor-1268	4	13.504	0.016	3330	0.8	4	13.717	0.009	469	0.1
Total CollAve (4 peaks):				0.6		Total Col2Ave (4 peaks):				0.3 RPD = 57*
Corrected Ave (3 peaks):				0.5		Corrected Ave (3 peaks):				0.2 RPD = 83*

Total PCB Area Col1 (5.909 - 13.792) = 1230760 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 742749 Col2 Total PCB = 0.2 ppm*

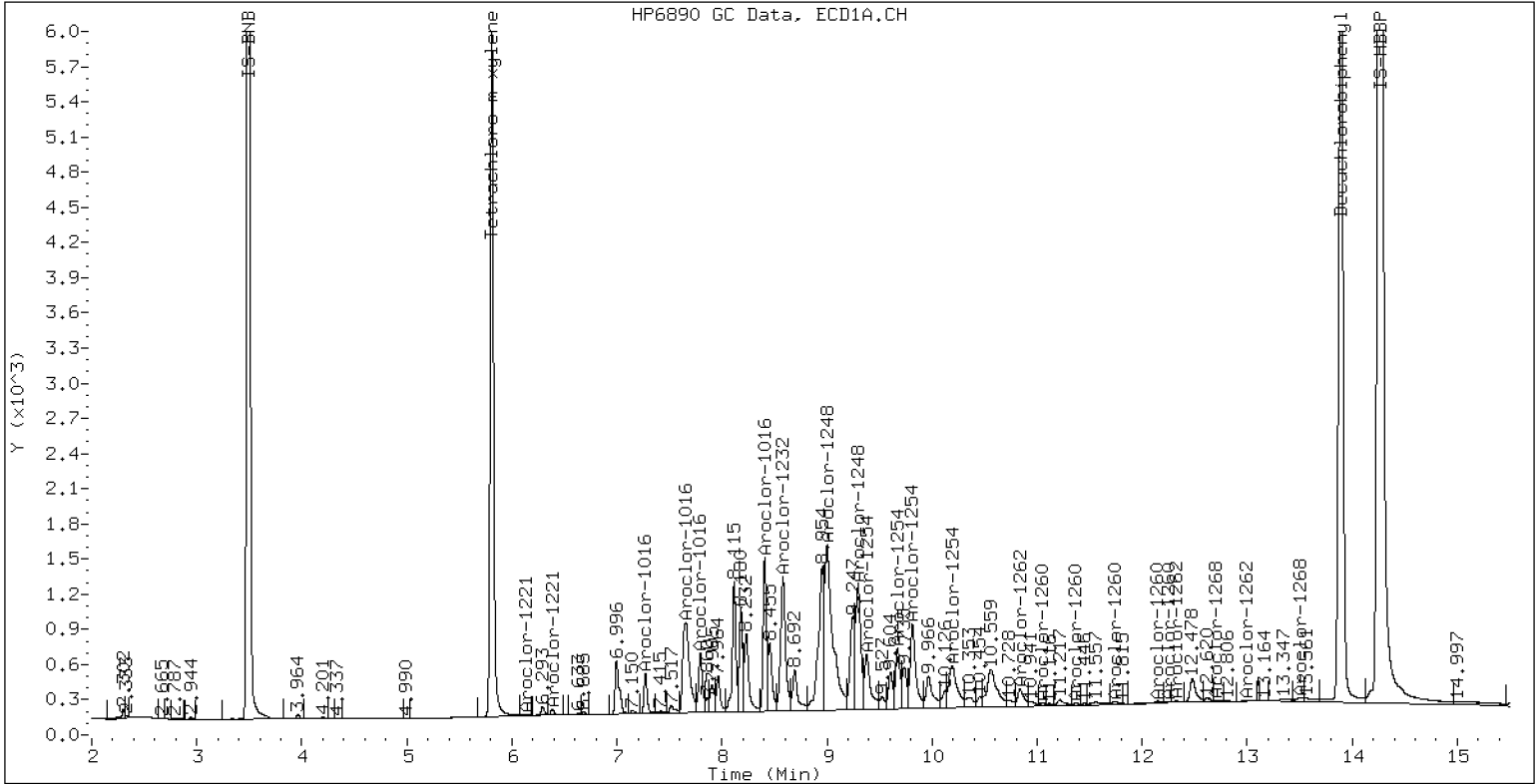
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248 SCV

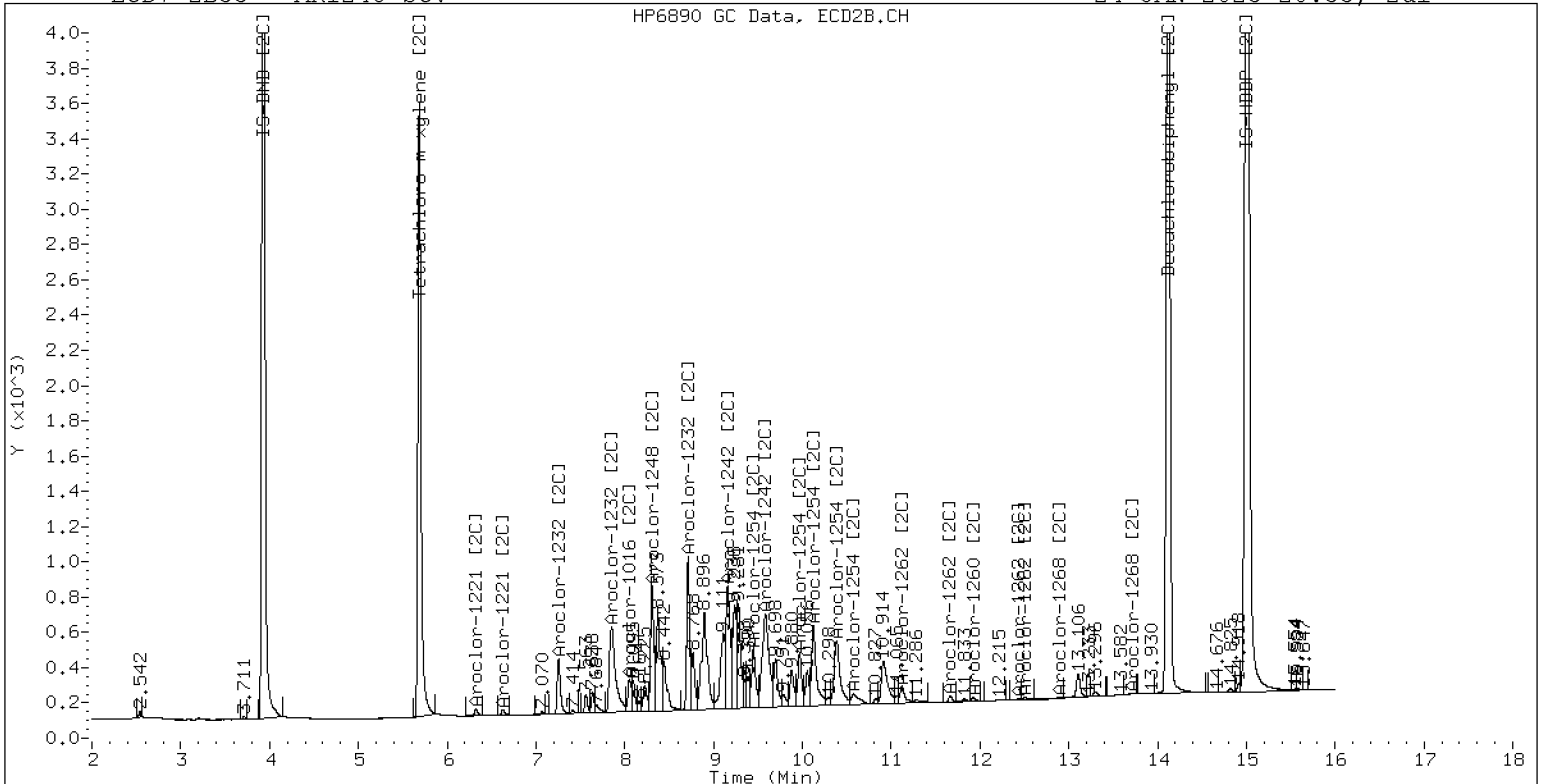
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ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248 SCV

24-JAN-2023 20:33, 2ul



ZB-35 Manual Integration: NO



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GA00061

Laboratory ID: SLA0281-SCV4

Sequence: SLA0281

Sequence Name: AR1254SCV4

Standard ID: K007658

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1254	250.00	221	-11.7	20.00
Aroclor 1254 [2C]	250.00	227	-9.4	20.00
Decachlorobiphenyl	40.000	37.1	-7.3	20.00
Tetrachlorometaxylene	40.000	36.7	-8.3	20.00
Decachlorobiphenyl [2C]	40.000	39.5	-1.1	20.00
Tetrachlorometaxylene [2C]	40.000	36.6	-8.4	20.00

* Indicates values outside of QC limits

[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242327ECD7.D
Data file 2: /230124.b/230124.b/01242327ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254 SCV
Client ID:
Injection Date: 24-JAN-2023 20:54
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.809	-0.000	261398	5.686	-0.001	169839	36.7	36.6	0.1	Tetrachloro-m-xylene
13.892	0.001	383983	14.121	0.001	323233	37.1	39.5	6.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	504424	0.2
Hexabromobiphenyl	647433	968338	49.6

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	342969	1.8
Hexabromobiphenyl	382032	515045	34.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.273	0.003	320	1.7	1	7.258	0.003	332	1.8	
Aroclor-1016	2	7.658	0.008	991	1.6	2	---			0.0	
Aroclor-1016	3	7.795	0.007	662	2.3	3	8.097	0.047	515	3.1	
Aroclor-1016	4	8.408	0.005	21378	116.3	4	8.307	0.002	20446	156.8	
Total CollAve (4 peaks):				30.5	Total Col2Ave (3 peaks):				53.9	RPD = 55*	
Corrected Ave (3 peaks):				1.9	Corrected Ave: < 3 Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	6.325	0.026	1749	31.7	
Aroclor-1221	3	---			0.0	3	6.633	0.011	321	3.5	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	7.258	0.001	332	3.9	
Aroclor-1232	3	7.658	-0.000	991	3.8	3	---			0.0	
Aroclor-1232	4	8.587	0.003	8887	79.1	4	8.715	0.001	14030	290.5	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	7.273	0.002	320	2.1	1	7.258	0.002	332	2.2	
Aroclor-1242	2	7.658	0.003	991	2.0	2	---			0.0	
Aroclor-1242	3	8.408	0.002	21378	142.3	3	9.164	0.004	26593	254.9	
Aroclor-1242	4	8.587	0.006	8887	39.2	4	9.543	-0.043	34385	248.7	
Total CollAve (4 peaks):				46.4	Total Col2Ave (3 peaks):				168.6	RPD = 114*	
Corrected Ave (3 peaks):				14.4	Corrected Ave: < 3 Peaks						
Aroclor-1248	1	8.408	0.003	21378	84.7	1	8.307	0.001	20446	131.9	
Aroclor-1248	2	8.587	0.007	8887	27.6	2	8.715	0.003	14030	84.1	
Aroclor-1248	3	8.995	-0.004	110289	179.1	3	9.164	0.007	26593	130.4	
Aroclor-1248	4	9.300	0.007	113143	371.2	4	9.543	-0.038	34385	136.4	
Total CollAve (4 peaks):				165.7	Total Col2Ave (4 peaks):				120.7	RPD = 31	
Corrected Ave (3 peaks):				97.2	Corrected Ave (3 peaks): 115.5 RPD = 17						
Aroclor-1254	1	9.300	0.002	113143	220.1	1	9.449	0.001	56453	226.9	
Aroclor-1254	2	9.379	0.001	49468	225.4	2	9.970	0.001	45325	225.4	
Aroclor-1254	3	9.671	0.002	72811	221.0	3	10.122	0.002	97044	221.2	
Aroclor-1254	4	9.811	0.002	140530	217.7	4	10.374	0.002	98778	225.2	
Aroclor-1254	5	10.182	0.005	92254	219.8	5	10.570	0.001	57171	234.0	
Total CollAve (5 peaks):				220.8	Total Col2Ave (5 peaks):				226.5	RPD = 3	
Corrected Ave (4 peaks):				219.7	Corrected Ave (4 peaks): 224.7 RPD = 2						
Aroclor-1260	1	11.045	0.002	8960	16.5	1	11.661	0.008	26985	72.6	
Aroclor-1260	2	11.364	0.004	9237	16.5	2	11.923	0.006	19882	21.2	
Aroclor-1260	3	11.741	0.007	21268	14.5	3	12.505	0.069	13190	56.3	
Aroclor-1260	4	12.146	0.007	19041	25.1	4	---			0.0	
Aroclor-1260	5	12.321	0.077	1835	5.5	NS	---			---	
Total CollAve (5 peaks):				15.6	Total Col2Ave (3 peaks):				50.0	RPD = 105*	
Corrected Ave (4 peaks):				13.3	Corrected Ave: < 3 Peaks						
Aroclor-1262	1	10.832	0.000	157590	402.4	1	11.119	-0.081	92414	183.3	
Aroclor-1262	2	12.321	0.075	1835	3.0	2	11.661	0.008	26985	63.0	
Aroclor-1262	3	---			0.0	3	12.505	0.071	13190	28.9	
Aroclor-1262	4	12.995	0.006	843	1.4	4	---			0.0	
Total CollAve (3 peaks):				135.6	Total Col2Ave (3 peaks):				91.7	RPD = 39	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1268	1	12.321	0.076	1835	1.1	1	12.505	0.072	13190	11.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	12.720	0.021	1314	1.0	3	12.891	-0.002	169	0.2	
Aroclor-1268	4	13.504	0.016	1169	0.3	4	13.706	-0.002	1132	0.3	
Total CollAve (3 peaks):				0.8	Total Col2Ave (3 peaks):				3.8	RPD = 130*	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						

Total PCB Area Col1 (5.909 - 13.792) = 1507519 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 951047 Col2 Total PCB = 0.3 ppm*

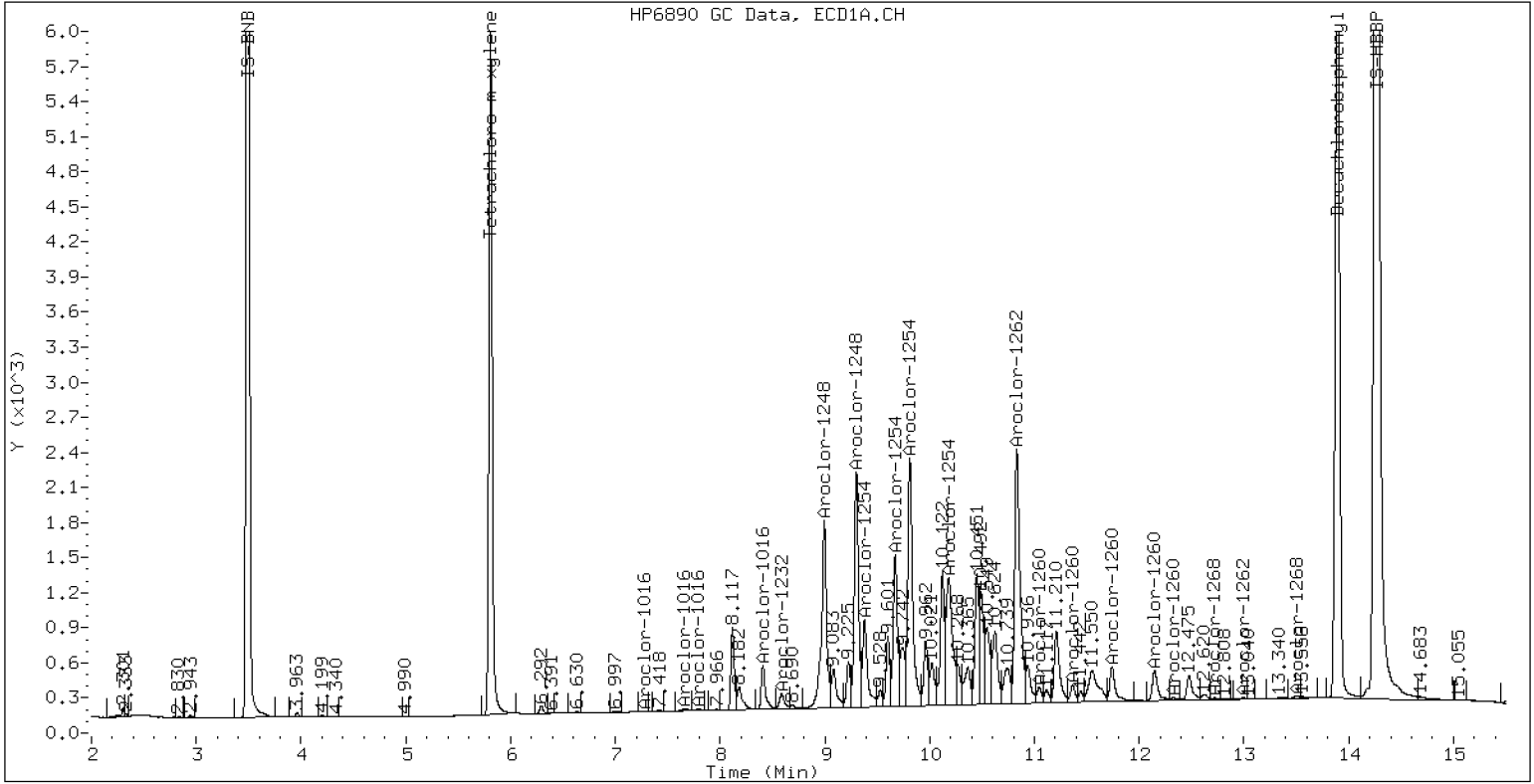
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254 SCV

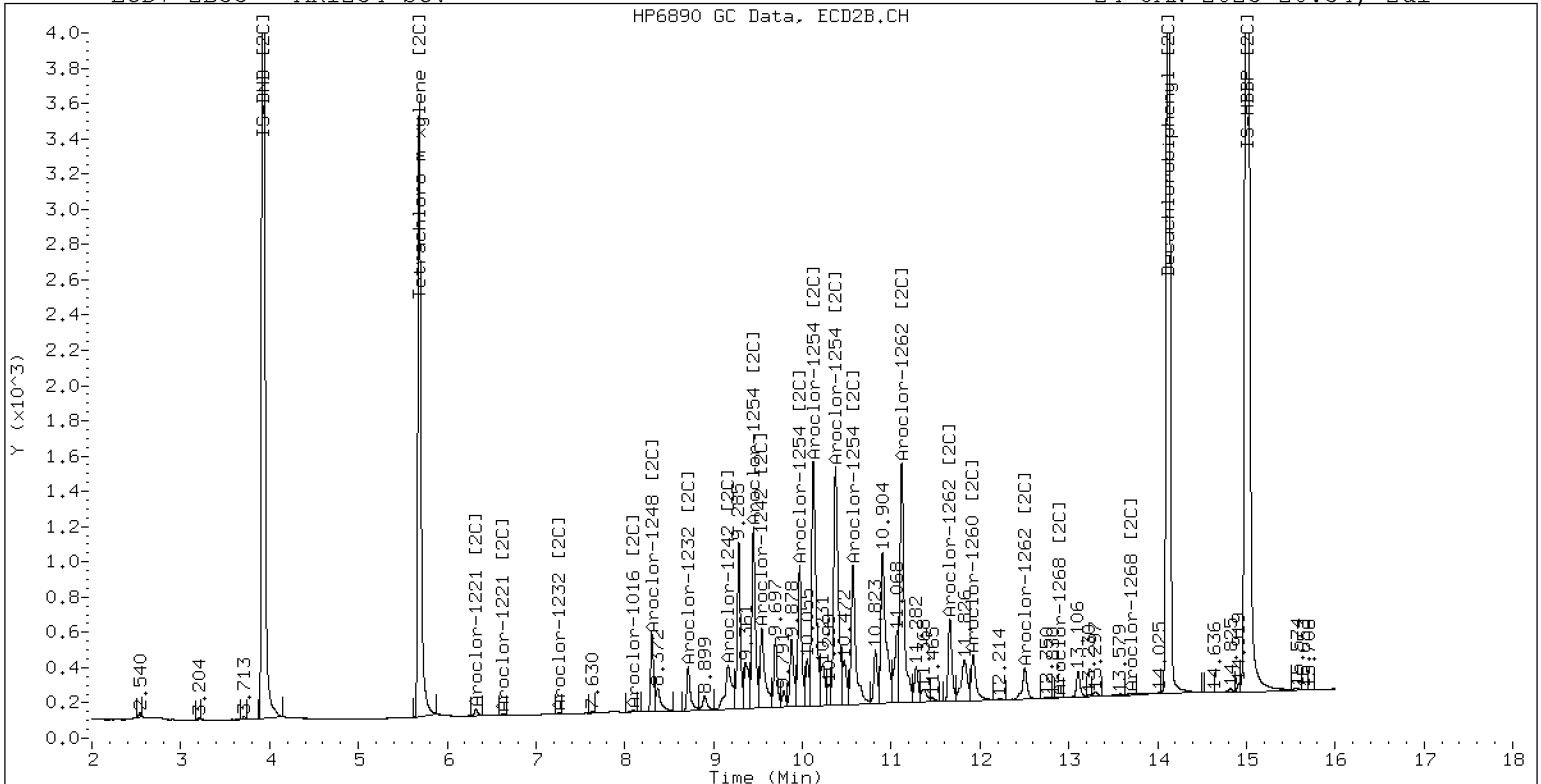
24-JAN-2023 20:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254 SCV

24-JAN-2023 20:54, 2ul



ZB-35 Manual Integration: NO



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GA00061

Laboratory ID: SLA0281-SCV5

Sequence: SLA0281

Sequence Name: AR2162SCV5

Standard ID: K007659

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1221	250.00	228	-8.8	20.00
Aroclor 1221 [2C]	250.00	239	-4.5	20.00
Decachlorobiphenyl	40.000	37.5	-6.4	20.00
Tetrachlorometaxylene	40.000	37.3	-6.8	20.00
Decachlorobiphenyl [2C]	40.000	39.5	-1.3	20.00
Tetrachlorometaxylene [2C]	40.000	37.2	-7.1	20.00

* Indicates values outside of QC limits

[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242328ECD7.D
Data file 2: /230124.b/230124.b/01242328ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162 SCV
Client ID:
Injection Date: 24-JAN-2023 21:15
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.809	-0.000	265357	5.685	-0.001	170984	37.3	37.2	0.3	Tetrachloro-m-xylene
13.891	-0.001	397332	14.119	-0.001	326981	37.5	39.5	5.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	503473	0.0
Hexabromobiphenyl	647433	991997	53.2

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	340361	1.0
Hexabromobiphenyl	382032	521975	36.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.272	0.002	5326	28.5	1	7.257	0.002	6708	36.3	
Aroclor-1016	2	7.664	0.013	11965	19.3	2	7.856	0.005	7233	17.9	
Aroclor-1016	3	7.797	0.009	6015	21.1	3	8.058	0.008	2997	18.2	
Aroclor-1016	4	8.410	0.006	3771	20.6	4	8.308	0.002	2065	16.0	
Total CollAve (4 peaks):				22.4	Total Col2Ave (4 peaks):				22.1	RPD = 1	
Corrected Ave (3 peaks):				20.3	Corrected Ave (3 peaks):				17.3	RPD = 16	
Aroclor-1221	1	4.732	-0.000	9097	244.5	1	4.959	-0.000	6157	246.8	
Aroclor-1221	2	6.133	-0.000	16114	211.8	2	6.297	-0.001	12807	234.2	
Aroclor-1221	3	6.384	0.000	40299	228.1	3	6.622	-0.000	21707	235.2	
Total CollAve (3 peaks):				228.1	Total Col2Ave (3 peaks):				238.7	RPD = 5	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.732	-0.001	9097	391.6	1	4.959	-0.001	6157	406.9	
Aroclor-1232	2	6.133	0.000	16114	307.8	2	7.257	0.000	6708	79.2	
Aroclor-1232	3	7.664	0.005	11965	45.7	3	7.856	0.001	7233	41.9	
Aroclor-1232	4	8.589	0.004	2837	25.3	4	8.716	0.002	1869	39.0	
Total CollAve (4 peaks):				192.6	Total Col2Ave (4 peaks):				141.7	RPD = 30	
Corrected Ave (3 peaks):				126.3	Corrected Ave (3 peaks):				53.4	RPD = 81*	
Aroclor-1242	1	7.272	0.001	5326	34.5	1	7.257	0.001	6708	45.1	
Aroclor-1242	2	7.664	0.008	11965	23.7	2	7.856	0.003	7233	21.9	
Aroclor-1242	3	8.410	0.004	3771	25.2	3	9.169	0.009	1956	18.9	
Aroclor-1242	4	8.589	0.007	2837	12.5	4	9.544	-0.043	5978	43.6	
Total CollAve (4 peaks):				24.0	Total Col2Ave (4 peaks):				32.3	RPD = 30	
Corrected Ave (3 peaks):				20.5	Corrected Ave (3 peaks):				28.1	RPD = 31	
Aroclor-1248	1	8.410	0.005	3771	15.0	1	8.308	0.002	2065	13.4	
Aroclor-1248	2	8.589	0.008	2837	8.8	2	8.716	0.004	1869	11.3	
Aroclor-1248	3	8.997	-0.002	36022	58.6	3	9.169	0.012	1956	9.7	
Aroclor-1248	4	9.305	0.011	30853	101.4	4	9.544	-0.038	5978	23.9	
Total CollAve (4 peaks):				46.0	Total Col2Ave (4 peaks):				14.6	RPD = 104*	
Corrected Ave (3 peaks):				27.5	Corrected Ave (3 peaks):				11.5	RPD = 82*	
Aroclor-1254	1	9.305	0.006	30853	60.1	1	9.451	0.003	17617	71.3	
Aroclor-1254	2	9.376	-0.002	5370	24.5	2	9.970	0.001	2849	14.3	
Aroclor-1254	3	9.673	0.003	5543	16.9	3	10.146	0.026	88151	202.5	
Aroclor-1254	4	9.810	0.002	14544	22.6	4	10.370	-0.002	107074	245.9	
Aroclor-1254	5	10.121	-0.056	180016	429.7	5	10.567	-0.002	141725	584.5	
Total CollAve (5 peaks):				110.8	Total Col2Ave (5 peaks):				223.7	RPD = 68*	
Corrected Ave (4 peaks):				31.0	Corrected Ave (4 peaks):				133.5	RPD = 125*	
Aroclor-1260	1	11.044	0.001	310806	558.4	1	11.652	-0.001	187682	498.4	
Aroclor-1260	2	11.361	0.000	263161	460.0	2	11.917	-0.000	450612	473.0	
Aroclor-1260	3	11.735	0.000	629605	418.0	3	12.433	-0.003	206042	867.7	
Aroclor-1260	4	12.141	0.001	210012	269.9	4	12.502	-0.000	326457	529.5	
Aroclor-1260	5	12.244	-0.000	268425	791.3	NS	---			----	
Total CollAve (5 peaks):				499.5	Total Col2Ave (4 peaks):				592.1	RPD = 17	
Corrected Ave (4 peaks):				426.6	Corrected Ave (3 peaks):				500.3	RPD = 16	
Aroclor-1262	1	10.828	-0.005	171094	426.5	1	11.200	0.000	219731	430.1	
Aroclor-1262	2	12.244	-0.002	268425	423.9	2	11.652	-0.001	187682	432.0	
Aroclor-1262	3	12.319	-0.002	291581	424.2	3	12.433	-0.001	206042	445.4	
Aroclor-1262	4	12.988	-0.001	257735	411.5	4	12.502	-0.002	326457	440.6	
Total CollAve (4 peaks):				421.5	Total Col2Ave (4 peaks):				437.0	RPD = 4	
Corrected Ave (3 peaks):				419.8	Corrected Ave (3 peaks):				434.3	RPD = 3	
Aroclor-1268	1	12.244	-0.001	268425	163.8	1	12.433	-0.000	206042	169.0	
Aroclor-1268	2	12.319	0.001	291581	178.4	2	12.502	0.000	326457	251.7	
Aroclor-1268	3	12.725	0.026	108693	80.3	3	12.892	-0.001	10062	9.3	
Aroclor-1268	4	13.486	-0.003	95646	23.8	4	13.710	0.001	59437	17.8	
Total CollAve (4 peaks):				111.6	Total Col2Ave (4 peaks):				112.0	RPD = 0	

Corrected Ave (3 peaks): 89.3 Corrected Ave (3 peaks): 65.4 RPD = 31

Total PCB Area Col1 (5.909 - 13.792) = 4409992 Col1 Total PCB = 0.8 ppm*
Total PCB Area Col2 (5.787 - 14.020) = 2874073 Col2 Total PCB = 0.8 ppm*

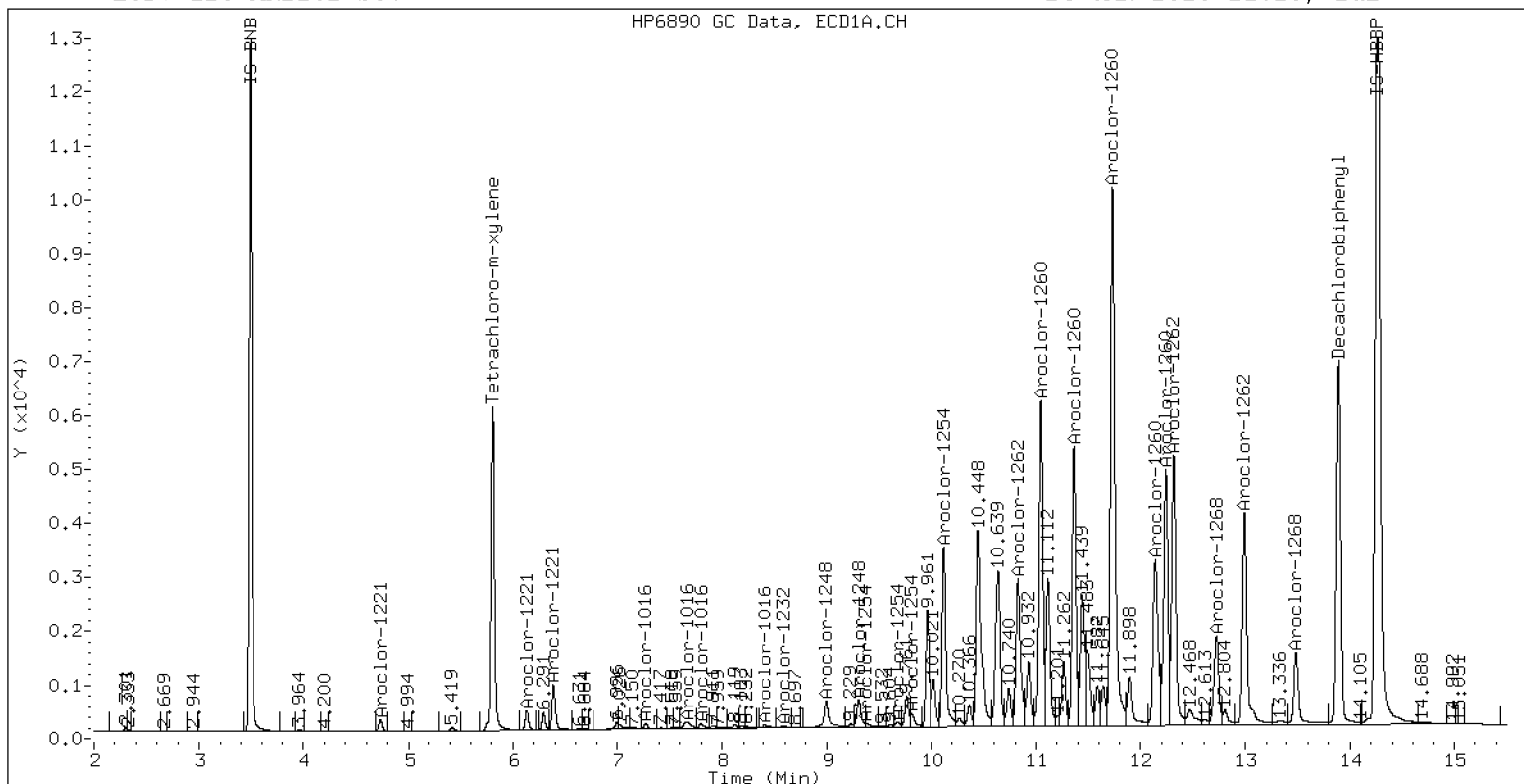
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR2162 SCV

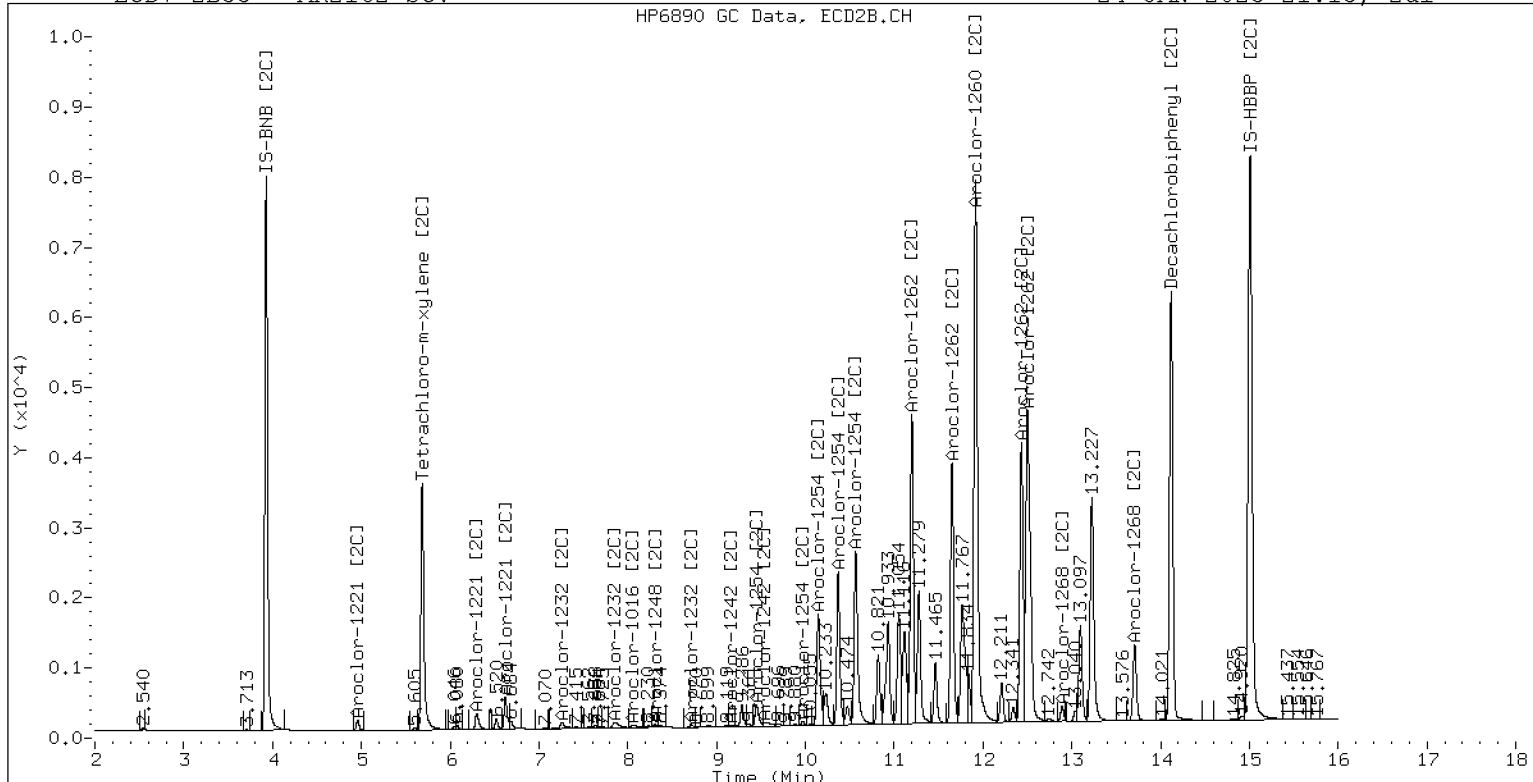
24-JAN-2023 21:15, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162 SCV

24-JAN-2023 21:15, 2ul



ZB-35 Manual Integration: NO



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GA00061

Laboratory ID: SLA0281-SCV6

Sequence: SLA0281

Sequence Name: AR3268SCV6

Standard ID: K007660

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1232	250.00	216	-13.7	20.00
Aroclor 1232 [2C]	250.00	239	-4.5	20.00
Decachlorobiphenyl	40.000	54.6	36.5	20.00
Tetrachlorometaxylene	40.000	36.4	-9.1	20.00
Decachlorobiphenyl [2C]	40.000	57.9	44.8	20.00
Tetrachlorometaxylene [2C]	40.000	36.3	-9.2	20.00

* Indicates values outside of QC limits

[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242329ECD7.D
Data file 2: /230124.b/230124.b/01242329ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268 SCV
Client ID:
Injection Date: 24-JAN-2023 21:36
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.810	0.001	250455	5.687	0.000	162795	36.4	36.3	0.2	Tetrachloro-m-xylene
13.892	0.000	551946	14.120	0.000	461901	54.6	57.9	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	487061	-3.2
Hexabromobiphenyl	647433	944934	46.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	331721	-1.5
Hexabromobiphenyl	382032	502401	31.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.272	0.002	19363	107.0	1	7.256	0.001	19791	110.0
Aroclor-1016	2	7.659	0.009	58630	97.8	2	7.856	0.005	40139	101.8
Aroclor-1016	3	7.794	0.006	28286	102.5	3	8.055	0.005	17412	108.2
Aroclor-1016	4	8.408	0.004	17373	97.9	4	8.308	0.003	11962	94.8
Total CollAve (4 peaks):				101.3		Total Col2Ave (4 peaks):				103.7 RPD = 2
Corrected Ave (3 peaks):				99.4		Corrected Ave (3 peaks):				101.6 RPD = 2
Aroclor-1221	1	4.735	0.002	5022	139.5	1	4.961	0.002	3409	140.2
Aroclor-1221	2	6.134	0.001	8987	122.1	2	6.299	0.001	7677	144.1
Aroclor-1221	3	6.385	0.001	29368	171.8	3	6.624	0.001	16198	180.1
Total CollAve (3 peaks):				144.5		Total Col2Ave (3 peaks):				154.8 RPD = 7
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.735	0.002	5022	223.5	1	4.961	0.002	3409	231.1
Aroclor-1232	2	6.134	0.001	8987	177.4	2	7.256	-0.001	19791	239.8
Aroclor-1232	3	7.659	0.001	58630	231.5	3	7.856	0.001	40139	238.8
Aroclor-1232	4	8.585	0.000	24991	230.5	4	8.715	0.001	11476	245.7
Total CollAve (4 peaks):				215.7		Total Col2Ave (4 peaks):				238.8 RPD = 10
Corrected Ave (3 peaks):				210.5		Corrected Ave (3 peaks):				236.6 RPD = 12
Aroclor-1242	1	7.272	0.001	19363	129.8	1	7.256	0.000	19791	136.4
Aroclor-1242	2	7.659	0.004	58630	120.1	2	7.856	0.002	40139	124.6
Aroclor-1242	3	8.408	0.001	17373	119.8	3	9.166	0.006	11813	117.1
Aroclor-1242	4	8.585	0.003	24991	114.1	4	9.595	0.009	16549	123.7
Total CollAve (4 peaks):				121.0		Total Col2Ave (4 peaks):				125.4 RPD = 4
Corrected Ave (3 peaks):				118.0		Corrected Ave (3 peaks):				121.8 RPD = 3
Aroclor-1248	1	8.408	0.002	17373	71.3	1	8.308	0.003	11962	79.8
Aroclor-1248	2	8.585	0.005	24991	80.4	2	8.715	0.003	11476	71.1
Aroclor-1248	3	9.001	0.002	67631	113.8	3	9.166	0.009	11813	59.9
Aroclor-1248	4	9.293	-0.001	30983	105.3	4	9.595	0.014	16549	67.9
Total CollAve (4 peaks):				92.7		Total Col2Ave (4 peaks):				69.7 RPD = 28
Corrected Ave (3 peaks):				85.7		Corrected Ave (3 peaks):				66.3 RPD = 26
Aroclor-1254	1	9.293	-0.006	30983	62.4	1	9.451	0.003	3749	15.6
Aroclor-1254	2	9.381	0.003	9071	42.8	2	9.974	0.005	2452	12.6
Aroclor-1254	3	9.678	0.009	5199	16.3	3	10.131	0.010	4718	11.1
Aroclor-1254	4	9.820	0.012	8864	14.2	4	10.389	0.018	4224	10.0
Aroclor-1254	5	10.195	0.018	8085	19.9	5	10.573	0.004	1573	6.7
Total CollAve (5 peaks):				31.1		Total Col2Ave (5 peaks):				11.2 RPD = 94*
Corrected Ave (4 peaks):				23.3		Corrected Ave (4 peaks):				10.1 RPD = 79*
Aroclor-1260	1	11.050	0.006	66852	126.1	1	11.647	-0.006	57235	157.9
Aroclor-1260	2	11.366	0.006	6269	11.5	2	11.919	0.002	25368	27.7
Aroclor-1260	3	11.741	0.007	41446	28.9	3	12.434	-0.002	262014	1146.4
Aroclor-1260	4	12.052	-0.088	2691	3.6	4	12.502	-0.000	277060	466.9
Aroclor-1260	5	12.245	0.002	349286	1080.9	NS	---			----
Total CollAve (5 peaks):				250.2		Total Col2Ave (4 peaks):				449.7 RPD = 57*
Corrected Ave (4 peaks):				42.5		Corrected Ave (3 peaks):				217.5 RPD = 135*
Aroclor-1262	1	10.838	0.006	4520	11.8	1	11.203	0.003	40576	82.5
Aroclor-1262	2	12.245	-0.000	349286	579.1	2	11.647	-0.006	57235	136.9
Aroclor-1262	3	12.318	-0.002	349715	534.1	3	12.434	-0.001	262014	588.4
Aroclor-1262	4	12.988	-0.001	141905	237.8	4	12.502	-0.002	277060	388.5
Total CollAve (4 peaks):				340.7		Total Col2Ave (4 peaks):				299.1 RPD = 13
Corrected Ave (3 peaks):				261.2		Corrected Ave (3 peaks):				202.6 RPD = 25
Aroclor-1268	1	12.245	0.001	349286	223.8	1	12.434	0.000	262014	223.3
Aroclor-1268	2	12.318	0.000	349715	224.6	2	12.502	0.000	277060	221.9
Aroclor-1268	3	12.699	0.000	289328	224.3	3	12.893	-0.000	208928	201.0
Aroclor-1268	4	13.490	0.001	849299	222.1	4	13.710	0.002	725831	226.1
Total CollAve (4 peaks):				223.7		Total Col2Ave (4 peaks):				218.1 RPD = 3

Corrected Ave (3 peaks): 223.4 Corrected Ave (3 peaks): 215.4 RPD = 4

Total PCB Area Col1 (5.909 - 13.792) = 2866092 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 2084481 Col2 Total PCB = 0.6 ppm*

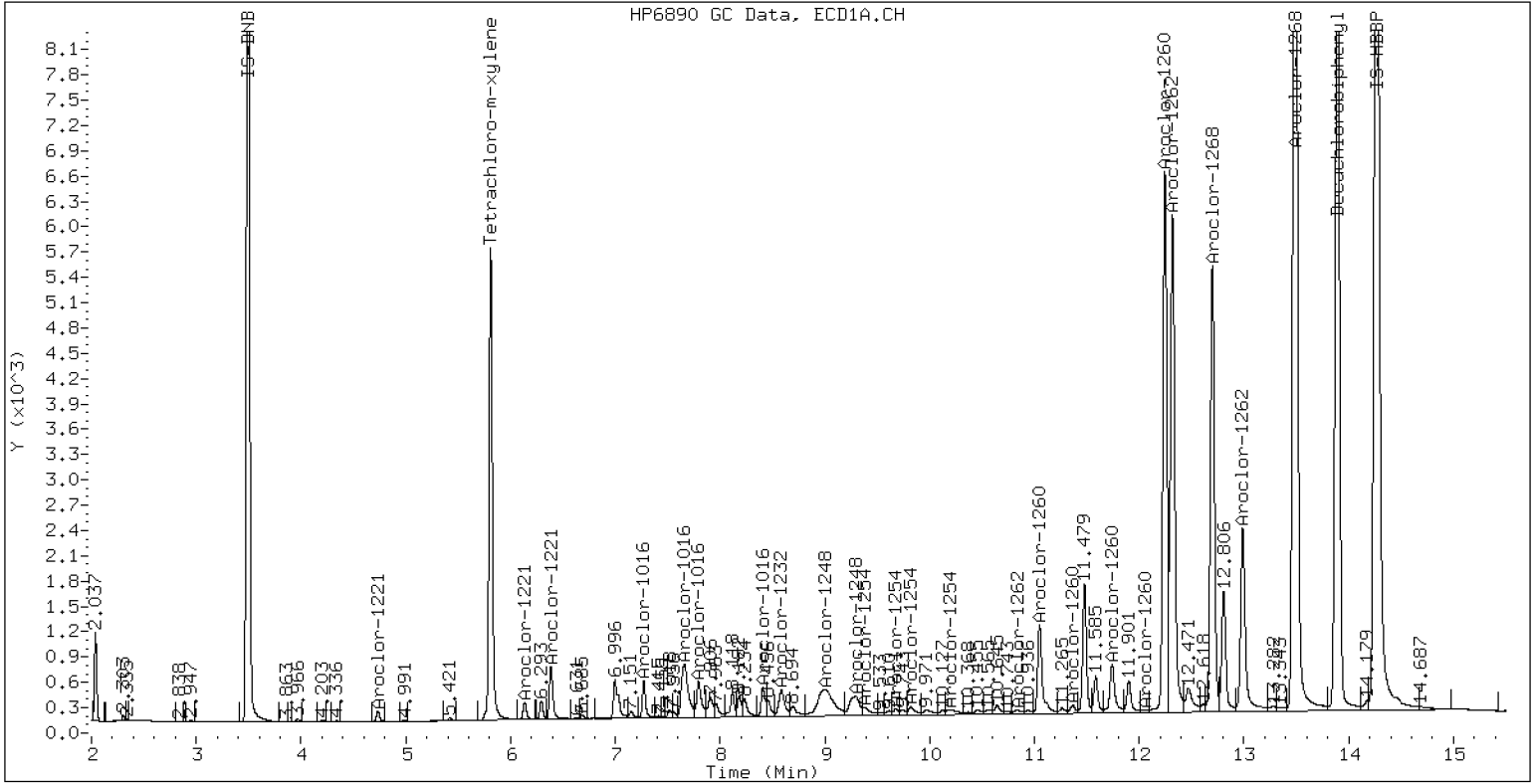
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR3268 SCV

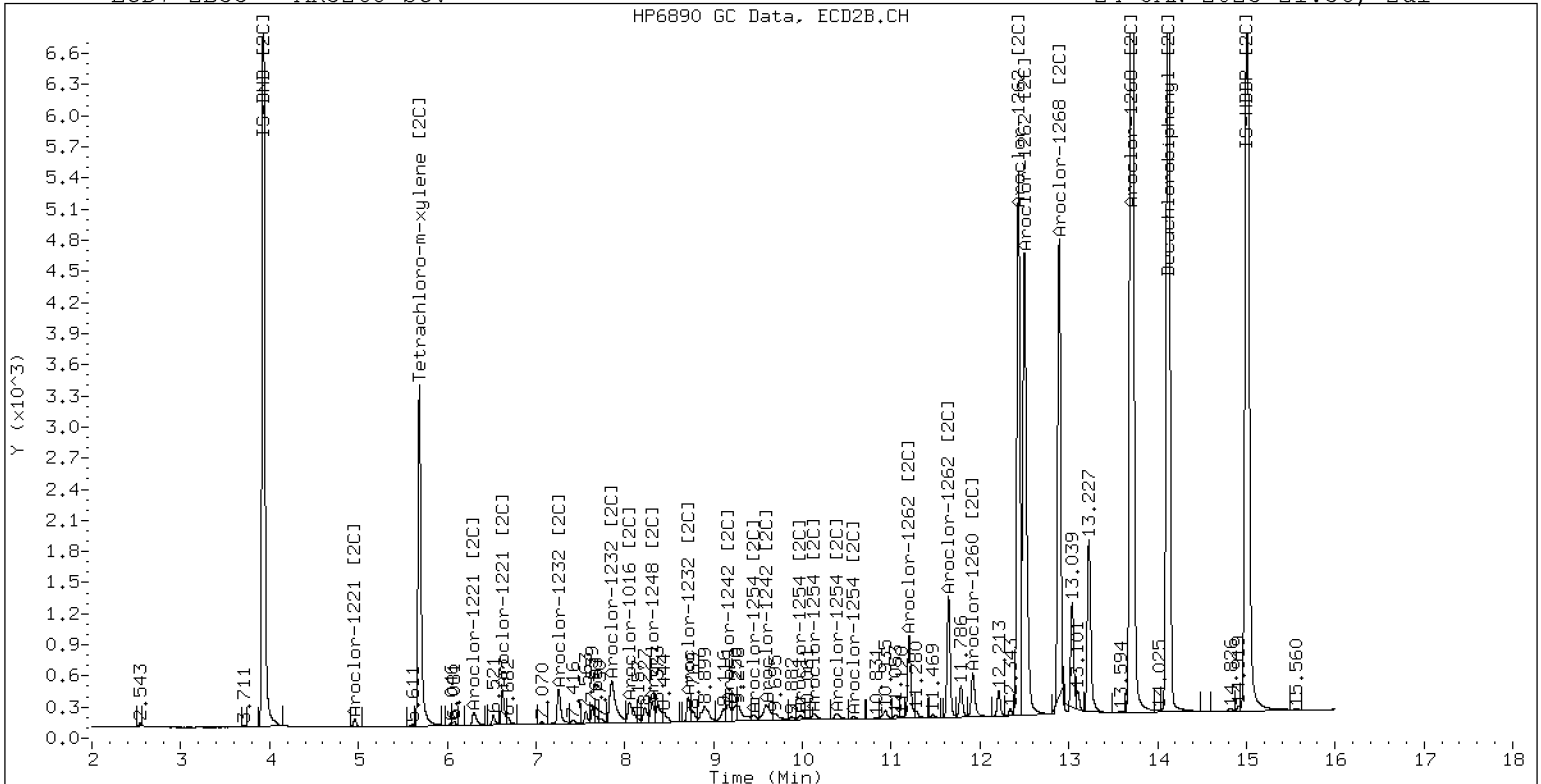
24-JAN-2023 21:36, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268 SCV

24-JAN-2023 21:36, 2ul



ZB-35 Manual Integration: NO



INITIAL CALIBRATION CHECK EPA 8082A

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23A0032</u>
Client: <u>Anchor OEA, LLC</u>	Project: <u>AOC5 MR Phase 1</u>
Instrument ID: <u>ECD7</u>	Calibration: <u>GA00061</u>
Lab File ID: <u>01242332ECD7.D</u>	Calibration Date: <u>01/24/2023</u>
Sequence: <u>SLA0298</u>	Injection Date: <u>01/24/23</u>
Lab Sample ID: <u>SLA0298-ICV1</u>	Injection Time: <u>22:39</u>
Sequence Name: <u>AR1254ICV1</u>	

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1254	A	250.00	249	0.0675033	0.0672418		-0.3	
Aroclor-1254 (1)	A	250.00	249	0.0815329	0.0811707			
Aroclor-1254 (2)	A	250.00	252	0.0348121	0.0351192			
Aroclor-1254 (3)	A	250.00	249	0.0522405	0.0520088			
Aroclor-1254 (4)	A	250.00	250	0.1023658	0.1023037			
Aroclor-1254 (5)	A	250.00	246	0.0665652	0.0656068			
Aroclor 1254 [2C]	A	250.00	253	0.0733219	0.0740609		1.2	
Aroclor-1254 (1) [2C]	A	250.00	253	0.0580388	0.0587925			
Aroclor-1254 (2) [2C]	A	250.00	253	0.0469118	0.0474881			
Aroclor-1254 (3) [2C]	A	250.00	252	0.1023304	0.1029827			
Aroclor-1254 (4) [2C]	A	250.00	251	0.1023323	0.1026024			
Aroclor-1254 (5) [2C]	A	250.00	256	0.0569963	0.0584389			
Decachlorobiphenyl	A	40.000	35.8	0.8555994	0.7662567		-10.5	
Tetrachlorometaxylene	A	40.000	37.9	1.1307870	1.0720540		-5.3	
Decachlorobiphenyl [2C]	A	40.000	38.1	1.2696430	1.2086420		-4.8	
Tetrachlorometaxylene [2C]	A	40.000	38.4	1.0814980	1.0395050		-4.0	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242332ECD7.D
Data file 2: /230124.b/230124.b/01242332ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254ICV1
Client ID:
Injection Date: 24-JAN-2023 22:39
Report Date: 01/26/2023 08:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	-0.000	264205	5.685	-0.000	174495	37.9	38.4	1.4	Tetrachloro-m-xylene
13.892	0.000	376242	14.120	-0.000	313529	35.8	38.1	6.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	492895	-2.1
Hexabromobiphenyl	647433	982026	51.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	335727	-0.4
Hexabromobiphenyl	382032	518812	35.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.300	0.001	125027	248.9	1	9.449	0.000	61682	253.2	
Aroclor-1254	2	9.380	0.002	54094	252.2	2	9.970	0.001	49822	253.1	
Aroclor-1254	3	9.670	0.001	80109	248.9	3	10.123	0.001	108044	251.6	
Aroclor-1254	4	9.810	0.002	157578	249.8	4	10.374	0.003	107645	250.7	
Aroclor-1254	5	10.181	0.004	101054	246.4	5	10.570	0.001	61311	256.3	
Total Col1Ave (5 peaks):				249.2		Total Col2Ave (5 peaks):				253.0	RPD = 1
Corrected Ave (4 peaks):				248.5		Corrected Ave (4 peaks):				252.1	RPD = 1
CalAmt %D:				-0.3		CalAmt %D:				1.2	

Total PCB Area Col1 (5.909 - 13.792) = 1667648 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.786 - 14.020) = 1042069 Col2 Total PCB = 0.3 ppm*

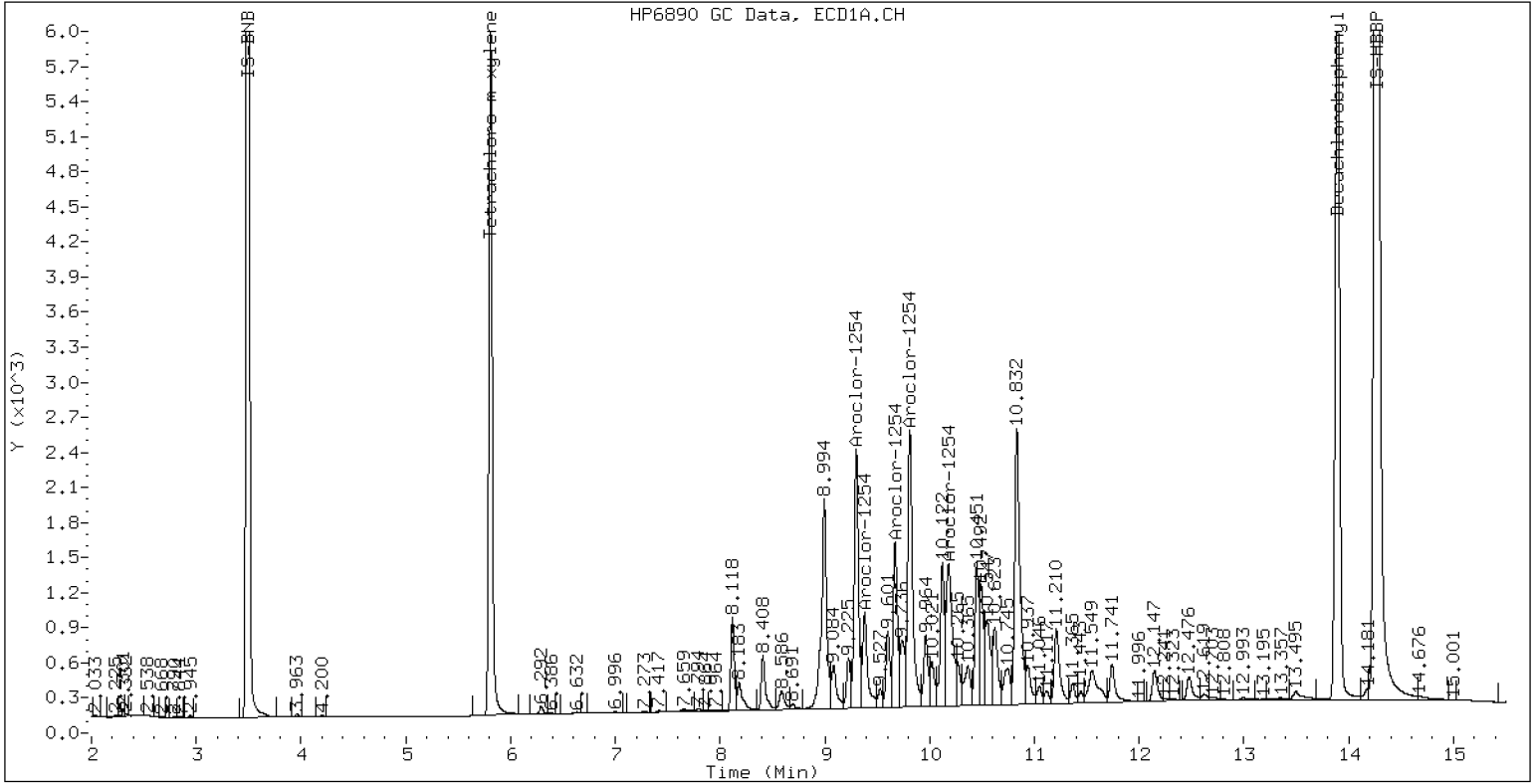
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254ICV1

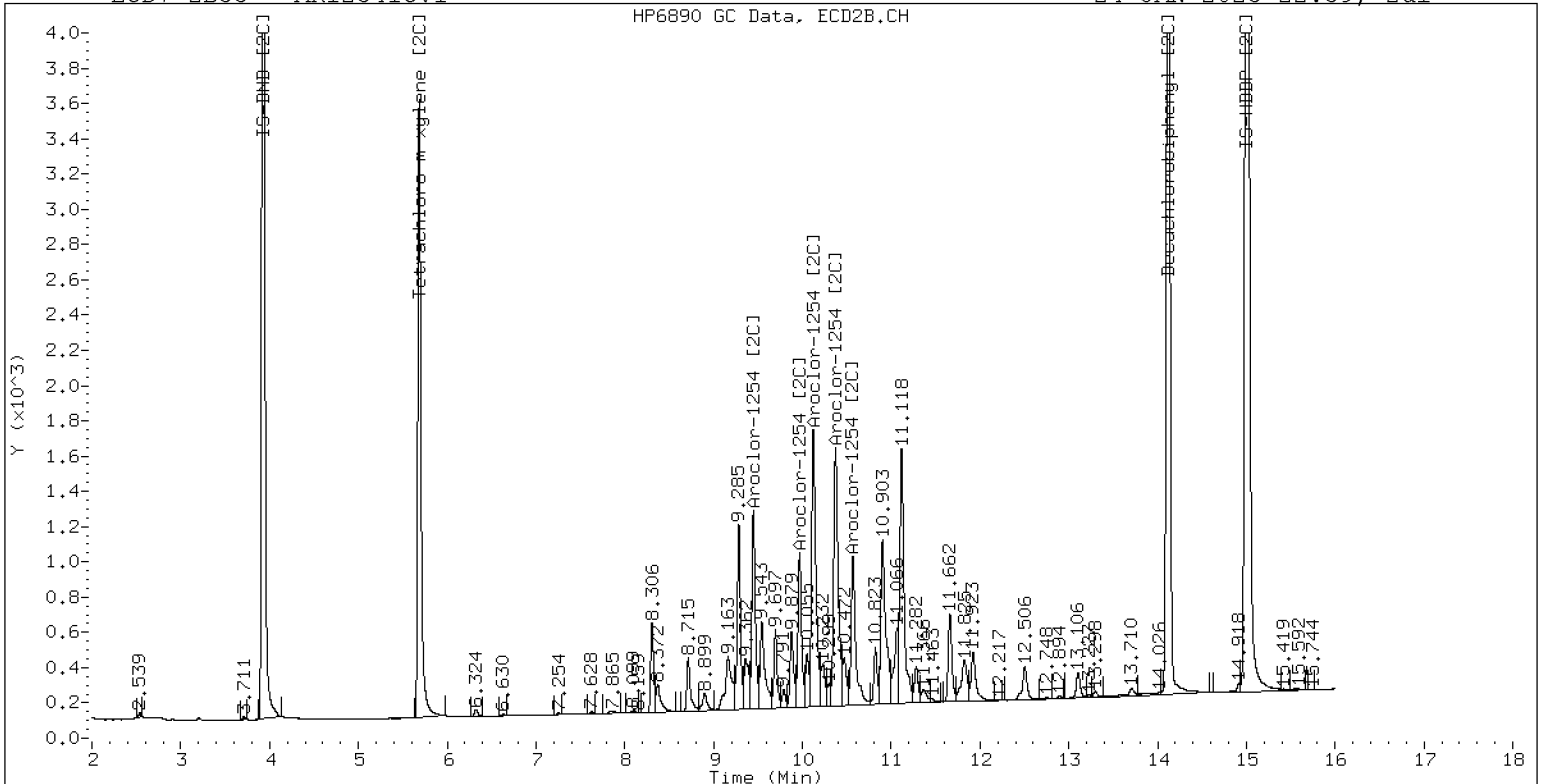
24-JAN-2023 22:39, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254ICV1

24-JAN-2023 22:39, 2ul



ZB-35 Manual Integration: NO



INITIAL CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ECD7

Calibration: GA00061

Lab File ID: 01242333ECD7.D

Calibration Date: 01/24/2023

Sequence: SLA0298

Injection Date: 01/24/23

Lab Sample ID: SLA0298-ICV2

Injection Time: 23:00

Sequence Name: AR1660ICV2

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1016	A	250.00	249	0.0506755	0.0506277		-0.3	
Aroclor-1016 (1)	A	250.00	250	0.0297277	0.0297429		0.0	
Aroclor-1016 (2)	A	250.00	251	0.0985017	0.0989585		0.4	
Aroclor-1016 (3)	A	250.00	247	0.0453193	0.0447733		-1.2	
Aroclor-1016 (4)	A	250.00	249	0.0291533	0.0290360		-0.4	
Aroclor 1016 [2C]	A	250.00	260	0.0519244	0.0539372		4.1	
Aroclor-1016 (1) [2C]	A	250.00	252	0.0433907	0.0436779		0.8	
Aroclor-1016 (2) [2C]	A	250.00	260	0.0950862	0.0987489		4.0	
Aroclor-1016 (3) [2C]	A	250.00	270	0.0388014	0.0418384		8.0	
Aroclor-1016 (4) [2C]	A	250.00	259	0.0304194	0.0314836		3.6	
Aroclor 1260	A	250.00	184	0.0605224	0.0447329		-26.3	*
Aroclor-1260 (1)	A	250.00	186	0.0448870	0.0333262		-25.6	
Aroclor-1260 (2)	A	250.00	187	0.0461412	0.0344505		-25.2	
Aroclor-1260 (3)	A	250.00	186	0.1214672	0.0905136		-25.6	
Aroclor-1260 (4)	A	250.00	182	0.0627593	0.0456394		-27.2	
Aroclor-1260 (5)	A	250.00	180	0.0273573	0.0197349		-28.0	
Aroclor 1260 [2C]	A	250.00	211	0.0836545	0.0709917		-15.7	
Aroclor-1260 (1) [2C]	A	250.00	206	0.0577136	0.0476532		-17.6	
Aroclor-1260 (2) [2C]	A	250.00	212	0.1460113	0.1236329		-15.2	
Aroclor-1260 (3) [2C]	A	250.00	206	0.0363944	0.0300234		-17.6	
Aroclor-1260 (4) [2C]	A	250.00	219	0.0944986	0.0826573		-12.4	
Decachlorobiphenyl	A	40.000	36.6	0.8555994	0.7831549		-8.5	
Tetrachlorometaxylene	A	40.000	40.5	1.1307870	1.1437940		1.3	
Decachlorobiphenyl [2C]	A	40.000	39.4	1.2696430	1.2513440		-1.5	
Tetrachlorometaxylene [2C]	A	40.000	39.8	1.0814980	1.0770220		-0.5	

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242333ECD7.D
Data file 2: /230124.b/230124.b/01242333ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660ICV2
Client ID:
Injection Date: 24-JAN-2023 23:00
Report Date: 01/26/2023 08:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	-0.000	278034	5.686	0.000	178735	40.5	39.8	1.6	Tetrachloro-m-xylene
13.892	-0.000	380710	14.121	0.002	324322	36.6	39.4	7.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	486161	-3.4
Hexabromobiphenyl	647433	972247	50.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	331906	-1.5
Hexabromobiphenyl	382032	518358	35.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	45187	250.1	1	7.255	0.000	45303	251.7
Aroclor-1016	2	7.655	0.005	150343	251.2	2	7.853	0.001	102423	259.6
Aroclor-1016	3	7.791	0.003	68022	247.0	3	8.051	-0.000	43395	269.6
Aroclor-1016	4	8.406	0.002	44113	249.0	4	8.306	-0.000	32655	258.7
Total CollAve (4 peaks):				249.3		Total Col2Ave (4 peaks):				259.9 RPD = 4
Corrected Ave (3 peaks):				248.7		Corrected Ave (3 peaks):				256.7 RPD = 3

CalAmt %D: -0.3

CalAmt %D: 4.0

Aroclor-1260	1	11.046	0.003	101254	185.6	1	11.655	0.002	77192	206.4
Aroclor-1260	2	11.363	0.002	104670	186.7	2	11.920	0.001	200269	211.7
Aroclor-1260	3	11.739	0.005	275005	186.3	3	12.438	0.001	48634	206.2
Aroclor-1260	4	12.144	0.005	138665	181.8	4	12.505	0.002	133894	218.7
Aroclor-1260	5	12.247	0.003	59960	180.3	NS	---			----
Total CollAve (5 peaks):				184.1		Total Col2Ave (4 peaks):				210.8 RPD = 13
Corrected Ave (4 peaks):				183.5		Corrected Ave (3 peaks):				208.1 RPD = 13

CalAmt %D: -26.3

CalAmt %D: -15.7

Total PCB Area Coll (5.909 - 13.792) = 2855231 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.786 - 14.020) = 1863984 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



INITIAL CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ECD7

Calibration: GA00061

Lab File ID: 01262302ECD7.D

Calibration Date: 01/24/2023

Sequence: SLA0304

Injection Date: 01/26/23

Lab Sample ID: SLA0304-ICV1

Injection Time: 10:28

Sequence Name: AR1254ICV1

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1254	A	250.00	248	0.0675033	0.0673090		-0.9	+/-20
Aroclor-1254 (1)	A	250.00	246	0.0815329	0.0802284			
Aroclor-1254 (2)	A	250.00	234	0.0348121	0.0325228			
Aroclor-1254 (3)	A	250.00	253	0.0522405	0.0529601			
Aroclor-1254 (4)	A	250.00	253	0.1023658	0.1035012			
Aroclor-1254 (5)	A	250.00	253	0.0665652	0.0673324			
Aroclor 1254 [2C]	A	250.00	252	0.0733219	0.0737457		0.8	+/-20
Aroclor-1254 (1) [2C]	A	250.00	252	0.0580388	0.0585132			
Aroclor-1254 (2) [2C]	A	250.00	254	0.0469118	0.0476299			
Aroclor-1254 (3) [2C]	A	250.00	247	0.1023304	0.1009274			
Aroclor-1254 (4) [2C]	A	250.00	254	0.1023323	0.1037810			
Aroclor-1254 (5) [2C]	A	250.00	254	0.0569963	0.0578771			
Decachlorobiphenyl	A	40.000	35.6	0.8555994	0.7621027		-10.9	+/-20
Tetrachlorometaxylene	A	40.000	39.9	1.1307870	1.1285670		-0.2	+/-20
Decachlorobiphenyl [2C]	A	40.000	36.2	1.2696430	1.1492540		-9.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.5	1.0814980	1.0681320		-1.2	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262302ECD7.D
Data file 2: /230126.b/230126.b/01262302ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254ICV1
Client ID:
Injection Date: 26-JAN-2023 10:28
Report Date: 01/27/2023 15:36
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.810	0.001	255748	5.685	-0.001	177335	39.9	39.5	1.0	Tetrachloro-m-xylene
13.894	0.003	334102	14.120	0.001	284992	35.6	36.2	1.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	453226	-10.0
Hexabromobiphenyl	647433	876790	35.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	332047	-1.4
Hexabromobiphenyl	382032	495960	29.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.300	0.001	113630	246.0	1	9.448	-0.000	60716	252.0	
Aroclor-1254	2	9.378	0.001	46063	233.6	2	9.969	-0.001	49423	253.8	
Aroclor-1254	3	9.669	-0.000	75009	253.4	3	10.121	-0.000	104727	246.6	
Aroclor-1254	4	9.808	-0.000	146592	252.8	4	10.372	0.000	107688	253.5	
Aroclor-1254	5	10.174	-0.003	95365	252.9	5	10.568	-0.001	60056	253.9	
Total CollAve (5 peaks):				247.7		Total Col2Ave (5 peaks):				252.0	RPD = 2
Corrected Ave (4 peaks):				246.3		Corrected Ave (4 peaks):				251.5	RPD = 2

Total PCB Area Coll (5.909 - 13.792) = 1523033 Coll Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 1024974 Col2 Total PCB = 0.3 ppm*

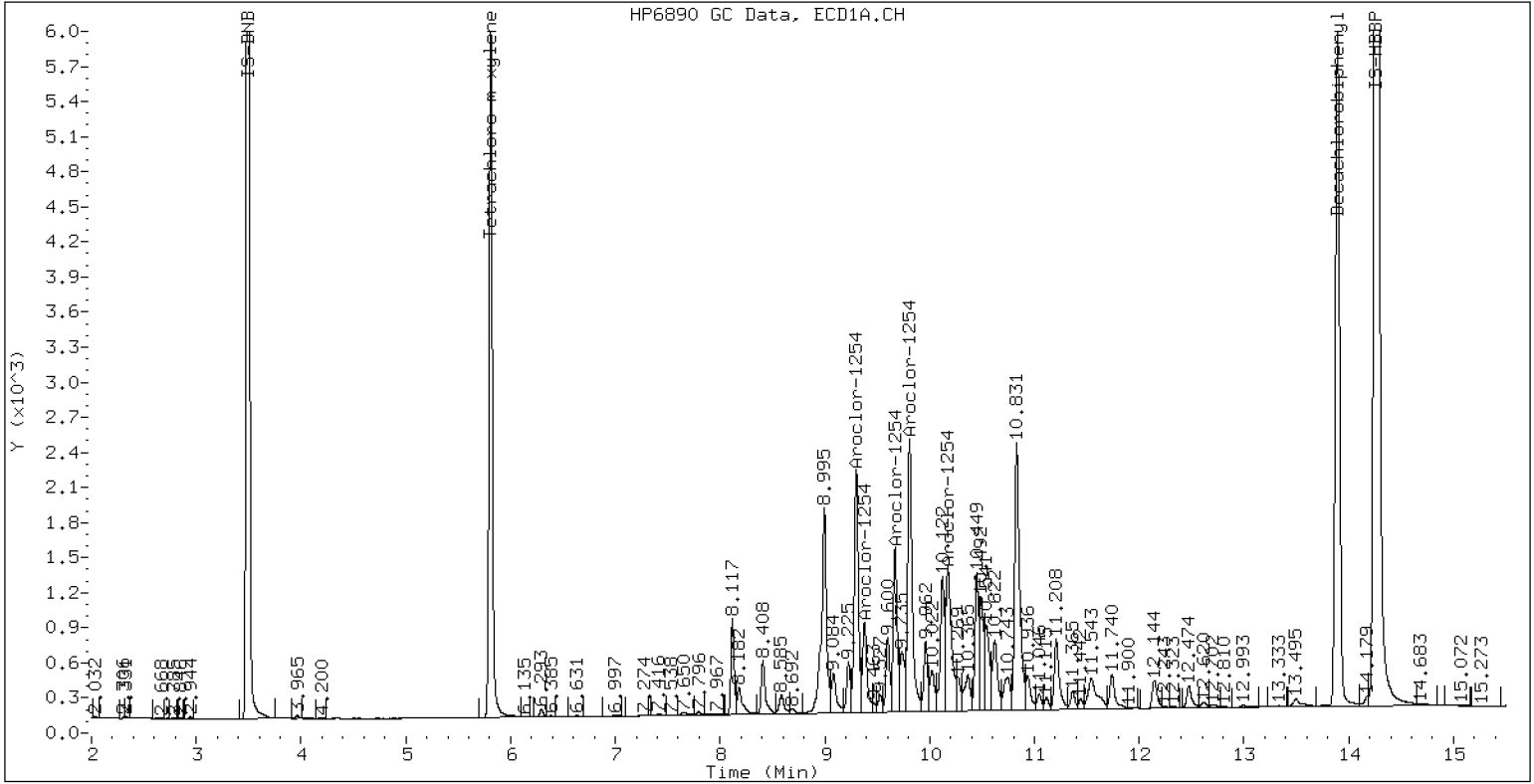
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254ICV1

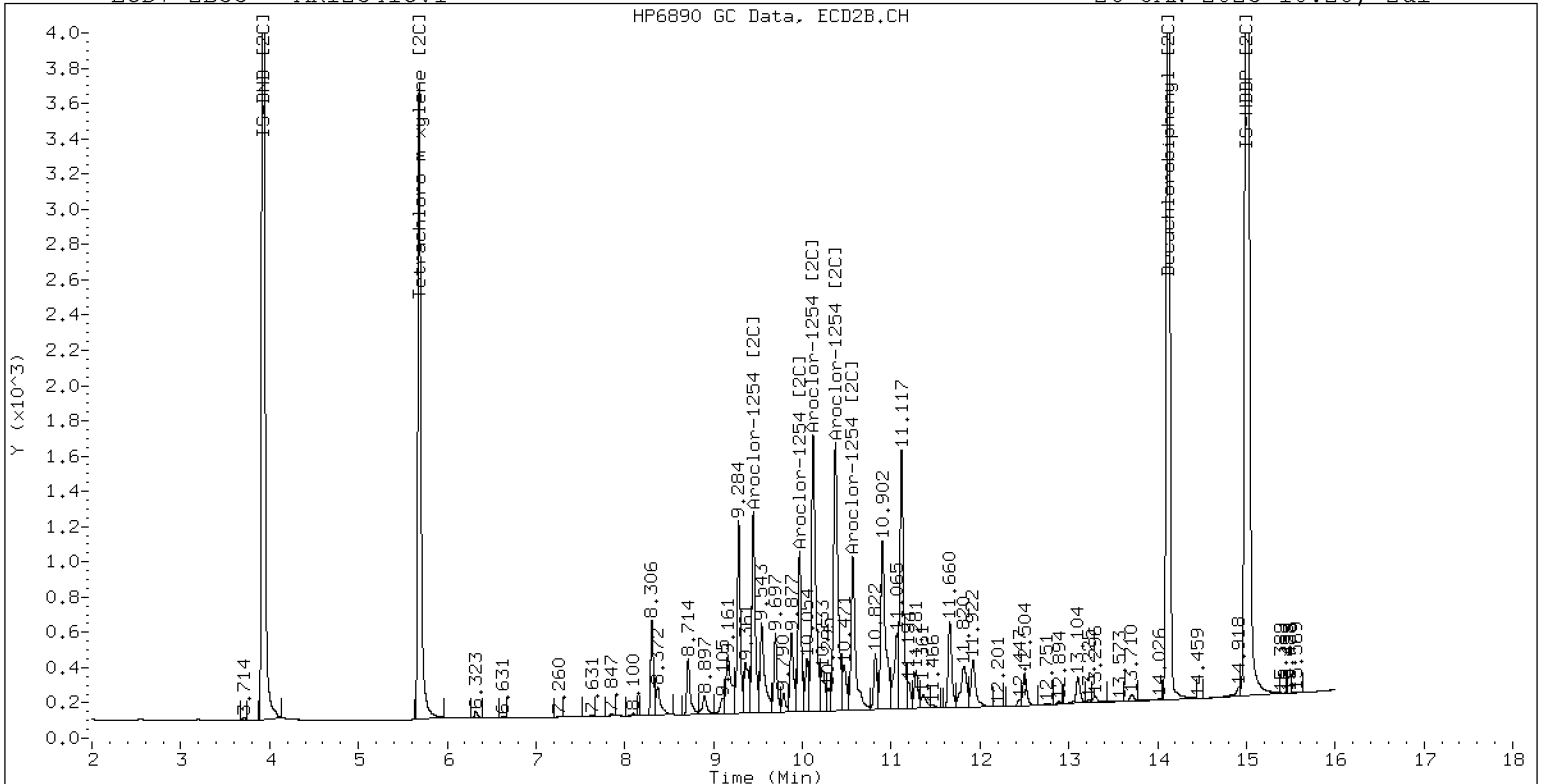
26-JAN-2023 10:28, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254ICV1

26-JAN-2023 10:28, 2ul



ZB-35 Manual Integration: NO



INITIAL CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ECD7

Calibration: GA00061

Lab File ID: 01262303ECD7.D

Calibration Date: 01/24/2023

Sequence: SLA0304

Injection Date: 01/26/23

Lab Sample ID: SLA0304-ICV2

Injection Time: 10:49

Sequence Name: AR1660ICV2

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1016	A	250.00	256	0.0506755	0.0519904		2.3	+/-20
Aroclor-1016 (1)	A	250.00	259	0.0297277	0.0307488		3.4	
Aroclor-1016 (2)	A	250.00	260	0.0985017	0.1024774		4.0	
Aroclor-1016 (3)	A	250.00	245	0.0453193	0.0445024		-1.8	
Aroclor-1016 (4)	A	250.00	259	0.0291533	0.0302328		3.7	
Aroclor 1016 [2C]	A	250.00	259	0.0519244	0.0539534		3.7	+/-20
Aroclor-1016 (1) [2C]	A	250.00	254	0.0433907	0.0441543		1.8	
Aroclor-1016 (2) [2C]	A	250.00	261	0.0950862	0.0991869		4.3	
Aroclor-1016 (3) [2C]	A	250.00	266	0.0388014	0.0412948		6.4	
Aroclor-1016 (4) [2C]	A	250.00	256	0.0304194	0.0311776		2.5	
Aroclor 1260	A	250.00	185	0.0605224	0.0451166		-25.8	+/-20 *
Aroclor-1260 (1)	A	250.00	190	0.0448870	0.0341670		-23.9	
Aroclor-1260 (2)	A	250.00	192	0.0461412	0.0353607		-23.4	
Aroclor-1260 (3)	A	250.00	188	0.1214672	0.0913431		-24.8	
Aroclor-1260 (4)	A	250.00	181	0.0627593	0.0453677		-27.7	
Aroclor-1260 (5)	A	250.00	177	0.0273573	0.0193446		-29.3	
Aroclor 1260 [2C]	A	250.00	207	0.0836545	0.0693869		-17.3	+/-20
Aroclor-1260 (1) [2C]	A	250.00	206	0.0577136	0.0475752		-17.6	
Aroclor-1260 (2) [2C]	A	250.00	207	0.1460113	0.1209603		-17.2	
Aroclor-1260 (3) [2C]	A	250.00	204	0.0363944	0.0296564		-18.5	
Aroclor-1260 (4) [2C]	A	250.00	210	0.0944986	0.0793556		-16.0	
Decachlorobiphenyl	A	40.000	37.4	0.8555994	0.8008743		-6.4	+/-20
Tetrachlorometaxylene	A	40.000	42.0	1.1307870	1.1869220		5.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	37.9	1.2696430	1.2021110		-5.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	41.2	1.0814980	1.1143300		3.0	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262303ECD7.D
Data file 2: /230126.b/230126.b/01262303ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660ICV2
Client ID:
Injection Date: 26-JAN-2023 10:49
Report Date: 01/27/2023 15:36
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	0.000	253980	5.686	-0.001	175453	42.0	41.2	1.9	Tetrachloro-m-xylene
13.893	0.002	331037	14.120	-0.000	289223	37.4	37.9	1.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	427964	-15.0
Hexabromobiphenyl	647433	826689	27.7
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	314903	-6.5
Hexabromobiphenyl	382032	481192	26.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	41123	258.6	1	7.256	0.001	43451	254.4
Aroclor-1016	2	7.654	0.004	137052	260.1	2	7.852	0.001	97607	260.8
Aroclor-1016	3	7.791	0.002	59517	245.5	3	8.052	0.002	40637	266.1
Aroclor-1016	4	8.406	0.002	40433	259.3	4	8.307	0.002	30681	256.2
Total CollAve (4 peaks):				255.9		Total Col2Ave (4 peaks):				259.4 RPD = 1
Corrected Ave (3 peaks):				254.4		Corrected Ave (3 peaks):				257.1 RPD = 1
Aroclor-1260	1	11.045	0.002	88267	190.3	1	11.654	0.001	71540	206.1
Aroclor-1260	2	11.363	0.002	91351	191.6	2	11.919	0.001	181891	207.1
Aroclor-1260	3	11.737	0.002	235976	188.0	3	12.436	0.000	44595	203.7
Aroclor-1260	4	12.143	0.004	117203	180.7	4	12.503	0.001	119329	209.9
Aroclor-1260	5	12.245	0.001	49975	176.8	NS	---			----
Total CollAve (5 peaks):				185.5		Total Col2Ave (4 peaks):				206.7 RPD = 11
Corrected Ave (4 peaks):				183.9		Corrected Ave (3 peaks):				205.6 RPD = 11

Total PCB Area Col1 (5.909 - 13.792) = 2515703 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 1731040 Col2 Total PCB = 0.5 ppm*

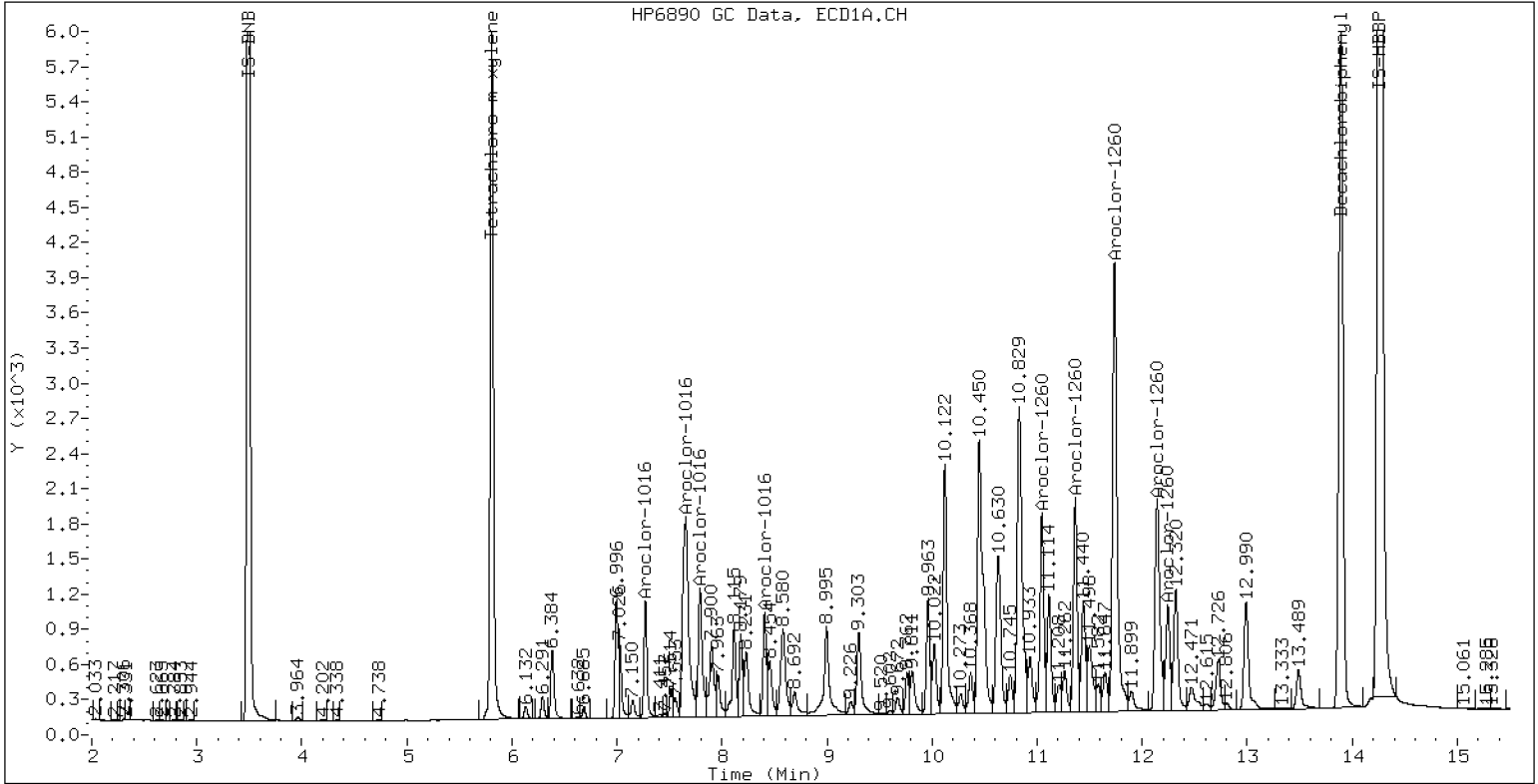
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660ICV2

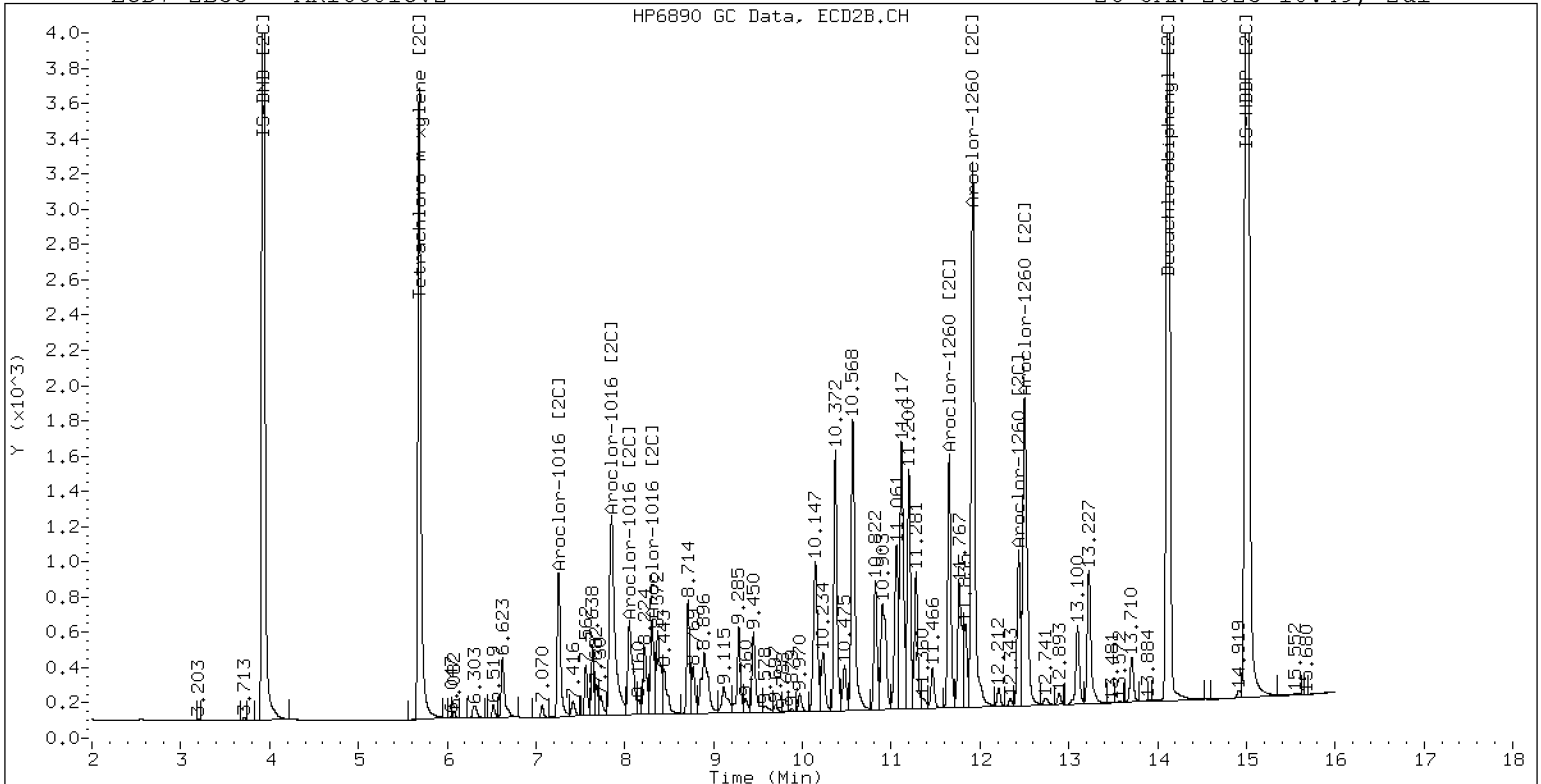
26-JAN-2023 10:49, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660ICV2

26-JAN-2023 10:49, 2ul



ZB-35 Manual Integration: NO



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GA00061</u>
Lab File ID:	<u>01242324ECD7.D</u>	Calibration Date:	<u>01/24/2023</u>
Sequence:	<u>SLA0281</u>	Injection Date:	<u>01/24/23</u>
Lab Sample ID:	<u>SLA0281-SCV1</u>	Injection Time:	<u>19:51</u>
Sequence Name:	<u>AR1660SCV1</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	217	0.0506755	0.0439293		-13.2	+/-20
Aroclor 1016 [2C]	A	250.00	220	0.0519244	0.0458194		-11.9	+/-20
Aroclor 1260	A	250.00	211	0.0605224	0.0508252		-15.7	+/-20
Aroclor 1260 [2C]	A	250.00	238	0.0836545	0.0795027		-4.9	+/-20
Decachlorobiphenyl	A	40.000	37.9	0.8555994	0.8115673		-5.1	+/-20
Tetrachlorometaxylene	A	40.000	37.5	1.1307870	1.0610020		-6.2	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.2	1.2696430	1.2773160		0.6	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.3	1.0814980	1.0082190		-6.8	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242324ECD7.D
Data file 2: /230124.b/230124.b/01242324ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660 SCV
Client ID:
Injection Date: 24-JAN-2023 19:51
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	-0.000	268739	5.686	-0.001	172961	37.5	37.3	0.6	Tetrachloro-m-xylene
13.891	-0.000	381489	14.121	0.001	320416	37.9	40.2	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	506576	0.6
Hexabromobiphenyl	647433	940129	45.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	343102	1.8
Hexabromobiphenyl	382032	501702	31.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	40958	217.6	1	7.255	0.001	40190	216.0
Aroclor-1016	2	7.655	0.004	135282	216.9	2	7.852	0.001	90338	221.5
Aroclor-1016	3	7.791	0.003	61557	214.5	3	8.052	0.002	37810	227.2
Aroclor-1016	4	8.406	0.002	40372	218.7	4	8.306	0.000	28171	215.9
Total CollAve (4 peaks):				216.9		Total Col2Ave (4 peaks):				220.2 RPD = 1
Corrected Ave (3 peaks):				216.3		Corrected Ave (3 peaks):				217.8 RPD = 1
Aroclor-1221	1	4.732	-0.001	256	6.8	1	---			0.0
Aroclor-1221	2	6.131	-0.002	4742	61.9	2	6.302	0.004	5037	91.4
Aroclor-1221	3	6.384	-0.000	27448	154.4	3	6.623	-0.000	18931	203.5
Total CollAve (3 peaks):				74.4		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.732	-0.001	256	11.0	1	---			0.0
Aroclor-1232	2	6.131	-0.002	4742	90.0	2	7.255	-0.001	40190	470.8
Aroclor-1232	3	7.655	-0.004	135282	513.5	3	7.852	-0.002	90338	519.5
Aroclor-1232	4	8.581	-0.003	56938	504.9	4	8.713	-0.001	27776	574.9
Total CollAve (4 peaks):				279.8		Total Col2Ave (3 peaks):				521.7 RPD = 60*
Corrected Ave (3 peaks):				202.0		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	-0.000	40958	264.0	1	7.255	-0.000	40190	267.8
Aroclor-1242	2	7.655	-0.001	135282	266.5	2	7.852	-0.001	90338	271.0
Aroclor-1242	3	8.406	-0.001	40372	267.7	3	9.115	-0.045	15827	151.6
Aroclor-1242	4	8.581	-0.000	56938	249.9	4	9.587	0.001	3186	23.0
Total CollAve (4 peaks):				262.0		Total Col2Ave (4 peaks):				178.4 RPD = 38
Corrected Ave (3 peaks):				260.1		Corrected Ave (3 peaks):				147.5 RPD = 55*
Aroclor-1248	1	8.406	0.000	40372	159.3	1	8.306	0.000	28171	181.6
Aroclor-1248	2	8.581	0.001	56938	176.1	2	8.713	0.000	27776	166.4
Aroclor-1248	3	8.995	-0.004	58213	94.1	3	9.115	-0.042	15827	77.6
Aroclor-1248	4	9.304	0.010	36620	119.6	4	9.587	0.006	3186	12.6
Total CollAve (4 peaks):				137.3		Total Col2Ave (4 peaks):				109.6 RPD = 22
Corrected Ave (3 peaks):				124.4		Corrected Ave (3 peaks):				85.5 RPD = 37
Aroclor-1254	1	9.304	0.005	36620	70.9	1	9.450	0.002	20792	83.5
Aroclor-1254	2	---			0.0	2	9.972	0.003	2640	13.1
Aroclor-1254	3	9.673	0.003	4075	12.3	3	10.148	0.027	52902	120.5
Aroclor-1254	4	9.813	0.004	14733	22.7	4	10.372	0.000	71680	163.3
Aroclor-1254	5	10.122	-0.055	119528	283.6	5	10.569	-0.000	98559	403.2
Total CollAve (4 peaks):				97.4		Total Col2Ave (5 peaks):				156.7 RPD = 47*
Corrected Ave (3 peaks):				35.3		Corrected Ave (4 peaks):				95.1 RPD = 92*
Aroclor-1260	1	11.045	0.002	116435	220.7	1	11.654	0.000	81795	226.0
Aroclor-1260	2	11.362	0.001	116918	215.6	2	11.920	0.002	217887	238.0
Aroclor-1260	3	11.738	0.003	303264	212.5	3	12.437	0.001	56212	246.3
Aroclor-1260	4	12.143	0.004	141534	191.9	4	12.502	0.000	142689	240.8
Aroclor-1260	5	12.246	0.002	68446	212.9	NS	---			----
Total CollAve (5 peaks):				210.7		Total Col2Ave (4 peaks):				237.8 RPD = 12
Corrected Ave (4 peaks):				208.2		Corrected Ave (3 peaks):				234.9 RPD = 12
Aroclor-1262	1	10.830	-0.002	169725	446.4	1	11.200	0.000	83995	171.1
Aroclor-1262	2	12.246	0.000	68446	114.1	2	11.654	0.001	81795	195.9
Aroclor-1262	3	12.320	-0.000	84201	129.2	3	12.437	0.003	56212	126.4
Aroclor-1262	4	12.989	-0.000	78065	131.5	4	12.502	-0.001	142689	200.4
Total CollAve (4 peaks):				205.3		Total Col2Ave (4 peaks):				173.4 RPD = 17
Corrected Ave (3 peaks):				124.9		Corrected Ave (3 peaks):				164.5 RPD = 27
Aroclor-1268	1	12.246	0.001	68446	44.1	1	12.437	0.003	56212	48.0
Aroclor-1268	2	12.320	0.002	84201	54.4	2	12.502	0.001	142689	114.4
Aroclor-1268	3	12.726	0.027	33020	25.7	3	12.894	0.001	1495	1.4
Aroclor-1268	4	13.490	0.001	16019	4.2	4	13.709	0.001	10120	3.2
Total CollAve (4 peaks):				32.1		Total Col2Ave (4 peaks):				41.8 RPD = 26
Corrected Ave (3 peaks):				24.7		Corrected Ave (3 peaks):				17.5 RPD = 34

Total PCB Area Col1 (5.909 - 13.792) = 2789370 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 1810543 Col2 Total PCB = 0.5 ppm*

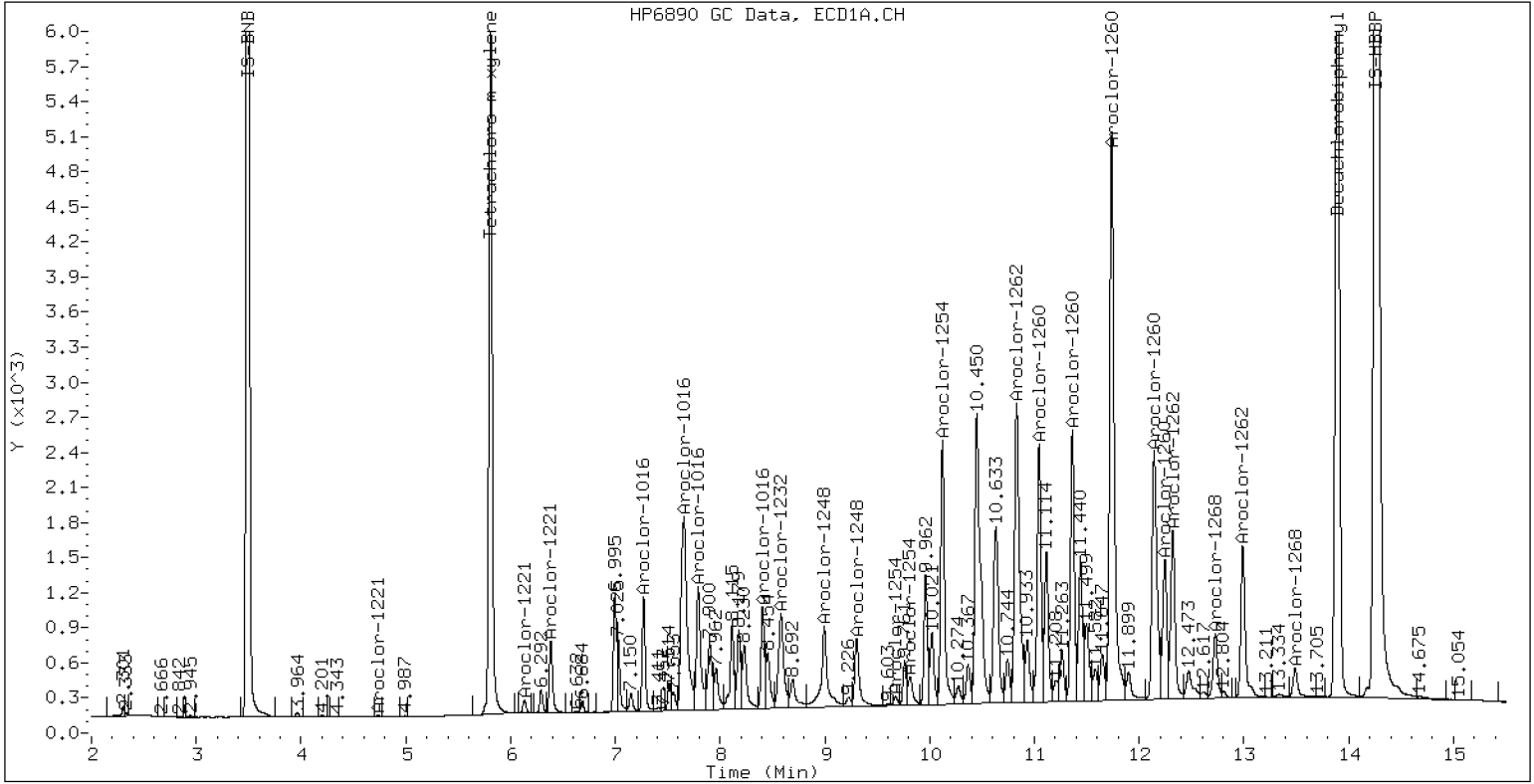
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660 SCV

24-JAN-2023 19:51, 2ul





**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GA00061</u>
Lab File ID:	<u>01242325ECD7.D</u>	Calibration Date:	<u>01/24/2023</u>
Sequence:	<u>SLA0281</u>	Injection Date:	<u>01/24/23</u>
Lab Sample ID:	<u>SLA0281-SCV2</u>	Injection Time:	<u>20:12</u>
Sequence Name:	<u>AR1242SCV2</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	223	0.0411165	0.0365437		-10.9	+/-20
Aroclor 1242 [2C]	A	250.00	235	0.0423236	0.0386405		-5.9	+/-20
Decachlorobiphenyl	A	40.000	38.5	0.8555994	0.8244733		-3.6	+/-20
Tetrachlorometaxylene	A	40.000	37.8	1.1307870	1.0677240		-5.6	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.3	1.2696430	1.2804690		0.9	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.4	1.0814980	1.0101840		-6.6	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242325ECD7.D
Data file 2: /230124.b/230124.b/01242325ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242 SCV
Client ID:
Injection Date: 24-JAN-2023 20:12
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.809	-0.000	268580	5.686	-0.001	172592	37.8	37.4	1.1	Tetrachloro-m-xylene
13.892	0.001	392918	14.121	0.001	323869	38.5	40.3	4.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	503089	-0.0
Hexabromobiphenyl	647433	953137	47.2

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	341704	1.4
Hexabromobiphenyl	382032	505860	32.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	29901	159.9	1	7.255	0.000	32077	173.1
Aroclor-1016	2	7.653	0.003	107333	173.3	2	7.851	-0.000	71438	175.9
Aroclor-1016	3	7.790	0.002	45013	157.9	3	8.051	0.001	29072	175.4
Aroclor-1016	4	8.406	0.002	32958	179.8	4	8.306	0.001	21761	167.5
Total CollAve (4 peaks):				167.7		Total Col2Ave (4 peaks):				173.0 RPD = 3
Corrected Ave (3 peaks):				163.7		Corrected Ave (3 peaks):				172.0 RPD = 5
Aroclor-1221	1	4.737	0.004	141	3.8	1	---			0.0
Aroclor-1221	2	6.133	-0.001	3649	48.0	2	6.317	0.018	4290	78.2
Aroclor-1221	3	6.384	-0.000	21189	120.0	3	6.624	0.001	14613	157.7
Total CollAve (3 peaks):				57.3		Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	4.737	0.003	141	6.1	1	---			0.0
Aroclor-1232	2	6.133	-0.001	3649	69.7	2	7.255	-0.002	32077	377.3
Aroclor-1232	3	7.653	-0.005	107333	410.2	3	7.851	-0.004	71438	412.5
Aroclor-1232	4	8.581	-0.003	59617	532.3	4	8.713	-0.000	22563	468.9
Total CollAve (4 peaks):				254.6		Total Col2Ave (3 peaks):				419.6 RPD = 49*
Corrected Ave (3 peaks):				162.0		Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	0.000	29901	194.1	1	7.255	-0.001	32077	214.6
Aroclor-1242	2	7.653	-0.002	107333	212.9	2	7.851	-0.002	71438	215.2
Aroclor-1242	3	8.406	-0.000	32958	220.0	3	9.156	-0.004	27374	263.3
Aroclor-1242	4	8.581	-0.000	59617	263.5	4	9.581	-0.006	34156	247.9
Total CollAve (4 peaks):				222.6		Total Col2Ave (4 peaks):				235.3 RPD = 6
Corrected Ave (3 peaks):				209.0		Corrected Ave (3 peaks):				225.9 RPD = 8
Aroclor-1248	1	8.406	0.001	32958	131.0	1	8.306	0.001	21761	140.9
Aroclor-1248	2	8.581	0.001	59617	185.7	2	8.713	0.001	22563	135.7
Aroclor-1248	3	9.003	0.004	72557	118.2	3	9.156	-0.000	27374	134.7
Aroclor-1248	4	9.296	0.003	28122	92.5	4	9.581	-0.001	34156	135.9
Total CollAve (4 peaks):				131.8		Total Col2Ave (4 peaks):				136.8 RPD = 4
Corrected Ave (3 peaks):				113.9		Corrected Ave (3 peaks):				135.5 RPD = 17
Aroclor-1254	1	9.296	-0.002	28122	54.8	1	9.448	0.000	11650	47.0
Aroclor-1254	2	9.380	0.002	9292	42.4	2	9.968	-0.001	7642	38.1
Aroclor-1254	3	9.671	0.001	12871	39.2	3	10.120	-0.001	16012	36.6
Aroclor-1254	4	9.808	-0.000	22113	34.4	4	10.378	0.007	16300	37.3
Aroclor-1254	5	10.176	-0.001	17771	42.5	5	10.572	0.004	4439	18.2
Total CollAve (5 peaks):				42.7		Total Col2Ave (5 peaks):				35.5 RPD = 18
Corrected Ave (4 peaks):				39.6		Corrected Ave (4 peaks):				32.6 RPD = 19
Aroclor-1260	1	11.047	0.003	741	1.4	1	11.663	0.010	1794	4.9
Aroclor-1260	2	11.366	0.006	379	0.7	2	11.923	0.005	1208	1.3
Aroclor-1260	3	11.745	0.011	860	0.6	3	12.507	0.071	977	4.2
Aroclor-1260	4	12.154	0.014	1536	2.1	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
Total CollAve (4 peaks):				1.2		Total Col2Ave (3 peaks):				3.5 RPD = 99*
Corrected Ave (3 peaks):				0.9		Corrected Ave: < 3 Peaks				
Aroclor-1262	1	10.836	0.004	10654	27.6	1	11.120	-0.080	8071	16.3
Aroclor-1262	2	12.154	-0.092	1536	2.5	2	11.663	0.010	1794	4.3
Aroclor-1262	3	---			0.0	3	12.507	0.073	977	2.2
Aroclor-1262	4	13.040	0.051	1739	2.9	4	---			0.0
Total CollAve (3 peaks):				11.0		Total Col2Ave (3 peaks):				7.6 RPD = 37
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1268	1	12.154	-0.091	1536	1.0	1	12.507	0.073	977	0.8
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	12.623	-0.076	5080	3.9	3	12.894	0.001	98	0.1
Aroclor-1268	4	13.501	0.012	2725	0.7	4	13.707	-0.001	1566	0.5
Total CollAve (3 peaks):				1.9		Total Col2Ave (3 peaks):				0.5 RPD = 120*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (5.909 - 13.792) = 915887 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 575897 Col2 Total PCB = 0.2 ppm*

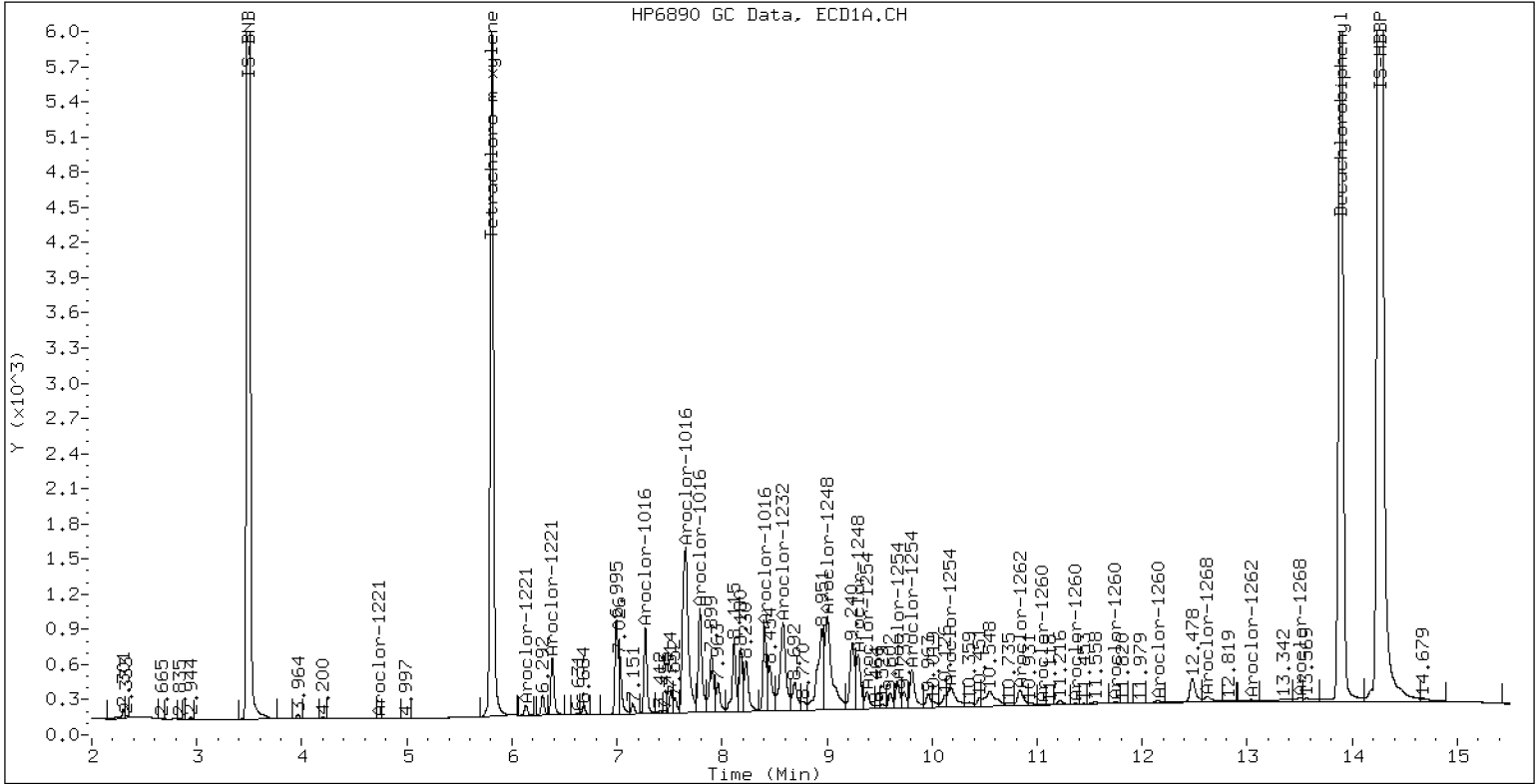
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242 SCV

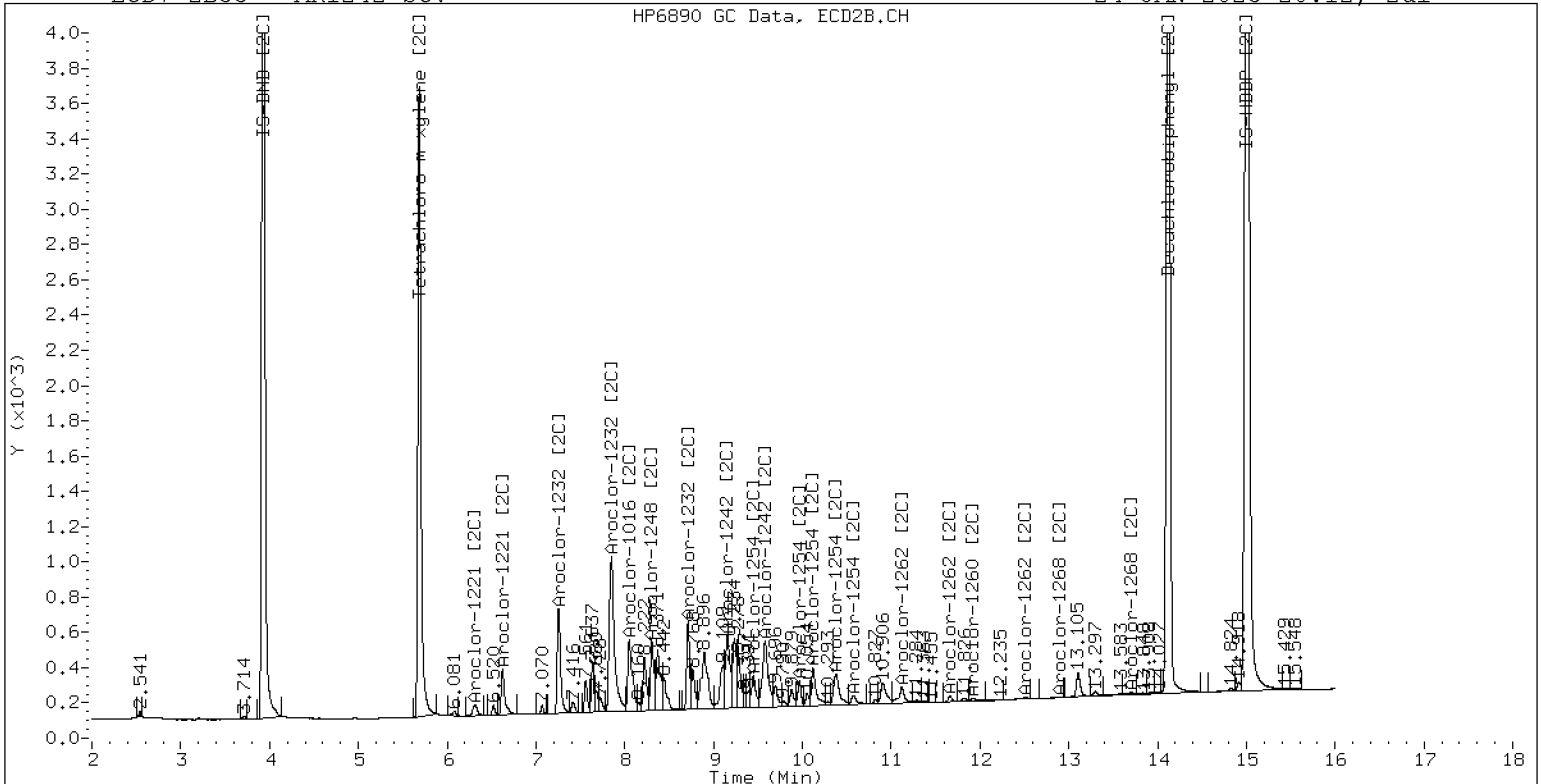
24-JAN-2023 20:12, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242 SCV

24-JAN-2023 20:12, 2ul



ZB-35 Manual Integration: NO



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GA00061</u>
Lab File ID:	<u>01242326ECD7.D</u>	Calibration Date:	<u>01/24/2023</u>
Sequence:	<u>SLA0281</u>	Injection Date:	<u>01/24/23</u>
Lab Sample ID:	<u>SLA0281-SCV3</u>	Injection Time:	<u>20:33</u>
Sequence Name:	<u>AR1248SCV3</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	237	0.0592639	0.0563710		-5.1	+/-20
Aroclor 1248 [2C]	A	250.00	231	0.0453673	0.0417577		-7.6	+/-20
Decachlorobiphenyl	A	40.000	38.3	0.8555994	0.8184425		-4.3	+/-20
Tetrachlorometaxylene	A	40.000	36.8	1.1307870	1.0389130		-8.1	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.6	1.2696430	1.2561970		-1.1	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.5	1.0814980	0.9880182		-8.6	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242326ECD7.D
Data file 2: /230124.b/230124.b/01242326ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248 SCV
Client ID:
Injection Date: 24-JAN-2023 20:33
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	0.000	263982	5.686	-0.001	169991	36.8	36.5	0.6	Tetrachloro-m-xylene
13.892	0.001	400655	14.121	0.001	316171	38.3	39.6	3.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	508189	1.0
Hexabromobiphenyl	647433	979067	51.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	344105	2.1
Hexabromobiphenyl	382032	503378	31.8

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 24-JAN-2023

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.271	0.001	14777	78.3	1	7.254	-0.001	16100	86.3
Aroclor-1016	2	7.655	0.004	70114	112.1	2	7.853	0.002	47184	115.4
Aroclor-1016	3	7.794	0.006	27212	94.5	3	8.053	0.003	9427	56.5
Aroclor-1016	4	8.406	0.003	59884	323.4	4	8.306	0.001	36680	280.3
Total CollAve (4 peaks):				152.0		Total Col2Ave (4 peaks):				134.6 RPD = 12
Corrected Ave (3 peaks):				94.9		Corrected Ave (3 peaks):				86.0 RPD = 10
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	6.133	-0.000	591	7.7	2	6.323	0.025	1820	32.9
Aroclor-1221	3	6.386	0.001	2453	13.8	3	6.627	0.004	1477	15.8
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	6.133	-0.000	591	11.2	2	7.254	-0.002	16100	188.0
Aroclor-1232	3	7.655	-0.004	70114	265.3	3	7.853	-0.001	47184	270.6
Aroclor-1232	4	8.581	-0.003	76286	674.3	4	8.714	0.000	39330	811.7
Total CollAve (3 peaks):				316.9		Total Col2Ave (3 peaks):				423.4 RPD = 29
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1242	1	7.271	0.000	14777	95.0	1	7.254	-0.002	16100	107.0
Aroclor-1242	2	7.655	-0.001	70114	137.7	2	7.853	0.000	47184	141.2
Aroclor-1242	3	8.406	-0.000	59884	395.8	3	9.159	-0.001	46988	448.9
Aroclor-1242	4	8.581	-0.000	76286	333.8	4	9.584	-0.003	56615	408.1
Total CollAve (4 peaks):				240.5		Total Col2Ave (4 peaks):				276.3 RPD = 14
Corrected Ave (3 peaks):				188.8		Corrected Ave (3 peaks):				218.7 RPD = 15
Aroclor-1248	1	8.406	0.001	59884	235.6	1	8.306	0.001	36680	235.8
Aroclor-1248	2	8.581	0.001	76286	235.2	2	8.714	0.002	39330	234.9
Aroclor-1248	3	9.000	0.001	148805	239.9	3	9.159	0.003	46988	229.7
Aroclor-1248	4	9.295	0.001	73114	238.1	4	9.584	0.002	56615	223.8
Total CollAve (4 peaks):				237.2		Total Col2Ave (4 peaks):				231.0 RPD = 3
Corrected Ave (3 peaks):				236.3		Corrected Ave (3 peaks):				229.5 RPD = 3
Aroclor-1254	1	9.295	-0.004	73114	141.2	1	9.449	0.001	20314	81.4
Aroclor-1254	2	9.378	0.000	36561	165.3	2	9.970	0.000	18678	92.6
Aroclor-1254	3	9.672	0.003	30736	92.6	3	10.124	0.003	35321	80.2
Aroclor-1254	4	9.813	0.004	53537	82.3	4	10.387	0.015	35188	79.9
Aroclor-1254	5	10.192	0.015	40119	94.9	5	10.575	0.006	7386	30.1
Total CollAve (5 peaks):				115.3		Total Col2Ave (5 peaks):				72.9 RPD = 45*
Corrected Ave (4 peaks):				102.7		Corrected Ave (4 peaks):				67.9 RPD = 41*
Aroclor-1260	1	11.054	0.010	1868	3.4	1	11.664	0.011	2055	5.7
Aroclor-1260	2	11.366	0.005	1375	2.4	2	11.926	0.009	1303	1.4
Aroclor-1260	3	11.745	0.010	2137	1.4	3	12.439	0.003	395	1.7
Aroclor-1260	4	12.147	0.008	1650	2.1	4	12.507	0.005	890	1.5
Aroclor-1260	5	12.255	0.011	558	1.7	NS	---			----
Total CollAve (5 peaks):				2.2		Total Col2Ave (4 peaks):				2.6 RPD = 15
Corrected Ave (4 peaks):				1.9		Corrected Ave (3 peaks):				1.5 RPD = 22
Aroclor-1262	1	10.837	0.005	12736	32.2	1	11.122	-0.078	7136	14.5
Aroclor-1262	2	12.255	0.010	558	0.9	2	11.664	0.011	2055	4.9
Aroclor-1262	3	12.327	0.006	596	0.9	3	12.439	0.004	395	0.9
Aroclor-1262	4	12.996	0.007	1113	1.8	4	12.507	0.003	890	1.2
Total CollAve (4 peaks):				8.9		Total Col2Ave (4 peaks):				5.4 RPD = 50*
Corrected Ave (3 peaks):				1.2		Corrected Ave (3 peaks):				2.3 RPD = 65*
Aroclor-1268	1	12.255	0.010	558	0.3	1	12.439	0.005	395	0.3
Aroclor-1268	2	12.327	0.009	596	0.4	2	12.507	0.005	890	0.7
Aroclor-1268	3	12.706	0.007	1161	0.9	3	12.896	0.003	166	0.2
Aroclor-1268	4	13.504	0.016	3330	0.8	4	13.717	0.009	469	0.1
Total CollAve (4 peaks):				0.6		Total Col2Ave (4 peaks):				0.3 RPD = 57*
Corrected Ave (3 peaks):				0.5		Corrected Ave (3 peaks):				0.2 RPD = 83*

Total PCB Area Col1 (5.909 - 13.792) = 1230760 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 742749 Col2 Total PCB = 0.2 ppm*

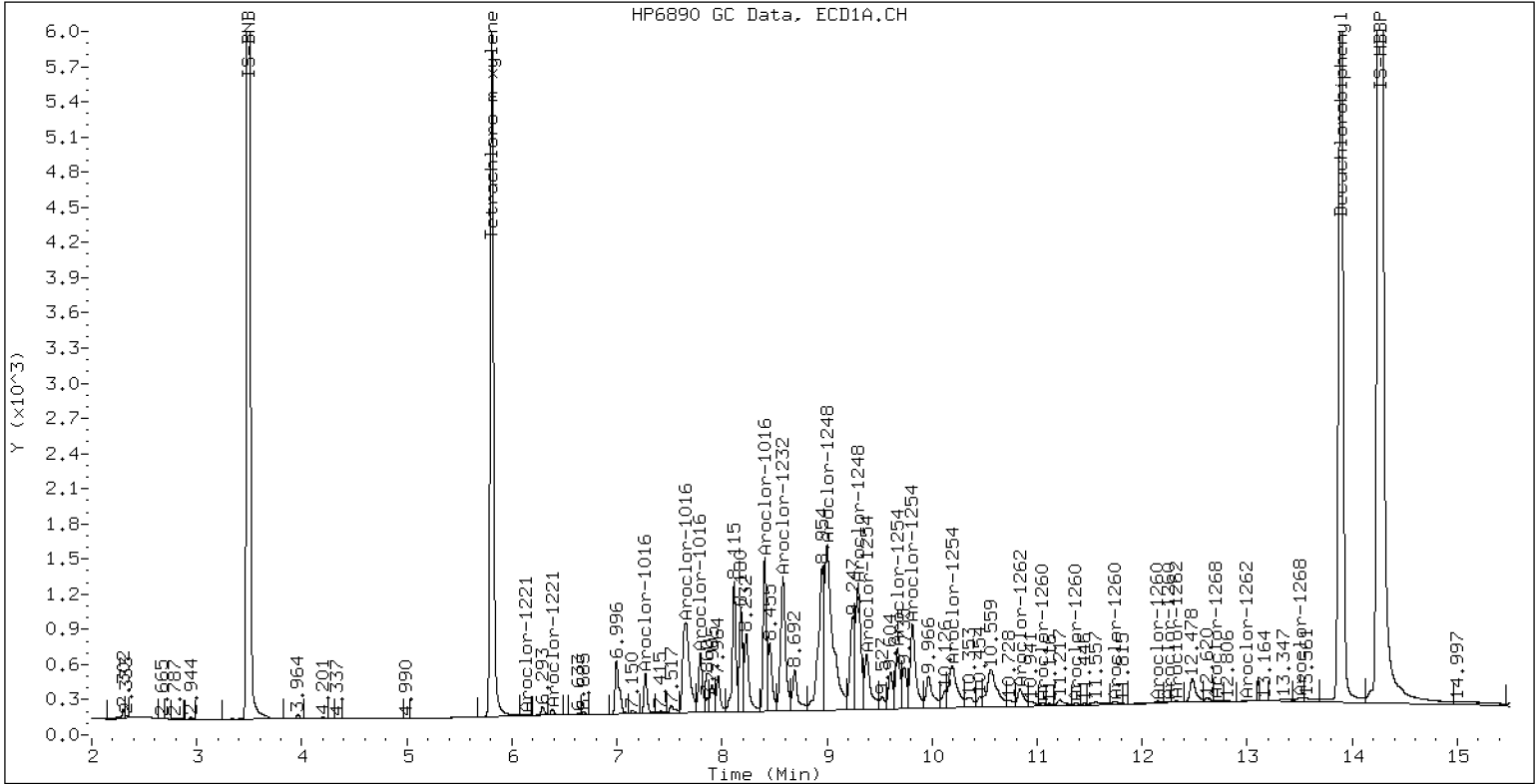
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248 SCV

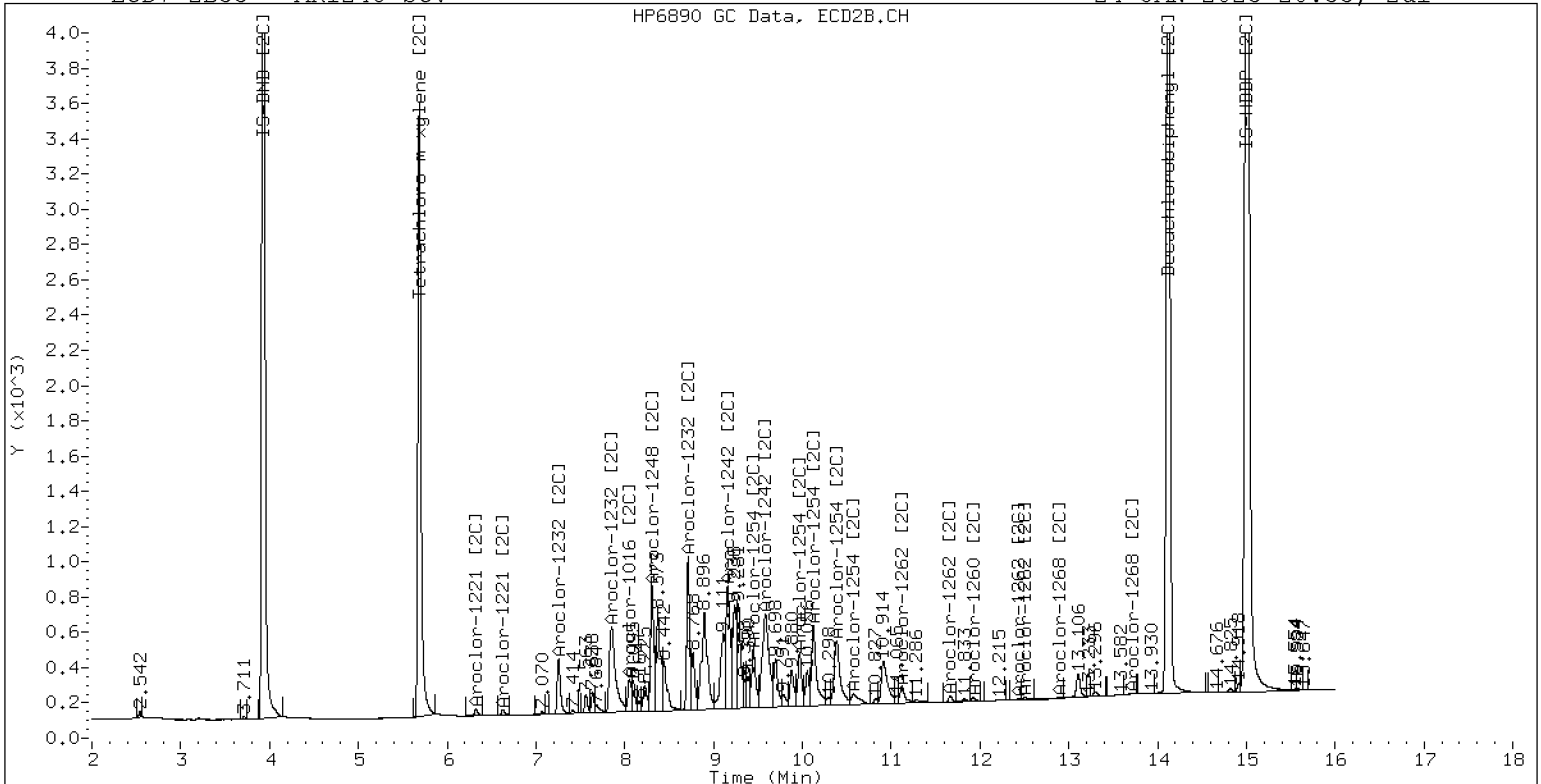
24-JAN-2023 20:33, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248 SCV

24-JAN-2023 20:33, 2ul



ZB-35 Manual Integration: NO



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GA00061</u>
Lab File ID:	<u>01242327ECD7.D</u>	Calibration Date:	<u>01/24/2023</u>
Sequence:	<u>SLA0281</u>	Injection Date:	<u>01/24/23</u>
Lab Sample ID:	<u>SLA0281-SCV4</u>	Injection Time:	<u>20:54</u>
Sequence Name:	<u>AR1254SCV4</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	221	0.0675033	0.0594048		-11.7	+/-20
Aroclor 1254 [2C]	A	250.00	227	0.0733219	0.0662023		-9.4	+/-20
Decachlorobiphenyl	A	40.000	37.1	0.8555994	0.7930764		-7.3	+/-20
Tetrachlorometaxylene	A	40.000	36.7	1.1307870	1.0364220		-8.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.5	1.2696430	1.2551640		-1.1	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.6	1.0814980	0.9904044		-8.4	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242327ECD7.D
Data file 2: /230124.b/230124.b/01242327ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254 SCV
Client ID:
Injection Date: 24-JAN-2023 20:54
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.809	-0.000	261398	5.686	-0.001	169839	36.7	36.6	0.1	Tetrachloro-m-xylene
13.892	0.001	383983	14.121	0.001	323233	37.1	39.5	6.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	504424	0.2
Hexabromobiphenyl	647433	968338	49.6
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	342969	1.8
Hexabromobiphenyl	382032	515045	34.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.273	0.003	320	1.7	1	7.258	0.003	332	1.8	
Aroclor-1016	2	7.658	0.008	991	1.6	2	---			0.0	
Aroclor-1016	3	7.795	0.007	662	2.3	3	8.097	0.047	515	3.1	
Aroclor-1016	4	8.408	0.005	21378	116.3	4	8.307	0.002	20446	156.8	
Total CollAve (4 peaks):				30.5	Total Col2Ave (3 peaks):				53.9	RPD = 55*	
Corrected Ave (3 peaks):				1.9	Corrected Ave: < 3 Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	6.325	0.026	1749	31.7	
Aroclor-1221	3	---			0.0	3	6.633	0.011	321	3.5	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	7.258	0.001	332	3.9	
Aroclor-1232	3	7.658	-0.000	991	3.8	3	---			0.0	
Aroclor-1232	4	8.587	0.003	8887	79.1	4	8.715	0.001	14030	290.5	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	7.273	0.002	320	2.1	1	7.258	0.002	332	2.2	
Aroclor-1242	2	7.658	0.003	991	2.0	2	---			0.0	
Aroclor-1242	3	8.408	0.002	21378	142.3	3	9.164	0.004	26593	254.9	
Aroclor-1242	4	8.587	0.006	8887	39.2	4	9.543	-0.043	34385	248.7	
Total CollAve (4 peaks):				46.4	Total Col2Ave (3 peaks):				168.6	RPD = 114*	
Corrected Ave (3 peaks):				14.4	Corrected Ave: < 3 Peaks						
Aroclor-1248	1	8.408	0.003	21378	84.7	1	8.307	0.001	20446	131.9	
Aroclor-1248	2	8.587	0.007	8887	27.6	2	8.715	0.003	14030	84.1	
Aroclor-1248	3	8.995	-0.004	110289	179.1	3	9.164	0.007	26593	130.4	
Aroclor-1248	4	9.300	0.007	113143	371.2	4	9.543	-0.038	34385	136.4	
Total CollAve (4 peaks):				165.7	Total Col2Ave (4 peaks):				120.7	RPD = 31	
Corrected Ave (3 peaks):				97.2	Corrected Ave (3 peaks): 115.5 RPD = 17						
Aroclor-1254	1	9.300	0.002	113143	220.1	1	9.449	0.001	56453	226.9	
Aroclor-1254	2	9.379	0.001	49468	225.4	2	9.970	0.001	45325	225.4	
Aroclor-1254	3	9.671	0.002	72811	221.0	3	10.122	0.002	97044	221.2	
Aroclor-1254	4	9.811	0.002	140530	217.7	4	10.374	0.002	98778	225.2	
Aroclor-1254	5	10.182	0.005	92254	219.8	5	10.570	0.001	57171	234.0	
Total CollAve (5 peaks):				220.8	Total Col2Ave (5 peaks):				226.5	RPD = 3	
Corrected Ave (4 peaks):				219.7	Corrected Ave (4 peaks): 224.7 RPD = 2						
Aroclor-1260	1	11.045	0.002	8960	16.5	1	11.661	0.008	26985	72.6	
Aroclor-1260	2	11.364	0.004	9237	16.5	2	11.923	0.006	19882	21.2	
Aroclor-1260	3	11.741	0.007	21268	14.5	3	12.505	0.069	13190	56.3	
Aroclor-1260	4	12.146	0.007	19041	25.1	4	---			0.0	
Aroclor-1260	5	12.321	0.077	1835	5.5	NS	---			---	
Total CollAve (5 peaks):				15.6	Total Col2Ave (3 peaks):				50.0	RPD = 105*	
Corrected Ave (4 peaks):				13.3	Corrected Ave: < 3 Peaks						
Aroclor-1262	1	10.832	0.000	157590	402.4	1	11.119	-0.081	92414	183.3	
Aroclor-1262	2	12.321	0.075	1835	3.0	2	11.661	0.008	26985	63.0	
Aroclor-1262	3	---			0.0	3	12.505	0.071	13190	28.9	
Aroclor-1262	4	12.995	0.006	843	1.4	4	---			0.0	
Total CollAve (3 peaks):				135.6	Total Col2Ave (3 peaks):				91.7	RPD = 39	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1268	1	12.321	0.076	1835	1.1	1	12.505	0.072	13190	11.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	12.720	0.021	1314	1.0	3	12.891	-0.002	169	0.2	
Aroclor-1268	4	13.504	0.016	1169	0.3	4	13.706	-0.002	1132	0.3	
Total CollAve (3 peaks):				0.8	Total Col2Ave (3 peaks):				3.8	RPD = 130*	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						

Total PCB Area Col1 (5.909 - 13.792) = 1507519 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 951047 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GA00061</u>
Lab File ID:	<u>01242328ECD7.D</u>	Calibration Date:	<u>01/24/2023</u>
Sequence:	<u>SLA0281</u>	Injection Date:	<u>01/24/23</u>
Lab Sample ID:	<u>SLA0281-SCV5</u>	Injection Time:	<u>21:15</u>
Sequence Name:	<u>AR2162SCV5</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1221	A	250.00	228	0.0153579	0.0138791		-8.8	+/-20
Aroclor 1221 [2C]	A	250.00	239	0.0134687	0.0127460		-4.5	+/-20
Decachlorobiphenyl	A	40.000	37.5	0.8555994	0.8010750		-6.4	+/-20
Tetrachlorometaxylene	A	40.000	37.3	1.1307870	1.0541060		-6.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.5	1.2696430	1.2528610		-1.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.2	1.0814980	1.0047210		-7.1	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242328ECD7.D
Data file 2: /230124.b/230124.b/01242328ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162 SCV
Client ID:
Injection Date: 24-JAN-2023 21:15
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.809	-0.000	265357	5.685	-0.001	170984	37.3	37.2	0.3	Tetrachloro-m-xylene
13.891	-0.001	397332	14.119	-0.001	326981	37.5	39.5	5.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	503473	0.0
Hexabromobiphenyl	647433	991997	53.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	340361	1.0
Hexabromobiphenyl	382032	521975	36.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.272	0.002	5326	28.5	1	7.257	0.002	6708	36.3	
Aroclor-1016	2	7.664	0.013	11965	19.3	2	7.856	0.005	7233	17.9	
Aroclor-1016	3	7.797	0.009	6015	21.1	3	8.058	0.008	2997	18.2	
Aroclor-1016	4	8.410	0.006	3771	20.6	4	8.308	0.002	2065	16.0	
Total CollAve (4 peaks):				22.4	Total Col2Ave (4 peaks):				22.1	RPD = 1	
Corrected Ave (3 peaks):				20.3	Corrected Ave (3 peaks):				17.3	RPD = 16	
Aroclor-1221	1	4.732	-0.000	9097	244.5	1	4.959	-0.000	6157	246.8	
Aroclor-1221	2	6.133	-0.000	16114	211.8	2	6.297	-0.001	12807	234.2	
Aroclor-1221	3	6.384	0.000	40299	228.1	3	6.622	-0.000	21707	235.2	
Total CollAve (3 peaks):				228.1	Total Col2Ave (3 peaks):				238.7	RPD = 5	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.732	-0.001	9097	391.6	1	4.959	-0.001	6157	406.9	
Aroclor-1232	2	6.133	0.000	16114	307.8	2	7.257	0.000	6708	79.2	
Aroclor-1232	3	7.664	0.005	11965	45.7	3	7.856	0.001	7233	41.9	
Aroclor-1232	4	8.589	0.004	2837	25.3	4	8.716	0.002	1869	39.0	
Total CollAve (4 peaks):				192.6	Total Col2Ave (4 peaks):				141.7	RPD = 30	
Corrected Ave (3 peaks):				126.3	Corrected Ave (3 peaks):				53.4	RPD = 81*	
Aroclor-1242	1	7.272	0.001	5326	34.5	1	7.257	0.001	6708	45.1	
Aroclor-1242	2	7.664	0.008	11965	23.7	2	7.856	0.003	7233	21.9	
Aroclor-1242	3	8.410	0.004	3771	25.2	3	9.169	0.009	1956	18.9	
Aroclor-1242	4	8.589	0.007	2837	12.5	4	9.544	-0.043	5978	43.6	
Total CollAve (4 peaks):				24.0	Total Col2Ave (4 peaks):				32.3	RPD = 30	
Corrected Ave (3 peaks):				20.5	Corrected Ave (3 peaks):				28.1	RPD = 31	
Aroclor-1248	1	8.410	0.005	3771	15.0	1	8.308	0.002	2065	13.4	
Aroclor-1248	2	8.589	0.008	2837	8.8	2	8.716	0.004	1869	11.3	
Aroclor-1248	3	8.997	-0.002	36022	58.6	3	9.169	0.012	1956	9.7	
Aroclor-1248	4	9.305	0.011	30853	101.4	4	9.544	-0.038	5978	23.9	
Total CollAve (4 peaks):				46.0	Total Col2Ave (4 peaks):				14.6	RPD = 104*	
Corrected Ave (3 peaks):				27.5	Corrected Ave (3 peaks):				11.5	RPD = 82*	
Aroclor-1254	1	9.305	0.006	30853	60.1	1	9.451	0.003	17617	71.3	
Aroclor-1254	2	9.376	-0.002	5370	24.5	2	9.970	0.001	2849	14.3	
Aroclor-1254	3	9.673	0.003	5543	16.9	3	10.146	0.026	88151	202.5	
Aroclor-1254	4	9.810	0.002	14544	22.6	4	10.370	-0.002	107074	245.9	
Aroclor-1254	5	10.121	-0.056	180016	429.7	5	10.567	-0.002	141725	584.5	
Total CollAve (5 peaks):				110.8	Total Col2Ave (5 peaks):				223.7	RPD = 68*	
Corrected Ave (4 peaks):				31.0	Corrected Ave (4 peaks):				133.5	RPD = 125*	
Aroclor-1260	1	11.044	0.001	310806	558.4	1	11.652	-0.001	187682	498.4	
Aroclor-1260	2	11.361	0.000	263161	460.0	2	11.917	-0.000	450612	473.0	
Aroclor-1260	3	11.735	0.000	629605	418.0	3	12.433	-0.003	206042	867.7	
Aroclor-1260	4	12.141	0.001	210012	269.9	4	12.502	-0.000	326457	529.5	
Aroclor-1260	5	12.244	-0.000	268425	791.3	NS	---			----	
Total CollAve (5 peaks):				499.5	Total Col2Ave (4 peaks):				592.1	RPD = 17	
Corrected Ave (4 peaks):				426.6	Corrected Ave (3 peaks):				500.3	RPD = 16	
Aroclor-1262	1	10.828	-0.005	171094	426.5	1	11.200	0.000	219731	430.1	
Aroclor-1262	2	12.244	-0.002	268425	423.9	2	11.652	-0.001	187682	432.0	
Aroclor-1262	3	12.319	-0.002	291581	424.2	3	12.433	-0.001	206042	445.4	
Aroclor-1262	4	12.988	-0.001	257735	411.5	4	12.502	-0.002	326457	440.6	
Total CollAve (4 peaks):				421.5	Total Col2Ave (4 peaks):				437.0	RPD = 4	
Corrected Ave (3 peaks):				419.8	Corrected Ave (3 peaks):				434.3	RPD = 3	
Aroclor-1268	1	12.244	-0.001	268425	163.8	1	12.433	-0.000	206042	169.0	
Aroclor-1268	2	12.319	0.001	291581	178.4	2	12.502	0.000	326457	251.7	
Aroclor-1268	3	12.725	0.026	108693	80.3	3	12.892	-0.001	10062	9.3	
Aroclor-1268	4	13.486	-0.003	95646	23.8	4	13.710	0.001	59437	17.8	
Total CollAve (4 peaks):				111.6	Total Col2Ave (4 peaks):				112.0	RPD = 0	

Corrected Ave (3 peaks): 89.3 Corrected Ave (3 peaks): 65.4 RPD = 31

Total PCB Area Col1 (5.909 - 13.792) = 4409992 Col1 Total PCB = 0.8 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 2874073 Col2 Total PCB = 0.8 ppm*

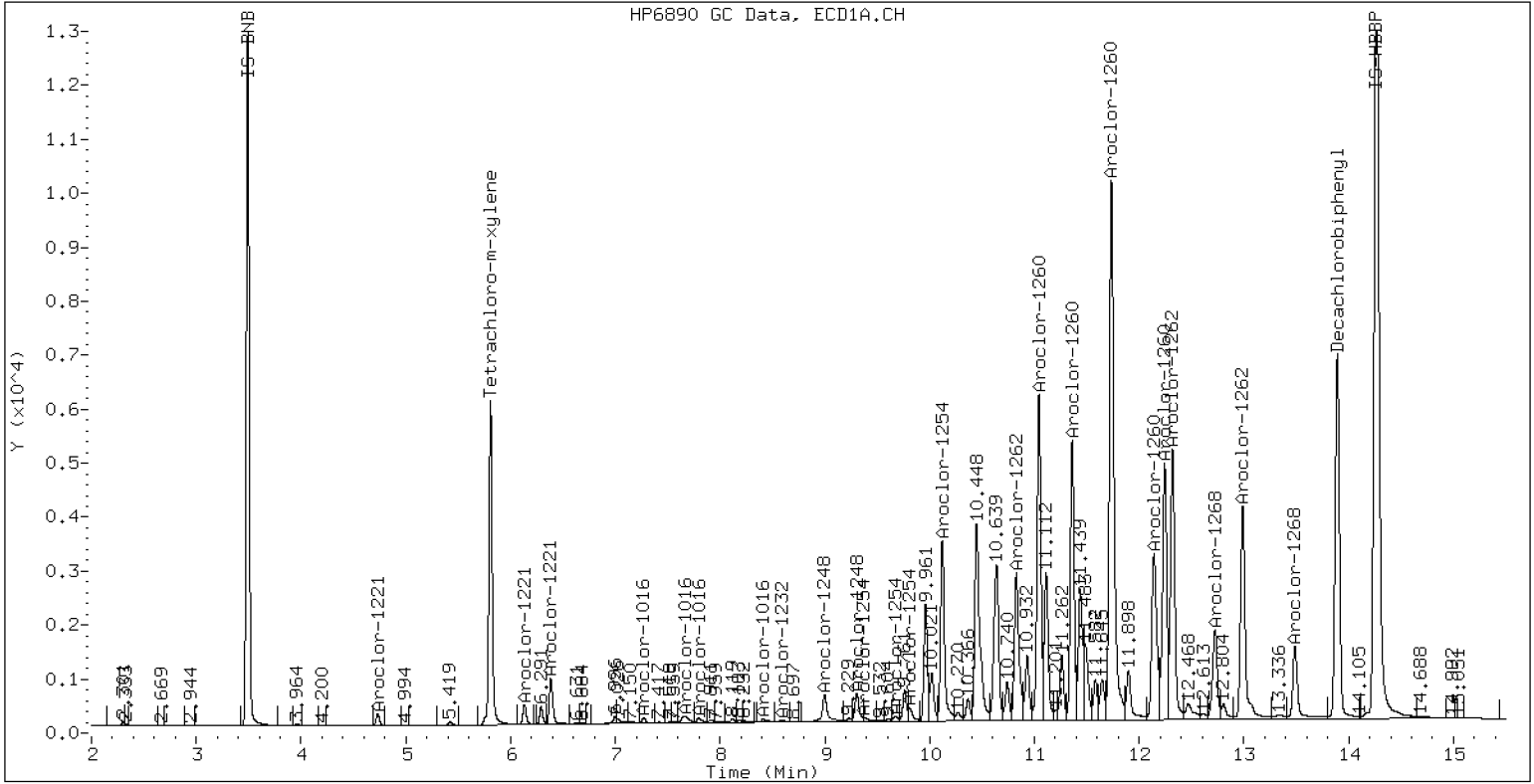
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR2162 SCV

24-JAN-2023 21:15, 2ul





**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GA00061</u>
Lab File ID:	<u>01242329ECD7.D</u>	Calibration Date:	<u>01/24/2023</u>
Sequence:	<u>SLA0281</u>	Injection Date:	<u>01/24/23</u>
Lab Sample ID:	<u>SLA0281-SCV6</u>	Injection Time:	<u>21:36</u>
Sequence Name:	<u>AR3268SCV6</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1232	A	250.00	216	0.0178560	0.0160358		-13.7	+/-20
Aroclor 1232 [2C]	A	250.00	239	0.0188178	0.0180429		-4.5	+/-20
Decachlorobiphenyl	A	40.000	54.6	0.8555994	1.1682210		36.5	+/-20
Tetrachlorometaxylene	A	40.000	36.4	1.1307870	1.0284340		-9.1	+/-20
Decachlorobiphenyl [2C]	A	40.000	57.9	1.2696430	1.8387740		44.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.3	1.0814980	0.9815176		-9.2	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242329ECD7.D
Data file 2: /230124.b/230124.b/01242329ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268 SCV
Client ID:
Injection Date: 24-JAN-2023 21:36
Report Date: 01/25/2023 10:53
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.810	0.001	250455	5.687	0.000	162795	36.4	36.3	0.2	Tetrachloro-m-xylene
13.892	0.000	551946	14.120	0.000	461901	54.6	57.9	5.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	487061	-3.2
Hexabromobiphenyl	647433	944934	46.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	331721	-1.5
Hexabromobiphenyl	382032	502401	31.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.272	0.002	19363	107.0	1	7.256	0.001	19791	110.0	
Aroclor-1016	2	7.659	0.009	58630	97.8	2	7.856	0.005	40139	101.8	
Aroclor-1016	3	7.794	0.006	28286	102.5	3	8.055	0.005	17412	108.2	
Aroclor-1016	4	8.408	0.004	17373	97.9	4	8.308	0.003	11962	94.8	
Total CollAve (4 peaks):				101.3		Total Col2Ave (4 peaks):				103.7	RPD = 2
Corrected Ave (3 peaks):				99.4		Corrected Ave (3 peaks):				101.6	RPD = 2
Aroclor-1221	1	4.735	0.002	5022	139.5	1	4.961	0.002	3409	140.2	
Aroclor-1221	2	6.134	0.001	8987	122.1	2	6.299	0.001	7677	144.1	
Aroclor-1221	3	6.385	0.001	29368	171.8	3	6.624	0.001	16198	180.1	
Total CollAve (3 peaks):				144.5		Total Col2Ave (3 peaks):				154.8	RPD = 7
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks					
Aroclor-1232	1	4.735	0.002	5022	223.5	1	4.961	0.002	3409	231.1	
Aroclor-1232	2	6.134	0.001	8987	177.4	2	7.256	-0.001	19791	239.8	
Aroclor-1232	3	7.659	0.001	58630	231.5	3	7.856	0.001	40139	238.8	
Aroclor-1232	4	8.585	0.000	24991	230.5	4	8.715	0.001	11476	245.7	
Total CollAve (4 peaks):				215.7		Total Col2Ave (4 peaks):				238.8	RPD = 10
Corrected Ave (3 peaks):				210.5		Corrected Ave (3 peaks):				236.6	RPD = 12
Aroclor-1242	1	7.272	0.001	19363	129.8	1	7.256	0.000	19791	136.4	
Aroclor-1242	2	7.659	0.004	58630	120.1	2	7.856	0.002	40139	124.6	
Aroclor-1242	3	8.408	0.001	17373	119.8	3	9.166	0.006	11813	117.1	
Aroclor-1242	4	8.585	0.003	24991	114.1	4	9.595	0.009	16549	123.7	
Total CollAve (4 peaks):				121.0		Total Col2Ave (4 peaks):				125.4	RPD = 4
Corrected Ave (3 peaks):				118.0		Corrected Ave (3 peaks):				121.8	RPD = 3
Aroclor-1248	1	8.408	0.002	17373	71.3	1	8.308	0.003	11962	79.8	
Aroclor-1248	2	8.585	0.005	24991	80.4	2	8.715	0.003	11476	71.1	
Aroclor-1248	3	9.001	0.002	67631	113.8	3	9.166	0.009	11813	59.9	
Aroclor-1248	4	9.293	-0.001	30983	105.3	4	9.595	0.014	16549	67.9	
Total CollAve (4 peaks):				92.7		Total Col2Ave (4 peaks):				69.7	RPD = 28
Corrected Ave (3 peaks):				85.7		Corrected Ave (3 peaks):				66.3	RPD = 26
Aroclor-1254	1	9.293	-0.006	30983	62.4	1	9.451	0.003	3749	15.6	
Aroclor-1254	2	9.381	0.003	9071	42.8	2	9.974	0.005	2452	12.6	
Aroclor-1254	3	9.678	0.009	5199	16.3	3	10.131	0.010	4718	11.1	
Aroclor-1254	4	9.820	0.012	8864	14.2	4	10.389	0.018	4224	10.0	
Aroclor-1254	5	10.195	0.018	8085	19.9	5	10.573	0.004	1573	6.7	
Total CollAve (5 peaks):				31.1		Total Col2Ave (5 peaks):				11.2	RPD = 94*
Corrected Ave (4 peaks):				23.3		Corrected Ave (4 peaks):				10.1	RPD = 79*
Aroclor-1260	1	11.050	0.006	66852	126.1	1	11.647	-0.006	57235	157.9	
Aroclor-1260	2	11.366	0.006	6269	11.5	2	11.919	0.002	25368	27.7	
Aroclor-1260	3	11.741	0.007	41446	28.9	3	12.434	-0.002	262014	1146.4	
Aroclor-1260	4	12.052	-0.088	2691	3.6	4	12.502	-0.000	277060	466.9	
Aroclor-1260	5	12.245	0.002	349286	1080.9	NS	---			----	
Total CollAve (5 peaks):				250.2		Total Col2Ave (4 peaks):				449.7	RPD = 57*
Corrected Ave (4 peaks):				42.5		Corrected Ave (3 peaks):				217.5	RPD = 135*
Aroclor-1262	1	10.838	0.006	4520	11.8	1	11.203	0.003	40576	82.5	
Aroclor-1262	2	12.245	-0.000	349286	579.1	2	11.647	-0.006	57235	136.9	
Aroclor-1262	3	12.318	-0.002	349715	534.1	3	12.434	-0.001	262014	588.4	
Aroclor-1262	4	12.988	-0.001	141905	237.8	4	12.502	-0.002	277060	388.5	
Total CollAve (4 peaks):				340.7		Total Col2Ave (4 peaks):				299.1	RPD = 13
Corrected Ave (3 peaks):				261.2		Corrected Ave (3 peaks):				202.6	RPD = 25
Aroclor-1268	1	12.245	0.001	349286	223.8	1	12.434	0.000	262014	223.3	
Aroclor-1268	2	12.318	0.000	349715	224.6	2	12.502	0.000	277060	221.9	
Aroclor-1268	3	12.699	0.000	289328	224.3	3	12.893	-0.000	208928	201.0	
Aroclor-1268	4	13.490	0.001	849299	222.1	4	13.710	0.002	725831	226.1	
Total CollAve (4 peaks):				223.7		Total Col2Ave (4 peaks):				218.1	RPD = 3

Corrected Ave (3 peaks): 223.4 Corrected Ave (3 peaks): 215.4 RPD = 4

Total PCB Area Col1 (5.909 - 13.792) = 2866092 Col1 Total PCB = 0.5 ppm*
Total PCB Area Col2 (5.787 - 14.020) = 2084481 Col2 Total PCB = 0.6 ppm*

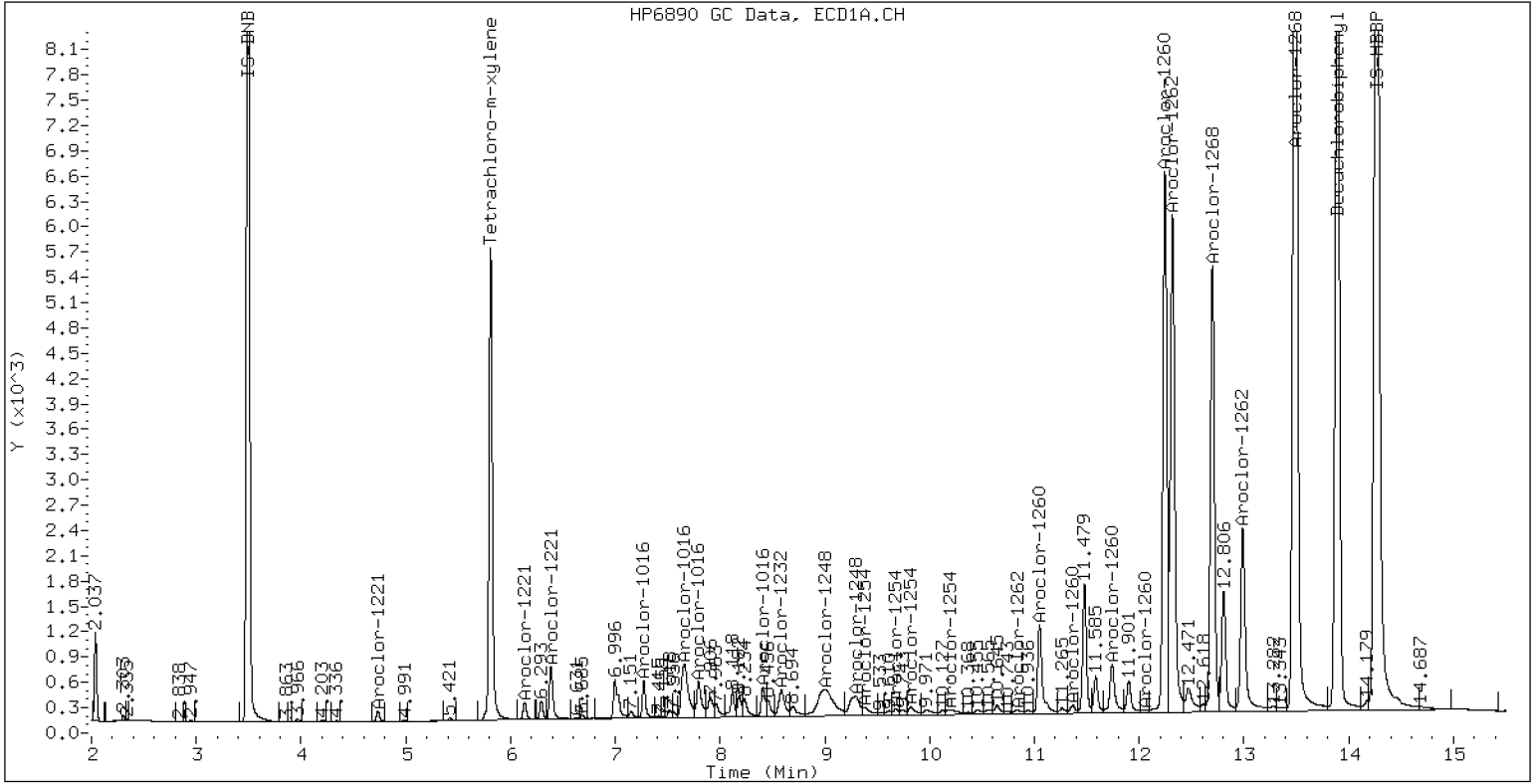
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR3268 SCV

24-JAN-2023 21:36, 2ul





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GA00061</u>
Lab File ID:	<u>01242348ECD7.D</u>	Calibration Date:	<u>01/24/2023</u>
Sequence:	<u>SLA0298</u>	Injection Date:	<u>01/25/23</u>
Lab Sample ID:	<u>SLA0298-CCV1</u>	Injection Time:	<u>04:14</u>
Sequence Name:	<u>AR1248CCV1</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	234	0.0592639	0.0553852		-6.3	
Aroclor-1248 (1)	A	250.00	243		0.0388972			
Aroclor-1248 (2)	A	250.00	240		0.0491226			
Aroclor-1248 (3)	A	250.00	232		0.0905597			
Aroclor-1248 (4)	A	250.00	222		0.0429613			
Aroclor 1248 [2C]	A	250.00	245	0.0453673	0.0444653		-2.0	
Aroclor-1248 (1) [2C]	A	250.00	246		0.0356603			
Aroclor-1248 (2) [2C]	A	250.00	246		0.0382400			
Aroclor-1248 (3) [2C]	A	250.00	245		0.0467016			
Aroclor-1248 (4) [2C]	A	250.00	243		0.0572594			
Decachlorobiphenyl	A	40.000	36.1	0.8555994	0.7713908		-9.8	
Tetrachlorometaxylene	A	40.000	38.2	1.1307870	1.0799610		-4.5	
Decachlorobiphenyl [2C]	A	40.000	37.6	1.2696430	1.1920790		-6.0	
Tetrachlorometaxylene [2C]	A	40.000	38.1	1.0814980	1.0300440		-4.8	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242348ECD7.D
Data file 2: /230124.b/230124.b/01242348ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248CCV1
Client ID:
Injection Date: 25-JAN-2023 04:14
Report Date: 01/26/2023 08:48
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.809	-0.000	259951	5.685	-0.001	172177	38.2	38.1	0.3	Tetrachloro-m-xylene
13.891	-0.001	238450	14.119	-0.000	234582	36.1	37.6	4.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	481408	-4.4
Hexabromobiphenyl	647433	618234	-4.5

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	334310	-0.8
Hexabromobiphenyl	382032	393568	3.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.404	-0.001	58517	243.0	1	8.305	0.000	37255	246.5
Aroclor-1248	2	8.579	-0.002	73900	240.6	2	8.712	0.000	39950	245.6
Aroclor-1248	3	8.998	-0.001	136238	231.8	3	9.157	0.000	48790	245.5
Aroclor-1248	4	9.293	-0.001	64631	222.2	4	9.580	0.000	59820	243.4
Total Col1Ave (4 peaks):				234.4	Total Col2Ave (4 peaks):				245.2	RPD = 5
Corrected Ave (3 peaks):				231.5	Corrected Ave (3 peaks):				244.8	RPD = 6
CalAmt %D:				-6.2	CalAmt %D:				-1.9	

Total PCB Area Col1 (5.909 - 13.792) = 1125608 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.786 - 14.020) = 748756 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GA00061</u>
Lab File ID:	<u>01242349ECD7.D</u>	Calibration Date:	<u>01/24/2023</u>
Sequence:	<u>SLA0298</u>	Injection Date:	<u>01/25/23</u>
Lab Sample ID:	<u>SLA0298-CCV2</u>	Injection Time:	<u>04:35</u>
Sequence Name:	<u>AR1660CCV2</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	248	0.0506755	0.0504973		-0.8	
Aroclor-1016 (1)	A	250.00	251	0.0297277	0.0298108		0.4	
Aroclor-1016 (2)	A	250.00	254	0.0985017	0.1000496		1.6	
Aroclor-1016 (3)	A	250.00	236	0.0453193	0.0428723		-5.6	
Aroclor-1016 (4)	A	250.00	251	0.0291533	0.0292564		0.4	
Aroclor 1016 [2C]	A	250.00	256	0.0519244	0.0534407		2.5	
Aroclor-1016 (1) [2C]	A	250.00	250	0.0433907	0.0433736		0.0	
Aroclor-1016 (2) [2C]	A	250.00	259	0.0950862	0.0986854		3.6	
Aroclor-1016 (3) [2C]	A	250.00	265	0.0388014	0.0411566		6.0	
Aroclor-1016 (4) [2C]	A	250.00	251	0.0304194	0.0305472		0.4	
Aroclor 1260	A	250.00	224	0.0605224	0.0544999		-10.4	
Aroclor-1260 (1)	A	250.00	232	0.0448870	0.0417266		-7.2	
Aroclor-1260 (2)	A	250.00	231	0.0461412	0.0426424		-7.6	
Aroclor-1260 (3)	A	250.00	226	0.1214672	0.1099389		-9.6	
Aroclor-1260 (4)	A	250.00	219	0.0627593	0.0550103		-12.4	
Aroclor-1260 (5)	A	250.00	212	0.0273573	0.0231813		-15.2	
Aroclor 1260 [2C]	A	250.00	236	0.0836545	0.0791628		-5.8	
Aroclor-1260 (1) [2C]	A	250.00	238	0.0577136	0.0548780		-4.8	
Aroclor-1260 (2) [2C]	A	250.00	238	0.1460113	0.1389000		-4.8	
Aroclor-1260 (3) [2C]	A	250.00	230	0.0363944	0.0335669		-8.0	
Aroclor-1260 (4) [2C]	A	250.00	236	0.0944986	0.0893063		-5.6	
Decachlorobiphenyl	A	40.000	38.4	0.8555994	0.8210950		-4.0	
Tetrachlorometaxylene	A	40.000	40.7	1.1307870	1.1507840		1.8	
Decachlorobiphenyl [2C]	A	40.000	40.2	1.2696430	1.2772320		0.5	
Tetrachlorometaxylene [2C]	A	40.000	40.7	1.0814980	1.1013380		1.8	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242349ECD7.D
Data file 2: /230124.b/230124.b/01242349ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV2
Client ID:
Injection Date: 25-JAN-2023 04:35
Report Date: 01/26/2023 08:48
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.807	-0.002	277286	5.685	-0.001	184479	40.7	40.7	0.1	Tetrachloro-m-xylene
13.892	0.000	289468	14.119	-0.001	273993	38.4	40.2	4.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	481908	-4.3
Hexabromobiphenyl	647433	705078	8.9

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	335009	-0.6
Hexabromobiphenyl	382032	429042	12.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.270	0.001	44894	250.7	1	7.254	0.000	45408	249.9	
Aroclor-1016	2	7.653	0.002	150671	253.9	2	7.850	-0.001	103314	259.5	
Aroclor-1016	3	7.790	0.002	64564	236.5	3	8.051	-0.001	43087	265.2	
Aroclor-1016	4	8.405	0.001	44059	250.9	4	8.305	-0.000	31980	251.1	
Total CollAve (4 peaks):				248.0	Total Col2Ave (4 peaks):				256.4	RPD = 3	
Corrected Ave (3 peaks):				246.0	Corrected Ave (3 peaks):				253.5	RPD = 3	

CalAmt %D: -0.8

CalAmt %D: 2.6

Aroclor-1260	1	11.045	0.001	91939	232.4	1	11.653	-0.000	73578	237.7	
Aroclor-1260	2	11.361	0.001	93957	231.0	2	11.918	-0.001	186231	237.8	
Aroclor-1260	3	11.736	0.001	242236	226.3	3	12.436	-0.001	45005	230.6	
Aroclor-1260	4	12.139	-0.000	121208	219.1	4	12.502	-0.001	119738	236.3	
Aroclor-1260	5	12.245	0.001	51077	211.8	NS	---			----	
Total CollAve (5 peaks):				224.1	Total Col2Ave (4 peaks):				235.6	RPD = 5	
Corrected Ave (4 peaks):				222.1	Corrected Ave (3 peaks):				234.9	RPD = 6	

CalAmt %D: -10.3

CalAmt %D: -5.8

Total PCB Area Coll (5.909 - 13.792) = 2665368 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.786 - 14.020) = 1795206 Col2 Total PCB = 0.5 ppm*

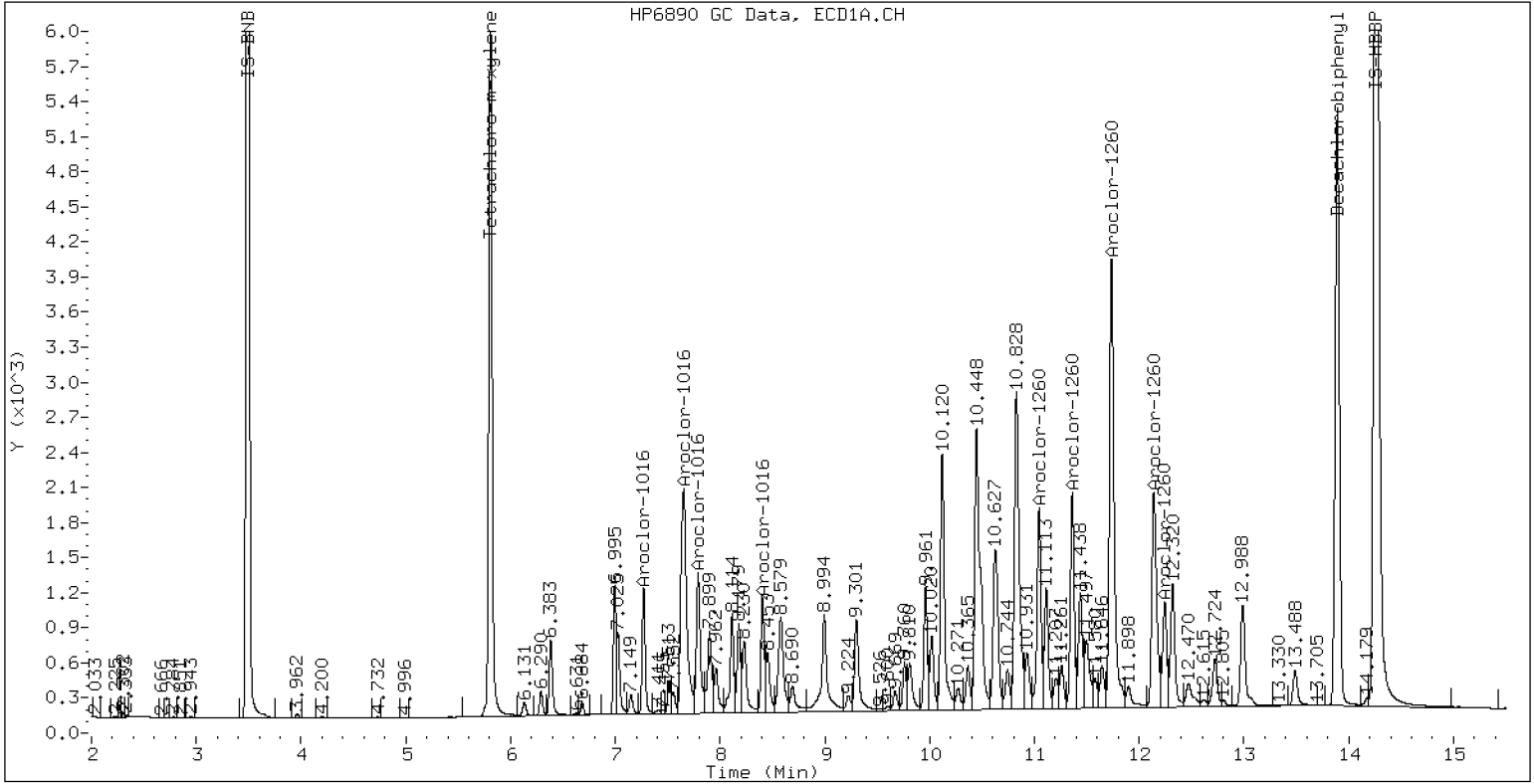
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV2

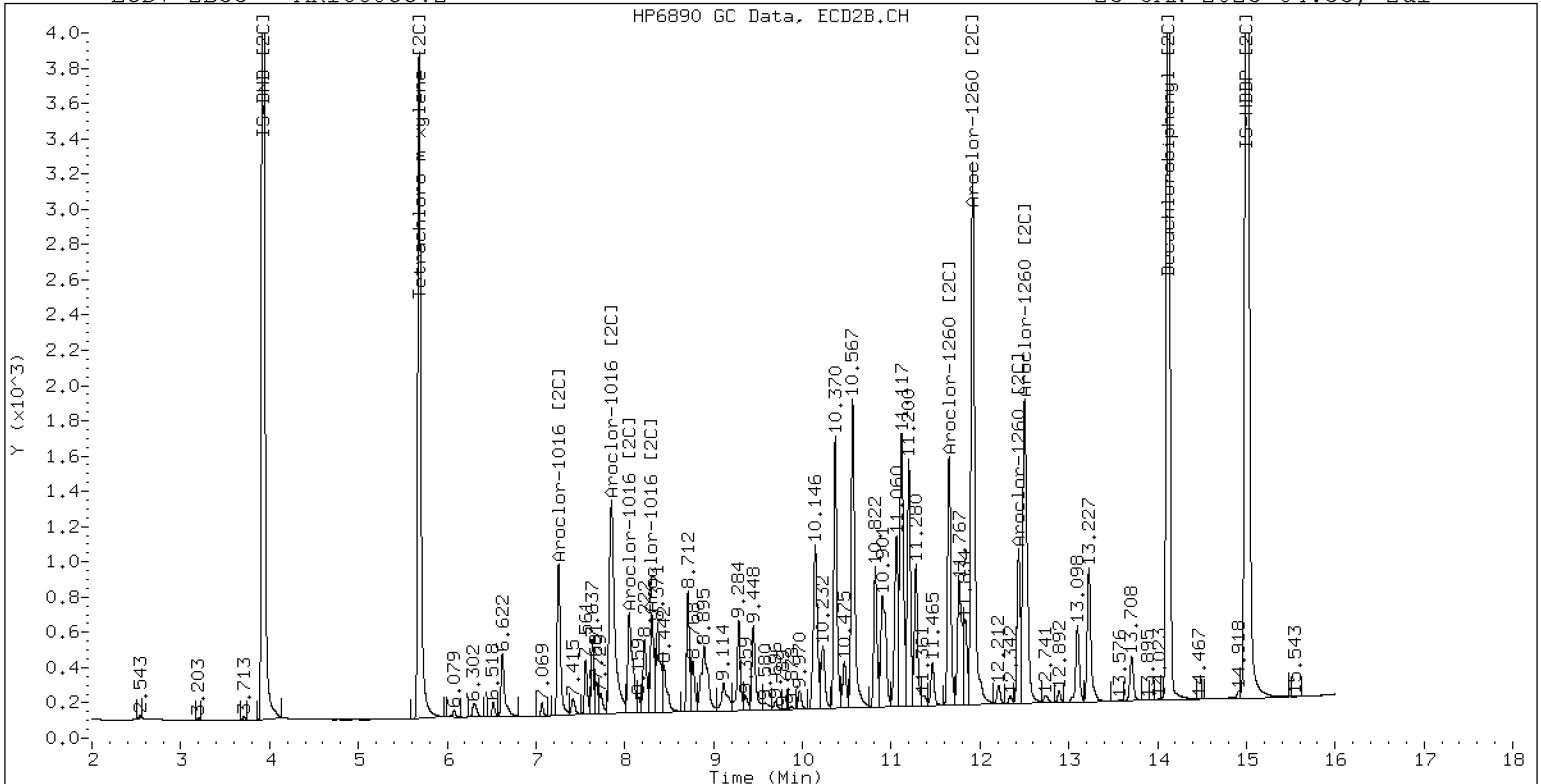
25-JAN-2023 04:35, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV2

25-JAN-2023 04:35, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GA00061</u>
Lab File ID:	<u>01242357ECD7.D</u>	Calibration Date:	<u>01/24/2023</u>
Sequence:	<u>SLA0298</u>	Injection Date:	<u>01/25/23</u>
Lab Sample ID:	<u>SLA0298-CCV3</u>	Injection Time:	<u>07:23</u>
Sequence Name:	<u>AR1242CCV3</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	244	0.0411165	0.0403059		-2.4	
Aroclor-1242 (1)	A	250.00	247		0.0242250			
Aroclor-1242 (2)	A	250.00	248		0.0795039			
Aroclor-1242 (3)	A	250.00	242		0.0230379			
Aroclor-1242 (4)	A	250.00	239		0.0344567			
Aroclor 1242 [2C]	A	250.00	249	0.0423236	0.0421763		-0.4	
Aroclor-1242 (1) [2C]	A	250.00	252		0.0352577			
Aroclor-1242 (2) [2C]	A	250.00	250		0.0776076			
Aroclor-1242 (3) [2C]	A	250.00	248		0.0241423			
Aroclor-1242 (4) [2C]	A	250.00	246		0.0316974			
Decachlorobiphenyl	A	40.000	35.9	0.8555994	0.7675741		-10.3	
Tetrachlorometaxylene	A	40.000	47.5	1.1307870	1.3418570		18.8	
Decachlorobiphenyl [2C]	A	40.000	37.6	1.2696430	1.1932370		-6.0	
Tetrachlorometaxylene [2C]	A	40.000	46.8	1.0814980	1.2653210		17.0	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242357ECD7.D
Data file 2: /230124.b/230124.b/01242357ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242CCV3
Client ID:
Injection Date: 25-JAN-2023 07:23
Report Date: 01/26/2023 08:48
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.808	-0.001	307453	5.685	-0.000	206415	47.5	46.8	1.4	Tetrachloro-m-xylene
13.891	-0.000	209636	14.120	0.000	210552	35.9	37.6	4.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	458250	-9.0
Hexabromobiphenyl	647433	546230	-15.6

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	326265	-3.2
Hexabromobiphenyl	382032	352909	-7.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1242	1	7.270	-0.001	34691	247.2	1	7.254	0.000	35948	251.9	
Aroclor-1242	2	7.653	-0.002	113852	247.9	2	7.851	0.000	79127	249.7	
Aroclor-1242	3	8.404	-0.002	32991	241.8	3	9.158	0.000	24615	248.0	
Aroclor-1242	4	8.580	-0.002	49343	239.4	4	9.585	0.000	32318	245.7	
Total Col1Ave (4 peaks):				244.1	Total Col2Ave (4 peaks):				248.8	RPD = 2	
Corrected Ave (3 peaks):				242.8	Corrected Ave (3 peaks):				247.8	RPD = 2	
CalAmt %D:				-2.4	CalAmt %D:				-0.5		

Total PCB Area Col1 (5.909 - 13.792) = 837433 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.786 - 14.020) = 559769 Col2 Total PCB = 0.2 ppm*

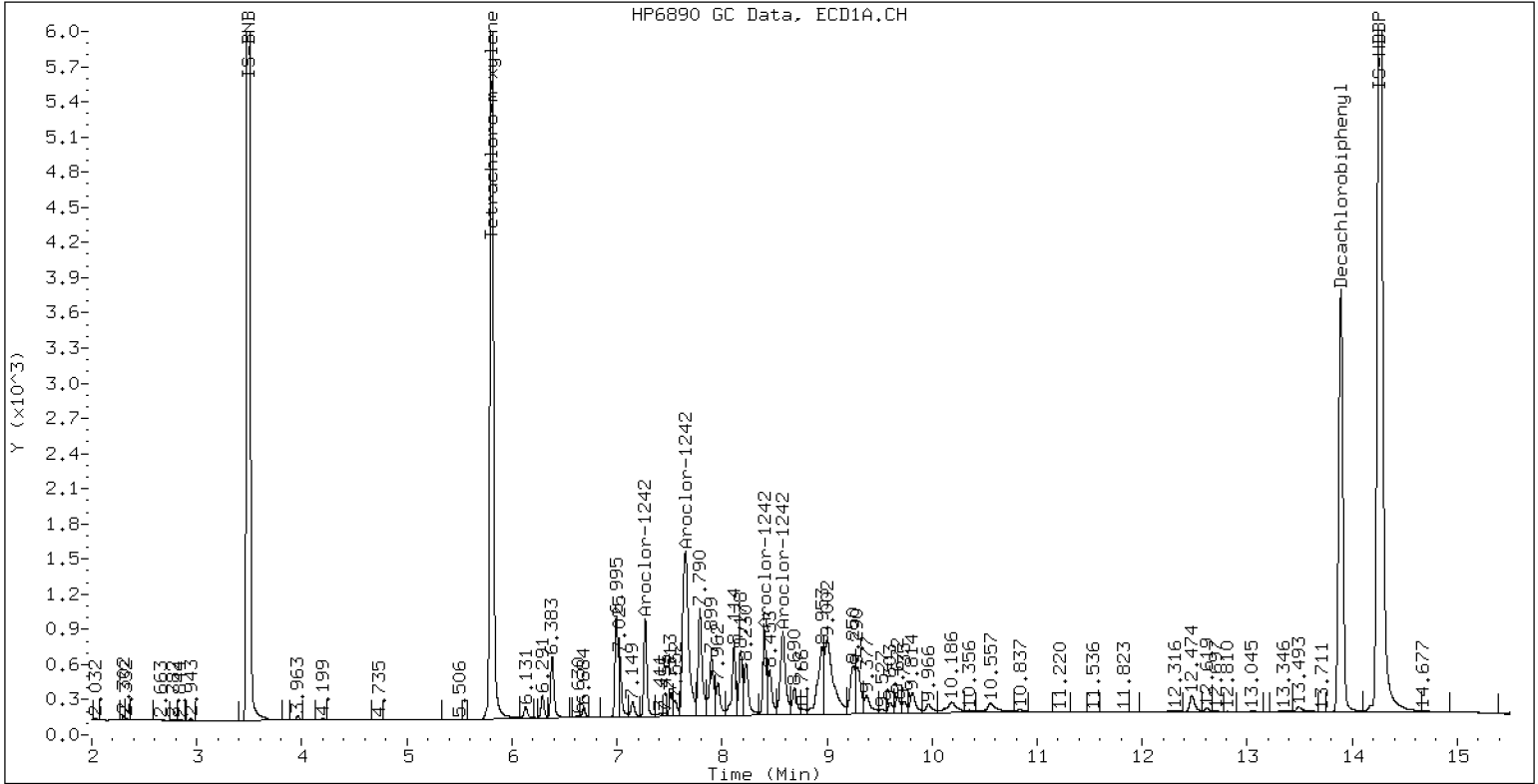
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242CCV3

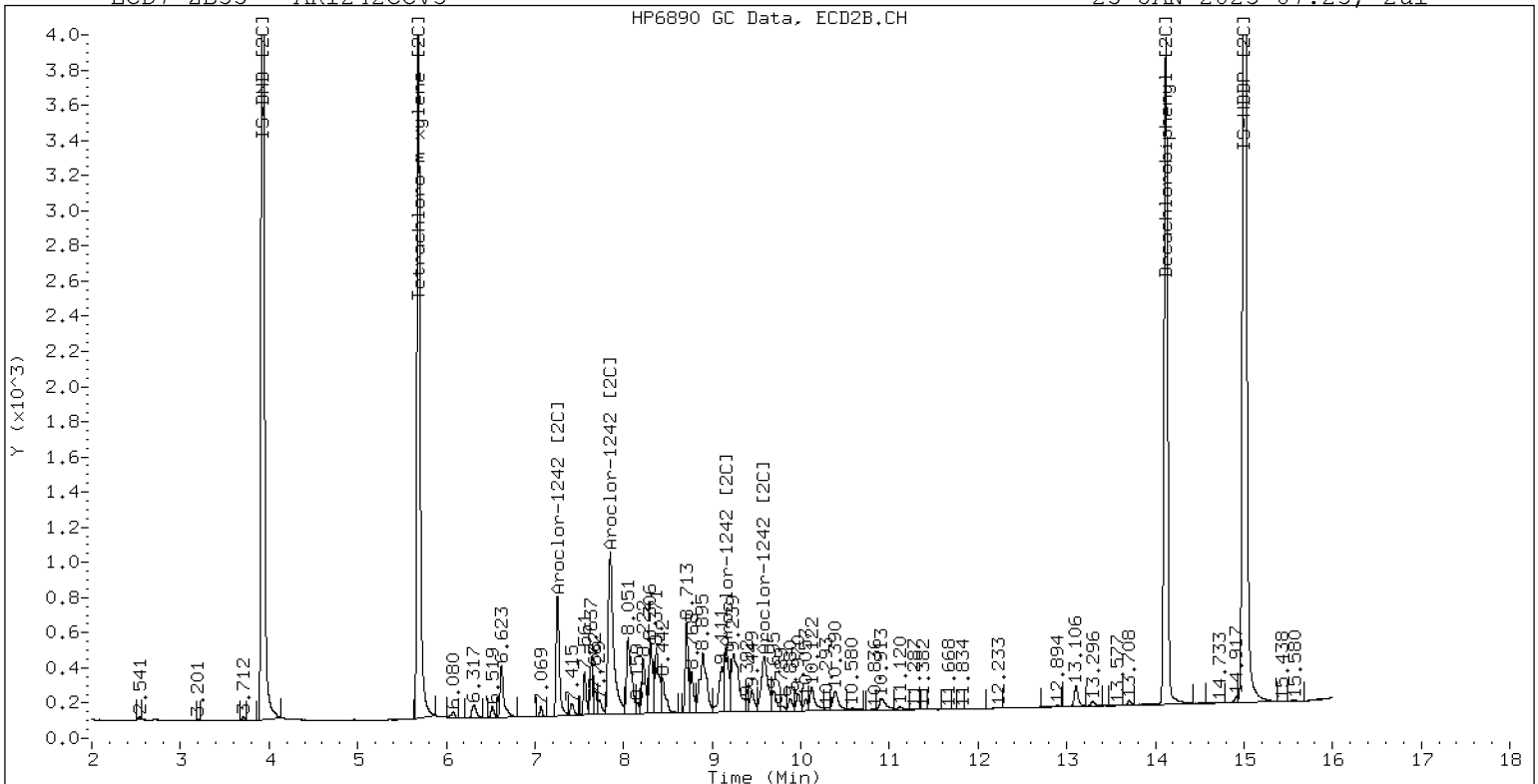
25-JAN-2023 07:23, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242CCV3

25-JAN-2023 07:23, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ECD7

Calibration: GA00061

Lab File ID: 01242358ECD7.D

Calibration Date: 01/24/2023

Sequence: SLA0298

Injection Date: 01/25/23

Lab Sample ID: SLA0298-CCV4

Injection Time: 07:44

Sequence Name: AR1660CCV4

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	251	0.0506755	0.0510809		0.4	
Aroclor-1016 (1)	A	250.00	253	0.0297277	0.0300701		1.2	
Aroclor-1016 (2)	A	250.00	257	0.0985017	0.1013379		2.8	
Aroclor-1016 (3)	A	250.00	238	0.0453193	0.0430638		-4.8	
Aroclor-1016 (4)	A	250.00	256	0.0291533	0.0298520		2.4	
Aroclor 1016 [2C]	A	250.00	257	0.0519244	0.0534873		2.7	
Aroclor-1016 (1) [2C]	A	250.00	251	0.0433907	0.0435590		0.4	
Aroclor-1016 (2) [2C]	A	250.00	260	0.0950862	0.0987620		4.0	
Aroclor-1016 (3) [2C]	A	250.00	264	0.0388014	0.0409399		5.6	
Aroclor-1016 (4) [2C]	A	250.00	252	0.0304194	0.0306884		0.8	
Aroclor 1260	A	250.00	233	0.0605224	0.0563316		-7.0	
Aroclor-1260 (1)	A	250.00	254	0.0448870	0.0456431		1.6	
Aroclor-1260 (2)	A	250.00	248	0.0461412	0.0457388		-0.8	
Aroclor-1260 (3)	A	250.00	231	0.1214672	0.1121514		-7.6	
Aroclor-1260 (4)	A	250.00	219	0.0627593	0.0550323		-12.4	
Aroclor-1260 (5)	A	250.00	211	0.0273573	0.0230922		-15.6	
Aroclor 1260 [2C]	A	250.00	237	0.0836545	0.0796586		-5.1	
Aroclor-1260 (1) [2C]	A	250.00	241	0.0577136	0.0556971		-3.6	
Aroclor-1260 (2) [2C]	A	250.00	239	0.1460113	0.1394142		-4.4	
Aroclor-1260 (3) [2C]	A	250.00	231	0.0363944	0.0336678		-7.6	
Aroclor-1260 (4) [2C]	A	250.00	238	0.0944986	0.0898553		-4.8	
Decachlorobiphenyl	A	40.000	39.6	0.8555994	0.8483140		-1.0	
Tetrachlorometaxylene	A	40.000	41.2	1.1307870	1.1645360		3.0	
Decachlorobiphenyl [2C]	A	40.000	38.7	1.2696430	1.2285610		-3.3	
Tetrachlorometaxylene [2C]	A	40.000	40.1	1.0814980	1.0846570		0.3	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242358ECD7.D
Data file 2: /230124.b/230124.b/01242358ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV4
Client ID:
Injection Date: 25-JAN-2023 07:44
Report Date: 01/26/2023 08:48
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	-0.000	270906	5.686	-0.000	178836	41.2	40.1	2.6	Tetrachloro-m-xylene
13.890	-0.001	271094	14.120	0.001	247705	39.7	38.7	2.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	465260	-7.6
Hexabromobiphenyl	647433	639136	-1.3
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	329756	-2.1
Hexabromobiphenyl	382032	403244	5.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.271	0.001	43720	252.9	1	7.255	0.001	44887	251.0	
Aroclor-1016	2	7.654	0.004	147339	257.2	2	7.852	0.001	101773	259.7	
Aroclor-1016	3	7.790	0.002	62612	237.6	3	8.051	-0.000	42188	263.8	
Aroclor-1016	4	8.404	0.001	43403	256.0	4	8.306	-0.000	31624	252.2	
Total CollAve (4 peaks):				250.9		Total Col2Ave (4 peaks):				256.7	RPD = 2
Corrected Ave (3 peaks):				248.8		Corrected Ave (3 peaks):				254.3	RPD = 2
CalAmt %D:				0.4		CalAmt %D:				2.7	
Aroclor-1260	1	11.045	0.002	91163	254.2	1	11.653	0.000	70186	241.3	
Aroclor-1260	2	11.362	0.001	91354	247.8	2	11.918	-0.001	175681	238.7	
Aroclor-1260	3	11.736	0.001	224000	230.8	3	12.437	0.000	42426	231.3	
Aroclor-1260	4	12.141	0.001	109916	219.2	4	12.503	-0.000	113230	237.7	
Aroclor-1260	5	12.245	0.001	46122	211.0	NS	---			----	
Total CollAve (5 peaks):				232.6		Total Col2Ave (4 peaks):				237.2	RPD = 2
Corrected Ave (4 peaks):				227.2		Corrected Ave (3 peaks):				235.9	RPD = 4
CalAmt %D:				-7.0		CalAmt %D:				-5.1	

Total PCB Area Coll (5.909 - 13.792) = 2555099 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.786 - 14.020) = 1741867 Col2 Total PCB = 0.5 ppm*

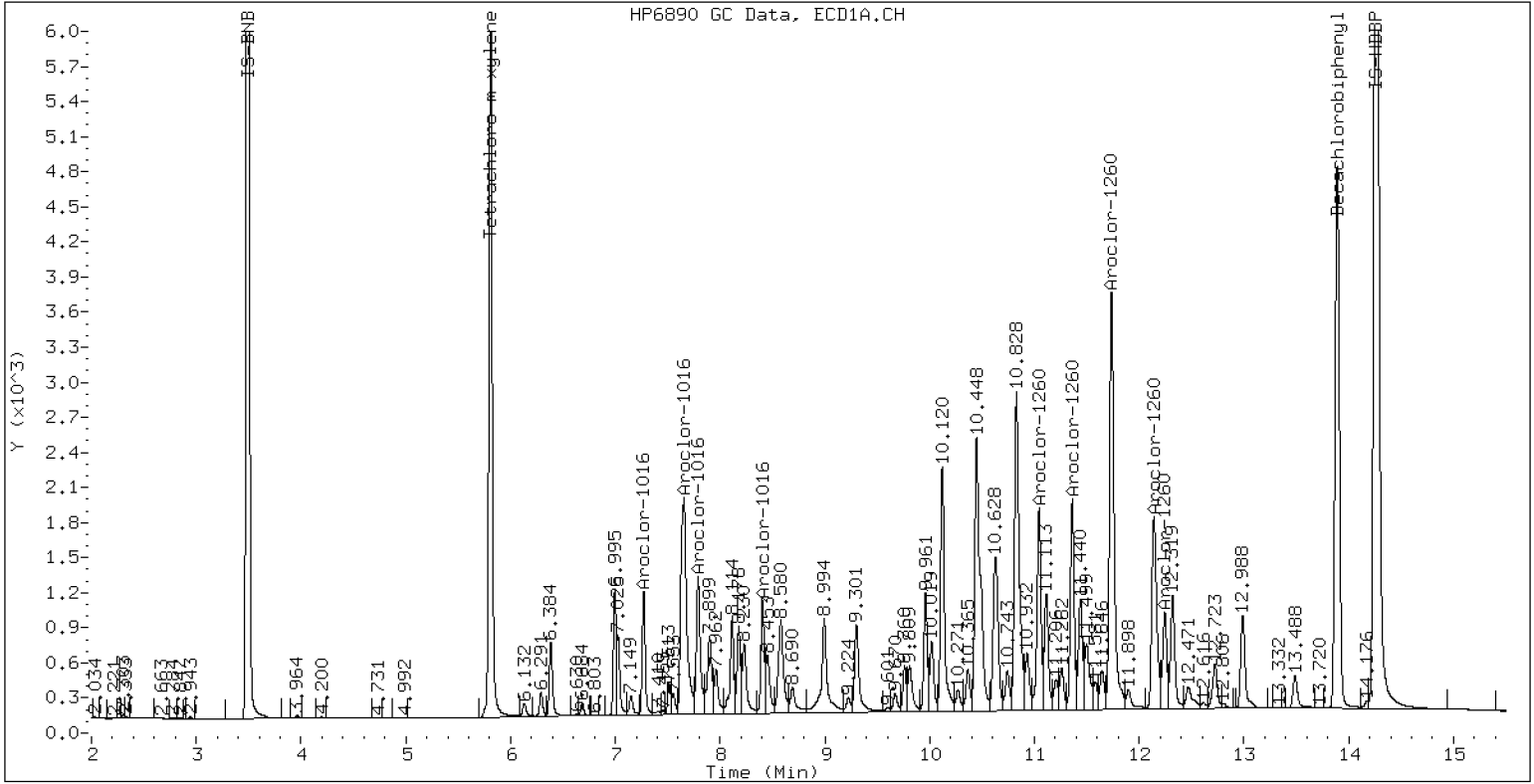
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV4

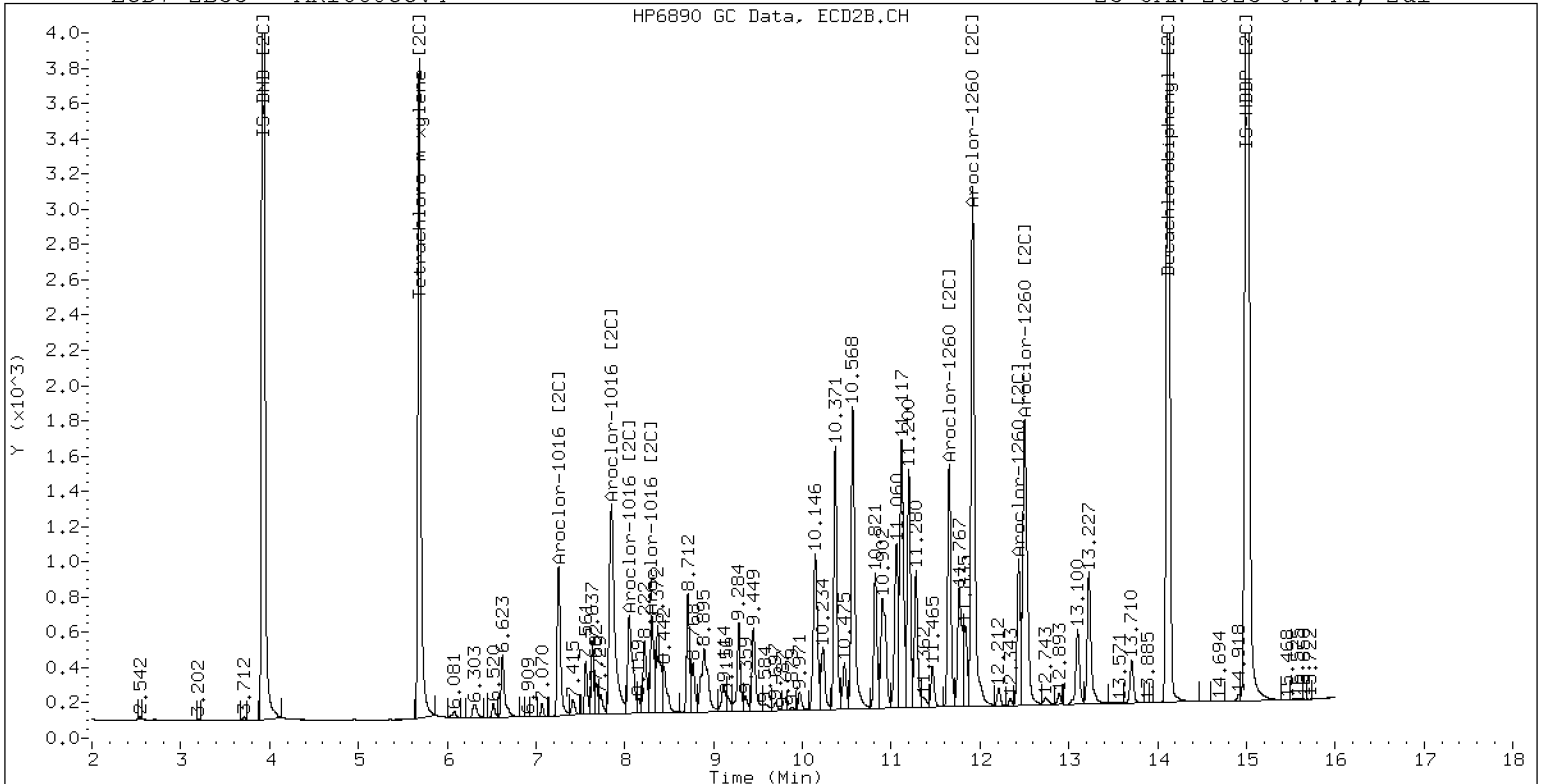
25-JAN-2023 07:44, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV4

25-JAN-2023 07:44, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242373ECD7.D
Data file 2: /230124.b/230124.b/01242373ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254CCV5
Client ID:
Injection Date: 25-JAN-2023 12:59
Report Date: 01/26/2023 08:49
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.808	-0.000	256780	5.685	-0.001	176409	38.1	38.4	0.9	Tetrachloro-m-xylene
13.892	0.000	253702	14.120	0.001	243012	36.1	36.8	1.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	477377	-5.2
Hexabromobiphenyl	647433	657044	1.5
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	339831	0.9
Hexabromobiphenyl	382032	416652	9.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.298	-0.001	114043	234.4	1	9.448	0.000	61109	247.9	
Aroclor-1254	2	9.378	-0.000	49239	237.0	2	9.968	0.000	48756	244.7	
Aroclor-1254	3	9.668	-0.001	72033	231.1	3	10.121	0.000	104779	241.0	
Aroclor-1254	4	9.808	-0.000	140636	230.2	4	10.371	0.000	104566	240.5	
Aroclor-1254	5	10.175	-0.002	89767	226.0	5	10.568	0.000	58492	241.6	
Total CollAve (5 peaks):				231.7		Total Col2Ave (5 peaks):				243.1	RPD = 5
Corrected Ave (4 peaks):				230.4		Corrected Ave (4 peaks):				242.0	RPD = 5
CalAmt %D:				-7.3		CalAmt %D:				-2.7	

Total PCB Area Col1 (5.909 - 13.792) = 1461756 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.786 - 14.020) = 1006446 Col2 Total PCB = 0.3 ppm*

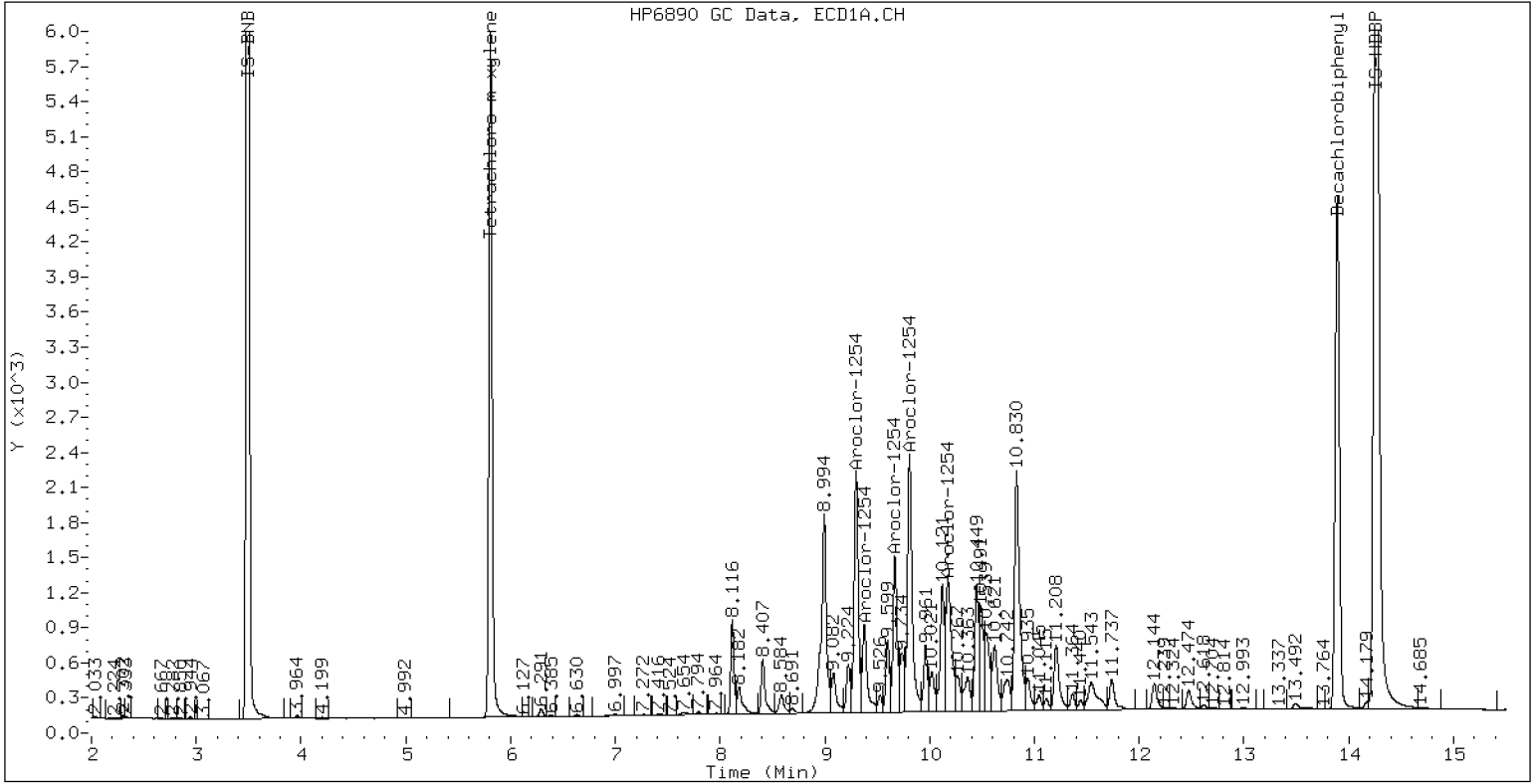
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254CCV5

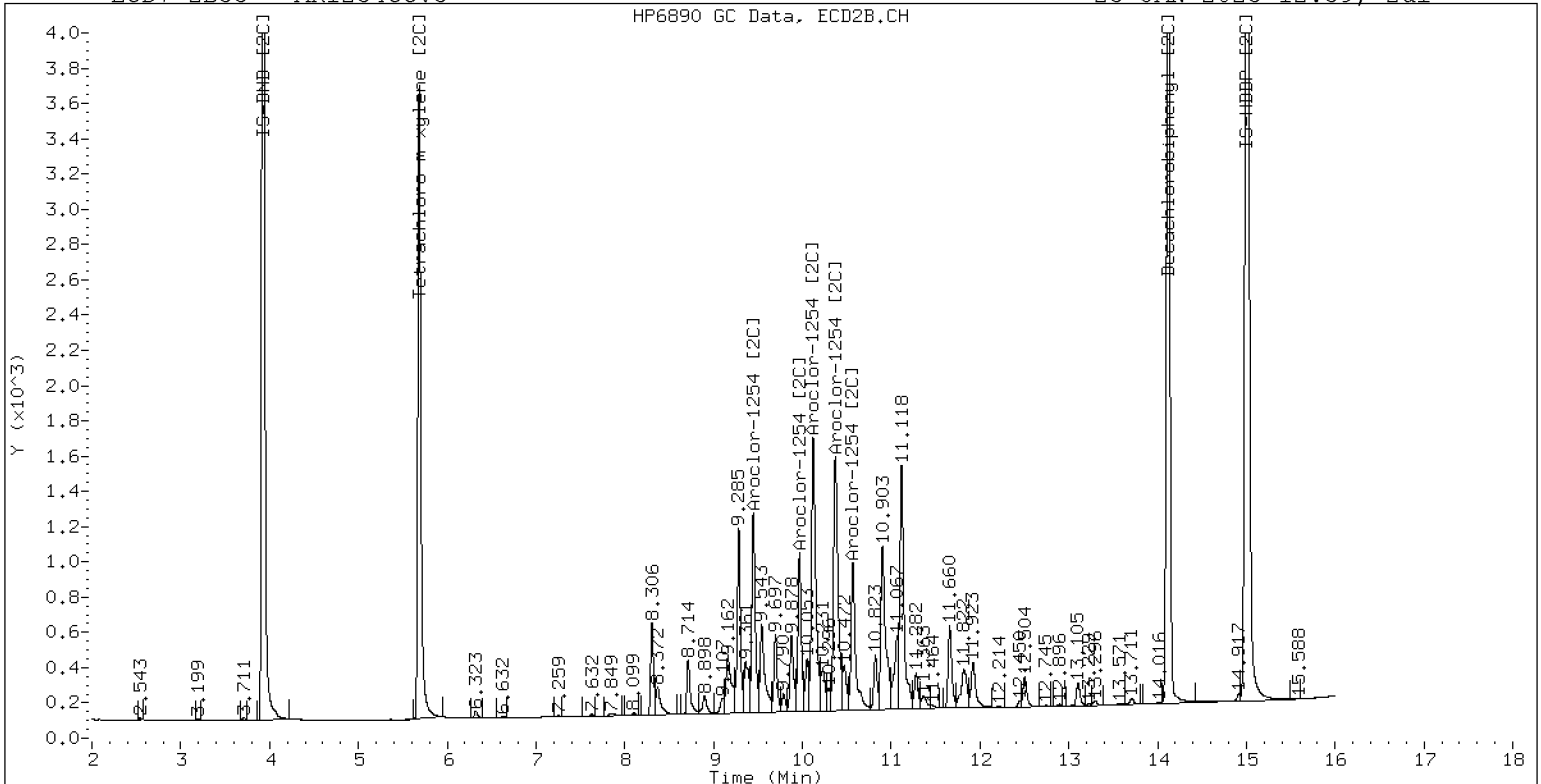
25-JAN-2023 12:59, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254CCV5

25-JAN-2023 12:59, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242374ECD7.D
Data file 2: /230124.b/230124.b/01242374ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV6
Client ID:
Injection Date: 25-JAN-2023 13:20
Report Date: 01/26/2023 08:49
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	-0.000	273072	5.686	0.000	185584	40.8	40.7	0.2	Tetrachloro-m-xylene
13.891	-0.001	296032	14.120	0.000	280107	37.4	38.7	3.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	474030	-5.8
Hexabromobiphenyl	647433	739569	14.2
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	337500	0.2
Hexabromobiphenyl	382032	456140	19.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.000	44321	251.6	1	7.254	0.000	46461	253.8
Aroclor-1016	2	7.654	0.003	147852	253.3	2	7.851	0.000	104836	261.3
Aroclor-1016	3	7.790	0.001	63872	237.9	3	8.051	0.000	43640	266.6
Aroclor-1016	4	8.405	0.001	43324	250.8	4	8.306	0.000	32578	253.9
Total CollAve (4 peaks):				248.4		Total Col2Ave (4 peaks):				258.9 RPD = 4
Corrected Ave (3 peaks):				246.8		Corrected Ave (3 peaks):				256.3 RPD = 4

CalAmt %D: -0.6

CalAmt %D: 3.6

Aroclor-1260	1	11.045	0.002	92027	221.8	1	11.653	0.000	74458	226.3
Aroclor-1260	2	11.363	0.003	93811	219.9	2	11.919	0.000	188552	226.5
Aroclor-1260	3	11.736	0.002	239435	213.2	3	12.437	0.000	45669	220.1
Aroclor-1260	4	12.141	0.002	118683	204.6	4	12.503	0.000	121598	225.7
Aroclor-1260	5	12.245	0.001	50640	200.2	NS	---			----
Total CollAve (5 peaks):				211.9		Total Col2Ave (4 peaks):				224.6 RPD = 6
Corrected Ave (4 peaks):				209.5		Corrected Ave (3 peaks):				224.0 RPD = 7

CalAmt %D: -15.2

CalAmt %D: -10.1

Total PCB Area Col1 (5.909 - 13.792) = 2647688 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.786 - 14.020) = 1809611 Col2 Total PCB = 0.5 ppm*

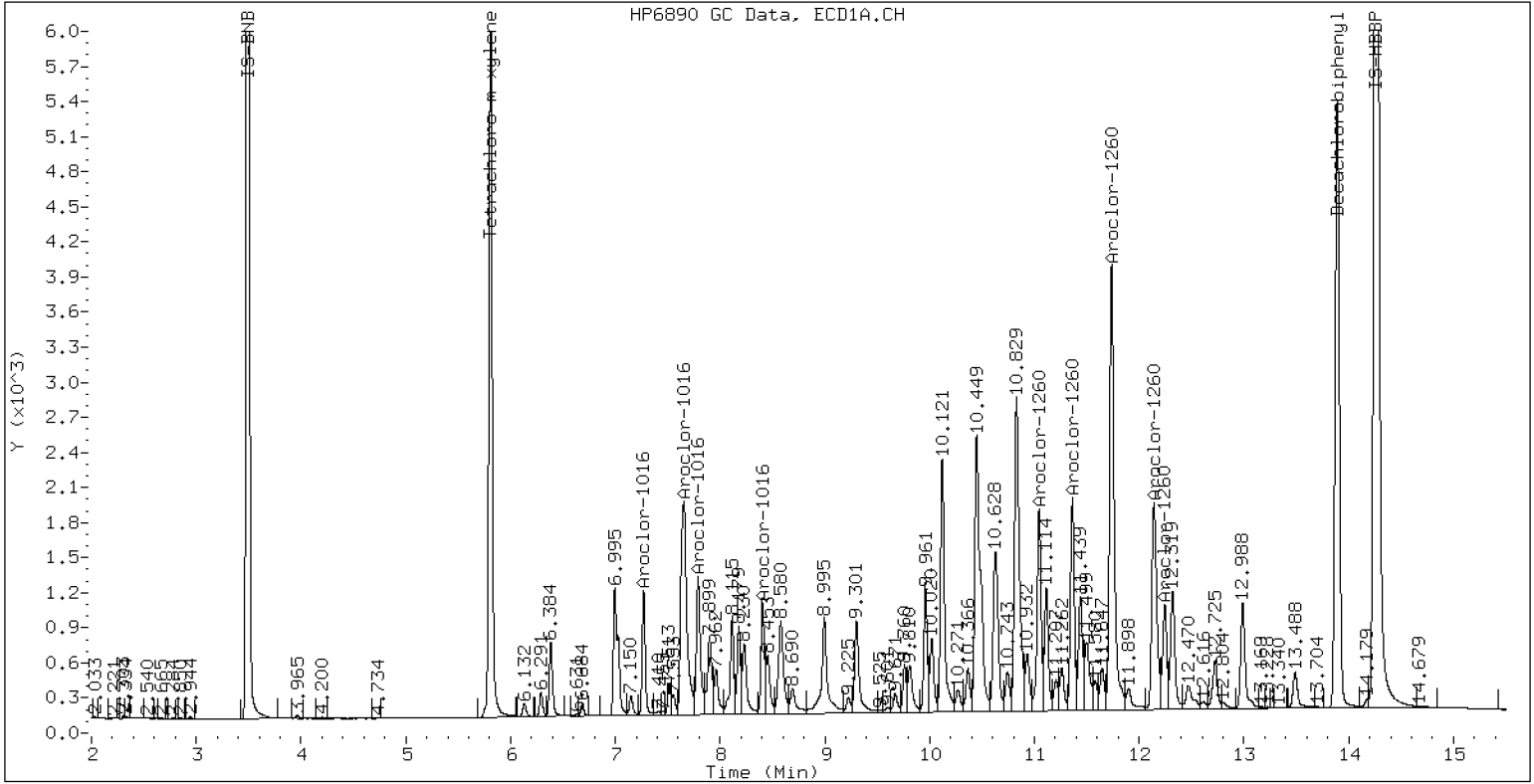
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV6

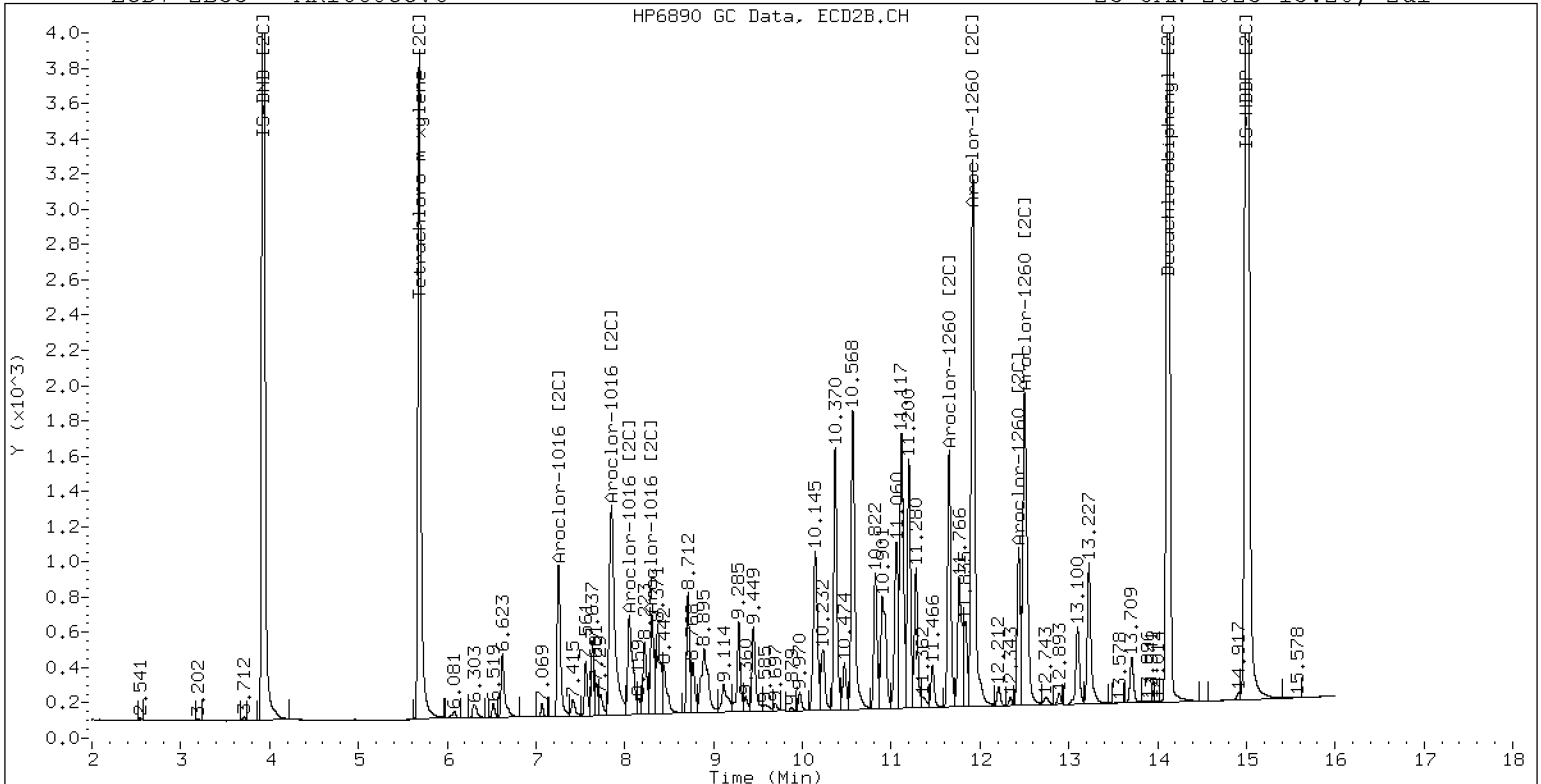
25-JAN-2023 13:20, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV6

25-JAN-2023 13:20, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GA00061</u>
Lab File ID:	<u>01242390ECD7.D</u>	Calibration Date:	<u>01/24/2023</u>
Sequence:	<u>SLA0298</u>	Injection Date:	<u>01/25/23</u>
Lab Sample ID:	<u>SLA0298-CCV7</u>	Injection Time:	<u>18:56</u>
Sequence Name:	<u>AR1248CCV7</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	236	0.0592639	0.0559839		-5.6	
Aroclor-1248 (1)	A	250.00	238		0.0381579			
Aroclor-1248 (2)	A	250.00	241		0.0491346			
Aroclor-1248 (3)	A	250.00	236		0.0923641			
Aroclor-1248 (4)	A	250.00	229		0.0442790			
Aroclor 1248 [2C]	A	250.00	242	0.0453673	0.0439189		-3.1	
Aroclor-1248 (1) [2C]	A	250.00	246		0.0356449			
Aroclor-1248 (2) [2C]	A	250.00	241		0.0375221			
Aroclor-1248 (3) [2C]	A	250.00	243		0.0462716			
Aroclor-1248 (4) [2C]	A	250.00	239		0.0562370			
Decachlorobiphenyl	A	40.000	35.5	0.8555994	0.7586189		-11.3	
Tetrachlorometaxylene	A	40.000	38.2	1.1307870	1.0793710		-4.5	
Decachlorobiphenyl [2C]	A	40.000	37.0	1.2696430	1.1758840		-7.5	
Tetrachlorometaxylene [2C]	A	40.000	38.1	1.0814980	1.0307150		-4.8	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242390ECD7.D
Data file 2: /230124.b/230124.b/01242390ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248CCV7
Client ID:
Injection Date: 25-JAN-2023 18:56
Report Date: 01/26/2023 11:32
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.809	0.001	247830	5.686	0.001	171577	38.2	38.1	0.2	Tetrachloro-m-xylene
13.892	0.001	270071	14.120	-0.000	261142	35.5	37.0	4.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	459212	-8.8
Hexabromobiphenyl	647433	712007	10.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	332928	-1.2
Hexabromobiphenyl	382032	444163	16.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1248	1	8.406	0.002	54758	238.4	1	8.306	0.000	37085	246.4	
Aroclor-1248	2	8.581	0.002	70510	240.6	2	8.713	0.000	39038	241.0	
Aroclor-1248	3	9.000	0.002	132546	236.5	3	9.158	0.000	48141	243.2	
Aroclor-1248	4	9.296	0.003	63542	229.0	4	9.582	0.000	58509	239.0	
Total CollAve (4 peaks):				236.1	Total Col2Ave (4 peaks):				242.4	RPD = 3	
Corrected Ave (3 peaks):				234.6	Corrected Ave (3 peaks):				241.1	RPD = 3	
CalAmt %D:				-5.6	CalAmt %D:				-3.0		

Total PCB Area Col1 (5.909 - 13.790) = 1099050 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.785 - 14.020) = 747998 Col2 Total PCB = 0.2 ppm*

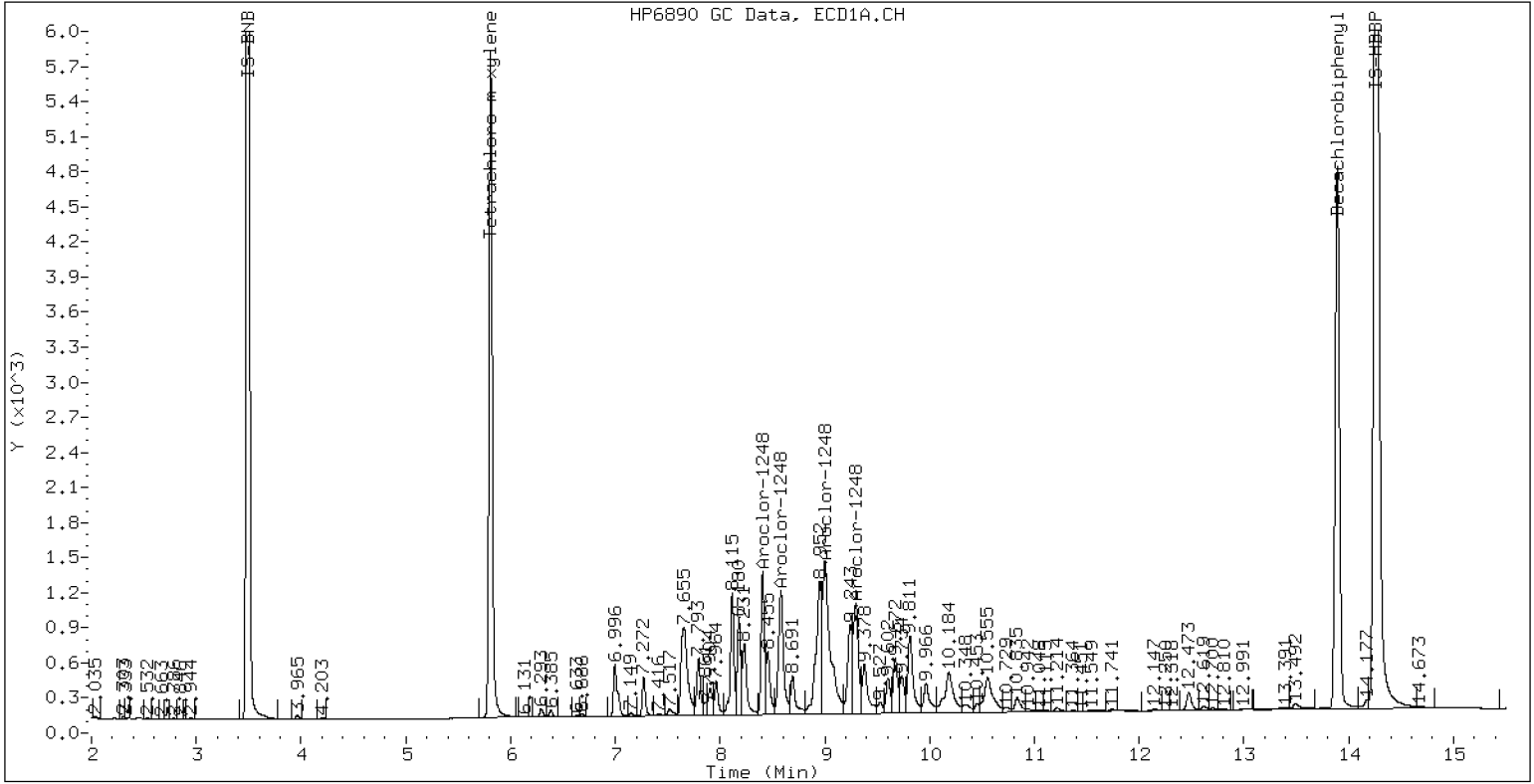
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248CCV7

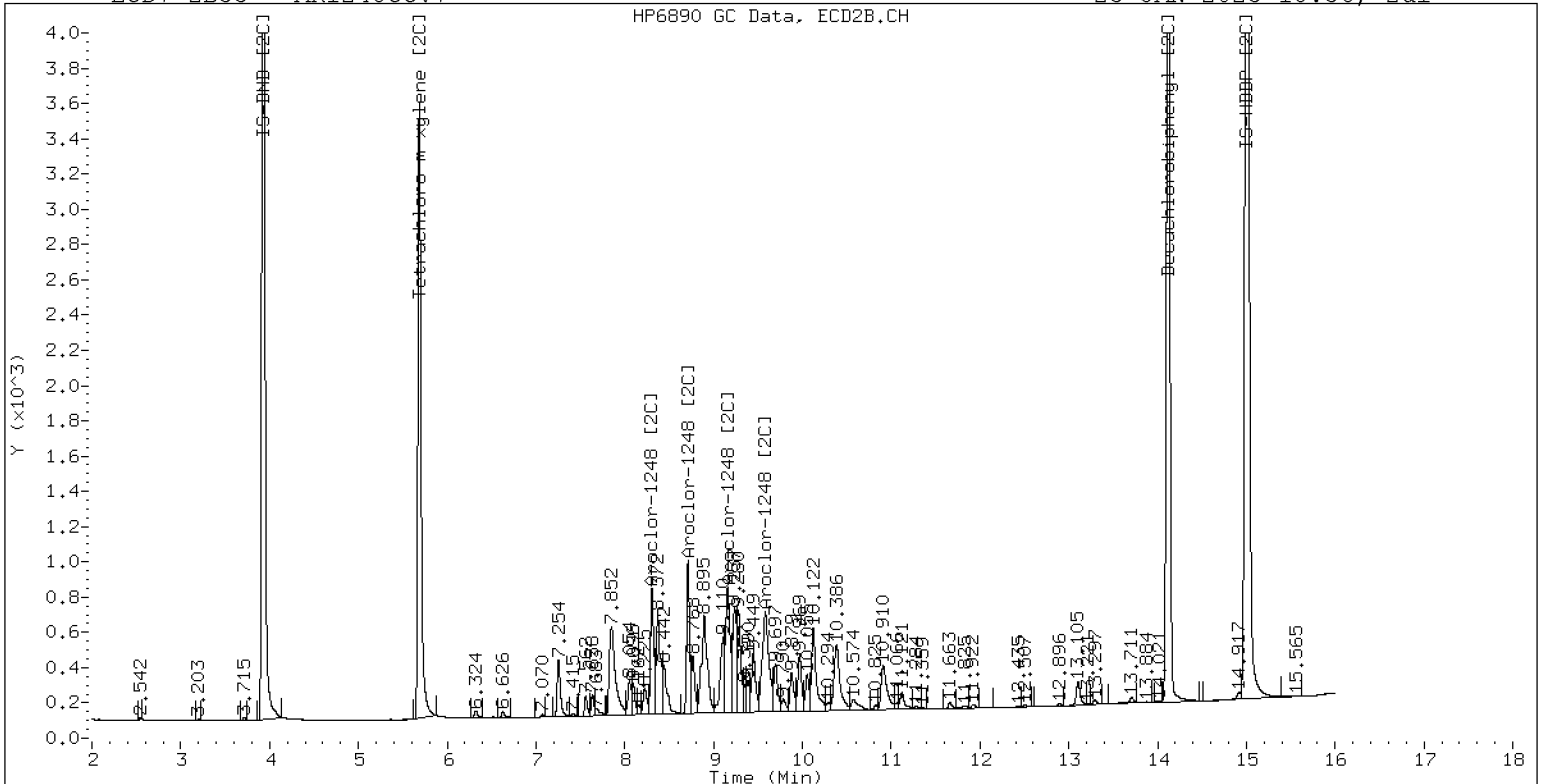
25-JAN-2023 18:56, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248CCV7

25-JAN-2023 18:56, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230124.b/01242391ECD7.D
Data file 2: /230124.b/230124.b/01242391ECD7.D
Method: \\target\share\chem4\ecd7.i\230124.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV8
Client ID:
Injection Date: 25-JAN-2023 19:17
Report Date: 01/26/2023 11:32
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.808	-0.000	273868	5.685	0.000	186068	40.7	40.3	1.0	Tetrachloro-m-xylene
13.893	0.002	329342	14.120	0.000	304541	36.5	37.9	3.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	476013	-5.4
Hexabromobiphenyl	647433	843221	30.2
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	341590	1.4
Hexabromobiphenyl	382032	506273	32.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.271	0.000	44339	250.7	1	7.255	0.000	46521	251.1	
Aroclor-1016	2	7.653	-0.001	147787	252.2	2	7.852	0.000	105402	259.6	
Aroclor-1016	3	7.791	0.001	64083	237.6	3	8.051	0.000	43936	265.2	
Aroclor-1016	4	8.405	0.001	43330	249.8	4	8.306	0.000	32959	253.8	
Total CollAve (4 peaks):				247.6		Total Col2Ave (4 peaks):				257.4	RPD = 4
Corrected Ave (3 peaks):				246.0		Corrected Ave (3 peaks):				254.8	RPD = 4
CalAmt %D:				-1.0		CalAmt %D:				3.0	
Aroclor-1260	1	11.045	0.000	93372	197.4	1	11.654	0.000	76858	210.4	
Aroclor-1260	2	11.362	0.000	94828	195.0	2	11.919	0.000	196273	212.4	
Aroclor-1260	3	11.737	0.001	241758	188.8	3	12.436	0.000	48620	211.1	
Aroclor-1260	4	12.142	0.002	120584	182.3	4	12.504	0.000	129538	216.6	
Aroclor-1260	5	12.245	0.000	51599	178.9	NS	---			----	
Total CollAve (5 peaks):				188.5		Total Col2Ave (4 peaks):				212.6	RPD = 12
Corrected Ave (4 peaks):				186.3		Corrected Ave (3 peaks):				211.3	RPD = 13
CalAmt %D:				-24.6		CalAmt %D:				-14.9	

Total PCB Area Coll (5.909 - 13.790) = 2684786 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.785 - 14.020) = 1868887 Col2 Total PCB = 0.5 ppm*

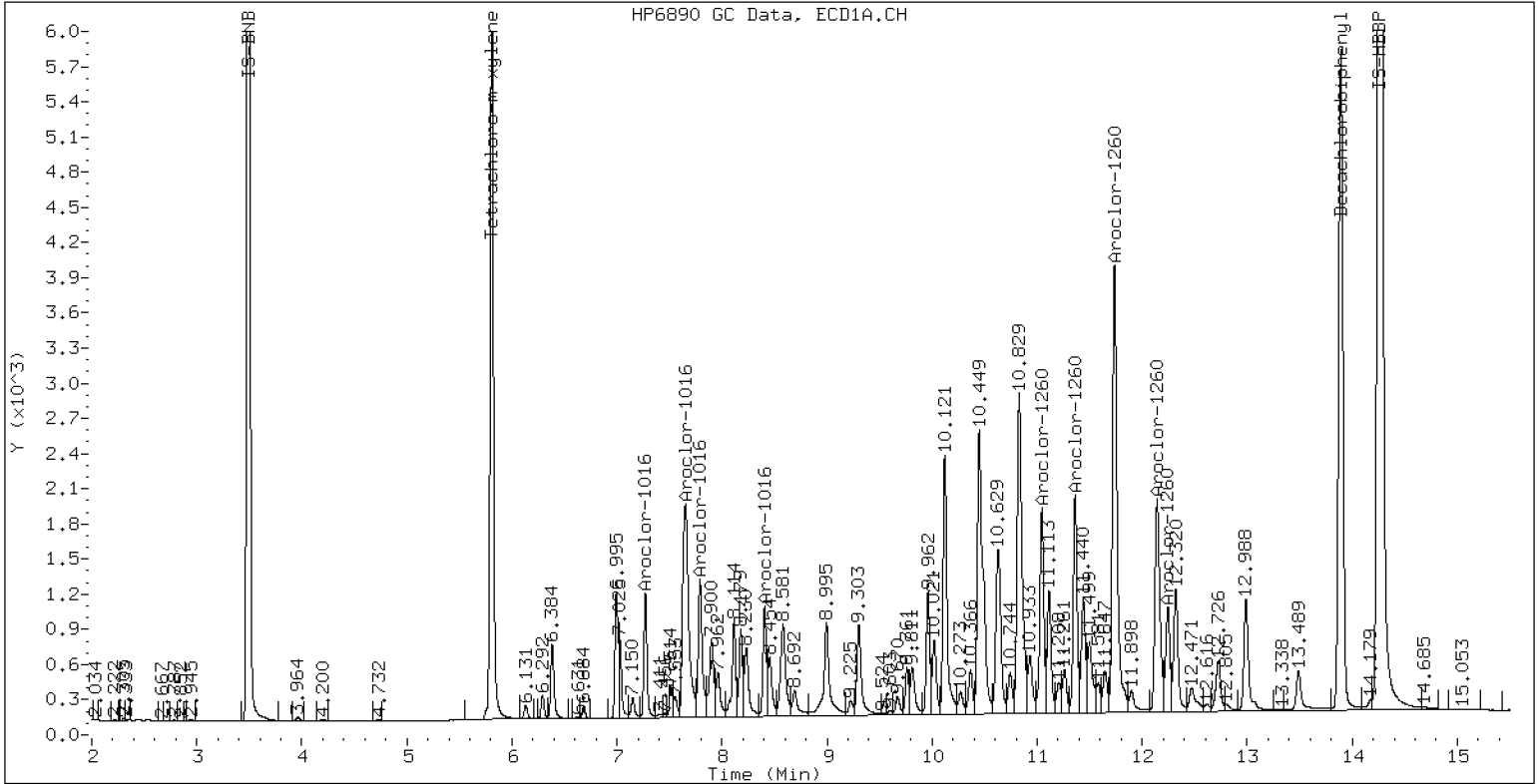
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV8

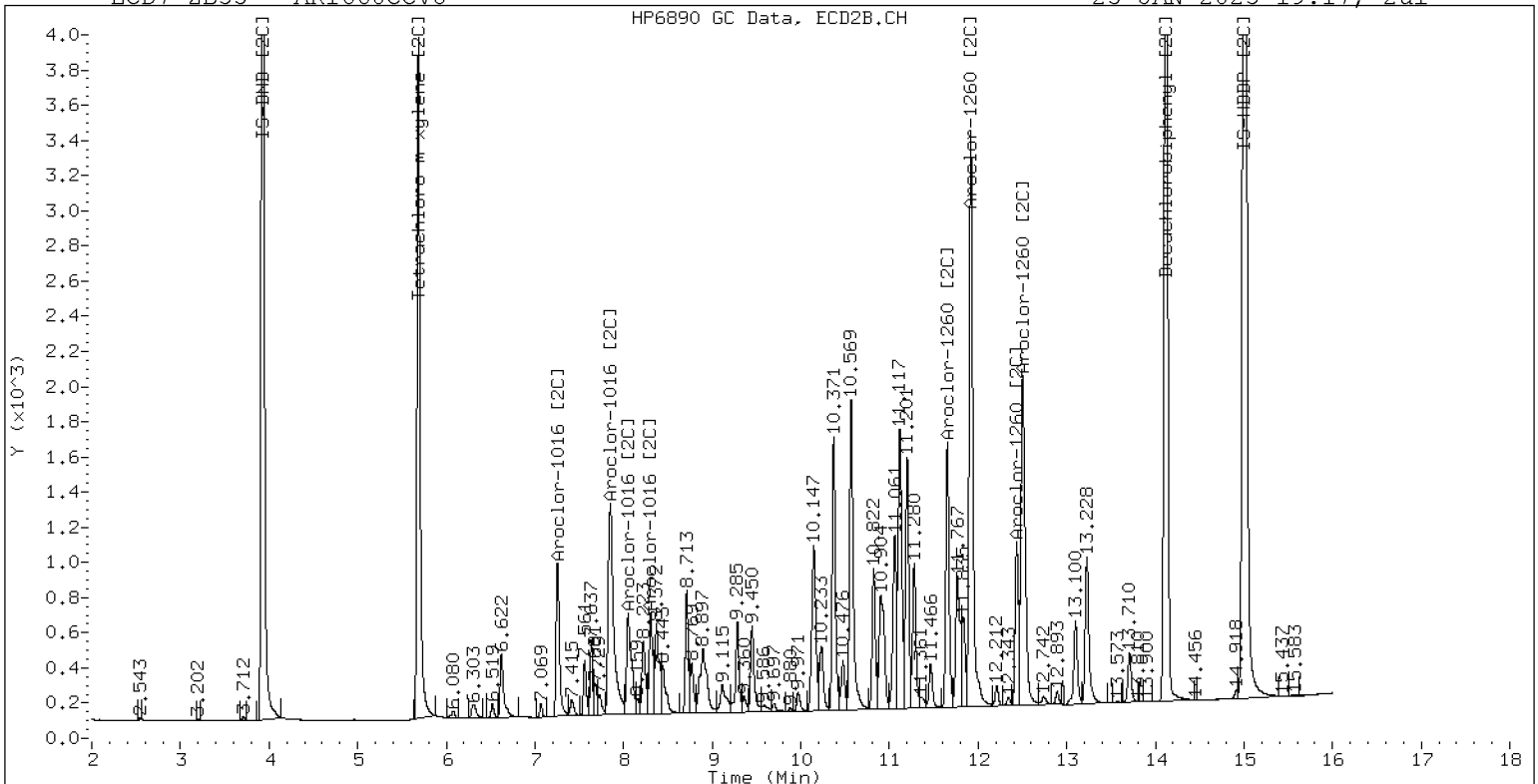
25-JAN-2023 19:17, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV8

25-JAN-2023 19:17, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GA00061</u>
Lab File ID:	<u>01262312ECD7.D</u>	Calibration Date:	<u>01/24/2023</u>
Sequence:	<u>SLA0304</u>	Injection Date:	<u>01/26/23</u>
Lab Sample ID:	<u>SLA0304-CCV1</u>	Injection Time:	<u>13:58</u>
Sequence Name:	<u>AR1248CCV1</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	209	0.0592639	0.0473152		-16.5	+/-20
Aroclor-1248 (1)	A	250.00	239		0.0382772			
Aroclor-1248 (2)	A	250.00	234		0.0478398			
Aroclor-1248 (3)	A	250.00	168		0.0658076			
Aroclor-1248 (4)	A	250.00	193		0.0373360			
Aroclor 1248 [2C]	A	250.00	237	0.0453673	0.0427398		-5.3	+/-20
Aroclor-1248 (1) [2C]	A	250.00	244		0.0353641			
Aroclor-1248 (2) [2C]	A	250.00	239		0.0372518			
Aroclor-1248 (3) [2C]	A	250.00	235		0.0446190			
Aroclor-1248 (4) [2C]	A	250.00	228		0.0537244			
Decachlorobiphenyl	A	40.000	35.5	0.8555994	0.7591943		-11.3	+/-20
Tetrachlorometaxylene	A	40.000	39.1	1.1307870	1.1054040		-2.2	+/-20
Decachlorobiphenyl [2C]	A	40.000	37.3	1.2696430	1.1850420		-6.7	+/-20
Tetrachlorometaxylene [2C]	A	40.000	38.8	1.0814980	1.0478340		-3.1	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262312ECD7.D
Data file 2: /230126.b/230126.b/01262312ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248CCV1
Client ID:
Injection Date: 26-JAN-2023 13:58
Report Date: 01/27/2023 15:36
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.808	-0.001	238073	5.685	-0.001	165989	39.1	38.8	0.9	Tetrachloro-m-xylene
13.889	-0.002	148372	14.118	-0.002	164674	35.5	37.3	5.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	430744	-14.4
Hexabromobiphenyl	647433	390867	-39.6

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	316823	-6.0
Hexabromobiphenyl	382032	277921	-27.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1248	1	8.403	-0.003	51524	239.1	1	8.304	-0.001	35013	244.5	
Aroclor-1248	2	8.575	-0.005	64396	234.3	2	8.711	-0.001	36882	239.3	
Aroclor-1248	3	8.995	-0.004	88582	168.5	3	9.154	-0.002	44176	234.5	
Aroclor-1248	4	9.291	-0.003	50257	193.1	4	9.579	-0.003	53191	228.3	
Total CollAve (4 peaks):				208.7	Total Col2Ave (4 peaks):				236.7	RPD = 13	
Corrected Ave (3 peaks):				198.6	Corrected Ave (3 peaks):				234.0	RPD = 16	

Total PCB Area Coll (5.909 - 13.792) = 969097 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 726765 Col2 Total PCB = 0.2 ppm*

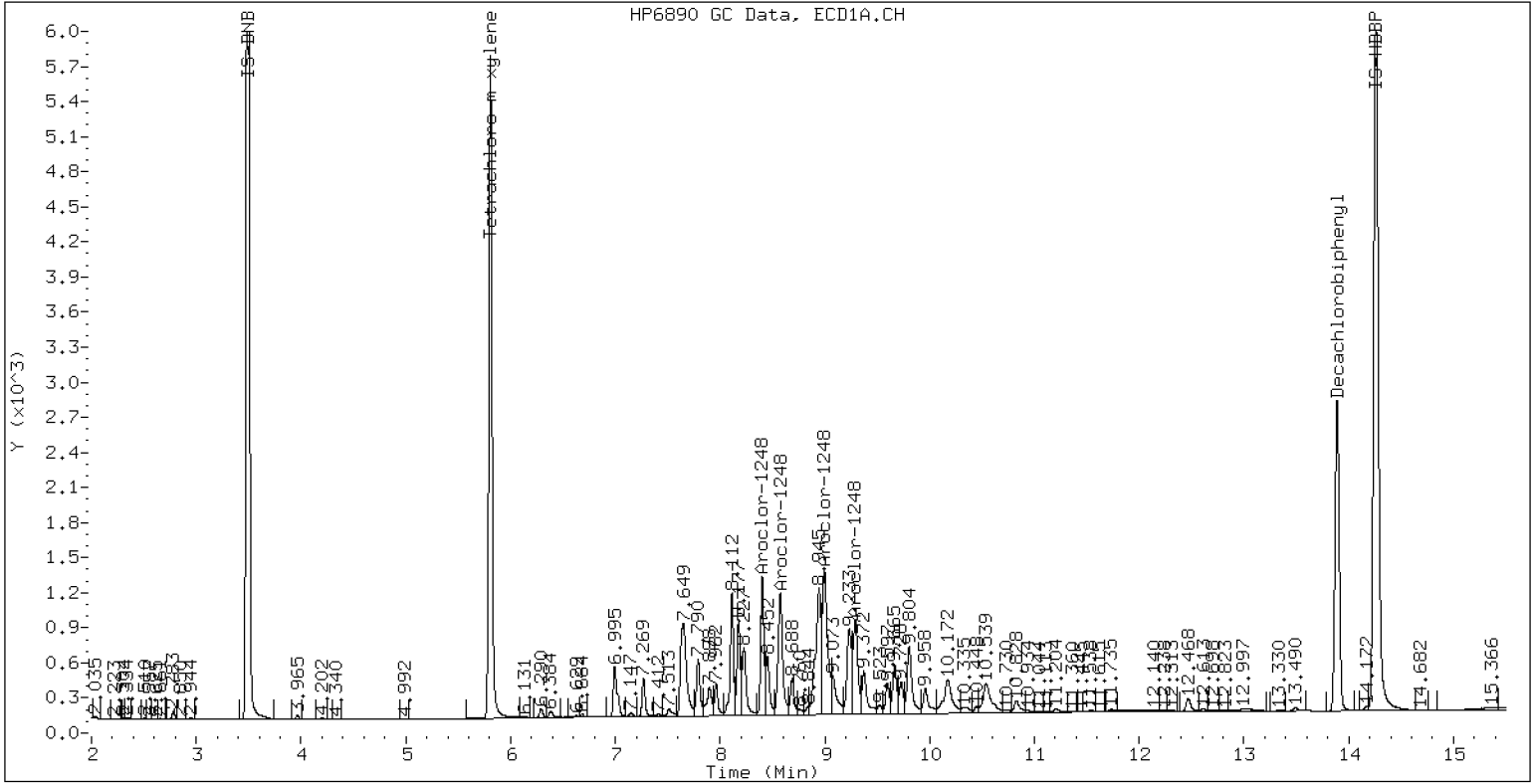
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248CCV1

26-JAN-2023 13:58, 2ul



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262313ECD7.D
Data file 2: /230126.b/230126.b/01262313ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV2
Client ID:
Injection Date: 26-JAN-2023 14:19
Report Date: 01/27/2023 15:36
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.808	-0.001	245478	5.685	-0.001	170488	41.6	41.4	0.4	Tetrachloro-m-xylene
13.889	-0.002	191163	14.118	-0.001	189456	39.0	38.4	1.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	417851	-17.0
Hexabromobiphenyl	647433	458309	-29.2
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	304656	-9.6
Hexabromobiphenyl	382032	310619	-18.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	-0.001	39601	255.0	1	7.254	-0.000	43165	261.2
Aroclor-1016	2	7.650	-0.000	133038	258.6	2	7.849	-0.002	96835	267.4
Aroclor-1016	3	7.788	-0.001	56176	237.3	3	8.050	-0.001	40437	273.7
Aroclor-1016	4	8.403	-0.001	39129	257.0	4	8.305	-0.000	30012	259.1
Total CollAve (4 peaks):				252.0		Total Col2Ave (4 peaks):				265.3 RPD = 5
Corrected Ave (3 peaks):				249.8		Corrected Ave (3 peaks):				262.6 RPD = 5
Aroclor-1260	1	11.043	-0.001	71495	278.0	1	11.652	-0.002	59337	264.8
Aroclor-1260	2	11.359	-0.002	72839	275.6	2	11.917	-0.001	144396	254.7
Aroclor-1260	3	11.733	-0.002	178267	256.2	3	12.435	-0.001	34651	245.2
Aroclor-1260	4	12.137	-0.002	85825	238.7	4	12.500	-0.002	88305	240.7
Aroclor-1260	5	12.241	-0.003	35959	229.4	NS	---			----
Total CollAve (5 peaks):				255.6		Total Col2Ave (4 peaks):				251.3 RPD = 2
Corrected Ave (4 peaks):				250.0		Corrected Ave (3 peaks):				246.9 RPD = 1

Total PCB Area Col1 (5.909 - 13.792) = 2125076 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 1523715 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GA00061</u>
Lab File ID:	<u>01262324ECD7.D</u>	Calibration Date:	<u>01/24/2023</u>
Sequence:	<u>SLA0304</u>	Injection Date:	<u>01/26/23</u>
Lab Sample ID:	<u>SLA0304-CCV3</u>	Injection Time:	<u>18:10</u>
Sequence Name:	<u>AR1242CCV3</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	233	0.0411165	0.0385736		-6.7	+/-20
Aroclor-1242 (1)	A	250.00	240		0.0235538			
Aroclor-1242 (2)	A	250.00	239		0.0764871			
Aroclor-1242 (3)	A	250.00	227		0.0216166			
Aroclor-1242 (4)	A	250.00	227		0.0326368			
Aroclor 1242 [2C]	A	250.00	243	0.0423236	0.0413199		-2.9	+/-20
Aroclor-1242 (1) [2C]	A	250.00	252		0.0353293			
Aroclor-1242 (2) [2C]	A	250.00	247		0.0768275			
Aroclor-1242 (3) [2C]	A	250.00	242		0.0235336			
Aroclor-1242 (4) [2C]	A	250.00	229		0.0295891			
Decachlorobiphenyl	A	40.000	39.7	0.8555994	0.8499677		-0.7	+/-20
Tetrachlorometaxylene	A	40.000	47.4	1.1307870	1.3402390		18.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	36.0	1.2696430	1.1424370		-10.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	47.0	1.0814980	1.2694630		17.4	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262324ECD7.D
Data file 2: /230126.b/230126.b/01262324ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242CCV3
Client ID:
Injection Date: 26-JAN-2023 18:10
Report Date: 01/27/2023 15:36
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.808	-0.001	290460	5.685	-0.001	204136	47.4	47.0	1.0	Tetrachloro-m-xylene
13.889	-0.003	181092	14.117	-0.003	166172	39.7	36.0	9.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	433445	-13.9
Hexabromobiphenyl	647433	426115	-34.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	321610	-4.5
Hexabromobiphenyl	382032	290908	-23.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1242	1	7.270	-0.001	31904	240.4	1	7.255	-0.001	35507	252.4	
Aroclor-1242	2	7.650	-0.005	103603	238.5	2	7.850	-0.003	77214	247.2	
Aroclor-1242	3	8.403	-0.003	29280	226.9	3	9.155	-0.005	23652	241.7	
Aroclor-1242	4	8.576	-0.005	44207	226.8	4	9.581	-0.006	29738	229.3	
Total CollAve (4 peaks):				233.1	Total Col2Ave (4 peaks):				242.7	RPD = 4	
Corrected Ave (3 peaks):				230.7	Corrected Ave (3 peaks):				239.4	RPD = 4	

Total PCB Area Coll (5.909 - 13.792) = 829119 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 527220 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262325ECD7.D
Data file 2: /230126.b/230126.b/01262325ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV4
Client ID:
Injection Date: 26-JAN-2023 18:31
Report Date: 01/27/2023 15:36
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.807	-0.002	249903	5.685	-0.001	172904	41.3	40.8	1.2	Tetrachloro-m-xylene
13.891	-0.001	234710	14.118	-0.001	199718	43.7	38.3	13.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	427730	-15.0
Hexabromobiphenyl	647433	501796	-22.5

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	313236	-7.0
Hexabromobiphenyl	382032	328338	-14.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.269	-0.001	40635	255.7	1	7.254	-0.001	43579	256.5
Aroclor-1016	2	7.651	0.000	136085	258.4	2	7.850	-0.001	97974	263.2
Aroclor-1016	3	7.788	-0.000	57395	236.9	3	8.050	-0.001	40688	267.8
Aroclor-1016	4	8.402	-0.002	39852	255.7	4	8.304	-0.001	30285	254.3
Total CollAve (4 peaks):				251.6		Total Col2Ave (4 peaks):				260.4 RPD = 3
Corrected Ave (3 peaks):				249.4		Corrected Ave (3 peaks):				258.0 RPD = 3
Aroclor-1260	1	11.042	-0.002	76715	272.5	1	11.651	-0.002	61042	257.7
Aroclor-1260	2	11.358	-0.003	76151	263.1	2	11.915	-0.002	152122	253.8
Aroclor-1260	3	11.732	-0.002	182622	239.7	3	12.434	-0.002	37857	253.4
Aroclor-1260	4	12.136	-0.004	95191	241.8	4	12.499	-0.003	95594	246.5
Aroclor-1260	5	12.241	-0.003	40998	238.9	NS	---			----
Total CollAve (5 peaks):				251.2		Total Col2Ave (4 peaks):				252.9 RPD = 1
Corrected Ave (4 peaks):				245.9		Corrected Ave (3 peaks):				251.3 RPD = 2

Total PCB Area Col1 (5.909 - 13.792) = 2405556 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 1567854 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GA00061</u>
Lab File ID:	<u>01262334ECD7.D</u>	Calibration Date:	<u>01/24/2023</u>
Sequence:	<u>SLA0304</u>	Injection Date:	<u>01/26/23</u>
Lab Sample ID:	<u>SLA0304-CCV5</u>	Injection Time:	<u>21:40</u>
Sequence Name:	<u>AR1254CCV5</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	234	0.0675033	0.0636129		-6.3	+/-20
Aroclor-1254 (1)	A	250.00	232		0.0754996			
Aroclor-1254 (2)	A	250.00	221		0.0307753			
Aroclor-1254 (3)	A	250.00	239		0.0499402			
Aroclor-1254 (4)	A	250.00	239		0.0979023			
Aroclor-1254 (5)	A	250.00	240		0.0639469			
Aroclor 1254 [2C]	A	250.00	240	0.0733219	0.0704973		-4.2	+/-20
Aroclor-1254 (1) [2C]	A	250.00	245		0.0568205			
Aroclor-1254 (2) [2C]	A	250.00	250		0.0468466			
Aroclor-1254 (3) [2C]	A	250.00	240		0.0980860			
Aroclor-1254 (4) [2C]	A	250.00	248		0.1014305			
Aroclor-1254 (5) [2C]	A	250.00	216		0.0493029			
Decachlorobiphenyl	A	40.000	34.2	0.8555994	0.7312763		-14.5	+/-20
Tetrachlorometaxylene	A	40.000	38.0	1.1307870	1.0755120		-4.9	+/-20
Decachlorobiphenyl [2C]	A	40.000	35.6	1.2696430	1.1299630		-11.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	38.9	1.0814980	1.0513180		-2.8	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262334ECD7.D
Data file 2: /230126.b/230126.b/01262334ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254CCV5
Client ID:
Injection Date: 26-JAN-2023 21:40
Report Date: 01/27/2023 15:37
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.808	-0.001	250703	5.685	-0.002	179900	38.0	38.9	2.2	Tetrachloro-m-xylene
13.891	-0.001	266363	14.119	-0.001	254892	34.2	35.6	4.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	466202	-7.4
Hexabromobiphenyl	647433	728488	12.5

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	342237	1.6
Hexabromobiphenyl	382032	451151	18.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.295	-0.003	109994	231.5	1	9.446	-0.002	60769	244.8	
Aroclor-1254	2	9.374	-0.004	44836	221.0	2	9.967	-0.003	50102	249.7	
Aroclor-1254	3	9.664	-0.005	72757	239.0	3	10.118	-0.003	104902	239.6	
Aroclor-1254	4	9.804	-0.004	142632	239.1	4	10.369	-0.003	108479	247.8	
Aroclor-1254	5	10.167	-0.010	93163	240.2	5	10.566	-0.003	52729	216.3	
Total CollAve (5 peaks):				234.2		Total Col2Ave (5 peaks):				239.6	RPD = 2
Corrected Ave (4 peaks):				232.7		Corrected Ave (4 peaks):				237.1	RPD = 2

Total PCB Area Col1 (5.909 - 13.792) = 1487263 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 1024068 Col2 Total PCB = 0.3 ppm*

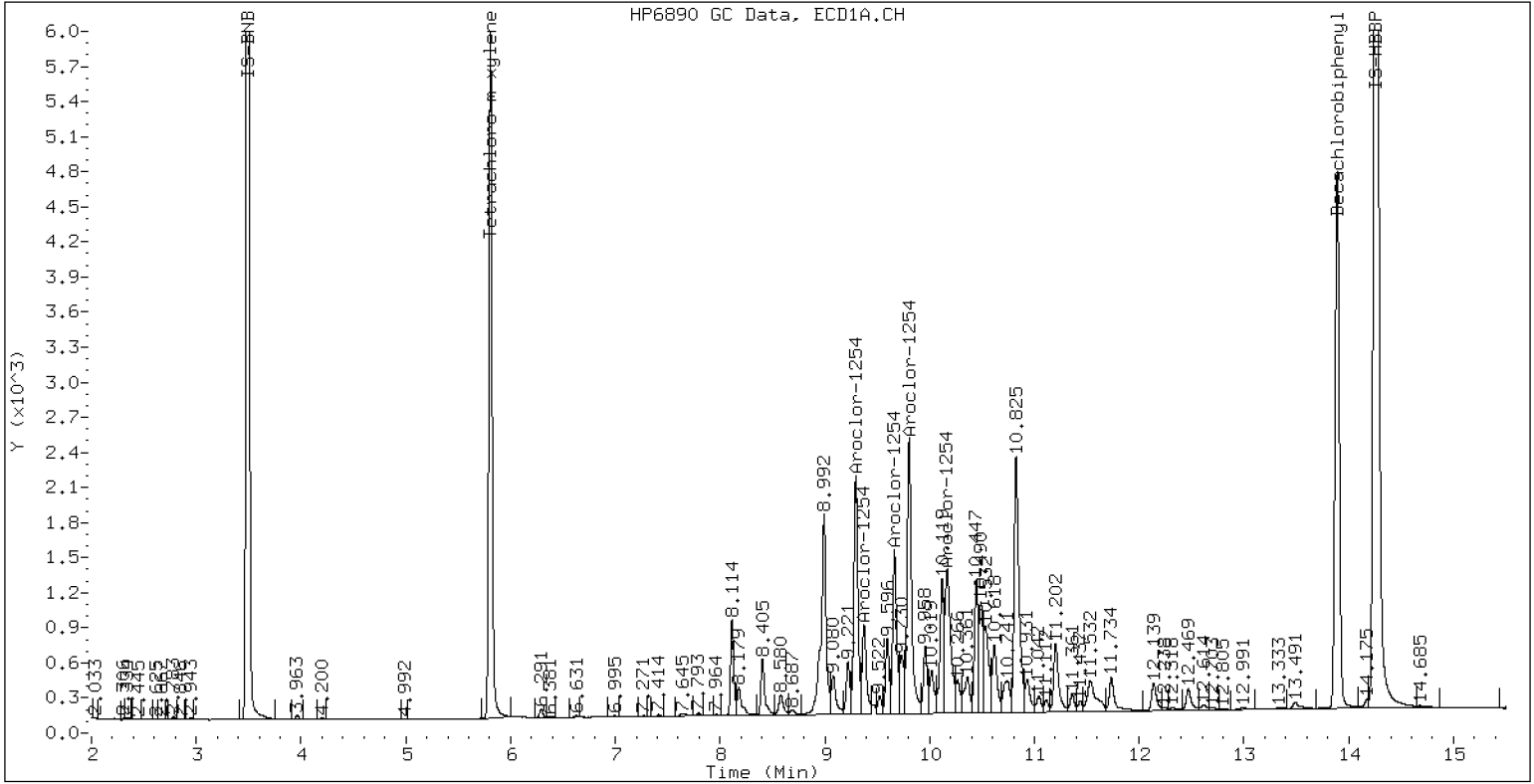
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254CCV5

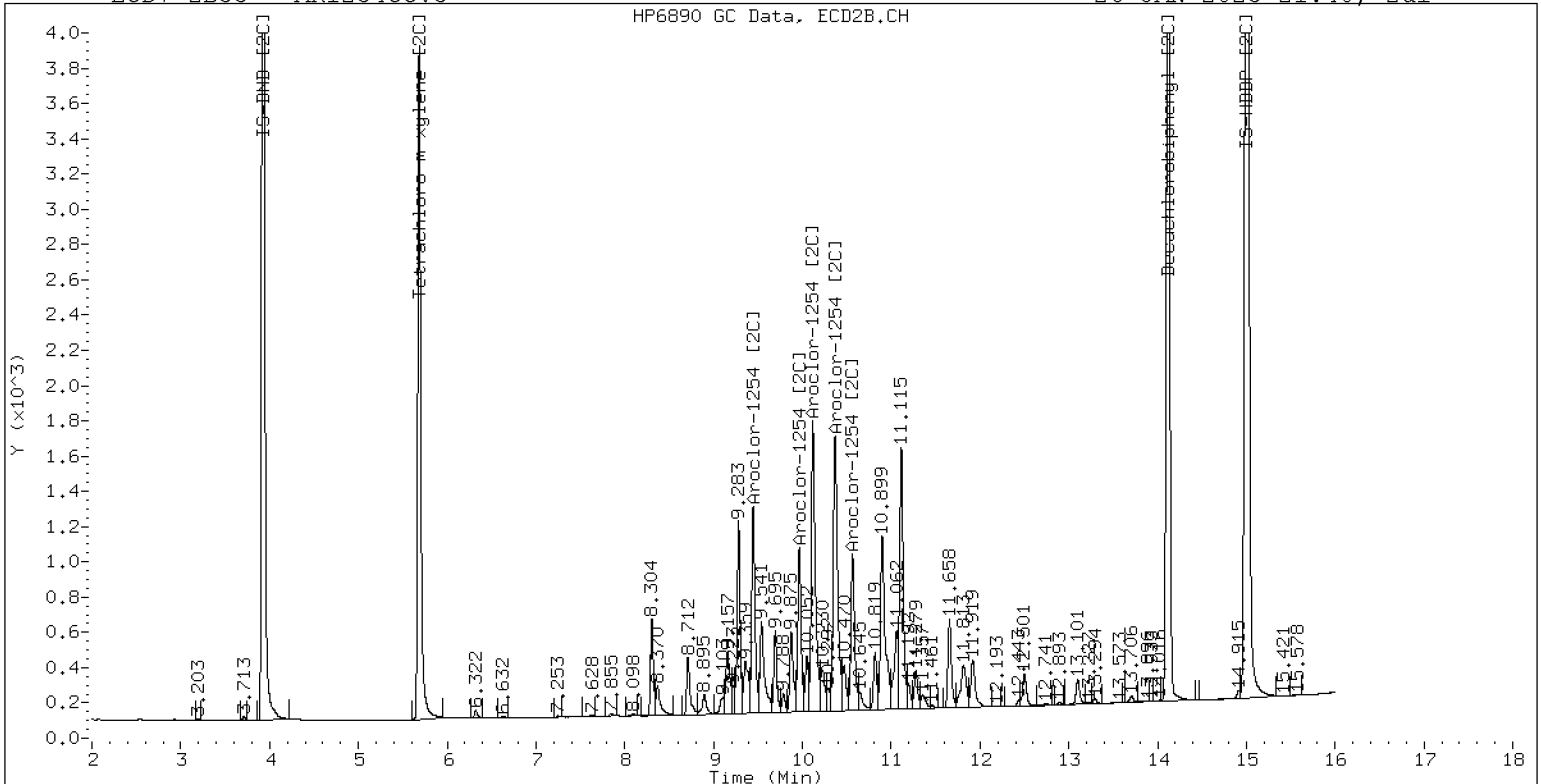
26-JAN-2023 21:40, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254CCV5

26-JAN-2023 21:40, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262335ECD7.D
Data file 2: /230126.b/230126.b/01262335ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV6
Client ID:
Injection Date: 26-JAN-2023 22:01
Report Date: 01/27/2023 15:37
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.808	-0.000	254325	5.685	-0.001	178068	40.8	41.0	0.6	Tetrachloro-m-xylene
13.890	-0.001	278334	14.118	-0.002	265358	37.0	37.7	1.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	441204	-12.3
Hexabromobiphenyl	647433	702458	8.5
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	321187	-4.7
Hexabromobiphenyl	382032	443858	16.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.270	0.000	41040	250.3	1	7.254	-0.000	44447	255.1
Aroclor-1016	2	7.651	0.001	137289	252.7	2	7.850	-0.001	98960	259.2
Aroclor-1016	3	7.789	0.001	58702	234.9	3	8.050	-0.000	41395	265.7
Aroclor-1016	4	8.404	-0.000	41274	256.7	4	8.305	-0.000	30809	252.3
Total CollAve (4 peaks):				248.7		Total Col2Ave (4 peaks):				258.1 RPD = 4
Corrected Ave (3 peaks):				246.0		Corrected Ave (3 peaks):				255.5 RPD = 4
Aroclor-1260	1	11.042	-0.001	84992	215.6	1	11.651	-0.002	70974	221.6
Aroclor-1260	2	11.359	-0.002	86614	213.8	2	11.916	-0.002	178021	219.8
Aroclor-1260	3	11.733	-0.001	218028	204.4	3	12.434	-0.002	44883	222.3
Aroclor-1260	4	12.139	-0.001	107881	195.8	4	12.499	-0.003	115788	220.8
Aroclor-1260	5	12.243	-0.001	45461	189.2	NS	---			----
Total CollAve (5 peaks):				203.8		Total Col2Ave (4 peaks):				221.1 RPD = 8
Corrected Ave (4 peaks):				200.8		Corrected Ave (3 peaks):				220.7 RPD = 9

Total PCB Area Col1 (5.909 - 13.792) = 2427213 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 1724695 Col2 Total PCB = 0.5 ppm*

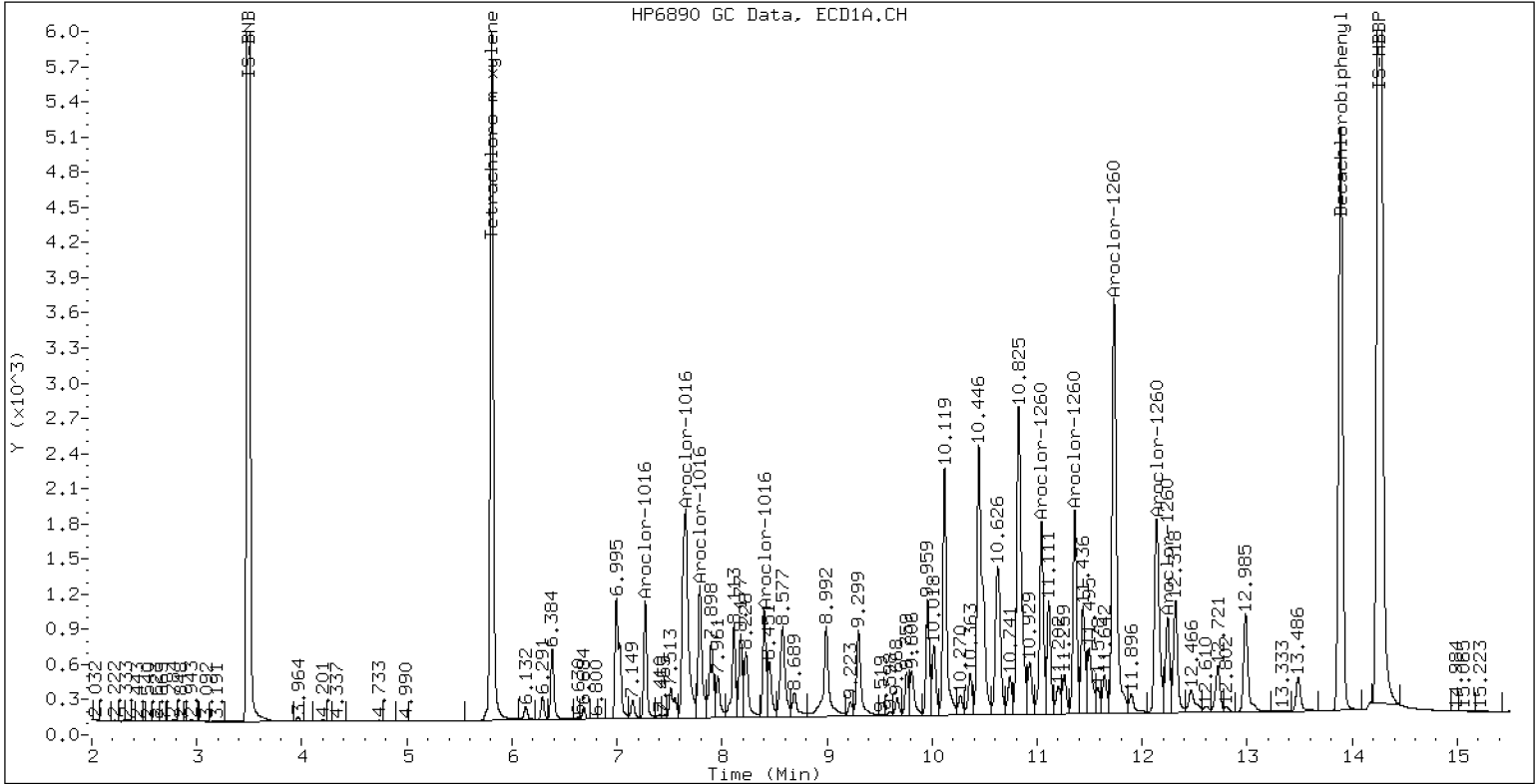
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV6

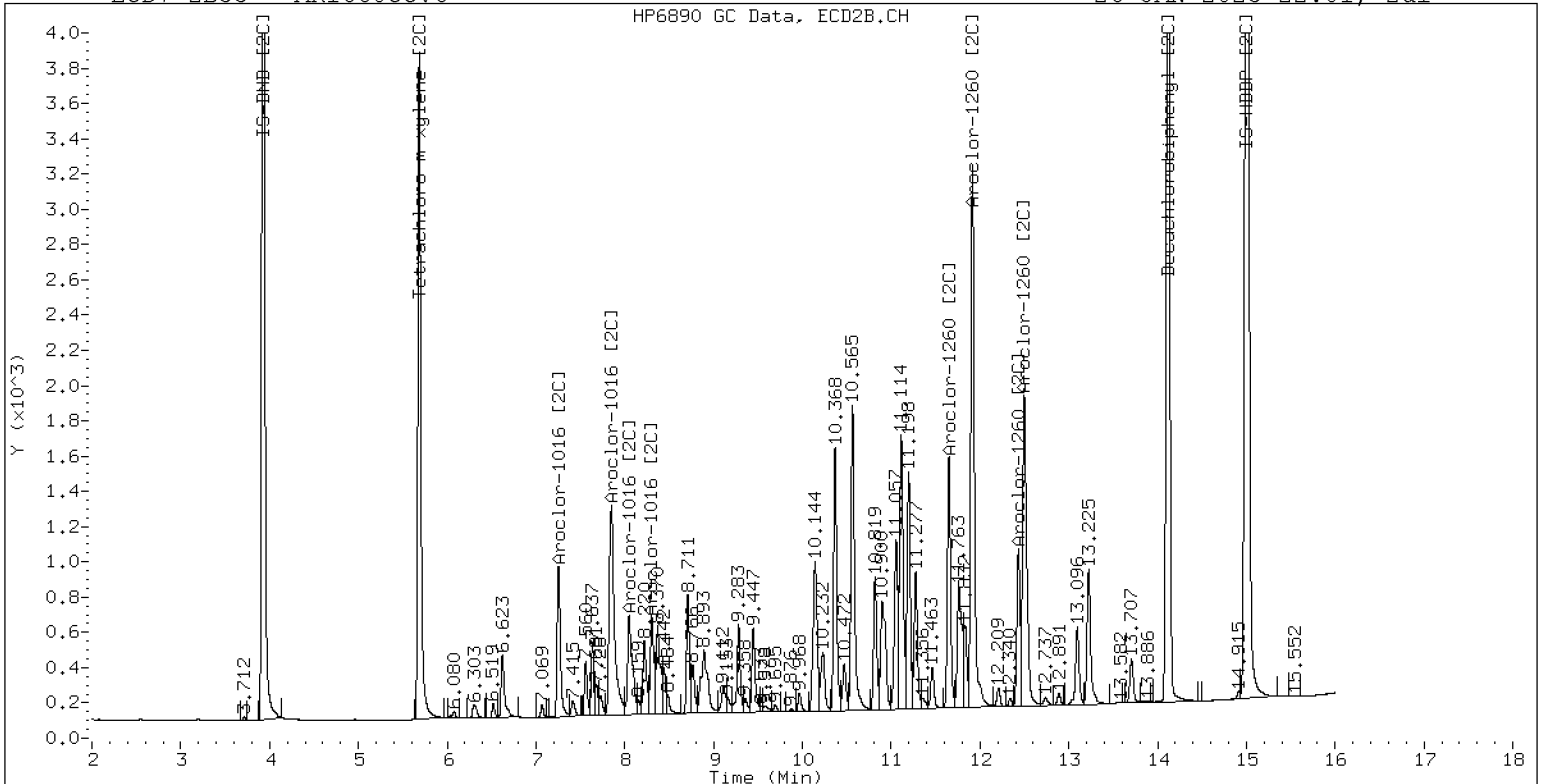
26-JAN-2023 22:01, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV6

26-JAN-2023 22:01, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GA00061</u>
Lab File ID:	<u>01262352ECD7.D</u>	Calibration Date:	<u>01/24/2023</u>
Sequence:	<u>SLA0304</u>	Injection Date:	<u>01/27/23</u>
Lab Sample ID:	<u>SLA0304-CCV7</u>	Injection Time:	<u>03:58</u>
Sequence Name:	<u>AR1248CCV7</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	196	0.0592639	0.0443650		-21.7	+/-20 *
Aroclor-1248 (1)	A	250.00	227		0.0363399			
Aroclor-1248 (2)	A	250.00	222		0.0453356			
Aroclor-1248 (3)	A	250.00	158		0.0618521			
Aroclor-1248 (4)	A	250.00	176		0.0339323			
Aroclor 1248 [2C]	A	250.00	231	0.0453673	0.0418381		-7.4	+/-20
Aroclor-1248 (1) [2C]	A	250.00	238		0.0344078			
Aroclor-1248 (2) [2C]	A	250.00	232		0.0361972			
Aroclor-1248 (3) [2C]	A	250.00	232		0.0441409			
Aroclor-1248 (4) [2C]	A	250.00	224		0.0526064			
Decachlorobiphenyl	A	40.000	34.3	0.8555994	0.7341530		-14.2	+/-20
Tetrachlorometaxylene	A	40.000	39.0	1.1307870	1.1033030		-2.4	+/-20
Decachlorobiphenyl [2C]	A	40.000	37.6	1.2696430	1.1948560		-5.9	+/-20
Tetrachlorometaxylene [2C]	A	40.000	38.8	1.0814980	1.0495580		-3.0	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262352ECD7.D
Data file 2: /230126.b/230126.b/01262352ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248CCV7
Client ID:
Injection Date: 27-JAN-2023 03:58
Report Date: 01/27/2023 15:37
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.807	-0.002	242254	5.684	-0.003	176330	39.0	38.8	0.5	Tetrachloro-m-xylene
13.887	-0.004	136921	14.116	-0.004	168863	34.3	37.6	9.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	439143	-12.8
Hexabromobiphenyl	647433	373004	-42.4

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	336008	-0.3
Hexabromobiphenyl	382032	282650	-26.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.401	-0.005	49870	227.0	1	8.303	-0.003	36129	237.9
Aroclor-1248	2	8.573	-0.007	62215	222.0	2	8.709	-0.003	38008	232.5
Aroclor-1248	3	8.992	-0.006	84881	158.3	3	9.151	-0.005	46349	232.0
Aroclor-1248	4	9.289	-0.004	46566	175.5	4	9.574	-0.008	55238	223.6
Total CollAve (4 peaks):				195.7		Total Col2Ave (4 peaks):				231.5 RPD = 17
Corrected Ave (3 peaks):				185.3		Corrected Ave (3 peaks):				229.4 RPD = 21

Total PCB Area Coll (5.909 - 13.792) = 936856 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 705572 Col2 Total PCB = 0.2 ppm*

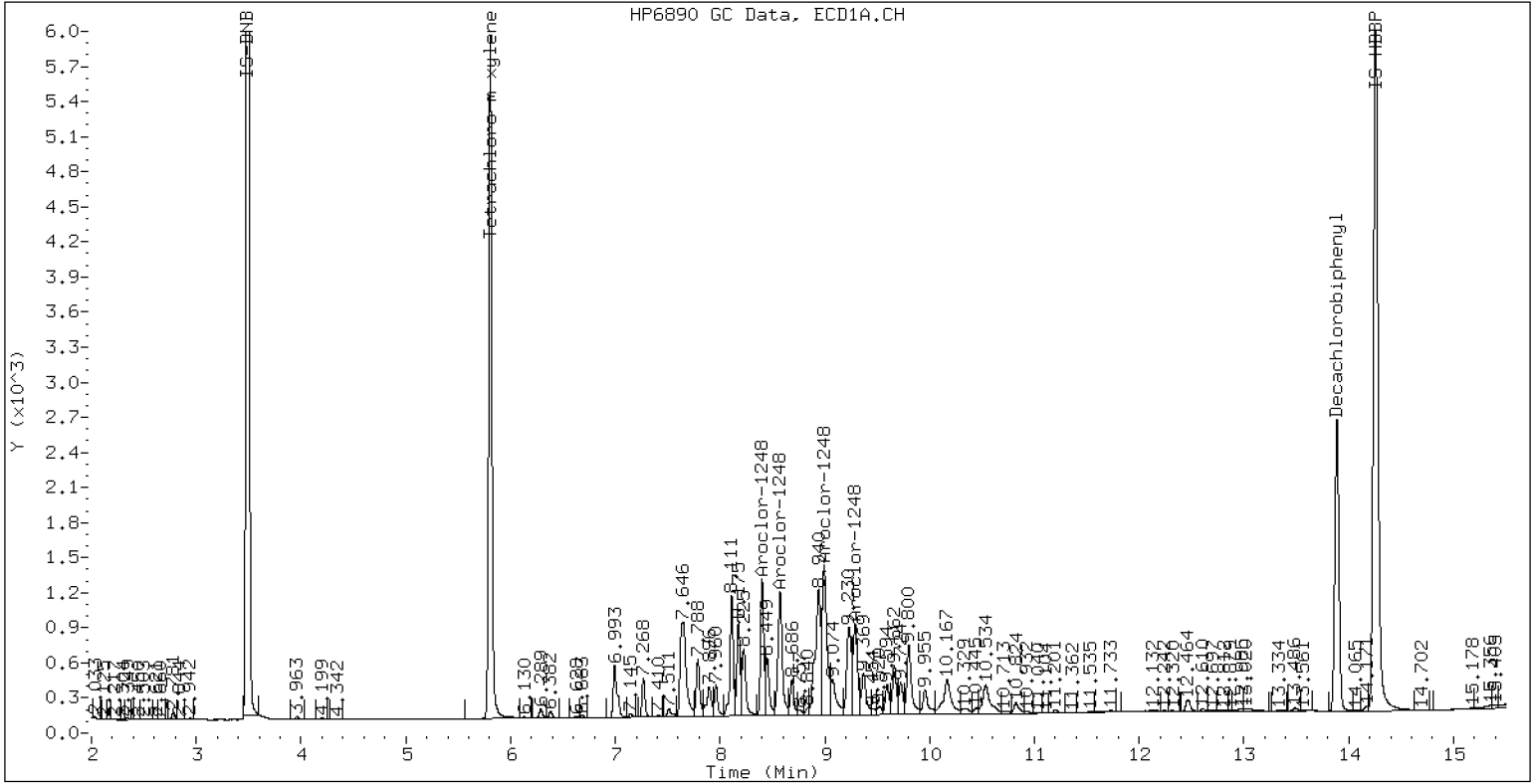
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248CCV7

27-JAN-2023 03:58, 2ul





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>GA00061</u>
Lab File ID:	<u>01262353ECD7.D</u>	Calibration Date:	<u>01/24/2023</u>
Sequence:	<u>SLA0304</u>	Injection Date:	<u>01/27/23</u>
Lab Sample ID:	<u>SLA0304-CCV8</u>	Injection Time:	<u>04:19</u>
Sequence Name:	<u>AR1660CCV8</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	248	0.0506755	0.0505410		-0.8	+/-20
Aroclor-1016 (1)	A	250.00	252	0.0297277	0.0299840		0.9	
Aroclor-1016 (2)	A	250.00	256	0.0985017	0.1007577		2.3	
Aroclor-1016 (3)	A	250.00	231	0.0453193	0.0419206		-7.5	
Aroclor-1016 (4)	A	250.00	253	0.0291533	0.0295019		1.2	
Aroclor 1016 [2C]	A	250.00	259	0.0519244	0.0540719		3.7	+/-20
Aroclor-1016 (1) [2C]	A	250.00	257	0.0433907	0.0445543		2.7	
Aroclor-1016 (2) [2C]	A	250.00	263	0.0950862	0.0998565		5.0	
Aroclor-1016 (3) [2C]	A	250.00	265	0.0388014	0.0411655		6.1	
Aroclor-1016 (4) [2C]	A	250.00	252	0.0304194	0.0307114		1.0	
Aroclor 1260	A	250.00	249	0.0605224	0.0599273		-0.6	+/-20
Aroclor-1260 (1)	A	250.00	280	0.0448870	0.0503232		12.1	
Aroclor-1260 (2)	A	250.00	264	0.0461412	0.0487212		5.6	
Aroclor-1260 (3)	A	250.00	242	0.1214672	0.1175515		-3.2	
Aroclor-1260 (4)	A	250.00	234	0.0627593	0.0586336		-6.6	
Aroclor-1260 (5)	A	250.00	223	0.0273573	0.0244072		-10.8	
Aroclor 1260 [2C]	A	250.00	255	0.0836545	0.0849766		2.2	+/-20
Aroclor-1260 (1) [2C]	A	250.00	261	0.0577136	0.0602855		4.5	
Aroclor-1260 (2) [2C]	A	250.00	253	0.1460113	0.1476963		1.2	
Aroclor-1260 (3) [2C]	A	250.00	258	0.0363944	0.0376076		3.3	
Aroclor-1260 (4) [2C]	A	250.00	250	0.0944986	0.0943172		-0.2	
Decachlorobiphenyl	A	40.000	38.0	0.8555994	0.8117868		-5.1	+/-20
Tetrachlorometaxylene	A	40.000	41.4	1.1307870	1.1692420		3.4	+/-20
Decachlorobiphenyl [2C]	A	40.000	36.4	1.2696430	1.1555120		-9.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	41.1	1.0814980	1.1121440		2.8	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262353ECD7.D
Data file 2: /230126.b/230126.b/01262353ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV8
Client ID:
Injection Date: 27-JAN-2023 04:19
Report Date: 01/27/2023 15:37
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	ZB5 Col Response	RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.807	-0.002	259211	5.684	-0.003	183625	41.4	41.1	0.5	Tetrachloro-m-xylene
13.889	-0.003	177237	14.116	-0.004	187524	38.0	36.4	4.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	443383	-11.9
Hexabromobiphenyl	647433	436659	-32.6

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	330218	-2.0
Hexabromobiphenyl	382032	324573	-15.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.268	-0.002	41545	252.2	1	7.253	-0.002	45977	256.7
Aroclor-1016	2	7.648	-0.002	139607	255.7	2	7.848	-0.003	103045	262.5
Aroclor-1016	3	7.786	-0.002	58084	231.3	3	8.048	-0.002	42480	265.2
Aroclor-1016	4	8.401	-0.003	40877	253.0	4	8.303	-0.002	31692	252.4
Total CollAve (4 peaks):				248.0		Total Col2Ave (4 peaks):				259.2 RPD = 4
Corrected Ave (3 peaks):				245.5		Corrected Ave (3 peaks):				257.2 RPD = 5
Aroclor-1260	1	11.040	-0.003	68669	280.3	1	11.649	-0.004	61147	261.1
Aroclor-1260	2	11.357	-0.004	66483	264.0	2	11.912	-0.005	149807	252.9
Aroclor-1260	3	11.729	-0.005	160406	241.9	3	12.431	-0.005	38145	258.3
Aroclor-1260	4	12.134	-0.006	80009	233.6	4	12.497	-0.005	95665	249.5
Aroclor-1260	5	12.241	-0.003	33305	223.0	NS	---			----
Total CollAve (5 peaks):				248.6		Total Col2Ave (4 peaks):				255.5 RPD = 3
Corrected Ave (4 peaks):				240.6		Corrected Ave (3 peaks):				253.6 RPD = 5

Total PCB Area Col1 (5.909 - 13.792) = 2108616 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 1594656 Col2 Total PCB = 0.5 ppm*

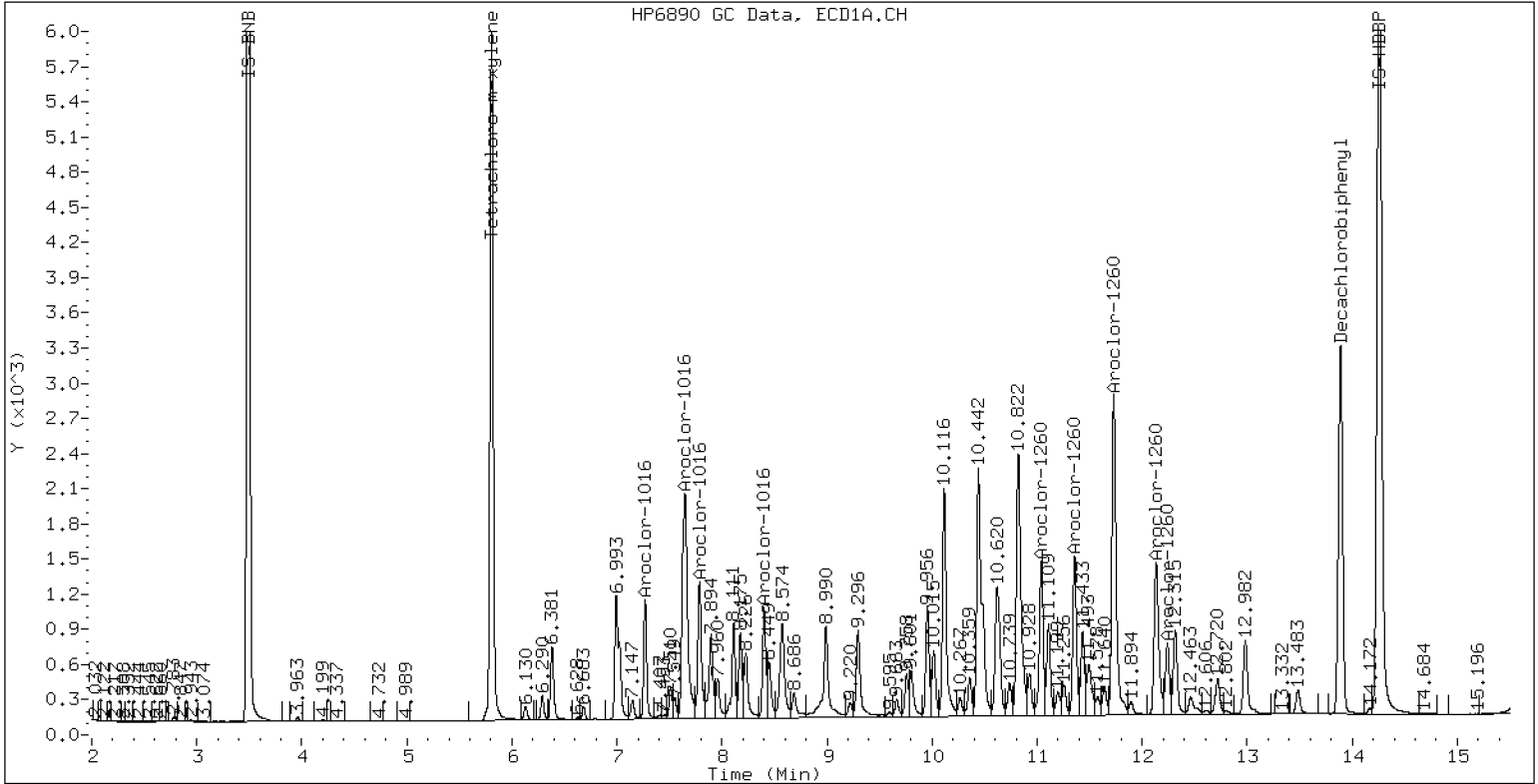
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV8

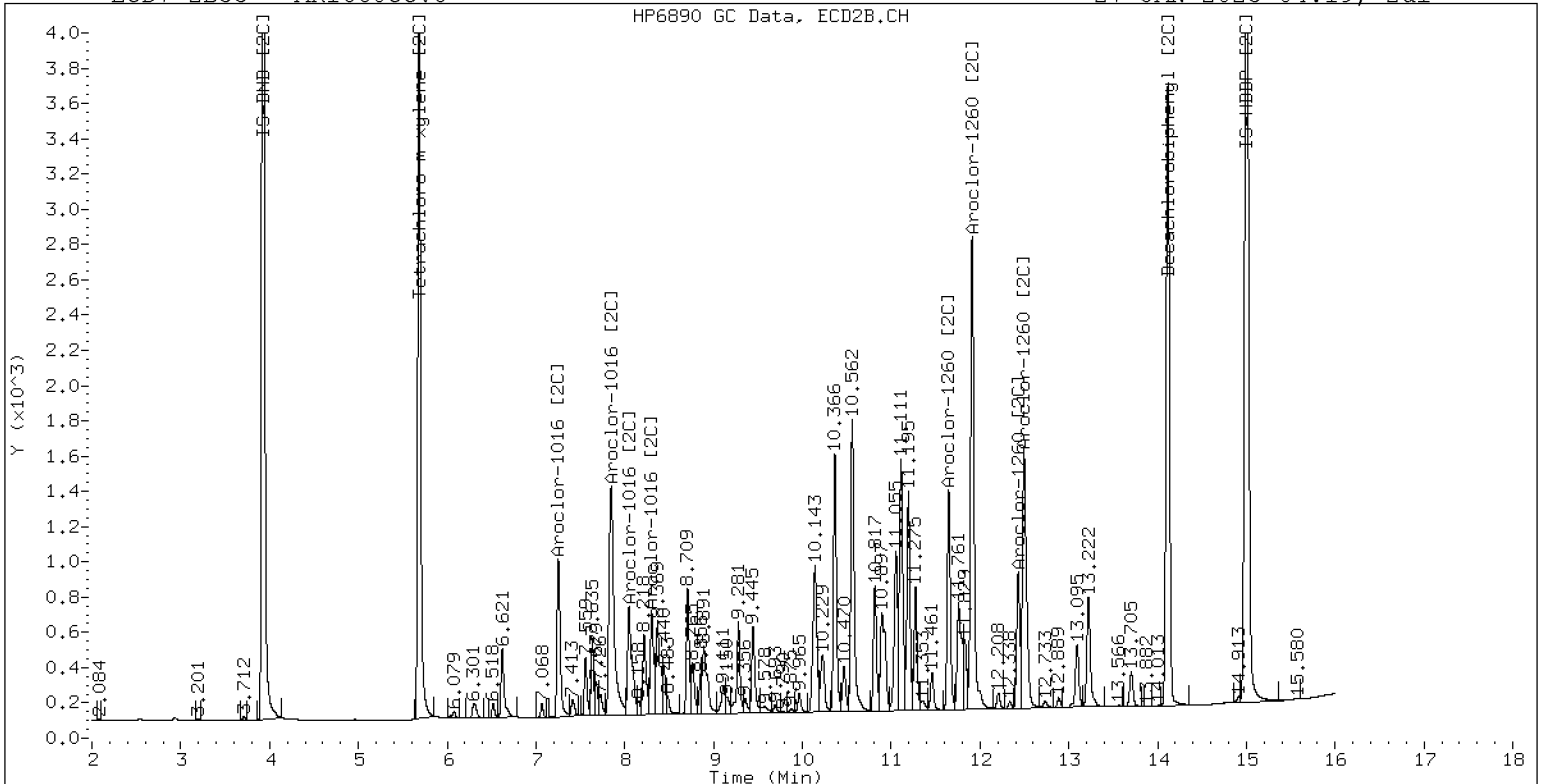
27-JAN-2023 04:19, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV8

27-JAN-2023 04:19, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262359ECD7.D
Data file 2: /230126.b/230126.b/01262359ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242CCV9
Client ID:
Injection Date: 27-JAN-2023 06:25
Report Date: 01/27/2023 15:37
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.807	-0.002	293052	5.684	-0.003	214979	47.5	47.8	0.6	Tetrachloro-m-xylene
13.888	-0.004	147870	14.116	-0.004	176088	34.1	36.9	8.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	436252	-13.3
Hexabromobiphenyl	647433	406006	-37.3

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	332581	-1.3
Hexabromobiphenyl	382032	300367	-21.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.269	-0.002	32476	243.1	1	7.253	-0.003	36588	251.5
Aroclor-1242	2	7.650	-0.005	106847	244.4	2	7.849	-0.004	79404	245.8
Aroclor-1242	3	8.402	-0.005	30210	232.6	3	9.152	-0.008	24302	240.2
Aroclor-1242	4	8.575	-0.007	44500	226.8	4	9.578	-0.009	30370	226.5
Total CollAve (4 peaks):				236.7	Total Col2Ave (4 peaks):				241.0	RPD = 2
Corrected Ave (3 peaks):				234.2	Corrected Ave (3 peaks):				237.5	RPD = 1

Total PCB Area Coll (5.909 - 13.792) = 758752 Coll Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 550840 Col2 Total PCB = 0.2 ppm*

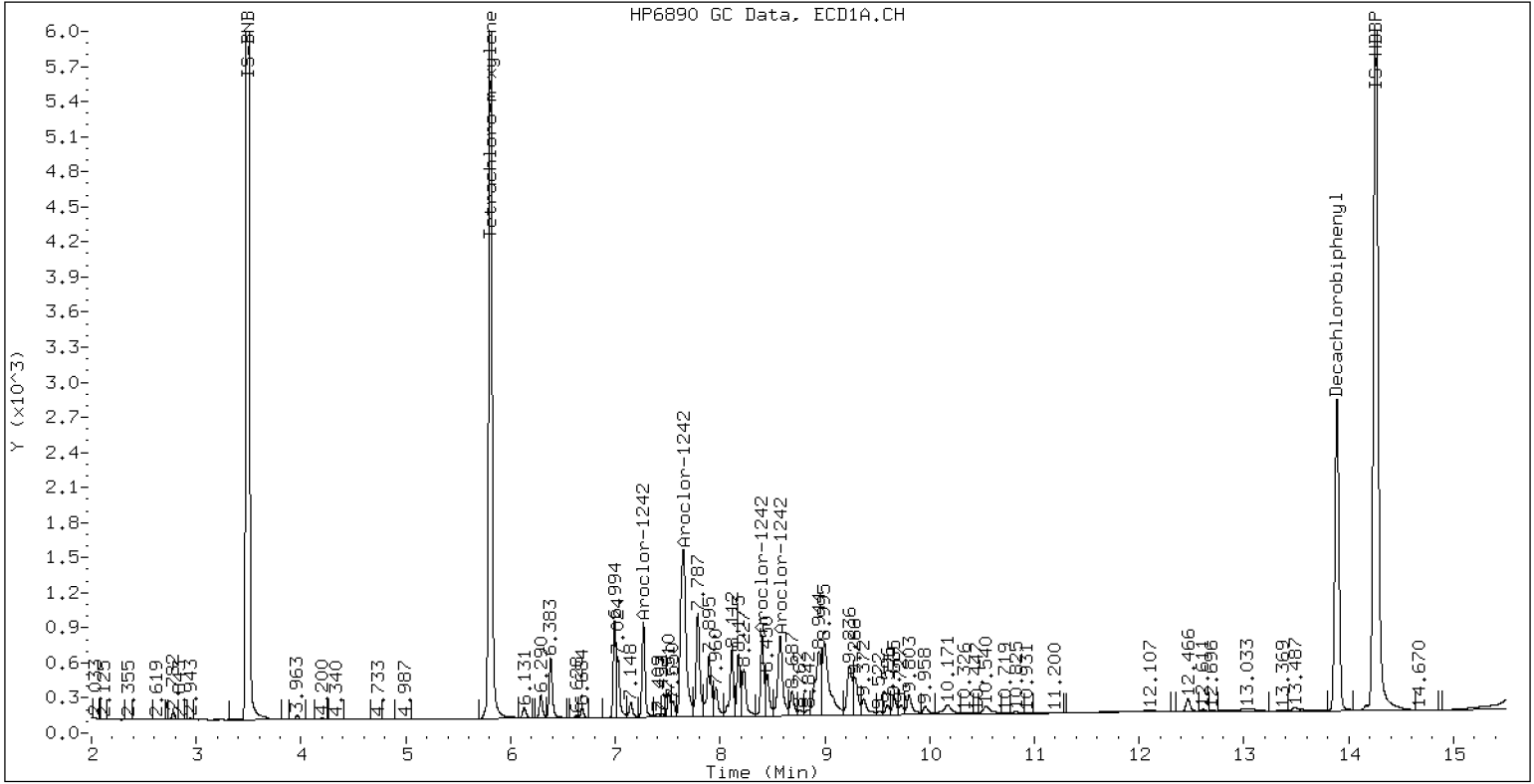
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242CCV9

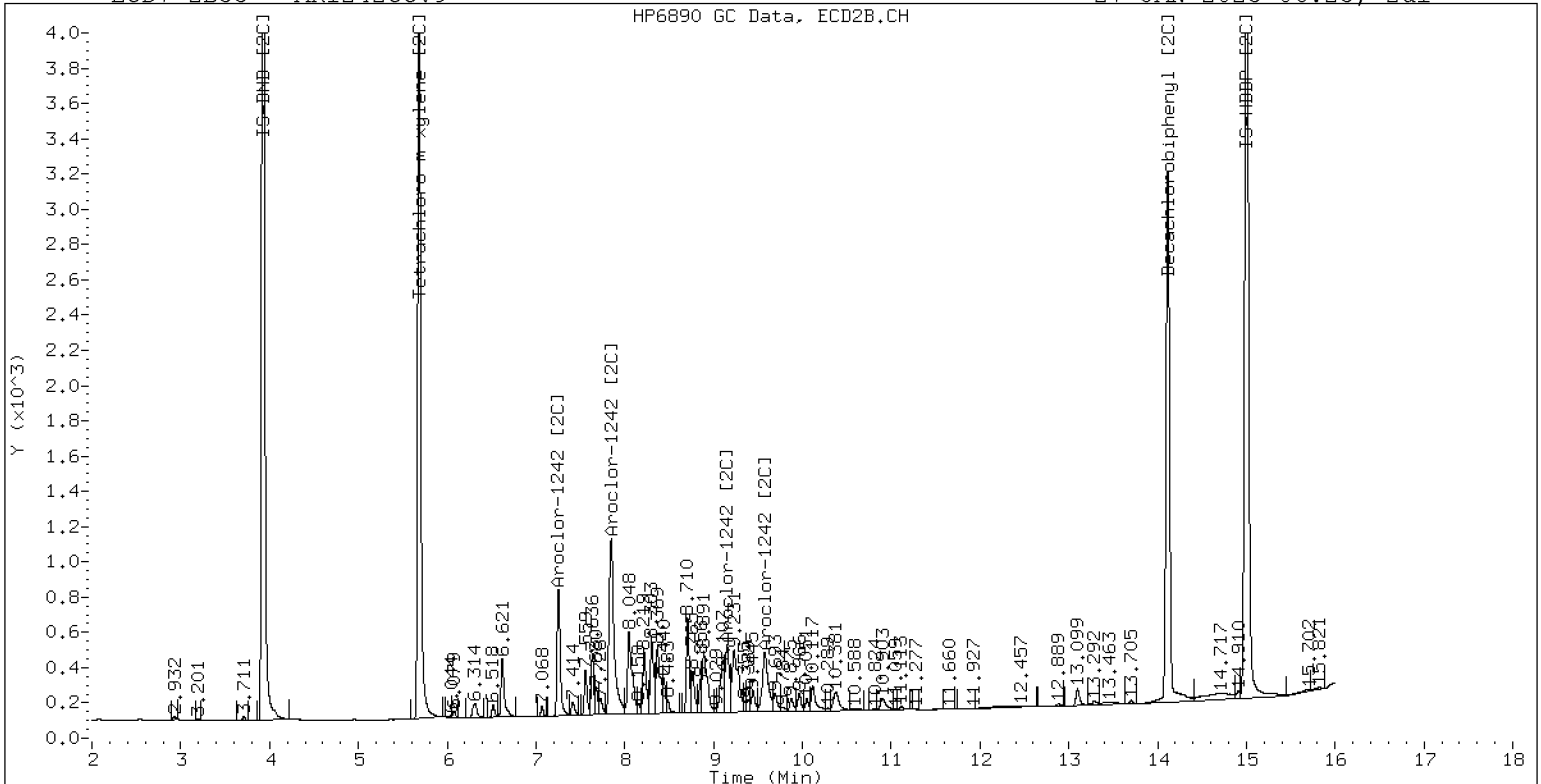
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ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242CCV9

27-JAN-2023 06:25, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /230126.b/01262360ECD7.D
Data file 2: /230126.b/230126.b/01262360ECD7.D
Method: \\target\share\chem4\ecd7.i\230126.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCVA
Client ID:
Injection Date: 27-JAN-2023 06:46
Report Date: 01/27/2023 15:37
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.807	-0.002	252389	5.684	-0.003	182986	41.7	41.5	0.4	Tetrachloro-m-xylene
13.887	-0.004	201461	14.117	-0.003	203733	38.8	38.5	0.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	503318	428600	-14.8
Hexabromobiphenyl	647433	485848	-25.0

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	336911	326097	-3.2
Hexabromobiphenyl	382032	333390	-12.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 24-JAN-2023
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.268	-0.002	40652	255.2	1	7.253	-0.002	45337	256.3
Aroclor-1016	2	7.649	-0.001	136204	258.1	2	7.848	-0.003	101587	262.1
Aroclor-1016	3	7.786	-0.002	56742	233.7	3	8.048	-0.002	41940	265.2
Aroclor-1016	4	8.401	-0.003	40006	256.1	4	8.303	-0.002	31160	251.3
Total CollAve (4 peaks):				250.8		Total Col2Ave (4 peaks):				258.7 RPD = 3
Corrected Ave (3 peaks):				248.4		Corrected Ave (3 peaks):				256.6 RPD = 3
Aroclor-1260	1	11.039	-0.004	73296	268.9	1	11.649	-0.004	63978	266.0
Aroclor-1260	2	11.356	-0.005	72611	259.1	2	11.914	-0.004	156296	256.9
Aroclor-1260	3	11.729	-0.005	174006	235.9	3	12.432	-0.004	39215	258.6
Aroclor-1260	4	12.134	-0.006	84118	220.7	4	12.498	-0.004	97550	247.7
Aroclor-1260	5	12.240	-0.004	34706	208.9	NS	---			----
Total CollAve (5 peaks):				238.7		Total Col2Ave (4 peaks):				257.3 RPD = 7
Corrected Ave (4 peaks):				231.1		Corrected Ave (3 peaks):				254.4 RPD = 10

Total PCB Area Col1 (5.909 - 13.792) = 2159702 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.787 - 14.020) = 1620445 Col2 Total PCB = 0.5 ppm*

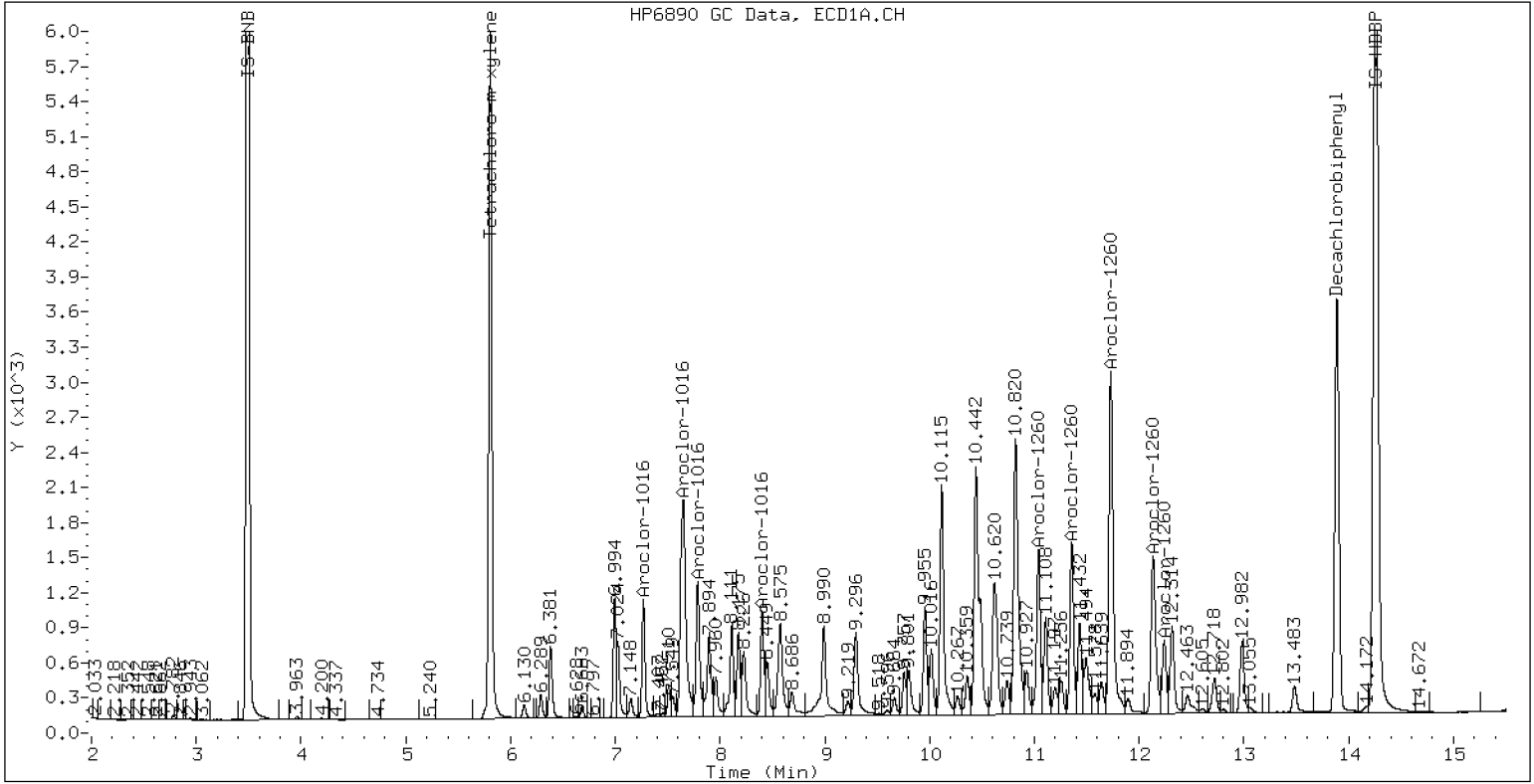
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCVA

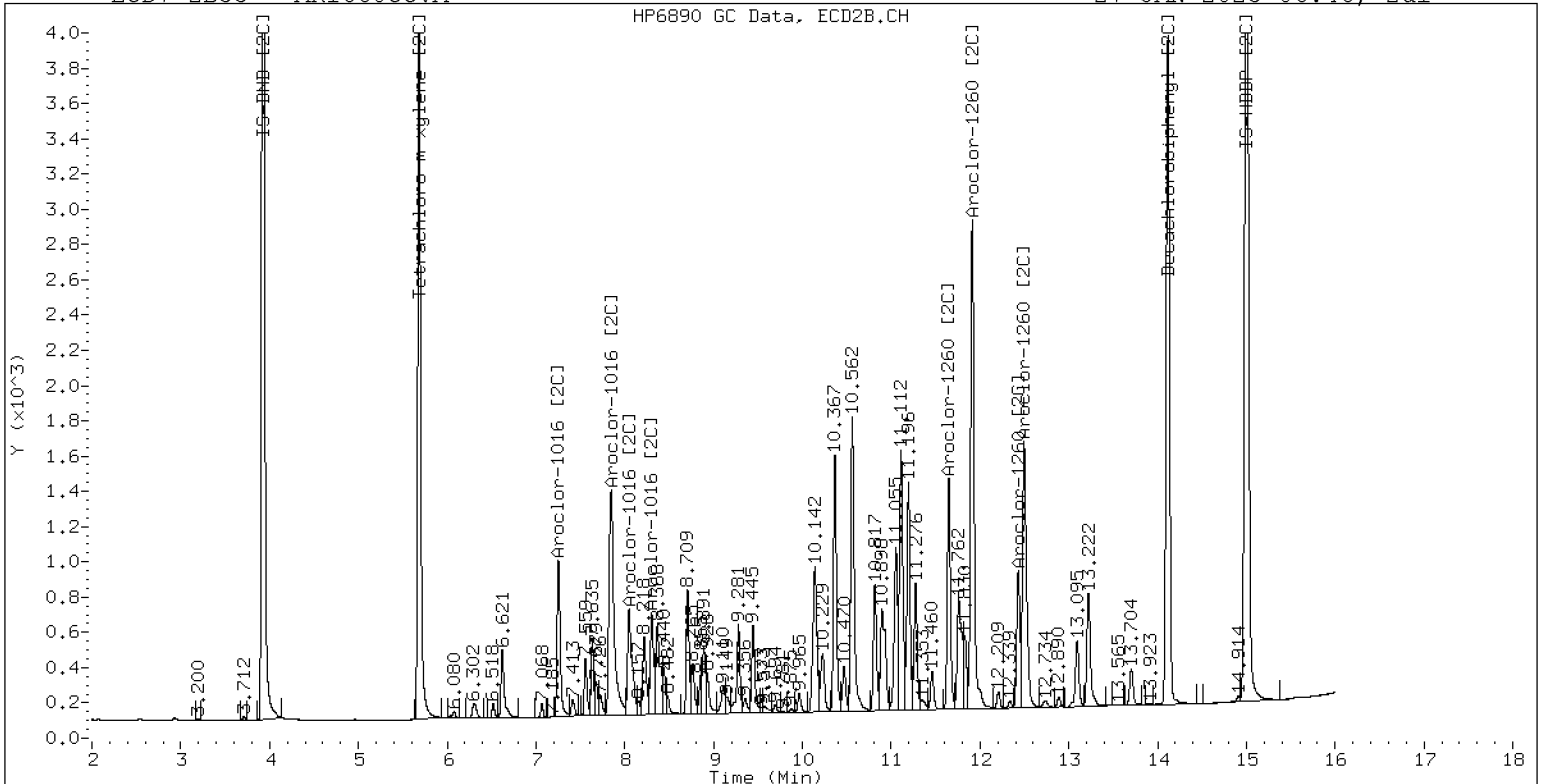
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ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCVA

27-JAN-2023 06:46, 2ul



ZB-35 Manual Integration: NO



Dual Column
ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLA0281

Instrument: ECD7

Calibration: GA00061

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Cal Standard	SLA0281-CAL1	01242313ECD7.D	01242313ECD7.D	NA	01/24/23 16:00
Cal Standard	SLA0281-CAL2	01242314ECD7.D	01242314ECD7.D	NA	01/24/23 16:21
Cal Standard	SLA0281-CAL3	01242315ECD7.D	01242315ECD7.D	NA	01/24/23 16:42
Cal Standard	SLA0281-CAL4	01242316ECD7.D	01242316ECD7.D	NA	01/24/23 17:03
Cal Standard	SLA0281-CAL5	01242317ECD7.D	01242317ECD7.D	NA	01/24/23 17:24
Cal Standard	SLA0281-CAL6	01242318ECD7.D	01242318ECD7.D	NA	01/24/23 17:45
Cal Standard	SLA0281-CAL7	01242319ECD7.D	01242319ECD7.D	NA	01/24/23 18:06
Cal Standard	SLA0281-CAL8	01242320ECD7.D	01242320ECD7.D	NA	01/24/23 18:27
Cal Standard	SLA0281-CAL9	01242321ECD7.D	01242321ECD7.D	NA	01/24/23 18:48
Cal Standard	SLA0281-CALA	01242322ECD7.D	01242322ECD7.D	NA	01/24/23 19:09
Cal Standard	SLA0281-CALB	01242323ECD7.D	01242323ECD7.D	NA	01/24/23 19:30
Secondary Cal Check	SLA0281-SCV1	01242324ECD7.D	01242324ECD7.D	NA	01/24/23 19:51
Secondary Cal Check	SLA0281-SCV2	01242325ECD7.D	01242325ECD7.D	NA	01/24/23 20:12
Secondary Cal Check	SLA0281-SCV3	01242326ECD7.D	01242326ECD7.D	NA	01/24/23 20:33
Secondary Cal Check	SLA0281-SCV4	01242327ECD7.D	01242327ECD7.D	NA	01/24/23 20:54
Secondary Cal Check	SLA0281-SCV5	01242328ECD7.D	01242328ECD7.D	NA	01/24/23 21:15
Secondary Cal Check	SLA0281-SCV6	01242329ECD7.D	01242329ECD7.D	NA	01/24/23 21:36

Security Status Report

Date: 26-Jan-2023 15:41

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01242334ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242335ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242336ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
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01242339ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242340ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
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01242360ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242361ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242362ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
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01242378ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242379ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242380ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242381ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242382ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242383ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242384ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242385ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242386ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242387ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242388ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242389ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242390ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242391ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19



Dual Column
ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLA0298

Instrument: ECD7

Calibration: GA00061

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Initial Cal Check	SLA0298-ICV1	01242332ECD7.D	01242332ECD7.D	NA	01/24/23 22:39
Initial Cal Check	SLA0298-ICV2	01242333ECD7.D	01242333ECD7.D	NA	01/24/23 23:00
Calibration Check	SLA0298-CCV1	01242348ECD7.D	01242348ECD7.D	NA	01/25/23 04:14
Calibration Check	SLA0298-CCV2	01242349ECD7.D	01242349ECD7.D	NA	01/25/23 04:35
Calibration Check	SLA0298-CCV3	01242357ECD7.D	01242357ECD7.D	NA	01/25/23 07:23
Calibration Check	SLA0298-CCV4	01242358ECD7.D	01242358ECD7.D	NA	01/25/23 07:44
Blank	BLA0165-BLK1	01242362ECD7.D	01242362ECD7.D	Solid	01/25/23 09:08
LCS	BLA0165-BS1	01242363ECD7.D	01242363ECD7.D	Solid	01/25/23 09:29
LCS Dup	BLA0165-BSD1	01242364ECD7.D	01242364ECD7.D	Solid	01/25/23 09:50
Reference	BLA0165-SRM1	01242365ECD7.D	01242365ECD7.D	Solid	01/25/23 10:11
Calibration Check	SLA0298-CCV5	01242373ECD7.D	01242373ECD7.D	NA	01/25/23 12:59
Calibration Check	SLA0298-CCV6	01242374ECD7.D	01242374ECD7.D	NA	01/25/23 13:20
LDW23-IT1235	BLA0165-MS1	01242375ECD7.D	01242375ECD7.D	Solid	01/25/23 13:41
LDW23-IT1235	BLA0165-MSD1	01242376ECD7.D	01242376ECD7.D	Solid	01/25/23 14:02
LDW23-IT1202	23A0032-07	01242377ECD7.D	01242377ECD7.D	Solid	01/25/23 14:23
LDW23-SC1226B	23A0032-08	01242378ECD7.D	01242378ECD7.D	Solid	01/25/23 14:44
LDW23-SC1203	23A0032-09	01242379ECD7.D	01242379ECD7.D	Solid	01/25/23 15:05
Calibration Check	SLA0298-CCV7	01242390ECD7.D	01242390ECD7.D	NA	01/25/23 18:56
Calibration Check	SLA0298-CCV8	01242391ECD7.D	01242391ECD7.D	NA	01/25/23 19:17



ANALYSIS SEQUENCE

SLA0298

Instrument: ECD7
Calibration ID: GA00061

Printed: 1/26/2023 1:30:40PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLA0298-ICV1	QC		1		L000862	K006953		
SLA0298-ICV2	QC		2		L000856	K006953		
BLA0169-BLK1	QC		3			K006953		
BLA0169-BS1	QC		4			K006953		
BLA0169-BSD1	QC		5			K006953		
BLA0169-SRM1	QC		6			K006953		
23A0087-04	8082A PCB Solid 4	A 03	7			K006953	Anchor QEA, LLC	
23A0087-07	8082A PCB Solid 4	A 03	8			K006953	Anchor QEA, LLC	
23A0087-08	8082A PCB Solid 4	A 03	9			K006953	Anchor QEA, LLC	
SLA0298-CCV1	QC		10		L000861	K006953		
SLA0298-CCV2	QC		11		L000856	K006953		
23A0087-12	8082A PCB Solid 4	A 03	12			K006953	Anchor QEA, LLC	
23A0087-13	8082A PCB Solid 4	A 03	13			K006953	Anchor QEA, LLC	
23A0087-14	8082A PCB Solid 4	A 03	14			K006953	Anchor QEA, LLC	
BLA0169-MS1	QC		15			K006953		
BLA0169-MSD1	QC		16			K006953		
23A0087-15	8082A PCB Solid 4	A 03	17			K006953	Anchor QEA, LLC	
SLA0298-CCV3	QC		18		L000860	K006953		
SLA0298-CCV4	QC		19		L000856	K006953		
BLA0485-BLK1	QC		20			K006953		
BLA0485-BS1	QC		21			K006953		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____



ANALYSIS SEQUENCE

SLA0298

Instrument: ECD7
Calibration ID: GA00061

Printed: 1/26/2023 1:30:40PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
BLA0485-BSD1	QC		22			K006953		
BLA0165-BLK1	QC		23			K006953		
BLA0165-BS1	QC		24			K006953		
BLA0165-BSD1	QC		25			K006953		
BLA0165-SRM1	QC		26			K006953		
SLA0298-CCV5	QC		27		L000862	K006953		
SLA0298-CCV6	QC		28		L000856	K006953		
BLA0165-MS1	QC		29			K006953		
BLA0165-MSD1	QC		30			K006953		
23A0032-07	8082A PCB Solid 4	A 03	31			K006953	Anchor QEA, LLC	
23A0032-08	8082A PCB Solid 4	A 03	32			K006953	Anchor QEA, LLC	
23A0032-09	8082A PCB Solid 4	A 03	33			K006953	Anchor QEA, LLC	
BLA0344-BLK1	QC		34			K006953		
BLA0344-BS1	QC		35			K006953		
BLA0344-BSD1	QC		36			K006953		
BLA0565-BLK1	QC		37			K006953		
BLA0565-BS1	QC		38			K006953		
23A0471-01	082A PCB Medium Level Oil	A 01	39			K006953	Seattle Public Utilities [Solid Waste Field Op]	See Version Comment
SLA0298-CCV7	QC		40		L000861	K006953		
SLA0298-CCV8	QC		41		L000856	K006953		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230124.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	24-JAN-2023	21:57	01242330ECD7.D	1	DDTS	
2	24-JAN-2023	22:18	01242331ECD7.D	1	DDT BD	
3	24-JAN-2023	22:39	01242332ECD7.D	1	AR1254ICV1	
4	24-JAN-2023	23:00	01242333ECD7.D	1	AR1660ICV2	
5	24-JAN-2023	23:21	01242334ECD7.D	1	BLA0169-BLK1	
6	24-JAN-2023	23:42	01242335ECD7.D	1	BLA0169-BS1	
7	25-JAN-2023	00:03	01242336ECD7.D	1	BLA0169-BSD1	
8	25-JAN-2023	00:24	01242337ECD7.D	1	BLA0169-SRM1	
9	25-JAN-2023	00:45	01242338ECD7.D	5	23A0087-01RE1	
10	25-JAN-2023	01:05	01242339ECD7.D	5	23A0087-02RE1	
11	25-JAN-2023	01:26	01242340ECD7.D	5	23A0087-03RE1	
12	25-JAN-2023	01:47	01242341ECD7.D	5	23A0087-04RE1	
13	25-JAN-2023	02:08	01242342ECD7.D	5	23A0087-05RE1	
14	25-JAN-2023	02:29	01242343ECD7.D	5	23A0087-06RE1	
15	25-JAN-2023	02:50	01242344ECD7.D	5	23A0087-07RE1	
16	25-JAN-2023	03:11	01242345ECD7.D	5	23A0087-08RE1	
17	25-JAN-2023	03:32	01242346ECD7.D	5	23A0087-09RE1	
18	25-JAN-2023	03:53	01242347ECD7.D	5	23A0087-10RE1	
19	25-JAN-2023	04:14	01242348ECD7.D	1	AR1248CCV1	
20	25-JAN-2023	04:35	01242349ECD7.D	1	AR1660CCV2	
21	25-JAN-2023	04:56	01242350ECD7.D	5	23A0087-11RE1	
22	25-JAN-2023	05:17	01242351ECD7.D	5	23A0087-12RE1	
23	25-JAN-2023	05:38	01242352ECD7.D	5	23A0087-13RE1	
24	25-JAN-2023	05:59	01242353ECD7.D	5	23A0087-14RE1	
25	25-JAN-2023	06:20	01242354ECD7.D	5	BLA0169-MS1RE1	
26	25-JAN-2023	06:41	01242355ECD7.D	5	BLA0169-MSD1RE	
27	25-JAN-2023	07:02	01242356ECD7.D	5	23A0087-15RE1	
28	25-JAN-2023	07:23	01242357ECD7.D	1	AR1242CCV3	
29	25-JAN-2023	07:44	01242358ECD7.D	1	AR1660CCV4	
30	25-JAN-2023	08:05	01242359ECD7.D	1	BLA0485-BLK1	
31	25-JAN-2023	08:26	01242360ECD7.D	1	BLA0485-BS1	
32	25-JAN-2023	08:47	01242361ECD7.D	1	BLA0485-BSD1	
33	25-JAN-2023	09:08	01242362ECD7.D	1	BLA0165-BLK1	
34	25-JAN-2023	09:29	01242363ECD7.D	1	BLA0165-BS1	
35	25-JAN-2023	09:50	01242364ECD7.D	1	BLA0165-BSD1	
36	25-JAN-2023	10:11	01242365ECD7.D	1	BLA0165-SRM1	
37	25-JAN-2023	10:32	01242366ECD7.D	5	23A0031-21RE1	
38	25-JAN-2023	10:53	01242367ECD7.D	5	23A0032-01RE1	
39	25-JAN-2023	11:14	01242368ECD7.D	5	23A0032-02RE1	
40	25-JAN-2023	11:35	01242369ECD7.D	5	23A0032-03RE1	
41	25-JAN-2023	11:56	01242370ECD7.D	5	23A0032-04RE1	
42	25-JAN-2023	12:17	01242371ECD7.D	5	23A0032-05RE1	
43	25-JAN-2023	12:38	01242372ECD7.D	5	23A0032-06RE1	
44	25-JAN-2023	12:59	01242373ECD7.D	1	AR1254CCV5	
45	25-JAN-2023	13:20	01242374ECD7.D	1	AR1660CCV6	
46	25-JAN-2023	13:41	01242375ECD7.D	5	BLA0165-MS1RE1	
47	25-JAN-2023	14:02	01242376ECD7.D	5	BLA0165-MSD1RE	
48	25-JAN-2023	14:23	01242377ECD7.D	5	23A0032-07RE1	
49	25-JAN-2023	14:44	01242378ECD7.D	5	23A0032-08RE1	
50	25-JAN-2023	15:05	01242379ECD7.D	5	23A0032-09RE1	

	Inject	Date/Time	Filename	DF	LabID	ClientID
51	25-JAN-2023	15:26	01242380ECD7.D	5	23A0032-10RE1	
52	25-JAN-2023	15:47	01242381ECD7.D	5	23A0032-11RE1	
53	25-JAN-2023	16:08	01242382ECD7.D	1	BLA0344-BLK1	
54	25-JAN-2023	16:29	01242383ECD7.D	1	BLA0344-BS1	
55	25-JAN-2023	16:50	01242384ECD7.D	1	BLA0344-BSD1	
56	25-JAN-2023	17:11	01242385ECD7.D	5	23A0245-04RE1	
57	25-JAN-2023	17:32	01242386ECD7.D	1	BLA0564-BLK1	
58	25-JAN-2023	17:53	01242387ECD7.D	1	BLA0564-BS1	
59	25-JAN-2023	18:14	01242388ECD7.D	1	23A0471-01	
60	25-JAN-2023	18:35	01242389ECD7.D	5	23A0471-01RE1	
61	25-JAN-2023	18:56	01242390ECD7.D	1	AR1248CCV7	
62	25-JAN-2023	19:17	01242391ECD7.D	1	AR1660CCV8	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230124.b

ARI Job No.: DDTs Method: PCB.m Instrument: ecd7.i Date: 24-JAN-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2157	01242330ECD7.D	DDTS		1	NO MANUAL INTEGRATION
2218	01242331ECD7.D	DDT BD		1	NO MANUAL INTEGRATION
2239	01242332ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
2300	01242333ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
2321	01242334ECD7.D	BLA0169-BLK1		1	NO MANUAL INTEGRATION
2342	01242335ECD7.D	BLA0169-BS1		1	NO MANUAL INTEGRATION
0003	01242336ECD7.D	BLA0169-BSD1		1	NO MANUAL INTEGRATION
0024	01242337ECD7.D	BLA0169-SRM1		1	NO MANUAL INTEGRATION
0045	01242338ECD7.D	23A0087-01RE1		5	NO MANUAL INTEGRATION
0105	01242339ECD7.D	23A0087-02RE1		5	NO MANUAL INTEGRATION
0126	01242340ECD7.D	23A0087-03RE1		5	NO MANUAL INTEGRATION
0147	01242341ECD7.D	23A0087-04RE1		5	NO MANUAL INTEGRATION
0208	01242342ECD7.D	23A0087-05RE1		5	NO MANUAL INTEGRATION
0229	01242343ECD7.D	23A0087-06RE1		5	NO MANUAL INTEGRATION
0250	01242344ECD7.D	23A0087-07RE1		5	Aroclor-1254,
0311	01242345ECD7.D	23A0087-08RE1		5	Aroclor-1254,
0332	01242346ECD7.D	23A0087-09RE1		5	Aroclor-1254,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230124.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0353	01242347ECD7.D	23A0087-10RE1		5	Aroclor-1254,
0414	01242348ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
0435	01242349ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION
0456	01242350ECD7.D	23A0087-11RE1		5	Aroclor-1254,
0517	01242351ECD7.D	23A0087-12RE1		5	Aroclor-1254,
0538	01242352ECD7.D	23A0087-13RE1		5	Aroclor-1254,
0559	01242353ECD7.D	23A0087-14RE1		5	NO MANUAL INTEGRATION
0620	01242354ECD7.D	BLA0169-MS1RE1		5	NO MANUAL INTEGRATION
0641	01242355ECD7.D	BLA0169-MSD1RE		5	NO MANUAL INTEGRATION
0702	01242356ECD7.D	23A0087-15RE1		5	Aroclor-1254,
0723	01242357ECD7.D	AR1242CCV3		1	NO MANUAL INTEGRATION
0744	01242358ECD7.D	AR1660CCV4		1	NO MANUAL INTEGRATION
0805	01242359ECD7.D	BLA0485-BLK1		1	NO MANUAL INTEGRATION
0826	01242360ECD7.D	BLA0485-BS1		1	NO MANUAL INTEGRATION
0847	01242361ECD7.D	BLA0485-BSD1		1	NO MANUAL INTEGRATION
0908	01242362ECD7.D	BLA0165-BLK1		1	NO MANUAL INTEGRATION
0929	01242363ECD7.D	BLA0165-BS1		1	NO MANUAL INTEGRATION
0950	01242364ECD7.D	BLA0165-BSD1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230124.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1011	01242365ECD7.D	BLA0165-SRM1		1	NO MANUAL INTEGRATION
1032	01242366ECD7.D	23A0031-21RE1		5	NO MANUAL INTEGRATION
1053	01242367ECD7.D	23A0032-01RE1		5	Aroclor-1254,
1114	01242368ECD7.D	23A0032-02RE1		5	Aroclor-1254,
1135	01242369ECD7.D	23A0032-03RE1		5	NO MANUAL INTEGRATION
1156	01242370ECD7.D	23A0032-04RE1		5	NO MANUAL INTEGRATION
1217	01242371ECD7.D	23A0032-05RE1		5	NO MANUAL INTEGRATION
1238	01242372ECD7.D	23A0032-06RE1		5	NO MANUAL INTEGRATION
1259	01242373ECD7.D	AR1254CCV5		1	NO MANUAL INTEGRATION
1320	01242374ECD7.D	AR1660CCV6		1	NO MANUAL INTEGRATION
1341	01242375ECD7.D	BLA0165-MS1RE1		5	NO MANUAL INTEGRATION
1402	01242376ECD7.D	BLA0165-MSD1RE		5	NO MANUAL INTEGRATION
1423	01242377ECD7.D	23A0032-07RE1		5	NO MANUAL INTEGRATION
1444	01242378ECD7.D	23A0032-08RE1		5	Aroclor-1254,
1505	01242379ECD7.D	23A0032-09RE1		5	NO MANUAL INTEGRATION
1526	01242380ECD7.D	23A0032-10RE1		5	Aroclor-1254,
1547	01242381ECD7.D	23A0032-11RE1		5	NO MANUAL INTEGRATION
1608	01242382ECD7.D	BLA0344-BLK1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230124.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1629	01242383ECD7.D	BLA0344-BS1		1	NO MANUAL INTEGRATION
1650	01242384ECD7.D	BLA0344-BSD1		1	NO MANUAL INTEGRATION
1711	01242385ECD7.D	23A0245-04RE1		5	NO MANUAL INTEGRATION
1732	01242386ECD7.D	BLA0564-BLK1		1	NO MANUAL INTEGRATION
1753	01242387ECD7.D	BLA0564-BS1		1	NO MANUAL INTEGRATION
1814	01242388ECD7.D	23A0471-01		1	Tetrachloro-m-xylene,
1835	01242389ECD7.D	23A0471-01RE1		5	NO MANUAL INTEGRATION
1856	01242390ECD7.D	AR1248CCV7		1	NO MANUAL INTEGRATION
1917	01242391ECD7.D	AR1660CCV8		1	NO MANUAL INTEGRATION

Security Status Report

Date: 26-Jan-2023 13:19

01242332ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242333ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242334ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242335ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242336ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242337ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
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01242344ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
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01242350ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242351ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242352ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
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01242368ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242369ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242370ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242371ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242372ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242373ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
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01242385ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242386ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242387ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242388ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242389ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242390ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19
01242391ECD7.D	Data Locked	richardl, 26-Jan-2023 13:19



ANALYSIS SEQUENCE

SLA0304

Instrument: ECD7
Calibration ID: GA00061

Printed: 1/27/2023 4:07:40PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SLA0304-ICV1	QC		1		L000862	L000844		
SLA0304-ICV2	QC		2		L000856	L000844		
23A0087-01	8082A PCB Solid 4	A 03	3			L000844	Anchor QEA, LLC	
23A0087-02	8082A PCB Solid 4	A 03	4			L000844	Anchor QEA, LLC	
23A0087-03	8082A PCB Solid 4	A 03	5			L000844	Anchor QEA, LLC	
23A0087-05	8082A PCB Solid 4	A 03	6			L000844	Anchor QEA, LLC	
23A0087-06	8082A PCB Solid 4	A 03	7			L000844	Anchor QEA, LLC	
23A0087-09	8082A PCB Solid 4	A 03	8			L000844	Anchor QEA, LLC	
23A0087-10	8082A PCB Solid 4	A 03	9			L000844	Anchor QEA, LLC	
23A0087-11	8082A PCB Solid 4	A 03	10			L000844	Anchor QEA, LLC	
SLA0304-CCV1	QC		11		L000861	L000844		
SLA0304-CCV2	QC		12		L000856	L000844		
23A0031-21	8082A PCB Solid 4	A 03	13			L000844	Anchor QEA, LLC	
23A0032-01	8082A PCB Solid 4	A 03	14			L000844	Anchor QEA, LLC	
23A0032-02	8082A PCB Solid 4	A 03	15			L000844	Anchor QEA, LLC	
23A0032-03	8082A PCB Solid 4	A 03	16			L000844	Anchor QEA, LLC	
23A0032-04	8082A PCB Solid 4	A 03	17			L000844	Anchor QEA, LLC	
23A0032-05	8082A PCB Solid 4	A 03	18			L000844	Anchor QEA, LLC	
23A0032-06	8082A PCB Solid 4	A 03	19			L000844	Anchor QEA, LLC	
23A0032-10	8082A PCB Solid 4	A 03	20			L000844	Anchor QEA, LLC	
23A0032-11	8082A PCB Solid 4	A 03	21			L000844	Anchor QEA, LLC	

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230126.b

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1	26-JAN-2023	10:07	01262301ECD7.D	1	DDTS	
2	26-JAN-2023	10:28	01262302ECD7.D	1	AR1254ICV1	
3	26-JAN-2023	10:49	01262303ECD7.D	1	AR1660ICV2	
4	26-JAN-2023	11:10	01262304ECD7.D	1	23A0087-01	
5	26-JAN-2023	11:31	01262305ECD7.D	1	23A0087-02	
6	26-JAN-2023	11:52	01262306ECD7.D	1	23A0087-03	
7	26-JAN-2023	12:13	01262307ECD7.D	1	23A0087-05	
8	26-JAN-2023	12:34	01262308ECD7.D	1	23A0087-06	
9	26-JAN-2023	12:55	01262309ECD7.D	1	23A0087-09	
10	26-JAN-2023	13:16	01262310ECD7.D	1	23A0087-10	
11	26-JAN-2023	13:37	01262311ECD7.D	1	23A0087-11	
12	26-JAN-2023	13:58	01262312ECD7.D	1	AR1248CCV1	
13	26-JAN-2023	14:19	01262313ECD7.D	1	AR1660CCV2	
14	26-JAN-2023	14:40	01262314ECD7.D	1	23A0031-21	
15	26-JAN-2023	15:01	01262315ECD7.D	1	23A0032-01	
16	26-JAN-2023	15:22	01262316ECD7.D	1	23A0032-02	
17	26-JAN-2023	15:43	01262317ECD7.D	1	23A0032-03	
18	26-JAN-2023	16:04	01262318ECD7.D	1	23A0032-04	
19	26-JAN-2023	16:25	01262319ECD7.D	1	23A0032-05	
20	26-JAN-2023	16:46	01262320ECD7.D	1	23A0032-06	
21	26-JAN-2023	17:07	01262321ECD7.D	1	23A0032-10	
22	26-JAN-2023	17:28	01262322ECD7.D	1	23A0032-11	
23	26-JAN-2023	17:49	01262323ECD7.D	1	23A0245-04	
24	26-JAN-2023	18:10	01262324ECD7.D	1	AR1242CCV3	
25	26-JAN-2023	18:31	01262325ECD7.D	1	AR1660CCV4	
26	26-JAN-2023	18:52	01262326ECD7.D	1	BLA0529-BLK1	
27	26-JAN-2023	19:13	01262327ECD7.D	1	BLA0529-BS1	
28	26-JAN-2023	19:34	01262328ECD7.D	1	23A0426-01	
29	26-JAN-2023	19:55	01262329ECD7.D	1	BLA0472-BLK1	
30	26-JAN-2023	20:16	01262330ECD7.D	1	BLA0472-BS1	
31	26-JAN-2023	20:37	01262331ECD7.D	1	BLA0472-BSD1	
32	26-JAN-2023	20:58	01262332ECD7.D	1	23A0374-01	
33	26-JAN-2023	21:19	01262333ECD7.D	1	23A0374-02	
34	26-JAN-2023	21:40	01262334ECD7.D	1	AR1254CCV5	
35	26-JAN-2023	22:01	01262335ECD7.D	1	AR1660CCV6	
36	26-JAN-2023	22:22	01262336ECD7.D	1	BLA0220-BLK1	
37	26-JAN-2023	22:43	01262337ECD7.D	1	BLA0220-BS1	
38	26-JAN-2023	23:04	01262338ECD7.D	1	BLA0220-BSD1	
39	26-JAN-2023	23:25	01262339ECD7.D	1	BLA0220-SRM1	
40	26-JAN-2023	23:46	01262340ECD7.D	1	23A0088-01	
41	27-JAN-2023	00:07	01262341ECD7.D	1	23A0088-02	
42	27-JAN-2023	00:28	01262342ECD7.D	1	23A0088-03	
43	27-JAN-2023	00:49	01262343ECD7.D	1	BLA0220-MS1	
44	27-JAN-2023	01:10	01262344ECD7.D	1	BLA0220-MSD1	
45	27-JAN-2023	01:31	01262345ECD7.D	1	23A0088-04	
46	27-JAN-2023	01:52	01262346ECD7.D	1	23A0088-05	
47	27-JAN-2023	02:13	01262347ECD7.D	1	23A0088-06	
48	27-JAN-2023	02:34	01262348ECD7.D	1	23A0088-07	
49	27-JAN-2023	02:55	01262349ECD7.D	1	23A0088-08	
50	27-JAN-2023	03:16	01262350ECD7.D	1	23A0088-09	

	Inject	Date/Time	Filename	DF	LabID	ClientID
51	27-JAN-2023	03:37	01262351ECD7.D	1	23A0088-10	
52	27-JAN-2023	03:58	01262352ECD7.D	1	AR1248CCV7	
53	27-JAN-2023	04:19	01262353ECD7.D	1	AR1660CCV8	
54	27-JAN-2023	04:40	01262354ECD7.D	1	23A0088-11	
55	27-JAN-2023	05:01	01262355ECD7.D	1	23A0088-12	
56	27-JAN-2023	05:22	01262356ECD7.D	1	23A0088-13	
57	27-JAN-2023	05:43	01262357ECD7.D	1	23A0088-14	
58	27-JAN-2023	06:04	01262358ECD7.D	1	23A0088-15	
59	27-JAN-2023	06:25	01262359ECD7.D	1	AR1242CCV9	
60	27-JAN-2023	06:46	01262360ECD7.D	1	AR1660CCVA	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230126.b

ARI Job No.: DDTs Method: PCB.m Instrument: ecd7.i Date: 26-JAN-2023

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1007	01262301ECD7.D	DDTS		1	NO MANUAL INTEGRATION
1028	01262302ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1049	01262303ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1110	01262304ECD7.D	23A0087-01		1	NO MANUAL INTEGRATION
1131	01262305ECD7.D	23A0087-02		1	NO MANUAL INTEGRATION
1152	01262306ECD7.D	23A0087-03		1	NO MANUAL INTEGRATION
1213	01262307ECD7.D	23A0087-05		1	NO MANUAL INTEGRATION
1234	01262308ECD7.D	23A0087-06		1	NO MANUAL INTEGRATION
1255	01262309ECD7.D	23A0087-09		1	NO MANUAL INTEGRATION
1316	01262310ECD7.D	23A0087-10		1	NO MANUAL INTEGRATION
1337	01262311ECD7.D	23A0087-11		1	NO MANUAL INTEGRATION
1358	01262312ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
1419	01262313ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION
1440	01262314ECD7.D	23A0031-21		1	NO MANUAL INTEGRATION
1501	01262315ECD7.D	23A0032-01		1	NO MANUAL INTEGRATION
1522	01262316ECD7.D	23A0032-02		1	NO MANUAL INTEGRATION
1543	01262317ECD7.D	23A0032-03		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230126.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1604	01262318ECD7.D	23A0032-04		1	NO MANUAL INTEGRATION
1625	01262319ECD7.D	23A0032-05		1	NO MANUAL INTEGRATION
1646	01262320ECD7.D	23A0032-06		1	NO MANUAL INTEGRATION
1707	01262321ECD7.D	23A0032-10		1	NO MANUAL INTEGRATION
1728	01262322ECD7.D	23A0032-11		1	NO MANUAL INTEGRATION
1749	01262323ECD7.D	23A0245-04		1	NO MANUAL INTEGRATION
1810	01262324ECD7.D	AR1242CCV3		1	NO MANUAL INTEGRATION
1831	01262325ECD7.D	AR1660CCV4		1	NO MANUAL INTEGRATION
1852	01262326ECD7.D	BLA0529-BLK1		1	NO MANUAL INTEGRATION
1913	01262327ECD7.D	BLA0529-BS1		1	NO MANUAL INTEGRATION
1934	01262328ECD7.D	23A0426-01		1	NO MANUAL INTEGRATION
1955	01262329ECD7.D	BLA0472-BLK1		1	NO MANUAL INTEGRATION
2016	01262330ECD7.D	BLA0472-BS1		1	NO MANUAL INTEGRATION
2037	01262331ECD7.D	BLA0472-BSD1		1	NO MANUAL INTEGRATION
2058	01262332ECD7.D	23A0374-01		1	NO MANUAL INTEGRATION
2119	01262333ECD7.D	23A0374-02		1	NO MANUAL INTEGRATION
2140	01262334ECD7.D	AR1254CCV5		1	NO MANUAL INTEGRATION
2201	01262335ECD7.D	AR1660CCV6		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230126.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2222	01262336ECD7.D	BLA0220-BLK1		1	NO MANUAL INTEGRATION
2243	01262337ECD7.D	BLA0220-BS1		1	NO MANUAL INTEGRATION
2304	01262338ECD7.D	BLA0220-BSD1		1	NO MANUAL INTEGRATION
2325	01262339ECD7.D	BLA0220-SRMI		1	NO MANUAL INTEGRATION
2346	01262340ECD7.D	23A0088-01		1	NO MANUAL INTEGRATION
0007	01262341ECD7.D	23A0088-02		1	NO MANUAL INTEGRATION
0028	01262342ECD7.D	23A0088-03		1	NO MANUAL INTEGRATION
0049	01262343ECD7.D	BLA0220-MS1		1	NO MANUAL INTEGRATION
0110	01262344ECD7.D	BLA0220-MSD1		1	NO MANUAL INTEGRATION
0131	01262345ECD7.D	23A0088-04		1	NO MANUAL INTEGRATION
0152	01262346ECD7.D	23A0088-05		1	NO MANUAL INTEGRATION
0213	01262347ECD7.D	23A0088-06		1	NO MANUAL INTEGRATION
0234	01262348ECD7.D	23A0088-07		1	NO MANUAL INTEGRATION
0255	01262349ECD7.D	23A0088-08		1	NO MANUAL INTEGRATION
0316	01262350ECD7.D	23A0088-09		1	NO MANUAL INTEGRATION
0337	01262351ECD7.D	23A0088-10		1	NO MANUAL INTEGRATION
0358	01262352ECD7.D	AR1248CCV7		1	NO MANUAL INTEGRATION
0419	01262353ECD7.D	AR1660CCV8		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\230126.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0440	01262354ECD7.D	23A0088-11		1	NO MANUAL INTEGRATION
0501	01262355ECD7.D	23A0088-12		1	NO MANUAL INTEGRATION
0522	01262356ECD7.D	23A0088-13		1	NO MANUAL INTEGRATION
0543	01262357ECD7.D	23A0088-14		1	NO MANUAL INTEGRATION
0604	01262358ECD7.D	23A0088-15		1	NO MANUAL INTEGRATION
0625	01262359ECD7.D	AR1242CCV9		1	NO MANUAL INTEGRATION
0646	01262360ECD7.D	AR1660CCVA		1	NO MANUAL INTEGRATION

Security Status Report

Date: 27-Jan-2023 15:46

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01262302ECD7.D	Data Locked	yev, 27-
01262303ECD7.D	Data Locked	yev, 27-
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01262305ECD7.D	Data Locked	yev, 27-
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01262358ECD7.D	Data Locked	yev, 27-
01262359ECD7.D	Data Locked	yev, 27-
01262360ECD7.D	Data Locked	yev, 27-



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLA0298
Calibration: GA00061

SDG/WO: 23A0032
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration Date: 01/24/2023

Surrogate Compound	Spike Level ug/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BLA0165-BLK1 (Solid) Lab File ID: 01242362ECD7.D Analyzed: 01/25/23 09:08								
Decachlorobiphenyl	8.0000	107	40 - 126	13.887	13.892	-0.0050	N/A	
Tetrachlorometaxylene	8.0000	92.5	44 - 120	5.807	5.808667	-0.0017	N/A	
Decachlorobiphenyl [2C]	8.0000	105	40 - 126	14.116	14.12017	-0.0042	N/A	
Tetrachlorometaxylene [2C]	8.0000	91.0	44 - 120	5.684	5.685333	-0.0013	N/A	
BLA0165-BS1 (Solid) Lab File ID: 01242363ECD7.D Analyzed: 01/25/23 09:29								
Decachlorobiphenyl	8.0000	107	40 - 126	13.887	13.892	-0.0050	N/A	
Tetrachlorometaxylene	8.0000	93.6	44 - 120	5.807	5.808667	-0.0017	N/A	
Decachlorobiphenyl [2C]	8.0000	106	40 - 126	14.116	14.12017	-0.0042	N/A	
Tetrachlorometaxylene [2C]	8.0000	92.7	44 - 120	5.685	5.685333	-0.0003	N/A	
BLA0165-BSD1 (Solid) Lab File ID: 01242364ECD7.D Analyzed: 01/25/23 09:50								
Decachlorobiphenyl	8.0000	101	40 - 126	13.887	13.892	-0.0050	N/A	
Tetrachlorometaxylene	8.0000	95.3	44 - 120	5.807	5.808667	-0.0017	N/A	
Decachlorobiphenyl [2C]	8.0000	101	40 - 126	14.116	14.12017	-0.0042	N/A	
Tetrachlorometaxylene [2C]	8.0000	93.1	44 - 120	5.684	5.685333	-0.0013	N/A	
BLA0165-SRM1 (Solid) Lab File ID: 01242365ECD7.D Analyzed: 01/25/23 10:11								
Decachlorobiphenyl	40.000	97.0	40 - 126	13.884	13.892	-0.0080	N/A	
Tetrachlorometaxylene	40.000	83.0	44 - 120	5.807	5.808667	-0.0017	N/A	
Decachlorobiphenyl [2C]	40.000	90.9	40 - 126	14.115	14.12017	-0.0052	N/A	
Tetrachlorometaxylene [2C]	40.000	92.7	44 - 120	5.684	5.685333	-0.0013	N/A	
SLA0298-CCV5 (Water) Lab File ID: 01242373ECD7.D Analyzed: 01/25/23 12:59								
Decachlorobiphenyl	40.000	90.3	80 - 120	13.891	13.892	-0.0010	N/A	
Tetrachlorometaxylene	40.000	95.0	80 - 120	5.808	5.808667	-0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	92.0	80 - 120	14.12	14.12017	-0.0002	N/A	
Tetrachlorometaxylene [2C]	40.000	96.0	80 - 120	5.685	5.685333	-0.0003	N/A	
SLA0298-CCV6 (Water) Lab File ID: 01242374ECD7.D Analyzed: 01/25/23 13:20								
Decachlorobiphenyl	40.000	93.5	80 - 120	13.891	13.892	-0.0010	N/A	
Tetrachlorometaxylene	40.000	102	80 - 120	5.808	5.808667	-0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	96.8	80 - 120	14.119	14.12017	-0.0012	N/A	
Tetrachlorometaxylene [2C]	40.000	102	80 - 120	5.685	5.685333	-0.0003	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLA0298
Calibration: GA00061

SDG/WO: 23A0032
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration Date: 01/24/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BLA0165-MS1 (Solid) Lab File ID: 01242375ECD7.D Analyzed: 01/25/23 13:41								
Decachlorobiphenyl	7.9935	102	40 - 126	13.883	13.892	-0.0090	N/A	
Tetrachlorometaxylene	7.9935	92.1	44 - 120	5.806	5.808667	-0.0027	N/A	
Decachlorobiphenyl [2C]	7.9935	93.2	40 - 126	14.113	14.12017	-0.0072	N/A	
Tetrachlorometaxylene [2C]	7.9935	93.6	44 - 120	5.684	5.685333	-0.0013	N/A	
BLA0165-MSD1 (Solid) Lab File ID: 01242376ECD7.D Analyzed: 01/25/23 14:02								
Decachlorobiphenyl	7.9935	94.7	40 - 126	13.884	13.892	-0.0080	N/A	
Tetrachlorometaxylene	7.9935	84.2	44 - 120	5.806	5.808667	-0.0027	N/A	
Decachlorobiphenyl [2C]	7.9935	88.3	40 - 126	14.114	14.12017	-0.0062	N/A	
Tetrachlorometaxylene [2C]	7.9935	89.9	44 - 120	5.683	5.685333	-0.0023	N/A	
23A0032-07 (Solid) Lab File ID: 01242377ECD7.D Analyzed: 01/25/23 14:23								
Decachlorobiphenyl	7.9972	106	40 - 126	13.883	13.892	-0.0090	N/A	
Tetrachlorometaxylene	7.9972	75.8	44 - 120	5.804	5.808667	-0.0047	N/A	
Decachlorobiphenyl [2C]	7.9972	100	40 - 126	14.113	14.12017	-0.0072	N/A	
Tetrachlorometaxylene [2C]	7.9972	94.1	44 - 120	5.681	5.685333	-0.0043	N/A	
23A0032-08 (Solid) Lab File ID: 01242378ECD7.D Analyzed: 01/25/23 14:44								
Decachlorobiphenyl	7.9804	90.9	40 - 126	13.884	13.892	-0.0080	N/A	
Tetrachlorometaxylene	7.9804	76.1	44 - 120	5.807	5.808667	-0.0017	N/A	
Decachlorobiphenyl [2C]	7.9804	80.6	40 - 126	14.114	14.12017	-0.0062	N/A	
Tetrachlorometaxylene [2C]	7.9804	86.5	44 - 120	5.684	5.685333	-0.0013	N/A	
23A0032-09 (Solid) Lab File ID: 01242379ECD7.D Analyzed: 01/25/23 15:05								
Decachlorobiphenyl	7.9791	99.3	40 - 126	13.883	13.892	-0.0090	N/A	
Tetrachlorometaxylene	7.9791	84.1	44 - 120	5.807	5.808667	-0.0017	N/A	
Decachlorobiphenyl [2C]	7.9791	87.6	40 - 126	14.114	14.12017	-0.0062	N/A	
Tetrachlorometaxylene [2C]	7.9791	93.1	44 - 120	5.684	5.685333	-0.0013	N/A	
SLA0298-CCV7 (Water) Lab File ID: 01242390ECD7.D Analyzed: 01/25/23 18:56								
Decachlorobiphenyl	40.000	88.8	80 - 120	13.891	13.892	-0.0010	N/A	
Tetrachlorometaxylene	40.000	95.5	80 - 120	5.809	5.808667	0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	92.5	80 - 120	14.119	14.12017	-0.0012	N/A	
Tetrachlorometaxylene [2C]	40.000	95.3	80 - 120	5.686	5.685333	0.0007	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG/WO:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLA0298</u>	Instrument:	<u>ECD7</u>
Calibration:	<u>GA00061</u>	Calibration Date:	<u>01/24/2023</u>

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLA0298-CCV8 (Water)		Lab File ID: 01242391ECD7.D			Analyzed: 01/25/23 19:17			
Decachlorobiphenyl	40.000	91.3	80 - 120	13.892	13.892	0.0000	N/A	
Tetrachlorometaxylene	40.000	102	80 - 120	5.808	5.808667	-0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	94.8	80 - 120	14.12	14.12017	-0.0002	N/A	
Tetrachlorometaxylene [2C]	40.000	101	80 - 120	5.685	5.685333	-0.0003	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLA0304
Calibration: GA00061

SDG/WO: 23A0032
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration Date: 01/24/2023

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLA0304-ICV1 (Solid) Lab File ID: 01262302ECD7.D Analyzed: 01/26/23 10:28								
Decachlorobiphenyl	40.000	89.1	80 - 120	13.894	13.892	0.0020	N/A	
Tetrachlorometaxylene	40.000	99.8	80 - 120	5.809	5.808667	0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	90.5	80 - 120	14.12	14.12017	-0.0002	N/A	
Tetrachlorometaxylene [2C]	40.000	98.8	80 - 120	5.685	5.685333	-0.0003	N/A	
SLA0304-ICV2 (Solid) Lab File ID: 01262303ECD7.D Analyzed: 01/26/23 10:49								
Decachlorobiphenyl	40.000	93.6	80 - 120	13.893	13.892	0.0010	N/A	
Tetrachlorometaxylene	40.000	105	80 - 120	5.809	5.808667	0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	94.7	80 - 120	14.119	14.12017	-0.0012	N/A	
Tetrachlorometaxylene [2C]	40.000	103	80 - 120	5.685	5.685333	-0.0003	N/A	
SLA0304-CCV1 (Solid) Lab File ID: 01262312ECD7.D Analyzed: 01/26/23 13:58								
Decachlorobiphenyl	40.000	88.7	80 - 120	13.889	13.892	-0.0030	N/A	
Tetrachlorometaxylene	40.000	97.8	80 - 120	5.807	5.808667	-0.0017	N/A	
Decachlorobiphenyl [2C]	40.000	93.3	80 - 120	14.118	14.12017	-0.0022	N/A	
Tetrachlorometaxylene [2C]	40.000	96.9	80 - 120	5.685	5.685333	-0.0003	N/A	
SLA0304-CCV2 (Solid) Lab File ID: 01262313ECD7.D Analyzed: 01/26/23 14:19								
Decachlorobiphenyl	40.000	97.5	80 - 120	13.889	13.892	-0.0030	N/A	
Tetrachlorometaxylene	40.000	104	80 - 120	5.807	5.808667	-0.0017	N/A	
Decachlorobiphenyl [2C]	40.000	96.1	80 - 120	14.118	14.12017	-0.0022	N/A	
Tetrachlorometaxylene [2C]	40.000	103	80 - 120	5.685	5.685333	-0.0003	N/A	
23A0032-01 (Solid) Lab File ID: 01262315ECD7.D Analyzed: 01/26/23 15:01								
Decachlorobiphenyl	7.9468	91.8	40 - 126	13.882	13.892	-0.0100	N/A	
Tetrachlorometaxylene	7.9468	75.3	44 - 120	5.805	5.808667	-0.0037	N/A	
Decachlorobiphenyl [2C]	7.9468	91.7	40 - 126	14.113	14.12017	-0.0072	N/A	
Tetrachlorometaxylene [2C]	7.9468	87.6	44 - 120	5.682	5.685333	-0.0033	N/A	
23A0032-02 (Solid) Lab File ID: 01262316ECD7.D Analyzed: 01/26/23 15:22								
Decachlorobiphenyl	7.9798	95.2	40 - 126	13.884	13.892	-0.0080	N/A	
Tetrachlorometaxylene	7.9798	77.5	44 - 120	5.805	5.808667	-0.0037	N/A	
Decachlorobiphenyl [2C]	7.9798	95.3	40 - 126	14.113	14.12017	-0.0072	N/A	
Tetrachlorometaxylene [2C]	7.9798	92.8	44 - 120	5.682	5.685333	-0.0033	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLA0304
Calibration: GA00061

SDG/WO: 23A0032
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration Date: 01/24/2023

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
23A0032-03 (Solid) Lab File ID: 01262317ECD7.D Analyzed: 01/26/23 15:43								
Decachlorobiphenyl	7.9963	91.5	40 - 126	13.883	13.892	-0.0090	N/A	
Tetrachlorometaxylene	7.9963	78.0	44 - 120	5.806	5.808667	-0.0027	N/A	
Decachlorobiphenyl [2C]	7.9963	89.0	40 - 126	14.113	14.12017	-0.0072	N/A	
Tetrachlorometaxylene [2C]	7.9963	91.4	44 - 120	5.682	5.685333	-0.0033	N/A	
23A0032-04 (Solid) Lab File ID: 01262318ECD7.D Analyzed: 01/26/23 16:04								
Decachlorobiphenyl	7.9539	103	40 - 126	13.884	13.892	-0.0080	N/A	
Tetrachlorometaxylene	7.9539	94.0	44 - 120	5.806	5.808667	-0.0027	N/A	
Decachlorobiphenyl [2C]	7.9539	98.0	40 - 126	14.114	14.12017	-0.0062	N/A	
Tetrachlorometaxylene [2C]	7.9539	93.4	44 - 120	5.683	5.685333	-0.0023	N/A	
23A0032-05 (Solid) Lab File ID: 01262319ECD7.D Analyzed: 01/26/23 16:25								
Decachlorobiphenyl	7.9911	104	40 - 126	13.882	13.892	-0.0100	N/A	
Tetrachlorometaxylene	7.9911	76.1	44 - 120	5.804	5.808667	-0.0047	N/A	
Decachlorobiphenyl [2C]	7.9911	99.6	40 - 126	14.113	14.12017	-0.0072	N/A	
Tetrachlorometaxylene [2C]	7.9911	85.8	44 - 120	5.681	5.685333	-0.0043	N/A	
23A0032-06 (Solid) Lab File ID: 01262320ECD7.D Analyzed: 01/26/23 16:46								
Decachlorobiphenyl	7.9841	92.1	40 - 126	13.883	13.892	-0.0090	N/A	
Tetrachlorometaxylene	7.9841	82.4	44 - 120	5.805	5.808667	-0.0037	N/A	
Decachlorobiphenyl [2C]	7.9841	88.9	40 - 126	14.113	14.12017	-0.0072	N/A	
Tetrachlorometaxylene [2C]	7.9841	94.0	44 - 120	5.682	5.685333	-0.0033	N/A	
23A0032-10 (Solid) Lab File ID: 01262321ECD7.D Analyzed: 01/26/23 17:07								
Decachlorobiphenyl	8.0019	93.7	40 - 126	13.881	13.892	-0.0110	N/A	
Tetrachlorometaxylene	8.0019	77.5	44 - 120	5.805	5.808667	-0.0037	N/A	
Decachlorobiphenyl [2C]	8.0019	87.0	40 - 126	14.112	14.12017	-0.0082	N/A	
Tetrachlorometaxylene [2C]	8.0019	93.0	44 - 120	5.681	5.685333	-0.0043	N/A	
23A0032-11 (Solid) Lab File ID: 01262322ECD7.D Analyzed: 01/26/23 17:28								
Decachlorobiphenyl	7.9892	90.3	40 - 126	13.883	13.892	-0.0090	N/A	
Tetrachlorometaxylene	7.9892	70.6	44 - 120	5.805	5.808667	-0.0037	N/A	
Decachlorobiphenyl [2C]	7.9892	84.8	40 - 126	14.112	14.12017	-0.0082	N/A	
Tetrachlorometaxylene [2C]	7.9892	81.3	44 - 120	5.682	5.685333	-0.0033	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLA0304
Calibration: GA00061

SDG/WO: 23A0032
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration Date: 01/24/2023

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLA0304-CCV3 (Solid)		Lab File ID: 01262324ECD7.D			Analyzed: 01/26/23 18:10			
Decachlorobiphenyl	40.000	99.3	80 - 120	13.888	13.892	-0.0040	N/A	
Tetrachlorometaxylene	40.000	119	80 - 120	5.808	5.808667	-0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	90.0	80 - 120	14.117	14.12017	-0.0032	N/A	
Tetrachlorometaxylene [2C]	40.000	117	80 - 120	5.685	5.685333	-0.0003	N/A	
SLA0304-CCV4 (Solid)		Lab File ID: 01262325ECD7.D			Analyzed: 01/26/23 18:31			
Decachlorobiphenyl	40.000	109	80 - 120	13.89	13.892	-0.0020	N/A	
Tetrachlorometaxylene	40.000	103	80 - 120	5.807	5.808667	-0.0017	N/A	
Decachlorobiphenyl [2C]	40.000	95.8	80 - 120	14.118	14.12017	-0.0022	N/A	
Tetrachlorometaxylene [2C]	40.000	102	80 - 120	5.685	5.685333	-0.0003	N/A	
SLA0304-CCV5 (Solid)		Lab File ID: 01262334ECD7.D			Analyzed: 01/26/23 21:40			
Decachlorobiphenyl	40.000	85.5	80 - 120	13.89	13.892	-0.0020	N/A	
Tetrachlorometaxylene	40.000	95.1	80 - 120	5.808	5.808667	-0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	89.0	80 - 120	14.118	14.12017	-0.0022	N/A	
Tetrachlorometaxylene [2C]	40.000	97.2	80 - 120	5.684	5.685333	-0.0013	N/A	
SLA0304-CCV6 (Solid)		Lab File ID: 01262335ECD7.D			Analyzed: 01/26/23 22:01			
Decachlorobiphenyl	40.000	92.6	80 - 120	13.89	13.892	-0.0020	N/A	
Tetrachlorometaxylene	40.000	102	80 - 120	5.808	5.808667	-0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	94.2	80 - 120	14.118	14.12017	-0.0022	N/A	
Tetrachlorometaxylene [2C]	40.000	103	80 - 120	5.685	5.685333	-0.0003	N/A	
SLA0304-CCV7 (Solid)		Lab File ID: 01262352ECD7.D			Analyzed: 01/27/23 03:58			
Decachlorobiphenyl	40.000	85.8	80 - 120	13.887	13.892	-0.0050	N/A	
Tetrachlorometaxylene	40.000	97.6	80 - 120	5.806	5.808667	-0.0027	N/A	
Decachlorobiphenyl [2C]	40.000	94.1	80 - 120	14.116	14.12017	-0.0042	N/A	
Tetrachlorometaxylene [2C]	40.000	97.0	80 - 120	5.683	5.685333	-0.0023	N/A	
SLA0304-CCV8 (Solid)		Lab File ID: 01262353ECD7.D			Analyzed: 01/27/23 04:19			
Decachlorobiphenyl	40.000	94.9	80 - 120	13.888	13.892	-0.0040	N/A	
Tetrachlorometaxylene	40.000	103	80 - 120	5.807	5.808667	-0.0017	N/A	
Decachlorobiphenyl [2C]	40.000	91.0	80 - 120	14.115	14.12017	-0.0052	N/A	
Tetrachlorometaxylene [2C]	40.000	103	80 - 120	5.684	5.685333	-0.0013	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG/WO: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLA0304

Instrument: ECD7

Calibration: GA00061

Calibration Date: 01/24/2023

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SLA0304-CCV9 (Solid)		Lab File ID: 01262359ECD7.D			Analyzed: 01/27/23 06:25			
Decachlorobiphenyl	40.000	85.1	80 - 120	13.887	13.892	-0.0050	N/A	
Tetrachlorometaxylene	40.000	119	80 - 120	5.807	5.808667	-0.0017	N/A	
Decachlorobiphenyl [2C]	40.000	92.3	80 - 120	14.115	14.12017	-0.0052	N/A	
Tetrachlorometaxylene [2C]	40.000	120	80 - 120	5.683	5.685333	-0.0023	N/A	
SLA0304-CCVA (Solid)		Lab File ID: 01262360ECD7.D			Analyzed: 01/27/23 06:46			
Decachlorobiphenyl	40.000	96.9	80 - 120	13.887	13.892	-0.0050	N/A	
Tetrachlorometaxylene	40.000	104	80 - 120	5.806	5.808667	-0.0027	N/A	
Decachlorobiphenyl [2C]	40.000	96.3	80 - 120	14.116	14.12017	-0.0042	N/A	
Tetrachlorometaxylene [2C]	40.000	104	80 - 120	5.684	5.685333	-0.0013	N/A	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLA0281

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration: GA00061

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SLA0281-SCV1)		(Solid)	Lab File ID: 01242324ECD7.D			Analyzed: 01/24/23 19:51			
1-Bromo-2-Nitrobenzene	506576	3.491	503318	3.492	101	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	940129	14.264	647433	14.266	145	50 - 200	-0.002	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	343102	3.928	336911	3.928	102	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	501702	15.008	382032	15.008	131	50 - 200	0.000	+/-0.50	
Secondary Cal Check (SLA0281-SCV2)		(Solid)	Lab File ID: 01242325ECD7.D			Analyzed: 01/24/23 20:12			
1-Bromo-2-Nitrobenzene	503089	3.492	503318	3.492	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	953137	14.265	647433	14.266	147	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	341704	3.929	336911	3.928	101	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	505860	15.007	382032	15.008	132	50 - 200	-0.001	+/-0.50	
Secondary Cal Check (SLA0281-SCV3)		(Solid)	Lab File ID: 01242326ECD7.D			Analyzed: 01/24/23 20:33			
1-Bromo-2-Nitrobenzene	508189	3.491	503318	3.492	101	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	979067	14.265	647433	14.266	151	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	344105	3.928	336911	3.928	102	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	503378	15.007	382032	15.008	132	50 - 200	-0.001	+/-0.50	
Secondary Cal Check (SLA0281-SCV4)		(Solid)	Lab File ID: 01242327ECD7.D			Analyzed: 01/24/23 20:54			
1-Bromo-2-Nitrobenzene	504424	3.491	503318	3.492	100	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	968338	14.265	647433	14.266	150	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	342969	3.928	336911	3.928	102	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	515045	15.01	382032	15.008	135	50 - 200	0.002	+/-0.50	
Secondary Cal Check (SLA0281-SCV5)		(Solid)	Lab File ID: 01242328ECD7.D			Analyzed: 01/24/23 21:15			
1-Bromo-2-Nitrobenzene	503473	3.491	503318	3.492	100	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	991997	14.264	647433	14.266	153	50 - 200	-0.002	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	340361	3.928	336911	3.928	101	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	521975	15.008	382032	15.008	137	50 - 200	0.000	+/-0.50	
Secondary Cal Check (SLA0281-SCV6)		(Solid)	Lab File ID: 01242329ECD7.D			Analyzed: 01/24/23 21:36			
1-Bromo-2-Nitrobenzene	487061	3.494	503318	3.492	97	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	944934	14.266	647433	14.266	146	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	331721	3.93	336911	3.928	98	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	502401	15.007	382032	15.008	132	50 - 200	-0.001	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLA0298

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration: GA00061

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLA0298-ICV1)		(Water)	Lab File ID: 01242332ECD7.D			Analyzed: 01/24/23 22:39			
1-Bromo-2-Nitrobenzene	492895	3.491	486161	3.492	101	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	982026	14.265	972247	14.265	101	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	335727	3.928	331906	3.928	101	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	518812	15.008	518358	15.008	100	50 - 200	0.000	+/-0.50	
Initial Cal Check (SLA0298-ICV2)		(Water)	Lab File ID: 01242333ECD7.D			Analyzed: 01/24/23 23:00			
1-Bromo-2-Nitrobenzene	486161	3.492	486161	3.492	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	972247	14.265	972247	14.265	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	331906	3.928	331906	3.928	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	518358	15.008	518358	15.008	100	50 - 200	0.000	+/-0.50	
Blank (BLA0165-BLK1)		(Solid)	Lab File ID: 01242362ECD7.D			Analyzed: 01/25/23 09:08			
1-Bromo-2-Nitrobenzene	471754	3.491	486161	3.492	97	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	790051	14.256	972247	14.265	81	50 - 200	-0.009	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	334025	3.928	331906	3.928	101	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	473070	15.002	518358	15.008	91	50 - 200	-0.006	+/-0.50	
LCS (BLA0165-BS1)		(Solid)	Lab File ID: 01242363ECD7.D			Analyzed: 01/25/23 09:29			
1-Bromo-2-Nitrobenzene	437498	3.491	486161	3.492	90	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	760546	14.256	972247	14.265	78	50 - 200	-0.009	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	307789	3.928	331906	3.928	93	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	444055	15.003	518358	15.008	86	50 - 200	-0.005	+/-0.50	
LCS Dup (BLA0165-BSD1)		(Solid)	Lab File ID: 01242364ECD7.D			Analyzed: 01/25/23 09:50			
1-Bromo-2-Nitrobenzene	450750	3.491	486161	3.492	93	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	776028	14.255	972247	14.265	80	50 - 200	-0.010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	320750	3.928	331906	3.928	97	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	457109	15.001	518358	15.008	88	50 - 200	-0.007	+/-0.50	
Reference (BLA0165-SRM1)		(Solid)	Lab File ID: 01242365ECD7.D			Analyzed: 01/25/23 10:11			
1-Bromo-2-Nitrobenzene	473021	3.492	486161	3.492	97	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	604634	14.249	972247	14.265	62	50 - 200	-0.016	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	327902	3.928	331906	3.928	99	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	415918	15	518358	15.008	80	50 - 200	-0.008	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLA0298

Instrument: ECD7

Calibration: GA00061

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike (BLA0165-MS1)		(Solid)	Lab File ID: 01242375ECD7.D			Analyzed: 01/25/23 13:41			
1-Bromo-2-Nitrobenzene	467392	3.491	486161	3.492	96	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	471654	14.249	972247	14.265	49	50 - 200	-0.016	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	327015	3.927	331906	3.928	99	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	325634	14.998	518358	15.008	63	50 - 200	-0.010	+/-0.50	
Matrix Spike Dup (BLA0165-MSD1)		(Solid)	Lab File ID: 01242376ECD7.D			Analyzed: 01/25/23 14:02			
1-Bromo-2-Nitrobenzene	462171	3.491	486161	3.492	95	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	454358	14.249	972247	14.265	47	50 - 200	-0.016	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	326002	3.927	331906	3.928	98	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	316586	14.999	518358	15.008	61	50 - 200	-0.009	+/-0.50	
LDW23-IT1202 (23A0032-07)		(Solid)	Lab File ID: 01242377ECD7.D			Analyzed: 01/25/23 14:23			
1-Bromo-2-Nitrobenzene	452276	3.49	492895	3.491	92	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	438511	14.248	972247	14.265	45	50 - 200	-0.017	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	310225	3.927	335727	3.928	92	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	326696	14.999	518358	15.008	63	50 - 200	-0.009	+/-0.50	
LDW23-SC1226B (23A0032-08)		(Solid)	Lab File ID: 01242378ECD7.D			Analyzed: 01/25/23 14:44			
1-Bromo-2-Nitrobenzene	458509	3.492	492895	3.491	93	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	485035	14.249	972247	14.265	50	50 - 200	-0.016	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	328643	3.929	335727	3.928	98	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	345568	15	518358	15.008	67	50 - 200	-0.008	+/-0.50	
LDW23-SC1203 (23A0032-09)		(Solid)	Lab File ID: 01242379ECD7.D			Analyzed: 01/25/23 15:05			
1-Bromo-2-Nitrobenzene	445802	3.492	492895	3.491	90	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	480521	14.249	972247	14.265	49	50 - 200	-0.016	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	315273	3.929	335727	3.928	94	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	345411	14.999	518358	15.008	67	50 - 200	-0.009	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SLA0304

SDG: 23A0032
Project: AOC5 MR Phase 1
Instrument: ECD7
Calibration: GA00061

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SLA0304-ICV1)		(Solid)	Lab File ID: 01262302ECD7.D			Analyzed: 01/26/23 10:28			
1-Bromo-2-Nitrobenzene	453226	3.492	453226	3.492	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	876790	14.265	876790	14.265	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	332047	3.928	332047	3.928	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	495960	15.007	495960	15.007	100	50 - 200	0.000	+/-0.50	
Initial Cal Check (SLA0304-ICV2)		(Solid)	Lab File ID: 01262303ECD7.D			Analyzed: 01/26/23 10:49			
1-Bromo-2-Nitrobenzene	427964	3.491	453226	3.492	94	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	826689	14.264	876790	14.265	94	50 - 200	-0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	314903	3.929	332047	3.928	95	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	481192	15.008	495960	15.007	97	50 - 200	0.001	+/-0.50	
LDW23-IT1246 (23A0032-01)		(Solid)	Lab File ID: 01262315ECD7.D			Analyzed: 01/26/23 15:01			
1-Bromo-2-Nitrobenzene	368760	3.491	453226	3.492	81	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	320870	14.246	826689	14.264	39	50 - 200	-0.018	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	267611	3.927	332047	3.928	81	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	244338	14.996	481192	15.008	51	50 - 200	-0.012	+/-0.50	
LDW23-IT1264 (23A0032-02)		(Solid)	Lab File ID: 01262316ECD7.D			Analyzed: 01/26/23 15:22			
1-Bromo-2-Nitrobenzene	345801	3.492	453226	3.492	76	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	270599	14.247	826689	14.264	33	50 - 200	-0.017	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	245396	3.928	332047	3.928	74	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	211258	14.996	481192	15.008	44	50 - 200	-0.012	+/-0.50	*
LDW23-IT1269 (23A0032-03)		(Solid)	Lab File ID: 01262317ECD7.D			Analyzed: 01/26/23 15:43			
1-Bromo-2-Nitrobenzene	373922	3.491	453226	3.492	83	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	285108	14.247	826689	14.264	34	50 - 200	-0.017	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	268000	3.928	332047	3.928	81	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	222973	14.997	481192	15.008	46	50 - 200	-0.011	+/-0.50	*
LDW23-IT1272 (23A0032-04)		(Solid)	Lab File ID: 01262318ECD7.D			Analyzed: 01/26/23 16:04			
1-Bromo-2-Nitrobenzene	357382	3.491	453226	3.492	79	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	300063	14.251	826689	14.264	36	50 - 200	-0.013	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	266810	3.928	332047	3.928	80	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	225013	14.999	481192	15.008	47	50 - 200	-0.009	+/-0.50	*



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLA0304

Instrument: ECD7

Calibration: GA00061

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW23-IT1224 (23A0032-05)		(Solid)	Lab File ID: 01262319ECD7.D			Analyzed: 01/26/23 16:25			
1-Bromo-2-Nitrobenzene	338922	3.49	453226	3.492	75	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	292408	14.245	826689	14.264	35	50 - 200	-0.019	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	242762	3.927	332047	3.928	73	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	231859	14.996	481192	15.008	48	50 - 200	-0.012	+/-0.50	*
LDW23-IT1235 (23A0032-06)		(Solid)	Lab File ID: 01262320ECD7.D			Analyzed: 01/26/23 16:46			
1-Bromo-2-Nitrobenzene	259302	3.49	453226	3.492	57	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	218442	14.247	826689	14.264	26	50 - 200	-0.017	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	182762	3.927	332047	3.928	55	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	165027	14.997	481192	15.008	34	50 - 200	-0.011	+/-0.50	*
LDW23-SC1203-FD (23A0032-10)		(Solid)	Lab File ID: 01262321ECD7.D			Analyzed: 01/26/23 17:07			
1-Bromo-2-Nitrobenzene	342357	3.491	453226	3.492	76	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	297374	14.246	826689	14.264	36	50 - 200	-0.018	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	242618	3.927	332047	3.928	73	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	243689	14.996	481192	15.008	51	50 - 200	-0.012	+/-0.50	
LDW23-SC1212 (23A0032-11)		(Solid)	Lab File ID: 01262322ECD7.D			Analyzed: 01/26/23 17:28			
1-Bromo-2-Nitrobenzene	354728	3.492	453226	3.492	78	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	283588	14.246	826689	14.264	34	50 - 200	-0.018	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	251334	3.928	332047	3.928	76	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	248099	14.996	481192	15.008	52	50 - 200	-0.012	+/-0.50	



HOLDING TIME SUMMARY

Analysis: EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-IT1246 23A0032-01	01/03/23 08:52	01/03/23 16:57	01/11/23 11:11	8	365	01/26/23 15:01	15	40	
LDW23-IT1264 23A0032-02	01/03/23 09:12	01/03/23 16:57	01/11/23 11:11	8	365	01/26/23 15:22	15	40	
LDW23-IT1269 23A0032-03	01/03/23 09:36	01/03/23 16:57	01/11/23 11:11	8	365	01/26/23 15:43	15	40	
LDW23-IT1272 23A0032-04	01/03/23 10:45	01/03/23 16:57	01/11/23 11:11	8	365	01/26/23 16:04	15	40	
LDW23-IT1224 23A0032-05	01/03/23 13:21	01/03/23 16:57	01/11/23 11:11	7	365	01/26/23 16:25	15	40	
LDW23-IT1235 23A0032-06	01/03/23 13:34	01/03/23 16:57	01/11/23 11:11	7	365	01/26/23 16:46	15	40	
LDW23-IT1202 23A0032-07	01/03/23 14:36	01/03/23 16:57	01/11/23 11:11	7	365	01/25/23 14:23	14	40	
LDW23-SC1226B 23A0032-08	01/03/23 12:35	01/03/23 16:57	01/11/23 11:11	7	365	01/25/23 14:44	14	40	
LDW23-SC1203 23A0032-09	01/03/23 14:21	01/03/23 16:57	01/11/23 11:11	7	365	01/25/23 15:05	14	40	
LDW23-SC1203-FD 23A0032-10	01/03/23 14:21	01/03/23 16:57	01/11/23 11:11	7	365	01/26/23 17:07	15	40	
LDW23-SC1212 23A0032-11	01/03/23 14:01	01/03/23 16:57	01/11/23 11:11	7	365	01/26/23 17:28	15	40	
Matrix Spike BLA0165-MS1	01/03/23 13:34	01/03/23 16:57	01/11/23 11:11	7	365	01/25/23 13:41	14	40	
Matrix Spike Dup BLA0165-MSD1	01/03/23 13:34	01/03/23 16:57	01/11/23 11:11	7	365	01/25/23 14:02	14	40	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**

EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: ECD7

Analyte	MDL	RL	Units
Aroclor 1016	1.6	4.0	ug/kg
Aroclor 1016 [2C]	1.6	4.0	ug/kg
Aroclor 1221	1.6	4.0	ug/kg
Aroclor 1221 [2C]	1.6	4.0	ug/kg
Aroclor 1232	1.6	4.0	ug/kg
Aroclor 1232 [2C]	1.6	4.0	ug/kg
Aroclor 1242	1.6	4.0	ug/kg
Aroclor 1242 [2C]	1.6	4.0	ug/kg
Aroclor 1248	1.6	4.0	ug/kg
Aroclor 1248 [2C]	1.6	4.0	ug/kg
Aroclor 1254	1.6	4.0	ug/kg
Aroclor 1254 [2C]	1.6	4.0	ug/kg
Aroclor 1260	0.6	4.0	ug/kg
Aroclor 1260 [2C]	0.6	4.0	ug/kg



CERTIFICATE OF ANALYSIS

Catalog No: S-279N
Description: Tetrachloro-m-xylene
Lot: 0052481B-1
Solvent: N/A
Hazards: Refer to SDS for complete safety information

Date Certified: Jul 28, 2005
Expiration: Jul 28, 2015
Sample Size: 100 mg
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Warning

Certified Reference Material

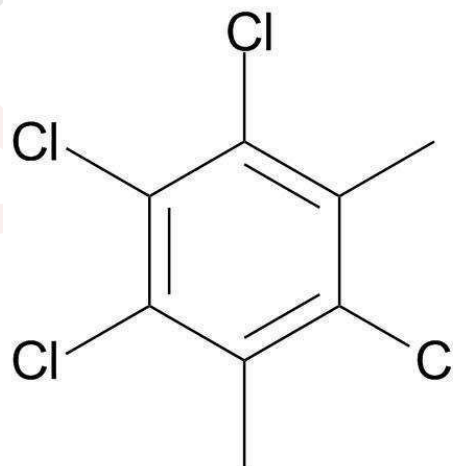


AR-1463

Component	CAS #	Purity % (GC/FID)	Prepared Concentration	Certified Analyte Concentration ¹
Tetrachloro-meta-xylene	877-09-8	96.0	N/A	N/A

Identification:

Molecular formula: C₈H₆Cl₄
Molecular weight: 243.94



C000147

tetrachlorometaxylene

Expires 1/15/2020

Prepared By Joshua Rains 1/15/2014

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

¹ The Uncertainty calculated for this product is ±2.4%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Metrological traceability is established through in-house validated methods.

Purity, if stated, is equal to 100% minus found impurity components. Impurity components have not been identified.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager



AccuStandard

125 Market Street
New Haven, CT 06513
(203) 786-5290

CERTIFICATE OF PRODUCT DATA

PRODUCT: C-209N

EXPIRATION: Jul 28, 2015

DESCRIPTION: 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl

LOT #: 990521LB-AC

SOLVENT: N/A

This product is guaranteed accurate to $\pm 0.5\%$ of the Certified Analyte concentration through the Expiration Date on the Label.

Component	CAS #	Purity % (GC/MS)	Prepared Concentration ¹	Certified Analyte Concentration ²
2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	2051-24-3	100	N/A	N/A

2;

C000148

decachlorobiphenyl

Expires 1/15/2020

Prepared By Joshua Rains 1/15/2014

** I 1768 A*

Certified by:

R. Cooper

Please note: AccuStandard follows the U.S. conventions in reporting numerical values, on both certificates and labels.

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through National Institute of Standards & Technology, Test No. 822/254480
 2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty calculated for this product is $\pm 0.5\%$ which is the Combined Uncertainty $U_c(y)$. It represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The Expanded Uncertainty is U which is $U_c(y) * K$ where K is the coverage factor at the 95% confidence level ($K=2$).
 3. A product with a suffix (-1A, -2B, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

This product was manufactured in accordance to quality system requirements of ISO 9001:2000 and ISO 17025

** Recertified ~ 4-6-09 (S)*



Analytical Standard Record
Standard ID: C000148

Printed: 4/23/2015 11:54:44AM

Description:	decachlorobiphenyl	Expires:	15-Jan-2020
Standard Type:	Other	Prepared:	15-Jan-2014
Solvent:	na/a	Prepared By:	Joshua Rains
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	27-Feb-2015 13:03 by JGR
Vendor:	Accustandard	Lot #:	9905211b-ac
Vendor Catalog #:			

Comments

see i1768a
SOM calibrations added 06/12/14 sdrd

Analyte	CAS Number	Concentration	Units
Decachlorobiphenyl [2C]	2051-24-3	1000000	ug/mL
Decachlorobiphenyl	2051-24-3	1000000	ug/mL
DCB 1660 [2C]	2051-24-3	1000000	ug/mL
DCB 1660	2051-24-3	1000000	ug/mL
DCB [2C]	2051-24-3	1000000	ug/mL
DCB (A) [2C]	2051-24-3	1000000	ug/mL
DCB (A)	2051-24-3	1000000	ug/mL
DCB	2051-24-3	1000000	ug/mL

Reviewed By

Date

Certificate of Analysis



Phenova Certified Reference Materials are sold by Phenomenex.

411 Madrid Ave., Torrance, CA 90501 USA ■ Tel: 310-212-0555 ■ Fax: 310-328-7768 ■ info@phenomenex.com
Access your MSDS and digital C of A at www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101461

Lot Number: CL13053

Description: Aroclor 1254

Certification Date: November 29, 2018

Storage: 4 °C

Expiration Date: November 30, 2026

Provided As: 1 mL in 2 mL Ampoule in Hexane

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1254	11097-69-1	1000	± 0.246%

I 09808
Recd. *JP*
02/24/20



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC-MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101462

Lot Number: CL16516

Description: Aroclor 1260

Certification Date: March 4, 2021

Storage: 4 °C

Expiration Date: February 28, 2029

Provided As: 1 mL in 2 mL Ampoule in Hexane

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1260	11096-82-5	1000	± 0.553%

J006465



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Certified Reference Material

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Catalog No.: AL0-101468

Lot Number: CL14017

Description: Aroclor 1221

Certification Date: August 20, 2019

Storage: 4 °C

Expiration Date: August 31, 2027

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1221	11104-28-2	1000	± 0.553%

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2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = k \sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Catalog No.: AL0-101469

Lot Number: CL14914

Description: Aroclor 1232

Certification Date: January 31, 2020

Storage: 4 °C

Expiration Date: January 31, 2028

Provided As: 1 mL in 2 mL Ampoule in Isooctane



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1232	11141-16-5	1000	± 0.738%

J 006467
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06/18/21



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3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Certified Reference Material

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Catalog No.: AL0-101470

Lot Number: CL14018

Description: Aroclor 1242

Certification Date: August 20, 2019

Storage: 4 °C

Expiration Date: August 31, 2027

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1242	53469-21-9	1000	± 0.553%

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3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = k\sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Catalog No.: AL0-101471

Lot Number: CL15384

Description: Aroclor 1248

Certification Date: June 19, 2020

Storage: 4 °C

Expiration Date: June 30, 2028

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1248	12672-29-6	1000	± 0.520%

*# J006469
Reed, JR
06/18/21*



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- 3. Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
- 4. Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
- 5. Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
- 6. Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
- 7. Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
- 8. Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
- 9. Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).
$$u_{CRM} = k\sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.
- 10. Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
- 11. Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
- 12. Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
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Certified Reference Material

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Catalog No.: AL0-101474

Lot Number: CL11330

Description: Aroclor 1262

Certification Date: May 15, 2015

Storage: 4 °C

Expiration Date: April 30, 2023

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Revision Date: April 2, 2018

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1262	37324-23-5	1000	± 0.516%

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Reed JK
06/18/21



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 3. **Intended Use:** The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.
 4. **Instruction:** Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.
 5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.
 6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
 7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
 8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
 9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).
$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$
- Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.
10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
 11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.
 12. **Period of Validity:** The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
- ³ ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101475

Lot Number: CL11331

Description: Aroclor 1268

Certification Date: May 15, 2015

Storage: 4 °C

Expiration Date: April 30, 2023

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Revision Date: April 2, 2018

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1268	11100-14-4	1000	± 0.516%

J006472
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3. **Intended Use:** The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.
4. **Instruction:** Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k \cdot \sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.
12. **Period of Validity:** The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.

³ ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101467

Lot Number: CL16555

Description: Aroclor 1016

Certification Date: June 22, 2021

Storage: 4 °C

Expiration Date: February 28, 2029

Provided As: 1 mL in 2 mL Ampoule in Isooctane

J012591

AROCLOR 1016

Expires 2/28/2029

Prepared By Joshua Rains 11/26/2021



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1016	12674-11-2	1000	± 0.310%

Certificate of Analysis

Produced by Phenova

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Certificate of Analysis

Aroclor 1016 Solution

Product Number: PP-282

Page: 1 of 1

Lot Number: CR-0761

Lot Issue Date: 28-Feb-2017

Expiration Date: 31-Mar-2025

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1016	012674-11-2	NT01016	100.2 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

*K1254
Recd JP
02/05/17*

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.



ISO 9001
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TUV USA, Inc.

John Russo
President

Monica Bourgeois
Director of QA/RA



Certificate of Analysis

Product Name: Aroclor 1260 Standard

Product Number: PP-362-1

Lot Issue Date: 20-Jan-2021

Lot Number: 0006582048

Expiration Date: 28-Feb-2025

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
Aroclor 1260	011096-82-5	NT01023	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

K 1255

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois

QMS Representative



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



Certificate of Analysis ISO Guide 34

Aroclor 1242 Solution

Product Number: PP-312

Page: 1 of 1

Lot Number: CS-6293

Lot Issue Date: 04-Jan-2019

Expiration Date: 31-Jan-2023

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1242	053469-21-9	NT01020	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

K1256

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.


Monica Bourgeois
QMS Representative



ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System



ISO17025 Cert No.
AT-1937

ISO 17034



Agilent

Trusted Answers

Reference Material Certificate

Product Name: Aroclor 1248 Standard **Lot Number:** 0006626997
Product Number: PP-342-1 **Lot Issue Date:** 17-Aug-2021
Storage Conditions: Store at Room Temperature (15° to 30°C). **Expiration Date:** 30-Sep-2025

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
Aroclor 1248	100.3	± 0.5 µg/mL		012672-29-6	NT01582

Matrix: isooctane (2,2,4-trimethylpentane)

K1257

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:

This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:

The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.



Certificate of Analysis

Aroclor 1254 Solution

Product Number: PP-352

Page: 1 of 1

Lot Number: CS-2321

Lot Issue Date: 04-May-2018

Expiration Date: 31-May-2026

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1254	011097-69-1	RM00922	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

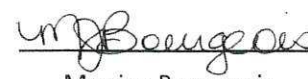
K-1250

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.



ISO 9001
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TUV USA, Inc.


John Russo
President


Monica Bourgeois
Director of QA/RA



Certificate of Analysis

Product Name: Aroclor 1221 Standard

Product Number: PP-292-1

Lot Issue Date: 28-Apr-2020

Lot Number: 0006535333

Expiration Date: 31-May-2024

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
Aroclor 1221	011104-28-2	RM04278	100.2 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

K1259

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



Certificate of Analysis ISO 17034

Aroclor 1262 Standard

Product Number: PP-372-1

Page: 1 of 1

Lot Number: 0006499800

Lot Issue Date: 04-Nov-2019

Expiration Date: 30-Nov-2023

This ISO 17034 Reference Material (RM) was manufactured and verified in accordance with Agilent Technologies ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1262	037324-23-5	RM14263	100.0 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

K1260

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System



ISO 17025 Cert No.
AT-1937



Certificate of Analysis ISO 17034

Aroclor 1232 Standard

Product Number: PP-302-1

Page: 1 of 1

Lot Number: CF-2197A

Lot Issue Date: 05-Jul-2016

Expiration Date: 31-Aug-2023

This ISO 17034 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1232	011141-16-5	NT01717	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

K1261

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.


Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System



ISO17025 Cert No.
AT-1937



Certificate of Analysis

Product Name: Aroclor 1268 Standard

Product Number: PP-382-1

Lot Issue Date: 09-Feb-2021

Lot Number: 0006587800

Expiration Date: 31-Mar-2029

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
Aroclor 1268	011100-14-4	RM00937	100.0 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

K1262

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

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ISO 17025 Cert
No. AT-1937

Certificate of Analysis



Phenova Certified Reference Materials are sold by Phenomenex.

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101467

Lot Number: CL12975

Description: Aroclor 1016

Certification Date: November 19, 2018

Storage: 4 °C

Expiration Date: October 31, 2026

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1016	12674-11-2	1000	± 0.553%

12975



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis



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Access your MSDS and digital C of A at www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards

1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO Guide 34³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.
4. **Instruction:** Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = k \sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.
12. **Period of Validity:** The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.

³ ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

IL111063_US

Certificate of Analysis

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101462

Lot Number: CL18021

Description: Aroclor 1260

Certification Date: February 14, 2022

Storage: 4 °C

Expiration Date: February 28, 2030

Provided As: 1 mL in 2 mL Ampoule in Hexane

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1260	11096-82-5	1000	± 0.553%

K005830



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

- Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
- Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
- Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
- Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
- Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
- Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
- Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
- Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
- Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).
$$u_{CRM} = k\sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.
- Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
- Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
- Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Recipient Copy

CHAIN-OF-CUSTODY RECORD

COC No. 15546

Order Number: CB014961

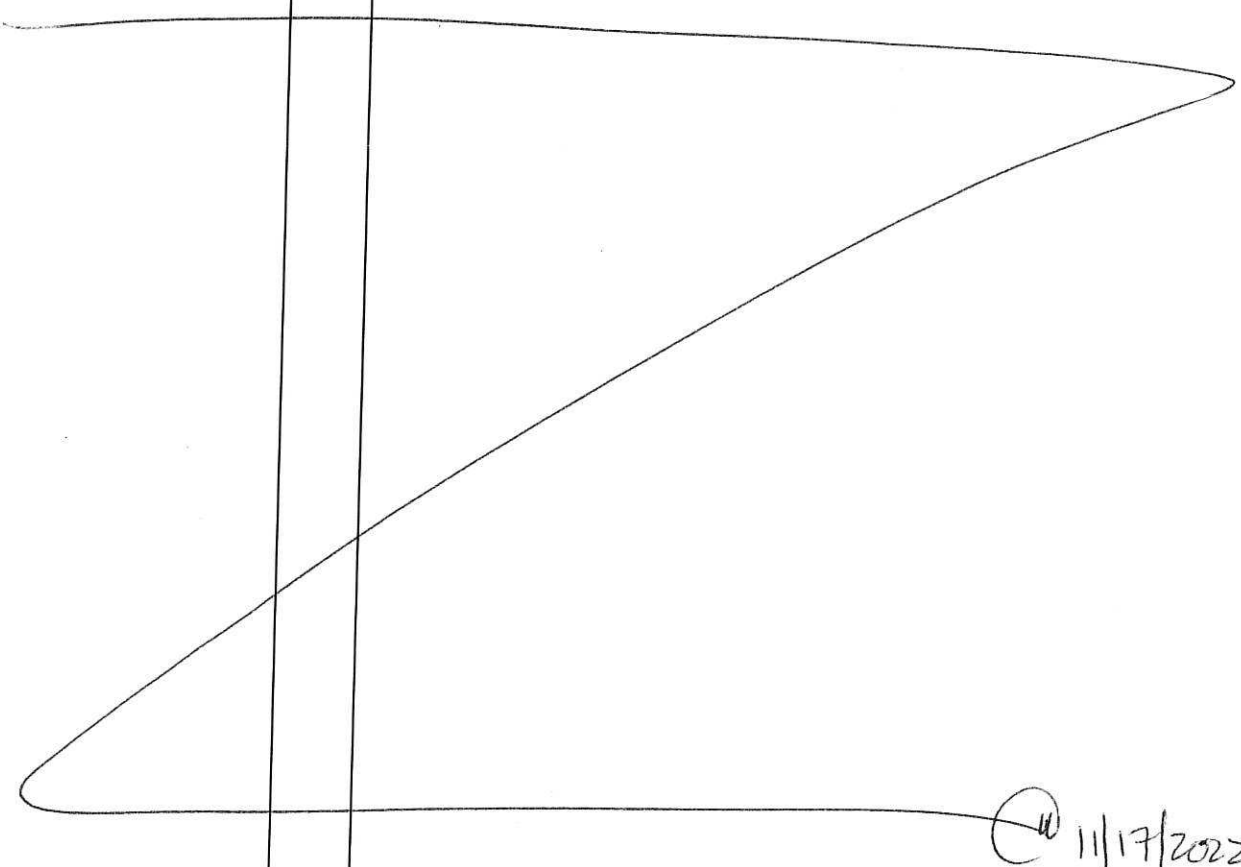
Date Shipped: 11/17/2022

AirBill No(s):

From: QATS LABORATORY
2700 CHANDLER AVENUE, BLDG. B
LAS VEGAS, NV 89120
PHONE: 1-702-895-8712

To: Kelly Bottem
Analytical Resources, Inc.
4611 S. 134th Place SUITE 100
Tukwila WA 98168
206-695-6211

519204142414

Sample ID	Sigma ID	Qty	Description/Remarks	→ Catalogue Number
PSRM0164	SR0431	1	PUGET SOUND SEDIMENT RM	PS-SRM
PSRM0165	SR0431	1	PUGET SOUND SEDIMENT RM	PS-SRM
PSRM0166	SR0431	1	PUGET SOUND SEDIMENT RM	PS-SRM
				
PUGET SOUND SRM FOR THE LOCKHEED WEST SEATTLE SF SITE 5-YEAR REVIEW MONITORING.				

Please use the enclosed Sample Preparation Instructions. If catalogue number(s) are listed at the top of the Sample Preparation Instructions use the Sample Preparation Instructions with catalogue number(s) matching the catalogue number(s) of each of the samples listed above.

Relinquished by: (Signature) <i>[Signature]</i>	Date/Time (1400) 11/17/2022	Received by: (Signature) <i>[Signature]</i>	Date/Time 10:22 11/18/22
Custody Seal(s): Present/Absent	Remarks:		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time



Form 1
ORGANIC ANALYSIS DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory: Analytical Resources, LLC SDG: 23A0032
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-02 D File ID: 23021012
 Sampled: 01/03/23 09:12 Prepared: 01/30/23 14:23 Analyzed: 02/10/23 22:34
 % Solids: 61.81 Preparation: EPA 8290 Initial/Final: 16.2 g Wet / 20 uL
 Result Basis: Dry Sequence: SLB0147 Calibration: GB00010
 Batch: BLA0256 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.911	0.655-0.886	0.112	0.999	1.80	ng/kg	EMPC, X
1746-01-6	2,3,7,8-TCDD	1	0.477	0.655-0.886	0.109	0.999	0.344	ng/kg	EMPC, J
57117-41-6	1,2,3,7,8-PeCDF	1	1.532	1.318-1.783	0.237	0.999	1.25	ng/kg	
57117-31-4	2,3,4,7,8-PeCDF	1	1.060	1.318-1.783	0.227	0.999	1.34	ng/kg	EMPC
40321-76-4	1,2,3,7,8-PeCDD	1	1.798	1.318-1.783	0.176	0.999	1.62	ng/kg	EMPC
70648-26-9	1,2,3,4,7,8-HxCDF	1	1.288	1.054-1.426	0.191	0.999	2.51	ng/kg	
57117-44-9	1,2,3,6,7,8-HxCDF	1	1.240	1.054-1.426	0.179	0.999	1.46	ng/kg	B
60851-34-5	2,3,4,6,7,8-HxCDF	1	1.162	1.054-1.426	0.197	0.999	1.96	ng/kg	
72918-21-9	1,2,3,7,8,9-HxCDF	1	1.277	1.054-1.426	0.241	0.999	1.10	ng/kg	
39227-28-6	1,2,3,4,7,8-HxCDD	1	1.125	1.054-1.426	0.241	0.999	1.36	ng/kg	
57653-85-7	1,2,3,6,7,8-HxCDD	1	1.170	1.054-1.426	0.232	0.999	5.07	ng/kg	
19408-74-3	1,2,3,7,8,9-HxCDD	1	1.174	1.054-1.426	0.241	0.999	2.46	ng/kg	
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	1.220	0.893-1.208	0.190	0.999	25.8	ng/kg	EMPC, B
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	1.185	0.893-1.208	0.296	0.999	1.64	ng/kg	
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.046	0.893-1.208	0.619	2.50	215	ng/kg	B
39001-02-0	OCDF	1	0.898	0.757-1.024	0.477	2.50	62.8	ng/kg	B
3268-87-9	OCDD	1	0.877	0.757-1.024	0.917	9.99	3550	ng/kg	B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.999	20.5	ng/kg
41903-57-5	Total TCDD	1	0.000			0.999	6.10	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.999	20.5	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.999	9.54	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.999	45.1	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.999	103	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.999	51.1	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.999	830	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 7.68
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 7.68



Form 2
ORGANIC ANALYSIS DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Sediment</u>	Laboratory ID:	<u>23A0032-02</u>
Sampled:	<u>01/03/23 09:12</u>	Prepared:	<u>01/30/23 14:23</u>
Solids Wt%:	<u>61.81</u>	Preparation:	<u>EPA 8290</u>
Result Basis:	<u>Dry</u>	Sequence:	<u>SLB0147</u>
Batch:	<u>BLA0256</u>	Instrument:	<u>AUTOSPEC01</u>
		File ID:	<u>23021012</u>
		Analyzed:	<u>02/10/23 22:34</u>
		Initial/Final:	<u>16.2 g / 20 uL</u>
		Calibration:	<u>GB00010</u>
		Column:	<u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF		0.777	0.655-0.886	0.123	90.2	24 - 169 %	
13C12-2,3,7,8-TCDD		0.786	0.655-0.886	0.166	102	25 - 164 %	
13C12-1,2,3,7,8-PeCDF		1.557	1.318-1.783	0.191	90.9	24 - 185 %	
13C12-2,3,4,7,8-PeCDF		1.578	1.318-1.783	0.199	89.1	21 - 178 %	
13C12-1,2,3,7,8-PeCDD		1.652	1.318-1.783	0.146	81.5	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF		0.516	0.434-0.587	0.242	107	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF		0.514	0.434-0.587	0.236	109	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF		0.513	0.434-0.587	0.251	101	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF		0.523	0.434-0.587	0.274	93.1	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD		1.272	1.054-1.426	0.279	103	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD		1.265	1.054-1.426	0.270	105	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF		0.453	0.374-0.506	0.287	96.5	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF		0.454	0.374-0.506	0.329	83.2	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD		1.108	0.893-1.208	0.398	88.5	23 - 140 %	
13C12-OCDD		0.905	0.757-1.024	0.281	69.8	17 - 157 %	
37Cl4-2,3,7,8-TCDD		328.000		0.046	94.2	35 - 197 %	

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:43:17 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.944	1.001	3.361e3	3.691e3	0.876	0.911	0.770	1003	1217	5.35e4	5.45e4	53.3	44.8	YES	dd	dd	0.900
12378-PeCDF	30.120	1.001	2.489e3	1.624e3	0.845	1.532	1.550	1873	2054	3.99e4	2.29e4	21.3	11.1	NO	bb	bb	0.625
23478-PeCDF	31.468	1.001	2.311e3	2.181e3	0.911	1.060	1.550	1873	2054	3.46e4	3.17e4	18.5	15.4	YES	bb	db	0.672
123478-HxCDF	35.088	1.000	3.306e3	2.566e3	1.182	1.288	1.240	1214	1185	5.03e4	4.14e4	41.4	35.0	NO	dd	dd	1.257
234678-HxCDF	36.091	1.001	2.328e3	2.004e3	1.229	1.162	1.240	1214	1185	2.53e4	1.99e4	20.9	16.8	NO	bb	bb	0.981
123678-HxCDF	35.233	1.001	2.081e3	1.679e3	1.248	1.240	1.240	1214	1185	3.12e4	2.44e4	25.7	20.6	NO	db	db	0.732
123789-HxCDF	37.071	0.999	1.110e3	8.691e2	1.187	1.277	1.240	1214	1185	1.34e4	1.04e4	11.0	8.8	NO	MM	bb	0.553
1234678-HpCDF	38.965	1.000	2.984e4	2.445e4	1.204	1.220	1.050	1263	968	4.51e5	3.90e5	356.7	402.6	YES	bd	bb	12.900
1234789-HpCDF	41.227	1.000	1.364e3	1.151e3	1.165	1.185	1.050	1263	968	2.09e4	1.68e4	16.6	17.4	NO	bb	bd	0.820
OCDF	45.544	1.006	3.394e4	3.780e4	1.186	0.898	0.890	1035	1222	3.76e5	4.35e5	363.4	356.4	NO	bb	bb	31.459
2378-TCDD	26.565	1.000	4.336e2	9.087e2	1.236	0.477	0.770	1109	1045	6.17e3	1.47e4	5.6	14.0	YES	bd	bd	0.172
12378-PeCDD	31.702	1.000	2.373e3	1.320e3	1.087	1.798	1.550	971	1057	2.84e4	1.93e4	29.2	18.2	YES	bb	bb	0.812
123478-HxCDD	36.191	1.000	1.188e3	1.055e3	0.987	1.125	1.240	987	1271	1.99e4	1.83e4	20.2	14.4	NO	bd	bd	0.679
123678-HxCDD	36.314	1.001	4.938e3	4.221e3	1.021	1.170	1.240	987	1271	8.05e4	7.01e4	81.5	55.2	NO	db	db	2.540
123789-HxCDD	36.704	1.011	2.253e3	1.919e3	0.985	1.174	1.240	987	1271	3.99e4	2.90e4	40.5	22.8	NO	bb	bb	1.231
1234678-HpCDD	40.480	1.000	1.667e5	1.593e5	1.253	1.046	1.050	2041	2757	2.57e6	2.41e6	1257.4	874.8	NO	bd	bd	107.568
OCDD	45.306	1.000	1.762e6	2.008e6	1.103	0.877	0.890	1692	2339	2.17e7	2.46e7	12802.1	10504.4	NO	bb	bb	1778.621
13C-2378-TCDF	25.915	1.007	3.914e5	5.034e5	1.768	0.777	0.770	1765	1356	5.90e6	7.70e6	3344.3	5678.9	NO	bb	bb	90.159
13C-12378-PeCDF	30.097	1.169	4.744e5	3.046e5	1.527	1.557	1.550	1706	2484	7.17e6	4.66e6	4202.4	1874.6	NO	bb	bb	90.884
13C-23478-PeCDF	31.445	1.221	4.490e5	2.846e5	1.466	1.578	1.550	1706	2484	6.96e6	4.37e6	4081.1	1760.0	NO	bb	bb	89.133
13C-123478-HxCDF	35.077	0.956	1.345e5	2.608e5	1.054	0.516	0.510	1195	1257	2.16e6	4.15e6	1811.4	3297.4	NO	bd	bd	107.317
13C-123678-HxCDF	35.211	0.960	1.398e5	2.719e5	1.080	0.514	0.510	1195	1257	2.18e6	4.24e6	1826.9	3375.2	NO	db	db	109.039
13C-234678-HxCDF	36.069	0.983	1.219e5	2.375e5	1.014	0.513	0.510	1195	1257	2.01e6	3.92e6	1685.0	3115.1	NO	bb	bb	101.340
13C-123789-HxCDF	37.094	1.011	1.036e5	1.982e5	0.928	0.523	0.510	1195	1257	1.73e6	3.32e6	1445.5	2636.6	NO	bb	bb	93.053
13C-1234678-HpCDF	38.954	1.062	1.090e5	2.405e5	1.036	0.453	0.440	1289	1578	1.82e6	4.00e6	1415.3	2534.0	NO	bb	bb	96.502
13C-1234789-HpCDF	41.215	1.123	8.210e4	1.810e5	0.905	0.454	0.440	1289	1578	1.21e6	2.61e6	938.4	1655.6	NO	bb	bb	83.160
13C-1234-TCDD	25.746	0.000	2.501e5	3.112e5	1.000	0.804	0.770	1682	951	3.84e6	4.78e6	2283.2	5031.5	NO	bb	bb	100.000
13C-2378-TCDD	26.551	1.031	2.774e5	3.527e5	1.103	0.786	0.770	1682	951	4.23e6	5.42e6	2516.6	5699.3	NO	bb	bb	101.775
13C-12378-PeCDD	31.691	1.231	2.606e5	1.577e5	0.914	1.652	1.550	1155	764	3.95e6	2.40e6	3418.5	3142.0	NO	bd	bb	81.526
13C-123478-HxCDD	36.180	0.986	1.874e5	1.473e5	0.933	1.272	1.240	1239	1271	3.18e6	2.52e6	2567.9	1980.7	NO	bd	bd	102.637
13C-123678-HxCDD	36.292	0.989	1.973e5	1.560e5	0.965	1.265	1.240	1239	1271	3.20e6	2.53e6	2577.8	1988.4	NO	db	db	104.773
13C-1234678-HpCDD	40.469	1.103	1.272e5	1.148e5	0.782	1.108	1.050	1467	1531	1.95e6	1.79e6	1329.1	1165.9	NO	bb	bb	88.509
13C-OCDD	45.288	1.234	1.827e5	2.018e5	0.788	0.905	0.890	963	1172	2.27e6	2.48e6	2358.9	2113.3	NO	bb	bb	139.510
13C-123789-HxCDD	36.693	0.000	1.937e5	1.559e5	1.000	1.242	1.240	1239	1271	3.20e6	2.52e6	2581.1	1979.2	NO	bb	bb	100.000
37CL-2378-TCDD	26.579	1.032	2.610e5		1.233			812		4.07e6		5011.5			bb		37.694

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:43:17 Pacific Standard Time

ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.413	0.865	1.300e3	1.437e3	1.064	0.905	0.770	1003	1217	1.90e4	2.30e4	18.9	18.9	YES	bb	bb	0.287
1289-TCDF	27.540	1.063	3.730e2	6.022e2	0.858	0.619	0.770	1003	1217	6.70e3	1.03e4	6.7	8.5	YES	bb	bb	0.127
13468-PECDF					1.013		1.550	699	940								
12389-PECDF	32.403	1.077	7.564e2	6.336e2	0.844	1.194	1.550	1873	2054	1.21e4	1.08e4	6.5	5.3	YES	bd	bb	0.211
123468-HXCDF	33.439	0.953	5.814e3	4.683e3	1.197	1.242	1.240	1214	1185	9.14e4	7.00e4	75.3	59.1	NO	bd	bd	2.218
1368-TCDD	23.698	0.892	3.322e3	3.807e3	1.084	0.873	0.770	1109	1045	5.26e4	6.14e4	47.5	58.8	NO	bb	bb	1.043
1289-TCDD					0.975		0.770	1109	1045								
12479-PECDD	29.017	0.916	6.242e3	3.615e3	1.837	1.727	1.550	971	1057	6.03e4	3.40e4	62.1	32.2	NO	MM	MM	1.283
12389-PECDD	32.114	1.013	6.279e2	3.754e2	1.252	1.673	1.550	971	1057	8.48e3	6.01e3	8.7	5.7	NO	bb	bb	0.192
124679-HXCDD	34.197	0.945	4.683e4	3.858e4	1.033	1.214	1.240	987	1271	7.34e5	6.07e5	743.7	478.0	NO	bb	bb	24.700
1234679-HPCDD	39.422	0.974	4.899e5	4.683e5	1.286	1.046	1.050	2041	2757	7.84e6	7.43e6	3842.4	2694.0	NO	bd	bd	307.921
Total-tetrafurans			3.772e4		0.933			1003		4.97e5							10.288
Total-penta1			1.518e4					699		2.12e5							3.428
Total-pentafurans			2.694e4		0.866			1873		3.92e5							6.845
Total-hexafurans			5.573e4		1.208			1214		8.42e5							22.583
Total-heptafurans			4.732e4		1.185			1263		7.55e5							25.575
Total-Furans			2.173e5		1.067			1003		3.08e6							100.292
Total-tetradoxins			9.697e3		1.099			1109		1.49e5							3.052
Total-pentadoxins			1.860e4		1.392			971		2.45e5							4.777
Total-hexadoxins			9.741e4		1.007			987		1.37e6							51.455
Total-heptadoxins			6.566e5		1.269			2041		1.04e7							415.488
Total-Dioxins			2.544e6		1.165			1109		3.38e7							2253.393
Total-TEQ			2.761e6					1109		3.69e7							2353.686
FUNCTION1 PFK			3.322e7					288463		1.13e8							
FUNCTION2 PFK			1.369e7					215489		9.14e7							0.000
FUNCTION3 PFK			1.922e5					221896		2.96e6							0.000
FUNCTION4 PFK			1.051e6					172482		3.72e6							
FUNCTION5 PFK			5.266e6					146351		3.88e7							
FUNCTION1 HXCD...			5.824e3					582		8.90e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			1.368e3					632		2.28e4							0.000
FUNCTION3 OCDPE			1.825e2					507		3.58e3							0.000
FUNCTION4 NCDPE			2.823e4					597		4.84e5							0.000
FUNCTION5 DCDPE			1.031e2					736		1.53e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:43:17 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20**Calibration: T:\Autospec\Curves\230201CIH.cdb 03 Feb 2023 10:33:40****ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.16	2.452e3	3.164e3	0.933	0.77	0.77	38.5	YES	NO	db	db	0.673
2	Total-tetrafurans	24.04	1.050e3	1.452e3	0.933	0.72	0.77	15.9	YES	NO	dd	dd	0.300
3	Total-tetrafurans	23.92	2.660e3	3.442e3	0.933	0.77	0.77	41.9	YES	NO	dd	dd	0.731
4	Total-tetrafurans	23.77	1.293e3	1.591e3	0.933	0.81	0.77	19.4	YES	NO	dd	dd	0.346
5	Total-tetrafurans	23.68	1.780e3	2.290e3	0.933	0.78	0.77	25.7	YES	NO	dd	dd	0.488
6	Total-tetrafurans	23.46	3.395e3	4.193e3	0.933	0.81	0.77	28.7	YES	NO	dd	dd	0.909
7	Total-tetrafurans	23.26	3.514e3	4.727e3	0.933	0.74	0.77	40.8	YES	NO	bd	bd	0.988
8	Total-tetrafurans	26.96	6.386e2	7.270e2	0.933	0.88	0.77	11.1	YES	NO	bb	bb	0.164
9	Total-tetrafurans	26.30	1.641e3	1.938e3	0.933	0.85	0.77	25.6	YES	NO	db	db	0.429
10	Total-tetrafurans	26.17	2.897e3	3.554e3	0.933	0.81	0.77	39.6	YES	NO	dd	dd	0.773
11	Total-tetrafurans	26.06	3.178e3	4.666e3	0.933	0.68	0.77	37.0	YES	NO	dd	dd	0.940
12	Total-tetrafurans	25.73	2.452e3	3.036e3	0.933	0.81	0.77	22.5	YES	NO	dd	dd	0.658
13	Total-tetrafurans	25.58	5.016e2	5.763e2	0.933	0.87	0.77	6.5	YES	NO	dd	dd	0.129
14	Total-tetrafurans	25.43	1.149e3	1.320e3	0.933	0.87	0.77	14.8	YES	NO	dd	dd	0.296
15	Total-tetrafurans	25.25	2.002e3	2.468e3	0.933	0.81	0.77	25.8	YES	NO	bd	bd	0.536
16	Total-tetrafurans	25.03	1.910e3	2.585e3	0.933	0.74	0.77	29.8	YES	NO	db	bb	0.539
17	Total-tetrafurans	24.83	3.823e3	4.542e3	0.933	0.84	0.77	50.1	YES	NO	dd	db	1.002
18	Total-tetrafurans	24.70	1.384e3	1.865e3	0.933	0.74	0.77	20.9	YES	NO	dd	dd	0.389

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	27.37	1.518e4	9.315e3		1.63	1.55	302.9	YES	NO	bb	bb	3.428

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:43:17 Pacific Standard Time

ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	29.04	6.798e3	4.626e3	0.866	1.47	1.55	50.3	YES	NO	dd	dd	1.743
2	Total-pentafurans	28.96	4.240e3	2.711e3	0.866	1.56	1.55	40.1	YES	NO	dd	dd	1.061
3	Total-pentafurans	28.86	4.406e3	3.133e3	0.866	1.41	1.55	31.6	YES	NO	dd	dd	1.150
4	Total-pentafurans	28.74	7.756e2	5.478e2	0.866	1.42	1.55	7.2	YES	NO	bd	dd	0.202
5	Total-pentafurans	31.32	1.722e3	1.135e3	0.866	1.52	1.55	14.9	YES	NO	db	dd	0.436
6	Total-pentafurans	30.32	2.075e3	1.455e3	0.866	1.43	1.55	18.3	YES	NO	bd	bd	0.539
7	12378-PeCDF	30.12	2.489e3	1.624e3	0.845	1.53	1.55	21.3	YES	NO	bb	bb	0.625
8	Total-pentafurans	29.75	4.438e3	2.700e3	0.866	1.64	1.55	25.2	YES	NO	MM	MM	1.089

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.07	1.110e3	8.691e2	1.187	1.28	1.24	11.0	YES	NO	MM	bb	0.553
2	234678-HxCDF	36.09	2.328e3	2.004e3	1.229	1.16	1.24	20.9	YES	NO	bb	bb	0.981
3	123678-HxCDF	35.23	2.081e3	1.679e3	1.248	1.24	1.24	25.7	YES	NO	db	db	0.732
4	123478-HxCDF	35.09	3.306e3	2.566e3	1.182	1.29	1.24	41.4	YES	NO	dd	dd	1.257
5	Total-hexafurans	34.93	1.074e3	8.244e2	1.208	1.30	1.24	13.4	YES	NO	bd	bd	0.428
6	Total-hexafurans	34.46	2.281e4	1.887e4	1.208	1.21	1.24	285.8	YES	NO	bb	bb	9.398
7	Total-hexafurans	33.64	1.721e4	1.392e4	1.208	1.24	1.24	219.7	YES	NO	db	db	7.017
8	123468-HxCDF	33.44	5.814e3	4.683e3	1.197	1.24	1.24	75.3	YES	NO	bd	bd	2.218

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.23	1.364e3	1.151e3	1.165	1.18	1.05	16.6	YES	NO	bb	bd	0.820
2	Total-heptafurans	39.63	4.519e4	4.314e4	1.185	1.05	1.05	571.0	YES	NO	bb	bb	24.339
3	Total-heptafurans	39.38	7.653e2	7.442e2	1.185	1.03	1.05	10.1	YES	NO	bb	bb	0.416

Quantify Totals Report MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:43:17 Pacific Standard Time

ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.16	2.452e3	3.164e3	0.933	0.77	0.77	38.5	YES	NO	db	db	0.673
2	Total-tetrafurans	24.04	1.050e3	1.452e3	0.933	0.72	0.77	15.9	YES	NO	dd	dd	0.300
3	Total-tetrafurans	23.92	2.660e3	3.442e3	0.933	0.77	0.77	41.9	YES	NO	dd	dd	0.731
4	Total-tetrafurans	23.77	1.293e3	1.591e3	0.933	0.81	0.77	19.4	YES	NO	dd	dd	0.346
5	Total-tetrafurans	23.68	1.780e3	2.290e3	0.933	0.78	0.77	25.7	YES	NO	dd	dd	0.488
6	Total-tetrafurans	23.46	3.395e3	4.193e3	0.933	0.81	0.77	28.7	YES	NO	dd	dd	0.909
7	Total-tetrafurans	23.26	3.514e3	4.727e3	0.933	0.74	0.77	40.8	YES	NO	bd	bd	0.988
8	Total-Furans	27.84	5.072e2	5.863e2	1.067	0.87	0.77	6.8	YES	NO	bb	bd	0.115
9	Total-tetrafurans	26.96	6.386e2	7.270e2	0.933	0.88	0.77	11.1	YES	NO	bb	bb	0.164
10	Total-tetrafurans	26.30	1.641e3	1.938e3	0.933	0.85	0.77	25.6	YES	NO	db	db	0.429
11	Total-tetrafurans	26.17	2.897e3	3.554e3	0.933	0.81	0.77	39.6	YES	NO	dd	dd	0.773
12	Total-tetrafurans	26.06	3.178e3	4.666e3	0.933	0.68	0.77	37.0	YES	NO	dd	dd	0.940
13	Total-tetrafurans	25.73	2.452e3	3.036e3	0.933	0.81	0.77	22.5	YES	NO	dd	dd	0.658
14	Total-tetrafurans	25.58	5.016e2	5.763e2	0.933	0.87	0.77	6.5	YES	NO	dd	dd	0.129
15	Total-tetrafurans	25.43	1.149e3	1.320e3	0.933	0.87	0.77	14.8	YES	NO	dd	dd	0.296
16	Total-tetrafurans	25.25	2.002e3	2.468e3	0.933	0.81	0.77	25.8	YES	NO	bd	bd	0.536
17	Total-tetrafurans	25.03	1.910e3	2.585e3	0.933	0.74	0.77	29.8	YES	NO	db	bb	0.539
18	Total-tetrafurans	24.83	3.823e3	4.542e3	0.933	0.84	0.77	50.1	YES	NO	dd	db	1.002
19	Total-tetrafurans	24.70	1.384e3	1.865e3	0.933	0.74	0.77	20.9	YES	NO	dd	dd	0.389
20	Total-pentafurans	29.04	6.798e3	4.626e3	0.866	1.47	1.55	50.3	YES	NO	dd	dd	1.743
21	Total-pentafurans	28.96	4.240e3	2.711e3	0.866	1.56	1.55	40.1	YES	NO	dd	dd	1.061
22	Total-pentafurans	28.86	4.406e3	3.133e3	0.866	1.41	1.55	31.6	YES	NO	dd	dd	1.150
23	Total-pentafurans	28.74	7.756e2	5.478e2	0.866	1.42	1.55	7.2	YES	NO	bd	dd	0.202
24	Total-pentafurans	31.32	1.722e3	1.135e3	0.866	1.52	1.55	14.9	YES	NO	db	dd	0.436
25	Total-pentafurans	30.32	2.075e3	1.455e3	0.866	1.43	1.55	18.3	YES	NO	bd	bd	0.539
26	12378-PeCDF	30.12	2.489e3	1.624e3	0.845	1.53	1.55	21.3	YES	NO	bb	bb	0.625
27	Total-pentafurans	29.75	4.438e3	2.700e3	0.866	1.64	1.55	25.2	YES	NO	MM	MM	1.089
28	123789-HxCDF	37.07	1.110e3	8.691e2	1.187	1.28	1.24	11.0	YES	NO	MM	bb	0.553
29	234678-HxCDF	36.09	2.328e3	2.004e3	1.229	1.16	1.24	20.9	YES	NO	bb	bb	0.981
30	123678-HxCDF	35.23	2.081e3	1.679e3	1.248	1.24	1.24	25.7	YES	NO	db	db	0.732
31	123478-HxCDF	35.09	3.306e3	2.566e3	1.182	1.29	1.24	41.4	YES	NO	dd	dd	1.257
32	Total-hexafurans	34.93	1.074e3	8.244e2	1.208	1.30	1.24	13.4	YES	NO	bd	bd	0.428
33	Total-hexafurans	34.46	2.281e4	1.887e4	1.208	1.21	1.24	285.8	YES	NO	bb	bb	9.398
34	Total-hexafurans	33.64	1.721e4	1.392e4	1.208	1.24	1.24	219.7	YES	NO	db	db	7.017
35	123468-HxCDF	33.44	5.814e3	4.683e3	1.197	1.24	1.24	75.3	YES	NO	bd	bd	2.218
36	1234789-HpCDF	41.23	1.364e3	1.151e3	1.165	1.18	1.05	16.6	YES	NO	bb	bd	0.820
37	Total-heptafurans	39.63	4.519e4	4.314e4	1.185	1.05	1.05	571.0	YES	NO	bb	bb	24.339

ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	Total-heptafurans	39.38	7.653e2	7.442e2	1.185	1.03	1.05	10.1	YES	NO	bb	bb	0.416
39	OCDF	45.54	3.394e4	3.780e4	1.186	0.90	0.89	363.4	YES	NO	bb	bb	31.459
40	Total-penta1	27.37	1.518e4	9.315e3		1.63	1.55	302.9	YES	NO	bb	bb	3.428

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	24.70	5.656e2	6.879e2	1.099	0.82	0.77	8.1	YES	NO	bb	bd	0.181
2	Total-tetradioxins	23.97	2.094e3	2.486e3	1.099	0.84	0.77	31.7	YES	NO	bb	bb	0.662
3	1368-TCDD	23.70	3.322e3	3.807e3	1.084	0.87	0.77	47.5	YES	NO	bb	bb	1.043
4	Total-tetradioxins	26.71	6.341e2	7.502e2	1.099	0.85	0.77	9.0	YES	NO	dd	db	0.200
5	Total-tetradioxins	26.20	1.185e3	1.383e3	1.099	0.86	0.77	10.4	YES	NO	bb	db	0.371
6	Total-tetradioxins	25.76	4.716e2	5.435e2	1.099	0.87	0.77	5.8	YES	NO	bb	bb	0.147
7	Total-tetradioxins	25.18	1.425e3	1.676e3	1.099	0.85	0.77	22.0	YES	NO	bb	bb	0.448

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentadioxins	30.32	1.803e3	1.249e3	1.392	1.44	1.55	26.4	YES	NO	bd	bd	0.524
2	Total-pentadioxins	30.11	3.213e3	1.875e3	1.392	1.71	1.55	53.0	YES	NO	bb	bb	0.874
3	Total-pentadioxins	29.50	1.545e3	8.781e2	1.392	1.76	1.55	28.1	YES	NO	bb	bb	0.416
4	12389-PECDD	32.11	6.279e2	3.754e2	1.252	1.67	1.55	8.7	YES	NO	bb	bb	0.192
5	Total-pentadioxins	31.03	9.453e2	6.915e2	1.392	1.37	1.55	13.6	YES	NO	bb	bb	0.281
6	Total-pentadioxins	30.62	1.845e3	1.209e3	1.392	1.53	1.55	18.9	YES	NO	db	db	0.525
7	Total-pentadioxins	30.47	2.374e3	1.607e3	1.392	1.48	1.55	41.1	YES	NO	dd	dd	0.684
8	12479-PECDD	29.02	6.242e3	3.615e3	1.837	1.73	1.55	62.1	YES	NO	MM	MM	1.283

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.70	2.253e3	1.919e3	0.985	1.17	1.24	40.5	YES	NO	bb	bb	1.231
2	Total-hexadioxins	36.47	1.497e3	1.259e3	1.007	1.19	1.24	26.0	YES	NO	bb	bb	0.796
3	123678-HxCDD	36.31	4.938e3	4.221e3	1.021	1.17	1.24	81.5	YES	NO	db	db	2.540
4	123478-HxCDD	36.19	1.188e3	1.055e3	0.987	1.13	1.24	20.2	YES	NO	bd	bd	0.679
5	Total-hexadioxins	35.43	4.153e3	3.558e3	1.007	1.17	1.24	69.4	YES	NO	db	db	2.227
6	Total-hexadioxins	35.32	2.997e4	2.461e4	1.007	1.22	1.24	300.7	YES	NO	bd	bd	15.762
7	Total-hexadioxins	34.97	6.581e3	5.610e3	1.007	1.17	1.24	111.1	YES	NO	bb	bb	3.520
8	124679-HXCDD	34.20	4.683e4	3.858e4	1.033	1.21	1.24	743.7	YES	NO	bb	bb	24.700

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.48	1.667e5	1.593e5	1.253	1.05	1.05	1257.4	YES	NO	bd	bd	107.568
2	1234679-HPCDD	39.42	4.899e5	4.683e5	1.286	1.05	1.05	3842.4	YES	NO	bd	bd	307.921

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	24.70	5.656e2	6.879e2	1.099	0.82	0.77	8.1	YES	NO	bb	bd	0.181
2	Total-tetradoxins	23.97	2.094e3	2.486e3	1.099	0.84	0.77	31.7	YES	NO	bb	bb	0.662
3	1368-TCDD	23.70	3.322e3	3.807e3	1.084	0.87	0.77	47.5	YES	NO	bb	bb	1.043
4	Total-tetradoxins	26.71	6.341e2	7.502e2	1.099	0.85	0.77	9.0	YES	NO	dd	db	0.200
5	Total-tetradoxins	26.20	1.185e3	1.383e3	1.099	0.86	0.77	10.4	YES	NO	bb	db	0.371
6	Total-tetradoxins	25.76	4.716e2	5.435e2	1.099	0.87	0.77	5.8	YES	NO	bb	bb	0.147
7	Total-tetradoxins	25.18	1.425e3	1.676e3	1.099	0.85	0.77	22.0	YES	NO	bb	bb	0.448
8	Total-pentadoxins	30.32	1.803e3	1.249e3	1.392	1.44	1.55	26.4	YES	NO	bd	bd	0.524
9	Total-pentadoxins	30.11	3.213e3	1.875e3	1.392	1.71	1.55	53.0	YES	NO	bb	bb	0.874
10	Total-pentadoxins	29.50	1.545e3	8.781e2	1.392	1.76	1.55	28.1	YES	NO	bb	bb	0.416
11	12389-PECDD	32.11	6.279e2	3.754e2	1.252	1.67	1.55	8.7	YES	NO	bb	bb	0.192
12	Total-pentadoxins	31.03	9.453e2	6.915e2	1.392	1.37	1.55	13.6	YES	NO	bb	bb	0.281
13	Total-pentadoxins	30.62	1.845e3	1.209e3	1.392	1.53	1.55	18.9	YES	NO	db	db	0.525
14	Total-pentadoxins	30.47	2.374e3	1.607e3	1.392	1.48	1.55	41.1	YES	NO	dd	dd	0.684
15	123789-HxCDD	36.70	2.253e3	1.919e3	0.985	1.17	1.24	40.5	YES	NO	bb	bb	1.231
16	Total-hexadoxins	36.47	1.497e3	1.259e3	1.007	1.19	1.24	26.0	YES	NO	bb	bb	0.796
17	123678-HxCDD	36.31	4.938e3	4.221e3	1.021	1.17	1.24	81.5	YES	NO	db	db	2.540
18	123478-HxCDD	36.19	1.188e3	1.055e3	0.987	1.13	1.24	20.2	YES	NO	bd	bd	0.679
19	Total-hexadoxins	35.43	4.153e3	3.558e3	1.007	1.17	1.24	69.4	YES	NO	db	db	2.227
20	Total-hexadoxins	35.32	2.997e4	2.461e4	1.007	1.22	1.24	300.7	YES	NO	bd	bd	15.762
21	Total-hexadoxins	34.97	6.581e3	5.610e3	1.007	1.17	1.24	111.1	YES	NO	bb	bb	3.520
22	124679-HXCDD	34.20	4.683e4	3.858e4	1.033	1.21	1.24	743.7	YES	NO	bb	bb	24.700
23	1234678-HpCDD	40.48	1.667e5	1.593e5	1.253	1.05	1.05	1257.4	YES	NO	bd	bd	107.568
24	1234679-HPCDD	39.42	4.899e5	4.683e5	1.286	1.05	1.05	3842.4	YES	NO	bd	bd	307.921
25	OCDD	45.31	1.762e6	2.008e6	1.103	0.88	0.89	12802.1	YES	NO	bb	bb	1778.6...
26	12479-PECDD	29.02	6.242e3	3.615e3	1.837	1.73	1.55	62.1	YES	NO	MM	MM	1.283

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:43:17 Pacific Standard Time

ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.16	2.452e3	3.164e3	0.933	0.77	0.77	38.5	YES	NO	db	db	0.673
2	Total-tetrafurans	24.04	1.050e3	1.452e3	0.933	0.72	0.77	15.9	YES	NO	dd	dd	0.300
3	Total-tetrafurans	23.92	2.660e3	3.442e3	0.933	0.77	0.77	41.9	YES	NO	dd	dd	0.731
4	Total-tetrafurans	23.77	1.293e3	1.591e3	0.933	0.81	0.77	19.4	YES	NO	dd	dd	0.346
5	Total-tetrafurans	23.68	1.780e3	2.290e3	0.933	0.78	0.77	25.7	YES	NO	dd	dd	0.488
6	Total-tetrafurans	23.46	3.395e3	4.193e3	0.933	0.81	0.77	28.7	YES	NO	dd	dd	0.909
7	Total-tetrafurans	23.26	3.514e3	4.727e3	0.933	0.74	0.77	40.8	YES	NO	bd	bd	0.988
8	Total-Furans	27.84	5.072e2	5.863e2	1.067	0.87	0.77	6.8	YES	NO	bb	bd	0.115
9	Total-tetrafurans	26.96	6.386e2	7.270e2	0.933	0.88	0.77	11.1	YES	NO	bb	bb	0.164
10	Total-tetrafurans	26.30	1.641e3	1.938e3	0.933	0.85	0.77	25.6	YES	NO	db	db	0.429
11	Total-tetrafurans	26.17	2.897e3	3.554e3	0.933	0.81	0.77	39.6	YES	NO	dd	dd	0.773
12	Total-tetrafurans	26.06	3.178e3	4.666e3	0.933	0.68	0.77	37.0	YES	NO	dd	dd	0.940
13	Total-tetrafurans	25.73	2.452e3	3.036e3	0.933	0.81	0.77	22.5	YES	NO	dd	dd	0.658
14	Total-tetrafurans	25.58	5.016e2	5.763e2	0.933	0.87	0.77	6.5	YES	NO	dd	dd	0.129
15	Total-tetrafurans	25.43	1.149e3	1.320e3	0.933	0.87	0.77	14.8	YES	NO	dd	dd	0.296
16	Total-tetrafurans	25.25	2.002e3	2.468e3	0.933	0.81	0.77	25.8	YES	NO	bd	bd	0.536
17	Total-tetrafurans	25.03	1.910e3	2.585e3	0.933	0.74	0.77	29.8	YES	NO	db	bb	0.539
18	Total-tetrafurans	24.83	3.823e3	4.542e3	0.933	0.84	0.77	50.1	YES	NO	dd	db	1.002
19	Total-tetrafurans	24.70	1.384e3	1.865e3	0.933	0.74	0.77	20.9	YES	NO	dd	dd	0.389
20	Total-pentafurans	29.04	6.798e3	4.626e3	0.866	1.47	1.55	50.3	YES	NO	dd	dd	1.743
21	Total-pentafurans	28.96	4.240e3	2.711e3	0.866	1.56	1.55	40.1	YES	NO	dd	dd	1.061
22	Total-pentafurans	28.86	4.406e3	3.133e3	0.866	1.41	1.55	31.6	YES	NO	dd	dd	1.150
23	Total-pentafurans	28.74	7.756e2	5.478e2	0.866	1.42	1.55	7.2	YES	NO	bd	dd	0.202
24	Total-pentafurans	31.32	1.722e3	1.135e3	0.866	1.52	1.55	14.9	YES	NO	db	dd	0.436
25	Total-pentafurans	30.32	2.075e3	1.455e3	0.866	1.43	1.55	18.3	YES	NO	bd	bd	0.539
26	12378-PeCDF	30.12	2.489e3	1.624e3	0.845	1.53	1.55	21.3	YES	NO	bb	bb	0.625
27	Total-pentafurans	29.75	4.438e3	2.700e3	0.866	1.64	1.55	25.2	YES	NO	MM	MM	1.089
28	123789-HxCDF	37.07	1.110e3	8.691e2	1.187	1.28	1.24	11.0	YES	NO	MM	bb	0.553
29	234678-HxCDF	36.09	2.328e3	2.004e3	1.229	1.16	1.24	20.9	YES	NO	bb	bb	0.981
30	123678-HxCDF	35.23	2.081e3	1.679e3	1.248	1.24	1.24	25.7	YES	NO	db	db	0.732
31	123478-HxCDF	35.09	3.306e3	2.566e3	1.182	1.29	1.24	41.4	YES	NO	dd	dd	1.257
32	Total-hexafurans	34.93	1.074e3	8.244e2	1.208	1.30	1.24	13.4	YES	NO	bd	bd	0.428
33	Total-hexafurans	34.46	2.281e4	1.887e4	1.208	1.21	1.24	285.8	YES	NO	bb	bb	9.398
34	Total-hexafurans	33.64	1.721e4	1.392e4	1.208	1.24	1.24	219.7	YES	NO	db	db	7.017
35	123468-HxCDF	33.44	5.814e3	4.683e3	1.197	1.24	1.24	75.3	YES	NO	bd	bd	2.218
36	1234789-HpCDF	41.23	1.364e3	1.151e3	1.165	1.18	1.05	16.6	YES	NO	bb	bd	0.820
37	Total-heptafurans	39.63	4.519e4	4.314e4	1.185	1.05	1.05	571.0	YES	NO	bb	bb	24.339

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	Total-heptafurans	39.38	7.653e2	7.442e2	1.185	1.03	1.05	10.1	YES	NO	bb	bb	0.416
39	OCDF	45.54	3.394e4	3.780e4	1.186	0.90	0.89	363.4	YES	NO	bb	bb	31.459
40	Total-penta1	27.37	1.518e4	9.315e3		1.63	1.55	302.9	YES	NO	bb	bb	3.428
41	Total-tetradioxins	24.70	5.656e2	6.879e2	1.099	0.82	0.77	8.1	YES	NO	bb	bd	0.181
42	Total-tetradioxins	23.97	2.094e3	2.486e3	1.099	0.84	0.77	31.7	YES	NO	bb	bb	0.662
43	1368-TCDD	23.70	3.322e3	3.807e3	1.084	0.87	0.77	47.5	YES	NO	bb	bb	1.043
44	Total-tetradioxins	26.71	6.341e2	7.502e2	1.099	0.85	0.77	9.0	YES	NO	dd	db	0.200
45	Total-tetradioxins	26.20	1.185e3	1.383e3	1.099	0.86	0.77	10.4	YES	NO	bb	db	0.371
46	Total-tetradioxins	25.76	4.716e2	5.435e2	1.099	0.87	0.77	5.8	YES	NO	bb	bb	0.147
47	Total-tetradioxins	25.18	1.425e3	1.676e3	1.099	0.85	0.77	22.0	YES	NO	bb	bb	0.448
48	Total-pentadioxins	30.32	1.803e3	1.249e3	1.392	1.44	1.55	26.4	YES	NO	bd	bd	0.524
49	Total-pentadioxins	30.11	3.213e3	1.875e3	1.392	1.71	1.55	53.0	YES	NO	bb	bb	0.874
50	Total-pentadioxins	29.50	1.545e3	8.781e2	1.392	1.76	1.55	28.1	YES	NO	bb	bb	0.416
51	12389-PECDD	32.11	6.279e2	3.754e2	1.252	1.67	1.55	8.7	YES	NO	bb	bb	0.192
52	Total-pentadioxins	31.03	9.453e2	6.915e2	1.392	1.37	1.55	13.6	YES	NO	bb	bb	0.281
53	Total-pentadioxins	30.62	1.845e3	1.209e3	1.392	1.53	1.55	18.9	YES	NO	db	db	0.525
54	Total-pentadioxins	30.47	2.374e3	1.607e3	1.392	1.48	1.55	41.1	YES	NO	dd	dd	0.684
55	123789-HxCDD	36.70	2.253e3	1.919e3	0.985	1.17	1.24	40.5	YES	NO	bb	bb	1.231
56	Total-hexadioxins	36.47	1.497e3	1.259e3	1.007	1.19	1.24	26.0	YES	NO	bb	bb	0.796
57	123678-HxCDD	36.31	4.938e3	4.221e3	1.021	1.17	1.24	81.5	YES	NO	db	db	2.540
58	123478-HxCDD	36.19	1.188e3	1.055e3	0.987	1.13	1.24	20.2	YES	NO	bd	bd	0.679
59	Total-hexadioxins	35.43	4.153e3	3.558e3	1.007	1.17	1.24	69.4	YES	NO	db	db	2.227
60	Total-hexadioxins	35.32	2.997e4	2.461e4	1.007	1.22	1.24	300.7	YES	NO	bd	bd	15.762
61	Total-hexadioxins	34.97	6.581e3	5.610e3	1.007	1.17	1.24	111.1	YES	NO	bb	bb	3.520
62	124679-HXCDD	34.20	4.683e4	3.858e4	1.033	1.21	1.24	743.7	YES	NO	bb	bb	24.700
63	1234678-HpCDD	40.48	1.667e5	1.593e5	1.253	1.05	1.05	1257.4	YES	NO	bd	bd	107.568
64	1234679-HPCDD	39.42	4.899e5	4.683e5	1.286	1.05	1.05	3842.4	YES	NO	bd	bd	307.921
65	OCDD	45.31	1.762e6	2.008e6	1.103	0.88	0.89	12802.1	YES	NO	bb	bb	1778.6...
66	12479-PECDD	29.02	6.242e3	3.615e3	1.837	1.73	1.55	62.1	YES	NO	MM	MM	1.283

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.66	1.098e7					64.3	YES		dd		
2	FUNCTION1 PFK	21.11	1.427e6					74.4	YES		bd		
3	FUNCTION1 PFK	25.96	1.629e4					1.3	NO		db		
4	FUNCTION1 PFK	25.89	1.673e4					1.6	NO		bd		
5	FUNCTION1 PFK	25.66	2.918e4					1.5	NO		bb		
6	FUNCTION1 PFK	25.24	6.287e3					0.7	NO		bb		
7	FUNCTION1 PFK	24.59	3.780e3					0.5	NO		bb		
8	FUNCTION1 PFK	24.31	2.156e4					1.5	NO		bb		
9	FUNCTION1 PFK	24.18	2.108e4					1.3	NO		bb		
10	FUNCTION1 PFK	23.84	1.300e4					1.6	NO		db		
11	FUNCTION1 PFK	23.71	1.733e5					5.9	YES		bd		
12	FUNCTION1 PFK	23.47	6.862e5					13.8	YES		db		
13	FUNCTION1 PFK	23.34	5.121e5					17.0	YES		dd		
14	FUNCTION1 PFK	23.25	3.744e5					19.8	YES		dd		
15	FUNCTION1 PFK	23.12	2.601e6					23.2	YES		dd		
16	FUNCTION1 PFK	22.44	6.337e6					42.7	YES		dd		
17	FUNCTION1 PFK	22.13	4.560e6					51.9	YES		dd		
18	FUNCTION1 PFK	21.69	5.356e6					64.4	YES		dd		
19	FUNCTION1 PFK	27.96	6.694e4					2.7	NO		bb		
20	FUNCTION1 PFK	27.60	4.416e3					0.0	NO		bb		
21	FUNCTION1 PFK	26.52	1.002e4					1.1	NO		bb		

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	30.16	7.819e3					0.9	NO		db		0.000
2	FUNCTION2 PFK	30.12	8.817e3					1.2	NO		bd		0.000
3	FUNCTION2 PFK	29.90	3.845e5					3.6	YES		db		0.000
4	FUNCTION2 PFK	29.55	6.082e5					18.3	YES		dd		0.000
5	FUNCTION2 PFK	29.44	3.590e5					22.6	YES		dd		0.000
6	FUNCTION2 PFK	29.40	5.945e5					23.8	YES		dd		0.000
7	FUNCTION2 PFK	28.99	2.455e6					41.3	YES		dd		0.000
8	FUNCTION2 PFK	28.76	2.355e6					51.6	YES		dd		0.000
9	FUNCTION2 PFK	28.72	2.114e6					53.0	YES		dd		0.000
10	FUNCTION2 PFK	28.49	2.220e6					61.2	YES		dd		0.000
11	FUNCTION2 PFK	28.33	1.274e6					67.7	YES		dd		0.000
12	FUNCTION2 PFK	28.27	1.160e6					70.0	YES		bd		0.000
13	FUNCTION2 PFK	32.86	1.038e5					2.6	NO		bb		0.000
14	FUNCTION2 PFK	32.54	4.830e3					1.3	NO		bb		0.000
15	FUNCTION2 PFK	32.49	1.456e3					0.6	NO		bb		0.000
16	FUNCTION2 PFK	32.36	2.145e3					0.6	NO		bb		0.000
17	FUNCTION2 PFK	32.14	2.800e3					0.7	NO		bb		0.000
18	FUNCTION2 PFK	31.79	3.146e3					0.6	NO		bb		0.000
19	FUNCTION2 PFK	31.08	1.342e4					1.1	NO		bb		0.000
20	FUNCTION2 PFK	30.78	9.476e3					1.3	NO		bb		0.000
21	FUNCTION2 PFK	30.38	3.764e3					0.3	NO		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	36.11	5.382e4					3.8	YES		bb		0.000
2	FUNCTION3 PFK	33.50	8.588e4					5.4	YES		bb		0.000
3	FUNCTION3 PFK	33.03	5.246e4					4.1	YES		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.10	7.338e5					7.0	YES		bb		
2	FUNCTION4 PFK	39.68	3.170e5					14.6	YES		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	46.40	7.506e3					1.3	NO		bb		
2	FUNCTION5 PFK	45.95	2.885e3					0.7	NO		bb		
3	FUNCTION5 PFK	45.90	2.003e3					0.8	NO		bb		
4	FUNCTION5 PFK	45.69	1.181e4					1.5	NO		bb		
5	FUNCTION5 PFK	45.37	4.600e3					1.0	NO		bb		
6	FUNCTION5 PFK	45.07	2.916e3					0.9	NO		bb		
7	FUNCTION5 PFK	44.52	6.708e3					1.4	NO		bb		
8	FUNCTION5 PFK	44.06	3.343e5					14.6	YES		db		
9	FUNCTION5 PFK	43.70	1.442e6					28.4	YES		dd		
10	FUNCTION5 PFK	43.47	7.250e5					37.0	YES		dd		
11	FUNCTION5 PFK	43.44	5.092e5					37.7	YES		dd		
12	FUNCTION5 PFK	43.27	6.625e5					43.7	YES		dd		
13	FUNCTION5 PFK	43.23	6.586e5					45.1	YES		dd		
14	FUNCTION5 PFK	43.06	8.957e5					51.1	YES		bd		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.81	9.468e1					2.6	NO		bb		0.000
2	FUNCTION1 HXCD...	27.27	1.176e2					2.0	NO		bb		0.000
3	FUNCTION1 HXCD...	26.93	4.154e2					10.0	YES		bb		0.000
4	FUNCTION1 HXCD...	26.28	1.233e3					29.4	YES		db		0.000
5	FUNCTION1 HXCD...	26.07	2.153e3					56.8	YES		dd		0.000
6	FUNCTION1 HXCD...	25.93	5.690e2					13.9	YES		bd		0.000
7	FUNCTION1 HXCD...	25.28	3.004e2					8.0	YES		bb		0.000
8	FUNCTION1 HXCD...	24.63	1.141e2					3.4	YES		bb		0.000
9	FUNCTION1 HXCD...	23.92	6.826e2					20.6	YES		bb		0.000
10	FUNCTION1 HXCD...	22.48	1.442e2					6.1	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	30.05	4.318e2					9.2	YES		bd		0.000
2	FUNCTION2 HPCD...	29.12	4.285e2					10.1	YES		db		0.000
3	FUNCTION2 HPCD...	29.01	7.011e1					2.3	NO		bd		0.000
4	FUNCTION2 HPCD...	28.74	8.589e1					3.3	YES		bb		0.000
5	FUNCTION2 HPCD...	28.59	7.036e1					3.2	YES		bb		0.000
6	FUNCTION2 HPCD...	32.37	2.086e2					5.2	YES		bb		0.000
7	FUNCTION2 HPCD...	30.14	7.281e1					2.8	NO		db		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.38	7.510e1					2.0	NO		bb		0.000
2	FUNCTION3 OCDPE	34.38	1.074e2					5.0	YES		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.91	7.902e1					3.8	YES		bb		0.000
2	FUNCTION4 NCDPE	38.58	2.815e4					806.0	YES		bb		0.000

ETHERS6

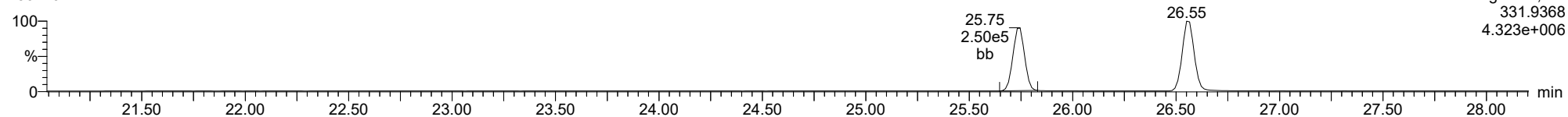
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.32	1.031e2					2.1	NO		bb		0.000

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

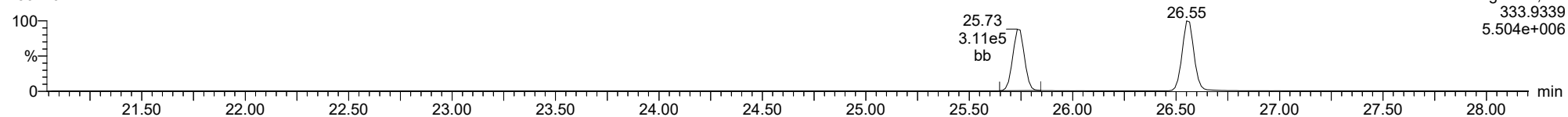
13C-1234-TCDD

23021012



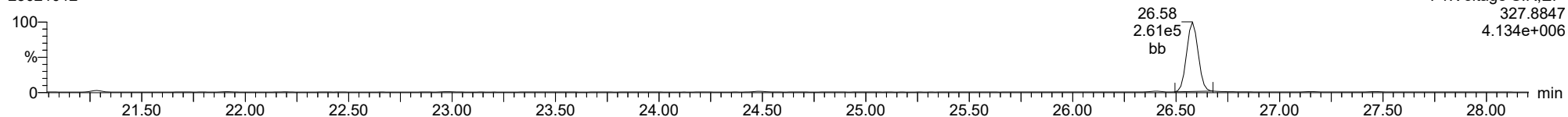
13C-1234-TCDD

23021012



37CL-2378-TCDD

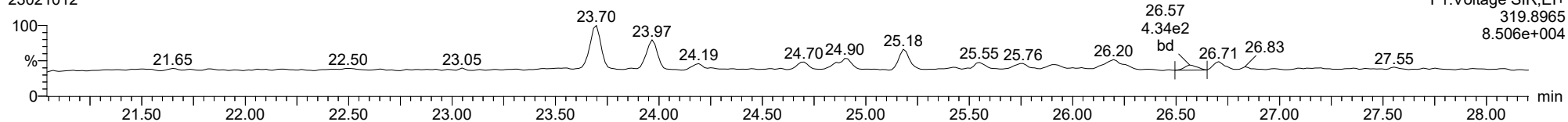
23021012



ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

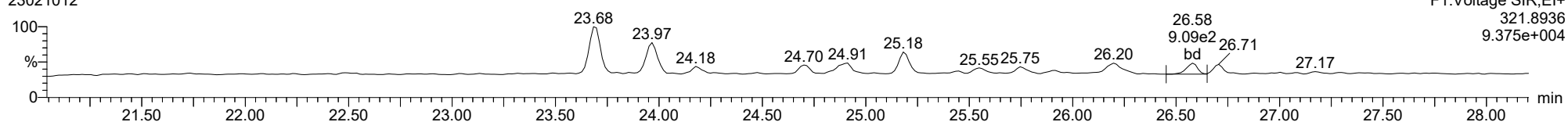
2378-TCDD

23021012



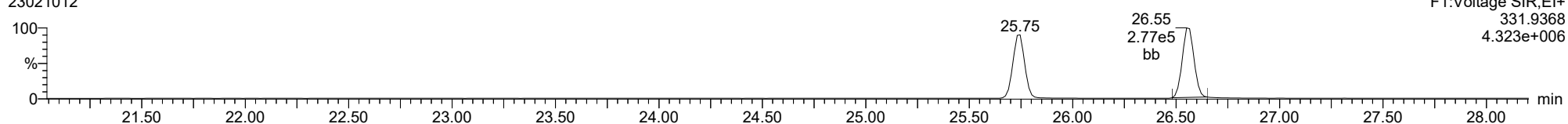
2378-TCDD

23021012



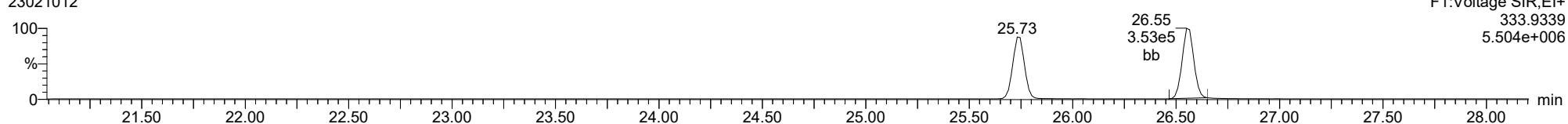
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23021012



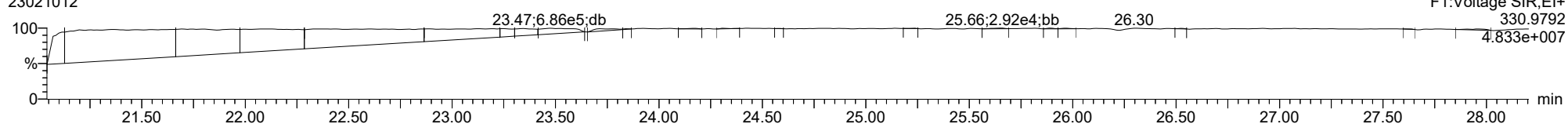
13C-2378-TCDD

23021012



FUNCTION1 PFK

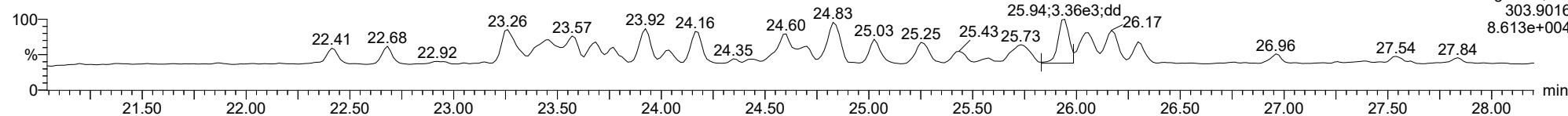
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ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

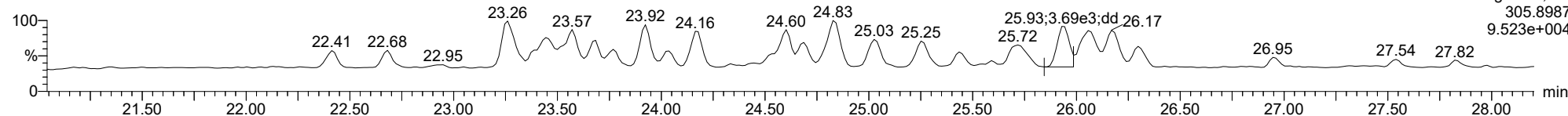
2378-TCDF

23021012



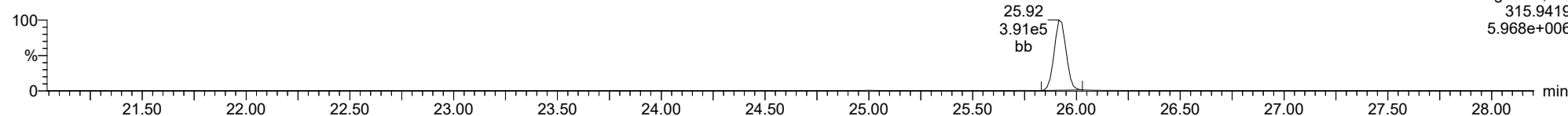
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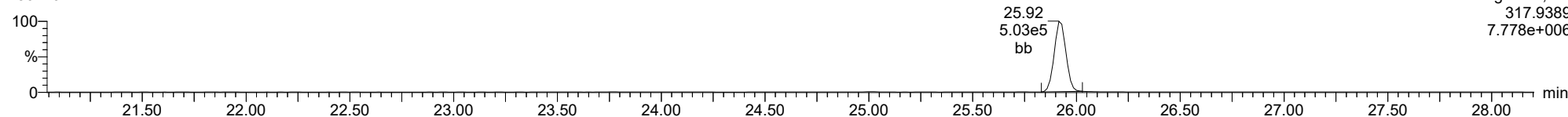
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23021012



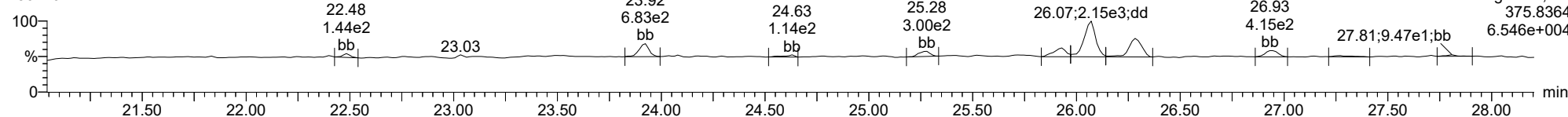
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23021012



FUNCTION1 HXCDPE

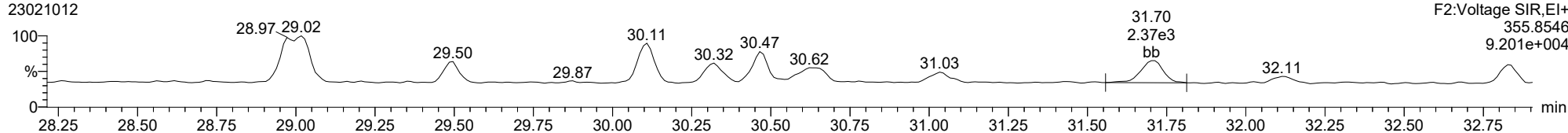
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ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

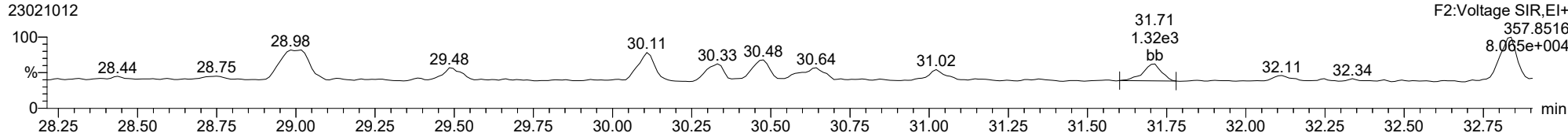
12378-PeCDD

23021012



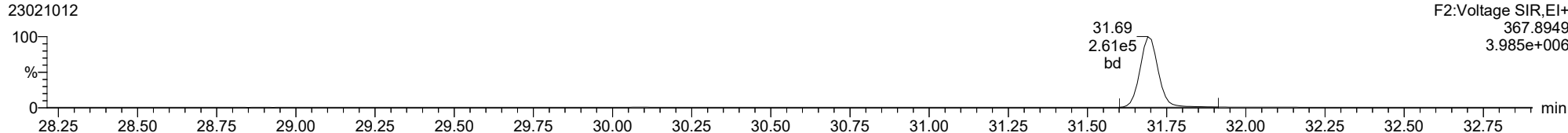
12378-PeCDD

23021012



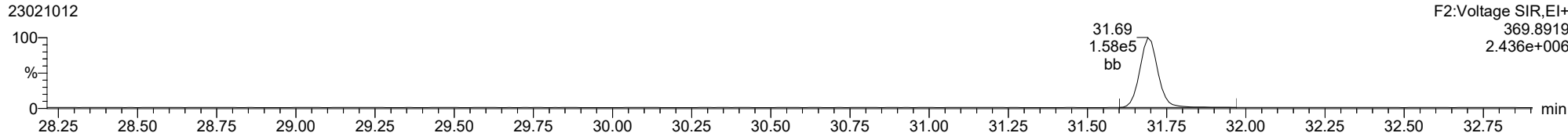
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23021012



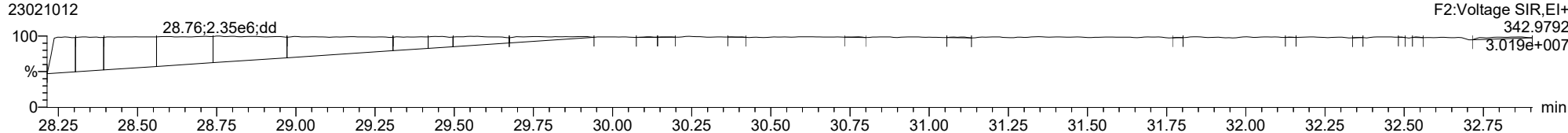
13C-12378-PeCDD

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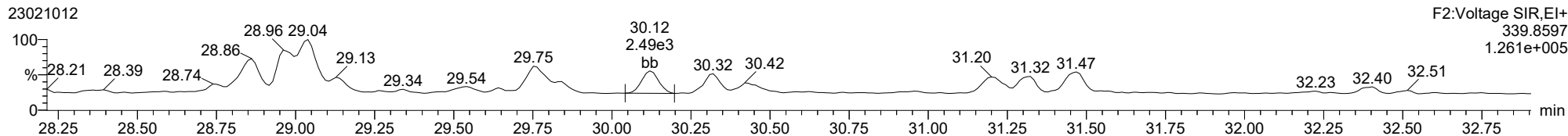
FUNCTION2 PFK

23021012

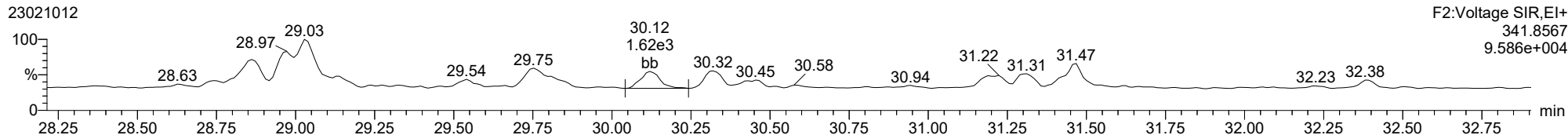


ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

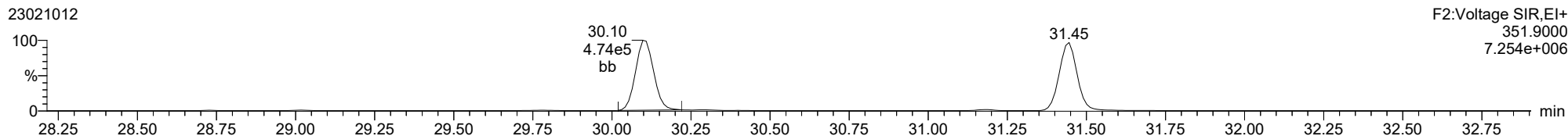
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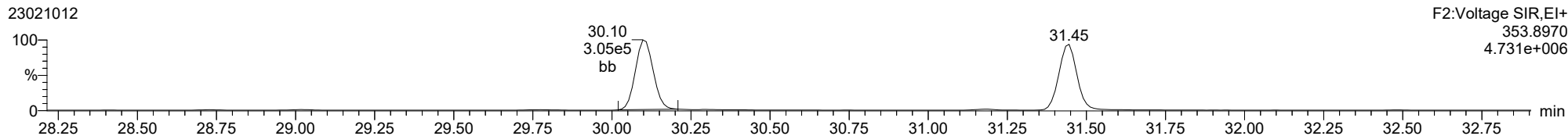
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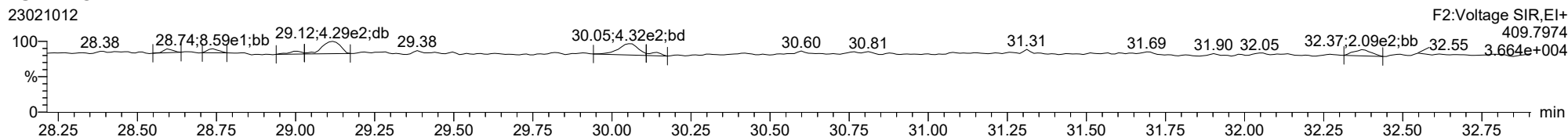
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13C-12378-PeCDF



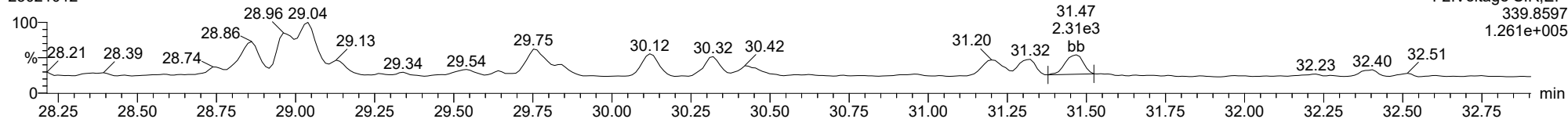
FUNCTION2 HPCDPE



ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

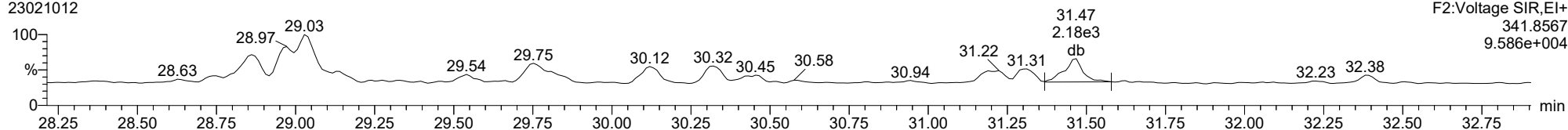
23478-PeCDF

23021012



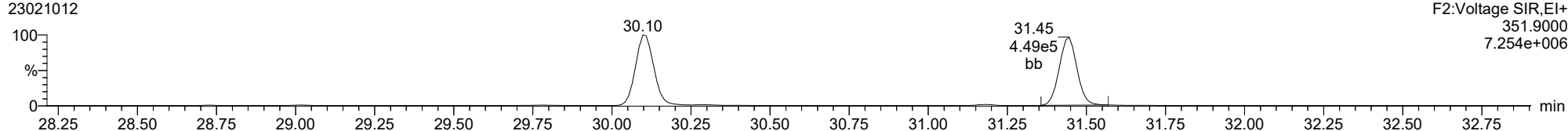
23478-PeCDF

23021012



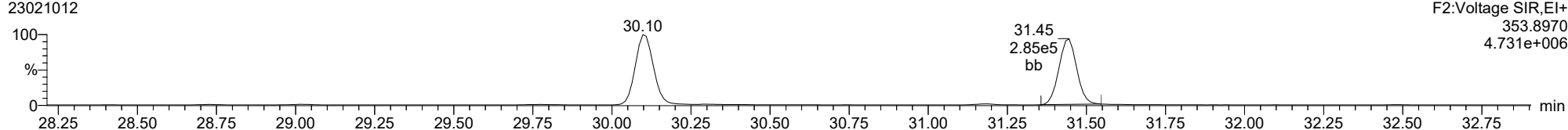
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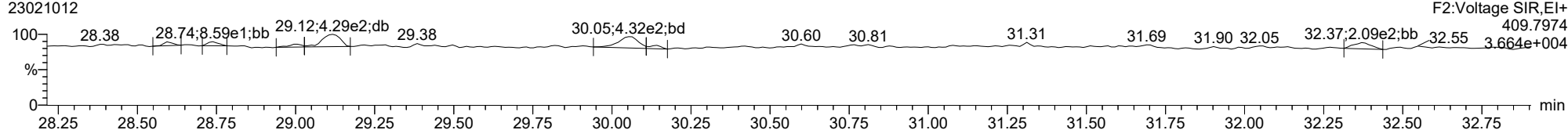
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FUNCTION2 HPCDPE

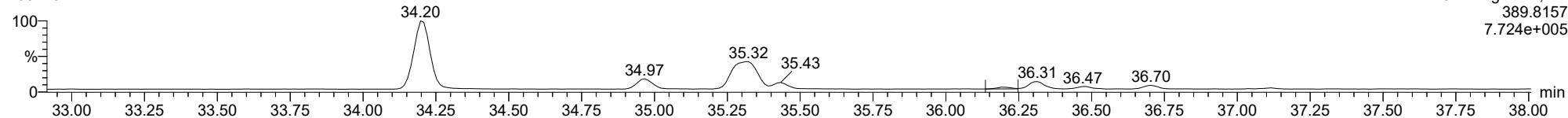
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ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

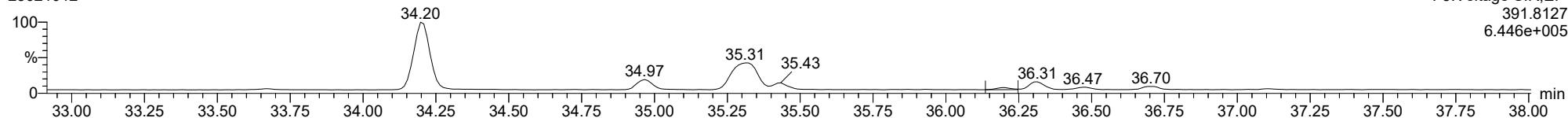
123478-HxCDD

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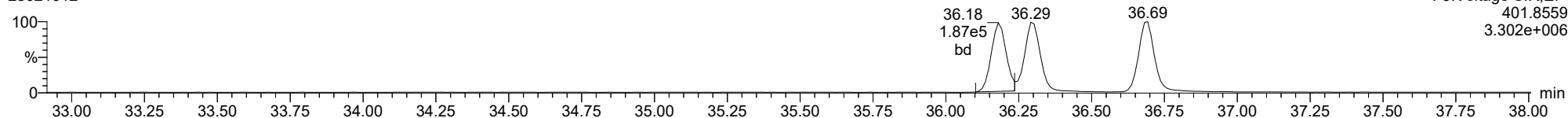
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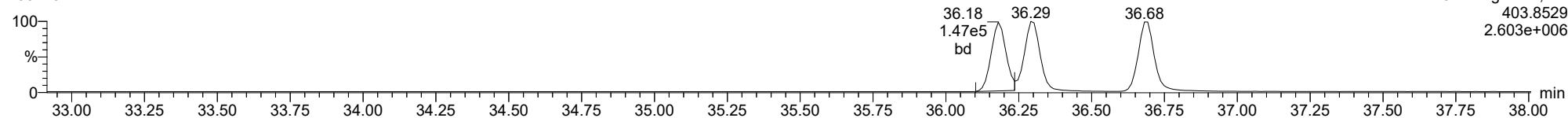
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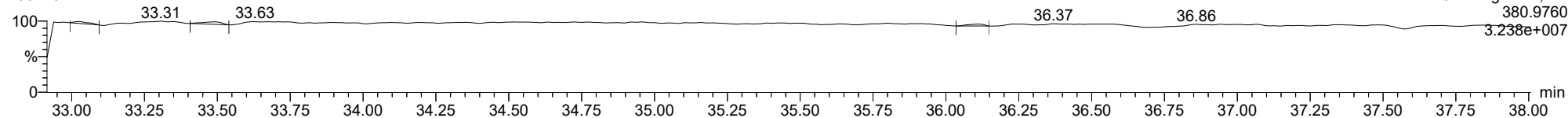
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23021012



FUNCTION3 PFK

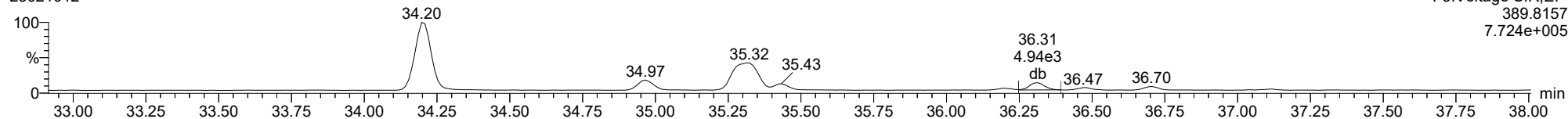
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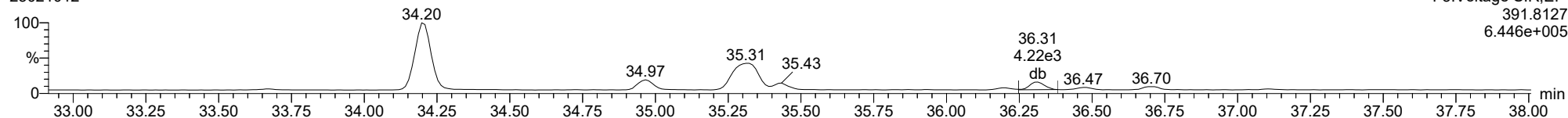
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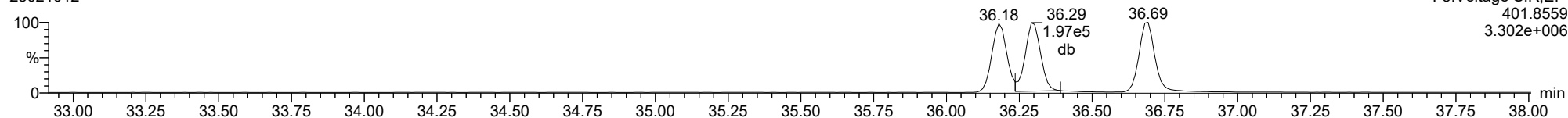
123678-HxCDD

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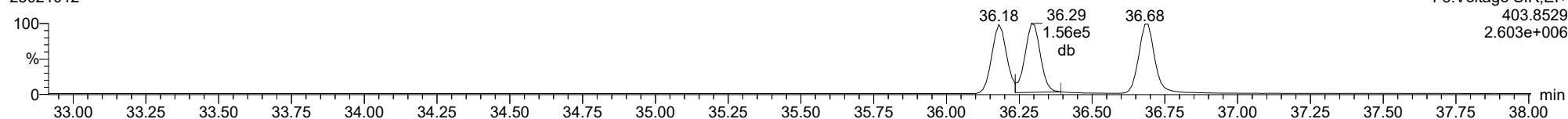
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13C-123678-HxCDD

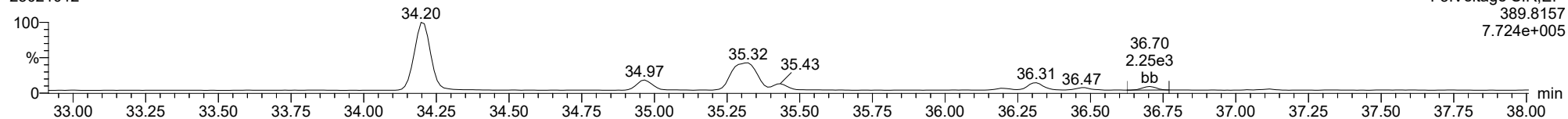
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ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

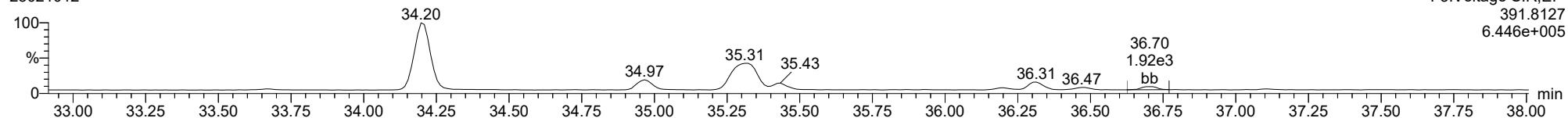
123789-HxCDD

23021012



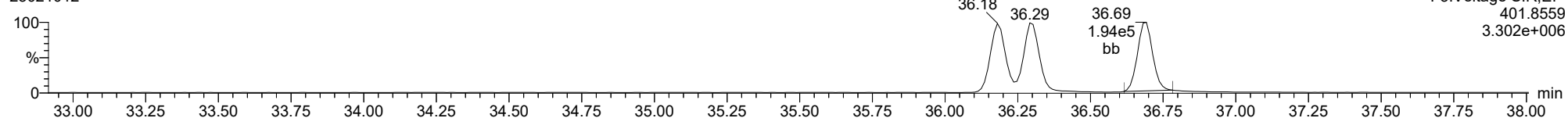
123789-HxCDD

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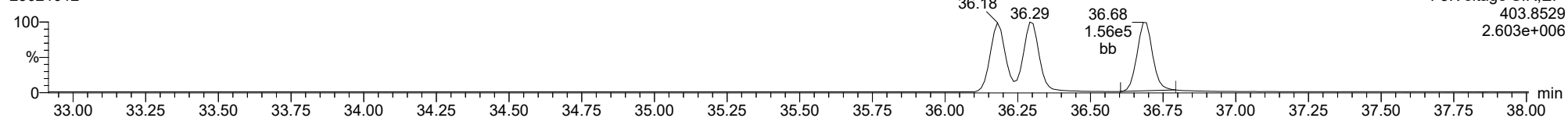
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23021012



13C-123789-HxCDD

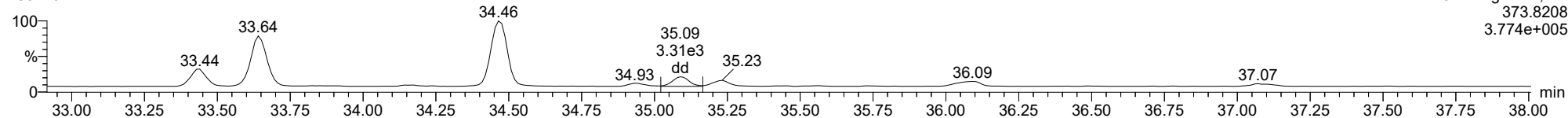
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ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

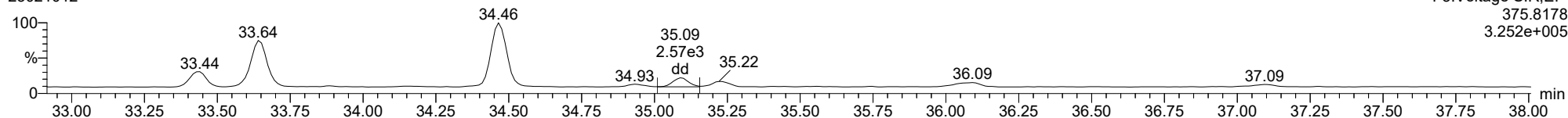
123478-HxCDF

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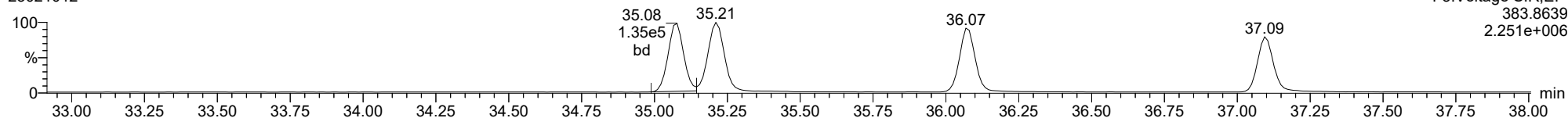
123478-HxCDF

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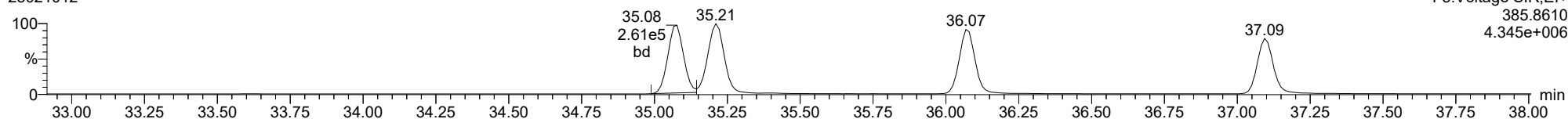
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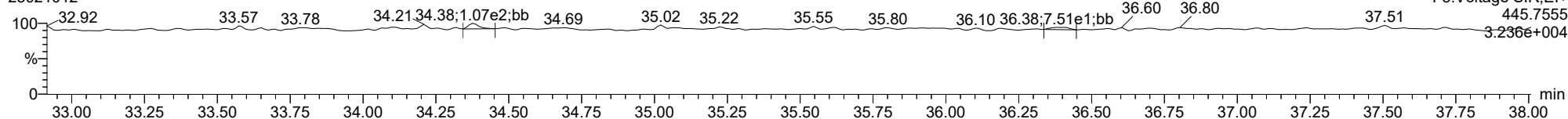
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23021012



FUNCTION3 OCDPE

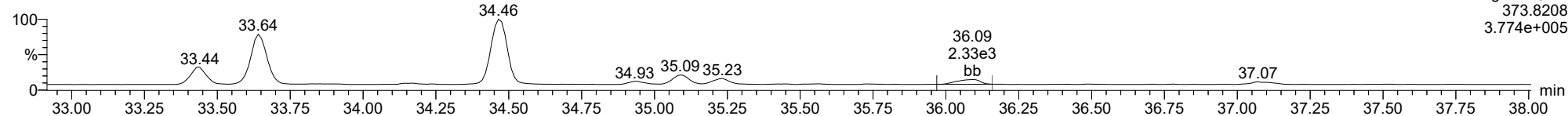
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ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

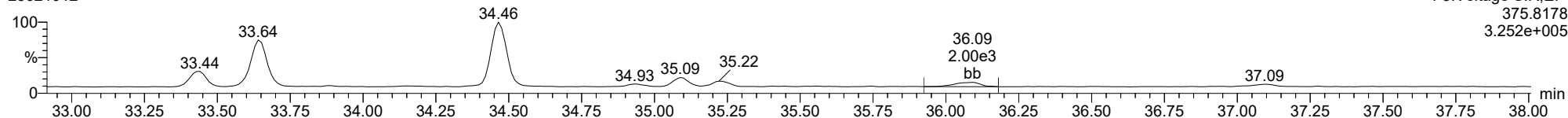
234678-HxCDF

23021012



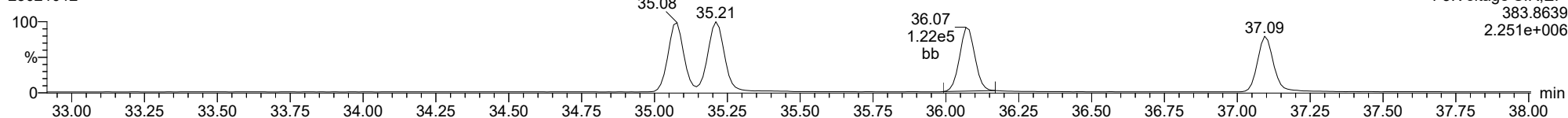
234678-HxCDF

23021012



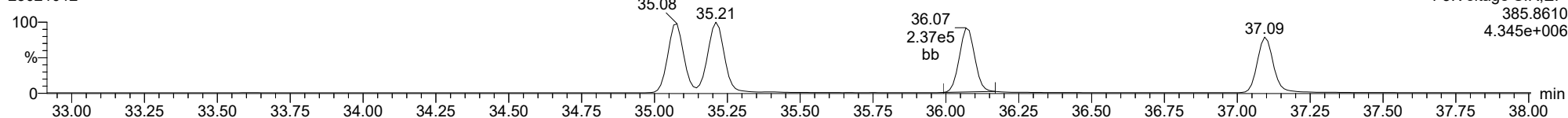
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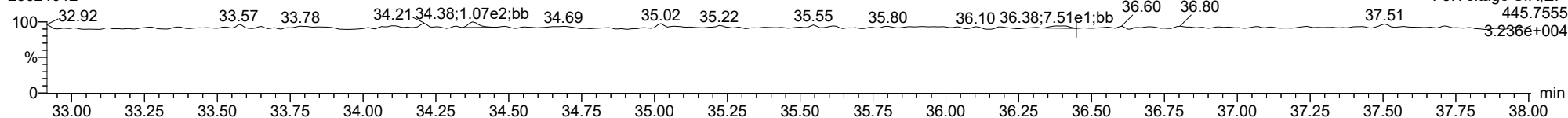
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FUNCTION3 OCDPE

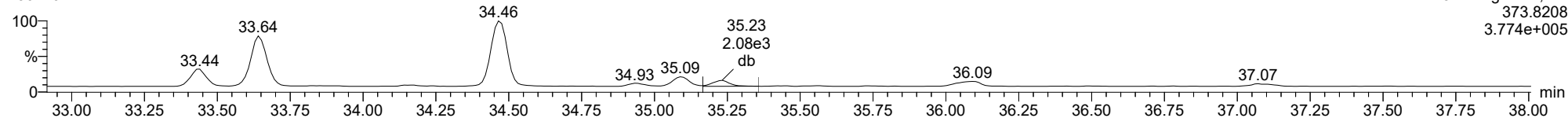
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ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

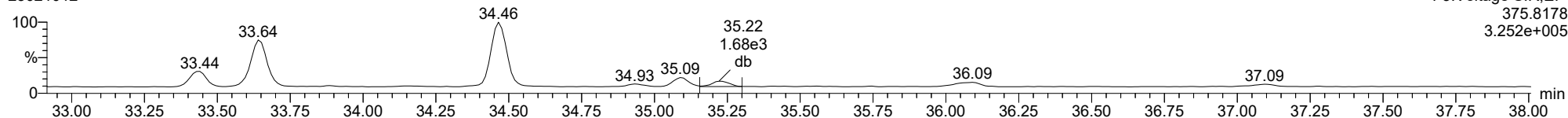
123678-HxCDF

23021012



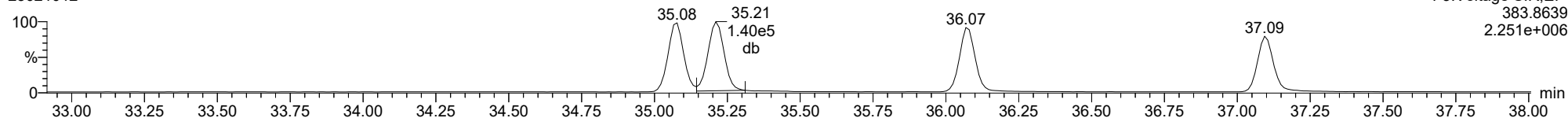
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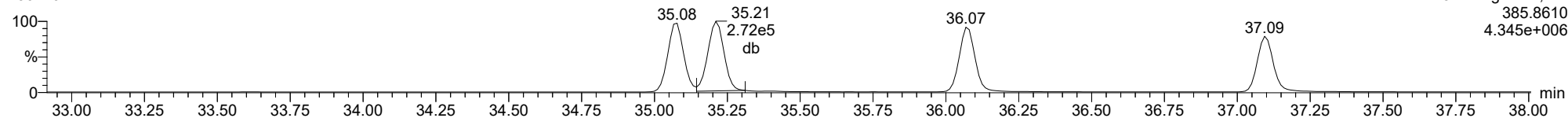
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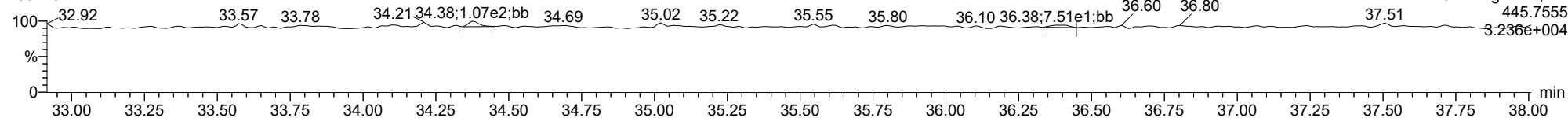
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FUNCTION3 OCDPE

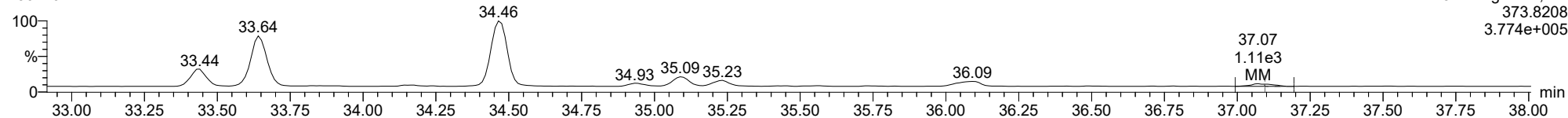
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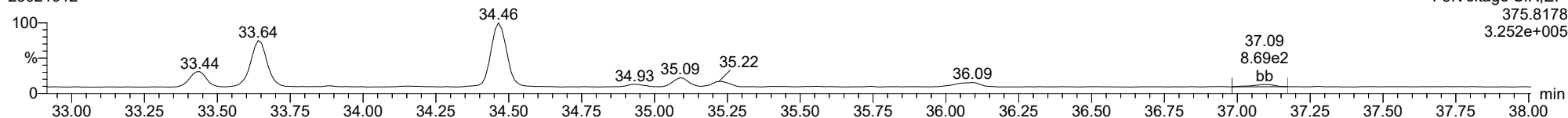
123789-HxCDF

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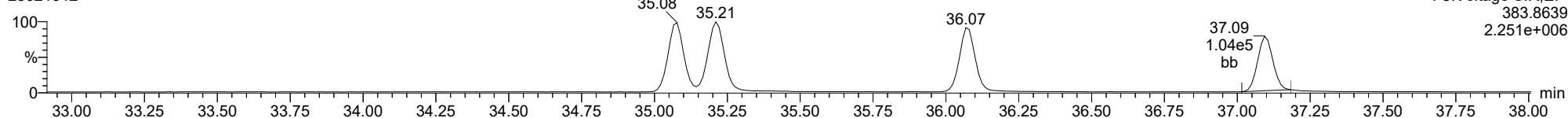
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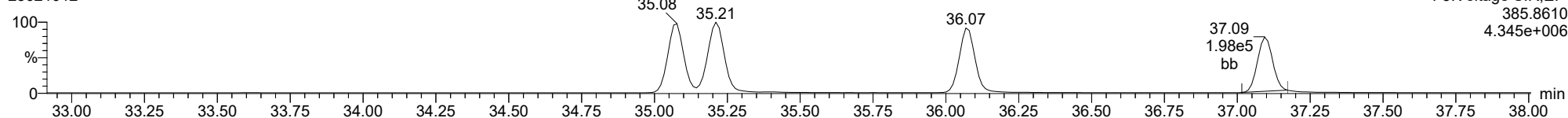
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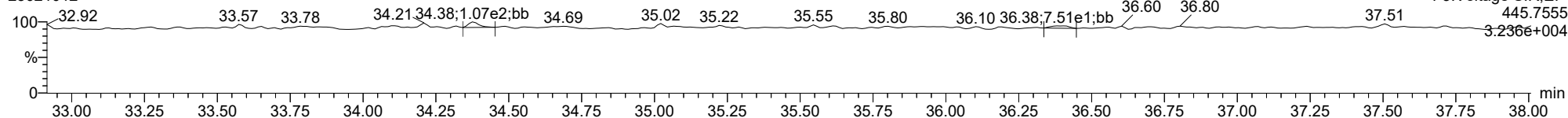
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FUNCTION3 OCDPE

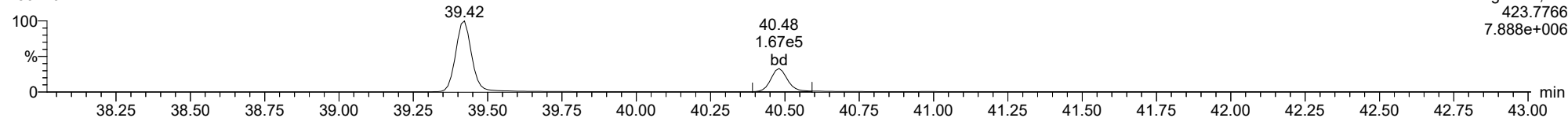
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ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

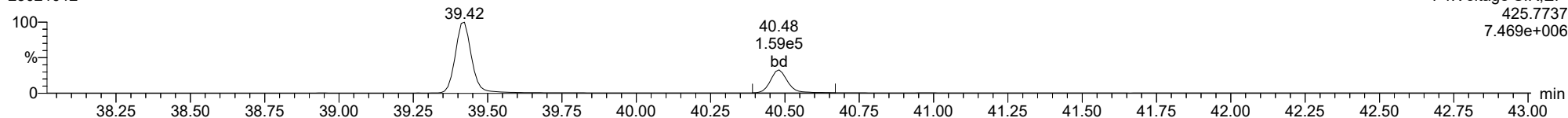
1234678-HpCDD

23021012



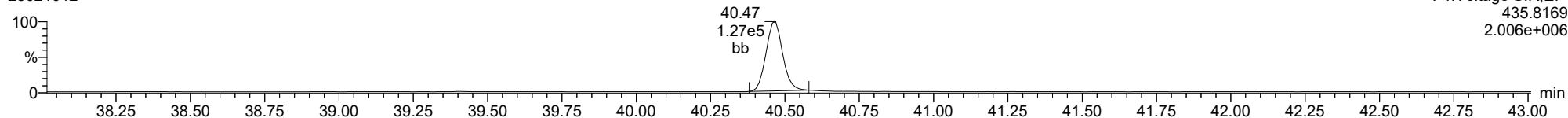
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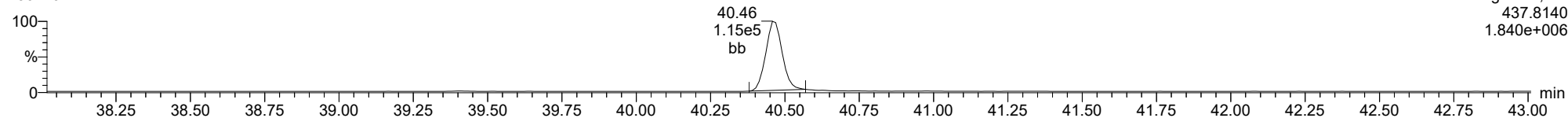
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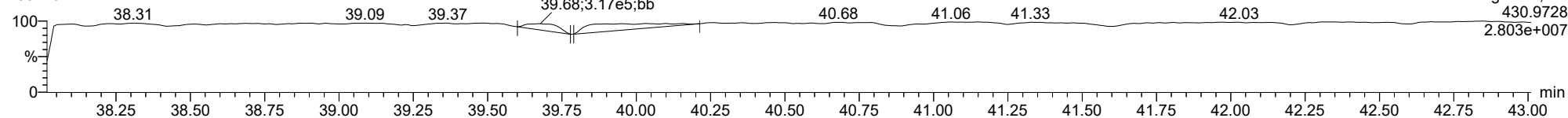
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23021012



FUNCTION4 PFK

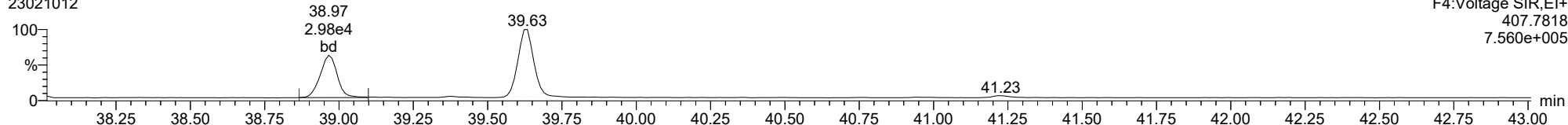
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ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

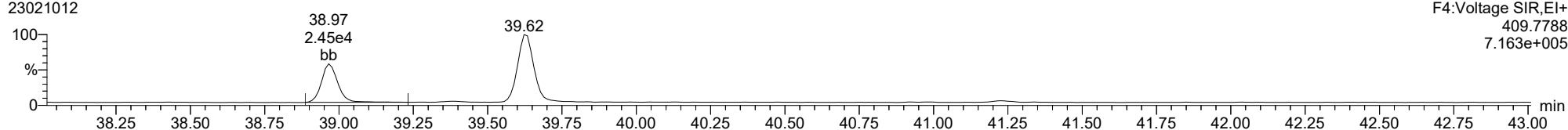
1234678-HpCDF

23021012



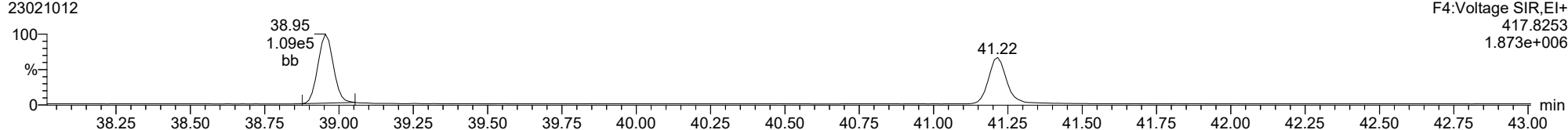
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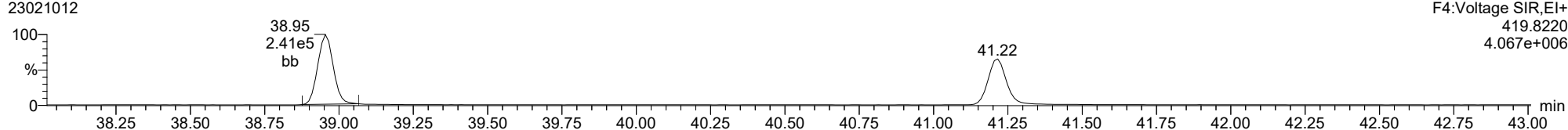
13C-1234678-HpCDF

23021012



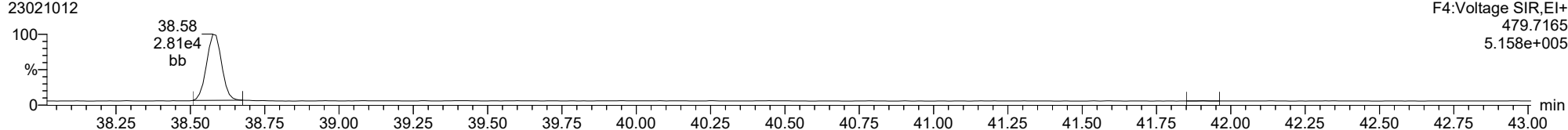
13C-1234678-HpCDF

23021012



FUNCTION4 NCDPE

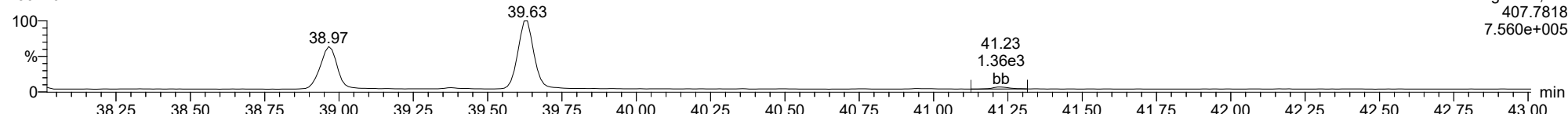
23021012



ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

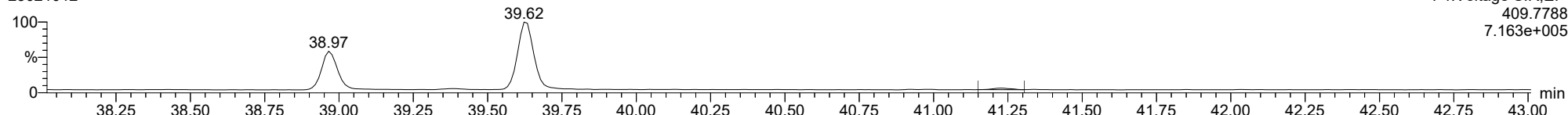
1234789-HpCDF

23021012



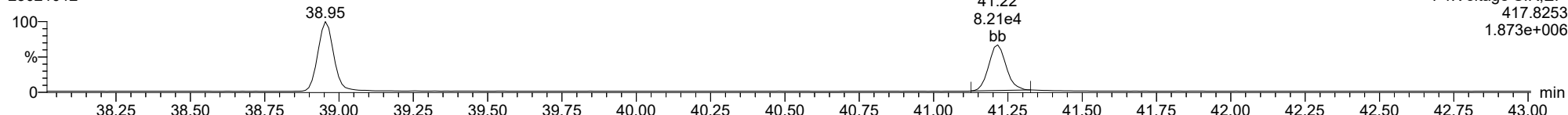
1234789-HpCDF

23021012



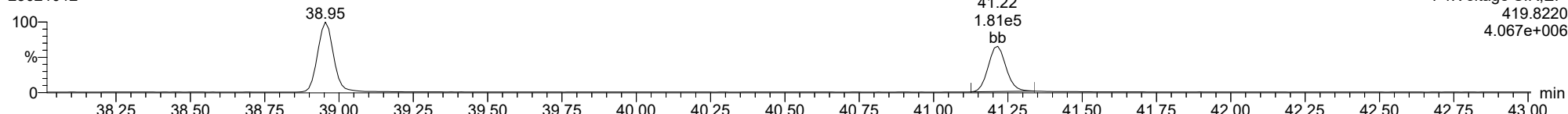
13C-1234789-HpCDF

23021012



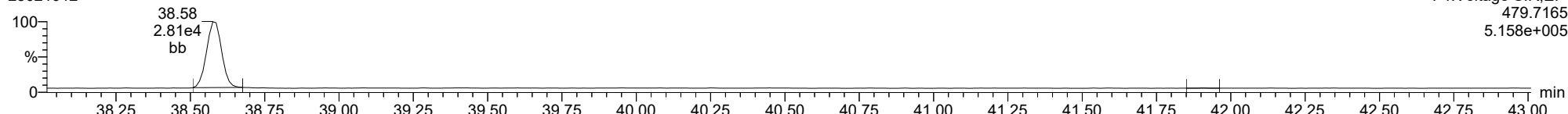
13C-1234789-HpCDF

23021012



FUNCTION4 NCDPE

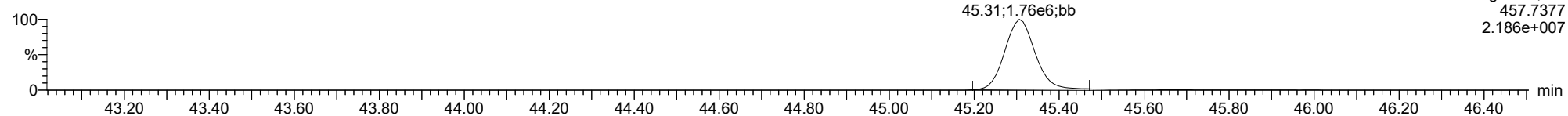
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ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

OCDD

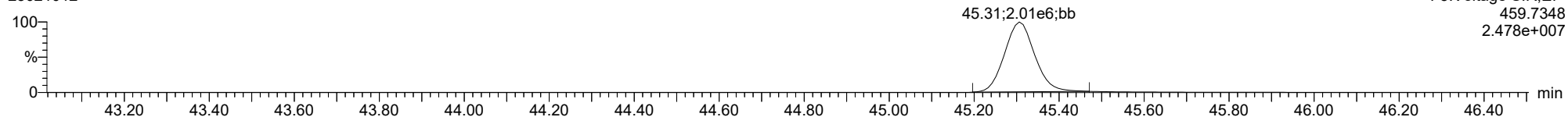
23021012



F5:Voltage SIR,El+
457.7377
2.186e+007

OCDD

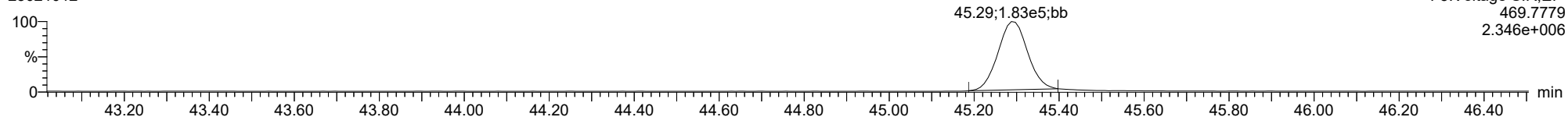
23021012



F5:Voltage SIR,El+
459.7348
2.478e+007

13C-OCDD

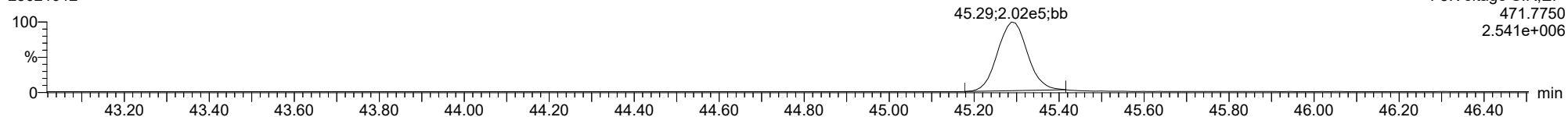
23021012



F5:Voltage SIR,El+
469.7779
2.346e+006

13C-OCDD

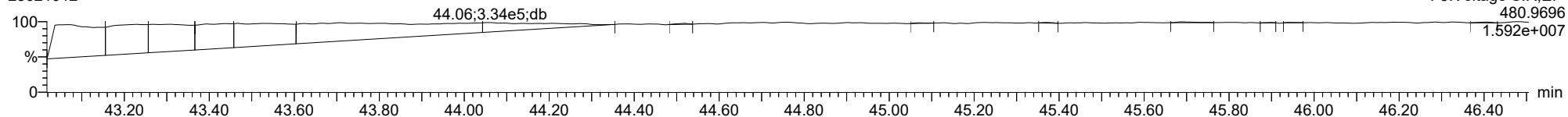
23021012



F5:Voltage SIR,El+
471.7750
2.541e+006

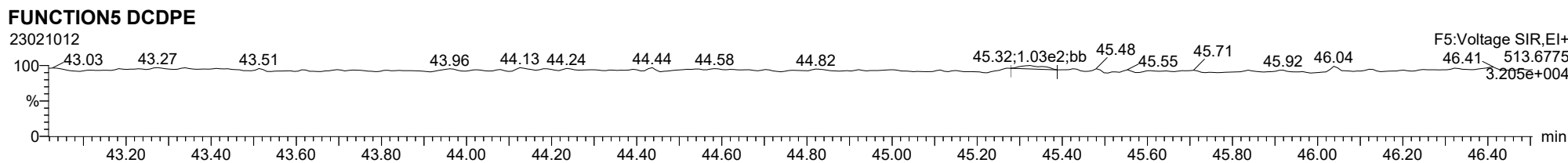
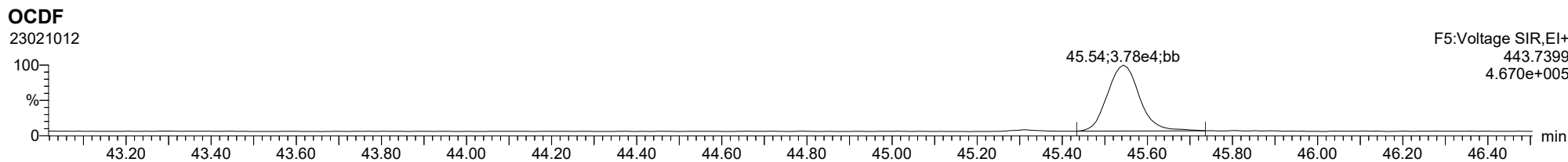
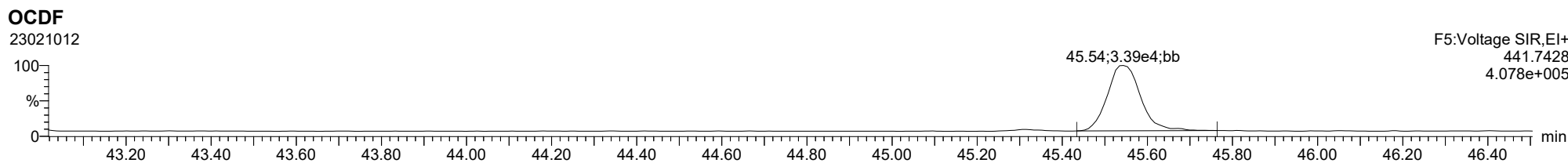
FUNCTION5 PFK

23021012



F5:Voltage SIR,El+
480.9696
1.592e+007

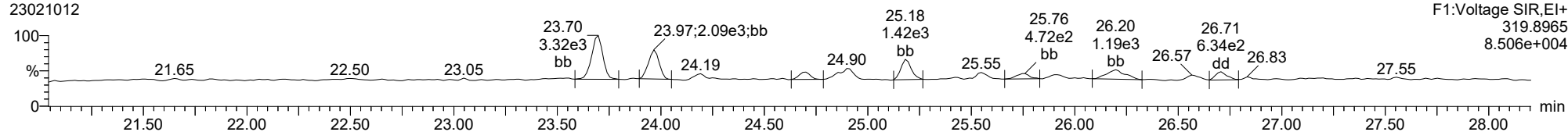
ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk



ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

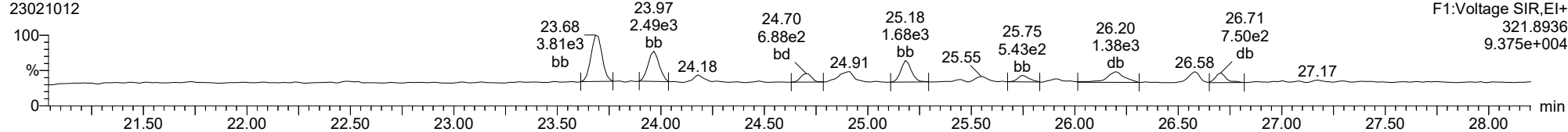
Total-tetradioxins

23021012



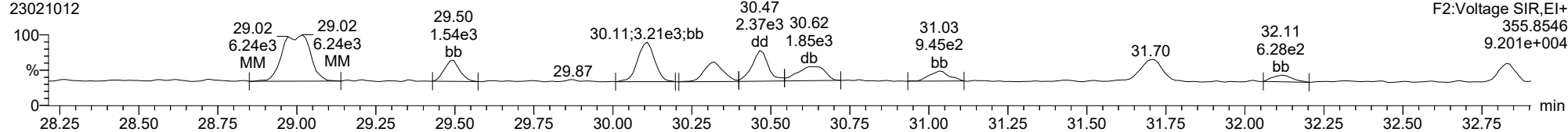
Total-tetradioxins

23021012



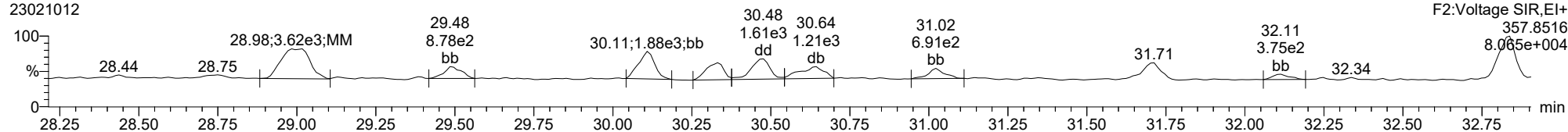
Total-pentadioxins

23021012



Total-pentadioxins

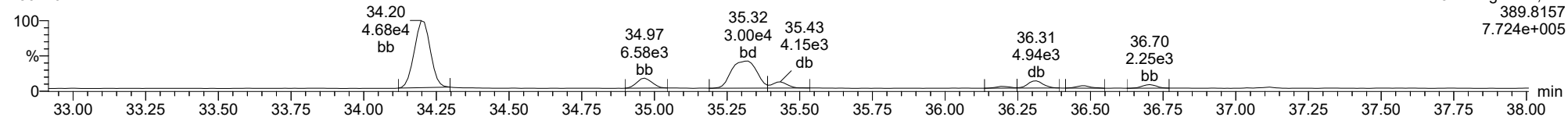
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ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

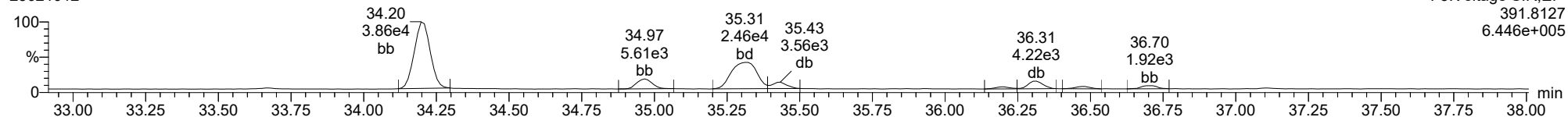
Total-hexadioxins

23021012



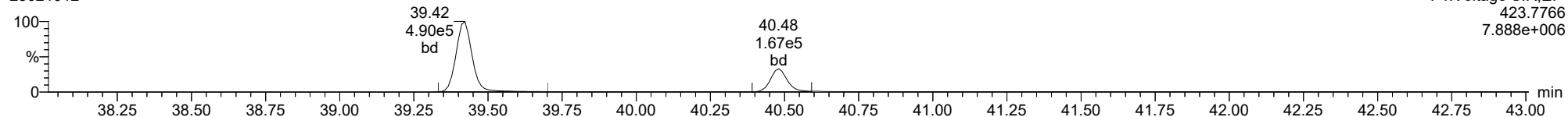
Total-hexadioxins

23021012



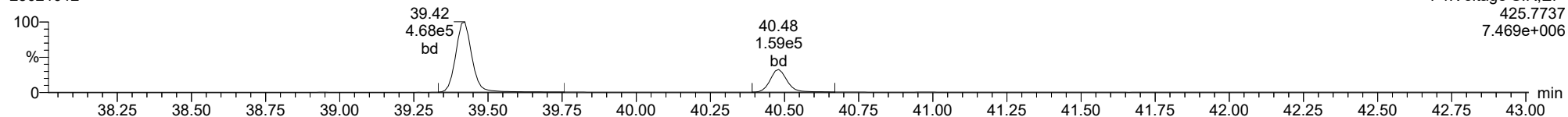
Total-heptadioxins

23021012



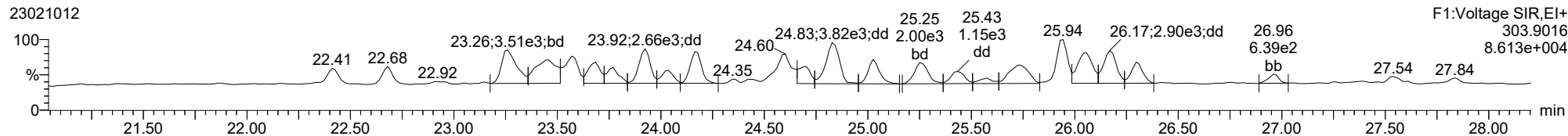
Total-heptadioxins

23021012

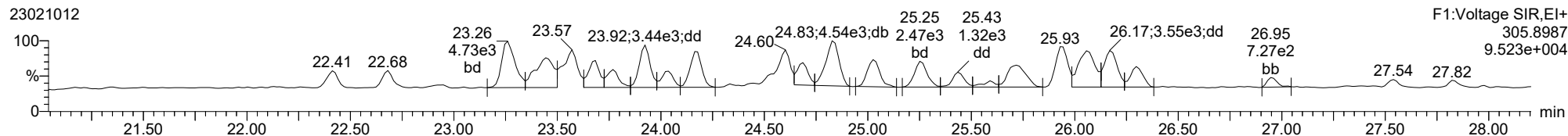


ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

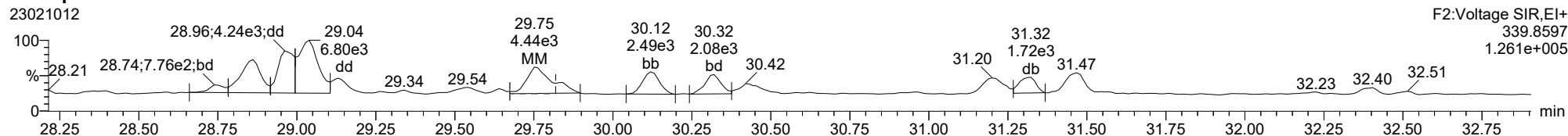
Total-tetrafurans



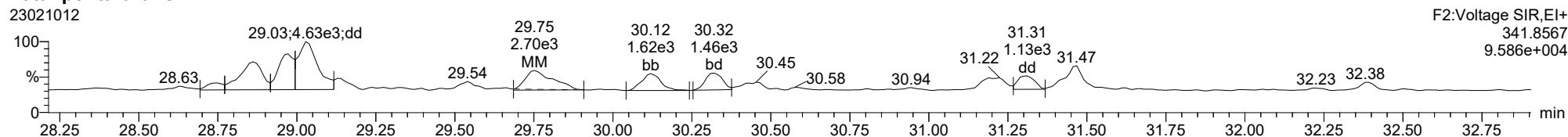
Total-tetrafurans



Total-pentafurans



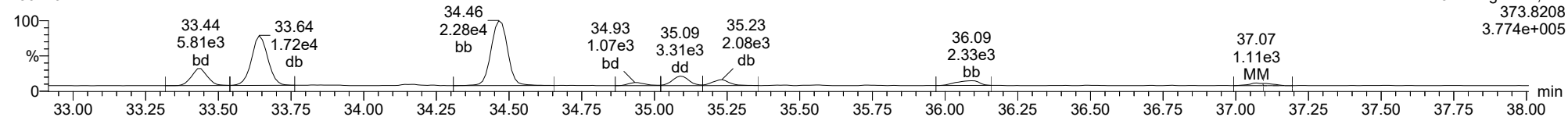
Total-pentafurans



ID: 23A0032-02, Name: 23021012, Date: 10-Feb-2023, Time: 22:34:23, Conditions: AUTOSPEC01, User: pk

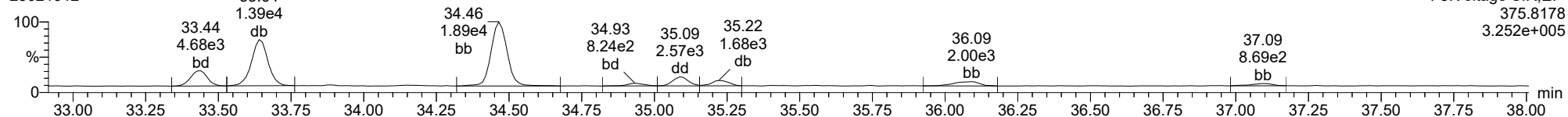
Total-hexafurans

23021012



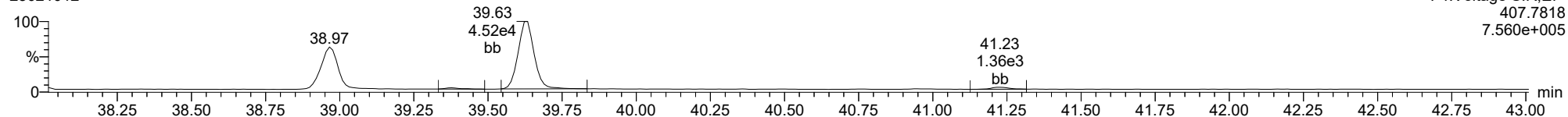
Total-hexafurans

23021012



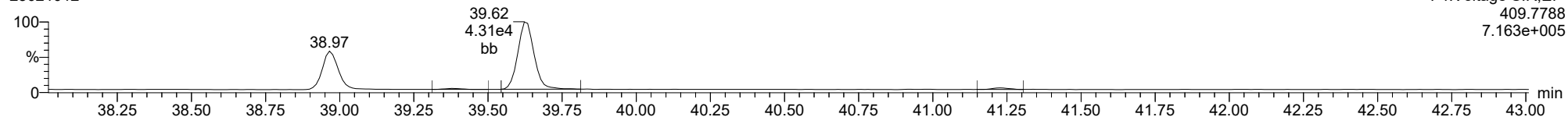
Total-heptafurans

23021012



Total-heptafurans

23021012





Form 1
ORGANIC ANALYSIS DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory: Analytical Resources, LLC SDG: 23A0032
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-04 C File ID: 23021013
 Sampled: 01/03/23 10:45 Prepared: 01/30/23 14:23 Analyzed: 02/10/23 23:24
 % Solids: 78.38 Preparation: EPA 8290 Initial/Final: 12.77 g Wet / 20 uL
 Result Basis: Dry Sequence: SLB0147 Calibration: GB00010
 Batch: BLA0256 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.786	0.655-0.886	0.100	0.999	0.196	ng/kg	J
1746-01-6	2,3,7,8-TCDD	1		0.655-0.886	0.076	0.999	ND	ng/kg	U
57117-41-6	1,2,3,7,8-PeCDF	1	1.111	1.318-1.783	0.148	0.999	0.211	ng/kg	EMPC, J
57117-31-4	2,3,4,7,8-PeCDF	1		1.318-1.783	0.145	0.999	ND	ng/kg	U
40321-76-4	1,2,3,7,8-PeCDD	1	1.559	1.318-1.783	0.118	0.999	0.217	ng/kg	J
70648-26-9	1,2,3,4,7,8-HxCDF	1	1.244	1.054-1.426	0.092	0.999	0.371	ng/kg	J
57117-44-9	1,2,3,6,7,8-HxCDF	1	1.124	1.054-1.426	0.087	0.999	0.234	ng/kg	J, B
60851-34-5	2,3,4,6,7,8-HxCDF	1	0.705	1.054-1.426	0.096	0.999	0.273	ng/kg	EMPC, J
72918-21-9	1,2,3,7,8,9-HxCDF	1	1.364	1.054-1.426	0.111	0.999	0.245	ng/kg	J
39227-28-6	1,2,3,4,7,8-HxCDD	1	1.345	1.054-1.426	0.112	0.999	0.206	ng/kg	J
57653-85-7	1,2,3,6,7,8-HxCDD	1	1.537	1.054-1.426	0.109	0.999	0.700	ng/kg	EMPC, J
19408-74-3	1,2,3,7,8,9-HxCDD	1	1.149	1.054-1.426	0.113	0.999	0.615	ng/kg	J
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	1.070	0.893-1.208	0.101	0.999	2.39	ng/kg	B
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	0.881	0.893-1.208	0.147	0.999	0.260	ng/kg	EMPC, J
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	0.987	0.893-1.208	0.140	2.50	13.3	ng/kg	B
39001-02-0	OCDF	1	0.859	0.757-1.024	0.174	2.50	5.78	ng/kg	B
3268-87-9	OCDD	1	0.872	0.757-1.024	0.392	9.99	104	ng/kg	B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.999	0.322	ng/kg
41903-57-5	Total TCDD	1	0.000			0.999	0.422	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.999	1.36	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.999	0.742	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.999	3.98	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.999	3.28	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.999	7.13	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.999	26.7	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.700
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.760

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:43:32 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: 23A0032-04, **Name:** 23021013, **Date:** 10-Feb-2023, **Time:** 23:24:01, **Conditions:** AUTOSPEC01, **User:** pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.930	1.000	3.750e2	4.768e2	0.876	0.786	0.770	1142	1169	5.64e3	8.35e3	4.9	7.1	NO	dd	bd	0.098
12378-PeCDF	30.109	1.001	4.201e2	3.780e2	0.845	1.111	1.550	1140	1714	6.29e3	5.39e3	5.5	3.1	YES	bb	MM	0.106
23478-PeCDF					0.911		1.550	1140	1714								
123478-HxCDF	35.078	1.001	6.745e2	5.422e2	1.182	1.244	1.240	700	962	1.19e4	7.93e3	17.0	8.2	NO	bd	bd	0.186
234678-HxCDF	36.069	1.000	3.626e2	5.141e2	1.229	0.705	1.240	700	962	8.12e3	7.27e3	11.6	7.6	YES	db	bb	0.136
123678-HxCDF	35.212	1.001	4.424e2	3.937e2	1.248	1.124	1.240	700	962	7.50e3	5.75e3	10.7	6.0	NO	db	db	0.117
123789-HxCDF	37.095	1.001	3.865e2	2.834e2	1.187	1.364	1.240	700	962	5.28e3	3.88e3	7.5	4.0	NO	db	MM	0.123
1234678-HpCDF	38.944	1.000	3.631e3	3.394e3	1.204	1.070	1.050	784	838	6.16e4	5.20e4	78.6	62.0	NO	bb	bd	1.195
1234789-HpCDF	41.206	1.000	2.809e2	3.189e2	1.165	0.881	1.050	784	838	4.74e3	5.77e3	6.0	6.9	YES	bb	bb	0.130
OCDF	45.518	1.006	4.647e3	5.407e3	1.186	0.859	0.890	530	663	5.53e4	5.92e4	104.2	89.3	NO	bb	bb	2.894
2378-TCDD					1.236		0.770	951	799								
12378-PeCDD	31.691	1.000	3.614e2	2.318e2	1.087	1.559	1.550	860	759	6.19e3	4.58e3	7.2	6.0	NO	bb	bb	0.109
123478-HxCDD	36.170	1.000	2.908e2	2.162e2	0.987	1.345	1.240	622	892	4.71e3	4.56e3	7.6	5.1	NO	bd	bd	0.103
123678-HxCDD	36.292	1.000	1.087e3	7.068e2	1.021	1.537	1.240	622	892	1.72e4	1.25e4	27.6	14.1	YES	db	db	0.350
123789-HxCDD	36.682	1.011	8.096e2	7.048e2	0.985	1.149	1.240	622	892	1.25e4	1.03e4	20.1	11.5	NO	bb	bb	0.308
1234678-HpCDD	40.459	1.000	1.524e4	1.544e4	1.253	0.987	1.050	722	912	2.20e5	2.31e5	304.5	253.3	NO	bd	bb	6.658
OCDD	45.280	1.000	7.861e4	9.010e4	1.103	0.872	0.890	1473	1029	9.27e5	1.01e6	629.2	985.6	NO	bd	bd	52.248
13C-2378-TCDF	25.916	1.007	4.288e5	5.611e5	1.768	0.764	0.770	1540	1275	6.84e6	8.93e6	4441.1	6999.1	NO	bb	bb	110.753
13C-12378-PeCDF	30.087	1.169	5.419e5	3.530e5	1.527	1.535	1.550	1670	1591	8.29e6	5.50e6	4965.7	3454.7	NO	bb	bb	115.926
13C-23478-PeCDF	31.424	1.221	5.145e5	3.361e5	1.466	1.531	1.550	1670	1591	7.84e6	5.12e6	4696.8	3217.4	NO	bb	bb	114.764
13C-123478-HxCDF	35.056	0.956	1.842e5	3.697e5	1.054	0.498	0.510	1108	2195	3.03e6	5.97e6	2735.8	2722.0	NO	bd	MM	124.484
13C-123678-HxCDF	35.189	0.960	1.957e5	3.753e5	1.080	0.521	0.510	1108	2195	3.14e6	6.03e6	2833.3	2745.5	NO	db	db	125.212
13C-234678-HxCDF	36.058	0.983	1.766e5	3.464e5	1.014	0.510	0.510	1108	2195	2.84e6	5.52e6	2562.1	2514.0	NO	bb	bb	122.094
13C-123789-HxCDF	37.072	1.011	1.536e5	3.069e5	0.928	0.501	0.510	1108	2195	2.53e6	5.04e6	2281.8	2295.8	NO	bb	bb	117.512
13C-1234678-HpCDF	38.933	1.062	1.540e5	3.342e5	1.036	0.461	0.440	1288	2293	2.52e6	5.55e6	1955.6	2420.7	NO	bb	bb	111.580
13C-1234789-HpCDF	41.194	1.123	1.241e5	2.708e5	0.905	0.458	0.440	1288	2293	1.79e6	3.97e6	1388.9	1730.4	NO	bb	bb	103.348
13C-1234-TCDD	25.732	0.000	2.250e5	2.806e5	1.000	0.802	0.770	1449	1024	3.61e6	4.52e6	2493.4	4414.3	NO	bb	bb	100.000
13C-2378-TCDD	26.551	1.032	3.133e5	3.950e5	1.103	0.793	0.770	1449	1024	4.91e6	6.18e6	3388.3	6034.7	NO	bb	bb	127.020
13C-12378-PeCDD	31.680	1.231	3.118e5	1.898e5	0.914	1.643	1.550	1119	764	4.69e6	2.88e6	4195.5	3776.5	NO	bb	bd	108.543
13C-123478-HxCDD	36.159	0.986	2.778e5	2.194e5	0.933	1.266	1.240	924	1451	4.57e6	3.63e6	4947.0	2498.6	NO	bd	bd	126.202
13C-123678-HxCDD	36.281	0.989	2.815e5	2.199e5	0.965	1.280	1.240	924	1451	4.58e6	3.59e6	4949.9	2474.9	NO	db	db	123.100
13C-1234678-HpCDD	40.437	1.103	1.909e5	1.769e5	0.782	1.079	1.050	953	1306	2.90e6	2.70e6	3038.9	2065.4	NO	bb	bb	111.383
13C-OCDD	45.262	1.234	2.760e5	3.097e5	0.788	0.891	0.890	883	1312	3.27e6	3.68e6	3701.1	2802.2	NO	bb	bb	175.946
13C-123789-HxCDD	36.671	0.000	2.344e5	1.879e5	1.000	1.247	1.240	924	1451	3.80e6	3.10e6	4111.7	2136.4	NO	bb	bb	100.000
37CL-2378-TCDD	26.566	1.032	2.603e5		1.233			1062		3.99e6		3752.9			bb		41.742

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:43:32 Pacific Standard Time

ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.413	0.865	9.643e1	2.416e2	1.064	0.399	0.770	1142	1169	2.24e3	3.80e3	2.0	3.3	YES	bd	bb	0.032
1289-TCDF	27.526	1.062	3.215e2	3.522e2	0.858	0.913	0.770	1142	1169	5.29e3	5.55e3	4.6	4.7	YES	bb	bb	0.079
13468-PECDF					1.013		1.550	673	710								
12389-PECDF					0.844		1.550	1140	1714								
123468-HXCDF	33.407	0.953	6.513e2	6.097e2	1.197	1.068	1.240	700	962	1.07e4	9.18e3	15.3	9.5	NO	bb	bd	0.190
1368-TCDD	23.684	0.892	6.946e2	9.284e2	1.084	0.748	0.770	951	799	1.18e4	1.52e4	12.4	19.0	NO	bb	bb	0.211
1289-TCDD					0.975		0.770	951	799								
12479-PECDD	29.006	0.916	5.351e2	3.654e2	1.837	1.465	1.550	860	759	8.48e3	8.01e3	9.9	10.6	NO	db	db	0.098
12389-PECDD	32.114	1.014	2.095e2	1.597e2	1.252	1.312	1.550	860	759	4.65e3	2.92e3	5.4	3.8	YES	bb	bb	0.059
124679-HXCDD	34.176	0.945	2.055e3	1.636e3	1.033	1.256	1.240	622	892	3.33e4	2.50e4	53.6	28.0	NO	bb	bb	0.719
1234679-HPCDD	39.401	0.974	1.607e4	1.556e4	1.286	1.033	1.050	722	912	2.49e5	2.38e5	344.2	260.7	NO	bd	bb	6.689
Total-tetrafurans			6.391e2		0.933			1142		1.22e4							0.161
Total-penta1			3.504e3					673		5.08e4							0.681
Total-pentafurans			0.000e0		0.866			1140		0.00e0							
Total-hexafurans			7.031e3		1.208			700		1.10e5							1.994
Total-heptafurans			9.804e3		1.185			784		1.58e5							3.567
Total-Furans			2.562e4		1.067			1142		3.87e5							9.297
Total-tetradoxins			6.946e2		1.099			951		1.18e4							0.211
Total-pentadoxins			1.595e3		1.392			860		2.37e4							0.371
Total-hexadoxins			4.661e3		1.007			622		7.88e4							1.643
Total-heptadoxins			3.131e4		1.269			722		4.68e5							13.346
Total-Dioxins			1.169e5		1.165			951		1.51e6							67.820
Total-TEQ			1.425e5					951		1.90e6							77.116
FUNCTION1 PFK			0.000e0					253409		0.00e0							
FUNCTION2 PFK			1.554e5					207434		3.77e6							0.000
FUNCTION3 PFK			1.732e7					192699		1.70e8							0.000
FUNCTION4 PFK			2.799e5					155130		8.35e6							
FUNCTION5 PFK			2.496e4					104358		1.20e6							
FUNCTION1 HXCD...			5.887e2					569		7.16e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			3.369e2					833		7.76e3							0.000
FUNCTION3 OCDPE			7.557e1					526		9.34e2							0.000
FUNCTION4 NCDPE			2.391e3					603		4.25e4							0.000
FUNCTION5 DCDPE			1.598e2					685		3.75e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:43:32 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20**Calibration: T:\Autospec\Curves\230201CIH.cdb 03 Feb 2023 10:33:40****ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	26.17	2.641e2	3.164e2	0.933	0.83	0.77	5.7	YES	NO	bb	db	0.063
2	2378-TCDF	25.93	3.750e2	4.768e2	0.876	0.79	0.77	4.9	YES	NO	dd	bd	0.098

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	27.37	3.504e3	2.082e3		1.68	1.55	75.5	YES	NO	bb	bb	0.681

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexafurans	33.63	2.352e3	1.990e3	1.208	1.18	1.24	47.1	YES	NO	bb	db	0.682
2	123468-HXCDF	33.41	6.513e2	6.097e2	1.197	1.07	1.24	15.3	YES	NO	bb	bd	0.190
3	123789-HxCDF	37.09	3.865e2	2.834e2	1.187	1.36	1.24	7.5	YES	NO	db	MM	0.123
4	123678-HxCDF	35.21	4.424e2	3.937e2	1.248	1.12	1.24	10.7	YES	NO	db	db	0.117
5	123478-HxCDF	35.08	6.745e2	5.422e2	1.182	1.24	1.24	17.0	YES	NO	bd	bd	0.186
6	Total-hexafurans	34.44	2.524e3	1.909e3	1.208	1.32	1.24	60.0	YES	NO	bb	bb	0.696

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	39.61	6.173e3	6.239e3	1.185	0.99	1.05	123.6	YES	NO	bb	bb	2.373
2	1234678-HpCDF	38.94	3.631e3	3.394e3	1.204	1.07	1.05	78.6	YES	NO	bb	bd	1.195

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Printed: Monday, February 13, 2023 11:43:32 Pacific Standard Time

ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	26.17	2.641e2	3.164e2	0.933	0.83	0.77	5.7	YES	NO	bb	db	0.063
2	2378-TCDF	25.93	3.750e2	4.768e2	0.876	0.79	0.77	4.9	YES	NO	dd	bd	0.098
3	Total-hexafurans	33.63	2.352e3	1.990e3	1.208	1.18	1.24	47.1	YES	NO	bb	db	0.682
4	123468-HxCDF	33.41	6.513e2	6.097e2	1.197	1.07	1.24	15.3	YES	NO	bb	bd	0.190
5	123789-HxCDF	37.09	3.865e2	2.834e2	1.187	1.36	1.24	7.5	YES	NO	db	MM	0.123
6	123678-HxCDF	35.21	4.424e2	3.937e2	1.248	1.12	1.24	10.7	YES	NO	db	db	0.117
7	123478-HxCDF	35.08	6.745e2	5.422e2	1.182	1.24	1.24	17.0	YES	NO	bd	bd	0.186
8	Total-hexafurans	34.44	2.524e3	1.909e3	1.208	1.32	1.24	60.0	YES	NO	bb	bb	0.696
9	Total-heptafurans	39.61	6.173e3	6.239e3	1.185	0.99	1.05	123.6	YES	NO	bb	bb	2.373
10	1234678-HpCDF	38.94	3.631e3	3.394e3	1.204	1.07	1.05	78.6	YES	NO	bb	bd	1.195
11	OCDF	45.52	4.647e3	5.407e3	1.186	0.86	0.89	104.2	YES	NO	bb	bb	2.894
12	Total-penta1	27.37	3.504e3	2.082e3		1.68	1.55	75.5	YES	NO	bb	bb	0.681

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.68	6.946e2	9.284e2	1.084	0.75	0.77	12.4	YES	NO	bb	bb	0.211

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12479-PECDD	29.01	5.351e2	3.654e2	1.837	1.46	1.55	9.9	YES	NO	db	db	0.098
2	12378-PeCDD	31.69	3.614e2	2.318e2	1.087	1.56	1.55	7.2	YES	NO	bb	bb	0.109
3	Total-pentadioxins	31.02	3.982e2	2.479e2	1.392	1.61	1.55	5.6	YES	NO	bb	bb	0.093
4	Total-pentadioxins	30.64	3.003e2	2.030e2	1.392	1.48	1.55	4.9	YES	NO	bb	bb	0.072

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.68	8.096e2	7.048e2	0.985	1.15	1.24	20.1	YES	NO	bb	bb	0.308
2	123478-HxCDD	36.17	2.908e2	2.162e2	0.987	1.35	1.24	7.6	YES	NO	bd	bd	0.103
3	Total-hexadioxins	35.30	1.505e3	1.074e3	1.007	1.40	1.24	45.5	YES	NO	db	db	0.513
4	124679-HXCDD	34.18	2.055e3	1.636e3	1.033	1.26	1.24	53.6	YES	NO	bb	bb	0.719

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:43:32 Pacific Standard Time

ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk**HPD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.46	1.524e4	1.544e4	1.253	0.99	1.05	304.5	YES	NO	bd	bb	6.658
2	1234679-HPCDD	39.40	1.607e4	1.556e4	1.286	1.03	1.05	344.2	YES	NO	bd	bb	6.689

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.68	6.946e2	9.284e2	1.084	0.75	0.77	12.4	YES	NO	bb	bb	0.211
2	12479-PECDD	29.01	5.351e2	3.654e2	1.837	1.46	1.55	9.9	YES	NO	db	db	0.098
3	12378-PeCDD	31.69	3.614e2	2.318e2	1.087	1.56	1.55	7.2	YES	NO	bb	bb	0.109
4	Total-pentadioxins	31.02	3.982e2	2.479e2	1.392	1.61	1.55	5.6	YES	NO	bb	bb	0.093
5	Total-pentadioxins	30.64	3.003e2	2.030e2	1.392	1.48	1.55	4.9	YES	NO	bb	bb	0.072
6	123789-HxCDD	36.68	8.096e2	7.048e2	0.985	1.15	1.24	20.1	YES	NO	bb	bb	0.308
7	123478-HxCDD	36.17	2.908e2	2.162e2	0.987	1.35	1.24	7.6	YES	NO	bd	bd	0.103
8	Total-hexadioxins	35.30	1.505e3	1.074e3	1.007	1.40	1.24	45.5	YES	NO	db	db	0.513
9	124679-HXCDD	34.18	2.055e3	1.636e3	1.033	1.26	1.24	53.6	YES	NO	bb	bb	0.719
10	1234678-HpCDD	40.46	1.524e4	1.544e4	1.253	0.99	1.05	304.5	YES	NO	bd	bb	6.658
11	1234679-HPCDD	39.40	1.607e4	1.556e4	1.286	1.03	1.05	344.2	YES	NO	bd	bb	6.689
12	OCDD	45.28	7.861e4	9.010e4	1.103	0.87	0.89	629.2	YES	NO	bd	bd	52.248

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	26.17	2.641e2	3.164e2	0.933	0.83	0.77	5.7	YES	NO	bb	db	0.063
2	2378-TCDF	25.93	3.750e2	4.768e2	0.876	0.79	0.77	4.9	YES	NO	dd	bd	0.098
3	Total-hexafurans	33.63	2.352e3	1.990e3	1.208	1.18	1.24	47.1	YES	NO	bb	db	0.682
4	123468-HxCDF	33.41	6.513e2	6.097e2	1.197	1.07	1.24	15.3	YES	NO	bb	bd	0.190
5	123789-HxCDF	37.09	3.865e2	2.834e2	1.187	1.36	1.24	7.5	YES	NO	db	MM	0.123
6	123678-HxCDF	35.21	4.424e2	3.937e2	1.248	1.12	1.24	10.7	YES	NO	db	db	0.117
7	123478-HxCDF	35.08	6.745e2	5.422e2	1.182	1.24	1.24	17.0	YES	NO	bd	bd	0.186
8	Total-hexafurans	34.44	2.524e3	1.909e3	1.208	1.32	1.24	60.0	YES	NO	bb	bb	0.696
9	Total-heptafurans	39.61	6.173e3	6.239e3	1.185	0.99	1.05	123.6	YES	NO	bb	bb	2.373
10	1234678-HpCDF	38.94	3.631e3	3.394e3	1.204	1.07	1.05	78.6	YES	NO	bb	bd	1.195
11	OCDF	45.52	4.647e3	5.407e3	1.186	0.86	0.89	104.2	YES	NO	bb	bb	2.894
12	Total-penta1	27.37	3.504e3	2.082e3		1.68	1.55	75.5	YES	NO	bb	bb	0.681
13	1368-TCDD	23.68	6.946e2	9.284e2	1.084	0.75	0.77	12.4	YES	NO	bb	bb	0.211
14	12479-PECDD	29.01	5.351e2	3.654e2	1.837	1.46	1.55	9.9	YES	NO	db	db	0.098
15	12378-PeCDD	31.69	3.614e2	2.318e2	1.087	1.56	1.55	7.2	YES	NO	bb	bb	0.109
16	Total-pentadioxins	31.02	3.982e2	2.479e2	1.392	1.61	1.55	5.6	YES	NO	bb	bb	0.093
17	Total-pentadioxins	30.64	3.003e2	2.030e2	1.392	1.48	1.55	4.9	YES	NO	bb	bb	0.072
18	123789-HxCDD	36.68	8.096e2	7.048e2	0.985	1.15	1.24	20.1	YES	NO	bb	bb	0.308
19	123478-HxCDD	36.17	2.908e2	2.162e2	0.987	1.35	1.24	7.6	YES	NO	bd	bd	0.103
20	Total-hexadioxins	35.30	1.505e3	1.074e3	1.007	1.40	1.24	45.5	YES	NO	db	db	0.513
21	124679-HxCDD	34.18	2.055e3	1.636e3	1.033	1.26	1.24	53.6	YES	NO	bb	bb	0.719
22	1234678-HpCDD	40.46	1.524e4	1.544e4	1.253	0.99	1.05	304.5	YES	NO	bd	bb	6.658
23	1234679-HPCDD	39.40	1.607e4	1.556e4	1.286	1.03	1.05	344.2	YES	NO	bd	bb	6.689
24	OCDD	45.28	7.861e4	9.010e4	1.103	0.87	0.89	629.2	YES	NO	bd	bd	52.248

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	31.45	9.553e3					1.4	NO		bd		0.000
2	FUNCTION2 PFK	31.35	3.924e3					0.9	NO		bb		0.000
3	FUNCTION2 PFK	31.30	2.220e4					1.6	NO		bb		0.000
4	FUNCTION2 PFK	31.19	3.300e4					2.4	NO		bb		0.000
5	FUNCTION2 PFK	30.71	1.282e4					1.7	NO		bb		0.000
6	FUNCTION2 PFK	30.09	5.604e3					1.1	NO		bb		0.000
7	FUNCTION2 PFK	29.74	1.545e3					0.7	NO		bb		0.000
8	FUNCTION2 PFK	29.62	1.051e4					1.9	NO		bb		0.000
9	FUNCTION2 PFK	29.34	4.938e3					1.1	NO		bb		0.000
10	FUNCTION2 PFK	29.11	9.848e3					1.5	NO		bb		0.000
11	FUNCTION2 PFK	28.43	1.381e4					2.0	NO		bb		0.000
12	FUNCTION2 PFK	31.55	2.770e4					1.8	NO		db		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.35	5.423e5					27.1	YES		dd		0.000
2	FUNCTION3 PFK	34.19	9.316e5					34.6	YES		dd		0.000
3	FUNCTION3 PFK	34.18	2.232e5					34.3	YES		dd		0.000
4	FUNCTION3 PFK	34.11	3.865e5					37.0	YES		dd		0.000
5	FUNCTION3 PFK	33.99	1.328e6					42.5	YES		dd		0.000
6	FUNCTION3 PFK	33.81	1.118e6					49.9	YES		dd		0.000
7	FUNCTION3 PFK	33.43	4.612e6					65.7	YES		dd		0.000
8	FUNCTION3 PFK	33.36	4.302e5					67.2	YES		dd		0.000
9	FUNCTION3 PFK	33.32	7.349e5					69.3	YES		dd		0.000
10	FUNCTION3 PFK	33.24	9.179e5					72.6	YES		dd		0.000
11	FUNCTION3 PFK	33.14	1.608e6					76.6	YES		dd		0.000
12	FUNCTION3 PFK	33.11	4.911e5					76.7	YES		dd		0.000
13	FUNCTION3 PFK	33.02	1.339e6					79.8	YES		dd		0.000
14	FUNCTION3 PFK	32.96	1.049e6					82.0	YES		bd		0.000
15	FUNCTION3 PFK	36.30	8.226e3					1.1	NO		bb		0.000
16	FUNCTION3 PFK	36.24	1.067e4					1.9	NO		db		0.000
17	FUNCTION3 PFK	36.20	2.305e4					1.7	NO		dd		0.000
18	FUNCTION3 PFK	36.08	7.684e3					0.9	NO		bd		0.000
19	FUNCTION3 PFK	35.94	6.210e3					1.1	NO		bb		0.000
20	FUNCTION3 PFK	35.87	1.263e4					1.7	NO		db		0.000
21	FUNCTION3 PFK	35.80	1.697e4					1.6	NO		dd		0.000
22	FUNCTION3 PFK	35.75	2.790e3					0.9	NO		bd		0.000
23	FUNCTION3 PFK	35.69	9.129e3					1.1	NO		bb		0.000
24	FUNCTION3 PFK	35.43	2.242e3					0.5	NO		bb		0.000
25	FUNCTION3 PFK	35.31	7.697e2					0.4	NO		bb		0.000
26	FUNCTION3 PFK	35.26	2.379e4					1.5	NO		bb		0.000
27	FUNCTION3 PFK	35.08	1.247e3					0.4	NO		bb		0.000
28	FUNCTION3 PFK	34.97	1.712e4					3.1	YES		db		0.000
29	FUNCTION3 PFK	34.80	2.799e5					10.7	YES		dd		0.000
30	FUNCTION3 PFK	34.58	1.039e6					19.0	YES		dd		0.000
31	FUNCTION3 PFK	37.62	1.398e3					0.3	NO		bb		0.000
32	FUNCTION3 PFK	37.44	1.345e4					1.6	NO		bb		0.000
33	FUNCTION3 PFK	37.28	3.279e3					0.6	NO		bb		0.000
34	FUNCTION3 PFK	37.17	5.553e3					1.0	NO		bb		0.000
35	FUNCTION3 PFK	37.13	1.124e3					0.5	NO		bb		0.000
36	FUNCTION3 PFK	37.08	7.461e2					0.3	NO		bb		0.000
37	FUNCTION3 PFK	37.04	1.940e3					0.5	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:43:32 Pacific Standard Time

ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION3 PFK	36.95	2.870e3					0.7	NO		db		0.000
39	FUNCTION3 PFK	36.92	5.746e3					0.6	NO		bd		0.000
40	FUNCTION3 PFK	36.84	4.223e3					1.0	NO		bb		0.000
41	FUNCTION3 PFK	36.74	5.380e2					0.3	NO		bb		0.000
42	FUNCTION3 PFK	36.59	6.232e3					1.0	NO		db		0.000
43	FUNCTION3 PFK	36.50	2.882e4					2.2	NO		dd		0.000
44	FUNCTION3 PFK	36.45	2.204e4					2.4	NO		dd		0.000
45	FUNCTION3 PFK	36.40	1.320e4					2.4	NO		dd		0.000
46	FUNCTION3 PFK	36.36	9.977e3					1.9	NO		bd		0.000
47	FUNCTION3 PFK	37.97	1.361e3					0.6	NO		bb		0.000
48	FUNCTION3 PFK	37.92	7.531e3					1.2	NO		bb		0.000
49	FUNCTION3 PFK	37.85	1.124e4					1.5	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:43:32 Pacific Standard Time

ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.46	4.384e3					1.2	NO		bb		
2	FUNCTION4 PFK	39.35	9.767e2					0.6	NO		bb		
3	FUNCTION4 PFK	38.89	1.070e3					0.4	NO		bb		
4	FUNCTION4 PFK	38.82	1.001e4					1.5	NO		bb		
5	FUNCTION4 PFK	38.73	1.388e4					1.9	NO		bb		
6	FUNCTION4 PFK	38.54	9.955e3					2.0	NO		db		
7	FUNCTION4 PFK	38.50	1.026e4					2.2	NO		bd		
8	FUNCTION4 PFK	38.45	6.652e2					0.4	NO		bb		
9	FUNCTION4 PFK	38.31	1.700e4					2.4	NO		db		
10	FUNCTION4 PFK	38.26	1.886e4					3.0	YES		bd		
11	FUNCTION4 PFK	38.18	9.340e3					1.3	NO		db		
12	FUNCTION4 PFK	38.10	1.091e4					2.2	NO		bd		
13	FUNCTION4 PFK	40.75	5.913e3					0.9	NO		bd		
14	FUNCTION4 PFK	40.63	7.677e2					0.4	NO		bb		
15	FUNCTION4 PFK	40.53	2.086e3					0.6	NO		bb		
16	FUNCTION4 PFK	40.47	3.803e3					1.0	NO		bb		
17	FUNCTION4 PFK	40.41	8.879e3					1.7	NO		db		
18	FUNCTION4 PFK	40.36	5.321e3					1.1	NO		dd		
19	FUNCTION4 PFK	40.30	3.586e3					0.9	NO		bd		
20	FUNCTION4 PFK	40.25	8.724e3					1.5	NO		bb		
21	FUNCTION4 PFK	40.11	3.152e3					0.9	NO		db		
22	FUNCTION4 PFK	40.08	3.278e3					0.8	NO		bd		
23	FUNCTION4 PFK	39.97	6.147e2					0.4	NO		bb		
24	FUNCTION4 PFK	39.88	1.419e4					1.7	NO		bb		
25	FUNCTION4 PFK	39.82	3.303e3					1.0	NO		bb		
26	FUNCTION4 PFK	39.77	4.032e3					1.1	NO		bb		
27	FUNCTION4 PFK	39.72	7.029e2					0.4	NO		bb		
28	FUNCTION4 PFK	39.59	3.858e3					1.0	NO		bb		
29	FUNCTION4 PFK	42.92	9.081e3					1.3	NO		bb		
30	FUNCTION4 PFK	42.33	1.201e4					1.5	NO		db		
31	FUNCTION4 PFK	42.22	6.540e3					1.1	NO		bd		
32	FUNCTION4 PFK	42.11	1.616e4					2.8	NO		db		
33	FUNCTION4 PFK	42.09	1.041e4					2.4	NO		bd		
34	FUNCTION4 PFK	41.93	5.067e3					1.1	NO		bb		
35	FUNCTION4 PFK	41.85	3.933e3					1.0	NO		bb		
36	FUNCTION4 PFK	41.74	3.325e3					0.6	NO		bb		
37	FUNCTION4 PFK	41.63	7.340e3					1.5	NO		db		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:43:32 Pacific Standard Time

ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION4 PFK	41.58	1.923e3					0.6	NO		bd		
39	FUNCTION4 PFK	41.47	7.334e3					1.5	NO		bb		
40	FUNCTION4 PFK	41.27	1.877e3					0.7	NO		db		
41	FUNCTION4 PFK	41.23	2.265e3					0.7	NO		bd		
42	FUNCTION4 PFK	41.18	1.049e3					0.6	NO		bb		
43	FUNCTION4 PFK	40.99	3.874e3					1.0	NO		bb		
44	FUNCTION4 PFK	40.86	8.223e3					1.0	NO		db		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	45.05	3.121e3					1.5	NO		bb		
2	FUNCTION5 PFK	44.84	3.121e3					1.5	NO		db		
3	FUNCTION5 PFK	44.81	2.286e3					1.2	NO		bd		
4	FUNCTION5 PFK	44.78	6.907e2					0.7	NO		bb		
5	FUNCTION5 PFK	44.74	3.757e3					1.7	NO		db		
6	FUNCTION5 PFK	44.70	3.026e3					1.5	NO		bd		
7	FUNCTION5 PFK	43.56	3.027e3					1.5	NO		bb		
8	FUNCTION5 PFK	43.51	5.934e3					1.9	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.92	1.793e2					3.7	YES		bb		0.000
2	FUNCTION1 HXCD...	26.28	2.188e2					4.6	YES		bb		0.000
3	FUNCTION1 HXCD...	21.23	9.360e1					2.0	NO		db		0.000
4	FUNCTION1 HXCD...	21.11	9.698e1					2.3	NO		bd		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:43:32 Pacific Standard Time

ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	29.83	7.098e1					2.5	NO		bb		0.000
2	FUNCTION2 HPCD...	31.26	7.767e1					2.7	NO		bb		0.000
3	FUNCTION2 HPCD...	31.00	1.139e2					2.3	NO		bb		0.000
4	FUNCTION2 HPCD...	30.35	7.438e1					1.8	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	37.66	7.557e1					1.8	NO		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	39.99	7.220e1					3.7	YES		bb		0.000
2	FUNCTION4 NCDPE	38.56	2.319e3					66.8	YES		bb		0.000

ETHERS6

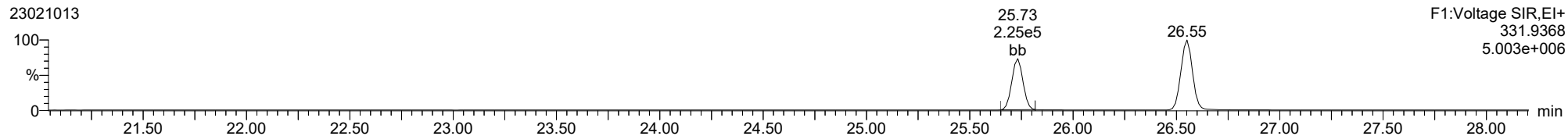
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1	FUNCTION5 DCDPE	44.44	7.792e1					2.2	NO		bb		0.000
2	FUNCTION5 DCDPE	43.05	8.190e1					3.2	YES		bb		0.000

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD

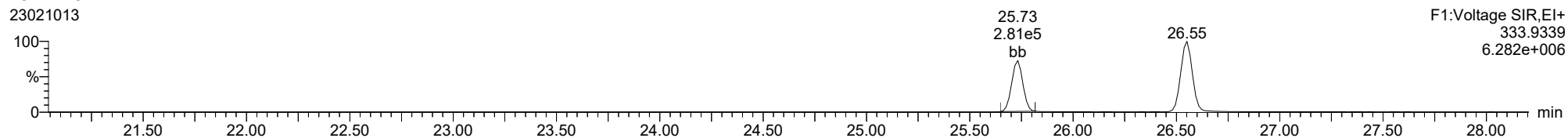
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F1:Voltage SIR,EI+
331.9368
5.003e+006

13C-1234-TCDD

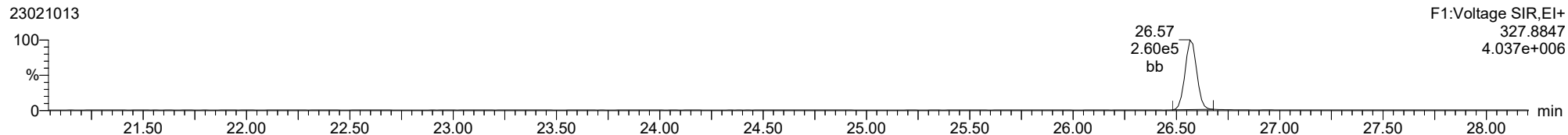
23021013



F1:Voltage SIR,EI+
333.9339
6.282e+006

37CL-2378-TCDD

23021013

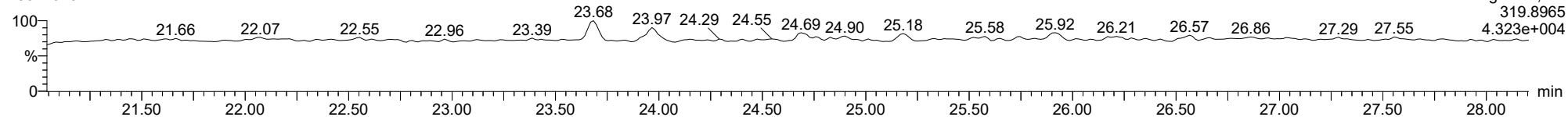


F1:Voltage SIR,EI+
327.8847
4.037e+006

ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

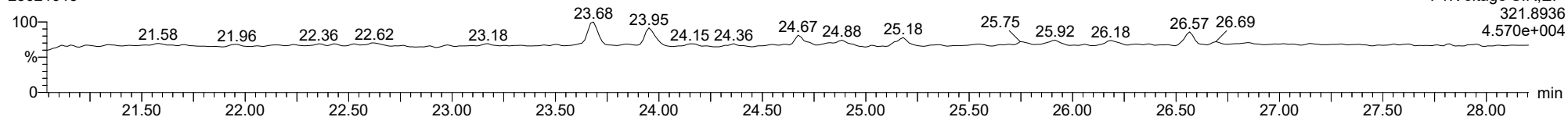
2378-TCDD

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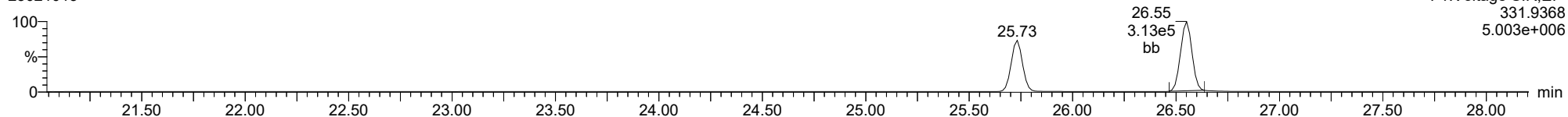
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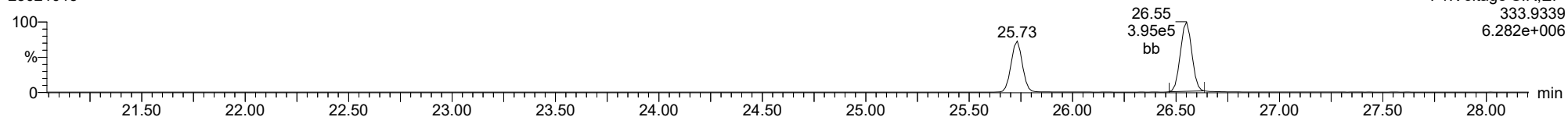
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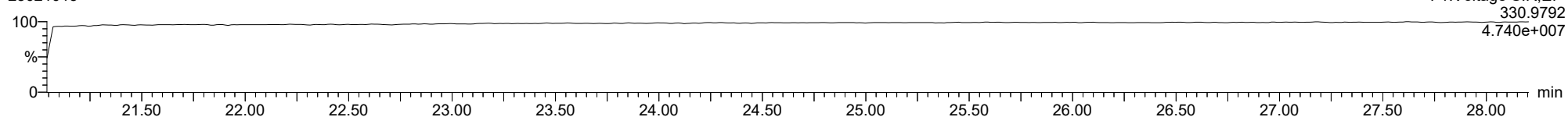
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FUNCTION1 PFK

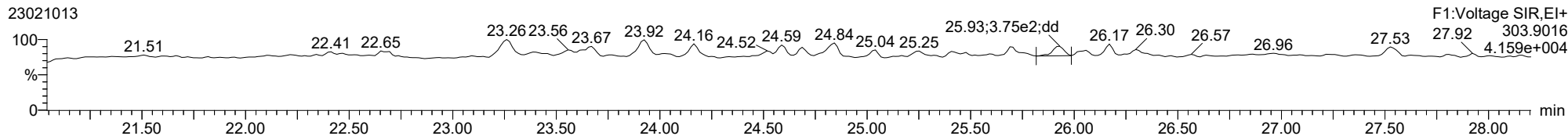
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ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

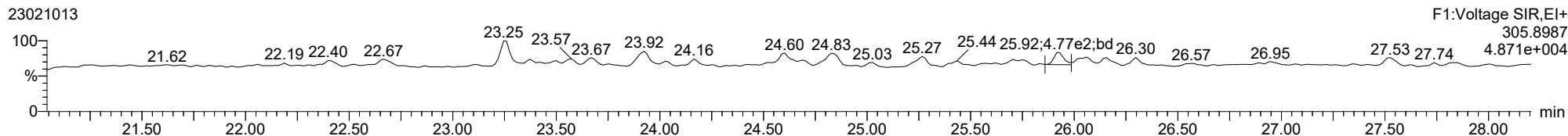
2378-TCDF

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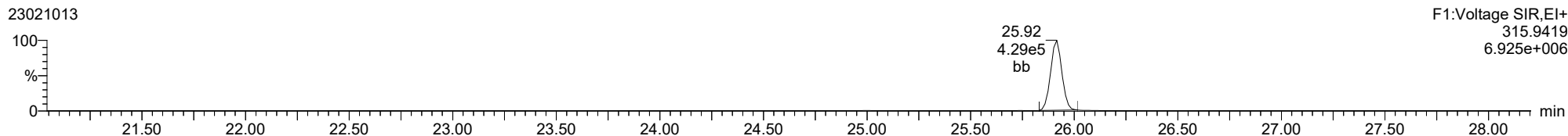
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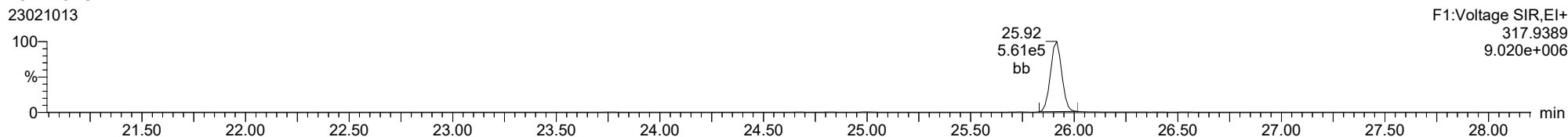
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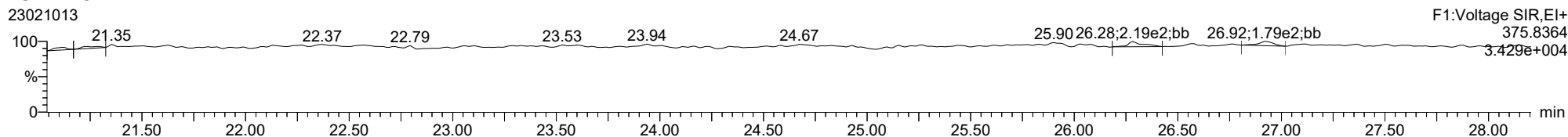
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FUNCTION1 HXCDPE

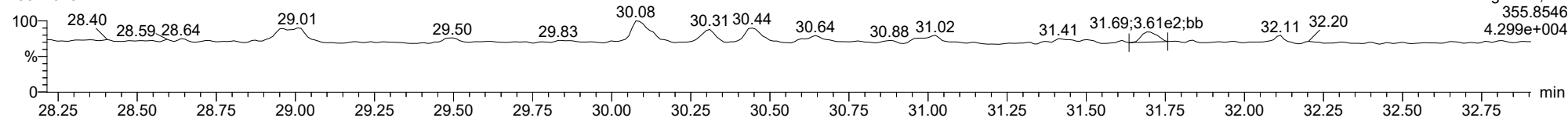
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ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

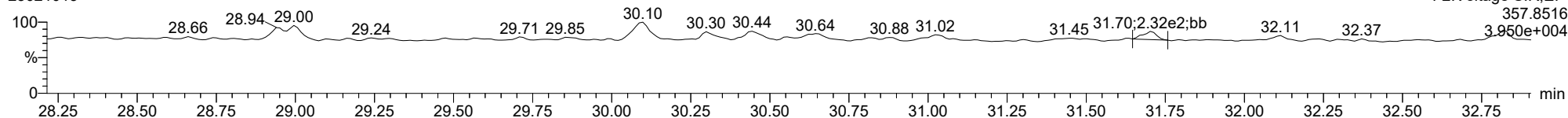
12378-PeCDD

23021013



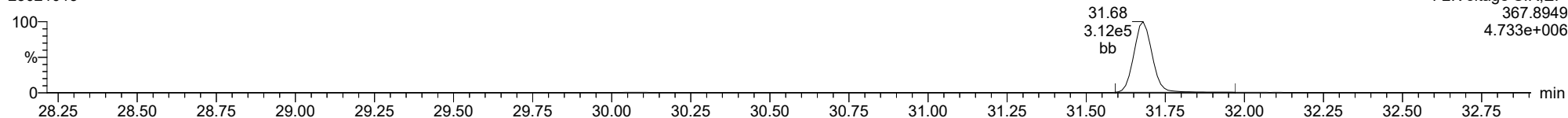
12378-PeCDD

23021013



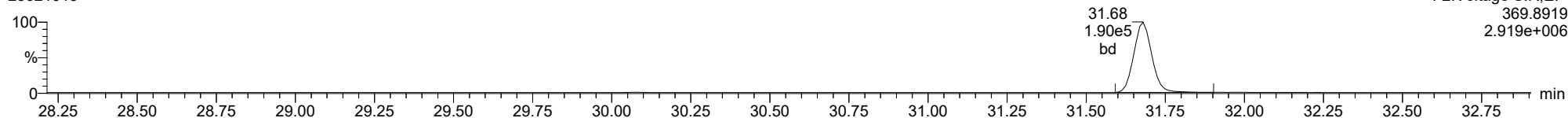
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23021013



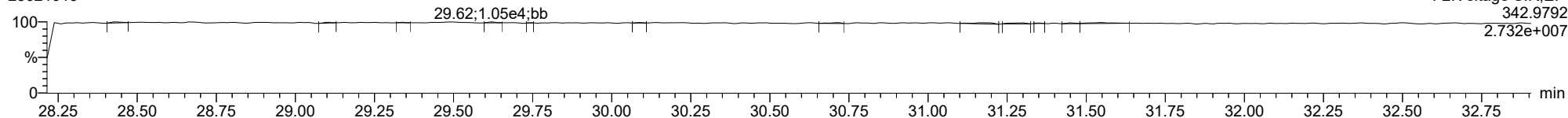
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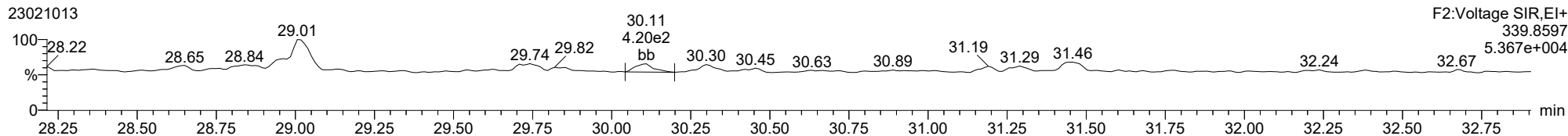
FUNCTION2 PFK

23021013

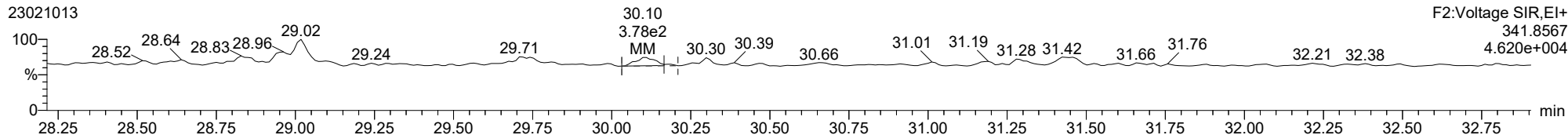


ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

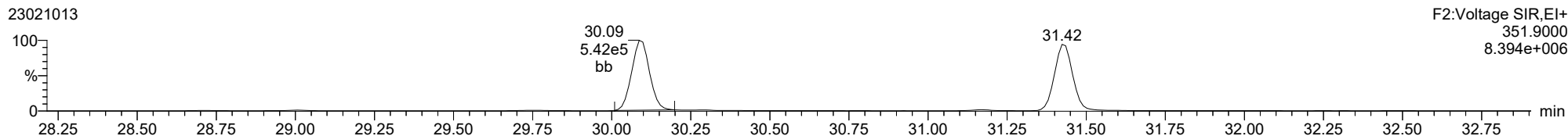
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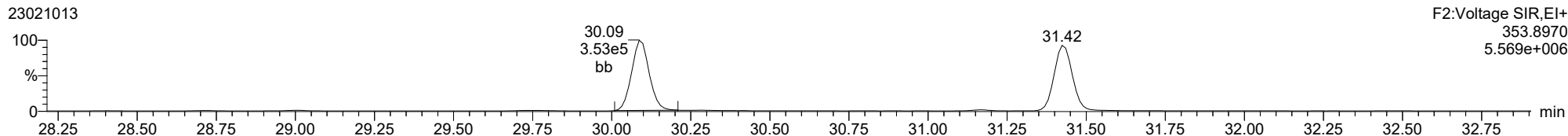
12378-PeCDF



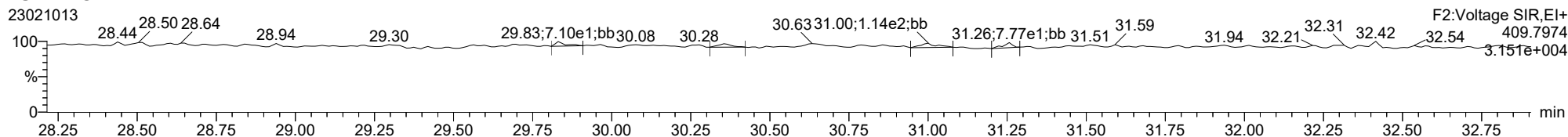
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13C-12378-PeCDF



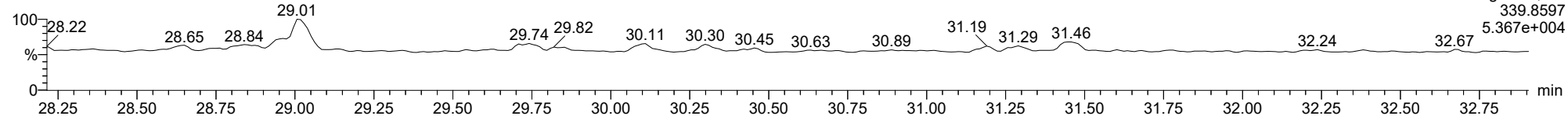
FUNCTION2 HPCDPE



ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

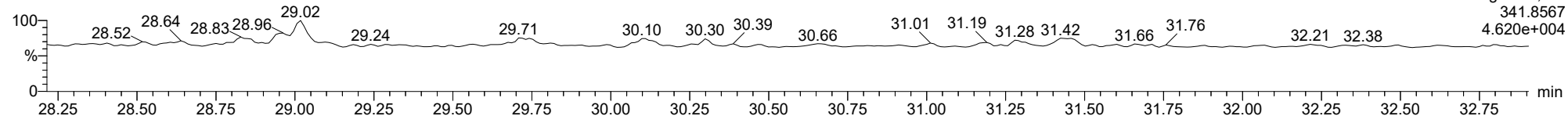
23478-PeCDF

23021013



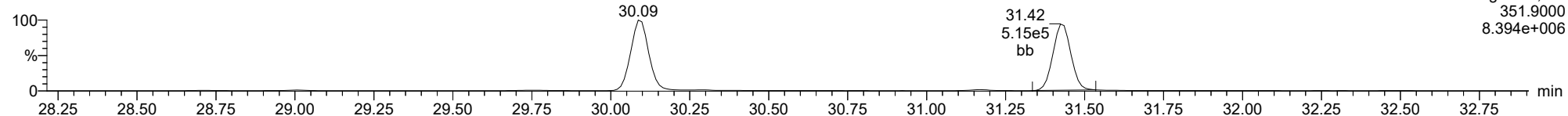
23478-PeCDF

23021013



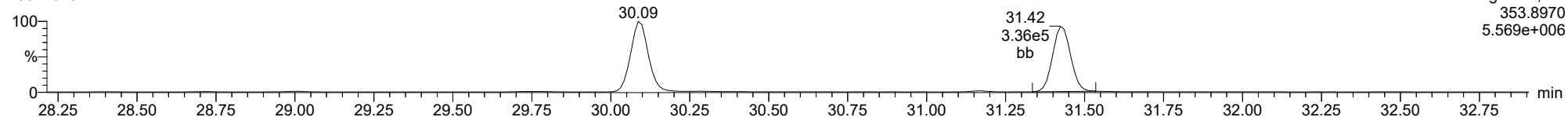
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23021013



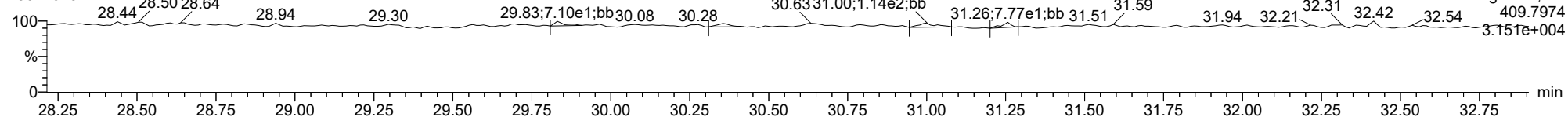
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23021013



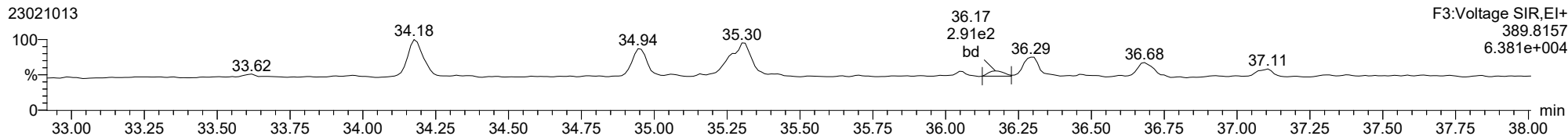
FUNCTION2 HPCDPE

23021013

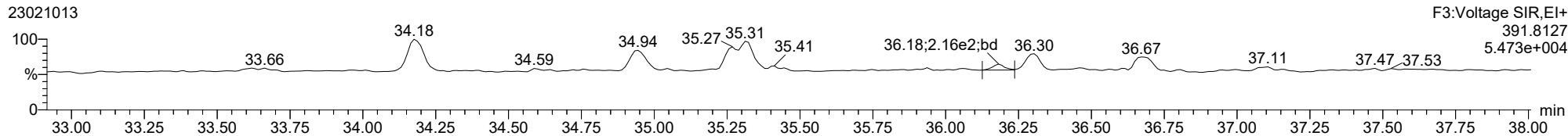


ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

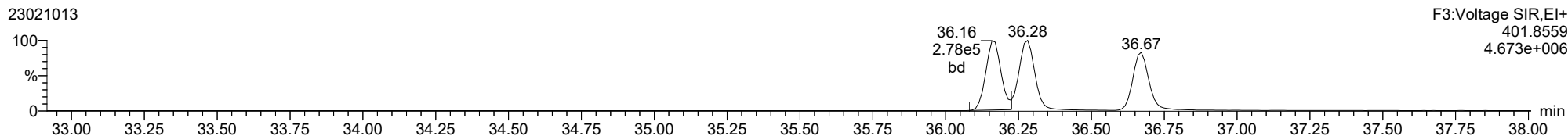
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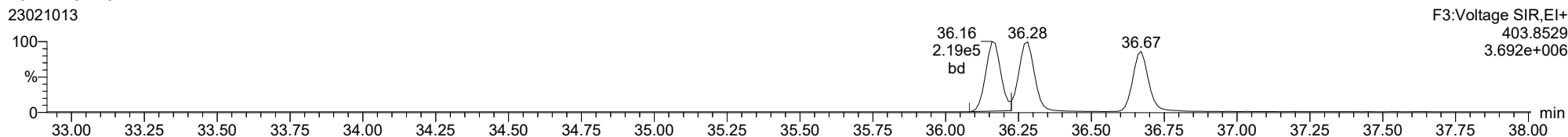
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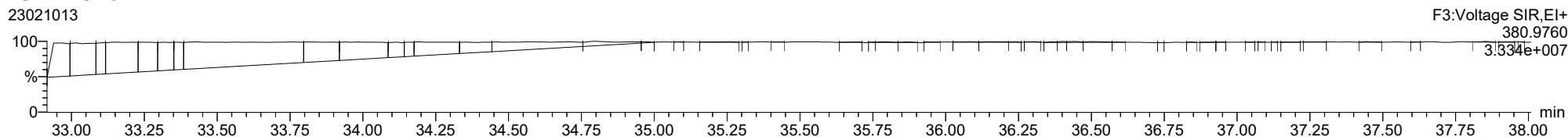
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13C-123478-HxCDD



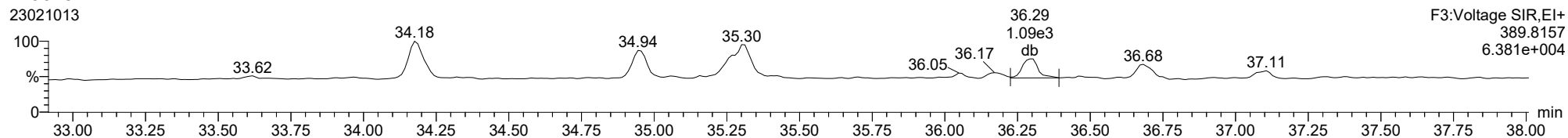
FUNCTION3 PFK



ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

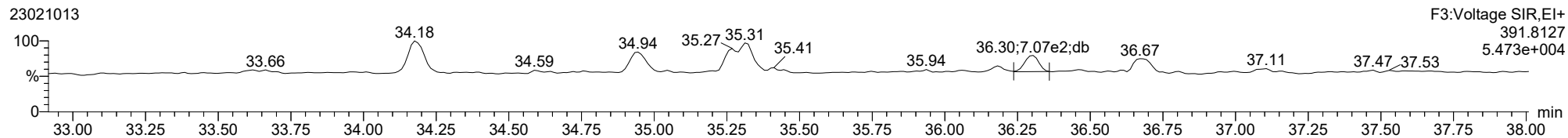
123678-HxCDD

23021013



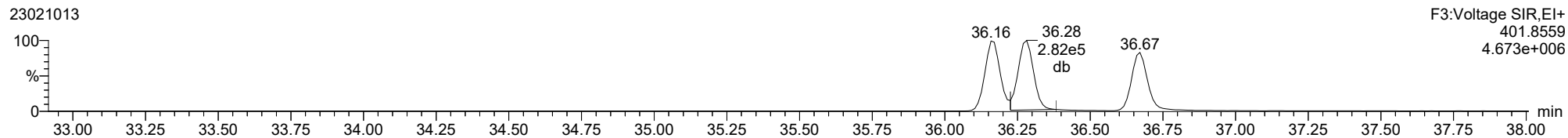
123678-HxCDD

23021013



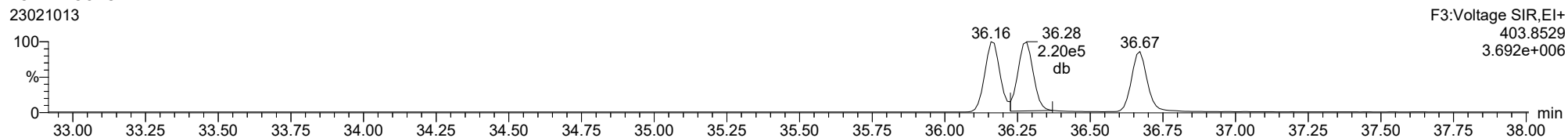
13C-123678-HxCDD

23021013



13C-123678-HxCDD

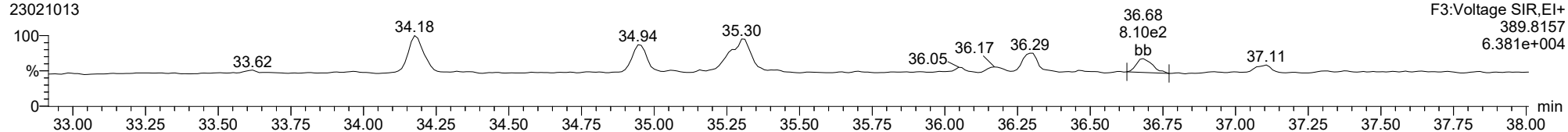
23021013



ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

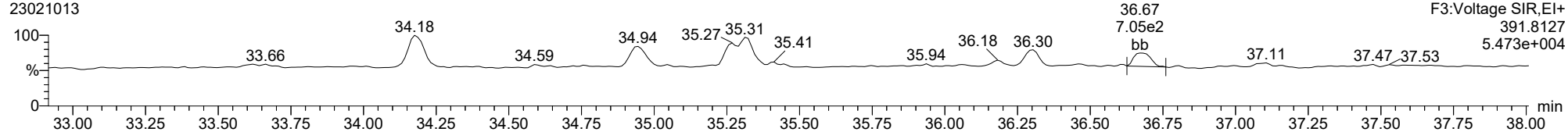
123789-HxCDD

23021013



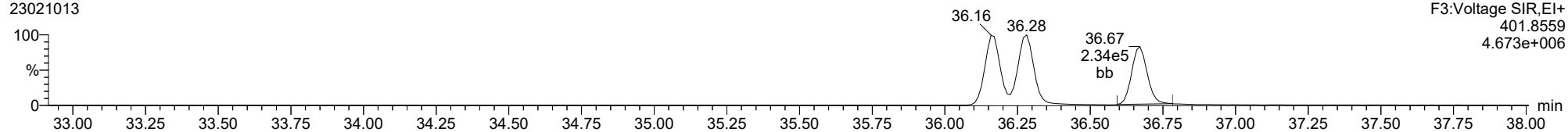
123789-HxCDD

23021013



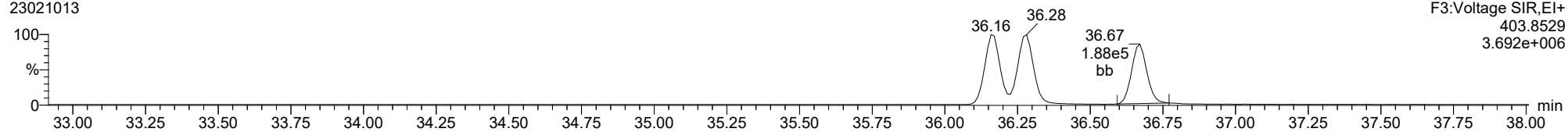
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23021013



13C-123789-HxCDD

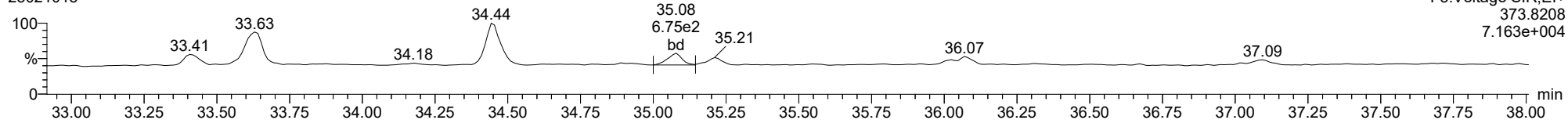
23021013



ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

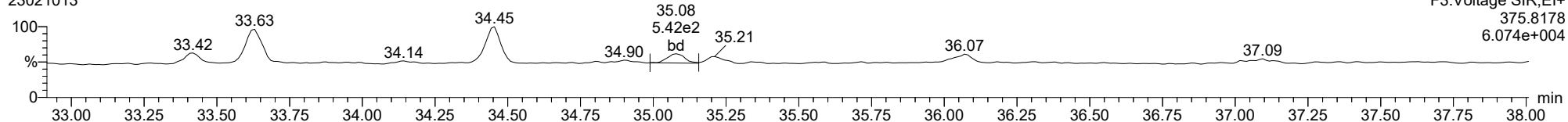
123478-HxCDF

23021013



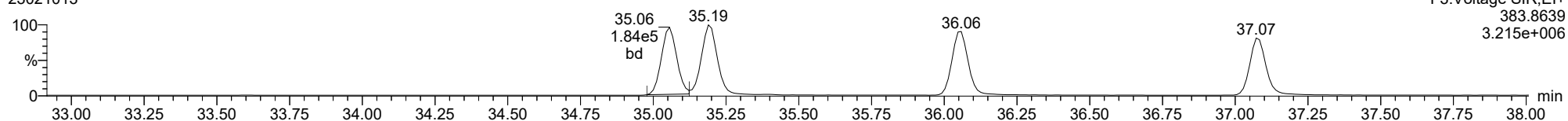
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23021013



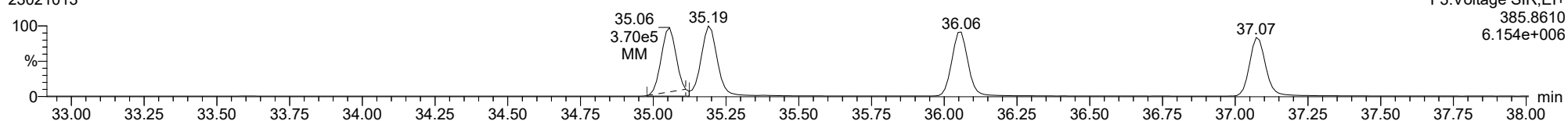
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23021013



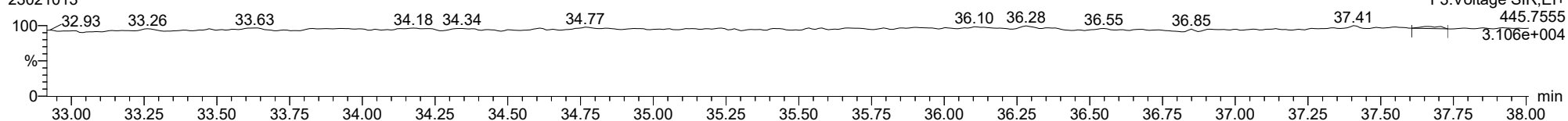
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23021013



FUNCTION3 OCDPE

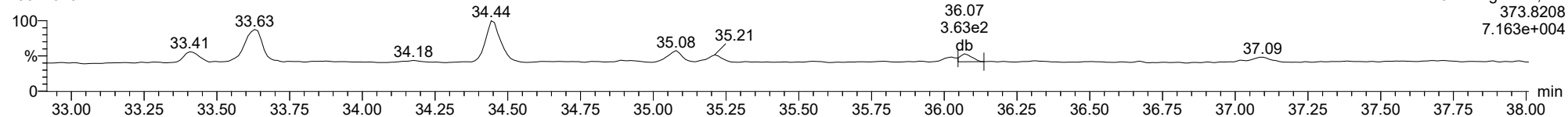
23021013



ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

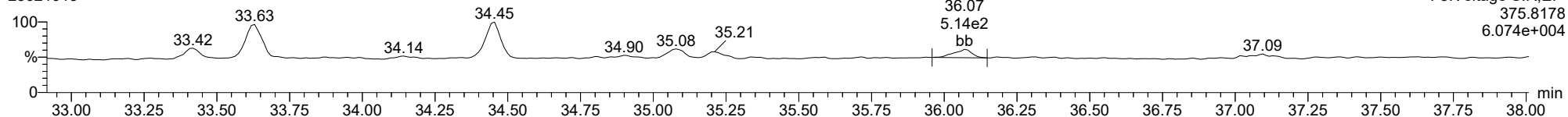
234678-HxCDF

23021013



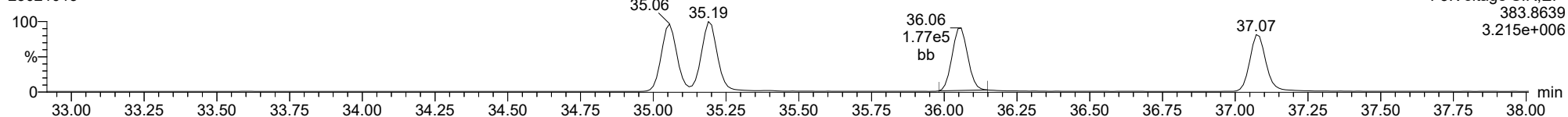
234678-HxCDF

23021013



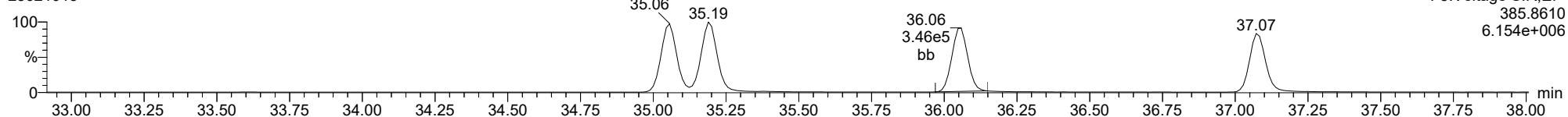
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23021013



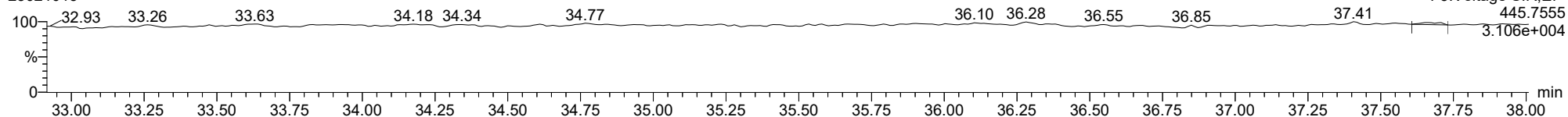
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23021013



FUNCTION3 OCDPE

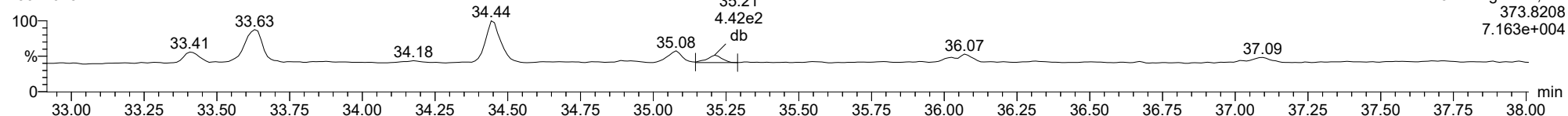
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ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

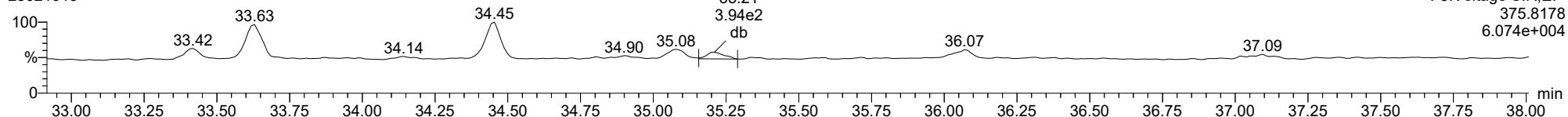
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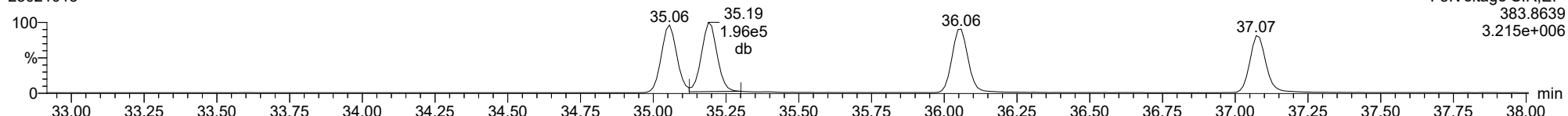
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23021013



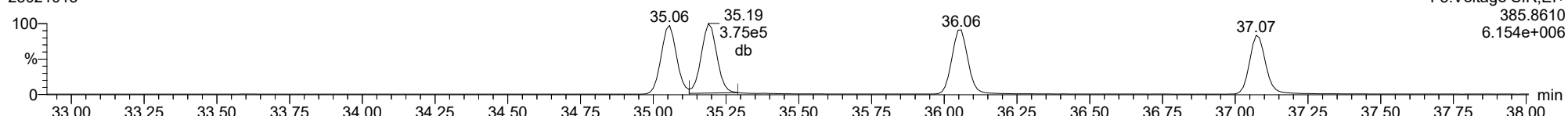
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23021013



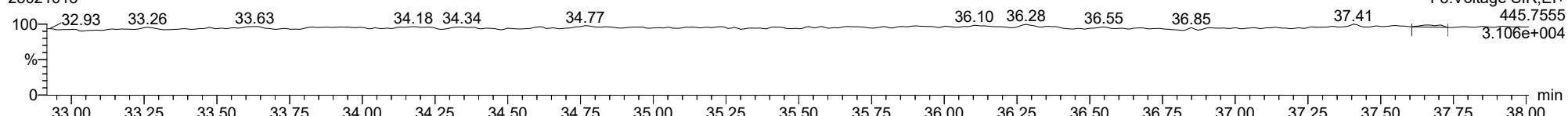
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23021013



FUNCTION3 OCDPE

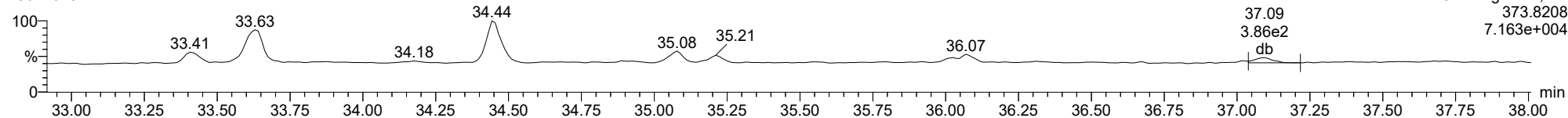
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ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

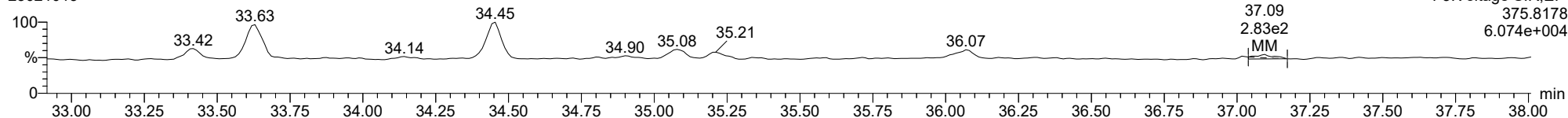
123789-HxCDF

23021013



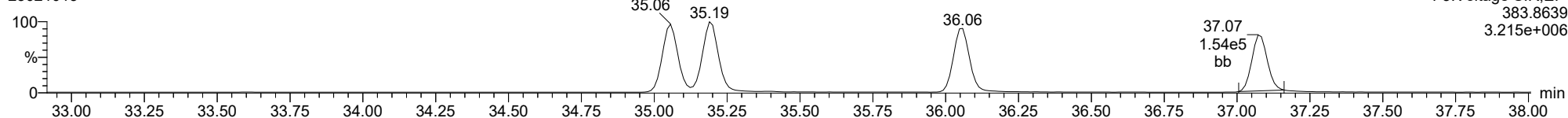
123789-HxCDF

23021013



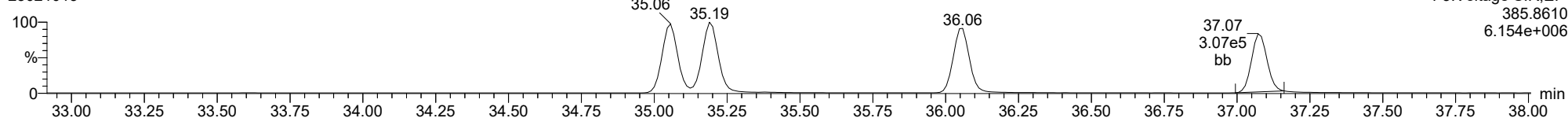
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23021013



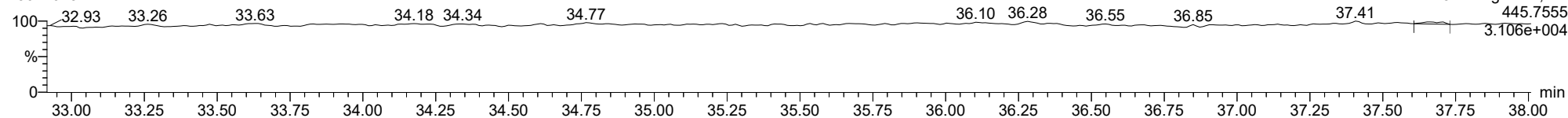
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23021013



FUNCTION3 OCDPE

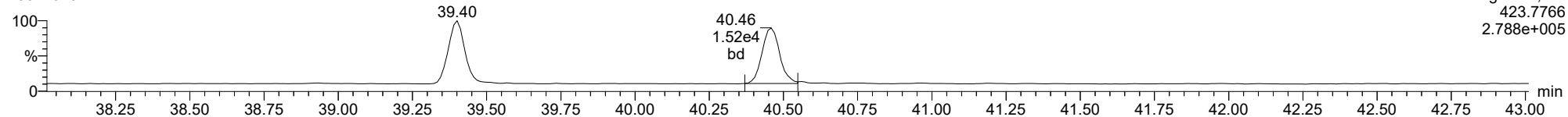
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ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

1234678-HpCDD

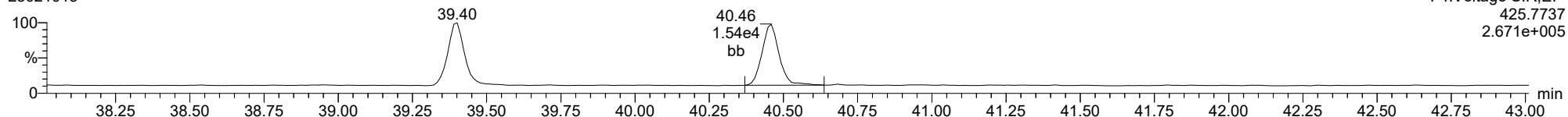
23021013



F4:Voltage SIR,El+
423.7766
2.788e+005

1234678-HpCDD

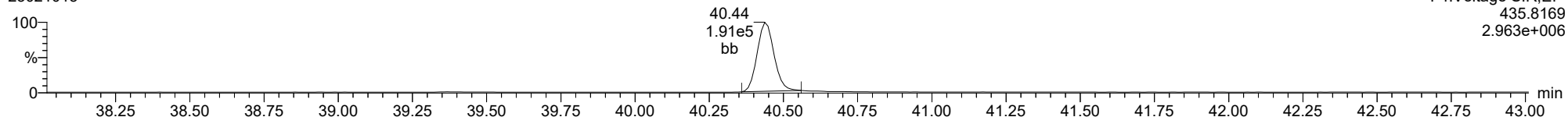
23021013



F4:Voltage SIR,El+
425.7737
2.671e+005

13C-1234678-HpCDD

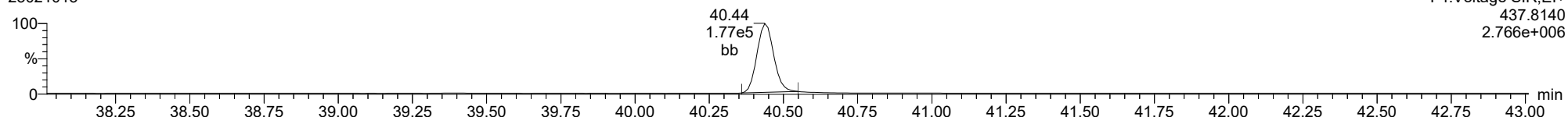
23021013



F4:Voltage SIR,El+
435.8169
2.963e+006

13C-1234678-HpCDD

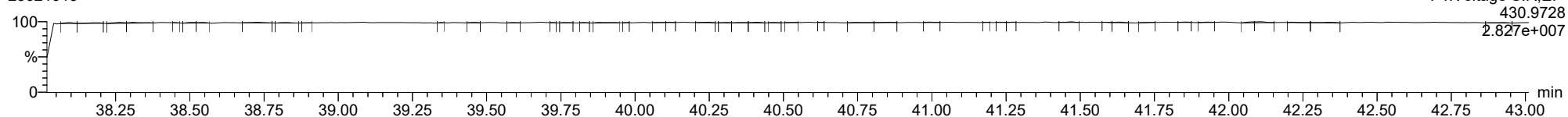
23021013



F4:Voltage SIR,El+
437.8140
2.766e+006

FUNCTION4 PFK

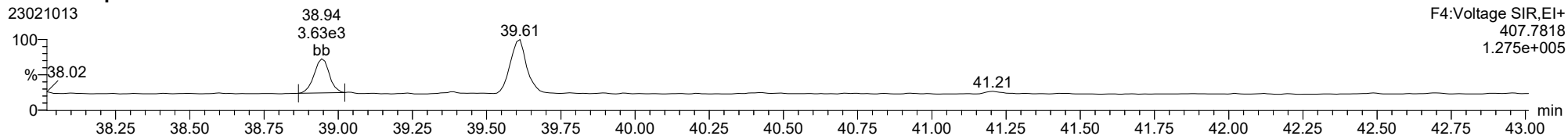
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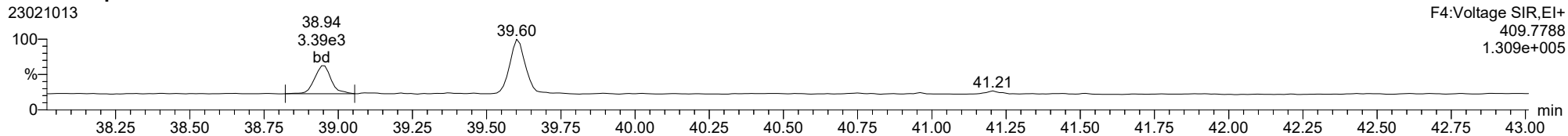
F4:Voltage SIR,El+
430.9728
2.827e+007

ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

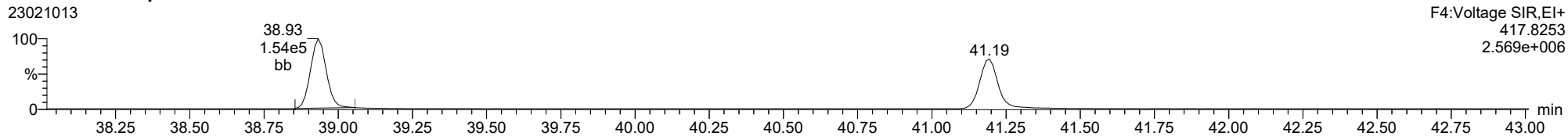
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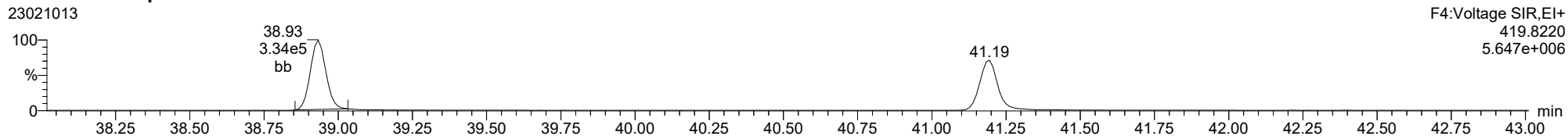
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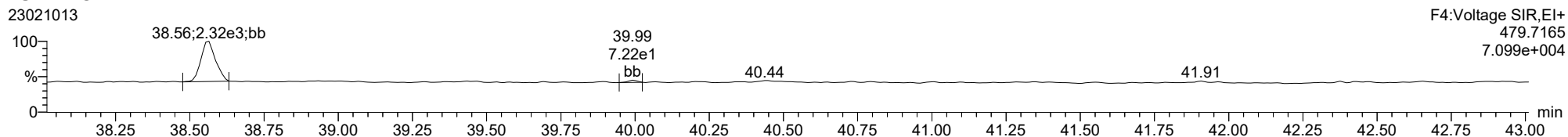
13C-1234678-HpCDF



13C-1234678-HpCDF



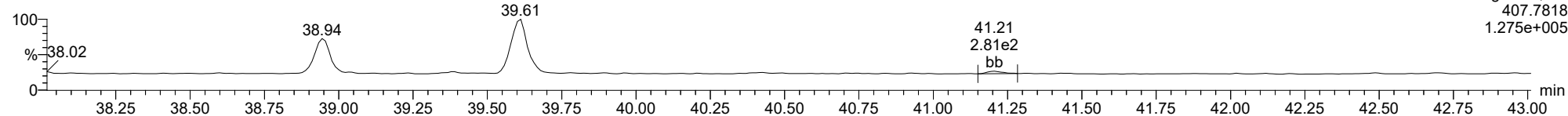
FUNCTION4 NCDPE



ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

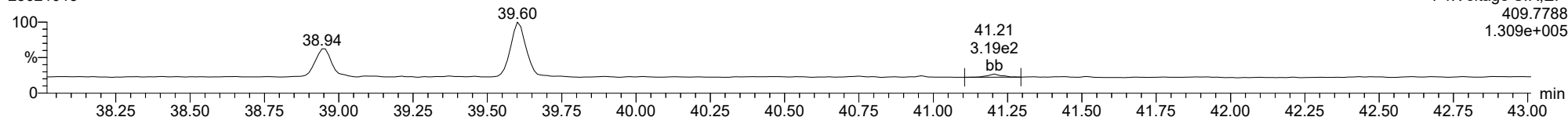
1234789-HpCDF

23021013



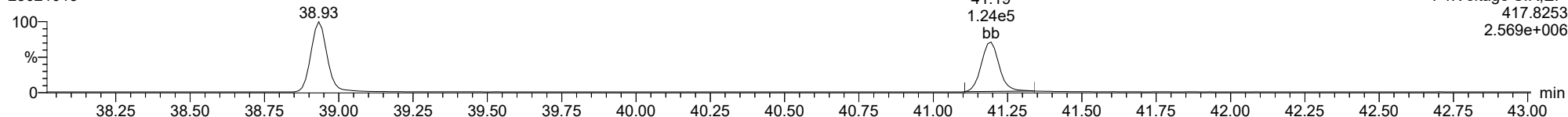
1234789-HpCDF

23021013



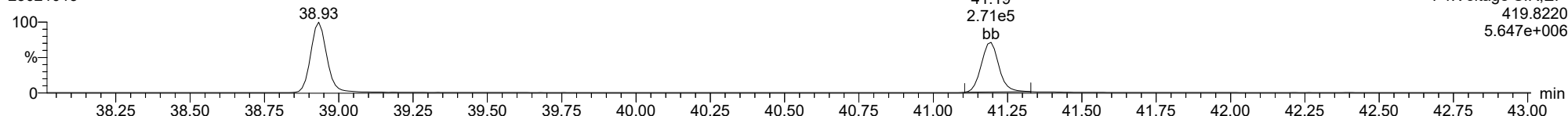
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23021013



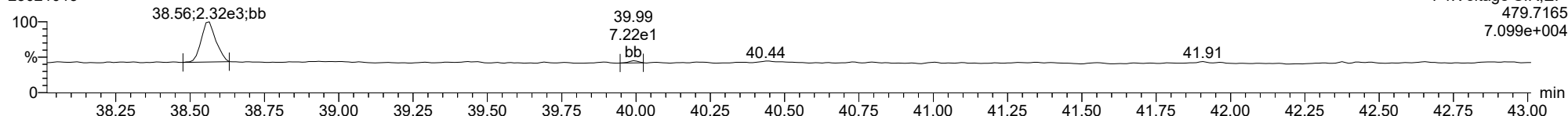
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23021013



FUNCTION4 NCDPE

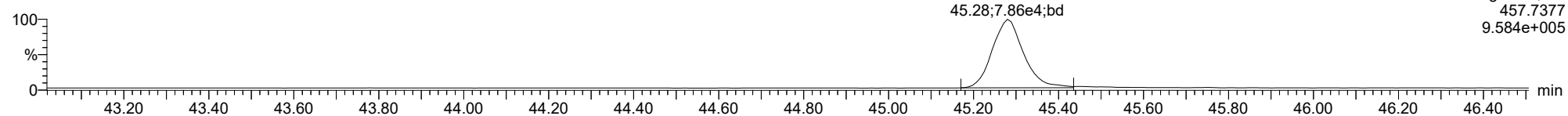
23021013



ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

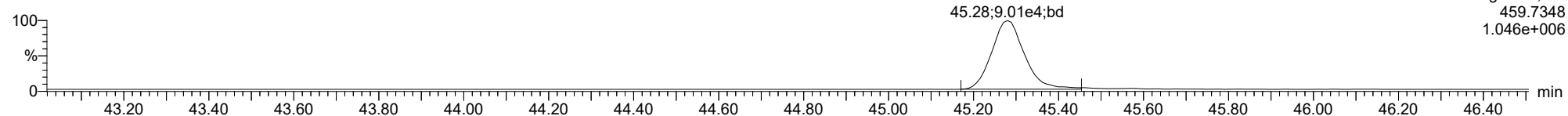
OCDD

23021013



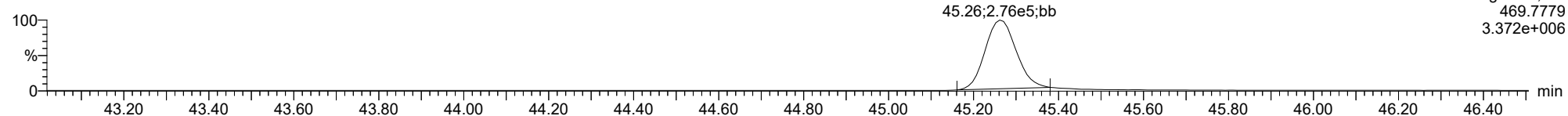
OCDD

23021013



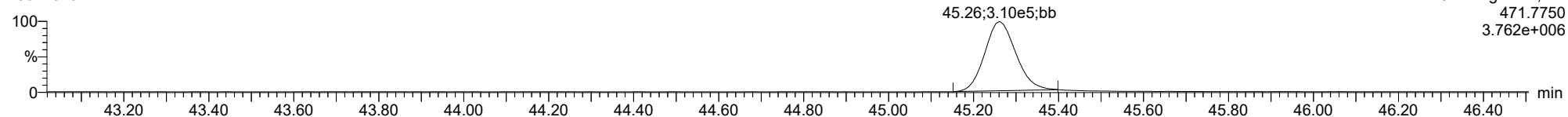
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23021013



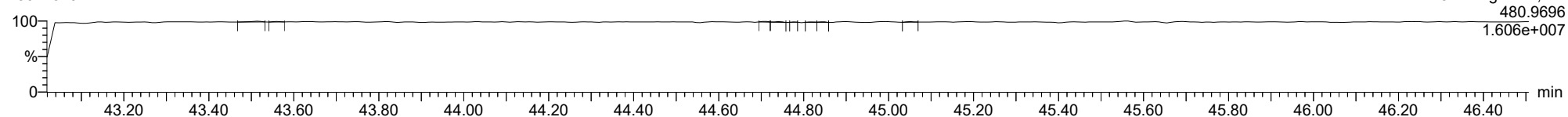
13C-OCDD

23021013

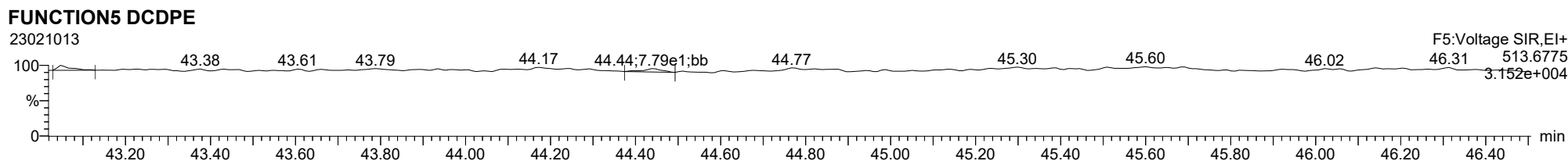
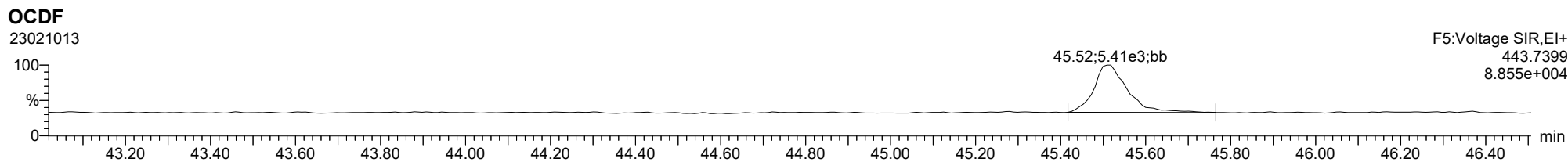
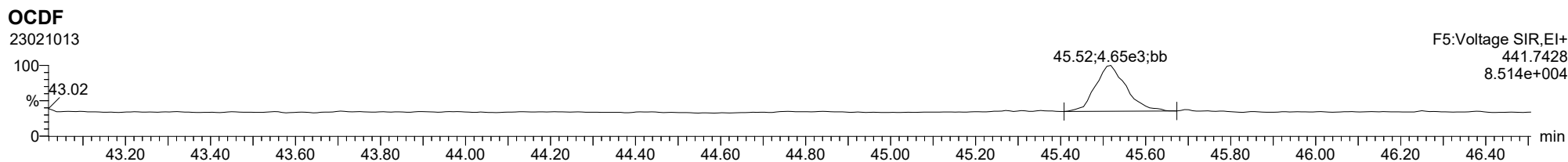


FUNCTION5 PFK

23021013



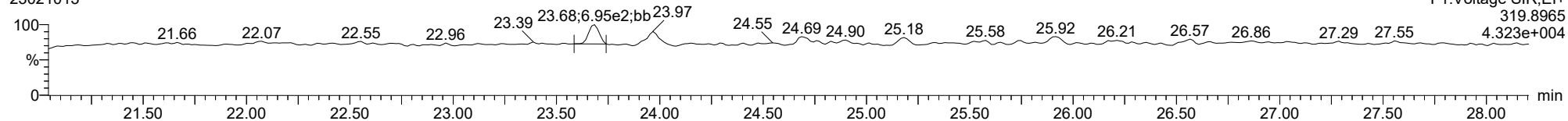
ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk



ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

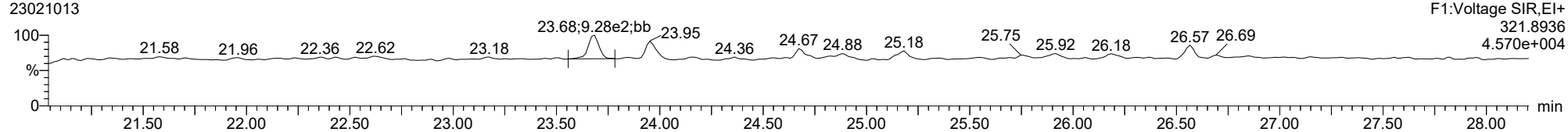
Total-tetradioxins

23021013



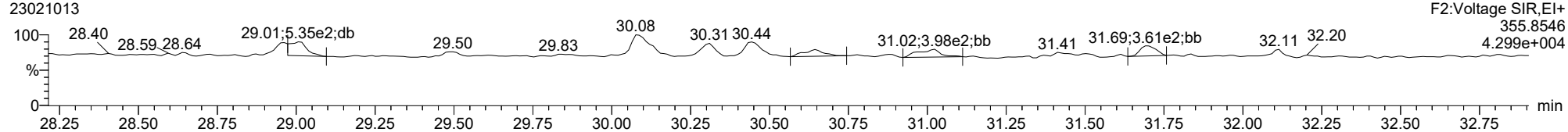
Total-tetradioxins

23021013



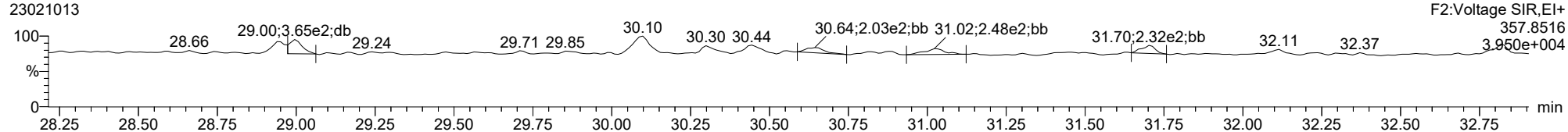
Total-pentadioxins

23021013



Total-pentadioxins

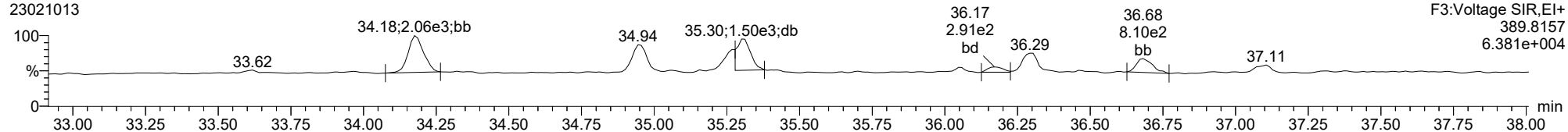
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ID: 23A0032-04, Name: 23021013, Date: 10-Feb-2023, Time: 23:24:01, Conditions: AUTOSPEC01, User: pk

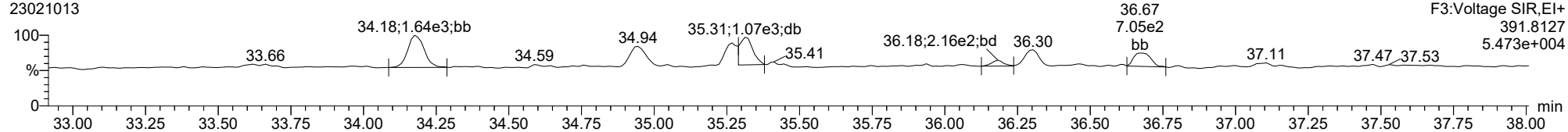
Total-hexadioxins

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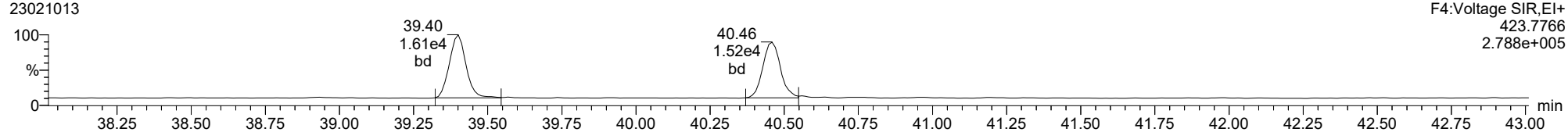
Total-hexadioxins

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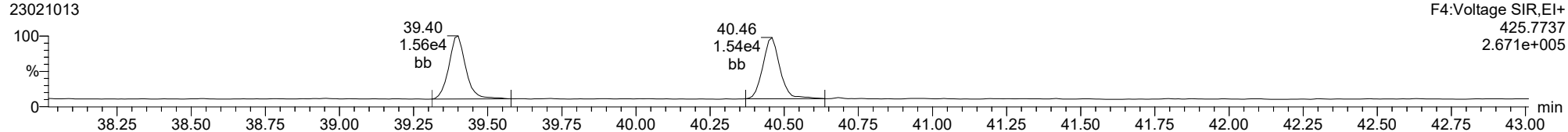
Total-heptadioxins

23021013



Total-heptadioxins

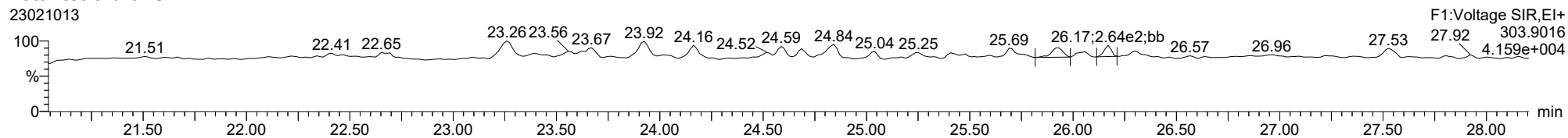
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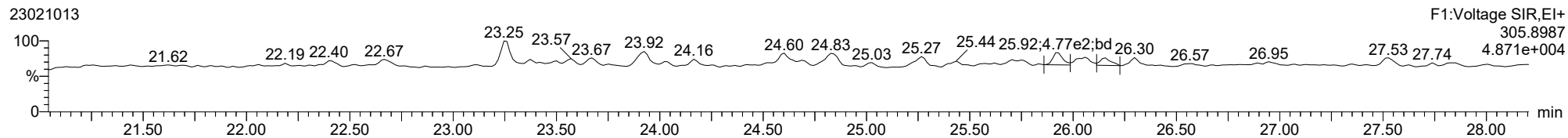
Total-tetrafurans

23021013



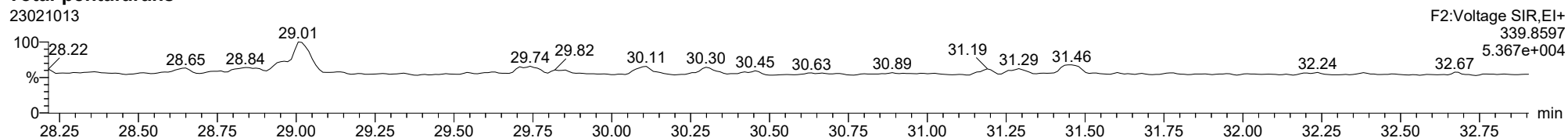
Total-tetrafurans

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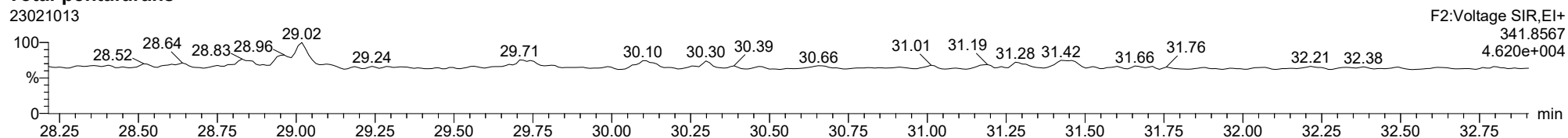
Total-pentafurans

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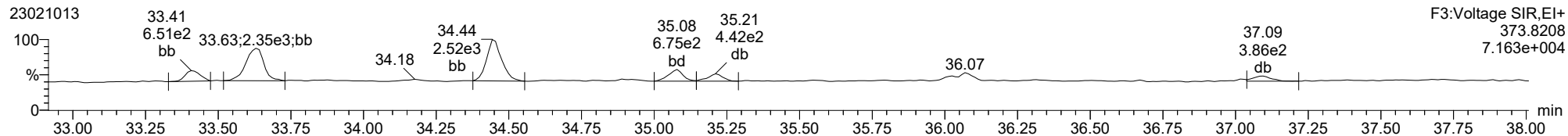
Total-pentafurans

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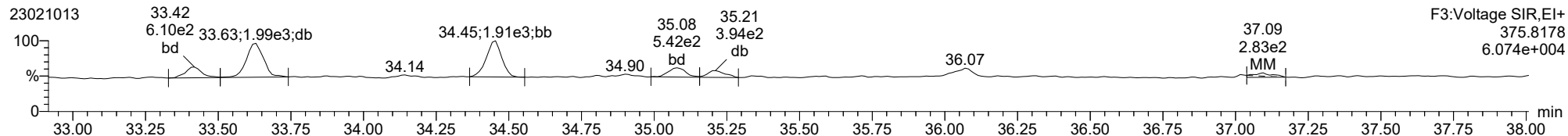


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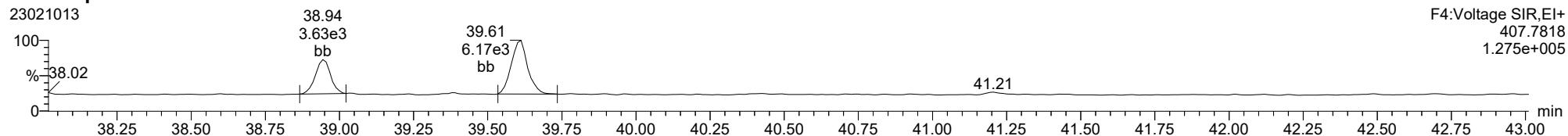
Total-hexafurans



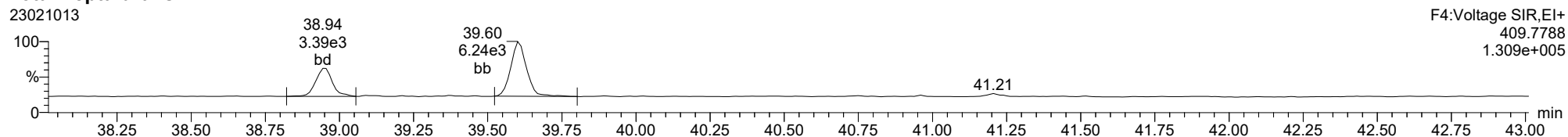
Total-hexafurans



Total-heptafurans



Total-heptafurans





Form 1
ORGANIC ANALYSIS DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory: Analytical Resources, LLC SDG: 23A0032
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-06 C File ID: 23021014
 Sampled: 01/03/23 13:34 Prepared: 01/30/23 14:23 Analyzed: 02/11/23 00:13
 % Solids: 75.43 Preparation: EPA 8290 Initial/Final: 13.26 g Wet / 20 uL
 Result Basis: Dry Sequence: SLB0147 Calibration: GB00010
 Batch: BLA0256 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.784	0.655-0.886	0.100	1.00	0.588	ng/kg	X, J
1746-01-6	2,3,7,8-TCDD	1	0.380	0.655-0.886	0.080	1.00	0.205	ng/kg	EMPC, J
57117-41-6	1,2,3,7,8-PeCDF	1	1.137	1.318-1.783	0.188	1.00	0.331	ng/kg	EMPC, J
57117-31-4	2,3,4,7,8-PeCDF	1	1.347	1.318-1.783	0.182	1.00	0.656	ng/kg	J
40321-76-4	1,2,3,7,8-PeCDD	1	1.639	1.318-1.783	0.170	1.00	0.658	ng/kg	J
70648-26-9	1,2,3,4,7,8-HxCDF	1	1.077	1.054-1.426	0.097	1.00	1.01	ng/kg	
57117-44-9	1,2,3,6,7,8-HxCDF	1	0.890	1.054-1.426	0.091	1.00	0.571	ng/kg	EMPC, J, B
60851-34-5	2,3,4,6,7,8-HxCDF	1	1.382	1.054-1.426	0.097	1.00	0.902	ng/kg	J
72918-21-9	1,2,3,7,8,9-HxCDF	1	1.338	1.054-1.426	0.113	1.00	0.665	ng/kg	J
39227-28-6	1,2,3,4,7,8-HxCDD	1	1.009	1.054-1.426	0.168	1.00	0.566	ng/kg	EMPC, J
57653-85-7	1,2,3,6,7,8-HxCDD	1	1.217	1.054-1.426	0.165	1.00	2.69	ng/kg	
19408-74-3	1,2,3,7,8,9-HxCDD	1	1.037	1.054-1.426	0.170	1.00	1.08	ng/kg	EMPC
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	1.103	0.893-1.208	0.120	1.00	11.4	ng/kg	B
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	1.028	0.893-1.208	0.178	1.00	1.23	ng/kg	
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.053	0.893-1.208	0.301	2.50	78.4	ng/kg	B
39001-02-0	OCDF	1	0.837	0.757-1.024	0.262	2.50	35.7	ng/kg	B
3268-87-9	OCDD	1	0.879	0.757-1.024	0.454	10.0	736	ng/kg	B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			1.00	6.18	ng/kg
41903-57-5	Total TCDD	1	0.000			1.00	0.744	ng/kg
30402-15-4	Total PeCDF	1	0.000			1.00	5.22	ng/kg
36088-22-9	Total PeCDD	1	0.000			1.00	1.98	ng/kg
55684-94-1	Total HxCDF	1	0.000			1.00	17.8	ng/kg
34465-46-8	Total HxCDD	1	0.000			1.00	17.2	ng/kg
38998-75-3	Total HpCDF	1	0.000			1.00	41.0	ng/kg
37871-00-4	Total HpCDD	1	0.000			1.00	200	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 3.02
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 3.02

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:43:46 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
 Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.929	1.000	1.089e3	1.389e3	0.876	0.784	0.770	1170	993	1.74e4	2.11e4	14.9	21.2	NO	bd	bd	0.294
12378-PeCDF	30.131	1.001	6.223e2	5.473e2	0.845	1.137	1.550	2396	994	1.10e4	6.98e3	4.6	7.0	YES	bb	bb	0.165
23478-PeCDF	31.456	1.001	1.349e3	1.002e3	0.911	1.347	1.550	2396	994	1.96e4	1.45e4	8.2	14.6	NO	db	db	0.328
123478-HxCDF	35.077	1.000	1.487e3	1.381e3	1.182	1.077	1.240	802	734	2.40e4	2.41e4	30.0	32.9	NO	dd	dd	0.503
234678-HxCDF	36.080	1.000	1.470e3	1.064e3	1.229	1.382	1.240	802	734	1.66e4	1.17e4	20.7	15.9	NO	bb	bb	0.451
123678-HxCDF	35.222	1.001	8.471e2	9.516e2	1.248	0.890	1.240	802	734	1.31e4	1.34e4	16.3	18.3	YES	db	db	0.285
123789-HxCDF	37.094	1.000	9.264e2	6.922e2	1.187	1.338	1.240	802	734	9.63e3	7.37e3	12.0	10.0	NO	bb	bb	0.333
1234678-HpCDF	38.954	1.000	1.562e4	1.416e4	1.204	1.103	1.050	1001	793	2.47e5	2.31e5	246.4	291.2	NO	bb	bb	5.697
1234789-HpCDF	41.216	1.000	1.289e3	1.254e3	1.165	1.028	1.050	1001	793	2.17e4	1.95e4	21.7	24.6	NO	bb	bb	0.614
OCDF	45.526	1.005	2.640e4	3.153e4	1.186	0.837	0.890	780	980	3.24e5	3.67e5	415.7	374.2	NO	bb	bd	17.853
2378-TCDD	26.565	1.000	2.370e2	6.245e2	1.236	0.380	0.770	905	819	4.19e3	8.81e3	4.6	10.8	YES	bb	bd	0.103
12378-PeCDD	31.702	1.000	1.023e3	6.241e2	1.087	1.639	1.550	1035	1144	1.60e4	8.77e3	15.5	7.7	NO	bb	bb	0.329
123478-HxCDD	36.203	1.001	6.051e2	5.995e2	0.987	1.009	1.240	1044	991	1.09e4	1.05e4	10.4	10.6	YES	bd	bd	0.283
123678-HxCDD	36.303	1.000	3.333e3	2.738e3	1.021	1.217	1.240	1044	991	5.53e4	4.60e4	52.9	46.4	NO	db	db	1.347
123789-HxCDD	36.693	1.011	1.184e3	1.142e3	0.985	1.037	1.240	1044	991	2.02e4	2.06e4	19.4	20.8	YES	bb	bb	0.541
1234678-HpCDD	40.470	1.000	8.177e4	7.765e4	1.253	1.053	1.050	1503	1690	1.23e6	1.16e6	817.1	684.6	NO	bd	bb	39.204
OCDD	45.288	1.000	5.197e5	5.909e5	1.103	0.879	0.890	1345	1489	6.22e6	7.01e6	4620.1	4711.0	NO	bb	bb	368.207
13C-2378-TCDF	25.915	1.007	4.159e5	5.460e5	1.768	0.762	0.770	1658	1246	6.39e6	8.30e6	3854.6	6659.6	NO	bb	bb	108.014
13C-12378-PeCDF	30.097	1.170	5.086e5	3.284e5	1.527	1.549	1.550	2070	1843	7.79e6	5.10e6	3765.0	2769.8	NO	bb	bb	108.811
13C-23478-PeCDF	31.434	1.222	4.756e5	3.107e5	1.466	1.531	1.550	2070	1843	7.41e6	4.76e6	3578.5	2581.5	NO	bb	bb	106.472
13C-123478-HxCDF	35.066	0.956	1.644e5	3.179e5	1.054	0.517	0.510	1359	1202	2.73e6	5.23e6	2006.5	4353.7	NO	bd	bd	122.425
13C-123678-HxCDF	35.200	0.960	1.720e5	3.329e5	1.080	0.517	0.510	1359	1202	2.75e6	5.39e6	2026.9	4482.6	NO	db	db	125.056
13C-234678-HxCDF	36.069	0.983	1.563e5	3.007e5	1.014	0.520	0.510	1359	1202	2.66e6	5.10e6	1955.4	4239.7	NO	bb	bb	120.495
13C-123789-HxCDF	37.083	1.011	1.387e5	2.715e5	0.928	0.511	0.510	1359	1202	2.32e6	4.56e6	1705.1	3796.2	NO	bb	bb	118.239
13C-1234678-HpCDF	38.943	1.062	1.356e5	2.986e5	1.036	0.454	0.440	1339	1412	2.33e6	5.10e6	1739.7	3610.8	NO	bb	bb	112.093
13C-1234789-HpCDF	41.205	1.123	1.122e5	2.430e5	0.905	0.462	0.440	1339	1412	1.64e6	3.54e6	1220.9	2506.8	NO	bb	bb	104.995
13C-1234-TCDD	25.732	0.000	2.230e5	2.807e5	1.000	0.794	0.770	1391	1117	3.49e6	4.36e6	2509.0	3904.6	NO	bb	bb	100.000
13C-2378-TCDD	26.551	1.032	3.017e5	3.779e5	1.103	0.798	0.770	1391	1117	4.65e6	5.84e6	3342.5	5227.8	NO	bb	bb	122.345
13C-12378-PeCDD	31.691	1.232	2.893e5	1.712e5	0.914	1.690	1.550	1038	803	4.45e6	2.62e6	4288.2	3269.8	NO	bb	bb	100.020
13C-123478-HxCDD	36.180	0.986	2.430e5	1.881e5	0.933	1.292	1.240	1586	1222	4.14e6	3.17e6	2613.0	2594.9	NO	bd	bd	123.585
13C-123678-HxCDD	36.292	0.989	2.459e5	1.956e5	0.965	1.257	1.240	1586	1222	4.03e6	3.24e6	2542.2	2652.0	NO	db	db	122.424
13C-1234678-HpCDD	40.458	1.103	1.685e5	1.561e5	0.782	1.079	1.050	1035	1109	2.64e6	2.41e6	2551.7	2175.2	NO	bb	bb	111.038
13C-OCDD	45.279	1.234	2.616e5	2.854e5	0.788	0.917	0.890	946	1190	3.25e6	3.55e6	3437.4	2981.6	NO	bb	bb	185.640
13C-123789-HxCDD	36.682	0.000	2.077e5	1.662e5	1.000	1.250	1.240	1586	1222	3.48e6	2.75e6	2192.8	2249.8	NO	bb	bb	100.000
37CL-2378-TCDD	26.579	1.033	2.444e5		1.233			707		3.82e6		5401.6			bb		39.345

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:43:46 Pacific Standard Time

ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.398	0.864	3.399e2	3.571e2	1.064	0.952	0.770	1170	993	5.44e3	5.82e3	4.7	5.9	YES	db	bb	0.068
1289-TCDF	27.539	1.063	1.258e3	1.406e3	0.858	0.895	0.770	1170	993	1.81e4	2.16e4	15.4	21.8	YES	db	db	0.323
13468-PECDF					1.013		1.550	740	996								
12389-PECDF					0.844		1.550	2396	994								
123468-HXCDF	33.429	0.953	3.393e3	2.444e3	1.197	1.389	1.240	802	734	5.32e4	3.79e4	66.3	51.7	NO	bd	bd	1.011
1368-TCDD	23.698	0.892	9.781e2	1.266e3	1.084	0.773	0.770	905	819	1.31e4	2.05e4	14.4	25.0	NO	bb	bb	0.304
1289-TCDD					0.975		0.770	905	819								
12479-PECDD	29.006	0.915	1.734e3	1.289e3	1.837	1.345	1.550	1035	1144	1.59e4	1.51e4	15.4	13.2	NO	bb	bb	0.357
12389-PECDD					1.252		1.550	1035	1144								
124679-HXCDD	34.197	0.945	6.813e3	5.493e3	1.033	1.240	1.240	1044	991	1.09e5	8.79e4	104.0	88.7	NO	bb	bb	2.764
1234679-HPCDD	39.411	0.974	1.286e5	1.260e5	1.286	1.021	1.050	1503	1690	2.04e6	1.97e6	1357.5	1164.2	NO	bd	bb	61.004
Total-tetrafurans			1.190e4		0.933			1170		1.63e5							3.092
Total-penta1			8.498e3					740		1.24e5							1.828
Total-pentafurans			3.266e3		0.866			2396		5.26e4							0.780
Total-hexafurans			2.776e4		1.208			802		4.12e5							8.902
Total-heptafurans			5.103e4		1.185			1001		8.02e5							20.504
Total-Furans			1.293e5		1.067			1170		1.88e6							53.052
Total-tetradoxins			1.202e3		1.099			905		1.64e4							0.372
Total-pentadoxins			3.947e3		1.392			1035		4.96e4							0.988
Total-hexadoxins			2.105e4		1.007			1044		3.01e5							8.592
Total-heptadoxins			2.104e5		1.269			1503		3.27e6							100.208
Total-Dioxins			7.563e5		1.165			905		9.85e6							478.367
Total-TEQ			8.855e5					905		1.17e7							531.419
FUNCTION1 PFK			1.002e6					258252		1.63e7							
FUNCTION2 PFK			7.942e6					194346		5.41e7							0.000
FUNCTION3 PFK			3.851e5					207970		2.03e6							0.000
FUNCTION4 PFK			9.959e5					171071		3.96e6							
FUNCTION5 PFK			2.027e4					123238		7.30e5							
FUNCTION1 HXCD...			2.250e3					447		3.20e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			2.995e2					652		5.13e3							0.000
FUNCTION3 OCDPE			2.987e2					583		5.11e3							0.000
FUNCTION4 NCDPE			1.671e4					706		2.82e5							0.000
FUNCTION5 DCDPE			0.000e0					627		0.00e0							

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:43:46 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20**Calibration: T:\Autospec\Curves\230201CIH.cdb 03 Feb 2023 10:33:40****ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.33	3.503e2	5.266e2	0.933	0.67	0.77	4.2	YES	NO	dd	dd	0.098
2	Total-tetrafurans	24.18	1.530e3	2.201e3	0.933	0.70	0.77	18.3	YES	NO	dd	dd	0.416
3	Total-tetrafurans	24.02	4.987e2	6.097e2	0.933	0.82	0.77	6.6	YES	NO	dd	dd	0.124
4	Total-tetrafurans	23.75	3.359e2	4.570e2	0.933	0.73	0.77	5.1	YES	NO	db	db	0.088
5	Total-tetrafurans	23.70	9.193e2	1.097e3	0.933	0.84	0.77	10.8	YES	NO	dd	dd	0.225
6	Total-tetrafurans	23.57	8.597e2	1.112e3	0.933	0.77	0.77	12.7	YES	NO	dd	dd	0.220
7	Total-tetrafurans	23.27	1.573e3	2.055e3	0.933	0.77	0.77	16.3	YES	NO	bd	bd	0.404
8	Total-tetrafurans	22.67	4.126e2	5.843e2	0.933	0.71	0.77	5.3	YES	NO	bb	bb	0.111
9	Total-tetrafurans	26.04	2.062e3	2.661e3	0.933	0.77	0.77	21.1	YES	NO	dd	dd	0.526
10	2378-TCDF	25.93	1.089e3	1.389e3	0.876	0.78	0.77	14.9	YES	NO	bd	bd	0.294
11	Total-tetrafurans	25.59	4.114e2	5.647e2	0.933	0.73	0.77	3.2	YES	NO	dd	dd	0.109
12	Total-tetrafurans	25.43	2.851e2	3.462e2	0.933	0.82	0.77	3.7	YES	NO	dd	bd	0.070
13	Total-tetrafurans	24.83	1.237e3	1.677e3	0.933	0.74	0.77	13.0	YES	NO	dd	db	0.325
14	Total-tetrafurans	24.45	3.356e2	4.007e2	0.933	0.84	0.77	4.4	YES	NO	dd	dd	0.082

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	27.37	8.498e3	5.534e3		1.54	1.55	167.4	YES	NO	bb	bb	1.828

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.46	1.349e3	1.002e3	0.911	1.35	1.55	8.2	YES	NO	db	db	0.328
2	Total-pentafurans	31.30	9.020e2	6.567e2	0.866	1.37	1.55	6.2	YES	NO	dd	dd	0.222
3	Total-pentafurans	31.18	1.015e3	6.064e2	0.866	1.67	1.55	7.6	YES	NO	bd	bd	0.230

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Printed: Monday, February 13, 2023 11:43:46 Pacific Standard Time

ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123468-HxCDF	33.43	3.393e3	2.444e3	1.197	1.39	1.24	66.3	YES	NO	bd	bd	1.011
2	123789-HxCDF	37.09	9.264e2	6.922e2	1.187	1.34	1.24	12.0	YES	NO	bb	bb	0.333
3	234678-HxCDF	36.08	1.470e3	1.064e3	1.229	1.38	1.24	20.7	YES	NO	bb	bb	0.451
4	123478-HxCDF	35.08	1.487e3	1.381e3	1.182	1.08	1.24	30.0	YES	NO	dd	dd	0.503
5	Total-hexafurans	34.93	5.709e2	4.707e2	1.208	1.21	1.24	10.8	YES	NO	bd	bd	0.186
6	Total-hexafurans	34.46	1.099e4	8.471e3	1.208	1.30	1.24	213.7	YES	NO	bb	bb	3.474
7	Total-hexafurans	33.64	8.922e3	7.572e3	1.208	1.18	1.24	160.2	YES	NO	dd	db	2.944

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.22	1.289e3	1.254e3	1.165	1.03	1.05	21.7	YES	NO	bb	bb	0.614
2	Total-heptafurans	39.61	3.326e4	3.135e4	1.185	1.06	1.05	517.8	YES	NO	bb	bb	13.817
3	Total-heptafurans	39.37	8.529e2	9.007e2	1.185	0.95	1.05	15.3	YES	NO	bb	bb	0.375
4	1234678-HpCDF	38.95	1.562e4	1.416e4	1.204	1.10	1.05	246.4	YES	NO	bb	bb	5.697

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.33	3.503e2	5.266e2	0.933	0.67	0.77	4.2	YES	NO	dd	dd	0.098
2	Total-tetrafurans	24.18	1.530e3	2.201e3	0.933	0.70	0.77	18.3	YES	NO	dd	dd	0.416
3	Total-tetrafurans	24.02	4.987e2	6.097e2	0.933	0.82	0.77	6.6	YES	NO	dd	dd	0.124
4	Total-tetrafurans	23.75	3.359e2	4.570e2	0.933	0.73	0.77	5.1	YES	NO	db	db	0.088
5	Total-tetrafurans	23.70	9.193e2	1.097e3	0.933	0.84	0.77	10.8	YES	NO	dd	dd	0.225
6	Total-tetrafurans	23.57	8.597e2	1.112e3	0.933	0.77	0.77	12.7	YES	NO	dd	dd	0.220
7	Total-tetrafurans	23.27	1.573e3	2.055e3	0.933	0.77	0.77	16.3	YES	NO	bd	bd	0.404
8	Total-tetrafurans	22.67	4.126e2	5.843e2	0.933	0.71	0.77	5.3	YES	NO	bb	bb	0.111
9	Total-Furans	21.32	1.963e2	2.663e2	1.067	0.74	0.77	2.9	NO	NO	bb	bb	0.045
10	Total-tetrafurans	26.04	2.062e3	2.661e3	0.933	0.77	0.77	21.1	YES	NO	dd	dd	0.526
11	2378-TCDF	25.93	1.089e3	1.389e3	0.876	0.78	0.77	14.9	YES	NO	bd	bd	0.294
12	Total-tetrafurans	25.59	4.114e2	5.647e2	0.933	0.73	0.77	3.2	YES	NO	dd	dd	0.109
13	Total-tetrafurans	25.43	2.851e2	3.462e2	0.933	0.82	0.77	3.7	YES	NO	dd	bd	0.070
14	Total-tetrafurans	24.83	1.237e3	1.677e3	0.933	0.74	0.77	13.0	YES	NO	dd	db	0.325
15	Total-tetrafurans	24.45	3.356e2	4.007e2	0.933	0.84	0.77	4.4	YES	NO	dd	dd	0.082
16	Total-Furans	27.85	1.992e2	2.908e2	1.067	0.68	0.77	2.9	NO	NO	bb	bb	0.048
17	23478-PeCDF	31.46	1.349e3	1.002e3	0.911	1.35	1.55	8.2	YES	NO	db	db	0.328
18	Total-pentafurans	31.30	9.020e2	6.567e2	0.866	1.37	1.55	6.2	YES	NO	dd	dd	0.222
19	Total-pentafurans	31.18	1.015e3	6.064e2	0.866	1.67	1.55	7.6	YES	NO	bd	bd	0.230
20	123468-HxCDF	33.43	3.393e3	2.444e3	1.197	1.39	1.24	66.3	YES	NO	bd	bd	1.011
21	123789-HxCDF	37.09	9.264e2	6.922e2	1.187	1.34	1.24	12.0	YES	NO	bb	bb	0.333
22	234678-HxCDF	36.08	1.470e3	1.064e3	1.229	1.38	1.24	20.7	YES	NO	bb	bb	0.451
23	123478-HxCDF	35.08	1.487e3	1.381e3	1.182	1.08	1.24	30.0	YES	NO	dd	dd	0.503
24	Total-hexafurans	34.93	5.709e2	4.707e2	1.208	1.21	1.24	10.8	YES	NO	bd	bd	0.186
25	Total-hexafurans	34.46	1.099e4	8.471e3	1.208	1.30	1.24	213.7	YES	NO	bb	bb	3.474
26	Total-hexafurans	33.64	8.922e3	7.572e3	1.208	1.18	1.24	160.2	YES	NO	dd	db	2.944
27	1234789-HpCDF	41.22	1.289e3	1.254e3	1.165	1.03	1.05	21.7	YES	NO	bb	bb	0.614
28	Total-heptafurans	39.61	3.326e4	3.135e4	1.185	1.06	1.05	517.8	YES	NO	bb	bb	13.817
29	Total-heptafurans	39.37	8.529e2	9.007e2	1.185	0.95	1.05	15.3	YES	NO	bb	bb	0.375
30	1234678-HpCDF	38.95	1.562e4	1.416e4	1.204	1.10	1.05	246.4	YES	NO	bb	bb	5.697
31	OCDF	45.53	2.640e4	3.153e4	1.186	0.84	0.89	415.7	YES	NO	bb	bd	17.853
32	Total-penta1	27.37	8.498e3	5.534e3		1.54	1.55	167.4	YES	NO	bb	bb	1.828

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:43:46 Pacific Standard Time

ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk**TD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.70	9.781e2	1.266e3	1.084	0.77	0.77	14.4	YES	NO	bb	bb	0.304
2	Total-tetradoxins	25.77	2.240e2	2.818e2	1.099	0.79	0.77	3.6	YES	NO	bd	bb	0.068

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentadoxins	32.39	3.490e2	2.336e2	1.392	1.49	1.55	4.3	YES	NO	bb	bb	0.091
2	12378-PeCDD	31.70	1.023e3	6.241e2	1.087	1.64	1.55	15.5	YES	NO	bb	bb	0.329
3	Total-pentadoxins	30.32	8.413e2	5.079e2	1.392	1.66	1.55	12.8	YES	NO	bb	db	0.210
4	12479-PECDD	29.01	1.734e3	1.289e3	1.837	1.34	1.55	15.4	YES	NO	bb	bb	0.357

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadoxins	35.43	6.944e2	6.306e2	1.007	1.10	1.24	10.4	YES	NO	db	db	0.302
2	Total-hexadoxins	35.32	8.376e3	6.656e3	1.007	1.26	1.24	87.0	YES	NO	bd	bd	3.423
3	Total-hexadoxins	34.95	1.514e3	1.256e3	1.007	1.21	1.24	27.6	YES	NO	bb	bb	0.631
4	124679-HxCDD	34.20	6.813e3	5.493e3	1.033	1.24	1.24	104.0	YES	NO	bb	bb	2.764
5	Total-hexadoxins	36.48	3.245e2	2.284e2	1.007	1.42	1.24	5.9	YES	NO	bb	bd	0.126
6	123678-HxCDD	36.30	3.333e3	2.738e3	1.021	1.22	1.24	52.9	YES	NO	db	db	1.347

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.47	8.177e4	7.765e4	1.253	1.05	1.05	817.1	YES	NO	bd	bb	39.204
2	1234679-HPCDD	39.41	1.286e5	1.260e5	1.286	1.02	1.05	1357.5	YES	NO	bd	bb	61.004

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.70	9.781e2	1.266e3	1.084	0.77	0.77	14.4	YES	NO	bb	bb	0.304
2	Total-tetradoxins	25.77	2.240e2	2.818e2	1.099	0.79	0.77	3.6	YES	NO	bd	bb	0.068
3	Total-pentadoxins	32.39	3.490e2	2.336e2	1.392	1.49	1.55	4.3	YES	NO	bb	bb	0.091
4	12378-PeCDD	31.70	1.023e3	6.241e2	1.087	1.64	1.55	15.5	YES	NO	bb	bb	0.329
5	Total-pentadoxins	30.32	8.413e2	5.079e2	1.392	1.66	1.55	12.8	YES	NO	bb	db	0.210
6	12479-PECDD	29.01	1.734e3	1.289e3	1.837	1.34	1.55	15.4	YES	NO	bb	bb	0.357
7	Total-hexadoxins	35.43	6.944e2	6.306e2	1.007	1.10	1.24	10.4	YES	NO	db	db	0.302
8	Total-hexadoxins	35.32	8.376e3	6.656e3	1.007	1.26	1.24	87.0	YES	NO	bd	bd	3.423
9	Total-hexadoxins	34.95	1.514e3	1.256e3	1.007	1.21	1.24	27.6	YES	NO	bb	bb	0.631
10	124679-HXCDD	34.20	6.813e3	5.493e3	1.033	1.24	1.24	104.0	YES	NO	bb	bb	2.764
11	Total-hexadoxins	36.48	3.245e2	2.284e2	1.007	1.42	1.24	5.9	YES	NO	bb	bd	0.126
12	123678-HxCDD	36.30	3.333e3	2.738e3	1.021	1.22	1.24	52.9	YES	NO	db	db	1.347
13	1234678-HpCDD	40.47	8.177e4	7.765e4	1.253	1.05	1.05	817.1	YES	NO	bd	bb	39.204
14	1234679-HPCDD	39.41	1.286e5	1.260e5	1.286	1.02	1.05	1357.5	YES	NO	bd	bb	61.004
15	OCDD	45.29	5.197e5	5.909e5	1.103	0.88	0.89	4620.1	YES	NO	bb	bb	368.207

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Printed: Monday, February 13, 2023 11:43:46 Pacific Standard Time

ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.33	3.503e2	5.266e2	0.933	0.67	0.77	4.2	YES	NO	dd	dd	0.098
2	Total-tetrafurans	24.18	1.530e3	2.201e3	0.933	0.70	0.77	18.3	YES	NO	dd	dd	0.416
3	Total-tetrafurans	24.02	4.987e2	6.097e2	0.933	0.82	0.77	6.6	YES	NO	dd	dd	0.124
4	Total-tetrafurans	23.75	3.359e2	4.570e2	0.933	0.73	0.77	5.1	YES	NO	db	db	0.088
5	Total-tetrafurans	23.70	9.193e2	1.097e3	0.933	0.84	0.77	10.8	YES	NO	dd	dd	0.225
6	Total-tetrafurans	23.57	8.597e2	1.112e3	0.933	0.77	0.77	12.7	YES	NO	dd	dd	0.220
7	Total-tetrafurans	23.27	1.573e3	2.055e3	0.933	0.77	0.77	16.3	YES	NO	bd	bd	0.404
8	Total-tetrafurans	22.67	4.126e2	5.843e2	0.933	0.71	0.77	5.3	YES	NO	bb	bb	0.111
9	Total-Furans	21.32	1.963e2	2.663e2	1.067	0.74	0.77	2.9	NO	NO	bb	bb	0.045
10	Total-tetrafurans	26.04	2.062e3	2.661e3	0.933	0.77	0.77	21.1	YES	NO	dd	dd	0.526
11	2378-TCDF	25.93	1.089e3	1.389e3	0.876	0.78	0.77	14.9	YES	NO	bd	bd	0.294
12	Total-tetrafurans	25.59	4.114e2	5.647e2	0.933	0.73	0.77	3.2	YES	NO	dd	dd	0.109
13	Total-tetrafurans	25.43	2.851e2	3.462e2	0.933	0.82	0.77	3.7	YES	NO	dd	bd	0.070
14	Total-tetrafurans	24.83	1.237e3	1.677e3	0.933	0.74	0.77	13.0	YES	NO	dd	db	0.325
15	Total-tetrafurans	24.45	3.356e2	4.007e2	0.933	0.84	0.77	4.4	YES	NO	dd	dd	0.082
16	Total-Furans	27.85	1.992e2	2.908e2	1.067	0.68	0.77	2.9	NO	NO	bb	bb	0.048
17	23478-PeCDF	31.46	1.349e3	1.002e3	0.911	1.35	1.55	8.2	YES	NO	db	db	0.328
18	Total-pentafurans	31.30	9.020e2	6.567e2	0.866	1.37	1.55	6.2	YES	NO	dd	dd	0.222
19	Total-pentafurans	31.18	1.015e3	6.064e2	0.866	1.67	1.55	7.6	YES	NO	bd	bd	0.230
20	123468-HxCDF	33.43	3.393e3	2.444e3	1.197	1.39	1.24	66.3	YES	NO	bd	bd	1.011
21	123789-HxCDF	37.09	9.264e2	6.922e2	1.187	1.34	1.24	12.0	YES	NO	bb	bb	0.333
22	234678-HxCDF	36.08	1.470e3	1.064e3	1.229	1.38	1.24	20.7	YES	NO	bb	bb	0.451
23	123478-HxCDF	35.08	1.487e3	1.381e3	1.182	1.08	1.24	30.0	YES	NO	dd	dd	0.503
24	Total-hexafurans	34.93	5.709e2	4.707e2	1.208	1.21	1.24	10.8	YES	NO	bd	bd	0.186
25	Total-hexafurans	34.46	1.099e4	8.471e3	1.208	1.30	1.24	213.7	YES	NO	bb	bb	3.474
26	Total-hexafurans	33.64	8.922e3	7.572e3	1.208	1.18	1.24	160.2	YES	NO	dd	db	2.944
27	1234789-HpCDF	41.22	1.289e3	1.254e3	1.165	1.03	1.05	21.7	YES	NO	bb	bb	0.614
28	Total-heptafurans	39.61	3.326e4	3.135e4	1.185	1.06	1.05	517.8	YES	NO	bb	bb	13.817
29	Total-heptafurans	39.37	8.529e2	9.007e2	1.185	0.95	1.05	15.3	YES	NO	bb	bb	0.375
30	1234678-HpCDF	38.95	1.562e4	1.416e4	1.204	1.10	1.05	246.4	YES	NO	bb	bb	5.697
31	OCDF	45.53	2.640e4	3.153e4	1.186	0.84	0.89	415.7	YES	NO	bb	bd	17.853
32	Total-penta1	27.37	8.498e3	5.534e3		1.54	1.55	167.4	YES	NO	bb	bb	1.828
33	1368-TCDD	23.70	9.781e2	1.266e3	1.084	0.77	0.77	14.4	YES	NO	bb	bb	0.304
34	Total-tetradiioxins	25.77	2.240e2	2.818e2	1.099	0.79	0.77	3.6	YES	NO	bd	bb	0.068
35	Total-pentadiioxins	32.39	3.490e2	2.336e2	1.392	1.49	1.55	4.3	YES	NO	bb	bb	0.091
36	12378-PeCDD	31.70	1.023e3	6.241e2	1.087	1.64	1.55	15.5	YES	NO	bb	bb	0.329
37	Total-pentadiioxins	30.32	8.413e2	5.079e2	1.392	1.66	1.55	12.8	YES	NO	bb	db	0.210

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	12479-PECDD	29.01	1.734e3	1.289e3	1.837	1.34	1.55	15.4	YES	NO	bb	bb	0.357
39	Total-hexadioxins	35.43	6.944e2	6.306e2	1.007	1.10	1.24	10.4	YES	NO	db	db	0.302
40	Total-hexadioxins	35.32	8.376e3	6.656e3	1.007	1.26	1.24	87.0	YES	NO	bd	bd	3.423
41	Total-hexadioxins	34.95	1.514e3	1.256e3	1.007	1.21	1.24	27.6	YES	NO	bb	bb	0.631
42	124679-HxCDD	34.20	6.813e3	5.493e3	1.033	1.24	1.24	104.0	YES	NO	bb	bb	2.764
43	Total-hexadioxins	36.48	3.245e2	2.284e2	1.007	1.42	1.24	5.9	YES	NO	bb	bd	0.126
44	123678-HxCDD	36.30	3.333e3	2.738e3	1.021	1.22	1.24	52.9	YES	NO	db	db	1.347
45	1234678-HpCDD	40.47	8.177e4	7.765e4	1.253	1.05	1.05	817.1	YES	NO	bd	bb	39.204
46	1234679-HPCDD	39.41	1.286e5	1.260e5	1.286	1.02	1.05	1357.5	YES	NO	bd	bb	61.004
47	OCDD	45.29	5.197e5	5.909e5	1.103	0.88	0.89	4620.1	YES	NO	bb	bb	368.207

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.68	1.925e4					1.5	NO		bd		
2	FUNCTION1 PFK	21.55	3.495e4					1.8	NO		db		
3	FUNCTION1 PFK	21.34	8.334e4					3.3	YES		dd		
4	FUNCTION1 PFK	21.28	9.451e3					1.8	NO		bd		
5	FUNCTION1 PFK	21.17	5.790e4					3.2	YES		bb		
6	FUNCTION1 PFK	23.50	1.206e4					1.2	NO		dd		
7	FUNCTION1 PFK	23.46	9.297e3					1.2	NO		bd		
8	FUNCTION1 PFK	23.34	1.853e4					1.5	NO		bb		
9	FUNCTION1 PFK	23.26	2.834e4					1.5	NO		db		
10	FUNCTION1 PFK	23.15	1.406e4					1.2	NO		bd		
11	FUNCTION1 PFK	23.08	2.559e3					0.5	NO		bb		
12	FUNCTION1 PFK	22.93	6.430e3					0.8	NO		bb		
13	FUNCTION1 PFK	22.79	5.768e3					0.9	NO		bb		
14	FUNCTION1 PFK	22.60	4.416e4					2.4	NO		db		
15	FUNCTION1 PFK	22.40	9.065e4					2.6	NO		dd		
16	FUNCTION1 PFK	22.31	9.403e4					3.3	YES		bd		
17	FUNCTION1 PFK	22.14	2.275e4					1.8	NO		db		
18	FUNCTION1 PFK	22.10	1.285e4					1.6	NO		dd		
19	FUNCTION1 PFK	22.05	3.171e4					1.5	NO		dd		
20	FUNCTION1 PFK	21.92	1.977e4					1.6	NO		bd		
21	FUNCTION1 PFK	21.75	1.708e4					1.2	NO		db		
22	FUNCTION1 PFK	25.97	3.714e4					2.7	NO		bd		
23	FUNCTION1 PFK	25.65	1.260e3					0.3	NO		db		
24	FUNCTION1 PFK	25.60	4.924e3					0.7	NO		bd		
25	FUNCTION1 PFK	25.48	2.805e4					1.8	NO		db		
26	FUNCTION1 PFK	25.41	6.861e3					1.0	NO		bd		
27	FUNCTION1 PFK	25.22	3.770e4					1.6	NO		db		
28	FUNCTION1 PFK	25.10	7.463e3					1.0	NO		bd		
29	FUNCTION1 PFK	25.03	1.950e4					1.4	NO		bb		
30	FUNCTION1 PFK	24.59	1.111e3					0.3	NO		bb		
31	FUNCTION1 PFK	24.52	1.350e4					1.4	NO		db		
32	FUNCTION1 PFK	24.45	7.757e3					0.9	NO		bd		
33	FUNCTION1 PFK	24.09	9.255e3					0.9	NO		bb		
34	FUNCTION1 PFK	23.99	1.033e4					1.0	NO		db		
35	FUNCTION1 PFK	23.94	9.762e3					1.1	NO		bd		
36	FUNCTION1 PFK	23.70	1.832e4					1.4	NO		bb		
37	FUNCTION1 PFK	23.56	2.643e4					1.4	NO		db		

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION1 PFK	28.06	1.092e3					0.3	NO		bb		
39	FUNCTION1 PFK	27.99	1.698e3					0.4	NO		bb		
40	FUNCTION1 PFK	27.72	8.607e4					3.0	NO		bb		
41	FUNCTION1 PFK	27.58	3.050e3					0.5	NO		bb		
42	FUNCTION1 PFK	26.82	1.916e4					1.4	NO		bb		
43	FUNCTION1 PFK	26.68	2.603e3					0.4	NO		bb		
44	FUNCTION1 PFK	26.21	7.078e3					0.8	NO		bb		
45	FUNCTION1 PFK	26.04	7.317e3					1.0	NO		db		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.75	8.707e3					1.4	NO		bb		0.000
2	FUNCTION2 PFK	29.07	8.026e5					21.3	YES		db		0.000
3	FUNCTION2 PFK	28.89	1.769e6					31.7	YES		dd		0.000
4	FUNCTION2 PFK	28.72	4.356e5					41.8	YES		dd		0.000
5	FUNCTION2 PFK	28.57	2.892e6					48.9	YES		dd		0.000
6	FUNCTION2 PFK	28.33	1.019e6					60.7	YES		dd		0.000
7	FUNCTION2 PFK	28.27	9.556e5					64.0	YES		bd		0.000
8	FUNCTION2 PFK	32.58	7.620e3					1.6	NO		bb		0.000
9	FUNCTION2 PFK	32.37	1.072e3					0.5	NO		bb		0.000
10	FUNCTION2 PFK	31.68	9.627e3					1.5	NO		bb		0.000
11	FUNCTION2 PFK	30.00	8.737e3					1.4	NO		bb		0.000
12	FUNCTION2 PFK	29.92	1.356e4					1.5	NO		db		0.000
13	FUNCTION2 PFK	29.81	1.878e4					2.1	NO		bd		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	36.93	3.851e5					9.7	YES		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	41.91	4.493e3					1.1	NO		bb		
2	FUNCTION4 PFK	41.67	4.997e4					2.5	NO		bb		
3	FUNCTION4 PFK	39.98	5.555e5					10.8	YES		bb		
4	FUNCTION4 PFK	39.52	3.514e5					3.0	YES		bb		
5	FUNCTION4 PFK	38.51	1.677e4					2.5	NO		bb		
6	FUNCTION4 PFK	38.12	1.775e4					3.1	YES		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	45.61	2.521e3					1.1	NO		bb		
2	FUNCTION5 PFK	45.52	4.020e3					0.8	NO		bb		
3	FUNCTION5 PFK	45.41	2.631e3					1.1	NO		bb		
4	FUNCTION5 PFK	45.27	9.576e3					1.8	NO		bb		
5	FUNCTION5 PFK	44.73	8.292e2					0.6	NO		bb		
6	FUNCTION5 PFK	44.13	6.951e2					0.6	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.95	9.449e1					3.6	YES		bb		0.000
2	FUNCTION1 HXCD...	26.28	3.646e2					12.6	YES		bb		0.000
3	FUNCTION1 HXCD...	26.06	5.997e2					21.2	YES		db		0.000
4	FUNCTION1 HXCD...	25.92	2.270e2					6.9	YES		bd		0.000
5	FUNCTION1 HXCD...	25.56	1.093e2					3.2	YES		bb		0.000
6	FUNCTION1 HXCD...	25.28	2.243e2					7.2	YES		bb		0.000
7	FUNCTION1 HXCD...	24.95	8.957e1					2.3	NO		bb		0.000
8	FUNCTION1 HXCD...	24.70	1.108e2					2.1	NO		bb		0.000
9	FUNCTION1 HXCD...	23.92	1.977e2					6.2	YES		bb		0.000
10	FUNCTION1 HXCD...	27.44	1.618e2					2.0	NO		bb		0.000
11	FUNCTION1 HXCD...	27.12	7.066e1					4.2	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:43:46 Pacific Standard Time

ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.36	9.344e1					3.7	YES		bb		0.000
2	FUNCTION2 HPCD...	29.14	2.061e2					4.2	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.67	7.353e1					2.7	NO		bb		0.000
2	FUNCTION3 OCDPE	33.29	7.154e1					1.8	NO		bb		0.000
3	FUNCTION3 OCDPE	33.06	7.777e1					2.2	NO		db		0.000
4	FUNCTION3 OCDPE	32.98	7.590e1					2.1	NO		bd		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	42.42	1.038e2					2.6	NO		bb		0.000
2	FUNCTION4 NCDPE	38.58	1.661e4					396.7	YES		bb		0.000

ETHERS6

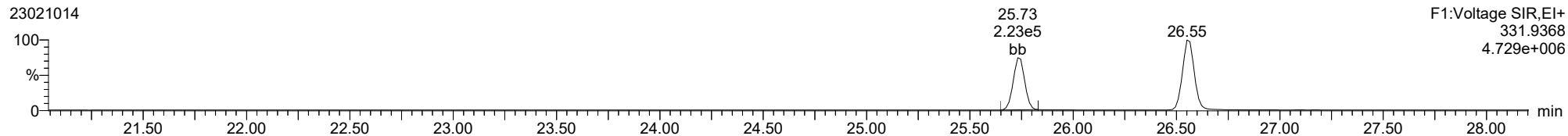
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

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Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

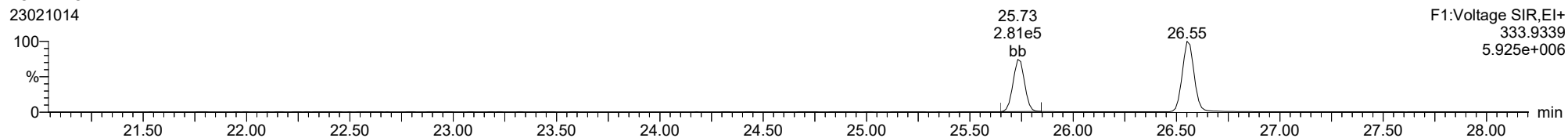
13C-1234-TCDD

23021014



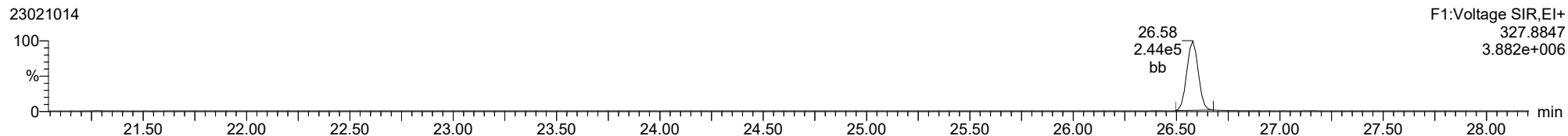
13C-1234-TCDD

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37CL-2378-TCDD

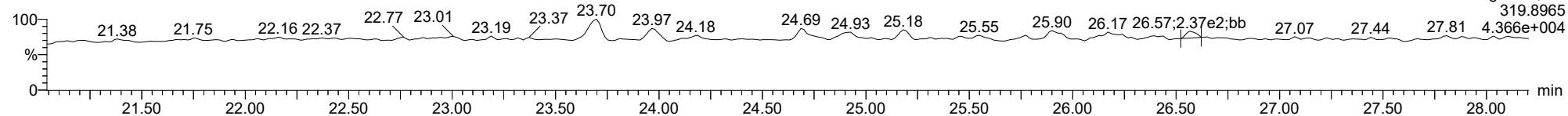
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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

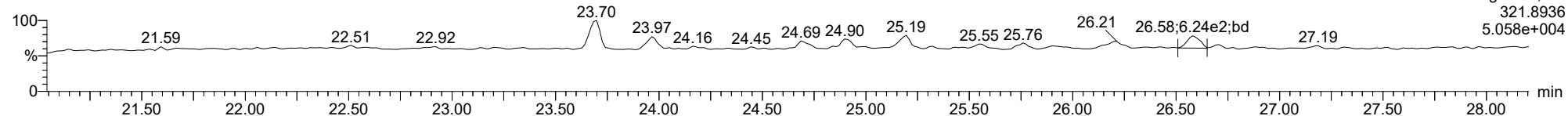
2378-TCDD

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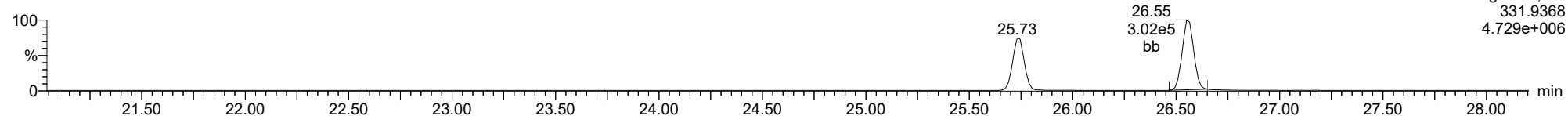
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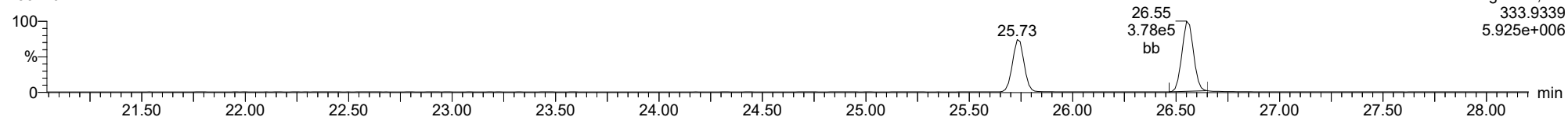
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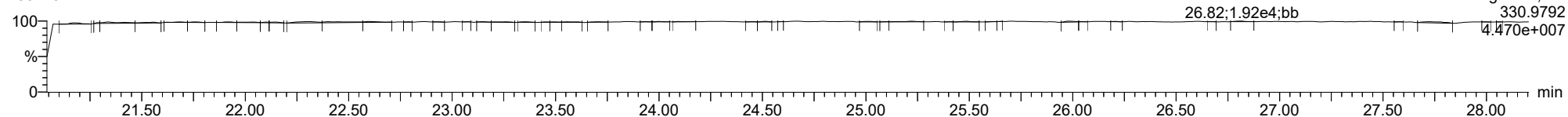
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FUNCTION1 PFK

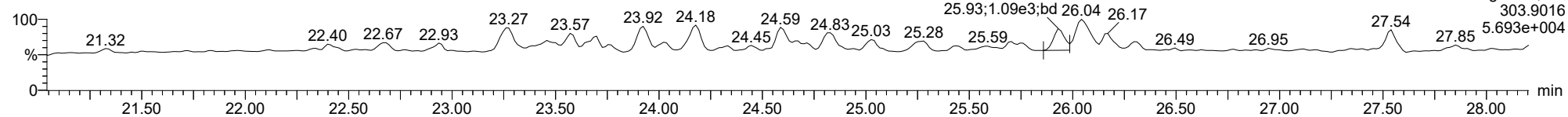
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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

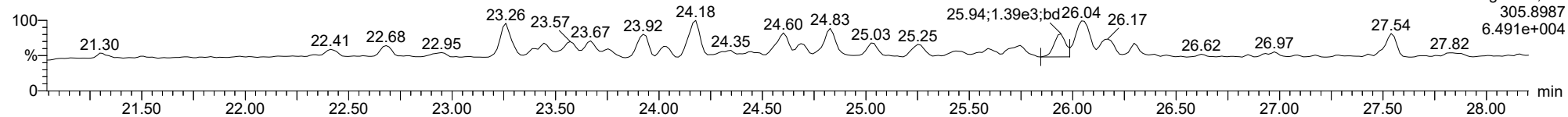
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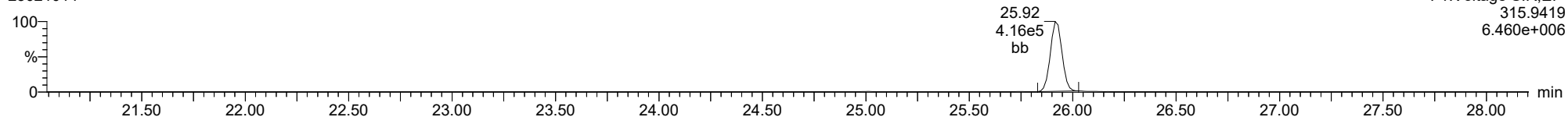
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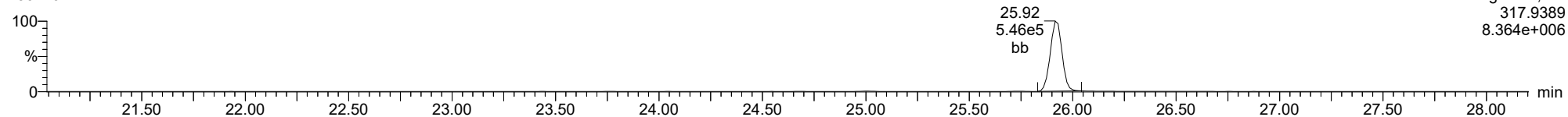
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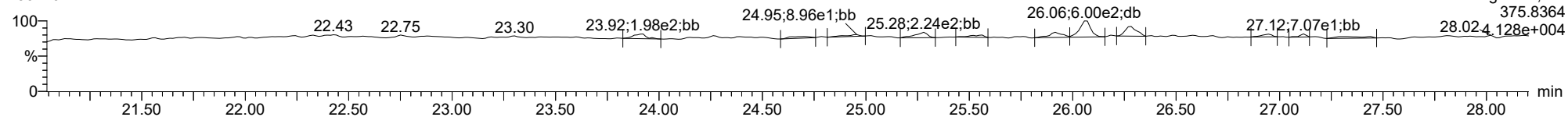
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FUNCTION1 HXCDPE

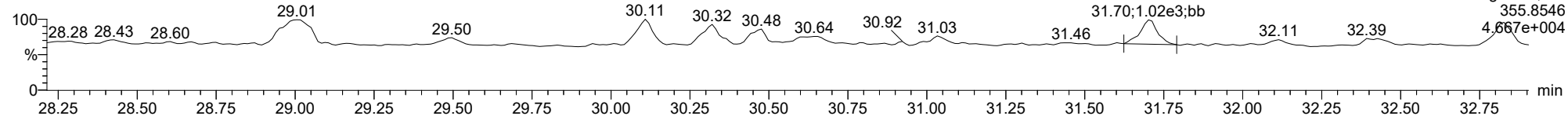
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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

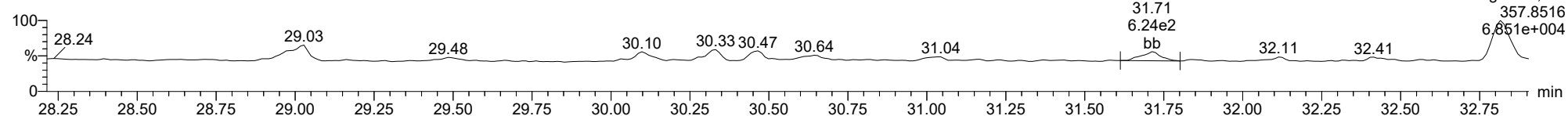
12378-PeCDD

23021014



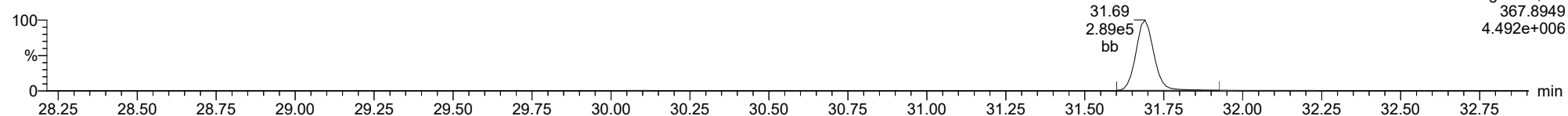
12378-PeCDD

23021014



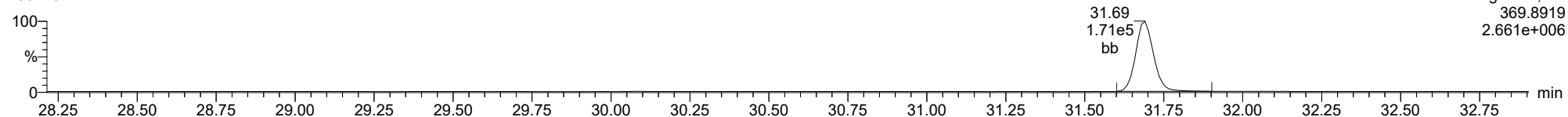
13C-12378-PeCDD

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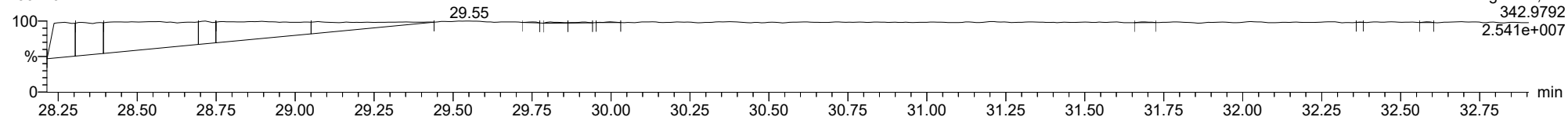
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FUNCTION2 PFK

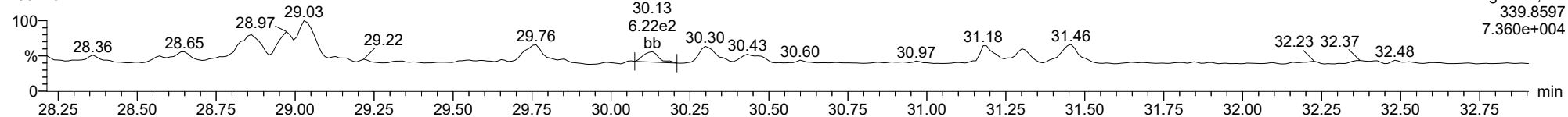
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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

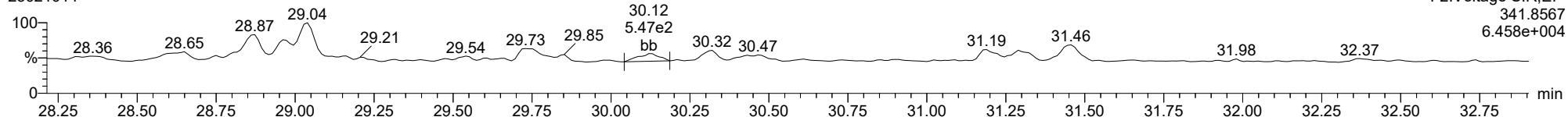
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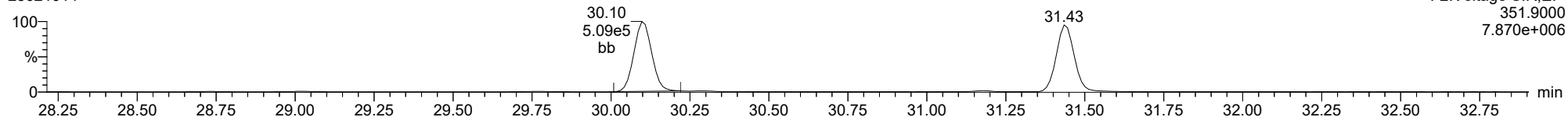
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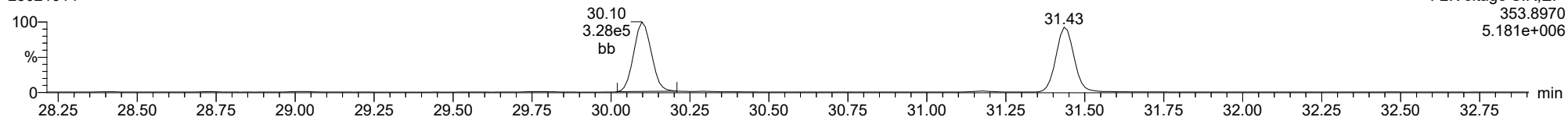
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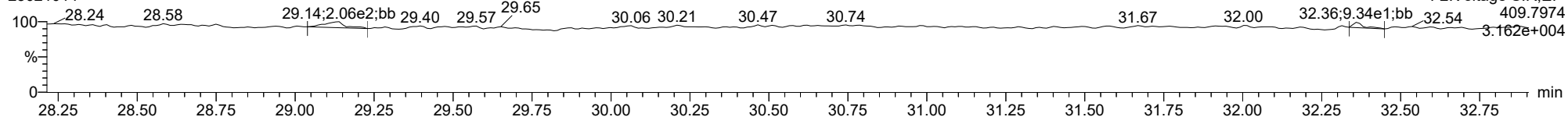
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FUNCTION2 HPCDPE

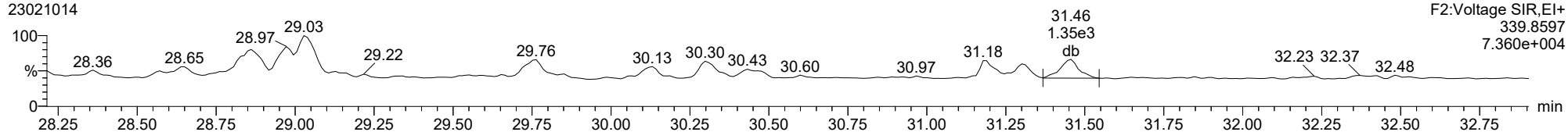
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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

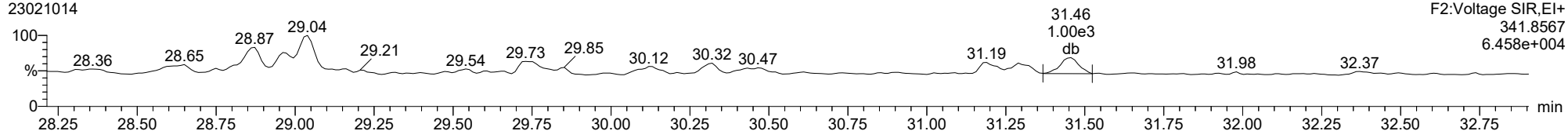
23478-PeCDF

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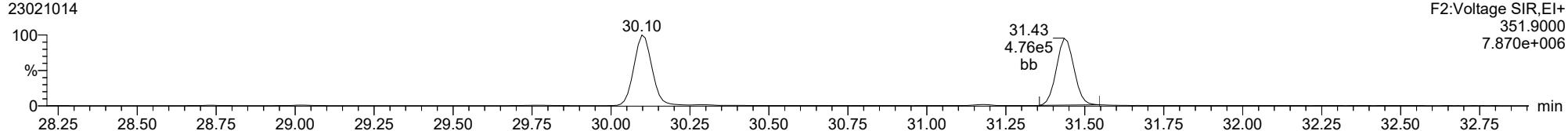
23478-PeCDF

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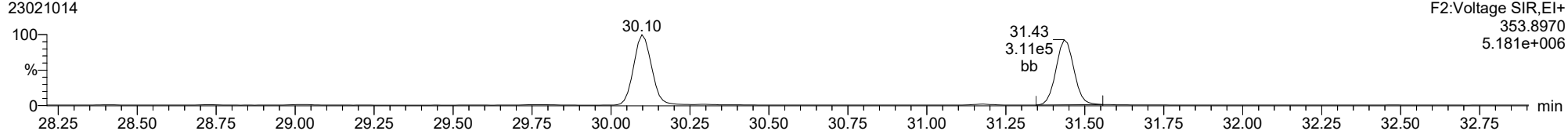
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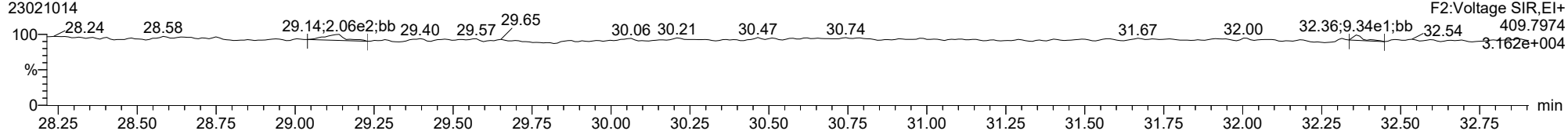
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FUNCTION2 HPCDPE

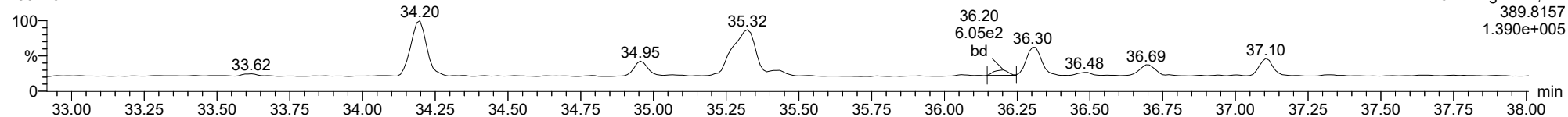
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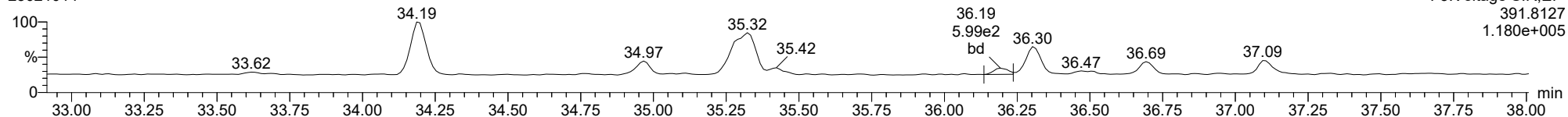
123478-HxCDD

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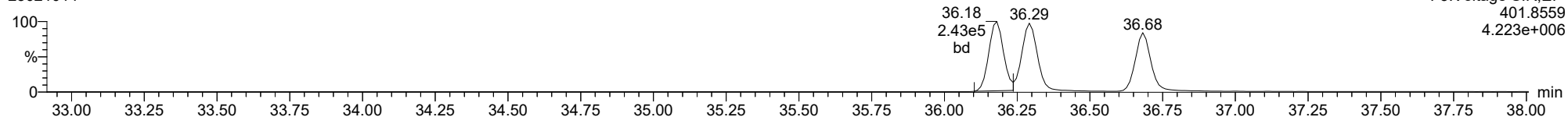
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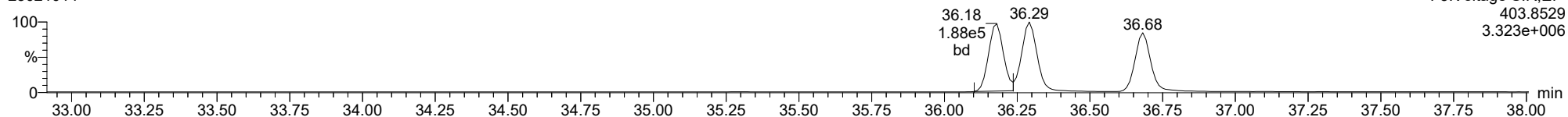
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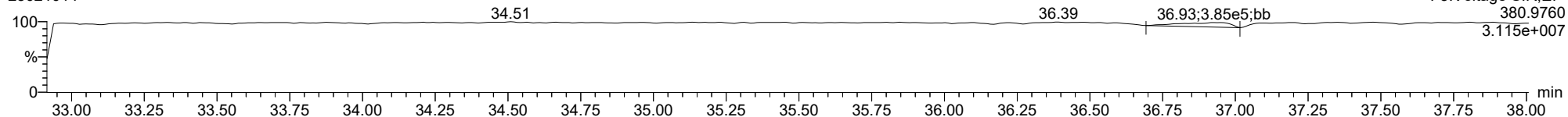
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FUNCTION3 PFK

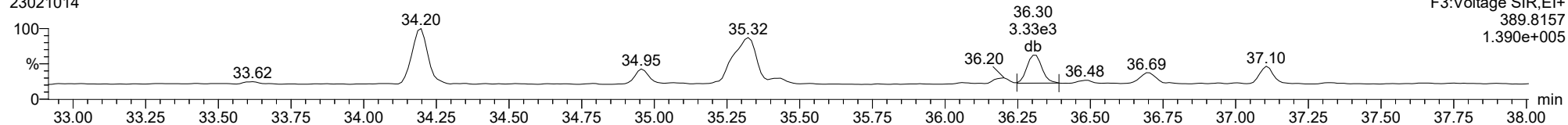
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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

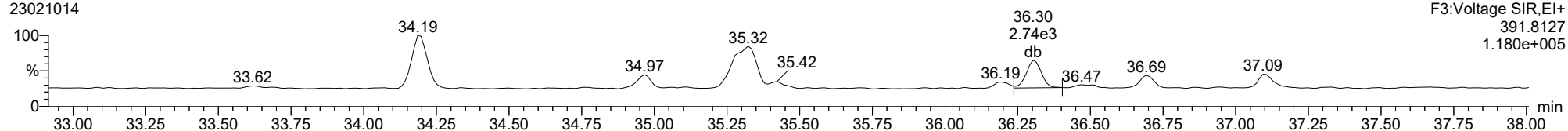
123678-HxCDD

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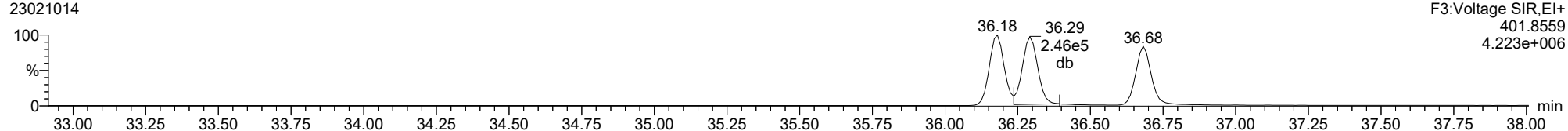
123678-HxCDD

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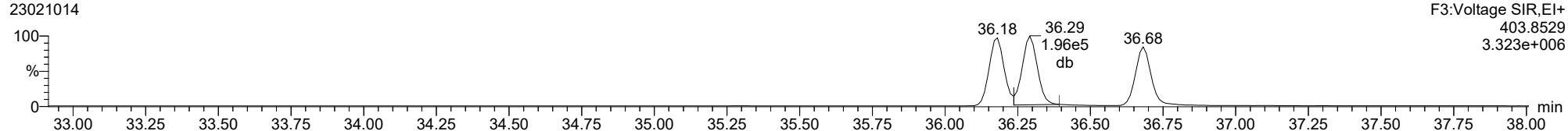
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13C-123678-HxCDD

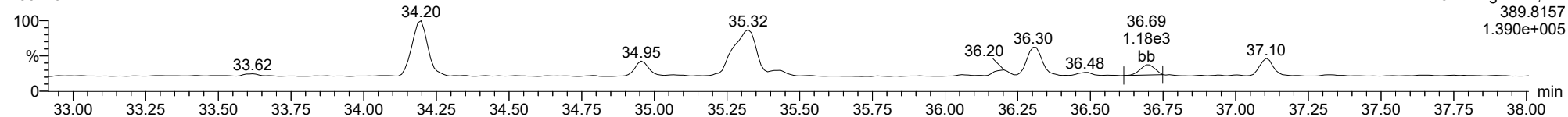
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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

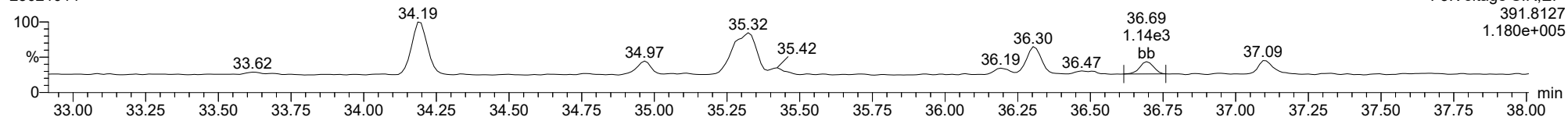
123789-HxCDD

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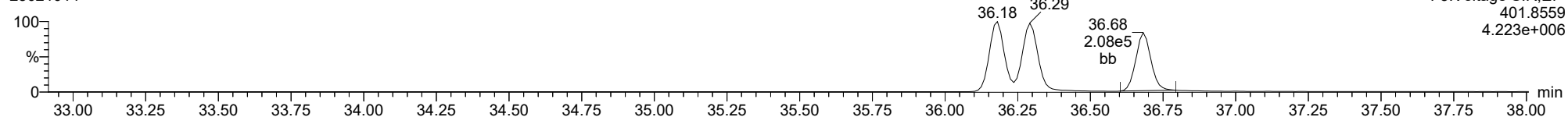
123789-HxCDD

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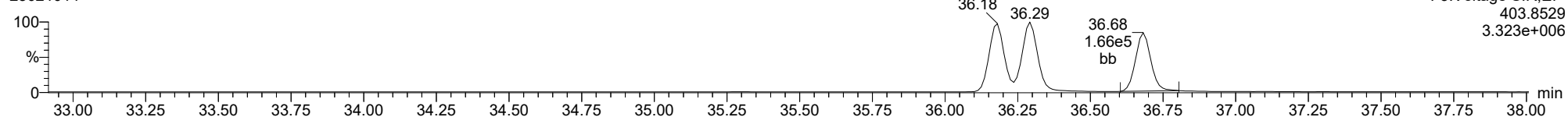
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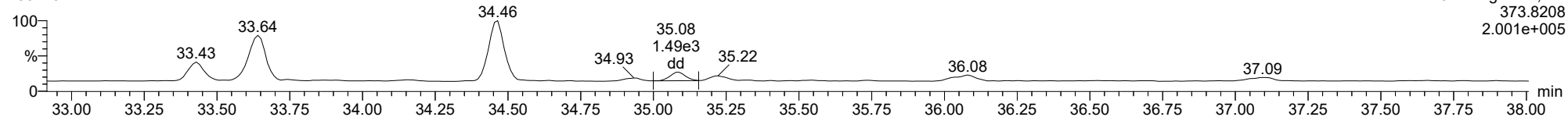
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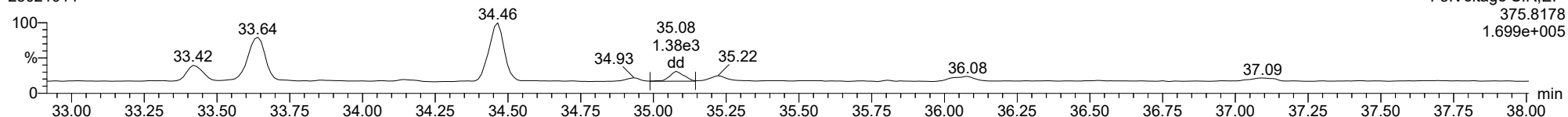
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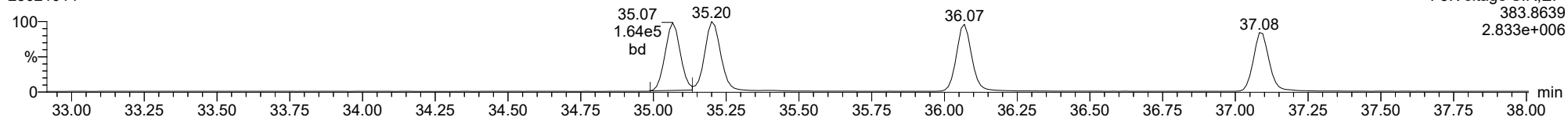
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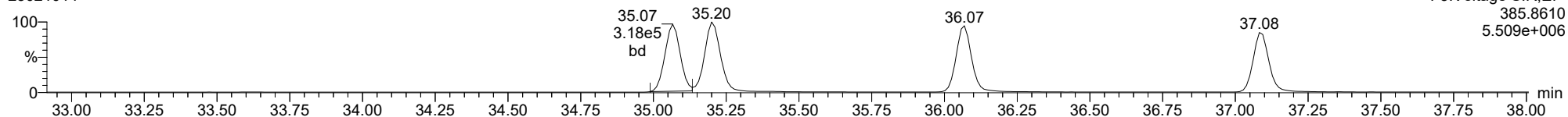
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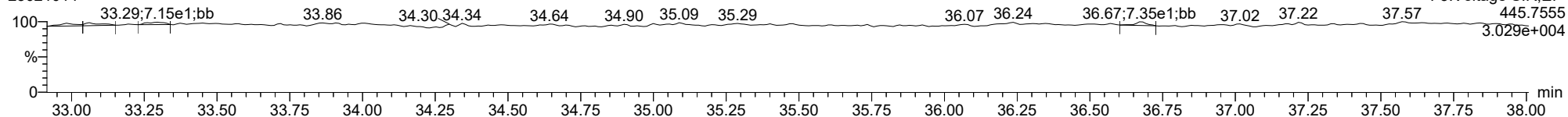
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23021014



FUNCTION3 OCDPE

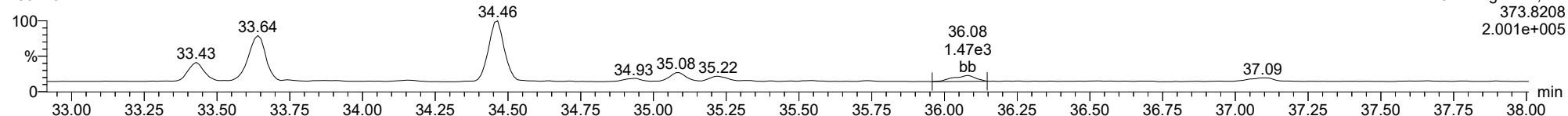
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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

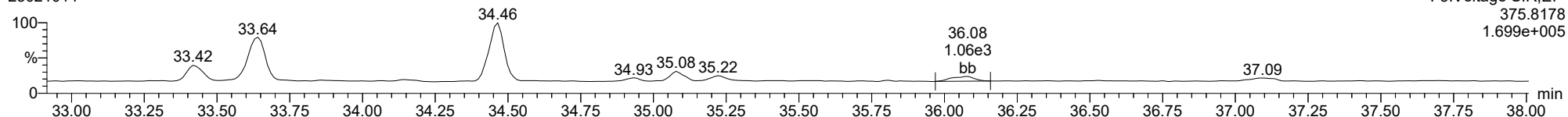
234678-HxCDF

23021014



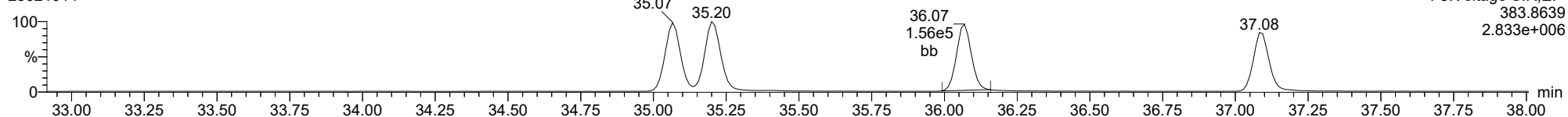
234678-HxCDF

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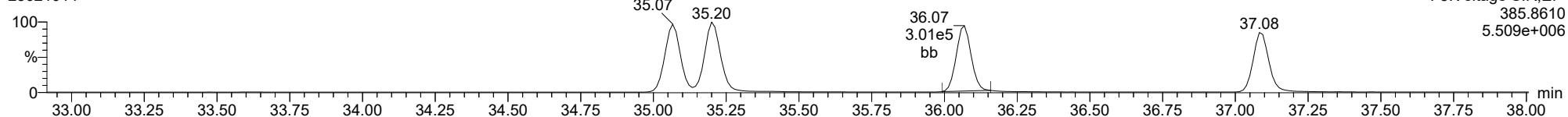
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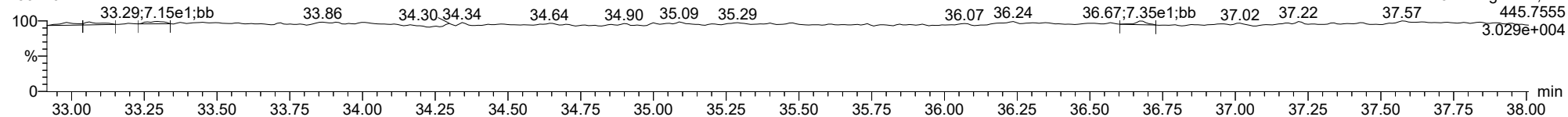
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FUNCTION3 OCDPE

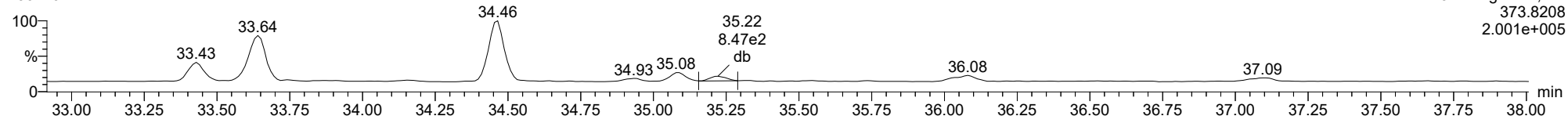
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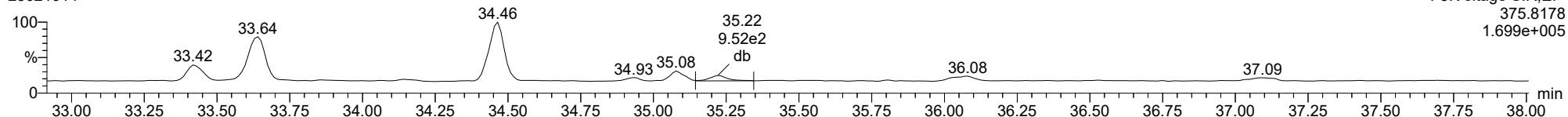
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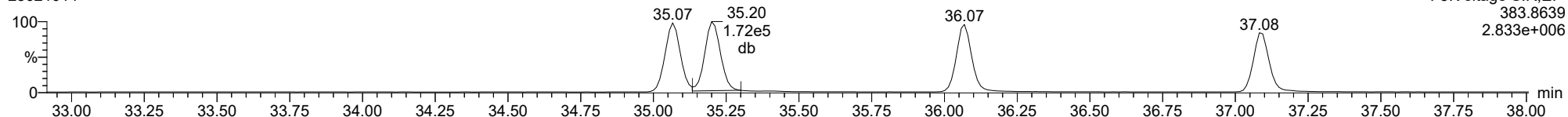
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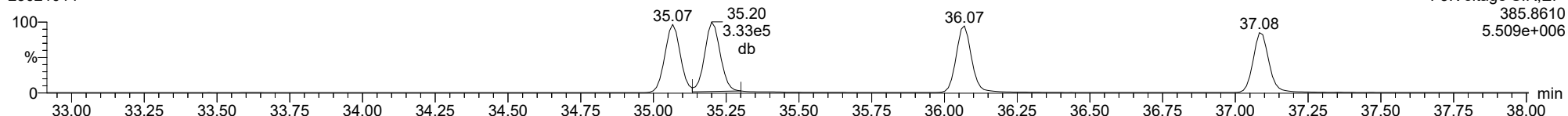
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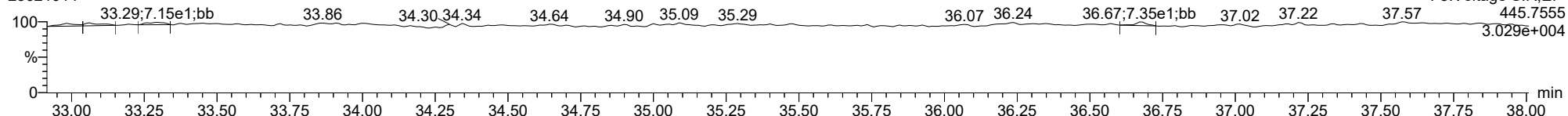
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23021014



FUNCTION3 OCDPE

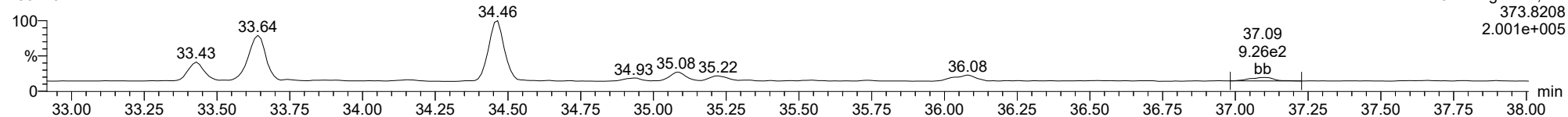
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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

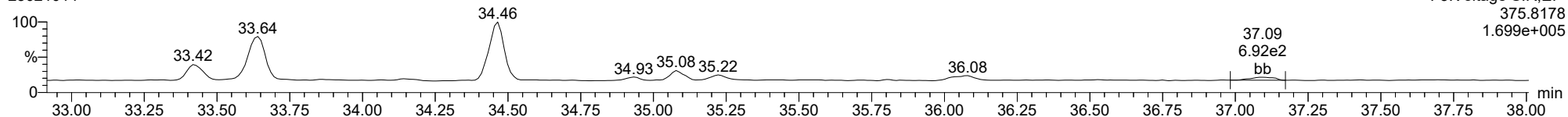
123789-HxCDF

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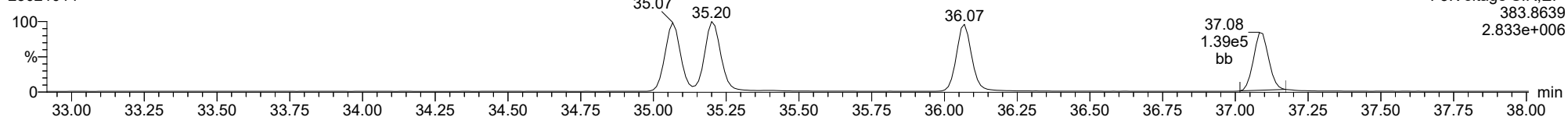
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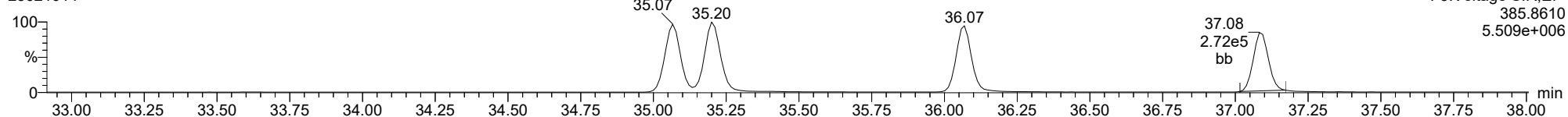
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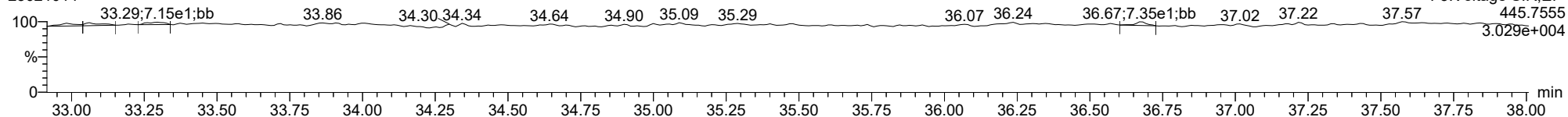
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23021014



FUNCTION3 OCDPE

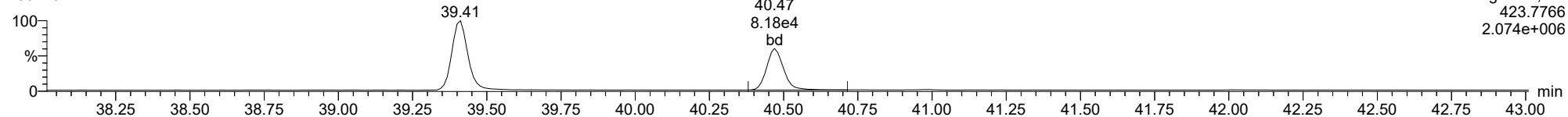
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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

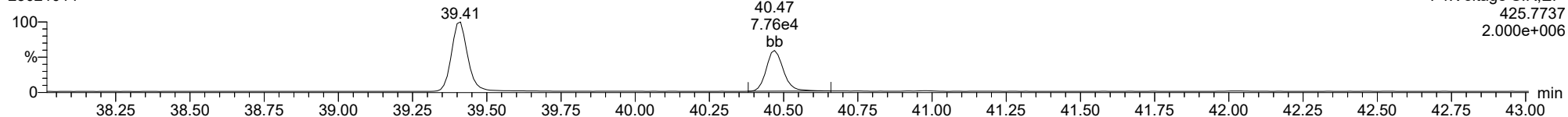
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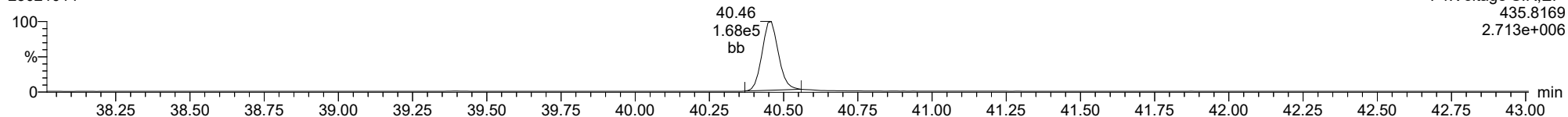
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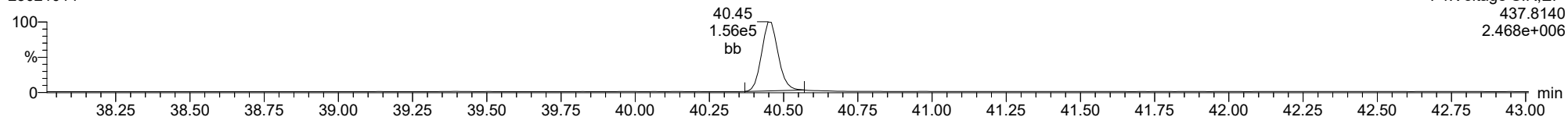
13C-1234678-HpCDD

23021014



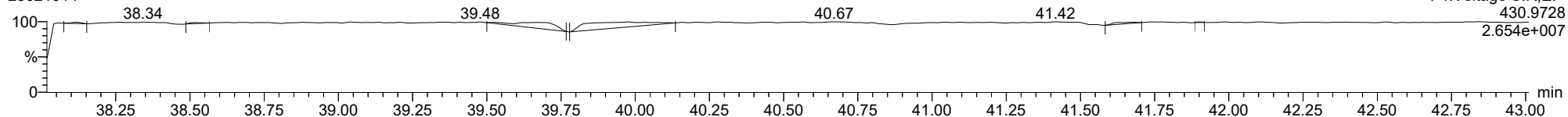
13C-1234678-HpCDD

23021014



FUNCTION4 PFK

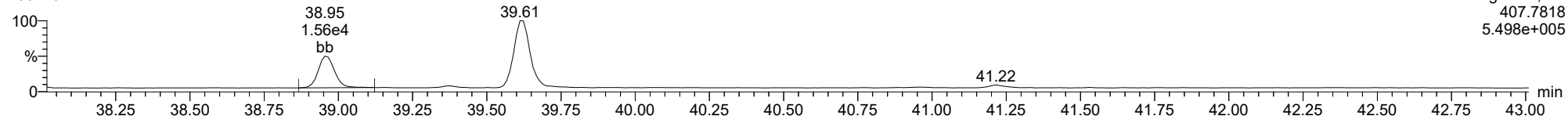
23021014



ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

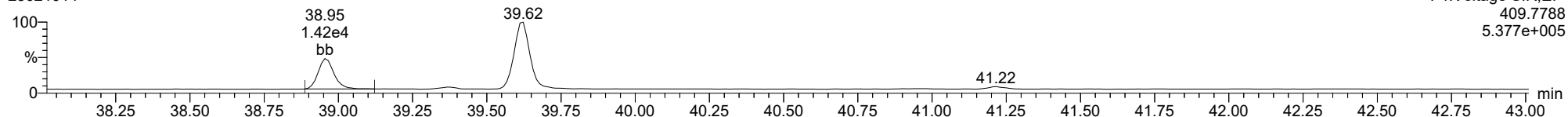
1234678-HpCDF

23021014



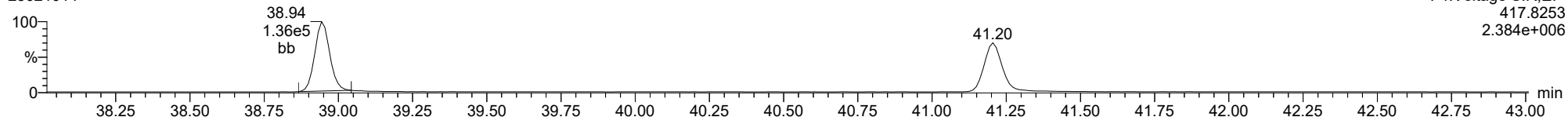
1234678-HpCDF

23021014



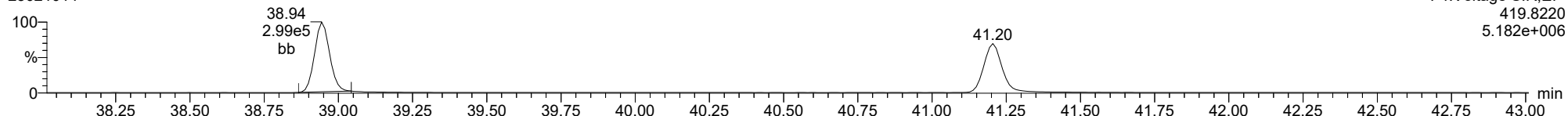
13C-1234678-HpCDF

23021014



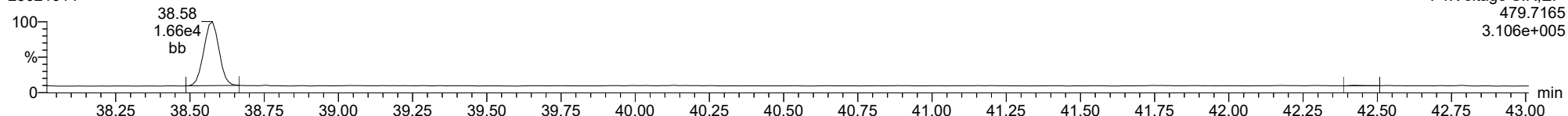
13C-1234678-HpCDF

23021014



FUNCTION4 NCDPE

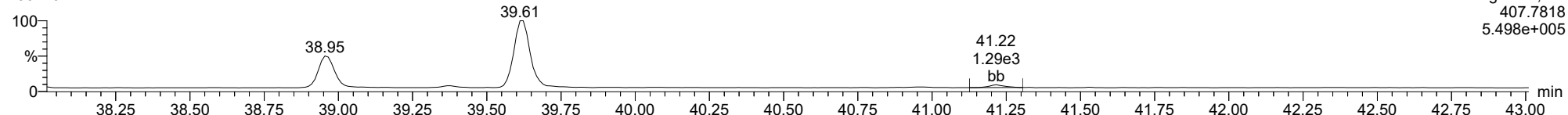
23021014



ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

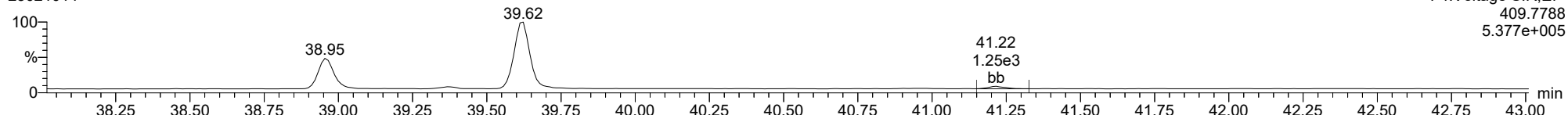
1234789-HpCDF

23021014



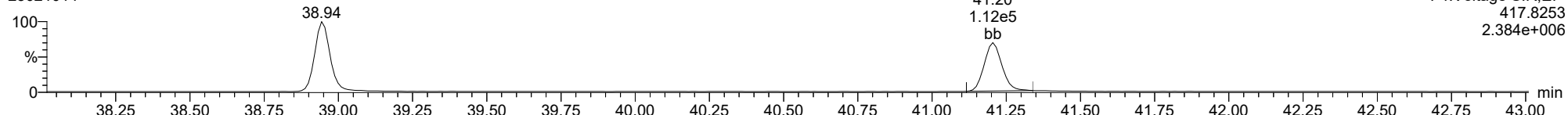
1234789-HpCDF

23021014



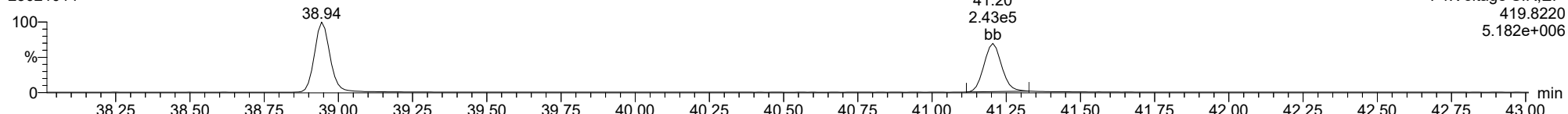
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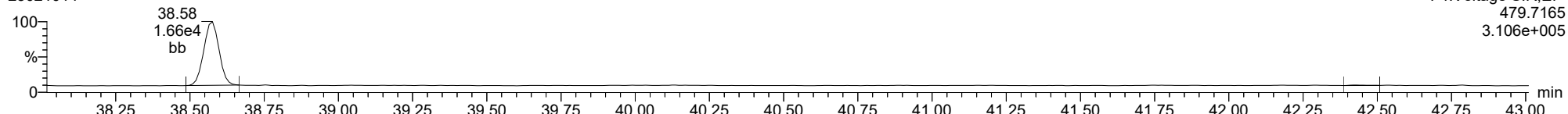
13C-1234789-HpCDF

23021014



FUNCTION4 NCDPE

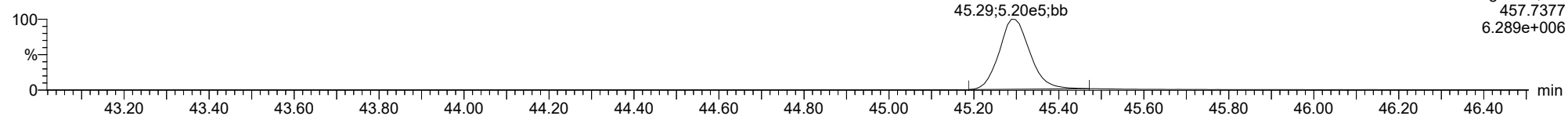
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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

OCDD

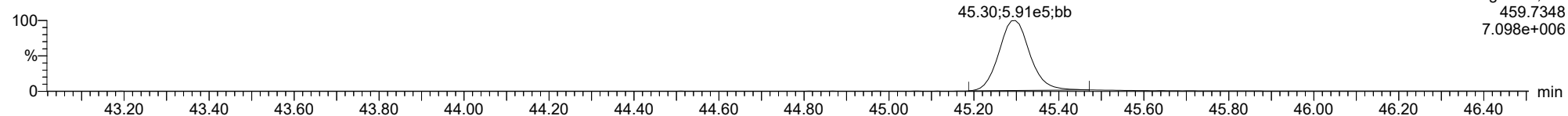
23021014



F5:Voltage SIR,EI+
457.7377
6.289e+006

OCDD

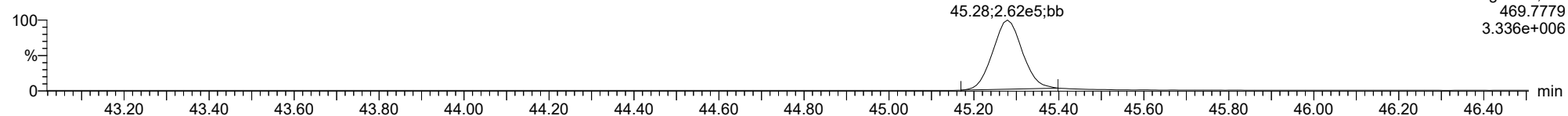
23021014



F5:Voltage SIR,EI+
459.7348
7.098e+006

13C-OCDD

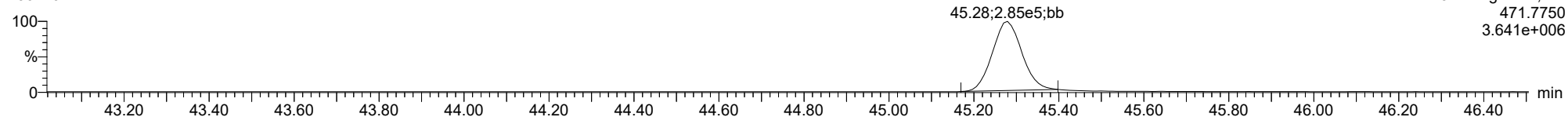
23021014



F5:Voltage SIR,EI+
469.7779
3.336e+006

13C-OCDD

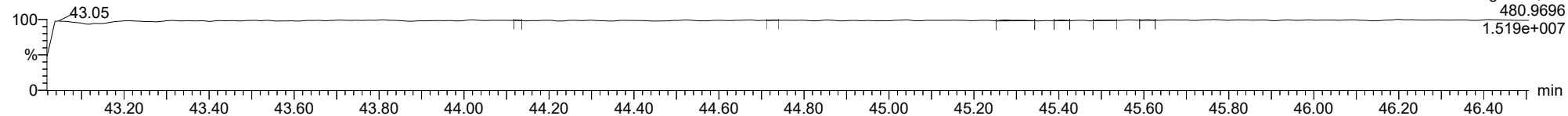
23021014



F5:Voltage SIR,EI+
471.7750
3.641e+006

FUNCTION5 PFK

23021014

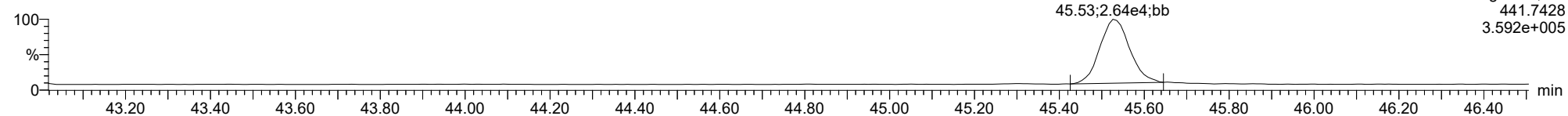


F5:Voltage SIR,EI+
480.9696
1.519e+007

ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

OCDF

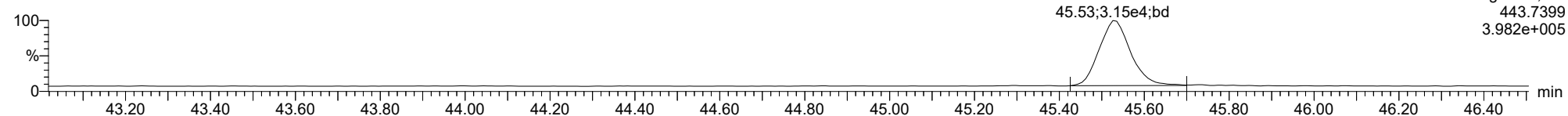
23021014



F5:Voltage SIR,EI+
441.7428
3.592e+005

OCDF

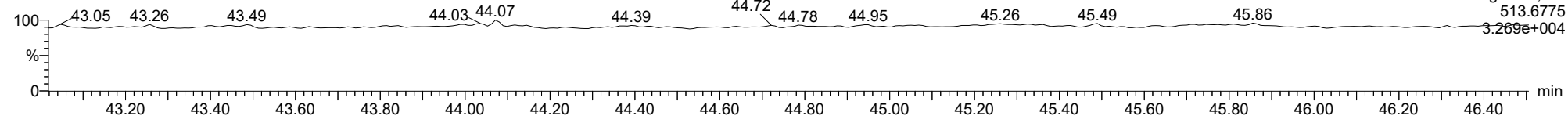
23021014



F5:Voltage SIR,EI+
443.7399
3.982e+005

FUNCTION5 DCDPE

23021014

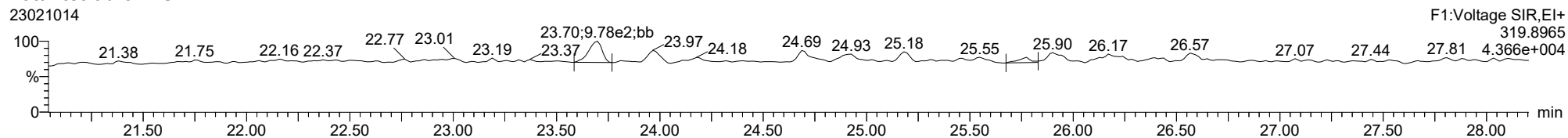


F5:Voltage SIR,EI+
513.6775
3.269e+004

ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

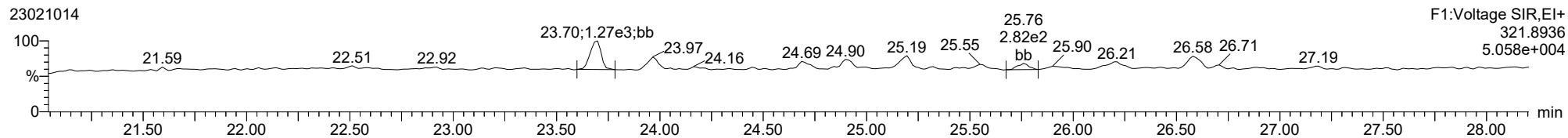
Total-tetradioxins

23021014



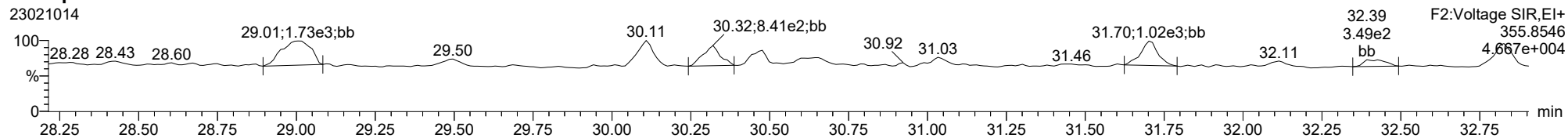
Total-tetradioxins

23021014



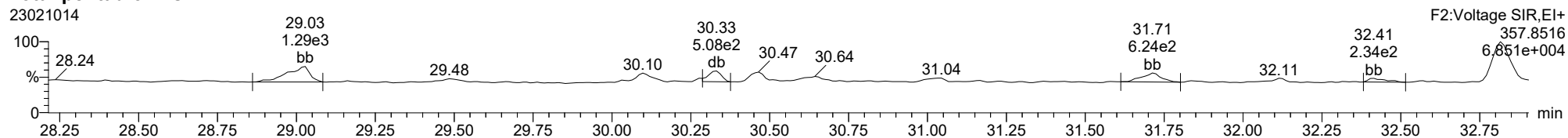
Total-pentadioxins

23021014



Total-pentadioxins

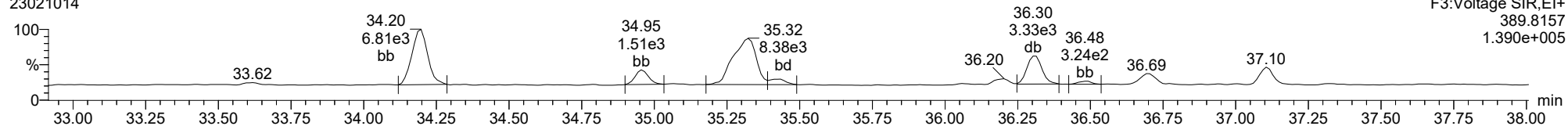
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ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

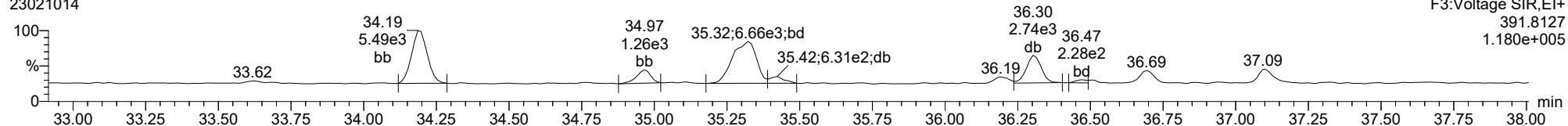
Total-hexadioxins

23021014



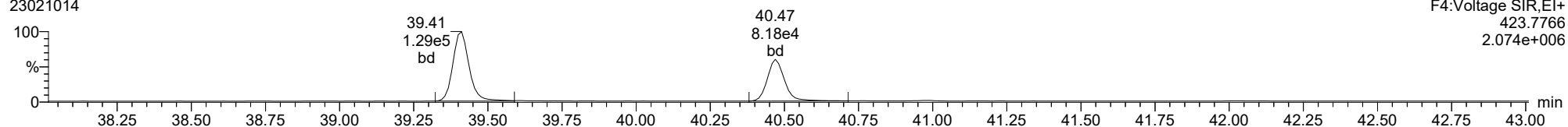
Total-hexadioxins

23021014



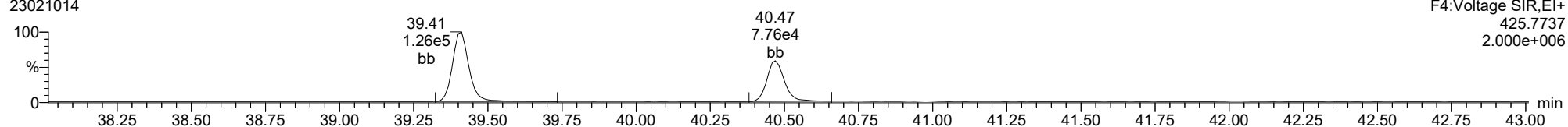
Total-heptadioxins

23021014



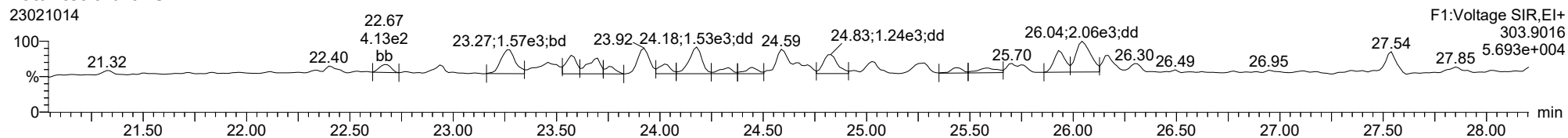
Total-heptadioxins

23021014

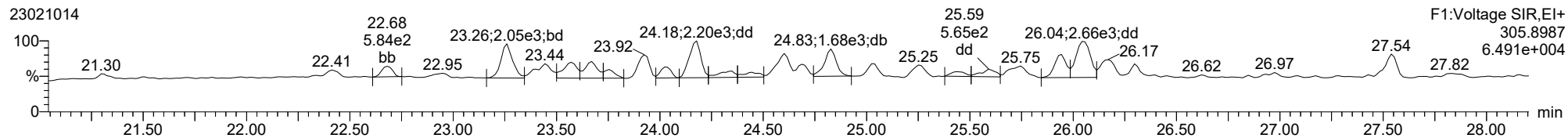


ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

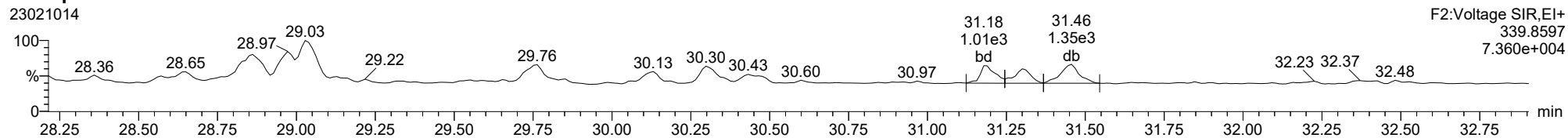
Total-tetrafurans



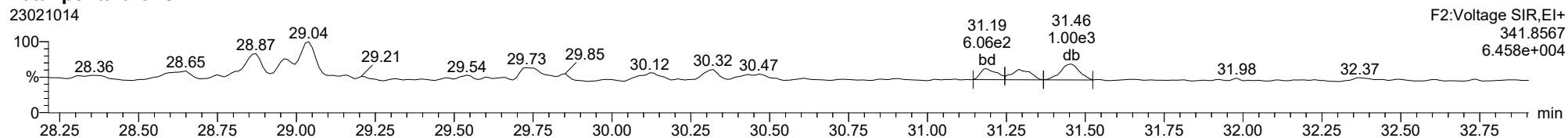
Total-tetrafurans



Total-pentafurans



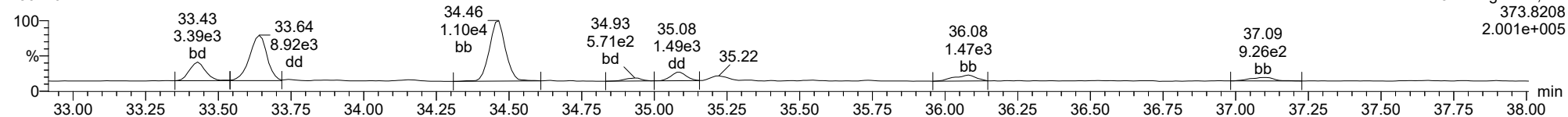
Total-pentafurans



ID: 23A0032-06, Name: 23021014, Date: 11-Feb-2023, Time: 00:13:32, Conditions: AUTOSPEC01, User: pk

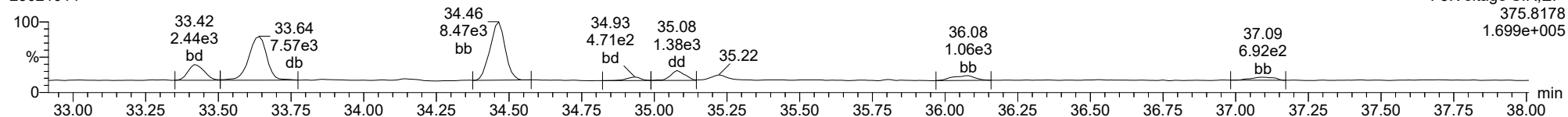
Total-hexafurans

23021014



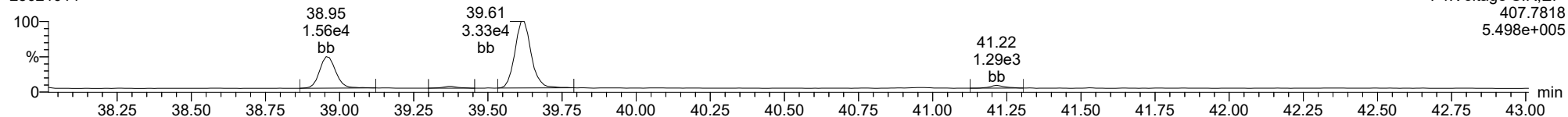
Total-hexafurans

23021014



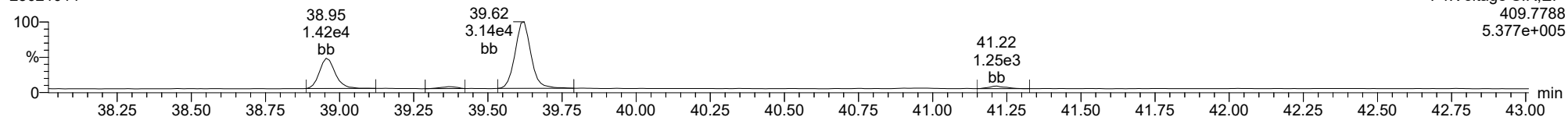
Total-heptafurans

23021014



Total-heptafurans

23021014





Form 1
ORGANIC ANALYSIS DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory: Analytical Resources, LLC SDG: 23A0032
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-07 C File ID: 23021017
 Sampled: 01/03/23 14:36 Prepared: 01/30/23 14:23 Analyzed: 02/11/23 02:48
 % Solids: 61.24 Preparation: EPA 8290 Initial/Final: 16.34 g Wet / 20 uL
 Result Basis: Dry Sequence: SLB0147 Calibration: GB00010
 Batch: BLA0256 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.718	0.655-0.886	0.073	0.999	2.29	ng/kg	X
1746-01-6	2,3,7,8-TCDD	1	0.712	0.655-0.886	0.075	0.999	0.503	ng/kg	J
57117-41-6	1,2,3,7,8-PeCDF	1	1.468	1.318-1.783	0.279	0.999	0.938	ng/kg	J
57117-31-4	2,3,4,7,8-PeCDF	1	1.518	1.318-1.783	0.268	0.999	1.62	ng/kg	
40321-76-4	1,2,3,7,8-PeCDD	1	1.681	1.318-1.783	0.204	0.999	2.68	ng/kg	
70648-26-9	1,2,3,4,7,8-HxCDF	1	1.155	1.054-1.426	0.143	0.999	3.09	ng/kg	
57117-44-9	1,2,3,6,7,8-HxCDF	1	1.231	1.054-1.426	0.127	0.999	1.67	ng/kg	B
60851-34-5	2,3,4,6,7,8-HxCDF	1	1.270	1.054-1.426	0.144	0.999	1.41	ng/kg	
72918-21-9	1,2,3,7,8,9-HxCDF	1	1.390	1.054-1.426	0.159	0.999	0.807	ng/kg	J
39227-28-6	1,2,3,4,7,8-HxCDD	1	1.161	1.054-1.426	0.258	0.999	3.09	ng/kg	
57653-85-7	1,2,3,6,7,8-HxCDD	1	1.173	1.054-1.426	0.242	0.999	8.71	ng/kg	
19408-74-3	1,2,3,7,8,9-HxCDD	1	1.181	1.054-1.426	0.254	0.999	7.15	ng/kg	
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	1.000	0.893-1.208	0.152	0.999	37.7	ng/kg	B
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	1.002	0.893-1.208	0.241	0.999	2.35	ng/kg	
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.045	0.893-1.208	0.493	2.50	271	ng/kg	B
39001-02-0	OCDF	1	0.890	0.757-1.024	0.253	2.50	112	ng/kg	B
3268-87-9	OCDD	1	0.913	0.757-1.024	0.592	9.99	2080	ng/kg	B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.999	28.3	ng/kg
41903-57-5	Total TCDD	1	0.000			0.999	6.13	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.999	19.0	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.999	7.96	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.999	51.6	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.999	79.0	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.999	124	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.999	672	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 10.29
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 10.29

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:44:32 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.944	1.000	4.238e3	5.905e3	0.876	0.718	0.770	849	815	6.20e4	8.66e4	73.0	106.3	NO	dd	dd	1.145
12378-PeCDF	30.120	1.001	2.188e3	1.491e3	0.845	1.468	1.550	3008	2372	3.28e4	2.47e4	10.9	10.4	NO	bd	bd	0.470
23478-PeCDF	31.446	1.000	3.839e3	2.529e3	0.911	1.518	1.550	3008	2372	5.74e4	3.52e4	19.1	14.8	NO	db	db	0.812
123478-HxCDF	35.089	1.001	5.335e3	4.619e3	1.182	1.155	1.240	1113	1275	8.28e4	6.73e4	74.4	52.8	NO	bd	bd	1.548
234678-HxCDF	36.103	1.000	2.537e3	1.998e3	1.229	1.270	1.240	1113	1275	3.74e4	2.96e4	33.6	23.2	NO	dd	db	0.704
123678-HxCDF	35.234	1.001	3.290e3	2.672e3	1.248	1.231	1.240	1113	1275	5.08e4	4.02e4	45.6	31.5	NO	dd	db	0.837
123789-HxCDF	37.083	1.000	1.210e3	8.701e2	1.187	1.390	1.240	1113	1275	1.85e4	1.23e4	16.7	9.7	NO	bb	bb	0.404
1234678-HpCDF	38.955	1.000	5.545e4	5.544e4	1.204	1.000	1.050	1209	1297	8.94e5	8.84e5	739.2	681.3	NO	bb	bd	18.845
1234789-HpCDF	41.206	1.000	2.605e3	2.600e3	1.165	1.002	1.050	1209	1297	3.80e4	3.25e4	31.4	25.0	NO	bb	bb	1.175
OCDF	45.528	1.006	9.636e4	1.083e5	1.186	0.890	0.890	915	973	1.12e6	1.20e6	1228.6	1230.3	NO	bd	bd	56.085
2378-TCDD	26.580	1.000	9.087e2	1.276e3	1.236	0.712	0.770	899	761	1.22e4	1.83e4	13.6	24.1	NO	bd	bd	0.252
12378-PeCDD	31.713	1.001	4.574e3	2.722e3	1.087	1.681	1.550	1417	1319	5.94e4	4.03e4	41.9	30.6	NO	bb	bb	1.339
123478-HxCDD	36.215	1.000	3.977e3	3.427e3	0.987	1.161	1.240	1898	1361	6.96e4	5.50e4	36.7	40.4	NO	bd	bd	1.548
123678-HxCDD	36.326	1.000	1.214e4	1.035e4	1.021	1.173	1.240	1898	1361	2.00e5	1.67e5	105.2	122.7	NO	db	db	4.359
123789-HxCDD	36.716	1.011	9.452e3	8.006e3	0.985	1.181	1.240	1898	1361	1.58e5	1.33e5	83.2	97.5	NO	bb	bb	3.579
1234678-HpCDD	40.471	1.001	3.141e5	3.005e5	1.253	1.045	1.050	2622	3099	4.46e6	4.33e6	1700.1	1396.8	NO	bd	bd	135.811
OCDD	45.290	1.000	1.685e6	1.846e6	1.103	0.913	0.890	1848	2268	1.98e7	2.25e7	10696.4	9923.5	NO	bd	bb	1040.759
13C-2378-TCDF	25.930	1.007	4.442e5	5.673e5	1.768	0.783	0.770	2150	1379	6.81e6	8.59e6	3166.3	6232.1	NO	bb	bb	102.515
13C-12378-PeCDF	30.098	1.169	5.695e5	3.582e5	1.527	1.590	1.550	2348	1815	8.39e6	5.36e6	3574.6	2954.9	NO	bd	bb	108.852
13C-23478-PeCDF	31.435	1.221	5.255e5	3.357e5	1.466	1.565	1.550	2348	1815	8.06e6	5.21e6	3431.3	2868.5	NO	bb	bb	105.245
13C-123478-HxCDF	35.067	0.956	1.833e5	3.608e5	1.054	0.508	0.510	1373	1911	2.85e6	5.73e6	2076.9	2998.8	NO	bd	bd	112.750
13C-123678-HxCDF	35.212	0.960	1.922e5	3.783e5	1.080	0.508	0.510	1373	1911	3.03e6	5.86e6	2208.5	3063.9	NO	db	db	115.328
13C-234678-HxCDF	36.092	0.984	1.805e5	3.436e5	1.014	0.525	0.510	1373	1911	2.79e6	5.35e6	2029.0	2798.4	NO	bb	bb	112.815
13C-123789-HxCDF	37.083	1.011	1.459e5	2.880e5	0.928	0.507	0.510	1373	1911	2.56e6	5.10e6	1860.8	2667.3	NO	bb	bb	102.099
13C-1234678-HpCDF	38.944	1.061	1.503e5	3.384e5	1.036	0.444	0.440	1449	1831	2.53e6	5.63e6	1745.9	3072.3	NO	bb	bb	102.980
13C-1234789-HpCDF	41.195	1.123	1.179e5	2.623e5	0.905	0.450	0.440	1449	1831	1.66e6	3.73e6	1146.9	2034.9	NO	bb	bb	91.737
13C-1234-TCDD	25.746	0.000	2.493e5	3.087e5	1.000	0.807	0.770	1385	920	3.84e6	4.79e6	2771.9	5208.9	NO	bb	bb	100.000
13C-2378-TCDD	26.565	1.032	3.139e5	3.878e5	1.103	0.809	0.770	1385	920	4.82e6	6.02e6	3477.8	6546.9	NO	bb	bb	114.011
13C-12378-PeCDD	31.691	1.231	3.128e5	1.885e5	0.914	1.660	1.550	1233	952	4.61e6	2.79e6	3736.9	2927.3	NO	bb	bb	98.267
13C-123478-HxCDD	36.203	0.987	2.730e5	2.116e5	0.933	1.290	1.240	1096	1334	4.33e6	3.32e6	3945.8	2491.4	NO	bd	bd	113.425
13C-123678-HxCDD	36.315	0.990	2.821e5	2.232e5	0.965	1.264	1.240	1096	1334	4.42e6	3.50e6	4034.1	2619.9	NO	db	db	114.374
13C-1234678-HpCDD	40.448	1.102	1.889e5	1.724e5	0.782	1.096	1.050	1192	1040	2.91e6	2.68e6	2438.7	2580.4	NO	bb	bb	100.884
13C-OCDD	45.271	1.234	2.936e5	3.217e5	0.788	0.913	0.890	1244	1186	3.61e6	3.92e6	2898.6	3308.3	NO	bb	bb	170.436
13C-123789-HxCDD	36.694	0.000	2.536e5	2.044e5	1.000	1.240	1.240	1096	1334	4.14e6	3.33e6	3774.1	2494.9	NO	bb	bb	100.000
37CL-2378-TCDD	26.580	1.032	2.679e5		1.233			1070		4.03e6		3765.9			bb		38.917

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:44:32 Pacific Standard Time

ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.427	0.865	1.310e3	1.634e3	1.064	0.802	0.770	849	815	1.92e4	2.46e4	22.6	30.1	NO	db	db	0.273
1289-TCDF	27.526	1.062	1.109e3	8.530e2	0.858	1.301	0.770	849	815	1.47e4	1.47e4	17.3	18.1	YES	db	bb	0.226
13468-PECDF					1.013		1.550	643	1026								
12389-PECDF					0.844		1.550	3008	2372								
123468-HXCDF	33.429	0.953	9.128e3	7.642e3	1.197	1.194	1.240	1113	1275	1.40e5	1.19e5	126.2	93.5	NO	bd	bd	2.574
1368-TCDD	23.684	0.891	2.990e3	3.605e3	1.084	0.829	0.770	899	761	4.58e4	5.76e4	50.9	75.6	NO	bb	dd	0.867
1289-TCDD	27.201	1.024	2.243e2	1.524e2	0.975	1.472	0.770	899	761	3.81e3	2.98e3	4.2	3.9	YES	bb	db	0.055
12479-PECDD					1.837		1.550	1417	1319								
12389-PECDD	32.125	1.014	9.299e2	4.301e2	1.252	2.162	1.550	1417	1319	1.11e4	8.21e3	7.8	6.2	YES	bb	bb	0.217
124679-HXCDD	34.198	0.945	3.178e4	2.552e4	1.033	1.245	1.240	1898	1361	4.92e5	3.90e5	259.2	286.7	NO	bb	bb	11.447
1234679-HPCDD	39.401	0.974	4.725e5	4.588e5	1.286	1.030	1.050	2622	3099	7.26e6	6.98e6	2768.5	2253.3	NO	bb	bb	200.420
Total-tetrafurans			5.741e4		0.933			849		8.23e5							14.139
Total-penta1			2.678e4					643		3.96e5							5.275
Total-pentafurans			1.998e4		0.866			3008		3.01e5							4.246
Total-hexafurans			8.968e4		1.208			1113		1.37e6							25.800
Total-heptafurans			1.687e5		1.185			1209		2.67e6							61.982
Total-Furans			4.596e5		1.067			849		6.69e6							167.682
Total-tetradoxins			1.032e4		1.099			899		1.60e5							3.066
Total-pentadoxins			1.562e4		1.392			1417		2.35e5							3.980
Total-hexadoxins			1.086e5		1.007			1898		1.52e6							39.550
Total-heptadoxins			7.866e5		1.269			2622		1.17e7							336.231
Total-Dioxins			2.606e6		1.165			899		3.34e7							1423.587
Total-TEQ			3.066e6					899		4.01e7							1591.269
FUNCTION1 PFK			7.165e6					237500		2.76e7							
FUNCTION2 PFK			2.436e6					206666		1.01e7							0.000
FUNCTION3 PFK			7.619e6					221324		9.98e6							0.000
FUNCTION4 PFK			1.132e7					172379		8.89e7							
FUNCTION5 PFK			1.939e5					114652		6.16e6							
FUNCTION1 HXCD...			5.984e3					493		9.63e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			7.200e2					621		1.22e4							0.000
FUNCTION3 OCDPE			0.000e0					510		0.00e0							
FUNCTION4 NCDPE			1.305e4					798		2.28e5							0.000
FUNCTION5 DCDPE			1.299e2					538		2.06e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:44:32 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20**Calibration: T:\Autospec\Curves\230201CIH.cdb 03 Feb 2023 10:33:40****ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.69	1.951e3	2.591e3	0.933	0.75	0.77	33.4	YES	NO	dd	dd	0.481
2	Total-tetrafurans	24.60	3.395e3	4.776e3	0.933	0.71	0.77	49.7	YES	NO	dd	bd	0.866
3	Total-tetrafurans	24.16	2.918e3	3.972e3	0.933	0.73	0.77	52.3	YES	NO	db	db	0.730
4	Total-tetrafurans	24.04	1.672e3	2.330e3	0.933	0.72	0.77	30.3	YES	NO	dd	dd	0.424
5	Total-tetrafurans	23.92	4.699e3	6.265e3	0.933	0.75	0.77	91.2	YES	NO	dd	dd	1.162
6	Total-tetrafurans	23.77	9.253e2	1.173e3	0.933	0.79	0.77	21.6	YES	NO	dd	dd	0.222
7	Total-tetrafurans	23.58	4.051e3	5.390e3	0.933	0.75	0.77	66.6	YES	NO	dd	dd	1.001
8	Total-tetrafurans	23.26	5.513e3	7.610e3	0.933	0.72	0.77	89.7	YES	NO	bd	bd	1.391
9	Total-tetrafurans	22.68	1.739e3	2.439e3	0.933	0.71	0.77	35.8	YES	NO	bb	bb	0.443
10	1368-TCDF	22.43	1.310e3	1.634e3	1.064	0.80	0.77	22.6	YES	NO	db	db	0.273
11	Total-tetrafurans	22.34	2.457e2	3.404e2	0.933	0.72	0.77	5.8	YES	NO	bd	bd	0.062
12	Total-tetrafurans	26.30	2.312e3	3.256e3	0.933	0.71	0.77	44.2	YES	NO	dd	dd	0.590
13	Total-tetrafurans	26.17	3.542e3	4.040e3	0.933	0.88	0.77	52.8	YES	NO	dd	dd	0.804
14	2378-TCDF	25.94	4.238e3	5.905e3	0.876	0.72	0.77	73.0	YES	NO	dd	dd	1.145
15	Total-tetrafurans	25.72	4.147e3	4.989e3	0.933	0.83	0.77	48.1	YES	NO	dd	dd	0.968
16	Total-tetrafurans	25.44	1.245e3	1.642e3	0.933	0.76	0.77	22.4	YES	NO	dd	dd	0.306
17	Total-tetrafurans	25.27	3.002e3	3.882e3	0.933	0.77	0.77	50.0	YES	NO	bd	bd	0.730
18	Total-tetrafurans	25.03	2.201e3	3.302e3	0.933	0.67	0.77	36.3	YES	NO	bb	db	0.583
19	Total-tetrafurans	24.83	4.537e3	5.842e3	0.933	0.78	0.77	78.5	YES	NO	db	dd	1.100
20	Total-tetrafurans	23.68	3.773e3	4.309e3	0.933	0.88	0.77	65.6	YES	NO	MM	dd	0.857

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	27.38	2.678e4	1.809e4		1.48	1.55	616.5	YES	NO	bb	bb	5.275

ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	32.38	9.747e2	6.247e2	0.866	1.56	1.55	4.8	YES	NO	bb	bb	0.206
2	23478-PeCDF	31.45	3.839e3	2.529e3	0.911	1.52	1.55	19.1	YES	NO	db	db	0.812
3	Total-pentafurans	31.30	2.851e3	1.857e3	0.866	1.54	1.55	15.2	YES	NO	dd	dd	0.608
4	Total-pentafurans	31.20	2.275e3	1.380e3	0.866	1.65	1.55	11.4	YES	NO	bd	bd	0.472
5	Total-pentafurans	30.43	1.252e3	7.595e2	0.866	1.65	1.55	5.7	YES	NO	db	db	0.259
6	12378-PeCDF	30.12	2.188e3	1.491e3	0.845	1.47	1.55	10.9	YES	NO	bd	bd	0.470
7	Total-pentafurans	29.83	1.578e3	9.907e2	0.866	1.59	1.55	11.3	YES	NO	db	db	0.331
8	Total-pentafurans	29.75	5.028e3	3.407e3	0.866	1.48	1.55	21.8	YES	NO	dd	dd	1.088

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexafurans	36.05	1.532e3	1.337e3	1.208	1.15	1.24	29.0	YES	NO	bd	bd	0.458
2	123678-HxCDF	35.23	3.290e3	2.672e3	1.248	1.23	1.24	45.6	YES	NO	dd	db	0.837
3	123478-HxCDF	35.09	5.335e3	4.619e3	1.182	1.16	1.24	74.4	YES	NO	bd	bd	1.548
4	Total-hexafurans	34.93	1.217e3	1.067e3	1.208	1.14	1.24	19.3	YES	NO	bb	bb	0.365
5	Total-hexafurans	34.47	3.415e4	2.711e4	1.208	1.26	1.24	456.3	YES	NO	bb	bb	9.784
6	Total-hexafurans	34.16	6.386e2	5.752e2	1.208	1.11	1.24	9.1	YES	NO	bb	bb	0.194
7	Total-hexafurans	33.64	3.063e4	2.529e4	1.208	1.21	1.24	419.3	YES	NO	db	dd	8.931
8	123468-HxCDF	33.43	9.128e3	7.642e3	1.197	1.19	1.24	126.2	YES	NO	bd	bd	2.574
9	123789-HxCDF	37.08	1.210e3	8.701e2	1.187	1.39	1.24	16.7	YES	NO	bb	bb	0.404
10	234678-HxCDF	36.10	2.537e3	1.998e3	1.229	1.27	1.24	33.6	YES	NO	dd	db	0.704

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.21	2.605e3	2.600e3	1.165	1.00	1.05	31.4	YES	NO	bb	bb	1.175
2	Total-heptafurans	39.61	1.107e5	1.053e5	1.185	1.05	1.05	1437.7	YES	NO	bd	bb	41.963
3	1234678-HpCDF	38.96	5.545e4	5.544e4	1.204	1.00	1.05	739.2	YES	NO	bb	bd	18.845

Quantify Totals Report MassLynx V4.1 SCN970

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.69	1.951e3	2.591e3	0.933	0.75	0.77	33.4	YES	NO	dd	dd	0.481
2	Total-tetrafurans	24.60	3.395e3	4.776e3	0.933	0.71	0.77	49.7	YES	NO	dd	bd	0.866
3	Total-tetrafurans	24.16	2.918e3	3.972e3	0.933	0.73	0.77	52.3	YES	NO	db	db	0.730
4	Total-tetrafurans	24.04	1.672e3	2.330e3	0.933	0.72	0.77	30.3	YES	NO	dd	dd	0.424
5	Total-tetrafurans	23.92	4.699e3	6.265e3	0.933	0.75	0.77	91.2	YES	NO	dd	dd	1.162
6	Total-tetrafurans	23.77	9.253e2	1.173e3	0.933	0.79	0.77	21.6	YES	NO	dd	dd	0.222
7	Total-tetrafurans	23.58	4.051e3	5.390e3	0.933	0.75	0.77	66.6	YES	NO	dd	dd	1.001
8	Total-tetrafurans	23.26	5.513e3	7.610e3	0.933	0.72	0.77	89.7	YES	NO	bd	bd	1.391
9	Total-tetrafurans	22.68	1.739e3	2.439e3	0.933	0.71	0.77	35.8	YES	NO	bb	bb	0.443
10	1368-TCDF	22.43	1.310e3	1.634e3	1.064	0.80	0.77	22.6	YES	NO	db	db	0.273
11	Total-tetrafurans	22.34	2.457e2	3.404e2	0.933	0.72	0.77	5.8	YES	NO	bd	bd	0.062
12	Total-Furans	27.84	6.814e2	9.988e2	1.067	0.68	0.77	9.9	YES	NO	bb	bb	0.156
13	Total-tetrafurans	26.30	2.312e3	3.256e3	0.933	0.71	0.77	44.2	YES	NO	dd	dd	0.590
14	Total-tetrafurans	26.17	3.542e3	4.040e3	0.933	0.88	0.77	52.8	YES	NO	dd	dd	0.804
15	2378-TCDF	25.94	4.238e3	5.905e3	0.876	0.72	0.77	73.0	YES	NO	dd	dd	1.145
16	Total-tetrafurans	25.72	4.147e3	4.989e3	0.933	0.83	0.77	48.1	YES	NO	dd	dd	0.968
17	Total-tetrafurans	25.44	1.245e3	1.642e3	0.933	0.76	0.77	22.4	YES	NO	dd	dd	0.306
18	Total-tetrafurans	25.27	3.002e3	3.882e3	0.933	0.77	0.77	50.0	YES	NO	bd	bd	0.730
19	Total-tetrafurans	25.03	2.201e3	3.302e3	0.933	0.67	0.77	36.3	YES	NO	bb	db	0.583
20	Total-tetrafurans	24.83	4.537e3	5.842e3	0.933	0.78	0.77	78.5	YES	NO	db	dd	1.100
21	Total-pentafurans	32.38	9.747e2	6.247e2	0.866	1.56	1.55	4.8	YES	NO	bb	bb	0.206
22	23478-PeCDF	31.45	3.839e3	2.529e3	0.911	1.52	1.55	19.1	YES	NO	db	db	0.812
23	Total-pentafurans	31.30	2.851e3	1.857e3	0.866	1.54	1.55	15.2	YES	NO	dd	dd	0.608
24	Total-pentafurans	31.20	2.275e3	1.380e3	0.866	1.65	1.55	11.4	YES	NO	bd	bd	0.472
25	Total-pentafurans	30.43	1.252e3	7.595e2	0.866	1.65	1.55	5.7	YES	NO	db	db	0.259
26	12378-PeCDF	30.12	2.188e3	1.491e3	0.845	1.47	1.55	10.9	YES	NO	bd	bd	0.470
27	Total-pentafurans	29.83	1.578e3	9.907e2	0.866	1.59	1.55	11.3	YES	NO	db	db	0.331
28	Total-pentafurans	29.75	5.028e3	3.407e3	0.866	1.48	1.55	21.8	YES	NO	dd	dd	1.088
29	Total-hexaafurans	36.05	1.532e3	1.337e3	1.208	1.15	1.24	29.0	YES	NO	bd	bd	0.458
30	123678-HxCDF	35.23	3.290e3	2.672e3	1.248	1.23	1.24	45.6	YES	NO	dd	db	0.837
31	123478-HxCDF	35.09	5.335e3	4.619e3	1.182	1.16	1.24	74.4	YES	NO	bd	bd	1.548
32	Total-hexaafurans	34.93	1.217e3	1.067e3	1.208	1.14	1.24	19.3	YES	NO	bb	bb	0.365
33	Total-hexaafurans	34.47	3.415e4	2.711e4	1.208	1.26	1.24	456.3	YES	NO	bb	bb	9.784
34	Total-hexaafurans	34.16	6.386e2	5.752e2	1.208	1.11	1.24	9.1	YES	NO	bb	bb	0.194
35	Total-hexaafurans	33.64	3.063e4	2.529e4	1.208	1.21	1.24	419.3	YES	NO	db	dd	8.931
36	123468-HxCDF	33.43	9.128e3	7.642e3	1.197	1.19	1.24	126.2	YES	NO	bd	bd	2.574
37	123789-HxCDF	37.08	1.210e3	8.701e2	1.187	1.39	1.24	16.7	YES	NO	bb	bb	0.404

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	234678-HxCDF	36.10	2.537e3	1.998e3	1.229	1.27	1.24	33.6	YES	NO	dd	db	0.704
39	1234789-HpCDF	41.21	2.605e3	2.600e3	1.165	1.00	1.05	31.4	YES	NO	bb	bb	1.175
40	Total-heptafurans	39.61	1.107e5	1.053e5	1.185	1.05	1.05	1437.7	YES	NO	bd	bb	41.963
41	1234678-HpCDF	38.96	5.545e4	5.544e4	1.204	1.00	1.05	739.2	YES	NO	bb	bd	18.845
42	OCDF	45.53	9.636e4	1.083e5	1.186	0.89	0.89	1228.6	YES	NO	bd	bd	56.085
43	Total-penta1	27.38	2.678e4	1.809e4		1.48	1.55	616.5	YES	NO	bb	bb	5.275
44	Total-tetrafurans	23.68	3.773e3	4.309e3	0.933	0.88	0.77	65.6	YES	NO	MM	dd	0.857

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	25.76	6.850e2	8.009e2	1.099	0.86	0.77	8.9	YES	NO	bd	bd	0.193
2	Total-tetradioxins	25.44	2.449e2	3.527e2	1.099	0.69	0.77	4.4	YES	NO	bd	bd	0.078
3	Total-tetradioxins	25.18	1.274e3	1.891e3	1.099	0.67	0.77	26.9	YES	NO	bb	bb	0.411
4	Total-tetradioxins	24.91	9.002e2	1.235e3	1.099	0.73	0.77	12.6	YES	NO	bb	bb	0.277
5	Total-tetradioxins	24.69	8.342e2	9.749e2	1.099	0.86	0.77	18.4	YES	NO	bb	bb	0.235
6	Total-tetradioxins	24.16	6.048e2	8.536e2	1.099	0.71	0.77	9.2	YES	NO	bb	dd	0.189
7	Total-tetradioxins	23.97	1.874e3	2.488e3	1.099	0.75	0.77	33.3	YES	NO	bb	dd	0.566
8	1368-TCDD	23.68	2.990e3	3.605e3	1.084	0.83	0.77	50.9	YES	NO	bb	dd	0.867
9	2378-TCDD	26.58	9.087e2	1.276e3	1.236	0.71	0.77	13.6	YES	NO	bd	bd	0.252

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.71	4.574e3	2.722e3	1.087	1.68	1.55	41.9	YES	NO	bb	bb	1.339
2	Total-pentadioxins	31.02	1.172e3	6.941e2	1.392	1.69	1.55	11.7	YES	NO	bb	bb	0.267
3	Total-pentadioxins	30.47	2.779e3	1.891e3	1.392	1.47	1.55	29.8	YES	NO	dd	dd	0.669
4	Total-pentadioxins	30.32	3.427e3	2.211e3	1.392	1.55	1.55	39.7	YES	NO	bd	bd	0.808
5	Total-pentadioxins	30.11	2.593e3	1.924e3	1.392	1.35	1.55	28.9	YES	NO	bb	bb	0.647
6	Total-pentadioxins	29.50	1.070e3	6.694e2	1.392	1.60	1.55	13.8	YES	NO	bb	bb	0.249

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:44:32 Pacific Standard Time

ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	36.49	1.407e3	1.278e3	1.007	1.10	1.24	15.0	YES	NO	bb	bb	0.539
2	123678-HxCDD	36.33	1.214e4	1.035e4	1.021	1.17	1.24	105.2	YES	NO	db	db	4.359
3	123478-HxCDD	36.21	3.977e3	3.427e3	0.987	1.16	1.24	36.7	YES	NO	bd	bd	1.548
4	Total-hexadioxins	35.43	4.155e3	3.156e3	1.007	1.32	1.24	34.8	YES	NO	db	db	1.468
5	Total-hexadioxins	35.32	4.011e4	3.222e4	1.007	1.24	1.24	219.7	YES	NO	bd	bd	14.519
6	Total-hexadioxins	34.97	5.621e3	4.801e3	1.007	1.17	1.24	47.8	YES	NO	bb	bb	2.092
7	124679-HxCDD	34.20	3.178e4	2.552e4	1.033	1.25	1.24	259.2	YES	NO	bb	bb	11.447
8	123789-HxCDD	36.72	9.452e3	8.006e3	0.985	1.18	1.24	83.2	YES	NO	bb	bb	3.579

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.47	3.141e5	3.005e5	1.253	1.05	1.05	1700.1	YES	NO	bd	bd	135.811
2	1234679-HPCDD	39.40	4.725e5	4.588e5	1.286	1.03	1.05	2768.5	YES	NO	bb	bb	200.420

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	25.76	6.850e2	8.009e2	1.099	0.86	0.77	8.9	YES	NO	bd	bd	0.193
2	Total-tetradoxins	25.44	2.449e2	3.527e2	1.099	0.69	0.77	4.4	YES	NO	bd	bd	0.078
3	Total-tetradoxins	25.18	1.274e3	1.891e3	1.099	0.67	0.77	26.9	YES	NO	bb	bb	0.411
4	Total-tetradoxins	24.91	9.002e2	1.235e3	1.099	0.73	0.77	12.6	YES	NO	bb	bb	0.277
5	Total-tetradoxins	24.69	8.342e2	9.749e2	1.099	0.86	0.77	18.4	YES	NO	bb	bb	0.235
6	Total-tetradoxins	24.16	6.048e2	8.536e2	1.099	0.71	0.77	9.2	YES	NO	bb	dd	0.189
7	Total-tetradoxins	23.97	1.874e3	2.488e3	1.099	0.75	0.77	33.3	YES	NO	bb	dd	0.566
8	1368-TCDD	23.68	2.990e3	3.605e3	1.084	0.83	0.77	50.9	YES	NO	bb	dd	0.867
9	2378-TCDD	26.58	9.087e2	1.276e3	1.236	0.71	0.77	13.6	YES	NO	bd	bd	0.252
10	12378-PeCDD	31.71	4.574e3	2.722e3	1.087	1.68	1.55	41.9	YES	NO	bb	bb	1.339
11	Total-pentadoxins	31.02	1.172e3	6.941e2	1.392	1.69	1.55	11.7	YES	NO	bb	bb	0.267
12	Total-pentadoxins	30.47	2.779e3	1.891e3	1.392	1.47	1.55	29.8	YES	NO	dd	dd	0.669
13	Total-pentadoxins	30.32	3.427e3	2.211e3	1.392	1.55	1.55	39.7	YES	NO	bd	bd	0.808
14	Total-pentadoxins	30.11	2.593e3	1.924e3	1.392	1.35	1.55	28.9	YES	NO	bb	bb	0.647
15	Total-pentadoxins	29.50	1.070e3	6.694e2	1.392	1.60	1.55	13.8	YES	NO	bb	bb	0.249
16	Total-hexadoxins	36.49	1.407e3	1.278e3	1.007	1.10	1.24	15.0	YES	NO	bb	bb	0.539
17	123678-HxCDD	36.33	1.214e4	1.035e4	1.021	1.17	1.24	105.2	YES	NO	db	db	4.359
18	123478-HxCDD	36.21	3.977e3	3.427e3	0.987	1.16	1.24	36.7	YES	NO	bd	bd	1.548
19	Total-hexadoxins	35.43	4.155e3	3.156e3	1.007	1.32	1.24	34.8	YES	NO	db	db	1.468
20	Total-hexadoxins	35.32	4.011e4	3.222e4	1.007	1.24	1.24	219.7	YES	NO	bd	bd	14.519
21	Total-hexadoxins	34.97	5.621e3	4.801e3	1.007	1.17	1.24	47.8	YES	NO	bb	bb	2.092
22	124679-HxCDD	34.20	3.178e4	2.552e4	1.033	1.25	1.24	259.2	YES	NO	bb	bb	11.447
23	123789-HxCDD	36.72	9.452e3	8.006e3	0.985	1.18	1.24	83.2	YES	NO	bb	bb	3.579
24	1234678-HpCDD	40.47	3.141e5	3.005e5	1.253	1.05	1.05	1700.1	YES	NO	bd	bd	135.811
25	1234679-HPCDD	39.40	4.725e5	4.588e5	1.286	1.03	1.05	2768.5	YES	NO	bb	bb	200.420
26	OCDD	45.29	1.685e6	1.846e6	1.103	0.91	0.89	10696.4	YES	NO	bd	bb	1040.7...

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.69	1.951e3	2.591e3	0.933	0.75	0.77	33.4	YES	NO	dd	dd	0.481
2	Total-tetrafurans	24.60	3.395e3	4.776e3	0.933	0.71	0.77	49.7	YES	NO	dd	bd	0.866
3	Total-tetrafurans	24.16	2.918e3	3.972e3	0.933	0.73	0.77	52.3	YES	NO	db	db	0.730
4	Total-tetrafurans	24.04	1.672e3	2.330e3	0.933	0.72	0.77	30.3	YES	NO	dd	dd	0.424
5	Total-tetrafurans	23.92	4.699e3	6.265e3	0.933	0.75	0.77	91.2	YES	NO	dd	dd	1.162
6	Total-tetrafurans	23.77	9.253e2	1.173e3	0.933	0.79	0.77	21.6	YES	NO	dd	dd	0.222
7	Total-tetrafurans	23.58	4.051e3	5.390e3	0.933	0.75	0.77	66.6	YES	NO	dd	dd	1.001
8	Total-tetrafurans	23.26	5.513e3	7.610e3	0.933	0.72	0.77	89.7	YES	NO	bd	bd	1.391
9	Total-tetrafurans	22.68	1.739e3	2.439e3	0.933	0.71	0.77	35.8	YES	NO	bb	bb	0.443
10	1368-TCDF	22.43	1.310e3	1.634e3	1.064	0.80	0.77	22.6	YES	NO	db	db	0.273
11	Total-tetrafurans	22.34	2.457e2	3.404e2	0.933	0.72	0.77	5.8	YES	NO	bd	bd	0.062
12	Total-Furans	27.84	6.814e2	9.988e2	1.067	0.68	0.77	9.9	YES	NO	bb	bb	0.156
13	Total-tetrafurans	26.30	2.312e3	3.256e3	0.933	0.71	0.77	44.2	YES	NO	dd	dd	0.590
14	Total-tetrafurans	26.17	3.542e3	4.040e3	0.933	0.88	0.77	52.8	YES	NO	dd	dd	0.804
15	2378-TCDF	25.94	4.238e3	5.905e3	0.876	0.72	0.77	73.0	YES	NO	dd	dd	1.145
16	Total-tetrafurans	25.72	4.147e3	4.989e3	0.933	0.83	0.77	48.1	YES	NO	dd	dd	0.968
17	Total-tetrafurans	25.44	1.245e3	1.642e3	0.933	0.76	0.77	22.4	YES	NO	dd	dd	0.306
18	Total-tetrafurans	25.27	3.002e3	3.882e3	0.933	0.77	0.77	50.0	YES	NO	bd	bd	0.730
19	Total-tetrafurans	25.03	2.201e3	3.302e3	0.933	0.67	0.77	36.3	YES	NO	bb	db	0.583
20	Total-tetrafurans	24.83	4.537e3	5.842e3	0.933	0.78	0.77	78.5	YES	NO	db	dd	1.100
21	Total-pentafurans	32.38	9.747e2	6.247e2	0.866	1.56	1.55	4.8	YES	NO	bb	bb	0.206
22	23478-PeCDF	31.45	3.839e3	2.529e3	0.911	1.52	1.55	19.1	YES	NO	db	db	0.812
23	Total-pentafurans	31.30	2.851e3	1.857e3	0.866	1.54	1.55	15.2	YES	NO	dd	dd	0.608
24	Total-pentafurans	31.20	2.275e3	1.380e3	0.866	1.65	1.55	11.4	YES	NO	bd	bd	0.472
25	Total-pentafurans	30.43	1.252e3	7.595e2	0.866	1.65	1.55	5.7	YES	NO	db	db	0.259
26	12378-PeCDF	30.12	2.188e3	1.491e3	0.845	1.47	1.55	10.9	YES	NO	bd	bd	0.470
27	Total-pentafurans	29.83	1.578e3	9.907e2	0.866	1.59	1.55	11.3	YES	NO	db	db	0.331
28	Total-pentafurans	29.75	5.028e3	3.407e3	0.866	1.48	1.55	21.8	YES	NO	dd	dd	1.088
29	Total-hexafurans	36.05	1.532e3	1.337e3	1.208	1.15	1.24	29.0	YES	NO	bd	bd	0.458
30	123678-HxCDF	35.23	3.290e3	2.672e3	1.248	1.23	1.24	45.6	YES	NO	dd	db	0.837
31	123478-HxCDF	35.09	5.335e3	4.619e3	1.182	1.16	1.24	74.4	YES	NO	bd	bd	1.548
32	Total-hexafurans	34.93	1.217e3	1.067e3	1.208	1.14	1.24	19.3	YES	NO	bb	bb	0.365
33	Total-hexafurans	34.47	3.415e4	2.711e4	1.208	1.26	1.24	456.3	YES	NO	bb	bb	9.784
34	Total-hexafurans	34.16	6.386e2	5.752e2	1.208	1.11	1.24	9.1	YES	NO	bb	bb	0.194
35	Total-hexafurans	33.64	3.063e4	2.529e4	1.208	1.21	1.24	419.3	YES	NO	db	dd	8.931
36	123468-HxCDF	33.43	9.128e3	7.642e3	1.197	1.19	1.24	126.2	YES	NO	bd	bd	2.574
37	123789-HxCDF	37.08	1.210e3	8.701e2	1.187	1.39	1.24	16.7	YES	NO	bb	bb	0.404

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	234678-HxCDF	36.10	2.537e3	1.998e3	1.229	1.27	1.24	33.6	YES	NO	dd	db	0.704
39	1234789-HpCDF	41.21	2.605e3	2.600e3	1.165	1.00	1.05	31.4	YES	NO	bb	bb	1.175
40	Total-heptafurans	39.61	1.107e5	1.053e5	1.185	1.05	1.05	1437.7	YES	NO	bd	bb	41.963
41	1234678-HpCDF	38.96	5.545e4	5.544e4	1.204	1.00	1.05	739.2	YES	NO	bb	bd	18.845
42	OCDF	45.53	9.636e4	1.083e5	1.186	0.89	0.89	1228.6	YES	NO	bd	bd	56.085
43	Total-penta1	27.38	2.678e4	1.809e4		1.48	1.55	616.5	YES	NO	bb	bb	5.275
44	Total-tetrafurans	23.68	3.773e3	4.309e3	0.933	0.88	0.77	65.6	YES	NO	MM	dd	0.857
45	Total-tetradioxins	25.76	6.850e2	8.009e2	1.099	0.86	0.77	8.9	YES	NO	bd	bd	0.193
46	Total-tetradioxins	25.44	2.449e2	3.527e2	1.099	0.69	0.77	4.4	YES	NO	bd	bd	0.078
47	Total-tetradioxins	25.18	1.274e3	1.891e3	1.099	0.67	0.77	26.9	YES	NO	bb	bb	0.411
48	Total-tetradioxins	24.91	9.002e2	1.235e3	1.099	0.73	0.77	12.6	YES	NO	bb	bb	0.277
49	Total-tetradioxins	24.69	8.342e2	9.749e2	1.099	0.86	0.77	18.4	YES	NO	bb	bb	0.235
50	Total-tetradioxins	24.16	6.048e2	8.536e2	1.099	0.71	0.77	9.2	YES	NO	bb	dd	0.189
51	Total-tetradioxins	23.97	1.874e3	2.488e3	1.099	0.75	0.77	33.3	YES	NO	bb	dd	0.566
52	1368-TCDD	23.68	2.990e3	3.605e3	1.084	0.83	0.77	50.9	YES	NO	bb	dd	0.867
53	2378-TCDD	26.58	9.087e2	1.276e3	1.236	0.71	0.77	13.6	YES	NO	bd	bd	0.252
54	12378-PeCDD	31.71	4.574e3	2.722e3	1.087	1.68	1.55	41.9	YES	NO	bb	bb	1.339
55	Total-pentadioxins	31.02	1.172e3	6.941e2	1.392	1.69	1.55	11.7	YES	NO	bb	bb	0.267
56	Total-pentadioxins	30.47	2.779e3	1.891e3	1.392	1.47	1.55	29.8	YES	NO	dd	dd	0.669
57	Total-pentadioxins	30.32	3.427e3	2.211e3	1.392	1.55	1.55	39.7	YES	NO	bd	bd	0.808
58	Total-pentadioxins	30.11	2.593e3	1.924e3	1.392	1.35	1.55	28.9	YES	NO	bb	bb	0.647
59	Total-pentadioxins	29.50	1.070e3	6.694e2	1.392	1.60	1.55	13.8	YES	NO	bb	bb	0.249
60	Total-hexadioxins	36.49	1.407e3	1.278e3	1.007	1.10	1.24	15.0	YES	NO	bb	bb	0.539
61	123678-HxCDD	36.33	1.214e4	1.035e4	1.021	1.17	1.24	105.2	YES	NO	db	db	4.359
62	123478-HxCDD	36.21	3.977e3	3.427e3	0.987	1.16	1.24	36.7	YES	NO	bd	bd	1.548
63	Total-hexadioxins	35.43	4.155e3	3.156e3	1.007	1.32	1.24	34.8	YES	NO	db	db	1.468
64	Total-hexadioxins	35.32	4.011e4	3.222e4	1.007	1.24	1.24	219.7	YES	NO	bd	bd	14.519
65	Total-hexadioxins	34.97	5.621e3	4.801e3	1.007	1.17	1.24	47.8	YES	NO	bb	bb	2.092
66	124679-HxCDD	34.20	3.178e4	2.552e4	1.033	1.25	1.24	259.2	YES	NO	bb	bb	11.447
67	123789-HxCDD	36.72	9.452e3	8.006e3	0.985	1.18	1.24	83.2	YES	NO	bb	bb	3.579
68	1234678-HpCDD	40.47	3.141e5	3.005e5	1.253	1.05	1.05	1700.1	YES	NO	bd	bd	135.811
69	1234679-HPCDD	39.40	4.725e5	4.588e5	1.286	1.03	1.05	2768.5	YES	NO	bb	bb	200.420
70	OCDD	45.29	1.685e6	1.846e6	1.103	0.91	0.89	10696.4	YES	NO	bd	bb	1040.7...

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	27.74	9.688e4					6.0	YES		bb		
2	FUNCTION1 PFK	27.60	3.058e5					11.8	YES		db		
3	FUNCTION1 PFK	27.43	4.328e5					13.0	YES		bd		
4	FUNCTION1 PFK	27.02	6.011e5					4.8	YES		bb		
5	FUNCTION1 PFK	23.37	1.792e4					2.2	NO		bb		
6	FUNCTION1 PFK	23.26	1.881e5					4.8	YES		db		
7	FUNCTION1 PFK	23.08	2.982e4					3.2	YES		bd		
8	FUNCTION1 PFK	22.81	1.115e5					6.4	YES		db		
9	FUNCTION1 PFK	22.71	1.139e5					8.6	YES		dd		
10	FUNCTION1 PFK	22.54	2.021e6					17.6	YES		bd		
11	FUNCTION1 PFK	21.68	2.455e6					16.8	YES		db		
12	FUNCTION1 PFK	21.54	5.307e5					14.4	YES		bd		
13	FUNCTION1 PFK	21.32	2.606e5					6.7	YES		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.73	7.642e5					15.7	YES		db		0.000
2	FUNCTION2 PFK	29.59	1.141e5					11.5	YES		bd		0.000
3	FUNCTION2 PFK	29.45	1.558e6					21.8	YES		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.90	4.173e6					6.5	YES		bb		0.000
2	FUNCTION3 PFK	36.94	3.446e6					38.6	YES		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.36	1.157e6					20.6	YES		dd		
2	FUNCTION4 PFK	39.10	4.617e5					30.3	YES		dd		
3	FUNCTION4 PFK	39.01	8.536e5					33.3	YES		dd		
4	FUNCTION4 PFK	38.87	6.622e5					38.2	YES		dd		
5	FUNCTION4 PFK	38.62	1.639e6					48.2	YES		dd		
6	FUNCTION4 PFK	38.33	3.482e6					59.3	YES		dd		
7	FUNCTION4 PFK	38.19	6.082e5					64.2	YES		dd		
8	FUNCTION4 PFK	38.13	6.344e5					67.3	YES		dd		
9	FUNCTION4 PFK	38.11	8.877e5					66.6	YES		bd		
10	FUNCTION4 PFK	41.22	1.625e4					2.6	NO		bd		
11	FUNCTION4 PFK	41.14	1.540e4					1.8	NO		bb		
12	FUNCTION4 PFK	41.01	1.012e4					1.3	NO		bb		
13	FUNCTION4 PFK	40.92	4.513e3					1.1	NO		bb		
14	FUNCTION4 PFK	40.83	8.831e3					1.9	NO		db		
15	FUNCTION4 PFK	40.77	2.891e4					3.7	YES		dd		
16	FUNCTION4 PFK	40.70	2.644e4					2.8	NO		dd		
17	FUNCTION4 PFK	40.63	9.533e3					1.9	NO		bd		
18	FUNCTION4 PFK	40.57	9.686e3					1.5	NO		bb		
19	FUNCTION4 PFK	40.37	4.883e3					0.7	NO		bb		
20	FUNCTION4 PFK	40.01	7.956e3					1.6	NO		bb		
21	FUNCTION4 PFK	39.85	1.934e4					2.9	NO		db		
22	FUNCTION4 PFK	39.80	1.278e4					2.5	NO		dd		
23	FUNCTION4 PFK	39.57	3.274e5					13.7	YES		dd		
24	FUNCTION4 PFK	39.52	1.070e5					14.4	YES		dd		
25	FUNCTION4 PFK	39.48	1.898e5					16.6	YES		dd		
26	FUNCTION4 PFK	42.93	1.814e4					2.2	NO		bb		
27	FUNCTION4 PFK	42.65	7.162e2					0.4	NO		bb		
28	FUNCTION4 PFK	42.60	1.050e4					1.7	NO		bb		
29	FUNCTION4 PFK	42.29	8.502e3					1.4	NO		bb		
30	FUNCTION4 PFK	42.12	5.966e3					1.2	NO		bb		
31	FUNCTION4 PFK	41.89	5.797e3					1.6	NO		db		
32	FUNCTION4 PFK	41.84	2.030e4					2.2	NO		dd		
33	FUNCTION4 PFK	41.74	1.788e4					2.0	NO		bd		
34	FUNCTION4 PFK	41.48	2.455e4					2.5	NO		bb		
35	FUNCTION4 PFK	41.34	1.891e4					1.5	NO		db		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:44:32 Pacific Standard Time

ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	43.40	3.775e3					1.1	NO		bd		
2	FUNCTION5 PFK	43.33	4.984e3					1.5	NO		db		
3	FUNCTION5 PFK	43.30	6.434e3					1.3	NO		bd		
4	FUNCTION5 PFK	43.20	1.603e4					2.5	NO		db		
5	FUNCTION5 PFK	43.15	5.396e3					2.0	NO		bd		
6	FUNCTION5 PFK	44.48	5.675e2					0.5	NO		bb		
7	FUNCTION5 PFK	44.44	6.917e2					0.7	NO		bb		
8	FUNCTION5 PFK	44.35	9.813e3					1.6	NO		db		
9	FUNCTION5 PFK	44.32	2.993e3					1.3	NO		dd		
10	FUNCTION5 PFK	44.28	3.763e3					1.1	NO		dd		
11	FUNCTION5 PFK	44.23	2.383e3					1.0	NO		bd		
12	FUNCTION5 PFK	44.18	2.075e3					0.9	NO		bb		
13	FUNCTION5 PFK	44.01	4.025e3					0.8	NO		bb		
14	FUNCTION5 PFK	43.94	3.116e2					0.3	NO		bb		
15	FUNCTION5 PFK	43.86	2.025e3					0.8	NO		db		
16	FUNCTION5 PFK	43.82	6.112e3					1.1	NO		bd		
17	FUNCTION5 PFK	43.70	1.027e3					0.6	NO		db		
18	FUNCTION5 PFK	43.62	9.973e3					1.2	NO		dd		
19	FUNCTION5 PFK	43.56	1.491e3					0.7	NO		bd		
20	FUNCTION5 PFK	43.52	4.815e3					1.6	NO		bb		
21	FUNCTION5 PFK	43.45	5.275e3					1.7	NO		db		
22	FUNCTION5 PFK	45.52	2.534e3					0.9	NO		db		
23	FUNCTION5 PFK	45.45	2.431e3					0.8	NO		dd		
24	FUNCTION5 PFK	45.39	4.022e3					0.8	NO		bd		
25	FUNCTION5 PFK	45.35	6.408e3					1.6	NO		bb		
26	FUNCTION5 PFK	45.27	2.954e3					1.0	NO		db		
27	FUNCTION5 PFK	45.23	8.527e3					1.8	NO		dd		
28	FUNCTION5 PFK	45.18	1.296e3					0.7	NO		bd		
29	FUNCTION5 PFK	45.04	3.954e2					0.4	NO		bb		
30	FUNCTION5 PFK	45.01	6.427e2					0.4	NO		db		
31	FUNCTION5 PFK	44.97	5.168e3					1.3	NO		bd		
32	FUNCTION5 PFK	44.79	1.597e3					0.6	NO		bb		
33	FUNCTION5 PFK	44.74	4.834e3					1.3	NO		db		
34	FUNCTION5 PFK	44.70	4.499e3					1.1	NO		dd		
35	FUNCTION5 PFK	44.63	1.326e4					2.4	NO		bd		
36	FUNCTION5 PFK	44.57	1.810e3					0.7	NO		bb		
37	FUNCTION5 PFK	44.50	1.919e3					0.8	NO		bb		

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PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION5 PFK	46.45	1.970e3					0.7	NO		db		
39	FUNCTION5 PFK	46.38	8.028e3					1.6	NO		dd		
40	FUNCTION5 PFK	46.34	4.011e3					1.3	NO		dd		
41	FUNCTION5 PFK	46.31	5.529e3					1.5	NO		bd		
42	FUNCTION5 PFK	46.25	1.818e3					0.9	NO		bb		
43	FUNCTION5 PFK	46.21	3.705e3					1.4	NO		bb		
44	FUNCTION5 PFK	46.14	3.740e2					0.4	NO		bb		
45	FUNCTION5 PFK	46.10	1.521e3					0.6	NO		bb		
46	FUNCTION5 PFK	46.01	2.140e3					0.9	NO		bb		
47	FUNCTION5 PFK	45.97	3.777e3					1.4	NO		db		
48	FUNCTION5 PFK	45.93	3.731e3					1.2	NO		bd		
49	FUNCTION5 PFK	45.73	4.046e2					0.4	NO		bb		
50	FUNCTION5 PFK	45.69	6.586e2					0.4	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	25.25	6.643e2					20.7	YES		bb		0.000
2	FUNCTION1 HXCD...	23.91	1.106e3					35.6	YES		bb		0.000
3	FUNCTION1 HXCD...	27.81	3.033e2					9.1	YES		bb		0.000
4	FUNCTION1 HXCD...	26.95	4.502e2					17.2	YES		bb		0.000
5	FUNCTION1 HXCD...	26.28	1.446e3					46.1	YES		bb		0.000
6	FUNCTION1 HXCD...	26.07	1.009e3					33.3	YES		db		0.000
7	FUNCTION1 HXCD...	25.92	1.005e3					33.2	YES		bd		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.37	2.298e2					5.8	YES		bb		0.000
2	FUNCTION2 HPCD...	30.62	8.709e1					2.1	NO		bb		0.000
3	FUNCTION2 HPCD...	29.13	4.031e2					11.8	YES		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	39.88	7.695e1					2.0	NO		bb		0.000
2	FUNCTION4 NCDPE	38.57	1.289e4					281.1	YES		db		0.000
3	FUNCTION4 NCDPE	38.47	7.844e1					2.7	NO		bd		0.000

ETHERS6

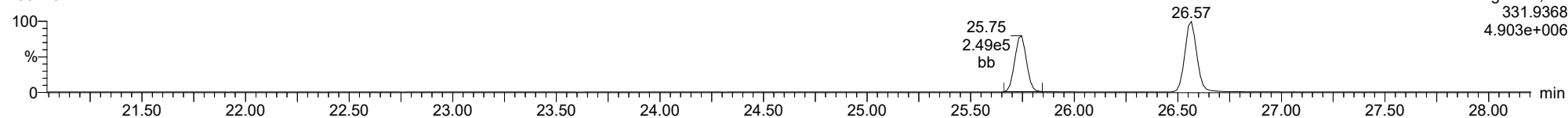
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.28	1.299e2					3.8	YES		bb		0.000

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

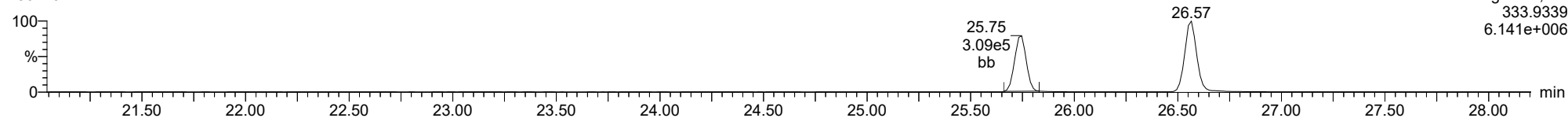
13C-1234-TCDD

23021017



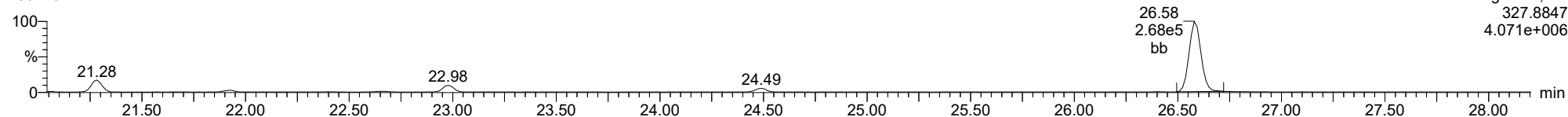
13C-1234-TCDD

23021017



37CL-2378-TCDD

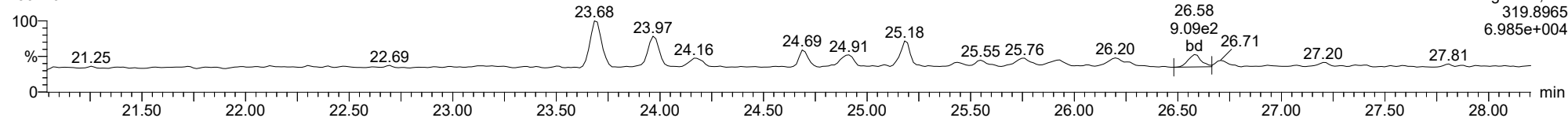
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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

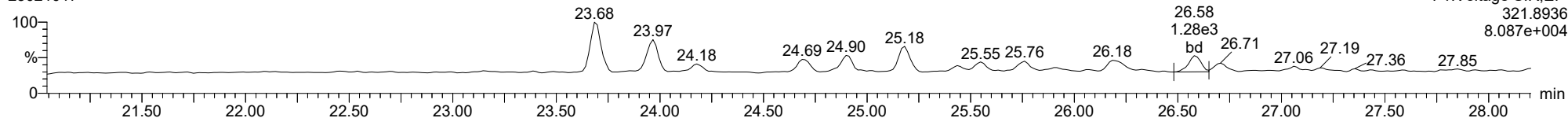
2378-TCDD

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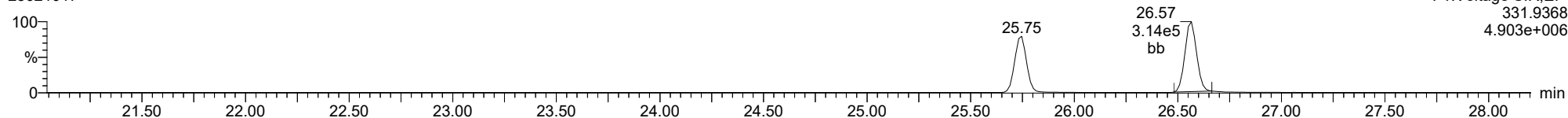
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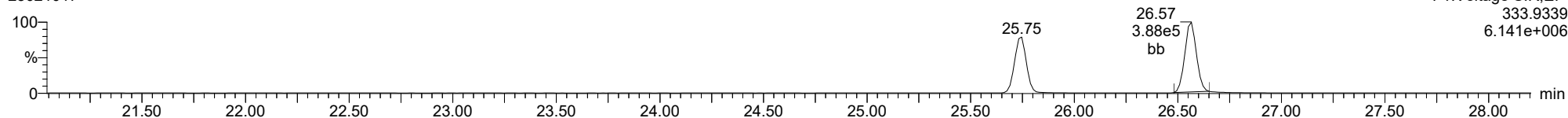
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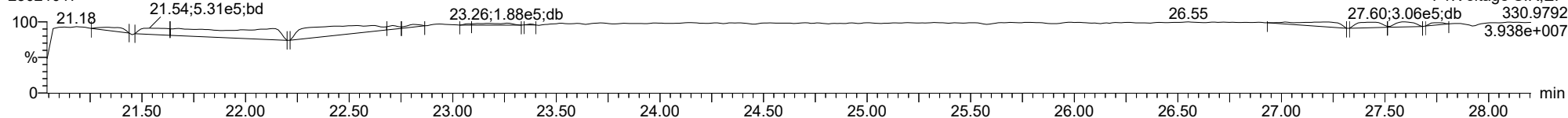
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FUNCTION1 PFK

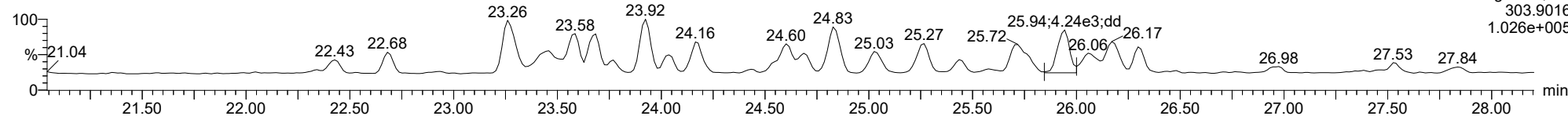
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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

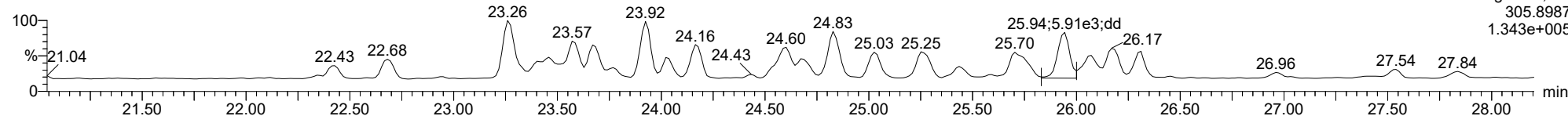
2378-TCDF

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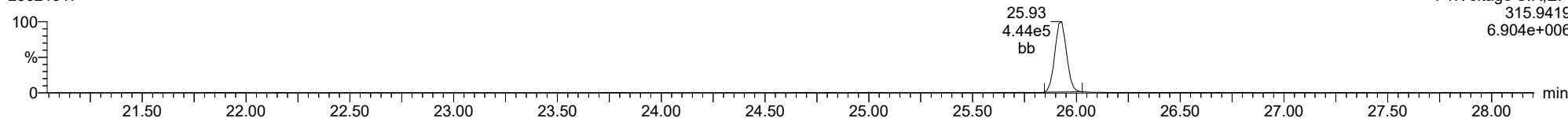
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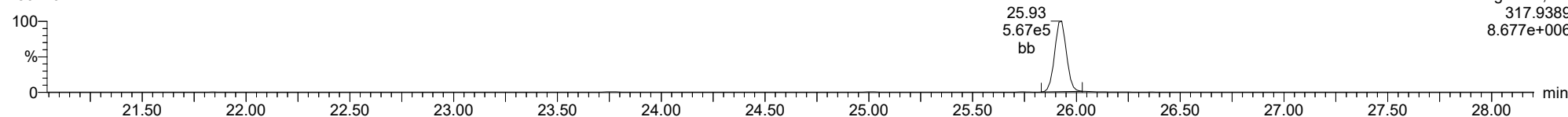
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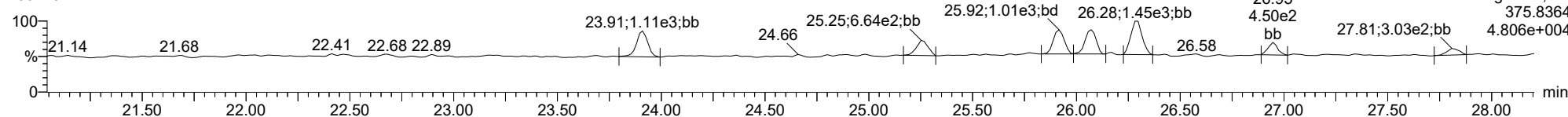
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FUNCTION1 HXCDPE

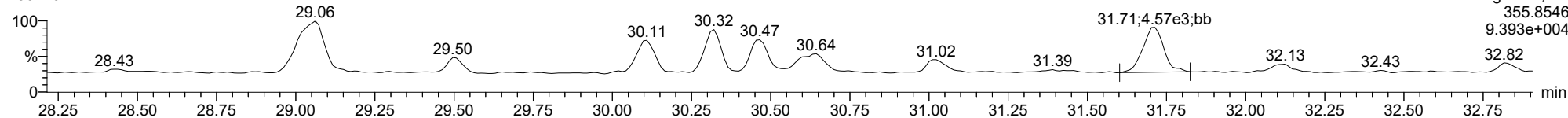
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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

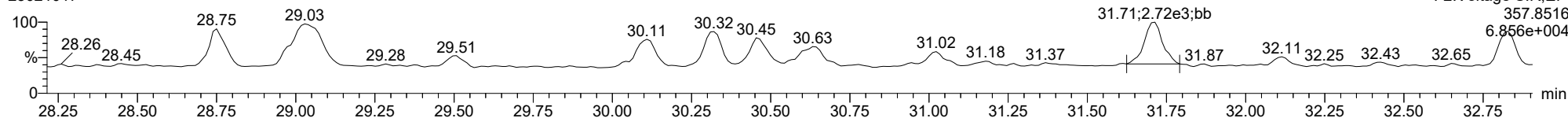
12378-PeCDD

23021017



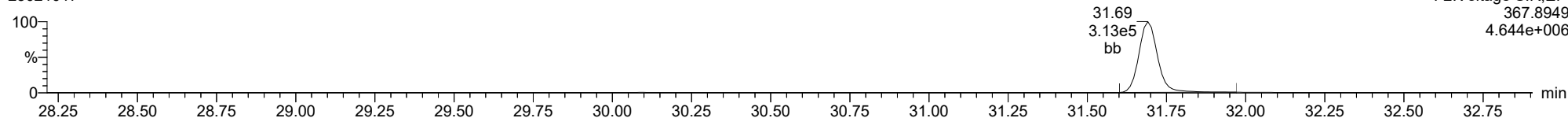
12378-PeCDD

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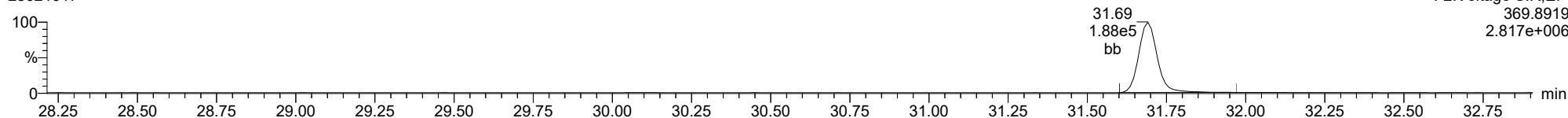
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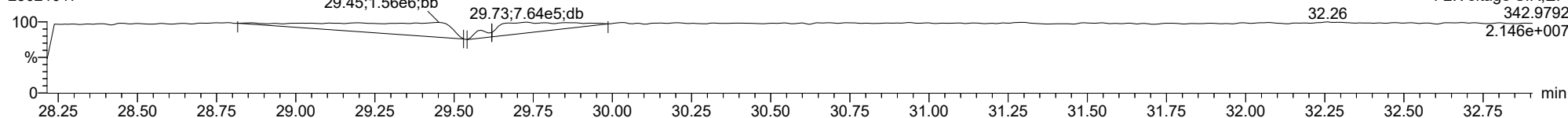
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23021017



FUNCTION2 PFK

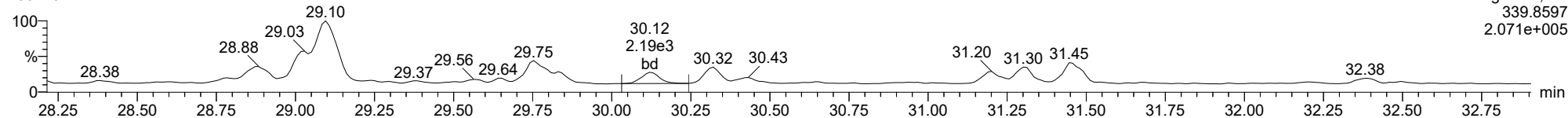
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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

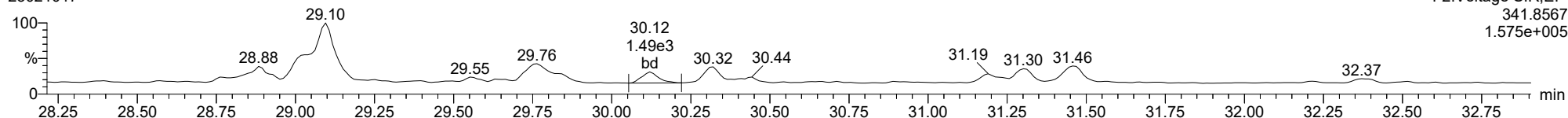
12378-PeCDF

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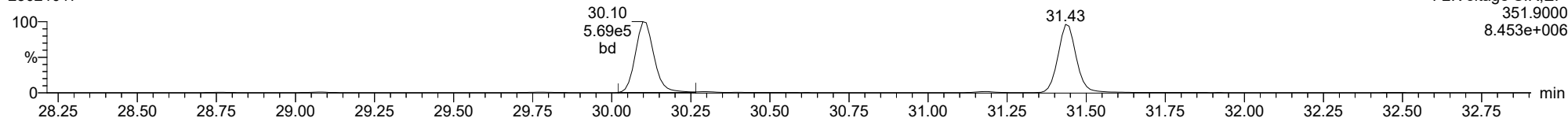
12378-PeCDF

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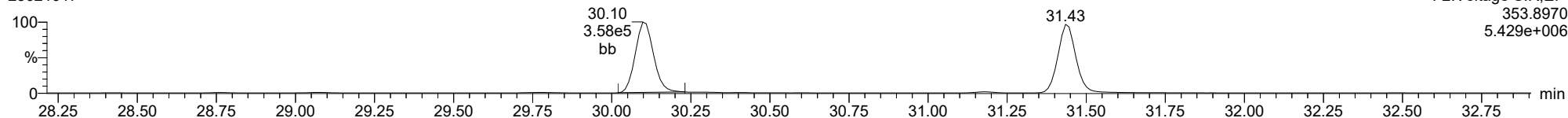
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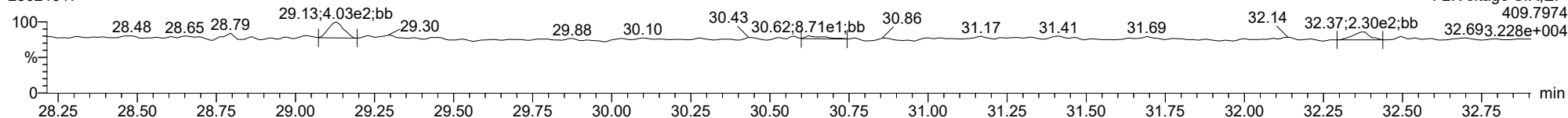
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23021017



FUNCTION2 HPCDPE

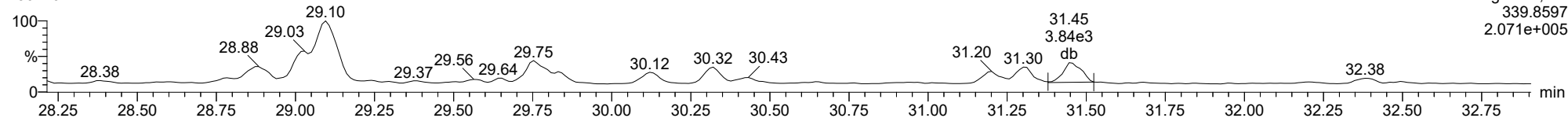
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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

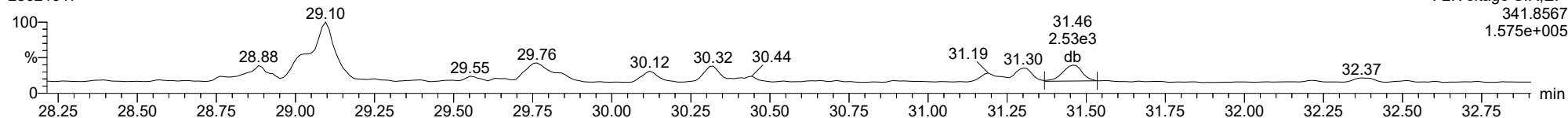
23478-PeCDF

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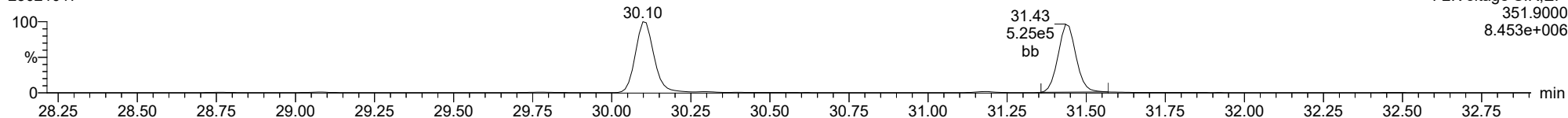
23478-PeCDF

23021017



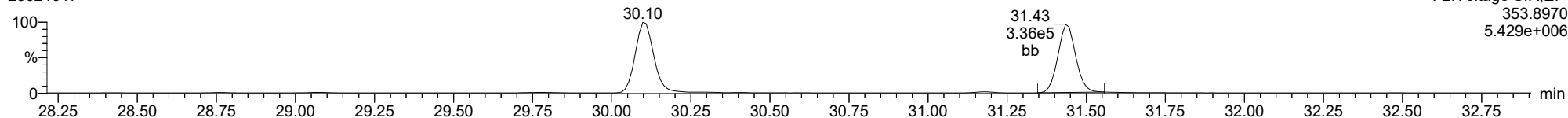
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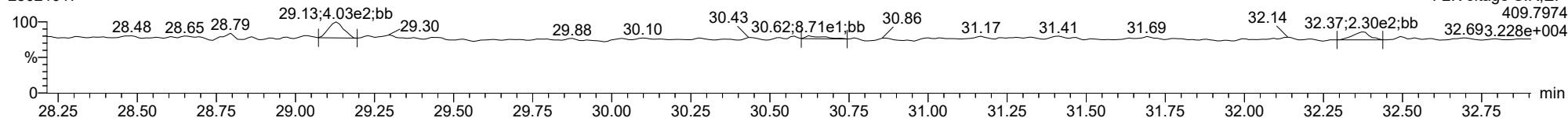
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23021017



FUNCTION2 HPCDPE

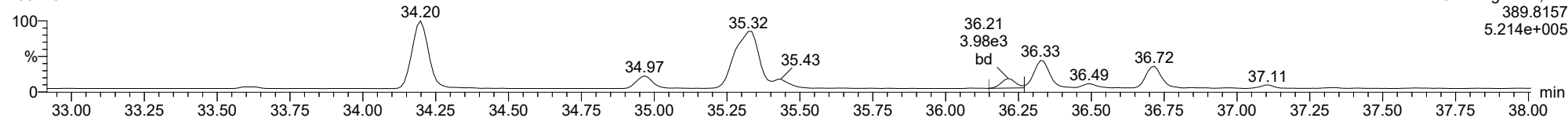
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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

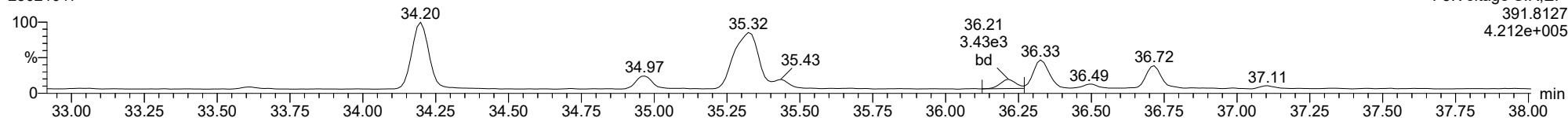
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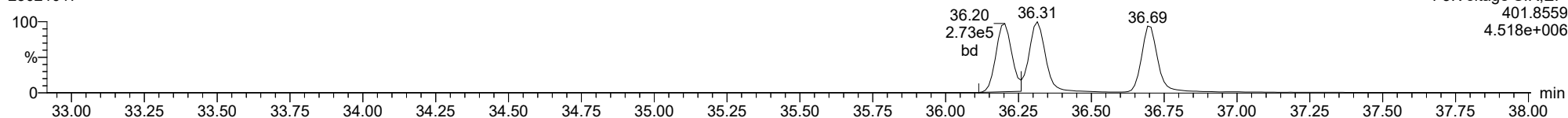
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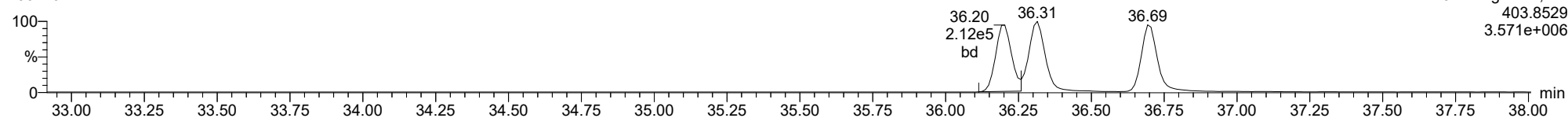
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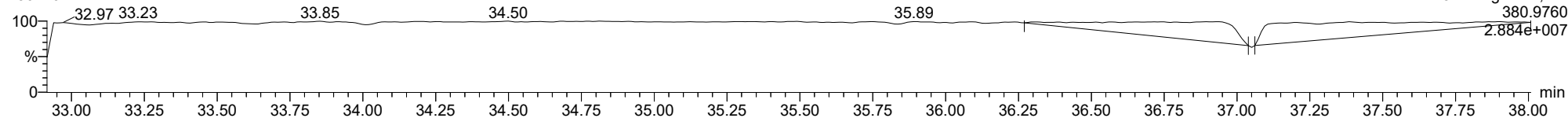
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23021017



FUNCTION3 PFK

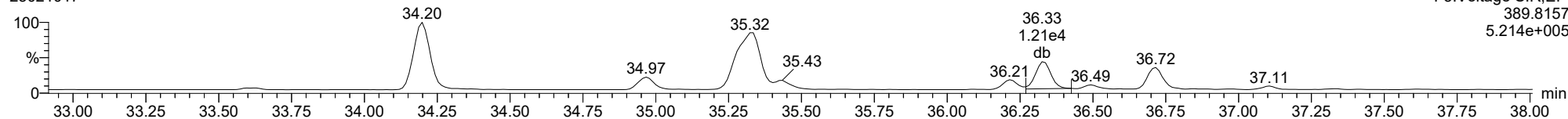
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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

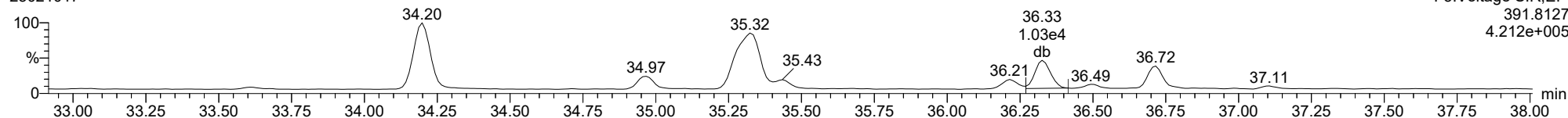
123678-HxCDD

23021017



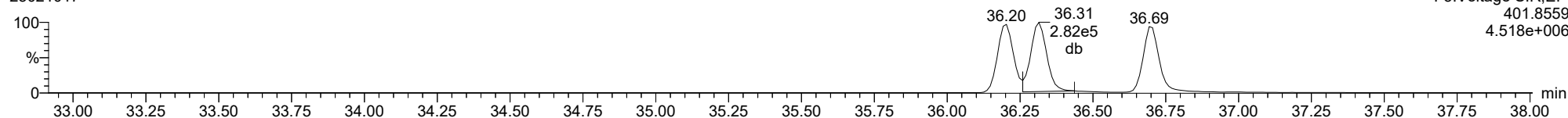
123678-HxCDD

23021017



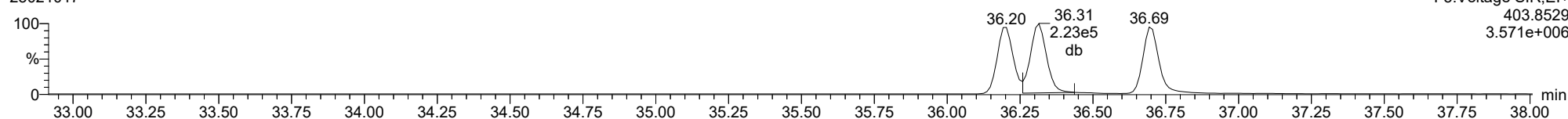
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23021017



13C-123678-HxCDD

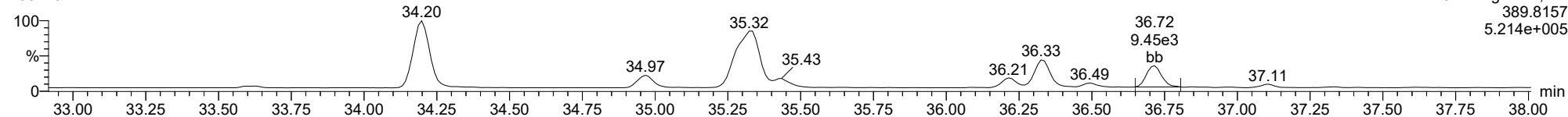
23021017



ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

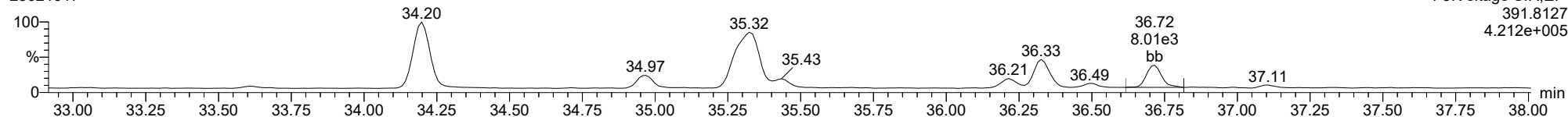
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23021017



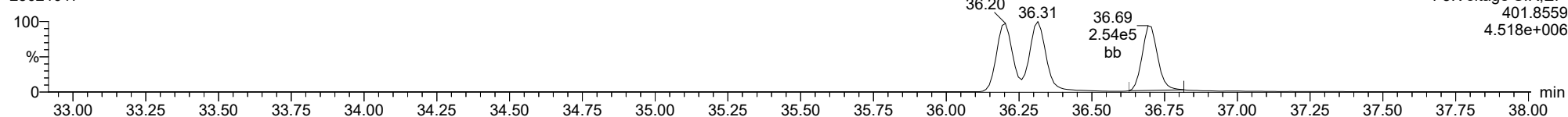
123789-HxCDD

23021017



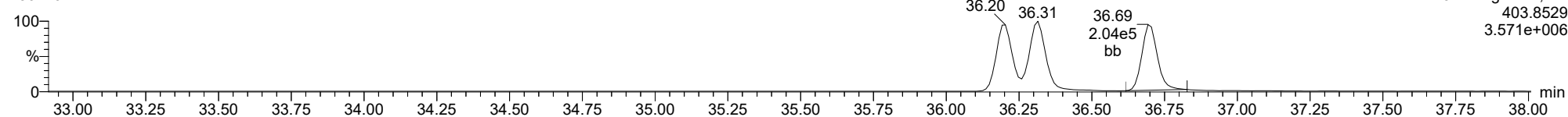
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23021017



13C-123789-HxCDD

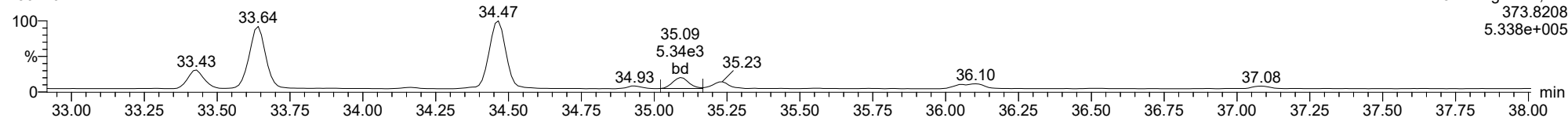
23021017



ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

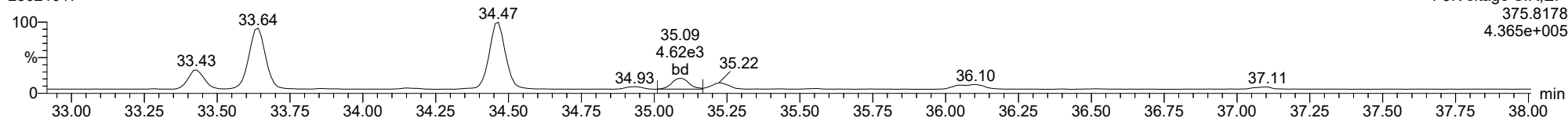
123478-HxCDF

23021017



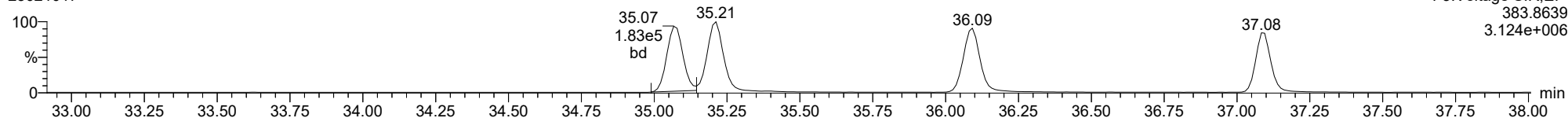
123478-HxCDF

23021017



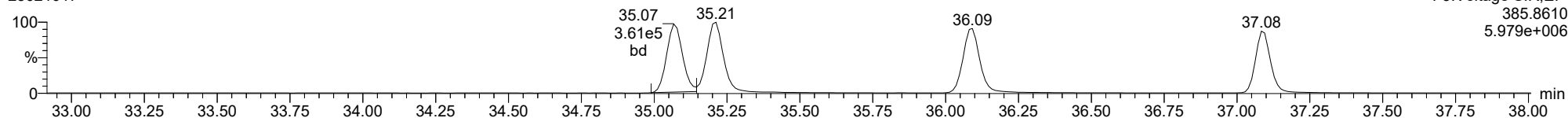
13C-123478-HxCDF

23021017



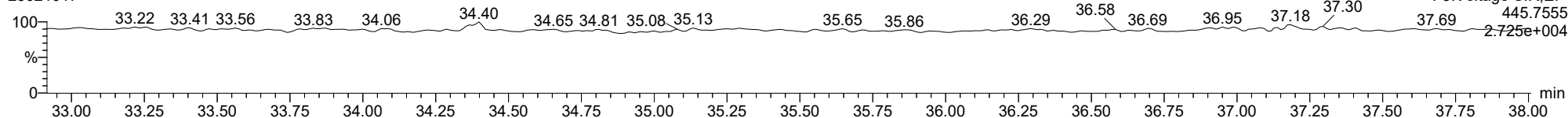
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23021017



FUNCTION3 OCDPE

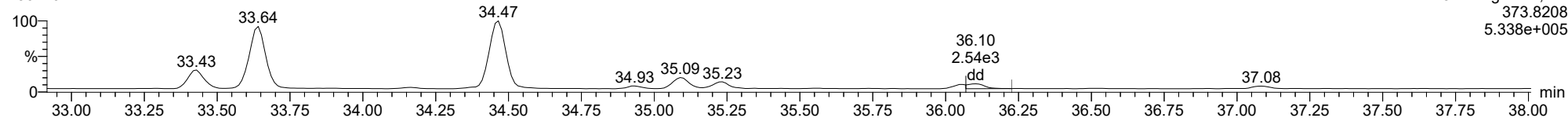
23021017



ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

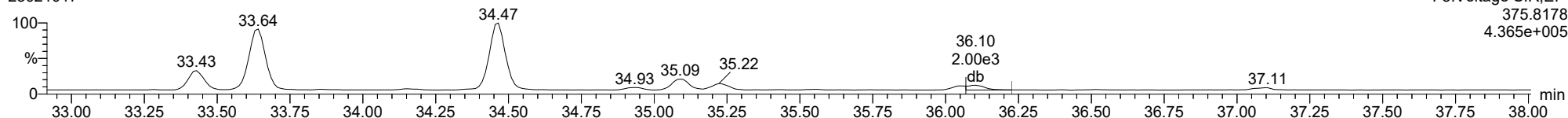
234678-HxCDF

23021017



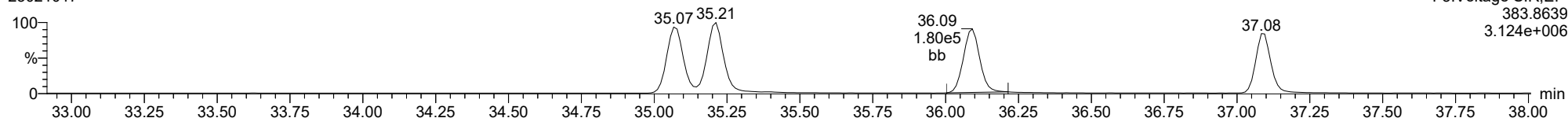
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23021017



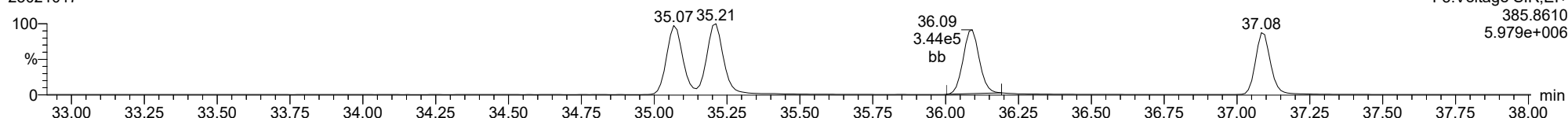
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23021017



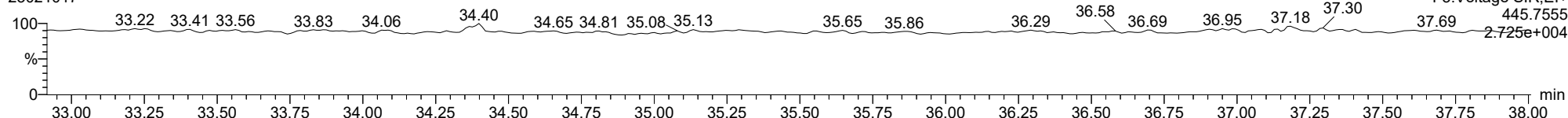
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23021017



FUNCTION3 OCDPE

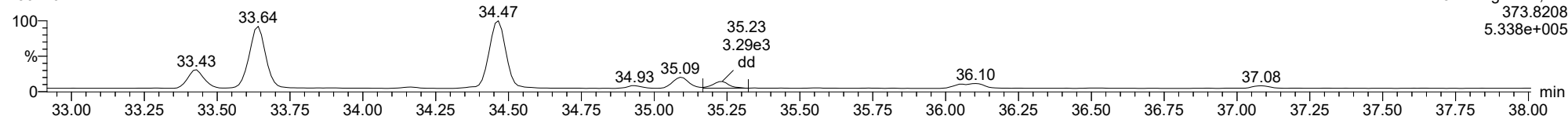
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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

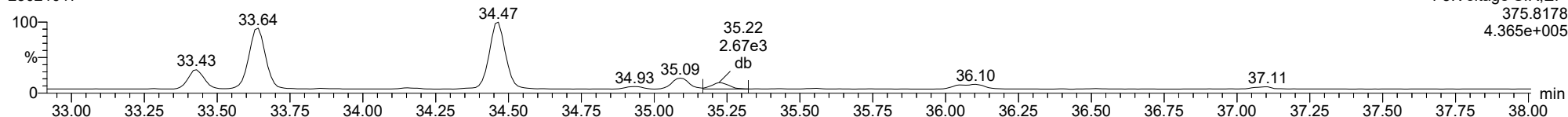
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23021017



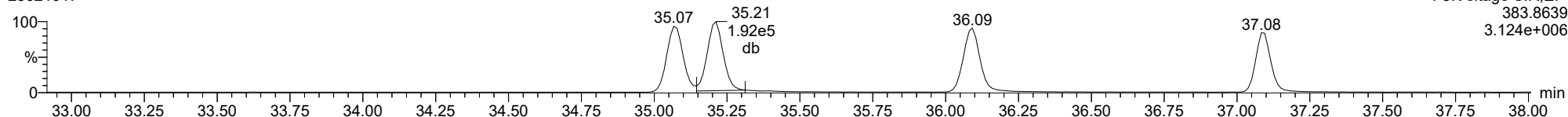
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23021017



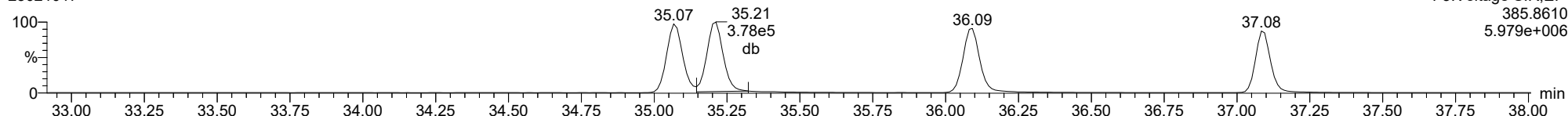
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23021017



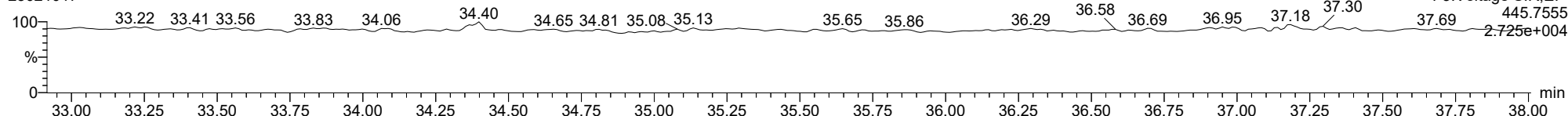
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23021017



FUNCTION3 OCDPE

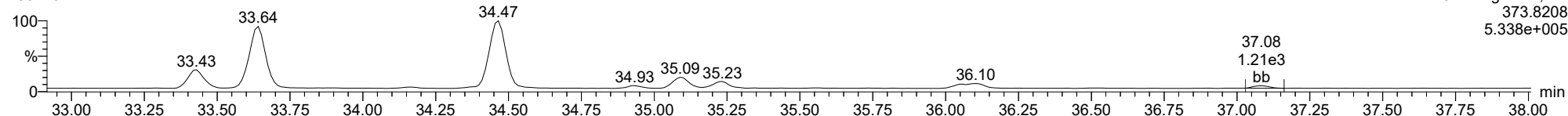
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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

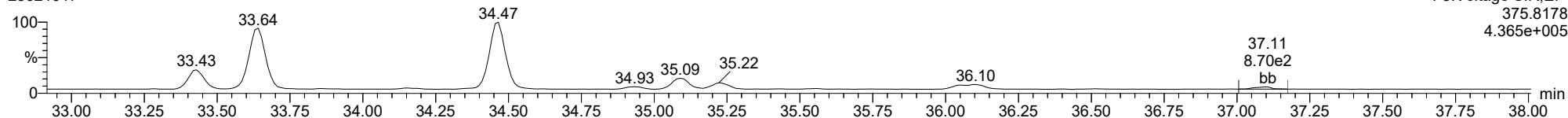
123789-HxCDF

23021017



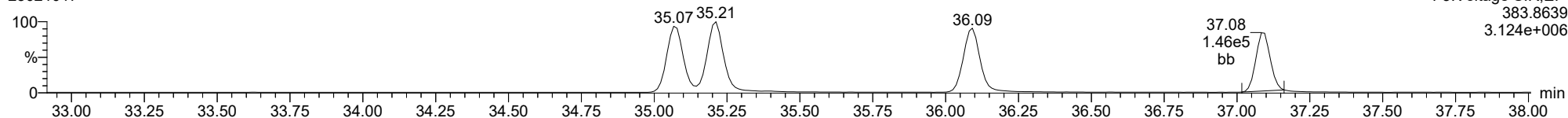
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23021017



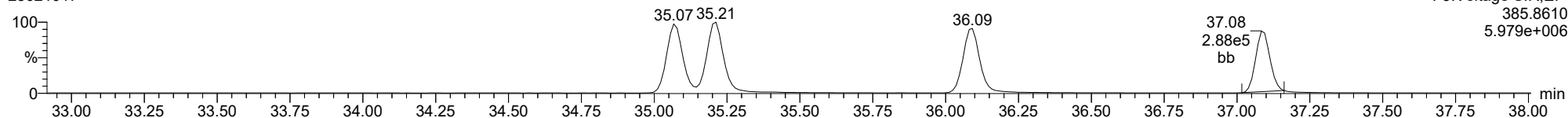
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23021017



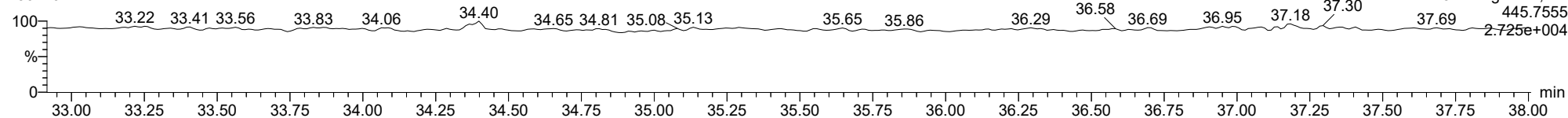
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23021017



FUNCTION3 OCDPE

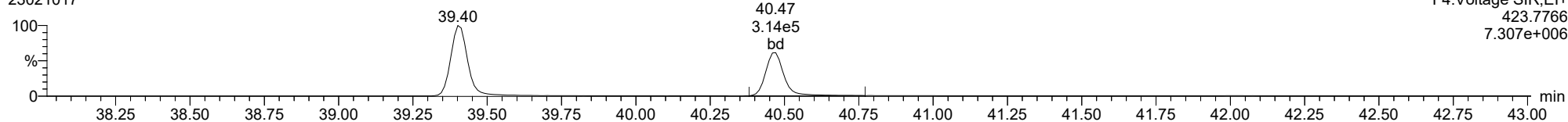
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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

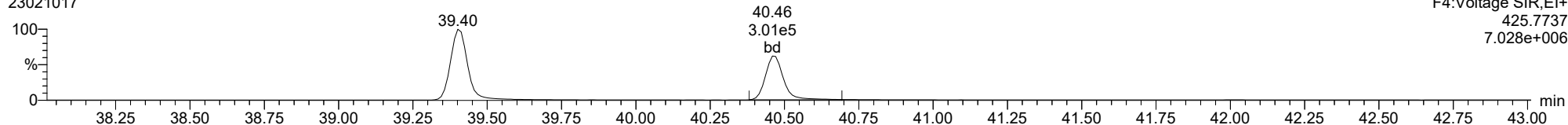
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23021017



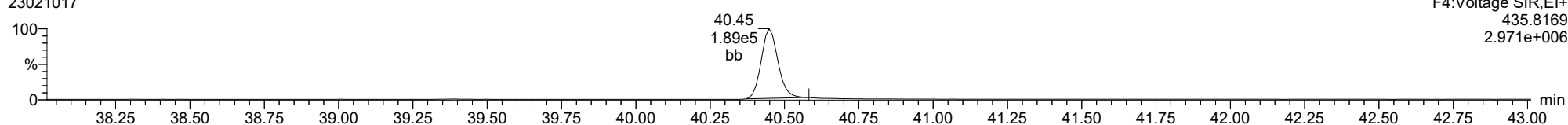
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23021017



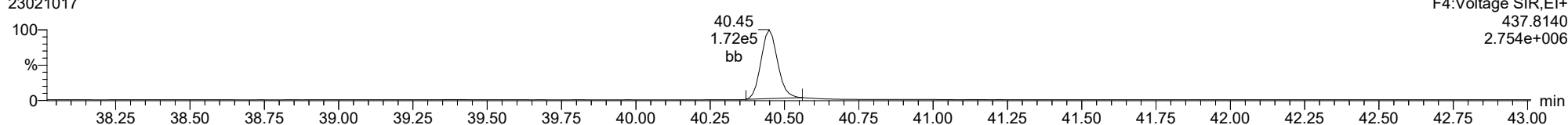
13C-1234678-HpCDD

23021017



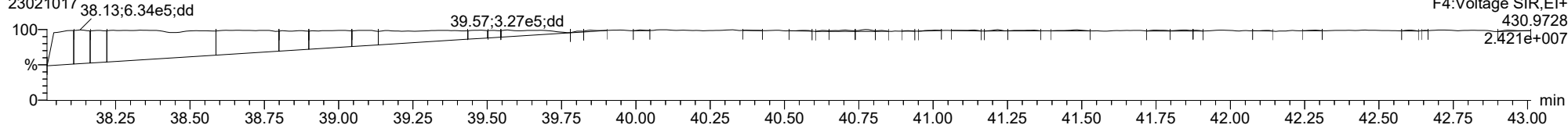
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23021017



FUNCTION4 PFK

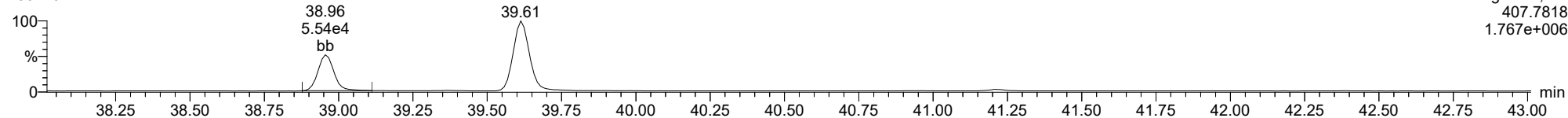
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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

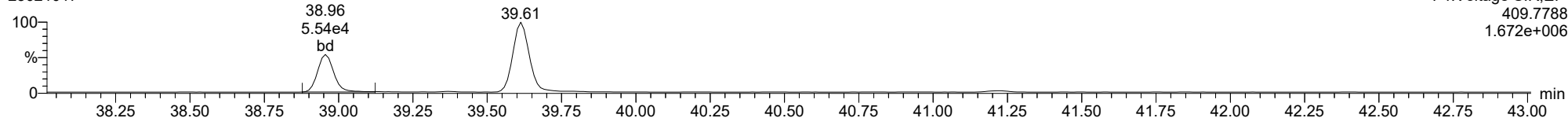
1234678-HpCDF

23021017



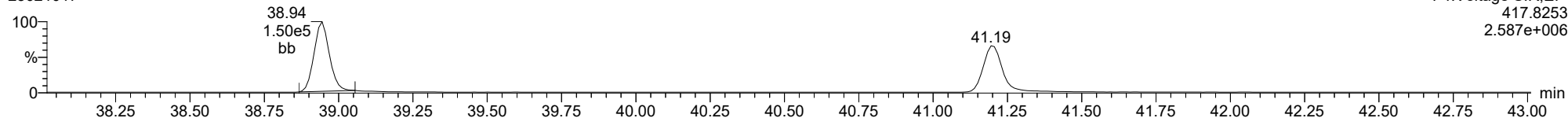
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23021017



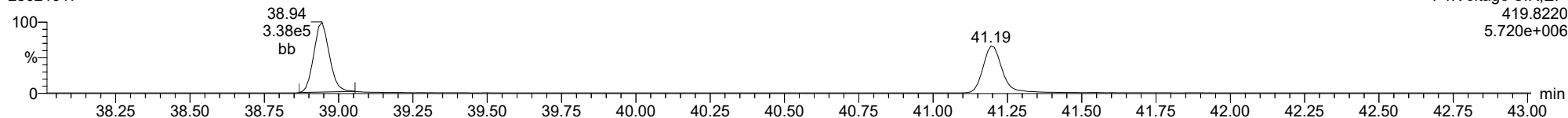
13C-1234678-HpCDF

23021017



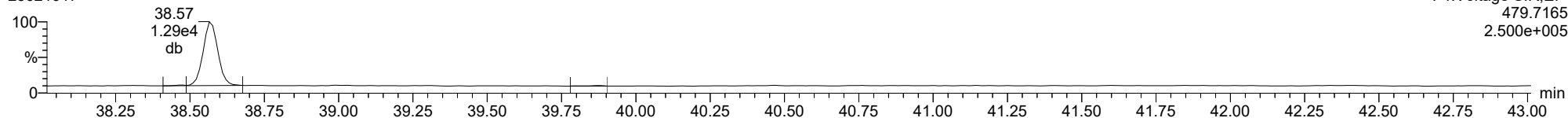
13C-1234678-HpCDF

23021017



FUNCTION4 NCDPE

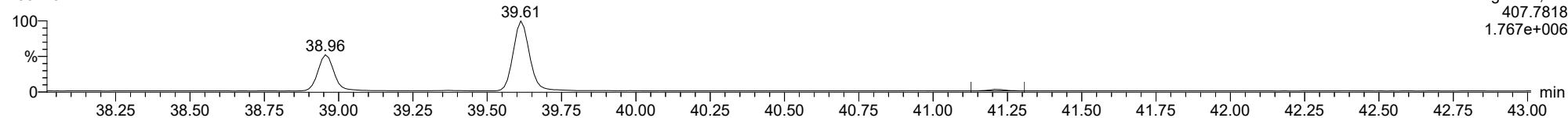
23021017



ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

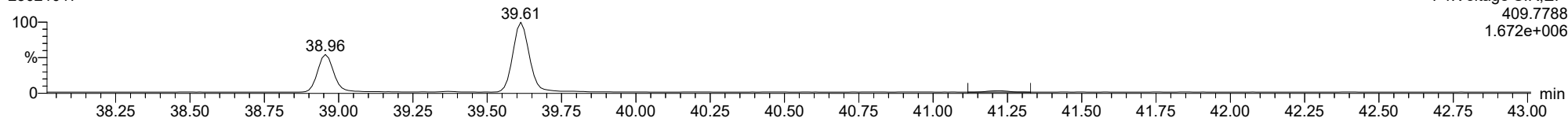
23021017



F4:Voltage SIR,El+
407.7818
1.767e+006

1234789-HpCDF

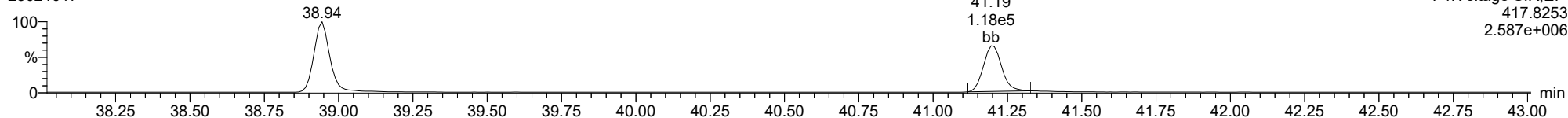
23021017



F4:Voltage SIR,El+
409.7788
1.672e+006

13C-1234789-HpCDF

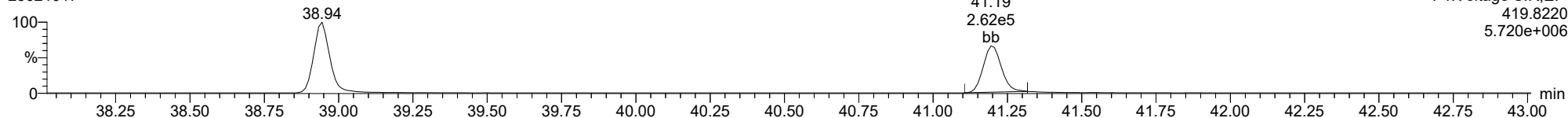
23021017



F4:Voltage SIR,El+
417.8253
2.587e+006

13C-1234789-HpCDF

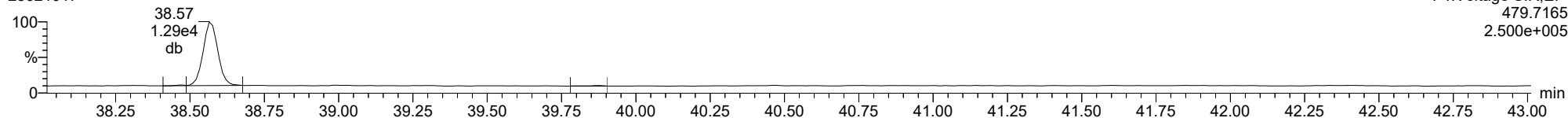
23021017



F4:Voltage SIR,El+
419.8220
5.720e+006

FUNCTION4 NCDPE

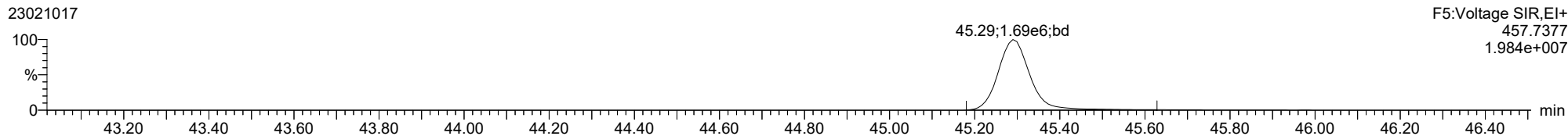
23021017



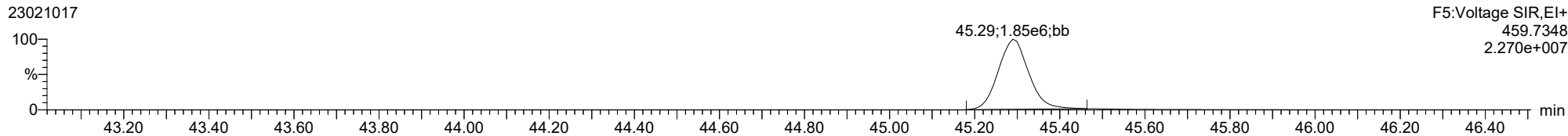
F4:Voltage SIR,El+
479.7165
2.500e+005

ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

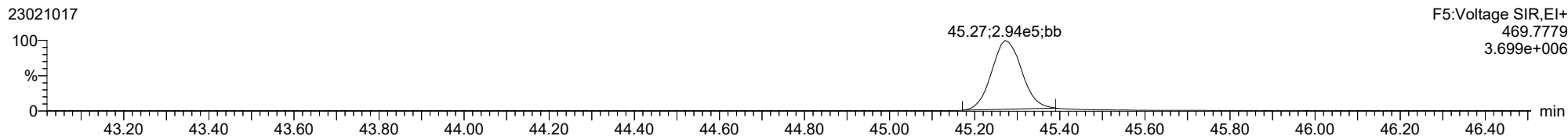
OCDD



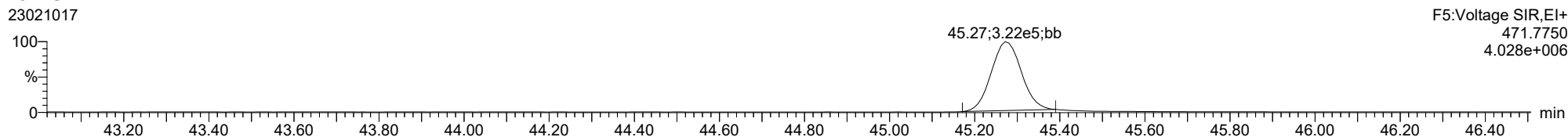
OCDD



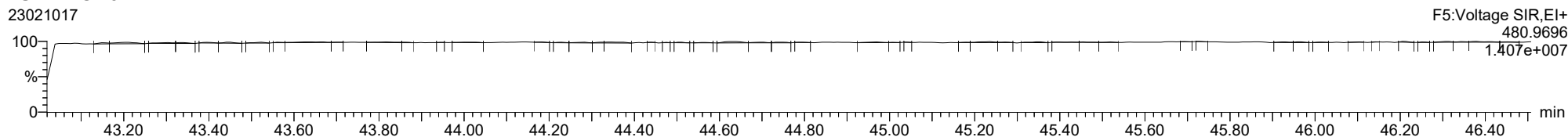
13C-OCDD



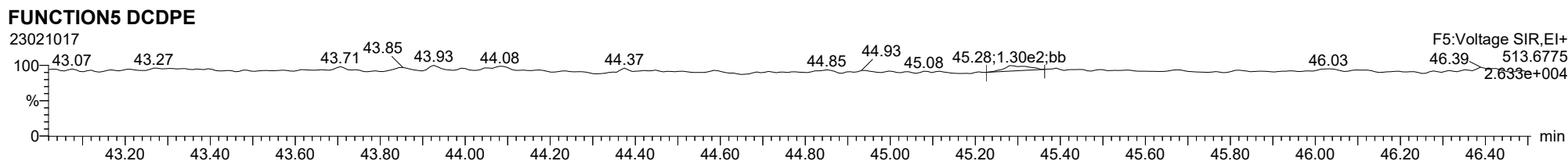
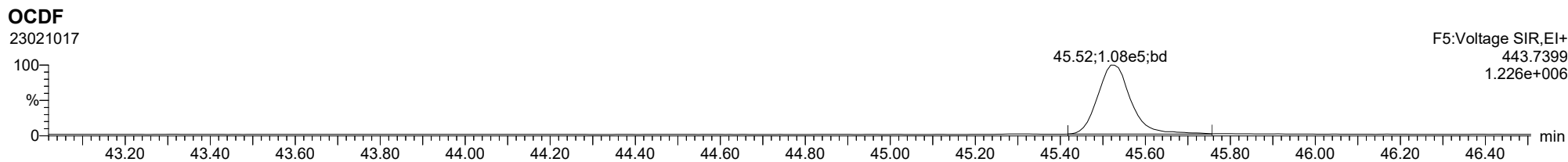
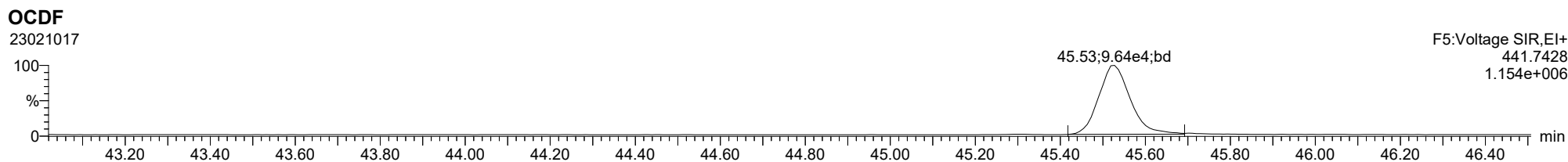
13C-OCDD



FUNCTION5 PFK

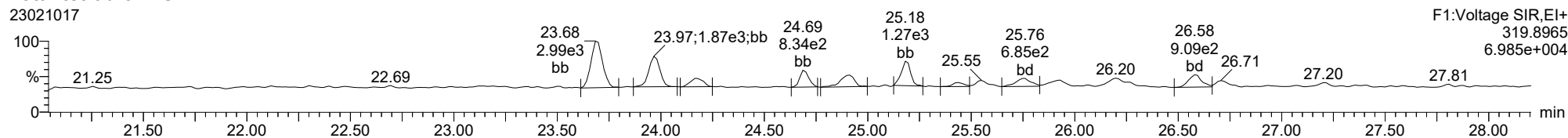


ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

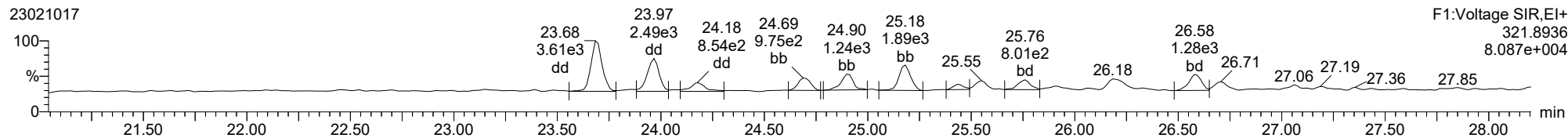


ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

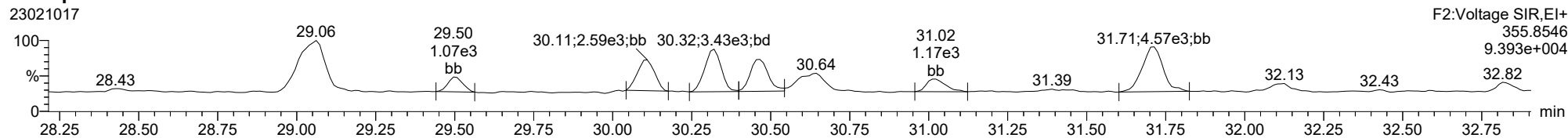
Total-tetradioxins



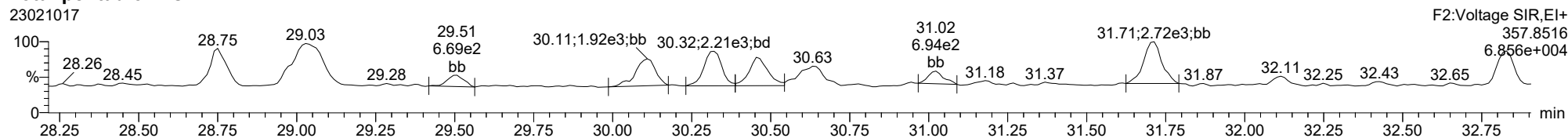
Total-tetradioxins



Total-pentadioxins



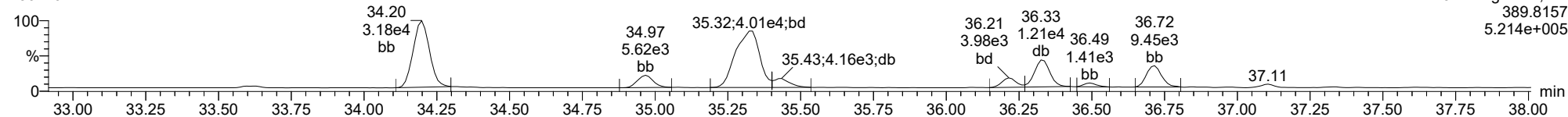
Total-pentadioxins



ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

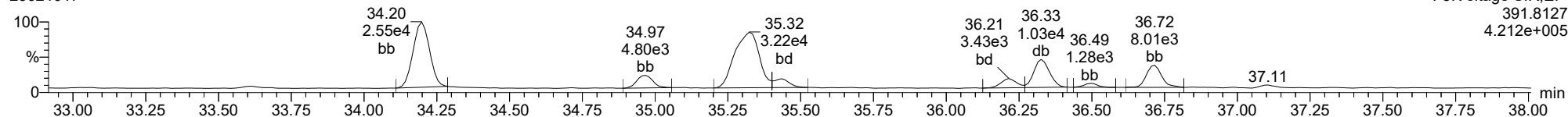
Total-hexadioxins

23021017



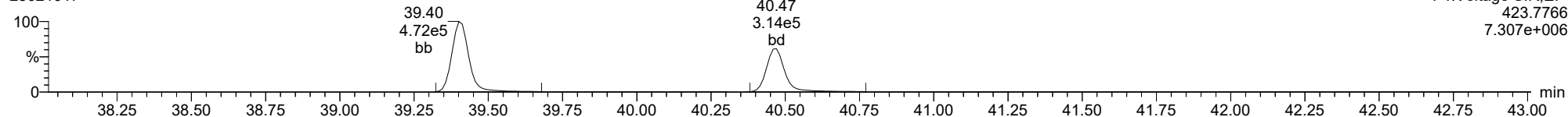
Total-hexadioxins

23021017



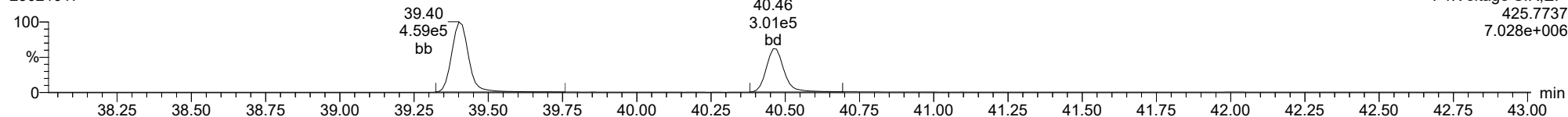
Total-heptadioxins

23021017



Total-heptadioxins

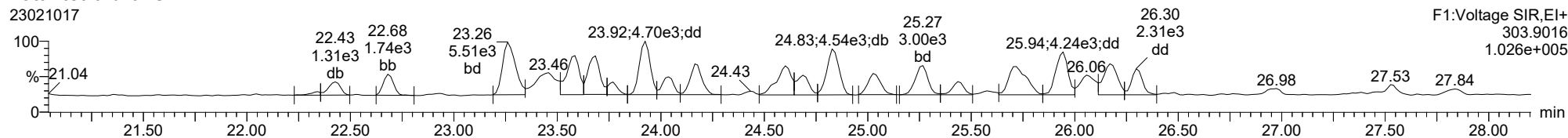
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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

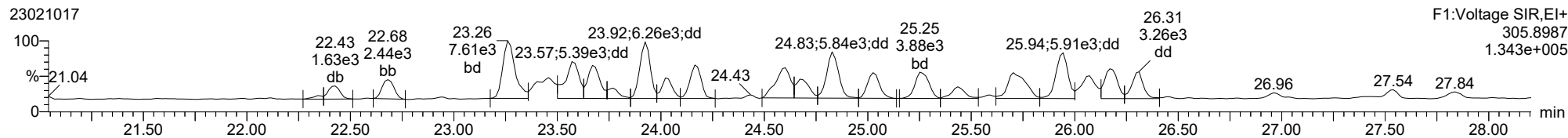
Total-tetrafurans

23021017



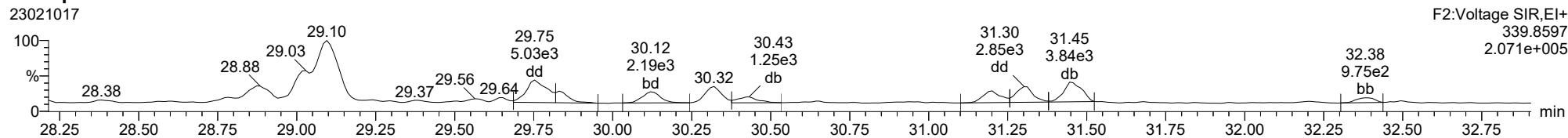
Total-tetrafurans

23021017



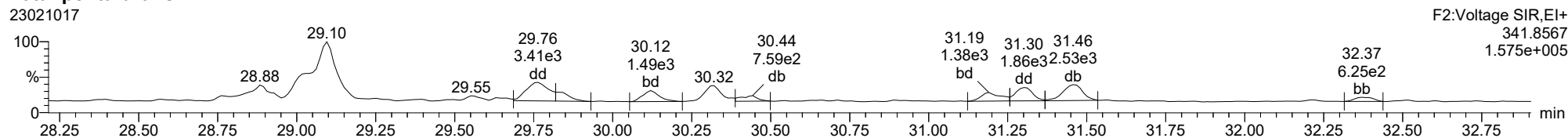
Total-pentafurans

23021017



Total-pentafurans

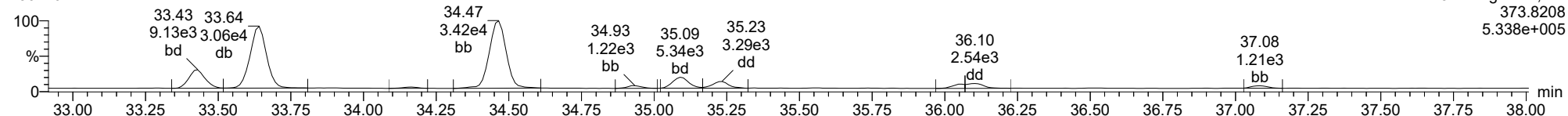
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ID: 23A0032-07, Name: 23021017, Date: 11-Feb-2023, Time: 02:48:26, Conditions: AUTOSPEC01, User: pk

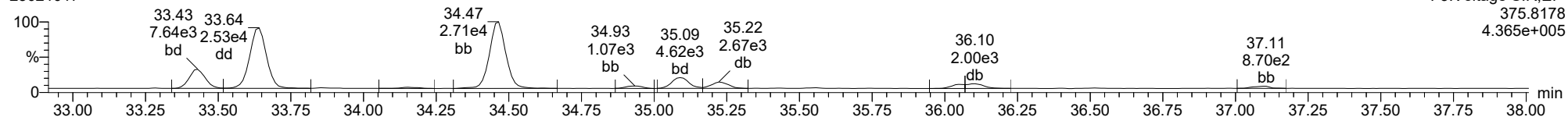
Total-hexafurans

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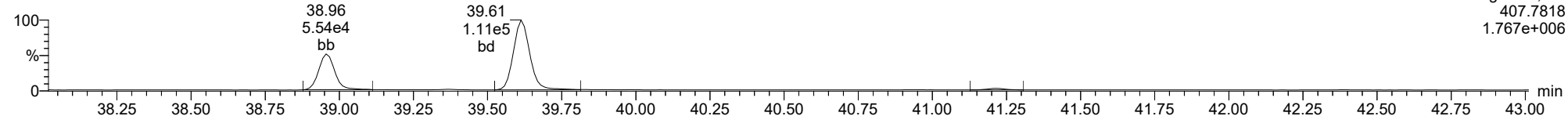
Total-hexafurans

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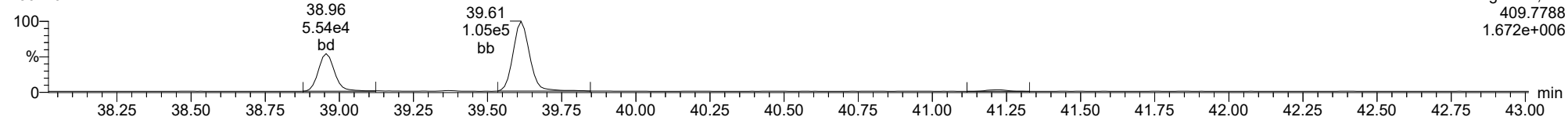
Total-heptafurans

23021017



Total-heptafurans

23021017





Form 1
ORGANIC ANALYSIS DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory: Analytical Resources, LLC SDG: 23A0032
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-08 C File ID: 23021018
 Sampled: 01/03/23 12:35 Prepared: 01/30/23 14:23 Analyzed: 02/11/23 03:37
 % Solids: 62.50 Preparation: EPA 8290 Initial/Final: 16.01 g Wet / 20 uL
 Result Basis: Dry Sequence: SLB0147 Calibration: GB00010
 Batch: BLA0256 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.764	0.655-0.886	0.083	0.999	0.875	ng/kg	X, J
1746-01-6	2,3,7,8-TCDD	1	0.590	0.655-0.886	0.069	0.999	0.421	ng/kg	EMPC, J
57117-41-6	1,2,3,7,8-PeCDF	1	1.204	1.318-1.783	0.167	0.999	0.587	ng/kg	EMPC, J
57117-31-4	2,3,4,7,8-PeCDF	1	1.290	1.318-1.783	0.167	0.999	0.789	ng/kg	EMPC, J
40321-76-4	1,2,3,7,8-PeCDD	1	1.320	1.318-1.783	0.175	0.999	1.44	ng/kg	
70648-26-9	1,2,3,4,7,8-HxCDF	1	1.334	1.054-1.426	0.083	0.999	2.14	ng/kg	
57117-44-9	1,2,3,6,7,8-HxCDF	1	1.314	1.054-1.426	0.079	0.999	0.946	ng/kg	J, B
60851-34-5	2,3,4,6,7,8-HxCDF	1	1.455	1.054-1.426	0.085	0.999	1.42	ng/kg	EMPC
72918-21-9	1,2,3,7,8,9-HxCDF	1	1.322	1.054-1.426	0.096	0.999	0.581	ng/kg	J
39227-28-6	1,2,3,4,7,8-HxCDD	1	1.108	1.054-1.426	0.171	0.999	1.16	ng/kg	
57653-85-7	1,2,3,6,7,8-HxCDD	1	1.067	1.054-1.426	0.163	0.999	4.32	ng/kg	
19408-74-3	1,2,3,7,8,9-HxCDD	1	1.195	1.054-1.426	0.170	0.999	2.83	ng/kg	
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	1.130	0.893-1.208	0.113	0.999	17.8	ng/kg	B
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	0.973	0.893-1.208	0.173	0.999	1.61	ng/kg	
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.007	0.893-1.208	0.324	2.50	110	ng/kg	B
39001-02-0	OCDF	1	0.892	0.757-1.024	0.236	2.50	41.1	ng/kg	B
3268-87-9	OCDD	1	0.886	0.757-1.024	0.470	9.99	841	ng/kg	B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.999	8.99	ng/kg
41903-57-5	Total TCDD	1	0.000			0.999	0.478	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.999	12.7	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.999	6.53	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.999	27.0	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.999	40.4	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.999	55.2	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.999	274	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 5.10
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 5.10

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:44:48 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
 Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.929	1.000	1.639e3	2.145e3	0.876	0.764	0.770	889	992	2.55e4	2.92e4	28.7	29.4	NO	bd	dd	0.438
12378-PeCDF	30.131	1.001	1.241e3	1.030e3	0.845	1.204	1.550	1819	1533	1.84e4	1.53e4	10.1	10.0	YES	bd	bd	0.294
23478-PeCDF	31.456	1.001	1.739e3	1.348e3	0.911	1.290	1.550	1819	1533	3.01e4	2.41e4	16.5	15.7	YES	bb	bb	0.395
123478-HxCDF	35.088	1.001	3.956e3	2.964e3	1.182	1.334	1.240	764	709	6.09e4	5.11e4	79.7	72.0	NO	bd	bd	1.072
234678-HxCDF	36.057	0.999	2.769e3	1.903e3	1.229	1.455	1.240	764	709	2.63e4	1.88e4	34.4	26.5	YES	bb	bb	0.712
123678-HxCDF	35.222	1.001	1.950e3	1.483e3	1.248	1.314	1.240	764	709	3.39e4	2.43e4	44.3	34.3	NO	db	db	0.473
123789-HxCDF	37.060	0.999	9.128e2	6.904e2	1.187	1.322	1.240	764	709	1.29e4	8.85e3	16.9	12.5	NO	bb	bb	0.291
1234678-HpCDF	38.953	1.000	2.792e4	2.472e4	1.204	1.130	1.050	891	989	4.29e5	4.11e5	480.9	415.4	NO	bd	bb	8.912
1234789-HpCDF	41.215	1.000	1.819e3	1.869e3	1.165	0.973	1.050	891	989	2.53e4	2.64e4	28.4	26.7	NO	bb	bb	0.804
OCDF	45.534	1.006	3.809e4	4.272e4	1.186	0.892	0.890	761	1112	4.42e5	5.05e5	579.8	454.5	NO	bb	bb	20.578
2378-TCDD	26.579	1.001	6.829e2	1.158e3	1.236	0.590	0.770	868	693	1.19e4	1.97e4	13.7	28.4	YES	bd	bd	0.211
12378-PeCDD	31.701	1.000	2.245e3	1.701e3	1.087	1.320	1.550	1061	1261	2.77e4	2.08e4	26.2	16.5	NO	bb	bb	0.719
123478-HxCDD	36.202	1.000	1.485e3	1.340e3	0.987	1.108	1.240	961	1294	2.53e4	2.33e4	26.4	18.0	NO	bd	bd	0.580
123678-HxCDD	36.313	1.000	5.781e3	5.416e3	1.021	1.067	1.240	961	1294	9.82e4	8.58e4	102.2	66.3	NO	db	dd	2.160
123789-HxCDD	36.703	1.011	3.805e3	3.184e3	0.985	1.195	1.240	961	1294	6.65e4	5.21e4	69.2	40.3	NO	bb	bb	1.416
1234678-HpCDD	40.468	1.001	1.268e5	1.259e5	1.253	1.007	1.050	1850	1981	1.85e6	1.83e6	1000.3	924.6	NO	bb	bb	54.969
OCDD	45.296	1.000	7.221e5	8.145e5	1.103	0.886	0.890	1674	1797	8.30e6	9.43e6	4957.6	5248.5	NO	bd	bd	420.955
13C-2378-TCDF	25.915	1.007	4.340e5	5.531e5	1.768	0.785	0.770	1746	1390	6.84e6	8.75e6	3917.6	6294.1	NO	bb	bb	101.865
13C-12378-PeCDF	30.097	1.170	5.552e5	3.595e5	1.527	1.544	1.550	1776	1669	8.64e6	5.60e6	4866.7	3357.5	NO	bb	bb	109.286
13C-23478-PeCDF	31.434	1.222	5.206e5	3.373e5	1.466	1.543	1.550	1776	1669	8.04e6	5.24e6	4525.4	3140.5	NO	bb	bb	106.745
13C-123478-HxCDF	35.065	0.956	1.849e5	3.616e5	1.054	0.511	0.510	1270	1339	3.04e6	5.95e6	2391.5	4446.5	NO	bd	bd	114.202
13C-123678-HxCDF	35.199	0.959	1.961e5	3.849e5	1.080	0.510	0.510	1270	1339	3.03e6	5.98e6	2386.5	4465.1	NO	db	db	118.461
13C-234678-HxCDF	36.079	0.983	1.828e5	3.512e5	1.014	0.521	0.510	1270	1339	2.89e6	5.58e6	2275.3	4168.0	NO	bb	bb	115.922
13C-123789-HxCDF	37.082	1.011	1.614e5	3.030e5	0.928	0.533	0.510	1270	1339	2.71e6	5.18e6	2129.4	3866.6	NO	bb	bb	110.198
13C-1234678-HpCDF	38.942	1.061	1.535e5	3.370e5	1.036	0.456	0.440	1178	1655	2.59e6	5.60e6	2195.6	3381.4	NO	bb	bb	104.235
13C-1234789-HpCDF	41.203	1.123	1.228e5	2.710e5	0.905	0.453	0.440	1178	1655	1.75e6	3.89e6	1482.0	2351.1	NO	bb	bb	95.817
13C-1234-TCDD	25.731	0.000	2.447e5	3.034e5	1.000	0.806	0.770	1549	861	3.86e6	4.80e6	2492.6	5577.9	NO	bb	bb	100.000
13C-2378-TCDD	26.551	1.032	3.109e5	3.956e5	1.103	0.786	0.770	1549	861	4.84e6	6.14e6	3125.3	7137.5	NO	bb	bb	116.868
13C-12378-PeCDD	31.690	1.232	3.129e5	1.917e5	0.914	1.632	1.550	1118	789	4.54e6	2.83e6	4059.7	3585.8	NO	bd	bb	100.729
13C-123478-HxCDD	36.191	0.986	2.761e5	2.174e5	0.933	1.270	1.240	866	1062	4.48e6	3.52e6	5177.6	3317.5	NO	bd	bd	116.464
13C-123678-HxCDD	36.302	0.989	2.853e5	2.226e5	0.965	1.282	1.240	866	1062	4.58e6	3.64e6	5285.4	3427.9	NO	db	db	115.926
13C-1234678-HpCDD	40.446	1.102	1.916e5	1.755e5	0.782	1.092	1.050	1410	932	2.95e6	2.70e6	2094.1	2892.7	NO	bb	bb	103.341
13C-OCDD	45.277	1.234	3.150e5	3.471e5	0.788	0.907	0.890	2195	566	3.82e6	4.19e6	1740.4	7394.0	NO	bb	bb	184.937
13C-123789-HxCDD	36.692	0.000	2.545e5	1.997e5	1.000	1.274	1.240	866	1062	4.15e6	3.30e6	4795.5	3106.5	NO	bb	bb	100.000
37CL-2378-TCDD	26.579	1.033	2.685e5		1.233			724		4.19e6		5793.5			bb		39.722

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:44:48 Pacific Standard Time

ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.427	0.865	5.085e2	1.023e3	1.064	0.497	0.770	889	992	7.49e3	1.53e4	8.4	15.4	YES	db	dd	0.146
1289-TCDF	27.525	1.062	4.044e2	6.680e2	0.858	0.605	0.770	889	992	6.36e3	1.02e4	7.1	10.3	YES	dd	db	0.127
13468-PECDF					1.013		1.550	717	773								
12389-PECDF					0.844		1.550	1819	1533								
123468-HXCDF	33.428	0.953	5.265e3	4.141e3	1.197	1.272	1.240	764	709	7.93e4	6.39e4	103.9	90.1	NO	bd	bd	1.437
1368-TCDD	23.684	0.892	1.827e3	2.021e3	1.084	0.904	0.770	868	693	3.15e4	3.22e4	36.2	46.5	YES	bb	bb	0.502
1289-TCDD					0.975		0.770	868	693								
12479-PECDD	28.983	0.915	4.803e3	3.249e3	1.837	1.478	1.550	1061	1261	4.94e4	3.48e4	46.6	27.6	NO	bb	bb	0.868
12389-PECDD	32.102	1.013	4.411e2	5.337e2	1.252	0.827	1.550	1061	1261	8.33e3	7.11e3	7.9	5.6	YES	bd	bd	0.154
124679-HXCDD	34.186	0.945	1.993e4	1.511e4	1.033	1.319	1.240	961	1294	3.08e5	2.48e5	320.7	191.6	NO	bb	bb	6.873
1234679-HPCDD	39.410	0.974	1.992e5	1.882e5	1.286	1.059	1.050	1850	1981	3.06e6	2.91e6	1654.8	1471.1	NO	bd	bb	82.061
Total-tetrafurans			1.792e4		0.933			889		2.52e5							4.497
Total-penta1			1.410e4					717		2.14e5							2.815
Total-pentafurans			1.626e4		0.866			1819		1.86e5							3.516
Total-hexafurans			4.859e4		1.208			764		7.28e5							13.486
Total-heptafurans			7.674e4		1.185			891		1.21e6							27.601
Total-Furans			2.118e5		1.067			889		3.04e6							72.520
Total-tetradoxins			8.166e2		1.099			868		1.32e4							0.239
Total-pentadoxins			1.408e4		1.392			1061		1.84e5							3.266
Total-hexadoxins			5.670e4		1.007			961		8.07e5							20.215
Total-heptadoxins			3.260e5		1.269			1850		4.91e6							137.030
Total-Dioxins			1.120e6		1.165			868		1.42e7							581.705
Total-TEQ			1.331e6					868		1.73e7							654.225
FUNCTION1 PFK			4.018e7					216344		1.12e8							
FUNCTION2 PFK			1.717e5					184817		5.59e6							0.000
FUNCTION3 PFK			5.072e6					166050		1.22e7							0.000
FUNCTION4 PFK			0.000e0					165545		0.00e0							
FUNCTION5 PFK			5.181e4					98735		2.31e6							
FUNCTION1 HXCD...			2.395e3					765		3.53e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			6.352e2					857		1.36e4							0.000
FUNCTION3 OCDPE			1.137e2					586		1.62e3							0.000
FUNCTION4 NCDPE			1.887e3					783		3.34e4							0.000
FUNCTION5 DCDPE			0.000e0					506		0.00e0							

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:44:48 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20**Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40****ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	23.92	1.514e3	2.206e3	0.933	0.69	0.77	26.5	YES	NO	dd	bd	0.404
2	Total-tetrafurans	23.67	1.865e3	2.218e3	0.933	0.84	0.77	33.0	YES	NO	dd	dd	0.443
3	Total-tetrafurans	23.57	1.929e3	2.732e3	0.933	0.71	0.77	27.4	YES	NO	dd	dd	0.506
4	Total-tetrafurans	23.25	2.374e3	3.060e3	0.933	0.78	0.77	35.2	YES	NO	bd	dd	0.590
5	Total-tetrafurans	26.30	5.668e2	7.798e2	0.933	0.73	0.77	9.4	YES	NO	db	db	0.146
6	Total-tetrafurans	26.17	1.070e3	1.486e3	0.933	0.72	0.77	16.6	YES	NO	dd	dd	0.278
7	2378-TCDF	25.93	1.639e3	2.145e3	0.876	0.76	0.77	28.7	YES	NO	bd	dd	0.438
8	Total-tetrafurans	25.43	4.081e2	5.086e2	0.933	0.80	0.77	6.0	YES	NO	dd	dd	0.100
9	Total-tetrafurans	25.25	9.291e2	1.208e3	0.933	0.77	0.77	15.2	YES	NO	bd	bd	0.232
10	Total-tetrafurans	25.03	1.153e3	1.474e3	0.933	0.78	0.77	20.8	YES	NO	db	db	0.285
11	Total-tetrafurans	24.83	2.029e3	2.436e3	0.933	0.83	0.77	30.7	YES	NO	dd	dd	0.485
12	Total-tetrafurans	24.69	7.949e2	9.090e2	0.933	0.87	0.77	13.2	YES	NO	dd	dd	0.185
13	Total-tetrafurans	24.60	1.646e3	2.085e3	0.933	0.79	0.77	21.2	YES	NO	dd	dd	0.405

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	27.37	1.410e4	9.516e3		1.48	1.55	298.5	YES	NO	bb	bb	2.815

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	30.32	1.722e3	1.084e3	0.866	1.59	1.55	15.6	YES	NO	dd	dd	0.365
2	Total-pentafurans	28.84	3.103e3	1.952e3	0.866	1.59	1.55	17.1	YES	NO	bd	dd	0.658
3	Total-pentafurans	31.30	1.600e3	9.943e2	0.866	1.61	1.55	15.8	YES	NO	db	db	0.338
4	Total-pentafurans	29.04	9.839e3	6.709e3	0.866	1.47	1.55	54.0	YES	NO	MM	MM	2.155

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:44:48 Pacific Standard Time

ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDF	35.22	1.950e3	1.483e3	1.248	1.31	1.24	44.3	YES	NO	db	db	0.473
2	123478-HxCDF	35.09	3.956e3	2.964e3	1.182	1.33	1.24	79.7	YES	NO	bd	bd	1.072
3	Total-hexafurans	34.45	1.980e4	1.553e4	1.208	1.27	1.24	392.1	YES	NO	bb	bb	5.502
4	Total-hexafurans	33.64	1.670e4	1.356e4	1.208	1.23	1.24	316.4	YES	NO	db	db	4.711
5	123468-HxCDF	33.43	5.265e3	4.141e3	1.197	1.27	1.24	103.9	YES	NO	bd	bd	1.437
6	123789-HxCDF	37.06	9.128e2	6.904e2	1.187	1.32	1.24	16.9	YES	NO	bb	bb	0.291

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.21	1.819e3	1.869e3	1.165	0.97	1.05	28.4	YES	NO	bb	bb	0.804
2	Total-heptafurans	39.61	4.701e4	4.668e4	1.185	1.01	1.05	848.7	YES	NO	bb	bd	17.885
3	1234678-HpCDF	38.95	2.792e4	2.472e4	1.204	1.13	1.05	480.9	YES	NO	bd	bb	8.912

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:44:48 Pacific Standard Time

ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	23.92	1.514e3	2.206e3	0.933	0.69	0.77	26.5	YES	NO	dd	bd	0.404
2	Total-tetrafurans	23.67	1.865e3	2.218e3	0.933	0.84	0.77	33.0	YES	NO	dd	dd	0.443
3	Total-tetrafurans	23.57	1.929e3	2.732e3	0.933	0.71	0.77	27.4	YES	NO	dd	dd	0.506
4	Total-tetrafurans	23.25	2.374e3	3.060e3	0.933	0.78	0.77	35.2	YES	NO	bd	dd	0.590
5	Total-tetrafurans	26.30	5.668e2	7.798e2	0.933	0.73	0.77	9.4	YES	NO	db	db	0.146
6	Total-tetrafurans	26.17	1.070e3	1.486e3	0.933	0.72	0.77	16.6	YES	NO	dd	dd	0.278
7	2378-TCDF	25.93	1.639e3	2.145e3	0.876	0.76	0.77	28.7	YES	NO	bd	dd	0.438
8	Total-tetrafurans	25.43	4.081e2	5.086e2	0.933	0.80	0.77	6.0	YES	NO	dd	dd	0.100
9	Total-tetrafurans	25.25	9.291e2	1.208e3	0.933	0.77	0.77	15.2	YES	NO	bd	bd	0.232
10	Total-tetrafurans	25.03	1.153e3	1.474e3	0.933	0.78	0.77	20.8	YES	NO	db	db	0.285
11	Total-tetrafurans	24.83	2.029e3	2.436e3	0.933	0.83	0.77	30.7	YES	NO	dd	dd	0.485
12	Total-tetrafurans	24.69	7.949e2	9.090e2	0.933	0.87	0.77	13.2	YES	NO	dd	dd	0.185
13	Total-tetrafurans	24.60	1.646e3	2.085e3	0.933	0.79	0.77	21.2	YES	NO	dd	dd	0.405
14	Total-Furans	27.84	1.131e2	1.654e2	1.067	0.68	0.77	3.5	NO	NO	bb	bb	0.026
15	Total-pentafurans	30.32	1.722e3	1.084e3	0.866	1.59	1.55	15.6	YES	NO	dd	dd	0.365
16	Total-pentafurans	28.84	3.103e3	1.952e3	0.866	1.59	1.55	17.1	YES	NO	bd	dd	0.658
17	Total-pentafurans	31.30	1.600e3	9.943e2	0.866	1.61	1.55	15.8	YES	NO	db	db	0.338
18	123678-HxCDF	35.22	1.950e3	1.483e3	1.248	1.31	1.24	44.3	YES	NO	db	db	0.473
19	123478-HxCDF	35.09	3.956e3	2.964e3	1.182	1.33	1.24	79.7	YES	NO	bd	bd	1.072
20	Total-hexafurans	34.45	1.980e4	1.553e4	1.208	1.27	1.24	392.1	YES	NO	bb	bb	5.502
21	Total-hexafurans	33.64	1.670e4	1.356e4	1.208	1.23	1.24	316.4	YES	NO	db	db	4.711
22	123468-HXCDF	33.43	5.265e3	4.141e3	1.197	1.27	1.24	103.9	YES	NO	bd	bd	1.437
23	123789-HxCDF	37.06	9.128e2	6.904e2	1.187	1.32	1.24	16.9	YES	NO	bb	bb	0.291
24	1234789-HpCDF	41.21	1.819e3	1.869e3	1.165	0.97	1.05	28.4	YES	NO	bb	bb	0.804
25	Total-heptafurans	39.61	4.701e4	4.668e4	1.185	1.01	1.05	848.7	YES	NO	bb	bd	17.885
26	1234678-HpCDF	38.95	2.792e4	2.472e4	1.204	1.13	1.05	480.9	YES	NO	bd	bb	8.912
27	OCDF	45.53	3.809e4	4.272e4	1.186	0.89	0.89	579.8	YES	NO	bb	bb	20.578
28	Total-penta1	27.37	1.410e4	9.516e3		1.48	1.55	298.5	YES	NO	bb	bb	2.815
29	Total-pentafurans	29.04	9.839e3	6.709e3	0.866	1.47	1.55	54.0	YES	NO	MM	MM	2.155

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	24.19	3.148e2	3.924e2	1.099	0.80	0.77	4.7	YES	NO	bb	bb	0.091
2	Total-tetradioxins	26.71	2.225e2	3.235e2	1.099	0.69	0.77	4.6	YES	NO	db	db	0.070
3	Total-tetradioxins	25.53	2.792e2	3.247e2	1.099	0.86	0.77	5.9	YES	NO	bb	bb	0.078

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:44:48 Pacific Standard Time

ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.70	2.245e3	1.701e3	1.087	1.32	1.55	26.2	YES	NO	bb	bb	0.719
2	Total-pentadioxins	30.63	1.446e3	9.683e2	1.392	1.49	1.55	16.0	YES	NO	db	db	0.344
3	Total-pentadioxins	30.46	1.319e3	9.552e2	1.392	1.38	1.55	20.2	YES	NO	dd	dd	0.324
4	Total-pentadioxins	30.31	2.347e3	1.454e3	1.392	1.61	1.55	37.9	YES	NO	bd	bd	0.541
5	Total-pentadioxins	30.10	1.922e3	1.379e3	1.392	1.39	1.55	27.0	YES	NO	bb	bb	0.470
6	12479-PECDD	28.98	4.803e3	3.249e3	1.837	1.48	1.55	46.6	YES	NO	bb	bb	0.868

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	35.32	2.047e4	1.618e4	1.007	1.26	1.24	234.2	YES	NO	bd	bd	7.272
2	Total-hexadioxins	34.97	3.486e3	2.828e3	1.007	1.23	1.24	55.3	YES	NO	bb	bb	1.253
3	124679-HXCDD	34.19	1.993e4	1.511e4	1.033	1.32	1.24	320.7	YES	NO	bb	bb	6.873
4	123789-HxCDD	36.70	3.805e3	3.184e3	0.985	1.20	1.24	69.2	YES	NO	bb	bb	1.416
5	123678-HxCDD	36.31	5.781e3	5.416e3	1.021	1.07	1.24	102.2	YES	NO	db	dd	2.160
6	123478-HxCDD	36.20	1.485e3	1.340e3	0.987	1.11	1.24	26.4	YES	NO	bd	bd	0.580
7	Total-hexadioxins	35.43	1.749e3	1.575e3	1.007	1.11	1.24	32.1	YES	NO	db	db	0.660

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.47	1.268e5	1.259e5	1.253	1.01	1.05	1000.3	YES	NO	bb	bb	54.969
2	1234679-HPCDD	39.41	1.992e5	1.882e5	1.286	1.06	1.05	1654.8	YES	NO	bd	bb	82.061

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:44:48 Pacific Standard Time

ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	24.19	3.148e2	3.924e2	1.099	0.80	0.77	4.7	YES	NO	bb	bb	0.091
2	Total-tetradoxins	26.71	2.225e2	3.235e2	1.099	0.69	0.77	4.6	YES	NO	db	db	0.070
3	Total-tetradoxins	25.53	2.792e2	3.247e2	1.099	0.86	0.77	5.9	YES	NO	bb	bb	0.078
4	12378-PeCDD	31.70	2.245e3	1.701e3	1.087	1.32	1.55	26.2	YES	NO	bb	bb	0.719
5	Total-pentadoxins	30.63	1.446e3	9.683e2	1.392	1.49	1.55	16.0	YES	NO	db	db	0.344
6	Total-pentadoxins	30.46	1.319e3	9.552e2	1.392	1.38	1.55	20.2	YES	NO	dd	dd	0.324
7	Total-pentadoxins	30.31	2.347e3	1.454e3	1.392	1.61	1.55	37.9	YES	NO	bd	bd	0.541
8	Total-pentadoxins	30.10	1.922e3	1.379e3	1.392	1.39	1.55	27.0	YES	NO	bb	bb	0.470
9	12479-PECDD	28.98	4.803e3	3.249e3	1.837	1.48	1.55	46.6	YES	NO	bb	bb	0.868
10	Total-hexadoxins	35.32	2.047e4	1.618e4	1.007	1.26	1.24	234.2	YES	NO	bd	bd	7.272
11	Total-hexadoxins	34.97	3.486e3	2.828e3	1.007	1.23	1.24	55.3	YES	NO	bb	bb	1.253
12	124679-HxCDD	34.19	1.993e4	1.511e4	1.033	1.32	1.24	320.7	YES	NO	bb	bb	6.873
13	123789-HxCDD	36.70	3.805e3	3.184e3	0.985	1.20	1.24	69.2	YES	NO	bb	bb	1.416
14	123678-HxCDD	36.31	5.781e3	5.416e3	1.021	1.07	1.24	102.2	YES	NO	db	dd	2.160
15	123478-HxCDD	36.20	1.485e3	1.340e3	0.987	1.11	1.24	26.4	YES	NO	bd	bd	0.580
16	Total-hexadoxins	35.43	1.749e3	1.575e3	1.007	1.11	1.24	32.1	YES	NO	db	db	0.660
17	1234678-HpCDD	40.47	1.268e5	1.259e5	1.253	1.01	1.05	1000.3	YES	NO	bb	bb	54.969
18	1234679-HPCDD	39.41	1.992e5	1.882e5	1.286	1.06	1.05	1654.8	YES	NO	bd	bb	82.061
19	OCDD	45.30	7.221e5	8.145e5	1.103	0.89	0.89	4957.6	YES	NO	bd	bd	420.955

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	23.92	1.514e3	2.206e3	0.933	0.69	0.77	26.5	YES	NO	dd	bd	0.404
2	Total-tetrafurans	23.67	1.865e3	2.218e3	0.933	0.84	0.77	33.0	YES	NO	dd	dd	0.443
3	Total-tetrafurans	23.57	1.929e3	2.732e3	0.933	0.71	0.77	27.4	YES	NO	dd	dd	0.506
4	Total-tetrafurans	23.25	2.374e3	3.060e3	0.933	0.78	0.77	35.2	YES	NO	bd	dd	0.590
5	Total-tetrafurans	26.30	5.668e2	7.798e2	0.933	0.73	0.77	9.4	YES	NO	db	db	0.146
6	Total-tetrafurans	26.17	1.070e3	1.486e3	0.933	0.72	0.77	16.6	YES	NO	dd	dd	0.278
7	2378-TCDF	25.93	1.639e3	2.145e3	0.876	0.76	0.77	28.7	YES	NO	bd	dd	0.438
8	Total-tetrafurans	25.43	4.081e2	5.086e2	0.933	0.80	0.77	6.0	YES	NO	dd	dd	0.100
9	Total-tetrafurans	25.25	9.291e2	1.208e3	0.933	0.77	0.77	15.2	YES	NO	bd	bd	0.232
10	Total-tetrafurans	25.03	1.153e3	1.474e3	0.933	0.78	0.77	20.8	YES	NO	db	db	0.285
11	Total-tetrafurans	24.83	2.029e3	2.436e3	0.933	0.83	0.77	30.7	YES	NO	dd	dd	0.485
12	Total-tetrafurans	24.69	7.949e2	9.090e2	0.933	0.87	0.77	13.2	YES	NO	dd	dd	0.185
13	Total-tetrafurans	24.60	1.646e3	2.085e3	0.933	0.79	0.77	21.2	YES	NO	dd	dd	0.405
14	Total-Furans	27.84	1.131e2	1.654e2	1.067	0.68	0.77	3.5	NO	NO	bb	bb	0.026
15	Total-penta furans	30.32	1.722e3	1.084e3	0.866	1.59	1.55	15.6	YES	NO	dd	dd	0.365
16	Total-penta furans	28.84	3.103e3	1.952e3	0.866	1.59	1.55	17.1	YES	NO	bd	dd	0.658
17	Total-penta furans	31.30	1.600e3	9.943e2	0.866	1.61	1.55	15.8	YES	NO	db	db	0.338
18	123678-HxCDF	35.22	1.950e3	1.483e3	1.248	1.31	1.24	44.3	YES	NO	db	db	0.473
19	123478-HxCDF	35.09	3.956e3	2.964e3	1.182	1.33	1.24	79.7	YES	NO	bd	bd	1.072
20	Total-hexa furans	34.45	1.980e4	1.553e4	1.208	1.27	1.24	392.1	YES	NO	bb	bb	5.502
21	Total-hexa furans	33.64	1.670e4	1.356e4	1.208	1.23	1.24	316.4	YES	NO	db	db	4.711
22	123468-HXCDF	33.43	5.265e3	4.141e3	1.197	1.27	1.24	103.9	YES	NO	bd	bd	1.437
23	123789-HxCDF	37.06	9.128e2	6.904e2	1.187	1.32	1.24	16.9	YES	NO	bb	bb	0.291
24	1234789-HpCDF	41.21	1.819e3	1.869e3	1.165	0.97	1.05	28.4	YES	NO	bb	bb	0.804
25	Total-hepta furans	39.61	4.701e4	4.668e4	1.185	1.01	1.05	848.7	YES	NO	bb	bd	17.885
26	1234678-HpCDF	38.95	2.792e4	2.472e4	1.204	1.13	1.05	480.9	YES	NO	bd	bb	8.912
27	OCDF	45.53	3.809e4	4.272e4	1.186	0.89	0.89	579.8	YES	NO	bb	bb	20.578
28	Total-penta 1	27.37	1.410e4	9.516e3		1.48	1.55	298.5	YES	NO	bb	bb	2.815
29	Total-penta furans	29.04	9.839e3	6.709e3	0.866	1.47	1.55	54.0	YES	NO	MM	MM	2.155
30	Total-tetra dioxins	24.19	3.148e2	3.924e2	1.099	0.80	0.77	4.7	YES	NO	bb	bb	0.091
31	Total-tetra dioxins	26.71	2.225e2	3.235e2	1.099	0.69	0.77	4.6	YES	NO	db	db	0.070
32	Total-tetra dioxins	25.53	2.792e2	3.247e2	1.099	0.86	0.77	5.9	YES	NO	bb	bb	0.078
33	12378-PeCDD	31.70	2.245e3	1.701e3	1.087	1.32	1.55	26.2	YES	NO	bb	bb	0.719
34	Total-penta dioxins	30.63	1.446e3	9.683e2	1.392	1.49	1.55	16.0	YES	NO	db	db	0.344
35	Total-penta dioxins	30.46	1.319e3	9.552e2	1.392	1.38	1.55	20.2	YES	NO	dd	dd	0.324
36	Total-penta dioxins	30.31	2.347e3	1.454e3	1.392	1.61	1.55	37.9	YES	NO	bd	bd	0.541
37	Total-penta dioxins	30.10	1.922e3	1.379e3	1.392	1.39	1.55	27.0	YES	NO	bb	bb	0.470

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:44:48 Pacific Standard Time

ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	12479-PECDD	28.98	4.803e3	3.249e3	1.837	1.48	1.55	46.6	YES	NO	bb	bb	0.868
39	Total-hexadioxins	35.32	2.047e4	1.618e4	1.007	1.26	1.24	234.2	YES	NO	bd	bd	7.272
40	Total-hexadioxins	34.97	3.486e3	2.828e3	1.007	1.23	1.24	55.3	YES	NO	bb	bb	1.253
41	124679-HxCDD	34.19	1.993e4	1.511e4	1.033	1.32	1.24	320.7	YES	NO	bb	bb	6.873
42	123789-HxCDD	36.70	3.805e3	3.184e3	0.985	1.20	1.24	69.2	YES	NO	bb	bb	1.416
43	123678-HxCDD	36.31	5.781e3	5.416e3	1.021	1.07	1.24	102.2	YES	NO	db	dd	2.160
44	123478-HxCDD	36.20	1.485e3	1.340e3	0.987	1.11	1.24	26.4	YES	NO	bd	bd	0.580
45	Total-hexadioxins	35.43	1.749e3	1.575e3	1.007	1.11	1.24	32.1	YES	NO	db	db	0.660
46	1234678-HpCDD	40.47	1.268e5	1.259e5	1.253	1.01	1.05	1000.3	YES	NO	bb	bb	54.969
47	1234679-HPCDD	39.41	1.992e5	1.882e5	1.286	1.06	1.05	1654.8	YES	NO	bd	bb	82.061
48	OCDD	45.30	7.221e5	8.145e5	1.103	0.89	0.89	4957.6	YES	NO	bd	bd	420.955

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	27.72	8.261e4					5.0	YES		bb		
2	FUNCTION1 PFK	23.95	1.049e6					7.9	YES		db		
3	FUNCTION1 PFK	23.15	1.855e7					54.2	YES		bd		
4	FUNCTION1 PFK	22.12	2.692e6					98.6	YES		db		
5	FUNCTION1 PFK	22.03	4.394e6					96.0	YES		dd		
6	FUNCTION1 PFK	21.76	3.385e6					88.1	YES		dd		
7	FUNCTION1 PFK	21.57	3.131e6					83.5	YES		dd		
8	FUNCTION1 PFK	21.24	6.903e6					82.7	YES		bd		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.94	2.388e3					0.6	NO		bd		0.000
2	FUNCTION2 PFK	28.88	1.319e4					1.8	NO		bb		0.000
3	FUNCTION2 PFK	28.63	4.451e3					1.0	NO		bb		0.000
4	FUNCTION2 PFK	28.38	5.394e3					0.9	NO		bb		0.000
5	FUNCTION2 PFK	28.33	7.713e2					0.4	NO		bb		0.000
6	FUNCTION2 PFK	31.51	4.071e3					0.9	NO		bb		0.000
7	FUNCTION2 PFK	31.33	1.060e4					1.7	NO		db		0.000
8	FUNCTION2 PFK	31.31	1.787e4					2.7	NO		bd		0.000
9	FUNCTION2 PFK	31.07	7.765e3					1.2	NO		bb		0.000
10	FUNCTION2 PFK	30.83	2.510e3					0.8	NO		bb		0.000
11	FUNCTION2 PFK	30.58	2.822e3					0.8	NO		bb		0.000
12	FUNCTION2 PFK	30.43	2.504e3					0.6	NO		bb		0.000
13	FUNCTION2 PFK	30.39	9.868e3					1.6	NO		db		0.000
14	FUNCTION2 PFK	30.33	7.474e3					1.4	NO		bd		0.000
15	FUNCTION2 PFK	30.14	9.468e3					1.4	NO		bb		0.000
16	FUNCTION2 PFK	30.07	1.823e3					0.6	NO		bb		0.000
17	FUNCTION2 PFK	29.76	4.081e3					1.0	NO		bb		0.000
18	FUNCTION2 PFK	29.26	5.452e3					0.7	NO		db		0.000
19	FUNCTION2 PFK	29.13	1.691e4					1.2	NO		bd		0.000
20	FUNCTION2 PFK	29.03	5.162e3					1.1	NO		bb		0.000
21	FUNCTION2 PFK	28.97	4.352e3					1.0	NO		db		0.000
22	FUNCTION2 PFK	32.58	4.544e3					0.9	NO		db		0.000
23	FUNCTION2 PFK	32.55	5.472e3					1.2	NO		bd		0.000
24	FUNCTION2 PFK	32.49	3.533e3					0.7	NO		bb		0.000
25	FUNCTION2 PFK	32.19	3.809e3					0.9	NO		bb		0.000
26	FUNCTION2 PFK	32.10	5.386e3					1.2	NO		bb		0.000
27	FUNCTION2 PFK	31.67	9.196e3					1.4	NO		bb		0.000
28	FUNCTION2 PFK	31.57	8.109e2					0.4	NO		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.64	1.963e5					7.2	YES		bb		0.000
2	FUNCTION3 PFK	37.19	8.997e5					23.6	YES		bb		0.000
3	FUNCTION3 PFK	36.93	3.976e6					42.4	YES		bb		0.000

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PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	43.16	2.028e3					1.2	NO		bb		
2	FUNCTION5 PFK	43.13	5.740e3					1.6	NO		bb		
3	FUNCTION5 PFK	43.07	6.983e2					0.8	NO		bb		
4	FUNCTION5 PFK	46.10	3.488e3					1.6	NO		bd		
5	FUNCTION5 PFK	46.01	5.430e2					0.6	NO		bb		
6	FUNCTION5 PFK	45.84	6.208e2					0.7	NO		bb		
7	FUNCTION5 PFK	45.81	7.150e2					0.8	NO		bb		
8	FUNCTION5 PFK	45.58	1.097e3					0.7	NO		bb		
9	FUNCTION5 PFK	45.37	1.203e3					0.8	NO		bb		
10	FUNCTION5 PFK	44.95	1.530e3					1.0	NO		bb		
11	FUNCTION5 PFK	44.90	1.643e3					0.7	NO		bb		
12	FUNCTION5 PFK	44.60	2.849e3					1.4	NO		bb		
13	FUNCTION5 PFK	44.48	2.322e3					1.1	NO		bb		
14	FUNCTION5 PFK	44.36	3.867e3					1.6	NO		bb		
15	FUNCTION5 PFK	44.32	3.011e3					1.5	NO		bb		
16	FUNCTION5 PFK	44.23	3.593e3					1.3	NO		bb		
17	FUNCTION5 PFK	43.74	3.054e3					1.0	NO		bb		
18	FUNCTION5 PFK	43.68	3.767e3					1.3	NO		bb		
19	FUNCTION5 PFK	43.31	5.293e3					1.5	NO		bb		
20	FUNCTION5 PFK	46.36	1.359e3					0.8	NO		bb		
21	FUNCTION5 PFK	46.15	3.392e3					1.4	NO		db		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Printed: Monday, February 13, 2023 11:44:48 Pacific Standard Time

ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk**ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.28	2.766e2					5.5	YES		bb		0.000
2	FUNCTION1 HXCD...	26.06	8.359e2					18.2	YES		db		0.000
3	FUNCTION1 HXCD...	25.92	3.797e2					5.2	YES		bd		0.000
4	FUNCTION1 HXCD...	25.70	9.895e1					2.2	NO		bb		0.000
5	FUNCTION1 HXCD...	25.27	1.027e2					3.1	YES		bb		0.000
6	FUNCTION1 HXCD...	24.01	8.211e1					1.6	NO		bb		0.000
7	FUNCTION1 HXCD...	23.91	1.327e2					3.6	YES		bb		0.000
8	FUNCTION1 HXCD...	22.47	4.860e2					6.5	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.65	8.704e1					2.4	NO		bd		0.000
2	FUNCTION2 HPCD...	30.03	1.133e2					3.7	YES		bb		0.000
3	FUNCTION2 HPCD...	29.12	1.828e2					3.1	YES		bb		0.000
4	FUNCTION2 HPCD...	28.45	7.077e1					2.2	NO		bb		0.000
5	FUNCTION2 HPCD...	32.72	1.083e2					2.0	NO		bb		0.000
6	FUNCTION2 HPCD...	31.69	7.305e1					2.4	NO		db		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.13	1.137e2					2.8	NO		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	38.56	1.887e3					42.7	YES		bb		0.000

ETHERS6

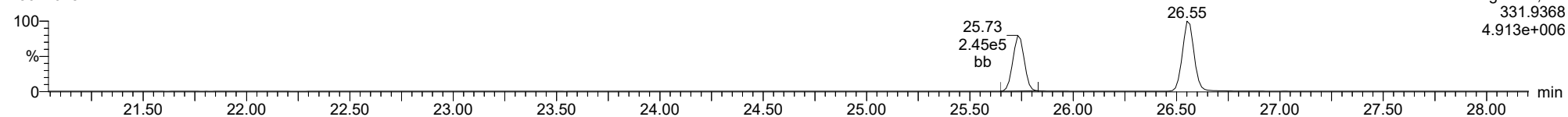
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD

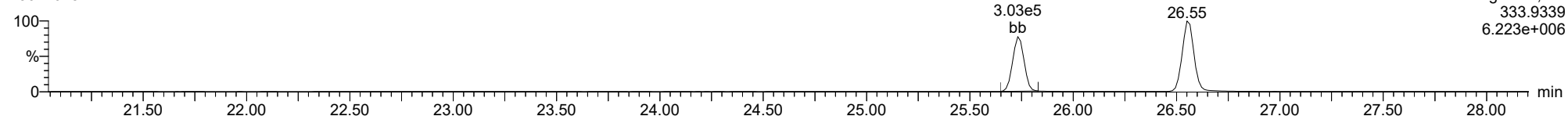
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F1:Voltage SIR,El+
331.9368
4.913e+006

13C-1234-TCDD

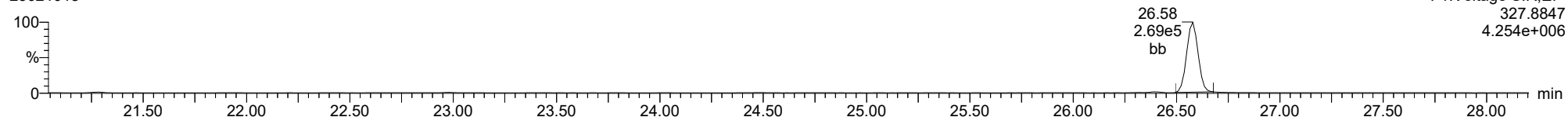
23021018



F1:Voltage SIR,El+
333.9339
6.223e+006

37CL-2378-TCDD

23021018

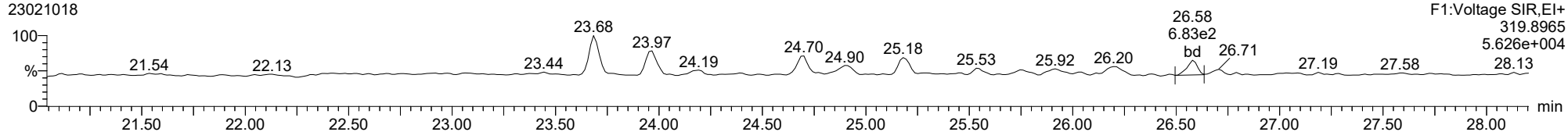


F1:Voltage SIR,El+
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4.254e+006

ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

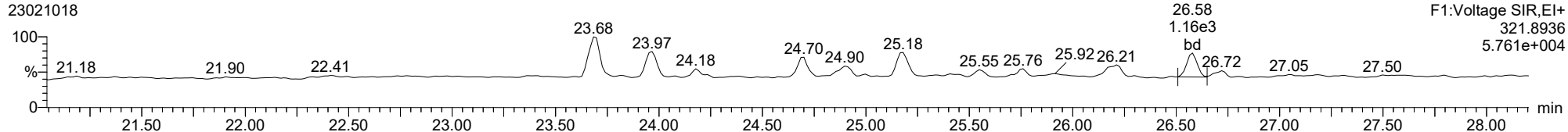
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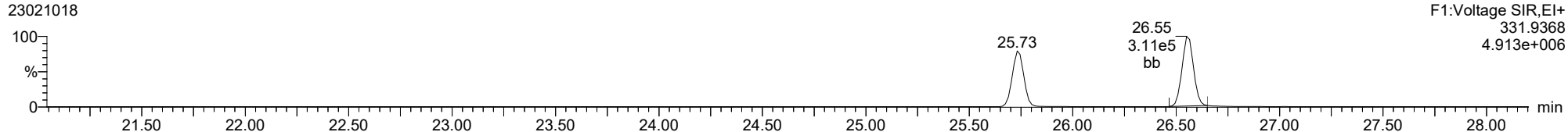
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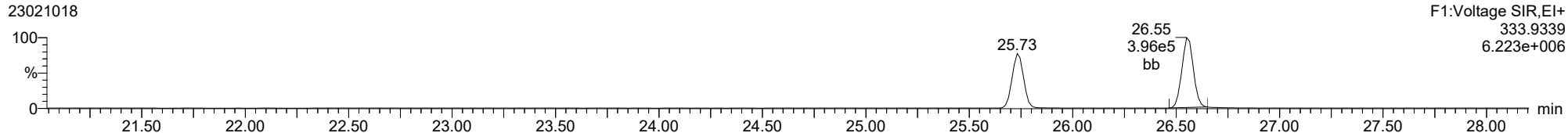
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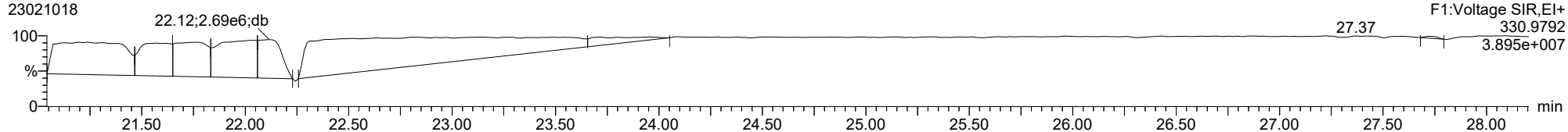
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23021018



FUNCTION1 PFK

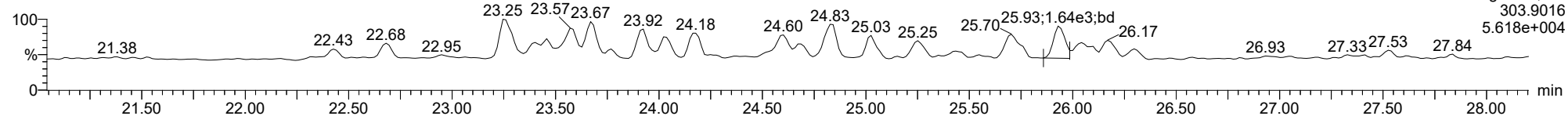
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ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

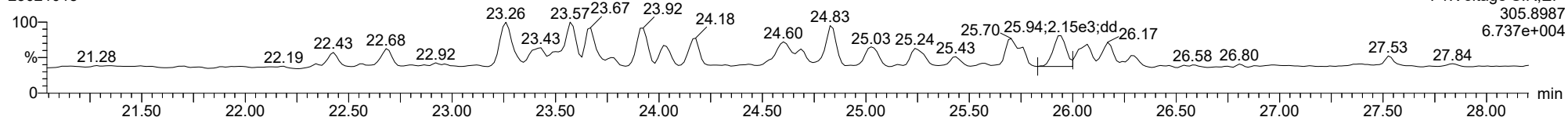
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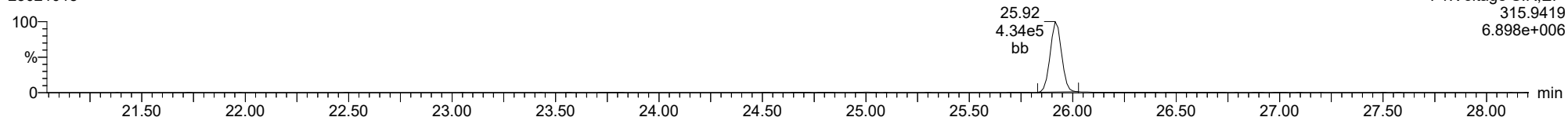
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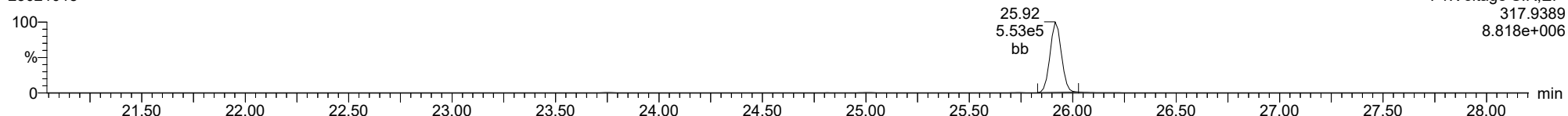
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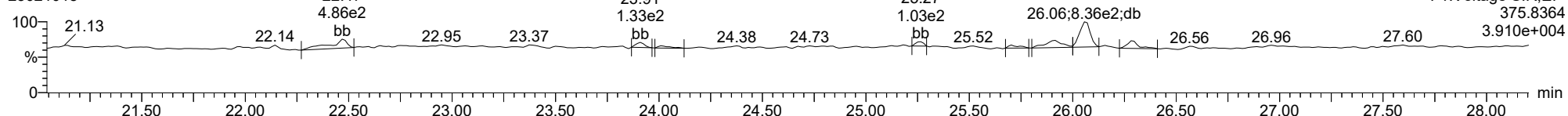
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FUNCTION1 HXCDPE

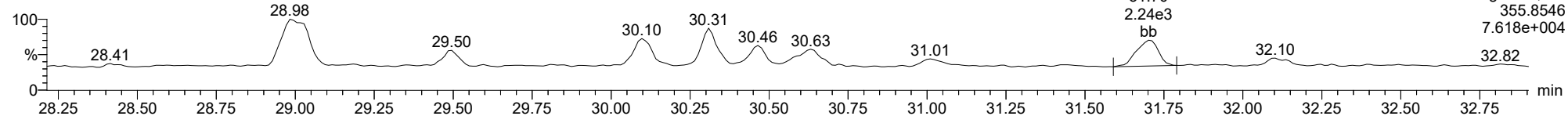
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ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

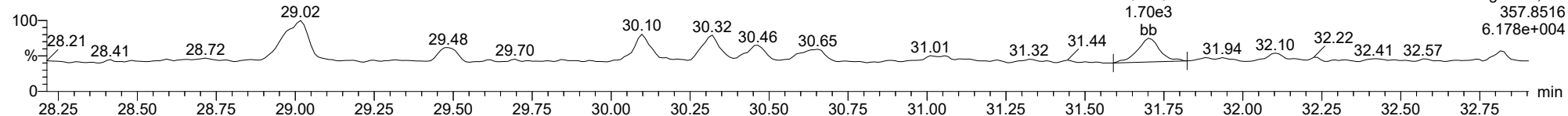
12378-PeCDD

23021018



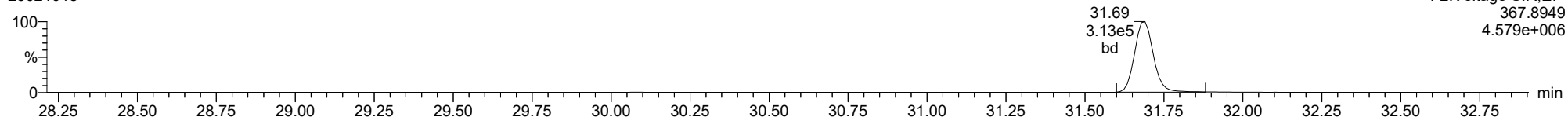
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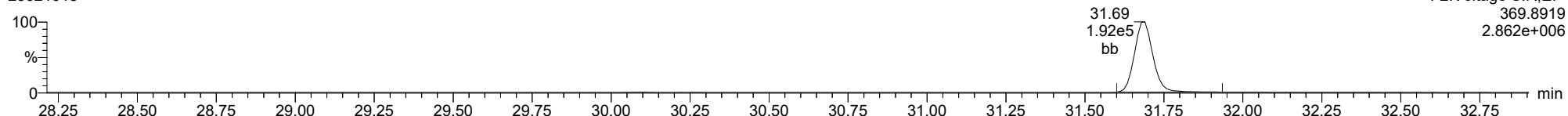
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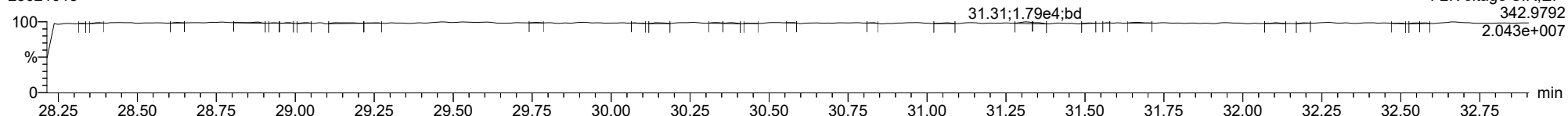
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FUNCTION2 PFK

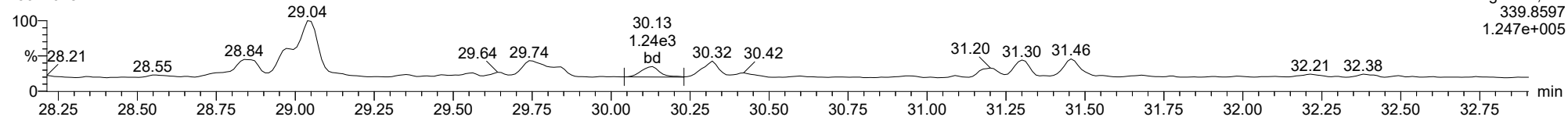
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ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

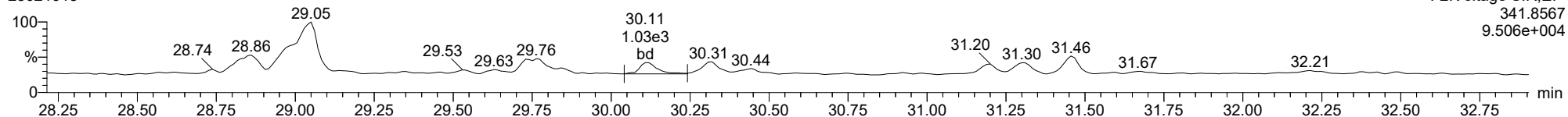
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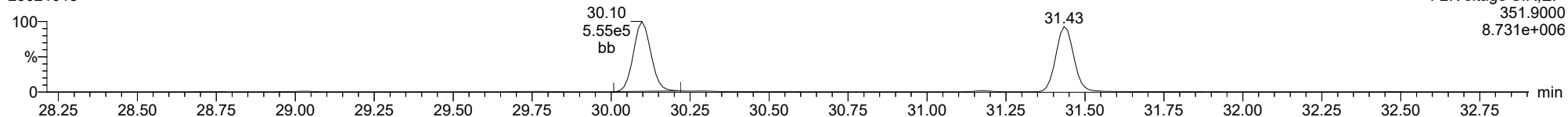
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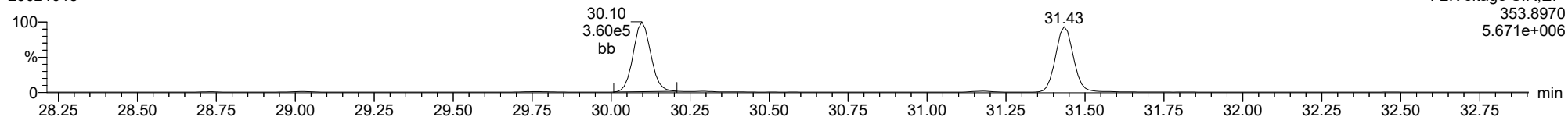
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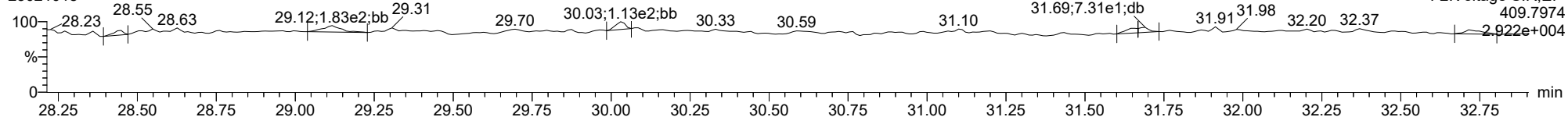
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FUNCTION2 HPCDPE

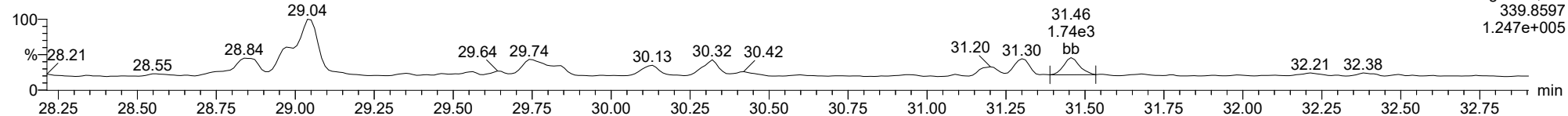
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ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

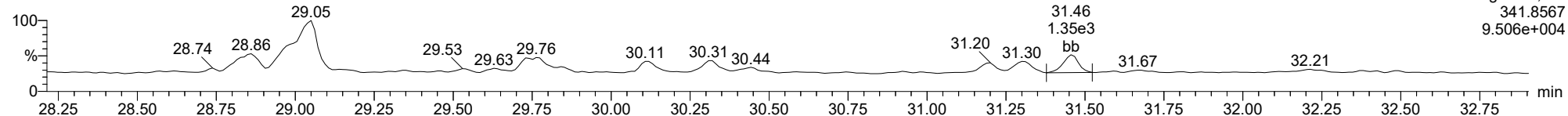
23478-PeCDF

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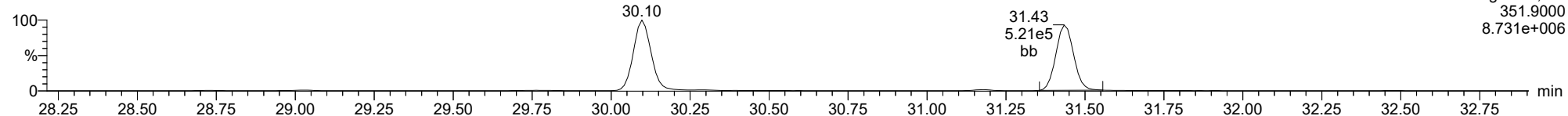
23478-PeCDF

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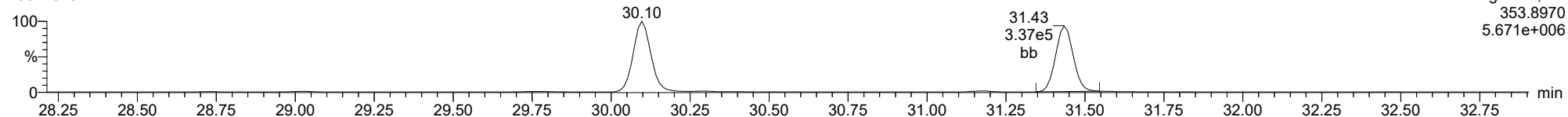
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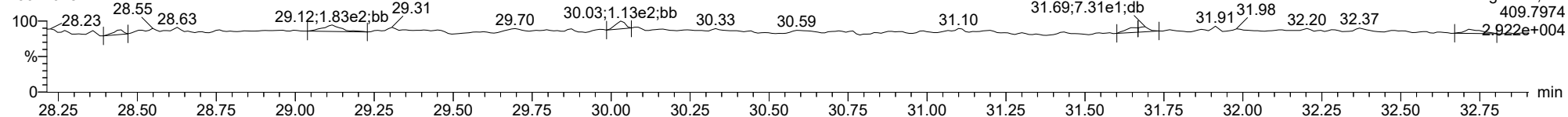
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FUNCTION2 HPCDPE

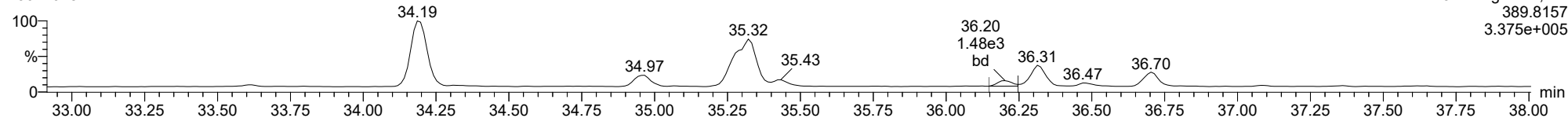
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ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

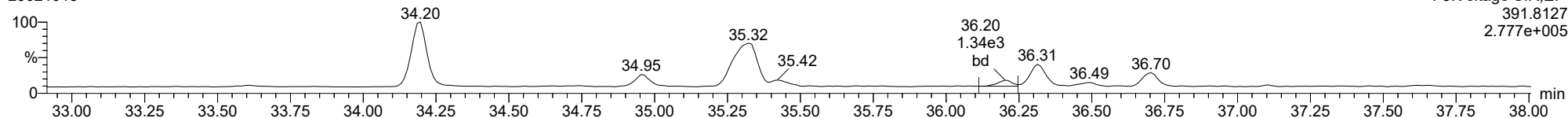
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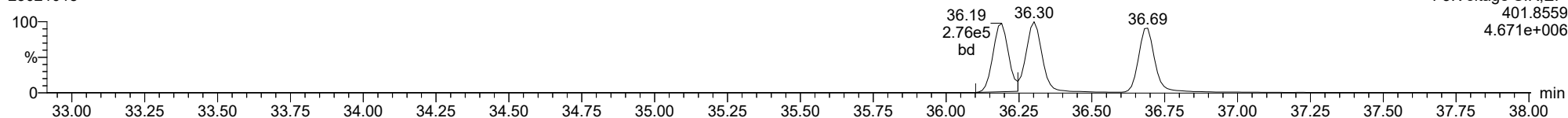
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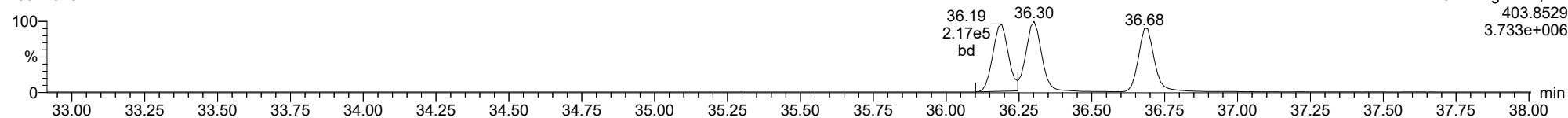
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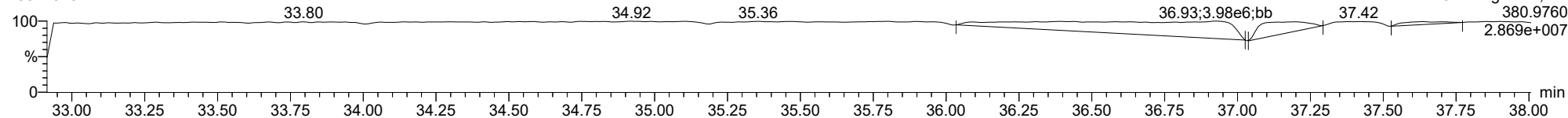
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FUNCTION3 PFK

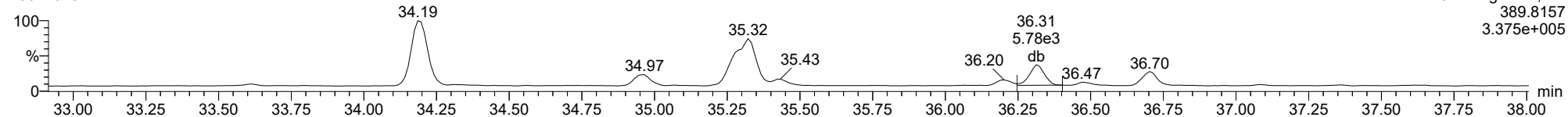
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ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

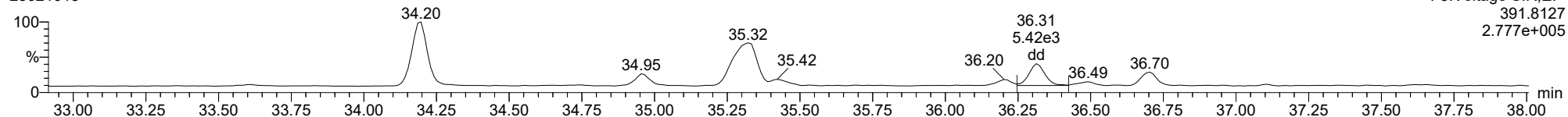
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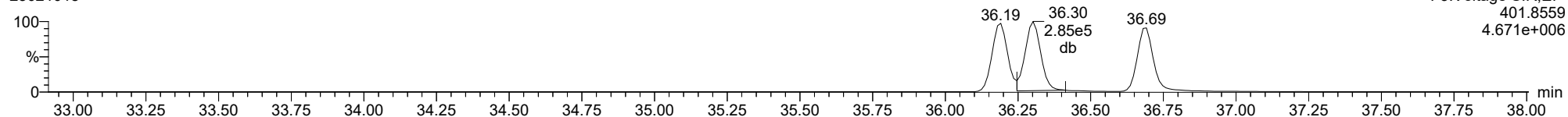
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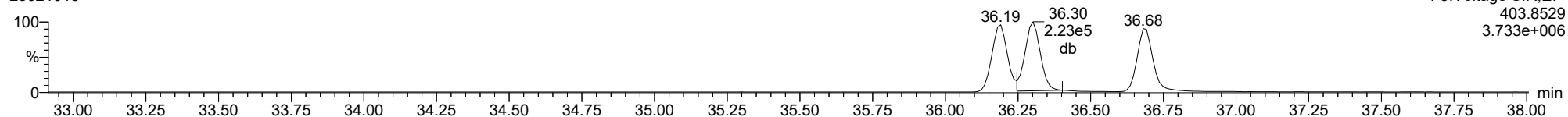
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13C-123678-HxCDD

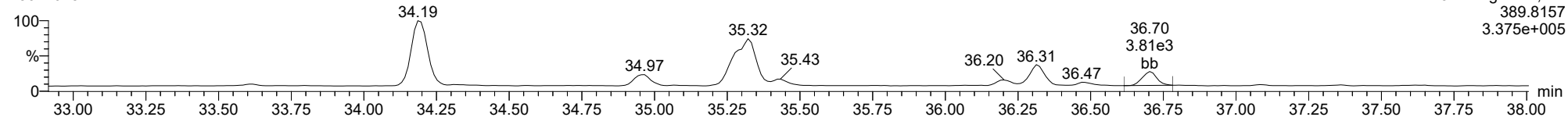
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ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

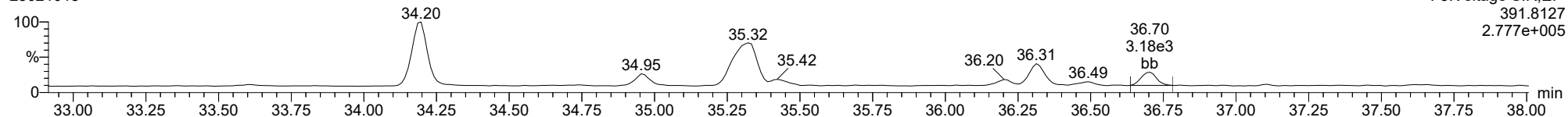
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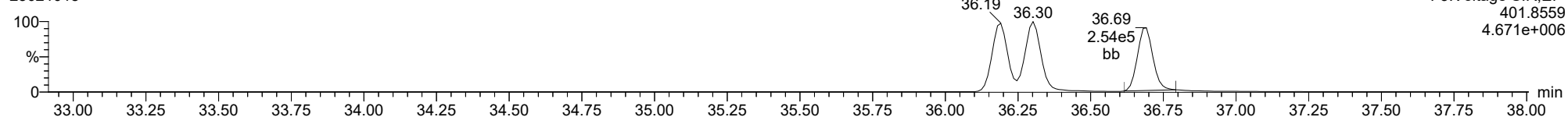
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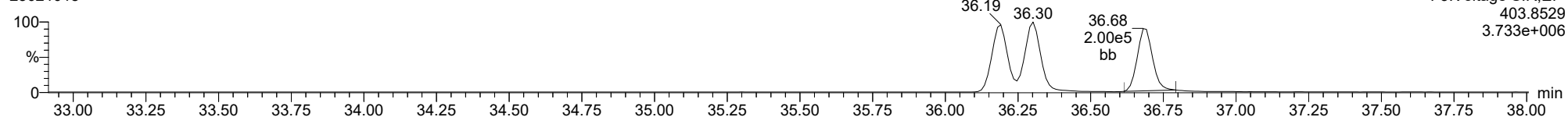
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13C-123789-HxCDD

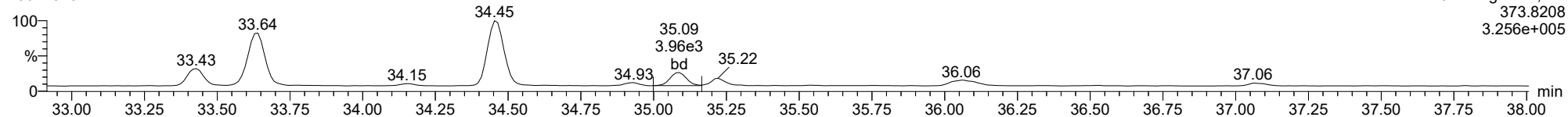
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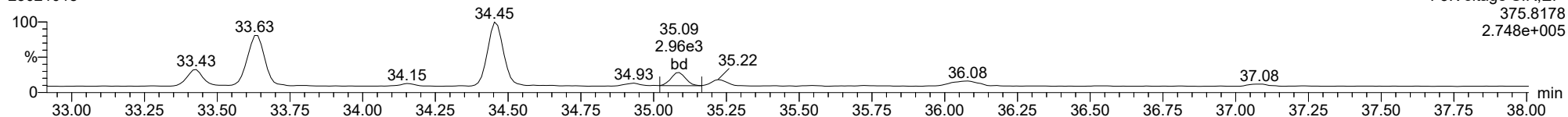
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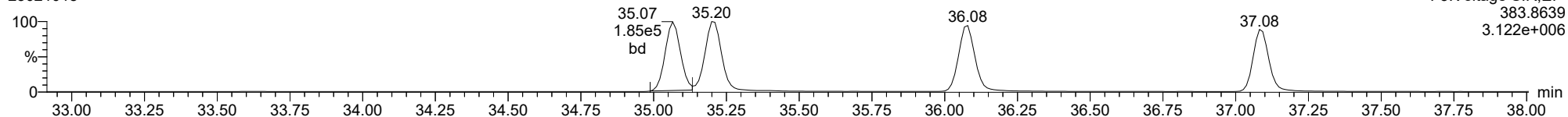
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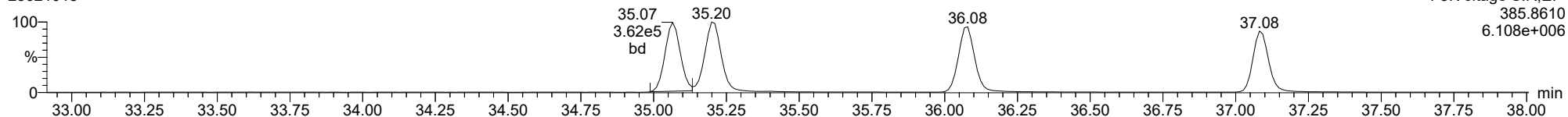
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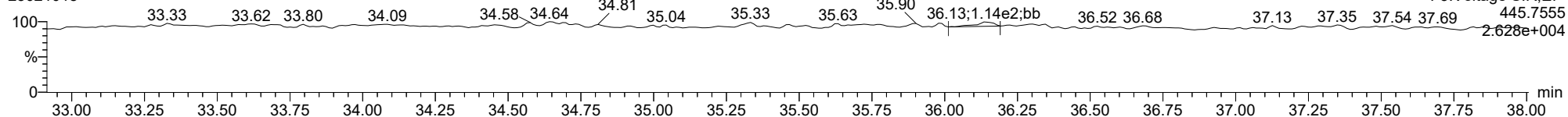
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23021018



FUNCTION3 OCDPE

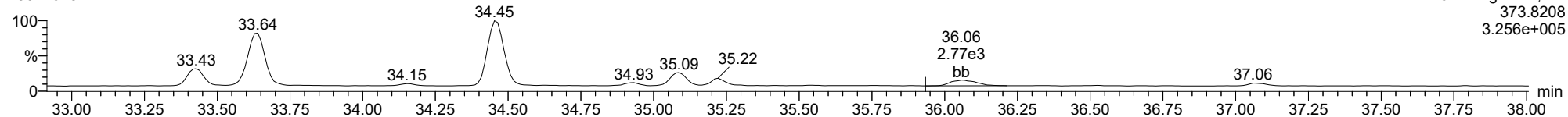
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ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

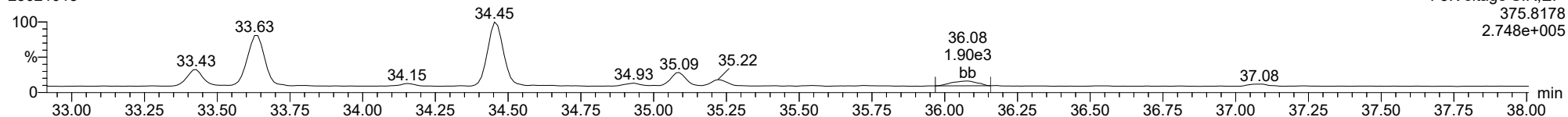
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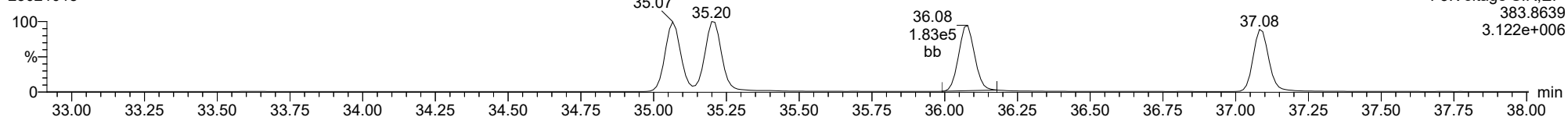
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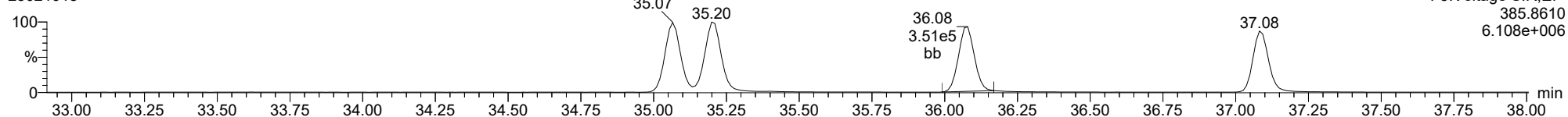
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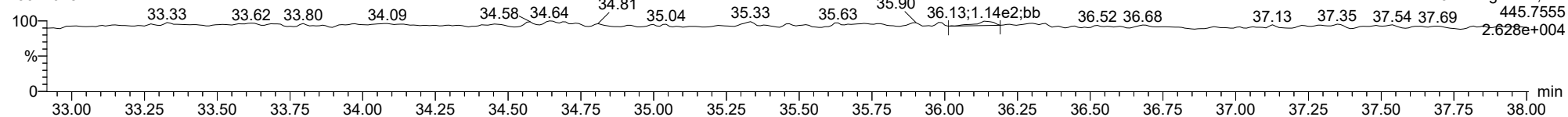
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FUNCTION3 OCDPE

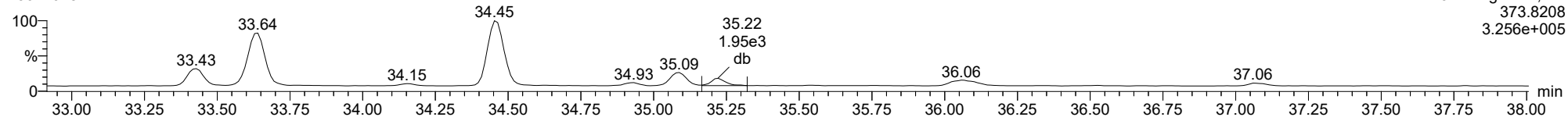
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ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

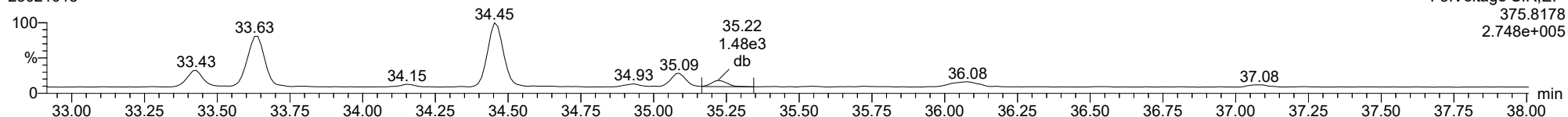
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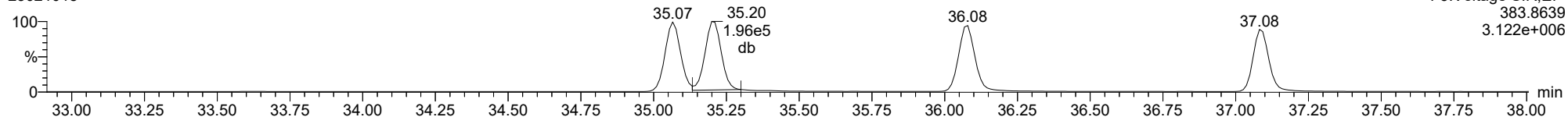
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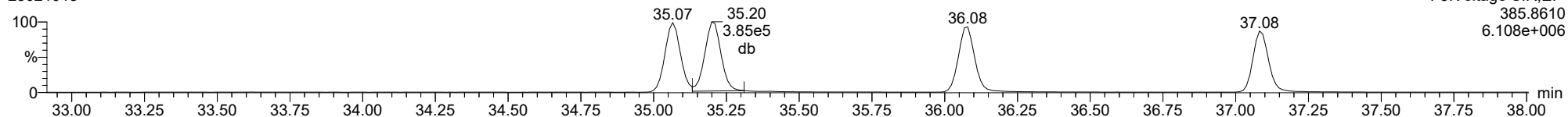
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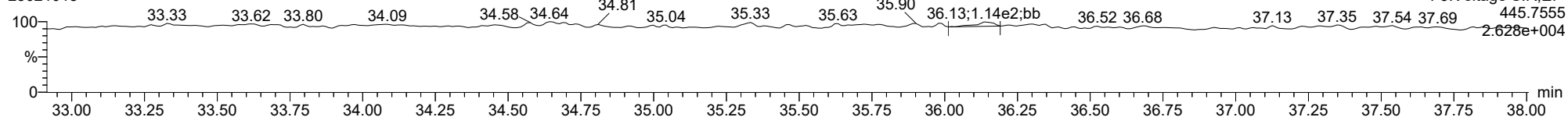
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FUNCTION3 OCDPE

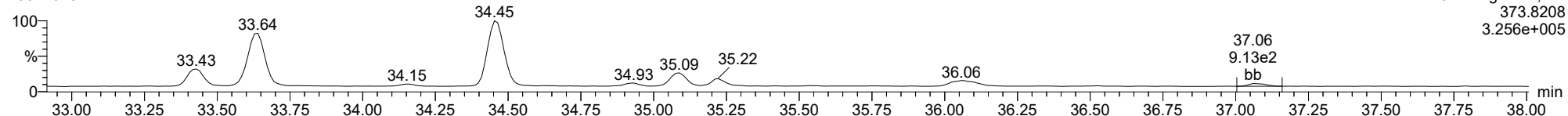
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ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

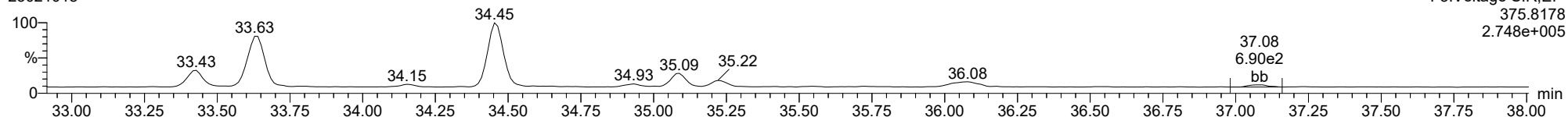
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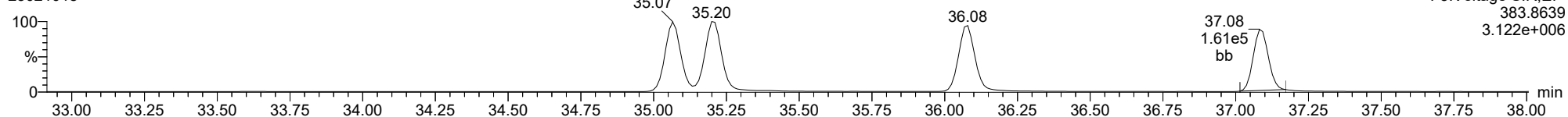
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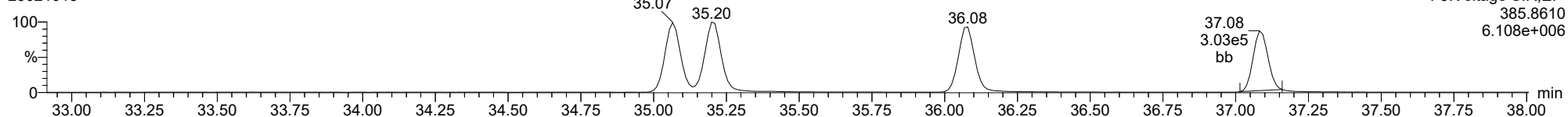
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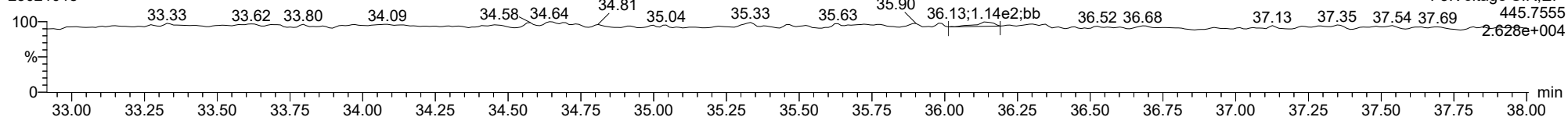
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FUNCTION3 OCDPE

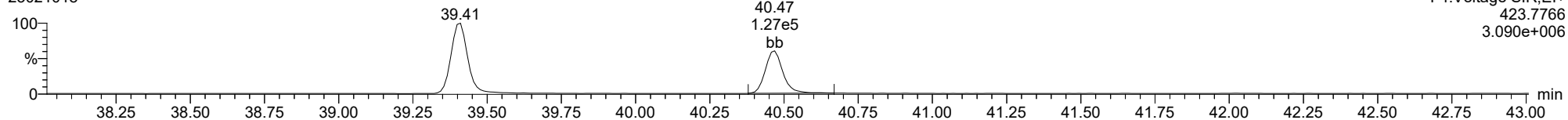
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ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

1234678-HpCDD

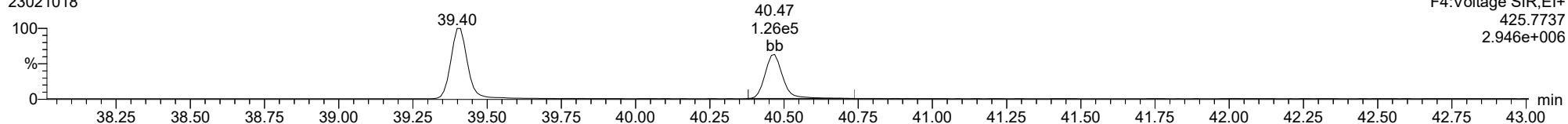
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F4:Voltage SIR,EI+
423.7766
3.090e+006

1234678-HpCDD

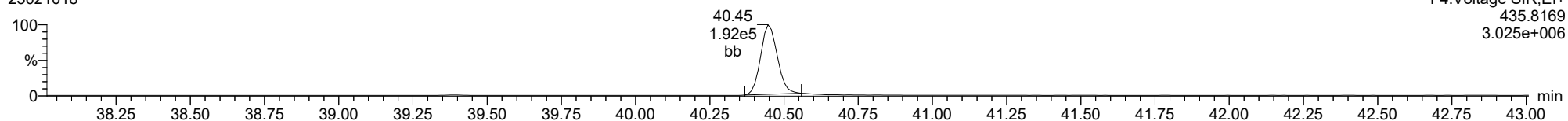
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F4:Voltage SIR,EI+
425.7737
2.946e+006

13C-1234678-HpCDD

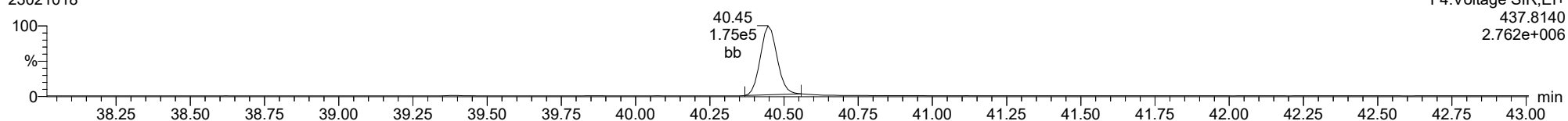
23021018



F4:Voltage SIR,EI+
435.8169
3.025e+006

13C-1234678-HpCDD

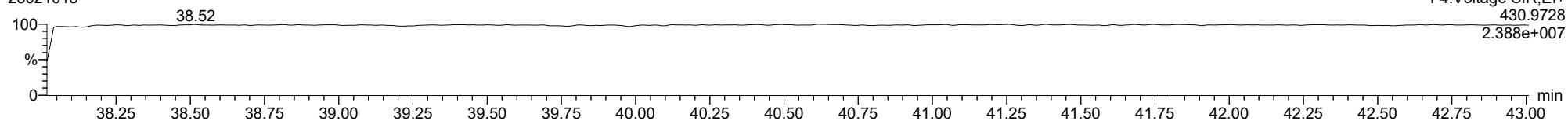
23021018



F4:Voltage SIR,EI+
437.8140
2.762e+006

FUNCTION4 PFK

23021018

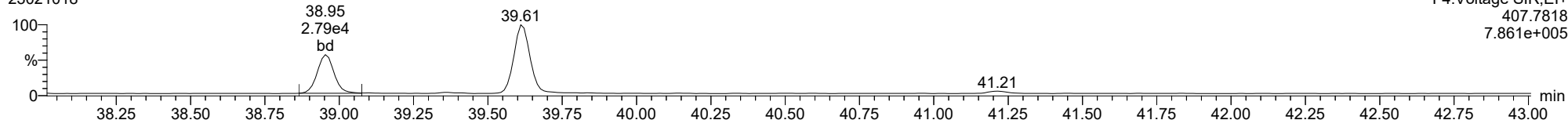


F4:Voltage SIR,EI+
430.9728
2.388e+007

ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

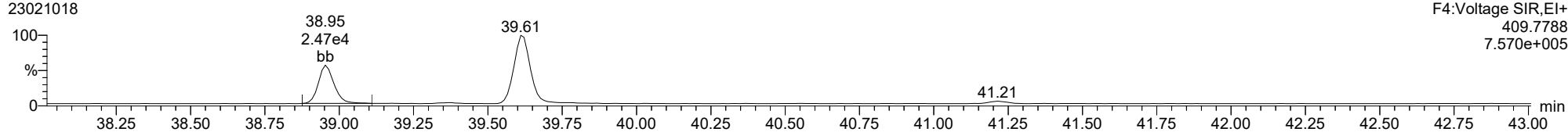
1234678-HpCDF

23021018



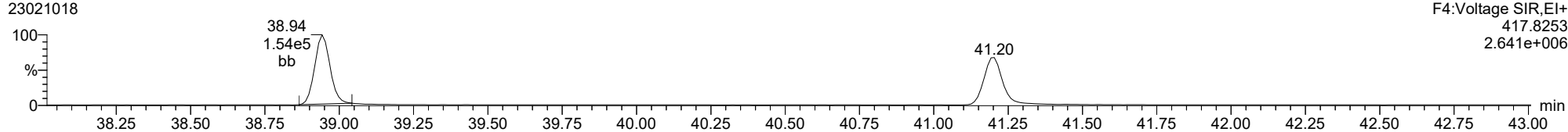
1234678-HpCDF

23021018



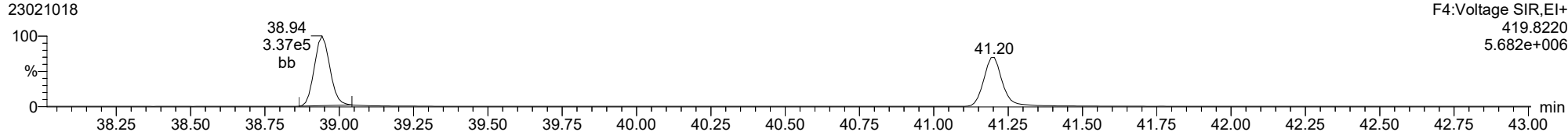
13C-1234678-HpCDF

23021018



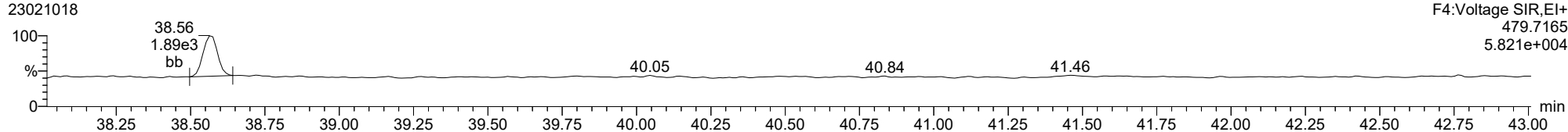
13C-1234678-HpCDF

23021018



FUNCTION4 NCDPE

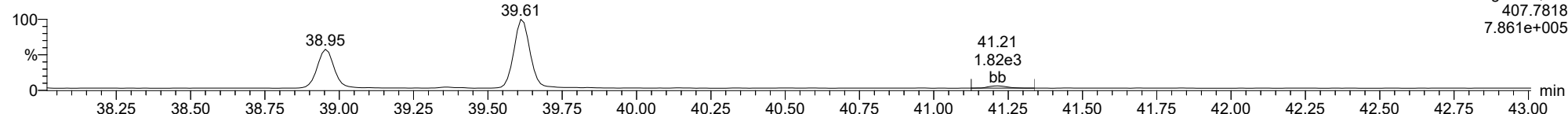
23021018



ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

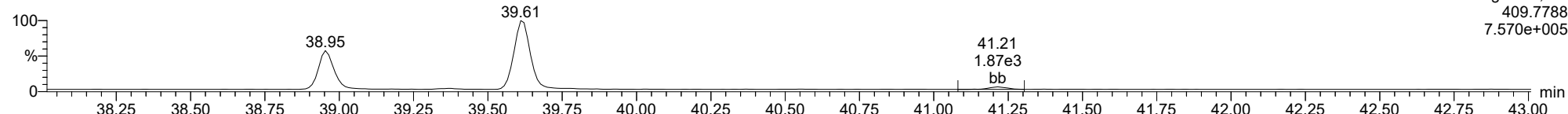
1234789-HpCDF

23021018



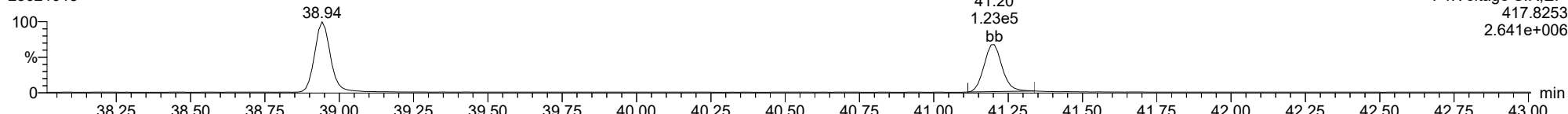
1234789-HpCDF

23021018



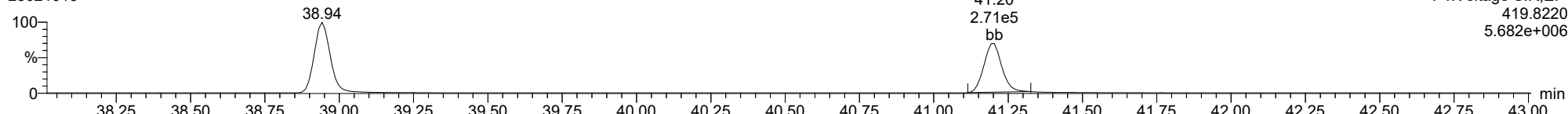
13C-1234789-HpCDF

23021018



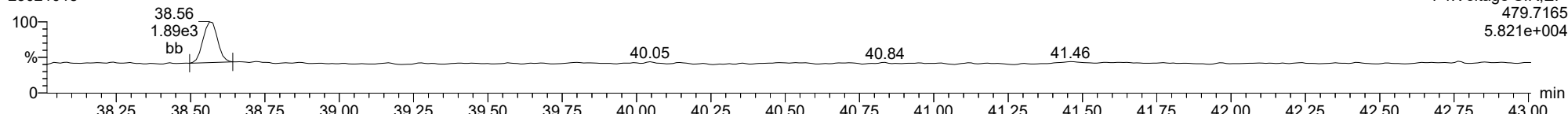
13C-1234789-HpCDF

23021018



FUNCTION4 NCDPE

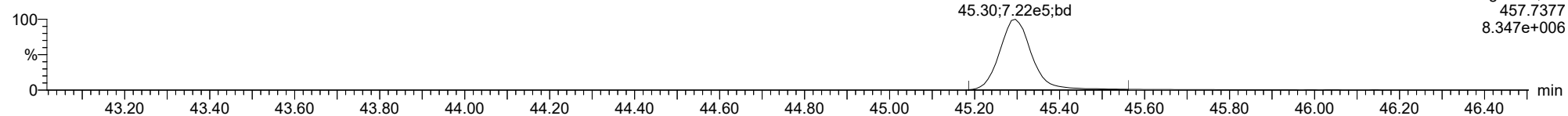
23021018



ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

OCDD

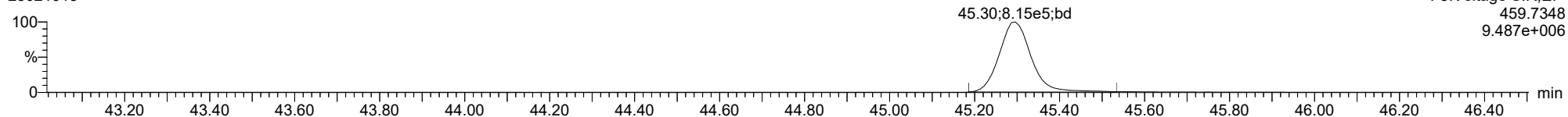
23021018



F5:Voltage SIR,El+
457.7377
8.347e+006

OCDD

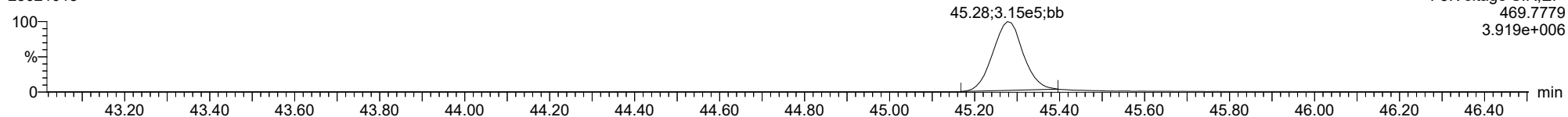
23021018



F5:Voltage SIR,El+
459.7348
9.487e+006

13C-OCDD

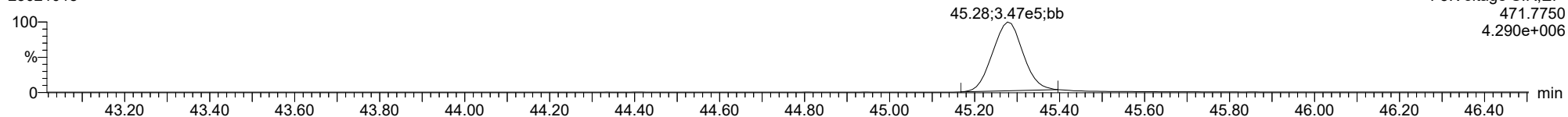
23021018



F5:Voltage SIR,El+
469.7779
3.919e+006

13C-OCDD

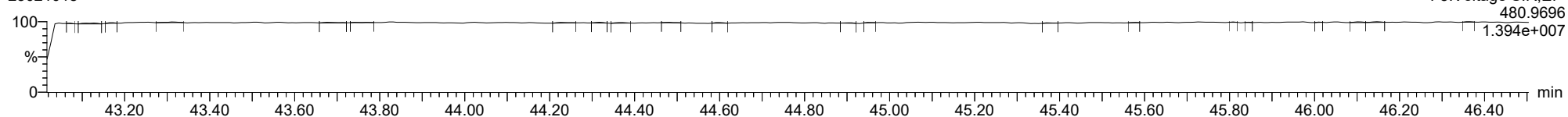
23021018



F5:Voltage SIR,El+
471.7750
4.290e+006

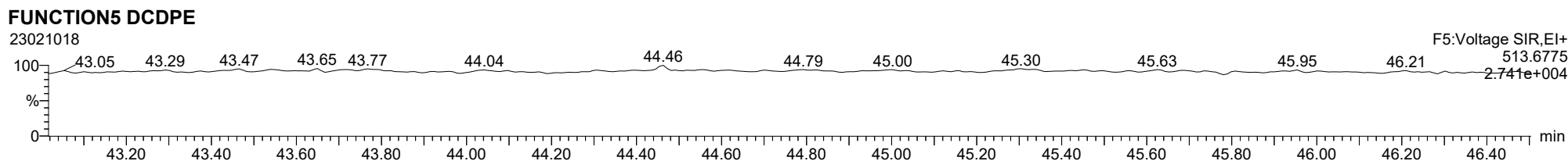
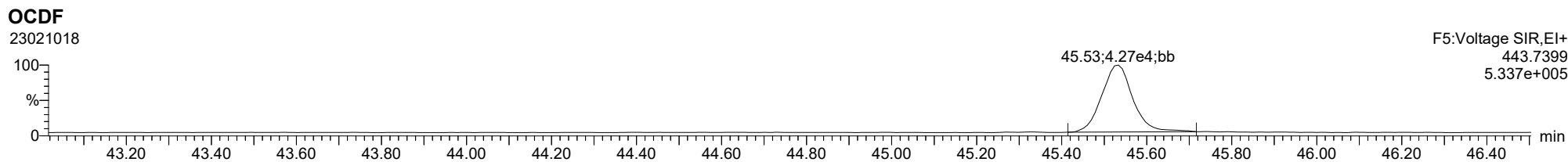
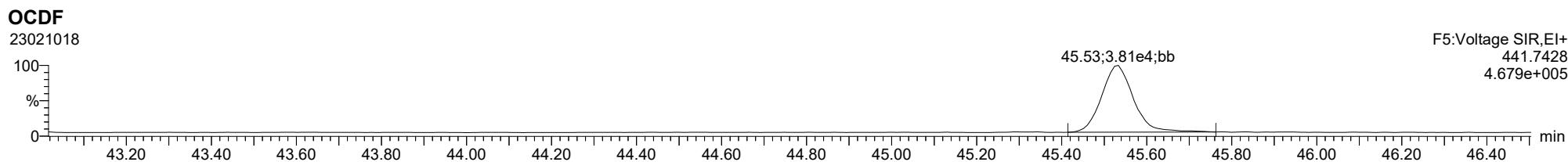
FUNCTION5 PFK

23021018



F5:Voltage SIR,El+
480.9696
1.394e+007

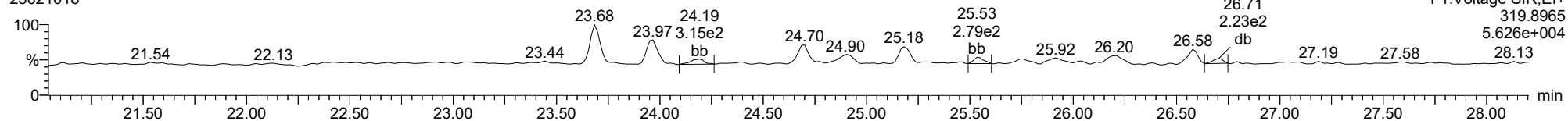
ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk



ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

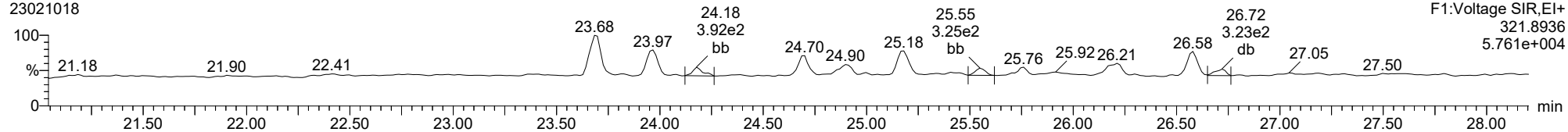
Total-tetradioxins

23021018



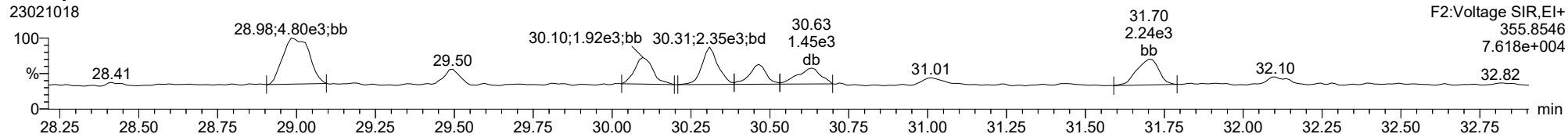
Total-tetradioxins

23021018



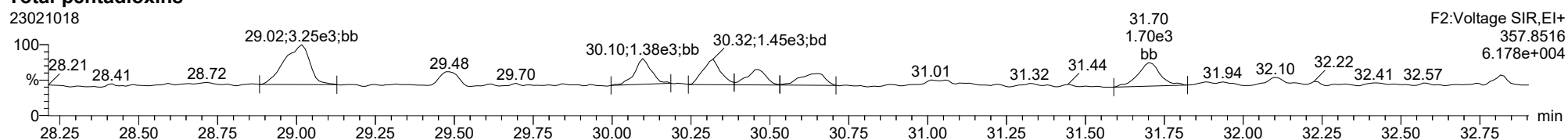
Total-pentadioxins

23021018



Total-pentadioxins

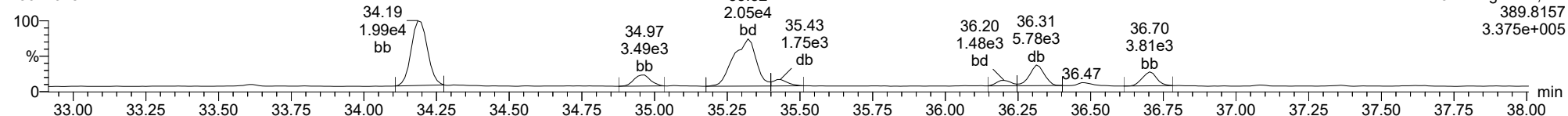
23021018



ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

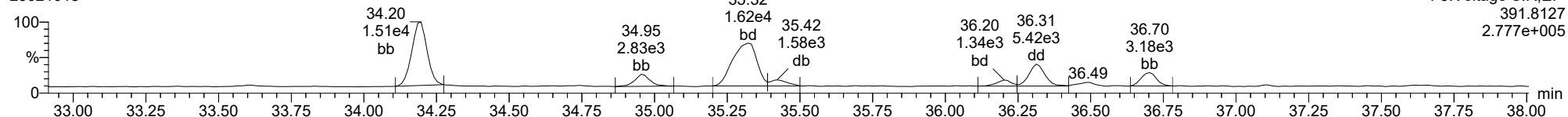
Total-hexadioxins

23021018



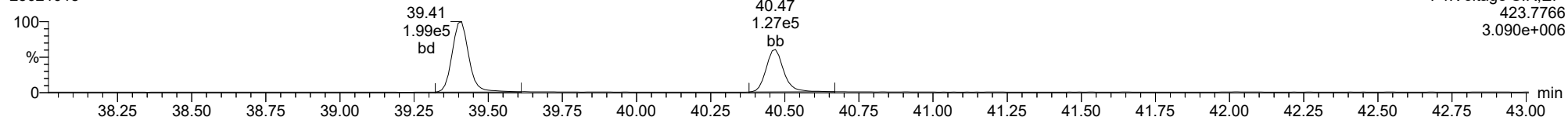
Total-hexadioxins

23021018



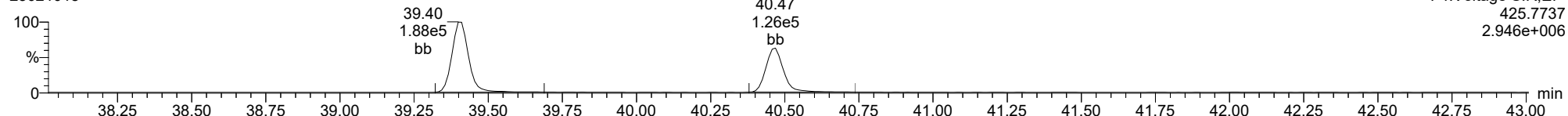
Total-heptadioxins

23021018



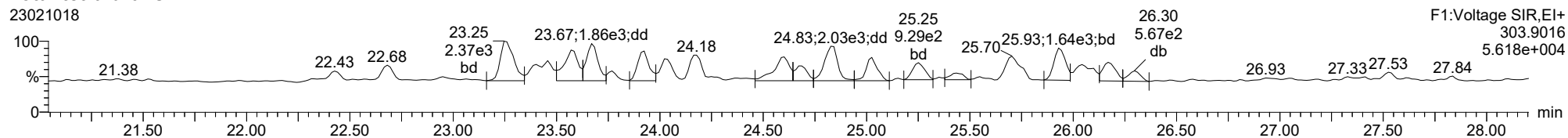
Total-heptadioxins

23021018

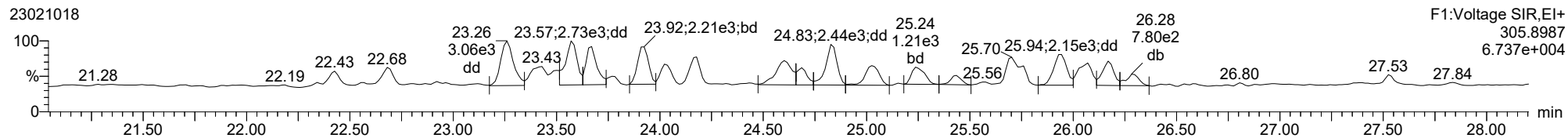


ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

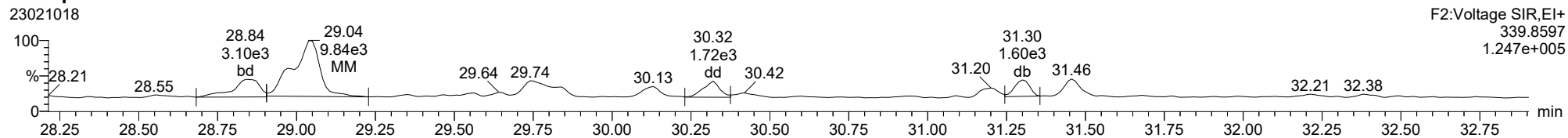
Total-tetrafurans



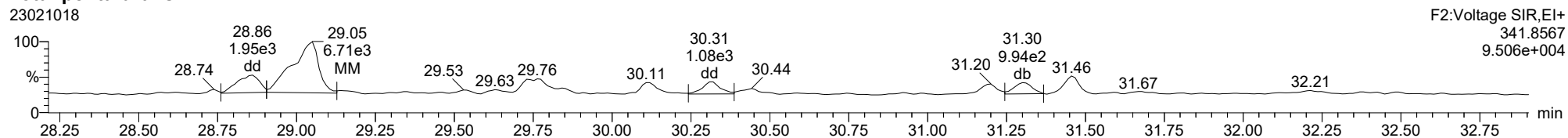
Total-tetrafurans



Total-pentafurans



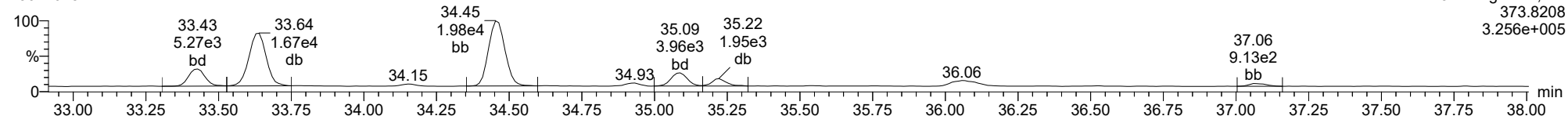
Total-pentafurans



ID: 23A0032-08, Name: 23021018, Date: 11-Feb-2023, Time: 03:37:54, Conditions: AUTOSPEC01, User: pk

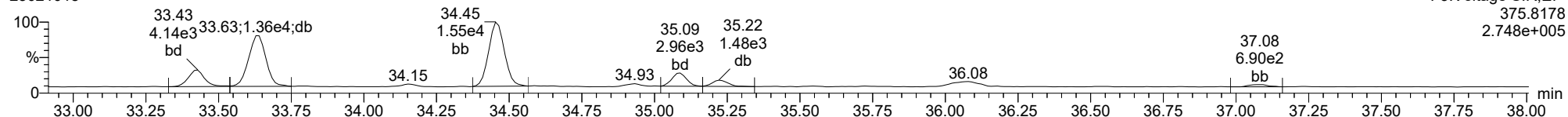
Total-hexafurans

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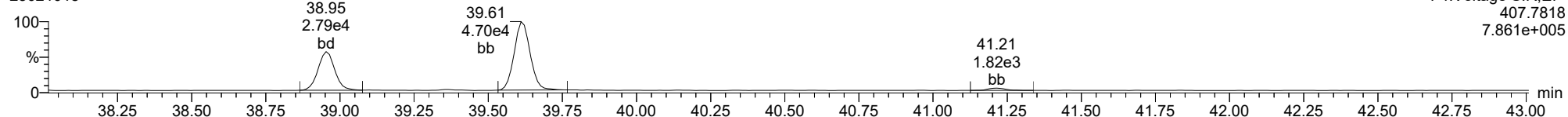
Total-hexafurans

23021018



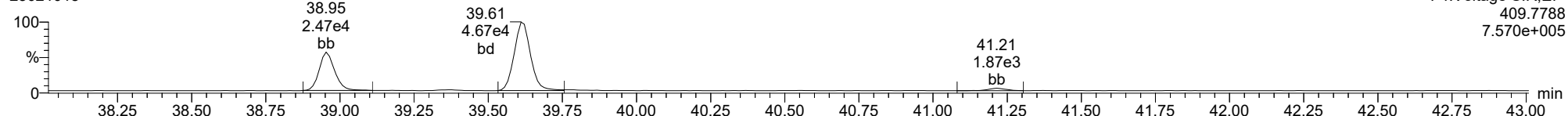
Total-heptafurans

23021018



Total-heptafurans

23021018





Form 1
ORGANIC ANALYSIS DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory: Analytical Resources, LLC SDG: 23A0032
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-11 C File ID: 23021019
 Sampled: 01/03/23 14:01 Prepared: 01/30/23 14:23 Analyzed: 02/11/23 04:27
 % Solids: 52.24 Preparation: EPA 8290 Initial/Final: 19.15 g Wet / 20 uL
 Result Basis: Dry Sequence: SLB0147 Calibration: GB00010
 Batch: BLA0256 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.738	0.655-0.886	0.120	1.00	1.22	ng/kg	X
1746-01-6	2,3,7,8-TCDD	1	0.552	0.655-0.886	0.133	1.00	0.554	ng/kg	EMPC, J
57117-41-6	1,2,3,7,8-PeCDF	1	1.564	1.318-1.783	0.228	1.00	1.35	ng/kg	
57117-31-4	2,3,4,7,8-PeCDF	1	1.176	1.318-1.783	0.214	1.00	1.67	ng/kg	EMPC
40321-76-4	1,2,3,7,8-PeCDD	1	1.487	1.318-1.783	0.468	1.00	3.57	ng/kg	
70648-26-9	1,2,3,4,7,8-HxCDF	1	1.197	1.054-1.426	0.215	1.00	6.67	ng/kg	
57117-44-9	1,2,3,6,7,8-HxCDF	1	1.144	1.054-1.426	0.203	1.00	2.92	ng/kg	B
60851-34-5	2,3,4,6,7,8-HxCDF	1	1.212	1.054-1.426	0.212	1.00	3.01	ng/kg	
72918-21-9	1,2,3,7,8,9-HxCDF	1	1.184	1.054-1.426	0.258	1.00	2.28	ng/kg	
39227-28-6	1,2,3,4,7,8-HxCDD	1	1.272	1.054-1.426	0.256	1.00	5.18	ng/kg	
57653-85-7	1,2,3,6,7,8-HxCDD	1	1.256	1.054-1.426	0.240	1.00	31.7	ng/kg	
19408-74-3	1,2,3,7,8,9-HxCDD	1	1.209	1.054-1.426	0.253	1.00	10.9	ng/kg	
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	1.526	0.893-1.208	0.270	1.00	180	ng/kg	EMPC, B
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	0.963	0.893-1.208	0.379	1.00	7.51	ng/kg	
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.039	0.893-1.208	0.668	2.50	1070	ng/kg	B
39001-02-0	OCDF	1	0.908	0.757-1.024	0.584	2.50	369	ng/kg	B
3268-87-9	OCDD	1	0.879	0.757-1.024	0.924	10.0	7850	ng/kg	E, B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			1.00	16.5	ng/kg
41903-57-5	Total TCDD	1	0.000			1.00	4.41	ng/kg
30402-15-4	Total PeCDF	1	0.000			1.00	31.1	ng/kg
36088-22-9	Total PeCDD	1	0.000			1.00	7.98	ng/kg
55684-94-1	Total HxCDF	1	0.000			1.00	170	ng/kg
34465-46-8	Total HxCDD	1	0.000			1.00	191	ng/kg
38998-75-3	Total HpCDF	1	0.000			1.00	367	ng/kg
37871-00-4	Total HpCDD	1	0.000			1.00	2430	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 26.09
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 26.09



Form 2
ORGANIC ANALYSIS DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Sediment</u>	Laboratory ID:	<u>23A0032-11</u>
Sampled:	<u>01/03/23 14:01</u>	Prepared:	<u>01/30/23 14:23</u>
Solids Wt%:	<u>52.24</u>	Preparation:	<u>EPA 8290</u>
Result Basis:	<u>Dry</u>	Sequence:	<u>SLB0147</u>
Batch:	<u>BLA0256</u>	Instrument:	<u>AUTOSPEC01</u>
		File ID:	<u>23021019</u>
		Analyzed:	<u>02/11/23 04:27</u>
		Initial/Final:	<u>19.15 g / 20 uL</u>
		Calibration:	<u>GB00010</u>
		Column:	<u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF		0.799	0.655-0.886	0.114	86.1	24 - 169 %	
13C12-2,3,7,8-TCDD		0.794	0.655-0.886	0.197	100	25 - 164 %	
13C12-1,2,3,7,8-PeCDF		1.575	1.318-1.783	0.151	101	24 - 185 %	
13C12-2,3,4,7,8-PeCDF		1.551	1.318-1.783	0.158	100	21 - 178 %	
13C12-1,2,3,7,8-PeCDD		1.653	1.318-1.783	0.181	91.7	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF		0.517	0.434-0.587	0.238	101	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF		0.516	0.434-0.587	0.232	97.8	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF		0.518	0.434-0.587	0.247	99.2	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF		0.507	0.434-0.587	0.270	78.4	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD		1.291	1.054-1.426	0.246	102	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD		1.279	1.054-1.426	0.238	97.7	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF		0.462	0.374-0.506	0.289	94.0	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF		0.455	0.374-0.506	0.331	89.9	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD		1.095	0.893-1.208	0.277	95.0	23 - 140 %	
13C12-OCDD		0.925	0.757-1.024	0.344	80.9	17 - 157 %	
37C14-2,3,7,8-TCDD		328.000		0.077	86.0	35 - 197 %	

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:45:03 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.958	1.000	2.171e3	2.940e3	0.876	0.738	0.770	979	1646	3.65e4	4.84e4	37.3	29.4	NO	bd	bd	0.612
12378-PeCDF	30.143	1.001	3.351e3	2.143e3	0.845	1.564	1.550	2480	2189	5.54e4	3.42e4	22.3	15.6	NO	bb	bb	0.674
23478-PeCDF	31.480	1.001	3.779e3	3.213e3	0.911	1.176	1.550	2480	2189	6.60e4	5.14e4	26.6	23.5	YES	bb	db	0.833
123478-HxCDF	35.112	1.000	1.231e4	1.028e4	1.182	1.197	1.240	2025	1643	1.95e5	1.60e5	96.3	97.2	NO	bd	bd	3.336
234678-HxCDF	36.125	1.000	5.507e3	4.544e3	1.229	1.212	1.240	2025	1643	8.97e4	6.82e4	44.3	41.5	NO	MM	MM	1.504
123678-HxCDF	35.257	1.001	5.555e3	4.854e3	1.248	1.144	1.240	2025	1643	8.52e4	7.80e4	42.1	47.5	NO	db	db	1.462
123789-HxCDF	37.095	1.000	2.888e3	2.439e3	1.187	1.184	1.240	2025	1643	3.79e4	3.11e4	18.7	18.9	NO	bb	bb	1.142
1234678-HpCDF	38.966	1.000	3.448e5	2.260e5	1.204	1.526	1.050	2041	2679	4.35e6	3.64e6	2131.8	1359.8	YES	bd	bd	90.069
1234789-HpCDF	41.228	1.000	9.437e3	9.797e3	1.165	0.963	1.050	2041	2679	1.39e5	1.48e5	68.3	55.1	NO	bd	bb	3.757
OCDF	45.555	1.006	3.590e5	3.955e5	1.186	0.908	0.890	2742	2230	4.12e6	4.61e6	1502.3	2065.6	NO	bb	bb	184.671
2378-TCDD	26.594	1.000	8.435e2	1.528e3	1.236	0.552	0.770	1640	1354	1.15e4	2.42e4	7.0	17.9	YES	dd	bd	0.277
12378-PeCDD	31.736	1.001	6.093e3	4.098e3	1.087	1.487	1.550	2594	3961	8.50e4	5.52e4	32.8	13.9	NO	bb	bb	1.785
123478-HxCDD	36.248	1.001	7.350e3	5.780e3	0.987	1.272	1.240	1948	1470	1.21e5	9.37e4	62.3	63.8	NO	bd	bd	2.591
123678-HxCDD	36.359	1.000	4.583e4	3.649e4	1.021	1.256	1.240	1948	1470	7.54e5	6.11e5	387.3	415.3	NO	dd	db	15.839
123789-HxCDD	36.738	1.011	1.511e4	1.249e4	0.985	1.209	1.240	1948	1470	2.46e5	1.95e5	126.2	132.7	NO	bb	bb	5.477
1234678-HpCDD	40.482	1.000	1.374e6	1.323e6	1.253	1.039	1.050	4017	4746	2.11e7	2.04e7	5252.8	4308.6	NO	bb	bb	536.684
OCDD	45.317	1.000	6.981e6	7.938e6	1.103	0.879	0.890	4049	3265	8.66e7	9.82e7	21382.6	30069.6	NO	bb	bb	3928.295
13C-2378-TCDF	25.944	1.007	4.237e5	5.302e5	1.768	0.799	0.770	1926	1479	6.68e6	8.43e6	3465.7	5698.3	NO	bb	bb	86.052
13C-12378-PeCDF	30.120	1.169	5.904e5	3.748e5	1.527	1.575	1.550	1963	1952	8.90e6	5.71e6	4532.6	2927.3	NO	bb	bb	100.814
13C-23478-PeCDF	31.458	1.221	5.599e5	3.610e5	1.466	1.551	1.550	1963	1952	8.73e6	5.60e6	4450.4	2871.8	NO	bb	bb	100.176
13C-123478-HxCDF	35.100	0.956	1.952e5	3.778e5	1.054	0.517	0.510	1694	2042	2.95e6	5.72e6	1739.3	2803.6	NO	bd	bd	100.656
13C-123678-HxCDF	35.234	0.959	1.943e5	3.762e5	1.080	0.516	0.510	1694	2042	2.96e6	5.76e6	1747.6	2820.2	NO	db	db	97.781
13C-234678-HxCDF	36.114	0.983	1.857e5	3.582e5	1.014	0.518	0.510	1694	2042	2.89e6	5.61e6	1704.1	2749.1	NO	bb	bb	99.241
13C-123789-HxCDF	37.106	1.010	1.323e5	2.607e5	0.928	0.507	0.510	1694	2042	2.42e6	4.79e6	1427.0	2344.2	NO	bb	bb	78.387
13C-1234678-HpCDF	38.966	1.061	1.663e5	3.600e5	1.036	0.462	0.440	1592	2878	2.75e6	5.92e6	1726.0	2055.7	NO	bb	bb	94.015
13C-1234789-HpCDF	41.217	1.122	1.375e5	3.019e5	0.905	0.455	0.440	1592	2878	2.01e6	4.40e6	1261.3	1530.4	NO	bb	bb	89.864
13C-1234-TCDD	25.760	0.000	2.801e5	3.469e5	1.000	0.807	0.770	2020	1655	4.54e6	5.62e6	2246.9	3396.7	NO	bb	bb	100.000
13C-2378-TCDD	26.580	1.032	3.065e5	3.858e5	1.103	0.794	0.770	2020	1655	4.82e6	6.09e6	2388.4	3681.5	NO	bb	bb	100.103
13C-12378-PeCDD	31.714	1.231	3.274e5	1.980e5	0.914	1.653	1.550	1309	1494	4.82e6	2.95e6	3683.3	1972.7	NO	bb	bd	91.663
13C-123478-HxCDD	36.226	0.986	2.894e5	2.241e5	0.933	1.291	1.240	1980	1450	4.57e6	3.54e6	2308.8	2443.7	NO	bd	bd	101.864
13C-123678-HxCDD	36.348	0.990	2.858e5	2.234e5	0.965	1.279	1.240	1980	1450	4.69e6	3.71e6	2367.9	2557.2	NO	db	db	97.692
13C-1234678-HpCDD	40.471	1.102	2.097e5	1.915e5	0.782	1.095	1.050	1612	1622	3.29e6	3.04e6	2038.3	1873.6	NO	bb	bb	94.967
13C-OCDD	45.299	1.233	3.309e5	3.579e5	0.788	0.925	0.890	1849	2201	4.14e6	4.48e6	2237.6	2034.5	NO	bb	bb	161.736
13C-123789-HxCDD	36.727	0.000	2.995e5	2.408e5	1.000	1.244	1.240	1980	1450	4.96e6	3.99e6	2506.1	2754.1	NO	bb	bb	100.000
37CL-2378-TCDD	26.594	1.032	2.659e5		1.233			1606		4.05e6		2523.2			bb		34.380

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:45:03 Pacific Standard Time

ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	979	1646								
1289-TCDF	27.554	1.062	1.258e3	1.813e3	0.858	0.694	0.770	979	1646	2.11e4	2.08e4	21.5	12.6	NO	bb	bb	0.375
13468-PECDF					1.013		1.550	1330	1487								
12389-PECDF	32.516	1.079	6.683e2	3.094e2	0.844	2.160	1.550	2480	2189	9.12e3	5.62e3	3.7	2.6	YES	db	bb	0.120
123468-HXCDF	33.452	0.953	2.943e4	2.290e4	1.197	1.285	1.240	2025	1643	4.42e5	3.40e5	218.3	207.0	NO	bd	bd	7.626
1368-TCDD	23.726	0.893	2.005e3	2.574e3	1.084	0.779	0.770	1640	1354	3.20e4	4.29e4	19.5	31.7	NO	db	bb	0.610
1289-TCDD					0.975		0.770	1640	1354								
12479-PECDD					1.837		1.550	2594	3961								
12389-PECDD					1.252		1.550	2594	3961								
124679-HXCDD	34.220	0.945	8.114e4	6.513e4	1.033	1.246	1.240	1948	1470	1.26e6	1.02e6	648.1	692.4	NO	bb	bb	27.580
1234679-HPCDD	39.423	0.974	1.783e6	1.713e6	1.286	1.040	1.050	4017	4746	2.85e7	2.74e7	7097.4	5770.2	NO	bb	bd	677.453
Total-tetrafurans			3.088e4		0.933			979		4.42e5							8.229
Total-penta1			3.980e4					1330		5.87e5							7.481
Total-pentafurans			3.942e4		0.866			2480		6.03e5							8.065
Total-hexafurans			3.014e5		1.208			2025		4.64e6							84.966
Total-heptafurans			5.338e5		1.185			2041		8.34e6							183.438
Total-Furans			1.304e6		1.067			979		1.87e7							476.849
Total-tetradoxins			7.284e3		1.099			1640		1.14e5							2.208
Total-pentadoxins			1.592e4		1.392			2594		2.47e5							3.991
Total-hexadoxins			2.746e5		1.007			1948		3.95e6							95.398
Total-heptadoxins			3.157e6		1.269			4017		4.96e7							1214.136
Total-Dioxins			1.049e7		1.165			1640		1.42e8							5259.209
Total-TEQ			1.180e7					1640		1.60e8							5736.058
FUNCTION1 PFK			3.149e7					225542		2.28e8							
FUNCTION2 PFK			1.185e7					156196		2.41e7							0.000
FUNCTION3 PFK			1.076e7					199346		4.18e7							0.000
FUNCTION4 PFK			2.381e5					148753		2.58e6							
FUNCTION5 PFK			0.000e0					93755		0.00e0							
FUNCTION1 HXCD...			4.717e3					1327		7.58e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			4.370e3					1874		7.05e4							0.000
FUNCTION3 OCDPE			3.946e3					1573		8.18e4							0.000
FUNCTION4 NCDPE			1.467e4					1288		2.51e5							0.000
FUNCTION5 DCDPE			4.599e3					2054		1.13e5							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:45:03 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20**Calibration: T:\Autospec\Curves\230201CIH.cdb 03 Feb 2023 10:33:40****ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.19	2.224e3	3.304e3	0.933	0.67	0.77	34.0	YES	NO	db	db	0.621
2	Total-tetrafurans	24.05	1.480e3	1.897e3	0.933	0.78	0.77	19.1	YES	NO	dd	dd	0.380
3	Total-tetrafurans	23.95	2.901e3	3.924e3	0.933	0.74	0.77	42.4	YES	NO	dd	dd	0.767
4	Total-tetrafurans	23.80	6.286e2	8.599e2	0.933	0.73	0.77	9.8	YES	NO	dd	dd	0.167
5	Total-tetrafurans	23.29	4.614e3	5.974e3	0.933	0.77	0.77	68.2	YES	NO	bd	bd	1.190
6	1289-TCDF	27.55	1.258e3	1.813e3	0.858	0.69	0.77	21.5	YES	NO	bb	bb	0.375
7	Total-tetrafurans	26.31	5.643e2	6.544e2	0.933	0.86	0.77	10.2	YES	NO	db	db	0.137
8	Total-tetrafurans	26.18	1.726e3	2.631e3	0.933	0.66	0.77	28.9	YES	NO	dd	dd	0.490
9	Total-tetrafurans	26.09	1.667e3	2.443e3	0.933	0.68	0.77	17.9	YES	NO	dd	dd	0.462
10	2378-TCDF	25.96	2.171e3	2.940e3	0.876	0.74	0.77	37.3	YES	NO	bd	bd	0.612
11	Total-tetrafurans	25.72	2.322e3	2.693e3	0.933	0.86	0.77	23.4	YES	NO	bb	bb	0.564
12	Total-tetrafurans	25.46	7.044e2	1.006e3	0.933	0.70	0.77	8.6	YES	NO	bb	bb	0.192
13	Total-tetrafurans	25.28	1.297e3	1.720e3	0.933	0.75	0.77	17.6	YES	NO	bb	bb	0.339
14	Total-tetrafurans	25.05	1.377e3	1.990e3	0.933	0.69	0.77	20.1	YES	NO	bb	db	0.378
15	Total-tetrafurans	24.86	2.770e3	3.924e3	0.933	0.71	0.77	45.8	YES	NO	db	dd	0.752
16	Total-tetrafurans	24.72	1.282e3	1.636e3	0.933	0.78	0.77	21.1	YES	NO	dd	dd	0.328
17	Total-tetrafurans	24.63	1.895e3	2.320e3	0.933	0.82	0.77	25.4	YES	NO	bd	dd	0.474

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	27.40	3.980e4	2.641e4		1.51	1.55	441.6	YES	NO	bb	bb	7.481

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Printed: Monday, February 13, 2023 11:45:03 Pacific Standard Time

ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk**PF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	29.77	5.102e3	3.861e3	0.866	1.32	1.55	30.2	YES	NO	dd	dd	1.097
2	Total-pentafurans	29.67	9.677e2	6.557e2	0.866	1.48	1.55	8.2	YES	NO	dd	dd	0.199
3	Total-pentafurans	29.15	1.402e4	8.662e3	0.866	1.62	1.55	78.1	YES	NO	db	dd	2.776
4	Total-pentafurans	29.08	5.310e3	3.676e3	0.866	1.44	1.55	37.2	YES	NO	dd	dd	1.100
5	Total-pentafurans	31.32	4.217e3	3.193e3	0.866	1.32	1.55	25.5	YES	NO	db	dd	0.907
6	Total-pentafurans	31.22	1.459e3	1.003e3	0.866	1.45	1.55	10.5	YES	NO	bd	bd	0.301
7	Total-pentafurans	30.45	1.238e3	7.663e2	0.866	1.62	1.55	6.4	YES	NO	db	db	0.245
8	Total-pentafurans	30.34	3.755e3	2.506e3	0.866	1.50	1.55	24.9	YES	NO	bd	bd	0.766
9	12378-PeCDF	30.14	3.351e3	2.143e3	0.845	1.56	1.55	22.3	YES	NO	bb	bb	0.674

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexafurans	34.19	1.224e3	1.096e3	1.208	1.12	1.24	9.5	YES	NO	bb	bb	0.369
2	Total-hexafurans	33.66	8.652e4	6.738e4	1.208	1.28	1.24	648.9	YES	NO	db	db	24.484
3	123468-HxCDF	33.45	2.943e4	2.290e4	1.197	1.29	1.24	218.3	YES	NO	bd	bd	7.626
4	123789-HxCDF	37.09	2.888e3	2.439e3	1.187	1.18	1.24	18.7	YES	NO	bb	bb	1.142
5	234678-HxCDF	36.13	5.507e3	4.544e3	1.229	1.21	1.24	44.3	YES	NO	MM	MM	1.504
6	123678-HxCDF	35.26	5.555e3	4.854e3	1.248	1.14	1.24	42.1	YES	NO	db	db	1.462
7	123478-HxCDF	35.11	1.231e4	1.028e4	1.182	1.20	1.24	96.3	YES	NO	bd	bd	3.336
8	Total-hexafurans	34.96	1.612e3	1.315e3	1.208	1.23	1.24	14.5	YES	NO	bb	bb	0.466
9	Total-hexafurans	34.49	1.517e5	1.200e5	1.208	1.26	1.24	1155.2	YES	NO	bb	bb	43.227
10	Total-hexafurans	36.10	4.687e3	3.809e3	1.208	1.23	1.24	43.6	YES	NO	MM	MM	1.352

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	39.39	2.706e3	2.346e3	1.185	1.15	1.05	17.7	YES	NO	db	bb	0.883
2	1234789-HpCDF	41.23	9.437e3	9.797e3	1.165	0.96	1.05	68.3	YES	NO	bd	bb	3.757
3	Total-heptafurans	39.63	5.217e5	5.011e5	1.185	1.04	1.05	4000.1	YES	NO	bd	bb	178.798

Quantify Totals Report MassLynx V4.1 SCN909

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Printed: Monday, February 13, 2023 11:45:03 Pacific Standard Time

ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.19	2.224e3	3.304e3	0.933	0.67	0.77	34.0	YES	NO	db	db	0.621
2	Total-tetrafurans	24.05	1.480e3	1.897e3	0.933	0.78	0.77	19.1	YES	NO	dd	dd	0.380
3	Total-tetrafurans	23.95	2.901e3	3.924e3	0.933	0.74	0.77	42.4	YES	NO	dd	dd	0.767
4	Total-tetrafurans	23.80	6.286e2	8.599e2	0.933	0.73	0.77	9.8	YES	NO	dd	dd	0.167
5	Total-tetrafurans	23.29	4.614e3	5.974e3	0.933	0.77	0.77	68.2	YES	NO	bd	bd	1.190
6	1289-TCDF	27.55	1.258e3	1.813e3	0.858	0.69	0.77	21.5	YES	NO	bb	bb	0.375
7	Total-tetrafurans	26.31	5.643e2	6.544e2	0.933	0.86	0.77	10.2	YES	NO	db	db	0.137
8	Total-tetrafurans	26.18	1.726e3	2.631e3	0.933	0.66	0.77	28.9	YES	NO	dd	dd	0.490
9	Total-tetrafurans	26.09	1.667e3	2.443e3	0.933	0.68	0.77	17.9	YES	NO	dd	dd	0.462
10	2378-TCDF	25.96	2.171e3	2.940e3	0.876	0.74	0.77	37.3	YES	NO	bd	bd	0.612
11	Total-tetrafurans	25.72	2.322e3	2.693e3	0.933	0.86	0.77	23.4	YES	NO	bb	bb	0.564
12	Total-tetrafurans	25.46	7.044e2	1.006e3	0.933	0.70	0.77	8.6	YES	NO	bb	bb	0.192
13	Total-tetrafurans	25.28	1.297e3	1.720e3	0.933	0.75	0.77	17.6	YES	NO	bb	bb	0.339
14	Total-tetrafurans	25.05	1.377e3	1.990e3	0.933	0.69	0.77	20.1	YES	NO	bb	db	0.378
15	Total-tetrafurans	24.86	2.770e3	3.924e3	0.933	0.71	0.77	45.8	YES	NO	db	dd	0.752
16	Total-tetrafurans	24.72	1.282e3	1.636e3	0.933	0.78	0.77	21.1	YES	NO	dd	dd	0.328
17	Total-tetrafurans	24.63	1.895e3	2.320e3	0.933	0.82	0.77	25.4	YES	NO	bd	dd	0.474
18	Total-pentafurans	29.77	5.102e3	3.861e3	0.866	1.32	1.55	30.2	YES	NO	dd	dd	1.097
19	Total-pentafurans	29.67	9.677e2	6.557e2	0.866	1.48	1.55	8.2	YES	NO	dd	dd	0.199
20	Total-pentafurans	29.15	1.402e4	8.662e3	0.866	1.62	1.55	78.1	YES	NO	db	dd	2.776
21	Total-pentafurans	29.08	5.310e3	3.676e3	0.866	1.44	1.55	37.2	YES	NO	dd	dd	1.100
22	Total-pentafurans	31.32	4.217e3	3.193e3	0.866	1.32	1.55	25.5	YES	NO	db	dd	0.907
23	Total-pentafurans	31.22	1.459e3	1.003e3	0.866	1.45	1.55	10.5	YES	NO	bd	bd	0.301
24	Total-pentafurans	30.45	1.238e3	7.663e2	0.866	1.62	1.55	6.4	YES	NO	db	db	0.245
25	Total-pentafurans	30.34	3.755e3	2.506e3	0.866	1.50	1.55	24.9	YES	NO	bd	bd	0.766
26	12378-PeCDF	30.14	3.351e3	2.143e3	0.845	1.56	1.55	22.3	YES	NO	bb	bb	0.674
27	Total-hexafurans	34.19	1.224e3	1.096e3	1.208	1.12	1.24	9.5	YES	NO	bb	bb	0.369
28	Total-hexafurans	33.66	8.652e4	6.738e4	1.208	1.28	1.24	648.9	YES	NO	db	db	24.484
29	123468-HXCDF	33.45	2.943e4	2.290e4	1.197	1.29	1.24	218.3	YES	NO	bd	bd	7.626
30	123789-HxCDF	37.09	2.888e3	2.439e3	1.187	1.18	1.24	18.7	YES	NO	bb	bb	1.142
31	234678-HxCDF	36.13	5.507e3	4.544e3	1.229	1.21	1.24	44.3	YES	NO	MM	MM	1.504
32	123678-HxCDF	35.26	5.555e3	4.854e3	1.248	1.14	1.24	42.1	YES	NO	db	db	1.462
33	123478-HxCDF	35.11	1.231e4	1.028e4	1.182	1.20	1.24	96.3	YES	NO	bd	bd	3.336
34	Total-hexafurans	34.96	1.612e3	1.315e3	1.208	1.23	1.24	14.5	YES	NO	bb	bb	0.466
35	Total-hexafurans	34.49	1.517e5	1.200e5	1.208	1.26	1.24	1155.2	YES	NO	bb	bb	43.227
36	Total-heptafurans	39.39	2.706e3	2.346e3	1.185	1.15	1.05	17.7	YES	NO	db	bb	0.883
37	1234789-HpCDF	41.23	9.437e3	9.797e3	1.165	0.96	1.05	68.3	YES	NO	bd	bb	3.757

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	Total-heptafurans	39.63	5.217e5	5.011e5	1.185	1.04	1.05	4000.1	YES	NO	bd	bb	178.798
39	OCDF	45.55	3.590e5	3.955e5	1.186	0.91	0.89	1502.3	YES	NO	bb	bb	184.671
40	Total-penta1	27.40	3.980e4	2.641e4		1.51	1.55	441.6	YES	NO	bb	bb	7.481
41	Total-hexafurans	36.10	4.687e3	3.809e3	1.208	1.23	1.24	43.6	YES	NO	MM	MM	1.352

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	26.21	7.898e2	9.649e2	1.099	0.82	0.77	5.4	YES	NO	db	bb	0.231
2	Total-tetradioxins	25.56	4.036e2	4.695e2	1.099	0.86	0.77	4.9	YES	NO	bb	bb	0.115
3	Total-tetradioxins	25.21	1.130e3	1.684e3	1.099	0.67	0.77	12.1	YES	NO	bb	dd	0.370
4	Total-tetradioxins	24.73	7.559e2	1.039e3	1.099	0.73	0.77	7.1	YES	NO	bb	bb	0.236
5	Total-tetradioxins	24.21	3.761e2	4.969e2	1.099	0.76	0.77	4.0	YES	NO	db	db	0.115
6	Total-tetradioxins	23.99	1.822e3	2.220e3	1.099	0.82	0.77	16.3	YES	NO	bd	bd	0.532
7	1368-TCDD	23.73	2.005e3	2.574e3	1.084	0.78	0.77	19.5	YES	NO	db	bb	0.610

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentadioxins	30.49	3.175e3	1.884e3	1.392	1.68	1.55	18.9	YES	NO	dd	bd	0.692
2	Total-pentadioxins	30.34	4.725e3	3.213e3	1.392	1.47	1.55	29.5	YES	NO	bd	bb	1.085
3	Total-pentadioxins	29.53	1.923e3	1.211e3	1.392	1.59	1.55	14.1	YES	NO	bb	bb	0.429
4	12378-PeCDD	31.74	6.093e3	4.098e3	1.087	1.49	1.55	32.8	YES	NO	bb	bb	1.785

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.74	1.511e4	1.249e4	0.985	1.21	1.24	126.2	YES	NO	bb	bb	5.477
2	Total-hexadioxins	36.53	4.678e3	3.473e3	1.007	1.35	1.24	40.6	YES	NO	db	bb	1.584
3	123678-HxCDD	36.36	4.583e4	3.649e4	1.021	1.26	1.24	387.3	YES	NO	dd	db	15.839
4	123478-HxCDD	36.25	7.350e3	5.780e3	0.987	1.27	1.24	62.3	YES	NO	bd	bd	2.591
5	Total-hexadioxins	35.46	1.514e4	1.177e4	1.007	1.29	1.24	118.3	YES	NO	db	db	5.229
6	Total-hexadioxins	35.36	9.174e4	7.372e4	1.007	1.24	1.24	540.4	YES	NO	bd	bd	32.151
7	Total-hexadioxins	34.99	1.362e4	1.185e4	1.007	1.15	1.24	105.3	YES	NO	bb	bb	4.948
8	124679-HXCDD	34.22	8.114e4	6.513e4	1.033	1.25	1.24	648.1	YES	NO	bb	bb	27.580

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.48	1.374e6	1.323e6	1.253	1.04	1.05	5252.8	YES	NO	bb	bb	536.684
2	1234679-HPCDD	39.42	1.783e6	1.713e6	1.286	1.04	1.05	7097.4	YES	NO	bb	bd	677.453

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-Dioxins	22.98	1.011e2	1.150e2	1.165	0.88	0.77	1.2	NO	NO	bb	bb	0.027
2	Total-Dioxins	22.55	5.309e4	6.416e4	1.165	0.83	0.77	597.8	YES	NO	bb	bb	14.545
3	Total-Dioxins	22.19	2.209e3	2.706e3	1.165	0.82	0.77	21.9	YES	NO	db	bb	0.610
4	Total-tetradoxins	26.21	7.898e2	9.649e2	1.099	0.82	0.77	5.4	YES	NO	db	bb	0.231
5	Total-tetradoxins	25.56	4.036e2	4.695e2	1.099	0.86	0.77	4.9	YES	NO	bb	bb	0.115
6	Total-tetradoxins	25.21	1.130e3	1.684e3	1.099	0.67	0.77	12.1	YES	NO	bb	dd	0.370
7	Total-tetradoxins	24.73	7.559e2	1.039e3	1.099	0.73	0.77	7.1	YES	NO	bb	bb	0.236
8	Total-tetradoxins	24.21	3.761e2	4.969e2	1.099	0.76	0.77	4.0	YES	NO	db	db	0.115
9	Total-tetradoxins	23.99	1.822e3	2.220e3	1.099	0.82	0.77	16.3	YES	NO	bd	bd	0.532
10	1368-TCDD	23.73	2.005e3	2.574e3	1.084	0.78	0.77	19.5	YES	NO	db	bb	0.610
11	Total-pentadoxins	30.49	3.175e3	1.884e3	1.392	1.68	1.55	18.9	YES	NO	dd	bd	0.692
12	Total-pentadoxins	30.34	4.725e3	3.213e3	1.392	1.47	1.55	29.5	YES	NO	bd	bb	1.085
13	Total-pentadoxins	29.53	1.923e3	1.211e3	1.392	1.59	1.55	14.1	YES	NO	bb	bb	0.429
14	12378-PeCDD	31.74	6.093e3	4.098e3	1.087	1.49	1.55	32.8	YES	NO	bb	bb	1.785
15	123789-HxCDD	36.74	1.511e4	1.249e4	0.985	1.21	1.24	126.2	YES	NO	bb	bb	5.477
16	Total-hexadoxins	36.53	4.678e3	3.473e3	1.007	1.35	1.24	40.6	YES	NO	db	bb	1.584
17	123678-HxCDD	36.36	4.583e4	3.649e4	1.021	1.26	1.24	387.3	YES	NO	dd	db	15.839
18	123478-HxCDD	36.25	7.350e3	5.780e3	0.987	1.27	1.24	62.3	YES	NO	bd	bd	2.591
19	Total-hexadoxins	35.46	1.514e4	1.177e4	1.007	1.29	1.24	118.3	YES	NO	db	db	5.229
20	Total-hexadoxins	35.36	9.174e4	7.372e4	1.007	1.24	1.24	540.4	YES	NO	bd	bd	32.151
21	Total-hexadoxins	34.99	1.362e4	1.185e4	1.007	1.15	1.24	105.3	YES	NO	bb	bb	4.948
22	124679-HXCDD	34.22	8.114e4	6.513e4	1.033	1.25	1.24	648.1	YES	NO	bb	bb	27.580
23	1234678-HpCDD	40.48	1.374e6	1.323e6	1.253	1.04	1.05	5252.8	YES	NO	bb	bb	536.684
24	1234679-HPCDD	39.42	1.783e6	1.713e6	1.286	1.04	1.05	7097.4	YES	NO	bb	bd	677.453
25	OCDD	45.32	6.981e6	7.938e6	1.103	0.88	0.89	21382.6	YES	NO	bb	bb	3928.2...

Quantify Totals Report MassLynx V4.1 SCN909

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.19	2.224e3	3.304e3	0.933	0.67	0.77	34.0	YES	NO	db	db	0.621
2	Total-tetrafurans	24.05	1.480e3	1.897e3	0.933	0.78	0.77	19.1	YES	NO	dd	dd	0.380
3	Total-tetrafurans	23.95	2.901e3	3.924e3	0.933	0.74	0.77	42.4	YES	NO	dd	dd	0.767
4	Total-tetrafurans	23.80	6.286e2	8.599e2	0.933	0.73	0.77	9.8	YES	NO	dd	dd	0.167
5	Total-tetrafurans	23.29	4.614e3	5.974e3	0.933	0.77	0.77	68.2	YES	NO	bd	bd	1.190
6	1289-TCDF	27.55	1.258e3	1.813e3	0.858	0.69	0.77	21.5	YES	NO	bb	bb	0.375
7	Total-tetrafurans	26.31	5.643e2	6.544e2	0.933	0.86	0.77	10.2	YES	NO	db	db	0.137
8	Total-tetrafurans	26.18	1.726e3	2.631e3	0.933	0.66	0.77	28.9	YES	NO	dd	dd	0.490
9	Total-tetrafurans	26.09	1.667e3	2.443e3	0.933	0.68	0.77	17.9	YES	NO	dd	dd	0.462
10	2378-TCDF	25.96	2.171e3	2.940e3	0.876	0.74	0.77	37.3	YES	NO	bd	bd	0.612
11	Total-tetrafurans	25.72	2.322e3	2.693e3	0.933	0.86	0.77	23.4	YES	NO	bb	bb	0.564
12	Total-tetrafurans	25.46	7.044e2	1.006e3	0.933	0.70	0.77	8.6	YES	NO	bb	bb	0.192
13	Total-tetrafurans	25.28	1.297e3	1.720e3	0.933	0.75	0.77	17.6	YES	NO	bb	bb	0.339
14	Total-tetrafurans	25.05	1.377e3	1.990e3	0.933	0.69	0.77	20.1	YES	NO	bb	db	0.378
15	Total-tetrafurans	24.86	2.770e3	3.924e3	0.933	0.71	0.77	45.8	YES	NO	db	dd	0.752
16	Total-tetrafurans	24.72	1.282e3	1.636e3	0.933	0.78	0.77	21.1	YES	NO	dd	dd	0.328
17	Total-tetrafurans	24.63	1.895e3	2.320e3	0.933	0.82	0.77	25.4	YES	NO	bd	dd	0.474
18	Total-pentafurans	29.77	5.102e3	3.861e3	0.866	1.32	1.55	30.2	YES	NO	dd	dd	1.097
19	Total-pentafurans	29.67	9.677e2	6.557e2	0.866	1.48	1.55	8.2	YES	NO	dd	dd	0.199
20	Total-pentafurans	29.15	1.402e4	8.662e3	0.866	1.62	1.55	78.1	YES	NO	db	dd	2.776
21	Total-pentafurans	29.08	5.310e3	3.676e3	0.866	1.44	1.55	37.2	YES	NO	dd	dd	1.100
22	Total-pentafurans	31.32	4.217e3	3.193e3	0.866	1.32	1.55	25.5	YES	NO	db	dd	0.907
23	Total-pentafurans	31.22	1.459e3	1.003e3	0.866	1.45	1.55	10.5	YES	NO	bd	bd	0.301
24	Total-pentafurans	30.45	1.238e3	7.663e2	0.866	1.62	1.55	6.4	YES	NO	db	db	0.245
25	Total-pentafurans	30.34	3.755e3	2.506e3	0.866	1.50	1.55	24.9	YES	NO	bd	bd	0.766
26	12378-PeCDF	30.14	3.351e3	2.143e3	0.845	1.56	1.55	22.3	YES	NO	bb	bb	0.674
27	Total-hexafurans	34.19	1.224e3	1.096e3	1.208	1.12	1.24	9.5	YES	NO	bb	bb	0.369
28	Total-hexafurans	33.66	8.652e4	6.738e4	1.208	1.28	1.24	648.9	YES	NO	db	db	24.484
29	123468-HXCDF	33.45	2.943e4	2.290e4	1.197	1.29	1.24	218.3	YES	NO	bd	bd	7.626
30	123789-HxCDF	37.09	2.888e3	2.439e3	1.187	1.18	1.24	18.7	YES	NO	bb	bb	1.142
31	234678-HxCDF	36.13	5.507e3	4.544e3	1.229	1.21	1.24	44.3	YES	NO	MM	MM	1.504
32	123678-HxCDF	35.26	5.555e3	4.854e3	1.248	1.14	1.24	42.1	YES	NO	db	db	1.462
33	123478-HxCDF	35.11	1.231e4	1.028e4	1.182	1.20	1.24	96.3	YES	NO	bd	bd	3.336
34	Total-hexafurans	34.96	1.612e3	1.315e3	1.208	1.23	1.24	14.5	YES	NO	bb	bb	0.466
35	Total-hexafurans	34.49	1.517e5	1.200e5	1.208	1.26	1.24	1155.2	YES	NO	bb	bb	43.227
36	Total-heptafurans	39.39	2.706e3	2.346e3	1.185	1.15	1.05	17.7	YES	NO	db	bb	0.883
37	1234789-HpCDF	41.23	9.437e3	9.797e3	1.165	0.96	1.05	68.3	YES	NO	bd	bb	3.757

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	Total-heptafurans	39.63	5.217e5	5.011e5	1.185	1.04	1.05	4000.1	YES	NO	bd	bb	178.798
39	OCDF	45.55	3.590e5	3.955e5	1.186	0.91	0.89	1502.3	YES	NO	bb	bb	184.671
40	Total-penta1	27.40	3.980e4	2.641e4		1.51	1.55	441.6	YES	NO	bb	bb	7.481
41	Total-hexafurans	36.10	4.687e3	3.809e3	1.208	1.23	1.24	43.6	YES	NO	MM	MM	1.352
42	Total-Dioxins	22.98	1.011e2	1.150e2	1.165	0.88	0.77	1.2	NO	NO	bb	bb	0.027
43	Total-Dioxins	22.55	5.309e4	6.416e4	1.165	0.83	0.77	597.8	YES	NO	bb	bb	14.545
44	Total-Dioxins	22.19	2.209e3	2.706e3	1.165	0.82	0.77	21.9	YES	NO	db	bb	0.610
45	Total-tetradioxins	26.21	7.898e2	9.649e2	1.099	0.82	0.77	5.4	YES	NO	db	bb	0.231
46	Total-tetradioxins	25.56	4.036e2	4.695e2	1.099	0.86	0.77	4.9	YES	NO	bb	bb	0.115
47	Total-tetradioxins	25.21	1.130e3	1.684e3	1.099	0.67	0.77	12.1	YES	NO	bb	dd	0.370
48	Total-tetradioxins	24.73	7.559e2	1.039e3	1.099	0.73	0.77	7.1	YES	NO	bb	bb	0.236
49	Total-tetradioxins	24.21	3.761e2	4.969e2	1.099	0.76	0.77	4.0	YES	NO	db	db	0.115
50	Total-tetradioxins	23.99	1.822e3	2.220e3	1.099	0.82	0.77	16.3	YES	NO	bd	bd	0.532
51	1368-TCDD	23.73	2.005e3	2.574e3	1.084	0.78	0.77	19.5	YES	NO	db	bb	0.610
52	Total-pentadioxins	30.49	3.175e3	1.884e3	1.392	1.68	1.55	18.9	YES	NO	dd	bd	0.692
53	Total-pentadioxins	30.34	4.725e3	3.213e3	1.392	1.47	1.55	29.5	YES	NO	bd	bb	1.085
54	Total-pentadioxins	29.53	1.923e3	1.211e3	1.392	1.59	1.55	14.1	YES	NO	bb	bb	0.429
55	12378-PeCDD	31.74	6.093e3	4.098e3	1.087	1.49	1.55	32.8	YES	NO	bb	bb	1.785
56	123789-HxCDD	36.74	1.511e4	1.249e4	0.985	1.21	1.24	126.2	YES	NO	bb	bb	5.477
57	Total-hexadioxins	36.53	4.678e3	3.473e3	1.007	1.35	1.24	40.6	YES	NO	db	bb	1.584
58	123678-HxCDD	36.36	4.583e4	3.649e4	1.021	1.26	1.24	387.3	YES	NO	dd	db	15.839
59	123478-HxCDD	36.25	7.350e3	5.780e3	0.987	1.27	1.24	62.3	YES	NO	bd	bd	2.591
60	Total-hexadioxins	35.46	1.514e4	1.177e4	1.007	1.29	1.24	118.3	YES	NO	db	db	5.229
61	Total-hexadioxins	35.36	9.174e4	7.372e4	1.007	1.24	1.24	540.4	YES	NO	bd	bd	32.151
62	Total-hexadioxins	34.99	1.362e4	1.185e4	1.007	1.15	1.24	105.3	YES	NO	bb	bb	4.948
63	124679-HXCDD	34.22	8.114e4	6.513e4	1.033	1.25	1.24	648.1	YES	NO	bb	bb	27.580
64	1234678-HpCDD	40.48	1.374e6	1.323e6	1.253	1.04	1.05	5252.8	YES	NO	bb	bb	536.684
65	1234679-HPCDD	39.42	1.783e6	1.713e6	1.286	1.04	1.05	7097.4	YES	NO	bb	bd	677.453
66	OCDD	45.32	6.981e6	7.938e6	1.103	0.88	0.89	21382.6	YES	NO	bb	bb	3928.2...

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.61	1.674e6					54.6	YES		bd		
2	FUNCTION1 PFK	21.35	2.112e6					40.7	YES		db		
3	FUNCTION1 PFK	21.17	3.170e5					22.0	YES		bd		
4	FUNCTION1 PFK	24.19	2.906e5					11.5	YES		dd		
5	FUNCTION1 PFK	23.99	3.003e5					11.8	YES		dd		
6	FUNCTION1 PFK	23.94	4.771e5					11.5	YES		dd		
7	FUNCTION1 PFK	23.74	2.343e5					13.4	YES		bd		
8	FUNCTION1 PFK	23.53	9.069e5					23.3	YES		db		
9	FUNCTION1 PFK	23.40	4.802e5					23.3	YES		dd		
10	FUNCTION1 PFK	23.27	1.850e6					28.1	YES		dd		
11	FUNCTION1 PFK	22.99	6.567e5					31.7	YES		dd		
12	FUNCTION1 PFK	22.94	2.805e5					30.1	YES		dd		
13	FUNCTION1 PFK	22.85	9.782e5					35.0	YES		dd		
14	FUNCTION1 PFK	22.62	1.739e6					38.4	YES		dd		
15	FUNCTION1 PFK	22.44	1.389e6					42.5	YES		dd		
16	FUNCTION1 PFK	22.37	1.271e6					42.7	YES		dd		
17	FUNCTION1 PFK	22.13	1.534e6					47.6	YES		dd		
18	FUNCTION1 PFK	22.00	1.771e6					48.4	YES		dd		
19	FUNCTION1 PFK	21.76	2.884e6					53.4	YES		dd		
20	FUNCTION1 PFK	26.31	5.740e5					20.5	YES		dd		
21	FUNCTION1 PFK	26.17	4.805e5					18.7	YES		dd		
22	FUNCTION1 PFK	26.01	7.170e5					20.3	YES		dd		
23	FUNCTION1 PFK	25.80	6.453e5					20.7	YES		dd		
24	FUNCTION1 PFK	25.72	5.497e5					19.1	YES		bd		
25	FUNCTION1 PFK	25.52	2.639e5					16.4	YES		db		
26	FUNCTION1 PFK	25.34	6.082e5					11.8	YES		dd		
27	FUNCTION1 PFK	25.25	1.830e5					9.9	YES		dd		
28	FUNCTION1 PFK	25.15	9.636e4					6.2	YES		dd		
29	FUNCTION1 PFK	25.05	4.885e4					3.3	YES		bd		
30	FUNCTION1 PFK	24.80	2.644e4					2.4	NO		db		
31	FUNCTION1 PFK	24.69	1.793e5					4.4	YES		dd		
32	FUNCTION1 PFK	24.53	1.142e5					7.2	YES		bd		
33	FUNCTION1 PFK	24.40	1.384e5					8.2	YES		db		
34	FUNCTION1 PFK	24.28	1.864e5					10.0	YES		dd		
35	FUNCTION1 PFK	24.25	9.556e4					10.3	YES		dd		
36	FUNCTION1 PFK	28.11	1.672e5					7.7	YES		db		
37	FUNCTION1 PFK	28.01	1.293e5					9.3	YES		bd		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:45:03 Pacific Standard Time

ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION1 PFK	27.86	2.184e5					10.9	YES		db		
39	FUNCTION1 PFK	27.77	2.187e5					11.1	YES		dd		
40	FUNCTION1 PFK	27.65	1.946e5					11.6	YES		dd		
41	FUNCTION1 PFK	27.57	5.489e4					5.3	YES		dd		
42	FUNCTION1 PFK	27.44	4.702e5					17.3	YES		bd		
43	FUNCTION1 PFK	27.24	4.978e5					20.3	YES		db		
44	FUNCTION1 PFK	27.19	3.630e5					19.8	YES		dd		
45	FUNCTION1 PFK	27.03	5.430e5					19.6	YES		dd		
46	FUNCTION1 PFK	26.90	1.118e6					20.4	YES		dd		
47	FUNCTION1 PFK	26.69	5.342e5					19.6	YES		dd		
48	FUNCTION1 PFK	26.58	5.167e5					18.5	YES		dd		
49	FUNCTION1 PFK	26.41	4.089e5					19.0	YES		dd		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.82	3.210e6					10.8	YES		bb		0.000
2	FUNCTION2 PFK	32.91	2.971e5					0.0	NO		bb		0.000
3	FUNCTION2 PFK	32.42	3.121e6					41.9	YES		db		0.000
4	FUNCTION2 PFK	32.27	1.420e6					33.3	YES		bd		0.000
5	FUNCTION2 PFK	29.72	3.668e6					45.6	YES		db		0.000
6	FUNCTION2 PFK	29.65	1.372e5					23.1	YES		bd		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.22	1.435e6					39.4	YES		bd		0.000
2	FUNCTION3 PFK	36.95	5.141e6					50.2	YES		db		0.000
3	FUNCTION3 PFK	36.21	5.506e5					15.7	YES		bd		0.000
4	FUNCTION3 PFK	35.37	5.533e5					12.5	YES		bb		0.000
5	FUNCTION3 PFK	35.11	2.714e5					6.5	YES		bb		0.000
6	FUNCTION3 PFK	34.37	1.009e5					4.8	YES		db		0.000
7	FUNCTION3 PFK	34.18	6.085e5					16.5	YES		bd		0.000
8	FUNCTION3 PFK	33.92	9.656e5					19.9	YES		db		0.000
9	FUNCTION3 PFK	33.71	1.655e5					12.6	YES		bd		0.000
10	FUNCTION3 PFK	33.51	1.153e5					5.0	YES		bb		0.000
11	FUNCTION3 PFK	37.36	8.549e5					26.5	YES		db		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

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ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.89	1.540e5					7.6	YES		bb		
2	FUNCTION4 PFK	38.19	4.298e4					5.0	YES		db		
3	FUNCTION4 PFK	38.12	4.112e4					4.7	YES		bd		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.09	1.785e3					20.2	YES		db		0.000
2	FUNCTION1 HXCD...	25.93	2.166e2					3.7	YES		bd		0.000
3	FUNCTION1 HXCD...	25.29	2.795e2					3.9	YES		db		0.000
4	FUNCTION1 HXCD...	25.21	1.978e2					3.2	YES		bd		0.000
5	FUNCTION1 HXCD...	23.94	7.751e2					4.5	YES		db		0.000
6	FUNCTION1 HXCD...	23.83	2.221e2					3.6	YES		bd		0.000
7	FUNCTION1 HXCD...	23.63	1.346e2					2.4	NO		bb		0.000
8	FUNCTION1 HXCD...	22.47	6.746e2					9.6	YES		bb		0.000
9	FUNCTION1 HXCD...	22.33	9.532e1					2.2	NO		bb		0.000
10	FUNCTION1 HXCD...	26.30	3.358e2					3.8	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	30.05	3.641e3					26.9	YES		bb		0.000
2	FUNCTION2 HPCD...	29.67	1.846e2					4.3	YES		bb		0.000
3	FUNCTION2 HPCD...	29.15	1.638e2					2.3	NO		bb		0.000
4	FUNCTION2 HPCD...	28.77	3.810e2					4.1	YES		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:45:03 Pacific Standard Time

ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	35.75	9.598e1					1.3	NO		db		0.000
2	FUNCTION3 OCDPE	35.67	7.425e1					1.5	NO		bd		0.000
3	FUNCTION3 OCDPE	35.22	1.236e2					1.3	NO		db		0.000
4	FUNCTION3 OCDPE	35.15	1.003e2					1.3	NO		dd		0.000
5	FUNCTION3 OCDPE	35.10	7.244e1					1.3	NO		bd		0.000
6	FUNCTION3 OCDPE	34.57	1.542e2					1.6	NO		bb		0.000
7	FUNCTION3 OCDPE	33.83	9.541e1					1.1	NO		bb		0.000
8	FUNCTION3 OCDPE	33.41	1.483e2					1.4	NO		bb		0.000
9	FUNCTION3 OCDPE	33.10	7.198e1					1.3	NO		bb		0.000
10	FUNCTION3 OCDPE	37.86	1.391e2					1.5	NO		bb		0.000
11	FUNCTION3 OCDPE	37.62	3.501e2					4.1	YES		db		0.000
12	FUNCTION3 OCDPE	37.56	3.186e2					2.4	NO		bd		0.000
13	FUNCTION3 OCDPE	37.42	1.261e2					1.2	NO		bb		0.000
14	FUNCTION3 OCDPE	37.30	1.450e2					2.2	NO		db		0.000
15	FUNCTION3 OCDPE	37.23	1.033e2					1.6	NO		dd		0.000
16	FUNCTION3 OCDPE	37.17	2.549e2					3.3	YES		dd		0.000
17	FUNCTION3 OCDPE	37.13	1.321e2					2.8	NO		dd		0.000
18	FUNCTION3 OCDPE	37.08	1.845e2					3.2	YES		dd		0.000
19	FUNCTION3 OCDPE	37.02	1.517e2					2.3	NO		dd		0.000
20	FUNCTION3 OCDPE	36.97	2.305e2					2.4	NO		dd		0.000
21	FUNCTION3 OCDPE	36.84	2.081e2					2.6	NO		dd		0.000
22	FUNCTION3 OCDPE	36.81	1.200e2					2.7	NO		bd		0.000
23	FUNCTION3 OCDPE	36.10	2.815e2					3.2	YES		db		0.000
24	FUNCTION3 OCDPE	36.09	1.317e2					3.2	YES		bd		0.000
25	FUNCTION3 OCDPE	35.92	1.329e2					1.3	NO		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.56	4.401e2					4.5	YES		bb		0.000
2	FUNCTION4 NCDPE	40.21	2.353e2					3.7	YES		bb		0.000
3	FUNCTION4 NCDPE	39.38	4.251e2					4.0	YES		bb		0.000
4	FUNCTION4 NCDPE	38.59	1.298e4					173.7	YES		bb		0.000
5	FUNCTION4 NCDPE	38.22	2.472e2					4.0	YES		db		0.000
6	FUNCTION4 NCDPE	38.18	3.385e2					4.9	YES		bd		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:45:03 Pacific Standard Time

ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk**ETHERS6**

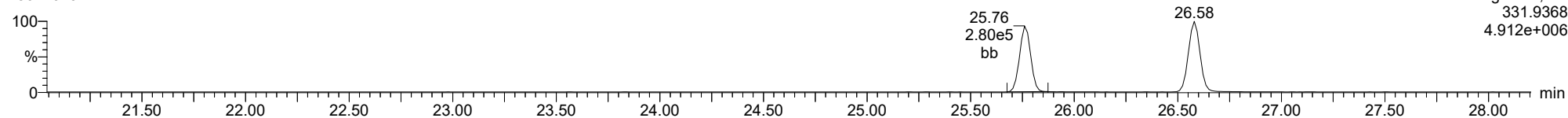
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1	FUNCTION5 DCDPE	44.75	1.970e2					2.4	NO		bb		0.000
2	FUNCTION5 DCDPE	43.98	1.342e2					1.7	NO		db		0.000
3	FUNCTION5 DCDPE	43.92	1.135e2					2.0	NO		bd		0.000
4	FUNCTION5 DCDPE	43.73	3.812e2					3.4	YES		db		0.000
5	FUNCTION5 DCDPE	43.69	8.159e1					1.4	NO		dd		0.000
6	FUNCTION5 DCDPE	43.61	3.652e2					4.9	YES		dd		0.000
7	FUNCTION5 DCDPE	43.59	3.837e2					5.3	YES		bd		0.000
8	FUNCTION5 DCDPE	43.31	3.483e2					4.0	YES		bb		0.000
9	FUNCTION5 DCDPE	46.45	7.610e1					1.5	NO		db		0.000
10	FUNCTION5 DCDPE	46.42	9.892e1					1.9	NO		dd		0.000
11	FUNCTION5 DCDPE	46.34	1.636e2					2.2	NO		bd		0.000
12	FUNCTION5 DCDPE	45.91	1.007e2					1.5	NO		db		0.000
13	FUNCTION5 DCDPE	45.84	1.955e2					2.3	NO		bd		0.000
14	FUNCTION5 DCDPE	45.35	1.215e3					5.7	YES		db		0.000
15	FUNCTION5 DCDPE	45.25	2.919e2					7.2	YES		bd		0.000
16	FUNCTION5 DCDPE	45.18	8.753e1					1.8	NO		bb		0.000
17	FUNCTION5 DCDPE	44.99	8.076e1					1.4	NO		bb		0.000
18	FUNCTION5 DCDPE	44.91	1.015e2					2.5	NO		db		0.000
19	FUNCTION5 DCDPE	44.85	1.821e2					1.9	NO		bd		0.000

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ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

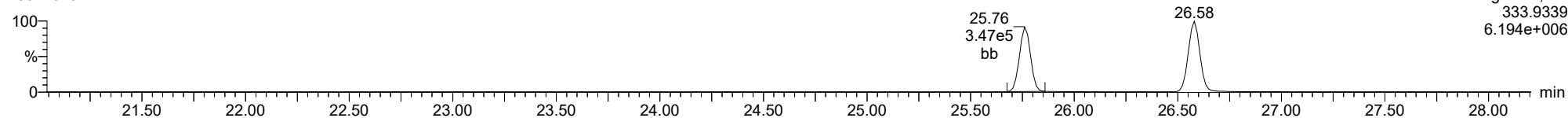
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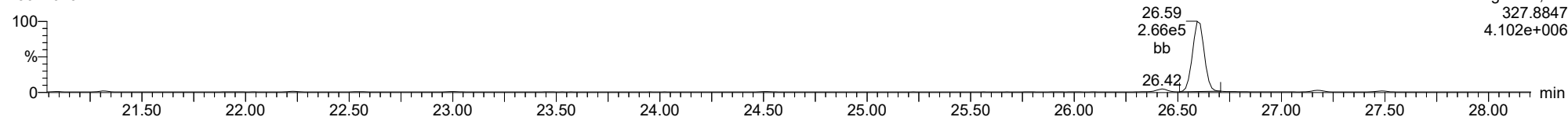
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37CL-2378-TCDD

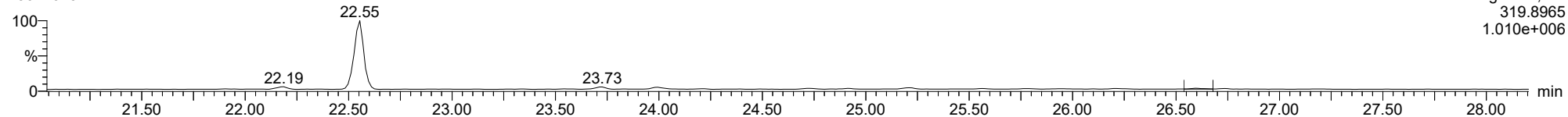
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ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

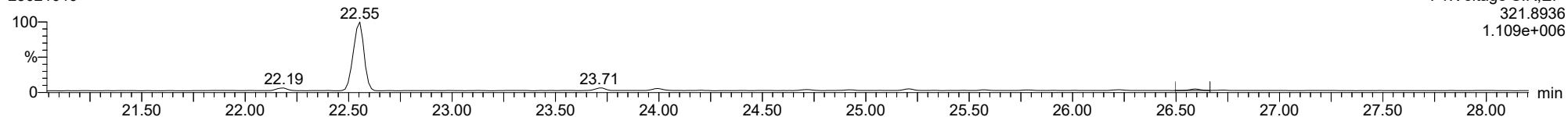
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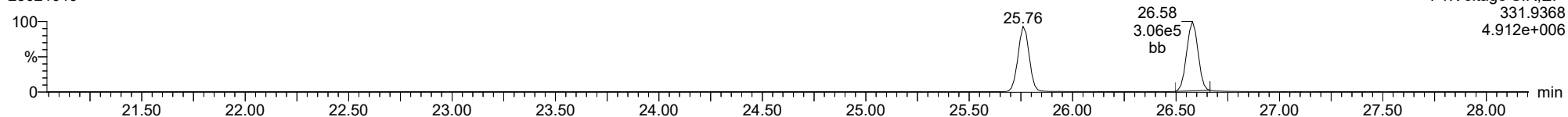
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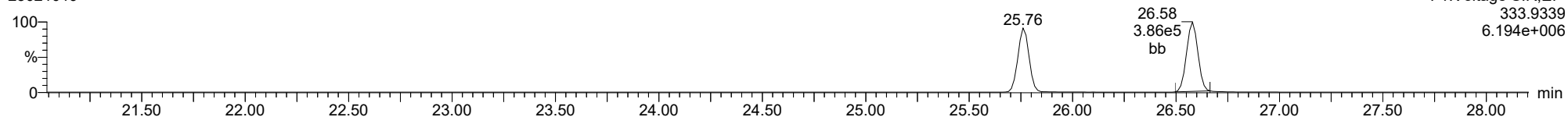
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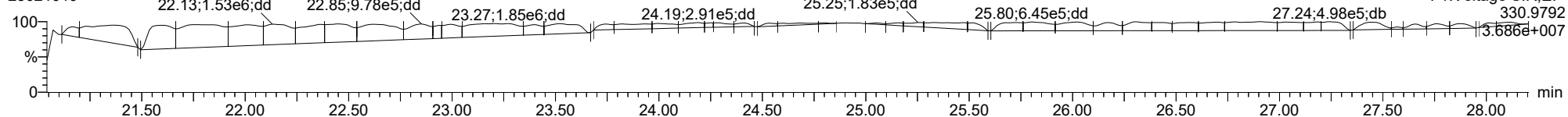
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23021019



FUNCTION1 PFK

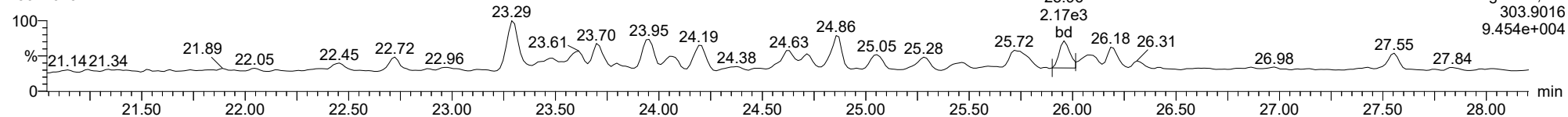
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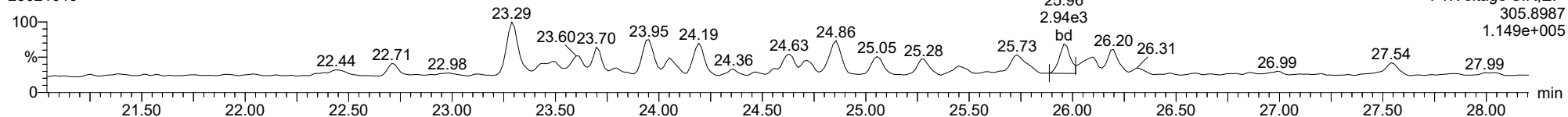
2378-TCDF

23021019



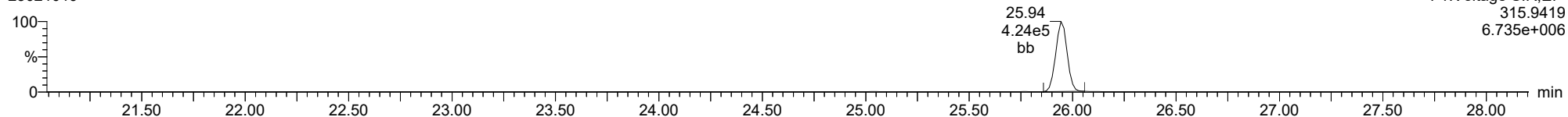
2378-TCDF

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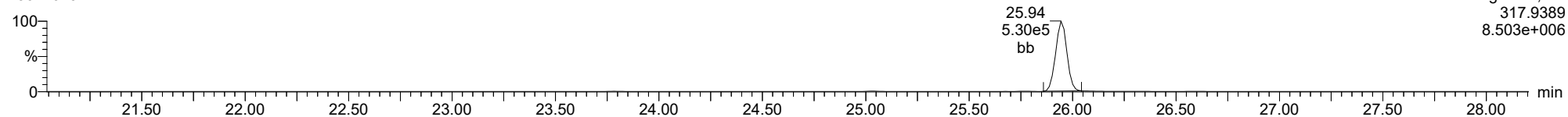
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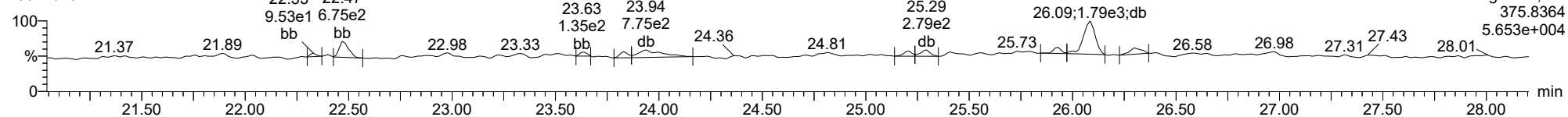
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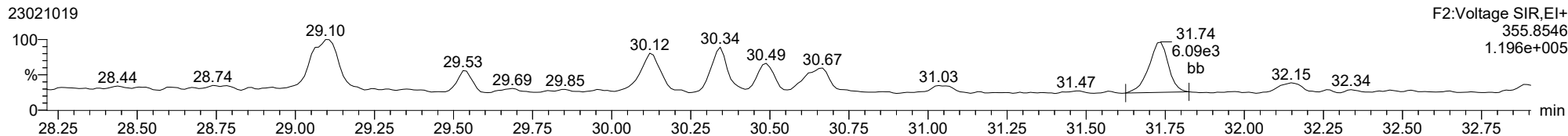
FUNCTION1 HXCDPE

23021019

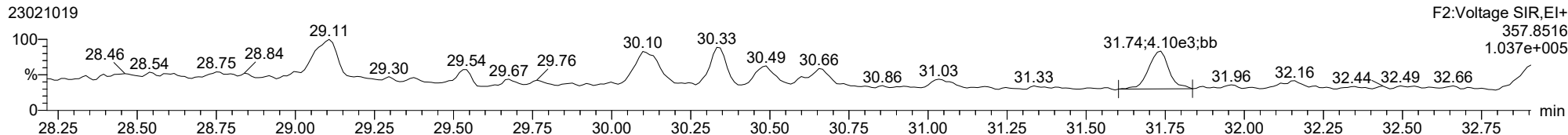


ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

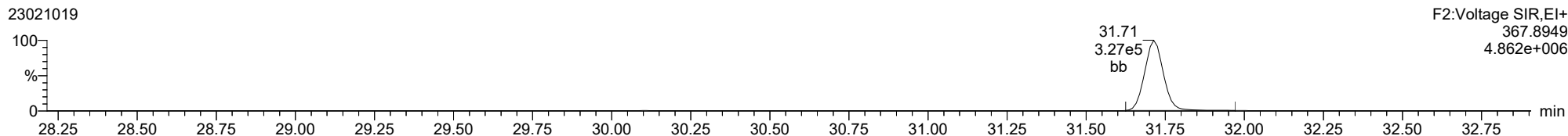
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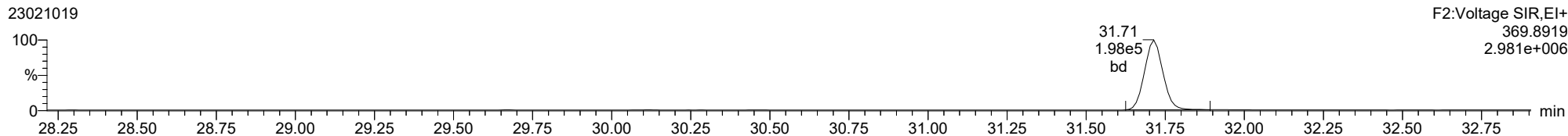
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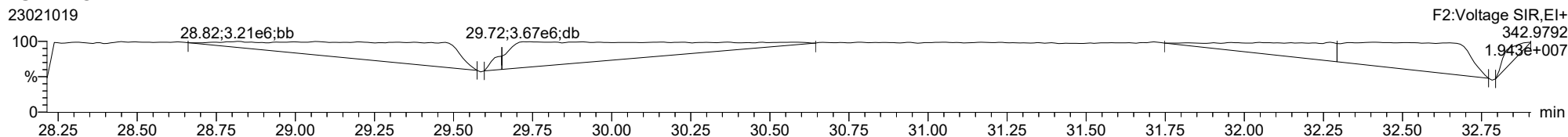
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13C-12378-PeCDD



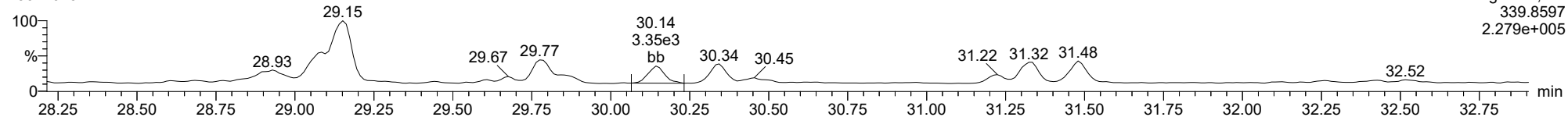
FUNCTION2 PFK



ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

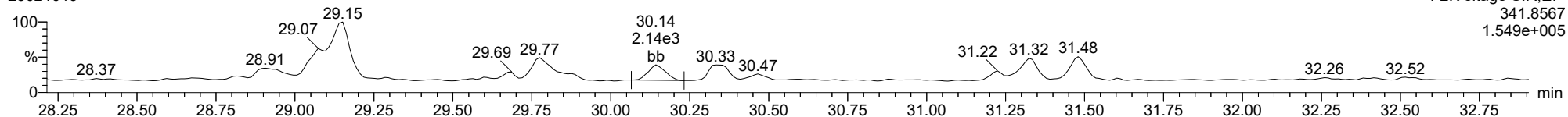
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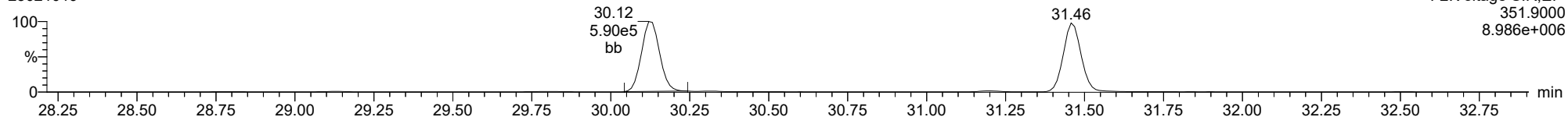
12378-PeCDF

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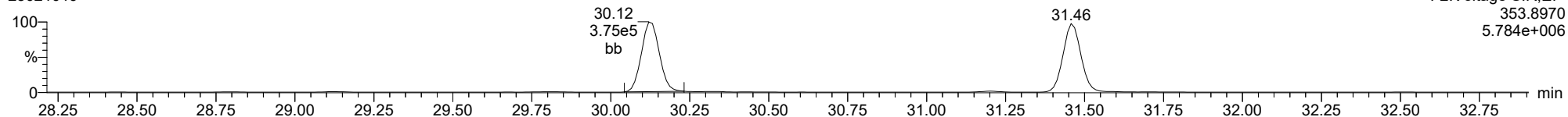
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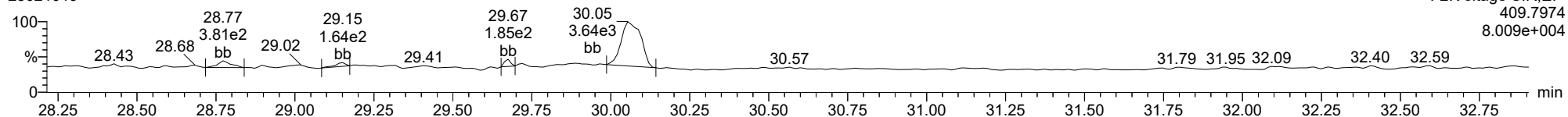
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23021019



FUNCTION2 HPCDPE

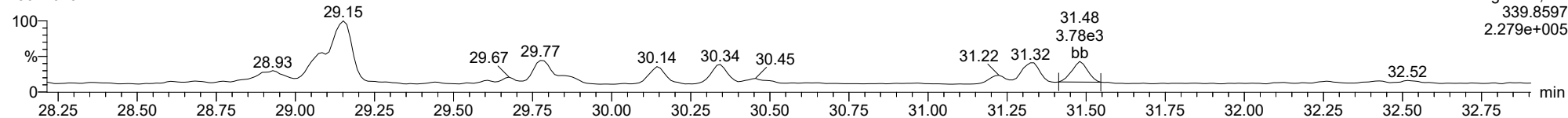
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ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

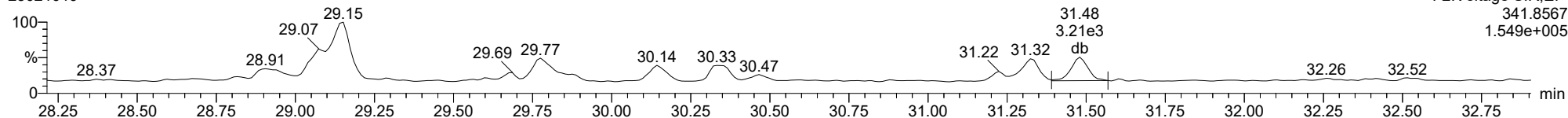
23478-PeCDF

23021019



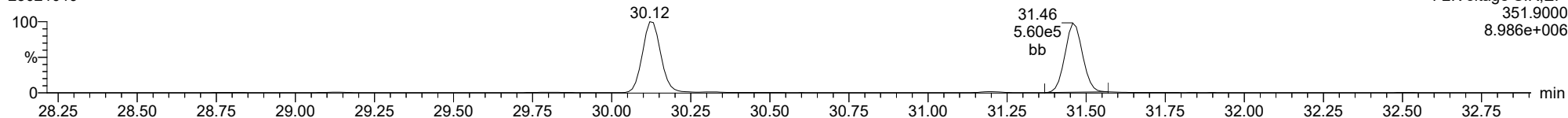
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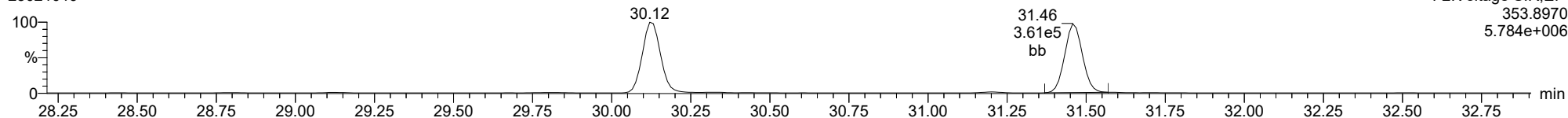
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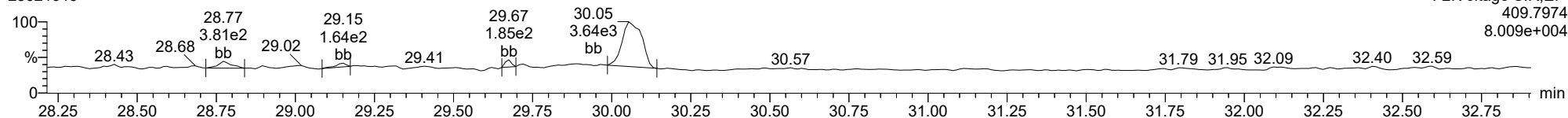
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23021019



FUNCTION2 HPCDPE

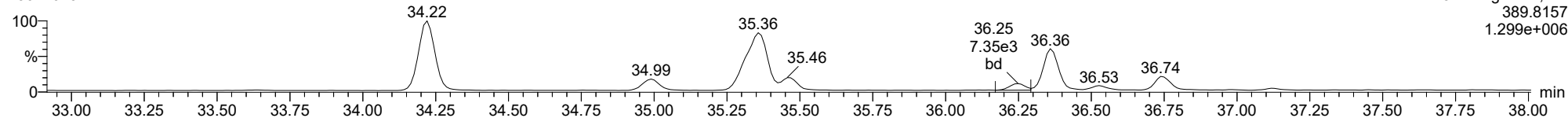
23021019



ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

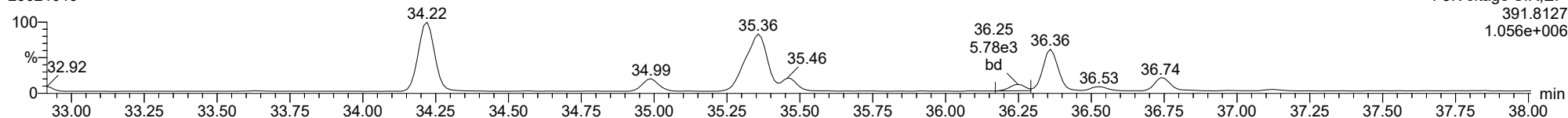
123478-HxCDD

23021019



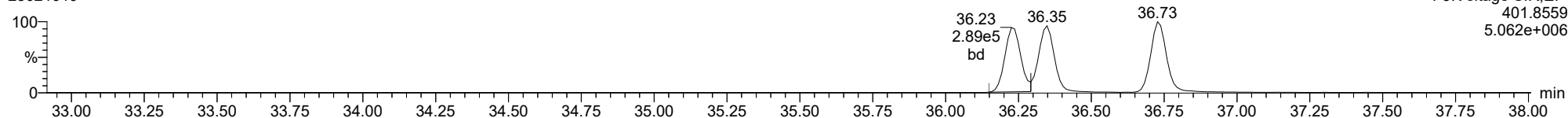
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23021019



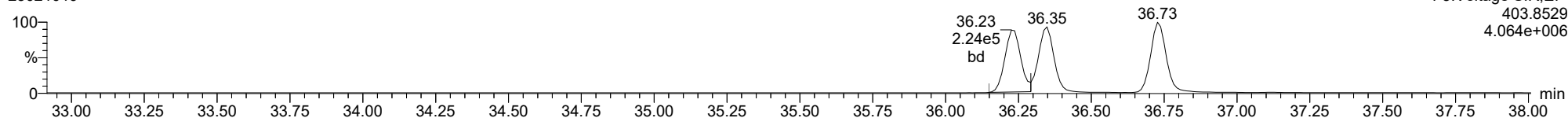
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23021019



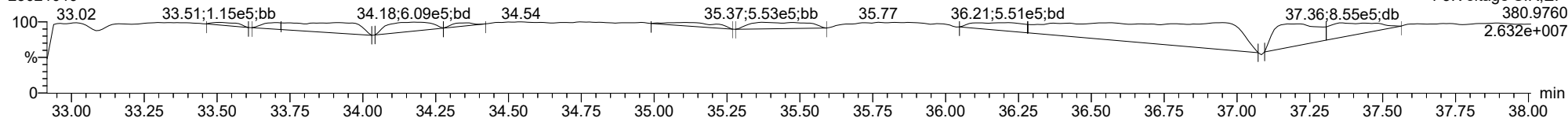
13C-123478-HxCDD

23021019



FUNCTION3 PFK

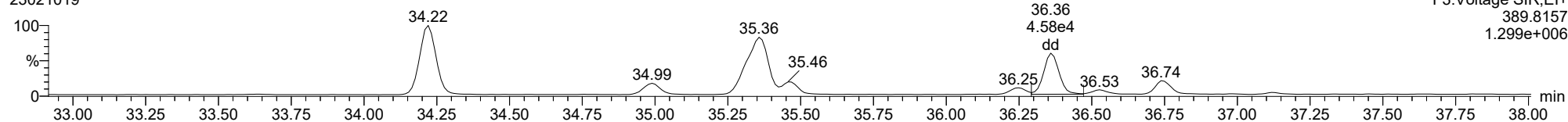
23021019



ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

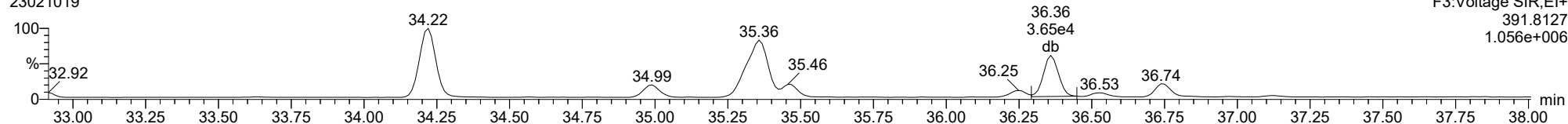
123678-HxCDD

23021019



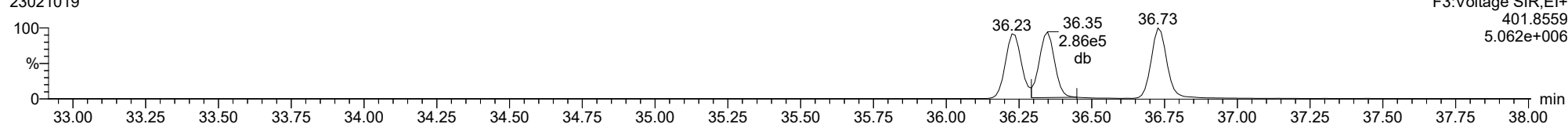
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23021019



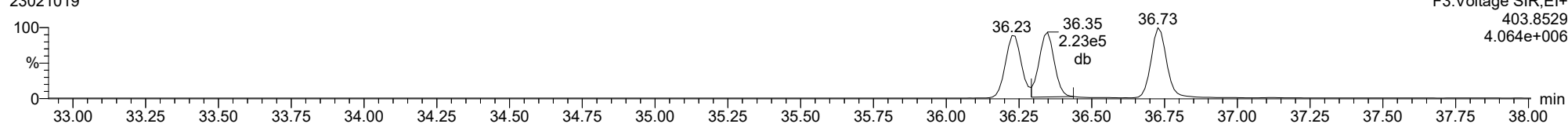
13C-123678-HxCDD

23021019



13C-123678-HxCDD

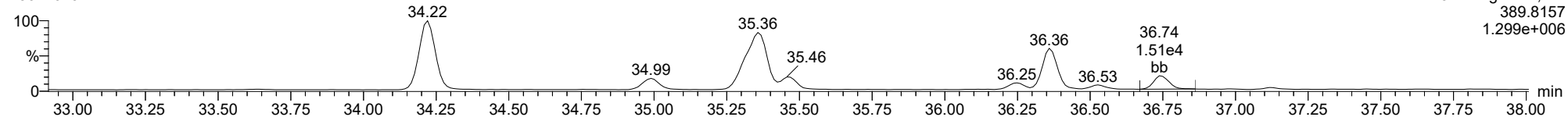
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ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

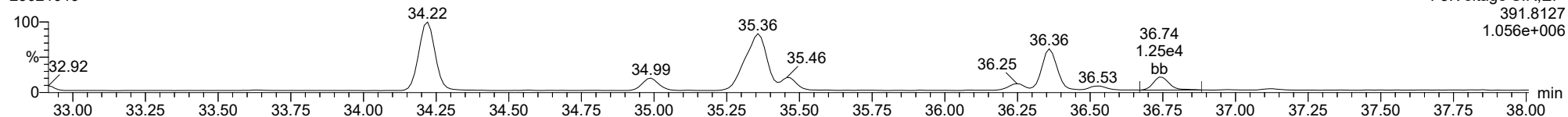
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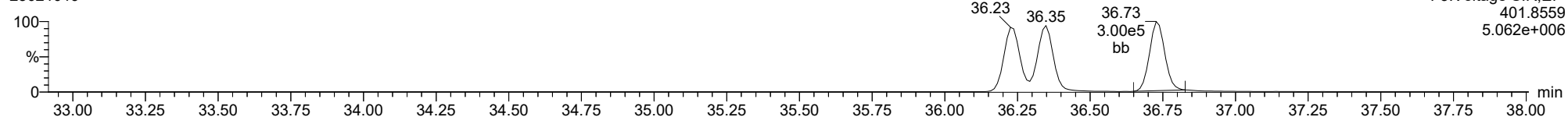
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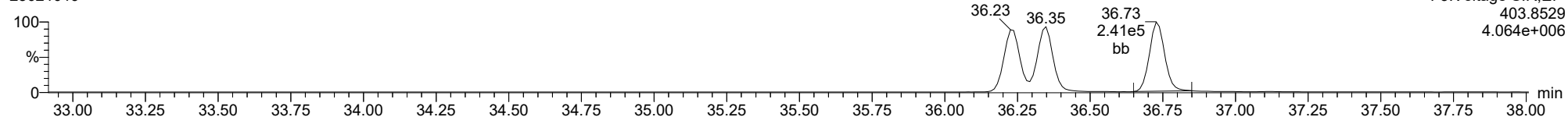
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23021019



13C-123789-HxCDD

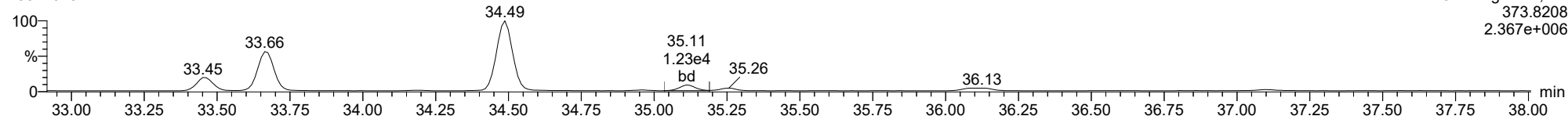
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ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

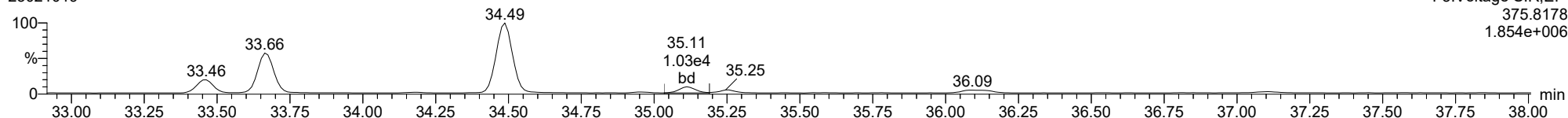
123478-HxCDF

23021019



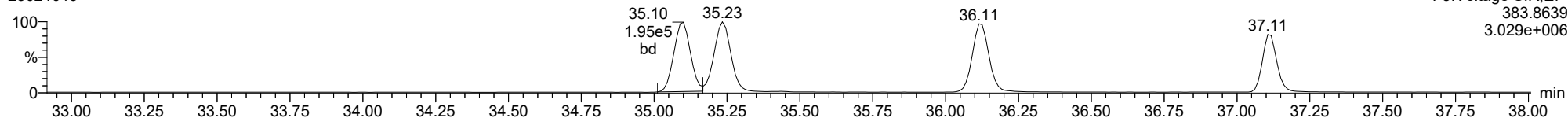
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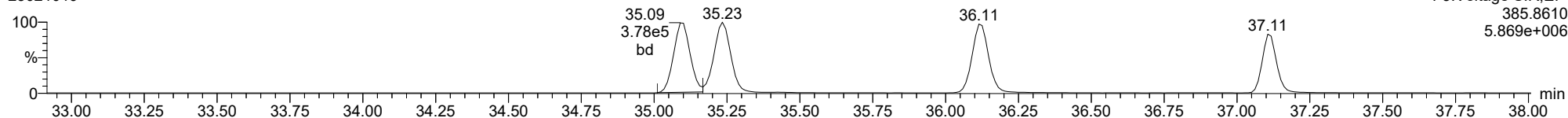
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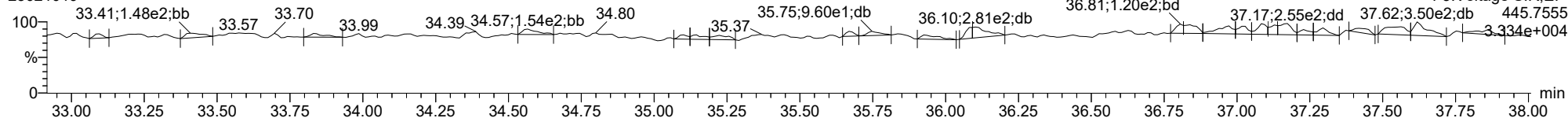
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23021019



FUNCTION3 OCDPE

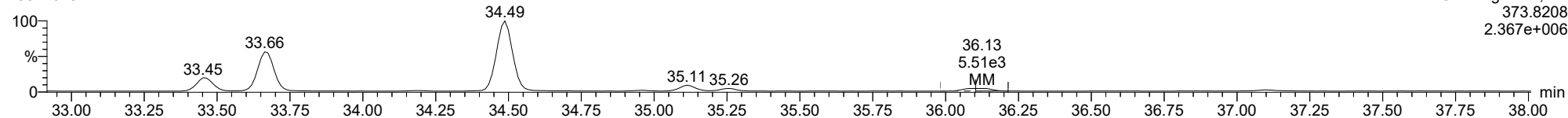
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ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

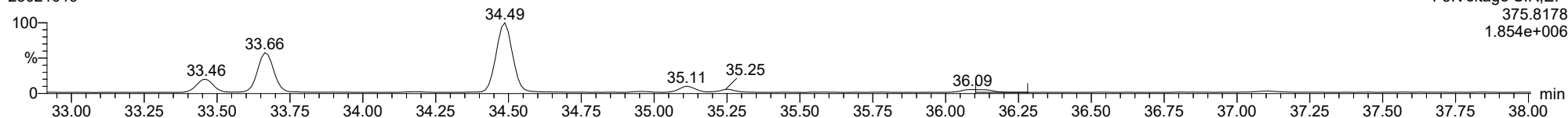
234678-HxCDF

23021019



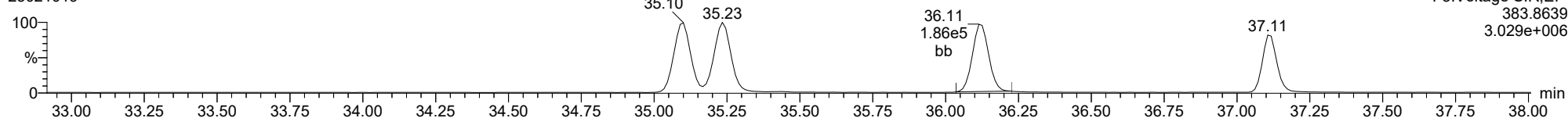
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23021019



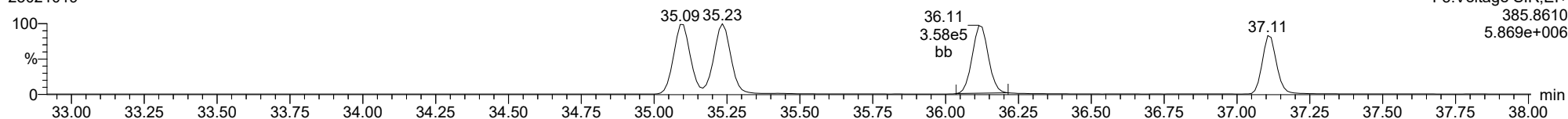
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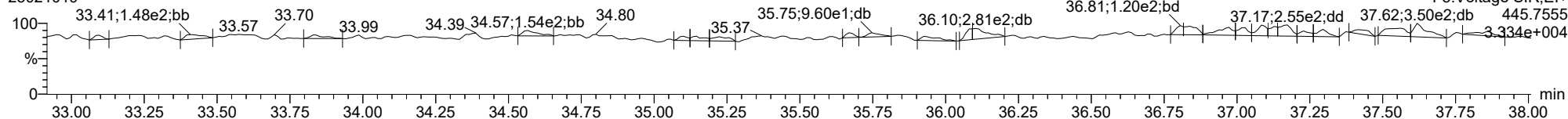
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23021019



FUNCTION3 OCDPE

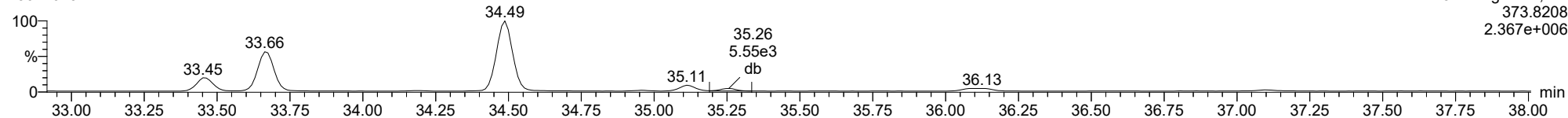
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ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

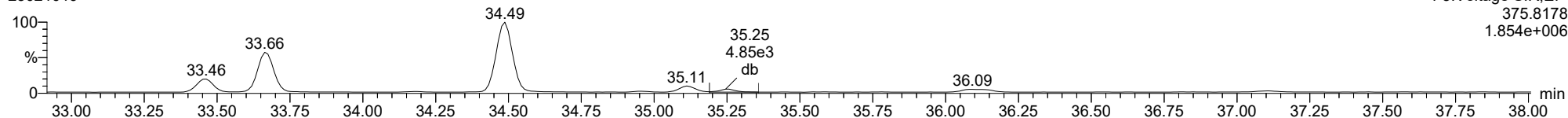
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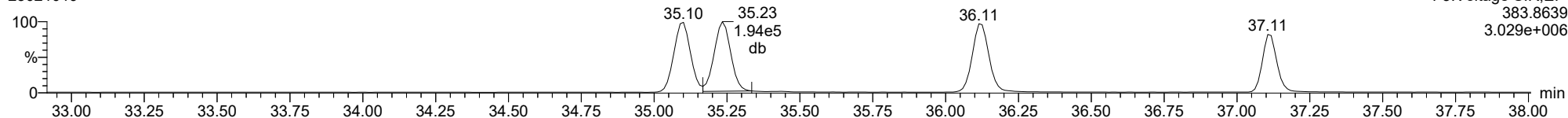
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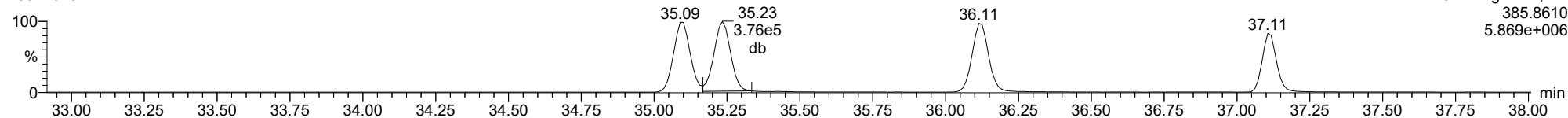
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23021019



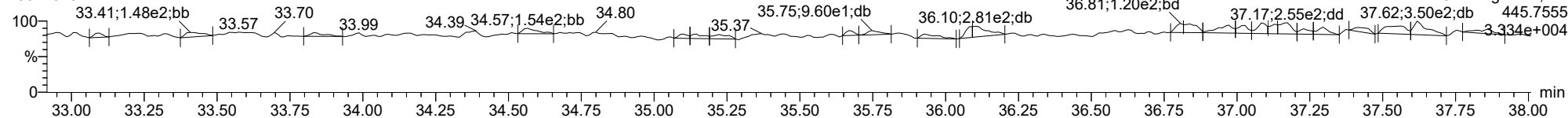
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23021019



FUNCTION3 OCDPE

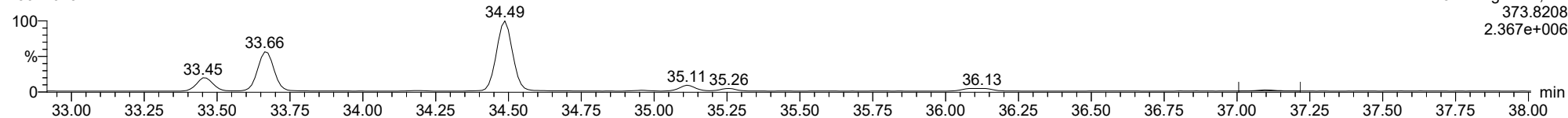
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ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

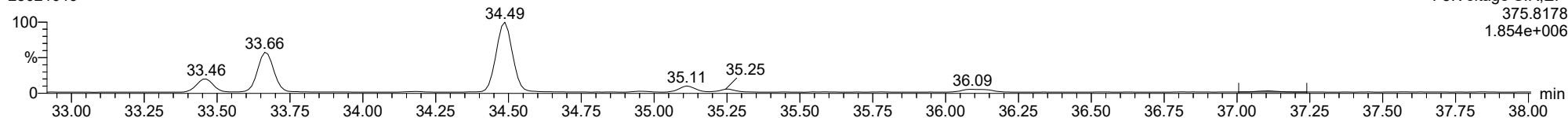
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23021019



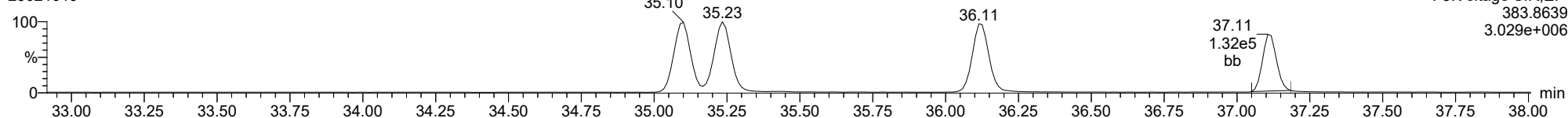
123789-HxCDF

23021019



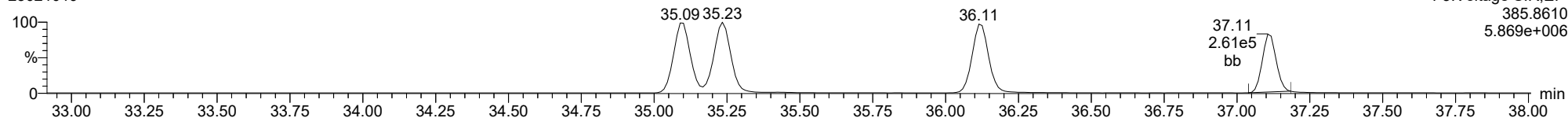
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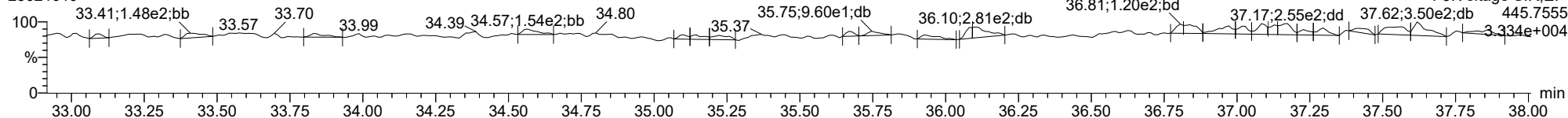
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23021019



FUNCTION3 OCDPE

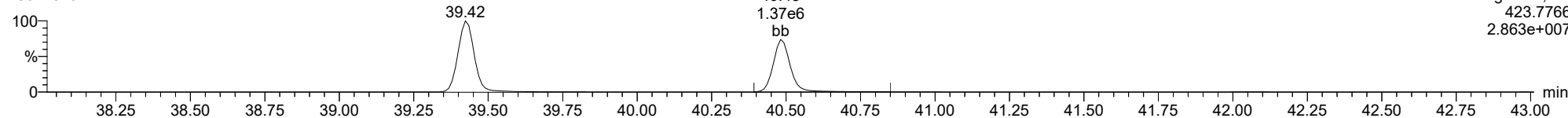
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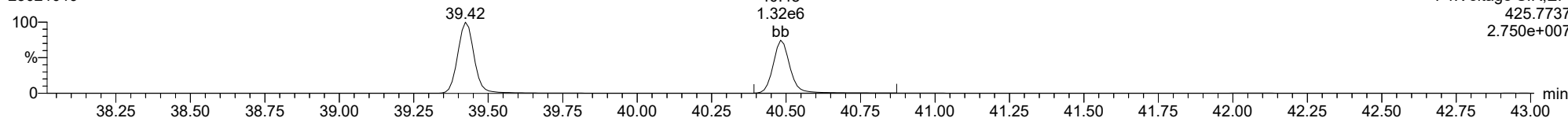
1234678-HpCDD

23021019



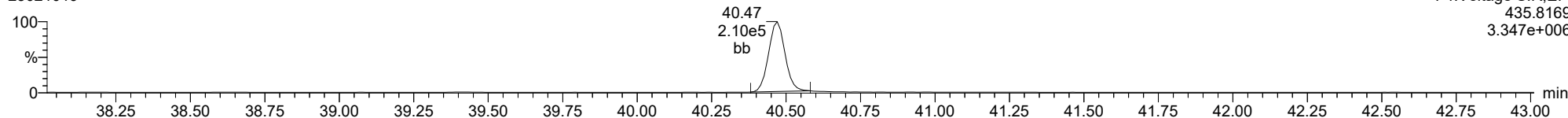
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23021019



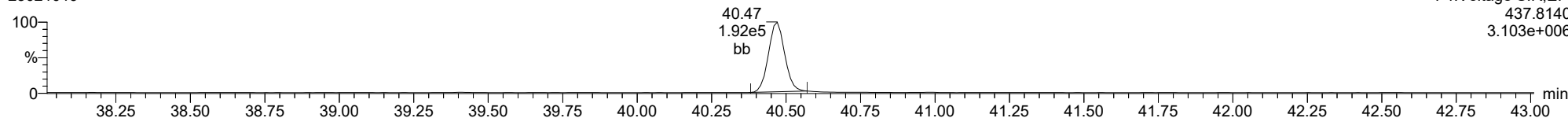
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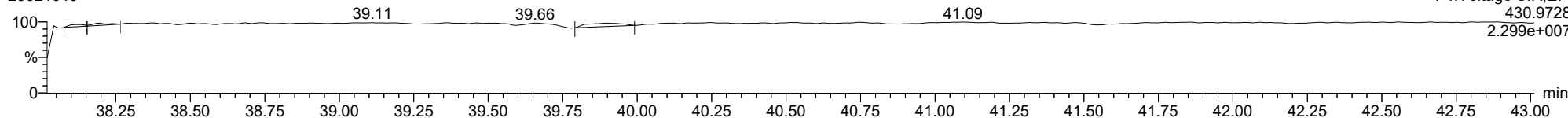
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23021019



FUNCTION4 PFK

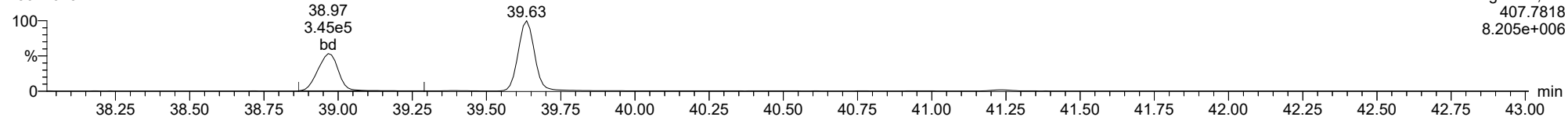
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ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF

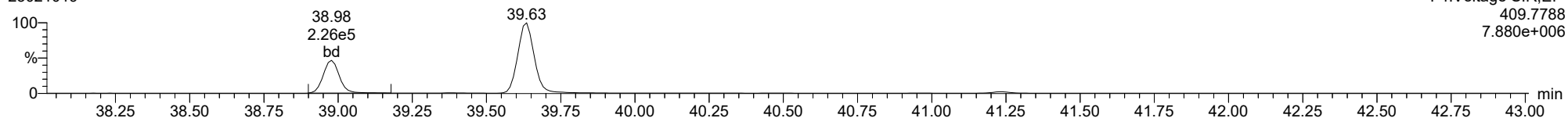
23021019



F4:Voltage SIR,EI+
407.7818
8.205e+006

1234678-HpCDF

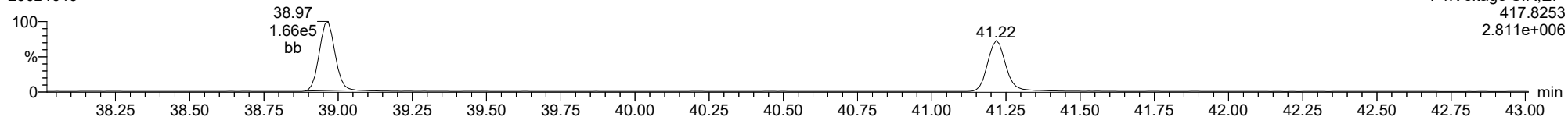
23021019



F4:Voltage SIR,EI+
409.7788
7.880e+006

13C-1234678-HpCDF

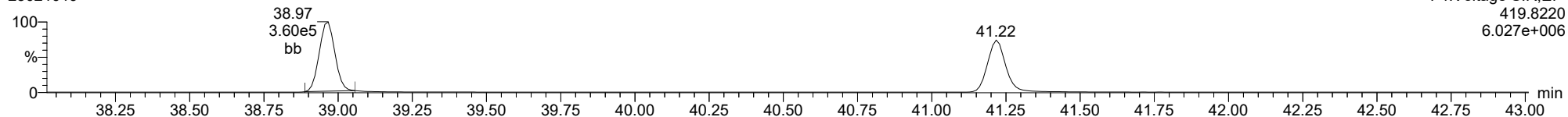
23021019



F4:Voltage SIR,EI+
417.8253
2.811e+006

13C-1234678-HpCDF

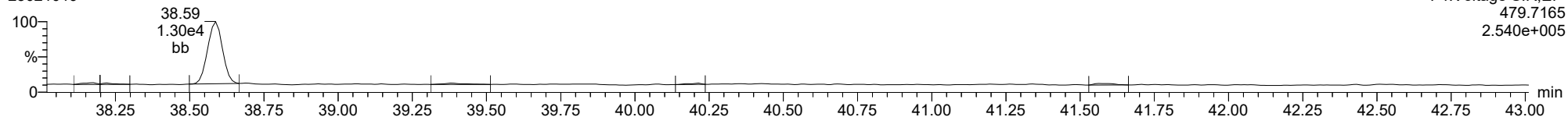
23021019



F4:Voltage SIR,EI+
419.8220
6.027e+006

FUNCTION4 NCDPE

23021019

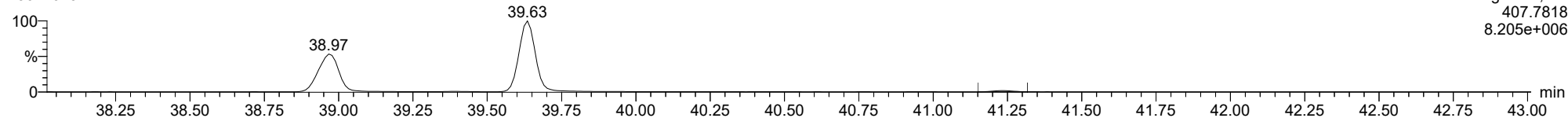


F4:Voltage SIR,EI+
479.7165
2.540e+005

ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

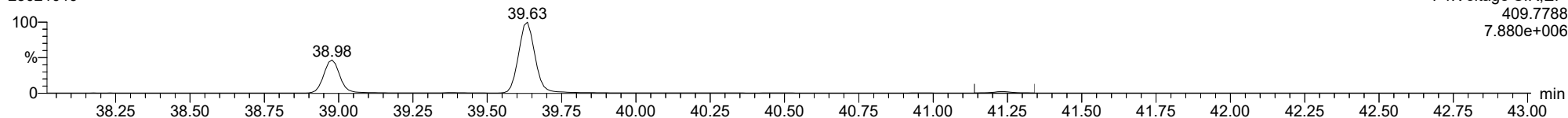
1234789-HpCDF

23021019



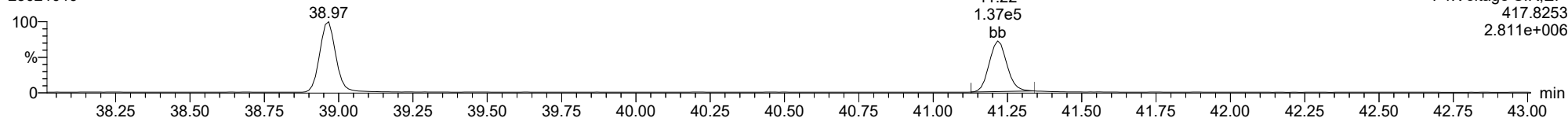
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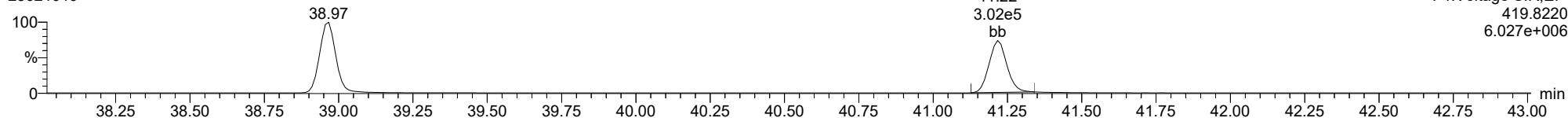
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23021019



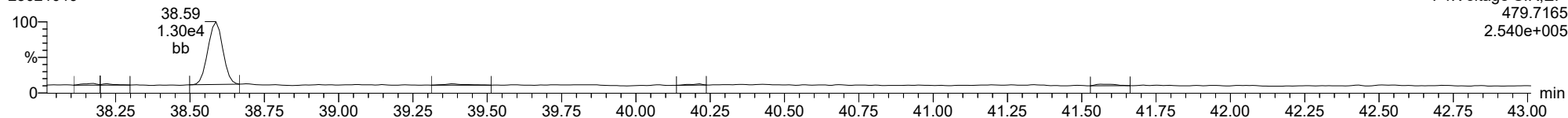
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23021019



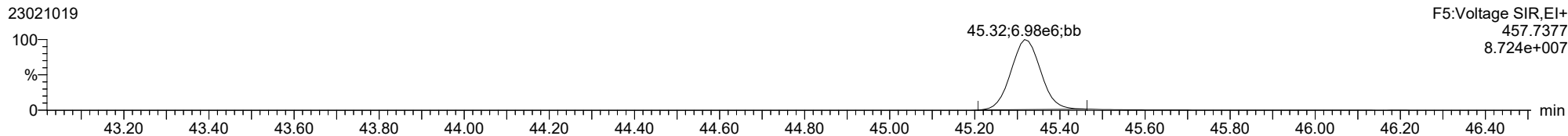
FUNCTION4 NCDPE

23021019

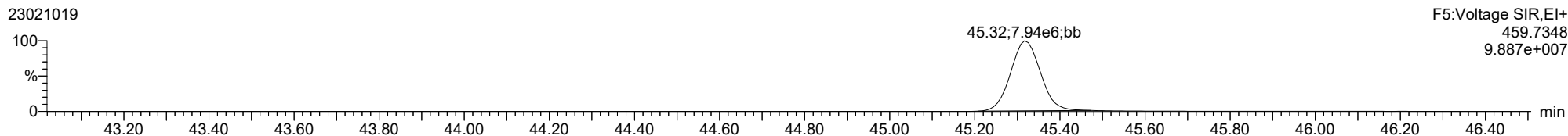


ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

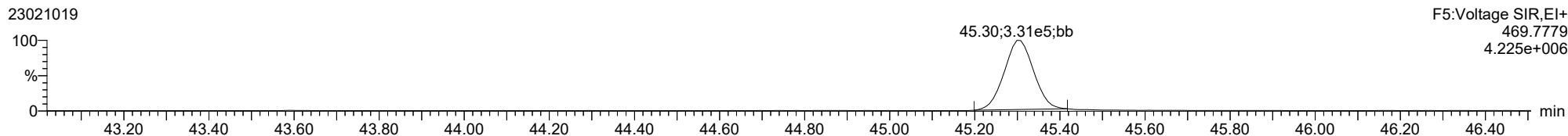
OCDD



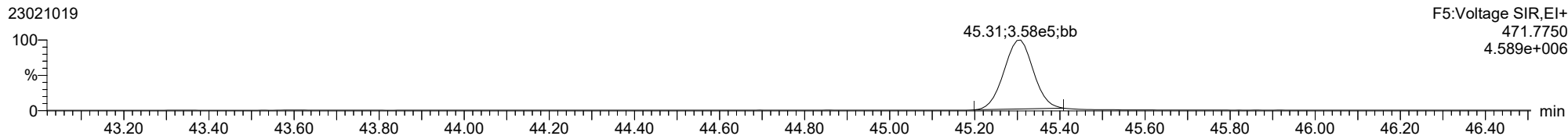
OCDD



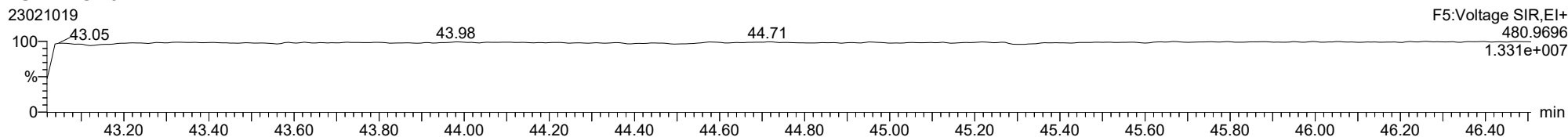
13C-OCDD



13C-OCDD



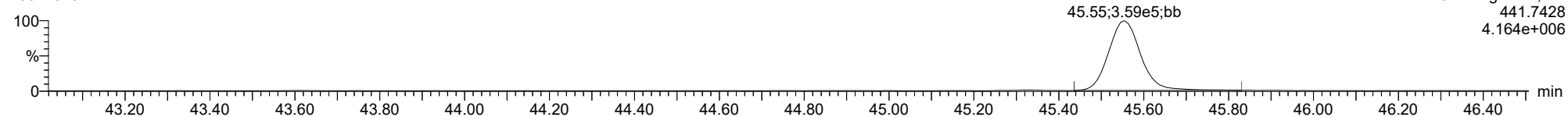
FUNCTION5 PFK



ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

OCDF

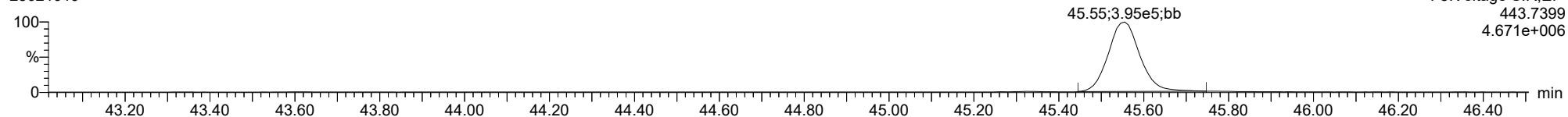
23021019



F5:Voltage SIR,EI+
441.7428
4.164e+006

OCDF

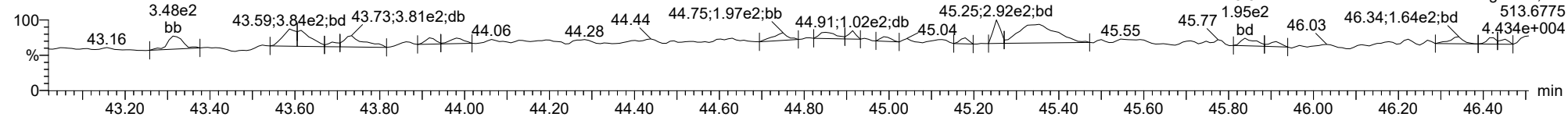
23021019



F5:Voltage SIR,EI+
443.7399
4.671e+006

FUNCTION5 DCDPE

23021019

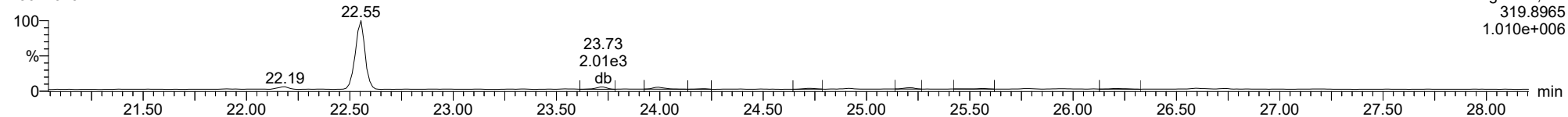


F5:Voltage SIR,EI+
513.6775
4.434e+004

ID: 23A0032-11, Name: 23021019, Date: 11-Feb-2023, Time: 04:27:20, Conditions: AUTOSPEC01, User: pk

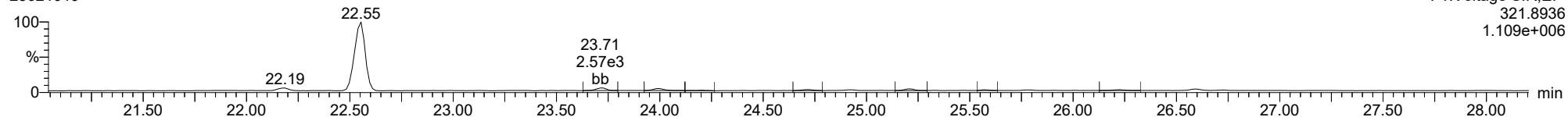
Total-tetradioxins

23021019



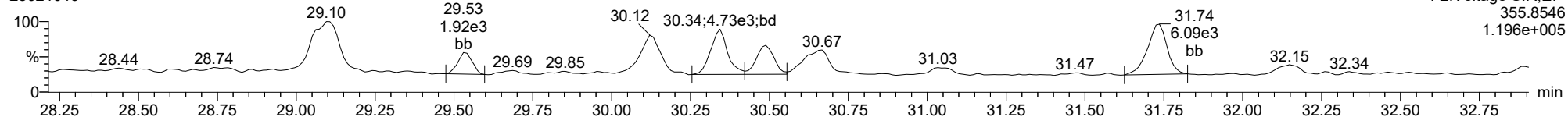
Total-tetradioxins

23021019



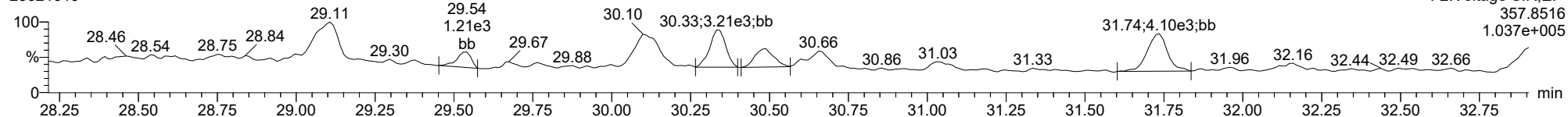
Total-pentadioxins

23021019



Total-pentadioxins

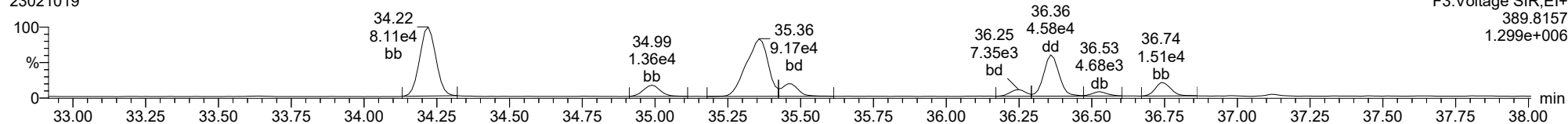
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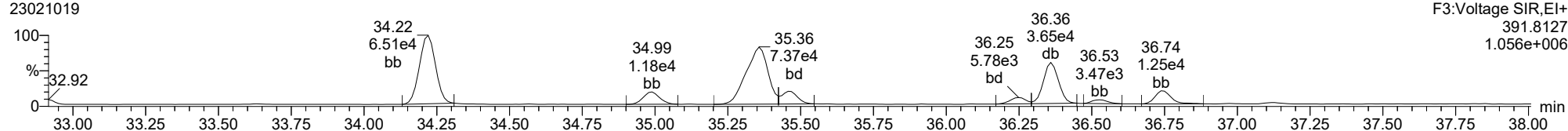
Total-hexadioxins

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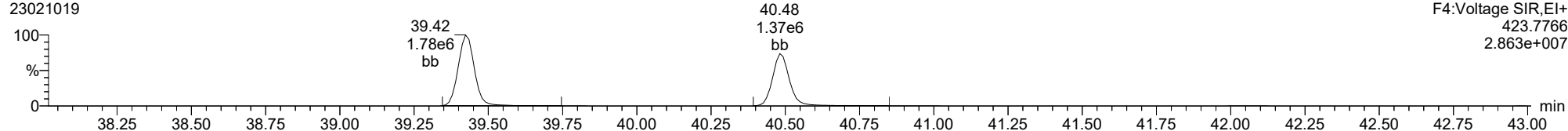
Total-hexadioxins

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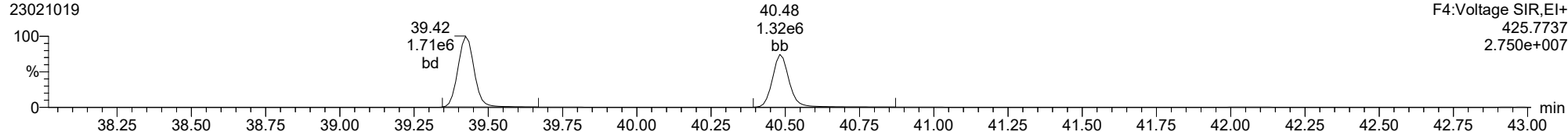
Total-heptadioxins

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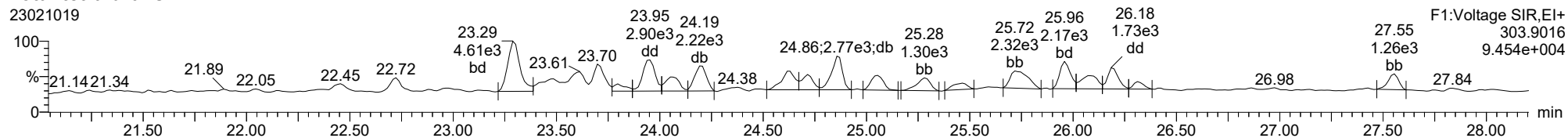
Total-heptadioxins

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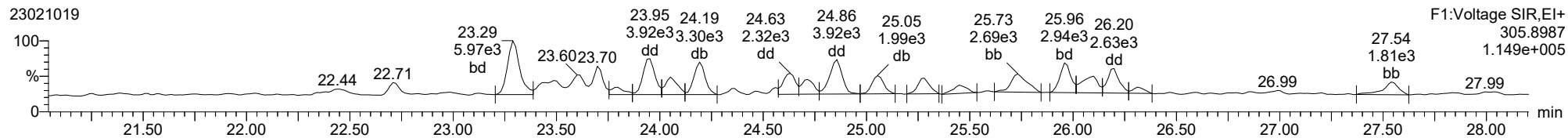


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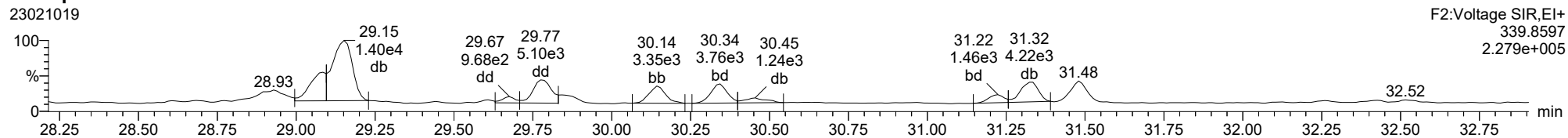
Total-tetrafurans



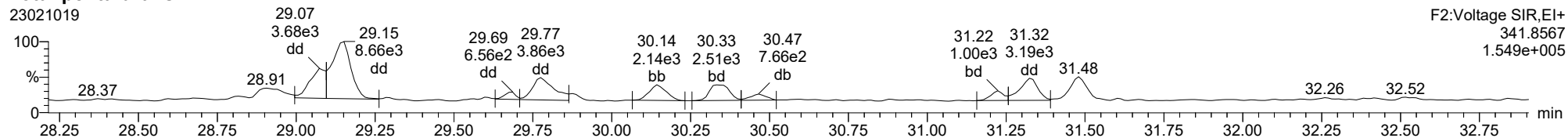
Total-tetrafurans



Total-pentafurans



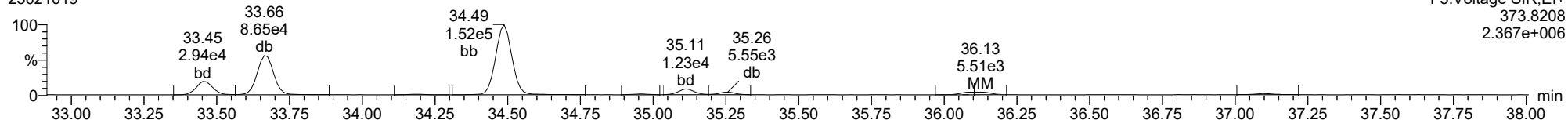
Total-pentafurans



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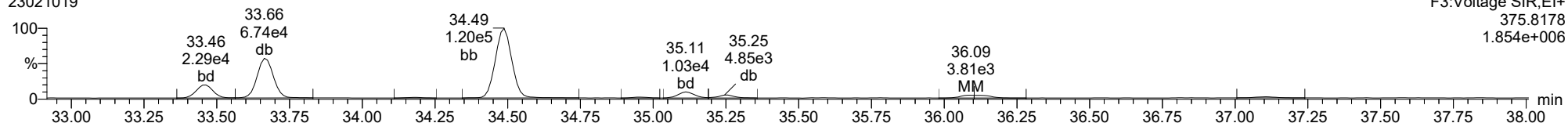
Total-hexafurans

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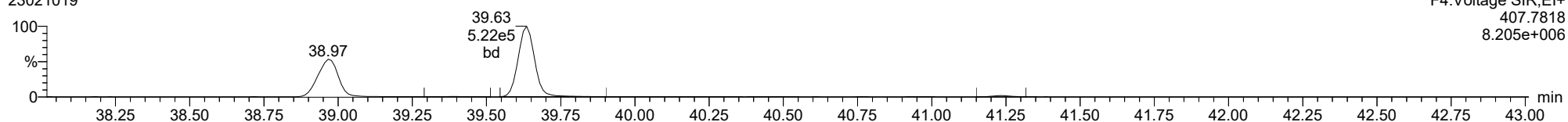
Total-hexafurans

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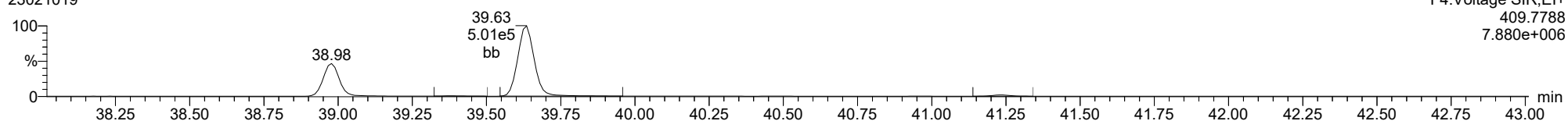
Total-heptafurans

23021019



Total-heptafurans

23021019





PREPARATION BATCH SUMMARY
EPA 1613B

Laboratory: Analytical Resources, LLC SDG: 23A0032
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Batch: BLA0256 Batch Matrix: Solid Preparation: EPA 8290

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1264	23A0032-02	23021012	01/30/23 14:23	
LDW23-IT1272	23A0032-04	23021013	01/30/23 14:23	
LDW23-IT1235	23A0032-06	23021014	01/30/23 14:23	
LDW23-IT1202	23A0032-07	23021017	01/30/23 14:23	
LDW23-SC1226B	23A0032-08	23021018	01/30/23 14:23	
LDW23-SC1212	23A0032-11	23021019	01/30/23 14:23	
Blank	BLA0256-BLK1	23021004	01/30/23 14:23	
LCS	BLA0256-BS1	23021005	01/30/23 14:23	
Reference	BLA0256-SRM1	23021006	01/30/23 14:23	



Analytical Resources, LLC
Analytical Chemists and Consultants

HRGCMS Dioxin/Furan Preparation Bench Sheet EPA Methods 8290A or 1613B

Batch: BLA0256

Solid Samples

ARI Work Orders: 23A0031, 23A0032, 23A0087, 23A0545

Matrix (circle one) Soil Sediment Oil Tissue

Extraction Method: Soxhlet Sepf Shake out

Start Date/Time: 01/30/23 14:23 End Date/Time: 01/31/23 06:25

Reagents/Equipment Used	NA	ID / Lot Number	Initials	Date
Glasswool		3012850	TW	2/1/23
Basic Silica		LD00710	TW	2/1/23
Acid Silica		K011012	TW	2/1/23
Activated Florisil		3008568	TW	2/1/23
Balance		24650344	TW	1/30/23
Toluene		K011233	TW	1/30/23
Hexane		K011373	TW	2/1/23
CH2Cl2		K005158	TW	2/1/23
H2SO4		K009796	TW	2/1/23
Na2SO4		LD00759	TW	1/30/23
Other (RM)		K010912	TW	1/30/23
0% Silica		K011054	TW	2/1/23
Nonane		K006035	TW	2/1/23

Lab Number & Container	Sample Name	% Solids	Sample Weight Equal to dry (g) (Target Dry)	Actual	Rotovap °C	Water Trap Vol (mL)	Final Vol (uL)
23A0031-05 C	LDW23-SS1191	60.73	14.48	14.48	112	6.0	20
23A0031-06 C	LDW23-SS1191-FD	61.82	16.19	16.19	112	5.5	20
23A0031-11 C	LDW23-SS1143	56.57	17.09	17.09	112	7.0	20
23A0031-12 C	LDW23-SS1143-FD	55.06	18.16	18.16	112	6.5	20
23A0032-02 D	LDW23-TT1264	61.81	16.20	16.20	112	6.0	20
23A0032-04 C	LDW23-TT1272	78.38	12.77	12.77	112	2.5	20
23A0032-06 C	LDW23-TT1235	75.43	13.26	13.26	112	3.0	20
23A0032-07 C	LDW23-TT1202	61.24	16.34	16.34	112	5.0	20
23A0032-08 C	LDW23-SC1226B	62.5	16.01	16.01	112	6.0	20
23A0032-11 C	LDW23-SC1212	52.24	17.15	17.15	112	8.0	20
23A0087-01 C	LDW23-SS1264	53.71	18.66	18.66	112	7.0	20
23A0087-05 C	LDW23-SS1212	67.02	14.92	14.92	112	5.0	20
23A0087-06 C	LDW23-SS1212-FD	68.8	14.55	14.55	112	4.8	20
23A0087-07 C	LDW23-SS1211	56.48	17.72	17.72	112	2.6	20
23A0087-08 C	LDW23-SS1203	54.48	18.36	18.36	112	7.0	20
23A0087-15 C	LDW23-SS1228	67.83	14.74	14.74	112	4.0	20
23A0545-01 A	SPE016-10G	100	1.01	1.01	112	0.0	20
BLA0256-BLKI	Blank	100	1.00	1.00	112	0.0	20
BLA0256-BSI	LCS	100	1.00	1.00	112	0.0	20
BLA0256-DUP1	23A0031-08 C Duplicate	60.73	16.48	16.48	112	6.0	20
BLA0256-SRMI	Reference	100	1.00	1.00	112	0.0	20

Prep Analyst / Date: TW 1/30/23 TW 2/1/23

Standards Used	Vol	ID / Lot Number	Concentration	Expiration Date	Analyst	Witness	Date
Recovery Standard	1.0 mL	K01158	2/4 ng/mL	12/1/23	TW	M	1/30/23
OPR	1.0 mL	K006003	0.2/1.0/2.0 ng/mL	6/30/23	TW	M	1/30/23
Clean-up Standard	1.0 mL	K01159	0.8 ng/mL	12/1/23	TW	M	2/1/23

Verify Client ID	Analyst / Date	Water Trap Vol (mL)	Final Vol (uL)
Acid Clean	TW 1/30/23	6.0	20
Silica Florisil Clean	TW 2/1/23	6.0	20

Supervisor Review By: AKL Date: 2/6/23

TOTAL SOLIDS BENCHSHEET

Method HRSM01.2

(dry at 110 C)

Batch: BLA0143

Date: 1/11/2023 5:17

Analyst: TW

Instrumentation

Drying Oven: 18

Analytical Balance: 24650344

Batch drying time

Record times as mm/dd/yy hh:mm

Date/time in oven: 1/10/2023 12:03

Date/time out: 1/11/2023 5:17

Elapsed hrs: 17.2

Oven Temp, C 111

TS (%) calculated as:

Final dry wt (g) = (Dry Wt - Tare Wt)

TS = (Final Dry Wt X 100) / (sample & dish - dish tare)

Oven Temps, °C

Start Temp: 111

End Temp: 111

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
23A0031-05	0.7900	11.4600	7.2700	6.48	60.73%	Yes
23A0031-06	0.8200	11.2700	7.2800	6.46	61.82%	Yes
23A0031-11	0.8200	11.7100	6.9800	6.16	56.57%	Yes
23A0031-12	0.8000	11.6600	6.7800	5.98	55.06%	Yes
23A0032-02	0.7900	11.6300	7.4900	6.70	61.81%	Yes
23A0032-04	0.7900	11.5200	9.2000	8.41	78.38%	No
23A0032-06	0.8000	11.3000	8.7200	7.92	75.43%	Yes
23A0032-07	0.8100	11.3100	7.2400	6.43	61.24%	Yes
23A0032-08	0.8100	11.8500	7.7100	6.90	62.50%	No
23A0032-11	0.8100	11.5300	6.4100	5.60	52.24%	Yes
23A0087-01	0.7900	11.5700	6.5800	5.79	53.71%	Yes
23A0087-05	0.8000	11.0800	7.6900	6.89	67.02%	Yes
23A0087-06	0.8000	11.7300	8.3200	7.52	68.80%	Yes
23A0087-07	0.8000	11.3000	6.7300	5.93	56.48%	Yes
23A0087-08	0.8000	11.1900	6.4600	5.66	54.48%	Yes
23A0087-15	0.8000	11.6800	8.1800	7.38	67.83%	Yes

TOTAL SOLIDS BENCHSHEET

Method HRSM01.2

(dry at 110 C)

Instrumentation

Batch: BLA0143

Date: 01/11/23

Analyst: TW

Drying Oven: 018

Analytical Balance: 24650344

Batch drying time

Record times as mm/dd/yy hr:mm

Date/time in oven: 01/10/23 12:03

Date/time out: 01/12/23 0517

Elapsed hrs: 0.0

Oven Temp, C 111

TS (%) calculated as:

Final dry wt (g) = (Dry Wt - Tare Wt)

TS = (Final Dry Wt X 100) / (sample & dish - dish tare)

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
23A0031-05 C	0.79	11.46	7.27			No Yes
23A0031-06	0.82	11.27	7.28			No Yes
23A0031-11	0.82	11.71	6.98			No Yes
23A0031-12	0.80	11.66	6.78			No Yes
23A0032-02 D	0.79	11.63	7.49			No Yes
23A0032-04 C	0.79	11.52	7.26			No Yes
23A0032-06	0.80	11.30	8.72			No Yes
23A0032-07	0.81	11.31	7.27			No Yes
23A0032-08	0.81	11.85	7.71			No
23A0032-11	0.81	11.53	6.41			No Yes
23A0087-01	0.79	11.57	6.58			No Yes
23A0087-05	0.80	11.08	7.69			No Yes
23A0087-06	0.80	11.73	8.52			No Yes
23A0087-07	0.80	11.30	6.75			No Yes
23A0087-08	0.80	11.19	6.46			No Yes
23A0087-15	0.80	11.68	8.18			No Yes

Oven Temps, °C	111
Start Temp:	111
End Temp:	111



Extraction Parameter: _____ Extraction Batch _____

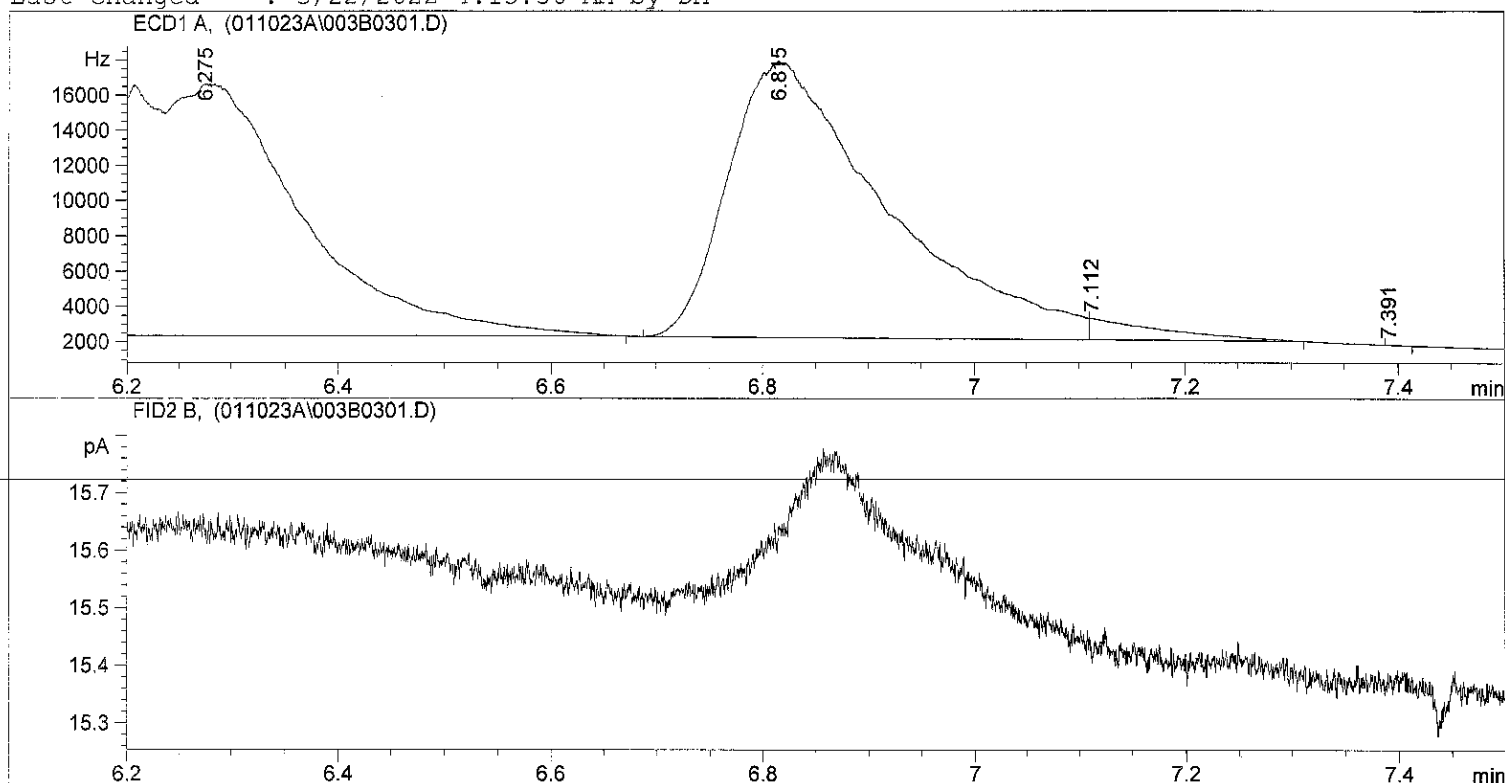
Total Solids Batch: BLA0143 Work Order(s): 23A0031, 23A0032, 23A0037

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= 32-4	TW 1/10/23
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= 31-5, 6, 11, 12, 32-2, 6, 7, 11, 87-1, 5, 6, 7, 8, 15	TW 1/10/23
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input checked="" type="checkbox"/> Clay/Clumps (Difficult to homogenize)= 31-5-12, 32-2, 6, 7, 8, 11, 87-1-15	TW 1/10/23
<input checked="" type="checkbox"/> Rocks (%+size)? 32-2 = <1% 1/2" rocks	TW 1/10/23
<input checked="" type="checkbox"/> Organics (Leaves/sticks/grass)= Roots, fine organics = 31-5, 11, 12, 32-6, 11, 87-1, 5, 8	TW 1/10/23
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors= 31-5, 6, 32-7, 8, 11, 87-6, 7, 8, 15	TW 1/10/23
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input checked="" type="checkbox"/> Other (Details)= 31-11: Bumped while rotovapping, loss insignificant → Rotax #1	TW 2/1/23
32-06, 11 = Double Acid Cleaned due to coloration	TW 2/1/23
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input type="checkbox"/> Share Samples Y / N	
<input type="checkbox"/> Multiple Jars Y / N	
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	

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Injection Date   : 1/10/2023 12:38:56 PM      Seq. Line   :    3
Sample Name     : CS4 STD                     Location    : Vial 3
Acq. Operator  : TW                          Inj         :    1
                                           Inj Volume  : 1 µl

Sequence File   : C:\HPCHEM\2\SEQUENCE\011023A.S
Method          : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed    : 3/22/2022 4:13:36 AM by DM
    
```



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 Area Percent Report
 =====

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Sorted By      :      Signal
Multiplier     :      1.0000
Dilution       :      1.0000
    
```

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.570	BV S	0.0402	2.22944e5	6.74493e4	16.38714
2	5.666	VV S	0.0916	4.72159e5	8.59441e4	34.70534
3	5.772	VV S	0.0942	1.77456e5	3.13845e4	13.04361
4	6.036	VV S	0.0934	1.32424e5	2.36263e4	9.73360
5	6.275	VB S	0.1536	1.87189e5	1.43287e4	13.75902
6	6.815	PV S	0.1225	1.62660e5	1.57063e4	11.95605
7	7.112	VB S	0.0777	5635.27881	1208.69629	0.41421
8	7.391	BP	0.0108	14.15284	21.76493	0.00104

Totals : 1.36048e6 2.39670e5

Results obtained with enhanced integrator!

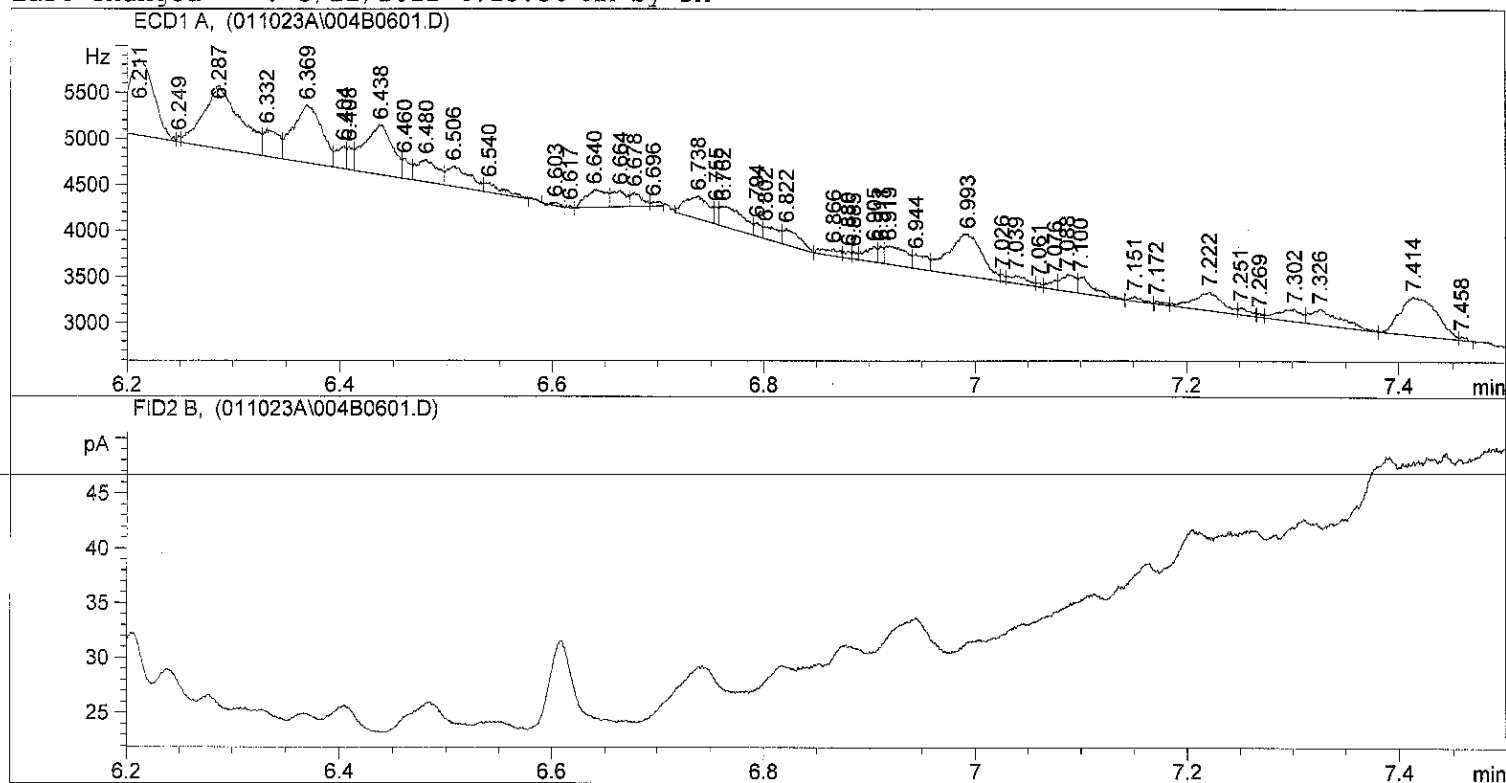
Signal 2: FID2 B,

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*** End of Report ***

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Injection Date : 1/10/2023 1:12:14 PM      Seq. Line : 6
Sample Name    : 23A0031 05                Location  : Vial 4
Acq. Operator  : TW                        Inj       : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\011023A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
```



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 Area Percent Report
 =====

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Sorted By      : Signal
Multiplier    : 1.0000
Dilution      : 1.0000
    
```

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.262	BV	0.0229	1701.85632	881.16235	4.38764
2	5.286	VV	0.0107	510.72873	589.75439	1.31673
3	5.326	VP	0.0173	1807.56531	1439.11230	4.66017
4	5.398	VV	0.0265	1244.04956	588.58923	3.20734
5	5.452	VV	0.0139	399.66284	349.92383	1.03039
6	5.481	VV	0.0179	1317.24487	979.19006	3.39605
7	5.516	VP	0.0188	1004.09198	643.81232	2.58870
8	5.597	VV	0.0205	919.56439	550.10223	2.37077
9	5.614	VV	4.80e-3	89.53530	261.24124	0.23084
10	5.637	VV	0.0137	361.08127	317.47849	0.93092
11	5.644	VV	4.04e-3	79.88258	270.84534	0.20595
12	5.655	VV	0.0120	269.66501	292.60474	0.69524
13	5.698	VV	0.0239	1917.20300	995.75616	4.94283
14	5.722	VV	0.0148	633.97864	520.87659	1.63449
15	5.744	VV	4.55e-3	127.87994	377.57886	0.32969
16	5.761	VV	0.0183	810.87805	546.05341	2.09056
17	5.794	VV	0.0120	252.69365	259.02487	0.65148

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.821	VP	0.0154	635.01910	522.03497	1.63717
19	5.873	VP	0.0166	1121.52258	816.31836	2.89145
20	5.914	VP	6.74e-3	40.87128	92.70623	0.10537
21	5.956	VV S	0.0183	5304.18213	4320.16992	13.67496
22	5.989	VB S	0.0200	330.63190	249.21074	0.85242
23	6.060	BP	0.0192	1702.96985	1067.91333	4.39051
24	6.111	VV	0.0178	1362.63184	924.84082	3.51307
25	6.160	VV	0.0132	229.02585	212.77963	0.59046
26	6.177	VV	7.60e-3	125.91147	236.94095	0.32462
27	6.211	VV	0.0233	1588.15125	817.04535	4.09449
28	6.249	VV	3.17e-3	13.37409	65.86982	0.03448
29	6.287	VV	0.0295	1629.07458	672.51538	4.19999
30	6.332	VV	0.0120	291.39059	292.98535	0.75125
31	6.369	VV	0.0231	1177.31958	626.48297	3.03530
32	6.404	VV	7.77e-3	152.40709	248.02170	0.39293
33	6.408	VV	5.00e-3	94.02653	249.29980	0.24241
34	6.438	VV	0.0231	973.26581	539.17169	2.50922
35	6.460	VV	6.91e-3	114.45563	218.55980	0.29508
36	6.480	VV	0.0170	338.56235	243.60513	0.87286
37	6.506	VV	0.0183	340.47745	224.13995	0.87780
38	6.540	VP	0.0158	128.02460	105.45225	0.33007
39	6.603	PP	7.00e-3	15.40974	35.95938	0.03973
40	6.617	VP	3.47e-3	6.26569	25.50905	0.01615
41	6.640	VV	0.0156	252.91351	194.38721	0.65205
42	6.664	VV	0.0120	168.54059	178.64861	0.43452
43	6.678	VV	9.73e-3	111.19931	155.76228	0.28669
44	6.696	VB	9.61e-3	27.89944	48.37265	0.07193
45	6.738	BV	0.0180	376.51547	252.03296	0.97071
46	6.755	VV	3.48e-3	47.08172	190.76459	0.12138
47	6.762	VV	0.0206	361.95444	217.77068	0.93317
48	6.794	VV	6.90e-3	72.88940	144.21759	0.18792
49	6.802	VB	0.0132	142.40260	130.12492	0.36713
50	6.822	BP	0.0132	194.16934	180.37939	0.50060
51	6.866	VV	0.0128	81.49187	79.05064	0.21010
52	6.880	VV	6.16e-3	31.52973	75.09203	0.08129
53	6.885	VV	4.53e-3	25.82230	76.72514	0.06657
54	6.905	VV	9.73e-3	131.11646	167.53470	0.33804
55	6.911	VV	4.13e-3	58.04057	181.44453	0.14964
56	6.919	VV	0.0180	285.84448	200.38933	0.73695
57	6.944	VV	0.0121	145.17989	150.03754	0.37430
58	6.993	VV	0.0266	997.73273	458.96478	2.57230
59	7.026	VV	4.43e-3	24.41720	78.44265	0.06295
60	7.039	VV	0.0145	102.03506	84.14011	0.26306
61	7.061	VV	5.68e-3	16.44576	48.27353	0.04240
62	7.076	VV	6.86e-3	54.83537	102.22095	0.14137
63	7.088	VV	0.0120	176.44704	180.90689	0.45491
64	7.100	VP	0.0128	180.74332	175.95064	0.46598
65	7.151	VV	8.89e-3	36.41837	51.26720	0.09389
66	7.172	VV	8.21e-3	20.22830	34.11112	0.05215
67	7.222	VV	0.0220	374.83698	204.43282	0.96639
68	7.251	VV	9.03e-3	54.55358	79.25281	0.14065
69	7.269	VV	5.88e-3	15.11072	42.86264	0.03896
70	7.302	VV	0.0174	199.65698	138.67068	0.51475
71	7.326	VP	0.0247	335.33536	166.22540	0.86454
72	7.414	VV	0.0282	995.54456	421.55832	2.56666
73	7.458	VP	5.43e-3	16.05976	38.75797	0.04140
74	7.512	PP	0.0138	49.61611	45.91093	0.12792
75	7.543	VV	3.42e-3	6.98196	28.88642	0.01800
76	7.584	VV	0.0293	764.13702	312.86877	1.97006
77	7.637	VV	0.0143	218.75781	198.24617	0.56399
78	7.646	VV	0.0148	230.40405	192.52985	0.59402
79	7.686	VB	0.0134	56.98081	50.96022	0.14690
80	7.723	BB	0.0243	175.83424	87.29726	0.45333
81	7.797	PBA	5.24e-3	7.30104	21.08477	0.01882

Totals : 3.87875e4 2.85372e4

Results obtained with enhanced integrator!

Signal 2: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Height [pA]	Area %
1	5.374	PB	0.0155	36.58888	34.81255	1.000e2

Totals : 36.58888 34.81255

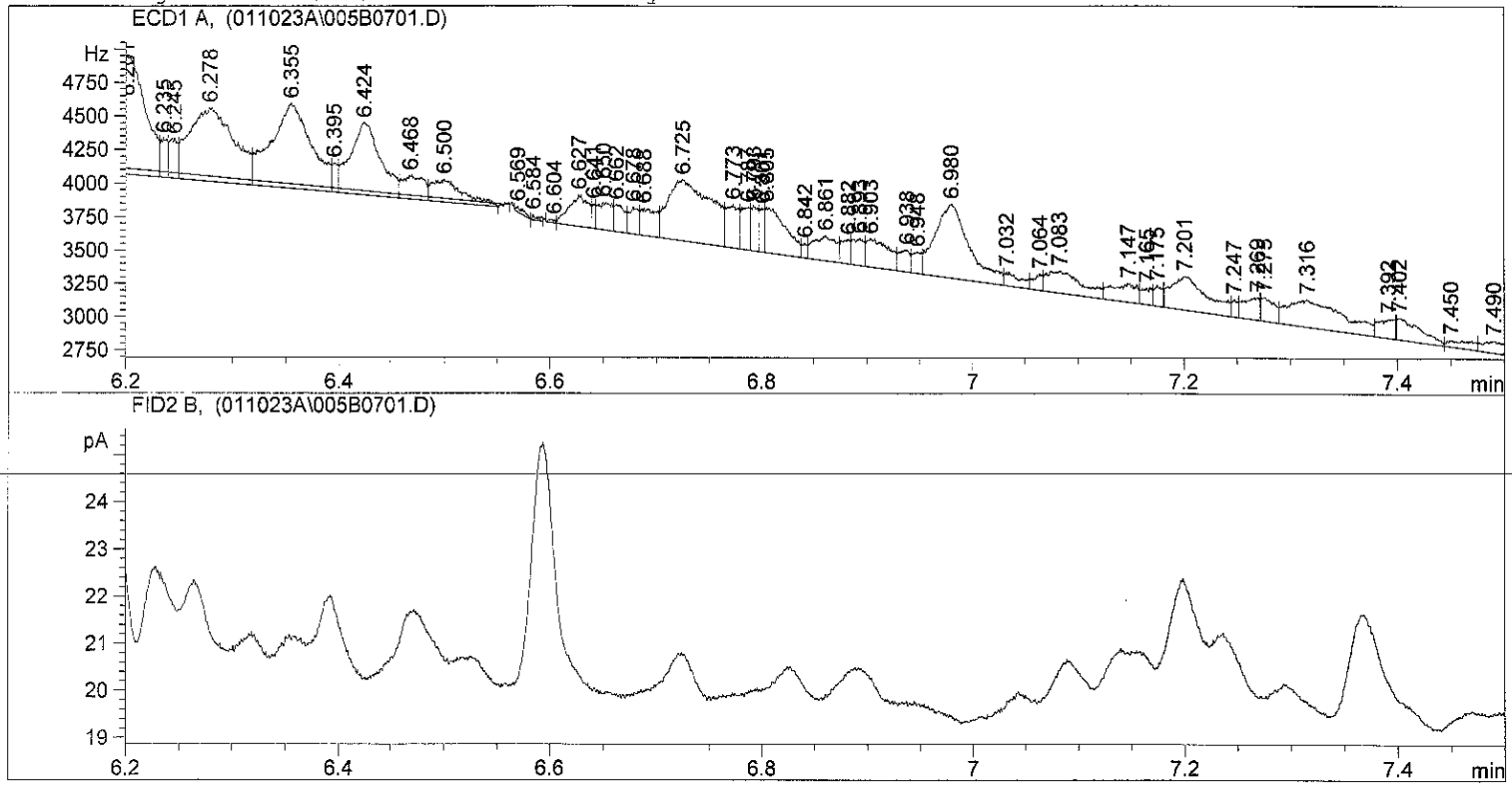
Results obtained with enhanced integrator!

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*** End of Report ***

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Injection Date : 1/10/2023 1:23:18 PM      Seq. Line : 7
Sample Name    : 23A0031 06                Location  : Vial 5
Acq. Operator  : TW                        Inj      : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\011023A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
```



Area Percent Report

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Sorted By      : Signal
Multiplier    : 1.0000
Dilution      : 1.0000
    
```

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.235	BB S	3.33e-3	310.49551	2720.24438	0.64709
2	5.313	BV T	0.0137	174.35786	155.71246	0.36337
3	5.340	PV T	0.0112	80.01172	93.07219	0.16675
4	5.374	PV T	0.0154	453.92786	368.62814	0.94601
5	5.411	PV T	0.0140	284.46378	246.90742	0.59284
6	5.419	PV T	0.0111	160.19601	240.87352	0.33386
7	5.444	PV T	0.0167	800.71167	580.78894	1.66873
8	5.473	VV T	0.0169	1461.34570	1096.51331	3.04553
9	5.512	VV T	0.0213	1330.95764	751.65955	2.77379
10	5.553	PV T	8.92e-3	156.46388	224.79878	0.32608
11	5.584	PV T	0.0237	1444.07764	740.81702	3.00954
12	5.623	VV T	0.0355	2076.25342	698.10608	4.32703
13	5.688	VV T	0.0289	3771.67554	1579.08911	7.86038
14	5.749	VV T	0.0262	2503.14697	1178.24500	5.21670
15	5.786	VV T	0.0151	820.33215	650.48938	1.70962
16	5.808	VV T	0.0264	1717.13196	781.20331	3.57860
17	5.863	PV T	0.0287	2764.38574	1165.67908	5.76113

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.901	VV T	8.01e-3	394.67099	621.49426	0.82252
19	5.932	VV T	0.0343	2931.39600	1026.25476	6.10919
20	5.974	VV T	0.0174	1175.97327	817.08405	2.45079
21	6.000	VV T	0.0157	1048.54309	855.04596	2.18522
22	6.016	VV T	5.20e-3	303.49130	769.07660	0.63249
23	6.034	VV T	0.0273	2237.13501	969.68402	4.66231
24	6.078	PV T	9.20e-3	243.89948	441.84167	0.50830
25	6.083	PV T	0.0118	308.20792	433.79263	0.64232
26	6.109	PV T	0.0170	669.31787	482.87448	1.39490
27	6.122	PV T	0.0139	550.33850	475.54568	1.14694
28	6.143	PV T	8.34e-3	191.79619	383.44601	0.39971
29	6.174	PV T	0.0200	824.85883	506.44666	1.71905
30	6.201	PV T	0.0264	1920.32227	875.31104	4.00206
31	6.235	PV T	7.58e-3	130.64781	287.41937	0.27228
32	6.245	PV T	8.79e-3	152.82182	289.60934	0.31849
33	6.278	PV T	0.0348	1601.21436	546.80170	3.33702
34	6.355	PV T	0.0317	1662.19922	630.73236	3.46412
35	6.395	PV T	6.21e-3	81.53048	218.91670	0.16991
36	6.424	PV T	0.0254	1088.55786	533.61963	2.26861
37	6.468	PV T	0.0167	239.63081	171.68869	0.49940
38	6.500	PB T	0.0241	337.08725	166.15471	0.70251
39	6.569	BP	7.52e-3	19.94873	34.65754	0.04157
40	6.584	VB	5.29e-3	15.13949	37.65641	0.03155
41	6.604	BV	6.21e-3	8.59749	23.79831	0.01792
42	6.627	VV	0.0148	284.11581	233.02618	0.59211
43	6.641	VV	4.16e-3	44.74953	179.25928	0.09326
44	6.650	VV	0.0116	188.61194	200.83202	0.39308
45	6.662	VV	8.41e-3	132.44875	197.83922	0.27603
46	6.678	VV	7.84e-3	123.48588	198.93858	0.25735
47	6.688	VV	0.0135	210.46948	199.17860	0.43863
48	6.725	VV	0.0343	1302.90063	453.81641	2.71532
49	6.773	VV	0.0102	261.69244	319.07495	0.54538
50	6.787	VV	8.03e-3	184.79344	315.47000	0.38512
51	6.793	VV	6.13e-3	158.57396	334.69937	0.33048
52	6.801	VV	4.37e-3	97.72120	319.70621	0.20366
53	6.805	VV	0.0167	470.28061	335.70105	0.98009
54	6.842	VV	4.38e-3	37.39279	109.56329	0.07793
55	6.861	VV	0.0179	269.73529	184.46506	0.56214
56	6.882	VV	7.34e-3	103.49928	179.06229	0.21570
57	6.893	VV	9.41e-3	149.87941	198.58691	0.31236
58	6.903	VV	0.0180	315.06064	209.36104	0.65660
59	6.938	VV	9.63e-3	115.69028	164.07553	0.24110
60	6.948	VV	7.63e-3	96.47936	160.14937	0.20107
61	6.980	VV	0.0278	1249.87598	548.30206	2.60481
62	7.032	VV	0.0134	110.08987	98.75577	0.22943
63	7.064	VV	7.62e-3	72.77175	117.63205	0.15166
64	7.083	VV	0.0276	376.47125	161.55650	0.78459
65	7.147	VV	0.0189	223.23367	141.00104	0.46523
66	7.165	VV	8.46e-3	85.17220	123.26542	0.17750
67	7.175	VV	7.51e-3	83.43339	149.51390	0.17388
68	7.201	VV	0.0291	608.65033	251.19640	1.26846
69	7.247	VV	5.22e-3	48.61253	128.36108	0.10131
70	7.269	VV	0.0126	175.67757	170.58200	0.36612
71	7.275	VV	0.0110	158.08704	177.64543	0.32946
72	7.316	VV	0.0446	763.82025	204.47879	1.59184
73	7.392	VV	0.0134	159.22652	145.40002	0.33184
74	7.402	VV	0.0189	259.21829	165.45186	0.54023
75	7.450	VB	0.0220	92.68941	50.92004	0.19317
76	7.490	BV	0.0247	180.81247	88.87051	0.37682
77	7.521	VB	0.0125	68.77309	70.71172	0.14333
78	7.568	PP	2.62e-3	2.05363	11.87103	0.00428
79	7.613	VV	0.0169	172.71986	123.46124	0.35996
80	7.625	VB	0.0139	78.61352	93.95107	0.16383
81	7.661	BP	4.52e-3	6.66726	22.08055	0.01389
82	7.679	BP	3.88e-3	1.27288	7.14954	0.00265

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	7.738	PP	1.57e-3	8.87983e-1	10.70106	0.00185
84	7.776	BB	5.64e-3	9.69673	21.59219	0.02021

Totals : 4.79834e4 3.24490e4

Results obtained with enhanced integrator!

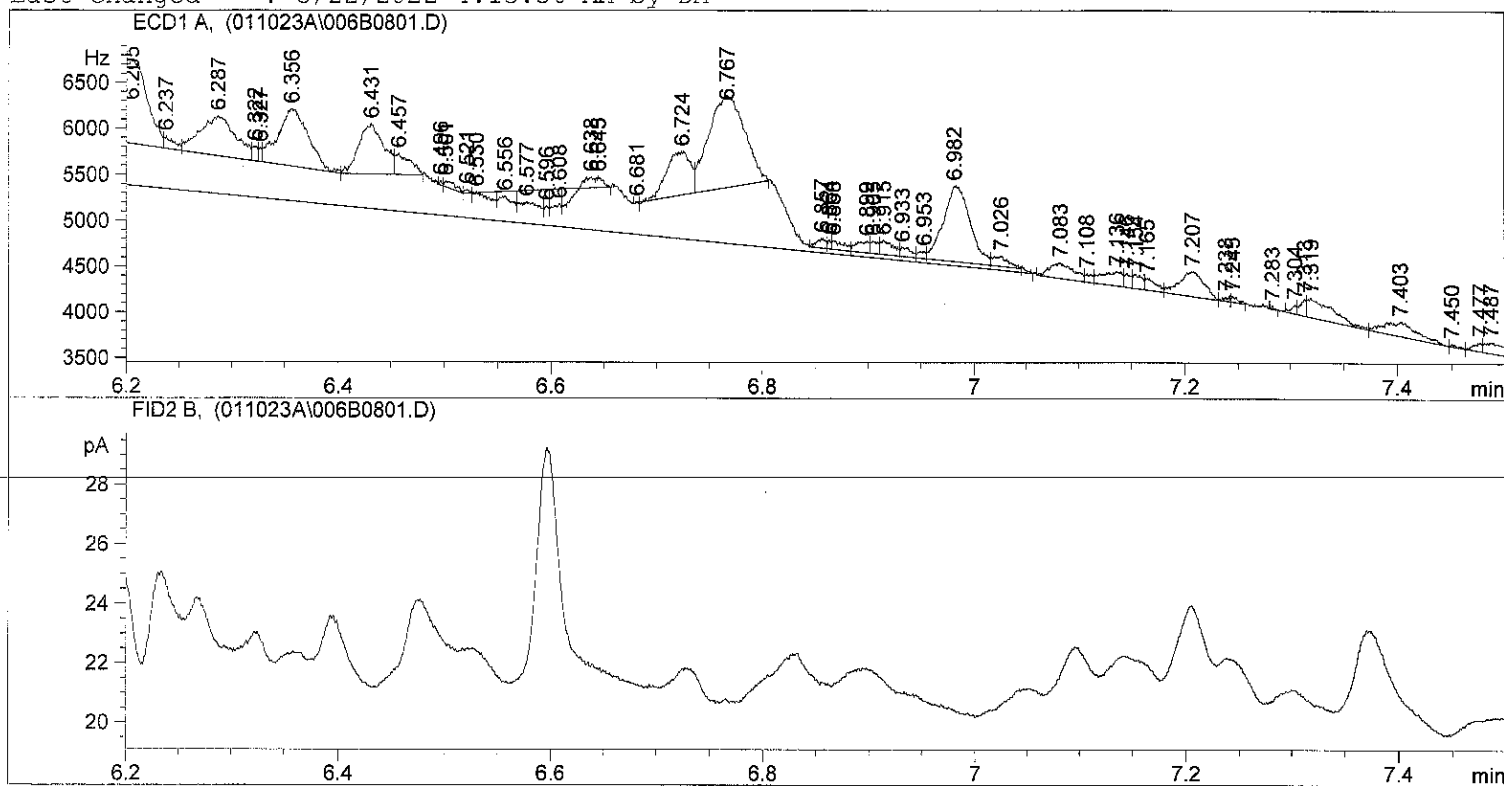
Signal 2: FID2 B,

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*** End of Report ***

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Injection Date : 1/10/2023 1:34:19 PM      Seq. Line : 8
Sample Name    : 23A0031 11                Location  : Vial 6
Acq. Operator  : TW                        Inj      : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\011023A.S
Method        : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed  : 3/22/2022 4:13:36 AM by DM
    
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 Area Percent Report
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Sorted By      : Signal
Multiplier    : 1.0000
Dilution      : 1.0000
    
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Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.230	BV S	0.0482	2.69581e4	7254.79102	24.08009
2	5.311	BP T	0.0000	465.61911	159.82983	0.41591
3	5.378	PV T	0.0000	255.69469	112.46831	0.22840
4	5.404	PV T	0.0119	460.48853	475.85135	0.41133
5	5.444	PV T	0.0130	704.70703	706.53802	0.62947
6	5.475	PV T	0.0108	512.57385	608.37811	0.45785
7	5.493	PV T	8.99e-3	281.74979	444.62018	0.25167
8	5.498	PV T	8.20e-3	216.54129	439.95795	0.19342
9	5.507	PV T	0.0000	5.28548	436.13785	0.00472
10	5.570	PV T	0.0196	2459.84790	1511.32788	2.19723
11	5.627	PV T	0.0181	1678.92224	1134.93994	1.49968
12	5.680	VB S	0.1737	5.95284e4	4030.09595	53.17311
13	5.750	BV T	6.63e-3	370.67371	741.77423	0.33110
14	5.819	PV T	0.0000	499.83185	128.63452	0.44647
15	5.868	PV T	5.36e-3	186.83092	550.50659	0.16688
16	5.914	PV T	4.87e-3	98.47280	312.94815	0.08796
17	5.934	VB T	0.0134	392.58044	353.06277	0.35067

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.978	BV T	0.0149	300.46762	256.55197	0.26839
19	6.002	PV T	0.0129	408.55624	395.51398	0.36494
20	6.039	PV T	0.0212	802.87146	454.38391	0.71716
21	6.071	PV T	0.0167	56.74791	41.02097	0.05069
22	6.113	PV T	4.90e-3	31.65985	85.93343	0.02828
23	6.126	PV T	0.0109	146.19157	168.60153	0.13058
24	6.170	PV T	0.0137	267.50342	262.60059	0.23894
25	6.205	PV T	0.0243	1832.48279	902.17627	1.63685
26	6.237	PV T	0.0108	83.97852	129.97966	0.07501
27	6.287	PV T	0.0277	1008.96204	433.60562	0.90125
28	6.322	PV T	5.67e-3	53.69197	157.87253	0.04796
29	6.327	PV T	3.64e-3	33.75700	154.57529	0.03015
30	6.356	PV T	0.0230	1207.96594	623.20709	1.07900
31	6.431	PV T	0.0203	897.40894	542.13867	0.80160
32	6.457	PB T	0.0120	223.44746	228.22229	0.19959
33	6.496	BV T	2.73e-3	8.18028	49.99645	0.00731
34	6.501	PV T	0.0139	53.31171	64.09332	0.04762
35	6.521	PV T	4.50e-3	9.49551	35.17840	0.00848
36	6.530	PV T	0.0000	64.66018	6.42654	0.05776
37	6.556	PV T	0.0233	97.63860	51.93823	0.08721
38	6.577	PV T	0.0330	240.98874	121.86797	0.21526
39	6.596	PV T	5.59e-3	58.84695	175.45944	0.05256
40	6.608	PV T	0.0104	131.77666	160.70090	0.11771
41	6.638	PV T	0.0000	43.58076	115.24613	0.03893
42	6.645	PB T	5.93e-3	52.68052	111.06591	0.04706
43	6.681	BV T	8.93e-4	6.28588e-1	11.73702	0.00056
44	6.724	PV T	0.0192	758.76581	470.25061	0.67776
45	6.767	PB T	0.0281	2354.45752	1004.98041	2.10310
46	6.857	BV T	7.63e-3	62.57041	106.86169	0.05589
47	6.864	PV T	3.29e-3	18.75583	94.96169	0.01675
48	6.868	PV T	0.0134	73.28844	91.35993	0.06546
49	6.899	PV T	0.0103	97.74709	123.18562	0.08731
50	6.905	PV T	6.21e-3	63.82548	132.65395	0.05701
51	6.915	PV T	0.0104	128.95102	150.43069	0.11518
52	6.933	PV T	0.0120	68.37060	94.78105	0.06107
53	6.953	PV T	6.24e-3	37.60675	80.69910	0.03359
54	6.982	PV T	0.0211	1440.43799	819.92389	1.28666
55	7.026	PB T	0.0145	113.03994	112.43280	0.10097
56	7.083	BV	0.0195	264.43872	166.72089	0.23621
57	7.108	VV	6.08e-3	42.08424	86.37392	0.03759
58	7.136	VV	0.0166	202.41275	151.64465	0.18080
59	7.146	VV	5.54e-3	62.35070	147.35555	0.05569
60	7.154	VV	8.07e-3	91.60993	151.26204	0.08183
61	7.165	VV	9.42e-3	94.82425	125.45864	0.08470
62	7.207	VV	0.0190	432.19510	270.68491	0.38605
63	7.238	VV	5.73e-3	20.56304	46.78645	0.01837
64	7.245	VB	5.98e-3	28.41893	61.63785	0.02538
65	7.283	BB	2.00e-3	4.67430	34.15335	0.00418
66	7.304	BV	4.39e-3	32.63341	100.53558	0.02915
67	7.313	VV	5.22e-3	73.16585	184.79977	0.06535
68	7.319	VP	0.0291	362.41400	207.65181	0.32372
69	7.403	VP	0.0248	327.58713	157.63028	0.29261
70	7.450	VB	4.30e-3	10.29667	32.44038	0.00920
71	7.477	BV	6.92e-3	48.89845	96.35415	0.04368
72	7.487	VV	0.0171	163.84218	115.98264	0.14635
73	7.513	VB	0.0238	217.52206	108.62430	0.19430
74	7.573	PP	0.0418	14.71729	4.24569	0.01315
75	7.616	VV	0.0292	564.13623	233.52951	0.50391
76	7.647	VV	5.02e-3	47.80539	149.27765	0.04270
77	7.655	VB	0.0181	220.45363	152.19804	0.19692
78	7.715	BP	7.35e-3	15.85094	29.11616	0.01416
79	7.762	VV	0.0174	138.57628	94.91864	0.12378
80	7.775	VV	6.91e-3	40.18314	76.76643	0.03589
81	7.787	VP	5.79e-3	18.72847	42.09401	0.01673

Totals : 1.11952e5 3.14527e4

Results obtained with enhanced integrator!

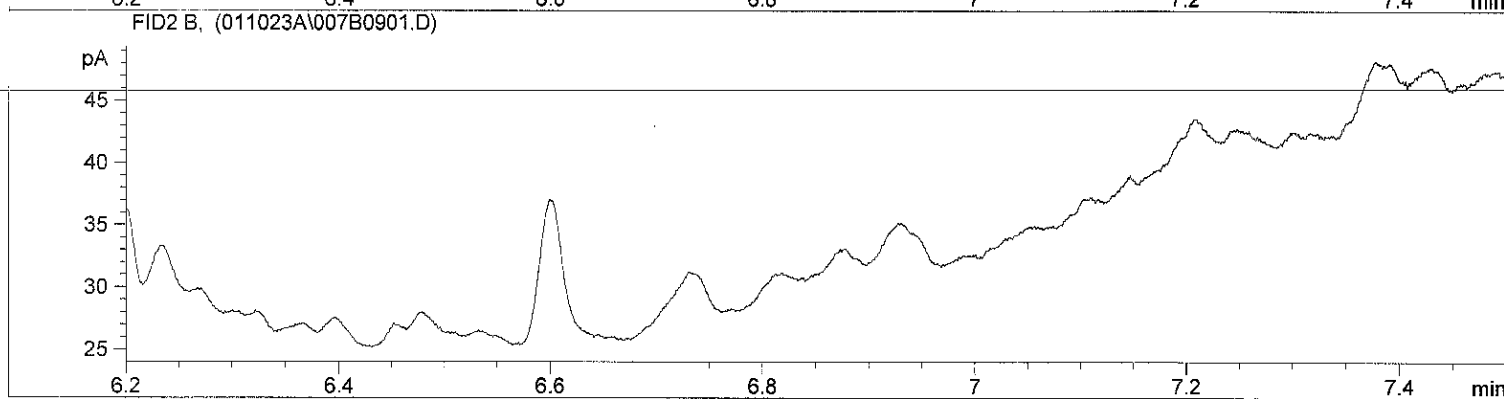
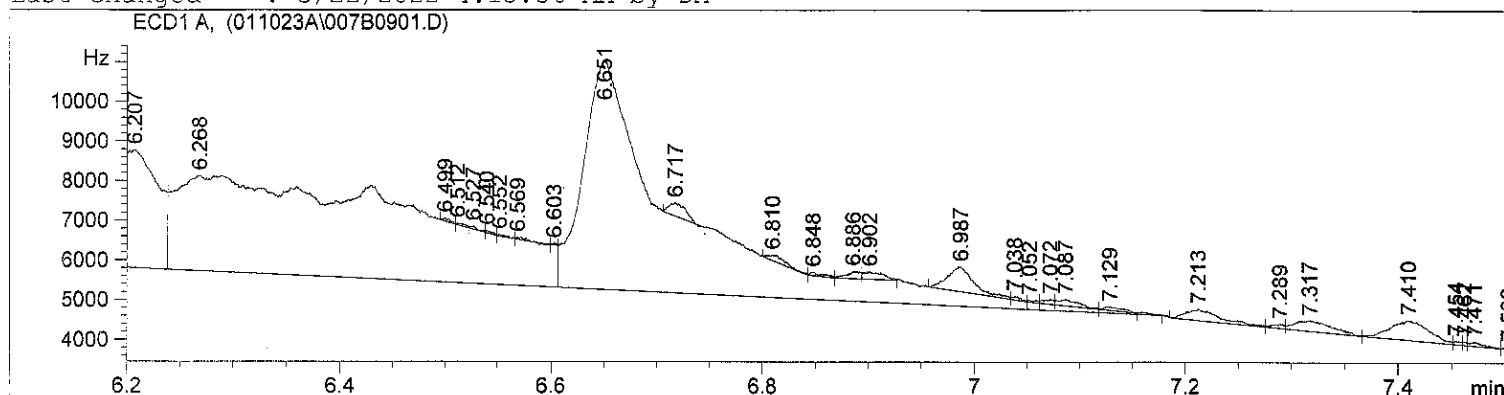
Signal 2: FID2 B,

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*** End of Report ***

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Injection Date : 1/10/2023 1:45:21 PM      Seq. Line : 9
Sample Name    : 23A0031 12                Location  : Vial 7
Acq. Operator  : TW                        Inj       : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\011023A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
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Area Percent Report

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Sorted By      : Signal
Multiplier     : 1.0000
Dilution       : 1.0000
    
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Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.235	BV S	0.2003	4.76537e4	2815.25659	24.94005
2	5.284	BV T	0.0000	66.63225	77.97389	0.03487
3	5.321	PP T	4.35e-3	181.99365	1086.81213	0.09525
4	5.395	PV T	8.81e-3	363.92618	557.86316	0.19046
5	5.426	VV T	7.01e-3	110.63239	263.13287	0.05790
6	5.446	VV T	0.0000	19.81678	320.65656	0.01037
7	5.480	VV T	8.46e-3	363.86801	569.02466	0.19043
8	5.514	VV T	0.0000	363.30743	194.39180	0.19014
9	5.587	PV T	0.0000	1176.07812	95.93835	0.61551
10	5.629	VV T	0.0000	433.63574	78.78780	0.22695
11	5.693	VV T	0.0163	1362.65295	1039.05420	0.71316
12	5.722	VV T	1.93e-3	3.68369	31.76100	0.00193
13	5.733	VV T	2.32e-3	9.77961	77.63442	0.00512
14	5.756	VV T	0.0127	658.50739	691.16553	0.34464
15	5.787	VV T	0.0118	58.90728	67.60873	0.03083
16	5.793	VV T	9.36e-3	68.35493	91.06957	0.03577
17	5.812	VV T	1.83e-3	23.26947	221.07953	0.01218

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.837	VV T	0.0182	167.61496	153.09479	0.08772
19	5.868	VV T	0.0135	976.30212	911.96698	0.51096
20	5.919	VV T	0.0000	79.04021	44.18729	0.04137
21	5.951	VV S	0.0231	1.31276e4	7628.94629	6.87046
22	6.056	VV S	0.0861	1.72855e4	3344.45728	9.04652
23	6.105	VV S	0.0334	7086.61768	3539.64185	3.70885
24	6.207	VV S	0.0860	1.53317e4	2971.20459	8.02399
25	6.268	VV S	0.2528	3.98854e4	2394.03687	20.87441
26	6.499	BV T	5.89e-3	35.92183	79.21845	0.01880
27	6.512	PV T	0.0107	30.37955	47.45973	0.01590
28	6.527	PV T	6.25e-3	30.97690	71.59501	0.01621
29	6.540	PV T	6.92e-3	25.30295	60.90929	0.01324
30	6.552	PV T	8.93e-3	24.02232	44.82027	0.01257
31	6.569	PV T	7.08e-3	20.56327	48.42619	0.01076
32	6.603	PV T	4.81e-3	12.88129	44.63093	0.00674
33	6.651	VB S	0.0767	3.71579e4	5773.40137	19.44699
34	6.717	BB T	0.0137	372.05872	330.99393	0.19472
35	6.810	BV T	0.0150	163.55470	132.77513	0.08560
36	6.848	PV T	0.0106	66.48530	84.45232	0.03480
37	6.886	PV T	0.0106	160.83492	183.24242	0.08417
38	6.902	PB T	0.0150	230.51108	186.20865	0.12064
39	6.987	BV T	0.0212	1071.95801	624.54669	0.56102
40	7.038	PV T	9.71e-3	49.35623	84.70314	0.02583
41	7.052	PV T	9.28e-3	27.40281	49.22338	0.01434
42	7.072	PV T	8.35e-3	81.30746	122.42982	0.04255
43	7.087	PV T	0.0163	212.15790	156.15222	0.11103
44	7.129	PB T	0.0164	112.90505	88.84318	0.05909
45	7.213	BV	0.0269	626.81415	279.72165	0.32805
46	7.289	VV	9.68e-3	84.15087	105.83862	0.04404
47	7.317	VP	0.0296	627.24872	254.25343	0.32828
48	7.410	VV	0.0303	1216.12024	491.27637	0.63647
49	7.454	VV	6.38e-3	39.58869	82.84570	0.02072
50	7.462	VV	3.05e-3	17.63833	84.13740	0.00923
51	7.471	VV	0.0113	82.53989	92.05048	0.04320
52	7.503	VV	0.0128	53.28579	50.11783	0.02789
53	7.526	VP	5.56e-3	19.18649	49.07516	0.01004
54	7.534	VV	3.03e-3	3.71583	17.83179	0.00194
55	7.547	VV	5.92e-3	28.22122	64.32956	0.01477
56	7.580	VV	0.0259	809.48602	375.68173	0.42365
57	7.617	VB	0.0143	159.67564	142.35437	0.08357
58	7.636	BV	0.0167	231.04361	176.44519	0.12092
59	7.671	VV	3.46e-3	15.16066	61.77062	0.00793
60	7.680	VV	9.40e-3	57.19035	81.37122	0.02993
61	7.693	VV	7.26e-3	41.27938	82.23443	0.02160
62	7.701	VV	8.59e-3	66.72082	99.87730	0.03492
63	7.713	VB	0.0170	105.14684	75.63619	0.05503
64	7.753	BP	0.0115	26.91432	29.46662	0.01409
65	7.774	VP	4.68e-3	6.65505	26.92945	0.00348
66	7.784	VV	6.91e-3	10.25647	20.95879	0.00537

Totals : 1.91073e5 4.02250e4

Results obtained with enhanced integrator!

Signal 2: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Height [pA]	Area %
1	5.315	PP	0.0371	69.57307	25.74120	47.02313
2	5.372	VP	0.0205	50.64640	35.88646	34.23095
3	5.618	PP	0.0145	27.73553	29.69747	18.74592

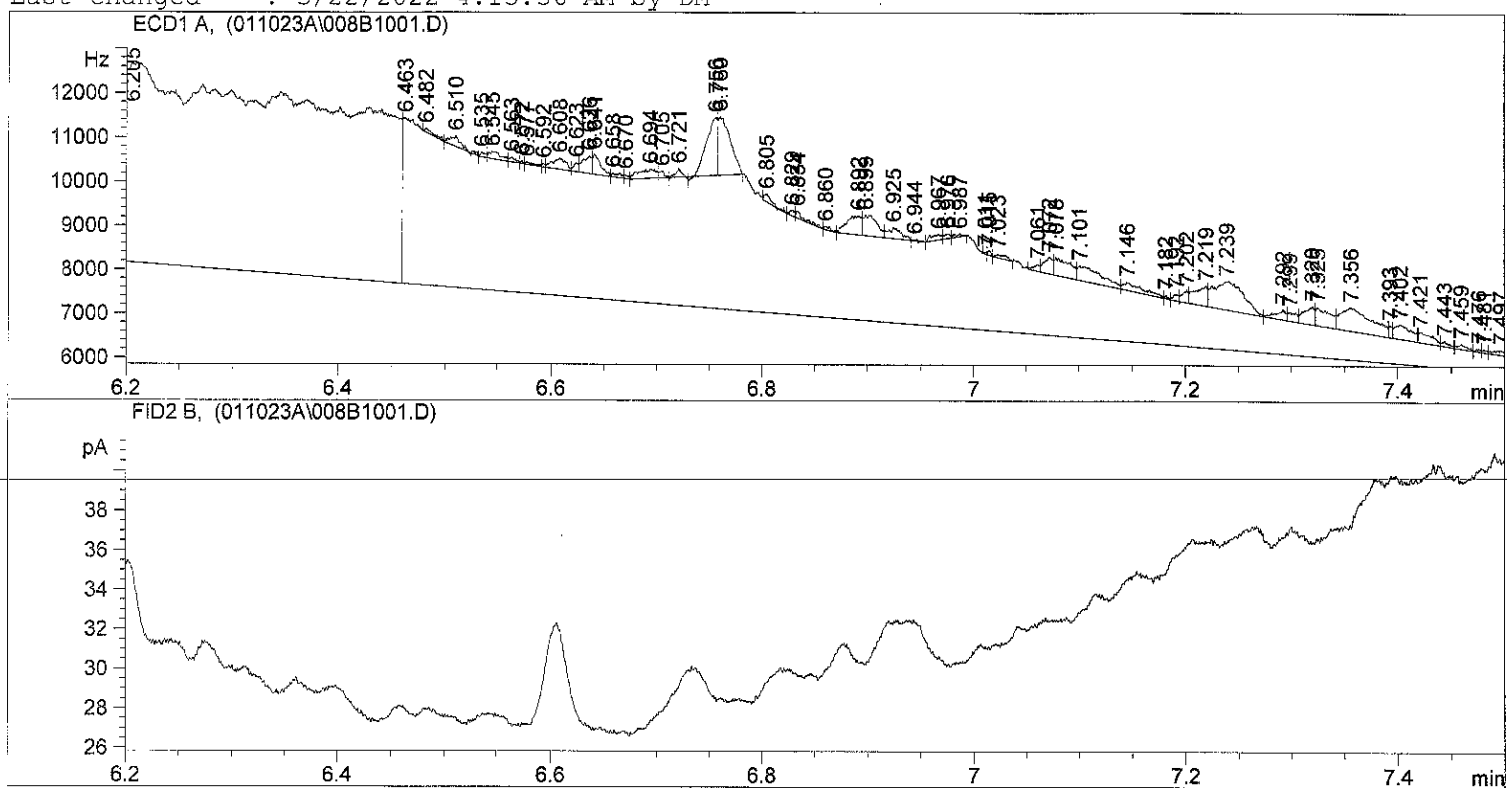
Totals : 147.95500 91.32512

Results obtained with enhanced integrator!

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*** End of Report ***


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Injection Date   : 1/10/2023 1:56:37 PM      Seq. Line : 10
Sample Name     : 23A0032 02                Location  : Vial 8
Acq. Operator  : TW                        Inj      : 1
                                           Inj Volume: 1 µl
Sequence File   : C:\HPCHEM\2\SEQUENCE\011023A.S
Method          : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed    : 3/22/2022 4:13:36 AM by DM
    
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Area Percent Report

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Sorted By      : Signal
Multiplier    : 1.0000
Dilution      : 1.0000
    
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Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.230	BV S	0.1276	2.73595e4	2529.82349	7.24662
2	5.293	PV T	0.0134	244.04330	225.92429	0.06464
3	5.315	PV T	6.24e-3	95.15326	220.28400	0.02520
4	5.322	PV T	0.0000	483.61957	10.40964	0.12809
5	5.345	PV T	0.0110	663.56250	1006.32013	0.17576
6	5.383	PV T	0.0000	1102.82898	375.35104	0.29210
7	5.390	VB T	8.86e-3	124.59180	234.49652	0.03300
8	5.449	BV T	0.0137	629.65857	560.61780	0.16678
9	5.483	PV T	7.36e-3	307.25510	546.22406	0.08138
10	5.489	VV T	0.0111	497.26703	552.59705	0.13171
11	5.513	VV T	0.0000	414.92099	248.51317	0.10990
12	5.569	PV T	0.0102	823.80865	1022.21332	0.21820
13	5.588	VV T	4.57e-3	214.96539	632.04718	0.05694
14	5.593	VV T	8.48e-3	257.87216	507.02444	0.06830
15	5.629	VV S	0.0291	9114.52148	3726.01514	2.41413
16	5.682	VV S	0.0467	1.48671e4	5309.54639	3.93779
17	5.953	VV S	0.1618	6.75713e4	6958.31592	17.89737

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.979	VV S	0.1780	5.49190e4	5074.24365	14.54620
19	6.205	VV S	0.2462	6.73576e4	4523.89111	17.84077
20	6.463	VBAS	0.5188	1.17048e5	3760.36035	31.00205
21	6.482	BV T	8.54e-3	57.42539	86.60995	0.01521
22	6.510	VV T	9.18e-3	172.95055	240.74713	0.04581
23	6.535	PV T	4.81e-3	35.64396	98.84966	0.00944
24	6.545	PV T	9.58e-3	123.90291	160.89868	0.03282
25	6.563	PV T	4.62e-3	37.04753	107.63991	0.00981
26	6.572	PV T	2.47e-3	10.09014	67.96943	0.00267
27	6.577	PV T	9.17e-3	30.90840	56.18803	0.00819
28	6.592	PV T	2.60e-3	12.83677	82.37814	0.00340
29	6.608	PV T	0.0113	220.62004	250.11143	0.05843
30	6.623	PV T	4.38e-3	62.46187	203.46977	0.01654
31	6.636	PV T	7.82e-3	229.89722	393.12137	0.06089
32	6.641	PV T	8.99e-3	238.76653	442.84314	0.06324
33	6.658	PV T	8.71e-3	47.13564	90.15353	0.01248
34	6.670	PV T	3.61e-3	20.05406	92.57997	0.00531
35	6.694	PV T	0.0138	240.06458	212.60071	0.06359
36	6.705	PV T	4.61e-3	46.69949	150.95966	0.01237
37	6.721	PV T	4.91e-3	62.18333	185.56071	0.01647
38	6.756	PV T	0.0103	973.20605	1300.00476	0.25777
39	6.760	VB T	0.0133	1055.09668	1321.62231	0.27946
40	6.805	BV T	7.70e-3	79.85427	172.75645	0.02115
41	6.829	PV T	5.05e-3	42.42267	122.23026	0.01124
42	6.834	PV T	9.03e-3	83.05289	153.26642	0.02200
43	6.860	PV T	7.28e-3	28.34274	64.87473	0.00751
44	6.892	PV T	0.0116	414.99268	432.34650	0.10992
45	6.899	PV T	0.0114	427.40567	459.69089	0.11321
46	6.925	PV T	0.0108	220.05212	251.43948	0.05828
47	6.944	PV T	4.86e-3	10.81709	29.62105	0.00287
48	6.967	PV T	9.94e-3	88.01370	123.18635	0.02331
49	6.976	PV T	5.26e-3	39.70676	108.83469	0.01052
50	6.987	PB T	6.10e-3	26.83937	56.96668	0.00711
51	7.011	BV T	3.57e-3	8.19015	38.27773	0.00217
52	7.015	PV T	3.39e-3	20.02884	98.48636	0.00530
53	7.023	PB T	8.70e-3	56.98080	82.09526	0.01509
54	7.061	BV T	5.33e-3	63.65579	156.89162	0.01686
55	7.072	PV T	7.19e-3	210.59157	384.68762	0.05578
56	7.078	PV T	0.0135	439.06198	391.22299	0.11629
57	7.101	PV T	0.0202	545.43585	324.37244	0.14447
58	7.146	PV T	0.0167	244.95618	179.47966	0.06488
59	7.182	PV T	3.11e-3	13.36092	71.55016	0.00354
60	7.192	PV T	4.96e-3	46.16119	143.07567	0.01223
61	7.202	PV T	5.28e-3	112.87175	281.57141	0.02990
62	7.219	PV T	0.0114	371.56696	451.05679	0.09842
63	7.239	PV T	0.0242	1261.97681	640.13477	0.33426
64	7.292	PV T	9.24e-3	148.32176	226.51770	0.03929
65	7.299	PV T	7.15e-3	119.04581	205.70715	0.03153
66	7.320	PV T	9.47e-3	288.78009	407.35419	0.07649
67	7.325	PV T	0.0159	390.84851	410.49023	0.10352
68	7.356	PV T	0.0244	1095.49097	533.63086	0.29016
69	7.393	PV T	4.05e-3	63.91327	263.06403	0.01693
70	7.402	PV T	0.0131	349.39331	325.42148	0.09254
71	7.421	PV T	0.0159	218.24446	228.73967	0.05781
72	7.443	PV T	6.45e-3	55.99292	111.61918	0.01483
73	7.459	PV T	7.82e-3	63.23257	111.42798	0.01675
74	7.476	PV T	4.77e-3	19.31889	63.07719	0.00512
75	7.481	PV T	4.19e-3	18.79166	74.69226	0.00498
76	7.497	PV T	9.32e-3	79.42763	117.07352	0.02104
77	7.513	PV T	9.24e-3	127.49283	180.55211	0.03377
78	7.522	PV T	9.26e-3	69.70624	125.46302	0.01846
79	7.537	PV T	3.94e-3	20.74752	87.79548	0.00550
80	7.541	PV T	7.10e-3	50.73059	119.16770	0.01344
81	7.567	PV T	0.0122	137.66579	146.62154	0.03646
82	7.583	PV T	4.68e-3	34.43414	122.67748	0.00912

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	7.592	PV T	8.40e-3	96.57088	161.03546	0.02558
84	7.600	PV T	6.80e-3	69.50816	170.24161	0.01841
85	7.617	PV T	5.89e-3	41.99342	104.43215	0.01112
86	7.624	PV T	5.99e-3	85.84185	185.72984	0.02274
87	7.636	PV T	0.0103	192.09386	234.81442	0.05088
88	7.648	PV T	0.0254	348.04584	228.24998	0.09219
89	7.680	PV T	0.0193	172.67836	148.85017	0.04574
90	7.706	PV T	6.44e-3	94.22374	188.13618	0.02496
91	7.715	PV T	8.10e-3	126.70623	197.14040	0.03356
92	7.727	PV T	0.0158	269.05331	212.18102	0.07126
93	7.763	PV T	7.58e-3	25.31636	55.69080	0.00671
94	7.775	PV T	4.48e-3	20.30808	58.01681	0.00538
95	7.786	PV T	3.77e-3	10.42674	40.90607	0.00276
96	7.794	PBAT	4.46e-3	14.65867	54.77798	0.00388

Totals : 3.77549e5 5.46879e4

Results obtained with enhanced integrator!

Signal 2: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Height [pA]	Area %
1	5.375	PP	0.0167	30.18138	28.55153	1.000e2

Totals : 30.18138 28.55153

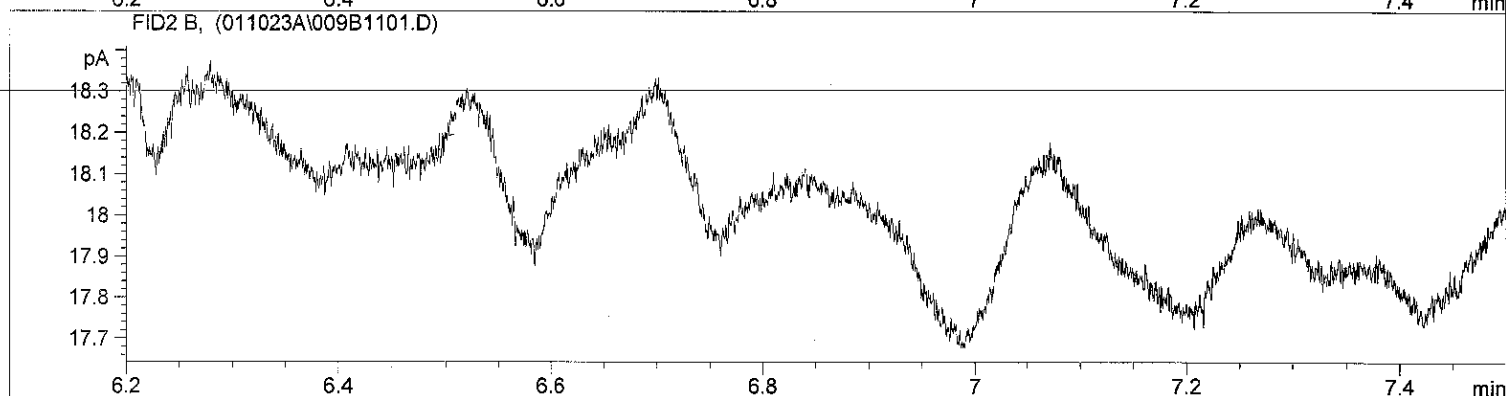
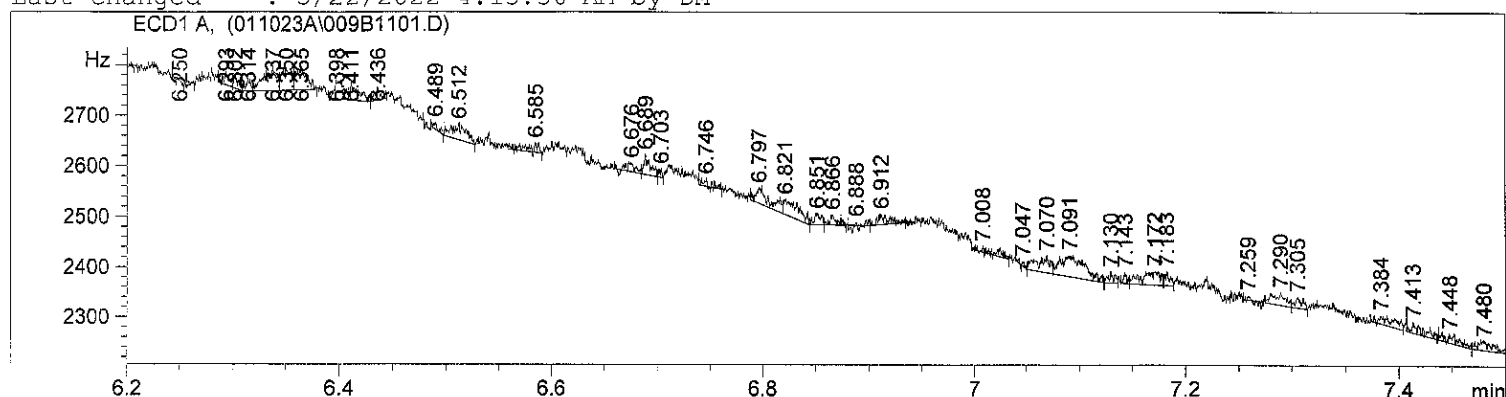
Results obtained with enhanced integrator!

*** End of Report ***

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Injection Date : 1/10/2023 2:07:39 PM      Seq. Line : 11
Sample Name    : 23A0032 04                Location  : Vial 9
Acq. Operator  : TW                       Inj       : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\011023A.S
Method        : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
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 Area Percent Report
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Sorted By      : Signal
Multiplier    : 1.0000
Dilution      : 1.0000
    
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Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.248	PV	4.22e-3	6.48921	22.14064	0.21514
2	5.252	VB	3.11e-3	3.06576	14.27010	0.10164
3	5.272	BV	6.14e-3	17.75386	36.05412	0.58859
4	5.282	VV	3.21e-3	4.59480	20.56679	0.15233
5	5.297	VV	8.31e-3	16.42782	25.51917	0.54463
6	5.302	VV	2.42e-3	3.08885	19.80360	0.10240
7	5.318	VV	0.0101	49.95922	61.58060	1.65630
8	5.368	VV	0.0166	177.16368	129.25014	5.87350
9	5.382	VV	0.0138	102.21067	90.58647	3.38859
10	5.410	VV	0.0114	48.28807	53.09747	1.60089
11	5.430	VV	0.0110	34.23913	41.57057	1.13513
12	5.453	VP	8.03e-3	15.10036	28.28038	0.50062
13	5.491	VV	0.0224	243.56015	130.51065	8.07474
14	5.539	VV	0.0277	158.01266	68.11435	5.23859
15	5.587	VV	0.0203	114.68805	67.95839	3.80225
16	5.609	VV	0.0140	68.24905	61.15563	2.26266
17	5.634	VV	0.0120	47.99194	48.19933	1.59108

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.665	VV	0.0200	70.72749	44.88519	2.34483
19	5.700	VV	0.0213	304.21396	187.29121	10.08560
20	5.737	VV	0.0101	55.03912	71.86289	1.82471
21	5.769	VV	0.0219	195.45763	108.07710	6.48000
22	5.819	VV	0.0258	148.75499	71.00577	4.93167
23	5.839	VV	8.41e-3	33.97767	49.49247	1.12646
24	5.873	VV	0.0144	120.06046	101.66999	3.98036
25	5.891	VP	8.14e-3	26.23258	40.58351	0.86969
26	5.931	PB	3.33e-3	4.04491	17.27185	0.13410
27	5.948	BV	6.56e-3	12.88171	27.00743	0.42707
28	5.964	VB	6.76e-3	15.01573	34.57663	0.49782
29	5.982	BB	6.82e-3	13.62745	25.55470	0.45179
30	6.009	BP	0.0181	55.78051	37.67627	1.84929
31	6.080	PP	0.0118	17.63478	18.08749	0.58465
32	6.101	VV	3.15e-3	2.68375	12.27819	0.08897
33	6.126	VP	0.0165	92.41070	69.42523	3.06369
34	6.152	VV	3.98e-3	6.26503	22.99398	0.20770
35	6.165	VV	9.13e-3	25.92113	36.32061	0.85936
36	6.181	VP	0.0145	36.60307	41.95880	1.21350
37	6.250	PP	0.0000	6.00978	2.41179	0.19924
38	6.293	BV	5.19e-3	8.55664	22.71394	0.28368
39	6.302	VP	4.31e-3	7.60958	23.91569	0.25228
40	6.314	VV	4.87e-3	7.55035	21.63977	0.25032
41	6.337	VV	0.0109	37.41314	42.48085	1.24036
42	6.350	VV	9.03e-3	27.80465	39.43394	0.92181
43	6.365	VP	9.45e-3	30.92211	44.78862	1.02516
44	6.398	PV	7.35e-3	19.88579	33.40033	0.65927
45	6.411	VP	0.0105	19.07575	30.42144	0.63242
46	6.436	VB	5.40e-3	10.02686	24.35228	0.33242
47	6.489	PP	4.04e-3	3.76900	12.77866	0.12495
48	6.512	BP	0.0160	29.38305	30.52957	0.97414
49	6.585	BP	8.59e-3	12.18346	17.79983	0.40392
50	6.676	PV	7.26e-3	8.43501	16.78721	0.27965
51	6.689	VV	5.19e-3	15.65879	38.10921	0.51914
52	6.703	VV	2.96e-3	2.87612	16.21490	0.09535
53	6.746	BP	6.12e-3	6.21709	13.63885	0.20612
54	6.797	BV	0.0118	28.75209	29.38350	0.95322
55	6.821	VP	0.0134	31.58471	28.79938	1.04713
56	6.851	BV	6.51e-3	10.13642	21.45848	0.33605
57	6.866	VB	6.40e-3	8.99951	19.43190	0.29836
58	6.888	BP	0.0000	1.23953	6.09733	0.04109
59	6.912	BB	9.03e-3	12.20607	19.68948	0.40467
60	7.008	PP	0.0109	8.62267	9.78432	0.28587
61	7.047	BP	3.26e-3	1.79239	7.86485	0.05942
62	7.070	VV	0.0107	27.38935	32.86761	0.90804
63	7.091	VP	0.0191	66.01082	41.27803	2.18845
64	7.130	VB	5.52e-3	8.16306	20.19181	0.27063
65	7.143	BV	3.25e-3	4.28572	20.43511	0.14208
66	7.172	VV	0.0149	32.06189	26.12206	1.06295
67	7.183	VV	5.49e-3	8.63180	26.21326	0.28617
68	7.259	PB	0.0000	5.69427e-2	7.96261	0.00189
69	7.290	BV	0.0106	20.11800	23.99099	0.66697
70	7.305	VP	6.31e-3	9.58540	20.29270	0.31778
71	7.384	PB	0.0140	18.25518	15.92175	0.60521
72	7.413	BB	9.85e-3	15.58508	19.24611	0.51669
73	7.448	BP	0.0108	14.68815	16.43274	0.48696
74	7.480	VB	0.0155	20.28364	16.35977	0.67246
75	7.513	BP	0.0106	15.47766	18.41863	0.51313
76	7.579	BP	4.98e-3	4.22308	11.78539	0.14001
77	7.592	VB	0.0127	21.07486	21.82810	0.69869
78	7.618	BV	4.89e-3	4.29602	11.69183	0.14243
79	7.632	VV	0.0102	15.43575	19.66257	0.51174
80	7.652	VB	2.93e-3	2.41897	12.09020	0.08020
81	7.758	BP	0.0115	3.35273	3.67102	0.11115

Totals : 3016.32068 2897.06613

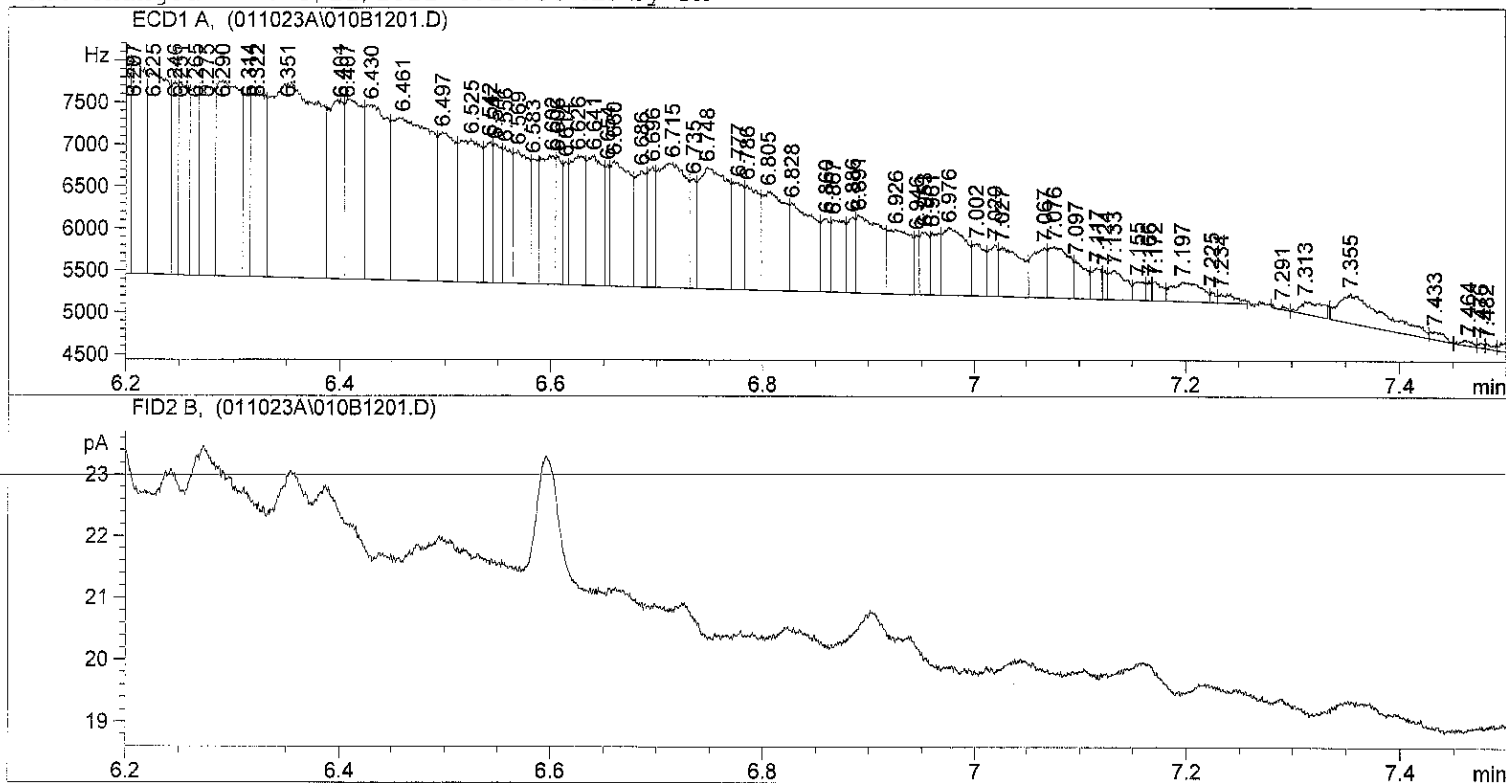
Results obtained with enhanced integrator!

Signal 2: FID2 B,

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*** End of Report ***

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Injection Date   : 1/10/2023 2:18:54 PM      Seq. Line : 12
Sample Name     : 23A0032 06                Location  : Vial 10
Acq. Operator  : TW                        Inj      : 1
                                           Inj Volume: 1 µl
Sequence File   : C:\HPCHEM\2\SEQUENCE\011023A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
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 Area Percent Report
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Sorted By      : Signal
Multiplier    : 1.0000
Dilution      : 1.0000
    
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Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.243	BV	0.0147	1227.54248	1015.59210	0.61837
2	5.254	VV	0.0310	1881.71643	1011.03595	0.94791
3	5.316	VV	0.0206	1246.05127	733.25018	0.62769
4	5.337	VV	0.0151	886.76166	715.31866	0.44670
5	5.381	VV	0.0232	1997.09436	1047.57385	1.00603
6	5.411	VV	0.0234	2095.65723	1063.30811	1.05568
7	5.452	VV	0.0216	2206.34546	1214.72021	1.11144
8	5.477	VV	0.0213	2710.32593	1589.95898	1.36532
9	5.511	VV	0.0257	3219.04126	1522.90845	1.62158
10	5.566	VV	0.0212	3280.87573	1838.77844	1.65273
11	5.574	VV	4.62e-3	646.88580	1876.58008	0.32587
12	5.582	VV	0.0153	2403.90918	1907.14172	1.21096
13	5.601	VV	4.81e-3	584.84833	1788.80994	0.29462
14	5.632	VV	0.0352	7344.79590	2478.68091	3.69991
15	5.691	VV	0.0344	7592.45020	2617.11621	3.82467
16	5.721	VV	0.0109	1837.92297	2279.80005	0.92585
17	5.754	VV	0.0300	6255.04102	2531.61108	3.15095

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.776	VV	6.47e-3	1090.87463	2246.28394	0.54952
19	5.811	VV	0.0234	4906.59229	2575.78174	2.47168
20	5.828	VV	0.0147	3179.54639	2632.75757	1.60168
21	5.863	VV	0.0322	8498.89844	3243.59082	4.28129
22	5.890	VV	4.31e-3	894.58453	2810.25854	0.45064
23	5.897	VV	9.28e-3	2130.28564	2862.01807	1.07312
24	5.934	VV	0.0219	5692.81250	3093.30469	2.86773
25	5.939	VV	0.0156	3977.99780	3104.33032	2.00390
26	5.977	VV	0.0181	4543.54932	3033.37671	2.28880
27	5.988	VV	0.0151	3611.93140	2941.75879	1.81950
28	6.016	VV	0.0107	2345.29248	2809.59375	1.18143
29	6.033	VV	9.43e-3	2175.38037	2872.65796	1.09584
30	6.038	VV	9.99e-3	2290.98853	2908.01978	1.15408
31	6.052	VV	7.36e-3	1514.62207	2729.52905	0.76299
32	6.066	VV	0.0112	2547.20630	2741.19604	1.28315
33	6.076	VV	8.47e-3	1804.23206	2675.79077	0.90888
34	6.094	VV	0.0154	3128.44604	2604.50659	1.57594
35	6.110	VV	7.64e-3	1613.45728	2599.28198	0.81277
36	6.121	VV	7.71e-3	1565.86243	2569.17065	0.78880
37	6.133	VV	0.0149	3158.37939	2584.22461	1.59102
38	6.162	VV	0.0208	4315.93359	2522.31250	2.17414
39	6.182	VV	8.24e-3	1589.50818	2426.36963	0.80071
40	6.201	VV	0.0122	2504.92603	2573.67725	1.26185
41	6.207	VV	0.0112	2265.95996	2552.17847	1.14147
42	6.225	VV	0.0163	3052.88843	2396.55054	1.53788
43	6.246	VV	5.16e-3	934.61664	2291.88892	0.47081
44	6.251	VV	8.10e-3	1478.80627	2298.83984	0.74494
45	6.265	VV	6.47e-3	1136.30200	2258.25195	0.57241
46	6.275	VV	0.0110	2018.69836	2263.99023	1.01691
47	6.290	VV	0.0179	3439.79028	2325.22314	1.73278
48	6.314	VV	5.35e-3	906.10394	2225.74146	0.45645
49	6.322	VV	0.0116	2035.04480	2231.80322	1.02515
50	6.351	VV	0.0384	7313.29053	2306.37622	3.68404
51	6.401	VV	0.0117	2062.36450	2128.91675	1.03891
52	6.407	VV	0.0136	2433.58179	2158.72754	1.22591
53	6.430	VV	0.0175	3051.32520	2087.16846	1.53709
54	6.461	VV	0.0299	4884.72803	1946.58240	2.46066
55	6.497	VV	0.0142	1976.67493	1776.30530	0.99574
56	6.525	VV	0.0169	2404.59741	1699.25671	1.21131
57	6.542	VV	7.52e-3	877.80157	1672.29578	0.44219
58	6.547	VV	7.64e-3	908.14044	1645.09875	0.45747
59	6.556	VV	7.06e-3	895.31403	1616.93787	0.45101
60	6.569	VV	0.0125	1592.82324	1582.32861	0.80238
61	6.583	VV	5.87e-3	672.90051	1489.86768	0.33897
62	6.602	VV	0.0111	1379.40979	1528.05737	0.69487
63	6.606	VV	5.74e-3	641.09967	1515.36548	0.32295
64	6.614	VV	4.71e-3	451.82175	1458.02832	0.22760
65	6.626	VV	0.0127	1494.94543	1544.19812	0.75307
66	6.641	VV	0.0130	1597.15735	1546.52771	0.80456
67	6.654	VV	3.72e-3	384.62061	1437.44885	0.19375
68	6.660	VV	0.0157	1906.21375	1490.02661	0.96025
69	6.686	VV	8.95e-3	987.77142	1379.93945	0.49759
70	6.696	VV	6.66e-3	717.52979	1428.40527	0.36145
71	6.715	VV	0.0215	2670.16821	1487.01099	1.34509
72	6.735	VV	5.81e-3	512.43506	1297.24097	0.25814
73	6.748	VV	0.0222	2651.29858	1445.63599	1.33558
74	6.777	VV	9.30e-3	954.11304	1279.23755	0.48063
75	6.786	VV	0.0111	1127.19470	1246.68811	0.56782
76	6.805	VV	0.0180	1770.02551	1183.91858	0.89164
77	6.828	VV	0.0184	1614.97241	1048.98401	0.81354
78	6.860	VV	7.28e-3	499.38696	872.75238	0.25156
79	6.867	VV	0.0108	751.30164	860.17102	0.37847
80	6.886	VV	7.28e-3	451.78659	896.23956	0.22759
81	6.891	VV	0.0194	1467.93896	918.92261	0.73947
82	6.926	VV	0.0180	1144.44373	767.76556	0.57651

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	6.946	VV	3.92e-3	200.83102	706.34253	0.10117
84	6.953	VV	8.22e-3	437.13446	747.32709	0.22020
85	6.961	VB	7.55e-3	441.78925	741.54474	0.22255
86	6.976	BV	0.0190	1262.91077	802.44946	0.63619
87	7.002	VV	0.0100	496.33157	616.05634	0.25003
88	7.020	VV	8.77e-3	395.34955	609.33649	0.19916
89	7.027	VV	0.0179	878.39600	586.10706	0.44249
90	7.067	VV	0.0120	566.45331	590.62152	0.28535
91	7.076	VV	0.0165	842.44421	617.28625	0.42438
92	7.097	VV	9.34e-3	339.79208	453.80249	0.17117
93	7.117	VV	8.22e-3	239.81029	367.01889	0.12080
94	7.124	VV	4.79e-3	98.28219	341.68048	0.04951
95	7.133	VV	0.0139	379.56940	343.93555	0.19121
96	7.155	VV	9.47e-3	153.64514	221.99559	0.07740
97	7.166	VV	5.55e-3	74.33120	223.08992	0.03744
98	7.172	VV	8.32e-3	145.09029	225.01923	0.07309
99	7.197	VV	0.0236	437.95563	225.98132	0.22062
100	7.225	VV	4.84e-3	41.45409	125.88093	0.02088
101	7.234	VB	0.0125	113.79250	109.80319	0.05732
102	7.291	BP	4.04e-3	12.80339	41.07642	0.00645
103	7.313	VB	0.0188	230.84895	148.32954	0.11629
104	7.355	BV	0.0366	1057.63403	346.53439	0.53278
105	7.433	VP	0.0110	85.67717	96.39447	0.04316
106	7.464	VV	9.18e-3	44.49112	60.48854	0.02241
107	7.476	VV	6.16e-3	20.98741	56.74188	0.01057
108	7.482	VB	8.04e-3	32.68029	55.72848	0.01646
109	7.510	BV	0.0179	262.93088	181.32198	0.13245
110	7.531	VV	0.0182	237.48721	155.54999	0.11963
111	7.577	VP	5.77e-3	13.90280	31.38901	0.00700
112	7.605	VV	7.88e-3	58.17263	95.83141	0.02930
113	7.614	VV	7.80e-3	80.16164	129.88306	0.04038
114	7.621	VV	0.0104	127.10876	150.68704	0.06403
115	7.640	VV	6.42e-3	34.58253	89.75009	0.01742
116	7.650	VV	7.63e-3	36.72772	64.65090	0.01850
117	7.662	VV	4.29e-3	22.91630	68.77705	0.01154
118	7.679	VV	0.0115	98.91354	103.83463	0.04983
119	7.698	VV	0.0123	146.62268	151.72957	0.07386
120	7.721	VV	0.0110	134.96065	149.10211	0.06799
121	7.738	VV	0.0121	96.84464	103.86431	0.04879
122	7.764	VV	9.54e-3	63.22910	86.39970	0.03185
123	7.777	VP	8.75e-3	51.63549	73.94258	0.02601

Totals : 1.98513e5 1.71076e5

Results obtained with enhanced integrator!

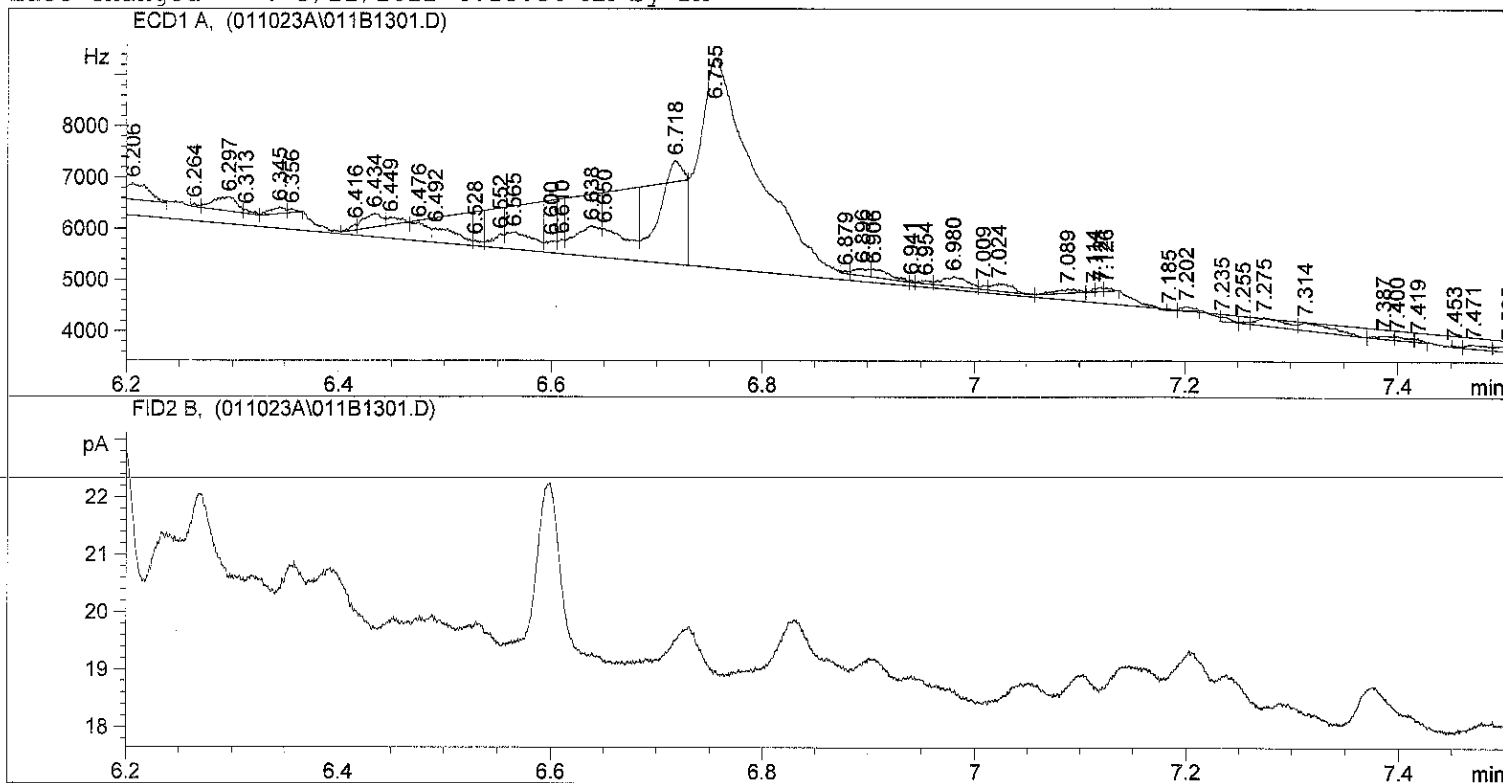
Signal 2: FID2 B,

*** End of Report ***

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Injection Date : 1/10/2023 2:30:10 PM      Seq. Line : 13
Sample Name    : 23A0032 07                Location  : Vial 11
Acq. Operator  : TW                        Inj      : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\011023A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
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Area Percent Report
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Sorted By      : Signal
Multiplier     : 1.0000
Dilution       : 1.0000
    
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Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.222	BV S	0.0233	2.48527e4	1.61754e4	15.23115
2	5.284	PB T	0.0156	750.37115	636.61877	0.45987
3	5.326	PV T	1.74e-3	3.85370	36.88539	0.00236
4	5.332	PB T	5.83e-3	25.97825	74.25373	0.01592
5	5.358	PV T	3.26e-3	10.60106	54.21837	0.00650
6	5.395	PV T	0.0223	2470.71411	1403.89246	1.51420
7	5.440	PV T	0.0162	1083.78491	822.99908	0.66421
8	5.487	PV S	0.0253	7701.57080	3611.94531	4.71996
9	5.560	PV S	0.0275	1.34100e4	6278.79102	8.21842
10	5.620	PV S	0.0253	7293.30615	3645.00513	4.46976
11	5.673	PV S	0.0467	4.48567e4	1.20824e4	27.49075
12	5.752	BV T	9.40e-3	878.61694	1192.45349	0.53847
13	5.824	PV T	0.0000	188.31749	481.10532	0.11541
14	5.845	PV T	5.78e-3	16.07527	46.32829	0.00985
15	5.864	PV T	0.0119	404.50488	416.20392	0.24790
16	5.895	PV T	0.0188	1110.56714	721.63483	0.68062
17	5.949	PV S	0.0964	3.13783e4	3823.26147	19.23045

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.969	BB T	4.99e-3	30.92704	103.29922	0.01895
19	6.033	BV T	0.0136	104.01603	127.83410	0.06375
20	6.052	PV T	0.0377	345.41360	152.62341	0.21169
21	6.110	PB T	5.21e-3	41.39241	104.81812	0.02537
22	6.140	BV T	3.25e-3	10.62297	54.42390	0.00651
23	6.146	PV T	5.56e-3	18.11930	54.26920	0.01110
24	6.166	PV T	0.0103	218.37344	257.55850	0.13383
25	6.178	PV T	0.0101	97.05553	160.15848	0.05948
26	6.206	PB T	0.0223	581.01910	327.53482	0.35608
27	6.264	BV T	4.99e-3	20.66554	69.02798	0.01267
28	6.297	PV T	0.0180	415.56003	282.42300	0.25468
29	6.313	PV T	8.22e-3	37.42825	75.92348	0.02294
30	6.345	PV T	0.0109	119.55373	135.41313	0.07327
31	6.356	PB T	5.88e-3	32.93670	72.72393	0.02019
32	6.416	BV T	5.44e-3	48.36445	116.54914	0.02964
33	6.434	PV T	0.0139	317.25858	273.68512	0.19443
34	6.449	PV T	0.0103	110.56418	138.81152	0.06776
35	6.476	PV T	0.0465	126.23602	45.19912	0.07736
36	6.492	PV T	0.0469	786.41022	197.39581	0.48196
37	6.528	PV T	0.0116	380.70105	546.00787	0.23332
38	6.552	PV T	0.0162	660.78369	507.81616	0.40497
39	6.565	PV T	0.0326	1396.54126	511.78940	0.85588
40	6.600	PV T	9.54e-3	604.43079	788.34509	0.37043
41	6.610	PV T	6.36e-3	365.02002	794.40350	0.22371
42	6.638	PV T	0.0293	1502.94861	619.63776	0.92109
43	6.650	PV T	0.0458	1945.52283	707.90863	1.19233
44	6.718	PV T	0.0000	888.87195	410.59543	0.54475
45	6.755	PB S	0.0362	1.20077e4	4075.78320	7.35901
46	6.879	BV T	7.44e-3	22.25666	49.87276	0.01364
47	6.896	PV T	0.0115	134.62950	143.69289	0.08251
48	6.906	PV T	0.0211	202.31381	159.94707	0.12399
49	6.941	PV T	2.94e-3	8.01115	45.46742	0.00491
50	6.954	PV T	9.69e-3	39.81141	57.41034	0.02440
51	6.980	PV T	0.0192	309.43347	198.10100	0.18964
52	7.009	PV T	7.17e-3	34.97873	81.36183	0.02144
53	7.024	PV T	0.0167	203.50989	145.79823	0.12472
54	7.089	PV T	0.0178	115.11816	78.16370	0.07055
55	7.114	PV T	3.94e-3	17.88192	62.48836	0.01096
56	7.121	PV T	5.75e-3	31.17550	83.69006	0.01911
57	7.126	PB T	8.16e-3	31.64194	64.64530	0.01939
58	7.185	BV T	5.04e-3	10.39491	34.35133	0.00637
59	7.202	PB T	0.0107	64.86345	83.59119	0.03975
60	7.235	BV T	0.0102	57.90321	94.69903	0.03549
61	7.255	PV T	7.83e-3	16.97699	36.13885	0.01040
62	7.275	PV T	0.0228	303.80759	158.26357	0.18619
63	7.314	PV T	0.0254	345.80396	161.50381	0.21193
64	7.387	PV T	0.0136	67.68864	65.59920	0.04148
65	7.400	PV T	0.0143	64.70657	75.50449	0.03966
66	7.419	PB T	6.40e-3	27.62476	71.88477	0.01693
67	7.453	BV T	7.76e-3	13.58949	29.19420	0.00833
68	7.471	PV T	0.0166	112.18178	83.78706	0.06875
69	7.505	PV T	0.0104	109.14460	127.23354	0.06689
70	7.510	PV T	0.0247	193.39476	130.32956	0.11852
71	7.540	PV T	0.0153	89.40337	97.64028	0.05479
72	7.607	PV T	0.0112	128.00185	138.56714	0.07845
73	7.623	PV T	0.0214	306.54712	172.11195	0.18787
74	7.653	PV T	0.0270	193.83916	119.70597	0.11880
75	7.683	PV T	0.0232	137.26410	98.64064	0.08412
76	7.712	PV T	0.0181	82.83762	76.27204	0.05077
77	7.758	PV T	3.78e-3	9.71339	33.54871	0.00595
78	7.765	PV T	6.71e-3	21.10391	40.31623	0.01293
79	7.776	PB T	5.57e-3	12.11949	36.26667	0.00743

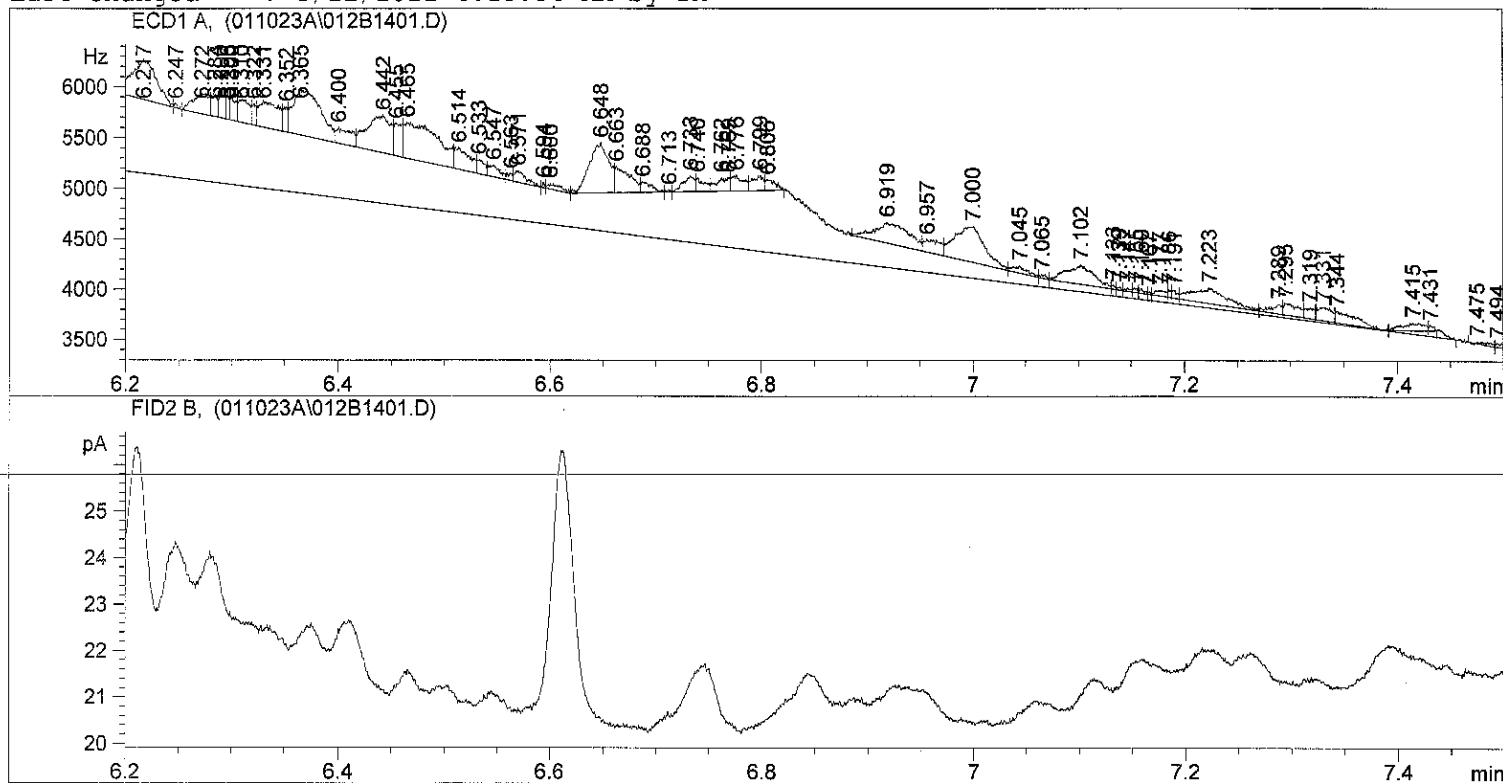
Totals : 1.63170e5 6.63512e4

Results obtained with enhanced integrator!

Signal 2: FID2 B,

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*** End of Report ***

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Injection Date : 1/10/2023 2:40:54 PM Seq. Line : 14
Sample Name : 23A0032 08 Location : Vial 12
Acq. Operator : TW Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\2\SEQUENCE\011023A.S
Method : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed : 3/22/2022 4:13:36 AM by DM
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Area Percent Report
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Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.247	BV	0.0279	2267.87598	985.03333	2.49900
2	5.297	VV	6.37e-3	105.86773	214.07007	0.11666
3	5.307	VV	6.74e-3	117.73215	231.28055	0.12973
4	5.323	VP	0.0113	187.56047	220.12160	0.20668
5	5.347	VV	0.0101	77.27924	108.93272	0.08515
6	5.384	VV	0.0169	1673.16577	1361.13281	1.84368
7	5.413	VV	9.28e-3	373.33890	490.55582	0.41139
8	5.454	VV	0.0258	1893.99390	946.03674	2.08702
9	5.485	VB S	0.1840	6.04593e4	3870.50562	66.62089
10	5.520	BV T	0.0119	526.38702	551.08630	0.58003
11	5.591	PV T	0.0247	1102.00928	533.13965	1.21432
12	5.648	PV T	0.0198	788.41797	473.86649	0.86877
13	5.656	VV T	0.0135	349.83923	431.07437	0.38549
14	5.701	PV T	0.0213	3948.96753	2288.75244	4.35142
15	5.734	VV T	7.73e-3	127.40653	274.79416	0.14039
16	5.764	VV T	0.0157	1256.88538	1025.66150	1.38498
17	5.786	VV T	3.70e-3	27.27566	102.75675	0.03006

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.796	VV T	0.0000	10.18588	43.07807	0.01122
19	5.806	PV T	4.12e-3	12.00220	48.50235	0.01323
20	5.824	PV T	6.72e-3	37.46134	96.64732	0.04128
21	5.832	VB T	2.54e-3	7.42098	48.60519	0.00818
22	5.877	BV T	0.0173	944.09998	702.42218	1.04032
23	5.910	PV T	7.19e-3	56.05527	102.34705	0.06177
24	5.918	VV T	5.76e-3	81.27612	176.86456	0.08956
25	5.960	VV T	0.0212	2196.58789	1391.92773	2.42045
26	5.989	VV T	0.0129	328.36627	316.25015	0.36183
27	6.016	VV T	0.0191	638.51959	402.37424	0.70359
28	6.048	VV T	9.33e-3	87.34614	139.08417	0.09625
29	6.064	PB T	8.86e-3	31.61862	50.83411	0.03484
30	6.117	BV T	0.0189	486.97684	310.42953	0.53661
31	6.153	PV T	0.0116	122.29158	134.35632	0.13475
32	6.173	PV T	0.0134	164.71759	150.44342	0.18150
33	6.190	PV T	6.97e-3	59.87401	143.17372	0.06598
34	6.217	PV T	0.0194	637.04907	394.66971	0.70197
35	6.247	PV T	2.62e-3	6.24938	39.80962	0.00689
36	6.272	PV T	0.0128	207.73721	198.38940	0.22891
37	6.284	PV T	5.45e-3	74.30305	198.10907	0.08188
38	6.290	PV T	5.69e-3	91.89480	219.28830	0.10126
39	6.296	PV T	3.50e-3	49.85341	237.48015	0.05493
40	6.300	PV T	6.51e-3	86.59071	221.76396	0.09542
41	6.310	PV T	0.0120	161.19975	224.54288	0.17763
42	6.322	PV T	4.31e-3	60.01260	199.70480	0.06613
43	6.331	PV T	0.0160	320.06488	256.28702	0.35268
44	6.352	PV T	5.11e-3	75.20835	245.13811	0.08287
45	6.365	PV T	0.0219	799.35181	441.86340	0.88082
46	6.400	PV T	0.0127	157.41798	149.81660	0.17346
47	6.442	PV T	0.0194	565.09259	366.34650	0.62268
48	6.455	PV T	8.70e-3	162.99115	312.26266	0.17960
49	6.465	PV T	0.0279	807.38220	347.51620	0.88966
50	6.514	PV T	0.0171	212.15450	207.35500	0.23378
51	6.533	PV T	8.51e-3	68.05913	133.30753	0.07500
52	6.547	PV T	0.0121	82.61459	113.41781	0.09103
53	6.563	PV T	4.73e-3	23.96652	67.67220	0.02641
54	6.571	PV T	0.0103	86.14200	110.72917	0.09492
55	6.594	PV T	2.02e-3	6.43661	46.42997	0.00709
56	6.600	PV T	0.0147	46.91331	53.23548	0.05169
57	6.648	PV T	0.0167	632.53278	489.64618	0.69700
58	6.663	PV T	0.0165	253.54094	255.41736	0.27938
59	6.688	PV T	0.0119	70.77689	99.35194	0.07799
60	6.713	PV T	4.03e-3	4.57869	17.62381	0.00505
61	6.733	PV T	9.23e-3	113.84549	153.95706	0.12545
62	6.740	PV T	8.90e-3	71.66292	134.12779	0.07897
63	6.762	PV T	6.64e-3	68.51953	132.30991	0.07550
64	6.769	PV T	4.49e-3	42.83708	128.34734	0.04720
65	6.776	PV T	0.0130	116.13581	149.36440	0.12797
66	6.799	PV T	8.96e-3	107.70045	146.87112	0.11868
67	6.806	PB T	0.0112	67.65909	100.89319	0.07455
68	6.919	BV T	0.0279	473.67105	202.18434	0.52194
69	6.957	PV T	0.0147	142.80858	118.57379	0.15736
70	7.000	PV T	0.0243	681.38037	352.78424	0.75082
71	7.045	PV T	0.0122	61.43675	71.80988	0.06770
72	7.065	PV T	7.04e-3	12.86524	30.46973	0.01418
73	7.102	PV T	0.0219	346.39151	189.44177	0.38169
74	7.133	PV T	3.93e-3	9.14043	38.73532	0.01007
75	7.139	PV T	3.88e-3	6.27808	26.97725	0.00692
76	7.147	PV T	4.57e-3	9.80230	35.73944	0.01080
77	7.155	PV T	3.56e-3	11.01493	43.43913	0.01214
78	7.160	PV T	3.51e-3	11.67856	46.79025	0.01287
79	7.167	PV T	2.45e-3	3.80400	25.83196	0.00419
80	7.177	PV T	9.17e-3	38.76202	53.99940	0.04271
81	7.186	PV T	3.32e-3	14.31085	71.90552	0.01577
82	7.191	PV T	5.50e-3	25.53428	77.44114	0.02814

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	7.223	PV T	0.0266	338.02853	151.57623	0.37248
84	7.289	PV T	9.45e-3	69.79560	94.14155	0.07691
85	7.295	PV T	0.0160	113.57681	118.33801	0.12515
86	7.319	PV T	0.0105	65.40582	104.03201	0.07207
87	7.331	PV T	0.0113	123.96719	132.15515	0.13660
88	7.344	PV T	0.0243	158.64467	108.80386	0.17481
89	7.415	PV T	0.0181	107.88815	74.68579	0.11888
90	7.431	PB T	5.26e-3	15.97325	50.65528	0.01760
91	7.475	BP	0.0167	17.82812	17.77855	0.01965
92	7.494	VV	0.0109	30.10709	35.89658	0.03318
93	7.520	VP	0.0212	119.72198	67.20260	0.13192
94	7.564	VV	5.83e-3	11.34694	26.32885	0.01250
95	7.578	VP	8.54e-3	27.24485	40.04966	0.03002
96	7.608	VV	6.06e-3	23.40899	49.98898	0.02579
97	7.635	VV	0.0177	241.19778	164.58969	0.26578
98	7.649	VV	0.0110	129.32109	144.63763	0.14250
99	7.666	VB	0.0102	86.90952	107.31959	0.09577
100	7.695	BV	0.0144	116.53803	98.62038	0.12841
101	7.710	VV	0.0112	93.61163	102.77282	0.10315
102	7.730	VV	0.0118	81.18832	84.41505	0.08946
103	7.751	VP	7.44e-3	24.12296	41.17233	0.02658
104	7.768	VV	3.71e-3	8.68819	32.60889	0.00957
105	7.779	VB	5.38e-3	11.30182	27.60227	0.01245

Totals : 9.07513e4 2.82207e4

Results obtained with enhanced integrator!

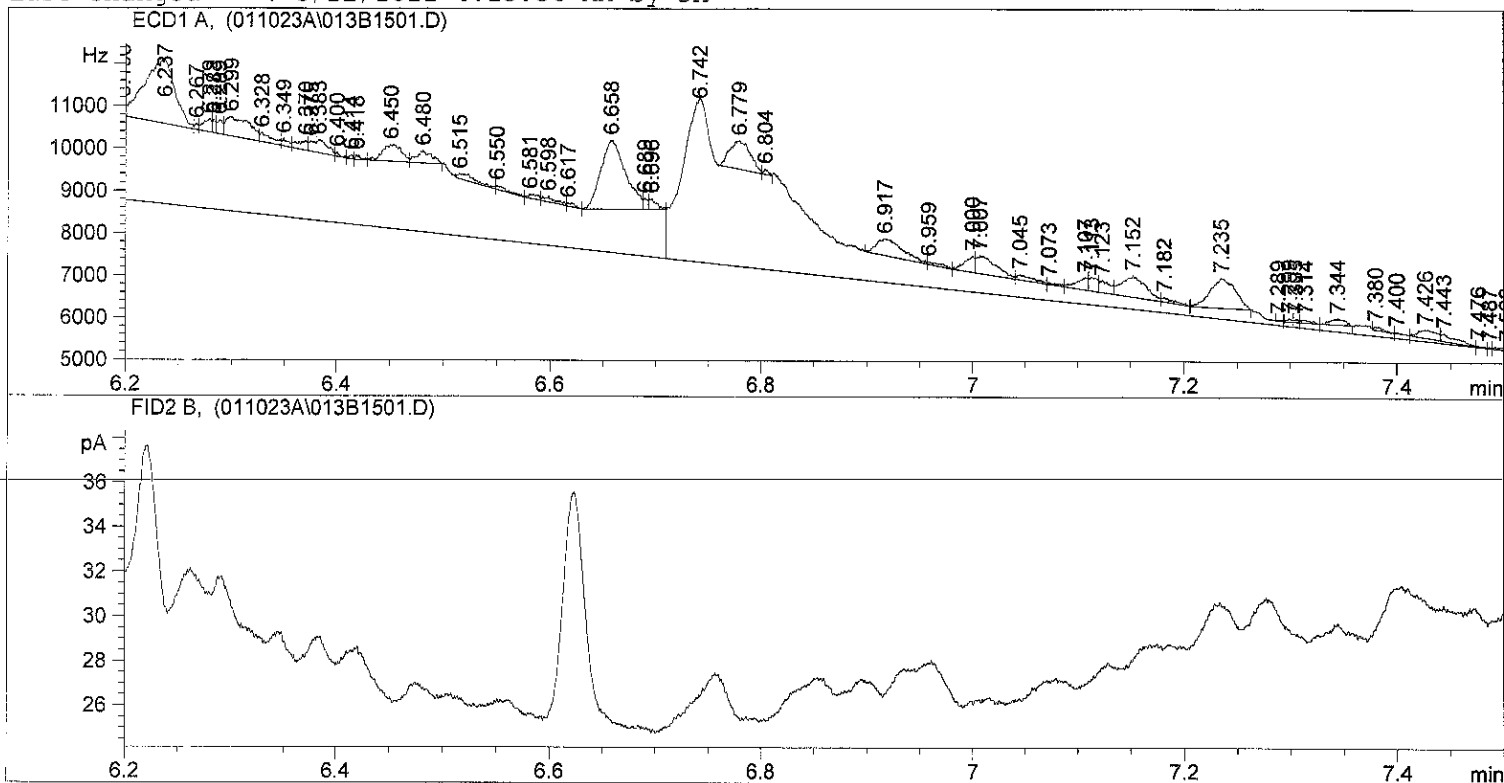
Signal 2: FID2 B,

*** End of Report ***

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=====
Injection Date : 1/10/2023 2:55:04 PM      Seq. Line : 15
Sample Name    : 23A0032 11                Location  : Vial 13
Acq. Operator : TW                        Inj      : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\011023A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
```



Area Percent Report

```

Sorted By      : Signal
Multiplier    : 1.0000
Dilution      : 1.0000
    
```

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.208	BV	5.23e-3	151.93114	400.07748	0.06189
2	5.233	VV S	0.0176	7486.66064	5261.57275	3.04977
3	5.295	PV T	0.0173	1893.13867	1307.04651	0.77119
4	5.317	PV T	4.94e-3	220.44183	593.02966	0.08980
5	5.325	PP T	0.0155	598.33478	641.71326	0.24374
6	5.354	PV T	5.59e-3	68.84452	167.68468	0.02804
7	5.362	PV T	4.31e-3	52.70302	165.94661	0.02147
8	5.391	PV S	0.0369	8586.44043	2787.10352	3.49777
9	5.456	BV T	0.0140	1090.17261	979.28278	0.44409
10	5.496	PV S	0.0333	7470.29541	2733.69360	3.04310
11	5.522	BV T	7.33e-3	237.87558	452.47662	0.09690
12	5.578	VV S	0.0548	1.49796e4	3250.13281	6.10211
13	5.603	BV T	9.99e-3	209.04782	259.65515	0.08516
14	5.639	PV T	0.0181	2556.16846	1893.46973	1.04128
15	5.691	PV S	0.0781	4.99286e4	7571.19580	20.33890
16	5.735	BV T	3.20e-3	22.28197	116.20393	0.00908
17	5.769	PV T	8.85e-3	427.25793	604.54742	0.17405

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.807	PV T	0.0130	479.84082	443.11279	0.19547
19	5.835	PV T	0.0000	4.25745	489.86258	0.00173
20	5.887	PV T	7.18e-3	389.91281	786.71741	0.15883
21	5.913	PV T	0.0113	456.97827	498.56461	0.18615
22	5.933	PV T	7.50e-3	98.46619	218.77620	0.04011
23	5.943	PV T	2.20e-3	11.24451	85.30629	0.00458
24	5.969	VV S	0.0335	1.70816e4	6409.31934	6.95837
25	5.996	BV T	8.82e-3	98.23067	185.60829	0.04002
26	6.047	VV S	0.1100	8.24559e4	8923.60059	33.58924
27	6.125	BV T	0.0179	686.10712	472.62613	0.27949
28	6.166	PV T	9.16e-3	108.68342	155.31961	0.04427
29	6.179	PV T	3.51e-3	29.45721	140.06688	0.01200
30	6.183	PV T	3.47e-3	41.82384	200.86491	0.01704
31	6.187	PV T	6.03e-3	81.72779	225.75369	0.03329
32	6.198	PV T	6.96e-3	166.93645	306.15027	0.06800
33	6.237	PV T	0.0231	2995.79639	1554.29797	1.22037
34	6.267	PV T	3.92e-3	33.16239	140.89220	0.01351
35	6.279	PV T	6.55e-3	156.72330	307.16550	0.06384
36	6.283	PV T	3.43e-3	65.26683	317.45770	0.02659
37	6.289	PV T	5.29e-3	124.42471	337.98718	0.05069
38	6.299	PV T	0.0199	723.66412	445.66232	0.29479
39	6.328	PV T	0.0132	170.40517	215.30995	0.06942
40	6.349	PV T	6.57e-3	68.20055	173.08618	0.02778
41	6.370	PV T	8.54e-3	153.90205	226.22597	0.06269
42	6.375	PV T	5.25e-3	98.46152	237.02600	0.04011
43	6.383	PV T	9.74e-3	228.92093	298.75229	0.09325
44	6.400	PV T	4.03e-3	23.77427	98.35546	0.00968
45	6.414	PV T	4.15e-3	22.74516	91.33842	0.00927
46	6.418	PV T	4.67e-3	29.98660	107.12051	0.01222
47	6.450	PV T	0.0153	491.19507	388.94083	0.20009
48	6.480	PB T	0.0125	275.83328	279.67468	0.11236
49	6.515	BV T	0.0176	168.97714	114.78905	0.06883
50	6.550	PV T	0.0116	63.52551	90.97051	0.02588
51	6.581	PV T	8.73e-3	65.21342	93.60751	0.02657
52	6.598	PV T	0.0131	99.00629	125.56232	0.04033
53	6.617	PV T	9.01e-3	39.56695	73.19085	0.01612
54	6.658	PV T	0.0203	2639.27417	1626.73840	1.07513
55	6.689	PV T	4.82e-3	73.47515	254.28993	0.02993
56	6.696	PV T	8.20e-3	123.83731	251.69780	0.05045
57	6.742	PB S	0.0971	3.14258e4	3878.93433	12.80160
58	6.779	BV T	0.0167	923.27972	667.33862	0.37611
59	6.804	PB T	4.54e-3	39.29738	116.25059	0.01601
60	6.917	BV T	0.0221	699.88135	386.82019	0.28510
61	6.959	PV T	0.0172	69.49086	67.30895	0.02831
62	7.000	PV T	8.45e-3	252.63312	385.40567	0.10291
63	7.007	PV T	0.0162	564.78369	417.84421	0.23007
64	7.045	PV T	0.0133	133.29770	126.04301	0.05430
65	7.073	PV T	9.84e-3	31.27399	52.96237	0.01274
66	7.107	PV T	0.0101	219.76349	277.15329	0.08952
67	7.113	PV T	6.89e-3	176.09129	316.57413	0.07173
68	7.123	PV T	8.94e-3	196.44000	274.68402	0.08002
69	7.152	PV T	0.0205	784.21735	495.22375	0.31946
70	7.182	PV T	0.0137	82.81142	100.42648	0.03373
71	7.235	PB T	0.0196	1138.43481	697.48639	0.46375
72	7.289	BV T	4.15e-3	6.96720	27.95627	0.00284
73	7.299	PV T	5.31e-3	23.07043	72.47083	0.00940
74	7.305	PV T	4.31e-3	19.16367	74.15343	0.00781
75	7.314	PV T	0.0106	48.47042	75.96091	0.01974
76	7.344	PB T	0.0120	138.58746	139.02232	0.05645
77	7.380	BV T	9.47e-3	42.79768	75.34434	0.01743
78	7.400	PV T	4.51e-3	7.39141	27.31616	0.00301
79	7.426	PV T	0.0147	242.17723	197.65526	0.09865
80	7.443	PV T	0.0169	178.75871	176.12154	0.07282
81	7.476	PV T	5.31e-3	11.70642	36.76831	0.00477
82	7.487	PV T	2.87e-3	6.39190	37.12191	0.00260

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	7.503	PV T	0.0117	83.93382	88.22485	0.03419
84	7.535	PV T	9.21e-3	30.79861	42.74897	0.01255
85	7.552	PV T	6.46e-3	19.04276	49.09593	0.00776
86	7.564	PB T	5.69e-3	13.90895	40.73460	0.00567
87	7.588	BV	3.87e-3	12.43989	41.79444	0.00507
88	7.603	VV	9.53e-3	57.78316	85.05268	0.02354
89	7.620	VV	3.49e-3	10.94857	44.14888	0.00446
90	7.647	VV	0.0181	256.61658	174.72876	0.10454
91	7.667	VB	0.0184	221.76460	150.65546	0.09034
92	7.704	BV	5.29e-3	28.56569	71.06110	0.01164
93	7.713	VV	4.19e-3	19.30681	62.69955	0.00786
94	7.721	VV	2.62e-3	7.01440	40.45330	0.00286
95	7.732	VV	0.0100	81.28796	98.73565	0.03311
96	7.748	VV	4.80e-3	13.18864	36.66145	0.00537
97	7.758	VP	6.11e-3	22.78730	52.06742	0.00928
98	7.778	VV	3.02e-3	6.84903	32.97243	0.00279
99	7.783	VP	6.96e-3	26.48818	50.16730	0.01079
100	7.798	VBA	1.71e-3	1.10888	9.85971	0.00045

Totals : 2.45483e5 6.69488e4

Results obtained with enhanced integrator!

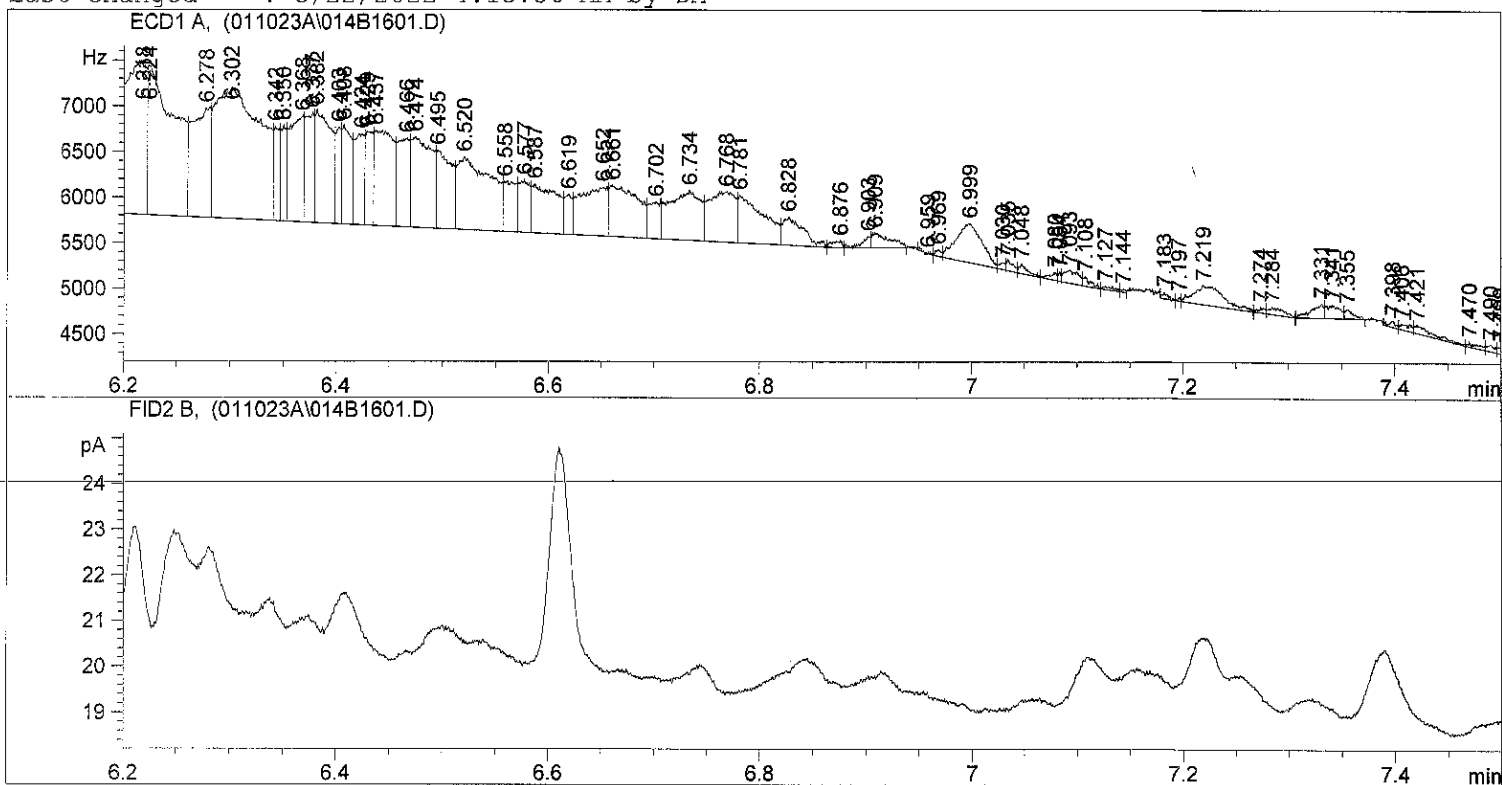
Signal 2: FID2 B,

*** End of Report ***

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Injection Date : 1/10/2023 3:10:30 PM      Seq. Line : 16
Sample Name    : 23A0087 01                Location  : Vial 14
Acq. Operator  : TW                        Inj      : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\011023A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
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 Area Percent Report
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Sorted By      : Signal
Multiplier     : 1.0000
Dilution      : 1.0000
    
```

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.222	BP	2.32e-3	4.12590	28.02926	0.00404
2	5.250	VV	0.0198	680.53650	436.98264	0.66665
3	5.272	VV	8.54e-3	174.79184	256.89923	0.17123
4	5.299	VV	7.10e-3	105.45287	183.56635	0.10330
5	5.304	VV	3.78e-3	47.45108	173.85025	0.04648
6	5.321	VV	0.0137	303.52625	274.27847	0.29733
7	5.342	VV	8.01e-3	71.28780	118.69217	0.06983
8	5.349	VV	4.23e-3	30.04801	96.69256	0.02943
9	5.379	VV	0.0122	609.46533	613.95728	0.59703
10	5.384	VV	4.65e-3	215.74559	653.65948	0.21134
11	5.414	VV	0.0262	1915.08826	871.28894	1.87602
12	5.450	VV	0.0184	1658.46643	1072.24683	1.62463
13	5.483	VV	0.0231	2074.90967	1181.39563	2.03258
14	5.520	VV	0.0189	1491.54407	941.00146	1.46111
15	5.562	VV	0.0197	1267.63708	826.94391	1.24177
16	5.582	VV	9.82e-3	704.14325	911.06512	0.68978
17	5.587	VV	5.77e-3	369.71436	943.25769	0.36217

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.596	VV	0.0119	979.09198	990.59167	0.95912
19	5.610	VV	4.54e-3	268.83517	884.78961	0.26335
20	5.636	VV	0.0351	4003.10498	1383.95886	3.92143
21	5.674	VV	4.58e-3	327.22168	1067.35229	0.32055
22	5.701	VV	0.0260	5765.16699	2755.70752	5.64755
23	5.760	VV	0.0318	5423.22363	2029.98413	5.31258
24	5.787	VV	7.06e-3	726.76898	1313.50122	0.71194
25	5.823	VV	0.0350	5335.88916	1811.37280	5.22703
26	5.880	VV	0.0273	5870.35840	2588.57520	5.75059
27	5.907	VV	8.65e-3	1013.13202	1586.81677	0.99246
28	5.917	VV	5.14e-3	564.84534	1517.83972	0.55332
29	5.947	VV	0.0352	5610.22559	1892.01184	5.49577
30	5.995	VV	0.0168	2327.24731	1720.38831	2.27977
31	6.015	VV	0.0209	3332.55884	1918.15576	3.26457
32	6.052	VV	0.0424	7577.57373	2104.88745	7.42298
33	6.118	VV	8.66e-3	919.24713	1364.28931	0.90049
34	6.126	VV	0.0197	2259.75049	1378.59045	2.21365
35	6.152	VV	0.0129	957.77295	1239.11682	0.93823
36	6.173	VV	9.03e-3	919.77606	1272.72693	0.90101
37	6.179	VV	6.88e-3	673.74768	1293.85376	0.66000
38	6.189	VV	6.17e-3	552.41534	1268.11316	0.54115
39	6.218	VV	0.0207	2785.12793	1697.49048	2.72831
40	6.224	VV	0.0216	2880.69727	1628.42188	2.82193
41	6.278	VV	0.0151	1473.65466	1200.40918	1.44359
42	6.302	VV	0.0344	4132.74561	1435.08630	4.04843
43	6.342	VV	4.84e-3	375.70227	1032.63489	0.36804
44	6.350	VV	6.00e-3	376.71408	1045.62012	0.36903
45	6.368	VV	0.0115	1050.29712	1162.51050	1.02887
46	6.377	VV	7.41e-3	702.25916	1202.31311	0.68793
47	6.382	VV	0.0134	1361.53699	1238.00427	1.33376
48	6.403	VV	5.14e-3	376.42303	1061.03442	0.36874
49	6.408	VV	7.59e-3	648.52997	1082.94360	0.63530
50	6.424	VV	7.49e-3	607.73370	999.49390	0.59533
51	6.429	VV	5.88e-3	483.20248	1029.11658	0.47334
52	6.437	VV	0.0152	1286.31616	1042.75586	1.26007
53	6.466	VV	9.62e-3	751.76086	972.63916	0.73642
54	6.474	VV	0.0165	1334.58301	991.47980	1.30736
55	6.495	VV	0.0162	833.16113	857.17633	0.81616
56	6.520	VV	0.0260	1736.64294	798.57910	1.70121
57	6.558	VV	9.93e-3	445.89206	545.94702	0.43680
58	6.577	VV	0.0121	416.07010	573.86206	0.40758
59	6.587	VV	0.0191	846.62183	533.31628	0.82935
60	6.619	VV	6.60e-3	218.43941	439.24399	0.21398
61	6.652	VV	0.0224	952.87817	537.23376	0.93344
62	6.661	VV	0.0222	1050.52148	561.97394	1.02909
63	6.702	VV	0.0109	319.30151	400.89941	0.31279
64	6.734	VV	0.0243	1112.85803	547.06787	1.09015
65	6.768	VV	0.0212	929.93134	551.21826	0.91096
66	6.781	VV	0.0204	883.40668	521.69928	0.86538
67	6.828	VV	0.0167	422.67792	310.47684	0.41405
68	6.876	VP	9.59e-3	48.38695	74.36845	0.04740
69	6.903	VV	7.61e-3	71.71997	122.90533	0.07026
70	6.909	VB	0.0143	186.79443	157.05495	0.18298
71	6.959	BP	0.0134	5.68813	5.10218	0.00557
72	6.969	VV	4.98e-3	26.62625	70.98106	0.02608
73	6.999	VV	0.0206	714.24182	428.48535	0.69967
74	7.030	VV	5.73e-3	28.27697	69.70583	0.02770
75	7.035	VV	6.18e-3	52.46936	113.72588	0.05140
76	7.048	VP	7.15e-3	56.17109	100.01523	0.05503
77	7.080	VV	6.40e-3	39.02115	81.27132	0.03823
78	7.084	VV	2.91e-3	16.85072	85.09768	0.01651
79	7.093	VV	0.0120	129.60503	136.91374	0.12696
80	7.108	VP	7.03e-3	50.69039	98.06242	0.04966
81	7.127	VV	9.74e-3	28.12798	35.14934	0.02755
82	7.144	VV	4.73e-3	9.40526	33.14527	0.00921

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	7.183	BP	5.01e-3	26.46071	66.89732	0.02592
84	7.197	VV	2.26e-3	5.73993	40.32650	0.00562
85	7.219	VV	0.0244	414.31287	205.16043	0.40586
86	7.274	VV	5.71e-3	26.93934	59.16123	0.02639
87	7.284	VP	0.0173	77.14880	74.18712	0.07557
88	7.331	VV	9.82e-3	123.92523	156.73439	0.12140
89	7.341	VV	0.0110	130.19087	143.13451	0.12753
90	7.355	VP	7.40e-3	57.48046	104.71194	0.05631
91	7.398	PV	5.56e-3	27.90850	68.38873	0.02734
92	7.406	VV	9.51e-3	44.42242	56.90564	0.04352
93	7.421	VP	0.0155	106.19099	84.22932	0.10402
94	7.470	VV	0.0132	37.84971	47.61865	0.03708
95	7.490	VV	6.20e-3	32.60089	70.46031	0.03194
96	7.499	VV	5.88e-3	26.58390	75.37826	0.02604
97	7.506	VV	0.0129	75.28018	72.73356	0.07374
98	7.538	VV	0.0101	137.01160	172.55939	0.13422
99	7.547	VV	0.0101	168.84398	207.56192	0.16540
100	7.557	VP	9.81e-3	158.57631	200.97299	0.15534
101	7.603	VV	7.86e-3	34.11192	54.82528	0.03342
102	7.629	VV	0.0149	184.35013	161.24481	0.18059
103	7.636	VV	0.0104	148.00146	180.27502	0.14498
104	7.651	VV	3.87e-3	38.01382	144.54956	0.03724
105	7.656	VV	6.56e-3	69.64564	141.07814	0.06822
106	7.668	VV	8.62e-3	81.48002	118.46195	0.07982
107	7.678	VV	0.0110	103.15430	113.25408	0.10105
108	7.699	VV	0.0121	106.10512	105.40116	0.10394
109	7.719	VV	0.0115	86.98258	102.57905	0.08521
110	7.733	VB	0.0121	71.00925	73.45232	0.06956
111	7.761	BV	9.31e-3	38.99382	53.47788	0.03820
112	7.779	VP	0.0116	51.71409	55.72628	0.05066

Totals : 1.02083e5 7.37905e4

Results obtained with enhanced integrator!

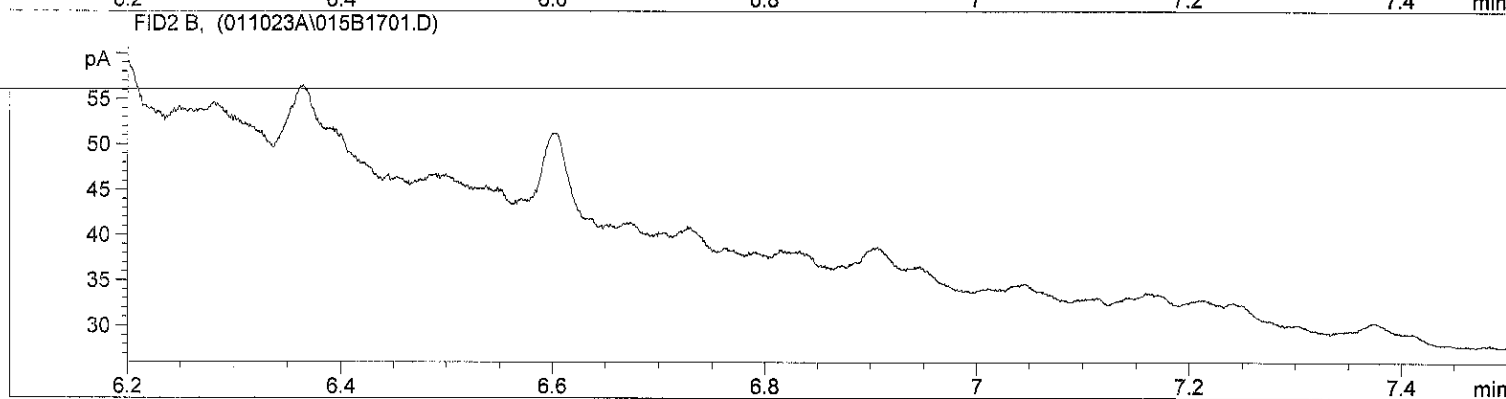
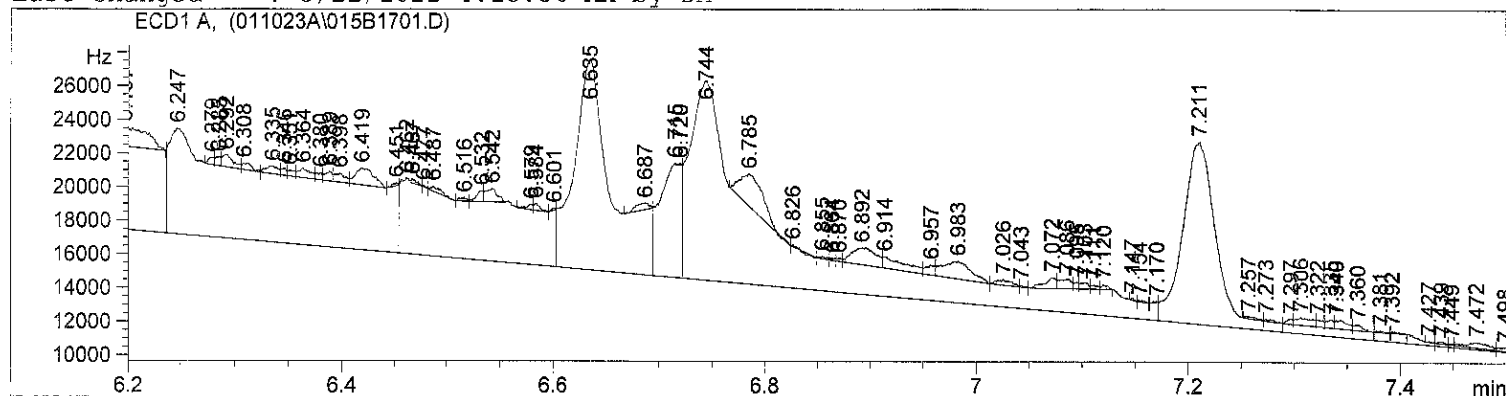
Signal 2: FID2 B,

*** End of Report ***

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Injection Date : 1/10/2023 3:21:47 PM      Seq. Line : 17
Sample Name    : 23A0087 05                Location  : Vial 15
Acq. Operator  : TW                        Inj       : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\011023A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
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Area Percent Report

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Sorted By      : Signal
Multiplier     : 1.0000
Dilution       : 1.0000
    
```

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.218	BP S	0.0183	1.65545e4	1.23268e4	2.33876
2	5.277	PV S	0.0211	7870.32471	4469.39648	1.11189
3	5.311	BV T	9.87e-3	656.40051	883.58698	0.09273
4	5.326	PV T	1.62e-3	14.81309	152.73543	0.00209
5	5.384	PV S	0.0422	1.88286e4	5615.21484	2.66004
6	5.438	PV S	0.0237	9819.43555	4956.83447	1.38726
7	5.487	PV S	0.0231	1.95049e4	1.14104e4	2.75559
8	5.557	PV S	0.0289	3.50569e4	1.49646e4	4.95272
9	5.625	VV S	0.0303	5.83887e4	3.21380e4	8.24896
10	5.673	VV S	0.0375	5.66887e4	2.51867e4	8.00879
11	5.895	VV S	0.1334	9.67287e4	1.20831e4	13.66551
12	5.950	VV S	0.0494	4.09881e4	1.38316e4	5.79066
13	6.010	VV S	0.1104	9.54657e4	1.04697e4	13.48708
14	6.080	BV T	8.15e-4	11.21189	229.32440	0.00158
15	6.107	PV T	4.83e-3	102.63454	312.98053	0.01450
16	6.113	PV T	5.20e-3	131.75908	334.42499	0.01861
17	6.122	PV T	6.33e-3	129.31973	340.58459	0.01827

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	6.130	PV T	3.60e-3	119.98032	466.99390	0.01695
19	6.136	PV T	3.47e-3	136.11230	552.71661	0.01923
20	6.142	PV T	6.73e-3	378.75226	745.38513	0.05351
21	6.168	PV T	7.45e-3	353.74457	682.56915	0.04998
22	6.172	PV T	3.74e-3	152.35468	679.02185	0.02152
23	6.176	PV T	6.25e-3	225.68111	601.67450	0.03188
24	6.187	PV T	5.25e-3	230.30370	632.73407	0.03254
25	6.197	PV T	0.0238	2157.53882	1116.00854	0.30481
26	6.247	PV S	0.1051	5.61451e4	6294.40820	7.93200
27	6.279	BV T	5.88e-3	150.00421	409.33273	0.02119
28	6.285	PV T	5.31e-3	167.12680	524.83270	0.02361
29	6.292	PV T	0.0121	504.82040	693.30945	0.07132
30	6.308	PV T	9.96e-3	226.61601	379.09476	0.03202
31	6.335	PV T	0.0106	350.60385	443.40741	0.04953
32	6.346	PV T	5.73e-3	143.46265	417.09259	0.02027
33	6.351	PV T	7.69e-3	149.50517	323.86591	0.02112
34	6.364	PV T	9.56e-3	416.39996	567.22565	0.05883
35	6.380	PV T	4.77e-3	152.23672	425.48773	0.02151
36	6.389	PV T	7.08e-3	265.92023	587.46991	0.03757
37	6.398	PV T	8.92e-3	368.73245	529.94080	0.05209
38	6.419	PV T	0.0146	1214.57593	1009.68738	0.17159
39	6.451	PV T	6.00e-3	60.45132	176.19452	0.00854
40	6.462	PV S	0.1158	3.12283e4	4493.54248	4.41183
41	6.467	BV T	6.26e-3	91.92638	244.63306	0.01299
42	6.477	PV T	3.54e-3	20.49489	96.43275	0.00290
43	6.487	PV T	8.38e-3	208.68266	313.11197	0.02948
44	6.516	PV T	5.69e-3	97.11915	214.14256	0.01372
45	6.532	PV T	5.66e-3	280.88654	647.71149	0.03968
46	6.542	PB T	9.82e-3	594.82123	786.42694	0.08403
47	6.579	BV T	5.35e-3	134.35599	330.00488	0.01898
48	6.584	PV T	6.63e-3	161.22412	405.21970	0.02278
49	6.601	PV T	3.85e-3	27.45641	112.25847	0.00388
50	6.635	PV S	0.0343	3.20108e4	1.24991e4	4.52237
51	6.687	BV T	0.0113	337.34244	389.31940	0.04766
52	6.715	PV S	0.0165	9288.80176	6800.45459	1.31229
53	6.720	BV T	2.52e-3	10.09506	69.97237	0.00143
54	6.744	PV S	0.0700	6.98481e4	1.18420e4	9.86791
55	6.785	BV T	0.0190	3022.23511	1912.32666	0.42697
56	6.826	PV T	0.0000	9.21644	123.09579	0.00130
57	6.855	PV T	6.78e-3	59.57566	139.56599	0.00842
58	6.864	PV T	4.33e-3	41.87381	130.98734	0.00592
59	6.870	PV T	5.16e-3	55.11444	178.12743	0.00779
60	6.892	PV T	0.0206	1633.07959	994.43414	0.23072
61	6.914	PV T	0.0259	1038.07446	669.15778	0.14666
62	6.957	PV T	7.46e-3	338.18521	592.58508	0.04778
63	6.983	PV T	0.0218	1910.41553	1049.52100	0.26990
64	7.026	PV T	0.0132	312.79581	320.37961	0.04419
65	7.043	PV T	4.71e-3	29.61364	104.78826	0.00418
66	7.072	PV T	9.82e-3	490.55081	634.35004	0.06930
67	7.086	PV T	9.60e-3	440.54169	558.69055	0.06224
68	7.095	PV T	4.93e-3	110.15563	372.71118	0.01556
69	7.103	PV T	7.33e-3	191.81329	364.84344	0.02710
70	7.111	PV T	7.53e-3	107.31130	237.46872	0.01516
71	7.120	PB T	5.36e-3	106.56024	261.40717	0.01505
72	7.147	BV T	3.41e-3	22.24852	108.84969	0.00314
73	7.154	PV T	8.31e-3	37.97104	76.18397	0.00536
74	7.170	PV T	4.12e-3	23.76043	78.80322	0.00336
75	7.211	PBAS	0.0305	2.74979e4	1.08036e4	3.88481
76	7.257	BV T	9.88e-3	92.60966	121.67021	0.01308
77	7.273	PV T	9.51e-3	73.41595	128.59785	0.01037
78	7.297	PV T	5.55e-3	116.77007	299.61636	0.01650
79	7.306	PV T	0.0127	469.69873	462.13156	0.06636
80	7.322	PV T	7.32e-3	183.17213	417.19699	0.02588
81	7.335	PV T	6.43e-3	228.55367	491.41675	0.03229
82	7.340	PV T	0.0138	414.28400	500.17294	0.05853

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	7.360	PV T	8.21e-3	201.95255	345.93146	0.02853
84	7.381	PV T	5.91e-3	42.78070	90.55714	0.00604
85	7.392	PB T	7.74e-3	48.66122	104.83051	0.00687
86	7.427	BV T	3.13e-3	15.05407	69.43510	0.00213
87	7.439	PV T	6.01e-3	54.63892	122.34904	0.00772
88	7.449	PV T	4.17e-3	21.91291	87.54843	0.00310
89	7.472	PV T	0.0181	473.08664	327.06012	0.06684
90	7.498	PV T	8.99e-3	160.54074	223.16046	0.02268
91	7.508	PV T	0.0199	287.95682	240.61534	0.04068
92	7.529	PV T	7.82e-3	86.60758	184.65749	0.01224
93	7.541	PV T	3.26e-3	18.12949	92.58817	0.00256
94	7.549	PV T	9.76e-3	145.80855	189.87364	0.02060
95	7.566	PV T	4.27e-3	24.47999	95.59011	0.00346
96	7.575	PV T	5.88e-3	47.61001	101.36103	0.00673
97	7.595	PV T	8.80e-3	165.14943	229.46059	0.02333
98	7.604	PV T	7.45e-3	166.60957	311.00665	0.02354
99	7.623	PV T	0.0167	665.72583	496.27072	0.09405
100	7.646	PV T	0.0123	341.94611	342.09363	0.04831
101	7.683	PV T	3.60e-3	27.33637	106.25428	0.00386
102	7.700	PV T	0.0124	178.26018	188.44482	0.02518
103	7.715	PV T	4.42e-3	17.36207	65.46819	0.00245
104	7.725	PV T	0.0109	133.27829	148.72543	0.01883
105	7.748	PV T	3.30e-3	14.40215	62.25587	0.00203
106	7.755	PB T	5.72e-3	36.47047	90.16701	0.00515
107	7.786	BV T	8.56e-3	43.32137	84.34995	0.00612
108	7.798	PBAT	1.11e-3	3.27970	49.10819	0.00046

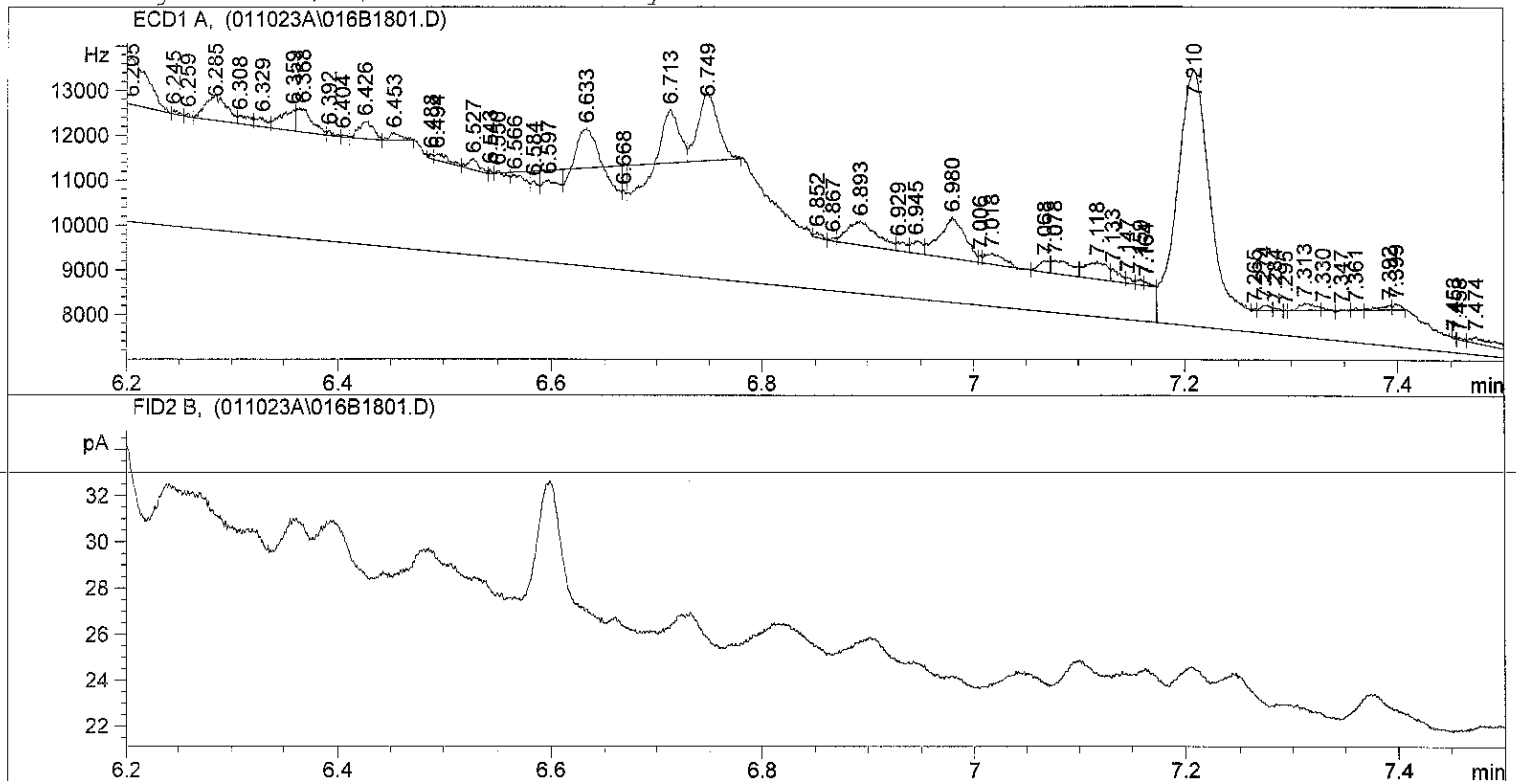
Totals : 7.07831e5 2.33791e5

Results obtained with enhanced integrator!

Signal 2: FID2 B,

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 *** End of Report ***

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Injection Date : 1/10/2023 3:32:47 PM Seq. Line : 18
Sample Name : 23A0087 06 Location : Vial 16
Acq. Operator : TW Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\2\SEQUENCE\011023A.S
Method : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed : 3/22/2022 4:13:36 AM by DM
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Area Percent Report
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Sorted By : Signal
Multiplier : 1.0000
Dilution : 1.0000

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.226	BV S	0.0228	7645.84424	4087.06958	2.39210
2	5.278	PV T	0.0135	917.41998	818.27441	0.28703
3	5.310	PV T	9.99e-3	394.71112	490.15701	0.12349
4	5.347	PV T	0.0000	62.37778	75.89280	0.01952
5	5.382	VV S	0.0804	1.56847e4	2429.43091	4.90716
6	5.440	BV T	0.0165	1553.02039	1263.10620	0.48588
7	5.486	VV T	0.0151	1636.98291	1314.36133	0.51215
8	5.509	VB T	5.07e-3	58.06681	190.96689	0.01817
9	5.623	VV S	0.0766	2.30662e4	5020.89209	7.21657
10	5.675	VV S	0.0460	1.86254e4	6747.65576	5.82721
11	5.949	VV S	0.1666	7.16626e4	5431.33301	22.42059
12	6.039	VV S	0.0678	1.72267e4	4232.89160	5.38959
13	6.109	VV S	0.4777	1.22738e5	3017.19214	38.40029
14	6.158	BV T	0.0142	393.44528	336.58365	0.12309
15	6.205	VV T	0.0243	2116.72632	1050.13159	0.66225
16	6.245	PV T	5.41e-3	30.20711	93.06380	0.00945
17	6.259	PV T	2.86e-3	16.72709	86.35400	0.00523

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	6.285	PV T	0.0169	796.31696	571.31409	0.24914
19	6.308	PV T	0.0133	146.46439	183.06503	0.04582
20	6.329	PV T	8.89e-3	148.45947	204.02542	0.04645
21	6.359	PV T	0.0117	438.90112	469.90497	0.13732
22	6.368	PV T	0.0167	531.13983	528.60626	0.16617
23	6.392	PV T	5.22e-3	36.59616	116.89152	0.01145
24	6.404	PV T	4.61e-3	18.02240	65.12091	0.00564
25	6.426	PV T	0.0125	376.27029	387.48132	0.11772
26	6.453	PB T	0.0109	128.28992	156.83766	0.04014
27	6.488	BV T	4.51e-3	30.24497	111.87899	0.00946
28	6.494	PV T	0.0156	136.77606	145.81729	0.04279
29	6.527	PV T	9.22e-3	169.38617	246.26601	0.05299
30	6.543	PV T	2.18e-3	12.43052	95.24274	0.00389
31	6.550	PV T	0.0000	22.63583	54.78934	0.00708
32	6.566	PV T	0.0384	146.45935	63.55980	0.04582
33	6.584	PV T	8.79e-3	149.12529	223.46439	0.04666
34	6.597	PV T	0.0220	375.85651	210.40305	0.11759
35	6.633	PV T	6.88e-3	489.59903	882.15009	0.15318
36	6.668	PV T	4.92e-3	159.27827	539.02014	0.04983
37	6.713	PV T	6.67e-3	555.24042	1184.05908	0.17371
38	6.749	PB T	0.0175	2024.97095	1502.44495	0.63354
39	6.852	BV T	7.17e-3	49.94418	116.12970	0.01563
40	6.867	PV T	4.56e-3	27.15418	76.16070	0.00850
41	6.893	PV T	0.0232	1031.94507	531.85663	0.32286
42	6.929	PV T	7.98e-3	135.11302	207.91243	0.04227
43	6.945	PV T	8.44e-3	195.86794	284.14468	0.06128
44	6.980	PV T	0.0207	1535.06152	920.56555	0.48026
45	7.006	PV T	3.37e-3	33.92277	167.90858	0.01061
46	7.018	PV T	0.0153	300.43066	244.33208	0.09399
47	7.068	PV T	9.53e-3	182.03284	255.07310	0.05695
48	7.078	PV T	0.0226	410.32990	302.49698	0.12838
49	7.118	PV T	0.0169	551.74280	390.99429	0.17262
50	7.133	PV T	8.99e-3	155.36491	288.03589	0.04861
51	7.147	PV T	7.24e-3	54.84185	126.17796	0.01716
52	7.159	PV T	4.62e-3	45.66451	126.34573	0.01429
53	7.164	PV T	6.14e-3	30.18155	81.93021	0.00944
54	7.210	PBAS	0.0493	2.24097e4	5720.76172	7.01118
55	7.265	BV T	3.11e-3	9.85406	45.72415	0.00308
56	7.274	PV T	7.87e-3	72.26611	122.70541	0.02261
57	7.284	PV T	5.49e-3	20.36482	61.80085	0.00637
58	7.295	PV T	0.0000	2.37505e-1	14.25718	7.431e-5
59	7.313	PV T	0.0120	160.41139	164.77766	0.05019
60	7.330	PV T	3.22e-3	11.89692	61.60535	0.00372
61	7.347	PV T	0.0000	5.05461	23.21492	0.00158
62	7.361	PV T	3.80e-3	13.74288	53.52051	0.00430
63	7.392	PV T	0.0109	79.76660	95.56406	0.02496
64	7.399	PB T	6.70e-3	66.08659	130.60400	0.02068
65	7.453	BV T	1.88e-3	5.73672	50.92231	0.00179
66	7.458	PV T	4.41e-3	19.16864	55.82267	0.00600
67	7.474	PV T	0.0192	232.91977	145.95454	0.07287
68	7.518	PV T	6.52e-3	76.65002	150.98970	0.02398
69	7.522	PV T	0.0144	152.15346	176.43002	0.04760
70	7.541	PV T	0.0102	85.12070	138.96568	0.02663
71	7.566	PV T	0.0000	3.72697	17.22275	0.00117
72	7.577	PV T	9.70e-3	21.29313	36.57238	0.00666
73	7.599	PV T	0.0000	22.61783	42.92218	0.00708
74	7.631	PV T	0.0112	194.93210	214.97079	0.06099
75	7.640	PB T	0.0107	126.07217	196.88612	0.03944
76	7.684	BV T	6.90e-3	32.23253	59.69254	0.01008
77	7.695	PV T	8.27e-3	59.39383	119.65376	0.01858
78	7.705	PV T	0.0123	77.15717	104.17800	0.02414
79	7.733	PV T	0.0147	46.57293	52.96646	0.01457
80	7.748	PV T	3.93e-3	22.79278	96.60090	0.00713
81	7.755	PV T	3.13e-3	16.74772	89.23606	0.00524
82	7.763	PV T	0.0125	111.12909	108.94471	0.03477

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	7.791	PBAT	5.04e-3	11.23558	37.16132	0.00352

Totals : 3.19629e5 5.71384e4

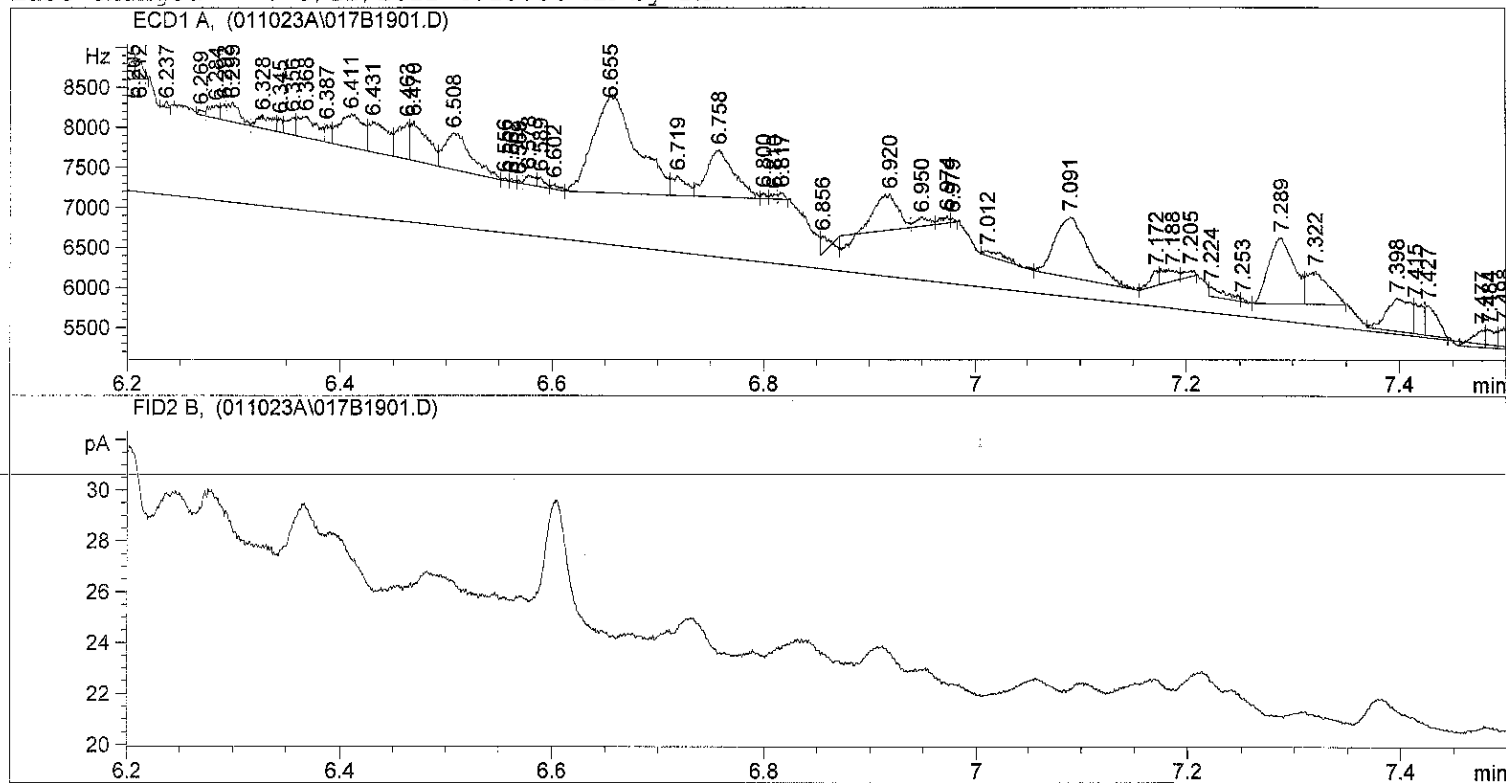
Results obtained with enhanced integrator!

Signal 2: FID2 B,

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*** End of Report ***

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Injection Date : 1/10/2023 3:44:03 PM      Seq. Line : 19
Sample Name    : 23A0087 07                Location  : Vial 17
Acq. Operator  : TW                        Inj       : 1
                                           Inj Volume: 1 µl
Sequence File  : C:\HPCHEM\2\SEQUENCE\011023A.S
Method         : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
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 Area Percent Report
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Sorted By      : Signal
Multiplier     : 1.0000
Dilution       : 1.0000
    
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Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.234	BV	5.50e-3	50.17815	124.66042	0.03073
2	5.256	VP	0.0139	417.18362	409.78043	0.25549
3	5.297	VV	0.0124	397.79739	392.82724	0.24362
4	5.301	VV	4.35e-3	129.93843	384.15009	0.07958
5	5.312	VV	0.0104	433.58728	517.51221	0.26554
6	5.344	VV	0.0105	205.75337	257.66962	0.12601
7	5.377	VV	0.0195	2299.69067	1517.30969	1.40837
8	5.394	VV	6.70e-3	496.93988	919.61249	0.30433
9	5.409	VV	0.0130	1137.12000	1052.02979	0.69639
10	5.442	VV	0.0214	3358.90967	1901.63867	2.05706
11	5.478	VV S	0.0199	6903.79004	4552.41211	4.22800
12	5.513	VV S	0.0858	7150.20605	1389.14856	4.37891
13	5.566	BV T	0.0154	458.91052	378.10300	0.28104
14	5.597	VV T	0.0196	834.84534	529.69006	0.51127
15	5.613	VV T	3.78e-3	67.06764	295.44638	0.04107
16	5.630	VV T	0.0192	796.55048	495.49399	0.48782
17	5.696	VV S	0.0294	8449.93066	3758.21802	5.17489

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.758	VV S	0.0235	1.78369e4	1.26475e4	10.92361
19	5.875	VV S	0.0357	1.68938e4	7876.76514	10.34604
20	6.007	VV S	0.1072	1.82542e4	2837.16284	11.17916
21	6.039	VB S	0.5082	5.64373e4	1850.98352	34.56319
22	6.092	BV T	8.14e-3	135.92778	210.23474	0.08324
23	6.101	VV T	0.0118	173.67014	184.25244	0.10636
24	6.128	PV T	4.28e-3	10.73978	41.81576	0.00658
25	6.140	PV T	3.35e-3	17.05201	77.93939	0.01044
26	6.148	PV T	2.57e-3	10.97518	71.16115	0.00672
27	6.156	PV T	7.21e-3	27.22136	62.96771	0.01667
28	6.163	PV T	5.69e-3	26.10370	76.50452	0.01599
29	6.173	PV T	0.0000	19.39251	4.41393	0.01188
30	6.190	PV T	0.0000	6.59863	65.87098	0.00404
31	6.205	PV T	7.21e-3	135.90314	247.21852	0.08323
32	6.212	VB T	8.07e-3	124.93794	257.93536	0.07651
33	6.237	BB T	3.58e-3	16.20216	67.96900	0.00992
34	6.269	BV T	7.09e-3	24.28332	57.10001	0.01487
35	6.284	PV T	8.76e-3	103.74749	155.97647	0.06354
36	6.292	PV T	5.17e-3	61.63034	198.82159	0.03774
37	6.299	PV T	9.29e-3	184.14516	247.12521	0.11277
38	6.328	PV T	0.0135	173.21852	161.75314	0.10608
39	6.345	PV T	4.94e-3	50.01785	168.88780	0.03063
40	6.356	PV T	7.59e-3	135.50459	219.94138	0.08299
41	6.368	PV T	0.0152	320.42392	266.38254	0.19623
42	6.387	PV T	6.79e-3	88.31500	216.69000	0.05409
43	6.411	PV T	0.0183	640.24182	417.95844	0.39210
44	6.431	PV T	0.0151	486.77429	387.29706	0.29811
45	6.463	PV T	9.36e-3	347.92343	463.26566	0.21307
46	6.470	PV T	0.0189	553.86267	489.23849	0.33920
47	6.508	PV T	0.0222	818.39294	454.32675	0.50120
48	6.556	PV T	3.34e-3	8.04915	31.99138	0.00493
49	6.562	PV T	3.50e-3	8.10548	38.57960	0.00496
50	6.569	PV T	3.35e-3	7.52220	37.45623	0.00461
51	6.578	PV T	7.50e-3	73.96200	121.47758	0.04530
52	6.589	PV T	6.74e-3	49.39464	122.15427	0.03025
53	6.602	PV T	7.06e-3	30.11908	71.13229	0.01845
54	6.655	PV T	0.0333	3438.25903	1225.32922	2.10565
55	6.719	PV T	0.0160	231.80466	241.42525	0.14196
56	6.758	PV T	0.0225	1059.45813	585.51587	0.64883
57	6.800	PV T	5.32e-3	22.62665	70.92004	0.01386
58	6.810	PV T	5.05e-3	24.87113	65.27383	0.01523
59	6.817	PB T	6.01e-3	30.57675	84.74564	0.01873
60	6.856	BV T	3.81e-3	49.35134	215.98372	0.03022
61	6.920	PV T	0.0167	606.98151	445.92966	0.37173
62	6.950	PV T	0.0115	95.23519	103.83681	0.05832
63	6.974	PV T	7.09e-3	46.75074	84.01526	0.02863
64	6.979	PB T	3.62e-3	11.74758	54.12046	0.00719
65	7.012	BV T	0.0207	112.59457	65.47102	0.06895
66	7.091	PV T	0.0266	1679.75806	752.87579	1.02871
67	7.172	PV T	7.88e-3	104.24668	182.07817	0.06384
68	7.188	PV T	0.0154	162.37805	129.64799	0.09944
69	7.205	PB T	8.79e-3	56.42043	78.43252	0.03455
70	7.224	BV T	0.0175	125.92185	119.96917	0.07712
71	7.253	PV T	4.41e-3	12.33216	46.64097	0.00755
72	7.289	PV T	0.0212	1373.48730	819.56030	0.84115
73	7.322	PB T	0.0169	574.80011	406.33994	0.35202
74	7.398	BV T	0.0188	646.72198	415.58743	0.39606
75	7.415	PV T	9.91e-3	226.37354	380.59479	0.13864
76	7.427	PB T	0.0130	290.53040	372.43237	0.17793
77	7.477	BV T	0.0111	173.78932	214.07872	0.10643
78	7.484	PV T	0.0108	146.25374	225.33276	0.08957
79	7.498	PV T	8.04e-3	127.05030	263.48016	0.07781
80	7.509	PV T	0.0174	448.94699	316.11642	0.27494
81	7.543	PB T	6.06e-3	11.84996	32.57700	0.00726
82	7.625	BV	0.0363	2390.80151	781.79730	1.46417

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	7.721	VV	0.0301	989.48999	393.93085	0.60598
84	7.754	VV	4.96e-3	15.18686	51.00356	0.00930
85	7.762	VV	3.48e-3	10.14233	38.43073	0.00621
86	7.789	VBA	0.0155	109.69427	88.22307	0.06718

Totals : 1.63287e5 5.91357e4

Results obtained with enhanced integrator!

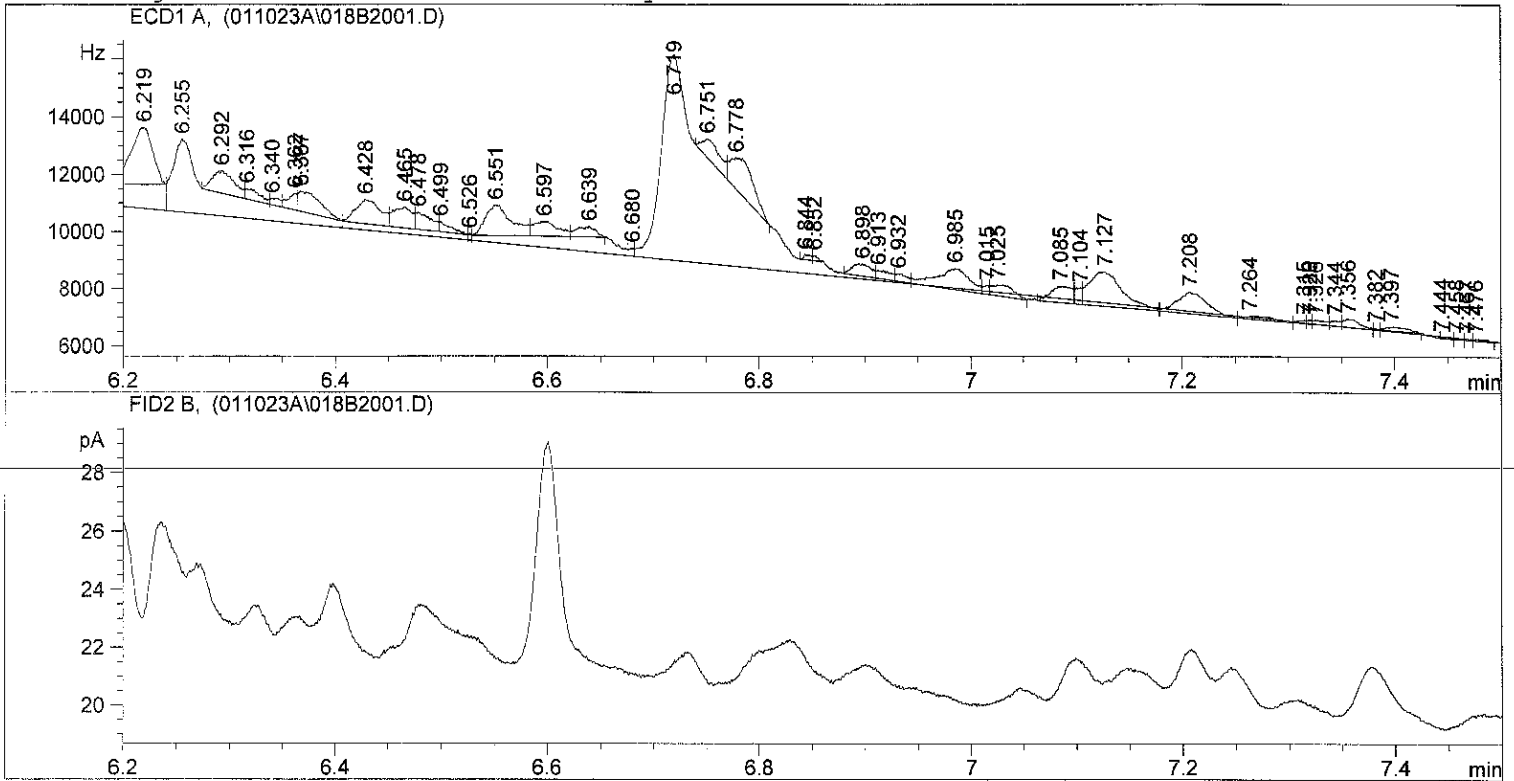
Signal 2: FID2 B,

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*** End of Report ***

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Injection Date : 1/10/2023 3:55:17 PM      Seq. Line : 20
Sample Name    : 23A0087 08                Location  : Vial 18
Acq. Operator  : TW                        Inj       : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\011023A.S
Method        : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
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Area Percent Report

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Sorted By      : Signal
Multiplier    : 1.0000
Dilution      : 1.0000
    
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Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.220	BV S	0.0202	8.05339e4	6.11806e4	21.76899
2	5.278	PV T	0.0131	853.35046	784.61243	0.23067
3	5.310	PV S	0.0127	1945.73926	1903.52356	0.52595
4	5.339	PP T	5.23e-3	44.77163	142.54640	0.01210
5	5.380	PV S	0.0236	5222.78076	2700.31055	1.41176
6	5.441	PV S	0.0216	5641.41797	3251.23828	1.52492
7	5.489	PV S	0.0228	1.54947e4	9536.71289	4.18836
8	5.561	PV S	0.0350	3.61496e4	1.33629e4	9.77153
9	5.619	PV S	0.0244	2.26780e4	1.12252e4	6.13007
10	5.673	PV S	0.0345	5.66663e4	2.19786e4	15.31737
11	5.720	BV T	8.36e-3	85.40172	170.31404	0.02308
12	5.731	PV T	3.24e-3	52.69281	271.17789	0.01424
13	5.735	PV T	4.49e-3	97.00023	359.87921	0.02622
14	5.756	PV T	0.0163	1902.49817	1508.75830	0.51426
15	5.786	PV T	3.25e-3	22.79096	116.72625	0.00616
16	5.828	PV S	0.0483	3.45390e4	8787.75098	9.33620
17	5.871	BV T	0.0166	1685.52625	1327.49438	0.45561

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.894	PV T	0.0106	1567.10193	1831.39880	0.42360
19	5.901	PV T	0.0130	1302.27588	1664.05347	0.35202
20	5.927	PV T	1.56e-3	2.68670	28.62487	0.00073
21	5.951	PV S	0.0650	3.61961e4	6857.68652	9.78412
22	6.005	BV T	9.94e-3	190.94315	233.40611	0.05161
23	6.029	PB T	0.0140	1027.01331	908.40442	0.27761
24	6.083	BV T	0.0137	899.98260	850.44220	0.24327
25	6.117	PV T	0.0130	477.62357	450.36011	0.12911
26	6.153	PV T	6.49e-3	91.58609	181.31213	0.02476
27	6.163	PV T	0.0125	290.69626	285.84244	0.07858
28	6.219	PV T	0.0196	2873.41650	1975.30652	0.77671
29	6.255	PV S	0.0597	1.28588e4	2538.85352	3.47583
30	6.292	BV T	0.0176	1138.37134	789.13965	0.30771
31	6.316	PV T	0.0173	375.56973	361.56445	0.10152
32	6.340	PV T	0.0118	156.91454	221.05002	0.04242
33	6.362	PV T	7.93e-3	348.64938	586.92957	0.09424
34	6.367	PV T	0.0258	1078.82007	697.54034	0.29161
35	6.428	PV T	0.0193	1368.78589	843.96930	0.36999
36	6.465	PV T	0.0155	887.94977	724.36450	0.24002
37	6.478	PV T	0.0168	598.03619	592.63135	0.16165
38	6.499	PV T	0.0129	270.05585	347.92444	0.07300
39	6.526	PV T	2.07e-3	5.90564	47.49086	0.00160
40	6.551	PV T	0.0216	1868.64258	1060.81384	0.50511
41	6.597	PV T	0.0197	813.85303	507.41211	0.21999
42	6.639	PB T	0.0150	447.93088	361.91193	0.12108
43	6.680	BV T	2.98e-3	6.91636	40.69987	0.00187
44	6.719	PB S	0.0431	2.53003e4	7147.84521	6.83889
45	6.751	BV T	0.0165	888.31238	658.71008	0.24012
46	6.778	PB T	0.0206	1885.82117	1091.39709	0.50975
47	6.844	BV T	5.92e-3	82.22933	180.30174	0.02223
48	6.852	PB T	5.24e-3	55.09962	175.41800	0.01489
49	6.898	BV T	0.0150	524.51025	419.71283	0.14178
50	6.913	PV T	0.0165	273.52087	275.80051	0.07394
51	6.932	PV T	9.13e-3	200.00909	267.16702	0.05406
52	6.985	PV T	0.0257	1607.34473	746.94940	0.43448
53	7.015	PV T	5.21e-3	115.80716	311.08218	0.03130
54	7.025	PB T	0.0174	572.74811	393.97842	0.15482
55	7.085	BV T	0.0167	802.01447	573.33484	0.21679
56	7.104	PV T	5.60e-3	243.96582	568.91040	0.06595
57	7.127	PV T	0.0264	2652.79175	1210.04822	0.71707
58	7.208	PV T	0.0228	1470.68994	764.84210	0.39754
59	7.264	PV T	0.0263	216.79039	98.42995	0.05860
60	7.315	PV T	7.29e-3	58.87851	120.64716	0.01592
61	7.320	PV T	5.44e-3	46.20516	141.56232	0.01249
62	7.326	PV T	0.0101	132.77914	159.03874	0.03589
63	7.344	PV T	0.0100	115.01556	191.06911	0.03109
64	7.356	PV T	0.0134	301.15506	283.19656	0.08140
65	7.382	PV T	3.90e-3	12.01087	51.30664	0.00325
66	7.397	PB T	0.0188	197.27524	126.18834	0.05333
67	7.444	BV T	6.23e-3	17.83152	47.72765	0.00482
68	7.458	PV T	6.85e-3	16.39680	39.92154	0.00443
69	7.467	PV T	5.80e-3	21.41805	61.59693	0.00579
70	7.476	PB T	0.0144	62.05903	71.64362	0.01678
71	7.524	BP	0.0180	230.08267	152.51427	0.06219
72	7.609	VV	0.0117	184.88062	194.24759	0.04997
73	7.619	VV	0.0218	457.95834	261.51147	0.12379
74	7.652	VV	0.0181	189.85675	175.15265	0.05132
75	7.689	VB	7.03e-3	22.53540	39.63145	0.00609
76	7.734	PP	6.06e-3	12.00936	24.74069	0.00325
77	7.762	VV	0.0147	152.27419	123.80421	0.04116
78	7.776	VPA	8.30e-3	64.95091	98.39252	0.01756

Totals : 3.69948e5 1.80845e5

Results obtained with enhanced integrator!

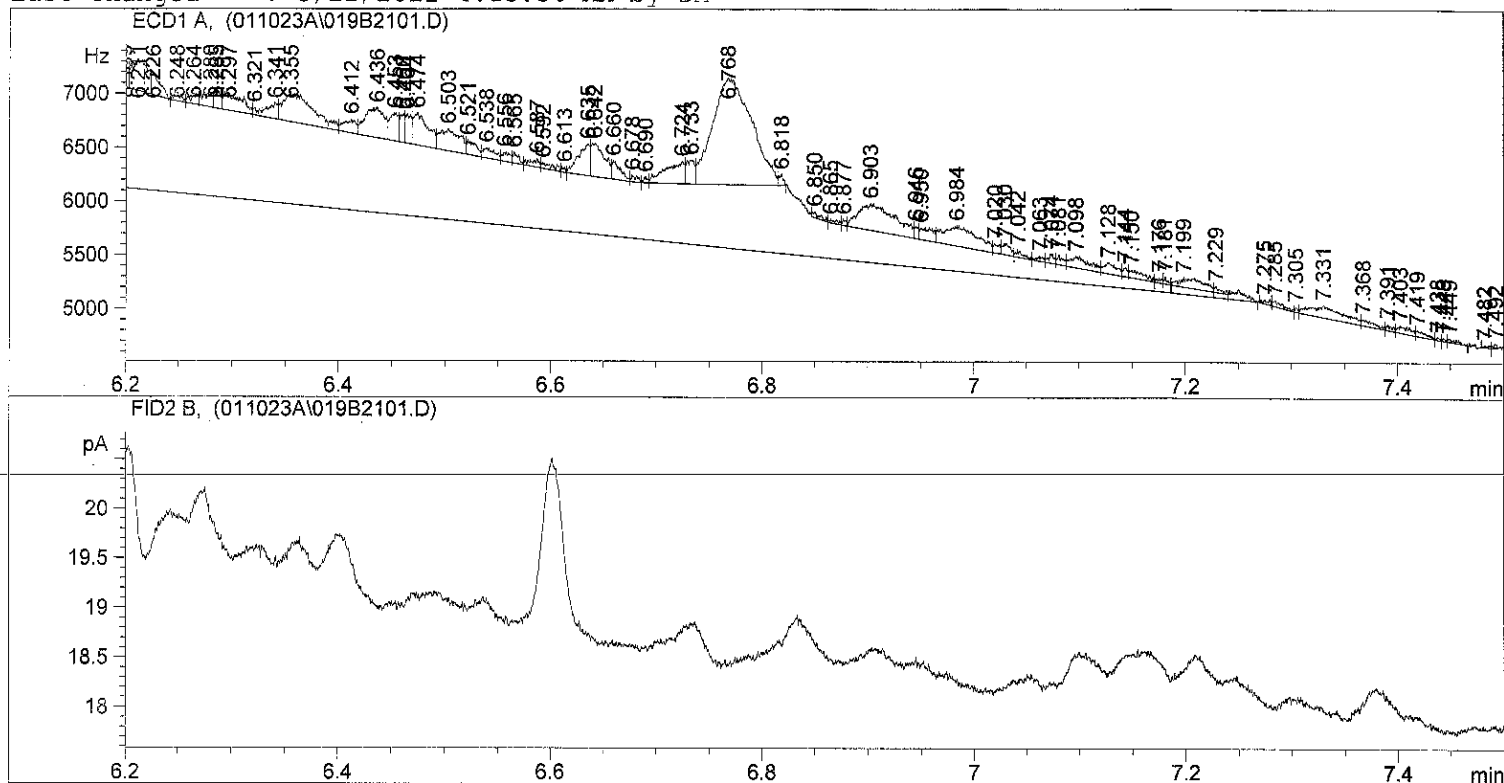
Signal 2: FID2 B,

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*** End of Report ***

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Injection Date : 1/10/2023 4:06:34 PM      Seq. Line : 21
Sample Name    : 23A0087 15                Location  : Vial 19
Acq. Operator  : TW                        Inj      : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\011023A.S
Method        : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
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Area Percent Report

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Sorted By      : Signal
Multiplier    : 1.0000
Dilution      : 1.0000
    
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Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.236	BV	0.0207	1724.45386	1021.56104	1.61155
2	5.292	VV	0.0175	417.27472	298.11694	0.38996
3	5.309	VV	7.33e-3	88.65676	201.50520	0.08285
4	5.319	VP	5.18e-3	54.81500	152.81337	0.05123
5	5.342	VV	7.18e-3	62.28132	113.97079	0.05820
6	5.350	VV	6.46e-3	52.65961	135.78522	0.04921
7	5.380	VV	0.0187	825.08215	550.81274	0.77106
8	5.399	VV	7.86e-3	230.43939	370.08514	0.21535
9	5.411	VV	6.06e-3	152.42526	356.33109	0.14245
10	5.417	VV	5.01e-3	121.12413	371.18506	0.11319
11	5.446	VV	0.0214	2000.95801	1132.54248	1.86995
12	5.479	VV	0.0181	2024.71680	1430.51282	1.89216
13	5.497	VV	4.79e-3	290.18207	807.77716	0.27118
14	5.507	VV	0.0220	1414.82507	807.81488	1.32220
15	5.569	VV	0.0259	2918.44873	1366.22571	2.72738
16	5.591	VV	0.0108	966.86108	1104.77258	0.90356
17	5.635	VV	0.0309	3334.80493	1283.01343	3.11647

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	5.683	VV S	0.0329	8555.79297	3190.73315	7.99564
19	5.756	VV S	0.0421	5628.81201	2229.49951	5.26029
20	5.933	VB S	0.4385	6.61460e4	1896.72266	61.81542
21	6.111	BV X	4.23e-3	24.23147	77.82295	0.02265
22	6.118	VV X	0.0102	102.16383	123.86089	0.09548
23	6.137	VV X	6.45e-3	21.98865	56.78421	0.02055
24	6.151	VV X	7.42e-3	26.40888	59.31838	0.02468
25	6.167	VV T	6.38e-3	21.40683	55.91173	0.02001
26	6.175	VV T	0.0116	28.69272	41.22746	0.02681
27	6.199	PV T	6.86e-3	100.77206	181.97681	0.09417
28	6.211	VV T	0.0121	288.51486	288.22150	0.26963
29	6.226	VV T	0.0101	116.44321	191.57777	0.10882
30	6.248	PV T	5.79e-3	34.97526	81.73296	0.03269
31	6.264	PV T	6.22e-3	48.04265	96.22827	0.04490
32	6.280	PV T	8.10e-3	87.49511	136.07367	0.08177
33	6.285	PV T	6.58e-3	65.77739	166.71541	0.06147
34	6.297	PV T	0.0135	183.68712	165.53844	0.17166
35	6.321	PV T	5.85e-3	24.31358	69.30175	0.02272
36	6.341	PV T	7.76e-3	93.18304	151.73744	0.08708
37	6.355	PV T	0.0249	529.03473	265.45309	0.49440
38	6.412	PV T	9.73e-3	100.53585	125.70370	0.09395
39	6.436	PV T	0.0152	342.38666	278.27881	0.31997
40	6.453	PV T	7.44e-3	145.12242	255.06787	0.13562
41	6.460	PV T	5.16e-3	79.14777	255.76468	0.07397
42	6.464	PV T	6.31e-3	100.61933	265.65189	0.09403
43	6.474	PV T	0.0123	287.25137	295.87134	0.26844
44	6.503	PV T	0.0165	260.29126	200.47023	0.24325
45	6.521	PV T	0.0103	78.40613	127.34486	0.07327
46	6.538	PV T	0.0101	75.07722	92.44160	0.07016
47	6.556	PV T	7.03e-3	42.57558	82.40177	0.03979
48	6.565	PV T	6.33e-3	35.74921	94.07680	0.03341
49	6.587	PV T	6.97e-3	42.61423	78.08382	0.03982
50	6.592	PV T	0.0139	40.89852	48.94847	0.03822
51	6.613	PV T	3.50e-3	9.27791	44.13209	0.00867
52	6.635	PV T	0.0100	222.62729	288.30981	0.20805
53	6.642	PV T	0.0111	274.97400	305.26978	0.25697
54	6.660	PV T	9.59e-3	96.49852	167.72830	0.09018
55	6.678	PV T	6.51e-3	22.36217	57.28607	0.02090
56	6.690	PV T	4.03e-3	14.91325	50.66978	0.01394
57	6.724	PV T	0.0151	251.84119	202.71634	0.23535
58	6.733	PV T	7.58e-3	120.58234	220.47282	0.11269
59	6.768	PV T	0.0309	2570.69727	989.77856	2.40239
60	6.818	PB T	5.24e-3	30.25537	96.19241	0.02827
61	6.850	BV T	8.23e-3	26.04443	52.72135	0.02434
62	6.865	PV T	9.09e-3	16.59910	30.43162	0.01551
63	6.877	PV T	4.19e-3	13.05189	51.95378	0.01220
64	6.903	PV T	0.0300	594.55188	244.18268	0.55563
65	6.946	PV T	3.77e-3	25.11354	110.90053	0.02347
66	6.950	PV T	0.0149	94.19849	105.60770	0.08803
67	6.984	PV T	0.0266	408.32242	183.43506	0.38159
68	7.020	PV T	7.40e-3	34.73249	78.22546	0.03246
69	7.030	PV T	6.83e-3	55.77812	101.15399	0.05213
70	7.042	PV T	7.30e-3	27.71409	63.29004	0.02590
71	7.063	PV T	5.33e-3	17.70872	41.87368	0.01655
72	7.074	PV T	6.95e-3	32.47747	77.84116	0.03035
73	7.081	PV T	4.80e-3	32.61826	86.53860	0.03048
74	7.098	PV T	0.0214	131.09547	101.96262	0.12251
75	7.128	PV T	0.0113	83.70378	94.98133	0.07822
76	7.144	PV T	4.16e-3	24.71558	81.10302	0.02310
77	7.150	PV T	0.0163	67.13208	68.49876	0.06274
78	7.176	PV T	5.39e-3	13.83719	42.81615	0.01293
79	7.181	PV T	3.47e-3	13.02959	62.60234	0.01218
80	7.199	PV T	0.0212	145.93491	81.84885	0.13638
81	7.229	PB T	7.26e-3	22.22399	51.01681	0.02077
82	7.275	BV	6.80e-3	18.08100	34.04312	0.01690

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
83	7.285	VP	9.19e-3	37.51733	52.15999	0.03506
84	7.305	VV	3.09e-3	8.08938	41.21932	0.00756
85	7.331	VV	0.0260	235.81073	108.20412	0.22037
86	7.368	VV	0.0105	47.71938	56.25657	0.04460
87	7.391	VV	4.33e-3	19.65056	58.28032	0.01836
88	7.403	VV	0.0106	53.32296	60.89839	0.04983
89	7.419	VP	8.79e-3	37.03147	52.75310	0.03461
90	7.438	VV	3.48e-3	5.43824	22.05448	0.00508
91	7.443	VV	2.92e-3	5.29109	26.56413	0.00494
92	7.449	VP	7.17e-3	15.83462	29.01912	0.01480
93	7.482	PP	4.75e-3	6.12859	16.44532	0.00573
94	7.492	VB	3.24e-3	7.41990	35.41479	0.00693
95	7.515	PV	2.06e-3	1.89812	15.18231	0.00177
96	7.531	VP	0.0208	99.83611	58.22036	0.09330
97	7.587	VV	5.15e-3	12.70418	31.19698	0.01187
98	7.603	VV	5.49e-3	33.71022	83.91964	0.03150
99	7.615	VB	0.0186	165.37758	112.02781	0.15455
100	7.637	BV	5.95e-3	48.58446	105.89121	0.04540
101	7.645	VV	0.0101	81.47734	98.42603	0.07614
102	7.665	VV	3.54e-3	16.96483	72.10921	0.01585
103	7.670	VB	0.0100	48.02946	58.11020	0.04488
104	7.751	BV	2.32e-3	3.91050	29.92486	0.00365
105	7.756	VP	0.0124	37.44258	37.63967	0.03499
106	7.784	VP	7.88e-3	19.23061	32.59452	0.01797
107	7.796	VBA	4.89e-3	6.14197	20.73118	0.00574

Totals : 1.07006e5 2.88162e4

Results obtained with enhanced integrator!

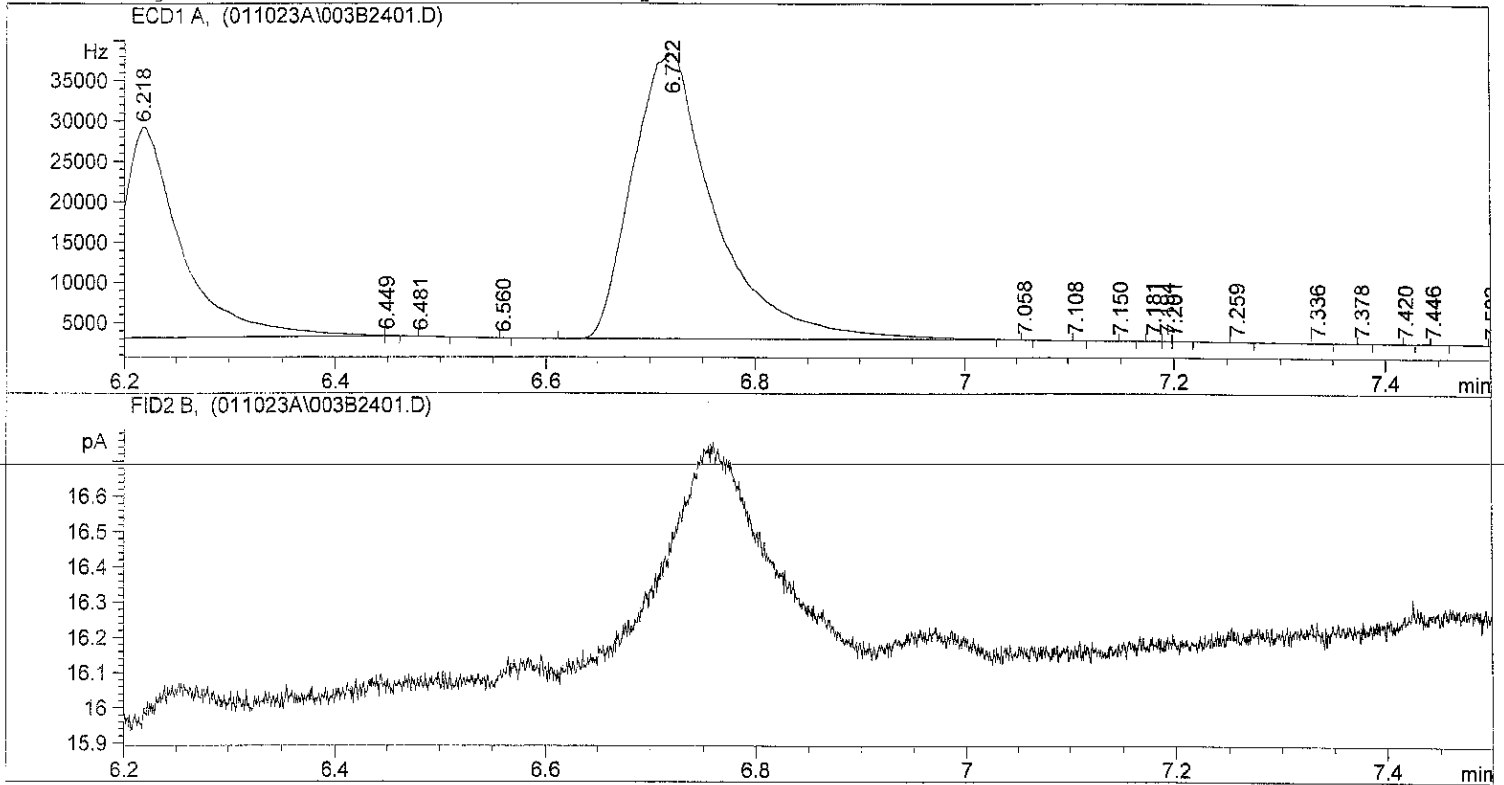
Signal 2: FID2 B,

*** End of Report ***

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=====
Injection Date : 1/10/2023 4:40:07 PM      Seq. Line : 24
Sample Name    : CS4 STD                    Location  : Vial 3
Acq. Operator  : TW                        Inj      : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\2\SEQUENCE\011023A.S
Method        : C:\HPCHEM\2\METHODS\DIOXIN.M
Last changed   : 3/22/2022 4:13:36 AM by DM
    
```



=====
Area Percent Report
=====

```

Sorted By      : Signal
Multiplier     : 1.0000
Dilution       : 1.0000
    
```

Signal 1: ECD1 A,

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
1	5.421	BP	0.0214	60.18620	33.77775	0.00409
2	5.532	VV S	0.0361	2.70709e5	1.02255e5	18.37671
3	5.628	VV S	0.0496	3.98342e5	1.33767e5	27.04087
4	5.690	VV S	0.0426	1.33533e5	5.22753e4	9.06473
5	5.745	VV S	0.0690	1.57568e5	3.80741e4	10.69628
6	5.985	VV S	0.0500	1.32034e5	4.40027e4	8.96293
7	6.140	VV S	0.0497	8.33965e4	2.79654e4	5.66125
8	6.218	VV S	0.0661	1.03474e5	2.60769e4	7.02420
9	6.449	VB S	6.46e-3	31.36730	80.95958	0.00213
10	6.481	BP	0.0132	20.37583	19.20737	0.00138
11	6.560	PB	3.76e-3	4.52826	16.71346	0.00031
12	6.722	PB S	0.0645	1.93644e5	3.53576e4	13.14523
13	7.058	PP	2.73e-3	2.51149	13.74796	0.00017
14	7.108	BP	4.18e-3	6.59377	21.50872	0.00045
15	7.150	PP	3.03e-3	3.70290	16.39653	0.00025
16	7.181	BP	5.11e-3	6.43688	19.23071	0.00044
17	7.194	VV	5.57e-3	7.11942	18.17810	0.00048

Peak #	RetTime [min]	Type	Width [min]	Area [Hz*s]	Height [Hz]	Area %
18	7.201	VP	6.94e-3	11.85726	22.51980	0.00080
19	7.259	PB	7.01e-3	3.54180	6.65123	0.00024
20	7.336	PB	0.0000	3.21669	1.35458e-1	0.00022
21	7.378	PB	2.66e-3	1.77213	10.04074	0.00012
22	7.420	BP	4.71e-3	3.31404	10.65795	0.00022
23	7.446	BP	3.87e-3	3.18037	11.34503	0.00022
24	7.502	BP	0.0000	6.46398e-1	3.55019	4.388e-5
25	7.539	BP	6.52e-3	3.48247	7.10520	0.00024
26	7.600	PP	1.88e-3	1.64885	14.97418	0.00011
27	7.612	VV	6.47e-3	6.67334	16.66188	0.00045
28	7.664	VP	0.0287	227.25983	94.45261	0.01543

Totals : 1.47311e6 4.60212e5

Results obtained with enhanced integrator!

Signal 2: FID2 B,

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*** End of Report ***



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Dioxin Extraction Laboratory – Glassware

Batch ID: RLA0256 Work Order: 23A0031, 23A0032, 23A0087, 23A0545 Extraction Parameter: Dioxin ARI Analyst: TW

ARI Sample ID	300 mL Flat Bottom	Small Soxhlet	Large Soxhlet	250 mL Beaker	Funnel	Column	Florisil Column	Turbo Tube	Sep Funnel	Erlenmeyer Flask	Centrifuge Bottle	Turbo-Vap	Vortex Mixer	Heating Mantle
RLA0256	B1K 47	57	/	88	88	30	57	15	/	/	/	4	4	A1
	BS1 48	19	/	4	40	222	56	71	/	/	/	4	4	A2
	Dugl 24	80	/	29	44	229	50	53	/	/	/	4	4	A3
	GRM1 44	16	/	621	49	64	138	76	/	/	/	4	4	A5
23A0031	05C 68	3	/	10	28	44	54	59	/	/	/	4	4	A6
	06C 11	18	/	46	30	62	168	51	/	/	/	4	4	B1
	11C 9	/	/	32	18	172	103	12	/	/	/	4	4	B2
	12C 2	/	47	18	102	27	149	8	/	/	/	4	4	B3
23A0032	02C 25	74	/	9	82	21	5	79	/	/	/	4	4	B4
	04C 29	116	/	14	94	20	35	43	/	/	/	4	4	B5
	06C 15	62	/	2	85	212	40	72	/	/	/	4	4	B6
	07C 56	29	/	37	1	200	84	14	/	/	/	4	4	C1
	08C 26	75	/	11	48	12	79	36	/	/	/	4	4	C2
	11C 16	/	68	16	54	119	36	84	/	/	/	4	4	C3
23A0087	01C 51	/	21	52	58	121	19	54	/	/	/	4	4	C4
	05C 63	31	/	259	76	34	77	6	/	/	/	4	4	C5
	06C 20	21	/	205	68	72	115	78	/	/	/	4	4	C6
	07C 87	/	33	20	65	217	167	11	/	/	/	4	4	D1
	08C 8	/	61	47	6	50	158	27	/	/	/	4	4	D2
	15C 21	6	/	256	15	177	123	50	/	/	/	4	4	D3
23A0545	01A 12	4	/	35	12	23	22	2	/	/	/	4	4	D4



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLB0016

Cleanup Type: Sulfuric Acid

Cleanup Method: EPA 3665 Sulfuric Acid Cleanup - uL

Analysis: EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	BLA0256-BLK1	23021004	02/01/2023	
LDW23-IT1235	23A0032-06	23021014	02/01/2023	
LDW23-IT1264	23A0032-02	23021012	02/01/2023	
LDW23-IT1272	23A0032-04	23021013	02/01/2023	
LDW23-SC1212	23A0032-11	23021019	02/01/2023	
LDW23-SC1226B	23A0032-08	23021018	02/01/2023	
LCS	BLA0256-BS1	23021005	02/01/2023	
LDW23-IT1202	23A0032-07	23021017	02/01/2023	
Reference	BLA0256-SRM1	23021006	02/01/2023	



CLEANUP BENCH SHEET

CLB0016

Matrix: Solid

Cleanup using: HRGCMS - EPA 3665 Sulfuric Acid Cleanup - uL

Printed: 2/3/2023 10:30:21AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0031-05	C	LDW23-SS1191	C 01	20	20	8290 Dioxin	2/1/2023	TW	
23A0031-05	C	LDW23-SS1191	C 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0031-06	C	LDW23-SS1191-FD	C 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0031-11	C	LDW23-SS1143	C 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0031-12	C	LDW23-SS1143-FD	C 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0032-02	D	LDW23-IT1264	D 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0032-04	C	LDW23-IT1272	C 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0032-06	C	LDW23-IT1235	C 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0032-07	C	LDW23-IT1202	C 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0032-08	C	LDW23-SC1226B	C 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0032-11	C	LDW23-SC1212	C 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0087-01	C	LDW23-SS1264	C 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0087-05	C	LDW23-SS1212	C 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0087-06	C	LDW23-SS1212-FD	C 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0087-07	C	LDW23-SS1211	C 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0087-08	C	LDW23-SS1203	C 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0087-15	C	LDW23-SS1228	C 01	20	20	1613B Dioxin	2/1/2023	TW	
23A0545-01	A	SPE016-10G	A 01	20	20	8290 Dioxin	2/1/2023	TW	
BLA0256-BLK1	-	Blank	-	20	20	-	2/1/2023	TW	
BLA0256-BS1	-	LCS	-	20	20	-	2/1/2023	TW	
BLA0256-DUP1	-	Duplicate	-	20	20	-	2/1/2023	TW	
BLA0256-SRM1	-	Reference	-	20	20	-	2/1/2023	TW	



CLEANUP BENCH SHEET

CLB0016

Matrix: Solid

Cleanup using: HRGCMS - EPA 3665 Sulfuric Acid Cleanup - uL

Printed: 2/3/2023 10:30:21AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
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CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLB0017

Cleanup Type: Silica Gel

Cleanup Method: EPA 3630C Silica Gel Cleanup - uL

Analysis: EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	BLA0256-BLK1	23021004	02/02/2023	
LDW23-IT1272	23A0032-04	23021013	02/02/2023	
LCS	BLA0256-BS1	23021005	02/02/2023	
LDW23-IT1202	23A0032-07	23021017	02/02/2023	
Reference	BLA0256-SRM1	23021006	02/02/2023	
LDW23-SC1212	23A0032-11	23021019	02/02/2023	
LDW23-IT1264	23A0032-02	23021012	02/02/2023	
LDW23-IT1235	23A0032-06	23021014	02/02/2023	
LDW23-SC1226B	23A0032-08	23021018	02/02/2023	



CLEANUP BENCH SHEET

CLB0017

Matrix: Solid

Cleanup using: HRGCMS - EPA 3630C Silica Gel Cleanup - uL

Printed: 2/3/2023 10:31:20AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0031-05	C	LDW23-SS1191	C 01	20	20	8290 Dioxin	2/2/2023	TW	
23A0031-05	C	LDW23-SS1191	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0031-06	C	LDW23-SS1191-FD	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0031-11	C	LDW23-SS1143	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0031-12	C	LDW23-SS1143-FD	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0032-02	D	LDW23-IT1264	D 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0032-04	C	LDW23-IT1272	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0032-06	C	LDW23-IT1235	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0032-07	C	LDW23-IT1202	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0032-08	C	LDW23-SC1226B	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0032-11	C	LDW23-SC1212	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0087-01	C	LDW23-SS1264	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0087-05	C	LDW23-SS1212	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0087-06	C	LDW23-SS1212-FD	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0087-07	C	LDW23-SS1211	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0087-08	C	LDW23-SS1203	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0087-15	C	LDW23-SS1228	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0545-01	A	SPE016-10G	A 01	20	20	8290 Dioxin	2/2/2023	TW	
BLA0256-BLK1	-	Blank	-	20	20	-	2/2/2023	TW	
BLA0256-BS1	-	LCS	-	20	20	-	2/2/2023	TW	
BLA0256-DUP1	-	Duplicate	-	20	20	-	2/2/2023	TW	
BLA0256-SRM1	-	Reference	-	20	20	-	2/2/2023	TW	



CLEANUP BENCH SHEET

CLB0017

Matrix: Solid

Cleanup using: HRGCMS - EPA 3630C Silica Gel Cleanup - uL

Printed: 2/3/2023 10:31:20AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
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CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Cleanup Batch: CLB0018

Cleanup Type: Florisil

Cleanup Method: EPA 3620B Florisil Cleanup (uL)

Analysis: EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-SC1212	23A0032-11	23021019	02/02/2023	
Reference	BLA0256-SRM1	23021006	02/02/2023	
LDW23-IT1202	23A0032-07	23021017	02/02/2023	
LDW23-IT1235	23A0032-06	23021014	02/02/2023	
LDW23-IT1272	23A0032-04	23021013	02/02/2023	
LDW23-SC1226B	23A0032-08	23021018	02/02/2023	
Blank	BLA0256-BLK1	23021004	02/02/2023	
LCS	BLA0256-BS1	23021005	02/02/2023	
LDW23-IT1264	23A0032-02	23021012	02/02/2023	



CLEANUP BENCH SHEET

CLB0018

Matrix: Solid

Cleanup using: HRGCMS - EPA 3620B Florisil Cleanup (uL)

Check Standard: CKK0015-FLO1

Printed: 2/3/2023 10:32:17AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
23A0031-05	C	LDW23-SS1191	C 01	20	20	8290 Dioxin	2/2/2023	TW	
23A0031-05	C	LDW23-SS1191	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0031-06	C	LDW23-SS1191-FD	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0031-11	C	LDW23-SS1143	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0031-12	C	LDW23-SS1143-FD	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0032-02	D	LDW23-IT1264	D 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0032-04	C	LDW23-IT1272	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0032-06	C	LDW23-IT1235	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0032-07	C	LDW23-IT1202	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0032-08	C	LDW23-SC1226B	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0032-11	C	LDW23-SC1212	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0087-01	C	LDW23-SS1264	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0087-05	C	LDW23-SS1212	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0087-06	C	LDW23-SS1212-FD	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0087-07	C	LDW23-SS1211	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0087-08	C	LDW23-SS1203	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0087-15	C	LDW23-SS1228	C 01	20	20	1613B Dioxin	2/2/2023	TW	
23A0545-01	A	SPE016-10G	A 01	20	20	8290 Dioxin	2/2/2023	TW	
BLA0256-BLK1	-	Blank	-	20	20	-	2/2/2023	TW	
BLA0256-BS1	-	LCS	-	20	20	-	2/2/2023	TW	
BLA0256-DUP1	-	Duplicate	-	20	20	-	2/2/2023	TW	
BLA0256-SRM1	-	Reference	-	20	20	-	2/2/2023	TW	



CLEANUP BENCH SHEET

CLB0018

Matrix: Solid

Cleanup using: HRGCMS - EPA 3620B Florisil Cleanup (uL)

Check Standard: CKK0015-FLO1

Printed: 2/3/2023 10:32:17AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
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Blank

Form 1
METHOD BLANK DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23A0032</u>	Project: <u>AOC5 MR Phase 1</u>
Client: <u>Anchor QEA, LLC</u>	Laboratory ID: <u>BLA0256-BLK1</u>	File ID: <u>23021004</u>
Matrix: <u>Solid</u>	Prepared: <u>01/30/23 14:23</u>	Analyzed: <u>02/10/23 15:59</u>
Sampled: <u>N/A</u>	Preparation: <u>EPA 8290</u>	Initial/Final: <u>10 g / 20 uL</u>
Solids Wt%: <u>Dry</u>	Sequence: <u>SLB0147</u>	Calibration: <u>GB00010</u>
Batch: <u>BLA0256</u>	Instrument: <u>AUTOSPEC01</u>	Column: <u>RTX-Dioxin2</u>

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.000	0.655-0.886	0.123	1.00	ND	ng/kg	U
1746-01-6	2,3,7,8-TCDD	1	0.000	0.655-0.886	0.134	1.00	ND	ng/kg	U
57117-41-6	1,2,3,7,8-PeCDF	1	0.000	1.318-1.783	0.138	1.00	ND	ng/kg	U
57117-31-4	2,3,4,7,8-PeCDF	1	0.000	1.318-1.783	0.136	1.00	ND	ng/kg	U
40321-76-4	1,2,3,7,8-PeCDD	1	0.000	1.318-1.783	0.156	1.00	ND	ng/kg	U
70648-26-9	1,2,3,4,7,8-HxCDF	1	0.000	1.054-1.426	0.112	1.00	ND	ng/kg	U
57117-44-9	1,2,3,6,7,8-HxCDF	1	1.090	1.054-1.426	0.103	1.00	0.0958	ng/kg	J
60851-34-5	2,3,4,6,7,8-HxCDF	1	0.000	1.054-1.426	0.114	1.00	ND	ng/kg	U
72918-21-9	1,2,3,7,8,9-HxCDF	1	0.000	1.054-1.426	0.144	1.00	ND	ng/kg	U
39227-28-6	1,2,3,4,7,8-HxCDD	1	0.000	1.054-1.426	0.181	1.00	ND	ng/kg	U
57653-85-7	1,2,3,6,7,8-HxCDD	1	0.000	1.054-1.426	0.170	1.00	ND	ng/kg	U
19408-74-3	1,2,3,7,8,9-HxCDD	1	0.000	1.054-1.426	0.179	1.00	ND	ng/kg	U
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	1.900	0.893-1.208	0.129	1.00	0.172	ng/kg	EMPC, J
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	0.000	0.893-1.208	0.189	1.00	ND	ng/kg	U
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	0.923	0.893-1.208	0.196	2.50	0.320	ng/kg	J
39001-02-0	OCDF	1	0.688	0.757-1.024	0.293	2.50	0.492	ng/kg	EMPC, J
3268-87-9	OCDD	1	1.257	0.757-1.024	0.353	10.0	1.80	ng/kg	EMPC, J

Homologue Groups

55722-27-5	Total TCDF	1	0.000			1.00	ND	ng/kg
41903-57-5	Total TCDD	1	0.000			1.00	ND	ng/kg
30402-15-4	Total PeCDF	1	0.000			1.00	ND	ng/kg
36088-22-9	Total PeCDD	1	0.000			1.00	ND	ng/kg
55684-94-1	Total HxCDF	1	0.000			1.00	0.0958	ng/kg
34465-46-8	Total HxCDD	1	0.000			1.00	ND	ng/kg
38998-75-3	Total HpCDF	1	0.000			1.00	ND	ng/kg
37871-00-4	Total HpCDD	1	0.000			1.00	0.518	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC):	0.015
Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC):	0.234



Blank

Form 2
METHOD BLANK DATA SHEET
EPA 1613B
Dioxins/Furans by HRGC/HRMS

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>23A0032</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>AOC5 MR Phase 1</u>
Matrix: <u>Solid</u>	Laboratory ID: <u>BLA0256-BLK1</u>
Sampled: <u>N/A</u>	File ID: <u>23021004</u>
Solids Wt%: <u>0.00</u>	Prepared: <u>01/30/23 14:23</u>
Result Basis: <u>Dry</u>	Analyzed: <u>02/10/23 15:59</u>
Batch: <u>BLA0256</u>	Preparation: <u>EPA 8290</u>
	Initial/Final: <u>10 g / 20 uL</u>
	Sequence: <u>SLB0147</u>
	Calibration: <u>GB00010</u>
	Instrument: <u>AUTOSPEC01</u>
	Column: <u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF	1	0.806	0.655-0.886	0.21	101	24 - 169 %	
13C12-2,3,7,8-TCDD	1	0.792	0.655-0.886	0.25	110	25 - 164 %	
13C12-1,2,3,7,8-PeCDF	1	1.533	1.318-1.783	0.28	102	24 - 185 %	
13C12-2,3,4,7,8-PeCDF	1	1.550	1.318-1.783	0.29	100	21 - 178 %	
13C12-1,2,3,7,8-PeCDD	1	1.633	1.318-1.783	0.22	97.8	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF	1	0.521	0.434-0.587	0.36	112	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF	1	0.526	0.434-0.587	0.35	119	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF	1	0.506	0.434-0.587	0.38	110	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF	1	0.512	0.434-0.587	0.41	99.0	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD	1	1.284	1.054-1.426	0.32	116	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD	1	1.256	1.054-1.426	0.31	114	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF	1	0.461	0.374-0.506	0.37	101	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF	1	0.469	0.374-0.506	0.43	94.3	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD	1	1.092	0.893-1.208	0.33	103	23 - 140 %	
13C12-OCDD	1	0.923	0.757-1.024	0.63	82.2	17 - 157 %	
37Cl4-2,3,7,8-TCDD	1	328.000		0.09	96.7	35 - 197 %	

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:41:23 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
 Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF					0.876		0.770	933	1152								
12378-PeCDF					0.845		1.550	952	1041								
23478-PeCDF					0.911		1.550	952	1041								
123478-HxCDF					1.182		1.240	788	621								
234678-HxCDF					1.229		1.240	788	621								
123678-HxCDF	35.223	1.001	1.353e2	1.241e2	1.248	1.090	1.240	788	621	2.60e3	2.07e3	3.3	3.3	NO	dd	bb	0.048
123789-HxCDF					1.187		1.240	788	621								
1234678-HpCDF	38.955	1.000	2.382e2	1.254e2	1.204	1.900	1.050	832	626	4.16e3	2.70e3	5.0	4.3	YES	bb	bb	0.086
1234789-HpCDF					1.165		1.050	832	626								
OCDF	45.509	1.005	2.593e2	3.770e2	1.186	0.688	0.890	713	762	5.22e3	6.74e3	7.3	8.8	YES	MM	bb	0.246
2378-TCDD					1.236		0.770	1384	871								
12378-PeCDD					1.087		1.550	868	713								
123478-HxCDD					0.987		1.240	800	953								
123678-HxCDD					1.021		1.240	800	953								
123789-HxCDD					0.985		1.240	800	953								
1234678-HpCDD	40.459	1.000	2.607e2	2.825e2	1.253	0.923	1.050	924	739	4.25e3	4.40e3	4.6	6.0	NO	bb	bd	0.160
OCDD	45.280	1.000	1.205e3	9.586e2	1.103	1.257	0.890	1057	594	1.49e4	1.11e4	14.1	18.8	YES	bb	bb	0.900
13C-2378-TCDF	25.930	1.007	3.488e5	4.330e5	1.768	0.806	0.770	2306	1873	5.18e6	6.64e6	2244.6	3542.3	NO	bd	bb	100.968
13C-12378-PeCDF	30.109	1.169	4.119e5	2.687e5	1.527	1.533	1.550	2238	2587	6.22e6	3.99e6	2777.3	1543.0	NO	bb	bb	101.765
13C-23478-PeCDF	31.446	1.221	3.917e5	2.528e5	1.466	1.550	1.550	2238	2587	5.88e6	3.82e6	2625.3	1478.1	NO	bb	bb	100.358
13C-123478-HxCDF	35.067	0.956	1.359e5	2.611e5	1.054	0.521	0.510	1182	2230	2.20e6	4.18e6	1858.6	1875.2	NO	bd	bd	111.924
13C-123678-HxCDF	35.201	0.960	1.496e5	2.843e5	1.080	0.526	0.510	1182	2230	2.27e6	4.43e6	1923.4	1986.0	NO	db	db	119.341
13C-234678-HxCDF	36.058	0.983	1.261e5	2.491e5	1.014	0.506	0.510	1182	2230	2.03e6	4.02e6	1722.1	1801.0	NO	bb	bb	109.885
13C-123789-HxCDF	37.095	1.011	1.048e5	2.044e5	0.928	0.512	0.510	1182	2230	1.68e6	3.30e6	1418.5	1481.9	NO	bb	bb	98.962
13C-1234678-HpCDF	38.944	1.062	1.110e5	2.410e5	1.036	0.461	0.440	1211	2244	1.78e6	3.89e6	1470.2	1732.4	NO	bb	bb	100.921
13C-1234789-HpCDF	41.195	1.123	9.177e4	1.955e5	0.905	0.469	0.440	1211	2244	1.27e6	2.79e6	1049.8	1243.6	NO	bb	bb	94.300
13C-1234-TCDD	25.746	0.000	1.938e5	2.442e5	1.000	0.794	0.770	2029	1042	3.01e6	3.79e6	1483.6	3632.2	NO	bb	bb	100.000
13C-2378-TCDD	26.565	1.032	2.356e5	2.974e5	1.103	0.792	0.770	2029	1042	3.61e6	4.57e6	1777.1	4385.8	NO	bb	bb	110.339
13C-12378-PeCDD	31.691	1.231	2.428e5	1.487e5	0.914	1.633	1.550	1183	1085	3.48e6	2.15e6	2943.5	1980.7	NO	bb	bb	97.776
13C-123478-HxCDD	36.170	0.986	2.054e5	1.599e5	0.933	1.284	1.240	1397	1278	3.31e6	2.58e6	2370.0	2020.0	NO	bd	bd	116.299
13C-123678-HxCDD	36.292	0.989	2.054e5	1.635e5	0.965	1.256	1.240	1397	1278	3.38e6	2.61e6	2420.5	2043.7	NO	db	db	113.600
13C-1234678-HpCDD	40.448	1.103	1.414e5	1.295e5	0.782	1.092	1.050	1204	1096	2.13e6	1.95e6	1765.1	1776.4	NO	bb	bb	102.875
13C-OCDD	45.271	1.234	2.094e5	2.267e5	0.788	0.923	0.890	2922	1499	2.44e6	2.65e6	835.5	1768.4	NO	bb	bb	164.341
13C-123789-HxCDD	36.682	0.000	1.907e5	1.459e5	1.000	1.307	1.240	1397	1278	3.05e6	2.35e6	2180.7	1837.7	NO	bb	bb	100.000
37CL-2378-TCDD	26.594	1.033	2.090e5		1.233			1226		3.15e6		2567.7			bb		38.698

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:41:23 Pacific Standard Time

ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	933	1152								
1289-TCDF					0.858		0.770	933	1152								
13468-PECDF					1.013		1.550	669	824								
12389-PECDF					0.844		1.550	952	1041								
123468-HXCDF					1.197		1.240	788	621								
1368-TCDD					1.084		0.770	1384	871								
1289-TCDD	27.201	1.024	9.425e1	7.157e1	0.975	1.317	0.770	1384	871	2.28e3	1.24e3	1.6	1.4	YES	bb	bb	0.032
12479-PECDD					1.837		1.550	868	713								
12389-PECDD					1.252		1.550	868	713								
124679-HXCDD					1.033		1.240	800	953								
1234679-HPCDD	39.390	0.974	1.627e2	1.809e2	1.286	0.900	1.050	924	739	3.69e3	2.60e3	4.0	3.5	NO	bd	bb	0.099
Total-tetrafurans			0.000e0		0.933			933		0.00e0							
Total-penta1			0.000e0					669		0.00e0							
Total-pentafurans			0.000e0		0.866			952		0.00e0							
Total-hexafurans			1.353e2		1.208			788		2.60e3							0.048
Total-heptafurans			0.000e0		1.185			832		0.00e0							
Total-Furans			1.353e2		1.067			933		2.60e3							0.048
Total-tetradioxins			0.000e0		1.099			1384		0.00e0							
Total-pentadioxins			0.000e0		1.392			868		0.00e0							
Total-hexadioxins			0.000e0		1.007			800		0.00e0							
Total-heptadioxins			4.235e2		1.269			924		7.94e3							0.259
Total-Dioxins			4.235e2		1.165			1384		7.94e3							0.259
Total-TEQ			5.587e2					1384		1.05e4							0.307
FUNCTION1 PFK			3.423e5					378043		8.58e6							
FUNCTION2 PFK			2.440e5					316429		7.31e6							0.000
FUNCTION3 PFK			7.468e5					276144		1.79e7							0.000
FUNCTION4 PFK			3.502e5					269347		9.59e6							
FUNCTION5 PFK			0.000e0					188186		0.00e0							
FUNCTION1 HXCD...			5.264e2					803		8.14e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			3.602e2					1234		7.25e3							0.000
FUNCTION3 OCDPE			3.838e2					624		6.61e3							0.000
FUNCTION4 NCDPE			7.900e1					812		1.63e3							0.000
FUNCTION5 DCDPE			2.291e2					670		3.00e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:23 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20**Calibration: T:\Autospec\Curves\230201CIH.cdb 03 Feb 2023 10:33:40****ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDF	35.22	1.353e2	1.241e2	1.248	1.09	1.24	3.3	YES	NO	dd	bb	0.048

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDF	35.22	1.353e2	1.241e2	1.248	1.09	1.24	3.3	YES	NO	dd	bb	0.048

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:23 Pacific Standard Time

ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.46	2.607e2	2.825e2	1.253	0.92	1.05	4.6	YES	NO	bb	bd	0.160
2	1234679-HPCDD	39.39	1.627e2	1.809e2	1.286	0.90	1.05	4.0	YES	NO	bd	bb	0.099

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.46	2.607e2	2.825e2	1.253	0.92	1.05	4.6	YES	NO	bb	bd	0.160
2	1234679-HPCDD	39.39	1.627e2	1.809e2	1.286	0.90	1.05	4.0	YES	NO	bd	bb	0.099

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDF	35.22	1.353e2	1.241e2	1.248	1.09	1.24	3.3	YES	NO	dd	bb	0.048
2	1234678-HpCDD	40.46	2.607e2	2.825e2	1.253	0.92	1.05	4.6	YES	NO	bb	bd	0.160
3	1234679-HPCDD	39.39	1.627e2	1.809e2	1.286	0.90	1.05	4.0	YES	NO	bd	bb	0.099

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:23 Pacific Standard Time

ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.18	1.708e4					1.9	NO		bb		
2	FUNCTION1 PFK	27.70	2.654e4					1.6	NO		bd		
3	FUNCTION1 PFK	26.90	3.672e3					0.0	NO		bb		
4	FUNCTION1 PFK	25.82	2.779e3					0.5	NO		bb		
5	FUNCTION1 PFK	25.76	3.659e3					0.5	NO		bb		
6	FUNCTION1 PFK	25.21	8.143e3					0.8	NO		bb		
7	FUNCTION1 PFK	24.55	2.188e4					1.4	NO		bb		
8	FUNCTION1 PFK	24.18	5.776e4					1.7	NO		bb		
9	FUNCTION1 PFK	23.66	5.039e3					0.7	NO		bb		
10	FUNCTION1 PFK	23.40	2.302e3					0.4	NO		bb		
11	FUNCTION1 PFK	23.03	3.447e3					0.6	NO		bb		
12	FUNCTION1 PFK	22.96	2.176e4					1.4	NO		bb		
13	FUNCTION1 PFK	22.40	8.726e3					0.9	NO		bb		
14	FUNCTION1 PFK	22.31	3.351e4					1.6	NO		bb		
15	FUNCTION1 PFK	21.88	2.147e4					1.3	NO		bb		
16	FUNCTION1 PFK	21.55	4.496e4					1.4	NO		bb		
17	FUNCTION1 PFK	21.24	1.891e4					1.9	NO		bb		
18	FUNCTION1 PFK	28.12	6.500e3					0.7	NO		bb		
19	FUNCTION1 PFK	28.05	7.335e3					0.8	NO		bb		
20	FUNCTION1 PFK	27.88	5.028e3					0.6	NO		bb		
21	FUNCTION1 PFK	27.79	1.458e4					1.0	NO		bb		
22	FUNCTION1 PFK	27.74	7.228e3					0.8	NO		db		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:23 Pacific Standard Time

ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	30.29	1.566e4					1.7	NO		db		0.000
2	FUNCTION2 PFK	30.20	3.435e4					1.8	NO		bd		0.000
3	FUNCTION2 PFK	30.15	1.935e3					0.5	NO		bb		0.000
4	FUNCTION2 PFK	30.11	2.184e4					2.0	NO		bb		0.000
5	FUNCTION2 PFK	29.72	2.590e4					1.8	NO		bb		0.000
6	FUNCTION2 PFK	28.96	4.796e3					0.8	NO		bb		0.000
7	FUNCTION2 PFK	28.92	2.867e3					0.6	NO		bb		0.000
8	FUNCTION2 PFK	28.75	9.404e3					1.3	NO		bb		0.000
9	FUNCTION2 PFK	28.63	7.330e3					0.8	NO		bb		0.000
10	FUNCTION2 PFK	28.57	1.565e3					0.4	NO		bb		0.000
11	FUNCTION2 PFK	32.87	9.896e3					1.1	NO		bb		0.000
12	FUNCTION2 PFK	32.64	3.569e3					0.6	NO		bb		0.000
13	FUNCTION2 PFK	32.59	4.900e3					0.6	NO		bb		0.000
14	FUNCTION2 PFK	32.13	5.106e4					2.1	NO		bb		0.000
15	FUNCTION2 PFK	31.85	9.971e3					1.1	NO		bb		0.000
16	FUNCTION2 PFK	31.65	6.632e3					1.0	NO		bb		0.000
17	FUNCTION2 PFK	31.11	2.455e3					0.7	NO		bb		0.000
18	FUNCTION2 PFK	31.06	4.865e3					0.8	NO		bb		0.000
19	FUNCTION2 PFK	30.96	2.375e3					0.7	NO		bb		0.000
20	FUNCTION2 PFK	30.91	7.561e3					1.0	NO		bb		0.000
21	FUNCTION2 PFK	30.54	1.275e4					1.0	NO		bb		0.000
22	FUNCTION2 PFK	30.48	2.304e3					0.7	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:23 Pacific Standard Time

ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	33.14	9.560e2					0.3	NO		bb		0.000
2	FUNCTION3 PFK	33.02	6.158e3					1.0	NO		bb		0.000
3	FUNCTION3 PFK	32.97	6.348e3					1.3	NO		bb		0.000
4	FUNCTION3 PFK	34.72	1.761e4					1.2	NO		dd		0.000
5	FUNCTION3 PFK	34.62	2.412e4					2.0	NO		dd		0.000
6	FUNCTION3 PFK	34.59	1.721e4					1.7	NO		dd		0.000
7	FUNCTION3 PFK	34.49	2.710e4					1.8	NO		dd		0.000
8	FUNCTION3 PFK	34.45	1.554e4					1.7	NO		bd		0.000
9	FUNCTION3 PFK	34.39	2.083e3					0.3	NO		bb		0.000
10	FUNCTION3 PFK	34.26	4.424e3					0.7	NO		bb		0.000
11	FUNCTION3 PFK	34.03	3.255e3					0.5	NO		bb		0.000
12	FUNCTION3 PFK	33.90	8.660e3					0.7	NO		bb		0.000
13	FUNCTION3 PFK	33.81	2.537e4					2.0	NO		db		0.000
14	FUNCTION3 PFK	33.74	1.844e4					1.9	NO		dd		0.000
15	FUNCTION3 PFK	33.67	1.429e4					1.3	NO		dd		0.000
16	FUNCTION3 PFK	33.64	1.453e4					1.1	NO		dd		0.000
17	FUNCTION3 PFK	33.56	1.962e4					1.5	NO		bd		0.000
18	FUNCTION3 PFK	33.43	1.710e4					1.9	NO		db		0.000
19	FUNCTION3 PFK	33.37	5.233e3					0.7	NO		bd		0.000
20	FUNCTION3 PFK	36.35	3.452e3					0.6	NO		dd		0.000
21	FUNCTION3 PFK	36.31	4.848e3					0.7	NO		bd		0.000
22	FUNCTION3 PFK	36.16	1.336e4					1.6	NO		db		0.000
23	FUNCTION3 PFK	36.11	2.392e4					1.5	NO		bd		0.000
24	FUNCTION3 PFK	36.01	2.403e4					1.3	NO		db		0.000
25	FUNCTION3 PFK	35.89	9.823e3					0.8	NO		bd		0.000
26	FUNCTION3 PFK	35.85	1.475e3					0.5	NO		bb		0.000
27	FUNCTION3 PFK	35.67	2.479e4					1.2	NO		bb		0.000
28	FUNCTION3 PFK	35.59	9.378e2					0.3	NO		bb		0.000
29	FUNCTION3 PFK	35.50	1.427e4					1.1	NO		bb		0.000
30	FUNCTION3 PFK	35.36	2.313e4					1.7	NO		db		0.000
31	FUNCTION3 PFK	35.31	4.468e3					0.7	NO		dd		0.000
32	FUNCTION3 PFK	35.28	1.105e4					1.3	NO		dd		0.000
33	FUNCTION3 PFK	35.24	5.665e3					1.0	NO		bd		0.000
34	FUNCTION3 PFK	34.89	2.830e4					1.8	NO		bb		0.000
35	FUNCTION3 PFK	34.78	3.457e4					2.1	NO		db		0.000
36	FUNCTION3 PFK	37.50	7.411e3					0.9	NO		bb		0.000
37	FUNCTION3 PFK	37.43	3.465e3					0.5	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:23 Pacific Standard Time

ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION3 PFK	37.32	7.907e3					0.8	NO		bb		0.000
39	FUNCTION3 PFK	37.22	3.009e4					1.7	NO		db		0.000
40	FUNCTION3 PFK	37.16	2.137e4					2.2	NO		dd		0.000
41	FUNCTION3 PFK	37.12	1.664e4					1.8	NO		dd		0.000
42	FUNCTION3 PFK	37.06	1.115e4					1.3	NO		dd		0.000
43	FUNCTION3 PFK	36.98	4.018e4					2.6	NO		dd		0.000
44	FUNCTION3 PFK	36.94	1.098e4					1.6	NO		bd		0.000
45	FUNCTION3 PFK	36.87	1.106e4					1.3	NO		bb		0.000
46	FUNCTION3 PFK	36.83	2.870e3					0.4	NO		db		0.000
47	FUNCTION3 PFK	36.77	5.082e3					0.8	NO		dd		0.000
48	FUNCTION3 PFK	36.74	1.258e3					0.3	NO		bd		0.000
49	FUNCTION3 PFK	36.62	3.143e3					0.6	NO		bb		0.000
50	FUNCTION3 PFK	36.48	5.771e3					0.6	NO		db		0.000
51	FUNCTION3 PFK	36.43	1.249e4					1.1	NO		dd		0.000
52	FUNCTION3 PFK	37.80	2.850e4					1.9	NO		db		0.000
53	FUNCTION3 PFK	37.72	1.633e4					1.4	NO		dd		0.000
54	FUNCTION3 PFK	37.69	3.494e4					1.5	NO		bd		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

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ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.76	4.079e3					0.9	NO		bb		
2	FUNCTION4 PFK	39.60	6.864e3					1.0	NO		bb		
3	FUNCTION4 PFK	39.50	1.571e4					1.1	NO		bb		
4	FUNCTION4 PFK	39.40	1.721e3					0.6	NO		bb		
5	FUNCTION4 PFK	39.33	2.155e4					1.5	NO		db		
6	FUNCTION4 PFK	39.20	7.076e3					1.1	NO		bd		
7	FUNCTION4 PFK	38.91	1.732e4					1.3	NO		bb		
8	FUNCTION4 PFK	38.85	2.257e4					1.9	NO		bb		
9	FUNCTION4 PFK	38.71	2.348e3					0.5	NO		bb		
10	FUNCTION4 PFK	38.50	7.871e3					1.1	NO		bb		
11	FUNCTION4 PFK	38.38	1.778e4					1.8	NO		bb		
12	FUNCTION4 PFK	38.13	1.952e4					1.0	NO		bb		
13	FUNCTION4 PFK	41.90	1.771e3					0.6	NO		bb		
14	FUNCTION4 PFK	41.83	1.037e4					1.0	NO		bb		
15	FUNCTION4 PFK	41.74	1.247e4					1.5	NO		db		
16	FUNCTION4 PFK	41.63	3.912e4					1.7	NO		bd		
17	FUNCTION4 PFK	41.50	3.054e3					0.6	NO		bb		
18	FUNCTION4 PFK	41.35	4.890e3					1.0	NO		bb		
19	FUNCTION4 PFK	41.27	2.211e4					1.3	NO		bb		
20	FUNCTION4 PFK	40.90	3.234e3					0.8	NO		bb		
21	FUNCTION4 PFK	40.86	2.420e3					0.8	NO		bb		
22	FUNCTION4 PFK	40.80	8.207e3					1.1	NO		bb		
23	FUNCTION4 PFK	40.62	8.199e3					0.9	NO		bb		
24	FUNCTION4 PFK	40.45	1.099e4					1.1	NO		bb		
25	FUNCTION4 PFK	40.37	1.742e3					0.6	NO		bb		
26	FUNCTION4 PFK	40.31	8.132e3					1.0	NO		bb		
27	FUNCTION4 PFK	40.17	9.421e3					1.1	NO		db		
28	FUNCTION4 PFK	40.09	2.644e4					1.7	NO		bd		
29	FUNCTION4 PFK	42.89	4.923e3					0.8	NO		bb		
30	FUNCTION4 PFK	42.70	2.431e3					0.4	NO		bb		
31	FUNCTION4 PFK	42.65	1.517e3					0.5	NO		bb		
32	FUNCTION4 PFK	42.46	7.988e3					0.9	NO		bb		
33	FUNCTION4 PFK	42.28	1.541e3					0.5	NO		bb		
34	FUNCTION4 PFK	42.22	8.684e3					1.3	NO		bb		
35	FUNCTION4 PFK	42.13	1.017e3					0.3	NO		bb		
36	FUNCTION4 PFK	42.03	5.145e3					0.5	NO		bb		

Dataset: T:\Autospec\Processed Data Batch\230210.qld

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ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.22	9.059e1					2.0	NO		bb		0.000
2	FUNCTION1 HXCD...	25.75	8.545e1					2.0	NO		bb		0.000
3	FUNCTION1 HXCD...	24.53	1.532e2					1.6	NO		bb		0.000
4	FUNCTION1 HXCD...	24.09	9.590e1					2.7	NO		bb		0.000
5	FUNCTION1 HXCD...	21.62	1.012e2					1.7	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	30.61	1.165e2					2.2	NO		bb		0.000
2	FUNCTION2 HPCD...	30.39	7.728e1					1.0	NO		bb		0.000
3	FUNCTION2 HPCD...	30.12	9.582e1					1.6	NO		bb		0.000
4	FUNCTION2 HPCD...	29.66	7.063e1					1.1	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	37.34	8.761e1					2.5	NO		bb		0.000
2	FUNCTION3 OCDPE	36.29	9.885e1					3.1	YES		db		0.000
3	FUNCTION3 OCDPE	36.17	9.492e1					3.2	YES		bd		0.000
4	FUNCTION3 OCDPE	34.49	1.024e2					1.9	NO		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.98	7.900e1					2.0	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:23 Pacific Standard Time

ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk

ETHERS6

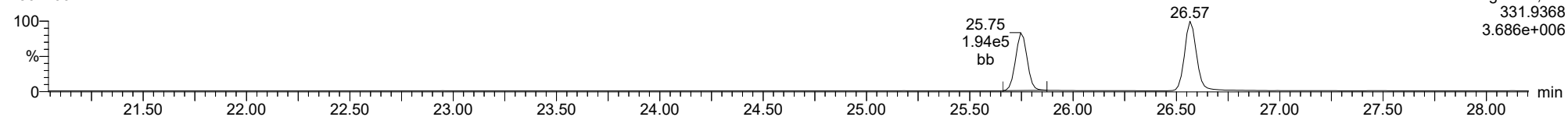
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1	FUNCTION5 DCDPE	45.34	1.041e2					2.7	NO		bb		0.000
2	FUNCTION5 DCDPE	44.76	1.251e2					1.8	NO		bb		0.000

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk

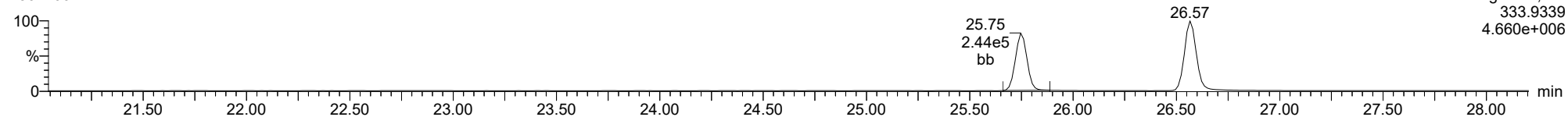
13C-1234-TCDD

23021004



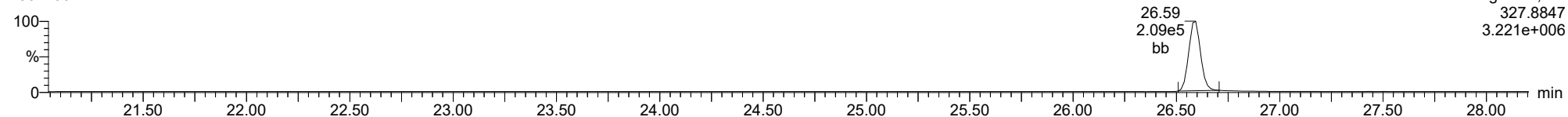
13C-1234-TCDD

23021004



37CL-2378-TCDD

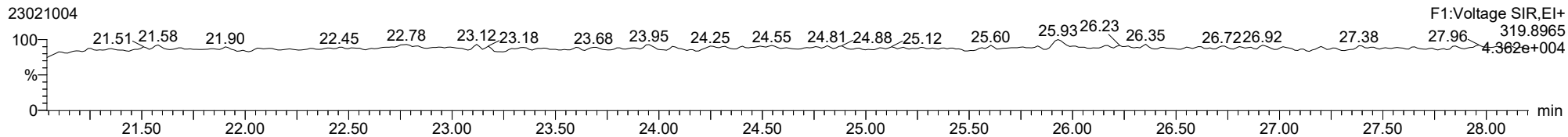
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ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk

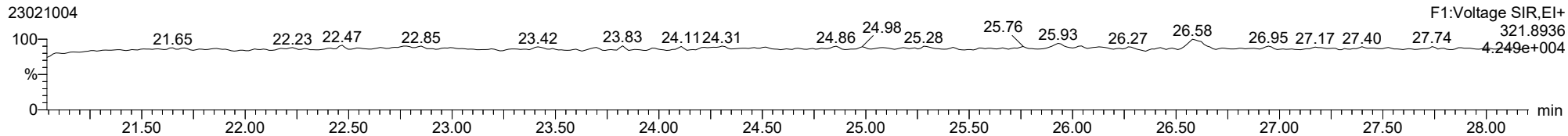
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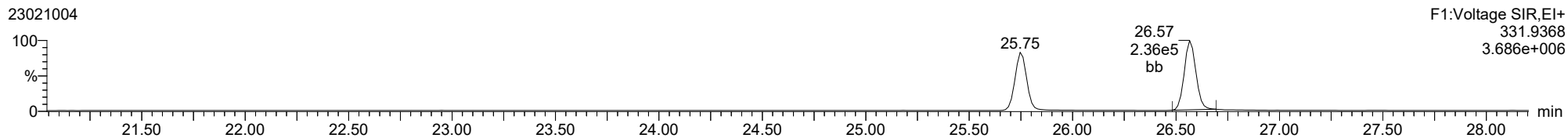
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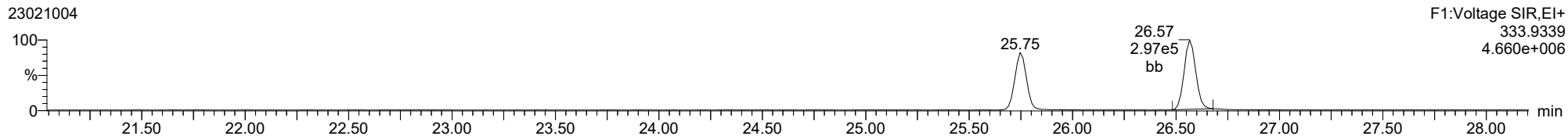
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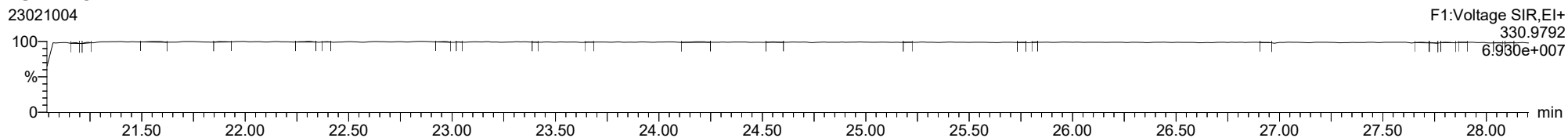
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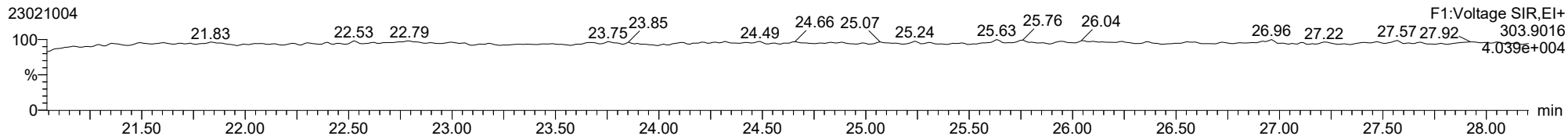
FUNCTION1 PFK

23021004

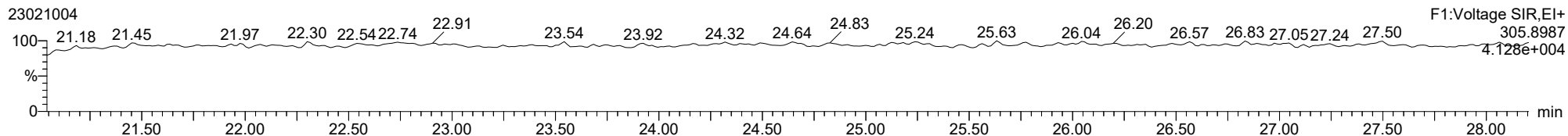


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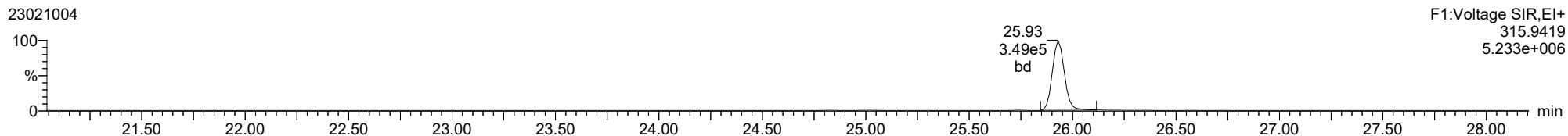
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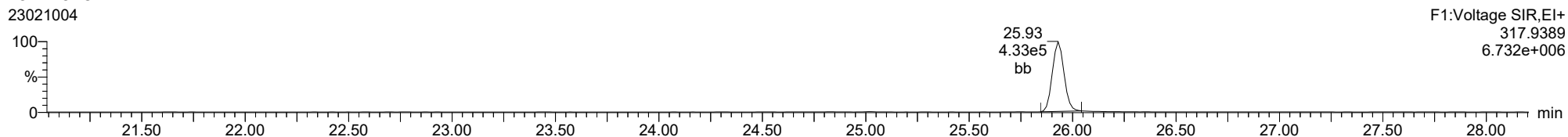
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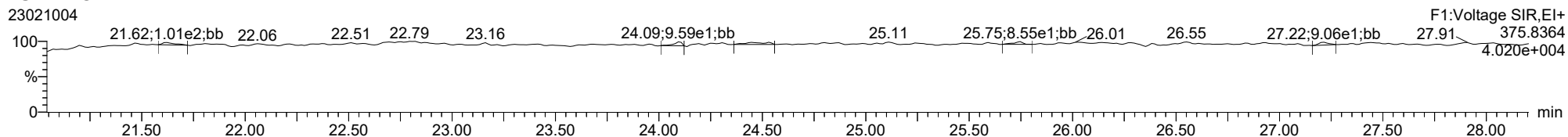
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13C-2378-TCDF



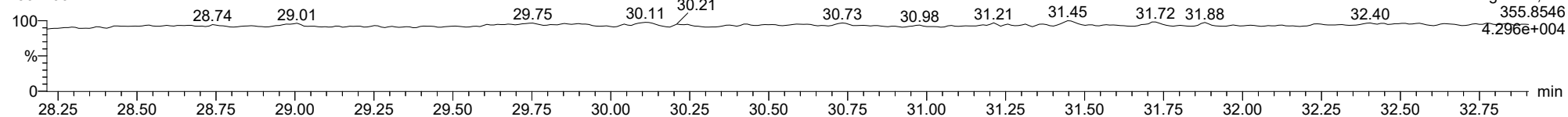
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ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk

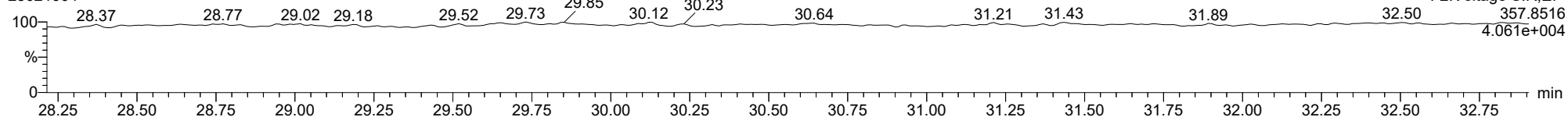
12378-PeCDD

23021004



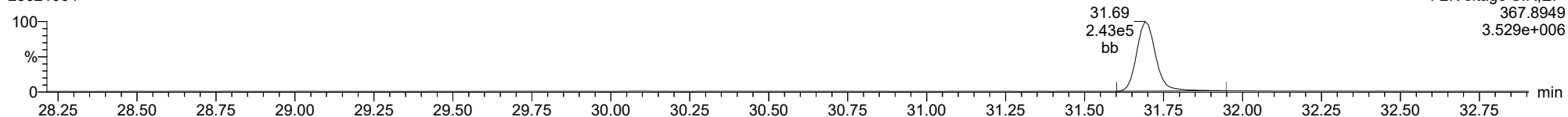
12378-PeCDD

23021004



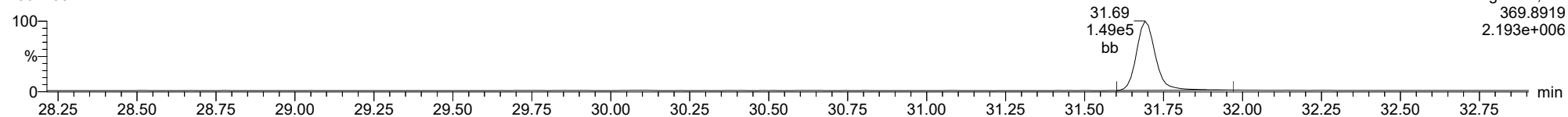
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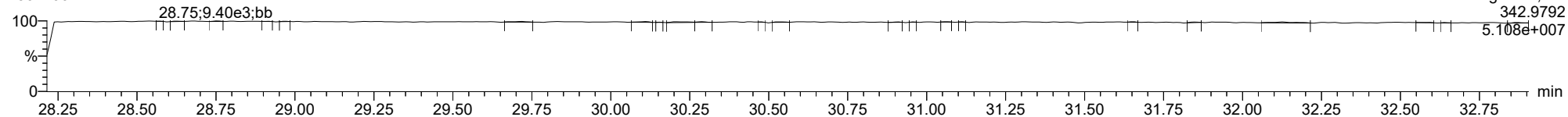
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23021004



FUNCTION2 PFK

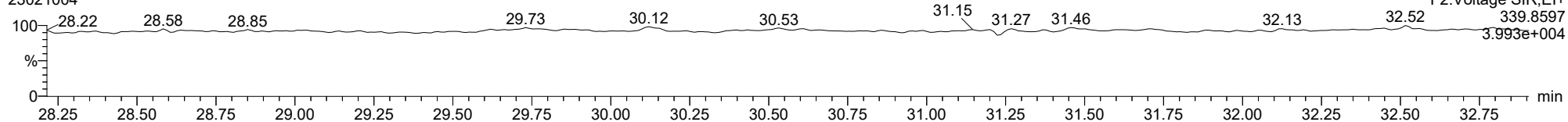
23021004



ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk

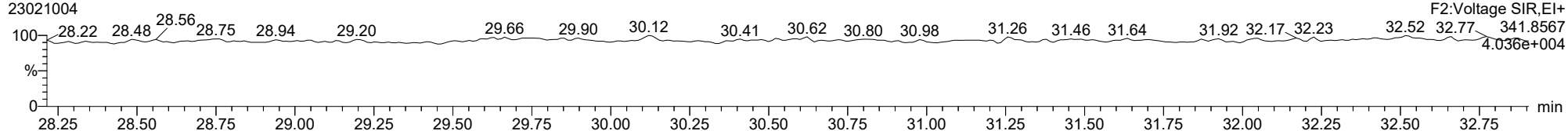
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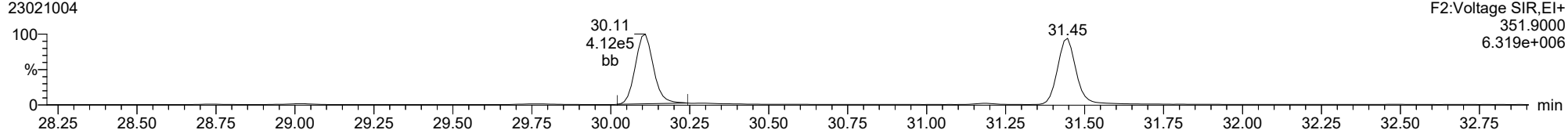
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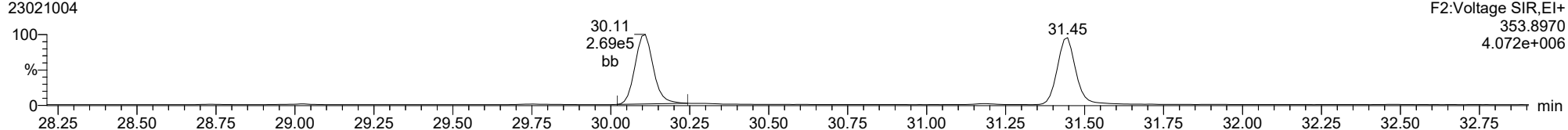
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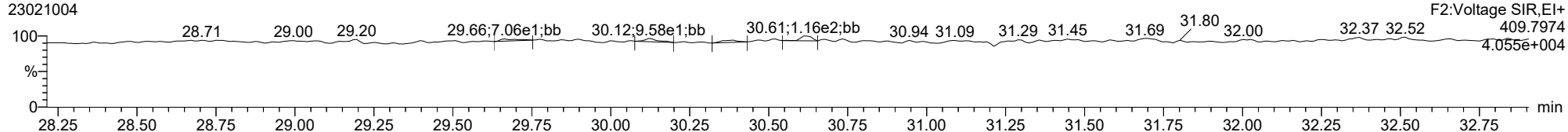
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23021004



FUNCTION2 HPCDPE

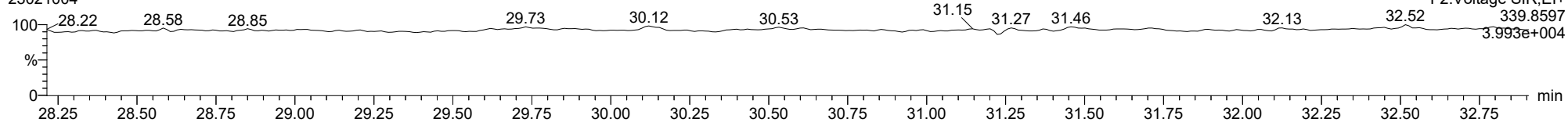
23021004



ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk

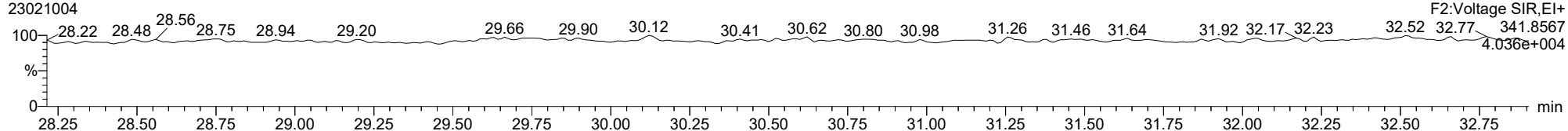
23478-PeCDF

23021004



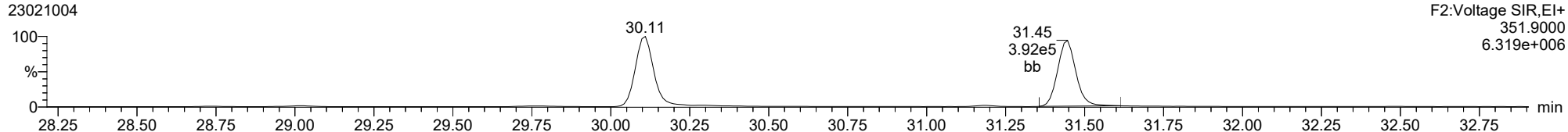
23478-PeCDF

23021004



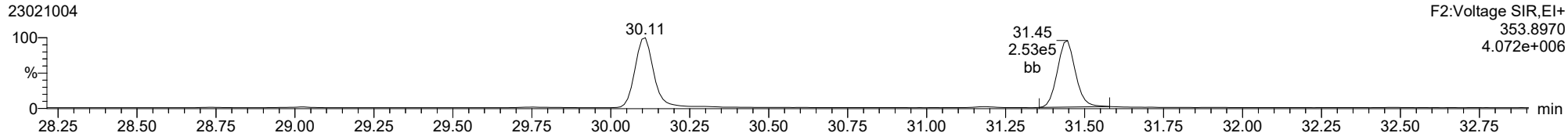
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23021004



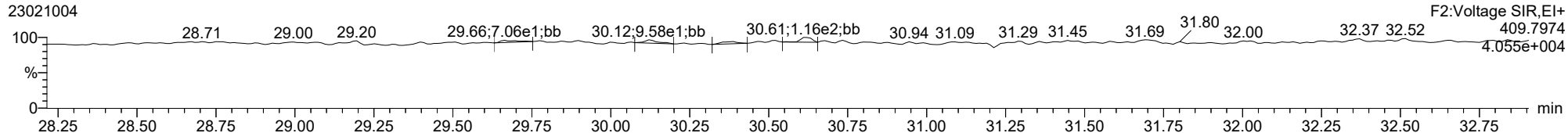
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23021004



FUNCTION2 HPCDPE

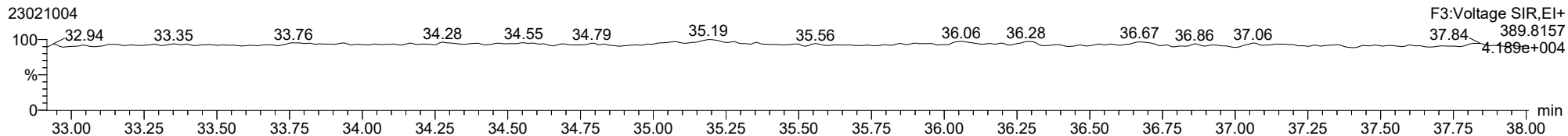
23021004



ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk

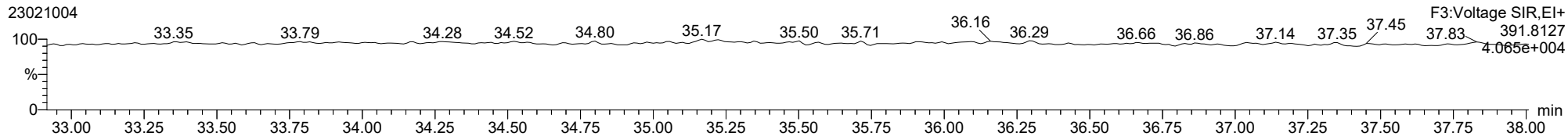
123478-HxCDD

23021004



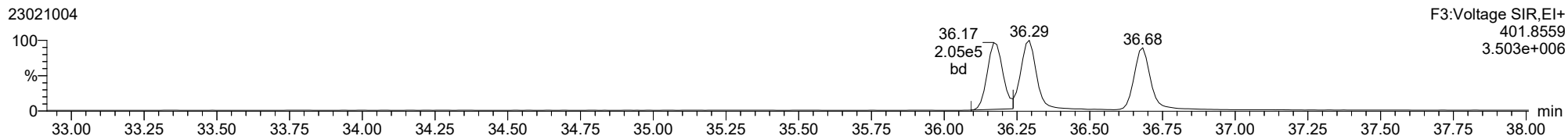
123478-HxCDD

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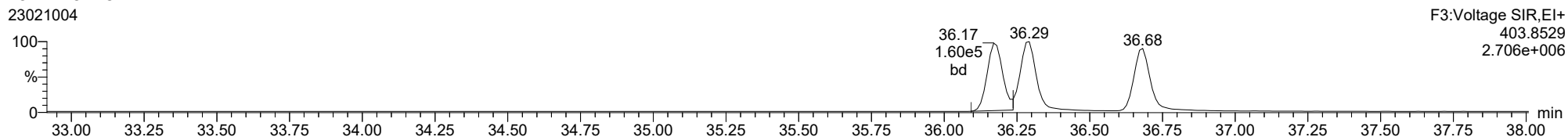
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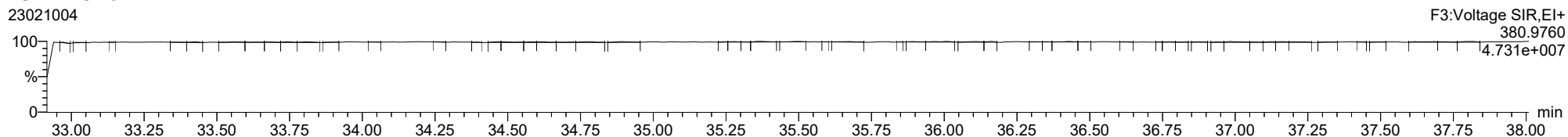
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23021004



FUNCTION3 PFK

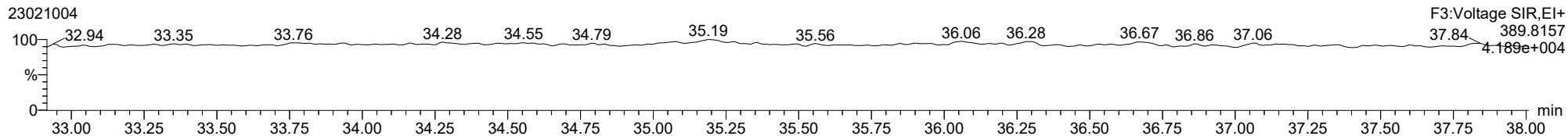
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ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk

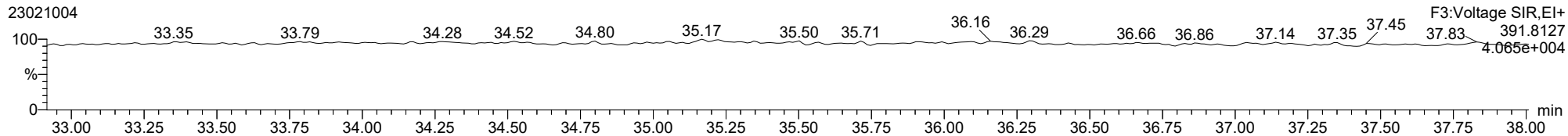
123678-HxCDD

23021004



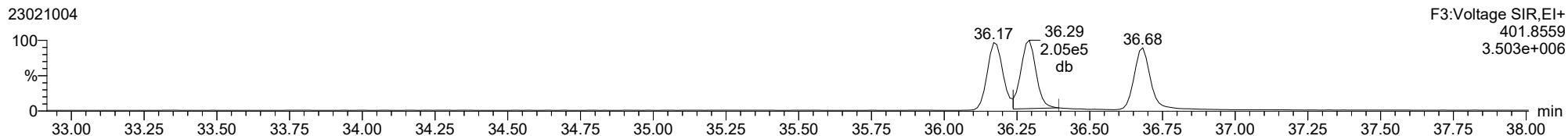
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23021004



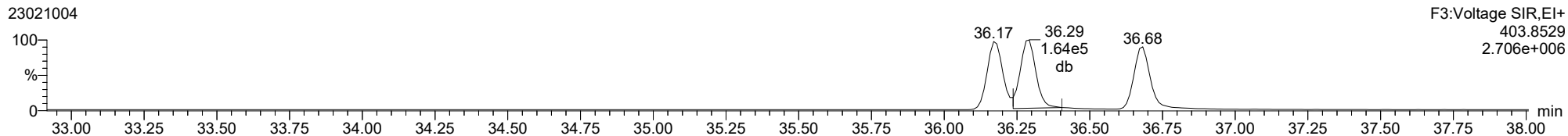
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23021004



13C-123678-HxCDD

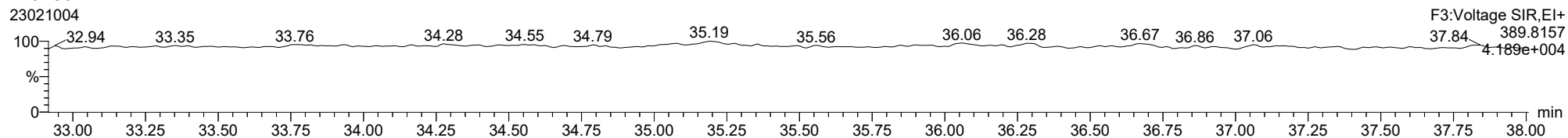
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ID: BLA0256-BLK1, Name: 23021004, Date: 10-Feb-2023, Time: 15:59:23, Conditions: AUTOSPEC01, User: pk

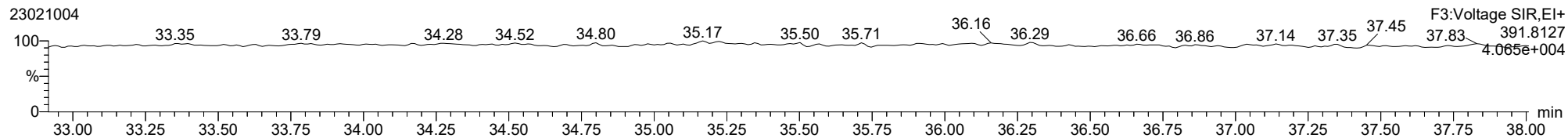
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23021004



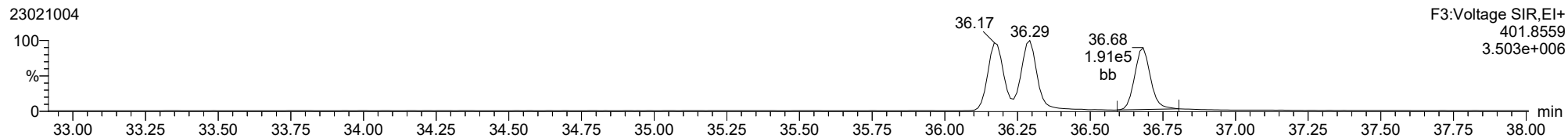
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23021004



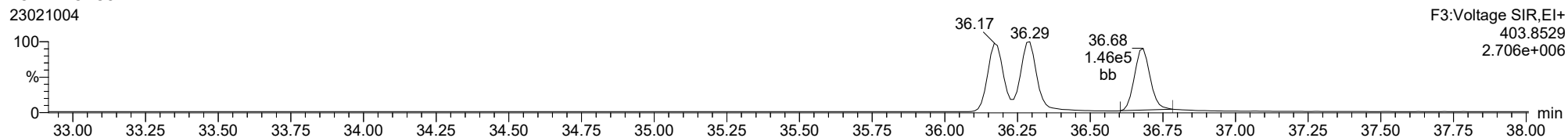
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23021004



13C-123789-HxCDD

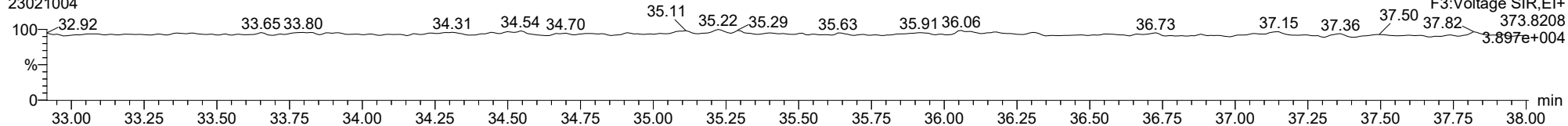
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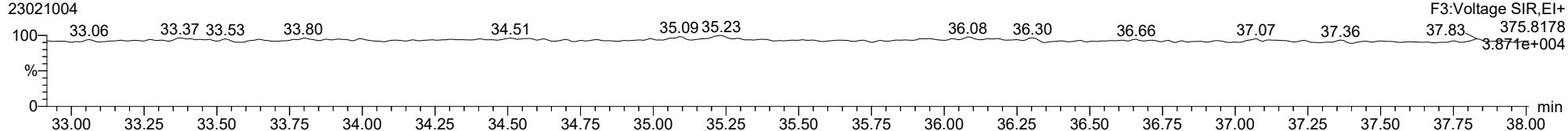
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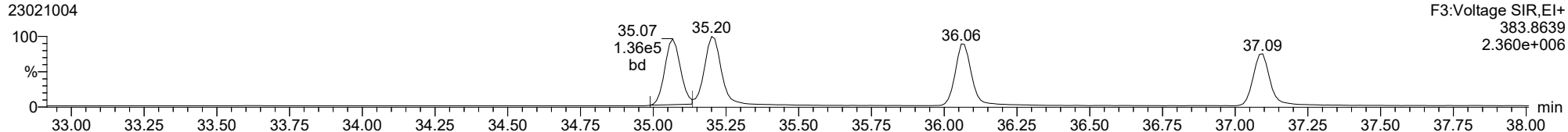
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23021004



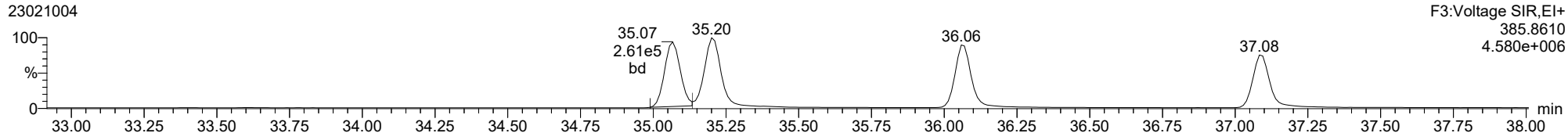
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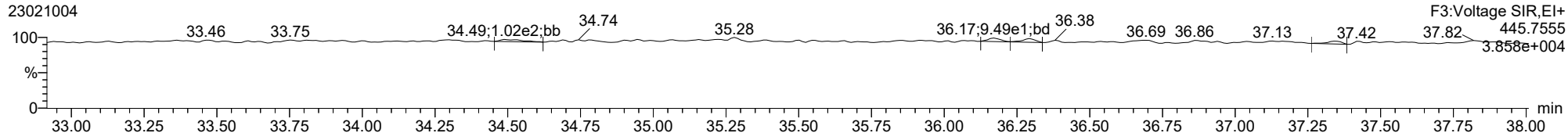
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23021004



FUNCTION3 OCDPE

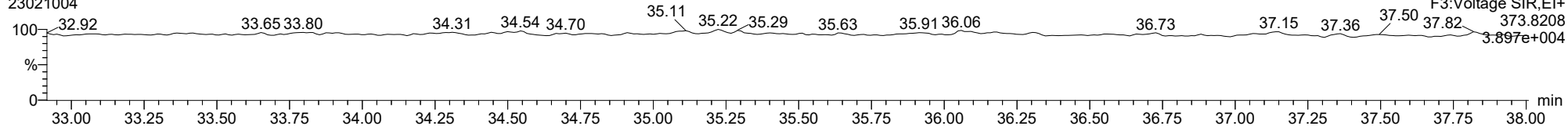
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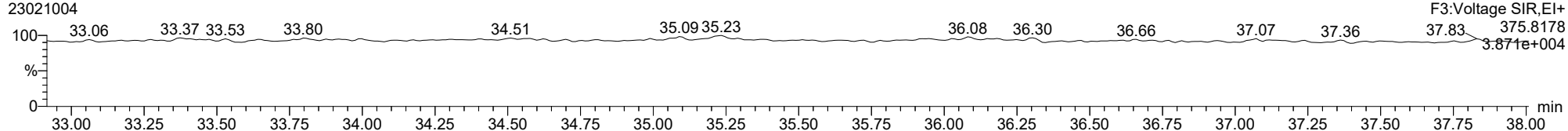
234678-HxCDF

23021004



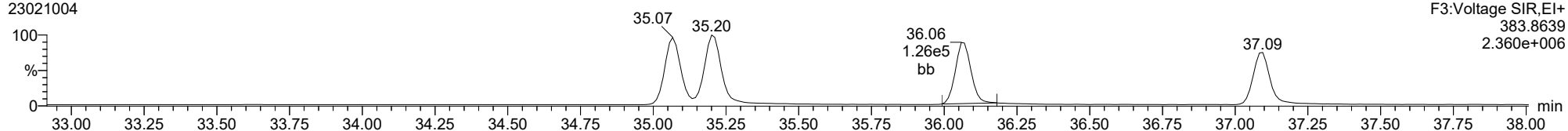
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23021004



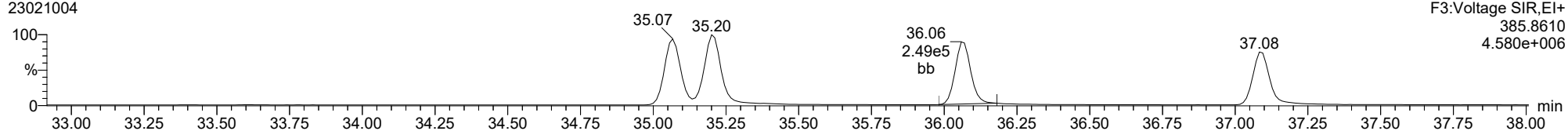
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23021004



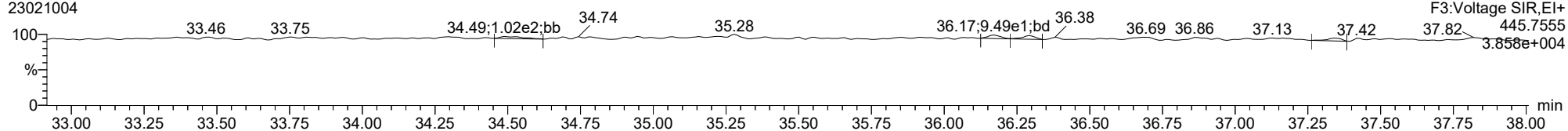
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23021004



FUNCTION3 OCDPE

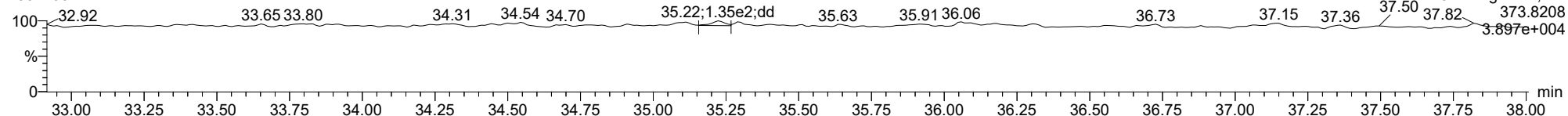
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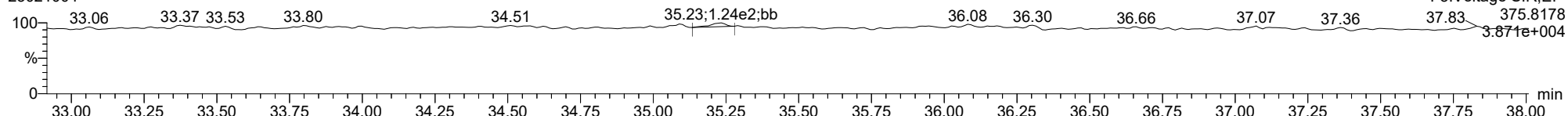
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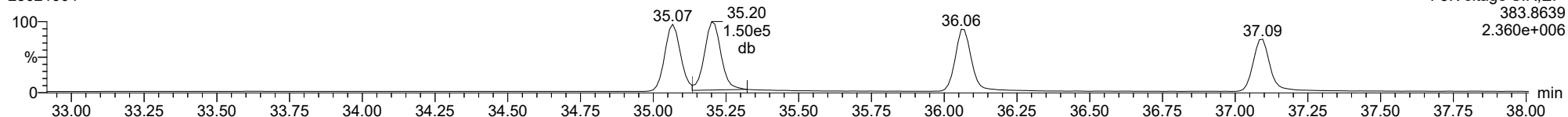
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23021004



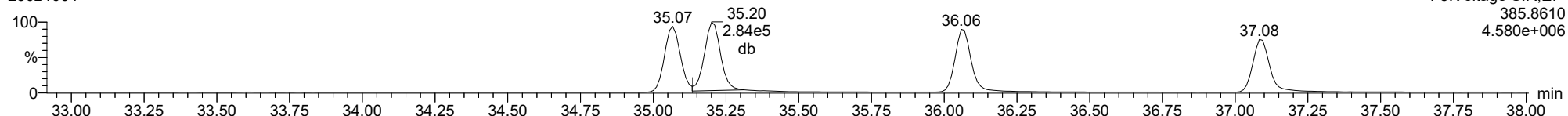
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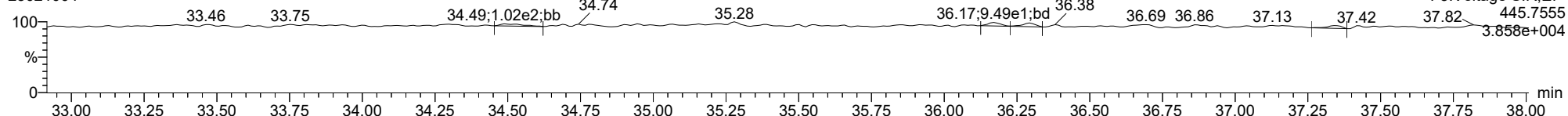
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FUNCTION3 OCDPE

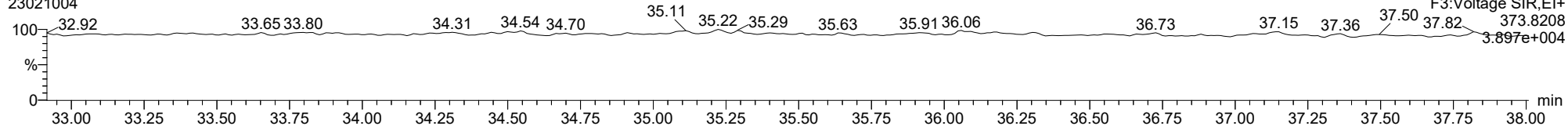
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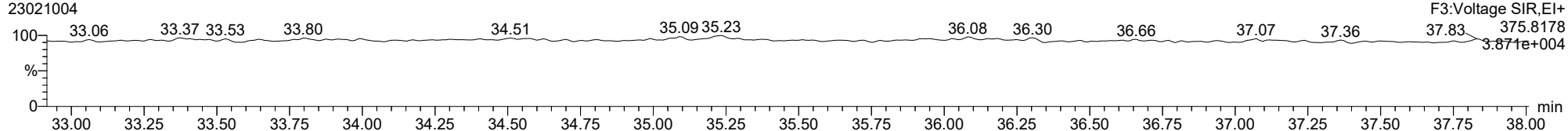
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23021004



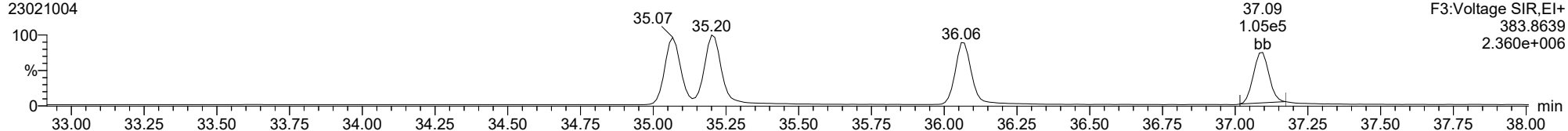
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23021004



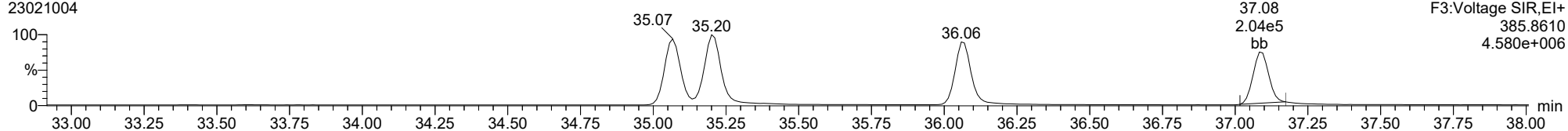
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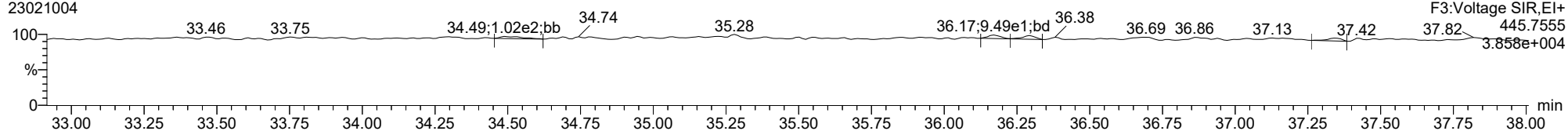
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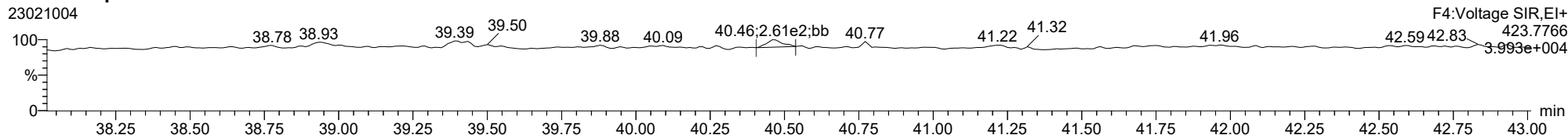
FUNCTION3 OCDPE

23021004

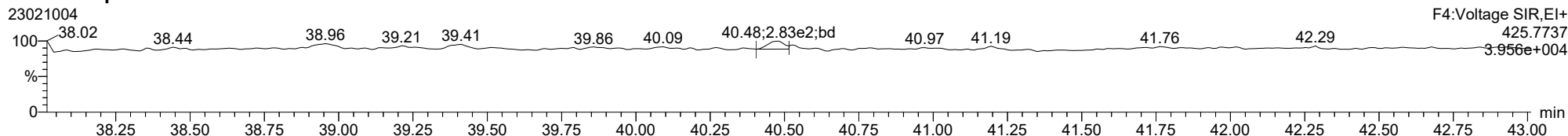


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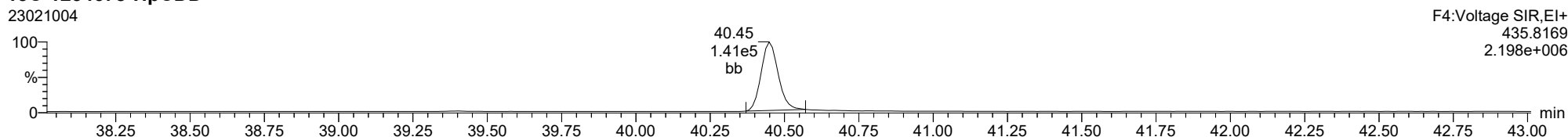
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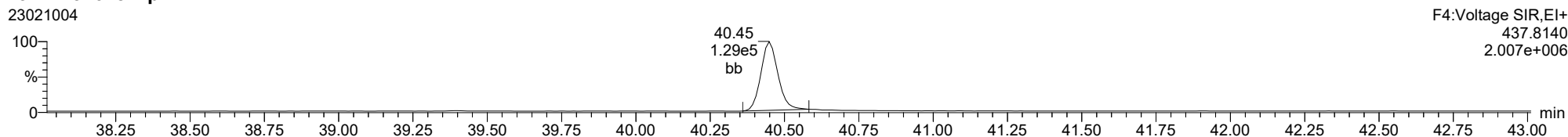
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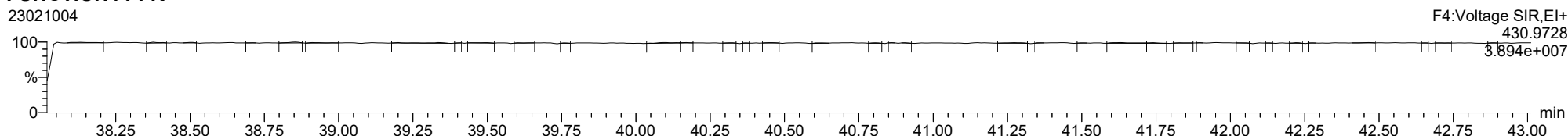
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13C-1234678-HpCDD

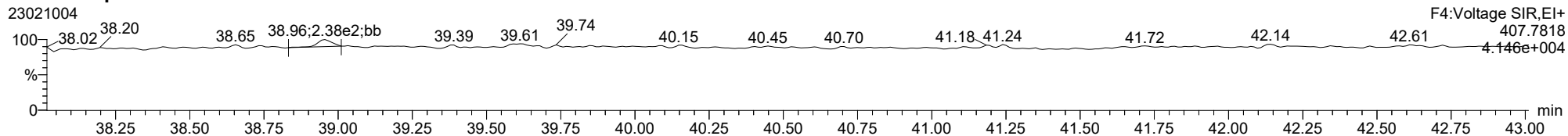


FUNCTION4 PFK

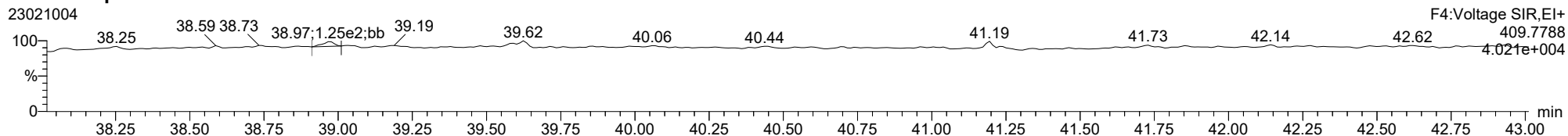


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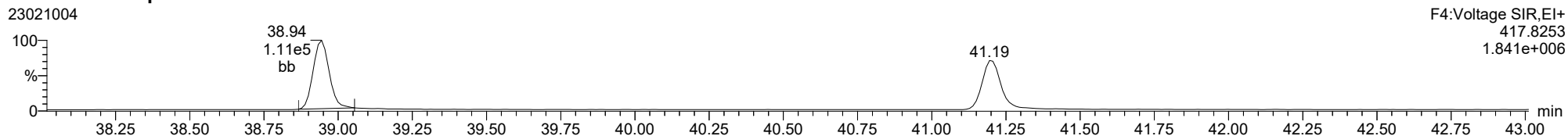
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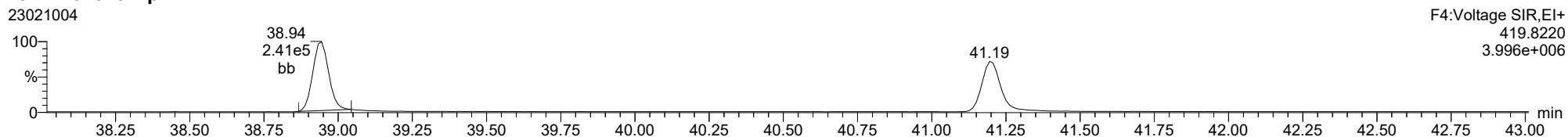
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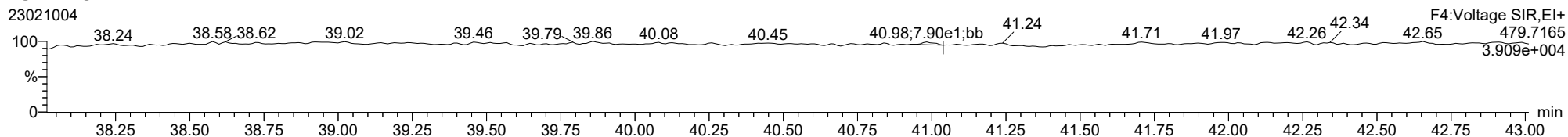
13C-1234678-HpCDF



13C-1234678-HpCDF

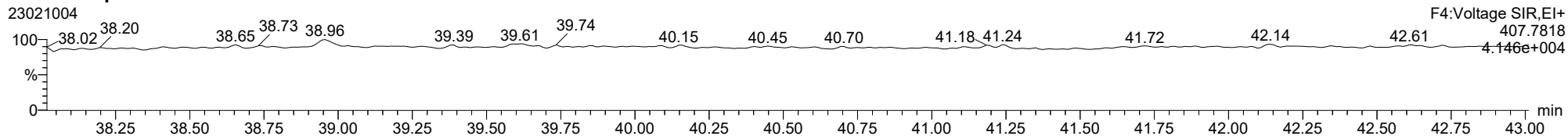


FUNCTION4 NCDPE

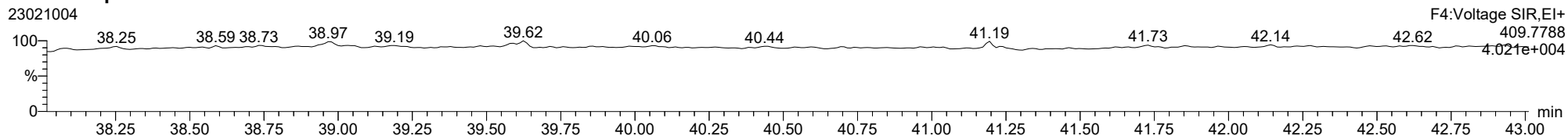


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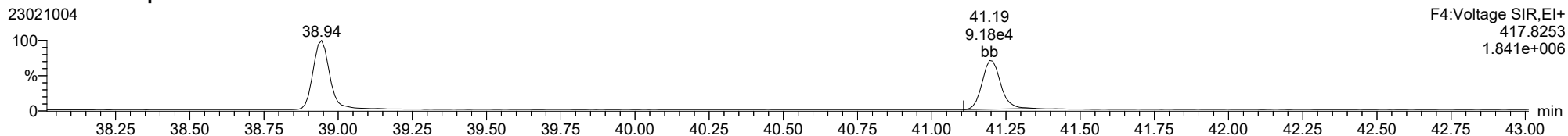
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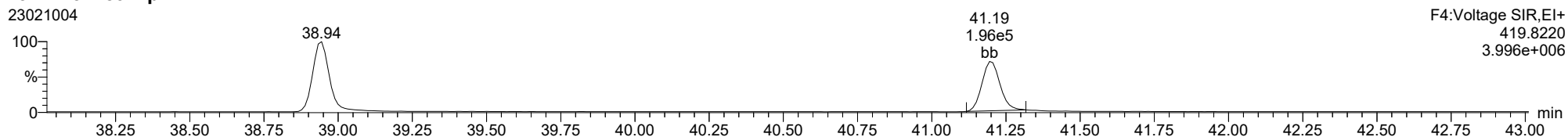
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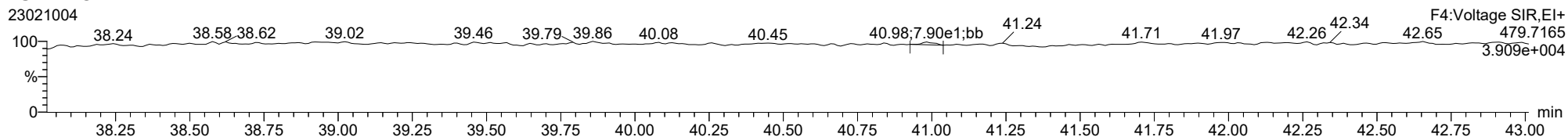
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13C-1234789-HpCDF



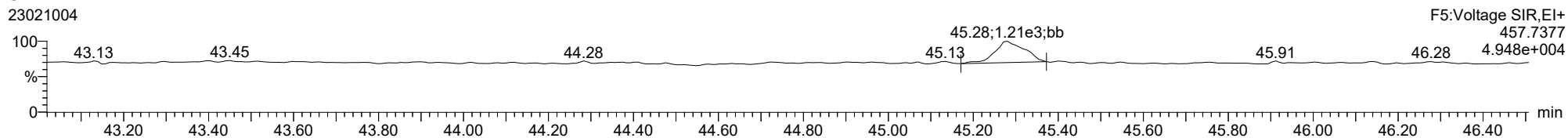
FUNCTION4 NCDPE



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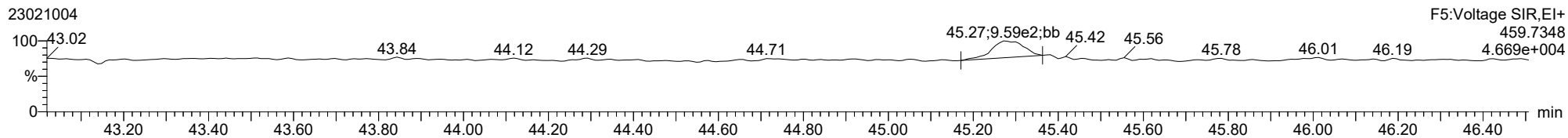
OCDD

23021004



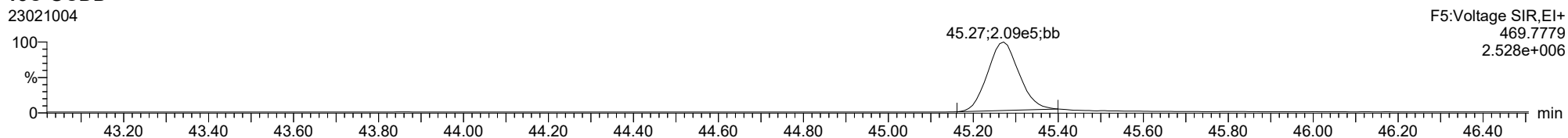
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23021004



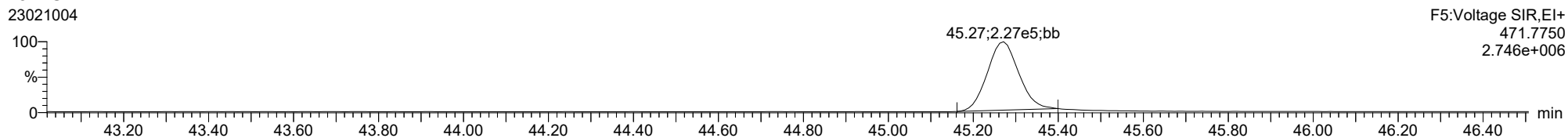
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23021004



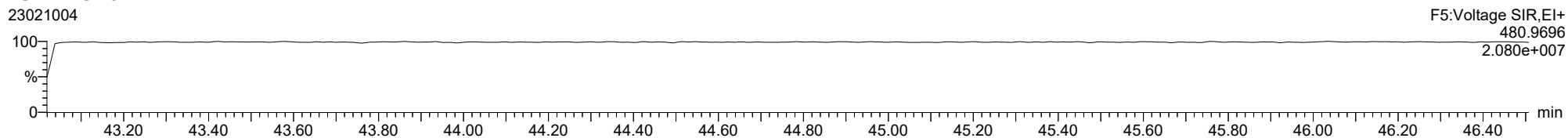
13C-OCDD

23021004



FUNCTION5 PFK

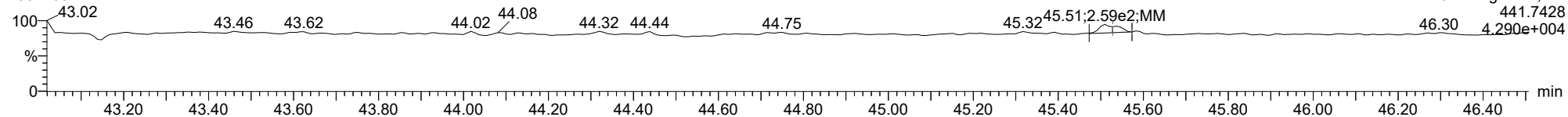
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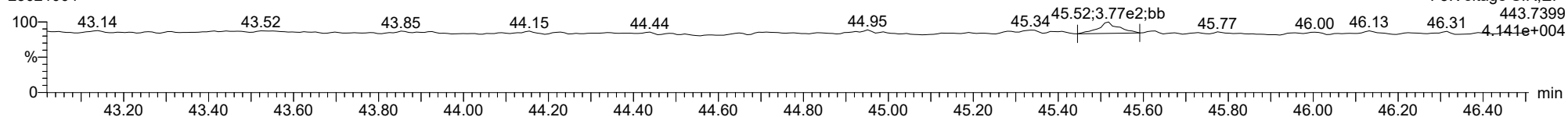
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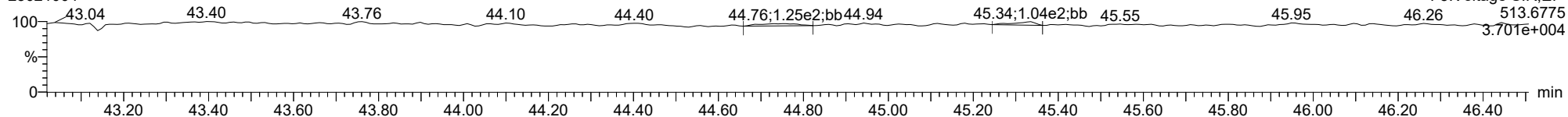
OCDF

23021004



FUNCTION5 DCDPE

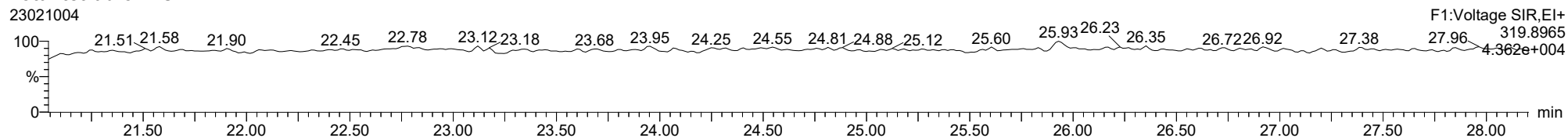
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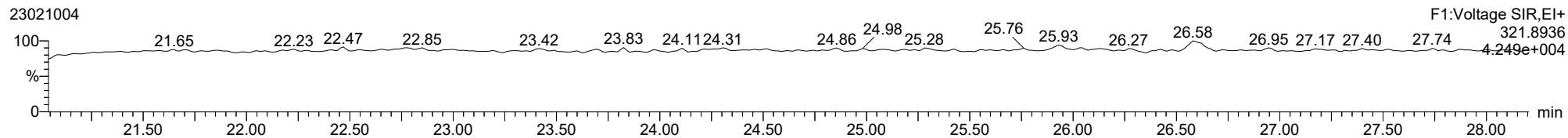
Total-tetradioxins

23021004



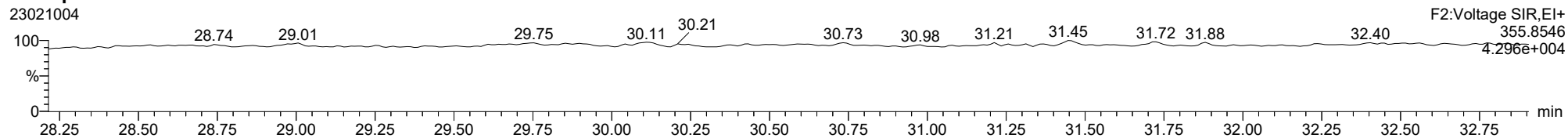
Total-tetradioxins

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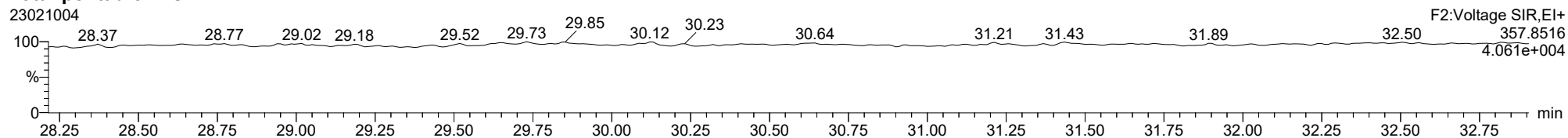
Total-pentadioxins

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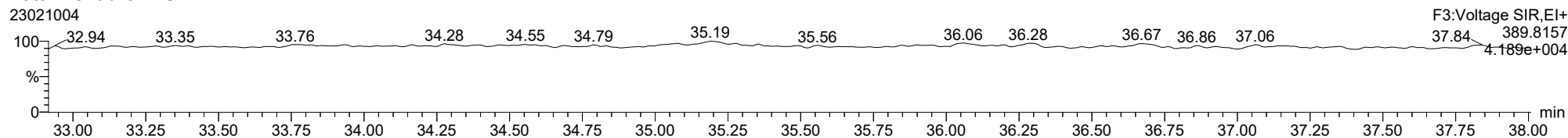
Total-pentadioxins

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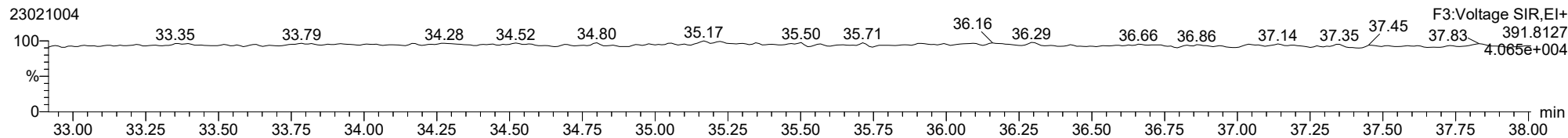


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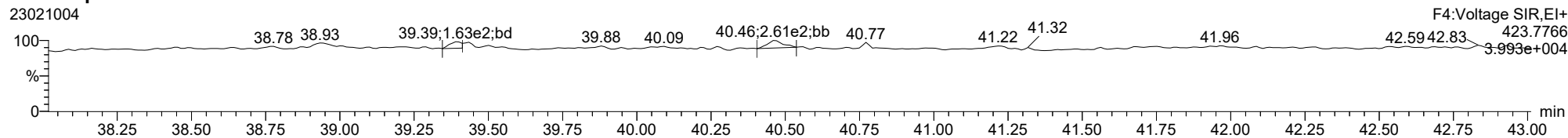
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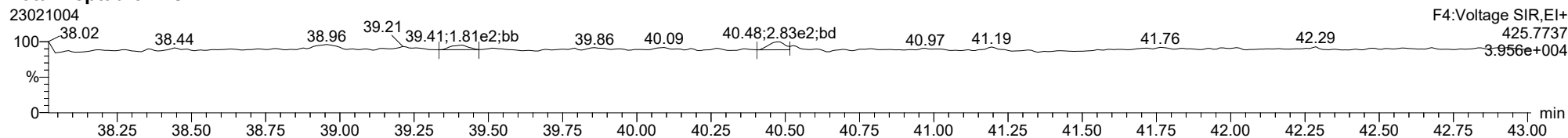
Total-hexadioxins



Total-heptadioxins

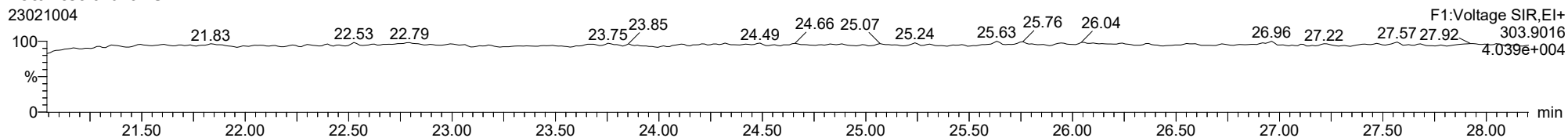


Total-heptadioxins

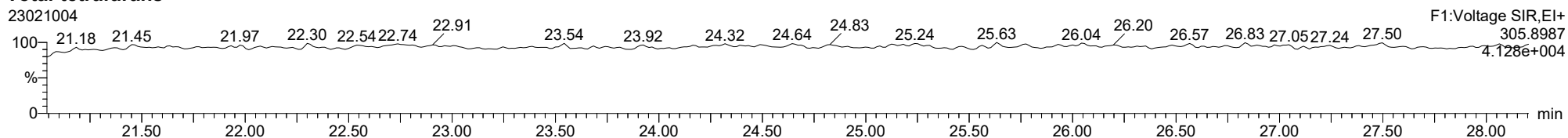


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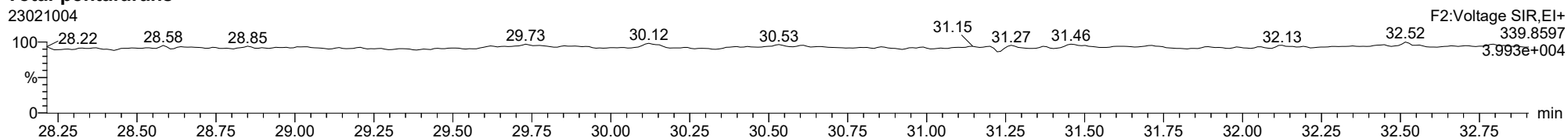
Total-tetrafurans



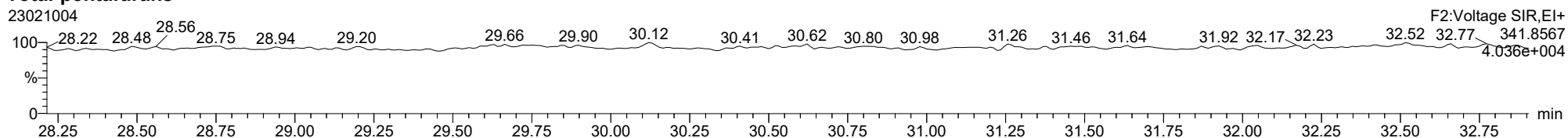
Total-tetrafurans



Total-pentafurans

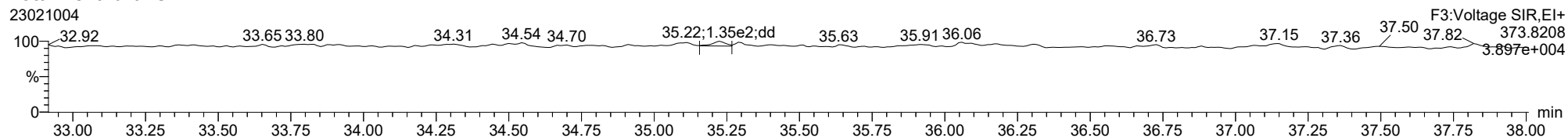


Total-pentafurans

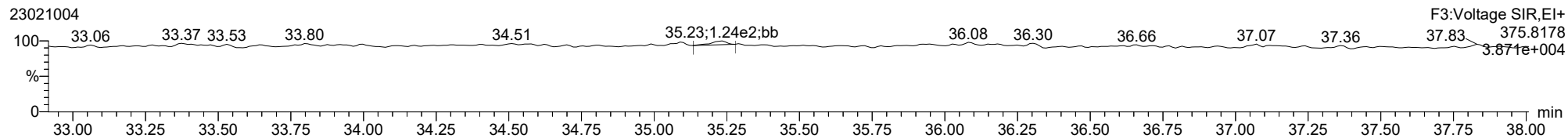


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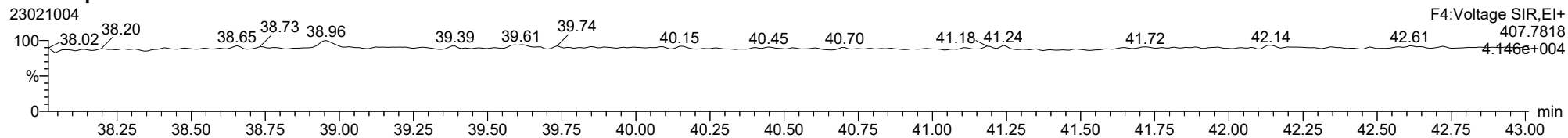
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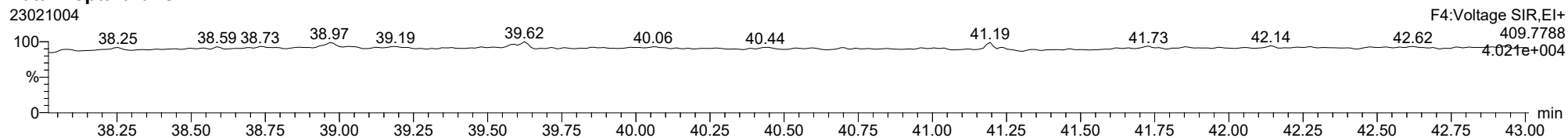
Total-hexafurans



Total-heptafurans



Total-heptafurans





LCS RECOVERY
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Analyzed: 02/10/23 16:48

Batch: BLA0256

Laboratory ID: BLA0256-BS1

Preparation: EPA 8290

Sequence Name: LCS

Initial/Final: 10 g / 20 uL

COMPOUND	SPIKE ADDED (ng/kg wet)	LCS CONCENTRATION (ng/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
2,3,7,8-TCDF	20.0	18.8		93.8	75 - 158
2,3,7,8-TCDD	20.0	18.3		91.4	67 - 158
1,2,3,7,8-PeCDF	100	100		100	80 - 134
2,3,4,7,8-PeCDF	100	99.7		99.7	68 - 160
1,2,3,7,8-PeCDD	100	98.4		98.4	70 - 142
1,2,3,4,7,8-HxCDF	100	95.1		95.1	72 - 134
1,2,3,6,7,8-HxCDF	100	91.6	B	91.6	84 - 130
2,3,4,6,7,8-HxCDF	100	97.6		97.6	70 - 156
1,2,3,7,8,9-HxCDF	100	96.1		96.1	78 - 130
1,2,3,4,7,8-HxCDD	100	95.1		95.1	70 - 164
1,2,3,6,7,8-HxCDD	100	94.2		94.2	76 - 134
1,2,3,7,8,9-HxCDD	100	92.3		92.3	64 - 162
1,2,3,4,6,7,8-HpCDF	100	95.2	B	95.2	82 - 122
1,2,3,4,7,8,9-HpCDF	100	96.0		96.0	78 - 138
1,2,3,4,6,7,8-HpCDD	100	94.6	B	94.6	70 - 140
OCDF	200	177	B	88.6	63 - 170
OCDD	200	178	B	89.2	78 - 144

* Indicates values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:41:36 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.929	1.000	3.357e4	4.511e4	0.876	0.744	0.770	940	1127	5.05e5	6.75e5	537.7	598.6	NO	bb	bb	9.381
12378-PeCDF	30.108	1.000	2.219e5	1.369e5	0.845	1.620	1.550	2102	1699	3.26e6	2.06e6	1550.1	1215.1	NO	bd	bb	49.980
23478-PeCDF	31.445	1.000	2.191e5	1.366e5	0.911	1.603	1.550	2102	1699	3.29e6	2.05e6	1563.3	1208.2	NO	bb	bb	49.831
123478-HxCDF	35.077	1.001	1.564e5	1.233e5	1.182	1.268	1.240	1544	1339	2.46e6	1.92e6	1594.4	1431.8	NO	bd	bd	47.555
234678-HxCDF	36.069	1.000	1.562e5	1.228e5	1.229	1.272	1.240	1544	1339	2.40e6	1.91e6	1554.8	1426.7	NO	bb	bb	48.792
123678-HxCDF	35.211	1.001	1.705e5	1.381e5	1.248	1.234	1.240	1544	1339	2.52e6	2.04e6	1633.0	1526.6	NO	dd	dd	45.825
123789-HxCDF	37.094	1.000	1.271e5	1.042e5	1.187	1.220	1.240	1544	1339	1.99e6	1.62e6	1288.5	1206.7	NO	bd	bd	48.064
1234678-HpCDF	38.943	1.000	1.335e5	1.293e5	1.204	1.032	1.050	2072	1249	2.13e6	2.08e6	1027.6	1663.4	NO	bd	bd	47.616
1234789-HpCDF	41.204	1.000	1.082e5	1.030e5	1.165	1.050	1.050	2072	1249	1.52e6	1.45e6	733.9	1162.0	NO	bb	bd	48.021
OCDF	45.517	1.006	1.498e5	1.679e5	1.186	0.892	0.890	1187	1683	1.71e6	1.86e6	1441.3	1103.6	NO	bd	bd	88.603
2378-TCDD	26.579	1.001	3.289e4	4.151e4	1.236	0.792	0.770	1327	953	4.99e5	6.21e5	376.4	651.9	NO	bb	bb	9.142
12378-PeCDD	31.701	1.001	1.585e5	1.015e5	1.087	1.562	1.550	1196	1024	2.44e6	1.60e6	2040.4	1560.3	NO	bb	bb	49.202
123478-HxCDD	36.180	1.000	1.152e5	9.585e4	0.987	1.202	1.240	1411	1112	1.96e6	1.62e6	1387.2	1456.8	NO	bd	bd	47.529
123678-HxCDD	36.292	1.000	1.222e5	1.031e5	1.021	1.185	1.240	1411	1112	1.97e6	1.61e6	1396.7	1448.7	NO	db	db	47.098
123789-HxCDD	36.681	1.011	1.151e5	9.374e4	0.985	1.228	1.240	1411	1112	1.89e6	1.55e6	1340.6	1397.8	NO	bb	bb	46.131
1234678-HpCDD	40.458	1.001	1.065e5	1.005e5	1.253	1.059	1.050	1207	1332	1.55e6	1.48e6	1284.0	1110.5	NO	bb	bd	47.316
OCDD	45.279	1.000	1.391e5	1.581e5	1.103	0.879	0.890	1509	1456	1.63e6	1.88e6	1077.1	1292.7	NO	bb	bb	89.186
13C-2378-TCDF	25.915	1.007	4.202e5	5.371e5	1.768	0.782	0.770	2502	1633	6.51e6	8.31e6	2601.6	5090.5	NO	bb	bb	115.298
13C-12378-PeCDF	30.097	1.170	5.205e5	3.294e5	1.527	1.581	1.550	2409	2957	7.62e6	4.88e6	3161.5	1651.5	NO	bd	bb	118.506
13C-23478-PeCDF	31.434	1.222	4.780e5	3.054e5	1.466	1.565	1.550	2409	2957	7.13e6	4.56e6	2958.8	1541.2	NO	bb	bb	113.767
13C-123478-HxCDF	35.055	0.956	1.696e5	3.280e5	1.054	0.517	0.510	1651	1710	2.74e6	5.31e6	1658.4	3108.3	NO	bd	bd	124.241
13C-123678-HxCDF	35.189	0.960	1.829e5	3.567e5	1.080	0.513	0.510	1651	1710	2.80e6	5.43e6	1698.2	3177.2	NO	db	db	131.440
13C-234678-HxCDF	36.058	0.983	1.583e5	3.071e5	1.014	0.516	0.510	1651	1710	2.60e6	5.02e6	1576.9	2936.4	NO	bb	bb	120.700
13C-123789-HxCDF	37.083	1.011	1.373e5	2.682e5	0.928	0.512	0.510	1651	1710	2.29e6	4.38e6	1387.0	2561.3	NO	bb	bb	114.953
13C-1234678-HpCDF	38.932	1.062	1.426e5	3.158e5	1.036	0.452	0.440	1567	2424	2.33e6	5.19e6	1487.5	2139.2	NO	bb	bb	116.393
13C-1234789-HpCDF	41.193	1.123	1.176e5	2.598e5	0.905	0.453	0.440	1567	2424	1.71e6	3.75e6	1088.9	1546.6	NO	bb	bb	109.709
13C-1234-TCDD	25.732	0.000	2.086e5	2.610e5	1.000	0.799	0.770	1645	1013	3.32e6	4.17e6	2016.0	4117.7	NO	bb	bb	100.000
13C-2378-TCDD	26.551	1.032	2.929e5	3.654e5	1.103	0.802	0.770	1645	1013	4.52e6	5.62e6	2744.7	5545.7	NO	bb	bb	127.079
13C-12378-PeCDD	31.679	1.231	3.023e5	1.840e5	0.914	1.643	1.550	1094	1195	4.43e6	2.71e6	4045.6	2267.3	NO	bb	bb	113.291
13C-123478-HxCDD	36.169	0.986	2.508e5	1.991e5	0.933	1.260	1.240	1254	1530	4.15e6	3.24e6	3307.9	2116.6	NO	bd	bd	126.861
13C-123678-HxCDD	36.280	0.989	2.611e5	2.077e5	0.965	1.258	1.240	1254	1530	4.24e6	3.36e6	3381.1	2196.5	NO	db	db	127.845
13C-1234678-HpCDD	40.436	1.103	1.810e5	1.683e5	0.782	1.075	1.050	1385	1288	2.78e6	2.55e6	2007.7	1980.1	NO	bb	bb	117.495
13C-OCDD	45.261	1.234	2.879e5	3.165e5	0.788	0.910	0.890	1766	1502	3.46e6	3.78e6	1957.6	2518.4	NO	bb	bb	201.724
13C-123789-HxCDD	36.670	0.000	2.113e5	1.689e5	1.000	1.251	1.240	1254	1530	3.47e6	2.78e6	2766.3	1819.3	NO	bb	bb	100.000
37CL-2378-TCDD	26.579	1.033	2.341e5		1.233			1601		3.53e6		2206.8			bb		40.420

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:41:36 Pacific Standard Time

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	940	1127								
1289-TCDF					0.858		0.770	940	1127								
13468-PECDF					1.013		1.550	625	853								
12389-PECDF	32.481	1.079	1.443e3	9.411e2	0.844	1.533	1.550	2102	1699	1.85e4	1.23e4	8.8	7.2	NO	bd	bb	0.332
123468-HXCDF					1.197		1.240	1544	1339								
1368-TCDD					1.084		0.770	1327	953								
1289-TCDD					0.975		0.770	1327	953								
12479-PECDD					1.837		1.550	1196	1024								
12389-PECDD					1.252		1.550	1196	1024								
124679-HXCDD					1.033		1.240	1411	1112								
1234679-HPCDD	39.389	0.974	1.220e3	1.190e3	1.286	1.026	1.050	1207	1332	1.92e4	1.80e4	15.9	13.5	NO	bb	bb	0.537
Total-tetrafurans			3.394e4		0.933			940		5.11e5							9.474
Total-penta1			0.000e0					625		0.00e0							
Total-pentafurans			4.424e5		0.866			2102		6.56e6							100.143
Total-hexafurans			6.102e5		1.208			1544		9.38e6							190.236
Total-heptafurans			2.421e5		1.185			2072		3.67e6							95.816
Total-Furans			1.478e6		1.067			940		2.18e7							484.272
Total-tetradoxins			3.289e4		1.099			1327		4.99e5							9.142
Total-pentadoxins			1.585e5		1.392			1196		2.44e6							49.202
Total-hexadoxins			3.525e5		1.007			1411		5.82e6							140.758
Total-heptadoxins			1.077e5		1.269			1207		1.57e6							47.852
Total-Dioxins			7.907e5		1.165			1327		1.20e7							336.140
Total-TEQ			2.269e6					1327		3.38e7							820.412
FUNCTION1 PFK			5.672e5					255575		9.66e6							
FUNCTION2 PFK			4.323e5					280292		1.14e7							0.000
FUNCTION3 PFK			2.111e7					210908		1.24e8							0.000
FUNCTION4 PFK			1.748e7					264373		1.23e8							
FUNCTION5 PFK			7.743e4					133388		3.51e6							
FUNCTION1 HXCD...			8.053e2					619		1.03e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			7.265e2					720		1.19e4							0.000
FUNCTION3 OCDPE			5.102e2					690		9.03e3							0.000
FUNCTION4 NCDPE			2.652e2					854		4.68e3							0.000
FUNCTION5 DCDPE			1.601e2					547		3.61e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:36 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20**Calibration: T:\Autospec\Curves\230201CIH.cdb 03 Feb 2023 10:33:40****ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.93	3.357e4	4.511e4	0.876	0.74	0.77	537.7	YES	NO	bb	bb	9.381
2	Total-tetrafurans	24.70	3.669e2	4.654e2	0.933	0.79	0.77	6.2	YES	NO	bd	bb	0.093

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.45	2.191e5	1.366e5	0.911	1.60	1.55	1563.3	YES	NO	bb	bb	49.831
2	12378-PeCDF	30.11	2.219e5	1.369e5	0.845	1.62	1.55	1550.1	YES	NO	bd	bb	49.980
3	12389-PECDF	32.48	1.443e3	9.411e2	0.844	1.53	1.55	8.8	YES	NO	bd	bb	0.332

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.09	1.271e5	1.042e5	1.187	1.22	1.24	1288.5	YES	NO	bd	bd	48.064
2	234678-HxCDF	36.07	1.562e5	1.228e5	1.229	1.27	1.24	1554.8	YES	NO	bb	bb	48.792
3	123678-HxCDF	35.21	1.705e5	1.381e5	1.248	1.23	1.24	1633.0	YES	NO	dd	dd	45.825
4	123478-HxCDF	35.08	1.564e5	1.233e5	1.182	1.27	1.24	1594.4	YES	NO	bd	bd	47.555

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.20	1.082e5	1.030e5	1.165	1.05	1.05	733.9	YES	NO	bb	bd	48.021
2	Total-heptafurans	39.18	4.546e2	4.340e2	1.185	1.05	1.05	8.1	YES	NO	dd	dd	0.179
3	1234678-HpCDF	38.94	1.335e5	1.293e5	1.204	1.03	1.05	1027.6	YES	NO	bd	bd	47.616

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:36 Pacific Standard Time

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.93	3.357e4	4.511e4	0.876	0.74	0.77	537.7	YES	NO	bb	bb	9.381
2	Total-tetrafurans	24.70	3.669e2	4.654e2	0.933	0.79	0.77	6.2	YES	NO	bd	bb	0.093
3	23478-PeCDF	31.45	2.191e5	1.366e5	0.911	1.60	1.55	1563.3	YES	NO	bb	bb	49.831
4	12378-PeCDF	30.11	2.219e5	1.369e5	0.845	1.62	1.55	1550.1	YES	NO	bd	bb	49.980
5	12389-PECDF	32.48	1.443e3	9.411e2	0.844	1.53	1.55	8.8	YES	NO	bd	bb	0.332
6	123789-HxCDF	37.09	1.271e5	1.042e5	1.187	1.22	1.24	1288.5	YES	NO	bd	bd	48.064
7	234678-HxCDF	36.07	1.562e5	1.228e5	1.229	1.27	1.24	1554.8	YES	NO	bb	bb	48.792
8	123678-HxCDF	35.21	1.705e5	1.381e5	1.248	1.23	1.24	1633.0	YES	NO	dd	dd	45.825
9	123478-HxCDF	35.08	1.564e5	1.233e5	1.182	1.27	1.24	1594.4	YES	NO	bd	bd	47.555
10	1234789-HpCDF	41.20	1.082e5	1.030e5	1.165	1.05	1.05	733.9	YES	NO	bb	bd	48.021
11	Total-heptafurans	39.18	4.546e2	4.340e2	1.185	1.05	1.05	8.1	YES	NO	dd	dd	0.179
12	1234678-HpCDF	38.94	1.335e5	1.293e5	1.204	1.03	1.05	1027.6	YES	NO	bd	bd	47.616
13	OCDF	45.52	1.498e5	1.679e5	1.186	0.89	0.89	1441.3	YES	NO	bd	bd	88.603

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.58	3.289e4	4.151e4	1.236	0.79	0.77	376.4	YES	NO	bb	bb	9.142

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.70	1.585e5	1.015e5	1.087	1.56	1.55	2040.4	YES	NO	bb	bb	49.202

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.68	1.151e5	9.374e4	0.985	1.23	1.24	1340.6	YES	NO	bb	bb	46.131
2	123678-HxCDD	36.29	1.222e5	1.031e5	1.021	1.19	1.24	1396.7	YES	NO	db	db	47.098
3	123478-HxCDD	36.18	1.152e5	9.585e4	0.987	1.20	1.24	1387.2	YES	NO	bd	bd	47.529

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.39	1.220e3	1.190e3	1.286	1.03	1.05	15.9	YES	NO	bb	bb	0.537
2	1234678-HpCDD	40.46	1.065e5	1.005e5	1.253	1.06	1.05	1284.0	YES	NO	bb	bd	47.316

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:36 Pacific Standard Time

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.58	3.289e4	4.151e4	1.236	0.79	0.77	376.4	YES	NO	bb	bb	9.142
2	123789-HxCDD	36.68	1.151e5	9.374e4	0.985	1.23	1.24	1340.6	YES	NO	bb	bb	46.131
3	123678-HxCDD	36.29	1.222e5	1.031e5	1.021	1.19	1.24	1396.7	YES	NO	db	db	47.098
4	123478-HxCDD	36.18	1.152e5	9.585e4	0.987	1.20	1.24	1387.2	YES	NO	bd	bd	47.529
5	12378-PeCDD	31.70	1.585e5	1.015e5	1.087	1.56	1.55	2040.4	YES	NO	bb	bb	49.202
6	1234679-HPCDD	39.39	1.220e3	1.190e3	1.286	1.03	1.05	15.9	YES	NO	bb	bb	0.537
7	OCDD	45.28	1.391e5	1.581e5	1.103	0.88	0.89	1077.1	YES	NO	bb	bb	89.186
8	1234678-HpCDD	40.46	1.065e5	1.005e5	1.253	1.06	1.05	1284.0	YES	NO	bb	bd	47.316

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.93	3.357e4	4.511e4	0.876	0.74	0.77	537.7	YES	NO	bb	bb	9.381
2	Total-tetrafurans	24.70	3.669e2	4.654e2	0.933	0.79	0.77	6.2	YES	NO	bd	bb	0.093
3	23478-PeCDF	31.45	2.191e5	1.366e5	0.911	1.60	1.55	1563.3	YES	NO	bb	bb	49.831
4	12378-PeCDF	30.11	2.219e5	1.369e5	0.845	1.62	1.55	1550.1	YES	NO	bd	bb	49.980
5	12389-PECDF	32.48	1.443e3	9.411e2	0.844	1.53	1.55	8.8	YES	NO	bd	bb	0.332
6	123789-HxCDF	37.09	1.271e5	1.042e5	1.187	1.22	1.24	1288.5	YES	NO	bd	bd	48.064
7	234678-HxCDF	36.07	1.562e5	1.228e5	1.229	1.27	1.24	1554.8	YES	NO	bb	bb	48.792
8	123678-HxCDF	35.21	1.705e5	1.381e5	1.248	1.23	1.24	1633.0	YES	NO	dd	dd	45.825
9	123478-HxCDF	35.08	1.564e5	1.233e5	1.182	1.27	1.24	1594.4	YES	NO	bd	bd	47.555
10	1234789-HpCDF	41.20	1.082e5	1.030e5	1.165	1.05	1.05	733.9	YES	NO	bb	bd	48.021
11	Total-heptafurans	39.18	4.546e2	4.340e2	1.185	1.05	1.05	8.1	YES	NO	dd	dd	0.179
12	1234678-HpCDF	38.94	1.335e5	1.293e5	1.204	1.03	1.05	1027.6	YES	NO	bd	bd	47.616
13	OCDF	45.52	1.498e5	1.679e5	1.186	0.89	0.89	1441.3	YES	NO	bd	bd	88.603
14	2378-TCDD	26.58	3.289e4	4.151e4	1.236	0.79	0.77	376.4	YES	NO	bb	bb	9.142
15	123789-HxCDD	36.68	1.151e5	9.374e4	0.985	1.23	1.24	1340.6	YES	NO	bb	bb	46.131
16	123678-HxCDD	36.29	1.222e5	1.031e5	1.021	1.19	1.24	1396.7	YES	NO	db	db	47.098
17	123478-HxCDD	36.18	1.152e5	9.585e4	0.987	1.20	1.24	1387.2	YES	NO	bd	bd	47.529
18	12378-PeCDD	31.70	1.585e5	1.015e5	1.087	1.56	1.55	2040.4	YES	NO	bb	bb	49.202
19	1234679-HPCDD	39.39	1.220e3	1.190e3	1.286	1.03	1.05	15.9	YES	NO	bb	bb	0.537
20	OCDD	45.28	1.391e5	1.581e5	1.103	0.88	0.89	1077.1	YES	NO	bb	bb	89.186
21	1234678-HpCDD	40.46	1.065e5	1.005e5	1.253	1.06	1.05	1284.0	YES	NO	bb	bd	47.316

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:36 Pacific Standard Time

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	25.04	1.308e4					1.7	NO		bb		
2	FUNCTION1 PFK	24.76	1.583e4					1.4	NO		bb		
3	FUNCTION1 PFK	24.69	6.982e3					0.9	NO		bb		
4	FUNCTION1 PFK	24.39	1.324e5					3.2	YES		db		
5	FUNCTION1 PFK	24.16	3.507e4					2.3	NO		bd		
6	FUNCTION1 PFK	23.77	7.564e3					1.0	NO		bb		
7	FUNCTION1 PFK	23.15	2.740e4					2.0	NO		bb		
8	FUNCTION1 PFK	22.69	5.470e3					0.9	NO		bb		
9	FUNCTION1 PFK	21.96	2.179e3					0.6	NO		bb		
10	FUNCTION1 PFK	21.42	1.880e4					1.5	NO		bb		
11	FUNCTION1 PFK	21.24	8.998e4					3.5	YES		db		
12	FUNCTION1 PFK	21.14	3.584e4					3.8	YES		bd		
13	FUNCTION1 PFK	28.16	9.993e3					1.3	NO		bb		
14	FUNCTION1 PFK	27.67	3.173e4					2.4	NO		bb		
15	FUNCTION1 PFK	27.43	2.552e4					2.5	NO		bb		
16	FUNCTION1 PFK	27.36	1.993e4					1.7	NO		bb		
17	FUNCTION1 PFK	26.95	8.842e3					1.2	NO		db		
18	FUNCTION1 PFK	26.81	3.621e4					1.9	NO		bd		
19	FUNCTION1 PFK	26.47	5.814e3					0.8	NO		bb		
20	FUNCTION1 PFK	26.18	9.468e3					1.2	NO		bb		
21	FUNCTION1 PFK	25.80	2.908e4					2.1	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

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ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.07	1.014e4					1.4	NO		bd		0.000
2	FUNCTION2 PFK	28.99	1.278e4					1.9	NO		bb		0.000
3	FUNCTION2 PFK	28.91	9.023e3					0.7	NO		bb		0.000
4	FUNCTION2 PFK	28.77	3.601e3					0.7	NO		bb		0.000
5	FUNCTION2 PFK	28.68	1.177e3					0.4	NO		bb		0.000
6	FUNCTION2 PFK	28.33	3.280e4					1.7	NO		bb		0.000
7	FUNCTION2 PFK	31.06	2.786e3					0.6	NO		bb		0.000
8	FUNCTION2 PFK	30.99	1.662e3					0.5	NO		bb		0.000
9	FUNCTION2 PFK	30.94	1.824e3					0.6	NO		bb		0.000
10	FUNCTION2 PFK	30.58	1.521e4					1.5	NO		bb		0.000
11	FUNCTION2 PFK	30.52	2.371e4					1.3	NO		db		0.000
12	FUNCTION2 PFK	30.43	1.599e4					1.8	NO		bd		0.000
13	FUNCTION2 PFK	30.14	8.167e3					1.3	NO		db		0.000
14	FUNCTION2 PFK	30.11	2.323e4					1.8	NO		bd		0.000
15	FUNCTION2 PFK	30.02	2.372e4					1.7	NO		bb		0.000
16	FUNCTION2 PFK	29.83	6.350e3					1.0	NO		bb		0.000
17	FUNCTION2 PFK	29.73	2.486e4					1.7	NO		bb		0.000
18	FUNCTION2 PFK	29.67	5.229e3					0.8	NO		db		0.000
19	FUNCTION2 PFK	29.62	1.316e4					1.4	NO		dd		0.000
20	FUNCTION2 PFK	29.47	6.509e4					2.7	NO		bd		0.000
21	FUNCTION2 PFK	29.19	1.389e4					1.6	NO		bb		0.000
22	FUNCTION2 PFK	29.14	1.419e4					1.6	NO		db		0.000
23	FUNCTION2 PFK	32.74	3.332e4					2.6	NO		bb		0.000
24	FUNCTION2 PFK	32.64	1.226e4					1.3	NO		bb		0.000
25	FUNCTION2 PFK	32.39	4.529e3					0.7	NO		bb		0.000
26	FUNCTION2 PFK	32.20	3.110e3					0.7	NO		bb		0.000
27	FUNCTION2 PFK	31.95	1.621e4					1.8	NO		bb		0.000
28	FUNCTION2 PFK	31.86	1.217e4					1.5	NO		bb		0.000
29	FUNCTION2 PFK	31.62	7.467e3					1.1	NO		db		0.000
30	FUNCTION2 PFK	31.57	6.748e3					1.0	NO		bd		0.000
31	FUNCTION2 PFK	31.33	4.208e3					0.7	NO		bb		0.000
32	FUNCTION2 PFK	31.27	3.683e3					0.8	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:36 Pacific Standard Time

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	33.64	3.962e6					66.4	YES		dd		0.000
2	FUNCTION3 PFK	33.56	1.119e6					70.1	YES		dd		0.000
3	FUNCTION3 PFK	33.42	2.491e6					79.6	YES		dd		0.000
4	FUNCTION3 PFK	33.35	2.336e6					81.5	YES		dd		0.000
5	FUNCTION3 PFK	33.13	6.440e6					93.6	YES		bd		0.000
6	FUNCTION3 PFK	36.48	4.824e3					1.0	NO		bb		0.000
7	FUNCTION3 PFK	36.39	7.706e3					1.3	NO		bb		0.000
8	FUNCTION3 PFK	35.85	6.779e3					1.2	NO		db		0.000
9	FUNCTION3 PFK	35.80	1.037e4					1.8	NO		bd		0.000
10	FUNCTION3 PFK	35.76	1.416e3					0.6	NO		bb		0.000
11	FUNCTION3 PFK	35.36	1.567e4					1.4	NO		bb		0.000
12	FUNCTION3 PFK	35.23	1.900e4					1.5	NO		bb		0.000
13	FUNCTION3 PFK	35.02	9.510e3					1.4	NO		bb		0.000
14	FUNCTION3 PFK	34.93	4.678e3					1.1	NO		bb		0.000
15	FUNCTION3 PFK	34.80	1.636e4					2.5	NO		db		0.000
16	FUNCTION3 PFK	34.73	6.307e4					7.4	YES		dd		0.000
17	FUNCTION3 PFK	34.72	1.103e6					7.4	YES		dd		0.000
18	FUNCTION3 PFK	34.29	8.788e5					31.8	YES		dd		0.000
19	FUNCTION3 PFK	34.13	1.024e6					39.3	YES		dd		0.000
20	FUNCTION3 PFK	34.06	5.957e5					43.7	YES		dd		0.000
21	FUNCTION3 PFK	33.96	9.823e5					49.0	YES		dd		0.000
22	FUNCTION3 PFK	37.16	7.681e3					1.5	NO		bb		0.000
23	FUNCTION3 PFK	37.05	3.990e3					1.0	NO		bb		0.000
24	FUNCTION3 PFK	36.82	1.365e3					0.6	NO		bb		0.000
25	FUNCTION3 PFK	36.77	9.735e2					0.4	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:36 Pacific Standard Time

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.73	6.587e4					4.6	YES		db		
2	FUNCTION4 PFK	39.50	7.183e5					14.2	YES		dd		
3	FUNCTION4 PFK	39.31	1.828e6					21.9	YES		dd		
4	FUNCTION4 PFK	39.00	1.299e6					34.6	YES		dd		
5	FUNCTION4 PFK	38.95	4.122e5					35.4	YES		dd		
6	FUNCTION4 PFK	38.81	1.637e6					42.3	YES		dd		
7	FUNCTION4 PFK	38.75	1.752e6					44.5	YES		dd		
8	FUNCTION4 PFK	38.46	3.323e6					56.6	YES		dd		
9	FUNCTION4 PFK	38.37	5.226e5					59.8	YES		dd		
10	FUNCTION4 PFK	38.24	2.599e6					65.5	YES		dd		
11	FUNCTION4 PFK	38.09	3.237e6					71.3	YES		bd		
12	FUNCTION4 PFK	42.76	1.028e4					1.5	NO		db		
13	FUNCTION4 PFK	42.72	6.165e3					1.1	NO		bd		
14	FUNCTION4 PFK	42.67	2.858e3					1.0	NO		bb		
15	FUNCTION4 PFK	42.63	1.131e3					0.4	NO		bb		
16	FUNCTION4 PFK	42.53	5.848e3					0.8	NO		bb		
17	FUNCTION4 PFK	42.33	8.287e3					1.1	NO		bb		
18	FUNCTION4 PFK	42.16	1.111e4					1.5	NO		db		
19	FUNCTION4 PFK	42.13	1.189e4					1.5	NO		bd		
20	FUNCTION4 PFK	42.08	1.131e3					0.4	NO		bb		
21	FUNCTION4 PFK	41.81	3.242e3					0.6	NO		bb		
22	FUNCTION4 PFK	41.51	4.930e3					0.8	NO		bb		
23	FUNCTION4 PFK	41.00	3.074e3					0.6	NO		bb		
24	FUNCTION4 PFK	40.75	1.160e3					0.4	NO		bb		
25	FUNCTION4 PFK	40.70	1.184e3					0.4	NO		bb		
26	FUNCTION4 PFK	40.06	1.649e3					0.6	NO		bb		
27	FUNCTION4 PFK	40.01	1.837e3					0.6	NO		bb		
28	FUNCTION4 PFK	42.81	9.583e3					0.6	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:36 Pacific Standard Time

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk**PFK5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.90	6.855e3					1.6	NO		bb		
2	FUNCTION5 PFK	44.83	2.215e3					1.1	NO		bb		
3	FUNCTION5 PFK	44.79	3.153e3					1.2	NO		bb		
4	FUNCTION5 PFK	44.71	3.405e3					1.1	NO		bb		
5	FUNCTION5 PFK	44.49	2.280e3					1.0	NO		bb		
6	FUNCTION5 PFK	44.20	2.414e3					1.1	NO		bb		
7	FUNCTION5 PFK	44.11	1.550e3					0.9	NO		bb		
8	FUNCTION5 PFK	43.92	5.698e3					1.3	NO		db		
9	FUNCTION5 PFK	43.85	5.313e3					1.2	NO		dd		
10	FUNCTION5 PFK	43.81	4.217e3					1.4	NO		bd		
11	FUNCTION5 PFK	43.61	3.902e3					1.5	NO		bb		
12	FUNCTION5 PFK	43.25	7.726e2					0.6	NO		bb		
13	FUNCTION5 PFK	43.16	1.952e3					0.8	NO		db		
14	FUNCTION5 PFK	43.14	2.770e3					1.1	NO		bd		
15	FUNCTION5 PFK	46.37	3.313e3					1.2	NO		bb		
16	FUNCTION5 PFK	46.08	1.815e3					0.9	NO		bb		
17	FUNCTION5 PFK	46.02	1.489e3					0.7	NO		bb		
18	FUNCTION5 PFK	45.95	5.611e3					1.5	NO		db		
19	FUNCTION5 PFK	45.88	9.296e2					0.6	NO		bd		
20	FUNCTION5 PFK	45.72	5.090e3					1.2	NO		bb		
21	FUNCTION5 PFK	45.29	2.372e3					1.0	NO		bb		
22	FUNCTION5 PFK	45.14	9.383e2					0.5	NO		bb		
23	FUNCTION5 PFK	45.10	2.381e3					1.0	NO		bb		
24	FUNCTION5 PFK	45.00	6.998e3					2.0	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	24.93	1.474e2					2.8	NO		bd		0.000
2	FUNCTION1 HXCD...	24.46	9.053e1					2.1	NO		bb		0.000
3	FUNCTION1 HXCD...	23.08	7.700e1					2.7	NO		bb		0.000
4	FUNCTION1 HXCD...	22.50	1.025e2					2.4	NO		bb		0.000
5	FUNCTION1 HXCD...	21.16	1.399e2					1.6	NO		bb		0.000
6	FUNCTION1 HXCD...	25.21	7.026e1					2.5	NO		db		0.000
7	FUNCTION1 HXCD...	25.14	1.777e2					2.6	NO		dd		0.000

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.87	1.019e2					2.9	NO		bb		0.000
2	FUNCTION2 HPCD...	30.51	2.229e2					2.5	NO		bb		0.000
3	FUNCTION2 HPCD...	30.13	1.083e2					2.9	NO		db		0.000
4	FUNCTION2 HPCD...	30.10	9.243e1					2.9	NO		bd		0.000
5	FUNCTION2 HPCD...	28.69	7.953e1					2.0	NO		db		0.000
6	FUNCTION2 HPCD...	28.63	1.214e2					3.4	YES		bd		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	37.61	8.026e1					2.6	NO		bb		0.000
2	FUNCTION3 OCDPE	36.68	2.079e2					3.3	YES		db		0.000
3	FUNCTION3 OCDPE	36.49	7.265e1					2.2	NO		bd		0.000
4	FUNCTION3 OCDPE	36.16	7.751e1					2.0	NO		bb		0.000
5	FUNCTION3 OCDPE	35.19	7.184e1					3.1	YES		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	39.79	7.291e1					2.3	NO		bb		0.000
2	FUNCTION4 NCDPE	39.51	1.159e2					1.4	NO		bb		0.000
3	FUNCTION4 NCDPE	39.21	7.637e1					1.8	NO		bb		0.000

ETHERS6

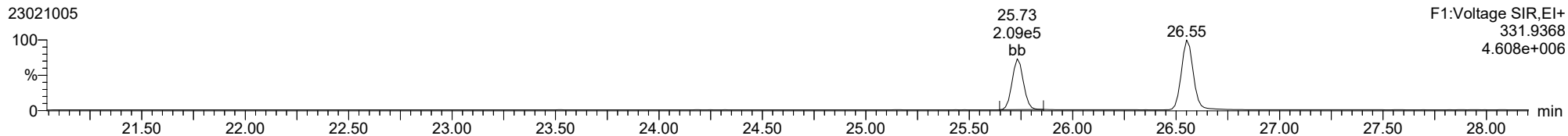
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1	FUNCTION5 DCDPE	43.99	8.804e1					3.0	NO		bb		0.000
2	FUNCTION5 DCDPE	43.61	7.206e1					3.6	YES		bb		0.000

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

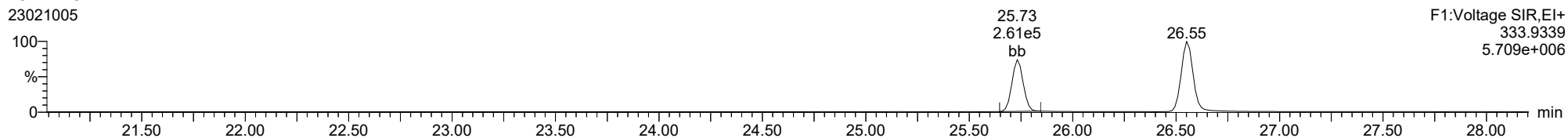
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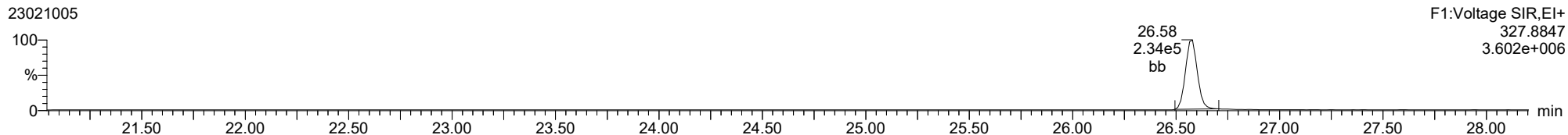
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23021005



37CL-2378-TCDD

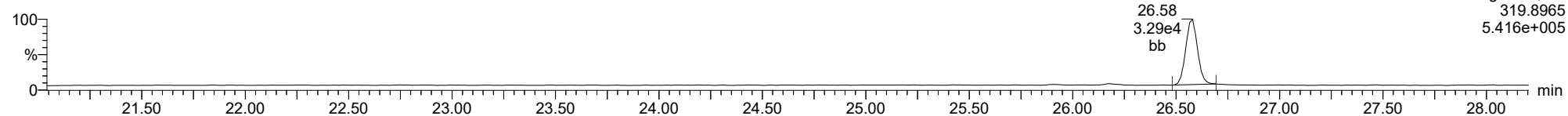
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ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

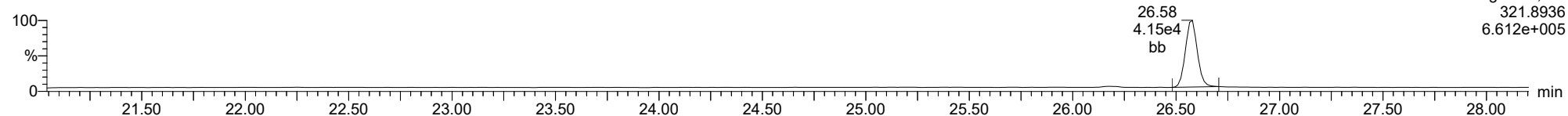
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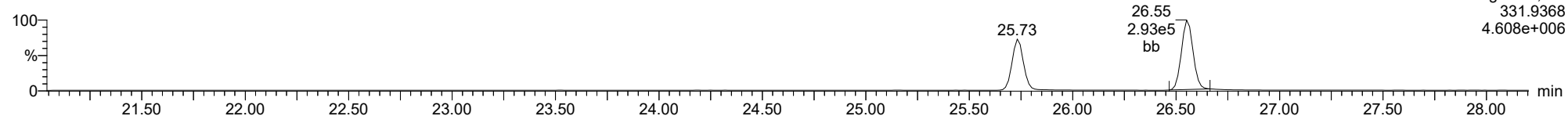
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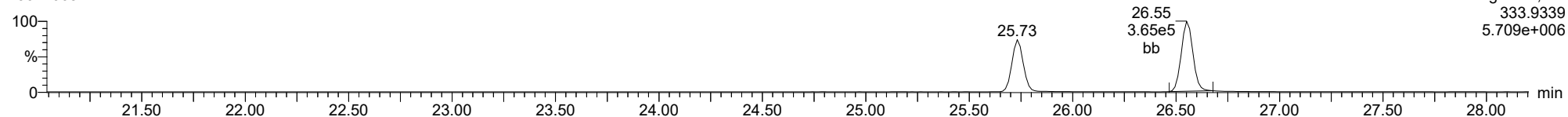
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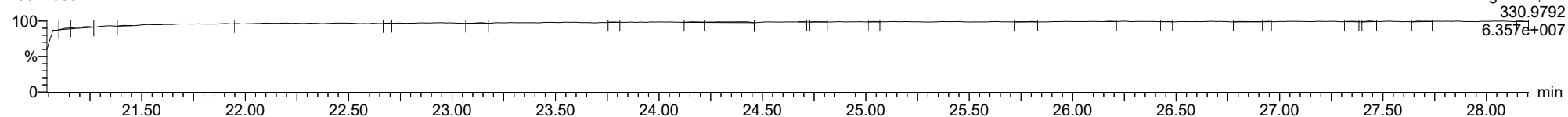
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23021005



FUNCTION1 PFK

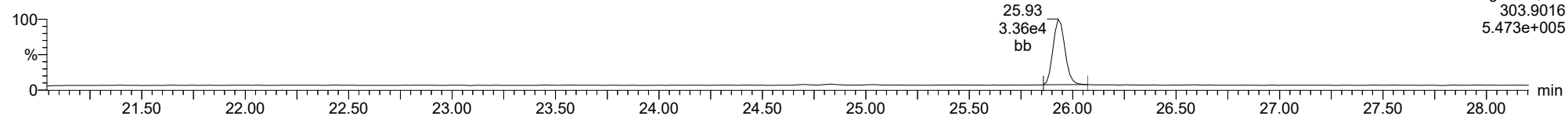
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ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

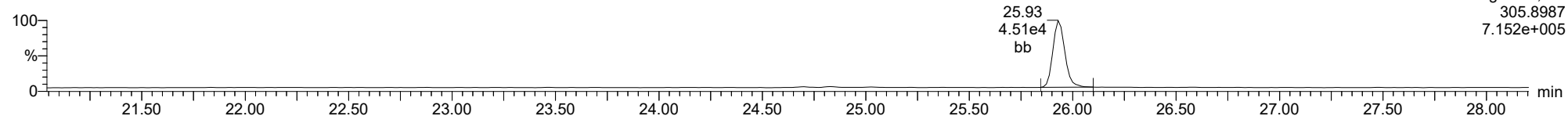
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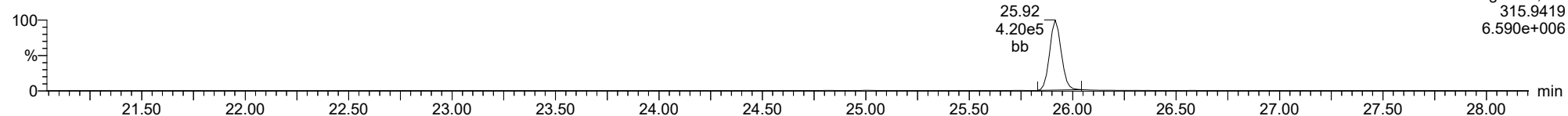
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23021005



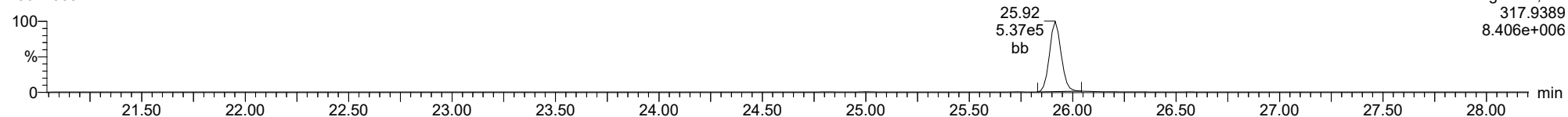
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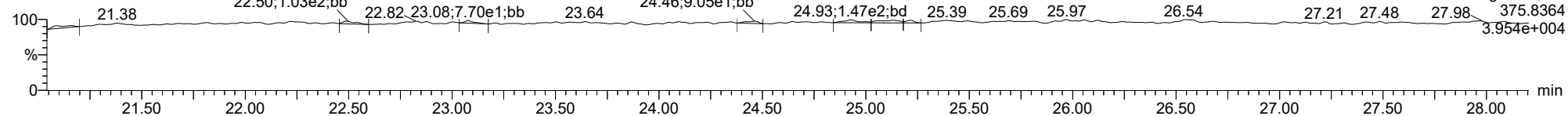
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23021005



FUNCTION1 HXCDPE

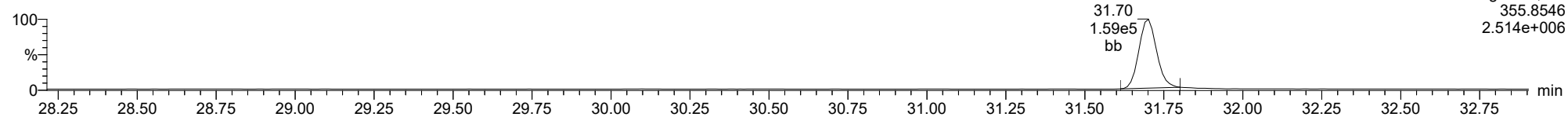
23021005



ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

12378-PeCDD

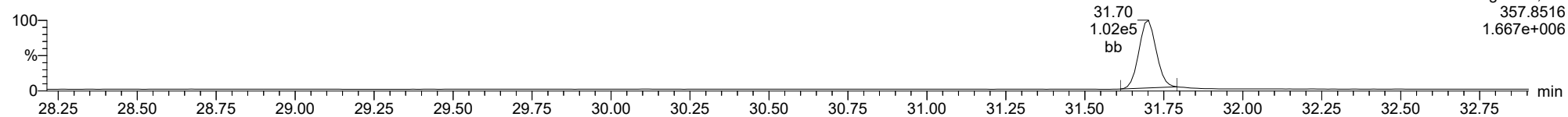
23021005



F2:Voltage SIR,EI+
355.8546
2.514e+006

12378-PeCDD

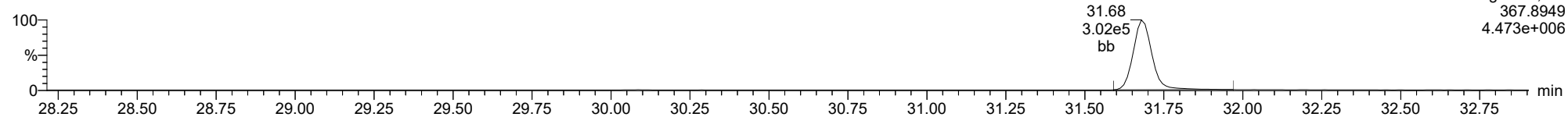
23021005



F2:Voltage SIR,EI+
357.8516
1.667e+006

13C-12378-PeCDD

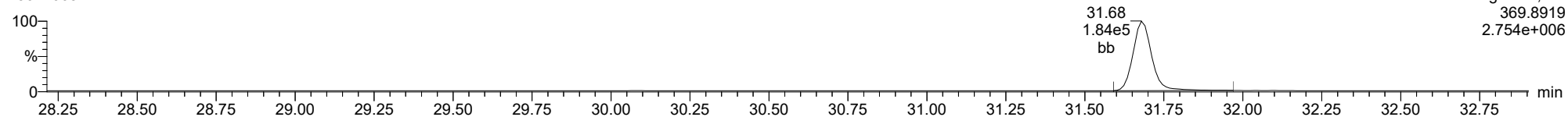
23021005



F2:Voltage SIR,EI+
367.8949
4.473e+006

13C-12378-PeCDD

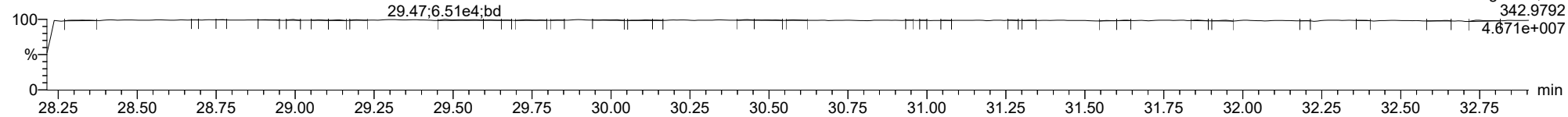
23021005



F2:Voltage SIR,EI+
369.8919
2.754e+006

FUNCTION2 PFK

23021005

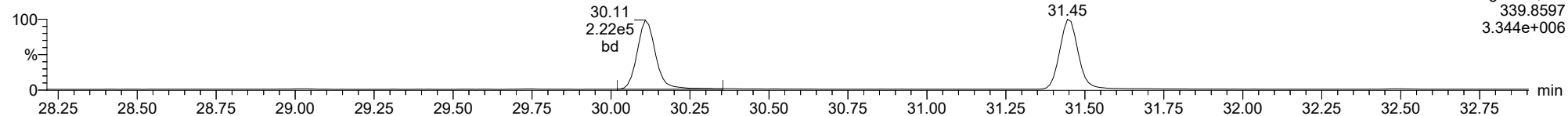


F2:Voltage SIR,EI+
342.9792
4.671e+007

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

12378-PeCDF

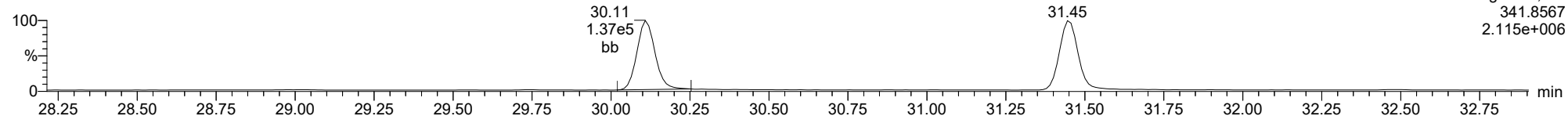
23021005



F2:Voltage SIR,EI+
339.8597
3.344e+006

12378-PeCDF

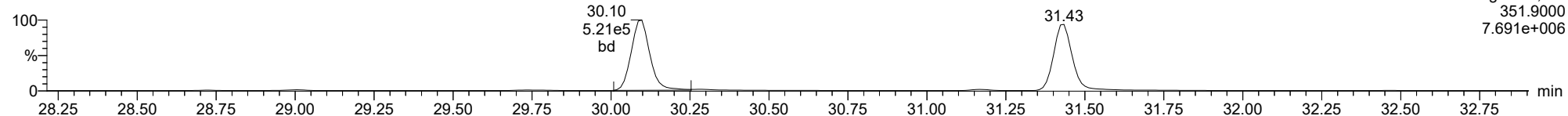
23021005



F2:Voltage SIR,EI+
341.8567
2.115e+006

13C-12378-PeCDF

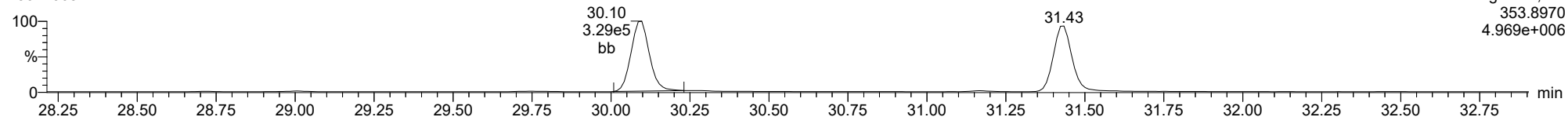
23021005



F2:Voltage SIR,EI+
351.9000
7.691e+006

13C-12378-PeCDF

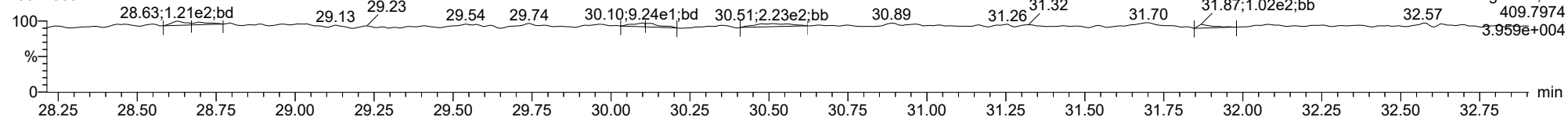
23021005



F2:Voltage SIR,EI+
353.8970
4.969e+006

FUNCTION2 HPCDPE

23021005

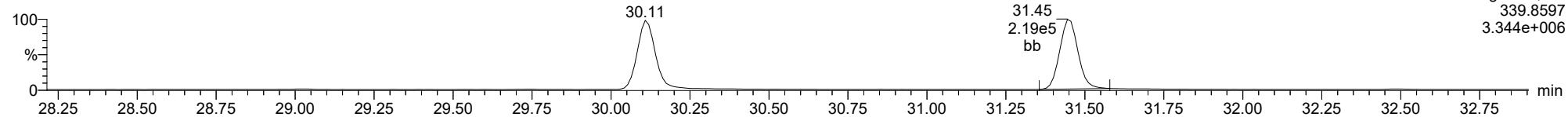


F2:Voltage SIR,EI+
409.7974
3.959e+004

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

23478-PeCDF

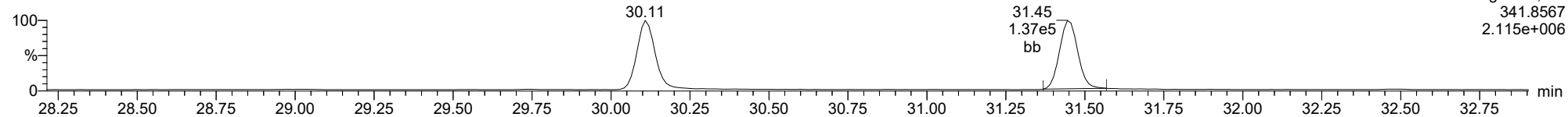
23021005



F2:Voltage SIR,EI+
339.8597
3.344e+006

23478-PeCDF

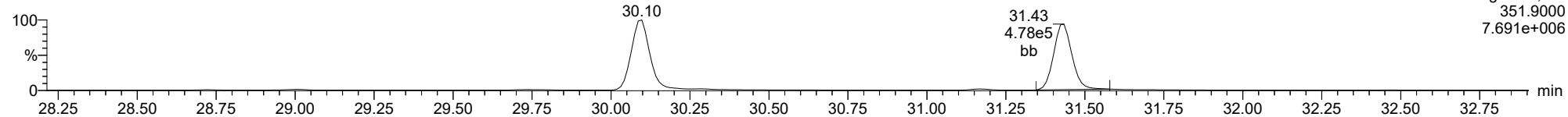
23021005



F2:Voltage SIR,EI+
341.8567
2.115e+006

13C-23478-PeCDF

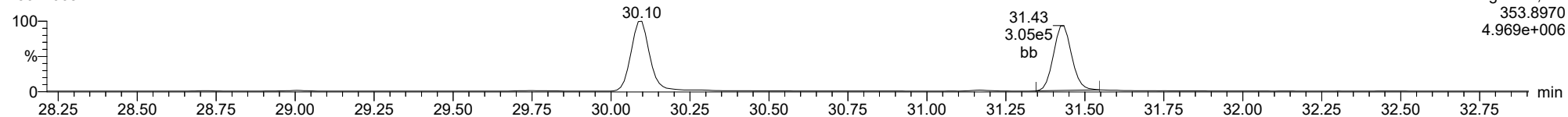
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F2:Voltage SIR,EI+
351.9000
7.691e+006

13C-23478-PeCDF

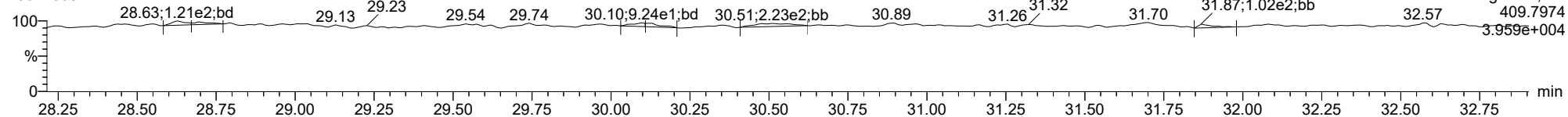
23021005



F2:Voltage SIR,EI+
353.8970
4.969e+006

FUNCTION2 HPCDPE

23021005

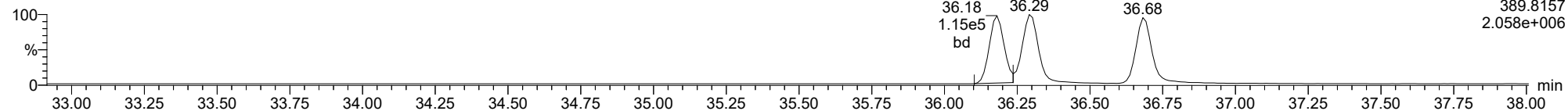


F2:Voltage SIR,EI+
409.7974
3.959e+004

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

123478-HxCDD

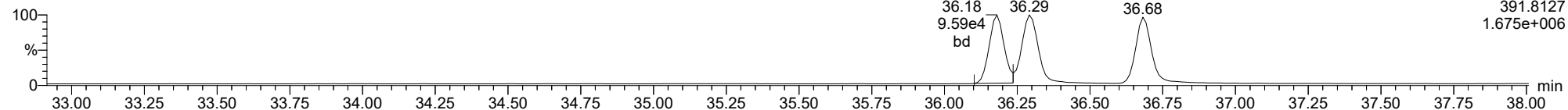
23021005



F3:Voltage SIR,EI+
389.8157
2.058e+006

123478-HxCDD

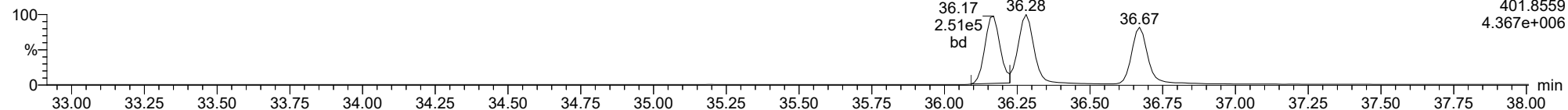
23021005



F3:Voltage SIR,EI+
391.8127
1.675e+006

13C-123478-HxCDD

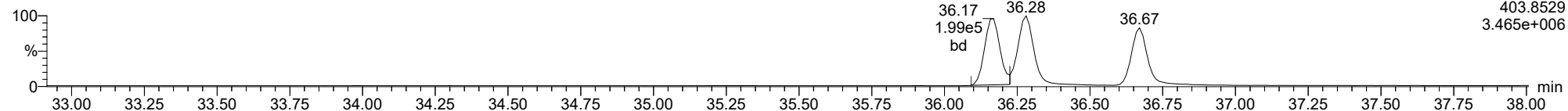
23021005



F3:Voltage SIR,EI+
401.8559
4.367e+006

13C-123478-HxCDD

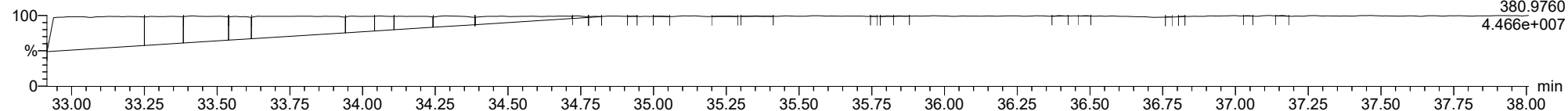
23021005



F3:Voltage SIR,EI+
403.8529
3.465e+006

FUNCTION3 PFK

23021005

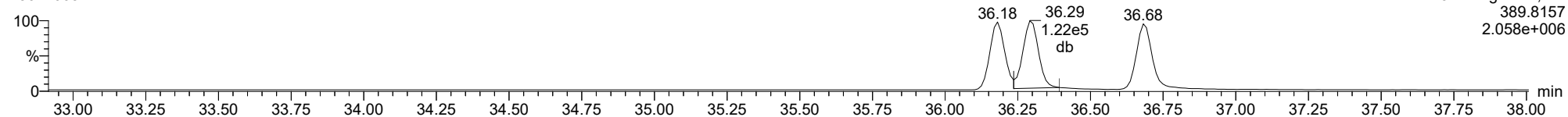


F3:Voltage SIR,EI+
380.9760
4.466e+007

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

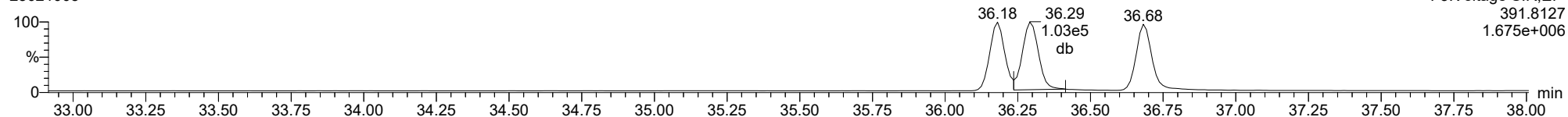
123678-HxCDD

23021005



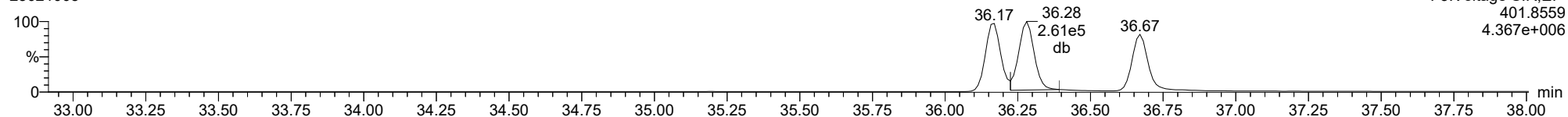
123678-HxCDD

23021005



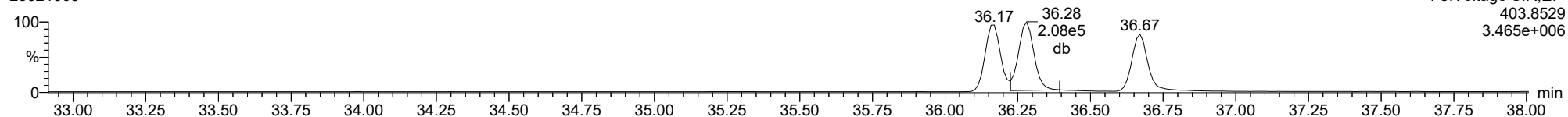
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23021005



13C-123678-HxCDD

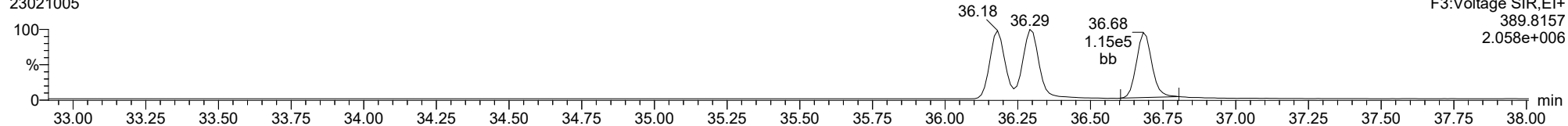
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ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

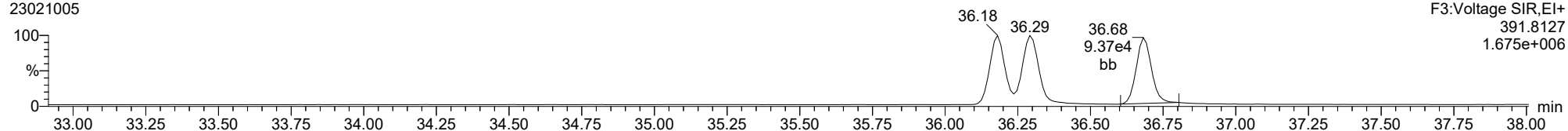
123789-HxCDD

23021005



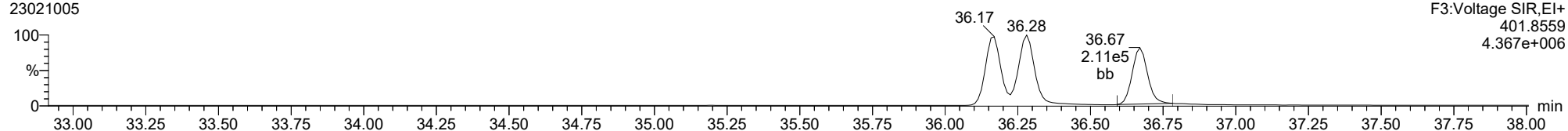
123789-HxCDD

23021005



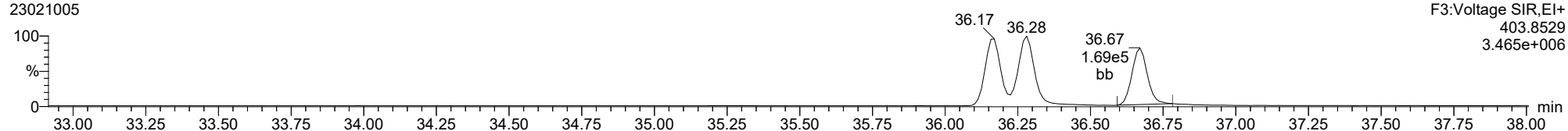
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23021005



13C-123789-HxCDD

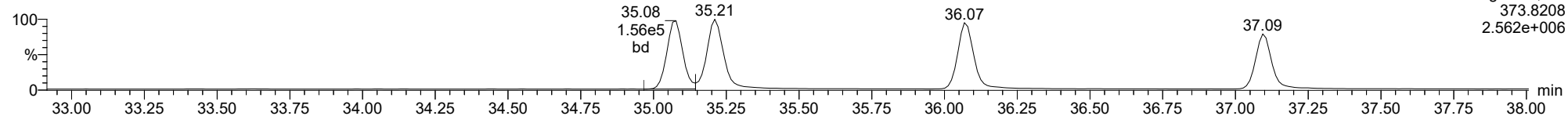
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ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

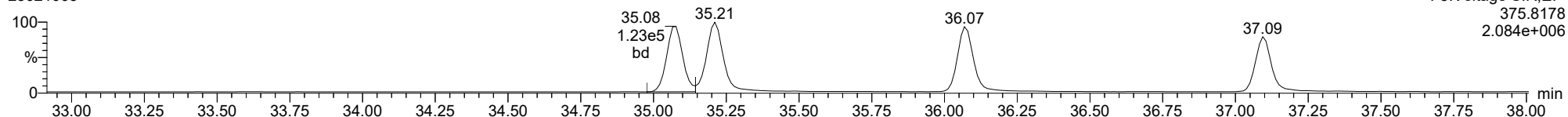
123478-HxCDF

23021005



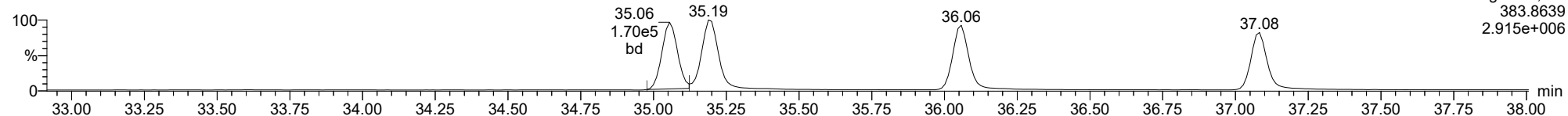
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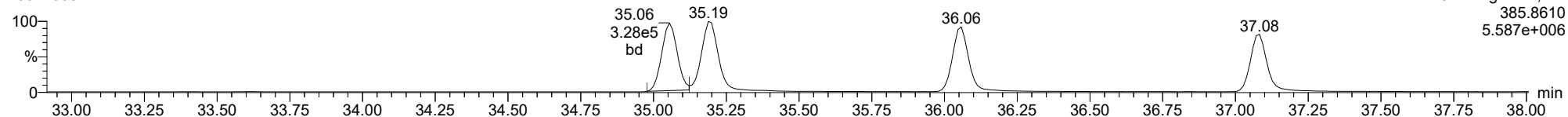
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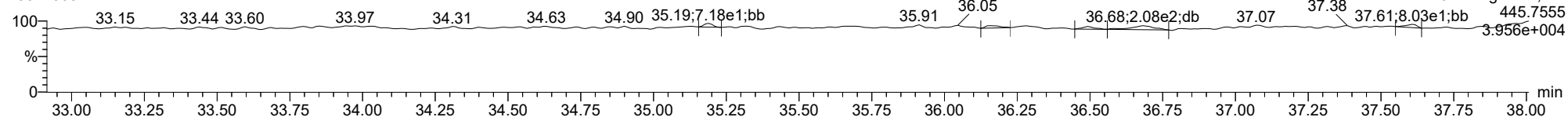
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23021005



FUNCTION3 OCDPE

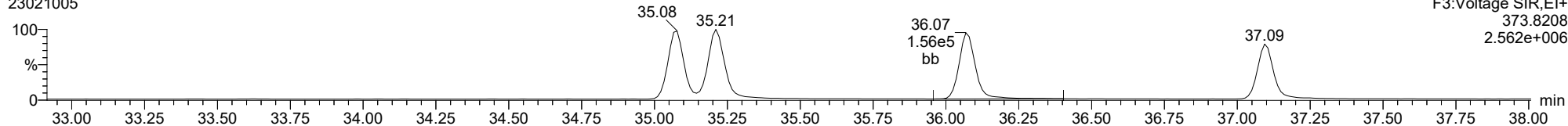
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ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

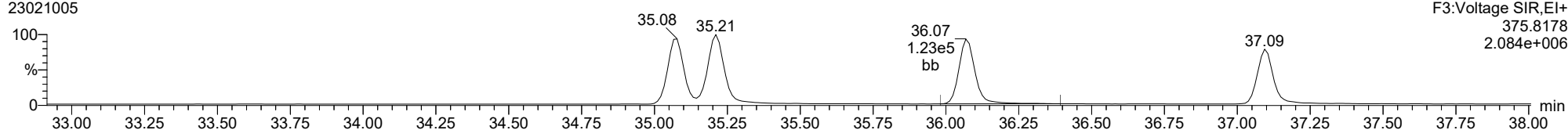
234678-HxCDF

23021005



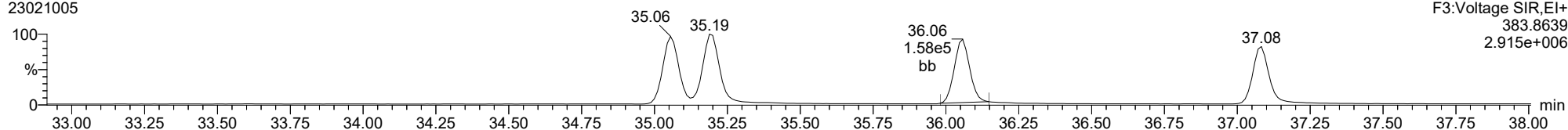
234678-HxCDF

23021005



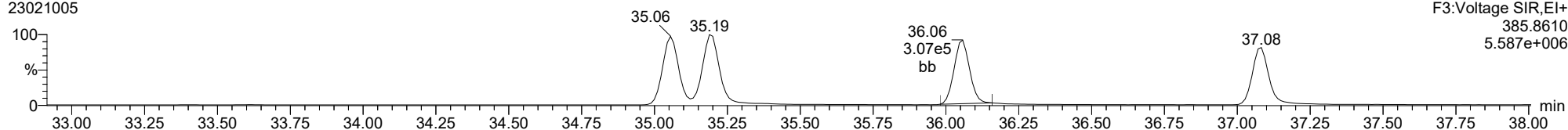
13C-234678-HxCDF

23021005



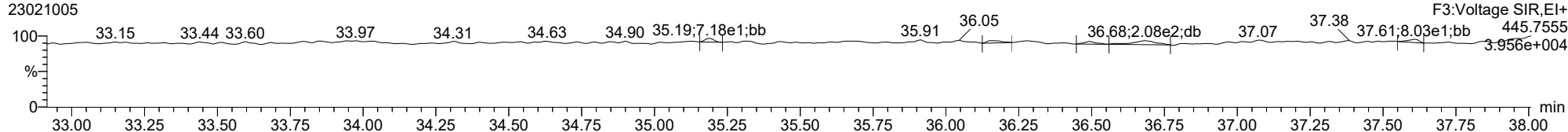
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23021005



FUNCTION3 OCDPE

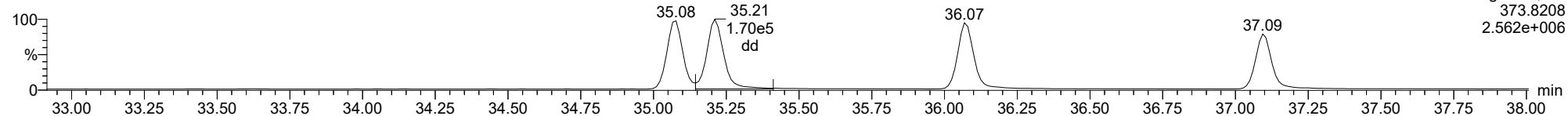
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ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

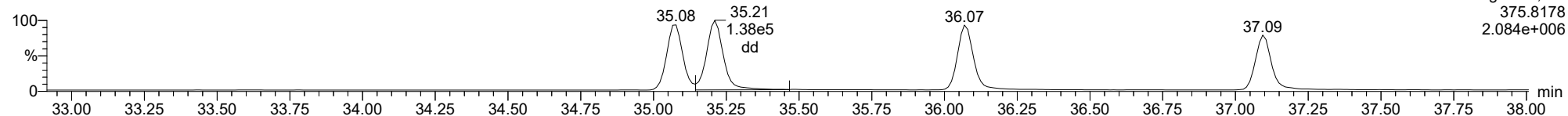
123678-HxCDF

23021005



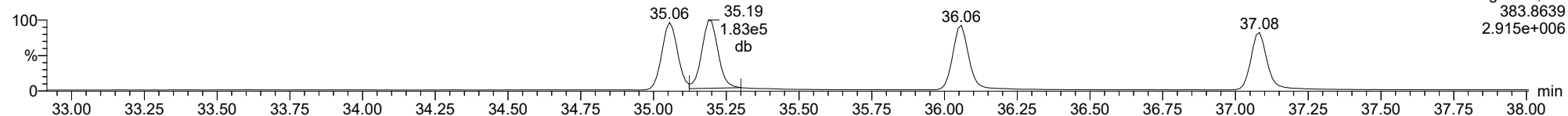
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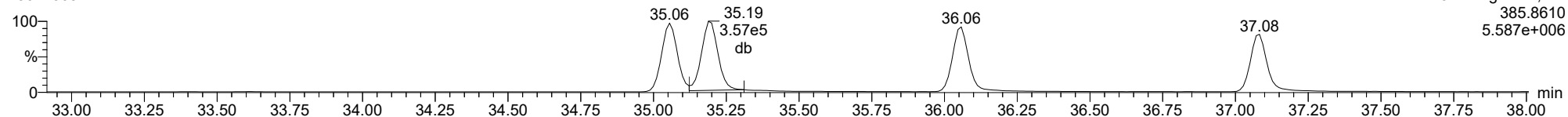
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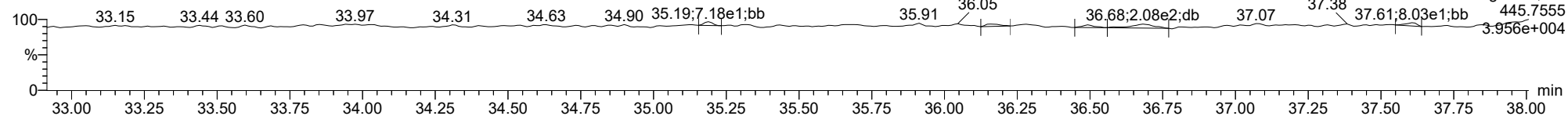
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FUNCTION3 OCDPE

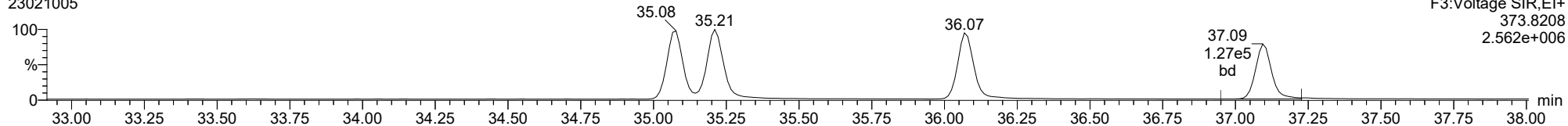
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ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

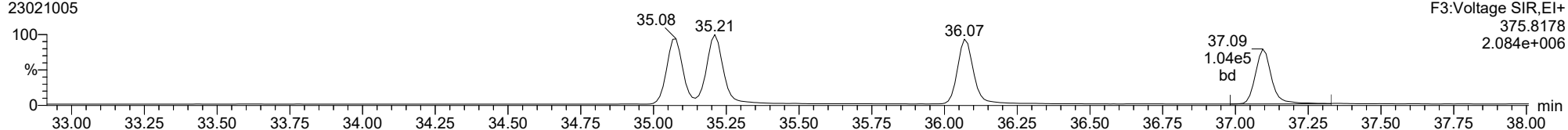
123789-HxCDF

23021005



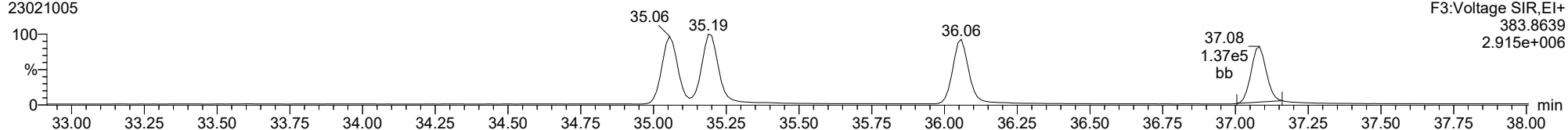
123789-HxCDF

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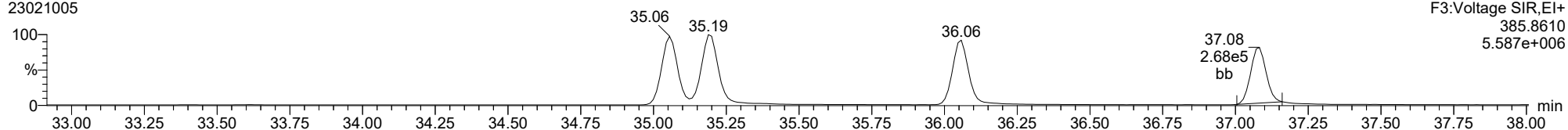
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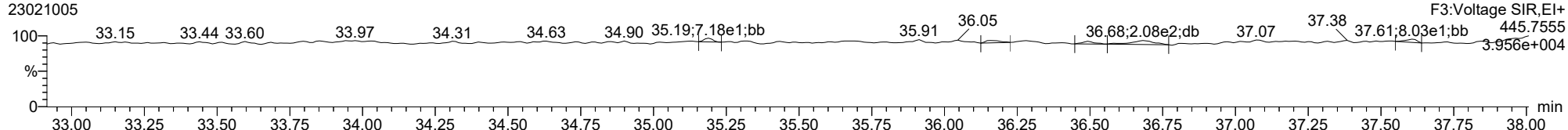
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23021005



FUNCTION3 OCDPE

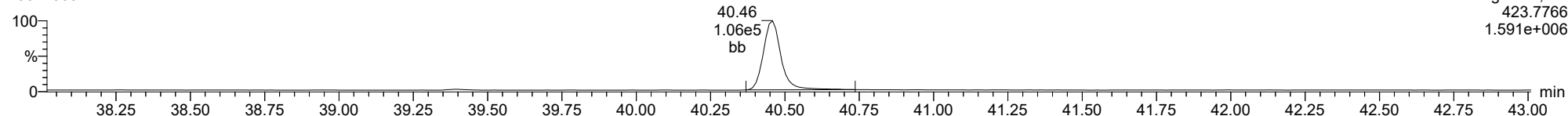
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ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

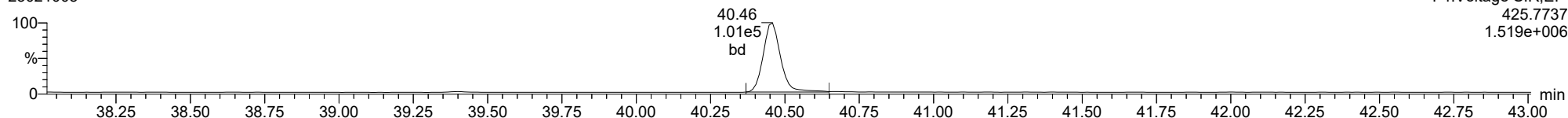
1234678-HpCDD

23021005



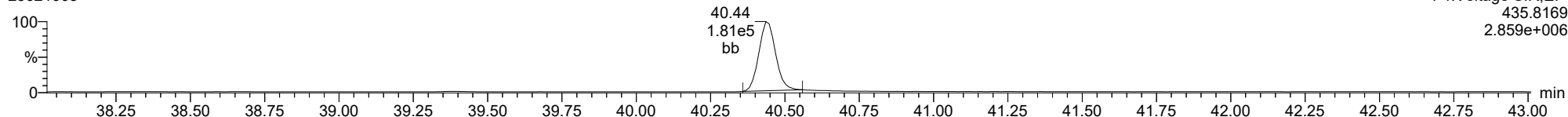
1234678-HpCDD

23021005



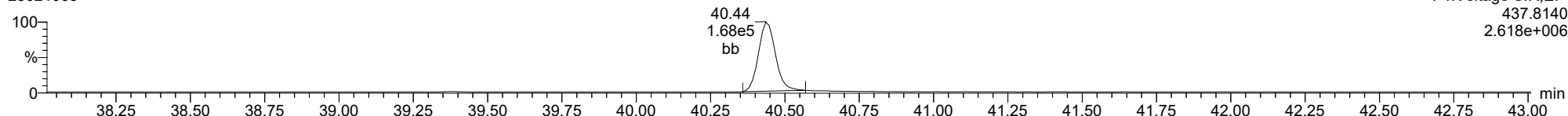
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23021005



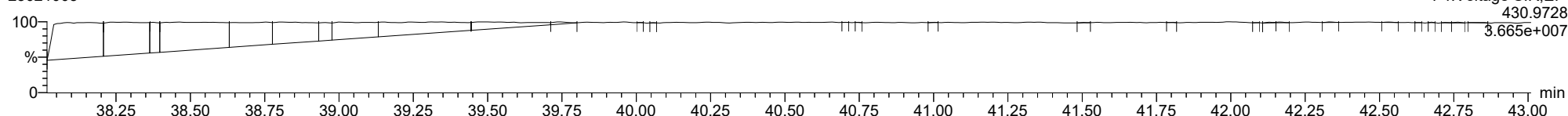
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23021005



FUNCTION4 PFK

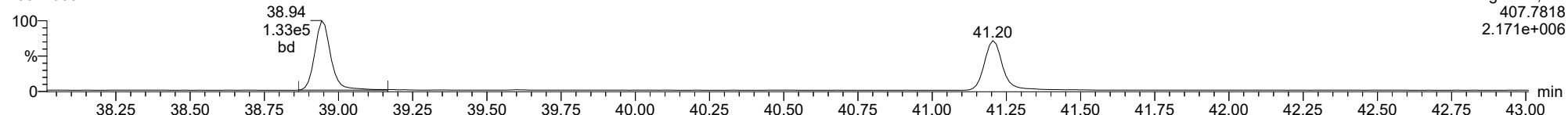
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ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF

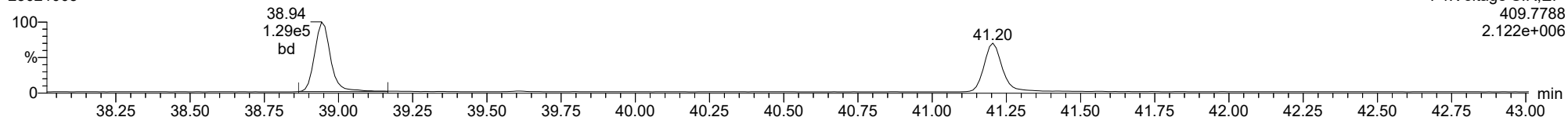
23021005



F4:Voltage SIR,EI+
407.7818
2.171e+006

1234678-HpCDF

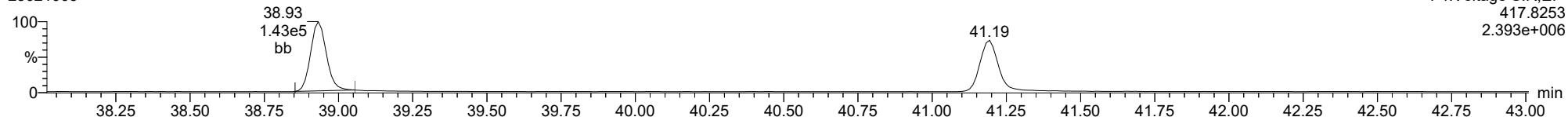
23021005



F4:Voltage SIR,EI+
409.7788
2.122e+006

13C-1234678-HpCDF

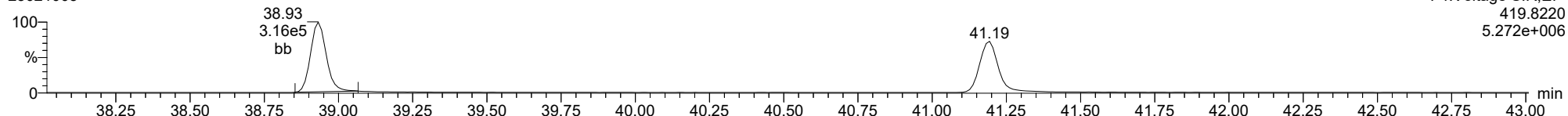
23021005



F4:Voltage SIR,EI+
417.8253
2.393e+006

13C-1234678-HpCDF

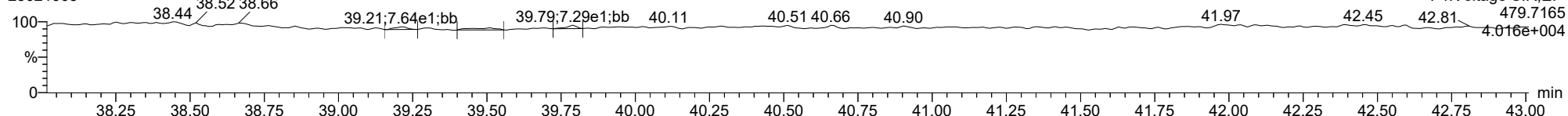
23021005



F4:Voltage SIR,EI+
419.8220
5.272e+006

FUNCTION4 NCDPE

23021005

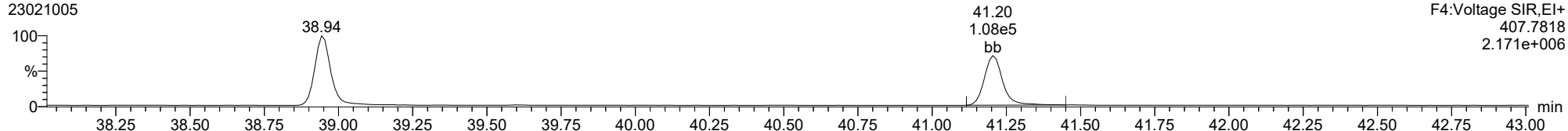


F4:Voltage SIR,EI+
479.7165
4.016e+004

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

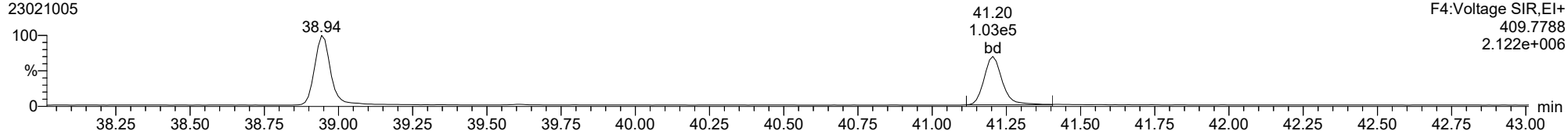
23021005



F4:Voltage SIR,EI+
407.7818
2.171e+006

1234789-HpCDF

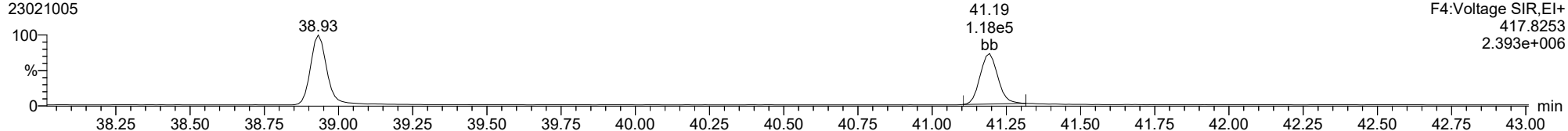
23021005



F4:Voltage SIR,EI+
409.7788
2.122e+006

13C-1234789-HpCDF

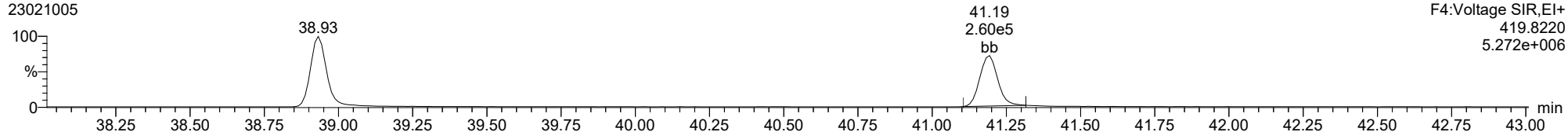
23021005



F4:Voltage SIR,EI+
417.8253
2.393e+006

13C-1234789-HpCDF

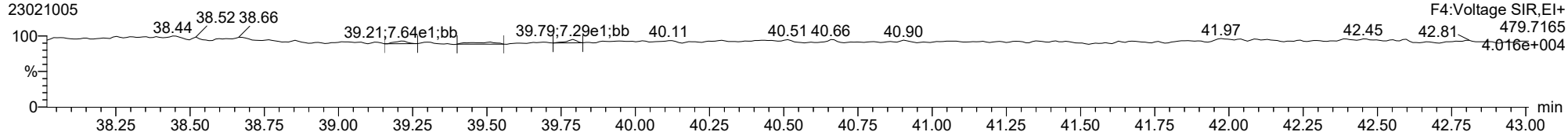
23021005



F4:Voltage SIR,EI+
419.8220
5.272e+006

FUNCTION4 NCDPE

23021005

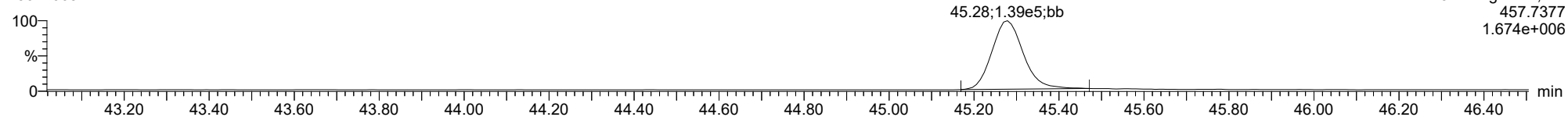


F4:Voltage SIR,EI+
479.7165
4.016e+004

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

OCDD

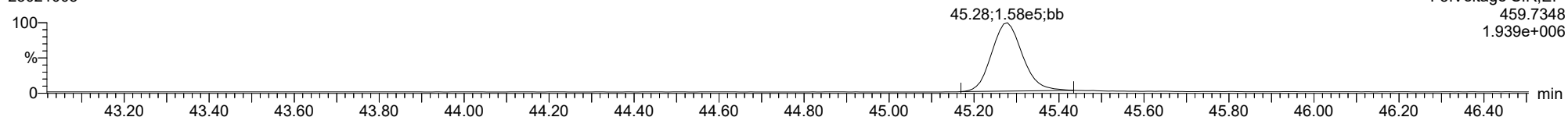
23021005



F5:Voltage SIR,EI+
457.7377
1.674e+006

OCDD

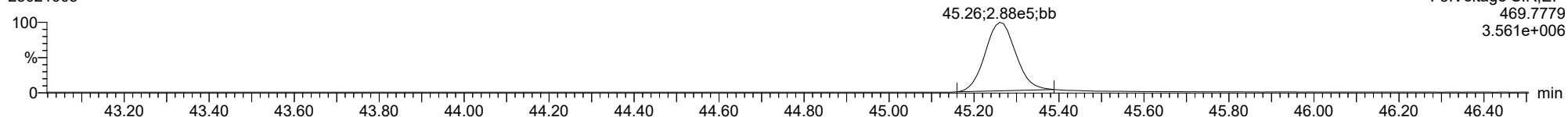
23021005



F5:Voltage SIR,EI+
459.7348
1.939e+006

13C-OCDD

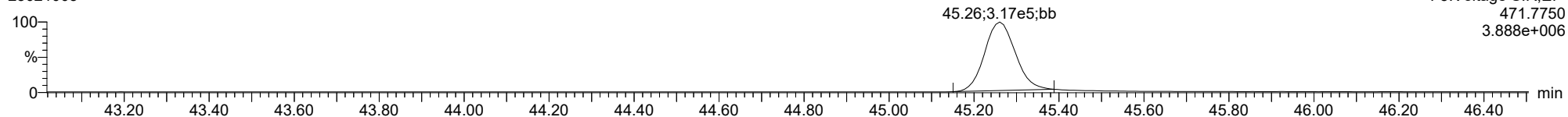
23021005



F5:Voltage SIR,EI+
469.7779
3.561e+006

13C-OCDD

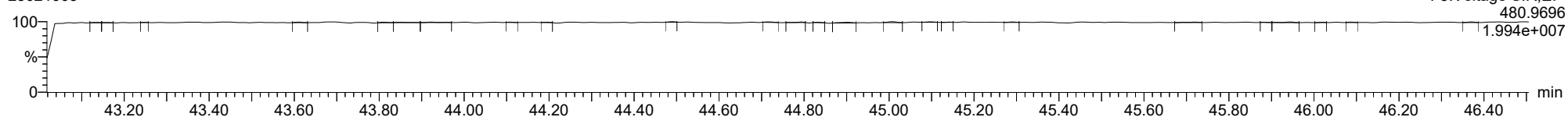
23021005



F5:Voltage SIR,EI+
471.7750
3.888e+006

FUNCTION5 PFK

23021005

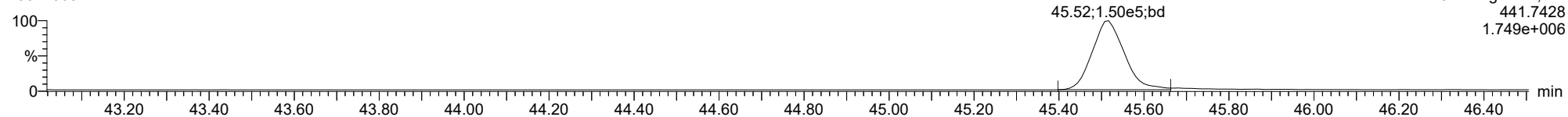


F5:Voltage SIR,EI+
480.9696
1.994e+007

ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

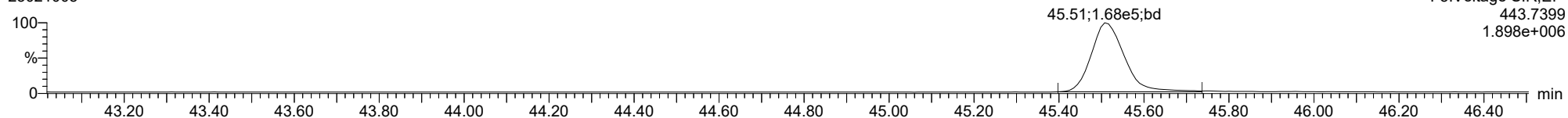
OCDF

23021005



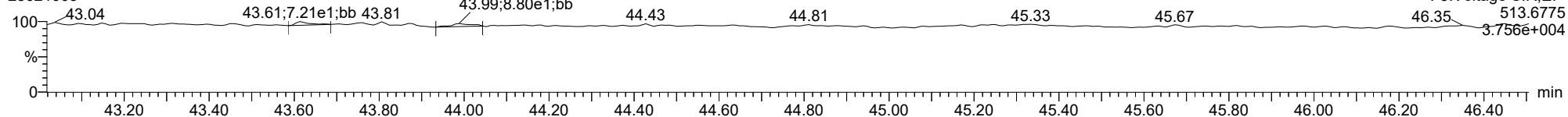
OCDF

23021005



FUNCTION5 DCDPE

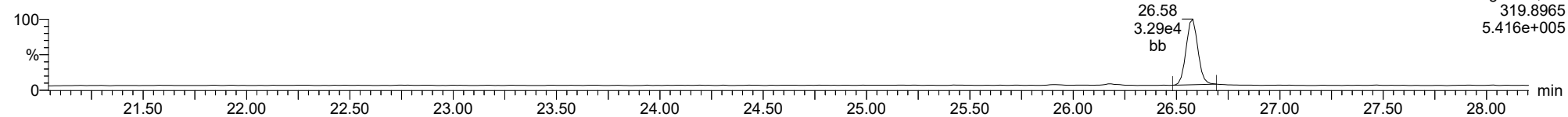
23021005



ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

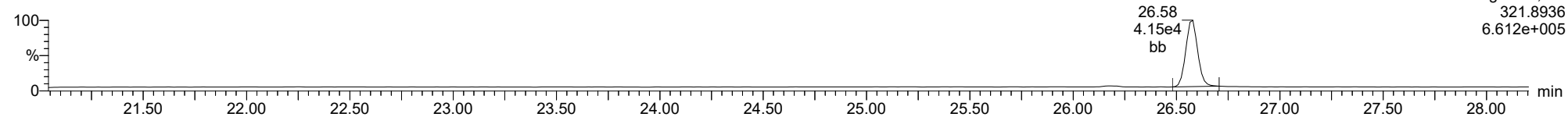
Total-tetradioxins

23021005



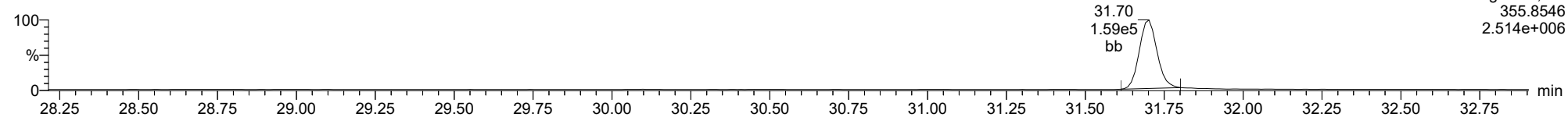
Total-tetradioxins

23021005



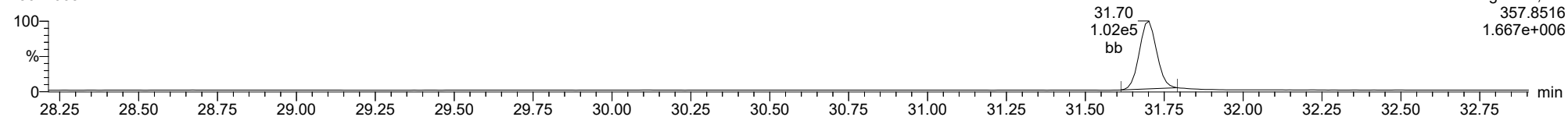
Total-pentadioxins

23021005



Total-pentadioxins

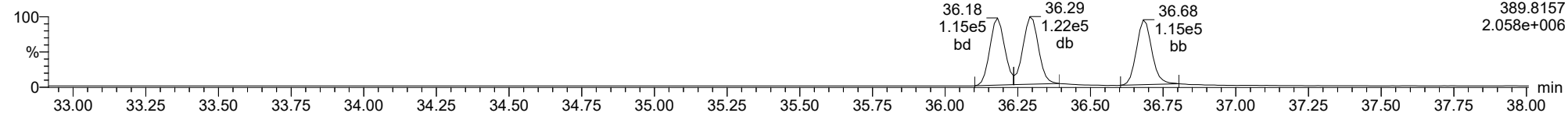
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ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

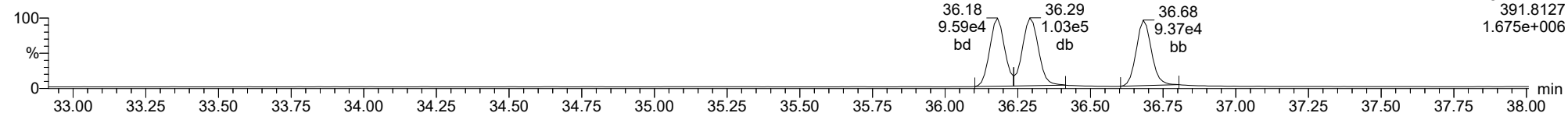
Total-hexadioxins

23021005



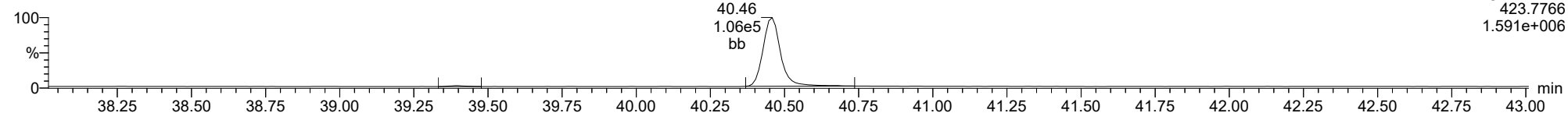
Total-hexadioxins

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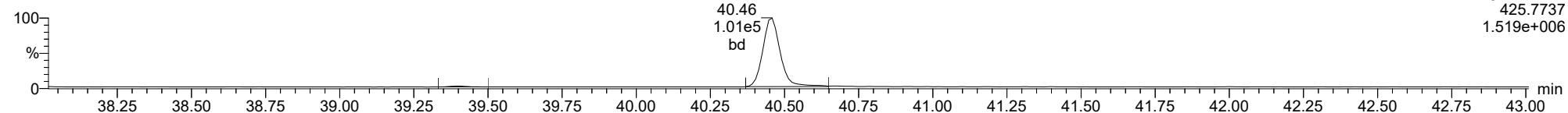
Total-heptadioxins

23021005



Total-heptadioxins

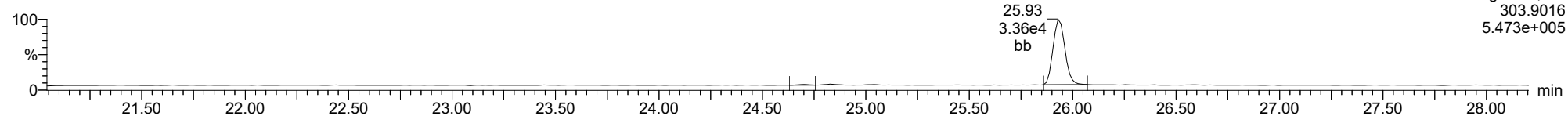
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ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

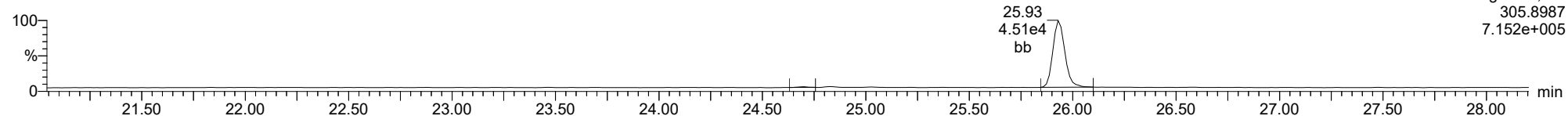
Total-tetrafurans

23021005



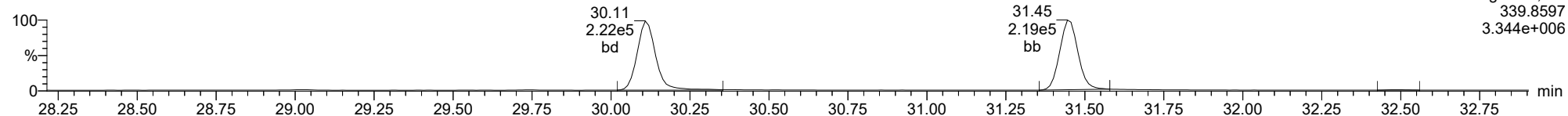
Total-tetrafurans

23021005



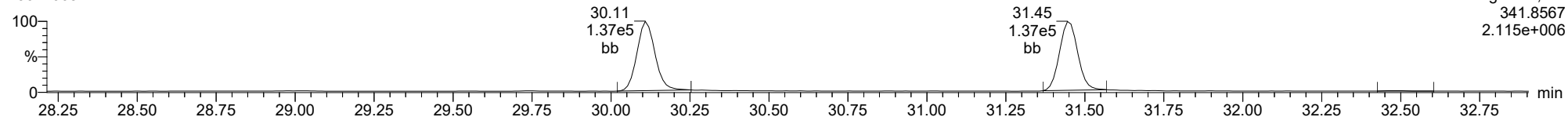
Total-pentafurans

23021005



Total-pentafurans

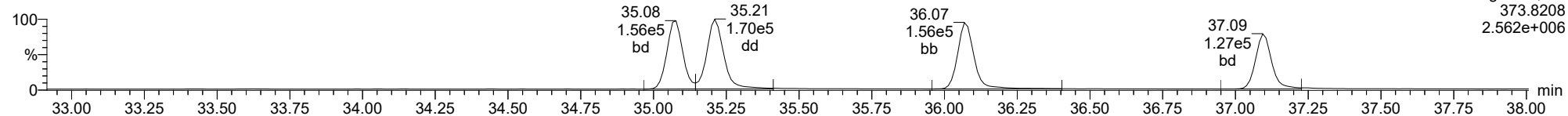
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ID: BLA0256-BS1, Name: 23021005, Date: 10-Feb-2023, Time: 16:48:09, Conditions: AUTOSPEC01, User: pk

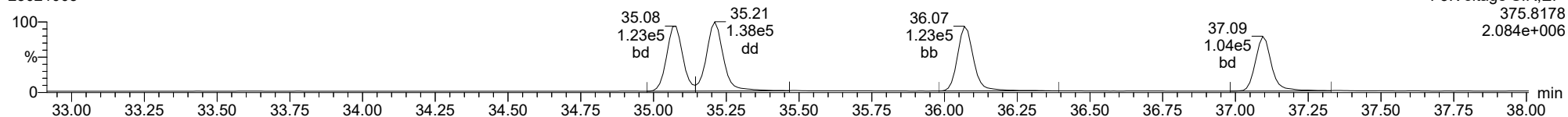
Total-hexafurans

23021005



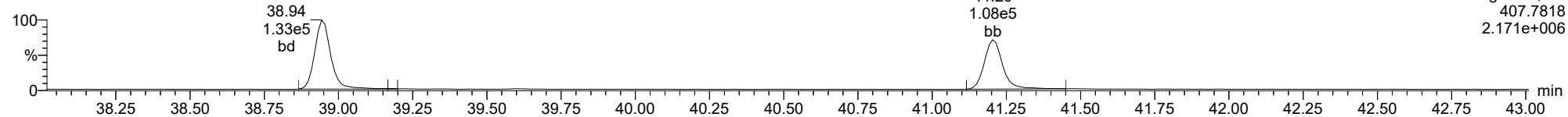
Total-hexafurans

23021005



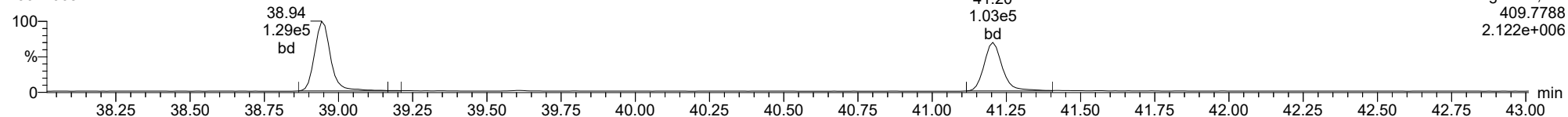
Total-heptafurans

23021005



Total-heptafurans

23021005





STANDARD REFERENCE MATERIAL RECOVERY
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLA0256-SRM1

Batch: BLA0256

Initial/Final: 10.02 g / 20 uL

Preparation: EPA 8290

Analyzed: 02/10/2023 17:37

Standard ID: K010912

Expires: 05/21/2023

Standard Lot#: PSRM0170

Description: Puget Sound reference-SRM

ANALYTE	TRUE (ng/kg wet)	FOUND (ng/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
2,3,7,8-TCDF	1.1100	1.02	0.139	0.998		91.7	50 - 150
2,3,7,8-TCDD	1.0500	0.827	0.150	0.998	EMPC, J	78.7	50 - 150
1,2,3,7,8-PeCDF	1.2300	1.02	0.240	0.998		83.2	50 - 150
2,3,4,7,8-PeCDF	1.0700	0.876	0.220	0.998	J	81.9	50 - 150
1,2,3,7,8-PeCDD	1.0800	1.16	0.176	0.998	EMPC	107	50 - 150
1,2,3,4,7,8-HxCDF	3.0200	2.57	0.279	0.998		85.1	50 - 150
1,2,3,6,7,8-HxCDF	1.0900	0.859	0.200	0.998	EMPC, J, B	78.8	50 - 150
2,3,4,6,7,8-HxCDF	1.8300	1.72	0.170	0.998		93.8	50 - 150
1,2,3,7,8,9-HxCDF	0.51100	0.550	0.190	0.998	J	108	50 - 150
1,2,3,4,7,8-HxCDD	1.5900	1.23	0.176	0.998	EMPC	77.3	50 - 150
1,2,3,6,7,8-HxCDD	3.8800	3.09	0.180	0.998		79.7	50 - 150
1,2,3,7,8,9-HxCDD	3.0400	1.92	0.220	0.998		63.1	50 - 150
1,2,3,4,6,7,8-HpCDF	18.700	17.6	0.210	0.998	B	94.3	50 - 150
1,2,3,4,7,8,9-HpCDF	1.6300	1.27	0.240	0.998		78.0	50 - 150
1,2,3,4,6,7,8-HpCDD	90.600	85.6	0.559	2.50	B	94.5	50 - 150
OCDF	58.400	46.6	1.10	2.50	B	79.7	50 - 150
OCDD	811.00	786	4.59	9.98	B	96.9	50 - 150

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:41:51 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: BLA0256-SRM1, **Name:** 23021006, **Date:** 10-Feb-2023, **Time:** 17:37:39, **Conditions:** AUTOSPEC01, **User:** pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.944	1.000	1.839e3	2.632e3	0.876	0.699	0.770	1579	1491	2.98e4	3.94e4	18.9	26.5	NO	bd	bd	0.510
12378-PeCDF	30.120	1.001	2.368e3	1.703e3	0.845	1.391	1.550	1840	1458	3.68e4	2.56e4	20.0	17.5	NO	bd	bb	0.513
23478-PeCDF	31.446	1.000	2.181e3	1.356e3	0.911	1.608	1.550	1840	1458	2.47e4	1.48e4	13.4	10.1	NO	db	bb	0.439
123478-HxCDF	35.078	1.000	4.447e3	3.523e3	1.182	1.262	1.240	932	916	6.82e4	5.43e4	73.2	59.3	NO	dd	dd	1.287
234678-HxCDF	36.080	1.000	2.777e3	2.410e3	1.229	1.152	1.240	932	916	3.21e4	2.53e4	34.5	27.6	NO	bb	MM	0.860
123678-HxCDF	35.222	1.001	1.440e3	1.455e3	1.248	0.989	1.240	932	916	2.19e4	1.90e4	23.5	20.8	YES	db	db	0.430
123789-HxCDF	37.072	1.000	8.501e2	7.100e2	1.187	1.197	1.240	932	916	1.07e4	7.99e3	11.5	8.7	NO	bb	bb	0.275
1234678-HpCDF	38.955	1.000	2.667e4	2.350e4	1.204	1.135	1.050	1168	998	4.11e5	3.66e5	352.0	366.7	NO	bb	bb	8.837
1234789-HpCDF	41.216	1.000	1.645e3	1.400e3	1.165	1.175	1.050	1168	998	2.85e4	1.87e4	24.4	18.7	NO	bb	bb	0.637
OCDF	45.527	1.005	3.895e4	4.386e4	1.186	0.888	0.890	1194	1134	4.51e5	4.81e5	377.4	424.5	NO	bd	bd	23.325
2378-TCDD	26.579	1.000	1.320e3	2.244e3	1.236	0.588	0.770	1425	1021	2.02e4	3.40e4	14.2	33.3	YES	bb	bd	0.414
12378-PeCDD	31.713	1.001	2.171e3	1.134e3	1.087	1.914	1.550	1166	1344	3.14e4	1.84e4	26.9	13.7	YES	bd	MM	0.579
123478-HxCDD	36.203	1.001	1.798e3	1.079e3	0.987	1.667	1.240	775	1427	3.06e4	2.03e4	39.5	14.2	YES	bd	bd	0.615
123678-HxCDD	36.314	1.000	4.269e3	3.485e3	1.021	1.225	1.240	775	1427	6.70e4	5.18e4	86.4	36.3	NO	dd	dd	1.549
123789-HxCDD	36.704	1.011	2.438e3	2.129e3	0.985	1.145	1.240	775	1427	3.84e4	3.18e4	49.6	22.3	NO	bb	bb	0.961
1234678-HpCDD	40.470	1.001	9.608e4	9.333e4	1.253	1.030	1.050	1844	2026	1.39e6	1.35e6	751.9	667.0	NO	bd	bd	42.874
OCDD	45.289	1.000	6.085e5	6.911e5	1.103	0.880	0.890	1675	1613	7.17e6	8.20e6	4279.6	5082.3	NO	bb	bb	393.788
13C-2378-TCDF	25.930	1.007	4.373e5	5.638e5	1.768	0.776	0.770	2573	1536	6.59e6	8.38e6	2561.6	5451.6	NO	bb	bb	104.456
13C-12378-PeCDF	30.097	1.169	5.778e5	3.619e5	1.527	1.596	1.550	2364	1833	8.44e6	5.52e6	3570.5	3010.6	NO	bd	bb	113.512
13C-23478-PeCDF	31.434	1.221	5.381e5	3.461e5	1.466	1.555	1.550	2364	1833	8.10e6	5.29e6	3425.8	2885.2	NO	bb	bb	111.232
13C-123478-HxCDF	35.067	0.956	1.775e5	3.464e5	1.054	0.512	0.510	1293	2163	2.87e6	5.61e6	2223.1	2595.7	NO	bd	bd	113.846
13C-123678-HxCDF	35.200	0.960	1.854e5	3.538e5	1.080	0.524	0.510	1293	2163	2.69e6	5.31e6	2084.0	2453.1	NO	db	db	114.303
13C-234678-HxCDF	36.080	0.984	1.689e5	3.218e5	1.014	0.525	0.510	1293	2163	2.65e6	5.10e6	2051.9	2356.5	NO	bb	bb	110.761
13C-123789-HxCDF	37.083	1.011	1.646e5	3.129e5	0.928	0.526	0.510	1293	2163	2.76e6	5.37e6	2135.5	2483.2	NO	bb	bb	117.808
13C-1234678-HpCDF	38.944	1.062	1.503e5	3.212e5	1.036	0.468	0.440	1703	2092	2.43e6	5.36e6	1423.9	2560.9	NO	bb	bb	104.186
13C-1234789-HpCDF	41.205	1.123	1.296e5	2.804e5	0.905	0.462	0.440	1703	2092	1.84e6	4.09e6	1081.9	1957.0	NO	bb	bb	103.736
13C-1234-TCDD	25.746	0.000	2.413e5	3.008e5	1.000	0.802	0.770	1597	931	3.83e6	4.75e6	2398.4	5102.6	NO	bb	bb	100.000
13C-2378-TCDD	26.565	1.032	3.073e5	3.886e5	1.103	0.791	0.770	1597	931	4.75e6	5.98e6	2975.9	6421.1	NO	bb	bb	116.397
13C-12378-PeCDD	31.691	1.231	3.271e5	1.984e5	0.914	1.649	1.550	1247	898	4.90e6	2.96e6	3930.0	3296.2	NO	bb	bb	106.032
13C-123478-HxCDD	36.181	0.986	2.650e5	2.086e5	0.933	1.270	1.240	1267	1245	4.25e6	3.42e6	3356.0	2748.6	NO	bd	bd	116.238
13C-123678-HxCDD	36.303	0.990	2.760e5	2.146e5	0.965	1.286	1.240	1267	1245	4.40e6	3.41e6	3472.4	2741.1	NO	db	db	116.442
13C-1234678-HpCDD	40.447	1.103	1.828e5	1.700e5	0.782	1.075	1.050	1450	1198	2.86e6	2.63e6	1970.4	2197.3	NO	bb	bb	103.264
13C-OCDD	45.280	1.234	2.852e5	3.134e5	0.788	0.910	0.890	1233	1856	3.43e6	3.77e6	2781.3	2029.4	NO	bb	bb	173.858
13C-123789-HxCDD	36.682	0.000	2.436e5	1.932e5	1.000	1.261	1.240	1267	1245	3.91e6	3.13e6	3088.6	2510.7	NO	bb	bb	100.000
37CL-2378-TCDD	26.579	1.032	2.614e5		1.233			1111		3.96e6		3560.1			bb		39.088

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:41:51 Pacific Standard Time

ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.441	0.865	4.284e2	5.745e2	1.064	0.746	0.770	1579	1491	6.06e3	8.79e3	3.8	5.9	NO	db	bb	0.094
1289-TCDF	27.554	1.063	4.750e2	7.273e2	0.858	0.653	0.770	1579	1491	8.29e3	1.17e4	5.3	7.8	YES	bd	bb	0.140
13468-PECDF					1.013		1.550	776	883								
12389-PECDF					0.844		1.550	1840	1458								
123468-HXCDF	33.429	0.953	4.049e3	3.184e3	1.197	1.272	1.240	932	916	6.31e4	5.08e4	67.7	55.4	NO	bd	bd	1.153
1368-TCDD	23.698	0.892	8.760e2	1.375e3	1.084	0.637	0.770	1425	1021	1.50e4	2.28e4	10.5	22.3	YES	bb	bb	0.298
1289-TCDD					0.975		0.770	1425	1021								
12479-PECDD					1.837		1.550	1166	1344								
12389-PECDD					1.252		1.550	1166	1344								
124679-HXCDD	34.186	0.945	1.081e4	8.626e3	1.033	1.254	1.240	775	1427	1.63e5	1.29e5	209.8	90.4	NO	bb	bb	3.973
1234679-HPCDD	39.400	0.974	1.450e5	1.369e5	1.286	1.059	1.050	1844	2026	2.22e6	2.07e6	1202.3	1022.6	NO	bd	bb	62.137
Total-tetrafurans			1.458e4		0.933			1579		2.23e5							3.679
Total-penta1			1.082e4					776		1.46e5							2.076
Total-pentafurans			1.479e4		0.866			1840		2.20e5							3.111
Total-hexafurans			4.246e4		1.208			932		6.27e5							12.455
Total-heptafurans			7.699e4		1.185			1168		1.21e6							28.074
Total-Furans			1.986e5		1.067			1579		2.87e6							72.719
Total-tetradoxins			1.193e3		1.099			1425		1.93e4							0.347
Total-pentadoxins			4.211e3		1.392			1166		6.13e4							0.924
Total-hexadoxins			3.054e4		1.007			775		4.01e5							11.301
Total-heptadoxins			2.410e5		1.269			1844		3.60e6							105.011
Total-Dioxins			8.854e5		1.165			1425		1.13e7							511.371
Total-TEQ			1.084e6					1425		1.41e7							584.090
FUNCTION1 PFK			7.000e7					258180		6.09e8							
FUNCTION2 PFK			4.508e5					266033		7.21e6							0.000
FUNCTION3 PFK			1.034e7					306356		4.15e7							0.000
FUNCTION4 PFK			2.294e7					228991		1.15e8							
FUNCTION5 PFK			0.000e0					128864		0.00e0							
FUNCTION1 HXCD...			3.587e3					723		6.05e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			7.875e2					872		1.57e4							0.000
FUNCTION3 OCDPE			1.140e2					734		1.50e3							0.000
FUNCTION4 NCDPE			9.103e3					762		1.54e5							0.000
FUNCTION5 DCDPE			0.000e0					617		0.00e0							

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:41:51 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20

Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: BLA0256-SRM1, **Name:** 23021006, **Date:** 10-Feb-2023, **Time:** 17:37:39, **Conditions:** AUTOSPEC01, **User:** pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	23.92	1.296e3	1.659e3	0.933	0.78	0.77	15.0	YES	NO	bd	bd	0.316
2	1368-TCDF	22.44	4.284e2	5.745e2	1.064	0.75	0.77	3.8	YES	NO	db	bb	0.094
3	2378-TCDF	25.94	1.839e3	2.632e3	0.876	0.70	0.77	18.9	YES	NO	bd	bd	0.510
4	Total-tetrafurans	25.27	9.610e2	1.102e3	0.933	0.87	0.77	8.7	YES	NO	bd	bb	0.221
5	Total-tetrafurans	25.03	2.116e3	2.840e3	0.933	0.75	0.77	21.3	YES	NO	db	bb	0.531
6	Total-tetrafurans	24.83	1.550e3	1.758e3	0.933	0.88	0.77	14.4	YES	NO	dd	db	0.354
7	Total-tetrafurans	24.69	3.309e3	4.655e3	0.933	0.71	0.77	28.7	YES	NO	dd	dd	0.853
8	Total-tetrafurans	24.18	1.359e3	1.978e3	0.933	0.69	0.77	13.5	YES	NO	bb	bd	0.357
9	Total-tetrafurans	24.05	6.561e2	8.210e2	0.933	0.80	0.77	7.1	YES	NO	db	db	0.158
10	Total-tetrafurans	26.17	1.066e3	1.594e3	0.933	0.67	0.77	9.9	YES	NO	dd	dd	0.285

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	27.38	1.058e4	6.905e3		1.53	1.55	182.5	YES	NO	bb	bb	2.029
2	Total-penta1	28.01	2.331e2	1.654e2		1.41	1.55	5.2	YES	NO	bb	bb	0.046

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	30.47	5.393e2	4.075e2	0.866	1.32	1.55	7.0	YES	NO	db	bb	0.120
2	12378-PeCDF	30.12	2.368e3	1.703e3	0.845	1.39	1.55	20.0	YES	NO	bd	bb	0.513
3	Total-pentafurans	29.05	5.939e3	3.847e3	0.866	1.54	1.55	42.1	YES	NO	db	db	1.239
4	Total-pentafurans	28.65	1.360e3	8.533e2	0.866	1.59	1.55	14.9	YES	NO	dd	db	0.280
5	Total-pentafurans	28.59	1.153e3	8.561e2	0.866	1.35	1.55	10.8	YES	NO	bd	bd	0.254
6	Total-pentafurans	28.36	1.247e3	8.590e2	0.866	1.45	1.55	11.1	YES	NO	bb	bb	0.266
7	23478-PeCDF	31.45	2.181e3	1.356e3	0.911	1.61	1.55	13.4	YES	NO	db	bb	0.439

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:51 Pacific Standard Time

ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123478-HxCDF	35.08	4.447e3	3.523e3	1.182	1.26	1.24	73.2	YES	NO	dd	dd	1.287
2	Total-hexafurans	34.45	1.716e4	1.364e4	1.208	1.26	1.24	277.2	YES	NO	bb	bb	5.018
3	Total-hexafurans	34.16	5.080e2	4.523e2	1.208	1.12	1.24	7.9	YES	NO	bb	bb	0.156
4	Total-hexafurans	33.64	1.267e4	1.007e4	1.208	1.26	1.24	200.1	YES	NO	dd	dd	3.705
5	123468-HxCDF	33.43	4.049e3	3.184e3	1.197	1.27	1.24	67.7	YES	NO	bd	bd	1.153
6	123789-HxCDF	37.07	8.501e2	7.100e2	1.187	1.20	1.24	11.5	YES	NO	bb	bb	0.275
7	234678-HxCDF	36.08	2.777e3	2.410e3	1.229	1.15	1.24	34.5	YES	NO	bb	MM	0.860

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.22	1.645e3	1.400e3	1.165	1.18	1.05	24.4	YES	NO	bb	bb	0.637
2	Total-heptafurans	39.61	4.825e4	4.806e4	1.185	1.00	1.05	649.2	YES	NO	bb	bd	18.444
3	Total-heptafurans	39.34	4.122e2	3.986e2	1.185	1.03	1.05	6.3	YES	NO	bb	bb	0.155
4	1234678-HpCDF	38.95	2.667e4	2.350e4	1.204	1.14	1.05	352.0	YES	NO	bb	bb	8.837

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	23.92	1.296e3	1.659e3	0.933	0.78	0.77	15.0	YES	NO	bd	bd	0.316
2	1368-TCDF	22.44	4.284e2	5.745e2	1.064	0.75	0.77	3.8	YES	NO	db	bb	0.094
3	2378-TCDF	25.94	1.839e3	2.632e3	0.876	0.70	0.77	18.9	YES	NO	bd	bd	0.510
4	Total-tetrafurans	25.27	9.610e2	1.102e3	0.933	0.87	0.77	8.7	YES	NO	bd	bb	0.221
5	Total-tetrafurans	25.03	2.116e3	2.840e3	0.933	0.75	0.77	21.3	YES	NO	db	bb	0.531
6	Total-tetrafurans	24.83	1.550e3	1.758e3	0.933	0.88	0.77	14.4	YES	NO	dd	db	0.354
7	Total-tetrafurans	24.69	3.309e3	4.655e3	0.933	0.71	0.77	28.7	YES	NO	dd	dd	0.853
8	Total-tetrafurans	24.18	1.359e3	1.978e3	0.933	0.69	0.77	13.5	YES	NO	bb	bd	0.357
9	Total-tetrafurans	24.05	6.561e2	8.210e2	0.933	0.80	0.77	7.1	YES	NO	db	db	0.158
10	Total-tetrafurans	26.17	1.066e3	1.594e3	0.933	0.67	0.77	9.9	YES	NO	dd	dd	0.285
11	Total-pentafurans	30.47	5.393e2	4.075e2	0.866	1.32	1.55	7.0	YES	NO	db	bb	0.120
12	12378-PeCDF	30.12	2.368e3	1.703e3	0.845	1.39	1.55	20.0	YES	NO	bd	bb	0.513
13	Total-pentafurans	29.05	5.939e3	3.847e3	0.866	1.54	1.55	42.1	YES	NO	db	db	1.239
14	Total-pentafurans	28.65	1.360e3	8.533e2	0.866	1.59	1.55	14.9	YES	NO	dd	db	0.280
15	Total-pentafurans	28.59	1.153e3	8.561e2	0.866	1.35	1.55	10.8	YES	NO	bd	bd	0.254
16	Total-pentafurans	28.36	1.247e3	8.590e2	0.866	1.45	1.55	11.1	YES	NO	bb	bb	0.266
17	23478-PeCDF	31.45	2.181e3	1.356e3	0.911	1.61	1.55	13.4	YES	NO	db	bb	0.439
18	123478-HxCDF	35.08	4.447e3	3.523e3	1.182	1.26	1.24	73.2	YES	NO	dd	dd	1.287
19	Total-hexafurans	34.45	1.716e4	1.364e4	1.208	1.26	1.24	277.2	YES	NO	bb	bb	5.018
20	Total-hexafurans	34.16	5.080e2	4.523e2	1.208	1.12	1.24	7.9	YES	NO	bb	bb	0.156
21	Total-hexafurans	33.64	1.267e4	1.007e4	1.208	1.26	1.24	200.1	YES	NO	dd	dd	3.705
22	123468-HXCDF	33.43	4.049e3	3.184e3	1.197	1.27	1.24	67.7	YES	NO	bd	bd	1.153
23	123789-HxCDF	37.07	8.501e2	7.100e2	1.187	1.20	1.24	11.5	YES	NO	bb	bb	0.275
24	234678-HxCDF	36.08	2.777e3	2.410e3	1.229	1.15	1.24	34.5	YES	NO	bb	MM	0.860
25	1234789-HpCDF	41.22	1.645e3	1.400e3	1.165	1.18	1.05	24.4	YES	NO	bb	bb	0.637
26	Total-heptafurans	39.61	4.825e4	4.806e4	1.185	1.00	1.05	649.2	YES	NO	bb	bd	18.444
27	Total-heptafurans	39.34	4.122e2	3.986e2	1.185	1.03	1.05	6.3	YES	NO	bb	bb	0.155
28	1234678-HpCDF	38.95	2.667e4	2.350e4	1.204	1.14	1.05	352.0	YES	NO	bb	bb	8.837
29	OCDF	45.53	3.895e4	4.386e4	1.186	0.89	0.89	377.4	YES	NO	bd	bd	23.325
30	Total-penta1	27.38	1.058e4	6.905e3		1.53	1.55	182.5	YES	NO	bb	bb	2.029
31	Total-penta1	28.01	2.331e2	1.654e2		1.41	1.55	5.2	YES	NO	bb	bb	0.046

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetraoxins	25.76	1.193e3	1.457e3	1.099	0.82	0.77	13.5	YES	NO	bb	bd	0.347

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentadioxins	30.31	1.691e3	1.062e3	1.392	1.59	1.55	22.3	YES	NO	bd	bb	0.376
2	Total-pentadioxins	30.11	1.716e3	9.691e2	1.392	1.77	1.55	19.3	YES	NO	bb	bb	0.367
3	Total-pentadioxins	29.50	8.040e2	5.152e2	1.392	1.56	1.55	11.0	YES	NO	bb	bb	0.180

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	35.31	1.302e4	1.036e4	1.007	1.26	1.24	171.4	YES	NO	bd	bd	4.818
2	124679-HxCDD	34.19	1.081e4	8.626e3	1.033	1.25	1.24	209.8	YES	NO	bb	bb	3.973
3	123789-HxCDD	36.70	2.438e3	2.129e3	0.985	1.15	1.24	49.6	YES	NO	bb	bb	0.961
4	123678-HxCDD	36.31	4.269e3	3.485e3	1.021	1.22	1.24	86.4	YES	NO	dd	dd	1.549

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.47	9.608e4	9.333e4	1.253	1.03	1.05	751.9	YES	NO	bd	bd	42.874
2	1234679-HPCDD	39.40	1.450e5	1.369e5	1.286	1.06	1.05	1202.3	YES	NO	bd	bb	62.137

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	25.76	1.193e3	1.457e3	1.099	0.82	0.77	13.5	YES	NO	bb	bd	0.347
2	Total-pentadioxins	30.31	1.691e3	1.062e3	1.392	1.59	1.55	22.3	YES	NO	bd	bb	0.376
3	Total-pentadioxins	30.11	1.716e3	9.691e2	1.392	1.77	1.55	19.3	YES	NO	bb	bb	0.367
4	Total-pentadioxins	29.50	8.040e2	5.152e2	1.392	1.56	1.55	11.0	YES	NO	bb	bb	0.180
5	Total-hexadioxins	35.31	1.302e4	1.036e4	1.007	1.26	1.24	171.4	YES	NO	bd	bd	4.818
6	124679-HxCDD	34.19	1.081e4	8.626e3	1.033	1.25	1.24	209.8	YES	NO	bb	bb	3.973
7	123789-HxCDD	36.70	2.438e3	2.129e3	0.985	1.15	1.24	49.6	YES	NO	bb	bb	0.961
8	123678-HxCDD	36.31	4.269e3	3.485e3	1.021	1.22	1.24	86.4	YES	NO	dd	dd	1.549
9	1234678-HpCDD	40.47	9.608e4	9.333e4	1.253	1.03	1.05	751.9	YES	NO	bd	bd	42.874
10	1234679-HPCDD	39.40	1.450e5	1.369e5	1.286	1.06	1.05	1202.3	YES	NO	bd	bb	62.137
11	OCDD	45.29	6.085e5	6.911e5	1.103	0.88	0.89	4279.6	YES	NO	bb	bb	393.788

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	23.92	1.296e3	1.659e3	0.933	0.78	0.77	15.0	YES	NO	bd	bd	0.316
2	1368-TCDF	22.44	4.284e2	5.745e2	1.064	0.75	0.77	3.8	YES	NO	db	bb	0.094
3	2378-TCDF	25.94	1.839e3	2.632e3	0.876	0.70	0.77	18.9	YES	NO	bd	bd	0.510
4	Total-tetrafurans	25.27	9.610e2	1.102e3	0.933	0.87	0.77	8.7	YES	NO	bd	bb	0.221
5	Total-tetrafurans	25.03	2.116e3	2.840e3	0.933	0.75	0.77	21.3	YES	NO	db	bb	0.531
6	Total-tetrafurans	24.83	1.550e3	1.758e3	0.933	0.88	0.77	14.4	YES	NO	dd	db	0.354
7	Total-tetrafurans	24.69	3.309e3	4.655e3	0.933	0.71	0.77	28.7	YES	NO	dd	dd	0.853
8	Total-tetrafurans	24.18	1.359e3	1.978e3	0.933	0.69	0.77	13.5	YES	NO	bb	bd	0.357
9	Total-tetrafurans	24.05	6.561e2	8.210e2	0.933	0.80	0.77	7.1	YES	NO	db	db	0.158
10	Total-tetrafurans	26.17	1.066e3	1.594e3	0.933	0.67	0.77	9.9	YES	NO	dd	dd	0.285
11	Total-pentafurans	30.47	5.393e2	4.075e2	0.866	1.32	1.55	7.0	YES	NO	db	bb	0.120
12	12378-PeCDF	30.12	2.368e3	1.703e3	0.845	1.39	1.55	20.0	YES	NO	bd	bb	0.513
13	Total-pentafurans	29.05	5.939e3	3.847e3	0.866	1.54	1.55	42.1	YES	NO	db	db	1.239
14	Total-pentafurans	28.65	1.360e3	8.533e2	0.866	1.59	1.55	14.9	YES	NO	dd	db	0.280
15	Total-pentafurans	28.59	1.153e3	8.561e2	0.866	1.35	1.55	10.8	YES	NO	bd	bd	0.254
16	Total-pentafurans	28.36	1.247e3	8.590e2	0.866	1.45	1.55	11.1	YES	NO	bb	bb	0.266
17	23478-PeCDF	31.45	2.181e3	1.356e3	0.911	1.61	1.55	13.4	YES	NO	db	bb	0.439
18	123478-HxCDF	35.08	4.447e3	3.523e3	1.182	1.26	1.24	73.2	YES	NO	dd	dd	1.287
19	Total-hexafurans	34.45	1.716e4	1.364e4	1.208	1.26	1.24	277.2	YES	NO	bb	bb	5.018
20	Total-hexafurans	34.16	5.080e2	4.523e2	1.208	1.12	1.24	7.9	YES	NO	bb	bb	0.156
21	Total-hexafurans	33.64	1.267e4	1.007e4	1.208	1.26	1.24	200.1	YES	NO	dd	dd	3.705
22	123468-HXCDF	33.43	4.049e3	3.184e3	1.197	1.27	1.24	67.7	YES	NO	bd	bd	1.153
23	123789-HxCDF	37.07	8.501e2	7.100e2	1.187	1.20	1.24	11.5	YES	NO	bb	bb	0.275
24	234678-HxCDF	36.08	2.777e3	2.410e3	1.229	1.15	1.24	34.5	YES	NO	bb	MM	0.860
25	1234789-HpCDF	41.22	1.645e3	1.400e3	1.165	1.18	1.05	24.4	YES	NO	bb	bb	0.637
26	Total-heptafurans	39.61	4.825e4	4.806e4	1.185	1.00	1.05	649.2	YES	NO	bb	bd	18.444
27	Total-heptafurans	39.34	4.122e2	3.986e2	1.185	1.03	1.05	6.3	YES	NO	bb	bb	0.155
28	1234678-HpCDF	38.95	2.667e4	2.350e4	1.204	1.14	1.05	352.0	YES	NO	bb	bb	8.837
29	OCDF	45.53	3.895e4	4.386e4	1.186	0.89	0.89	377.4	YES	NO	bd	bd	23.325
30	Total-penta1	27.38	1.058e4	6.905e3		1.53	1.55	182.5	YES	NO	bb	bb	2.029
31	Total-penta1	28.01	2.331e2	1.654e2		1.41	1.55	5.2	YES	NO	bb	bb	0.046
32	Total-tetradioxins	25.76	1.193e3	1.457e3	1.099	0.82	0.77	13.5	YES	NO	bb	bd	0.347
33	Total-pentadioxins	30.31	1.691e3	1.062e3	1.392	1.59	1.55	22.3	YES	NO	bd	bb	0.376
34	Total-pentadioxins	30.11	1.716e3	9.691e2	1.392	1.77	1.55	19.3	YES	NO	bb	bb	0.367
35	Total-pentadioxins	29.50	8.040e2	5.152e2	1.392	1.56	1.55	11.0	YES	NO	bb	bb	0.180
36	Total-hexadioxins	35.31	1.302e4	1.036e4	1.007	1.26	1.24	171.4	YES	NO	bd	bd	4.818
37	124679-HXCDD	34.19	1.081e4	8.626e3	1.033	1.25	1.24	209.8	YES	NO	bb	bb	3.973

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	123789-HxCDD	36.70	2.438e3	2.129e3	0.985	1.15	1.24	49.6	YES	NO	bb	bb	0.961
39	123678-HxCDD	36.31	4.269e3	3.485e3	1.021	1.22	1.24	86.4	YES	NO	dd	dd	1.549
40	1234678-HpCDD	40.47	9.608e4	9.333e4	1.253	1.03	1.05	751.9	YES	NO	bd	bd	42.874
41	1234679-HPCDD	39.40	1.450e5	1.369e5	1.286	1.06	1.05	1202.3	YES	NO	bd	bb	62.137
42	OCDD	45.29	6.085e5	6.911e5	1.103	0.88	0.89	4279.6	YES	NO	bb	bb	393.788

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	22.37	3.796e6					68.3	YES		dd		
2	FUNCTION1 PFK	22.12	1.796e6					72.7	YES		dd		
3	FUNCTION1 PFK	22.05	1.622e6					75.7	YES		dd		
4	FUNCTION1 PFK	21.97	1.384e6					76.5	YES		dd		
5	FUNCTION1 PFK	21.92	1.121e6					77.2	YES		dd		
6	FUNCTION1 PFK	21.76	2.869e6					80.4	YES		dd		
7	FUNCTION1 PFK	21.72	1.171e6					80.8	YES		dd		
8	FUNCTION1 PFK	21.57	4.719e6					84.4	YES		dd		
9	FUNCTION1 PFK	21.37	2.337e6					85.6	YES		dd		
10	FUNCTION1 PFK	21.28	2.855e6					88.4	YES		dd		
11	FUNCTION1 PFK	21.20	1.605e6					88.5	YES		dd		
12	FUNCTION1 PFK	21.14	1.912e6					88.6	YES		bd		
13	FUNCTION1 PFK	24.40	4.291e5					17.5	YES		dd		
14	FUNCTION1 PFK	24.28	4.883e5					20.5	YES		dd		
15	FUNCTION1 PFK	24.15	1.279e6					24.0	YES		dd		
16	FUNCTION1 PFK	23.83	1.930e6					32.8	YES		dd		
17	FUNCTION1 PFK	23.78	3.611e5					32.6	YES		dd		
18	FUNCTION1 PFK	23.74	4.449e5					33.3	YES		bd		
19	FUNCTION1 PFK	23.56	1.297e6					45.3	YES		db		
20	FUNCTION1 PFK	23.49	1.181e6					46.5	YES		dd		
21	FUNCTION1 PFK	23.39	8.686e5					47.9	YES		dd		
22	FUNCTION1 PFK	23.29	1.078e6					50.2	YES		dd		
23	FUNCTION1 PFK	23.15	1.911e6					54.1	YES		dd		
24	FUNCTION1 PFK	23.06	2.344e6					54.7	YES		dd		
25	FUNCTION1 PFK	22.82	3.177e6					60.0	YES		dd		
26	FUNCTION1 PFK	22.69	8.809e5					61.7	YES		dd		
27	FUNCTION1 PFK	22.61	1.611e6					64.5	YES		dd		
28	FUNCTION1 PFK	22.50	2.411e6					67.1	YES		dd		
29	FUNCTION1 PFK	26.79	7.269e5					35.0	YES		dd		
30	FUNCTION1 PFK	26.47	2.193e6					27.0	YES		dd		
31	FUNCTION1 PFK	26.40	4.283e5					24.7	YES		dd		
32	FUNCTION1 PFK	26.30	5.792e5					22.2	YES		dd		
33	FUNCTION1 PFK	26.14	7.831e5					19.2	YES		dd		
34	FUNCTION1 PFK	25.99	5.469e5					16.3	YES		dd		
35	FUNCTION1 PFK	25.86	3.108e5					12.8	YES		dd		
36	FUNCTION1 PFK	25.76	3.008e5					11.3	YES		dd		
37	FUNCTION1 PFK	25.66	2.238e5					9.0	YES		dd		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:41:51 Pacific Standard Time

ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION1 PFK	25.48	1.175e5					4.7	YES		bd		
39	FUNCTION1 PFK	25.12	8.219e4					1.8	NO		bb		
40	FUNCTION1 PFK	24.91	1.159e5					3.1	YES		db		
41	FUNCTION1 PFK	24.79	1.333e5					6.7	YES		dd		
42	FUNCTION1 PFK	24.66	1.740e5					9.6	YES		dd		
43	FUNCTION1 PFK	24.56	3.336e5					13.3	YES		dd		
44	FUNCTION1 PFK	24.49	3.073e5					14.5	YES		dd		
45	FUNCTION1 PFK	28.01	2.357e6					33.0	YES		bb		
46	FUNCTION1 PFK	27.72	1.505e6					54.7	YES		db		
47	FUNCTION1 PFK	27.62	1.324e6					53.0	YES		dd		
48	FUNCTION1 PFK	27.55	1.276e6					51.9	YES		dd		
49	FUNCTION1 PFK	27.44	1.071e6					49.9	YES		dd		
50	FUNCTION1 PFK	27.37	1.012e6					47.6	YES		dd		
51	FUNCTION1 PFK	27.24	2.778e6					45.4	YES		dd		
52	FUNCTION1 PFK	27.03	5.493e5					38.2	YES		dd		
53	FUNCTION1 PFK	26.90	1.504e6					37.8	YES		dd		
54	FUNCTION1 PFK	26.83	3.898e5					36.1	YES		dd		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.98	5.380e4					2.0	NO		bb		0.000
2	FUNCTION2 PFK	29.69	1.527e4					1.4	NO		bb		0.000
3	FUNCTION2 PFK	29.57	5.598e4					3.0	YES		bb		0.000
4	FUNCTION2 PFK	29.46	3.349e4					3.0	NO		bb		0.000
5	FUNCTION2 PFK	28.57	5.920e3					1.1	NO		bb		0.000
6	FUNCTION2 PFK	32.69	8.027e4					4.0	YES		bb		0.000
7	FUNCTION2 PFK	32.14	1.507e3					0.5	NO		bb		0.000
8	FUNCTION2 PFK	32.09	6.164e3					0.9	NO		bb		0.000
9	FUNCTION2 PFK	31.30	1.001e5					4.0	YES		db		0.000
10	FUNCTION2 PFK	31.20	1.194e4					1.6	NO		dd		0.000
11	FUNCTION2 PFK	31.14	1.716e4					1.9	NO		bd		0.000
12	FUNCTION2 PFK	30.25	6.070e4					2.4	NO		bb		0.000
13	FUNCTION2 PFK	30.03	8.583e3					1.3	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.13	8.636e5					24.1	YES		bd		0.000
2	FUNCTION3 PFK	36.92	7.950e5					16.7	YES		bb		0.000
3	FUNCTION3 PFK	36.36	2.960e6					17.4	YES		bb		0.000
4	FUNCTION3 PFK	35.90	1.276e6					16.7	YES		bb		0.000
5	FUNCTION3 PFK	35.36	7.829e5					10.3	YES		bb		0.000
6	FUNCTION3 PFK	34.71	1.379e6					4.8	YES		bb		0.000
7	FUNCTION3 PFK	32.99	2.337e4					2.0	NO		bb		0.000
8	FUNCTION3 PFK	37.89	6.811e5					2.2	NO		bb		0.000
9	FUNCTION3 PFK	37.42	9.534e5					18.3	YES		db		0.000
10	FUNCTION3 PFK	37.21	6.296e5					23.0	YES		dd		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.06	1.480e5					12.3	YES		dd		
2	FUNCTION4 PFK	39.92	5.052e5					19.2	YES		dd		
3	FUNCTION4 PFK	39.82	3.637e5					21.3	YES		dd		
4	FUNCTION4 PFK	39.71	6.010e5					25.8	YES		dd		
5	FUNCTION4 PFK	39.66	2.776e5					28.0	YES		dd		
6	FUNCTION4 PFK	39.49	2.090e6					33.9	YES		dd		
7	FUNCTION4 PFK	39.30	6.899e5					40.0	YES		dd		
8	FUNCTION4 PFK	39.26	4.126e5					41.0	YES		dd		
9	FUNCTION4 PFK	39.01	2.701e6					50.8	YES		dd		
10	FUNCTION4 PFK	38.82	4.990e6					56.9	YES		dd		
11	FUNCTION4 PFK	38.56	2.885e6					65.4	YES		dd		
12	FUNCTION4 PFK	38.21	6.549e6					77.6	YES		bd		
13	FUNCTION4 PFK	42.97	4.343e3					1.0	NO		bb		
14	FUNCTION4 PFK	42.92	4.798e3					1.0	NO		bb		
15	FUNCTION4 PFK	42.76	2.147e4					2.2	NO		bb		
16	FUNCTION4 PFK	42.69	5.957e3					0.9	NO		db		
17	FUNCTION4 PFK	42.64	2.260e4					2.2	NO		bd		
18	FUNCTION4 PFK	42.52	5.958e3					1.0	NO		bb		
19	FUNCTION4 PFK	41.90	7.809e3					1.4	NO		bb		
20	FUNCTION4 PFK	40.96	9.673e3					1.4	NO		bb		
21	FUNCTION4 PFK	40.59	1.164e4					1.5	NO		db		
22	FUNCTION4 PFK	40.56	8.763e3					1.3	NO		bd		
23	FUNCTION4 PFK	40.37	2.508e5					3.8	YES		db		
24	FUNCTION4 PFK	40.09	3.742e5					13.7	YES		dd		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk**ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	23.91	1.249e2					4.1	YES		bb		0.000
2	FUNCTION1 HXCD...	21.66	7.023e1					2.3	NO		bb		0.000
3	FUNCTION1 HXCD...	26.96	2.895e2					5.0	YES		bb		0.000
4	FUNCTION1 HXCD...	26.28	5.477e2					12.4	YES		bb		0.000
5	FUNCTION1 HXCD...	26.07	1.969e3					48.3	YES		bb		0.000
6	FUNCTION1 HXCD...	25.93	3.029e2					6.2	YES		bb		0.000
7	FUNCTION1 HXCD...	25.28	2.828e2					5.4	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.76	1.064e2					2.1	NO		bb		0.000
2	FUNCTION2 HPCD...	32.39	1.276e2					3.6	YES		bb		0.000
3	FUNCTION2 HPCD...	31.70	1.332e2					2.7	NO		bb		0.000
4	FUNCTION2 HPCD...	30.06	2.880e2					6.3	YES		bb		0.000
5	FUNCTION2 HPCD...	29.11	1.324e2					3.2	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	34.92	1.140e2					2.0	NO		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.32	7.502e1					2.4	NO		bb		0.000
2	FUNCTION4 NCDPE	38.58	9.027e3					199.7	YES		bb		0.000

ETHERS6

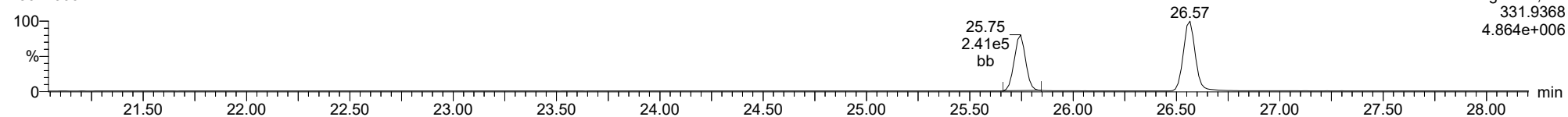
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Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD

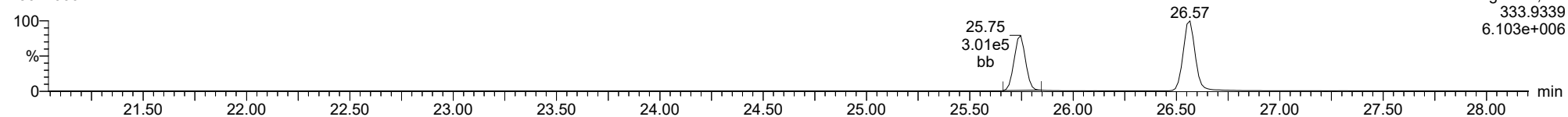
23021006



F1:Voltage SIR,El+
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4.864e+006

13C-1234-TCDD

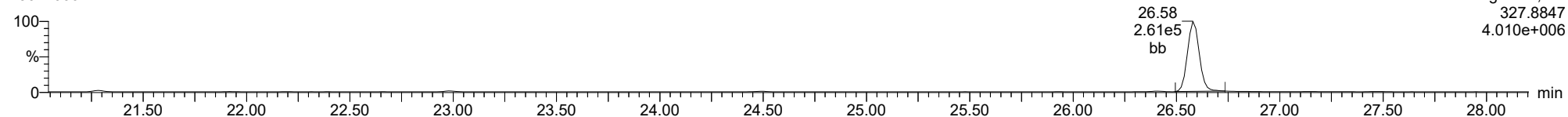
23021006



F1:Voltage SIR,El+
333.9339
6.103e+006

37CL-2378-TCDD

23021006

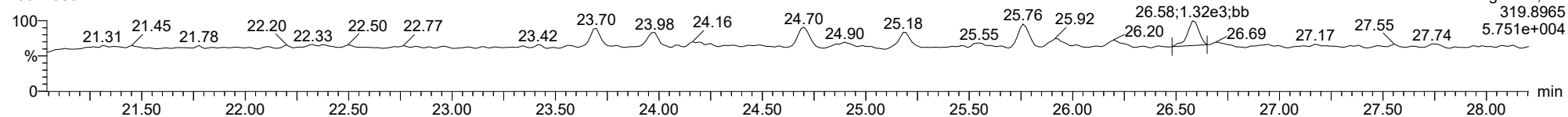


F1:Voltage SIR,El+
327.8847
4.010e+006

ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

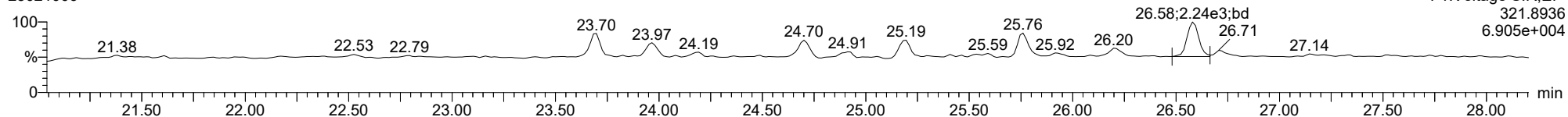
2378-TCDD

23021006



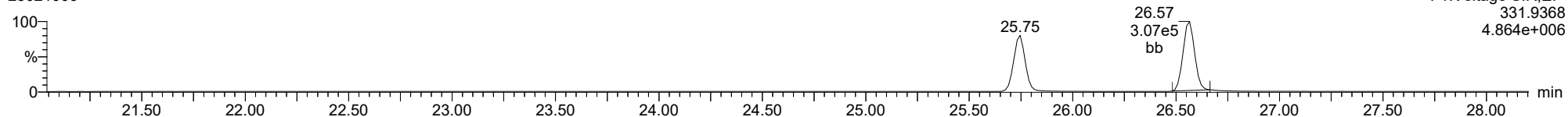
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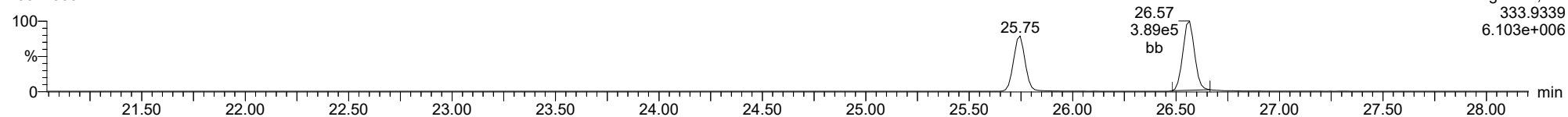
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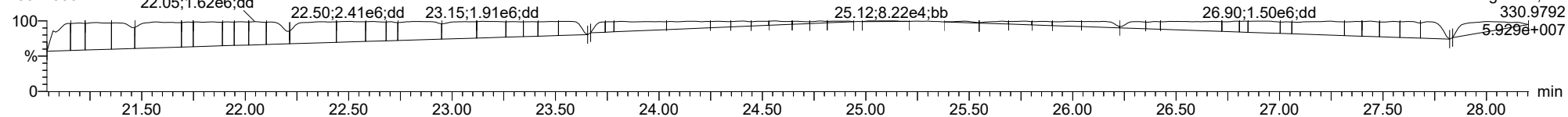
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FUNCTION1 PFK

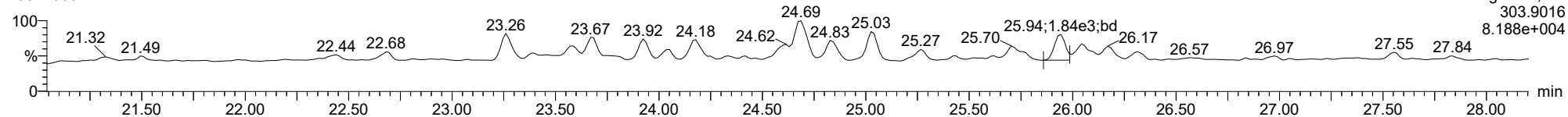
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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

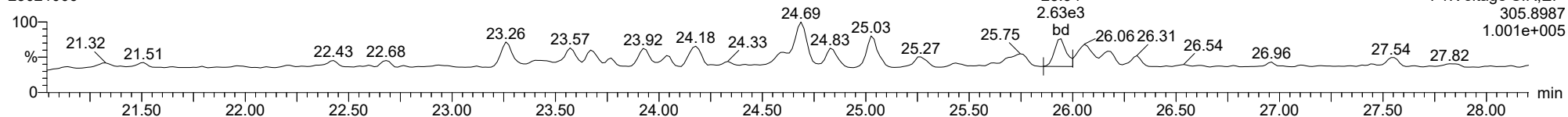
2378-TCDF

23021006



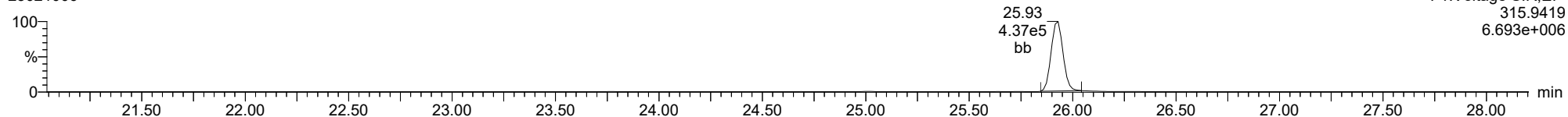
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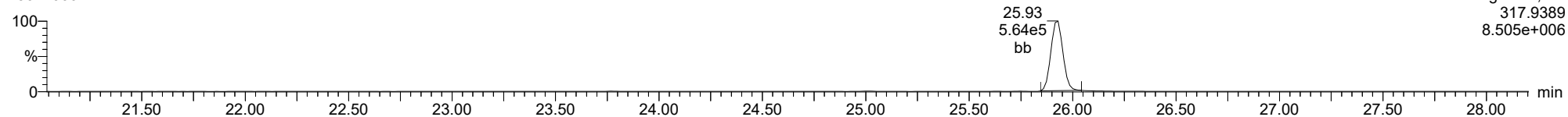
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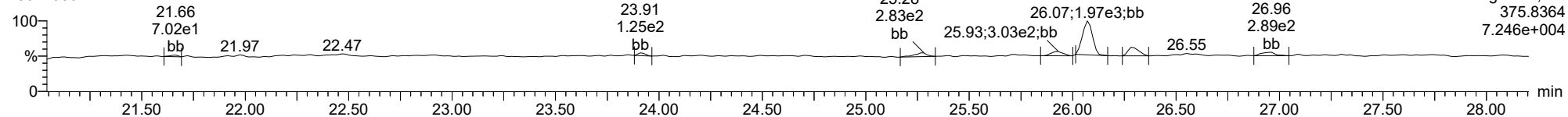
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FUNCTION1 HXCDPE

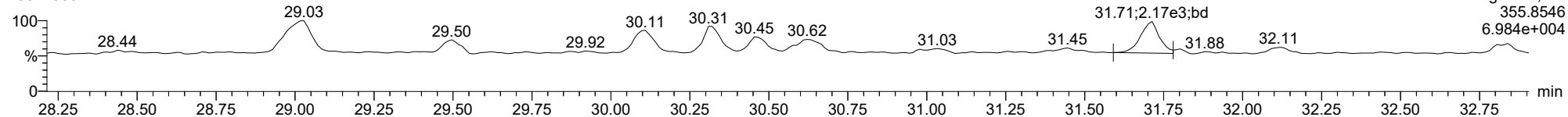
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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

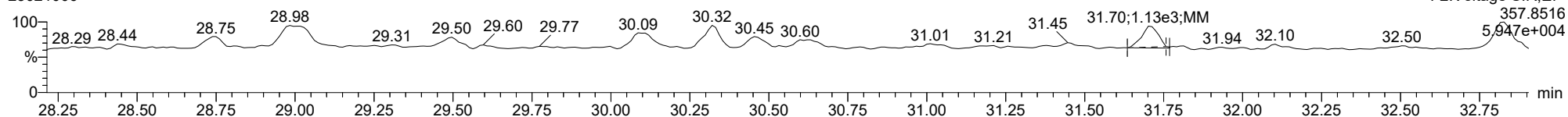
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23021006



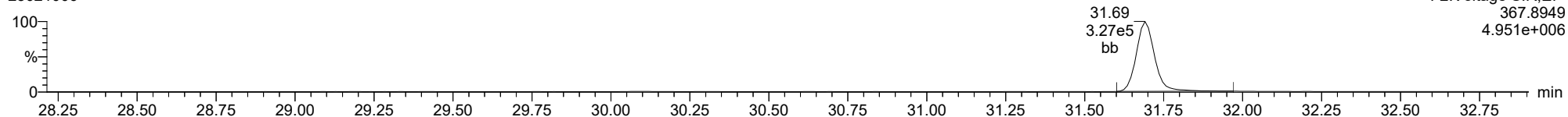
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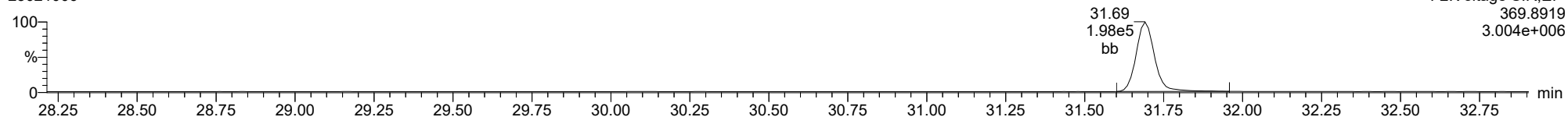
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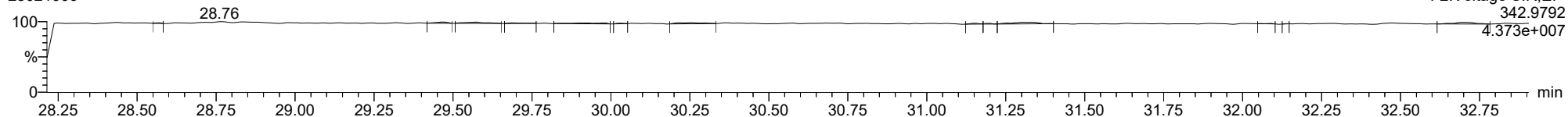
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23021006



FUNCTION2 PFK

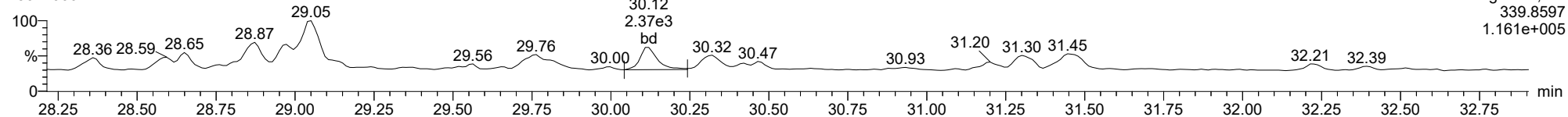
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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

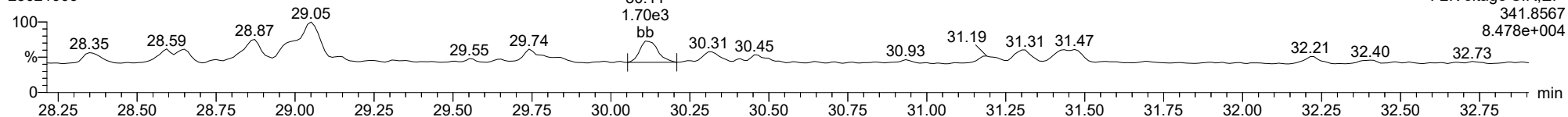
12378-PeCDF

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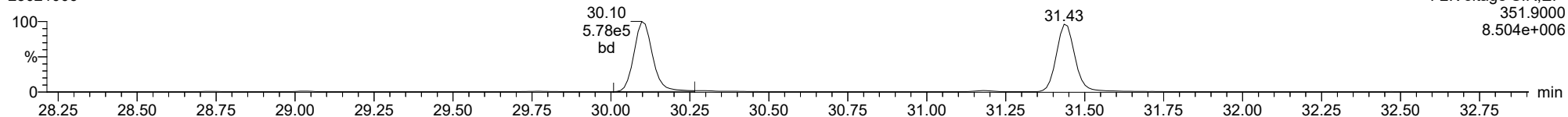
12378-PeCDF

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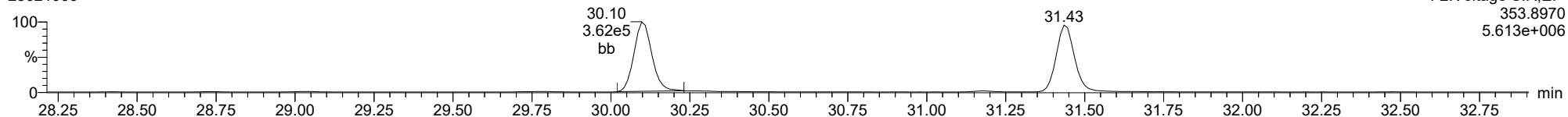
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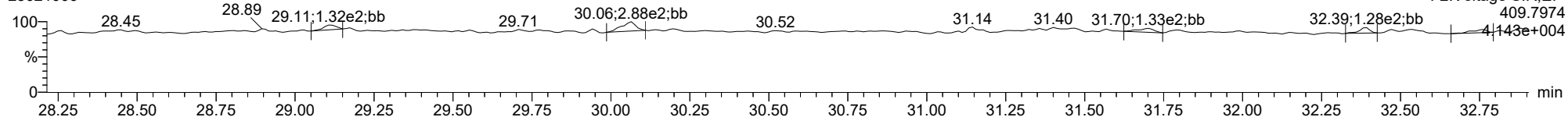
13C-12378-PeCDF

23021006



FUNCTION2 HPCDPE

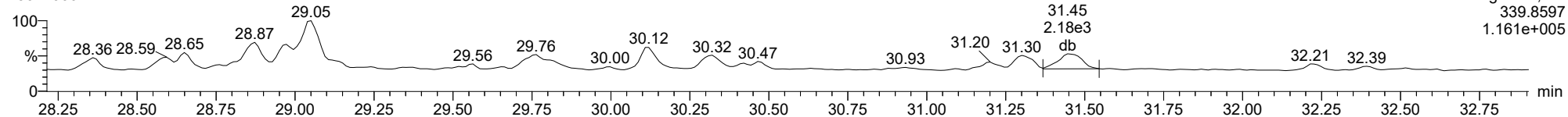
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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

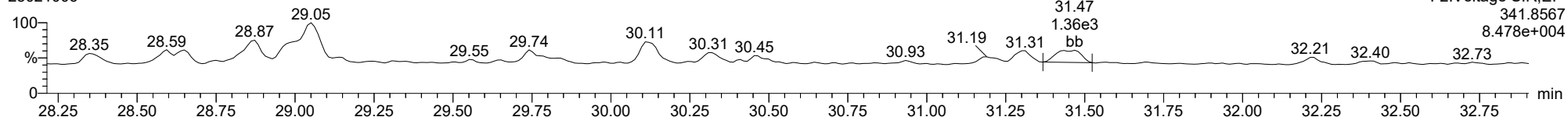
23478-PeCDF

23021006



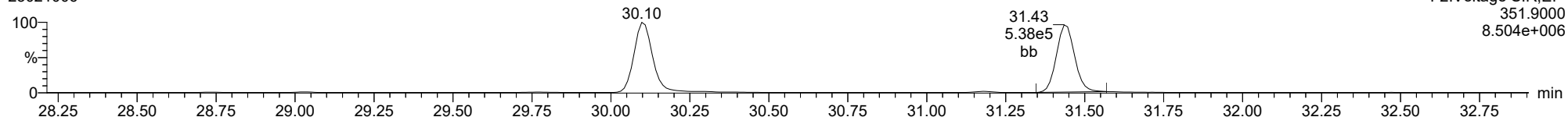
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23021006



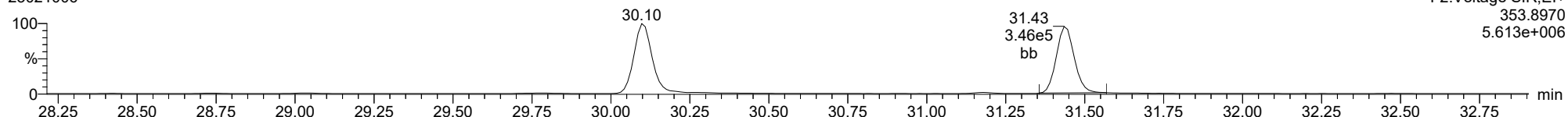
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23021006



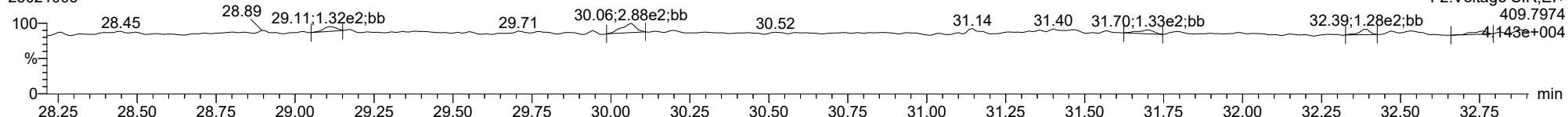
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23021006



FUNCTION2 HPCDPE

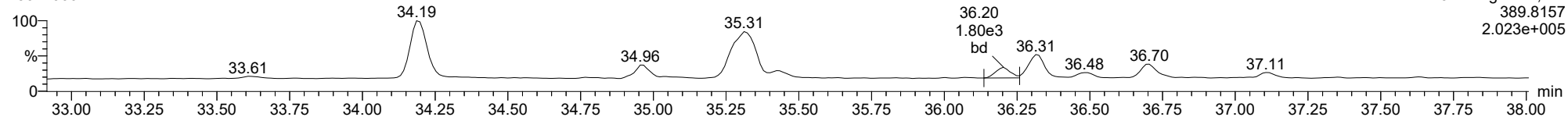
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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

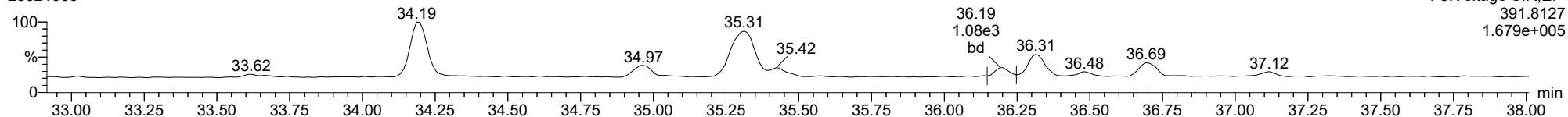
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23021006



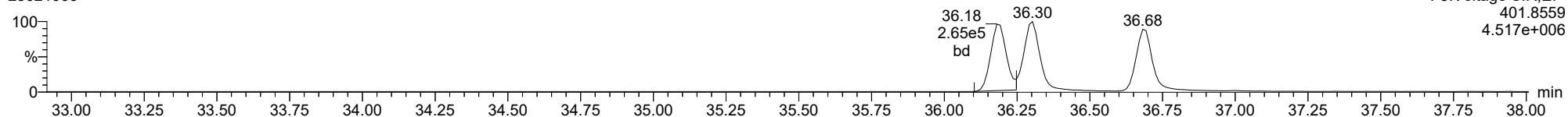
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23021006



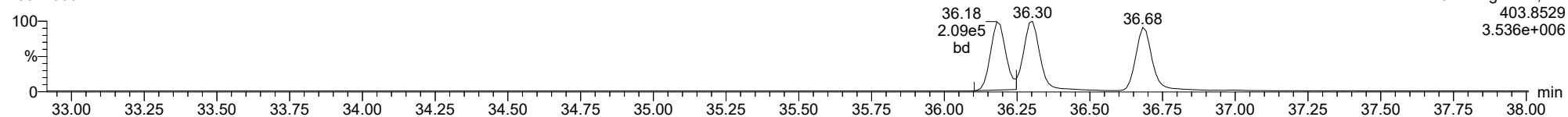
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23021006



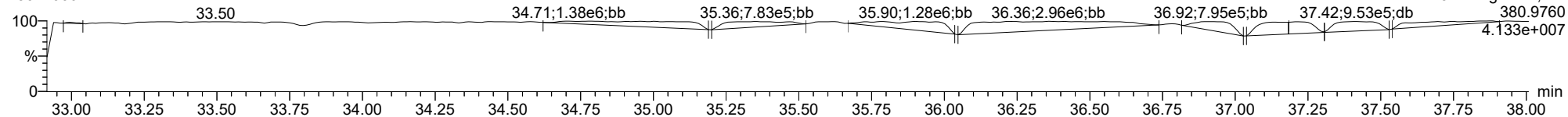
13C-123478-HxCDD

23021006



FUNCTION3 PFK

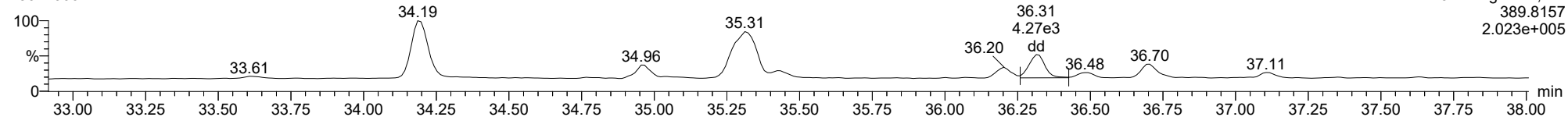
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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

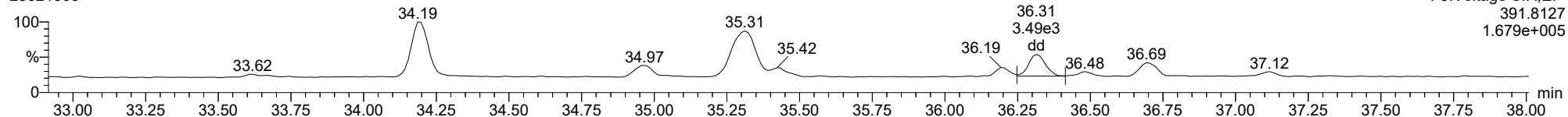
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23021006



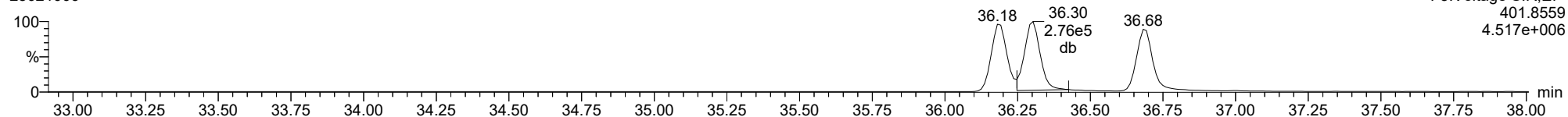
123678-HxCDD

23021006



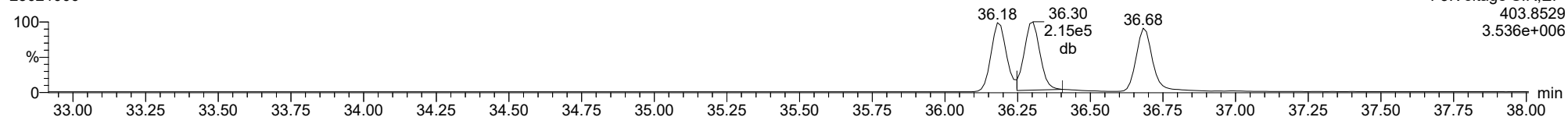
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23021006



13C-123678-HxCDD

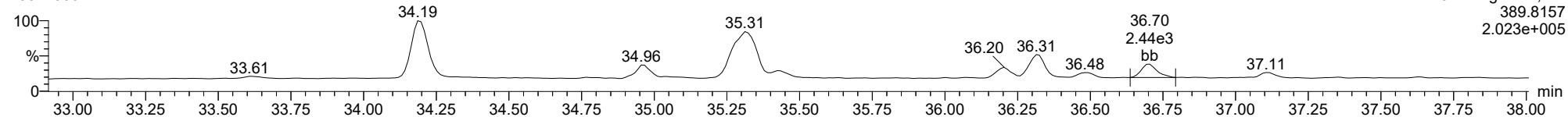
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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

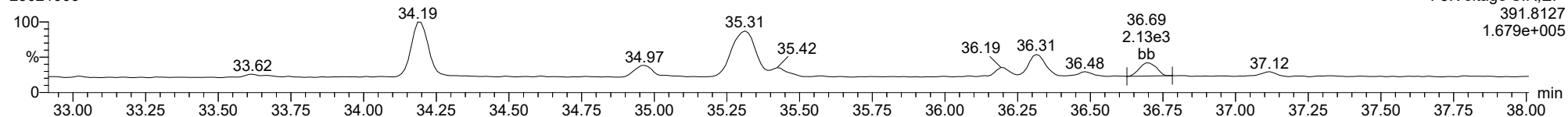
123789-HxCDD

23021006



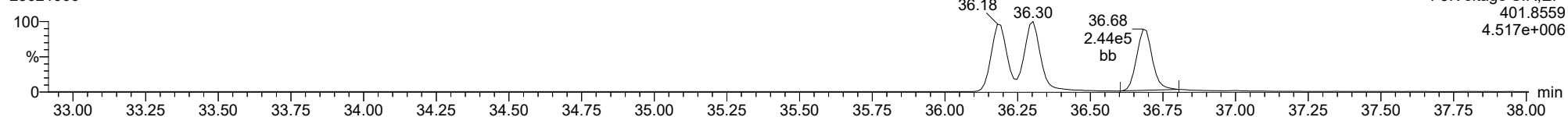
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23021006



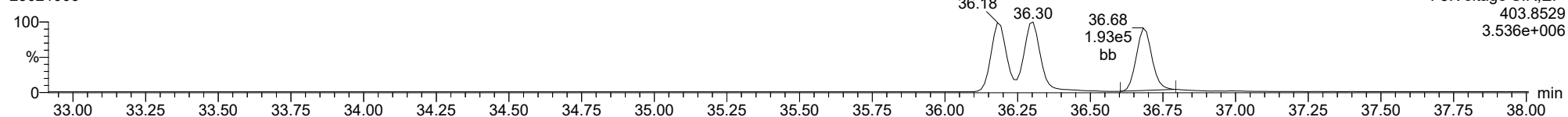
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23021006



13C-123789-HxCDD

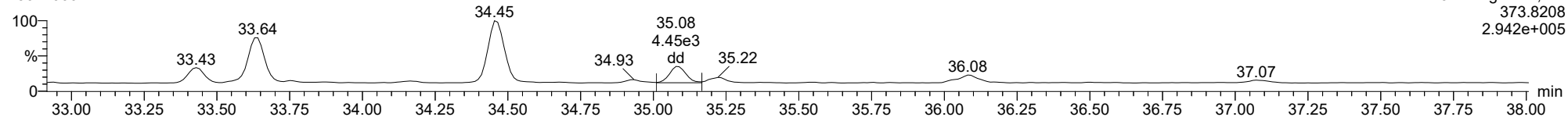
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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

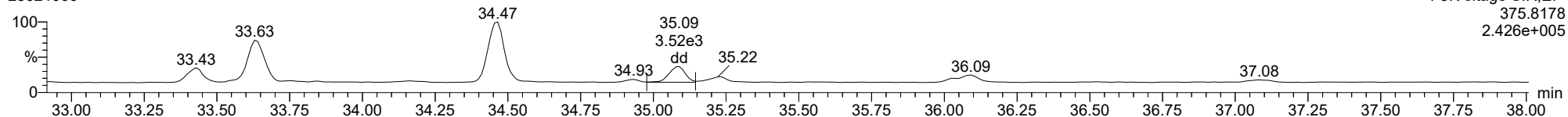
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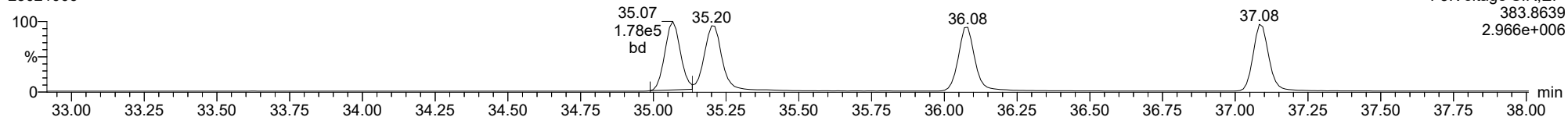
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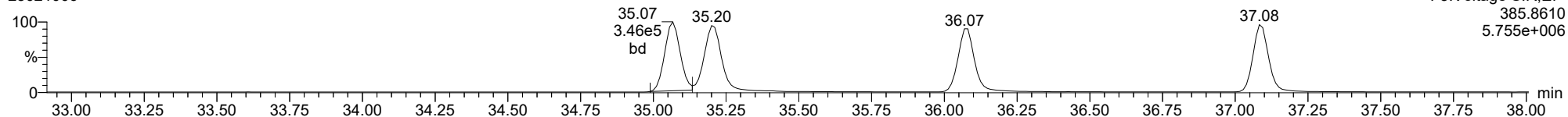
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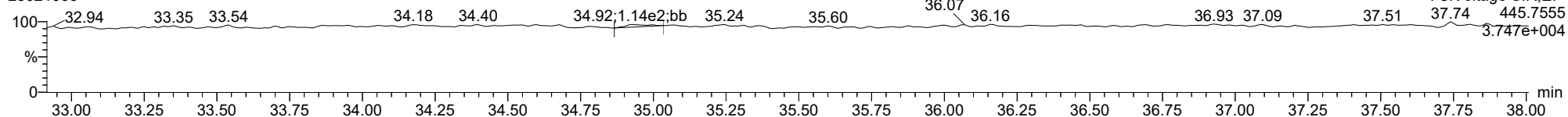
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23021006



FUNCTION3 OCDPE

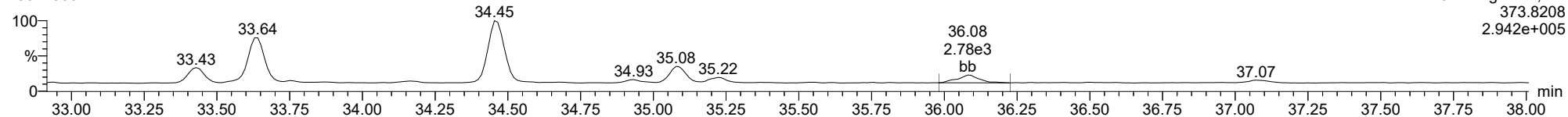
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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

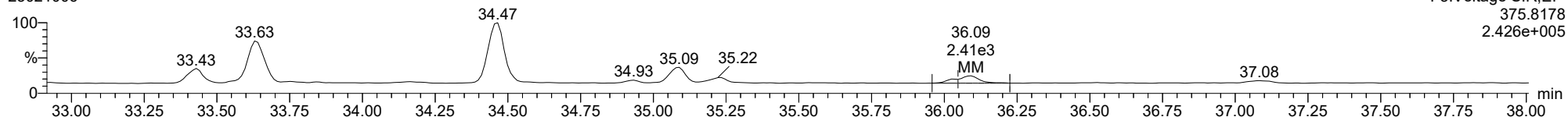
234678-HxCDF

23021006



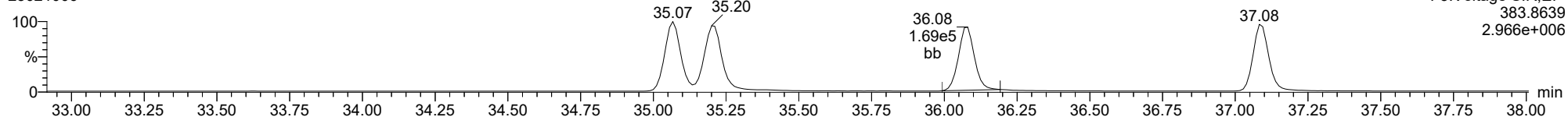
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23021006



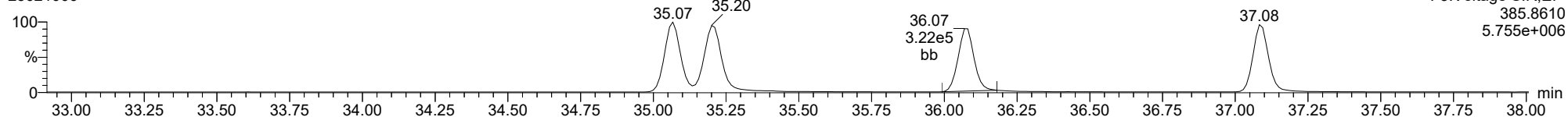
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23021006



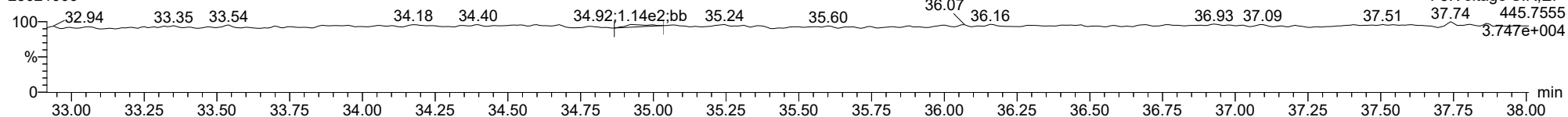
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23021006



FUNCTION3 OCDPE

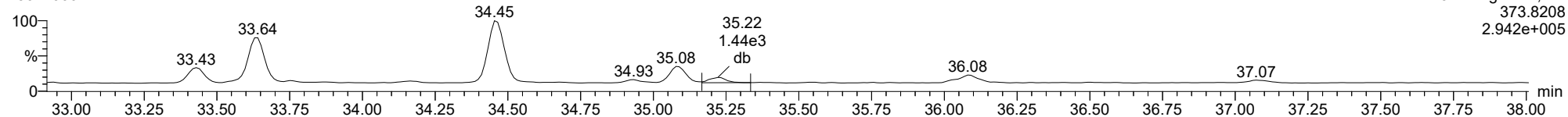
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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

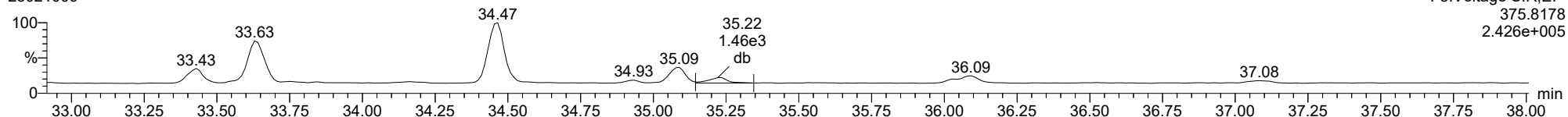
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23021006



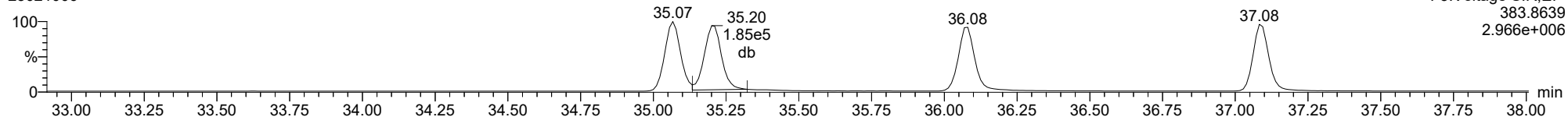
123678-HxCDF

23021006



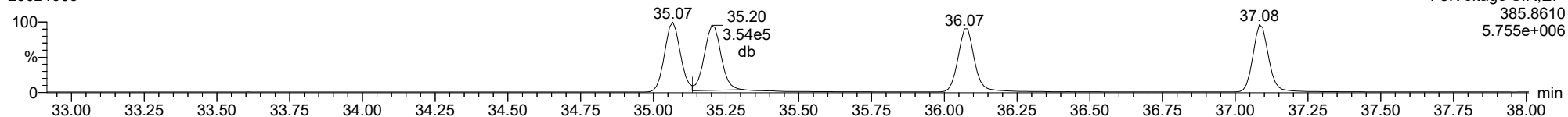
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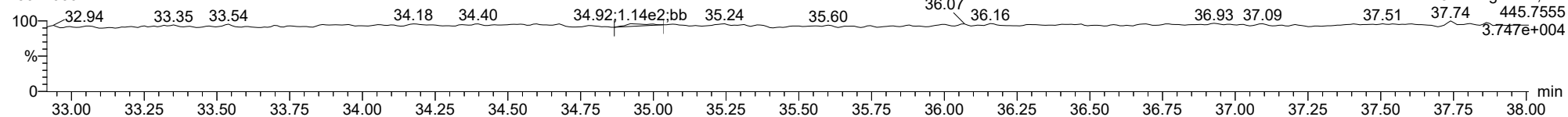
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FUNCTION3 OCDPE

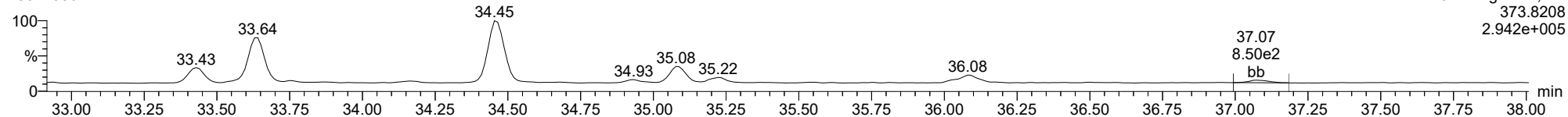
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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

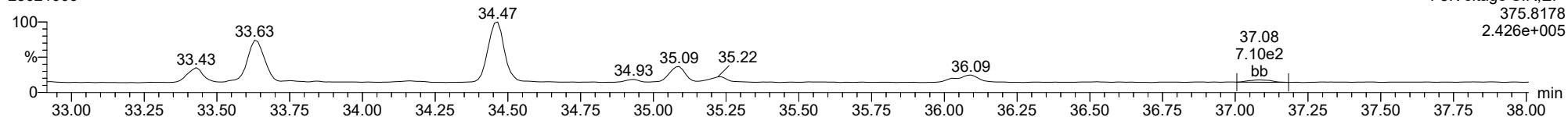
123789-HxCDF

23021006



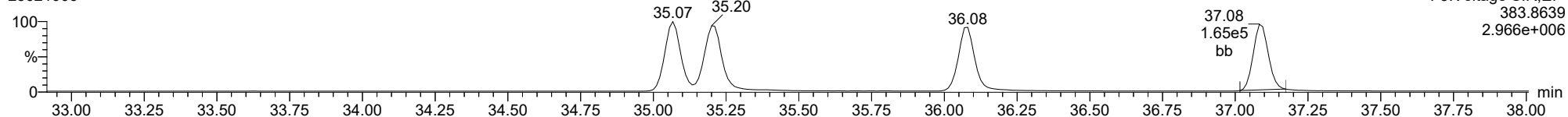
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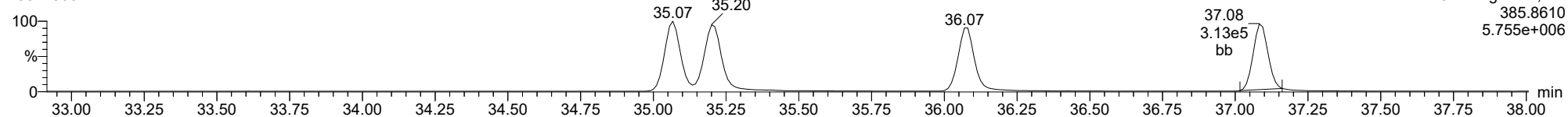
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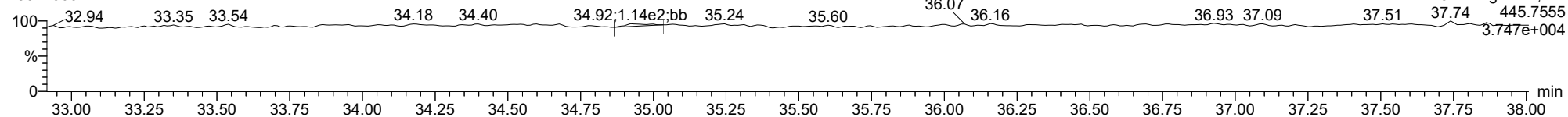
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FUNCTION3 OCDPE

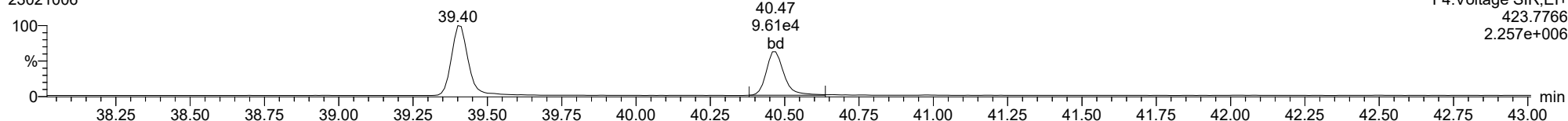
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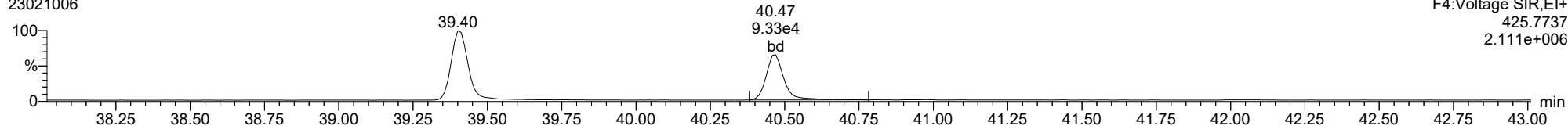
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23021006



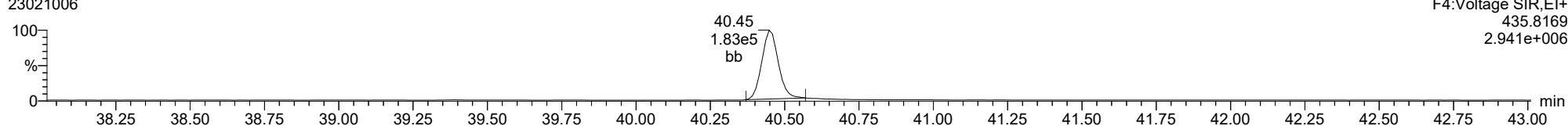
1234678-HpCDD

23021006



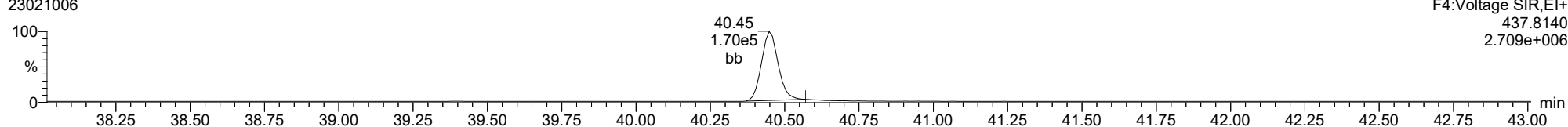
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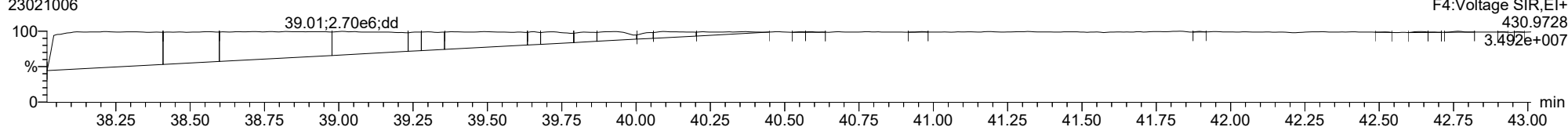
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23021006



FUNCTION4 PFK

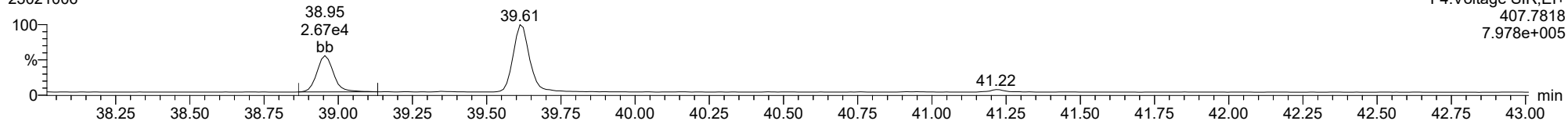
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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF

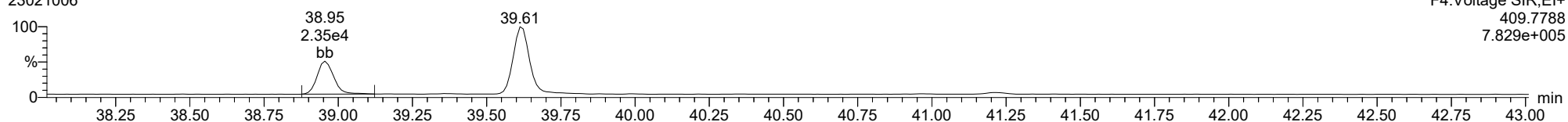
23021006



F4:Voltage SIR,El+
407.7818
7.978e+005

1234678-HpCDF

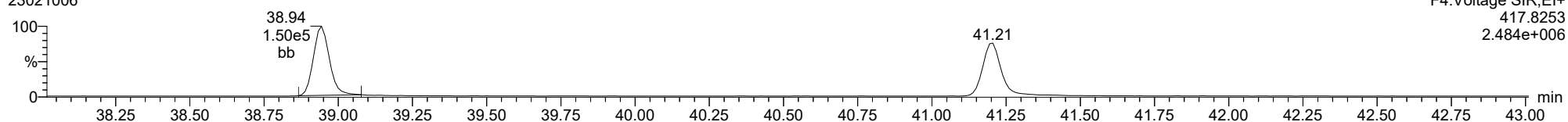
23021006



F4:Voltage SIR,El+
409.7788
7.829e+005

13C-1234678-HpCDF

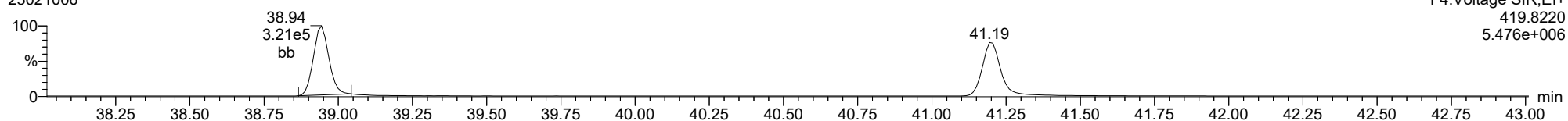
23021006



F4:Voltage SIR,El+
417.8253
2.484e+006

13C-1234678-HpCDF

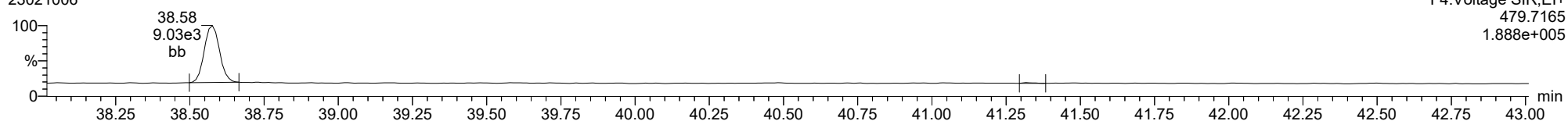
23021006



F4:Voltage SIR,El+
419.8220
5.476e+006

FUNCTION4 NCDPE

23021006

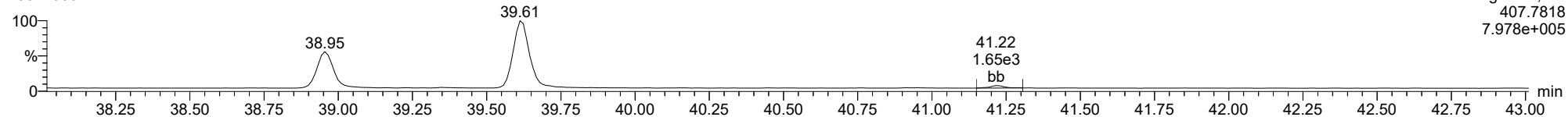


F4:Voltage SIR,El+
479.7165
1.888e+005

ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

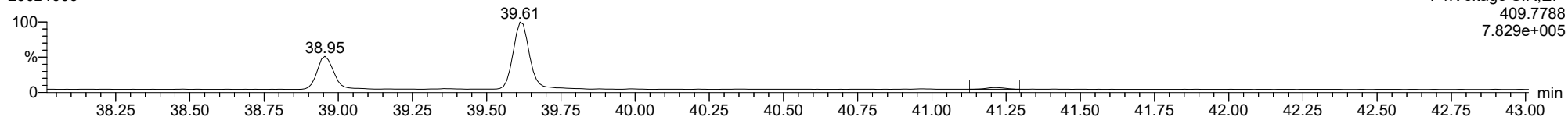
23021006



F4:Voltage SIR,EI+
407.7818
7.978e+005

1234789-HpCDF

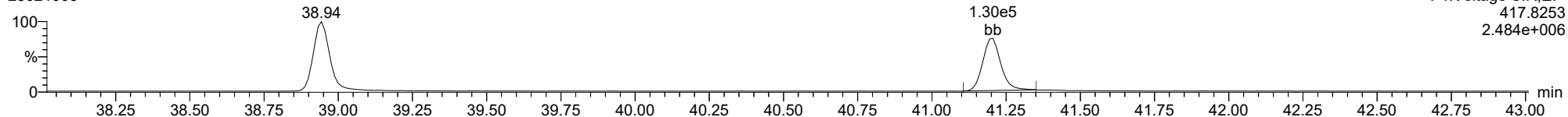
23021006



F4:Voltage SIR,EI+
409.7788
7.829e+005

13C-1234789-HpCDF

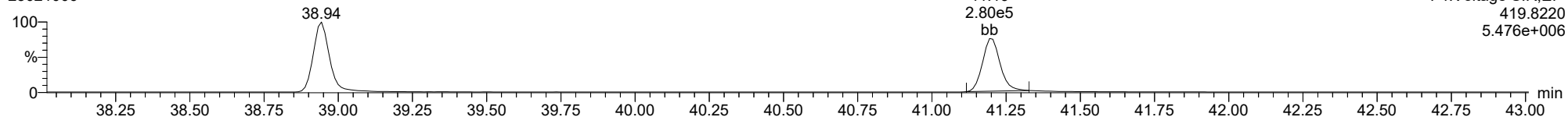
23021006



F4:Voltage SIR,EI+
417.8253
2.484e+006

13C-1234789-HpCDF

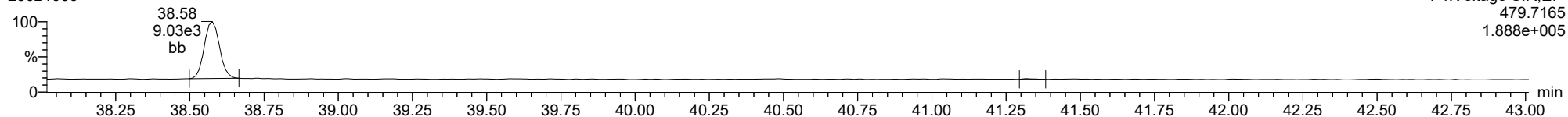
23021006



F4:Voltage SIR,EI+
419.8220
5.476e+006

FUNCTION4 NCDPE

23021006

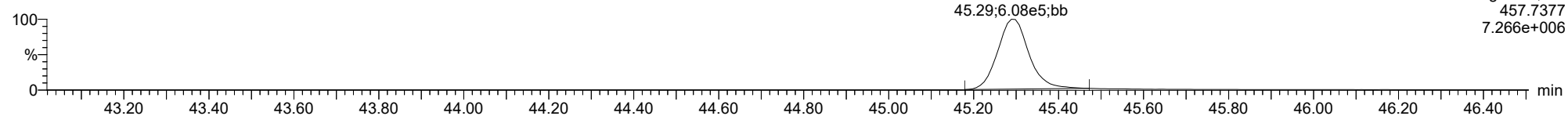


F4:Voltage SIR,EI+
479.7165
1.888e+005

ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

OCDD

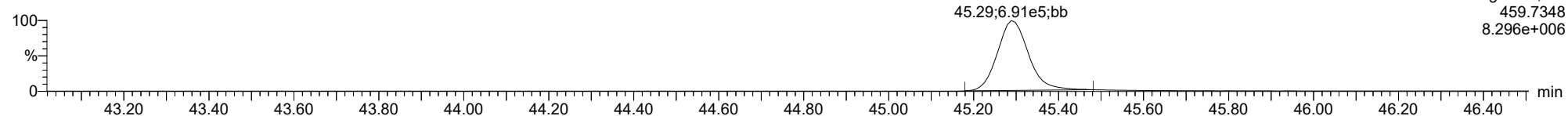
23021006



F5:Voltage SIR,EI+
457.7377
7.266e+006

OCDD

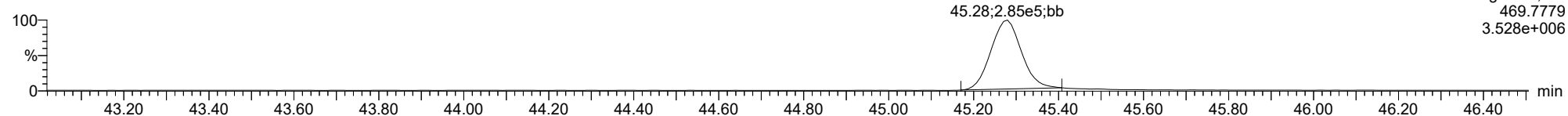
23021006



F5:Voltage SIR,EI+
459.7348
8.296e+006

13C-OCDD

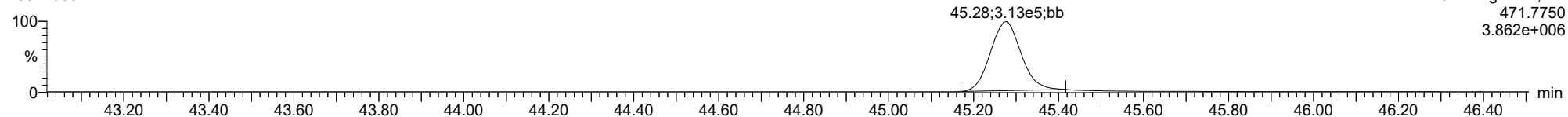
23021006



F5:Voltage SIR,EI+
469.7779
3.528e+006

13C-OCDD

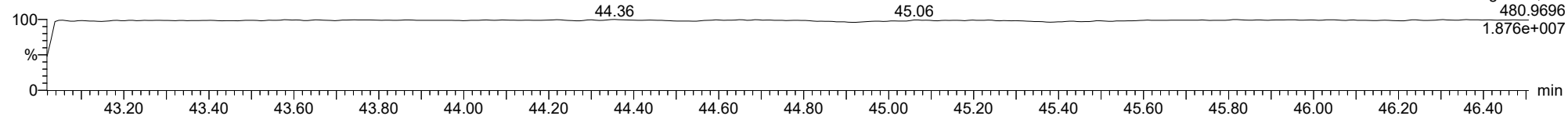
23021006



F5:Voltage SIR,EI+
471.7750
3.862e+006

FUNCTION5 PFK

23021006

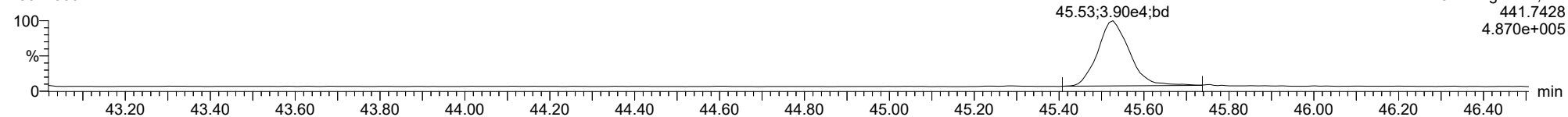


F5:Voltage SIR,EI+
480.9696
1.876e+007

ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

OCDF

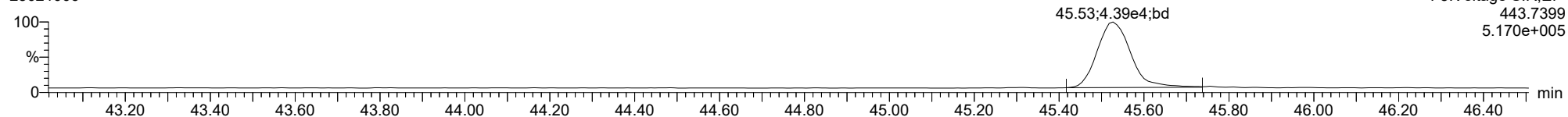
23021006



F5:Voltage SIR,EI+
441.7428
4.870e+005

OCDF

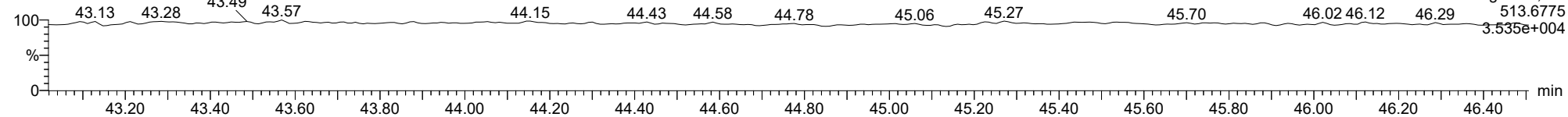
23021006



F5:Voltage SIR,EI+
443.7399
5.170e+005

FUNCTION5 DCDPE

23021006

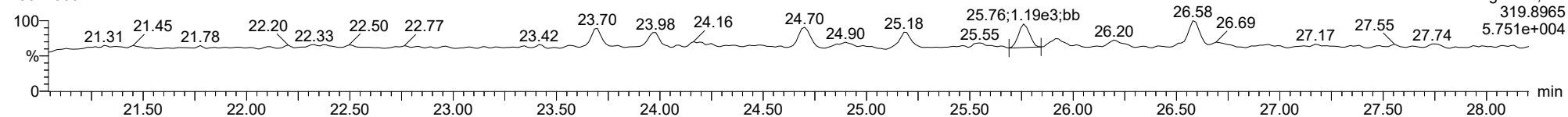


F5:Voltage SIR,EI+
513.6775
3.535e+004

ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

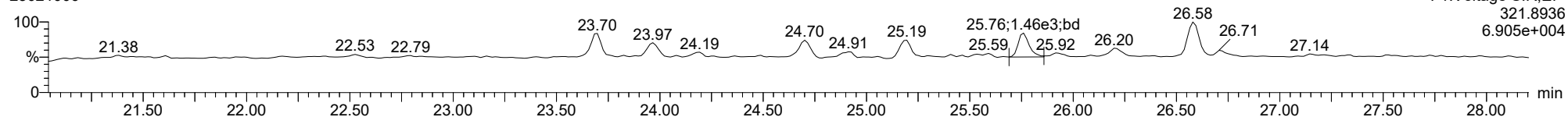
Total-tetradioxins

23021006



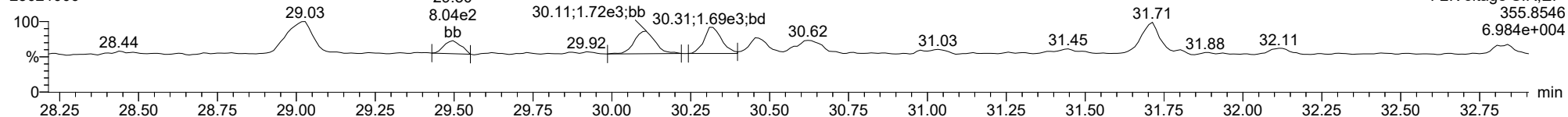
Total-tetradioxins

23021006



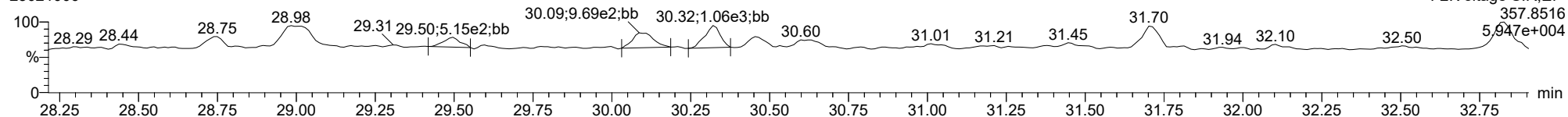
Total-pentadioxins

23021006



Total-pentadioxins

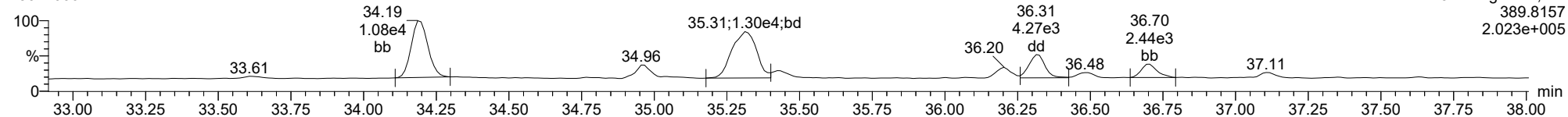
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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

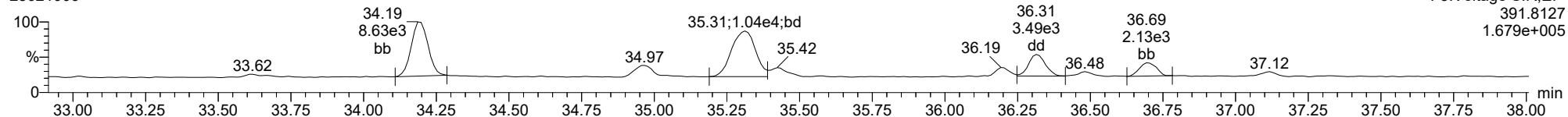
Total-hexadioxins

23021006



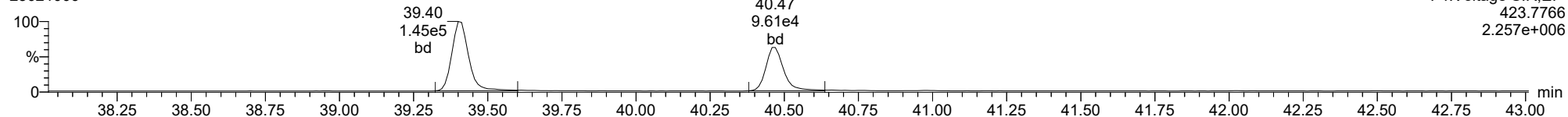
Total-hexadioxins

23021006



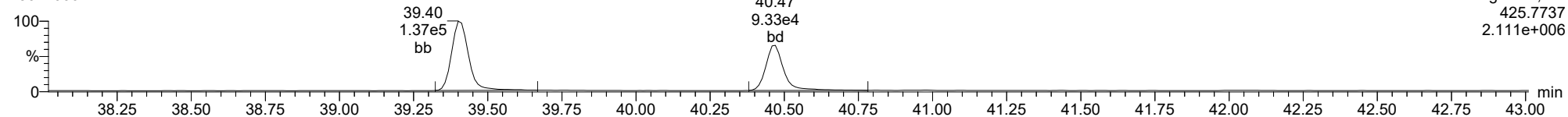
Total-heptadioxins

23021006



Total-heptadioxins

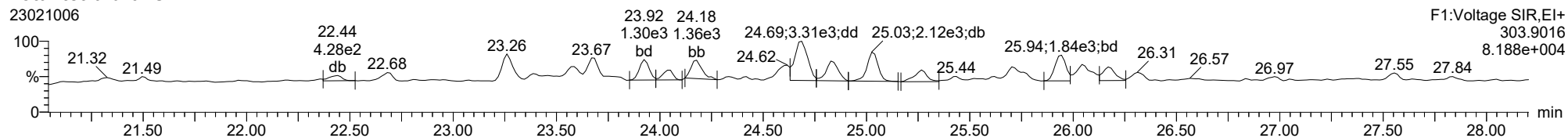
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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

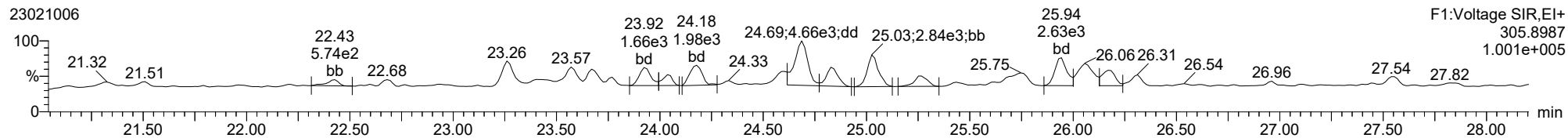
Total-tetrafurans

23021006



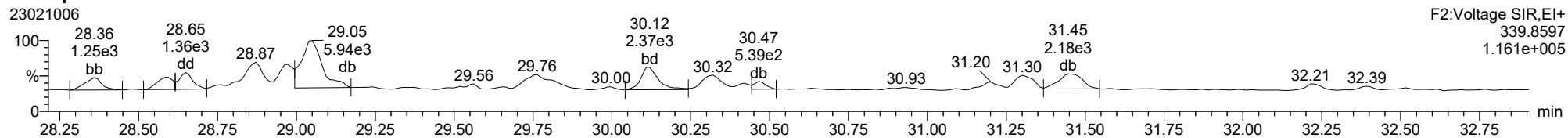
Total-tetrafurans

23021006



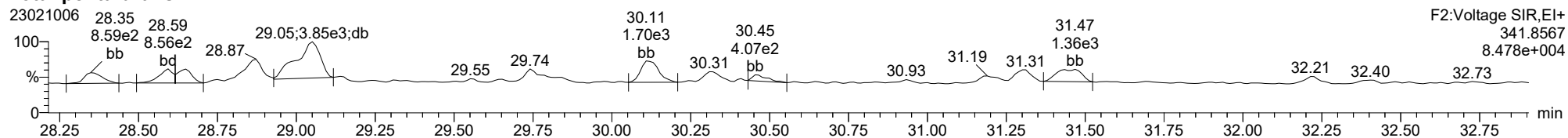
Total-pentafurans

23021006



Total-pentafurans

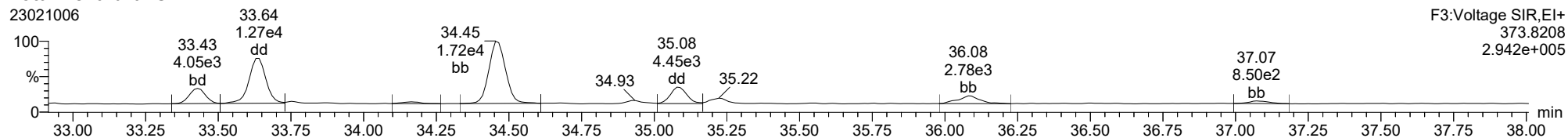
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ID: BLA0256-SRM1, Name: 23021006, Date: 10-Feb-2023, Time: 17:37:39, Conditions: AUTOSPEC01, User: pk

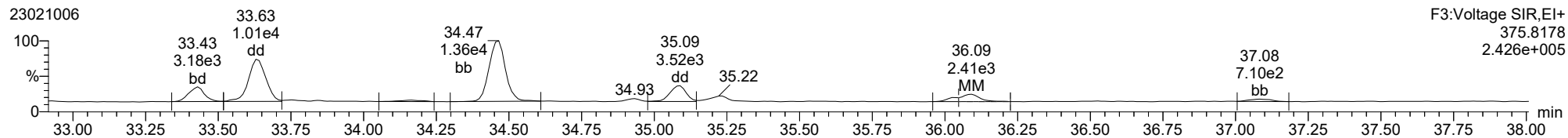
Total-hexafurans

23021006



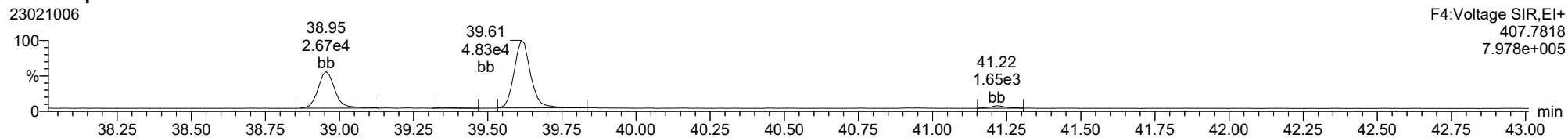
Total-hexafurans

23021006



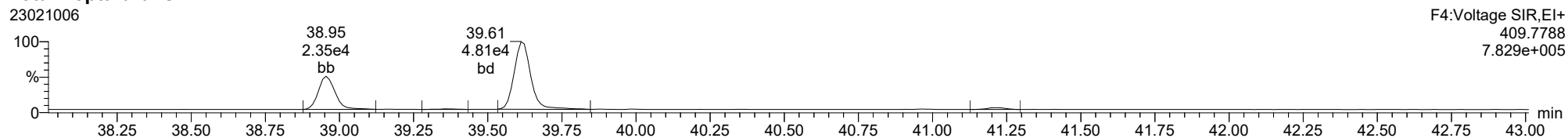
Total-heptafurans

23021006



Total-heptafurans

23021006





INITIAL CALIBRATION DATA
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00010	Instrument:	AUTOSPEC01
Calibration Date:	02/01/2023	Column (1):	RTX-Dioxin2

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
2,3,7,8-TCDF	0.8760604	2.0			RSD ()	
2,3,7,8-TCDD	1.23636	5.6			RSD ()	
1,2,3,7,8-PeCDF	0.844654	2.5			RSD ()	
2,3,4,7,8-PeCDF	0.911178	2.8			RSD ()	
1,2,3,7,8-PeCDD	1.086685	0.9			RSD ()	
1,2,3,4,7,8-HxCDF	1.181686	2.2			RSD ()	
1,2,3,6,7,8-HxCDF	1.248048	2.0			RSD ()	
2,3,4,6,7,8-HxCDF	1.22885	1.7			RSD ()	
1,2,3,7,8,9-HxCDF	1.186537	4.7			RSD ()	
1,2,3,4,7,8-HxCDD	0.9869672	2.3			RSD ()	
1,2,3,6,7,8-HxCDD	1.020722	5.7			RSD ()	
1,2,3,7,8,9-HxCDD	0.985478	1.8			RSD ()	
1,2,3,4,6,7,8-HpCDF	1.204119	5.7			RSD ()	
1,2,3,4,7,8,9-HpCDF	1.165305	3.7			RSD ()	
1,2,3,4,6,7,8-HpCDD	1.252569	11.3			RSD ()	
OCDF	1.186264	13.8			RSD ()	
OCDD	1.102667	10.9			RSD ()	
13C12-2,3,7,8-TCDF	1.768059	3.4			RSD ()	
13C12-2,3,7,8-TCDD	1.102947	3.7			RSD ()	
13C12-1,2,3,7,8-PeCDF	1.527125	6.7			RSD ()	
13C12-2,3,4,7,8-PeCDF	1.466284	6.6			RSD ()	
13C12-1,2,3,7,8-PeCDD	0.9141518	7.4			RSD ()	
13C12-1,2,3,4,7,8-HxCDF	1.053661	2.6			RSD ()	
13C12-1,2,3,6,7,8-HxCDF	1.079953	2.0			RSD ()	
13C12-2,3,4,6,7,8-HxCDF	1.014326	1.2			RSD ()	
13C12-1,2,3,7,8,9-HxCDF	0.9279333	1.5			RSD ()	
13C12-1,2,3,4,7,8-HxCDD	0.9329336	1.7			RSD ()	
13C12-1,2,3,6,7,8-HxCDD	0.9646272	1.1			RSD ()	
13C12-1,2,3,4,6,7,8-HpCDF	1.036089	1.8			RSD ()	
13C12-1,2,3,4,7,8,9-HpCDF	0.9049372	2.7			RSD ()	
13C12-1,2,3,4,6,7,8-HpCDD	0.7819773	2.1			RSD ()	



INITIAL CALIBRATION DATA
EPA 1613B

Laboratory:	Analytical Resources, LLC	SDG:	23A0032
Client:	Anchor QEA, LLC	Project:	AOC5 MR Phase 1
Calibration:	GB00010	Instrument:	AUTOSPEC01
Calibration Date:	02/01/2023	Column (1):	RTX-Dioxin2

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
13C12-OCDD	0.7882343	5.0			RSD ()	
37C14-2,3,7,8-TCDD	1.23345	9.9			RSD ()	
13C12-1,2,3,4-TCDD	1	0.0			RSD ()	
13C12-1,2,3,7,8,9-HxCDD	1	0.0			RSD ()	



ANALYSIS SEQUENCE

SLB0026

Instrument: AUTOSPEC01 HRGCMS Column ID: K11292
Calibration ID: GB00010 Tune File: JAN3023
EM Voltage: 350 Resolution check times : 11:48, 22:06

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLB0026-ICV1	CS3R1	QC		1	K009821		02/01/2023 10:37	23020102	PK	
SLB0026-RES1	ISCR1	QC		2	K003933		02/01/2023 13:02	23020103	PK	
SLB0026-CAL1	CSLCR	QC		3	I005460		02/01/2023 14:39	23020104	PK	
SLB0026-CAL2	CS1CR	QC		4	I005456		02/01/2023 15:28	23020105	PK	
SLB0026-CAL3	CS2CR	QC		5	I005457		02/01/2023 17:07	23020106	PK	
SLB0026-CAL4	CS3CR	QC		6	K009821		02/01/2023 17:56	23020107	PK	
SLB0026-CAL5	CS4CR	QC		7	I005458		02/01/2023 18:45	23020108	PK	
SLB0026-CAL6	CS5CR	QC		8	I005459		02/01/2023 19:34	23020109	PK	
SLB0026-SCV1	ICVCR	QC		9	H008219		02/01/2023 20:23	23020110	PK	
SLB0026-CCV1	CS3R2	QC		10	K009821		02/01/2023 21:12	23020111	PK	
SLB0026-RES2	ISCR2	QC		11	K003933		02/01/2023 22:06	23020112	PK	

Dataset: T:\Autospec\Processed Data Batch\230201ICIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:36:13 Pacific Standard Time

2/3/23 pk

Event	Details	Sample ID
Process Extract		
Process Integrate		
Process Calibrate		
Process Quantify		
Dataset Created		
Peak deleted	Sample:23020104, Compound:TF, RT:25.882	1
Peak deleted	Sample:23020104, Compound:TD, RT:26.532	1
Peak deleted	Sample:23020104, Compound:OD, RT:45.120	1
Peak deleted	Sample:23020109, Compound:TF, RT:27.273	6
Peak deleted	Sample:23020109, Compound:TF, RT:27.379	6
Peak deleted	Sample:23020108, Compound:PP, RT:27.107	5
Peak deleted	Sample:23020106, Compound:PF, RT:32.432	3
Peak deleted	Sample:23020108, Compound:HF, RT:33.335	5
Peak deleted	Sample:23020109, Compound:HF, RT:33.335	6
Peak deleted	Sample:23020108, Compound:TD, RT:27.122	5
Peak deleted	Sample:23020108, Compound:TD, RT:27.061	5
Peak deleted	Sample:23020109, Compound:TD, RT:27.107	6
Peak deleted	Sample:23020109, Compound:TD, RT:27.167	6
Peak deleted	Sample:23020104, Compound:HPD, RT:39.318	1
Peak deleted	Sample:23020105, Compound:HPD, RT:39.318	2
Peak deleted	Sample:23020106, Compound:HPD, RT:39.329	3
Peak deleted	Sample:23020108, Compound:HPD, RT:39.296	5
Peak deleted	Sample:23020109, Compound:HPD, RT:39.307	6
Dataset Saved	Saved to 'T:\Autospec\Processed Data Batch\230201ICIH.qld'	

Dataset: T:\Autospec\Processed Data Batch\230201IHOP.qld
 Last Altered: Friday, February 03, 2023 11:20:37 Pacific Standard Time
 Printed: Friday, February 03, 2023 11:21:40 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
 Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.897	1.001	1.633e4	2.121e4	0.876	0.770	0.770	844	1016	2.38e5	3.19e5	282.5	314.0	NO	bb	bb	8.996
12378-PeCDF	30.050	1.001	1.109e5	7.631e4	0.845	1.453	1.550	1249	1693	1.63e6	1.11e6	1307.7	657.1	NO	bb	bd	45.474
23478-PeCDF	31.387	1.001	1.159e5	7.903e4	0.911	1.467	1.550	1249	1693	1.77e6	1.19e6	1420.2	702.0	NO	bd	bd	46.006
123478-HxCDF	34.997	1.000	1.295e5	1.045e5	1.182	1.240	1.240	1714	1368	2.02e6	1.66e6	1181.4	1216.7	NO	bd	bd	43.803
234678-HxCDF	35.988	1.000	1.343e5	1.093e5	1.229	1.229	1.240	1714	1368	2.03e6	1.64e6	1185.6	1198.5	NO	bd	bb	45.575
123678-HxCDF	35.131	1.000	1.458e5	1.151e5	1.248	1.266	1.240	1714	1368	2.05e6	1.65e6	1195.7	1205.2	NO	db	dd	44.655
123789-HxCDF	37.025	1.001	1.158e5	9.218e4	1.187	1.257	1.240	1714	1368	1.74e6	1.39e6	1013.6	1013.7	NO	bb	bb	44.499
1234678-HpCDF	38.852	1.000	1.090e5	1.104e5	1.204	0.988	1.050	1381	2036	1.81e6	1.80e6	1312.8	883.5	NO	bb	bd	45.091
1234789-HpCDF	41.113	1.001	9.861e4	9.166e4	1.165	1.076	1.050	1381	2036	1.37e6	1.36e6	990.9	669.9	NO	bd	bb	47.733
OCDF	45.368	1.006	1.600e5	1.827e5	1.186	0.875	0.890	1512	1583	1.89e6	2.17e6	1249.6	1369.4	NO	bd	bd	86.348
2378-TCDD	26.532	1.001	1.602e4	2.106e4	1.236	0.761	0.770	1110	975	2.31e5	3.09e5	207.8	317.0	NO	bb	bd	7.999
12378-PeCDD	31.643	1.001	9.866e4	5.958e4	1.087	1.656	1.550	1646	1001	1.48e6	9.13e5	896.9	912.1	NO	bd	bb	49.739
123478-HxCDD	36.111	1.000	1.092e5	8.877e4	0.987	1.230	1.240	1547	1532	1.85e6	1.48e6	1198.0	965.8	NO	bd	bd	44.758
123678-HxCDD	36.234	1.001	1.208e5	9.232e4	1.021	1.308	1.240	1547	1532	1.90e6	1.47e6	1225.9	960.4	NO	db	db	43.840
123789-HxCDD	36.612	1.011	1.096e5	9.138e4	0.985	1.199	1.240	1547	1532	1.82e6	1.52e6	1178.1	989.3	NO	bb	bb	44.134
1234678-HpCDD	40.367	1.001	9.142e4	8.634e4	1.253	1.059	1.050	1287	1635	1.36e6	1.30e6	1055.7	793.5	NO	bd	bb	44.175
OCDD	45.130	1.000	1.558e5	1.797e5	1.103	0.867	0.890	1087	1881	1.97e6	2.25e6	1808.2	1195.6	NO	bb	bb	90.946
13C-2378-TCDF	25.867	1.006	2.092e5	2.671e5	1.768	0.783	0.770	1473	1226	3.13e6	4.02e6	2126.4	3281.6	NO	bb	bb	81.841
13C-12378-PeCDF	30.028	1.168	2.959e5	1.916e5	1.527	1.544	1.550	2999	2197	4.50e6	2.95e6	1498.8	1341.1	NO	bb	bb	96.965
13C-23478-PeCDF	31.365	1.220	2.816e5	1.834e5	1.466	1.535	1.550	2999	2197	4.34e6	2.84e6	1446.0	1290.5	NO	bb	bb	96.345
13C-123478-HxCDF	34.986	0.956	1.509e5	3.011e5	1.054	0.501	0.510	1539	2587	2.37e6	4.78e6	1539.0	1847.3	NO	bd	bd	88.697
13C-123678-HxCDF	35.119	0.960	1.595e5	3.087e5	1.080	0.517	0.510	1539	2587	2.51e6	4.86e6	1632.0	1878.9	NO	db	db	89.641
13C-234678-HxCDF	35.977	0.983	1.463e5	2.887e5	1.014	0.507	0.510	1539	2587	2.39e6	4.73e6	1553.6	1829.5	NO	bb	bb	88.660
13C-123789-HxCDF	37.002	1.011	1.315e5	2.625e5	0.928	0.501	0.510	1539	2587	2.16e6	4.40e6	1402.9	1699.3	NO	bb	bb	87.781
13C-1234678-HpCDF	38.841	1.062	1.240e5	2.800e5	1.036	0.443	0.440	1596	2193	2.11e6	4.68e6	1322.3	2133.9	NO	bb	bb	80.624
13C-1234789-HpCDF	41.091	1.123	1.084e5	2.336e5	0.905	0.464	0.440	1596	2193	1.58e6	3.44e6	991.3	1568.5	NO	bb	bb	78.158
13C-1234-TCDD	25.700	0.000	1.445e5	1.847e5	1.000	0.782	0.770	1667	873	2.18e6	2.81e6	1307.2	3212.9	NO	bb	bb	100.000
13C-2378-TCDD	26.517	1.032	1.635e5	2.114e5	1.103	0.774	0.770	1667	873	2.52e6	3.27e6	1513.3	3746.2	NO	bb	bb	103.258
13C-12378-PeCDD	31.621	1.230	1.783e5	1.145e5	0.914	1.557	1.550	940	1014	2.71e6	1.73e6	2879.6	1709.2	NO	bb	bb	97.286
13C-123478-HxCDD	36.100	0.987	2.492e5	1.989e5	0.933	1.253	1.240	1846	1567	4.13e6	3.30e6	2236.6	2103.6	NO	bd	bd	99.308
13C-123678-HxCDD	36.211	0.990	2.631e5	2.131e5	0.965	1.234	1.240	1846	1567	4.22e6	3.43e6	2285.9	2187.7	NO	db	db	102.074
13C-1234678-HpCDD	40.345	1.103	1.659e5	1.554e5	0.782	1.067	1.050	1641	1171	2.51e6	2.40e6	1529.6	2051.4	NO	bb	bb	84.947
13C-OCDD	45.111	1.233	3.174e5	3.517e5	0.788	0.903	0.890	3114	1814	4.07e6	4.46e6	1307.4	2459.0	NO	bb	bb	175.516
13C-123789-HxCDD	36.590	0.000	2.678e5	2.158e5	1.000	1.241	1.240	1846	1567	4.30e6	3.43e6	2331.6	2186.8	NO	bb	bb	100.000
37CL-2378-TCDD	26.532	1.032	3.482e4		1.233			850		5.25e5		617.9			bb		8.577

Dataset: T:\Autospec\Processed Data Batch\230201IHOP.qld
 Last Altered: Friday, February 03, 2023 11:20:37 Pacific Standard Time
 Printed: Friday, February 03, 2023 11:21:40 Pacific Standard Time

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.389	0.866	1.928e4	2.641e4	1.064	0.730	0.770	844	1016	3.12e5	4.35e5	369.4	427.9	NO	bb	bb	9.011
1289-TCDF	27.394	1.059	1.506e4	2.111e4	0.858	0.713	0.770	844	1016	2.15e5	3.01e5	254.4	296.4	NO	db	dd	8.854
13468-PECDF	27.243	0.907	1.732e5	1.184e5	1.013	1.464	1.550	906	933	2.67e6	1.81e6	2951.1	1944.9	NO	bb	bb	59.051
12389-PECDF	32.423	1.080	1.096e5	7.394e4	0.844	1.482	1.550	1249	1693	1.63e6	1.06e6	1301.6	627.3	NO	bb	bd	44.621
123468-HXCDF	33.337	0.953	1.333e5	1.071e5	1.197	1.245	1.240	1714	1368	1.94e6	1.63e6	1132.0	1192.1	NO	bb	bd	44.431
1368-TCDD	23.674	0.893	1.559e4	1.973e4	1.084	0.790	0.770	1110	975	2.48e5	3.06e5	223.8	314.1	NO	bb	bb	8.690
1289-TCDD	27.137	1.023	1.343e4	1.711e4	0.975	0.785	0.770	1110	975	2.02e5	2.57e5	181.6	263.1	NO	bb	bd	8.354
12479-PECDD	28.925	0.915	1.617e5	1.030e5	1.837	1.569	1.550	1646	1001	1.58e6	1.01e6	962.4	1010.4	NO	bb	bb	49.217
12389-PECDD	32.033	1.013	1.065e5	6.755e4	1.252	1.576	1.550	1646	1001	1.60e6	1.04e6	973.2	1039.9	NO	bb	bb	47.467
124679-HXCDD	34.117	0.945	1.151e5	9.437e4	1.033	1.219	1.240	1547	1532	1.82e6	1.49e6	1174.2	973.0	NO	bb	bb	45.255
1234679-HPCDD	39.309	0.974	9.857e4	9.267e4	1.286	1.064	1.050	1287	1635	1.62e6	1.55e6	1257.2	945.5	NO	bb	bb	46.288
Total-tetrafurans			5.067e4		0.933			844		7.65e5							26.861
Total-penta1			1.732e5					906		2.67e6							59.051
Total-pentafurans			3.556e5		0.866			1249		5.33e6							143.542
Total-hexafurans			6.587e5		1.208			1714		9.78e6							222.964
Total-heptafurans			2.076e5		1.185			1381		3.18e6							92.824
Total-Furans			1.606e6		1.067			844		2.36e7							631.589
Total-tetradoxins			7.564e4		1.099			1110		1.04e6							41.916
Total-pentadoxins			3.670e5		1.392			1646		4.67e6							146.491
Total-hexadoxins			4.546e5		1.007			1547		7.39e6							177.988
Total-heptadoxins			1.900e5		1.269			1287		2.98e6							90.463
Total-Dioxins			1.243e6		1.165			1110		1.80e7							547.804
Total-TEQ			2.849e6					1110		4.17e7							1179.393
FUNCTION1 PFK			6.977e5					215892		1.30e7							
FUNCTION2 PFK			7.329e6					149595		7.20e7							0.000
FUNCTION3 PFK			1.409e7					224809		7.00e7							0.000
FUNCTION4 PFK			7.505e3					156562		3.03e5							
FUNCTION5 PFK			1.269e4					142532		5.28e5							
FUNCTION1 HXCD...			3.884e2					838		8.06e3							0.000
FUNCTION1 HPCD...			3.094e2					854		6.24e3							0.000
FUNCTION2 HPCD...			4.137e2					755		7.38e3							0.000
FUNCTION3 OCDPE			2.422e2					659		4.44e3							0.000
FUNCTION4 NCDPE			2.399e2					738		4.58e3							0.000
FUNCTION5 DCDPE			0.000e0					686		0.00e0							

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201IHOP.qld
 Last Altered: Friday, February 03, 2023 11:20:37 Pacific Standard Time
 Printed: Friday, February 03, 2023 11:21:40 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33

Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.39	1.506e4	2.111e4	0.858	0.71	0.77	254.4	YES	NO	db	dd	8.854
2	2378-TCDF	25.90	1.633e4	2.121e4	0.876	0.77	0.77	282.5	YES	NO	bb	bb	8.996
3	1368-TCDF	22.39	1.928e4	2.641e4	1.064	0.73	0.77	369.4	YES	NO	bb	bb	9.011

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.24	1.732e5	1.184e5	1.013	1.46	1.55	2951.1	YES	NO	bb	bb	59.051

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDF	32.42	1.096e5	7.394e4	0.844	1.48	1.55	1301.6	YES	NO	bb	bd	44.621
2	23478-PeCDF	31.39	1.159e5	7.903e4	0.911	1.47	1.55	1420.2	YES	NO	bd	bd	46.006
3	12378-PeCDF	30.05	1.109e5	7.631e4	0.845	1.45	1.55	1307.7	YES	NO	bb	bd	45.474
4	Total-pentafurans	28.90	1.918e4	1.152e4	0.866	1.67	1.55	232.8	YES	NO	bb	bb	7.440

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	234678-HxCDF	35.99	1.343e5	1.093e5	1.229	1.23	1.24	1185.6	YES	NO	bd	bb	45.575
2	123678-HxCDF	35.13	1.458e5	1.151e5	1.248	1.27	1.24	1195.7	YES	NO	db	dd	44.655
3	123478-HxCDF	35.00	1.295e5	1.045e5	1.182	1.24	1.24	1181.4	YES	NO	bd	bd	43.803
4	123468-HxCDF	33.34	1.333e5	1.071e5	1.197	1.24	1.24	1132.0	YES	NO	bb	bd	44.431
5	123789-HxCDF	37.02	1.158e5	9.218e4	1.187	1.26	1.24	1013.6	YES	NO	bb	bb	44.499

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.11	9.861e4	9.166e4	1.165	1.08	1.05	990.9	YES	NO	bd	bb	47.733
2	1234678-HpCDF	38.85	1.090e5	1.104e5	1.204	0.99	1.05	1312.8	YES	NO	bb	bd	45.091

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201HOP.qld
 Last Altered: Friday, February 03, 2023 11:20:37 Pacific Standard Time
 Printed: Friday, February 03, 2023 11:21:40 Pacific Standard Time

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.39	1.506e4	2.111e4	0.858	0.71	0.77	254.4	YES	NO	db	dd	8.854
2	2378-TCDF	25.90	1.633e4	2.121e4	0.876	0.77	0.77	282.5	YES	NO	bb	bb	8.996
3	1368-TCDF	22.39	1.928e4	2.641e4	1.064	0.73	0.77	369.4	YES	NO	bb	bb	9.011
4	12389-PECDF	32.42	1.096e5	7.394e4	0.844	1.48	1.55	1301.6	YES	NO	bb	bd	44.621
5	23478-PeCDF	31.39	1.159e5	7.903e4	0.911	1.47	1.55	1420.2	YES	NO	bd	bd	46.006
6	12378-PeCDF	30.05	1.109e5	7.631e4	0.845	1.45	1.55	1307.7	YES	NO	bb	bd	45.474
7	Total-pentafurans	28.90	1.918e4	1.152e4	0.866	1.67	1.55	232.8	YES	NO	bb	bb	7.440
8	234678-HxCDF	35.99	1.343e5	1.093e5	1.229	1.23	1.24	1185.6	YES	NO	bd	bb	45.575
9	123678-HxCDF	35.13	1.458e5	1.151e5	1.248	1.27	1.24	1195.7	YES	NO	db	dd	44.655
10	123478-HxCDF	35.00	1.295e5	1.045e5	1.182	1.24	1.24	1181.4	YES	NO	bd	bd	43.803
11	123468-HXCDF	33.34	1.333e5	1.071e5	1.197	1.24	1.24	1132.0	YES	NO	bb	bd	44.431
12	123789-HxCDF	37.02	1.158e5	9.218e4	1.187	1.26	1.24	1013.6	YES	NO	bb	bb	44.499
13	1234789-HpCDF	41.11	9.861e4	9.166e4	1.165	1.08	1.05	990.9	YES	NO	bd	bb	47.733
14	1234678-HpCDF	38.85	1.090e5	1.104e5	1.204	0.99	1.05	1312.8	YES	NO	bb	bd	45.091
15	OCDF	45.37	1.600e5	1.827e5	1.186	0.88	0.89	1249.6	YES	NO	bd	bd	86.348
16	13468-PECDF	27.24	1.732e5	1.184e5	1.013	1.46	1.55	2951.1	YES	NO	bb	bb	59.051

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.67	1.559e4	1.973e4	1.084	0.79	0.77	223.8	YES	NO	bb	bb	8.690
2	1289-TCDD	27.14	1.343e4	1.711e4	0.975	0.79	0.77	181.6	YES	NO	bb	bd	8.354
3	2378-TCDD	26.53	1.602e4	2.106e4	1.236	0.76	0.77	207.8	YES	NO	bb	bd	7.999
4	Total-tetradoxins	26.21	2.312e4	2.981e4	1.099	0.78	0.77	216.6	YES	NO	bb	bb	12.852
5	Total-tetradoxins	25.73	7.468e3	9.090e3	1.099	0.82	0.77	105.7	YES	NO	bb	bb	4.020

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	32.03	1.065e5	6.755e4	1.252	1.58	1.55	973.2	YES	NO	bb	bb	47.467
2	Total-pentadoxins	31.87	1.652e2	1.080e2	1.392	1.53	1.55	3.2	YES	NO	db	bb	0.067
3	12378-PeCDD	31.64	9.866e4	5.958e4	1.087	1.66	1.55	896.9	YES	NO	bd	bb	49.739
4	12479-PECDD	28.92	1.617e5	1.030e5	1.837	1.57	1.55	962.4	YES	NO	bb	bb	49.217

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Last Altered: Friday, February 03, 2023 11:20:37 Pacific Standard Time

Printed: Friday, February 03, 2023 11:21:40 Pacific Standard Time

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.61	1.096e5	9.138e4	0.985	1.20	1.24	1178.1	YES	NO	bb	bb	44.134
2	123678-HxCDD	36.23	1.208e5	9.232e4	1.021	1.31	1.24	1225.9	YES	NO	db	db	43.840
3	123478-HxCDD	36.11	1.092e5	8.877e4	0.987	1.23	1.24	1198.0	YES	NO	bd	bd	44.758
4	124679-HXCDD	34.12	1.151e5	9.437e4	1.033	1.22	1.24	1174.2	YES	NO	bb	bb	45.255

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.37	9.142e4	8.634e4	1.253	1.06	1.05	1055.7	YES	NO	bd	bb	44.175
2	1234679-HPCDD	39.31	9.857e4	9.267e4	1.286	1.06	1.05	1257.2	YES	NO	bb	bb	46.288

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.67	1.559e4	1.973e4	1.084	0.79	0.77	223.8	YES	NO	bb	bb	8.690
2	1289-TCDD	27.14	1.343e4	1.711e4	0.975	0.79	0.77	181.6	YES	NO	bb	bd	8.354
3	2378-TCDD	26.53	1.602e4	2.106e4	1.236	0.76	0.77	207.8	YES	NO	bb	bd	7.999
4	Total-tetradoxins	26.21	2.312e4	2.981e4	1.099	0.78	0.77	216.6	YES	NO	bb	bb	12.852
5	Total-tetradoxins	25.73	7.468e3	9.090e3	1.099	0.82	0.77	105.7	YES	NO	bb	bb	4.020
6	12389-PECDD	32.03	1.065e5	6.755e4	1.252	1.58	1.55	973.2	YES	NO	bb	bb	47.467
7	Total-pentadoxins	31.87	1.652e2	1.080e2	1.392	1.53	1.55	3.2	YES	NO	db	bb	0.067
8	12378-PeCDD	31.64	9.866e4	5.958e4	1.087	1.66	1.55	896.9	YES	NO	bd	bb	49.739
9	12479-PECDD	28.92	1.617e5	1.030e5	1.837	1.57	1.55	962.4	YES	NO	bb	bb	49.217
10	123789-HxCDD	36.61	1.096e5	9.138e4	0.985	1.20	1.24	1178.1	YES	NO	bb	bb	44.134
11	123678-HxCDD	36.23	1.208e5	9.232e4	1.021	1.31	1.24	1225.9	YES	NO	db	db	43.840
12	123478-HxCDD	36.11	1.092e5	8.877e4	0.987	1.23	1.24	1198.0	YES	NO	bd	bd	44.758
13	124679-HXCDD	34.12	1.151e5	9.437e4	1.033	1.22	1.24	1174.2	YES	NO	bb	bb	45.255
14	1234678-HpCDD	40.37	9.142e4	8.634e4	1.253	1.06	1.05	1055.7	YES	NO	bd	bb	44.175
15	1234679-HPCDD	39.31	9.857e4	9.267e4	1.286	1.06	1.05	1257.2	YES	NO	bb	bb	46.288
16	OCDD	45.13	1.558e5	1.797e5	1.103	0.87	0.89	1808.2	YES	NO	bb	bb	90.946

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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 Printed: Friday, February 03, 2023 11:21:40 Pacific Standard Time

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.39	1.506e4	2.111e4	0.858	0.71	0.77	254.4	YES	NO	db	dd	8.854
2	2378-TCDF	25.90	1.633e4	2.121e4	0.876	0.77	0.77	282.5	YES	NO	bb	bb	8.996
3	1368-TCDF	22.39	1.928e4	2.641e4	1.064	0.73	0.77	369.4	YES	NO	bb	bb	9.011
4	12389-PECDF	32.42	1.096e5	7.394e4	0.844	1.48	1.55	1301.6	YES	NO	bb	bd	44.621
5	23478-PeCDF	31.39	1.159e5	7.903e4	0.911	1.47	1.55	1420.2	YES	NO	bd	bd	46.006
6	12378-PeCDF	30.05	1.109e5	7.631e4	0.845	1.45	1.55	1307.7	YES	NO	bb	bd	45.474
7	Total-pentafurans	28.90	1.918e4	1.152e4	0.866	1.67	1.55	232.8	YES	NO	bb	bb	7.440
8	234678-HxCDF	35.99	1.343e5	1.093e5	1.229	1.23	1.24	1185.6	YES	NO	bd	bb	45.575
9	123678-HxCDF	35.13	1.458e5	1.151e5	1.248	1.27	1.24	1195.7	YES	NO	db	dd	44.655
10	123478-HxCDF	35.00	1.295e5	1.045e5	1.182	1.24	1.24	1181.4	YES	NO	bd	bd	43.803
11	123468-HXCDF	33.34	1.333e5	1.071e5	1.197	1.24	1.24	1132.0	YES	NO	bb	bd	44.431
12	123789-HxCDF	37.02	1.158e5	9.218e4	1.187	1.26	1.24	1013.6	YES	NO	bb	bb	44.499
13	1234789-HpCDF	41.11	9.861e4	9.166e4	1.165	1.08	1.05	990.9	YES	NO	bd	bb	47.733
14	1234678-HpCDF	38.85	1.090e5	1.104e5	1.204	0.99	1.05	1312.8	YES	NO	bb	bd	45.091
15	OCDF	45.37	1.600e5	1.827e5	1.186	0.88	0.89	1249.6	YES	NO	bd	bd	86.348
16	13468-PECDF	27.24	1.732e5	1.184e5	1.013	1.46	1.55	2951.1	YES	NO	bb	bb	59.051
17	1368-TCDD	23.67	1.559e4	1.973e4	1.084	0.79	0.77	223.8	YES	NO	bb	bb	8.690
18	1289-TCDD	27.14	1.343e4	1.711e4	0.975	0.79	0.77	181.6	YES	NO	bb	bd	8.354
19	2378-TCDD	26.53	1.602e4	2.106e4	1.236	0.76	0.77	207.8	YES	NO	bb	bd	7.999
20	Total-tetradiioxins	26.21	2.312e4	2.981e4	1.099	0.78	0.77	216.6	YES	NO	bb	bb	12.852
21	Total-tetradiioxins	25.73	7.468e3	9.090e3	1.099	0.82	0.77	105.7	YES	NO	bb	bb	4.020
22	12389-PECDD	32.03	1.065e5	6.755e4	1.252	1.58	1.55	973.2	YES	NO	bb	bb	47.467
23	Total-pentadiioxins	31.87	1.652e2	1.080e2	1.392	1.53	1.55	3.2	YES	NO	db	bb	0.067
24	12378-PeCDD	31.64	9.866e4	5.958e4	1.087	1.66	1.55	896.9	YES	NO	bd	bb	49.739
25	12479-PECDD	28.92	1.617e5	1.030e5	1.837	1.57	1.55	962.4	YES	NO	bb	bb	49.217
26	123789-HxCDD	36.61	1.096e5	9.138e4	0.985	1.20	1.24	1178.1	YES	NO	bb	bb	44.134
27	123678-HxCDD	36.23	1.208e5	9.232e4	1.021	1.31	1.24	1225.9	YES	NO	db	db	43.840
28	123478-HxCDD	36.11	1.092e5	8.877e4	0.987	1.23	1.24	1198.0	YES	NO	bd	bd	44.758
29	124679-HXCDD	34.12	1.151e5	9.437e4	1.033	1.22	1.24	1174.2	YES	NO	bb	bb	45.255
30	1234678-HpCDD	40.37	9.142e4	8.634e4	1.253	1.06	1.05	1055.7	YES	NO	bd	bb	44.175
31	1234679-HPCDD	39.31	9.857e4	9.267e4	1.286	1.06	1.05	1257.2	YES	NO	bb	bb	46.288
32	OCDD	45.13	1.558e5	1.797e5	1.103	0.87	0.89	1808.2	YES	NO	bb	bb	90.946

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Printed: Friday, February 03, 2023 11:21:40 Pacific Standard Time

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.12	9.025e3					1.5	NO		bb		
2	FUNCTION1 PFK	23.39	1.564e4					1.7	NO		db		
3	FUNCTION1 PFK	23.33	1.699e4					1.8	NO		dd		
4	FUNCTION1 PFK	23.21	3.674e4					1.8	NO		dd		
5	FUNCTION1 PFK	23.15	1.668e4					1.7	NO		bd		
6	FUNCTION1 PFK	23.07	1.606e4					2.1	NO		bb		
7	FUNCTION1 PFK	22.69	6.506e3					1.1	NO		db		
8	FUNCTION1 PFK	22.57	5.324e4					2.0	NO		bd		
9	FUNCTION1 PFK	22.46	2.047e3					0.6	NO		bb		
10	FUNCTION1 PFK	22.18	2.854e4					1.8	NO		bb		
11	FUNCTION1 PFK	22.00	2.061e4					1.1	NO		bb		
12	FUNCTION1 PFK	21.88	1.276e3					0.4	NO		bb		
13	FUNCTION1 PFK	21.48	1.972e3					0.6	NO		bb		
14	FUNCTION1 PFK	21.36	4.333e4					3.4	YES		db		
15	FUNCTION1 PFK	21.33	3.930e4					3.3	YES		dd		
16	FUNCTION1 PFK	21.25	3.950e4					3.7	YES		dd		
17	FUNCTION1 PFK	21.22	1.839e4					1.7	NO		bd		
18	FUNCTION1 PFK	26.44	2.008e3					0.6	NO		bb		
19	FUNCTION1 PFK	26.37	1.096e4					1.2	NO		bb		
20	FUNCTION1 PFK	26.06	5.687e3					0.8	NO		bb		
21	FUNCTION1 PFK	25.85	4.606e4					2.0	NO		bb		
22	FUNCTION1 PFK	25.67	1.822e4					1.6	NO		db		
23	FUNCTION1 PFK	25.59	5.429e3					0.7	NO		bd		
24	FUNCTION1 PFK	25.41	3.678e3					0.7	NO		bb		
25	FUNCTION1 PFK	25.35	1.804e3					0.6	NO		bb		
26	FUNCTION1 PFK	24.69	1.276e4					1.4	NO		bb		
27	FUNCTION1 PFK	24.46	1.415e3					0.4	NO		bb		
28	FUNCTION1 PFK	24.23	1.486e4					1.4	NO		db		
29	FUNCTION1 PFK	24.16	3.220e4					2.1	NO		dd		
30	FUNCTION1 PFK	24.07	1.916e4					1.5	NO		bd		
31	FUNCTION1 PFK	23.86	1.041e4					1.2	NO		bb		
32	FUNCTION1 PFK	23.75	2.252e4					1.8	NO		bb		
33	FUNCTION1 PFK	23.46	2.488e3					0.5	NO		bb		
34	FUNCTION1 PFK	28.21	1.683e4					1.3	NO		bb		
35	FUNCTION1 PFK	28.13	1.846e4					1.2	NO		db		
36	FUNCTION1 PFK	27.97	3.589e4					1.9	NO		bd		
37	FUNCTION1 PFK	27.85	3.272e3					0.6	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION1 PFK	27.55	1.459e3					0.4	NO		bb		
39	FUNCTION1 PFK	27.48	1.620e3					0.5	NO		bb		
40	FUNCTION1 PFK	27.36	8.182e3					1.0	NO		bb		
41	FUNCTION1 PFK	27.27	3.811e3					0.8	NO		db		
42	FUNCTION1 PFK	27.24	6.329e3					0.8	NO		bd		
43	FUNCTION1 PFK	27.03	6.469e3					1.1	NO		db		
44	FUNCTION1 PFK	26.99	1.869e4					1.7	NO		bd		
45	FUNCTION1 PFK	26.88	1.188e3					0.4	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.61	1.089e6					38.3	YES		dd		0.000
2	FUNCTION2 PFK	28.42	5.461e5					42.0	YES		dd		0.000
3	FUNCTION2 PFK	28.36	4.208e5					43.0	YES		bd		0.000
4	FUNCTION2 PFK	30.22	3.292e4					7.2	YES		dd		0.000
5	FUNCTION2 PFK	30.16	1.231e5					8.8	YES		dd		0.000
6	FUNCTION2 PFK	30.05	1.117e5					10.9	YES		dd		0.000
7	FUNCTION2 PFK	29.99	9.120e4					11.4	YES		dd		0.000
8	FUNCTION2 PFK	29.94	2.092e5					12.7	YES		dd		0.000
9	FUNCTION2 PFK	29.76	2.907e5					15.9	YES		dd		0.000
10	FUNCTION2 PFK	29.69	1.383e5					17.3	YES		dd		0.000
11	FUNCTION2 PFK	29.58	3.090e5					19.5	YES		dd		0.000
12	FUNCTION2 PFK	29.52	2.750e5					21.8	YES		dd		0.000
13	FUNCTION2 PFK	29.39	4.070e5					23.3	YES		dd		0.000
14	FUNCTION2 PFK	29.28	4.078e5					25.5	YES		dd		0.000
15	FUNCTION2 PFK	29.18	3.023e5					27.3	YES		dd		0.000
16	FUNCTION2 PFK	29.14	2.357e5					29.1	YES		dd		0.000
17	FUNCTION2 PFK	28.99	6.311e5					30.4	YES		dd		0.000
18	FUNCTION2 PFK	28.92	2.637e5					32.6	YES		dd		0.000
19	FUNCTION2 PFK	28.71	1.202e6					36.5	YES		dd		0.000
20	FUNCTION2 PFK	32.81	9.753e3					1.3	NO		bb		0.000
21	FUNCTION2 PFK	32.42	4.488e3					1.0	NO		db		0.000
22	FUNCTION2 PFK	32.38	3.779e3					1.0	NO		bd		0.000
23	FUNCTION2 PFK	31.96	1.738e4					2.2	NO		bb		0.000
24	FUNCTION2 PFK	31.88	6.239e3					1.5	NO		db		0.000
25	FUNCTION2 PFK	31.82	6.444e3					1.4	NO		bd		0.000
26	FUNCTION2 PFK	31.71	6.215e3					1.3	NO		db		0.000
27	FUNCTION2 PFK	31.68	5.289e3					1.0	NO		bd		0.000
28	FUNCTION2 PFK	31.61	3.799e3					1.0	NO		bb		0.000
29	FUNCTION2 PFK	31.29	5.305e3					1.2	NO		bb		0.000
30	FUNCTION2 PFK	31.23	7.886e3					2.2	NO		bb		0.000
31	FUNCTION2 PFK	30.99	1.453e4					1.9	NO		bb		0.000
32	FUNCTION2 PFK	30.82	9.920e3					1.5	NO		bb		0.000
33	FUNCTION2 PFK	30.75	8.792e3					1.2	NO		bb		0.000
34	FUNCTION2 PFK	30.57	3.072e3					0.9	NO		bb		0.000
35	FUNCTION2 PFK	30.26	1.206e5					6.2	YES		db		0.000
36	FUNCTION2 PFK	32.91	8.369e3					1.2	NO		bb		0.000

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	36.94	1.363e3					0.5	NO		bb		0.000
2	FUNCTION3 PFK	36.89	2.597e3					0.7	NO		bb		0.000
3	FUNCTION3 PFK	36.63	5.216e4					2.1	NO		bb		0.000
4	FUNCTION3 PFK	35.98	3.727e4					3.2	YES		bb		0.000
5	FUNCTION3 PFK	35.89	8.881e3					1.2	NO		bb		0.000
6	FUNCTION3 PFK	35.60	1.234e3					0.5	NO		bb		0.000
7	FUNCTION3 PFK	34.97	3.658e3					1.5	NO		bb		0.000
8	FUNCTION3 PFK	34.76	1.198e4					1.2	NO		bb		0.000
9	FUNCTION3 PFK	34.41	7.167e5					12.6	YES		db		0.000
10	FUNCTION3 PFK	34.27	1.814e5					18.8	YES		dd		0.000
11	FUNCTION3 PFK	33.46	8.929e6					56.3	YES		dd		0.000
12	FUNCTION3 PFK	33.26	1.470e6					65.1	YES		dd		0.000
13	FUNCTION3 PFK	33.14	1.013e6					69.2	YES		dd		0.000
14	FUNCTION3 PFK	33.07	1.616e6					73.1	YES		bd		0.000
15	FUNCTION3 PFK	37.87	2.660e3					0.7	NO		bb		0.000
16	FUNCTION3 PFK	37.70	1.990e4					1.9	NO		bb		0.000
17	FUNCTION3 PFK	37.50	4.098e3					0.8	NO		bb		0.000
18	FUNCTION3 PFK	37.39	4.630e3					0.7	NO		bb		0.000
19	FUNCTION3 PFK	37.31	1.274e4					1.3	NO		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	42.07	7.505e3					1.9	NO		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	43.80	5.683e3					1.8	NO		bb		
2	FUNCTION5 PFK	43.45	7.005e3					1.9	NO		bb		

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	28.15	7.677e1					2.2	NO		bb		0.000
2	FUNCTION1 HXCD...	27.41	8.186e1					1.7	NO		bb		0.000
3	FUNCTION1 HXCD...	26.21	8.899e1					2.8	NO		bb		0.000
4	FUNCTION1 HXCD...	24.48	1.408e2					2.9	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	25.28	8.635e1					2.2	NO		bb		0.000
2	FUNCTION1 HPCD...	24.58	7.600e1					1.7	NO		bb		0.000
3	FUNCTION1 HPCD...	22.57	1.471e2					3.3	YES		bb		0.000

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.97	1.041e2					2.4	NO		bb		0.000
2	FUNCTION2 HPCD...	31.62	1.168e2					2.5	NO		bb		0.000
3	FUNCTION2 HPCD...	31.26	1.928e2					4.9	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.10	7.435e1					2.4	NO		bb		0.000
2	FUNCTION3 OCDPE	35.85	7.444e1					2.1	NO		bb		0.000
3	FUNCTION3 OCDPE	35.30	9.337e1					2.3	NO		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	42.04	7.794e1					1.9	NO		bb		0.000
2	FUNCTION4 NCDPE	41.07	7.754e1					1.8	NO		bb		0.000
3	FUNCTION4 NCDPE	39.75	8.441e1					2.5	NO		bb		0.000

ETHERS6

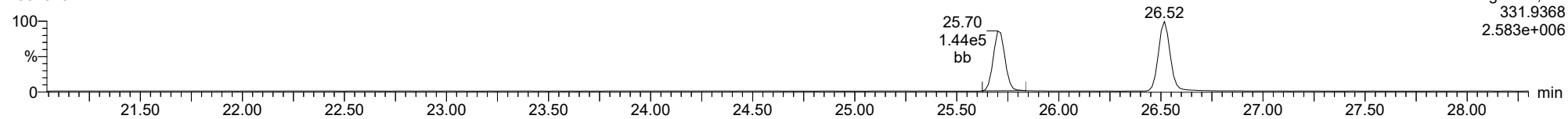
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

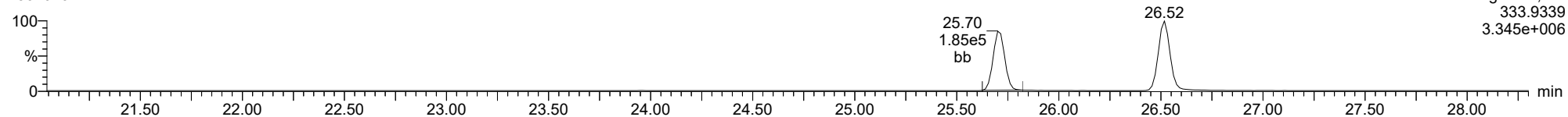
13C-1234-TCDD

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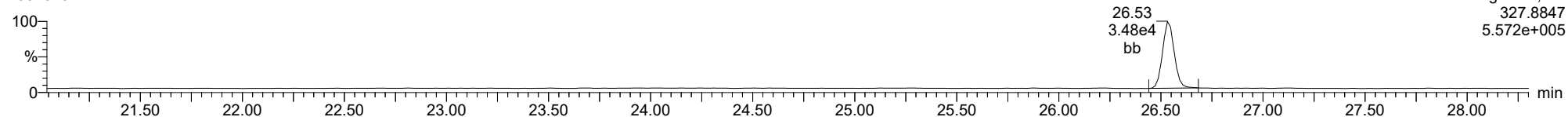
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23020102



37CL-2378-TCDD

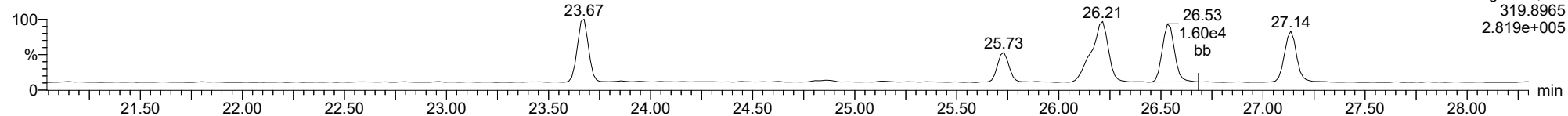
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ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

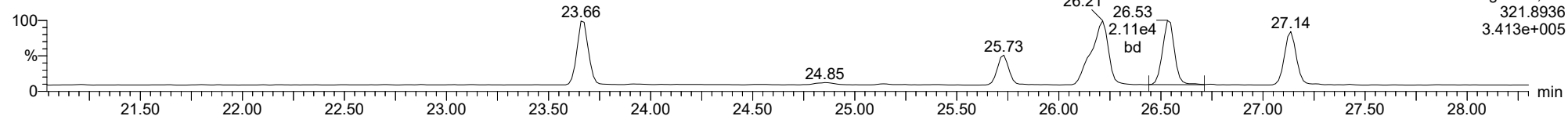
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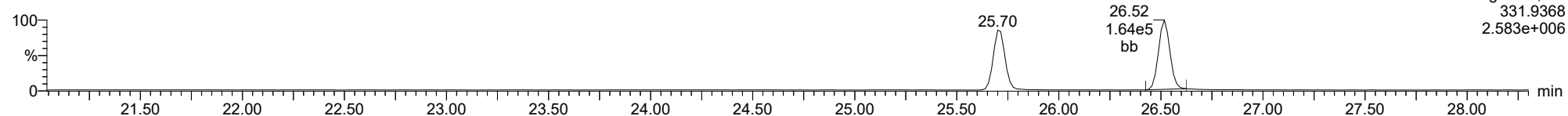
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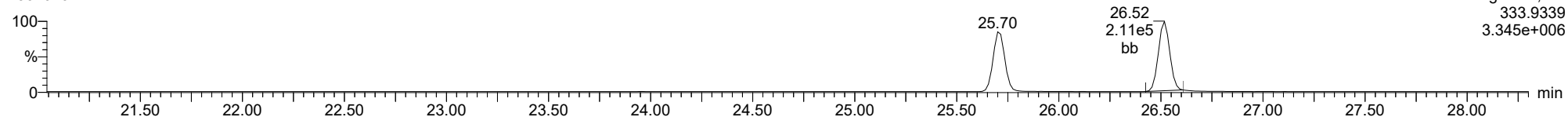
13C-2378-TCDD

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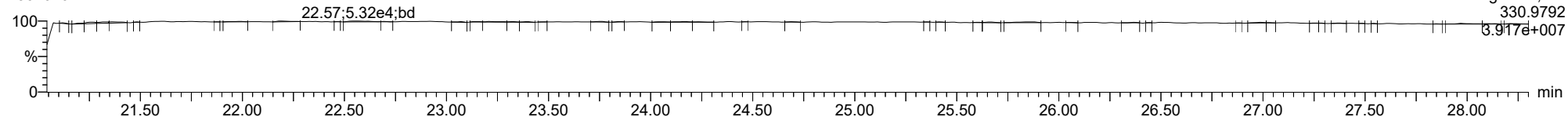
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23020102



FUNCTION1 PFK

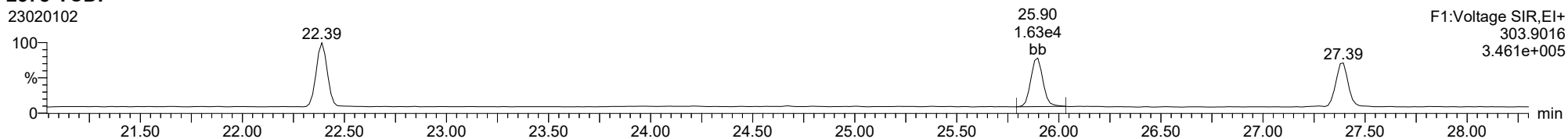
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ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

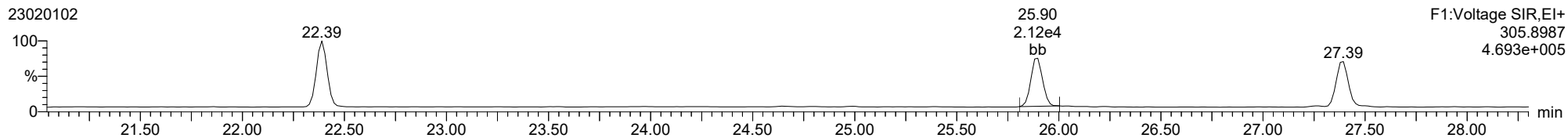
2378-TCDF

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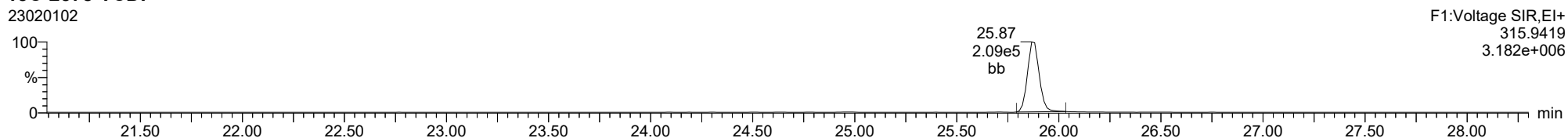
2378-TCDF

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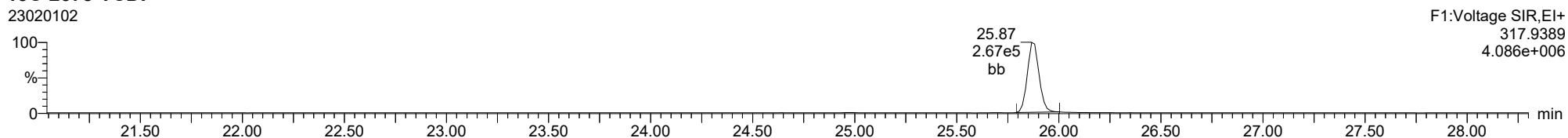
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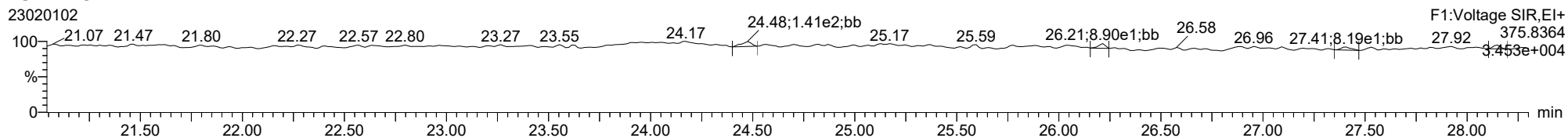
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FUNCTION1 HXCDPE

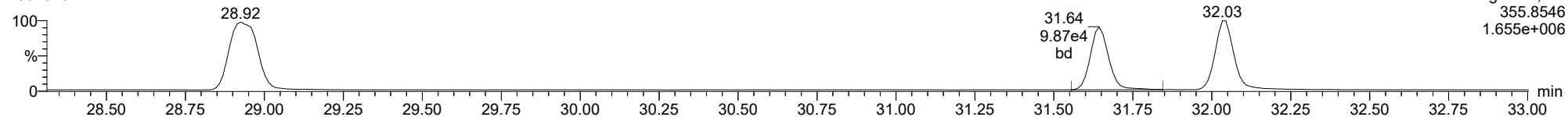
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ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

12378-PeCDD

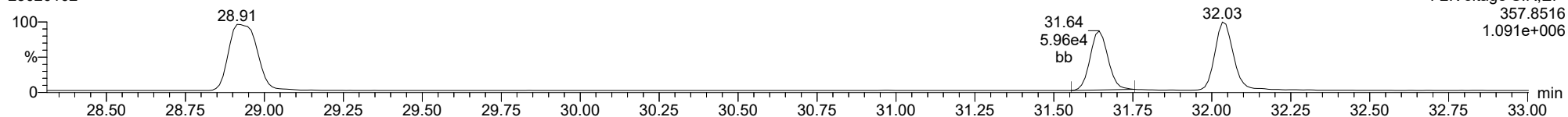
23020102



F2:Voltage SIR,EI+
355.8546
1.655e+006

12378-PeCDD

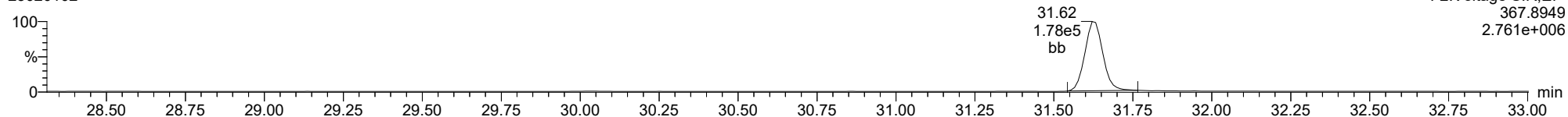
23020102



F2:Voltage SIR,EI+
357.8516
1.091e+006

13C-12378-PeCDD

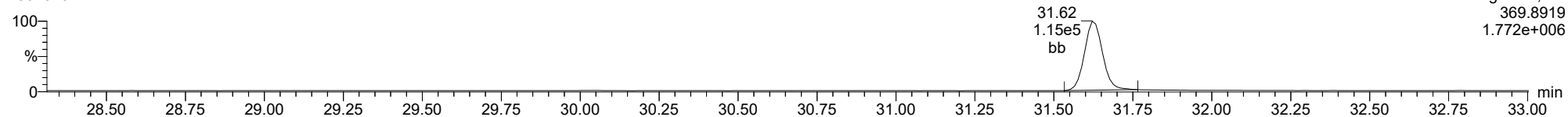
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F2:Voltage SIR,EI+
367.8949
2.761e+006

13C-12378-PeCDD

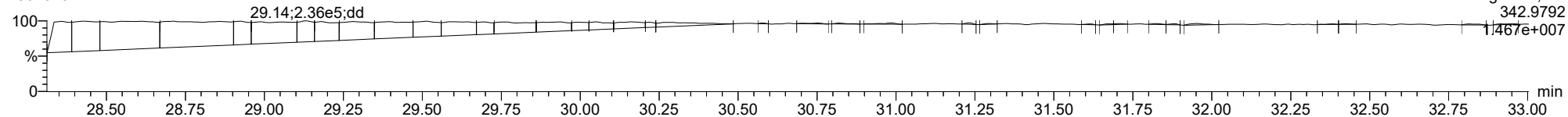
23020102



F2:Voltage SIR,EI+
369.8919
1.772e+006

FUNCTION2 PFK

23020102

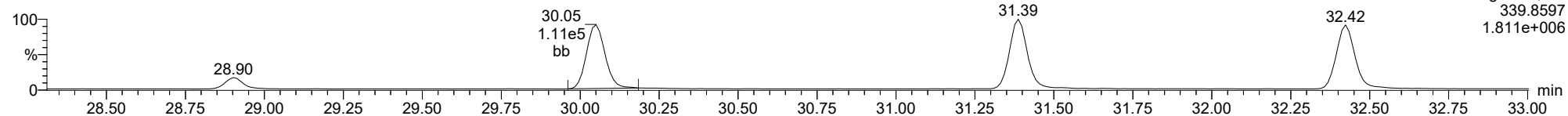


F2:Voltage SIR,EI+
342.9792
1.467e+007

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

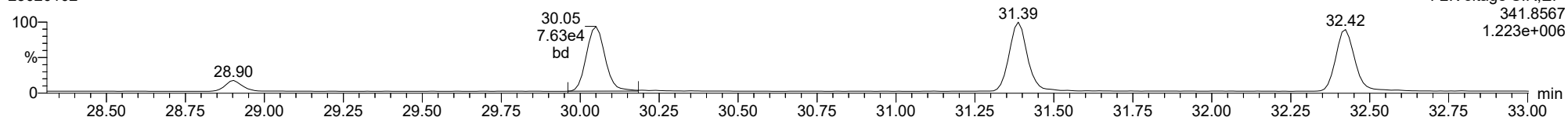
12378-PeCDF

23020102



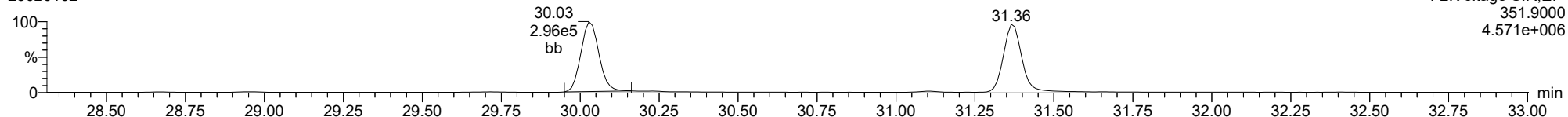
12378-PeCDF

23020102



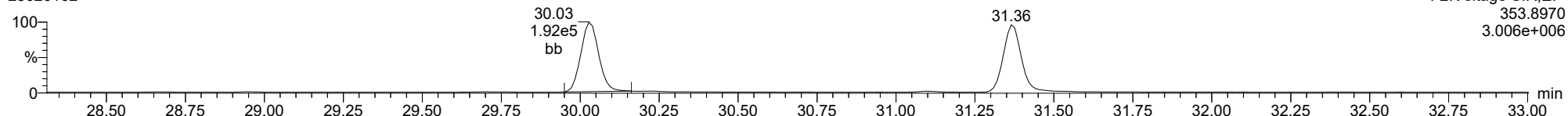
13C-12378-PeCDF

23020102



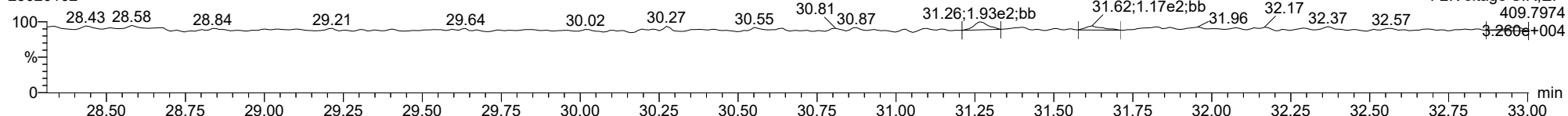
13C-12378-PeCDF

23020102



FUNCTION2 HPCDPE

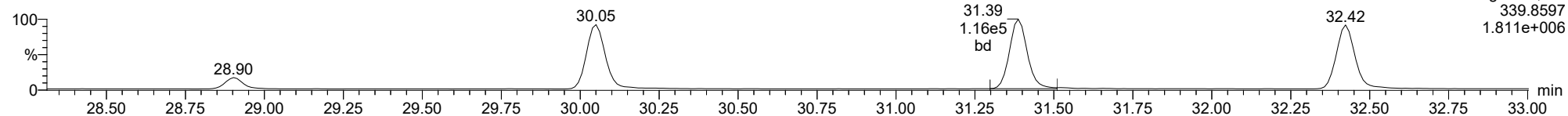
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ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

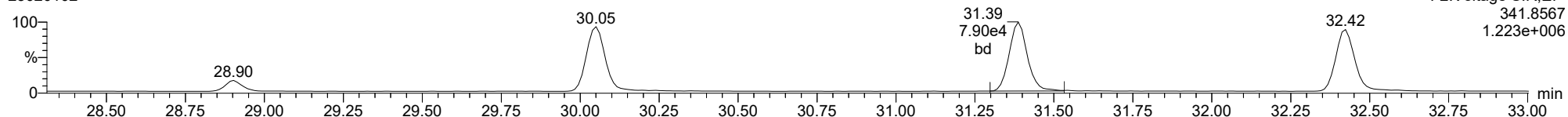
23478-PeCDF

23020102



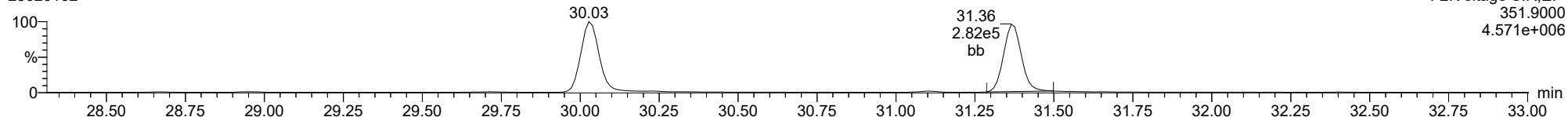
23478-PeCDF

23020102



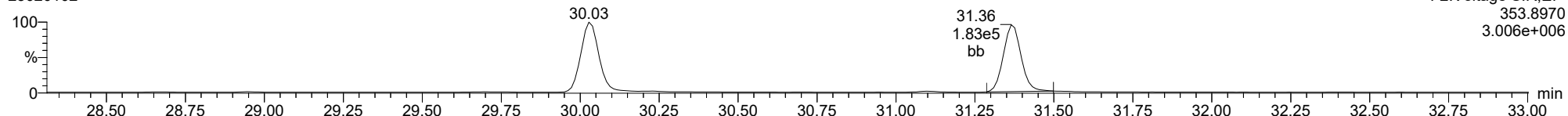
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23020102



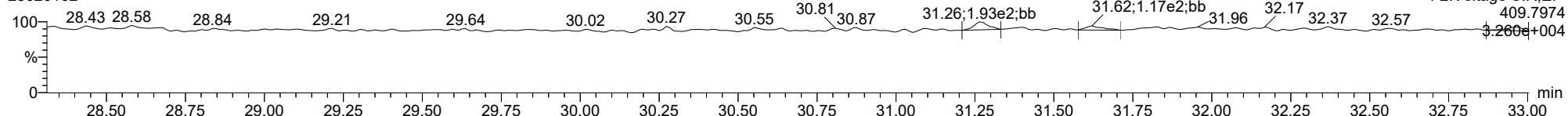
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23020102



FUNCTION2 HPCDPE

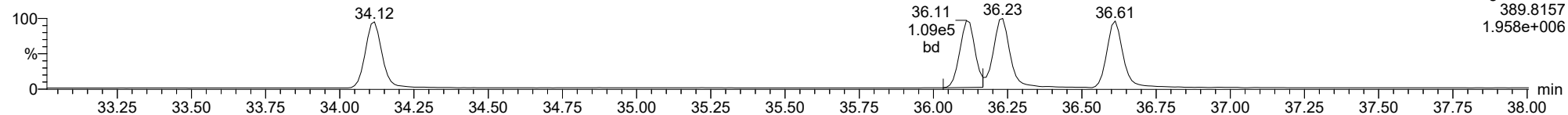
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ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

123478-HxCDD

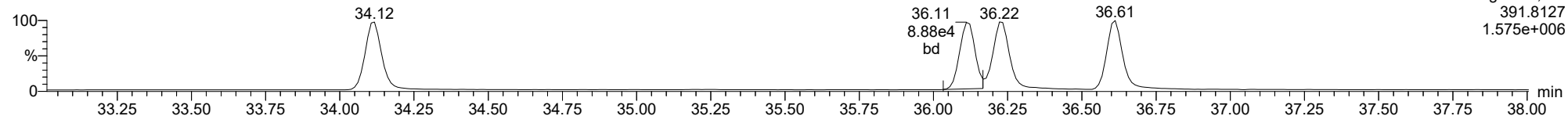
23020102



F3:Voltage SIR,El+
389.8157
1.958e+006

123478-HxCDD

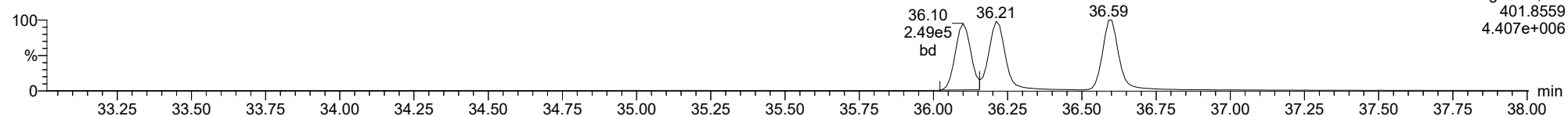
23020102



F3:Voltage SIR,El+
391.8127
1.575e+006

13C-123478-HxCDD

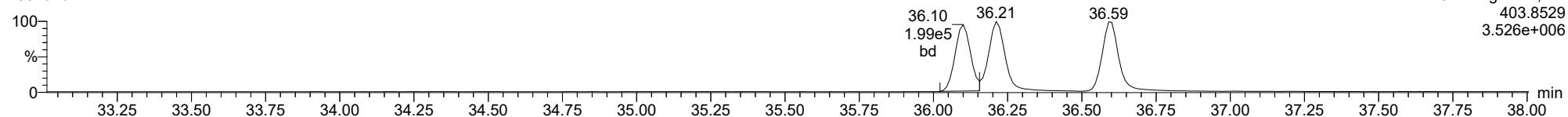
23020102



F3:Voltage SIR,El+
401.8559
4.407e+006

13C-123478-HxCDD

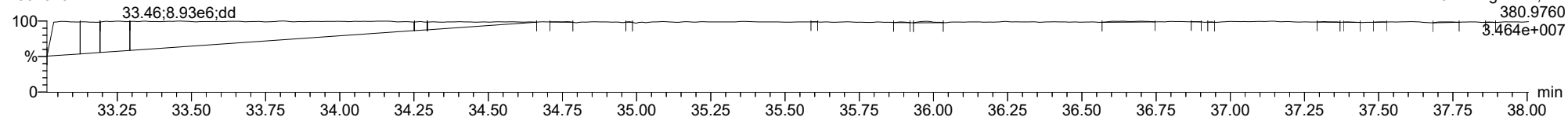
23020102



F3:Voltage SIR,El+
403.8529
3.526e+006

FUNCTION3 PFK

23020102

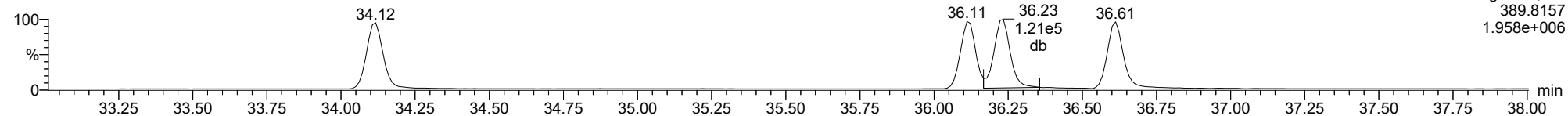


F3:Voltage SIR,El+
380.9760
3.464e+007

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

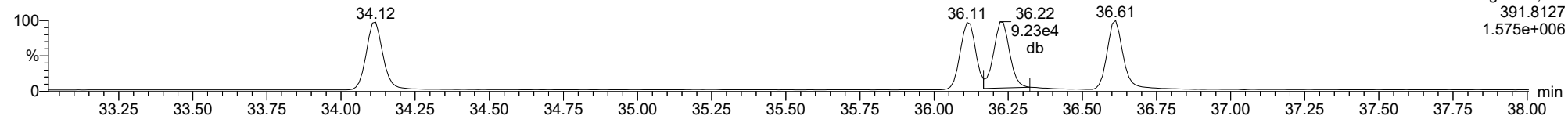
123678-HxCDD

23020102



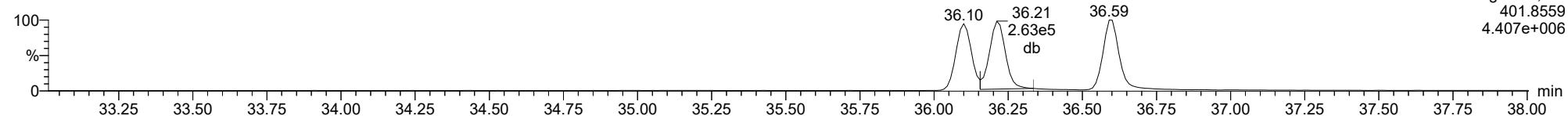
123678-HxCDD

23020102



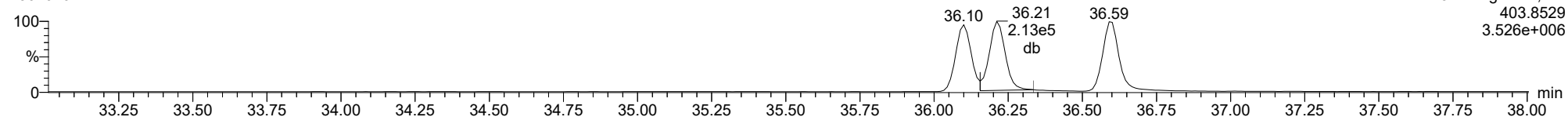
13C-123678-HxCDD

23020102



13C-123678-HxCDD

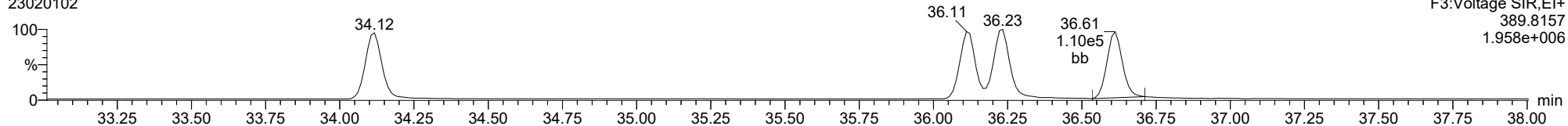
23020102



ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

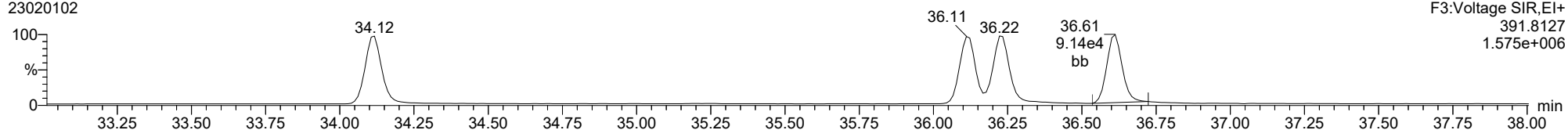
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23020102



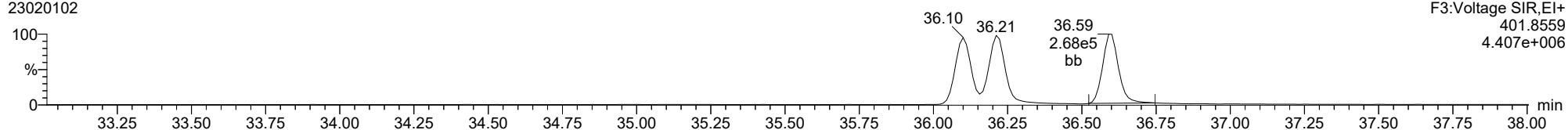
123789-HxCDD

23020102



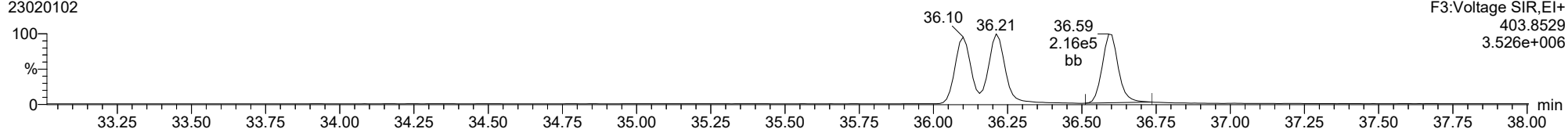
13C-123789-HxCDD

23020102



13C-123789-HxCDD

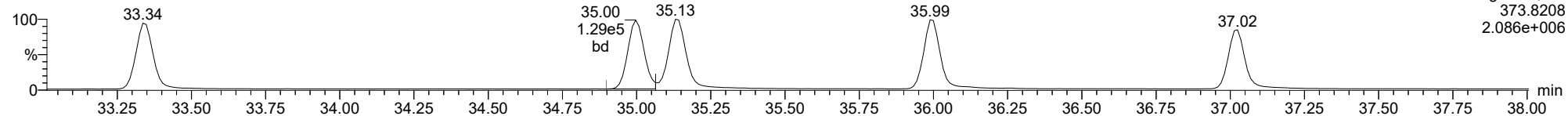
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ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

123478-HxCDF

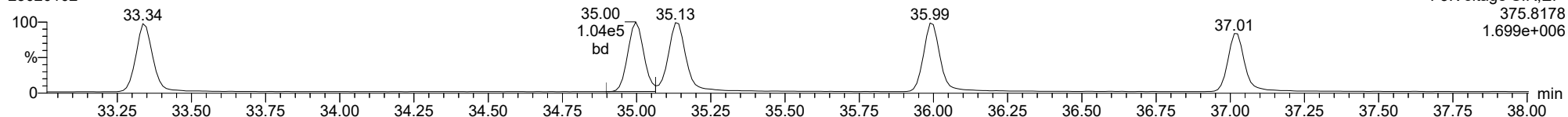
23020102



F3:Voltage SIR,EI+
373.8208
2.086e+006

123478-HxCDF

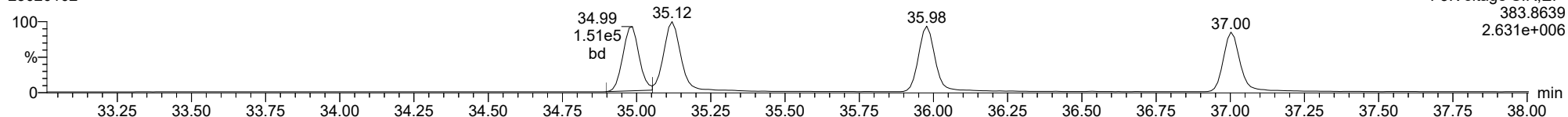
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F3:Voltage SIR,EI+
375.8178
1.699e+006

13C-123478-HxCDF

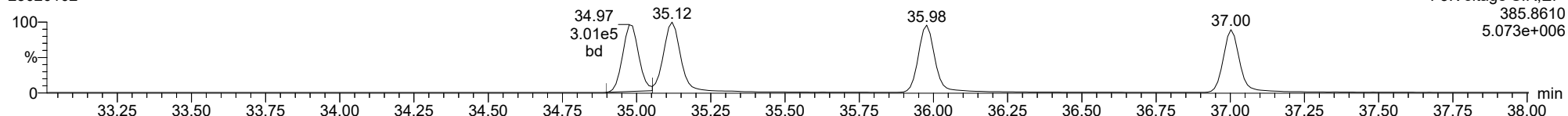
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F3:Voltage SIR,EI+
383.8639
2.631e+006

13C-123478-HxCDF

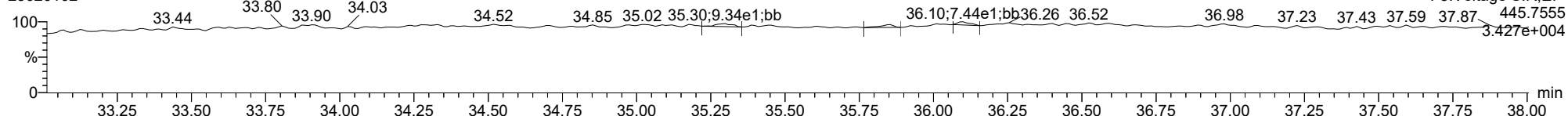
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F3:Voltage SIR,EI+
385.8610
5.073e+006

FUNCTION3 OCDPE

23020102

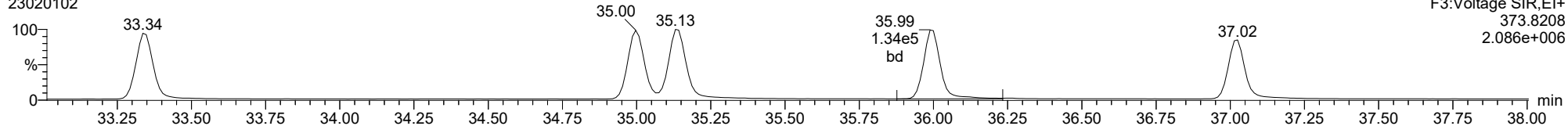


F3:Voltage SIR,EI+
445.7555
3.427e+004

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

234678-HxCDF

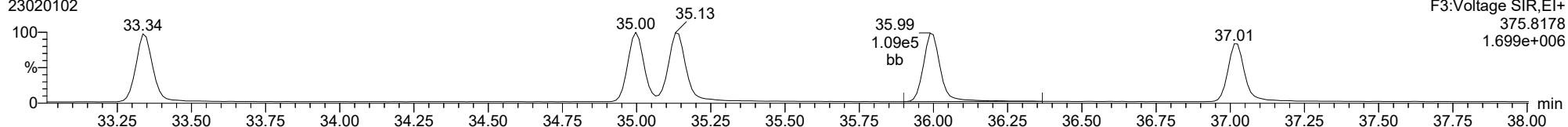
23020102



F3:Voltage SIR,El+
373.8208
2.086e+006

234678-HxCDF

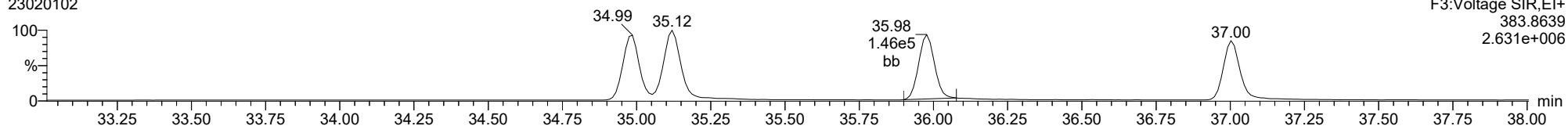
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F3:Voltage SIR,El+
375.8178
1.699e+006

13C-234678-HxCDF

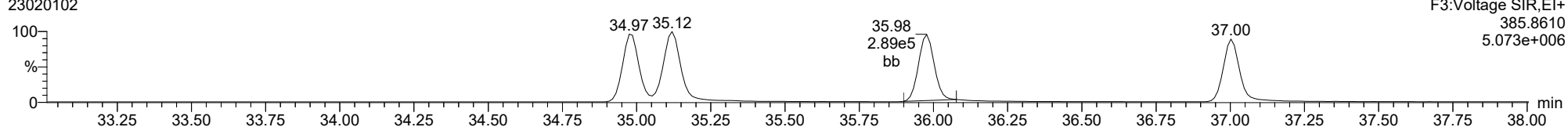
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F3:Voltage SIR,El+
383.8639
2.631e+006

13C-234678-HxCDF

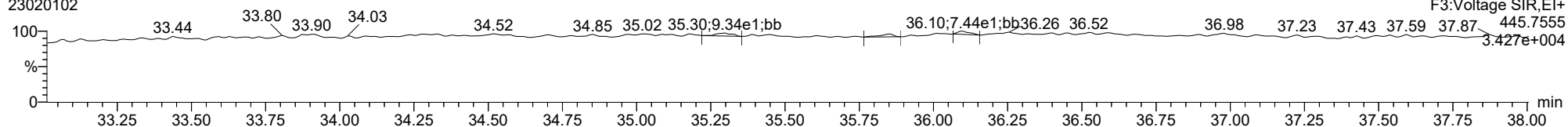
23020102



F3:Voltage SIR,El+
385.8610
5.073e+006

FUNCTION3 OCDPE

23020102

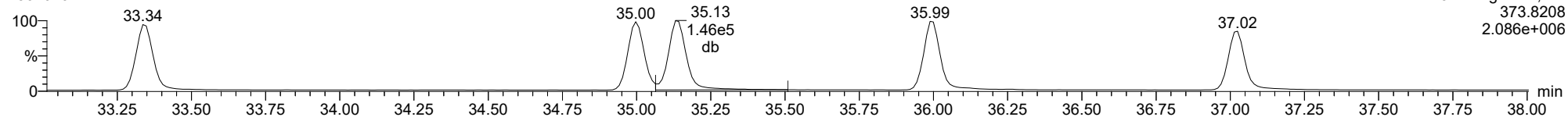


F3:Voltage SIR,El+
445.7555
3.427e+004

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

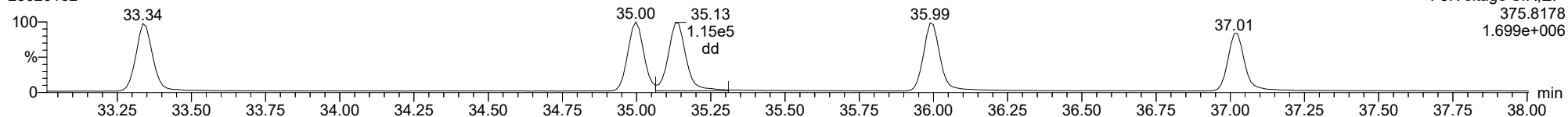
123678-HxCDF

23020102



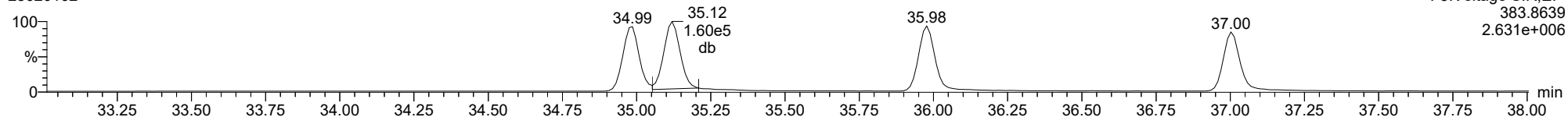
123678-HxCDF

23020102



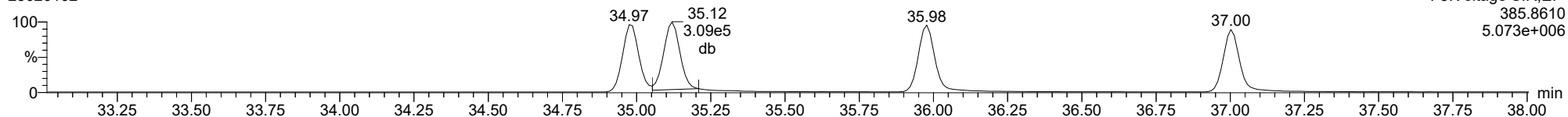
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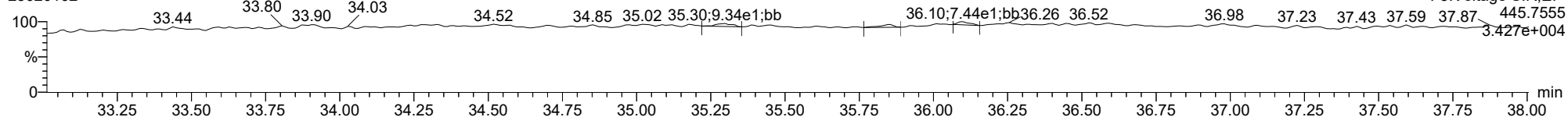
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23020102



FUNCTION3 OCDPE

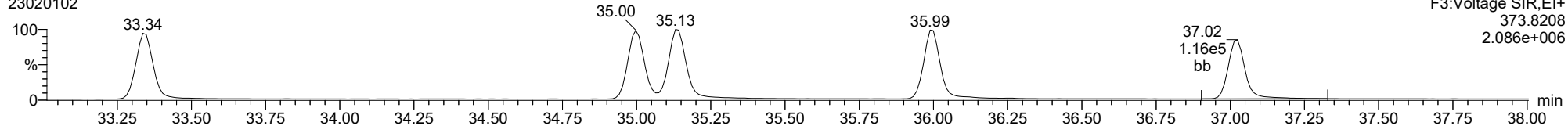
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ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

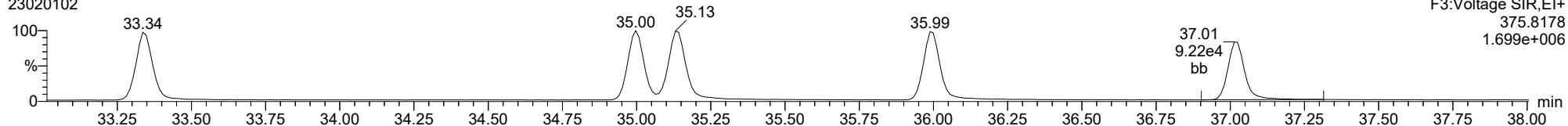
123789-HxCDF

23020102



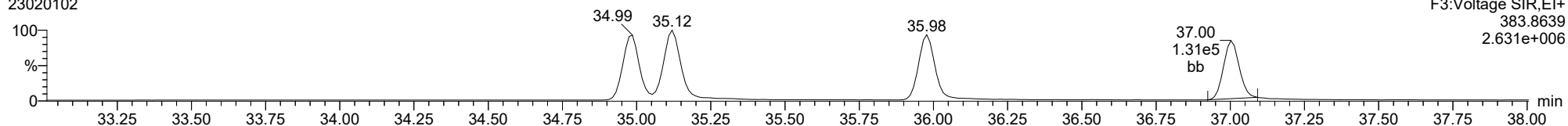
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23020102



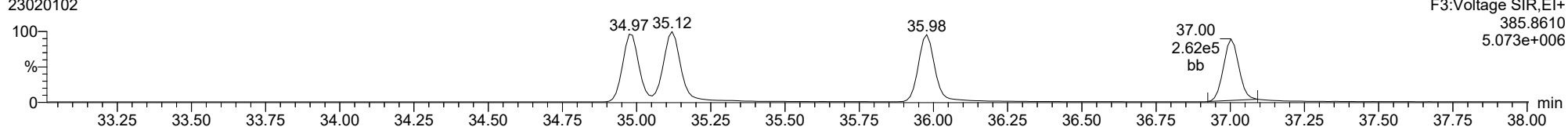
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23020102



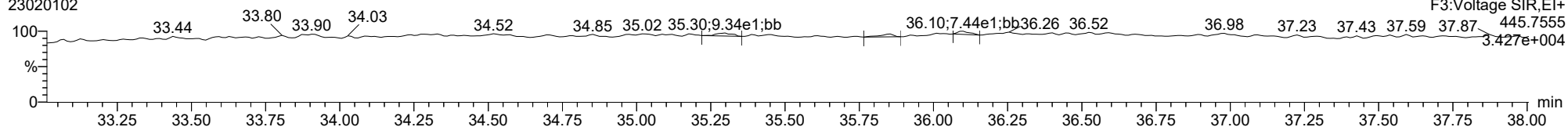
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FUNCTION3 OCDPE

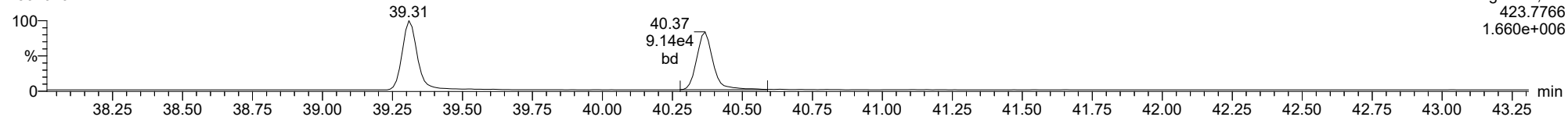
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ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

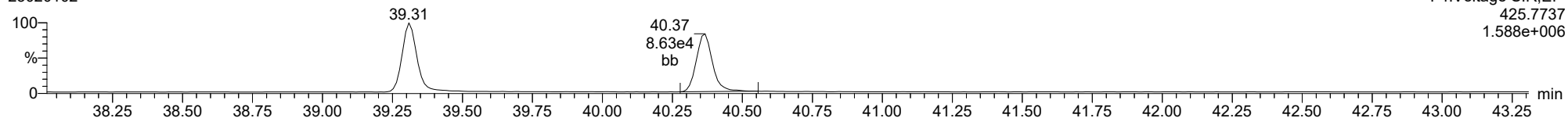
1234678-HpCDD

23020102



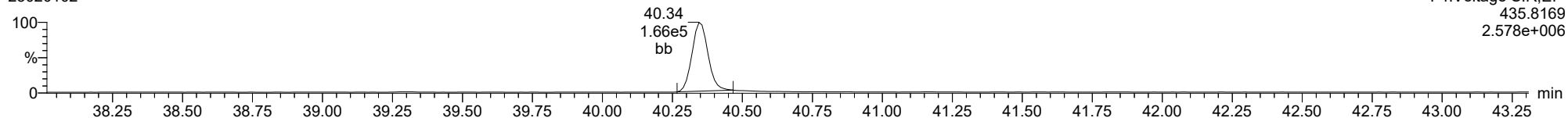
1234678-HpCDD

23020102



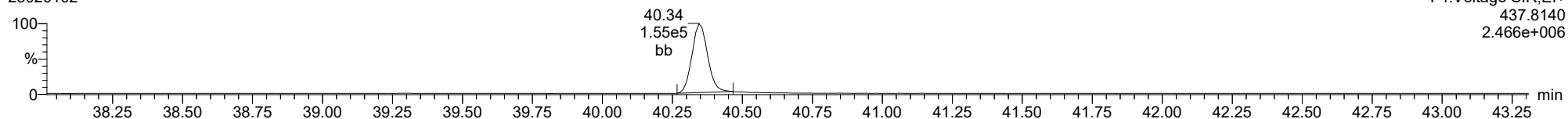
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23020102



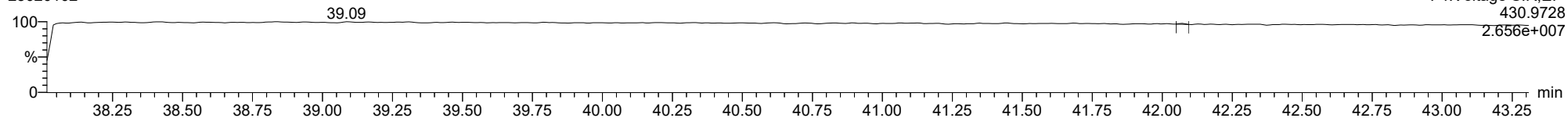
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23020102



FUNCTION4 PFK

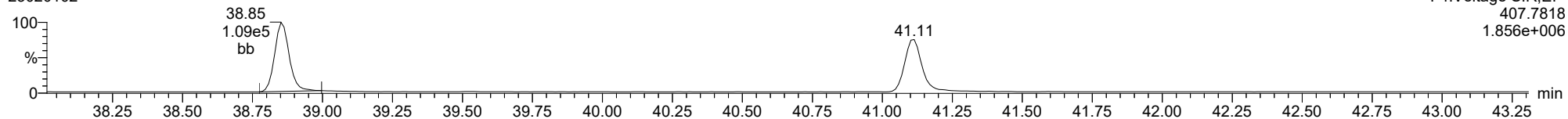
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ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

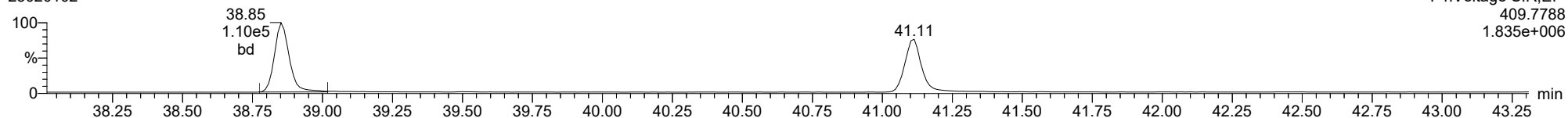
1234678-HpCDF

23020102



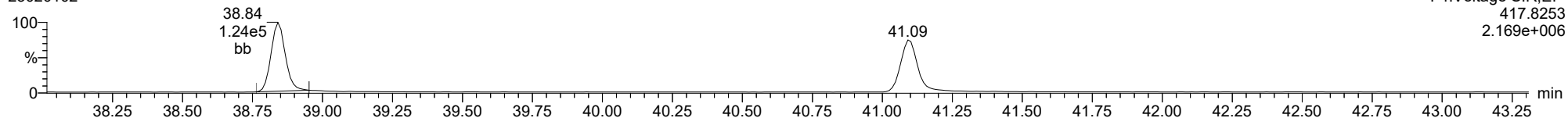
1234678-HpCDF

23020102



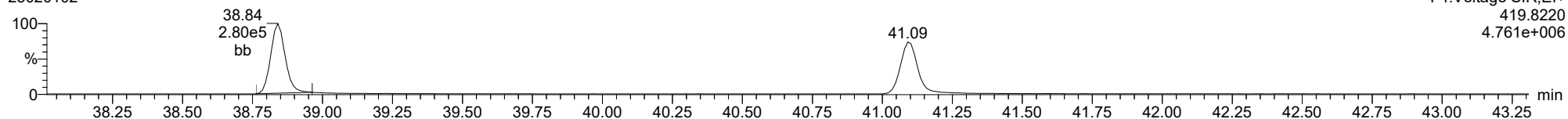
13C-1234678-HpCDF

23020102



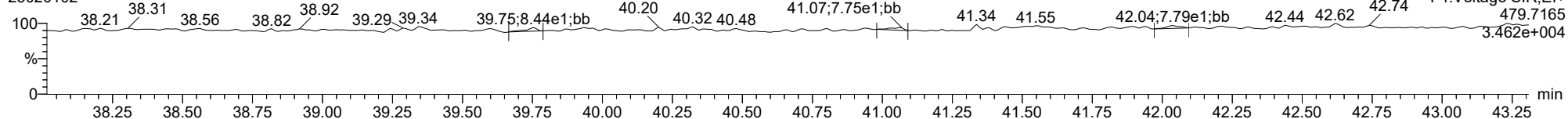
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23020102



FUNCTION4 NCDPE

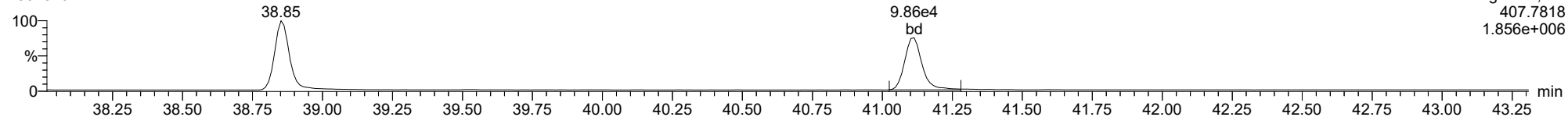
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ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

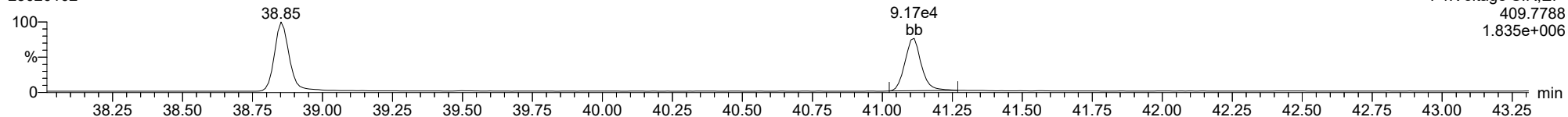
23020102



F4:Voltage SIR,EI+
407.7818
1.856e+006

1234789-HpCDF

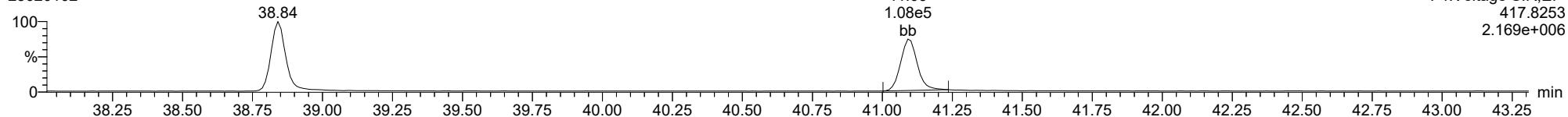
23020102



F4:Voltage SIR,EI+
409.7788
1.835e+006

13C-1234789-HpCDF

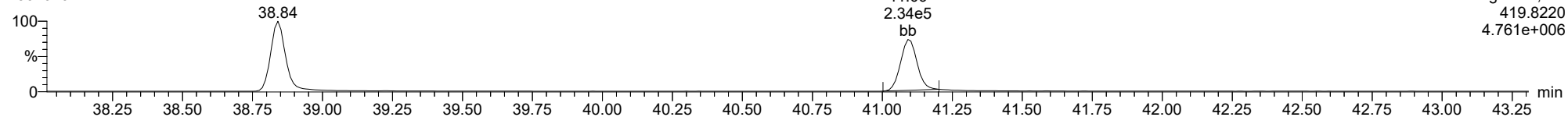
23020102



F4:Voltage SIR,EI+
417.8253
2.169e+006

13C-1234789-HpCDF

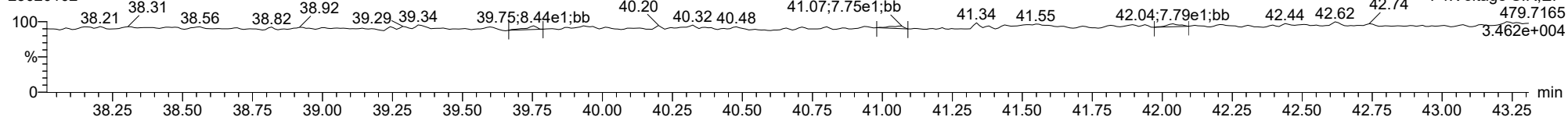
23020102



F4:Voltage SIR,EI+
419.8220
4.761e+006

FUNCTION4 NCDPE

23020102

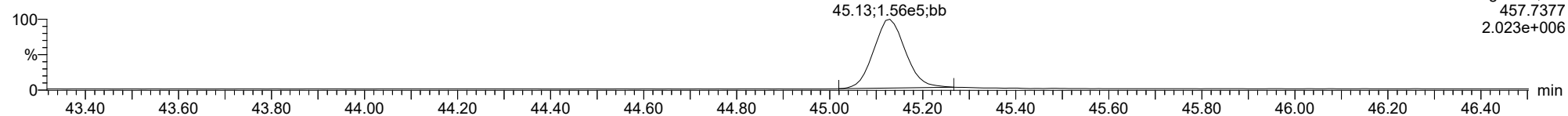


F4:Voltage SIR,EI+
479.7165
3.462e+004

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

OCDD

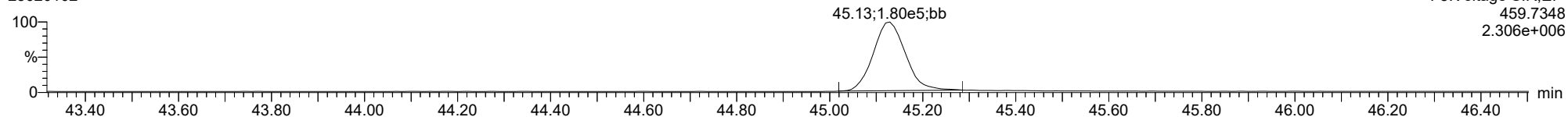
23020102



F5:Voltage SIR,El+
457.7377
2.023e+006

OCDD

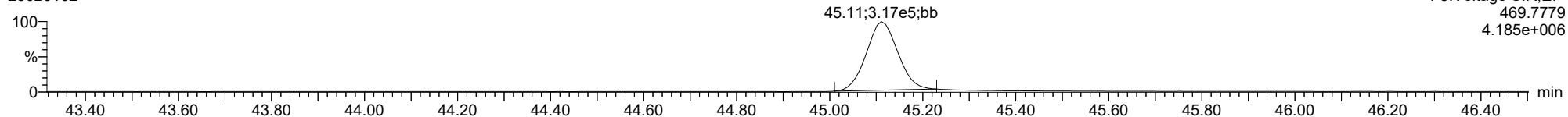
23020102



F5:Voltage SIR,El+
459.7348
2.306e+006

13C-OCDD

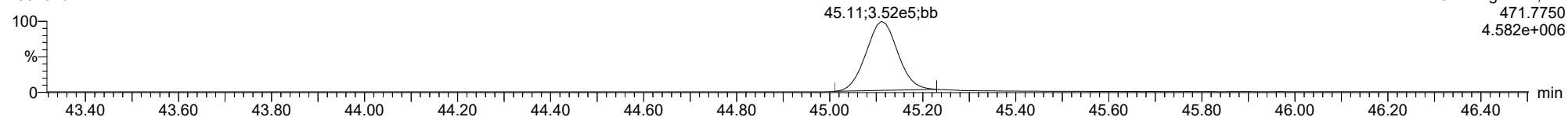
23020102



F5:Voltage SIR,El+
469.7779
4.185e+006

13C-OCDD

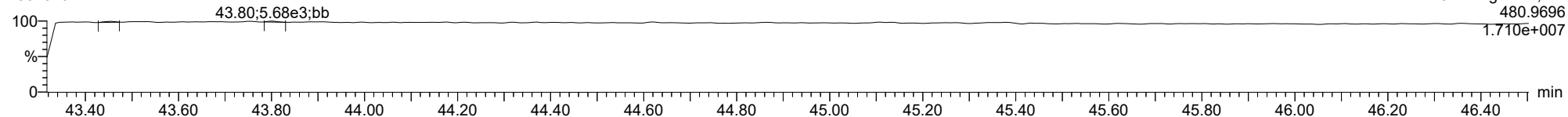
23020102



F5:Voltage SIR,El+
471.7750
4.582e+006

FUNCTION5 PFK

23020102

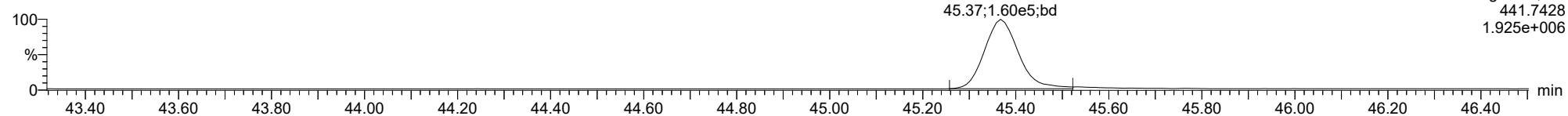


F5:Voltage SIR,El+
480.9696
1.710e+007

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

OCDF

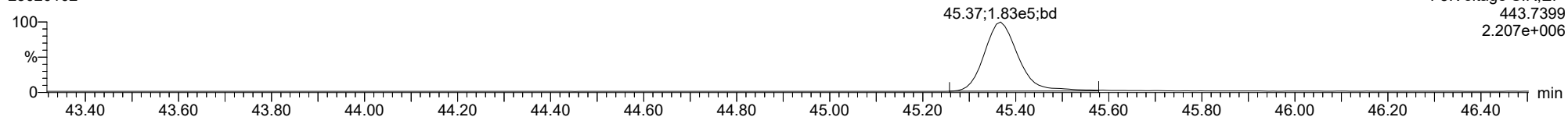
23020102



F5:Voltage SIR,EI+
441.7428
1.925e+006

OCDF

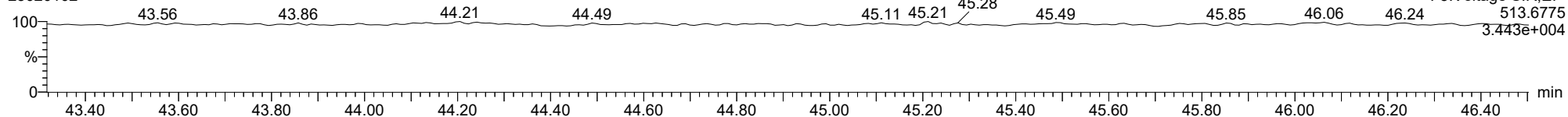
23020102



F5:Voltage SIR,EI+
443.7399
2.207e+006

FUNCTION5 DCDPE

23020102

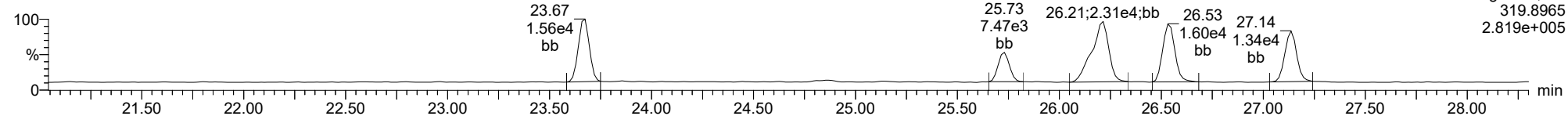


F5:Voltage SIR,EI+
513.6775
3.443e+004

ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

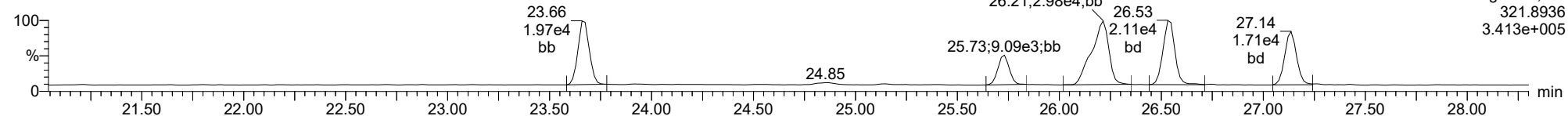
Total-tetradioxins

23020102



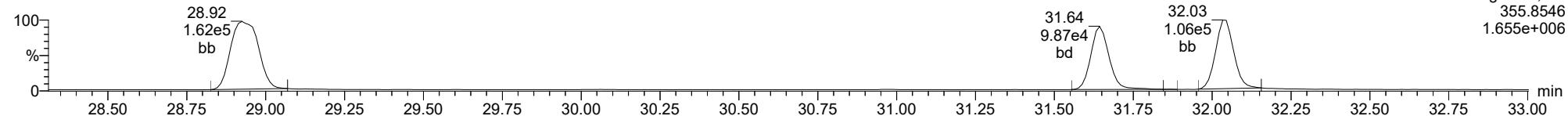
Total-tetradioxins

23020102



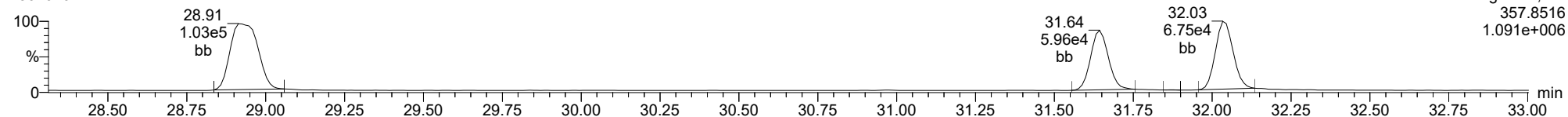
Total-pentadioxins

23020102



Total-pentadioxins

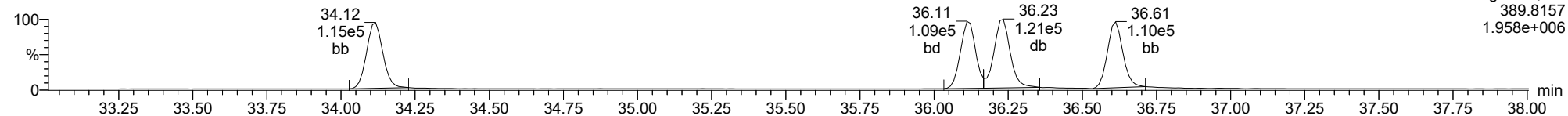
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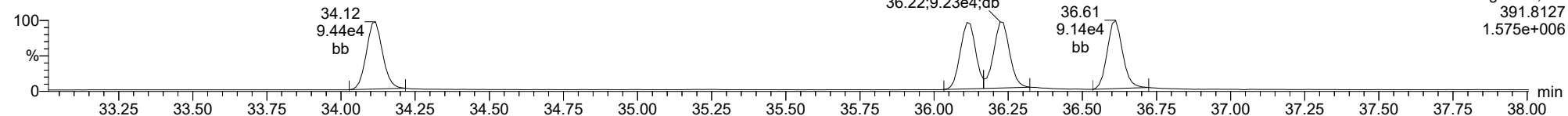
Total-hexadioxins

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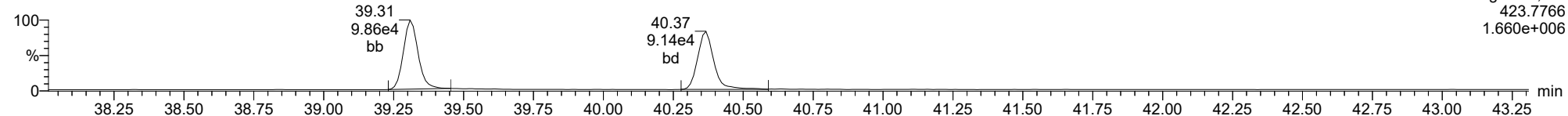
Total-hexadioxins

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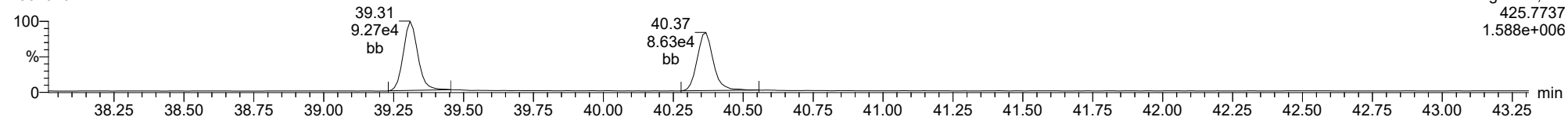
Total-heptadioxins

23020102



Total-heptadioxins

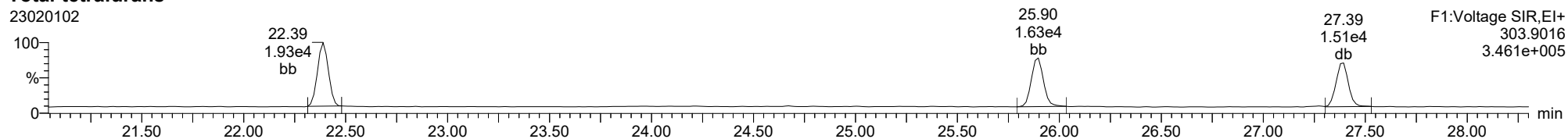
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ID: CS3R1, Name: 23020102, Date: 01-Feb-2023, Time: 10:37:16, Conditions: AUTOSPEC01, User: pk

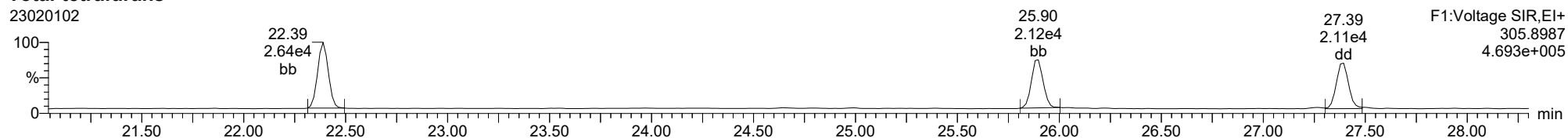
Total-tetrafurans

23020102



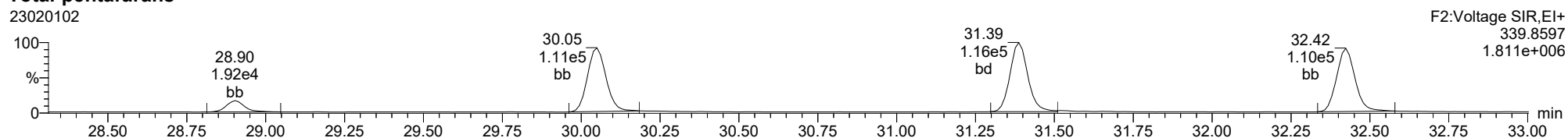
Total-tetrafurans

23020102



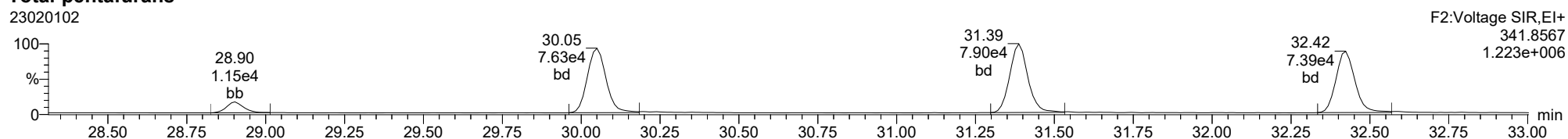
Total-pentafurans

23020102



Total-pentafurans

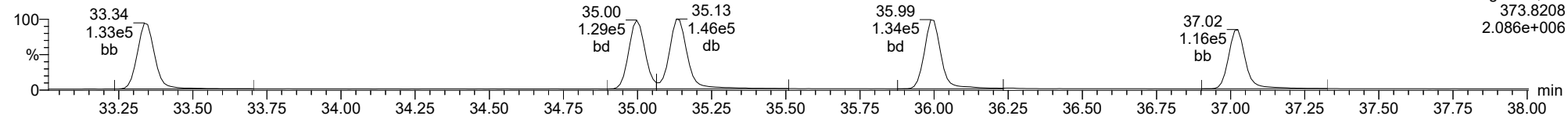
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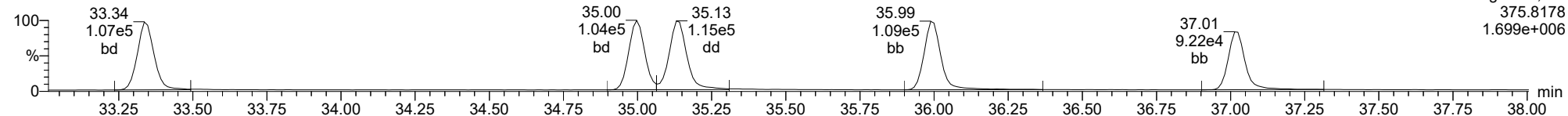
Total-hexafurans

23020102



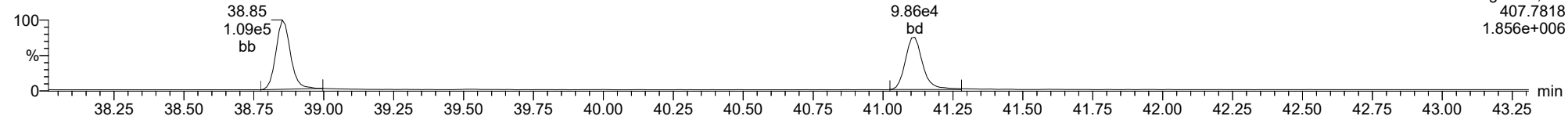
Total-hexafurans

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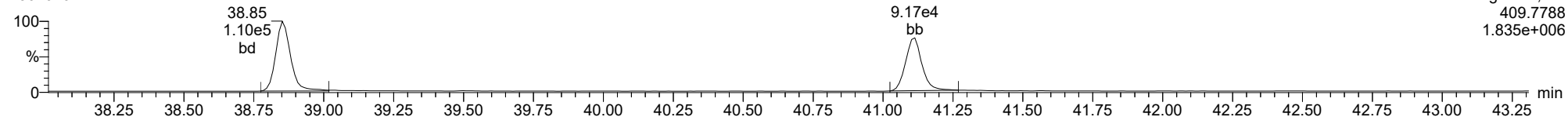
Total-heptafurans

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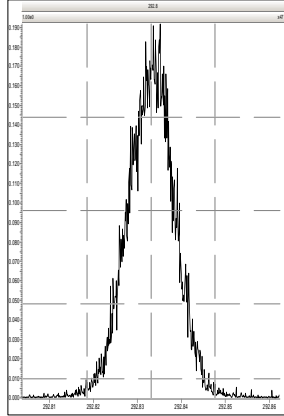


Total-heptafurans

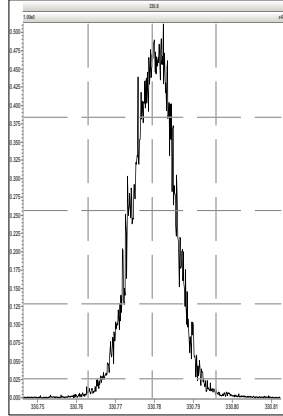
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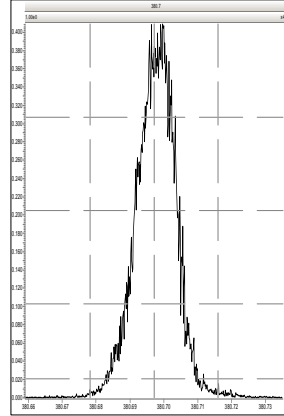
M 292.9824 R 11917



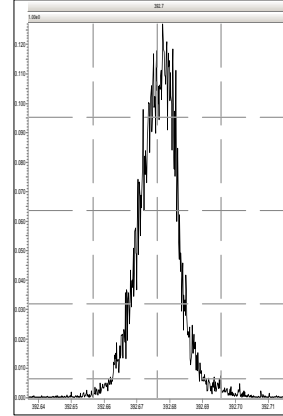
M 330.9792 R 13588



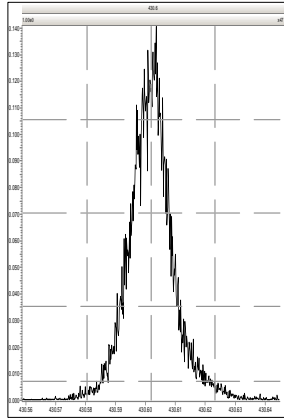
M 380.9760 R 14418



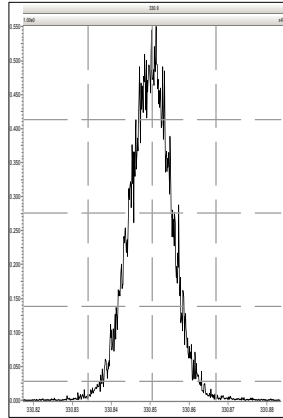
M 392.9760 R 14368



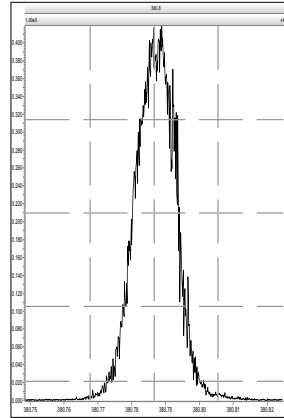
M 430.9728 R 12136



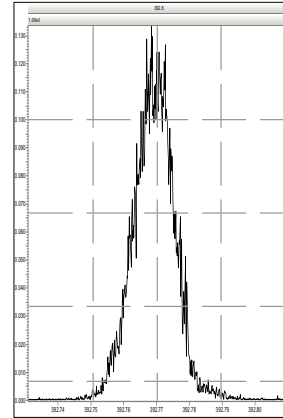
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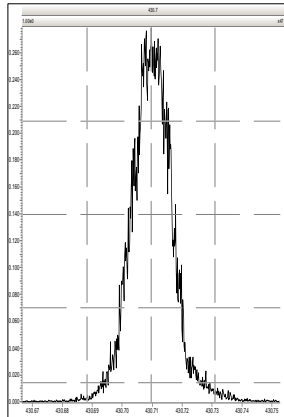
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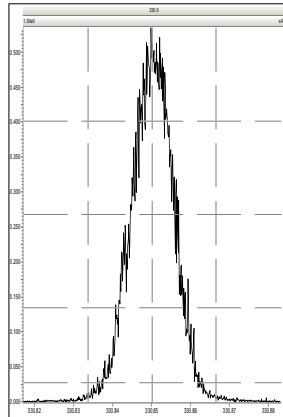
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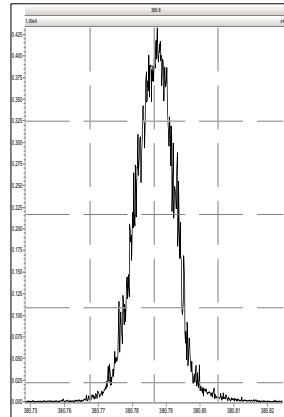
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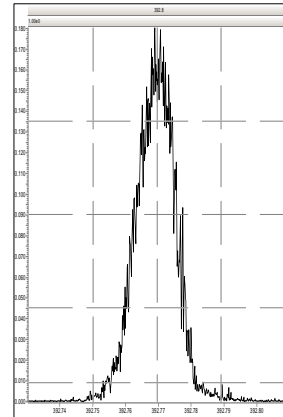
M 330.9792 R 13406



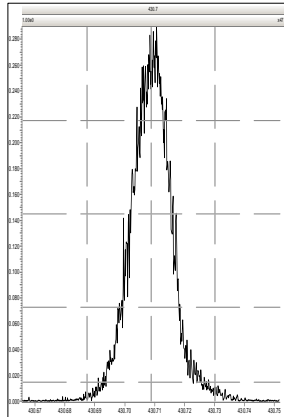
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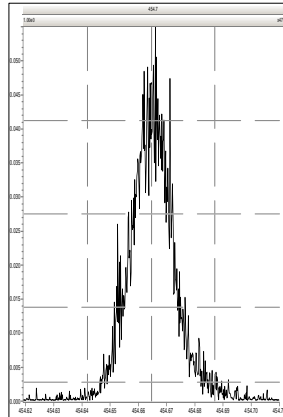
M 392.9760 R 14764



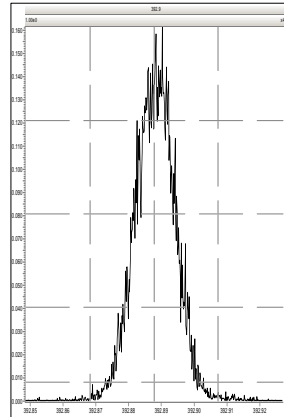
M 430.9728 R 13909



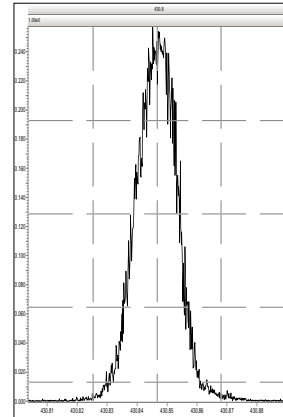
M 454.9728 R 12891



M 392.9760 R 14627

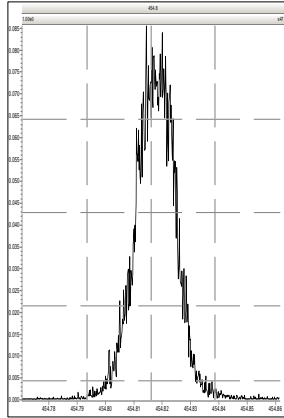


M 430.9728 R 14577

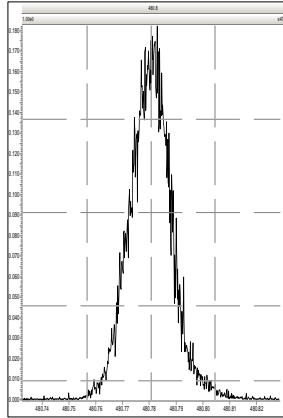


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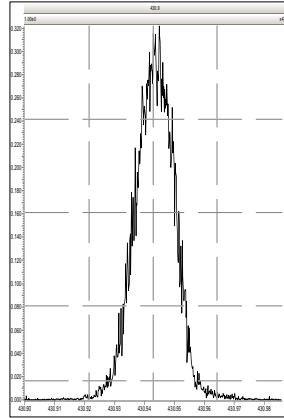
M 454.9728 R 14287



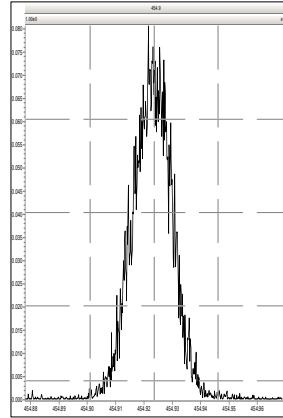
M 480.9696 R 13699



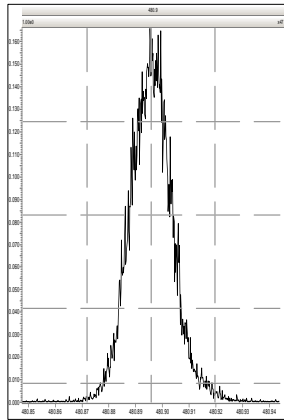
M 430.9728 R 15291



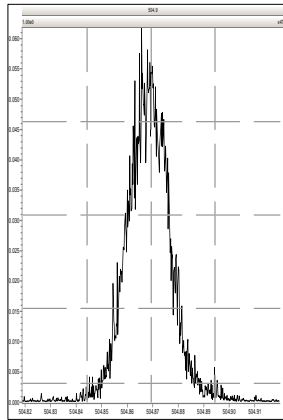
M 454.9728 R 15060



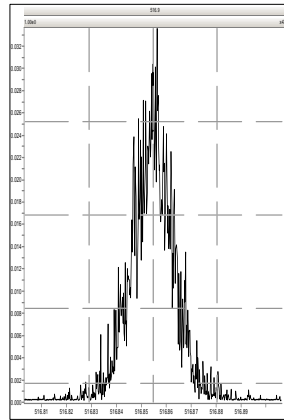
M 480.9696 R 13303



M 504.9696 R 14166



M 516.9697 R 14534

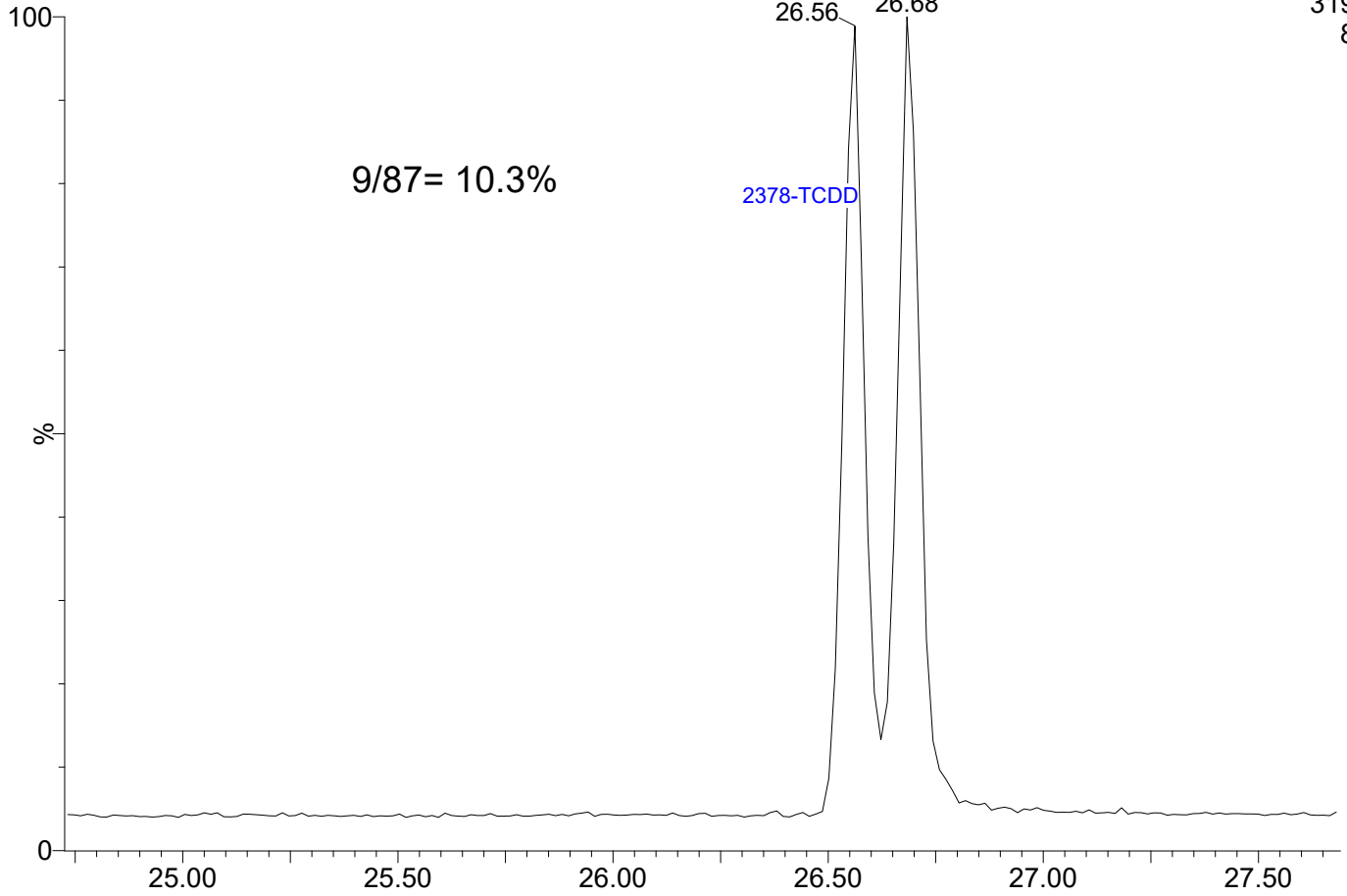


23020103

1: Voltage SIR 15 Channels EI+

319.8965

8.22e5

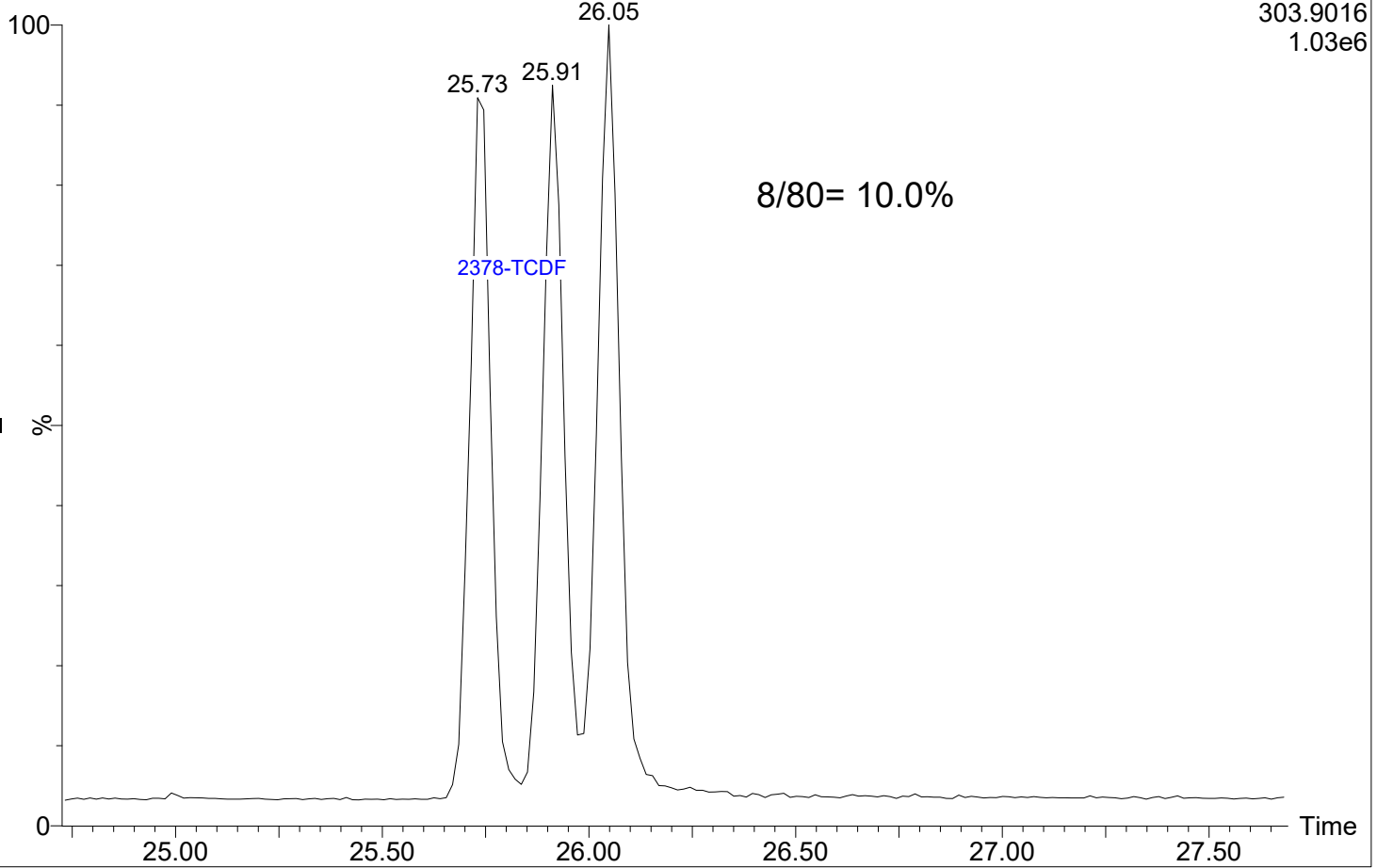


23020103

1: Voltage SIR 15 Channels EI+

303.9016

1.03e6



Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:36:56 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
 Calibration: 03 Feb 2023 10:33:40

ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF					0.876		0.770	1080	1324								
12378-PeCDF	30.038	1.000	4.271e3	3.157e3	0.845	1.353	1.550	952	1114	6.59e4	5.26e4	69.3	47.2	NO	bb	bd	0.524
23478-PeCDF	31.374	1.000	4.511e3	2.751e3	0.911	1.640	1.550	952	1114	6.73e4	4.18e4	70.7	37.5	NO	bb	bb	0.494
123478-HxCDF	34.995	1.001	4.104e3	3.031e3	1.182	1.354	1.240	1010	1011	5.83e4	4.33e4	57.7	42.8	NO	bd	bd	0.507
234678-HxCDF	35.987	1.000	3.766e3	3.106e3	1.229	1.212	1.240	1010	1011	5.67e4	5.22e4	56.2	51.6	NO	bb	bb	0.497
123678-HxCDF	35.129	1.000	4.222e3	3.339e3	1.248	1.264	1.240	1010	1011	6.34e4	4.53e4	62.8	44.8	NO	db	db	0.502
123789-HxCDF	37.012	1.000	3.644e3	2.921e3	1.187	1.248	1.240	1010	1011	5.58e4	4.74e4	55.3	46.9	NO	bb	bb	0.543
1234678-HpCDF	38.850	1.000	3.896e3	3.656e3	1.204	1.066	1.050	999	874	7.14e4	6.60e4	71.5	75.5	NO	bb	bb	0.550
1234789-HpCDF	41.101	1.000	3.001e3	3.100e3	1.165	0.968	1.050	999	874	4.75e4	4.72e4	47.6	54.0	NO	bb	bb	0.533
OCDF	45.376	1.006	5.786e3	6.873e3	1.186	0.842	0.890	933	1403	7.23e4	8.24e4	77.5	58.8	NO	bb	bd	1.268
2378-TCDD					1.236		0.770	1059	950								
12378-PeCDD	31.642	1.001	3.215e3	2.188e3	1.087	1.469	1.550	1079	785	5.52e4	3.24e4	51.2	41.3	NO	bd	bb	0.496
123478-HxCDD	36.109	1.000	2.827e3	2.333e3	0.987	1.212	1.240	1001	800	4.34e4	4.15e4	43.4	51.9	NO	dd	bd	0.497
123678-HxCDD	36.221	1.000	3.387e3	2.724e3	1.021	1.243	1.240	1001	800	5.33e4	4.23e4	53.3	52.9	NO	db	db	0.556
123789-HxCDD	36.611	1.011	2.961e3	2.378e3	0.985	1.245	1.240	1001	800	5.48e4	3.89e4	54.8	48.6	NO	bb	bb	0.509
1234678-HpCDD	40.354	1.000	3.173e3	3.384e3	1.253	0.938	1.050	1384	648	4.91e4	5.67e4	35.5	87.6	NO	bb	bb	0.614
OCDD					1.103		0.890	865	2890								
13C-2378-TCDF	25.867	1.007	8.880e5	1.123e6	1.768	0.791	0.770	2432	2065	1.34e7	1.70e7	5499.3	8229.7	NO	bb	bb	101.483
13C-12378-PeCDF	30.026	1.168	1.020e6	6.593e5	1.527	1.547	1.550	4351	2458	1.57e7	1.01e7	3618.6	4108.9	NO	bb	bb	98.114
13C-23478-PeCDF	31.363	1.220	9.713e5	6.405e5	1.466	1.516	1.550	4351	2458	1.47e7	9.63e6	3385.5	3917.5	NO	bb	bb	98.077
13C-123478-HxCDF	34.973	0.956	3.987e5	7.926e5	1.054	0.503	0.510	2002	3102	6.44e6	1.29e7	3217.2	4143.2	NO	bd	bd	100.084
13C-123678-HxCDF	35.118	0.960	4.078e5	7.990e5	1.080	0.510	0.510	2002	3102	6.70e6	1.31e7	3346.6	4215.9	NO	db	db	98.911
13C-234678-HxCDF	35.976	0.983	3.811e5	7.451e5	1.014	0.512	0.510	2002	3102	6.35e6	1.23e7	3171.4	3951.0	NO	bb	bb	98.285
13C-123789-HxCDF	37.001	1.011	3.510e5	6.676e5	0.928	0.526	0.510	2002	3102	5.85e6	1.13e7	2920.8	3645.7	NO	bb	bb	97.160
13C-1234678-HpCDF	38.839	1.061	3.505e5	7.899e5	1.036	0.444	0.440	2536	4120	5.96e6	1.33e7	2351.6	3236.3	NO	bb	bb	97.433
13C-1234789-HpCDF	41.090	1.123	3.059e5	6.773e5	0.905	0.452	0.440	2536	4120	4.61e6	1.03e7	1815.9	2503.7	NO	bb	bb	96.171
13C-1234-TCDD	25.700	0.000	4.959e5	6.249e5	1.000	0.794	0.770	2405	1251	7.82e6	9.77e6	3252.7	7808.7	NO	bb	bb	100.000
13C-2378-TCDD	26.517	1.032	5.458e5	6.834e5	1.103	0.799	0.770	2405	1251	8.30e6	1.04e7	3451.4	8324.3	NO	bb	bb	99.431
13C-12378-PeCDD	31.619	1.230	6.125e5	3.907e5	0.914	1.568	1.550	1178	1168	9.36e6	5.78e6	7947.4	4944.2	NO	bb	bd	97.913
13C-123478-HxCDD	36.098	0.987	5.901e5	4.628e5	0.933	1.275	1.240	2011	1749	9.65e6	7.66e6	4801.0	4381.0	NO	bd	bd	99.896
13C-123678-HxCDD	36.209	0.990	6.061e5	4.713e5	0.965	1.286	1.240	2011	1749	9.81e6	7.59e6	4881.2	4342.3	NO	db	db	98.864
13C-1234678-HpCDD	40.343	1.103	4.400e5	4.119e5	0.782	1.068	1.050	2377	2314	6.98e6	6.54e6	2937.2	2824.0	NO	bb	bb	96.428
13C-OCDD	45.102	1.233	8.036e5	8.792e5	0.788	0.914	0.890	2320	2081	1.01e7	1.12e7	4365.2	5363.3	NO	bb	bb	188.967
13C-123789-HxCDD	36.588	0.000	6.276e5	5.021e5	1.000	1.250	1.240	2011	1749	1.01e7	8.07e6	5029.1	4612.9	NO	bb	bb	100.000
37CL-2378-TCDD	26.532	1.032	1.634e3		1.233			1257		2.25e4		17.9			bb		0.118

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 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:36:56 Pacific Standard Time

ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	1080	1324								
1289-TCDF					0.858		0.770	1080	1324								
13468-PECDF					1.013		1.550	869	1005								
12389-PECDF					0.844		1.550	952	1114								
123468-HXCDF					1.197		1.240	1010	1011								
1368-TCDD					1.084		0.770	1059	950								
1289-TCDD					0.975		0.770	1059	950								
12479-PECDD					1.837		1.550	1079	785								
12389-PECDD					1.252		1.550	1079	785								
124679-HXCDD					1.033		1.240	1001	800								
1234679-HPCDD					1.286		1.050	1384	648								
Total-tetrafurans			0.000e0		0.933			1080		0.00e0							
Total-penta1			0.000e0					869		0.00e0							
Total-pentafurans			8.782e3		0.866			952		1.33e5							1.018
Total-hexafurans			1.574e4		1.208			1010		2.34e5							2.049
Total-heptafurans			6.897e3		1.185			999		1.19e5							1.082
Total-Furans			3.720e4		1.067			1080		5.59e5							5.417
Total-tetradoxins			0.000e0		1.099			1059		0.00e0							
Total-pentadoxins			3.215e3		1.392			1079		5.52e4							0.496
Total-hexadoxins			9.529e3		1.007			1001		1.58e5							1.624
Total-heptadoxins			3.173e3		1.269			1384		4.91e4							0.614
Total-Dioxins			1.601e4		1.165			1059		2.65e5							2.750
Total-TEQ			5.321e4					1059		8.24e5							8.168
FUNCTION1 PFK			3.664e5					577038		8.77e6							
FUNCTION2 PFK			5.803e5					248887		1.44e7							0.000
FUNCTION3 PFK			1.568e5					462057		5.36e6							0.000
FUNCTION4 PFK			0.000e0					300538		0.00e0							
FUNCTION5 PFK			6.700e4					200836		2.35e6							
FUNCTION1 HXCD...			8.333e2					859		1.29e4							0.000
FUNCTION1 HPCD...			1.557e3					919		1.93e4							0.000
FUNCTION2 HPCD...			7.646e2					998		1.65e4							0.000
FUNCTION3 OCDPE			1.789e3					773		2.75e4							0.000
FUNCTION4 NCDPE			1.690e2					924		5.87e3							0.000
FUNCTION5 DCDPE			8.847e1					800		2.49e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\2302011CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:36:56 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33**Calibration: 03 Feb 2023 10:33:40****ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.37	4.511e3	2.751e3	0.911	1.64	1.55	70.7	YES	NO	bb	bb	0.494
2	12378-PeCDF	30.04	4.271e3	3.157e3	0.845	1.35	1.55	69.3	YES	NO	bb	bd	0.524

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.01	3.644e3	2.921e3	1.187	1.25	1.24	55.3	YES	NO	bb	bb	0.543
2	234678-HxCDF	35.99	3.766e3	3.106e3	1.229	1.21	1.24	56.2	YES	NO	bb	bb	0.497
3	123678-HxCDF	35.13	4.222e3	3.339e3	1.248	1.26	1.24	62.8	YES	NO	db	db	0.502
4	123478-HxCDF	35.00	4.104e3	3.031e3	1.182	1.35	1.24	57.7	YES	NO	bd	bd	0.507

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.10	3.001e3	3.100e3	1.165	0.97	1.05	47.6	YES	NO	bb	bb	0.533
2	1234678-HpCDF	38.85	3.896e3	3.656e3	1.204	1.07	1.05	71.5	YES	NO	bb	bb	0.550

ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.37	4.511e3	2.751e3	0.911	1.64	1.55	70.7	YES	NO	bb	bb	0.494
2	12378-PeCDF	30.04	4.271e3	3.157e3	0.845	1.35	1.55	69.3	YES	NO	bb	bd	0.524
3	123789-HxCDF	37.01	3.644e3	2.921e3	1.187	1.25	1.24	55.3	YES	NO	bb	bb	0.543
4	234678-HxCDF	35.99	3.766e3	3.106e3	1.229	1.21	1.24	56.2	YES	NO	bb	bb	0.497
5	123678-HxCDF	35.13	4.222e3	3.339e3	1.248	1.26	1.24	62.8	YES	NO	db	db	0.502
6	123478-HxCDF	35.00	4.104e3	3.031e3	1.182	1.35	1.24	57.7	YES	NO	bd	bd	0.507
7	1234789-HpCDF	41.10	3.001e3	3.100e3	1.165	0.97	1.05	47.6	YES	NO	bb	bb	0.533
8	1234678-HpCDF	38.85	3.896e3	3.656e3	1.204	1.07	1.05	71.5	YES	NO	bb	bb	0.550
9	OCDF	45.38	5.786e3	6.873e3	1.186	0.84	0.89	77.5	YES	NO	bb	bd	1.268

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.64	3.215e3	2.188e3	1.087	1.47	1.55	51.2	YES	NO	bd	bb	0.496

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.61	2.961e3	2.378e3	0.985	1.24	1.24	54.8	YES	NO	bb	bb	0.509
2	123678-HxCDD	36.22	3.387e3	2.724e3	1.021	1.24	1.24	53.3	YES	NO	db	db	0.556
3	123478-HxCDD	36.11	2.827e3	2.333e3	0.987	1.21	1.24	43.4	YES	NO	dd	bd	0.497
4	Total-hexadioxins	35.12	3.540e2	3.166e2	1.007	1.12	1.24	6.7	YES	NO	db	bb	0.063

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.35	3.173e3	3.384e3	1.253	0.94	1.05	35.5	YES	NO	bb	bb	0.614

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:36:56 Pacific Standard Time

ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-Dioxins	22.28	9.641e1	1.412e2	1.165	0.68	0.77	2.5	NO	NO	bd	bb	0.017
2	12378-PeCDD	31.64	3.215e3	2.188e3	1.087	1.47	1.55	51.2	YES	NO	bd	bb	0.496
3	123789-HxCDD	36.61	2.961e3	2.378e3	0.985	1.24	1.24	54.8	YES	NO	bb	bb	0.509
4	123678-HxCDD	36.22	3.387e3	2.724e3	1.021	1.24	1.24	53.3	YES	NO	db	db	0.556
5	123478-HxCDD	36.11	2.827e3	2.333e3	0.987	1.21	1.24	43.4	YES	NO	dd	bd	0.497
6	Total-hexadioxins	35.12	3.540e2	3.166e2	1.007	1.12	1.24	6.7	YES	NO	db	bb	0.063
7	1234678-HpCDD	40.35	3.173e3	3.384e3	1.253	0.94	1.05	35.5	YES	NO	bb	bb	0.614

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.37	4.511e3	2.751e3	0.911	1.64	1.55	70.7	YES	NO	bb	bb	0.494
2	12378-PeCDF	30.04	4.271e3	3.157e3	0.845	1.35	1.55	69.3	YES	NO	bb	bd	0.524
3	123789-HxCDF	37.01	3.644e3	2.921e3	1.187	1.25	1.24	55.3	YES	NO	bb	bb	0.543
4	234678-HxCDF	35.99	3.766e3	3.106e3	1.229	1.21	1.24	56.2	YES	NO	bb	bb	0.497
5	123678-HxCDF	35.13	4.222e3	3.339e3	1.248	1.26	1.24	62.8	YES	NO	db	db	0.502
6	123478-HxCDF	35.00	4.104e3	3.031e3	1.182	1.35	1.24	57.7	YES	NO	bd	bd	0.507
7	1234789-HpCDF	41.10	3.001e3	3.100e3	1.165	0.97	1.05	47.6	YES	NO	bb	bb	0.533
8	1234678-HpCDF	38.85	3.896e3	3.656e3	1.204	1.07	1.05	71.5	YES	NO	bb	bb	0.550
9	OCDF	45.38	5.786e3	6.873e3	1.186	0.84	0.89	77.5	YES	NO	bb	bd	1.268
10	Total-Dioxins	22.28	9.641e1	1.412e2	1.165	0.68	0.77	2.5	NO	NO	bd	bb	0.017
11	12378-PeCDD	31.64	3.215e3	2.188e3	1.087	1.47	1.55	51.2	YES	NO	bd	bb	0.496
12	123789-HxCDD	36.61	2.961e3	2.378e3	0.985	1.24	1.24	54.8	YES	NO	bb	bb	0.509
13	123678-HxCDD	36.22	3.387e3	2.724e3	1.021	1.24	1.24	53.3	YES	NO	db	db	0.556
14	123478-HxCDD	36.11	2.827e3	2.333e3	0.987	1.21	1.24	43.4	YES	NO	dd	bd	0.497
15	Total-hexadioxins	35.12	3.540e2	3.166e2	1.007	1.12	1.24	6.7	YES	NO	db	bb	0.063
16	1234678-HpCDD	40.35	3.173e3	3.384e3	1.253	0.94	1.05	35.5	YES	NO	bb	bb	0.614

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	27.58	8.439e4					1.7	NO		bb		
2	FUNCTION1 PFK	27.45	2.771e4					1.5	NO		bb		
3	FUNCTION1 PFK	27.17	2.484e4					1.4	NO		bb		
4	FUNCTION1 PFK	26.40	1.936e4					1.3	NO		bb		
5	FUNCTION1 PFK	26.11	4.980e4					1.6	NO		bb		
6	FUNCTION1 PFK	25.62	1.288e4					0.9	NO		bb		
7	FUNCTION1 PFK	23.40	2.240e4					0.8	NO		bb		
8	FUNCTION1 PFK	22.69	1.568e4					1.0	NO		bb		
9	FUNCTION1 PFK	22.18	2.261e4					1.3	NO		bb		
10	FUNCTION1 PFK	22.10	4.769e4					1.5	NO		bb		
11	FUNCTION1 PFK	21.98	1.078e4					0.8	NO		bb		
12	FUNCTION1 PFK	21.92	2.828e4					1.5	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.52	1.267e4					1.4	NO		dd		0.000
2	FUNCTION2 PFK	29.46	2.595e4					2.1	NO		bd		0.000
3	FUNCTION2 PFK	29.36	9.698e3					1.3	NO		db		0.000
4	FUNCTION2 PFK	29.26	3.530e4					1.9	NO		dd		0.000
5	FUNCTION2 PFK	29.20	3.010e4					2.1	NO		dd		0.000
6	FUNCTION2 PFK	29.12	1.008e4					1.1	NO		dd		0.000
7	FUNCTION2 PFK	29.07	1.252e4					1.4	NO		bd		0.000
8	FUNCTION2 PFK	29.00	5.699e3					0.9	NO		db		0.000
9	FUNCTION2 PFK	28.97	2.160e4					1.6	NO		dd		0.000
10	FUNCTION2 PFK	28.81	1.772e4					0.9	NO		bd		0.000
11	FUNCTION2 PFK	28.71	1.302e4					0.8	NO		bb		0.000
12	FUNCTION2 PFK	28.64	1.871e3					0.4	NO		bb		0.000
13	FUNCTION2 PFK	28.51	4.178e3					0.8	NO		bb		0.000
14	FUNCTION2 PFK	28.42	7.027e3					0.8	NO		bb		0.000
15	FUNCTION2 PFK	28.34	4.550e3					0.9	NO		bb		0.000
16	FUNCTION2 PFK	31.02	8.571e3					1.3	NO		dd		0.000
17	FUNCTION2 PFK	30.97	2.370e4					2.0	NO		dd		0.000
18	FUNCTION2 PFK	30.86	2.515e4					1.6	NO		dd		0.000
19	FUNCTION2 PFK	30.83	6.842e3					1.2	NO		bd		0.000
20	FUNCTION2 PFK	30.75	1.931e4					1.6	NO		bb		0.000
21	FUNCTION2 PFK	30.62	1.066e4					1.2	NO		db		0.000
22	FUNCTION2 PFK	30.58	5.541e3					1.0	NO		bd		0.000
23	FUNCTION2 PFK	30.53	9.069e3					1.2	NO		bb		0.000
24	FUNCTION2 PFK	30.44	1.277e4					1.2	NO		db		0.000
25	FUNCTION2 PFK	30.39	1.436e4					1.3	NO		bd		0.000
26	FUNCTION2 PFK	30.19	7.186e3					0.8	NO		bb		0.000
27	FUNCTION2 PFK	30.03	1.599e4					1.2	NO		bb		0.000
28	FUNCTION2 PFK	29.91	1.518e3					0.4	NO		bb		0.000
29	FUNCTION2 PFK	29.80	6.143e3					0.8	NO		bb		0.000
30	FUNCTION2 PFK	29.65	1.120e4					1.0	NO		db		0.000
31	FUNCTION2 PFK	29.56	1.510e4					1.6	NO		dd		0.000
32	FUNCTION2 PFK	32.43	5.171e3					1.0	NO		db		0.000
33	FUNCTION2 PFK	32.40	8.945e3					1.4	NO		bd		0.000
34	FUNCTION2 PFK	32.33	8.546e3					0.8	NO		db		0.000
35	FUNCTION2 PFK	32.28	1.923e3					0.6	NO		bd		0.000
36	FUNCTION2 PFK	32.23	9.966e3					1.3	NO		db		0.000
37	FUNCTION2 PFK	32.18	8.875e3					1.2	NO		bd		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:36:56 Pacific Standard Time

ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION2 PFK	32.09	1.451e4					1.2	NO		db		0.000
39	FUNCTION2 PFK	32.04	5.136e3					0.8	NO		dd		0.000
40	FUNCTION2 PFK	32.01	7.259e3					1.1	NO		bd		0.000
41	FUNCTION2 PFK	31.94	6.720e3					0.8	NO		bb		0.000
42	FUNCTION2 PFK	31.74	5.803e3					0.8	NO		bb		0.000
43	FUNCTION2 PFK	31.61	6.954e3					1.2	NO		db		0.000
44	FUNCTION2 PFK	31.59	1.111e4					1.2	NO		bd		0.000
45	FUNCTION2 PFK	31.45	7.843e2					0.3	NO		bb		0.000
46	FUNCTION2 PFK	31.41	1.192e4					1.2	NO		bb		0.000
47	FUNCTION2 PFK	31.07	1.965e3					0.4	NO		db		0.000
48	FUNCTION2 PFK	32.80	6.019e3					1.1	NO		db		0.000
49	FUNCTION2 PFK	32.77	9.084e3					1.2	NO		bd		0.000
50	FUNCTION2 PFK	32.64	3.494e4					1.5	NO		db		0.000
51	FUNCTION2 PFK	32.60	5.286e3					0.9	NO		dd		0.000
52	FUNCTION2 PFK	32.53	4.308e3					0.5	NO		bd		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	36.14	4.336e3					0.7	NO		db		0.000
2	FUNCTION3 PFK	36.11	5.755e3					0.7	NO		bd		0.000
3	FUNCTION3 PFK	36.06	7.687e3					0.9	NO		bb		0.000
4	FUNCTION3 PFK	36.02	1.796e4					1.6	NO		bb		0.000
5	FUNCTION3 PFK	35.81	1.736e4					1.2	NO		bb		0.000
6	FUNCTION3 PFK	35.69	5.338e4					1.7	NO		bb		0.000
7	FUNCTION3 PFK	35.20	3.054e3					0.6	NO		bb		0.000
8	FUNCTION3 PFK	34.12	1.673e4					1.2	NO		bb		0.000
9	FUNCTION3 PFK	33.89	1.577e4					1.4	NO		bb		0.000
10	FUNCTION3 PFK	33.50	1.199e4					1.1	NO		bb		0.000
11	FUNCTION3 PFK	36.41	2.803e3					0.5	NO		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	46.30	6.353e3					1.3	NO		bb		
2	FUNCTION5 PFK	45.94	1.054e4					1.7	NO		bb		
3	FUNCTION5 PFK	45.79	1.187e3					0.6	NO		bb		
4	FUNCTION5 PFK	45.60	4.997e3					1.0	NO		bb		
5	FUNCTION5 PFK	45.34	9.354e3					1.4	NO		db		
6	FUNCTION5 PFK	45.31	2.478e3					1.0	NO		bd		
7	FUNCTION5 PFK	45.26	5.509e3					1.0	NO		bb		
8	FUNCTION5 PFK	43.99	1.588e4					1.1	NO		bb		
9	FUNCTION5 PFK	43.56	6.413e3					1.4	NO		db		
10	FUNCTION5 PFK	43.53	4.291e3					1.1	NO		bd		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	22.28	8.501e1					1.7	NO		bb		0.000
2	FUNCTION1 HXCD...	21.98	1.104e2					2.3	NO		bb		0.000
3	FUNCTION1 HXCD...	26.53	2.072e2					2.6	NO		bb		0.000
4	FUNCTION1 HXCD...	26.29	8.524e1					1.7	NO		bb		0.000
5	FUNCTION1 HXCD...	25.91	1.063e2					2.1	NO		db		0.000
6	FUNCTION1 HXCD...	25.87	8.437e1					1.9	NO		bd		0.000
7	FUNCTION1 HXCD...	25.00	7.918e1					1.2	NO		bb		0.000
8	FUNCTION1 HXCD...	24.64	7.557e1					1.6	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	26.37	8.294e1					2.3	NO		dd		0.000
2	FUNCTION1 HPCD...	26.31	7.445e1					1.6	NO		bd		0.000
3	FUNCTION1 HPCD...	25.85	3.079e2					2.6	NO		db		0.000
4	FUNCTION1 HPCD...	25.72	1.912e2					2.1	NO		bd		0.000
5	FUNCTION1 HPCD...	25.35	9.102e1					2.4	NO		bb		0.000
6	FUNCTION1 HPCD...	24.26	7.312e1					0.4	NO		bb		0.000
7	FUNCTION1 HPCD...	23.34	2.139e2					1.8	NO		bb		0.000
8	FUNCTION1 HPCD...	22.66	8.267e1					0.8	NO		bb		0.000
9	FUNCTION1 HPCD...	21.38	7.618e1					1.4	NO		bb		0.000
10	FUNCTION1 HPCD...	27.98	9.946e1					3.1	YES		bb		0.000
11	FUNCTION1 HPCD...	26.99	8.404e1					1.1	NO		bb		0.000
12	FUNCTION1 HPCD...	26.52	1.802e2					1.5	NO		db		0.000

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.64	1.571e2					2.9	NO		bb		0.000
2	FUNCTION2 HPCD...	31.35	7.515e1					1.4	NO		bb		0.000
3	FUNCTION2 HPCD...	30.72	8.443e1					1.4	NO		bb		0.000
4	FUNCTION2 HPCD...	30.46	1.124e2					2.4	NO		bb		0.000
5	FUNCTION2 HPCD...	30.06	1.840e2					5.0	YES		bb		0.000
6	FUNCTION2 HPCD...	28.49	7.182e1					1.7	NO		bb		0.000
7	FUNCTION2 HPCD...	28.27	7.966e1					1.8	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	35.88	1.145e2					2.3	NO		bd		0.000
2	FUNCTION3 OCDPE	35.18	2.003e2					3.4	YES		bb		0.000
3	FUNCTION3 OCDPE	34.09	1.081e2					2.7	NO		db		0.000
4	FUNCTION3 OCDPE	34.04	7.302e1					3.0	YES		bd		0.000
5	FUNCTION3 OCDPE	37.75	1.221e2					3.1	YES		bb		0.000
6	FUNCTION3 OCDPE	36.64	1.574e2					3.5	YES		db		0.000
7	FUNCTION3 OCDPE	36.60	2.003e2					4.2	YES		bd		0.000
8	FUNCTION3 OCDPE	36.20	2.806e2					4.2	YES		db		0.000
9	FUNCTION3 OCDPE	36.12	3.227e2					5.3	YES		dd		0.000
10	FUNCTION3 OCDPE	35.99	2.101e2					3.8	YES		dd		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:36:56 Pacific Standard Time

ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.48	9.634e1					2.9	NO		bb		0.000
2	FUNCTION4 NCDPE	38.52	7.264e1					3.4	YES		bb		0.000

ETHERS6

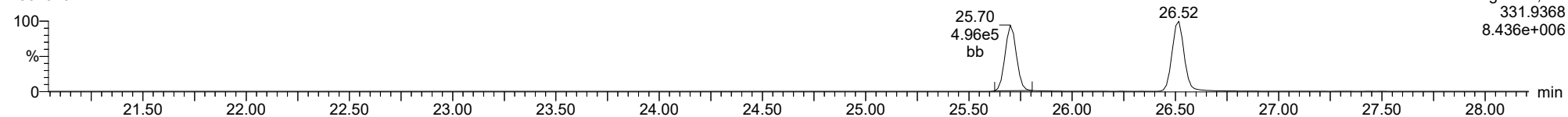
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1	FUNCTION5 DCDPE	44.32	8.847e1					3.1	YES		bb		0.000

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
Calibration: 03 Feb 2023 10:33:40

ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD

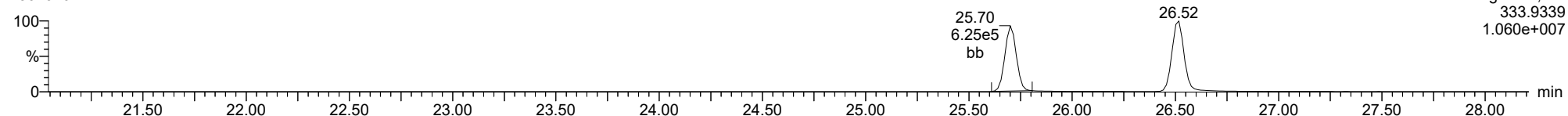
23020104



F1:Voltage SIR,El+
331.9368
8.436e+006

13C-1234-TCDD

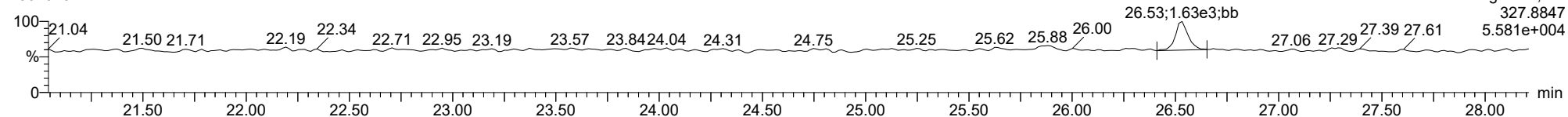
23020104



F1:Voltage SIR,El+
333.9339
1.060e+007

37CL-2378-TCDD

23020104

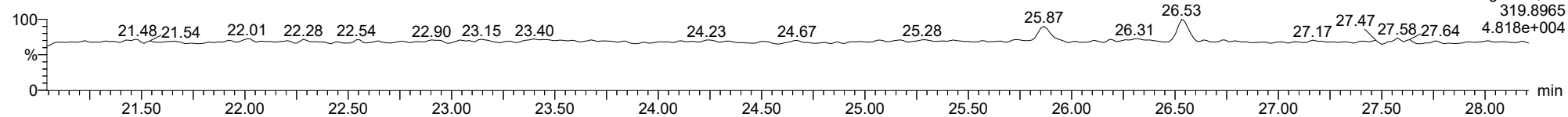


F1:Voltage SIR,El+
327.8847
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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

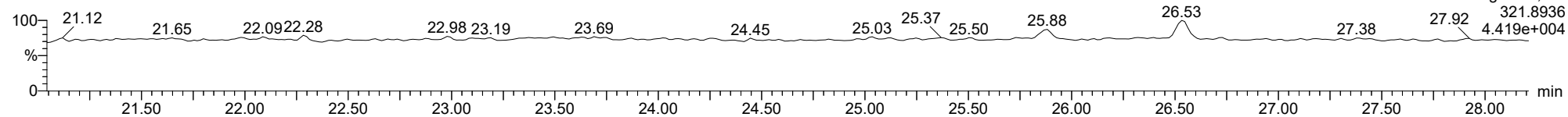
2378-TCDD

23020104



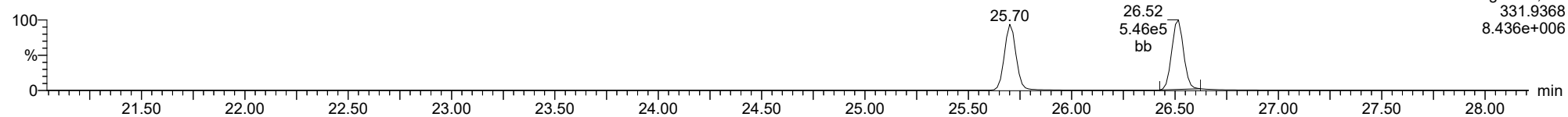
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23020104



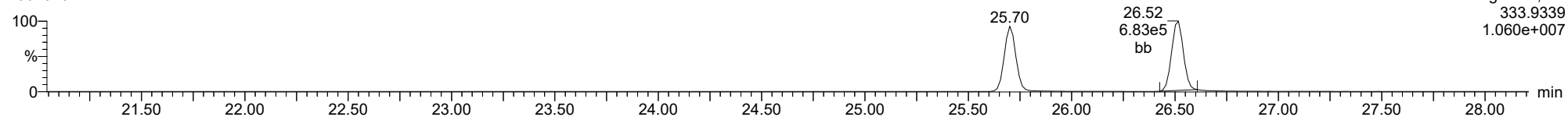
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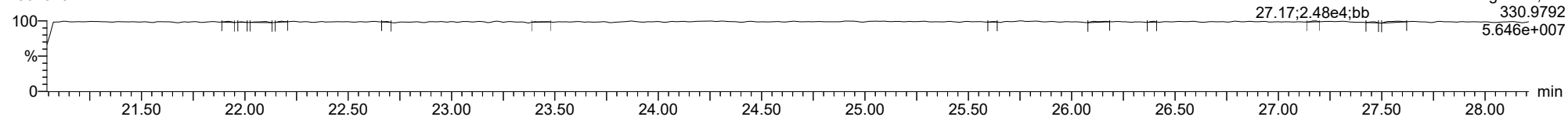
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23020104



FUNCTION1 PFK

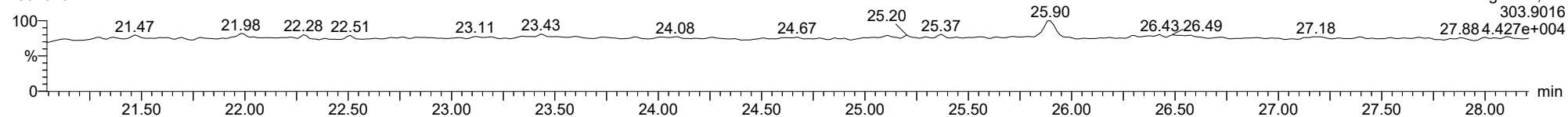
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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

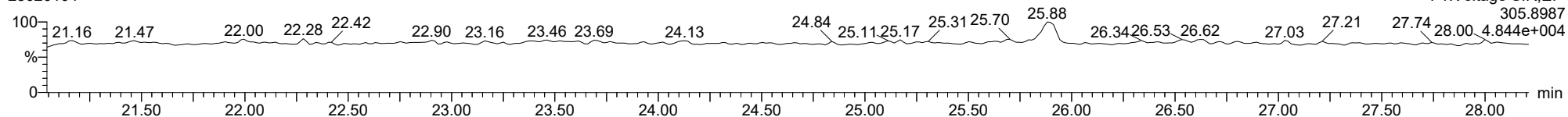
2378-TCDF

23020104



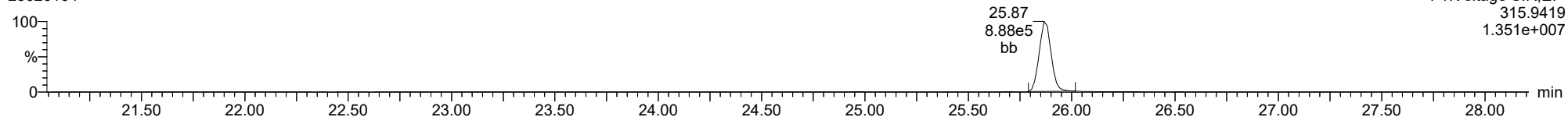
2378-TCDF

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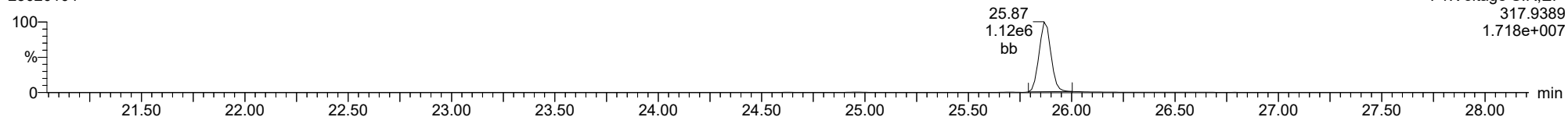
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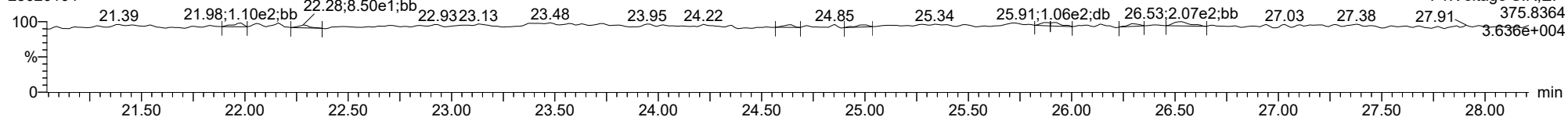
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FUNCTION1 HXCDPE

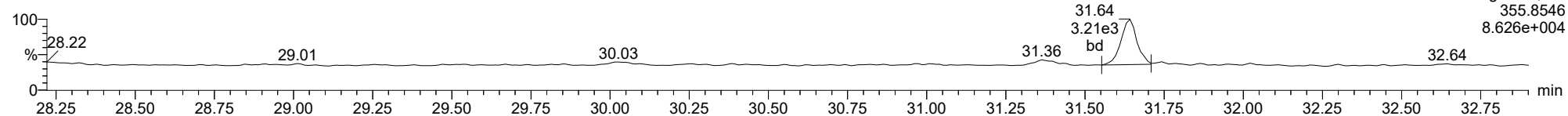
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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

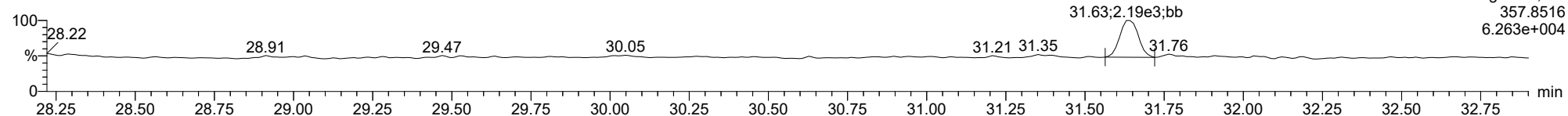
12378-PeCDD

23020104



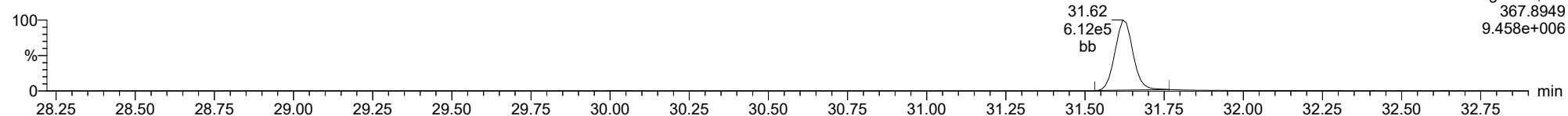
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23020104



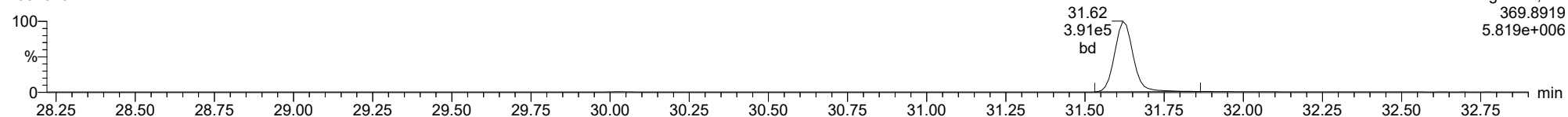
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23020104



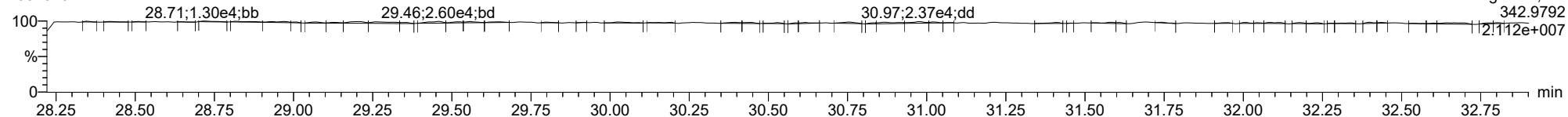
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23020104



FUNCTION2 PFK

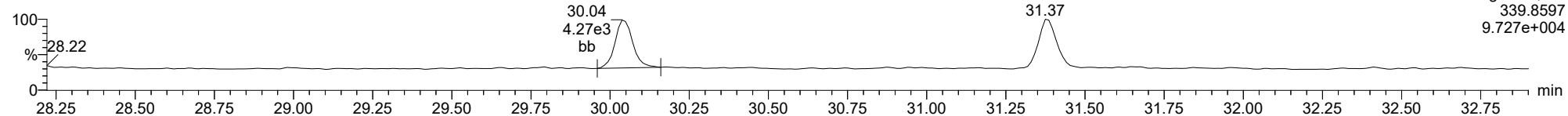
23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

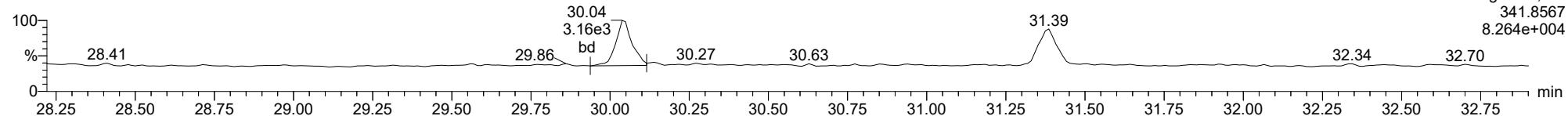
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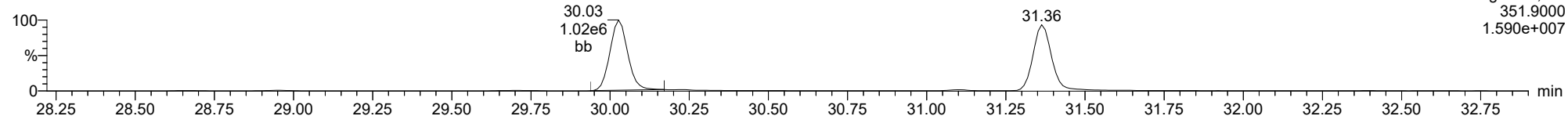
12378-PeCDF

23020104



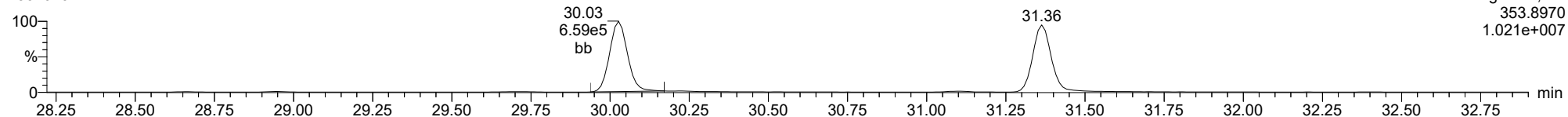
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23020104



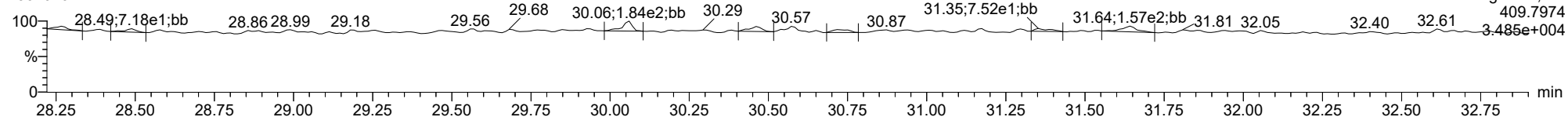
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23020104



FUNCTION2 HPCDPE

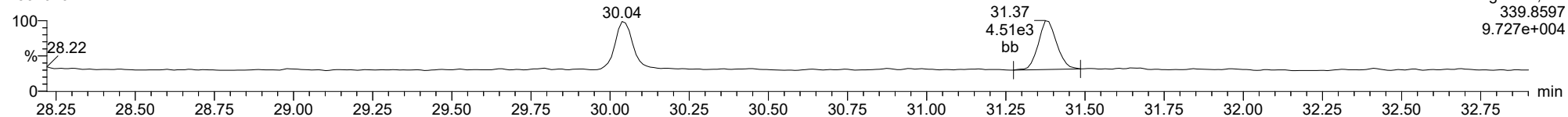
23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

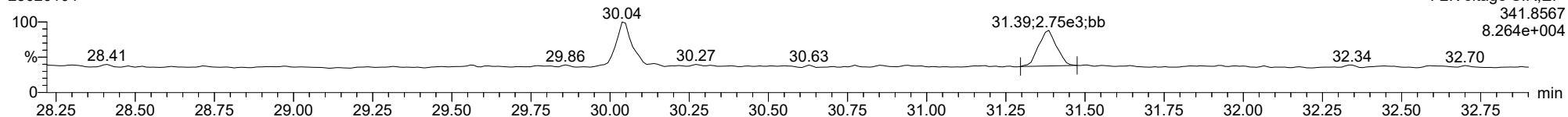
23478-PeCDF

23020104



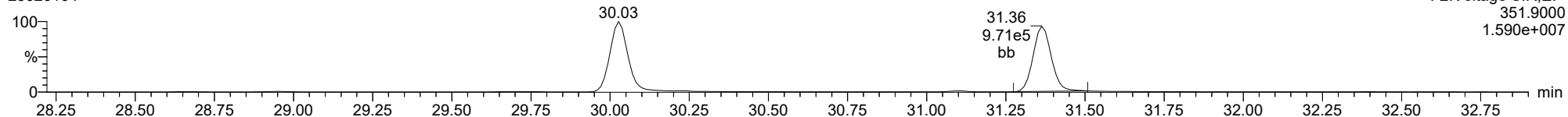
23478-PeCDF

23020104



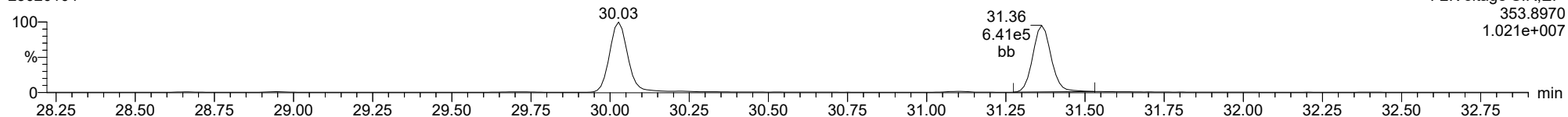
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23020104



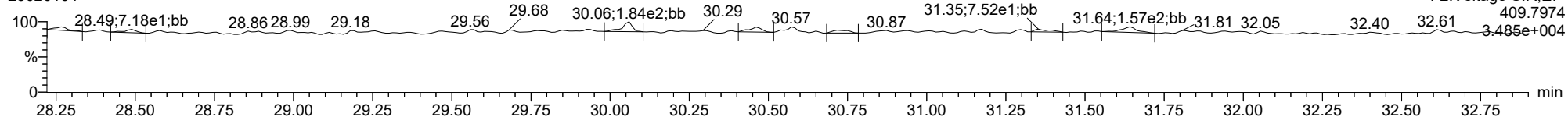
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23020104



FUNCTION2 HPCDPE

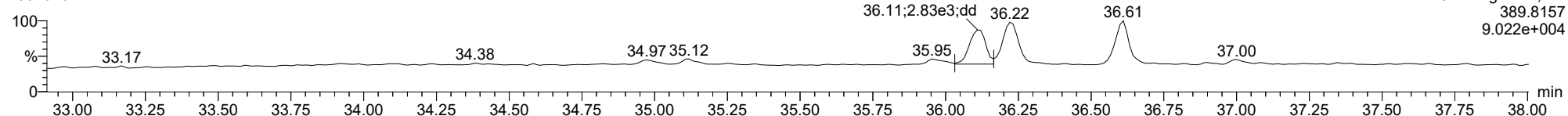
23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

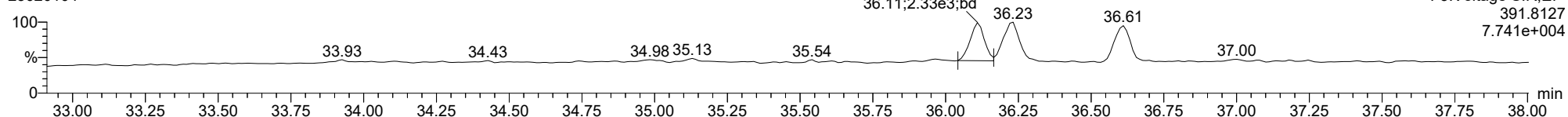
123478-HxCDD

23020104



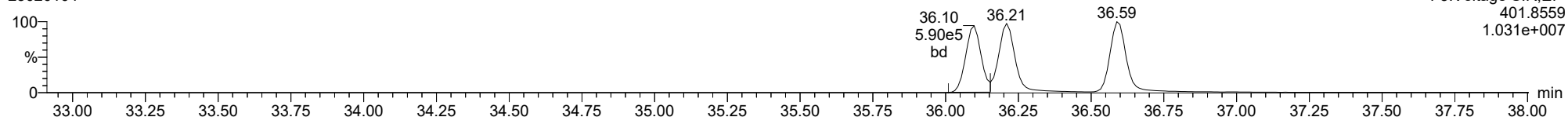
123478-HxCDD

23020104



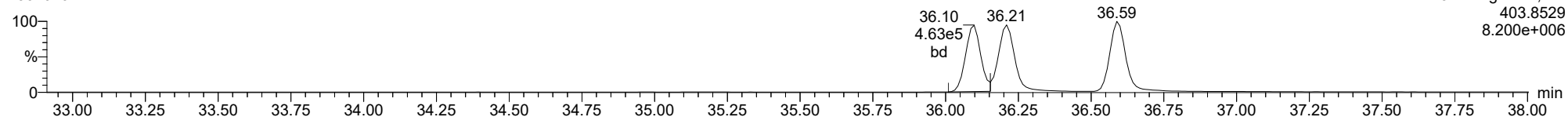
13C-123478-HxCDD

23020104



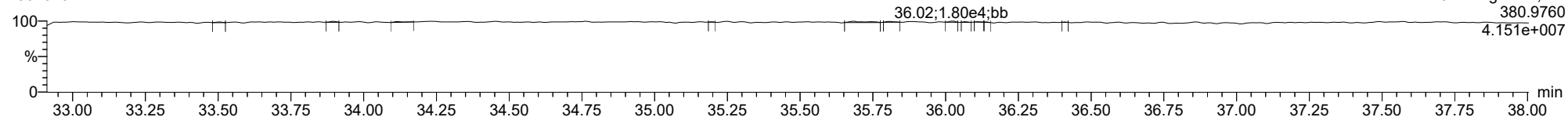
13C-123478-HxCDD

23020104



FUNCTION3 PFK

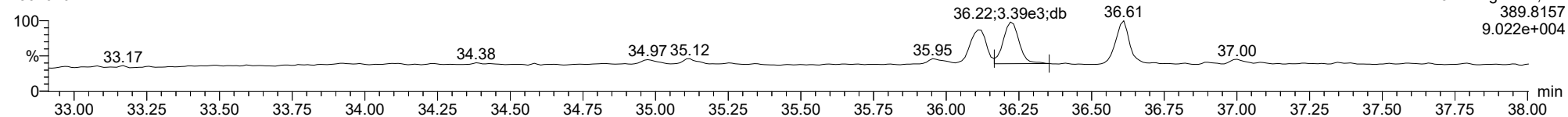
23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

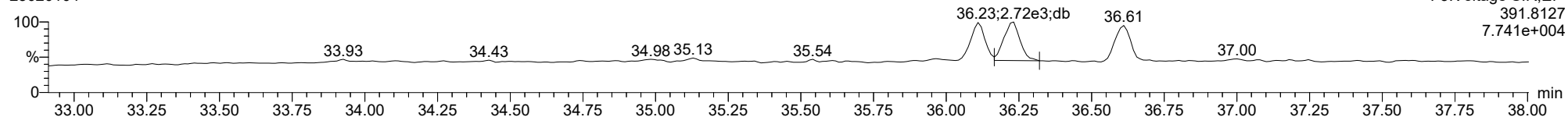
123678-HxCDD

23020104



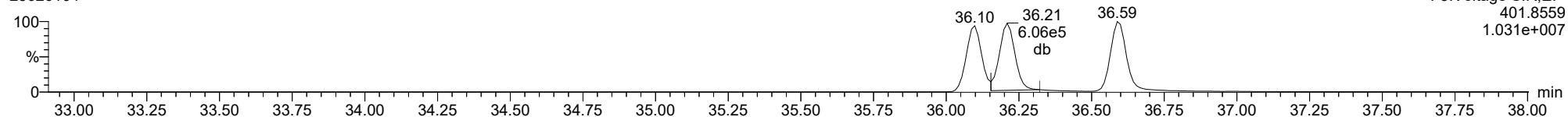
123678-HxCDD

23020104



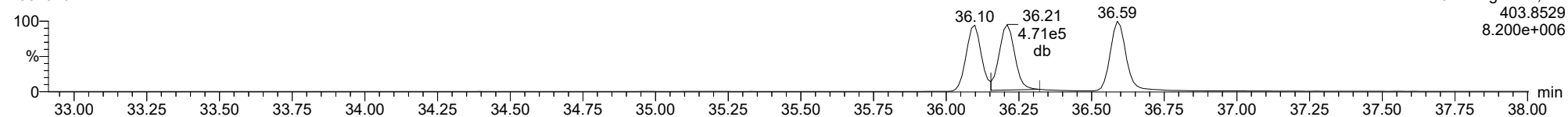
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23020104



13C-123678-HxCDD

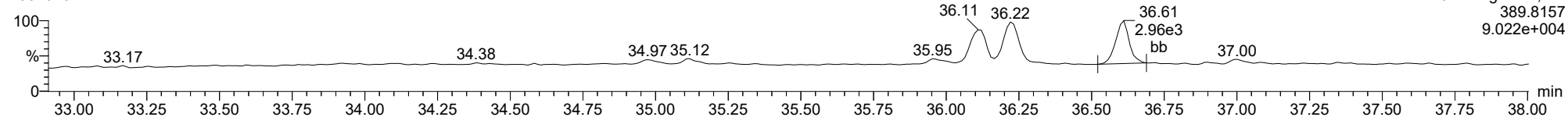
23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

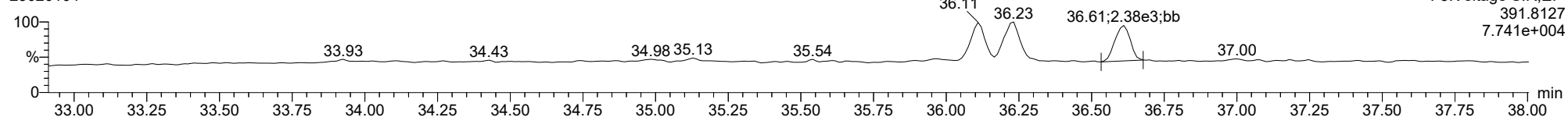
123789-HxCDD

23020104



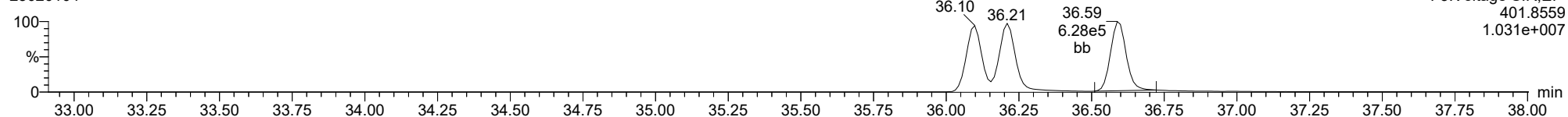
123789-HxCDD

23020104



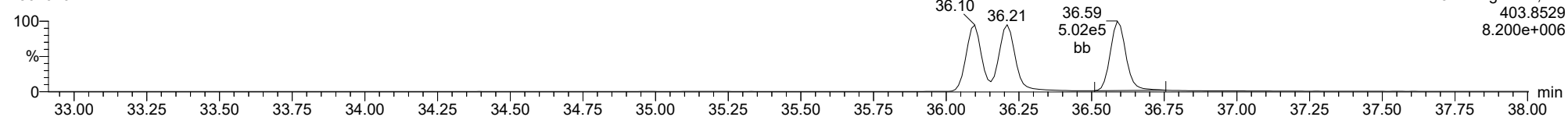
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23020104



13C-123789-HxCDD

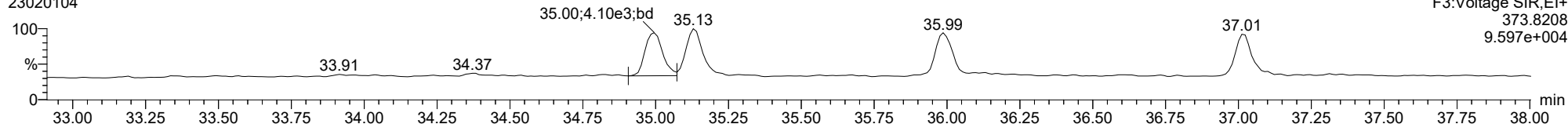
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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

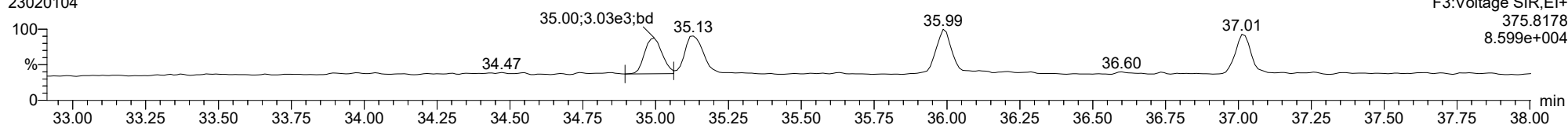
123478-HxCDF

23020104



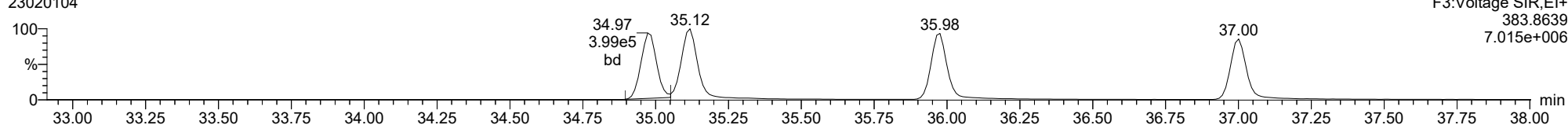
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23020104



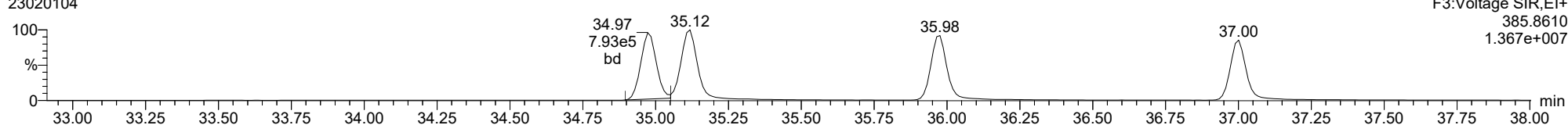
13C-123478-HxCDF

23020104



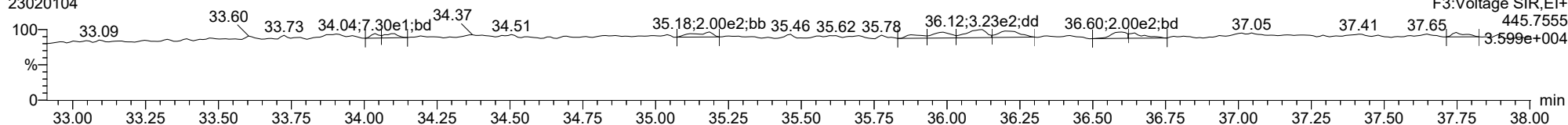
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23020104



FUNCTION3 OCDPE

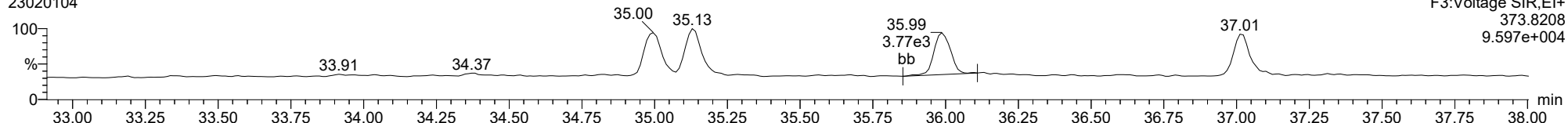
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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

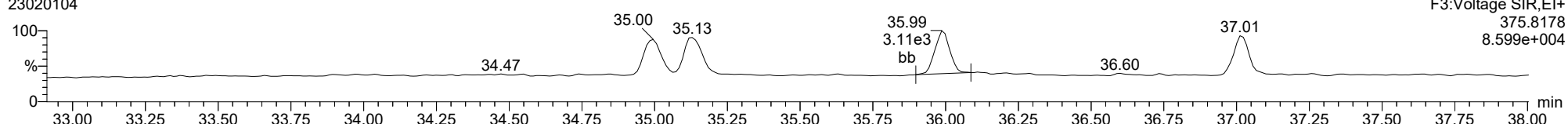
234678-HxCDF

23020104



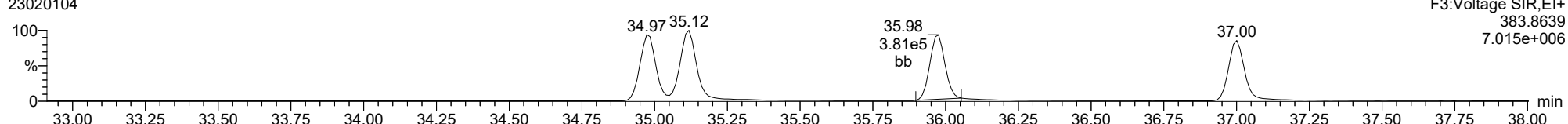
234678-HxCDF

23020104



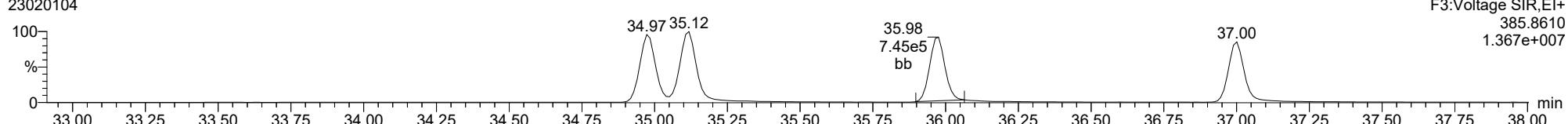
13C-234678-HxCDF

23020104



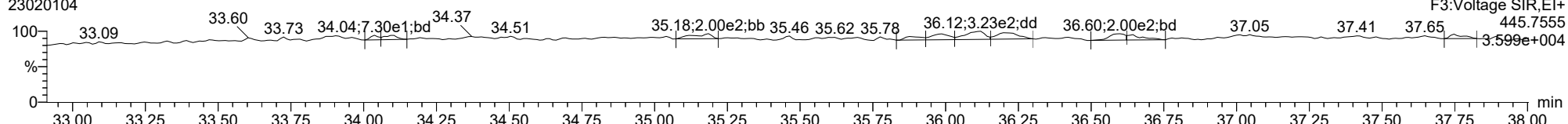
13C-234678-HxCDF

23020104



FUNCTION3 OCDPE

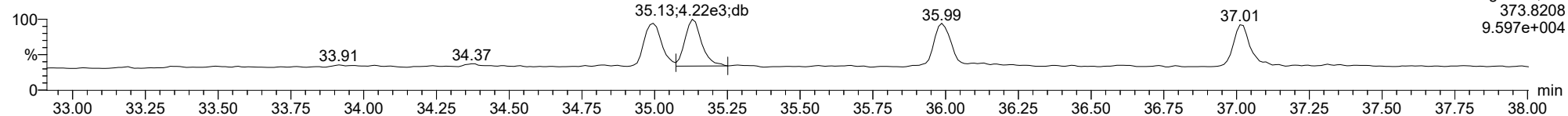
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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

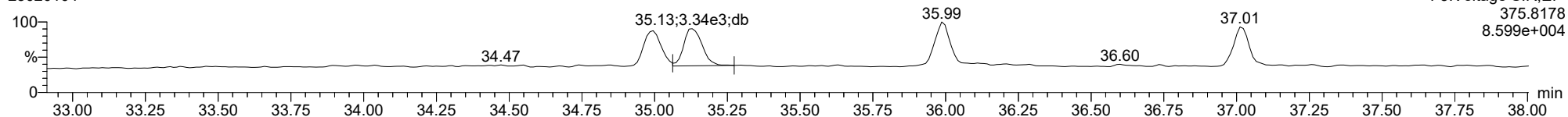
123678-HxCDF

23020104



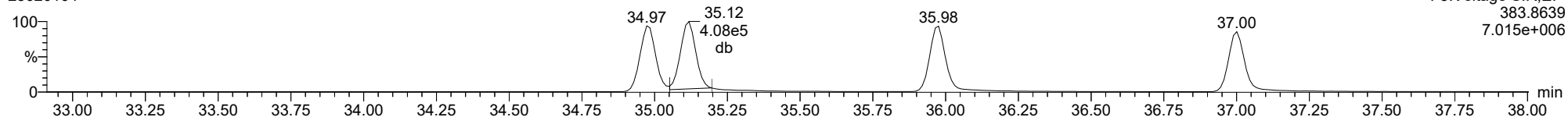
123678-HxCDF

23020104



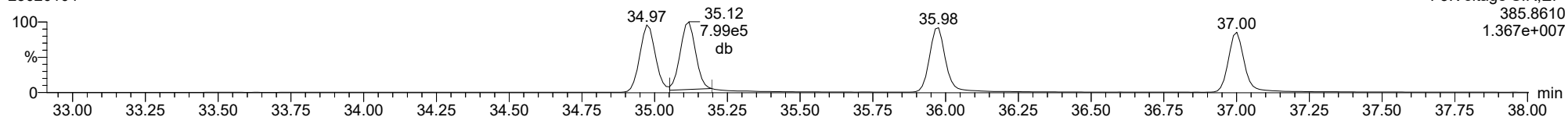
13C-123678-HxCDF

23020104



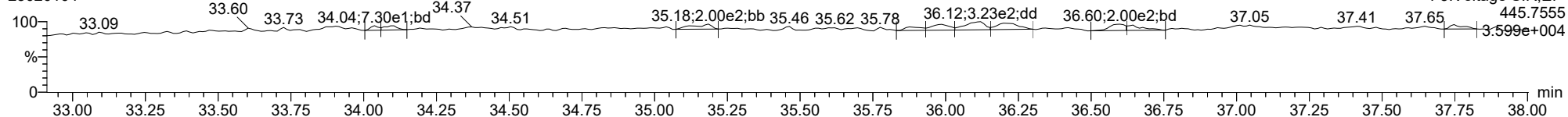
13C-123678-HxCDF

23020104



FUNCTION3 OCDPE

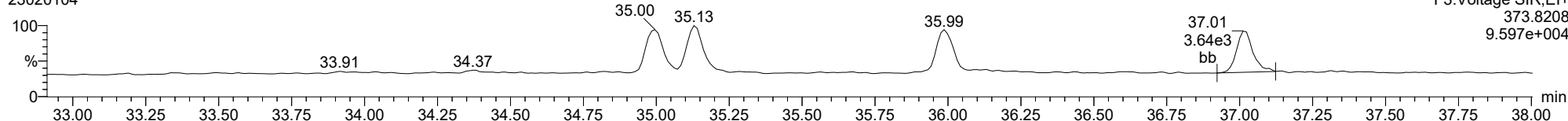
23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

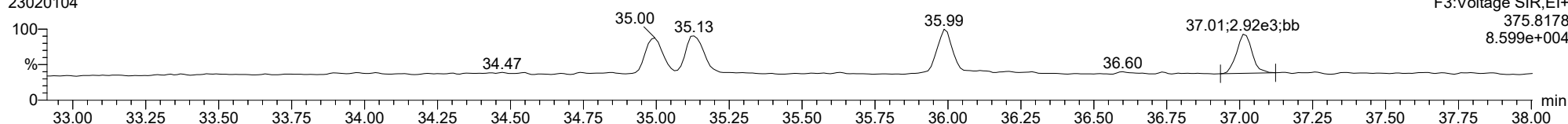
123789-HxCDF

23020104



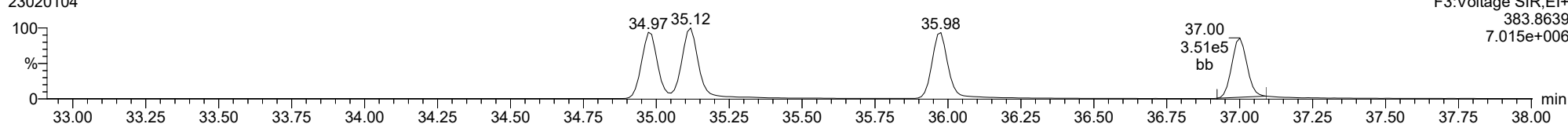
123789-HxCDF

23020104



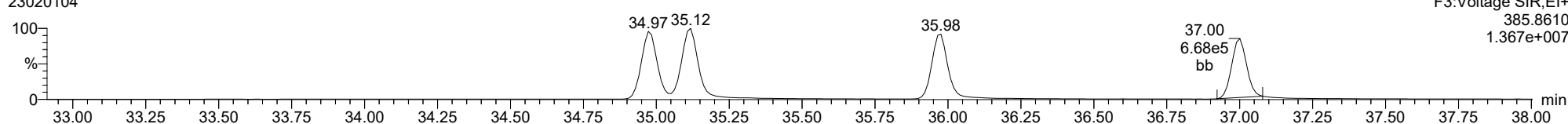
13C-123789-HxCDF

23020104



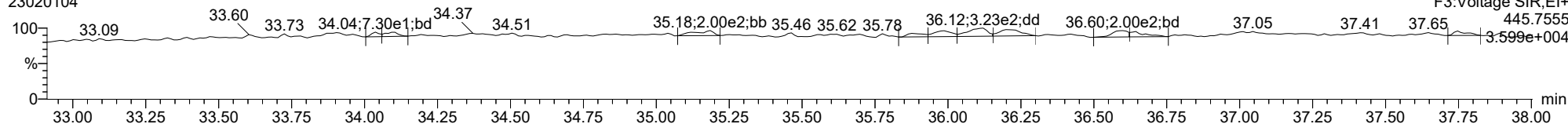
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23020104



FUNCTION3 OCDPE

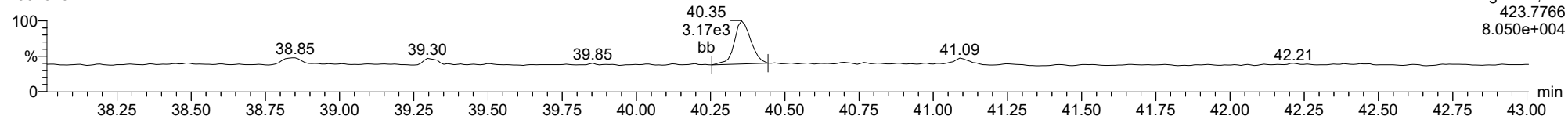
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ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

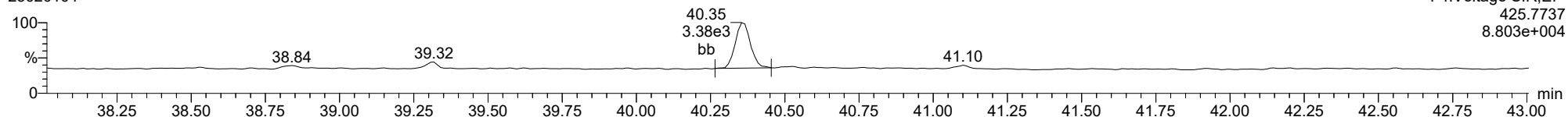
1234678-HpCDD

23020104



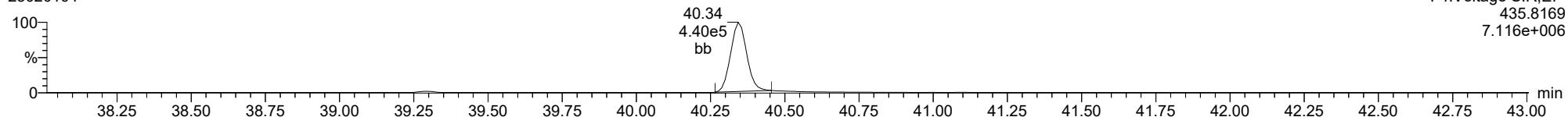
1234678-HpCDD

23020104



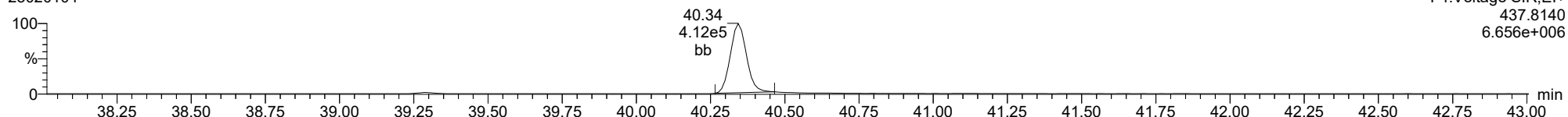
13C-1234678-HpCDD

23020104



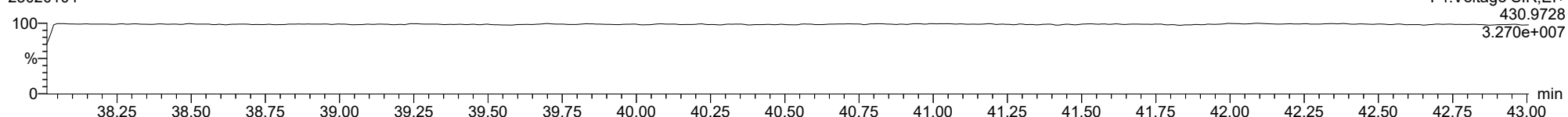
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23020104



FUNCTION4 PFK

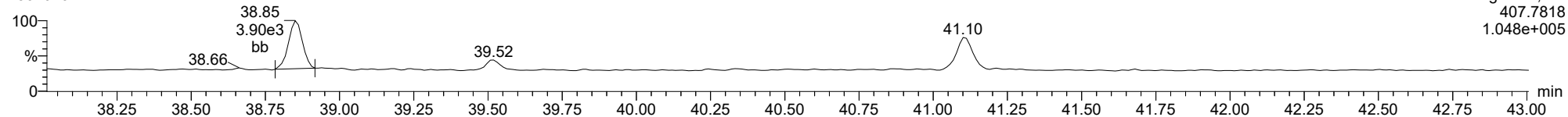
23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

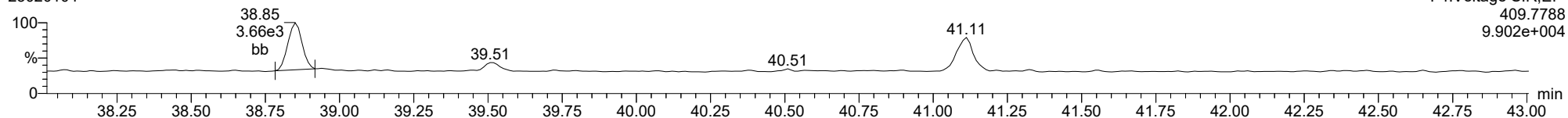
1234678-HpCDF

23020104



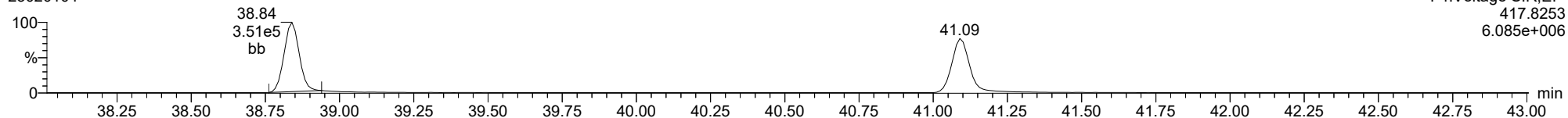
1234678-HpCDF

23020104



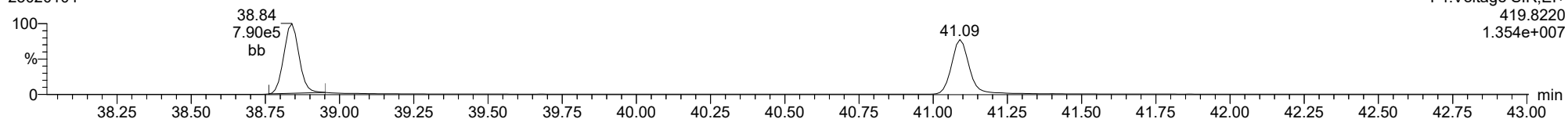
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23020104



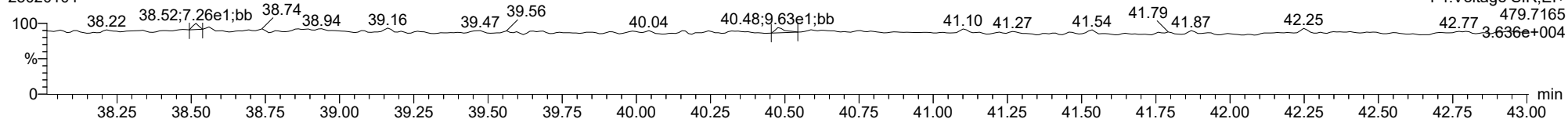
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23020104



FUNCTION4 NCDPE

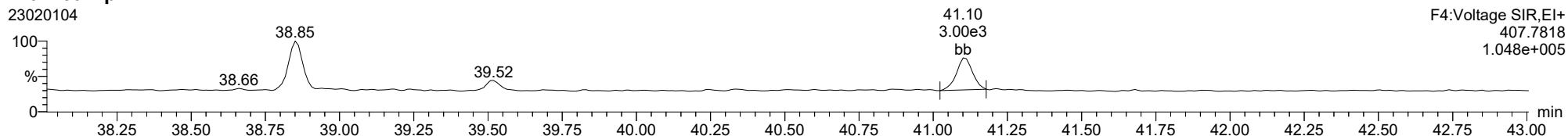
23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

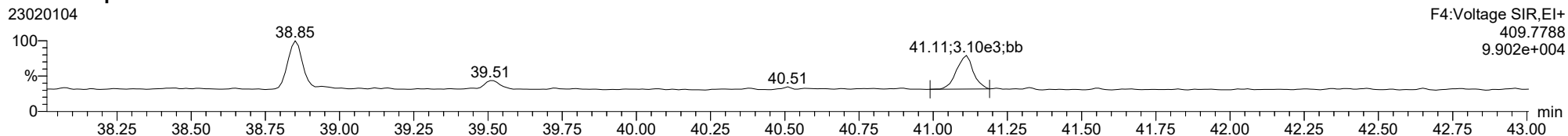
23020104



F4:Voltage SIR,EI+
407.7818
1.048e+005

1234789-HpCDF

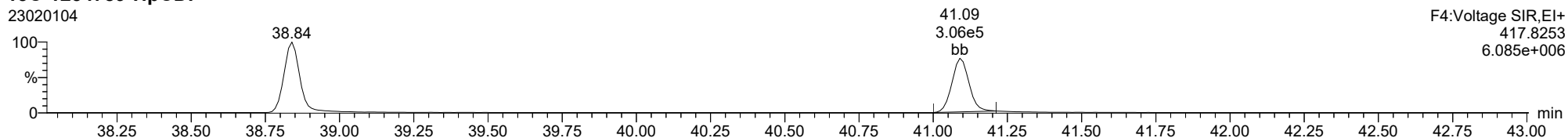
23020104



F4:Voltage SIR,EI+
409.7788
9.902e+004

13C-1234789-HpCDF

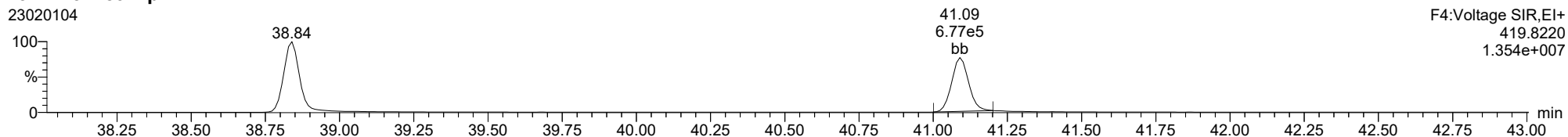
23020104



F4:Voltage SIR,EI+
417.8253
6.085e+006

13C-1234789-HpCDF

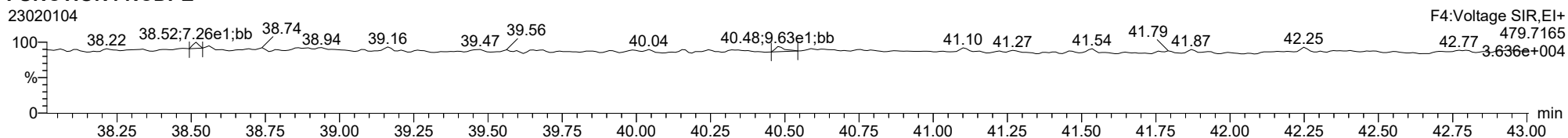
23020104



F4:Voltage SIR,EI+
419.8220
1.354e+007

FUNCTION4 NCDPE

23020104

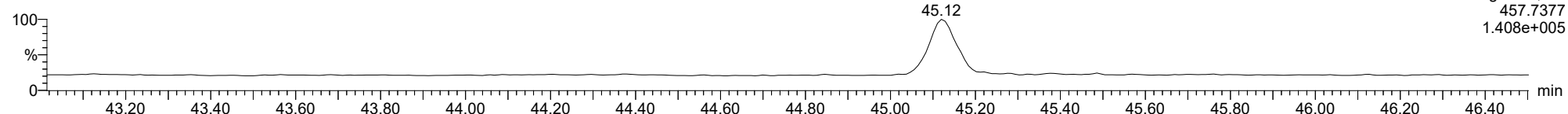


F4:Voltage SIR,EI+
479.7165
3.636e+004

ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

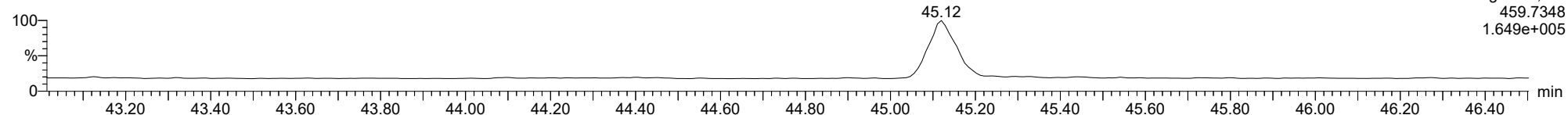
OCDD

23020104



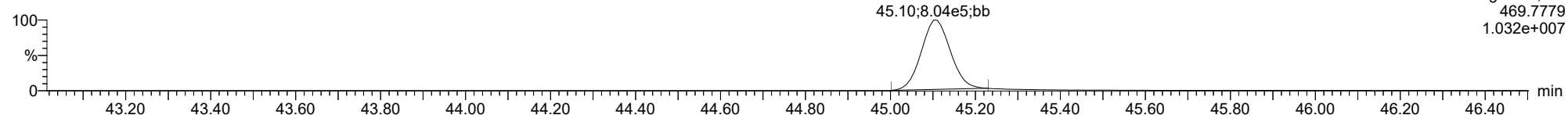
OCDD

23020104



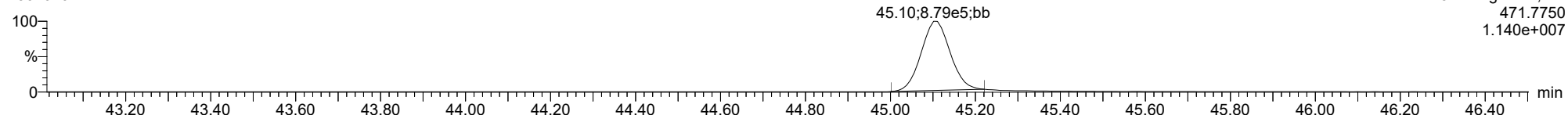
13C-OCDD

23020104



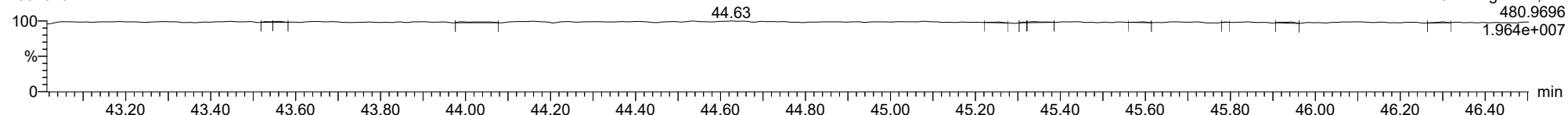
13C-OCDD

23020104



FUNCTION5 PFK

23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

OCDF

23020104

100
%
0

43.01

45.38;5.79e3;bb

45.73

F5:Voltage SIR,EI+
441.7428
1.050e+005

OCDF

23020104

100
%
0

43.12

45.37;6.87e3;bd

F5:Voltage SIR,EI+
443.7399
1.139e+005

FUNCTION5 DCDPE

23020104

100
%
0

43.03

43.34

43.58

43.81

44.14

44.32;8.85e1;bb

44.87

44.95

45.14

45.43

45.58

45.78

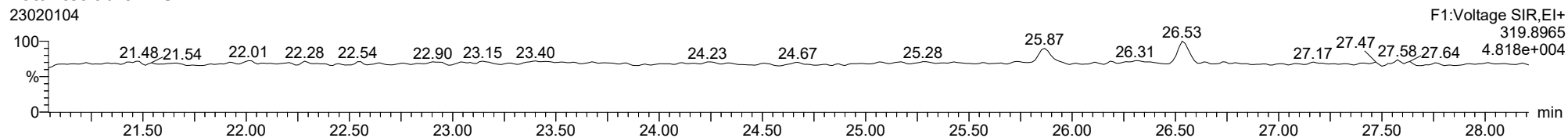
46.01

F5:Voltage SIR,EI+
461.5136775
3.440e+004

ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

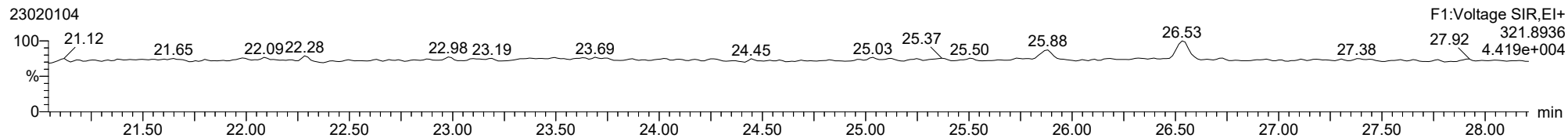
Total-tetradioxins

23020104



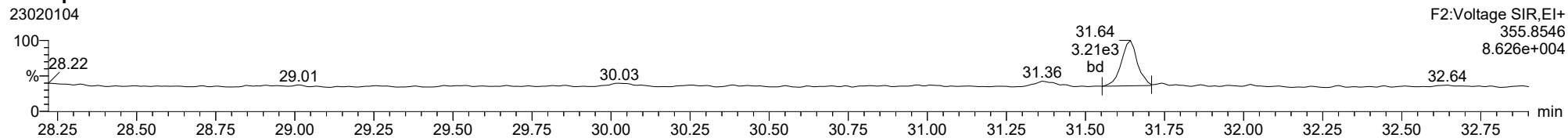
Total-tetradioxins

23020104



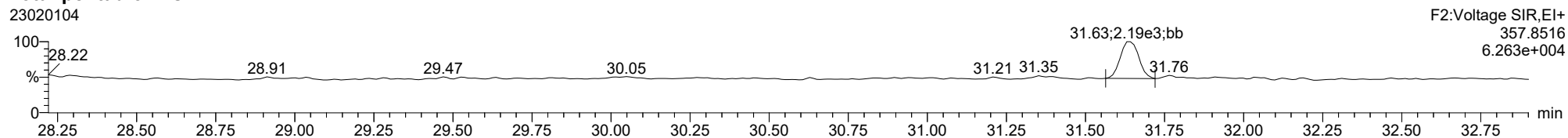
Total-pentadioxins

23020104



Total-pentadioxins

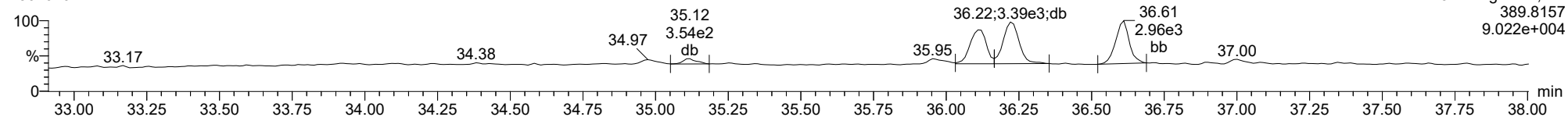
23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

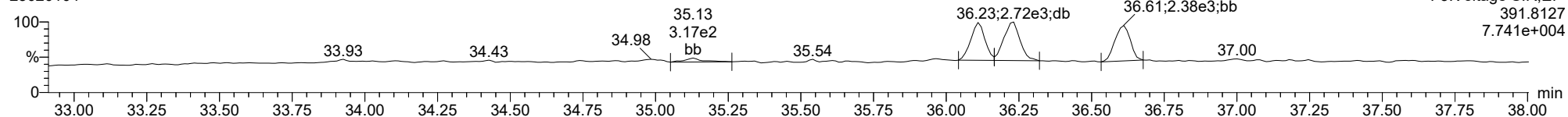
Total-hexadioxins

23020104



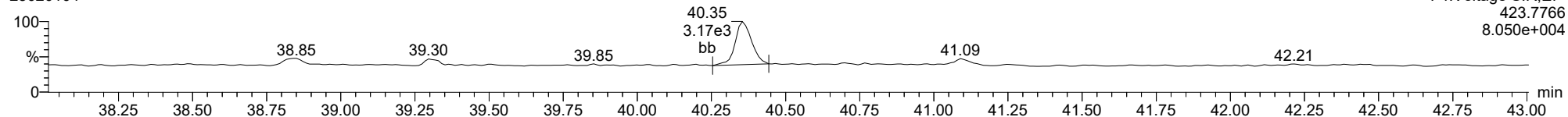
Total-hexadioxins

23020104



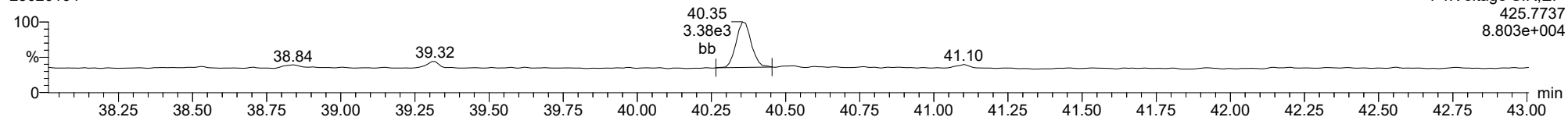
Total-heptadioxins

23020104



Total-heptadioxins

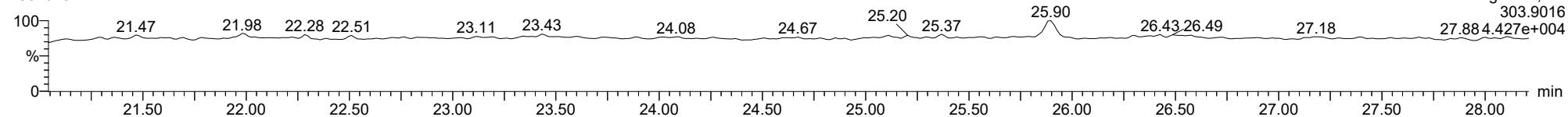
23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

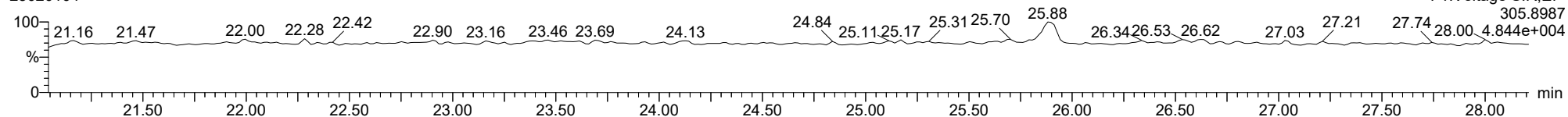
Total-tetrafurans

23020104



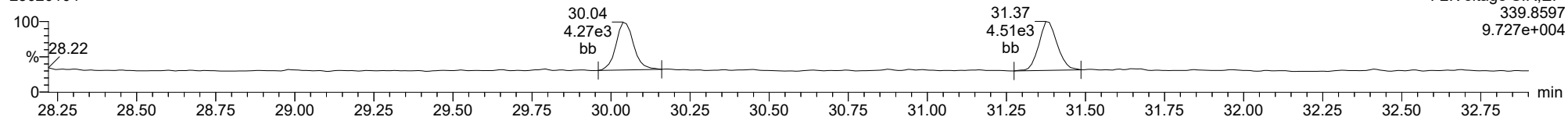
Total-tetrafurans

23020104



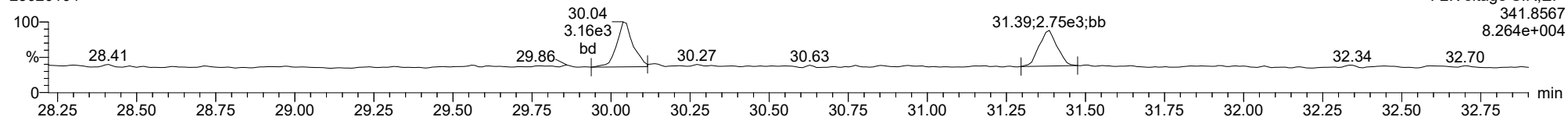
Total-pentafurans

23020104



Total-pentafurans

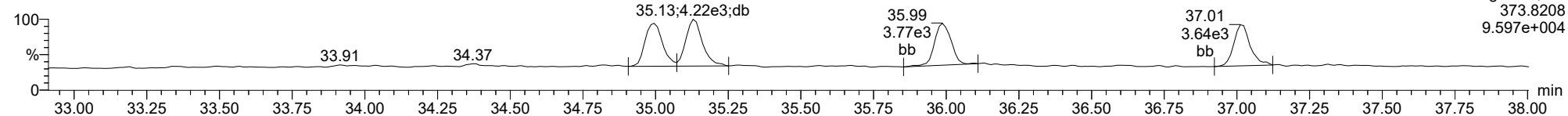
23020104



ID: CSLCR, Name: 23020104, Date: 01-Feb-2023, Time: 14:39:51, Conditions: AUTOSPEC01, User: pk

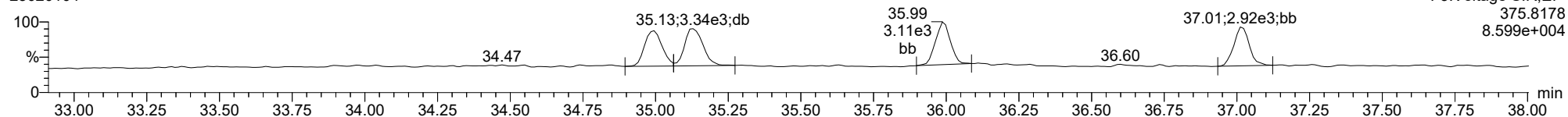
Total-hexafurans

23020104



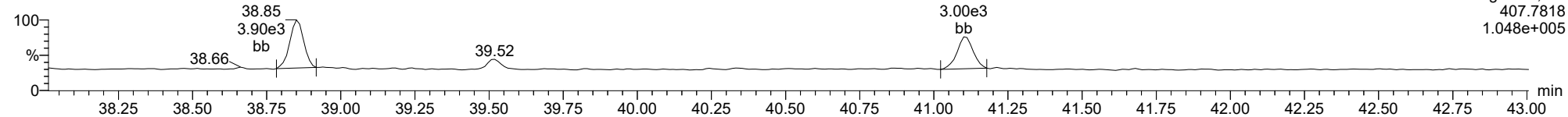
Total-hexafurans

23020104



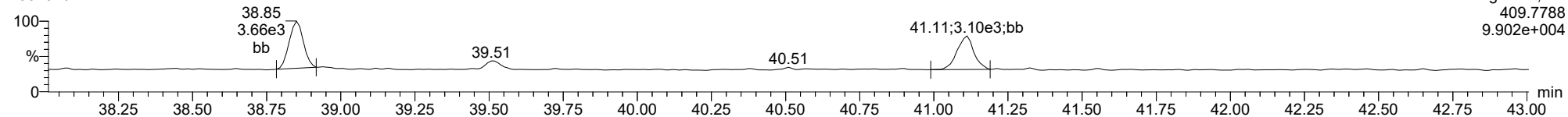
Total-heptafurans

23020104



Total-heptafurans

23020104



Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:37:09 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
Calibration: 03 Feb 2023 10:33:40

ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.897	1.001	3.165e3	3.812e3	0.876	0.830	0.770	851	1202	5.14e4	5.60e4	60.4	46.6	NO	db	bb	0.501
12378-PeCDF	30.048	1.000	1.657e4	1.122e4	0.845	1.477	1.550	1016	1248	2.51e5	1.73e5	247.1	138.5	NO	bb	bb	2.455
23478-PeCDF	31.385	1.000	1.669e4	1.174e4	0.911	1.422	1.550	1016	1248	2.63e5	1.81e5	259.2	145.3	NO	bb	bd	2.401
123478-HxCDF	35.006	1.001	1.544e4	1.249e4	1.182	1.236	1.240	890	1056	2.44e5	1.98e5	274.0	187.0	NO	bd	bd	2.494
234678-HxCDF	35.998	1.001	1.543e4	1.155e4	1.229	1.336	1.240	890	1056	2.60e5	1.91e5	292.0	180.6	NO	bd	bb	2.421
123678-HxCDF	35.140	1.001	1.636e4	1.318e4	1.248	1.241	1.240	890	1056	2.60e5	2.03e5	291.7	192.2	NO	dd	db	2.443
123789-HxCDF	37.023	1.000	1.293e4	1.008e4	1.187	1.282	1.240	890	1056	2.13e5	1.63e5	239.4	154.3	NO	bd	bb	2.372
1234678-HpCDF	38.861	1.000	1.439e4	1.337e4	1.204	1.077	1.050	1098	1117	2.42e5	2.23e5	220.8	199.9	NO	bb	bd	2.577
1234789-HpCDF	41.112	1.000	1.117e4	1.059e4	1.165	1.055	1.050	1098	1117	1.62e5	1.56e5	147.3	139.5	NO	bb	bb	2.411
OCDF	45.367	1.006	1.860e4	2.066e4	1.186	0.900	0.890	1237	861	2.12e5	2.52e5	171.2	292.2	NO	bb	bb	5.087
2378-TCDD	26.547	1.001	2.836e3	3.619e3	1.236	0.784	0.770	1261	742	4.26e4	5.78e4	33.8	77.9	NO	bb	bb	0.538
12378-PeCDD	31.642	1.000	1.354e4	8.892e3	1.087	1.522	1.550	1167	972	2.08e5	1.36e5	178.2	140.0	NO	bd	bd	2.535
123478-HxCDD	36.120	1.001	1.109e4	9.100e3	0.987	1.219	1.240	1079	803	1.88e5	1.54e5	174.2	191.5	NO	bd	bd	2.425
123678-HxCDD	36.232	1.000	1.193e4	1.017e4	1.021	1.173	1.240	1079	803	2.08e5	1.71e5	192.4	213.0	NO	db	dd	2.523
123789-HxCDD	36.611	1.011	1.141e4	9.550e3	0.985	1.195	1.240	1079	803	1.90e5	1.59e5	175.6	197.5	NO	bb	bd	2.499
1234678-HpCDD	40.365	1.000	1.047e4	1.022e4	1.253	1.025	1.050	924	912	1.67e5	1.57e5	180.8	172.2	NO	bb	bb	2.439
OCDD	45.129	1.000	2.025e4	2.243e4	1.103	0.903	0.890	770	1015	2.54e5	2.74e5	329.8	270.4	NO	bb	bb	5.948
13C-2378-TCDF	25.882	1.007	6.992e5	8.909e5	1.768	0.785	0.770	1890	1690	1.07e7	1.37e7	5679.3	8103.6	NO	bb	bb	99.523
13C-12378-PeCDF	30.037	1.168	8.127e5	5.274e5	1.527	1.541	1.550	2822	3217	1.25e7	8.12e6	4447.1	2523.6	NO	bb	bb	97.112
13C-23478-PeCDF	31.374	1.220	7.914e5	5.082e5	1.466	1.557	1.550	2822	3217	1.22e7	7.90e6	4335.0	2456.5	NO	bb	bb	98.086
13C-123478-HxCDF	34.984	0.956	3.203e5	6.270e5	1.054	0.511	0.510	2242	2569	5.23e6	1.03e7	2333.1	3994.8	NO	bd	bd	102.287
13C-123678-HxCDF	35.118	0.960	3.331e5	6.354e5	1.080	0.524	0.510	2242	2569	5.30e6	1.04e7	2362.3	4050.9	NO	db	db	102.033
13C-234678-HxCDF	35.975	0.983	3.012e5	6.055e5	1.014	0.497	0.510	2242	2569	5.04e6	1.01e7	2247.8	3935.5	NO	bb	bb	101.688
13C-123789-HxCDF	37.012	1.011	2.780e5	5.398e5	0.928	0.515	0.510	2242	2569	4.60e6	8.89e6	2053.4	3459.1	NO	bb	bb	100.261
13C-1234678-HpCDF	38.850	1.061	2.750e5	6.195e5	1.036	0.444	0.440	2698	3387	4.63e6	1.03e7	1714.9	3048.9	NO	bb	bb	98.218
13C-1234789-HpCDF	41.100	1.123	2.400e5	5.347e5	0.905	0.449	0.440	2698	3387	3.64e6	7.83e6	1350.8	2311.2	NO	bb	bb	97.391
13C-1234-TCDD	25.715	0.000	4.030e5	5.006e5	1.000	0.805	0.770	2070	1290	6.17e6	7.63e6	2981.3	5910.4	NO	bb	bb	100.000
13C-2378-TCDD	26.517	1.031	4.334e5	5.370e5	1.103	0.807	0.770	2070	1290	6.64e6	8.43e6	3208.6	6536.2	NO	bb	bb	97.361
13C-12378-PeCDD	31.630	1.230	5.002e5	3.141e5	0.914	1.593	1.550	1571	1429	7.70e6	4.72e6	4905.0	3303.0	NO	bb	bd	98.574
13C-123478-HxCDD	36.098	0.986	4.774e5	3.663e5	0.933	1.303	1.240	2711	2219	7.76e6	6.04e6	2862.5	2723.9	NO	bd	bd	102.880
13C-123678-HxCDD	36.221	0.990	4.780e5	3.801e5	0.965	1.258	1.240	2711	2219	7.94e6	6.30e6	2926.7	2837.8	NO	db	db	101.203
13C-1234678-HpCDD	40.354	1.103	3.494e5	3.280e5	0.782	1.065	1.050	1617	1571	5.50e6	5.16e6	3401.2	3284.5	NO	bb	bb	98.546
13C-OCDD	45.111	1.233	6.222e5	6.790e5	0.788	0.916	0.890	1719	2376	7.89e6	8.58e6	4588.0	3611.7	NO	bb	bb	187.800
13C-123789-HxCDD	36.599	0.000	4.932e5	3.858e5	1.000	1.278	1.240	2711	2219	8.15e6	6.30e6	3006.5	2840.6	NO	bb	bb	100.000
37CL-2378-TCDD	26.547	1.032	5.621e3		1.233			1648		8.22e4		49.9			bb		0.504

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:37:09 Pacific Standard Time

ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	851	1202								
1289-TCDF					0.858		0.770	851	1202								
13468-PECDF					1.013		1.550	923	968								
12389-PECDF					0.844		1.550	1016	1248								
123468-HXCDF					1.197		1.240	890	1056								
1368-TCDD					1.084		0.770	1261	742								
1289-TCDD					0.975		0.770	1261	742								
12479-PECDD					1.837		1.550	1167	972								
12389-PECDD					1.252		1.550	1167	972								
124679-HXCDD					1.033		1.240	1079	803								
1234679-HPCDD					1.286		1.050	924	912								
Total-tetrafurans			3.165e3		0.933			851		5.14e4							0.501
Total-penta1			0.000e0					923		0.00e0							
Total-pentafurans			3.326e4		0.866			1016		5.14e5							4.856
Total-hexafurans			6.015e4		1.208			890		9.76e5							9.731
Total-heptafurans			2.643e4		1.185			1098		4.18e5							5.166
Total-Furans			1.416e5		1.067			851		2.17e6							25.340
Total-tetradoxins			2.907e3		1.099			1261		4.45e4							0.554
Total-pentadoxins			1.372e4		1.392			1167		2.12e5							2.561
Total-hexadoxins			3.443e4		1.007			1079		5.85e5							7.448
Total-heptadoxins			1.047e4		1.269			924		1.67e5							2.439
Total-Dioxins			8.178e4		1.165			1261		1.26e6							18.950
Total-TEQ			2.234e5					1261		3.43e6							44.290
FUNCTION1 PFK			2.400e7					626106		1.90e8							
FUNCTION2 PFK			0.000e0					236572		0.00e0							
FUNCTION3 PFK			4.302e5					501624		1.34e7							0.000
FUNCTION4 PFK			4.347e5					324457		1.19e7							
FUNCTION5 PFK			8.590e4					209539		3.93e6							
FUNCTION1 HXCD...			1.828e3					784		2.65e4							0.000
FUNCTION1 HPCD...			8.634e2					852		1.29e4							0.000
FUNCTION2 HPCD...			2.922e2					978		5.26e3							0.000
FUNCTION3 OCDPE			8.271e2					835		1.40e4							0.000
FUNCTION4 NCDPE			1.900e2					822		4.03e3							0.000
FUNCTION5 DCDPE			0.000e0					732		0.00e0							

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\2302011CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:09 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33**Calibration: 03 Feb 2023 10:33:40****ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.90	3.165e3	3.812e3	0.876	0.83	0.77	60.4	YES	NO	db	bb	0.501

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.39	1.669e4	1.174e4	0.911	1.42	1.55	259.2	YES	NO	bb	bd	2.401
2	12378-PeCDF	30.05	1.657e4	1.122e4	0.845	1.48	1.55	247.1	YES	NO	bb	bb	2.455

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.02	1.293e4	1.008e4	1.187	1.28	1.24	239.4	YES	NO	bd	bb	2.372
2	234678-HxCDF	36.00	1.543e4	1.155e4	1.229	1.34	1.24	292.0	YES	NO	bd	bb	2.421
3	123678-HxCDF	35.14	1.636e4	1.318e4	1.248	1.24	1.24	291.7	YES	NO	dd	db	2.443
4	123478-HxCDF	35.01	1.544e4	1.249e4	1.182	1.24	1.24	274.0	YES	NO	bd	bd	2.494

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.11	1.117e4	1.059e4	1.165	1.05	1.05	147.3	YES	NO	bb	bb	2.411
2	Total-heptafurans	39.52	8.567e2	9.013e2	1.185	0.95	1.05	12.7	YES	NO	bb	bb	0.178
3	1234678-HpCDF	38.86	1.439e4	1.337e4	1.204	1.08	1.05	220.8	YES	NO	bb	bd	2.577

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:09 Pacific Standard Time

ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.90	3.165e3	3.812e3	0.876	0.83	0.77	60.4	YES	NO	db	bb	0.501
2	23478-PeCDF	31.39	1.669e4	1.174e4	0.911	1.42	1.55	259.2	YES	NO	bb	bd	2.401
3	12378-PeCDF	30.05	1.657e4	1.122e4	0.845	1.48	1.55	247.1	YES	NO	bb	bb	2.455
4	123789-HxCDF	37.02	1.293e4	1.008e4	1.187	1.28	1.24	239.4	YES	NO	bd	bb	2.372
5	234678-HxCDF	36.00	1.543e4	1.155e4	1.229	1.34	1.24	292.0	YES	NO	bd	bb	2.421
6	123678-HxCDF	35.14	1.636e4	1.318e4	1.248	1.24	1.24	291.7	YES	NO	dd	db	2.443
7	123478-HxCDF	35.01	1.544e4	1.249e4	1.182	1.24	1.24	274.0	YES	NO	bd	bd	2.494
8	1234789-HpCDF	41.11	1.117e4	1.059e4	1.165	1.05	1.05	147.3	YES	NO	bb	bb	2.411
9	Total-heptafurans	39.52	8.567e2	9.013e2	1.185	0.95	1.05	12.7	YES	NO	bb	bb	0.178
10	1234678-HpCDF	38.86	1.439e4	1.337e4	1.204	1.08	1.05	220.8	YES	NO	bb	bd	2.577
11	OCDF	45.37	1.860e4	2.066e4	1.186	0.90	0.89	171.2	YES	NO	bb	bb	5.087

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	24.26	7.113e1	9.739e1	1.099	0.73	0.77	1.5	NO	NO	bb	bb	0.016
2	2378-TCDD	26.55	2.836e3	3.619e3	1.236	0.78	0.77	33.8	YES	NO	bb	bb	0.538

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentadioxins	31.80	1.875e2	1.127e2	1.392	1.66	1.55	3.4	YES	NO	db	db	0.026
2	12378-PeCDD	31.64	1.354e4	8.892e3	1.087	1.52	1.55	178.2	YES	NO	bd	bd	2.535

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.61	1.141e4	9.550e3	0.985	1.19	1.24	175.6	YES	NO	bb	bd	2.499
2	123678-HxCDD	36.23	1.193e4	1.017e4	1.021	1.17	1.24	192.4	YES	NO	db	dd	2.523
3	123478-HxCDD	36.12	1.109e4	9.100e3	0.987	1.22	1.24	174.2	YES	NO	bd	bd	2.425

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.37	1.047e4	1.022e4	1.253	1.02	1.05	180.8	YES	NO	bb	bb	2.439

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradiioxins	24.26	7.113e1	9.739e1	1.099	0.73	0.77	1.5	NO	NO	bb	bb	0.016
2	2378-TCDD	26.55	2.836e3	3.619e3	1.236	0.78	0.77	33.8	YES	NO	bb	bb	0.538
3	Total-pentadiioxins	31.80	1.875e2	1.127e2	1.392	1.66	1.55	3.4	YES	NO	db	db	0.026
4	12378-PeCDD	31.64	1.354e4	8.892e3	1.087	1.52	1.55	178.2	YES	NO	bd	bd	2.535
5	123789-HxCDD	36.61	1.141e4	9.550e3	0.985	1.19	1.24	175.6	YES	NO	bb	bd	2.499
6	123678-HxCDD	36.23	1.193e4	1.017e4	1.021	1.17	1.24	192.4	YES	NO	db	dd	2.523
7	123478-HxCDD	36.12	1.109e4	9.100e3	0.987	1.22	1.24	174.2	YES	NO	bd	bd	2.425
8	1234678-HpCDD	40.37	1.047e4	1.022e4	1.253	1.02	1.05	180.8	YES	NO	bb	bb	2.439
9	OCDD	45.13	2.025e4	2.243e4	1.103	0.90	0.89	329.8	YES	NO	bb	bb	5.948

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.90	3.165e3	3.812e3	0.876	0.83	0.77	60.4	YES	NO	db	bb	0.501
2	23478-PeCDF	31.39	1.669e4	1.174e4	0.911	1.42	1.55	259.2	YES	NO	bb	bd	2.401
3	12378-PeCDF	30.05	1.657e4	1.122e4	0.845	1.48	1.55	247.1	YES	NO	bb	bb	2.455
4	123789-HxCDF	37.02	1.293e4	1.008e4	1.187	1.28	1.24	239.4	YES	NO	bd	bb	2.372
5	234678-HxCDF	36.00	1.543e4	1.155e4	1.229	1.34	1.24	292.0	YES	NO	bd	bb	2.421
6	123678-HxCDF	35.14	1.636e4	1.318e4	1.248	1.24	1.24	291.7	YES	NO	dd	db	2.443
7	123478-HxCDF	35.01	1.544e4	1.249e4	1.182	1.24	1.24	274.0	YES	NO	bd	bd	2.494
8	1234789-HpCDF	41.11	1.117e4	1.059e4	1.165	1.05	1.05	147.3	YES	NO	bb	bb	2.411
9	Total-heptafurans	39.52	8.567e2	9.013e2	1.185	0.95	1.05	12.7	YES	NO	bb	bb	0.178
10	1234678-HpCDF	38.86	1.439e4	1.337e4	1.204	1.08	1.05	220.8	YES	NO	bb	bd	2.577
11	OCDF	45.37	1.860e4	2.066e4	1.186	0.90	0.89	171.2	YES	NO	bb	bb	5.087
12	Total-tetradiioxins	24.26	7.113e1	9.739e1	1.099	0.73	0.77	1.5	NO	NO	bb	bb	0.016
13	2378-TCDD	26.55	2.836e3	3.619e3	1.236	0.78	0.77	33.8	YES	NO	bb	bb	0.538
14	Total-pentadiioxins	31.80	1.875e2	1.127e2	1.392	1.66	1.55	3.4	YES	NO	db	db	0.026
15	12378-PeCDD	31.64	1.354e4	8.892e3	1.087	1.52	1.55	178.2	YES	NO	bd	bd	2.535
16	123789-HxCDD	36.61	1.141e4	9.550e3	0.985	1.19	1.24	175.6	YES	NO	bb	bd	2.499
17	123678-HxCDD	36.23	1.193e4	1.017e4	1.021	1.17	1.24	192.4	YES	NO	db	dd	2.523
18	123478-HxCDD	36.12	1.109e4	9.100e3	0.987	1.22	1.24	174.2	YES	NO	bd	bd	2.425
19	1234678-HpCDD	40.37	1.047e4	1.022e4	1.253	1.02	1.05	180.8	YES	NO	bb	bb	2.439
20	OCDD	45.13	2.025e4	2.243e4	1.103	0.90	0.89	329.8	YES	NO	bb	bb	5.948

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	22.24	1.348e6					15.3	YES		dd		
2	FUNCTION1 PFK	22.18	4.644e5					16.9	YES		dd		
3	FUNCTION1 PFK	22.16	1.313e6					16.6	YES		dd		
4	FUNCTION1 PFK	21.98	1.487e6					20.5	YES		dd		
5	FUNCTION1 PFK	21.88	1.450e6					22.1	YES		dd		
6	FUNCTION1 PFK	21.72	1.801e6					24.8	YES		dd		
7	FUNCTION1 PFK	21.60	1.955e6					26.8	YES		dd		
8	FUNCTION1 PFK	21.39	6.532e6					30.5	YES		dd		
9	FUNCTION1 PFK	21.12	3.552e6					35.4	YES		bd		
10	FUNCTION1 PFK	24.35	3.975e3					0.4	NO		bb		
11	FUNCTION1 PFK	24.08	2.445e4					0.9	NO		bb		
12	FUNCTION1 PFK	23.89	1.855e4					1.0	NO		bb		
13	FUNCTION1 PFK	23.81	2.526e4					1.3	NO		bb		
14	FUNCTION1 PFK	23.73	2.606e4					1.2	NO		db		
15	FUNCTION1 PFK	23.63	3.953e4					0.9	NO		bd		
16	FUNCTION1 PFK	23.40	1.725e4					0.8	NO		db		
17	FUNCTION1 PFK	23.36	2.281e4					0.8	NO		bd		
18	FUNCTION1 PFK	23.28	4.142e4					1.3	NO		bb		
19	FUNCTION1 PFK	23.08	3.989e4					1.2	NO		db		
20	FUNCTION1 PFK	23.01	5.719e4					2.6	NO		dd		
21	FUNCTION1 PFK	22.78	6.498e5					6.6	YES		dd		
22	FUNCTION1 PFK	22.62	7.070e5					9.1	YES		dd		
23	FUNCTION1 PFK	22.51	7.554e5					10.8	YES		dd		
24	FUNCTION1 PFK	22.43	4.428e5					12.6	YES		dd		
25	FUNCTION1 PFK	22.39	4.834e5					13.1	YES		dd		
26	FUNCTION1 PFK	26.44	1.834e4					0.9	NO		bb		
27	FUNCTION1 PFK	26.31	1.630e4					0.8	NO		db		
28	FUNCTION1 PFK	26.24	2.476e4					1.0	NO		bd		
29	FUNCTION1 PFK	26.17	2.817e4					1.0	NO		bb		
30	FUNCTION1 PFK	26.03	3.473e4					1.3	NO		db		
31	FUNCTION1 PFK	25.97	2.971e4					1.1	NO		dd		
32	FUNCTION1 PFK	25.90	2.965e4					1.4	NO		bd		
33	FUNCTION1 PFK	25.84	6.319e3					0.7	NO		bb		
34	FUNCTION1 PFK	25.76	2.805e4					1.0	NO		db		
35	FUNCTION1 PFK	25.69	1.550e4					0.7	NO		bd		
36	FUNCTION1 PFK	25.43	1.865e4					0.8	NO		bb		
37	FUNCTION1 PFK	25.29	2.496e4					1.2	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION1 PFK	25.16	1.218e4					0.7	NO		bb		
39	FUNCTION1 PFK	24.90	4.251e4					1.2	NO		bb		
40	FUNCTION1 PFK	24.82	9.911e3					0.6	NO		bb		
41	FUNCTION1 PFK	24.70	1.084e4					0.7	NO		bb		
42	FUNCTION1 PFK	28.13	1.191e4					0.5	NO		bb		
43	FUNCTION1 PFK	28.06	1.157e4					0.7	NO		bb		
44	FUNCTION1 PFK	27.94	2.880e4					1.2	NO		bb		
45	FUNCTION1 PFK	27.73	2.725e4					1.2	NO		db		
46	FUNCTION1 PFK	27.65	2.104e4					0.9	NO		bd		
47	FUNCTION1 PFK	27.53	9.466e3					0.5	NO		bb		
48	FUNCTION1 PFK	27.45	2.859e4					0.9	NO		db		
49	FUNCTION1 PFK	27.32	3.854e4					1.1	NO		bd		
50	FUNCTION1 PFK	27.18	2.011e4					0.9	NO		db		
51	FUNCTION1 PFK	27.11	5.101e4					1.6	NO		dd		
52	FUNCTION1 PFK	27.05	7.101e4					1.7	NO		dd		
53	FUNCTION1 PFK	26.97	2.738e4					1.1	NO		bd		
54	FUNCTION1 PFK	26.85	5.698e3					0.5	NO		bb		
55	FUNCTION1 PFK	26.79	9.173e3					0.6	NO		bb		
56	FUNCTION1 PFK	26.65	1.932e4					1.0	NO		bb		
57	FUNCTION1 PFK	26.50	1.249e4					0.8	NO		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

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Printed: Friday, February 03, 2023 10:37:09 Pacific Standard Time

ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	35.28	1.720e4					1.2	NO		bb		0.000
2	FUNCTION3 PFK	35.17	3.494e4					1.4	NO		bb		0.000
3	FUNCTION3 PFK	35.02	1.498e4					0.7	NO		bb		0.000
4	FUNCTION3 PFK	34.97	2.068e4					1.6	NO		db		0.000
5	FUNCTION3 PFK	34.92	3.898e4					1.7	NO		bd		0.000
6	FUNCTION3 PFK	34.84	3.344e4					2.0	NO		db		0.000
7	FUNCTION3 PFK	34.79	4.044e4					2.0	NO		bd		0.000
8	FUNCTION3 PFK	34.56	1.848e4					1.0	NO		bb		0.000
9	FUNCTION3 PFK	34.43	3.131e3					0.6	NO		bb		0.000
10	FUNCTION3 PFK	33.97	1.059e4					1.1	NO		bb		0.000
11	FUNCTION3 PFK	33.91	7.198e3					0.6	NO		bb		0.000
12	FUNCTION3 PFK	33.77	2.029e4					1.1	NO		bb		0.000
13	FUNCTION3 PFK	33.51	2.578e4					1.1	NO		bb		0.000
14	FUNCTION3 PFK	33.23	2.194e3					0.4	NO		bb		0.000
15	FUNCTION3 PFK	37.66	2.055e4					1.5	NO		db		0.000
16	FUNCTION3 PFK	37.61	1.552e4					1.3	NO		bd		0.000
17	FUNCTION3 PFK	37.55	2.721e4					1.4	NO		bb		0.000
18	FUNCTION3 PFK	37.30	3.274e4					1.5	NO		bb		0.000
19	FUNCTION3 PFK	36.81	9.296e3					0.9	NO		bb		0.000
20	FUNCTION3 PFK	36.47	5.665e3					0.6	NO		bb		0.000
21	FUNCTION3 PFK	36.37	1.213e4					0.9	NO		bb		0.000
22	FUNCTION3 PFK	35.99	5.368e3					0.6	NO		bb		0.000
23	FUNCTION3 PFK	35.72	2.308e3					0.4	NO		bb		0.000
24	FUNCTION3 PFK	35.61	2.395e3					0.4	NO		bb		0.000
25	FUNCTION3 PFK	35.56	8.733e3					0.7	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:09 Pacific Standard Time

ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.48	1.749e3					0.5	NO		bb		
2	FUNCTION4 PFK	38.35	9.022e3					0.9	NO		bb		
3	FUNCTION4 PFK	38.24	3.875e3					0.6	NO		bb		
4	FUNCTION4 PFK	38.13	2.737e4					1.8	NO		bb		
5	FUNCTION4 PFK	41.33	1.294e4					1.5	NO		bd		
6	FUNCTION4 PFK	41.23	4.010e4					1.6	NO		db		
7	FUNCTION4 PFK	41.09	3.801e4					1.9	NO		bd		
8	FUNCTION4 PFK	40.99	2.136e4					1.8	NO		bb		
9	FUNCTION4 PFK	40.59	8.289e3					0.7	NO		bb		
10	FUNCTION4 PFK	40.23	3.985e3					0.6	NO		bb		
11	FUNCTION4 PFK	39.88	1.184e3					0.3	NO		bb		
12	FUNCTION4 PFK	39.83	1.945e3					0.5	NO		bb		
13	FUNCTION4 PFK	39.52	8.163e3					1.0	NO		bb		
14	FUNCTION4 PFK	39.21	1.232e3					0.3	NO		bb		
15	FUNCTION4 PFK	39.07	1.853e4					1.3	NO		db		
16	FUNCTION4 PFK	38.94	5.337e4					2.0	NO		dd		
17	FUNCTION4 PFK	38.87	1.627e4					1.6	NO		dd		
18	FUNCTION4 PFK	38.84	1.863e4					1.8	NO		bd		
19	FUNCTION4 PFK	38.69	3.030e4					2.1	NO		bb		
20	FUNCTION4 PFK	38.54	2.688e3					0.5	NO		bb		
21	FUNCTION4 PFK	42.75	7.635e3					1.1	NO		bb		
22	FUNCTION4 PFK	42.65	3.824e3					0.5	NO		db		
23	FUNCTION4 PFK	42.62	3.380e3					0.6	NO		bd		
24	FUNCTION4 PFK	42.55	8.483e3					1.1	NO		bb		
25	FUNCTION4 PFK	42.45	5.962e3					0.8	NO		db		
26	FUNCTION4 PFK	42.40	5.418e3					0.7	NO		bd		
27	FUNCTION4 PFK	42.27	7.694e3					0.9	NO		bb		
28	FUNCTION4 PFK	42.10	9.463e3					1.2	NO		db		
29	FUNCTION4 PFK	42.05	1.039e4					1.1	NO		bd		
30	FUNCTION4 PFK	41.81	3.060e3					0.9	NO		bb		
31	FUNCTION4 PFK	41.77	4.237e3					0.7	NO		bb		
32	FUNCTION4 PFK	41.71	3.440e3					0.6	NO		bb		
33	FUNCTION4 PFK	41.67	1.592e3					0.4	NO		bb		
34	FUNCTION4 PFK	41.57	2.688e4					1.3	NO		bb		
35	FUNCTION4 PFK	41.37	1.425e4					1.5	NO		db		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201CIH.qld

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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	46.31	4.706e3					1.2	NO		bb		
2	FUNCTION5 PFK	46.25	4.425e3					1.1	NO		bb		
3	FUNCTION5 PFK	46.16	2.646e3					0.9	NO		bb		
4	FUNCTION5 PFK	46.03	5.117e3					1.5	NO		db		
5	FUNCTION5 PFK	46.01	6.487e3					1.4	NO		bd		
6	FUNCTION5 PFK	45.67	8.229e3					1.3	NO		bb		
7	FUNCTION5 PFK	45.46	1.002e3					0.5	NO		bb		
8	FUNCTION5 PFK	45.18	2.741e3					0.8	NO		db		
9	FUNCTION5 PFK	45.15	2.119e3					0.7	NO		bd		
10	FUNCTION5 PFK	44.83	3.811e3					1.2	NO		bb		
11	FUNCTION5 PFK	44.20	1.148e4					1.5	NO		bb		
12	FUNCTION5 PFK	44.06	5.518e3					1.3	NO		bb		
13	FUNCTION5 PFK	44.02	1.106e3					0.6	NO		bb		
14	FUNCTION5 PFK	43.71	1.195e4					1.8	NO		bb		
15	FUNCTION5 PFK	43.46	1.476e3					0.8	NO		bb		
16	FUNCTION5 PFK	43.39	1.169e4					1.4	NO		bb		
17	FUNCTION5 PFK	46.43	1.400e3					0.7	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.97	1.637e2					3.3	YES		bb		0.000
2	FUNCTION1 HXCD...	27.23	1.144e2					2.0	NO		bb		0.000
3	FUNCTION1 HXCD...	26.82	1.144e2					2.2	NO		bb		0.000
4	FUNCTION1 HXCD...	25.91	1.100e2					2.2	NO		bb		0.000
5	FUNCTION1 HXCD...	25.23	1.805e2					5.5	YES		bb		0.000
6	FUNCTION1 HXCD...	24.26	1.341e2					2.3	NO		bb		0.000
7	FUNCTION1 HXCD...	24.08	1.268e2					1.9	NO		bb		0.000
8	FUNCTION1 HXCD...	23.43	1.602e2					2.4	NO		bb		0.000
9	FUNCTION1 HXCD...	22.78	1.018e2					1.8	NO		bb		0.000
10	FUNCTION1 HXCD...	22.39	1.626e2					2.8	NO		bb		0.000
11	FUNCTION1 HXCD...	22.06	1.129e2					2.5	NO		bb		0.000
12	FUNCTION1 HXCD...	21.53	1.052e2					1.2	NO		db		0.000
13	FUNCTION1 HXCD...	21.36	9.992e1					1.3	NO		bd		0.000
14	FUNCTION1 HXCD...	21.16	1.410e2					2.5	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

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Printed: Friday, February 03, 2023 10:37:09 Pacific Standard Time

ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk**ETHERS2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	28.16	7.208e1					2.1	NO		bb		0.000
2	FUNCTION1 HPCD...	27.42	1.038e2					2.0	NO		db		0.000
3	FUNCTION1 HPCD...	27.27	1.034e2					2.2	NO		bd		0.000
4	FUNCTION1 HPCD...	25.70	1.308e2					1.7	NO		bb		0.000
5	FUNCTION1 HPCD...	24.05	1.613e2					1.7	NO		bb		0.000
6	FUNCTION1 HPCD...	22.59	1.423e2					2.0	NO		bb		0.000
7	FUNCTION1 HPCD...	22.39	1.496e2					3.4	YES		bb		0.000

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	30.14	1.080e2					1.8	NO		db		0.000
2	FUNCTION2 HPCD...	30.05	1.026e2					1.8	NO		bd		0.000
3	FUNCTION2 HPCD...	28.74	8.165e1					1.9	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.11	9.641e1					2.4	NO		db		0.000
2	FUNCTION3 OCDPE	36.03	1.029e2					1.5	NO		bd		0.000
3	FUNCTION3 OCDPE	34.77	8.096e1					1.2	NO		bb		0.000
4	FUNCTION3 OCDPE	37.01	1.018e2					2.8	NO		bb		0.000
5	FUNCTION3 OCDPE	36.73	1.470e2					3.1	YES		bb		0.000
6	FUNCTION3 OCDPE	36.60	1.766e2					3.1	YES		bb		0.000
7	FUNCTION3 OCDPE	36.22	1.214e2					2.7	NO		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.34	9.946e1					2.4	NO		bb		0.000
2	FUNCTION4 NCDPE	39.96	9.057e1					2.5	NO		bb		0.000

ETHERS6

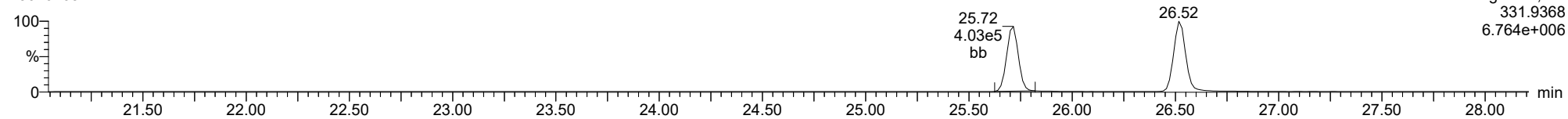
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1													

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
Calibration: 03 Feb 2023 10:33:40

ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

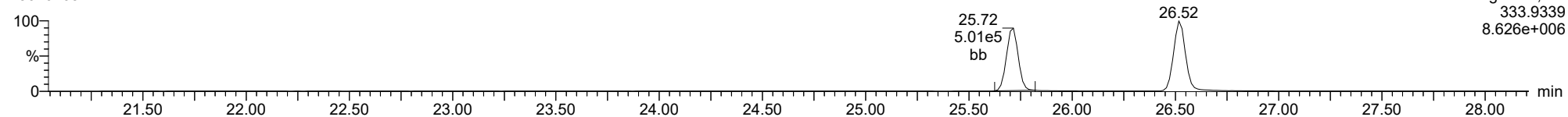
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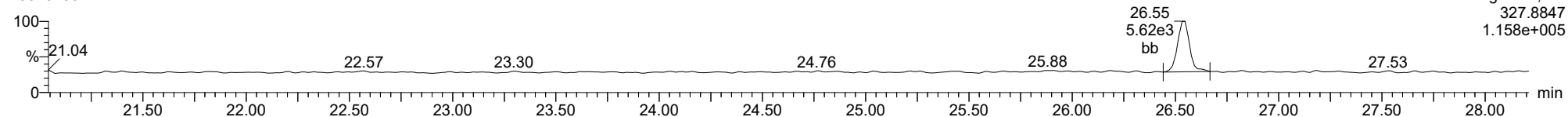
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37CL-2378-TCDD

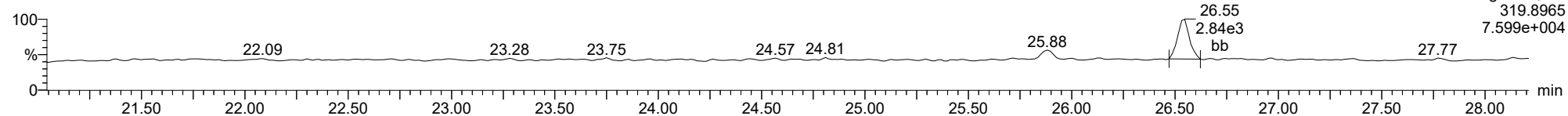
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

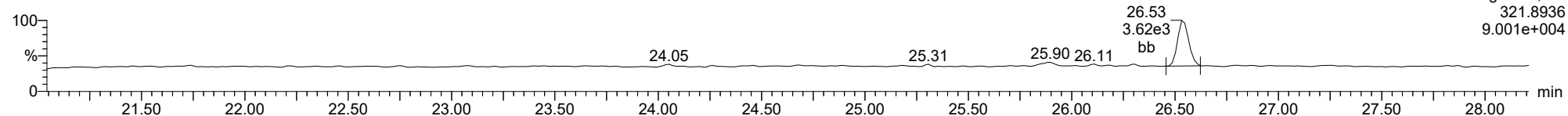
2378-TCDD

23020105



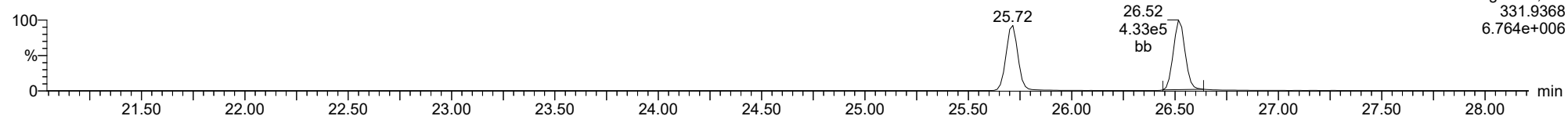
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23020105



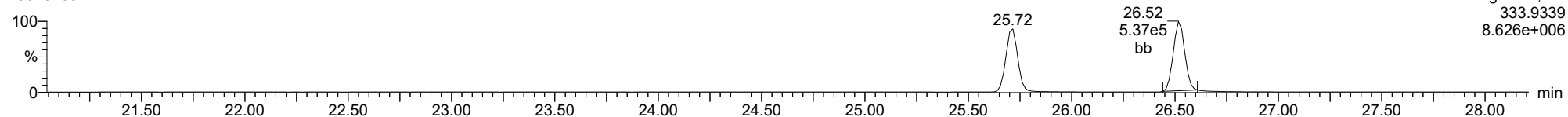
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23020105



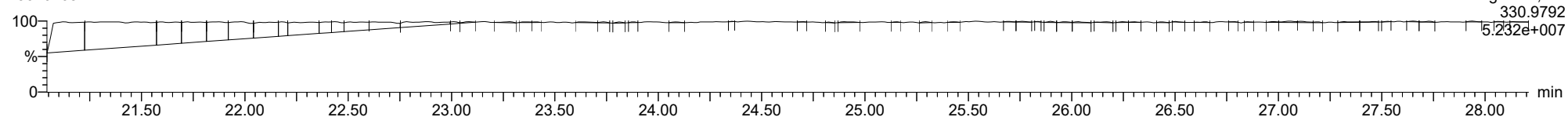
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23020105



FUNCTION1 PFK

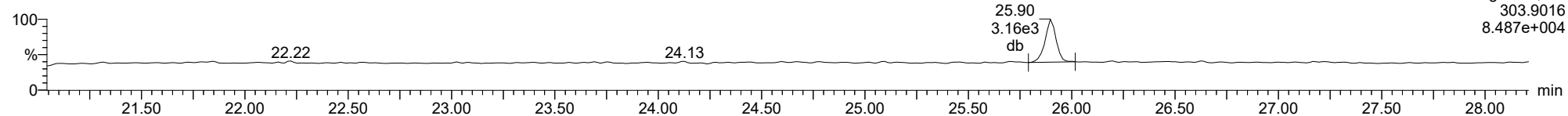
23020105



ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

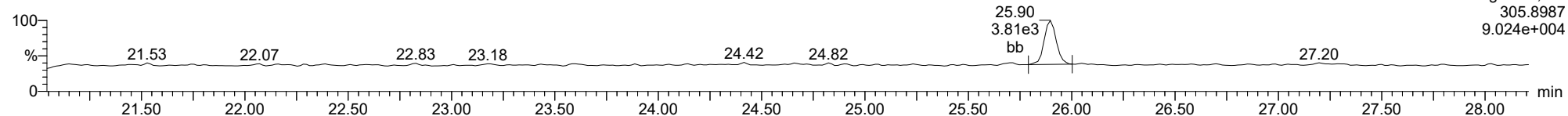
2378-TCDF

23020105



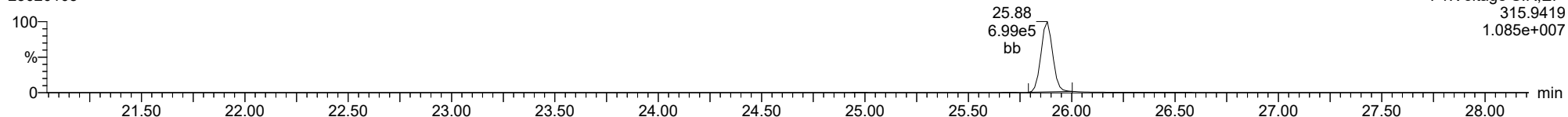
2378-TCDF

23020105



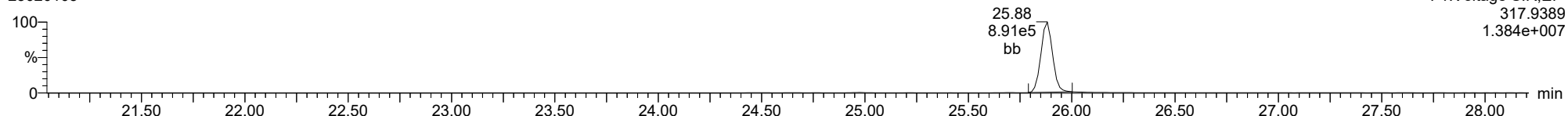
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23020105



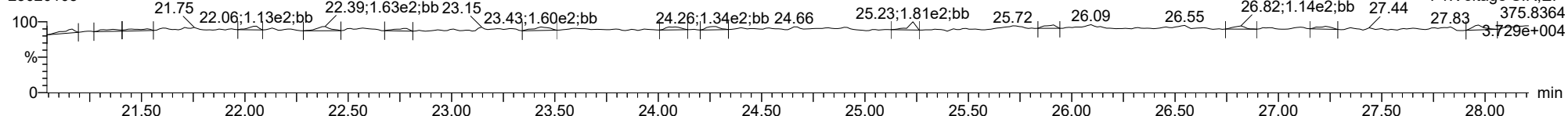
13C-2378-TCDF

23020105



FUNCTION1 HXCDFE

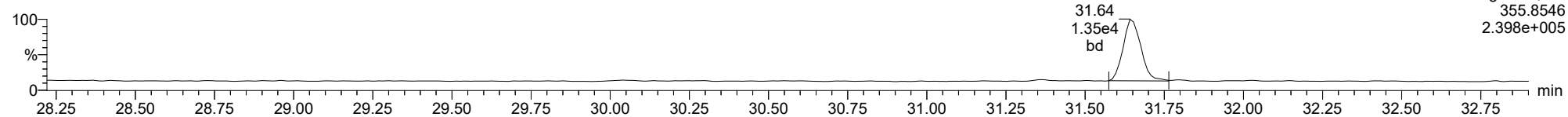
23020105



ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

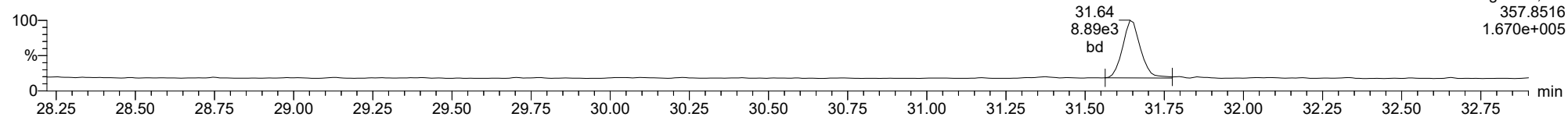
12378-PeCDD

23020105



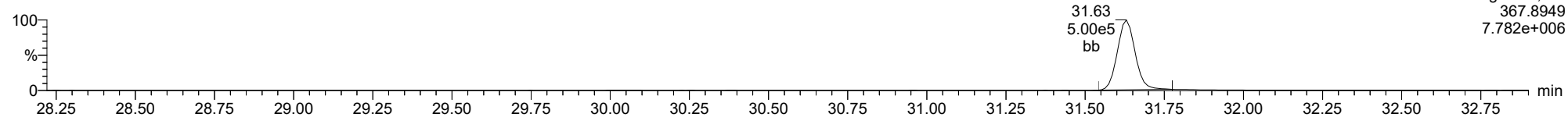
12378-PeCDD

23020105



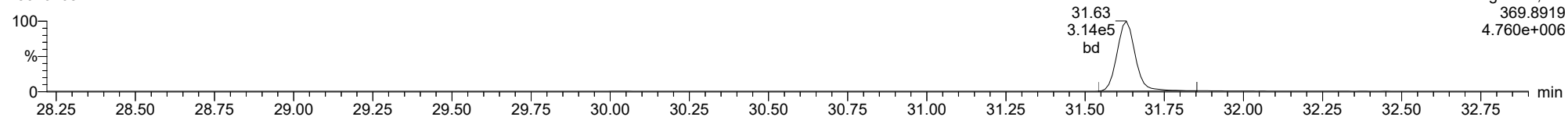
13C-12378-PeCDD

23020105



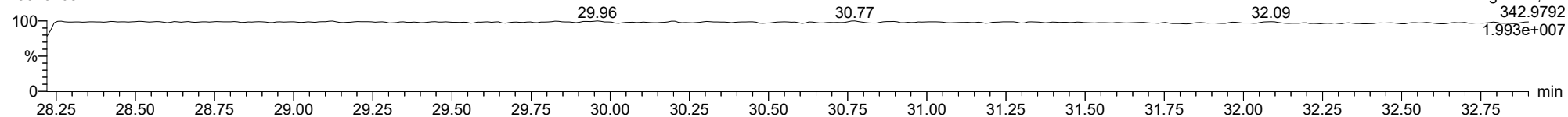
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23020105



FUNCTION2 PFK

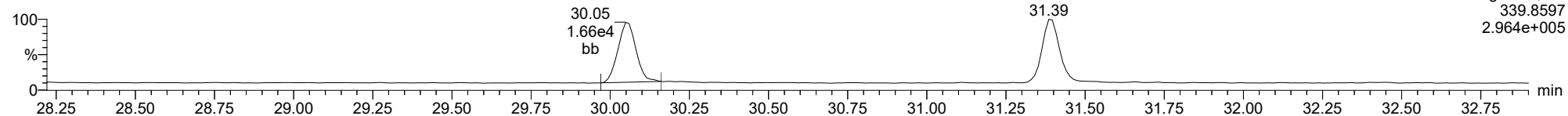
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

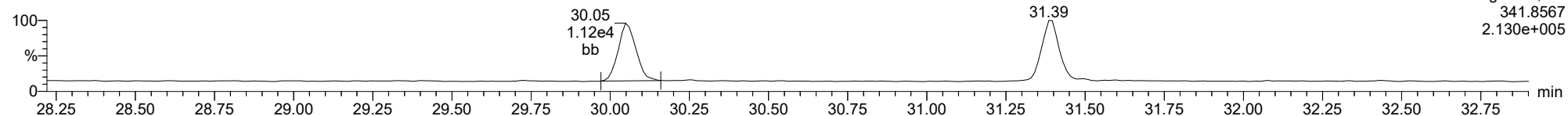
12378-PeCDF

23020105



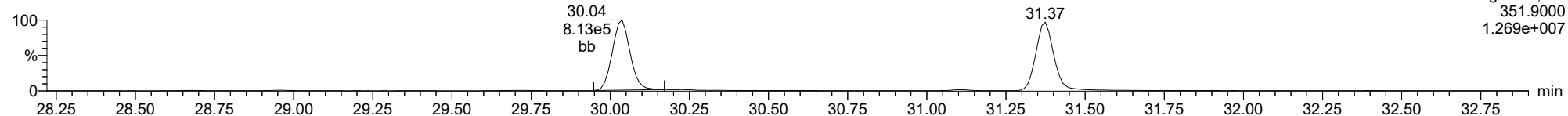
12378-PeCDF

23020105



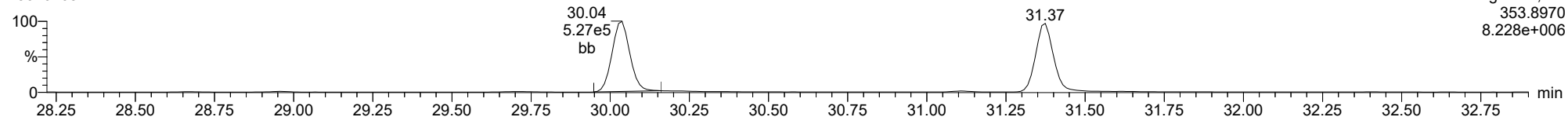
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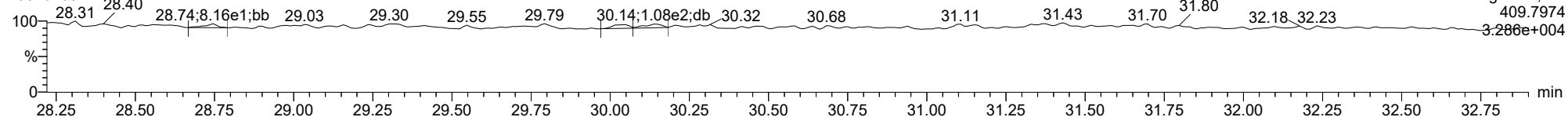
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FUNCTION2 HPCDPE

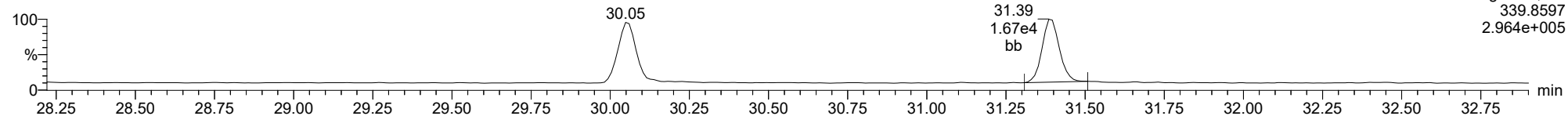
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

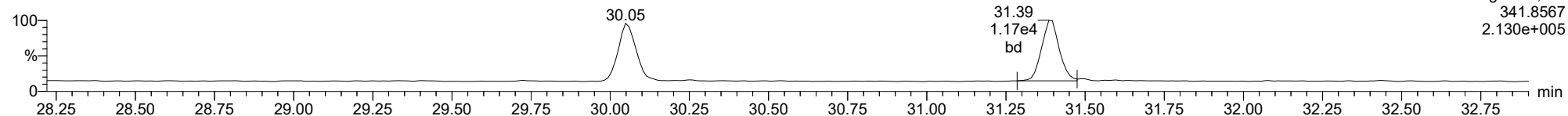
23478-PeCDF

23020105



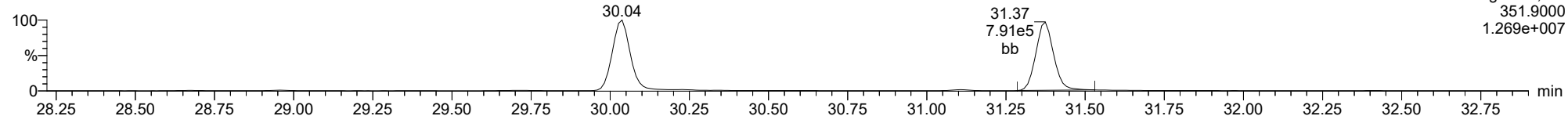
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23020105



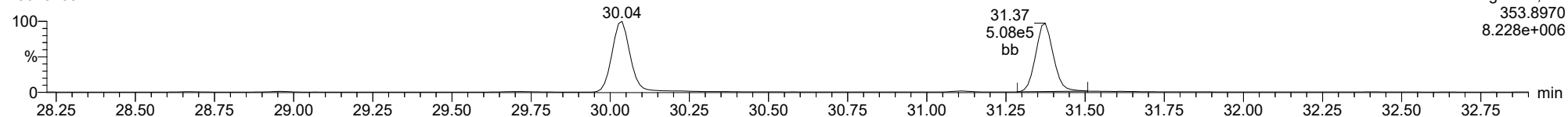
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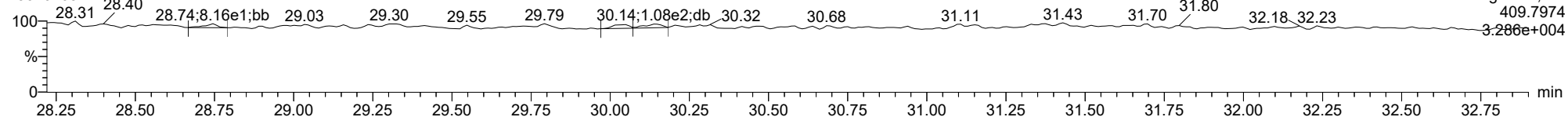
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FUNCTION2 HPCDPE

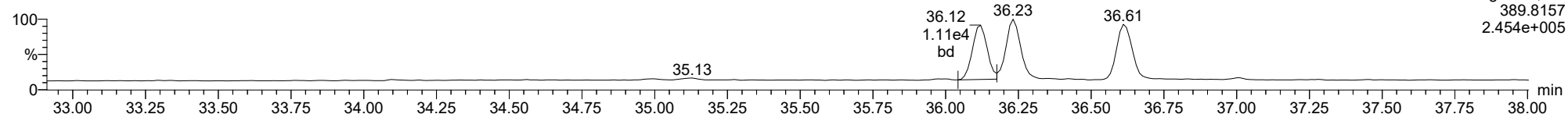
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

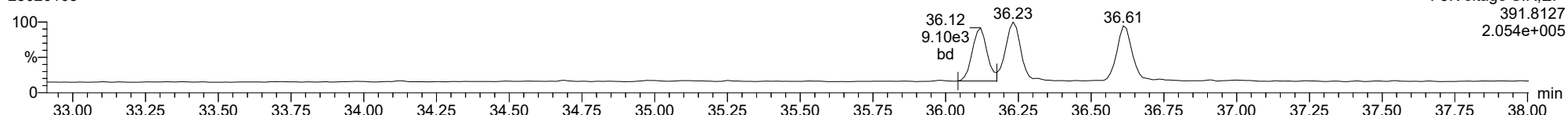
123478-HxCDD

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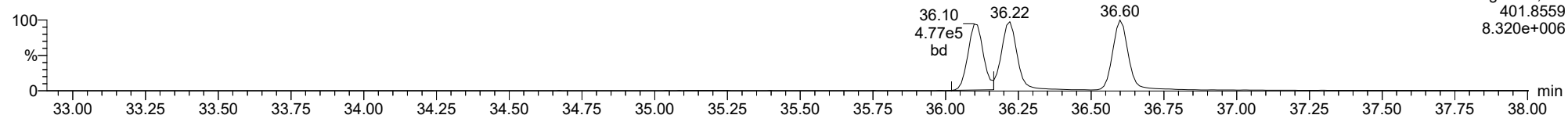
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23020105



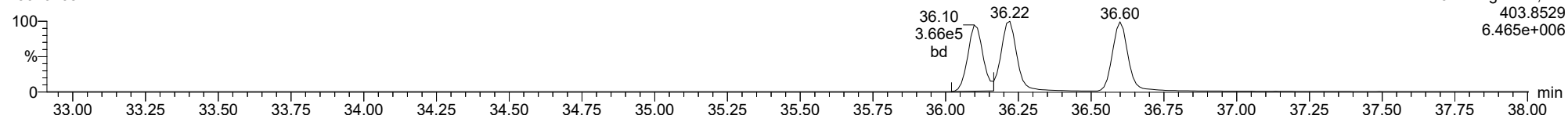
13C-123478-HxCDD

23020105



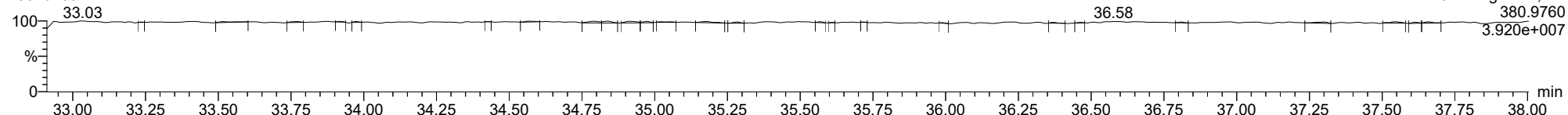
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23020105



FUNCTION3 PFK

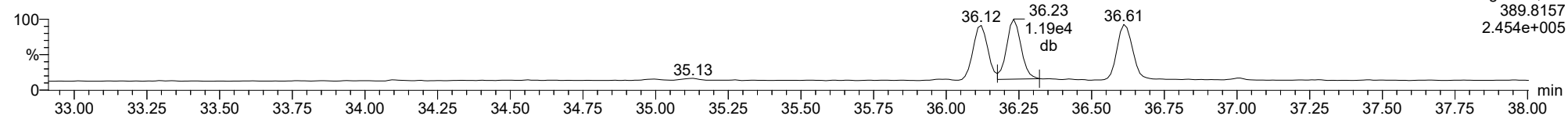
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

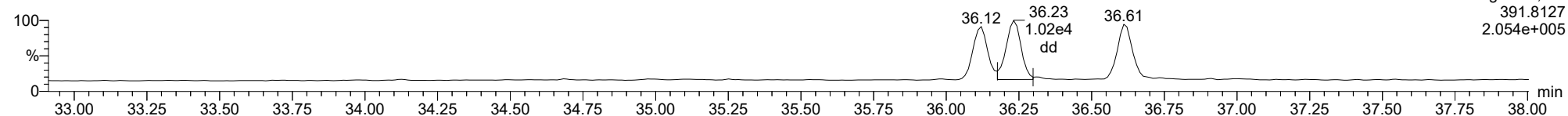
123678-HxCDD

23020105



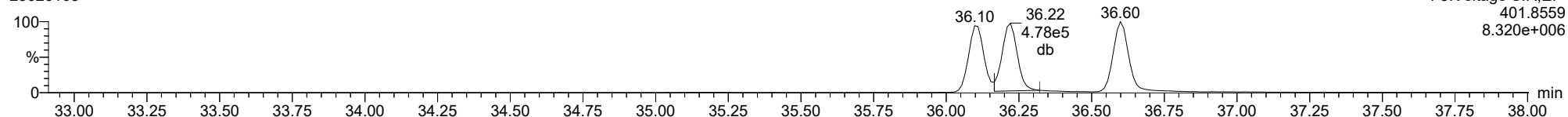
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23020105



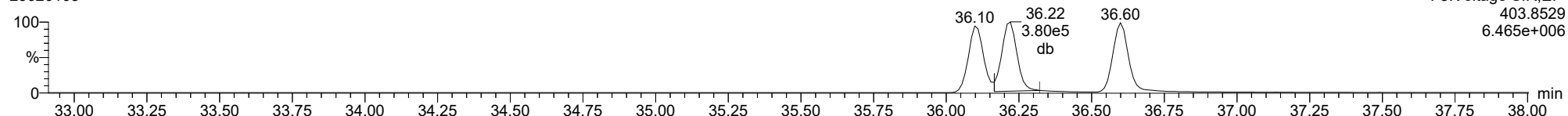
13C-123678-HxCDD

23020105



13C-123678-HxCDD

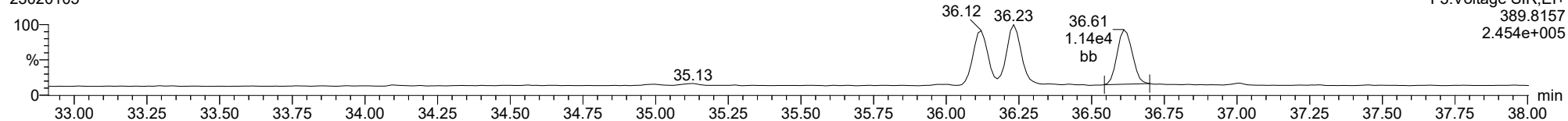
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

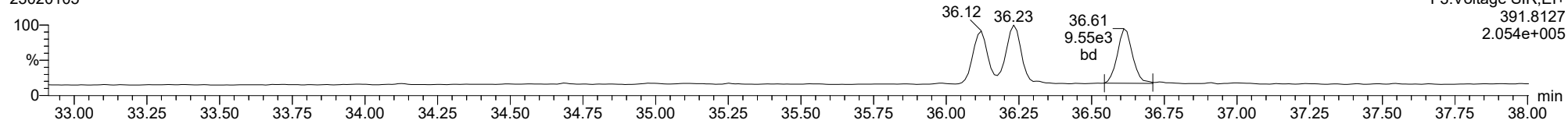
123789-HxCDD

23020105



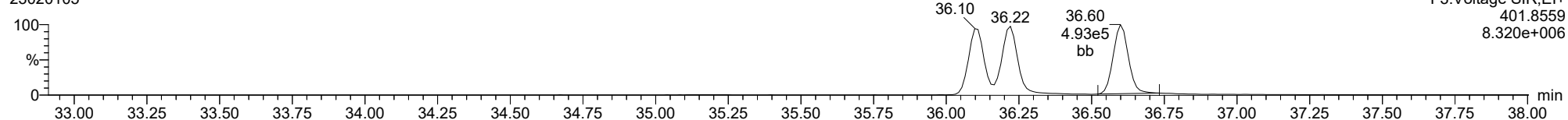
123789-HxCDD

23020105



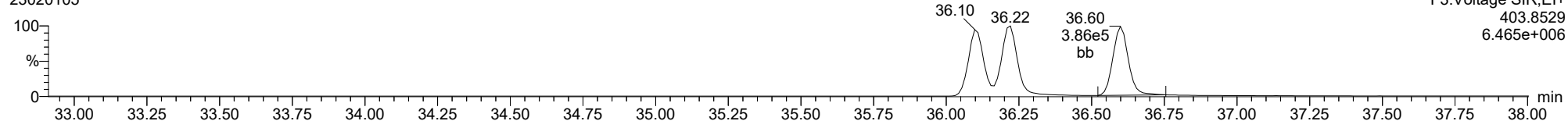
13C-123789-HxCDD

23020105



13C-123789-HxCDD

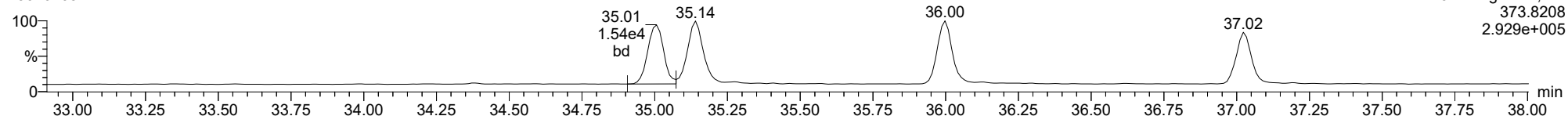
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

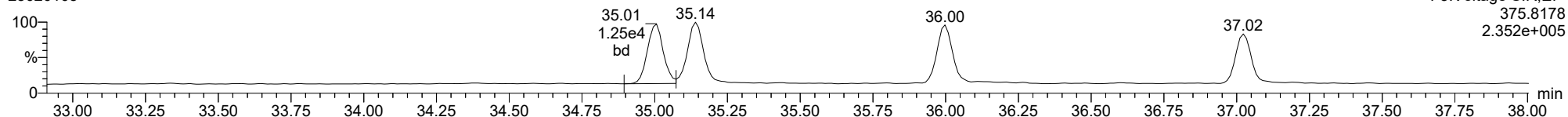
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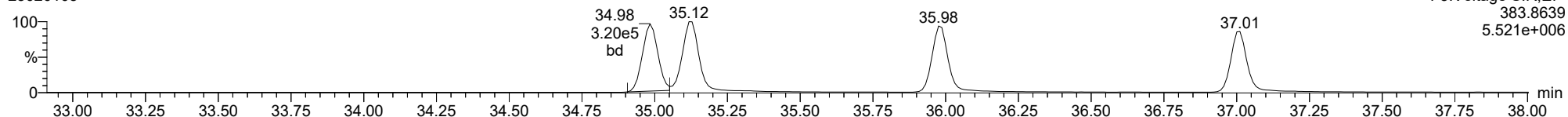
123478-HxCDF

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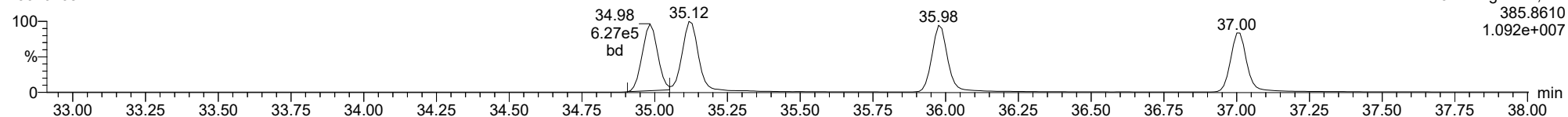
13C-123478-HxCDF

23020105



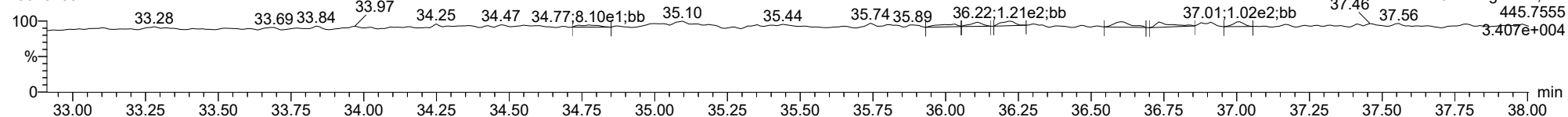
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23020105



FUNCTION3 OCDPE

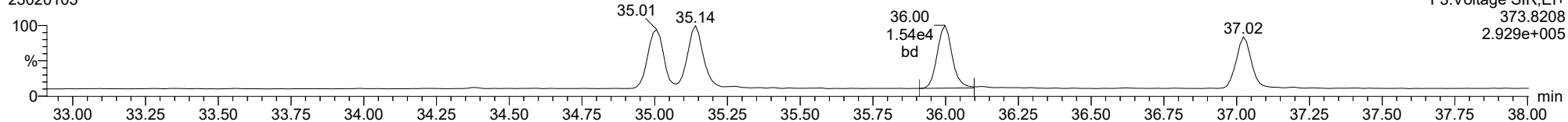
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

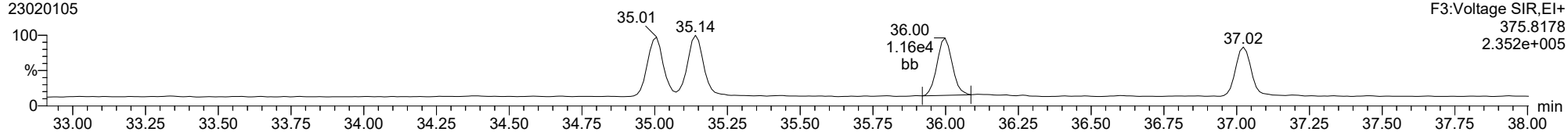
234678-HxCDF

23020105



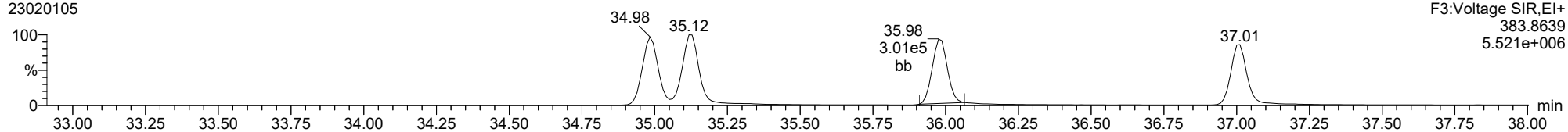
234678-HxCDF

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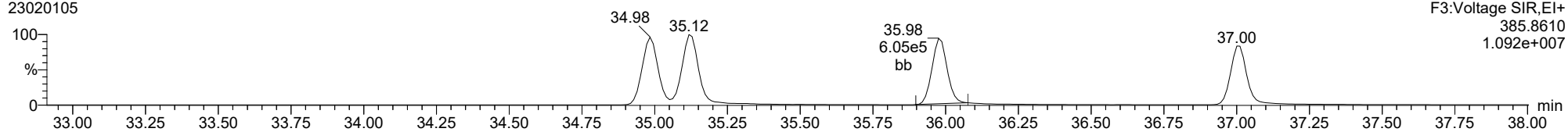
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23020105



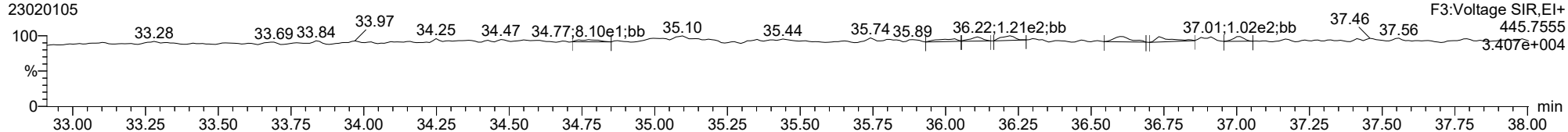
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FUNCTION3 OCDPE

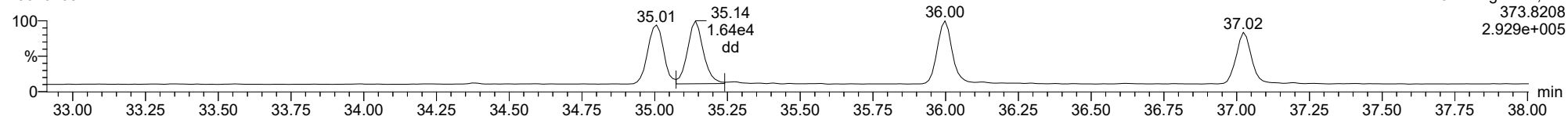
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

123678-HxCDF

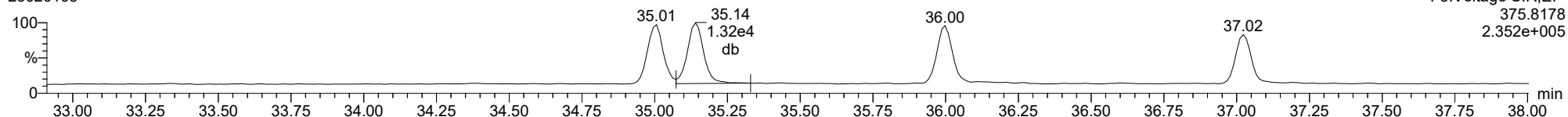
23020105



F3:Voltage SIR,EI+
373.8208
2.929e+005

123678-HxCDF

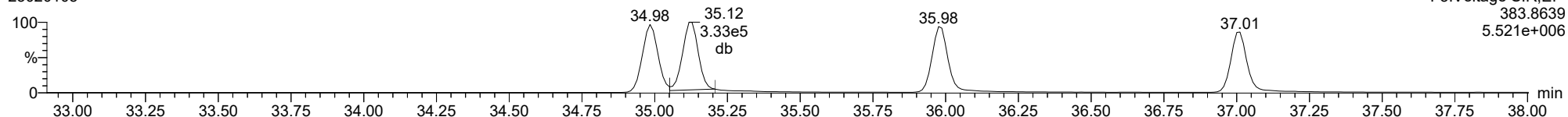
23020105



F3:Voltage SIR,EI+
375.8178
2.352e+005

13C-123678-HxCDF

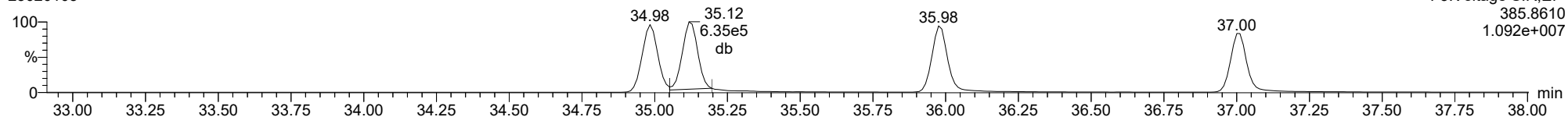
23020105



F3:Voltage SIR,EI+
383.8639
5.521e+006

13C-123678-HxCDF

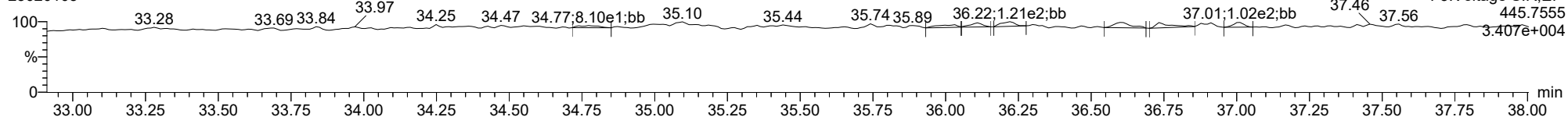
23020105



F3:Voltage SIR,EI+
385.8610
1.092e+007

FUNCTION3 OCDPE

23020105

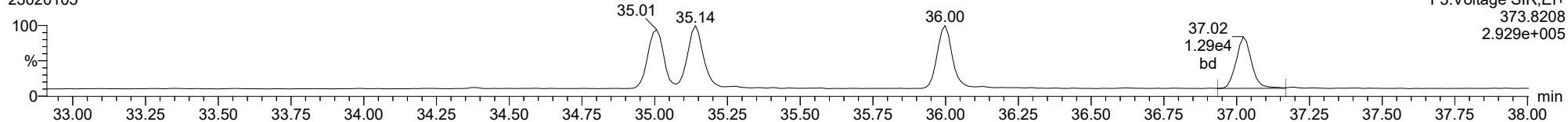


F3:Voltage SIR,EI+
445.7555
3.407e+004

ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

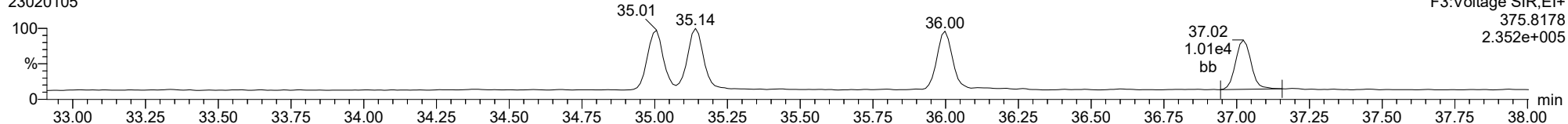
123789-HxCDF

23020105



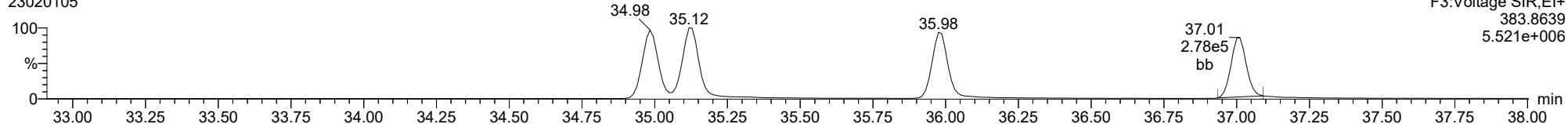
123789-HxCDF

23020105



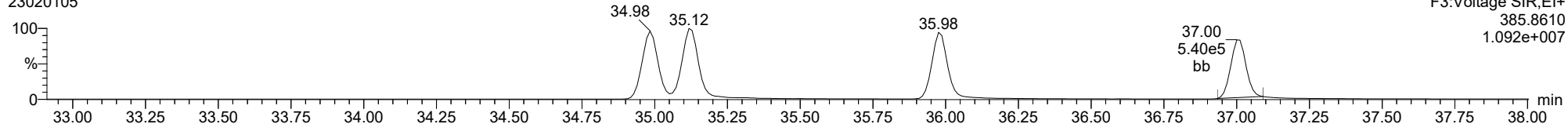
13C-123789-HxCDF

23020105



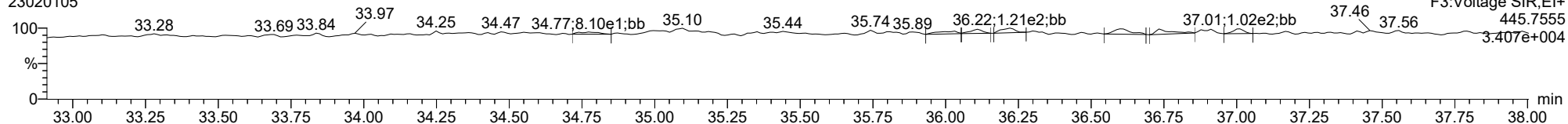
13C-123789-HxCDF

23020105



FUNCTION3 OCDPE

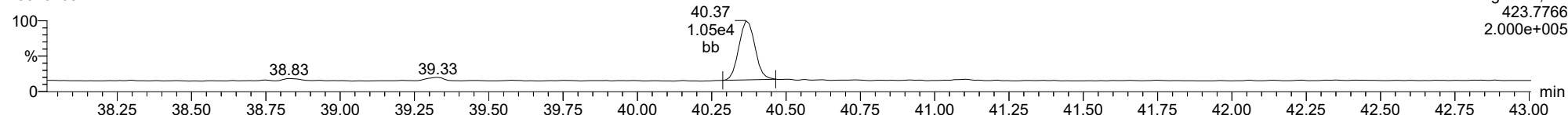
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

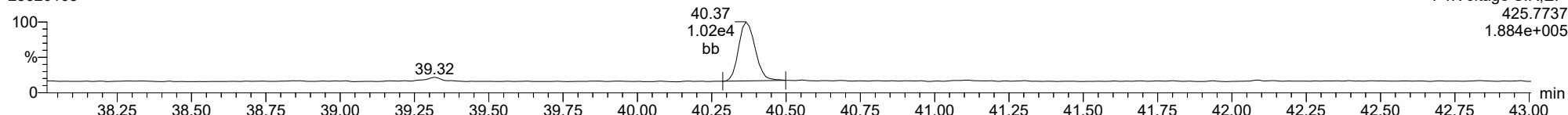
1234678-HpCDD

23020105



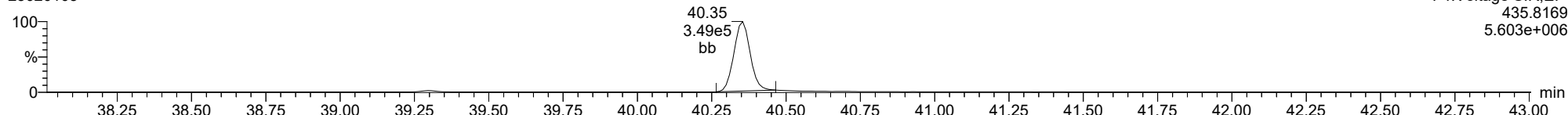
1234678-HpCDD

23020105



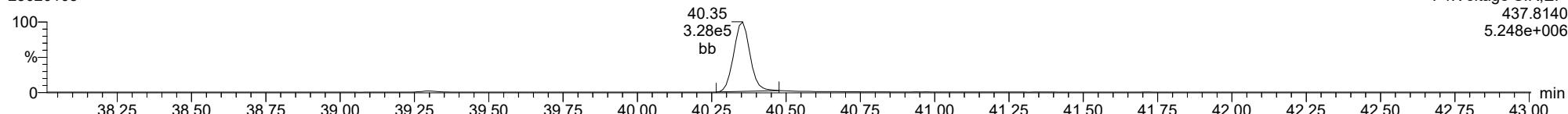
13C-1234678-HpCDD

23020105



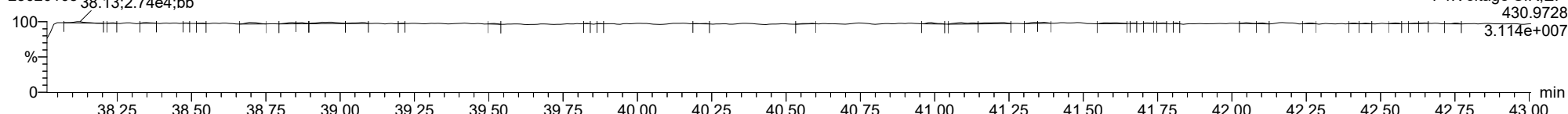
13C-1234678-HpCDD

23020105



FUNCTION4 PFK

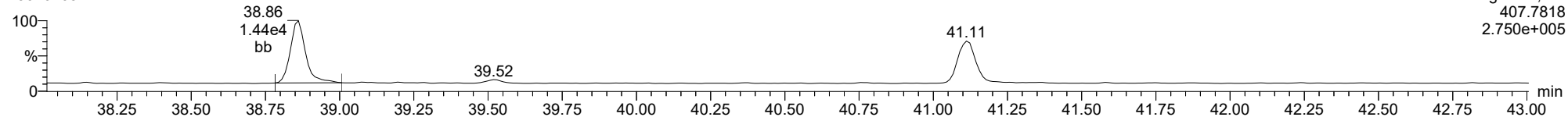
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

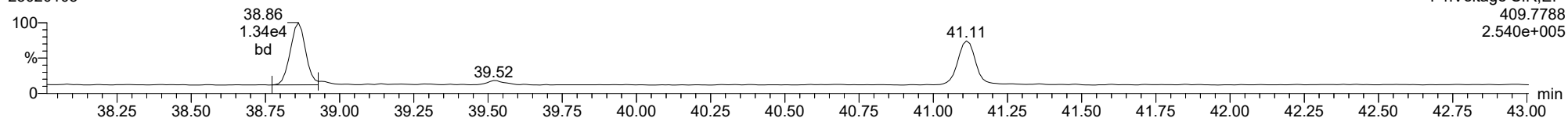
1234678-HpCDF

23020105



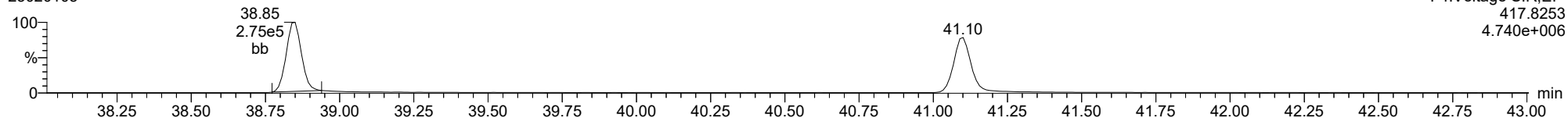
1234678-HpCDF

23020105



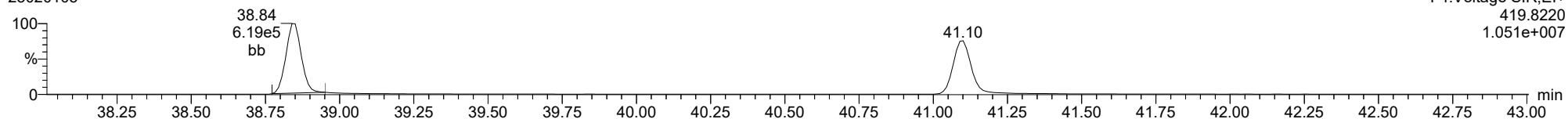
13C-1234678-HpCDF

23020105



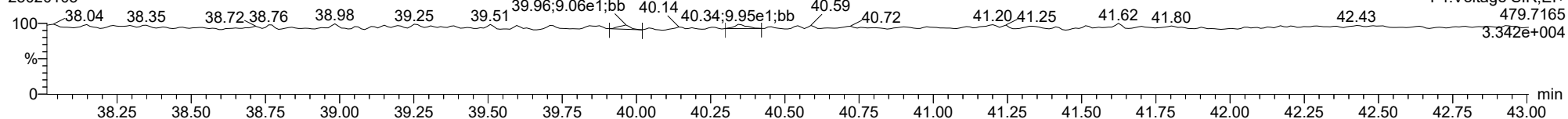
13C-1234678-HpCDF

23020105



FUNCTION4 NCDPE

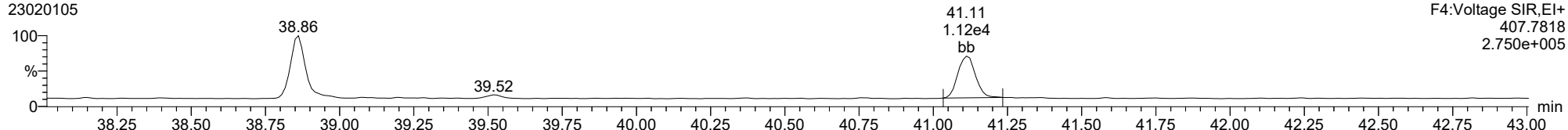
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

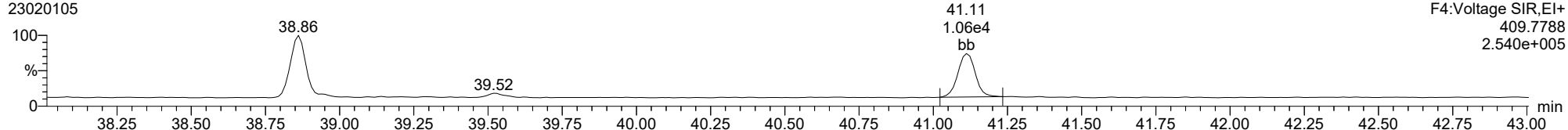
23020105



F4:Voltage SIR,EI+
407.7818
2.750e+005

1234789-HpCDF

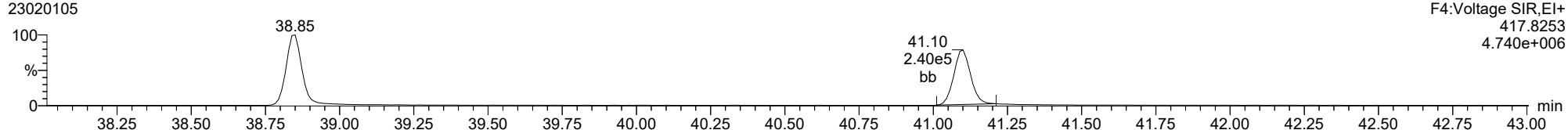
23020105



F4:Voltage SIR,EI+
409.7788
2.540e+005

13C-1234789-HpCDF

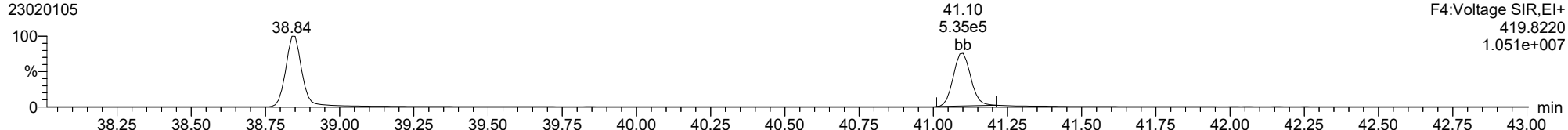
23020105



F4:Voltage SIR,EI+
417.8253
4.740e+006

13C-1234789-HpCDF

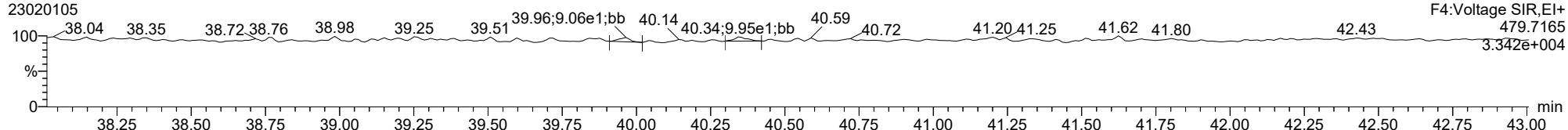
23020105



F4:Voltage SIR,EI+
419.8220
1.051e+007

FUNCTION4 NCDPE

23020105

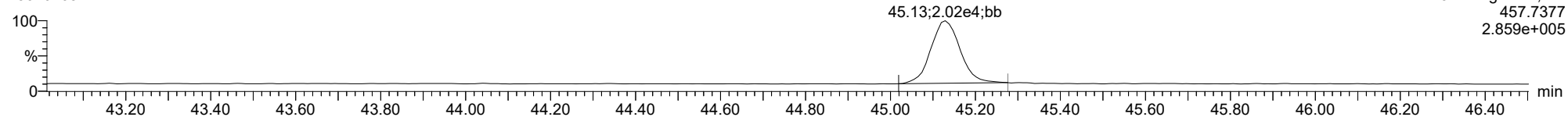


F4:Voltage SIR,EI+
479.7165
3.342e+004

ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

OCDD

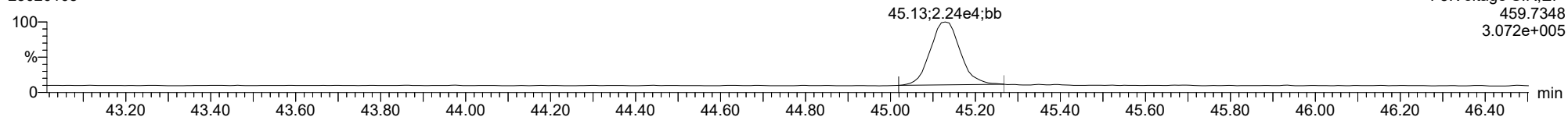
23020105



F5:Voltage SIR,El+
457.7377
2.859e+005

OCDD

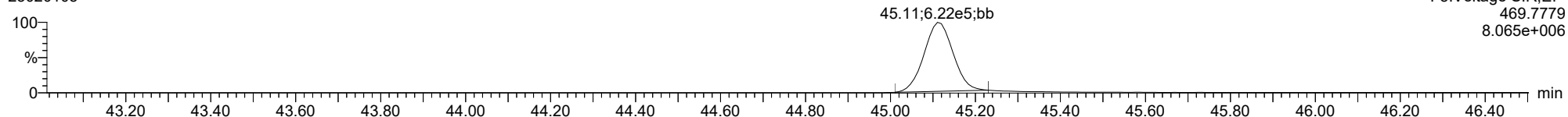
23020105



F5:Voltage SIR,El+
459.7348
3.072e+005

13C-OCDD

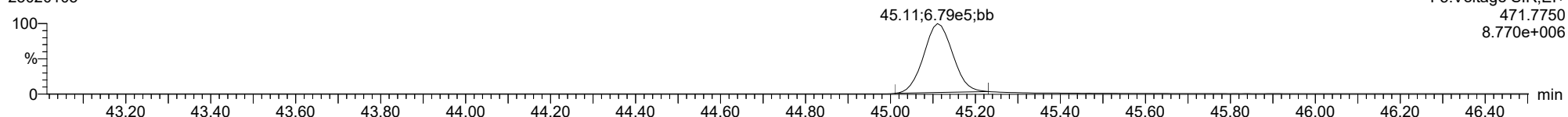
23020105



F5:Voltage SIR,El+
469.7779
8.065e+006

13C-OCDD

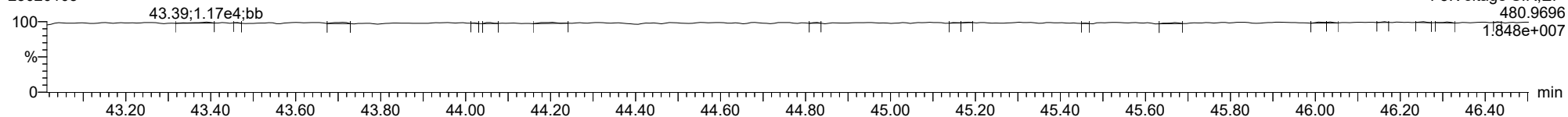
23020105



F5:Voltage SIR,El+
471.7750
8.770e+006

FUNCTION5 PFK

23020105

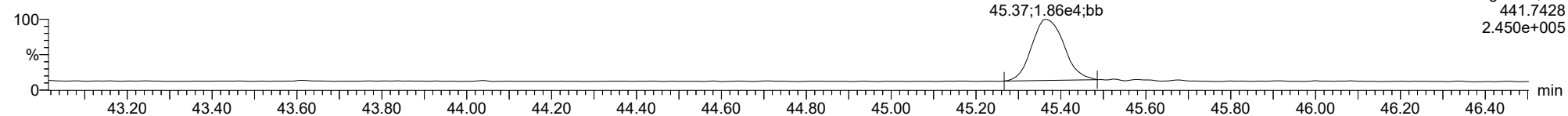


F5:Voltage SIR,El+
480.9696
1.848e+007

ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

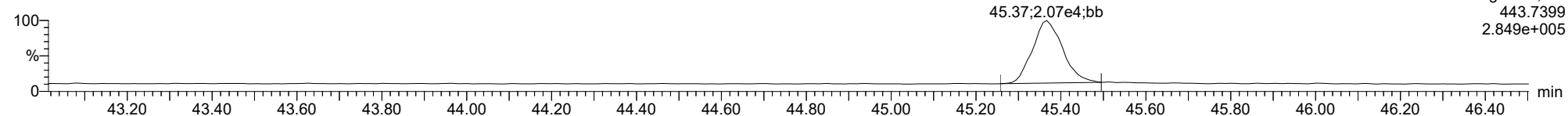
OCDF

23020105



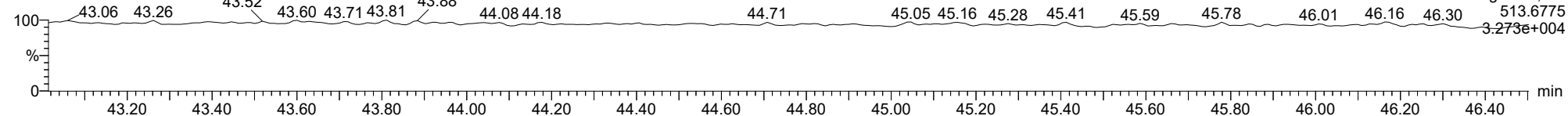
OCDF

23020105



FUNCTION5 DCDPE

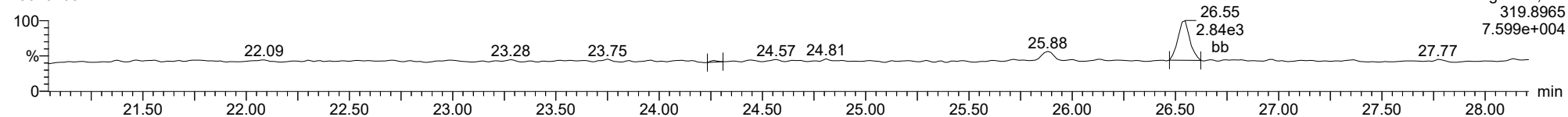
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

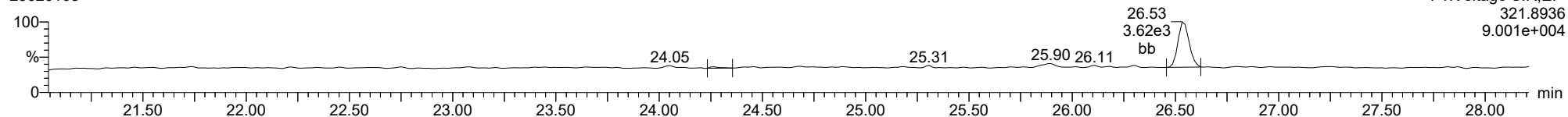
Total-tetradioxins

23020105



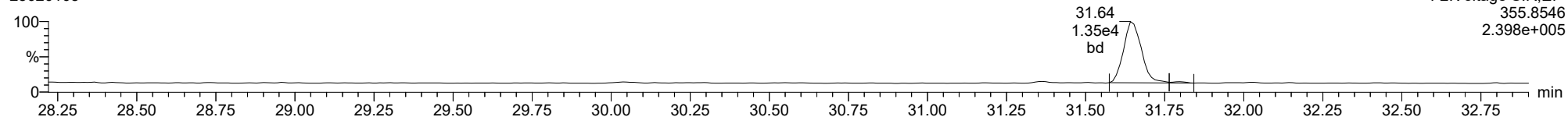
Total-tetradioxins

23020105



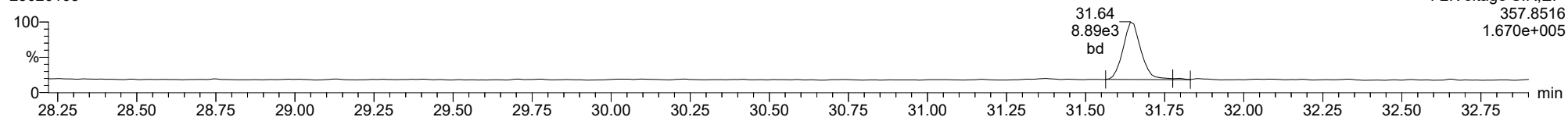
Total-pentadioxins

23020105



Total-pentadioxins

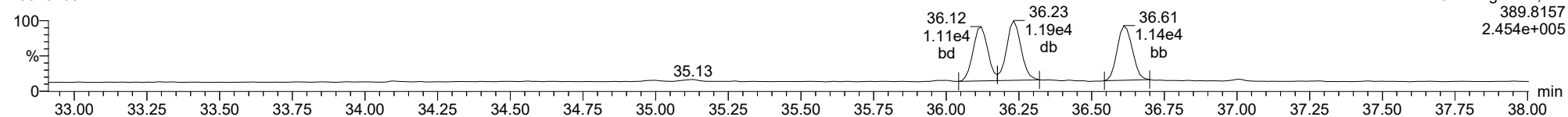
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

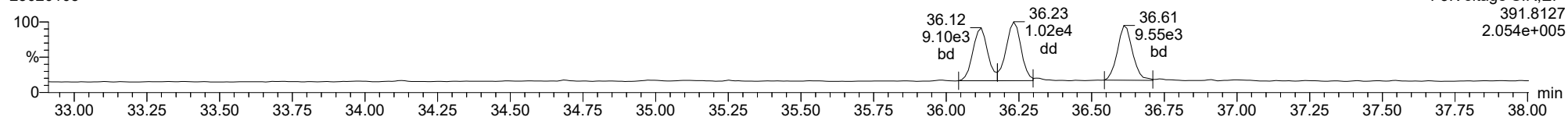
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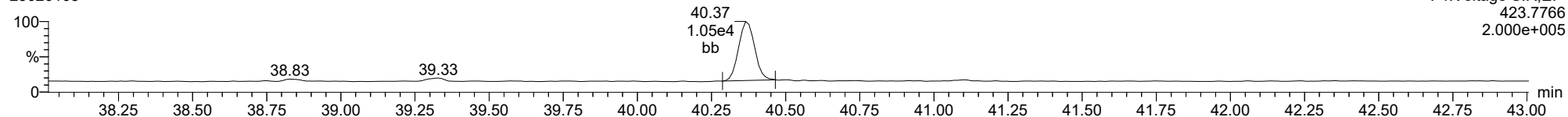
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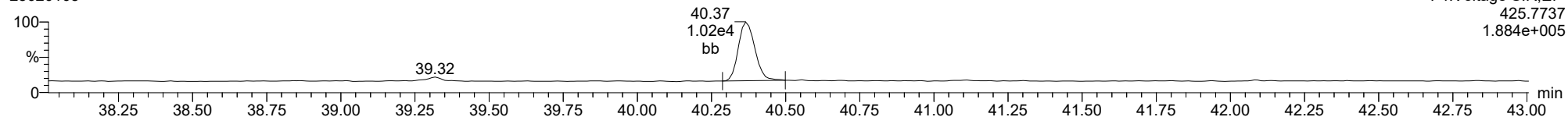
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23020105



Total-heptadioxins

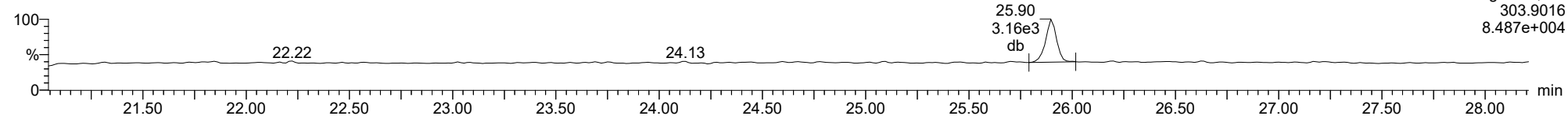
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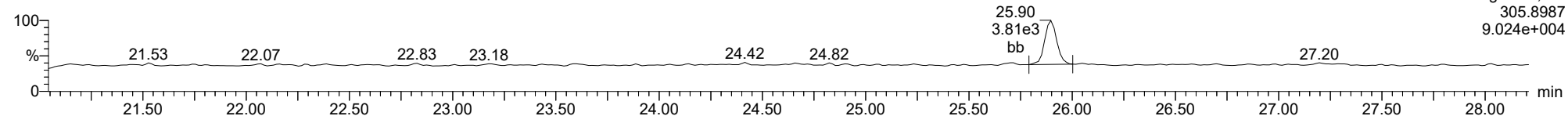
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23020105



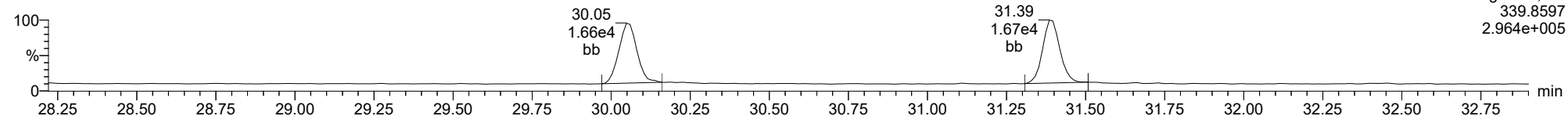
Total-tetrafurans

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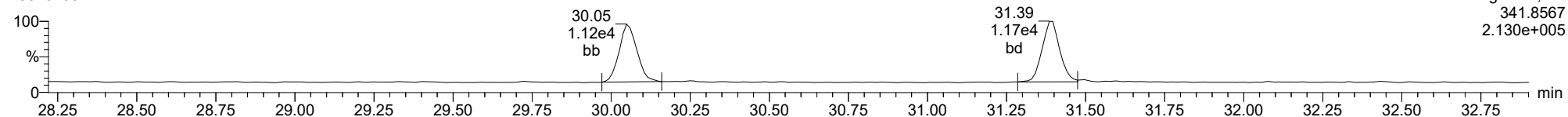
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23020105



Total-pentafurans

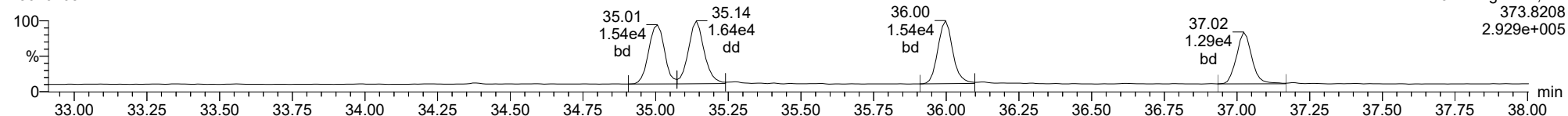
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ID: CS1CR, Name: 23020105, Date: 01-Feb-2023, Time: 15:28:53, Conditions: AUTOSPEC01, User: pk

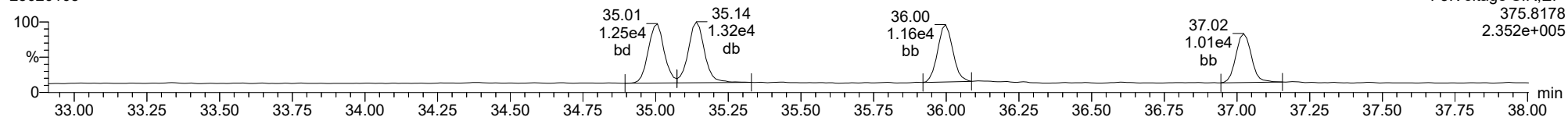
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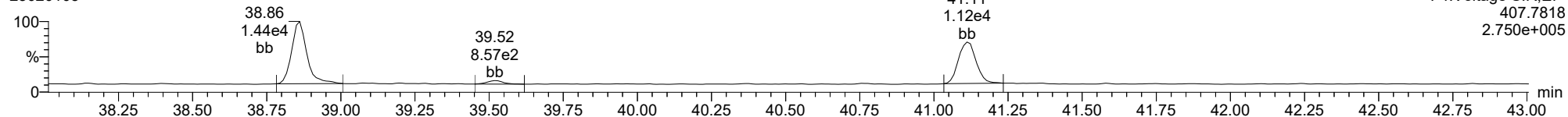
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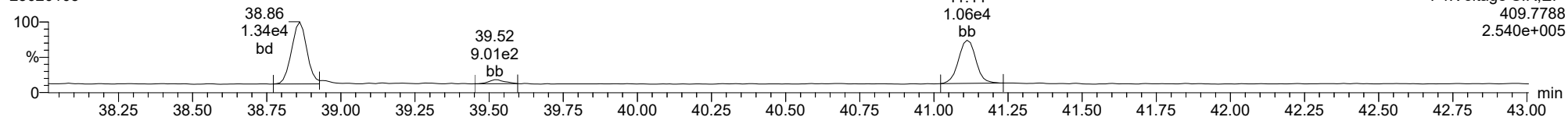
Total-heptafurans

23020105



Total-heptafurans

23020105



Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:37:25 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
Calibration: 03 Feb 2023 10:33:40

ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.897	1.001	1.375e4	1.851e4	0.876	0.743	0.770	838	1562	2.10e5	2.76e5	250.5	176.4	NO	bb	bb	1.973
12378-PeCDF	30.059	1.001	8.384e4	5.404e4	0.845	1.551	1.550	1494	1842	1.30e6	8.45e5	870.6	458.6	NO	bd	bd	10.086
23478-PeCDF	31.396	1.001	8.811e4	5.691e4	0.911	1.548	1.550	1494	1842	1.31e6	8.58e5	880.0	466.0	NO	dd	bd	10.430
123478-HxCDF	35.006	1.001	7.445e4	5.785e4	1.182	1.287	1.240	1528	1565	1.21e6	9.52e5	791.3	608.7	NO	bd	bd	9.662
234678-HxCDF	35.998	1.000	7.554e4	5.984e4	1.229	1.262	1.240	1528	1565	1.18e6	9.11e5	774.2	582.4	NO	bd	bd	10.016
123678-HxCDF	35.140	1.000	8.156e4	6.332e4	1.248	1.288	1.240	1528	1565	1.23e6	9.70e5	801.6	619.6	NO	dd	dd	9.876
123789-HxCDF	37.023	1.000	6.616e4	5.058e4	1.187	1.308	1.240	1528	1565	1.05e6	8.18e5	687.4	522.6	NO	bd	bd	9.712
1234678-HpCDF	38.861	1.000	6.989e4	6.457e4	1.204	1.082	1.050	1538	1410	1.20e6	1.09e6	782.0	769.9	NO	bd	bb	9.897
1234789-HpCDF	41.111	1.000	5.916e4	5.737e4	1.165	1.031	1.050	1538	1410	8.45e5	8.21e5	549.5	582.6	NO	bd	bd	10.092
OCDF	45.376	1.006	9.214e4	9.862e4	1.186	0.934	0.890	1525	1454	1.11e6	1.20e6	727.4	823.3	NO	bd	bb	18.863
2378-TCDD	26.547	1.001	1.298e4	1.586e4	1.236	0.818	0.770	817	918	1.95e5	2.41e5	239.3	262.4	NO	bb	bb	2.020
12378-PeCDD	31.653	1.001	6.323e4	4.003e4	1.087	1.579	1.550	957	1113	9.67e5	6.22e5	1010.9	558.7	NO	bb	bb	9.953
123478-HxCDD	36.120	1.000	5.350e4	4.542e4	0.987	1.178	1.240	1419	1111	9.15e5	7.70e5	644.4	692.8	NO	bd	bd	9.967
123678-HxCDD	36.232	1.000	5.670e4	4.717e4	1.021	1.202	1.240	1419	1111	9.21e5	7.75e5	649.0	697.0	NO	db	db	9.657
123789-HxCDD	36.621	1.011	5.462e4	4.396e4	0.985	1.243	1.240	1419	1111	9.23e5	7.40e5	650.4	666.2	NO	bb	bb	9.715
1234678-HpCDD	40.376	1.001	5.329e4	4.930e4	1.253	1.081	1.050	939	1025	8.27e5	7.64e5	880.9	744.9	NO	bd	bb	9.623
OCDD	45.129	1.000	8.911e4	9.822e4	1.103	0.907	0.890	1078	1353	1.09e6	1.23e6	1009.3	912.1	NO	bd	bb	19.929
13C-2378-TCDF	25.882	1.007	8.175e5	1.049e6	1.768	0.779	0.770	2768	1604	1.28e7	1.62e7	4615.3	10118.2	NO	bb	bb	98.406
13C-12378-PeCDF	30.037	1.168	9.651e5	6.534e5	1.527	1.477	1.550	2685	2564	1.52e7	9.92e6	5664.2	3868.0	NO	bb	bd	98.795
13C-23478-PeCDF	31.374	1.220	9.289e5	5.970e5	1.466	1.556	1.550	2685	2564	1.42e7	9.15e6	5285.2	3567.7	NO	bb	bb	97.006
13C-123478-HxCDF	34.984	0.956	3.919e5	7.668e5	1.054	0.511	0.510	2280	2951	6.27e6	1.23e7	2748.9	4152.3	NO	bd	bd	102.036
13C-123678-HxCDF	35.129	0.960	3.972e5	7.782e5	1.080	0.510	0.510	2280	2951	6.52e6	1.27e7	2858.6	4308.7	NO	db	db	100.982
13C-234678-HxCDF	35.987	0.983	3.723e5	7.276e5	1.014	0.512	0.510	2280	2951	6.20e6	1.20e7	2719.4	4079.1	NO	bb	bb	100.611
13C-123789-HxCDF	37.012	1.011	3.411e5	6.719e5	0.928	0.508	0.510	2280	2951	5.87e6	1.14e7	2576.5	3878.0	NO	bb	bb	101.286
13C-1234678-HpCDF	38.850	1.061	3.519e5	7.764e5	1.036	0.453	0.440	2948	3056	6.15e6	1.36e7	2085.9	4456.3	NO	bb	bb	101.034
13C-1234789-HpCDF	41.100	1.123	3.071e5	6.837e5	0.905	0.449	0.440	2948	3056	4.66e6	1.03e7	1581.8	3383.9	NO	bb	bb	101.592
13C-1234-TCDD	25.715	0.000	4.761e5	5.966e5	1.000	0.798	0.770	1722	1260	7.44e6	9.39e6	4318.3	7453.5	NO	bb	bb	100.000
13C-2378-TCDD	26.517	1.031	5.086e5	6.462e5	1.103	0.787	0.770	1722	1260	7.59e6	9.61e6	4407.4	7623.5	NO	bb	bb	97.603
13C-12378-PeCDD	31.631	1.230	5.873e5	3.674e5	0.914	1.599	1.550	1804	1493	9.15e6	5.75e6	5075.5	3848.9	NO	bb	bb	97.357
13C-123478-HxCDD	36.109	0.987	5.695e5	4.361e5	0.933	1.306	1.240	2351	1925	9.66e6	7.35e6	4110.6	3818.4	NO	bd	bd	100.012
13C-123678-HxCDD	36.221	0.990	5.923e5	4.615e5	0.965	1.283	1.240	2351	1925	9.93e6	7.73e6	4224.3	4014.3	NO	db	db	101.353
13C-1234678-HpCDD	40.354	1.103	4.427e5	4.084e5	0.782	1.084	1.050	2415	1836	6.98e6	6.52e6	2888.8	3549.1	NO	bb	bb	100.984
13C-OCDD	45.110	1.232	8.153e5	8.896e5	0.788	0.916	0.890	2586	2058	1.02e7	1.13e7	3959.4	5482.6	NO	bb	bb	200.686
13C-123789-HxCDD	36.599	0.000	5.962e5	4.816e5	1.000	1.238	1.240	2351	1925	9.93e6	8.01e6	4225.3	4157.6	NO	bb	bb	100.000
37CL-2378-TCDD	26.547	1.032	2.594e4		1.233			1770		3.86e5		217.9			bb		1.960

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:37:25 Pacific Standard Time

ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	838	1562								
1289-TCDF					0.858		0.770	838	1562								
13468-PECDF					1.013		1.550	818	1180								
12389-PECDF					0.844		1.550	1494	1842								
123468-HXCDF					1.197		1.240	1528	1565								
1368-TCDD					1.084		0.770	817	918								
1289-TCDD					0.975		0.770	817	918								
12479-PECDD					1.837		1.550	957	1113								
12389-PECDD					1.252		1.550	957	1113								
124679-HXCDD					1.033		1.240	1419	1111								
1234679-HPCDD					1.286		1.050	939	1025								
Total-tetrafurans			1.375e4		0.933			838		2.10e5							1.973
Total-penta1			0.000e0					818		0.00e0							
Total-pentafurans			1.724e5		0.866			1494		2.63e6							20.570
Total-hexafurans			2.977e5		1.208			1528		4.67e6							39.267
Total-heptafurans			1.291e5		1.185			1538		2.05e6							19.990
Total-Furans			7.051e5		1.067			838		1.07e7							100.663
Total-tetradoxins			1.298e4		1.099			817		1.95e5							2.020
Total-pentadoxins			6.323e4		1.392			957		9.67e5							9.953
Total-hexadoxins			1.650e5		1.007			1419		2.76e6							29.363
Total-heptadoxins			5.329e4		1.269			939		8.27e5							9.623
Total-Dioxins			3.836e5		1.165			817		5.84e6							70.888
Total-TEQ			1.089e6					817		1.65e7							171.552
FUNCTION1 PFK			0.000e0					575758		0.00e0							
FUNCTION2 PFK			0.000e0					203146		0.00e0							
FUNCTION3 PFK			1.946e5					441294		6.25e6							0.000
FUNCTION4 PFK			6.766e5					326212		1.14e7							
FUNCTION5 PFK			7.829e4					177933		3.00e6							
FUNCTION1 HXCD...			6.944e2					716		1.19e4							0.000
FUNCTION1 HPCD...			4.187e2					801		7.47e3							0.000
FUNCTION2 HPCD...			7.244e2					1047		1.53e4							0.000
FUNCTION3 OCDPE			2.025e2					783		3.00e3							0.000
FUNCTION4 NCDPE			5.677e2					836		9.38e3							0.000
FUNCTION5 DCDPE			1.012e2					822		1.66e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\2302011CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:25 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33**Calibration: 03 Feb 2023 10:33:40****ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.90	1.375e4	1.851e4	0.876	0.74	0.77	250.5	YES	NO	bb	bb	1.973

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.40	8.811e4	5.691e4	0.911	1.55	1.55	880.0	YES	NO	dd	bd	10.430
2	Total-pentafurans	30.25	4.556e2	2.766e2	0.866	1.65	1.55	7.1	YES	NO	dd	db	0.054
3	12378-PeCDF	30.06	8.384e4	5.404e4	0.845	1.55	1.55	870.6	YES	NO	bd	bd	10.086

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	234678-HxCDF	36.00	7.554e4	5.984e4	1.229	1.26	1.24	774.2	YES	NO	bd	bd	10.016
2	123678-HxCDF	35.14	8.156e4	6.332e4	1.248	1.29	1.24	801.6	YES	NO	dd	dd	9.876
3	123478-HxCDF	35.01	7.445e4	5.785e4	1.182	1.29	1.24	791.3	YES	NO	bd	bd	9.662
4	123789-HxCDF	37.02	6.616e4	5.058e4	1.187	1.31	1.24	687.4	YES	NO	bd	bd	9.712

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.11	5.916e4	5.737e4	1.165	1.03	1.05	549.5	YES	NO	bd	bd	10.092
2	1234678-HpCDF	38.86	6.989e4	6.457e4	1.204	1.08	1.05	782.0	YES	NO	bd	bb	9.897

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:25 Pacific Standard Time

ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.90	1.375e4	1.851e4	0.876	0.74	0.77	250.5	YES	NO	bb	bb	1.973
2	23478-PeCDF	31.40	8.811e4	5.691e4	0.911	1.55	1.55	880.0	YES	NO	dd	bd	10.430
3	Total-pentafurans	30.25	4.556e2	2.766e2	0.866	1.65	1.55	7.1	YES	NO	dd	db	0.054
4	12378-PeCDF	30.06	8.384e4	5.404e4	0.845	1.55	1.55	870.6	YES	NO	bd	bd	10.086
5	234678-HxCDF	36.00	7.554e4	5.984e4	1.229	1.26	1.24	774.2	YES	NO	bd	bd	10.016
6	123678-HxCDF	35.14	8.156e4	6.332e4	1.248	1.29	1.24	801.6	YES	NO	dd	dd	9.876
7	123478-HxCDF	35.01	7.445e4	5.785e4	1.182	1.29	1.24	791.3	YES	NO	bd	bd	9.662
8	123789-HxCDF	37.02	6.616e4	5.058e4	1.187	1.31	1.24	687.4	YES	NO	bd	bd	9.712
9	1234789-HpCDF	41.11	5.916e4	5.737e4	1.165	1.03	1.05	549.5	YES	NO	bd	bd	10.092
10	1234678-HpCDF	38.86	6.989e4	6.457e4	1.204	1.08	1.05	782.0	YES	NO	bd	bb	9.897
11	OCDF	45.38	9.214e4	9.862e4	1.186	0.93	0.89	727.4	YES	NO	bd	bb	18.863

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.55	1.298e4	1.586e4	1.236	0.82	0.77	239.3	YES	NO	bb	bb	2.020

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.65	6.323e4	4.003e4	1.087	1.58	1.55	1010.9	YES	NO	bb	bb	9.953

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	36.88	1.448e2	1.055e2	1.007	1.37	1.24	2.8	NO	NO	bb	bb	0.024
2	123789-HxCDD	36.62	5.462e4	4.396e4	0.985	1.24	1.24	650.4	YES	NO	bb	bb	9.715
3	123678-HxCDD	36.23	5.670e4	4.717e4	1.021	1.20	1.24	649.0	YES	NO	db	db	9.657
4	123478-HxCDD	36.12	5.350e4	4.542e4	0.987	1.18	1.24	644.4	YES	NO	bd	bd	9.967

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.38	5.329e4	4.930e4	1.253	1.08	1.05	880.9	YES	NO	bd	bb	9.623

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:37:25 Pacific Standard Time

ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.65	6.323e4	4.003e4	1.087	1.58	1.55	1010.9	YES	NO	bb	bb	9.953
2	2378-TCDD	26.55	1.298e4	1.586e4	1.236	0.82	0.77	239.3	YES	NO	bb	bb	2.020
3	Total-hexadioxins	36.88	1.448e2	1.055e2	1.007	1.37	1.24	2.8	NO	NO	bb	bb	0.024
4	123789-HxCDD	36.62	5.462e4	4.396e4	0.985	1.24	1.24	650.4	YES	NO	bb	bb	9.715
5	123678-HxCDD	36.23	5.670e4	4.717e4	1.021	1.20	1.24	649.0	YES	NO	db	db	9.657
6	123478-HxCDD	36.12	5.350e4	4.542e4	0.987	1.18	1.24	644.4	YES	NO	bd	bd	9.967
7	1234678-HpCDD	40.38	5.329e4	4.930e4	1.253	1.08	1.05	880.9	YES	NO	bd	bb	9.623
8	OCDD	45.13	8.911e4	9.822e4	1.103	0.91	0.89	1009.3	YES	NO	bd	bb	19.929

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.90	1.375e4	1.851e4	0.876	0.74	0.77	250.5	YES	NO	bb	bb	1.973
2	23478-PeCDF	31.40	8.811e4	5.691e4	0.911	1.55	1.55	880.0	YES	NO	dd	bd	10.430
3	Total-pentafurans	30.25	4.556e2	2.766e2	0.866	1.65	1.55	7.1	YES	NO	dd	db	0.054
4	12378-PeCDF	30.06	8.384e4	5.404e4	0.845	1.55	1.55	870.6	YES	NO	bd	bd	10.086
5	234678-HxCDF	36.00	7.554e4	5.984e4	1.229	1.26	1.24	774.2	YES	NO	bd	bd	10.016
6	123678-HxCDF	35.14	8.156e4	6.332e4	1.248	1.29	1.24	801.6	YES	NO	dd	dd	9.876
7	123478-HxCDF	35.01	7.445e4	5.785e4	1.182	1.29	1.24	791.3	YES	NO	bd	bd	9.662
8	123789-HxCDF	37.02	6.616e4	5.058e4	1.187	1.31	1.24	687.4	YES	NO	bd	bd	9.712
9	1234789-HpCDF	41.11	5.916e4	5.737e4	1.165	1.03	1.05	549.5	YES	NO	bd	bd	10.092
10	1234678-HpCDF	38.86	6.989e4	6.457e4	1.204	1.08	1.05	782.0	YES	NO	bd	bb	9.897
11	OCDF	45.38	9.214e4	9.862e4	1.186	0.93	0.89	727.4	YES	NO	bd	bb	18.863
12	12378-PeCDD	31.65	6.323e4	4.003e4	1.087	1.58	1.55	1010.9	YES	NO	bb	bb	9.953
13	2378-TCDD	26.55	1.298e4	1.586e4	1.236	0.82	0.77	239.3	YES	NO	bb	bb	2.020
14	Total-hexadioxins	36.88	1.448e2	1.055e2	1.007	1.37	1.24	2.8	NO	NO	bb	bb	0.024
15	123789-HxCDD	36.62	5.462e4	4.396e4	0.985	1.24	1.24	650.4	YES	NO	bb	bb	9.715
16	123678-HxCDD	36.23	5.670e4	4.717e4	1.021	1.20	1.24	649.0	YES	NO	db	db	9.657
17	123478-HxCDD	36.12	5.350e4	4.542e4	0.987	1.18	1.24	644.4	YES	NO	bd	bd	9.967
18	1234678-HpCDD	40.38	5.329e4	4.930e4	1.253	1.08	1.05	880.9	YES	NO	bd	bb	9.623
19	OCDD	45.13	8.911e4	9.822e4	1.103	0.91	0.89	1009.3	YES	NO	bd	bb	19.929

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:25 Pacific Standard Time

ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	33.84	3.684e4					1.4	NO		bb		0.000
2	FUNCTION3 PFK	37.56	3.248e4					1.4	NO		bb		0.000
3	FUNCTION3 PFK	37.40	1.502e4					1.5	NO		bb		0.000
4	FUNCTION3 PFK	36.84	6.471e3					0.8	NO		bb		0.000
5	FUNCTION3 PFK	36.52	9.443e3					0.9	NO		bb		0.000
6	FUNCTION3 PFK	36.37	4.140e3					0.7	NO		db		0.000
7	FUNCTION3 PFK	36.33	1.297e4					1.2	NO		bd		0.000
8	FUNCTION3 PFK	36.13	6.608e3					0.8	NO		bb		0.000
9	FUNCTION3 PFK	35.98	2.009e4					1.5	NO		bb		0.000
10	FUNCTION3 PFK	35.88	2.554e3					0.5	NO		bb		0.000
11	FUNCTION3 PFK	34.30	1.671e4					1.6	NO		bb		0.000
12	FUNCTION3 PFK	34.23	8.316e3					0.4	NO		bb		0.000
13	FUNCTION3 PFK	33.98	2.293e4					1.5	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.23	5.785e4					4.4	YES		dd		
2	FUNCTION4 PFK	38.15	1.010e5					5.4	YES		dd		
3	FUNCTION4 PFK	38.09	1.883e5					5.6	YES		bd		
4	FUNCTION4 PFK	42.87	1.204e4					1.0	NO		bb		
5	FUNCTION4 PFK	42.31	2.496e4					1.3	NO		bb		
6	FUNCTION4 PFK	41.49	1.586e4					1.0	NO		bb		
7	FUNCTION4 PFK	41.10	1.494e4					1.1	NO		bb		
8	FUNCTION4 PFK	40.87	1.555e4					1.4	NO		bb		
9	FUNCTION4 PFK	40.79	1.700e4					1.3	NO		bb		
10	FUNCTION4 PFK	40.65	5.082e3					0.8	NO		bb		
11	FUNCTION4 PFK	40.61	1.525e3					0.4	NO		bb		
12	FUNCTION4 PFK	40.14	1.620e4					1.6	NO		bb		
13	FUNCTION4 PFK	39.90	9.157e3					1.0	NO		bb		
14	FUNCTION4 PFK	39.83	9.091e3					1.1	NO		bb		
15	FUNCTION4 PFK	39.77	4.172e3					0.6	NO		bb		
16	FUNCTION4 PFK	39.63	1.903e3					0.5	NO		bb		
17	FUNCTION4 PFK	39.46	1.766e4					0.8	NO		bb		
18	FUNCTION4 PFK	38.45	3.531e4					1.7	NO		db		
19	FUNCTION4 PFK	38.27	1.290e5					3.8	YES		dd		

ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	46.27	9.001e2					0.6	NO		bb		
2	FUNCTION5 PFK	46.15	5.202e3					1.0	NO		bb		
3	FUNCTION5 PFK	45.97	3.660e3					1.2	NO		bb		
4	FUNCTION5 PFK	45.51	1.153e4					2.2	NO		bb		
5	FUNCTION5 PFK	45.41	4.532e3					1.3	NO		db		
6	FUNCTION5 PFK	45.38	1.706e3					0.8	NO		bd		
7	FUNCTION5 PFK	45.15	2.865e3					1.0	NO		bb		
8	FUNCTION5 PFK	44.80	1.877e3					0.7	NO		bb		
9	FUNCTION5 PFK	44.65	3.851e3					1.1	NO		bb		
10	FUNCTION5 PFK	44.56	1.141e4					1.8	NO		bb		
11	FUNCTION5 PFK	44.31	2.169e4					1.9	NO		bb		
12	FUNCTION5 PFK	43.92	8.765e2					0.5	NO		bb		
13	FUNCTION5 PFK	43.88	8.623e2					0.5	NO		db		
14	FUNCTION5 PFK	43.86	1.005e3					0.6	NO		bd		
15	FUNCTION5 PFK	43.82	4.471e3					1.0	NO		bb		
16	FUNCTION5 PFK	46.36	1.842e3					0.7	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.26	9.013e1					2.4	NO		bb		0.000
2	FUNCTION1 HXCD...	26.52	1.374e2					3.3	YES		bb		0.000
3	FUNCTION1 HXCD...	26.35	1.141e2					2.2	NO		bb		0.000
4	FUNCTION1 HXCD...	25.31	7.923e1					2.3	NO		bb		0.000
5	FUNCTION1 HXCD...	24.07	1.307e2					3.2	YES		bb		0.000
6	FUNCTION1 HXCD...	22.72	1.428e2					3.3	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	26.58	7.978e1					2.2	NO		db		0.000
2	FUNCTION1 HPCD...	26.53	1.102e2					2.3	NO		bd		0.000
3	FUNCTION1 HPCD...	24.69	7.048e1					1.7	NO		bb		0.000
4	FUNCTION1 HPCD...	24.48	8.580e1					1.5	NO		bb		0.000
5	FUNCTION1 HPCD...	21.38	7.239e1					1.7	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:25 Pacific Standard Time

ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk**ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	28.37	7.170e1					2.5	NO		bb		0.000
2	FUNCTION2 HPCD...	31.76	2.583e2					2.7	NO		db		0.000
3	FUNCTION2 HPCD...	31.64	1.965e2					4.2	YES		bd		0.000
4	FUNCTION2 HPCD...	31.30	1.054e2					1.6	NO		bb		0.000
5	FUNCTION2 HPCD...	29.60	9.241e1					3.7	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.22	9.361e1					1.8	NO		bb		0.000
2	FUNCTION3 OCDPE	33.01	1.089e2					2.0	NO		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.21	1.123e2					2.3	NO		db		0.000
2	FUNCTION4 NCDPE	41.16	1.047e2					2.3	NO		bd		0.000
3	FUNCTION4 NCDPE	41.00	7.125e1					1.9	NO		bb		0.000
4	FUNCTION4 NCDPE	38.88	9.103e1					1.9	NO		bb		0.000
5	FUNCTION4 NCDPE	38.50	1.884e2					2.9	NO		bb		0.000

ETHERS6

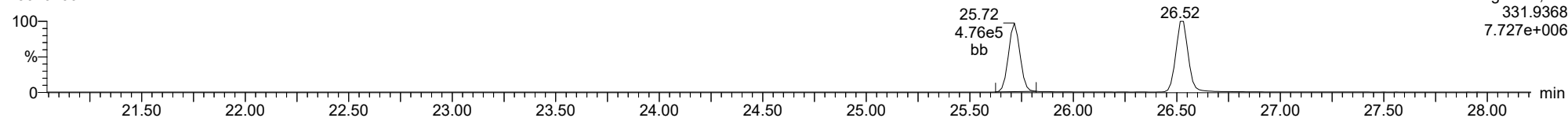
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	44.32	1.012e2					2.0	NO		bb		0.000

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
Calibration: 03 Feb 2023 10:33:40

ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD

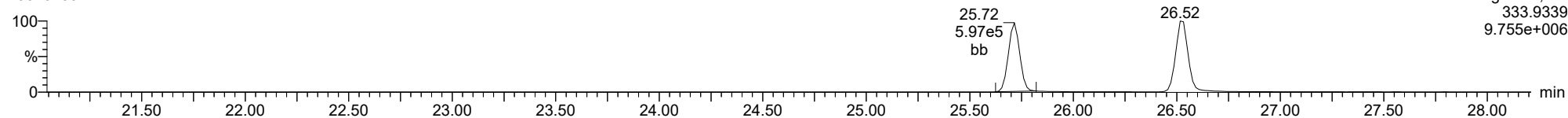
23020106



F1:Voltage SIR,El+
331.9368
7.727e+006

13C-1234-TCDD

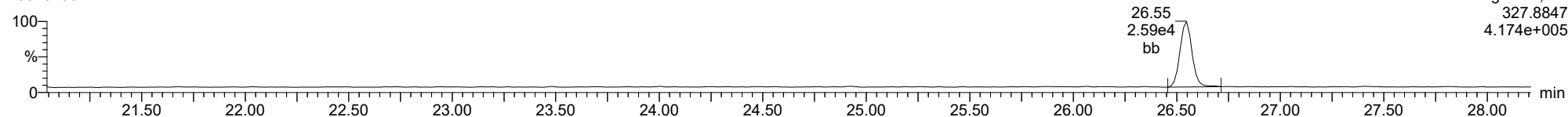
23020106



F1:Voltage SIR,El+
333.9339
9.755e+006

37CL-2378-TCDD

23020106

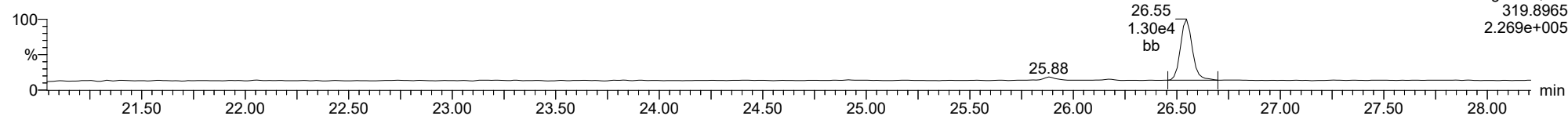


F1:Voltage SIR,El+
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4.174e+005

ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

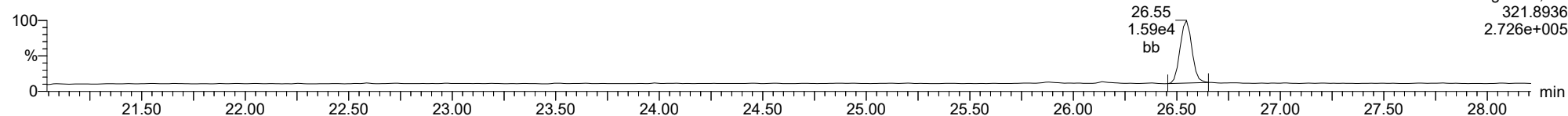
2378-TCDD

23020106



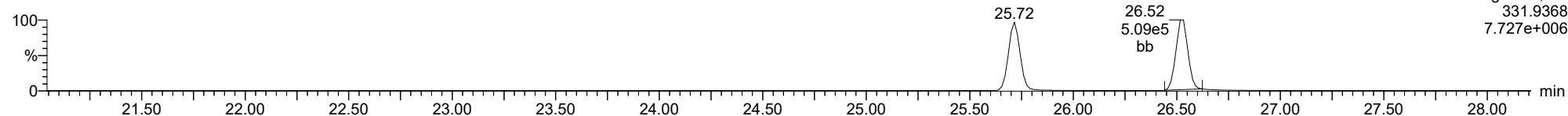
2378-TCDD

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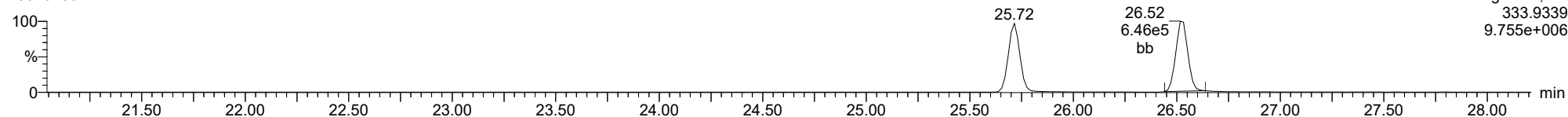
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23020106



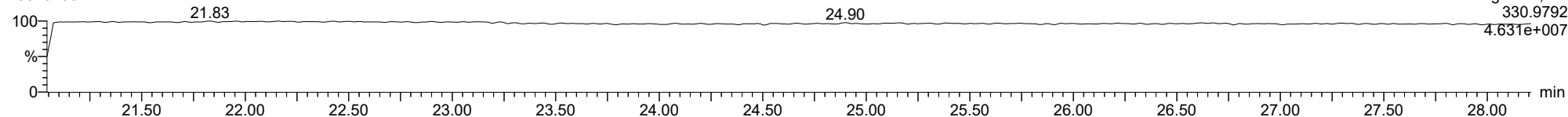
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23020106



FUNCTION1 PFK

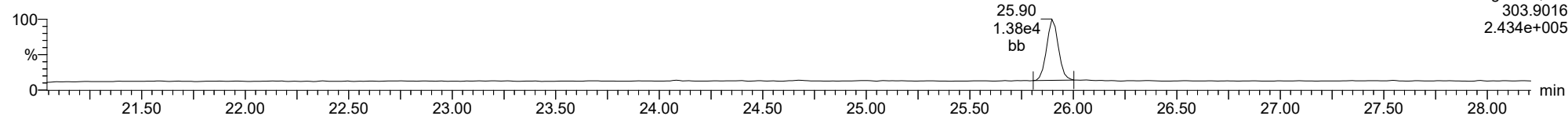
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

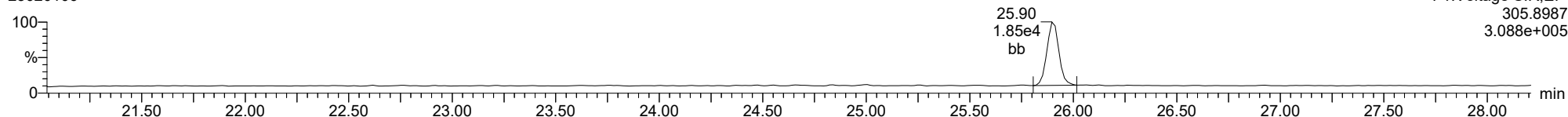
2378-TCDF

23020106



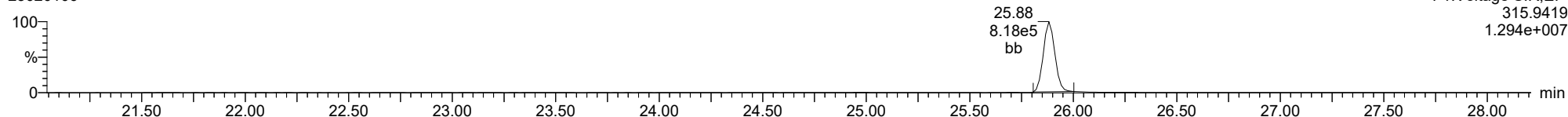
2378-TCDF

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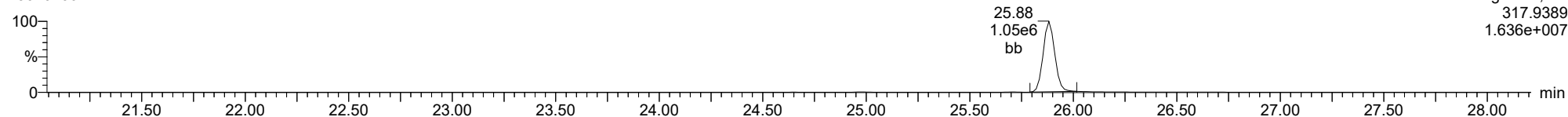
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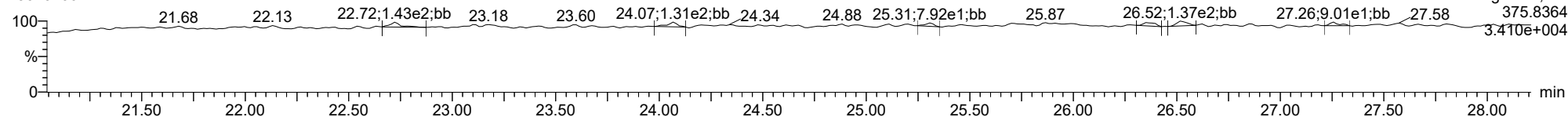
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23020106



FUNCTION1 HXCDPE

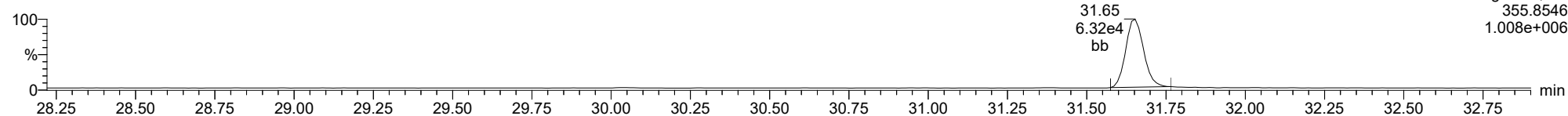
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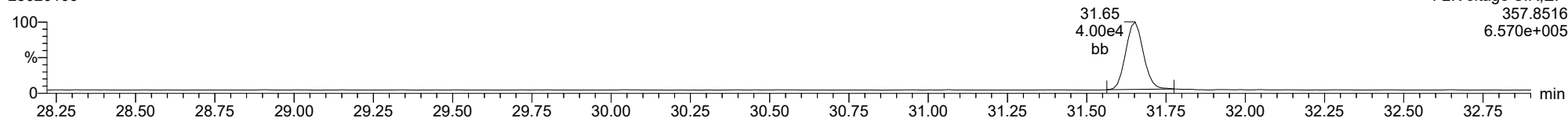
12378-PeCDD

23020106



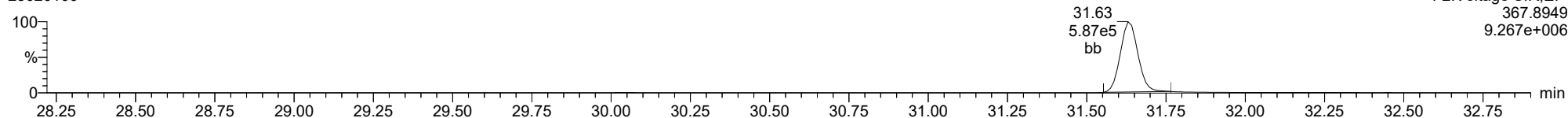
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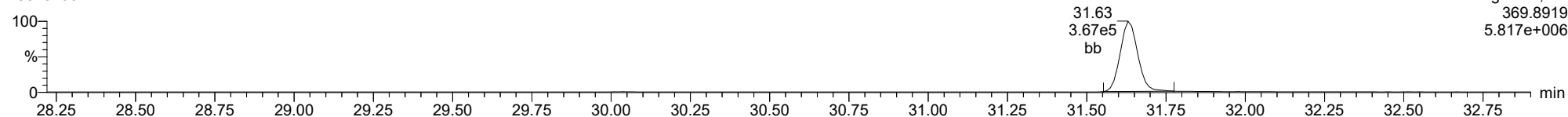
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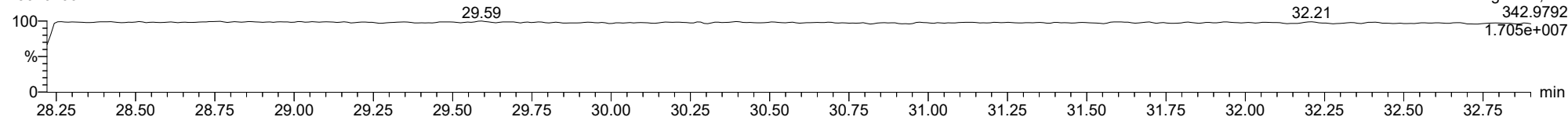
13C-12378-PeCDD

23020106



FUNCTION2 PFK

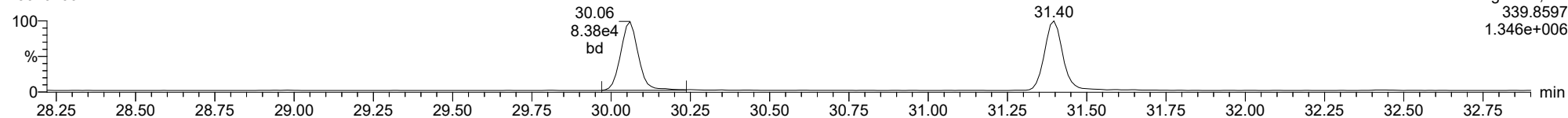
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

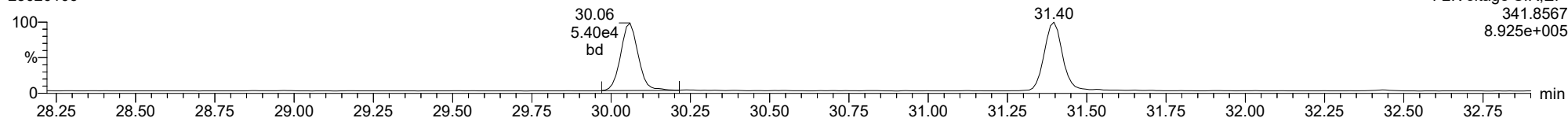
12378-PeCDF

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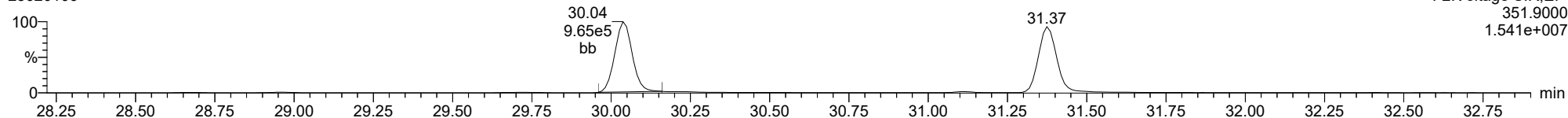
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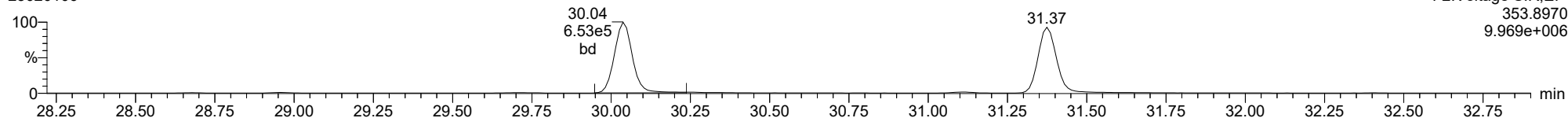
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23020106



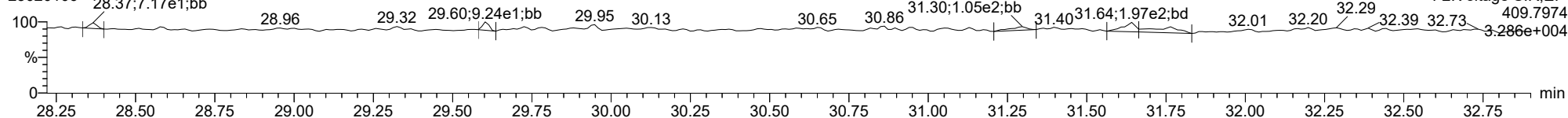
13C-12378-PeCDF

23020106



FUNCTION2 HPCDPE

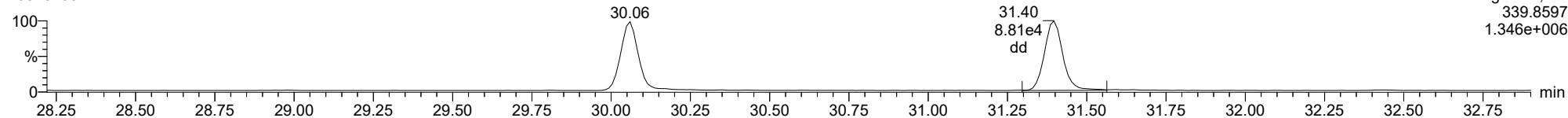
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

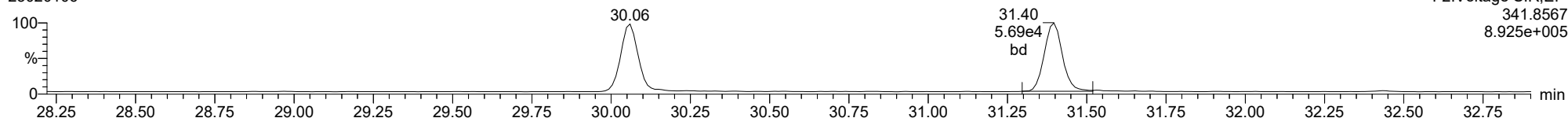
23478-PeCDF

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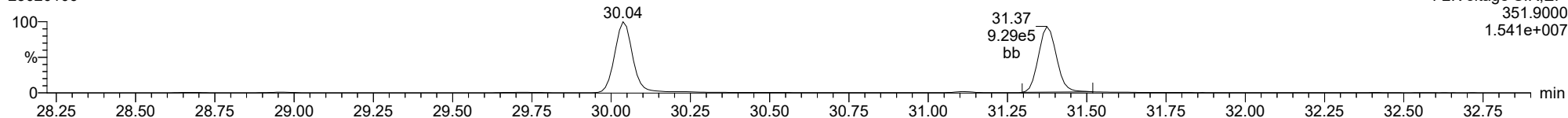
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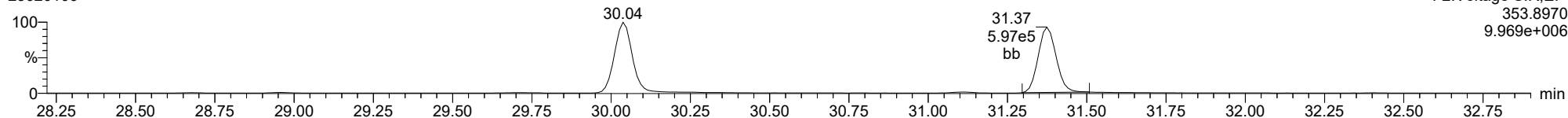
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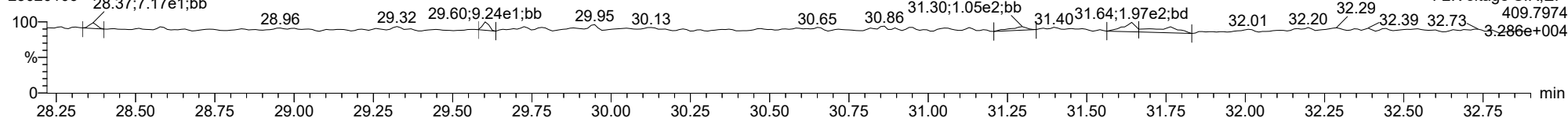
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23020106



FUNCTION2 HPCDPE

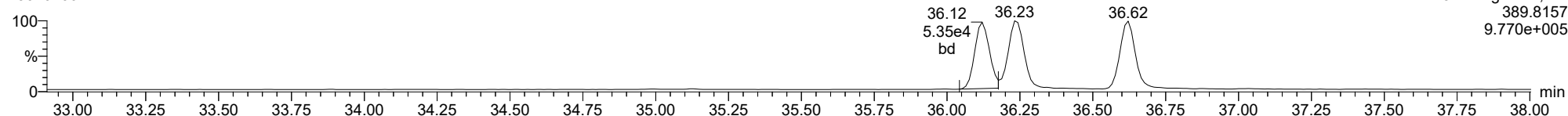
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

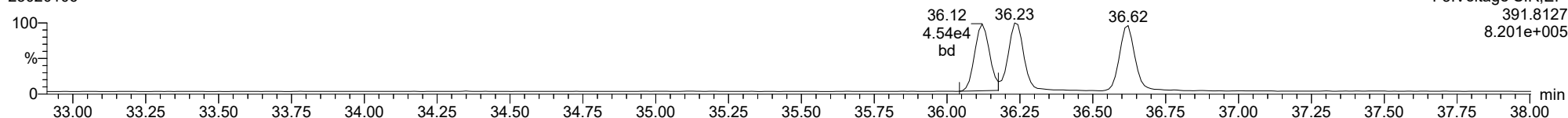
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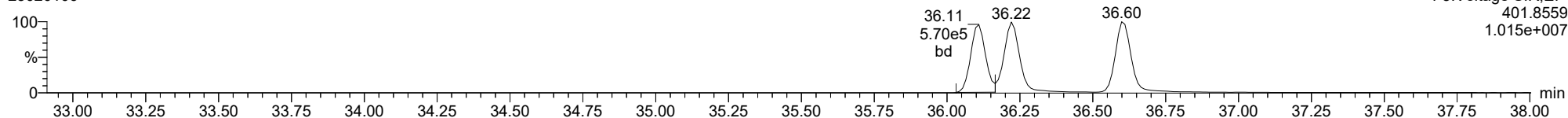
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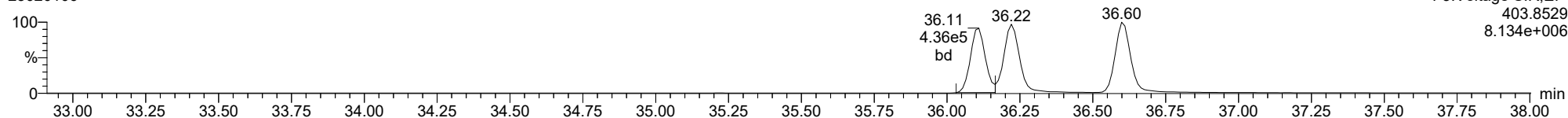
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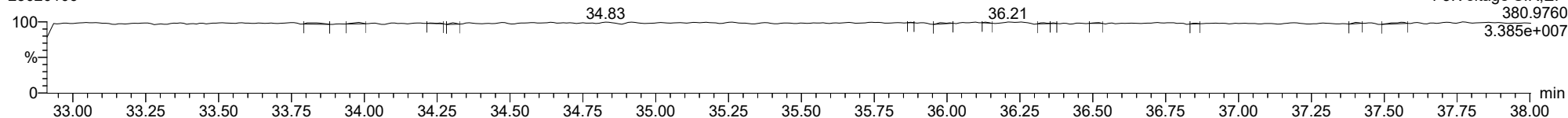
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23020106



FUNCTION3 PFK

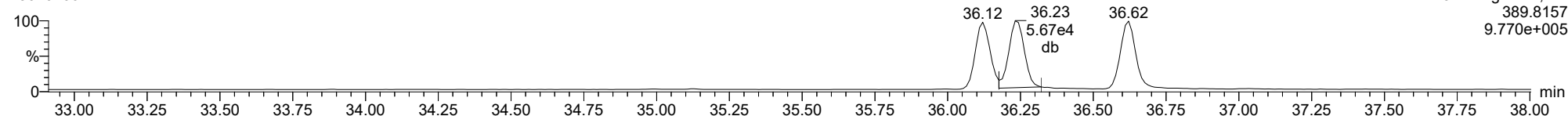
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

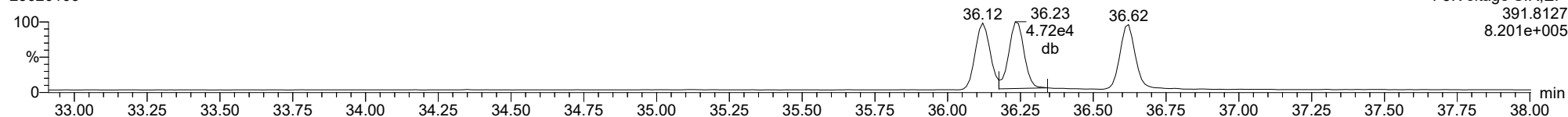
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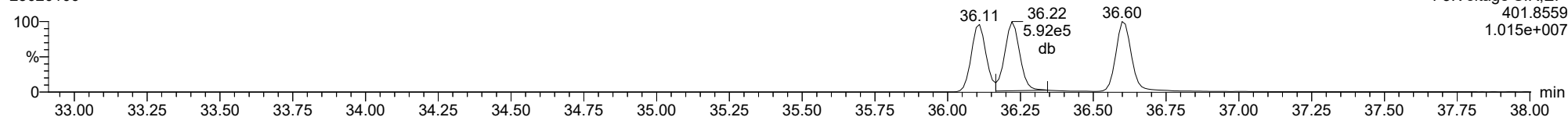
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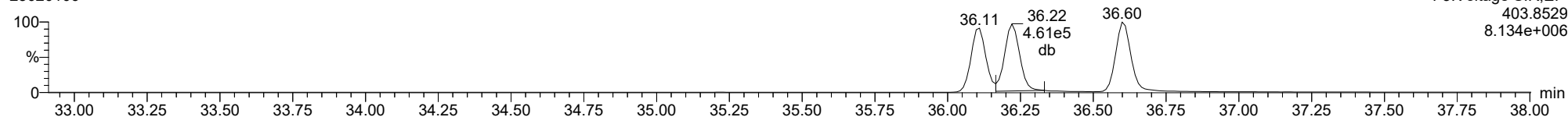
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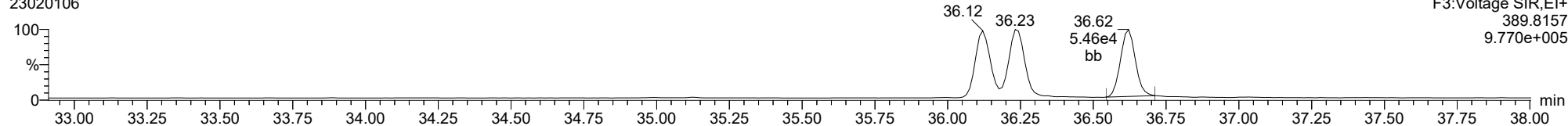
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

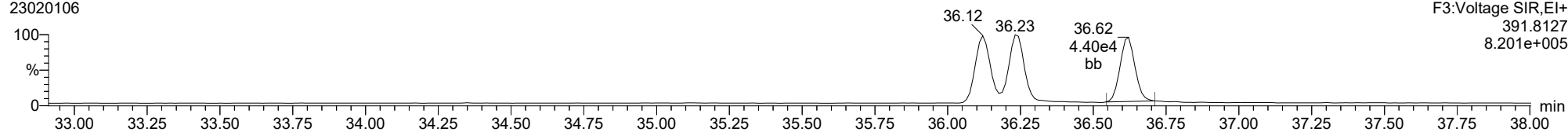
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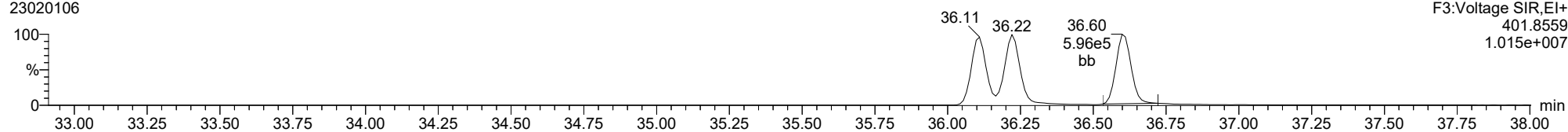
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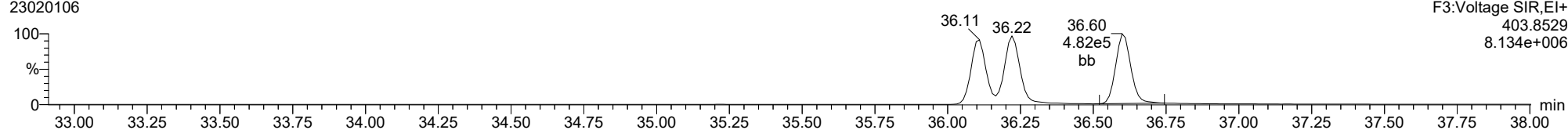
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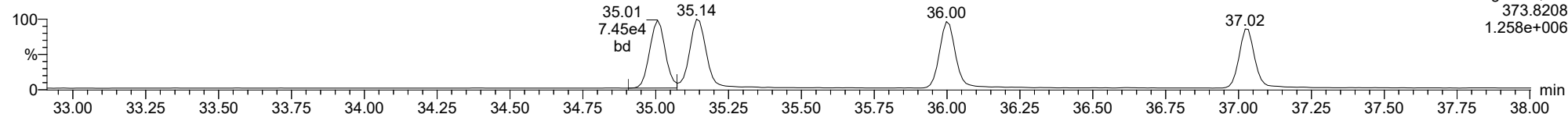
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

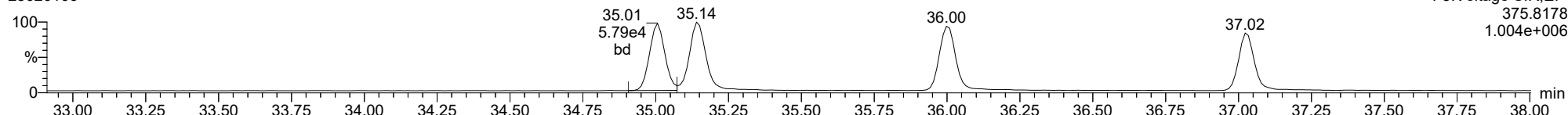
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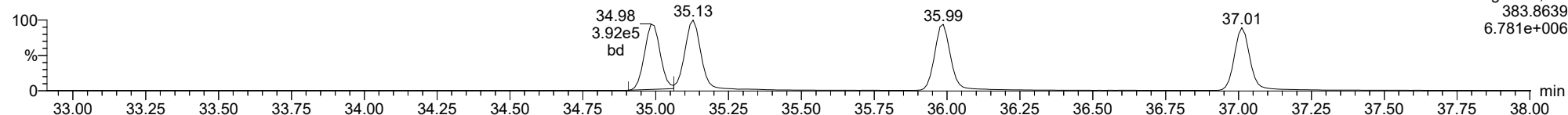
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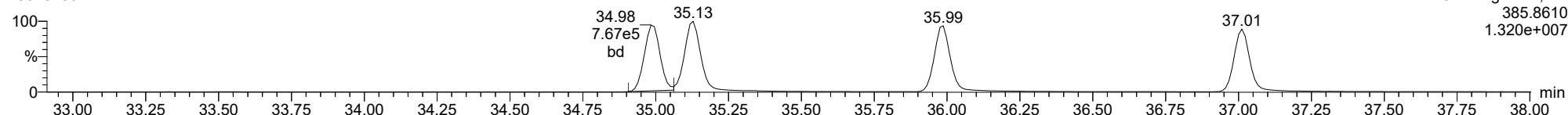
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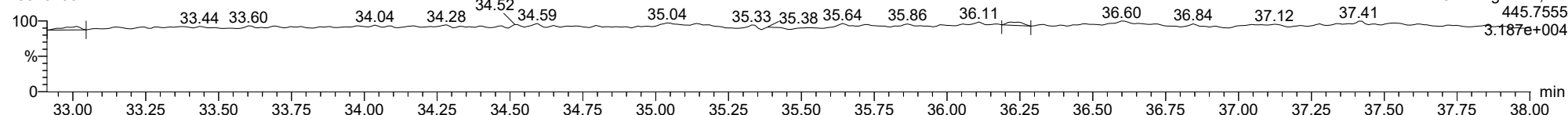
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23020106



FUNCTION3 OCDPE

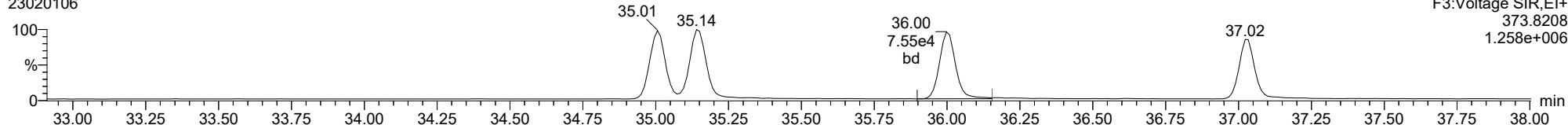
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

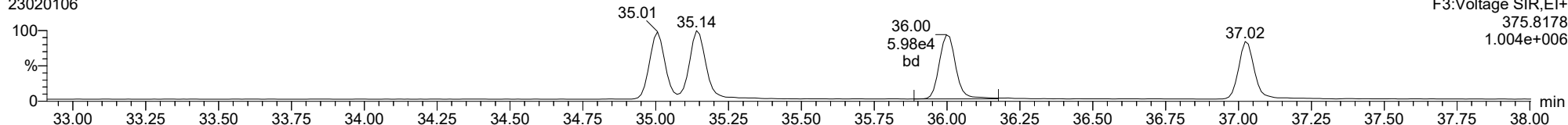
234678-HxCDF

23020106



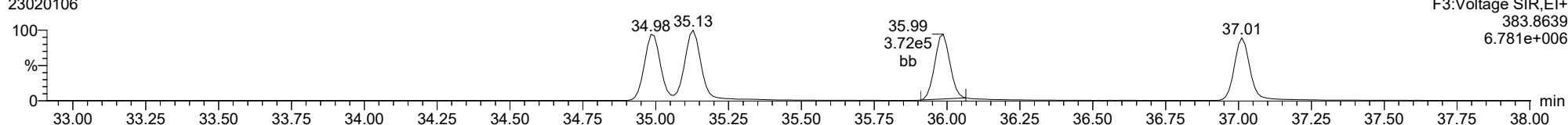
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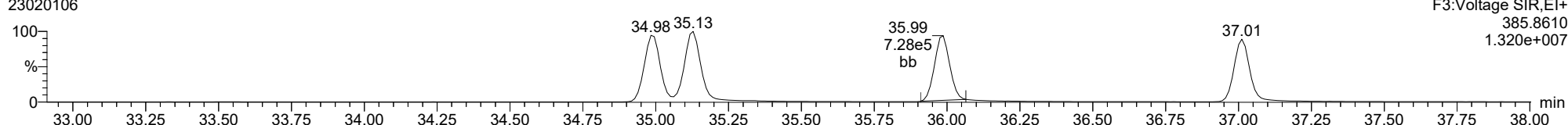
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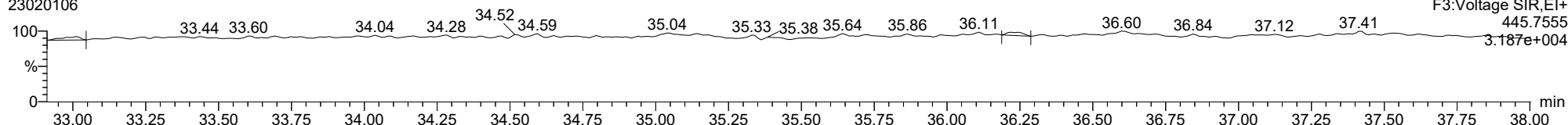
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FUNCTION3 OCDPE

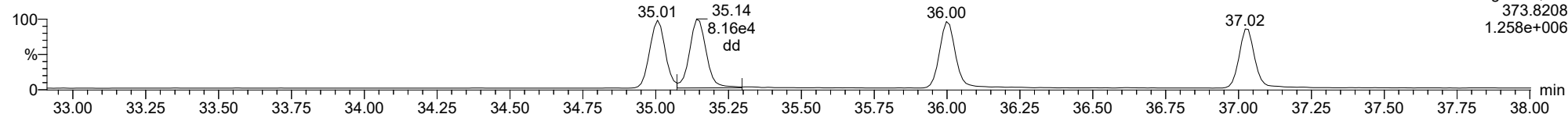
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

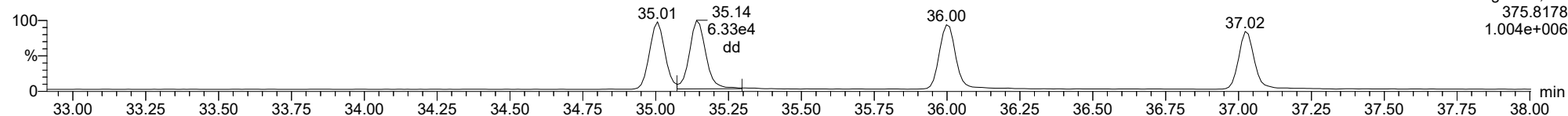
123678-HxCDF

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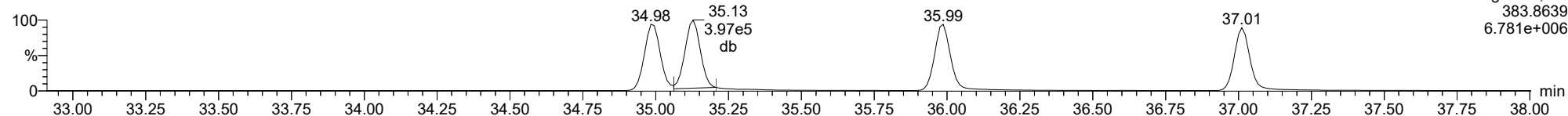
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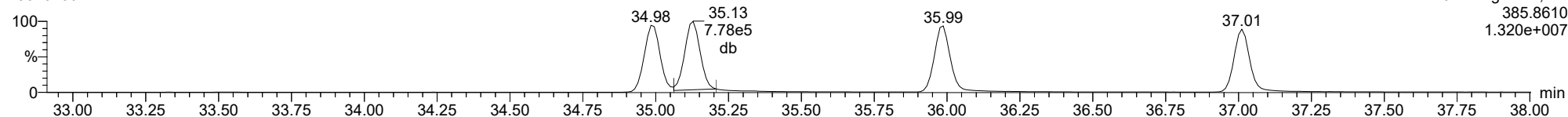
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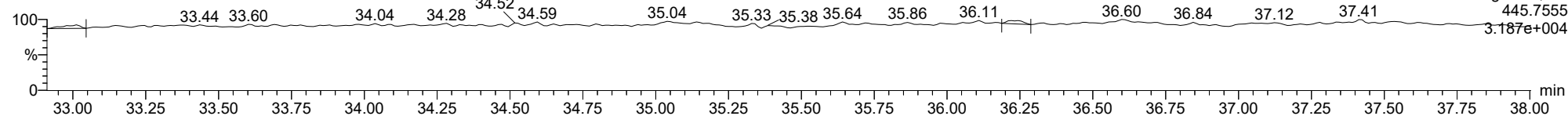
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FUNCTION3 OCDPE

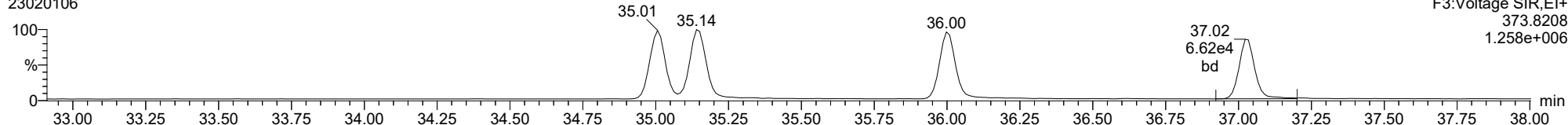
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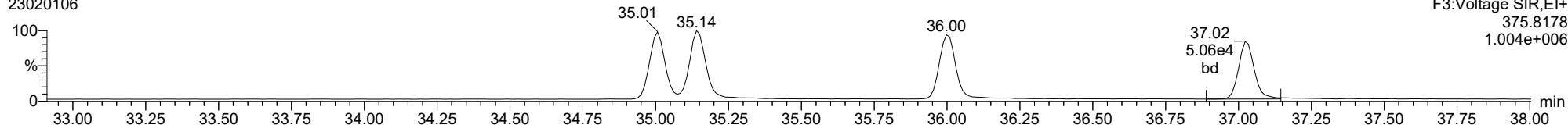
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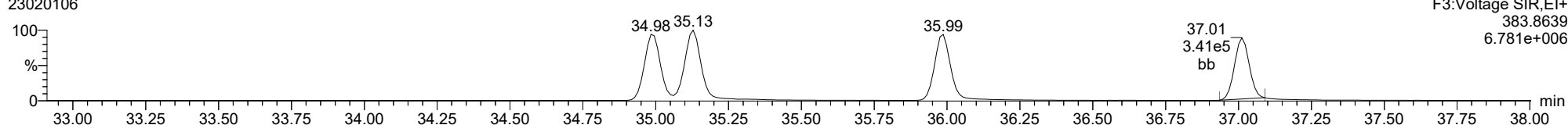
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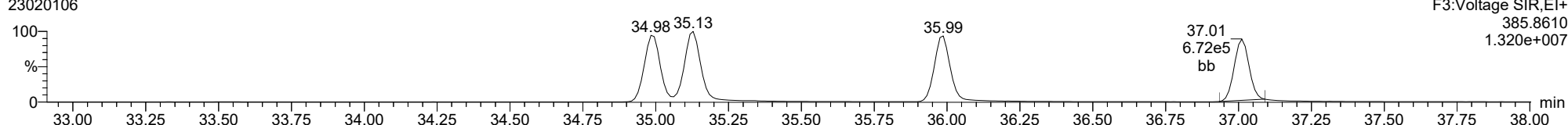
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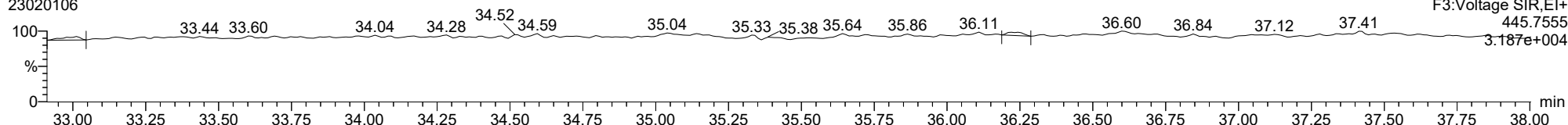
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FUNCTION3 OCDPE

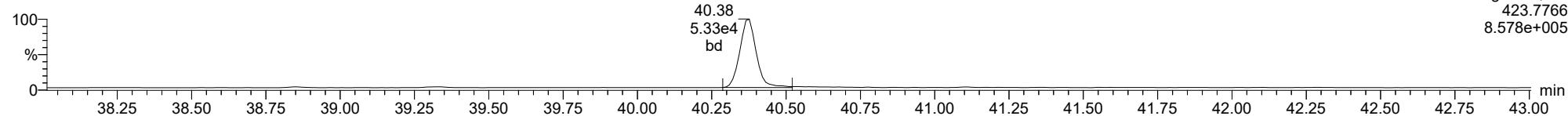
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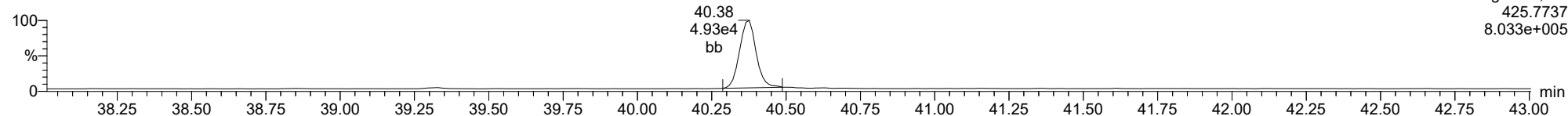
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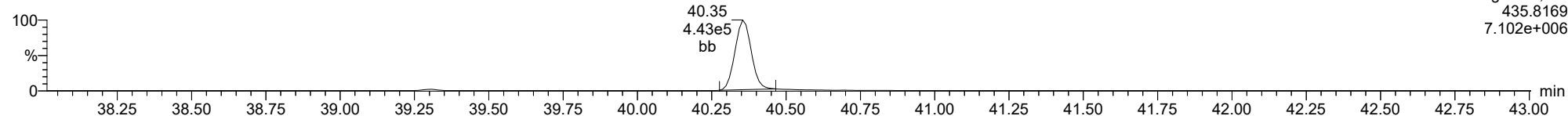
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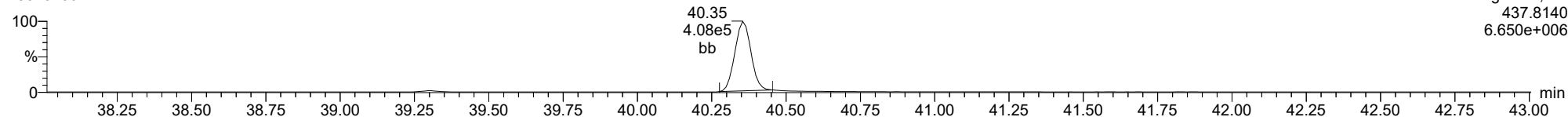
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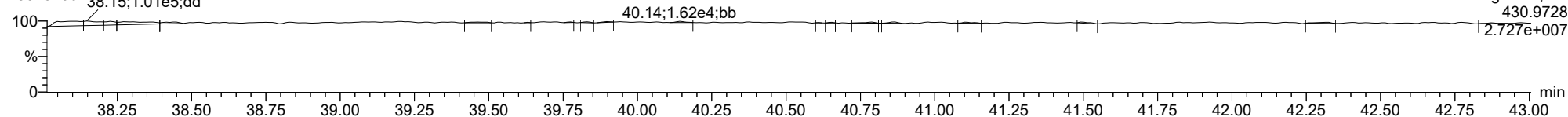
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FUNCTION4 PFK

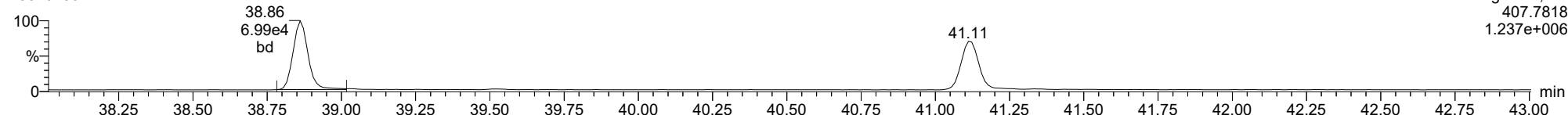
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

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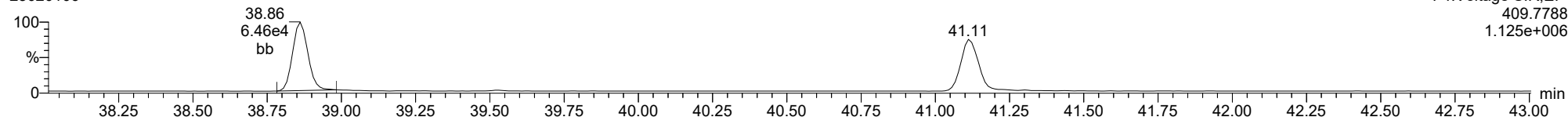
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F4:Voltage SIR,EI+
407.7818
1.237e+006

1234678-HpCDF

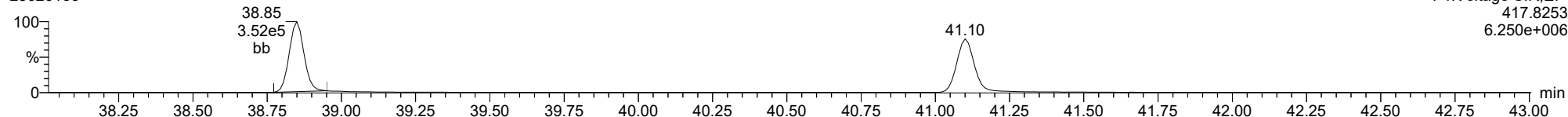
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F4:Voltage SIR,EI+
409.7788
1.125e+006

13C-1234678-HpCDF

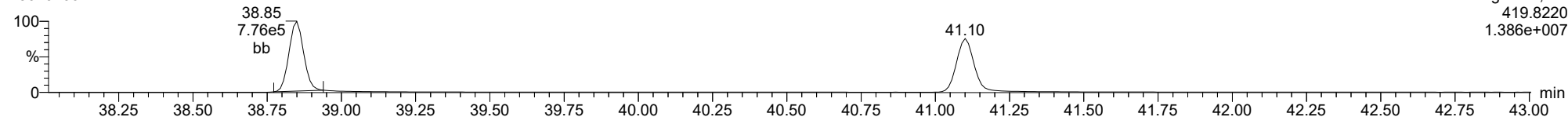
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F4:Voltage SIR,EI+
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6.250e+006

13C-1234678-HpCDF

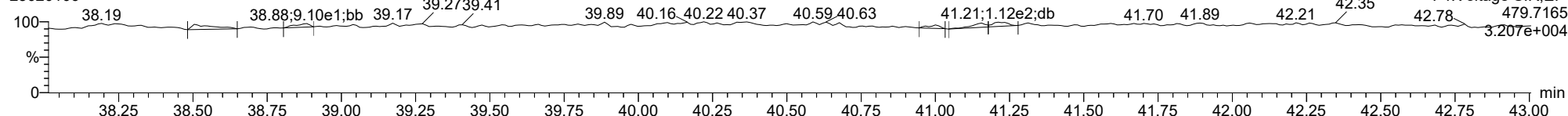
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F4:Voltage SIR,EI+
419.8220
1.386e+007

FUNCTION4 NCDPE

23020106

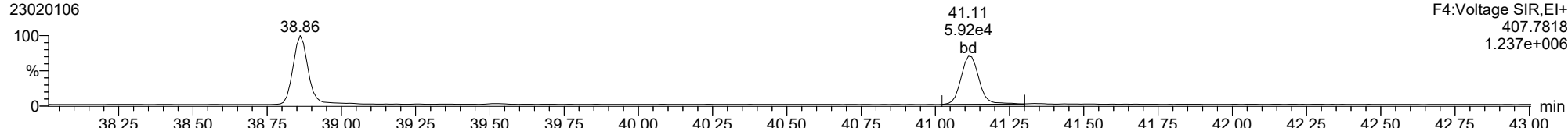


F4:Voltage SIR,EI+
479.7165
3.207e+004

ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

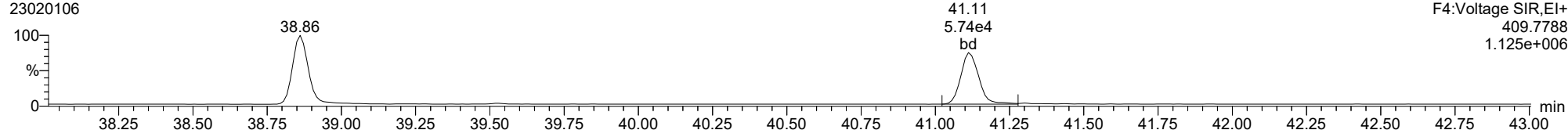
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23020106



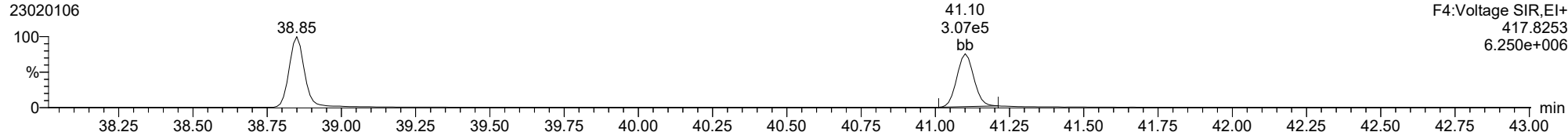
1234789-HpCDF

23020106



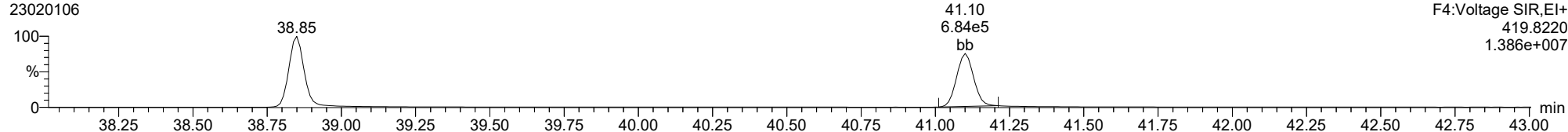
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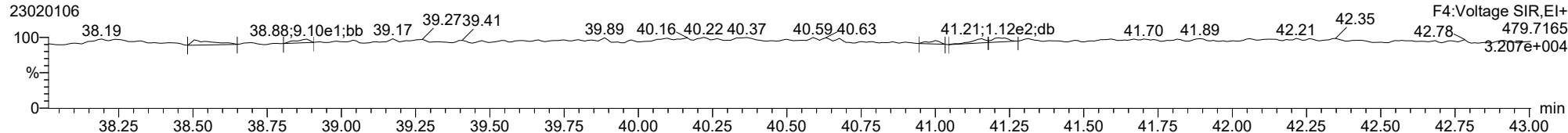
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FUNCTION4 NCDPE

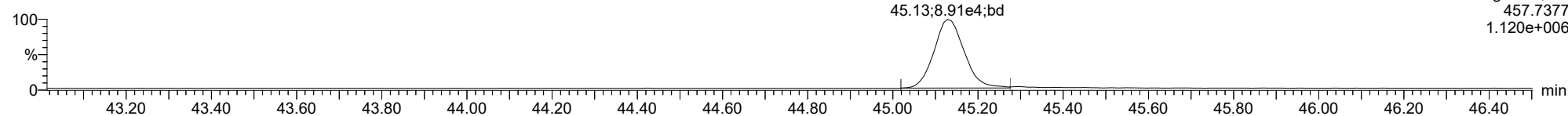
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ID: CS2CR, Name: 23020106, Date: 01-Feb-2023, Time: 17:07:07, Conditions: AUTOSPEC01, User: pk

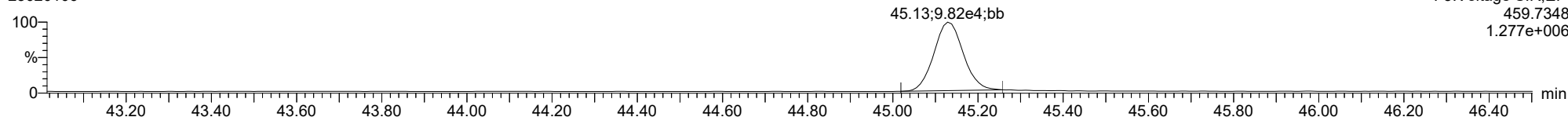
OCDD

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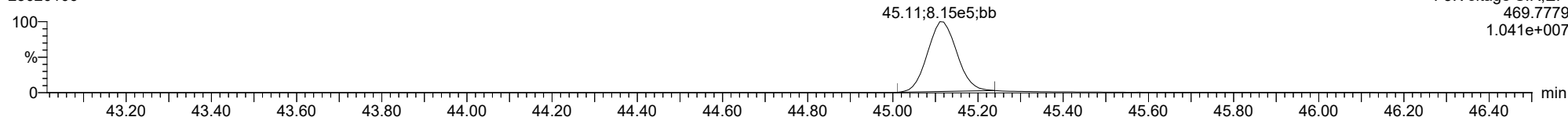
OCDD

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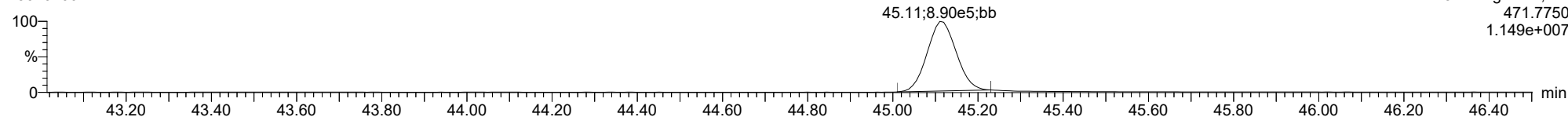
13C-OCDD

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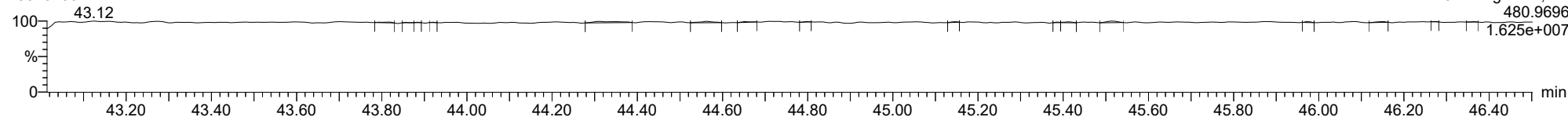
13C-OCDD

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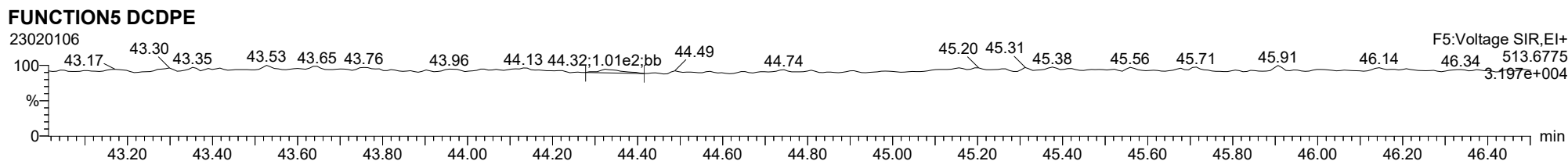
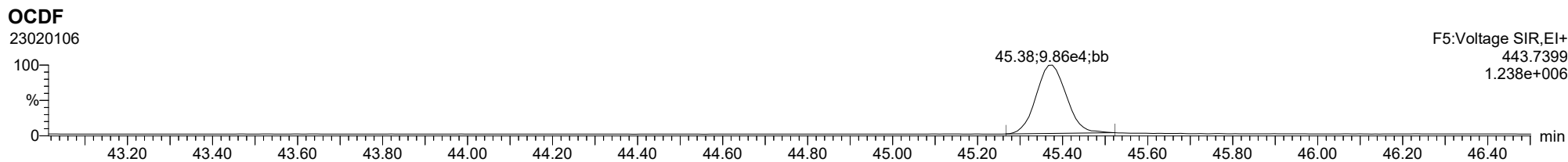
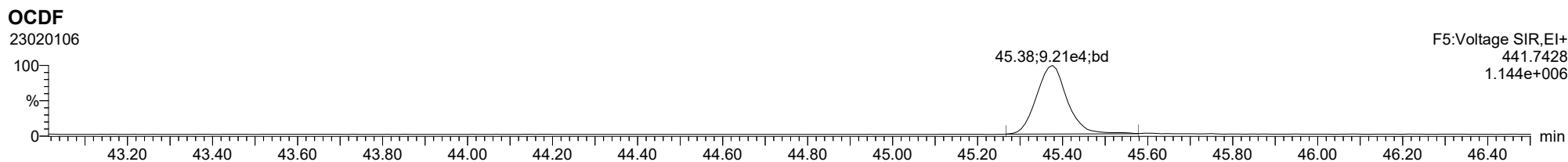


FUNCTION5 PFK

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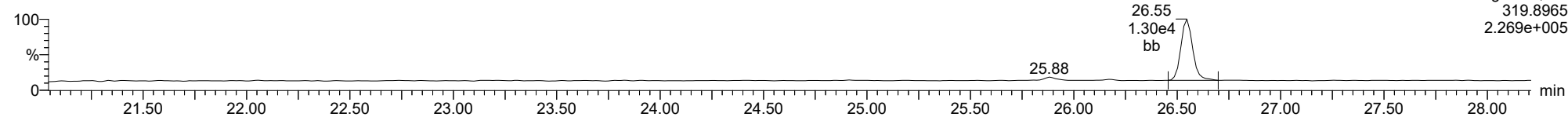
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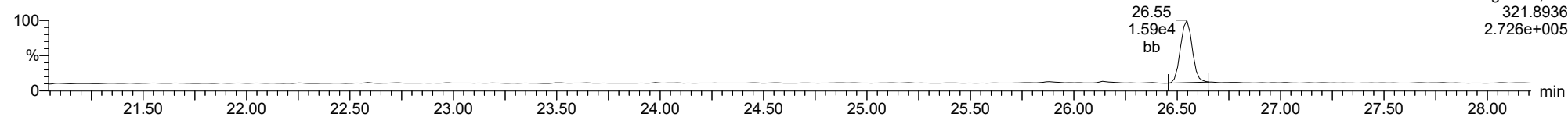
Total-tetradioxins

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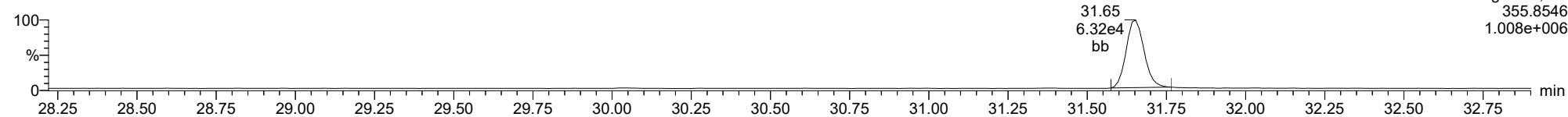
Total-tetradioxins

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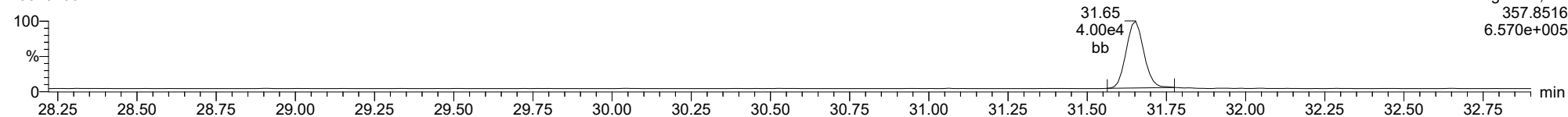
Total-pentadioxins

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Total-pentadioxins

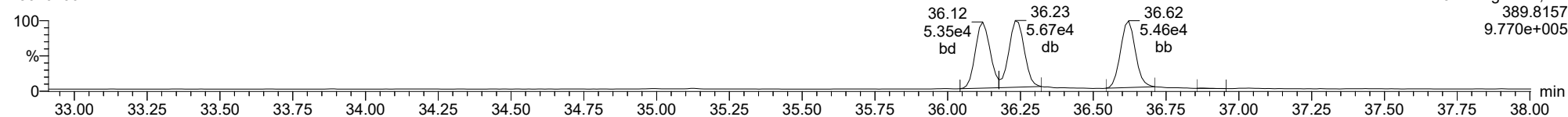
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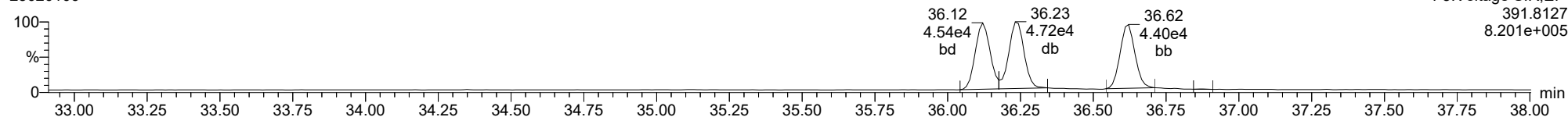
Total-hexadioxins

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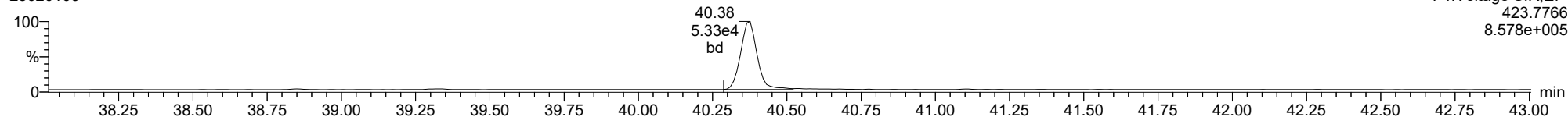
Total-hexadioxins

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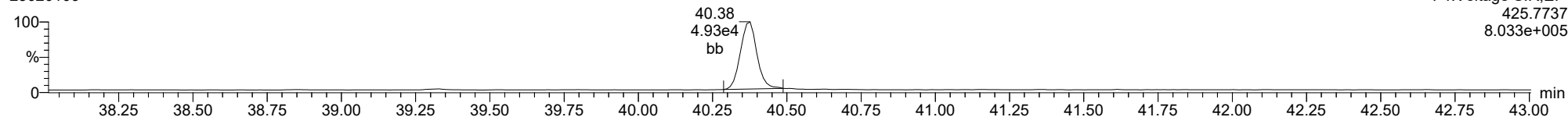
Total-heptadioxins

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Total-heptadioxins

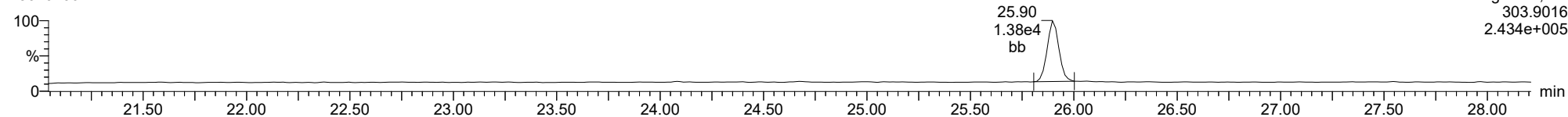
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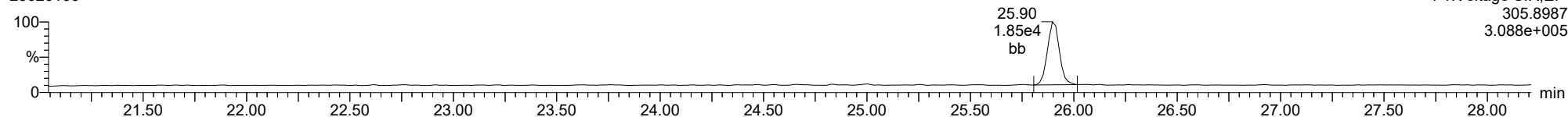
Total-tetrafurans

23020106



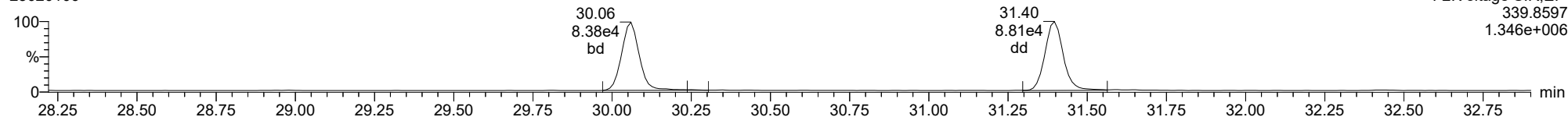
Total-tetrafurans

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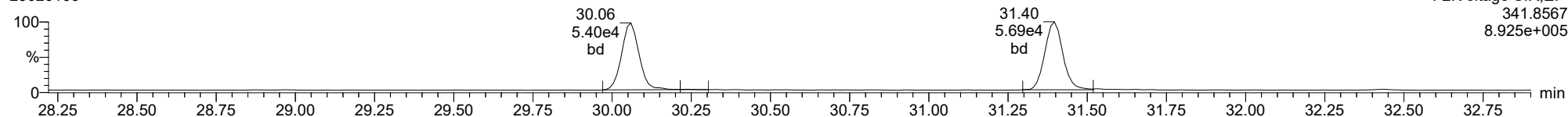
Total-pentafurans

23020106



Total-pentafurans

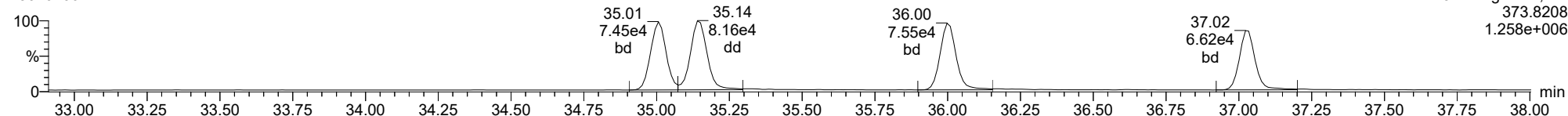
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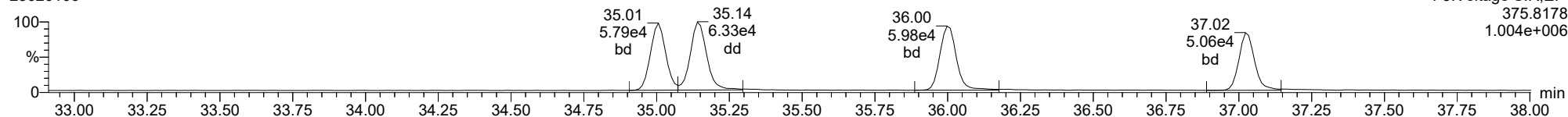
Total-hexafurans

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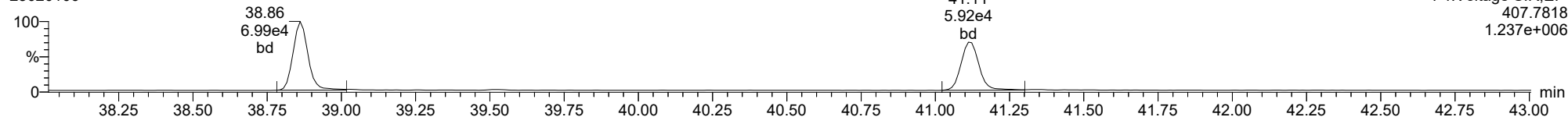
Total-hexafurans

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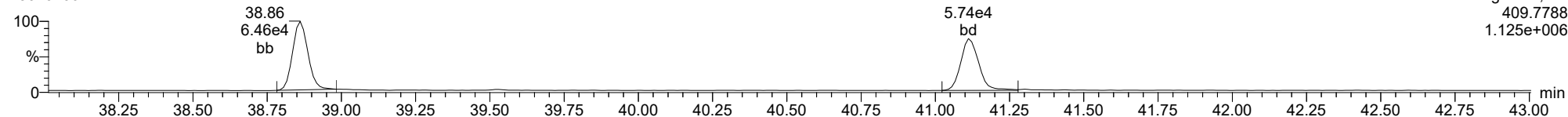
Total-heptafurans

23020106



Total-heptafurans

23020106



Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:37:38 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
Calibration: 03 Feb 2023 10:33:40

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.882	1.001	6.453e4	8.749e4	0.876	0.738	0.770	1099	2026	9.86e5	1.33e6	897.2	656.5	NO	bb	bb	10.343
12378-PeCDF	30.048	1.001	3.683e5	2.382e5	0.845	1.546	1.550	3190	2595	5.70e6	3.69e6	1785.6	1421.3	NO	bb	bb	49.054
23478-PeCDF	31.385	1.001	3.878e5	2.552e5	0.911	1.520	1.550	3190	2595	5.98e6	3.95e6	1875.0	1521.7	NO	bb	bb	49.735
123478-HxCDF	34.995	1.001	3.439e5	2.707e5	1.182	1.271	1.240	3530	2719	5.57e6	4.47e6	1578.6	1645.2	NO	bd	bd	49.384
234678-HxCDF	35.987	1.000	3.473e5	2.734e5	1.229	1.270	1.240	3530	2719	5.49e6	4.36e6	1554.3	1603.8	NO	bd	bd	50.511
123678-HxCDF	35.129	1.000	3.705e5	2.941e5	1.248	1.260	1.240	3530	2719	5.50e6	4.37e6	1557.7	1606.9	NO	db	db	49.292
123789-HxCDF	37.012	1.000	3.044e5	2.379e5	1.187	1.279	1.240	3530	2719	4.78e6	3.76e6	1354.6	1383.4	NO	bb	bd	49.842
1234678-HpCDF	38.850	1.000	2.941e5	2.898e5	1.204	1.015	1.050	2499	2461	4.94e6	4.87e6	1976.6	1980.3	NO	bb	bb	47.249
1234789-HpCDF	41.100	1.000	2.575e5	2.639e5	1.165	0.976	1.050	2499	2461	3.86e6	3.76e6	1546.5	1528.6	NO	bb	bb	48.293
OCDF	45.357	1.006	3.904e5	4.394e5	1.186	0.889	0.890	2361	1464	4.77e6	5.34e6	2021.3	3646.6	NO	bb	bb	88.323
2378-TCDD	26.532	1.001	5.783e4	7.140e4	1.236	0.810	0.770	1261	1356	8.71e5	1.09e6	690.6	804.6	NO	bb	bb	9.200
12378-PeCDD	31.642	1.001	2.871e5	1.811e5	1.087	1.585	1.550	1935	1700	4.52e6	2.88e6	2335.1	1692.4	NO	bb	bb	49.835
123478-HxCDD	36.109	1.000	2.492e5	2.039e5	0.987	1.222	1.240	2775	1957	4.32e6	3.49e6	1555.2	1781.3	NO	bd	bd	49.339
123678-HxCDD	36.221	1.000	2.605e5	2.153e5	1.021	1.210	1.240	2775	1957	4.30e6	3.56e6	1550.9	1817.2	NO	db	db	49.052
123789-HxCDD	36.611	1.011	2.521e5	2.108e5	0.985	1.196	1.240	2775	1957	4.16e6	3.46e6	1500.2	1770.2	NO	bb	bb	49.951
1234678-HpCDD	40.354	1.000	2.309e5	2.219e5	1.253	1.041	1.050	2551	2394	3.57e6	3.40e6	1399.4	1422.4	NO	bb	bb	46.332
OCDD	45.119	1.000	3.877e5	4.205e5	1.103	0.922	0.890	2154	2574	4.65e6	5.24e6	2156.8	2035.9	NO	bd	bb	92.549
13C-2378-TCDF	25.867	1.007	7.414e5	9.363e5	1.768	0.792	0.770	2053	1619	1.15e7	1.43e7	5585.3	8856.7	NO	bb	bb	94.656
13C-12378-PeCDF	30.026	1.168	8.877e5	5.760e5	1.527	1.541	1.550	2967	1853	1.38e7	8.94e6	4662.3	4827.2	NO	bb	bb	95.615
13C-23478-PeCDF	31.363	1.220	8.562e5	5.626e5	1.466	1.522	1.550	2967	1853	1.33e7	8.64e6	4491.7	4663.8	NO	bb	bb	96.525
13C-123478-HxCDF	34.973	0.956	3.562e5	6.970e5	1.054	0.511	0.510	1992	2758	5.88e6	1.16e7	2952.0	4191.7	NO	bd	bd	100.726
13C-123678-HxCDF	35.118	0.960	3.647e5	7.156e5	1.080	0.510	0.510	1992	2758	5.88e6	1.14e7	2953.9	4143.1	NO	db	db	100.801
13C-234678-HxCDF	35.975	0.983	3.384e5	6.615e5	1.014	0.512	0.510	1992	2758	5.68e6	1.10e7	2849.9	4002.3	NO	bb	bb	99.342
13C-123789-HxCDF	37.000	1.011	3.154e5	6.016e5	0.928	0.524	0.510	1992	2758	5.40e6	1.05e7	2709.2	3801.7	NO	bb	bb	99.581
13C-1234678-HpCDF	38.839	1.061	3.227e5	7.036e5	1.036	0.459	0.440	2621	3052	5.41e6	1.21e7	2065.5	3959.7	NO	bb	bb	99.821
13C-1234789-HpCDF	41.089	1.123	2.972e5	6.294e5	0.905	0.472	0.440	2621	3052	4.32e6	9.59e6	1649.5	3143.4	NO	bd	bb	103.177
13C-1234-TCDD	25.700	0.000	4.469e5	5.555e5	1.000	0.804	0.770	2398	1542	7.04e6	8.78e6	2935.5	5692.9	NO	bb	bb	100.000
13C-2378-TCDD	26.517	1.032	4.991e5	6.371e5	1.103	0.783	0.770	2398	1542	7.48e6	9.58e6	3119.3	6212.6	NO	bb	bb	102.763
13C-12378-PeCDD	31.619	1.230	5.354e5	3.292e5	0.914	1.626	1.550	1302	1293	8.28e6	5.07e6	6359.2	3923.9	NO	bb	bb	94.346
13C-123478-HxCDD	36.098	0.987	5.251e5	4.053e5	0.933	1.296	1.240	1973	3288	8.80e6	6.71e6	4459.6	2041.7	NO	bd	bd	100.495
13C-123678-HxCDD	36.209	0.990	5.354e5	4.149e5	0.965	1.291	1.240	1973	3288	8.89e6	6.90e6	4507.2	2100.1	NO	db	db	99.280
13C-1234678-HpCDD	40.343	1.103	4.018e5	3.784e5	0.782	1.062	1.050	1997	2297	6.40e6	6.01e6	3207.1	2617.9	NO	bb	bb	100.543
13C-OCDD	45.101	1.233	7.578e5	8.262e5	0.788	0.917	0.890	2644	3522	9.52e6	1.02e7	3599.3	2906.4	NO	bb	bb	202.502
13C-123789-HxCDD	36.588	0.000	5.534e5	4.389e5	1.000	1.261	1.240	1973	3288	9.19e6	7.27e6	4657.5	2210.2	NO	bb	bb	100.000
37CL-2378-TCDD	26.532	1.032	1.115e5		1.233			1579		1.70e6		1075.4			bb		9.021

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:37:38 Pacific Standard Time

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.389	0.866	7.831e4	1.003e5	1.064	0.781	0.770	1099	2026	1.24e6	1.58e6	1124.6	780.3	NO	bb	bb	10.000
1289-TCDF	27.378	1.058	6.314e4	8.075e4	0.858	0.782	0.770	1099	2026	9.07e5	1.18e6	825.1	582.8	NO	db	db	10.000
13468-PECDF	27.243	0.907	4.504e5	2.910e5	1.013	1.548	1.550	1001	928	7.08e6	4.58e6	7076.3	4935.5	NO	bb	bb	50.000
12389-PECDF	32.422	1.080	3.693e5	2.481e5	0.844	1.488	1.550	3190	2595	5.63e6	3.73e6	1765.9	1435.6	NO	bb	bb	50.000
123468-HXCDF	33.335	0.953	3.538e5	2.768e5	1.197	1.278	1.240	3530	2719	5.41e6	4.18e6	1531.9	1537.1	NO	bb	bd	50.000
1368-TCDD	23.659	0.892	5.365e4	6.956e4	1.084	0.771	0.770	1261	1356	8.58e5	1.11e6	680.3	820.3	NO	bb	bb	10.000
1289-TCDD	27.122	1.023	4.896e4	6.184e4	0.975	0.792	0.770	1261	1356	7.39e5	9.25e5	586.4	682.2	NO	bb	bb	10.000
12479-PECDD	28.912	0.914	4.860e5	3.082e5	1.837	1.577	1.550	1935	1700	4.68e6	2.92e6	2418.8	1714.3	NO	bb	bb	50.000
12389-PECDD	32.032	1.013	3.312e5	2.102e5	1.252	1.576	1.550	1935	1700	5.26e6	3.30e6	2720.3	1940.3	NO	bb	bb	50.000
124679-HXCDD	34.104	0.945	2.650e5	2.155e5	1.033	1.230	1.240	2775	1957	4.22e6	3.42e6	1521.7	1748.3	NO	bb	bb	50.000
1234679-HPCDD	39.307	0.974	2.579e5	2.438e5	1.286	1.058	1.050	2551	2394	4.26e6	3.98e6	1669.1	1662.1	NO	bb	bb	50.000
Total-tetrafurans			2.076e5		0.933			1099		3.16e6							30.586
Total-penta1			4.504e5					1001		7.08e6							50.000
Total-pentafurans			1.187e6		0.866			3190		1.83e7							156.881
Total-hexafurans			1.720e6		1.208			3530		2.67e7							249.030
Total-heptafurans			5.536e5		1.185			2499		8.83e6							95.864
Total-Furans			4.509e6		1.067			1099		6.89e7							670.685
Total-tetradoxins			2.732e5		1.099			1261		3.78e6							49.490
Total-pentadoxins			1.106e6		1.392			1935		1.45e7							150.052
Total-hexadoxins			1.027e6		1.007			2775		1.70e7							198.343
Total-heptadoxins			4.888e5		1.269			2551		7.83e6							96.332
Total-Dioxins			3.282e6		1.165			1261		4.77e7							586.766
Total-TEQ			7.791e6					1261		1.17e8							1257.451
FUNCTION1 PFK			2.071e7					567379		2.38e8							
FUNCTION2 PFK			0.000e0					180306		0.00e0							
FUNCTION3 PFK			2.786e4					420708		9.12e5							0.000
FUNCTION4 PFK			7.534e5					257681		1.24e7							
FUNCTION5 PFK			1.239e5					175535		5.02e6							
FUNCTION1 HXCD...			1.237e3					791		2.01e4							0.000
FUNCTION1 HPCD...			1.368e3					947		2.24e4							0.000
FUNCTION2 HPCD...			4.817e2					887		9.10e3							0.000
FUNCTION3 OCDPE			4.485e2					809		9.17e3							0.000
FUNCTION4 NCDPE			3.809e2					922		7.31e3							0.000
FUNCTION5 DCDPE			0.000e0					753		0.00e0							

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:37:38 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33

Calibration: 03 Feb 2023 10:33:40

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	6.314e4	8.075e4	0.858	0.78	0.77	825.1	YES	NO	db	db	10.000
2	Total-tetrafurans	27.24	1.177e3	1.490e3	0.933	0.79	0.77	17.2	YES	NO	bd	bd	0.170
3	2378-TCDF	25.88	6.453e4	8.749e4	0.876	0.74	0.77	897.2	YES	NO	bb	bb	10.343
4	Total-tetrafurans	24.81	4.913e2	6.353e2	0.933	0.77	0.77	7.1	YES	NO	dd	db	0.072
5	1368-TCDF	22.39	7.831e4	1.003e5	1.064	0.78	0.77	1124.6	YES	NO	bb	bb	10.000

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.24	4.504e5	2.910e5	1.013	1.55	1.55	7076.3	YES	NO	bb	bb	50.000

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDF	32.42	3.693e5	2.481e5	0.844	1.49	1.55	1765.9	YES	NO	bb	bb	50.000
2	23478-PeCDF	31.39	3.878e5	2.552e5	0.911	1.52	1.55	1875.0	YES	NO	bb	bb	49.735
3	12378-PeCDF	30.05	3.683e5	2.382e5	0.845	1.55	1.55	1785.6	YES	NO	bb	bb	49.054
4	Total-pentafurans	28.90	6.175e4	3.932e4	0.866	1.57	1.55	301.5	YES	NO	bb	bb	8.093

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDF	35.13	3.705e5	2.941e5	1.248	1.26	1.24	1557.7	YES	NO	db	db	49.292
2	123478-HxCDF	34.99	3.439e5	2.707e5	1.182	1.27	1.24	1578.6	YES	NO	bd	bd	49.384
3	123468-HxCDF	33.34	3.538e5	2.768e5	1.197	1.28	1.24	1531.9	YES	NO	bb	bd	50.000
4	123789-HxCDF	37.01	3.044e5	2.379e5	1.187	1.28	1.24	1354.6	YES	NO	bb	bd	49.842
5	234678-HxCDF	35.99	3.473e5	2.734e5	1.229	1.27	1.24	1554.3	YES	NO	bd	bd	50.511

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.10	2.575e5	2.639e5	1.165	0.98	1.05	1546.5	YES	NO	bb	bb	48.293
2	Total-heptafurans	39.51	1.970e3	1.765e3	1.185	1.12	1.05	11.2	YES	NO	bb	bb	0.323
3	1234678-HpCDF	38.85	2.941e5	2.898e5	1.204	1.01	1.05	1976.6	YES	NO	bb	bb	47.249

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Printed: Friday, February 03, 2023 10:37:38 Pacific Standard Time

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	6.314e4	8.075e4	0.858	0.78	0.77	825.1	YES	NO	db	db	10.000
2	Total-tetrafurans	27.24	1.177e3	1.490e3	0.933	0.79	0.77	17.2	YES	NO	bd	bd	0.170
3	2378-TCDF	25.88	6.453e4	8.749e4	0.876	0.74	0.77	897.2	YES	NO	bb	bb	10.343
4	Total-tetrafurans	24.81	4.913e2	6.353e2	0.933	0.77	0.77	7.1	YES	NO	dd	db	0.072
5	1368-TCDF	22.39	7.831e4	1.003e5	1.064	0.78	0.77	1124.6	YES	NO	bb	bb	10.000
6	12389-PECDF	32.42	3.693e5	2.481e5	0.844	1.49	1.55	1765.9	YES	NO	bb	bb	50.000
7	23478-PeCDF	31.39	3.878e5	2.552e5	0.911	1.52	1.55	1875.0	YES	NO	bb	bb	49.735
8	12378-PeCDF	30.05	3.683e5	2.382e5	0.845	1.55	1.55	1785.6	YES	NO	bb	bb	49.054
9	Total-pentafurans	28.90	6.175e4	3.932e4	0.866	1.57	1.55	301.5	YES	NO	bb	bb	8.093
10	123678-HxCDF	35.13	3.705e5	2.941e5	1.248	1.26	1.24	1557.7	YES	NO	db	db	49.292
11	123478-HxCDF	34.99	3.439e5	2.707e5	1.182	1.27	1.24	1578.6	YES	NO	bd	bd	49.384
12	123468-HxCDF	33.34	3.538e5	2.768e5	1.197	1.28	1.24	1531.9	YES	NO	bb	bd	50.000
13	123789-HxCDF	37.01	3.044e5	2.379e5	1.187	1.28	1.24	1354.6	YES	NO	bb	bd	49.842
14	234678-HxCDF	35.99	3.473e5	2.734e5	1.229	1.27	1.24	1554.3	YES	NO	bd	bd	50.511
15	1234789-HpCDF	41.10	2.575e5	2.639e5	1.165	0.98	1.05	1546.5	YES	NO	bb	bb	48.293
16	Total-heptafurans	39.51	1.970e3	1.765e3	1.185	1.12	1.05	11.2	YES	NO	bb	bb	0.323
17	1234678-HpCDF	38.85	2.941e5	2.898e5	1.204	1.01	1.05	1976.6	YES	NO	bb	bb	47.249
18	OCDF	45.36	3.904e5	4.394e5	1.186	0.89	0.89	2021.3	YES	NO	bb	bb	88.323
19	13468-PECDF	27.24	4.504e5	2.910e5	1.013	1.55	1.55	7076.3	YES	NO	bb	bb	50.000

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDD	27.12	4.896e4	6.184e4	0.975	0.79	0.77	586.4	YES	NO	bb	bb	10.000
2	2378-TCDD	26.53	5.783e4	7.140e4	1.236	0.81	0.77	690.6	YES	NO	bb	bb	9.200
3	Total-tetradioxins	26.20	8.471e4	1.070e5	1.099	0.79	0.77	703.2	YES	NO	bb	bb	15.362
4	Total-tetradioxins	25.72	2.731e4	3.262e4	1.099	0.84	0.77	331.8	YES	NO	bd	bb	4.800
5	Total-tetradioxins	25.14	7.197e2	8.821e2	1.099	0.82	0.77	7.0	YES	NO	bb	bb	0.128
6	1368-TCDD	23.66	5.365e4	6.956e4	1.084	0.77	0.77	680.3	YES	NO	bb	bb	10.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Printed: Friday, February 03, 2023 10:37:38 Pacific Standard Time

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	32.03	3.312e5	2.102e5	1.252	1.58	1.55	2720.3	YES	NO	bb	bb	50.000
2	12378-PeCDD	31.64	2.871e5	1.811e5	1.087	1.59	1.55	2335.1	YES	NO	bb	bb	49.835
3	Total-pentadioxins	30.97	1.319e3	9.625e2	1.392	1.37	1.55	9.7	YES	NO	bb	bb	0.190
4	Total-pentadioxins	29.24	2.122e2	1.231e2	1.392	1.72	1.55	2.9	NO	NO	bb	bb	0.028
5	12479-PECDD	28.91	4.860e5	3.082e5	1.837	1.58	1.55	2418.8	YES	NO	bb	bb	50.000

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	124679-HxCDD	34.10	2.650e5	2.155e5	1.033	1.23	1.24	1521.7	YES	NO	bb	bb	50.000
2	123789-HxCDD	36.61	2.521e5	2.108e5	0.985	1.20	1.24	1500.2	YES	NO	bb	bb	49.951
3	123678-HxCDD	36.22	2.605e5	2.153e5	1.021	1.21	1.24	1550.9	YES	NO	db	db	49.052
4	123478-HxCDD	36.11	2.492e5	2.039e5	0.987	1.22	1.24	1555.2	YES	NO	bd	bd	49.339

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.35	2.309e5	2.219e5	1.253	1.04	1.05	1399.4	YES	NO	bb	bb	46.332
2	1234679-HPCDD	39.31	2.579e5	2.438e5	1.286	1.06	1.05	1669.1	YES	NO	bb	bb	50.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:38 Pacific Standard Time

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDD	27.12	4.896e4	6.184e4	0.975	0.79	0.77	586.4	YES	NO	bb	bb	10.000
2	2378-TCDD	26.53	5.783e4	7.140e4	1.236	0.81	0.77	690.6	YES	NO	bb	bb	9.200
3	Total-tetradoxins	26.20	8.471e4	1.070e5	1.099	0.79	0.77	703.2	YES	NO	bb	bb	15.362
4	Total-tetradoxins	25.72	2.731e4	3.262e4	1.099	0.84	0.77	331.8	YES	NO	bd	bb	4.800
5	Total-tetradoxins	25.14	7.197e2	8.821e2	1.099	0.82	0.77	7.0	YES	NO	bb	bb	0.128
6	1368-TCDD	23.66	5.365e4	6.956e4	1.084	0.77	0.77	680.3	YES	NO	bb	bb	10.000
7	12389-PECDD	32.03	3.312e5	2.102e5	1.252	1.58	1.55	2720.3	YES	NO	bb	bb	50.000
8	12378-PeCDD	31.64	2.871e5	1.811e5	1.087	1.59	1.55	2335.1	YES	NO	bb	bb	49.835
9	Total-pentadoxins	30.97	1.319e3	9.625e2	1.392	1.37	1.55	9.7	YES	NO	bb	bb	0.190
10	Total-pentadoxins	29.24	2.122e2	1.231e2	1.392	1.72	1.55	2.9	NO	NO	bb	bb	0.028
11	12479-PECDD	28.91	4.860e5	3.082e5	1.837	1.58	1.55	2418.8	YES	NO	bb	bb	50.000
12	124679-HxCDD	34.10	2.650e5	2.155e5	1.033	1.23	1.24	1521.7	YES	NO	bb	bb	50.000
13	123789-HxCDD	36.61	2.521e5	2.108e5	0.985	1.20	1.24	1500.2	YES	NO	bb	bb	49.951
14	123678-HxCDD	36.22	2.605e5	2.153e5	1.021	1.21	1.24	1550.9	YES	NO	db	db	49.052
15	123478-HxCDD	36.11	2.492e5	2.039e5	0.987	1.22	1.24	1555.2	YES	NO	bd	bd	49.339
16	1234678-HpCDD	40.35	2.309e5	2.219e5	1.253	1.04	1.05	1399.4	YES	NO	bb	bb	46.332
17	1234679-HPCDD	39.31	2.579e5	2.438e5	1.286	1.06	1.05	1669.1	YES	NO	bb	bb	50.000
18	OCDD	45.12	3.877e5	4.205e5	1.103	0.92	0.89	2156.8	YES	NO	bd	bb	92.549

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Printed: Friday, February 03, 2023 10:37:38 Pacific Standard Time

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	6.314e4	8.075e4	0.858	0.78	0.77	825.1	YES	NO	db	db	10.000
2	Total-tetrafurans	27.24	1.177e3	1.490e3	0.933	0.79	0.77	17.2	YES	NO	bd	bd	0.170
3	2378-TCDF	25.88	6.453e4	8.749e4	0.876	0.74	0.77	897.2	YES	NO	bb	bb	10.343
4	Total-tetrafurans	24.81	4.913e2	6.353e2	0.933	0.77	0.77	7.1	YES	NO	dd	db	0.072
5	1368-TCDF	22.39	7.831e4	1.003e5	1.064	0.78	0.77	1124.6	YES	NO	bb	bb	10.000
6	12389-PECDF	32.42	3.693e5	2.481e5	0.844	1.49	1.55	1765.9	YES	NO	bb	bb	50.000
7	23478-PeCDF	31.39	3.878e5	2.552e5	0.911	1.52	1.55	1875.0	YES	NO	bb	bb	49.735
8	12378-PeCDF	30.05	3.683e5	2.382e5	0.845	1.55	1.55	1785.6	YES	NO	bb	bb	49.054
9	Total-pentafurans	28.90	6.175e4	3.932e4	0.866	1.57	1.55	301.5	YES	NO	bb	bb	8.093
10	123678-HxCDF	35.13	3.705e5	2.941e5	1.248	1.26	1.24	1557.7	YES	NO	db	db	49.292
11	123478-HxCDF	34.99	3.439e5	2.707e5	1.182	1.27	1.24	1578.6	YES	NO	bd	bd	49.384
12	123468-HxCDF	33.34	3.538e5	2.768e5	1.197	1.28	1.24	1531.9	YES	NO	bb	bd	50.000
13	123789-HxCDF	37.01	3.044e5	2.379e5	1.187	1.28	1.24	1354.6	YES	NO	bb	bd	49.842
14	234678-HxCDF	35.99	3.473e5	2.734e5	1.229	1.27	1.24	1554.3	YES	NO	bd	bd	50.511
15	1234789-HpCDF	41.10	2.575e5	2.639e5	1.165	0.98	1.05	1546.5	YES	NO	bb	bb	48.293
16	Total-heptafurans	39.51	1.970e3	1.765e3	1.185	1.12	1.05	11.2	YES	NO	bb	bb	0.323
17	1234678-HpCDF	38.85	2.941e5	2.898e5	1.204	1.01	1.05	1976.6	YES	NO	bb	bb	47.249
18	OCDF	45.36	3.904e5	4.394e5	1.186	0.89	0.89	2021.3	YES	NO	bb	bb	88.323
19	13468-PECDF	27.24	4.504e5	2.910e5	1.013	1.55	1.55	7076.3	YES	NO	bb	bb	50.000
20	1289-TCDD	27.12	4.896e4	6.184e4	0.975	0.79	0.77	586.4	YES	NO	bb	bb	10.000
21	2378-TCDD	26.53	5.783e4	7.140e4	1.236	0.81	0.77	690.6	YES	NO	bb	bb	9.200
22	Total-tetradioxins	26.20	8.471e4	1.070e5	1.099	0.79	0.77	703.2	YES	NO	bb	bb	15.362
23	Total-tetradioxins	25.72	2.731e4	3.262e4	1.099	0.84	0.77	331.8	YES	NO	bd	bb	4.800
24	Total-tetradioxins	25.14	7.197e2	8.821e2	1.099	0.82	0.77	7.0	YES	NO	bb	bb	0.128
25	1368-TCDD	23.66	5.365e4	6.956e4	1.084	0.77	0.77	680.3	YES	NO	bb	bb	10.000
26	12389-PECDD	32.03	3.312e5	2.102e5	1.252	1.58	1.55	2720.3	YES	NO	bb	bb	50.000
27	12378-PeCDD	31.64	2.871e5	1.811e5	1.087	1.59	1.55	2335.1	YES	NO	bb	bb	49.835
28	Total-pentadioxins	30.97	1.319e3	9.625e2	1.392	1.37	1.55	9.7	YES	NO	bb	bb	0.190
29	Total-pentadioxins	29.24	2.122e2	1.231e2	1.392	1.72	1.55	2.9	NO	NO	bb	bb	0.028
30	12479-PECDD	28.91	4.860e5	3.082e5	1.837	1.58	1.55	2418.8	YES	NO	bb	bb	50.000
31	124679-HXCDD	34.10	2.650e5	2.155e5	1.033	1.23	1.24	1521.7	YES	NO	bb	bb	50.000
32	123789-HxCDD	36.61	2.521e5	2.108e5	0.985	1.20	1.24	1500.2	YES	NO	bb	bb	49.951
33	123678-HxCDD	36.22	2.605e5	2.153e5	1.021	1.21	1.24	1550.9	YES	NO	db	db	49.052
34	123478-HxCDD	36.11	2.492e5	2.039e5	0.987	1.22	1.24	1555.2	YES	NO	bd	bd	49.339
35	1234678-HpCDD	40.35	2.309e5	2.219e5	1.253	1.04	1.05	1399.4	YES	NO	bb	bb	46.332
36	1234679-HPCDD	39.31	2.579e5	2.438e5	1.286	1.06	1.05	1669.1	YES	NO	bb	bb	50.000
37	OCDD	45.12	3.877e5	4.205e5	1.103	0.92	0.89	2156.8	YES	NO	bd	bb	92.549

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Printed: Friday, February 03, 2023 10:37:38 Pacific Standard Time

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.91	6.852e5					20.8	YES		dd		
2	FUNCTION1 PFK	21.84	1.096e6					22.0	YES		dd		
3	FUNCTION1 PFK	21.77	5.746e5					22.9	YES		dd		
4	FUNCTION1 PFK	21.71	1.001e6					23.9	YES		dd		
5	FUNCTION1 PFK	21.59	1.735e6					26.6	YES		dd		
6	FUNCTION1 PFK	21.47	1.869e6					28.4	YES		dd		
7	FUNCTION1 PFK	21.35	2.030e6					30.8	YES		dd		
8	FUNCTION1 PFK	21.25	1.366e6					32.7	YES		dd		
9	FUNCTION1 PFK	21.13	3.514e6					34.9	YES		bd		
10	FUNCTION1 PFK	23.42	1.745e4					0.9	NO		db		
11	FUNCTION1 PFK	23.36	2.629e4					1.1	NO		dd		
12	FUNCTION1 PFK	23.30	5.605e4					1.4	NO		bd		
13	FUNCTION1 PFK	23.16	2.732e4					0.9	NO		bb		
14	FUNCTION1 PFK	22.89	1.080e5					3.0	YES		db		
15	FUNCTION1 PFK	22.81	1.442e5					3.9	YES		dd		
16	FUNCTION1 PFK	22.75	1.516e5					4.8	YES		dd		
17	FUNCTION1 PFK	22.69	1.790e5					5.6	YES		dd		
18	FUNCTION1 PFK	22.56	6.347e5					8.4	YES		dd		
19	FUNCTION1 PFK	22.42	5.662e5					10.5	YES		dd		
20	FUNCTION1 PFK	22.36	4.892e5					12.2	YES		dd		
21	FUNCTION1 PFK	22.30	4.241e5					12.7	YES		dd		
22	FUNCTION1 PFK	22.18	1.005e6					15.7	YES		dd		
23	FUNCTION1 PFK	22.10	6.911e5					16.7	YES		dd		
24	FUNCTION1 PFK	22.04	6.019e5					18.1	YES		dd		
25	FUNCTION1 PFK	21.98	6.245e5					18.6	YES		dd		
26	FUNCTION1 PFK	25.17	1.799e4					0.9	NO		bb		
27	FUNCTION1 PFK	25.05	6.677e4					1.7	NO		bb		
28	FUNCTION1 PFK	24.97	5.669e3					0.4	NO		db		
29	FUNCTION1 PFK	24.93	2.665e4					1.1	NO		bd		
30	FUNCTION1 PFK	24.79	9.106e3					0.5	NO		bb		
31	FUNCTION1 PFK	24.70	2.803e4					1.0	NO		bb		
32	FUNCTION1 PFK	24.60	2.266e4					1.1	NO		bb		
33	FUNCTION1 PFK	24.51	2.481e3					0.3	NO		bb		
34	FUNCTION1 PFK	24.26	2.953e3					0.3	NO		bb		
35	FUNCTION1 PFK	24.07	3.464e4					0.9	NO		db		
36	FUNCTION1 PFK	23.95	2.818e4					0.8	NO		bd		
37	FUNCTION1 PFK	23.86	1.761e4					1.0	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION1 PFK	23.80	2.745e4					1.4	NO		db		
39	FUNCTION1 PFK	23.75	2.279e4					1.2	NO		bd		
40	FUNCTION1 PFK	23.57	1.177e3					0.1	NO		bb		
41	FUNCTION1 PFK	23.51	3.339e4					1.1	NO		bb		
42	FUNCTION1 PFK	26.92	1.624e4					0.8	NO		bd		
43	FUNCTION1 PFK	26.85	6.743e4					2.0	NO		db		
44	FUNCTION1 PFK	26.77	3.605e4					1.4	NO		dd		
45	FUNCTION1 PFK	26.71	5.041e4					1.7	NO		dd		
46	FUNCTION1 PFK	26.64	3.066e4					1.2	NO		dd		
47	FUNCTION1 PFK	26.58	3.222e4					1.5	NO		bd		
48	FUNCTION1 PFK	26.50	4.287e4					1.3	NO		bb		
49	FUNCTION1 PFK	26.32	9.896e3					0.6	NO		bb		
50	FUNCTION1 PFK	26.26	3.724e4					1.5	NO		bb		
51	FUNCTION1 PFK	26.18	3.323e3					0.4	NO		bb		
52	FUNCTION1 PFK	26.05	1.864e4					1.0	NO		bb		
53	FUNCTION1 PFK	25.91	1.114e4					0.6	NO		bb		
54	FUNCTION1 PFK	25.79	1.895e4					1.1	NO		db		
55	FUNCTION1 PFK	25.72	1.527e4					0.8	NO		bd		
56	FUNCTION1 PFK	25.56	6.069e4					1.2	NO		bb		
57	FUNCTION1 PFK	25.32	2.043e4					0.8	NO		bb		
58	FUNCTION1 PFK	28.10	6.905e3					0.5	NO		bb		
59	FUNCTION1 PFK	28.04	4.818e3					0.4	NO		bb		
60	FUNCTION1 PFK	27.71	1.514e4					0.8	NO		bb		
61	FUNCTION1 PFK	27.65	3.709e4					1.3	NO		db		
62	FUNCTION1 PFK	27.59	2.458e4					1.3	NO		dd		
63	FUNCTION1 PFK	27.53	4.906e4					1.8	NO		bd		
64	FUNCTION1 PFK	27.44	2.074e4					1.1	NO		db		
65	FUNCTION1 PFK	27.38	2.487e4					1.2	NO		dd		
66	FUNCTION1 PFK	27.24	6.345e4					1.2	NO		bd		
67	FUNCTION1 PFK	26.99	2.492e4					1.1	NO		db		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.79	2.481e4					1.5	NO		bb		0.000
2	FUNCTION3 PFK	33.58	3.048e3					0.6	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.11	2.881e5					5.9	YES		bd		
2	FUNCTION4 PFK	40.30	1.799e3					0.6	NO		bb		
3	FUNCTION4 PFK	40.24	8.794e3					0.9	NO		bb		
4	FUNCTION4 PFK	39.76	2.592e4					1.9	NO		bb		
5	FUNCTION4 PFK	39.53	1.727e3					0.6	NO		bb		
6	FUNCTION4 PFK	39.42	8.213e3					1.1	NO		db		
7	FUNCTION4 PFK	39.37	5.168e3					0.8	NO		bd		
8	FUNCTION4 PFK	39.28	3.722e4					2.1	NO		bb		
9	FUNCTION4 PFK	39.18	4.002e3					0.6	NO		bb		
10	FUNCTION4 PFK	39.14	3.342e3					0.8	NO		bb		
11	FUNCTION4 PFK	38.74	2.110e3					0.5	NO		bb		
12	FUNCTION4 PFK	38.66	1.735e4					1.0	NO		bb		
13	FUNCTION4 PFK	38.54	3.610e3					0.6	NO		db		
14	FUNCTION4 PFK	38.50	2.411e3					0.6	NO		bd		
15	FUNCTION4 PFK	38.43	2.873e4					2.5	NO		db		
16	FUNCTION4 PFK	38.38	2.222e4					2.3	NO		dd		
17	FUNCTION4 PFK	38.32	4.040e4					3.1	YES		dd		
18	FUNCTION4 PFK	42.54	1.660e3					0.6	NO		bb		
19	FUNCTION4 PFK	42.49	5.115e3					0.7	NO		db		
20	FUNCTION4 PFK	42.43	1.342e4					1.1	NO		dd		
21	FUNCTION4 PFK	42.39	8.107e3					1.2	NO		dd		
22	FUNCTION4 PFK	42.35	1.540e4					1.7	NO		bd		
23	FUNCTION4 PFK	42.28	2.692e4					2.0	NO		bb		
24	FUNCTION4 PFK	41.95	3.858e3					0.8	NO		bb		
25	FUNCTION4 PFK	41.80	3.979e4					2.0	NO		db		
26	FUNCTION4 PFK	41.65	1.699e4					1.5	NO		bd		
27	FUNCTION4 PFK	41.55	1.804e4					1.5	NO		db		
28	FUNCTION4 PFK	41.49	1.585e4					1.6	NO		dd		
29	FUNCTION4 PFK	41.42	1.775e4					1.4	NO		dd		
30	FUNCTION4 PFK	41.29	3.051e4					1.6	NO		bd		
31	FUNCTION4 PFK	41.07	3.910e3					0.8	NO		bb		
32	FUNCTION4 PFK	40.83	2.327e4					1.7	NO		bb		
33	FUNCTION4 PFK	40.44	5.321e3					0.8	NO		bb		
34	FUNCTION4 PFK	42.75	1.970e3					0.4	NO		bb		
35	FUNCTION4 PFK	42.66	4.393e3					0.6	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.93	2.684e3					0.8	NO		bb		
2	FUNCTION5 PFK	44.87	6.256e3					1.5	NO		bb		
3	FUNCTION5 PFK	44.78	1.077e4					1.6	NO		bb		
4	FUNCTION5 PFK	44.72	7.200e2					0.5	NO		bb		
5	FUNCTION5 PFK	44.65	1.235e3					0.8	NO		bb		
6	FUNCTION5 PFK	44.28	7.736e2					0.5	NO		bb		
7	FUNCTION5 PFK	44.24	1.418e3					0.7	NO		db		
8	FUNCTION5 PFK	44.21	4.442e3					1.2	NO		bd		
9	FUNCTION5 PFK	44.18	5.811e3					0.9	NO		bb		
10	FUNCTION5 PFK	43.82	5.499e3					1.3	NO		bb		
11	FUNCTION5 PFK	43.56	1.617e4					1.7	NO		bb		
12	FUNCTION5 PFK	43.36	1.625e3					0.7	NO		bb		
13	FUNCTION5 PFK	43.23	2.679e3					0.9	NO		bb		
14	FUNCTION5 PFK	46.45	4.419e3					1.2	NO		bb		
15	FUNCTION5 PFK	46.36	5.978e3					1.0	NO		bb		
16	FUNCTION5 PFK	46.26	2.259e3					0.8	NO		bb		
17	FUNCTION5 PFK	46.07	3.509e3					1.0	NO		bb		
18	FUNCTION5 PFK	45.84	4.173e3					1.3	NO		bb		
19	FUNCTION5 PFK	45.76	6.984e2					0.4	NO		bb		
20	FUNCTION5 PFK	45.72	1.077e3					0.7	NO		bb		
21	FUNCTION5 PFK	45.60	7.851e2					0.5	NO		bb		
22	FUNCTION5 PFK	45.54	4.517e3					1.2	NO		db		
23	FUNCTION5 PFK	45.49	1.078e4					1.5	NO		dd		
24	FUNCTION5 PFK	45.41	6.756e3					1.7	NO		dd		
25	FUNCTION5 PFK	45.38	1.279e4					2.2	NO		bd		
26	FUNCTION5 PFK	45.28	8.503e2					0.4	NO		bb		
27	FUNCTION5 PFK	45.04	4.420e3					1.2	NO		bb		
28	FUNCTION5 PFK	44.98	7.643e2					0.5	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:38 Pacific Standard Time

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk**ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.82	2.306e2					4.0	YES		db		0.000
2	FUNCTION1 HXCD...	27.74	8.055e1					1.8	NO		bd		0.000
3	FUNCTION1 HXCD...	27.59	1.178e2					2.5	NO		bb		0.000
4	FUNCTION1 HXCD...	27.21	1.030e2					1.7	NO		bb		0.000
5	FUNCTION1 HXCD...	27.02	8.155e1					1.5	NO		db		0.000
6	FUNCTION1 HXCD...	26.85	8.440e1					2.6	NO		bd		0.000
7	FUNCTION1 HXCD...	26.52	1.203e2					2.7	NO		bb		0.000
8	FUNCTION1 HXCD...	25.93	1.681e2					3.0	YES		bb		0.000
9	FUNCTION1 HXCD...	24.22	7.069e1					2.3	NO		bb		0.000
10	FUNCTION1 HXCD...	23.52	8.011e1					1.5	NO		bb		0.000
11	FUNCTION1 HXCD...	21.12	9.981e1					1.8	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	23.48	8.076e1					2.6	NO		bb		0.000
2	FUNCTION1 HPCD...	21.66	8.657e1					2.4	NO		bb		0.000
3	FUNCTION1 HPCD...	21.27	8.855e1					2.3	NO		db		0.000
4	FUNCTION1 HPCD...	21.16	2.367e2					2.7	NO		bd		0.000
5	FUNCTION1 HPCD...	27.79	1.270e2					2.7	NO		bb		0.000
6	FUNCTION1 HPCD...	26.52	1.210e2					2.0	NO		bb		0.000
7	FUNCTION1 HPCD...	25.97	9.169e1					1.5	NO		db		0.000
8	FUNCTION1 HPCD...	25.88	1.471e2					2.3	NO		dd		0.000
9	FUNCTION1 HPCD...	25.73	1.363e2					1.9	NO		bd		0.000
10	FUNCTION1 HPCD...	24.82	1.792e2					1.5	NO		db		0.000
11	FUNCTION1 HPCD...	24.63	7.297e1					1.7	NO		bd		0.000

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.64	8.233e1					2.0	NO		bb		0.000
2	FUNCTION2 HPCD...	31.26	3.994e2					8.3	YES		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:38 Pacific Standard Time

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.42	1.052e2					1.7	NO		bb		0.000
2	FUNCTION3 OCDPE	36.19	9.953e1					2.2	NO		bb		0.000
3	FUNCTION3 OCDPE	34.50	7.262e1					2.2	NO		bb		0.000
4	FUNCTION3 OCDPE	33.58	9.379e1					1.9	NO		bb		0.000
5	FUNCTION3 OCDPE	33.20	7.737e1					3.3	YES		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	42.82	9.720e1					2.9	NO		bb		0.000
2	FUNCTION4 NCDPE	42.34	7.165e1					2.1	NO		bb		0.000
3	FUNCTION4 NCDPE	40.58	7.068e1					1.3	NO		bb		0.000
4	FUNCTION4 NCDPE	40.40	1.414e2					1.7	NO		bb		0.000

ETHERS6

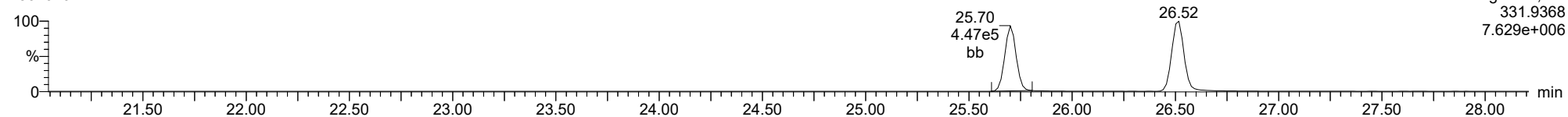
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
Calibration: 03 Feb 2023 10:33:40

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD

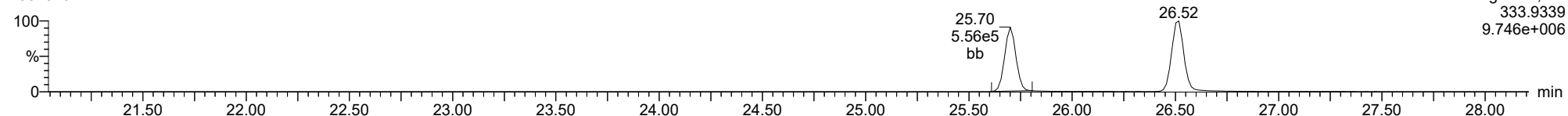
23020107



F1:Voltage SIR,El+
331.9368
7.629e+006

13C-1234-TCDD

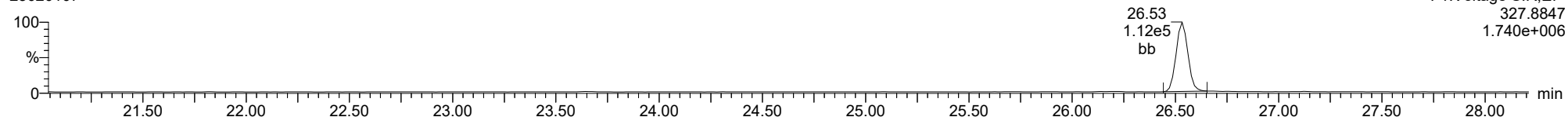
23020107



F1:Voltage SIR,El+
333.9339
9.746e+006

37CL-2378-TCDD

23020107

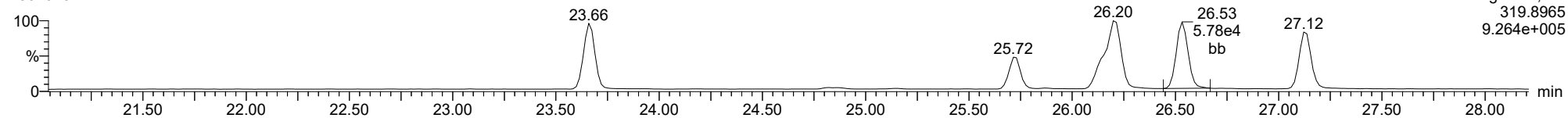


F1:Voltage SIR,El+
327.8847
1.740e+006

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

2378-TCDD

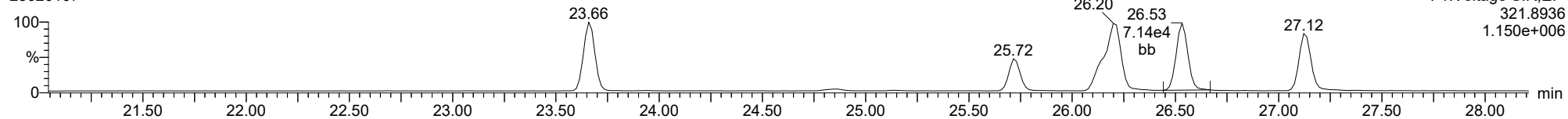
23020107



F1:Voltage SIR,EI+
319.8965
9.264e+005

2378-TCDD

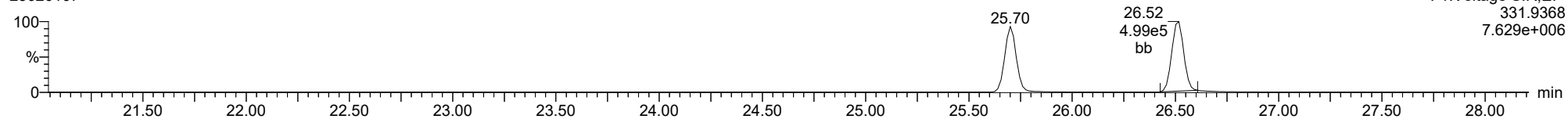
23020107



F1:Voltage SIR,EI+
321.8936
1.150e+006

13C-2378-TCDD

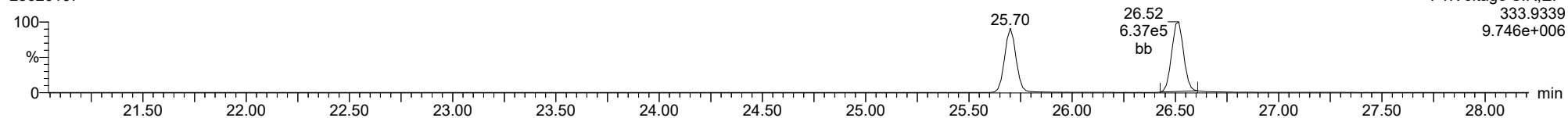
23020107



F1:Voltage SIR,EI+
331.9368
7.629e+006

13C-2378-TCDD

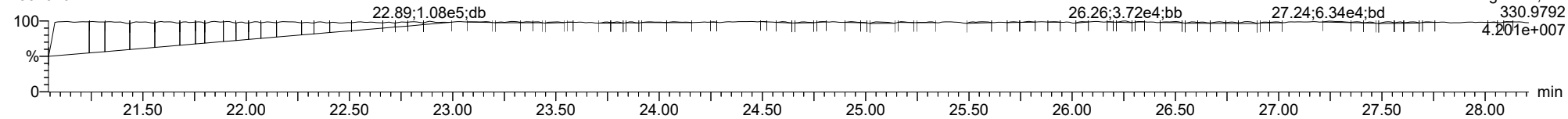
23020107



F1:Voltage SIR,EI+
333.9339
9.746e+006

FUNCTION1 PFK

23020107

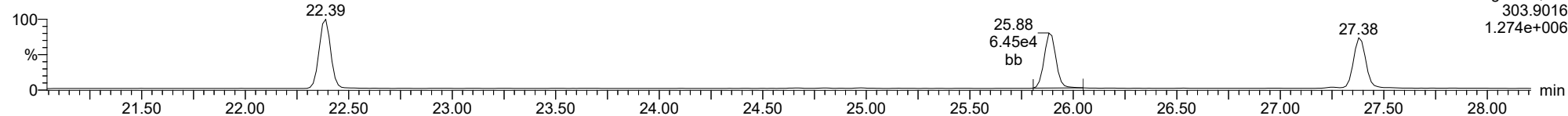


F1:Voltage SIR,EI+
330.9792
4.201e+007

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

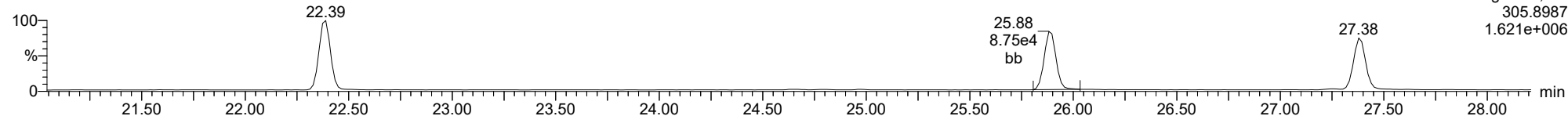
2378-TCDF

23020107



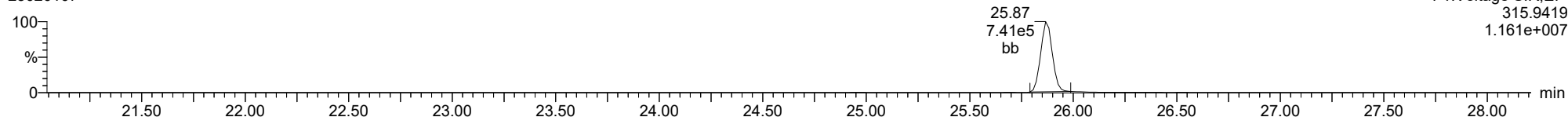
2378-TCDF

23020107



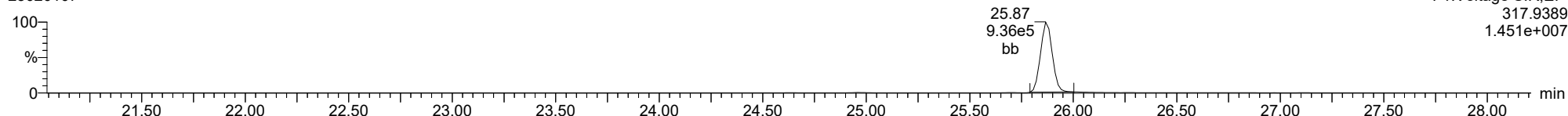
13C-2378-TCDF

23020107



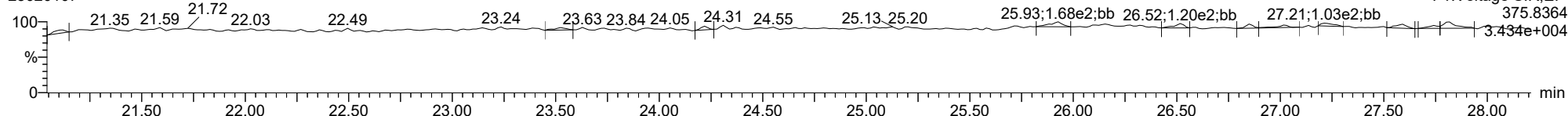
13C-2378-TCDF

23020107



FUNCTION1 HXCDPE

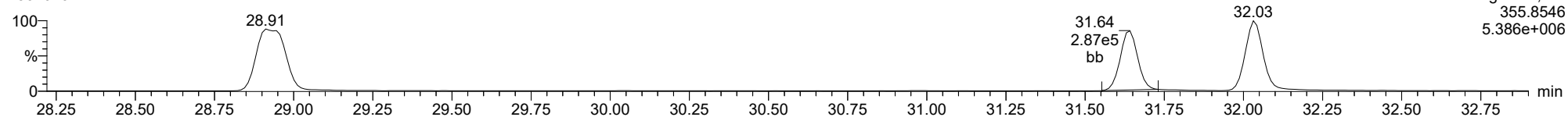
23020107



ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

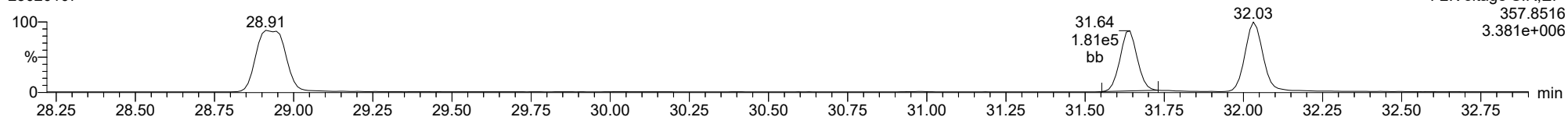
12378-PeCDD

23020107



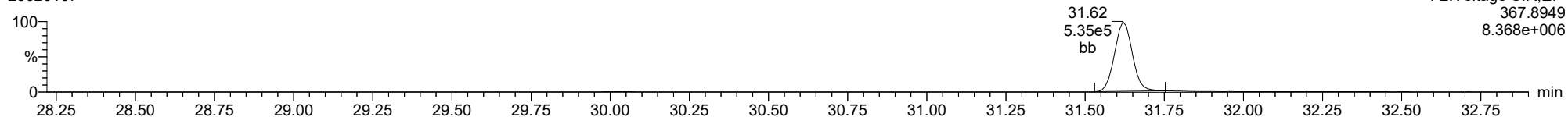
12378-PeCDD

23020107



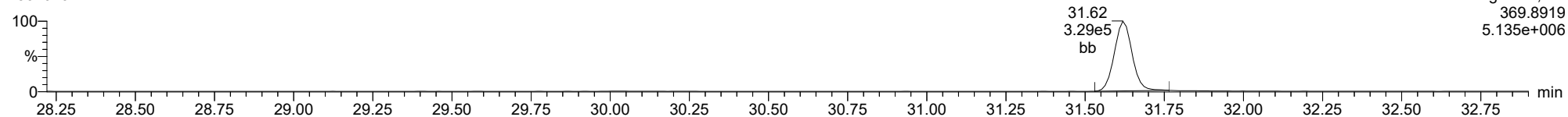
13C-12378-PeCDD

23020107



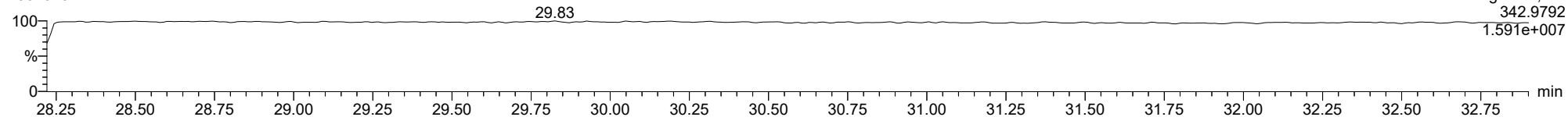
13C-12378-PeCDD

23020107



FUNCTION2 PFK

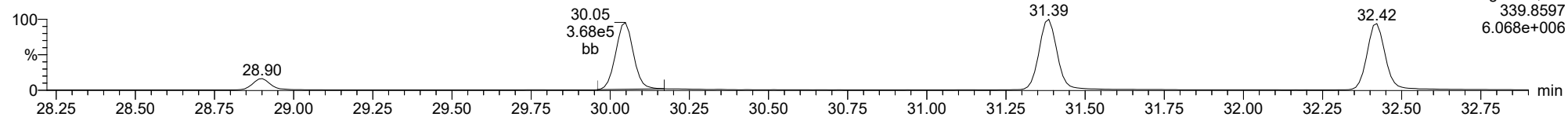
23020107



ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

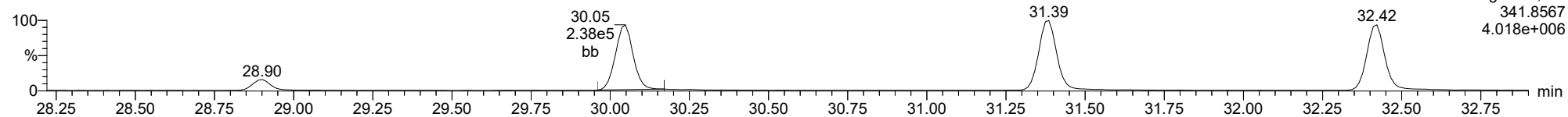
12378-PeCDF

23020107



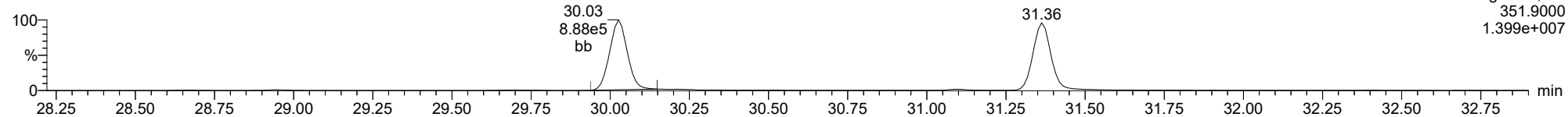
12378-PeCDF

23020107



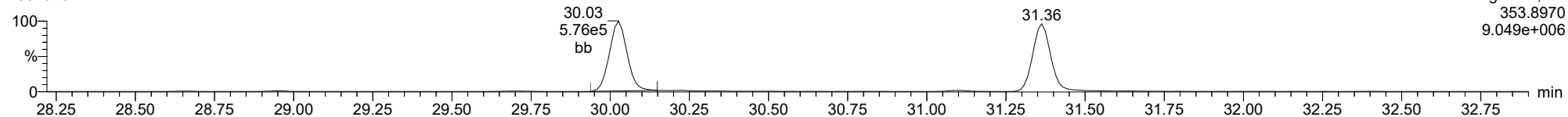
13C-12378-PeCDF

23020107



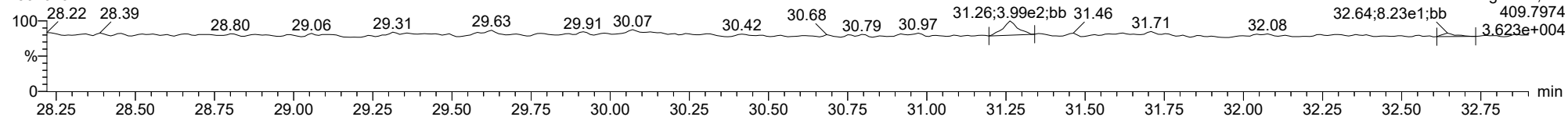
13C-12378-PeCDF

23020107



FUNCTION2 HPCDPE

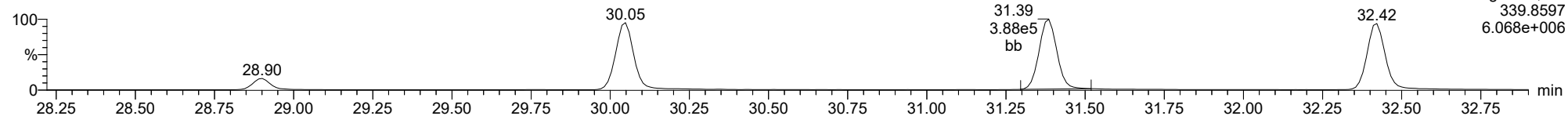
23020107



ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

23478-PeCDF

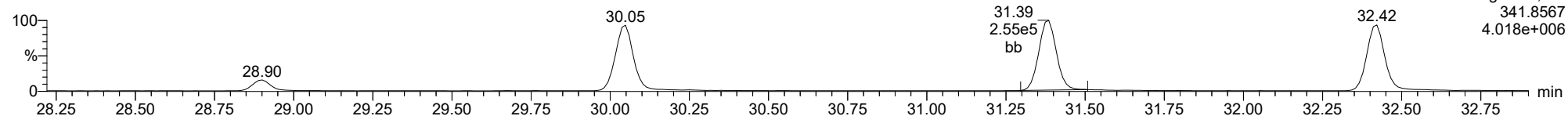
23020107



F2:Voltage SIR,EI+
339.8597
6.068e+006

23478-PeCDF

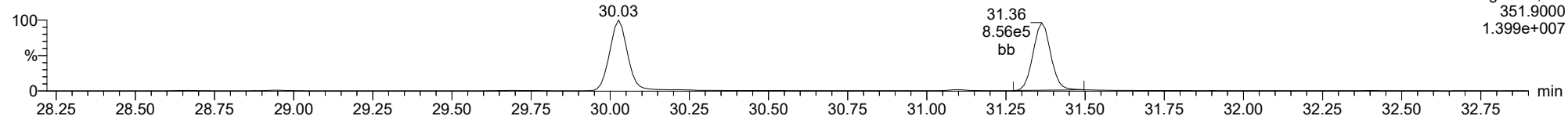
23020107



F2:Voltage SIR,EI+
341.8567
4.018e+006

13C-23478-PeCDF

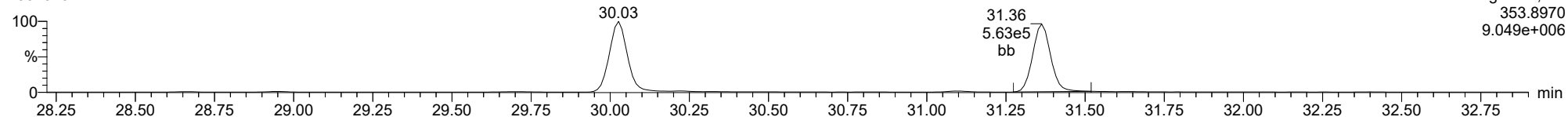
23020107



F2:Voltage SIR,EI+
351.9000
1.399e+007

13C-23478-PeCDF

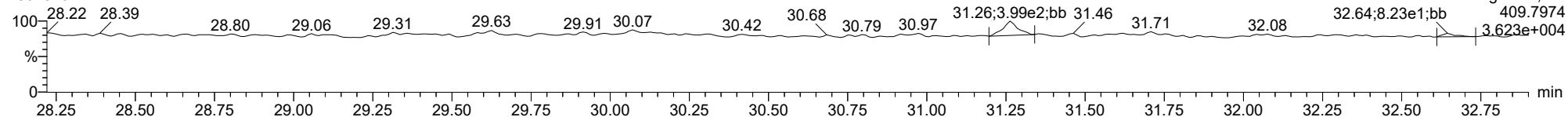
23020107



F2:Voltage SIR,EI+
353.8970
9.049e+006

FUNCTION2 HPCDPE

23020107

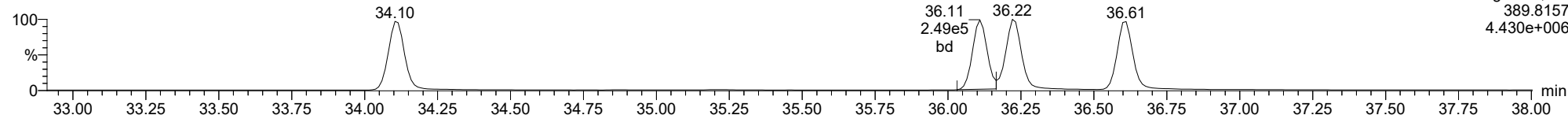


F2:Voltage SIR,EI+
409.7974
3.623e+004

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

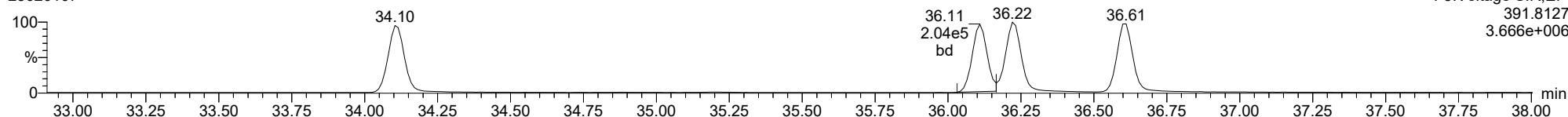
123478-HxCDD

23020107



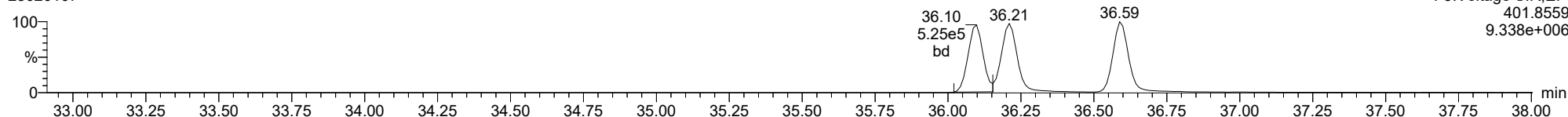
123478-HxCDD

23020107



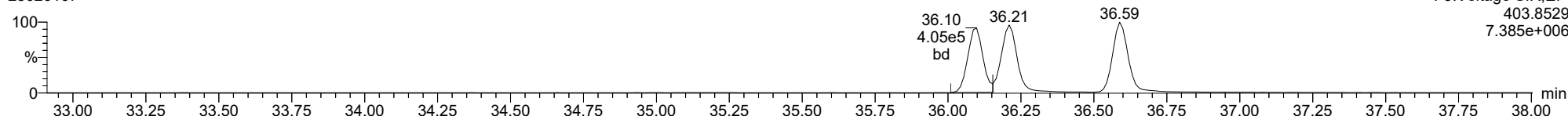
13C-123478-HxCDD

23020107



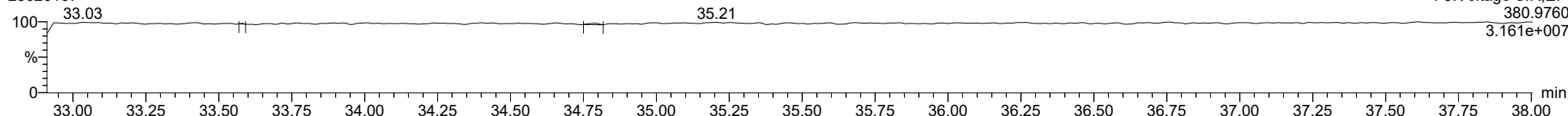
13C-123478-HxCDD

23020107



FUNCTION3 PFK

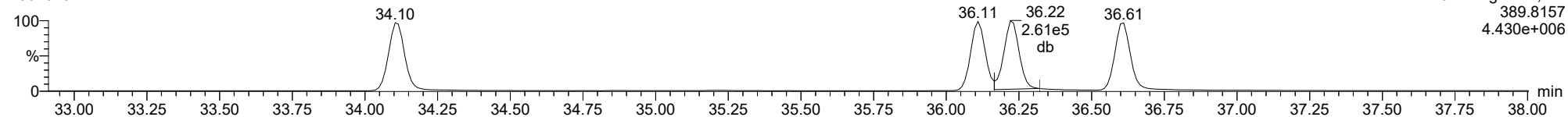
23020107



ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

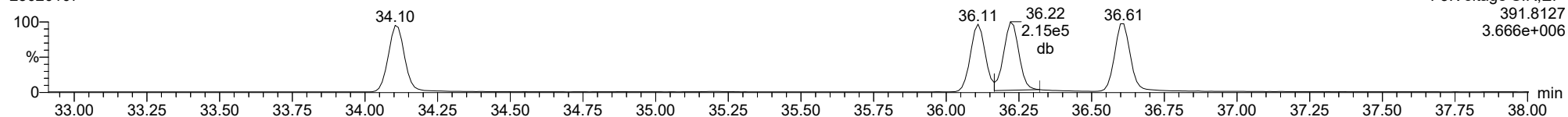
123678-HxCDD

23020107



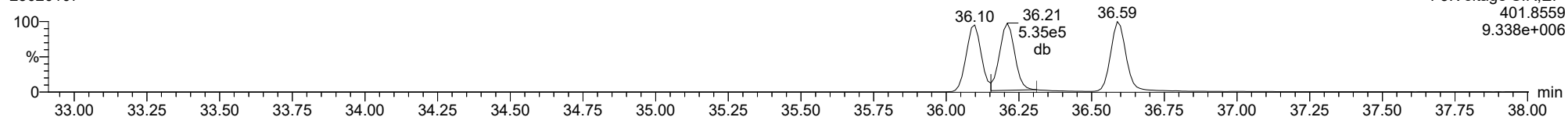
123678-HxCDD

23020107



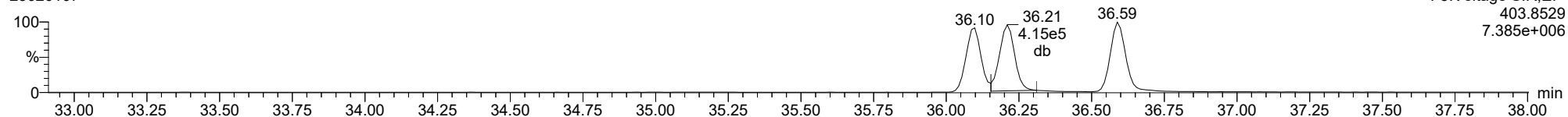
13C-123678-HxCDD

23020107



13C-123678-HxCDD

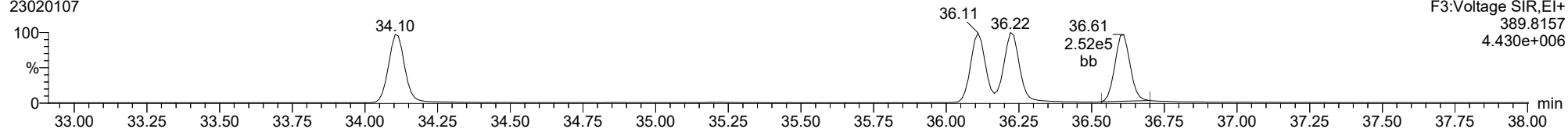
23020107



ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

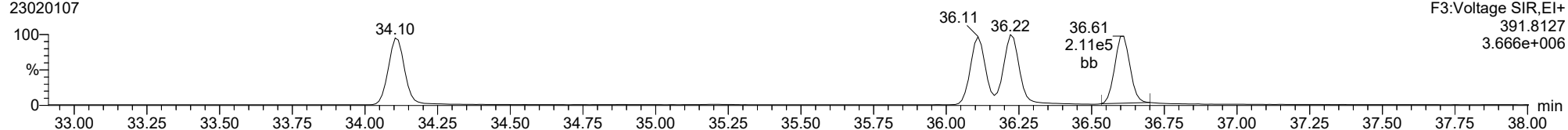
123789-HxCDD

23020107



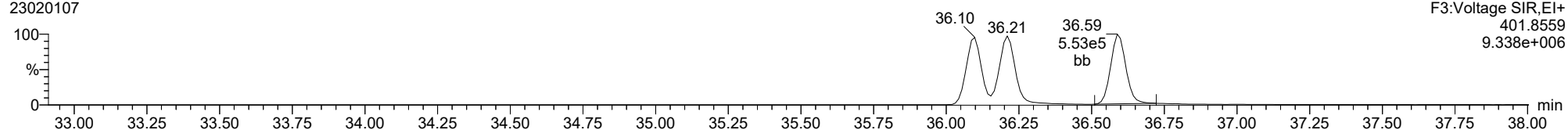
123789-HxCDD

23020107



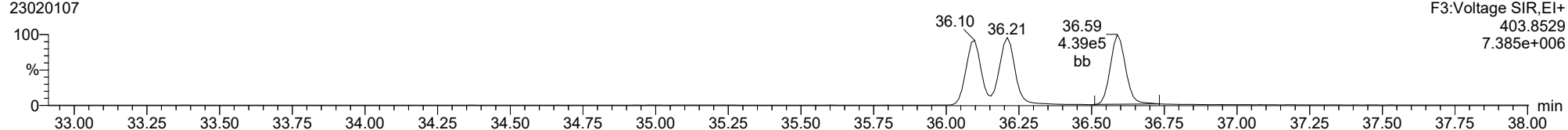
13C-123789-HxCDD

23020107



13C-123789-HxCDD

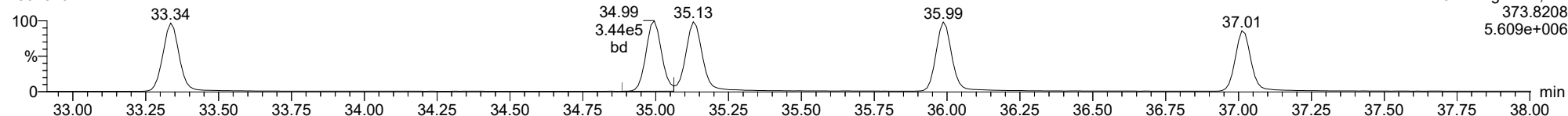
23020107



ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

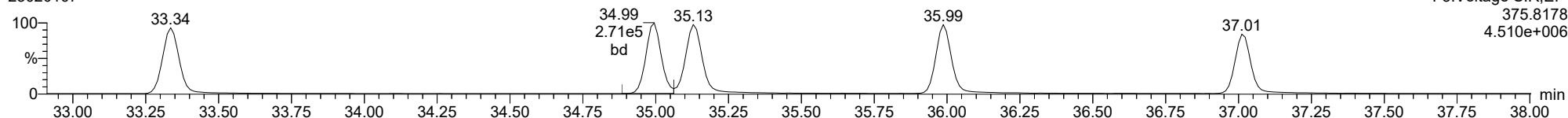
123478-HxCDF

23020107



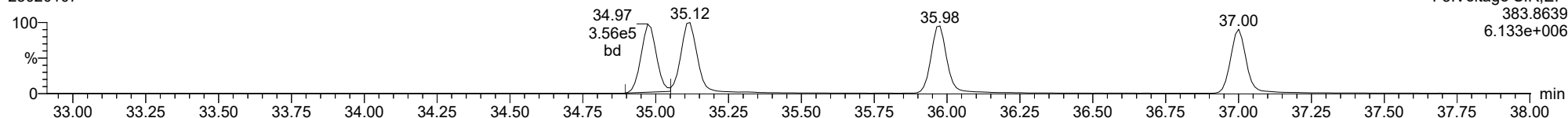
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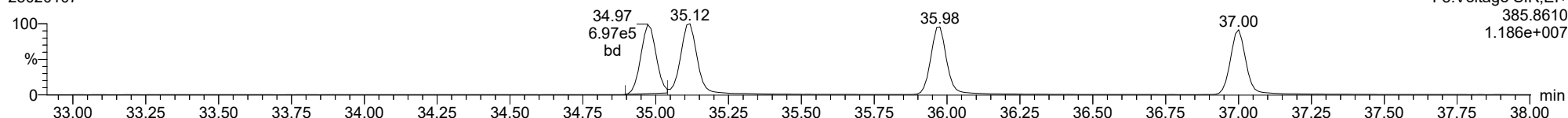
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23020107



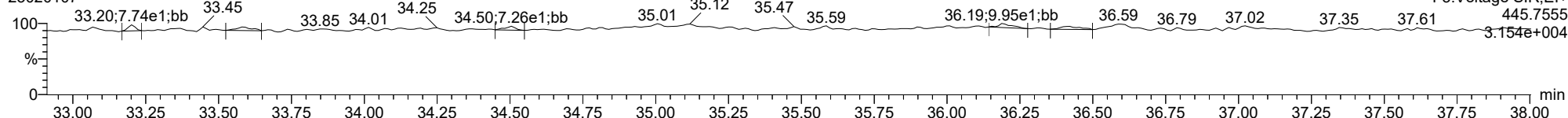
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23020107



FUNCTION3 OCDPE

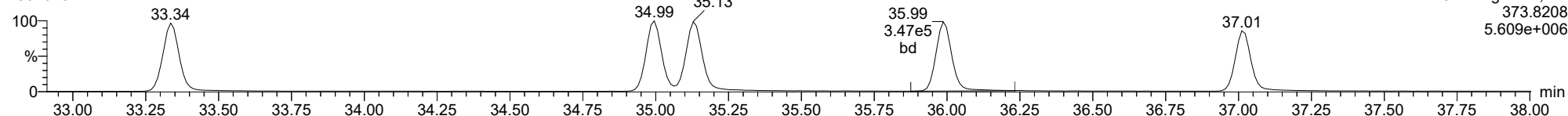
23020107



ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

234678-HxCDF

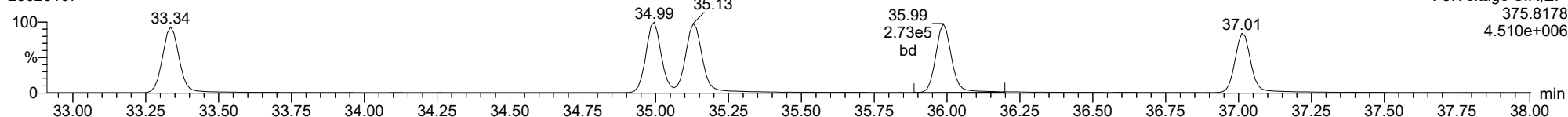
23020107



F3:Voltage SIR,El+
373.8208
5.609e+006

234678-HxCDF

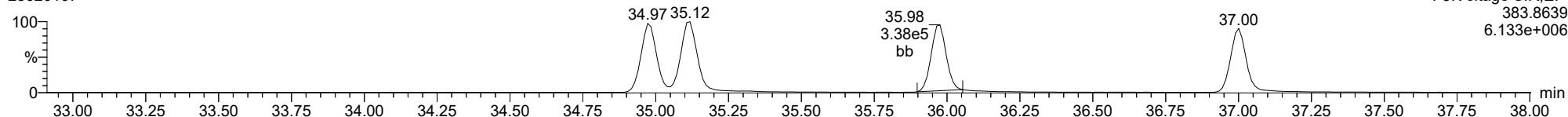
23020107



F3:Voltage SIR,El+
375.8178
4.510e+006

13C-234678-HxCDF

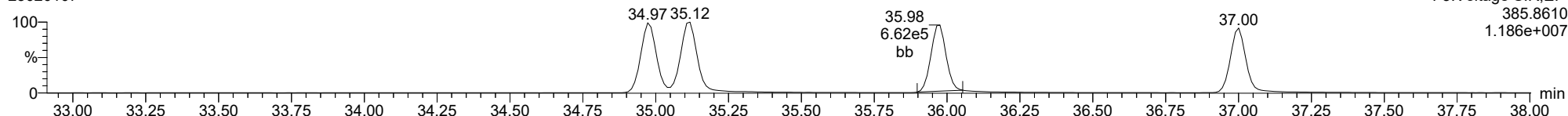
23020107



F3:Voltage SIR,El+
383.8639
6.133e+006

13C-234678-HxCDF

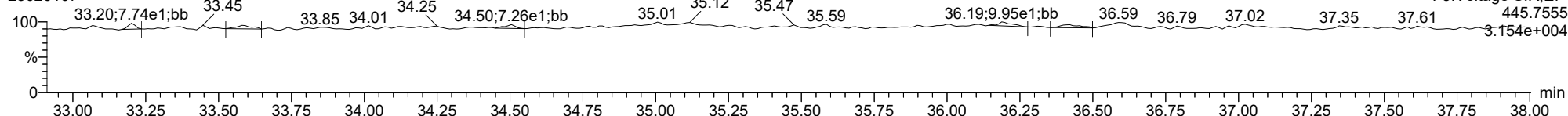
23020107



F3:Voltage SIR,El+
385.8610
1.186e+007

FUNCTION3 OCDPE

23020107

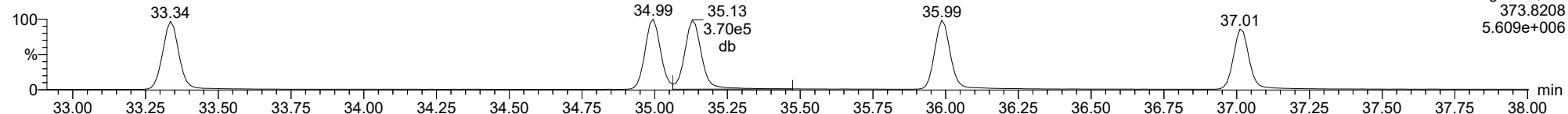


F3:Voltage SIR,El+
445.7555
3.154e+004

ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

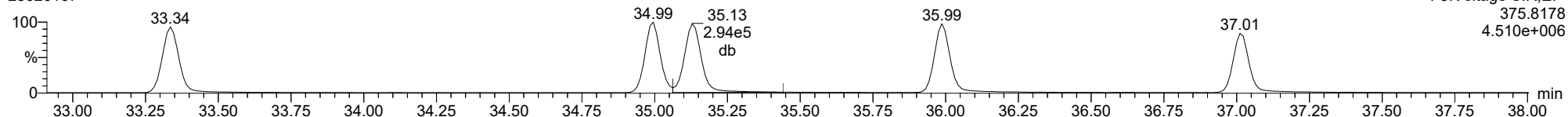
123678-HxCDF

23020107



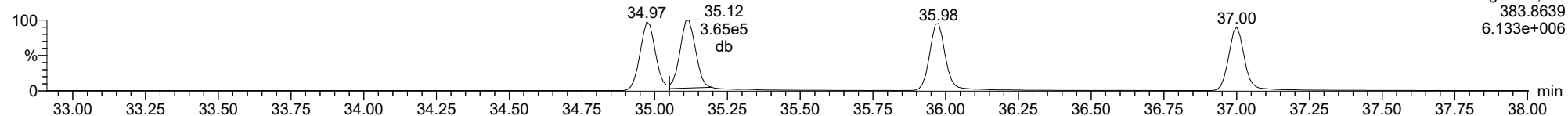
123678-HxCDF

23020107



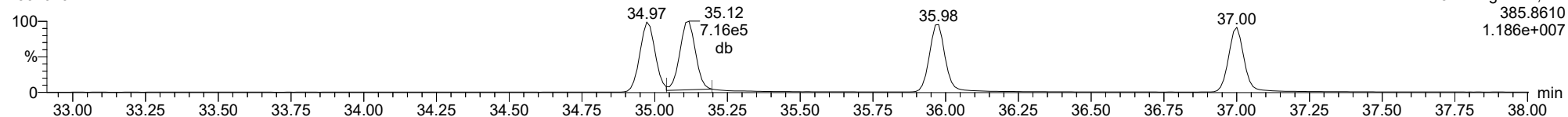
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23020107



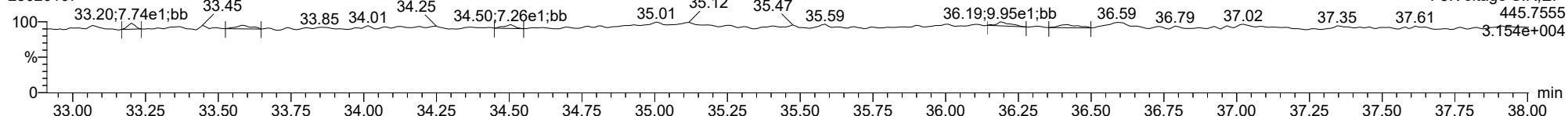
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23020107



FUNCTION3 OCDPE

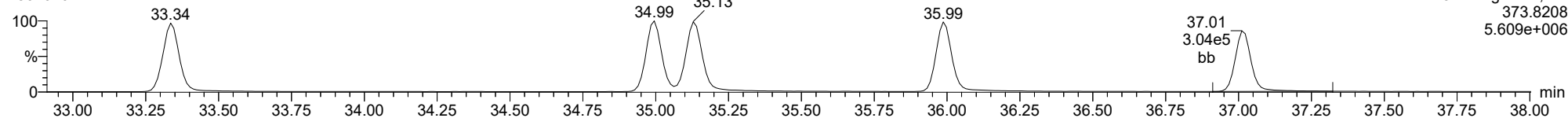
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ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

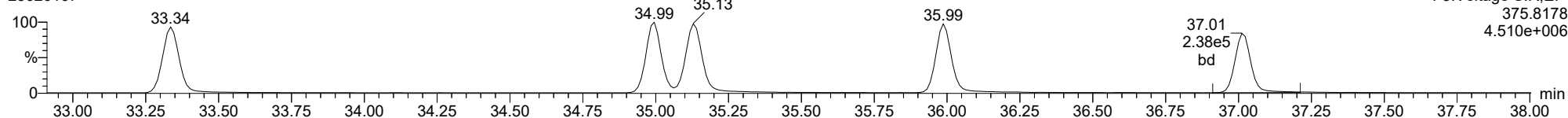
123789-HxCDF

23020107



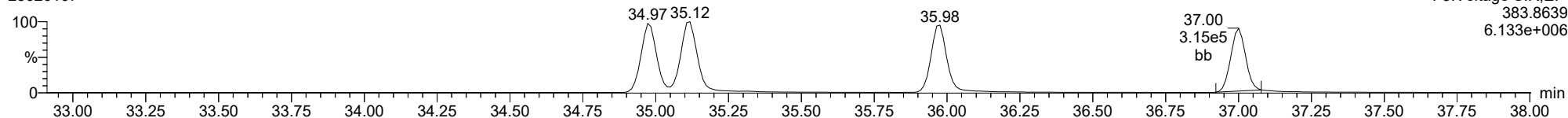
123789-HxCDF

23020107



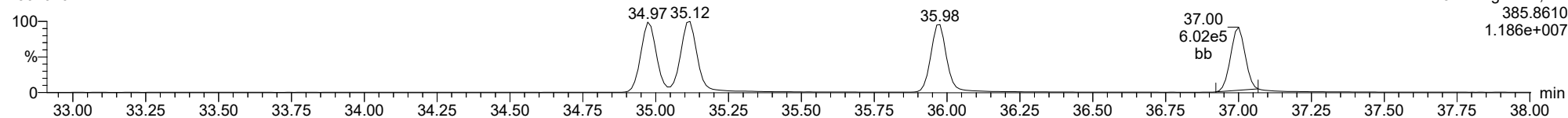
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23020107



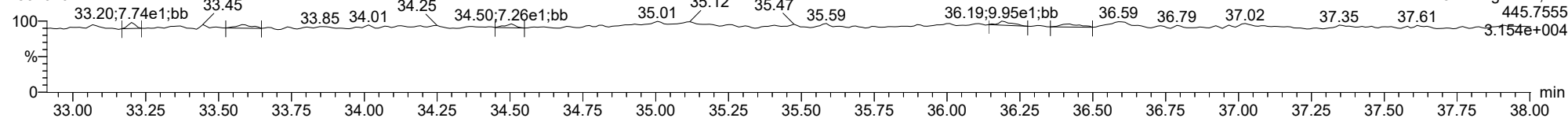
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23020107



FUNCTION3 OCDPE

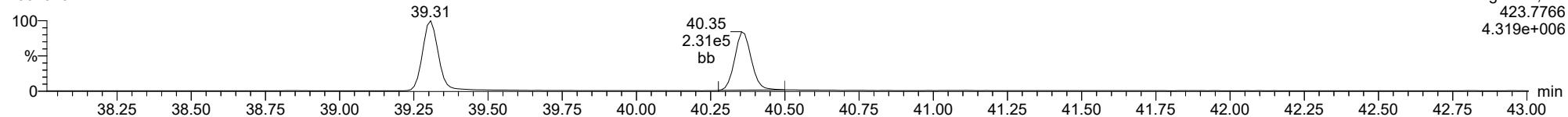
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ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

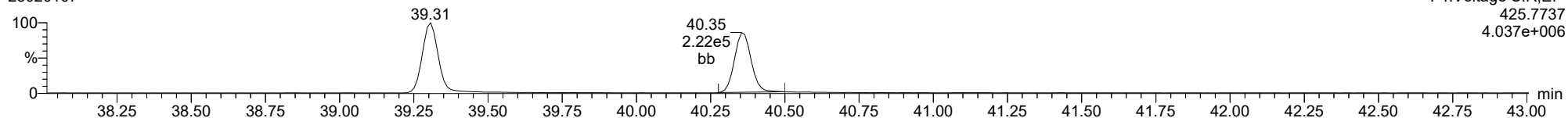
1234678-HpCDD

23020107



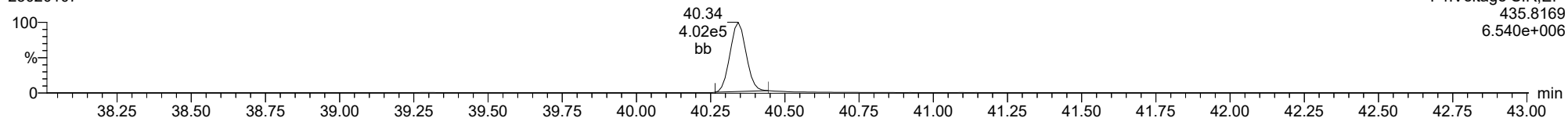
1234678-HpCDD

23020107



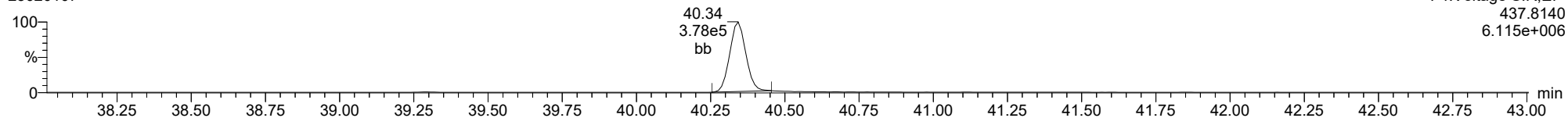
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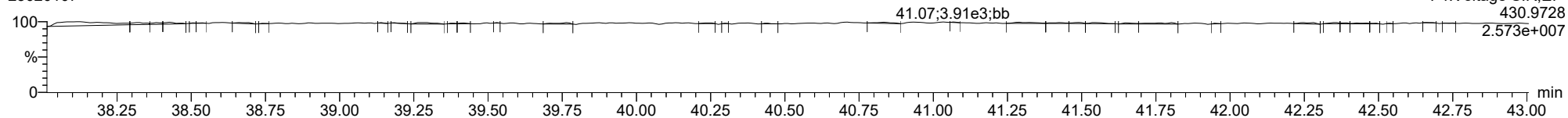
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23020107



FUNCTION4 PFK

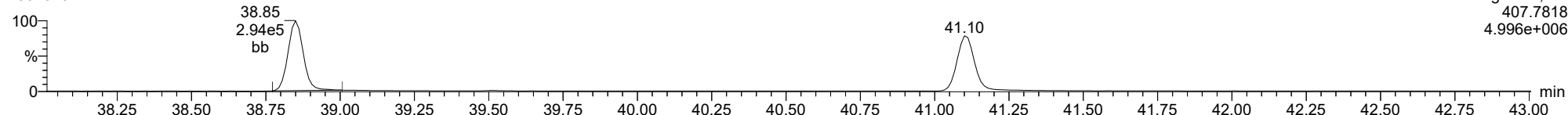
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ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

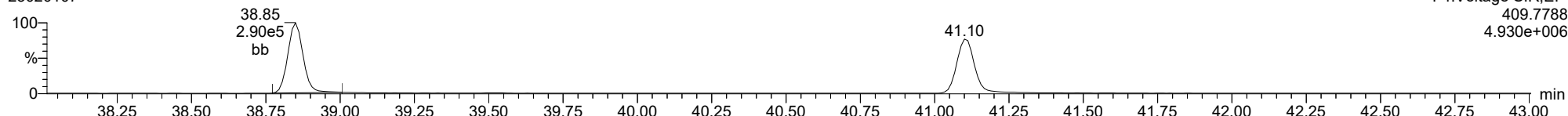
1234678-HpCDF

23020107



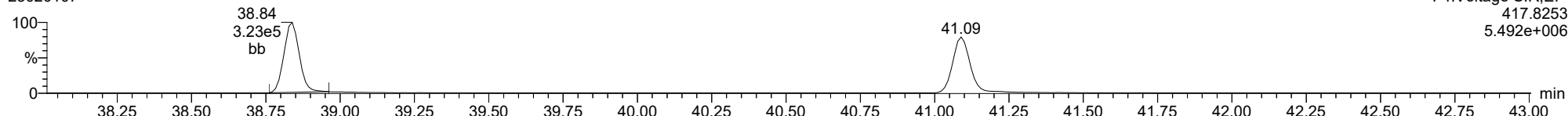
1234678-HpCDF

23020107



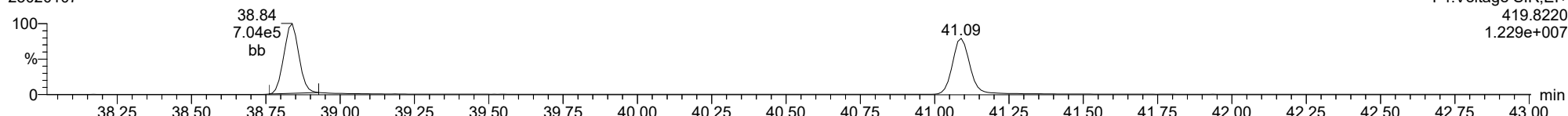
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23020107



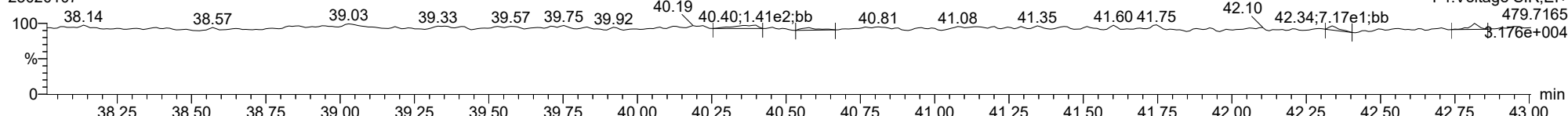
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23020107



FUNCTION4 NCDPE

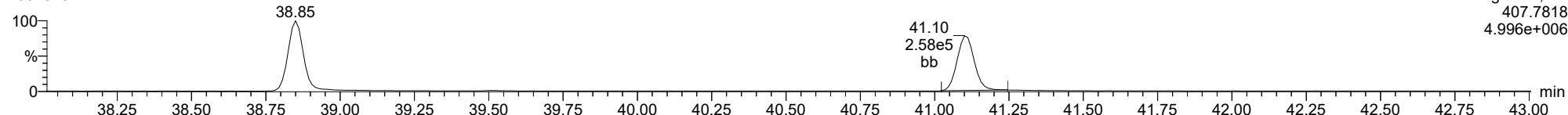
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ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

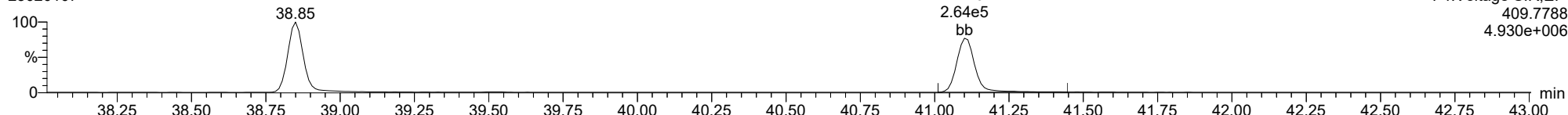
1234789-HpCDF

23020107



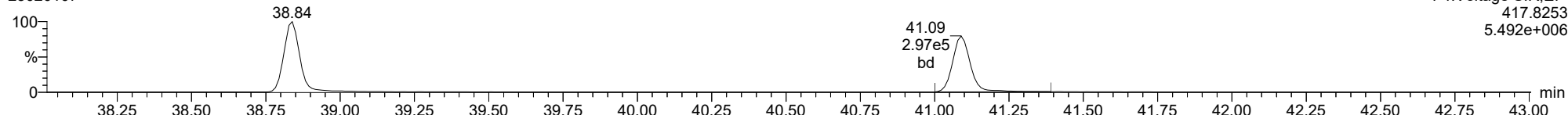
1234789-HpCDF

23020107



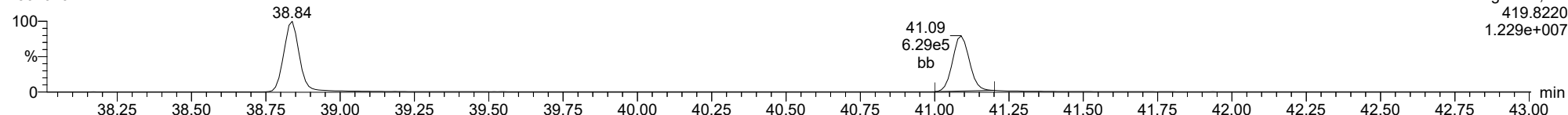
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23020107



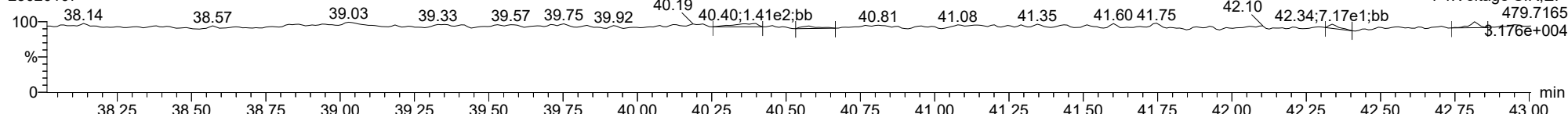
13C-1234789-HpCDF

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FUNCTION4 NCDPE

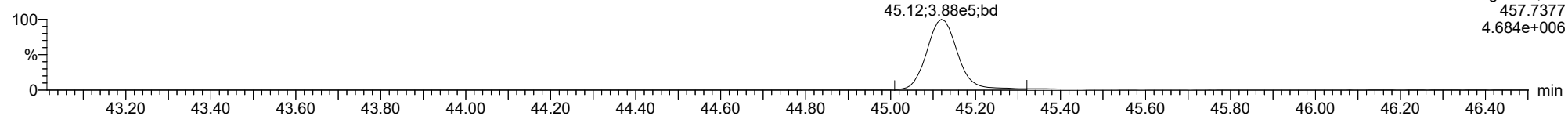
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ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

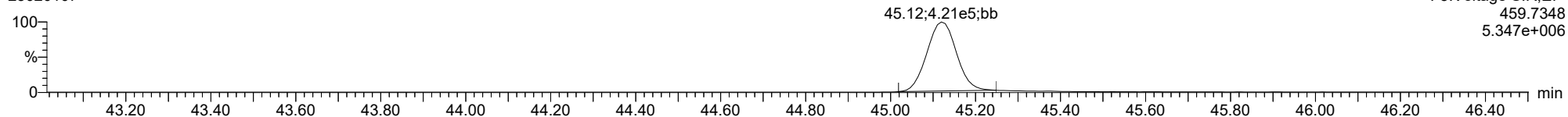
OCDD

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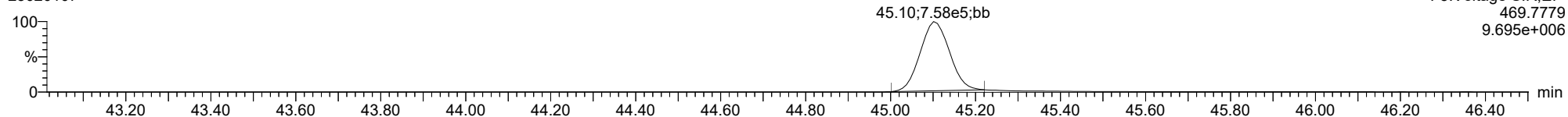
OCDD

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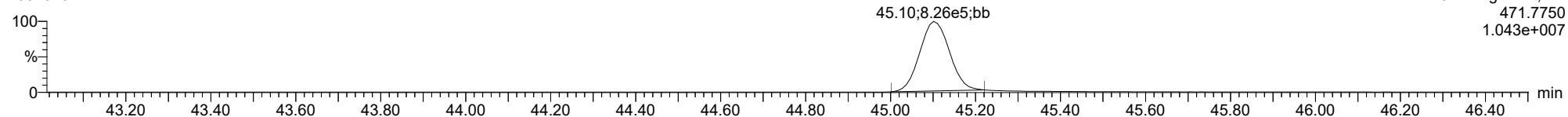
13C-OCDD

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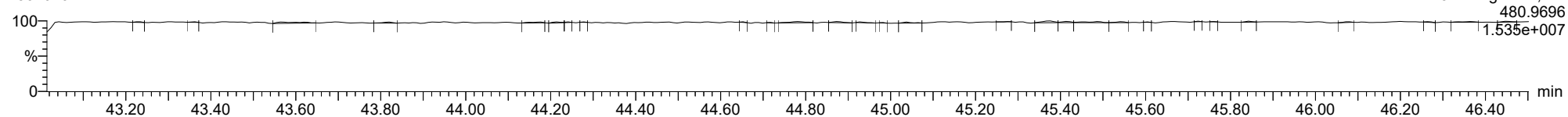
13C-OCDD

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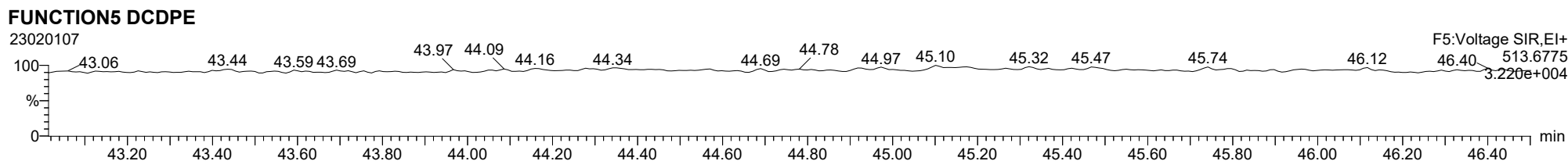
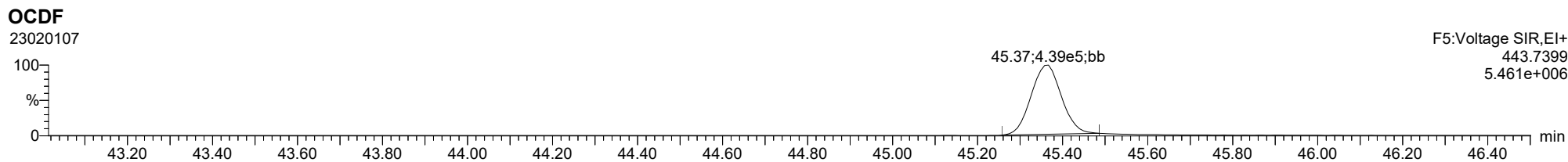
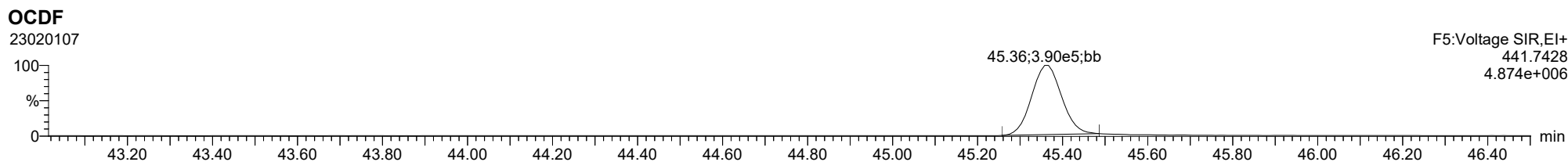


FUNCTION5 PFK

23020107



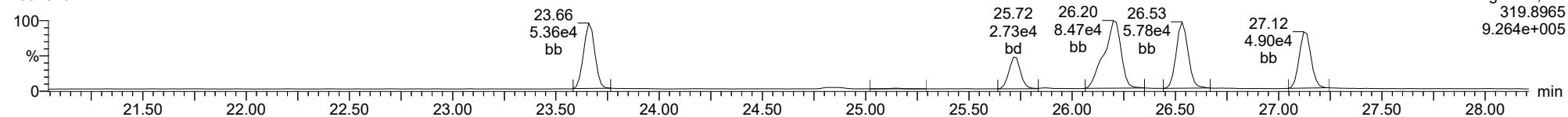
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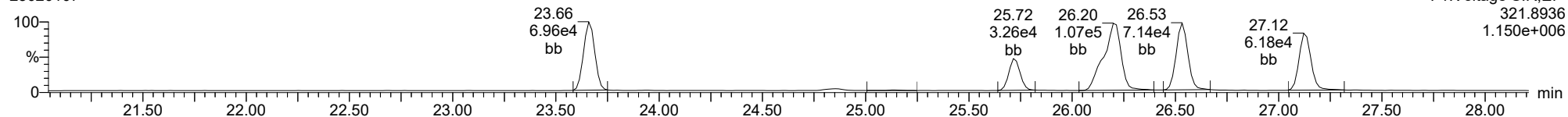
Total-tetradioxins

23020107



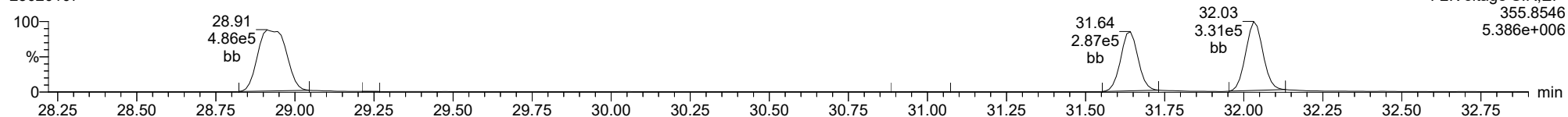
Total-tetradioxins

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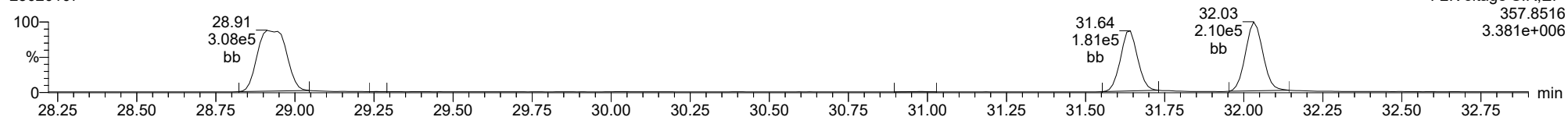
Total-pentadioxins

23020107



Total-pentadioxins

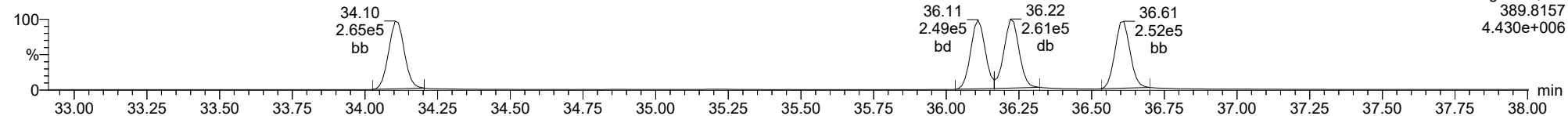
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ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

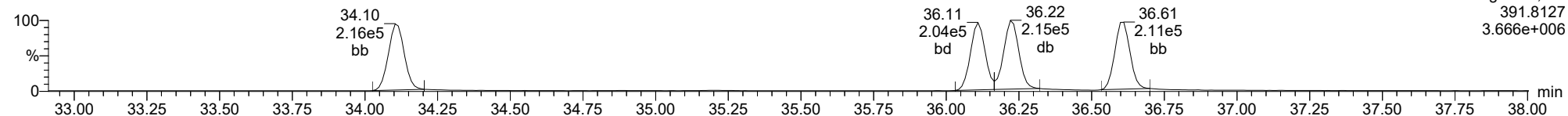
Total-hexadioxins

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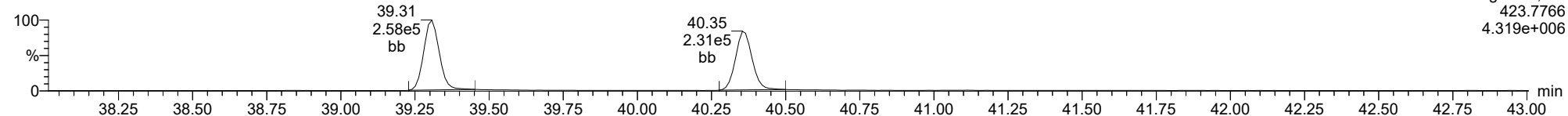
Total-hexadioxins

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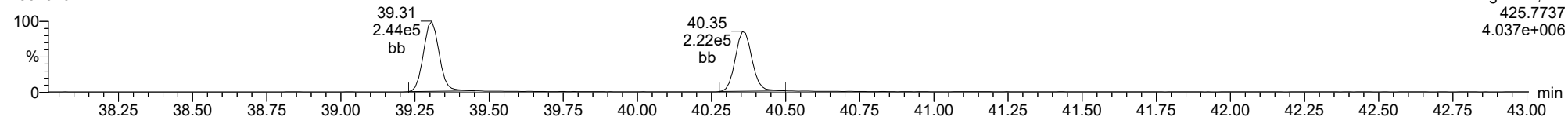
Total-heptadioxins

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Total-heptadioxins

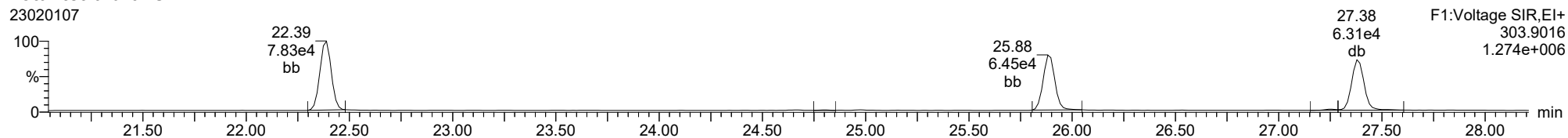
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ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

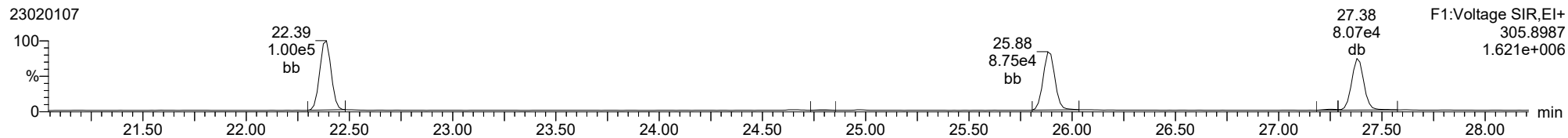
Total-tetrafurans

23020107



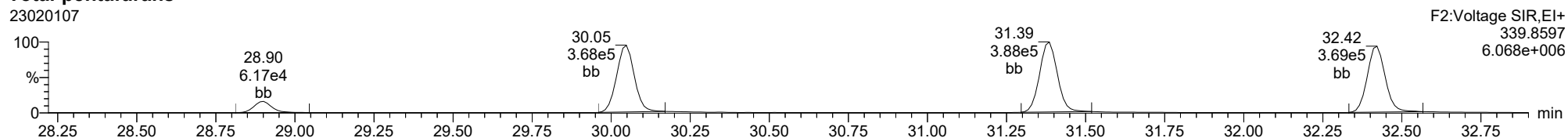
Total-tetrafurans

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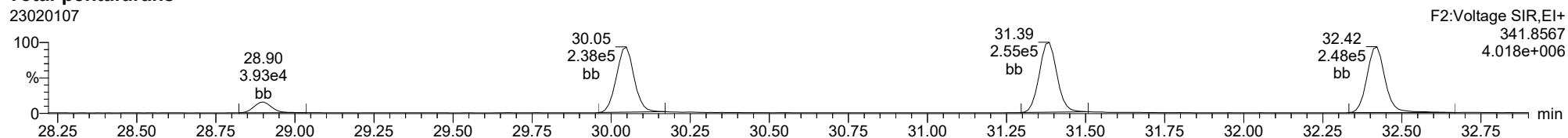
Total-pentafurans

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Total-pentafurans

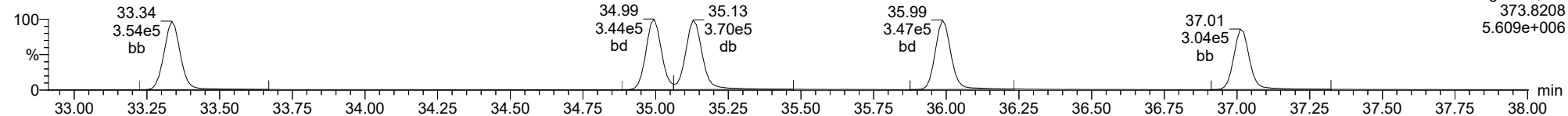
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ID: CS3CR, Name: 23020107, Date: 01-Feb-2023, Time: 17:56:19, Conditions: AUTOSPEC01, User: pk

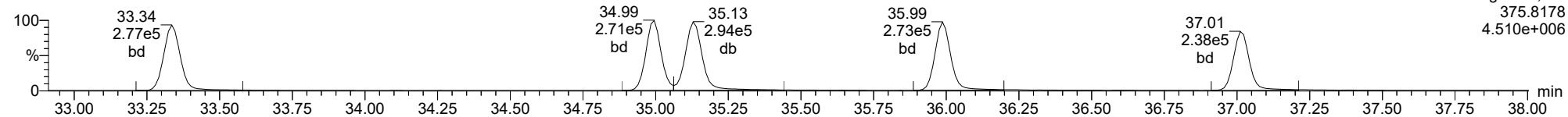
Total-hexafurans

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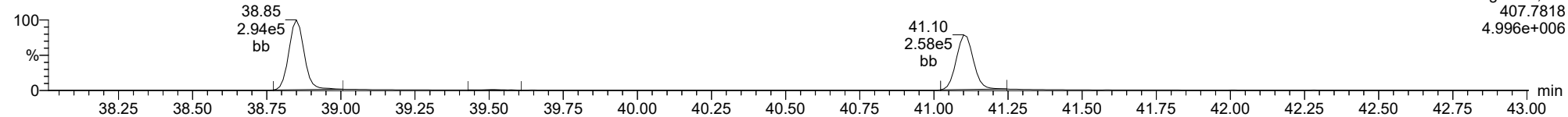
Total-hexafurans

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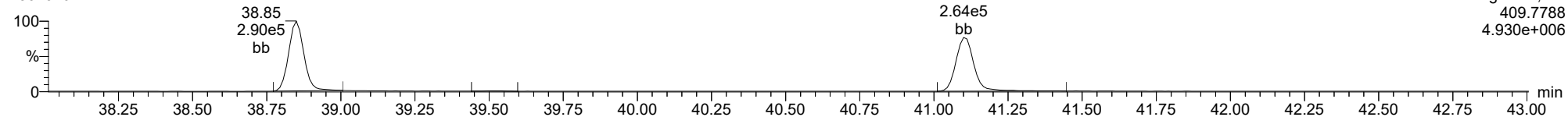
Total-heptafurans

23020107



Total-heptafurans

23020107



Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
Calibration: 03 Feb 2023 10:33:40

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.882	1.001	3.837e5	5.095e5	0.876	0.753	0.770	3306	1852	5.94e6	7.78e6	1796.5	4201.3	NO	bb	bb	39.352
12378-PeCDF	30.037	1.000	2.144e6	1.419e6	0.845	1.511	1.550	3774	3458	3.38e7	2.23e7	8947.1	6442.4	NO	bb	bb	197.212
23478-PeCDF	31.374	1.000	2.253e6	1.479e6	0.911	1.523	1.550	3774	3458	3.50e7	2.30e7	9263.9	6657.7	NO	bb	bb	199.338
123478-HxCDF	34.984	1.000	2.037e6	1.599e6	1.182	1.274	1.240	4016	3299	3.25e7	2.54e7	8086.7	7697.9	NO	dd	dd	201.086
234678-HxCDF	35.987	1.001	2.093e6	1.626e6	1.229	1.288	1.240	4016	3299	3.22e7	2.54e7	8018.2	7699.6	NO	dd	bd	203.397
123678-HxCDF	35.129	1.001	2.269e6	1.771e6	1.248	1.281	1.240	4016	3299	3.41e7	2.66e7	8495.8	8063.9	NO	dd	dd	203.923
123789-HxCDF	37.012	1.001	1.817e6	1.431e6	1.187	1.269	1.240	4016	3299	2.86e7	2.23e7	7125.7	6768.1	NO	dd	bd	199.649
1234678-HpCDF	38.839	1.000	1.816e6	1.772e6	1.204	1.025	1.050	5173	5540	3.02e7	2.97e7	5847.4	5361.2	NO	bb	bb	193.935
1234789-HpCDF	41.100	1.000	1.575e6	1.522e6	1.165	1.034	1.050	5173	5540	2.37e7	2.31e7	4579.3	4164.7	NO	bb	bb	200.336
OCDF	45.357	1.006	2.485e6	2.804e6	1.186	0.886	0.890	4624	3331	3.05e7	3.43e7	6601.2	10303.1	NO	bb	bb	376.199
2378-TCDD	26.532	1.001	3.417e5	4.230e5	1.236	0.808	0.770	1943	1502	5.26e6	6.49e6	2709.1	4323.6	NO	bb	bb	40.022
12378-PeCDD	31.631	1.000	1.695e6	1.077e6	1.087	1.574	1.550	2803	1572	2.73e7	1.72e7	9745.0	10948.2	NO	bb	bb	198.713
123478-HxCDD	36.109	1.001	1.491e6	1.215e6	0.987	1.227	1.240	2230	3671	2.51e7	2.05e7	11249.2	5579.6	NO	bd	bd	204.141
123678-HxCDD	36.221	1.000	1.525e6	1.238e6	1.021	1.232	1.240	2230	3671	2.55e7	2.09e7	11440.8	5702.6	NO	db	db	192.587
123789-HxCDD	36.599	1.011	1.475e6	1.213e6	0.985	1.216	1.240	2230	3671	2.48e7	2.06e7	11134.5	5610.2	NO	bb	bb	198.496
1234678-HpCDD	40.354	1.001	1.416e6	1.361e6	1.253	1.040	1.050	2506	3274	2.22e7	2.13e7	8870.2	6512.5	NO	bb	bb	190.176
OCDD	45.120	1.000	2.302e6	2.608e6	1.103	0.883	0.890	2646	4665	2.90e7	3.29e7	10978.0	7047.3	NO	bb	bb	375.677
13C-2378-TCDF	25.867	1.007	1.141e6	1.450e6	1.768	0.786	0.770	2983	2394	1.77e7	2.25e7	5940.4	9386.6	NO	bb	bb	101.281
13C-12378-PeCDF	30.026	1.168	1.284e6	8.547e5	1.527	1.502	1.550	4680	2502	1.96e7	1.27e7	4184.1	5065.1	NO	bb	bd	96.786
13C-23478-PeCDF	31.363	1.220	1.245e6	8.091e5	1.466	1.539	1.550	4680	2502	1.90e7	1.23e7	4051.1	4925.5	NO	bb	bb	96.841
13C-123478-HxCDF	34.973	0.956	5.210e5	1.009e6	1.054	0.516	0.510	2637	3506	8.67e6	1.67e7	3288.9	4772.6	NO	bd	bd	99.631
13C-123678-HxCDF	35.107	0.960	5.527e5	1.035e6	1.080	0.534	0.510	2637	3506	9.01e6	1.71e7	3417.9	4869.2	NO	db	db	100.816
13C-234678-HxCDF	35.965	0.983	5.043e5	9.836e5	1.014	0.513	0.510	2637	3506	8.34e6	1.63e7	3164.3	4660.4	NO	bb	bb	100.617
13C-123789-HxCDF	36.989	1.011	4.610e5	9.102e5	0.928	0.507	0.510	2637	3506	7.75e6	1.54e7	2939.3	4390.8	NO	bb	bb	101.358
13C-1234678-HpCDF	38.828	1.061	4.731e5	1.063e6	1.036	0.445	0.440	3133	3783	8.09e6	1.82e7	2583.3	4811.1	NO	bb	bb	101.722
13C-1234789-HpCDF	41.089	1.123	4.094e5	9.173e5	0.905	0.446	0.440	3133	3783	6.17e6	1.38e7	1971.0	3639.0	NO	bb	bb	100.563
13C-1234-TCDD	25.700	0.000	6.435e5	8.034e5	1.000	0.801	0.770	2264	5824	1.00e7	1.24e7	4417.3	2128.2	NO	bb	bb	100.000
13C-2378-TCDD	26.502	1.031	6.869e5	8.584e5	1.103	0.800	0.770	2264	5824	1.05e7	1.31e7	4634.7	2257.9	NO	bb	bb	96.836
13C-12378-PeCDD	31.619	1.230	7.945e5	4.894e5	0.914	1.623	1.550	1351	1735	1.23e7	7.56e6	9139.9	4356.9	NO	bb	bb	97.071
13C-123478-HxCDD	36.087	0.986	7.592e5	5.838e5	0.933	1.300	1.240	2349	1779	1.29e7	9.89e6	5485.2	5561.8	NO	bd	bd	98.749
13C-123678-HxCDD	36.210	0.990	7.891e5	6.166e5	0.965	1.280	1.240	2349	1779	1.26e7	9.87e6	5351.9	5549.2	NO	db	db	99.960
13C-1234678-HpCDD	40.332	1.102	6.034e5	5.625e5	0.782	1.073	1.050	2813	2017	9.31e6	8.69e6	3310.2	4307.9	NO	bb	bb	102.265
13C-OCDD	45.101	1.233	1.130e6	1.241e6	0.788	0.911	0.890	2295	1626	1.42e7	1.55e7	6172.7	9561.2	NO	bb	bb	206.289
13C-123789-HxCDD	36.588	0.000	8.190e5	6.388e5	1.000	1.282	1.240	2349	1779	1.32e7	1.04e7	5620.6	5858.2	NO	bb	bb	100.000
37CL-2378-TCDD	26.532	1.032	6.581e5		1.233			1941		1.01e7		5210.0			bb		36.879

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	3306	1852								
1289-TCDF					0.858		0.770	3306	1852								
13468-PECDF					1.013		1.550	3731	5783								
12389-PECDF					0.844		1.550	3774	3458								
123468-HXCDF					1.197		1.240	4016	3299								
1368-TCDD					1.084		0.770	1943	1502								
1289-TCDD					0.975		0.770	1943	1502								
12479-PECDD					1.837		1.550	2803	1572								
12389-PECDD					1.252		1.550	2803	1572								
124679-HXCDD					1.033		1.240	2230	3671								
1234679-HPCDD					1.286		1.050	2506	3274								
Total-tetrafurans			3.913e5		0.933			3306		6.07e6							40.082
Total-penta1			0.000e0					3731		0.00e0							
Total-pentafurans			4.421e6		0.866			3774		6.91e7							398.784
Total-hexafurans			8.218e6		1.208			4016		1.27e8							808.248
Total-heptafurans			3.395e6		1.185			5173		5.40e7							394.809
Total-Furans			1.891e7		1.067			3306		2.87e8							2018.122
Total-tetradoxins			3.511e5		1.099			1943		5.38e6							41.245
Total-pentadoxins			1.697e6		1.392			2803		2.73e7							198.842
Total-hexadoxins			4.491e6		1.007			2230		7.54e7							595.224
Total-heptadoxins			1.416e6		1.269			2506		2.22e7							190.176
Total-Dioxins			1.026e7		1.165			1943		1.59e8							1401.163
Total-TEQ			2.917e7					1943		4.47e8							3419.285
FUNCTION1 PFK			4.404e5					580120		1.21e7							
FUNCTION2 PFK			1.273e5					196333		3.80e6							0.000
FUNCTION3 PFK			0.000e0					408061		0.00e0							
FUNCTION4 PFK			2.183e5					275800		6.18e6							
FUNCTION5 PFK			0.000e0					154157		0.00e0							
FUNCTION1 HXCD...			1.662e4					8726		3.10e5							0.000
FUNCTION1 HPCD...			1.579e4					6150		2.65e5							0.000
FUNCTION2 HPCD...			2.593e3					848		4.54e4							0.000
FUNCTION3 OCDPE			1.183e3					745		1.55e4							0.000
FUNCTION4 NCDPE			4.176e2					872		5.06e3							0.000
FUNCTION5 DCDPE			3.248e2					814		4.90e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33**Calibration: 03 Feb 2023 10:33:40****ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.88	3.837e5	5.095e5	0.876	0.75	0.77	1796.5	YES	NO	bb	bb	39.352
2	Total-tetrafurans	24.97	2.571e3	3.313e3	0.933	0.78	0.77	11.3	YES	NO	bb	bb	0.243
3	Total-tetrafurans	24.64	3.935e3	5.312e3	0.933	0.74	0.77	18.1	YES	NO	bd	dd	0.383
4	Total-tetrafurans	24.51	1.158e3	1.353e3	0.933	0.86	0.77	9.5	YES	NO	db	dd	0.104

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	31.62	2.192e3	1.347e3	0.866	1.63	1.55	9.8	YES	NO	bb	bd	0.195
2	23478-PeCDF	31.37	2.253e6	1.479e6	0.911	1.52	1.55	9263.9	YES	NO	bb	bb	199.338
3	Total-pentafurans	31.11	2.570e3	1.840e3	0.866	1.40	1.55	11.2	YES	NO	bb	bb	0.243
4	12378-PeCDF	30.04	2.144e6	1.419e6	0.845	1.51	1.55	8947.1	YES	NO	bb	bb	197.212
5	Total-pentafurans	29.67	1.564e3	9.796e2	0.866	1.60	1.55	6.5	YES	NO	bd	bd	0.140
6	Total-pentafurans	32.41	1.819e4	1.189e4	0.866	1.53	1.55	66.2	YES	NO	bb	bb	1.656

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	234678-HxCDF	35.99	2.093e6	1.626e6	1.229	1.29	1.24	8018.2	YES	NO	dd	bd	203.397
2	123678-HxCDF	35.13	2.269e6	1.771e6	1.248	1.28	1.24	8495.8	YES	NO	dd	dd	203.923
3	123478-HxCDF	34.98	2.037e6	1.599e6	1.182	1.27	1.24	8086.7	YES	NO	dd	dd	201.086
4	Total-hexafurans	33.52	1.932e3	1.561e3	1.208	1.24	1.24	6.5	YES	NO	bb	bb	0.193
5	123789-HxCDF	37.01	1.817e6	1.431e6	1.187	1.27	1.24	7125.7	YES	NO	dd	bd	199.649

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.10	1.575e6	1.522e6	1.165	1.03	1.05	4579.3	YES	NO	bb	bb	200.336
2	Total-heptafurans	39.51	4.373e3	4.751e3	1.185	0.92	1.05	13.2	YES	NO	bb	bb	0.538
3	1234678-HpCDF	38.84	1.816e6	1.772e6	1.204	1.02	1.05	5847.4	YES	NO	bb	bb	193.935

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.88	3.837e5	5.095e5	0.876	0.75	0.77	1796.5	YES	NO	bb	bb	39.352
2	Total-tetrafurans	24.97	2.571e3	3.313e3	0.933	0.78	0.77	11.3	YES	NO	bb	bb	0.243
3	Total-tetrafurans	24.64	3.935e3	5.312e3	0.933	0.74	0.77	18.1	YES	NO	bd	dd	0.383
4	Total-tetrafurans	24.51	1.158e3	1.353e3	0.933	0.86	0.77	9.5	YES	NO	db	dd	0.104
5	Total-pentafurans	31.62	2.192e3	1.347e3	0.866	1.63	1.55	9.8	YES	NO	bb	bd	0.195
6	23478-PeCDF	31.37	2.253e6	1.479e6	0.911	1.52	1.55	9263.9	YES	NO	bb	bb	199.338
7	Total-pentafurans	31.11	2.570e3	1.840e3	0.866	1.40	1.55	11.2	YES	NO	bb	bb	0.243
8	12378-PeCDF	30.04	2.144e6	1.419e6	0.845	1.51	1.55	8947.1	YES	NO	bb	bb	197.212
9	Total-pentafurans	29.67	1.564e3	9.796e2	0.866	1.60	1.55	6.5	YES	NO	bd	bd	0.140
10	Total-pentafurans	32.41	1.819e4	1.189e4	0.866	1.53	1.55	66.2	YES	NO	bb	bb	1.656
11	234678-HxCDF	35.99	2.093e6	1.626e6	1.229	1.29	1.24	8018.2	YES	NO	dd	bd	203.397
12	123678-HxCDF	35.13	2.269e6	1.771e6	1.248	1.28	1.24	8495.8	YES	NO	dd	dd	203.923
13	123478-HxCDF	34.98	2.037e6	1.599e6	1.182	1.27	1.24	8086.7	YES	NO	dd	dd	201.086
14	Total-hexafurans	33.52	1.932e3	1.561e3	1.208	1.24	1.24	6.5	YES	NO	bb	bb	0.193
15	123789-HxCDF	37.01	1.817e6	1.431e6	1.187	1.27	1.24	7125.7	YES	NO	dd	bd	199.649
16	1234789-HpCDF	41.10	1.575e6	1.522e6	1.165	1.03	1.05	4579.3	YES	NO	bb	bb	200.336
17	Total-heptafurans	39.51	4.373e3	4.751e3	1.185	0.92	1.05	13.2	YES	NO	bb	bb	0.538
18	1234678-HpCDF	38.84	1.816e6	1.772e6	1.204	1.02	1.05	5847.4	YES	NO	bb	bb	193.935
19	OCDF	45.36	2.485e6	2.804e6	1.186	0.89	0.89	6601.2	YES	NO	bb	bb	376.199

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.53	3.417e5	4.230e5	1.236	0.81	0.77	2709.1	YES	NO	bb	bb	40.022
2	Total-tetradoxins	26.14	8.070e3	9.722e3	1.099	0.83	0.77	49.8	YES	NO	bb	bb	1.048
3	Total-tetradoxins	25.38	3.531e2	4.421e2	1.099	0.80	0.77	2.4	NO	NO	bb	bb	0.047
4	Total-tetradoxins	26.96	1.013e3	1.157e3	1.099	0.88	0.77	7.2	YES	NO	bd	bd	0.128

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.63	1.695e6	1.077e6	1.087	1.57	1.55	9745.0	YES	NO	bb	bb	198.713
2	Total-pentadoxins	30.04	1.464e3	8.371e2	1.392	1.75	1.55	8.8	YES	NO	bb	bb	0.129

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.60	1.475e6	1.213e6	0.985	1.22	1.24	11134.5	YES	NO	bb	bb	198.496
2	123678-HxCDD	36.22	1.525e6	1.238e6	1.021	1.23	1.24	11440.8	YES	NO	db	db	192.587
3	123478-HxCDD	36.11	1.491e6	1.215e6	0.987	1.23	1.24	11249.2	YES	NO	bd	bd	204.141

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.35	1.416e6	1.361e6	1.253	1.04	1.05	8870.2	YES	NO	bb	bb	190.176

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.53	3.417e5	4.230e5	1.236	0.81	0.77	2709.1	YES	NO	bb	bb	40.022
2	Total-tetradoxins	26.14	8.070e3	9.722e3	1.099	0.83	0.77	49.8	YES	NO	bb	bb	1.048
3	Total-tetradoxins	25.38	3.531e2	4.421e2	1.099	0.80	0.77	2.4	NO	NO	bb	bb	0.047
4	Total-tetradoxins	26.96	1.013e3	1.157e3	1.099	0.88	0.77	7.2	YES	NO	bd	bd	0.128
5	12378-PeCDD	31.63	1.695e6	1.077e6	1.087	1.57	1.55	9745.0	YES	NO	bb	bb	198.713
6	Total-pentadoxins	30.04	1.464e3	8.371e2	1.392	1.75	1.55	8.8	YES	NO	bb	bb	0.129
7	123789-HxCDD	36.60	1.475e6	1.213e6	0.985	1.22	1.24	11134.5	YES	NO	bb	bb	198.496
8	123678-HxCDD	36.22	1.525e6	1.238e6	1.021	1.23	1.24	11440.8	YES	NO	db	db	192.587
9	123478-HxCDD	36.11	1.491e6	1.215e6	0.987	1.23	1.24	11249.2	YES	NO	bd	bd	204.141
10	1234678-HpCDD	40.35	1.416e6	1.361e6	1.253	1.04	1.05	8870.2	YES	NO	bb	bb	190.176
11	OCDD	45.12	2.302e6	2.608e6	1.103	0.88	0.89	10978.0	YES	NO	bb	bb	375.677

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	25.88	3.837e5	5.095e5	0.876	0.75	0.77	1796.5	YES	NO	bb	bb	39.352
2	Total-tetrafurans	24.97	2.571e3	3.313e3	0.933	0.78	0.77	11.3	YES	NO	bb	bb	0.243
3	Total-tetrafurans	24.64	3.935e3	5.312e3	0.933	0.74	0.77	18.1	YES	NO	bd	dd	0.383
4	Total-tetrafurans	24.51	1.158e3	1.353e3	0.933	0.86	0.77	9.5	YES	NO	db	dd	0.104
5	Total-pentafurans	31.62	2.192e3	1.347e3	0.866	1.63	1.55	9.8	YES	NO	bb	bd	0.195
6	23478-PeCDF	31.37	2.253e6	1.479e6	0.911	1.52	1.55	9263.9	YES	NO	bb	bb	199.338
7	Total-pentafurans	31.11	2.570e3	1.840e3	0.866	1.40	1.55	11.2	YES	NO	bb	bb	0.243
8	12378-PeCDF	30.04	2.144e6	1.419e6	0.845	1.51	1.55	8947.1	YES	NO	bb	bb	197.212
9	Total-pentafurans	29.67	1.564e3	9.796e2	0.866	1.60	1.55	6.5	YES	NO	bd	bd	0.140
10	Total-pentafurans	32.41	1.819e4	1.189e4	0.866	1.53	1.55	66.2	YES	NO	bb	bb	1.656
11	234678-HxCDF	35.99	2.093e6	1.626e6	1.229	1.29	1.24	8018.2	YES	NO	dd	bd	203.397
12	123678-HxCDF	35.13	2.269e6	1.771e6	1.248	1.28	1.24	8495.8	YES	NO	dd	dd	203.923
13	123478-HxCDF	34.98	2.037e6	1.599e6	1.182	1.27	1.24	8086.7	YES	NO	dd	dd	201.086
14	Total-hexafurans	33.52	1.932e3	1.561e3	1.208	1.24	1.24	6.5	YES	NO	bb	bb	0.193
15	123789-HxCDF	37.01	1.817e6	1.431e6	1.187	1.27	1.24	7125.7	YES	NO	dd	bd	199.649
16	1234789-HpCDF	41.10	1.575e6	1.522e6	1.165	1.03	1.05	4579.3	YES	NO	bb	bb	200.336
17	Total-heptafurans	39.51	4.373e3	4.751e3	1.185	0.92	1.05	13.2	YES	NO	bb	bb	0.538
18	1234678-HpCDF	38.84	1.816e6	1.772e6	1.204	1.02	1.05	5847.4	YES	NO	bb	bb	193.935
19	OCDF	45.36	2.485e6	2.804e6	1.186	0.89	0.89	6601.2	YES	NO	bb	bb	376.199
20	2378-TCDD	26.53	3.417e5	4.230e5	1.236	0.81	0.77	2709.1	YES	NO	bb	bb	40.022
21	Total-tetradiioxins	26.14	8.070e3	9.722e3	1.099	0.83	0.77	49.8	YES	NO	bb	bb	1.048
22	Total-tetradiioxins	25.38	3.531e2	4.421e2	1.099	0.80	0.77	2.4	NO	NO	bb	bb	0.047
23	Total-tetradiioxins	26.96	1.013e3	1.157e3	1.099	0.88	0.77	7.2	YES	NO	bd	bd	0.128
24	12378-PeCDD	31.63	1.695e6	1.077e6	1.087	1.57	1.55	9745.0	YES	NO	bb	bb	198.713
25	Total-pentadiioxins	30.04	1.464e3	8.371e2	1.392	1.75	1.55	8.8	YES	NO	bb	bb	0.129
26	123789-HxCDD	36.60	1.475e6	1.213e6	0.985	1.22	1.24	11134.5	YES	NO	bb	bb	198.496
27	123678-HxCDD	36.22	1.525e6	1.238e6	1.021	1.23	1.24	11440.8	YES	NO	db	db	192.587
28	123478-HxCDD	36.11	1.491e6	1.215e6	0.987	1.23	1.24	11249.2	YES	NO	bd	bd	204.141
29	1234678-HpCDD	40.35	1.416e6	1.361e6	1.253	1.04	1.05	8870.2	YES	NO	bb	bb	190.176
30	OCDD	45.12	2.302e6	2.608e6	1.103	0.88	0.89	10978.0	YES	NO	bb	bb	375.677

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	24.96	2.020e4					1.1	NO		bb		
2	FUNCTION1 PFK	24.40	2.455e4					1.2	NO		bb		
3	FUNCTION1 PFK	23.70	1.570e4					0.9	NO		bb		
4	FUNCTION1 PFK	22.21	1.520e4					0.8	NO		bb		
5	FUNCTION1 PFK	21.98	2.815e4					1.2	NO		bb		
6	FUNCTION1 PFK	21.62	2.203e4					0.8	NO		bb		
7	FUNCTION1 PFK	21.38	1.821e4					1.0	NO		bb		
8	FUNCTION1 PFK	28.09	4.216e4					1.7	NO		bb		
9	FUNCTION1 PFK	27.48	1.001e4					0.6	NO		bb		
10	FUNCTION1 PFK	27.36	2.341e4					1.3	NO		bb		
11	FUNCTION1 PFK	27.09	4.217e3					0.5	NO		bb		
12	FUNCTION1 PFK	26.77	7.075e3					0.7	NO		bb		
13	FUNCTION1 PFK	26.65	1.537e4					1.0	NO		bb		
14	FUNCTION1 PFK	26.53	2.228e4					1.3	NO		bb		
15	FUNCTION1 PFK	26.06	1.292e4					0.8	NO		bb		
16	FUNCTION1 PFK	25.75	9.216e3					0.7	NO		bb		
17	FUNCTION1 PFK	25.69	2.942e4					1.5	NO		bb		
18	FUNCTION1 PFK	25.47	3.380e4					1.3	NO		bb		
19	FUNCTION1 PFK	25.35	5.518e4					1.2	NO		db		
20	FUNCTION1 PFK	25.23	3.130e4					1.5	NO		bd		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.88	2.296e4					1.8	NO		bb		0.000
2	FUNCTION2 PFK	28.30	1.717e4					1.6	NO		bb		0.000
3	FUNCTION2 PFK	32.49	5.254e3					1.3	NO		bb		0.000
4	FUNCTION2 PFK	32.37	7.309e3					1.1	NO		bb		0.000
5	FUNCTION2 PFK	32.29	1.359e3					0.6	NO		bb		0.000
6	FUNCTION2 PFK	32.17	6.182e3					1.2	NO		bb		0.000
7	FUNCTION2 PFK	31.90	1.405e4					1.8	NO		bb		0.000
8	FUNCTION2 PFK	31.55	3.011e3					0.9	NO		bb		0.000
9	FUNCTION2 PFK	31.41	1.210e4					1.2	NO		bb		0.000
10	FUNCTION2 PFK	30.57	3.830e3					0.9	NO		bb		0.000
11	FUNCTION2 PFK	30.45	4.598e3					1.0	NO		bb		0.000
12	FUNCTION2 PFK	29.87	5.333e3					1.1	NO		bb		0.000
13	FUNCTION2 PFK	29.60	5.195e3					1.1	NO		db		0.000
14	FUNCTION2 PFK	29.56	5.154e3					1.1	NO		bd		0.000
15	FUNCTION2 PFK	29.50	7.364e3					1.4	NO		bb		0.000
16	FUNCTION2 PFK	29.17	6.453e3					1.3	NO		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.21	5.273e3					0.9	NO		bb		
2	FUNCTION4 PFK	40.14	5.827e3					1.0	NO		bb		
3	FUNCTION4 PFK	40.00	4.667e3					0.8	NO		bb		
4	FUNCTION4 PFK	39.82	1.112e3					0.4	NO		bb		
5	FUNCTION4 PFK	39.74	4.984e3					0.8	NO		bb		
6	FUNCTION4 PFK	39.65	3.641e4					1.9	NO		db		
7	FUNCTION4 PFK	39.60	1.243e4					1.6	NO		bd		
8	FUNCTION4 PFK	39.21	6.478e3					1.0	NO		bb		
9	FUNCTION4 PFK	38.98	1.375e3					0.4	NO		bb		
10	FUNCTION4 PFK	38.83	5.023e3					0.8	NO		bb		
11	FUNCTION4 PFK	38.78	4.916e3					0.9	NO		bb		
12	FUNCTION4 PFK	38.68	8.802e3					1.2	NO		bb		
13	FUNCTION4 PFK	38.54	1.096e4					1.2	NO		bb		
14	FUNCTION4 PFK	38.35	1.188e4					1.5	NO		db		
15	FUNCTION4 PFK	38.32	9.581e3					1.3	NO		bd		
16	FUNCTION4 PFK	38.09	5.192e4					1.9	NO		bb		
17	FUNCTION4 PFK	42.95	1.120e3					0.4	NO		bb		
18	FUNCTION4 PFK	42.68	3.847e3					0.6	NO		bb		
19	FUNCTION4 PFK	42.38	1.500e4					1.7	NO		bb		
20	FUNCTION4 PFK	41.06	1.232e4					1.2	NO		bb		
21	FUNCTION4 PFK	40.81	4.336e3					0.7	NO		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk**ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.09	1.365e2					0.3	NO		bb		0.000
2	FUNCTION1 HXCD...	25.88	7.559e1					0.2	NO		bb		0.000
3	FUNCTION1 HXCD...	25.69	1.535e2					0.2	NO		bb		0.000
4	FUNCTION1 HXCD...	25.38	9.009e1					0.2	NO		bb		0.000
5	FUNCTION1 HXCD...	24.76	1.387e2					0.2	NO		bb		0.000
6	FUNCTION1 HXCD...	24.49	2.087e3					4.8	YES		db		0.000
7	FUNCTION1 HXCD...	24.42	1.113e3					3.5	YES		bd		0.000
8	FUNCTION1 HXCD...	24.07	1.214e2					0.2	NO		bb		0.000
9	FUNCTION1 HXCD...	22.93	9.005e1					0.3	NO		bb		0.000
10	FUNCTION1 HXCD...	28.03	7.580e1					0.2	NO		bb		0.000
11	FUNCTION1 HXCD...	27.80	7.466e1					0.2	NO		bb		0.000
12	FUNCTION1 HXCD...	27.64	9.719e1					0.2	NO		bb		0.000
13	FUNCTION1 HXCD...	27.11	4.735e3					11.6	YES		db		0.000
14	FUNCTION1 HXCD...	27.06	1.264e3					2.6	NO		dd		0.000
15	FUNCTION1 HXCD...	26.99	2.557e3					3.1	YES		dd		0.000
16	FUNCTION1 HXCD...	26.82	1.150e3					2.1	NO		dd		0.000
17	FUNCTION1 HXCD...	26.76	1.090e3					2.6	NO		dd		0.000
18	FUNCTION1 HXCD...	26.68	5.202e2					1.1	NO		dd		0.000
19	FUNCTION1 HXCD...	26.59	4.632e2					0.7	NO		dd		0.000
20	FUNCTION1 HXCD...	26.50	3.837e2					0.7	NO		dd		0.000
21	FUNCTION1 HXCD...	26.44	7.925e1					0.2	NO		bd		0.000
22	FUNCTION1 HXCD...	26.26	1.202e2					0.3	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	21.53	8.754e1					0.3	NO		dd		0.000
2	FUNCTION1 HPCD...	21.39	1.338e2					0.2	NO		bd		0.000
3	FUNCTION1 HPCD...	27.06	1.227e3					3.5	YES		dd		0.000
4	FUNCTION1 HPCD...	26.96	2.312e3					4.3	YES		dd		0.000
5	FUNCTION1 HPCD...	26.83	1.175e3					2.8	NO		dd		0.000
6	FUNCTION1 HPCD...	26.76	1.583e3					4.1	YES		dd		0.000
7	FUNCTION1 HPCD...	26.67	5.135e2					1.6	NO		dd		0.000
8	FUNCTION1 HPCD...	26.58	6.861e2					1.1	NO		dd		0.000
9	FUNCTION1 HPCD...	26.50	1.748e2					0.8	NO		dd		0.000
10	FUNCTION1 HPCD...	26.44	2.373e2					0.4	NO		dd		0.000
11	FUNCTION1 HPCD...	26.26	1.300e2					0.4	NO		bd		0.000
12	FUNCTION1 HPCD...	25.91	1.988e2					0.2	NO		bb		0.000
13	FUNCTION1 HPCD...	25.72	1.012e2					0.3	NO		bb		0.000
14	FUNCTION1 HPCD...	25.53	1.466e2					0.3	NO		db		0.000
15	FUNCTION1 HPCD...	25.32	1.918e2					0.4	NO		bd		0.000
16	FUNCTION1 HPCD...	24.51	2.090e3					6.7	YES		db		0.000
17	FUNCTION1 HPCD...	24.42	8.854e2					3.8	YES		bd		0.000
18	FUNCTION1 HPCD...	21.60	9.175e1					0.3	NO		db		0.000
19	FUNCTION1 HPCD...	27.77	9.425e1					0.4	NO		bb		0.000
20	FUNCTION1 HPCD...	27.65	7.376e1					0.3	NO		db		0.000
21	FUNCTION1 HPCD...	27.53	1.152e2					0.4	NO		bd		0.000
22	FUNCTION1 HPCD...	27.12	3.540e3					10.6	YES		db		0.000

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.63	1.971e2					4.5	YES		bb		0.000
2	FUNCTION2 HPCD...	31.26	2.238e3					45.1	YES		bb		0.000
3	FUNCTION2 HPCD...	29.60	1.581e2					4.1	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.60	5.924e2					8.6	YES		bb		0.000
2	FUNCTION3 OCDPE	36.21	3.178e2					6.7	YES		db		0.000
3	FUNCTION3 OCDPE	36.10	2.730e2					5.6	YES		bd		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:37:53 Pacific Standard Time

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.40	3.196e2					3.7	YES		bb		0.000
2	FUNCTION4 NCDPE	38.52	9.797e1					2.1	NO		bb		0.000

ETHERS6

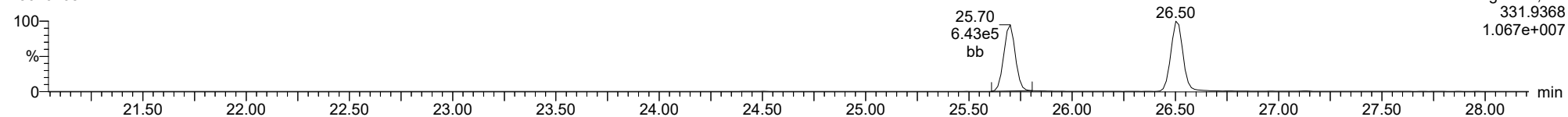
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.14	3.248e2					6.0	YES		bb		0.000

Method: T:\Autospec\Methods\Dioxin230131H.mdb 03 Feb 2023 10:31:33
Calibration: 03 Feb 2023 10:33:40

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD

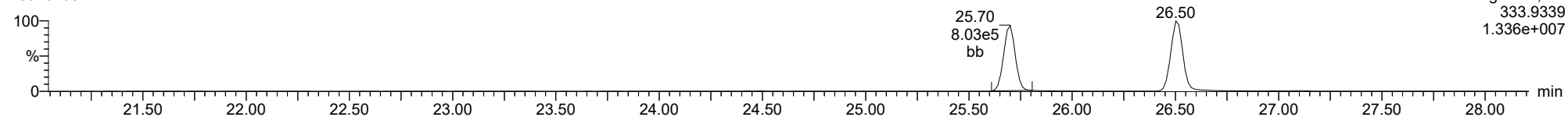
23020108



F1:Voltage SIR,El+
331.9368
1.067e+007

13C-1234-TCDD

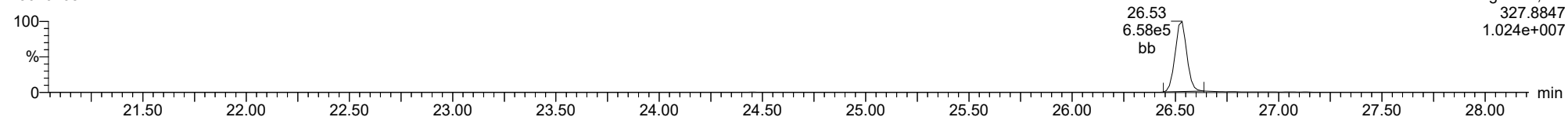
23020108



F1:Voltage SIR,El+
333.9339
1.336e+007

37CL-2378-TCDD

23020108

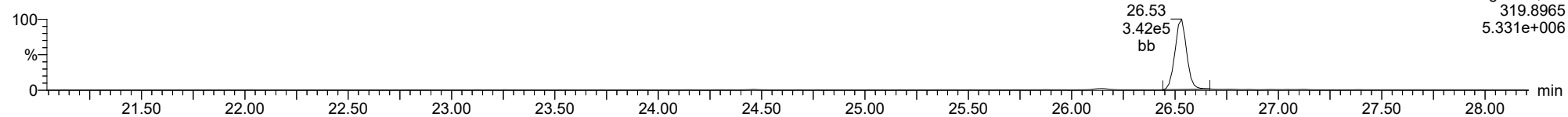


F1:Voltage SIR,El+
327.8847
1.024e+007

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

2378-TCDD

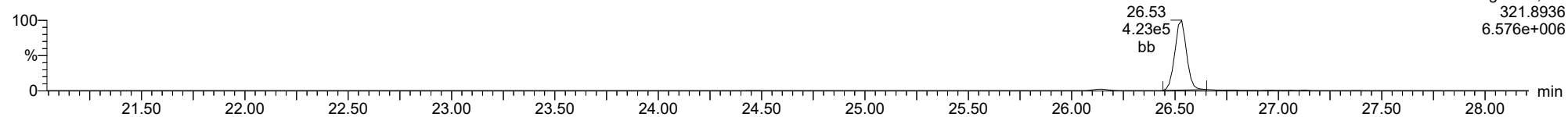
23020108



F1:Voltage SIR,EI+
319.8965
5.331e+006

2378-TCDD

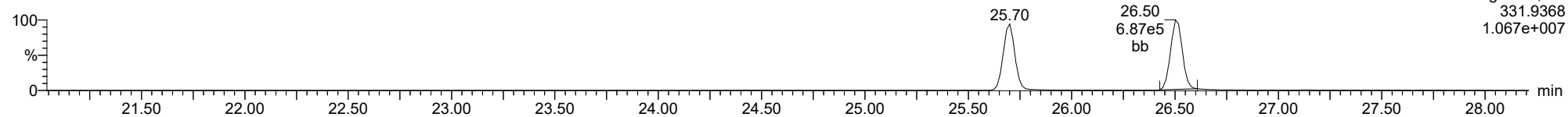
23020108



F1:Voltage SIR,EI+
321.8936
6.576e+006

13C-2378-TCDD

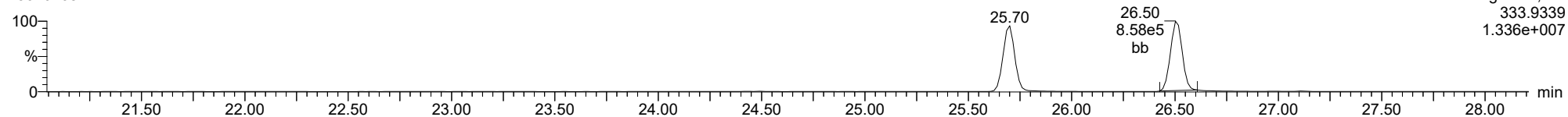
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F1:Voltage SIR,EI+
331.9368
1.067e+007

13C-2378-TCDD

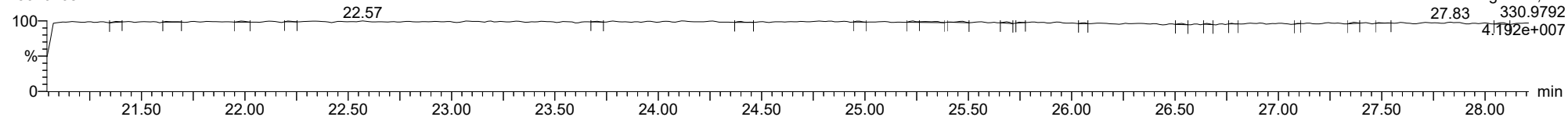
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F1:Voltage SIR,EI+
333.9339
1.336e+007

FUNCTION1 PFK

23020108

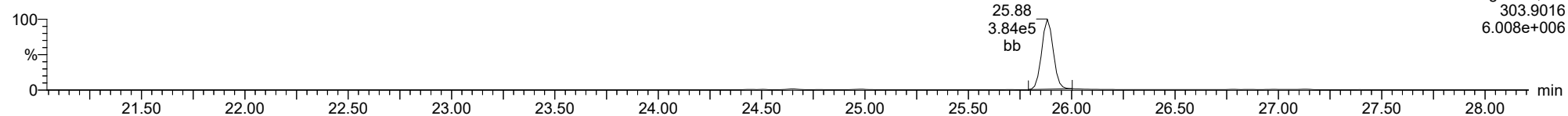


F1:Voltage SIR,EI+
27.83 330.9792
4.192e+007

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

2378-TCDF

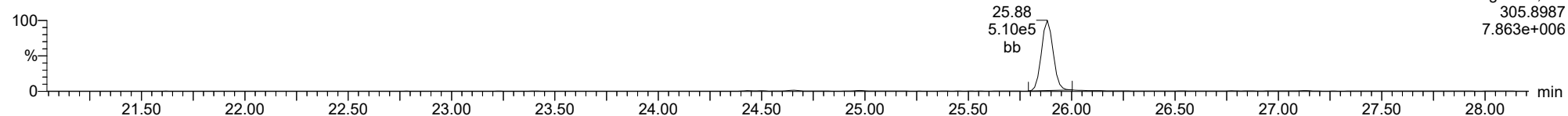
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F1:Voltage SIR,EI+
303.9016
6.008e+006

2378-TCDF

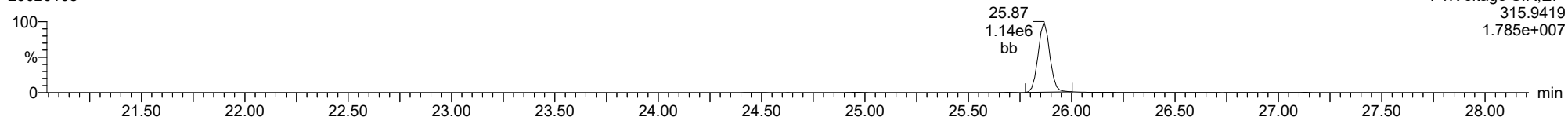
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F1:Voltage SIR,EI+
305.8987
7.863e+006

13C-2378-TCDF

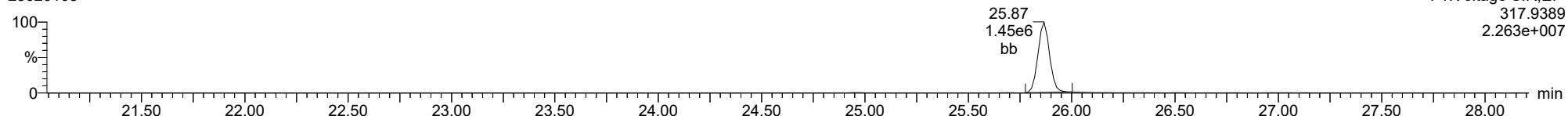
23020108



F1:Voltage SIR,EI+
315.9419
1.785e+007

13C-2378-TCDF

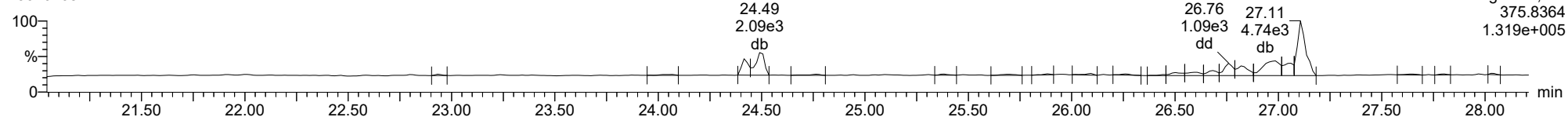
23020108



F1:Voltage SIR,EI+
317.9389
2.263e+007

FUNCTION1 HXCDPE

23020108

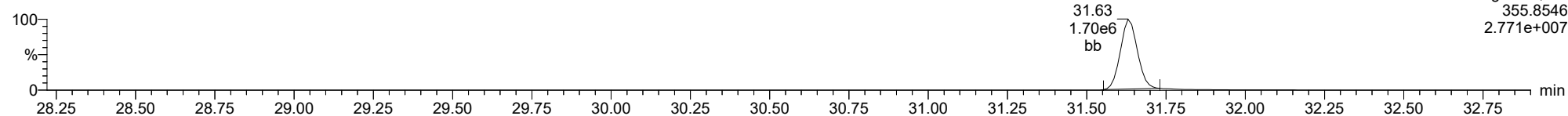


F1:Voltage SIR,EI+
375.8364
1.319e+005

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

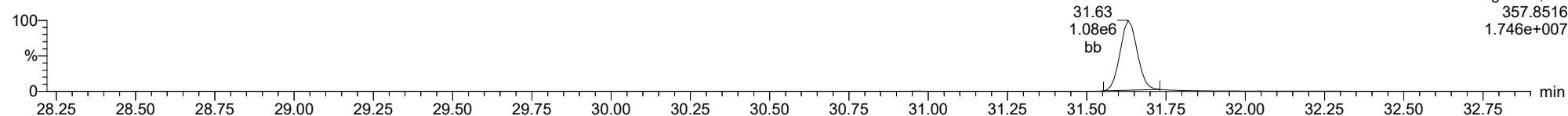
12378-PeCDD

23020108



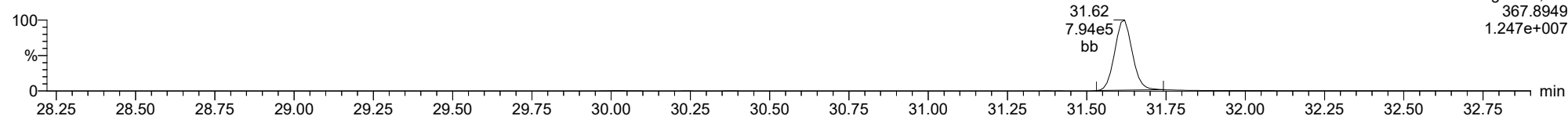
12378-PeCDD

23020108



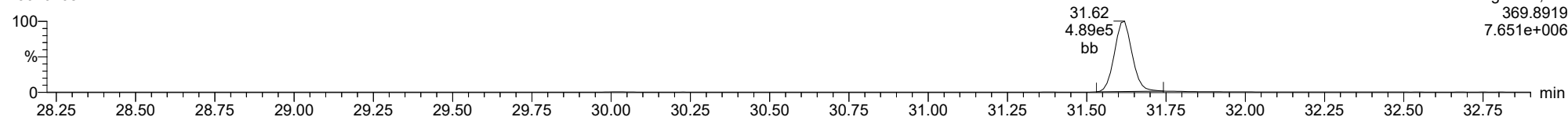
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23020108



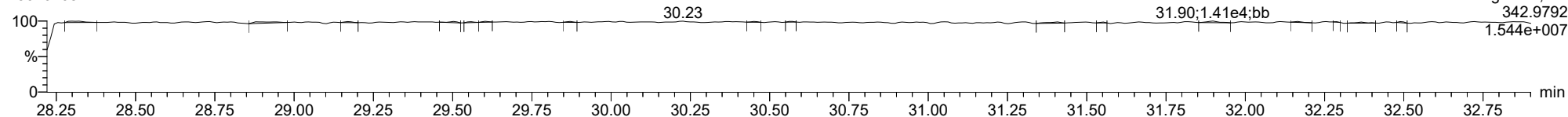
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23020108



FUNCTION2 PFK

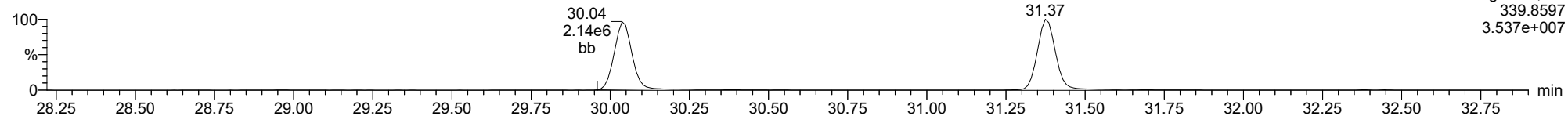
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

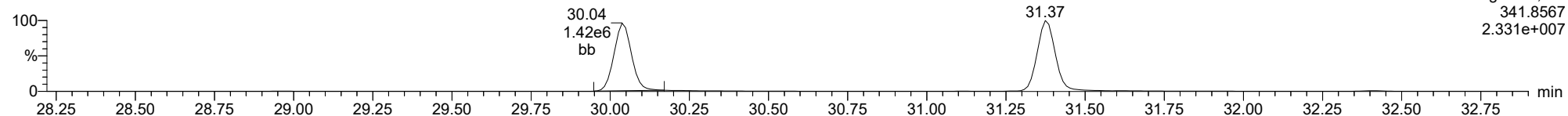
12378-PeCDF

23020108



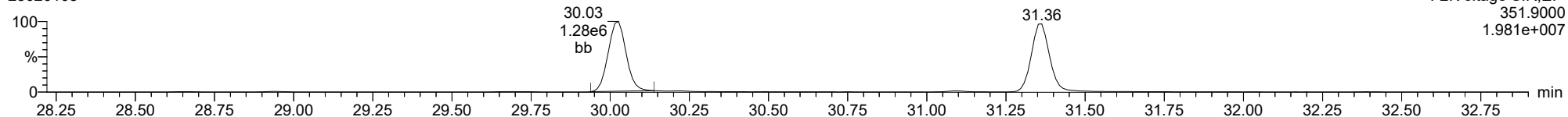
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23020108



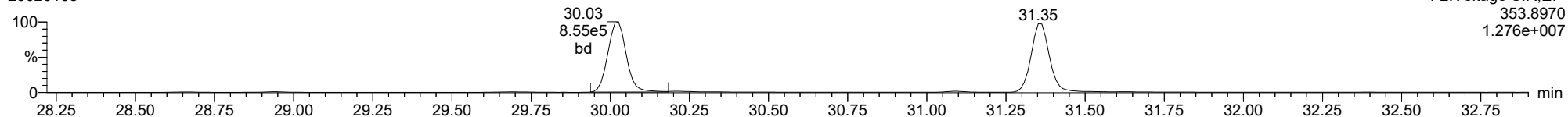
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23020108



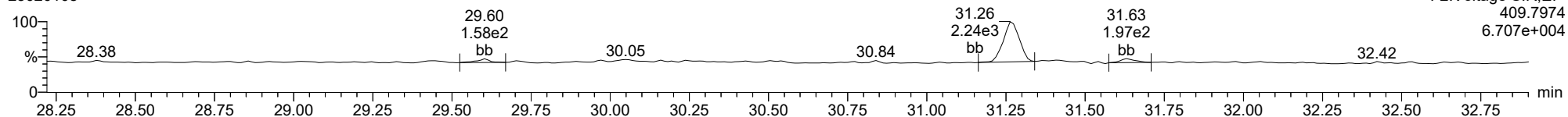
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23020108



FUNCTION2 HPCDPE

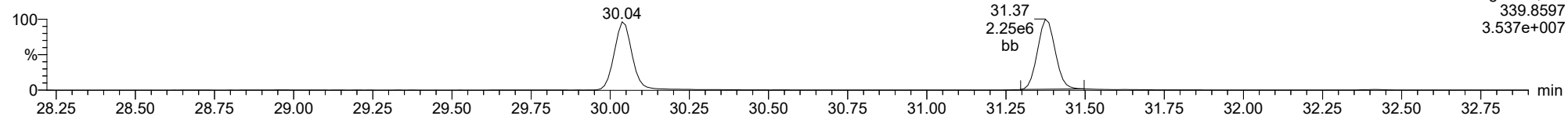
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

23478-PeCDF

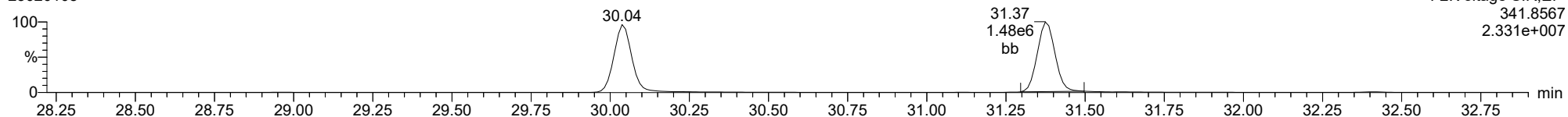
23020108



F2:Voltage SIR,EI+
339.8597
3.537e+007

23478-PeCDF

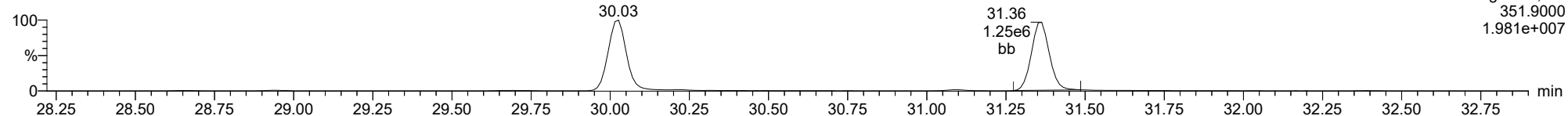
23020108



F2:Voltage SIR,EI+
341.8567
2.331e+007

13C-23478-PeCDF

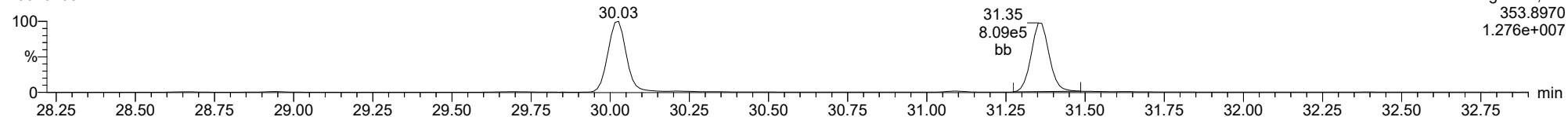
23020108



F2:Voltage SIR,EI+
351.9000
1.981e+007

13C-23478-PeCDF

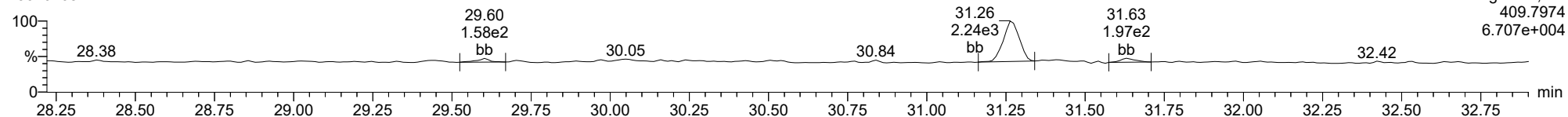
23020108



F2:Voltage SIR,EI+
353.8970
1.276e+007

FUNCTION2 HPCDPE

23020108

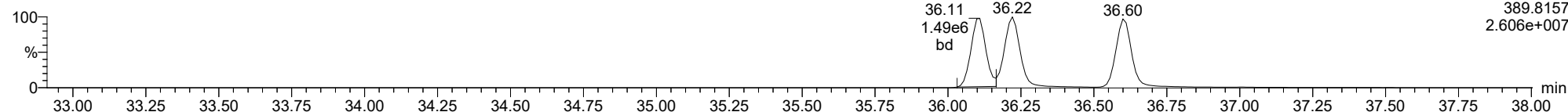


F2:Voltage SIR,EI+
409.7974
6.707e+004

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

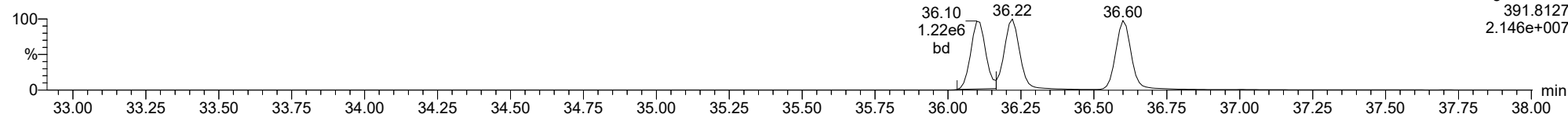
123478-HxCDD

23020108



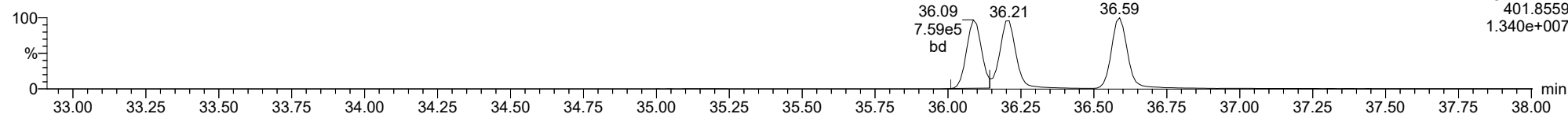
123478-HxCDD

23020108



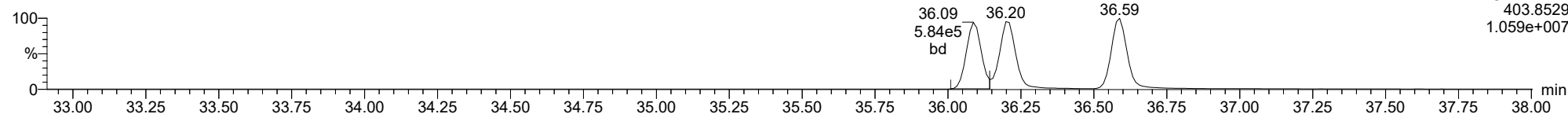
13C-123478-HxCDD

23020108



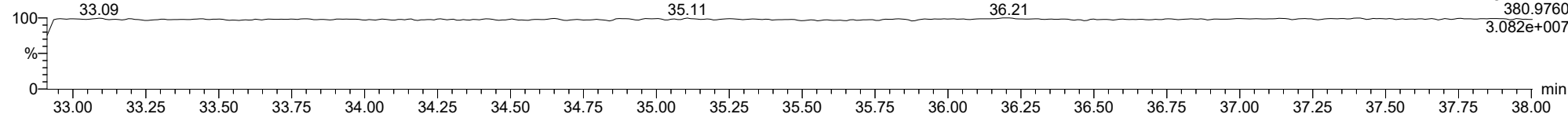
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23020108



FUNCTION3 PFK

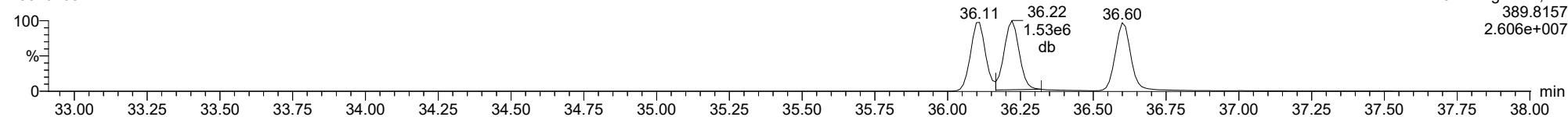
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

123678-HxCDD

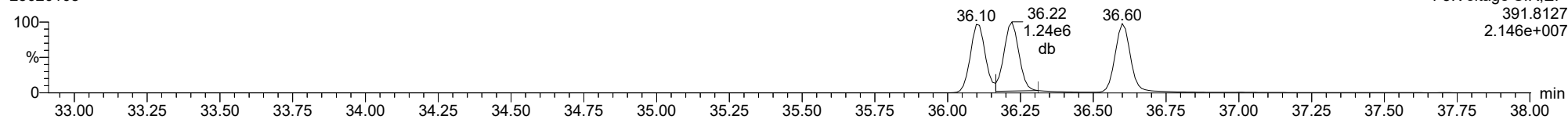
23020108



F3:Voltage SIR,EI+
389.8157
2.606e+007

123678-HxCDD

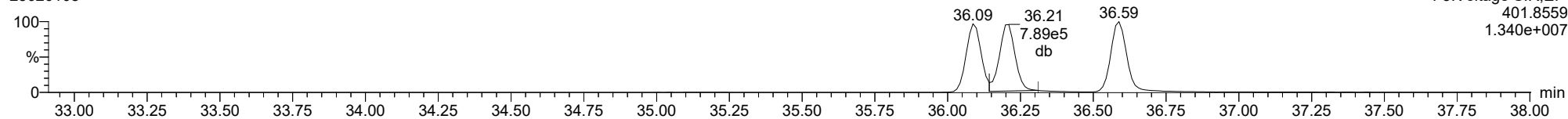
23020108



F3:Voltage SIR,EI+
391.8127
2.146e+007

13C-123678-HxCDD

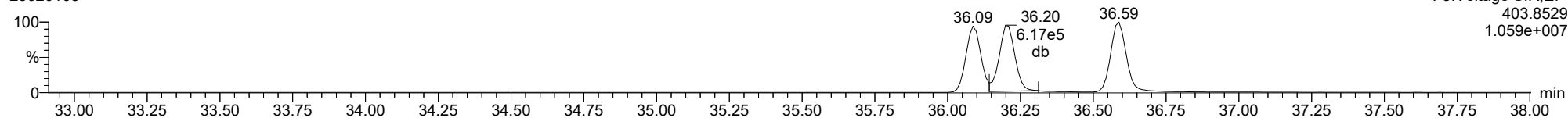
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F3:Voltage SIR,EI+
401.8559
1.340e+007

13C-123678-HxCDD

23020108

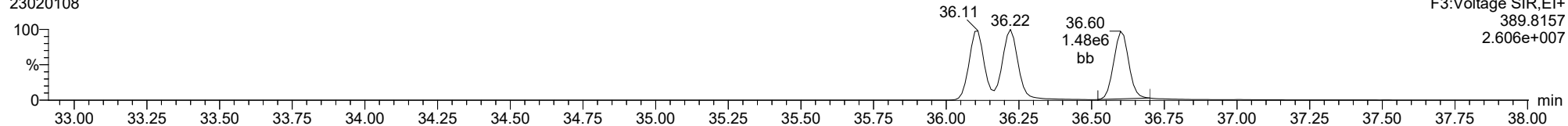


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403.8529
1.059e+007

ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

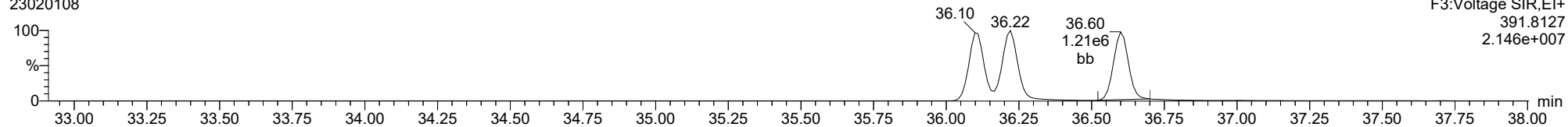
123789-HxCDD

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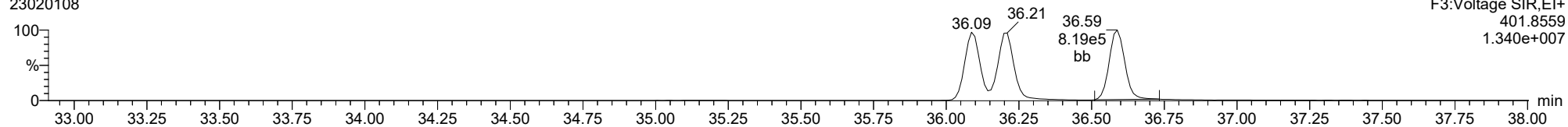
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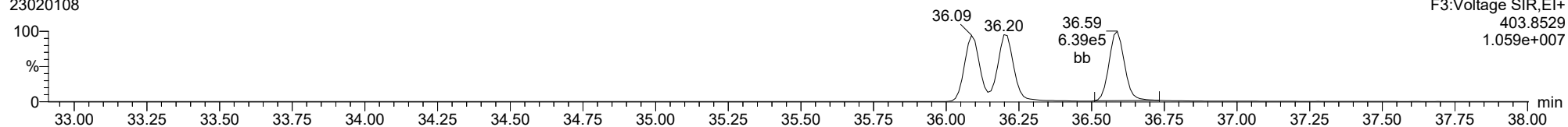
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13C-123789-HxCDD

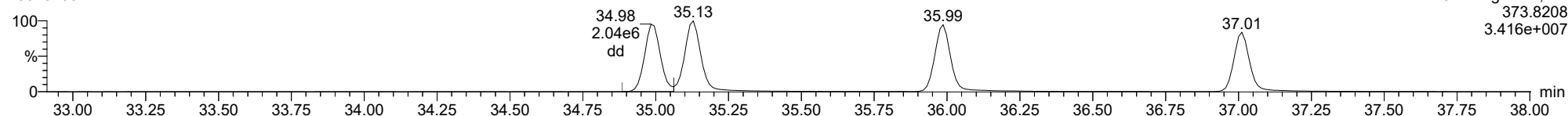
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

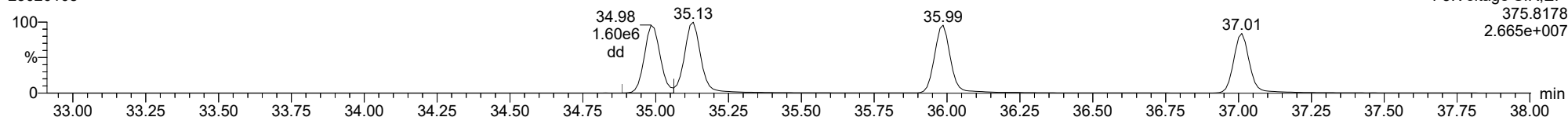
123478-HxCDF

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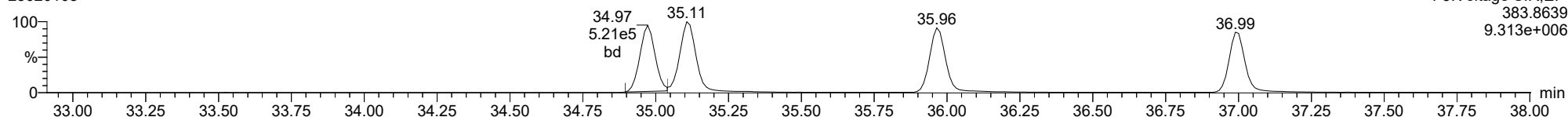
123478-HxCDF

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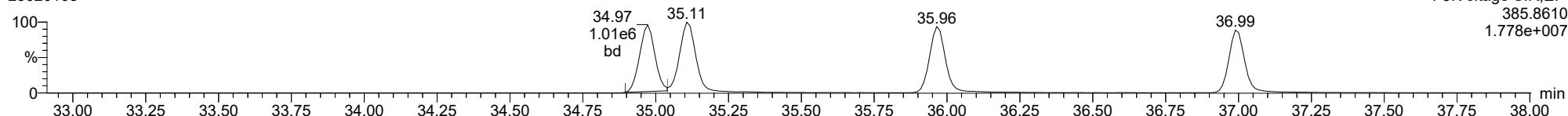
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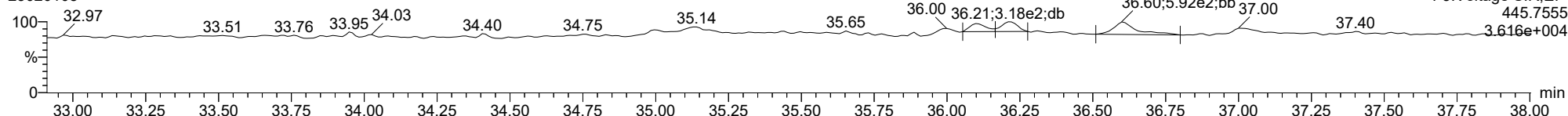
13C-123478-HxCDF

23020108



FUNCTION3 OCDPE

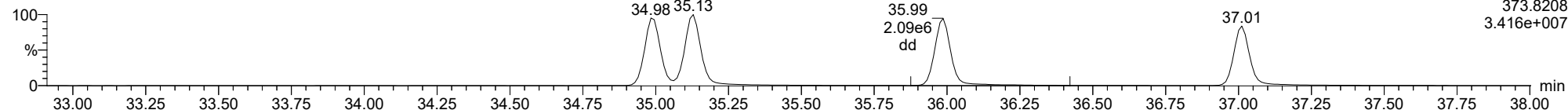
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

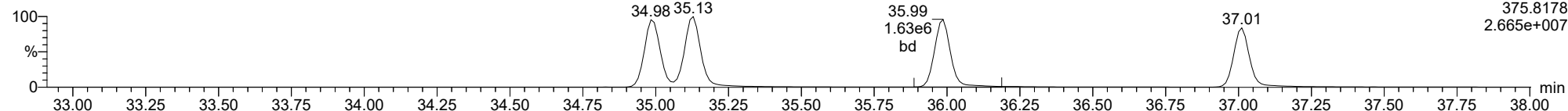
234678-HxCDF

23020108



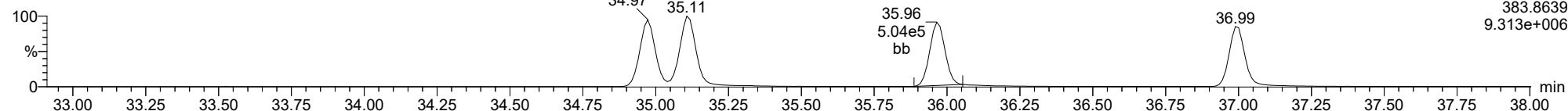
234678-HxCDF

23020108



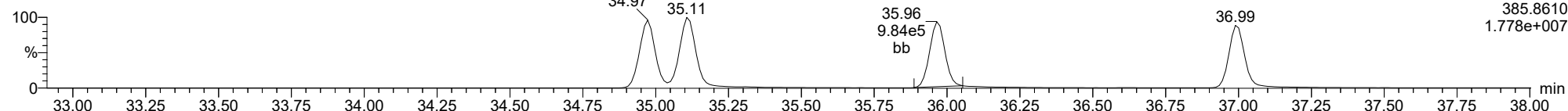
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23020108



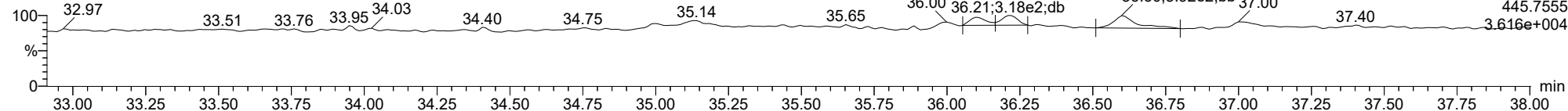
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FUNCTION3 OCDPE

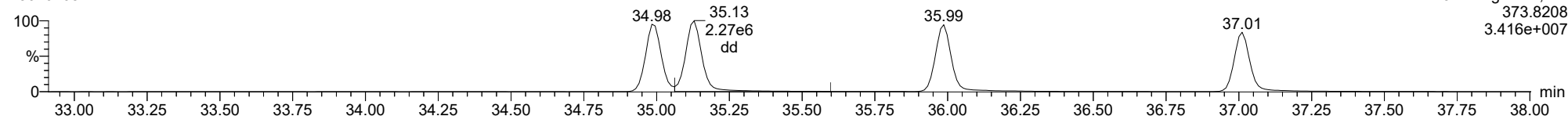
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

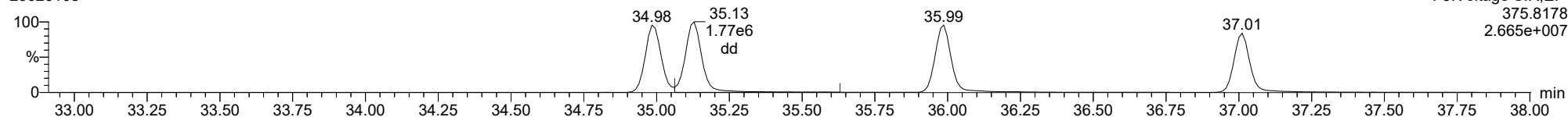
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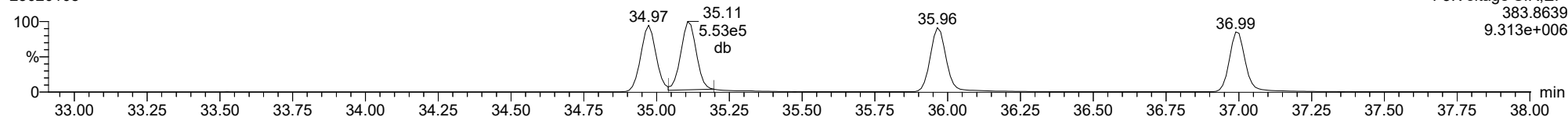
123678-HxCDF

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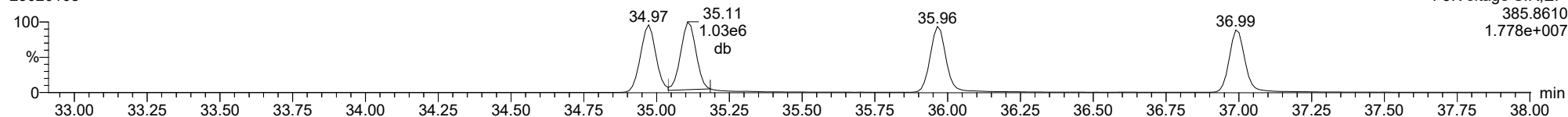
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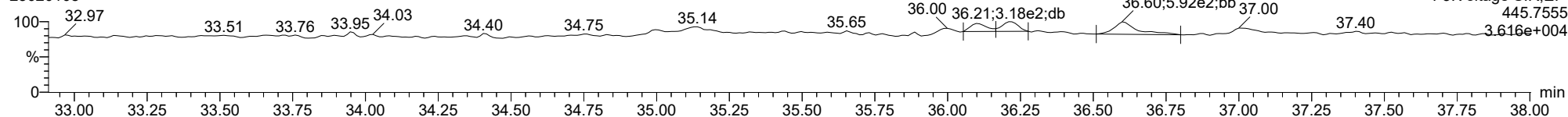
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FUNCTION3 OCDPE

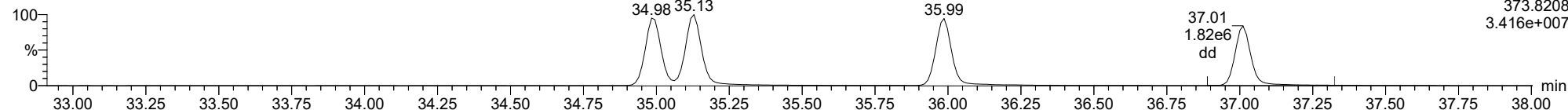
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

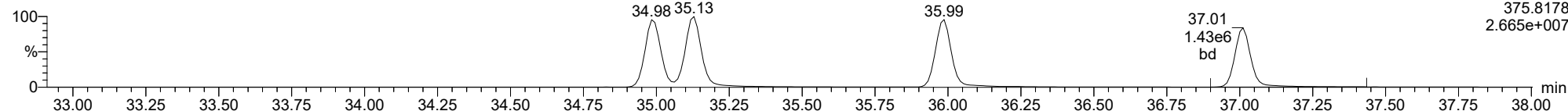
123789-HxCDF

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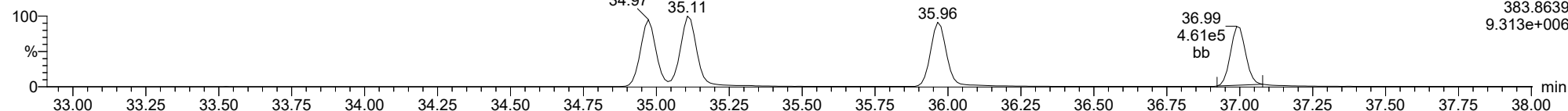
123789-HxCDF

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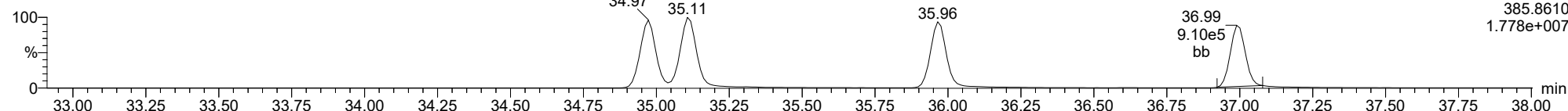
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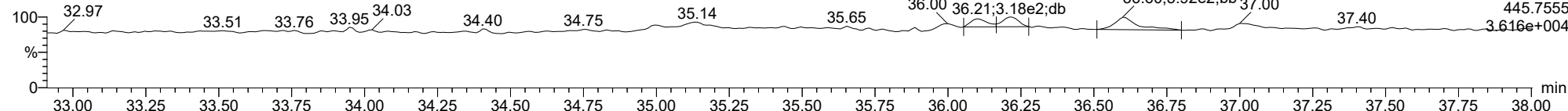
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FUNCTION3 OCDPE

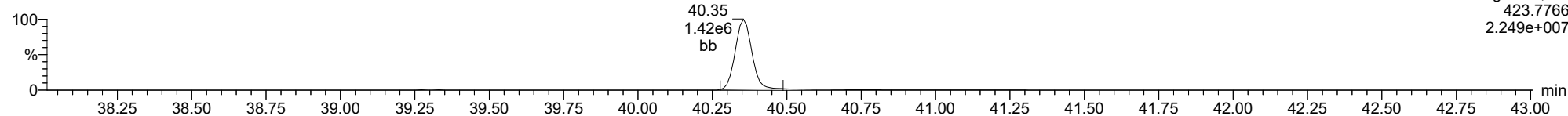
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

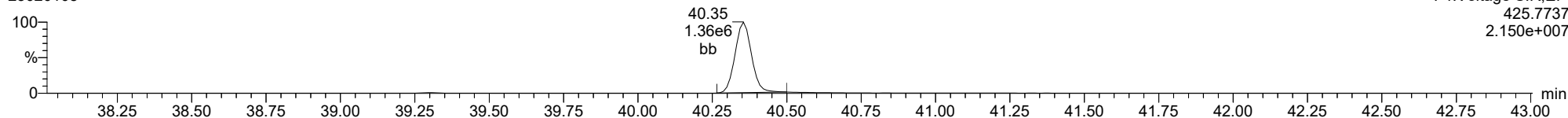
1234678-HpCDD

23020108



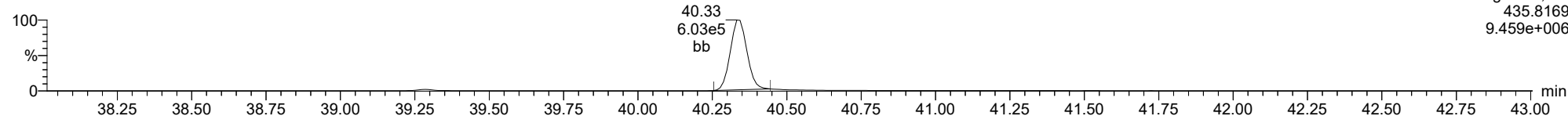
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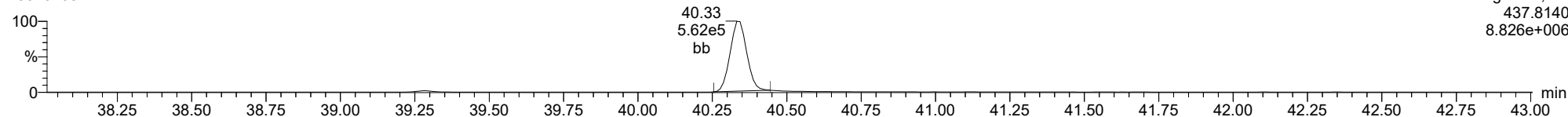
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23020108



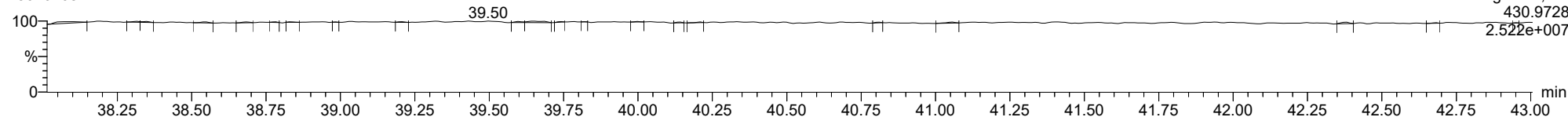
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FUNCTION4 PFK

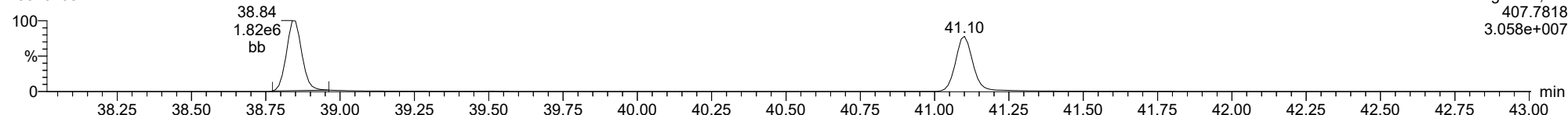
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

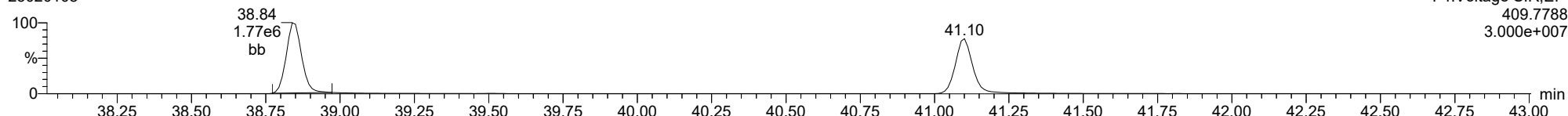
1234678-HpCDF

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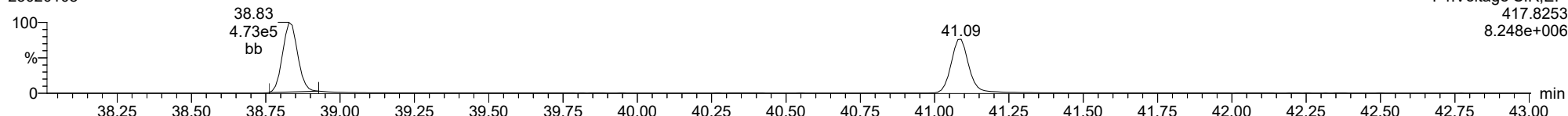
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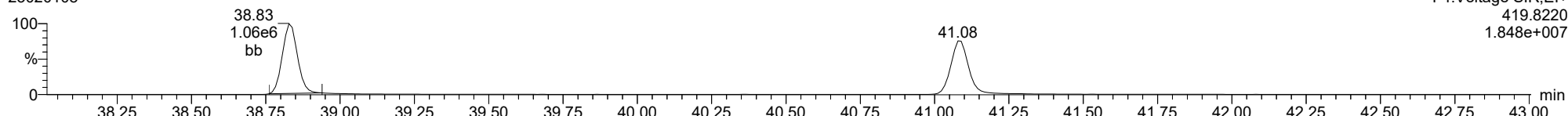
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23020108



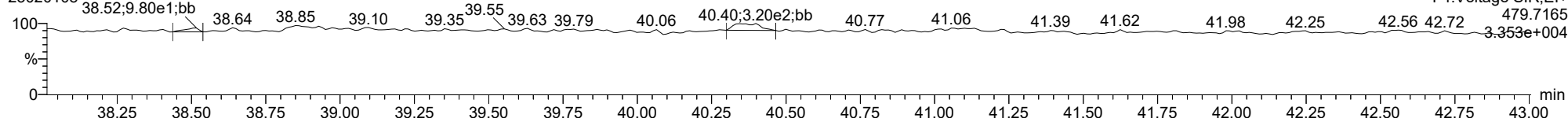
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FUNCTION4 NCDPE

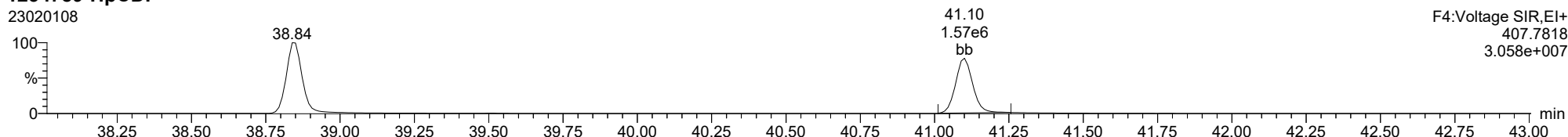
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

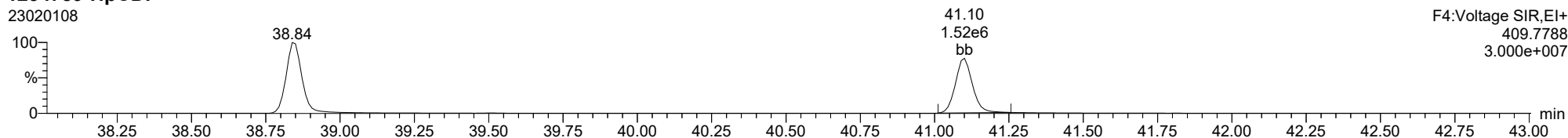
1234789-HpCDF

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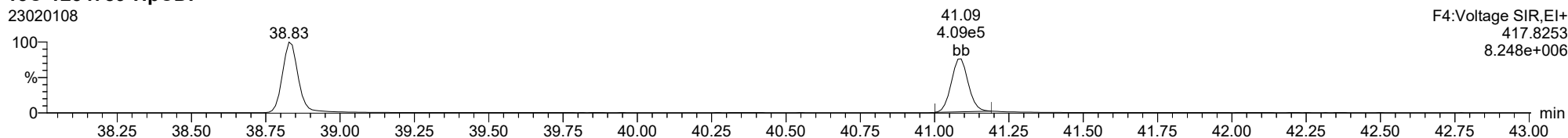
1234789-HpCDF

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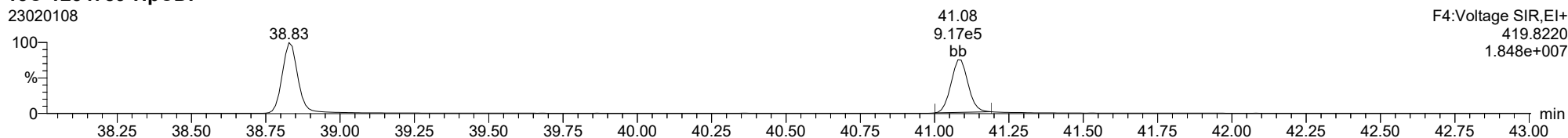
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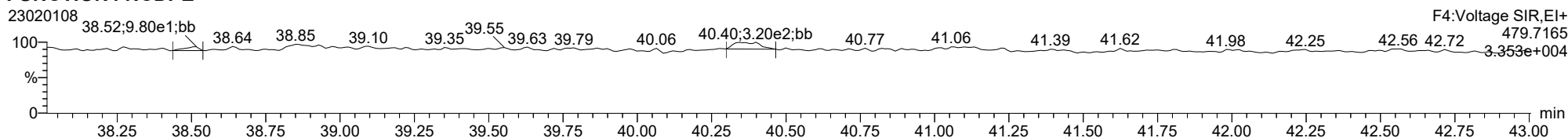
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FUNCTION4 NCDPE

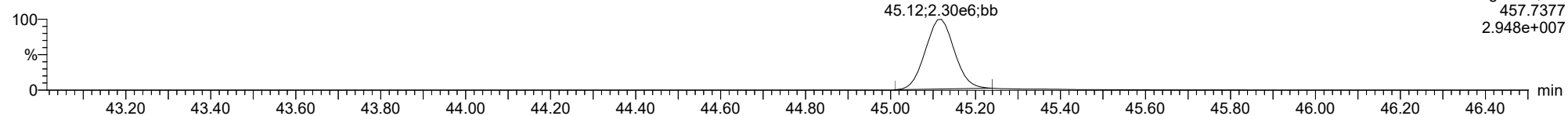
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

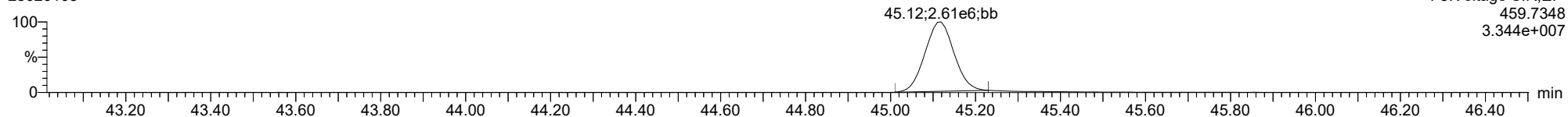
OCDD

23020108



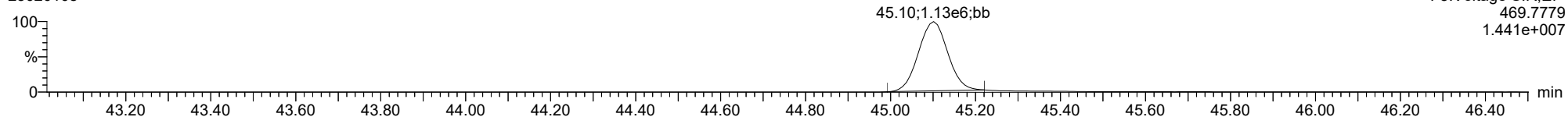
OCDD

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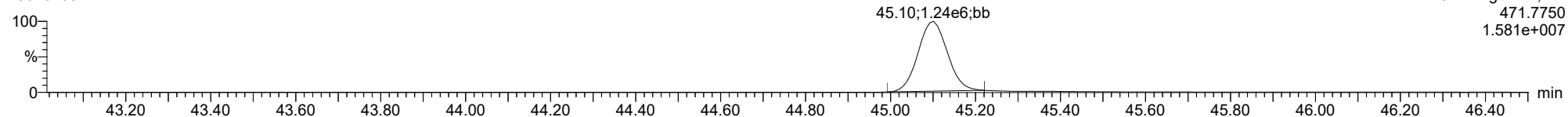
13C-OCDD

23020108



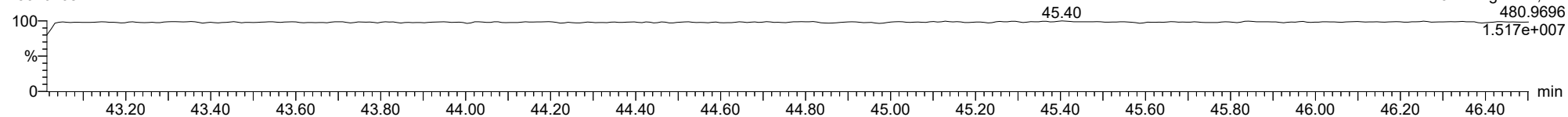
13C-OCDD

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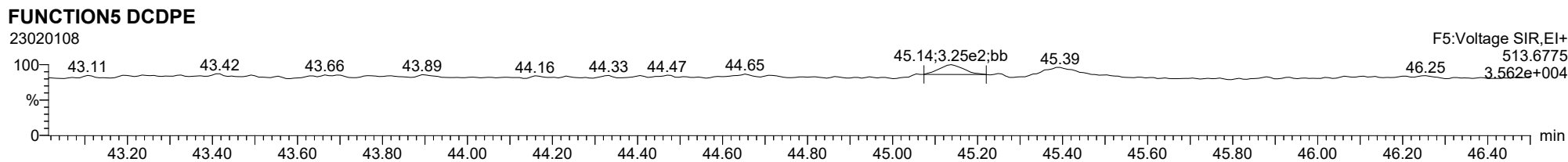
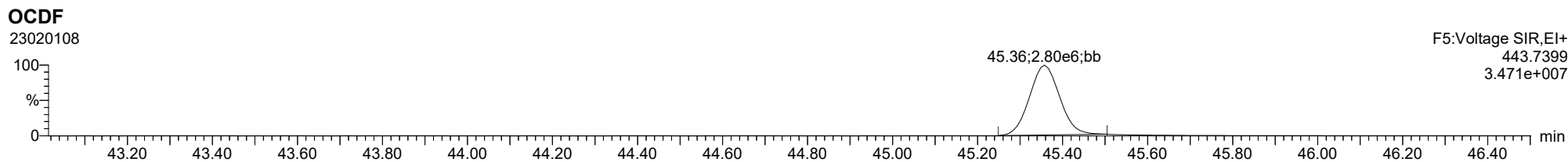
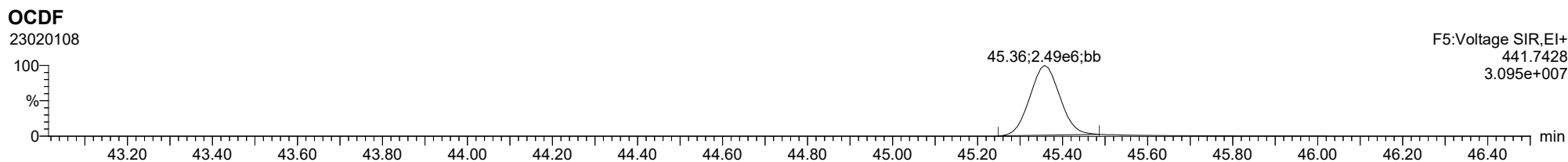


FUNCTION5 PFK

23020108



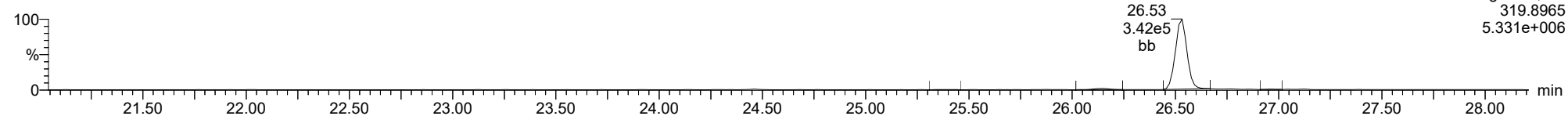
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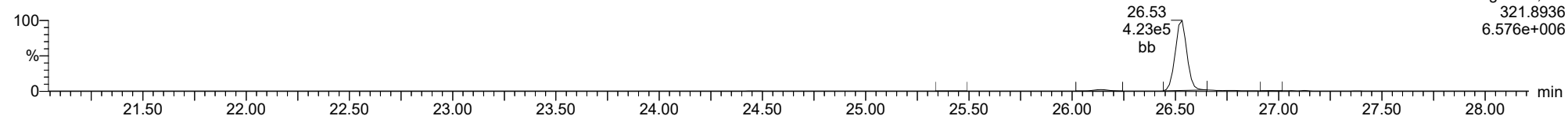
Total-tetradioxins

23020108



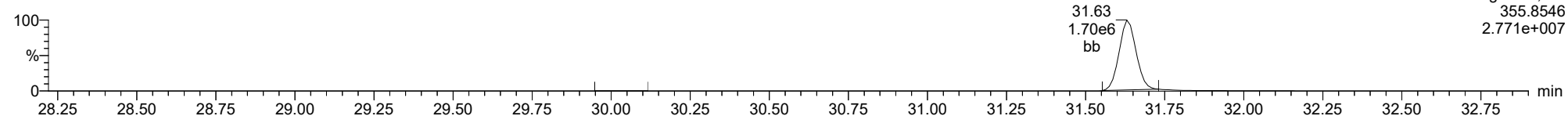
Total-tetradioxins

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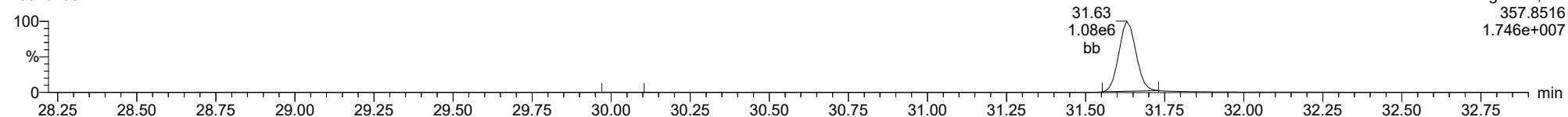
Total-pentadioxins

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Total-pentadioxins

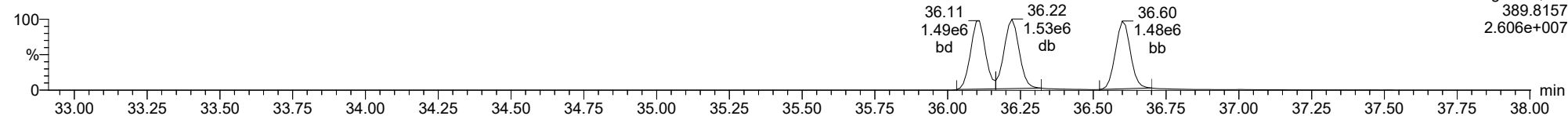
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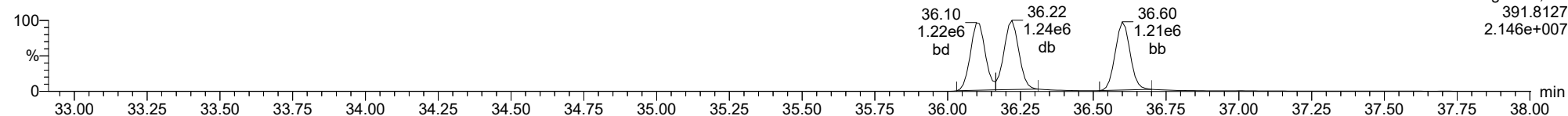
Total-hexadioxins

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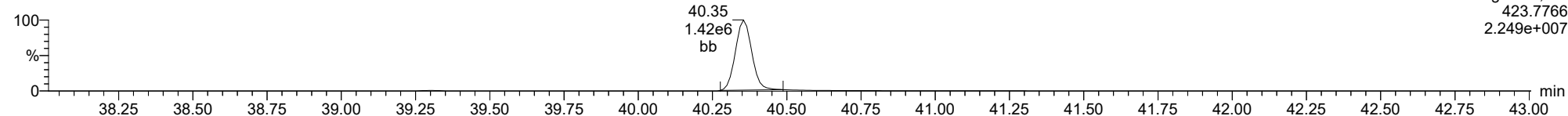
Total-hexadioxins

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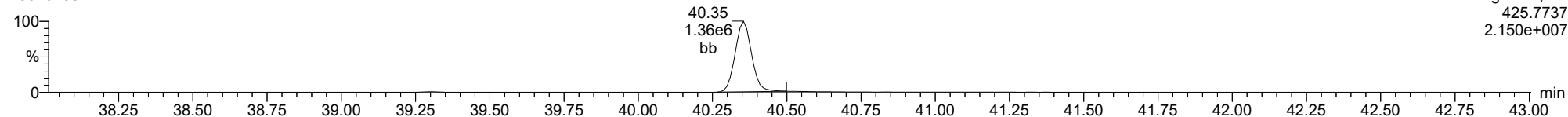
Total-heptadioxins

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Total-heptadioxins

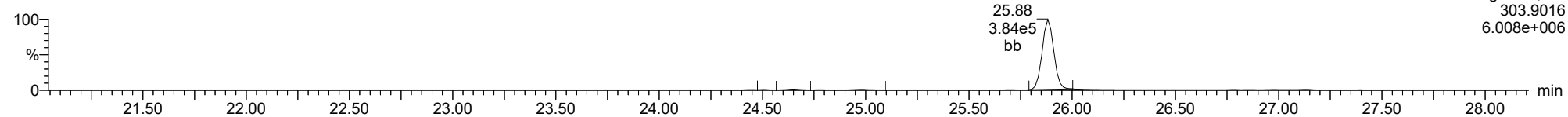
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

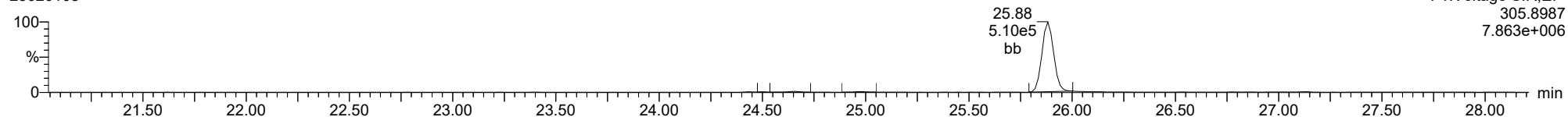
Total-tetrafurans

23020108



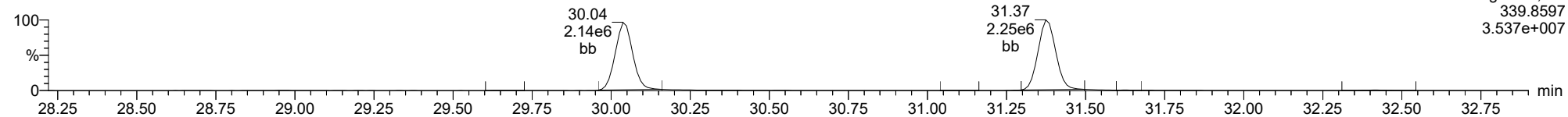
Total-tetrafurans

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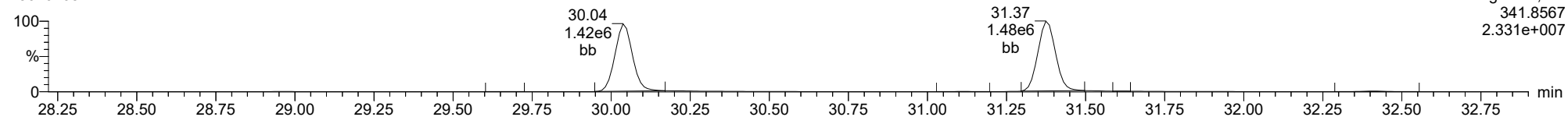
Total-pentafurans

23020108



Total-pentafurans

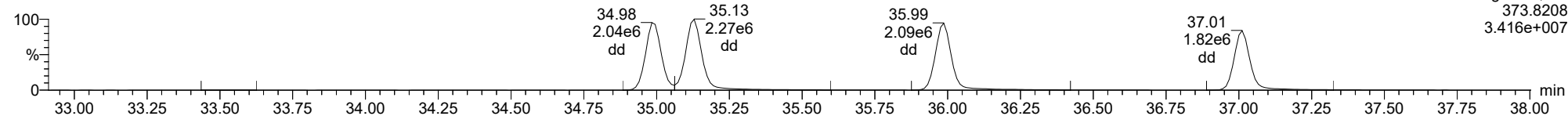
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ID: CS4CR, Name: 23020108, Date: 01-Feb-2023, Time: 18:45:20, Conditions: AUTOSPEC01, User: pk

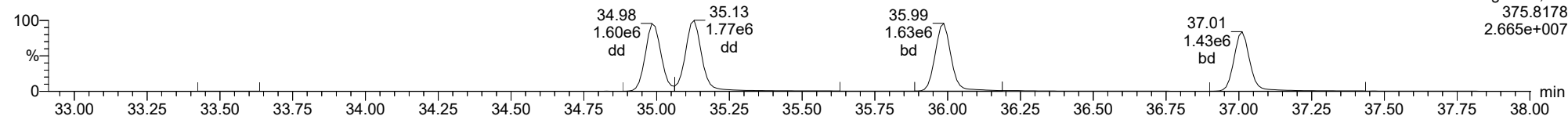
Total-hexafurans

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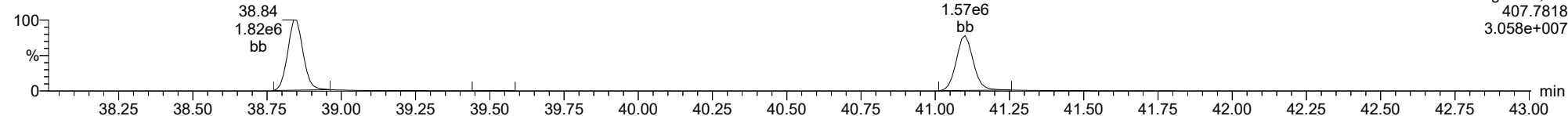
Total-hexafurans

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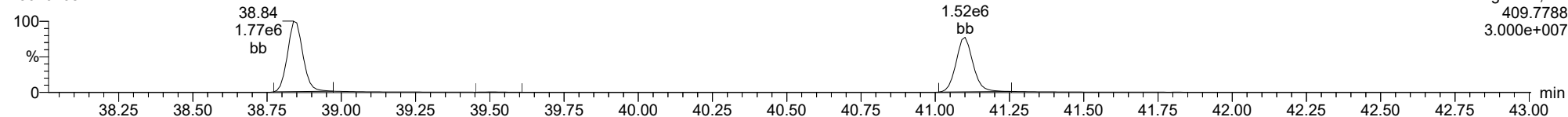
Total-heptafurans

23020108



Total-heptafurans

23020108



Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
Calibration: 03 Feb 2023 10:33:40

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.897	1.001	1.902e6	2.502e6	0.876	0.760	0.770	2083	2633	2.83e7	3.68e7	13592.2	13978.0	NO	bb	bb	198.739
12378-PeCDF	30.049	1.000	1.205e7	7.874e6	0.845	1.531	1.550	7373	5488	1.93e8	1.26e8	26224.5	23031.6	NO	bb	bb	994.981
23478-PeCDF	31.386	1.000	1.269e7	8.370e6	0.911	1.517	1.550	7373	5488	2.06e8	1.36e8	27965.2	24705.2	NO	bb	bb	1016.382
123478-HxCDF	34.995	1.000	1.141e7	8.950e6	1.182	1.275	1.240	3920	5169	1.84e8	1.47e8	46993.0	28370.7	NO	dd	dd	1029.340
234678-HxCDF	35.998	1.001	1.171e7	9.171e6	1.229	1.276	1.240	3920	5169	1.90e8	1.49e8	48596.8	28890.8	NO	dd	dd	1009.446
123678-HxCDF	35.140	1.001	1.235e7	9.894e6	1.248	1.248	1.240	3920	5169	1.94e8	1.54e8	49388.8	29696.3	NO	dd	dd	1025.687
123789-HxCDF	37.023	1.001	1.031e7	8.091e6	1.187	1.275	1.240	3920	5169	1.66e8	1.30e8	42476.6	25233.9	NO	bd	bd	998.443
1234678-HpCDF	38.850	1.000	1.032e7	1.012e7	1.204	1.019	1.050	8904	8155	1.75e8	1.74e8	19676.2	21311.7	NO	bb	bb	964.735
1234789-HpCDF	41.112	1.000	8.967e6	8.709e6	1.165	1.030	1.050	8904	8155	1.36e8	1.32e8	15298.2	16219.3	NO	bb	bb	993.722
OCDF	45.375	1.006	1.493e7	1.667e7	1.186	0.896	0.890	4510	4269	1.90e8	2.12e8	42161.0	49693.7	NO	bb	bb	1895.001
2378-TCDD	26.532	1.001	1.752e6	2.174e6	1.236	0.806	0.770	1459	2196	2.70e7	3.36e7	18498.5	15304.9	NO	bb	bb	198.710
12378-PeCDD	31.642	1.000	9.606e6	6.125e6	1.087	1.568	1.550	3423	1668	1.56e8	9.91e7	45448.5	59405.3	NO	bb	bb	1009.559
123478-HxCDD	36.120	1.001	8.528e6	7.016e6	0.987	1.215	1.240	3213	2854	1.40e8	1.15e8	43594.1	40358.9	NO	bd	bd	1032.837
123678-HxCDD	36.232	1.000	8.754e6	7.068e6	1.021	1.239	1.240	3213	2854	1.51e8	1.23e8	47081.5	43211.8	NO	db	db	969.556
123789-HxCDD	36.611	1.011	8.604e6	7.092e6	0.985	1.213	1.240	3213	2854	1.49e8	1.23e8	46396.6	43264.5	NO	bb	bb	1019.817
1234678-HpCDD	40.365	1.001	8.084e6	7.725e6	1.253	1.046	1.050	4704	6048	1.30e8	1.24e8	27631.4	20454.3	NO	bb	bb	955.606
OCDD	45.138	1.000	1.379e7	1.563e7	1.103	0.882	0.890	4246	3833	1.77e8	2.00e8	41633.2	52271.8	NO	bb	bb	1898.324
13C-2378-TCDF	25.867	1.007	1.117e6	1.412e6	1.768	0.791	0.770	2137	1536	1.68e7	2.15e7	7867.7	13974.0	NO	bb	bb	104.652
13C-12378-PeCDF	30.037	1.169	1.439e6	9.319e5	1.527	1.544	1.550	3190	2679	2.23e7	1.46e7	6993.2	5456.9	NO	bb	bb	113.578
13C-23478-PeCDF	31.375	1.221	1.384e6	8.910e5	1.466	1.553	1.550	3190	2679	2.11e7	1.37e7	6621.6	5099.2	NO	bb	bb	113.466
13C-123478-HxCDF	34.984	0.956	5.247e5	1.149e6	1.054	0.456	0.510	2046	3816	8.96e6	1.85e7	4377.9	4858.6	NO	bb	bd	95.236
13C-123678-HxCDF	35.118	0.960	5.447e5	1.193e6	1.080	0.456	0.510	2046	3816	9.54e6	1.96e7	4663.8	5131.1	NO	bb	db	96.456
13C-234678-HxCDF	35.976	0.983	5.724e5	1.111e6	1.014	0.515	0.510	2046	3816	9.48e6	1.86e7	4633.3	4871.3	NO	bb	bb	99.457
13C-123789-HxCDF	37.001	1.011	5.244e5	1.029e6	0.928	0.510	0.510	2046	3816	8.87e6	1.74e7	4335.4	4558.1	NO	bb	bb	100.353
13C-1234678-HpCDF	38.839	1.061	5.492e5	1.210e6	1.036	0.454	0.440	2607	3522	9.31e6	2.08e7	3570.6	5900.4	NO	bb	bb	101.771
13C-1234789-HpCDF	41.100	1.123	4.687e5	1.058e6	0.905	0.443	0.440	2607	3522	6.97e6	1.56e7	2673.2	4442.5	NO	bb	bb	101.106
13C-1234-TCDD	25.700	0.000	6.087e5	7.585e5	1.000	0.803	0.770	1970	1516	9.39e6	1.18e7	4765.4	7760.6	NO	bb	bb	100.000
13C-2378-TCDD	26.517	1.032	7.055e5	8.929e5	1.103	0.790	0.770	1970	1516	1.10e7	1.38e7	5597.9	9134.2	NO	bb	bb	106.005
13C-12378-PeCDD	31.631	1.231	8.888e5	5.452e5	0.914	1.630	1.550	1596	1437	1.37e7	8.34e6	8557.4	5803.5	NO	bb	bb	114.739
13C-123478-HxCDD	36.098	0.986	8.648e5	6.600e5	0.933	1.310	1.240	2021	1546	1.43e7	1.10e7	7083.3	7089.6	NO	bd	bd	97.968
13C-123678-HxCDD	36.221	0.990	8.909e5	7.079e5	0.965	1.258	1.240	2021	1546	1.49e7	1.18e7	7371.3	7606.4	NO	db	db	99.340
13C-1234678-HpCDD	40.343	1.102	6.795e5	6.413e5	0.782	1.059	1.050	2204	1955	1.08e7	1.02e7	4901.5	5191.4	NO	bb	bb	101.235
13C-OCDD	45.119	1.233	1.338e6	1.473e6	0.788	0.908	0.890	3227	1633	1.70e7	1.87e7	5253.8	11468.7	NO	bb	bb	213.757
13C-123789-HxCDD	36.600	0.000	9.379e5	7.305e5	1.000	1.284	1.240	2021	1546	1.55e7	1.24e7	7683.2	7996.3	NO	bb	bb	100.000
37CL-2378-TCDD	26.532	1.032	3.390e6		1.233			2288		5.24e7		22881.9			bb		201.044

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF					1.064		0.770	2083	2633								
1289-TCDF					0.858		0.770	2083	2633								
13468-PECDF					1.013		1.550	1030	1210								
12389-PECDF					0.844		1.550	7373	5488								
123468-HXCDF					1.197		1.240	3920	5169								
1368-TCDD					1.084		0.770	1459	2196								
1289-TCDD					0.975		0.770	1459	2196								
12479-PECDD					1.837		1.550	3423	1668								
12389-PECDD					1.252		1.550	3423	1668								
124679-HXCDD					1.033		1.240	3213	2854								
1234679-HPCDD					1.286		1.050	4704	6048								
Total-tetrafurans			1.936e6		0.933			2083		2.88e7						202.080	
Total-penta1			0.000e0					1030		0.00e0							
Total-pentafurans			2.494e7		0.866			7373		4.02e8						2027.255	
Total-hexafurans			4.602e7		1.208			3920		7.37e8						4083.100	
Total-heptafurans			1.932e7		1.185			8904		3.12e8						1962.233	
Total-Furans			1.071e8		1.067			2083		1.67e9						10169.669	
Total-tetradoxins			1.793e6		1.099			1459		2.75e7						203.813	
Total-pentadoxins			9.627e6		1.392			3423		1.56e8						1011.307	
Total-hexadoxins			2.592e7		1.007			3213		4.41e8						3025.757	
Total-heptadoxins			8.084e6		1.269			4704		1.30e8						955.606	
Total-Dioxins			5.921e7		1.165			1459		9.31e8						7094.807	
Total-TEQ			1.664e8					1459		2.60e9						17264.476	
FUNCTION1 PFK			2.029e7					574211		2.20e8							
FUNCTION2 PFK			0.000e0					188547		0.00e0							
FUNCTION3 PFK			1.011e6					450058		2.54e7						0.000	
FUNCTION4 PFK			3.839e5					271819		2.65e6							
FUNCTION5 PFK			1.416e4					194883		8.19e5							
FUNCTION1 HXCD...			1.885e3					653		2.55e4						0.000	
FUNCTION1 HPCD...			1.625e3					761		2.22e4						0.000	
FUNCTION2 HPCD...			1.554e4					835		2.29e5						0.000	
FUNCTION3 OCDPE			7.873e3					764		8.87e4						0.000	
FUNCTION4 NCDPE			2.525e3					778		3.44e4						0.000	
FUNCTION5 DCDPE			4.222e3					726		3.75e4						0.000	

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\2302011CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33

Calibration: 03 Feb 2023 10:33:40

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	26.53	2.226e3	3.396e3	0.933	0.66	0.77	11.6	YES	NO	bb	bd	0.238
2	2378-TCDF	25.90	1.902e6	2.502e6	0.876	0.76	0.77	13592.2	YES	NO	bb	bb	198.739
3	Total-tetrafurans	25.72	1.842e3	2.753e3	0.933	0.67	0.77	10.6	YES	NO	bb	bb	0.195
4	Total-tetrafurans	24.97	1.224e4	1.625e4	0.933	0.75	0.77	91.6	YES	NO	db	dd	1.208
5	Total-tetrafurans	24.66	1.707e4	2.304e4	0.933	0.74	0.77	124.7	YES	NO	bd	dd	1.700

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	28.97	3.816e4	2.465e4	0.866	1.55	1.55	67.9	YES	NO	bb	bb	3.121
2	Total-pentafurans	28.68	1.252e3	7.687e2	0.866	1.63	1.55	2.7	NO	NO	bb	bb	0.100
3	Total-pentafurans	31.64	2.450e4	1.763e4	0.866	1.39	1.55	52.8	YES	NO	bb	bb	2.093
4	23478-PeCDF	31.39	1.269e7	8.370e6	0.911	1.52	1.55	27965.2	YES	NO	bb	bb	1016.3...
5	Total-pentafurans	31.12	1.334e4	8.233e3	0.866	1.62	1.55	28.5	YES	NO	bb	bb	1.072
6	Total-pentafurans	30.35	1.243e4	7.715e3	0.866	1.61	1.55	30.7	YES	NO	bb	bb	1.001
7	12378-PeCDF	30.05	1.205e7	7.874e6	0.845	1.53	1.55	26224.5	YES	NO	bb	bb	994.981
8	Total-pentafurans	29.76	8.085e3	5.894e3	0.866	1.37	1.55	15.9	YES	NO	db	db	0.695
9	Total-pentafurans	29.68	6.865e3	3.988e3	0.866	1.72	1.55	14.4	YES	NO	bd	bd	0.539
10	Total-pentafurans	32.42	8.774e4	5.860e4	0.866	1.50	1.55	183.2	YES	NO	bb	bd	7.271

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk**HF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123478-HxCDF	35.00	1.141e7	8.950e6	1.182	1.28	1.24	46993.0	YES	NO	dd	dd	1029.3...
2	Total-hexafurans	34.84	1.696e4	1.325e4	1.208	1.28	1.24	72.5	YES	NO	bd	bd	1.504
3	Total-hexafurans	33.55	9.817e3	7.389e3	1.208	1.33	1.24	34.0	YES	NO	dd	db	0.857
4	123789-HxCDF	37.02	1.031e7	8.091e6	1.187	1.27	1.24	42476.6	YES	NO	bd	bd	998.443
5	Total-hexafurans	36.62	3.175e4	2.702e4	1.208	1.17	1.24	85.2	YES	NO	dd	db	2.926
6	Total-hexafurans	36.53	6.162e3	4.947e3	1.208	1.25	1.24	37.3	YES	NO	dd	dd	0.553
7	Total-hexafurans	36.23	1.664e5	1.218e5	1.208	1.37	1.24	331.3	YES	NO	dd	dd	14.345
8	234678-HxCDF	36.00	1.171e7	9.171e6	1.229	1.28	1.24	48596.8	YES	NO	dd	dd	1009.4...
9	123678-HxCDF	35.14	1.235e7	9.894e6	1.248	1.25	1.24	49388.8	YES	NO	dd	dd	1025.6...

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.11	8.967e6	8.709e6	1.165	1.03	1.05	15298.2	YES	NO	bb	bb	993.722
2	Total-heptafurans	40.38	1.043e4	1.014e4	1.185	1.03	1.05	14.2	YES	NO	bb	bb	1.057
3	Total-heptafurans	39.52	2.112e4	2.199e4	1.185	0.96	1.05	42.5	YES	NO	bb	bb	2.215
4	Total-heptafurans	39.26	5.058e3	4.749e3	1.185	1.07	1.05	11.5	YES	NO	bb	bb	0.504
5	1234678-HpCDF	38.85	1.032e7	1.012e7	1.204	1.02	1.05	19676.2	YES	NO	bb	bb	964.735

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	26.53	2.226e3	3.396e3	0.933	0.66	0.77	11.6	YES	NO	bb	bd	0.238
2	2378-TCDF	25.90	1.902e6	2.502e6	0.876	0.76	0.77	13592.2	YES	NO	bb	bb	198.739
3	Total-tetrafurans	25.72	1.842e3	2.753e3	0.933	0.67	0.77	10.6	YES	NO	bb	bb	0.195
4	Total-tetrafurans	24.97	1.224e4	1.625e4	0.933	0.75	0.77	91.6	YES	NO	db	dd	1.208
5	Total-tetrafurans	24.66	1.707e4	2.304e4	0.933	0.74	0.77	124.7	YES	NO	bd	dd	1.700
6	Total-pentafurans	28.97	3.816e4	2.465e4	0.866	1.55	1.55	67.9	YES	NO	bb	bb	3.121
7	Total-pentafurans	28.68	1.252e3	7.687e2	0.866	1.63	1.55	2.7	NO	NO	bb	bb	0.100
8	Total-pentafurans	31.64	2.450e4	1.763e4	0.866	1.39	1.55	52.8	YES	NO	bb	bb	2.093
9	23478-PeCDF	31.39	1.269e7	8.370e6	0.911	1.52	1.55	27965.2	YES	NO	bb	bb	1016.3...
10	Total-pentafurans	31.12	1.334e4	8.233e3	0.866	1.62	1.55	28.5	YES	NO	bb	bb	1.072
11	Total-pentafurans	30.35	1.243e4	7.715e3	0.866	1.61	1.55	30.7	YES	NO	bb	bb	1.001
12	12378-PeCDF	30.05	1.205e7	7.874e6	0.845	1.53	1.55	26224.5	YES	NO	bb	bb	994.981
13	Total-pentafurans	29.76	8.085e3	5.894e3	0.866	1.37	1.55	15.9	YES	NO	db	db	0.695
14	Total-pentafurans	29.68	6.865e3	3.988e3	0.866	1.72	1.55	14.4	YES	NO	bd	bd	0.539
15	Total-pentafurans	32.42	8.774e4	5.860e4	0.866	1.50	1.55	183.2	YES	NO	bb	bd	7.271
16	123478-HxCDF	35.00	1.141e7	8.950e6	1.182	1.28	1.24	46993.0	YES	NO	dd	dd	1029.3...
17	Total-hexafurans	34.84	1.696e4	1.325e4	1.208	1.28	1.24	72.5	YES	NO	bd	bd	1.504
18	Total-hexafurans	33.55	9.817e3	7.389e3	1.208	1.33	1.24	34.0	YES	NO	dd	db	0.857
19	123789-HxCDF	37.02	1.031e7	8.091e6	1.187	1.27	1.24	42476.6	YES	NO	bd	bd	998.443
20	Total-hexafurans	36.62	3.175e4	2.702e4	1.208	1.17	1.24	85.2	YES	NO	dd	db	2.926
21	Total-hexafurans	36.53	6.162e3	4.947e3	1.208	1.25	1.24	37.3	YES	NO	dd	dd	0.553
22	Total-hexafurans	36.23	1.664e5	1.218e5	1.208	1.37	1.24	331.3	YES	NO	dd	dd	14.345
23	234678-HxCDF	36.00	1.171e7	9.171e6	1.229	1.28	1.24	48596.8	YES	NO	dd	dd	1009.4...
24	123678-HxCDF	35.14	1.235e7	9.894e6	1.248	1.25	1.24	49388.8	YES	NO	dd	dd	1025.6...
25	1234789-HpCDF	41.11	8.967e6	8.709e6	1.165	1.03	1.05	15298.2	YES	NO	bb	bb	993.722
26	Total-heptafurans	40.38	1.043e4	1.014e4	1.185	1.03	1.05	14.2	YES	NO	bb	bb	1.057
27	Total-heptafurans	39.52	2.112e4	2.199e4	1.185	0.96	1.05	42.5	YES	NO	bb	bb	2.215
28	Total-heptafurans	39.26	5.058e3	4.749e3	1.185	1.07	1.05	11.5	YES	NO	bb	bb	0.504
29	1234678-HpCDF	38.85	1.032e7	1.012e7	1.204	1.02	1.05	19676.2	YES	NO	bb	bb	964.735
30	OCDF	45.38	1.493e7	1.667e7	1.186	0.90	0.89	42161.0	YES	NO	bb	bb	1895.0...

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.53	1.752e6	2.174e6	1.236	0.81	0.77	18498.5	YES	NO	bb	bb	198.710
2	Total-tetradioxins	26.15	3.848e4	4.731e4	1.099	0.81	0.77	307.2	YES	NO	bb	bb	4.885
3	Total-tetradioxins	25.40	1.655e3	2.163e3	1.099	0.76	0.77	18.7	YES	NO	bb	bb	0.217

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.64	9.606e6	6.125e6	1.087	1.57	1.55	45448.5	YES	NO	bb	bb	1009.5...
2	Total-pentadioxins	30.97	1.150e4	6.979e3	1.392	1.65	1.55	51.3	YES	NO	bb	bd	0.925
3	Total-pentadioxins	30.41	1.660e3	1.100e3	1.392	1.51	1.55	6.6	YES	NO	db	db	0.138
4	Total-pentadioxins	30.05	7.800e3	5.854e3	1.392	1.33	1.55	33.3	YES	NO	bd	bd	0.684

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	34.88	8.900e2	7.985e2	1.007	1.11	1.24	4.5	YES	NO	bd	bd	0.107
2	Total-hexadioxins	37.15	6.920e2	5.023e2	1.007	1.38	1.24	4.7	YES	NO	db	bb	0.076
3	Total-hexadioxins	37.02	2.963e4	2.325e4	1.007	1.27	1.24	128.2	YES	NO	bd	bb	3.364
4	123789-HxCDD	36.61	8.604e6	7.092e6	0.985	1.21	1.24	46396.6	YES	NO	bb	bb	1019.8...
5	123678-HxCDD	36.23	8.754e6	7.068e6	1.021	1.24	1.24	47081.5	YES	NO	db	db	969.556
6	123478-HxCDD	36.12	8.528e6	7.016e6	0.987	1.22	1.24	43594.1	YES	NO	bd	bd	1032.8...

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.37	8.084e6	7.725e6	1.253	1.05	1.05	27631.4	YES	NO	bb	bb	955.606

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.53	1.752e6	2.174e6	1.236	0.81	0.77	18498.5	YES	NO	bb	bb	198.710
2	Total-tetradoxins	26.15	3.848e4	4.731e4	1.099	0.81	0.77	307.2	YES	NO	bb	bb	4.885
3	Total-tetradoxins	25.40	1.655e3	2.163e3	1.099	0.76	0.77	18.7	YES	NO	bb	bb	0.217
4	12378-PeCDD	31.64	9.606e6	6.125e6	1.087	1.57	1.55	45448.5	YES	NO	bb	bb	1009.5...
5	Total-pentadoxins	30.97	1.150e4	6.979e3	1.392	1.65	1.55	51.3	YES	NO	bb	bd	0.925
6	Total-pentadoxins	30.41	1.660e3	1.100e3	1.392	1.51	1.55	6.6	YES	NO	db	db	0.138
7	Total-pentadoxins	30.05	7.800e3	5.854e3	1.392	1.33	1.55	33.3	YES	NO	bd	bd	0.684
8	Total-hexadoxins	34.88	8.900e2	7.985e2	1.007	1.11	1.24	4.5	YES	NO	bd	bd	0.107
9	Total-hexadoxins	37.15	6.920e2	5.023e2	1.007	1.38	1.24	4.7	YES	NO	db	bb	0.076
10	Total-hexadoxins	37.02	2.963e4	2.325e4	1.007	1.27	1.24	128.2	YES	NO	bd	bb	3.364
11	123789-HxCDD	36.61	8.604e6	7.092e6	0.985	1.21	1.24	46396.6	YES	NO	bb	bb	1019.8...
12	123678-HxCDD	36.23	8.754e6	7.068e6	1.021	1.24	1.24	47081.5	YES	NO	db	db	969.556
13	123478-HxCDD	36.12	8.528e6	7.016e6	0.987	1.22	1.24	43594.1	YES	NO	bd	bd	1032.8...
14	1234678-HpCDD	40.37	8.084e6	7.725e6	1.253	1.05	1.05	27631.4	YES	NO	bb	bb	955.606
15	OCDD	45.14	1.379e7	1.563e7	1.103	0.88	0.89	41633.2	YES	NO	bb	bb	1898.3...

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	26.53	2.226e3	3.396e3	0.933	0.66	0.77	11.6	YES	NO	bb	bd	0.238
2	2378-TCDF	25.90	1.902e6	2.502e6	0.876	0.76	0.77	13592.2	YES	NO	bb	bb	198.739
3	Total-tetrafurans	25.72	1.842e3	2.753e3	0.933	0.67	0.77	10.6	YES	NO	bb	bb	0.195
4	Total-tetrafurans	24.97	1.224e4	1.625e4	0.933	0.75	0.77	91.6	YES	NO	db	dd	1.208
5	Total-tetrafurans	24.66	1.707e4	2.304e4	0.933	0.74	0.77	124.7	YES	NO	bd	dd	1.700
6	Total-pentafurans	28.97	3.816e4	2.465e4	0.866	1.55	1.55	67.9	YES	NO	bb	bb	3.121
7	Total-pentafurans	28.68	1.252e3	7.687e2	0.866	1.63	1.55	2.7	NO	NO	bb	bb	0.100
8	Total-pentafurans	31.64	2.450e4	1.763e4	0.866	1.39	1.55	52.8	YES	NO	bb	bb	2.093
9	23478-PeCDF	31.39	1.269e7	8.370e6	0.911	1.52	1.55	27965.2	YES	NO	bb	bb	1016.3...
10	Total-pentafurans	31.12	1.334e4	8.233e3	0.866	1.62	1.55	28.5	YES	NO	bb	bb	1.072
11	Total-pentafurans	30.35	1.243e4	7.715e3	0.866	1.61	1.55	30.7	YES	NO	bb	bb	1.001
12	12378-PeCDF	30.05	1.205e7	7.874e6	0.845	1.53	1.55	26224.5	YES	NO	bb	bb	994.981
13	Total-pentafurans	29.76	8.085e3	5.894e3	0.866	1.37	1.55	15.9	YES	NO	db	db	0.695
14	Total-pentafurans	29.68	6.865e3	3.988e3	0.866	1.72	1.55	14.4	YES	NO	bd	bd	0.539
15	Total-pentafurans	32.42	8.774e4	5.860e4	0.866	1.50	1.55	183.2	YES	NO	bb	bd	7.271
16	123478-HxCDF	35.00	1.141e7	8.950e6	1.182	1.28	1.24	46993.0	YES	NO	dd	dd	1029.3...
17	Total-hexafurans	34.84	1.696e4	1.325e4	1.208	1.28	1.24	72.5	YES	NO	bd	bd	1.504
18	Total-hexafurans	33.55	9.817e3	7.389e3	1.208	1.33	1.24	34.0	YES	NO	dd	db	0.857
19	123789-HxCDF	37.02	1.031e7	8.091e6	1.187	1.27	1.24	42476.6	YES	NO	bd	bd	998.443
20	Total-hexafurans	36.62	3.175e4	2.702e4	1.208	1.17	1.24	85.2	YES	NO	dd	db	2.926
21	Total-hexafurans	36.53	6.162e3	4.947e3	1.208	1.25	1.24	37.3	YES	NO	dd	dd	0.553
22	Total-hexafurans	36.23	1.664e5	1.218e5	1.208	1.37	1.24	331.3	YES	NO	dd	dd	14.345
23	234678-HxCDF	36.00	1.171e7	9.171e6	1.229	1.28	1.24	48596.8	YES	NO	dd	dd	1009.4...
24	123678-HxCDF	35.14	1.235e7	9.894e6	1.248	1.25	1.24	49388.8	YES	NO	dd	dd	1025.6...
25	1234789-HpCDF	41.11	8.967e6	8.709e6	1.165	1.03	1.05	15298.2	YES	NO	bb	bb	993.722
26	Total-heptafurans	40.38	1.043e4	1.014e4	1.185	1.03	1.05	14.2	YES	NO	bb	bb	1.057
27	Total-heptafurans	39.52	2.112e4	2.199e4	1.185	0.96	1.05	42.5	YES	NO	bb	bb	2.215
28	Total-heptafurans	39.26	5.058e3	4.749e3	1.185	1.07	1.05	11.5	YES	NO	bb	bb	0.504
29	1234678-HpCDF	38.85	1.032e7	1.012e7	1.204	1.02	1.05	19676.2	YES	NO	bb	bb	964.735
30	OCDF	45.38	1.493e7	1.667e7	1.186	0.90	0.89	42161.0	YES	NO	bb	bb	1895.0...
31	2378-TCDD	26.53	1.752e6	2.174e6	1.236	0.81	0.77	18498.5	YES	NO	bb	bb	198.710
32	Total-tetradioxins	26.15	3.848e4	4.731e4	1.099	0.81	0.77	307.2	YES	NO	bb	bb	4.885
33	Total-tetradioxins	25.40	1.655e3	2.163e3	1.099	0.76	0.77	18.7	YES	NO	bb	bb	0.217
34	12378-PeCDD	31.64	9.606e6	6.125e6	1.087	1.57	1.55	45448.5	YES	NO	bb	bb	1009.5...
35	Total-pentadioxins	30.97	1.150e4	6.979e3	1.392	1.65	1.55	51.3	YES	NO	bb	bd	0.925
36	Total-pentadioxins	30.41	1.660e3	1.100e3	1.392	1.51	1.55	6.6	YES	NO	db	db	0.138
37	Total-pentadioxins	30.05	7.800e3	5.854e3	1.392	1.33	1.55	33.3	YES	NO	bd	bd	0.684

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk**TotalTEQ,Furans,Dioxins**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	Total-hexadioxins	34.88	8.900e2	7.985e2	1.007	1.11	1.24	4.5	YES	NO	bd	bd	0.107
39	Total-hexadioxins	37.15	6.920e2	5.023e2	1.007	1.38	1.24	4.7	YES	NO	db	bb	0.076
40	Total-hexadioxins	37.02	2.963e4	2.325e4	1.007	1.27	1.24	128.2	YES	NO	bd	bb	3.364
41	123789-HxCDD	36.61	8.604e6	7.092e6	0.985	1.21	1.24	46396.6	YES	NO	bb	bb	1019.8...
42	123678-HxCDD	36.23	8.754e6	7.068e6	1.021	1.24	1.24	47081.5	YES	NO	db	db	969.556
43	123478-HxCDD	36.12	8.528e6	7.016e6	0.987	1.22	1.24	43594.1	YES	NO	bd	bd	1032.8...
44	1234678-HpCDD	40.37	8.084e6	7.725e6	1.253	1.05	1.05	27631.4	YES	NO	bb	bb	955.606
45	OCDD	45.14	1.379e7	1.563e7	1.103	0.88	0.89	41633.2	YES	NO	bb	bb	1898.3...

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.86	8.873e5					21.2	YES		dd		
2	FUNCTION1 PFK	21.80	7.665e5					22.5	YES		dd		
3	FUNCTION1 PFK	21.74	1.019e6					23.9	YES		dd		
4	FUNCTION1 PFK	21.59	1.959e6					26.2	YES		dd		
5	FUNCTION1 PFK	21.53	6.962e5					27.3	YES		dd		
6	FUNCTION1 PFK	21.47	1.211e6					28.6	YES		dd		
7	FUNCTION1 PFK	21.41	1.009e6					29.4	YES		dd		
8	FUNCTION1 PFK	21.13	5.872e6					34.2	YES		bd		
9	FUNCTION1 PFK	23.67	5.720e3					0.4	NO		bb		
10	FUNCTION1 PFK	23.28	9.896e3					0.7	NO		bb		
11	FUNCTION1 PFK	23.24	1.090e4					0.7	NO		bb		
12	FUNCTION1 PFK	23.16	1.031e4					0.6	NO		bb		
13	FUNCTION1 PFK	22.96	3.707e4					1.5	NO		db		
14	FUNCTION1 PFK	22.84	1.630e5					3.4	YES		dd		
15	FUNCTION1 PFK	22.72	3.257e5					5.8	YES		dd		
16	FUNCTION1 PFK	22.59	5.378e5					8.3	YES		dd		
17	FUNCTION1 PFK	22.53	8.039e5					8.9	YES		dd		
18	FUNCTION1 PFK	22.37	3.709e5					11.1	YES		dd		
19	FUNCTION1 PFK	22.31	5.024e5					12.0	YES		dd		
20	FUNCTION1 PFK	22.18	9.225e5					14.7	YES		dd		
21	FUNCTION1 PFK	22.12	3.970e5					15.8	YES		dd		
22	FUNCTION1 PFK	22.07	7.082e5					16.9	YES		dd		
23	FUNCTION1 PFK	22.00	6.094e5					18.0	YES		dd		
24	FUNCTION1 PFK	21.94	6.575e5					19.5	YES		dd		
25	FUNCTION1 PFK	26.06	4.194e4					1.5	NO		bb		
26	FUNCTION1 PFK	25.69	3.568e4					1.2	NO		bb		
27	FUNCTION1 PFK	25.56	8.323e3					0.5	NO		bb		
28	FUNCTION1 PFK	25.49	1.374e4					0.7	NO		bb		
29	FUNCTION1 PFK	25.10	2.036e4					1.0	NO		db		
30	FUNCTION1 PFK	25.02	2.247e4					1.0	NO		bd		
31	FUNCTION1 PFK	24.96	3.286e4					1.5	NO		db		
32	FUNCTION1 PFK	24.90	1.152e4					0.7	NO		bd		
33	FUNCTION1 PFK	24.84	1.639e4					1.0	NO		bb		
34	FUNCTION1 PFK	24.78	2.451e4					1.1	NO		db		
35	FUNCTION1 PFK	24.72	2.714e4					1.2	NO		bd		
36	FUNCTION1 PFK	24.55	3.918e3					0.5	NO		bb		
37	FUNCTION1 PFK	24.37	3.551e4					1.1	NO		bb		

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION1 PFK	24.01	2.091e4					0.9	NO		bb		
39	FUNCTION1 PFK	23.87	1.925e4					0.9	NO		db		
40	FUNCTION1 PFK	23.80	1.436e4					0.7	NO		bd		
41	FUNCTION1 PFK	27.74	4.148e4					1.2	NO		bb		
42	FUNCTION1 PFK	27.61	1.687e4					0.9	NO		bb		
43	FUNCTION1 PFK	27.36	2.823e4					1.3	NO		bb		
44	FUNCTION1 PFK	27.23	1.221e4					0.7	NO		bb		
45	FUNCTION1 PFK	27.11	2.196e4					0.8	NO		bb		
46	FUNCTION1 PFK	27.03	4.103e4					1.6	NO		db		
47	FUNCTION1 PFK	26.97	5.610e4					1.7	NO		dd		
48	FUNCTION1 PFK	26.86	5.847e4					1.3	NO		dd		
49	FUNCTION1 PFK	26.79	3.039e4					1.0	NO		bd		
50	FUNCTION1 PFK	26.68	1.065e4					0.6	NO		db		
51	FUNCTION1 PFK	26.64	8.185e3					0.7	NO		bd		
52	FUNCTION1 PFK	26.52	5.718e4					1.5	NO		bb		
53	FUNCTION1 PFK	26.40	1.679e4					0.7	NO		bb		
54	FUNCTION1 PFK	26.32	9.414e3					0.6	NO		bb		
55	FUNCTION1 PFK	26.18	2.178e4					1.0	NO		db		
56	FUNCTION1 PFK	26.14	1.887e4					1.1	NO		bd		
57	FUNCTION1 PFK	27.98	3.090e3					0.4	NO		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.39	1.483e4					1.1	NO		db		0.000
2	FUNCTION3 PFK	34.35	2.582e4					1.3	NO		bd		0.000
3	FUNCTION3 PFK	34.26	2.395e4					1.1	NO		bb		0.000
4	FUNCTION3 PFK	34.15	1.551e4					1.0	NO		db		0.000
5	FUNCTION3 PFK	34.09	2.978e3					0.4	NO		bd		0.000
6	FUNCTION3 PFK	33.87	2.703e4					1.3	NO		db		0.000
7	FUNCTION3 PFK	33.76	2.846e4					1.4	NO		dd		0.000
8	FUNCTION3 PFK	33.70	9.928e3					0.9	NO		bd		0.000
9	FUNCTION3 PFK	33.66	2.430e3					0.5	NO		bb		0.000
10	FUNCTION3 PFK	33.47	5.051e4					0.9	NO		db		0.000
11	FUNCTION3 PFK	33.37	2.100e4					1.4	NO		bd		0.000
12	FUNCTION3 PFK	33.17	1.358e4					1.0	NO		db		0.000
13	FUNCTION3 PFK	33.13	8.975e3					0.9	NO		bd		0.000
14	FUNCTION3 PFK	35.80	8.372e3					0.8	NO		bb		0.000
15	FUNCTION3 PFK	35.71	2.156e4					1.3	NO		db		0.000
16	FUNCTION3 PFK	35.67	2.235e4					1.3	NO		bd		0.000
17	FUNCTION3 PFK	35.59	9.805e3					0.8	NO		bb		0.000
18	FUNCTION3 PFK	35.53	4.290e3					0.5	NO		bb		0.000
19	FUNCTION3 PFK	35.33	9.302e3					1.0	NO		db		0.000
20	FUNCTION3 PFK	35.30	1.165e4					1.0	NO		bd		0.000
21	FUNCTION3 PFK	35.25	5.126e3					0.7	NO		bb		0.000
22	FUNCTION3 PFK	35.14	1.556e4					0.8	NO		bb		0.000
23	FUNCTION3 PFK	35.10	5.550e3					0.6	NO		bb		0.000
24	FUNCTION3 PFK	35.06	1.779e3					0.4	NO		bb		0.000
25	FUNCTION3 PFK	34.91	4.171e3					0.5	NO		bb		0.000
26	FUNCTION3 PFK	34.86	1.499e4					1.4	NO		bb		0.000
27	FUNCTION3 PFK	34.81	6.634e3					0.6	NO		bb		0.000
28	FUNCTION3 PFK	34.58	1.500e4					1.1	NO		bb		0.000
29	FUNCTION3 PFK	34.53	1.395e3					0.3	NO		bb		0.000
30	FUNCTION3 PFK	37.08	1.137e4					1.0	NO		dd		0.000
31	FUNCTION3 PFK	36.99	7.110e4					2.2	NO		bd		0.000
32	FUNCTION3 PFK	36.92	2.314e3					0.5	NO		bb		0.000
33	FUNCTION3 PFK	36.88	7.392e3					0.6	NO		db		0.000
34	FUNCTION3 PFK	36.81	7.817e3					0.4	NO		bd		0.000
35	FUNCTION3 PFK	36.77	1.226e4					0.8	NO		bb		0.000
36	FUNCTION3 PFK	36.61	7.220e4					1.7	NO		bb		0.000
37	FUNCTION3 PFK	36.40	2.247e4					1.6	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld
 Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time
 Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION3 PFK	36.31	3.432e4					1.8	NO		db		0.000
39	FUNCTION3 PFK	36.24	7.551e4					2.3	NO		dd		0.000
40	FUNCTION3 PFK	36.14	2.231e4					1.5	NO		dd		0.000
41	FUNCTION3 PFK	36.11	4.985e4					2.3	NO		dd		0.000
42	FUNCTION3 PFK	36.04	1.685e4					1.5	NO		dd		0.000
43	FUNCTION3 PFK	36.00	8.077e4					2.9	NO		dd		0.000
44	FUNCTION3 PFK	35.92	1.428e4					1.1	NO		dd		0.000
45	FUNCTION3 PFK	35.89	1.321e4					0.9	NO		bd		0.000
46	FUNCTION3 PFK	37.91	1.145e4					1.0	NO		bb		0.000
47	FUNCTION3 PFK	37.83	2.759e4					1.3	NO		bb		0.000
48	FUNCTION3 PFK	37.75	1.842e3					0.4	NO		bb		0.000
49	FUNCTION3 PFK	37.67	1.331e3					0.3	NO		bb		0.000
50	FUNCTION3 PFK	37.58	1.178e4					0.7	NO		bb		0.000
51	FUNCTION3 PFK	37.52	1.786e3					0.4	NO		bb		0.000
52	FUNCTION3 PFK	37.38	1.181e4					0.8	NO		bb		0.000
53	FUNCTION3 PFK	37.32	2.852e3					0.5	NO		db		0.000
54	FUNCTION3 PFK	37.29	1.067e4					0.9	NO		bd		0.000
55	FUNCTION3 PFK	37.12	1.332e4					1.1	NO		db		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.07	3.839e5					9.7	YES		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.91	3.198e3					0.9	NO		bb		
2	FUNCTION5 PFK	44.44	5.621e3					1.1	NO		bb		
3	FUNCTION5 PFK	43.72	1.296e3					0.7	NO		bb		
4	FUNCTION5 PFK	46.00	2.951e3					0.9	NO		bb		
5	FUNCTION5 PFK	45.63	1.092e3					0.6	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

Printed: Friday, February 03, 2023 10:38:07 Pacific Standard Time

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.32	1.271e2					3.2	YES		db		0.000
2	FUNCTION1 HXCD...	27.27	1.266e2					3.9	YES		bd		0.000
3	FUNCTION1 HXCD...	26.97	8.256e1					1.6	NO		bb		0.000
4	FUNCTION1 HXCD...	26.55	4.280e2					6.1	YES		bb		0.000
5	FUNCTION1 HXCD...	26.02	1.029e2					2.7	NO		db		0.000
6	FUNCTION1 HXCD...	25.90	2.502e2					4.4	YES		dd		0.000
7	FUNCTION1 HXCD...	25.72	2.101e2					3.6	YES		bd		0.000
8	FUNCTION1 HXCD...	23.72	8.529e1					3.0	YES		bb		0.000
9	FUNCTION1 HXCD...	22.99	9.923e1					2.5	NO		bb		0.000
10	FUNCTION1 HXCD...	22.00	7.560e1					1.7	NO		db		0.000
11	FUNCTION1 HXCD...	21.89	1.928e2					3.3	YES		bd		0.000
12	FUNCTION1 HXCD...	21.10	1.048e2					3.0	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	26.67	7.036e1					1.9	NO		db		0.000
2	FUNCTION1 HPCD...	26.53	4.357e2					5.6	YES		bd		0.000
3	FUNCTION1 HPCD...	25.91	1.719e2					2.5	NO		bb		0.000
4	FUNCTION1 HPCD...	25.70	1.553e2					2.9	NO		bb		0.000
5	FUNCTION1 HPCD...	24.63	1.444e2					3.1	YES		bb		0.000
6	FUNCTION1 HPCD...	24.20	7.285e1					2.2	NO		bb		0.000
7	FUNCTION1 HPCD...	23.45	7.383e1					2.1	NO		bb		0.000
8	FUNCTION1 HPCD...	23.34	1.346e2					1.9	NO		bb		0.000
9	FUNCTION1 HPCD...	22.31	1.729e2					2.3	NO		bb		0.000
10	FUNCTION1 HPCD...	22.01	7.908e1					1.1	NO		bb		0.000
11	FUNCTION1 HPCD...	21.22	1.137e2					3.5	YES		bb		0.000

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.40	9.562e2					13.4	YES		dd		0.000
2	FUNCTION2 HPCD...	31.27	1.162e4					218.9	YES		bd		0.000
3	FUNCTION2 HPCD...	30.07	9.742e2					11.5	YES		bb		0.000
4	FUNCTION2 HPCD...	28.81	1.484e2					3.1	YES		bb		0.000
5	FUNCTION2 HPCD...	32.66	5.798e2					8.9	YES		bb		0.000
6	FUNCTION2 HPCD...	31.65	1.260e3					18.3	YES		db		0.000

Dataset: T:\Autospec\Processed Data Batch\230201\CIH.qld

Last Altered: Friday, February 03, 2023 10:33:40 Pacific Standard Time

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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	37.03	6.482e2					9.9	YES		bb		0.000
2	FUNCTION3 OCDPE	36.61	1.390e3					18.8	YES		bb		0.000
3	FUNCTION3 OCDPE	36.23	1.589e3					24.2	YES		db		0.000
4	FUNCTION3 OCDPE	36.12	1.347e3					19.9	YES		dd		0.000
5	FUNCTION3 OCDPE	36.01	6.921e2					11.8	YES		bd		0.000
6	FUNCTION3 OCDPE	35.14	1.254e3					15.1	YES		db		0.000
7	FUNCTION3 OCDPE	35.01	7.695e2					12.4	YES		bd		0.000
8	FUNCTION3 OCDPE	33.86	1.826e2					4.0	YES		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.12	8.339e2					10.8	YES		bb		0.000
2	FUNCTION4 NCDPE	40.38	7.844e2					14.4	YES		bb		0.000
3	FUNCTION4 NCDPE	39.21	1.191e2					4.5	YES		bb		0.000
4	FUNCTION4 NCDPE	38.86	6.704e2					11.4	YES		bb		0.000
5	FUNCTION4 NCDPE	41.43	1.172e2					3.2	YES		bb		0.000

ETHERS6

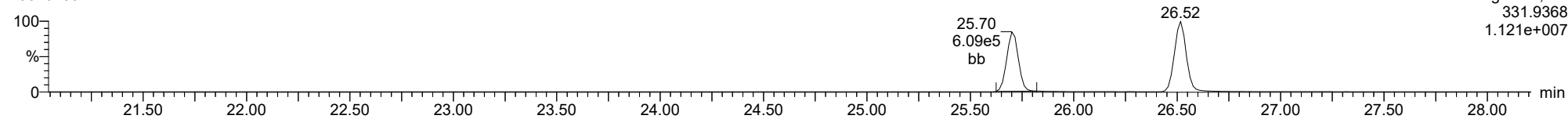
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.38	2.060e3					22.7	YES		db		0.000
2	FUNCTION5 DCDPE	45.15	2.089e3					25.1	YES		bd		0.000
3	FUNCTION5 DCDPE	44.92	7.340e1					3.7	YES		bb		0.000

Method: T:\Autospec\Methods\Dioxin230131H.mdb 03 Feb 2023 10:31:33
Calibration: 03 Feb 2023 10:33:40

ID: CS5CR, **Name:** 23020109, **Date:** 01-Feb-2023, **Time:** 19:34:25, **Conditions:** AUTOSPEC01, **User:** pk

13C-1234-TCDD

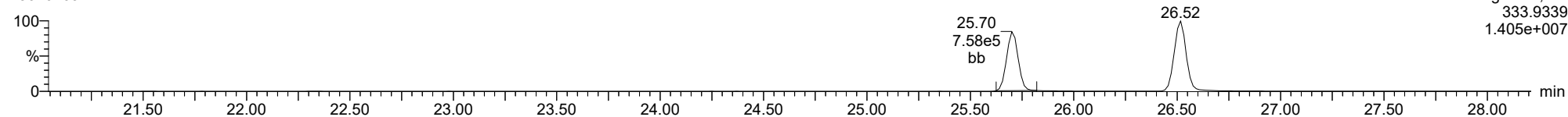
23020109



F1:Voltage SIR,EI+
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1.121e+007

13C-1234-TCDD

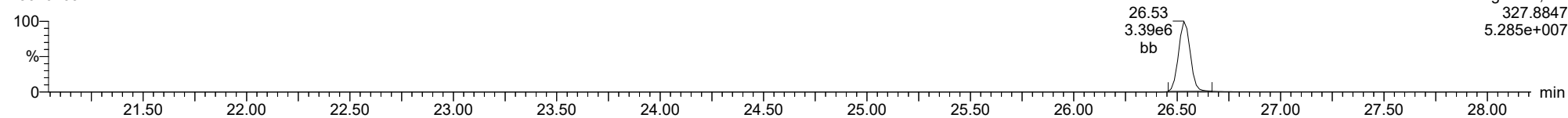
23020109



F1:Voltage SIR,EI+
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1.405e+007

37CL-2378-TCDD

23020109

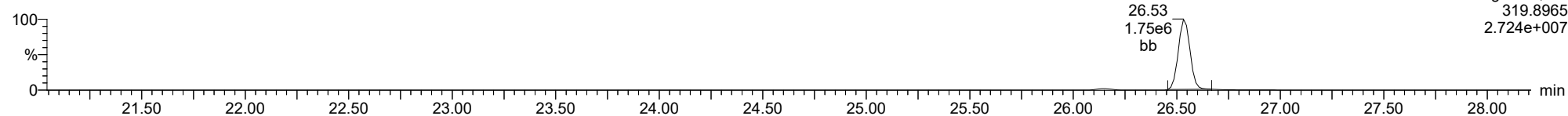


F1:Voltage SIR,EI+
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5.285e+007

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

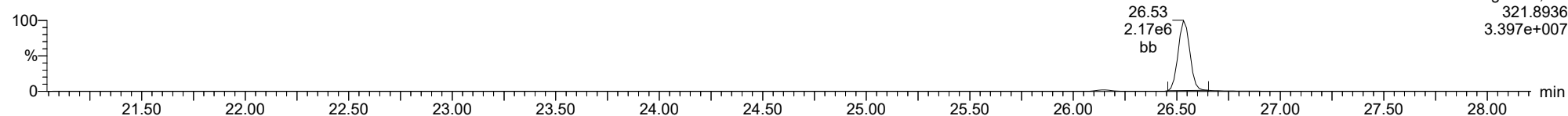
2378-TCDD

23020109



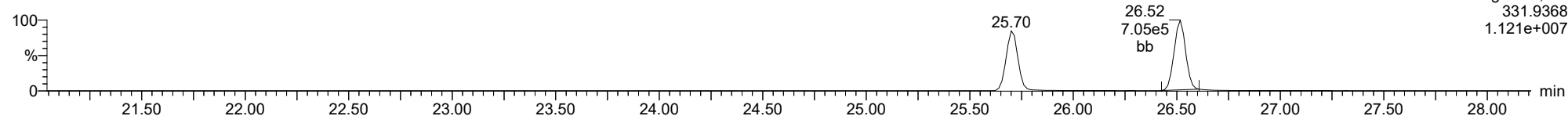
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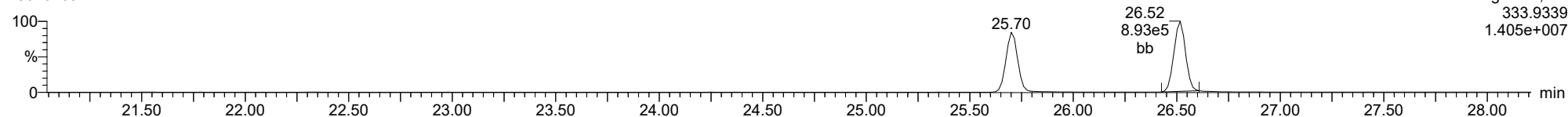
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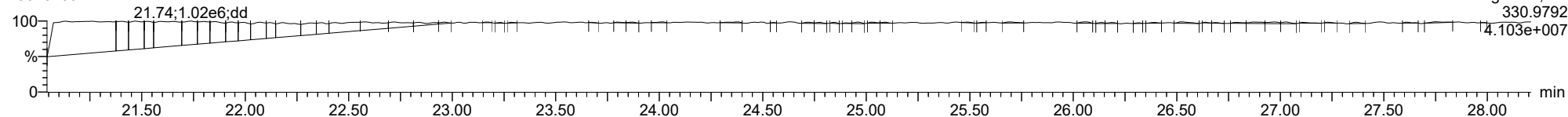
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23020109



FUNCTION1 PFK

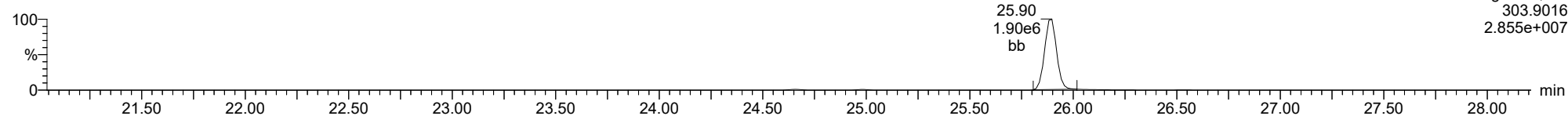
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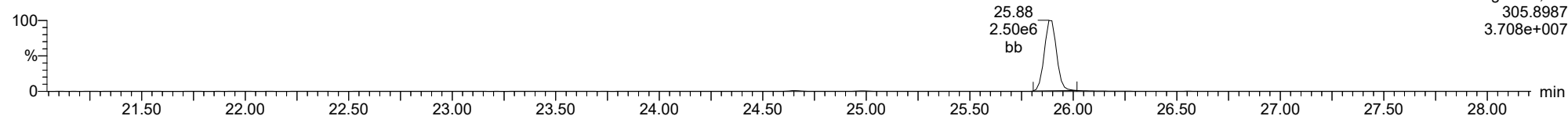
2378-TCDF

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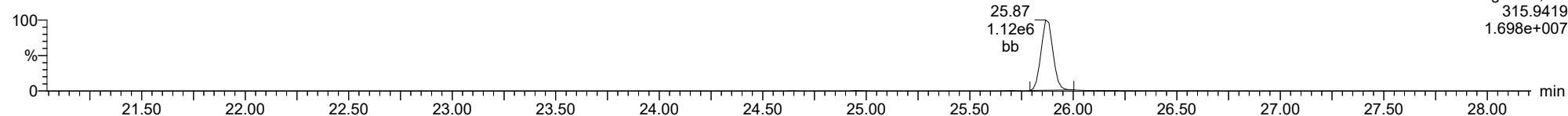
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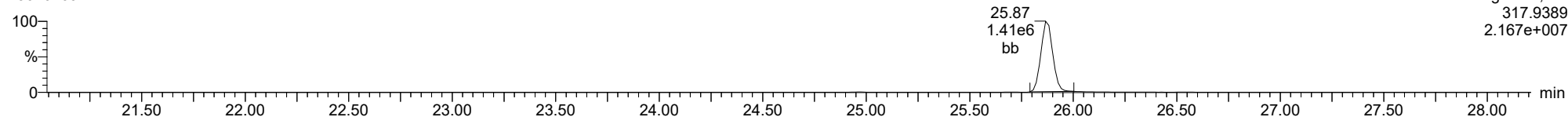
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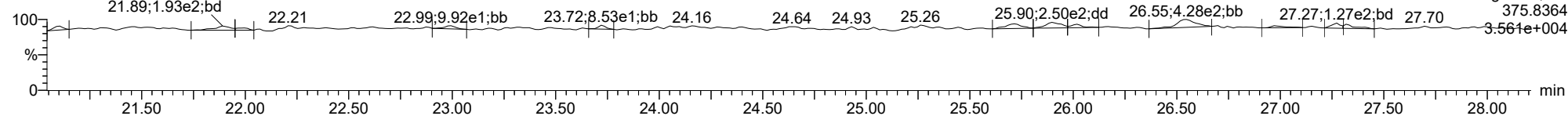
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FUNCTION1 HXCDFE

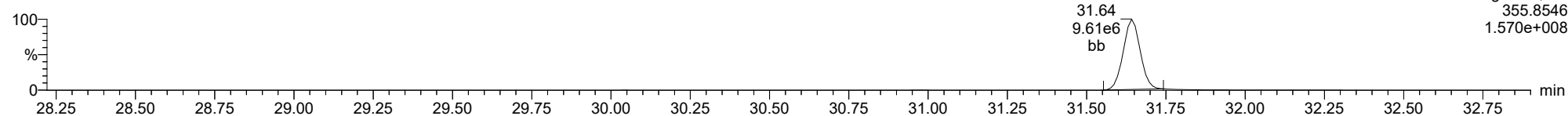
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

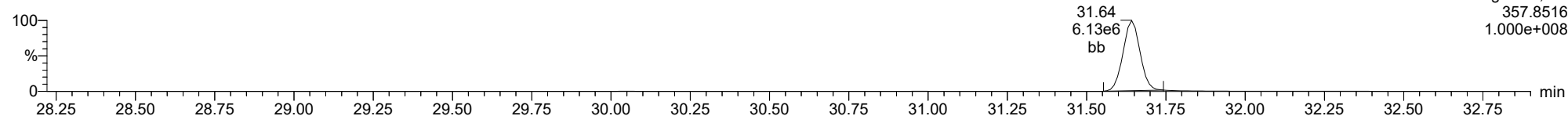
12378-PeCDD

23020109



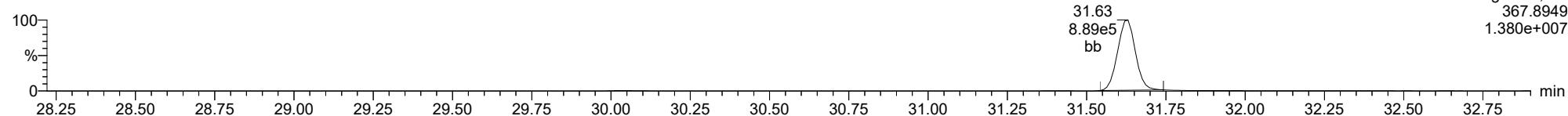
12378-PeCDD

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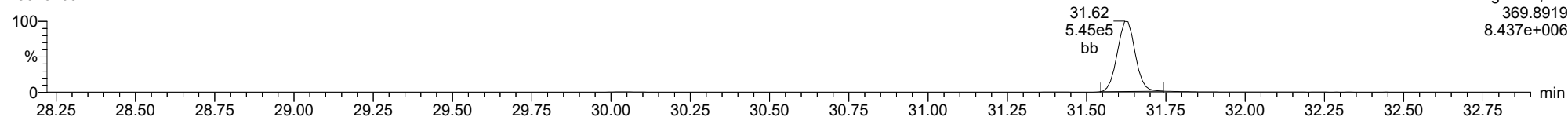
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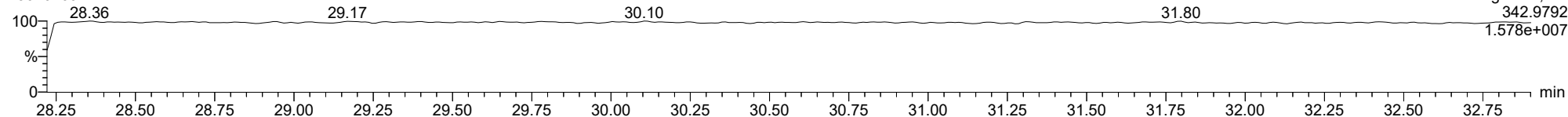
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23020109



FUNCTION2 PFK

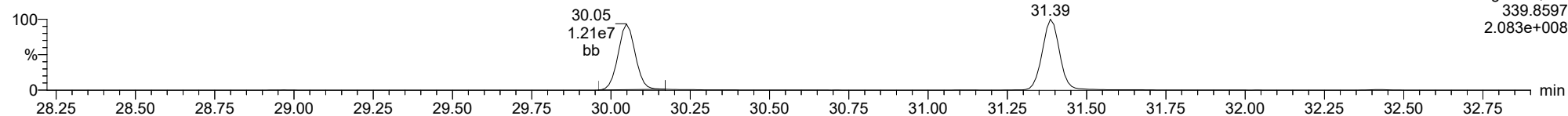
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

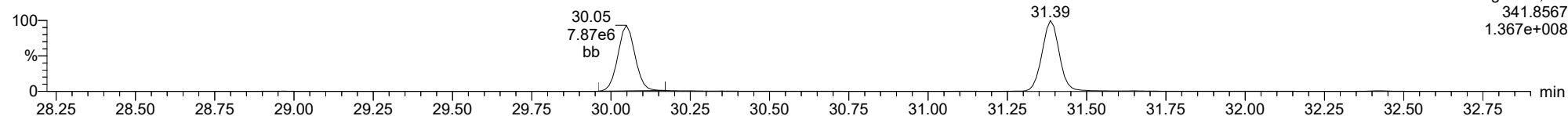
12378-PeCDF

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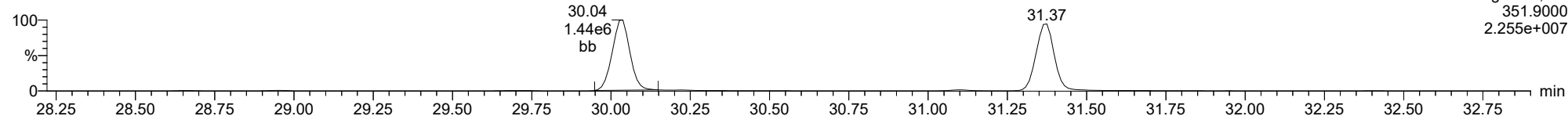
12378-PeCDF

23020109



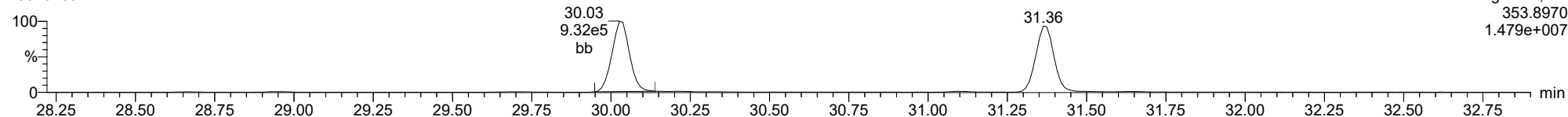
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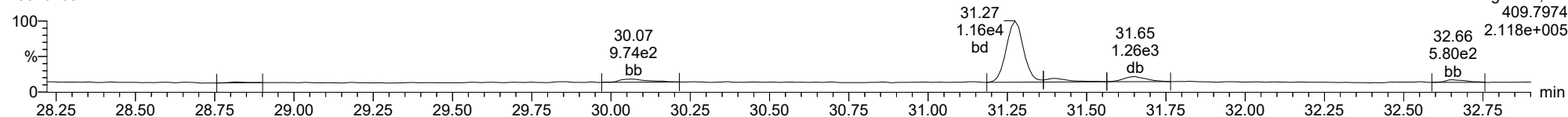
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23020109



FUNCTION2 HPCDPE

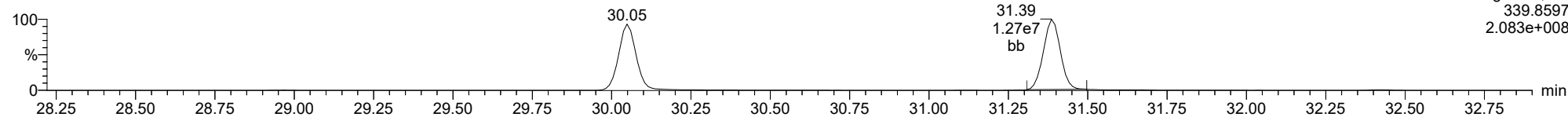
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

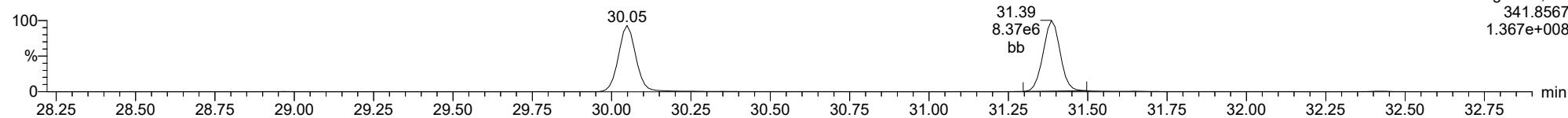
23478-PeCDF

23020109



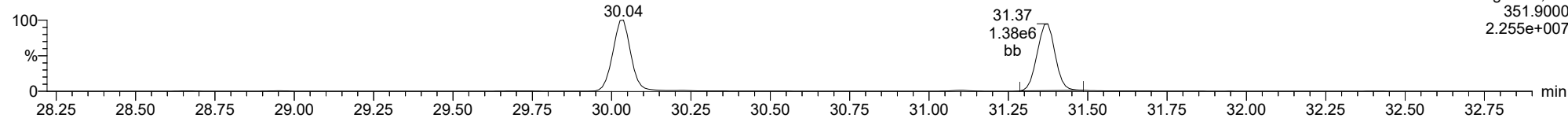
23478-PeCDF

23020109



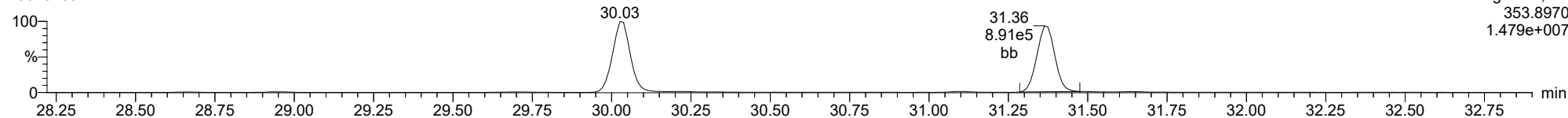
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23020109



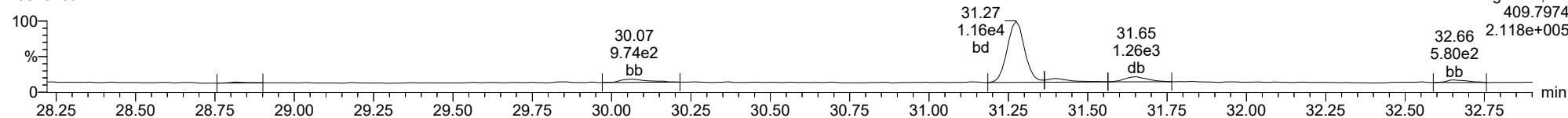
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23020109



FUNCTION2 HPCDPE

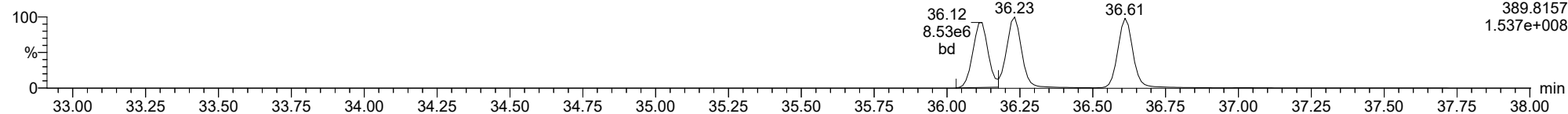
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

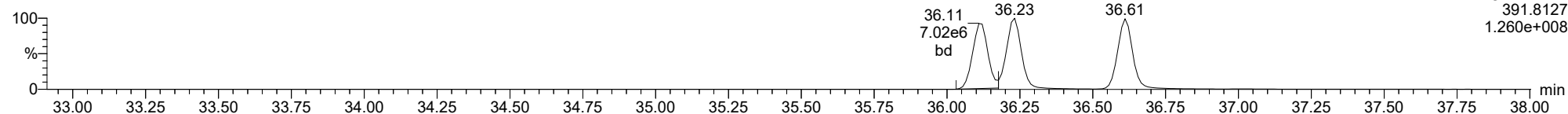
123478-HxCDD

23020109



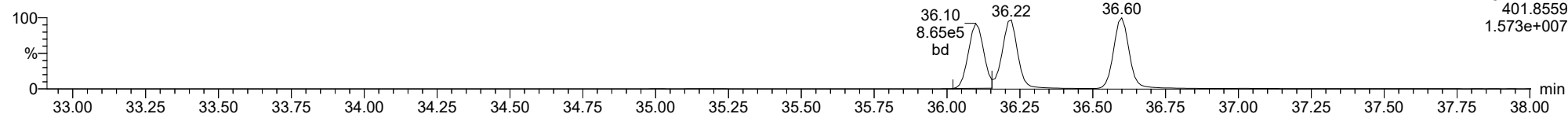
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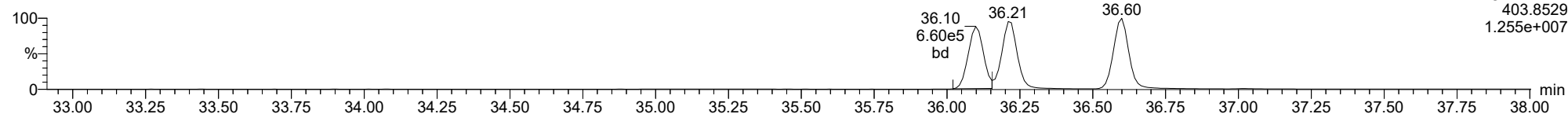
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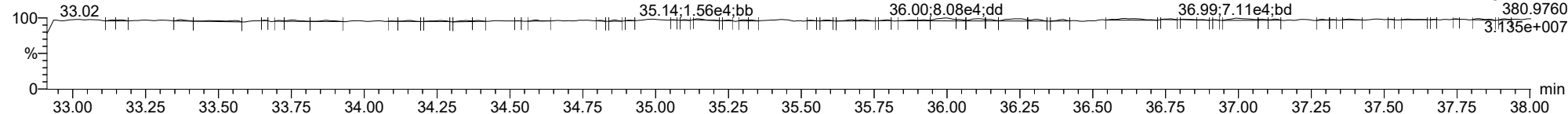
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23020109



FUNCTION3 PFK

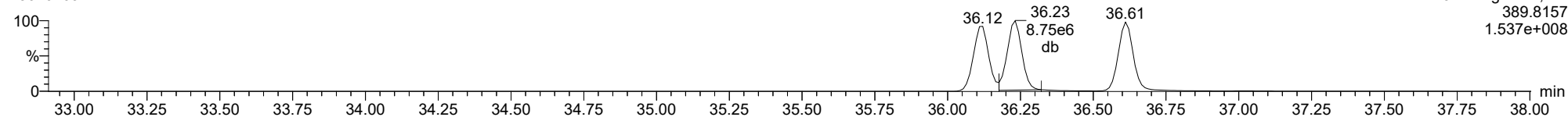
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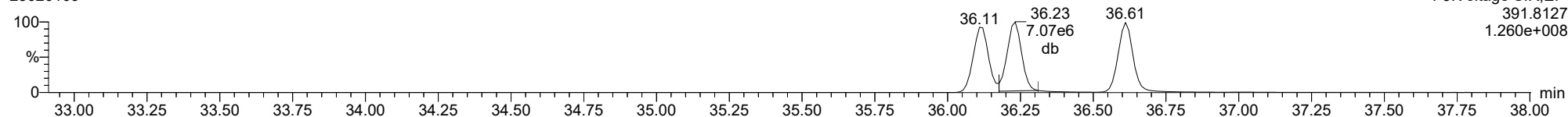
123678-HxCDD

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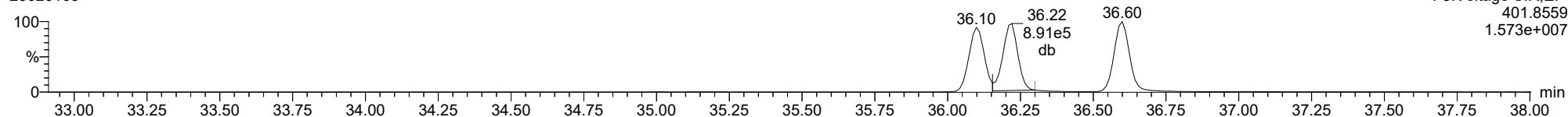
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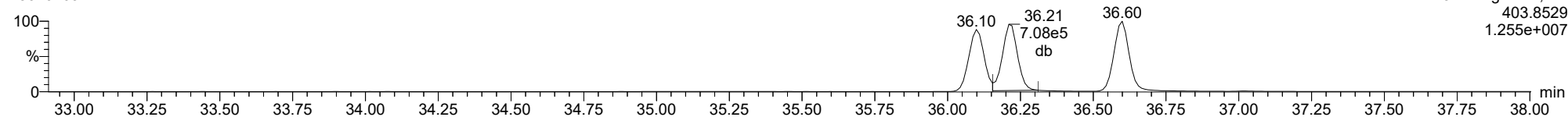
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23020109



13C-123678-HxCDD

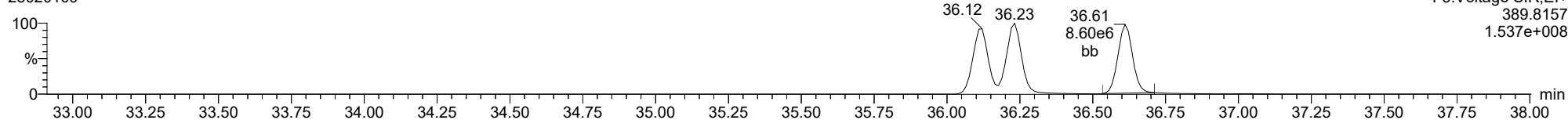
23020109



ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

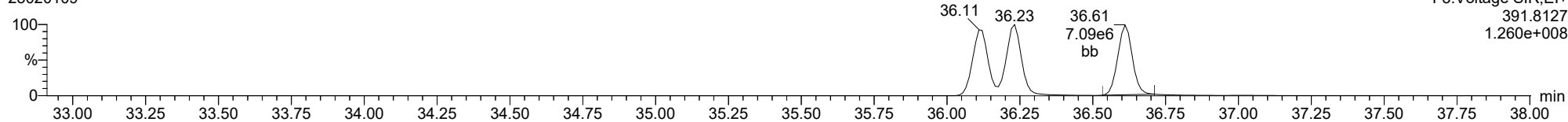
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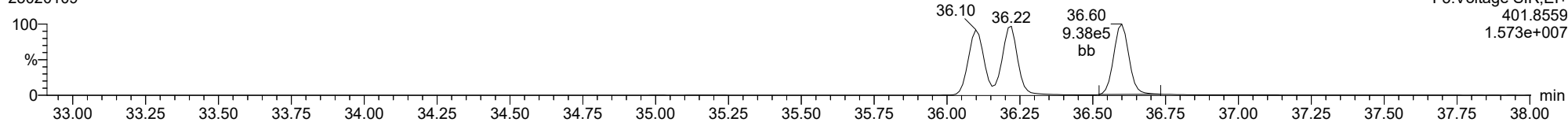
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23020109



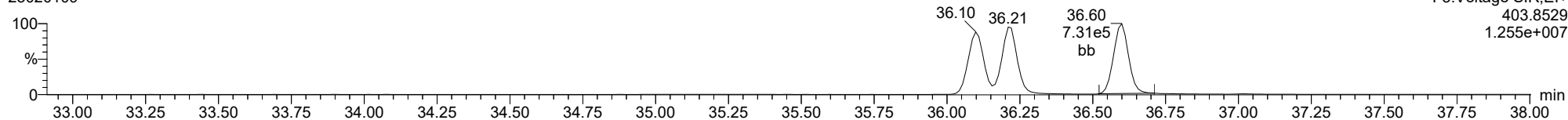
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23020109



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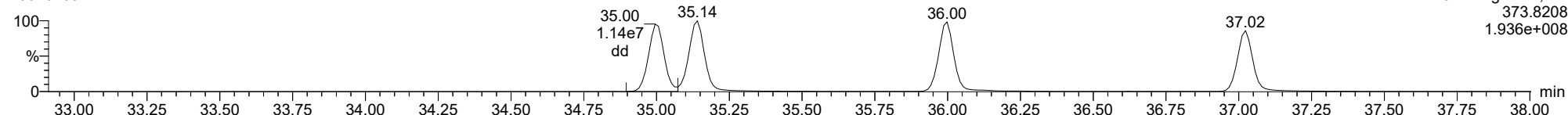
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

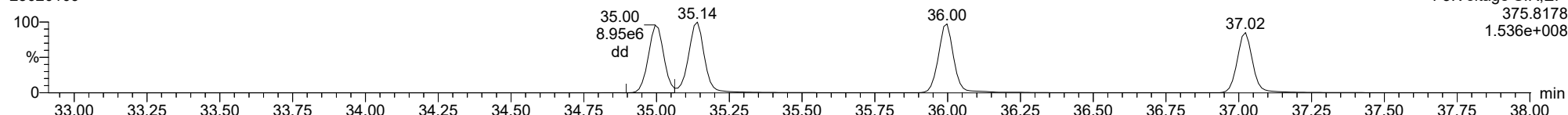
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23020109



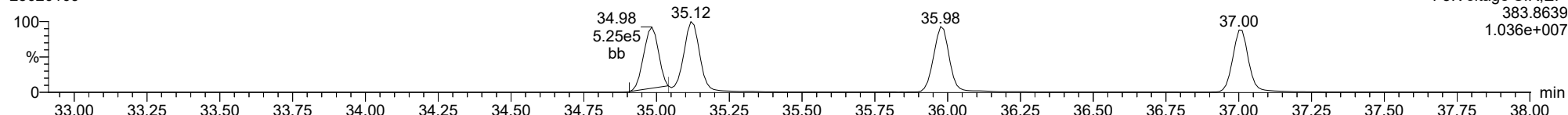
123478-HxCDF

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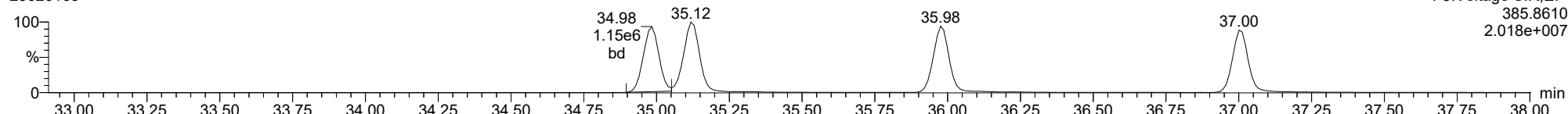
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23020109



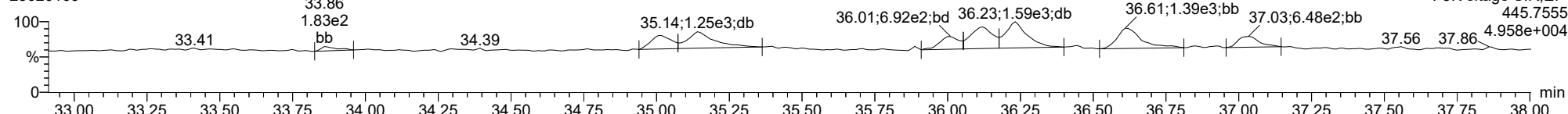
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23020109



FUNCTION3 OCDPE

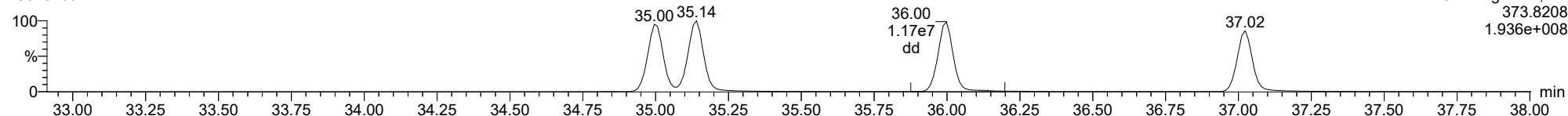
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

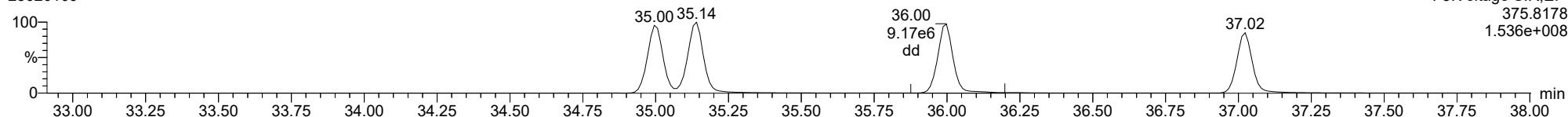
234678-HxCDF

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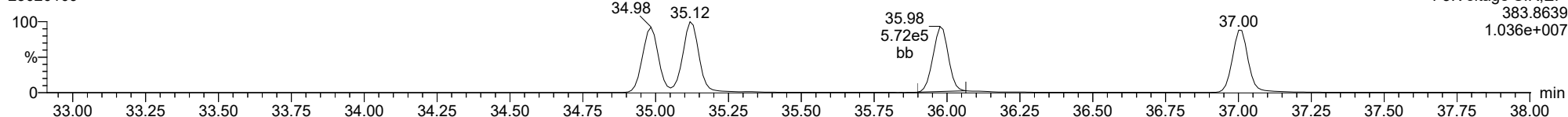
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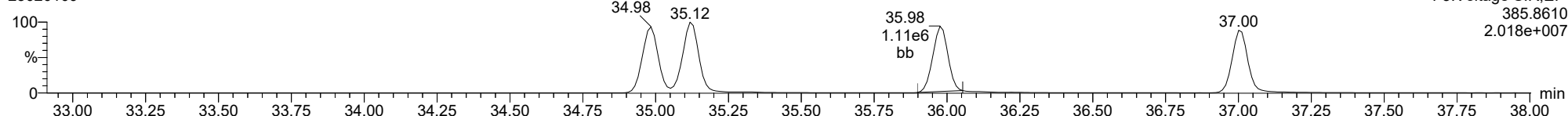
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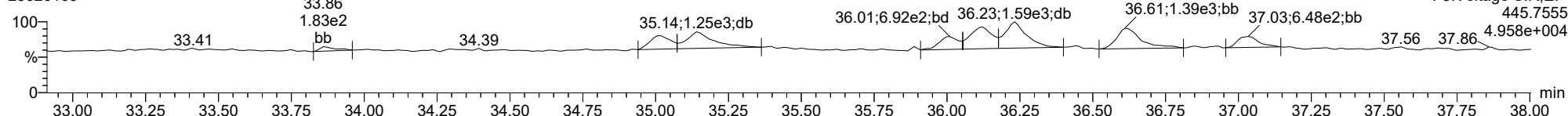
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FUNCTION3 OCDPE

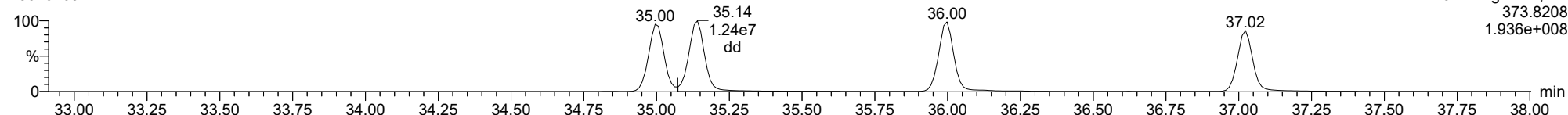
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

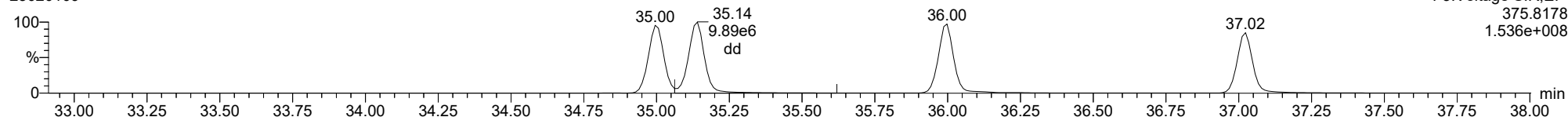
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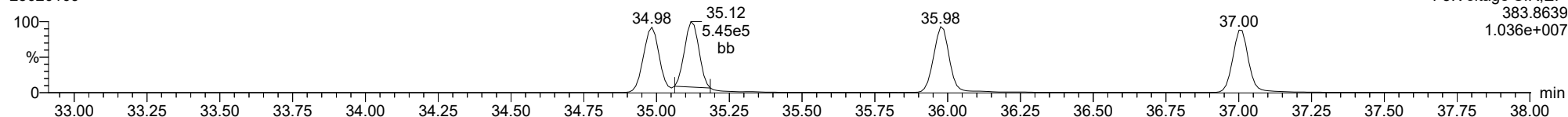
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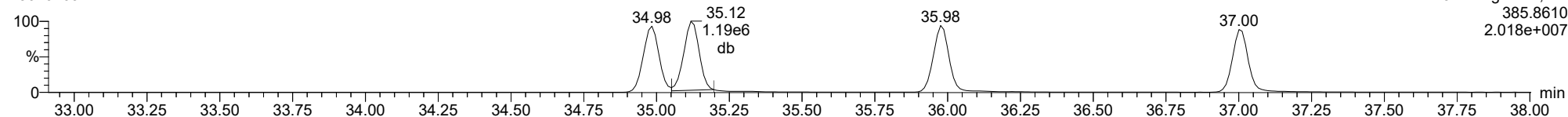
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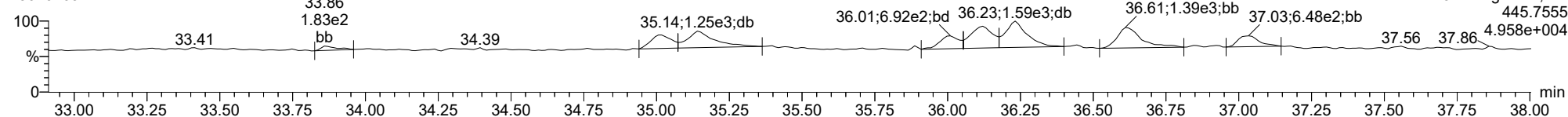
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FUNCTION3 OCDPE

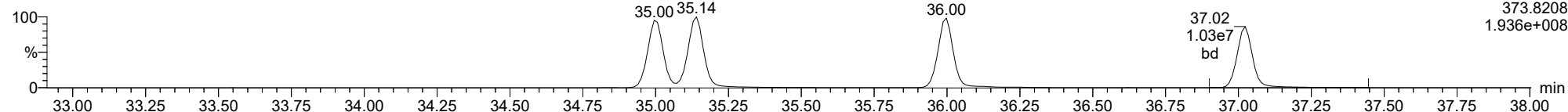
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

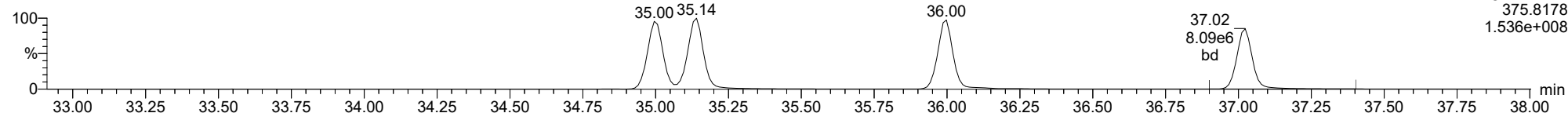
123789-HxCDF

23020109



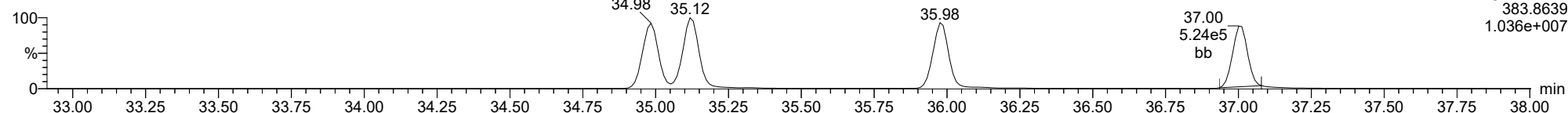
123789-HxCDF

23020109



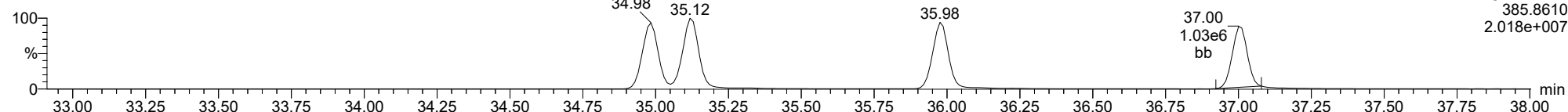
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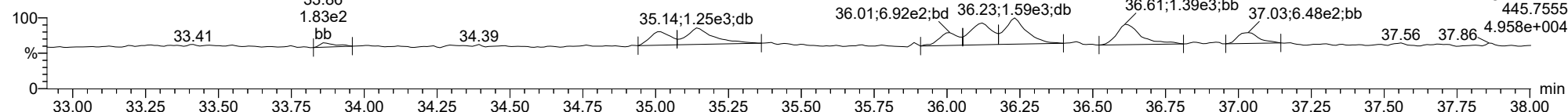
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FUNCTION3 OCDPE

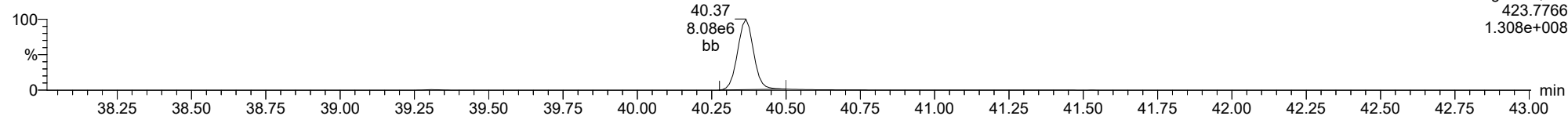
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

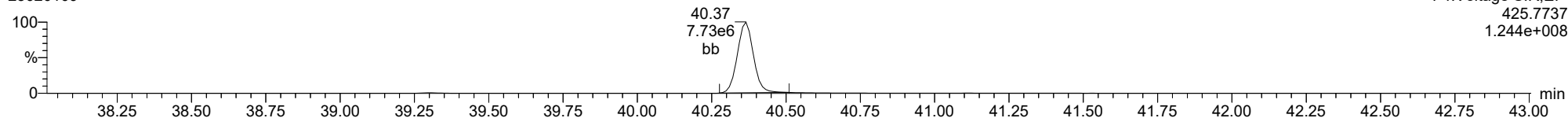
1234678-HpCDD

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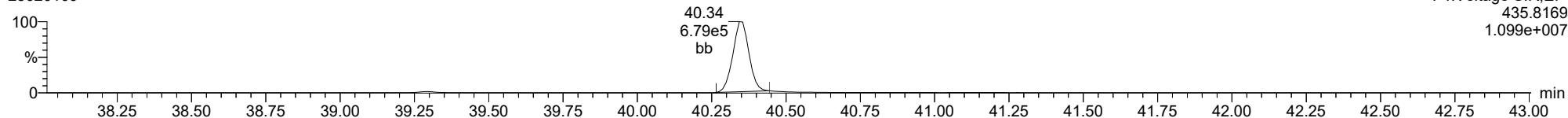
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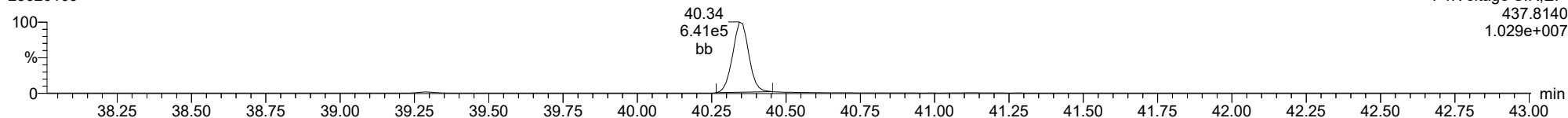
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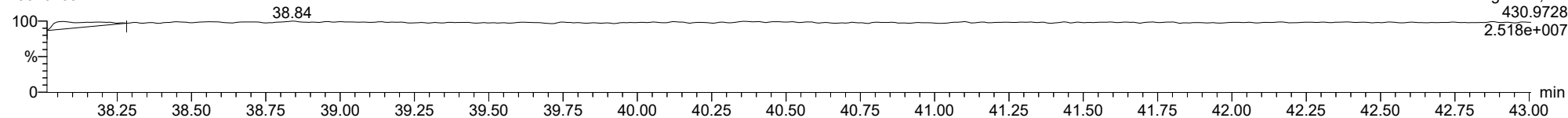
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23020109



FUNCTION4 PFK

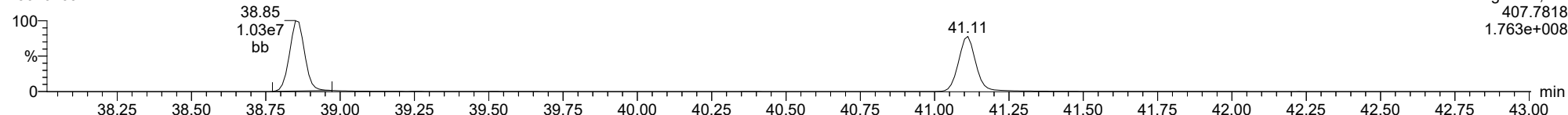
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

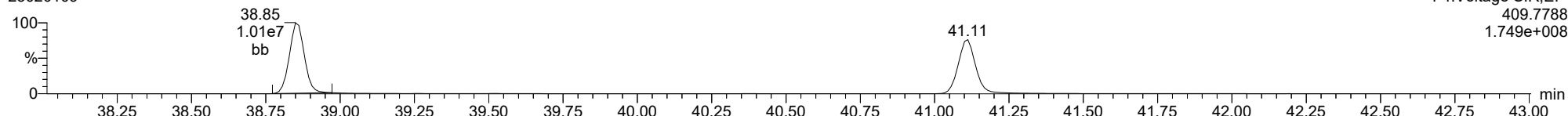
1234678-HpCDF

23020109



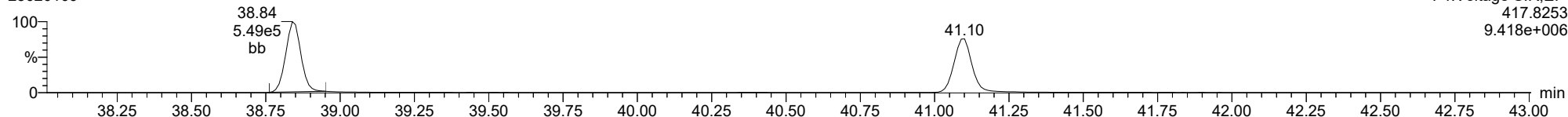
1234678-HpCDF

23020109



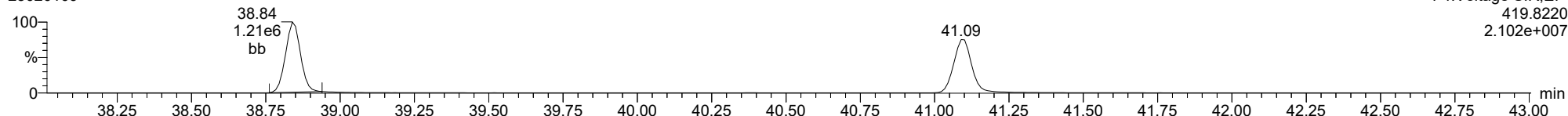
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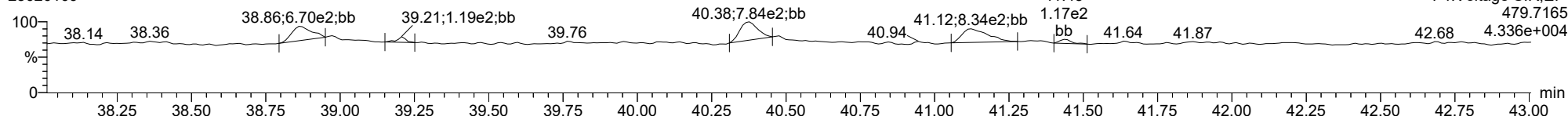
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23020109



FUNCTION4 NCDPE

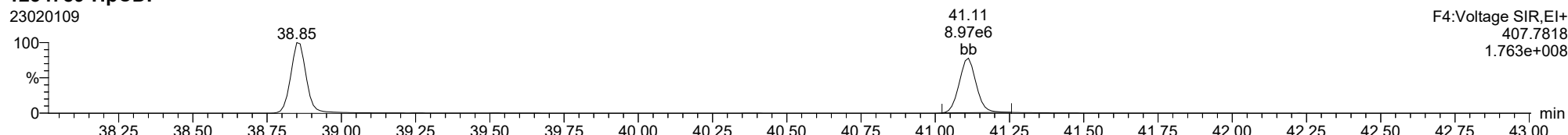
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

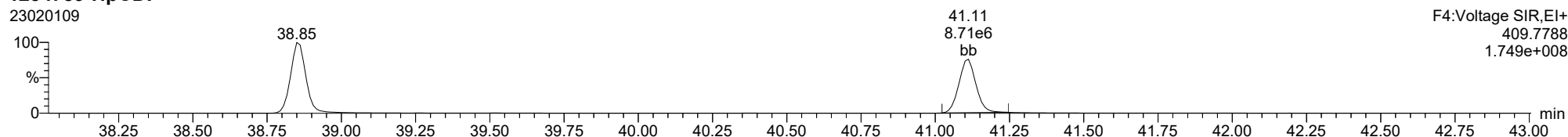
1234789-HpCDF

23020109



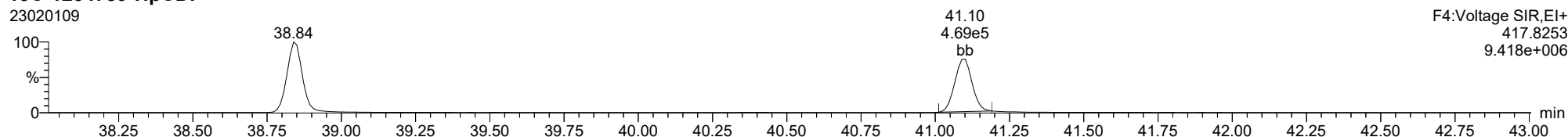
1234789-HpCDF

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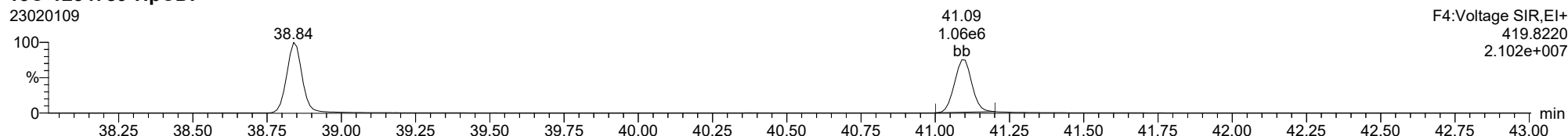
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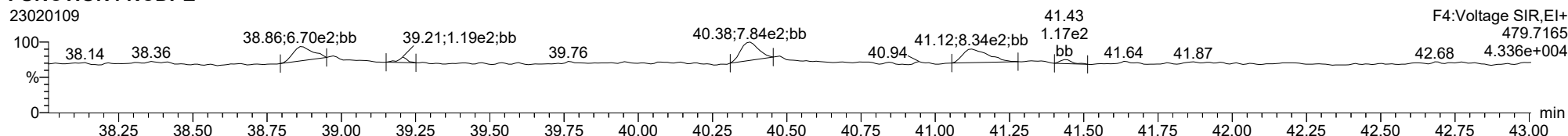
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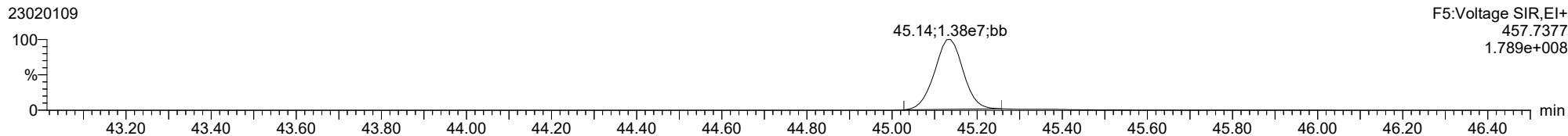
FUNCTION4 NCDPE

23020109

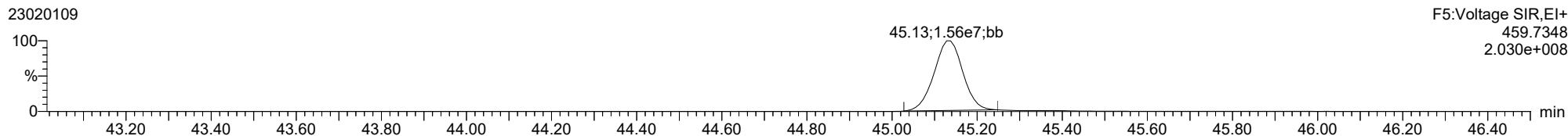


ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

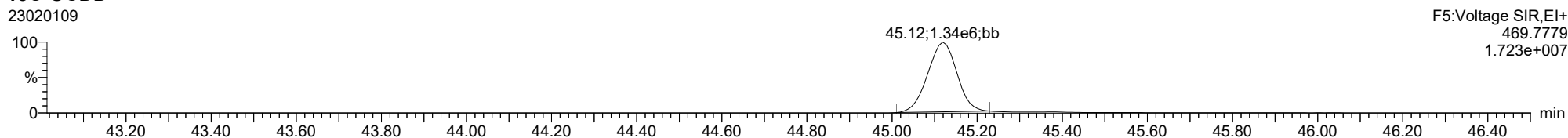
OCDD



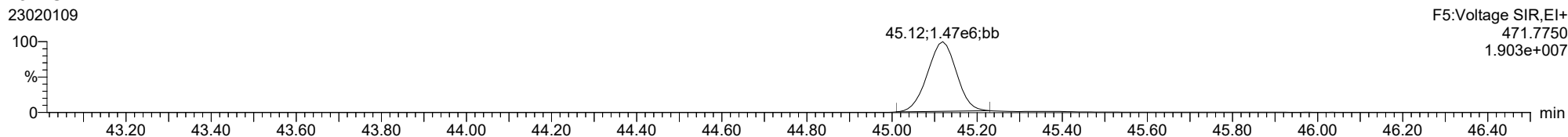
OCDD



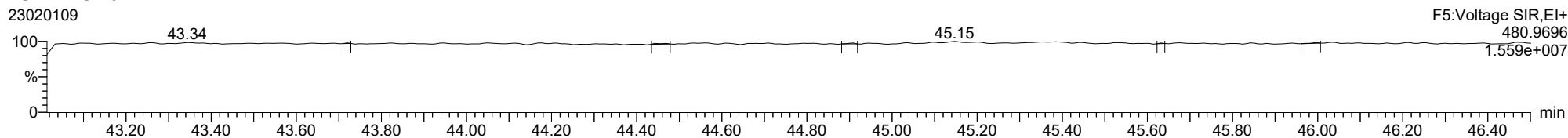
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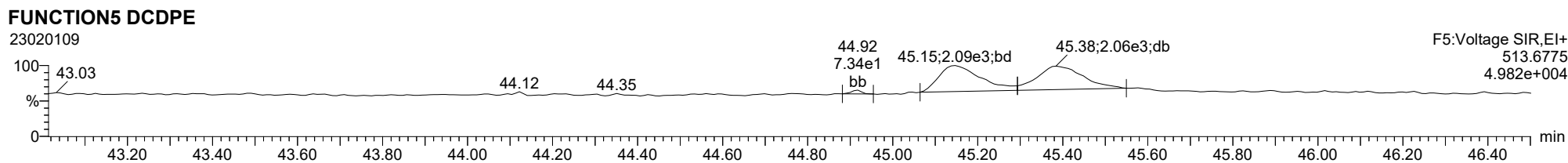
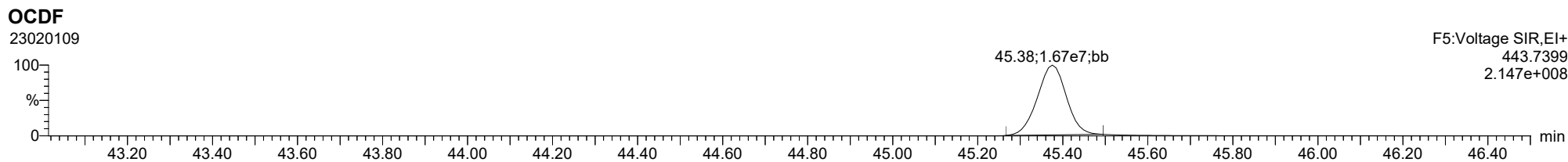
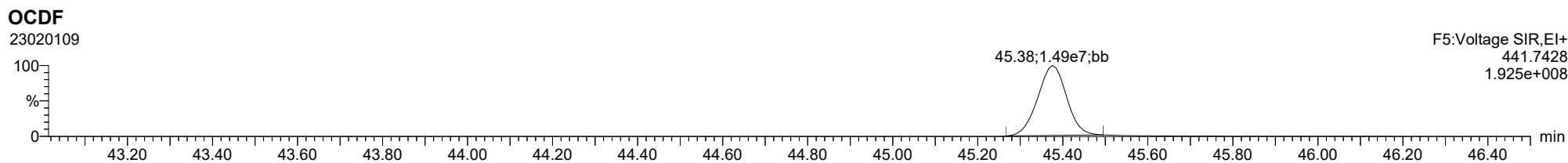
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FUNCTIONS PFK



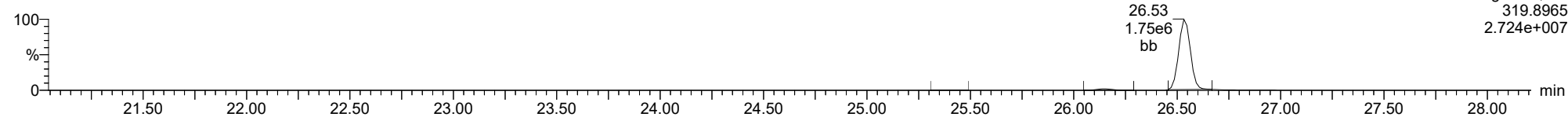
ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk



ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

Total-tetradioxins

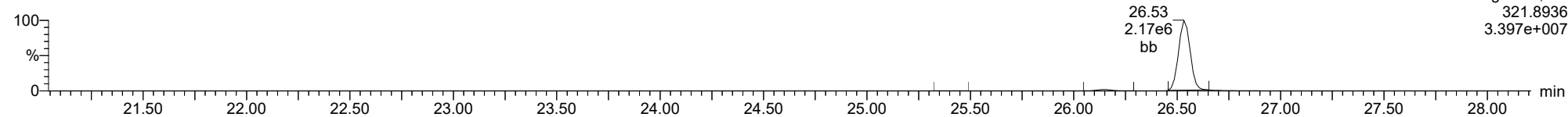
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F1:Voltage SIR,EI+
319.8965
2.724e+007

Total-tetradioxins

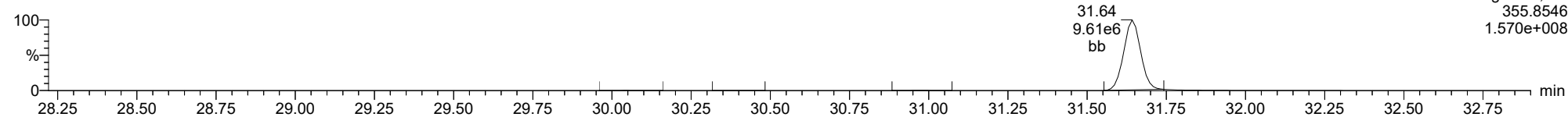
23020109



F1:Voltage SIR,EI+
321.8936
3.397e+007

Total-pentadioxins

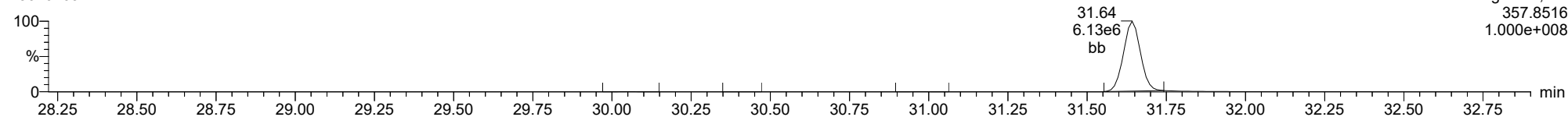
23020109



F2:Voltage SIR,EI+
355.8546
1.570e+008

Total-pentadioxins

23020109

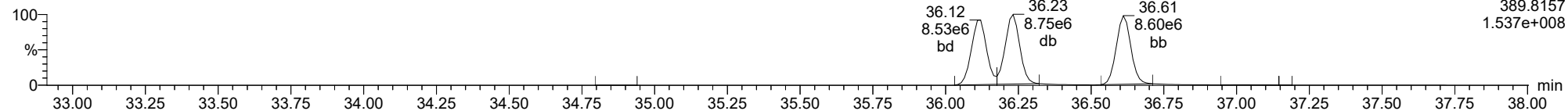


F2:Voltage SIR,EI+
357.8516
1.000e+008

ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

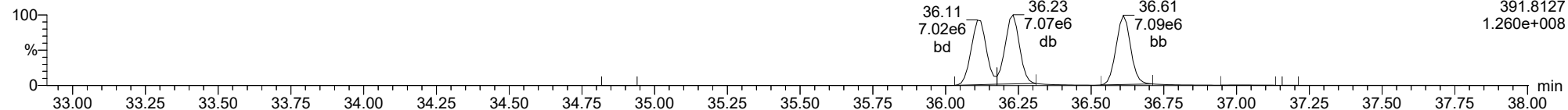
Total-hexadioxins

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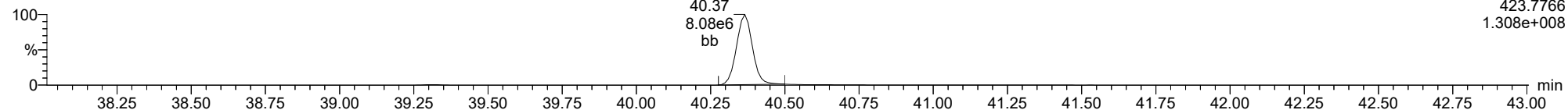
Total-hexadioxins

23020109



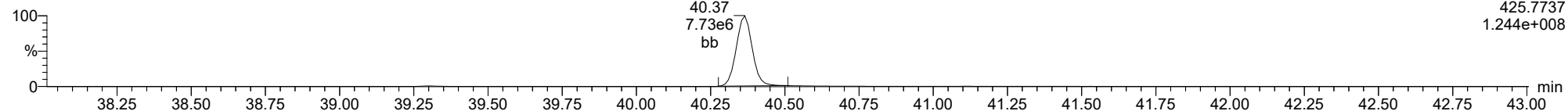
Total-heptadioxins

23020109



Total-heptadioxins

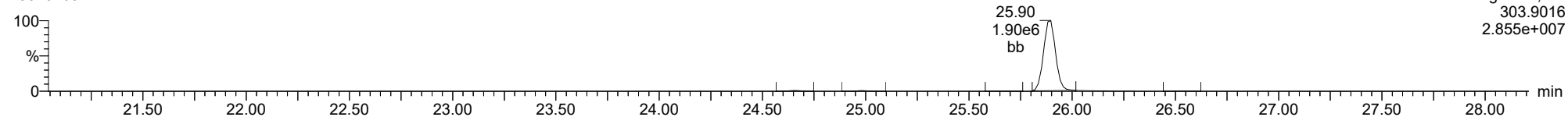
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

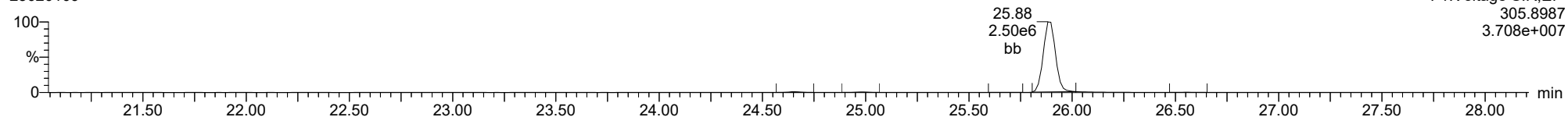
Total-tetrafurans

23020109



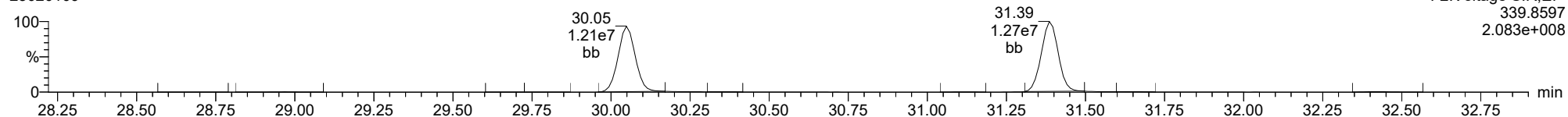
Total-tetrafurans

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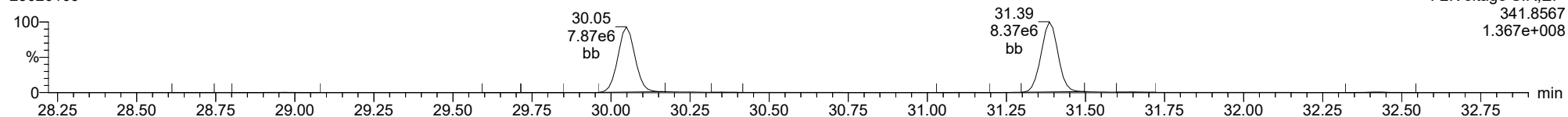
Total-pentafurans

23020109



Total-pentafurans

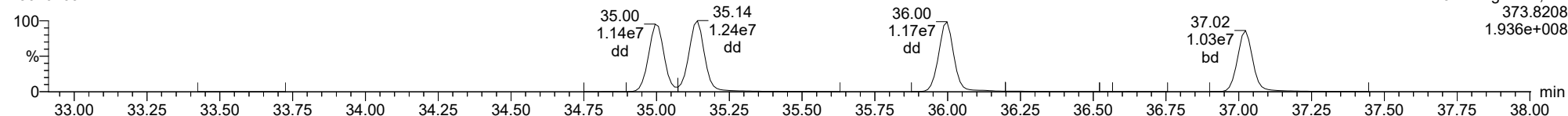
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ID: CS5CR, Name: 23020109, Date: 01-Feb-2023, Time: 19:34:25, Conditions: AUTOSPEC01, User: pk

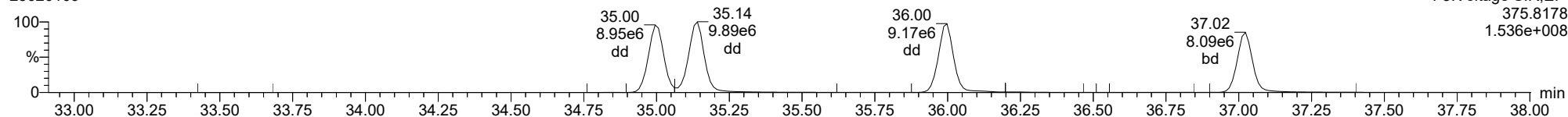
Total-hexafurans

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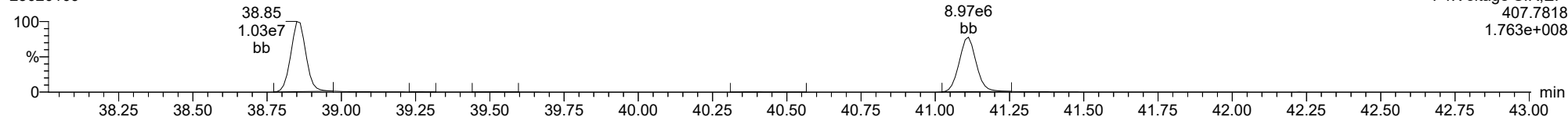
Total-hexafurans

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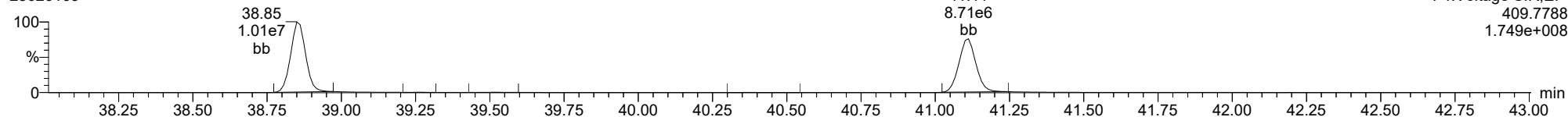
Total-heptafurans

23020109



Total-heptafurans

23020109



Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld
 Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time
 Printed: Friday, February 03, 2023 11:23:11 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
 Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.882	1.001	7.583e4	1.018e5	0.876	0.744	0.770	1312	1705	1.17e6	1.55e6	895.7	911.1	NO	bb	bb	9.802
12378-PeCDF	30.037	1.000	4.347e5	2.900e5	0.845	1.499	1.550	3463	2713	6.78e6	4.53e6	1956.5	1669.5	NO	bb	bb	49.435
23478-PeCDF	31.374	1.000	4.582e5	2.969e5	0.911	1.543	1.550	3463	2713	6.90e6	4.53e6	1992.7	1668.4	NO	bb	bb	50.720
123478-HxCDF	34.984	1.000	3.962e5	3.152e5	1.182	1.257	1.240	2904	2208	6.26e6	4.98e6	2155.7	2257.5	NO	bd	bd	50.838
234678-HxCDF	35.987	1.001	4.056e5	3.185e5	1.229	1.273	1.240	2904	2208	6.27e6	4.93e6	2160.6	2231.5	NO	bb	bd	51.528
123678-HxCDF	35.129	1.001	4.284e5	3.437e5	1.248	1.247	1.240	2904	2208	6.50e6	5.14e6	2238.5	2329.7	NO	dd	db	51.066
123789-HxCDF	37.012	1.001	3.438e5	2.711e5	1.187	1.268	1.240	2904	2208	5.39e6	4.21e6	1855.6	1906.8	NO	bb	bb	49.890
1234678-HpCDF	38.850	1.001	3.527e5	3.436e5	1.204	1.027	1.050	3342	3138	5.81e6	5.69e6	1739.4	1813.0	NO	bb	bb	48.984
1234789-HpCDF	41.101	1.000	3.197e5	3.013e5	1.165	1.061	1.050	3342	3138	4.62e6	4.44e6	1383.4	1415.4	NO	bd	bb	51.470
OCDF	45.357	1.006	4.733e5	5.396e5	1.186	0.877	0.890	2772	1582	5.77e6	6.54e6	2082.4	4133.4	NO	bb	bb	92.994
2378-TCDD	26.532	1.001	6.792e4	8.768e4	1.236	0.775	0.770	1380	1753	1.03e6	1.34e6	749.1	761.7	NO	bb	bb	10.105
12378-PeCDD	31.631	1.000	3.290e5	2.096e5	1.087	1.569	1.550	3204	3195	5.14e6	3.30e6	1603.9	1031.8	NO	bb	bb	48.876
123478-HxCDD	36.109	1.001	2.890e5	2.319e5	0.987	1.246	1.240	2459	2022	4.84e6	3.91e6	1968.4	1935.9	NO	bd	bd	50.975
123678-HxCDD	36.221	1.000	2.990e5	2.445e5	1.021	1.223	1.240	2459	2022	4.88e6	4.06e6	1984.4	2008.5	NO	db	db	48.307
123789-HxCDD	36.599	1.011	2.845e5	2.378e5	0.985	1.196	1.240	2459	2022	4.82e6	3.99e6	1960.3	1972.8	NO	bb	bb	49.580
1234678-HpCDD	40.354	1.001	2.858e5	2.609e5	1.253	1.095	1.050	2240	2747	4.24e6	3.98e6	1890.7	1447.3	NO	bd	bb	48.846
OCDD	45.111	1.000	4.553e5	5.144e5	1.103	0.885	0.890	2050	2803	5.81e6	6.65e6	2832.1	2371.2	NO	bb	bb	95.778
13C-2378-TCDF	25.867	1.006	9.159e5	1.153e6	1.768	0.794	0.770	2721	1646	1.40e7	1.78e7	5149.2	10794.2	NO	bb	bb	100.832
13C-12378-PeCDF	30.026	1.168	1.059e6	6.764e5	1.527	1.566	1.550	3804	2727	1.61e7	1.02e7	4228.7	3742.1	NO	bb	bb	97.924
13C-23478-PeCDF	31.363	1.220	9.914e5	6.424e5	1.466	1.543	1.550	3804	2727	1.49e7	9.56e6	3917.8	3506.2	NO	bb	bb	96.003
13C-123478-HxCDF	34.973	0.956	4.014e5	7.827e5	1.054	0.513	0.510	2311	3449	6.56e6	1.28e7	2840.4	3698.0	NO	bd	bd	98.968
13C-123678-HxCDF	35.106	0.960	4.085e5	8.030e5	1.080	0.509	0.510	2311	3449	6.64e6	1.32e7	2872.8	3823.9	NO	db	db	98.793
13C-234678-HxCDF	35.964	0.983	3.869e5	7.566e5	1.014	0.511	0.510	2311	3449	6.49e6	1.28e7	2809.7	3704.0	NO	bb	bb	99.278
13C-123789-HxCDF	36.989	1.011	3.535e5	6.852e5	0.928	0.516	0.510	2311	3449	5.90e6	1.14e7	2552.6	3318.4	NO	bb	bb	98.576
13C-1234678-HpCDF	38.828	1.061	3.652e5	8.153e5	1.036	0.448	0.440	3274	4191	6.12e6	1.38e7	1868.5	3294.0	NO	bb	bb	100.340
13C-1234789-HpCDF	41.090	1.123	3.190e5	7.164e5	0.905	0.445	0.440	3274	4191	4.81e6	1.07e7	1468.7	2563.9	NO	bb	bb	100.753
13C-1234-TCDD	25.700	0.000	5.137e5	6.469e5	1.000	0.794	0.770	2221	1552	7.96e6	9.97e6	3583.6	6423.2	NO	bb	bb	100.000
13C-2378-TCDD	26.501	1.031	5.549e5	6.905e5	1.103	0.804	0.770	2221	1552	8.40e6	1.04e7	3781.7	6727.2	NO	bb	bb	97.290
13C-12378-PeCDD	31.619	1.230	6.261e5	3.880e5	0.914	1.614	1.550	1580	2177	9.40e6	5.80e6	5947.9	2663.3	NO	bb	bb	95.581
13C-123478-HxCDD	36.087	0.986	5.808e5	4.547e5	0.933	1.277	1.240	2129	1763	9.84e6	7.81e6	4624.5	4431.4	NO	bd	bd	97.737
13C-123678-HxCDD	36.209	0.990	6.262e5	4.760e5	0.965	1.315	1.240	2129	1763	9.80e6	7.57e6	4603.5	4292.7	NO	db	db	100.625
13C-1234678-HpCDD	40.332	1.102	4.634e5	4.302e5	0.782	1.077	1.050	2527	2271	7.13e6	6.69e6	2821.9	2945.0	NO	bb	bb	100.628
13C-OCDD	45.101	1.233	8.768e5	9.596e5	0.788	0.914	0.890	3549	1603	1.12e7	1.23e7	3153.1	7665.3	NO	bb	bb	205.165
13C-123789-HxCDD	36.588	0.000	6.499e5	4.857e5	1.000	1.338	1.240	2129	1763	1.03e7	7.92e6	4860.1	4494.5	NO	bb	bb	100.000
37CL-2378-TCDD	26.532	1.032	1.279e5		1.233			1385		1.91e6		1382.5			bb		8.937

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld
 Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time
 Printed: Friday, February 03, 2023 11:23:11 Pacific Standard Time

ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.389	0.866	9.960e4	1.319e5	1.064	0.755	0.770	1312	1705	1.56e6	2.09e6	1186.8	1226.5	NO	bb	bb	10.509
1289-TCDF	27.378	1.058	7.533e4	1.022e5	0.858	0.737	0.770	1312	1705	1.14e6	1.52e6	867.5	889.5	NO	db	db	10.006
13468-PECDF	27.242	0.907	5.475e5	3.540e5	1.013	1.547	1.550	880	1149	8.31e6	5.37e6	9441.4	4673.6	NO	bb	bb	51.279
12389-PECDF					0.844		1.550	3463	2713								
123468-HXCDF	33.335	0.953	4.175e5	3.320e5	1.197	1.258	1.240	2904	2208	6.11e6	4.84e6	2104.7	2190.3	NO	bb	bb	52.862
1368-TCDD	23.659	0.893	6.883e4	8.714e4	1.084	0.790	0.770	1380	1753	1.12e6	1.44e6	811.7	819.2	NO	bb	bb	11.549
1289-TCDD	27.122	1.023	6.029e4	7.860e4	0.975	0.767	0.770	1380	1753	8.98e5	1.15e6	650.5	656.0	NO	bb	bd	11.436
12479-PECDD	28.912	0.914	6.082e5	3.865e5	1.837	1.574	1.550	3204	3195	5.92e6	3.73e6	1847.3	1168.6	NO	bb	bb	53.387
12389-PECDD	32.032	1.013	4.002e5	2.572e5	1.252	1.556	1.550	3204	3195	6.11e6	3.89e6	1906.1	1217.0	NO	bb	bb	51.760
124679-HXCDD	34.104	0.945	3.073e5	2.529e5	1.033	1.215	1.240	2459	2022	4.88e6	4.09e6	1984.3	2022.2	NO	bb	bb	52.384
1234679-HPCDD	39.296	0.974	2.978e5	2.984e5	1.286	0.998	1.050	2240	2747	4.86e6	4.77e6	2169.4	1735.2	NO	bb	bd	51.878
Total-tetrafurans			2.515e5		0.933			1312		3.88e6							30.410
Total-penta1			5.475e5					880		8.31e6							51.279
Total-pentafurans			1.407e6		0.866			3463		2.14e7							158.406
Total-hexafurans			1.992e6		1.208			2904		3.05e7							256.184
Total-heptafurans			6.724e5		1.185			3342		1.04e7							100.453
Total-Furans			5.343e6		1.067			1312		8.03e7							689.726
Total-tetradoxins			3.350e5		1.099			1380		4.69e6							55.818
Total-pentadoxins			1.337e6		1.392			3204		1.72e7							154.023
Total-hexadoxins			1.180e6		1.007			2459		1.94e7							201.246
Total-heptadoxins			5.836e5		1.269			2240		9.09e6							100.724
Total-Dioxins			3.891e6		1.165			1380		5.62e7							607.589
Total-TEQ			9.234e6					1380		1.36e8							1297.316
FUNCTION1 PFK			2.960e5					590383		7.93e6							
FUNCTION2 PFK			3.847e5					195923		1.00e7							0.000
FUNCTION3 PFK			3.926e5					364545		1.22e7							0.000
FUNCTION4 PFK			4.778e5					303163		3.90e6							
FUNCTION5 PFK			9.338e4					197261		3.25e6							
FUNCTION1 HXCD...			9.172e2					783		1.34e4							0.000
FUNCTION1 HPCD...			1.484e3					913		2.30e4							0.000
FUNCTION2 HPCD...			4.855e2					894		8.19e3							0.000
FUNCTION3 OCDPE			1.383e2					795		2.59e3							0.000
FUNCTION4 NCDPE			2.530e2					911		5.27e3							0.000
FUNCTION5 DCDPE			7.207e1					795		1.85e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld
 Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time
 Printed: Friday, February 03, 2023 11:23:11 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33

Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	7.533e4	1.022e5	0.858	0.74	0.77	867.5	YES	NO	db	db	10.006
2	2378-TCDF	25.88	7.583e4	1.018e5	0.876	0.74	0.77	895.7	YES	NO	bb	bb	9.802
3	Total-tetrafurans	24.79	7.370e2	1.079e3	0.933	0.68	0.77	8.4	YES	NO	db	dd	0.094
4	1368-TCDF	22.39	9.960e4	1.319e5	1.064	0.76	0.77	1186.8	YES	NO	bb	bb	10.509

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.24	5.475e5	3.540e5	1.013	1.55	1.55	9441.4	YES	NO	bb	bb	51.279

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	32.41	4.363e5	2.872e5	0.866	1.52	1.55	1891.7	YES	NO	bb	bb	49.558
2	23478-PeCDF	31.37	4.582e5	2.969e5	0.911	1.54	1.55	1992.7	YES	NO	bb	bb	50.720
3	12378-PeCDF	30.04	4.347e5	2.900e5	0.845	1.50	1.55	1956.5	YES	NO	bb	bb	49.435
4	Total-pentafurans	28.89	7.749e4	4.941e4	0.866	1.57	1.55	335.4	YES	NO	bb	bb	8.693

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.01	3.438e5	2.711e5	1.187	1.27	1.24	1855.6	YES	NO	bb	bb	49.890
2	234678-HxCDF	35.99	4.056e5	3.185e5	1.229	1.27	1.24	2160.6	YES	NO	bb	bd	51.528
3	123678-HxCDF	35.13	4.284e5	3.437e5	1.248	1.25	1.24	2238.5	YES	NO	dd	db	51.066
4	123478-HxCDF	34.98	3.962e5	3.152e5	1.182	1.26	1.24	2155.7	YES	NO	bd	bd	50.838
5	123468-HxCDF	33.34	4.175e5	3.320e5	1.197	1.26	1.24	2104.7	YES	NO	bb	bb	52.862

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	38.85	3.527e5	3.436e5	1.204	1.03	1.05	1739.4	YES	NO	bb	bb	48.984
2	1234789-HpCDF	41.10	3.197e5	3.013e5	1.165	1.06	1.05	1383.4	YES	NO	bd	bb	51.470

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time

Printed: Friday, February 03, 2023 11:23:11 Pacific Standard Time

ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	7.533e4	1.022e5	0.858	0.74	0.77	867.5	YES	NO	db	db	10.006
2	2378-TCDF	25.88	7.583e4	1.018e5	0.876	0.74	0.77	895.7	YES	NO	bb	bb	9.802
3	Total-tetrafurans	24.79	7.370e2	1.079e3	0.933	0.68	0.77	8.4	YES	NO	db	dd	0.094
4	1368-TCDF	22.39	9.960e4	1.319e5	1.064	0.76	0.77	1186.8	YES	NO	bb	bb	10.509
5	Total-pentafurans	32.41	4.363e5	2.872e5	0.866	1.52	1.55	1891.7	YES	NO	bb	bb	49.558
6	23478-PeCDF	31.37	4.582e5	2.969e5	0.911	1.54	1.55	1992.7	YES	NO	bb	bb	50.720
7	12378-PeCDF	30.04	4.347e5	2.900e5	0.845	1.50	1.55	1956.5	YES	NO	bb	bb	49.435
8	Total-pentafurans	28.89	7.749e4	4.941e4	0.866	1.57	1.55	335.4	YES	NO	bb	bb	8.693
9	123789-HxCDF	37.01	3.438e5	2.711e5	1.187	1.27	1.24	1855.6	YES	NO	bb	bb	49.890
10	234678-HxCDF	35.99	4.056e5	3.185e5	1.229	1.27	1.24	2160.6	YES	NO	bb	bd	51.528
11	123678-HxCDF	35.13	4.284e5	3.437e5	1.248	1.25	1.24	2238.5	YES	NO	dd	db	51.066
12	123478-HxCDF	34.98	3.962e5	3.152e5	1.182	1.26	1.24	2155.7	YES	NO	bd	bd	50.838
13	123468-HXCDF	33.34	4.175e5	3.320e5	1.197	1.26	1.24	2104.7	YES	NO	bb	bb	52.862
14	1234678-HpCDF	38.85	3.527e5	3.436e5	1.204	1.03	1.05	1739.4	YES	NO	bb	bb	48.984
15	1234789-HpCDF	41.10	3.197e5	3.013e5	1.165	1.06	1.05	1383.4	YES	NO	bd	bb	51.470
16	OCDF	45.36	4.733e5	5.396e5	1.186	0.88	0.89	2082.4	YES	NO	bb	bb	92.994
17	13468-PECDF	27.24	5.475e5	3.540e5	1.013	1.55	1.55	9441.4	YES	NO	bb	bb	51.279

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.66	6.883e4	8.714e4	1.084	0.79	0.77	811.7	YES	NO	bb	bb	11.549
2	1289-TCDD	27.12	6.029e4	7.860e4	0.975	0.77	0.77	650.5	YES	NO	bb	bd	11.436
3	2378-TCDD	26.53	6.792e4	8.768e4	1.236	0.77	0.77	749.1	YES	NO	bb	bb	10.105
4	Total-tetradoxins	26.20	1.038e5	1.301e5	1.099	0.80	0.77	805.2	YES	NO	bb	bb	17.096
5	Total-tetradoxins	25.72	3.415e4	4.291e4	1.099	0.80	0.77	378.9	YES	NO	bd	bd	5.632

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	32.03	4.002e5	2.572e5	1.252	1.56	1.55	1906.1	YES	NO	bb	bb	51.760
2	12378-PeCDD	31.63	3.290e5	2.096e5	1.087	1.57	1.55	1603.9	YES	NO	bb	bb	48.876
3	12479-PECDD	28.91	6.082e5	3.865e5	1.837	1.57	1.55	1847.3	YES	NO	bb	bb	53.387

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Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time

Printed: Friday, February 03, 2023 11:23:11 Pacific Standard Time

ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.60	2.845e5	2.378e5	0.985	1.20	1.24	1960.3	YES	NO	bb	bb	49.580
2	123678-HxCDD	36.22	2.990e5	2.445e5	1.021	1.22	1.24	1984.4	YES	NO	db	db	48.307
3	123478-HxCDD	36.11	2.890e5	2.319e5	0.987	1.25	1.24	1968.4	YES	NO	bd	bd	50.975
4	124679-HXCDD	34.10	3.073e5	2.529e5	1.033	1.22	1.24	1984.3	YES	NO	bb	bb	52.384

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	40.35	2.858e5	2.609e5	1.253	1.10	1.05	1890.7	YES	NO	bd	bb	48.846
2	1234679-HPCDD	39.30	2.978e5	2.984e5	1.286	1.00	1.05	2169.4	YES	NO	bb	bd	51.878

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1368-TCDD	23.66	6.883e4	8.714e4	1.084	0.79	0.77	811.7	YES	NO	bb	bb	11.549
2	1289-TCDD	27.12	6.029e4	7.860e4	0.975	0.77	0.77	650.5	YES	NO	bb	bd	11.436
3	2378-TCDD	26.53	6.792e4	8.768e4	1.236	0.77	0.77	749.1	YES	NO	bb	bb	10.105
4	Total-tetradoxins	26.20	1.038e5	1.301e5	1.099	0.80	0.77	805.2	YES	NO	bb	bb	17.096
5	Total-tetradoxins	25.72	3.415e4	4.291e4	1.099	0.80	0.77	378.9	YES	NO	bd	bd	5.632
6	12389-PECDD	32.03	4.002e5	2.572e5	1.252	1.56	1.55	1906.1	YES	NO	bb	bb	51.760
7	12378-PeCDD	31.63	3.290e5	2.096e5	1.087	1.57	1.55	1603.9	YES	NO	bb	bb	48.876
8	12479-PECDD	28.91	6.082e5	3.865e5	1.837	1.57	1.55	1847.3	YES	NO	bb	bb	53.387
9	123789-HxCDD	36.60	2.845e5	2.378e5	0.985	1.20	1.24	1960.3	YES	NO	bb	bb	49.580
10	123678-HxCDD	36.22	2.990e5	2.445e5	1.021	1.22	1.24	1984.4	YES	NO	db	db	48.307
11	123478-HxCDD	36.11	2.890e5	2.319e5	0.987	1.25	1.24	1968.4	YES	NO	bd	bd	50.975
12	124679-HXCDD	34.10	3.073e5	2.529e5	1.033	1.22	1.24	1984.3	YES	NO	bb	bb	52.384
13	1234678-HpCDD	40.35	2.858e5	2.609e5	1.253	1.10	1.05	1890.7	YES	NO	bd	bb	48.846
14	1234679-HPCDD	39.30	2.978e5	2.984e5	1.286	1.00	1.05	2169.4	YES	NO	bb	bd	51.878
15	OCDD	45.11	4.553e5	5.144e5	1.103	0.89	0.89	2832.1	YES	NO	bb	bb	95.778

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld

Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time

Printed: Friday, February 03, 2023 11:23:11 Pacific Standard Time

ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	7.533e4	1.022e5	0.858	0.74	0.77	867.5	YES	NO	db	db	10.006
2	2378-TCDF	25.88	7.583e4	1.018e5	0.876	0.74	0.77	895.7	YES	NO	bb	bb	9.802
3	Total-tetrafurans	24.79	7.370e2	1.079e3	0.933	0.68	0.77	8.4	YES	NO	db	dd	0.094
4	1368-TCDF	22.39	9.960e4	1.319e5	1.064	0.76	0.77	1186.8	YES	NO	bb	bb	10.509
5	Total-pentafurans	32.41	4.363e5	2.872e5	0.866	1.52	1.55	1891.7	YES	NO	bb	bb	49.558
6	23478-PeCDF	31.37	4.582e5	2.969e5	0.911	1.54	1.55	1992.7	YES	NO	bb	bb	50.720
7	12378-PeCDF	30.04	4.347e5	2.900e5	0.845	1.50	1.55	1956.5	YES	NO	bb	bb	49.435
8	Total-pentafurans	28.89	7.749e4	4.941e4	0.866	1.57	1.55	335.4	YES	NO	bb	bb	8.693
9	123789-HxCDF	37.01	3.438e5	2.711e5	1.187	1.27	1.24	1855.6	YES	NO	bb	bb	49.890
10	234678-HxCDF	35.99	4.056e5	3.185e5	1.229	1.27	1.24	2160.6	YES	NO	bb	bd	51.528
11	123678-HxCDF	35.13	4.284e5	3.437e5	1.248	1.25	1.24	2238.5	YES	NO	dd	db	51.066
12	123478-HxCDF	34.98	3.962e5	3.152e5	1.182	1.26	1.24	2155.7	YES	NO	bd	bd	50.838
13	123468-HXCDF	33.34	4.175e5	3.320e5	1.197	1.26	1.24	2104.7	YES	NO	bb	bb	52.862
14	1234678-HpCDF	38.85	3.527e5	3.436e5	1.204	1.03	1.05	1739.4	YES	NO	bb	bb	48.984
15	1234789-HpCDF	41.10	3.197e5	3.013e5	1.165	1.06	1.05	1383.4	YES	NO	bd	bb	51.470
16	OCDF	45.36	4.733e5	5.396e5	1.186	0.88	0.89	2082.4	YES	NO	bb	bb	92.994
17	13468-PECDF	27.24	5.475e5	3.540e5	1.013	1.55	1.55	9441.4	YES	NO	bb	bb	51.279
18	1368-TCDD	23.66	6.883e4	8.714e4	1.084	0.79	0.77	811.7	YES	NO	bb	bb	11.549
19	1289-TCDD	27.12	6.029e4	7.860e4	0.975	0.77	0.77	650.5	YES	NO	bb	bd	11.436
20	2378-TCDD	26.53	6.792e4	8.768e4	1.236	0.77	0.77	749.1	YES	NO	bb	bb	10.105
21	Total-tetradiioxins	26.20	1.038e5	1.301e5	1.099	0.80	0.77	805.2	YES	NO	bb	bb	17.096
22	Total-tetradiioxins	25.72	3.415e4	4.291e4	1.099	0.80	0.77	378.9	YES	NO	bd	bd	5.632
23	12389-PECDD	32.03	4.002e5	2.572e5	1.252	1.56	1.55	1906.1	YES	NO	bb	bb	51.760
24	12378-PeCDD	31.63	3.290e5	2.096e5	1.087	1.57	1.55	1603.9	YES	NO	bb	bb	48.876
25	12479-PECDD	28.91	6.082e5	3.865e5	1.837	1.57	1.55	1847.3	YES	NO	bb	bb	53.387
26	123789-HxCDD	36.60	2.845e5	2.378e5	0.985	1.20	1.24	1960.3	YES	NO	bb	bb	49.580
27	123678-HxCDD	36.22	2.990e5	2.445e5	1.021	1.22	1.24	1984.4	YES	NO	db	db	48.307
28	123478-HxCDD	36.11	2.890e5	2.319e5	0.987	1.25	1.24	1968.4	YES	NO	bd	bd	50.975
29	124679-HXCDD	34.10	3.073e5	2.529e5	1.033	1.22	1.24	1984.3	YES	NO	bb	bb	52.384
30	1234678-HpCDD	40.35	2.858e5	2.609e5	1.253	1.10	1.05	1890.7	YES	NO	bd	bb	48.846
31	1234679-HPCDD	39.30	2.978e5	2.984e5	1.286	1.00	1.05	2169.4	YES	NO	bb	bd	51.878
32	OCDD	45.11	4.553e5	5.144e5	1.103	0.89	0.89	2832.1	YES	NO	bb	bb	95.778

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld

Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time

Printed: Friday, February 03, 2023 11:23:11 Pacific Standard Time

ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	27.86	1.802e4					0.8	NO		bb		
2	FUNCTION1 PFK	27.44	9.566e3					0.7	NO		bb		
3	FUNCTION1 PFK	27.12	3.959e3					0.4	NO		bb		
4	FUNCTION1 PFK	26.97	4.648e4					1.4	NO		bb		
5	FUNCTION1 PFK	26.85	1.177e4					0.8	NO		bb		
6	FUNCTION1 PFK	26.26	3.797e3					0.4	NO		bb		
7	FUNCTION1 PFK	25.26	1.715e4					0.9	NO		bb		
8	FUNCTION1 PFK	24.10	5.099e4					1.3	NO		bb		
9	FUNCTION1 PFK	22.39	1.400e4					0.8	NO		bb		
10	FUNCTION1 PFK	22.18	2.255e4					1.2	NO		bb		
11	FUNCTION1 PFK	21.91	1.341e4					0.9	NO		bb		
12	FUNCTION1 PFK	21.72	1.562e4					0.9	NO		bb		
13	FUNCTION1 PFK	21.54	1.217e4					0.8	NO		bb		
14	FUNCTION1 PFK	21.48	3.458e4					0.9	NO		bb		
15	FUNCTION1 PFK	28.06	2.191e4					1.2	NO		bb		

Quantify Totals Report MassLynx V4.1 SCN909

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PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	30.07	6.452e3					0.9	NO		bd		0.000
2	FUNCTION2 PFK	29.81	1.293e4					1.6	NO		db		0.000
3	FUNCTION2 PFK	29.78	4.561e3					1.1	NO		bd		0.000
4	FUNCTION2 PFK	29.68	5.711e3					1.0	NO		db		0.000
5	FUNCTION2 PFK	29.64	1.700e4					1.8	NO		bd		0.000
6	FUNCTION2 PFK	29.47	2.480e4					1.9	NO		db		0.000
7	FUNCTION2 PFK	29.36	1.696e4					1.9	NO		bd		0.000
8	FUNCTION2 PFK	29.29	2.861e3					0.7	NO		bb		0.000
9	FUNCTION2 PFK	29.16	1.091e4					1.2	NO		bb		0.000
10	FUNCTION2 PFK	28.90	2.320e3					0.6	NO		bb		0.000
11	FUNCTION2 PFK	28.80	2.770e3					0.8	NO		bb		0.000
12	FUNCTION2 PFK	28.54	5.899e3					1.2	NO		db		0.000
13	FUNCTION2 PFK	28.50	1.397e4					2.0	NO		bd		0.000
14	FUNCTION2 PFK	28.32	1.175e3					0.5	NO		bb		0.000
15	FUNCTION2 PFK	31.69	3.508e3					0.9	NO		bb		0.000
16	FUNCTION2 PFK	31.63	1.016e4					1.4	NO		bb		0.000
17	FUNCTION2 PFK	31.53	8.675e3					0.8	NO		bb		0.000
18	FUNCTION2 PFK	31.49	1.869e3					0.7	NO		bb		0.000
19	FUNCTION2 PFK	31.40	1.095e4					1.3	NO		bb		0.000
20	FUNCTION2 PFK	31.20	1.018e4					1.4	NO		db		0.000
21	FUNCTION2 PFK	31.14	9.902e3					1.4	NO		bd		0.000
22	FUNCTION2 PFK	31.04	2.521e3					0.6	NO		bb		0.000
23	FUNCTION2 PFK	30.92	4.486e3					1.1	NO		db		0.000
24	FUNCTION2 PFK	30.88	6.090e3					1.2	NO		bd		0.000
25	FUNCTION2 PFK	30.81	3.856e3					0.6	NO		bb		0.000
26	FUNCTION2 PFK	30.76	7.571e3					1.5	NO		db		0.000
27	FUNCTION2 PFK	30.72	1.009e4					1.3	NO		bd		0.000
28	FUNCTION2 PFK	30.37	7.200e3					1.1	NO		db		0.000
29	FUNCTION2 PFK	30.32	1.863e4					2.0	NO		bd		0.000
30	FUNCTION2 PFK	30.12	8.431e3					1.5	NO		db		0.000
31	FUNCTION2 PFK	32.82	1.531e4					1.7	NO		bb		0.000
32	FUNCTION2 PFK	32.76	2.617e4					2.0	NO		db		0.000
33	FUNCTION2 PFK	32.66	9.185e3					1.4	NO		dd		0.000
34	FUNCTION2 PFK	32.61	2.742e4					2.3	NO		dd		0.000
35	FUNCTION2 PFK	32.51	2.015e4					1.8	NO		dd		0.000
36	FUNCTION2 PFK	32.38	1.541e4					2.0	NO		bd		0.000
37	FUNCTION2 PFK	32.27	1.620e3					0.7	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Printed: Friday, February 03, 2023 11:23:11 Pacific Standard Time

ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk**PFK2**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION2 PFK	32.22	6.522e3					1.4	NO		bb		0.000
39	FUNCTION2 PFK	31.96	8.002e3					1.0	NO		bb		0.000
40	FUNCTION2 PFK	31.73	2.461e3					0.8	NO		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.03	4.935e3					0.7	NO		bb		0.000
2	FUNCTION3 PFK	33.76	5.855e3					0.9	NO		bb		0.000
3	FUNCTION3 PFK	33.65	2.046e4					1.3	NO		bb		0.000
4	FUNCTION3 PFK	33.29	1.061e4					1.2	NO		bb		0.000
5	FUNCTION3 PFK	33.10	1.235e4					0.9	NO		bb		0.000
6	FUNCTION3 PFK	36.89	5.964e3					0.8	NO		bb		0.000
7	FUNCTION3 PFK	36.67	1.246e4					1.3	NO		db		0.000
8	FUNCTION3 PFK	36.59	3.645e4					2.5	NO		bd		0.000
9	FUNCTION3 PFK	36.47	1.165e4					0.9	NO		bb		0.000
10	FUNCTION3 PFK	36.40	4.348e3					0.7	NO		bb		0.000
11	FUNCTION3 PFK	36.32	3.325e4					1.9	NO		bb		0.000
12	FUNCTION3 PFK	36.24	1.791e4					1.4	NO		db		0.000
13	FUNCTION3 PFK	36.19	2.043e4					1.6	NO		bd		0.000
14	FUNCTION3 PFK	35.34	7.839e3					0.9	NO		bb		0.000
15	FUNCTION3 PFK	35.04	1.130e4					1.2	NO		bb		0.000
16	FUNCTION3 PFK	34.98	1.757e4					1.3	NO		bb		0.000
17	FUNCTION3 PFK	34.66	3.150e4					2.1	NO		db		0.000
18	FUNCTION3 PFK	34.63	2.204e4					2.2	NO		bd		0.000
19	FUNCTION3 PFK	34.51	2.015e4					1.6	NO		db		0.000
20	FUNCTION3 PFK	34.43	2.373e4					2.0	NO		dd		0.000
21	FUNCTION3 PFK	34.39	1.491e4					1.8	NO		bd		0.000
22	FUNCTION3 PFK	37.97	9.526e3					1.1	NO		bb		0.000
23	FUNCTION3 PFK	37.61	4.551e3					0.8	NO		bb		0.000
24	FUNCTION3 PFK	37.03	2.911e4					1.8	NO		db		0.000
25	FUNCTION3 PFK	36.98	3.696e3					0.6	NO		bd		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	42.71	9.457e3					0.9	NO		bb		
2	FUNCTION4 PFK	42.55	1.416e3					0.4	NO		bb		
3	FUNCTION4 PFK	42.33	2.050e4					1.4	NO		bb		
4	FUNCTION4 PFK	40.90	3.965e3					0.7	NO		bb		
5	FUNCTION4 PFK	40.40	4.095e3					0.7	NO		bb		
6	FUNCTION4 PFK	40.20	2.031e3					0.6	NO		bb		
7	FUNCTION4 PFK	39.89	7.818e3					1.2	NO		bb		
8	FUNCTION4 PFK	39.30	3.577e3					0.7	NO		db		
9	FUNCTION4 PFK	39.23	1.513e4					1.5	NO		bd		
10	FUNCTION4 PFK	38.50	5.085e3					0.8	NO		bb		
11	FUNCTION4 PFK	38.22	4.047e5					4.0	YES		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	46.44	6.785e3					1.5	NO		db		
2	FUNCTION5 PFK	46.41	4.268e3					1.1	NO		bd		
3	FUNCTION5 PFK	46.32	3.211e3					0.9	NO		bb		
4	FUNCTION5 PFK	46.25	5.782e3					1.5	NO		bb		
5	FUNCTION5 PFK	46.21	2.148e3					0.5	NO		bb		
6	FUNCTION5 PFK	45.92	1.180e4					1.5	NO		bb		
7	FUNCTION5 PFK	45.78	2.503e3					0.9	NO		bb		
8	FUNCTION5 PFK	45.72	1.015e3					0.6	NO		bb		
9	FUNCTION5 PFK	45.60	1.955e3					0.7	NO		bb		
10	FUNCTION5 PFK	45.57	1.104e3					0.6	NO		bb		
11	FUNCTION5 PFK	45.45	1.042e4					1.3	NO		bb		
12	FUNCTION5 PFK	44.52	3.296e3					0.9	NO		bb		
13	FUNCTION5 PFK	44.38	2.843e4					2.4	NO		bb		
14	FUNCTION5 PFK	44.01	6.535e3					1.0	NO		bb		
15	FUNCTION5 PFK	43.51	4.124e3					1.1	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld

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Printed: Friday, February 03, 2023 11:23:11 Pacific Standard Time

ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk**ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.80	1.077e2					3.2	YES		bb		0.000
2	FUNCTION1 HXCD...	27.23	8.014e1					1.9	NO		bb		0.000
3	FUNCTION1 HXCD...	25.90	4.015e2					4.7	YES		db		0.000
4	FUNCTION1 HXCD...	25.72	1.078e2					2.6	NO		bd		0.000
5	FUNCTION1 HXCD...	22.96	9.275e1					1.5	NO		bb		0.000
6	FUNCTION1 HXCD...	21.89	1.274e2					3.2	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	24.78	7.643e1					1.2	NO		bb		0.000
2	FUNCTION1 HPCD...	24.10	1.351e2					2.2	NO		db		0.000
3	FUNCTION1 HPCD...	23.90	1.347e2					2.0	NO		dd		0.000
4	FUNCTION1 HPCD...	23.73	7.182e1					1.5	NO		dd		0.000
5	FUNCTION1 HPCD...	23.60	1.453e2					1.7	NO		bd		0.000
6	FUNCTION1 HPCD...	22.30	7.288e1					1.3	NO		bb		0.000
7	FUNCTION1 HPCD...	21.72	1.050e2					2.3	NO		db		0.000
8	FUNCTION1 HPCD...	21.65	1.092e2					1.7	NO		bd		0.000
9	FUNCTION1 HPCD...	27.77	1.087e2					2.2	NO		db		0.000
10	FUNCTION1 HPCD...	27.64	1.853e2					2.8	NO		bd		0.000
11	FUNCTION1 HPCD...	26.97	7.971e1					1.8	NO		db		0.000
12	FUNCTION1 HPCD...	26.89	8.957e1					2.2	NO		bd		0.000
13	FUNCTION1 HPCD...	25.88	1.706e2					2.4	NO		bb		0.000

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.25	4.855e2					9.2	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	34.13	1.383e2					3.3	YES		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld

Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time

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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.71	9.570e1					1.7	NO		bb		0.000
2	FUNCTION4 NCDPE	40.15	8.625e1					2.5	NO		bb		0.000
3	FUNCTION4 NCDPE	39.82	7.102e1					1.6	NO		bb		0.000

ETHERS6

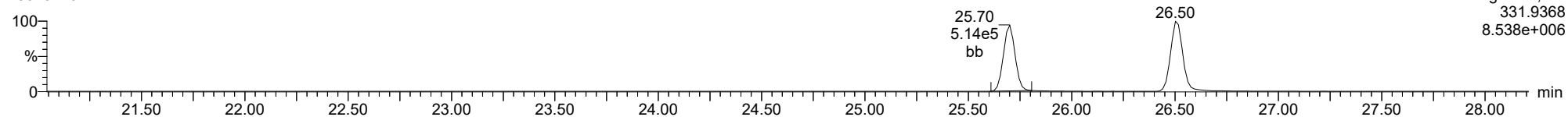
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.11	7.207e1					2.3	NO		bb		0.000

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD

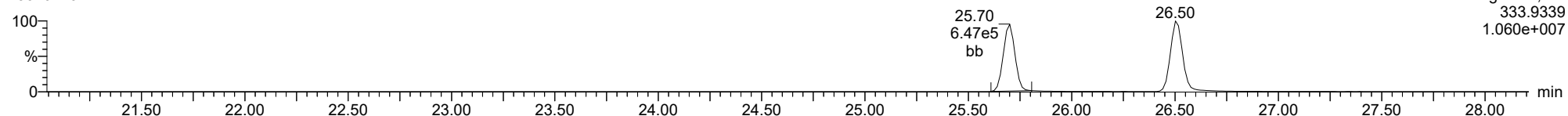
23020110



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8.538e+006

13C-1234-TCDD

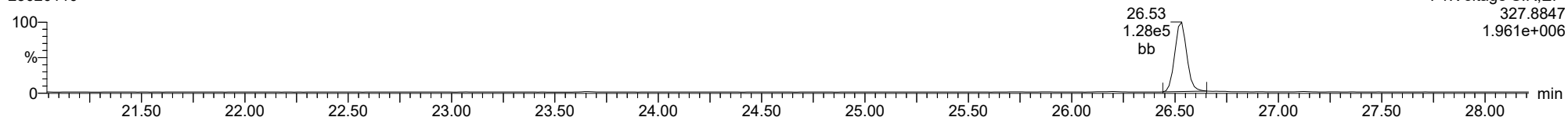
23020110



F1:Voltage SIR,El+
333.9339
1.060e+007

37CL-2378-TCDD

23020110

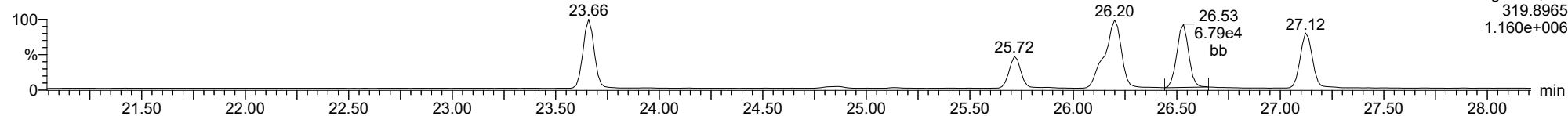


F1:Voltage SIR,El+
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1.961e+006

ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

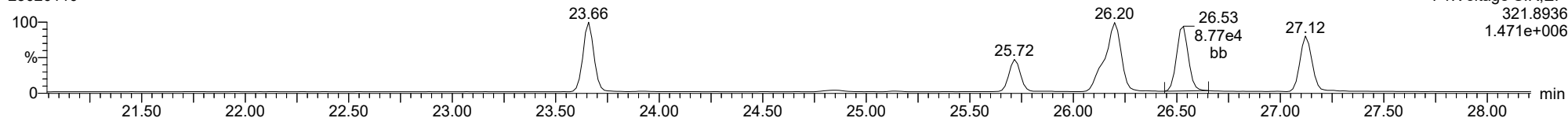
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23020110



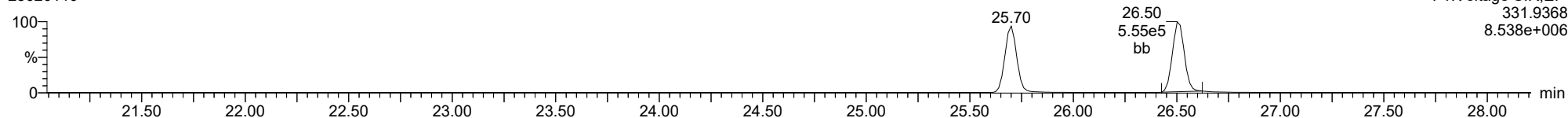
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23020110



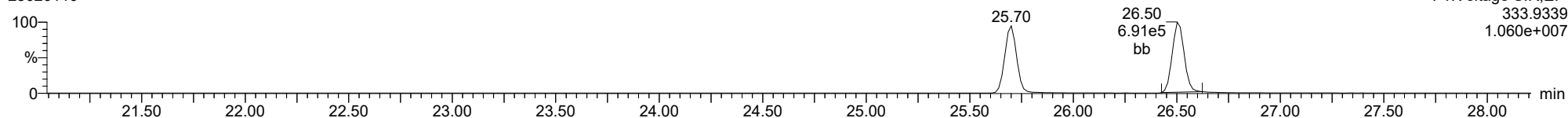
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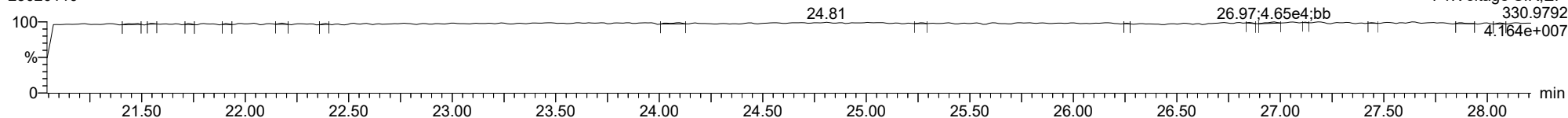
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23020110



FUNCTION1 PFK

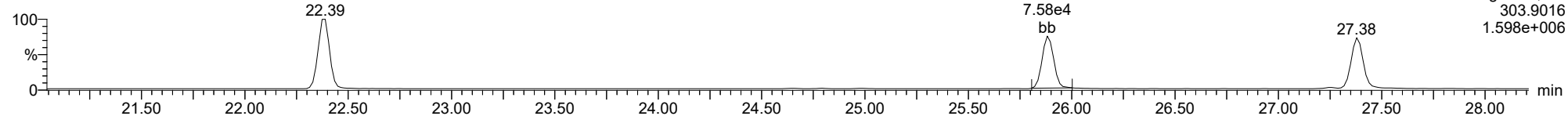
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

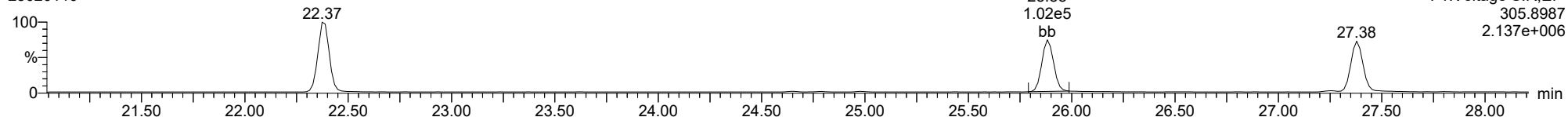
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23020110



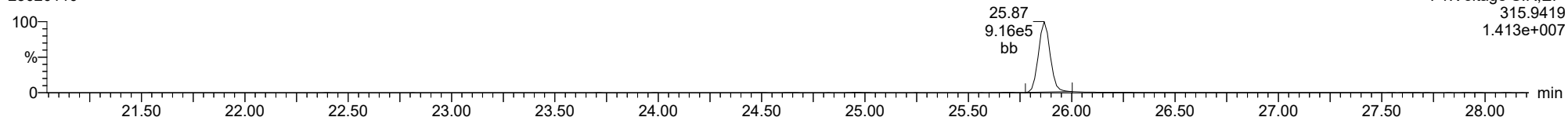
2378-TCDF

23020110



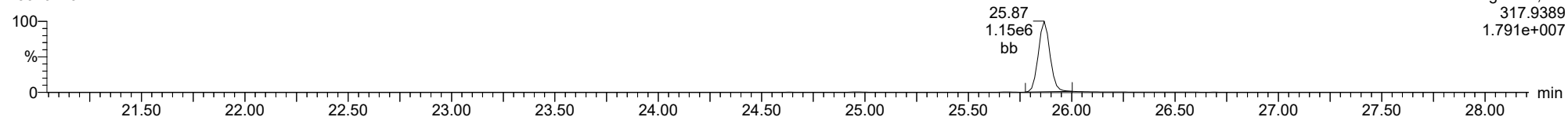
13C-2378-TCDF

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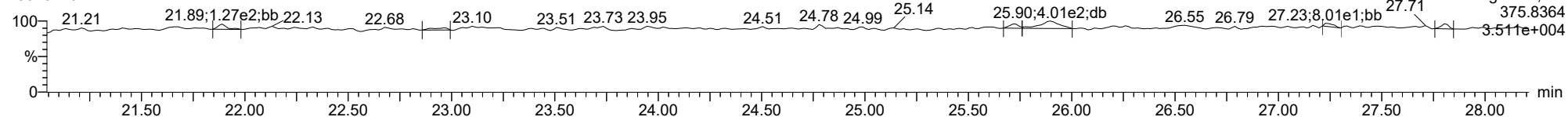
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23020110



FUNCTION1 HXCDPE

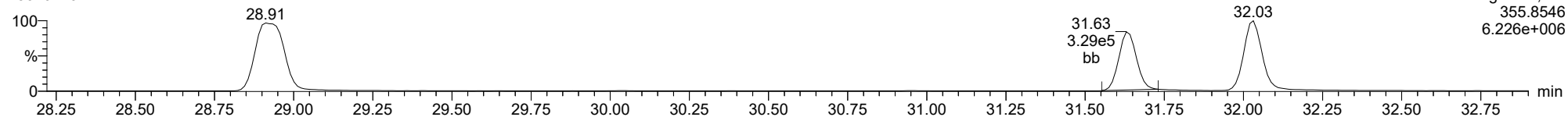
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

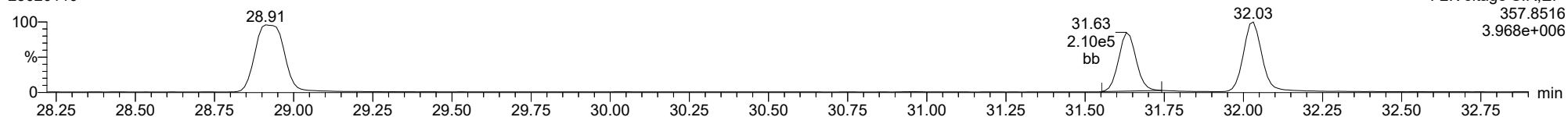
12378-PeCDD

23020110



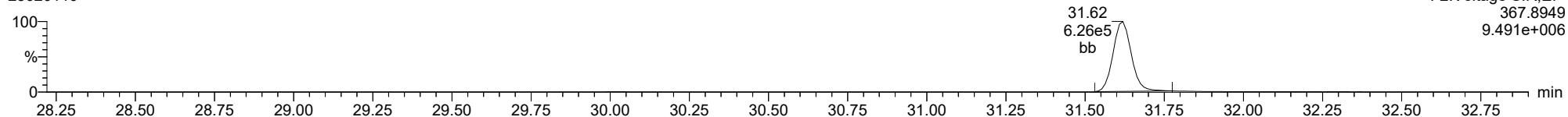
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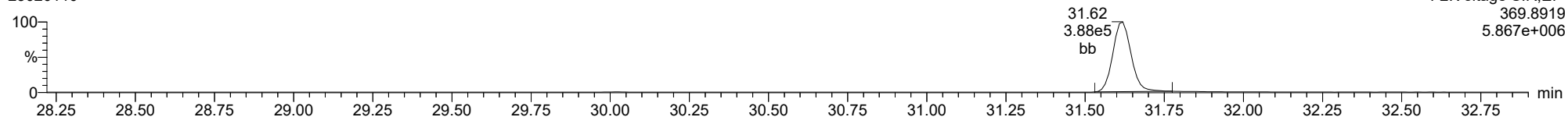
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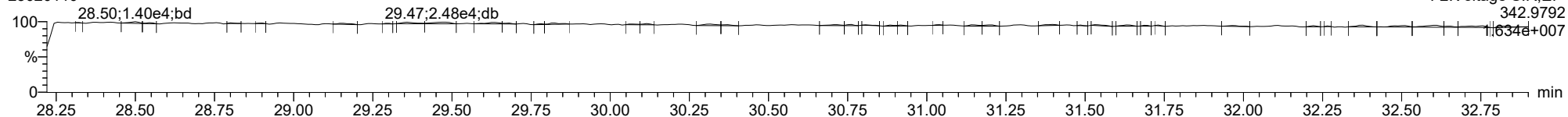
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FUNCTION2 PFK

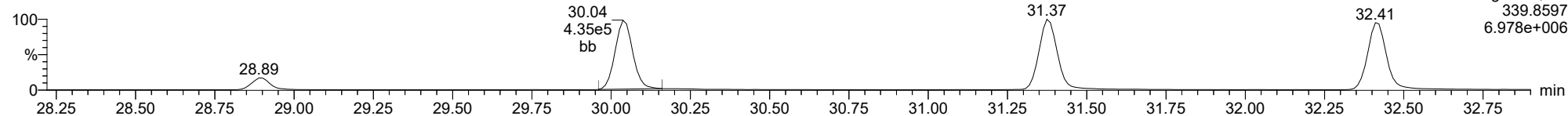
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

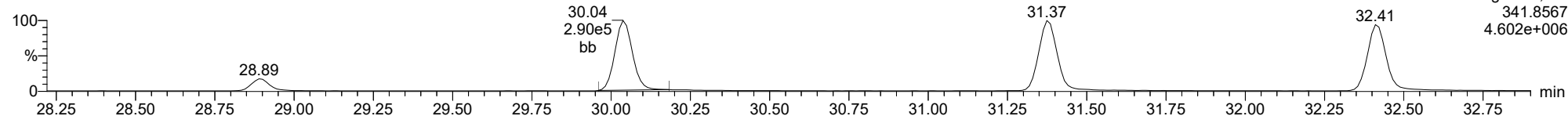
12378-PeCDF

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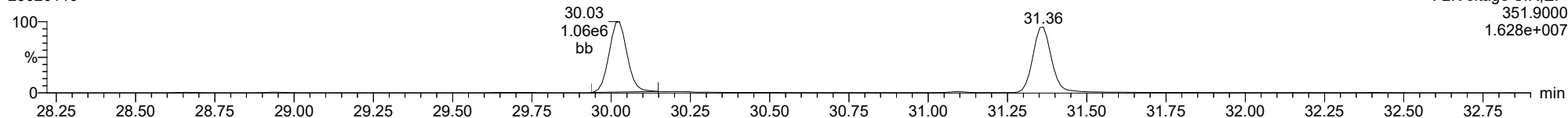
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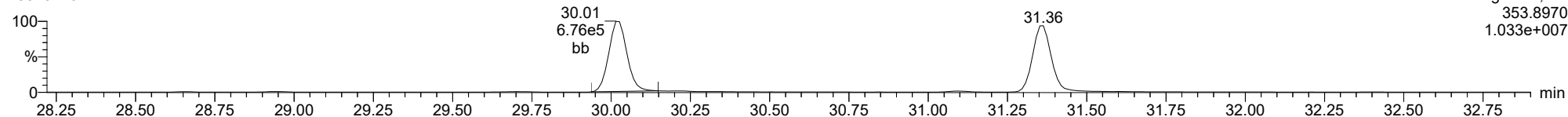
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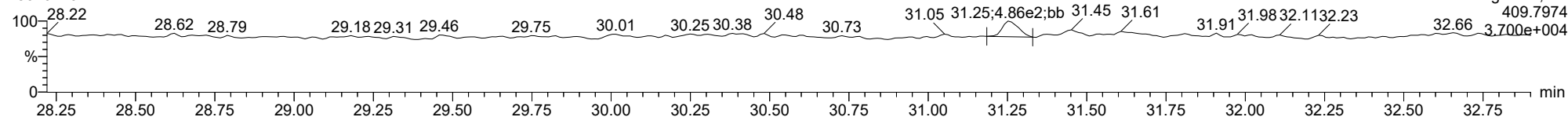
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FUNCTION2 HPCDPE

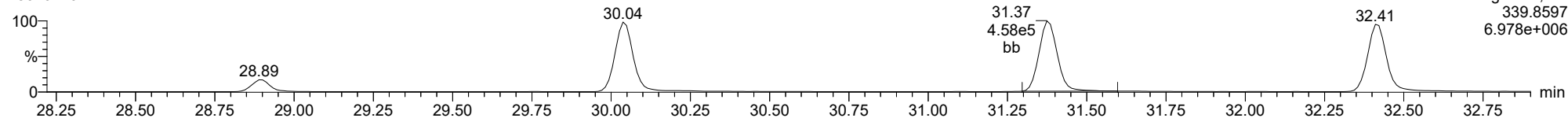
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

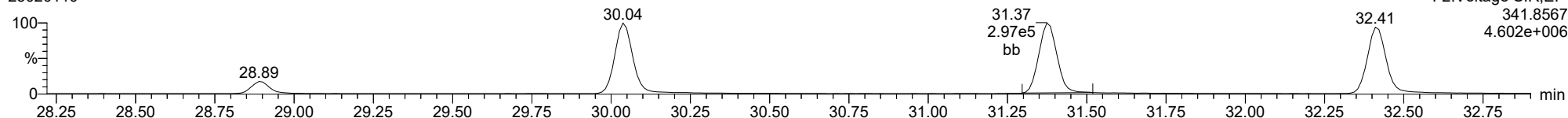
23478-PeCDF

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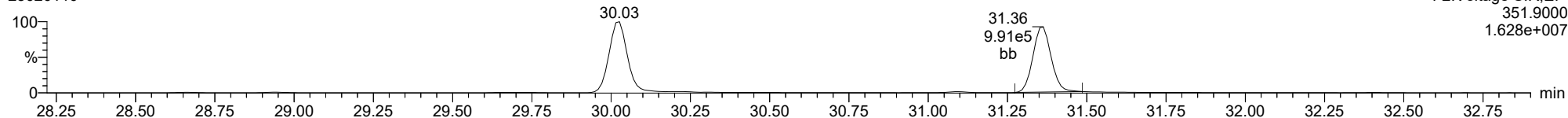
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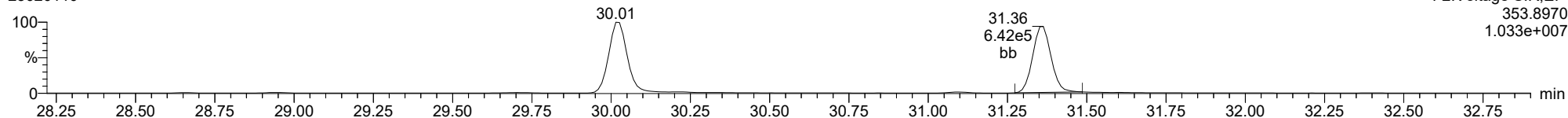
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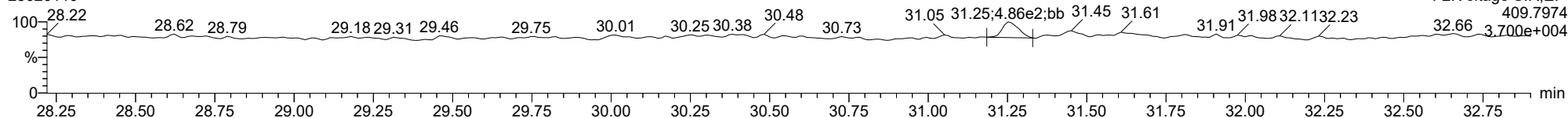
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FUNCTION2 HPCDPE

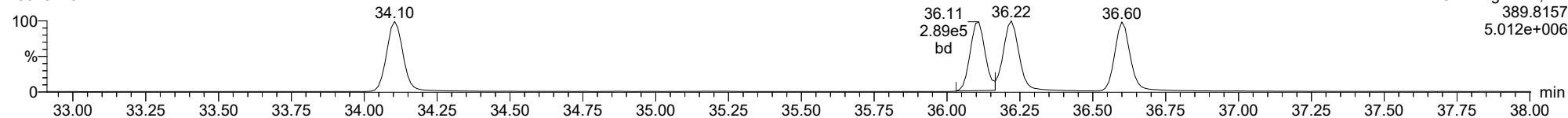
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

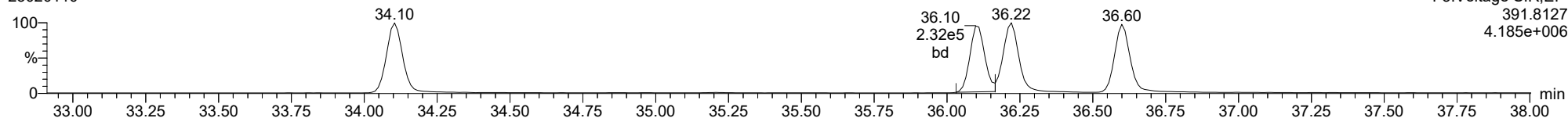
123478-HxCDD

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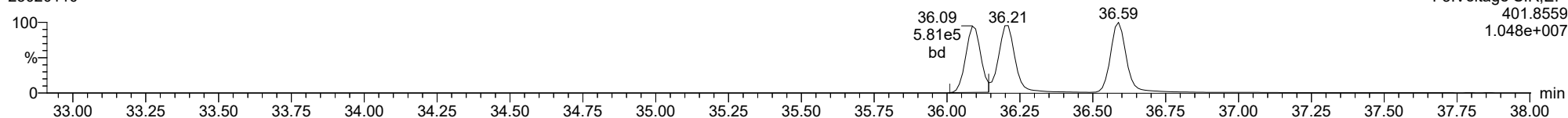
123478-HxCDD

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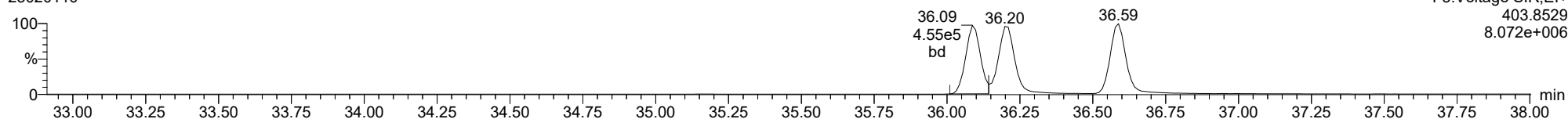
13C-123478-HxCDD

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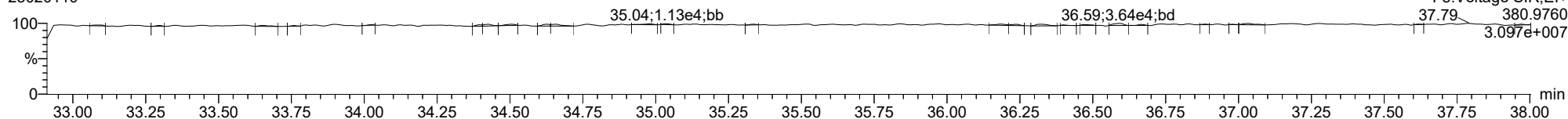
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23020110



FUNCTION3 PFK

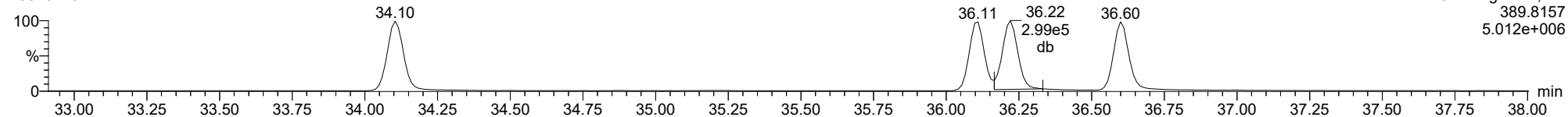
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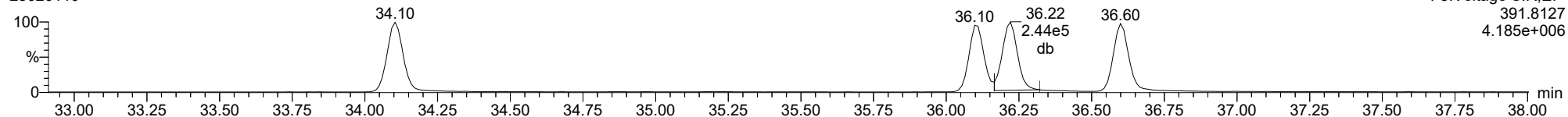
123678-HxCDD

23020110



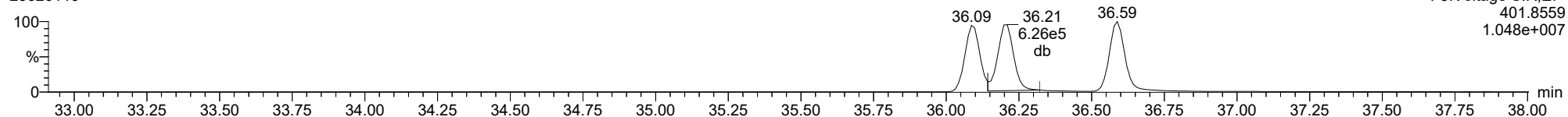
123678-HxCDD

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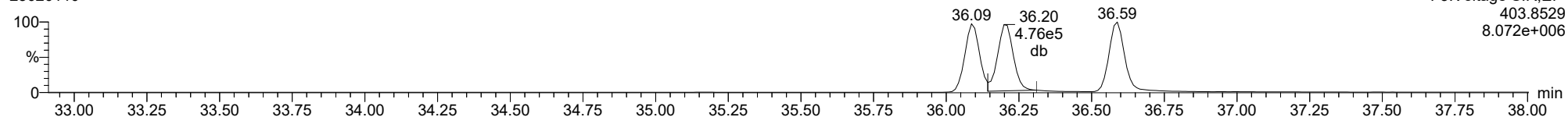
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13C-123678-HxCDD

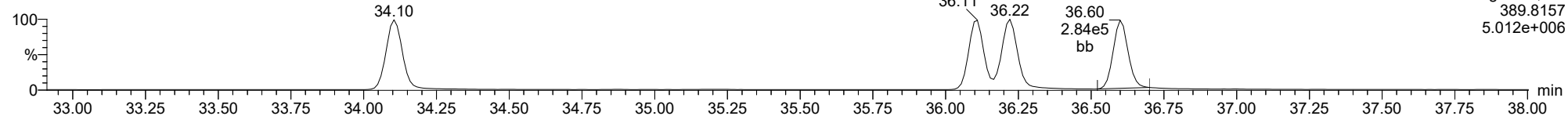
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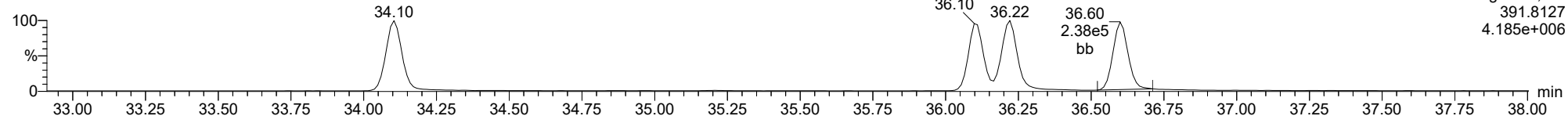
123789-HxCDD

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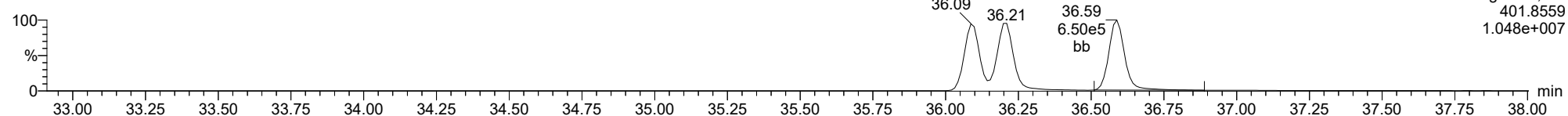
123789-HxCDD

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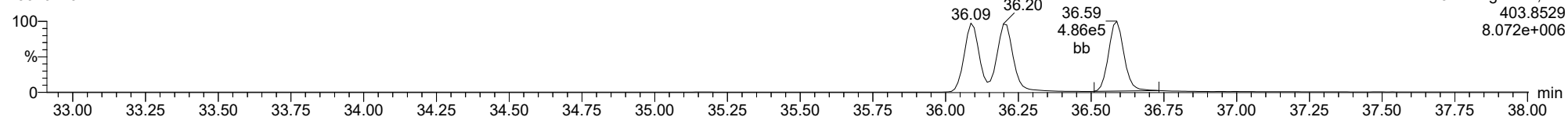
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13C-123789-HxCDD

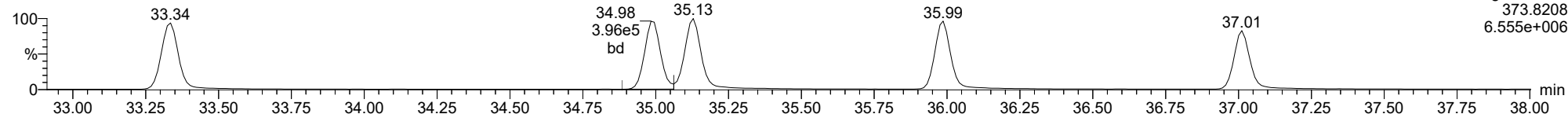
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

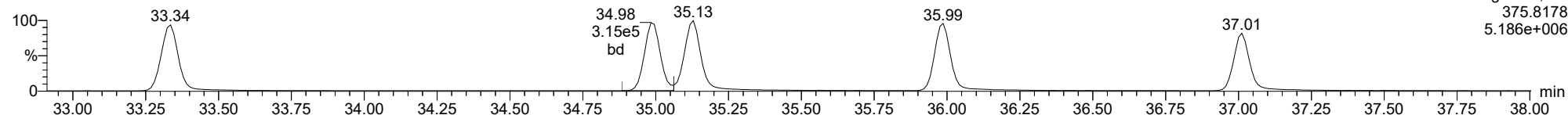
123478-HxCDF

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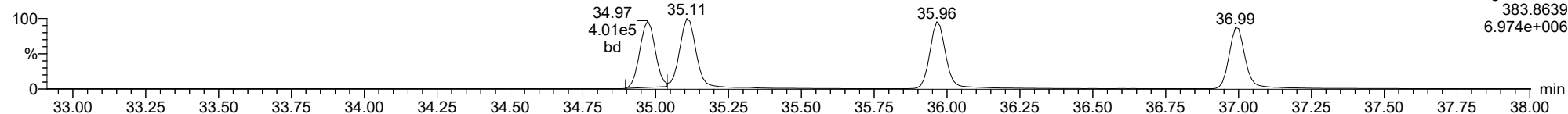
123478-HxCDF

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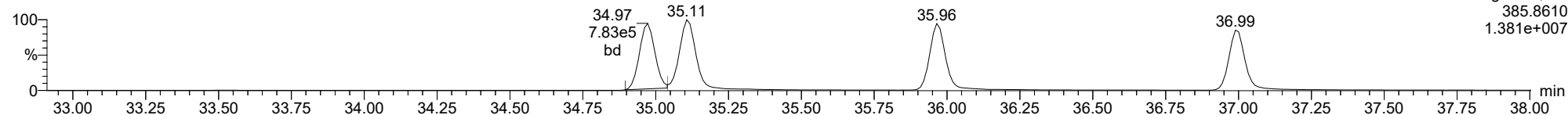
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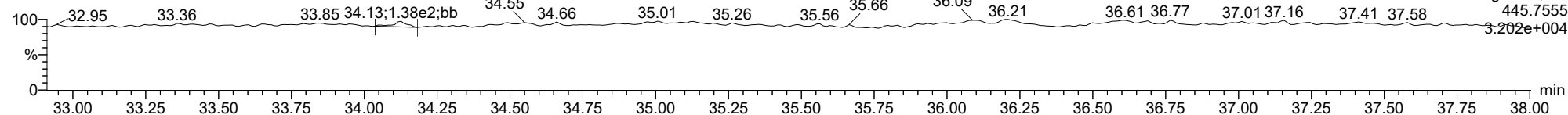
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FUNCTION3 OCDPE

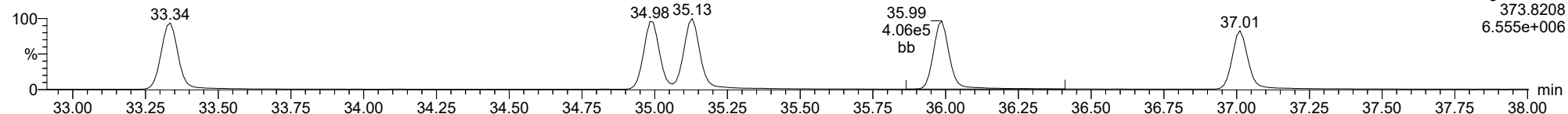
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

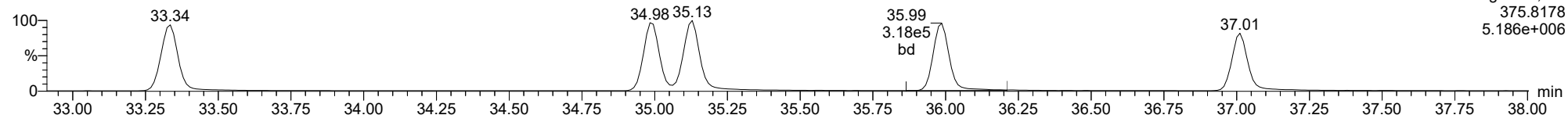
234678-HxCDF

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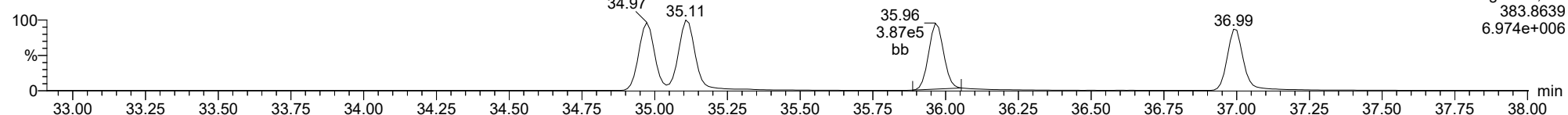
234678-HxCDF

23020110



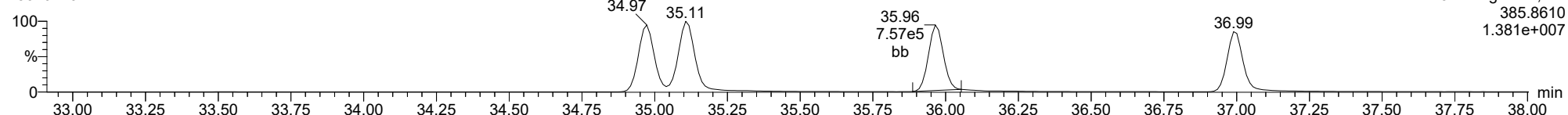
13C-234678-HxCDF

23020110



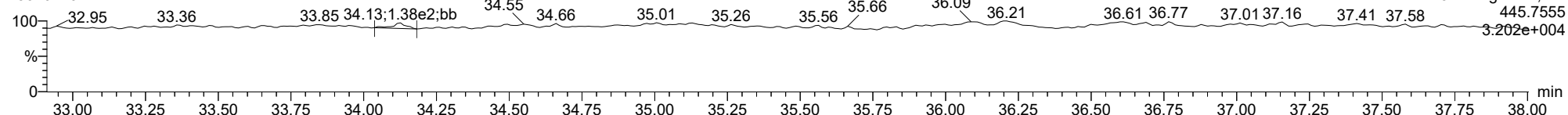
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FUNCTION3 OCDPE

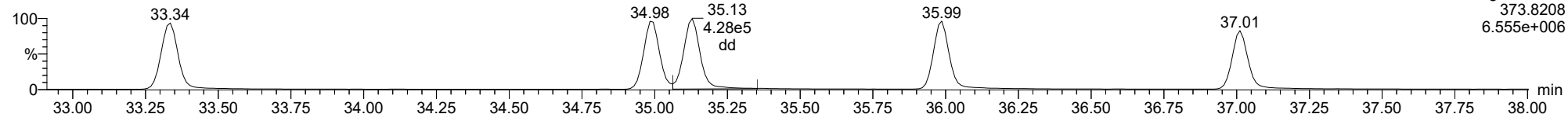
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

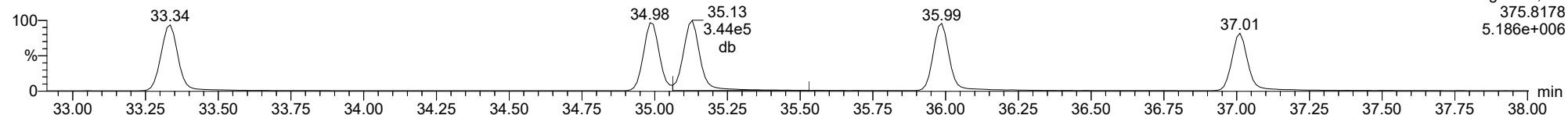
123678-HxCDF

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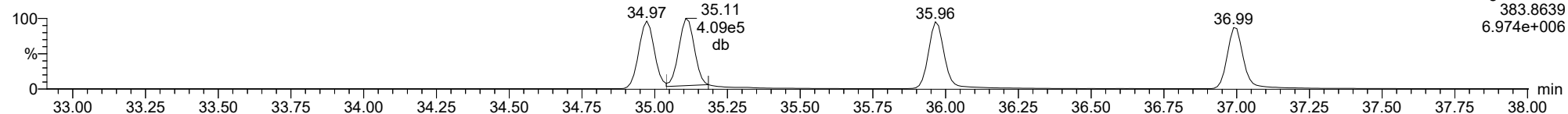
123678-HxCDF

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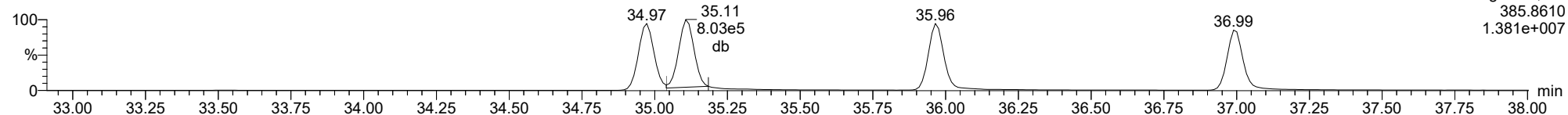
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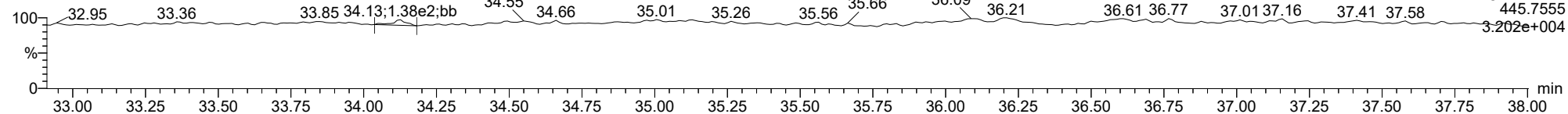
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FUNCTION3 OCDPE

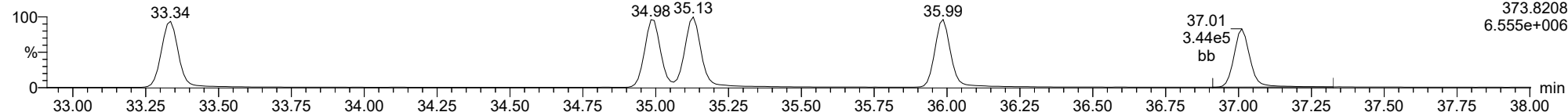
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

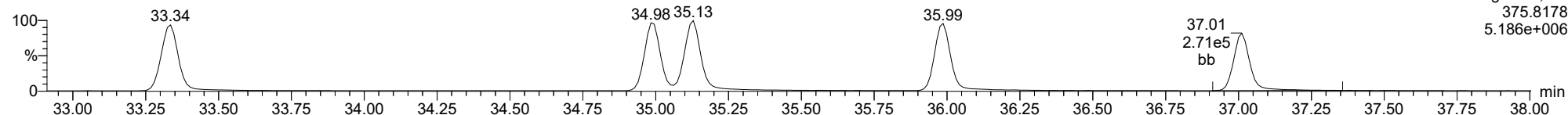
123789-HxCDF

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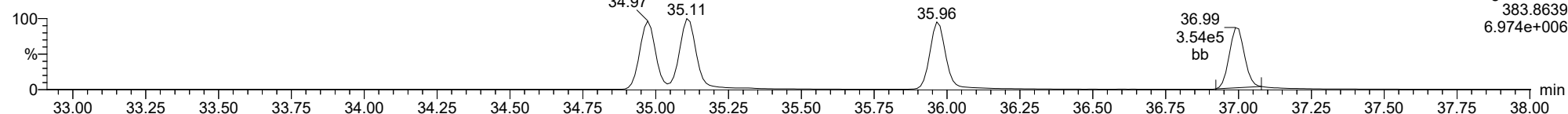
123789-HxCDF

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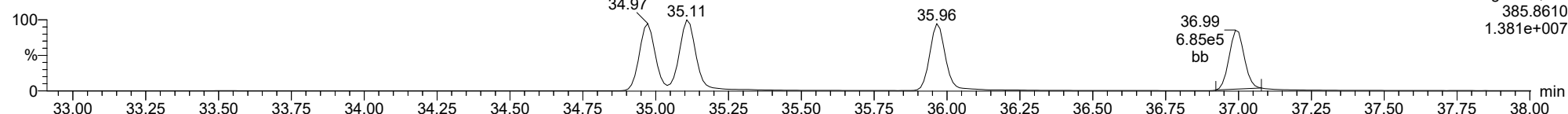
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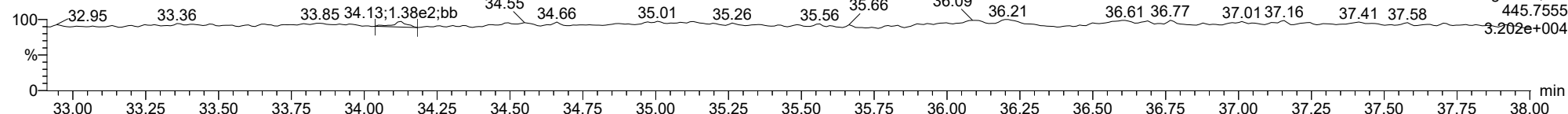
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FUNCTION3 OCDPE

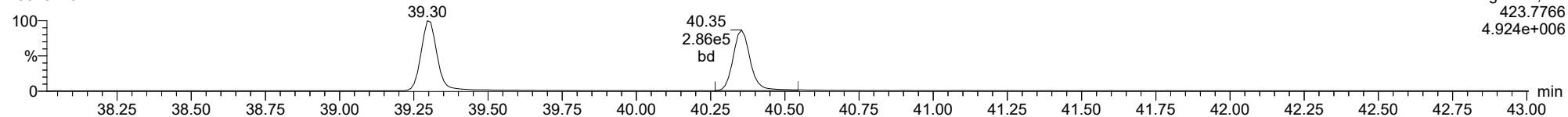
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

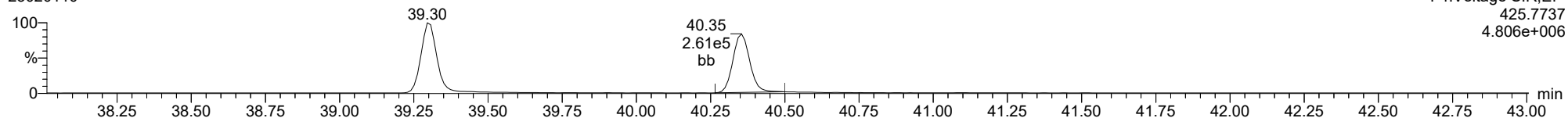
1234678-HpCDD

23020110



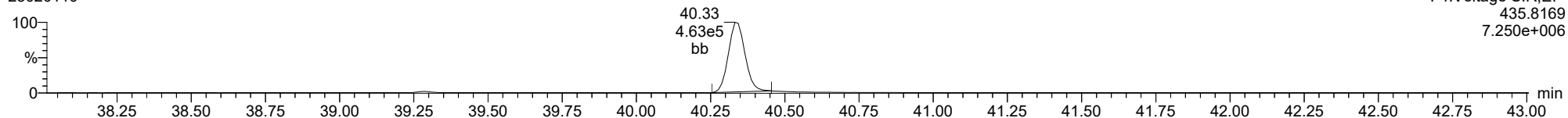
1234678-HpCDD

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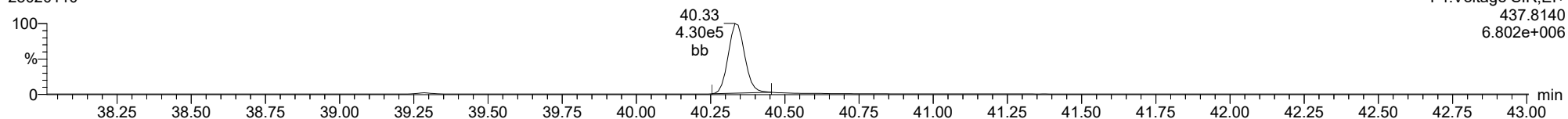
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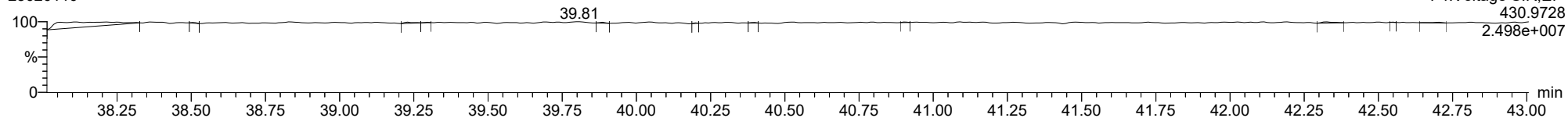
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23020110



FUNCTION4 PFK

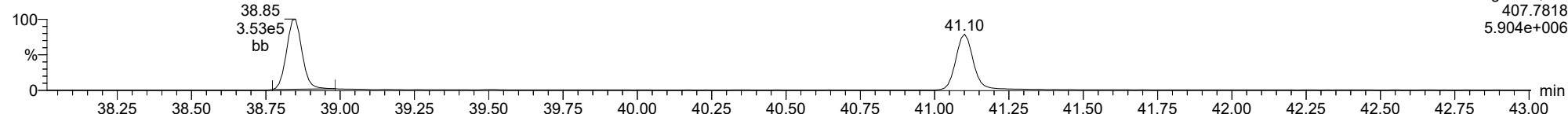
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

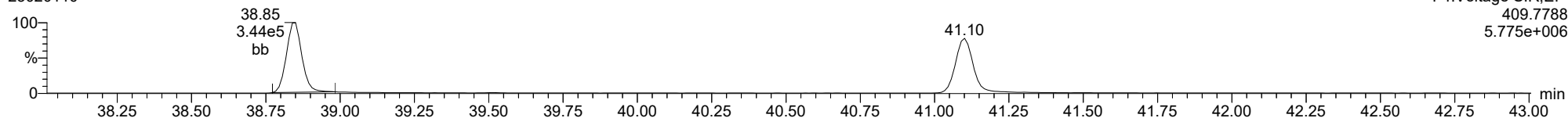
1234678-HpCDF

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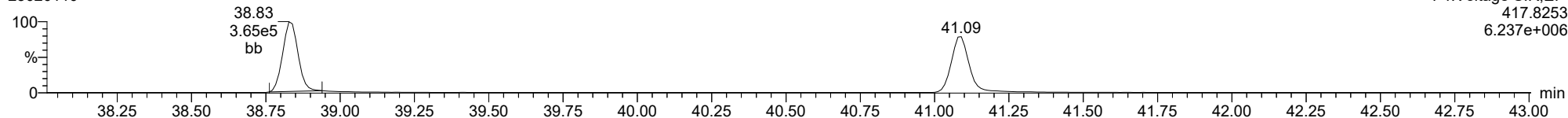
1234678-HpCDF

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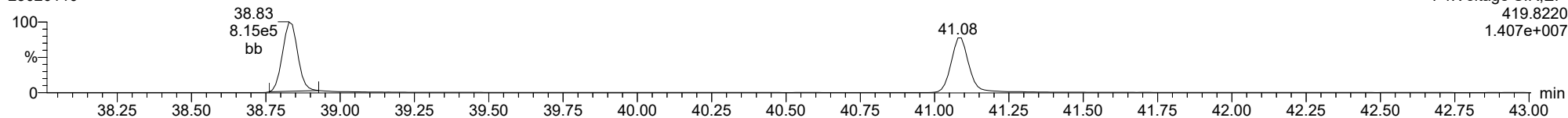
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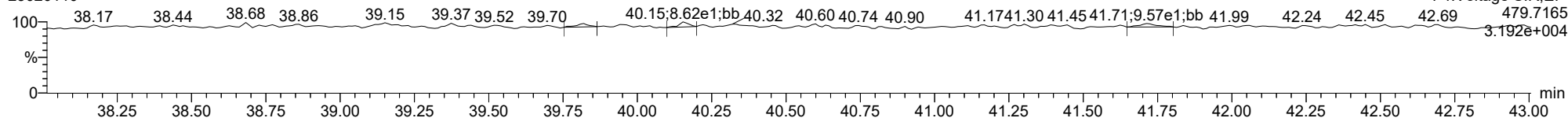
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FUNCTION4 NCDPE

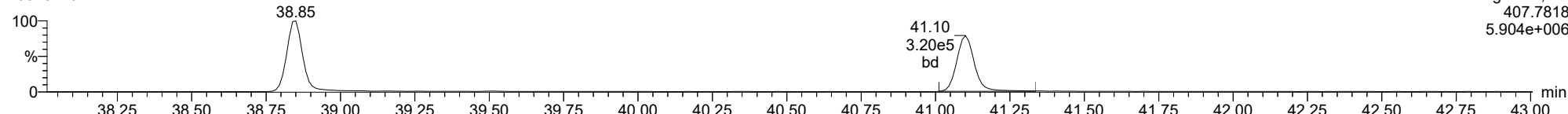
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

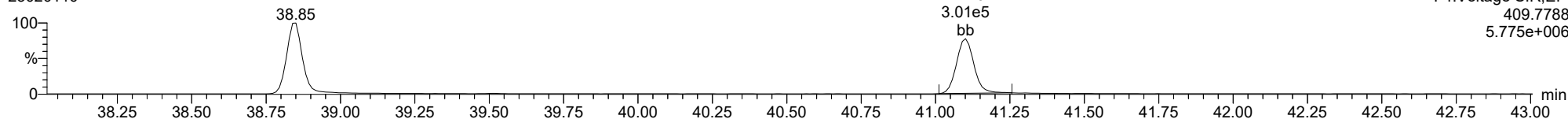
1234789-HpCDF

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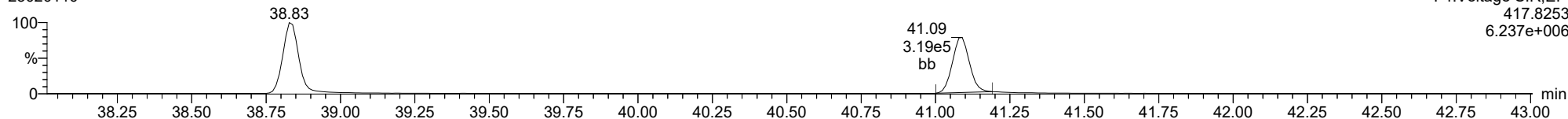
1234789-HpCDF

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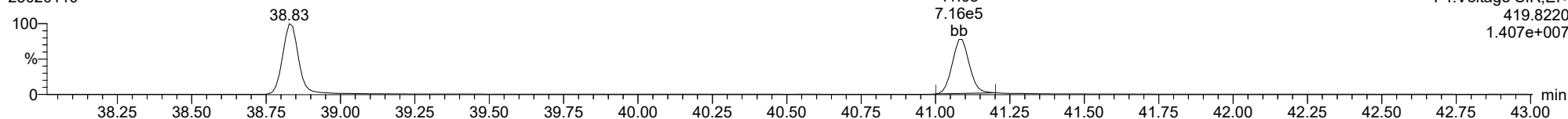
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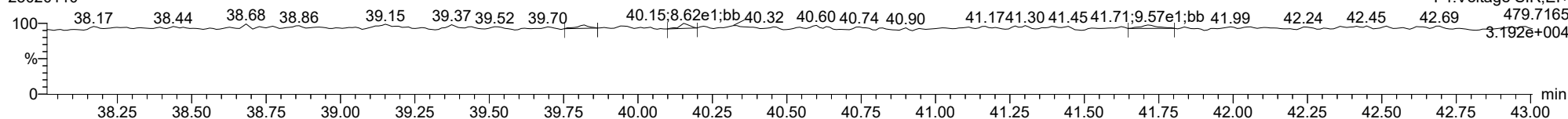
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23020110



FUNCTION4 NCDPE

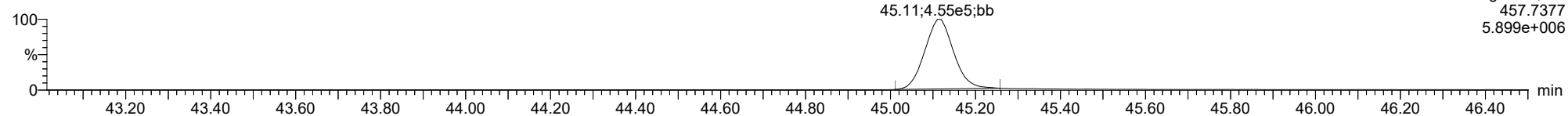
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

OCDD

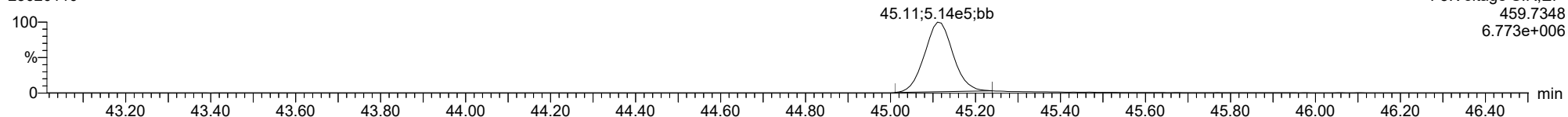
23020110



F5:Voltage SIR,El+
457.7377
5.899e+006

OCDD

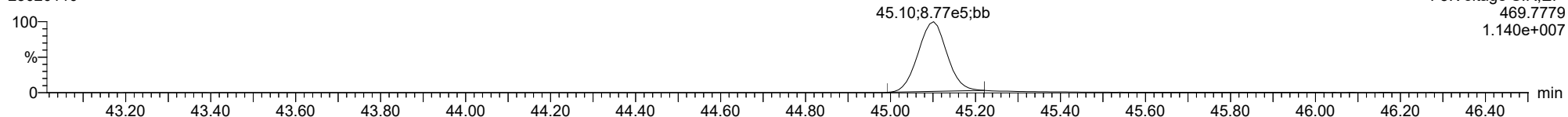
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F5:Voltage SIR,El+
459.7348
6.773e+006

13C-OCDD

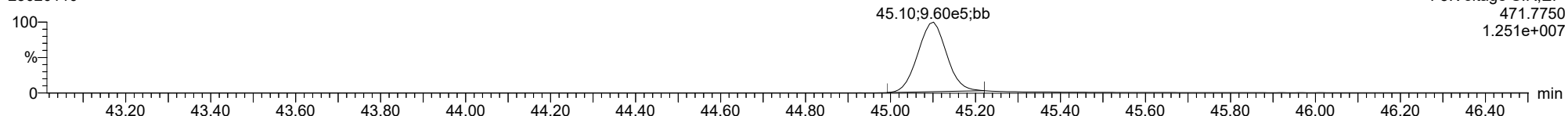
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F5:Voltage SIR,El+
469.7779
1.140e+007

13C-OCDD

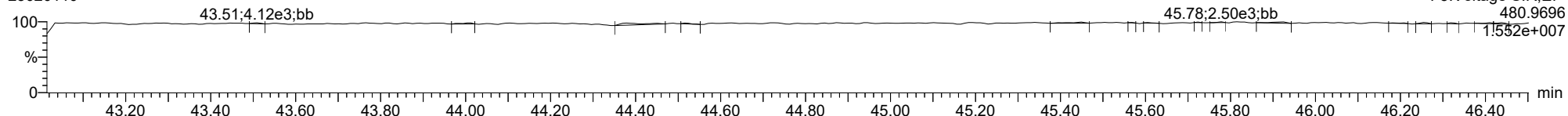
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F5:Voltage SIR,El+
471.7750
1.251e+007

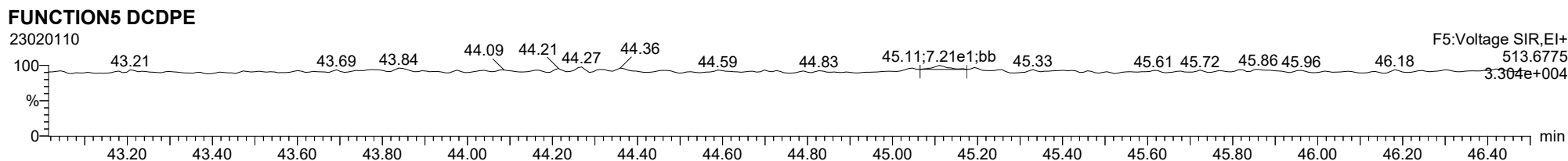
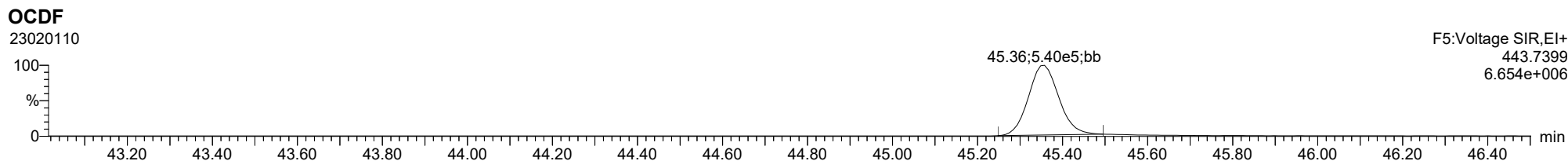
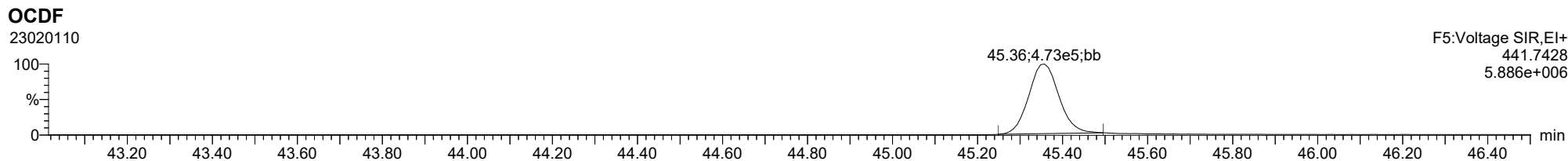
FUNCTION5 PFK

23020110



F5:Voltage SIR,El+
480.9696
1.552e+007

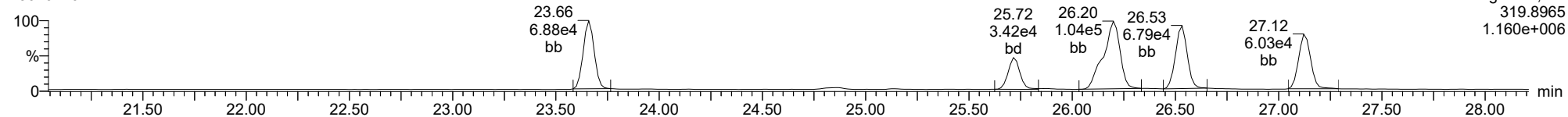
ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk



ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

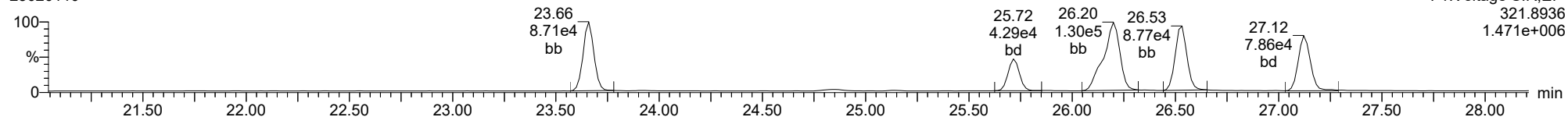
Total-tetradioxins

23020110



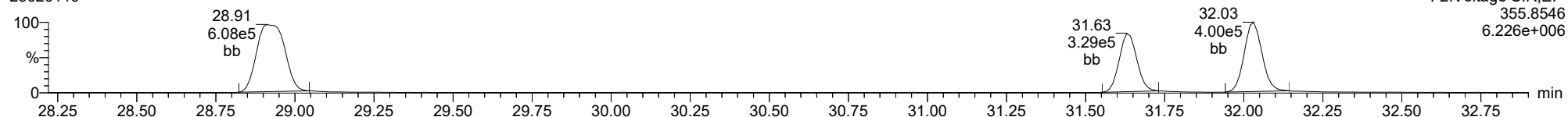
Total-tetradioxins

23020110



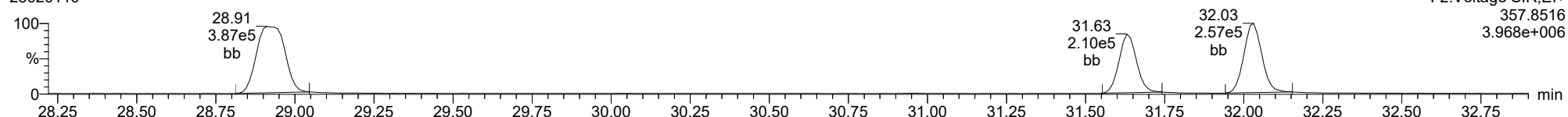
Total-pentadioxins

23020110



Total-pentadioxins

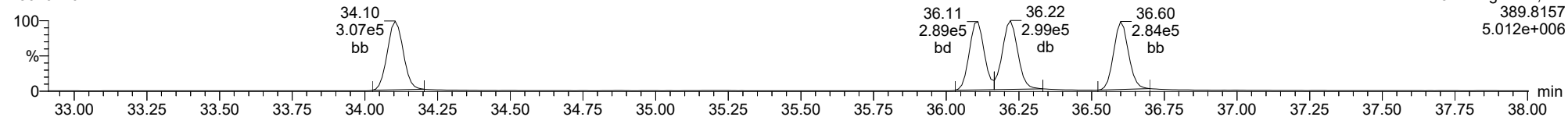
23020110



ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

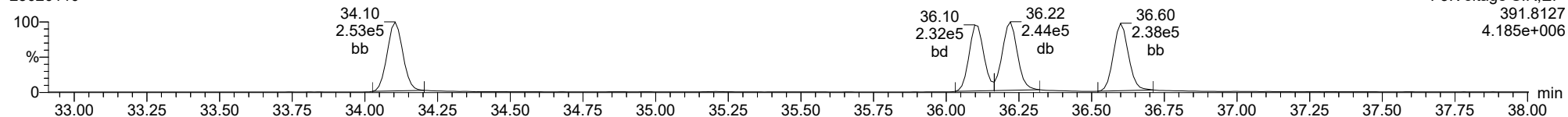
Total-hexadioxins

23020110



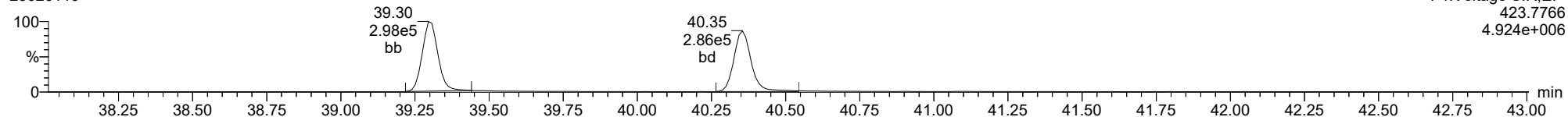
Total-hexadioxins

23020110



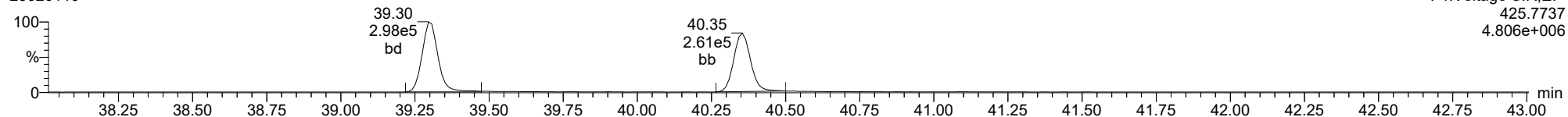
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23020110



Total-heptadioxins

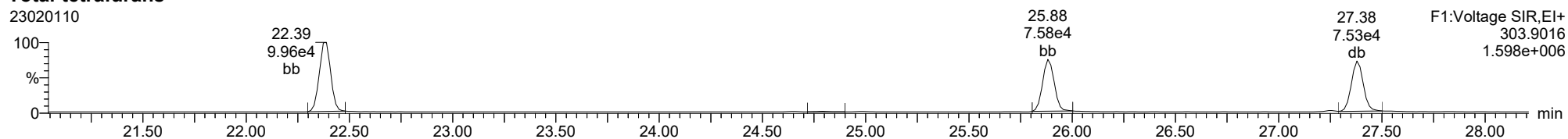
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

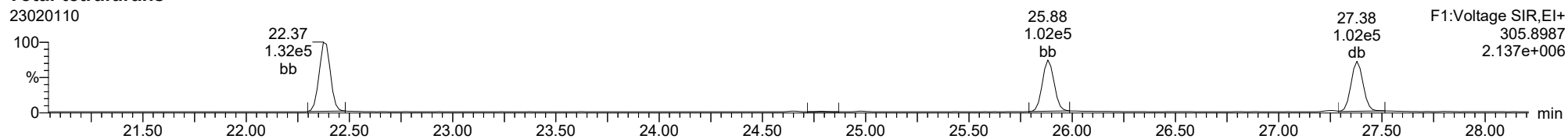
Total-tetrafurans

23020110



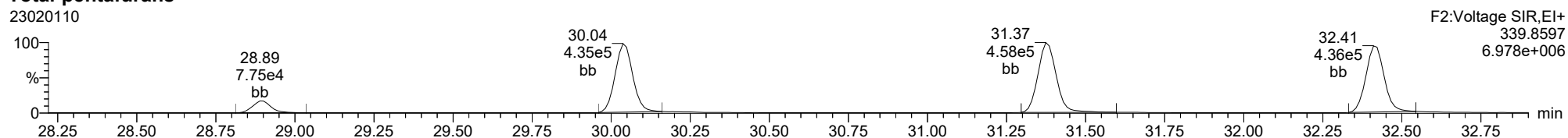
Total-tetrafurans

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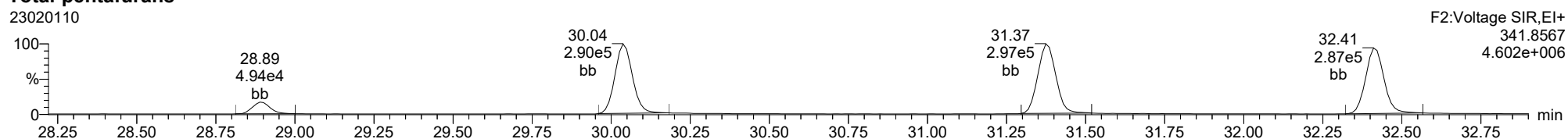
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Total-pentafurans

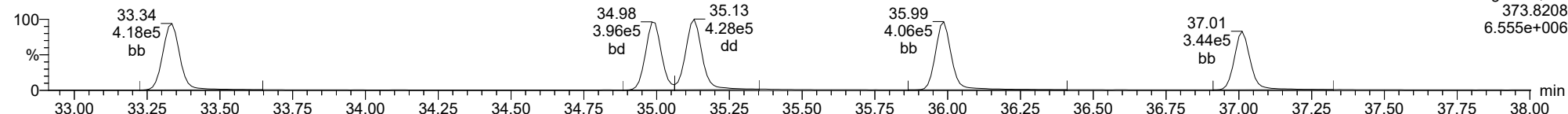
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ID: ICVCR, Name: 23020110, Date: 01-Feb-2023, Time: 20:23:25, Conditions: AUTOSPEC01, User: pk

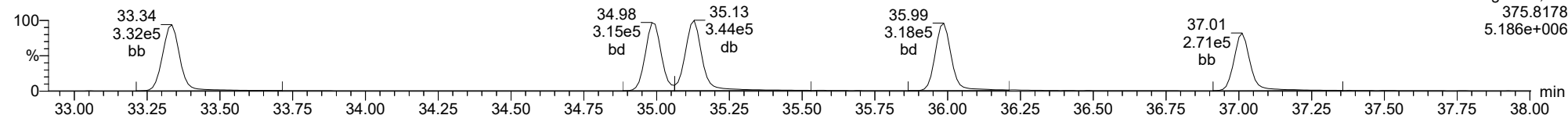
Total-hexafurans

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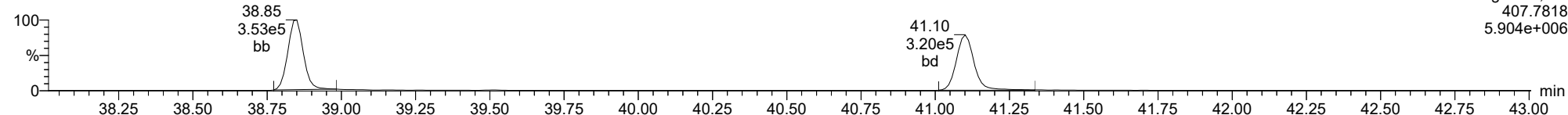
Total-hexafurans

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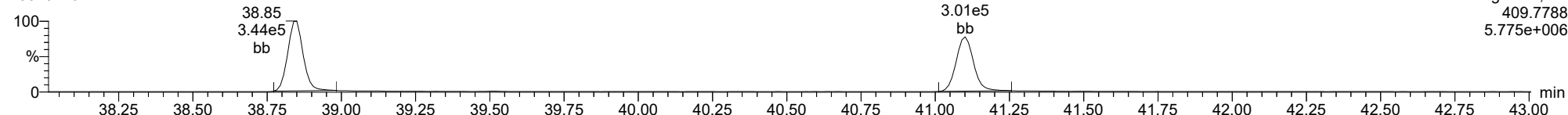
Total-heptafurans

23020110



Total-heptafurans

23020110



Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld
 Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time
 Printed: Friday, February 03, 2023 11:23:25 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.882	1.001	6.336e4	8.393e4	0.876	0.755	0.770	1070	1746	9.70e5	1.26e6	906.6	721.7	NO	bb	bb	10.162
12378-PeCDF	30.048	1.001	3.709e5	2.488e5	0.845	1.491	1.550	3113	3215	5.69e6	3.70e6	1826.3	1149.4	NO	bb	bd	50.020
23478-PeCDF	31.385	1.001	3.851e5	2.639e5	0.911	1.459	1.550	3113	3215	5.96e6	3.97e6	1913.7	1234.6	NO	bb	bd	50.684
123478-HxCDF	34.995	1.001	3.366e5	2.649e5	1.182	1.270	1.240	2488	2037	5.32e6	4.21e6	2136.8	2067.1	NO	bd	bd	49.625
234678-HxCDF	35.986	1.000	3.507e5	2.736e5	1.229	1.282	1.240	2488	2037	5.45e6	4.23e6	2188.7	2078.3	NO	bb	bd	52.648
123678-HxCDF	35.129	1.000	3.745e5	2.918e5	1.248	1.283	1.240	2488	2037	5.41e6	4.26e6	2174.2	2090.5	NO	dd	dd	50.908
123789-HxCDF	37.012	1.000	2.970e5	2.380e5	1.187	1.248	1.240	2488	2037	4.75e6	3.76e6	1910.9	1845.7	NO	bd	bb	50.440
1234678-HpCDF	38.850	1.000	2.932e5	2.919e5	1.204	1.004	1.050	3100	2795	4.79e6	4.70e6	1544.8	1680.6	NO	bb	bd	48.294
1234789-HpCDF	41.100	1.000	2.671e5	2.524e5	1.165	1.058	1.050	3100	2795	3.96e6	3.73e6	1278.4	1333.4	NO	bb	bb	49.677
OCDF	45.358	1.006	3.958e5	4.645e5	1.186	0.852	0.890	1455	4440	4.72e6	5.37e6	3247.1	1209.2	NO	bb	bd	90.445
2378-TCDD	26.532	1.001	5.892e4	7.101e4	1.236	0.830	0.770	1225	1339	8.91e5	1.09e6	727.0	817.8	NO	dd	bb	9.397
12378-PeCDD	31.642	1.001	2.888e5	1.854e5	1.087	1.558	1.550	2693	2242	4.44e6	2.82e6	1647.5	1257.1	NO	bb	bb	51.126
123478-HxCDD	36.109	1.000	2.420e5	2.004e5	0.987	1.207	1.240	3333	2112	4.15e6	3.36e6	1245.4	1591.3	NO	bd	bd	50.303
123678-HxCDD	36.221	1.000	2.536e5	2.261e5	1.021	1.122	1.240	3333	2112	4.16e6	3.48e6	1248.0	1648.2	NO	db	db	51.010
123789-HxCDD	36.611	1.011	2.491e5	2.029e5	0.985	1.228	1.240	3333	2112	4.05e6	3.32e6	1216.5	1574.2	NO	bb	bb	50.610
1234678-HpCDD	40.354	1.000	2.244e5	2.131e5	1.253	1.053	1.050	2651	2455	3.41e6	3.28e6	1286.0	1334.6	NO	bb	bb	45.500
OCDD	45.120	1.000	3.894e5	4.309e5	1.103	0.904	0.890	2219	2267	4.59e6	5.31e6	2068.3	2340.4	NO	bd	bb	92.775
13C-2378-TCDF	25.867	1.006	7.314e5	9.230e5	1.768	0.792	0.770	2216	1949	1.12e7	1.43e7	5056.1	7338.5	NO	bb	bb	95.256
13C-12378-PeCDF	30.026	1.168	8.745e5	5.922e5	1.527	1.477	1.550	3934	3547	1.37e7	8.95e6	3469.6	2522.0	NO	bb	bd	97.769
13C-23478-PeCDF	31.363	1.220	8.488e5	5.566e5	1.466	1.525	1.550	3934	3547	1.32e7	8.62e6	3344.9	2430.1	NO	bb	bb	97.572
13C-123478-HxCDF	34.973	0.956	3.485e5	6.773e5	1.054	0.515	0.510	2953	4567	5.67e6	1.10e7	1918.4	2413.6	NO	bd	bd	101.894
13C-123678-HxCDF	35.118	0.960	3.543e5	6.945e5	1.080	0.510	0.510	2953	4567	5.60e6	1.10e7	1895.3	2409.2	NO	db	db	101.648
13C-234678-HxCDF	35.975	0.983	3.286e5	6.364e5	1.014	0.516	0.510	2953	4567	5.48e6	1.04e7	1855.6	2267.5	NO	bb	bb	99.572
13C-123789-HxCDF	37.000	1.011	3.031e5	5.907e5	0.928	0.513	0.510	2953	4567	5.28e6	1.02e7	1789.2	2235.2	NO	bb	bb	100.817
13C-1234678-HpCDF	38.839	1.062	3.130e5	6.930e5	1.036	0.452	0.440	2151	4289	5.21e6	1.16e7	2423.7	2703.6	NO	bb	bb	101.637
13C-1234789-HpCDF	41.089	1.123	2.806e5	6.168e5	0.905	0.455	0.440	2151	4289	4.21e6	9.25e6	1954.9	2156.4	NO	bb	bb	103.794
13C-1234-TCDD	25.700	0.000	4.358e5	5.465e5	1.000	0.797	0.770	2468	2151	6.80e6	8.50e6	2756.9	3953.0	NO	bb	bb	100.000
13C-2378-TCDD	26.517	1.032	4.953e5	6.230e5	1.103	0.795	0.770	2468	2151	7.43e6	9.28e6	3010.2	4316.3	NO	bb	bb	103.212
13C-12378-PeCDD	31.619	1.230	5.254e5	3.282e5	0.914	1.601	1.550	1809	1341	8.04e6	5.00e6	4443.5	3732.3	NO	bb	bb	95.052
13C-123478-HxCDD	36.098	0.987	5.053e5	3.859e5	0.933	1.309	1.240	2226	2294	8.20e6	6.16e6	3683.0	2686.4	NO	bd	bd	99.984
13C-123678-HxCDD	36.209	0.990	5.186e5	4.029e5	0.965	1.287	1.240	2226	2294	8.41e6	6.65e6	3779.0	2898.5	NO	db	db	99.982
13C-1234678-HpCDD	40.343	1.103	3.959e5	3.716e5	0.782	1.065	1.050	2537	2687	6.19e6	5.69e6	2441.5	2116.3	NO	bb	bb	102.734
13C-OCDD	45.101	1.233	7.625e5	8.412e5	0.788	0.906	0.890	3243	2707	9.59e6	1.05e7	2957.5	3872.2	NO	bb	bb	212.953
13C-123789-HxCDD	36.588	0.000	5.441e5	4.113e5	1.000	1.323	1.240	2226	2294	8.88e6	6.75e6	3989.4	2943.5	NO	bb	bb	100.000
37CL-2378-TCDD	26.532	1.032	1.096e5		1.233			1635		1.65e6		1009.4			bb		9.045

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld
 Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time
 Printed: Friday, February 03, 2023 11:23:25 Pacific Standard Time

ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.389	0.866	7.606e4	1.001e5	1.064	0.760	0.770	1070	1746	1.19e6	1.52e6	1110.3	869.1	NO	bb	bb	10.001
1289-TCDF	27.378	1.058	6.304e4	8.031e4	0.858	0.785	0.770	1070	1746	9.18e5	1.16e6	858.3	662.3	NO	dd	db	10.103
13468-PECDF	27.242	0.907	4.375e5	2.852e5	1.013	1.534	1.550	920	1180	6.83e6	4.45e6	7421.7	3771.3	NO	bb	bb	48.645
12389-PECDF	32.421	1.080	3.692e5	2.469e5	0.844	1.495	1.550	3113	3215	5.48e6	3.56e6	1760.8	1106.5	NO	bb	bd	49.793
123468-HXCDF	33.335	0.953	3.502e5	2.713e5	1.197	1.291	1.240	2488	2037	5.19e6	4.08e6	2086.3	2002.8	NO	bb	bd	50.610
1368-TCDD	23.659	0.892	5.296e4	6.607e4	1.084	0.802	0.770	1225	1339	8.46e5	1.08e6	690.5	804.7	NO	bb	bb	9.816
1289-TCDD	27.121	1.023	4.842e4	6.049e4	0.975	0.800	0.770	1225	1339	7.05e5	8.85e5	575.4	661.1	NO	bb	bb	9.987
12479-PECDD	28.912	0.914	4.728e5	3.089e5	1.837	1.530	1.550	2693	2242	4.61e6	3.01e6	1713.2	1342.4	NO	bb	bb	49.845
12389-PECDD	32.032	1.013	3.302e5	2.107e5	1.252	1.567	1.550	2693	2242	5.03e6	3.18e6	1869.4	1418.4	NO	bb	bb	50.596
124679-HXCDD	34.104	0.945	2.577e5	2.083e5	1.033	1.237	1.240	3333	2112	4.11e6	3.36e6	1234.1	1592.7	NO	bb	bb	50.624
1234679-HPCDD	39.307	0.974	2.468e5	2.463e5	1.286	1.002	1.050	2651	2455	3.99e6	3.89e6	1503.1	1583.0	NO	bb	bd	49.957
Total-tetrafurans			2.030e5		0.933			1070		3.09e6							30.345
Total-penta1			4.375e5					920		6.83e6							48.645
Total-pentafurans			1.184e6		0.866			3113		1.80e7							158.351
Total-hexafurans			1.709e6		1.208			2488		2.61e7							254.231
Total-heptafurans			5.602e5		1.185			3100		8.75e6							97.972
Total-Furans			4.489e6		1.067			1070		6.75e7							679.989
Total-tetradoxins			2.729e5		1.099			1225		3.70e6							49.674
Total-pentadoxins			1.093e6		1.392			2693		1.41e7							151.752
Total-hexadoxins			1.003e6		1.007			3333		1.65e7							202.708
Total-heptadoxins			4.712e5		1.269			2651		7.39e6							95.457
Total-Dioxins			3.230e6		1.165			1225		4.63e7							592.366
Total-TEQ			7.719e6					1225		1.14e8							1272.355
FUNCTION1 PFK			5.445e5					518107		1.64e7							
FUNCTION2 PFK			0.000e0					179627		0.00e0							
FUNCTION3 PFK			0.000e0					451502		0.00e0							
FUNCTION4 PFK			1.511e5					331096		1.60e6							
FUNCTION5 PFK			9.048e3					184760		4.73e5							
FUNCTION1 HXCD...			1.131e3					606		1.62e4							0.000
FUNCTION1 HPCD...			5.247e2					900		8.84e3							0.000
FUNCTION2 HPCD...			8.476e2					1136		1.98e4							0.000
FUNCTION3 OCDPE			4.428e2					714		7.64e3							0.000
FUNCTION4 NCDPE			0.000e0					982		0.00e0							
FUNCTION5 DCDPE			0.000e0					815		0.00e0							

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld

Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time

Printed: Friday, February 03, 2023 11:23:25 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33**Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40****ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	6.304e4	8.031e4	0.858	0.79	0.77	858.3	YES	NO	dd	db	10.103
2	2378-TCDF	25.88	6.336e4	8.393e4	0.876	0.75	0.77	906.6	YES	NO	bb	bb	10.162
3	Total-tetrafurans	24.97	5.535e2	6.624e2	0.933	0.84	0.77	8.4	YES	NO	bb	bb	0.079
4	1368-TCDF	22.39	7.606e4	1.001e5	1.064	0.76	0.77	1110.3	YES	NO	bb	bb	10.001

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.24	4.375e5	2.852e5	1.013	1.53	1.55	7421.7	YES	NO	bb	bb	48.645

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	28.90	5.868e4	3.904e4	0.866	1.50	1.55	293.6	YES	NO	bb	bb	7.853
2	12389-PECDF	32.42	3.692e5	2.469e5	0.844	1.50	1.55	1760.8	YES	NO	bb	bd	49.793
3	23478-PeCDF	31.39	3.851e5	2.639e5	0.911	1.46	1.55	1913.7	YES	NO	bb	bd	50.684
4	12378-PeCDF	30.05	3.709e5	2.488e5	0.845	1.49	1.55	1826.3	YES	NO	bb	bd	50.020

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.01	2.970e5	2.380e5	1.187	1.25	1.24	1910.9	YES	NO	bd	bb	50.440
2	234678-HxCDF	35.99	3.507e5	2.736e5	1.229	1.28	1.24	2188.7	YES	NO	bb	bd	52.648
3	123678-HxCDF	35.13	3.745e5	2.918e5	1.248	1.28	1.24	2174.2	YES	NO	dd	dd	50.908
4	123478-HxCDF	34.99	3.366e5	2.649e5	1.182	1.27	1.24	2136.8	YES	NO	bd	bd	49.625
5	123468-HxCDF	33.33	3.502e5	2.713e5	1.197	1.29	1.24	2086.3	YES	NO	bb	bd	50.610

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	38.85	2.932e5	2.919e5	1.204	1.00	1.05	1544.8	YES	NO	bb	bd	48.294
2	1234789-HpCDF	41.10	2.671e5	2.524e5	1.165	1.06	1.05	1278.4	YES	NO	bb	bb	49.677

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\2302011CVIH.qld

Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time

Printed: Friday, February 03, 2023 11:23:25 Pacific Standard Time

ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	6.304e4	8.031e4	0.858	0.79	0.77	858.3	YES	NO	dd	db	10.103
2	2378-TCDF	25.88	6.336e4	8.393e4	0.876	0.75	0.77	906.6	YES	NO	bb	bb	10.162
3	Total-tetrafurans	24.97	5.535e2	6.624e2	0.933	0.84	0.77	8.4	YES	NO	bb	bb	0.079
4	1368-TCDF	22.39	7.606e4	1.001e5	1.064	0.76	0.77	1110.3	YES	NO	bb	bb	10.001
5	Total-pentafurans	28.90	5.868e4	3.904e4	0.866	1.50	1.55	293.6	YES	NO	bb	bb	7.853
6	12389-PECDF	32.42	3.692e5	2.469e5	0.844	1.50	1.55	1760.8	YES	NO	bb	bd	49.793
7	23478-PeCDF	31.39	3.851e5	2.639e5	0.911	1.46	1.55	1913.7	YES	NO	bb	bd	50.684
8	12378-PeCDF	30.05	3.709e5	2.488e5	0.845	1.49	1.55	1826.3	YES	NO	bb	bd	50.020
9	123789-HxCDF	37.01	2.970e5	2.380e5	1.187	1.25	1.24	1910.9	YES	NO	bd	bb	50.440
10	234678-HxCDF	35.99	3.507e5	2.736e5	1.229	1.28	1.24	2188.7	YES	NO	bb	bd	52.648
11	123678-HxCDF	35.13	3.745e5	2.918e5	1.248	1.28	1.24	2174.2	YES	NO	dd	dd	50.908
12	123478-HxCDF	34.99	3.366e5	2.649e5	1.182	1.27	1.24	2136.8	YES	NO	bd	bd	49.625
13	123468-HXCDF	33.33	3.502e5	2.713e5	1.197	1.29	1.24	2086.3	YES	NO	bb	bd	50.610
14	1234678-HpCDF	38.85	2.932e5	2.919e5	1.204	1.00	1.05	1544.8	YES	NO	bb	bd	48.294
15	1234789-HpCDF	41.10	2.671e5	2.524e5	1.165	1.06	1.05	1278.4	YES	NO	bb	bb	49.677
16	OCDF	45.36	3.958e5	4.645e5	1.186	0.85	0.89	3247.1	YES	NO	bb	bd	90.445
17	13468-PECDF	27.24	4.375e5	2.852e5	1.013	1.53	1.55	7421.7	YES	NO	bb	bb	48.645

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.53	5.892e4	7.101e4	1.236	0.83	0.77	727.0	YES	NO	dd	bb	9.397
2	Total-tetradioxins	26.21	8.373e4	1.038e5	1.099	0.81	0.77	673.5	YES	NO	bd	bb	15.262
3	Total-tetradioxins	25.72	2.649e4	3.214e4	1.099	0.82	0.77	333.6	YES	NO	bb	bb	4.772
4	Total-tetradioxins	24.85	2.420e3	2.985e3	1.099	0.81	0.77	19.9	YES	NO	bb	bb	0.440
5	1368-TCDD	23.66	5.296e4	6.607e4	1.084	0.80	0.77	690.5	YES	NO	bb	bb	9.816
6	1289-TCDD	27.12	4.842e4	6.049e4	0.975	0.80	0.77	575.4	YES	NO	bb	bb	9.987

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12479-PECDD	28.91	4.728e5	3.089e5	1.837	1.53	1.55	1713.2	YES	NO	bb	bb	49.845
2	12389-PECDD	32.03	3.302e5	2.107e5	1.252	1.57	1.55	1869.4	YES	NO	bb	bb	50.596
3	12378-PeCDD	31.64	2.888e5	1.854e5	1.087	1.56	1.55	1647.5	YES	NO	bb	bb	51.126
4	Total-pentadioxins	30.97	1.315e3	8.851e2	1.392	1.49	1.55	7.1	YES	NO	bb	bb	0.185

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\2302011CVIH.qld

Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time

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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.61	2.491e5	2.029e5	0.985	1.23	1.24	1216.5	YES	NO	bb	bb	50.610
2	123678-HxCDD	36.22	2.536e5	2.261e5	1.021	1.12	1.24	1248.0	YES	NO	db	db	51.010
3	123478-HxCDD	36.11	2.420e5	2.004e5	0.987	1.21	1.24	1245.4	YES	NO	bd	bd	50.303
4	Total-hexadioxins	34.86	7.769e2	6.946e2	1.007	1.12	1.24	3.9	YES	NO	bd	bb	0.161
5	124679-HxCDD	34.10	2.577e5	2.083e5	1.033	1.24	1.24	1234.1	YES	NO	bb	bb	50.624

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.31	2.468e5	2.463e5	1.286	1.00	1.05	1503.1	YES	NO	bb	bd	49.957
2	1234678-HpCDD	40.35	2.244e5	2.131e5	1.253	1.05	1.05	1286.0	YES	NO	bb	bb	45.500

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.53	5.892e4	7.101e4	1.236	0.83	0.77	727.0	YES	NO	dd	bb	9.397
2	Total-tetradioxins	26.21	8.373e4	1.038e5	1.099	0.81	0.77	673.5	YES	NO	bd	bb	15.262
3	Total-tetradioxins	25.72	2.649e4	3.214e4	1.099	0.82	0.77	333.6	YES	NO	bb	bb	4.772
4	Total-tetradioxins	24.85	2.420e3	2.985e3	1.099	0.81	0.77	19.9	YES	NO	bb	bb	0.440
5	1368-TCDD	23.66	5.296e4	6.607e4	1.084	0.80	0.77	690.5	YES	NO	bb	bb	9.816
6	12479-PECDD	28.91	4.728e5	3.089e5	1.837	1.53	1.55	1713.2	YES	NO	bb	bb	49.845
7	1289-TCDD	27.12	4.842e4	6.049e4	0.975	0.80	0.77	575.4	YES	NO	bb	bb	9.987
8	12389-PECDD	32.03	3.302e5	2.107e5	1.252	1.57	1.55	1869.4	YES	NO	bb	bb	50.596
9	12378-PeCDD	31.64	2.888e5	1.854e5	1.087	1.56	1.55	1647.5	YES	NO	bb	bb	51.126
10	Total-pentadioxins	30.97	1.315e3	8.851e2	1.392	1.49	1.55	7.1	YES	NO	bb	bb	0.185
11	123789-HxCDD	36.61	2.491e5	2.029e5	0.985	1.23	1.24	1216.5	YES	NO	bb	bb	50.610
12	123678-HxCDD	36.22	2.536e5	2.261e5	1.021	1.12	1.24	1248.0	YES	NO	db	db	51.010
13	123478-HxCDD	36.11	2.420e5	2.004e5	0.987	1.21	1.24	1245.4	YES	NO	bd	bd	50.303
14	Total-hexadioxins	34.86	7.769e2	6.946e2	1.007	1.12	1.24	3.9	YES	NO	bd	bb	0.161
15	124679-HxCDD	34.10	2.577e5	2.083e5	1.033	1.24	1.24	1234.1	YES	NO	bb	bb	50.624
16	1234679-HPCDD	39.31	2.468e5	2.463e5	1.286	1.00	1.05	1503.1	YES	NO	bb	bd	49.957
17	1234678-HpCDD	40.35	2.244e5	2.131e5	1.253	1.05	1.05	1286.0	YES	NO	bb	bb	45.500
18	OCDD	45.12	3.894e5	4.309e5	1.103	0.90	0.89	2068.3	YES	NO	bd	bb	92.775

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\2302011CVI\H.qld
 Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time
 Printed: Friday, February 03, 2023 11:23:25 Pacific Standard Time

ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.38	6.304e4	8.031e4	0.858	0.79	0.77	858.3	YES	NO	dd	db	10.103
2	2378-TCDF	25.88	6.336e4	8.393e4	0.876	0.75	0.77	906.6	YES	NO	bb	bb	10.162
3	Total-tetrafurans	24.97	5.535e2	6.624e2	0.933	0.84	0.77	8.4	YES	NO	bb	bb	0.079
4	1368-TCDF	22.39	7.606e4	1.001e5	1.064	0.76	0.77	1110.3	YES	NO	bb	bb	10.001
5	Total-pentafurans	28.90	5.868e4	3.904e4	0.866	1.50	1.55	293.6	YES	NO	bb	bb	7.853
6	12389-PECDF	32.42	3.692e5	2.469e5	0.844	1.50	1.55	1760.8	YES	NO	bb	bd	49.793
7	23478-PeCDF	31.39	3.851e5	2.639e5	0.911	1.46	1.55	1913.7	YES	NO	bb	bd	50.684
8	12378-PeCDF	30.05	3.709e5	2.488e5	0.845	1.49	1.55	1826.3	YES	NO	bb	bd	50.020
9	123789-HxCDF	37.01	2.970e5	2.380e5	1.187	1.25	1.24	1910.9	YES	NO	bd	bb	50.440
10	234678-HxCDF	35.99	3.507e5	2.736e5	1.229	1.28	1.24	2188.7	YES	NO	bb	bd	52.648
11	123678-HxCDF	35.13	3.745e5	2.918e5	1.248	1.28	1.24	2174.2	YES	NO	dd	dd	50.908
12	123478-HxCDF	34.99	3.366e5	2.649e5	1.182	1.27	1.24	2136.8	YES	NO	bd	bd	49.625
13	123468-HXCDF	33.33	3.502e5	2.713e5	1.197	1.29	1.24	2086.3	YES	NO	bb	bd	50.610
14	1234678-HpCDF	38.85	2.932e5	2.919e5	1.204	1.00	1.05	1544.8	YES	NO	bb	bd	48.294
15	1234789-HpCDF	41.10	2.671e5	2.524e5	1.165	1.06	1.05	1278.4	YES	NO	bb	bb	49.677
16	OCDF	45.36	3.958e5	4.645e5	1.186	0.85	0.89	3247.1	YES	NO	bb	bd	90.445
17	13468-PECDF	27.24	4.375e5	2.852e5	1.013	1.53	1.55	7421.7	YES	NO	bb	bb	48.645
18	2378-TCDD	26.53	5.892e4	7.101e4	1.236	0.83	0.77	727.0	YES	NO	dd	bb	9.397
19	Total-tetradiioxins	26.21	8.373e4	1.038e5	1.099	0.81	0.77	673.5	YES	NO	bd	bb	15.262
20	Total-tetradiioxins	25.72	2.649e4	3.214e4	1.099	0.82	0.77	333.6	YES	NO	bb	bb	4.772
21	Total-tetradiioxins	24.85	2.420e3	2.985e3	1.099	0.81	0.77	19.9	YES	NO	bb	bb	0.440
22	1368-TCDD	23.66	5.296e4	6.607e4	1.084	0.80	0.77	690.5	YES	NO	bb	bb	9.816
23	12479-PECDD	28.91	4.728e5	3.089e5	1.837	1.53	1.55	1713.2	YES	NO	bb	bb	49.845
24	1289-TCDD	27.12	4.842e4	6.049e4	0.975	0.80	0.77	575.4	YES	NO	bb	bb	9.987
25	12389-PECDD	32.03	3.302e5	2.107e5	1.252	1.57	1.55	1869.4	YES	NO	bb	bb	50.596
26	12378-PeCDD	31.64	2.888e5	1.854e5	1.087	1.56	1.55	1647.5	YES	NO	bb	bb	51.126
27	Total-pentadiioxins	30.97	1.315e3	8.851e2	1.392	1.49	1.55	7.1	YES	NO	bb	bb	0.185
28	123789-HxCDD	36.61	2.491e5	2.029e5	0.985	1.23	1.24	1216.5	YES	NO	bb	bb	50.610
29	123678-HxCDD	36.22	2.536e5	2.261e5	1.021	1.12	1.24	1248.0	YES	NO	db	db	51.010
30	123478-HxCDD	36.11	2.420e5	2.004e5	0.987	1.21	1.24	1245.4	YES	NO	bd	bd	50.303
31	Total-hexadiioxins	34.86	7.769e2	6.946e2	1.007	1.12	1.24	3.9	YES	NO	bd	bb	0.161
32	124679-HXCDD	34.10	2.577e5	2.083e5	1.033	1.24	1.24	1234.1	YES	NO	bb	bb	50.624
33	1234679-HPCDD	39.31	2.468e5	2.463e5	1.286	1.00	1.05	1503.1	YES	NO	bb	bd	49.957
34	1234678-HpCDD	40.35	2.244e5	2.131e5	1.253	1.05	1.05	1286.0	YES	NO	bb	bb	45.500
35	OCDD	45.12	3.894e5	4.309e5	1.103	0.90	0.89	2068.3	YES	NO	bd	bb	92.775

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld

Last Altered: Friday, February 03, 2023 11:22:32 Pacific Standard Time

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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	23.43	3.727e4					1.3	NO		bb		
2	FUNCTION1 PFK	23.18	1.916e4					1.1	NO		bb		
3	FUNCTION1 PFK	22.75	3.142e3					0.4	NO		bb		
4	FUNCTION1 PFK	22.69	1.169e4					0.7	NO		bb		
5	FUNCTION1 PFK	22.63	7.039e3					0.6	NO		bb		
6	FUNCTION1 PFK	22.57	1.283e4					0.8	NO		db		
7	FUNCTION1 PFK	22.51	2.158e4					1.2	NO		bd		
8	FUNCTION1 PFK	22.36	1.134e4					0.8	NO		bb		
9	FUNCTION1 PFK	22.22	4.269e4					1.3	NO		bb		
10	FUNCTION1 PFK	22.10	3.052e4					1.6	NO		bb		
11	FUNCTION1 PFK	21.62	2.765e4					1.4	NO		bb		
12	FUNCTION1 PFK	21.54	1.965e4					1.2	NO		bb		
13	FUNCTION1 PFK	21.48	1.090e4					0.8	NO		bb		
14	FUNCTION1 PFK	21.29	3.708e4					1.3	NO		bb		
15	FUNCTION1 PFK	26.79	7.221e3					0.6	NO		bb		
16	FUNCTION1 PFK	26.49	8.249e3					0.4	NO		bb		
17	FUNCTION1 PFK	26.41	9.337e3					0.7	NO		db		
18	FUNCTION1 PFK	26.35	9.113e3					0.6	NO		bd		
19	FUNCTION1 PFK	26.15	5.974e3					0.5	NO		bb		
20	FUNCTION1 PFK	26.09	1.716e4					0.9	NO		bb		
21	FUNCTION1 PFK	25.96	1.452e4					1.0	NO		bb		
22	FUNCTION1 PFK	25.59	3.325e3					0.4	NO		bb		
23	FUNCTION1 PFK	25.34	4.402e3					0.6	NO		bb		
24	FUNCTION1 PFK	24.87	9.404e3					0.7	NO		bb		
25	FUNCTION1 PFK	24.75	2.747e4					1.4	NO		bb		
26	FUNCTION1 PFK	24.35	3.959e3					0.5	NO		bb		
27	FUNCTION1 PFK	24.04	7.708e3					0.6	NO		bb		
28	FUNCTION1 PFK	23.69	6.646e3					0.9	NO		bb		
29	FUNCTION1 PFK	23.63	5.706e3					0.6	NO		db		
30	FUNCTION1 PFK	23.57	2.430e4					1.1	NO		bd		
31	FUNCTION1 PFK	28.10	1.253e4					0.8	NO		bb		
32	FUNCTION1 PFK	28.03	8.849e3					0.7	NO		bb		
33	FUNCTION1 PFK	27.95	1.020e4					0.7	NO		bb		
34	FUNCTION1 PFK	27.88	1.726e4					1.1	NO		bb		
35	FUNCTION1 PFK	27.76	3.581e3					0.5	NO		bb		
36	FUNCTION1 PFK	27.41	1.709e4					1.1	NO		bb		
37	FUNCTION1 PFK	27.26	1.794e4					1.0	NO		bb		

Dataset: T:\Autospec\Processed Data Batch\230201ICVIH.qld
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.07	1.511e5					4.8	YES		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.55	2.727e3					1.0	NO		bb		
2	FUNCTION5 PFK	43.63	6.321e3					1.6	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	21.22	7.029e1					2.0	NO		bb	0.000	
2	FUNCTION1 HXCD...	27.79	7.872e1					1.6	NO		bb	0.000	
3	FUNCTION1 HXCD...	27.44	8.510e1					1.7	NO		bb	0.000	
4	FUNCTION1 HXCD...	27.24	1.425e2					4.1	YES		bb	0.000	
5	FUNCTION1 HXCD...	26.86	9.476e1					2.1	NO		bb	0.000	
6	FUNCTION1 HXCD...	26.52	1.068e2					2.9	NO		bb	0.000	
7	FUNCTION1 HXCD...	24.76	1.755e2					3.8	YES		db	0.000	
8	FUNCTION1 HXCD...	24.66	1.713e2					3.1	YES		bd	0.000	
9	FUNCTION1 HXCD...	22.65	7.687e1					2.7	NO		bb	0.000	
10	FUNCTION1 HXCD...	21.59	1.290e2					2.9	NO		bb	0.000	

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	28.01	1.182e2					1.3	NO		bb		0.000
2	FUNCTION1 HPCD...	26.91	1.043e2					2.5	NO		bb		0.000
3	FUNCTION1 HPCD...	26.31	8.865e1					2.0	NO		bb		0.000
4	FUNCTION1 HPCD...	24.76	1.293e2					2.4	NO		bb		0.000
5	FUNCTION1 HPCD...	22.60	8.433e1					1.6	NO		bb		0.000

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.44	1.012e2					2.5	NO		bb		0.000
2	FUNCTION2 HPCD...	31.41	1.119e2					1.8	NO		db		0.000
3	FUNCTION2 HPCD...	31.27	2.407e2					5.1	YES		bd		0.000
4	FUNCTION2 HPCD...	30.62	8.382e1					2.0	NO		db		0.000
5	FUNCTION2 HPCD...	30.52	8.939e1					1.4	NO		bd		0.000
6	FUNCTION2 HPCD...	28.80	1.157e2					1.7	NO		bb		0.000
7	FUNCTION2 HPCD...	28.49	1.048e2					3.0	NO		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	35.99	8.499e1					2.5	NO		bb		0.000
2	FUNCTION3 OCDPE	34.37	1.004e2					2.7	NO		bb		0.000
3	FUNCTION3 OCDPE	33.49	7.795e1					2.6	NO		bb		0.000
4	FUNCTION3 OCDPE	33.13	1.794e2					2.9	NO		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS6

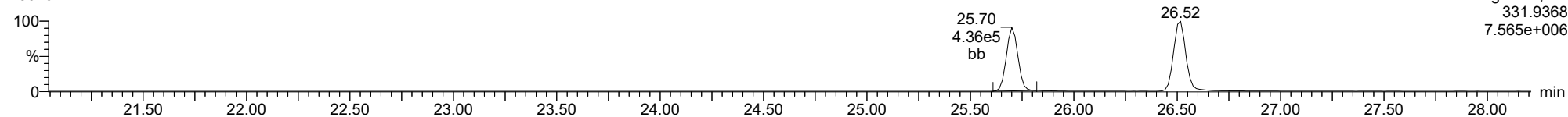
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Method: T:\Autospec\Methods\Dioxin230131IH.mdb 03 Feb 2023 10:31:33
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

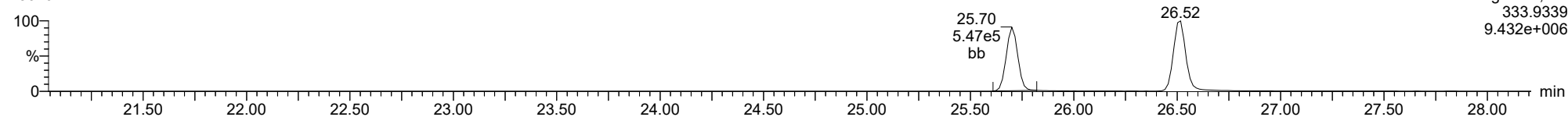
13C-1234-TCDD

23020111



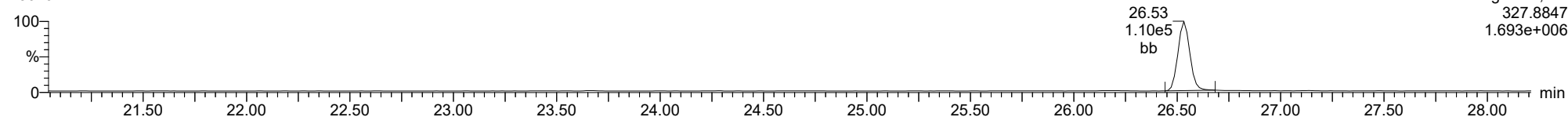
13C-1234-TCDD

23020111



37CL-2378-TCDD

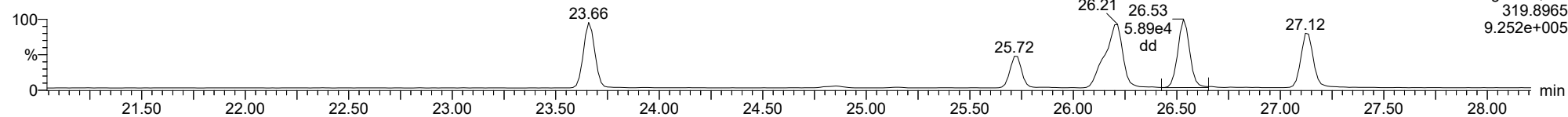
23020111



ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

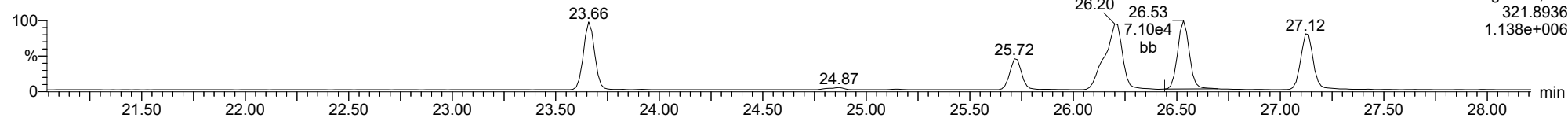
2378-TCDD

23020111



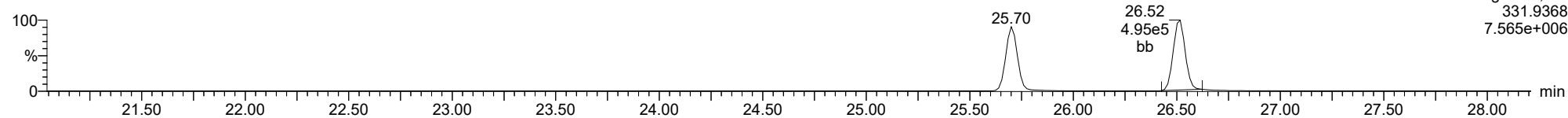
2378-TCDD

23020111



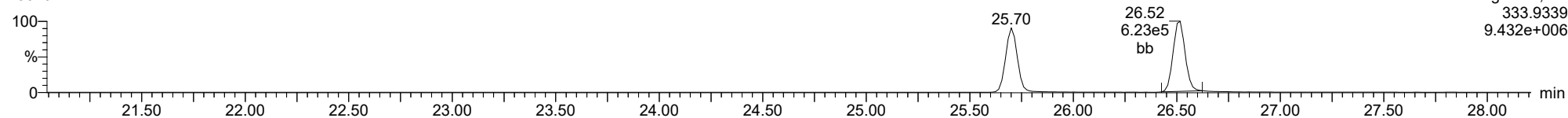
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23020111



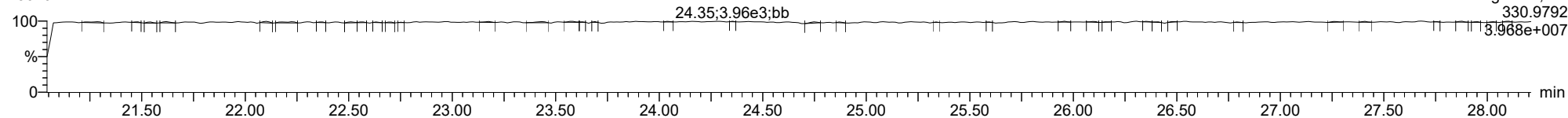
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23020111



FUNCTION1 PFK

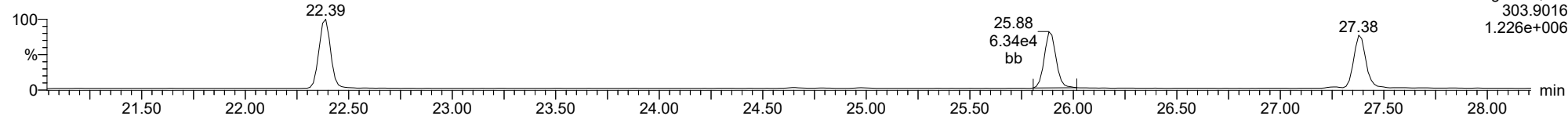
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

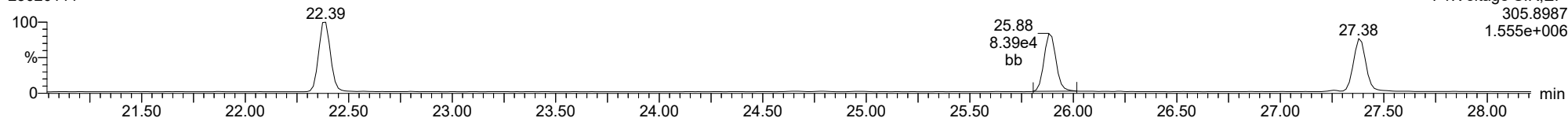
2378-TCDF

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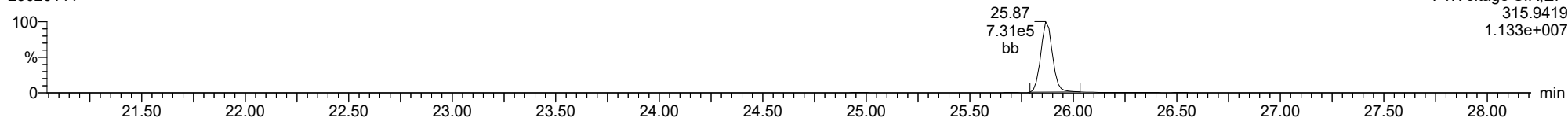
2378-TCDF

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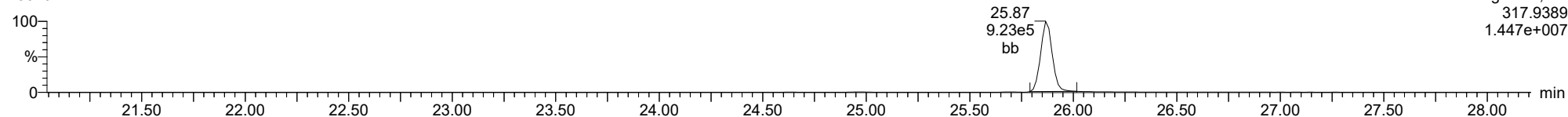
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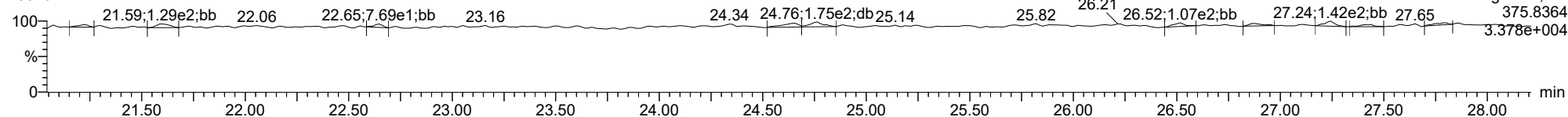
13C-2378-TCDF

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FUNCTION1 HXCDPE

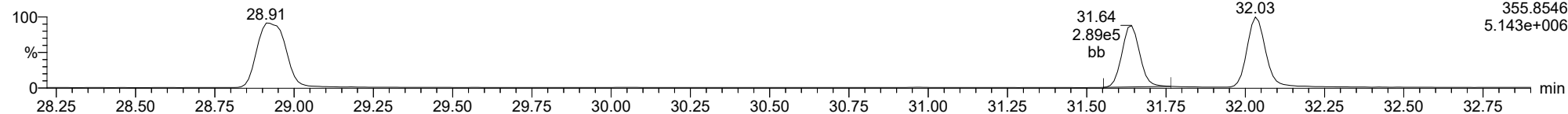
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

12378-PeCDD

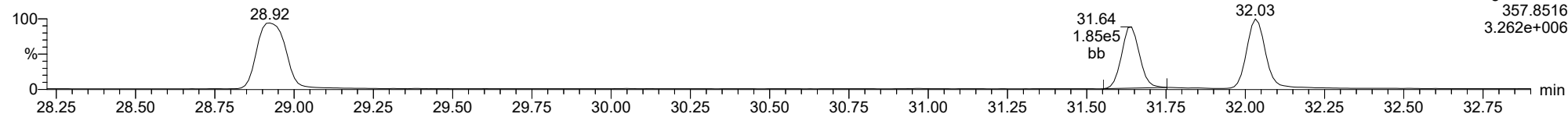
23020111



F2:Voltage SIR,EI+
355.8546
5.143e+006

12378-PeCDD

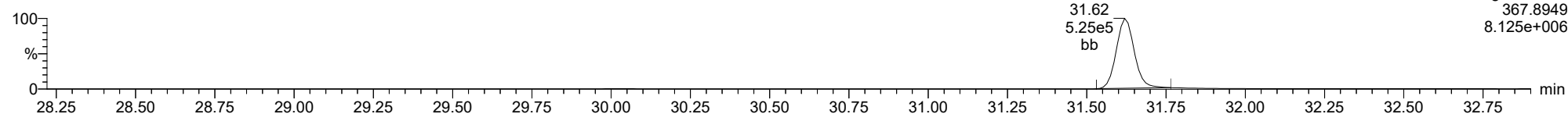
23020111



F2:Voltage SIR,EI+
357.8516
3.262e+006

13C-12378-PeCDD

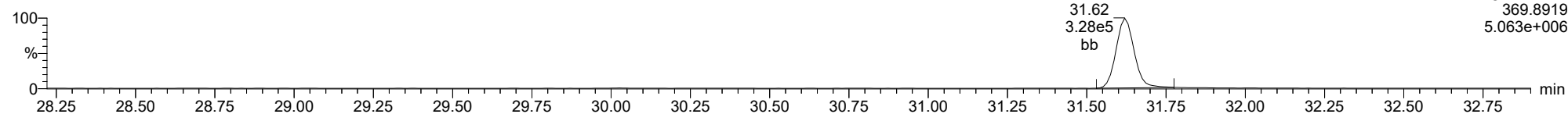
23020111



F2:Voltage SIR,EI+
367.8949
8.125e+006

13C-12378-PeCDD

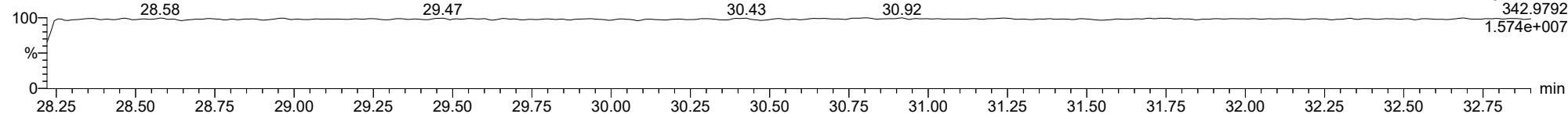
23020111



F2:Voltage SIR,EI+
369.8919
5.063e+006

FUNCTION2 PFK

23020111

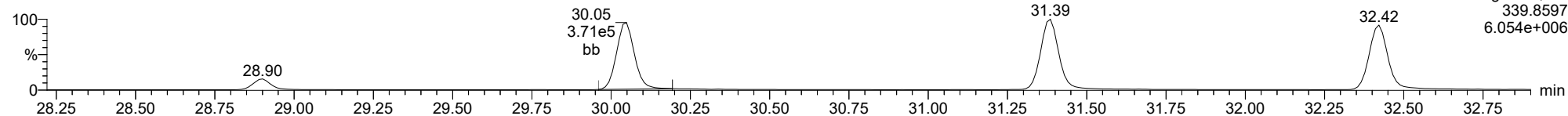


F2:Voltage SIR,EI+
342.9792
1.574e+007

ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

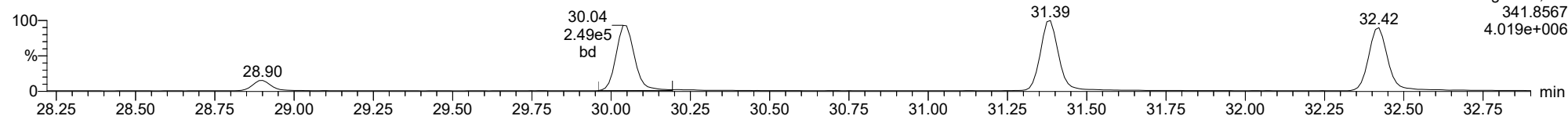
12378-PeCDF

23020111



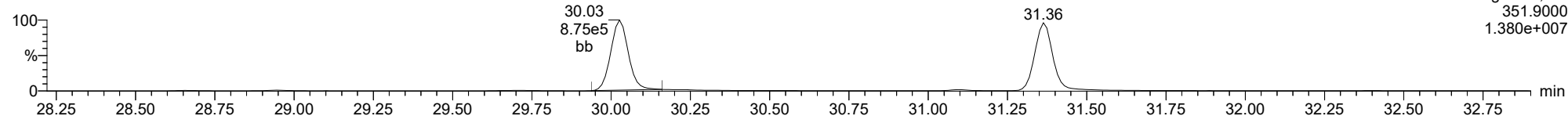
12378-PeCDF

23020111



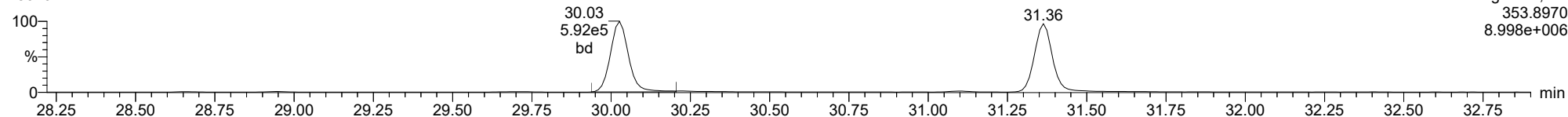
13C-12378-PeCDF

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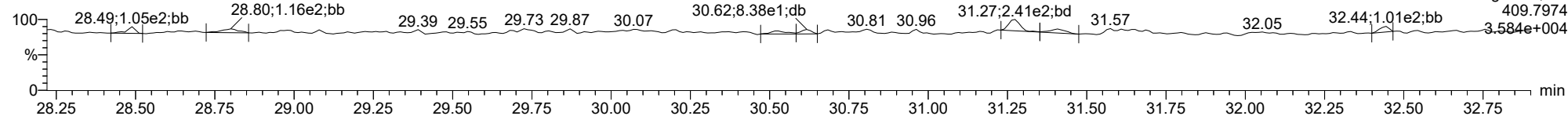
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FUNCTION2 HPCDPE

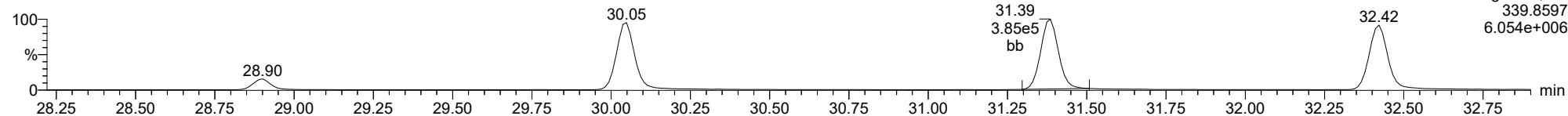
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

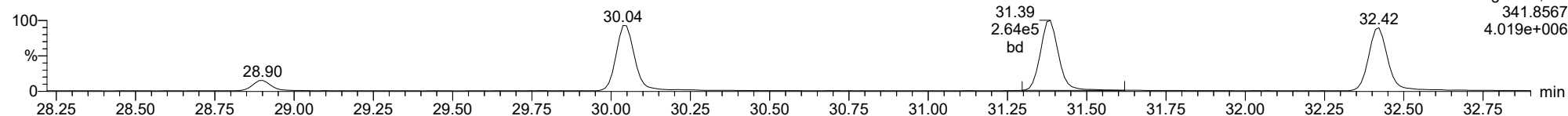
23478-PeCDF

23020111



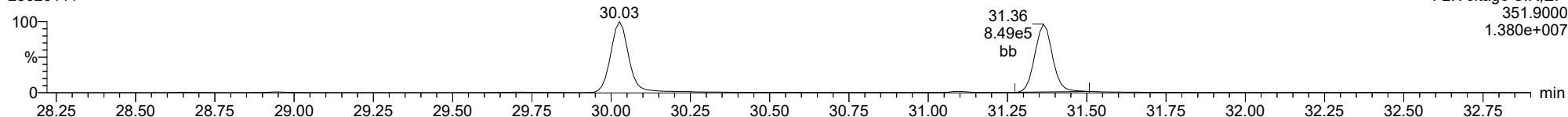
23478-PeCDF

23020111



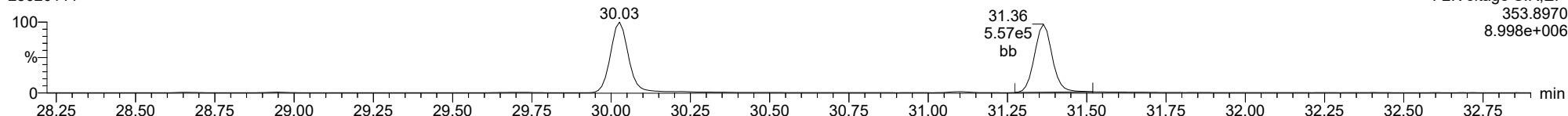
13C-23478-PeCDF

23020111



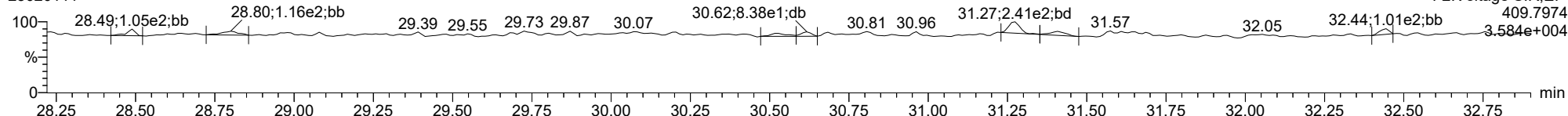
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FUNCTION2 HPCDPE

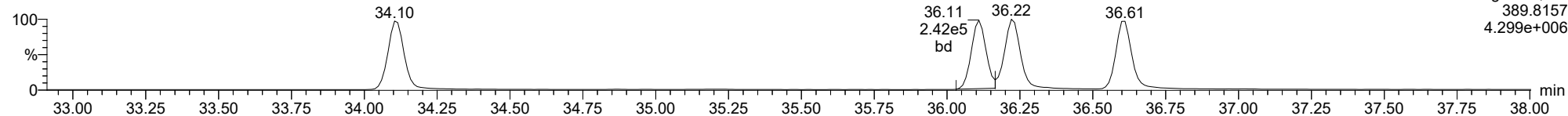
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

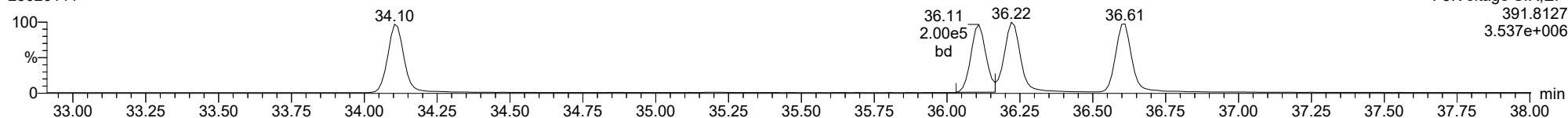
123478-HxCDD

23020111



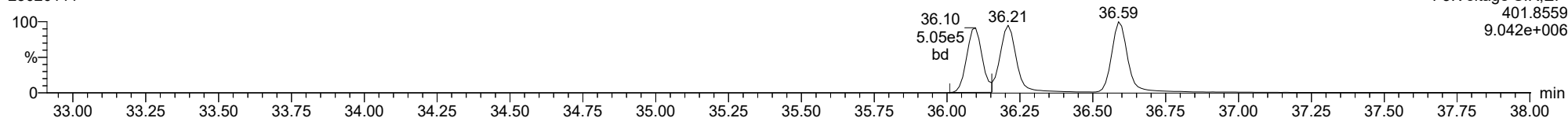
123478-HxCDD

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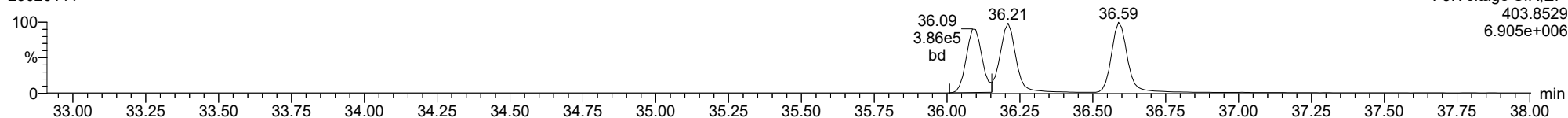
13C-123478-HxCDD

23020111



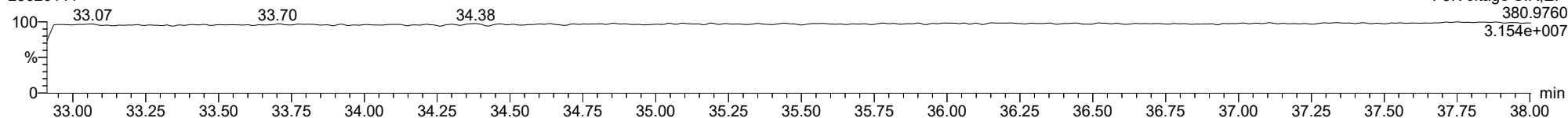
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FUNCTION3 PFK

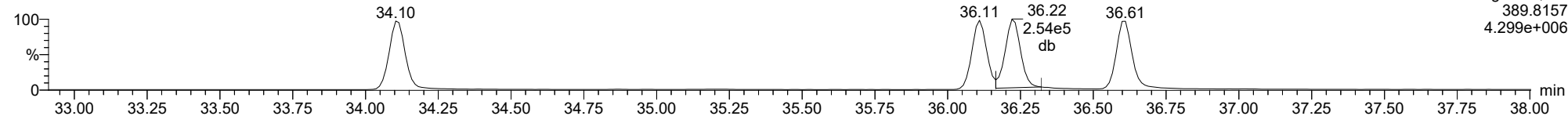
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

123678-HxCDD

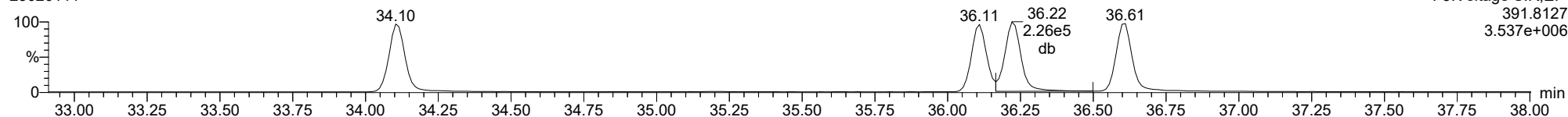
23020111



F3:Voltage SIR,EI+
389.8157
4.299e+006

123678-HxCDD

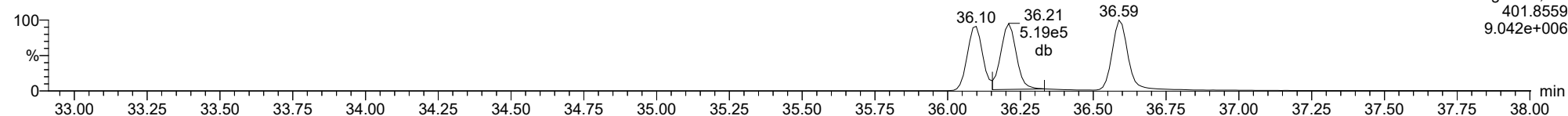
23020111



F3:Voltage SIR,EI+
391.8127
3.537e+006

13C-123678-HxCDD

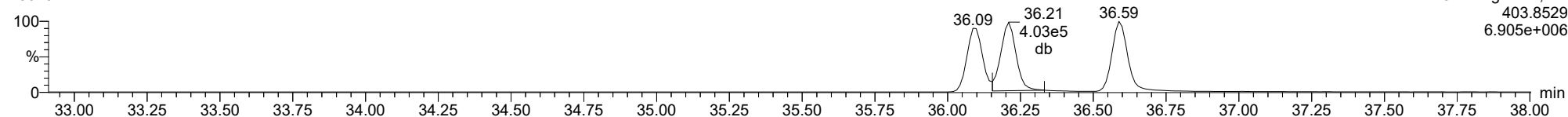
23020111



F3:Voltage SIR,EI+
401.8559
9.042e+006

13C-123678-HxCDD

23020111

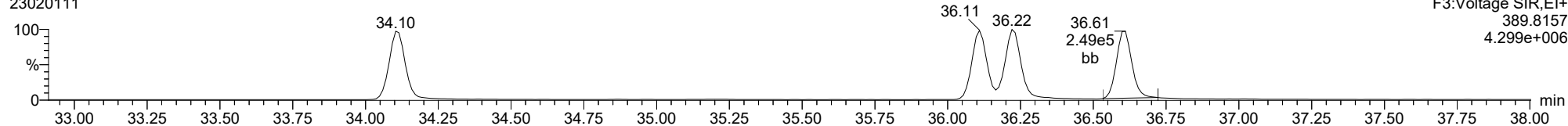


F3:Voltage SIR,EI+
403.8529
6.905e+006

ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

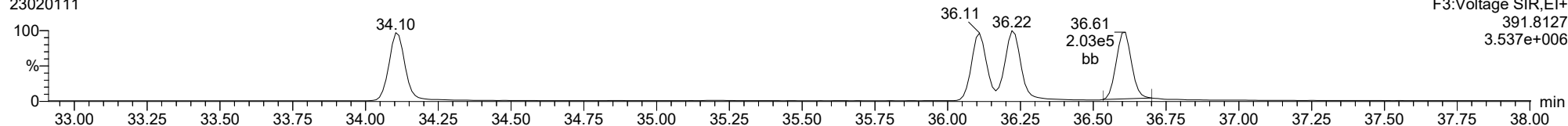
123789-HxCDD

23020111



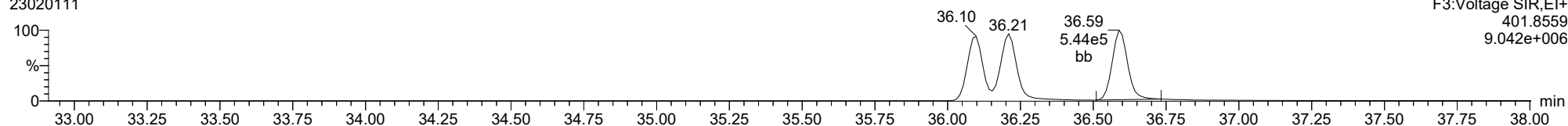
123789-HxCDD

23020111



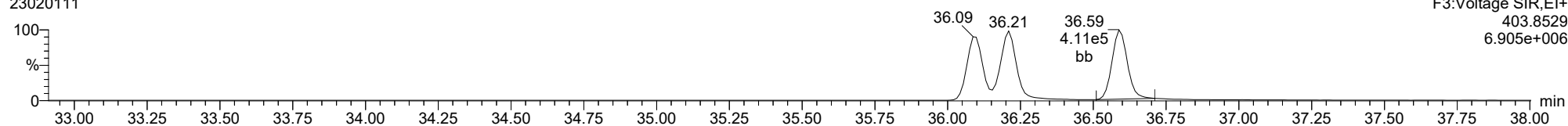
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23020111



13C-123789-HxCDD

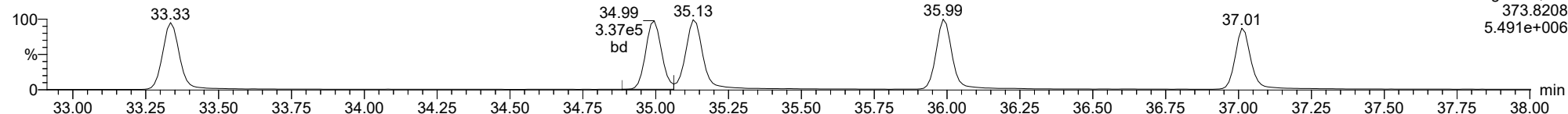
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

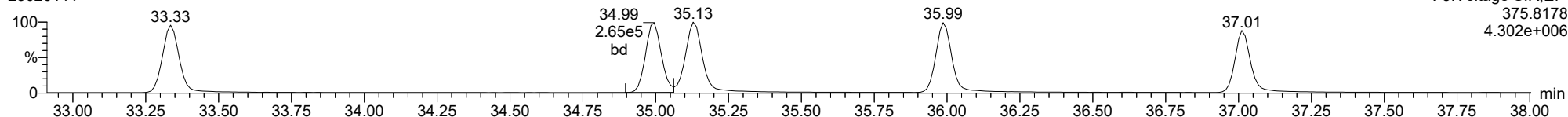
123478-HxCDF

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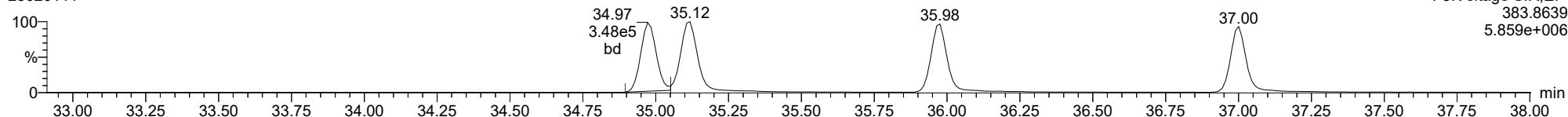
123478-HxCDF

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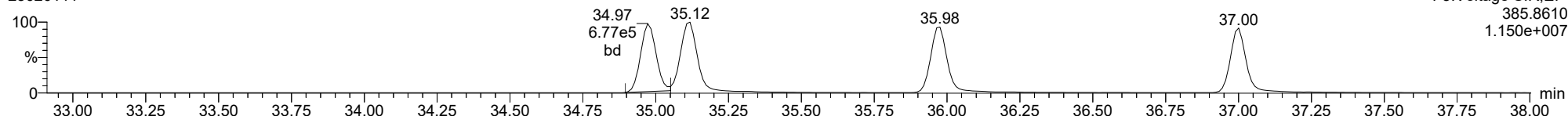
13C-123478-HxCDF

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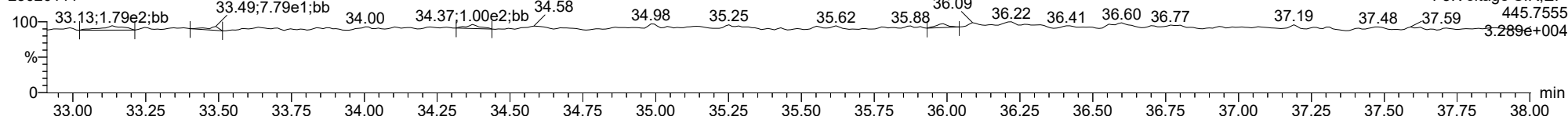
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23020111



FUNCTION3 OCDPE

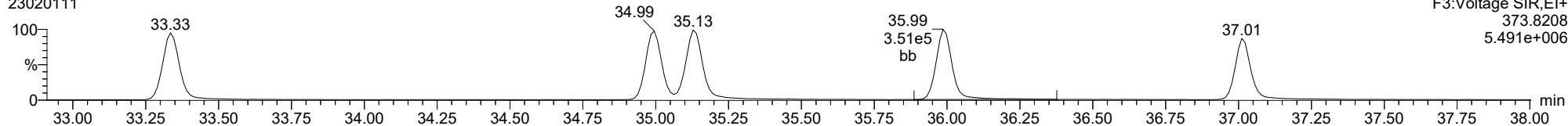
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

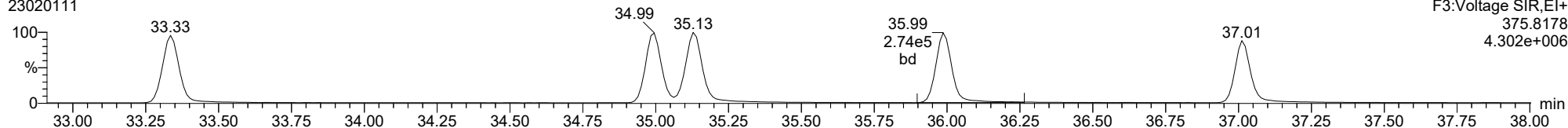
234678-HxCDF

23020111



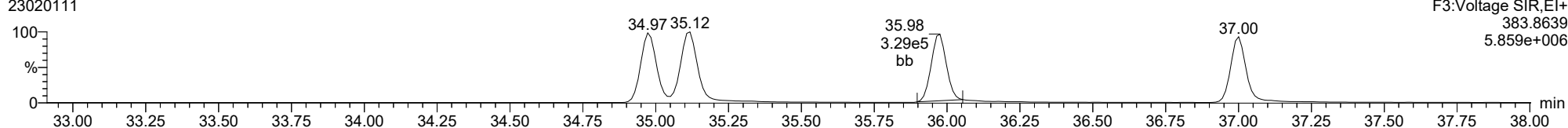
234678-HxCDF

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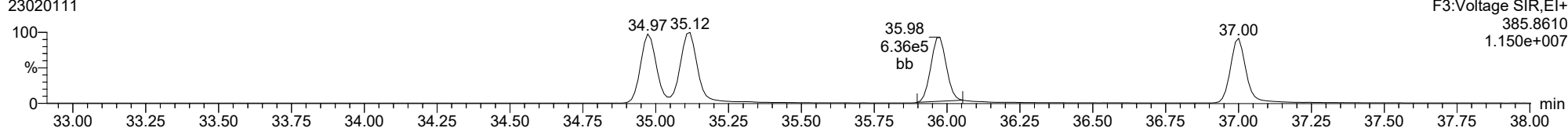
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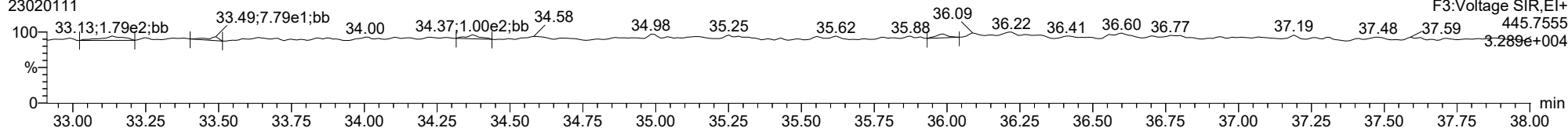
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23020111



FUNCTION3 OCDPE

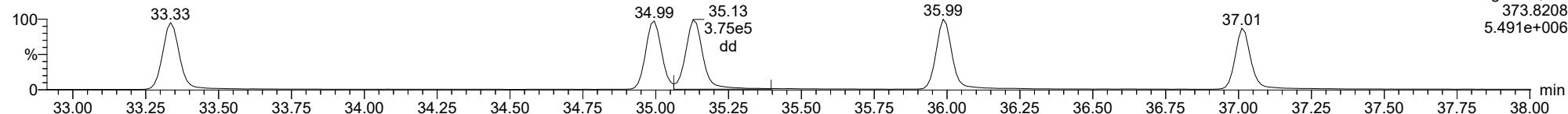
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

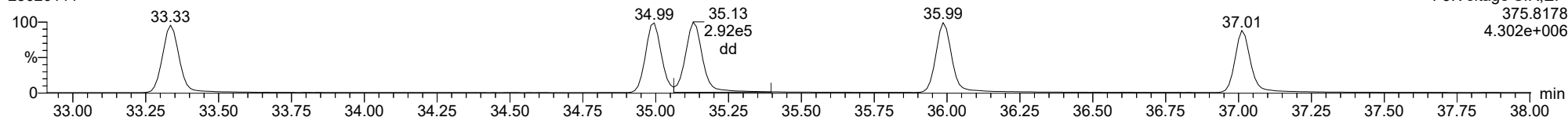
123678-HxCDF

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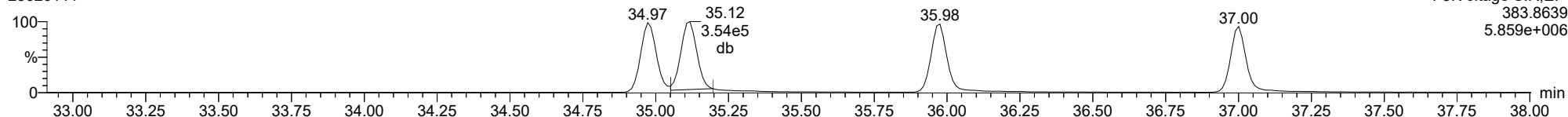
123678-HxCDF

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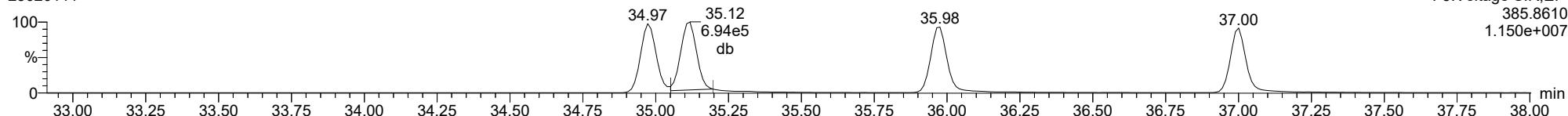
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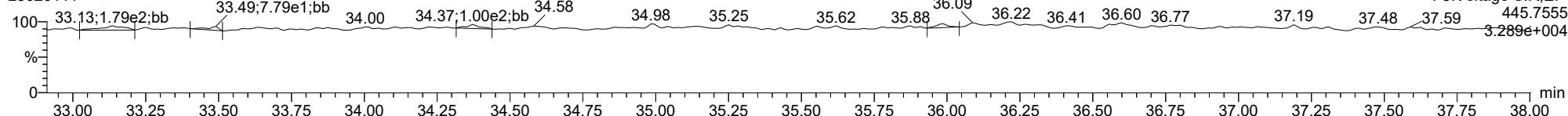
13C-123678-HxCDF

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FUNCTION3 OCDPE

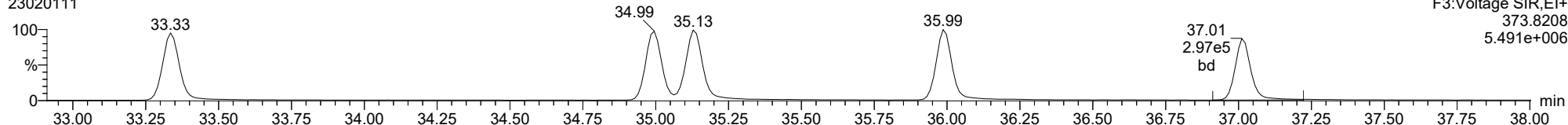
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

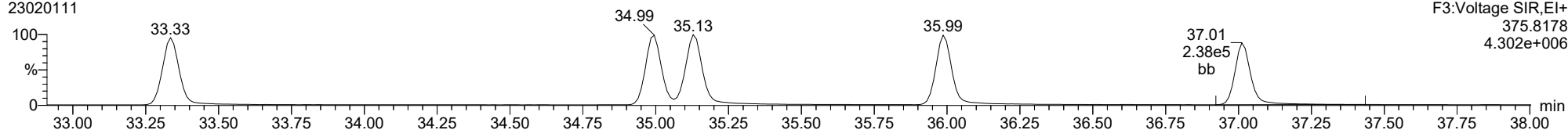
123789-HxCDF

23020111



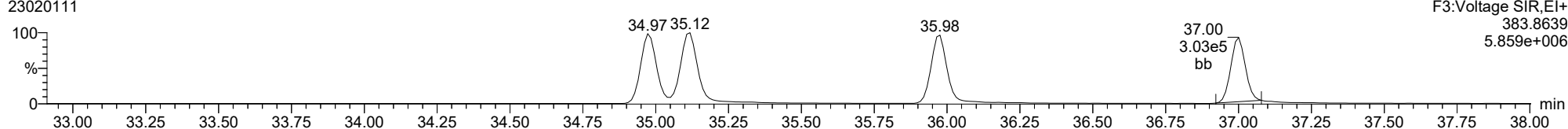
123789-HxCDF

23020111



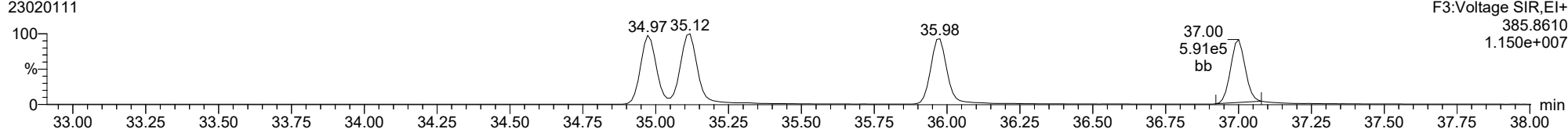
13C-123789-HxCDF

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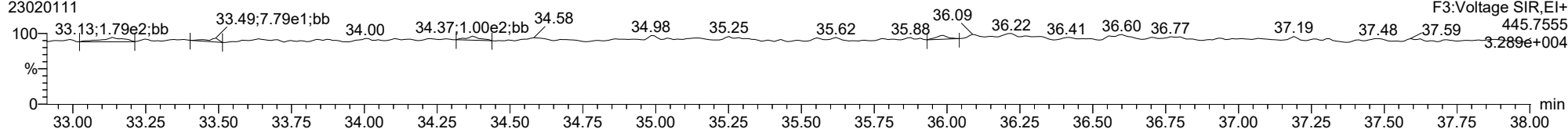
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FUNCTION3 OCDPE

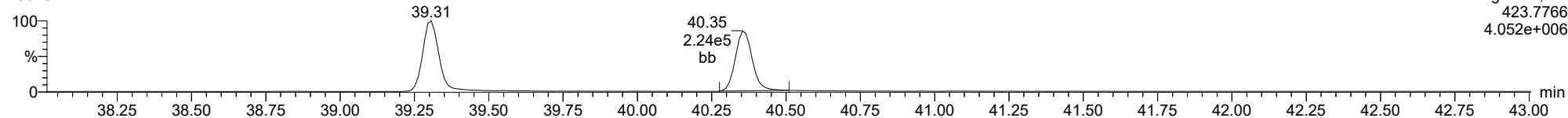
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

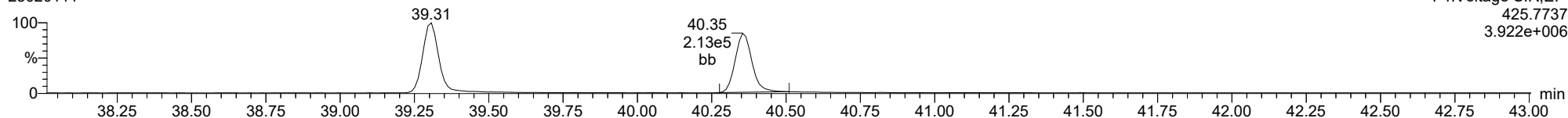
1234678-HpCDD

23020111



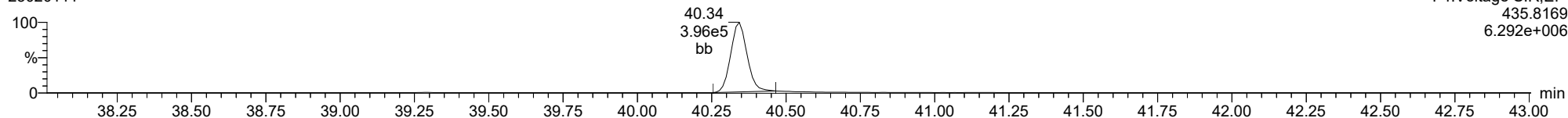
1234678-HpCDD

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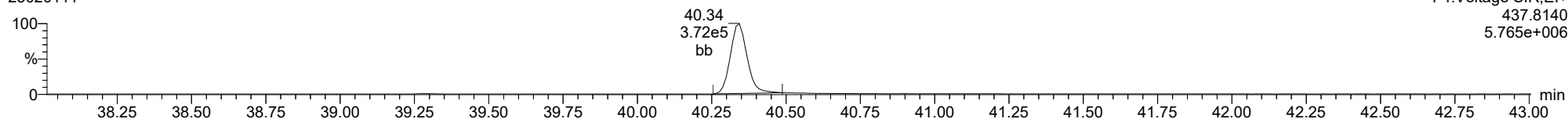
13C-1234678-HpCDD

23020111



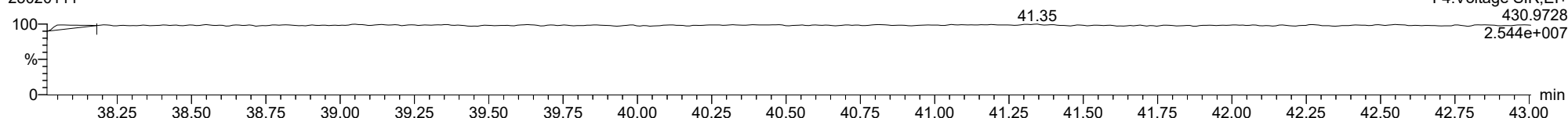
13C-1234678-HpCDD

23020111



FUNCTION4 PFK

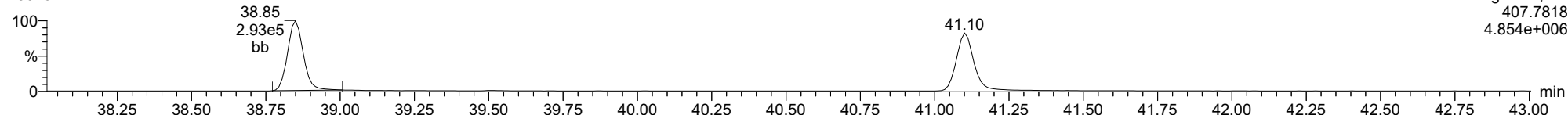
23020111



ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

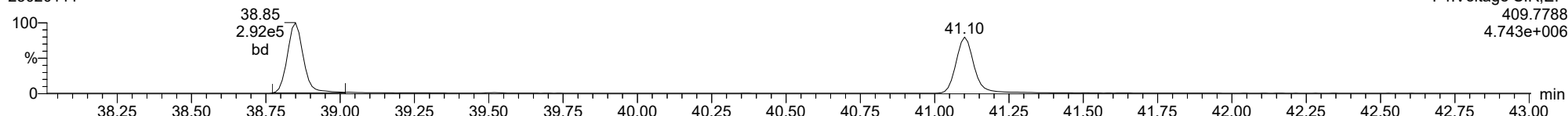
1234678-HpCDF

23020111



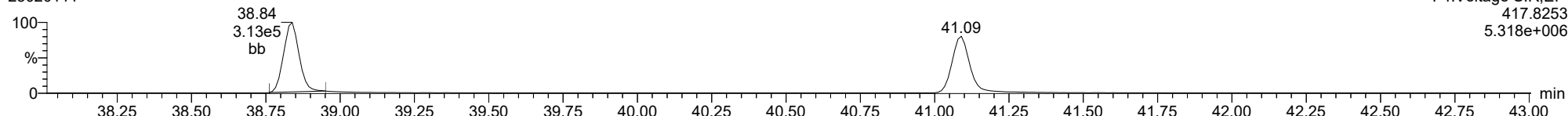
1234678-HpCDF

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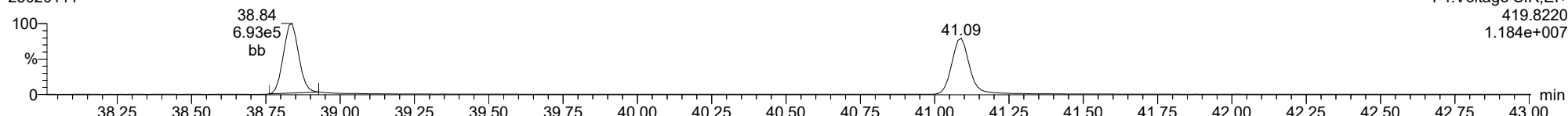
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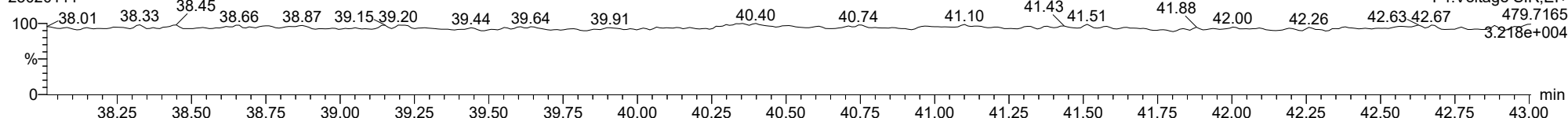
13C-1234678-HpCDF

23020111



FUNCTION4 NCDPE

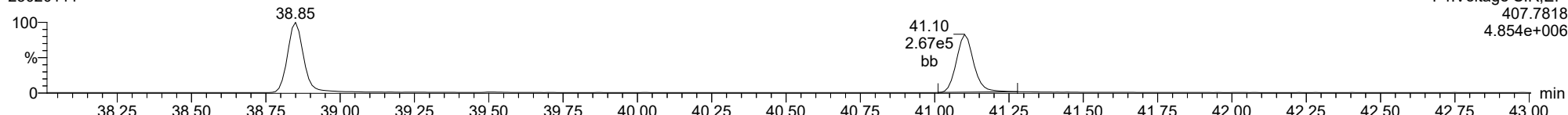
23020111



ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

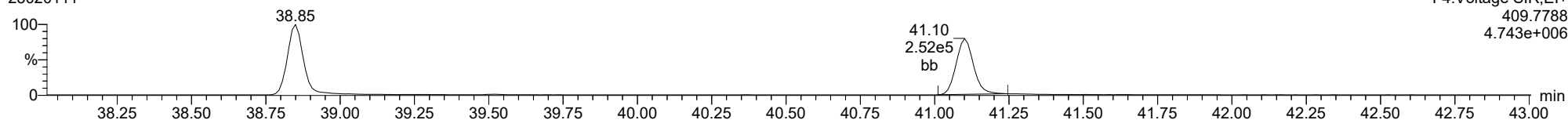
1234789-HpCDF

23020111



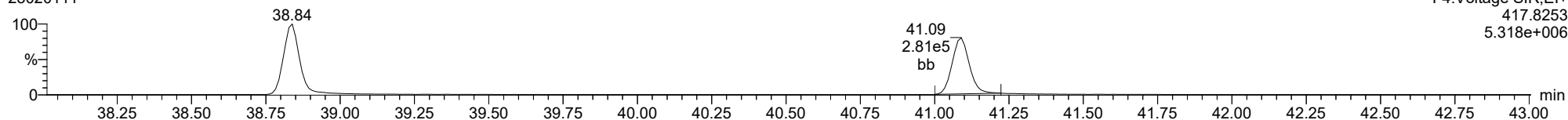
1234789-HpCDF

23020111



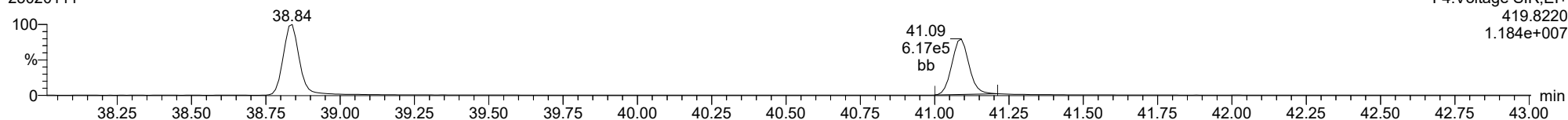
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23020111



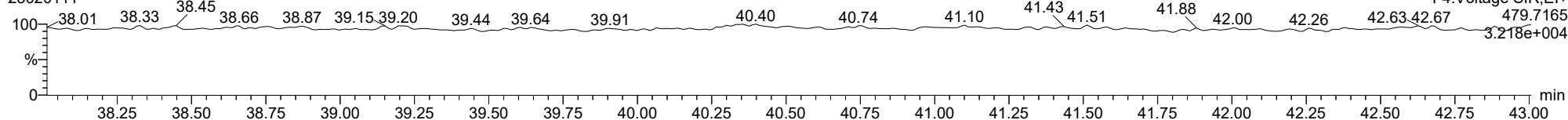
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23020111



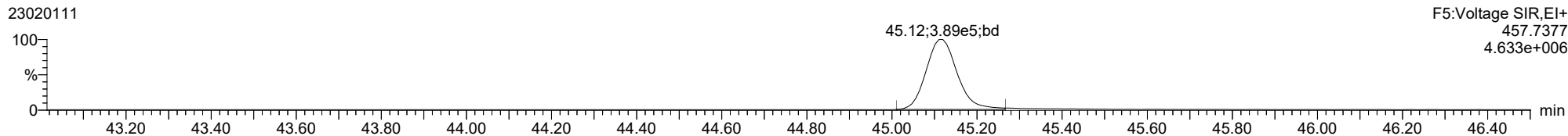
FUNCTION4 NCDPE

23020111

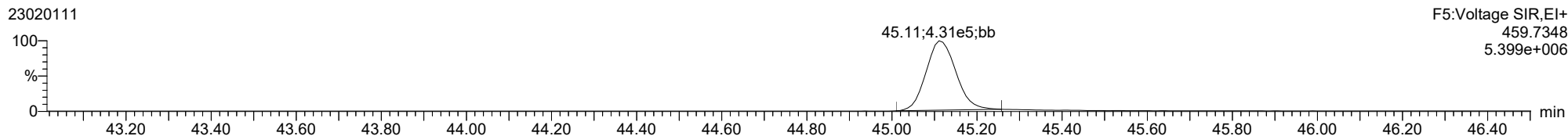


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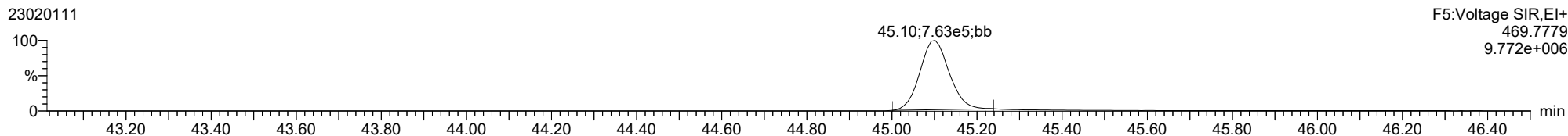
OCDD



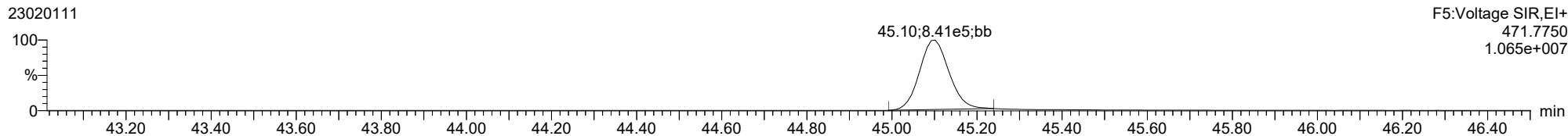
OCDD



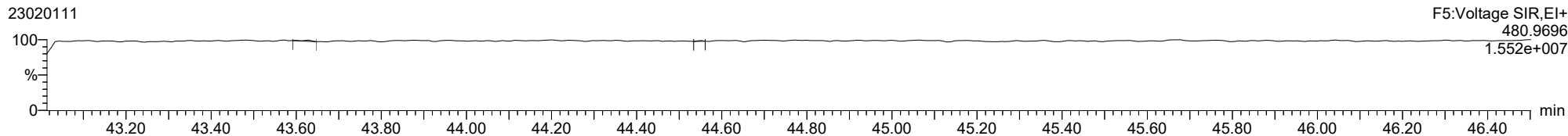
13C-OCDD



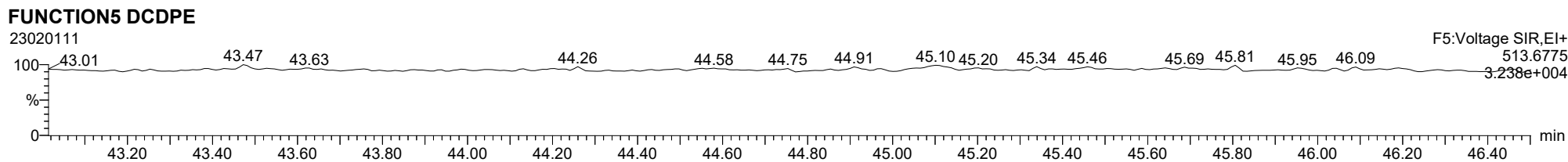
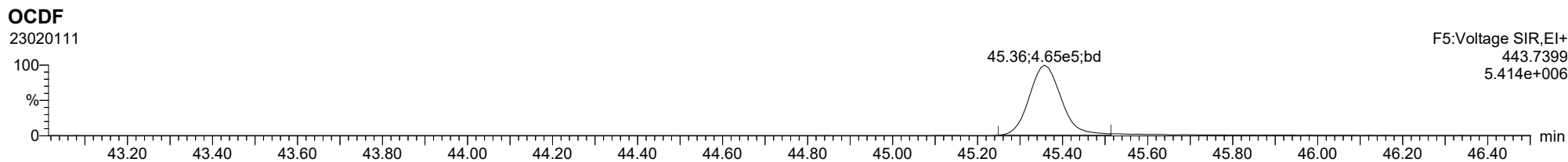
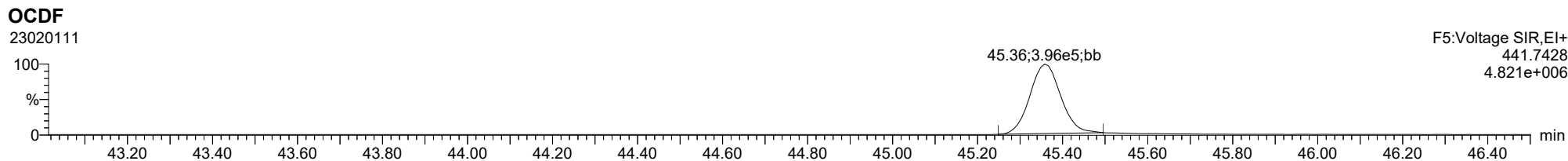
13C-OCDD



FUNCTION5 PFK



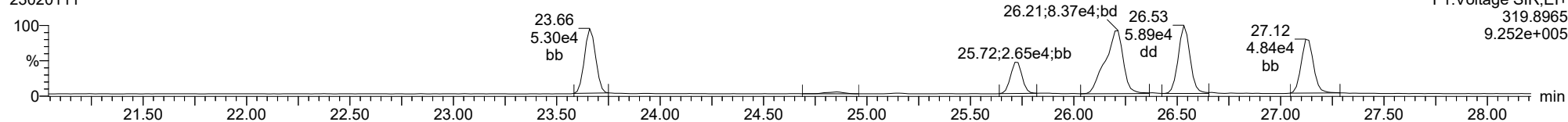
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ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

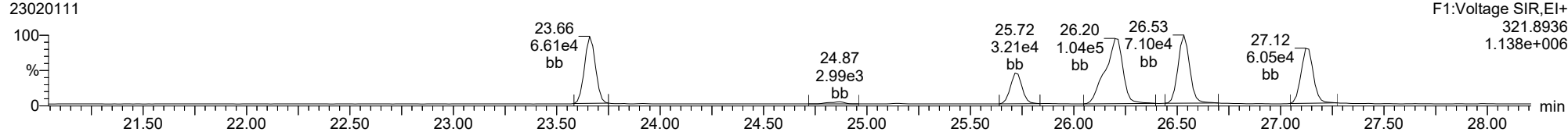
Total-tetradioxins

23020111



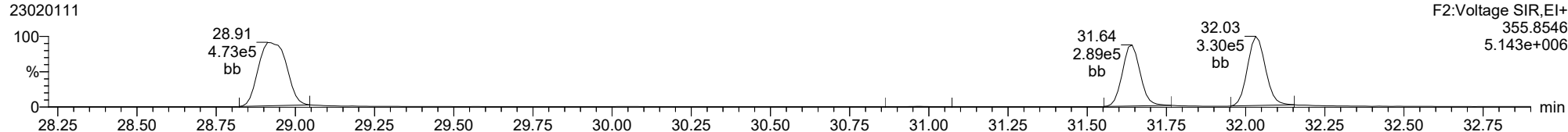
Total-tetradioxins

23020111



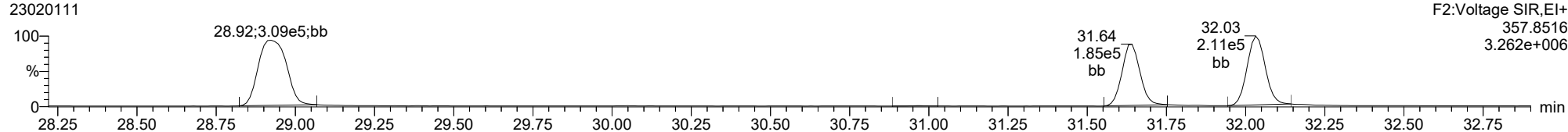
Total-pentadioxins

23020111



Total-pentadioxins

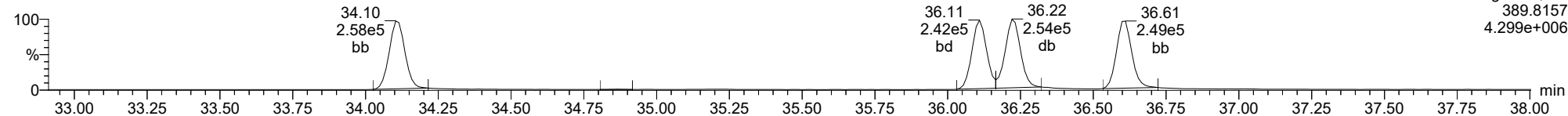
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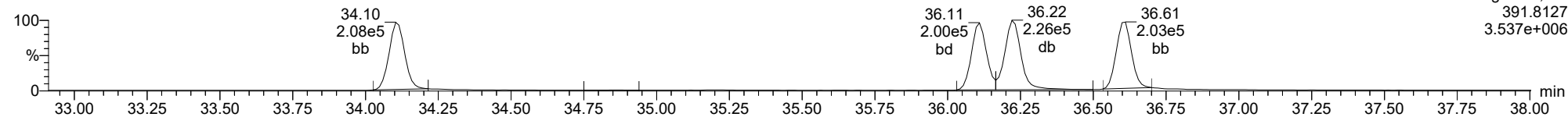
Total-hexadioxins

23020111



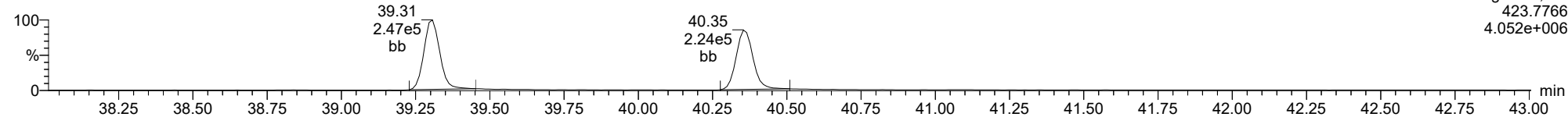
Total-hexadioxins

23020111



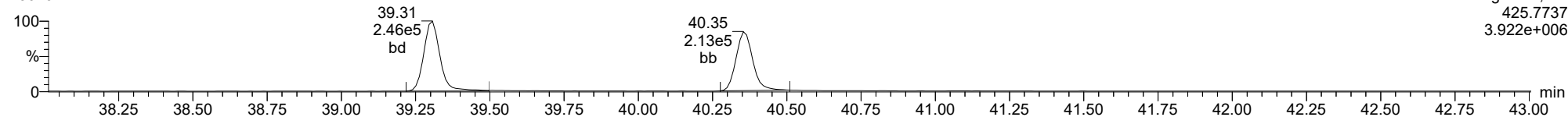
Total-heptadioxins

23020111



Total-heptadioxins

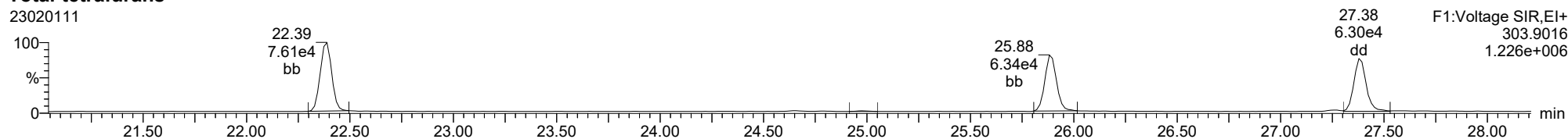
23020111



ID: CS3R2, Name: 23020111, Date: 01-Feb-2023, Time: 21:12:31, Conditions: AUTOSPEC01, User: pk

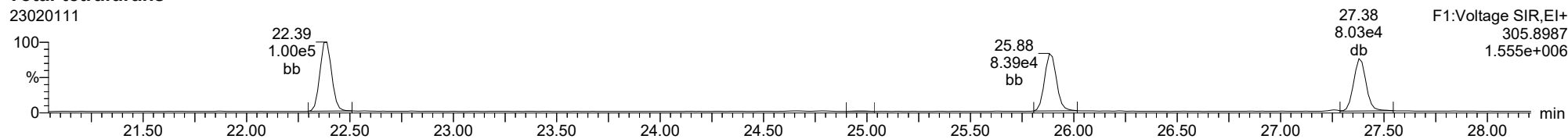
Total-tetrafurans

23020111



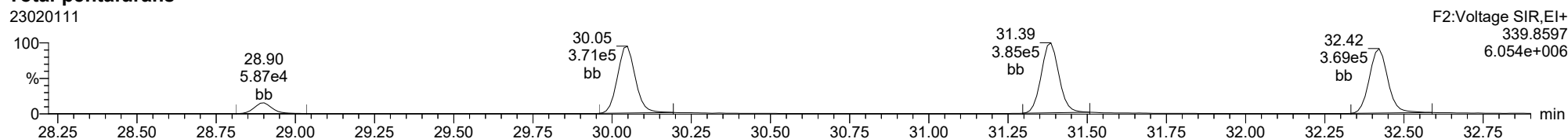
Total-tetrafurans

23020111



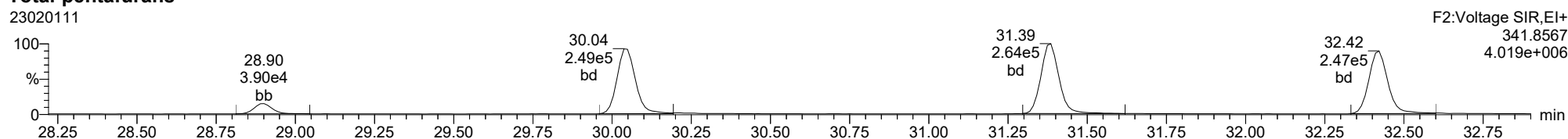
Total-pentafurans

23020111



Total-pentafurans

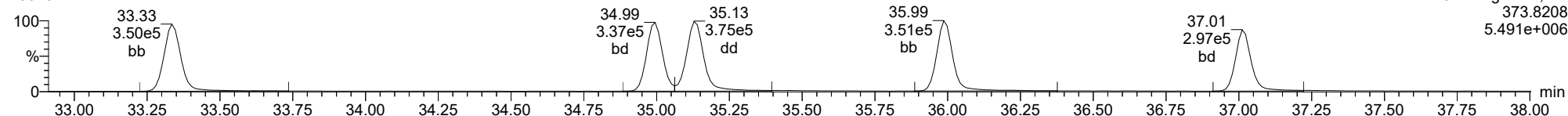
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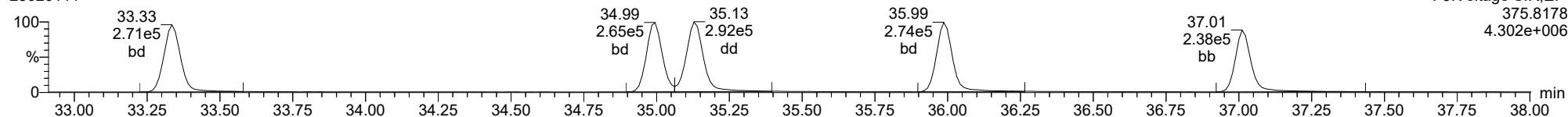
Total-hexafurans

23020111



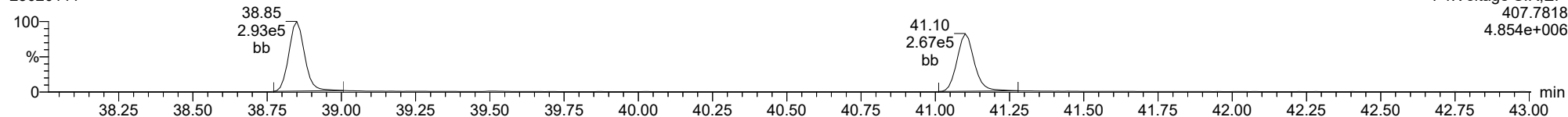
Total-hexafurans

23020111



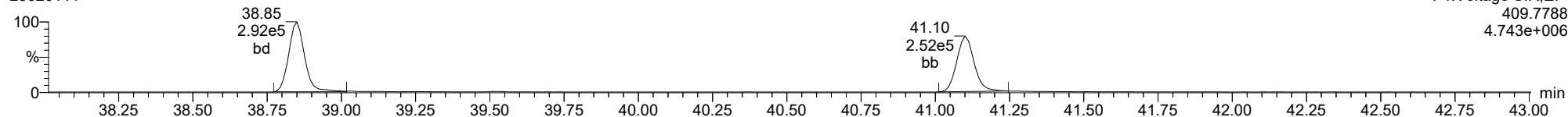
Total-heptafurans

23020111

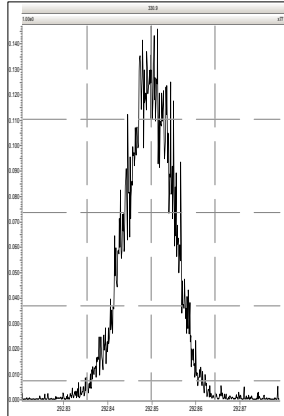


Total-heptafurans

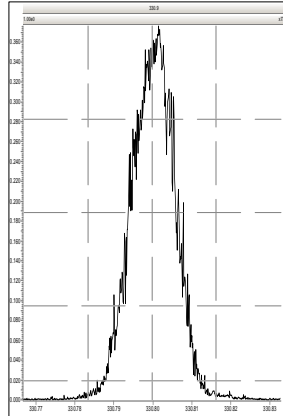
23020111



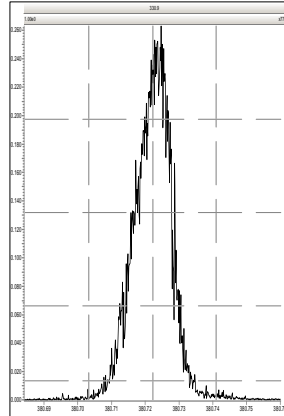
M 292.9824 R 12286



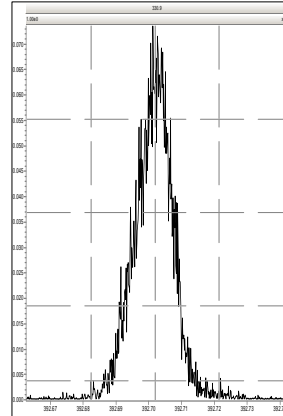
M 330.9792 R 13297



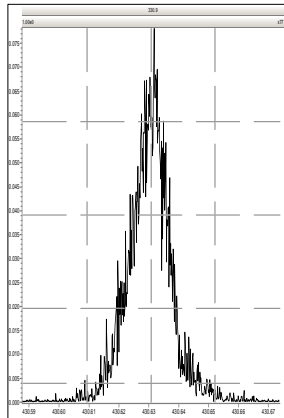
M 380.9760 R 15928



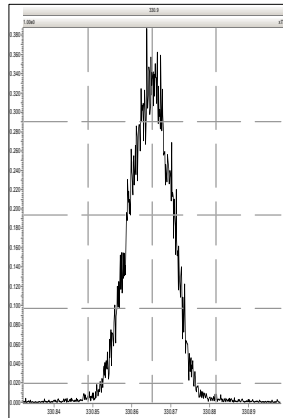
M 392.9760 R 16091



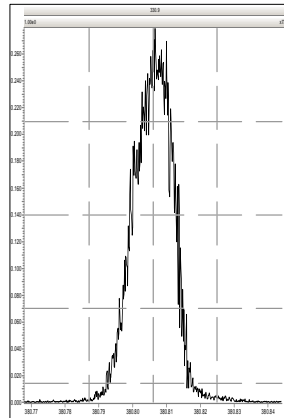
M 430.9728 R 13813



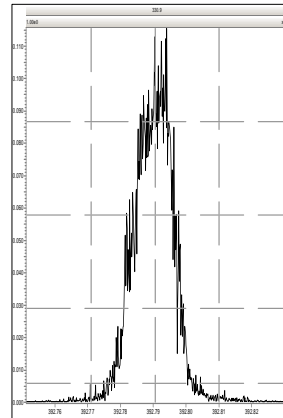
M 330.9792 R 13813



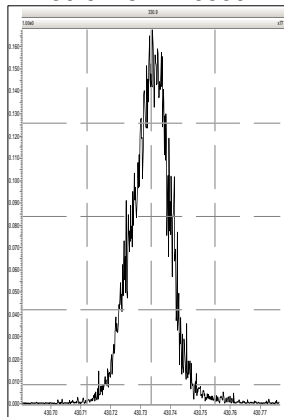
M 380.9760 R 16447



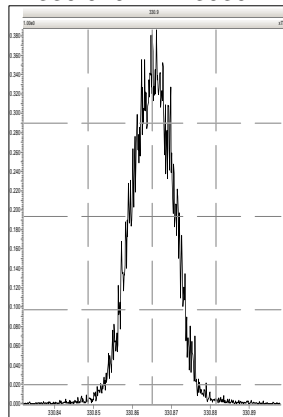
M 392.9760 R 16556



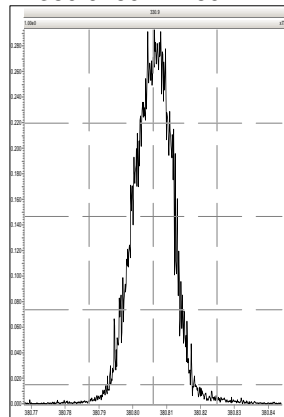
M 430.9728 R 15530



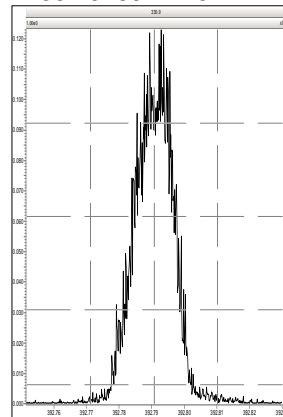
M 330.9792 R 13930



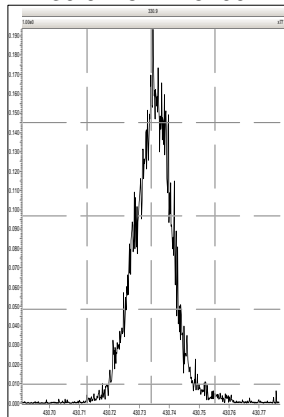
M 380.9760 R 16041



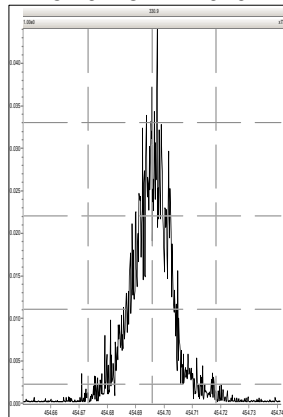
M 392.9760 R 15772



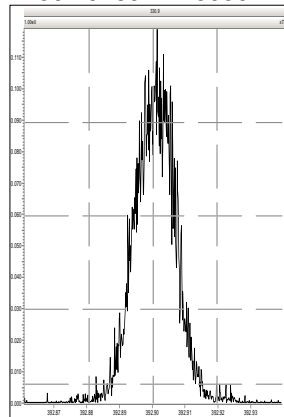
M 430.9728 R 15290



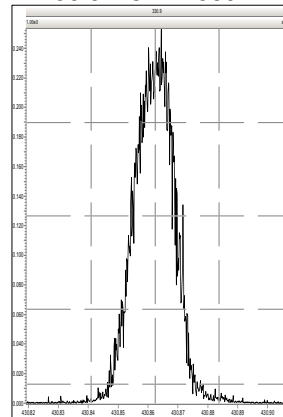
M 454.9728 R 14970



M 392.9760 R 15030

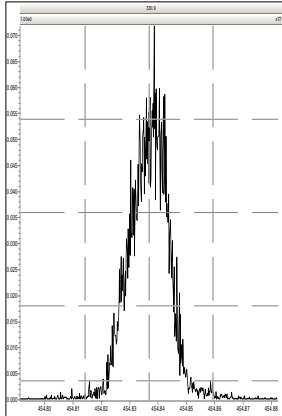


M 430.9728 R 15892

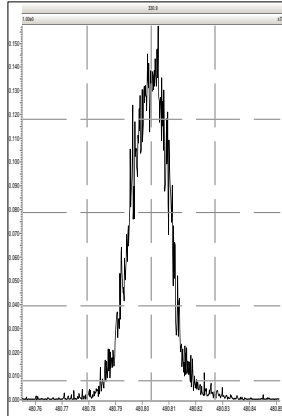


Printed: Wednesday, February 01, 2023 22:06:17 Pacific Standard Time

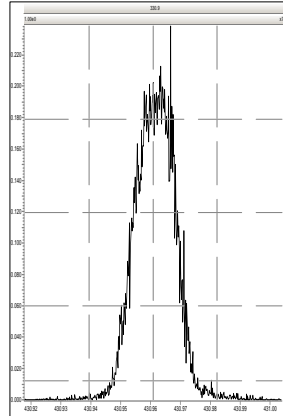
M 454.9728 R 15556



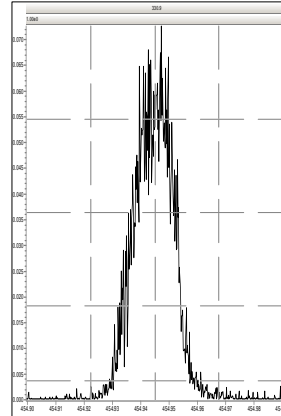
M 480.9696 R 15064



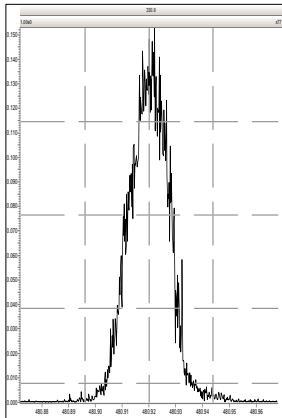
M 430.9728 R 15337



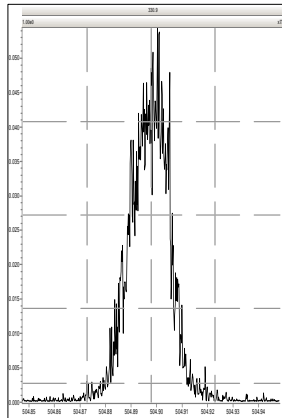
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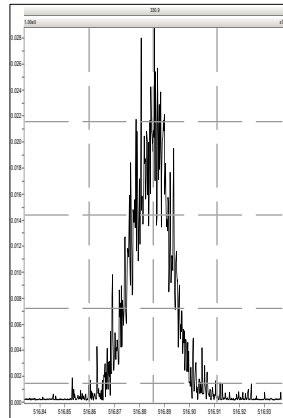
M 480.9696 R 15156



M 504.9696 R 14748



M 516.9697 R 15772

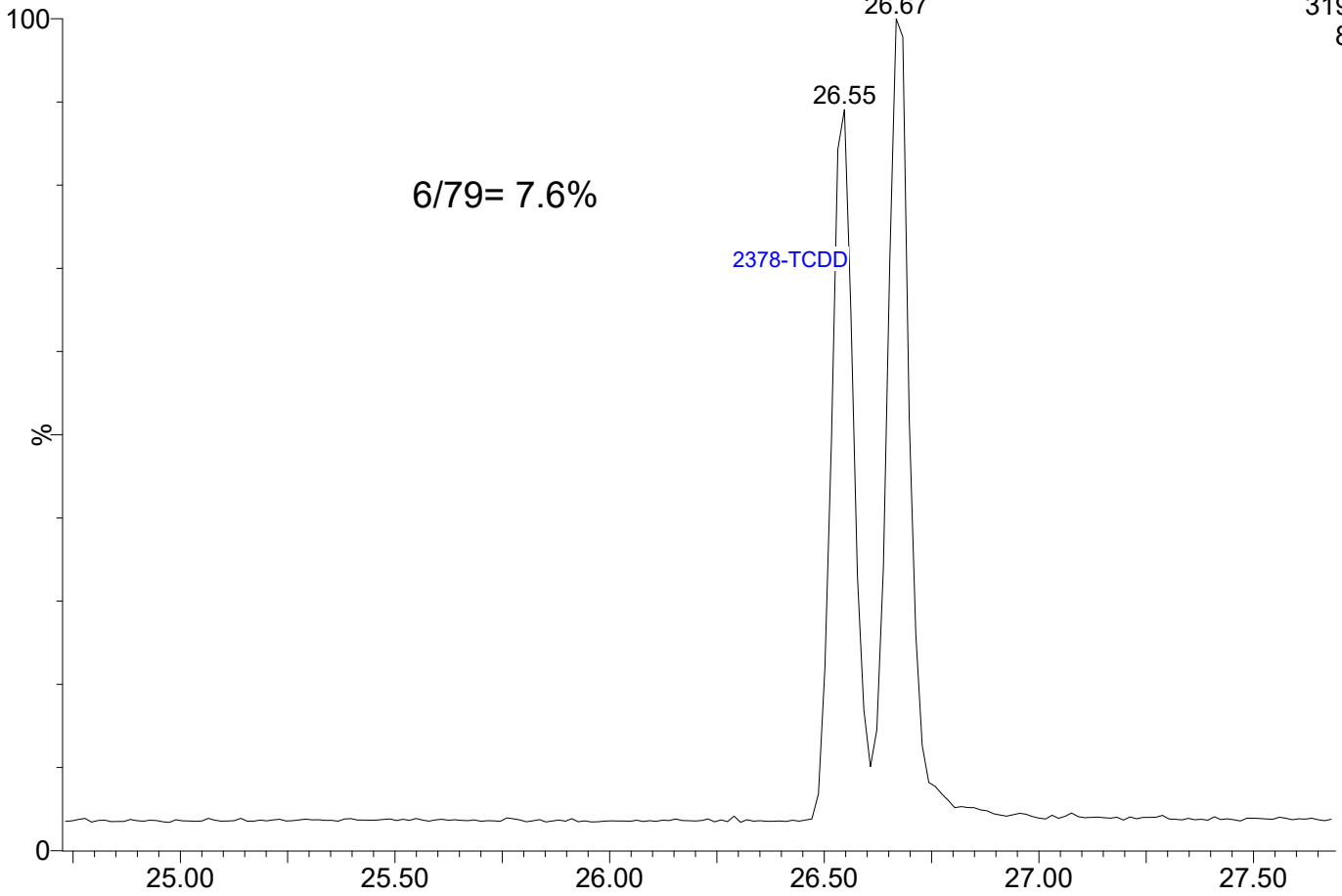


23020112

1: Voltage SIR 15 Channels EI+

319.8965

8.53e5

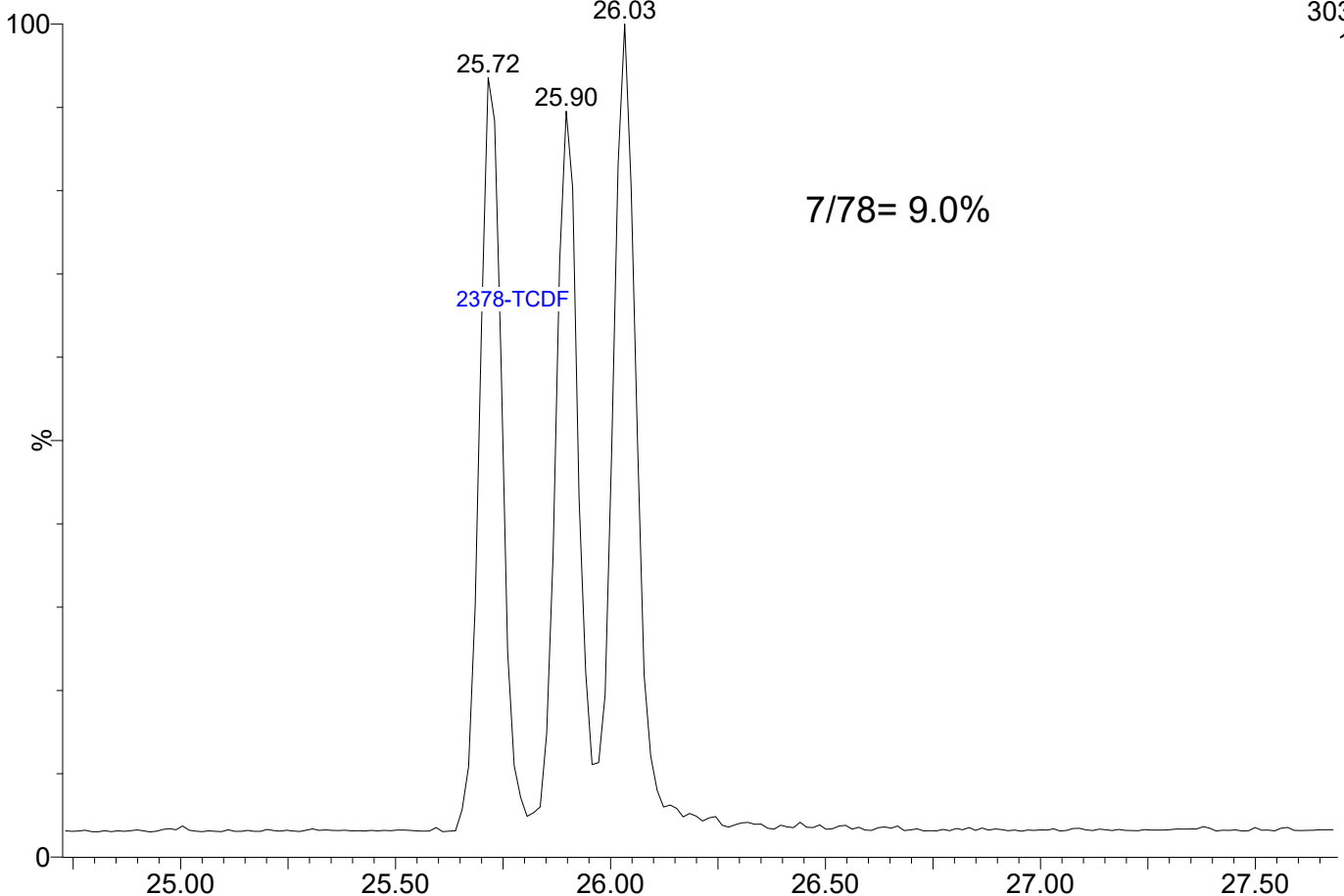


23020112

1: Voltage SIR 15 Channels EI+

303.9016

1.00e6





SECOND-SOURCE CALIBRATION VERIFICATION
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00010

Laboratory ID: SLB0026-SCV1

Sequence: SLB0026

Sequence Name: ICVCR

Standard ID: H008219

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
2,3,7,8-TCDF	10.000	9.80	-2.0	
2,3,7,8-TCDD	10.000	10.1	1.0	
1,2,3,7,8-PeCDF	50.000	49.4	-1.1	
2,3,4,7,8-PeCDF	50.000	50.7	1.4	
1,2,3,7,8-PeCDD	50.000	48.9	-2.2	
1,2,3,4,7,8-HxCDF	50.000	50.8	1.7	
1,2,3,6,7,8-HxCDF	50.000	51.1	2.1	
2,3,4,6,7,8-HxCDF	50.000	51.5	3.1	
1,2,3,7,8,9-HxCDF	50.000	49.9	-0.2	
1,2,3,4,7,8-HxCDD	50.000	51.0	2.0	
1,2,3,6,7,8-HxCDD	50.000	48.3	-3.4	
1,2,3,7,8,9-HxCDD	50.000	49.6	-0.8	
1,2,3,4,6,7,8-HpCDF	50.000	49.0	-2.0	
1,2,3,4,7,8,9-HpCDF	50.000	51.5	2.9	
1,2,3,4,6,7,8-HpCDD	50.000	48.8	-2.3	
OCDF	100.00	93.0	-7.0	
OCDD	100.00	95.8	-4.2	
13C12-2,3,7,8-TCDF	100.00	101	0.8	
13C12-2,3,7,8-TCDD	100.00	97.3	-2.7	
13C12-1,2,3,7,8-PeCDF	100.00	97.9	-2.1	
13C12-2,3,4,7,8-PeCDF	100.00	96.0	-4.0	
13C12-1,2,3,7,8-PeCDD	100.00	95.6	-4.4	
13C12-1,2,3,4,7,8-HxCDF	100.00	99.0	-1.0	
13C12-1,2,3,6,7,8-HxCDF	100.00	98.8	-1.2	
13C12-2,3,4,6,7,8-HxCDF	100.00	99.3	-0.7	
13C12-1,2,3,7,8,9-HxCDF	100.00	98.6	-1.4	
13C12-1,2,3,4,7,8-HxCDD	100.00	97.7	-2.3	
13C12-1,2,3,6,7,8-HxCDD	100.00	101	0.6	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	100	0.3	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	101	0.8	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	101	0.6	
13C12-OCDD	200.00	205	2.6	
37Cl4-2,3,7,8-TCDD	10.000	8.94	-10.6	



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 1613B

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Calibration: GB00010

Sequence: SLB0026

SDG: 23A0032

Project: AOC5 MR Phase 1

Laboratory ID: SLB0026-SCV1

Sequence Name: ICVCR

Standard ID: H008219

* Indicates values outside of QC limits



**SECOND-SOURCE
CALIBRATION VERIFICATION
EPA 1613B**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00010

Laboratory ID: SLB0026-SCV1

Sequence: SLB0026

Standard ID: H008219

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
OCDF	100.00	93.0	-7.0	
OCDD	100.00	95.8	-4.2	
13C12-2,3,7,8-TCDF	100.00	101	0.8	
13C12-2,3,7,8-TCDD	100.00	97.3	-2.7	
13C12-1,2,3,7,8-PeCDF	100.00	97.9	-2.1	
13C12-2,3,4,7,8-PeCDF	100.00	96.0	-4.0	
13C12-1,2,3,7,8-PeCDD	100.00	95.6	-4.4	
13C12-1,2,3,4,7,8-HxCDF	100.00	99.0	-1.0	
13C12-1,2,3,6,7,8-HxCDF	100.00	98.8	-1.2	
13C12-2,3,4,6,7,8-HxCDF	100.00	99.3	-0.7	
13C12-1,2,3,7,8,9-HxCDF	100.00	98.6	-1.4	
13C12-1,2,3,4,7,8-HxCDD	100.00	97.7	-2.3	
13C12-1,2,3,6,7,8-HxCDD	100.00	101	0.6	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	100	0.3	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	101	0.8	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	101	0.6	
13C12-OCDD	200.00	205	2.6	
37Cl4-2,3,7,8-TCDD	10.000	8.94	-10.6	

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: AUTOSPEC01

Calibration: GB00010

Lab File ID: 23020102

Calibration Date: 02/01/2023

Sequence: SLB0026

Injection Date: 02/01/23

Lab Sample ID: SLB0026-ICV1

Injection Time: 10:37

Sequence Name: CS3R1

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
2,3,7,8-TCDF	A	10.000	9.00	0.8760604	0.7881394		-10.0	+/-16
2,3,7,8-TCDD	A	10.000	8.00	1.2363600	0.9890074		-20.0	+/-22
1,2,3,7,8-PeCDF	A	50.000	45.5	0.8446540	0.7681961		-9.1	+/-18
2,3,4,7,8-PeCDF	A	50.000	46.0	0.9111780	0.8383961		-8.0	+/-18
1,2,3,7,8-PeCDD	A	50.000	49.7	1.0866850	1.0810230		-0.5	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	43.8	1.1816860	1.0352320		-12.4	+/-10 *
1,2,3,6,7,8-HxCDF	A	50.000	44.7	1.2480480	1.1146430		-10.7	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	45.6	1.2288500	1.1200940		-8.9	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	44.5	1.1865370	1.0560050		-11.0	+/-10 *
1,2,3,4,7,8-HxCDD	A	50.000	44.8	0.9869672	0.8835021		-10.5	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	43.8	1.0207220	0.8949701		-12.3	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	44.1	0.9854780	0.8698650		-11.7	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	45.1	1.2041190	1.0859080		-9.8	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	47.7	1.1653050	1.1124610		-4.5	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	44.2	1.2525690	1.1066520		-11.6	+/-14
OCDF	A	100.00	86.3	1.1862640	1.0243110		-13.7	+/-37
OCDD	A	100.00	90.9	1.1026670	1.0028370		-9.1	+/-21
13C12-2,3,7,8-TCDF	A	100.00	81.8	1.7680590	1.4469997		-18.2	+/-29
13C12-2,3,7,8-TCDD	A	100.00	103	1.1029470	1.1388769		3.3	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	97.0	1.5271250	1.4807739		-3.0	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	96.3	1.4662840	1.4126920		-3.7	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	97.3	0.9141518	0.8893426		-2.7	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	88.7	1.0536610	0.9345708		-11.3	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	89.6	1.0799530	0.9680754		-10.4	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	88.7	1.0143260	0.8993069		-11.3	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	87.8	0.9279333	0.8145455		-12.2	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	99.3	0.9329336	0.9264810		-0.7	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	102	0.9646272	0.9846310		2.1	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	80.6	1.0360890	0.8353360		-19.4	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	78.2	0.9049372	0.7072834		-21.8	+/-23

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: AUTOSPEC01

Calibration: GB00010

Lab File ID: 23020927A

Calibration Date: 02/01/2023

Sequence: SLB0147

Injection Date: 02/10/23

Lab Sample ID: SLB0147-ICV1

Injection Time: 14:10

Sequence Name: CS3U3

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
2,3,7,8-TCDF	A	10.000	9.89	0.8760604	0.8667364		-1.1	+/-16
2,3,7,8-TCDD	A	10.000	9.34	1.2363600	1.1542630		-6.6	+/-22
1,2,3,7,8-PeCDF	A	50.000	50.1	0.8446540	0.8470419		0.3	+/-18
2,3,4,7,8-PeCDF	A	50.000	50.6	0.9111780	0.9214269		1.1	+/-18
1,2,3,7,8-PeCDD	A	50.000	50.0	1.0866850	1.0867510		0.006	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	48.5	1.1816860	1.1454650		-3.1	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	47.8	1.2480480	1.1932900		-4.4	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	49.4	1.2288500	1.2141980		-1.2	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	49.4	1.1865370	1.1732390		-1.1	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	50.2	0.9869672	0.9913536		0.4	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	49.4	1.0207220	1.0094190		-1.1	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	51.1	0.9854780	1.0076450		2.3	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	46.1	1.2041190	1.1097090		-7.8	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	50.3	1.1653050	1.1727330		0.6	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	47.9	1.2525690	1.1998130		-4.2	+/-14
OCDF	A	100.00	90.0	1.1862640	1.0674850		-10.0	+/-37
OCDD	A	100.00	94.7	1.1026670	1.0444690		-5.3	+/-21
13C12-2,3,7,8-TCDF	A	100.00	94.4	1.7680590	1.6682196		-5.6	+/-29
13C12-2,3,7,8-TCDD	A	100.00	106	1.1029470	1.1682281		5.9	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	98.4	1.5271250	1.5027753		-1.6	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	99.7	1.4662840	1.4619128		-0.3	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	99.8	0.9141518	0.9122037		-0.2	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	97.8	1.0536610	1.0303479		-2.2	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	101	1.0799530	1.0856294		0.5	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	97.8	1.0143260	0.9921390		-2.2	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	96.6	0.9279333	0.8964694		-3.4	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	97.6	0.9329336	0.9106782		-2.4	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	99.5	0.9646272	0.9596360		-0.5	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	99.0	1.0360890	1.0260318		-1.0	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	97.0	0.9049372	0.8776421		-3.0	+/-23

* Values outside of QC limits



INITIAL CALIBRATION CHECK
EPA 1613B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Instrument ID:	<u>AUTOSPEC01</u>	Calibration:	<u>GB00010</u>
Lab File ID:	<u>23020927A</u>	Calibration Date:	<u>02/01/2023</u>
Sequence:	<u>SLB0147</u>	Injection Date:	<u>02/10/23</u>
Lab Sample ID:	<u>SLB0147-ICV1</u>	Injection Time:	<u>14:10</u>
Sequence Name:	<u>CS3U3</u>		

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	100	0.7819773	0.7829514		0.1	+/-28
13C12-OCDD	A	200.00	203	0.7882343	0.8015043		1.7	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	9.38	1.2334500	1.1564251		-6.2	

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230209CL.qld
 Last Altered: Friday, February 10, 2023 16:03:05 Pacific Standard Time
 Printed: Friday, February 10, 2023 16:04:46 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3U3, **Name:** 23020927, **Date:** 10-Feb-2023, **Time:** 14:10:15, **Conditions:** AUTOSPEC01, **User:** pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.930	1.001	4.257e4	5.830e4	0.876	0.730	0.770	1210	1506	6.61e5	8.87e5	546.6	589.0	NO	bb	bb	9.894
12378-PeCDF	30.109	1.001	2.703e5	1.737e5	0.845	1.556	1.550	2141	1989	4.10e6	2.64e6	1916.2	1327.6	NO	bb	bb	50.141
23478-PeCDF	31.446	1.001	2.836e5	1.862e5	0.911	1.523	1.550	2141	1989	4.29e6	2.83e6	2005.1	1422.2	NO	bb	bb	50.562
123478-HxCDF	35.067	1.001	2.323e5	1.882e5	1.182	1.235	1.240	1720	1587	3.68e6	2.95e6	2141.0	1857.0	NO	bd	bd	48.467
234678-HxCDF	36.058	1.000	2.361e5	1.931e5	1.229	1.223	1.240	1720	1587	3.63e6	2.92e6	2110.6	1840.2	NO	bd	bb	49.404
123678-HxCDF	35.201	1.000	2.594e5	2.021e5	1.248	1.283	1.240	1720	1587	3.81e6	3.02e6	2217.7	1902.4	NO	dd	dd	47.806
123789-HxCDF	37.083	1.000	2.092e5	1.655e5	1.187	1.265	1.240	1720	1587	3.23e6	2.57e6	1875.6	1617.5	NO	bd	bb	49.440
1234678-HpCDF	38.933	1.000	2.050e5	2.006e5	1.204	1.022	1.050	2074	2601	3.25e6	3.14e6	1565.0	1206.6	NO	bd	bb	46.080
1234789-HpCDF	41.195	1.001	1.851e5	1.816e5	1.165	1.019	1.050	2074	2601	2.52e6	2.52e6	1216.8	969.8	NO	bd	bd	50.319
OCDF	45.491	1.005	2.853e5	3.243e5	1.186	0.880	0.890	1249	1908	3.13e6	3.56e6	2504.0	1864.4	NO	bd	bd	89.987
2378-TCDD	26.580	1.001	4.159e4	5.248e4	1.236	0.793	0.770	1239	1156	6.04e5	7.71e5	487.4	666.4	NO	bb	bb	9.336
12378-PeCDD	31.691	1.000	2.096e5	1.362e5	1.087	1.538	1.550	1769	1423	3.28e6	2.13e6	1852.2	1496.0	NO	bb	bb	50.003
123478-HxCDD	36.170	1.000	1.769e5	1.448e5	0.987	1.222	1.240	1150	1634	2.97e6	2.43e6	2586.3	1489.9	NO	bd	bd	50.222
123678-HxCDD	36.281	1.000	1.889e5	1.562e5	1.021	1.209	1.240	1150	1634	3.06e6	2.55e6	2660.3	1561.6	NO	db	db	49.446
123789-HxCDD	36.671	1.011	1.842e5	1.516e5	0.985	1.214	1.240	1150	1634	3.03e6	2.51e6	2638.6	1534.8	NO	bb	bb	51.137
1234678-HpCDD	40.448	1.001	1.696e5	1.651e5	1.253	1.027	1.050	1339	1705	2.53e6	2.47e6	1891.6	1451.1	NO	bd	bd	47.894
OCDD	45.262	1.000	2.728e5	3.238e5	1.103	0.842	0.890	1787	1567	3.22e6	3.79e6	1799.9	2417.2	NO	bb	bd	94.722
13C-2378-TCDF	25.916	1.007	5.150e5	6.488e5	1.768	0.794	0.770	1802	1528	7.84e6	9.80e6	4349.5	6413.2	NO	bb	bb	94.353
13C-12378-PeCDF	30.087	1.169	6.347e5	4.136e5	1.527	1.535	1.550	1636	1428	9.71e6	6.37e6	5936.4	4463.1	NO	bb	bb	98.405
13C-23478-PeCDF	31.424	1.221	6.201e5	3.998e5	1.466	1.551	1.550	1636	1428	9.38e6	6.11e6	5734.0	4280.7	NO	bb	bb	99.702
13C-123478-HxCDF	35.045	0.956	2.492e5	4.850e5	1.054	0.514	0.510	1701	2263	4.04e6	7.95e6	2373.2	3513.9	NO	bd	bd	97.787
13C-123678-HxCDF	35.190	0.960	2.574e5	5.162e5	1.080	0.499	0.510	1701	2263	4.08e6	7.95e6	2395.7	3512.6	NO	db	db	100.526
13C-234678-HxCDF	36.048	0.983	2.420e5	4.650e5	1.014	0.520	0.510	1701	2263	4.00e6	7.62e6	2353.3	3368.6	NO	bb	bb	97.813
13C-123789-HxCDF	37.072	1.011	2.171e5	4.217e5	0.928	0.515	0.510	1701	2263	3.65e6	7.00e6	2143.2	3091.1	NO	bb	bb	96.609
13C-1234678-HpCDF	38.922	1.062	2.268e5	5.043e5	1.036	0.450	0.440	2076	2457	3.66e6	8.23e6	1763.6	3349.3	NO	bb	bb	99.029
13C-1234789-HpCDF	41.173	1.123	1.953e5	4.301e5	0.905	0.454	0.440	2076	2457	2.89e6	6.44e6	1390.4	2621.2	NO	bb	bb	96.984
13C-1234-TCDD	25.732	0.000	3.104e5	3.872e5	1.000	0.802	0.770	1496	924	4.88e6	6.14e6	3264.1	6638.2	NO	bb	bb	100.000
13C-2378-TCDD	26.551	1.032	3.586e5	4.563e5	1.103	0.786	0.770	1496	924	5.59e6	7.12e6	3734.8	7699.2	NO	bb	bb	105.919
13C-12378-PeCDD	31.680	1.231	3.948e5	2.416e5	0.914	1.634	1.550	1002	899	5.78e6	3.49e6	5769.0	3881.7	NO	bb	bd	99.787
13C-123478-HxCDD	36.159	0.986	3.675e5	2.814e5	0.933	1.306	1.240	1210	929	6.12e6	4.59e6	5058.4	4942.2	NO	bd	bd	97.614
13C-123678-HxCDD	36.270	0.989	3.824e5	3.014e5	0.965	1.269	1.240	1210	929	6.34e6	5.00e6	5240.7	5381.5	NO	db	db	99.483
13C-1234678-HpCDD	40.426	1.103	2.903e5	2.676e5	0.782	1.085	1.050	1361	1330	4.56e6	4.26e6	3352.3	3201.6	NO	bb	bb	100.125
13C-OCDD	45.244	1.234	5.457e5	5.965e5	0.788	0.915	0.890	1524	1360	6.48e6	7.12e6	4256.0	5236.0	NO	bb	bb	203.367
13C-123789-HxCDD	36.660	0.000	3.992e5	3.134e5	1.000	1.274	1.240	1210	929	6.48e6	5.08e6	5357.6	5470.0	NO	bb	bb	100.000
37CL-2378-TCDD	26.565	1.032	8.067e4		1.233			1155		1.18e6		1021.8			bb		9.376

Dataset: T:\Autospec\Processed Data Batch\230209CL.qld
 Last Altered: Friday, February 10, 2023 16:03:05 Pacific Standard Time
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ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.413	0.865	4.966e4	6.473e4	1.064	0.767	0.770	1210	1506	7.86e5	1.04e6	650.1	693.0	NO	bb	bb	9.234
1289-TCDF	27.427	1.058	4.084e4	5.320e4	0.858	0.768	0.770	1210	1506	5.94e5	7.97e5	490.8	529.1	NO	db	bb	9.422
13468-PECDF	27.286	0.907	3.087e5	2.058e5	1.013	1.500	1.550	690	802	4.71e6	3.15e6	6833.2	3923.5	NO	bb	bb	48.449
12389-PECDF	32.482	1.080	2.689e5	1.738e5	0.844	1.547	1.550	2141	1989	4.00e6	2.55e6	1866.2	1280.1	NO	bb	bb	50.058
123468-HXCDF	33.407	0.953	2.355e5	1.883e5	1.197	1.250	1.240	1720	1587	3.50e6	2.82e6	2037.6	1776.3	NO	bb	bb	48.207
1368-TCDD	23.684	0.892	3.862e4	4.879e4	1.084	0.792	0.770	1239	1156	6.12e5	7.69e5	493.9	664.7	NO	bb	bb	9.892
1289-TCDD	27.173	1.023	3.570e4	4.465e4	0.975	0.799	0.770	1239	1156	5.33e5	6.90e5	430.4	596.8	NO	bb	bb	10.111
12479-PECDD	28.962	0.914	3.472e5	2.254e5	1.837	1.540	1.550	1769	1423	3.36e6	2.19e6	1900.3	1541.4	NO	bb	bb	48.975
12389-PECDD	32.092	1.013	2.439e5	1.591e5	1.252	1.533	1.550	1769	1423	3.77e6	2.42e6	2132.0	1703.1	NO	bb	bb	50.574
124679-HXCDD	34.176	0.945	1.830e5	1.505e5	1.033	1.216	1.240	1150	1634	2.87e6	2.34e6	2496.3	1435.0	NO	bb	bb	49.754
1234679-HPCDD	39.390	0.974	1.849e5	1.799e5	1.286	1.028	1.050	1339	1705	2.80e6	2.70e6	2088.7	1585.8	NO	bd	bd	50.837
Total-tetrafurans			1.338e5		0.933			1210		2.05e6							28.710
Total-penta1			3.087e5					690		4.71e6							48.449
Total-pentafurans			8.664e5		0.866			2141		1.31e7							158.704
Total-hexafurans			1.173e6		1.208			1720		1.79e7							243.324
Total-heptafurans			3.901e5		1.185			2074		5.77e6							96.398
Total-Furans			3.157e6		1.067			1210		4.66e7							665.572
Total-tetradoxins			1.987e5		1.099			1239		2.72e6							50.007
Total-pentadoxins			8.016e5		1.392			1769		1.04e7							149.742
Total-hexadoxins			7.332e5		1.007			1150		1.19e7							200.622
Total-heptadoxins			3.545e5		1.269			1339		5.33e6							98.731
Total-Dioxins			2.361e6		1.165			1239		3.36e7							593.823
Total-TEQ			5.518e6					1239		8.02e7							1259.396
FUNCTION1 PFK			1.363e5					272844		2.79e6							
FUNCTION2 PFK			1.216e7					182537		7.56e7							0.000
FUNCTION3 PFK			1.159e7					202727		5.87e7							0.000
FUNCTION4 PFK			0.000e0					192182		0.00e0							
FUNCTION5 PFK			0.000e0					101203		0.00e0							
FUNCTION1 HXCD...			1.050e3					672		1.44e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			3.529e2					877		5.67e3							0.000
FUNCTION3 OCDPE			2.490e2					586		4.96e3							0.000
FUNCTION4 NCDPE			1.199e3					1295		3.07e4							0.000
FUNCTION5 DCDPE			7.247e1					622		1.55e3							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230209CL.qld

Last Altered: Friday, February 10, 2023 16:03:05 Pacific Standard Time

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Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20**Calibration: T:\Autospec\Curves\230201CIH.cdb 03 Feb 2023 10:33:40****ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.43	4.084e4	5.320e4	0.858	0.77	0.77	490.8	YES	NO	db	bb	9.422
2	2378-TCDF	25.93	4.257e4	5.830e4	0.876	0.73	0.77	546.6	YES	NO	bb	bb	9.894
3	Total-tetrafurans	24.84	2.769e2	3.670e2	0.933	0.75	0.77	3.3	YES	NO	bb	db	0.059
4	Total-tetrafurans	24.69	4.408e2	6.584e2	0.933	0.67	0.77	4.5	YES	NO	bb	bd	0.101
5	1368-TCDF	22.41	4.966e4	6.473e4	1.064	0.77	0.77	650.1	YES	NO	bb	bb	9.234

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDFF	27.29	3.087e5	2.058e5	1.013	1.50	1.55	6833.2	YES	NO	bb	bb	48.449

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDF	30.11	2.703e5	1.737e5	0.845	1.56	1.55	1916.2	YES	NO	bb	bb	50.141
2	Total-pentafurans	28.95	4.351e4	2.765e4	0.866	1.57	1.55	308.8	YES	NO	bb	bb	7.942
3	12389-PECDF	32.48	2.689e5	1.738e5	0.844	1.55	1.55	1866.2	YES	NO	bb	bb	50.058
4	23478-PeCDF	31.45	2.836e5	1.862e5	0.911	1.52	1.55	2005.1	YES	NO	bb	bb	50.562

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDF	35.20	2.594e5	2.021e5	1.248	1.28	1.24	2217.7	YES	NO	dd	dd	47.806
2	123478-HxCDF	35.07	2.323e5	1.882e5	1.182	1.23	1.24	2141.0	YES	NO	bd	bd	48.467
3	123468-HxCDF	33.41	2.355e5	1.883e5	1.197	1.25	1.24	2037.6	YES	NO	bb	bb	48.207
4	123789-HxCDF	37.08	2.092e5	1.655e5	1.187	1.26	1.24	1875.6	YES	NO	bd	bb	49.440
5	234678-HxCDF	36.06	2.361e5	1.931e5	1.229	1.22	1.24	2110.6	YES	NO	bd	bb	49.404

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.19	1.851e5	1.816e5	1.165	1.02	1.05	1216.8	YES	NO	bd	bd	50.319
2	1234678-HpCDF	38.93	2.050e5	2.006e5	1.204	1.02	1.05	1565.0	YES	NO	bd	bb	46.080

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230209CL.qld

Last Altered: Friday, February 10, 2023 16:03:05 Pacific Standard Time

Printed: Friday, February 10, 2023 16:04:46 Pacific Standard Time

ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.43	4.084e4	5.320e4	0.858	0.77	0.77	490.8	YES	NO	db	bb	9.422
2	2378-TCDF	25.93	4.257e4	5.830e4	0.876	0.73	0.77	546.6	YES	NO	bb	bb	9.894
3	Total-tetrafurans	24.84	2.769e2	3.670e2	0.933	0.75	0.77	3.3	YES	NO	bb	db	0.059
4	Total-tetrafurans	24.69	4.408e2	6.584e2	0.933	0.67	0.77	4.5	YES	NO	bb	bd	0.101
5	1368-TCDF	22.41	4.966e4	6.473e4	1.064	0.77	0.77	650.1	YES	NO	bb	bb	9.234
6	12378-PeCDF	30.11	2.703e5	1.737e5	0.845	1.56	1.55	1916.2	YES	NO	bb	bb	50.141
7	Total-pentafurans	28.95	4.351e4	2.765e4	0.866	1.57	1.55	308.8	YES	NO	bb	bb	7.942
8	123678-HxCDF	35.20	2.594e5	2.021e5	1.248	1.28	1.24	2217.7	YES	NO	dd	dd	47.806
9	123478-HxCDF	35.07	2.323e5	1.882e5	1.182	1.23	1.24	2141.0	YES	NO	bd	bd	48.467
10	123468-HXCDF	33.41	2.355e5	1.883e5	1.197	1.25	1.24	2037.6	YES	NO	bb	bb	48.207
11	12389-PECDF	32.48	2.689e5	1.738e5	0.844	1.55	1.55	1866.2	YES	NO	bb	bb	50.058
12	23478-PeCDF	31.45	2.836e5	1.862e5	0.911	1.52	1.55	2005.1	YES	NO	bb	bb	50.562
13	123789-HxCDF	37.08	2.092e5	1.655e5	1.187	1.26	1.24	1875.6	YES	NO	bd	bb	49.440
14	234678-HxCDF	36.06	2.361e5	1.931e5	1.229	1.22	1.24	2110.6	YES	NO	bd	bb	49.404
15	1234789-HpCDF	41.19	1.851e5	1.816e5	1.165	1.02	1.05	1216.8	YES	NO	bd	bd	50.319
16	1234678-HpCDF	38.93	2.050e5	2.006e5	1.204	1.02	1.05	1565.0	YES	NO	bd	bb	46.080
17	OCDF	45.49	2.853e5	3.243e5	1.186	0.88	0.89	2504.0	YES	NO	bd	bd	89.987
18	13468-PECDF	27.29	3.087e5	2.058e5	1.013	1.50	1.55	6833.2	YES	NO	bb	bb	48.449

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	25.76	1.952e4	2.389e4	1.099	0.82	0.77	240.1	YES	NO	bd	bd	4.848
2	Total-tetradioxins	25.18	3.852e2	4.941e2	1.099	0.78	0.77	5.2	YES	NO	bb	bd	0.098
3	Total-tetradioxins	24.90	1.869e3	2.245e3	1.099	0.83	0.77	15.7	YES	NO	bb	bb	0.459
4	1368-TCDD	23.68	3.862e4	4.879e4	1.084	0.79	0.77	493.9	YES	NO	bb	bb	9.892
5	1289-TCDD	27.17	3.570e4	4.465e4	0.975	0.80	0.77	430.4	YES	NO	bb	bb	10.111
6	2378-TCDD	26.58	4.159e4	5.248e4	1.236	0.79	0.77	487.4	YES	NO	bb	bb	9.336
7	Total-tetradioxins	26.24	6.097e4	7.567e4	1.099	0.81	0.77	522.7	YES	NO	bb	bb	15.262

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	32.09	2.439e5	1.591e5	1.252	1.53	1.55	2132.0	YES	NO	bb	bb	50.574
2	12378-PeCDD	31.69	2.096e5	1.362e5	1.087	1.54	1.55	1852.2	YES	NO	bb	bb	50.003
3	Total-pentadioxins	31.02	9.680e2	7.114e2	1.392	1.36	1.55	7.4	YES	NO	bb	bb	0.190
4	12479-PECDD	28.96	3.472e5	2.254e5	1.837	1.54	1.55	1900.3	YES	NO	bb	bb	48.975

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Last Altered: Friday, February 10, 2023 16:03:05 Pacific Standard Time

Printed: Friday, February 10, 2023 16:04:46 Pacific Standard Time

ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	124679-HxCDD	34.18	1.830e5	1.505e5	1.033	1.22	1.24	2496.3	YES	NO	bb	bb	49.754
2	Total-hexadioxins	36.86	2.374e2	1.850e2	1.007	1.28	1.24	0.0	NO	NO	bb	bb	0.063
3	123789-HxCDD	36.67	1.842e5	1.516e5	0.985	1.21	1.24	2638.6	YES	NO	bb	bb	51.137
4	123678-HxCDD	36.28	1.889e5	1.562e5	1.021	1.21	1.24	2660.3	YES	NO	db	db	49.446
5	123478-HxCDD	36.17	1.769e5	1.448e5	0.987	1.22	1.24	2586.3	YES	NO	bd	bd	50.222

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.39	1.849e5	1.799e5	1.286	1.03	1.05	2088.7	YES	NO	bd	bd	50.837
2	1234678-HpCDD	40.45	1.696e5	1.651e5	1.253	1.03	1.05	1891.6	YES	NO	bd	bd	47.894

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradioxins	25.76	1.952e4	2.389e4	1.099	0.82	0.77	240.1	YES	NO	bd	bd	4.848
2	Total-tetradioxins	25.18	3.852e2	4.941e2	1.099	0.78	0.77	5.2	YES	NO	bb	bd	0.098
3	Total-tetradioxins	24.90	1.869e3	2.245e3	1.099	0.83	0.77	15.7	YES	NO	bb	bb	0.459
4	1368-TCDD	23.68	3.862e4	4.879e4	1.084	0.79	0.77	493.9	YES	NO	bb	bb	9.892
5	1289-TCDD	27.17	3.570e4	4.465e4	0.975	0.80	0.77	430.4	YES	NO	bb	bb	10.111
6	2378-TCDD	26.58	4.159e4	5.248e4	1.236	0.79	0.77	487.4	YES	NO	bb	bb	9.336
7	Total-tetradioxins	26.24	6.097e4	7.567e4	1.099	0.81	0.77	522.7	YES	NO	bb	bb	15.262
8	124679-HxCDD	34.18	1.830e5	1.505e5	1.033	1.22	1.24	2496.3	YES	NO	bb	bb	49.754
9	12389-PECDD	32.09	2.439e5	1.591e5	1.252	1.53	1.55	2132.0	YES	NO	bb	bb	50.574
10	12378-PeCDD	31.69	2.096e5	1.362e5	1.087	1.54	1.55	1852.2	YES	NO	bb	bb	50.003
11	Total-pentadioxins	31.02	9.680e2	7.114e2	1.392	1.36	1.55	7.4	YES	NO	bb	bb	0.190
12	12479-PECDD	28.96	3.472e5	2.254e5	1.837	1.54	1.55	1900.3	YES	NO	bb	bb	48.975
13	Total-hexadioxins	36.86	2.374e2	1.850e2	1.007	1.28	1.24	0.0	NO	NO	bb	bb	0.063
14	123789-HxCDD	36.67	1.842e5	1.516e5	0.985	1.21	1.24	2638.6	YES	NO	bb	bb	51.137
15	123678-HxCDD	36.28	1.889e5	1.562e5	1.021	1.21	1.24	2660.3	YES	NO	db	db	49.446
16	123478-HxCDD	36.17	1.769e5	1.448e5	0.987	1.22	1.24	2586.3	YES	NO	bd	bd	50.222
17	1234679-HPCDD	39.39	1.849e5	1.799e5	1.286	1.03	1.05	2088.7	YES	NO	bd	bd	50.837
18	OCDD	45.26	2.728e5	3.238e5	1.103	0.84	0.89	1799.9	YES	NO	bb	bd	94.722
19	1234678-HpCDD	40.45	1.696e5	1.651e5	1.253	1.03	1.05	1891.6	YES	NO	bd	bd	47.894

Quantify Totals Report MassLynx V4.1 SCN909

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Last Altered: Friday, February 10, 2023 16:03:05 Pacific Standard Time

Printed: Friday, February 10, 2023 16:04:46 Pacific Standard Time

ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.43	4.084e4	5.320e4	0.858	0.77	0.77	490.8	YES	NO	db	bb	9.422
2	2378-TCDF	25.93	4.257e4	5.830e4	0.876	0.73	0.77	546.6	YES	NO	bb	bb	9.894
3	Total-tetrafurans	24.84	2.769e2	3.670e2	0.933	0.75	0.77	3.3	YES	NO	bb	db	0.059
4	Total-tetrafurans	24.69	4.408e2	6.584e2	0.933	0.67	0.77	4.5	YES	NO	bb	bd	0.101
5	1368-TCDF	22.41	4.966e4	6.473e4	1.064	0.77	0.77	650.1	YES	NO	bb	bb	9.234
6	12378-PeCDF	30.11	2.703e5	1.737e5	0.845	1.56	1.55	1916.2	YES	NO	bb	bb	50.141
7	Total-pentafurans	28.95	4.351e4	2.765e4	0.866	1.57	1.55	308.8	YES	NO	bb	bb	7.942
8	123678-HxCDF	35.20	2.594e5	2.021e5	1.248	1.28	1.24	2217.7	YES	NO	dd	dd	47.806
9	123478-HxCDF	35.07	2.323e5	1.882e5	1.182	1.23	1.24	2141.0	YES	NO	bd	bd	48.467
10	123468-HXCDF	33.41	2.355e5	1.883e5	1.197	1.25	1.24	2037.6	YES	NO	bb	bb	48.207
11	12389-PECDF	32.48	2.689e5	1.738e5	0.844	1.55	1.55	1866.2	YES	NO	bb	bb	50.058
12	23478-PeCDF	31.45	2.836e5	1.862e5	0.911	1.52	1.55	2005.1	YES	NO	bb	bb	50.562
13	123789-HxCDF	37.08	2.092e5	1.655e5	1.187	1.26	1.24	1875.6	YES	NO	bd	bb	49.440
14	234678-HxCDF	36.06	2.361e5	1.931e5	1.229	1.22	1.24	2110.6	YES	NO	bd	bb	49.404
15	1234789-HpCDF	41.19	1.851e5	1.816e5	1.165	1.02	1.05	1216.8	YES	NO	bd	bd	50.319
16	1234678-HpCDF	38.93	2.050e5	2.006e5	1.204	1.02	1.05	1565.0	YES	NO	bd	bb	46.080
17	OCDF	45.49	2.853e5	3.243e5	1.186	0.88	0.89	2504.0	YES	NO	bd	bd	89.987
18	13468-PECDF	27.29	3.087e5	2.058e5	1.013	1.50	1.55	6833.2	YES	NO	bb	bb	48.449
19	Total-tetradioxins	25.76	1.952e4	2.389e4	1.099	0.82	0.77	240.1	YES	NO	bd	bd	4.848
20	Total-tetradioxins	25.18	3.852e2	4.941e2	1.099	0.78	0.77	5.2	YES	NO	bb	bd	0.098
21	Total-tetradioxins	24.90	1.869e3	2.245e3	1.099	0.83	0.77	15.7	YES	NO	bb	bb	0.459
22	1368-TCDD	23.68	3.862e4	4.879e4	1.084	0.79	0.77	493.9	YES	NO	bb	bb	9.892
23	1289-TCDD	27.17	3.570e4	4.465e4	0.975	0.80	0.77	430.4	YES	NO	bb	bb	10.111
24	2378-TCDD	26.58	4.159e4	5.248e4	1.236	0.79	0.77	487.4	YES	NO	bb	bb	9.336
25	Total-tetradioxins	26.24	6.097e4	7.567e4	1.099	0.81	0.77	522.7	YES	NO	bb	bb	15.262
26	124679-HXCDD	34.18	1.830e5	1.505e5	1.033	1.22	1.24	2496.3	YES	NO	bb	bb	49.754
27	12389-PECDD	32.09	2.439e5	1.591e5	1.252	1.53	1.55	2132.0	YES	NO	bb	bb	50.574
28	12378-PeCDD	31.69	2.096e5	1.362e5	1.087	1.54	1.55	1852.2	YES	NO	bb	bb	50.003
29	Total-pentadioxins	31.02	9.680e2	7.114e2	1.392	1.36	1.55	7.4	YES	NO	bb	bb	0.190
30	12479-PECDD	28.96	3.472e5	2.254e5	1.837	1.54	1.55	1900.3	YES	NO	bb	bb	48.975
31	Total-hexadioxins	36.86	2.374e2	1.850e2	1.007	1.28	1.24	0.0	NO	NO	bb	bb	0.063
32	123789-HxCDD	36.67	1.842e5	1.516e5	0.985	1.21	1.24	2638.6	YES	NO	bb	bb	51.137
33	123678-HxCDD	36.28	1.889e5	1.562e5	1.021	1.21	1.24	2660.3	YES	NO	db	db	49.446
34	123478-HxCDD	36.17	1.769e5	1.448e5	0.987	1.22	1.24	2586.3	YES	NO	bd	bd	50.222
35	1234679-HPCDD	39.39	1.849e5	1.799e5	1.286	1.03	1.05	2088.7	YES	NO	bd	bd	50.837
36	OCDD	45.26	2.728e5	3.238e5	1.103	0.84	0.89	1799.9	YES	NO	bb	bd	94.722
37	1234678-HpCDD	40.45	1.696e5	1.651e5	1.253	1.03	1.05	1891.6	YES	NO	bd	bd	47.894

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.11	4.594e3					1.2	NO		bb		
2	FUNCTION1 PFK	23.85	4.564e4					1.6	NO		bb		
3	FUNCTION1 PFK	23.32	1.388e4					1.4	NO		bb		
4	FUNCTION1 PFK	23.23	5.930e3					1.0	NO		bb		
5	FUNCTION1 PFK	22.75	2.427e3					0.6	NO		bb		
6	FUNCTION1 PFK	21.34	4.808e4					1.9	NO		db		
7	FUNCTION1 PFK	21.24	1.129e4					1.5	NO		bd		
8	FUNCTION1 PFK	21.16	4.502e3					0.9	NO		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.32	5.902e5					30.9	YES		dd		0.000
2	FUNCTION2 PFK	29.24	4.575e5					33.5	YES		dd		0.000
3	FUNCTION2 PFK	29.16	7.894e5					35.8	YES		dd		0.000
4	FUNCTION2 PFK	29.07	3.037e5					37.8	YES		dd		0.000
5	FUNCTION2 PFK	28.97	8.087e5					40.9	YES		dd		0.000
6	FUNCTION2 PFK	28.79	1.232e6					45.8	YES		dd		0.000
7	FUNCTION2 PFK	28.65	4.091e6					50.4	YES		dd		0.000
8	FUNCTION2 PFK	28.27	1.314e6					59.9	YES		bd		0.000
9	FUNCTION2 PFK	32.85	7.634e3					1.1	NO		bb		0.000
10	FUNCTION2 PFK	32.66	3.231e4					1.5	NO		bb		0.000
11	FUNCTION2 PFK	32.39	1.125e4					1.7	NO		bb		0.000
12	FUNCTION2 PFK	32.23	8.982e3					1.2	NO		bb		0.000
13	FUNCTION2 PFK	31.87	1.821e4					1.4	NO		bb		0.000
14	FUNCTION2 PFK	31.65	2.698e3					0.7	NO		bb		0.000
15	FUNCTION2 PFK	31.42	1.439e4					1.9	NO		db		0.000
16	FUNCTION2 PFK	31.36	3.315e3					0.8	NO		bd		0.000
17	FUNCTION2 PFK	31.22	3.699e3					0.9	NO		bb		0.000
18	FUNCTION2 PFK	31.13	1.041e4					1.4	NO		bb		0.000
19	FUNCTION2 PFK	31.07	4.598e4					2.4	NO		bb		0.000
20	FUNCTION2 PFK	30.32	5.764e3					1.4	NO		db		0.000
21	FUNCTION2 PFK	29.98	4.415e5					12.2	YES		dd		0.000
22	FUNCTION2 PFK	29.62	1.116e6					22.5	YES		dd		0.000
23	FUNCTION2 PFK	29.43	8.562e5					27.6	YES		dd		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230209CL.qld

Last Altered: Friday, February 10, 2023 16:03:05 Pacific Standard Time

Printed: Friday, February 10, 2023 16:04:46 Pacific Standard Time

ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk**PFK3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.06	1.453e4					2.5	NO		bb		0.000
2	FUNCTION3 PFK	36.94	4.834e3					1.1	NO		bb		0.000
3	FUNCTION3 PFK	36.76	5.865e3					1.1	NO		bb		0.000
4	FUNCTION3 PFK	36.13	6.775e3					1.4	NO		bb		0.000
5	FUNCTION3 PFK	35.85	9.174e3					1.6	NO		bb		0.000
6	FUNCTION3 PFK	35.75	6.585e3					1.4	NO		bb		0.000
7	FUNCTION3 PFK	35.51	7.101e3					0.9	NO		bb		0.000
8	FUNCTION3 PFK	35.36	6.563e3					1.3	NO		bb		0.000
9	FUNCTION3 PFK	35.20	1.813e3					0.8	NO		bb		0.000
10	FUNCTION3 PFK	34.53	1.370e3					0.6	NO		bb		0.000
11	FUNCTION3 PFK	34.43	1.780e4					2.6	NO		db		0.000
12	FUNCTION3 PFK	34.04	1.568e6					22.3	YES		dd		0.000
13	FUNCTION3 PFK	33.43	5.940e6					50.7	YES		dd		0.000
14	FUNCTION3 PFK	33.20	6.816e5					61.3	YES		dd		0.000
15	FUNCTION3 PFK	33.08	1.745e6					66.5	YES		dd		0.000
16	FUNCTION3 PFK	32.98	1.561e6					71.1	YES		bd		0.000
17	FUNCTION3 PFK	37.71	1.056e4					1.3	NO		bb		0.000
18	FUNCTION3 PFK	37.41	5.580e3					1.1	NO		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230209CL.qld

Last Altered: Friday, February 10, 2023 16:03:05 Pacific Standard Time

Printed: Friday, February 10, 2023 16:04:46 Pacific Standard Time

ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk**ETHERS1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.60	9.093e1					2.4	NO		bb		0.000
2	FUNCTION1 HXCD...	27.30	8.908e1					2.9	NO		bb		0.000
3	FUNCTION1 HXCD...	25.75	9.445e1					2.9	NO		bb		0.000
4	FUNCTION1 HXCD...	24.93	1.634e2					2.0	NO		bb		0.000
5	FUNCTION1 HXCD...	24.26	1.258e2					1.3	NO		bb		0.000
6	FUNCTION1 HXCD...	22.85	7.377e1					1.5	NO		bb		0.000
7	FUNCTION1 HXCD...	22.71	8.576e1					1.6	NO		bb		0.000
8	FUNCTION1 HXCD...	21.83	1.559e2					3.0	NO		bb		0.000
9	FUNCTION1 HXCD...	21.16	9.166e1					1.7	NO		db		0.000
10	FUNCTION1 HXCD...	21.10	7.895e1					2.2	NO		bd		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.77	1.368e2					1.6	NO		bb		0.000
2	FUNCTION2 HPCD...	31.26	2.161e2					4.8	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	37.32	8.664e1					3.2	YES		bb		0.000
2	FUNCTION3 OCDPE	34.00	8.603e1					2.6	NO		bb		0.000
3	FUNCTION3 OCDPE	33.28	7.631e1					2.7	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230209CL.qld

Last Altered: Friday, February 10, 2023 16:03:05 Pacific Standard Time

Printed: Friday, February 10, 2023 16:04:46 Pacific Standard Time

ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk**ETHERS5**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	40.31	1.178e2					2.8	NO		bb		0.000
2	FUNCTION4 NCDPE	39.99	9.318e1					1.6	NO		bb		0.000
3	FUNCTION4 NCDPE	39.61	1.589e2					3.3	YES		db		0.000
4	FUNCTION4 NCDPE	39.55	1.300e2					3.6	YES		bd		0.000
5	FUNCTION4 NCDPE	39.37	9.375e1					2.0	NO		bb		0.000
6	FUNCTION4 NCDPE	39.06	1.125e2					2.5	NO		db		0.000
7	FUNCTION4 NCDPE	39.02	1.126e2					2.5	NO		dd		0.000
8	FUNCTION4 NCDPE	38.94	1.952e2					2.3	NO		bd		0.000
9	FUNCTION4 NCDPE	38.54	9.550e1					1.8	NO		bb		0.000
10	FUNCTION4 NCDPE	42.22	8.957e1					1.4	NO		bb		0.000

ETHERS6

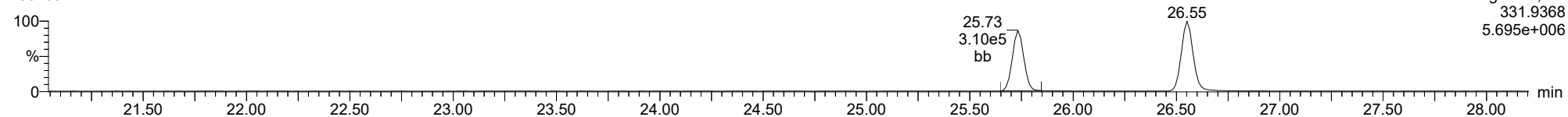
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.56	7.247e1					2.5	NO		bb		0.000

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

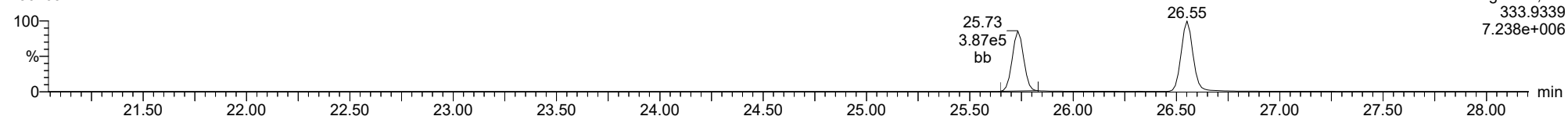
13C-1234-TCDD

23020927



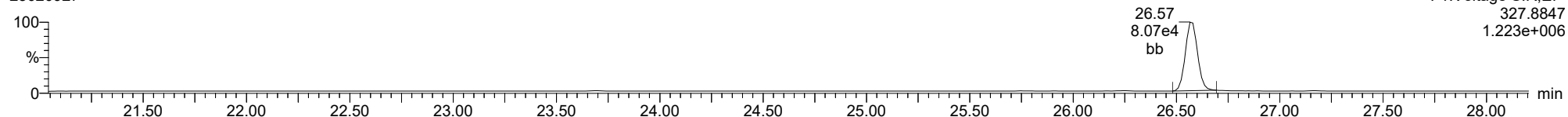
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37CL-2378-TCDD

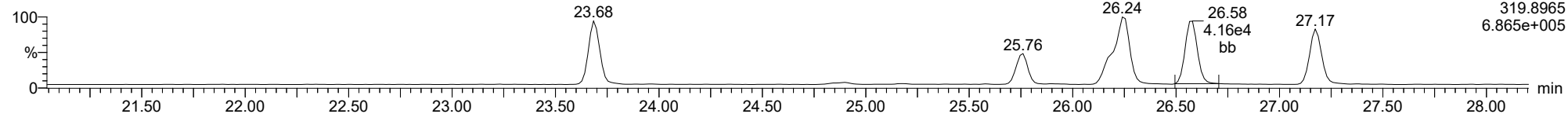
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ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

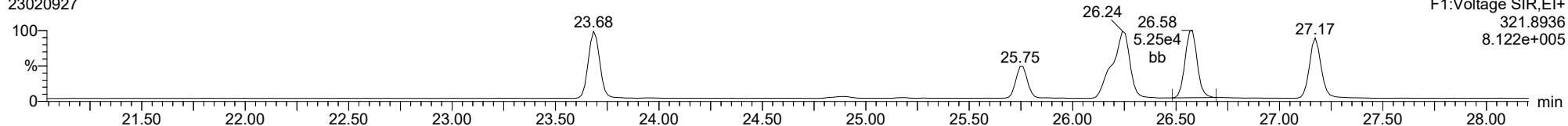
2378-TCDD

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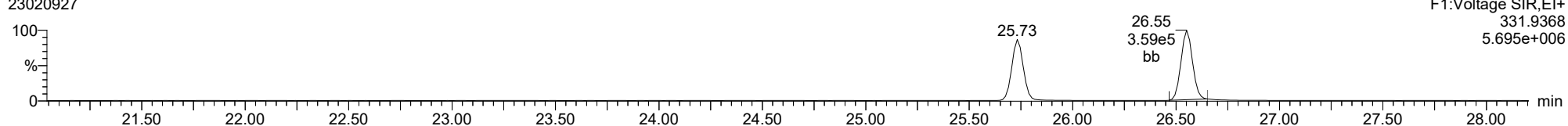
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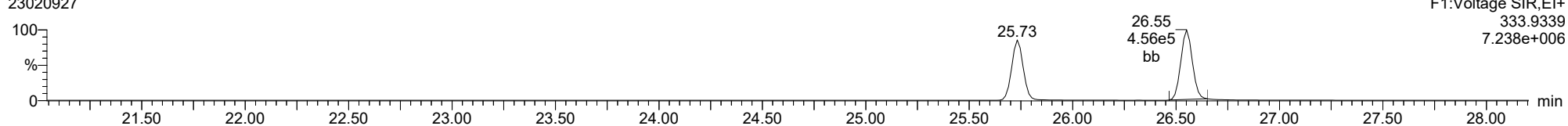
13C-2378-TCDD

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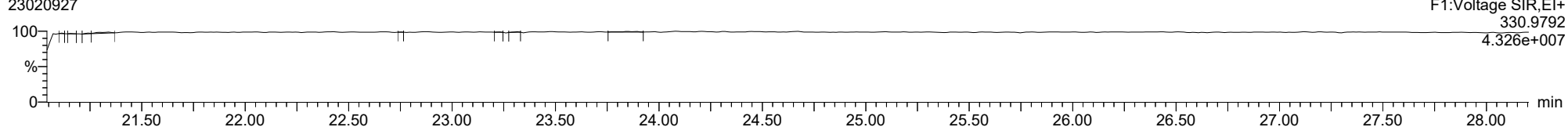
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23020927



FUNCTION1 PFK

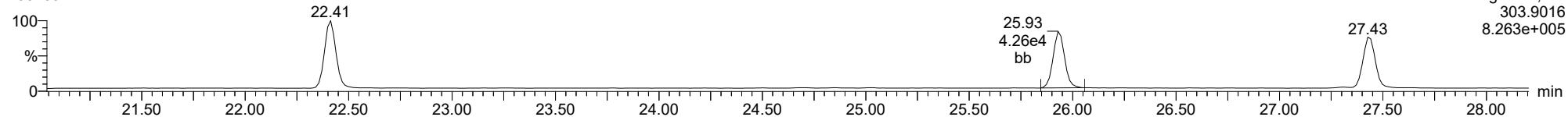
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ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

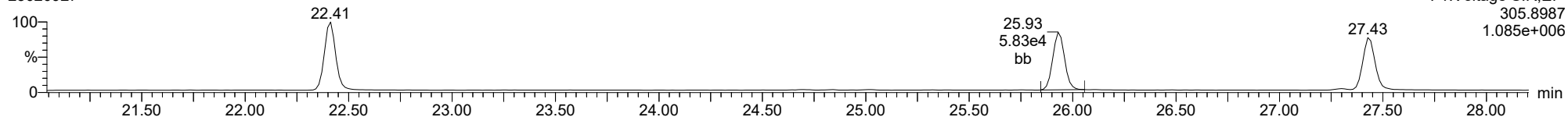
2378-TCDF

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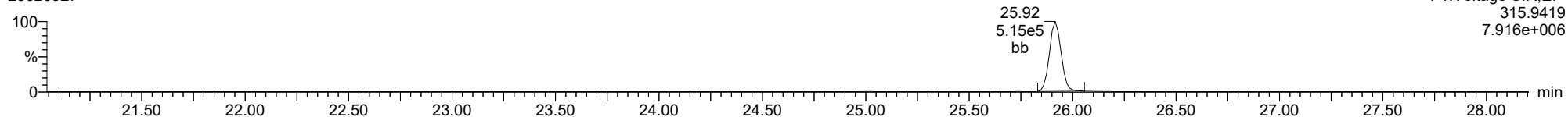
2378-TCDF

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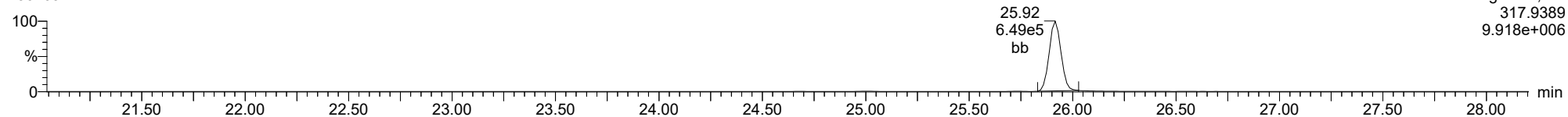
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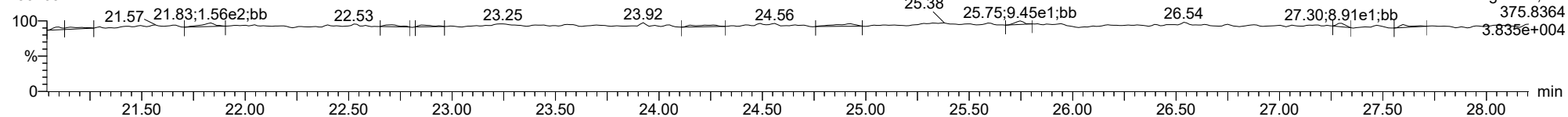
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FUNCTION1 HXCDPE

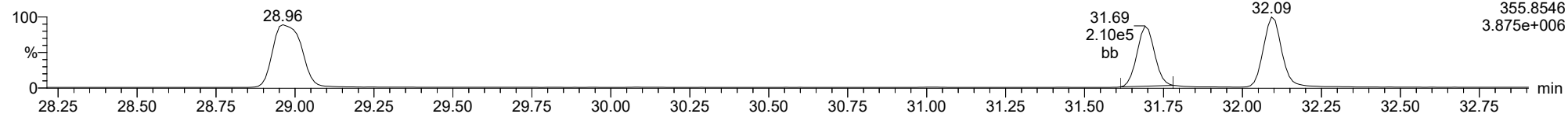
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ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

12378-PeCDD

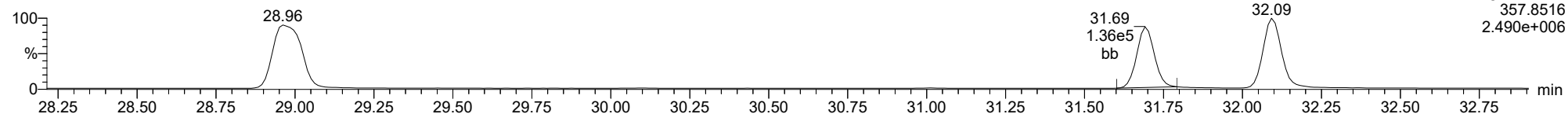
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F2:Voltage SIR,EI+
355.8546
3.875e+006

12378-PeCDD

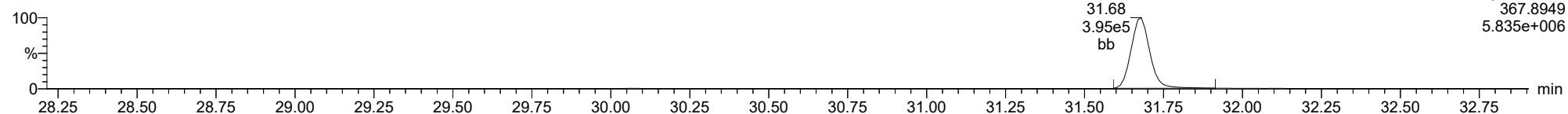
23020927



F2:Voltage SIR,EI+
357.8516
2.490e+006

13C-12378-PeCDD

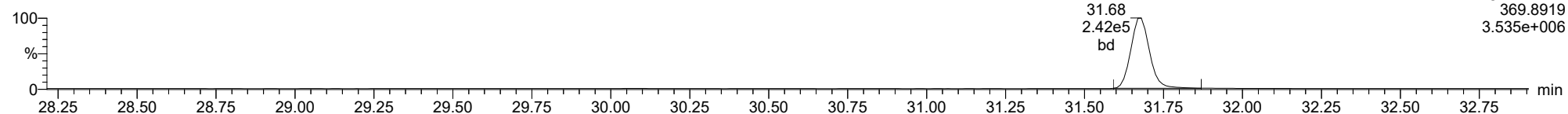
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F2:Voltage SIR,EI+
367.8949
5.835e+006

13C-12378-PeCDD

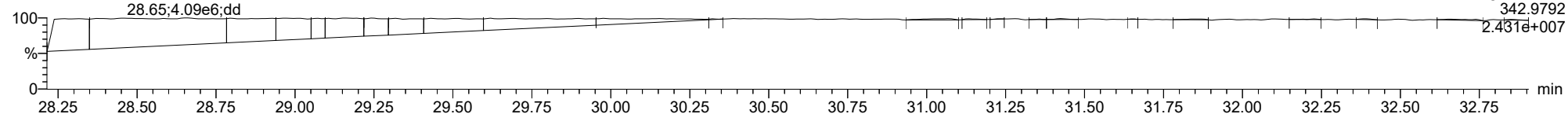
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F2:Voltage SIR,EI+
369.8919
3.535e+006

FUNCTION2 PFK

23020927

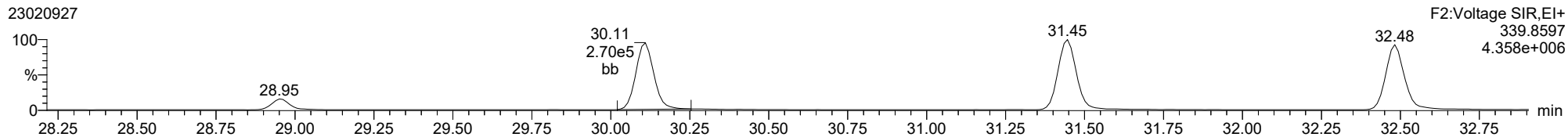


F2:Voltage SIR,EI+
342.9792
2.431e+007

ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

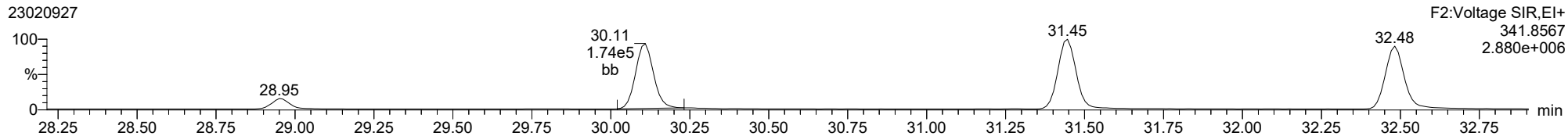
12378-PeCDF

23020927



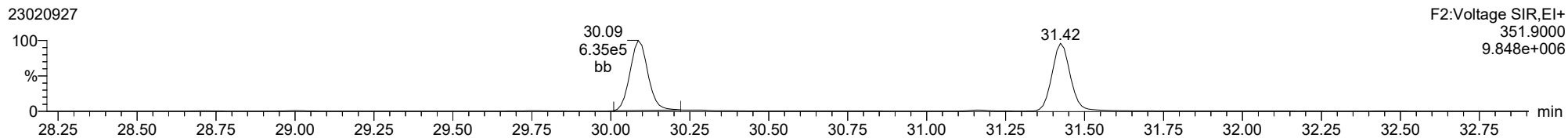
12378-PeCDF

23020927



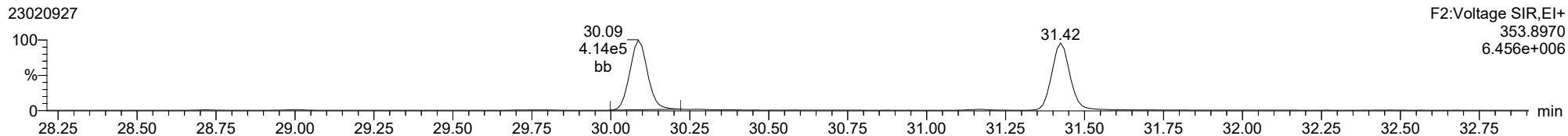
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23020927



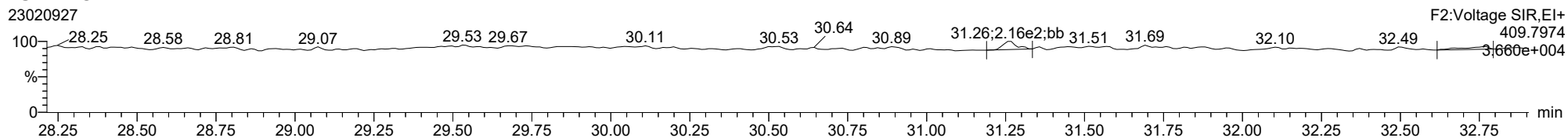
13C-12378-PeCDF

23020927



FUNCTION2 HPCDPE

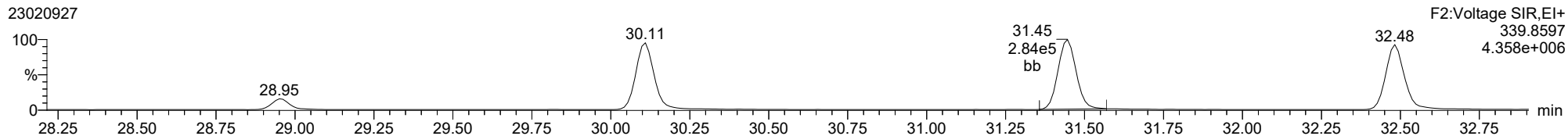
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ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

23478-PeCDF

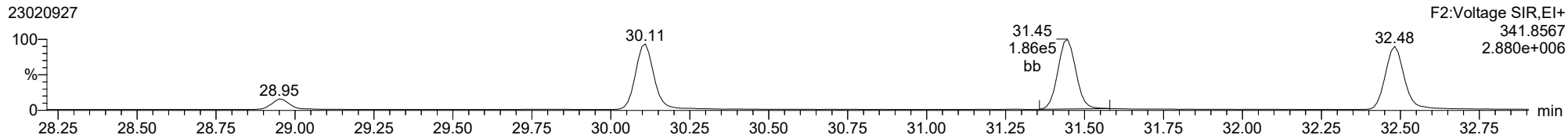
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F2:Voltage SIR,EI+
339.8597
4.358e+006

23478-PeCDF

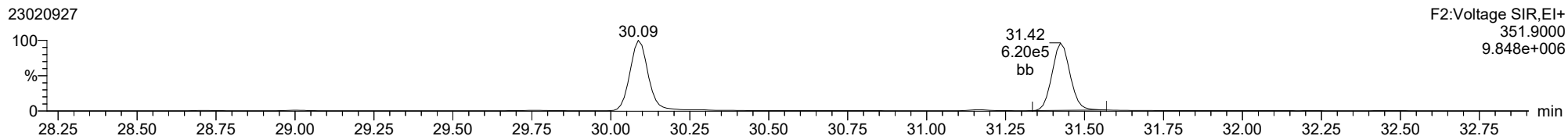
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F2:Voltage SIR,EI+
341.8567
2.880e+006

13C-23478-PeCDF

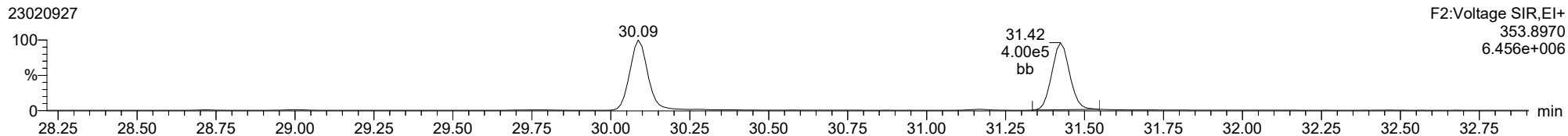
23020927



F2:Voltage SIR,EI+
351.9000
9.848e+006

13C-23478-PeCDF

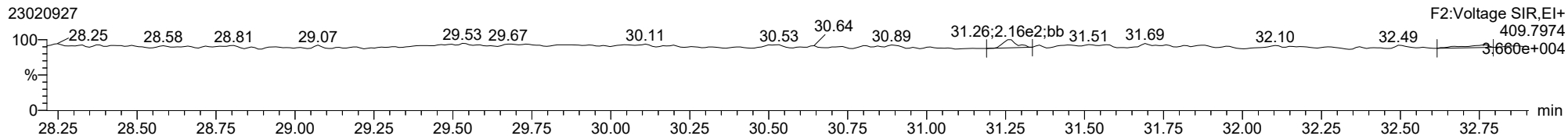
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F2:Voltage SIR,EI+
353.8970
6.456e+006

FUNCTION2 HPCDPE

23020927

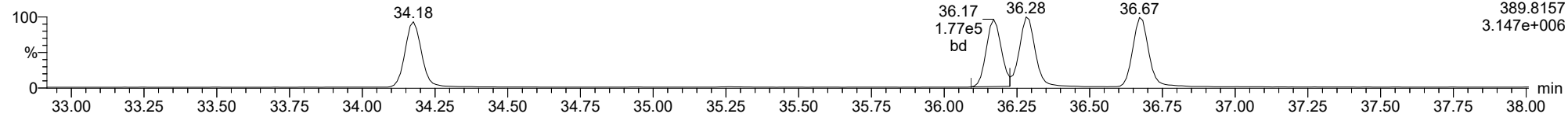


F2:Voltage SIR,EI+
409.7974
3.660e+004

ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

123478-HxCDD

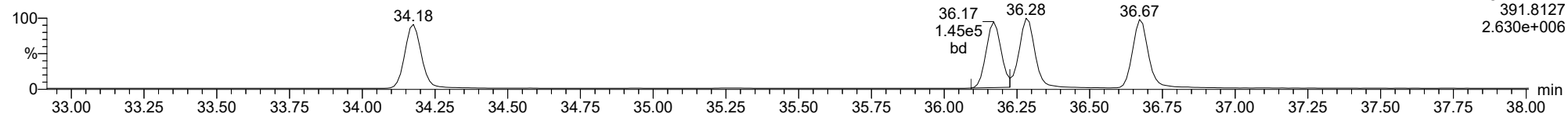
23020927



F3:Voltage SIR,EI+
389.8157
3.147e+006

123478-HxCDD

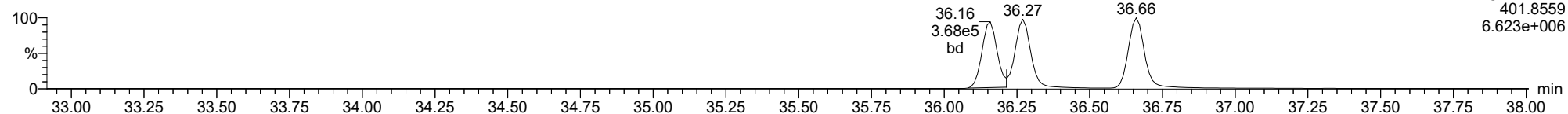
23020927



F3:Voltage SIR,EI+
391.8127
2.630e+006

13C-123478-HxCDD

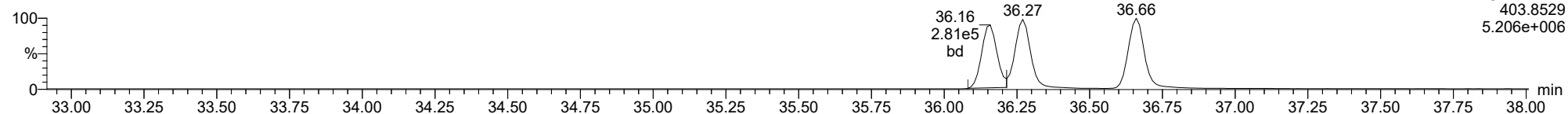
23020927



F3:Voltage SIR,EI+
401.8559
6.623e+006

13C-123478-HxCDD

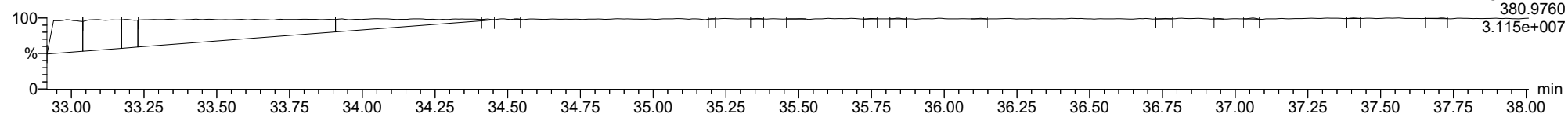
23020927



F3:Voltage SIR,EI+
403.8529
5.206e+006

FUNCTION3 PFK

23020927

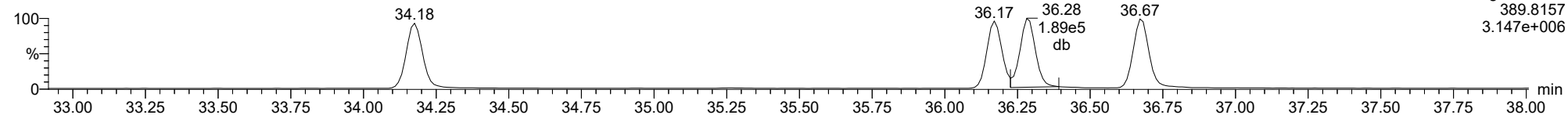


F3:Voltage SIR,EI+
380.9760
3.115e+007

ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

123678-HxCDD

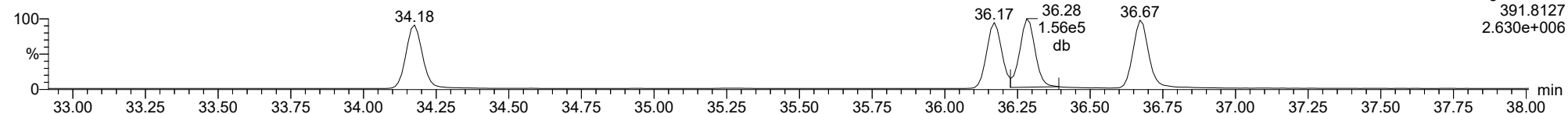
23020927



F3:Voltage SIR,EI+
389.8157
3.147e+006

123678-HxCDD

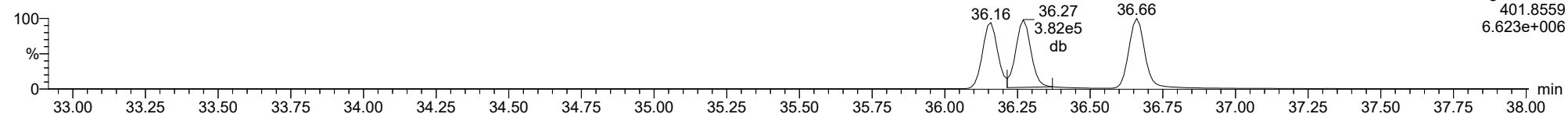
23020927



F3:Voltage SIR,EI+
391.8127
2.630e+006

13C-123678-HxCDD

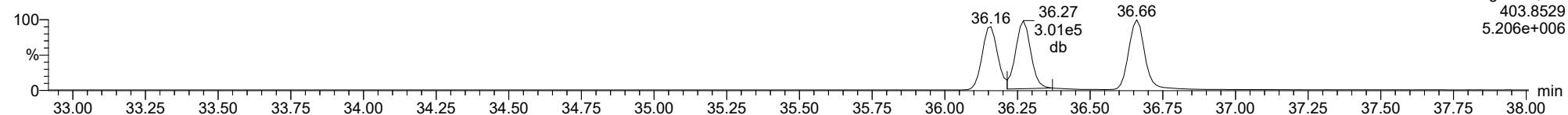
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F3:Voltage SIR,EI+
401.8559
6.623e+006

13C-123678-HxCDD

23020927

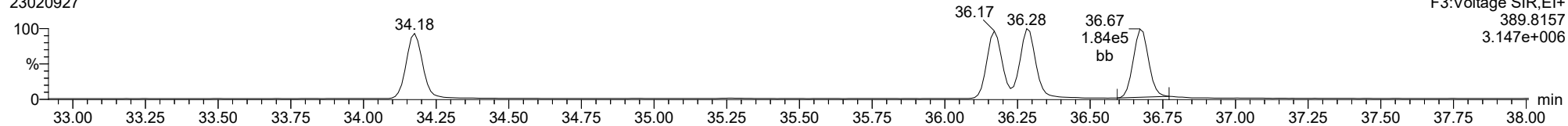


F3:Voltage SIR,EI+
403.8529
5.206e+006

ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

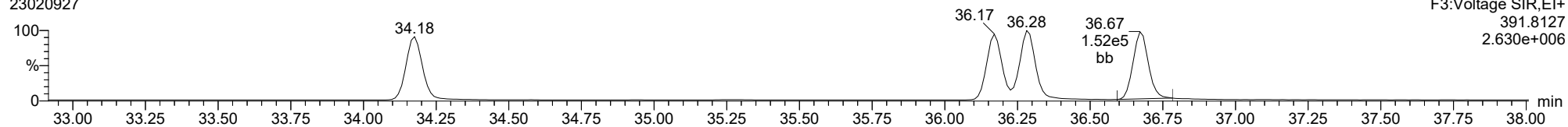
123789-HxCDD

23020927



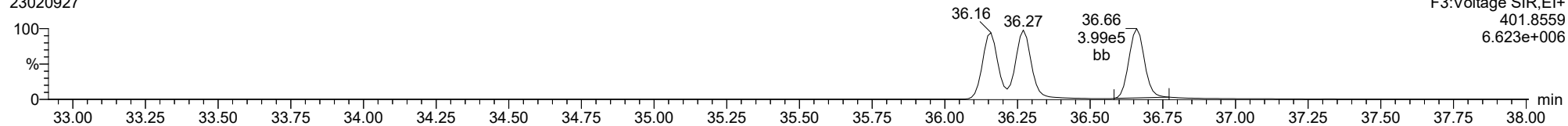
123789-HxCDD

23020927



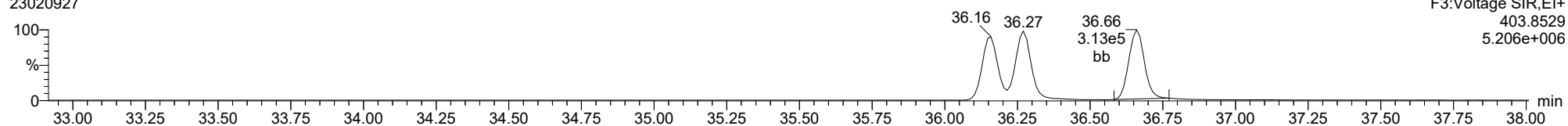
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23020927



13C-123789-HxCDD

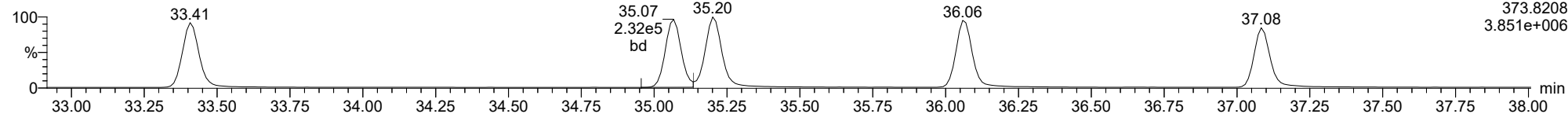
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ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

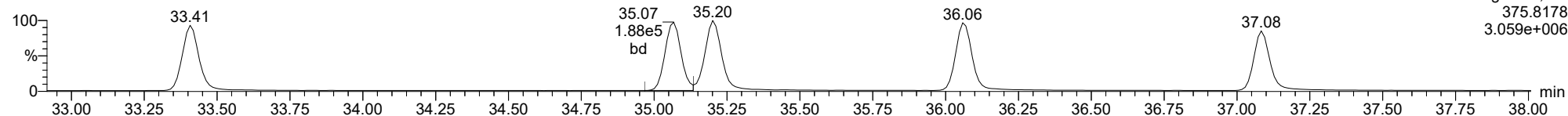
123478-HxCDF

23020927



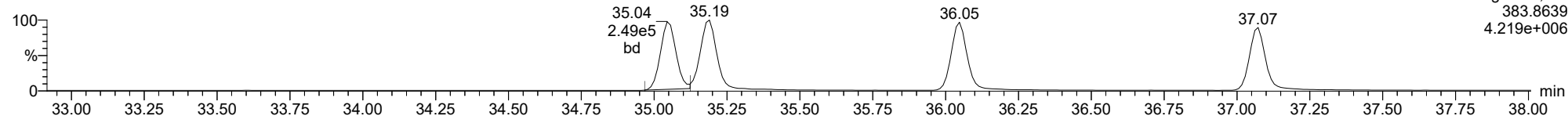
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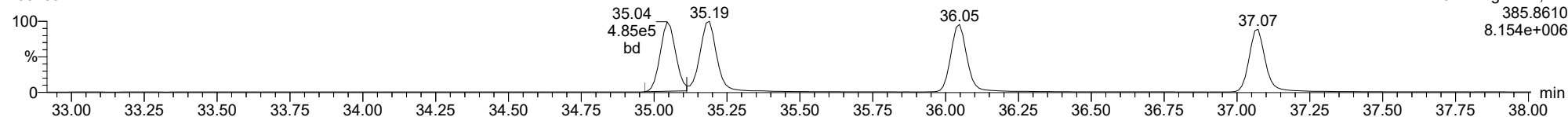
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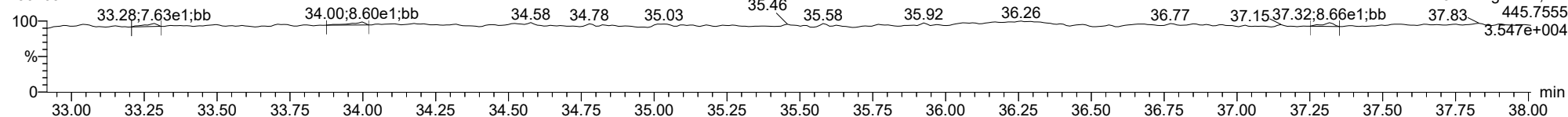
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23020927



FUNCTION3 OCDPE

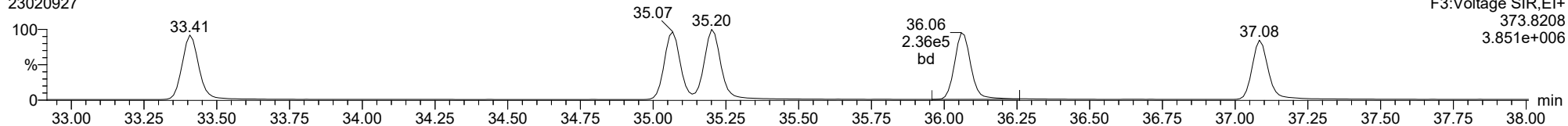
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ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

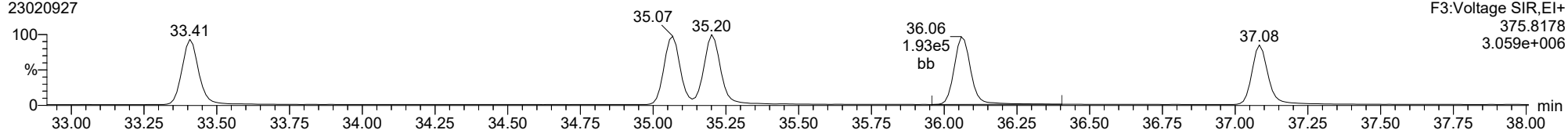
234678-HxCDF

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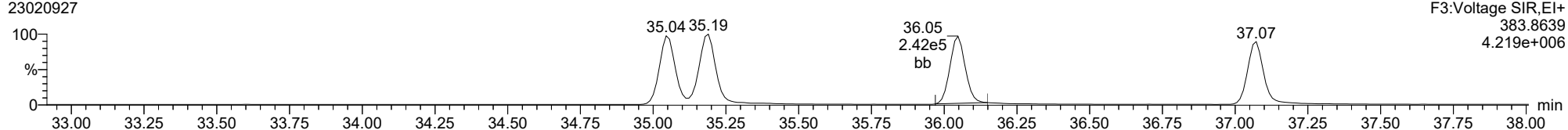
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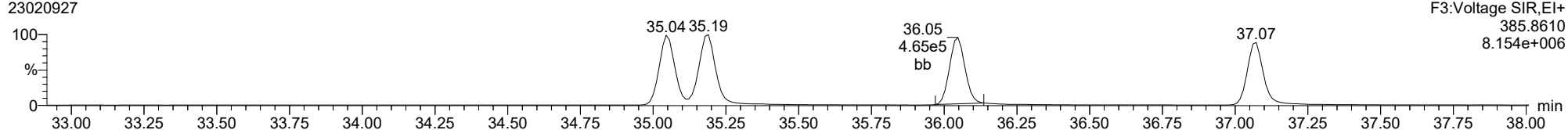
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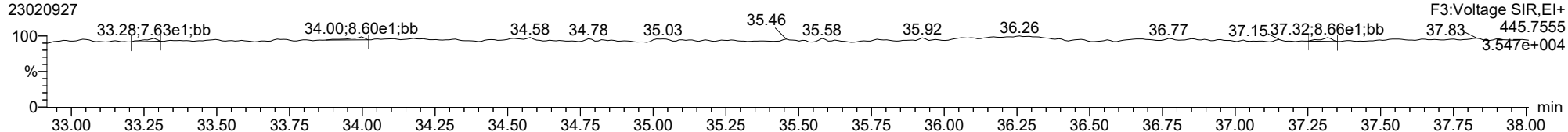
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FUNCTION3 OCDPE

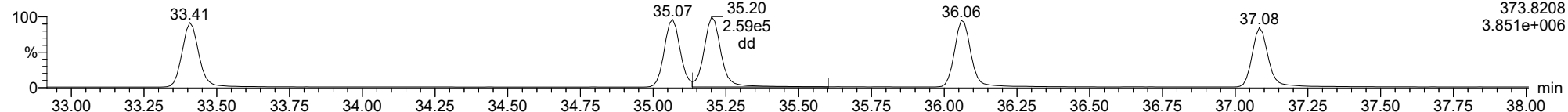
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ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

123678-HxCDF

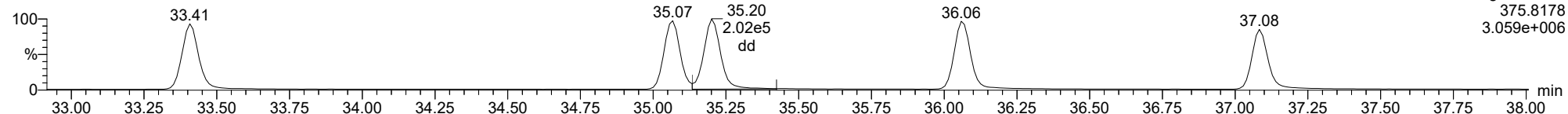
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F3:Voltage SIR,EI+
375.8208
3.851e+006

123678-HxCDF

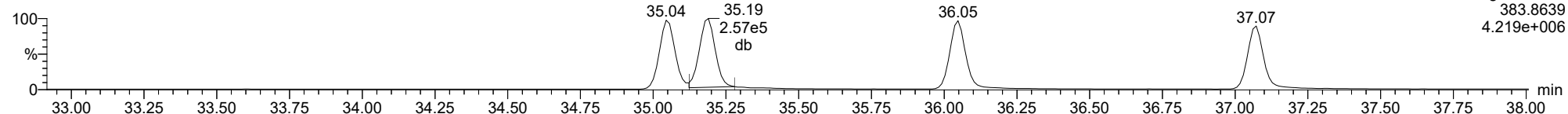
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F3:Voltage SIR,EI+
375.8178
3.059e+006

13C-123678-HxCDF

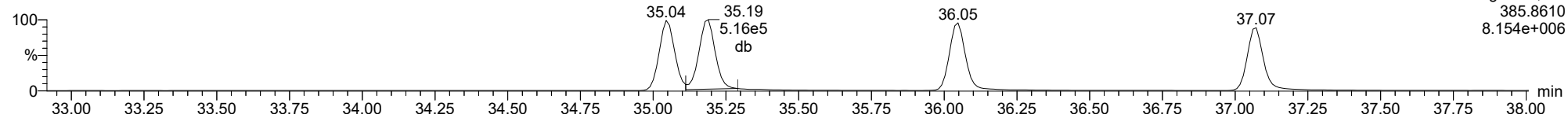
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F3:Voltage SIR,EI+
383.8639
4.219e+006

13C-123678-HxCDF

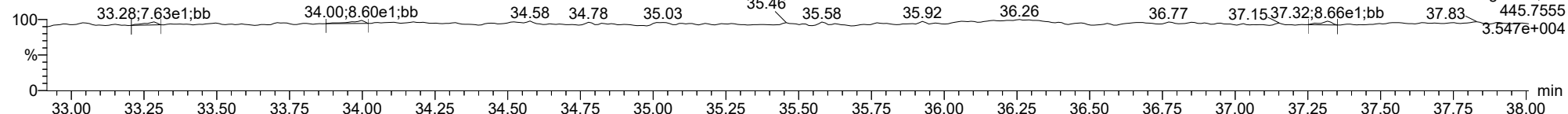
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F3:Voltage SIR,EI+
385.8610
8.154e+006

FUNCTION3 OCDPE

23020927

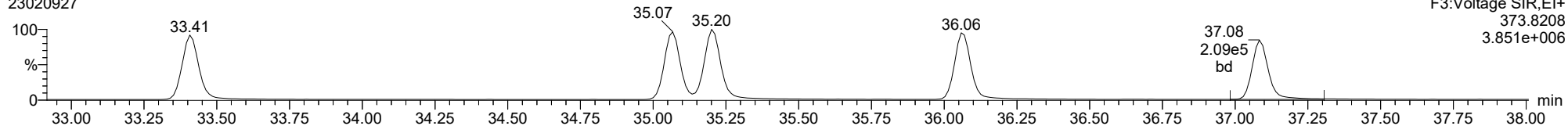


F3:Voltage SIR,EI+
37.83 445.7555
3.547e+004

ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

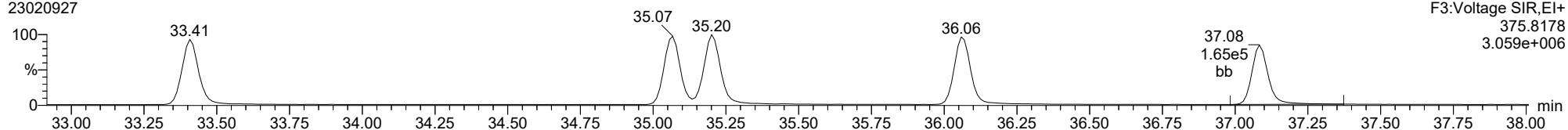
123789-HxCDF

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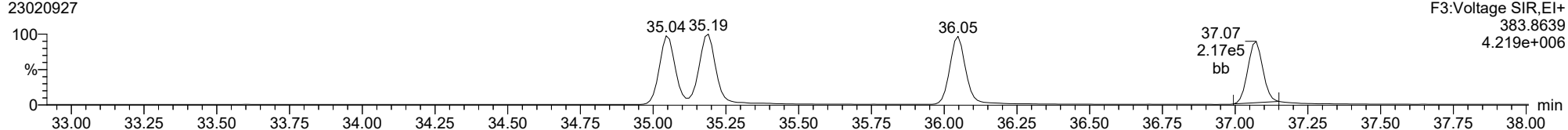
123789-HxCDF

23020927



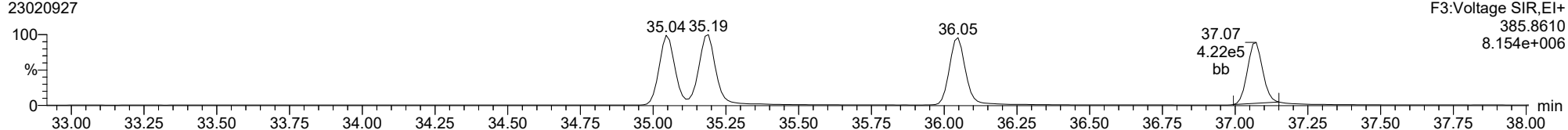
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23020927



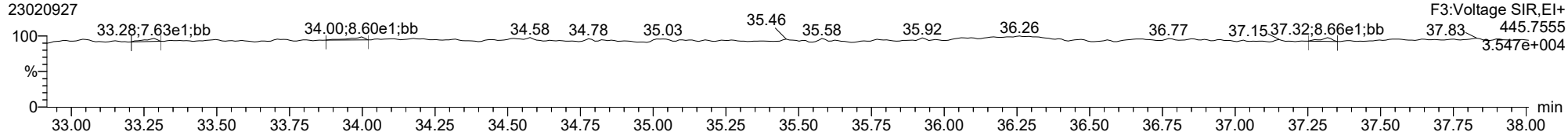
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FUNCTION3 OCDPE

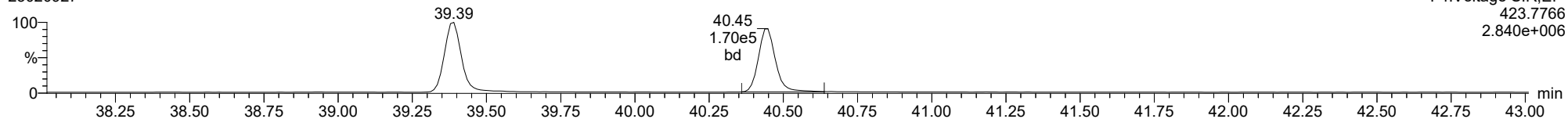
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ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

1234678-HpCDD

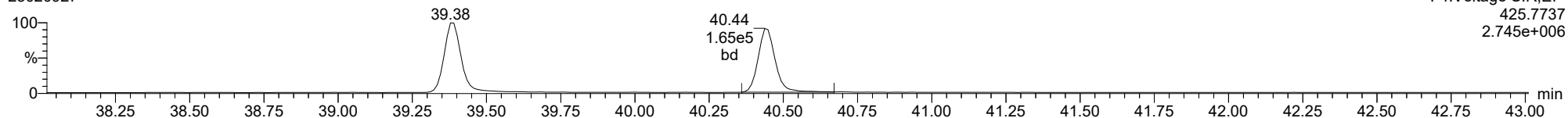
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F4:Voltage SIR,EI+
423.7766
2.840e+006

1234678-HpCDD

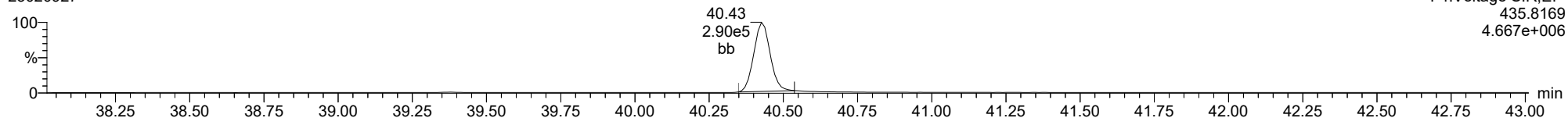
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F4:Voltage SIR,EI+
425.7737
2.745e+006

13C-1234678-HpCDD

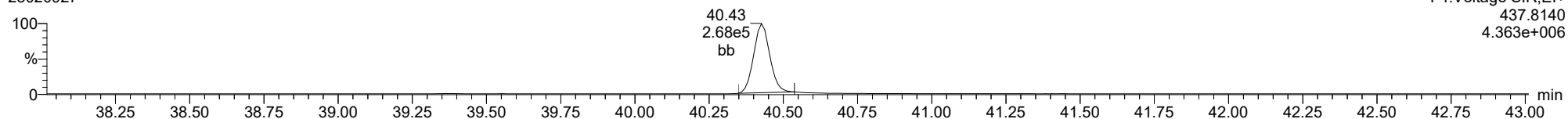
23020927



F4:Voltage SIR,EI+
435.8169
4.667e+006

13C-1234678-HpCDD

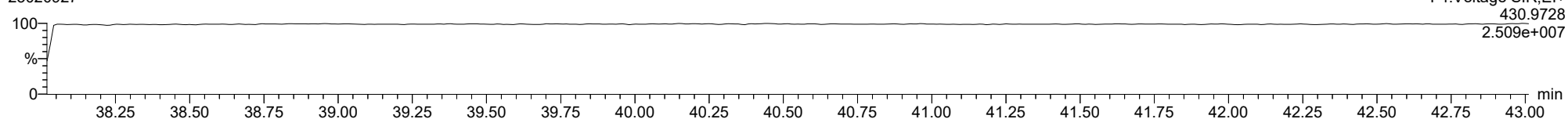
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F4:Voltage SIR,EI+
437.8140
4.363e+006

FUNCTION4 PFK

23020927

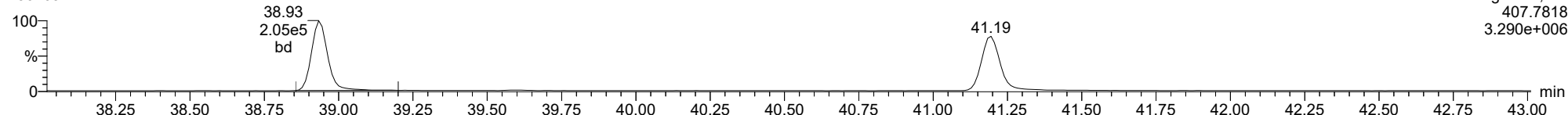


F4:Voltage SIR,EI+
430.9728
2.509e+007

ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

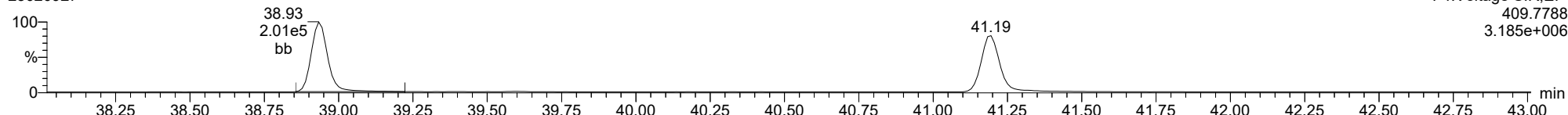
1234678-HpCDF

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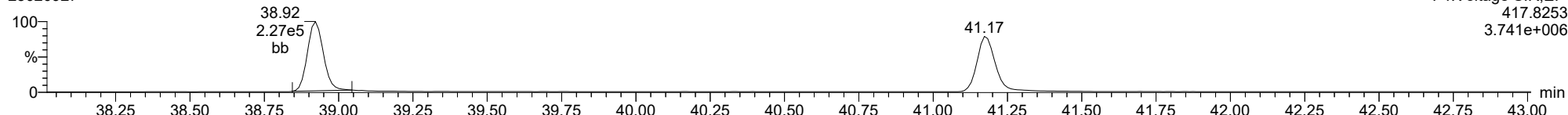
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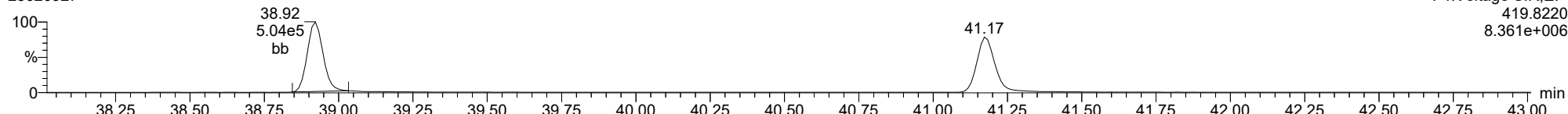
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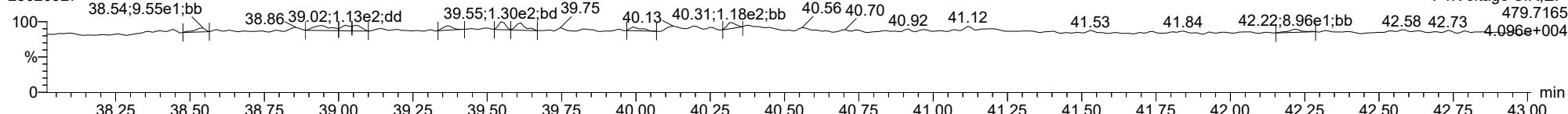
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23020927



FUNCTION4 NCDPE

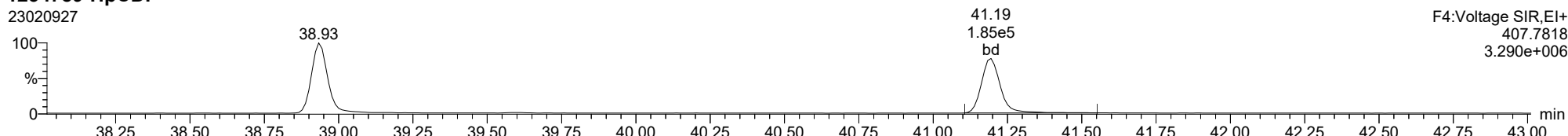
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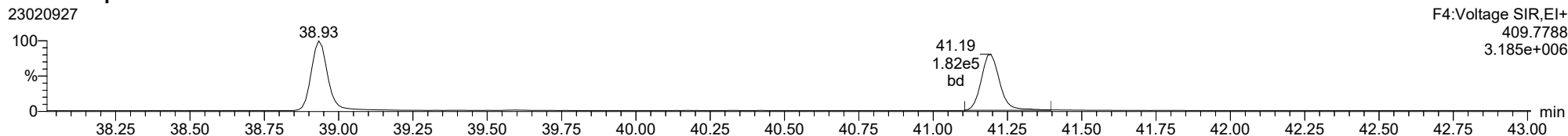
1234789-HpCDF

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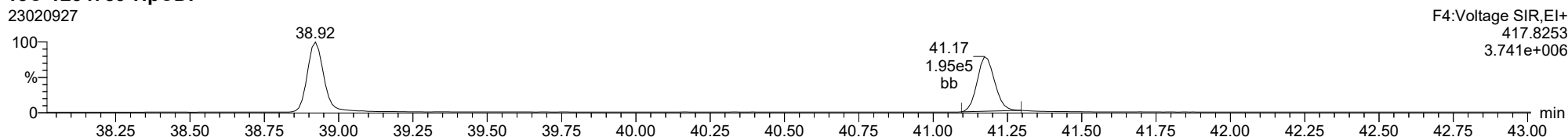
1234789-HpCDF

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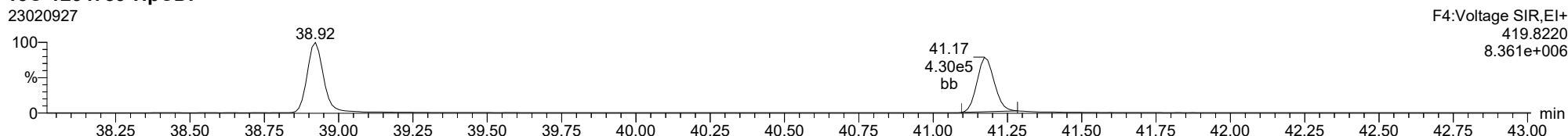
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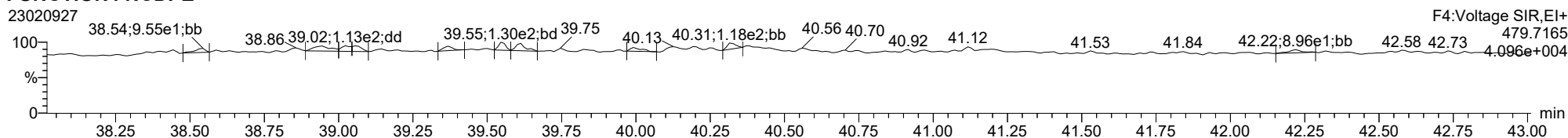
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FUNCTION4 NCDPE

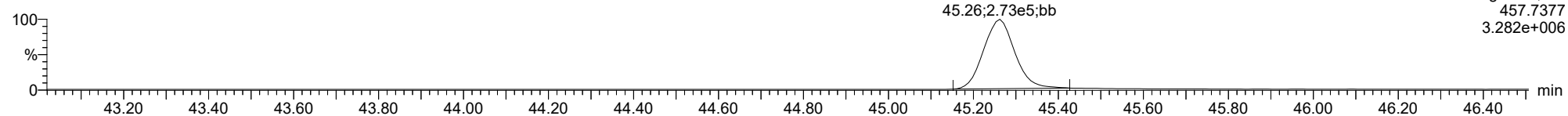
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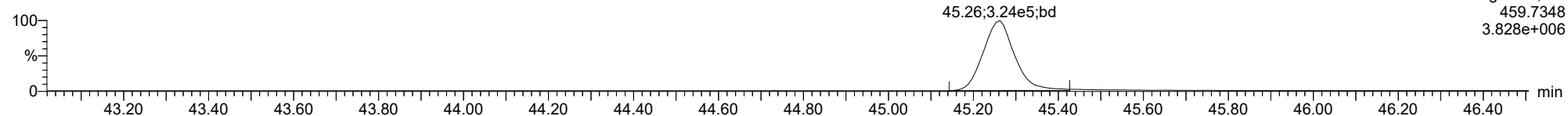
OCDD

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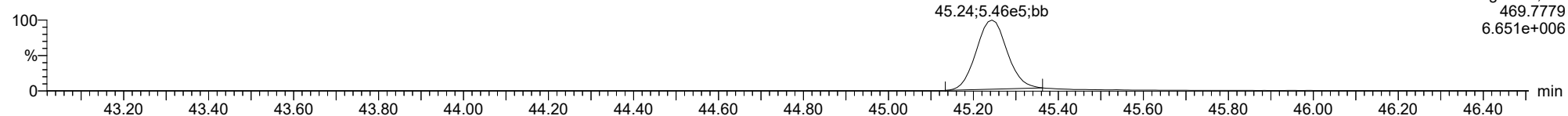
OCDD

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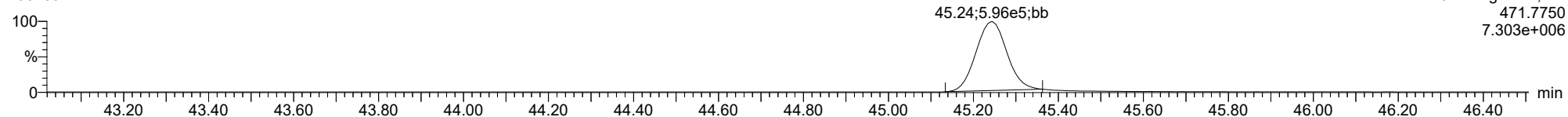
13C-OCDD

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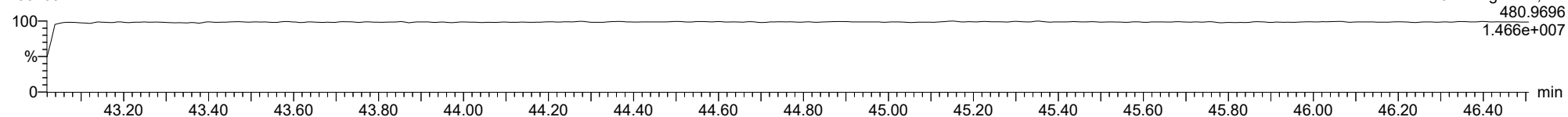
13C-OCDD

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FUNCTION5 PFK

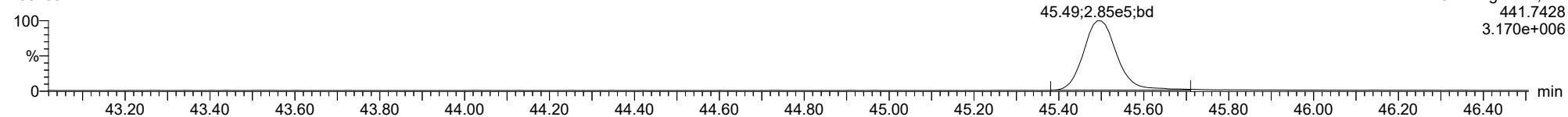
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ID: CS3U3, Name: 23020927, Date: 10-Feb-2023, Time: 14:10:15, Conditions: AUTOSPEC01, User: pk

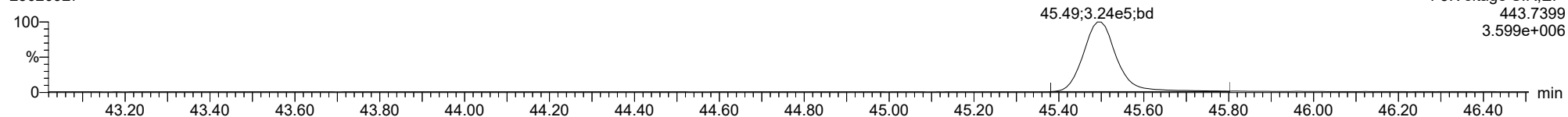
OCDF

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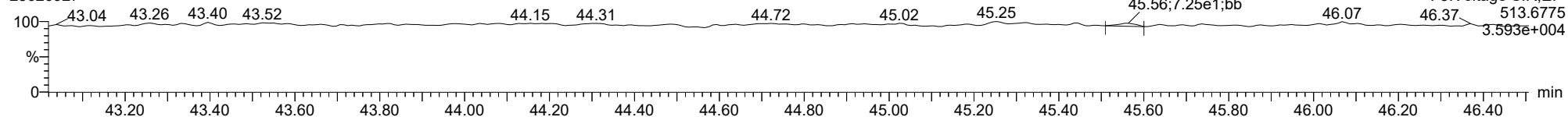
OCDF

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FUNCTION5 DCDPE

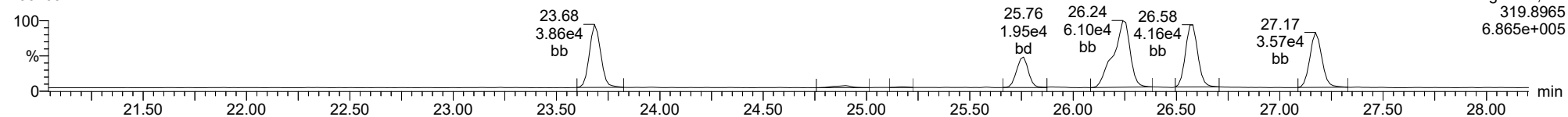
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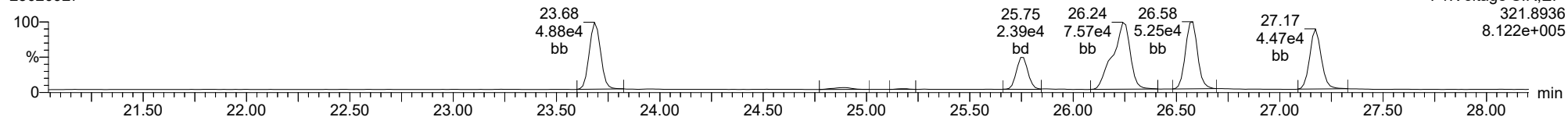
Total-tetradioxins

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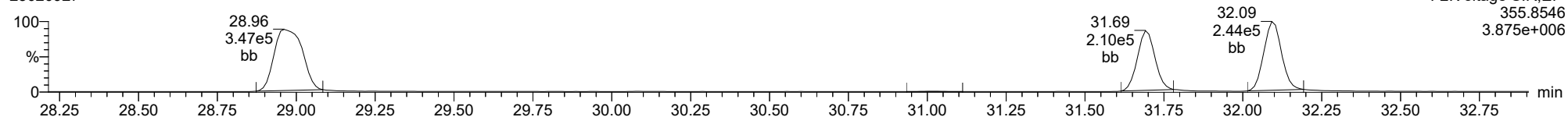
Total-tetradioxins

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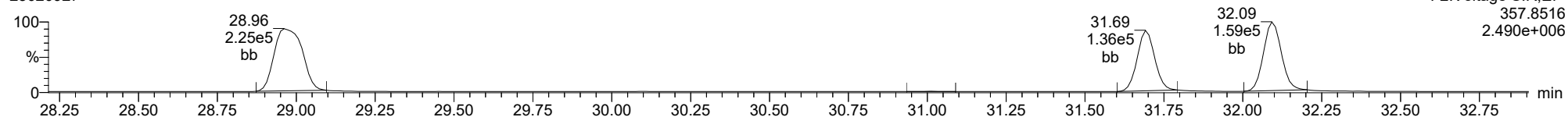
Total-pentadioxins

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Total-pentadioxins

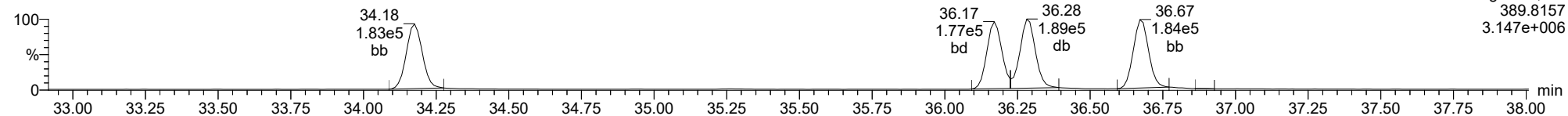
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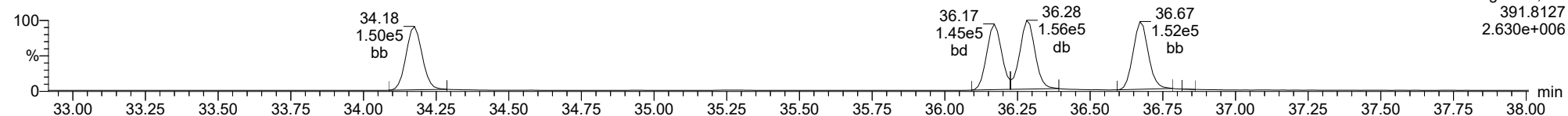
Total-hexadioxins

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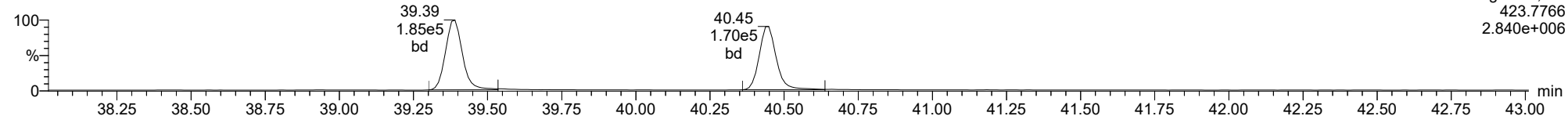
Total-hexadioxins

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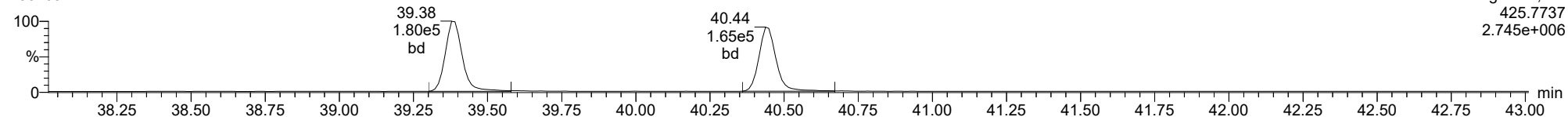
Total-heptadioxins

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Total-heptadioxins

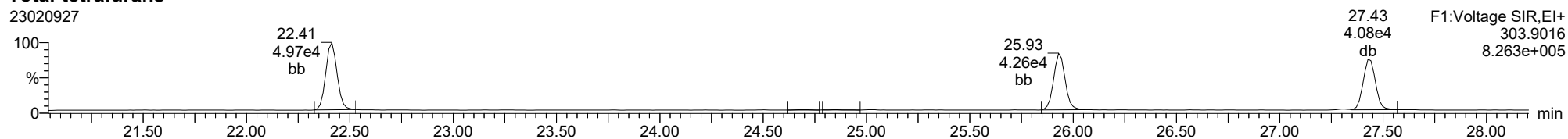
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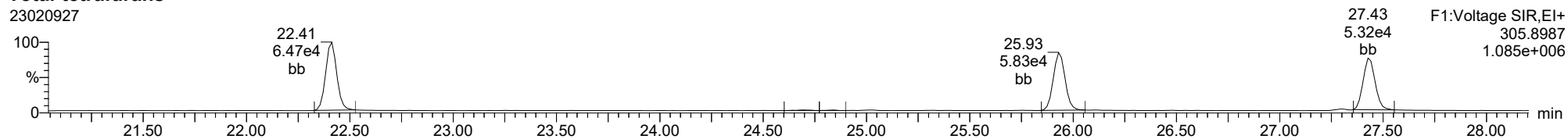
Total-tetrafurans

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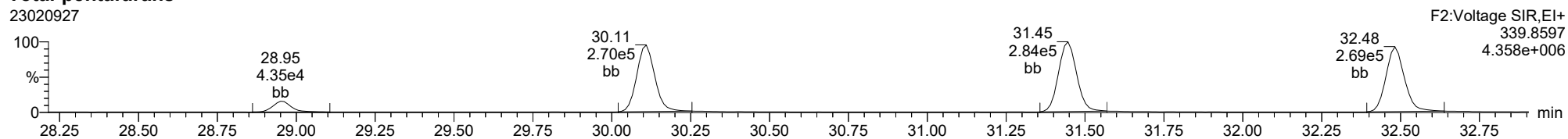
Total-tetrafurans

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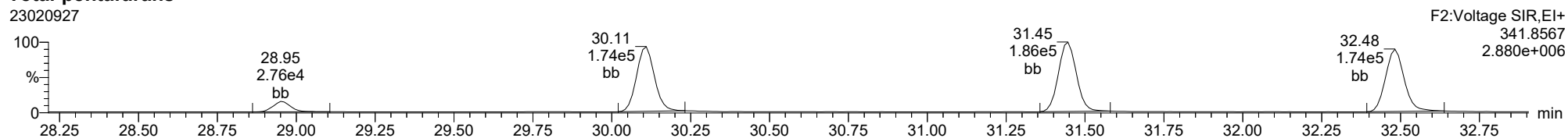
Total-pentafurans

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Total-pentafurans

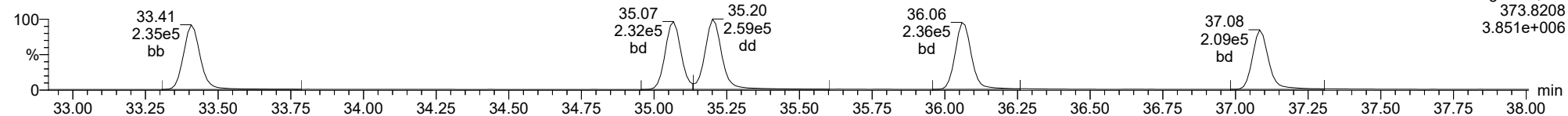
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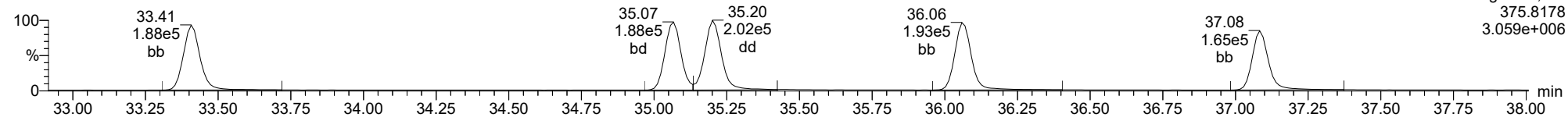
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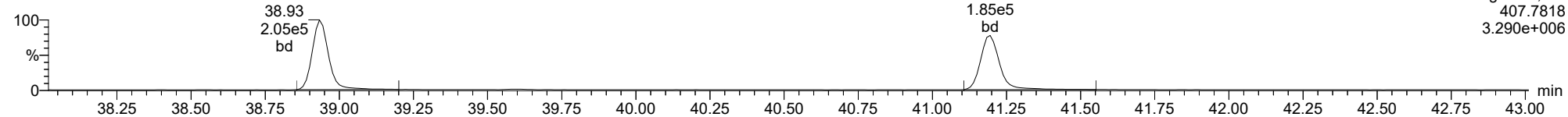
Total-hexafurans

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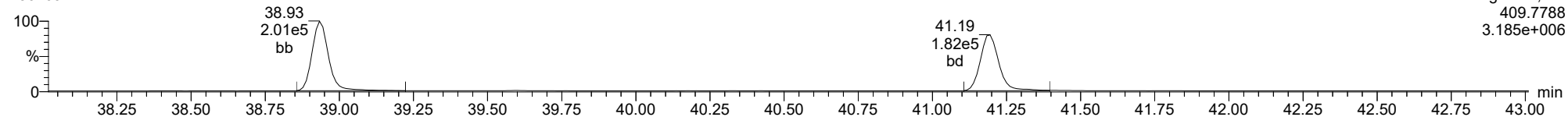
Total-heptafurans

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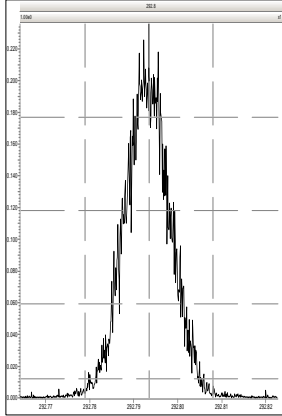
Total-heptafurans

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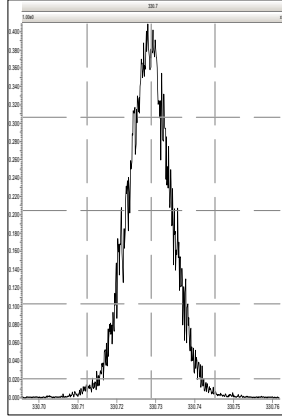


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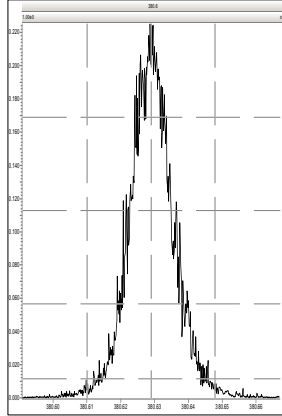
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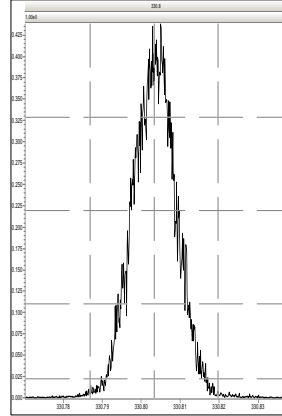
M 330.9792 R 12533



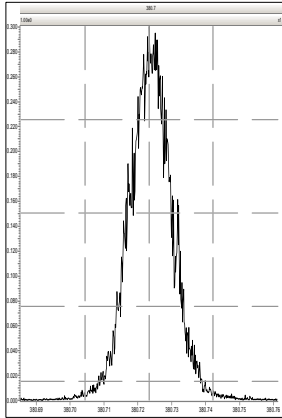
M 380.9760 R 12577



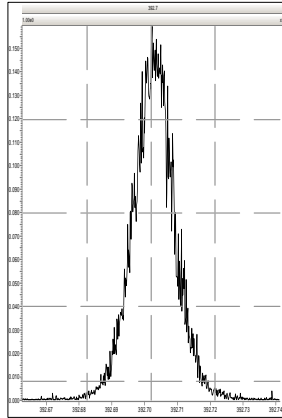
M 330.9792 R 13240



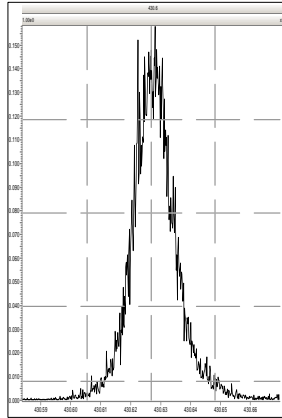
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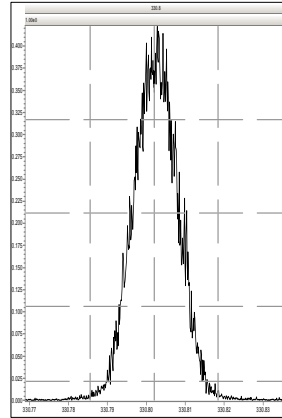
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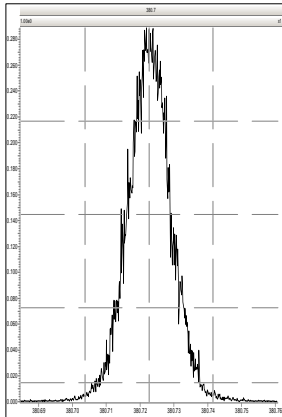
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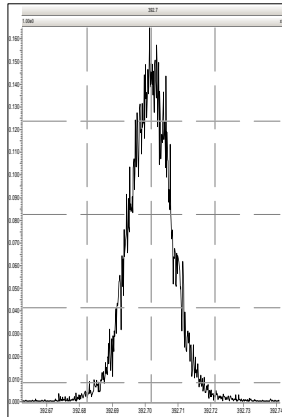
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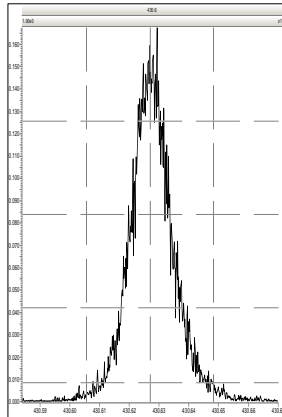
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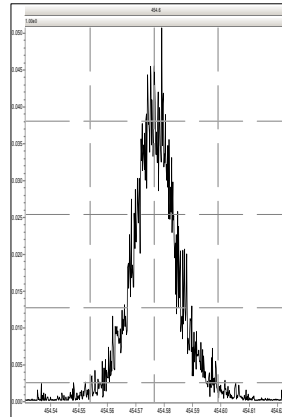
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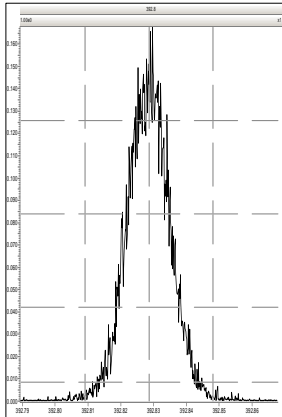
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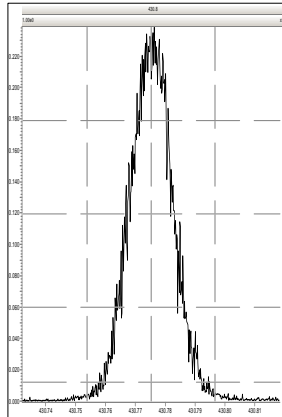
M 454.9728 R 13289



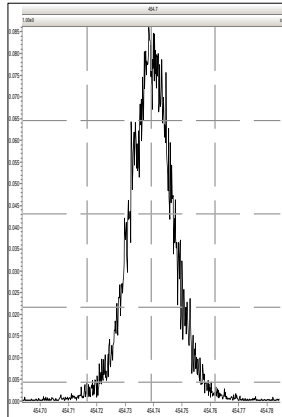
M 392.9760 R 13561



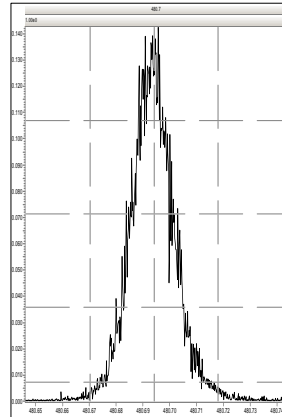
M 430.9728 R 13094



M 454.9728 R 13307

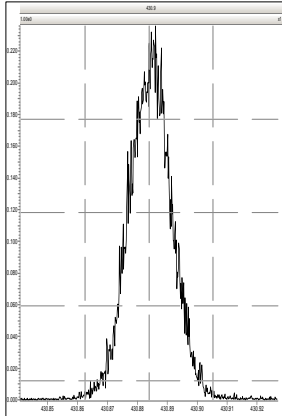


M 480.9696 R 13233

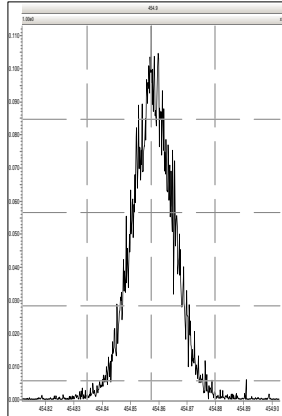


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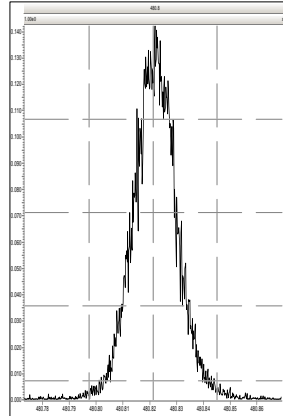
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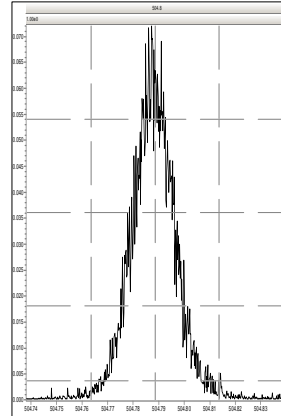
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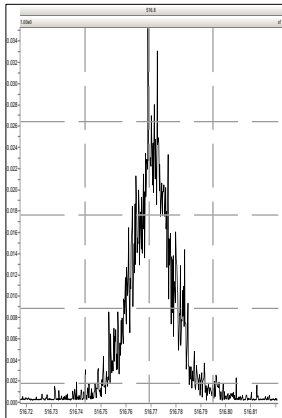
M 480.9696 R 12698



M 504.9696 R 12921



M 516.9697 R 13307

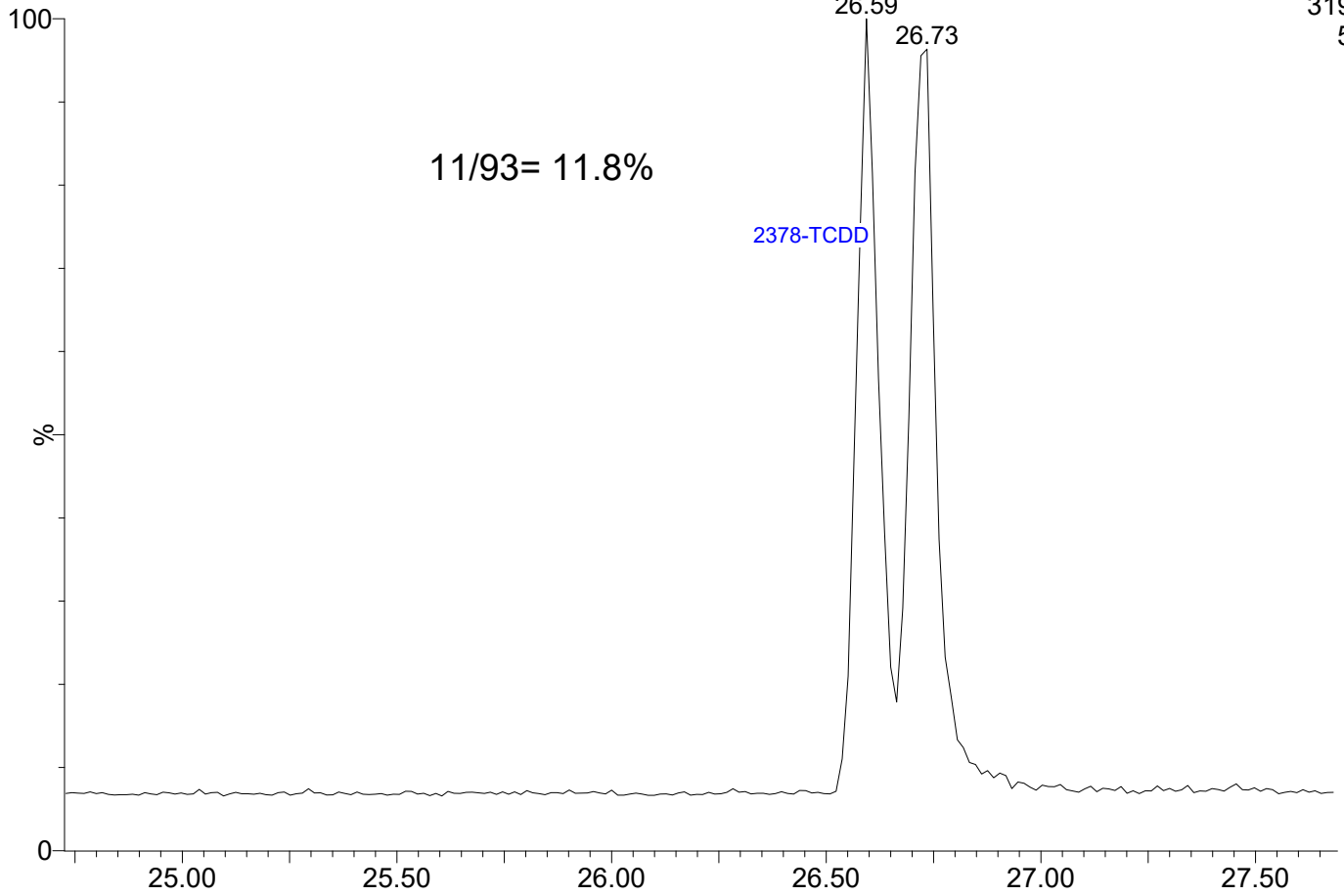


23020928

1: Voltage SIR 14 Channels EI+

319.8965

5.16e5

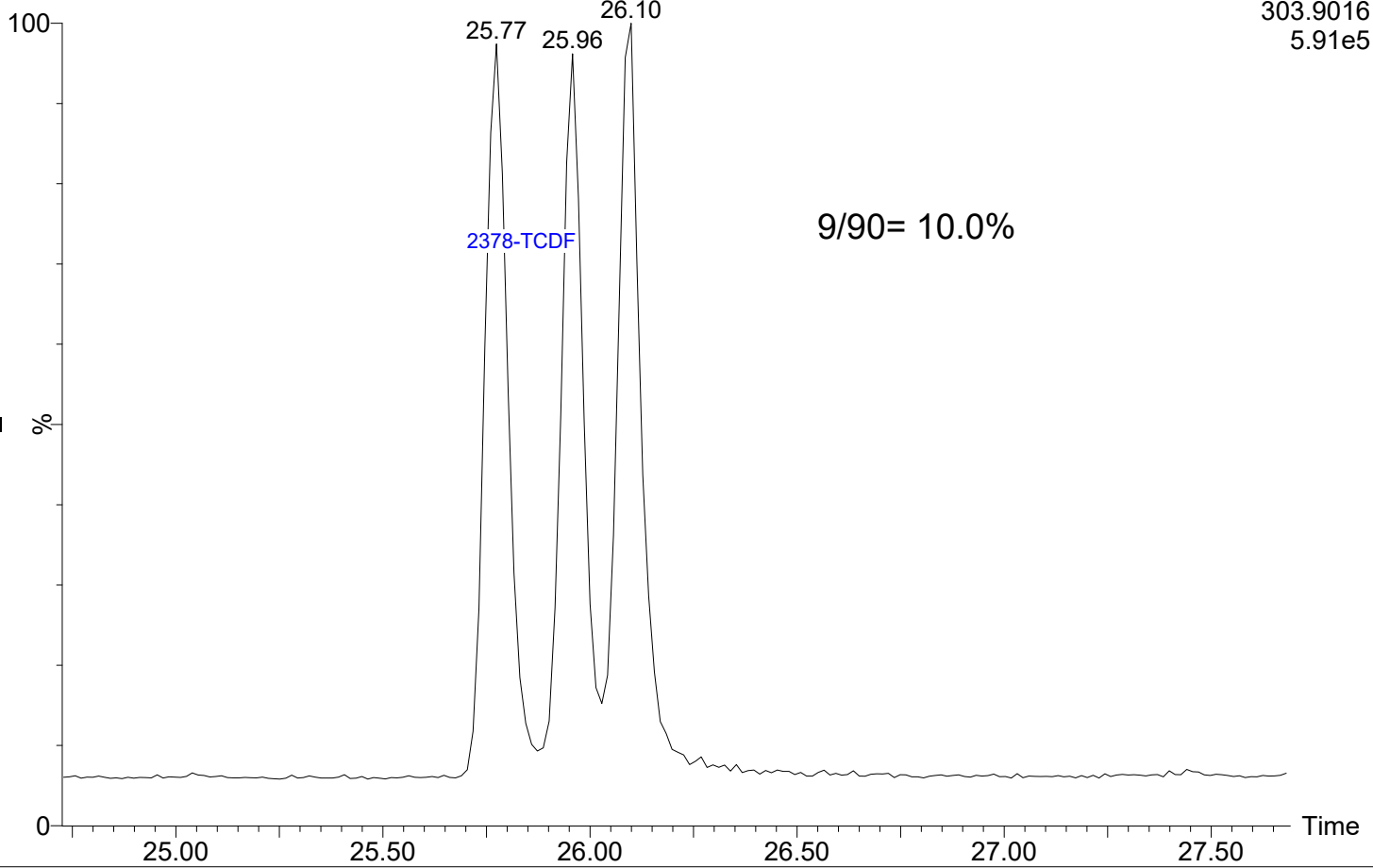


23020928

1: Voltage SIR 14 Channels EI+

303.9016

5.91e5





CONTINUING CALIBRATION CHECK
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: AUTOSPEC01

Calibration: GB00010

Lab File ID: 23020111

Calibration Date: 02/01/2023

Sequence: SLB0026

Injection Date: 02/01/23

Lab Sample ID: SLB0026-CCV1

Injection Time: 21:12

Sequence Name: CS3R2

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	10.2	0.8760604	0.8902585		1.6	+/-16
2,3,7,8-TCDD	A	10.000	9.40	1.2363600	1.1618360		-6.0	+/-22
1,2,3,7,8-PeCDF	A	50.000	50.0	0.8446540	0.8449929		0.04	+/-18
2,3,4,7,8-PeCDF	A	50.000	50.7	0.9111780	0.9236419		1.4	+/-18
1,2,3,7,8-PeCDD	A	50.000	51.1	1.0866850	1.1111520		2.3	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	49.6	1.1816860	1.1728360		-0.7	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	50.9	1.2480480	1.2707090		1.8	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	52.6	1.2288500	1.2939400		5.3	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	50.4	1.1865370	1.1969780		0.9	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	50.3	0.9869672	0.9929396		0.6	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	51.0	1.0207220	1.0413320		2.0	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	50.6	0.9854780	0.9974984		1.2	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	48.3	1.2041190	1.1630460		-3.4	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	49.7	1.1653050	1.1577820		-0.6	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	45.5	1.2525690	1.1398400		-9.0	+/-14
OCDF	A	100.00	90.4	1.1862640	1.0729150		-9.6	+/-37
OCDD	A	100.00	92.8	1.1026670	1.0229970		-7.2	+/-21
13C12-2,3,7,8-TCDF	A	100.00	95.3	1.7680590	1.6841852		-4.7	+/-29
13C12-2,3,7,8-TCDD	A	100.00	103	1.1029470	1.1383762		3.2	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	97.8	1.5271250	1.4930478		-2.2	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	97.6	1.4662840	1.4306770		-2.4	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	95.1	0.9141518	0.8689207		-4.9	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	102	1.0536610	1.0736203		1.9	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	102	1.0799530	1.0977524		1.6	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	99.6	1.0143260	1.0099883		-0.4	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	101	0.9279333	0.9355105		0.8	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	100	0.9329336	0.9327825		-0.02	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	100	0.9646272	0.9644574		-0.02	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	102	1.0360890	1.0530458		1.6	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	104	0.9049372	0.9392673		3.8	+/-23
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	103	0.7819773	0.8033582		2.7	+/-28
13C12-OCDD	A	200.00	213	0.7882343	0.8392826		6.5	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	9.04	1.2334500	1.1156124		-9.6	

* Values outside of QC limits

* Values outside of QC limits

* Values outside of QC limits



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 1613B**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: AUTOSPEC01

Calibration: GB00010

Lab File ID: 23020110

Calibration Date: 02/01/2023

Sequence: SLB0026

Injection Date: 02/01/23

Lab Sample ID: SLB0026-SCV1

Injection Time: 20:23

Sequence Name: ICVCR

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	9.80	0.8760604	0.8586768		-2.0	
2,3,7,8-TCDD	A	10.000	10.1	1.2363600	1.2492920		1.0	
1,2,3,7,8-PeCDF	A	50.000	49.4	0.8446540	0.8351133		-1.1	
2,3,4,7,8-PeCDF	A	50.000	50.7	0.9111780	0.9242915		1.4	
1,2,3,7,8-PeCDD	A	50.000	48.9	1.0866850	1.0622540		-2.2	
1,2,3,4,7,8-HxCDF	A	50.000	50.8	1.1816860	1.2014960		1.7	
1,2,3,6,7,8-HxCDF	A	50.000	51.1	1.2480480	1.2746570		2.1	
2,3,4,6,7,8-HxCDF	A	50.000	51.5	1.2288500	1.2663990		3.1	
1,2,3,7,8,9-HxCDF	A	50.000	49.9	1.1865370	1.1839220		-0.2	
1,2,3,4,7,8-HxCDD	A	50.000	51.0	0.9869672	1.0062160		2.0	
1,2,3,6,7,8-HxCDD	A	50.000	48.3	1.0207220	0.9861518		-3.4	
1,2,3,7,8,9-HxCDD	A	50.000	49.6	0.9854780	1.0444.61		-0.8	
1,2,3,4,6,7,8-HpCDF	A	50.000	49.0	1.2041190	1.1796410		-2.0	
1,2,3,4,7,8,9-HpCDF	A	50.000	51.5	1.1653050	1.1995620		2.9	
1,2,3,4,6,7,8-HpCDD	A	50.000	48.8	1.2525690	1.2236480		-2.3	
OCDF	A	100.00	93.0	1.1862640	1.1031570		-7.0	
OCDD	A	100.00	95.8	1.1026670	1.0561160		-4.2	
13C12-2,3,7,8-TCDF	A	100.00	101	1.7680590	1.7827674		0.8	
13C12-2,3,7,8-TCDD	A	100.00	97.3	1.1029470	1.0730574		-2.7	
13C12-1,2,3,7,8-PeCDF	A	100.00	97.9	1.5271250	1.4954172		-2.1	
13C12-2,3,4,7,8-PeCDF	A	100.00	96.0	1.4662840	1.4076825		-4.0	
13C12-1,2,3,7,8-PeCDD	A	100.00	95.6	0.9141518	0.8737537		-4.4	
13C12-1,2,3,4,7,8-HxCDF	A	100.00	99.0	1.0536610	1.0427881		-1.0	
13C12-1,2,3,6,7,8-HxCDF	A	100.00	98.8	1.0799530	1.0669191		-1.2	
13C12-2,3,4,6,7,8-HxCDF	A	100.00	99.3	1.0143260	1.0069993		-0.7	
13C12-1,2,3,7,8,9-HxCDF	A	100.00	98.6	0.9279333	0.9147189		-1.4	
13C12-1,2,3,4,7,8-HxCDD	A	100.00	97.7	0.9329336	0.9118251		-2.3	
13C12-1,2,3,6,7,8-HxCDD	A	100.00	101	0.9646272	0.9706530		0.6	
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	100	1.0360890	1.0396134		0.3	
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	101	0.9049372	0.9117511		0.8	
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	101	0.7819773	0.7868918		0.6	
13C12-OCDD	A	200.00	205	0.7882343	0.8085897		2.6	
37C14-2,3,7,8-TCDD	A	10.000	8.94	1.2334500	1.1023697		-10.6	

* Values outside of QC limits



CONTINUING CALIBRATION CHECK
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: AUTOSPEC01

Calibration: GB00010

Lab File ID: 23021015

Calibration Date: 02/01/2023

Sequence: SLB0147

Injection Date: 02/11/23

Lab Sample ID: SLB0147-CCV1

Injection Time: 01:02

Sequence Name: CS3U4

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	9.42	0.8760604	0.8255198		-5.8	+/-16
2,3,7,8-TCDD	A	10.000	9.76	1.2363600	1.2072160		-2.4	+/-22
1,2,3,7,8-PeCDF	A	50.000	49.3	0.8446540	0.8327382		-1.4	+/-18
2,3,4,7,8-PeCDF	A	50.000	51.1	0.9111780	0.9320545		2.3	+/-18
1,2,3,7,8-PeCDD	A	50.000	54.1	1.0866850	1.1757620		8.2	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	48.6	1.1816860	1.1486420		-2.8	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	47.9	1.2480480	1.1963710		-4.1	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	49.1	1.2288500	1.2071860		-1.8	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	49.0	1.1865370	1.1625310		-2.0	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	49.7	0.9869672	0.9819204		-0.5	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	48.4	1.0207220	0.9886828		-3.1	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	51.2	0.9854780	1.0093910		2.4	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	46.7	1.2041190	1.1246470		-6.6	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	48.7	1.1653050	1.1342080		-2.7	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	46.3	1.2525690	1.1608300		-7.3	+/-14
OCDF	A	100.00	86.5	1.1862640	1.0266590		-13.5	+/-37
OCDD	A	100.00	93.1	1.1026670	1.0271120		-6.9	+/-21
13C12-2,3,7,8-TCDF	A	100.00	93.0	1.7680590	1.6439225		-7.0	+/-29
13C12-2,3,7,8-TCDD	A	100.00	104	1.1029470	1.1459849		3.9	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	97.2	1.5271250	1.4836693		-2.8	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	98.8	1.4662840	1.4491538		-1.2	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	92.8	0.9141518	0.8486891		-7.2	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	96.7	1.0536610	1.0192028		-3.3	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	98.0	1.0799530	1.0587748		-2.0	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	97.2	1.0143260	0.9855137		-2.8	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	96.5	0.9279333	0.8955384		-3.5	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	95.8	0.9329336	0.8940641		-4.2	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	97.7	0.9646272	0.9420458		-2.3	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	93.9	1.0360890	0.9724318		-6.1	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	89.8	0.9049372	0.8128001		-10.2	+/-23
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	99.9	0.7819773	0.7812864		-0.09	+/-28
13C12-OCDD	A	200.00	177	0.7882343	0.6982157		-11.4	+/-52
37Cl4-2,3,7,8-TCDD	A	10.000	9.38	1.2334500	1.1570765		-6.2	

* Values outside of QC limits

* Values outside of QC limits

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:44:00 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
 Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.930	1.001	4.061e4	5.337e4	0.876	0.761	0.770	1016	924	6.17e5	8.21e5	607.4	888.5	NO	bd	bb	9.423
12378-PeCDF	30.109	1.001	2.611e5	1.668e5	0.845	1.566	1.550	1483	2320	3.90e6	2.49e6	2632.8	1073.3	NO	bb	bb	49.295
23478-PeCDF	31.445	1.001	2.831e5	1.846e5	0.911	1.534	1.550	1483	2320	4.24e6	2.75e6	2856.0	1187.4	NO	bb	bb	51.146
123478-HxCDF	35.066	1.000	2.146e5	1.721e5	1.182	1.247	1.240	1380	1302	3.42e6	2.73e6	2478.2	2095.7	NO	bd	bd	48.602
234678-HxCDF	36.069	1.001	2.177e5	1.753e5	1.229	1.241	1.240	1380	1302	3.44e6	2.71e6	2495.3	2078.9	NO	bd	bb	49.118
123678-HxCDF	35.200	1.000	2.336e5	1.848e5	1.248	1.264	1.240	1380	1302	3.42e6	2.72e6	2477.8	2087.7	NO	dd	dd	47.930
123789-HxCDF	37.082	1.000	1.910e5	1.529e5	1.187	1.250	1.240	1380	1302	2.93e6	2.29e6	2125.2	1756.8	NO	bd	bb	48.988
1234678-HpCDF	38.943	1.000	1.847e5	1.766e5	1.204	1.046	1.050	1506	1387	3.03e6	2.87e6	2010.4	2066.4	NO	bd	bd	46.700
1234789-HpCDF	41.193	1.000	1.546e5	1.499e5	1.165	1.031	1.050	1506	1387	2.08e6	2.04e6	1384.1	1471.1	NO	bd	bd	48.666
OCDF	45.507	1.005	2.234e5	2.501e5	1.186	0.893	0.890	1697	1335	2.53e6	2.83e6	1489.6	2117.5	NO	bd	bd	86.546
2378-TCDD	26.565	1.000	4.218e4	5.363e4	1.236	0.786	0.770	1168	849	6.69e5	8.38e5	572.5	986.9	NO	bb	bd	9.764
12378-PeCDD	31.691	1.000	2.097e5	1.358e5	1.087	1.544	1.550	1164	1116	3.32e6	2.15e6	2853.2	1924.5	NO	bb	bb	54.099
123478-HxCDD	36.169	1.000	1.599e5	1.301e5	0.987	1.229	1.240	1280	1224	2.74e6	2.19e6	2139.4	1791.5	NO	bd	bd	49.744
123678-HxCDD	36.292	1.001	1.704e5	1.373e5	1.021	1.241	1.240	1280	1224	2.74e6	2.18e6	2143.1	1784.6	NO	db	db	48.431
123789-HxCDD	36.681	1.011	1.696e5	1.365e5	0.985	1.243	1.240	1280	1224	2.73e6	2.17e6	2132.7	1775.8	NO	bb	bb	51.213
1234678-HpCDD	40.447	1.000	1.520e5	1.476e5	1.253	1.030	1.050	1257	1366	2.20e6	2.12e6	1750.8	1552.7	NO	bd	bd	46.338
OCDD	45.270	1.000	2.252e5	2.486e5	1.103	0.906	0.890	970	1824	2.56e6	2.85e6	2637.5	1561.7	NO	bd	bb	93.148
13C-2378-TCDF	25.901	1.007	4.980e5	6.404e5	1.768	0.778	0.770	1536	1122	7.37e6	9.47e6	4795.3	8444.6	NO	bb	bb	92.979
13C-12378-PeCDF	30.086	1.170	6.297e5	3.978e5	1.527	1.583	1.550	1905	1697	9.52e6	6.10e6	4997.9	3594.2	NO	bd	bb	97.154
13C-23478-PeCDF	31.423	1.222	6.095e5	3.940e5	1.466	1.547	1.550	1905	1697	9.38e6	6.00e6	4925.3	3537.5	NO	bb	bb	98.832
13C-123478-HxCDF	35.055	0.956	2.286e5	4.447e5	1.054	0.514	0.510	788	1537	3.55e6	6.93e6	4503.6	4513.0	NO	bd	bd	96.730
13C-123678-HxCDF	35.188	0.960	2.385e5	4.610e5	1.080	0.517	0.510	788	1537	3.76e6	7.21e6	4774.6	4693.6	NO	db	db	98.039
13C-234678-HxCDF	36.046	0.983	2.231e5	4.280e5	1.014	0.521	0.510	788	1537	3.73e6	7.11e6	4736.3	4627.7	NO	bb	bb	97.159
13C-123789-HxCDF	37.071	1.011	2.008e5	3.908e5	0.928	0.514	0.510	788	1537	3.35e6	6.53e6	4248.7	4252.6	NO	bb	bb	96.509
13C-1234678-HpCDF	38.932	1.062	1.999e5	4.425e5	1.036	0.452	0.440	937	1992	3.33e6	7.31e6	3550.8	3669.2	NO	bb	bb	93.856
13C-1234789-HpCDF	41.182	1.123	1.679e5	3.691e5	0.905	0.455	0.440	937	1992	2.41e6	5.40e6	2569.4	2709.7	NO	bb	bb	89.818
13C-1234-TCDD	25.718	0.000	3.065e5	3.860e5	1.000	0.794	0.770	1309	913	4.63e6	5.88e6	3538.5	6441.6	NO	bb	bb	100.000
13C-2378-TCDD	26.551	1.032	3.510e5	4.427e5	1.103	0.793	0.770	1309	913	5.34e6	6.73e6	4080.3	7370.9	NO	bb	bb	103.902
13C-12378-PeCDD	31.679	1.232	3.684e5	2.193e5	0.914	1.680	1.550	1077	841	5.34e6	3.22e6	4963.0	3825.2	NO	bb	bb	92.839
13C-123478-HxCDD	36.158	0.986	3.328e5	2.578e5	0.933	1.291	1.240	972	871	5.65e6	4.36e6	5810.2	5001.5	NO	bd	bd	95.834
13C-123678-HxCDD	36.269	0.989	3.441e5	2.782e5	0.965	1.237	1.240	972	871	5.54e6	4.50e6	5703.5	5170.4	NO	db	db	97.659
13C-1234678-HpCDD	40.436	1.103	2.692e5	2.470e5	0.782	1.090	1.050	1292	997	3.97e6	3.67e6	3073.8	3677.8	NO	bb	bb	99.912
13C-OCDD	45.260	1.235	4.441e5	4.784e5	0.788	0.928	0.890	1098	1191	5.28e6	5.70e6	4811.7	4787.1	NO	bb	bb	177.159
13C-123789-HxCDD	36.659	0.000	3.682e5	2.924e5	1.000	1.259	1.240	972	871	5.90e6	4.72e6	6069.7	5423.0	NO	bb	bb	100.000
37CL-2378-TCDD	26.565	1.033	8.013e4		1.233			993		1.23e6		1239.4			bb		9.381

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:44:00 Pacific Standard Time

ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.398	0.865	4.663e4	6.353e4	1.064	0.734	0.770	1016	924	7.26e5	9.94e5	714.6	1075.8	NO	bb	bb	9.089
1289-TCDF	27.427	1.059	3.594e4	4.932e4	0.858	0.729	0.770	1016	924	5.30e5	7.44e5	521.9	804.6	NO	db	db	8.733
13468-PECDF	27.285	0.907	3.015e5	1.956e5	1.013	1.541	1.550	451	798	4.71e6	3.05e6	10438.3	3816.9	NO	bb	bb	47.758
12389-PECDF	32.481	1.080	2.663e5	1.703e5	0.844	1.563	1.550	1483	2320	3.94e6	2.50e6	2658.3	1076.2	NO	bb	bb	50.367
123468-HXCDF	33.406	0.953	2.185e5	1.723e5	1.197	1.268	1.240	1380	1302	3.28e6	2.58e6	2380.0	1978.5	NO	bb	bb	48.467
1368-TCDD	23.670	0.891	3.444e4	4.535e4	1.084	0.759	0.770	1168	849	5.37e5	6.87e5	459.9	808.9	NO	bb	bb	9.271
1289-TCDD	27.158	1.023	3.543e4	4.533e4	0.975	0.782	0.770	1168	849	5.11e5	6.65e5	437.8	783.1	NO	bb	bb	10.435
12479-PECDD	28.961	0.914	3.468e5	2.204e5	1.837	1.573	1.550	1164	1116	3.42e6	2.18e6	2937.1	1957.4	NO	bb	bb	52.535
12389-PECDD	32.092	1.013	2.450e5	1.578e5	1.252	1.553	1.550	1164	1116	3.78e6	2.45e6	3246.3	2191.8	NO	bb	bb	54.727
124679-HXCDD	34.175	0.945	1.653e5	1.331e5	1.033	1.242	1.240	1280	1224	2.60e6	2.09e6	2029.2	1705.6	NO	bb	bb	48.906
1234679-HPCDD	39.389	0.974	1.715e5	1.647e5	1.286	1.041	1.050	1257	1366	2.59e6	2.51e6	2061.5	1839.5	NO	bd	bd	50.654
Total-tetrafurans			1.247e5		0.933			1016		1.90e6							27.599
Total-penta1			3.015e5					451		4.71e6							47.758
Total-pentafurans			8.535e5		0.866			1483		1.27e7							158.815
Total-hexafurans			1.075e6		1.208			1380		1.65e7							243.105
Total-heptafurans			3.393e5		1.185			1506		5.11e6							95.366
Total-Furans			2.918e6		1.067			1016		4.35e7							659.188
Total-tetradoxins			1.926e5		1.099			1168		2.68e6							50.260
Total-pentadoxins			8.024e5		1.392			1164		1.05e7							161.526
Total-hexadoxins			6.653e5		1.007			1280		1.08e7							198.329
Total-heptadoxins			3.235e5		1.269			1257		4.79e6							96.992
Total-Dioxins			2.209e6		1.165			1168		3.14e7							600.254
Total-TEQ			5.127e6					1168		7.48e7							1259.442
FUNCTION1 PFK			6.874e7					268831		2.06e7							
FUNCTION2 PFK			1.659e4					189556		8.02e5							0.000
FUNCTION3 PFK			6.572e4					195995		2.02e6							0.000
FUNCTION4 PFK			2.130e5					148444		6.61e6							
FUNCTION5 PFK			5.647e4					107970		1.62e6							
FUNCTION1 HXCD...			7.694e2					499		9.49e3							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			3.485e2					722		9.08e3							0.000
FUNCTION3 OCDPE			1.006e2					545		1.65e3							0.000
FUNCTION4 NCDPE			1.492e2					505		2.48e3							0.000
FUNCTION5 DCDPE			0.000e0					531		0.00e0							

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:44:00 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20**Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40****ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.43	3.594e4	4.932e4	0.858	0.73	0.77	521.9	YES	NO	db	db	8.733
2	Total-tetrafurans	27.29	1.124e3	1.582e3	0.933	0.71	0.77	20.9	YES	NO	bd	bd	0.255
3	2378-TCDF	25.93	4.061e4	5.337e4	0.876	0.76	0.77	607.4	YES	NO	bd	bb	9.423
4	Total-tetrafurans	24.69	4.283e2	6.219e2	0.933	0.69	0.77	5.2	YES	NO	bd	bd	0.099
5	1368-TCDF	22.40	4.663e4	6.353e4	1.064	0.73	0.77	714.6	YES	NO	bb	bb	9.089

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDFF	27.29	3.015e5	1.956e5	1.013	1.54	1.55	10438.3	YES	NO	bb	bb	47.758

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.45	2.831e5	1.846e5	0.911	1.53	1.55	2856.0	YES	NO	bb	bb	51.146
2	Total-pentafurans	30.40	1.977e2	1.433e2	0.866	1.38	1.55	3.5	NO	NO	bb	bb	0.039
3	12378-PeCDF	30.11	2.611e5	1.668e5	0.845	1.57	1.55	2632.8	YES	NO	bb	bb	49.295
4	Total-pentafurans	29.82	4.895e2	3.375e2	0.866	1.45	1.55	5.9	YES	NO	bb	bb	0.094
5	Total-pentafurans	28.95	4.235e4	2.695e4	0.866	1.57	1.55	417.2	YES	NO	bb	bb	7.875
6	12389-PECDF	32.48	2.663e5	1.703e5	0.844	1.56	1.55	2658.3	YES	NO	bb	bb	50.367

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123478-HxCDF	35.07	2.146e5	1.721e5	1.182	1.25	1.24	2478.2	YES	NO	bd	bd	48.602
2	123468-HxCDF	33.41	2.185e5	1.723e5	1.197	1.27	1.24	2380.0	YES	NO	bb	bb	48.467
3	123789-HxCDF	37.08	1.910e5	1.529e5	1.187	1.25	1.24	2125.2	YES	NO	bd	bb	48.988
4	234678-HxCDF	36.07	2.177e5	1.753e5	1.229	1.24	1.24	2495.3	YES	NO	bd	bb	49.118
5	123678-HxCDF	35.20	2.336e5	1.848e5	1.248	1.26	1.24	2477.8	YES	NO	dd	dd	47.930

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.19	1.546e5	1.499e5	1.165	1.03	1.05	1384.1	YES	NO	bd	bd	48.666
2	1234678-HpCDF	38.94	1.847e5	1.766e5	1.204	1.05	1.05	2010.4	YES	NO	bd	bd	46.700

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:44:00 Pacific Standard Time

ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk**Furans,TF,PP,PF,HF,HPF,OF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.43	3.594e4	4.932e4	0.858	0.73	0.77	521.9	YES	NO	db	db	8.733
2	Total-tetrafurans	27.29	1.124e3	1.582e3	0.933	0.71	0.77	20.9	YES	NO	bd	bd	0.255
3	2378-TCDF	25.93	4.061e4	5.337e4	0.876	0.76	0.77	607.4	YES	NO	bd	bb	9.423
4	Total-tetrafurans	24.69	4.283e2	6.219e2	0.933	0.69	0.77	5.2	YES	NO	bd	bd	0.099
5	1368-TCDF	22.40	4.663e4	6.353e4	1.064	0.73	0.77	714.6	YES	NO	bb	bb	9.089
6	23478-PeCDF	31.45	2.831e5	1.846e5	0.911	1.53	1.55	2856.0	YES	NO	bb	bb	51.146
7	Total-pentafurans	30.40	1.977e2	1.433e2	0.866	1.38	1.55	3.5	NO	NO	bb	bb	0.039
8	12378-PeCDF	30.11	2.611e5	1.668e5	0.845	1.57	1.55	2632.8	YES	NO	bb	bb	49.295
9	Total-pentafurans	29.82	4.895e2	3.375e2	0.866	1.45	1.55	5.9	YES	NO	bb	bb	0.094
10	Total-pentafurans	28.95	4.235e4	2.695e4	0.866	1.57	1.55	417.2	YES	NO	bb	bb	7.875
11	123478-HxCDF	35.07	2.146e5	1.721e5	1.182	1.25	1.24	2478.2	YES	NO	bd	bd	48.602
12	123468-HxCDF	33.41	2.185e5	1.723e5	1.197	1.27	1.24	2380.0	YES	NO	bb	bb	48.467
13	12389-PECDF	32.48	2.663e5	1.703e5	0.844	1.56	1.55	2658.3	YES	NO	bb	bb	50.367
14	123789-HxCDF	37.08	1.910e5	1.529e5	1.187	1.25	1.24	2125.2	YES	NO	bd	bb	48.988
15	234678-HxCDF	36.07	2.177e5	1.753e5	1.229	1.24	1.24	2495.3	YES	NO	bd	bb	49.118
16	123678-HxCDF	35.20	2.336e5	1.848e5	1.248	1.26	1.24	2477.8	YES	NO	dd	dd	47.930
17	1234789-HpCDF	41.19	1.546e5	1.499e5	1.165	1.03	1.05	1384.1	YES	NO	bd	bd	48.666
18	1234678-HpCDF	38.94	1.847e5	1.766e5	1.204	1.05	1.05	2010.4	YES	NO	bd	bd	46.700
19	OCDF	45.51	2.234e5	2.501e5	1.186	0.89	0.89	1489.6	YES	NO	bd	bd	86.546
20	13468-PECDF	27.29	3.015e5	1.956e5	1.013	1.54	1.55	10438.3	YES	NO	bb	bb	47.758

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	24.87	1.582e3	2.102e3	1.099	0.75	0.77	15.6	YES	NO	bb	bb	0.422
2	1368-TCDD	23.67	3.444e4	4.535e4	1.084	0.76	0.77	459.9	YES	NO	bb	bb	9.271
3	1289-TCDD	27.16	3.543e4	4.533e4	0.975	0.78	0.77	437.8	YES	NO	bb	bb	10.435
4	2378-TCDD	26.57	4.218e4	5.363e4	1.236	0.79	0.77	572.5	YES	NO	bb	bd	9.764
5	Total-tetradoxins	26.24	6.008e4	7.550e4	1.099	0.80	0.77	552.9	YES	NO	bb	bb	15.550
6	Total-tetradoxins	25.75	1.892e4	2.309e4	1.099	0.82	0.77	256.3	YES	NO	bd	bb	4.817

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Printed: Monday, February 13, 2023 11:44:00 Pacific Standard Time

ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk**PD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	32.09	2.450e5	1.578e5	1.252	1.55	1.55	3246.3	YES	NO	bb	bb	54.727
2	12378-PeCDD	31.69	2.097e5	1.358e5	1.087	1.54	1.55	2853.2	YES	NO	bb	bb	54.099
3	Total-pentadioxins	31.02	8.594e2	4.883e2	1.392	1.76	1.55	11.0	YES	NO	bb	bb	0.165
4	12479-PECDD	28.96	3.468e5	2.204e5	1.837	1.57	1.55	2937.1	YES	NO	bb	bb	52.535

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDD	36.29	1.704e5	1.373e5	1.021	1.24	1.24	2143.1	YES	NO	db	db	48.431
2	123478-HxCDD	36.17	1.599e5	1.301e5	0.987	1.23	1.24	2139.4	YES	NO	bd	bd	49.744
3	124679-HxCDD	34.17	1.653e5	1.331e5	1.033	1.24	1.24	2029.2	YES	NO	bb	bb	48.906
4	Total-hexadioxins	37.08	1.217e2	9.154e1	1.007	1.33	1.24	2.6	NO	NO	bd	bb	0.035
5	123789-HxCDD	36.68	1.696e5	1.365e5	0.985	1.24	1.24	2132.7	YES	NO	bb	bb	51.213

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234679-HPCDD	39.39	1.715e5	1.647e5	1.286	1.04	1.05	2061.5	YES	NO	bd	bd	50.654
2	1234678-HpCDD	40.45	1.520e5	1.476e5	1.253	1.03	1.05	1750.8	YES	NO	bd	bd	46.338

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk**Dioxins,TD,PD,HD,HPD,OD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	24.87	1.582e3	2.102e3	1.099	0.75	0.77	15.6	YES	NO	bb	bb	0.422
2	1368-TCDD	23.67	3.444e4	4.535e4	1.084	0.76	0.77	459.9	YES	NO	bb	bb	9.271
3	1289-TCDD	27.16	3.543e4	4.533e4	0.975	0.78	0.77	437.8	YES	NO	bb	bb	10.435
4	2378-TCDD	26.57	4.218e4	5.363e4	1.236	0.79	0.77	572.5	YES	NO	bb	bd	9.764
5	Total-tetradoxins	26.24	6.008e4	7.550e4	1.099	0.80	0.77	552.9	YES	NO	bb	bb	15.550
6	Total-tetradoxins	25.75	1.892e4	2.309e4	1.099	0.82	0.77	256.3	YES	NO	bd	bb	4.817
7	12389-PECDD	32.09	2.450e5	1.578e5	1.252	1.55	1.55	3246.3	YES	NO	bb	bb	54.727
8	12378-PeCDD	31.69	2.097e5	1.358e5	1.087	1.54	1.55	2853.2	YES	NO	bb	bb	54.099
9	Total-pentadoxins	31.02	8.594e2	4.883e2	1.392	1.76	1.55	11.0	YES	NO	bb	bb	0.165
10	12479-PECDD	28.96	3.468e5	2.204e5	1.837	1.57	1.55	2937.1	YES	NO	bb	bb	52.535
11	123678-HxCDD	36.29	1.704e5	1.373e5	1.021	1.24	1.24	2143.1	YES	NO	db	db	48.431
12	123478-HxCDD	36.17	1.599e5	1.301e5	0.987	1.23	1.24	2139.4	YES	NO	bd	bd	49.744
13	124679-HxCDD	34.17	1.653e5	1.331e5	1.033	1.24	1.24	2029.2	YES	NO	bb	bb	48.906
14	Total-hexadoxins	37.08	1.217e2	9.154e1	1.007	1.33	1.24	2.6	NO	NO	bd	bb	0.035
15	123789-HxCDD	36.68	1.696e5	1.365e5	0.985	1.24	1.24	2132.7	YES	NO	bb	bb	51.213
16	1234679-HPCDD	39.39	1.715e5	1.647e5	1.286	1.04	1.05	2061.5	YES	NO	bd	bd	50.654
17	1234678-HpCDD	40.45	1.520e5	1.476e5	1.253	1.03	1.05	1750.8	YES	NO	bd	bd	46.338
18	OCDD	45.27	2.252e5	2.486e5	1.103	0.91	0.89	2637.5	YES	NO	bd	bb	93.148

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.43	3.594e4	4.932e4	0.858	0.73	0.77	521.9	YES	NO	db	db	8.733
2	Total-tetrafurans	27.29	1.124e3	1.582e3	0.933	0.71	0.77	20.9	YES	NO	bd	bd	0.255
3	2378-TCDF	25.93	4.061e4	5.337e4	0.876	0.76	0.77	607.4	YES	NO	bd	bb	9.423
4	Total-tetrafurans	24.69	4.283e2	6.219e2	0.933	0.69	0.77	5.2	YES	NO	bd	bd	0.099
5	1368-TCDF	22.40	4.663e4	6.353e4	1.064	0.73	0.77	714.6	YES	NO	bb	bb	9.089
6	23478-PeCDF	31.45	2.831e5	1.846e5	0.911	1.53	1.55	2856.0	YES	NO	bb	bb	51.146
7	Total-pentafurans	30.40	1.977e2	1.433e2	0.866	1.38	1.55	3.5	NO	NO	bb	bb	0.039
8	12378-PeCDF	30.11	2.611e5	1.668e5	0.845	1.57	1.55	2632.8	YES	NO	bb	bb	49.295
9	Total-pentafurans	29.82	4.895e2	3.375e2	0.866	1.45	1.55	5.9	YES	NO	bb	bb	0.094
10	Total-pentafurans	28.95	4.235e4	2.695e4	0.866	1.57	1.55	417.2	YES	NO	bb	bb	7.875
11	123478-HxCDF	35.07	2.146e5	1.721e5	1.182	1.25	1.24	2478.2	YES	NO	bd	bd	48.602
12	123468-HxCDF	33.41	2.185e5	1.723e5	1.197	1.27	1.24	2380.0	YES	NO	bb	bb	48.467
13	12389-PECDF	32.48	2.663e5	1.703e5	0.844	1.56	1.55	2658.3	YES	NO	bb	bb	50.367
14	123789-HxCDF	37.08	1.910e5	1.529e5	1.187	1.25	1.24	2125.2	YES	NO	bd	bb	48.988
15	234678-HxCDF	36.07	2.177e5	1.753e5	1.229	1.24	1.24	2495.3	YES	NO	bd	bb	49.118
16	123678-HxCDF	35.20	2.336e5	1.848e5	1.248	1.26	1.24	2477.8	YES	NO	dd	dd	47.930
17	1234789-HpCDF	41.19	1.546e5	1.499e5	1.165	1.03	1.05	1384.1	YES	NO	bd	bd	48.666
18	1234678-HpCDF	38.94	1.847e5	1.766e5	1.204	1.05	1.05	2010.4	YES	NO	bd	bd	46.700
19	OCDF	45.51	2.234e5	2.501e5	1.186	0.89	0.89	1489.6	YES	NO	bd	bd	86.546
20	13468-PECDF	27.29	3.015e5	1.956e5	1.013	1.54	1.55	10438.3	YES	NO	bb	bb	47.758
21	Total-tetradioxins	24.87	1.582e3	2.102e3	1.099	0.75	0.77	15.6	YES	NO	bb	bb	0.422
22	1368-TCDD	23.67	3.444e4	4.535e4	1.084	0.76	0.77	459.9	YES	NO	bb	bb	9.271
23	1289-TCDD	27.16	3.543e4	4.533e4	0.975	0.78	0.77	437.8	YES	NO	bb	bb	10.435
24	2378-TCDD	26.57	4.218e4	5.363e4	1.236	0.79	0.77	572.5	YES	NO	bb	bd	9.764
25	Total-tetradioxins	26.24	6.008e4	7.550e4	1.099	0.80	0.77	552.9	YES	NO	bb	bb	15.550
26	Total-tetradioxins	25.75	1.892e4	2.309e4	1.099	0.82	0.77	256.3	YES	NO	bd	bb	4.817
27	12389-PECDD	32.09	2.450e5	1.578e5	1.252	1.55	1.55	3246.3	YES	NO	bb	bb	54.727
28	12378-PeCDD	31.69	2.097e5	1.358e5	1.087	1.54	1.55	2853.2	YES	NO	bb	bb	54.099
29	Total-pentadioxins	31.02	8.594e2	4.883e2	1.392	1.76	1.55	11.0	YES	NO	bb	bb	0.165
30	12479-PECDD	28.96	3.468e5	2.204e5	1.837	1.57	1.55	2937.1	YES	NO	bb	bb	52.535
31	123678-HxCDD	36.29	1.704e5	1.373e5	1.021	1.24	1.24	2143.1	YES	NO	db	db	48.431
32	123478-HxCDD	36.17	1.599e5	1.301e5	0.987	1.23	1.24	2139.4	YES	NO	bd	bd	49.744
33	124679-HXCDD	34.17	1.653e5	1.331e5	1.033	1.24	1.24	2029.2	YES	NO	bb	bb	48.906
34	Total-hexadioxins	37.08	1.217e2	9.154e1	1.007	1.33	1.24	2.6	NO	NO	bd	bb	0.035
35	123789-HxCDD	36.68	1.696e5	1.365e5	0.985	1.24	1.24	2132.7	YES	NO	bb	bb	51.213
36	1234679-HPCDD	39.39	1.715e5	1.647e5	1.286	1.04	1.05	2061.5	YES	NO	bd	bd	50.654
37	1234678-HpCDD	40.45	1.520e5	1.476e5	1.253	1.03	1.05	1750.8	YES	NO	bd	bd	46.338

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:44:00 Pacific Standard Time

ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	OCDD	45.27	2.252e5	2.486e5	1.103	0.91	0.89	2637.5	YES	NO	bd	bb	93.148

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.30	6.874e7					76.6	YES		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.75	5.528e3					1.3	NO		bb		0.000
2	FUNCTION2 PFK	28.44	1.260e3					0.6	NO		bb		0.000
3	FUNCTION2 PFK	32.48	3.664e3					0.9	NO		bb		0.000
4	FUNCTION2 PFK	30.68	6.136e3					1.4	NO		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.43	2.237e4					1.3	NO		bb		0.000
2	FUNCTION3 PFK	37.09	2.872e3					0.8	NO		bb		0.000
3	FUNCTION3 PFK	36.84	1.717e3					0.8	NO		bb		0.000
4	FUNCTION3 PFK	36.53	9.277e3					1.5	NO		bb		0.000
5	FUNCTION3 PFK	35.20	9.044e3					1.5	NO		bb		0.000
6	FUNCTION3 PFK	35.05	3.491e3					0.9	NO		bb		0.000
7	FUNCTION3 PFK	34.29	3.228e3					0.8	NO		bb		0.000
8	FUNCTION3 PFK	34.00	9.754e3					1.7	NO		bb		0.000
9	FUNCTION3 PFK	33.87	3.964e3					0.9	NO		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:44:00 Pacific Standard Time

ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	38.39	6.154e3					0.9	NO		bb		
2	FUNCTION4 PFK	38.30	6.556e2					0.4	NO		bb		
3	FUNCTION4 PFK	38.22	1.455e4					1.3	NO		bb		
4	FUNCTION4 PFK	39.99	6.836e2					0.4	NO		bb		
5	FUNCTION4 PFK	39.90	1.685e3					0.7	NO		bb		
6	FUNCTION4 PFK	39.57	5.186e3					0.9	NO		bb		
7	FUNCTION4 PFK	39.51	9.967e3					1.6	NO		db		
8	FUNCTION4 PFK	39.44	5.443e3					1.5	NO		bd		
9	FUNCTION4 PFK	39.38	4.417e3					1.2	NO		db		
10	FUNCTION4 PFK	39.33	1.368e3					0.5	NO		bd		
11	FUNCTION4 PFK	39.18	8.144e2					0.5	NO		bb		
12	FUNCTION4 PFK	39.13	7.341e3					1.7	NO		db		
13	FUNCTION4 PFK	39.08	6.900e3					1.5	NO		bd		
14	FUNCTION4 PFK	38.99	4.192e3					1.1	NO		bb		
15	FUNCTION4 PFK	38.94	4.236e3					0.8	NO		db		
16	FUNCTION4 PFK	38.89	1.200e3					0.6	NO		bd		
17	FUNCTION4 PFK	38.72	4.641e3					1.0	NO		bb		
18	FUNCTION4 PFK	38.65	6.954e3					1.5	NO		bb		
19	FUNCTION4 PFK	38.51	1.571e4					2.2	NO		bb		
20	FUNCTION4 PFK	42.53	1.316e4					1.3	NO		bb		
21	FUNCTION4 PFK	42.41	6.850e3					1.5	NO		bb		
22	FUNCTION4 PFK	42.36	7.801e2					0.5	NO		bb		
23	FUNCTION4 PFK	42.30	4.930e3					1.1	NO		bb		
24	FUNCTION4 PFK	42.17	9.728e2					0.6	NO		bb		
25	FUNCTION4 PFK	41.98	5.093e3					1.4	NO		bb		
26	FUNCTION4 PFK	41.87	9.358e3					2.1	NO		bb		
27	FUNCTION4 PFK	41.83	1.538e3					0.9	NO		bb		
28	FUNCTION4 PFK	41.78	8.112e2					0.5	NO		bb		
29	FUNCTION4 PFK	41.42	1.133e3					0.5	NO		bb		
30	FUNCTION4 PFK	41.30	6.145e3					1.2	NO		bb		
31	FUNCTION4 PFK	41.22	1.118e3					0.7	NO		bb		
32	FUNCTION4 PFK	40.78	6.962e3					1.9	NO		bb		
33	FUNCTION4 PFK	40.59	4.112e3					0.8	NO		bb		
34	FUNCTION4 PFK	40.16	5.498e3					1.4	NO		bb		
35	FUNCTION4 PFK	40.03	9.953e2					0.6	NO		bb		
36	FUNCTION4 PFK	42.88	7.251e3					1.5	NO		bb		
37	FUNCTION4 PFK	42.80	1.139e4					1.5	NO		db		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
38	FUNCTION4 PFK	42.74	5.100e3					1.3	NO		dd		
39	FUNCTION4 PFK	42.70	1.183e4					1.6	NO		dd		
40	FUNCTION4 PFK	42.63	5.903e3					1.3	NO		bd		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	45.48	4.159e3					1.5	NO		db		
2	FUNCTION5 PFK	45.42	6.700e3					1.6	NO		bd		
3	FUNCTION5 PFK	45.14	2.247e3					0.9	NO		bb		
4	FUNCTION5 PFK	45.03	2.098e4					2.1	NO		bb		
5	FUNCTION5 PFK	44.94	8.264e3					2.9	NO		db		
6	FUNCTION5 PFK	44.90	7.001e3					2.4	NO		bd		
7	FUNCTION5 PFK	44.20	1.089e3					0.7	NO		bb		
8	FUNCTION5 PFK	43.82	1.269e3					0.9	NO		bb		
9	FUNCTION5 PFK	43.52	3.417e3					0.9	NO		bb		
10	FUNCTION5 PFK	43.11	1.341e3					1.0	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.64	7.887e1					1.7	NO		bb		0.000
2	FUNCTION1 HXCD...	26.54	1.152e2					2.6	NO		bb		0.000
3	FUNCTION1 HXCD...	26.14	7.673e1					3.2	YES		bb		0.000
4	FUNCTION1 HXCD...	25.72	1.494e2					3.3	YES		bb		0.000
5	FUNCTION1 HXCD...	24.98	7.800e1					2.3	NO		bb		0.000
6	FUNCTION1 HXCD...	22.79	7.208e1					1.7	NO		bb		0.000
7	FUNCTION1 HXCD...	22.33	1.245e2					3.3	YES		bb		0.000
8	FUNCTION1 HXCD...	22.10	7.448e1					1.0	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:44:00 Pacific Standard Time

ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk**ETHERS3**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.65	7.837e1					1.7	NO		bb		0.000
2	FUNCTION2 HPCD...	31.28	1.884e2					6.6	YES		db		0.000
3	FUNCTION2 HPCD...	31.24	8.173e1					4.3	YES		bd		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	34.73	1.006e2					3.0	YES		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.74	7.560e1					2.4	NO		bb		0.000
2	FUNCTION4 NCDPE	39.70	7.361e1					2.5	NO		bb		0.000

ETHERS6

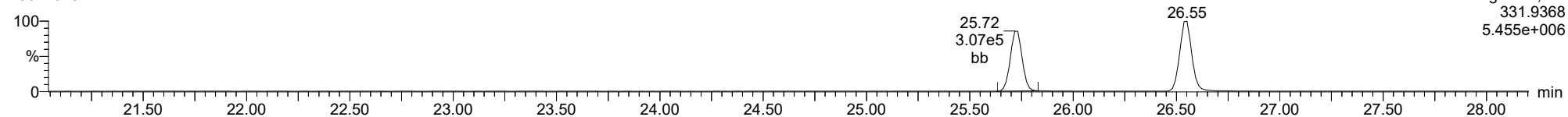
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1													

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ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD

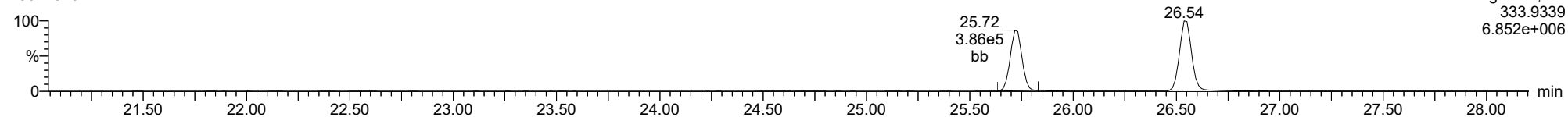
23021015



F1:Voltage SIR,El+
331.9368
5.455e+006

13C-1234-TCDD

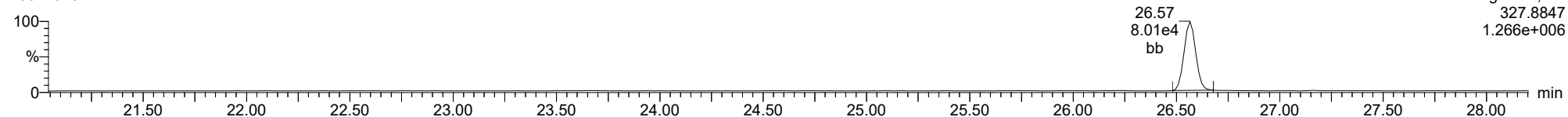
23021015



F1:Voltage SIR,El+
333.9339
6.852e+006

37CL-2378-TCDD

23021015

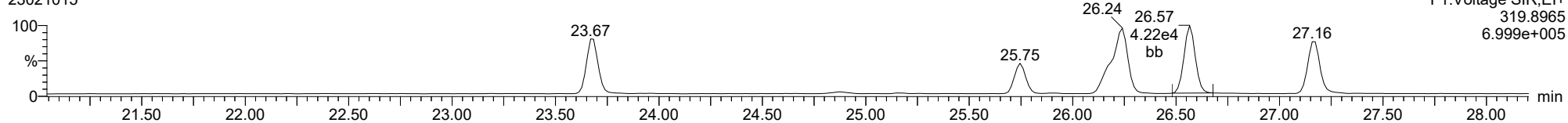


F1:Voltage SIR,El+
327.8847
1.266e+006

ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

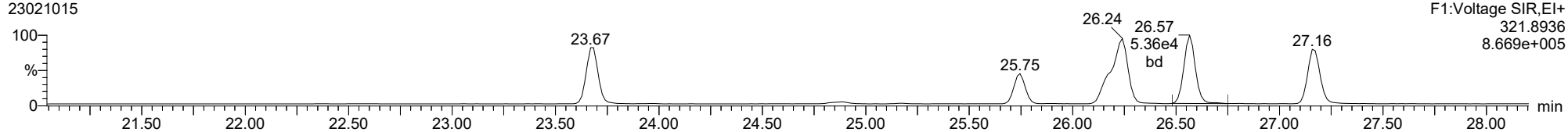
2378-TCDD

23021015



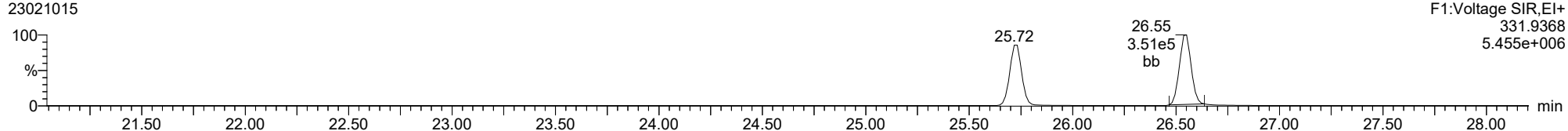
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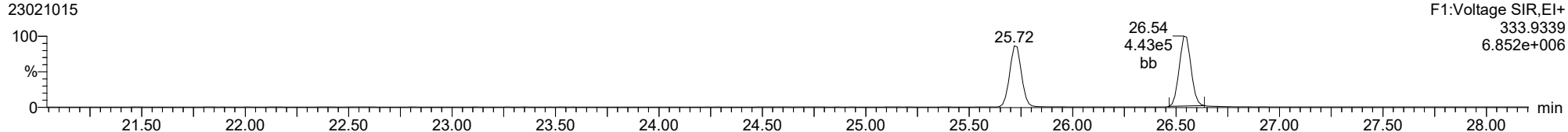
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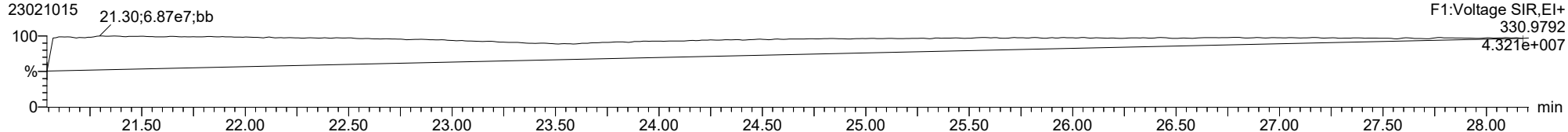
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23021015



FUNCTION1 PFK

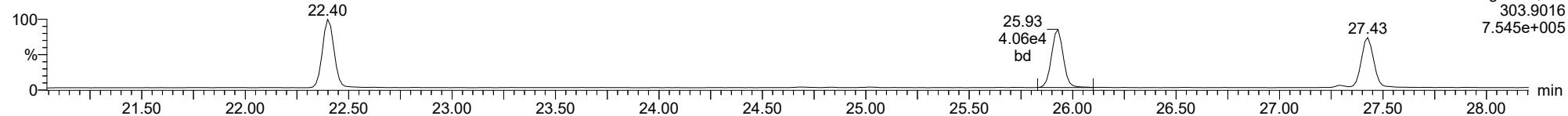
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ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

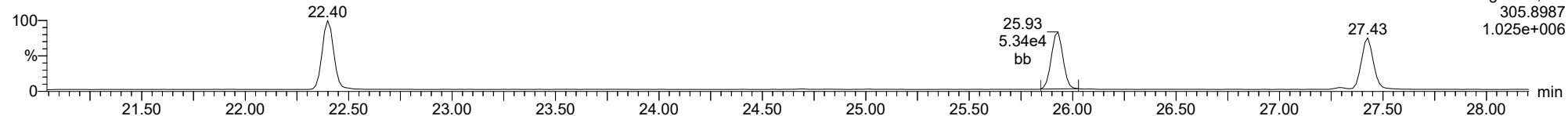
2378-TCDF

23021015



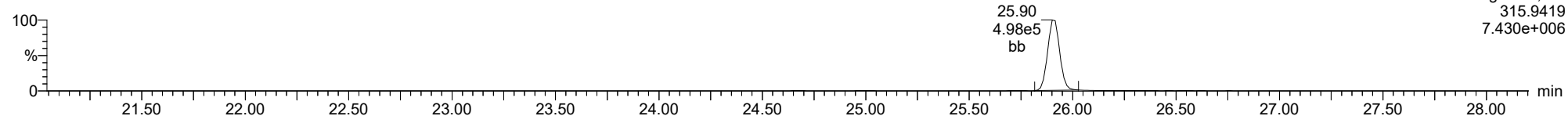
2378-TCDF

23021015



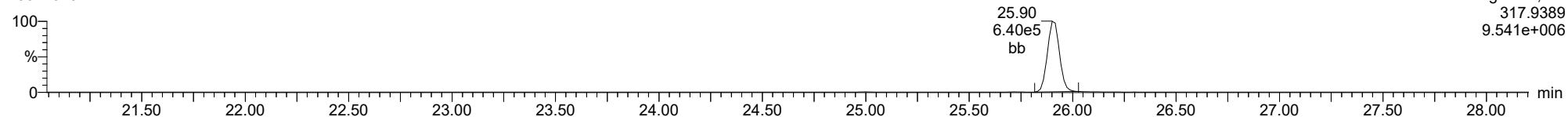
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23021015



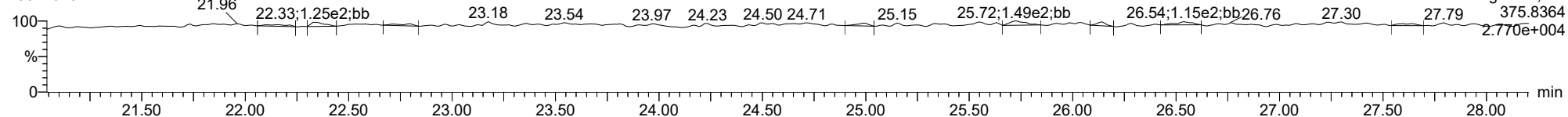
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23021015



FUNCTION1 HXCDPE

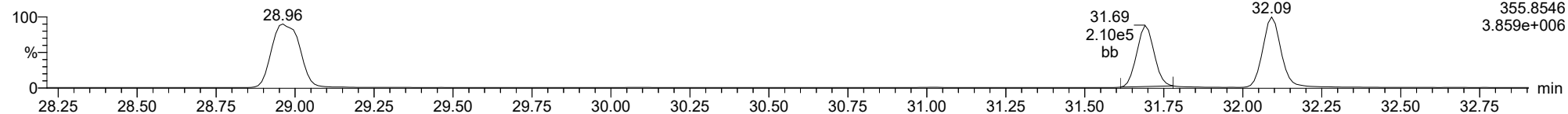
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ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

12378-PeCDD

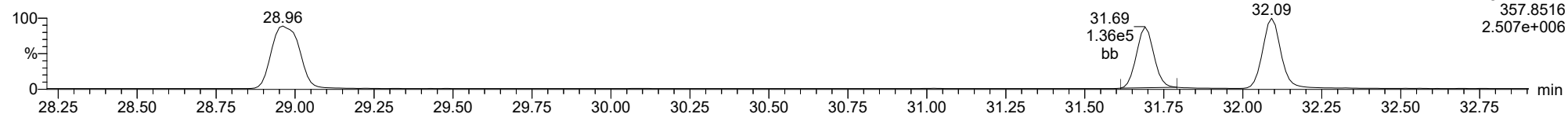
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F2:Voltage SIR,EI+
355.8546
3.859e+006

12378-PeCDD

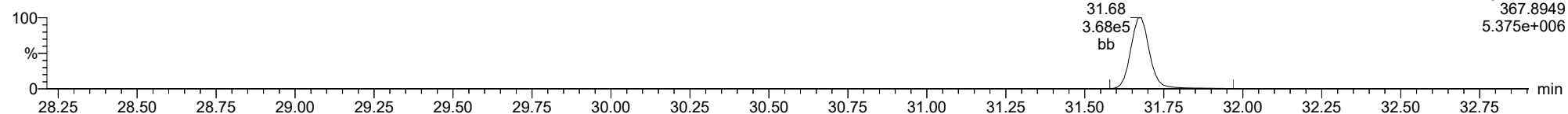
23021015



F2:Voltage SIR,EI+
357.8516
2.507e+006

13C-12378-PeCDD

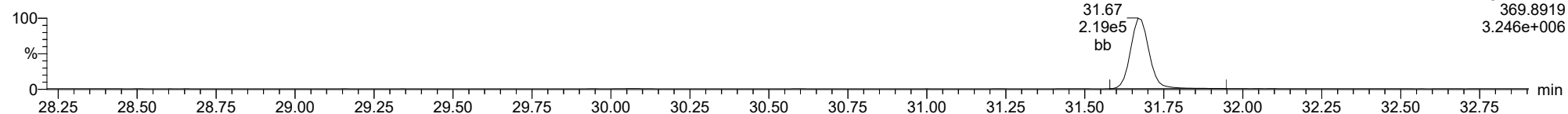
23021015



F2:Voltage SIR,EI+
367.8949
5.375e+006

13C-12378-PeCDD

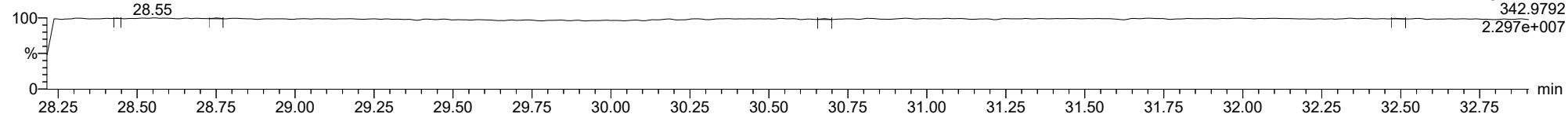
23021015



F2:Voltage SIR,EI+
369.8919
3.246e+006

FUNCTION2 PFK

23021015

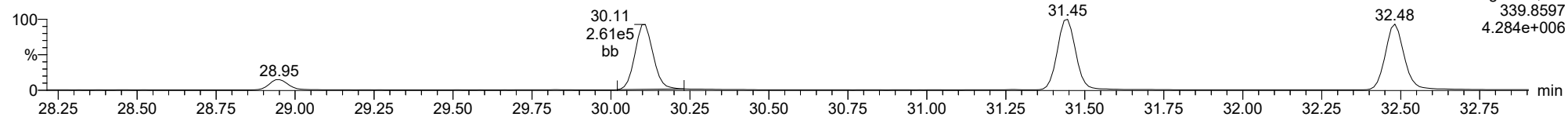


F2:Voltage SIR,EI+
342.9792
2.297e+007

ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

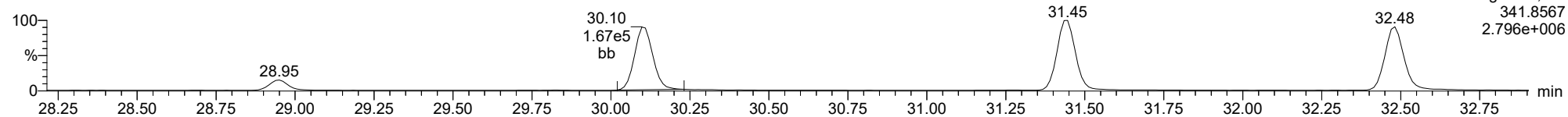
12378-PeCDF

23021015



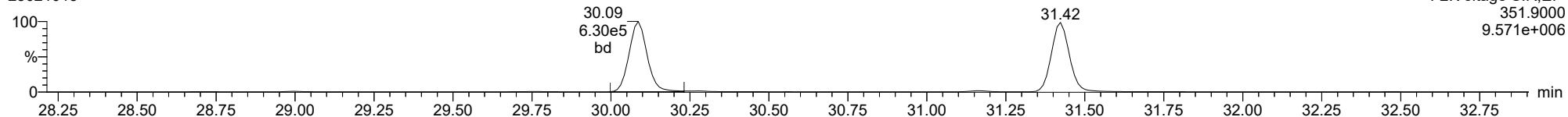
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23021015



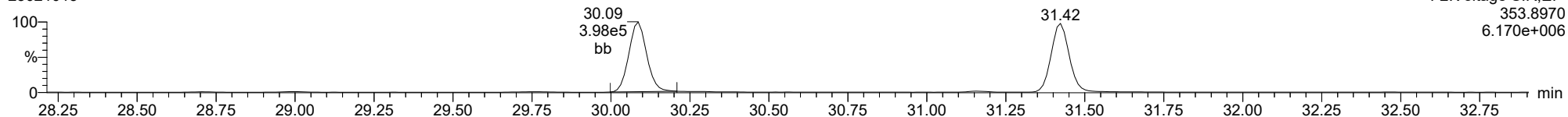
13C-12378-PeCDF

23021015



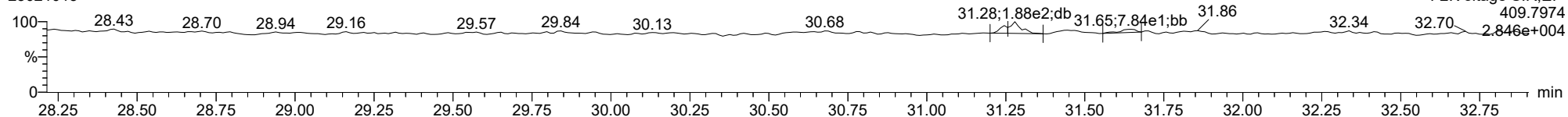
13C-12378-PeCDF

23021015



FUNCTION2 HPCDPE

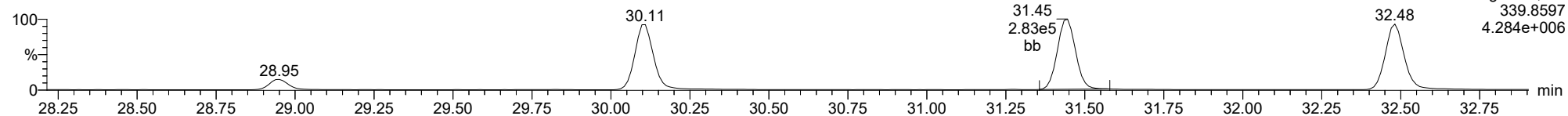
23021015



ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

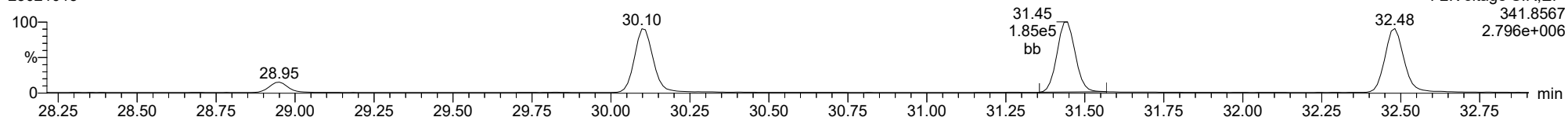
23478-PeCDF

23021015



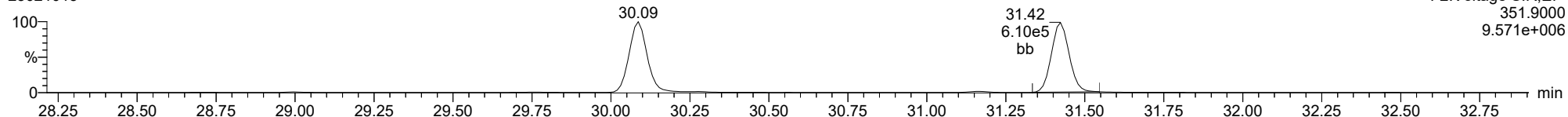
23478-PeCDF

23021015



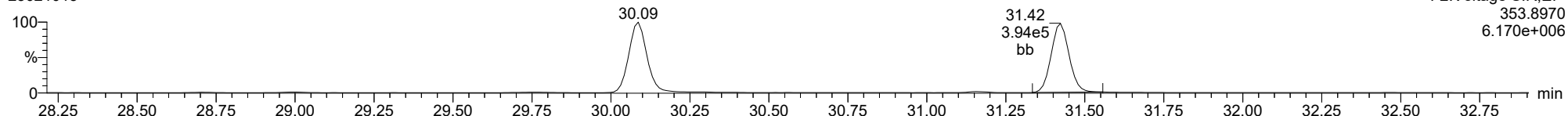
13C-23478-PeCDF

23021015



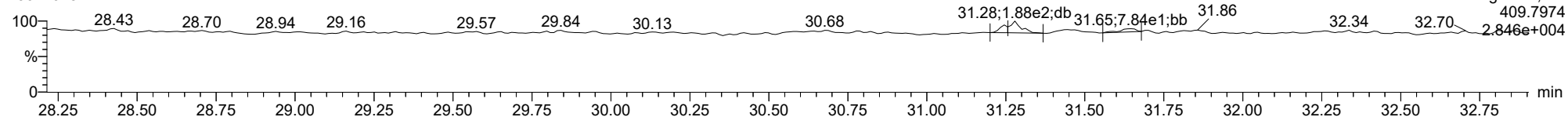
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23021015



FUNCTION2 HPCDPE

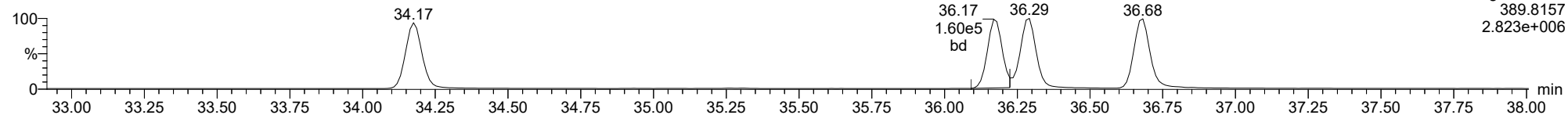
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ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

123478-HxCDD

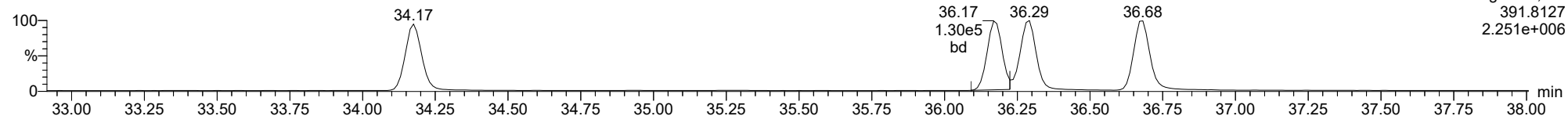
23021015



F3:Voltage SIR,EI+
389.8157
2.823e+006

123478-HxCDD

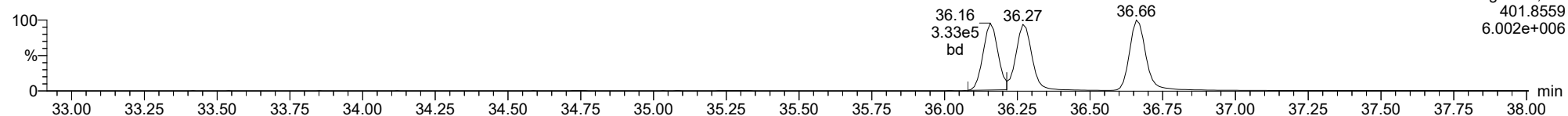
23021015



F3:Voltage SIR,EI+
391.8127
2.251e+006

13C-123478-HxCDD

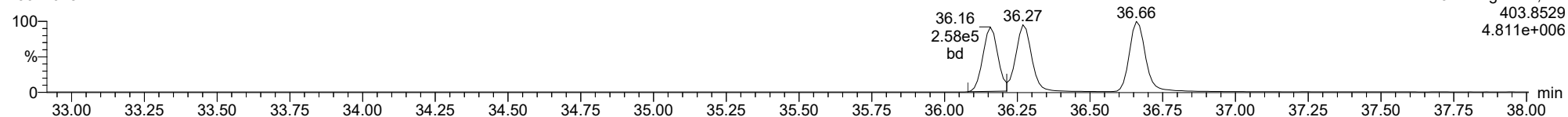
23021015



F3:Voltage SIR,EI+
401.8559
6.002e+006

13C-123478-HxCDD

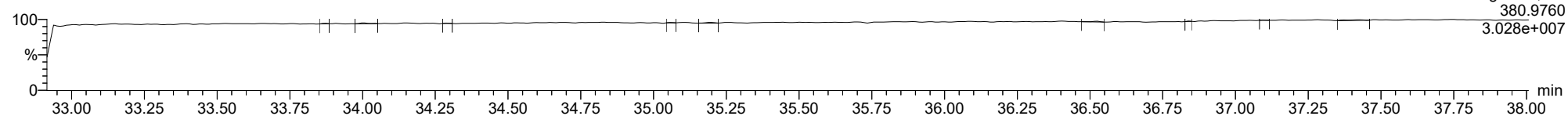
23021015



F3:Voltage SIR,EI+
403.8529
4.811e+006

FUNCTION3 PFK

23021015

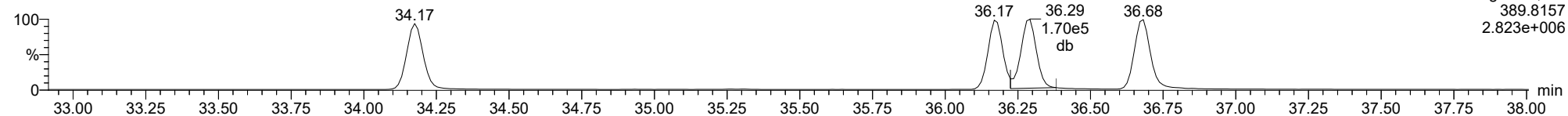


F3:Voltage SIR,EI+
380.9760
3.028e+007

ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

123678-HxCDD

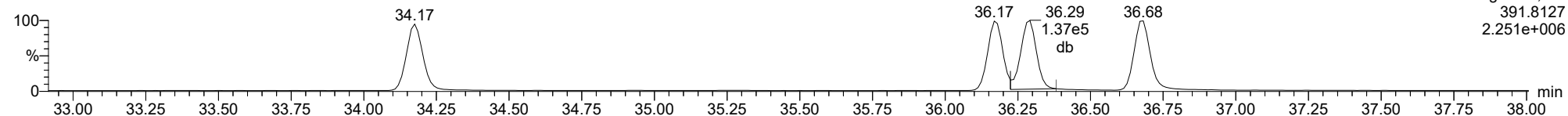
23021015



F3:Voltage SIR,EI+
389.8157
2.823e+006

123678-HxCDD

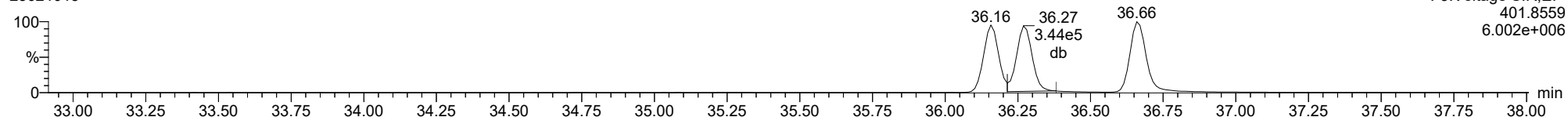
23021015



F3:Voltage SIR,EI+
391.8127
2.251e+006

13C-123678-HxCDD

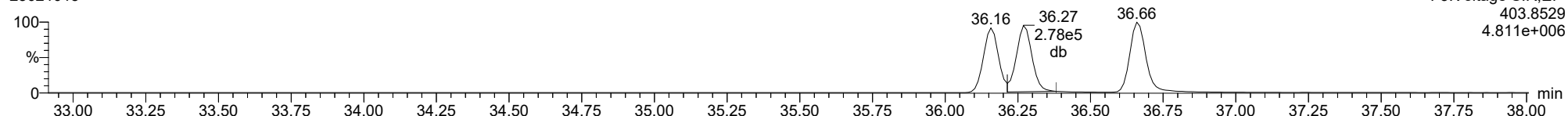
23021015



F3:Voltage SIR,EI+
401.8559
6.002e+006

13C-123678-HxCDD

23021015

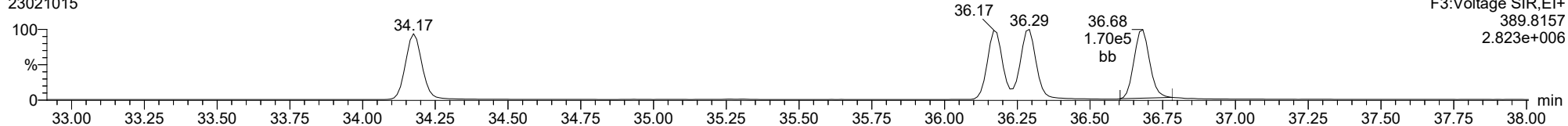


F3:Voltage SIR,EI+
403.8529
4.811e+006

ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

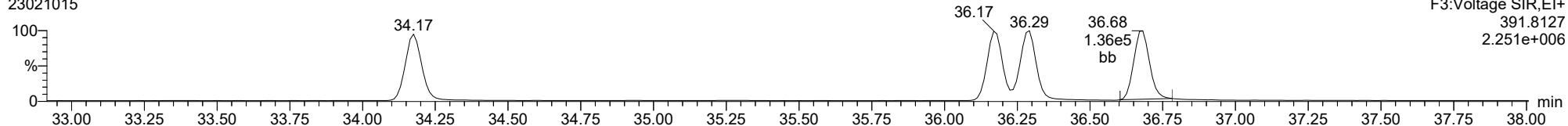
123789-HxCDD

23021015



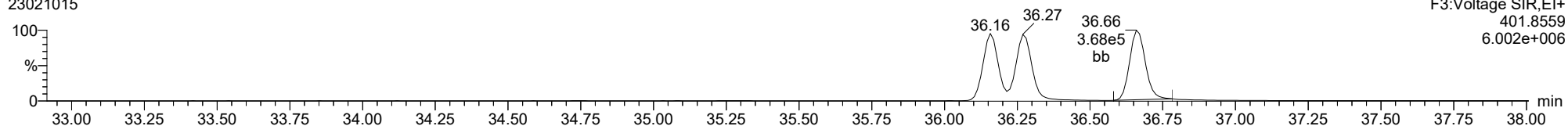
123789-HxCDD

23021015



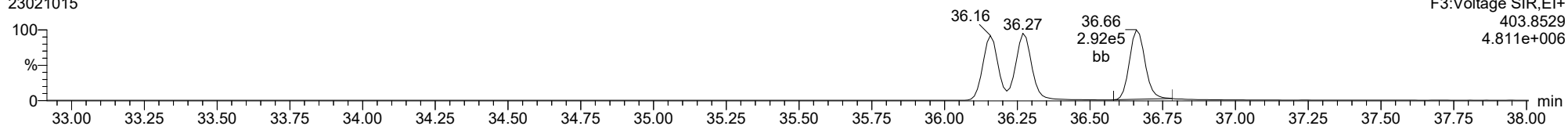
13C-123789-HxCDD

23021015



13C-123789-HxCDD

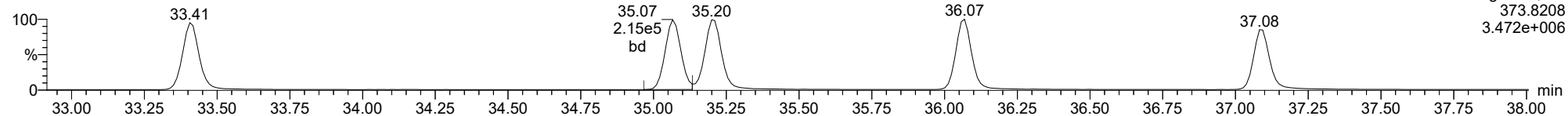
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ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

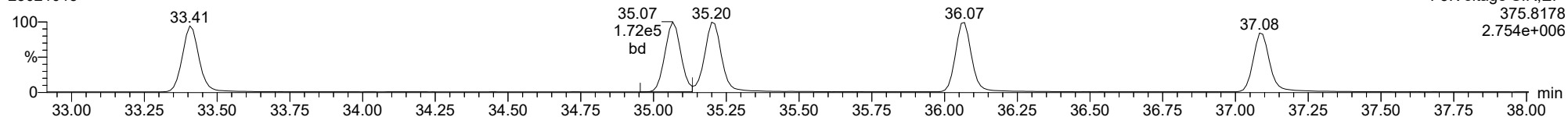
123478-HxCDF

23021015



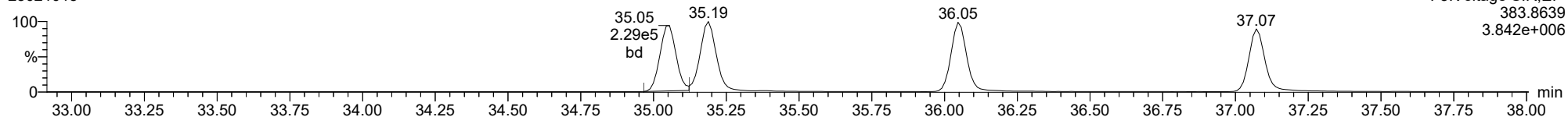
123478-HxCDF

23021015



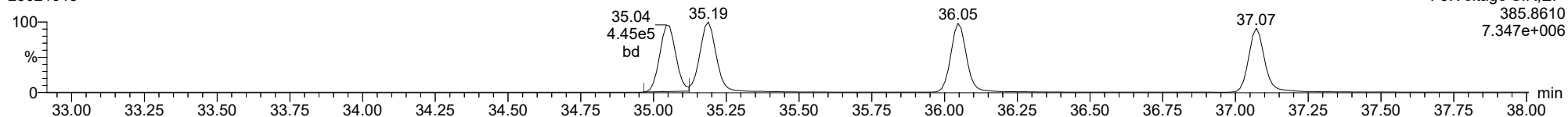
13C-123478-HxCDF

23021015



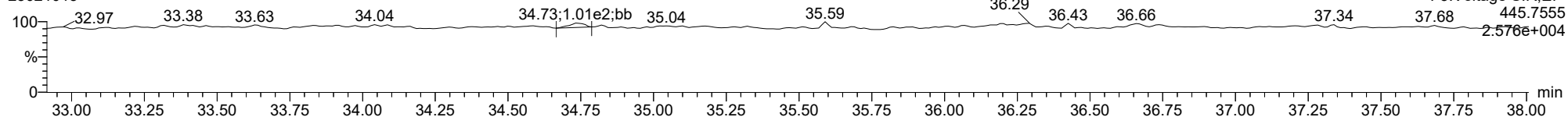
13C-123478-HxCDF

23021015



FUNCTION3 OCDPE

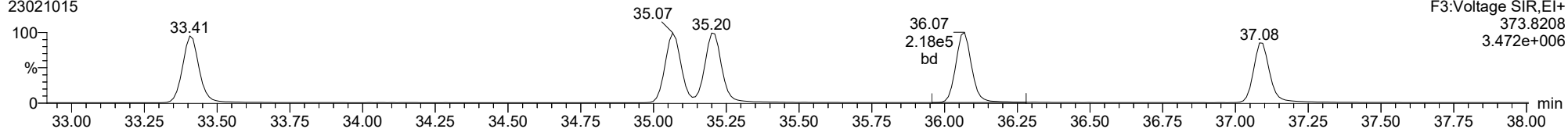
23021015



ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

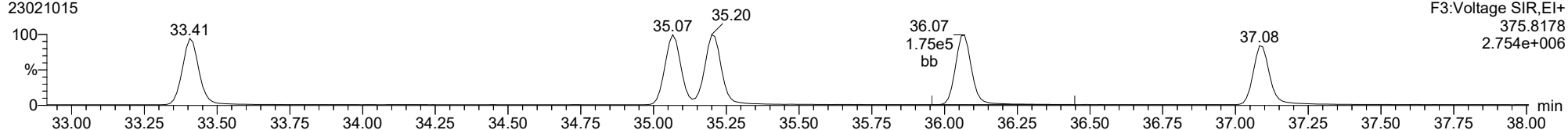
234678-HxCDF

23021015



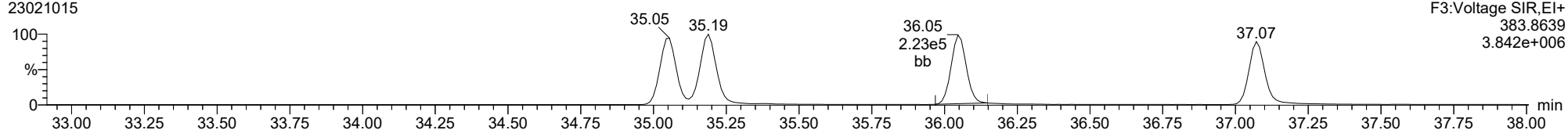
234678-HxCDF

23021015



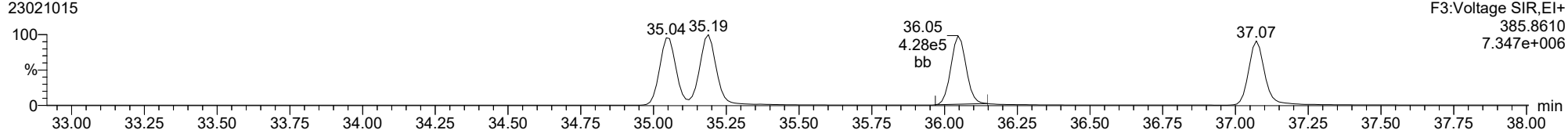
13C-234678-HxCDF

23021015



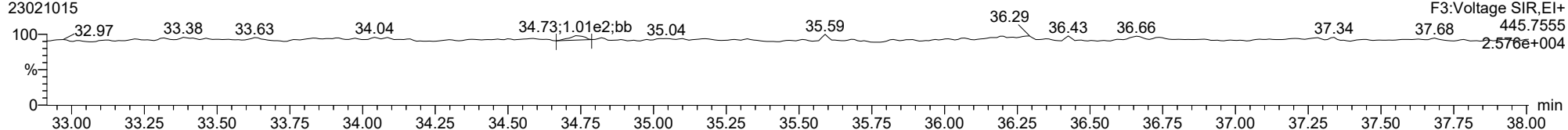
13C-234678-HxCDF

23021015



FUNCTION3 OCDPE

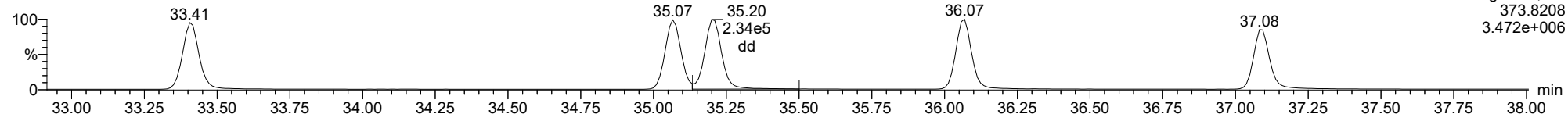
23021015



ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

123678-HxCDF

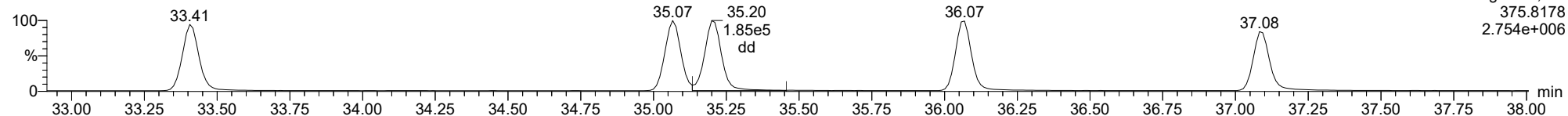
23021015



F3:Voltage SIR,EI+
375.8208
3.472e+006

123678-HxCDF

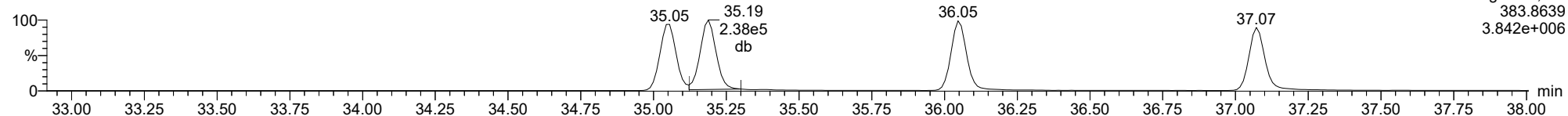
23021015



F3:Voltage SIR,EI+
375.8178
2.754e+006

13C-123678-HxCDF

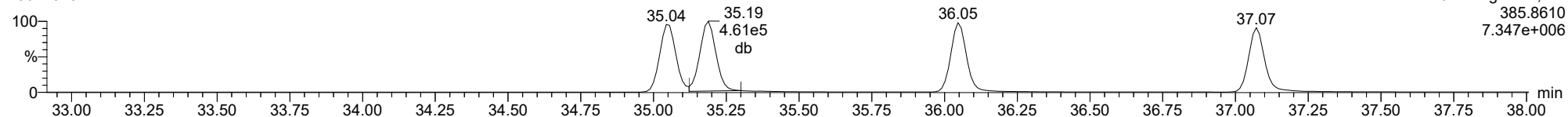
23021015



F3:Voltage SIR,EI+
383.8639
3.842e+006

13C-123678-HxCDF

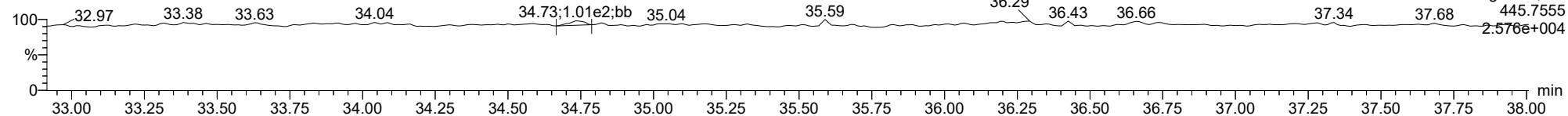
23021015



F3:Voltage SIR,EI+
385.8610
7.347e+006

FUNCTION3 OCDPE

23021015

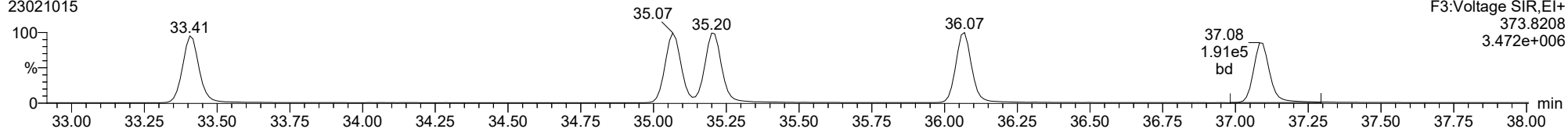


F3:Voltage SIR,EI+
445.7555
2.576e+004

ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

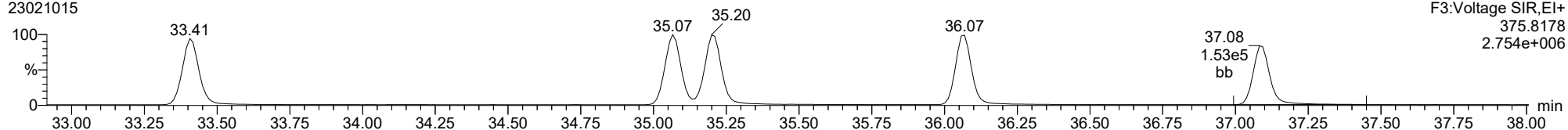
123789-HxCDF

23021015



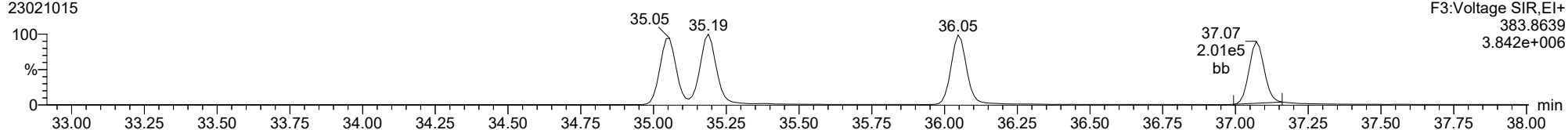
123789-HxCDF

23021015



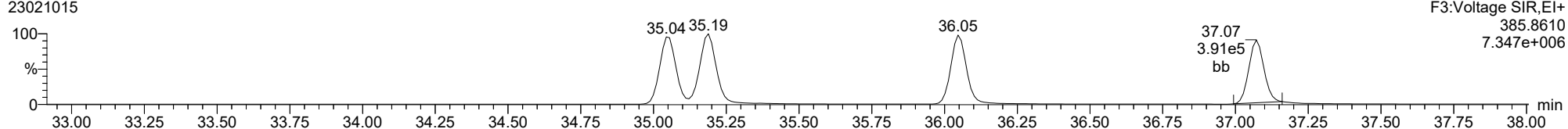
13C-123789-HxCDF

23021015



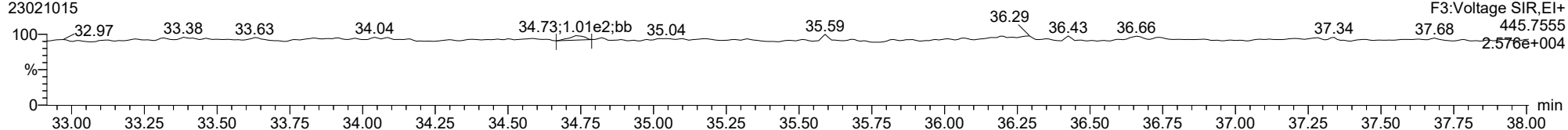
13C-123789-HxCDF

23021015



FUNCTION3 OCDPE

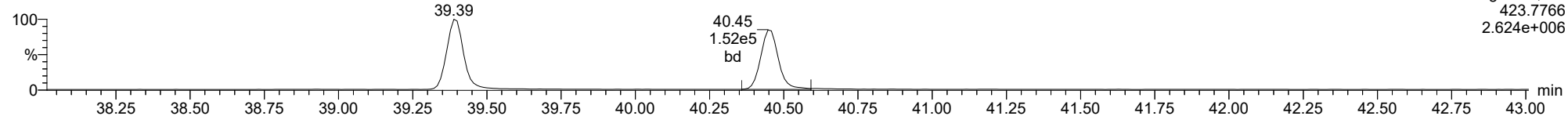
23021015



ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

1234678-HpCDD

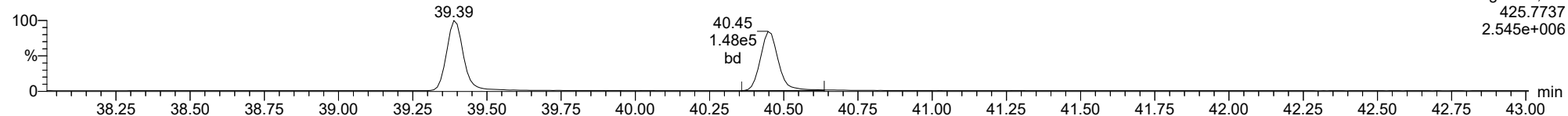
23021015



F4:Voltage SIR,El+
423.7766
2.624e+006

1234678-HpCDD

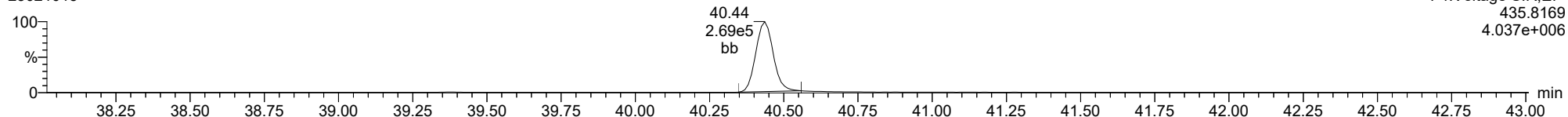
23021015



F4:Voltage SIR,El+
425.7737
2.545e+006

13C-1234678-HpCDD

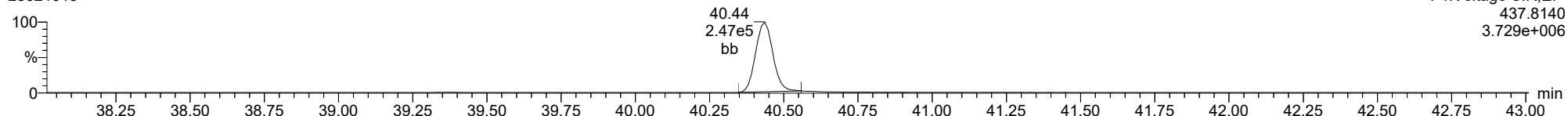
23021015



F4:Voltage SIR,El+
435.8169
4.037e+006

13C-1234678-HpCDD

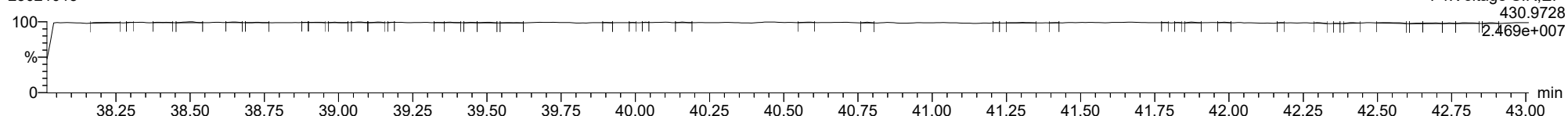
23021015



F4:Voltage SIR,El+
437.8140
3.729e+006

FUNCTION4 PFK

23021015

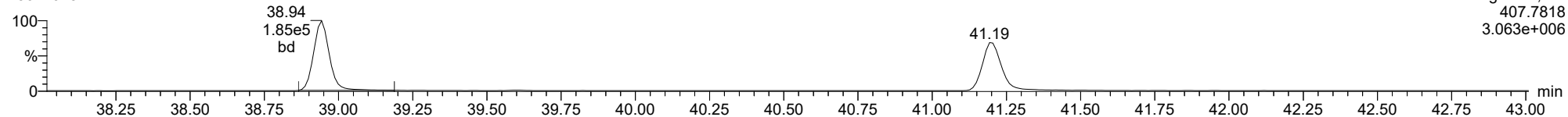


F4:Voltage SIR,El+
430.9728
2.469e+007

ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF

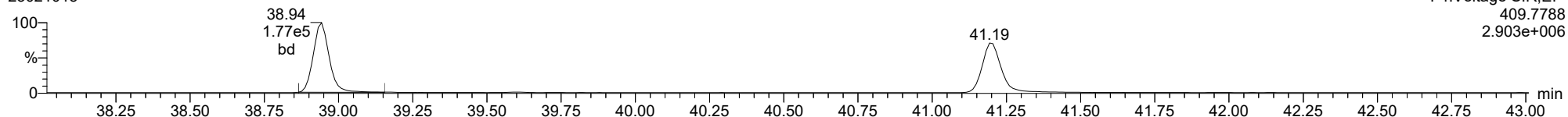
23021015



F4:Voltage SIR,EI+
407.7818
3.063e+006

1234678-HpCDF

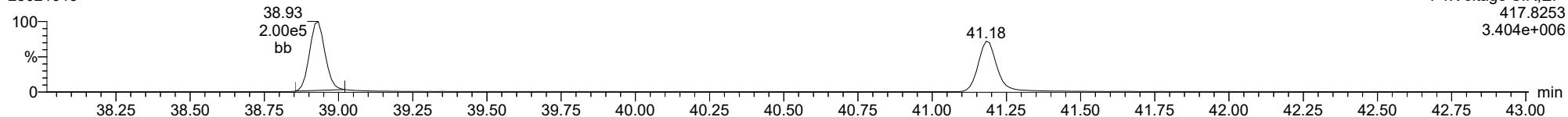
23021015



F4:Voltage SIR,EI+
409.7788
2.903e+006

13C-1234678-HpCDF

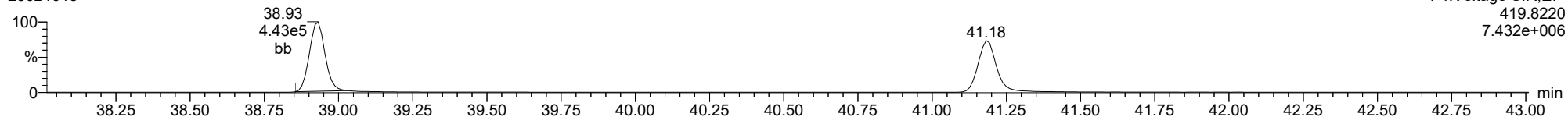
23021015



F4:Voltage SIR,EI+
417.8253
3.404e+006

13C-1234678-HpCDF

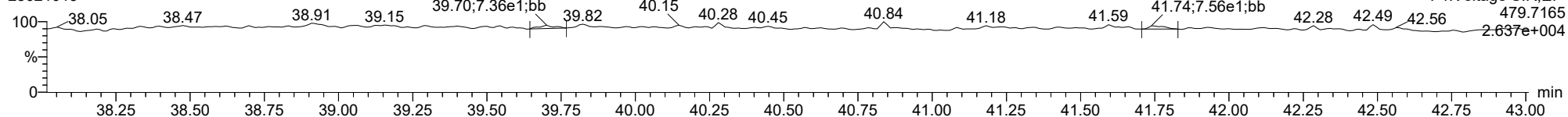
23021015



F4:Voltage SIR,EI+
419.8220
7.432e+006

FUNCTION4 NCDPE

23021015

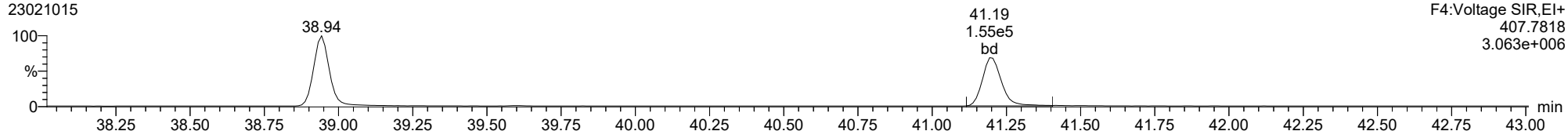


F4:Voltage SIR,EI+
479.7165
2.637e+004

ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

1234789-HpCDF

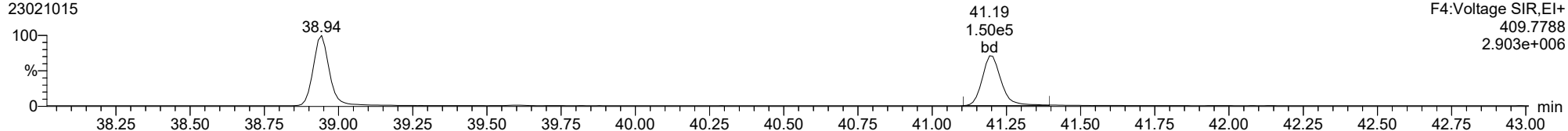
23021015



F4:Voltage SIR,EI+
407.7818
3.063e+006

1234789-HpCDF

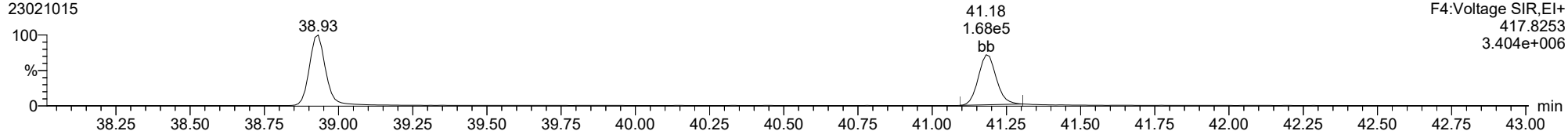
23021015



F4:Voltage SIR,EI+
409.7788
2.903e+006

13C-1234789-HpCDF

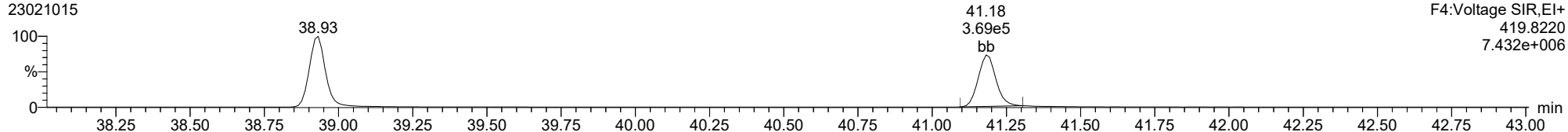
23021015



F4:Voltage SIR,EI+
417.8253
3.404e+006

13C-1234789-HpCDF

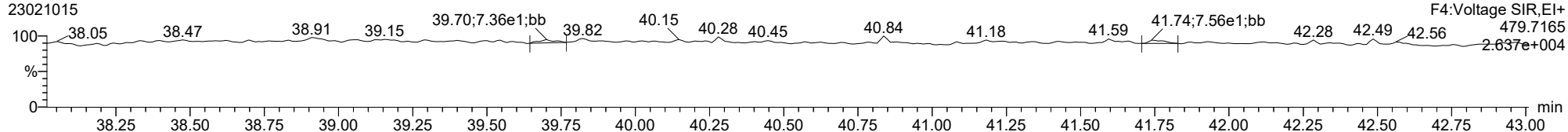
23021015



F4:Voltage SIR,EI+
419.8220
7.432e+006

FUNCTION4 NCDPE

23021015

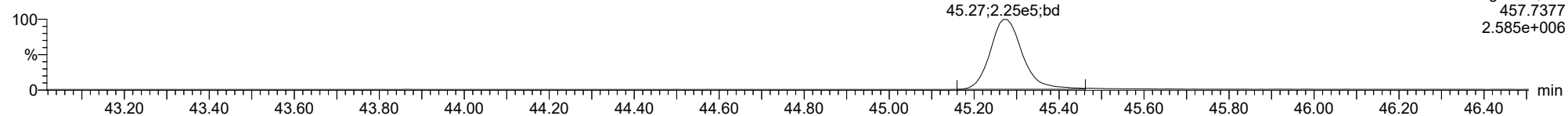


F4:Voltage SIR,EI+
479.7165
2.637e+004

ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

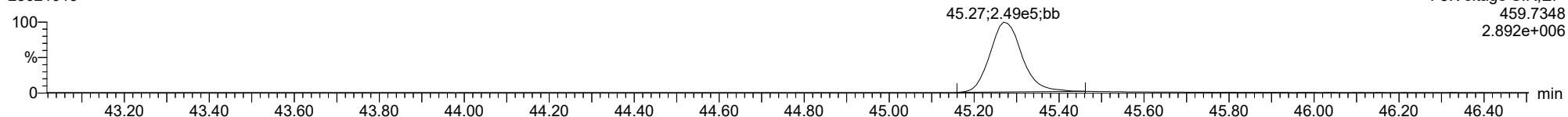
OCDD

23021015



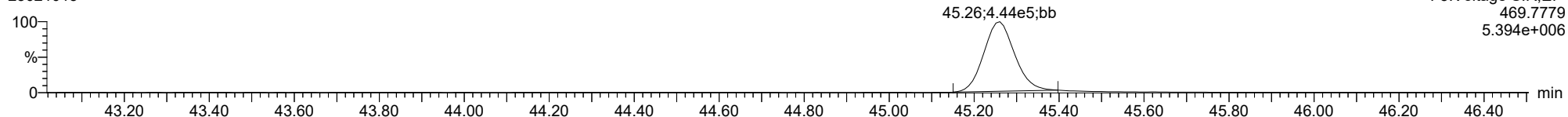
OCDD

23021015



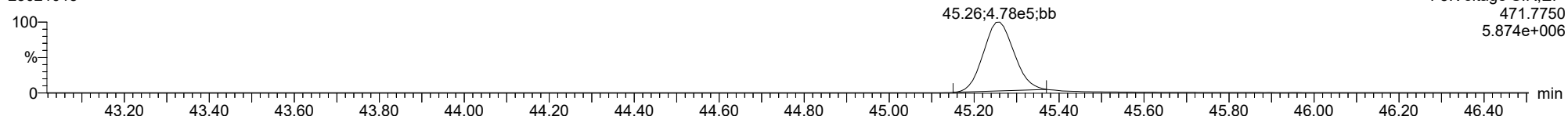
13C-OCDD

23021015



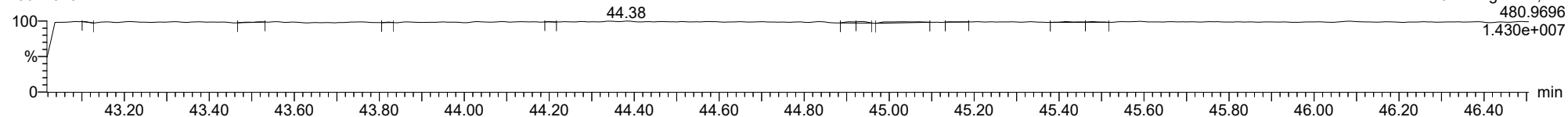
13C-OCDD

23021015



FUNCTION5 PFK

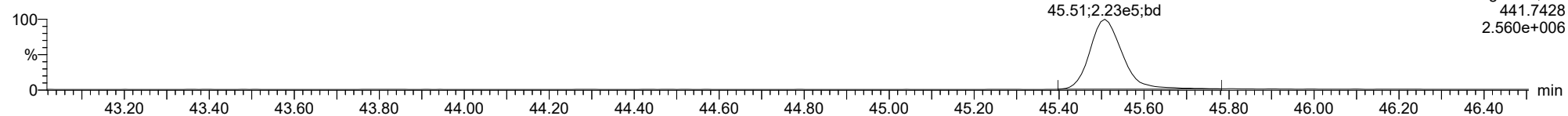
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ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

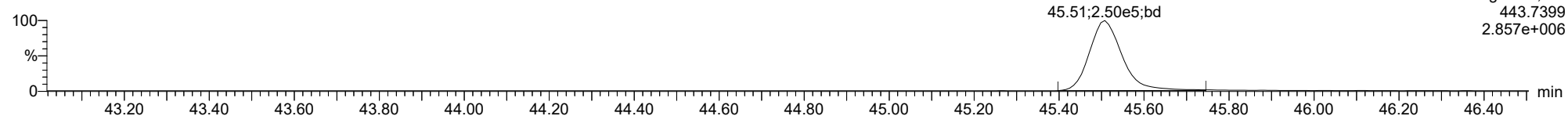
OCDF

23021015



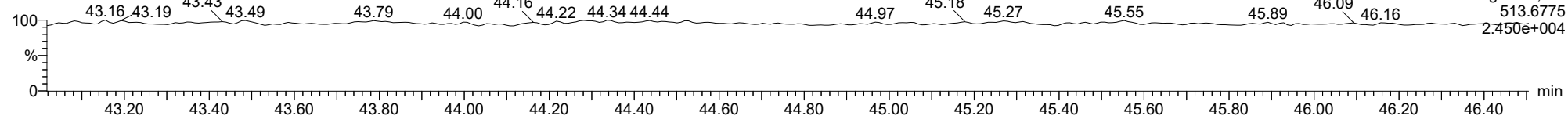
OCDF

23021015



FUNCTION5 DCDPE

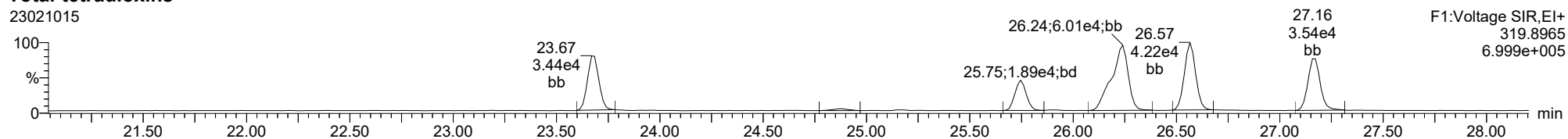
23021015



ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

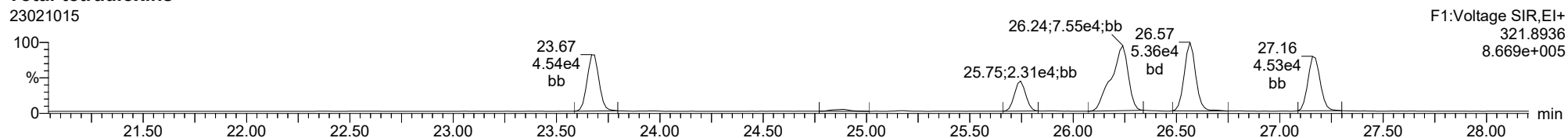
Total-tetradioxins

23021015



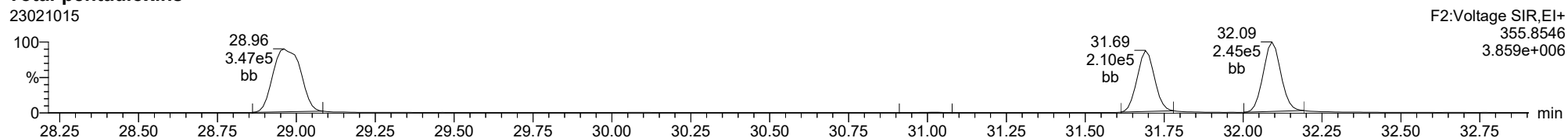
Total-tetradioxins

23021015



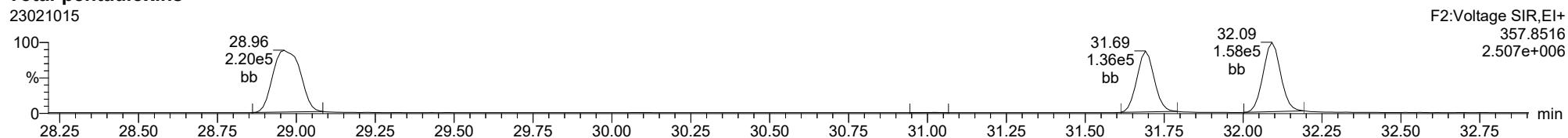
Total-pentadioxins

23021015



Total-pentadioxins

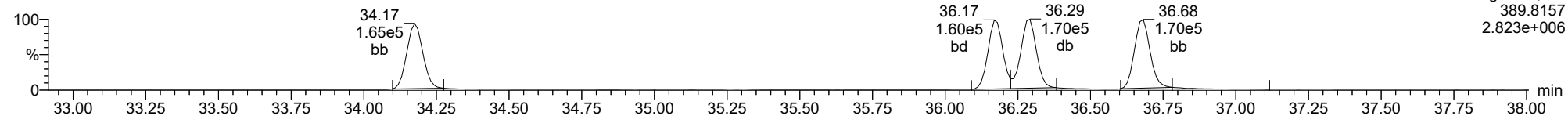
23021015



ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

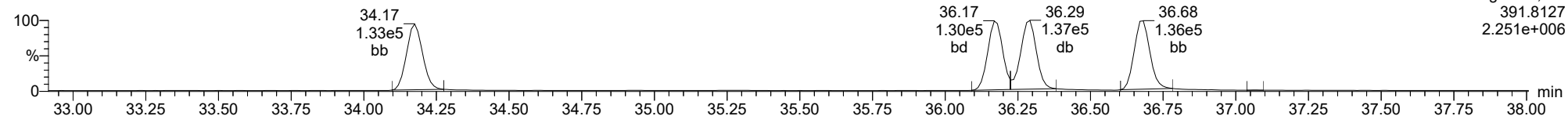
Total-hexadioxins

23021015



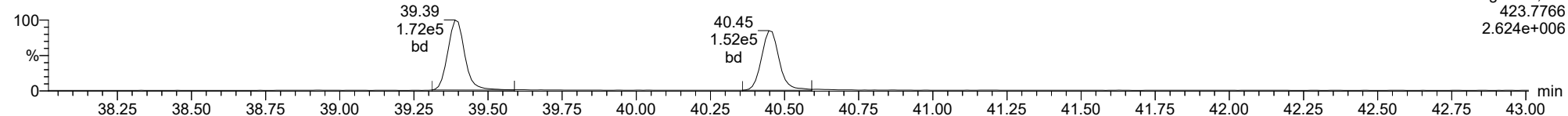
Total-hexadioxins

23021015



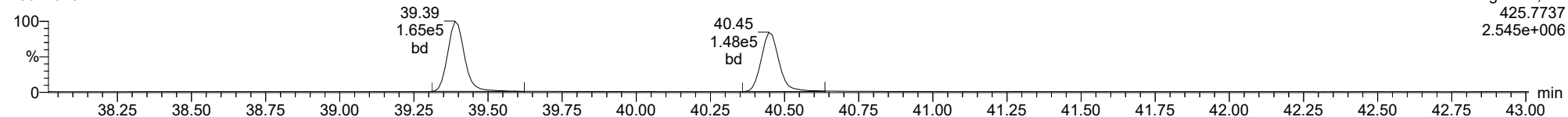
Total-heptadioxins

23021015



Total-heptadioxins

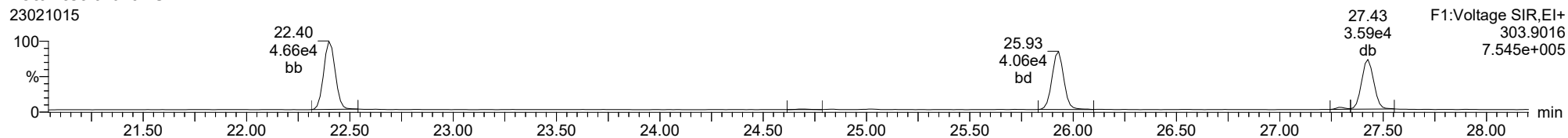
23021015



ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

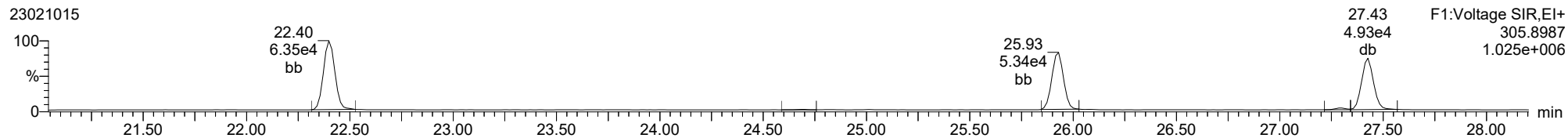
Total-tetrafurans

23021015



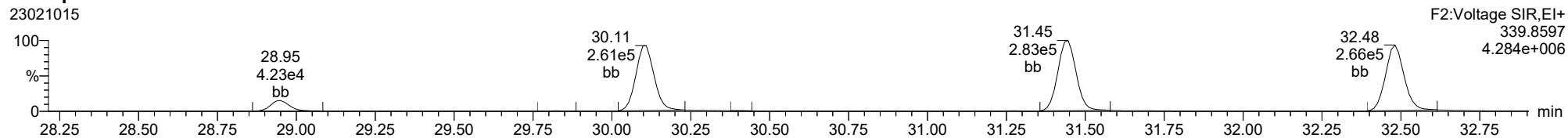
Total-tetrafurans

23021015



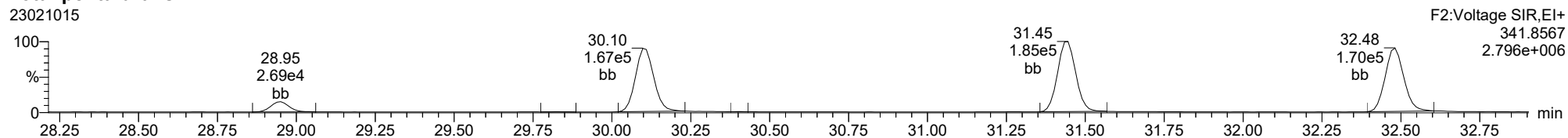
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23021015



Total-pentafurans

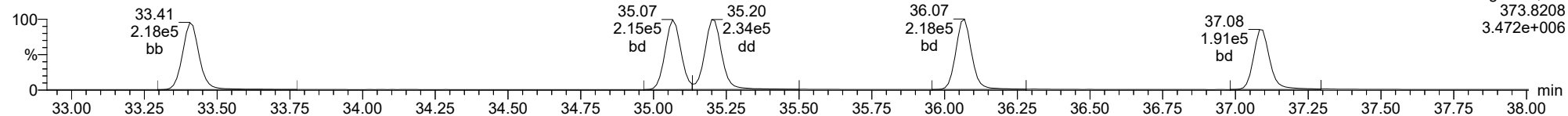
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ID: CS3U4, Name: 23021015, Date: 11-Feb-2023, Time: 01:02:58, Conditions: AUTOSPEC01, User: pk

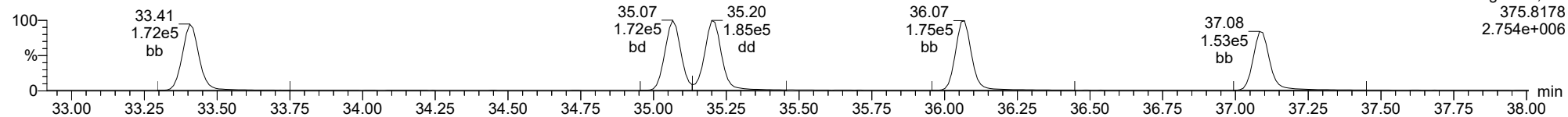
Total-hexafurans

23021015



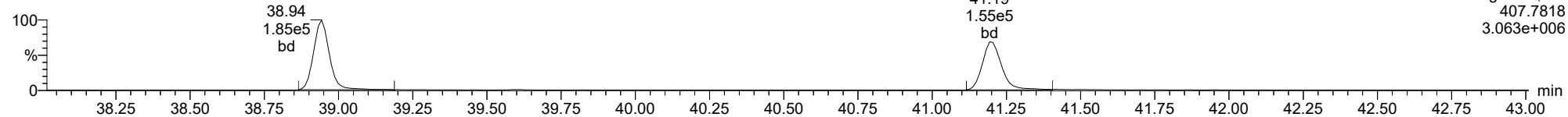
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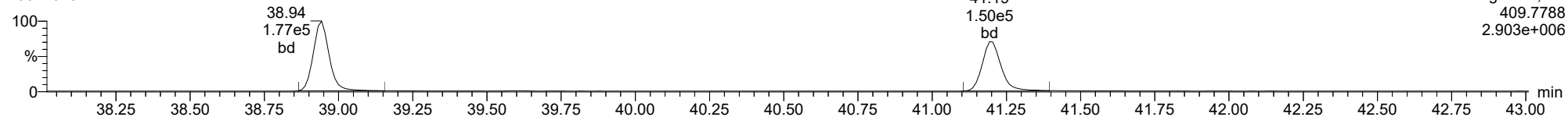
Total-heptafurans

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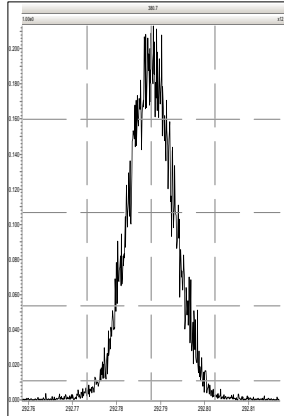
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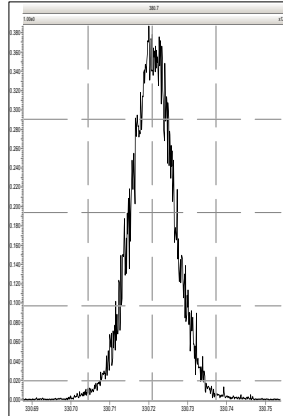


Printed: Saturday, February 11, 2023 01:56:26 Pacific Standard Time

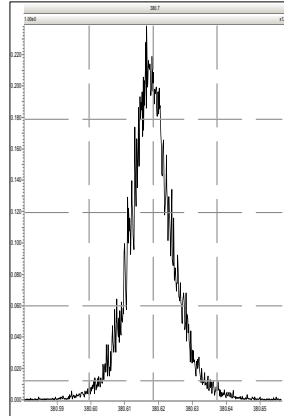
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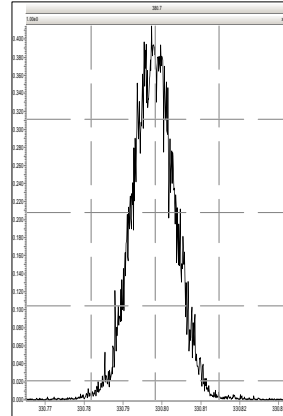
M 330.9792 R 12627



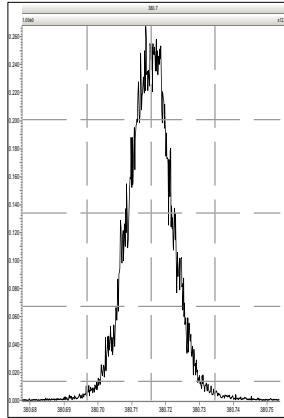
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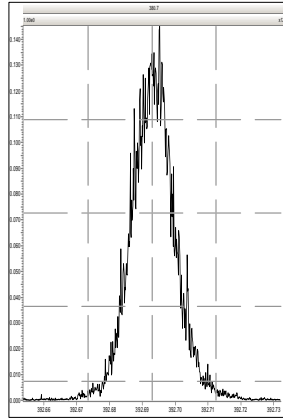
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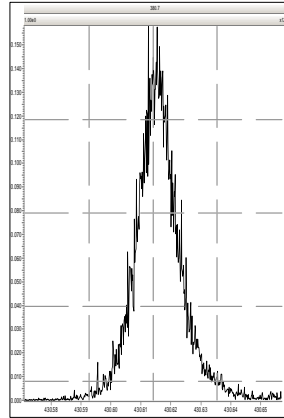
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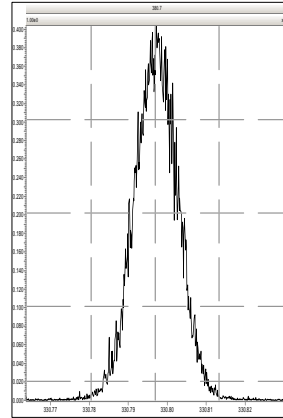
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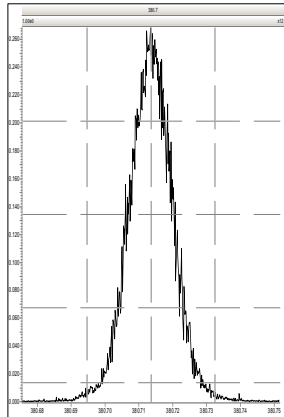
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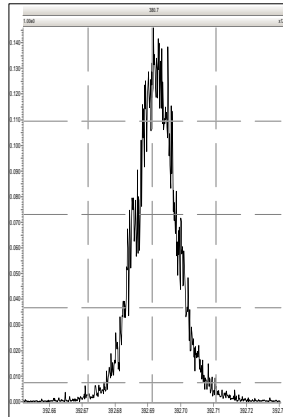
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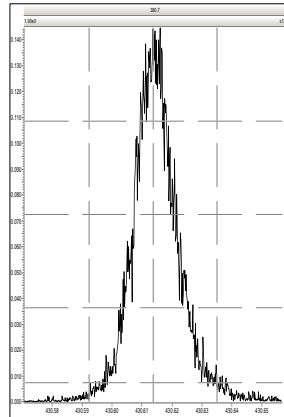
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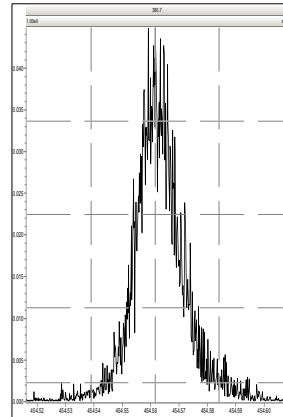
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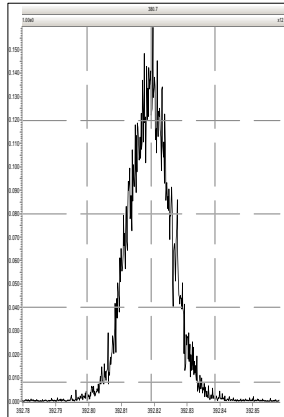
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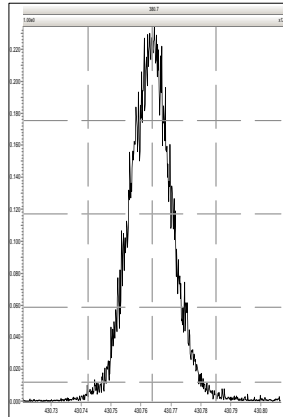
M 454.9728 R 13405



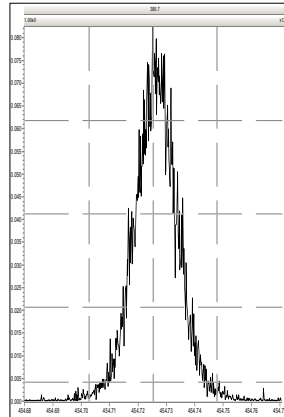
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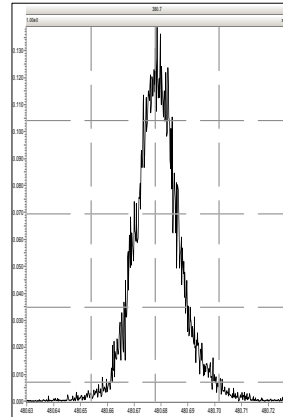
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M 454.9728 R 13368

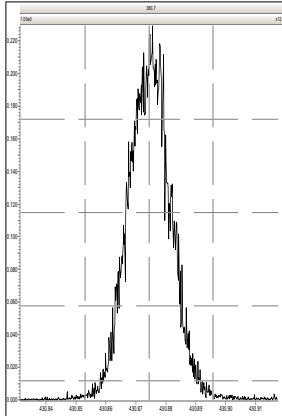


M 480.9696 R 12416

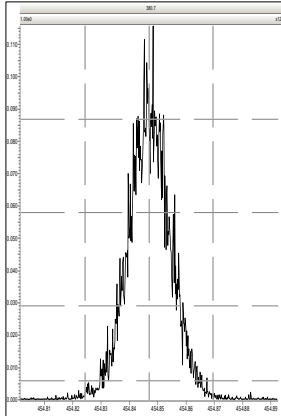


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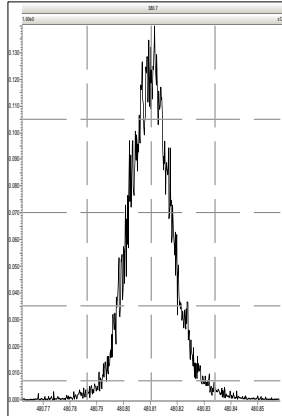
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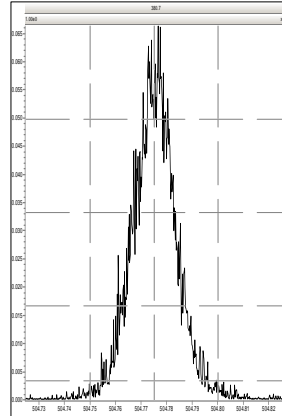
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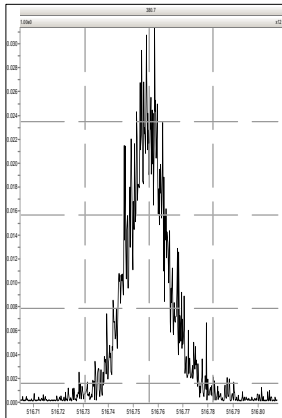
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M 516.9697 R 12993

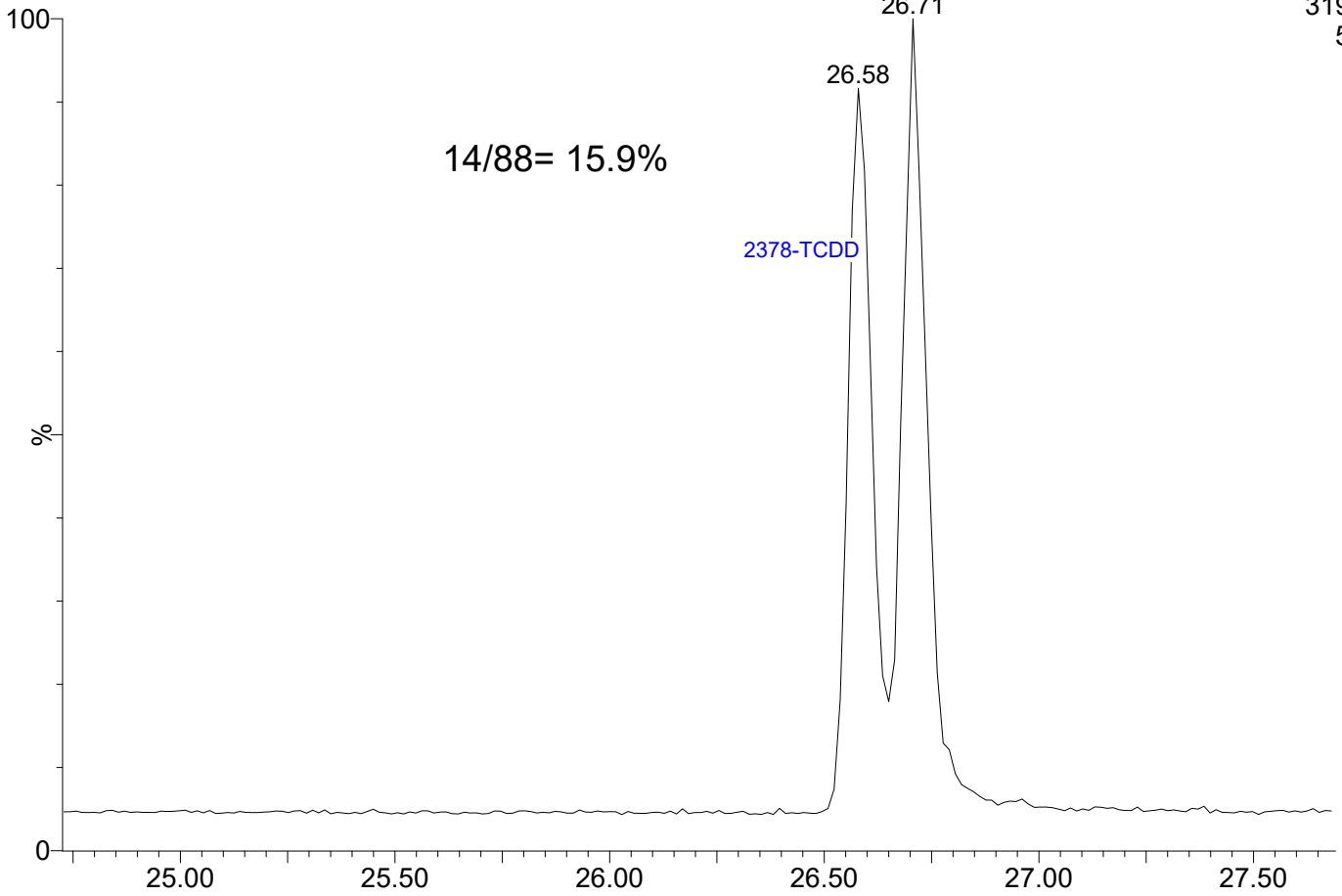


23021016

1: Voltage SIR 14 Channels EI+

319.8965

5.19e5

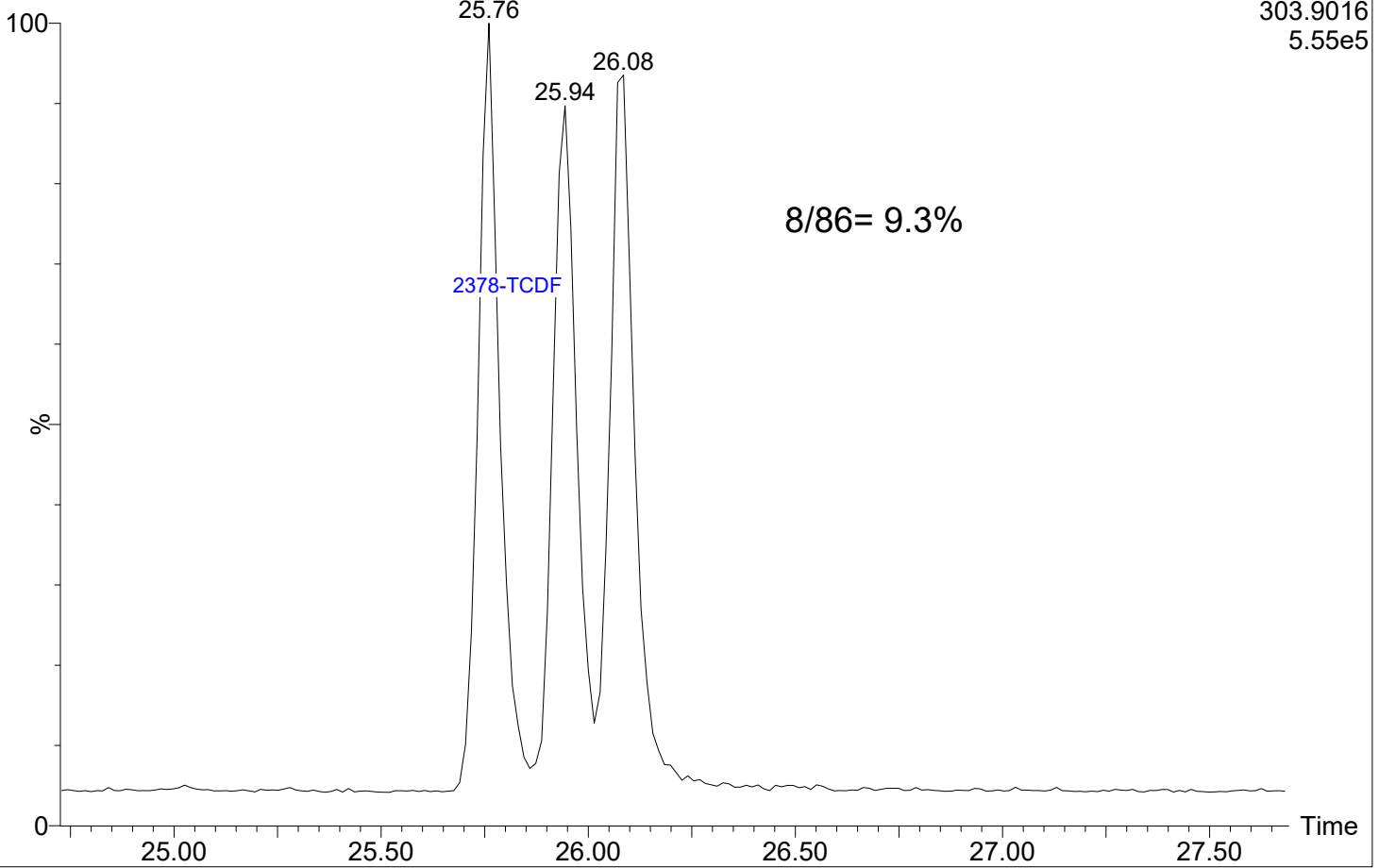


23021016

1: Voltage SIR 14 Channels EI+

303.9016

5.55e5





CONTINUING CALIBRATION CHECK
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: AUTOSPEC01

Calibration: GB00010

Lab File ID: 23021027

Calibration Date: 02/01/2023

Sequence: SLB0147

Injection Date: 02/11/23

Lab Sample ID: SLB0147-CCV2

Injection Time: 11:02

Sequence Name: CS3U5

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	9.07	0.8760604	0.7944670		-9.3	+/-16
2,3,7,8-TCDD	A	10.000	9.68	1.2363600	1.1969860		-3.2	+/-22
1,2,3,7,8-PeCDF	A	50.000	50.7	0.8446540	0.8568888		1.4	+/-18
2,3,4,7,8-PeCDF	A	50.000	51.6	0.9111780	0.9399473		3.2	+/-18
1,2,3,7,8-PeCDD	A	50.000	58.7	1.0866850	1.2763060		17.4	+/-22
1,2,3,4,7,8-HxCDF	A	50.000	50.2	1.1816860	1.1870230		0.5	+/-10
1,2,3,6,7,8-HxCDF	A	50.000	47.7	1.2480480	1.1900340		-4.6	+/-12
2,3,4,6,7,8-HxCDF	A	50.000	49.3	1.2288500	1.2124530		-1.3	+/-12
1,2,3,7,8,9-HxCDF	A	50.000	49.9	1.1865370	1.1848000		-0.1	+/-10
1,2,3,4,7,8-HxCDD	A	50.000	52.0	0.9869672	1.0266460		4.0	+/-22
1,2,3,6,7,8-HxCDD	A	50.000	48.2	1.0207220	0.9843919		-3.6	+/-22
1,2,3,7,8,9-HxCDD	A	50.000	52.5	0.9854780	1.0355650		5.1	+/-18
1,2,3,4,6,7,8-HpCDF	A	50.000	45.2	1.2041190	1.0891550		-9.5	+/-10
1,2,3,4,7,8,9-HpCDF	A	50.000	47.2	1.1653050	1.1007790		-5.5	+/-14
1,2,3,4,6,7,8-HpCDD	A	50.000	47.5	1.2525690	1.1903300		-5.0	+/-14
OCDF	A	100.00	84.1	1.1862640	0.9980443		-15.9	+/-37
OCDD	A	100.00	91.8	1.1026670	1.0125900		-8.2	+/-21
13C12-2,3,7,8-TCDF	A	100.00	94.0	1.7680590	1.6622461		-6.0	+/-29
13C12-2,3,7,8-TCDD	A	100.00	106	1.1029470	1.1666131		5.8	+/-18
13C12-1,2,3,7,8-PeCDF	A	100.00	101	1.5271250	1.5468028		1.3	+/-24
13C12-2,3,4,7,8-PeCDF	A	100.00	101	1.4662840	1.4845014		1.2	+/-23
13C12-1,2,3,7,8-PeCDD	A	100.00	86.6	0.9141518	0.7920586		-13.4	+/-38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	98.3	1.0536610	1.0357832		-1.7	+/-24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	104	1.0799530	1.1187629		3.6	+/-30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	103	1.0143260	1.0475198		3.3	+/-27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	99.1	0.9279333	0.9197170		-0.9	+/-26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	98.2	0.9329336	0.9161643		-1.8	+/-15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	102	0.9646272	0.9872939		2.3	+/-15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	101	1.0360890	1.0487464		1.2	+/-22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	97.5	0.9049372	0.8818727		-2.5	+/-23
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	106	0.7819773	0.8292441		6.0	+/-28
13C12-OCDD	A	200.00	194	0.7882343	0.7659291		-2.8	+/-52
37C14-2,3,7,8-TCDD	A	10.000	9.61	1.2334500	1.1854735		-3.9	

* Values outside of QC limits

Dataset: T:\Autospec\Processed Data Batch\230210.qld
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 Printed: Monday, February 13, 2023 11:47:03 Pacific Standard Time

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40

ID: CS3U5, **Name:** 23021027, **Date:** 11-Feb-2023, **Time:** 11:02:58, **Conditions:** AUTOSPEC01, **User:** pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
2378-TCDF	25.930	1.000	3.344e4	4.386e4	0.876	0.762	0.770	811	1011	5.05e5	6.57e5	622.8	650.2	NO	bb	bb	9.069
12378-PeCDF	30.109	1.001	2.347e5	1.532e5	0.845	1.531	1.550	1589	1612	3.40e6	2.24e6	2139.0	1386.7	NO	bb	bb	50.724
23478-PeCDF	31.446	1.001	2.477e5	1.606e5	0.911	1.542	1.550	1589	1612	3.76e6	2.43e6	2364.2	1508.2	NO	bb	bb	51.579
123478-HxCDF	35.078	1.001	1.910e5	1.524e5	1.182	1.253	1.240	1196	1253	2.97e6	2.36e6	2486.0	1883.2	NO	bd	bd	50.226
234678-HxCDF	36.070	1.000	1.960e5	1.588e5	1.229	1.234	1.240	1196	1253	3.06e6	2.45e6	2557.3	1952.5	NO	bd	bd	49.333
123678-HxCDF	35.212	1.001	2.087e5	1.632e5	1.248	1.278	1.240	1196	1253	3.11e6	2.41e6	2597.5	1919.1	NO	dd	dd	47.676
123789-HxCDF	37.095	1.001	1.698e5	1.346e5	1.187	1.261	1.240	1196	1253	2.59e6	2.05e6	2167.6	1634.5	NO	bb	bb	49.927
1234678-HpCDF	38.945	1.000	1.606e5	1.585e5	1.204	1.013	1.050	1513	1454	2.48e6	2.46e6	1636.1	1694.1	NO	bd	bd	45.226
1234789-HpCDF	41.206	1.000	1.368e5	1.343e5	1.165	1.019	1.050	1513	1454	1.90e6	1.88e6	1256.6	1289.7	NO	bd	bd	47.231
OCDF	45.517	1.005	2.021e5	2.250e5	1.186	0.898	0.890	1403	1455	2.27e6	2.55e6	1616.2	1756.2	NO	bd	bb	84.133
2378-TCDD	26.566	1.000	3.537e4	4.637e4	1.236	0.763	0.770	1196	780	5.19e5	6.70e5	434.3	859.4	NO	bb	bb	9.682
12378-PeCDD	31.691	1.000	1.805e5	1.154e5	1.087	1.564	1.550	1738	1069	2.74e6	1.76e6	1575.3	1645.9	NO	bb	bb	58.725
123478-HxCDD	36.181	1.001	1.450e5	1.177e5	0.987	1.232	1.240	1437	1539	2.40e6	1.92e6	1672.4	1248.6	NO	bd	bd	52.010
123678-HxCDD	36.293	1.000	1.501e5	1.214e5	1.021	1.237	1.240	1437	1539	2.36e6	1.91e6	1640.8	1239.1	NO	db	db	48.220
123789-HxCDD	36.683	1.011	1.515e5	1.239e5	0.985	1.223	1.240	1437	1539	2.48e6	2.03e6	1724.5	1317.3	NO	bb	bb	52.541
1234678-HpCDD	40.460	1.000	1.419e5	1.338e5	1.253	1.060	1.050	1227	1521	2.09e6	1.94e6	1701.7	1275.3	NO	bd	bd	47.516
OCDD	45.288	1.000	2.045e5	2.288e5	1.103	0.894	0.890	954	990	2.33e6	2.65e6	2443.0	2681.3	NO	bd	bb	91.831
13C-2378-TCDF	25.916	1.007	4.191e5	5.539e5	1.768	0.757	0.770	1480	1324	6.26e6	8.21e6	4229.0	6199.6	NO	bb	bb	94.015
13C-12378-PeCDF	30.087	1.169	5.520e5	3.534e5	1.527	1.562	1.550	1287	1930	8.06e6	5.17e6	6262.9	2680.6	NO	bb	bb	101.289
13C-23478-PeCDF	31.424	1.221	5.287e5	3.402e5	1.466	1.554	1.550	1287	1930	7.80e6	5.11e6	6064.0	2647.6	NO	bb	bb	101.242
13C-123478-HxCDF	35.056	0.956	1.987e5	3.800e5	1.054	0.523	0.510	1972	1197	3.16e6	6.06e6	1603.2	5065.9	NO	bd	bd	98.303
13C-123678-HxCDF	35.190	0.960	2.112e5	4.138e5	1.080	0.510	0.510	1972	1197	3.32e6	6.47e6	1681.0	5400.2	NO	db	db	103.594
13C-234678-HxCDF	36.059	0.983	1.988e5	3.865e5	1.014	0.514	0.510	1972	1197	3.20e6	6.13e6	1623.8	5122.5	NO	bb	bb	103.272
13C-123789-HxCDF	37.073	1.011	1.744e5	3.394e5	0.928	0.514	0.510	1972	1197	2.89e6	5.65e6	1465.5	4716.9	NO	bb	bb	99.115
13C-1234678-HpCDF	38.933	1.062	1.814e5	4.045e5	1.036	0.449	0.440	1783	1905	3.00e6	6.68e6	1685.3	3504.3	NO	bb	bb	101.222
13C-1234789-HpCDF	41.195	1.123	1.529e5	3.398e5	0.905	0.450	0.440	1783	1905	2.17e6	4.84e6	1216.0	2542.8	NO	bb	bb	97.451
13C-1234-TCDD	25.732	0.000	2.601e5	3.252e5	1.000	0.800	0.770	1282	1067	4.07e6	5.06e6	3178.0	4736.0	NO	bb	bb	100.000
13C-2378-TCDD	26.551	1.032	3.034e5	3.794e5	1.103	0.800	0.770	1282	1067	4.62e6	5.77e6	3600.5	5404.5	NO	bb	bb	105.772
13C-12378-PeCDD	31.680	1.231	2.893e5	1.743e5	0.914	1.660	1.550	943	734	4.26e6	2.58e6	4520.7	3518.6	NO	bd	bb	86.644
13C-123478-HxCDD	36.159	0.986	2.865e5	2.254e5	0.933	1.271	1.240	1721	1152	4.75e6	3.76e6	2763.1	3262.8	NO	bd	bd	98.203
13C-123678-HxCDD	36.282	0.989	3.066e5	2.450e5	0.965	1.252	1.240	1721	1152	4.67e6	3.75e6	2711.7	3253.8	NO	db	db	102.350
13C-1234678-HpCDD	40.438	1.103	2.420e5	2.213e5	0.782	1.093	1.050	1174	1065	3.69e6	3.43e6	3142.8	3220.2	NO	bb	bb	106.044
13C-OCDD	45.270	1.235	4.085e5	4.474e5	0.788	0.913	0.890	1903	1901	4.74e6	5.27e6	2492.7	2773.0	NO	bb	bb	194.340
13C-123789-HxCDD	36.672	0.000	3.106e5	2.482e5	1.000	1.252	1.240	1721	1152	5.12e6	4.06e6	2973.3	3525.9	NO	bb	bb	100.000
37CL-2378-TCDD	26.566	1.032	6.939e4		1.233			1092		1.06e6		966.5			bb		9.611

Dataset: T:\Autospec\Processed Data Batch\230210.qld
 Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
 Printed: Monday, February 13, 2023 11:47:03 Pacific Standard Time

ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	S/N 2	EMPC	Int.1	Int.2	pg
1368-TCDF	22.398	0.864	3.837e4	5.218e4	1.064	0.735	0.770	811	1011	5.81e5	7.92e5	716.3	783.8	NO	bb	bb	8.743
1289-TCDF	27.427	1.058	3.215e4	3.940e4	0.858	0.816	0.770	811	1011	4.70e5	5.92e5	579.1	585.9	NO	db	bb	8.575
13468-PECDF	27.286	0.907	2.632e5	1.724e5	1.013	1.527	1.550	612	842	3.95e6	2.57e6	6447.2	3054.1	NO	bb	bd	47.492
12389-PECDF	32.482	1.080	2.353e5	1.468e5	0.844	1.603	1.550	1589	1612	3.29e6	2.07e6	2068.7	1281.4	NO	bd	bb	50.026
123468-HXCDF	33.418	0.953	1.939e5	1.527e5	1.197	1.270	1.240	1196	1253	2.86e6	2.22e6	2392.7	1772.4	NO	bd	bb	50.026
1368-TCDD	23.684	0.892	3.138e4	4.094e4	1.084	0.766	0.770	1196	780	4.88e5	6.07e5	407.9	779.0	NO	bb	bb	9.767
1289-TCDD	27.173	1.023	2.925e4	3.929e4	0.975	0.745	0.770	1196	780	4.39e5	5.73e5	367.2	735.5	NO	bb	bd	10.294
12479-PECDD	28.962	0.914	3.002e5	1.870e5	1.837	1.606	1.550	1738	1069	2.85e6	1.79e6	1639.5	1676.2	NO	bb	bb	57.202
12389-PECDD	32.092	1.013	2.083e5	1.304e5	1.252	1.598	1.550	1738	1069	3.14e6	1.96e6	1804.9	1830.3	NO	bb	bb	58.337
124679-HXCDD	34.176	0.945	1.421e5	1.152e5	1.033	1.234	1.240	1437	1539	2.19e6	1.76e6	1524.1	1142.9	NO	bb	bb	48.666
1234679-HPCDD	39.402	0.974	1.594e5	1.507e5	1.286	1.058	1.050	1227	1521	2.40e6	2.29e6	1954.7	1507.7	NO	bd	bd	52.047
Total-tetrafurans			1.043e5		0.933			811		1.56e6							26.477
Total-penta1			2.632e5					612		3.95e6							47.492
Total-pentafurans			7.556e5		0.866			1589		1.10e7							160.403
Total-hexafurans			9.594e5		1.208			1196		1.46e7							247.188
Total-heptafurans			2.986e5		1.185			1513		4.39e6							92.816
Total-Furans			2.583e6		1.067			811		3.78e7							658.509
Total-tetradoxins			1.670e5		1.099			1196		2.29e6							51.039
Total-pentadoxins			6.898e5		1.392			1738		8.73e6							174.451
Total-hexadoxins			5.887e5		1.007			1437		9.43e6							201.437
Total-heptadoxins			3.019e5		1.269			1227		4.50e6							99.767
Total-Dioxins			1.952e6		1.165			1196		2.73e7							618.526
Total-TEQ			4.535e6					1196		6.50e7							1277.035
FUNCTION1 PFK			2.901e7					435257		1.90e7							
FUNCTION2 PFK			1.683e5					250493		5.06e6							0.000
FUNCTION3 PFK			1.549e7					249204		9.11e6							0.000
FUNCTION4 PFK			2.984e5					210128		7.95e6							
FUNCTION5 PFK			1.432e4					114937		3.44e5							
FUNCTION1 HXCD...			1.081e3					519		1.57e4							0.000
FUNCTION1 HPCD...																	
FUNCTION2 HPCD...			1.392e2					688		2.15e3							0.000
FUNCTION3 OCDPE			9.879e1					538		1.34e3							0.000
FUNCTION4 NCDPE			1.488e2					661		3.82e3							0.000
FUNCTION5 DCDPE			5.142e2					674		1.14e4							0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

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Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20**Calibration: T:\Autospec\Curves\230201ICIH.cdb 03 Feb 2023 10:33:40****ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk****TF**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.43	3.215e4	3.940e4	0.858	0.82	0.77	579.1	YES	NO	db	bb	8.575
2	2378-TCDF	25.93	3.344e4	4.386e4	0.876	0.76	0.77	622.8	YES	NO	bb	bb	9.069
3	Total-tetrafurans	25.04	3.716e2	4.440e2	0.933	0.84	0.77	5.8	YES	NO	bb	bb	0.090
4	1368-TCDF	22.40	3.837e4	5.218e4	1.064	0.74	0.77	716.3	YES	NO	bb	bb	8.743

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	13468-PECDF	27.29	2.632e5	1.724e5	1.013	1.53	1.55	6447.2	YES	NO	bb	bd	47.492

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDF	32.48	2.353e5	1.468e5	0.844	1.60	1.55	2068.7	YES	NO	bd	bb	50.026
2	23478-PeCDF	31.45	2.477e5	1.606e5	0.911	1.54	1.55	2364.2	YES	NO	bb	bb	51.579
3	12378-PeCDF	30.11	2.347e5	1.532e5	0.845	1.53	1.55	2139.0	YES	NO	bb	bb	50.724
4	Total-pentafurans	28.95	3.787e4	2.419e4	0.866	1.57	1.55	358.4	YES	NO	bb	bb	8.074

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123478-HxCDF	35.08	1.910e5	1.524e5	1.182	1.25	1.24	2486.0	YES	NO	bd	bd	50.226
2	123468-HxCDF	33.42	1.939e5	1.527e5	1.197	1.27	1.24	2392.7	YES	NO	bd	bb	50.026
3	123789-HxCDF	37.10	1.698e5	1.346e5	1.187	1.26	1.24	2167.6	YES	NO	bb	bb	49.927
4	234678-HxCDF	36.07	1.960e5	1.588e5	1.229	1.23	1.24	2557.3	YES	NO	bd	bd	49.333
5	123678-HxCDF	35.21	2.087e5	1.632e5	1.248	1.28	1.24	2597.5	YES	NO	dd	dd	47.676

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	41.21	1.368e5	1.343e5	1.165	1.02	1.05	1256.6	YES	NO	bd	bd	47.231
2	Total-heptafurans	39.61	1.147e3	1.142e3	1.185	1.00	1.05	11.3	YES	NO	bb	bb	0.358
3	1234678-HpCDF	38.94	1.606e5	1.585e5	1.204	1.01	1.05	1636.1	YES	NO	bd	bd	45.226

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

Furans,TF,PP,PF,HF,HPF,OF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.43	3.215e4	3.940e4	0.858	0.82	0.77	579.1	YES	NO	db	bb	8.575
2	2378-TCDF	25.93	3.344e4	4.386e4	0.876	0.76	0.77	622.8	YES	NO	bb	bb	9.069
3	Total-tetrafurans	25.04	3.716e2	4.440e2	0.933	0.84	0.77	5.8	YES	NO	bb	bb	0.090
4	1368-TCDF	22.40	3.837e4	5.218e4	1.064	0.74	0.77	716.3	YES	NO	bb	bb	8.743
5	12389-PECDF	32.48	2.353e5	1.468e5	0.844	1.60	1.55	2068.7	YES	NO	bd	bb	50.026
6	23478-PeCDF	31.45	2.477e5	1.606e5	0.911	1.54	1.55	2364.2	YES	NO	bb	bb	51.579
7	12378-PeCDF	30.11	2.347e5	1.532e5	0.845	1.53	1.55	2139.0	YES	NO	bb	bb	50.724
8	Total-pentafurans	28.95	3.787e4	2.419e4	0.866	1.57	1.55	358.4	YES	NO	bb	bb	8.074
9	123478-HxCDF	35.08	1.910e5	1.524e5	1.182	1.25	1.24	2486.0	YES	NO	bd	bd	50.226
10	123468-HXCDF	33.42	1.939e5	1.527e5	1.197	1.27	1.24	2392.7	YES	NO	bd	bb	50.026
11	123789-HxCDF	37.10	1.698e5	1.346e5	1.187	1.26	1.24	2167.6	YES	NO	bb	bb	49.927
12	234678-HxCDF	36.07	1.960e5	1.588e5	1.229	1.23	1.24	2557.3	YES	NO	bd	bd	49.333
13	123678-HxCDF	35.21	2.087e5	1.632e5	1.248	1.28	1.24	2597.5	YES	NO	dd	dd	47.676
14	1234789-HpCDF	41.21	1.368e5	1.343e5	1.165	1.02	1.05	1256.6	YES	NO	bd	bd	47.231
15	Total-heptafurans	39.61	1.147e3	1.142e3	1.185	1.00	1.05	11.3	YES	NO	bb	bb	0.358
16	1234678-HpCDF	38.94	1.606e5	1.585e5	1.204	1.01	1.05	1636.1	YES	NO	bd	bd	45.226
17	OCDF	45.52	2.021e5	2.250e5	1.186	0.90	0.89	1616.2	YES	NO	bd	bb	84.133
18	13468-PECDF	27.29	2.632e5	1.724e5	1.013	1.53	1.55	6447.2	YES	NO	bb	bd	47.492

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDD	27.17	2.925e4	3.929e4	0.975	0.74	0.77	367.2	YES	NO	bb	bd	10.294
2	2378-TCDD	26.57	3.537e4	4.637e4	1.236	0.76	0.77	434.3	YES	NO	bb	bb	9.682
3	Total-tetradioxins	26.24	5.301e4	6.619e4	1.099	0.80	0.77	471.4	YES	NO	bb	bb	15.889
4	Total-tetradioxins	25.75	1.623e4	2.052e4	1.099	0.79	0.77	218.2	YES	NO	bb	bb	4.899
5	Total-tetradioxins	25.18	3.639e2	4.143e2	1.099	0.88	0.77	4.5	YES	NO	bb	bb	0.104
6	Total-tetradioxins	24.88	1.363e3	1.682e3	1.099	0.81	0.77	11.1	YES	NO	bb	bb	0.406
7	1368-TCDD	23.68	3.138e4	4.094e4	1.084	0.77	0.77	407.9	YES	NO	bb	bb	9.767

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12389-PECDD	32.09	2.083e5	1.304e5	1.252	1.60	1.55	1804.9	YES	NO	bb	bb	58.337
2	12378-PeCDD	31.69	1.805e5	1.154e5	1.087	1.56	1.55	1575.3	YES	NO	bb	bb	58.725
3	Total-pentadioxins	31.02	7.369e2	4.691e2	1.392	1.57	1.55	5.4	YES	NO	bb	bb	0.187
4	12479-PECDD	28.96	3.002e5	1.870e5	1.837	1.61	1.55	1639.5	YES	NO	bb	bb	57.202

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk**HD**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	124679-HxCDD	34.18	1.421e5	1.152e5	1.033	1.23	1.24	1524.1	YES	NO	bb	bb	48.666
2	123789-HxCDD	36.68	1.515e5	1.239e5	0.985	1.22	1.24	1724.5	YES	NO	bb	bb	52.541
3	123678-HxCDD	36.29	1.501e5	1.214e5	1.021	1.24	1.24	1640.8	YES	NO	db	db	48.220
4	123478-HxCDD	36.18	1.450e5	1.177e5	0.987	1.23	1.24	1672.4	YES	NO	bd	bd	52.010

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptadioxins	40.72	5.984e2	6.059e2	1.269	0.99	1.05	8.3	YES	NO	dd	dd	0.205
2	1234678-HpCDD	40.46	1.419e5	1.338e5	1.253	1.06	1.05	1701.7	YES	NO	bd	bd	47.516
3	1234679-HPCDD	39.40	1.594e5	1.507e5	1.286	1.06	1.05	1954.7	YES	NO	bd	bd	52.047

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDD	27.17	2.925e4	3.929e4	0.975	0.74	0.77	367.2	YES	NO	bb	bd	10.294
2	2378-TCDD	26.57	3.537e4	4.637e4	1.236	0.76	0.77	434.3	YES	NO	bb	bb	9.682
3	Total-tetradioxins	26.24	5.301e4	6.619e4	1.099	0.80	0.77	471.4	YES	NO	bb	bb	15.889
4	Total-tetradioxins	25.75	1.623e4	2.052e4	1.099	0.79	0.77	218.2	YES	NO	bb	bb	4.899
5	Total-tetradioxins	25.18	3.639e2	4.143e2	1.099	0.88	0.77	4.5	YES	NO	bb	bb	0.104
6	Total-tetradioxins	24.88	1.363e3	1.682e3	1.099	0.81	0.77	11.1	YES	NO	bb	bb	0.406
7	1368-TCDD	23.68	3.138e4	4.094e4	1.084	0.77	0.77	407.9	YES	NO	bb	bb	9.767
8	12389-PECDD	32.09	2.083e5	1.304e5	1.252	1.60	1.55	1804.9	YES	NO	bb	bb	58.337
9	12378-PeCDD	31.69	1.805e5	1.154e5	1.087	1.56	1.55	1575.3	YES	NO	bb	bb	58.725
10	Total-pentadioxins	31.02	7.369e2	4.691e2	1.392	1.57	1.55	5.4	YES	NO	bb	bb	0.187
11	12479-PECDD	28.96	3.002e5	1.870e5	1.837	1.61	1.55	1639.5	YES	NO	bb	bb	57.202
12	124679-HxCDD	34.18	1.421e5	1.152e5	1.033	1.23	1.24	1524.1	YES	NO	bb	bb	48.666
13	123789-HxCDD	36.68	1.515e5	1.239e5	0.985	1.22	1.24	1724.5	YES	NO	bb	bb	52.541
14	123678-HxCDD	36.29	1.501e5	1.214e5	1.021	1.24	1.24	1640.8	YES	NO	db	db	48.220
15	123478-HxCDD	36.18	1.450e5	1.177e5	0.987	1.23	1.24	1672.4	YES	NO	bd	bd	52.010
16	Total-heptadioxins	40.72	5.984e2	6.059e2	1.269	0.99	1.05	8.3	YES	NO	dd	dd	0.205
17	1234678-HpCDD	40.46	1.419e5	1.338e5	1.253	1.06	1.05	1701.7	YES	NO	bd	bd	47.516
18	1234679-HPCDD	39.40	1.594e5	1.507e5	1.286	1.06	1.05	1954.7	YES	NO	bd	bd	52.047
19	OCDD	45.29	2.045e5	2.288e5	1.103	0.89	0.89	2443.0	YES	NO	bd	bb	91.831

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1289-TCDF	27.43	3.215e4	3.940e4	0.858	0.82	0.77	579.1	YES	NO	db	bb	8.575
2	2378-TCDF	25.93	3.344e4	4.386e4	0.876	0.76	0.77	622.8	YES	NO	bb	bb	9.069
3	Total-tetrafurans	25.04	3.716e2	4.440e2	0.933	0.84	0.77	5.8	YES	NO	bb	bb	0.090
4	1368-TCDF	22.40	3.837e4	5.218e4	1.064	0.74	0.77	716.3	YES	NO	bb	bb	8.743
5	12389-PECDF	32.48	2.353e5	1.468e5	0.844	1.60	1.55	2068.7	YES	NO	bd	bb	50.026
6	23478-PeCDF	31.45	2.477e5	1.606e5	0.911	1.54	1.55	2364.2	YES	NO	bb	bb	51.579
7	12378-PeCDF	30.11	2.347e5	1.532e5	0.845	1.53	1.55	2139.0	YES	NO	bb	bb	50.724
8	Total-pentafurans	28.95	3.787e4	2.419e4	0.866	1.57	1.55	358.4	YES	NO	bb	bb	8.074
9	123478-HxCDF	35.08	1.910e5	1.524e5	1.182	1.25	1.24	2486.0	YES	NO	bd	bd	50.226
10	123468-HXCDF	33.42	1.939e5	1.527e5	1.197	1.27	1.24	2392.7	YES	NO	bd	bb	50.026
11	123789-HxCDF	37.10	1.698e5	1.346e5	1.187	1.26	1.24	2167.6	YES	NO	bb	bb	49.927
12	234678-HxCDF	36.07	1.960e5	1.588e5	1.229	1.23	1.24	2557.3	YES	NO	bd	bd	49.333
13	123678-HxCDF	35.21	2.087e5	1.632e5	1.248	1.28	1.24	2597.5	YES	NO	dd	dd	47.676
14	1234789-HpCDF	41.21	1.368e5	1.343e5	1.165	1.02	1.05	1256.6	YES	NO	bd	bd	47.231
15	Total-heptafurans	39.61	1.147e3	1.142e3	1.185	1.00	1.05	11.3	YES	NO	bb	bb	0.358
16	1234678-HpCDF	38.94	1.606e5	1.585e5	1.204	1.01	1.05	1636.1	YES	NO	bd	bd	45.226
17	OCDF	45.52	2.021e5	2.250e5	1.186	0.90	0.89	1616.2	YES	NO	bd	bb	84.133
18	13468-PECDF	27.29	2.632e5	1.724e5	1.013	1.53	1.55	6447.2	YES	NO	bb	bd	47.492
19	1289-TCDD	27.17	2.925e4	3.929e4	0.975	0.74	0.77	367.2	YES	NO	bb	bd	10.294
20	2378-TCDD	26.57	3.537e4	4.637e4	1.236	0.76	0.77	434.3	YES	NO	bb	bb	9.682
21	Total-tetradioxins	26.24	5.301e4	6.619e4	1.099	0.80	0.77	471.4	YES	NO	bb	bb	15.889
22	Total-tetradioxins	25.75	1.623e4	2.052e4	1.099	0.79	0.77	218.2	YES	NO	bb	bb	4.899
23	Total-tetradioxins	25.18	3.639e2	4.143e2	1.099	0.88	0.77	4.5	YES	NO	bb	bb	0.104
24	Total-tetradioxins	24.88	1.363e3	1.682e3	1.099	0.81	0.77	11.1	YES	NO	bb	bb	0.406
25	1368-TCDD	23.68	3.138e4	4.094e4	1.084	0.77	0.77	407.9	YES	NO	bb	bb	9.767
26	12389-PECDD	32.09	2.083e5	1.304e5	1.252	1.60	1.55	1804.9	YES	NO	bb	bb	58.337
27	12378-PeCDD	31.69	1.805e5	1.154e5	1.087	1.56	1.55	1575.3	YES	NO	bb	bb	58.725
28	Total-pentadioxins	31.02	7.369e2	4.691e2	1.392	1.57	1.55	5.4	YES	NO	bb	bb	0.187
29	12479-PECDD	28.96	3.002e5	1.870e5	1.837	1.61	1.55	1639.5	YES	NO	bb	bb	57.202
30	124679-HXCDD	34.18	1.421e5	1.152e5	1.033	1.23	1.24	1524.1	YES	NO	bb	bb	48.666
31	123789-HxCDD	36.68	1.515e5	1.239e5	0.985	1.22	1.24	1724.5	YES	NO	bb	bb	52.541
32	123678-HxCDD	36.29	1.501e5	1.214e5	1.021	1.24	1.24	1640.8	YES	NO	db	db	48.220
33	123478-HxCDD	36.18	1.450e5	1.177e5	0.987	1.23	1.24	1672.4	YES	NO	bd	bd	52.010
34	Total-heptadioxins	40.72	5.984e2	6.059e2	1.269	0.99	1.05	8.3	YES	NO	dd	dd	0.205
35	1234678-HpCDD	40.46	1.419e5	1.338e5	1.253	1.06	1.05	1701.7	YES	NO	bd	bd	47.516
36	1234679-HPCDD	39.40	1.594e5	1.507e5	1.286	1.06	1.05	1954.7	YES	NO	bd	bd	52.047
37	OCDD	45.29	2.045e5	2.288e5	1.103	0.89	0.89	2443.0	YES	NO	bd	bb	91.831

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:47:03 Pacific Standard Time

ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk**PFK1**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.55	2.901e7					43.7	YES		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	31.87	5.208e3					0.8	NO		bb		0.000
2	FUNCTION2 PFK	31.26	6.010e3					1.0	NO		bb		0.000
3	FUNCTION2 PFK	31.19	7.574e3					1.3	NO		bb		0.000
4	FUNCTION2 PFK	30.89	1.528e4					1.6	NO		bb		0.000
5	FUNCTION2 PFK	30.72	3.199e3					0.8	NO		bb		0.000
6	FUNCTION2 PFK	30.66	8.267e3					1.4	NO		bb		0.000
7	FUNCTION2 PFK	30.23	1.959e4					1.8	NO		bb		0.000
8	FUNCTION2 PFK	30.03	6.692e3					1.1	NO		bb		0.000
9	FUNCTION2 PFK	29.73	3.665e3					0.6	NO		bb		0.000
10	FUNCTION2 PFK	29.01	1.789e4					1.2	NO		bb		0.000
11	FUNCTION2 PFK	28.94	3.057e3					0.7	NO		bb		0.000
12	FUNCTION2 PFK	28.85	6.047e3					0.9	NO		bb		0.000
13	FUNCTION2 PFK	28.62	1.716e4					1.1	NO		db		0.000
14	FUNCTION2 PFK	28.53	1.178e4					1.7	NO		dd		0.000
15	FUNCTION2 PFK	28.48	1.052e4					1.6	NO		bd		0.000
16	FUNCTION2 PFK	32.10	6.063e3					0.9	NO		bb		0.000
17	FUNCTION2 PFK	31.96	2.025e4					1.6	NO		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	33.75	1.549e7					36.6	YES		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:47:03 Pacific Standard Time

ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk**PFK4**

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.32	4.622e3					0.9	NO		db		
2	FUNCTION4 PFK	39.29	3.371e3					0.6	NO		bd		
3	FUNCTION4 PFK	39.15	3.300e4					2.5	NO		bb		
4	FUNCTION4 PFK	39.04	4.570e3					0.8	NO		db		
5	FUNCTION4 PFK	39.00	1.987e4					2.4	NO		bd		
6	FUNCTION4 PFK	38.92	1.649e3					0.7	NO		bb		
7	FUNCTION4 PFK	38.84	2.471e3					0.6	NO		bb		
8	FUNCTION4 PFK	38.57	2.410e4					2.2	NO		bb		
9	FUNCTION4 PFK	38.31	7.366e3					0.9	NO		bb		
10	FUNCTION4 PFK	38.15	8.938e3					1.3	NO		bb		
11	FUNCTION4 PFK	38.09	2.471e3					0.7	NO		bb		
12	FUNCTION4 PFK	41.53	2.848e3					0.7	NO		bb		
13	FUNCTION4 PFK	41.42	8.675e3					0.8	NO		bb		
14	FUNCTION4 PFK	41.25	5.808e3					1.0	NO		db		
15	FUNCTION4 PFK	41.18	9.708e3					1.4	NO		dd		
16	FUNCTION4 PFK	41.14	1.003e4					1.3	NO		bd		
17	FUNCTION4 PFK	40.83	3.157e3					0.7	NO		bb		
18	FUNCTION4 PFK	40.53	5.650e3					0.7	NO		bb		
19	FUNCTION4 PFK	40.36	5.417e3					1.0	NO		db		
20	FUNCTION4 PFK	40.31	3.382e3					0.8	NO		bd		
21	FUNCTION4 PFK	40.05	2.495e3					0.6	NO		bb		
22	FUNCTION4 PFK	39.97	2.962e4					1.9	NO		bb		
23	FUNCTION4 PFK	39.80	7.590e3					1.1	NO		db		
24	FUNCTION4 PFK	39.77	3.022e3					0.9	NO		bd		
25	FUNCTION4 PFK	39.72	4.877e3					1.1	NO		bb		
26	FUNCTION4 PFK	39.54	8.569e2					0.4	NO		bb		
27	FUNCTION4 PFK	39.47	1.277e4					1.3	NO		bb		
28	FUNCTION4 PFK	42.96	1.229e4					1.6	NO		bb		
29	FUNCTION4 PFK	42.88	5.453e3					1.0	NO		bb		
30	FUNCTION4 PFK	42.81	3.999e3					1.0	NO		bb		
31	FUNCTION4 PFK	42.77	1.018e3					0.4	NO		bb		
32	FUNCTION4 PFK	42.24	1.879e4					1.6	NO		bb		
33	FUNCTION4 PFK	42.03	1.011e4					1.3	NO		bb		
34	FUNCTION4 PFK	41.64	1.845e4					1.6	NO		bb		

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:47:03 Pacific Standard Time

ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	45.11	1.432e4					3.0	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	25.20	7.206e1					2.6	NO		dd		0.000
2	FUNCTION1 HXCD...	25.04	9.223e1					1.8	NO		bd		0.000
3	FUNCTION1 HXCD...	24.31	7.022e1					2.5	NO		bb		0.000
4	FUNCTION1 HXCD...	23.20	7.503e1					2.3	NO		bb		0.000
5	FUNCTION1 HXCD...	21.95	1.126e2					2.5	NO		db		0.000
6	FUNCTION1 HXCD...	21.78	8.108e1					2.3	NO		bd		0.000
7	FUNCTION1 HXCD...	27.29	7.614e1					1.9	NO		bb		0.000
8	FUNCTION1 HXCD...	25.80	7.762e1					3.4	YES		db		0.000
9	FUNCTION1 HXCD...	25.75	1.570e2					3.7	YES		dd		0.000
10	FUNCTION1 HXCD...	25.66	7.514e1					2.2	NO		bd		0.000
11	FUNCTION1 HXCD...	25.36	8.064e1					2.2	NO		db		0.000
12	FUNCTION1 HXCD...	25.28	1.114e2					2.8	NO		dd		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1													

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.27	1.392e2					3.1	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.16	9.879e1					2.5	NO		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.17	7.107e1					1.5	NO		bb		0.000
2	FUNCTION4 NCDPE	40.45	7.776e1					4.2	YES		bb		0.000

Quantify Totals Report MassLynx MassLynx V4.1 SCN909

Dataset: T:\Autospec\Processed Data Batch\230210.qld

Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time

Printed: Monday, February 13, 2023 11:47:03 Pacific Standard Time

ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk**ETHERS6**

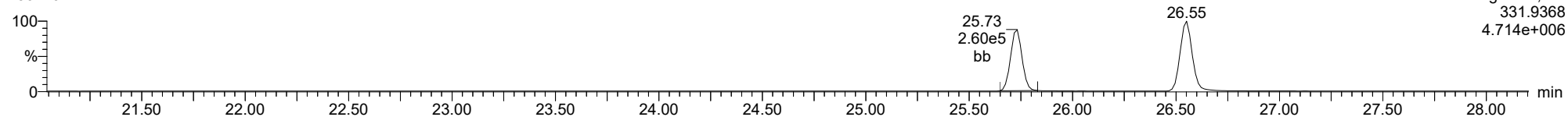
	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.86	8.385e1					4.6	YES		bd		0.000
2	FUNCTION5 DCDPE	45.78	2.311e2					3.5	YES		bb		0.000
3	FUNCTION5 DCDPE	45.99	7.750e1					4.6	YES		bb		0.000
4	FUNCTION5 DCDPE	45.91	1.218e2					4.3	YES		db		0.000

Method: T:\Autospec\Methods\Dioxin230206.mdb 10 Feb 2023 15:13:20
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ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD

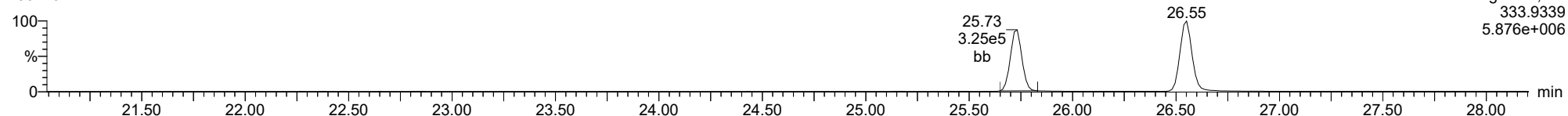
23021027



F1:Voltage SIR,El+
331.9368
4.714e+006

13C-1234-TCDD

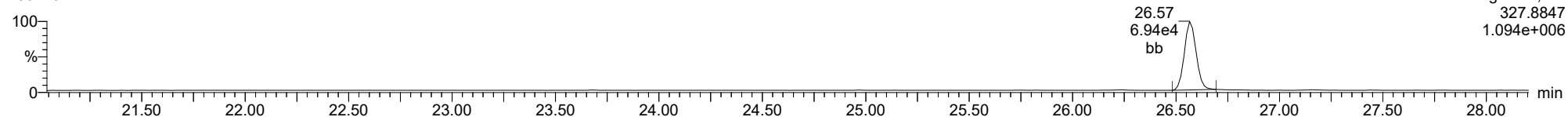
23021027



F1:Voltage SIR,El+
333.9339
5.876e+006

37CL-2378-TCDD

23021027

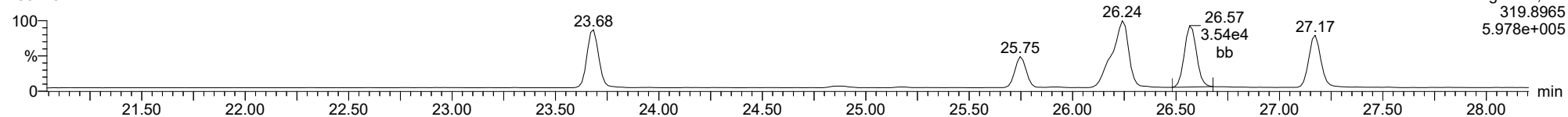


F1:Voltage SIR,El+
327.8847
1.094e+006

ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

2378-TCDD

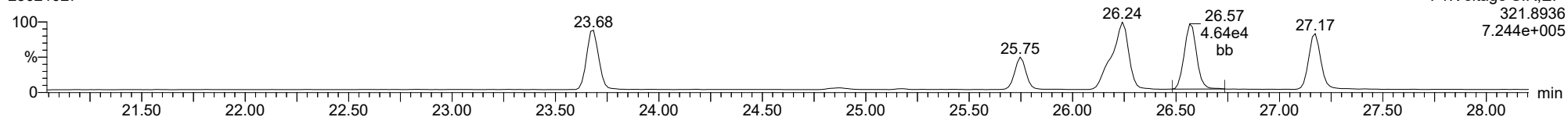
23021027



F1:Voltage SIR,EI+
319.8965
5.978e+005

2378-TCDD

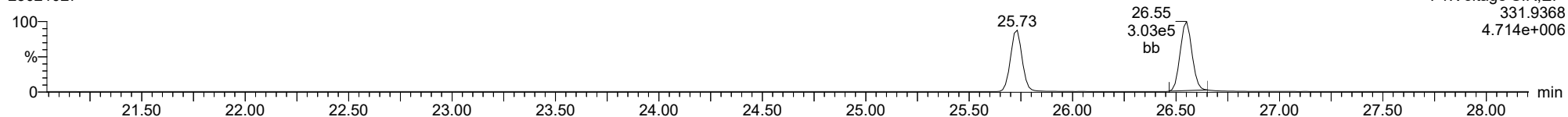
23021027



F1:Voltage SIR,EI+
321.8936
7.244e+005

13C-2378-TCDD

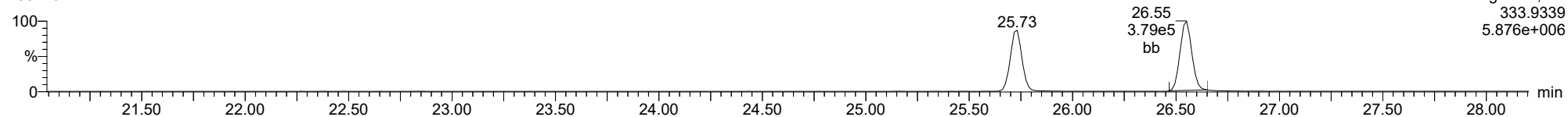
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F1:Voltage SIR,EI+
331.9368
4.714e+006

13C-2378-TCDD

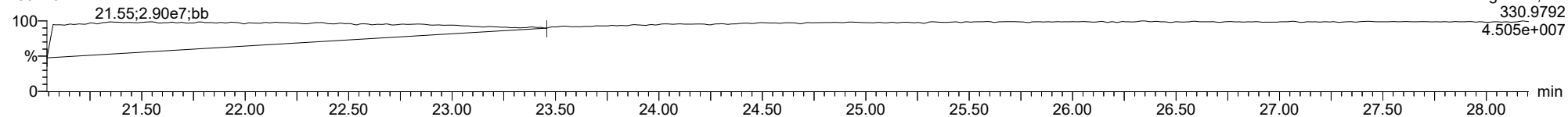
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F1:Voltage SIR,EI+
333.9339
5.876e+006

FUNCTION1 PFK

23021027

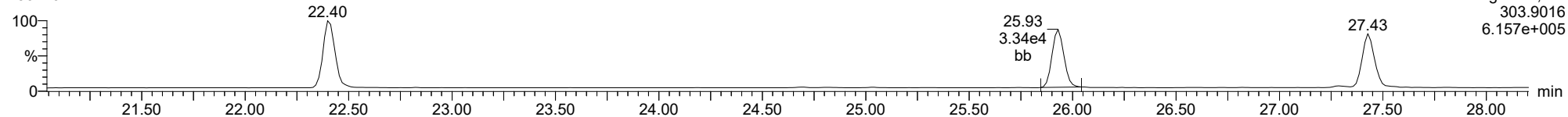


F1:Voltage SIR,EI+
330.9792
4.505e+007

ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

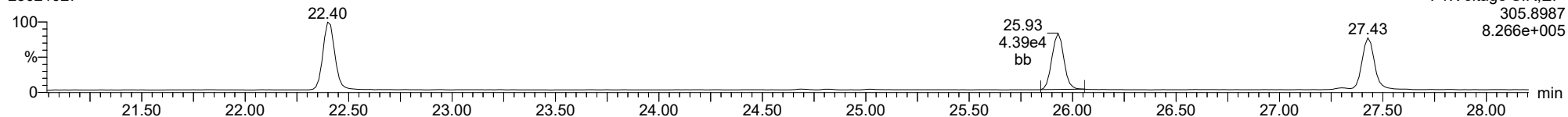
2378-TCDF

23021027



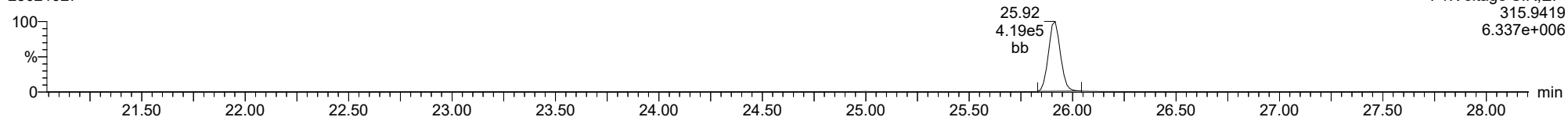
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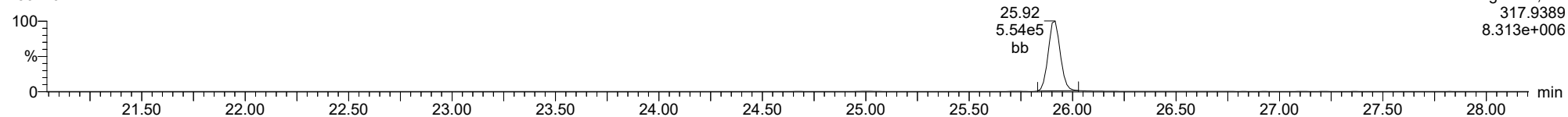
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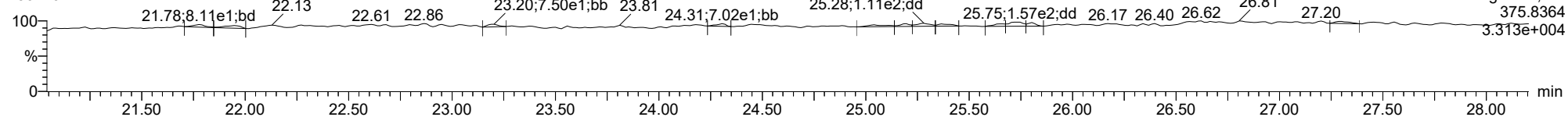
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23021027



FUNCTION1 HXCDFE

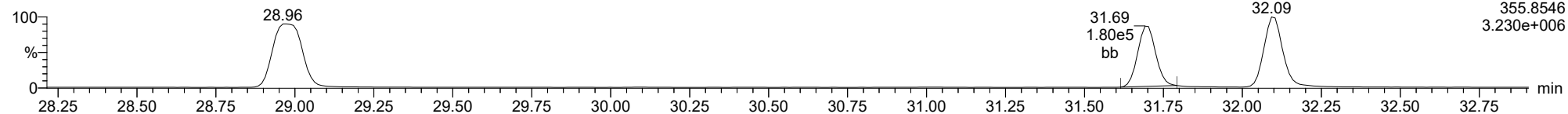
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ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

12378-PeCDD

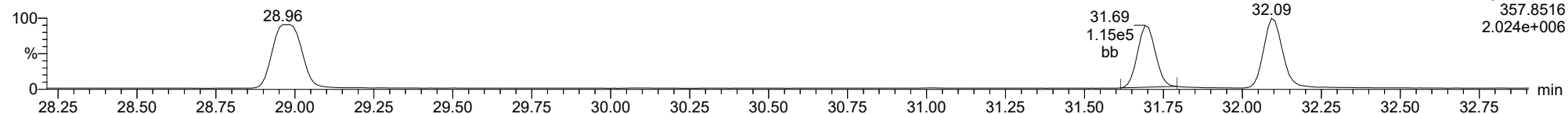
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F2:Voltage SIR,EI+
355.8546
3.230e+006

12378-PeCDD

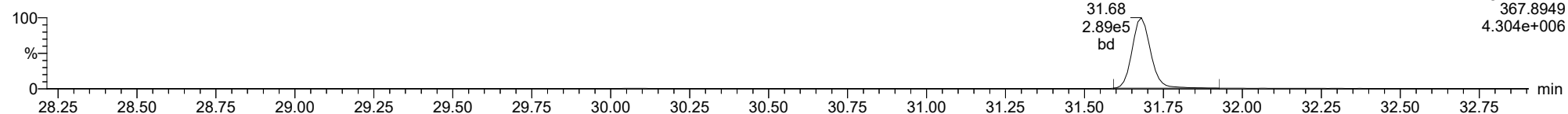
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F2:Voltage SIR,EI+
357.8516
2.024e+006

13C-12378-PeCDD

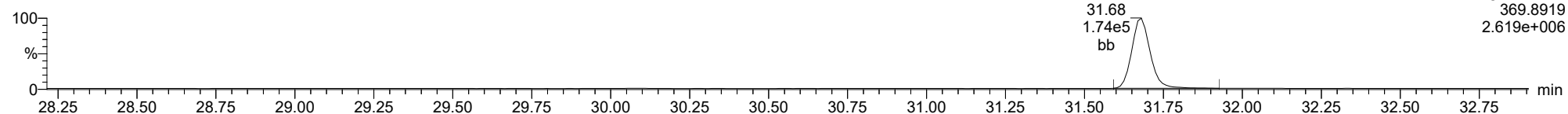
23021027



F2:Voltage SIR,EI+
367.8949
4.304e+006

13C-12378-PeCDD

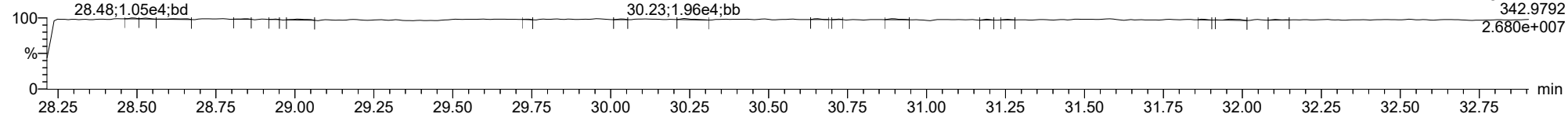
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F2:Voltage SIR,EI+
369.8919
2.619e+006

FUNCTION2 PFK

23021027

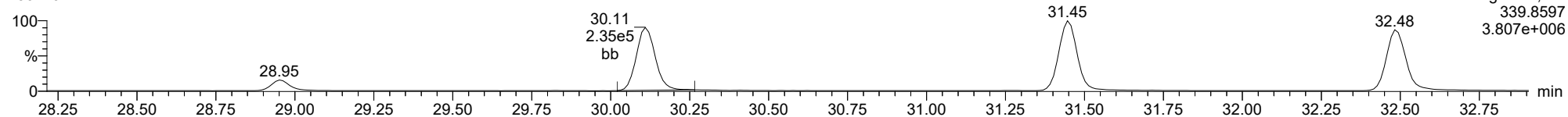


F2:Voltage SIR,EI+
342.9792
2.680e+007

ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

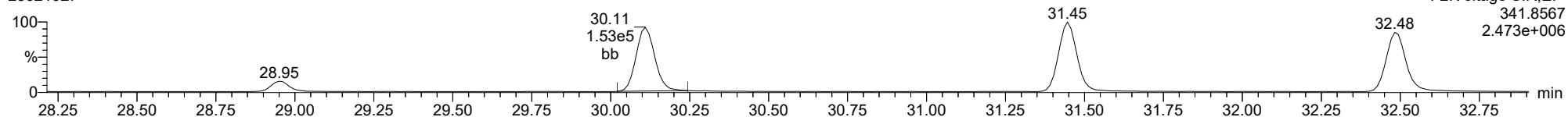
12378-PeCDF

23021027



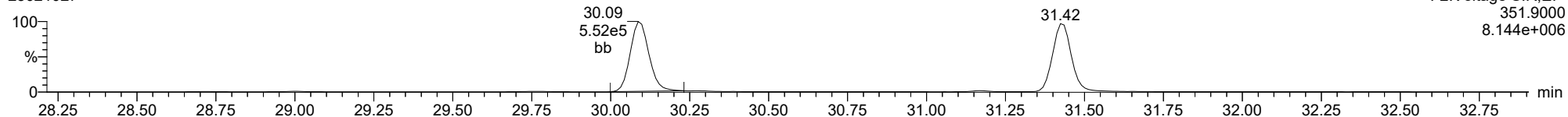
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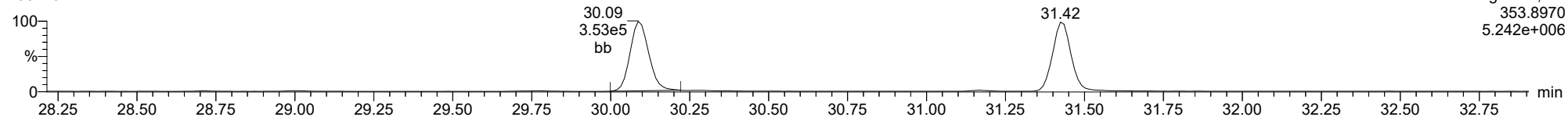
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23021027



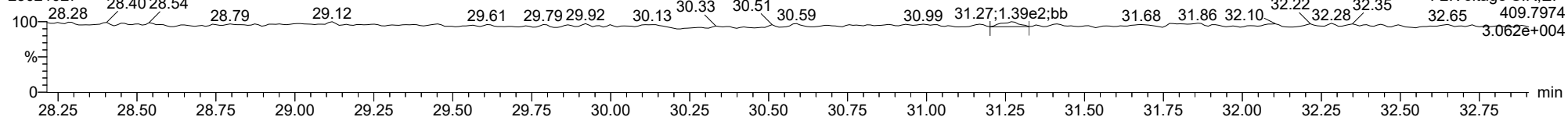
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23021027



FUNCTION2 HPCDPE

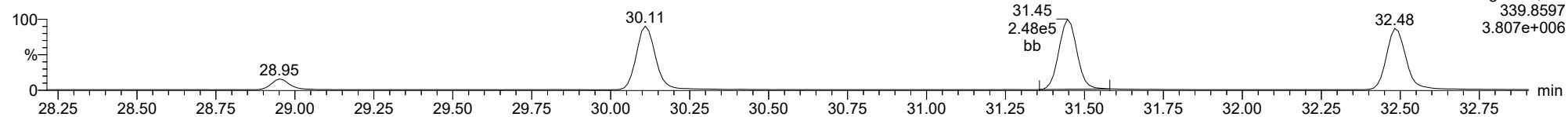
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ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

23478-PeCDF

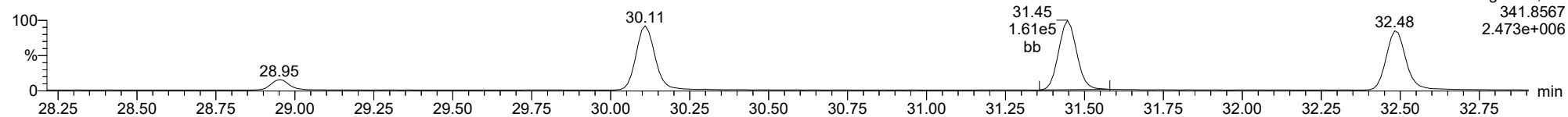
23021027



F2:Voltage SIR,EI+
339.8597
3.807e+006

23478-PeCDF

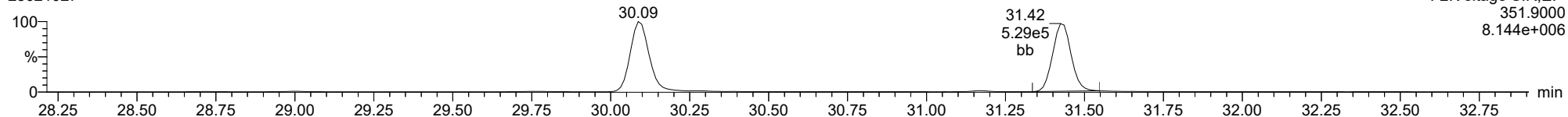
23021027



F2:Voltage SIR,EI+
341.8567
2.473e+006

13C-23478-PeCDF

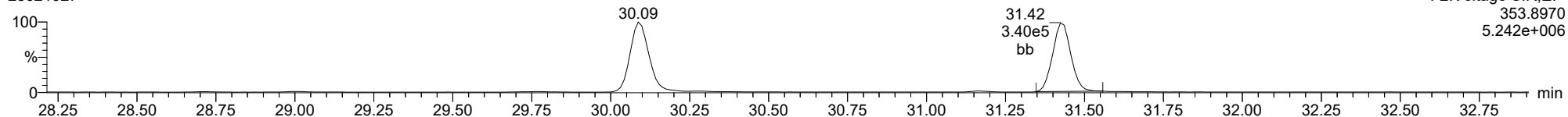
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F2:Voltage SIR,EI+
351.9000
8.144e+006

13C-23478-PeCDF

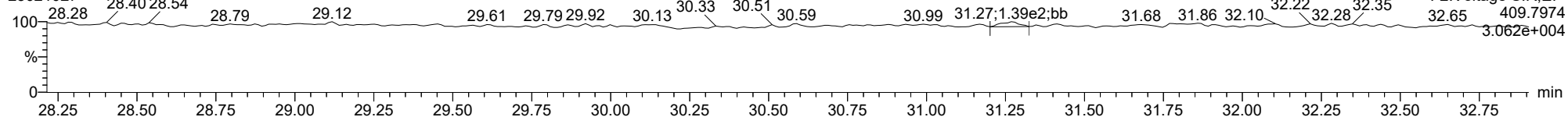
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F2:Voltage SIR,EI+
353.8970
5.242e+006

FUNCTION2 HPCDPE

23021027

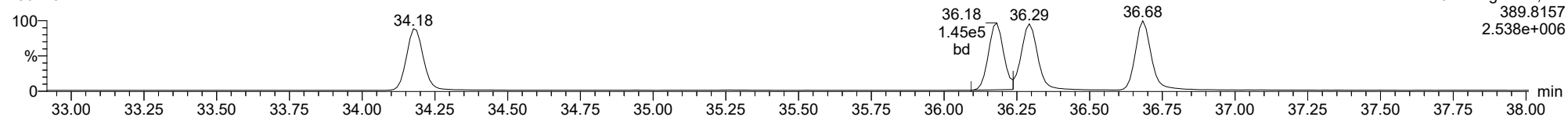


F2:Voltage SIR,EI+
32.65 409.7974
3.062e+004

ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

123478-HxCDD

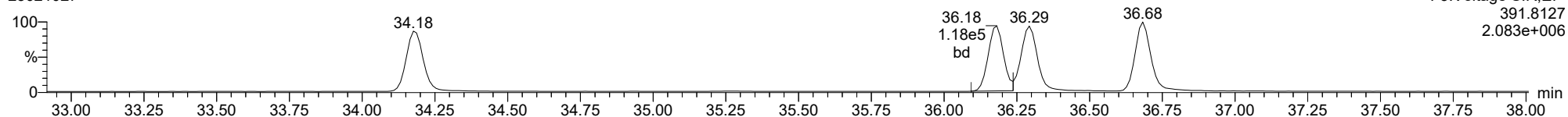
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F3:Voltage SIR,El+
389.8157
2.538e+006

123478-HxCDD

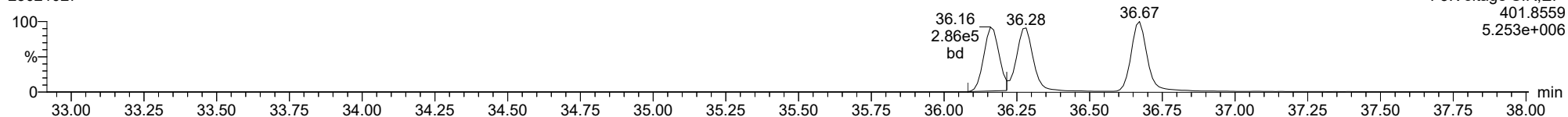
23021027



F3:Voltage SIR,El+
391.8127
2.083e+006

13C-123478-HxCDD

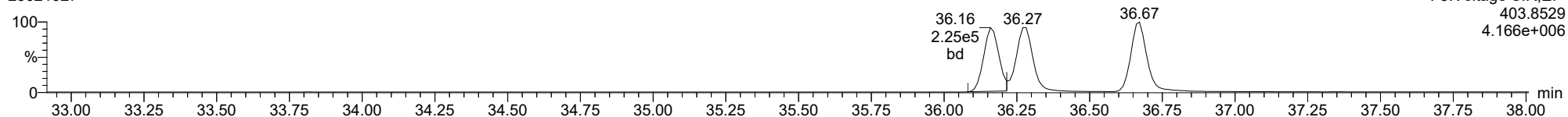
23021027



F3:Voltage SIR,El+
401.8559
5.253e+006

13C-123478-HxCDD

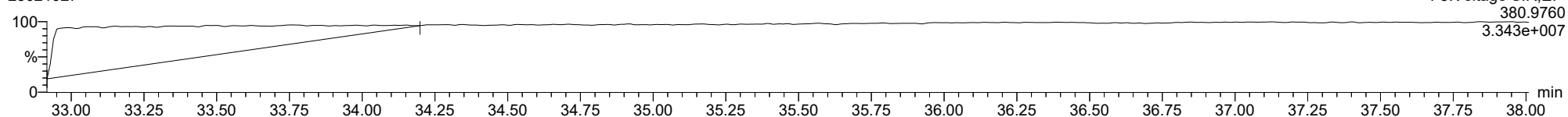
23021027



F3:Voltage SIR,El+
403.8529
4.166e+006

FUNCTION3 PFK

23021027

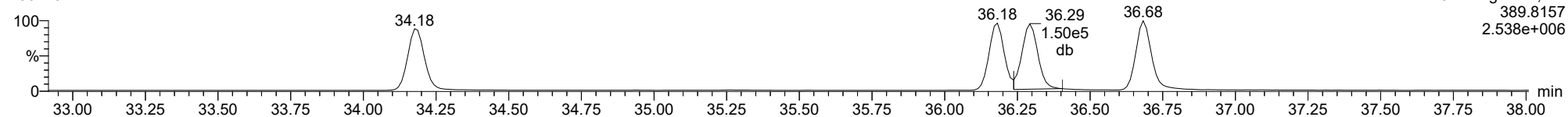


F3:Voltage SIR,El+
380.9760
3.343e+007

ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

123678-HxCDD

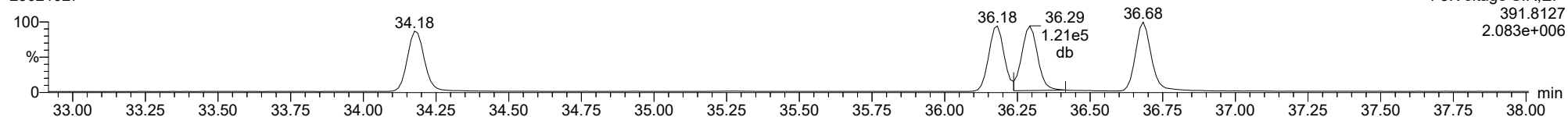
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F3:Voltage SIR,EI+
389.8157
2.538e+006

123678-HxCDD

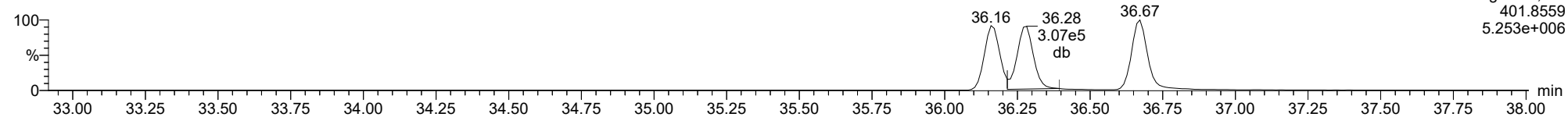
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F3:Voltage SIR,EI+
391.8127
2.083e+006

13C-123678-HxCDD

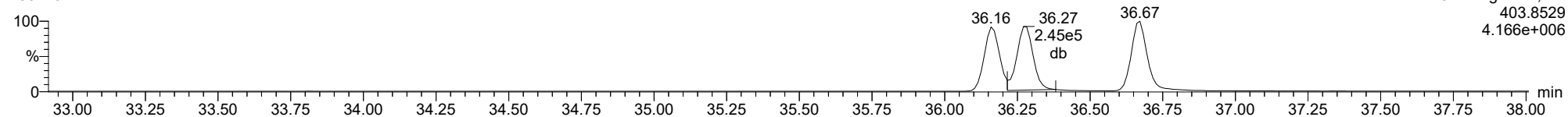
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F3:Voltage SIR,EI+
401.8559
5.253e+006

13C-123678-HxCDD

23021027

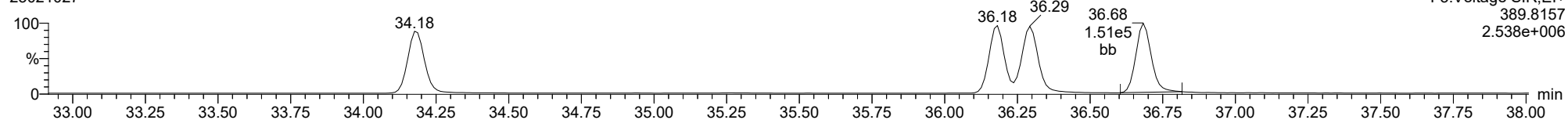


F3:Voltage SIR,EI+
403.8529
4.166e+006

ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

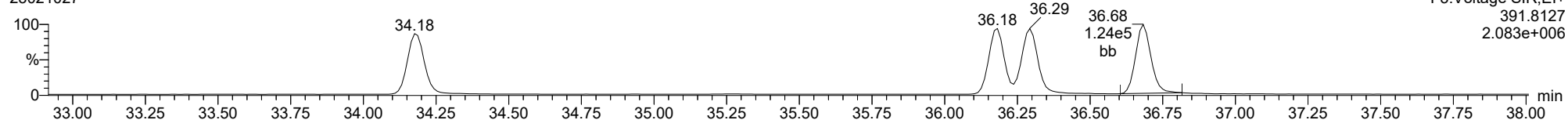
123789-HxCDD

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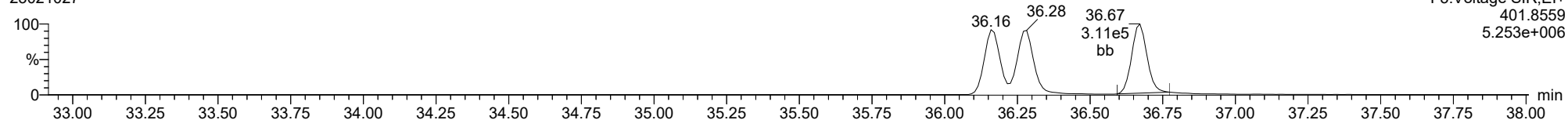
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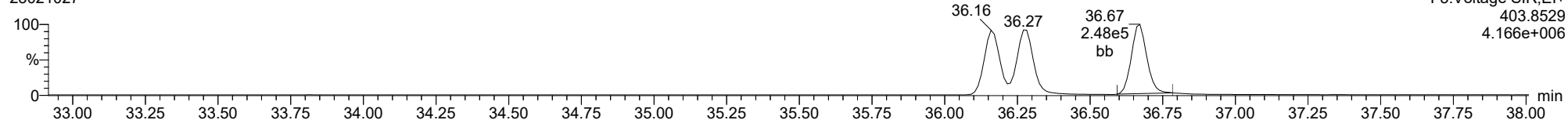
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13C-123789-HxCDD

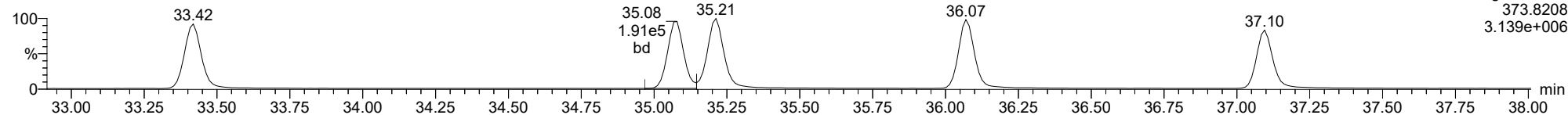
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ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

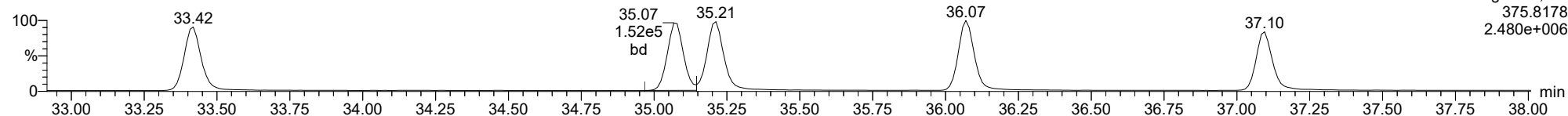
123478-HxCDF

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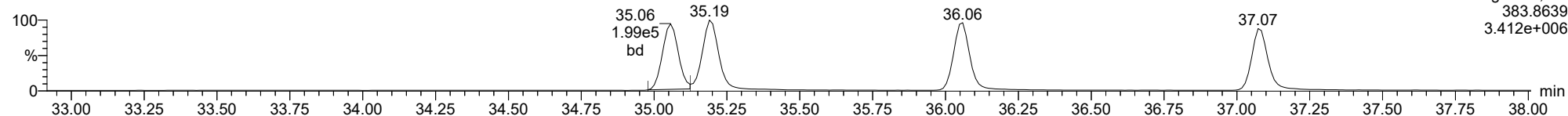
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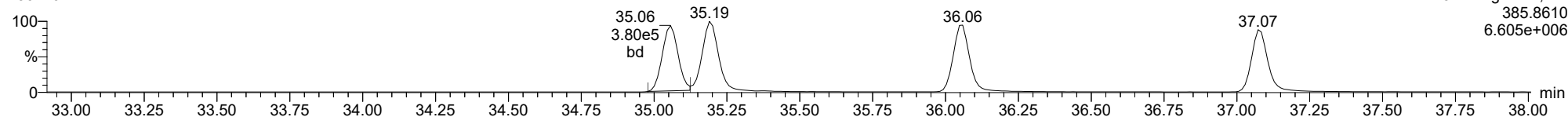
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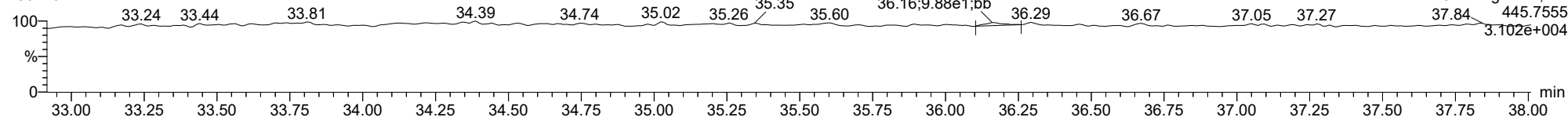
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FUNCTION3 OCDPE

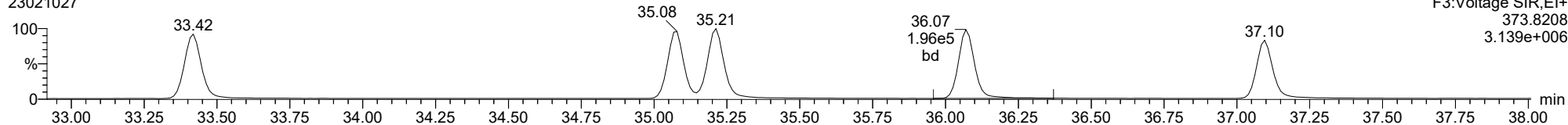
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ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

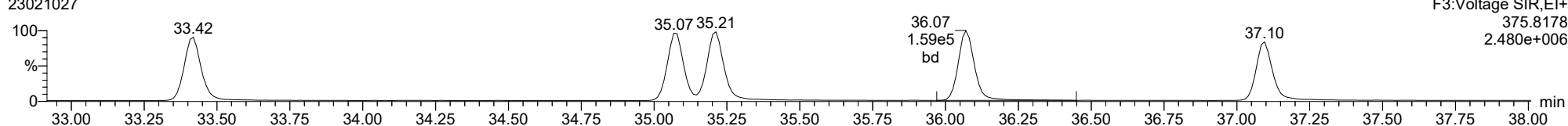
234678-HxCDF

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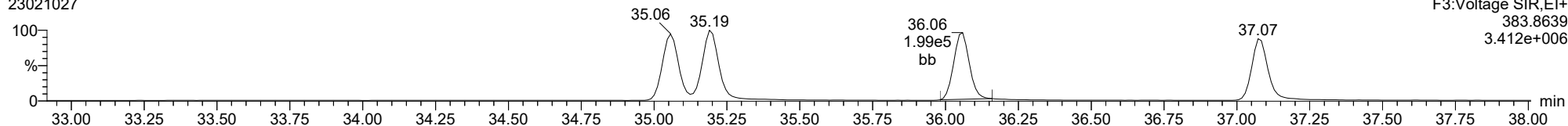
234678-HxCDF

23021027



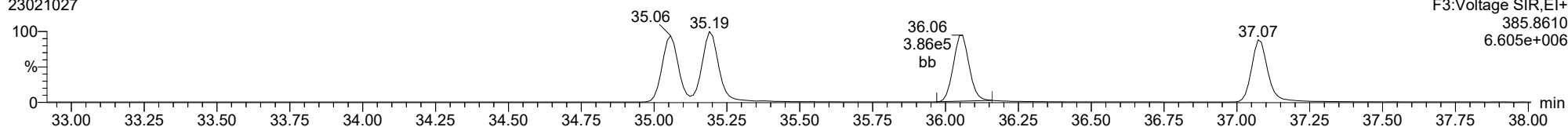
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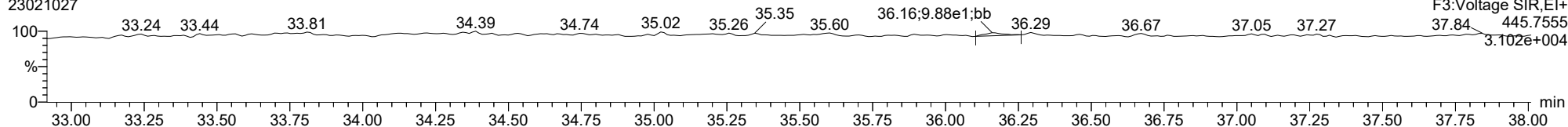
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FUNCTION3 OCDPE

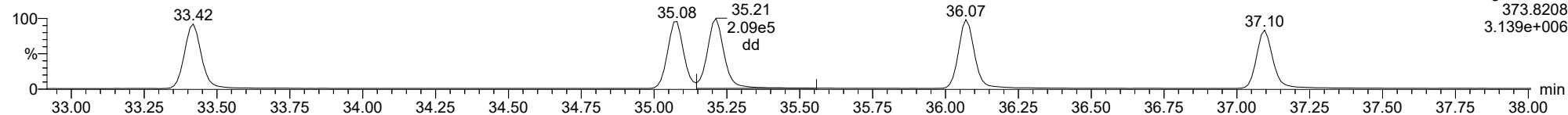
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ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

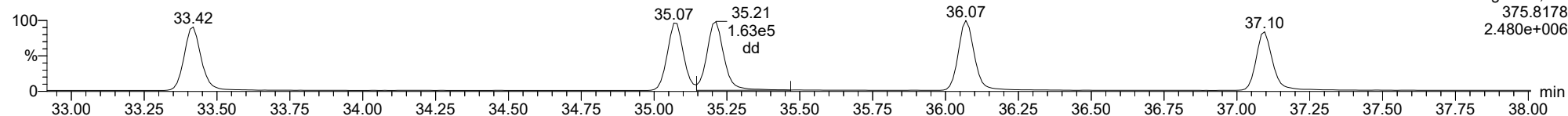
123678-HxCDF

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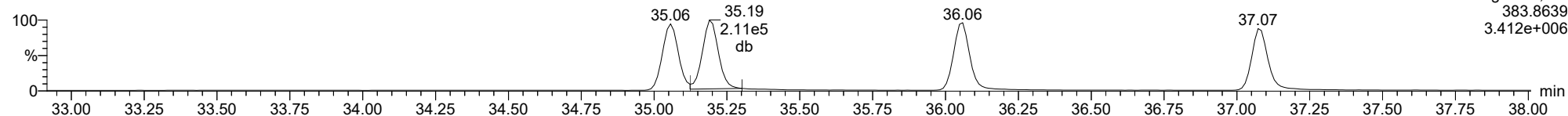
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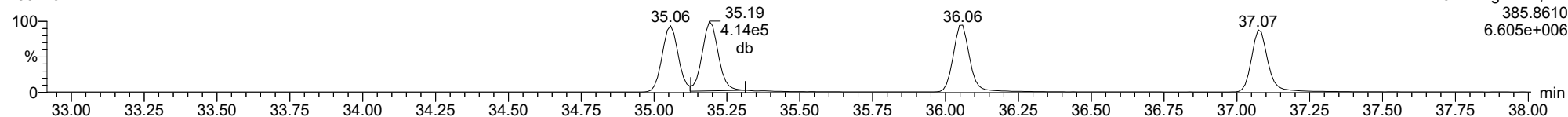
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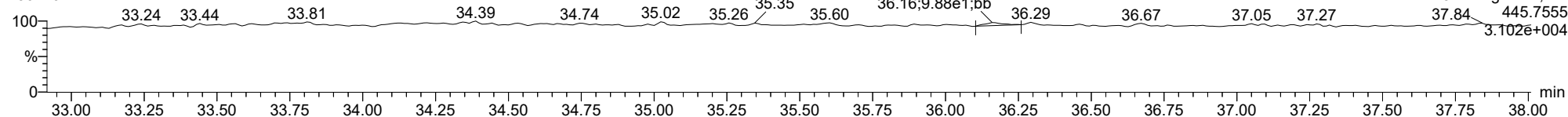
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FUNCTION3 OCDPE

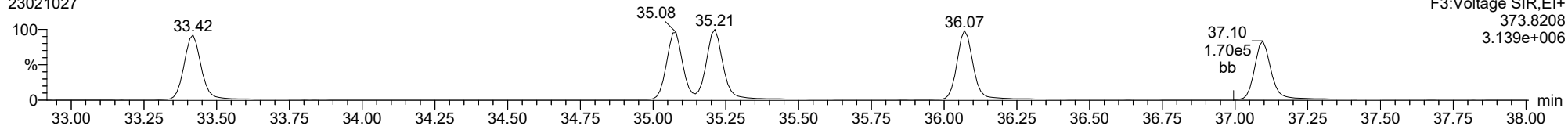
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ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

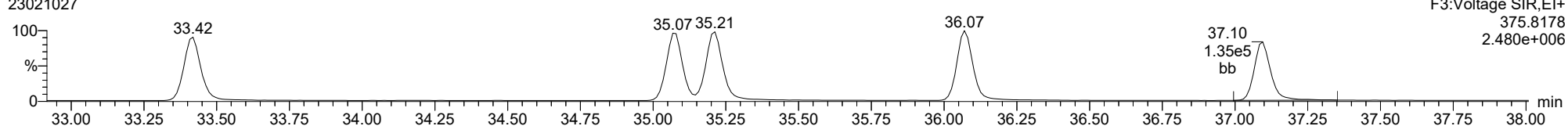
123789-HxCDF

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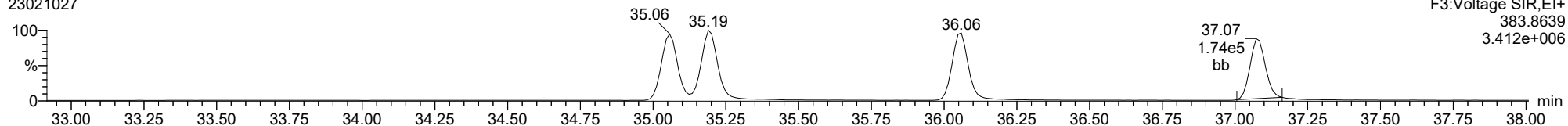
123789-HxCDF

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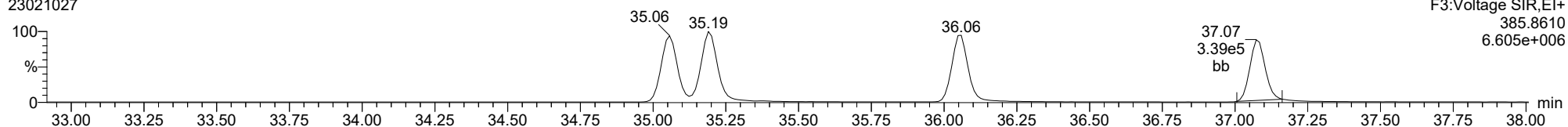
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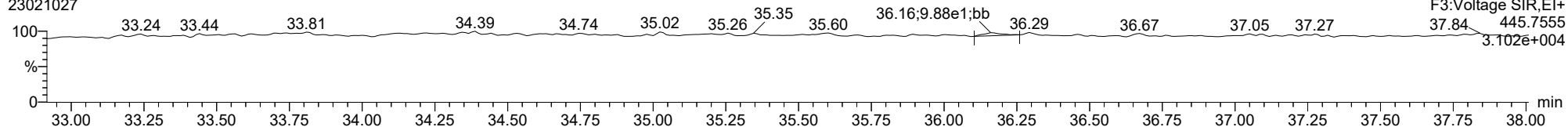
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FUNCTION3 OCDPE

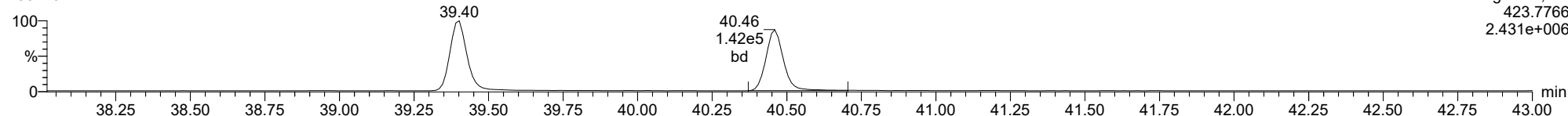
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ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

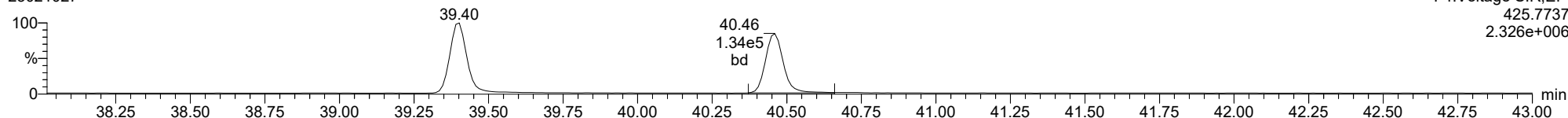
1234678-HpCDD

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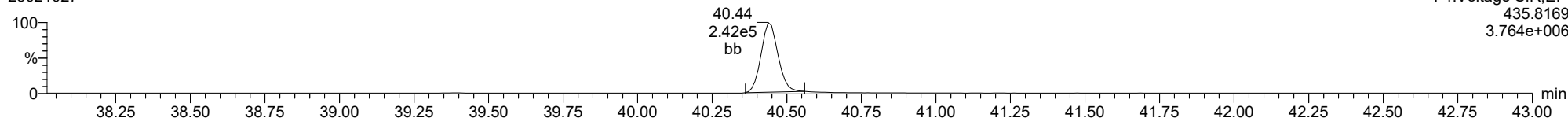
1234678-HpCDD

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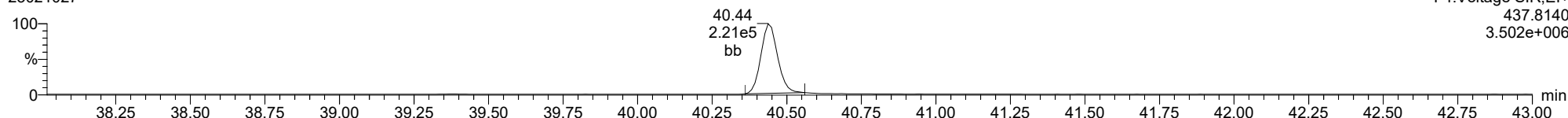
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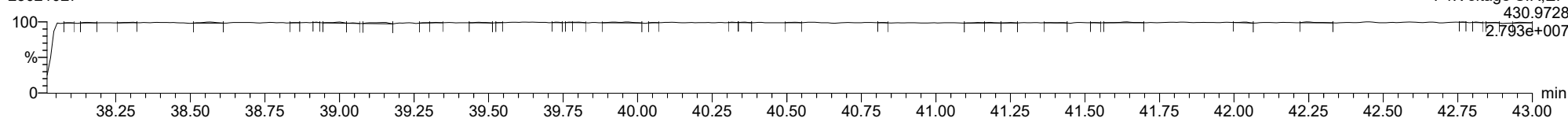
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FUNCTION4 PFK

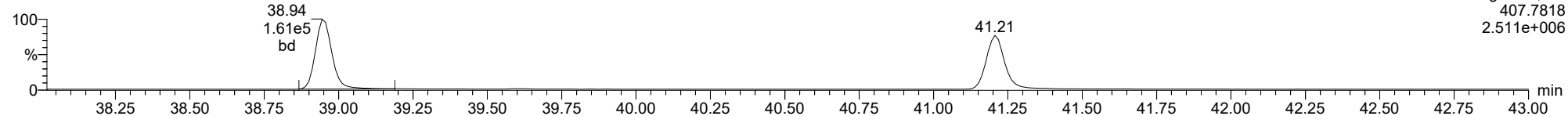
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ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

1234678-HpCDF

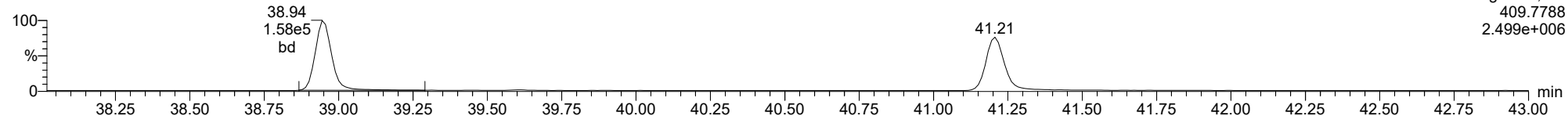
23021027



F4:Voltage SIR,EI+
407.7818
2.511e+006

1234678-HpCDF

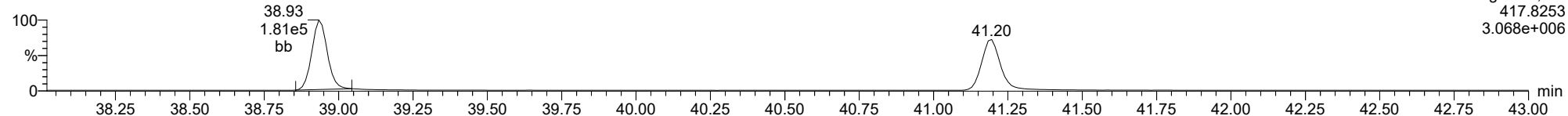
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F4:Voltage SIR,EI+
409.7788
2.499e+006

13C-1234678-HpCDF

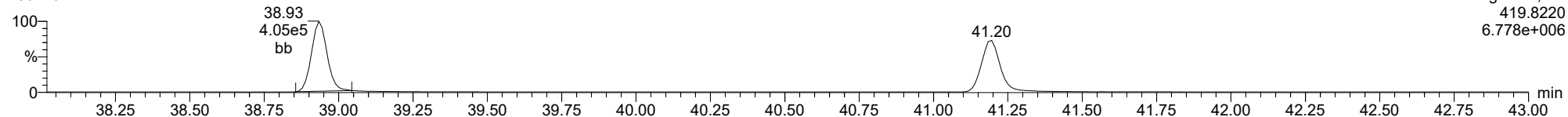
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F4:Voltage SIR,EI+
417.8253
3.068e+006

13C-1234678-HpCDF

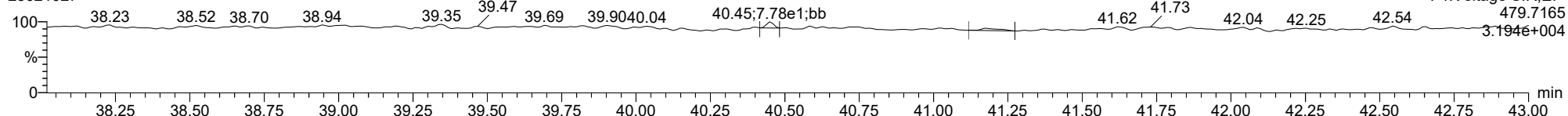
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F4:Voltage SIR,EI+
419.8220
6.778e+006

FUNCTION4 NCDPE

23021027

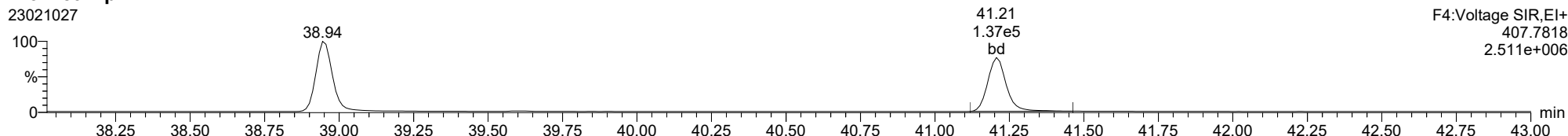


F4:Voltage SIR,EI+
479.7165
3.194e+004

ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

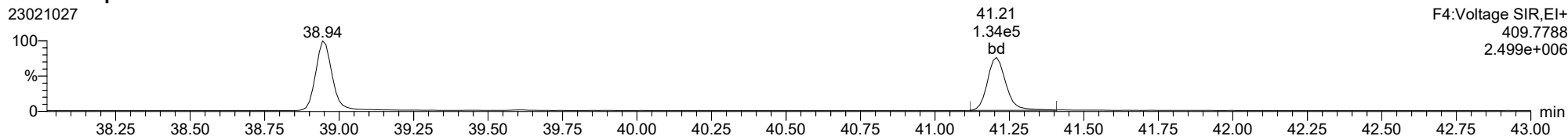
1234789-HpCDF

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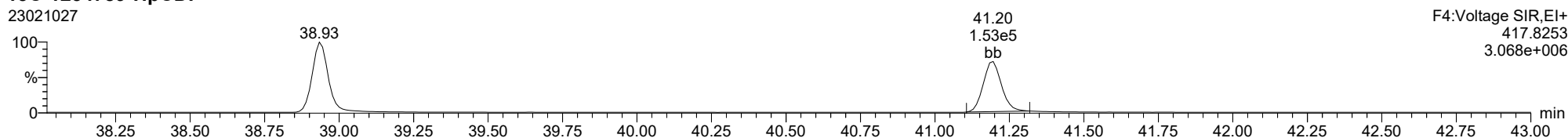
1234789-HpCDF

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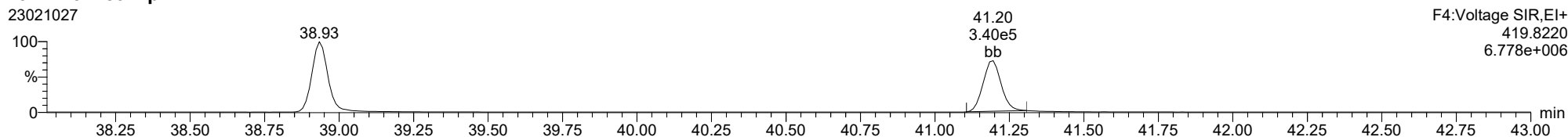
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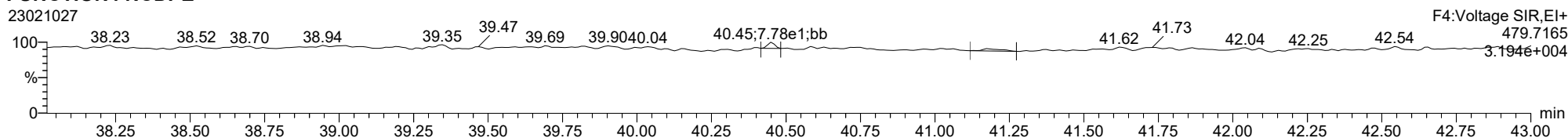
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FUNCTION4 NCDPE

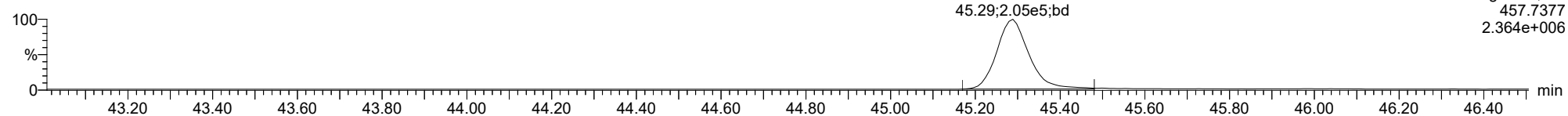
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ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

OCDD

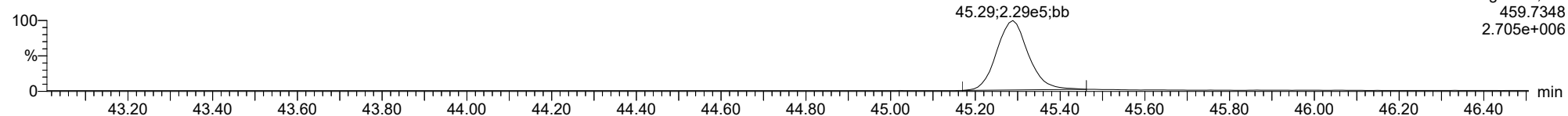
23021027



F5:Voltage SIR,El+
459.7377
2.364e+006

OCDD

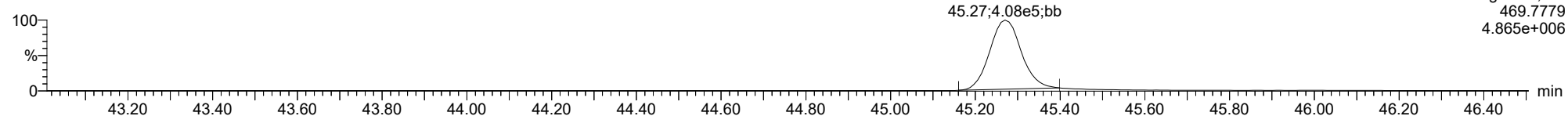
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F5:Voltage SIR,El+
459.7348
2.705e+006

13C-OCDD

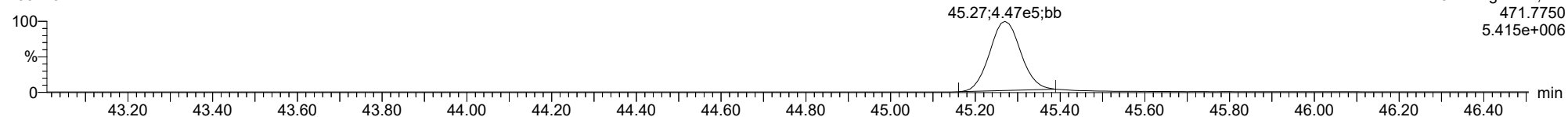
23021027



F5:Voltage SIR,El+
469.7779
4.865e+006

13C-OCDD

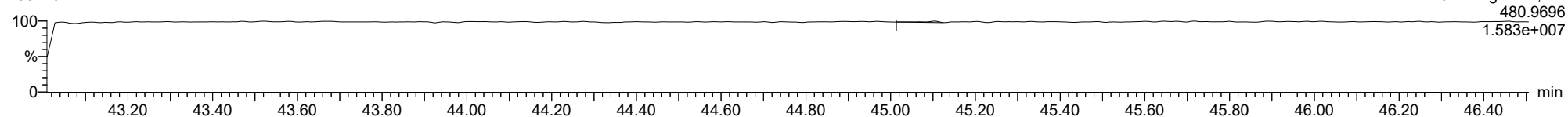
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F5:Voltage SIR,El+
471.7750
5.415e+006

FUNCTION5 PFK

23021027

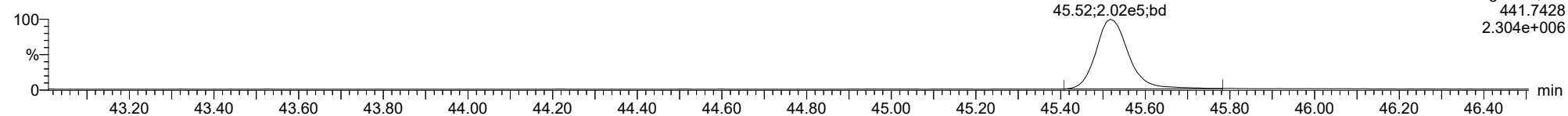


F5:Voltage SIR,El+
480.9696
1.583e+007

ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

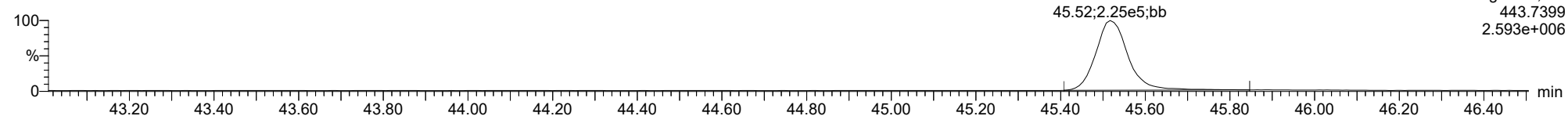
OCDF

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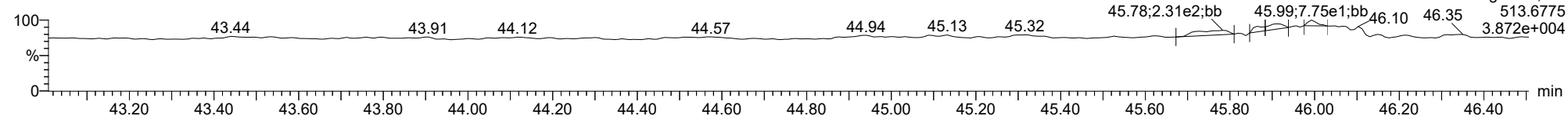
OCDF

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FUNCTION5 DCDPE

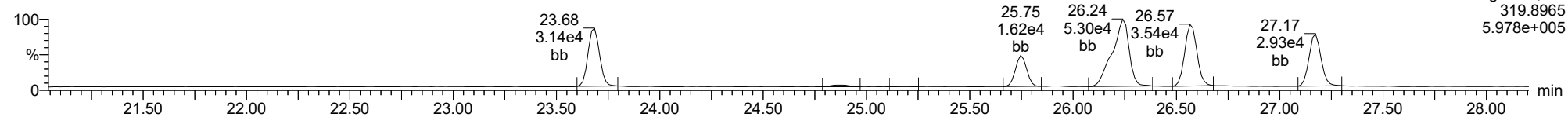
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ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

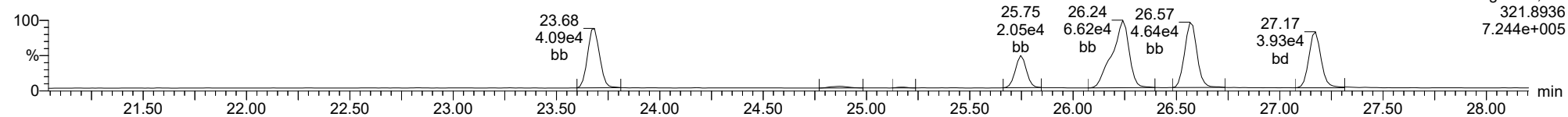
Total-tetradioxins

23021027



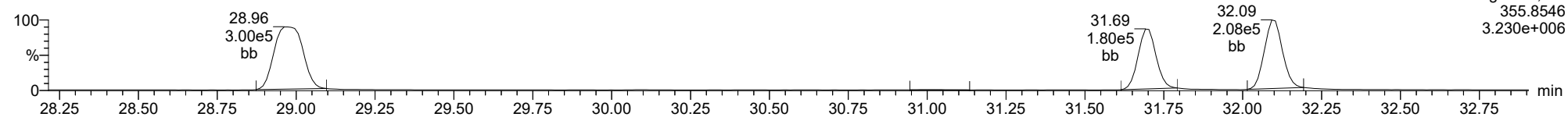
Total-tetradioxins

23021027



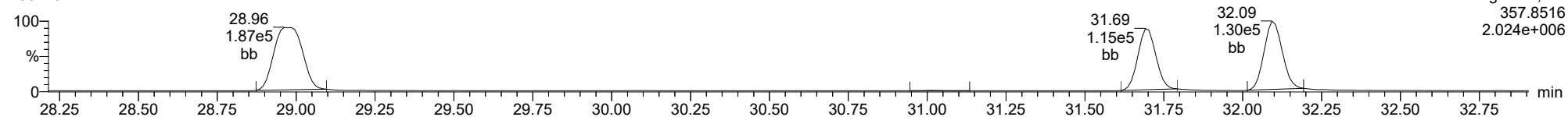
Total-pentadioxins

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Total-pentadioxins

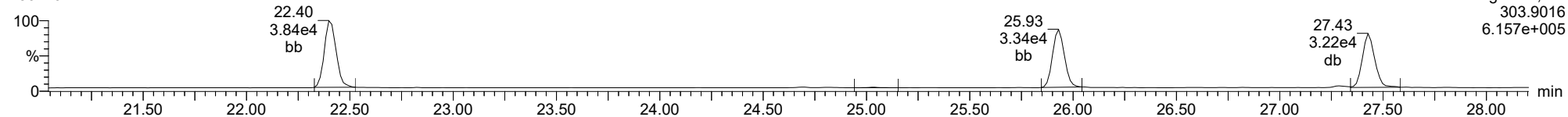
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ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

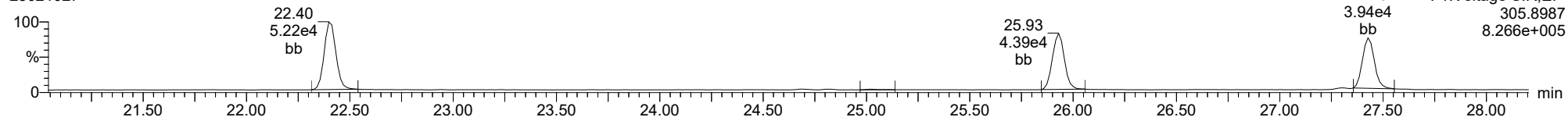
Total-tetrafurans

23021027



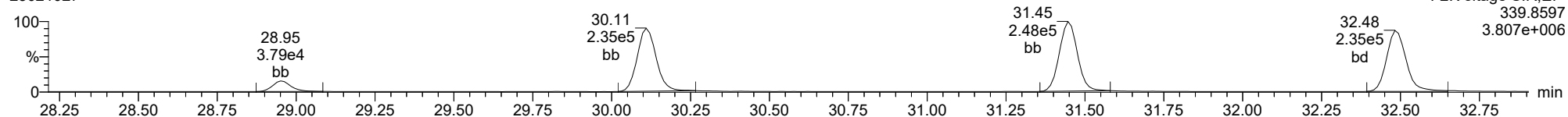
Total-tetrafurans

23021027



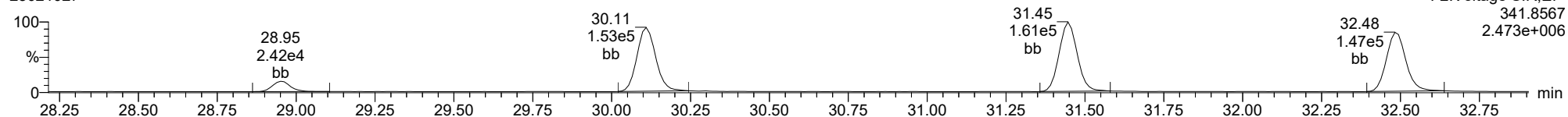
Total-pentafurans

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Total-pentafurans

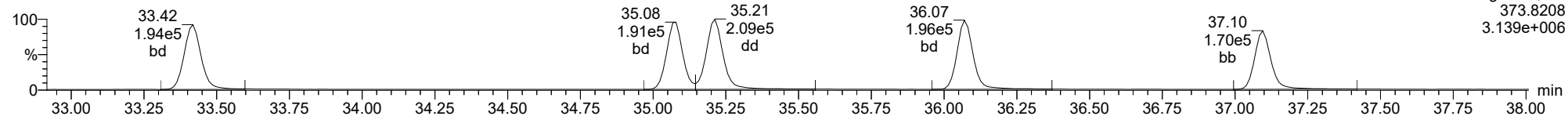
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ID: CS3U5, Name: 23021027, Date: 11-Feb-2023, Time: 11:02:58, Conditions: AUTOSPEC01, User: pk

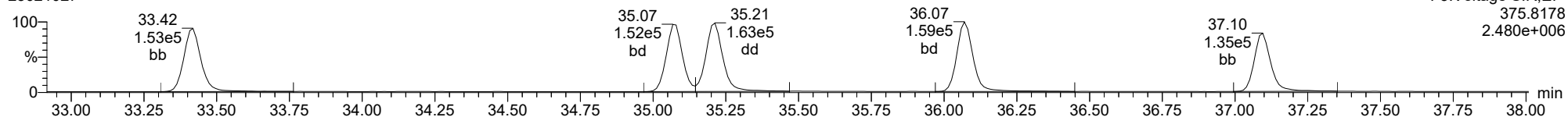
Total-hexafurans

23021027



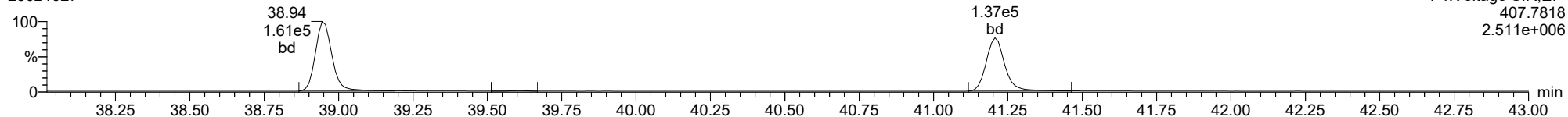
Total-hexafurans

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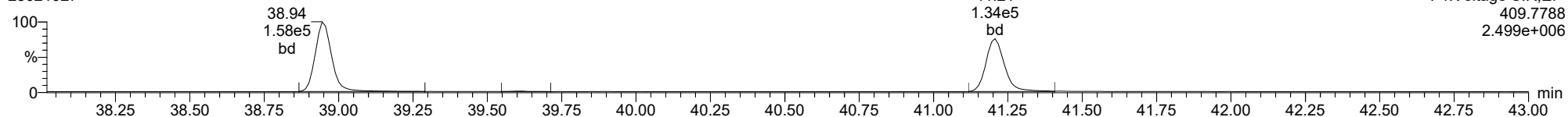
Total-heptafurans

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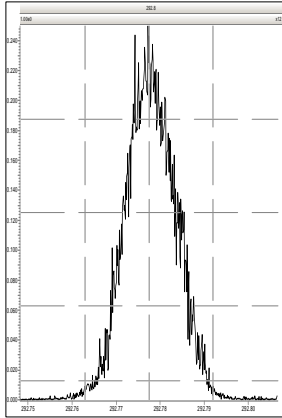


Total-heptafurans

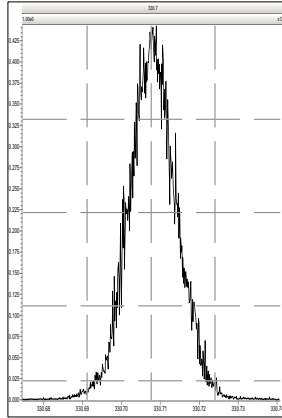
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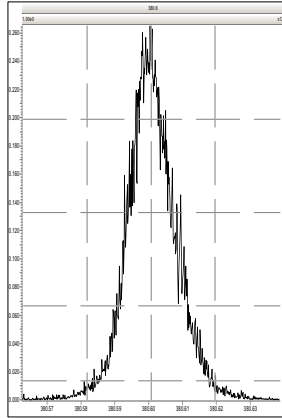
M 292.9824 R 11962



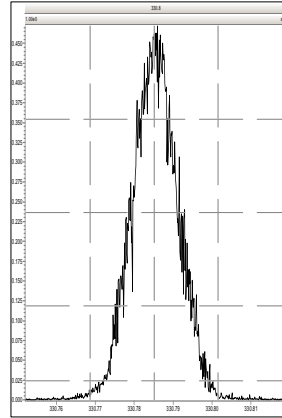
M 330.9792 R 11860



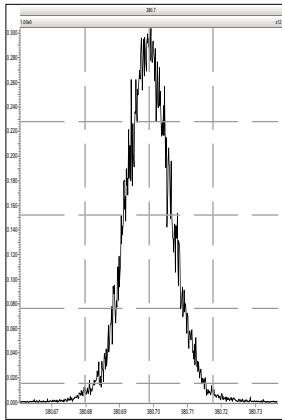
M 380.9760 R 11468



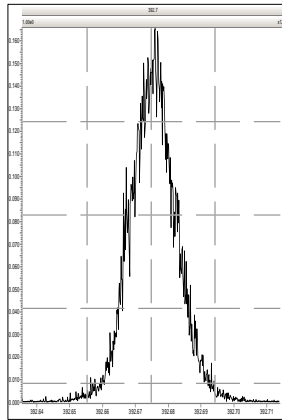
M 330.9792 R 12563



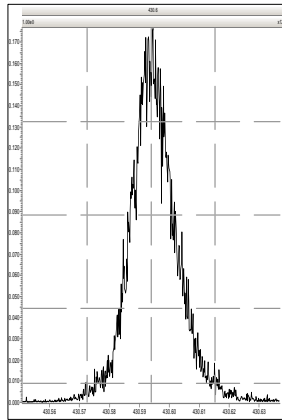
M 380.9760 R 12499



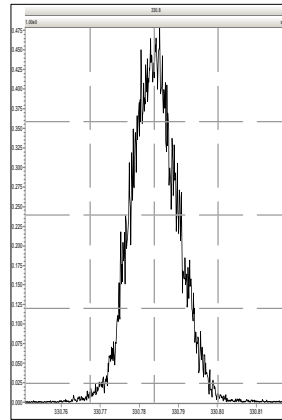
M 392.9760 R 12824



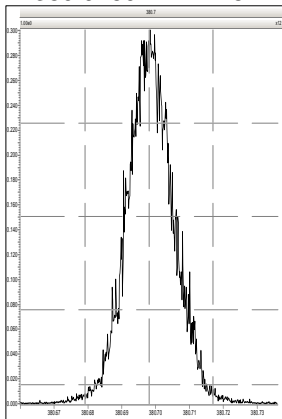
M 430.9728 R 12001



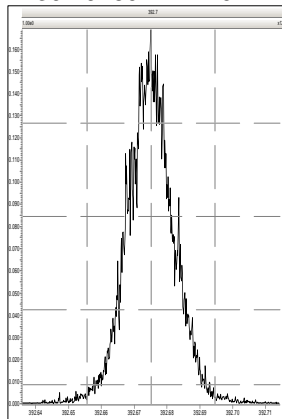
M 330.9792 R 12565



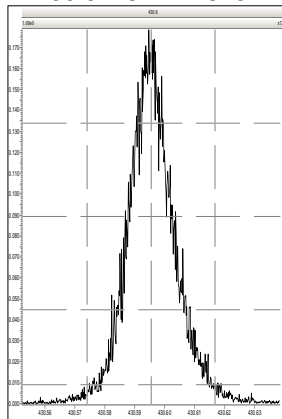
M 380.9760 R 12448



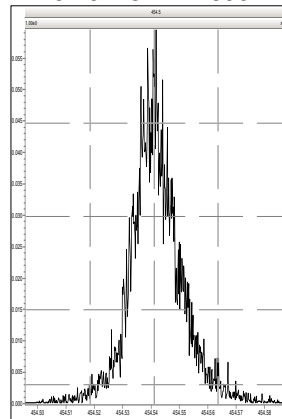
M 392.9760 R 12201



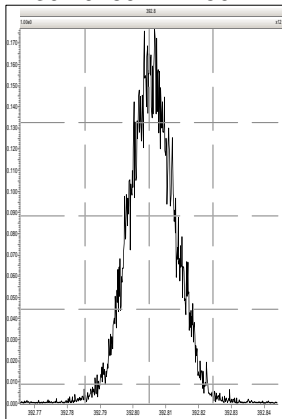
M 430.9728 R 11820



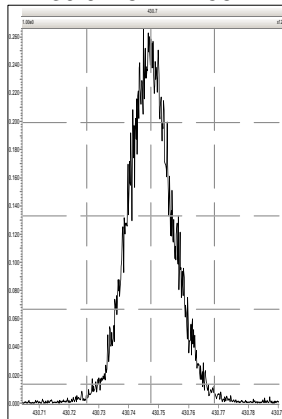
M 454.9728 R 12690



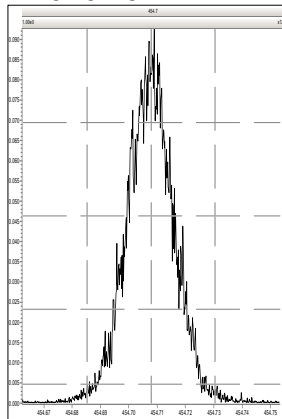
M 392.9760 R 12501



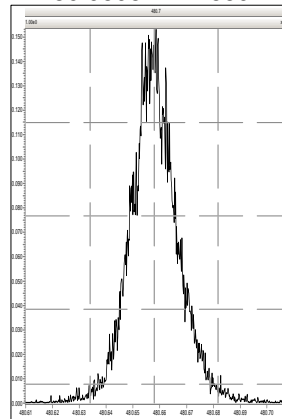
M 430.9728 R 12562



M 454.9728 R 12224

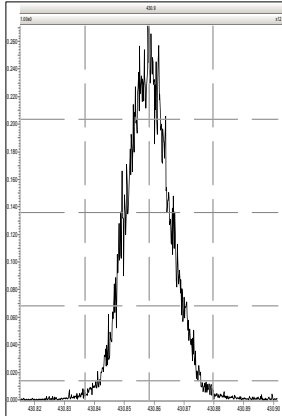


M 480.9696 R 11669

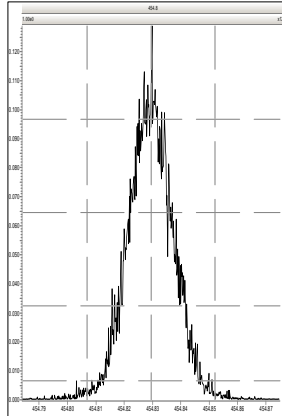


Printed: Saturday, February 11, 2023 11:56:40 Pacific Standard Time

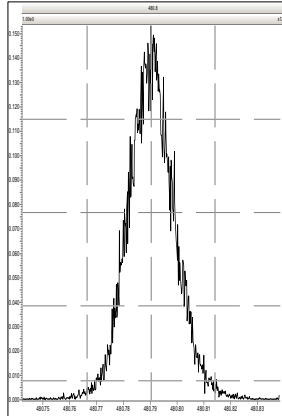
M 430.9728 R 13094



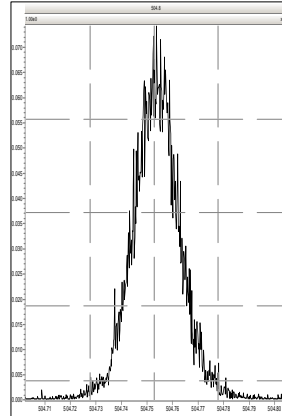
M 454.9728 R 12504



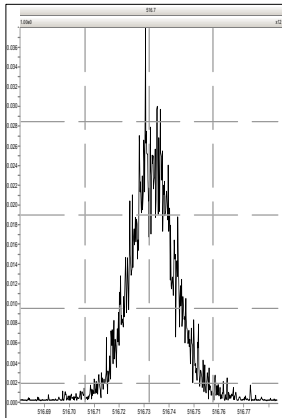
M 480.9696 R 12468



M 504.9696 R 12106



M 516.9697 R 12817

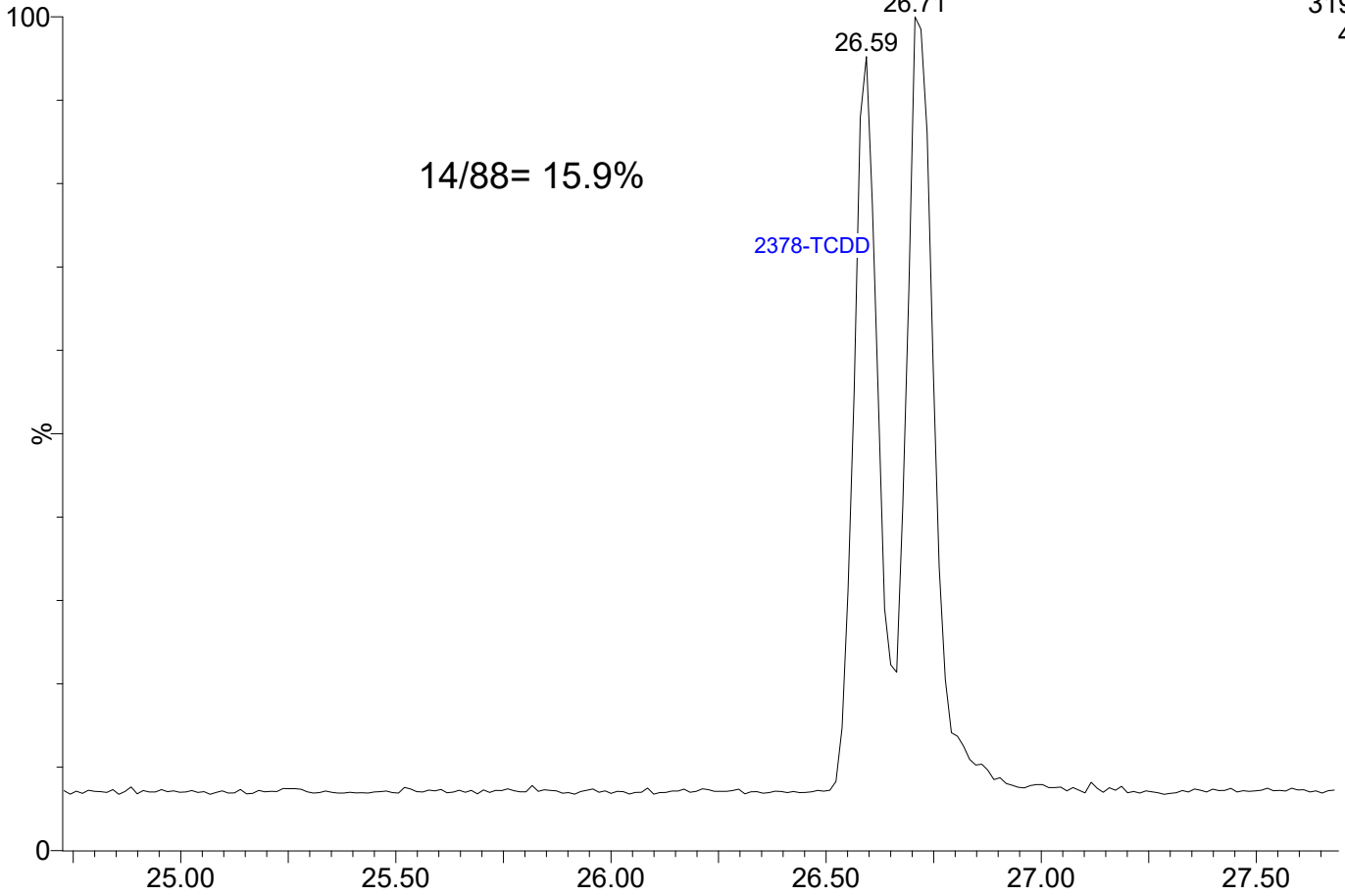


23021028

1: Voltage SIR 14 Channels EI+

319.8965

4.58e5

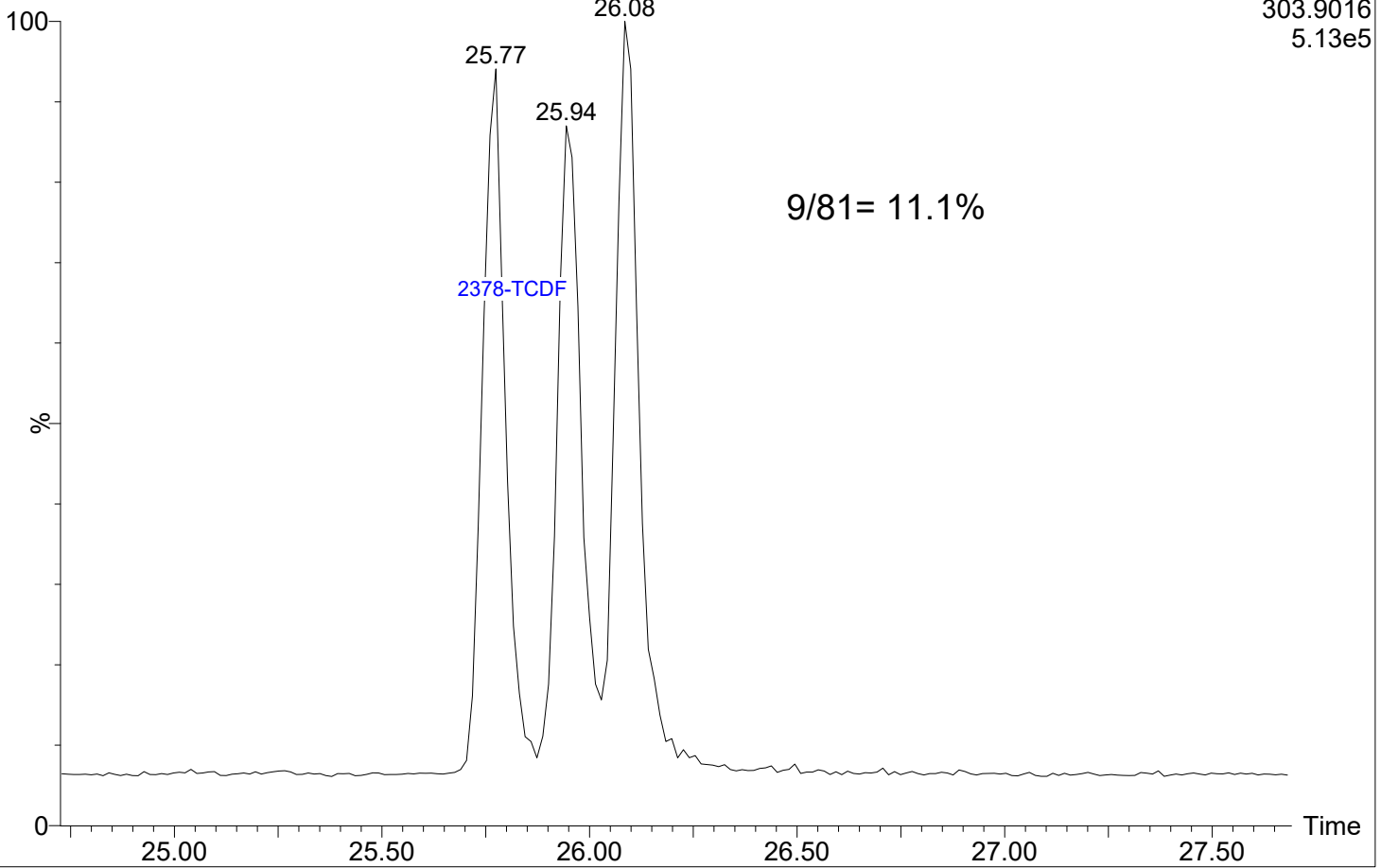


23021028

1: Voltage SIR 14 Channels EI+

303.9016

5.13e5





ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0026

Instrument: AUTOSPEC01

Calibration: GB00010

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CS3R1	SLB0026-ICV1	23020102	NA	02/01/23 10:37
ISCR1	SLB0026-RES1	23020103	NA	02/01/23 13:02
CSLCR	SLB0026-CAL1	23020104	NA	02/01/23 14:39
CS1CR	SLB0026-CAL2	23020105	NA	02/01/23 15:28
CS2CR	SLB0026-CAL3	23020106	NA	02/01/23 17:07
CS3CR	SLB0026-CAL4	23020107	NA	02/01/23 17:56
CS4CR	SLB0026-CAL5	23020108	NA	02/01/23 18:45
CS5CR	SLB0026-CAL6	23020109	NA	02/01/23 19:34
ICVCR	SLB0026-SCV1	23020110	NA	02/01/23 20:23
CS3R2	SLB0026-CCV1	23020111	NA	02/01/23 21:12
ISCR2	SLB0026-RES2	23020112	NA	02/01/23 22:06



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0147

Instrument: AUTOSPEC01

Calibration: GB00010

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CS3U3	SLB0147-ICV1	23020927A	NA	02/10/23 14:10
ISCU3	SLB0147-RES1	23020928	NA	02/10/23 15:06
Blank	BLA0256-BLK1	23021004	Solid	02/10/23 15:59
LCS	BLA0256-BS1	23021005	Solid	02/10/23 16:48
Reference	BLA0256-SRM1	23021006	Solid	02/10/23 17:37
LDW23-IT1264	23A0032-02	23021012	Solid	02/10/23 22:34
LDW23-IT1272	23A0032-04	23021013	Solid	02/10/23 23:24
LDW23-IT1235	23A0032-06	23021014	Solid	02/11/23 00:13
CS3U4	SLB0147-CCV1	23021015	NA	02/11/23 01:02
ISCU4	SLB0147-RES2	23021016	NA	02/11/23 01:56
LDW23-IT1202	23A0032-07	23021017	Solid	02/11/23 02:48
LDW23-SC1226B	23A0032-08	23021018	Solid	02/11/23 03:37
LDW23-SC1212	23A0032-11	23021019	Solid	02/11/23 04:27
CS3U5	SLB0147-CCV2	23021027	NA	02/11/23 11:02
ISCU5	SLB0147-RES3	23021028	NA	02/11/23 11:56



ANALYSIS SEQUENCE

SLB0147

Instrument: AUTOSPEC01 HRGCMS Column ID: K11292
Calibration ID: GB00010 Tune File: FEB0923_1-5
EM Voltage: 350 Resolution check times : 15:02, 01:56, 11:56

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
SLB0147-ICV1	CS3U3	QC		1	K009821		02/10/2023 14:10	23020927A	PK	
SLB0147-RES1	ISCU3	QC		2	K003933		02/10/2023 15:06	23020928	PK	
BLA0256-BLK1	Blank	QC		3		K011414	02/10/2023 15:59	23021004	PK	
BLA0256-BS1	LCS	QC		4		K011414	02/10/2023 16:48	23021005	PK	
BLA0256-SRM1	Reference	QC		5		K011414	02/10/2023 17:37	23021006	PK	
BLA0256-DUP1	Duplicate	QC		6		K011414	02/10/2023 18:27	23021007	PK	
23A0031-05	LDW23-SS1191	1613B Dioxin	C 01	7		K011414	02/10/2023 19:16	23021008	PK	
23A0031-06	LDW23-SS1191-FD	1613B Dioxin	C 01	8		K011414	02/10/2023 20:05	23021009	PK	
23A0031-11	LDW23-SS1143	1613B Dioxin	C 01	9		K011414	02/10/2023 20:55	23021010	PK	
23A0031-12	LDW23-SS1143-FD	1613B Dioxin	C 01	10		K011414	02/10/2023 21:44	23021011	PK	
23A0032-02	LDW23-IT1264	1613B Dioxin	D 01	11		K011414	02/10/2023 22:34	23021012	PK	
23A0032-04	LDW23-IT1272	1613B Dioxin	C 01	12		K011414	02/10/2023 23:24	23021013	PK	
23A0032-06	LDW23-IT1235	1613B Dioxin	C 01	13		K011414	02/11/2023 00:13	23021014	PK	
SLB0147-CCV1	CS3U4	QC		14	K009821		02/11/2023 01:02	23021015	PK	
SLB0147-RES2	ISCU4	QC		15	K003933		02/11/2023 01:56	23021016	PK	
23A0032-07	LDW23-IT1202	1613B Dioxin	C 01	16		K011414	02/11/2023 02:48	23021017	PK	
23A0032-08	LDW23-SC1226B	1613B Dioxin	C 01	17		K011414	02/11/2023 03:37	23021018	PK	
23A0032-11	LDW23-SC1212	1613B Dioxin	C 01	18		K011414	02/11/2023 04:27	23021019	PK	
23A0087-01	LDW23-SS1264	1613B Dioxin	C 01	19		K011414	02/11/2023 05:16	23021020	PK	
23A0087-05	LDW23-SS1212	1613B Dioxin	C 01	20		K011414	02/11/2023 06:06	23021021	PK	
23A0087-06	LDW23-SS1212-FD	1613B Dioxin	C 01	21		K011414	02/11/2023 06:55	23021022	PK	
23A0087-07	LDW23-SS1211	1613B Dioxin	C 01	22		K011414	02/11/2023 07:45	23021023	PK	



ANALYSIS SEQUENCE

SLB0147

Instrument: AUTOSPEC01 HRGCMS Column ID: K11292
Calibration ID: GB00010 Tune File: FEB0923_1-5
EM Voltage: 350 Resolution check times : 15:02, 01:56, 11:56

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	File ID	Analyst	Comments
23A0087-08	LDW23-SS1203	1613B Dioxin	C 01	23		K011414	02/11/2023 08:34	23021024	PK	
23A0087-15	LDW23-SS1228	1613B Dioxin	C 01	24		K011414	02/11/2023 09:24	23021025	PK	
23A0545-01	SPE016-10G	8290 Dioxin	A 01	25		K011414	02/11/2023 10:13	23021026	PK	
SLB0147-CCV2	CS3U5	QC		26	K009821		02/11/2023 11:02	23021027	PK	
SLB0147-RES3	ISCU5	QC		27	K003933		02/11/2023 11:56	23021028	PK	

Event	Details	Sample ID
Peak modified	Sample:23021011, Compound:HF, RT:36.069	8
Peak modified	Sample:23021011, Compound:HF, RT:36.081	8
Peak modified	Sample:23021011, Compound:HF, RT:37.072	8
Peak modified	Sample:23021012, Compound:HF, RT:37.071	9
Peak modified	Sample:23021013, Compound:PF, RT:30.098	10
Peak modified	Sample:23021013, Compound:HF, RT:37.095	10
Peak modified	Sample:23021021, Compound:HF, RT:36.203	18
Peak modified	Sample:23021019, Compound:HF, RT:36.125	16
Peak modified	Sample:23021021, Compound:TD, RT:26.622	18
Peak modified	Sample:23021021, Compound:TD, RT:26.636	18
Peak modified	Sample:23021023, Compound:TF, RT:26.000	20
Peak modified	Sample:23021023, Compound:HF, RT:36.270	20
Peak modified	Sample:23021023, Compound:TD, RT:26.692	20
Peak modified	Sample:23021025, Compound:PF, RT:30.142	22
Peak modified	Sample:23021025, Compound:PF, RT:30.109	22
Peak modified	Sample:23021025, Compound:HF, RT:36.080	22
Peak modified	Sample:23021025, Compound:HF, RT:36.069	22
Peak modified	Sample:23021009, Compound:PF, RT:29.061	6
Peak modified	Sample:23021009, Compound:PF, RT:29.061	6
Peak modified	Sample:23021010, Compound:TF, RT:23.571	7
Peak modified	Sample:23021010, Compound:TF, RT:23.571	7
Peak modified	Sample:23021011, Compound:PF, RT:29.039	8
Peak modified	Sample:23021011, Compound:PF, RT:29.039	8
Peak modified	Sample:23021012, Compound:PF, RT:29.752	9
Peak modified	Sample:23021012, Compound:PF, RT:29.752	9
Peak modified	Sample:23021013, Compound:13C-123478-HxCDF, RT:35.056	10
Peak modified	Sample:23021026, Compound:OF, RT:45.527	23
Peak deleted	Sample:23021028, Compound:13C-123789-HxCDD, RT:36.671	25
Peak deleted	Sample:23021028, Compound:13C-123789-HxCDD, RT:36.704	25
Peak deleted	Sample:23021016, Compound:13C-123789-HxCDD, RT:36.672	13
Peak deleted	Sample:23021016, Compound:13C-1234-TCDD, RT:25.746	13
Peak deleted	Sample:23021004, Compound:PF, RT:30.120	1
Peak deleted	Sample:23021013, Compound:PF, RT:31.457	10
Peak deleted	Sample:23021013, Compound:PF, RT:31.424	10
Peak deleted	Sample:23021004, Compound:TF, RT:25.633	1
Peak deleted	Sample:23021005, Compound:TF, RT:23.472	2
Peak deleted	Sample:23021005, Compound:HPF, RT:39.233	2
Peak deleted	Sample:23021006, Compound:TF, RT:24.333	3
Peak deleted	Sample:23021006, Compound:TF, RT:26.961	3
Peak deleted	Sample:23021007, Compound:HD, RT:37.105	4
Peak deleted	Sample:23021008, Compound:HD, RT:37.106	5
Peak deleted	Sample:23021009, Compound:TF, RT:26.947	6
Peak deleted	Sample:23021009, Compound:HD, RT:37.094	6
Peak deleted	Sample:23021009, Compound:HPD, RT:40.726	6
Peak deleted	Sample:23021013, Compound:TF, RT:23.571	10
Peak deleted	Sample:23021013, Compound:TF, RT:26.057	10
Peak deleted	Sample:23021014, Compound:HD, RT:37.094	11
Peak deleted	Sample:23021017, Compound:PF, RT:29.630	14
Peak deleted	Sample:23021017, Compound:HD, RT:36.983	14
Peak deleted	Sample:23021018, Compound:TF, RT:22.963	15
Peak deleted	Sample:23021018, Compound:TF, RT:22.921	15
Peak deleted	Sample:23021019, Compound:HD, RT:36.972	16
Peak deleted	Sample:23021020, Compound:HF, RT:35.412	17
Peak deleted	Sample:23021020, Compound:HD, RT:37.116	17
Peak deleted	Sample:23021021, Compound:TD, RT:25.230	18

Dataset: T:\Autospec\Processed Data Batch\230210.qld
Last Altered: Monday, February 13, 2023 11:39:03 Pacific Standard Time
Printed: Monday, February 13, 2023 11:40:36 Pacific Standard Time

Event	Details	Sample ID
Peak deleted	Sample:23021021, Compound:PD, RT:30.655	18
Peak deleted	Sample:23021021, Compound:HD, RT:37.128	18
Peak deleted	Sample:23021021, Compound:HPD, RT:39.880	18
Peak deleted	Sample:23021022, Compound:TD, RT:24.348	19
Peak deleted	Sample:23021022, Compound:TD, RT:27.385	19
Peak deleted	Sample:23021024, Compound:HPF, RT:39.936	21
Peak deleted	Sample:23021025, Compound:HF, RT:35.479	22
Peak deleted	Sample:23021025, Compound:TD, RT:25.760	22
Peak deleted	Sample:23021025, Compound:HD, RT:35.713	22
Peak deleted	Sample:23021026, Compound:PD, RT:31.045	23
Peak deleted	Sample:23021026, Compound:HD, RT:35.312	23
Peak added	Sample:23021021, Compound:13C-123789-HxCDD, RT:36.805	18
Peak added	Sample:23021021, Compound:13C-123789-HxCDD, RT:36.805	18
Peak added	Sample:23021022, Compound:13C-123789-HxCDD, RT:36.750	19
Peak added	Sample:23021022, Compound:13C-123789-HxCDD, RT:36.750	19
Peak added	Sample:23021023, Compound:13C-123789-HxCDD, RT:36.883	20
Peak added	Sample:23021023, Compound:13C-123789-HxCDD, RT:36.883	20
Peak added	Sample:23021019, Compound:HF, RT:36.103	16
Peak added	Sample:23021019, Compound:HF, RT:36.125	16
Peak added	Sample:23021023, Compound:TF, RT:26.000	20
Peak added	Sample:23021023, Compound:TF, RT:26.000	20
Peak added	Sample:23021008, Compound:TD, RT:26.594	5
Peak added	Sample:23021008, Compound:TD, RT:26.580	5
Peak added	Sample:23021010, Compound:TF, RT:23.571	7
Peak added	Sample:23021010, Compound:TF, RT:23.571	7
Peak added	Sample:23021012, Compound:PD, RT:28.983	9
Peak added	Sample:23021012, Compound:PD, RT:29.017	9
Peak added	Sample:23021017, Compound:TF, RT:23.670	14
Peak added	Sample:23021017, Compound:TF, RT:23.684	14
Peak added	Sample:23021017, Compound:PD, RT:29.028	14
Peak added	Sample:23021017, Compound:PD, RT:29.062	14
Peak added	Sample:23021018, Compound:PF, RT:29.050	15
Peak added	Sample:23021018, Compound:PF, RT:29.039	15
Peak added	Sample:23021018, Compound:TD, RT:25.181	15
Peak added	Sample:23021018, Compound:TD, RT:25.181	15
Peak added	Sample:23021018, Compound:TD, RT:24.700	15
Peak added	Sample:23021018, Compound:TD, RT:24.700	15
Peak added	Sample:23021018, Compound:TD, RT:23.966	15
Peak added	Sample:23021018, Compound:TD, RT:23.966	15
Peak added	Sample:23021019, Compound:HF, RT:36.092	16
Peak added	Sample:23021019, Compound:HF, RT:36.103	16
Peak added	Sample:23021021, Compound:PD, RT:30.165	18
Peak added	Sample:23021021, Compound:PD, RT:30.154	18
Peak added	Sample:23021023, Compound:PF, RT:29.407	20
Peak added	Sample:23021023, Compound:PF, RT:29.419	20
Peak added	Sample:23021023, Compound:PD, RT:29.352	20
Peak added	Sample:23021023, Compound:PD, RT:29.340	20
Peak added	Sample:23021025, Compound:PD, RT:30.165	22
Peak added	Sample:23021025, Compound:PD, RT:30.165	22
Dataset Saved	Saved to 'T:\Autospec\Processed Data Batch\230210.qld'	
Dataset Saved	Saved to 'T:\Autospec\Processed Data Batch\230210.qld'	
Dataset Saved	Saved to 'T:\Autospec\Processed Data Batch\230210.qld'	
Dataset Created		



SURROGATE RECOVERY AND RT SUMMARY
EPA 1613B

Laboratory: Analytical Resources, LLC SDG: 23A0032
 Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
 Sequence: SLB0147 Instrument: AUTOSPEC01
 Sample ID: BLA0256-BS1 Calibration: GB00010
 File ID: 23021005 Analyzed: 02/10/23 16:48

Surrogate Compound	Spike Level ng/kg wet	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	200.00	115	24 - 169	25.9153	25.87167	0.0436	N/A	
13C12-2,3,7,8-TCDD	200.00	127	25 - 164	26.5508	26.51423	0.0366	N/A	
13C12-1,2,3,7,8-PeCDF	200.00	119	24 - 185	30.0973	30.03173	0.0656	N/A	
13C12-2,3,4,7,8-PeCDF	200.00	114	21 - 178	31.434	31.36872	0.0653	N/A	
13C12-1,2,3,7,8-PeCDD	200.00	113	25 - 181	31.6792	31.62498	0.0542	N/A	
13C12-1,2,3,4,7,8-HxCDF	200.00	124	26 - 152	35.055	34.9784	0.0766	N/A	
13C12-1,2,3,6,7,8-HxCDF	200.00	131	26 - 123	35.1887	35.11773	0.0710	N/A	*
13C12-2,3,4,6,7,8-HxCDF	200.00	121	28 - 136	36.0577	35.97562	0.0821	N/A	
13C12-1,2,3,7,8,9-HxCDF	200.00	115	29 - 147	37.0825	37.00233	0.0802	N/A	
13C12-1,2,3,4,7,8-HxCDD	200.00	127	32 - 141	36.169	36.09812	0.0709	N/A	
13C12-1,2,3,6,7,8-HxCDD	200.00	128	28 - 130	36.2803	36.21508	0.0652	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	200.00	116	28 - 143	38.9318	38.84072	0.0911	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	200.00	110	26 - 138	41.1933	41.09488	0.0984	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	200.00	117	23 - 140	40.4358	40.3447	0.0911	N/A	
13C12-OCDD	400.00	101	17 - 157	45.2605	45.10738	0.1531	N/A	
37C14-2,3,7,8-TCDD	80.000	101	35 - 197	26.5792	26.53683	0.0424	N/A	

* Values outside of QC limits



SURROGATE RECOVERY AND RT SUMMARY
EPA 1613B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLB0147</u>	Instrument:	<u>AUTOSPEC01</u>
Sample ID:	<u>23A0032-08</u>	Calibration:	<u>GB00010</u>
File ID:	<u>23021018</u>	Analyzed:	<u>02/11/23 03:37</u>

Surrogate Compound	Spike Level ng/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.88	102	24 - 169	25.915	25.87167	0.0433	N/A	
13C12-2,3,7,8-TCDD	199.88	117	25 - 164	26.5505	26.51423	0.0363	N/A	
13C12-1,2,3,7,8-PeCDF	199.88	109	24 - 185	30.097	30.03173	0.0653	N/A	
13C12-2,3,4,7,8-PeCDF	199.88	107	21 - 178	31.434	31.36872	0.0653	N/A	
13C12-1,2,3,7,8-PeCDD	199.88	101	25 - 181	31.6902	31.62498	0.0652	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.88	114	26 - 152	35.0655	34.9784	0.0871	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.88	118	26 - 123	35.1992	35.11773	0.0815	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.88	116	28 - 136	36.0792	35.97562	0.1036	N/A	
13C12-1,2,3,7,8,9-HxCDF	199.88	110	29 - 147	37.0817	37.00233	0.0794	N/A	
13C12-1,2,3,4,7,8-HxCDD	199.88	116	32 - 141	36.1907	36.09812	0.0926	N/A	
13C12-1,2,3,6,7,8-HxCDD	199.88	116	28 - 130	36.302	36.21508	0.0869	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.88	104	28 - 143	38.9422	38.84072	0.1015	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	199.88	95.8	26 - 138	41.2035	41.09488	0.1086	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	199.88	103	23 - 140	40.4462	40.3447	0.1015	N/A	
13C12-OCDD	399.75	92.5	17 - 157	45.2773	45.10738	0.1699	N/A	
37C14-2,3,7,8-TCDD	79.950	99.3	35 - 197	26.5788	26.53683	0.0420	N/A	

* Values outside of QC limits



HOLDING TIME SUMMARY

Analysis: EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-IT1264 23A0032-02	01/03/23 09:12	01/03/23 16:57	01/30/23 14:23	27	365	02/10/23 22:34	11	365	
LDW23-IT1272 23A0032-04	01/03/23 10:45	01/03/23 16:57	01/30/23 14:23	27	365	02/10/23 23:24	11	365	
LDW23-IT1235 23A0032-06	01/03/23 13:34	01/03/23 16:57	01/30/23 14:23	27	365	02/11/23 00:13	11	365	
LDW23-IT1202 23A0032-07	01/03/23 14:36	01/03/23 16:57	01/30/23 14:23	26	365	02/11/23 02:48	12	365	
LDW23-SC1226B 23A0032-08	01/03/23 12:35	01/03/23 16:57	01/30/23 14:23	27	365	02/11/23 03:37	12	365	
LDW23-SC1212 23A0032-11	01/03/23 14:01	01/03/23 16:57	01/30/23 14:23	27	365	02/11/23 04:27	12	365	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**
EPA 1613B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: AUTOSPEC01

Analyte	MDL	RL	Units
2,3,7,8-TCDF	0.058	1.00	ng/kg
2,3,7,8-TCDD	0.150	1.00	ng/kg
1,2,3,7,8-PeCDF	0.240	1.00	ng/kg
2,3,4,7,8-PeCDF	0.220	1.00	ng/kg
1,2,3,7,8-PeCDD	0.170	1.00	ng/kg
1,2,3,4,7,8-HxCDF	0.280	1.00	ng/kg
1,2,3,6,7,8-HxCDF	0.200	1.00	ng/kg
2,3,4,6,7,8-HxCDF	0.170	1.00	ng/kg
1,2,3,7,8,9-HxCDF	0.190	1.00	ng/kg
1,2,3,4,7,8-HxCDD	0.170	1.00	ng/kg
1,2,3,6,7,8-HxCDD	0.180	1.00	ng/kg
1,2,3,7,8,9-HxCDD	0.220	1.00	ng/kg
1,2,3,4,6,7,8-HpCDF	0.210	1.00	ng/kg
1,2,3,4,7,8,9-HpCDF	0.240	1.00	ng/kg
1,2,3,4,6,7,8-HpCDD	0.560	2.50	ng/kg
OCDF	1.10	2.50	ng/kg
OCDD	4.60	10.0	ng/kg
Total TCDF		1.00	ng/kg
Total TCDD		1.00	ng/kg
Total PeCDF		1.00	ng/kg
Total PeCDD		1.00	ng/kg
Total HxCDF		1.00	ng/kg
Total HxCDD		1.00	ng/kg
Total HpCDF		1.00	ng/kg
Total HpCDD		1.00	ng/kg



CS3WT

**Calibration and Verification Solution (EPA-1613CS3)
combined with Window Defining and 2,3,7,8-TCDD
Resolution Testing Congeners**

PRODUCT CODE: CS3WT
LOT NUMBER: CS3WT0918
SOLVENT(S): Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy) 10/24/2018
LAST TESTED: (mm/dd/yyyy) 10/29/2018
EXPIRY DATE: (mm/dd/yyyy) 10/29/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

CS3WT is a solution/mixture of native and $^{13}\text{C}_{12}$ -labelled chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

CS3WT was designed and prepared to be used as a HRMS calibration standard according to U.S. EPA Method 1613B.

It is to be used for calibration verification in place of EPA-1613CS3 (Lot: 13CS30918). It also contains the PCDD and PCDF window defining congeners for a DB-5 (or equivalent) capillary column as well as the TCDD isomers required to test and confirm the resolution of 2,3,7,8-TCDD.

The individual ^{13}C -labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of $\geq 99\%$. The 2,3,7,8- $^{37}\text{Cl}_4$ -tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (^{37}Cl) purity of $\geq 95\%$. The individual native 2,3,7,8-substituted PCDD and PCDF congeners all have chemical purities of >98%; the other congeners (window defining and resolution testing) should only be considered semi-quantitative.

This current lot of CS3WT is to be used with the 1613 calibration solutions having the following lot numbers:

<u>PRODUCT CODE</u>	<u>LOT NUMBER</u>
EPA-1613CS1	13CS10918
EPA-1613CS2	13CS20918
EPA-1613CS3	13CS30918
EPA-1613CS4	13CS40918
EPA-1613CS5	13CS50918
EPA-1613CSL	13CSL0918
EPA-1613CS0.5	13CS0.50918

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.
- Only the 2,3,7,8-substituted PCDDs and PCDFs should be used for quantitation. The other congeners (window defining and 2378-TCDD resolution testing) should be considered semi-quantitative (within $\pm 20\%$ of their design value). Impurities have been identified where possible.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: CS3WT; Components and Concentrations (ng/ml, in nonane/4.5% toluene)

QUANTITATIVE ANALYTES (ng/ml, ±5%)

Native PCDDs & PCDFs:

2,3,7,8-TCDD	10
2,3,7,8-TCDF	10
1,2,3,7,8-PeCDD	50
1,2,3,7,8-PeCDF	50
2,3,4,7,8-PeCDF	50
1,2,3,4,7,8-HxCDD	50
1,2,3,6,7,8-HxCDD	50
1,2,3,7,8,9-HxCDD	50
1,2,3,4,7,8-HxCDF	50
1,2,3,6,7,8-HxCDF	50
1,2,3,7,8,9-HxCDF	50
2,3,4,6,7,8-HxCDF	50
1,2,3,4,6,7,8-HpCDD (WD)	50
1,2,3,4,6,7,8-HpCDF (WD)	50
1,2,3,4,7,8,9-HpCDF (WD)	50
OCDD	100
OCDF	100

Labelled PCDDs & PCDFs:

¹³ C ₁₂ -2,3,7,8-TCDD	100
¹³ C ₁₂ -2,3,7,8-TCDF	100
¹³ C ₁₂ -1,2,3,7,8-PeCDD	100
¹³ C ₁₂ -1,2,3,7,8-PeCDF	100
¹³ C ₁₂ -2,3,4,7,8-PeCDF	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	100
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	100
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	100
¹³ C ₁₂ -OCDD	200

Cleanup Standard:

³⁷ Cl ₄ -2,3,7,8-TCDD	10
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Internal Standards:

¹³ C ₁₂ -1,2,3,4-TCDD	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	100

SEMI-QUANTITATIVE ANALYTES (ng/ml, ±20%)

Window Definers:*

1,3,6,8-TCDD	10
1,2,8,9-TCDD	10
1,3,6,8-TCDF	10
1,2,8,9-TCDF	10
1,2,4,6,8/1,2,4,7,9-PeCDD	50
1,2,3,8,9-PeCDD	50
1,3,4,6,8-PeCDF	50
1,2,3,8,9-PeCDF	50
1,2,4,6,7,9-HxCDD	50
1,2,3,4,6,8-HxCDF	50
1,2,3,4,6,7,9-HpCDD	50

2378-TCDD Resolution Testing Isomers:

1,2,3,4-TCDD	5
1,2,3,7/1,2,3,8-TCDD	5
1,2,3,9-TCDD	10

* 1,2,3,4,6,7-HxCDD (last eluting HxCDD) not included; coelutes with 1,2,3,7,8,9-HxCDD. Use 1,2,3,4,6,7,9-HpCDD to set window.

* 1,2,3,4,8,9-HxCDF (last eluting HxCDF) not included; can interfere with 1,2,3,7,8,9-HxCDF. Use 1,2,3,4,6,7,8-HpCDF to set window.

WD – Window Definer

Certified By: 
B.G. Chittim, General Manager

Date: 10/30/2018
(mm/dd/yyyy)

Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

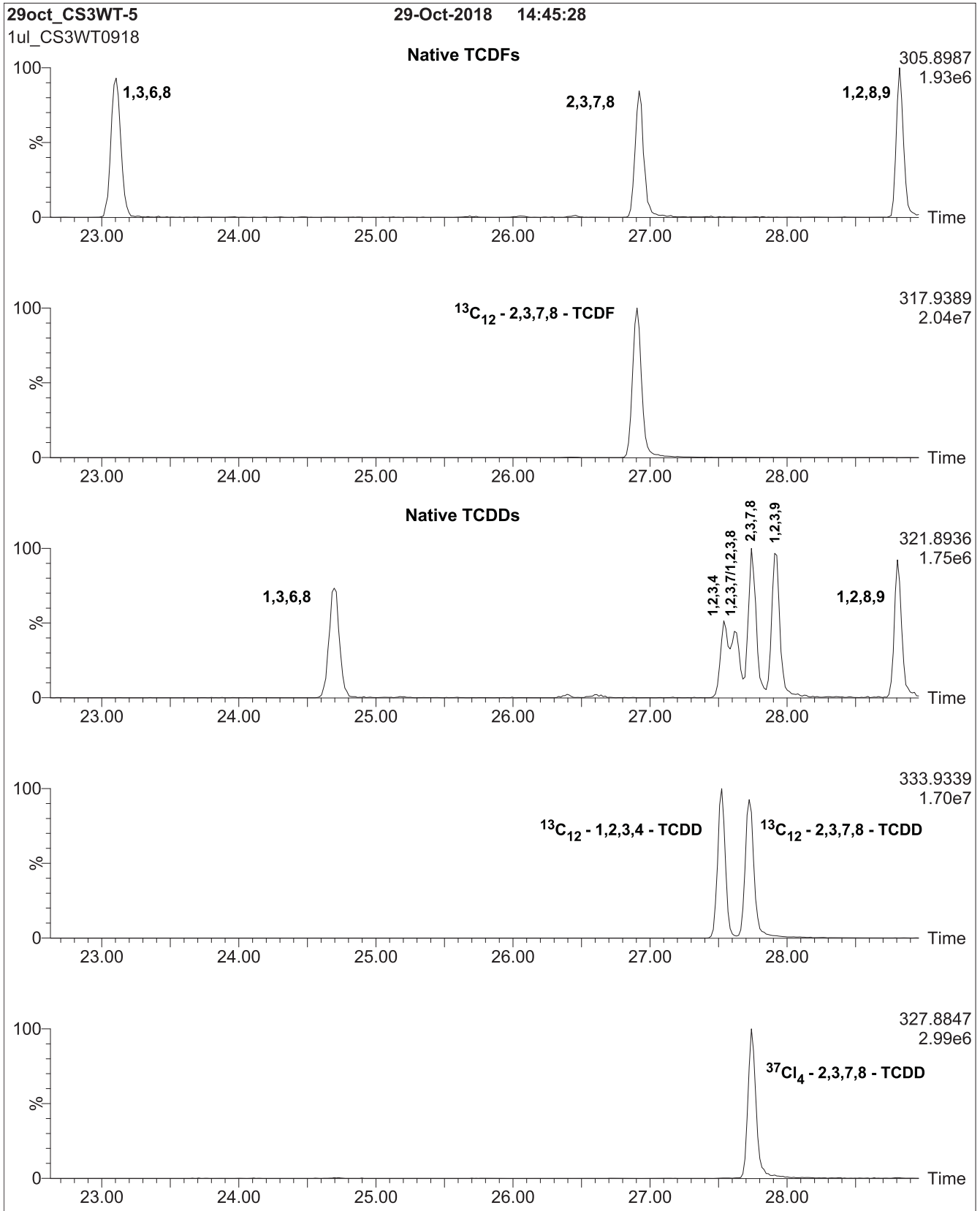


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

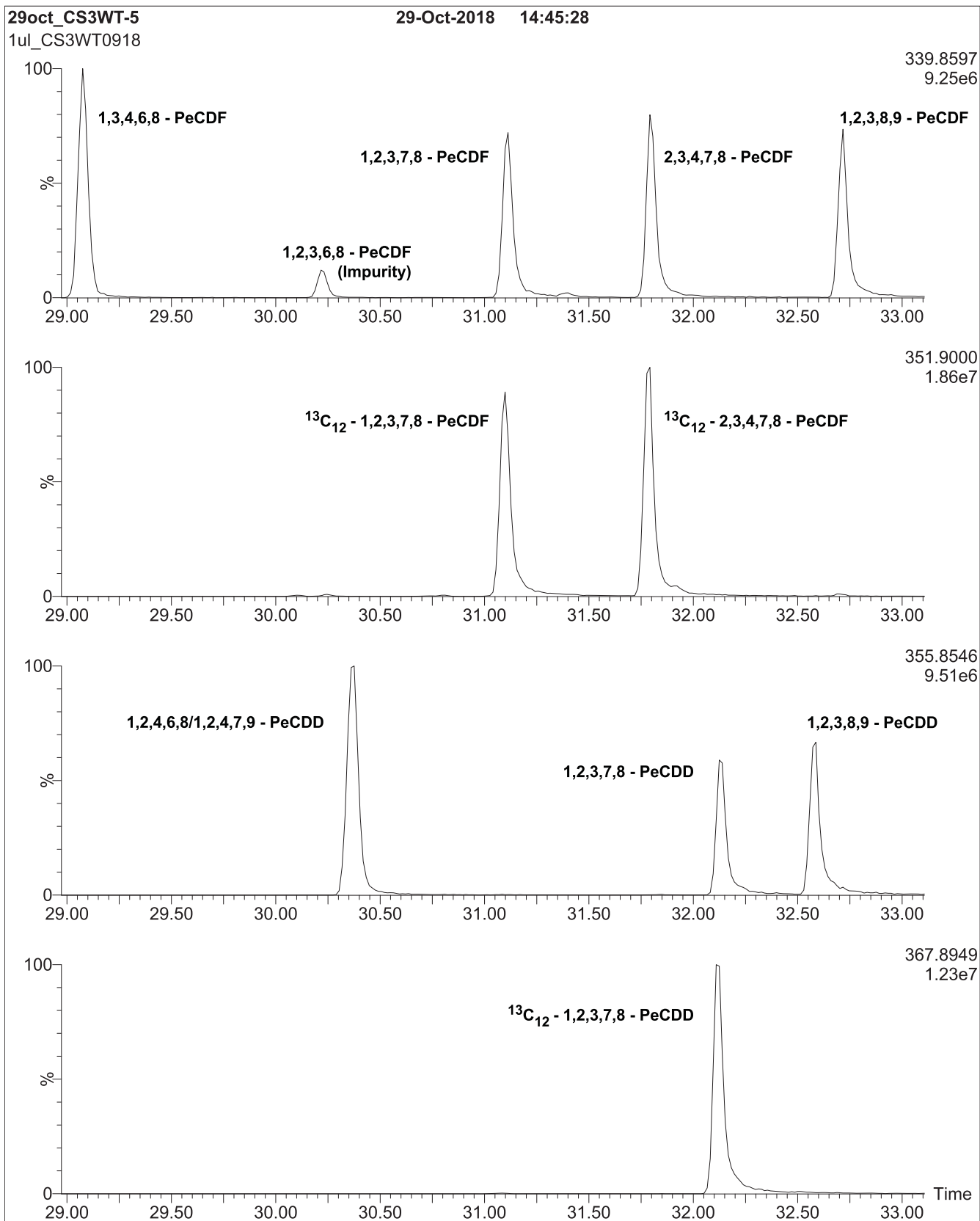


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

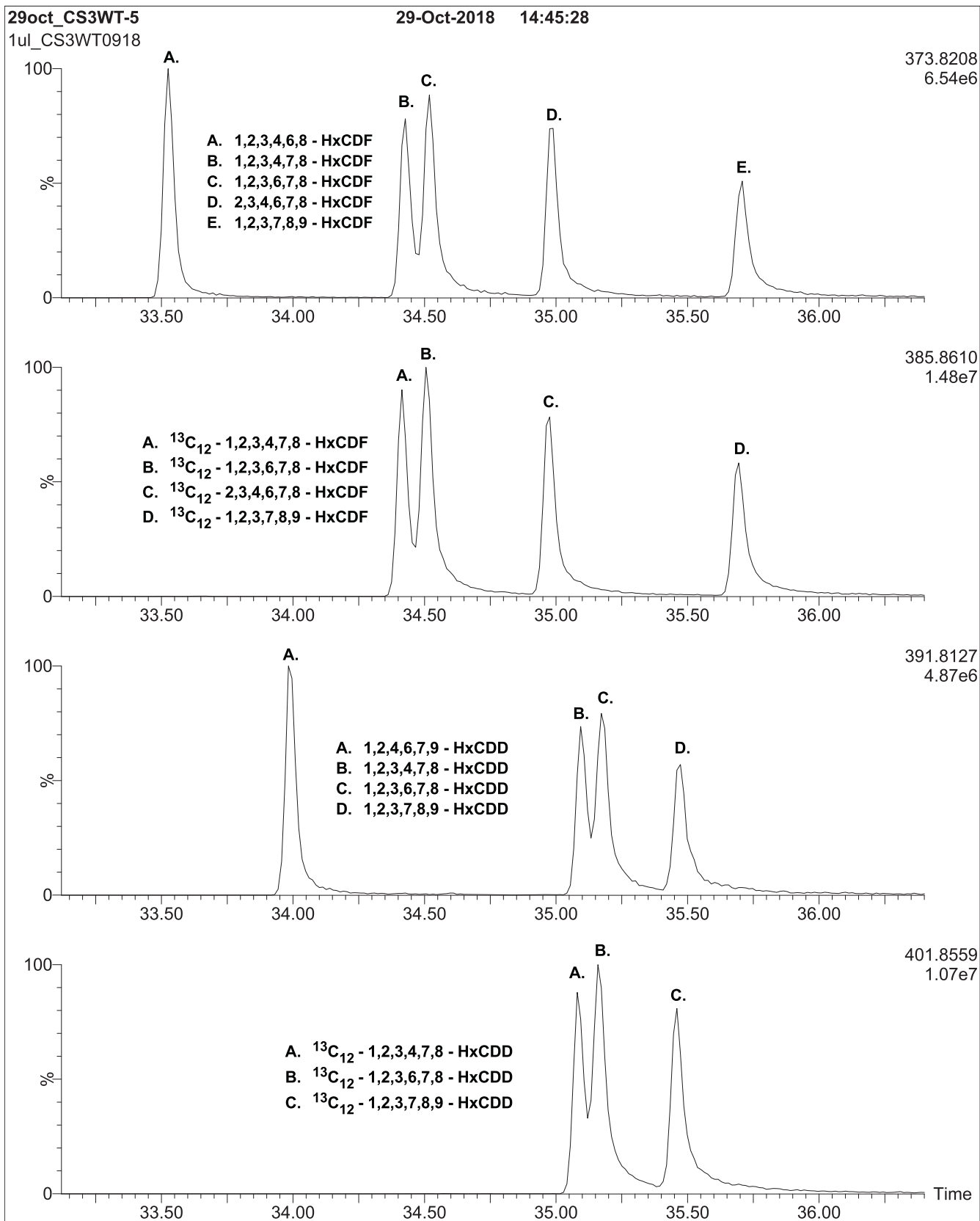


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

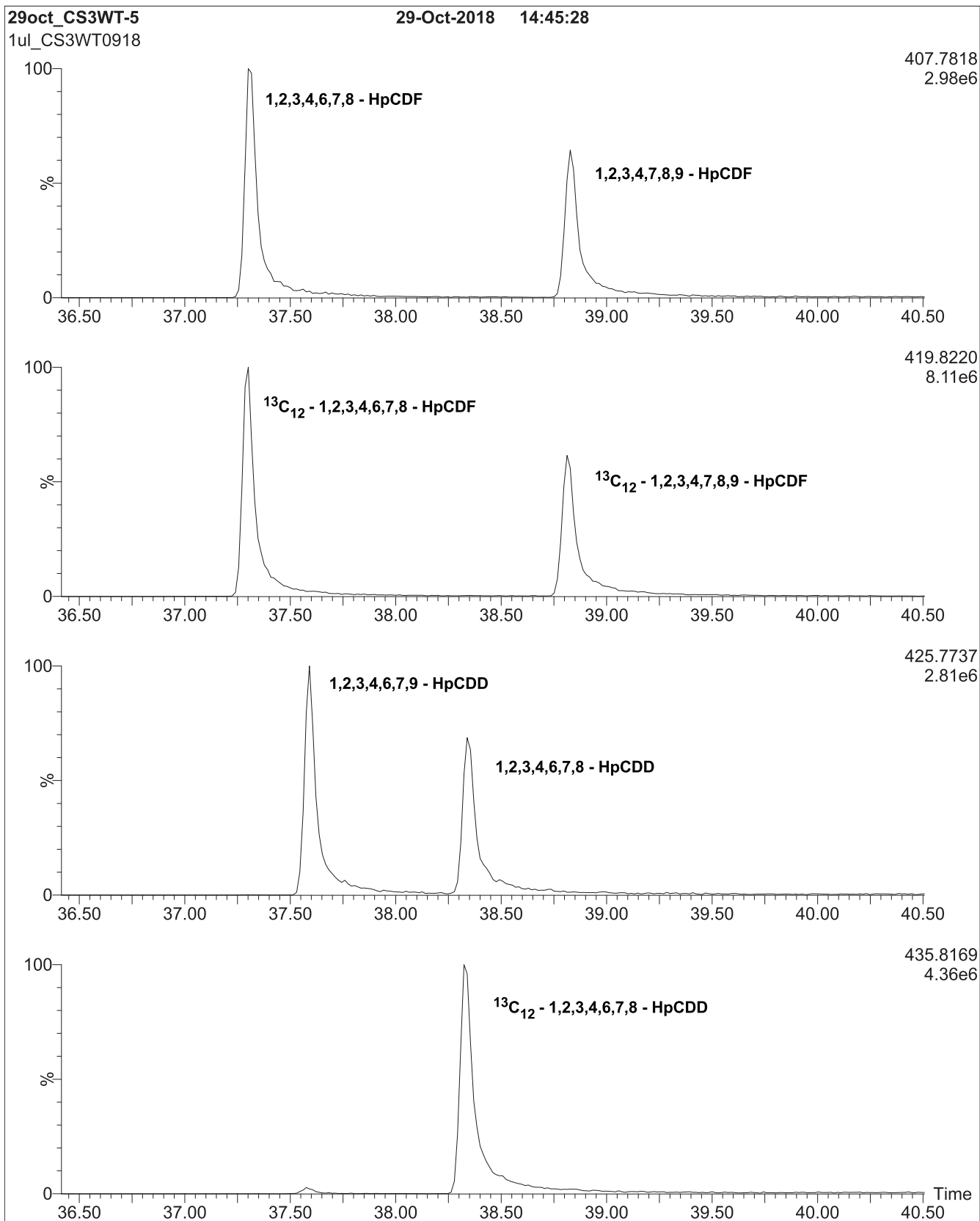
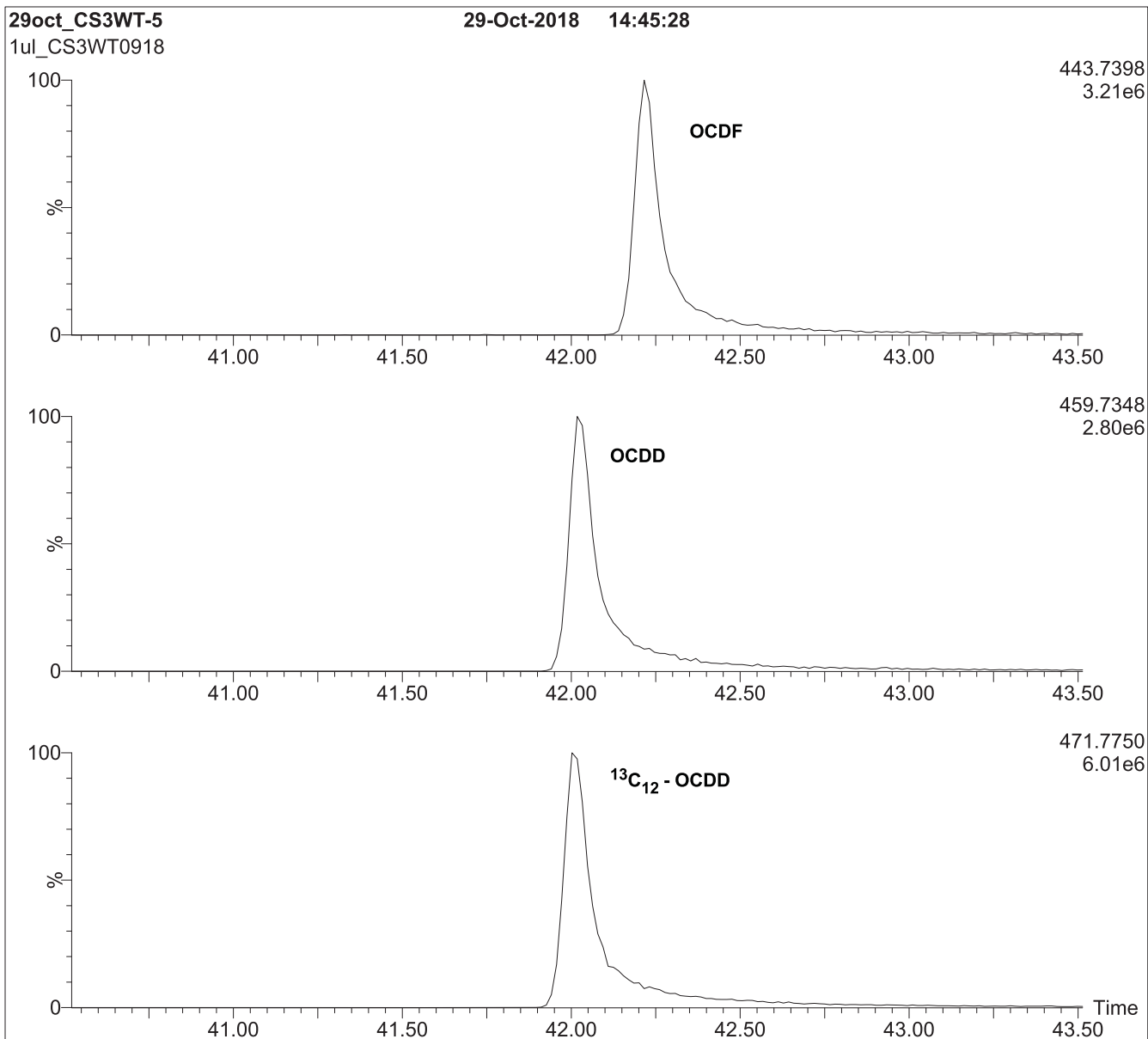


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



EPA-1613CVS

**U.S. EPA Method 1613 Calibration and Verification Solutions
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5**

<u>PRODUCT CODES:</u>	EPA-1613CVS	<u>LOT NUMBERS:</u>	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

<u>SOLVENT(S):</u>	Nonane/Toluene
<u>DATE PREPARED:</u> (mm/dd/yyyy)	10/22/2019
<u>LAST TESTED:</u> (mm/dd/yyyy)	10/24/2019
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	10/24/2026
<u>RECOMMENDED STORAGE:</u>	Store ampoules in a cool, dark place

I005456

1613 CS1 CAL STD
Expires 10/24/2026
Prepared By Joshua Rains 6/23/2020

DESCRIPTION:

EPA-1613CVS is a series of 5 calibration solutions containing native (¹²C₁₂) and mass-labelled (¹³C₁₂ and ³⁷Cl₄) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual ¹³C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-³⁷Cl₄-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (³⁷Cl) purity of ≥95%.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations

Table B: 5-point HRGC/HRMS Calibration and RRF Summary

Table C: 7-point HRGC/HRMS Calibration and RRF Summary

Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

**Table A: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
	CS1	CS2	CS3	CS4	CS5	CSL	CS0.5
Native PCDDs and PCDFs:							
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
Labelled PCDDs and PCDFs:							
¹³ C ₁₂ -2,3,7,8-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,7,8-TCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -OCDD	200	200	200	200	200	200	200
Cleanup Standard:							
³⁷ Cl ₄ -2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
Internal Standards:							
¹³ C ₁₂ -1,2,3,4-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By: 
B.G. Chittim, General Manager

Date: 10/25/2019
(mm/dd/yyyy)

Table B: EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

**Table C: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

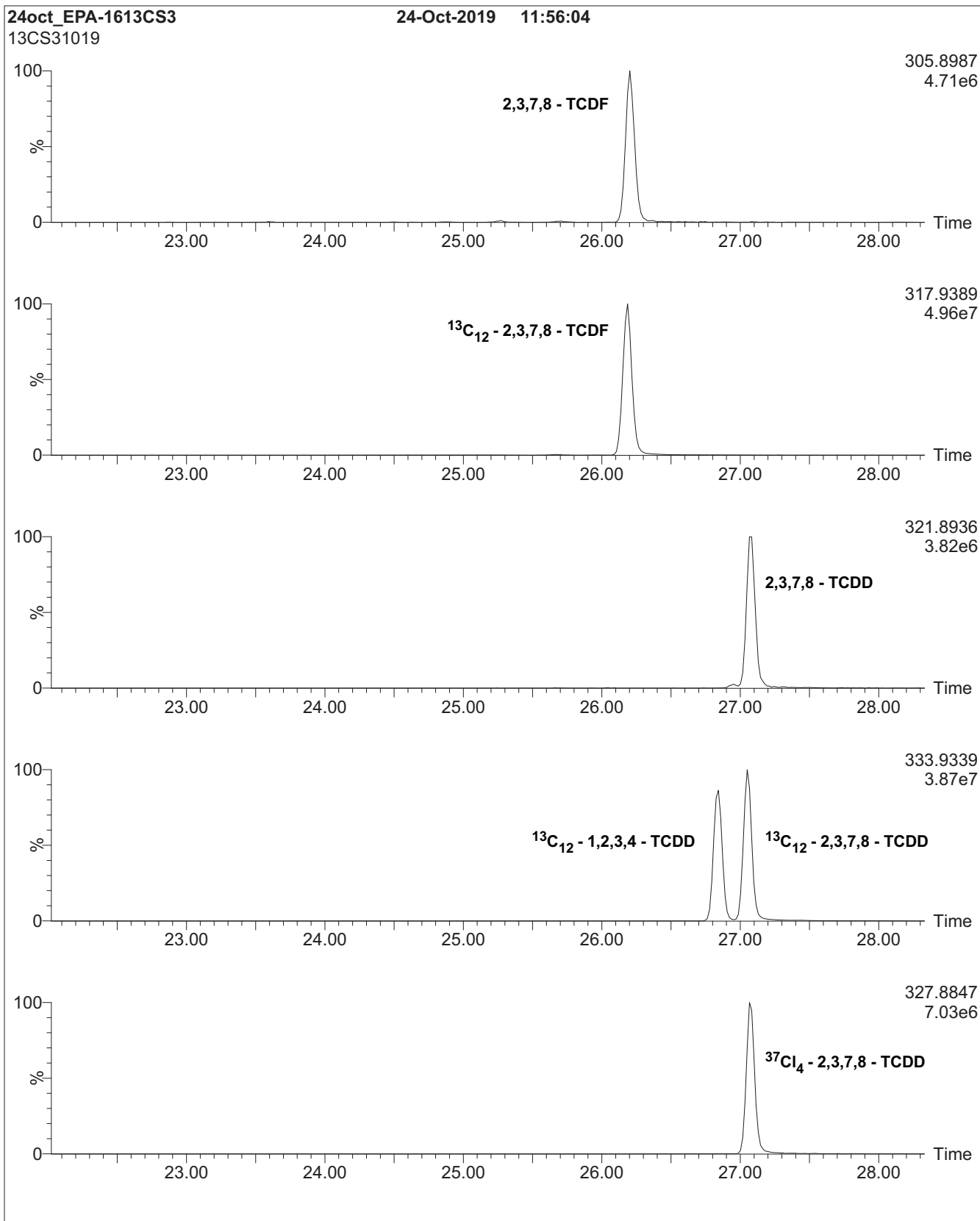


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

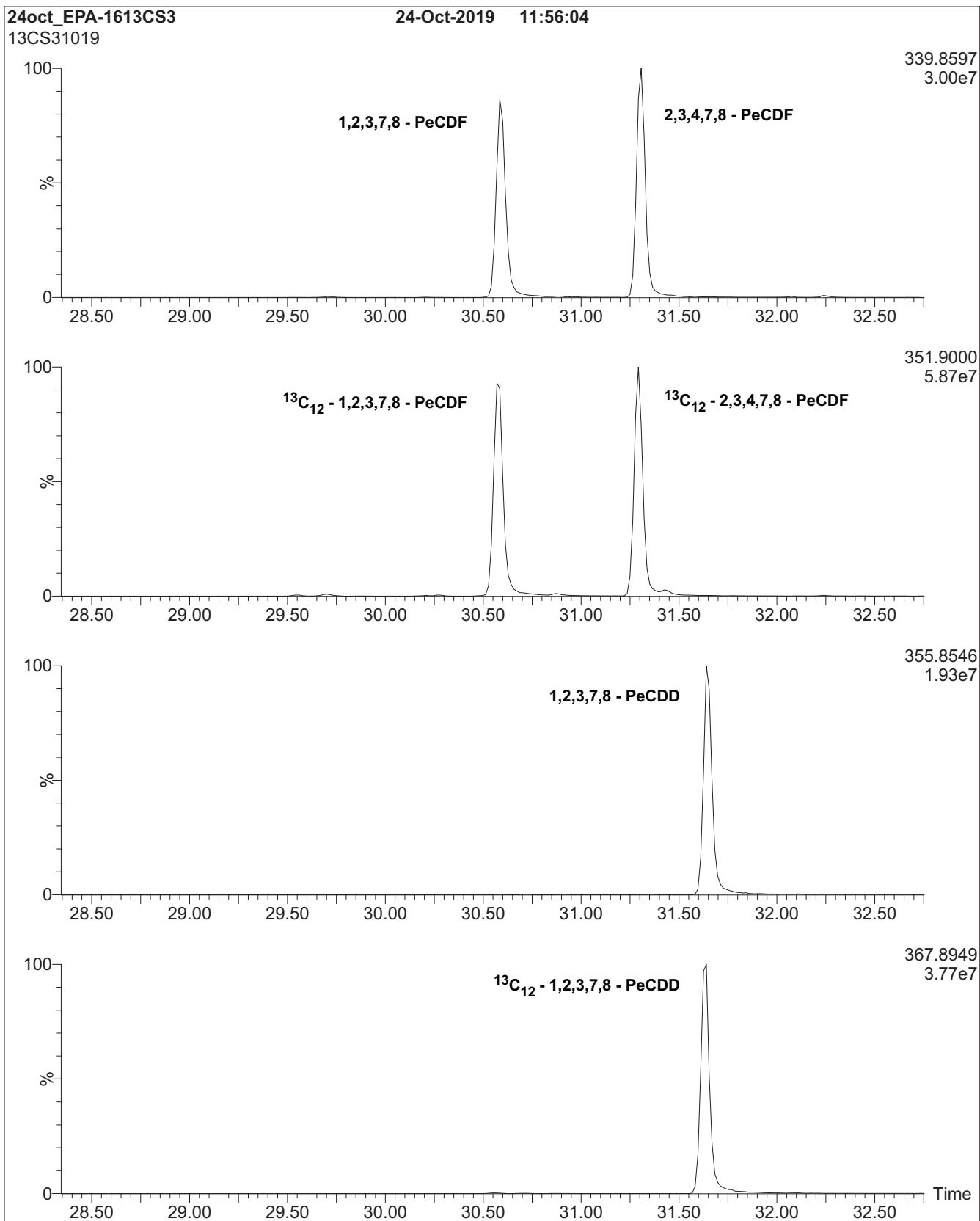


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

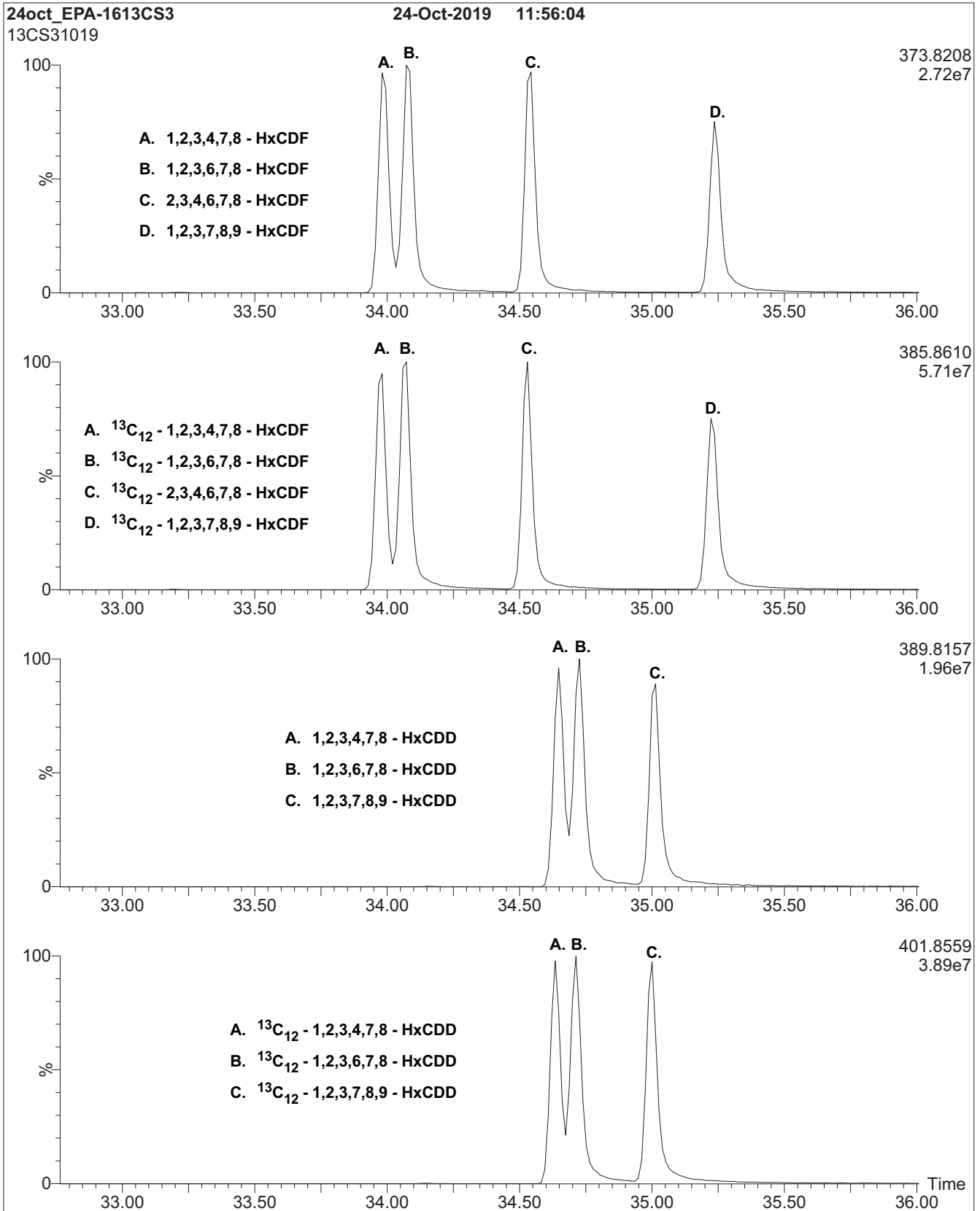


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

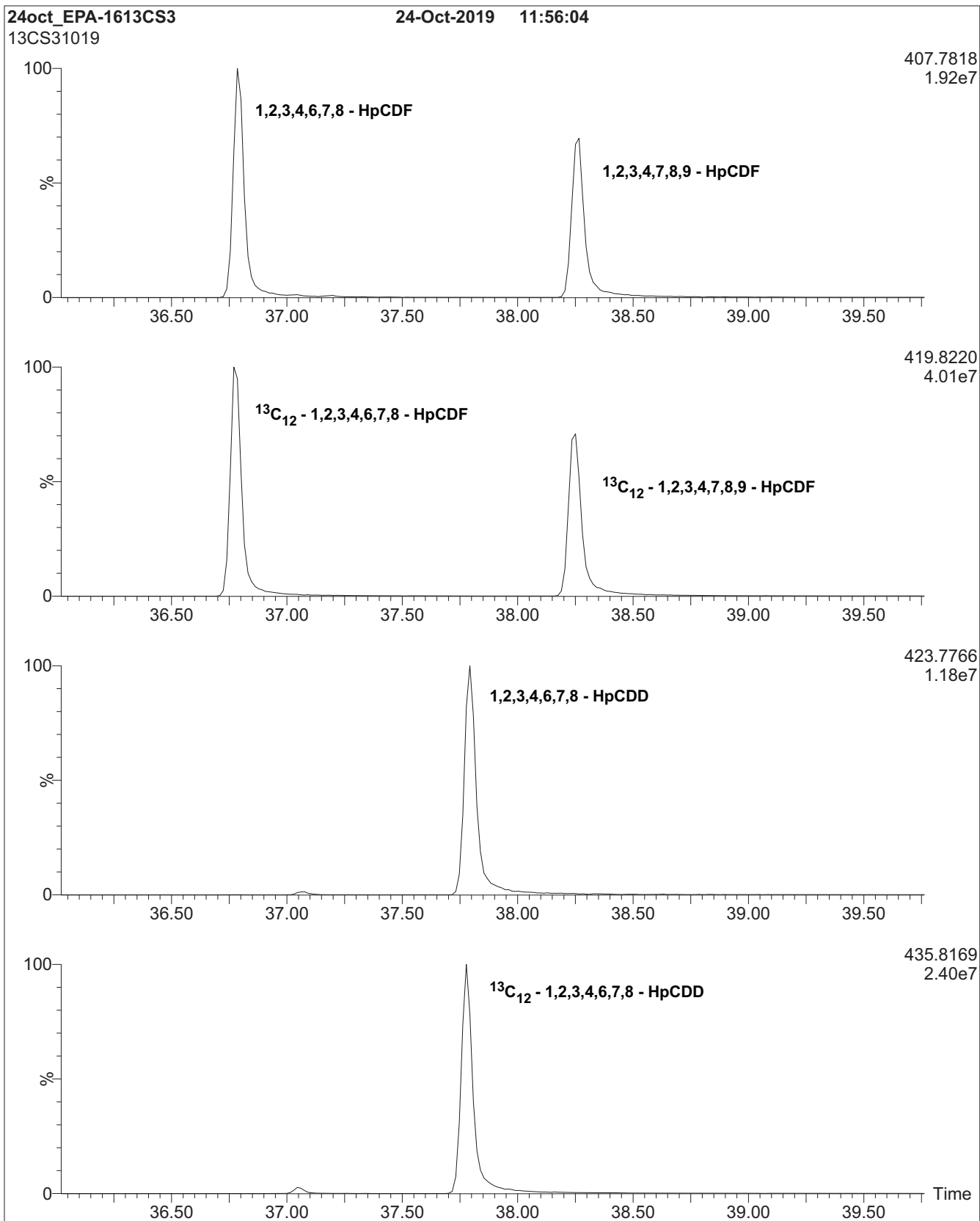
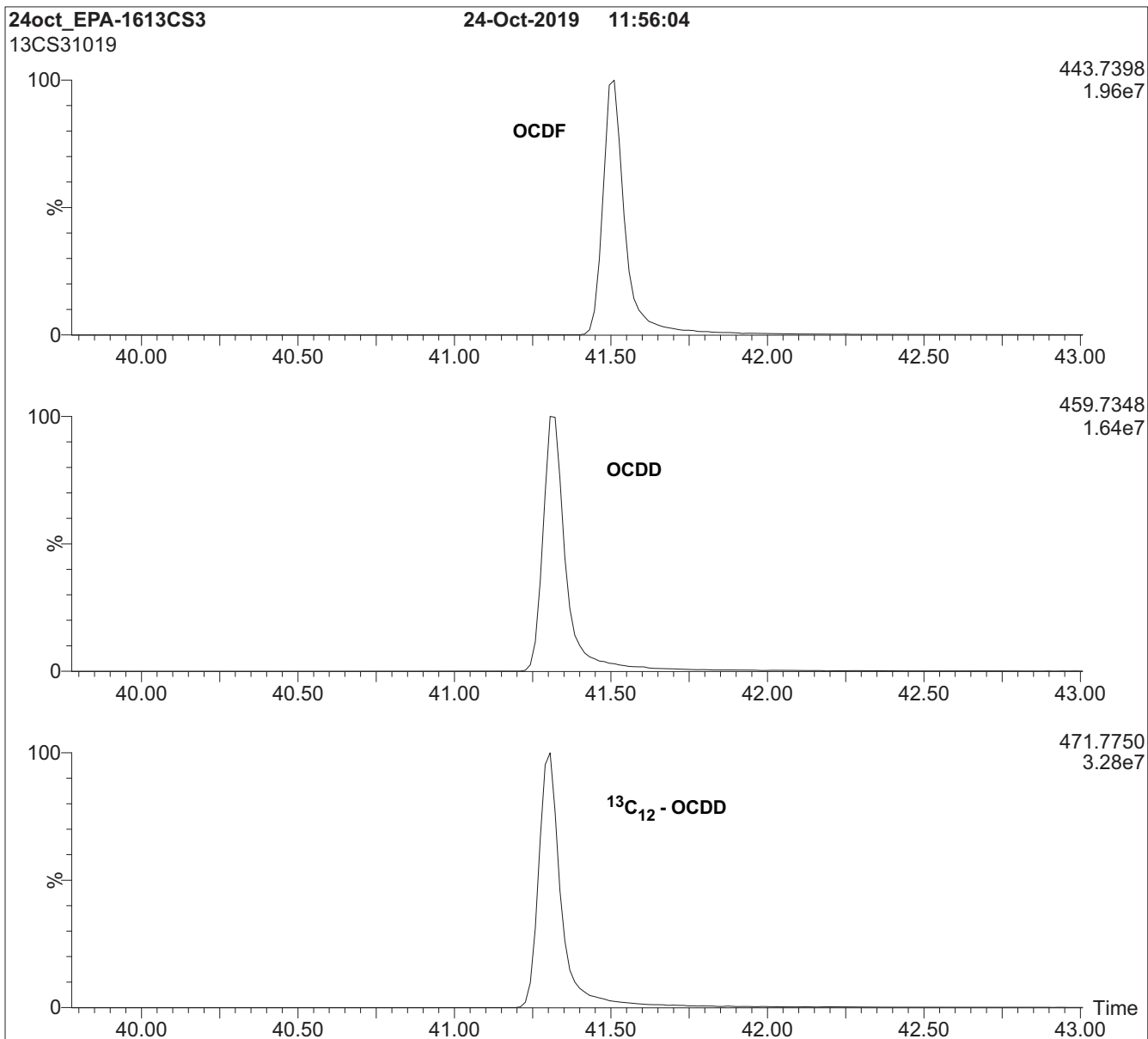


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



EPA-1613CVS

**U.S. EPA Method 1613 Calibration and Verification Solutions
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5**

<u>PRODUCT CODES:</u>	EPA-1613CVS	<u>LOT NUMBERS:</u>	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

<u>SOLVENT(S):</u>	Nonane/Toluene
<u>DATE PREPARED:</u> (mm/dd/yyyy)	10/22/2019
<u>LAST TESTED:</u> (mm/dd/yyyy)	10/24/2019
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	10/24/2026
<u>RECOMMENDED STORAGE:</u>	Store ampoules in a cool, dark place

1005457
1613 CS2 CAL STD
Expires 10/24/2026
<i>Prepared By Joshua Rains 6/23/2020</i>

DESCRIPTION:

EPA-1613CVS is a series of 5 calibration solutions containing native (¹²C₁₂) and mass-labelled (¹³C₁₂ and ³⁷Cl₄) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual ¹³C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-³⁷Cl₄-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (³⁷Cl) purity of ≥95%.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations

Table B: 5-point HRGC/HRMS Calibration and RRF Summary

Table C: 7-point HRGC/HRMS Calibration and RRF Summary

Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

**Table A: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
	CS1	CS2	CS3	CS4	CS5	CSL	CS0.5
Native PCDDs and PCDFs:							
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
Labelled PCDDs and PCDFs:							
¹³ C ₁₂ -2,3,7,8-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,7,8-TCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -OCDD	200	200	200	200	200	200	200
Cleanup Standard:							
³⁷ Cl ₄ -2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
Internal Standards:							
¹³ C ₁₂ -1,2,3,4-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By: 
B.G. Chittim, General Manager

Date: 10/25/2019
(mm/dd/yyyy)

Table B: EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

**Table C: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

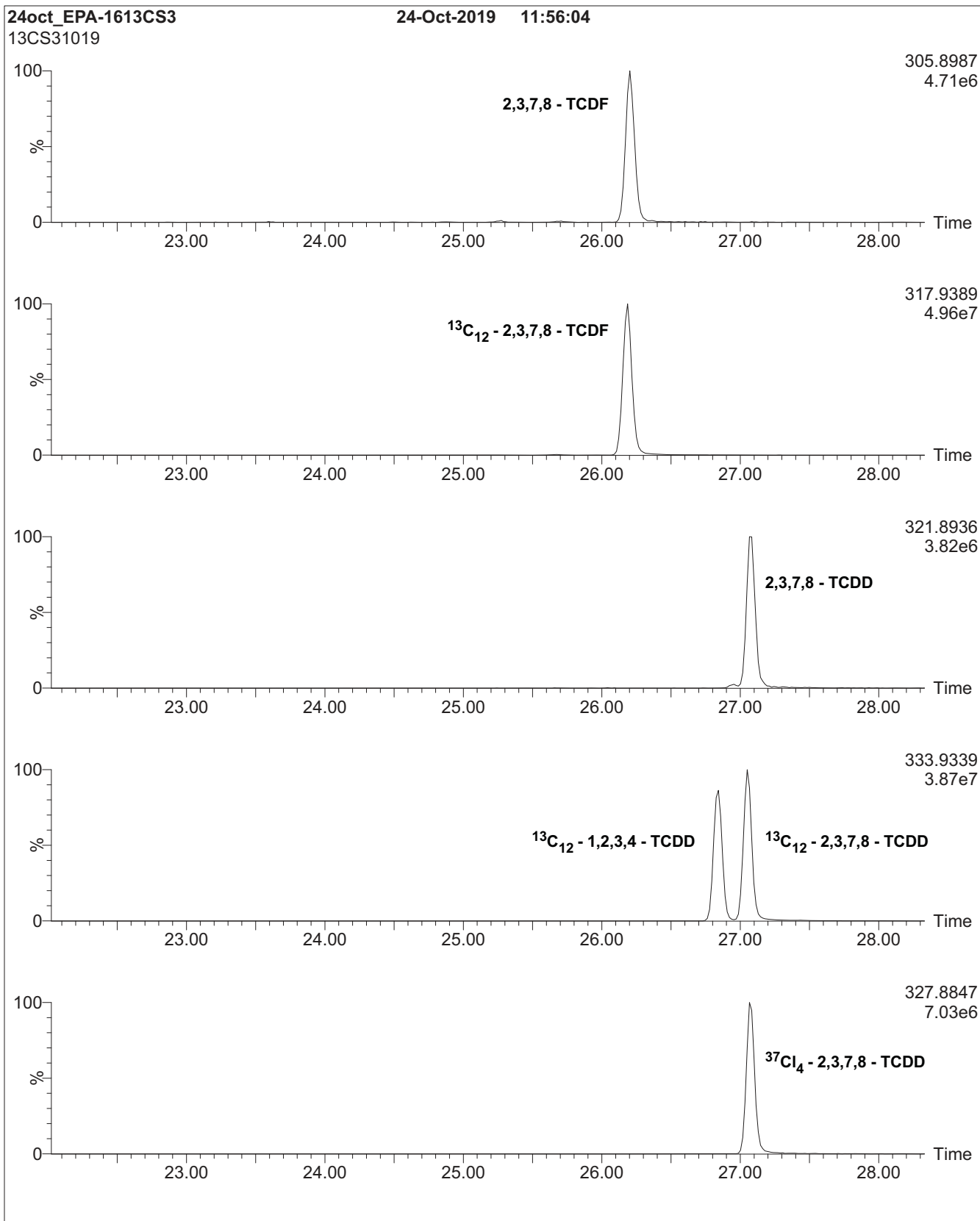


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

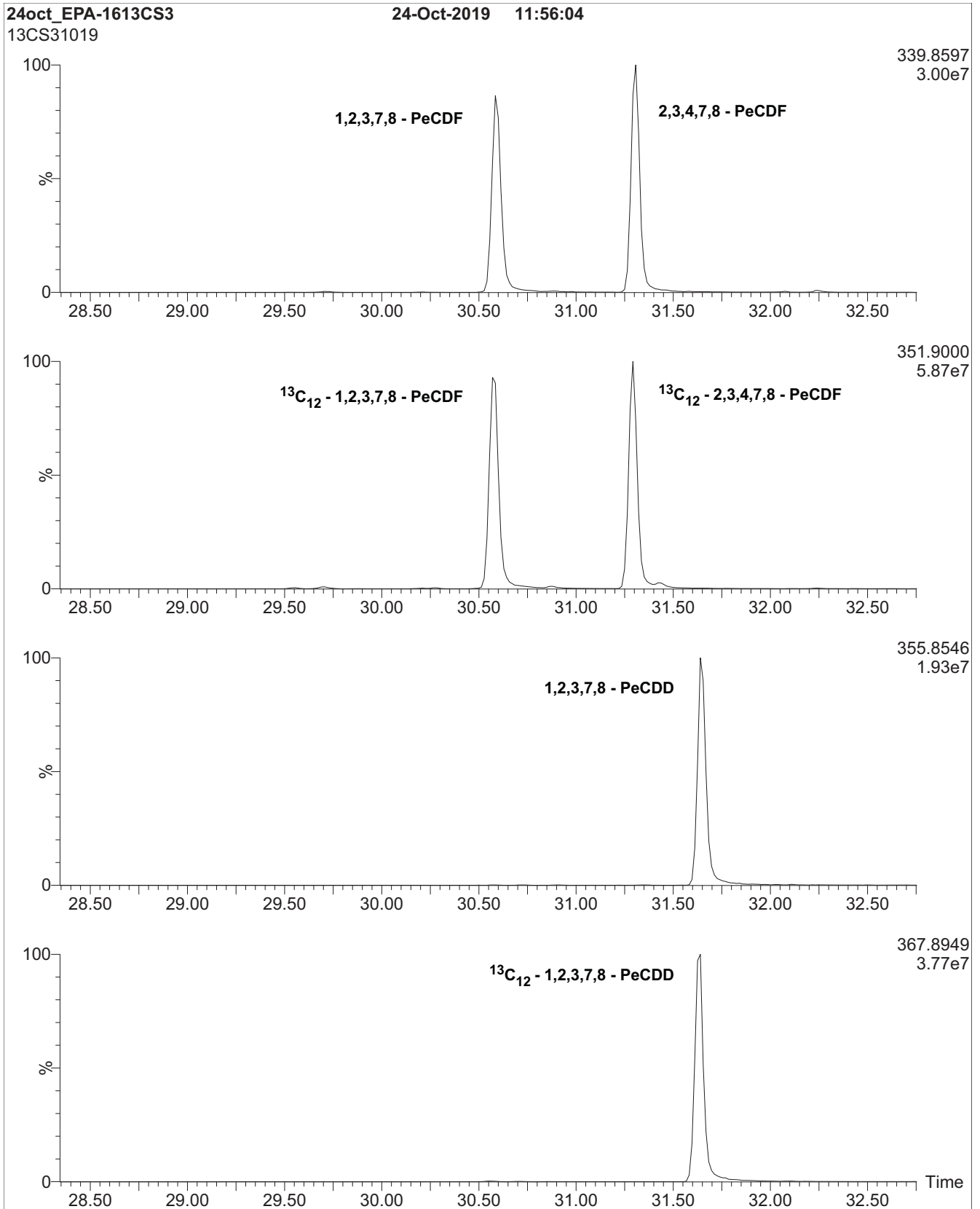


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

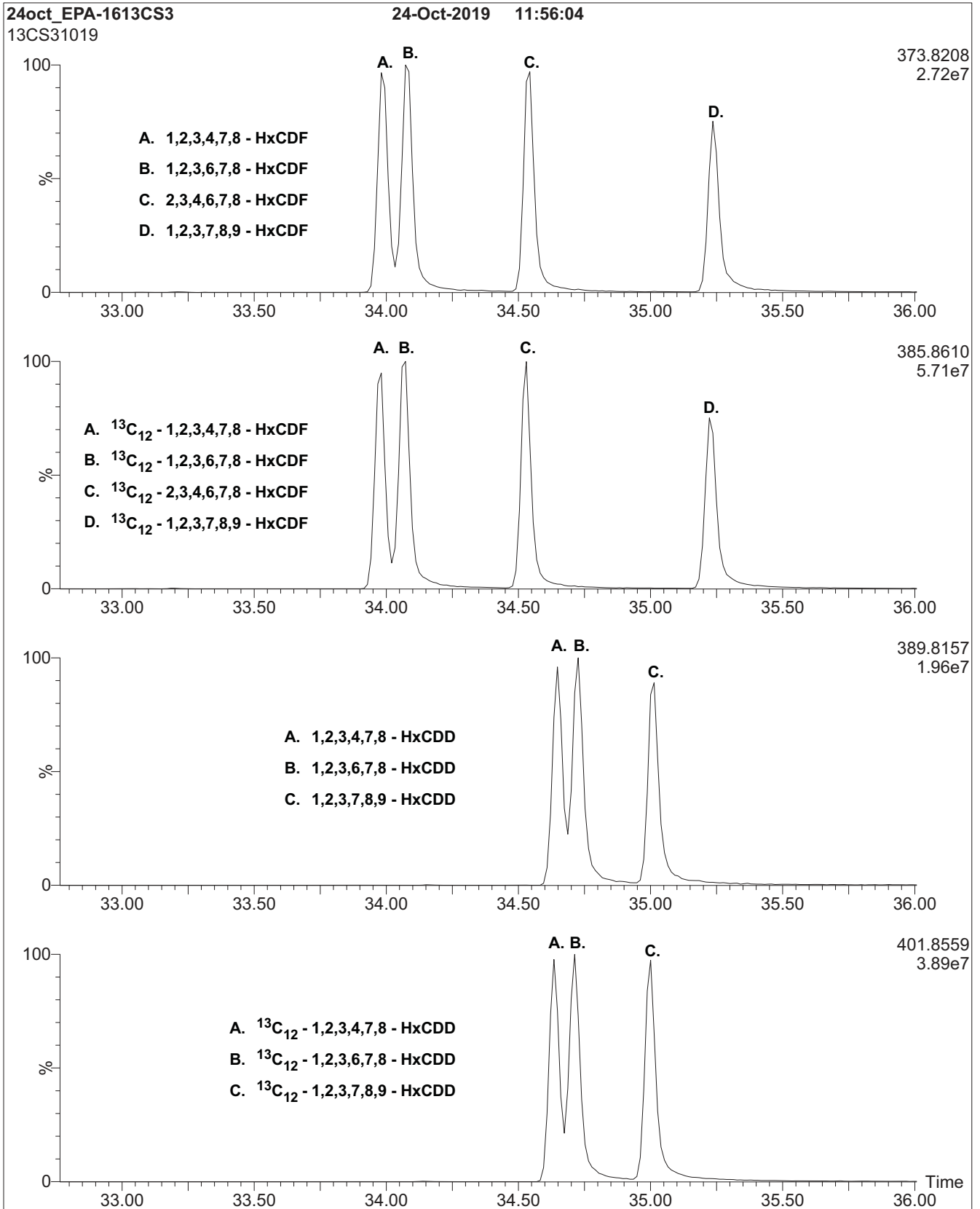


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

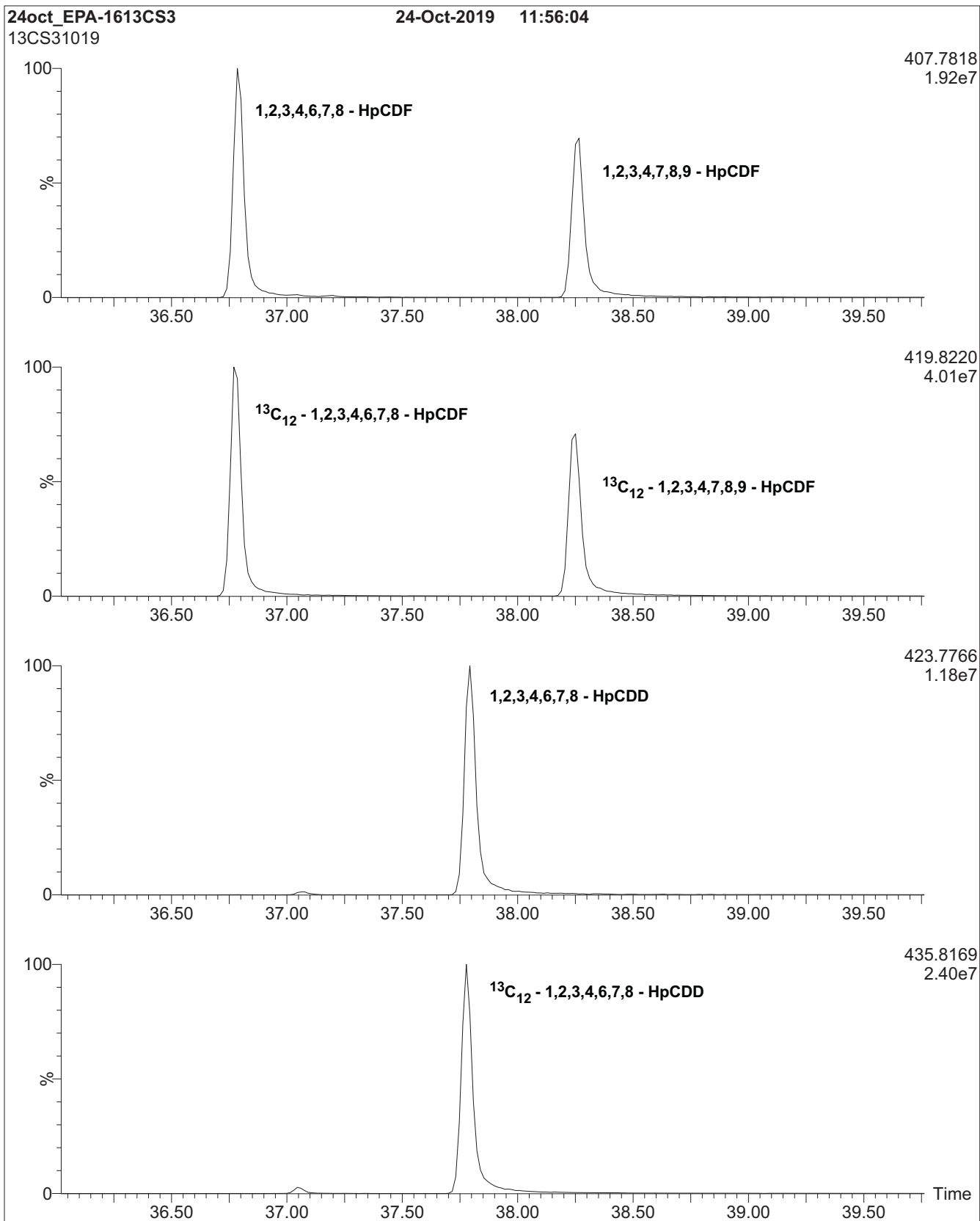
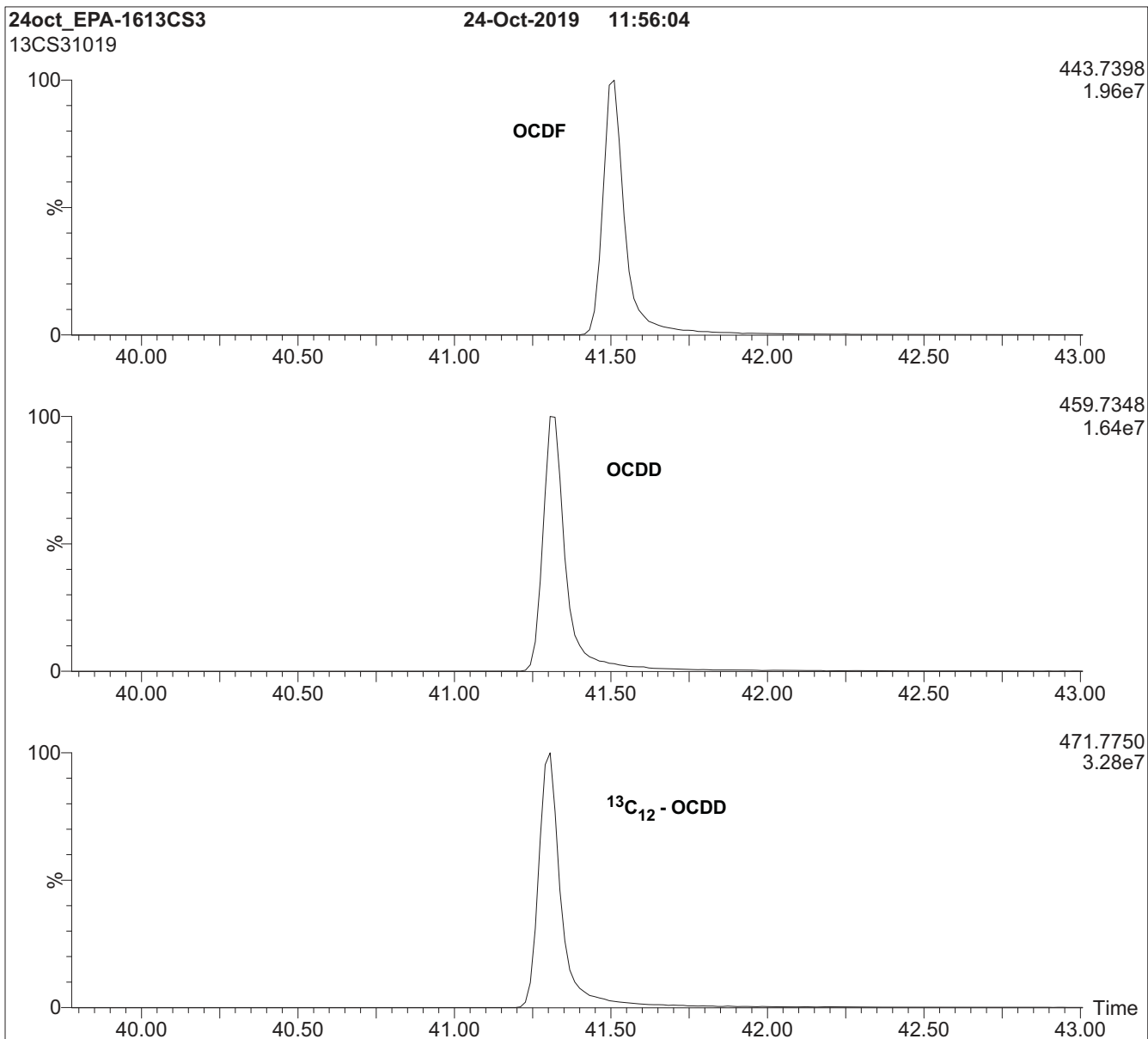


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



EPA-1613CVS

**U.S. EPA Method 1613 Calibration and Verification Solutions
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5**

<u>PRODUCT CODES:</u>	EPA-1613CVS	<u>LOT NUMBERS:</u>	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

<u>SOLVENT(S):</u>	Nonane/Toluene
<u>DATE PREPARED:</u> (mm/dd/yyyy)	10/22/2019
<u>LAST TESTED:</u> (mm/dd/yyyy)	10/24/2019
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	10/24/2026
<u>RECOMMENDED STORAGE:</u>	Store ampoules in a cool, dark place

<p>1005458</p> <p>1613 CS4 CAL STD</p> <p>Expires 10/24/2026</p> <p><i>Prepared By Joshua Rains 6/23/2020</i></p>
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DESCRIPTION:

EPA-1613CVS is a series of 5 calibration solutions containing native (¹²C₁₂) and mass-labelled (¹³C₁₂ and ³⁷Cl₄) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual ¹³C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-³⁷Cl₄-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (³⁷Cl) purity of ≥95%.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations

Table B: 5-point HRGC/HRMS Calibration and RRF Summary

Table C: 7-point HRGC/HRMS Calibration and RRF Summary

Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

**Table A: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
	CS1	CS2	CS3	CS4	CS5	CSL	CS0.5
Native PCDDs and PCDFs:							
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
Labelled PCDDs and PCDFs:							
¹³ C ₁₂ -2,3,7,8-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,7,8-TCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -OCDD	200	200	200	200	200	200	200
Cleanup Standard:							
³⁷ Cl ₄ -2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
Internal Standards:							
¹³ C ₁₂ -1,2,3,4-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By: 
B.G. Chittim, General Manager

Date: 10/25/2019
(mm/dd/yyyy)

Table B: EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

**Table C: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

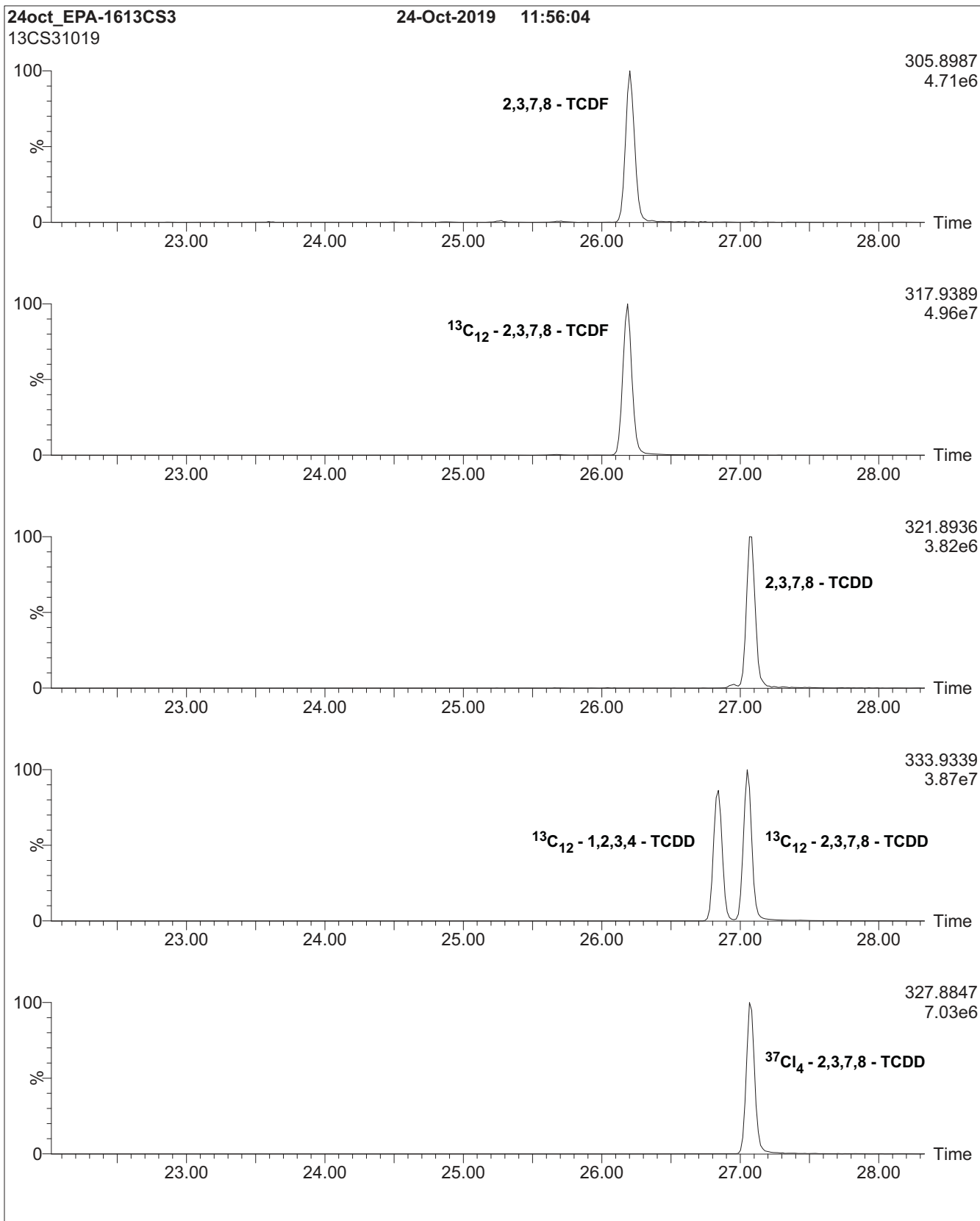


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

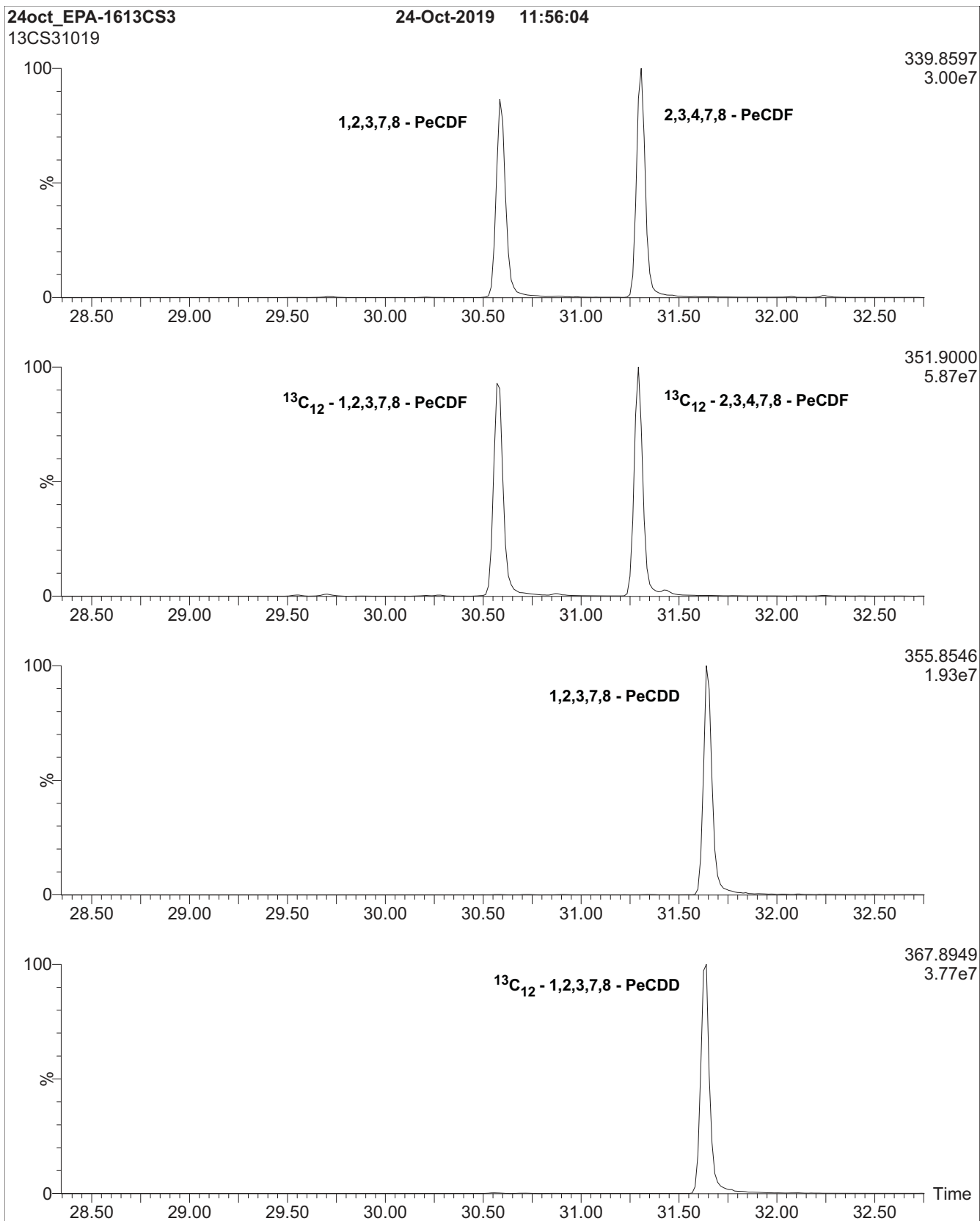


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

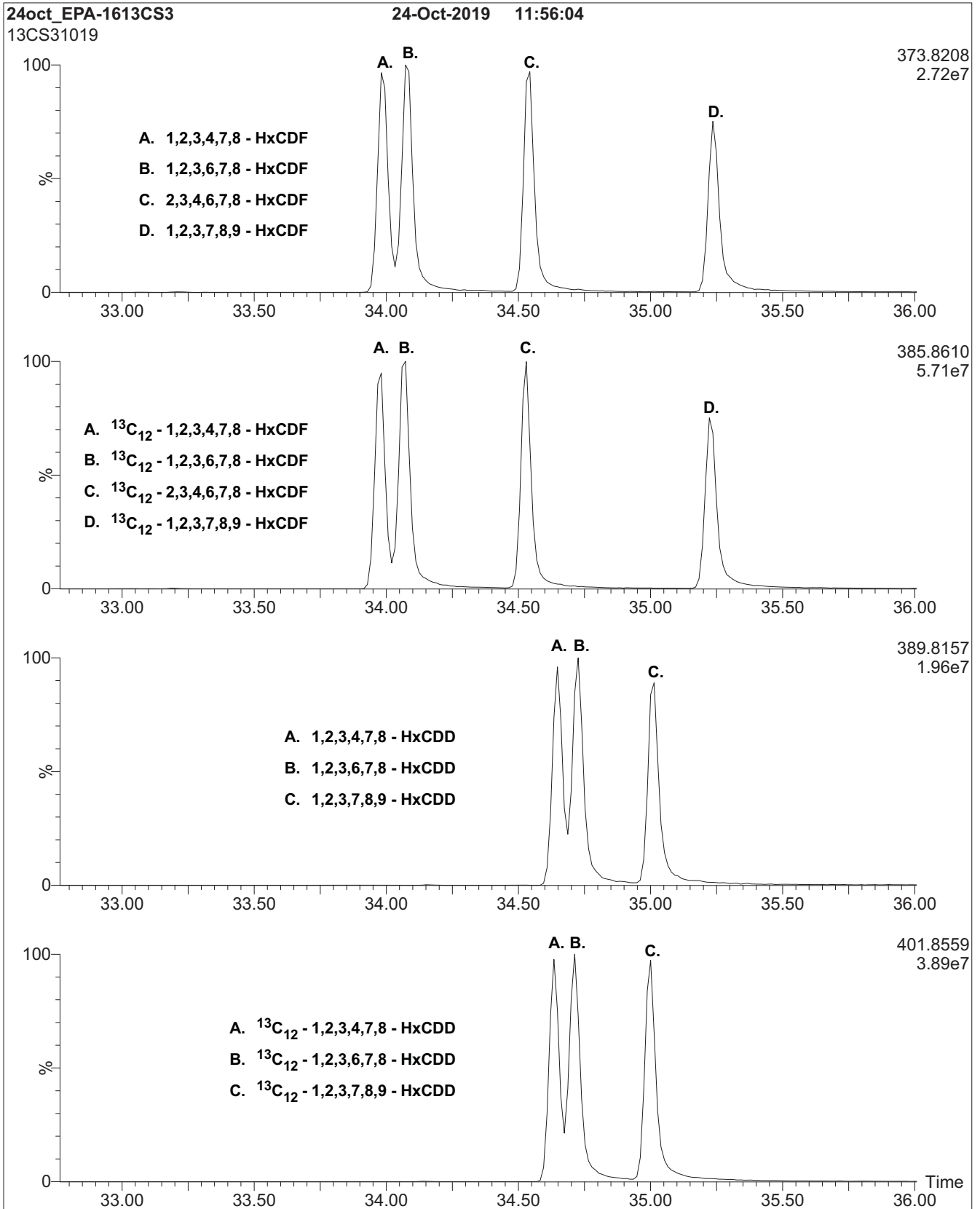


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

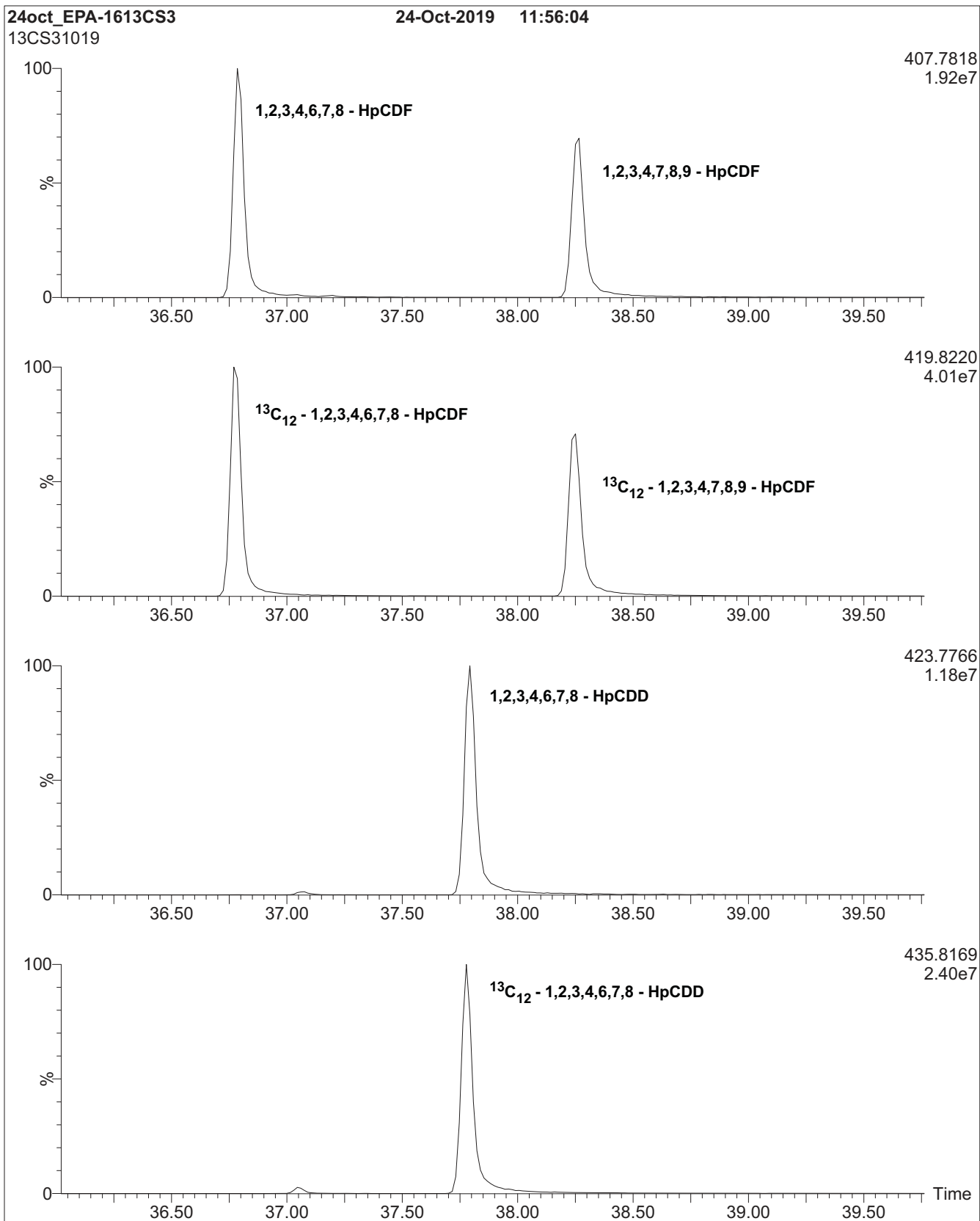
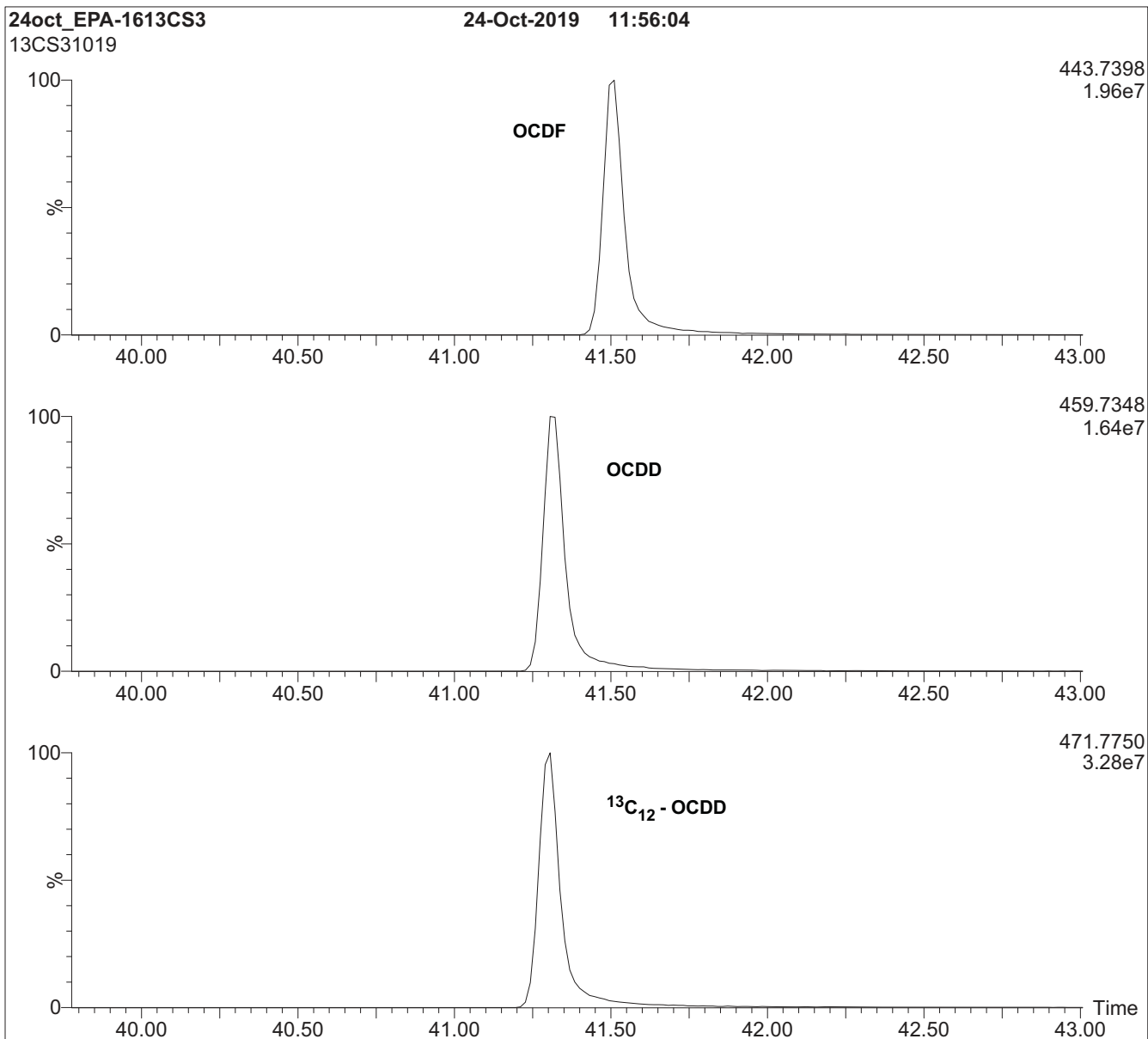


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



EPA-1613CVS

**U.S. EPA Method 1613 Calibration and Verification Solutions
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5**

<u>PRODUCT CODES:</u>	EPA-1613CVS	<u>LOT NUMBERS:</u>	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

<u>SOLVENT(S):</u>	Nonane/Toluene
<u>DATE PREPARED:</u> (mm/dd/yyyy)	10/22/2019
<u>LAST TESTED:</u> (mm/dd/yyyy)	10/24/2019
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	10/24/2026
<u>RECOMMENDED STORAGE:</u>	Store ampoules in a cool, dark place

I005459
1613 CS5 CAL STD
Expires 10/24/2026
<i>Prepared By Joshua Rains 6/23/2020</i>

DESCRIPTION:

EPA-1613CVS is a series of 5 calibration solutions containing native (¹²C₁₂) and mass-labelled (¹³C₁₂ and ³⁷Cl₄) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual ¹³C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-³⁷Cl₄-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (³⁷Cl) purity of ≥95%.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations

Table B: 5-point HRGC/HRMS Calibration and RRF Summary

Table C: 7-point HRGC/HRMS Calibration and RRF Summary

Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

**Table A: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
	CS1	CS2	CS3	CS4	CS5	CSL	CS0.5
Native PCDDs and PCDFs:							
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
Labelled PCDDs and PCDFs:							
¹³ C ₁₂ -2,3,7,8-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,7,8-TCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -OCDD	200	200	200	200	200	200	200
Cleanup Standard:							
³⁷ Cl ₄ -2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
Internal Standards:							
¹³ C ₁₂ -1,2,3,4-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By: 
B.G. Chittim, General Manager

Date: 10/25/2019
(mm/dd/yyyy)

Table B: EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

**Table C: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

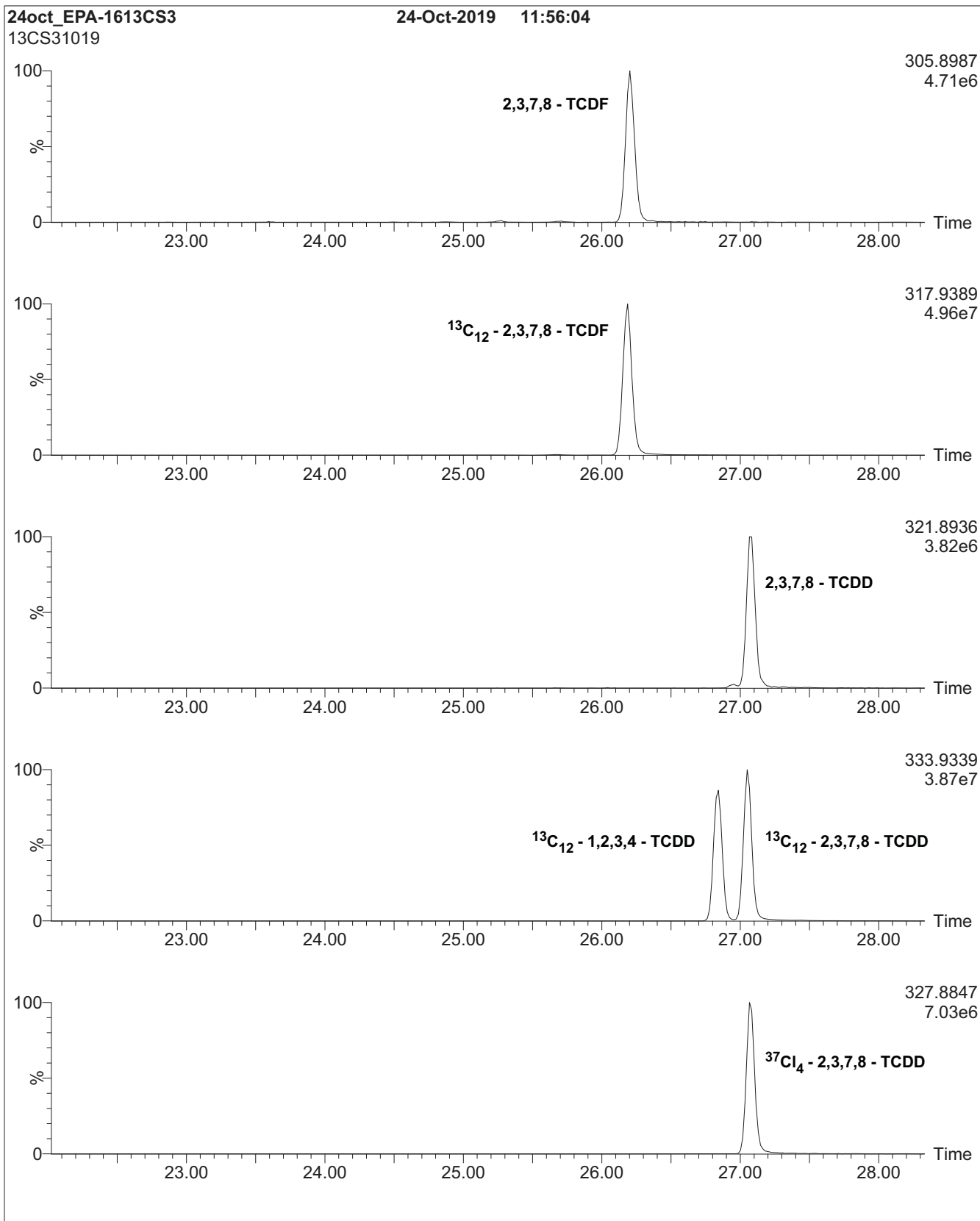


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

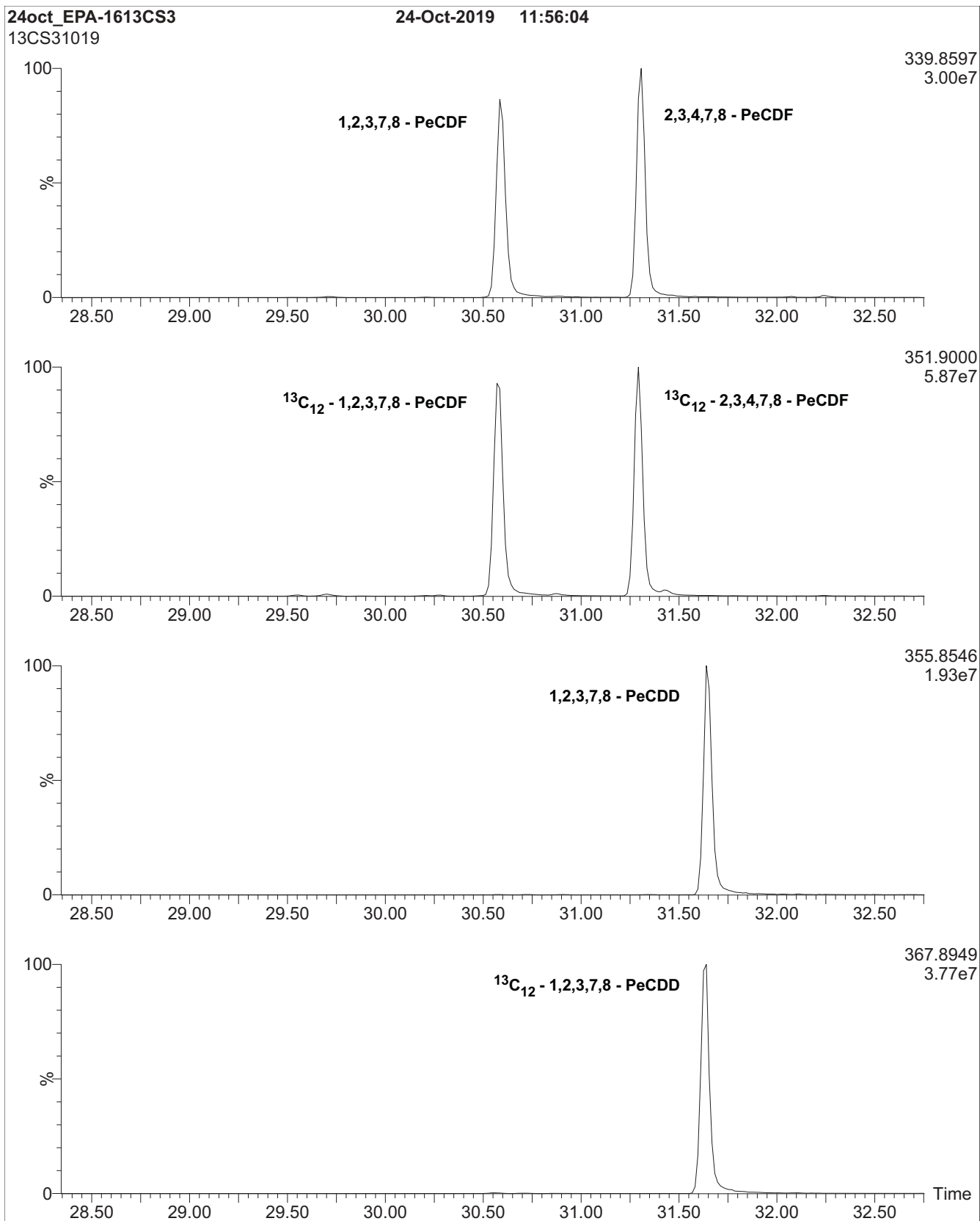


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

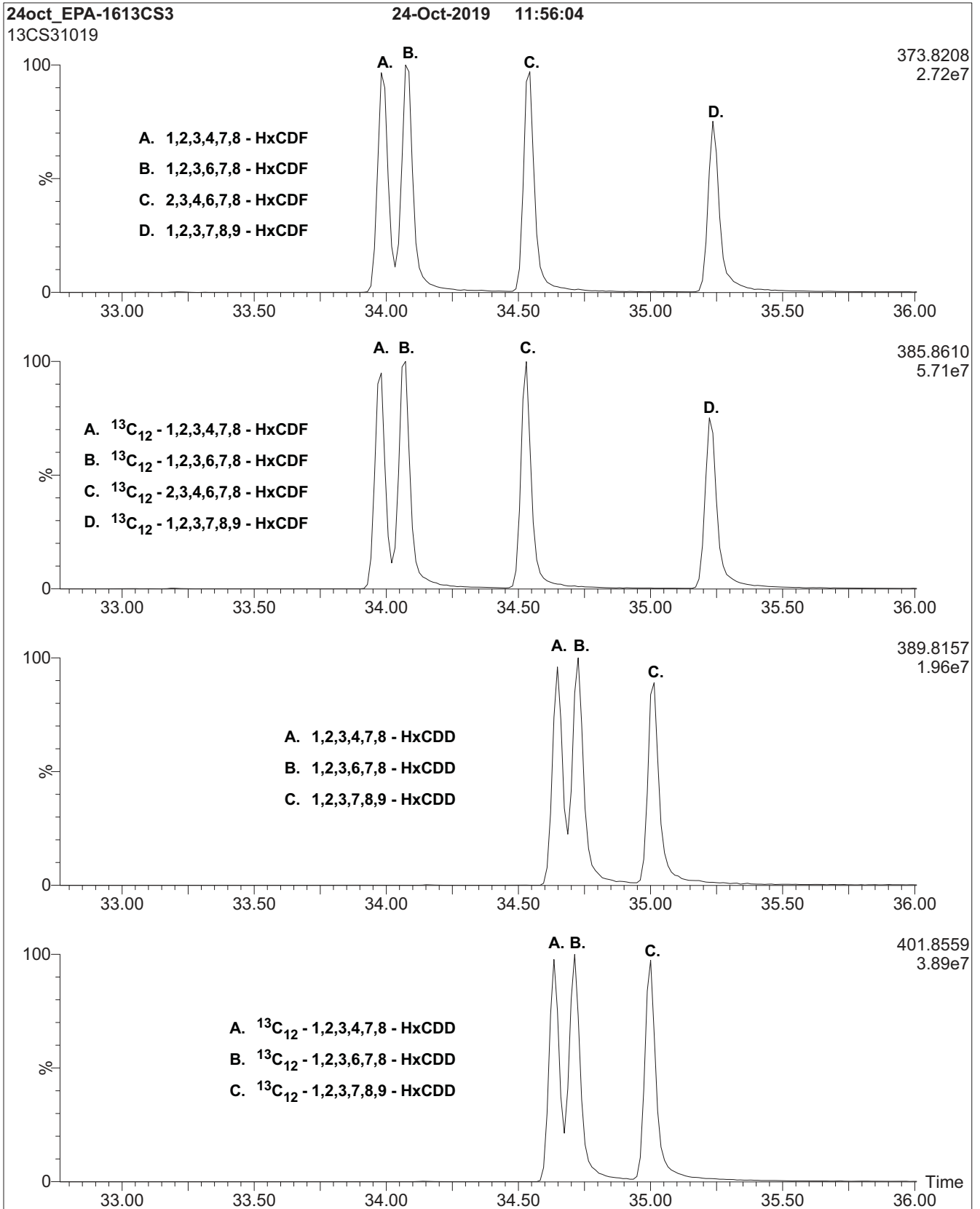


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

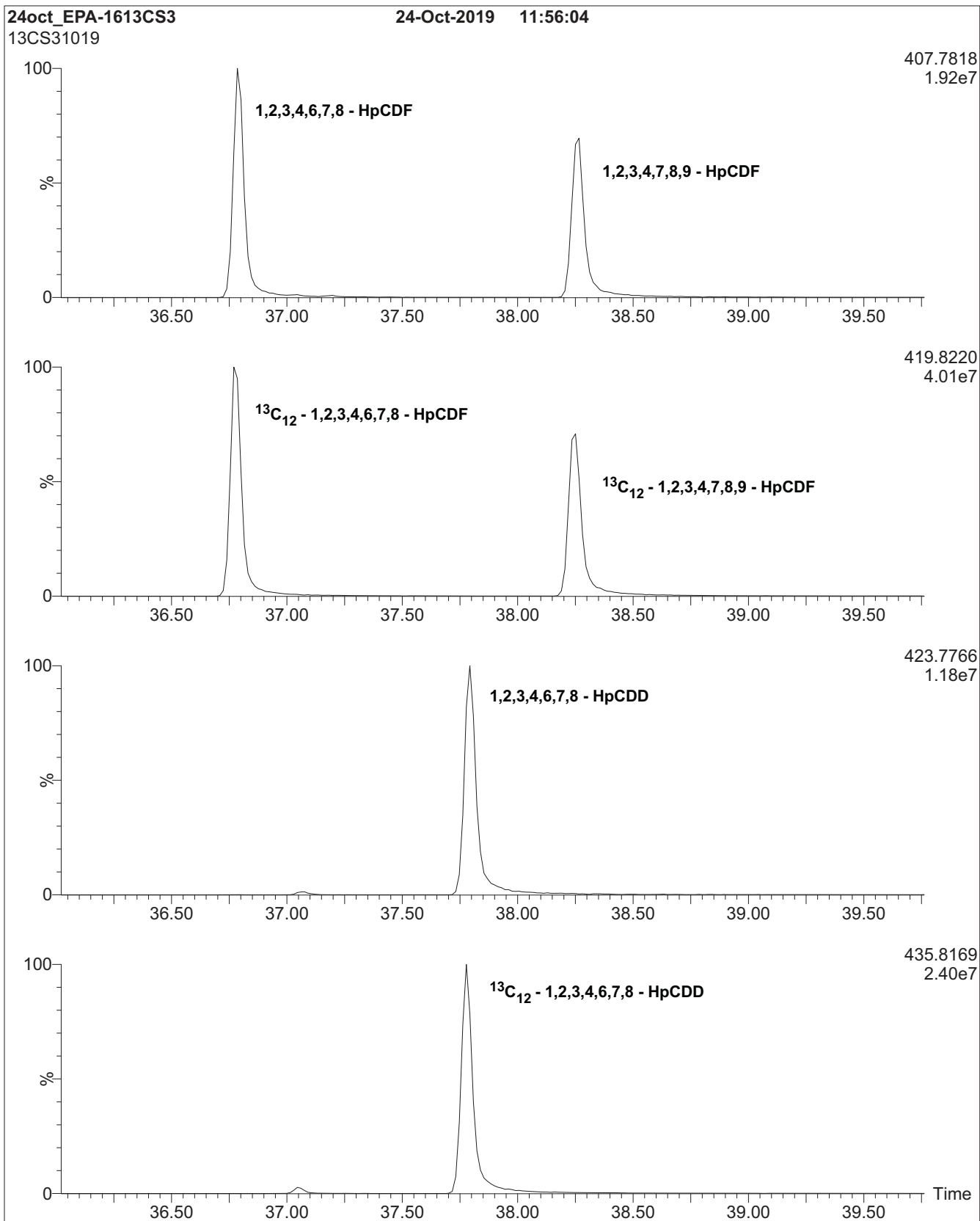
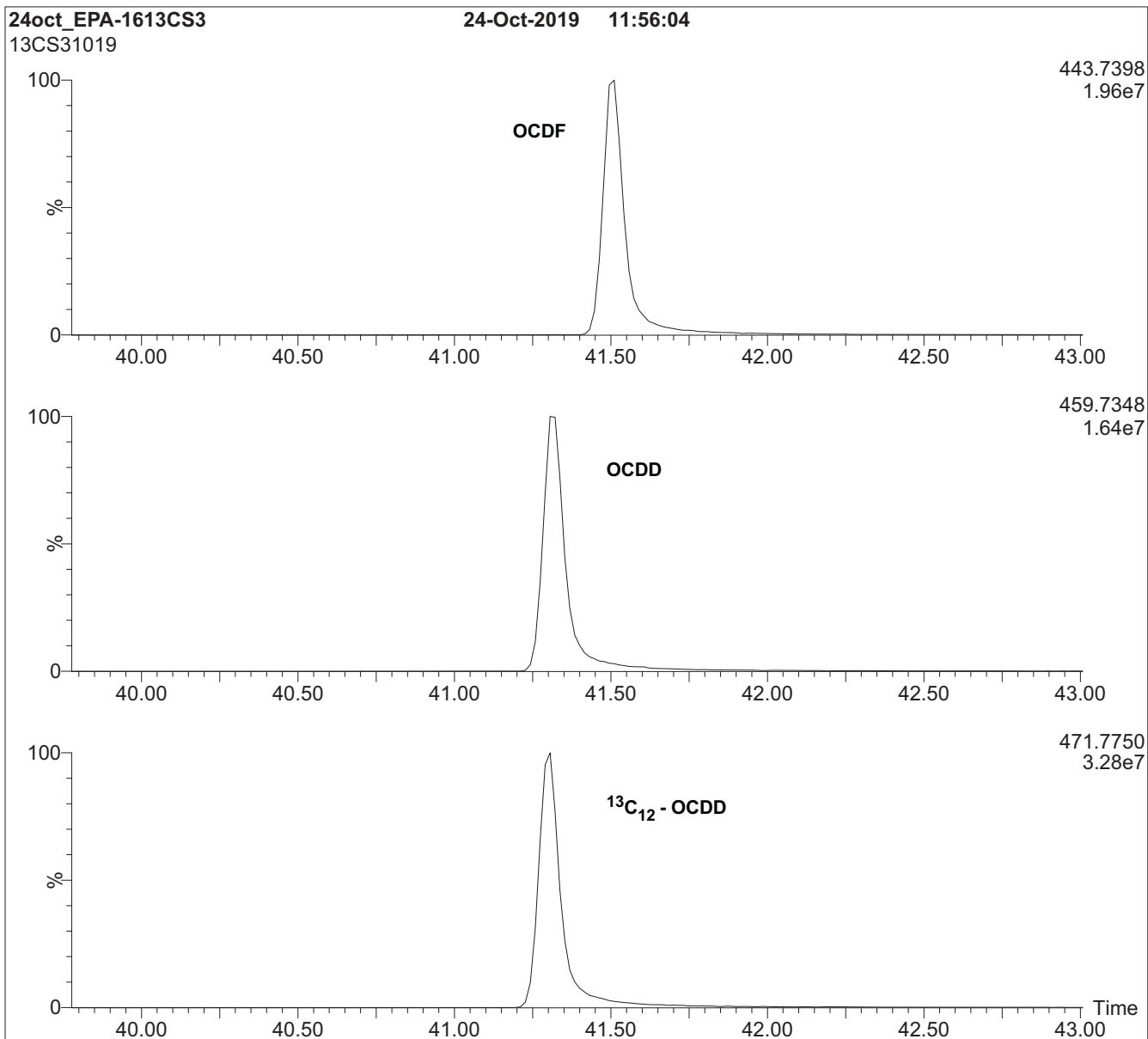


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



EPA-1613CVS

**U.S. EPA Method 1613 Calibration and Verification Solutions
plus Supplemental Calibration Solutions EPA-1613CSL & EPA-1613CS0.5**

<u>PRODUCT CODES:</u>	EPA-1613CVS	<u>LOT NUMBERS:</u>	(see below)
	EPA-1613CS1		13CS11019
	EPA-1613CS2		13CS21019
	EPA-1613CS3		13CS31019
	EPA-1613CS4		13CS41019
	EPA-1613CS5		13CS51019

Note: EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to this calibration set that must be ordered separately.

EPA-1613CS0.5	13CS0.51019
EPA-1613CSL	13CSL1019

<u>SOLVENT(S):</u>	Nonane/Toluene
<u>DATE PREPARED:</u> (mm/dd/yyyy)	10/22/2019
<u>LAST TESTED:</u> (mm/dd/yyyy)	10/24/2019
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	10/24/2026
<u>RECOMMENDED STORAGE:</u>	Store ampoules in a cool, dark place

I005460
1613 CSL CAL STD
Expires 10/24/2026
<i>Prepared By Joshua Rains 6/23/2020</i>

DESCRIPTION:

EPA-1613CVS is a series of 5 calibration solutions containing native (¹²C₁₂) and mass-labelled (¹³C₁₂ and ³⁷Cl₄) chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs). The components of each solution, and their concentrations, are given in Table A.

They were designed for, and prepared to be used according to, U.S. EPA Method 1613 (Revision B). They are to be used as received.

EPA-1613CSL and EPA-1613CS0.5 are lower level extensions to EPA-1613CVS. Neither is required by the method, but either or both can be used to extend the calibration to lower levels.

The individual native PCDDs and PCDFs all have chemical purities of >98%. The individual ¹³C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-³⁷Cl₄-Tetrachlorodibenzo-p-dioxin has a chemical purity of >98% and an isotopic (³⁷Cl) purity of ≥95%.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations

Table B: 5-point HRGC/HRMS Calibration and RRF Summary

Table C: 7-point HRGC/HRMS Calibration and RRF Summary

Figure 1: HRGC/HRMS Data for EPA-1613CS3 (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 3 for further details.

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a series of standards for the identification and quantification of specific chemical compounds.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned values, and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analytes is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

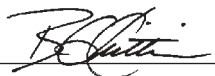
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

**Table A: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
Components and Concentrations (ng/ml, ± 5% in nonane/toluene)**

Compound	Concentration (ng/ml)						
	CS1	CS2	CS3	CS4	CS5	CSL	CS0.5
Native PCDDs and PCDFs:							
2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
2,3,7,8-TCDF	0.5	2	10	40	200	0.1	0.25
1,2,3,7,8-PeCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,7,8-PeCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,7,8,9-HxCDF	2.5	10	50	200	1000	0.5	1.25
2,3,4,6,7,8-HxCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDD	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,6,7,8-HpCDF	2.5	10	50	200	1000	0.5	1.25
1,2,3,4,7,8,9-HpCDF	2.5	10	50	200	1000	0.5	1.25
OCDD	5.0	20	100	400	2000	1.0	2.5
OCDF	5.0	20	100	400	2000	1.0	2.5
Labelled PCDDs and PCDFs:							
¹³ C ₁₂ -2,3,7,8-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,7,8-TCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,7,8-PeCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	100
¹³ C ₁₂ -OCDD	200	200	200	200	200	200	200
Cleanup Standard:							
³⁷ Cl ₄ -2,3,7,8-TCDD	0.5	2	10	40	200	0.1	0.25
Internal Standards:							
¹³ C ₁₂ -1,2,3,4-TCDD	100	100	100	100	100	100	100
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	100
Percent toluene (v/v)	3.6%	3.7%	4.2%	6.1%	16.2%	3.6%	3.6%

Certified By: 
B.G. Chittim, General Manager

Date: 10/25/2019
(mm/dd/yyyy)

Table B: EPA-1613CVS; 5-point HRGC/HRMS Calibration and RRF Summary

Calibration RRF Summary				Calibration Standard				
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5
2,3,7,8-TCDF	0.93	0.013	1.4	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.015	1.6	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.04	0.019	1.8	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.035	3.7	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.93	0.013	1.4	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.96	0.022	2.3	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.89	0.021	2.4	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.91	0.011	1.2	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.010	1.1	0.90	0.90	0.92	0.91	0.92
OCDF	1.19	0.056	4.7	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.05	0.023	2.2	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.97	0.018	1.9	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	1.00	0.019	1.9	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.98	0.032	3.2	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.97	0.016	1.6	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.025	2.5	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.013	1.3	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.57	0.047	3.0	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.21	0.078	6.5	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.17	0.081	6.9	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.020	1.5	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.51	0.034	2.2	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.38	0.012	0.9	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.014	1.2	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.033	2.5	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.08	0.046	4.3	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.13	0.036	3.2	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.79	0.047	5.9	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.027	3.1	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.04	0.010	1.0	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.017	2.1	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.74	0.055	7.4	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.026	2.6	0.95	0.94	0.99	0.99	0.99

**Table C: EPA-1613CVS (with EPA-1613CSL and EPA-1613CS0.5);
7-point HRGC/HRMS Calibration and RRF Summary**

Calibration RRF Summary				Calibration Standard						
Calibration Filename: 24oct_EPA1613CVS-CAL.QLD				CSL	CS0.5	CS1	CS2	CS3	CS4	CS5
Name	Mean	S. D.	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6	RRF#7
2,3,7,8-TCDF	0.92	0.045	4.8	0.96	0.83	0.92	0.95	0.93	0.92	0.95
1,2,3,7,8-PeCDF	0.93	0.013	1.4	0.94	0.92	0.92	0.92	0.93	0.93	0.95
2,3,4,7,8-PeCDF	1.02	0.058	5.7	0.90	1.00	1.03	1.02	1.05	1.05	1.07
1,2,3,4,7,8-HxCDF	0.96	0.029	3.0	0.96	0.97	0.94	0.92	0.98	0.99	1.00
1,2,3,6,7,8-HxCDF	0.92	0.030	3.3	0.90	0.86	0.92	0.94	0.94	0.91	0.94
2,3,4,6,7,8-HxCDF	0.94	0.047	5.0	0.87	0.89	0.95	0.94	0.97	0.97	0.99
1,2,3,7,8,9-HxCDF	0.88	0.029	3.3	0.83	0.88	0.87	0.88	0.90	0.90	0.92
1,2,3,4,6,7,8-HpCDF	0.90	0.033	3.7	0.83	0.93	0.90	0.90	0.90	0.92	0.92
1,2,3,4,7,8,9-HpCDF	0.91	0.018	1.9	0.89	0.94	0.90	0.90	0.92	0.91	0.92
OCDF	1.18	0.052	4.4	1.15	1.14	1.11	1.17	1.19	1.23	1.26
2,3,7,8-TCDD	1.03	0.051	5.0	1.03	0.92	1.01	1.06	1.05	1.05	1.07
1,2,3,7,8-PeCDD	0.95	0.042	4.4	0.87	0.98	0.95	0.95	0.98	0.97	0.99
1,2,3,4,7,8-HxCDD	0.97	0.066	6.8	0.83	0.98	1.01	1.00	1.00	0.96	1.01
1,2,3,6,7,8-HxCDD	0.96	0.044	4.5	0.90	0.92	0.93	0.98	0.99	1.01	1.01
1,2,3,7,8,9-HxCDD	0.94	0.054	5.7	0.83	0.92	0.95	0.96	0.98	0.99	0.98
1,2,3,4,6,7,8-HpCDD	1.01	0.033	3.3	0.95	1.03	1.01	0.97	1.02	1.03	1.04
OCDD	1.00	0.023	2.3	0.95	1.00	1.00	0.99	1.02	1.02	1.00
¹³ C ₁₂ -2,3,7,8-TCDF	1.56	0.042	2.7	1.52	1.54	1.52	1.55	1.55	1.57	1.65
¹³ C ₁₂ -1,2,3,7,8-PeCDF	1.20	0.066	5.5	1.18	1.17	1.13	1.20	1.17	1.20	1.34
¹³ C ₁₂ -2,3,4,7,8-PeCDF	1.16	0.071	6.1	1.12	1.13	1.09	1.15	1.13	1.17	1.31
¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	1.33	0.018	1.4	1.32	1.35	1.35	1.33	1.33	1.32	1.30
¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	1.53	0.045	3.0	1.60	1.56	1.47	1.48	1.53	1.53	1.54
¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	1.39	0.019	1.4	1.39	1.42	1.38	1.38	1.40	1.37	1.36
¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	1.19	0.012	1.0	1.19	1.19	1.18	1.16	1.20	1.19	1.20
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	1.31	0.028	2.2	1.30	1.33	1.31	1.26	1.33	1.31	1.35
¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	1.07	0.045	4.2	1.02	1.08	1.06	1.03	1.09	1.08	1.15
¹³ C ₁₂ -2,3,7,8-TCDD	1.12	0.033	3.0	1.09	1.11	1.10	1.11	1.11	1.13	1.19
¹³ C ₁₂ -1,2,3,7,8-PeCDD	0.78	0.040	5.1	0.75	0.78	0.74	0.78	0.75	0.79	0.86
¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	0.87	0.025	2.9	0.86	0.90	0.85	0.83	0.89	0.88	0.89
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	1.05	0.015	1.5	1.08	1.06	1.05	1.05	1.04	1.05	1.03
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	0.81	0.016	2.0	0.79	0.81	0.81	0.80	0.80	0.81	0.84
¹³ C ₁₂ -OCDD	0.73	0.046	6.3	0.71	0.72	0.70	0.70	0.73	0.72	0.83
¹³ C ₁₂ -1,2,3,4-TCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.00	0.000	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
³⁷ Cl ₄ -2,3,7,8-TCDD	0.97	0.053	5.4	0.90	1.07	0.95	0.94	0.99	0.99	0.99

Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

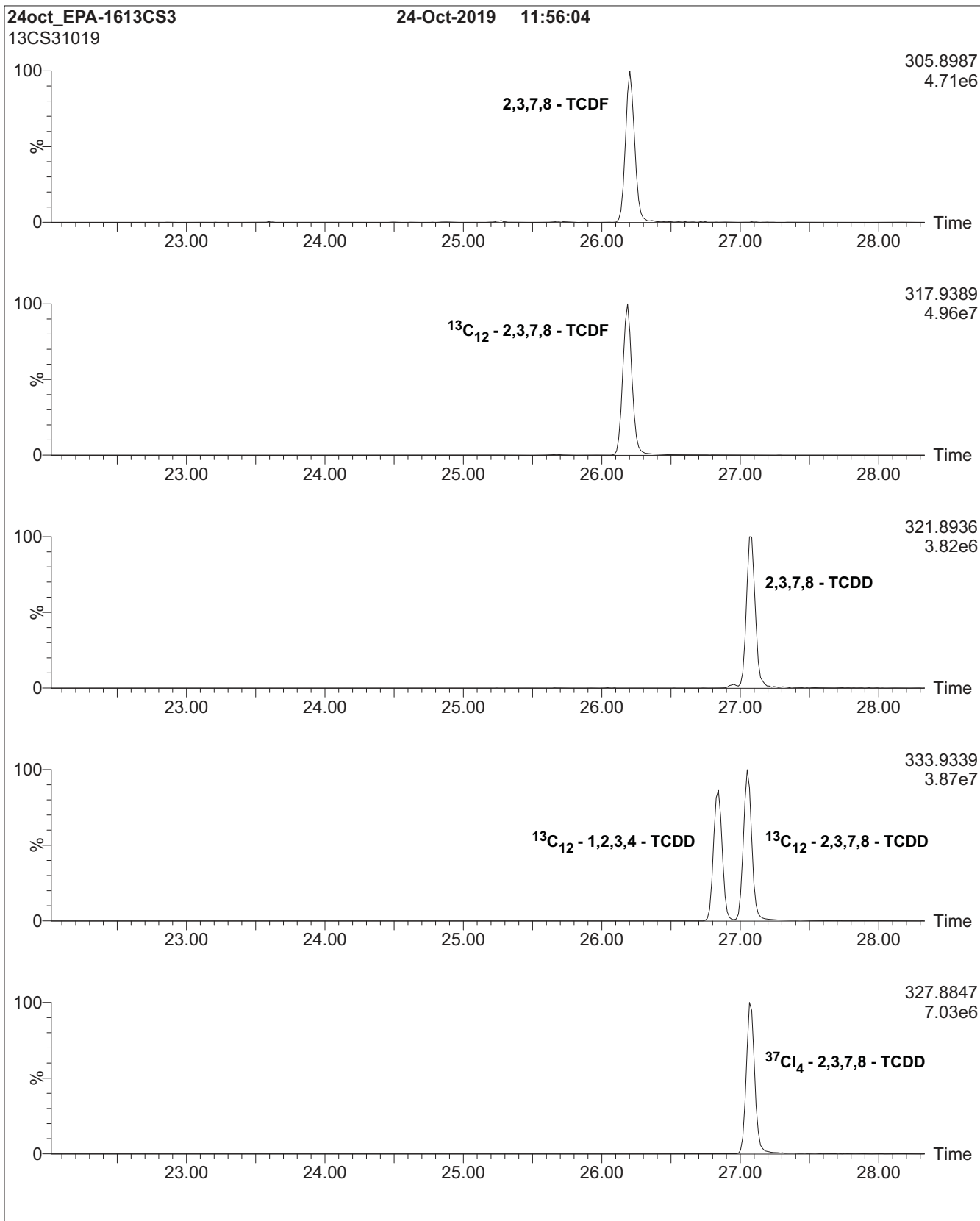


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

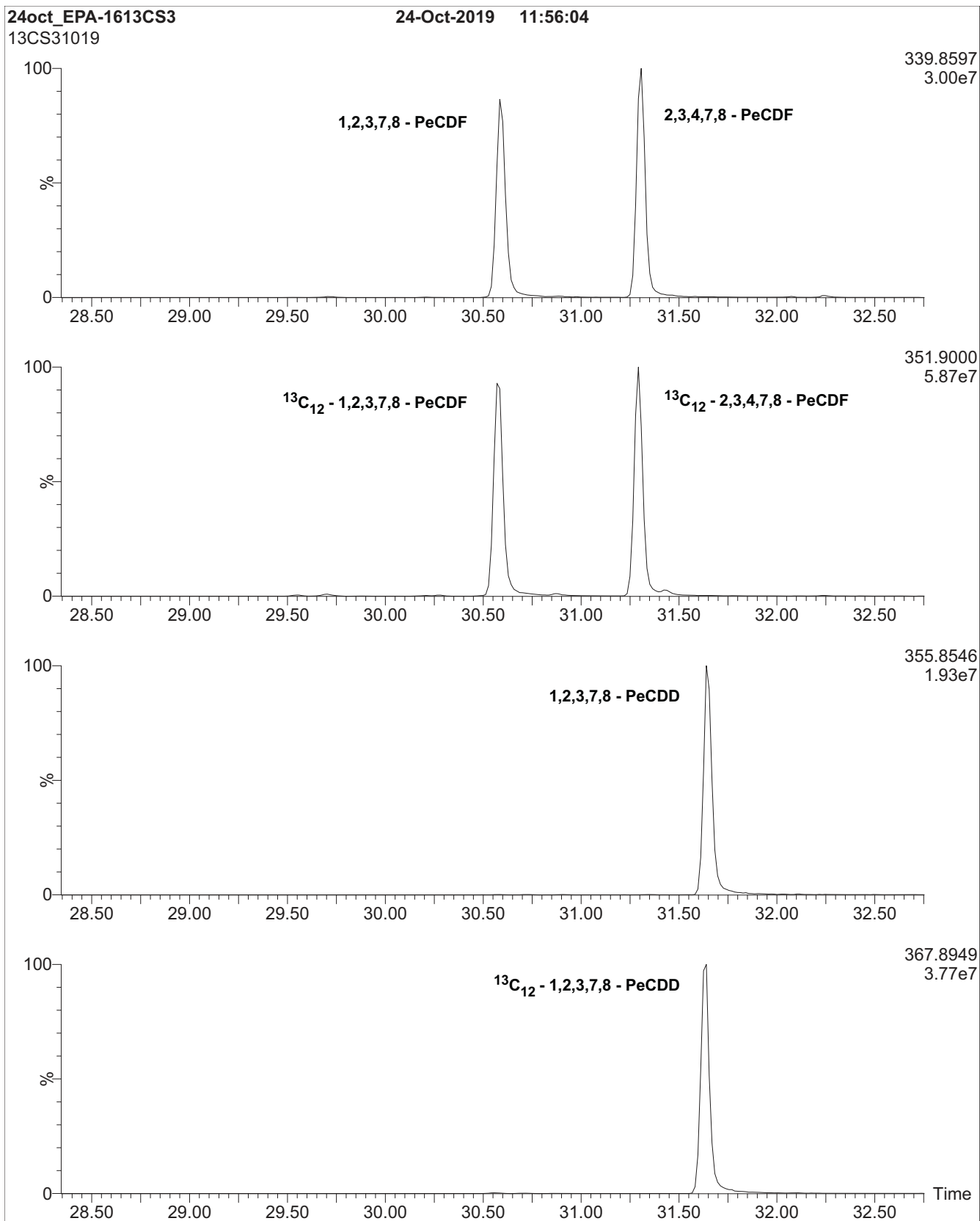


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

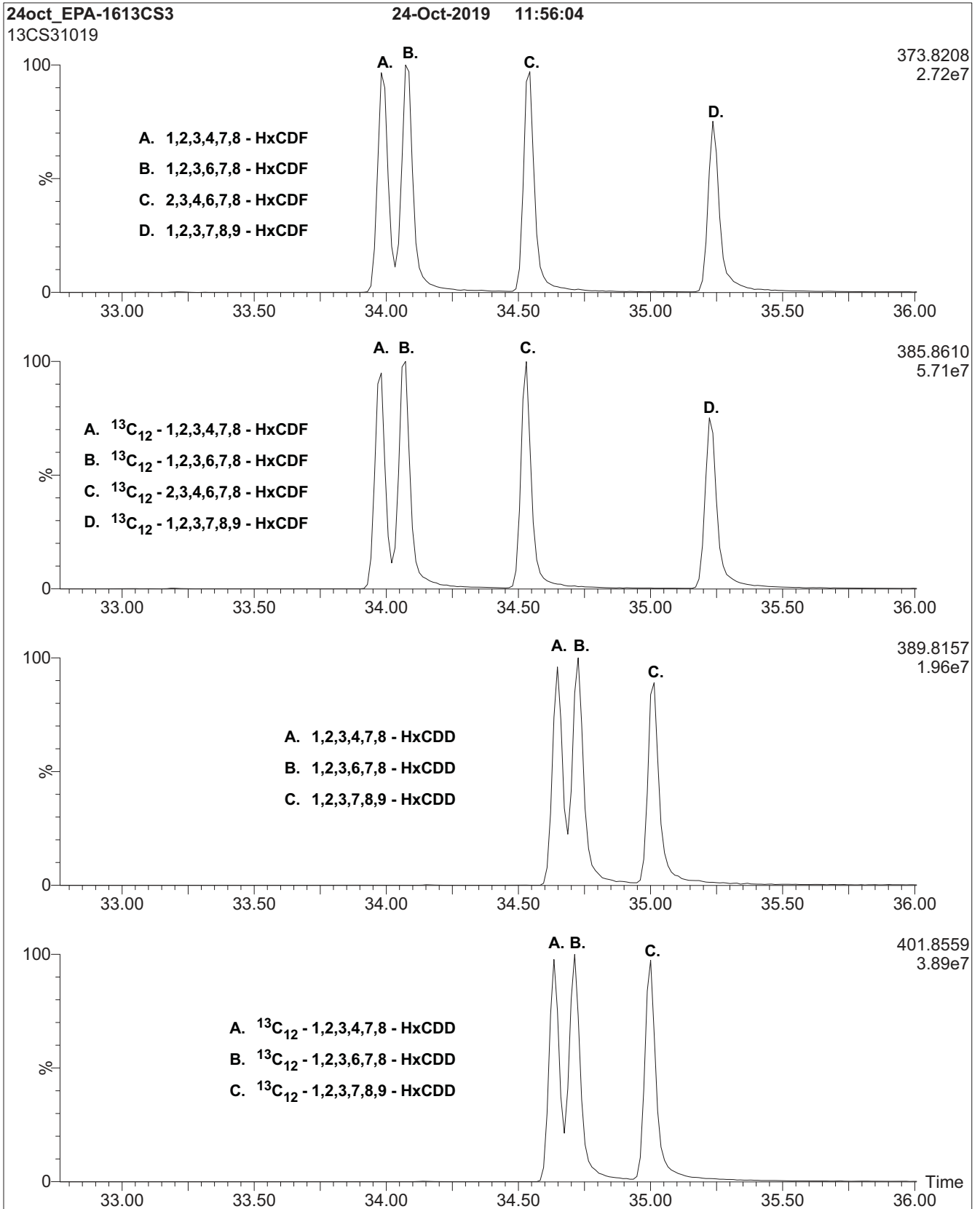


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)

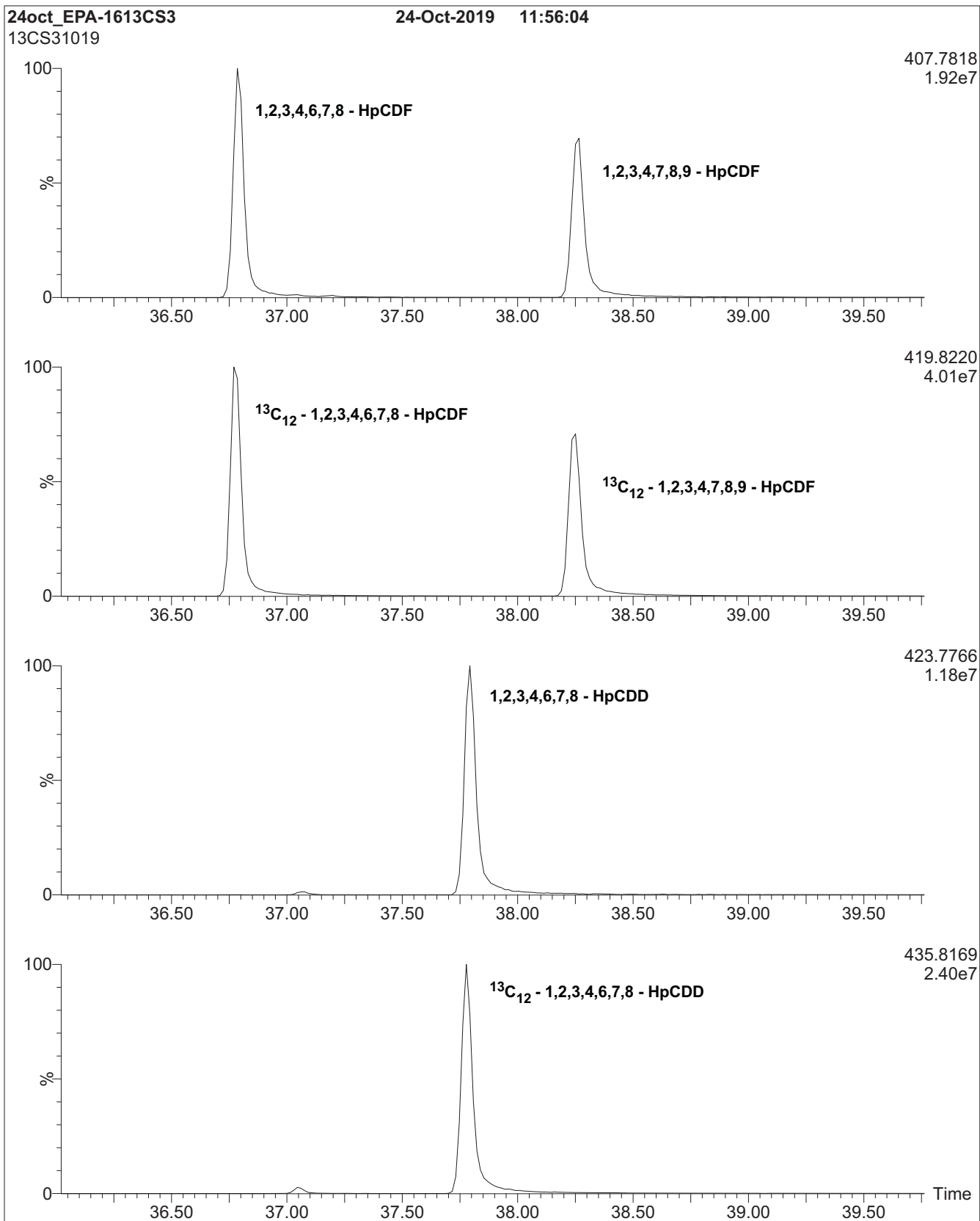
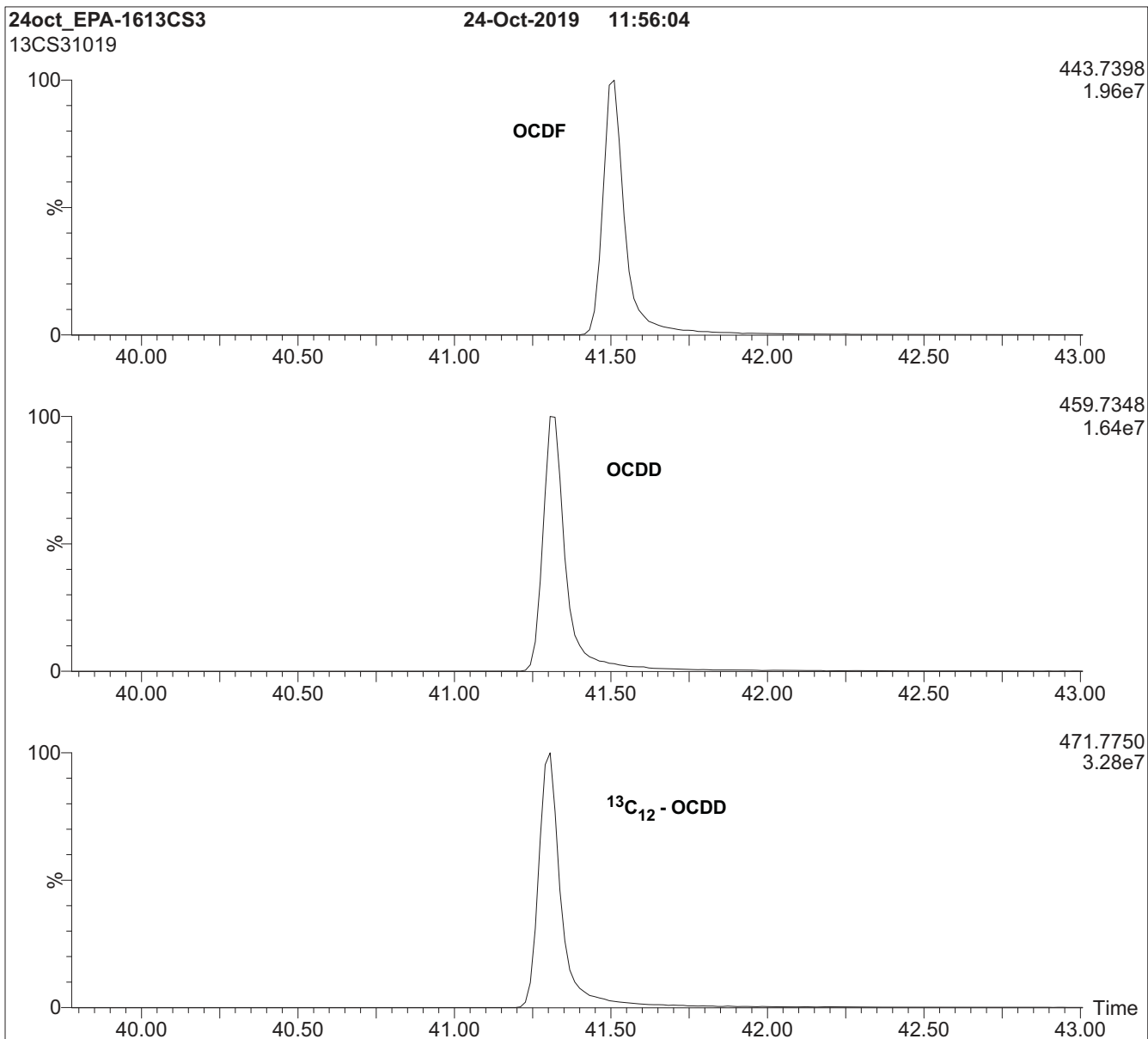


Figure 1: EPA-1613CS3; HRGC/HRMS Data (60 m DB-5 Column)



HRGC/HRMS:

Agilent 6890N (HRGC)
Autospec Ultima (HRMS)

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1 ml/min

Injector: 280 °C (Splitless Injection)

Ionization: EI+

Detector: 280 °C

SIR at 10,000 mass resolving power

Oven: 150 °C (1 min)

12 °C/min to 200 °C

3 °C/min to 235 °C

235 °C (8 min)

8 °C/min to 310 °C

310 °C (8 min)



EPA-1613PAR

**U.S. EPA Method 1613 Native PCDD/PCDF
Precision and Recovery Stock Solution**

PRODUCT CODE: EPA-1613PAR
LOT NUMBER: 13PAR1021
SOLVENT(S): Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy) 10/25/2021
LAST TESTED: (mm/dd/yyyy) 11/03/2021
EXPIRY DATE: (mm/dd/yyyy) 11/03/2028
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

J013397
Rec'd. JR
12/20/21

DESCRIPTION:

EPA-1613PAR is a solution/mixture of all the 2,3,7,8-substituted polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613PAR was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual PCDDs and PCDFs all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

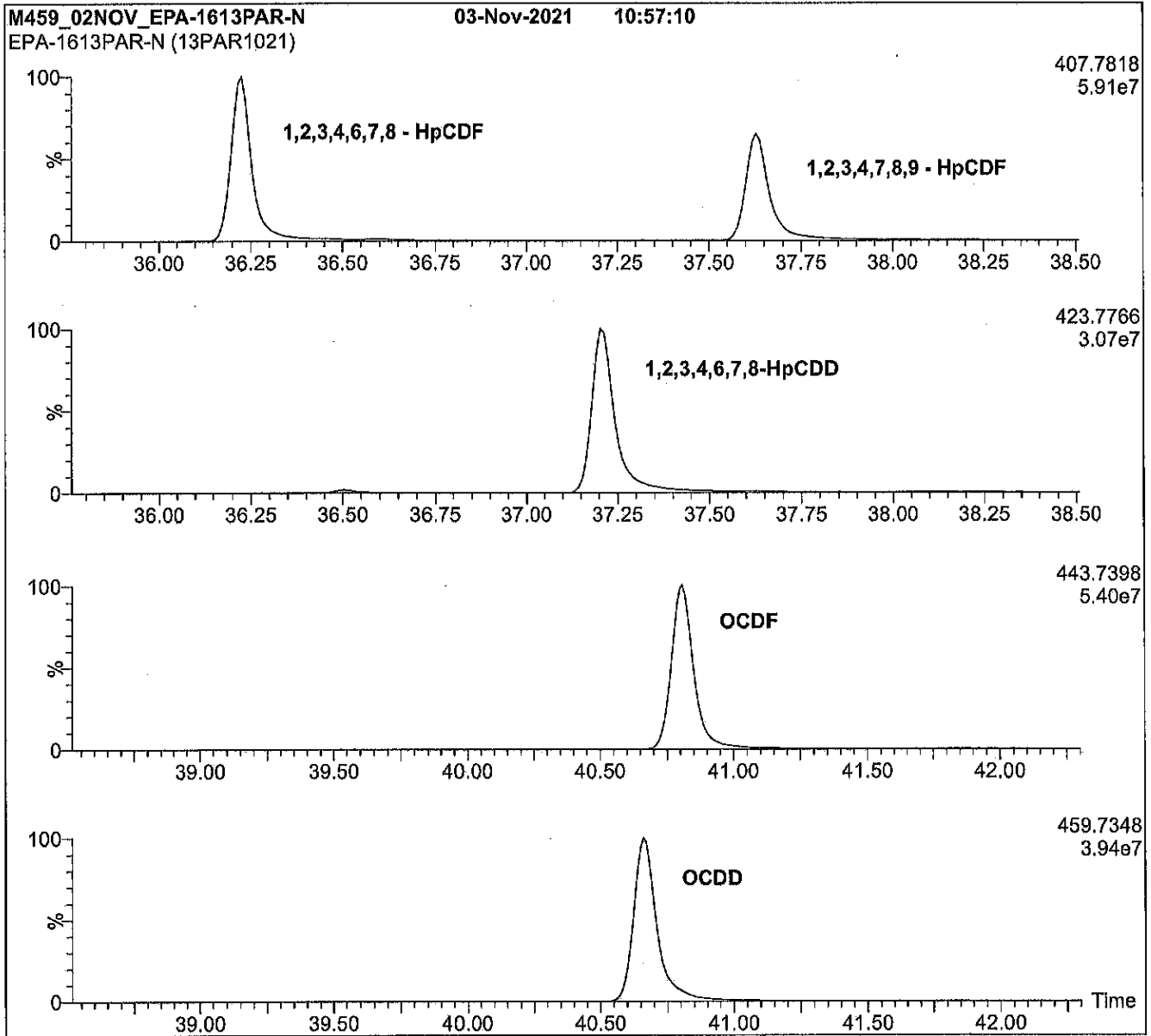
Table A: EPA-1613PAR; Components and Concentrations (ng/mL, ± 5% in nonane/2.4% toluene)

Compound	Acronym	CAS #	Concentration (ng/mL)
PCDDs:			
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin	2,3,7,8-TCDD	1746-01-6	40.0
1,2,3,7,8-Pentachlorodibenzo- <i>p</i> -dioxin	1,2,3,7,8-PeCDD	40321-76-4	200
1,2,3,4,7,8-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,4,7,8-HxCDD	39227-28-6	200
1,2,3,6,7,8-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,6,7,8-HxCDD	57653-85-7	200
1,2,3,7,8,9-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,7,8,9-HxCDD	19408-74-3	200
1,2,3,4,6,7,8-Heptachlorodibenzo- <i>p</i> -dioxin	1,2,3,4,6,7,8-HpCDD	35822-46-9	200
Octachlorodibenzo- <i>p</i> -dioxin	OCDD	3268-87-9	400
PCDFs:			
2,3,7,8-Tetrachlorodibenzofuran	2,3,7,8-TCDF	51207-31-9	40.0
1,2,3,7,8-Pentachlorodibenzofuran	1,2,3,7,8-PeCDF	57117-41-6	200
2,3,4,7,8-Pentachlorodibenzofuran	2,3,4,7,8-PeCDF	57117-31-4	200
1,2,3,4,7,8-Hexachlorodibenzofuran	1,2,3,4,7,8-HxCDF	70648-26-9	200
1,2,3,6,7,8-Hexachlorodibenzofuran	1,2,3,6,7,8-HxCDF	57117-44-9	200
1,2,3,7,8,9-Hexachlorodibenzofuran	1,2,3,7,8,9-HxCDF	72918-21-9	200
2,3,4,6,7,8-Hexachlorodibenzofuran	2,3,4,6,7,8-HxCDF	60851-34-5	200
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1,2,3,4,6,7,8-HpCDF	67562-39-4	200
1,2,3,4,7,8,9-Heptachlorodibenzofuran	1,2,3,4,7,8,9-HpCDF	55673-89-7	200
Octachlorodibenzofuran	OCDF	39001-02-0	400

Certified By: 
 B.G. Chittim, General Manager

Date: 11/05/2021
(mm/dd/yyyy)

Figure 1: EPA-1613PAR; HRGC/HRMS Data (60 m DB-5 Column)



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column:	60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W	
Flow:	Constant at 1.4 mL/min	Oven:
Injector:	280°C (Splitless Injection)	150°C (1 min)
Ionization:	EI+	12°C/min to 200°C
Detector:	280°C	3°C/min to 235°C
	SIR at 10,000 mass resolving power	235°C (8 min)
		8°C/min to 310°C
		310°C (8 min)



EPA-1613PAR

**U.S. EPA Method 1613 Native PCDD/PCDF
Precision and Recovery Stock Solution**

PRODUCT CODE: EPA-1613PAR
LOT NUMBER: 13PAR1021
SOLVENT(S): Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy) 10/25/2021
LAST TESTED: (mm/dd/yyyy) 11/03/2021
EXPIRY DATE: (mm/dd/yyyy) 11/03/2028
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

J013397
Rec'd. JR
12/20/21

DESCRIPTION:

EPA-1613PAR is a solution/mixture of all the 2,3,7,8-substituted polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613PAR was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual PCDDs and PCDFs all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: EPA-1613PAR; Components and Concentrations (ng/mL, ± 5% in nonane/2.4% toluene)

Compound	Acronym	CAS #	Concentration (ng/mL)
PCDDs:			
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin	2,3,7,8-TCDD	1746-01-6	40.0
1,2,3,7,8-Pentachlorodibenzo- <i>p</i> -dioxin	1,2,3,7,8-PeCDD	40321-76-4	200
1,2,3,4,7,8-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,4,7,8-HxCDD	39227-28-6	200
1,2,3,6,7,8-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,6,7,8-HxCDD	57653-85-7	200
1,2,3,7,8,9-Hexachlorodibenzo- <i>p</i> -dioxin	1,2,3,7,8,9-HxCDD	19408-74-3	200
1,2,3,4,6,7,8-Heptachlorodibenzo- <i>p</i> -dioxin	1,2,3,4,6,7,8-HpCDD	35822-46-9	200
Octachlorodibenzo- <i>p</i> -dioxin	OCDD	3268-87-9	400
PCDFs:			
2,3,7,8-Tetrachlorodibenzofuran	2,3,7,8-TCDF	51207-31-9	40.0
1,2,3,7,8-Pentachlorodibenzofuran	1,2,3,7,8-PeCDF	57117-41-6	200
2,3,4,7,8-Pentachlorodibenzofuran	2,3,4,7,8-PeCDF	57117-31-4	200
1,2,3,4,7,8-Hexachlorodibenzofuran	1,2,3,4,7,8-HxCDF	70648-26-9	200
1,2,3,6,7,8-Hexachlorodibenzofuran	1,2,3,6,7,8-HxCDF	57117-44-9	200
1,2,3,7,8,9-Hexachlorodibenzofuran	1,2,3,7,8,9-HxCDF	72918-21-9	200
2,3,4,6,7,8-Hexachlorodibenzofuran	2,3,4,6,7,8-HxCDF	60851-34-5	200
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1,2,3,4,6,7,8-HpCDF	67562-39-4	200
1,2,3,4,7,8,9-Heptachlorodibenzofuran	1,2,3,4,7,8,9-HpCDF	55673-89-7	200
Octachlorodibenzofuran	OCDF	39001-02-0	400

Certified By: 
 B.G. Chittim, General Manager

Date: 11/05/2021
(mm/dd/yyyy)

Figure 1: EPA-1613PAR; HRGC/HRMS Data (60 m DB-5 Column)

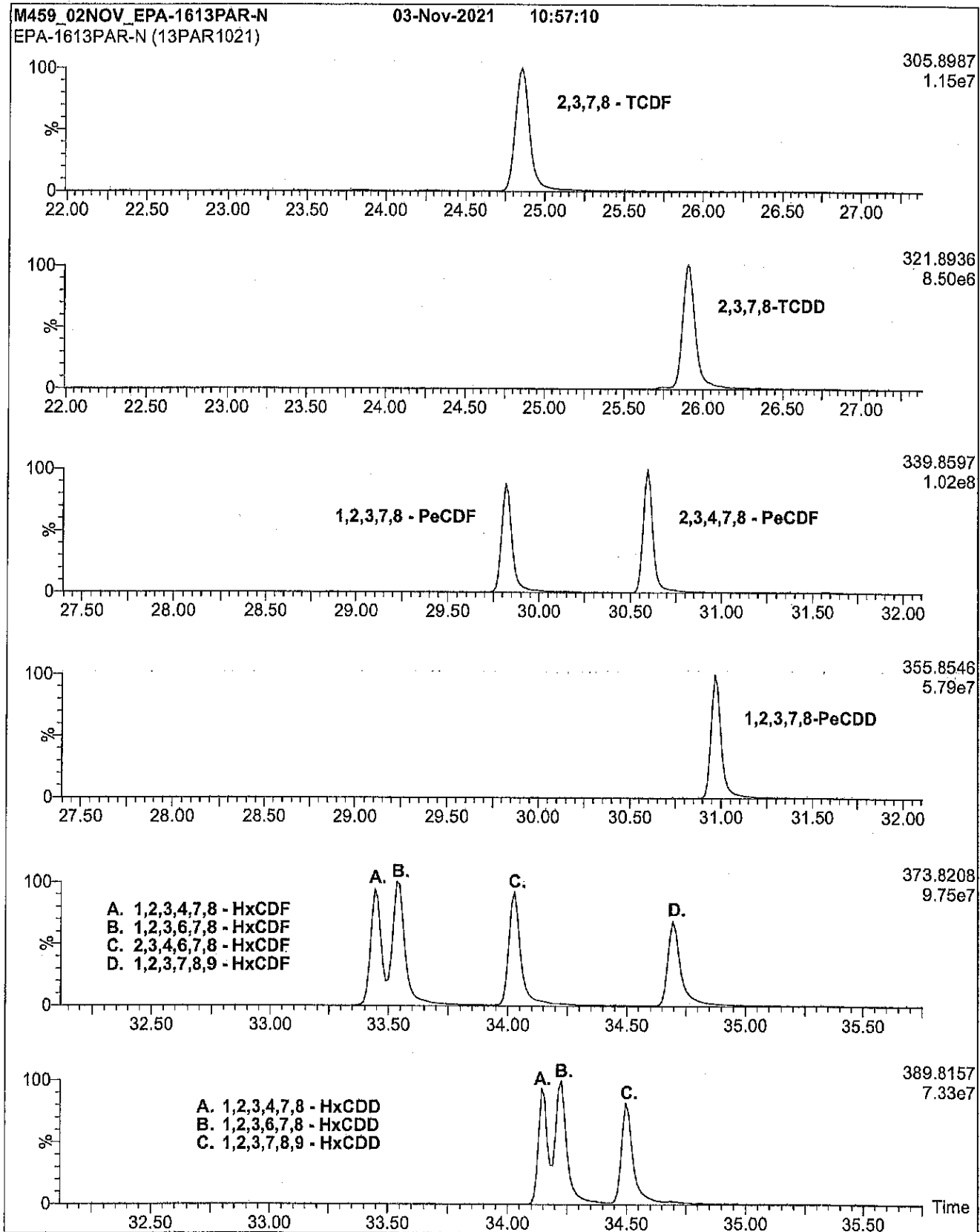
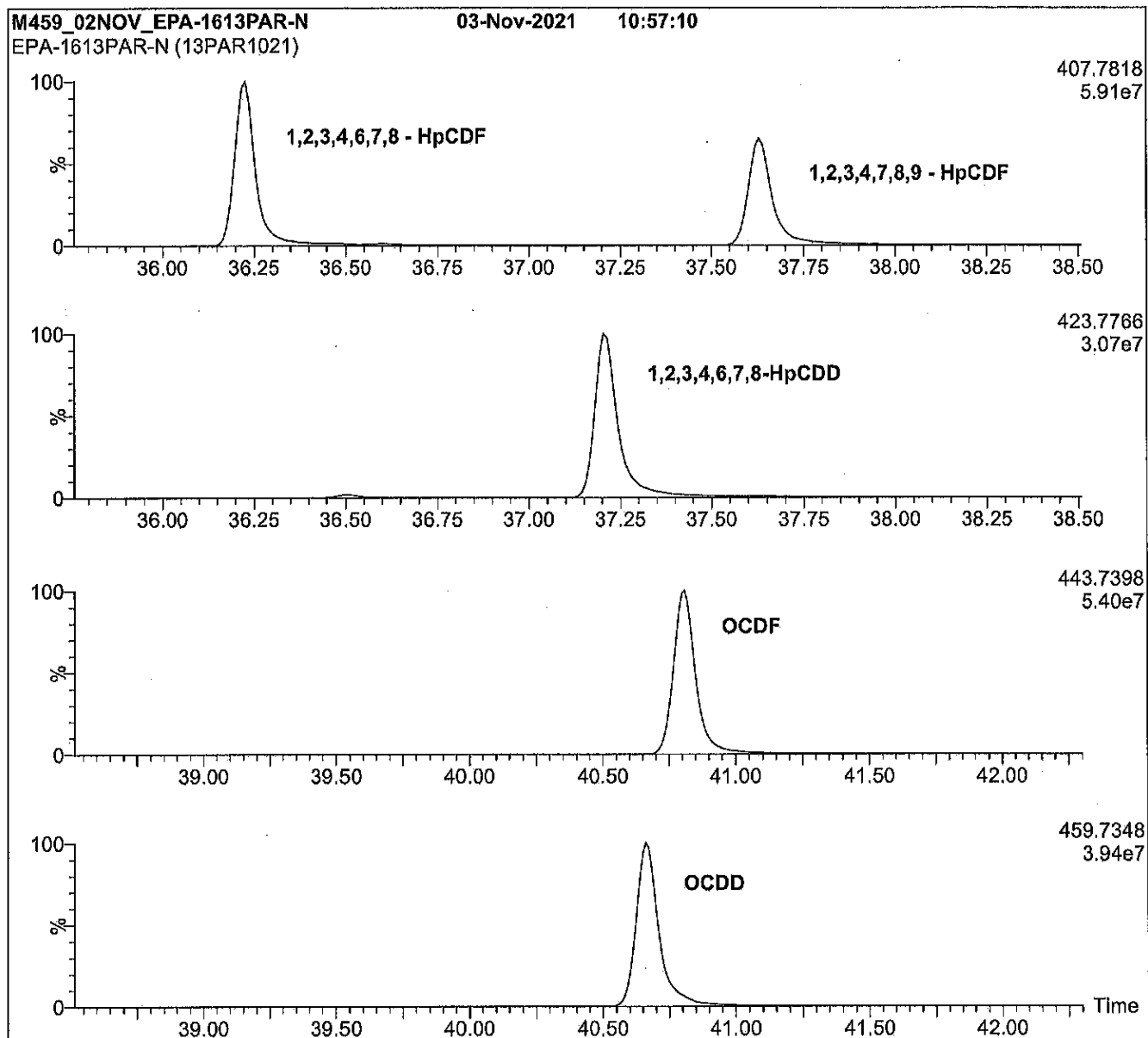


Figure 1: EPA-1613PAR; HRGC/HRMS Data (60 m DB-5 Column)



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column:	60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W	
Flow:	Constant at 1.4 mL/min	Oven: 150°C (1 min)
Injector:	280°C (Splitless Injection)	12°C/min to 200°C
Ionization:	EI+	3°C/min to 235°C
Detector:	280°C	235°C (8 min)
	SIR at 10,000 mass resolving power	8°C/min to 310°C
		310°C (8 min)



EPA-1613CSS

**U.S. EPA Method 1613 Cleanup Standard
Spiking Solution**

PRODUCT CODE: EPA-1613CSS
LOT NUMBER: 13CSS1021
SOLVENT(S): Nonane
DATE PREPARED: (mm/dd/yyyy) 10/29/2021
LAST TESTED: (mm/dd/yyyy) 10/31/2021
EXPIRY DATE: (mm/dd/yyyy) 10/31/2028
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

K003104

EPA-1613CSS contains 2,3,7,8-(³⁷Cl₄)tetrachlorodibenzo-*p*-dioxin at the concentration given in Table A.

EPA-1613CSS was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

2,3,7,8-(³⁷Cl₄)Tetrachlorodibenzo-*p*-dioxin has a chemical purity of >98% and an isotopic (³⁷Cl) purity of ≥95%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

Table A: EPA-1613CSS; Components and Concentrations (ng/mL, ± 5% in nonane)

Compound	Acronym	CAS #	Concentration (ng/mL)
2,3,7,8-(³⁷ Cl ₄)Tetrachlorodibenzo- <i>p</i> -dioxin	³⁷ Cl ₄ -2,3,7,8-TCDD	85508-50-5	40.0

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 11/05/2021
(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

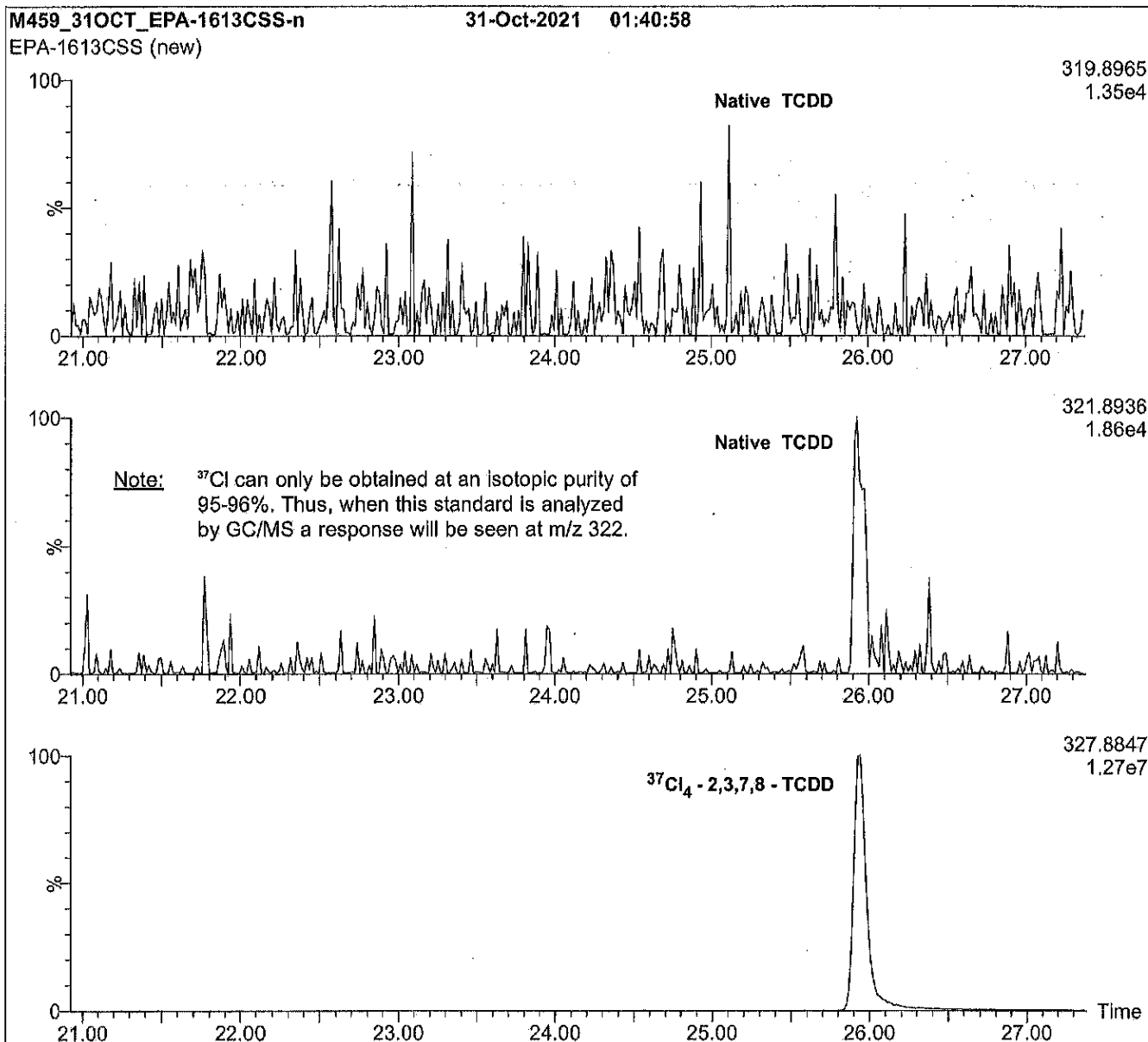
QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: EPA-1613CSS; HRGC/HRMS Data (60 m DB-5 Column)



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 μm film thickness) Agilent J&W

Flow:	Constant at 1.4 mL/min	Oven:	150°C (1 min)
Injector:	280°C (Splitless Injection)		12°C/min to 200°C
Ionization:	EI+		3°C/min to 235°C
Detector:	280°C		235°C (8 min)
	SIR at 10,000 mass resolving power		8°C/min to 310°C
			310°C (8 min)



EPA-1613LCS

U.S. EPA Method 1613
Labelled Compound Stock Solution

PRODUCT CODE: EPA-1613LCS
LOT NUMBER: 13LCS1021
SOLVENT(S): Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy) 10/29/2021
LAST TESTED: (mm/dd/yyyy) 10/31/2021
EXPIRY DATE: (mm/dd/yyyy) 10/31/2028
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

K3105

EPA-1613LCS is a solution/mixture of mass-labelled ($^{13}\text{C}_{12}$) polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613LCS was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual ^{13}C -labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of $\geq 99\%$.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters

x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:


This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: EPA-1613LCS; Components and Concentrations (ng/mL, ± 5% in nonane/3.2% toluene)

Compound	Acronym	CAS #	Concentration (ng/mL)
Mass-Labelled PCDDs:			
2,3,7,8-Tetrachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -2,3,7,8-TCDD	76523-40-5	100
1,2,3,7,8-Pentachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,7,8-PeCDD	109719-79-1	100
1,2,3,4,7,8-Hexachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	109719-80-4	100
1,2,3,6,7,8-Hexachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	109719-81-5	100
1,2,3,4,6,7,8-Heptachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	109719-83-7	100
Octachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -OCDD	114423-97-1	200
Mass-Labelled PCDFs:			
2,3,7,8-Tetrachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -2,3,7,8-TCDF	89059-46-1	100
1,2,3,7,8-Pentachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,7,8-PeCDF	109719-77-9	100
2,3,4,7,8-Pentachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -2,3,4,7,8-PeCDF	116843-02-8	100
1,2,3,4,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	114423-98-2	100
1,2,3,6,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	116843-03-9	100
1,2,3,7,8,9-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	116843-04-0	100
2,3,4,6,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	116843-05-1	100
1,2,3,4,6,7,8-Heptachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	109719-84-8	100
1,2,3,4,7,8,9-Heptachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	109719-94-0	100

Certified By: 
 B.G. Chittim, General Manager

Date: 11/05/2021
(mm/dd/yyyy)

Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

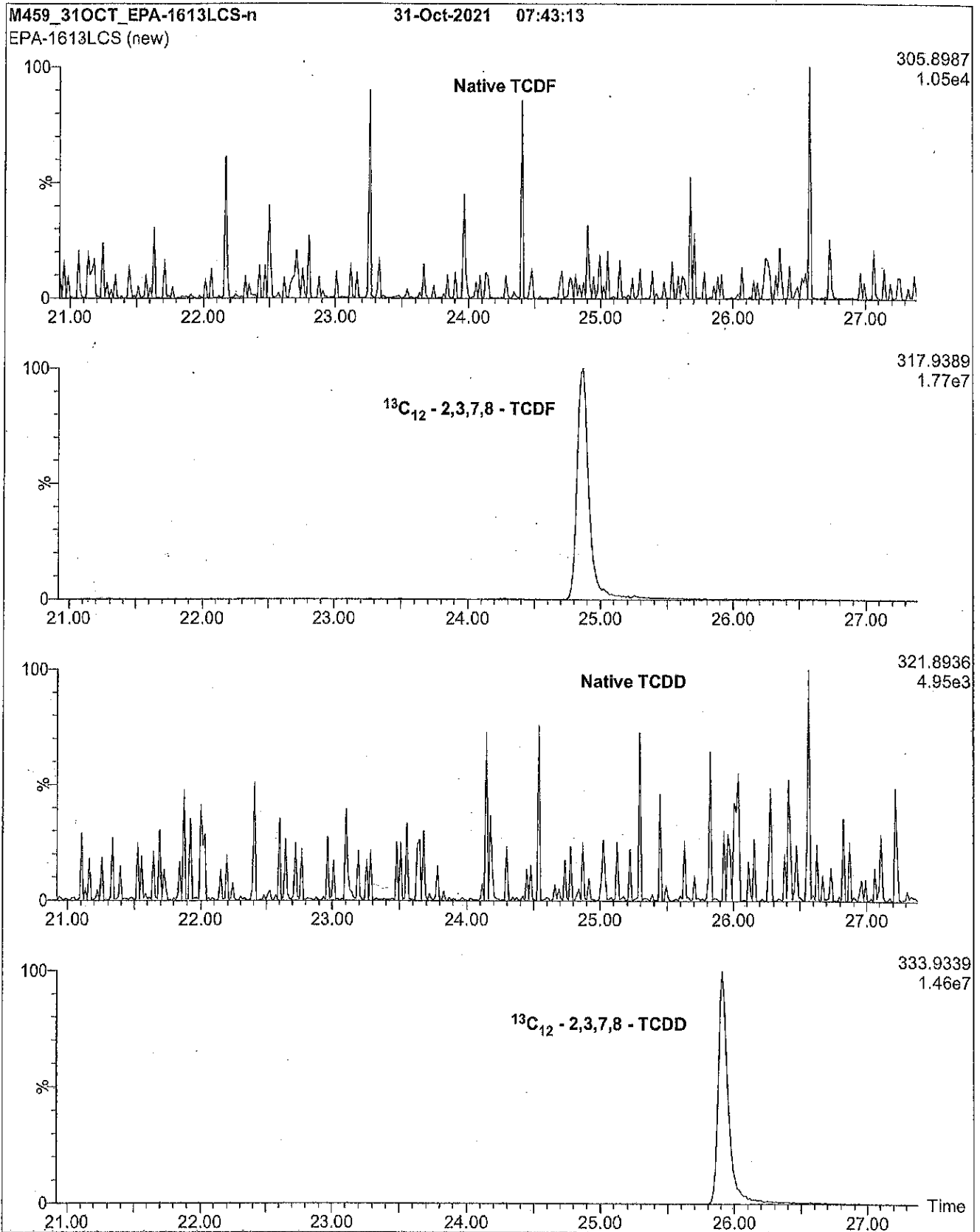


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

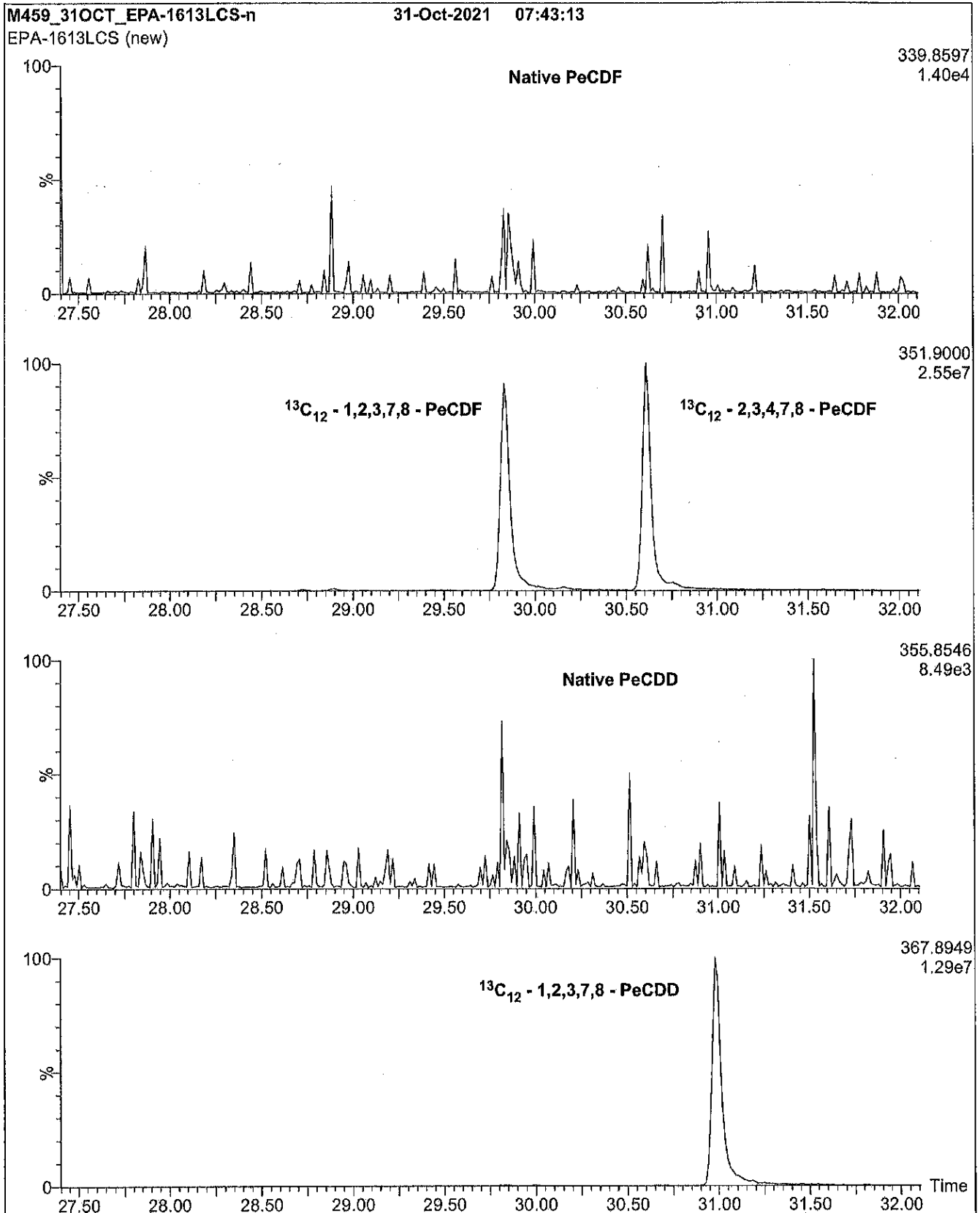


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

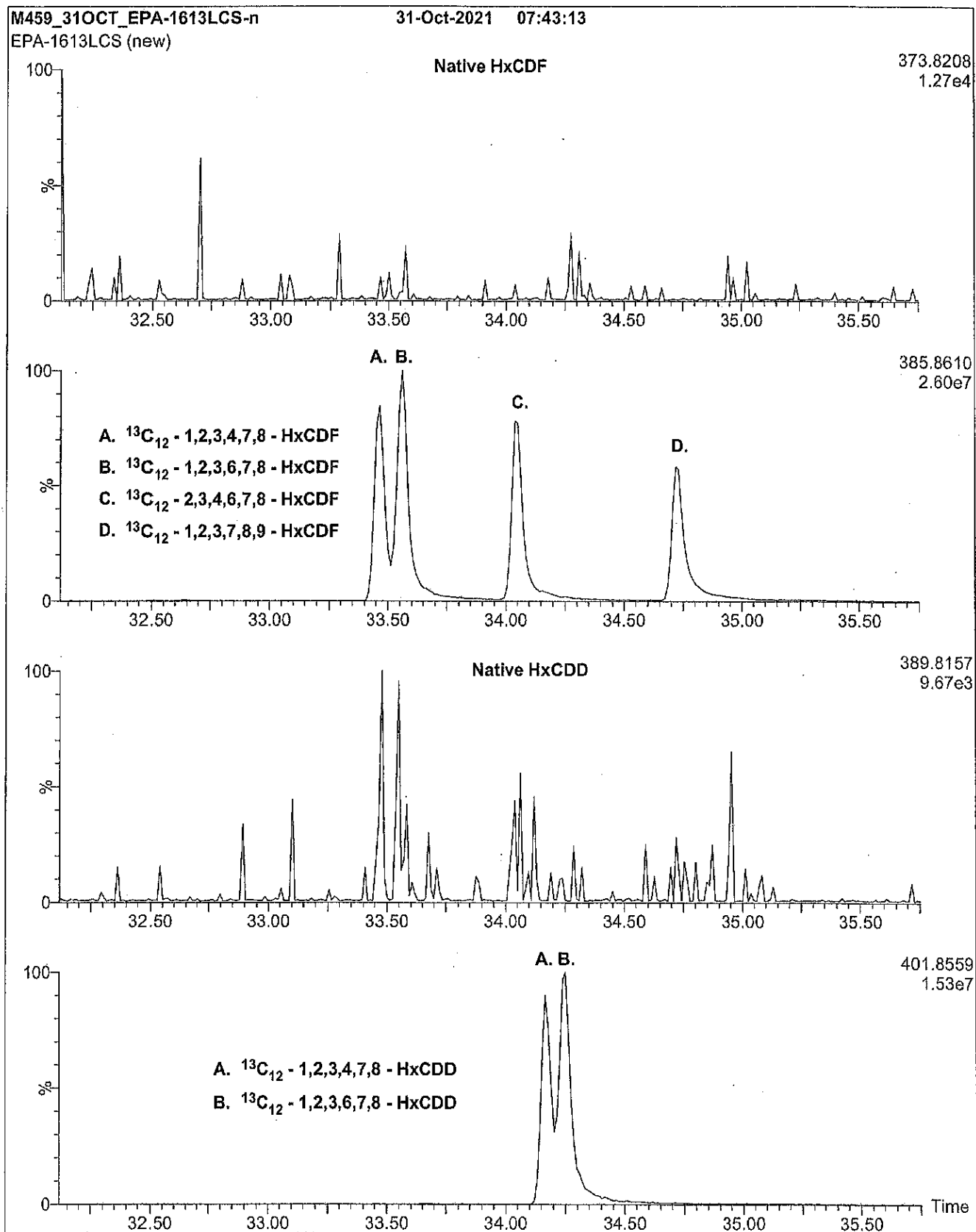


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

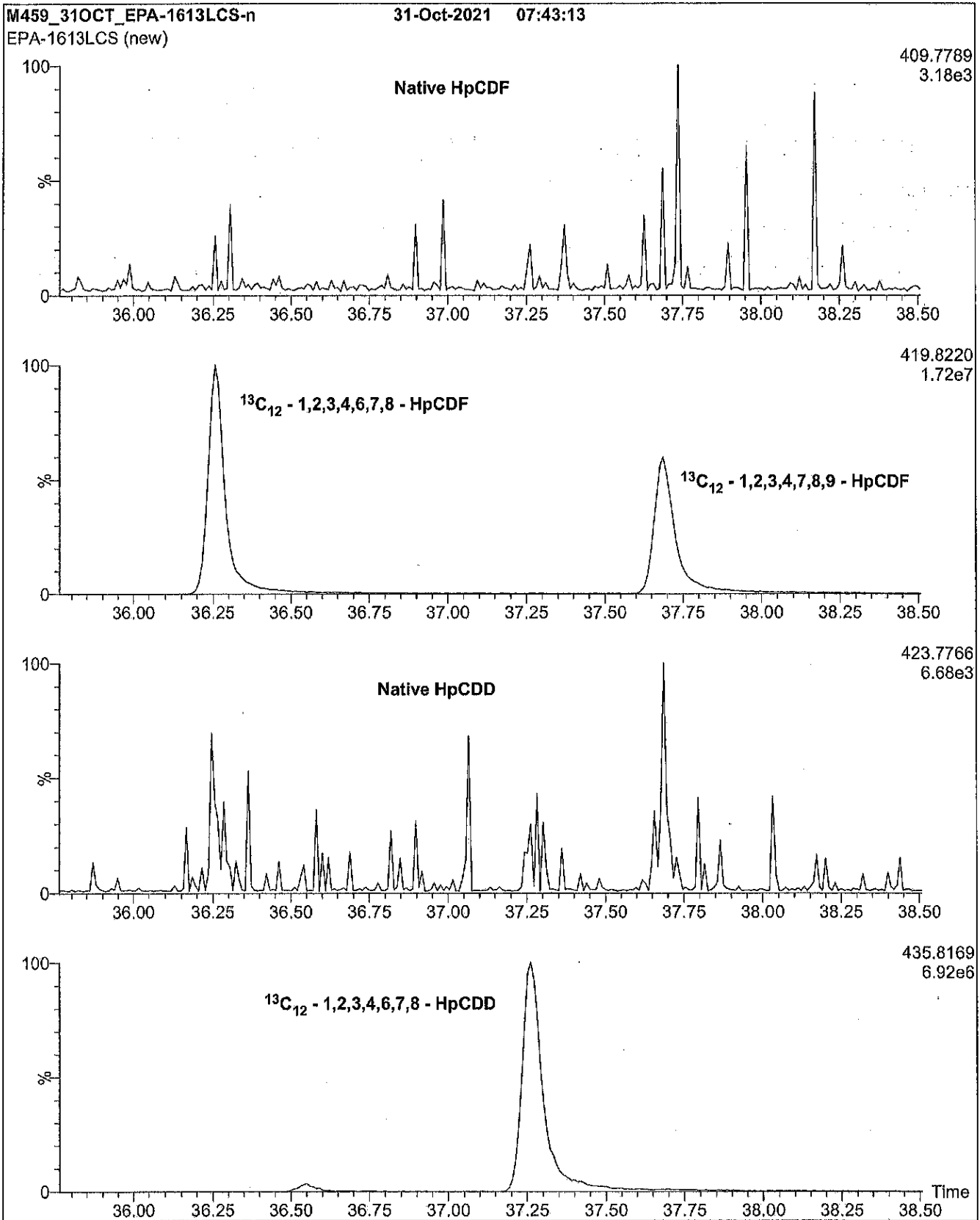
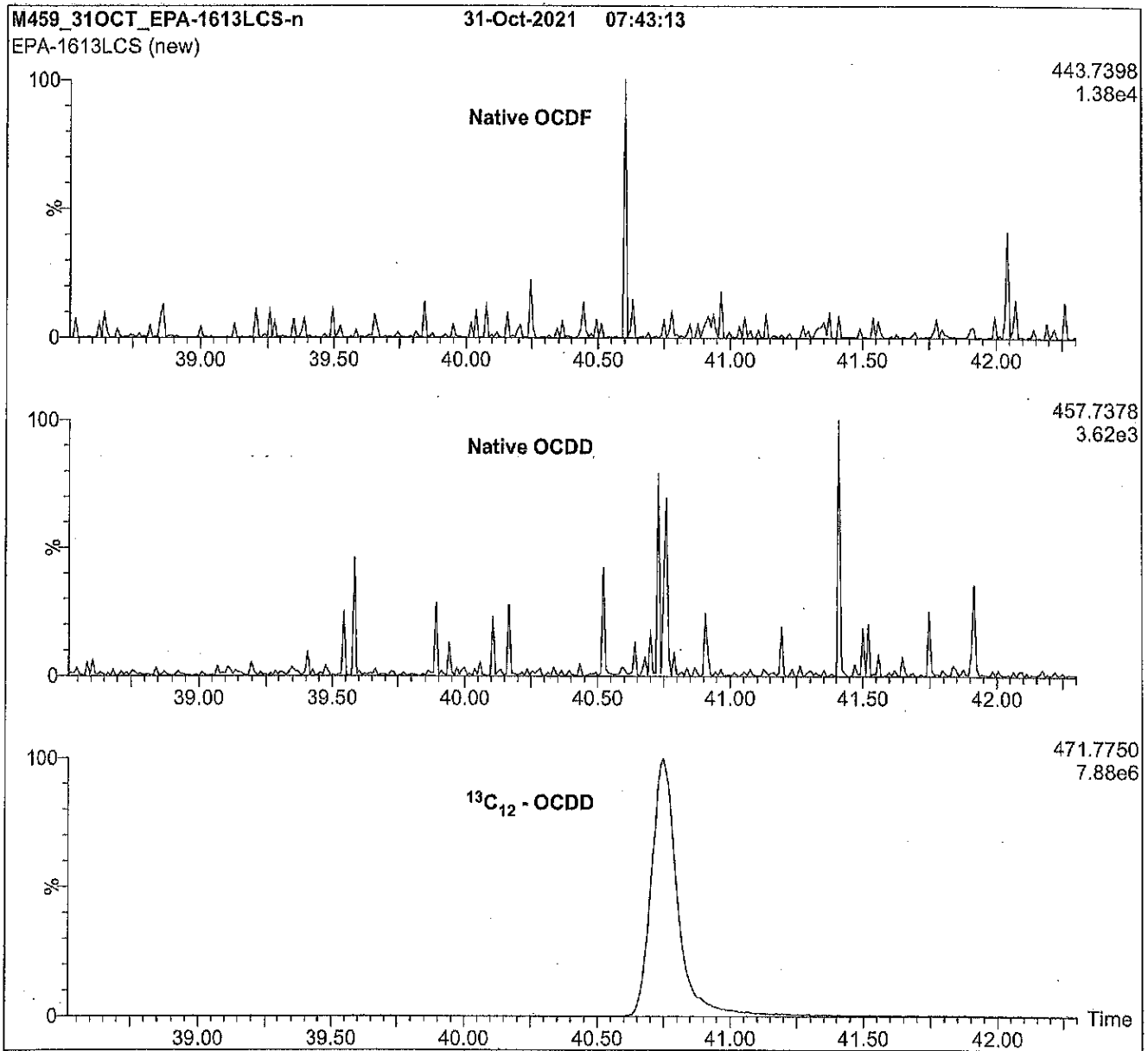


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 μm film thickness) Agilent J&W

Flow: Constant at 1.4 mL/min

Oven: 150°C (1 min)

Injector: 280°C (Splitless Injection)

12°C/min to 200°C

Ionization: EI+

3°C/min to 235°C

Detector: 280°C

235°C (8 min)

SIR at 10,000 mass resolving power

8°C/min to 310°C

310°C (8 min)



K9821

CS3WT

**Calibration and Verification Solution (EPA-1613CS3)
combined with Window Defining and 2,3,7,8-TCDD
Resolution Testing Congeners**

PRODUCT CODE: CS3WT
LOT NUMBER: CS3WT1021
SOLVENT(S): Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy) 11/01/2021
LAST TESTED: (mm/dd/yyyy) 11/02/2021
EXPIRY DATE: (mm/dd/yyyy) 11/02/2028
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

CS3WT is a solution/mixture of native (¹²C₁₂) and mass-labelled (¹³C₁₂) polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Tables A and B.

CS3WT is an HRGC/HRMS calibration solution that was designed and prepared to be used according to U.S. EPA Method 1613, Revision B, in place of EPA-1613CS3 (lot: 13CS31021). Additionally, it contains the PCDD and PCDF isomers required to set retention time windows as well as test and establish isomer specificity for 2,3,7,8-TCDD on a DB-5 (or equivalent) capillary column.

The individual ¹³C-labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of ≥99%. The 2,3,7,8-(³⁷Cl)₄tetrachlorodibenzo-*p*-dioxin has a chemical purity of >98% and an isotopic (³⁷Cl) purity of ≥95%. The individual native 2,3,7,8-substituted PCDD and PCDF congeners all have chemical purities of >98%; the other congeners (window defining and resolution testing) should only be considered semi-quantitative.

This current lot of CS3WT is to be used with the 1613 calibration solutions having the following lot numbers:

<u>PRODUCT CODE</u>	<u>LOT NUMBER</u>
EPA-1613CS1	13CS11021
EPA-1613CS2	13CS21021
EPA-1613CS3	13CS31021
EPA-1613CS4	13CS41021
EPA-1613CS5	13CS51021
EPA-1613CSL	13CSL1021
EPA-1613CS0.5	13CS0.51021

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) has been assigned to the quantitative components in this product. A maximum combined percent relative uncertainty of $\pm 20\%$ has been assigned to the semi-quantitative components in this product.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: CS3WT; Quantitative Components and Concentrations (ng/mL, ± 5%, in nonane/4.5% toluene)

Compound	Designation ^a	Acronym	CAS #	Concentration (ng/mL)
Native PCDDs:				
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin		2,3,7,8-TCDD	1746-01-6	10.0
1,2,3,7,8-Pentachlorodibenzo- <i>p</i> -dioxin		1,2,3,7,8-PeCDD	40321-76-4	50.0
1,2,3,4,7,8-Hexachlorodibenzo- <i>p</i> -dioxin		1,2,3,4,7,8-HxCDD	39227-28-6	50.0
1,2,3,6,7,8-Hexachlorodibenzo- <i>p</i> -dioxin		1,2,3,6,7,8-HxCDD	57653-85-7	50.0
1,2,3,7,8,9-Hexachlorodibenzo- <i>p</i> -dioxin	Last HxCDD ^b	1,2,3,7,8,9-HxCDD	19408-74-3	50.0
1,2,3,4,6,7,8-Heptachlorodibenzo- <i>p</i> -dioxin	Last HpCDD	1,2,3,4,6,7,8-HpCDD	35822-46-9	50.0
Octachlorodibenzo- <i>p</i> -dioxin		OCDD	3268-87-9	100
Native PCDFs:				
2,3,7,8-Tetrachlorodibenzofuran		2,3,7,8-TCDF	51207-31-9	10.0
1,2,3,7,8-Pentachlorodibenzofuran		1,2,3,7,8-PeCDF	57117-41-6	50.0
2,3,4,7,8-Pentachlorodibenzofuran		2,3,4,7,8-PeCDF	57117-31-4	50.0
1,2,3,4,7,8-Hexachlorodibenzofuran		1,2,3,4,7,8-HxCDF	70648-26-9	50.0
1,2,3,6,7,8-Hexachlorodibenzofuran		1,2,3,6,7,8-HxCDF	57117-44-9	50.0
1,2,3,7,8,9-Hexachlorodibenzofuran		1,2,3,7,8,9-HxCDF	72918-21-9	50.0
2,3,4,6,7,8-Hexachlorodibenzofuran		2,3,4,6,7,8-HxCDF	60851-34-5	50.0
1,2,3,4,6,7,8-Heptachlorodibenzofuran	First HpCDF ^c	1,2,3,4,6,7,8-HpCDF	67562-39-4	50.0
1,2,3,4,7,8,9-Heptachlorodibenzofuran	Last HpCDF	1,2,3,4,7,8,9-HpCDF	55673-89-7	50.0
Octachlorodibenzofuran		OCDF	39001-02-0	100
Mass-Labelled PCDDs:				
2,3,7,8-Tetrachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -2,3,7,8-TCDD	76523-40-5	100
1,2,3,7,8-Pentachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -1,2,3,7,8-PeCDD	109719-79-1	100
1,2,3,4,7,8-Hexachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	109719-80-4	100
1,2,3,6,7,8-Hexachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	109719-81-5	100
1,2,3,4,6,7,8-Heptachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	109719-83-7	100
Octachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -OCDD	114423-97-1	200
Mass-Labelled PCDFs:				
2,3,7,8-Tetrachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -2,3,7,8-TCDF	89059-46-1	100
1,2,3,7,8-Pentachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -1,2,3,7,8-PeCDF	109719-77-9	100
2,3,4,7,8-Pentachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -2,3,4,7,8-PeCDF	116843-02-8	100
1,2,3,4,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	114423-98-2	100
1,2,3,6,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	116843-03-9	100
1,2,3,7,8,9-Hexachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	116843-04-0	100
2,3,4,6,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	116843-05-1	100
1,2,3,4,6,7,8-Heptachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	109719-84-8	100
1,2,3,4,7,8,9-Heptachloro(¹³ C ₁₂)dibenzofuran		¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	109719-94-0	100
Cleanup Standard:				
2,3,7,8-(³⁷ Cl ₄)Tetrachlorodibenzo- <i>p</i> -dioxin		³⁷ Cl ₄ -2,3,7,8-TCDD	85508-50-5	10.0
Internal Standards:				
1,2,3,4-Tetrachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -1,2,3,4-TCDD	114423-99-3	100
1,2,3,7,8,9-Hexachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin		¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	109719-82-6	100

^a First/Last eluting isomer for the specified homologue group (see Table B for additional Window Definers).

^{b,c} – see Table B for footnote.

Table B: CS3WT; Semi-Quantitative Components and Concentrations (ng/mL, ± 20%, in nonane/4.5% toluene)

Compound	Designation ^a	Acronym	CAS #	Concentration (ng/mL)
PCDD Window Definers:				
1,3,6,8-Tetrachlorodibenzo- <i>p</i> -dioxin	First TCDD	1,3,6,8-TCDD	33423-92-6	10.0
1,2,8,9-Tetrachlorodibenzo- <i>p</i> -dioxin	Last TCDD	1,2,8,9-TCDD	62470-54-6	10.0
1,2,4,6,8-/1,2,4,7,9-Pentachlorodibenzo- <i>p</i> -dioxin	First PeCDD	1,2,4,6,8-PeCDD 1,2,4,7,9-PeCDD	71998-76-0 82291-37-0	50.0 ^d
1,2,3,8,9-Pentachlorodibenzo- <i>p</i> -dioxin	Last PeCDD	1,2,3,8,9-PeCDD	71925-18-3	50.0
1,2,4,6,7,9-Hexachlorodibenzo- <i>p</i> -dioxin	First HxCDD	1,2,4,6,7,9-HxCDD	39227-62-8	50.0
1,2,3,4,6,7,9-Heptachlorodibenzo- <i>p</i> -dioxin	First HpCDD	1,2,3,4,6,7,9-HpCDD	58200-70-7	50.0
PCDF Window Definers:				
1,3,6,8-Tetrachlorodibenzofuran	First TCDF	1,3,6,8-TCDF	71998-72-6	10.0
1,2,8,9-Tetrachlorodibenzofuran	Last TCDF	1,2,8,9-TCDF	70648-22-5	10.0
1,3,4,6,8-Pentachlorodibenzofuran	First PeCDF	1,3,4,6,8-PeCDF	83704-55-6	50.0
1,2,3,8,9-Pentachlorodibenzofuran	Last PeCDF	1,2,3,8,9-PeCDF	83704-54-5	50.0
1,2,3,4,6,8-Hexachlorodibenzofuran	First HxCDF	1,2,3,4,6,8-HxCDF	69698-60-8	50.0
2,3,7,8-TCDD Resolution Testing Isomers:				
1,2,3,4-Tetrachlorodibenzo- <i>p</i> -dioxin		1,2,3,4-TCDD	30746-58-8	5.00
1,2,3,7-/1,2,3,8-Tetrachlorodibenzo- <i>p</i> -dioxin		1,2,3,7-TCDD 1,2,3,8-TCDD	67028-18-6 53555-02-5	5.00 ^d
1,2,3,9-Tetrachlorodibenzo- <i>p</i> -dioxin		1,2,3,9-TCDD	71669-26-6	10.0

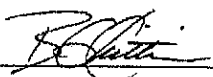
^a First/Last eluting isomer for the specified homologue group (see Table A for additional Window Definers).

^b 1,2,3,4,6,7-HxCDD (last eluting HxCDD) not included; coelutes with 1,2,3,7,8,9-HxCDD on a 60 m DB-5 column. Use 1,2,3,7,8,9-HxCDD (see Table A) and 1,2,3,4,6,7,9-HpCDD to approximate the end of the HxCDD window.

^c 1,2,3,4,8,9-HxCDF (last eluting HxCDF) not included; can interfere with 1,2,3,7,8,9-HxCDF on a 60 m DB-5 column. Use 1,2,3,4,6,7,8-HpCDF (see Table A) to approximate the end of the HxCDF window.

^d Total concentration of isomers.

Certified By: _____



B.G. Chittim, General Manager

Date: 11/05/2021

(mm/dd/yyyy)

Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

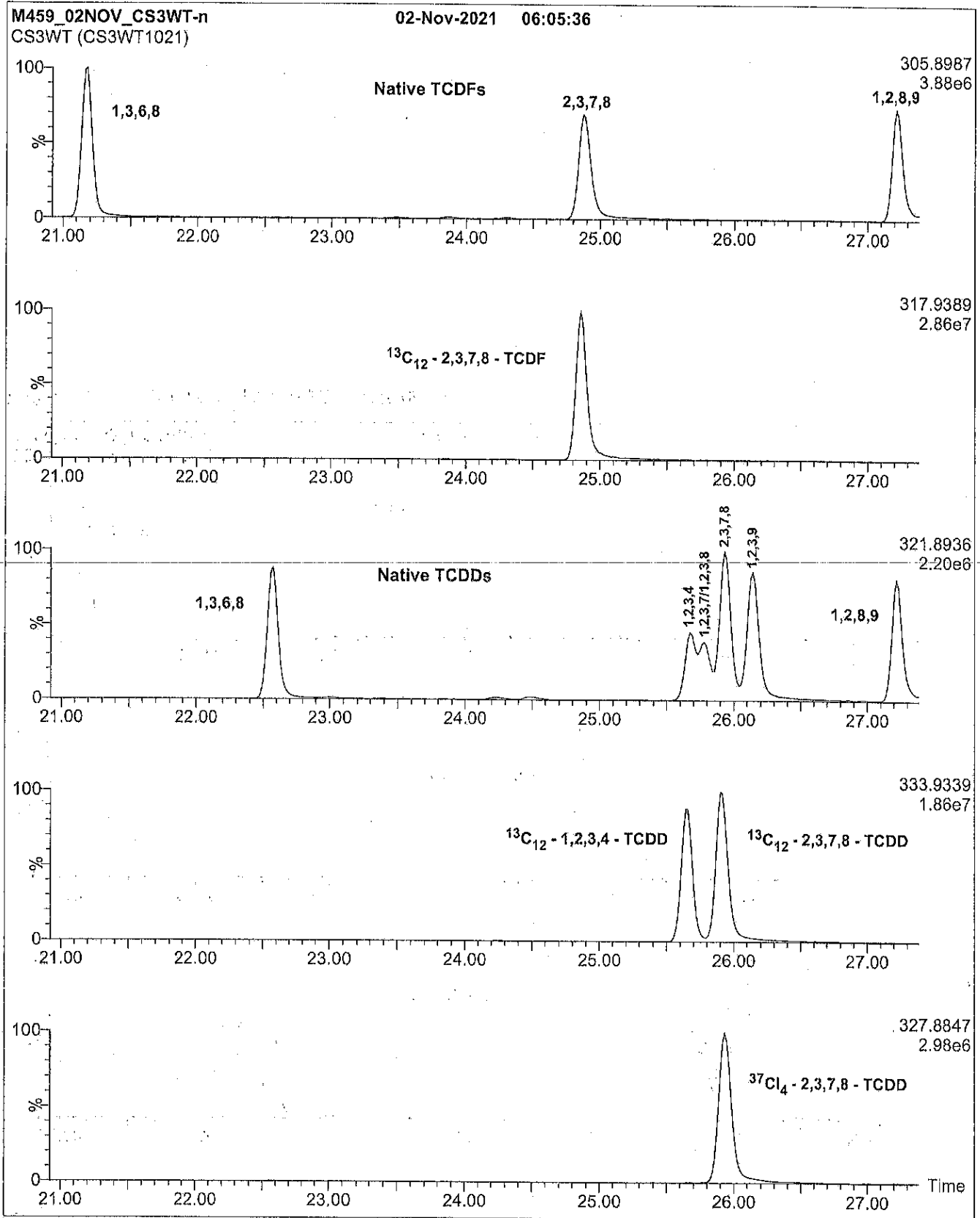


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

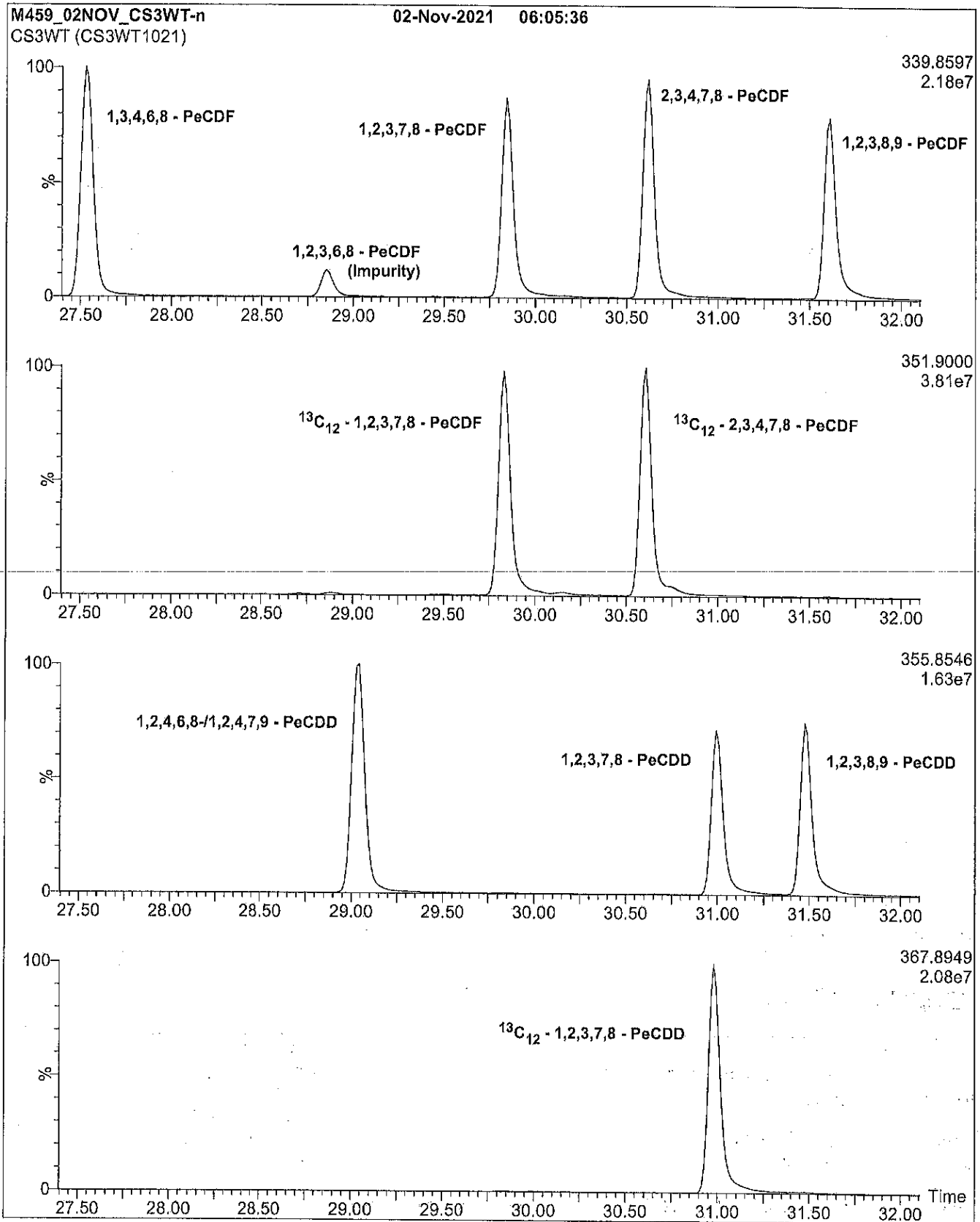


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

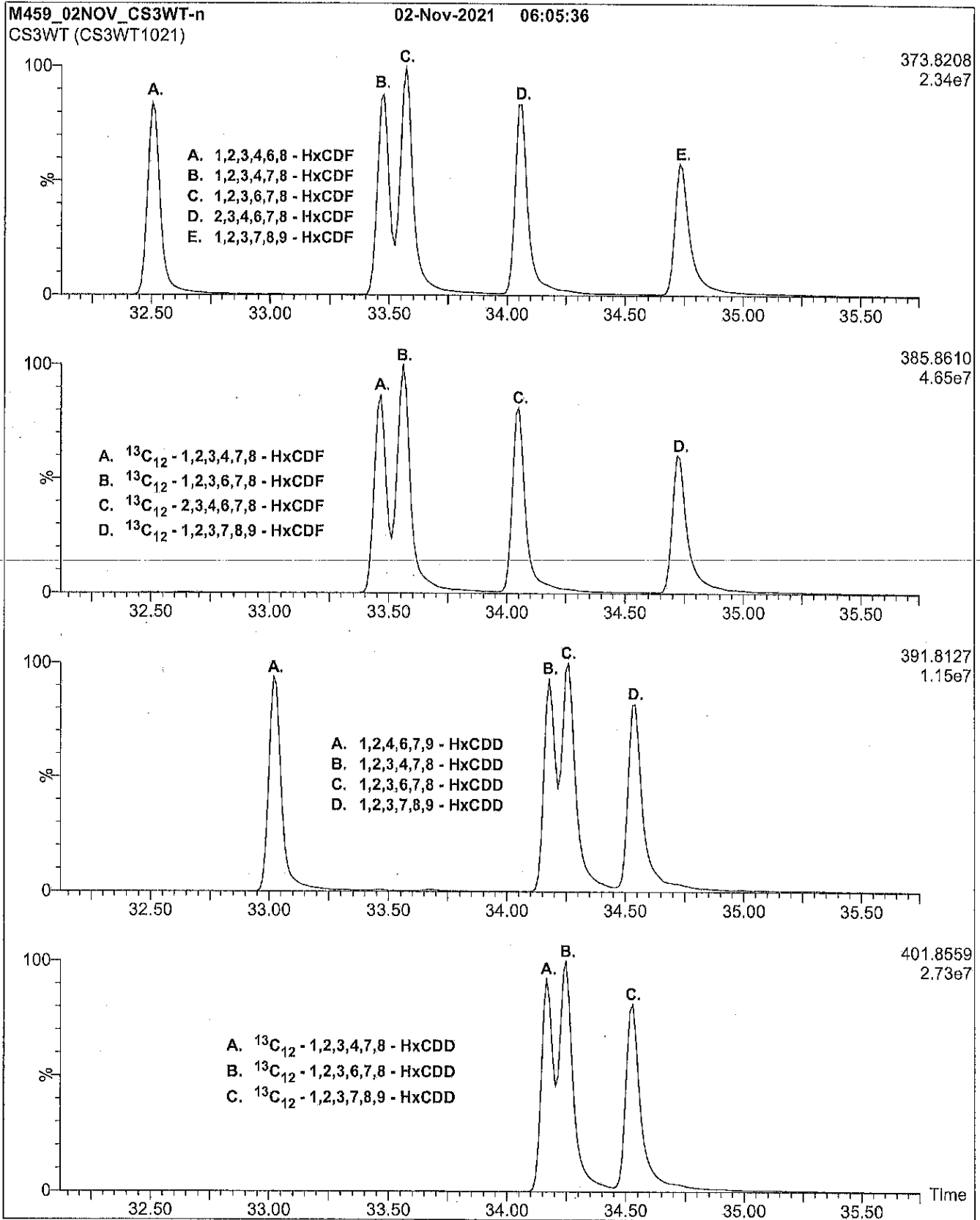


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)

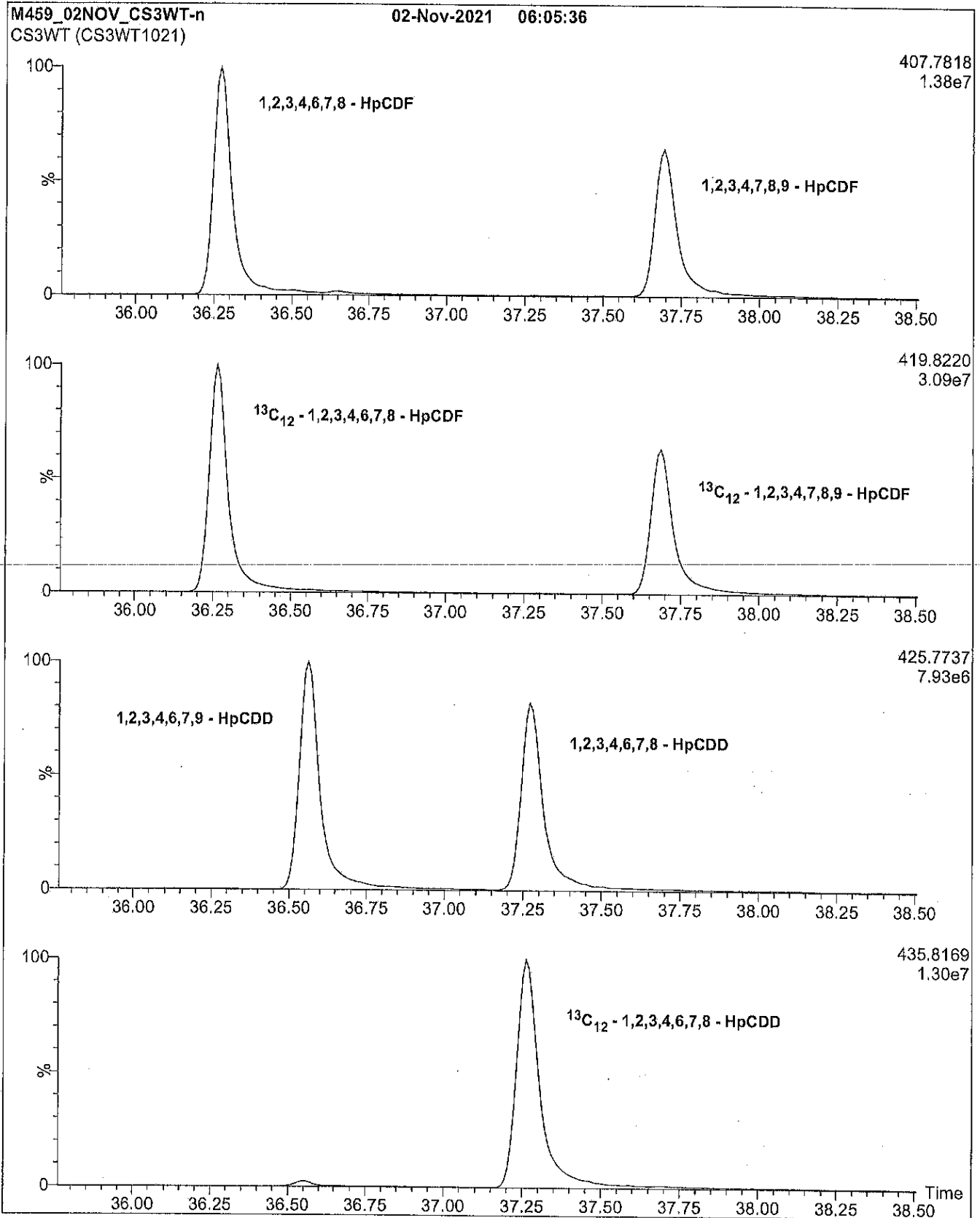
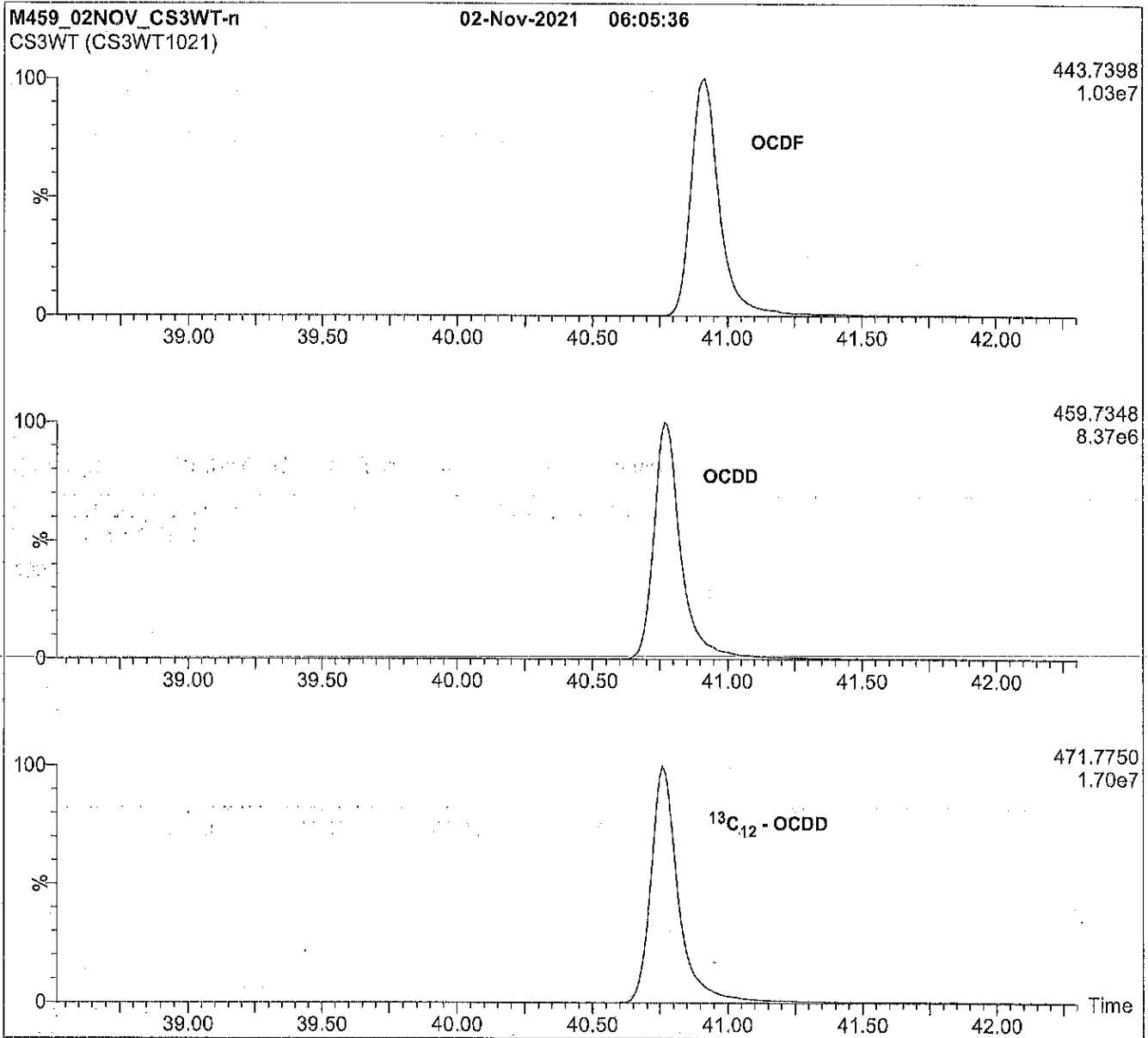


Figure 1: CS3WT; HRGC/HRMS Data (60 m DB-5 Column)



Conditions for Figure 1:

Agilent 6890N HRGC
Autospec Ultima HRMS

Chromatographic Conditions:

Column: 60 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W

Flow: Constant at 1.4 mL/min

Injector: 280°C (Splitless Injection)

Ionization: EI+

Detector: 280°C

SIR at 10,000 mass resolving power

Oven: 150°C (1 min)

12°C/min to 200°C

3°C/min to 235°C

235°C (8 min)

8°C/min to 310°C

310°C (8 min)



EPA-1613LCS

**U.S. EPA Method 1613
Labelled Compound Stock Solution**

PRODUCT CODE: EPA-1613LCS
LOT NUMBER: 13LCS1021
SOLVENT(S): Nonane/Toluene
DATE PREPARED: (mm/dd/yyyy) 10/29/2021
LAST TESTED: (mm/dd/yyyy) 10/31/2021
EXPIRY DATE: (mm/dd/yyyy) 10/31/2028
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

K 9985
JK Reed
10/27/22

DESCRIPTION:

EPA-1613LCS is a solution/mixture of mass-labelled ($^{13}\text{C}_{12}$) polychlorinated dibenzo-*p*-dioxins (PCDDs) and dibenzofurans (PCDFs). The components and their concentrations are given in Table A.

EPA-1613LCS was designed and prepared to be used according to U.S. EPA Method 1613, Revision B.

The individual ^{13}C -labelled PCDDs and PCDFs all have chemical purities of >98% and isotopic purities of $\geq 99\%$.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations
Figure 1: HRGC/HRMS Data (SIR; 10,000 mass resolving power)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters

x_1, x_2, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of $\pm 5\%$ (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).

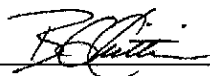


For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: EPA-1613LCS; Components and Concentrations (ng/mL, ± 5% in nonane/3.2% toluene)

Compound	Acronym	CAS #	Concentration (ng/mL)
Mass-Labelled PCDDs:			
2,3,7,8-Tetrachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -2,3,7,8-TCDD	76523-40-5	100
1,2,3,7,8-Pentachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,7,8-PeCDD	109719-79-1	100
1,2,3,4,7,8-Hexachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,4,7,8-HxCDD	109719-80-4	100
1,2,3,6,7,8-Hexachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	109719-81-5	100
1,2,3,4,6,7,8-Heptachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDD	109719-83-7	100
Octachloro(¹³ C ₁₂)dibenzo- <i>p</i> -dioxin	¹³ C ₁₂ -OCDD	114423-97-1	200
Mass-Labelled PCDFs:			
2,3,7,8-Tetrachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -2,3,7,8-TCDF	89059-46-1	100
1,2,3,7,8-Pentachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,7,8-PeCDF	109719-77-9	100
2,3,4,7,8-Pentachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -2,3,4,7,8-PeCDF	116843-02-8	100
1,2,3,4,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,4,7,8-HxCDF	114423-98-2	100
1,2,3,6,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,6,7,8-HxCDF	116843-03-9	100
1,2,3,7,8,9-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,7,8,9-HxCDF	116843-04-0	100
2,3,4,6,7,8-Hexachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -2,3,4,6,7,8-HxCDF	116843-05-1	100
1,2,3,4,6,7,8-Heptachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	109719-84-8	100
1,2,3,4,7,8,9-Heptachloro(¹³ C ₁₂)dibenzofuran	¹³ C ₁₂ -1,2,3,4,7,8,9-HpCDF	109719-94-0	100

Certified By:



B.G. Chittim, General Manager

Date: 11/05/2021

(mm/dd/yyyy)

Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

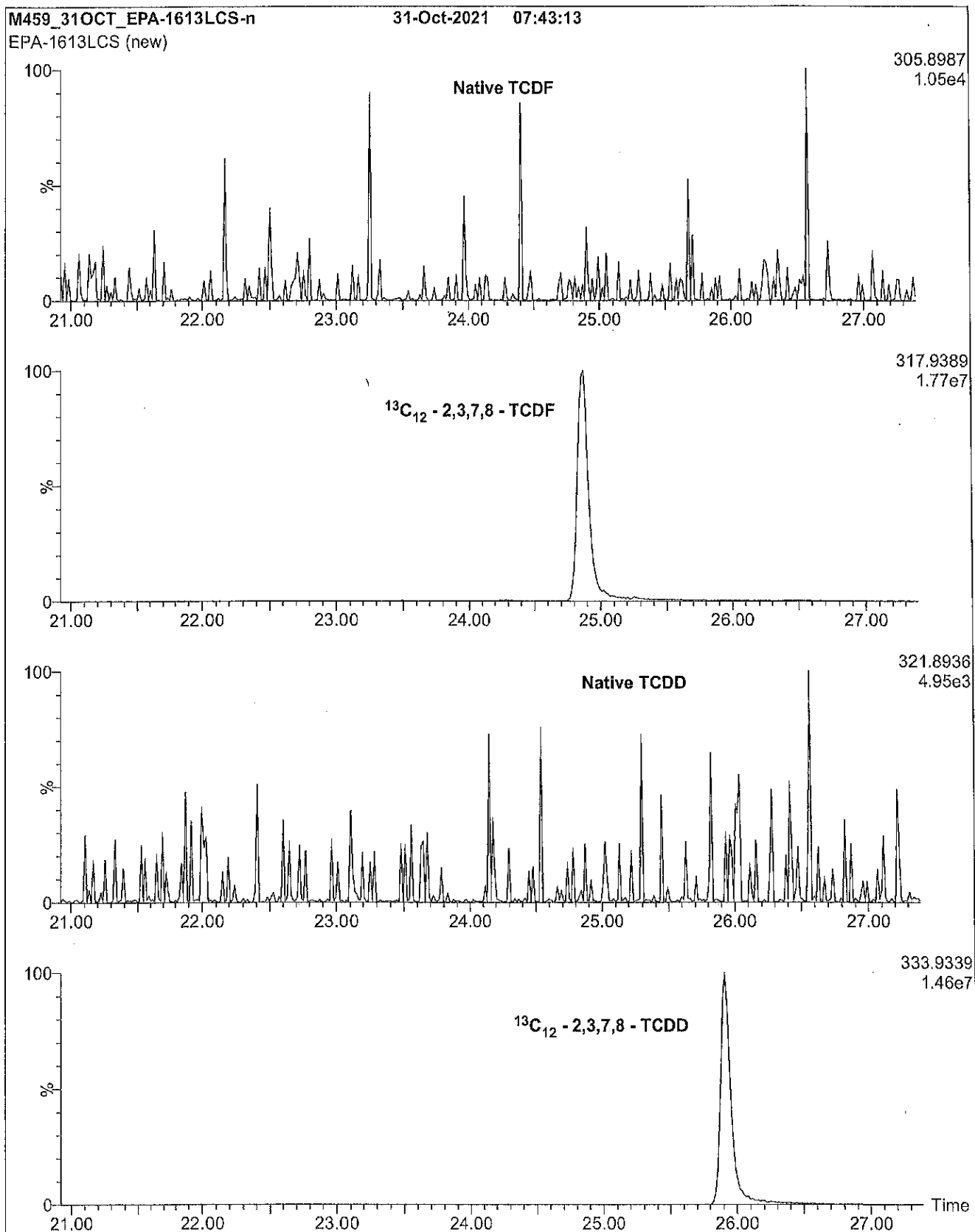


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

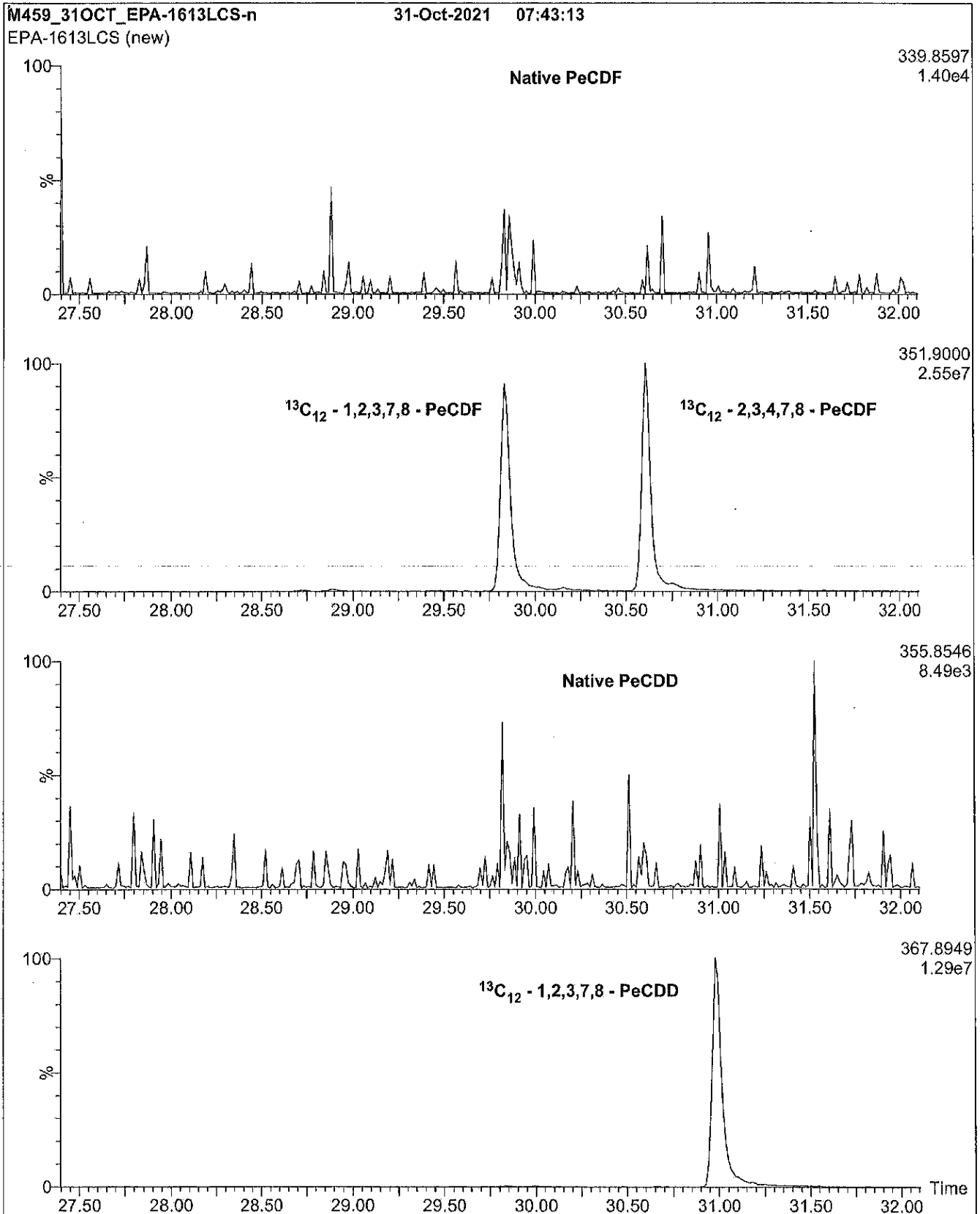


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

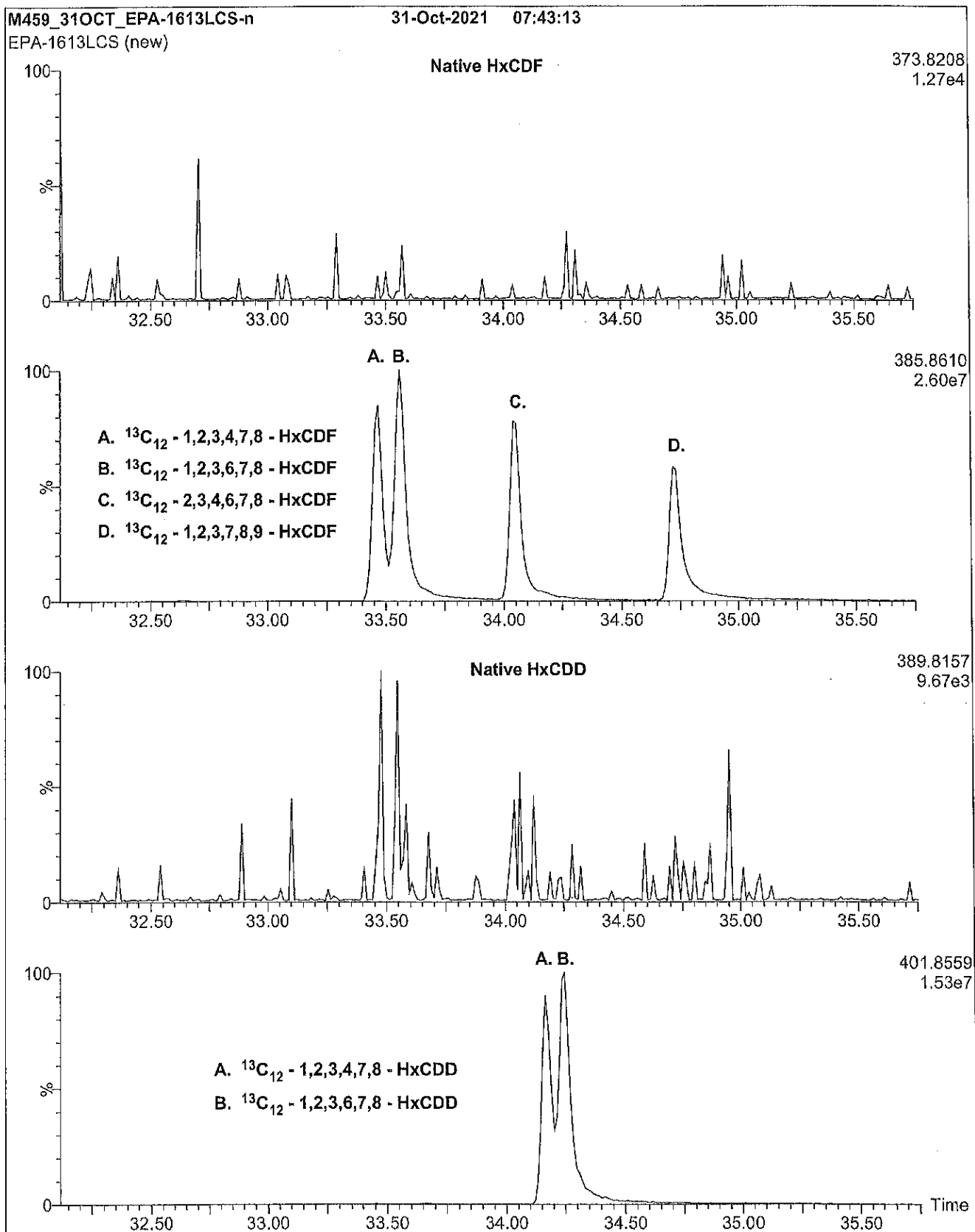


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)

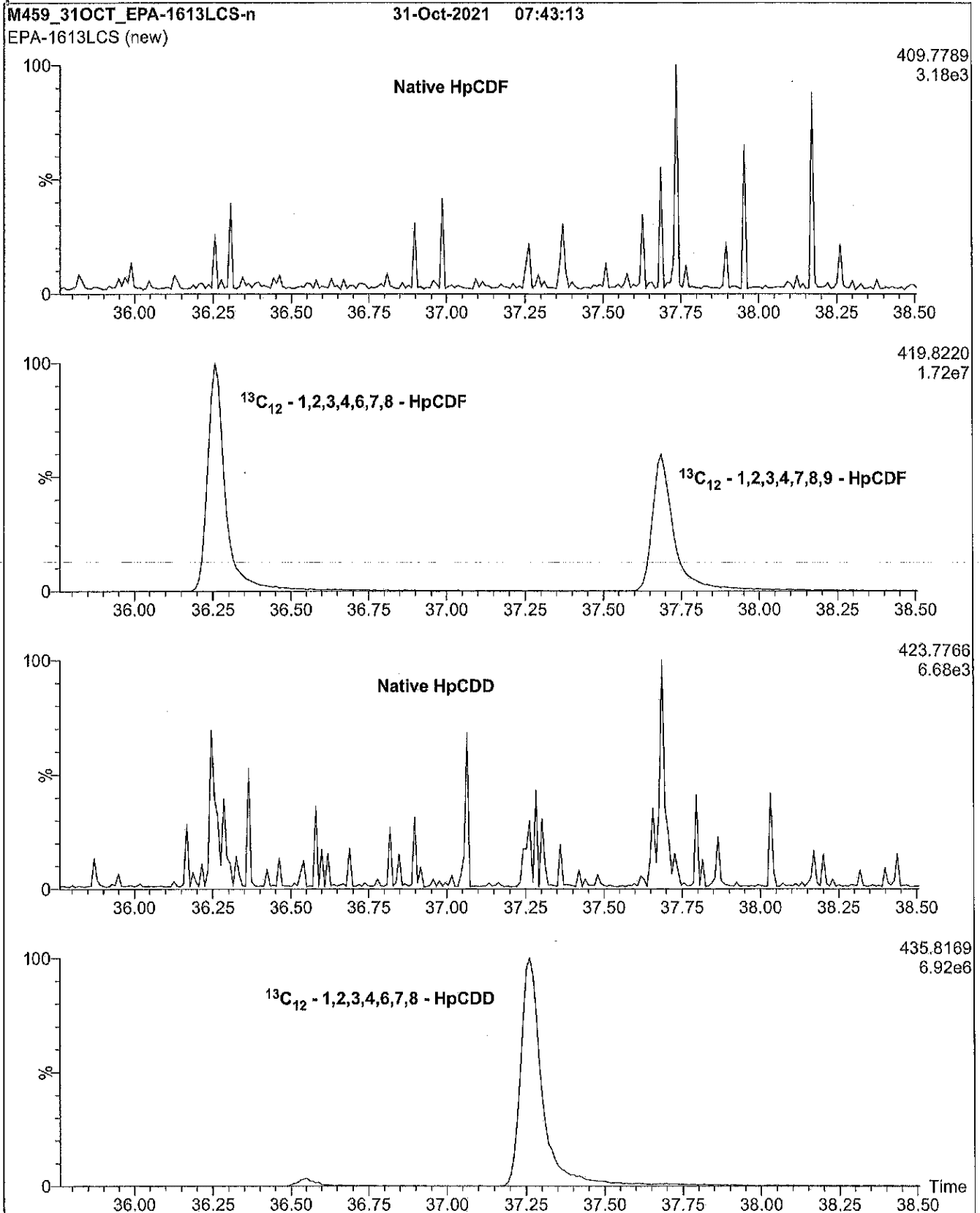
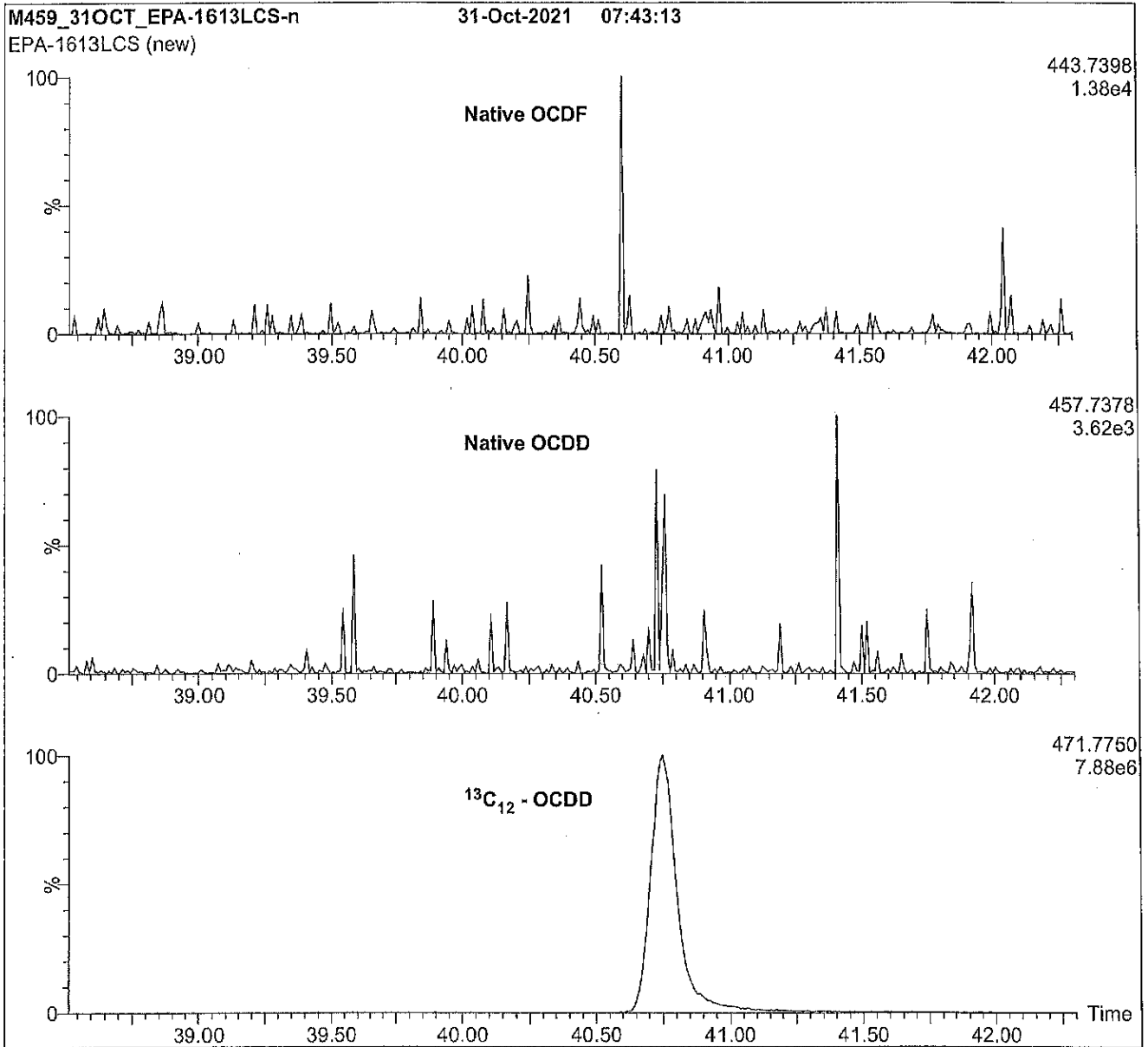


Figure 1: EPA-1613LCS; HRGC/HRMS Data (60 m DB-5 Column)



Conditions for Figure 1:

Agilent 6890N HRGC
 Autospec Ultima HRMS

Chromatographic Conditions:

Column:	60 m DB-5 (0.25 mm id, 0.25 μm film thickness) Agilent J&W	
Flow:	Constant at 1.4 mL/min	Oven: 150°C (1 min)
Injector:	280°C (Splitless Injection)	12°C/min to 200°C
Ionization:	Ei+	3°C/min to 235°C
Detector:	280°C	235°C (8 min)
	SIR at 10,000 mass resolving power	8°C/min to 310°C
		310°C (8 min)

Recipient Copy

CHAIN-OF-CUSTODY RECORD

COC No. 15548

Order Number: CB014963

Date Shipped: 11/21/2022

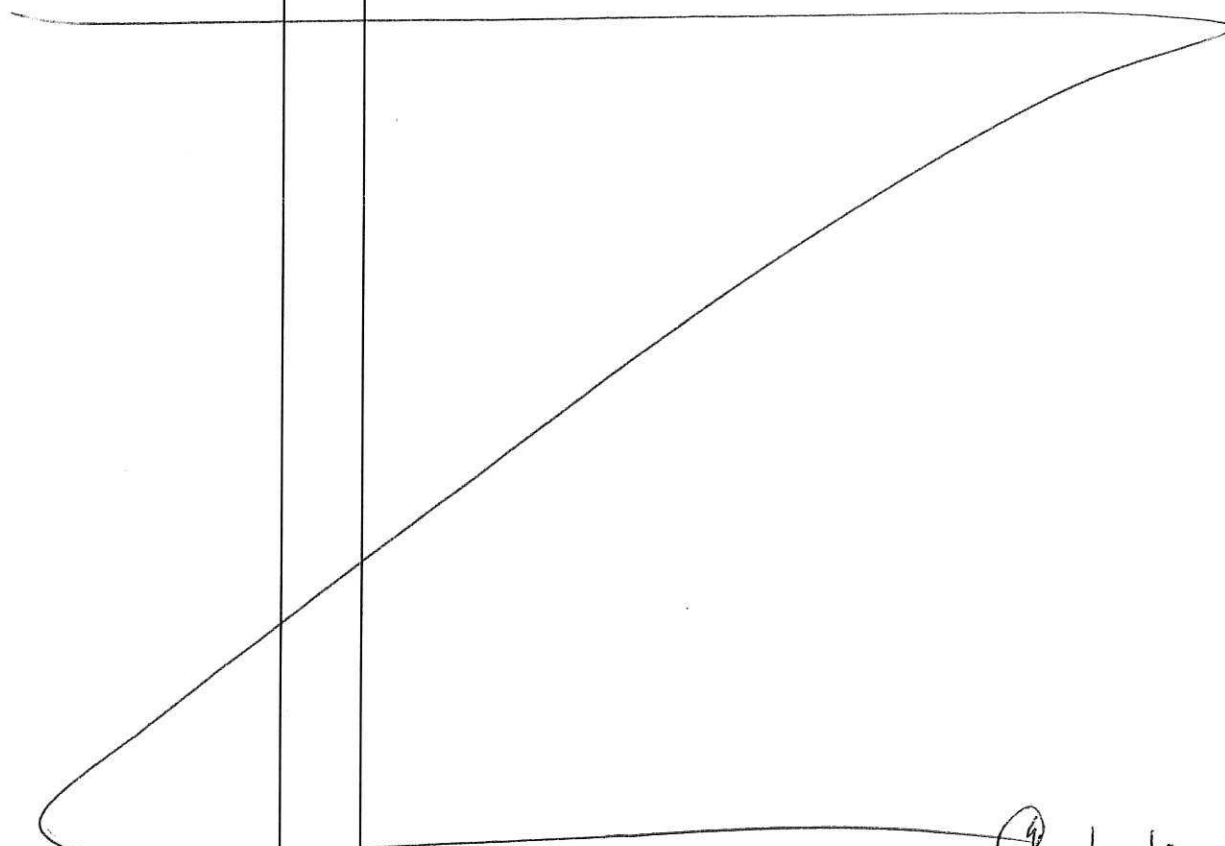
AirBill No(s):

From: QATS LABORATORY
2700 CHANDLER AVENUE, BLDG. B
LAS VEGAS, NV 89120
PHONE: 1-702-895-8712

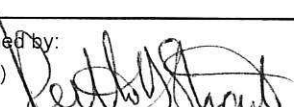
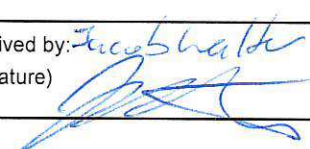
To: SUE DUNNIHOO
ANALYTICAL RESOURCES INC.
4611 S. 134TH PLACE SUITE 100
TUKWILA WA 98168
250-695-6207

519204142425

K&K912

Sample ID	Sigma ID	Qty	Description/Remarks	→ Catalogue Number
PSRM0170	SR0431	1	PUGET SOUND SEDIMENT RM	PS-SRM
				
<p>11/21/2022</p>				
<p>SRM for Dickman Mill Sediment Investigation, Tacoma, WA</p>				

Please use the enclosed Sample Preparation Instructions. If catalogue number(s) are listed at the top of the Sample Preparation Instructions use the Sample Preparation Instructions with catalogue number(s) matching the catalogue number(s) of each of the samples listed above.

Relinquished by: (Signature) 	Date/Time (11400) 11/21/2022	Received by: 	Date/Time 11/22/22 1130
Custody Seal(s): Present/Absent	Remarks:		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B
Total Metals

LDW23-IT1224

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-05 A SDG: 23A0032
 Sampled: 01/03/23 13:21 Prepared: 02/24/23 16:23 File ID: XDT_m2230306-170
 % Solids: 67.49 Preparation: SWN EPA 3050B Analyzed: 03/07/23 03:06
 Batch: BLB0518 Sequence: SLC0078 Initial/Final: 1.015 g Wet / 50 mL
 Instrument: ICPMS1 Calibration: GC00021

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium	18.8	20	0.38	0.73	
7439-92-1	Lead	24.2	20	0.08	0.15	
7440-22-4	Silver	0.38	20	0.03	0.29	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B
Total Metals

LDW23-SC1226B

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-08 C SDG: 23A0032
 Sampled: 01/03/23 12:35 Prepared: 02/24/23 16:23 File ID: XDT_m2230306-173
 % Solids: 61.74 Preparation: SWN EPA 3050B Analyzed: 03/07/23 03:20
 Batch: BLB0518 Sequence: SLC0078 Initial/Final: 1.022 g Wet / 50 mL
 Instrument: ICPMS1 Calibration: GC00021

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium	20.6	20	0.41	0.79	
7439-92-1	Lead	21.5	20	0.08	0.16	
7440-22-4	Silver	0.27	20	0.03	0.32	J



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B
Total Metals

LDW23-SC1212

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-11 B SDG: 23A0032
 Sampled: 01/03/23 14:01 Prepared: 02/24/23 16:23 File ID: XDT_m2230306-174
 % Solids: 52.58 Preparation: SWN EPA 3050B Analyzed: 03/07/23 03:24
 Batch: BLB0518 Sequence: SLC0078 Initial/Final: 1.029 g Wet / 50 mL
 Instrument: ICPMS1 Calibration: GC00021

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium	27.8	20	0.48	0.92	
7439-92-1	Lead	29.1	20	0.10	0.18	
7440-22-4	Silver	0.19	20	0.04	0.37	J



Digestion Log

Analyst: ML Date: 02/24/23 Time: 1100-1623 Balance ID: 16
Matrix: Soil Block ID: 3 Block Temp: 95 Thermometer: 20-4

ARI Sample ID	Btl #	pH<2	Prep Code: <u>SNN</u>		Prep Code:		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
23A031-01	D		1.072	1.072			
23A032-01	B		1.070 ^②	1.069			
-02	C		1.029	1.029			
-03	↓		1.026	1.026			
-04	A		1.009	1.009			
-05	↓		1.015	1.014 ^①			
-06	B		1.014	1.014			
-07	↓		1.093	1.093			
-08	C		1.022	1.022			
↓ -11	B		1.029	1.029			
23A071-01			1.006	1.006			
-02			1.003	1.003			
-03			1.064	1.054			
↓ -04	↓		1.064	1.064			
23B0051-01	A		1.074	1.071			
-02	↓		1.084	1.084			
↓ -03	↓		1.041	1.041			
23B0276-01	C		1.034	1.034			
BLB0518-b14	—		—	—			
-b51	—		—	—			
-041	—		1.070	1.070			23A0032-01
-MS1	—		1.075	1.075			↓
-MSb1	—		1.073	1.073			
↓ -semi	—		1.001	1.001			
—	—		—	—			
—	—		—	—			

Chemical/Reagent ID:
HNO₃: L492 1:1 HNO₃: L1314 HCl: — H₂O₂: K11056
Tube Lot#: 220805 Boiling Chip Lot#: — (DoD Only)



Form I
METHOD BLANK DATA SHEET
EPA 6020B
Total Metals

Blank

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLB0518

Laboratory ID: BLB0518-BLK1

Prepared: 02/24/23 16:23

Matrix: Solid

Preparation: SWN EPA 3050B

Analyzed: 03/01/23 21:11

Sequence: SLC0028

Calibration: GC00005

Instrument: ICPMS2

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium-52	ND	20	0.26	0.50	U
7439-92-1	Lead-208	ND	20	0.05	0.10	U
7440-22-4	Silver-107	ND	20	0.02	0.20	U



DUPLICATES

EPA 6020B

Total Metals

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLB0518-DUP1

Batch: BLB0518

Lab Source ID: 23A0032-01

Preparation: SWN EPA 3050B

Initial/Final: 1.07 g / 50 mL

Source Sample Name: LDW23-IT1246

% Solids: 56.86

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Lead-208	20	55.0	47.5	14.6	
Silver-107	-0.09 - 0.57	0.49	0.24	68.7	L

*: Values outside of QC limits

L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD



DUPLICATES

EPA 6020B

Total Metals

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLB0518-DUP2

Batch: BLB0518

Lab Source ID: 23A0032-01

Preparation: SWN EPA 3050B

Initial/Final: 1.07 g / 50 mL

Source Sample Name: LDW23-IT1246

% Solids: 56.86

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Chromium-52	20	25.3	27.9	9.64	

*: Values outside of QC limits

L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/-RL instead of 20% RPD



MS / MS DUPLICATE RECOVERY
EPA 6020B
Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>03/01/23 21:45</u>
Batch:	<u>BLB0518</u>	Laboratory ID:	<u>BLB0518-MS1</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>Matrix Spike</u>
Initial/Final:	<u>1.075 g / 50 mL</u>	Source Sample:	<u>LDW23-IT1246</u>

COMPOUND	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	Q	MS CONCENTRATION (mg/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Lead-208	40.9	55.0		111	*	136 *	75 - 125
Silver-107	40.9	0.49		42.3		102	75 - 125

* Values outside of QC limits



MS / MS DUPLICATE RECOVERY
EPA 6020B
Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>03/01/23 21:50</u>
Batch:	<u>BLB0518</u>	Laboratory ID:	<u>BLB0518-MSD1</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>Matrix Spike Dup</u>
Initial/Final:	<u>1.073 g / 50 mL</u>	Source Sample:	<u>LDW23-IT1246</u>

COMPOUND	SPIKE ADDED (mg/kg dry)	MSD CONCENTRATION (mg/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Lead-208	41.0	90.5	*	86.5	20.2 *	20	75 - 125
Silver-107	41.0	44.4		107	4.78	20	75 - 125

* Values outside of QC limits



MS / MS DUPLICATE RECOVERY
EPA 6020B
Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>03/06/23 20:19</u>
Batch:	<u>BLB0518</u>	Laboratory ID:	<u>BLB0518-MS2</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>Matrix Spike</u>
Initial/Final:	<u>1.075 g / 50 mL</u>	Source Sample:	<u>LDW23-IT1246</u>

COMPOUND	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	Q	MS CONCENTRATION (mg/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Chromium-52	40.9	25.3		62.9		91.8	75 - 125

* Values outside of QC limits



MS / MS DUPLICATE RECOVERY
EPA 6020B
Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>03/06/23 20:23</u>
Batch:	<u>BLB0518</u>	Laboratory ID:	<u>BLB0518-MSD2</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>Matrix Spike Dup</u>
Initial/Final:	<u>1.073 g / 50 mL</u>	Source Sample:	<u>LDW23-IT1246</u>

COMPOUND	SPIKE ADDED (mg/kg dry)	MSD CONCENTRATION (mg/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Chromium-52	41.0	60.6		86.2	3.59	20	75 - 125

* Values outside of QC limits



POST DIGEST SPIKE SAMPLE RECOVERY
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLB0518-PS1

Batch: BLB0518

Lab Source ID: 23A0032-01

Preparation: SWN EPA 3050B

Initial/Final: 1.07 g / 50 mL

Source Sample Name: LDW23-IT1246

% Solids: 56.86

Analyte	Control Limit %R	Spike Sample Result (SSR) (ug/L)	Sample Result (SR) (ug/L)	Spike Added (SA) (ug/L)	%R
Copper-63	80 - 120	1910	115	500.00	104
Lead-208	80 - 120	1180	55.0	500.00	102
Zinc-67	80 - 120	3310	154	1600.0	89.6

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS2

Calibration: GC00005

Control Limit: +/- 10.00%

Sequence: SLC0028

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLC0028-ICV1	Chromium-52	50.000	48.6	97.3	ug/L	EPA 6020B
	Chromium-53	50.000	49.0	98.0	ug/L	EPA 6020B
	Lead-208	50.000	50.8	102	ug/L	EPA 6020B
	Silver-107	50.000	51.2	102	ug/L	EPA 6020B
SLC0028-CCV1	Chromium-52	50.000	50.6	101	ug/L	EPA 6020B
	Chromium-53	50.000	51.0	102	ug/L	EPA 6020B
	Lead-208	50.000	50.7	101	ug/L	EPA 6020B
	Silver-107	50.000	49.5	98.9	ug/L	EPA 6020B
SLC0028-CCV2	Chromium-52	50.000	49.5	99.0	ug/L	EPA 6020B
	Chromium-53	50.000	49.5	99.0	ug/L	EPA 6020B
	Lead-208	50.000	51.5	103	ug/L	EPA 6020B
	Silver-107	50.000	49.0	98.0	ug/L	EPA 6020B
SLC0028-CCV3	Chromium-52	50.000	49.1	98.2	ug/L	EPA 6020B
	Chromium-53	50.000	51.1	102	ug/L	EPA 6020B
	Lead-208	50.000	46.9	93.9	ug/L	EPA 6020B
	Silver-107	50.000	54.3	109	ug/L	EPA 6020B
SLC0028-CCV4	Chromium-52	50.000	49.6	99.1	ug/L	EPA 6020B
	Chromium-53	50.000	50.0	100	ug/L	EPA 6020B
	Lead-208	50.000	47.5	95.0	ug/L	EPA 6020B
	Silver-107	50.000	51.8	104	ug/L	EPA 6020B
SLC0028-CCV5	Chromium-52	50.000	49.6	99.2	ug/L	EPA 6020B
	Chromium-53	50.000	50.0	99.9	ug/L	EPA 6020B
	Lead-208	50.000	49.4	98.7	ug/L	EPA 6020B
	Silver-107	50.000	53.3	107	ug/L	EPA 6020B
SLC0028-CCV6	Chromium-52	50.000	46.8	93.6	ug/L	EPA 6020B
	Chromium-53	50.000	47.3	94.6	ug/L	EPA 6020B
	Lead-208	50.000	48.6	97.2	ug/L	EPA 6020B
	Silver-107	50.000	49.1	98.3	ug/L	EPA 6020B
SLC0028-CCV7	Chromium-52	50.000	48.4	96.9	ug/L	EPA 6020B
	Chromium-53	50.000	48.1	96.3	ug/L	EPA 6020B
	Lead-208	50.000	48.5	96.9	ug/L	EPA 6020B
	Silver-107	50.000	50.3	101	ug/L	EPA 6020B

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Control Limit: +/- 10.00%

Sequence: SLC0078

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLC0078-ICV1	Chromium-52	50.000	50.9	102	ug/L	EPA 6020B
	Chromium-53	50.000	49.1	98.2	ug/L	EPA 6020B
	Lead-208	50.000	51.1	102	ug/L	EPA 6020B
	Silver-107	50.000	51.5	103	ug/L	EPA 6020B
SLC0078-CCV1	Chromium-52	50.000	50.3	101	ug/L	EPA 6020B
	Chromium-53	50.000	48.4	96.9	ug/L	EPA 6020B
	Lead-208	50.000	49.7	99.4	ug/L	EPA 6020B
	Silver-107	50.000	50.2	100	ug/L	EPA 6020B
SLC0078-CCV2	Chromium-52	50.000	50.7	101	ug/L	EPA 6020B
	Chromium-53	50.000	49.2	98.4	ug/L	EPA 6020B
	Lead-208	50.000	48.9	97.9	ug/L	EPA 6020B
	Silver-107	50.000	48.8	97.7	ug/L	EPA 6020B
SLC0078-CCV3	Chromium-52	50.000	49.1	98.2	ug/L	EPA 6020B
	Chromium-53	50.000	48.7	97.4	ug/L	EPA 6020B
	Lead-208	50.000	48.9	97.8	ug/L	EPA 6020B
	Silver-107	50.000	47.8	95.7	ug/L	EPA 6020B
SLC0078-CCV4	Chromium-52	50.000	49.7	99.4	ug/L	EPA 6020B
	Chromium-53	50.000	49.4	98.8	ug/L	EPA 6020B
	Lead-208	50.000	50.3	101	ug/L	EPA 6020B
	Silver-107	50.000	48.5	96.9	ug/L	EPA 6020B
SLC0078-CCV5	Chromium-52	50.000	49.4	98.8	ug/L	EPA 6020B
	Chromium-53	50.000	49.6	99.1	ug/L	EPA 6020B
	Lead-208	50.000	48.6	97.2	ug/L	EPA 6020B
	Silver-107	50.000	49.0	98.1	ug/L	EPA 6020B
SLC0078-CCV6	Chromium-52	50.000	50.2	100	ug/L	EPA 6020B
	Chromium-53	50.000	48.8	97.6	ug/L	EPA 6020B
	Lead-208	50.000	47.5	94.9	ug/L	EPA 6020B
	Silver-107	50.000	48.4	96.8	ug/L	EPA 6020B
SLC0078-CCV7	Chromium-52	50.000	49.7	99.5	ug/L	EPA 6020B
	Chromium-53	50.000	48.8	97.7	ug/L	EPA 6020B
	Lead-208	50.000	48.9	97.8	ug/L	EPA 6020B
	Silver-107	50.000	49.7	99.4	ug/L	EPA 6020B
SLC0078-CCV8	Chromium-52	50.000	51.5	103	ug/L	EPA 6020B
	Chromium-53	50.000	50.5	101	ug/L	EPA 6020B



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Control Limit: +/- 10.00%

Sequence: SLC0078

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLC0078-CCV8	Lead-208	50.000	49.9	99.8	ug/L	EPA 6020B
	Silver-107	50.000	50.4	101	ug/L	EPA 6020B
SLC0078-CCV9	Chromium-52	50.000	50.0	99.9	ug/L	EPA 6020B
	Chromium-53	50.000	49.2	98.4	ug/L	EPA 6020B
	Lead-208	50.000	48.7	97.3	ug/L	EPA 6020B
	Silver-107	50.000	49.5	99.1	ug/L	EPA 6020B
SLC0078-CCVA	Chromium-52	50.000	50.3	101	ug/L	EPA 6020B
	Chromium-53	50.000	49.6	99.2	ug/L	EPA 6020B
	Lead-208	50.000	48.8	97.5	ug/L	EPA 6020B
	Silver-107	50.000	48.7	97.4	ug/L	EPA 6020B
SLC0078-CCVB	Chromium-52	50.000	50.1	100	ug/L	EPA 6020B
	Chromium-53	50.000	50.0	100	ug/L	EPA 6020B
	Lead-208	50.000	49.5	99.1	ug/L	EPA 6020B
	Silver-107	50.000	49.9	99.7	ug/L	EPA 6020B
SLC0078-CCVC	Chromium-52	50.000	49.9	99.7	ug/L	EPA 6020B
	Chromium-53	50.000	49.5	98.9	ug/L	EPA 6020B
	Lead-208	50.000	48.8	97.7	ug/L	EPA 6020B
	Silver-107	50.000	49.1	98.3	ug/L	EPA 6020B
SLC0078-CCVD	Chromium-52	50.000	51.6	103	ug/L	EPA 6020B
	Chromium-53	50.000	50.8	102	ug/L	EPA 6020B
	Lead-208	50.000	48.7	97.4	ug/L	EPA 6020B
	Silver-107	50.000	48.6	97.2	ug/L	EPA 6020B
SLC0078-CCVE	Chromium-52	50.000	50.0	100	ug/L	EPA 6020B
	Chromium-53	50.000	49.3	98.5	ug/L	EPA 6020B
	Lead-208	50.000	49.3	98.5	ug/L	EPA 6020B
	Silver-107	50.000	49.5	98.9	ug/L	EPA 6020B
SLC0078-CCVF	Chromium-52	50.000	50.2	100	ug/L	EPA 6020B
	Chromium-53	50.000	49.8	99.6	ug/L	EPA 6020B
	Lead-208	50.000	49.9	99.8	ug/L	EPA 6020B
	Silver-107	50.000	50.6	101	ug/L	EPA 6020B
SLC0078-CCVG	Chromium-52	50.000	51.8	104	ug/L	EPA 6020B
	Chromium-53	50.000	49.8	99.5	ug/L	EPA 6020B
	Lead-208	50.000	50.4	101	ug/L	EPA 6020B
	Silver-107	50.000	50.1	100	ug/L	EPA 6020B



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Control Limit: +/- 10.00%

Sequence: SLC0078

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLC0078-CCVH	Chromium-52	50.000	51.4	103	ug/L	EPA 6020B
	Chromium-53	50.000	50.6	101	ug/L	EPA 6020B
	Lead-208	50.000	50.2	100	ug/L	EPA 6020B
	Silver-107	50.000	49.4	98.7	ug/L	EPA 6020B
SLC0078-CCVI	Chromium-52	50.000	51.2	102	ug/L	EPA 6020B
	Chromium-53	50.000	51.0	102	ug/L	EPA 6020B
	Lead-208	50.000	51.0	102	ug/L	EPA 6020B
	Silver-107	50.000	49.1	98.2	ug/L	EPA 6020B
SLC0078-CCVJ	Chromium-52	50.000	51.3	103	ug/L	EPA 6020B
	Chromium-53	50.000	51.0	102	ug/L	EPA 6020B
	Lead-208	50.000	49.9	99.8	ug/L	EPA 6020B
	Silver-107	50.000	49.9	99.7	ug/L	EPA 6020B
SLC0078-CCVK	Chromium-52	50.000	51.0	102	ug/L	EPA 6020B
	Chromium-53	50.000	50.0	100	ug/L	EPA 6020B
	Lead-208	50.000	49.2	98.4	ug/L	EPA 6020B
	Silver-107	50.000	49.6	99.3	ug/L	EPA 6020B
SLC0078-CCVL	Chromium-52	50.000	50.9	102	ug/L	EPA 6020B
	Chromium-53	50.000	50.0	100	ug/L	EPA 6020B
	Lead-208	50.000	49.5	99.1	ug/L	EPA 6020B
	Silver-107	50.000	48.6	97.2	ug/L	EPA 6020B

* Values outside of QC limits



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS2

Calibration: GC00005

Sequence: SLC0028

Date Analyzed: 03/01/23 17:11

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0028-IBL1	Chromium-52	0.0160	0.26	0.500	ug/L	
SLC0028-IBL1	Chromium-53	-0.0150	0.239	0.500	ug/L	
SLC0028-IBL1	Lead-208	-0.00600	0.0513	0.100	ug/L	
SLC0028-IBL1	Silver-107	-0.00400	0.022	0.200	ug/L	
SLC0028-ICB1	Chromium-52	0.00600	0.26	0.500	ug/L	
SLC0028-ICB1	Chromium-53	-0.0100	0.239	0.500	ug/L	
SLC0028-ICB1	Lead-208	-0.00700	0.0513	0.100	ug/L	
SLC0028-ICB1	Silver-107	-0.00600	0.022	0.200	ug/L	
SLC0028-CCB1	Chromium-52	0.00400	0.26	0.500	ug/L	
SLC0028-CCB1	Chromium-53	-0.0120	0.239	0.500	ug/L	
SLC0028-CCB1	Lead-208	-0.00600	0.0513	0.100	ug/L	
SLC0028-CCB1	Silver-107	-0.00600	0.022	0.200	ug/L	
SLC0028-IBL2	Chromium-52	0.0280	0.26	0.500	ug/L	
SLC0028-IBL2	Chromium-53	0.0630	0.239	0.500	ug/L	
SLC0028-IBL2	Lead-208	0.0310	0.0513	0.100	ug/L	
SLC0028-IBL2	Silver-107	0.00400	0.022	0.200	ug/L	
SLC0028-IBL3	Chromium-52	0.0100	0.26	0.500	ug/L	
SLC0028-IBL3	Chromium-53	0.0520	0.239	0.500	ug/L	
SLC0028-IBL3	Lead-208	0.0290	0.0513	0.100	ug/L	
SLC0028-IBL3	Silver-107	-0.00300	0.022	0.200	ug/L	
SLC0028-CCB2	Chromium-52	-0.0300	0.26	0.500	ug/L	
SLC0028-CCB2	Chromium-53	0.0260	0.239	0.500	ug/L	
SLC0028-CCB2	Lead-208	-0.00700	0.0513	0.100	ug/L	
SLC0028-CCB2	Silver-107	-0.00600	0.022	0.200	ug/L	
SLC0028-IBL4	Chromium-52	0.243	0.26	0.500	ug/L	
SLC0028-IBL4	Chromium-53	5.16	0.239	0.500	ug/L	
SLC0028-IBL4	Lead-208	0.0100	0.0513	0.100	ug/L	
SLC0028-IBL4	Silver-107	-0.00900	0.022	0.200	ug/L	
SLC0028-IBL5	Chromium-52	0.251	0.26	0.500	ug/L	
SLC0028-IBL5	Chromium-53	2.24	0.239	0.500	ug/L	
SLC0028-IBL5	Lead-208	0.00	0.0513	0.100	ug/L	
SLC0028-IBL5	Silver-107	-0.0100	0.022	0.200	ug/L	
SLC0028-CCB3	Chromium-52	0.0150	0.26	0.500	ug/L	
SLC0028-CCB3	Chromium-53	1.57	0.239	0.500	ug/L	
SLC0028-CCB3	Lead-208	-0.00300	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS2

Calibration: GC00005

Sequence: SLC0028

Date Analyzed: 03/01/23 20:04

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0028-CCB3	Silver-107	-0.00700	0.022	0.200	ug/L	
SLC0028-IBL6	Chromium-52	0.210	0.26	0.500	ug/L	
SLC0028-IBL6	Chromium-53	0.670	0.239	0.500	ug/L	
SLC0028-IBL6	Lead-208	-0.00600	0.0513	0.100	ug/L	
SLC0028-IBL6	Silver-107	-0.00800	0.022	0.200	ug/L	
SLC0028-CCB4	Chromium-52	0.0330	0.26	0.500	ug/L	
SLC0028-CCB4	Chromium-53	0.585	0.239	0.500	ug/L	
SLC0028-CCB4	Lead-208	-0.00600	0.0513	0.100	ug/L	
SLC0028-CCB4	Silver-107	-0.00500	0.022	0.200	ug/L	
SLC0028-CCB5	Chromium-52	-0.0240	0.26	0.500	ug/L	
SLC0028-CCB5	Chromium-53	0.305	0.239	0.500	ug/L	
SLC0028-CCB5	Lead-208	-0.00600	0.0513	0.100	ug/L	
SLC0028-CCB5	Silver-107	-0.00600	0.022	0.200	ug/L	
SLC0028-IBL7	Chromium-52	-0.0130	0.26	0.500	ug/L	
SLC0028-IBL7	Chromium-53	0.213	0.239	0.500	ug/L	
SLC0028-IBL7	Lead-208	-0.00600	0.0513	0.100	ug/L	
SLC0028-IBL7	Silver-107	-0.00800	0.022	0.200	ug/L	
SLC0028-CCB6	Chromium-52	-0.00700	0.26	0.500	ug/L	
SLC0028-CCB6	Chromium-53	0.210	0.239	0.500	ug/L	
SLC0028-CCB6	Lead-208	-0.00600	0.0513	0.100	ug/L	
SLC0028-CCB6	Silver-107	-0.00600	0.022	0.200	ug/L	
SLC0028-IBL8	Chromium-52	-0.0600	0.26	0.500	ug/L	
SLC0028-IBL8	Chromium-53	0.176	0.239	0.500	ug/L	
SLC0028-IBL8	Lead-208	-0.00600	0.0513	0.100	ug/L	
SLC0028-IBL8	Silver-107	-0.00800	0.022	0.200	ug/L	
SLC0028-CCB7	Chromium-52	-0.0490	0.26	0.500	ug/L	
SLC0028-CCB7	Chromium-53	0.193	0.239	0.500	ug/L	
SLC0028-CCB7	Lead-208	-0.00500	0.0513	0.100	ug/L	
SLC0028-CCB7	Silver-107	-0.00600	0.022	0.200	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Date Analyzed: 03/06/23 13:44

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0078-IBL1	Chromium-52	0.0940	0.26	0.500	ug/L	
SLC0078-IBL1	Chromium-53	-0.00500	0.239	0.500	ug/L	
SLC0078-IBL1	Lead-208	0.0130	0.0513	0.100	ug/L	
SLC0078-IBL1	Silver-107	0.0220	0.022	0.200	ug/L	
SLC0078-ICB1	Chromium-52	0.0970	0.26	0.500	ug/L	
SLC0078-ICB1	Chromium-53	-0.0150	0.239	0.500	ug/L	
SLC0078-ICB1	Lead-208	0.00	0.0513	0.100	ug/L	
SLC0078-ICB1	Silver-107	0.0120	0.022	0.200	ug/L	
SLC0078-CCB1	Chromium-52	0.0940	0.26	0.500	ug/L	
SLC0078-CCB1	Chromium-53	-0.0110	0.239	0.500	ug/L	
SLC0078-CCB1	Lead-208	0.00	0.0513	0.100	ug/L	
SLC0078-CCB1	Silver-107	0.0150	0.022	0.200	ug/L	
SLC0078-IBL2	Chromium-52	0.0830	0.26	0.500	ug/L	
SLC0078-IBL2	Chromium-53	0.0130	0.239	0.500	ug/L	
SLC0078-IBL2	Lead-208	0.0150	0.0513	0.100	ug/L	
SLC0078-IBL2	Silver-107	0.0430	0.022	0.200	ug/L	
SLC0078-IBL3	Chromium-52	0.0910	0.26	0.500	ug/L	
SLC0078-IBL3	Chromium-53	0.0700	0.239	0.500	ug/L	
SLC0078-IBL3	Lead-208	0.0140	0.0513	0.100	ug/L	
SLC0078-IBL3	Silver-107	0.00900	0.022	0.200	ug/L	
SLC0078-CCB2	Chromium-52	0.112	0.26	0.500	ug/L	
SLC0078-CCB2	Chromium-53	-0.00100	0.239	0.500	ug/L	
SLC0078-CCB2	Lead-208	0.00100	0.0513	0.100	ug/L	
SLC0078-CCB2	Silver-107	0.0170	0.022	0.200	ug/L	
SLC0078-CCB3	Chromium-52	0.00300	0.26	0.500	ug/L	
SLC0078-CCB3	Chromium-53	0.00	0.239	0.500	ug/L	
SLC0078-CCB3	Lead-208	0.00200	0.0513	0.100	ug/L	
SLC0078-CCB3	Silver-107	0.00900	0.022	0.200	ug/L	
SLC0078-IBL4	Chromium-52	0.00100	0.26	0.500	ug/L	
SLC0078-IBL4	Chromium-53	0.0140	0.239	0.500	ug/L	
SLC0078-IBL4	Lead-208	0.0130	0.0513	0.100	ug/L	
SLC0078-IBL4	Silver-107	-0.00700	0.022	0.200	ug/L	
SLC0078-CCB4	Chromium-52	-0.00300	0.26	0.500	ug/L	
SLC0078-CCB4	Chromium-53	-0.00700	0.239	0.500	ug/L	
SLC0078-CCB4	Lead-208	0.00100	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Instrument ID: ICPMS1
Sequence: SLC0078

SDG: 23A0032
Project: AOC5 MR Phase 1
Calibration: GC00021
Date Analyzed: 03/06/23 16:34

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0078-CCB4	Silver-107	0.00300	0.022	0.200	ug/L	
SLC0078-IBL5	Chromium-52	-0.0190	0.26	0.500	ug/L	
SLC0078-IBL5	Chromium-53	-0.00700	0.239	0.500	ug/L	
SLC0078-IBL5	Lead-208	0.00100	0.0513	0.100	ug/L	
SLC0078-IBL5	Silver-107	-0.00800	0.022	0.200	ug/L	
SLC0078-CCB5	Chromium-52	-0.0530	0.26	0.500	ug/L	
SLC0078-CCB5	Chromium-53	-0.0120	0.239	0.500	ug/L	
SLC0078-CCB5	Lead-208	0.00100	0.0513	0.100	ug/L	
SLC0078-CCB5	Silver-107	0.00300	0.022	0.200	ug/L	
SLC0078-CCB6	Chromium-52	-0.0130	0.26	0.500	ug/L	
SLC0078-CCB6	Chromium-53	-0.0130	0.239	0.500	ug/L	
SLC0078-CCB6	Lead-208	0.00	0.0513	0.100	ug/L	
SLC0078-CCB6	Silver-107	0.00500	0.022	0.200	ug/L	
SLC0078-IBL7	Chromium-52	0.0880	0.26	0.500	ug/L	
SLC0078-IBL7	Chromium-53	0.00700	0.239	0.500	ug/L	
SLC0078-IBL7	Lead-208	0.00300	0.0513	0.100	ug/L	
SLC0078-IBL7	Silver-107	-0.00800	0.022	0.200	ug/L	
SLC0078-CCB7	Chromium-52	-0.00500	0.26	0.500	ug/L	
SLC0078-CCB7	Chromium-53	-0.00100	0.239	0.500	ug/L	
SLC0078-CCB7	Lead-208	0.00300	0.0513	0.100	ug/L	
SLC0078-CCB7	Silver-107	0.00300	0.022	0.200	ug/L	
SLC0078-IBL8	Chromium-52	-0.0360	0.26	0.500	ug/L	
SLC0078-IBL8	Chromium-53	-0.0130	0.239	0.500	ug/L	
SLC0078-IBL8	Lead-208	0.00600	0.0513	0.100	ug/L	
SLC0078-IBL8	Silver-107	0.00600	0.022	0.200	ug/L	
SLC0078-CCB8	Chromium-52	-0.0170	0.26	0.500	ug/L	
SLC0078-CCB8	Chromium-53	-0.0270	0.239	0.500	ug/L	
SLC0078-CCB8	Lead-208	0.00400	0.0513	0.100	ug/L	
SLC0078-CCB8	Silver-107	0.00400	0.022	0.200	ug/L	
SLC0078-IBL9	Chromium-52	-0.0690	0.26	0.500	ug/L	
SLC0078-IBL9	Chromium-53	-0.0140	0.239	0.500	ug/L	
SLC0078-IBL9	Lead-208	0.00500	0.0513	0.100	ug/L	
SLC0078-IBL9	Silver-107	0.00100	0.022	0.200	ug/L	
SLC0078-CCB9	Chromium-52	-0.0120	0.26	0.500	ug/L	
SLC0078-CCB9	Chromium-53	-0.0180	0.239	0.500	ug/L	
SLC0078-CCB9	Lead-208	0.00400	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Date Analyzed: 03/06/23 21:40

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0078-CCB9	Silver-107	0.00400	0.022	0.200	ug/L	
SLC0078-CCBA	Chromium-52	-0.0210	0.26	0.500	ug/L	
SLC0078-CCBA	Chromium-53	-0.00200	0.239	0.500	ug/L	
SLC0078-CCBA	Lead-208	0.00400	0.0513	0.100	ug/L	
SLC0078-CCBA	Silver-107	0.00500	0.022	0.200	ug/L	
SLC0078-CCBB	Chromium-52	-0.00400	0.26	0.500	ug/L	
SLC0078-CCBB	Chromium-53	0.00	0.239	0.500	ug/L	
SLC0078-CCBB	Lead-208	0.00100	0.0513	0.100	ug/L	
SLC0078-CCBB	Silver-107	0.00600	0.022	0.200	ug/L	
SLC0078-IBLC	Chromium-52	-0.0650	0.26	0.500	ug/L	
SLC0078-IBLC	Chromium-53	-0.00700	0.239	0.500	ug/L	
SLC0078-IBLC	Lead-208	0.00800	0.0513	0.100	ug/L	
SLC0078-IBLC	Silver-107	0.00800	0.022	0.200	ug/L	
SLC0078-CCBC	Chromium-52	-0.0220	0.26	0.500	ug/L	
SLC0078-CCBC	Chromium-53	-0.0100	0.239	0.500	ug/L	
SLC0078-CCBC	Lead-208	0.00100	0.0513	0.100	ug/L	
SLC0078-CCBC	Silver-107	0.00700	0.022	0.200	ug/L	
SLC0078-IBLD	Chromium-52	-0.0610	0.26	0.500	ug/L	
SLC0078-IBLD	Chromium-53	-0.00800	0.239	0.500	ug/L	
SLC0078-IBLD	Lead-208	0.00600	0.0513	0.100	ug/L	
SLC0078-IBLD	Silver-107	0.00800	0.022	0.200	ug/L	
SLC0078-CCBD	Chromium-52	-0.0390	0.26	0.500	ug/L	
SLC0078-CCBD	Chromium-53	-0.0180	0.239	0.500	ug/L	
SLC0078-CCBD	Lead-208	0.00100	0.0513	0.100	ug/L	
SLC0078-CCBD	Silver-107	0.00800	0.022	0.200	ug/L	
SLC0078-CCBE	Chromium-52	-0.0550	0.26	0.500	ug/L	
SLC0078-CCBE	Chromium-53	-0.0230	0.239	0.500	ug/L	
SLC0078-CCBE	Lead-208	0.00100	0.0513	0.100	ug/L	
SLC0078-CCBE	Silver-107	0.00600	0.022	0.200	ug/L	
SLC0078-CCBF	Chromium-52	-0.0180	0.26	0.500	ug/L	
SLC0078-CCBF	Chromium-53	-0.0150	0.239	0.500	ug/L	
SLC0078-CCBF	Lead-208	0.00100	0.0513	0.100	ug/L	
SLC0078-CCBF	Silver-107	0.00400	0.022	0.200	ug/L	
SLC0078-CCBG	Chromium-52	-0.0210	0.26	0.500	ug/L	
SLC0078-CCBG	Chromium-53	-0.0290	0.239	0.500	ug/L	
SLC0078-CCBG	Lead-208	0.00100	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Date Analyzed: 03/07/23 03:42

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0078-CCBG	Silver-107	0.00400	0.022	0.200	ug/L	
SLC0078-CCBH	Chromium-52	0.0440	0.26	0.500	ug/L	
SLC0078-CCBH	Chromium-53	-0.00600	0.239	0.500	ug/L	
SLC0078-CCBH	Lead-208	0.00100	0.0513	0.100	ug/L	
SLC0078-CCBH	Silver-107	0.00700	0.022	0.200	ug/L	
SLC0078-CCBI	Chromium-52	0.0470	0.26	0.500	ug/L	
SLC0078-CCBI	Chromium-53	0.0190	0.239	0.500	ug/L	
SLC0078-CCBI	Lead-208	0.00200	0.0513	0.100	ug/L	
SLC0078-CCBI	Silver-107	0.00500	0.022	0.200	ug/L	
SLC0078-IBLJ	Chromium-52	0.0480	0.26	0.500	ug/L	
SLC0078-IBLJ	Chromium-53	0.172	0.239	0.500	ug/L	
SLC0078-IBLJ	Lead-208	0.00300	0.0513	0.100	ug/L	
SLC0078-IBLJ	Silver-107	-0.00300	0.022	0.200	ug/L	
SLC0078-CCBJ	Chromium-52	0.0460	0.26	0.500	ug/L	
SLC0078-CCBJ	Chromium-53	0.0520	0.239	0.500	ug/L	
SLC0078-CCBJ	Lead-208	0.00100	0.0513	0.100	ug/L	
SLC0078-CCBJ	Silver-107	0.00600	0.022	0.200	ug/L	
SLC0078-IBLK	Chromium-52	0.0590	0.26	0.500	ug/L	
SLC0078-IBLK	Chromium-53	0.127	0.239	0.500	ug/L	
SLC0078-IBLK	Lead-208	0.00	0.0513	0.100	ug/L	
SLC0078-IBLK	Silver-107	-0.00400	0.022	0.200	ug/L	
SLC0078-CCBK	Chromium-52	0.0630	0.26	0.500	ug/L	
SLC0078-CCBK	Chromium-53	0.0720	0.239	0.500	ug/L	
SLC0078-CCBK	Lead-208	0.00100	0.0513	0.100	ug/L	
SLC0078-CCBK	Silver-107	0.00400	0.022	0.200	ug/L	
SLC0078-IBLM	Chromium-52	0.0640	0.26	0.500	ug/L	
SLC0078-IBLM	Chromium-53	0.0670	0.239	0.500	ug/L	
SLC0078-IBLM	Lead-208	0.00	0.0513	0.100	ug/L	
SLC0078-IBLM	Silver-107	-0.00200	0.022	0.200	ug/L	
SLC0078-IBLL	Chromium-52	0.0690	0.26	0.500	ug/L	
SLC0078-IBLL	Chromium-53	0.0630	0.239	0.500	ug/L	
SLC0078-IBLL	Lead-208	0.00	0.0513	0.100	ug/L	
SLC0078-IBLL	Silver-107	-0.00200	0.022	0.200	ug/L	
SLC0078-CCBL	Chromium-52	0.0250	0.26	0.500	ug/L	
SLC0078-CCBL	Chromium-53	0.0400	0.239	0.500	ug/L	
SLC0078-CCBL	Lead-208	0.00100	0.0513	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Date Analyzed: 03/07/23 07:30

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0078-CCBL	Silver-107	0.00500	0.022	0.200	ug/L	



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0028

Instrument: ICPMS2

Calibration: GC00005

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLC0028-CAL1	XDT_m2230301-013	NA	03/01/23 16:36
CAL 1 - LOW CHECK	SLC0028-CAL2	XDT_m2230301-014	NA	03/01/23 16:41
CAL 2	SLC0028-CAL3	XDT_m2230301-015	NA	03/01/23 16:46
CAL 3	SLC0028-CAL4	XDT_m2230301-016	NA	03/01/23 16:51
CAL 4	SLC0028-CAL5	XDT_m2230301-017	NA	03/01/23 16:56
CAL 5	SLC0028-CAL6	XDT_m2230301-018	NA	03/01/23 17:03
RINSE	SLC0028-IBL1	XDT_m2230301-019	NA	03/01/23 17:11
Initial Cal Check	SLC0028-ICV1	XDT_m2230301-021	NA	03/01/23 17:23
Initial Cal Blank	SLC0028-ICB1	XDT_m2230301-022	NA	03/01/23 17:31
Calibration Check	SLC0028-CCV1	XDT_m2230301-023	NA	03/01/23 17:37
Calibration Blank	SLC0028-CCB1	XDT_m2230301-024	NA	03/01/23 17:44
Instrument RL Check	SLC0028-CRL1	XDT_m2230301-025	NA	03/01/23 17:49
Interference Check A	SLC0028-IFA1	XDT_m2230301-026	NA	03/01/23 17:55
Interference Check B	SLC0028-IFB1	XDT_m2230301-028	NA	03/01/23 18:08
LR200	SLC0028-HCV1	XDT_m2230301-029	NA	03/01/23 18:13
LR300	SLC0028-HCV2	XDT_m2230301-030	NA	03/01/23 18:18
Instrument Blank	SLC0028-IBL2	XDT_m2230301-031	NA	03/01/23 18:25
Instrument Blank	SLC0028-IBL3	XDT_m2230301-032	NA	03/01/23 18:32
Calibration Check	SLC0028-CCV2	XDT_m2230301-033	NA	03/01/23 18:39
Calibration Blank	SLC0028-CCB2	XDT_m2230301-035	NA	03/01/23 18:51
Instrument Blank	SLC0028-IBL4	XDT_m2230301-042	NA	03/01/23 19:35
Instrument Blank	SLC0028-IBL5	XDT_m2230301-045	NA	03/01/23 19:50
Calibration Check	SLC0028-CCV3	XDT_m2230301-046	NA	03/01/23 19:56
Calibration Blank	SLC0028-CCB3	XDT_m2230301-047	NA	03/01/23 20:04
ZZZZZ	23B0501-01	XDT_m2230301-054	Water	03/01/23 20:38
Instrument Blank	SLC0028-IBL6	XDT_m2230301-057	NA	03/01/23 20:52
Calibration Check	SLC0028-CCV4	XDT_m2230301-058	NA	03/01/23 20:58
Calibration Blank	SLC0028-CCB4	XDT_m2230301-059	NA	03/01/23 21:06
Blank	BLB0518-BLK1	XDT_m2230301-060	Solid	03/01/23 21:11



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0028

Instrument: ICPMS2

Calibration: GC00005

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LCS	BLB0518-BS1	XDT_m2230301-061	Solid	03/01/23 21:16
LDW23-IT1246	23A0032-01	XDT_m2230301-065	Solid	03/01/23 21:35
LDW23-IT1246	23A0032-01	XDT_m2230301-065	Solid	03/01/23 21:35
LDW23-IT1246	BLB0518-DUP1	XDT_m2230301-066	Solid	03/01/23 21:40
LDW23-IT1246	BLB0518-DUP1	XDT_m2230301-066	Solid	03/01/23 21:40
LDW23-IT1246	BLB0518-DUP1	XDT_m2230301-066	Solid	03/01/23 21:40
LDW23-IT1246	BLB0518-DUP1	XDT_m2230301-066	Solid	03/01/23 21:40
LDW23-IT1246	BLB0518-DUP1	XDT_m2230301-066	Solid	03/01/23 21:40
LDW23-IT1246	BLB0518-DUP1	XDT_m2230301-066	Solid	03/01/23 21:40
LDW23-IT1246	BLB0518-MS1	XDT_m2230301-067	Solid	03/01/23 21:45
LDW23-IT1246	BLB0518-MS1	XDT_m2230301-067	Solid	03/01/23 21:45
LDW23-IT1246	BLB0518-MS1	XDT_m2230301-067	Solid	03/01/23 21:45
LDW23-IT1246	BLB0518-MS1	XDT_m2230301-067	Solid	03/01/23 21:45
LDW23-IT1246	BLB0518-MS1	XDT_m2230301-067	Solid	03/01/23 21:45
LDW23-IT1246	BLB0518-MS1	XDT_m2230301-067	Solid	03/01/23 21:45
LDW23-IT1246	BLB0518-MSD1	XDT_m2230301-068	Solid	03/01/23 21:50
LDW23-IT1246	BLB0518-MSD1	XDT_m2230301-068	Solid	03/01/23 21:50
LDW23-IT1246	BLB0518-MSD1	XDT_m2230301-068	Solid	03/01/23 21:50
LDW23-IT1246	BLB0518-MSD1	XDT_m2230301-068	Solid	03/01/23 21:50
LDW23-IT1246	BLB0518-MSD1	XDT_m2230301-068	Solid	03/01/23 21:50
LDW23-IT1246	BLB0518-PS1	XDT_m2230301-069	Solid	03/01/23 21:54
LDW23-IT1246	BLB0518-PS1	XDT_m2230301-069	Solid	03/01/23 21:54
LDW23-IT1246	BLB0518-PS1	XDT_m2230301-069	Solid	03/01/23 21:54
LDW23-IT1246	BLB0518-PS1	XDT_m2230301-069	Solid	03/01/23 21:54
LDW23-IT1246	BLB0518-PS1	XDT_m2230301-069	Solid	03/01/23 21:54
Calibration Check	SLC0028-CCV5	XDT_m2230301-070	NA	03/01/23 22:00
Calibration Blank	SLC0028-CCB5	XDT_m2230301-071	NA	03/01/23 22:08
Instrument Blank	SLC0028-IBL7	XDT_m2230301-080	NA	03/01/23 22:52
Calibration Check	SLC0028-CCV6	XDT_m2230301-081	NA	03/01/23 22:56
Calibration Blank	SLC0028-CCB6	XDT_m2230301-082	NA	03/01/23 23:04
Instrument Blank	SLC0028-IBL8	XDT_m2230301-088	NA	03/01/23 23:33



ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0028

Instrument: ICPMS2

Calibration: GC00005

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SLC0028-CCV7	XDT_m2230301-089	NA	03/01/23 23:38
Calibration Blank	SLC0028-CCB7	XDT_m2230301-090	NA	03/01/23 23:46



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLC0078-CAL1	XDT_m2230306-006	NA	03/06/23 13:12
CAL 1 - LOW CHECK	SLC0078-CAL2	XDT_m2230306-007	NA	03/06/23 13:16
CAL 2	SLC0078-CAL3	XDT_m2230306-008	NA	03/06/23 13:21
CAL 3	SLC0078-CAL4	XDT_m2230306-009	NA	03/06/23 13:25
CAL 4	SLC0078-CAL5	XDT_m2230306-010	NA	03/06/23 13:30
CAL 5	SLC0078-CAL6	XDT_m2230306-011	NA	03/06/23 13:37
RINSE	SLC0078-IBL1	XDT_m2230306-012	NA	03/06/23 13:44
Initial Cal Check	SLC0078-ICV1	XDT_m2230306-014	NA	03/06/23 13:53
Initial Cal Blank	SLC0078-ICB1	XDT_m2230306-015	NA	03/06/23 14:00
Calibration Check	SLC0078-CCV1	XDT_m2230306-016	NA	03/06/23 14:05
Calibration Blank	SLC0078-CCB1	XDT_m2230306-017	NA	03/06/23 14:12
Instrument RL Check	SLC0078-CRL1	XDT_m2230306-018	NA	03/06/23 14:16
Interference Check B	SLC0078-IFB1	XDT_m2230306-020	NA	03/06/23 14:25
LR200	SLC0078-HCV1	XDT_m2230306-021	NA	03/06/23 14:30
LR300	SLC0078-HCV2	XDT_m2230306-022	NA	03/06/23 14:34
Instrument Blank	SLC0078-IBL2	XDT_m2230306-023	NA	03/06/23 14:41
Interference Check A	SLC0078-IFA1	XDT_m2230306-024	NA	03/06/23 14:48
Instrument Blank	SLC0078-IBL3	XDT_m2230306-025	NA	03/06/23 14:52
Calibration Check	SLC0078-CCV2	XDT_m2230306-026	NA	03/06/23 14:59
Calibration Blank	SLC0078-CCB2	XDT_m2230306-027	NA	03/06/23 15:06
Calibration Check	SLC0078-CCV3	XDT_m2230306-029	NA	03/06/23 15:17
Calibration Blank	SLC0078-CCB3	XDT_m2230306-030	NA	03/06/23 15:24
Instrument Blank	SLC0078-IBL4	XDT_m2230306-040	NA	03/06/23 16:22
Calibration Check	SLC0078-CCV4	XDT_m2230306-041	NA	03/06/23 16:27
Calibration Blank	SLC0078-CCB4	XDT_m2230306-042	NA	03/06/23 16:34
Instrument Blank	SLC0078-IBL5	XDT_m2230306-052	NA	03/06/23 17:25
Calibration Check	SLC0078-CCV5	XDT_m2230306-053	NA	03/06/23 17:30
Calibration Blank	SLC0078-CCB5	XDT_m2230306-054	NA	03/06/23 17:37
Calibration Check	SLC0078-CCV6	XDT_m2230306-065	NA	03/06/23 18:31



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SLC0078-CCB6	XDT_m2230306-066	NA	03/06/23 18:39
Instrument Blank	SLC0078-IBL7	XDT_m2230306-076	NA	03/06/23 19:36
Calibration Check	SLC0078-CCV7	XDT_m2230306-077	NA	03/06/23 19:40
Calibration Blank	SLC0078-CCB7	XDT_m2230306-078	NA	03/06/23 19:47
ZZZZZ	BLB0508-BLK1	XDT_m2230306-079	Solid	03/06/23 19:52
ZZZZZ	BLB0508-BS1	XDT_m2230306-080	Solid	03/06/23 19:56
LDW23-IT1246	23A0032-01	XDT_m2230306-083	Solid	03/06/23 20:10
LDW23-IT1246	BLB0518-DUP2	XDT_m2230306-084	Solid	03/06/23 20:14
LDW23-IT1246	BLB0518-DUP2	XDT_m2230306-084	Solid	03/06/23 20:14
LDW23-IT1246	BLB0518-MS2	XDT_m2230306-085	Solid	03/06/23 20:19
LDW23-IT1246	BLB0518-MS2	XDT_m2230306-085	Solid	03/06/23 20:19
LDW23-IT1246	BLB0518-MSD2	XDT_m2230306-086	Solid	03/06/23 20:23
LDW23-IT1246	BLB0518-MSD2	XDT_m2230306-086	Solid	03/06/23 20:23
Instrument Blank	SLC0078-IBL8	XDT_m2230306-088	NA	03/06/23 20:32
Calibration Check	SLC0078-CCV8	XDT_m2230306-089	NA	03/06/23 20:37
Calibration Blank	SLC0078-CCB8	XDT_m2230306-090	NA	03/06/23 20:44
ZZZZZ	BLB0615-BLK1	XDT_m2230306-093	Solid	03/06/23 20:57
ZZZZZ	BLB0615-BS1	XDT_m2230306-094	Solid	03/06/23 21:02
ZZZZZ	23A0031-02	XDT_m2230306-095	Solid	03/06/23 21:06
ZZZZZ	23A0031-02	XDT_m2230306-095	Solid	03/06/23 21:06
ZZZZZ	23A0031-02	XDT_m2230306-095	Solid	03/06/23 21:06
ZZZZZ	BLB0508-DUP1	XDT_m2230306-096	Solid	03/06/23 21:11
ZZZZZ	BLB0508-MS1	XDT_m2230306-097	Solid	03/06/23 21:15
ZZZZZ	BLB0508-MSD1	XDT_m2230306-098	Solid	03/06/23 21:19
ZZZZZ	BLB0508-PS1	XDT_m2230306-099	Solid	03/06/23 21:24
Instrument Blank	SLC0078-IBL9	XDT_m2230306-100	NA	03/06/23 21:28
Calibration Check	SLC0078-CCV9	XDT_m2230306-101	NA	03/06/23 21:33
Calibration Blank	SLC0078-CCB9	XDT_m2230306-102	NA	03/06/23 21:40
ZZZZZ	23B0217-02	XDT_m2230306-109	Solid	03/06/23 22:12



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23B0217-02	XDT_m2230306-109	Solid	03/06/23 22:12
ZZZZZ	23B0217-02	XDT_m2230306-109	Solid	03/06/23 22:12
ZZZZZ	BLB0615-DUP1	XDT_m2230306-110	Solid	03/06/23 22:17
ZZZZZ	BLB0615-MS1	XDT_m2230306-111	Solid	03/06/23 22:21
ZZZZZ	BLB0615-MSD1	XDT_m2230306-112	Solid	03/06/23 22:26
Calibration Check	SLC0078-CCVA	XDT_m2230306-113	NA	03/06/23 22:32
Calibration Blank	SLC0078-CCBA	XDT_m2230306-114	NA	03/06/23 22:39
Calibration Check	SLC0078-CCVB	XDT_m2230306-116	NA	03/06/23 22:48
Calibration Blank	SLC0078-CCBB	XDT_m2230306-117	NA	03/06/23 22:55
ZZZZZ	BLB0607-BLK1	XDT_m2230306-118	Solid	03/06/23 22:59
ZZZZZ	BLB0607-BS1	XDT_m2230306-119	Solid	03/06/23 23:04
ZZZZZ	BLB0607-SRL1	XDT_m2230306-120	Solid	03/06/23 23:08
ZZZZZ	23B0410-01	XDT_m2230306-121	Solid	03/06/23 23:13
ZZZZZ	BLB0607-DUP1	XDT_m2230306-122	Solid	03/06/23 23:17
ZZZZZ	BLB0607-MS1	XDT_m2230306-123	Solid	03/06/23 23:22
ZZZZZ	BLB0607-MSD1	XDT_m2230306-124	Solid	03/06/23 23:26
ZZZZZ	BLB0607-SRM1	XDT_m2230306-126	Solid	03/06/23 23:35
Instrument Blank	SLC0078-IBLC	XDT_m2230306-127	NA	03/06/23 23:40
Calibration Check	SLC0078-CCVC	XDT_m2230306-128	NA	03/06/23 23:44
Calibration Blank	SLC0078-CCBC	XDT_m2230306-129	NA	03/06/23 23:51
ZZZZZ	BLB0687-BLK1	XDT_m2230306-130	Solid	03/06/23 23:56
ZZZZZ	BLB0687-BS1	XDT_m2230306-131	Solid	03/07/23 00:00
ZZZZZ	BLB0687-SRL1	XDT_m2230306-132	Solid	03/07/23 00:05
ZZZZZ	23B0411-01	XDT_m2230306-133	Solid	03/07/23 00:09
ZZZZZ	BLB0687-DUP1	XDT_m2230306-134	Solid	03/07/23 00:14
ZZZZZ	BLB0687-MS1	XDT_m2230306-135	Solid	03/07/23 00:18
ZZZZZ	BLB0687-MSD1	XDT_m2230306-136	Solid	03/07/23 00:22
ZZZZZ	BLB0687-SRM1	XDT_m2230306-138	Solid	03/07/23 00:31
Instrument Blank	SLC0078-IBLD	XDT_m2230306-139	NA	03/07/23 00:36



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SLC0078-CCVD	XDT_m2230306-140	NA	03/07/23 00:40
Calibration Blank	SLC0078-CCBD	XDT_m2230306-141	NA	03/07/23 00:47
ZZZZZ	23A0031-01	XDT_m2230306-146	Solid	03/07/23 01:11
ZZZZZ	23A0031-01	XDT_m2230306-146	Solid	03/07/23 01:11
ZZZZZ	23A0031-01	XDT_m2230306-146	Solid	03/07/23 01:11
ZZZZZ	23A0031-03	XDT_m2230306-147	Solid	03/07/23 01:16
ZZZZZ	23A0031-03	XDT_m2230306-147	Solid	03/07/23 01:16
ZZZZZ	23A0031-03	XDT_m2230306-147	Solid	03/07/23 01:16
ZZZZZ	23A0031-04	XDT_m2230306-148	Solid	03/07/23 01:20
ZZZZZ	23A0031-04	XDT_m2230306-148	Solid	03/07/23 01:20
ZZZZZ	23A0031-04	XDT_m2230306-148	Solid	03/07/23 01:20
ZZZZZ	23A0031-05	XDT_m2230306-149	Solid	03/07/23 01:25
ZZZZZ	23A0031-05	XDT_m2230306-149	Solid	03/07/23 01:25
ZZZZZ	23A0031-06	XDT_m2230306-150	Solid	03/07/23 01:29
ZZZZZ	23A0031-06	XDT_m2230306-150	Solid	03/07/23 01:29
ZZZZZ	23A0031-06	XDT_m2230306-150	Solid	03/07/23 01:29
ZZZZZ	23A0031-07	XDT_m2230306-151	Solid	03/07/23 01:34
ZZZZZ	23A0031-07	XDT_m2230306-151	Solid	03/07/23 01:34
ZZZZZ	23A0031-07	XDT_m2230306-151	Solid	03/07/23 01:34
Calibration Check	SLC0078-CCVE	XDT_m2230306-152	NA	03/07/23 01:39
Calibration Blank	SLC0078-CCBE	XDT_m2230306-153	NA	03/07/23 01:47
ZZZZZ	23A0031-08	XDT_m2230306-154	Solid	03/07/23 01:51
ZZZZZ	23A0031-08	XDT_m2230306-154	Solid	03/07/23 01:51
ZZZZZ	23A0031-08	XDT_m2230306-154	Solid	03/07/23 01:51
ZZZZZ	23A0031-09	XDT_m2230306-155	Solid	03/07/23 01:56
ZZZZZ	23A0031-09	XDT_m2230306-155	Solid	03/07/23 01:56
ZZZZZ	23A0031-09	XDT_m2230306-155	Solid	03/07/23 01:56
ZZZZZ	23A0031-10	XDT_m2230306-156	Solid	03/07/23 02:00
ZZZZZ	23A0031-10	XDT_m2230306-156	Solid	03/07/23 02:00



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0031-10	XDT_m2230306-156	Solid	03/07/23 02:00
ZZZZZ	23A0031-11	XDT_m2230306-157	Solid	03/07/23 02:04
ZZZZZ	23A0031-11	XDT_m2230306-157	Solid	03/07/23 02:04
ZZZZZ	23A0031-11	XDT_m2230306-157	Solid	03/07/23 02:04
ZZZZZ	23A0031-12	XDT_m2230306-158	Solid	03/07/23 02:09
ZZZZZ	23A0031-12	XDT_m2230306-158	Solid	03/07/23 02:09
ZZZZZ	23A0031-12	XDT_m2230306-158	Solid	03/07/23 02:09
ZZZZZ	23A0031-13	XDT_m2230306-159	Solid	03/07/23 02:13
ZZZZZ	23A0031-13	XDT_m2230306-159	Solid	03/07/23 02:13
ZZZZZ	23A0031-13	XDT_m2230306-159	Solid	03/07/23 02:13
ZZZZZ	23A0031-14	XDT_m2230306-160	Solid	03/07/23 02:18
ZZZZZ	23A0031-14	XDT_m2230306-160	Solid	03/07/23 02:18
ZZZZZ	23A0031-14	XDT_m2230306-160	Solid	03/07/23 02:18
ZZZZZ	23A0031-15	XDT_m2230306-161	Solid	03/07/23 02:22
ZZZZZ	23A0031-15	XDT_m2230306-161	Solid	03/07/23 02:22
ZZZZZ	23A0031-15	XDT_m2230306-161	Solid	03/07/23 02:22
ZZZZZ	23A0031-16	XDT_m2230306-162	Solid	03/07/23 02:27
ZZZZZ	23A0031-16	XDT_m2230306-162	Solid	03/07/23 02:27
ZZZZZ	23A0031-16	XDT_m2230306-162	Solid	03/07/23 02:27
ZZZZZ	23A0031-17	XDT_m2230306-163	Solid	03/07/23 02:31
ZZZZZ	23A0031-17	XDT_m2230306-163	Solid	03/07/23 02:31
ZZZZZ	23A0031-17	XDT_m2230306-163	Solid	03/07/23 02:31
Calibration Check	SLC0078-CCVF	XDT_m2230306-164	NA	03/07/23 02:37
Calibration Blank	SLC0078-CCBF	XDT_m2230306-165	NA	03/07/23 02:44
ZZZZZ	23A0031-18	XDT_m2230306-166	Solid	03/07/23 02:49
ZZZZZ	23A0031-18	XDT_m2230306-166	Solid	03/07/23 02:49
ZZZZZ	23A0031-18	XDT_m2230306-166	Solid	03/07/23 02:49
ZZZZZ	23A0031-19	XDT_m2230306-167	Solid	03/07/23 02:53
ZZZZZ	23A0031-19	XDT_m2230306-167	Solid	03/07/23 02:53



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0031-19	XDT_m2230306-167	Solid	03/07/23 02:53
ZZZZZ	23A0031-20	XDT_m2230306-168	Solid	03/07/23 02:58
ZZZZZ	23A0031-20	XDT_m2230306-168	Solid	03/07/23 02:58
ZZZZZ	23A0031-20	XDT_m2230306-168	Solid	03/07/23 02:58
ZZZZZ	23A0031-21	XDT_m2230306-169	Solid	03/07/23 03:02
ZZZZZ	23A0031-21	XDT_m2230306-169	Solid	03/07/23 03:02
ZZZZZ	23A0031-21	XDT_m2230306-169	Solid	03/07/23 03:02
LDW23-IT1224	23A0032-05	XDT_m2230306-170	Solid	03/07/23 03:06
LDW23-IT1224	23A0032-05	XDT_m2230306-170	Solid	03/07/23 03:06
LDW23-IT1224	23A0032-05	XDT_m2230306-170	Solid	03/07/23 03:06
LDW23-SC1226B	23A0032-08	XDT_m2230306-173	Solid	03/07/23 03:20
LDW23-SC1226B	23A0032-08	XDT_m2230306-173	Solid	03/07/23 03:20
LDW23-SC1226B	23A0032-08	XDT_m2230306-173	Solid	03/07/23 03:20
LDW23-SC1212	23A0032-11	XDT_m2230306-174	Solid	03/07/23 03:24
LDW23-SC1212	23A0032-11	XDT_m2230306-174	Solid	03/07/23 03:24
LDW23-SC1212	23A0032-11	XDT_m2230306-174	Solid	03/07/23 03:24
ZZZZZ	23B0276-01	XDT_m2230306-175	Solid	03/07/23 03:29
ZZZZZ	23B0276-01	XDT_m2230306-175	Solid	03/07/23 03:29
ZZZZZ	23B0276-01	XDT_m2230306-175	Solid	03/07/23 03:29
Calibration Check	SLC0078-CCVG	XDT_m2230306-176	NA	03/07/23 03:35
Calibration Blank	SLC0078-CCBG	XDT_m2230306-177	NA	03/07/23 03:42
Calibration Check	SLC0078-CCVH	XDT_m2230306-179	NA	03/07/23 03:51
Calibration Blank	SLC0078-CCBH	XDT_m2230306-180	NA	03/07/23 03:58
ZZZZZ	23A0171-01	XDT_m2230306-184	Solid	03/07/23 04:17
ZZZZZ	23A0171-01	XDT_m2230306-184	Solid	03/07/23 04:17
ZZZZZ	23A0171-02	XDT_m2230306-185	Solid	03/07/23 04:21
ZZZZZ	23A0171-02	XDT_m2230306-185	Solid	03/07/23 04:21
ZZZZZ	23A0171-03	XDT_m2230306-186	Solid	03/07/23 04:26
ZZZZZ	23A0171-03	XDT_m2230306-186	Solid	03/07/23 04:26



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0171-04	XDT_m2230306-187	Solid	03/07/23 04:30
ZZZZZ	23A0171-04	XDT_m2230306-187	Solid	03/07/23 04:30
ZZZZZ	23A0171-04	XDT_m2230306-187	Solid	03/07/23 04:30
ZZZZZ	23B0051-01	XDT_m2230306-188	Solid	03/07/23 04:35
ZZZZZ	23B0051-02	XDT_m2230306-189	Solid	03/07/23 04:39
ZZZZZ	23B0051-02	XDT_m2230306-189	Solid	03/07/23 04:39
ZZZZZ	23B0051-03	XDT_m2230306-190	Solid	03/07/23 04:44
ZZZZZ	23B0051-03	XDT_m2230306-190	Solid	03/07/23 04:44
ZZZZZ	23B0051-03	XDT_m2230306-190	Solid	03/07/23 04:44
Calibration Check	SLC0078-CCVI	XDT_m2230306-191	NA	03/07/23 04:50
Calibration Blank	SLC0078-CCBI	XDT_m2230306-192	NA	03/07/23 04:57
ZZZZZ	23B0217-03	XDT_m2230306-193	Solid	03/07/23 05:01
ZZZZZ	23B0217-03	XDT_m2230306-193	Solid	03/07/23 05:01
ZZZZZ	23B0217-03	XDT_m2230306-193	Solid	03/07/23 05:01
ZZZZZ	23B0217-04	XDT_m2230306-194	Solid	03/07/23 05:06
ZZZZZ	23B0217-04	XDT_m2230306-194	Solid	03/07/23 05:06
ZZZZZ	23B0217-04	XDT_m2230306-194	Solid	03/07/23 05:06
ZZZZZ	23B0217-05	XDT_m2230306-195	Solid	03/07/23 05:10
ZZZZZ	23B0217-05	XDT_m2230306-195	Solid	03/07/23 05:10
ZZZZZ	23B0217-05	XDT_m2230306-195	Solid	03/07/23 05:10
ZZZZZ	23B0217-06	XDT_m2230306-196	Solid	03/07/23 05:15
ZZZZZ	23B0217-06	XDT_m2230306-196	Solid	03/07/23 05:15
ZZZZZ	23B0217-06	XDT_m2230306-196	Solid	03/07/23 05:15
Instrument Blank	SLC0078-IBLJ	XDT_m2230306-202	NA	03/07/23 05:42
Calibration Check	SLC0078-CCVJ	XDT_m2230306-203	NA	03/07/23 05:46
Calibration Blank	SLC0078-CCBJ	XDT_m2230306-204	NA	03/07/23 05:53
Instrument Blank	SLC0078-IBLK	XDT_m2230306-214	NA	03/07/23 06:40
Calibration Check	SLC0078-CCVK	XDT_m2230306-215	NA	03/07/23 06:44
Calibration Blank	SLC0078-CCBK	XDT_m2230306-216	NA	03/07/23 06:51



ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Instrument Blank	SLC0078-IBLM	XDT_m2230306-219	NA	03/07/23 07:05
Instrument Blank	SLC0078-IBLL	XDT_m2230306-222	NA	03/07/23 07:18
Calibration Check	SLC0078-CCVL	XDT_m2230306-223	NA	03/07/23 07:22
Calibration Blank	SLC0078-CCBL	XDT_m2230306-224	NA	03/07/23 07:30



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS2

Calibration: GC00005

Sequence: SLC0028

Standard ID: L002006

Lab Sample ID	Analyte	True	Found	%R	Units
SLC0028-IFA1	Chromium-52	0	0.8390		ug/L
	Chromium-53	0	4.4050		ug/L
	Lead-208	0	0.0240		ug/L
	Silver-107	0	-0.0020		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS2

Calibration: GC00005

Sequence: SLC0028

Standard ID: L002006

Lab Sample ID	Analyte	True	Found	%R	Units
SLC0028-IFB1	Chromium-52	20.000	19.858	99.3	ug/L
	Chromium-53	20.000	23.335	117	ug/L
	Lead-208	0	0.0350		ug/L
	Silver-107	20.000	17.996	90.0	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Standard ID: L002006

Lab Sample ID	Analyte	True	Found	%R	Units
SLC0078-IFA1	Chromium-52	0	0.9600		ug/L
	Chromium-53	0	3.2240		ug/L
	Lead-208	0	0.0310		ug/L
	Silver-107	0	0.0320		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Standard ID: L002006

Lab Sample ID	Analyte	True	Found	%R	Units
SLC0078-IFB1	Chromium-52	20.000	20.054	100	ug/L
	Chromium-53	20.000	22.295	111	ug/L
	Lead-208	0	0.0420		ug/L
	Silver-107	20.000	18.571	92.9	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



DETECTION LEVEL STANDARD
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS2

Calibration: GC00005

Sequence: SLC0028

Lab Sample ID: SLC0028-CRL1

Analyte	True	Found	%R	Units	QC Limits
Chromium-52	0.50000	0.446	89.2	ug/L	50 - 150
Chromium-53	0.50000	0.480	96.0	ug/L	50 - 150
Lead-208	0.10000	0.0980	98.0	ug/L	50 - 150
Silver-107	0.20000	0.192	96.0	ug/L	50 - 150

* Values outside of QC limits



DETECTION LEVEL STANDARD
EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Lab Sample ID: SLC0078-CRL1

Analyte	True	Found	%R	Units	QC Limits
Chromium-52	0.50000	0.579	116	ug/L	50 - 150
Chromium-53	0.50000	0.465	93.0	ug/L	50 - 150
Lead-208	0.10000	0.100	100	ug/L	50 - 150
Silver-107	0.20000	0.207	104	ug/L	50 - 150

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GC00005

Laboratory ID: SLC0028-HCV1

Sequence: SLC0028

Standard ID: L002008

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	200.00	201	0.5	10.00
Chromium-53	200.00	195	-2.3	10.00
Lead-208	200.00	198	-1.2	10.00
Silver-107	200.00	194	-2.9	10.00

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION**

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GC00005

Laboratory ID: SLC0028-HCV2

Sequence: SLC0028

Standard ID: L002009

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	300.00	301	0.4	10.00
Chromium-53	300.00	297	-1.0	10.00
Lead-208	300.00	306	1.8	10.00
Silver-107	300.00	297	-1.1	10.00

* Values outside of QC limits



HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GC00021

Laboratory ID: SLC0078-HCV1

Sequence: SLC0078

Standard ID: L002008

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	200.00	195	-2.4	10.00
Chromium-53	200.00	195	-2.6	10.00
Lead-208	200.00	184	-8.1	10.00
Silver-107	200.00	191	-4.7	10.00

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION**

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GC00021

Laboratory ID: SLC0078-HCV2

Sequence: SLC0078

Standard ID: L002009

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52	300.00	291	-2.9	10.00
Chromium-53	300.00	291	-2.9	10.00
Lead-208	300.00	259	-13.6	10.00
Silver-107	300.00	279	-7.1	10.00

* Values outside of QC limits



HOLDING TIME SUMMARY

Analysis: EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-IT1246 23A0032-01	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/06/23 20:10	62	180	
LDW23-IT1246 23A0032-01	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/01/23 21:35	58	180	
LDW23-IT1224 23A0032-05	01/03/23 13:21	01/03/23 16:57	02/24/23 16:23	52	365	03/07/23 03:06	63	365	
LDW23-SC1226B 23A0032-08	01/03/23 12:35	01/03/23 16:57	02/24/23 16:23	52	365	03/07/23 03:20	63	365	
LDW23-SC1212 23A0032-11	01/03/23 14:01	01/03/23 16:57	02/24/23 16:23	52	365	03/07/23 03:24	63	365	
Duplicate BLB0518-DUP1	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/01/23 21:40	58	180	
Duplicate BLB0518-DUP2	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/06/23 20:14	62	180	
Matrix Spike BLB0518-MS1	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/01/23 21:45	58	180	
Matrix Spike BLB0518-MS2	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/06/23 20:19	62	180	
Matrix Spike Dup BLB0518-MSD1	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/01/23 21:50	58	180	
Matrix Spike Dup BLB0518-MSD2	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/06/23 20:23	62	180	
Post Spike BLB0518-PS1	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/01/23 21:54	58	180	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS
EPA 6020B**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: ICPMS1

Analyte	MDL	RL	Units
Chromium-52	0.26	0.50	mg/kg
Chromium-53	0.24	0.50	mg/kg
Lead-208	0.05	0.10	mg/kg
Silver-107	0.02	0.20	mg/kg



**METHOD DETECTION
AND REPORTING LIMITS**

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: ICPMS2

Analyte	MDL	RL	Units
Chromium-52	0.26	0.50	mg/kg
Lead-208	0.05	0.10	mg/kg
Silver-107	0.02	0.20	mg/kg

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGCU10
 Lot Number: P2-CU682108
 Matrix: 3% (v/v) HNO₃
 Value / Analyte(s): 10 000 µg/mL ea:
 Copper
 Starting Material: Cu Metal
 Starting Material Lot#: 2095
 Starting Material Purity: 99.9996%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10013 ± 30 µg/mL
Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9977 ± 50 µg/mL ICP Assay NIST SRM 3114 Lot Number: 121207
Assay Method #2	10024 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10007 ± 46 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.007542	M Eu < 0.000942	O Na < 0.001434	M Se < 0.016971	M Zn < 0.005657
O Al < 0.000609	O Fe < 0.008700	M Nb < 0.000942	O Si < 0.003052	M Zr < 0.000942
M As < 0.010371	M Ga < 0.000942	M Nd < 0.000942	M Sm < 0.000942	
M Au < 0.001885	M Gd < 0.000942	M Ni < 0.003781	M Sn < 0.005657	
O B < 0.003663	M Ge < 0.005657	M Os < 0.000942	M Sr < 0.000942	
M Ba < 0.004253	M Hf < 0.000942	O P < 0.031668	M Ta < 0.000942	
M Be < 0.000942	O Hg < 0.007064	M Pb < 0.005789	M Tb < 0.000942	
M Bi < 0.000942	M Ho < 0.000942	M Pd < 0.000942	M Te < 0.004714	
O Ca < 0.002304	M In < 0.000942	M Pr < 0.000942	M Th < 0.000942	
M Cd < 0.000942	M Ir < 0.000942	M Pt < 0.000942	O Ti < 0.002801	
M Ce < 0.000942	O K < 0.000763	M Rb < 0.000942	M Tl < 0.000942	
M Co < 0.001890	M La < 0.000942	M Re < 0.000942	M Tm < 0.000942	
M Cr < 0.005657	O Li < 0.000243	i Rh <	M U < 0.000942	
M Cs < 0.000942	M Lu < 0.000942	M Ru < 0.039588	M V < 0.003771	
s Cu <	O Mg < 0.000320	O S < 0.007174	M W < 0.005657	
M Dy < 0.000942	O Mn < 0.000793	M Sb < 0.001885	M Y < 0.000942	
M Er < 0.000942	M Mo < 0.005657	M Sc < 0.000942	M Yb < 0.000942	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 63.55 +2 6 Cu(H₂O)₆2+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Cu Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 63 amu	10 ppt	n/a	40Ar23Na 47Ti16O, 14N12C37Cl, 16O12C35Cl, 23Na40Ca
ICP-OES 219.958 nm	0.01/.002 µg/mL	1	Th, Ta, Nb, U, Hf
ICP-OES 224.700 nm	0.01/.001 µg/mL	1	Pb, Ir, Ni, W
ICP-OES 324.754 nm	0.06/.001 µg/mL		Nb, U, Th, Mo, Hf

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 24, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 24, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGPB10
Lot Number: S2-PB713228
Matrix: 0.5% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Lead
Starting Material: Lead Nitrate
Starting Material Lot#: 2343
Starting Material Purity: 99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10042 ± 31 µg/mL
Density: 1.015 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10024 ± 41 µg/mL**
ICP Assay NIST SRM 3128 Lot Number: 101026

Assay Method #2 **10054 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000310	M Eu < 0.000310	M Na < 0.001470	M Se < 0.009100	O Zn < 0.006155
O Al < 0.017098	O Fe < 0.002496	M Nb < 0.000310	O Si < 0.003761	O Zr < 0.001700
M As < 0.003100	M Ga < 0.000310	M Nd < 0.000310	M Sm < 0.000310	
M Au < 0.000910	M Gd < 0.000310	O Ni < 0.001709	M Sn < 0.001300	
O B < 0.005600	M Ge < 0.002200	M Os < 0.000310	O Sr < 0.000444	
O Ba < 0.007865	M Hf < 0.000310	O P < 0.038000	M Ta < 0.000310	
O Be < 0.000320	M Hg < 0.002200	s Pb < 0.000610	M Tb < 0.000610	
M Bi < 0.028000	M Ho < 0.000310	M Pd < 0.000610	M Te < 0.000310	
O Ca < 0.019834	M In < 0.000310	M Pr < 0.000310	M Th < 0.000310	
O Cd < 0.000630	M Ir < 0.000310	M Pt < 0.000910	O Ti < 0.005129	
M Ce < 0.004787	O K < 0.008207	M Rb < 0.006700	M Tl < 0.016000	
M Co < 0.000610	M La < 0.001900	M Re < 0.000310	M Tm < 0.000310	
O Cr < 0.001500	O Li < 0.000110	O Rh < 0.007700	M U < 0.000310	
M Cs < 0.006100	M Lu < 0.000310	M Ru < 0.001300	M V < 0.001600	
M Cu < 0.001600	O Mg < 0.003317	O S < 0.052000	M W < 0.000910	
M Dy < 0.000310	O Mn < 0.001600	O Sb < 0.015000	M Y < 0.000310	
M Er < 0.000310	M Mo < 0.000610	O Sc < 0.000630	M Yb < 0.000310	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 207.20 +2 6 Pb(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, HF and HNO₃. Avoid H₂SO₄. Stable with most metals and inorganic anions forming insoluble carbonate, borate, sulfate, sulfite, sulfide, phosphate, oxalate, chromate, tannate, iodate, and cyanide in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Pb Containing Samples (Preparation and Solution) -Metal (Best dissolved in 1:1 H₂O / HNO₃); Oxides (The many different Pb oxides are soluble in HNO₃ with the exception of PbO₂ which is soluble in HCl or HF); Ores and Alloys (Best attacked using 1:1 H₂O / HNO₃); Organic Matrices (Dry ash and dissolve in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 208 amu	5 ppt	n/a	192Pt16O, 192Os16O
ICP-OES 168.215 nm	0.03 / 0.003 µg/mL	1	Co
ICP-OES 217.000 nm	0.09 / 0.03 µg/mL	1	W, Ir, Hf, Sb, Th
ICP-OES 220.353 nm	0.04 / 0.006 µg/mL	1	Bi, Nb

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGZN10
Lot Number: S2-ZN711249
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Zinc
Starting Material: Zinc Metal
Starting Material Lot#: 2349
Starting Material Purity: 99.9988%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL
Density: 1.029 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9981 ± 56 µg/mL ICP Assay NIST SRM 3168a Lot Number: 120629
Assay Method #2	9987 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10002 ± 32 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.002000	M Eu < 0.000500	O Na < 0.008713	M Se < 0.048000	s Zn <
O Al < 0.011000	O Fe < 0.015467	M Nb < 0.000500	O Si < 0.007842	M Zr < 0.000500
O As < 0.012000	M Ga < 0.004900	M Nd < 0.000500	M Sm < 0.000500	
M Au < 0.006500	M Gd < 0.000500	O Ni < 0.003049	M Sn < 0.002614	
O B < 0.019000	M Ge < 0.009100	M Os < 0.000500	M Sr < 0.000500	
M Ba < 0.000500	M Hf < 0.000500	O P < 0.059000	M Ta < 0.000500	
O Be < 0.000230	O Hg < 0.003800	M Pb < 0.016774	M Tb < 0.000500	
M Bi < 0.002400	M Ho < 0.000500	M Pd < 0.001000	M Te < 0.017000	
O Ca < 0.052283	M In < 0.003500	M Pr < 0.000500	M Th < 0.000500	
O Cd < 0.000588	M Ir < 0.001000	M Pt < 0.000500	M Ti < 0.002000	
M Ce < 0.000500	O K < 0.017209	M Rb < 0.002500	M Tl < 0.000500	
M Co < 0.000653	M La < 0.000500	M Re < 0.000500	M Tm < 0.000500	
O Cr < 0.001089	O Li < 0.000230	M Rh < 0.000500	M U < 0.000500	
M Cs < 0.000500	M Lu < 0.000500	M Ru < 0.005000	M V < 0.000500	
O Cu < 0.001938	O Mg < 0.000871	O S < 0.048000	M W < 0.001000	
M Dy < 0.000500	O Mn < 0.000172	M Sb < 0.004300	M Y < 0.000500	
M Er < 0.000500	M Mo < 0.001500	O Sc < 0.000900	M Yb < 0.000500	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 65.39 +2 4 Zn(OH)(aq)1+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media forming insoluble carbonate and hydroxide. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Zn Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃); Organic based (dry ash at 4500C and dissolve ash in HCl) (sulfuric/peroxide acid digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 66 amu	7 ppt	N/A	50Ti16O,50Cr16O, 50V16O, 34S16O2, 32S16O18O, 32S17O2, 33S16O17O, 32S34S, 33S2
ICP-OES 202.548 nm	0.004/0.0002 µg/mL	1	Nb, Cu, Co, Hf
ICP-OES 206.200 nm	0.006/0.0006 µg/mL	1	Sb, Ta, Bi, Os
ICP-OES 213.856 nm	0.002/0.0004 µg/mL	1	Ni, Cu, V

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 22, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGSE10
Lot Number: S2-SE711004
Matrix: 3% (v/v) HNO3
Value / Analyte(s): 10 000 µg/mL ea:
Selenium
Starting Material: Se Metal
Starting Material Lot#: 1962
Starting Material Purity: 99.9991%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9955 ± 61 µg/mL
Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **9955 ± 50 µg/mL**
ICP Assay NIST SRM 3149 Lot Number: 100901

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char\ i}^2) / (\sum(1/(u_{char\ i}^2)))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 u_{char} = $[\sum((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char\ a})$$

X_a = mean of Assay Method A with
 $u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char\ a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.002242	M	Eu <	0.000373	O Na	0.013654	s	Se <		O Zn	0.002374
M Al	0.004450	M	Fe	0.008478	O Nb <	0.002975	O Si	0.006249	M Zr <	0.001868	
O As <	0.022040	M	Ga <	0.000373	M Nd <	0.000373	M Sm <	0.000373			
M Au <	0.000373	M	Gd <	0.000373	O Ni	0.001843	M Sn	0.000847			
O B <	0.007714	M	Ge <	0.002616	M Os <	0.000373	M Sr <	0.001121			
M Ba <	0.001495	M	Hf <	0.000373	O P <	0.022040	M Ta <	0.000373			
M Be <	0.001495	M	Hg <	0.002240	M Pb	0.006358	M Tb <	0.006353			
M Bi <	0.000373	M	Ho <	0.000373	M Pd <	0.000373	M Te <	0.012707			
O Ca	0.006530	M	In <	0.000373	M Pr <	0.001495	M Th <	0.002990			
M Cd	0.001165	M	Ir <	0.000373	M Pt <	0.000373	M Ti <	0.003363			
M Ce <	0.000373	O	K	0.001999	M Rb <	0.001868	M Tl	0.008584			
M Co <	0.000373	M	La <	0.001121	M Re <	0.000373	M Tm <	0.000373			
M Cr	0.002861	O	Li	0.000062	M Rh <	0.000373	M U <	0.000373			
M Cs <	0.001121	M	Lu <	0.000373	M Ru <	0.001493	M V <	0.000747			
M Cu <	0.000747	O	Mg	0.001156	O S	0.024591	M W <	0.002242			
M Dy <	0.000373	M	Mn <	0.000373	M Sb <	0.002242	M Y <	0.000373			
M Er <	0.000373	O	Mo <	0.003195	M Sc <	0.001121	M Yb <	0.000373			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 78.96 +4 6 H₂SeO₃

Chemical Compatibility -Soluble in HCl, HNO₃,H₃PO₄, H₂SO₄ and HF aqueous matrices and water. It is stable with most inorganic anions but many cationic metals form the insoluble selenites under pH neutral conditions. When fluorinated and/or under acidic conditions precipitation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Se Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (readily soluble in water); Minerals and alloys (acid digestion with HNO₃or HNO₃ / HF); Organic Matrices (acid digestion with hot concentrated H₂SO₄ accompanied by the careful dropwise addition of H₂O₂ until clear).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 82 amu	200 ppt	N/A	12C35Cl2
ICP-OES 196.026 nm	0.08/0.006 µg/mL	1	Fe
ICP-OES 203.985 nm	0.2/0.05 µg/mL	1	Sb, Ir, Cr, Ta
ICP-OES 206.279 nm	0.3/0.16 µg/mL	1	Cr, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 17, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMO10
Lot Number: S2-MO706255
Matrix: H2O
tr. NH4OH
Value / Analyte(s): 10 000 µg/mL ea:
Molybdenum
Starting Material: Ammonium Molybdate
Starting Material Lot#: 2361
Starting Material Purity: 99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10026 ± 47 µg/mL
Density: 1.011 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10032 ± 68 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

Assay Method #2 **10020 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000590	M Eu < 0.000300	M Na < 0.008739	M Se < 0.008000	M Zn < 0.005942
M Al < 0.005592	M Fe < 0.006500	M Nb < 0.029000	i Si < 0.001800	M Zr < 0.001800
M As < 0.002100	M Ga < 0.000300	i Nd < 0.000300	M Sm < 0.000300	
M Au < 0.000300	M Gd < 0.000300	M Ni < 0.008000	M Sn < 0.008900	
M B < 0.003300	M Ge < 0.000300	M Os < 0.000590	M Sr < 0.001747	
M Ba < 0.016778	M Hf < 0.001800	i P < 0.004200	M Ta < 0.004200	
M Be < 0.000890	M Hg < 0.003300	M Pb < 0.000300	M Tb < 0.000300	
M Bi < 0.000890	M Ho < 0.000300	M Pd < 0.001800	M Te < 0.021000	
O Ca < 0.062920	M In < 0.032000	M Pr < 0.013000	M Th < 0.000300	
O Cd < 0.026000	M Ir < 0.000300	M Pt < 0.000300	O Ti < 0.032000	
M Ce < 0.008300	M K < 1.293372	M Rb < 0.045442	M Tl < 0.012584	
M Co < 0.005942	M La < 0.000300	M Re < 0.000300	M Tm < 0.000300	
M Cr < 0.005243	O Li < 0.000594	M Rh < 0.000300	M U < 0.005300	
M Cs < 0.005243	M Lu < 0.000300	M Ru < 0.079000	M V < 0.000890	
M Cu < 0.022371	M Mg < 0.005592	i S < 0.873900	M W < 0.873900	
M Dy < 0.000300	M Mn < 0.005900	M Sb < 0.015031	M Y < 0.000300	
M Er < 0.000300	s Mo < 0.000300	M Sc < 0.001200	M Yb < 0.000300	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9

[MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br1 6O,190Os2+,190Pt 2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 04, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 04, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGTL10
Lot Number: T2-TL714687
Matrix: 5% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Thallium
Starting Material: TINO₃
Starting Material Lot#: 2118
Starting Material Purity: 99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10030 ± 42 µg/mL
Density: 1.036 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10040 ± 43 µg/mL**
ICP Assay NIST SRM 3158 Lot Number: 151215

Assay Method #2 **10010 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i^2)(u_{char\ i}^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000200	M Eu < 0.000200	O Na < 0.002489	M Se < 0.011019	O Zn < 0.002298
O Al < 0.004184	O Fe < 0.002824	M Nb < 0.000200	O Si < 0.003760	M Zr < 0.000200
M As < 0.002003	M Ga < 0.000200	M Nd < 0.000200	M Sm < 0.000200	
O Au < 0.002824	M Gd < 0.000200	M Ni < 0.001724	M Sn < 0.000601	
O B < 0.004184	M Ge < 0.000801	M Os < 0.000198	O Sr < 0.000313	
M Ba < 0.000400	M Hf < 0.000200	O P < 0.010460	M Ta < 0.000200	
O Be < 0.000104	M Hg < 0.000794	M Pb < 0.000811	M Tb < 0.000200	
M Bi < 0.005209	M Ho < 0.000200	M Pd < 0.000400	M Te < 0.005008	
O Ca < 0.002436	M In < 0.000200	M Pr < 0.000200	M Th < 0.000200	
M Cd < 0.001318	M Ir < 0.000198	M Pt < 0.000801	O Ti < 0.001255	
M Ce < 0.000200	O K < 0.006175	M Rb < 0.000200	s Tl <	
M Co < 0.000601	M La < 0.000200	M Re < 0.000200	M Tm < 0.000200	
M Cr < 0.000801	O Li < 0.000177	M Rh < 0.000200	M U < 0.000200	
M Cs < 0.003606	M Lu < 0.000200	M Ru < 0.000397	M V < 0.002203	
M Cu < 0.001001	O Mg < 0.000529	O S < 0.015690	M W < 0.000601	
M Dy < 0.000200	M Mn < 0.000801	M Sb < 0.000400	M Y < 0.000200	
M Er < 0.000200	M Mo < 0.001202	O Sc < 0.000711	M Yb < 0.000200	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 204.38 +1 6 Ti(H₂O)₆⁺
Chemical Compatibility - Soluble in HCl, HNO₃, and H₂SO₄. Stable with most metals and inorganic anions. The sulfite, thiocyanate and oxalate are moderately soluble; the phosphate and arsenite are slightly soluble and the sulfide is insoluble.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Ti Containing Samples)Preparation and Solution) -Metal (Best dissolved in HNO₃ which forms chiefly the Ti⁺ ion.); Oxide (The thalious oxide is readily soluble in water. The thallic oxide requires high levels of acid); Ores (Carbonate fusion in Pt₀ followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 205 amu	2 ppt	N/A	189Os16O
ICP-OES 190.864 nm	0.04 / 0.004 µg/mL	1	V, Ti
ICP-OES 276.787 nm	0.1 / 0.01 µg/mL	1	Ta, V, Fe, Cr
ICP-OES 351.924 nm	0.2 / 0.02 µg/mL	1	Th, Ce, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 08, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **February 08, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCD10
Lot Number: S2-CD710508
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Cadmium
Starting Material: Cd Metal
Starting Material Lot#: 1953
Starting Material Purity: 99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10008 ± 30 µg/mL
Density: 1.029 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10010 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	10011 ± 30 µg/mL ICP Assay NIST SRM 3108 Lot Number: 130116
Assay Method #3	10003 ± 30 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O Ag < 0.003200	O Eu < 0.002500	O Na < 0.005499	M Se < 0.005700	O Zn < 0.001100
O Al < 0.008903	O Fe < 0.000602	M Nb < 0.000400	O Si < 0.016758	O Zr < 0.002600
M As < 0.003600	M Ga < 0.001200	M Nd < 0.000800	M Sm < 0.000400	
M Au < 0.000810	M Gd < 0.000400	M Ni < 0.003600	M Sn < 0.003200	
O B < 0.004189	O Ge < 0.012000	M Os < 0.000810	O Sr < 0.000330	
M Ba < 0.002400	M Hf < 0.000400	O P < 0.022000	M Ta < 0.000800	
M Be < 0.000400	M Hg < 0.001700	M Pb < 0.002400	M Tb < 0.000400	
M Bi < 0.000400	M Ho < 0.000400	M Pd < 0.001200	M Te < 0.008000	
O Ca < 0.011259	O In < 0.013000	M Pr < 0.000400	M Th < 0.000400	
s Cd < 0.000400	M Ir < 0.000410	M Pt < 0.000400	O Ti < 0.000602	
M Ce < 0.000400	O K < 0.005237	M Rb < 0.004400	M Tl < 0.000523	
M Co < 0.000400	M La < 0.000400	M Re < 0.000400	M Tm < 0.000400	
O Cr < 0.005100	O Li < 0.000054	M Rh < 0.000400	M U < 0.000400	
M Cs < 0.002400	M Lu < 0.000400	M Ru < 0.002500	M V < 0.002000	
O Cu < 0.004800	O Mg < 0.000288	O S < 0.022000	M W < 0.000400	
M Dy < 0.000400	O Mn < 0.000860	O Sb < 0.018000	M Y < 0.000400	
M Er < 0.000400	M Mo < 0.001600	O Sc < 0.000430	M Yb < 0.000400	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 112.41 +2 4 Cd₂(OH)₃⁺ and Cd(OH)₂(aq)

Chemical Compatibility - Stable in HCl, HNO₃, H₂SO₄, and HF. Avoid basic media forming insoluble carbonate and hydroxide.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO₃ / LDPE container.

Cd Containing Samples (Preparation and Solution) - Metal (soluble in HNO₃); Oxides (soluble in HCl or HNO₃); Ores (dissolve in HCl /HNO₃ then take to fumes with H₂SO₄. The silica and lead sulfate are filtered off after the addition of water); Organic based (dry ash at 450°C and dissolve ash in HCl), (sulfuric / peroxide acid digestion).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 111 amu	11 ppt	n/a	95Mo16O
ICP-OES 214.438 nm	0.003 / 0.0003 µg/mL	1	Pt, Ir
ICP-OES 226.502 nm	0.003 / 0.0003 µg/mL	1	Ir
ICP-OES 228.802 nm	0.003 / 0.0003 µg/mL	1	Co, Ir, As, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 01, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 01, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMN10
Lot Number: S2-MN704240
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Manganese
Starting Material: Mn Metal
Starting Material Lot#: 2275
Starting Material Purity: 99.9909%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10011 ± 30 µg/mL
Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9989 ± 69 µg/mL ICP Assay NIST SRM 3132 Lot Number: 050429
Assay Method #2	10011 ± 25 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10024 ± 47 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.001500	M Eu < 0.000730	O Na 0.176097	M Se < 0.006600	M Zn 0.009925
O Al 0.004322	M Fe < 0.650000	M Nb < 0.000730	O Si 0.097654	M Zr < 0.000730
M As < 0.008000	M Ga 0.004322	M Nd < 0.001500	M Sm < 0.000730	
M Au < 0.000730	M Gd < 0.000730	M Ni 0.024013	M Sn < 0.002200	
M B 0.068838	M Ge < 0.004400	M Os < 0.000730	O Sr 0.000928	
M Ba < 0.001500	M Hf < 0.000730	i P <	M Ta < 0.000730	
M Be < 0.000730	M Hg < 0.002200	M Pb 0.007364	M Tb < 0.000730	
M Bi < 0.003000	M Ho < 0.000730	M Pd < 0.000730	M Te < 0.019000	
O Ca 0.062434	M In < 0.003000	M Pr < 0.000730	M Th < 0.000730	
M Cd < 0.001500	M Ir < 0.000730	M Pt < 0.000730	O Ti < 0.006500	
M Ce < 0.007300	O K 0.006403	M Rb < 0.006600	M Tl < 0.000730	
O Co 0.014728	M La < 0.003000	M Re < 0.000730	M Tm < 0.000730	
O Cr 0.272151	O Li 0.000416	M Rh < 0.003000	M U < 0.001500	
M Cs < 0.000730	M Lu < 0.000730	M Ru < 0.004400	M V < 0.000730	
O Cu 0.007684	O Mg 0.320177	i S <	M W < 0.004400	
M Dy < 0.001500	s Mn <	M Sb < 0.021000	O Y 0.001360	
M Er < 0.001500	M Mo 0.010245	O Sc < 0.004100	M Yb < 0.000730	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 54.94 +2 6 Mn(H₂O)₆2+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO₃/LDPE container.

Mn Containing Samples (Preparation and Solution) -Metal (Soluble in dilute acids); Oxides (Soluble in dilute acids); Ores (Dissolve with HCl. If silica is present add HF and then fume off silica by adding H₂SO₄ and heat to SO₃ fumes - dense white fumes).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 55 amu	10 ppt	n/a	40Ar14N1H,39K16 O,37Cl18O,40Ar15 N,38Ar17O,36Ar18O 1H ,38Ar16O1H,37Cl17 O1H,23Na32S
ICP-OES 257.610 nm	0.0014 / 0.00002 µg/mL	1	Ce, W, Re
ICP-OES 259.373 nm	0.0016 / 0.00002 µg/mL	1	U, Ta, Mo, Fe, Nb
ICP-OES 260.569 nm	0.0021 / 0.00002 µg/mL	1	Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 17, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGSB10
 Lot Number: R2-SB688559
 Matrix: 3% (v/v) HNO3
 3% (w/v) tartaric acid
 Value / Analyte(s): 10 000 µg/mL ea:
 Antimony
 Starting Material: Antimony Metal
 Starting Material Lot#: 1857
 Starting Material Purity: 99.9894%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10003 ± 47 µg/mL
Density: 1.061 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 10003 ± 41 µg/mL
 ICP Assay NIST SRM 3102a Lot Number: 140911

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.000200	M Eu <	0.000300	O Na	0.140000	M Se <	0.007300	O Zn	0.005000
M Al	0.003200	O Fe	0.060000	M Nb <	0.000100	O Si	0.150000	O Zr <	0.006300
M As <	0.004400	M Ga <	0.000400	M Nd <	0.000100	M Sm <	0.000100		
M Au <	0.000210	M Gd <	0.000100	O Ni	0.004800	M Sn <	0.001800		
M B <	0.011000	M Ge <	0.000600	M Os <	0.000110	O Sr	0.000750		
O Ba <	0.004900	M Hf <	0.000100	O P	0.540000	M Ta	0.003300		
M Be <	0.000400	M Hg <	0.000110	M Pb <	0.000400	M Tb <	0.000100		
M Bi <	0.000200	M Ho <	0.000100	M Pd <	0.000210	M Te <	0.000600		
O Ca	0.110000	M In <	0.000100	M Pr <	0.001600	M Th <	0.000100		
M Cd <	0.000200	M Ir <	0.000110	M Pt <	0.000600	M Ti <	0.002800		
M Ce	0.006500	O K	0.020000	M Rb <	0.001000	M Tl <	0.000100		
M Co <	0.000200	O La <	0.016000	M Re <	0.000100	M Tm <	0.000100		
M Cr	0.006900	O Li <	0.000430	M Rh <	0.000300	M U <	0.000100		
M Cs <	0.000200	M Lu <	0.000100	M Ru <	0.000310	M V <	0.000800		
M Cu <	0.000600	O Mg	0.021000	n S <		M W <	0.000200		
M Dy <	0.000100	O Mn	0.001900	s Sb <		M Y <	0.000100		
M Er <	0.000100	M Mo <	0.000500	O Sc <	0.002300	M Yb <	0.000100		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 121.75 +3 6 Sb(O)C₄H₄O₆-1

Chemical Compatibility -Stable in conc. HCl, dilute or conc. HF. Stable in dilute HNO₃ as the fluoride or tartrate complex. Avoid basic media. Stable with most metals and inorganic anions in acidic media as the tartrate provided the acidity is not too high or the acid is oxidizing causing loss of the stabilizing tartrate ion. The fluoride complex of antimony is stable in strong acid but you should only mix with other metals that are fluorinated.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-2% HNO₃ / LDPE container.

Sb Containing Samples (Preparation and Solution) -Metal and alloys (Soluble in H₂O / HF / HNO₃ mixture); Oxides (Soluble in HCl and tartaric acid or H₂O / HF / HNO₃ mixtures); Ores (fusion with Na₂CO₃ in PtO followed by dissolving the fuseate in a H₂O / HF / HNO₃ mixture); Organic based (sulfuric acid / hydrogen peroxide digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 121 amu	5 ppt	N/A	105Pd16O, 89Y16O2
ICP-OES 206.833 nm	0.03/0.003 µg/mL	1	Ta, Cr, Ge, Hf
ICP-OES 217.581 nm	0.05/0.005 µg/mL	1	Nb, W, Re, Fe
ICP-OES 231.147 nm	0.06/0.006 µg/mL	1	Ni, Co, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 30, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 30, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAS10
Lot Number: T2-AS718260
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Arsenic
Starting Material: As Metal
Starting Material Lot#: 2208
Starting Material Purity: 99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10060 ± 40 µg/mL
Density: 1.037 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10062 ± 46 µg/mL**
ICP Assay NIST SRM 3103a Lot Number: 100818

Assay Method #2 **10055 ± 76 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.003200	M Eu < 0.000530	O Na < 0.032544	M Se < 0.006300	O Zn < 0.001952
M Al < 0.007593	O Fe < 0.001475	O Nb < 0.012000	O Si < 0.238658	O Zr < 0.004100
s As < 0.000530	M Ga < 0.000530	M Nd < 0.000530	M Sm < 0.000530	
M Au < 0.003100	M Gd < 0.000530	M Ni < 0.002100	M Sn < 0.000530	
M B < 0.026035	M Ge < 0.001600	M Os < 0.000520	M Sr < 0.000530	
M Ba < 0.000530	M Hf < 0.000530	O P < 0.043000	M Ta < 0.000530	
O Be < 0.000360	M Hg < 0.001600	M Pb < 0.002100	M Tb < 0.000530	
M Bi < 0.000530	M Ho < 0.000530	M Pd < 0.001100	M Te < 0.004700	
O Ca < 0.004339	M In < 0.023000	M Pr < 0.005300	M Th < 0.000530	
M Cd < 0.001100	M Ir < 0.000520	M Pt < 0.000530	O Ti < 0.002300	
M Ce < 0.000530	O K < 0.002061	M Rb < 0.000530	M Tl < 0.000530	
M Co < 0.000530	M La < 0.001100	M Re < 0.000530	M Tm < 0.000530	
O Cr < 0.001800	O Li < 0.000120	M Rh < 0.000530	M U < 0.000530	
M Cs < 0.005300	M Lu < 0.000530	M Ru < 0.000520	M V < 0.002700	
M Cu < 0.001600	O Mg < 0.000154	O S < 0.028205	M W < 0.012000	
M Dy < 0.000530	O Mn < 0.000154	M Sb < 0.000530	M Y < 0.000530	
M Er < 0.000530	M Mo < 0.000530	O Sc < 0.001700	M Yb < 0.000530	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 74.92 ; mix of +3 and +5 ; 6 ; H3AsO4 and HAsO2

Chemical Compatibility - Arsenic has no cationic chemistry. It is soluble in HCl, HNO3, H3PO4, H2SO4 and HF aqueous matrices water and NH4OH . It is stable with most inorganic anions (forms arsenate when boiled with chromate) but many cationic metals form the insoluble arsenates under pH neutral conditions. When fluorinated and / or under acidic conditions arsenate formation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO3 / LDPE container.

As Containing Samples (Preparation and Solution) - Metal (soluble in 1:1 H2O / HNO3); Oxides (the oxide exists in crystalline and amorphous forms where the amorphous form is more water soluble. The oxides typically dissolve in dilute acidic solutions when boiled); Minerals (one gram of powdered sample is fused in a Ni crucible with 10 grams of a 1:1 mix of K2CO3 and KNO3 and the melt extracted with hot water); Organic Matrices (0.2 to 0.5 grams of sample are fused with 15 grams of a 1:1 Na2CO3 / Na2O2 mix in a Ni crucible. The fuseate is extracted with water and acidified with HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 75 amu	20 ppt	N/A	40Ar35Cl, 59Co16O, 36Ar38Ar1H,8Ar37C I,Ar39K, 150Nd2+,150Sm2+
ICP-OES 189.042 nm	0.05/0.005 µg/mL	1	Cr
ICP-OES 193.696 nm	0.1/0.01 µg/mL	1	V, Ge
ICP-OES 228.812 nm	0.1/0.01 µg/mL	1	Cd, Pt, Ir, Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGBA10
Lot Number: R2-BA692576
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Barium
Starting Material: Barium Nitrate
Starting Material Lot#: 1969
Starting Material Purity: 99.9982%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL
Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10018 ± 50 µg/mL ICP Assay NIST SRM 3104a Lot Number: 140909
Assay Method #2	10023 ± 31 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #3	10023 ± 30 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an UPLA-Filtered Clean Room. An UPLA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000410	O Eu < 0.005200	O Na < 0.004610	M Se < 0.003700	O Zn < 0.000658
M Al < 0.003100	O Fe < 0.015707	M Nb < 0.000210	O Si < 0.005573	M Zr < 0.001300
M As < 0.001300	M Ga < 0.000210	M Nd < 0.000210	O Sm < 0.021000	
M Au < 0.001300	M Gd < 0.000210	M Ni < 0.000810	M Sn < 0.000410	
O B < 0.005200	M Ge < 0.002500	M Os < 0.000410	O Sr < 0.003850	
s Ba < 0.000320	M Hf < 0.000810	O P < 0.026000	M Ta < 0.000410	
O Be < 0.000320	M Hg < 0.000210	M Pb < 0.002300	M Tb < 0.000210	
M Bi < 0.000210	M Ho < 0.000210	M Pd < 0.000210	M Te < 0.001900	
O Ca < 0.007093	M In < 0.000210	M Pr < 0.000210	M Th < 0.000210	
M Cd < 0.000210	M Ir < 0.000210	M Pt < 0.000210	M Ti < 0.002100	
M Ce < 0.001300	O K < 0.035467	M Rb < 0.002100	M Tl < 0.000210	
M Co < 0.000410	O La < 0.005200	M Re < 0.000210	M Tm < 0.000410	
M Cr < 0.001700	O Li < 0.000630	M Rh < 0.000210	M U < 0.000210	
M Cs < 0.003300	M Lu < 0.001700	M Ru < 0.000210	O V < 0.005200	
M Cu < 0.001300	O Mg < 0.000861	O S < 0.268539	M W < 0.000410	
M Dy < 0.000210	M Mn < 0.000410	M Sb < 0.001300	O Y < 0.005200	
M Er < 0.001300	M Mo < 0.000410	M Sc < 0.000410	M Yb < 0.001300	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 137.33 +2 6 Ba(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, and HNO₃. Avoid H₂SO₄, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, iodate, molybdate, sulfite and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1 -10,000 ppm solutions chemically stable for years in 1-3.5% HNO₃ / LDPE container.

Ba Containing Samples (Preparation and Solution) -Metal(is best dissolved in diluted HNO₃); Ores(Carbonate fusion in Pt0 followed by HCl dissolution. If sulfate is present dissolve the fuseate using HCl / tartaric acid to prevent BaSO₄ precipitate); Organic Matrices (dry ash and dissolve in dilute HCl.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 138 amu	1 ppt	N/A	122Sn16O, 122Te16O
ICP-OES 230.424 nm	0.004/0.0005 µg/mL	1	Mo, Ir, Co
ICP-OES 233.527 nm	0.004/0.0003 µg/mL	1	
ICP-OES 455.403 nm	0.002/0.0001 µg/mL	1	Zr, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 11, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 11, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGBE10
Lot Number: R2-BE692992
Matrix: 6% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Beryllium
Starting Material: Beryllium Acetate
Starting Material Lot#: 2281
Starting Material Purity: 99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10032 ± 41 µg/mL
Density: 1.128 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10042 ± 67 µg/mL ICP Assay NIST SRM 3105a Lot Number: 090514
Assay Method #2	10025 ± 51 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.001100	M Eu < 0.000270	O Na < 0.040962	M Se < 0.005000	M Zn < 0.013054
O Al < 0.016205	O Fe < 0.015754	M Nb < 0.000270	O Si < 0.024307	O Zr < 0.001900
M As < 0.002900	M Ga < 0.000270	M Nd < 0.000270	M Sm < 0.000270	
M Au < 0.000520	M Gd < 0.000270	M Ni < 0.003700	M Sn < 0.000790	
M B < 0.091000	M Ge < 0.000270	M Os < 0.000260	M Sr < 0.000630	
M Ba < 0.002700	M Hf < 0.000270	O P < 0.066000	M Ta < 0.000270	
s Be < 0.000530	M Hg < 0.000520	M Pb < 0.000270	M Tb < 0.000270	
M Bi < 0.072022	M Ho < 0.000270	M Pd < 0.000520	M Te < 0.003700	
O Ca < 0.000790	M In < 0.000790	M Pr < 0.000270	M Th < 0.000270	
M Cd < 0.000270	M Ir < 0.000260	M Pt < 0.000270	O Ti < 0.000400	
M Ce < 0.000270	O K < 0.045014	M Rb < 0.000270	M Tl < 0.000790	
O Co < 0.003200	M La < 0.000270	M Re < 0.000270	M Tm < 0.000270	
O Cr < 0.001800	O Li < 0.000660	M Rh < 0.001100	M U < 0.000270	
M Cs < 0.001440	M Lu < 0.000270	M Ru < 0.000260	M V < 0.000790	
M Cu < 0.002100	O Mg < 0.016205	i S < 0.000270	M W < 0.000530	
M Dy < 0.000270	M Mn < 0.001215	M Sb < 0.000270	M Y < 0.000270	
M Er < 0.000270	M Mo < 0.000530	O Sc < 0.000930	M Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 9.01 +2 4 Be(H₂O)₄+2

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1 % HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 5-10 % HNO₃ / LDPE container.

Be Containing Samples (Preparation and Solution) - Meta I(is best dissolved in diluted H₂SO₄); BeO (boiling nitric, hydrochloric, or sulfuric acids or KHSO₄ fusion); Ores (H₂SO₄/HF digestion or carbonate fusion in Pt0); Organic Matrices (sulfuric/peroxide digestion or nitric/sulfuric/perchloric acid decomposition, or dry ash and dissolution according to the BeO procedure above).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 9 amu	4 ppt	N/A	
ICP-OES 234.861 nm	0.0003/0.00016 µg/mL	1	Fe, Ta, Mo
ICP-OES 313.042 nm	0.0003/0.00009 µg/mL	1	V, Ce, U
ICP-OES 313.107 nm	0.0007/0.0005 µg/mL	1	Ce, Th, Tm

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION, PERIOD OF VALIDITY AND REVISION HISTORY

11.1 Certification Issue Date

May 13, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 13, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

11.4 Revision Status

- Revision 1 - Revised on Thursday, Jan 14, 2021 by utruong. Revision was made for the following reason: Modified Section 7 Chemical Form in Solution.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGCO10
 Lot Number: R2-CO695285
 Matrix: 3% (v/v) HNO₃
 Value / Analyte(s): 10 000 µg/mL ea:
 Cobalt
 Starting Material: Co Metal
 Starting Material Lot#: 2326
 Starting Material Purity: 99.9934%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10012 ± 31 µg/mL
Density: 1.056 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10031 ± 67 µg/mL ICP Assay NIST SRM 3113 Lot Number: 190630
Assay Method #2	10019 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10000 ± 35 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/CRM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an UPLA-Filtered Clean Room. An UPLA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag	0.014660	M Eu	<	0.000590	O Na	0.007534	M Se	<	0.019000	M Zn	0.003461	
M Al	<	0.024000	M Fe	0.050905	M Nb	<	0.000590	O Si	0.075340	M Zr	<	0.001200
i As	<		M Ga	<	0.000590	M Nd	<	0.000590	M Sm	<	0.000590	
M Au	<	0.004100	M Gd	<	0.000590	O Ni	0.427608	M Sn	<	0.001200		
M B	<	0.031000	M Ge	<	0.003000	M Os	<	0.000590	O Sr	<	0.000260	
M Ba	<	0.000590	M Hf	<	0.000590	n P	<		M Ta	<	0.001200	
O Be	<	0.001300	M Hg	<	0.001800	M Pb	0.003257	M Tb	<	0.000590		
M Bi	<	0.003000	M Ho	<	0.000590	M Pd	<	0.000590	M Te	<	0.005300	
O Ca	0.010588	M In	<	0.001200	M Pr	<	0.000590	M Th	<	0.000590		
M Cd	<	0.004700	M Ir	<	0.001200	M Pt	<	0.002400	M Ti	<	0.014000	
M Ce	<	0.000590	O K	0.008144	M Rb	<	0.000590	M Tl	0.002647			
s Co	<		M La	<	0.000590	M Re	<	0.000590	M Tm	<	0.000590	
M Cr	<	0.021000	O Li	<	0.000130	M Rh	<	0.000590	M U	<	0.000590	
M Cs	<	0.002400	M Lu	<	0.000590	M Ru	<	0.007100	O V	<	0.000880	
M Cu	0.189369	O Mg	0.001893	n S	<			M W	<	0.000590		
M Dy	<	0.000590	M Mn	<	0.001800	M Sb	<	0.003600	M Y	<	0.000590	
M Er	<	0.000590	M Mo	<	0.002400	O Sc	<	0.001600	M Yb	<	0.000590	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.93 +2 6 Co(H₂O)₆²⁺

Chemical Compatibility - Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Co Containing Samples (Preparation and Solution) - Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 59 amu	2 ppt	n/a	42Ca16O1H , 40Ar18O1H , 36Ar23Na, 43Ca16O, 24Mg35Cl
ICP-OES 228.616 nm	0.01/0.001 µg/mL	1	
ICP-OES 237.862 nm	0.01/0.002 µg/mL	1	W, Re, Al, Ta
ICP-OES 238.892 nm	0.01/0.002 µg/mL	1	Fe, W, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 04, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 04, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAG10
Lot Number: S2-AG712977
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Silver
Starting Material: Ag Shot
Starting Material Lot#: 2289
Starting Material Purity: 99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10051 ± 30 µg/mL
Density: 1.056 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10051 ± 52 µg/mL ICP Assay NIST SRM 3151 Lot Number: 160729
Assay Method #2	10051 ± 19 µg/mL Volhard NIST SRM 999c Lot Number: 999c
Assay Method #3	10049 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

s Ag <	M Eu <	0.000260	O Na	0.003811	M Se <	0.003900	O Zn	0.048146	
M Al	0.002688	O Fe	0.006419	M Nb <	0.000260	O Si	0.005215	M Zr <	0.000260
M As <	0.001100	M Ga <	0.000260	M Nd <	0.000260	M Sm <	0.000260		
M Au <	0.000260	M Gd <	0.000260	O Ni	0.001765	M Sn	0.020060		
O B <	0.004300	M Ge <	0.002300	M Os <	0.001100	O Sr <	0.000110		
M Ba <	0.000520	M Hf <	0.000260	O P <	0.017000	M Ta <	0.000260		
O Be <	0.001100	M Hg <	0.000770	M Pb <	0.003600	M Tb <	0.000260		
M Bi	0.004814	M Ho <	0.000260	M Pd	0.044134	M Te <	0.009000		
O Ca	0.005215	M In	0.003691	M Pr <	0.000260	M Th <	0.000260		
M Cd <	0.000260	M Ir <	0.000520	M Pt <	0.001100	O Ti <	0.000440		
M Ce <	0.002100	O K <	0.008700	M Rb <	0.001100	M Tl <	0.004100		
O Co <	0.000330	M La <	0.000260	M Re <	0.000260	M Tm <	0.000260		
O Cr <	0.002500	O Li <	0.000110	M Rh <	0.000520	M U <	0.000260		
M Cs <	0.002600	M Lu <	0.000260	M Ru <	0.000260	M V <	0.000260		
O Cu	0.357085	O Mg	0.001203	O S <	0.017000	M W <	0.000260		
M Dy <	0.000260	O Mn <	0.000220	M Sb <	0.014000	M Y <	0.000260		
M Er <	0.000260	M Mo <	0.000260	O Sc <	0.000220	M Yb <	0.000260		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 107.87 +1 6 Ag(H₂O)₆⁺
Chemical Compatibility - Stable in HNO₃, and HF. Avoid basic media. Ag forms more insoluble salts than any other metal. It also is subject to photochemical reduction to the metal in HCl media although 10 µg/mL solutions in 10% HCl [AgCl_x1-x] are commonly used in the analytical laboratory. The most common solubility problems exist with arsenate, arsenite, bromide, chloride, iodide, carbonate, chromate, cyanide, iodate, oxalate, oxide, sulfate, sulfide, tartrate, and thiocyanate in aqueous media. The addition of nitric acid renders many of these salts soluble.

Stability - 2-100 ppb levels stable for 75+ days when mixed with equivalent levels of all other elements including the precious metals (where chloride is present) when in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Ag Containing Samples (Preparation and Solution) - Metal (Soluble in HNO₃); Oxides (Soluble in HNO₃); Ores (Digestion with conc. HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 107 amu	1 ppt	N/A	91Zr16O
ICP-OES 243.779 nm	0.12/0.01 µg/mL	1	Mn, Th, Ni, Rh
ICP-OES 328.068 nm	0.007/0.0007 µg/mL	1	Ce, Rh, V
ICP-OES 338.289 nm	0.013/0.001 µg/mL	1	Ce, Cr, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCR(3)10
Lot Number: S2-CR709784
Matrix: 10% (v/v) HNO3
Value / Analyte(s): 10 000 µg/mL ea:
Chromium
Starting Material: Cr Metal
Starting Material Lot#: 2328
Starting Material Purity: 99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10027 ± 41 µg/mL
Density: 1.072 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10027 ± 40 µg/mL**
ICP Assay NIST SRM 3112a Lot Number: 170630

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/(u_{char j}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

u_{char} = $[\sum(w_j)^2 (u_{char j})^2]^{1/2}$ where $u_{char j}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.001700	M	Eu <	0.003400	O	Na	0.090372	M	Se <	0.012000	O	Zn <	0.006100
M Al	0.034916	O	Fe	0.246471	M	Nb <	0.017000	n	Si <		M	Zr <	0.007800
M As <	0.028000	O	Ga <	0.013000	M	Nd <	0.013000	M	Sm <	0.006900			
M Au <	0.001700	M	Gd <	0.000560	M	Ni	0.016020	M	Sn	0.006983			
O B <	0.025000	O	Ge <	0.014000	M	Os <	0.000560	M	Sr	0.006367			
M Ba <	0.008900	M	Hf <	0.000560	i	P <		M	Ta <	0.000560			
M Be <	0.013000	M	Hg <	0.001700	M	Pb	0.010064	M	Tb <	0.000560			
M Bi <	0.002300	M	Ho <	0.000560	M	Pd <	0.021000	M	Te <	0.010000			
O Ca	0.075995	M	In <	0.000560	M	Pr <	0.001700	M	Th <	0.000560			
M Cd <	0.000560	M	Ir <	0.000560	M	Pt <	0.001200	O	Ti	0.013555			
M Ce <	0.001200	O	K	0.043132	i	Rb <		M	Tl <	0.000560			
M Co <	0.002600	M	La <	0.001200	M	Re <	0.001200	O	Tm <	0.013000			
s Cr <		O	Li	0.000390	M	Rh <	0.095000	M	U <	0.000560			
M Cs <	0.007800	M	Lu <	0.000560	M	Ru <	0.087000	O	V	0.014993			
O Cu	0.007599	O	Mg	0.000883	i	S <		M	W <	0.049000			
M Dy <	0.000560	M	Mn	0.008626	M	Sb <	0.003400	M	Y <	0.001700			
M Er <	0.019000	M	Mo <	0.032000	M	Sc	0.003080	M	Yb <	0.000560			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 52.00 +3 6 Cr(H₂O)₆3+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Cr₃ Containing Samples (Preparation and Solution) -Metal (soluble in HCl); Oxides/Ores (Chrome ore/oxides are very difficult to dissolve. The following procedures [A-D] are commonly used: A. Fusion with KHSO₄ and extraction with hot KCl. The residue fused with Na₂CO₃ and KClO₃, 3:1. B. Fusion with NaKSO₄ and NaF 2:1, C. Fusion with magnesia or lime and sodium or potassium carbonates, 4:1. D. Fusion with Na₂O₂ or NaOH and KNO₃ or NaOH and Na₂O₂. Nickel, iron, copper, or silver crucibles should be used for D. Platinum may be used for A, <, C); Organic Matrices (ash at 4500C followed by one of the fusion methods above or sulfuric/hydrogen peroxide acid digestions may be applicable to non oxide containing samples).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 52 amu	40 ppt	N/A	36S16O, 36Ar16O - The 50Cr, 53Cr, 54Cr lines suffer from many more potential interferences from sulfur, chlorine and argon compounds of oxygen, nitrogen and carbon.
ICP-OES 205.552 nm	0.006/0.0008 µg/mL	1	Os
ICP-OES 276.654 nm	0.01/0.001 µg/mL	1	Cu, Ta, V
ICP-OES 284.325 nm	0.008/0.0007 µg/mL	1	

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 26, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 26, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGNI10
 Lot Number: P2-NI686384
 Matrix: 3% (v/v) HNO₃
 Value / Analyte(s): 10 000 µg/mL ea:
 Nickel
 Starting Material: Ni Metal
 Starting Material Lot#: 2277 and 2282
 Starting Material Purity: 99.9992%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9979 ± 30 µg/mL
Density: 1.038 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9971 ± 54 µg/mL ICP Assay NIST SRM 3136 Lot Number: 120619
Assay Method #2	9970 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	9993 ± 33 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag	0.002606	M Eu	<	0.001100	O Na	0.004965	O Se	<	0.067000	M Zn	0.006578	
M Al	<	0.013000	O Fe	0.018618	M Nb	<	0.001100	O Si	0.010923	M Zr	<	0.001100
O As	<	0.067000	M Ga	<	0.001100	M Nd	<	0.001100	M Sm	<	0.001100	
M Au	<	0.002100	M Gd	<	0.001100	s Ni	<		M Sn	<	0.016000	
M B	<	0.017000	M Ge	<	0.004200	M Os	0.002110	O Sr	<	0.000940		
M Ba	<	0.001100	M Hf	<	0.001100	i P	<		M Ta	<	0.001100	
O Be	<	0.000410	M Hg	0.014895	M Pb	0.006578	M Tb	<	0.001100			
M Bi	<	0.004200	M Ho	<	0.001100	M Pd	<	0.001100	M Te	<	0.015000	
O Ca	0.003351	M In	<	0.001100	M Pr	<	0.001100	M Th	<	0.001100		
M Cd	0.001365	M Ir	0.004716	M Pt	<	0.001100	M Ti	<	0.004200			
M Ce	<	0.001100	O K	0.004716	M Rb	<	0.001100	M Tl	<	0.001100		
O Co	0.017377	M La	<	0.001100	M Re	0.001737	M Tm	<	0.001100			
O Cr	<	0.006700	O Li	<	0.000140	M Rh	<	0.006300	M U	<	0.001100	
M Cs	<	0.007300	M Lu	<	0.001100	M Ru	<	0.019000	M V	<	0.002100	
M Cu	0.004096	O Mg	0.000372	i S	<			M W	<	0.006300		
M Dy	<	0.001100	O Mn	<	0.001900	M Sb	0.005833	O Y	<	0.000540		
M Er	<	0.001100	M Mo	<	0.008400	M Sc	<	0.002100	M Yb	<	0.001100	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.69 +2 6 Ni(H₂O)₆²⁺

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Ni Containing Samples (Preparation and Solution) -Metal (Soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 60 amu	100 ppt	n/a	43Ca16O1H , 44Ca16O, 23Na37Cl
ICP-OES 221.647 nm	0.01 / 0.0009 µg/mL	1	Si
ICP-OES 231.604 nm	0.02 / 0.002 µg/mL	1	Sb, Ta, Co
ICP-OES 232.003 nm	0.02 / 0.006 µg/mL	1	Cr, Re, Os, Nb, Ag, Pt, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 02, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGV10
Lot Number: S2-V711005
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Vanadium
Starting Material: Vanadium Pentoxide
Starting Material Lot#: 1782
Starting Material Purity: 99.9877%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10014 ± 30 µg/mL
Density: 1.104 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10017 ± 42 µg/mL**
ICP Assay NIST SRM 3165 Lot Number: 160906

Assay Method #2 **10013 ± 30 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000110	M Eu < 0.000110	O Na 0.120000	M Se < 0.009400	M Zn 0.009400
O Al 0.120000	O Fe 0.460000	M Nb < 0.001300	O Si 0.270000	M Zr < 0.002900
M As < 0.000210	M Ga < 0.009300	M Nd < 0.000610	M Sm < 0.000110	
M Au < 0.004700	M Gd < 0.000110	M Ni 0.012000	M Sn 0.003900	
M B 0.051000	M Ge < 0.000410	M Os < 0.000110	O Sr 0.007100	
M Ba 0.003600	M Hf < 0.000110	O P < 0.034000	M Ta < 0.000110	
O Be < 0.000560	M Hg < 0.000410	M Pb 0.001400	M Tb < 0.000110	
M Bi < 0.000210	M Ho < 0.000110	M Pd < 0.000410	M Te < 0.000110	
O Ca 0.730000	M In < 0.000110	M Pr < 0.000110	M Th < 0.000210	
M Cd < 0.000610	M Ir < 0.000110	M Pt < 0.000110	M Ti 0.017000	
M Ce < 0.000610	M K 0.052000	M Rb < 0.000310	M Tl < 0.000110	
M Co < 0.001300	M La < 0.000410	M Re 0.001700	M Tm < 0.000110	
O Cr 0.170000	M Li < 0.000810	M Rh < 0.000110	M U < 0.000410	
M Cs 0.005600	M Lu < 0.000110	M Ru < 0.000110	s V <	
M Cu < 0.001300	M Mg 0.053000	i S <	M W 0.002000	
M Dy < 0.000110	M Mn 0.007900	M Sb 0.078000	M Y < 0.000110	
M Er < 0.000110	M Mo 0.094000	M Sc < 0.000410	M Yb < 0.000110	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 50.94 +5 6 H₂V₁₀O₂₈-

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄, HF, H₃PO₄ and strong basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

V Containing Samples (Preparation and Solution) -Metal (Fusion with NaOH or KOH in NiO or Na₂CO₃ / KNO₃); Oxides (V₂O₃ - use HCl, V₂O₄ - use HCl or HNO₃, V₂O₅ - use concentrated acids); Ores (Na₂CO₃ / KNO₃ in PtO caution - nitrates attack PtO followed by water extraction of fuseate); Organic Matrices (Ash at 450 EC followed by dissolving according to V₂O₅ above) .

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

<u>Technique/Line</u>	<u>Estimated D.L.</u>	<u>Order</u>	<u>Interferences</u> (underlined indicates severe)
ICP-MS 51 amu	4 ppt	N/A	34S16O1H, 35Cl16O, 38Ar13C, 36Ar15N, 36Ar14N1H, 37Cl14N,36S15N, 33S18O, 34S17O, 102Ru+2,02Pd+2
ICP-OES 290.882 nm	0.008 / 0.0008 µg/mL	1	Hf, Nb
ICP-OES 292.402 nm	0.006 / 0.001 µg/mL	1	Th
ICP-OES 309.311 nm	0.005 / 0.001 µg/mL	1	Mg, U, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity


- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAL10
Lot Number: T2-AL716102
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Aluminum
Starting Material: Aluminum Nitrate Nonahydrate
Starting Material Lot#: 2460
Starting Material Purity: 99.9938%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10049 ± 31 µg/mL
Density: 1.087 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10059 ± 40 µg/mL ICP Assay NIST SRM 3101a Lot Number: 140903
Assay Method #2	10044 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10049 ± 35 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.002100	M Eu < 0.002100	O Na < 0.352819	M Se < 0.005200	M Zn < 0.006018
s Al < 0.002100	O Fe < 0.074714	M Nb < 0.000520	O Si < 0.017848	O Zr < 0.004358
M As < 0.008716	O Ga < 0.112072	M Nd < 0.000520	M Sm < 0.000520	
M Au < 0.008400	M Gd < 0.001100	O Ni < 0.006000	M Sn < 0.000747	
O B < 0.014000	M Ge < 0.005200	M Os < 0.000650	O Sr < 0.000518	
O Ba < 0.012867	M Hf < 0.004100	n P < 0.000520	M Ta < 0.000520	
O Be < 0.000270	M Hg < 0.002000	M Pb < 0.002282	M Tb < 0.000520	
M Bi < 0.001930	M Ho < 0.000520	M Pd < 0.000520	M Te < 0.001100	
O Ca < 0.076790	M In < 0.002100	M Pr < 0.000520	M Th < 0.000520	
M Cd < 0.000520	M Ir < 0.000650	M Pt < 0.000520	O Ti < 0.001930	
M Ce < 0.001100	O K < 0.043583	M Rb < 0.000520	M Tl < 0.000520	
O Co < 0.005400	M La < 0.002100	M Re < 0.000520	M Tm < 0.000520	
O Cr < 0.006018	O Li < 0.000112	M Rh < 0.000520	M U < 0.000520	
M Cs < 0.000643	M Lu < 0.000520	M Ru < 0.002000	M V < 0.001286	
O Cu < 0.008300	O Mg < 0.068488	i S < 0.000520	M W < 0.009800	
M Dy < 0.002100	O Mn < 0.000913	M Sb < 0.003100	M Y < 0.001100	
M Er < 0.000520	M Mo < 0.005396	O Sc < 0.000950	M Yb < 0.000520	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 26.98 +3 6 Al(H₂O)₆+3

Chemical Compatibility -Soluble in HCl, HNO₃, vF and v₂SO₄. Avoid neutral media. Soluble in strongly basic NaOH forming the Al(OH)₄(H₂O)₂⁻ species. Stable with most metals and inorganic anions. The phosphate is insoluble in water and only slightly soluble in acid.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Al Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO₃); a- Al₂O₃ (Na₂CO₃ fusion in PtO);

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 27 amu	30 ppt	N/A	12C15N, 13C14N, 1H12C14N, 11B16O, 54Cr2+, 54Fe2+
ICP-OES 167.078 nm	0.1/0.009 µg/mL	1	Fe
ICP-OES 394.401 nm	0.05/0.006 µg/mL	1	U, Ce
ICP-OES 396.152 nm	0.03/0.006 µg/mL	1	Mo, Zr, Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 22, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 22, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGK10
Lot Number: S2-K711973
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Potassium
Starting Material: KNO₃
Starting Material Lot#: 2313
Starting Material Purity: 99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL
Density: 1.024 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9987 ± 24 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #2	10004 ± 84 µg/mL ICP Assay NIST SRM 3141a Lot Number: 140813
Assay Method #3	10007 ± 45 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.001400	M Eu < 0.000660	O Na < 0.246220	M Se < 0.007900	O Zn < 0.018056
O Al < 0.001592	O Fe < 0.005909	M Nb < 0.000660	O Si < 0.011490	O Zr < 0.001600
M As < 0.005300	M Ga < 0.000660	M Nd < 0.000660	M Sm < 0.000660	
M Au < 0.002000	M Gd < 0.000660	O Ni < 0.004900	M Sn < 0.000660	
O B < 0.005600	M Ge < 0.002000	M Os < 0.003300	O Sr < 0.000055	
O Ba < 0.000860	M Hf < 0.000660	O P < 0.032000	M Ta < 0.000660	
O Be < 0.000082	M Hg < 0.002000	M Pb < 0.002300	M Tb < 0.000660	
M Bi < 0.006600	M Ho < 0.000660	M Pd < 0.000660	M Te < 0.017000	
O Ca < 0.031187	M In < 0.000660	M Pr < 0.000660	M Th < 0.000660	
O Cd < 0.000450	M Ir < 0.000660	M Pt < 0.002700	M Ti < 0.000660	
M Ce < 0.000660	s K <	M Rb < 0.476026	M Tl < 0.000660	
O Co < 0.000780	M La < 0.000660	M Re < 0.000660	M Tm < 0.000660	
O Cr < 0.000541	O Li < 0.000084	M Rh < 0.000660	M U < 0.000660	
M Cs < 0.000660	M Lu < 0.000660	M Ru < 0.000660	O V < 0.001100	
M Cu < 0.002700	O Mg < 0.006237	O S < 0.027905	M W < 0.000660	
M Dy < 0.000660	O Mn < 0.000476	M Sb < 0.000660	M Y < 0.000660	
M Er < 0.000660	M Mo < 0.000660	O Sc < 0.000340	O Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 39.10 +1 (6) K+(aq)

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Avoid use of HClO₄ due to insolubility of the perchlorate. Stable with all metals and inorganic anions except ClO₄⁻.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

K Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Sodium carbonate fusion in Pt0 followed by HCl dissolution-blank levels of K in sodium carbonate critical); Organic Matrices (Sulfuric/peroxide digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 39 amu	10 ppt	n/a	38ArH, 23Na16O, 78Se
ICP-OES 404.721 nm	1.1 / 0.05 µg/mL	1	U, Ce
ICP-OES 766.490 nm	0.4 / 0.001 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 771.531 nm	1.0 / 0.03 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 10, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 10, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity


- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMG10
Lot Number: S2-MG704239
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Magnesium
Starting Material: Magnesium Metal
Starting Material Lot#: 2168
Starting Material Purity: 99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10053 ± 30 µg/mL
Density: 1.053 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10022 ± 62 µg/mL ICP Assay NIST SRM 3131a Lot Number: 140110
Assay Method #2	10078 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10033 ± 26 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

O Ag	0.002106	M	Eu <	0.000910	O Na	0.071075	O Se <	0.048000	O Zn	0.003299
M Al	0.003553	M	Fe	0.002538	M Nb <	0.000460	O Si <	0.032000	O Zr <	0.002700
M As <	0.001400	M	Ga <	0.000460	M Nd <	0.000910	M Sm <	0.000460		
M Au <	0.001400	M	Gd <	0.000460	O Ni <	0.001600	M Sn <	0.002300		
O B	0.006853	M	Ge <	0.001400	M Os <	0.000460	O Sr	0.000279		
O Ba	0.000964	M	Hf <	0.000460	O P	0.015230	M Ta <	0.000460		
O Be <	0.000120	M	Hg <	0.000460	M Pb <	0.000460	M Tb <	0.000460		
M Bi <	0.000460	M	Ho <	0.000460	M Pd <	0.003200	M Te <	0.007300		
O Ca	0.053306	M	In <	0.000460	M Pr <	0.000460	M Th <	0.000460		
O Cd <	0.000360	M	Ir <	0.000460	M Pt <	0.001900	O Ti <	0.001700		
M Ce <	0.002300	M	K	0.048229	M Rb	0.002411	M Tl	0.003046		
M Co <	0.000910	M	La <	0.002800	M Re <	0.000460	M Tm <	0.000460		
M Cr <	0.002300	O	Li	0.027922	M Rh <	0.000460	M U <	0.000460		
M Cs	0.001040	M	Lu <	0.000460	M Ru <	0.000460	M V <	0.000460		
O Cu <	0.003000	s	Mg <		O S <	0.190000	M W <	0.000460		
M Dy <	0.000460	O	Mn	0.015230	M Sb	0.020814	O Y <	0.000720		
M Er <	0.000460	M	Mo <	0.000910	O Sc <	0.000480	M Yb <	0.000460		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 24.31 +2 6 Mg(H₂O)₆+2

Chemical Compatibility -Soluble in HCl, HNO₃, and H₂SO₄ avoid HF, H₃PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicates, carbonates, hydroxides, oxides, and tungstates in neutral and slightly acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO₃ / LDPE container.

Mg Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO₃); Oxide (Readily soluble in above compatible aqueous acidic solutions); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric / peroxide digestion or nitric / sulfuric / perchloric acid decomposition, or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 24 amu	42 ppt	n/a	7Li17O, 48Ti+2 , 48Ca+2
ICP-OES 279.553 nm	0.0002 / 0.00003 µg/mL	1	Th
ICP-OES 280.270 nm	0.0003 / 0.00005 µg/mL	1	U, V
ICP-OES 285.213 nm	0.002 / 0.00003 µg/mL	1	U, Hf, Cr, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 23, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 23, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCA10
Lot Number: T2-CA716103
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Calcium
Starting Material: CaCO₃
Starting Material Lot#: 2472
Starting Material Purity: 99.9950%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10005 ± 30 µg/mL
Density: 1.039 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10005 ± 45 µg/mL ICP Assay NIST SRM 3109a Lot Number: 130213
Assay Method #2	10005 ± 25 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10005 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.001200	M Eu < 0.001200	O Na < 0.006112	M Se < 0.024000	M Zn < 0.005362
M Al < 0.065419	O Fe < 0.009115	M Nb < 0.001200	O Si < 0.139417	O Zr < 0.006700
O As < 0.013000	M Ga < 0.015000	M Nd < 0.020000	M Sm < 0.001200	
M Au < 0.017000	M Gd < 0.004800	O Ni < 0.000793	M Sn < 0.003600	
O B < 0.001179	M Ge < 0.003600	M Os < 0.001200	M Sr < 0.081505	
O Ba < 0.002788	M Hf < 0.001200	O P < 0.041000	M Ta < 0.001200	
O Be < 0.000410	M Hg < 0.004800	M Pb < 0.001608	M Tb < 0.001200	
M Bi < 0.001608	M Ho < 0.001200	M Pd < 0.001200	M Te < 0.003600	
s Ca < 0.001200	M In < 0.001200	M Pr < 0.000257	M Th < 0.001200	
O Cd < 0.001300	M Ir < 0.001200	M Pt < 0.003600	O Ti < 0.001900	
M Ce < 0.001029	O K < 0.009759	M Rb < 0.001200	M Tl < 0.001200	
O Co < 0.000418	M La < 0.001823	M Re < 0.001200	M Tm < 0.001200	
O Cr < 0.003324	O Li < 0.007300	M Rh < 0.001200	M U < 0.002144	
M Cs < 0.007399	M Lu < 0.000128	M Ru < 0.001200	M V < 0.001286	
O Cu < 0.011000	M Mg < 1.286934	O S < 0.055767	O W < 0.024000	
M Dy < 0.002400	O Mn < 0.004611	M Sb < 0.009600	O Y < 0.000536	
M Er < 0.002400	M Mo < 0.003539	O Sc < 0.001400	M Yb < 0.001200	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 40.08 +2 6 Ca(H₂O)₆+2

Chemical Compatibility - Soluble in HCl and HNO₃. Avoid H₂SO₄, vF, v3PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO₃ / LDPE container.

Ca Containing Samples)Preparation and Solution -Metal (best dissolved in diluted HNO₃); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (dry ash and dissolution in dilute HCl. Do not heat when dissolving to avoid precipitation of SiO₂). The oxide, hydroxide, carbonate, phosphate, and fluoride of calcium are soluble in % levels of HCl or HNO₃. The sulfates (gypsum, anhydrite, etc.), certain silicates, and complex compounds require fusion with Na₂CO₃ followed by HCl / water dissolution. Note that contamination is a very real problem when analyzing for trace levels.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 44 amu	1200 ppt	n/a	16O ² 12C, 28Si16O, 88Sr
ICP-OES 393.366 nm	0.0002 / 0.00004 µg/mL	1	U, Ce
ICP-OES 396.847 nm	0.0005 / 0.00006 µg/mL	1	Th
ICP-OES 422.673 nm	0.01 / 0.001 µg/mL	1	Ge

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 14, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 14, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity


- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGNA10
Lot Number: T2-NA717221
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Sodium
Starting Material: Na₂CO₃
Starting Material Lot#: 2358 and 2453
Starting Material Purity: 99.9977%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9977 ± 30 µg/mL
Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9974 ± 18 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #2	9977 ± 34 µg/mL ICP Assay NIST SRM 3152a Lot Number: 200413
Assay Method #3	9987 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000930	M Eu < 0.000930	s Na <	M Se < 0.003800	O Zn < 0.000138
M Al < 0.004409	O Fe < 0.002393	M Nb < 0.000930	O Si < 0.056696	O Zr < 0.003200
O As < 0.023000	M Ga < 0.000930	M Nd < 0.000930	M Sm < 0.000930	
O Au < 0.004100	M Gd < 0.000930	O Ni < 0.003000	M Sn < 0.002800	
O B < 0.001385	M Ge < 0.004700	M Os < 0.000930	O Sr < 0.000251	
M Ba < 0.004031	M Hf < 0.000930	O P < 0.010205	M Ta < 0.000930	
O Be < 0.000130	M Hg < 0.000930	M Pb < 0.000930	M Tb < 0.000930	
M Bi < 0.000930	M Ho < 0.000930	M Pd < 0.000930	M Te < 0.001900	
O Ca < 0.176388	M In < 0.000930	M Pr < 0.000930	M Th < 0.000352	
O Cd < 0.000860	M Ir < 0.000930	M Pt < 0.000930	O Ti < 0.000592	
M Ce < 0.001900	O K < 0.302380	M Rb < 0.000930	M Tl < 0.000930	
O Co < 0.001800	O La < 0.002100	M Re < 0.000930	M Tm < 0.000930	
M Cr < 0.002800	O Li < 0.000031	M Rh < 0.000930	M U < 0.000930	
M Cs < 0.000930	M Lu < 0.000930	M Ru < 0.001900	O V < 0.001600	
O Cu < 0.003900	O Mg < 0.026458	O S < 0.040317	O W < 0.028000	
M Dy < 0.000930	O Mn < 0.000740	M Sb < 0.000930	O Y < 0.000860	
M Er < 0.000930	O Mo < 0.003600	O Sc < 0.000610	O Yb < 0.000250	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 22.99 +1 (6) Na+(aq) largely ionic in nature

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Na Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Lithium carbonate fusion in graphite crucible followed by HCl dissolution - blank levels of Na in lithium carbonate critical); Organic Matrices (Sulfuric / peroxide digestion or nitric/sulfuric/perchloric acid decomposition).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 23 amu	310 ppt	n/a	46Ti+2 , 46Ca+2
ICP-OES 330.237 nm	2.0 / 0.09 µg/mL	1	Pd, Zn
ICP-OES 588.995 nm	0.03 / 0.006 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 589.595 nm	0.07 / 0.00009 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 20, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 20, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity


- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGU1
Lot Number: S2-U707914
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Uranium
Starting Material: Uranyl Nitrate Hexahydrate
Starting Material Lot#: P2-2322
Starting Material Purity: 99.9997%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 5 µg/mL
Density: 1.010 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 5 µg/mL**
ICP Assay NIST SRM 3164 Lot Number: 080521

Assay Method #2 **1001 ± 6 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

u_{char} = $[\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000270	M Eu < 0.000270	M Na < 0.011000	M Se < 0.009300	M Zn < 0.002358
M Al < 0.011000	M Fe < 0.003222	M Nb < 0.000270	M Si < 0.160000	M Zr < 0.001100
M As < 0.002400	M Ga < 0.000270	M Nd < 0.000270	M Sm < 0.000270	
M Au < 0.000270	M Gd < 0.000270	M Ni < 0.020000	M Sn < 0.011000	
M B < 0.000270	M Ge < 0.000800	M Os < 0.001900	M Sr < 0.000270	
M Ba < 0.003800	M Hf < 0.000270	i P <	M Ta < 0.000270	
M Be < 0.000270	M Hg < 0.000540	M Pb < 0.002200	M Tb < 0.000270	
M Bi < 0.000270	M Ho < 0.000270	M Pd < 0.000540	M Te < 0.003800	
M Ca < 0.140000	M In < 0.000270	M Pr < 0.000270	M Th < 0.000129	
M Cd < 0.000270	M Ir < 0.000270	M Pt < 0.000270	M Ti < 0.002700	
M Ce < 0.000540	O K < 0.250000	M Rb < 0.000800	M Tl < 0.000270	
M Co < 0.000800	M La < 0.000117	M Re < 0.064000	M Tm < 0.000270	
M Cr < 0.000943	M Li < 0.003000	M Rh < 0.000270	s U <	
M Cs < 0.000106	M Lu < 0.000270	M Ru < 0.000540	M V < 0.000540	
M Cu < 0.001100	M Mg < 0.003000	i S <	M W < 0.000540	
M Dy < 0.000270	M Mn < 0.006900	M Sb < 0.000270	M Y < 0.000270	
M Er < 0.000270	M Mo < 0.006400	M Sc < 0.000540	M Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 238.03 +6 8 UO₂²⁺(uranyl)

Chemical Compatibility - Soluble in HCl and HNO₃. Avoid H₃PO₄. H₂SO₄ and HF matrices should not be a problem depending upon [U]. Although the UO₂²⁺ ion is distinctly basic, any U+4 will precipitate in basic media. UO₂²⁺salts are generally soluble in water and UO₂²⁺ is stable with most metals and inorganic anions. The uranyl phosphate is insoluble in water. UF₄ and UF₆ are water soluble.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

U Containing Samples (Preparation and Solution) -Metal (Dissolves rapidly in HCl and HNO₃); Oxide (Soluble in HNO₃); Ores (Digest for 1-2 hours with 1 gram of ore to 30 mL 1:1 HNO₃. Silica insolubles are removed by filtration after bringing the sample to fumes with conc. H₂SO₄.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 238 amu	2 ppt	N/A	206Pb16O2
ICP-OES 263.553 nm	0.3 / 0.01 µg/mL	1	Ce, Ir, Th, Rh, W, Zr, Ta, Ti, V, Hf, Fe, Re, Ru
ICP-OES 367.007 nm	0.3 / 0.02 µg/mL	1	Th, Ce
ICP-OES 385.958 nm	0.3 / 0.01 µg/mL	1	Th, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: AR-ICVMS-2
Lot Number: T2-MEB719895
Matrix: 3% (v/v) HNO3
tr. HF
Value / Analyte(s): 2.5 µg/mL ea:
Molybdenum, Antimony

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	2.499 ± 0.015 µg/mL	Molybdenum, Mo	2.500 ± 0.017 µg/mL

Density: 1.014 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Sb	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char i})^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution	
Catalog Number:	AR-ICVMS-3	
Lot Number:	T2-MEB719896	
Matrix:	7% (v/v) HNO3	
Value / Analyte(s):	250 µg/mL ea:	
	Aluminum,	Calcium,
	Iron,	Potassium,
	Magnesium,	Sodium,
	4 µg/mL ea:	
	Selenium,	
	2.5 µg/mL ea:	
	Thorium,	Thallium,
	Uranium,	Vanadium,
	Zinc,	Manganese,
	Cadmium,	Cobalt,
	Chromium,	Copper,
	Arsenic,	Barium,
	Beryllium,	Nickel,
	Lead,	Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	250.0 ± 0.9 µg/mL	Arsenic, As	2.500 ± 0.018 µg/mL
Barium, Ba	2.501 ± 0.013 µg/mL	Beryllium, Be	2.501 ± 0.015 µg/mL
Cadmium, Cd	2.501 ± 0.013 µg/mL	Calcium, Ca	250.0 ± 1.3 µg/mL
Chromium, Cr	2.500 ± 0.015 µg/mL	Cobalt, Co	2.500 ± 0.014 µg/mL
Copper, Cu	2.500 ± 0.014 µg/mL	Iron, Fe	250.0 ± 1.0 µg/mL
Lead, Pb	2.500 ± 0.013 µg/mL	Magnesium, Mg	250.0 ± 1.3 µg/mL
Manganese, Mn	2.500 ± 0.014 µg/mL	Nickel, Ni	2.500 ± 0.014 µg/mL
Potassium, K	250.0 ± 1.2 µg/mL	Selenium, Se	4.002 ± 0.024 µg/mL
Silver, Ag	2.501 ± 0.017 µg/mL	Sodium, Na	250.0 ± 1.2 µg/mL
Thallium, Tl	2.500 ± 0.017 µg/mL	Thorium, Th	2.499 ± 0.013 µg/mL
Uranium, U	2.501 ± 0.015 µg/mL	Vanadium, V	2.500 ± 0.014 µg/mL
Zinc, Zn	2.500 ± 0.014 µg/mL		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Cd	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Cu	Calculated		See Sec. 4.2
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Mn	Calculated		See Sec. 4.2
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2

V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928
Zn	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/(u_{\text{char } j}^2)))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2 (u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

<u>Isotope</u>	<u>Atom %</u>
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

<https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver>

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

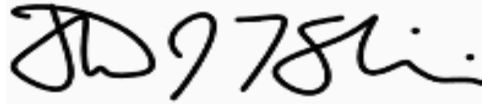
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: AR-6020ICS-0A10
 Lot Number: T2-MEB719898
 Matrix: 1.4% (v/v) HNO3
 Value / Analyte(s):
 1 000 µg/mL ea:
 Chloride,
 200 µg/mL ea:
 Carbon,
 100 µg/mL ea:
 Calcium, Aluminum,
 Iron, Potassium,
 Magnesium, Sodium,
 Phosphorus, Sulfur,
 2 µg/mL ea:
 Titanium, Molybdenum

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Calcium, Ca	100.0 ± 0.5 µg/mL
Carbon, C	200.1 ± 0.5 µg/mL	Chloride, Cl	1 000 ± 5 µg/mL
Iron, Fe	100.0 ± 0.5 µg/mL	Magnesium, Mg	100.0 ± 0.5 µg/mL
Molybdenum, Mo	2.001 ± 0.014 µg/mL	Phosphorus, P	100.0 ± 0.6 µg/mL
Potassium, K	100.0 ± 0.5 µg/mL	Sodium, Na	100.0 ± 0.5 µg/mL
Sulfur, S	100.0 ± 0.5 µg/mL	Titanium, Ti	2.001 ± 0.015 µg/mL

Density: 1.009 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
C	Acidimetric	84L	84L
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cl	Acidimetric	84L	84L
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mo	ICP Assay	3134	130418
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
S	Acidimetric	84L	84L
S	ICP Assay	traceable to 3154	P2-S680745
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 07, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 07, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

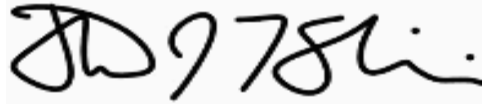
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED
Total Metals

LDW23-IT1246

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-01 B SDG: 23A0032
 Sampled: 01/03/23 08:52 Prepared: 02/24/23 16:23 File ID: XDT_m2230301-065
 % Solids: 56.86 Preparation: SWN EPA 3050B Analyzed: 03/01/23 21:35
 Batch: BLB0518 Sequence: SLC0028 Initial/Final: 1.07 g Wet / 50 mL
 Instrument: ICPMS2 Calibration: GC00005

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	7.52	20	0.06	0.33	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED
Total Metals

LDW23-IT1264

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-02 C SDG: 23A0032
 Sampled: 01/03/23 09:12 Prepared: 02/24/23 16:23 File ID: XDT_m2230301-062
 % Solids: 62.95 Preparation: SWN EPA 3050B Analyzed: 03/01/23 21:21
 Batch: BLB0518 Sequence: SLC0028 Initial/Final: 1.029 g Wet / 50 mL
 Instrument: ICPMS2 Calibration: GC00005

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	27.3	20	0.06	0.31	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED
Total Metals

LDW23-IT1269

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-03 C SDG: 23A0032
 Sampled: 01/03/23 09:36 Prepared: 02/24/23 16:23 File ID: XDT_m2230301-063
 % Solids: 63.13 Preparation: SWN EPA 3050B Analyzed: 03/01/23 21:25
 Batch: BLB0518 Sequence: SLC0028 Initial/Final: 1.026 g Wet / 50 mL
 Instrument: ICPMS2 Calibration: GC00005

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	13.8	20	0.06	0.31	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED
Total Metals

LDW23-IT1272

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23A0032-04 A SDG: 23A0032

Sampled: 01/03/23 10:45 Prepared: 02/24/23 16:23 File ID: XDT_m2230301-064

% Solids: 78.22 Preparation: SWN EPA 3050B Analyzed: 03/01/23 21:30

Batch: BLB0518 Sequence: SLC0028 Initial/Final: 1.009 g Wet / 50 mL

Instrument: ICPMS2 Calibration: GC00005

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	3.03	20	0.05	0.25	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED
Total Metals

LDW23-IT1224

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-05 A SDG: 23A0032
 Sampled: 01/03/23 13:21 Prepared: 02/24/23 16:23 File ID: XDT_m2230306-170
 % Solids: 67.49 Preparation: SWN EPA 3050B Analyzed: 03/07/23 03:06
 Batch: BLB0518 Sequence: SLC0078 Initial/Final: 1.015 g Wet / 50 mL
 Instrument: ICPMS1 Calibration: GC00021

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	7.02	20	0.06	0.29	
7440-43-9	Cadmium	0.40	20	0.04	0.15	
7440-50-8	Copper	27.5	20	0.25	0.73	
7440-66-6	Zinc	68.1	20	4.3	8.8	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED
Total Metals

LDW23-IT1235

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-06 B SDG: 23A0032
 Sampled: 01/03/23 13:34 Prepared: 02/24/23 16:23 File ID: XDT_m2230306-171
 % Solids: 74.20 Preparation: SWN EPA 3050B Analyzed: 03/07/23 03:11
 Batch: BLB0518 Sequence: SLC0078 Initial/Final: 1.014 g Wet / 50 mL
 Instrument: ICPMS1 Calibration: GC00021

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	6.21	20	0.05	0.27	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED
Total Metals

LDW23-IT1202

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-07 B SDG: 23A0032
 Sampled: 01/03/23 14:36 Prepared: 02/24/23 16:23 File ID: XDT_m2230306-172
 % Solids: 64.33 Preparation: SWN EPA 3050B Analyzed: 03/07/23 03:15
 Batch: BLB0518 Sequence: SLC0078 Initial/Final: 1.093 g Wet / 50 mL
 Instrument: ICPMS1 Calibration: GC00021

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	8.47	20	0.05	0.28	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED
Total Metals

LDW23-SC1226B

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-08 C SDG: 23A0032
 Sampled: 01/03/23 12:35 Prepared: 02/24/23 16:23 File ID: XDT_m2230306-173
 % Solids: 61.74 Preparation: SWN EPA 3050B Analyzed: 03/07/23 03:20
 Batch: BLB0518 Sequence: SLC0078 Initial/Final: 1.022 g Wet / 50 mL
 Instrument: ICPMS1 Calibration: GC00021

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	9.00	20	0.06	0.32	
7440-43-9	Cadmium	0.36	20	0.05	0.16	
7440-50-8	Copper	37.0	20	0.28	0.79	
7440-66-6	Zinc	85.4	20	4.6	9.5	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020B UCT-KED

LDW23-SC1212

Total Metals

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-11 B SDG: 23A0032
 Sampled: 01/03/23 14:01 Prepared: 02/24/23 16:23 File ID: XDT_m2230306-174
 % Solids: 52.58 Preparation: SWN EPA 3050B Analyzed: 03/07/23 03:24
 Batch: BLB0518 Sequence: SLC0078 Initial/Final: 1.029 g Wet / 50 mL
 Instrument: ICPMS1 Calibration: GC00021

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic	12.0	20	0.07	0.37	
7440-43-9	Cadmium	0.30	20	0.06	0.18	
7440-50-8	Copper	62.4	20	0.32	0.92	
7440-66-6	Zinc	149	20	5.4	11.1	



Digestion Log

Analyst: ML Date: 02/24/23 Time: 1100-1623 Balance ID: 16
Matrix: Soil Block ID: 3 Block Temp: 95 Thermometer: 20-4

ARI Sample ID	Btl #	pH<2	Prep Code: <u>SNN</u>		Prep Code:		Comments
			Initial Wt (g) Vol (mL)	Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	
23A031-01	D		1.072	1.072			
23A032-01	B		1.070 ^②	1.069			
-02	C		1.029	1.029			
-03	↓		1.026	1.026			
-04	A		1.009	1.009			
-05	↓		1.015	1.014 ^①			
-06	B		1.014	1.014			
-07	↓		1.093	1.093			
-08	C		1.022	1.022			
↓ -11	B		1.029	1.029			
23A071-01			1.006	1.006			
-02			1.003	1.003			
-03			1.064	1.054			
↓ -04	↓		1.064	1.064			
23B0051-01	A		1.074	1.071			
-02	↓		1.084	1.084			
↓ -03	↓		1.041	1.041			
23B0276-01	C		1.034	1.034			
BLB0518-b14	—		—	—			
-b51	—		—	—			
-041	—		1.070	1.070			23A0032-01
-MS1	—		1.075	1.075			↓
-MSb1	—		1.073	1.073			
↓ -semi	—		1.001	1.001			
—	—		—	—			
—	—		—	—			

Chemical/Reagent ID:
HNO₃: L492 1:1 HNO₃: L1314 HCl: — H₂O₂: K11056
Tube Lot#: 220865 Boiling Chip Lot#: — (DoD Only)

5061F Version 007 ③ 50ml ① 1.015 ② 1.070 ML 02/24/23 Page 30878 11/8/22



Form I
METHOD BLANK DATA SHEET
EPA 6020B UCT-KED
Total Metals

Blank

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLB0518

Laboratory ID: BLB0518-BLK1

Prepared: 02/24/23 16:23

Matrix: Solid

Preparation: SWN EPA 3050B

Analyzed: 03/01/23 21:11

Sequence: SLC0028

Calibration: GC00005

Instrument: ICPMS2

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic-75a	ND	20	0.04	0.20	U
7440-50-8	Copper-63	ND	20	0.17	0.50	U
7440-66-6	Zinc-66	ND	20	2.9	6.0	U
7440-66-6	Zinc-67	ND	20	0.9	6.0	U



Form I
METHOD BLANK DATA SHEET
EPA 6020B UCT-KED
Total Metals

Blank

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLB0518

Laboratory ID: BLB0518-BLK2

Prepared: 02/24/23 16:23

Matrix: Solid

Preparation: SWN EPA 3050B

Analyzed: 03/06/23 20:01

Sequence: SLC0078

Calibration: GC00021

Instrument: ICPMS1

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium-111	ND	20	0.03	0.10	U



LCS / LCS DUPLICATE RECOVERY
EPA 6020B UCT-KED
Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>03/01/23 21:16</u>
Batch:	<u>BLB0518</u>	Laboratory ID:	<u>BLB0518-BS1</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>1 g / 50 mL</u>		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Arsenic-75a	25.0	24.8		99.2	80 - 120
Copper-63	25.0	25.5		102	80 - 120
Zinc-66	80.0	80.0		100	80 - 120
Zinc-67	80.0	76.1		95.1	80 - 120

* Indicates values outside of QC limits



LCS / LCS DUPLICATE RECOVERY

EPA 6020B UCT-KED

Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>03/06/23 20:05</u>
Batch:	<u>BLB0518</u>	Laboratory ID:	<u>BLB0518-BS2</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>1 g / 50 mL</u>		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Cadmium-111	25.0	24.8		99.0	80 - 120

* Indicates values outside of QC limits



DUPLICATES
EPA 6020B UCT-KED
Total Metals

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLB0518-DUP1

Batch: BLB0518

Lab Source ID: 23A0032-01

Preparation: SWN EPA 3050B

Initial/Final: 1.07 g / 50 mL

Source Sample Name: LDW23-IT1246

% Solids: 56.86

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Arsenic-75a	20	7.52	7.23	3.97	
Copper-63	20	115	94.7	18.9	
Zinc-67	20	154	139	10.4	

*: Values outside of QC limits

L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD



DUPLICATES
EPA 6020B UCT-KED
Total Metals

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLB0518-DUP2

Batch: BLB0518

Lab Source ID: 23A0032-01

Preparation: SWN EPA 3050B

Initial/Final: 1.07 g / 50 mL

Source Sample Name: LDW23-IT1246

% Solids: 56.86

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Cadmium-111	0.17 - 0.50	0.42	0.34	22.9	L

*: Values outside of QC limits

L: Analyte concentration is ≤ 5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD



MS / MS DUPLICATE RECOVERY
EPA 6020B UCT-KED
Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>03/01/23 21:45</u>
Batch:	<u>BLB0518</u>	Laboratory ID:	<u>BLB0518-MS1</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>Matrix Spike</u>
Initial/Final:	<u>1.075 g / 50 mL</u>	Source Sample:	<u>LDW23-IT1246</u>

COMPOUND	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	Q	MS CONCENTRATION (mg/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Arsenic-75a	40.9	7.52		45.7		93.3	75 - 125
Copper-63	40.9	115		152		92.4	75 - 125
Zinc-67	131	154		325	*	130 *	75 - 125

* Values outside of QC limits



MS / MS DUPLICATE RECOVERY
EPA 6020B UCT-KED
Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>03/01/23 21:50</u>
Batch:	<u>BLB0518</u>	Laboratory ID:	<u>BLB0518-MSD1</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>Matrix Spike Dup</u>
Initial/Final:	<u>1.073 g / 50 mL</u>	Source Sample:	<u>LDW23-IT1246</u>

COMPOUND	SPIKE ADDED (mg/kg dry)	MSD CONCENTRATION (mg/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Arsenic-75a	41.0	47.0		96.4	2.88	20	75 - 125
Copper-63	41.0	141	*	64.3	7.82	20	75 - 125
Zinc-67	131	313		121	3.58	20	75 - 125

* Values outside of QC limits



MS / MS DUPLICATE RECOVERY
EPA 6020B UCT-KED
Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>03/06/23 20:19</u>
Batch:	<u>BLB0518</u>	Laboratory ID:	<u>BLB0518-MS2</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>Matrix Spike</u>
Initial/Final:	<u>1.075 g / 50 mL</u>	Source Sample:	<u>LDW23-IT1246</u>

COMPOUND	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	Q	MS CONCENTRATION (mg/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Cadmium-111	40.9	0.42		39.4		95.3	75 - 125

* Values outside of QC limits



MS / MS DUPLICATE RECOVERY
EPA 6020B UCT-KED
Total Metals

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>03/06/23 20:23</u>
Batch:	<u>BLB0518</u>	Laboratory ID:	<u>BLB0518-MSD2</u>
Preparation:	<u>SWN EPA 3050B</u>	Sequence Name:	<u>Matrix Spike Dup</u>
Initial/Final:	<u>1.073 g / 50 mL</u>	Source Sample:	<u>LDW23-IT1246</u>

COMPOUND	SPIKE ADDED (mg/kg dry)	MSD CONCENTRATION (mg/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Cadmium-111	41.0	40.0		96.5	1.45	20	75 - 125

* Values outside of QC limits



POST DIGEST SPIKE SAMPLE RECOVERY
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLB0518-PS1

Batch: BLB0518

Lab Source ID: 23A0032-01

Preparation: SWN EPA 3050B

Initial/Final: 1.07 g / 50 mL

Source Sample Name: LDW23-IT1246

% Solids: 56.86

Analyte	Control Limit %R	Spike Sample Result (SSR) (ug/L)	Sample Result (SR) (ug/L)	Spike Added (SA) (ug/L)	%R
Copper-63	80 - 120	1910	115	500.00	104
Lead-208	80 - 120	1180	55.0	500.00	102
Zinc-67	80 - 120	3310	154	1600.0	89.6

* Values outside of QC limits



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GC00005

Instrument: ICPMS2

Calibration Date: 03/01/2023 16:36

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Silver-107	0	0	0.2	10830	10	11072.9	20	10736.5	50	10448.78	100	10433.77
Chromium-52	0	0	0.5	40794	10	17610.2	20	16461.65	50	15736.4	100	16030.98
Chromium-53	0	0	0.5	1918	10	1880.8	20	1827.7	50	1793.9	100	1844.82
Lead-208	0	0	0.1	38050	10	38598.4	20	37718.45	50	36783.7	100	36762.39



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

Instrument: ICPMS2

Calibration: GC00005

Calibration Date: 3/1/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Silver-107	8920.325	49.1	0.9999		0.998	
Chromium-52	17772.21	73.6	0.9998		0.998	
Chromium-53	1544.203	49.1	0.9998		0.998	
Lead-208	31318.82	49.0	1.0000		0.998	



INITIAL CALIBRATION DATA
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GC00005

Instrument: ICPMS2

Calibration Date: 03/01/2023 16:36

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Arsenic-75a	0	0	0.2	170	10	170	20	166.05	50	163.18	100	163.91
Copper-63	0	0	0.5	2590	10	2703.2	20	2615.2	50	2552.64	100	2545.04
Copper-65	0	0	0.5	1338	10	1306.9	20	1279.35	50	1254.66	100	1267.76
Zinc-66	0	0	6	335.3333	10	341.6	20	335.3	50	324.4	100	322.91
Zinc-67	0	0	6	51.5	10	57.3	20	53.15	50	55.06	100	53.29



INITIAL CALIBRATION DATA
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC
Calibration: GC00005

Instrument: ICPMS2
Calibration Date: 3/1/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a	138.8567	49.0	1.0000		0.998	
Copper-63	2167.68	49.1	1.0000		0.998	
Copper-65	1074.445	49.1	1.0000		0.998	
Zinc-66	276.5906	49.1	1.0000		0.998	
Zinc-67	45.05	49.2	0.9997		0.998	



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ICP/MS 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 3/1/23 Analyst: SD Sequence: SLC0028 Cal: GC00005

All corrections made by analyst unless otherwise noted. SD 3/1/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	SE0-CAL1			
	↓	-CAL2			
		-CAL3			Mo NOISY
		-CAL4			
		-CAL5			Mo+Cd NOISY
		-CAL6			
		-IBL1			
		-CAL1	L2232		
		-CAL2	L2200		
		-CAL3	L2201		
		-CAL4	L2202		Mo+Cd noisy-int.; No Mo/Cd
		-CAL5	L2203		
		-CAL6	L2204		Ag sl. noisy
		-IBL1	-		
		-ICVI	L243		
		-ICBI	L2232		Se↑ NO Se
		-CCVI	L2203		
		-CCBI	L2232		
		-CPLI	L2200		
		-IFAI	L2006		Cr 53↑ ↓
	✓	-IFAI			
		-IFBI	L2007		Ni 62 noisy, %R+ int. std. ok
		-HCVI	L2008		Ag sl. noisy
		↓ -HCVZ	L2009		Se↓ Cd ¹¹⁴ noisy & Cd ¹¹⁴ sl. noisy - Cd<200



ICP/MS 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 3/11/23 Analyst: SD Sequence: — Cal: —

All corrections made by analyst unless otherwise noted. SD 3/11/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-IBL2			
		↓ -IBL3			
		↓ -CCV2			Mo+Co Mo+Co noisy NO Mo/Cd Int. std. OK
		↓ -CCB2			Sc sl. noisy In + Tb noisy
		↓ -CCB2			
		BLC0008-BLH1	REN		NO Cd, Mo, Se, Ti
		↓ -BS1	↓		Zn ⁶⁷ , Cd noisy ↓
		23B0551-01		10	Zn ↑ NO Cd; Zn NR
PEI		↓ -DIREI		100	
	✓	23C0004-01	↓	20	
	✓	23B0511-01			ALL INT. STDs ↓
		SEQ-IBL4			
		23C0004-01	REN	5	No Cd
		23B0511-01	↓	50	
		SEQ-IBL5			
		↓ -CCV3			Mo+Ti ↓
		↓ -CCB3			In-1 noisy Cr ⁵³ ↑
		23B0501-02	REN	2	No Cd
		↓ -03	↓	↓	↓
		↓ -04			
		23B0367-01			
		23B0379-01			
		↓ -03			
		23B0501-01	↓	2	No Cd, Mo, Se, Ti



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ICP/MS 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 3/1/23 Analyst: SD Sequence: — Cal: —

All corrections made by analyst unless otherwise noted. SD 3/1/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLC0008-DUPI	REN	2	Cr ⁵² sl. noisy, Mn noisy value matches parent
		↓ -MSI	↓	↓	NO Cd, Mo, Se, Ti
		SEQ-IBL6			
		↓ -CCV4			
		↓ -CCB4			Cr ⁵³ ↑
		BLB0518-BLK1	SWN	20	↓
		↓ -BS1			NO Cd
		23A0032-02			Sc↑
		↓ -03			
		↓ -04			
		↓ -01			Sc↑
		BLB0518-DUPI			NO Cd/Cr
		↓ -MSI			Pb & Zn % R↑
		↓ -MSDI			Cu & Zn % R↑ Pb RPD↑ Cu % R↓
		↓ -PSI			
		SEQ-CCUS			Mo & Cd noisy
		↓ -CCBS			
		BLB0724-BLK1	SPN	2	
		↓ -BS1	↓	↓	
		23B0330-29	REN	5	As noisy
		↓ -39	↓	↓	NO AS; Cr ONLY
		23B0387-01	↓	50	Cr ONLY
		23A0324-02	SPN	2	NO Cd
		BLB0724-DUPI	↓	↓	



ICP/MS 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 3/1/23 Analyst: SD Sequence: Cal:

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLB0724-MS1	SPN	2	Gr. sl. noisy Cu noisy; value matches DUP & parent
		SEQ-IBL7			
		↓ -CCV6			Mn sl. noisy
		↓ -CCB6			
		BLB0716-BLK1	SPN	2	SC↑
		↓ -BS1	↓	↓	↓
		23A0324-02RE1			
		BLB0716-DUPI			
		↓ -MS1	↓	↓	↓
		SEQ-IBL8			
		↓ -CCV7			MO sl. noisy Cd 114 NOISY
		↓ -CCB7			
		RINSE/DI			
SD 3/1/23					

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Wednesday, March 01, 2023 14:59:12

Sample Description:

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth

Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.5296

MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode	
Be	9.0		12204.8		12204.803		1448.694		11.9	Standard	
In	114.9		62922.7		62922.683		6035.955		9.6	Standard	
U	238.1		52132.3		52132.332		4573.286		8.8	Standard	
[	CeO	155.9		1500.6		0.029		0.002		6.7	Standard
|>	Ce	139.9		52055.2		52055.180		4555.471		8.8	Standard
[	Ce++	70.0		2058.7		0.040		0.000		1.1	Standard
	Bkgd	220.0		0.1		0.067		0.091		136.9	Standard

Current Conditions File Data

Current Value	Description
1.06	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.25	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1400.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-8.00	Cell Rod Offset STD [CRO]
12.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-16.50	KED Mode CRO
-12.00	KED Mode QRO
-4.00	KED Mode Cell Entrance Voltage
-39.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
5.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Wednesday, March 01, 2023 15:01:16

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 3/1/2023 2:59:08 PM

End Time: 3/1/2023 3:06:38 PM

STD Performance Check - [Failed]

Obtained Intensity (Be 9): 12204.80

Obtained Intensity (In 115): 62922.68

Obtained Intensity (U 238): 52132.33

Obtained Intensity (Bkgd 220): 0.07

Obtained Formula (Ce++ 70 / Ce 140): 0.040 (=2058.68 / 52055.18) - <Target not achieved>

Obtained Formula (CeO 156 / Ce 140): 0.029 (=1500.61 / 52055.18) - <Target not achieved>

Obtained RSD (Be 9): 0.1187 - <Target not achieved>

Obtained RSD (In 115): 0.0959 - <Target not achieved>

Obtained RSD (U 238): 0.0877 - <Target not achieved>

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.85 mm	0.32 mm	66869.14

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 1.05

Obtained Intensity (In 115): 55247.62

Obtained Formula (CeO 156 / Ce 140): 0.0198 (=895.03 / 45267.61)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.694)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.722)

Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.700)

Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.691)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.986; Intercept = -12.64

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 3/1/2023 2:59:08 PM

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 1
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025
RSD Criterion: Be 9.0122 < 0.05
RSD Criterion: In 114.904 < 0.05
RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 12204.80
Obtained Intensity (In 115): 62922.68
Obtained Intensity (U 238): 52132.33
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (Ce++ 70 / Ce 140): 0.040 (=2058.68 / 52055.18) - <Target not achieved>
Obtained Formula (CeO 156 / Ce 140): 0.029 (=1500.61 / 52055.18) - <Target not achieved>
Obtained RSD (Be 9): 0.1187 - <Target not achieved>
Obtained RSD (In 115): 0.0959 - <Target not achieved>
Obtained RSD (U 238): 0.0877 - <Target not achieved>

[Failed]

[Failed]

Torch Alignment

Optimization Settings:

Method: Torch Alignment.mth.
Intensity Criterion: In 115 Maximum

Optimization Results:

	Vertical	Horizontal	Intensity
[Passed]	0.85 mm	0.32 mm	66869.14

Nebulizer Gas Flow STD/KED [NEB]

Optimization Settings:

Method: Optimize.mth.
Initial Try - Start/End/Step: 1/1.1/0.01.
Intensity Criterion: In 115 Maximum
Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (In 115): 55247.62
Obtained Formula (CeO 156 / Ce 140): 0.0198 (=895.03 / 45267.61)

[Passed] Optimum value(s): 1.05

Mass Calibration and Resolution

Optimization Settings:

Method: Tuning.mth.
MassCal File: Default.tun
Iterations: 6
Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:

Initial Try

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.694)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.722)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.691)

[Passed] Optimum value(s): N/A

QID STD/DRC

Optimization Settings:

Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.986; Intercept = -12.64

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-13	46692.2
Mg	24	41	-13	38527.9
In	115	41	-10.5	62138.9
Ce	140	41	-8.5	50790.1
Pb	208	41	-7.5	27129.7
U	238	41	-7.5	49509.6

End Time: 3/1/2023 3:06:38 PM

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 3/1/2023 3:09:39 PM

End Time: 3/1/2023 3:10:46 PM

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.991; Intercept = -12.34

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 3/1/2023 3:09:39 PM

QID STD/DRC

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.991; Intercept = -12.34

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-13	42715.8
Mg	24	41	-13.5	37886.2
In	115	41	-10.5	59889.3
Ce	140	41	-8.5	50625.5
Pb	208	41	-7.5	27037.6
U	238	41	-7	50541.2

End Time: 3/1/2023 3:10:46 PM

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 3/1/2023 3:10:58 PM

End Time: 3/1/2023 3:12:14 PM

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.995; Intercept = -12.81

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 3/1/2023 3:10:58 PM

KED Mode QID

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.995; Intercept = -12.81

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-13	33880.1
Mg	24	41	-13	25258.3
In	115	41	-11	39827.4
Ce	140	41	-9	42523.2
Pb	208	41	-6.5	19605.4
U	238	41	-7	33964.3

End Time: 3/1/2023 3:12:14 PM

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Wednesday, March 01, 2023 15:17:37

Sample Description:

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth

Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.5307

MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode	
Be	9.0		9161.3		9161.337		154.793		1.7	Standard	
In	114.9		52812.8		52812.779		380.312		0.7	Standard	
U	238.1		46018.4		46018.405		404.310		0.9	Standard	
[	CeO	155.9		597.9		0.013		0.001		4.1	Standard
|>	Ce	139.9		45604.5		45604.544		162.699		0.4	Standard
[	Ce++	70.0		1252.9		0.027		0.000		1.7	Standard
	Bkgd	220.0		0.1		0.067		0.091		136.9	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.25	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1400.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-8.00	Cell Rod Offset STD [CRO]
12.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.05	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-16.50	KED Mode CRO
-12.00	KED Mode QRO
-4.00	KED Mode Cell Entrance Voltage
-39.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
5.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Wednesday, March 01, 2023 15:19:41

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 3/1/2023 3:17:35 PM

End Time: 3/1/2023 3:19:41 PM

STD Performance Check - [Passed] Optimum value(s): N/A

Obtained Intensity (Be 9): 9161.34

Obtained Intensity (In 115): 52812.78

Obtained Intensity (U 238): 46018.40

Obtained Intensity (Bkgd 220): 0.07

Obtained Formula (Ce++ 70 / Ce 140): 0.027 (=1252.85 / 45604.54)

Obtained Formula (CeO 156 / Ce 140): 0.013 (=597.88 / 45604.54)

Obtained RSD (Be 9): 0.0169

Obtained RSD (In 115): 0.0072

Obtained RSD (U 238): 0.0088

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 3/1/2023 3:17:35 PM

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 1
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025
RSD Criterion: Be 9.0122 < 0.05
RSD Criterion: In 114.904 < 0.05
RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 9161.34
Obtained Intensity (In 115): 52812.78
Obtained Intensity (U 238): 46018.40
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (Ce++ 70 / Ce 140): 0.027 (=1252.85 / 45604.54)
Obtained Formula (CeO 156 / Ce 140): 0.013 (=597.88 / 45604.54)
Obtained RSD (Be 9): 0.0169
Obtained RSD (In 115): 0.0072
Obtained RSD (U 238): 0.0088

[Passed] Optimum value(s): N/A

End Time: 3/1/2023 3:19:41 PM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Wednesday, March 01, 2023 15:54:34

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L				32629	1	Standard
Cl	37		ug/L				3758523	1	Standard
[> Sc	45		ug/L				435309	0	Standard
| Cr	52		ug/L				12147	1	Standard
| Cr	53		ug/L				106	9	Standard
| Mn	55		ug/L				1152	3	Standard
[> Ge	72		ug/L				27422	0	KED
| Ni	60		ug/L				25	35	KED
| Ni	62		ug/L				1	100	KED
| Cu	63		ug/L				66	16	KED
| Cu	65		ug/L				22	26	KED
| Zn	66		ug/L				44	31	KED
| Zn	67		ug/L				2	43	KED
| As	75		ug/L				6	24	KED
| Se	78		ug/L				12	19	KED
Y	89		ug/L				271902	0	Standard
Kr	83		ug/L				67	8	Standard
[> In-1	115		ug/L				7697	2	KED
| Mo	98		ug/L				10	39	KED
| Cd	111		ug/L				3	25	KED
| Cd	114		ug/L				0	245	KED
[> In	115		ug/L				457197	1	Standard
| Ag	107		ug/L				34	22	Standard
| Sb	121		ug/L				60	4	Standard
| Sb	123		ug/L				40	15	Standard
[> Tb	159		ug/L				495809	2	Standard
| Tl	205		ug/L				8	53	Standard
| Pb	208		ug/L				118	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Wednesday, March 01, 2023 15:59:25

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			32629	39973	0	Standard
Cl	37	ug/L			3758523	3796523	0	Standard
[> Sc	45	ug/L			435309	436341	0	Standard
| Cr	52	0.500	0.046	9	12147	19839	3	Standard
| Cr	53	0.500	0.021	4	106	973	3	Standard
| Mn	55	0.500	0.012	2	1152	11480	1	Standard
[> Ge	72	ug/L			27422	27381	2	KED
| Ni	60	0.500	0.052	10	25	465	8	KED
| Ni	62	0.500	0.093	18	1	80	20	KED
| Cu	63	0.500	0.020	4	66	1309	6	KED
| Cu	65	0.500	0.038	7	22	674	9	KED
| Zn	66	6.000	0.202	3	44	1916	5	KED
| Zn	67	6.000	0.658	10	2	299	8	KED
| As	75	0.200	0.013	6	6	37	8	KED
| Se	78	0.500	0.334	66	12	19	27	KED
Y	89	ug/L			271902	274734	1	Standard
Kr	83	ug/L			67	60	28	Standard
[> In-1	115	ug/L			7697	7642	2	KED
| Mo	98	0.200	0.030	14	10	135	14	KED
| Cd	111	0.100	0.040	40	3	22	32	KED
| Cd	114	0.100	0.015	14	0	48	12	KED
[> In	115	ug/L			457197	472553	1	Standard
| Ag	107	0.200	0.009	4	34	2113	3	Standard
| Sb	121	0.200	0.002	1	60	1822	2	Standard
| Sb	123	0.200	0.003	1	40	1402	0	Standard
[> Tb	159	ug/L			495809	500720	2	Standard
| Tl	205	0.200	0.008	4	8	5562	1	Standard
| Pb	208	0.100	0.006	6	118	3812	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Wednesday, March 01, 2023 16:04:16

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			32629	42725	1	Standard
Cl	37		ug/L			3758523	3900248	1	Standard
[> Sc	45		ug/L			435309	455622	2	Standard
| Cr	52	10.000	ug/L	0.547	5	12147	171584	4	Standard
| Cr	53	10.001	ug/L	0.447	4	106	18758	3	Standard
| Mn	55	10.000	ug/L	0.431	4	1152	221202	3	Standard
[> Ge	72		ug/L			27422	27017	4	KED
| Ni	60	10.001	ug/L	0.332	3	25	8962	1	KED
| Ni	62	9.999	ug/L	0.419	4	1	1488	1	KED
| Cu	63	10.002	ug/L	0.462	4	66	26389	2	KED
| Cu	65	10.001	ug/L	0.479	4	22	13263	1	KED
| Zn	66	10.244	ug/L	0.358	3	44	3422	2	KED
| Zn	67	10.455	ug/L	0.377	3	2	587	2	KED
| As	75	10.000	ug/L	0.298	2	6	1647	2	KED
| Se	78	10.003	ug/L	0.497	4	12	182	3	KED
Y	89		ug/L			271902	288108	1	Standard
Kr	83		ug/L			67	55	3	Standard
[> In-1	115		ug/L			7697	7890	3	KED
| Mo	98	10.000	ug/L	0.912	9	10	7057	7	KED
| Cd	111	10.000	ug/L	0.674	6	3	1727	4	KED
| Cd	114	10.000	ug/L	0.638	6	0	4249	5	KED
[> In	115		ug/L			457197	485026	1	Standard
| Ag	107	10.000	ug/L	0.450	4	34	109546	5	Standard
| Sb	121	10.000	ug/L	0.252	2	60	94907	3	Standard
| Sb	123	10.000	ug/L	0.153	1	40	72736	2	Standard
[> Tb	159		ug/L			495809	524277	2	Standard
| Tl	205	10.000	ug/L	0.329	3	8	290550	4	Standard
| Pb	208	10.000	ug/L	0.219	2	118	380973	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Wednesday, March 01, 2023 16:09:21

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13	ug/L			32629	42835	0	Standard
Cl	37	ug/L			3758523	3938510	1	Standard
[> Sc	45	ug/L			435309	440750	1	Standard
| Cr	52	19.962	0.520	2	12147	316888	3	Standard
| Cr	53	19.953	0.386	1	106	35780	3	Standard
| Mn	55	19.955	0.781	3	1152	422379	5	Standard
[> Ge	72				27422	28413	1	KED
| Ni	60	19.763	0.618	3	25	17777	1	KED
| Ni	62	19.871	0.813	4	1	3034	2	KED
| Cu	63	19.744	0.533	2	66	52117	1	KED
| Cu	65	19.626	0.817	4	22	25477	2	KED
| Zn	66	19.855	0.437	2	44	6794	1	KED
| Zn	67	19.663	0.770	3	2	1107	5	KED
| As	75	19.830	0.313	1	6	3318	1	KED
| Se	78	19.899	0.492	2	12	362	0	KED
Y	89				271902	280996	3	Standard
Kr	83				67	62	15	Standard
[> In-1	115				7697	7798	1	KED
| Mo	98	20.043	0.482	2	10	14113	3	KED
| Cd	111	20.186	0.492	2	3	3579	1	KED
| Cd	114	20.093	0.491	2	0	8608	3	KED
[> In	115				457197	475284	1	Standard
| Ag	107	19.923	0.627	3	34	210618	4	Standard
| Sb	121	19.969	0.596	2	60	184504	3	Standard
| Sb	123	19.926	0.455	2	40	139891	2	Standard
[> Tb	159				495809	512600	2	Standard
| Tl	205	19.953	1.169	5	8	560822	3	Standard
| Pb	208	19.920	0.984	4	118	729573	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Wednesday, March 01, 2023 16:14:36

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			32629	35346	2	Standard
Cl	37		ug/L			3758523	4115545	3	Standard
[> Sc	45		ug/L			435309	437539	0	Standard
| Cr	52	50.072	ug/L	0.790	1	12147	775999	1	Standard
| Cr	53	49.994	ug/L	1.613	3	106	88768	3	Standard
| Mn	55	50.102	ug/L	1.326	2	1152	1061499	3	Standard
[> Ge	72		ug/L			27422	27426	0	KED
| Ni	60	49.875	ug/L	2.026	4	25	42734	3	KED
| Ni	62	49.690	ug/L	2.059	4	1	7103	3	KED
| Cu	63	49.803	ug/L	2.132	4	66	124347	3	KED
| Cu	65	49.792	ug/L	1.244	2	22	61110	1	KED
| Zn	66	49.648	ug/L	1.742	3	44	15814	2	KED
| Zn	67	50.059	ug/L	2.304	4	2	2731	3	KED
| As	75	49.787	ug/L	1.883	3	6	7865	2	KED
[Se	78	50.089	ug/L	1.077	2	12	869	1	KED
Y	89		ug/L			271902	277494	3	Standard
Kr	83		ug/L			67	69	31	Standard
[> In-1	115		ug/L			7697	7690	4	KED
| Mo	98	49.770	ug/L	4.188	8	10	33715	7	KED
| Cd	111	49.698	ug/L	4.149	8	3	8424	8	KED
[Cd	114	49.628	ug/L	4.323	8	0	20179	7	KED
[> In	115		ug/L			457197	455869	0	Standard
| Ag	107	50.234	ug/L	1.682	3	34	521430	3	Standard
| Sb	121	50.375	ug/L	1.218	2	60	463733	3	Standard
[Sb	123	50.295	ug/L	1.054	2	40	348921	2	Standard
[> Tb	159		ug/L			495809	504937	3	Standard
| Tl	205	50.075	ug/L	1.635	3	8	1397608	1	Standard
[Pb	208	50.104	ug/L	1.385	2	118	1827848	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Wednesday, March 01, 2023 16:21:30

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			32629	42864	3	Standard
Cl	37		ug/L			3758523	4239160	3	Standard
[> Sc	45		ug/L			435309	457930	1	Standard
| Cr	52	100.084	ug/L	4.197	4	12147	1614514	2	Standard
| Cr	53	99.910	ug/L	4.257	4	106	184953	3	Standard
| Mn	55	100.986	ug/L	5.410	5	1152	2313146	4	Standard
[> Ge	72		ug/L			27422	27996	2	KED
| Ni	60	100.500	ug/L	5.778	5	25	89371	5	KED
| Ni	62	99.586	ug/L	4.165	4	1	14329	3	KED
| Cu	63	99.445	ug/L	2.977	2	66	248814	3	KED
| Cu	65	100.074	ug/L	3.653	3	22	125674	4	KED
| Zn	66	99.711	ug/L	2.015	2	44	32080	3	KED
| Zn	67	98.966	ug/L	3.419	3	2	5329	4	KED
| As	75	100.349	ug/L	3.851	3	6	16367	4	KED
| Se	78	99.984	ug/L	4.230	4	12	1757	4	KED
Y	89		ug/L			271902	291114	1	Standard
Kr	83		ug/L			67	73	10	Standard
[> In-1	115		ug/L			7697	7507	0	KED
| Mo	98	102.182	ug/L	3.186	3	10	72943	2	KED
| Cd	111	101.296	ug/L	1.134	1	3	17528	0	KED
| Cd	114	101.795	ug/L	1.167	1	0	43040	0	KED
[> In	115		ug/L			457197	480624	1	Standard
| Ag	107	98.582	ug/L	1.708	1	34	1030178	3	Standard
| Sb	121	99.202	ug/L	0.723	0	60	937696	1	Standard
| Sb	123	99.502	ug/L	1.692	1	40	715783	2	Standard
[> Tb	159		ug/L			495809	535970	3	Standard
| Tl	205	100.750	ug/L	4.723	4	8	3061053	3	Standard
| Pb	208	99.139	ug/L	4.256	4	118	3732614	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Wednesday, March 01, 2023 16:29:05

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			32629	38322	1	Standard
Cl	37		ug/L			3758523	4048138	2	Standard
[> Sc	45		ug/L			435309	423106	5	Standard
| Cr	52	0.049	ug/L	0.030	62	12147	12515	2	Standard
| Cr	53	0.010	ug/L	0.004	40	106	121	8	Standard
| Mn	55	-0.007	ug/L	0.002	26	1152	963	2	Standard
[> Ge	72		ug/L			27422	28161	2	KED
| Ni	60	-0.001	ug/L	0.011	845	25	24	38	KED
| Ni	62	0.052	ug/L	0.001	2	1	9	0	KED
| Cu	63	0.003	ug/L	0.003	99	66	75	9	KED
| Cu	65	0.015	ug/L	0.010	67	22	41	29	KED
| Zn	66	-0.002	ug/L	0.014	824	44	45	8	KED
| Zn	67	0.105	ug/L	0.143	136	2	8	93	KED
| As	75	0.006	ug/L	0.011	193	6	7	24	KED
| Se	78	-0.079	ug/L	0.089	112	12	11	12	KED
Y	89		ug/L			271902	265740	6	Standard
Kr	83		ug/L			67	59	25	Standard
[> In-1	115		ug/L			7697	7601	1	KED
| Mo	98	0.013	ug/L	0.006	44	10	19	20	KED
| Cd	111	0.006	ug/L	0.011	192	3	4	40	KED
| Cd	114	0.013	ug/L	0.012	86	0	6	78	KED
[> In	115		ug/L			457197	451819	6	Standard
| Ag	107	0.006	ug/L	0.001	7	34	97	3	Standard
| Sb	121	0.199	ug/L	0.017	8	60	1817	2	Standard
| Sb	123	0.207	ug/L	0.012	5	40	1437	1	Standard
[> Tb	159		ug/L			495809	480761	6	Standard
| Tl	205	0.003	ug/L	0.000	3	8	88	3	Standard
| Pb	208	0.001	ug/L	0.001	71	118	162	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 16:36:39

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L				34622	3	Standard
Cl	37		ug/L				3977931	0	Standard
[> Sc	45		ug/L				439931	0	Standard
| Cr	52		ug/L				12483	2	Standard
| Cr	53		ug/L				120	12	Standard
| Mn	55		ug/L				1073	2	Standard
[> Ge	72		ug/L				28119	1	KED
| Ni	60		ug/L				28	17	KED
| Ni	62		ug/L				5	21	KED
| Cu	63		ug/L				42	27	KED
| Cu	65		ug/L				27	52	KED
| Zn	66		ug/L				29	30	KED
| Zn	67		ug/L				8	44	KED
| As	75		ug/L				7	35	KED
| Se	78		ug/L				11	32	KED
Y	89		ug/L				276255	3	Standard
Kr	83		ug/L				52	10	Standard
[> In-1	115		ug/L				7782	2	KED
| Mo	98		ug/L				8	11	KED
| Cd	111		ug/L				4	48	KED
| Cd	114		ug/L				5	31	KED
[> In	115		ug/L				475417	1	Standard
| Ag	107		ug/L				135	24	Standard
| Sb	121		ug/L				596	6	Standard
| Sb	123		ug/L				475	10	Standard
[> Tb	159		ug/L				499801	1	Standard
| Tl	205		ug/L				224	12	Standard
| Pb	208		ug/L				359	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 16:41:30

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	39551	0	Standard
Cl	37		ug/L			3977931	3956290	2	Standard
[> Sc	45		ug/L			439931	447141	4	Standard
| Cr	52	0.500	ug/L	0.022	4	12483	20397	2	Standard
| Cr	53	0.500	ug/L	0.030	5	120	959	4	Standard
| Mn	55	0.500	ug/L	0.023	4	1073	11365	1	Standard
[> Ge	72		ug/L			28119	28400	1	KED
| Ni	60	0.500	ug/L	0.059	11	28	450	11	KED
| Ni	62	0.500	ug/L	0.112	22	5	69	20	KED
| Cu	63	0.500	ug/L	0.025	4	42	1295	3	KED
| Cu	65	0.500	ug/L	0.037	7	27	669	6	KED
| Zn	66	6.000	ug/L	0.120	1	29	2012	0	KED
| Zn	67	6.000	ug/L	1.064	17	8	309	17	KED
| As	75	0.200	ug/L	0.042	20	7	34	15	KED
[Se	78	0.500	ug/L	0.107	21	11	17	8	KED
Y	89		ug/L			276255	280837	4	Standard
Kr	83		ug/L			52	64	19	Standard
[> In-1	115		ug/L			7782	7574	5	KED
| Mo	98	0.200	ug/L	0.037	18	8	136	13	KED
| Cd	111	0.100	ug/L	0.028	28	4	16	15	KED
| Cd	114	0.100	ug/L	0.021	21	5	56	15	KED
[> In	115		ug/L			475417	485072	1	Standard
| Ag	107	0.200	ug/L	0.014	7	135	2166	7	Standard
| Sb	121	0.200	ug/L	0.011	5	596	2045	2	Standard
[Sb	123	0.200	ug/L	0.006	2	475	1596	1	Standard
[> Tb	159		ug/L			499801	507887	4	Standard
| Tl	205	0.200	ug/L	0.010	4	224	5595	2	Standard
[Pb	208	0.100	ug/L	0.008	7	359	3805	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 16:46:22

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	44416	1	Standard
Cl	37		ug/L			3977931	4060221	1	Standard
[> Sc	45		ug/L			439931	465233	1	Standard
| Cr	52	10.000	ug/L	0.308	3	12483	176102	1	Standard
| Cr	53	10.002	ug/L	0.420	4	120	18808	2	Standard
| Mn	55	10.001	ug/L	0.347	3	1073	224356	3	Standard
[> Ge	72		ug/L			28119	28465	2	KED
| Ni	60	10.002	ug/L	0.190	1	28	9296	3	KED
| Ni	62	10.004	ug/L	0.240	2	5	1506	0	KED
| Cu	63	10.002	ug/L	0.145	1	42	27032	2	KED
| Cu	65	10.000	ug/L	0.077	0	27	13069	2	KED
| Zn	66	10.058	ug/L	0.216	2	29	3416	3	KED
| Zn	67	10.301	ug/L	0.776	7	8	573	7	KED
| As	75	10.001	ug/L	0.370	3	7	1700	3	KED
[Se	78	10.010	ug/L	0.544	5	11	196	2	KED
Y	89		ug/L			276255	288797	3	Standard
Kr	83		ug/L			52	53	23	Standard
[> In-1	115		ug/L			7782	7880	3	KED
| Mo	98	10.000	ug/L	0.473	4	8	7207	1	KED
| Cd	111	10.000	ug/L	0.286	2	4	1792	0	KED
[Cd	114	10.000	ug/L	0.458	4	5	4531	3	KED
[> In	115		ug/L			475417	490666	1	Standard
| Ag	107	10.000	ug/L	0.061	0	135	110729	1	Standard
| Sb	121	10.001	ug/L	0.231	2	596	94911	2	Standard
[Sb	123	10.001	ug/L	0.143	1	475	72086	2	Standard
[> Tb	159		ug/L			499801	522161	1	Standard
| Tl	205	10.000	ug/L	0.441	4	224	292727	2	Standard
[Pb	208	10.000	ug/L	0.315	3	359	385984	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 16:51:26

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	43117	1	Standard
Cl	37		ug/L			3977931	4193559	3	Standard
[> Sc	45		ug/L			439931	465884	2	Standard
| Cr	52	19.868	ug/L	0.855	4	12483	329233	5	Standard
| Cr	53	19.890	ug/L	0.550	2	120	36554	3	Standard
| Mn	55	19.888	ug/L	0.608	3	1073	435915	3	Standard
[> Ge	72		ug/L			28119	28827	1	KED
| Ni	60	19.769	ug/L	0.596	3	28	17757	2	KED
| Ni	62	19.914	ug/L	0.637	3	5	2981	1	KED
| Cu	63	19.820	ug/L	0.956	4	42	52304	3	KED
| Cu	65	19.868	ug/L	0.531	2	27	25587	1	KED
| Zn	66	19.893	ug/L	0.752	3	29	6706	2	KED
| Zn	67	19.735	ug/L	1.392	7	8	1063	5	KED
| As	75	19.863	ug/L	0.882	4	7	3321	3	KED
[Se	78	19.763	ug/L	0.258	1	11	364	0	KED
Y	89		ug/L			276255	285464	1	Standard
Kr	83		ug/L			52	60	27	Standard
[> In-1	115		ug/L			7782	8151	1	KED
| Mo	98	19.661	ug/L	1.960	9	8	13722	8	KED
| Cd	111	19.773	ug/L	1.672	8	4	3503	7	KED
| Cd	114	19.548	ug/L	1.826	9	5	8399	8	KED
[> In	115		ug/L			475417	488111	0	Standard
| Ag	107	19.899	ug/L	0.845	4	135	214730	4	Standard
| Sb	121	20.002	ug/L	0.415	2	596	188313	2	Standard
| Sb	123	20.066	ug/L	0.658	3	475	145331	3	Standard
[> Tb	159		ug/L			499801	526054	2	Standard
| Tl	205	19.921	ug/L	0.334	1	224	578340	2	Standard
[Pb	208	19.879	ug/L	0.671	3	359	754369	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 16:56:41

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	35813	1	Standard
Cl	37		ug/L			3977931	4208332	0	Standard
> Sc	45		ug/L			439931	462748	1	Standard
| Cr	52	49.831	ug/L	1.387	2	12483	786820	1	Standard
| Cr	53	49.874	ug/L	2.019	4	120	89695	3	Standard
| Mn	55	49.795	ug/L	2.629	5	1073	1060387	4	Standard
> Ge	72		ug/L			28119	28180	3	KED
| Ni	60	50.253	ug/L	1.995	3	28	45209	2	KED
| Ni	62	49.748	ug/L	3.129	6	5	7088	3	KED
| Cu	63	49.919	ug/L	2.123	4	42	127632	1	KED
| Cu	65	49.979	ug/L	2.099	4	27	62733	3	KED
| Zn	66	49.893	ug/L	3.532	7	29	16220	4	KED
| Zn	67	50.434	ug/L	3.363	6	8	2753	5	KED
| As	75	50.001	ug/L	1.858	3	7	8159	1	KED
| Se	78	50.163	ug/L	2.514	5	11	901	1	KED
Y	89		ug/L			276255	287871	2	Standard
Kr	83		ug/L			52	65	21	Standard
> In-1	115		ug/L			7782	7894	1	KED
| Mo	98	50.102	ug/L	5.500	10	8	34191	9	KED
| Cd	111	50.012	ug/L	4.750	9	4	8583	8	KED
| Cd	114	50.130	ug/L	4.360	8	5	21125	7	KED
> In	115		ug/L			475417	484697	2	Standard
| Ag	107	49.794	ug/L	1.304	2	135	522439	2	Standard
| Sb	121	49.956	ug/L	1.431	2	596	463941	2	Standard
| Sb	123	49.833	ug/L	1.439	2	475	351747	3	Standard
> Tb	159		ug/L			499801	523883	1	Standard
| Tl	205	49.874	ug/L	1.527	3	224	1423464	2	Standard
| Pb	208	49.774	ug/L	1.082	2	359	1839185	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 17:03:36

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	42916	1	Standard
Cl	37		ug/L			3977931	4269449	2	Standard
[> Sc	45		ug/L			439931	460214	1	Standard
| Cr	52	100.678	ug/L	5.876	5	12483	1603098	4	Standard
| Cr	53	100.731	ug/L	5.728	5	120	184482	4	Standard
| Mn	55	101.320	ug/L	7.255	7	1073	2242760	5	Standard
[> Ge	72		ug/L			28119	27666	1	KED
| Ni	60	100.635	ug/L	3.202	3	28	90799	1	KED
| Ni	62	101.088	ug/L	4.662	4	5	14678	2	KED
| Cu	63	100.302	ug/L	0.940	0	42	254504	1	KED
| Cu	65	100.650	ug/L	3.154	3	27	126776	1	KED
| Zn	66	100.271	ug/L	4.462	4	29	32291	3	KED
| Zn	67	99.887	ug/L	6.102	6	8	5329	5	KED
| As	75	100.528	ug/L	4.094	4	7	16391	2	KED
[Se	78	100.300	ug/L	6.966	6	11	1775	5	KED
Y	89		ug/L			276255	287419	3	Standard
Kr	83		ug/L			52	81	14	Standard
[> In-1	115		ug/L			7782	7757	0	KED
| Mo	98	102.074	ug/L	0.495	0	8	73597	1	KED
| Cd	111	101.188	ug/L	0.763	0	4	17777	1	KED
[Cd	114	100.768	ug/L	1.563	1	5	42844	1	KED
[> In	115		ug/L			475417	470636	0	Standard
| Ag	107	100.549	ug/L	6.868	6	135	1043377	6	Standard
| Sb	121	100.938	ug/L	3.822	3	596	939093	3	Standard
[Sb	123	100.770	ug/L	2.927	2	475	708378	2	Standard
[> Tb	159		ug/L			499801	526976	1	Standard
| Tl	205	101.120	ug/L	3.341	3	224	3015821	3	Standard
[Pb	208	99.748	ug/L	4.550	4	359	3676239	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 17:11:11

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	38959	2	Standard
Cl	37		ug/L			3977931	4146111	2	Standard
[> Sc	45		ug/L			439931	445194	1	Standard
| Cr	52	0.016	ug/L	0.036	223	12483	12877	4	Standard
| Cr	53	-0.015	ug/L	0.001	7	120	96	2	Standard
| Mn	55	-0.009	ug/L	0.001	10	1073	887	1	Standard
[> Ge	72		ug/L			28119	27892	2	KED
| Ni	60	-0.009	ug/L	0.003	36	28	20	14	KED
| Ni	62	0.005	ug/L	0.014	285	5	5	33	KED
| Cu	63	0.017	ug/L	0.002	13	42	84	5	KED
| Cu	65	0.015	ug/L	0.003	19	27	46	6	KED
| Zn	66	-0.003	ug/L	0.006	198	29	28	6	KED
| Zn	67	-0.033	ug/L	0.104	313	8	6	78	KED
| As	75	-0.002	ug/L	0.003	189	7	6	8	KED
| Se	78	0.245	ug/L	0.252	102	11	15	27	KED
Y	89		ug/L			276255	289127	3	Standard
Kr	83		ug/L			52	59	6	Standard
[> In-1	115		ug/L			7782	8011	4	KED
| Mo	98	0.011	ug/L	0.005	51	8	17	28	KED
| Cd	111	0.006	ug/L	0.007	108	4	5	20	KED
| Cd	114	-0.005	ug/L	0.005	97	5	3	51	KED
[> In	115		ug/L			475417	490055	3	Standard
| Ag	107	-0.004	ug/L	0.001	24	135	93	12	Standard
| Sb	121	0.148	ug/L	0.006	4	596	2043	2	Standard
| Sb	123	0.146	ug/L	0.016	10	475	1559	3	Standard
[> Tb	159		ug/L			499801	514005	3	Standard
| Tl	205	-0.002	ug/L	0.001	24	224	166	7	Standard
| Pb	208	-0.006	ug/L	0.000	3	359	158	1	Standard

Sample Information

Sample Date/Time: Wednesday, March 01, 2023 17:03:36

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED

Mass Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCa\Default.tun

Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	0.9999	0.034	0.50	10	20	50	100
Cr	53	0.9999	0.004	0.50	10	20	50	100
Mn	55	0.9997	0.048	0.50	10	20	50	100
Ge	72							
Ni	60	0.9999	0.033	0.50	10	20	50	100
Ni	62	0.9998	0.005	0.50	10	20	50	100
Cu	63	1.0000	0.092	0.50	10	20	50	100
Cu	65	0.9999	0.046	0.50	10	20	50	100
Zn	66	1.0000	0.012	6.00	10	20	50	100
Zn	67	0.9999	0.002	6.00	10	20	50	100
As	75	0.9999	0.006	0.20	10	20	50	100
Se	78	1.0000	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Mo	98	0.9993	0.093	0.20	10	20	50	100
Cd	111	0.9998	0.023	0.10	10	20	50	100
Cd	114	0.9999	0.055	0.10	10	20	50	100
In	115							
Ag	107	0.9999	0.022	0.20	10	20	50	100
Sb	121	0.9999	0.020	0.20	10	20	50	100
Sb	123	0.9999	0.015	0.20	10	20	50	100
Tb	159							
Tl	205	0.9998	0.057	0.20	10	20	50	100
Pb	208	1.0000	0.070	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 17:23:47

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	44483	3	Standard
Cl	37		ug/L			3977931	4235656	2	Standard
[> Sc	45		ug/L			439931	482193	0	Standard
| Cr	52	48.648	ug/L	0.852	1	12483	819093	1	Standard
| Cr	53	49.010	ug/L	1.430	2	120	94149	2	Standard
| Mn	55	47.189	ug/L	2.060	4	1073	1095471	3	Standard
[> Ge	72		ug/L			28119	28500	1	KED
| Ni	60	49.075	ug/L	2.669	5	28	45648	5	KED
| Ni	62	49.977	ug/L	2.548	5	5	7481	5	KED
| Cu	63	50.870	ug/L	1.744	3	42	133001	3	KED
| Cu	65	50.589	ug/L	2.096	4	27	65675	4	KED
| Zn	66	48.502	ug/L	1.365	2	29	16112	3	KED
| Zn	67	49.036	ug/L	1.000	2	8	2699	1	KED
| As	75	45.888	ug/L	0.722	1	7	7715	2	KED
| Se	78	72.781	ug/L	0.745	1	11	1331	1	KED
Y	89		ug/L			276255	292405	1	Standard
Kr	83		ug/L			52	83	13	Standard
[> In-1	115		ug/L			7782	7938	1	KED
| Mo	98	48.044	ug/L	1.202	2	8	35458	3	KED
| Cd	111	49.916	ug/L	0.398	0	4	8976	1	KED
| Cd	114	49.692	ug/L	0.568	1	5	21623	1	KED
[> In	115		ug/L			475417	481756	0	Standard
| Ag	107	51.232	ug/L	1.167	2	135	544301	1	Standard
| Sb	121	50.219	ug/L	0.748	1	596	478593	0	Standard
| Sb	123	50.153	ug/L	2.005	3	475	361102	3	Standard
[> Tb	159		ug/L			499801	530940	2	Standard
| Tl	205	48.973	ug/L	2.030	4	224	1471426	3	Standard
| Pb	208	50.809	ug/L	2.163	4	359	1886404	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 17:31:22

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	36105	1	Standard
Cl	37		ug/L			3977931	3991572	1	Standard
[> Sc	45		ug/L			439931	446866	1	Standard
| Cr	52	0.006	ug/L	0.036	620	12483	12767	4	Standard
| Cr	53	-0.010	ug/L	0.005	45	120	105	7	Standard
| Mn	55	-0.008	ug/L	0.002	20	1073	907	3	Standard
[> Ge	72		ug/L			28119	28033	1	KED
| Ni	60	-0.014	ug/L	0.009	60	28	15	50	KED
| Ni	62	0.035	ug/L	0.032	92	5	10	47	KED
| Cu	63	0.004	ug/L	0.002	50	42	51	9	KED
| Cu	65	0.001	ug/L	0.009	871	27	28	41	KED
| Zn	66	0.030	ug/L	0.021	71	29	39	16	KED
| Zn	67	-0.011	ug/L	0.042	390	8	8	26	KED
| As	75	0.003	ug/L	0.010	325	7	7	21	KED
| Se	78	0.273	ug/L	0.227	83	11	16	22	KED
Y	89		ug/L			276255	278459	1	Standard
Kr	83		ug/L			52	60	14	Standard
[> In-1	115		ug/L			7782	7741	4	KED
| Mo	98	0.001	ug/L	0.001	144	8	9	12	KED
| Cd	111	-0.005	ug/L	0.008	142	4	3	45	KED
| Cd	114	-0.000	ug/L	0.011	5628	5	5	89	KED
[> In	115		ug/L			475417	473143	1	Standard
| Ag	107	-0.006	ug/L	0.001	12	135	71	12	Standard
| Sb	121	-0.020	ug/L	0.001	5	596	410	1	Standard
| Sb	123	-0.020	ug/L	0.003	17	475	334	7	Standard
[> Tb	159		ug/L			499801	500782	3	Standard
| Tl	205	-0.005	ug/L	0.000	8	224	69	17	Standard
| Pb	208	-0.007	ug/L	0.001	7	359	128	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 17:37:21

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	37025	0	Standard
Cl	37		ug/L			3977931	4272691	1	Standard
[> Sc	45		ug/L			439931	463378	0	Standard
| Cr	52	50.586	ug/L	0.311	0	12483	818018	1	Standard
| Cr	53	50.950	ug/L	1.707	3	120	94078	4	Standard
| Mn	55	50.009	ug/L	1.807	3	1073	1115982	4	Standard
[> Ge	72		ug/L			28119	28827	1	KED
| Ni	60	48.716	ug/L	2.406	4	28	45814	3	KED
| Ni	62	50.264	ug/L	0.662	1	5	7610	0	KED
| Cu	63	49.266	ug/L	2.212	4	42	130233	3	KED
| Cu	65	48.731	ug/L	1.504	3	27	63977	2	KED
| Zn	66	49.698	ug/L	2.285	4	29	16692	3	KED
| Zn	67	50.245	ug/L	2.038	4	8	2797	3	KED
| As	75	49.197	ug/L	1.399	2	7	8364	1	KED
| Se	78	48.075	ug/L	1.630	3	11	893	2	KED
Y	89		ug/L			276255	288629	1	Standard
Kr	83		ug/L			52	74	38	Standard
[> In-1	115		ug/L			7782	8014	0	KED
| Mo	98	47.901	ug/L	0.748	1	8	35684	1	KED
| Cd	111	49.398	ug/L	0.457	0	4	8968	1	KED
| Cd	114	50.408	ug/L	0.480	0	5	22146	1	KED
[> In	115		ug/L			475417	487619	0	Standard
| Ag	107	49.462	ug/L	1.827	3	135	531817	2	Standard
| Sb	121	49.073	ug/L	1.493	3	596	473312	2	Standard
| Sb	123	49.183	ug/L	2.233	4	475	358388	3	Standard
[> Tb	159		ug/L			499801	532905	2	Standard
| Tl	205	47.899	ug/L	1.440	3	224	1444572	2	Standard
| Pb	208	50.671	ug/L	1.352	2	359	1888618	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 17:44:36

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	35100	3	Standard
Cl	37		ug/L			3977931	4089462	2	Standard
[> Sc	45		ug/L			439931	452770	1	Standard
| Cr	52	0.004	ug/L	0.022	518	12483	12914	2	Standard
| Cr	53	-0.012	ug/L	0.006	47	120	102	10	Standard
| Mn	55	-0.012	ug/L	0.002	13	1073	840	2	Standard
[> Ge	72		ug/L			28119	28008	3	KED
| Ni	60	-0.010	ug/L	0.011	106	28	19	55	KED
| Ni	62	0.005	ug/L	0.027	578	5	5	66	KED
| Cu	63	-0.000	ug/L	0.003	727	42	41	17	KED
| Cu	65	-0.002	ug/L	0.008	476	27	25	41	KED
| Zn	66	0.007	ug/L	0.033	438	29	32	36	KED
| Zn	67	0.037	ug/L	0.059	158	8	10	26	KED
| As	75	-0.001	ug/L	0.017	1423	7	6	43	KED
| Se	78	0.108	ug/L	0.112	103	11	13	18	KED
Y	89		ug/L			276255	282656	2	Standard
Kr	83		ug/L			52	53	16	Standard
[> In-1	115		ug/L			7782	7929	2	KED
| Mo	98	0.002	ug/L	0.004	209	8	10	30	KED
| Cd	111	0.007	ug/L	0.017	243	4	5	53	KED
| Cd	114	-0.000	ug/L	0.007	1803	5	5	57	KED
[> In	115		ug/L			475417	472621	0	Standard
| Ag	107	-0.006	ug/L	0.000	6	135	74	6	Standard
| Sb	121	0.068	ug/L	0.002	2	596	1231	2	Standard
| Sb	123	0.066	ug/L	0.002	3	475	940	2	Standard
[> Tb	159		ug/L			499801	508988	1	Standard
| Tl	205	-0.004	ug/L	0.001	16	224	103	20	Standard
| Pb	208	-0.006	ug/L	0.001	13	359	135	23	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 17:49:27

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	37348	1	Standard
Cl	37		ug/L			3977931	4057711	1	Standard
[> Sc	45		ug/L			439931	464021	0	Standard
| Cr	52	0.446	ug/L	0.038	8	12483	20263	2	Standard
| Cr	53	0.480	ug/L	0.020	4	120	1014	3	Standard
| Mn	55	0.461	ug/L	0.014	3	1073	11426	2	Standard
[> Ge	72		ug/L			28119	28719	3	KED
| Ni	60	0.452	ug/L	0.046	10	28	452	9	KED
| Ni	62	0.429	ug/L	0.087	20	5	69	19	KED
| Cu	63	0.492	ug/L	0.039	7	42	1341	10	KED
| Cu	65	0.460	ug/L	0.021	4	27	629	5	KED
| Zn	66	6.168	ug/L	0.339	5	29	2090	5	KED
| Zn	67	5.395	ug/L	0.718	13	8	307	13	KED
| As	75	0.185	ug/L	0.010	5	7	38	2	KED
| Se	78	0.260	ug/L	0.159	61	11	16	19	KED
Y	89		ug/L			276255	286887	3	Standard
Kr	83		ug/L			52	55	15	Standard
[> In-1	115		ug/L			7782	7914	2	KED
| Mo	98	0.176	ug/L	0.012	6	8	137	4	KED
| Cd	111	0.071	ug/L	0.015	21	4	16	14	KED
| Cd	114	0.079	ug/L	0.003	4	5	39	4	KED
[> In	115		ug/L			475417	487172	1	Standard
| Ag	107	0.192	ug/L	0.007	3	135	2195	2	Standard
| Sb	121	0.167	ug/L	0.009	5	596	2216	3	Standard
| Sb	123	0.165	ug/L	0.010	6	475	1685	3	Standard
[> Tb	159		ug/L			499801	514479	2	Standard
| Tl	205	0.191	ug/L	0.007	3	224	5784	3	Standard
| Pb	208	0.098	ug/L	0.006	5	359	3904	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 17:55:01

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	156038	2	Standard
Cl	37		ug/L			3977931	10037429	1	Standard
[> Sc	45		ug/L			439931	483663	0	Standard
| Cr	52	0.839	ug/L	0.063	7	12483	27662	3	Standard
| Cr	53	4.405	ug/L	0.210	4	120	8609	4	Standard
| Mn	55	0.098	ug/L	0.009	8	1073	3462	5	Standard
[> Ge	72		ug/L			28119	27476	1	KED
| Ni	60	0.083	ug/L	0.013	15	28	102	12	KED
| Ni	62	0.212	ug/L	0.012	5	5	35	6	KED
| Cu	63	0.074	ug/L	0.004	4	42	226	2	KED
| Cu	65	0.063	ug/L	0.016	24	27	105	16	KED
| Zn	66	0.338	ug/L	0.063	18	29	137	13	KED
| Zn	67	0.218	ug/L	0.192	88	8	20	51	KED
| As	75	0.035	ug/L	0.018	51	7	12	20	KED
| Se	78	0.221	ug/L	0.057	25	11	15	4	KED
Y	89		ug/L			276255	294819	3	Standard
Kr	83		ug/L			52	114	13	Standard
[> In-1	115		ug/L			7782	7910	3	KED
| Mo	98	371.210	ug/L	29.988	8	8	272476	5	KED
| Cd	111	0.073	ug/L	0.049	66	4	17	47	KED
| Cd	114	0.049	ug/L	0.012	23	5	27	15	KED
[> In	115		ug/L			475417	487505	1	Standard
| Ag	107	-0.002	ug/L	0.001	72	135	118	13	Standard
| Sb	121	-0.004	ug/L	0.001	24	596	576	2	Standard
| Sb	123	-0.004	ug/L	0.004	92	475	455	7	Standard
[> Tb	159		ug/L			499801	545008	0	Standard
| Tl	205	0.014	ug/L	0.000	2	224	679	2	Standard
| Pb	208	0.024	ug/L	0.002	9	359	1315	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Wednesday, March 01, 2023 18:03:09

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	154600	2	Standard
Cl	37		ug/L			3977931	10085967	1	Standard
[> Sc	45		ug/L			439931	482115	1	Standard
| Cr	52	0.821	ug/L	0.015	1	12483	27270	2	Standard
| Cr	53	4.607	ug/L	0.018	0	120	8969	1	Standard
| Mn	55	0.091	ug/L	0.005	5	1073	3278	2	Standard
[> Ge	72		ug/L			28119	28029	1	KED
| Ni	60	0.088	ug/L	0.010	10	28	109	8	KED
| Ni	62	0.169	ug/L	0.049	28	5	29	22	KED
| Cu	63	0.068	ug/L	0.004	6	42	217	5	KED
| Cu	65	0.072	ug/L	0.028	39	27	118	29	KED
| Zn	66	0.188	ug/L	0.075	40	29	90	26	KED
| Zn	67	0.107	ug/L	0.045	41	8	14	15	KED
| As	75	0.018	ug/L	0.010	55	7	10	17	KED
| Se	78	0.150	ug/L	0.174	115	11	14	22	KED
Y	89		ug/L			276255	291487	0	Standard
Kr	83		ug/L			52	126	14	Standard
[> In-1	115		ug/L			7782	7883	6	KED
| Mo	98	363.037	ug/L	46.057	12	8	264541	6	KED
| Cd	111	0.066	ug/L	0.012	18	4	15	12	KED
| Cd	114	0.041	ug/L	0.008	20	5	23	12	KED
[> In	115		ug/L			475417	482286	1	Standard
| Ag	107	-0.002	ug/L	0.001	42	135	113	8	Standard
| Sb	121	-0.007	ug/L	0.003	40	596	540	3	Standard
| Sb	123	-0.008	ug/L	0.001	16	475	424	2	Standard
[> Tb	159		ug/L			499801	535044	2	Standard
| Tl	205	0.012	ug/L	0.001	5	224	608	5	Standard
| Pb	208	0.023	ug/L	0.001	3	359	1230	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 18:08:23

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	160306	3	Standard
Cl	37		ug/L			3977931	10182077	2	Standard
[> Sc	45		ug/L			439931	491587	1	Standard
| Cr	52	19.858	ug/L	0.784	3	12483	349007	2	Standard
| Cr	53	23.335	ug/L	0.404	1	120	45769	0	Standard
| Mn	55	18.675	ug/L	0.442	2	1073	442706	0	Standard
[> Ge	72		ug/L			28119	28754	0	KED
| Ni	60	19.627	ug/L	0.503	2	28	18434	2	KED
| Ni	62	20.592	ug/L	1.633	7	5	3114	8	KED
| Cu	63	19.273	ug/L	0.722	3	42	50870	4	KED
| Cu	65	19.304	ug/L	0.434	2	27	25304	2	KED
| Zn	66	19.020	ug/L	0.837	4	29	6394	5	KED
| Zn	67	16.721	ug/L	1.084	6	8	935	7	KED
| As	75	18.233	ug/L	0.780	4	7	3097	4	KED
| Se	78	0.174	ug/L	0.112	64	11	15	12	KED
Y	89		ug/L			276255	298499	2	Standard
Kr	83		ug/L			52	93	13	Standard
[> In-1	115		ug/L			7782	7703	2	KED
| Mo	98	388.577	ug/L	2.838	0	8	278202	3	KED
| Cd	111	18.832	ug/L	0.165	0	4	3288	2	KED
| Cd	114	19.267	ug/L	0.498	2	5	8139	3	KED
[> In	115		ug/L			475417	485066	2	Standard
| Ag	107	17.996	ug/L	0.544	3	135	192521	0	Standard
| Sb	121	-0.014	ug/L	0.004	30	596	474	11	Standard
| Sb	123	-0.016	ug/L	0.003	17	475	366	7	Standard
[> Tb	159		ug/L			499801	537347	1	Standard
| Tl	205	0.013	ug/L	0.002	16	224	638	11	Standard
| Pb	208	0.035	ug/L	0.002	6	359	1697	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 18:13:14

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	45098	3	Standard
Cl	37		ug/L			3977931	4480126	2	Standard
[> Sc	45		ug/L			439931	473478	1	Standard
| Cr	52	200.923	ug/L	4.711	2	12483	3280763	4	Standard
| Cr	53	195.319	ug/L	0.468	0	120	368103	1	Standard
| Mn	55	196.446	ug/L	1.264	0	1073	4475473	2	Standard
[> Ge	72		ug/L			28119	27306	1	KED
| Ni	60	199.686	ug/L	7.524	3	28	177831	3	KED
| Ni	62	202.956	ug/L	6.733	3	5	29090	2	KED
| Cu	63	199.185	ug/L	3.167	1	42	498696	0	KED
| Cu	65	202.481	ug/L	3.428	1	27	251789	2	KED
| Zn	66	199.828	ug/L	6.951	3	29	63493	2	KED
| Zn	67	198.172	ug/L	7.097	3	8	10427	3	KED
| As	75	201.281	ug/L	5.306	2	7	32398	2	KED
| Se	78	195.778	ug/L	4.846	2	11	3412	2	KED
Y	89		ug/L			276255	292341	1	Standard
Kr	83		ug/L			52	110	12	Standard
[> In-1	115		ug/L			7782	7650	4	KED
| Mo	98	194.536	ug/L	17.279	8	8	137985	5	KED
| Cd	111	191.134	ug/L	15.870	8	4	33037	4	KED
| Cd	114	192.597	ug/L	15.525	8	5	80577	4	KED
[> In	115		ug/L			475417	474061	2	Standard
| Ag	107	194.208	ug/L	10.137	5	135	2030868	6	Standard
| Sb	121	197.884	ug/L	5.055	2	596	1854032	3	Standard
| Sb	123	199.424	ug/L	5.352	2	475	1411955	4	Standard
[> Tb	159		ug/L			499801	540259	3	Standard
| Tl	205	191.949	ug/L	5.737	2	224	5865866	2	Standard
| Pb	208	197.655	ug/L	7.062	3	359	7463526	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 18:18:08

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	44120	2	Standard
Cl	37		ug/L			3977931	4504029	0	Standard
[> Sc	45		ug/L			439931	461060	4	Standard
| Cr	52	301.181	ug/L	15.552	5	12483	4776364	3	Standard
| Cr	53	297.067	ug/L	15.094	5	120	544423	2	Standard
| Mn	55	296.634	ug/L	12.569	4	1073	6572383	0	Standard
[> Ge	72		ug/L			28119	26423	2	KED
| Ni	60	290.355	ug/L	14.197	4	28	250005	1	KED
| Ni	62	291.950	ug/L	9.590	3	5	40476	1	KED
| Cu	63	285.178	ug/L	13.913	4	42	690381	2	KED
| Cu	65	284.823	ug/L	12.703	4	27	342433	2	KED
| Zn	66	277.844	ug/L	11.752	4	29	85367	1	KED
| Zn	67	276.489	ug/L	8.447	3	8	14069	0	KED
| As	75	287.242	ug/L	10.876	3	7	44707	0	KED
| Se	78	269.644	ug/L	14.601	5	11	4539	2	KED
Y	89		ug/L			276255	288834	4	Standard
Kr	83		ug/L			52	179	12	Standard
[> In-1	115		ug/L			7782	7228	2	KED
| Mo	98	296.693	ug/L	23.766	8	8	199100	5	KED
| Cd	111	275.144	ug/L	24.609	8	4	44989	7	KED
| Cd	114	279.578	ug/L	22.483	8	5	110650	6	KED
[> In	115		ug/L			475417	456363	1	Standard
| Ag	107	296.839	ug/L	10.556	3	135	2986005	2	Standard
| Sb	121	309.869	ug/L	11.005	3	596	2793766	2	Standard
| Sb	123	310.233	ug/L	20.152	6	475	2112564	5	Standard
[> Tb	159		ug/L			499801	523106	2	Standard
| Tl	205	294.797	ug/L	10.541	3	224	8722318	0	Standard
| Pb	208	305.523	ug/L	8.397	2	359	11173066	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 18:25:42

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	40508	2	Standard
Cl	37		ug/L			3977931	4384884	2	Standard
[> Sc	45		ug/L			439931	460596	1	Standard
| Cr	52	0.028	ug/L	0.035	123	12483	13511	3	Standard
| Cr	53	0.063	ug/L	0.005	8	120	241	2	Standard
| Mn	55	0.059	ug/L	0.003	4	1073	2432	1	Standard
[> Ge	72		ug/L			28119	28580	3	KED
| Ni	60	0.000	ug/L	0.006	4656	28	29	20	KED
| Ni	62	0.008	ug/L	0.019	239	5	6	45	KED
| Cu	63	0.030	ug/L	0.004	14	42	122	11	KED
| Cu	65	0.028	ug/L	0.004	12	27	64	10	KED
| Zn	66	0.258	ug/L	0.010	4	29	116	4	KED
| Zn	67	0.149	ug/L	0.100	67	8	17	29	KED
| As	75	0.079	ug/L	0.040	50	7	20	28	KED
| Se	78	0.177	ug/L	0.173	98	11	15	16	KED
Y	89		ug/L			276255	289312	2	Standard
Kr	83		ug/L			52	54	2	Standard
[> In-1	115		ug/L			7782	8002	5	KED
| Mo	98	0.058	ug/L	0.013	22	8	52	24	KED
| Cd	111	-0.004	ug/L	0.009	238	4	3	41	KED
| Cd	114	-0.001	ug/L	0.009	1674	5	5	62	KED
[> In	115		ug/L			475417	489551	0	Standard
| Ag	107	0.004	ug/L	0.001	19	135	180	4	Standard
| Sb	121	0.431	ug/L	0.005	1	596	4779	0	Standard
| Sb	123	0.428	ug/L	0.017	3	475	3616	2	Standard
[> Tb	159		ug/L			499801	519076	2	Standard
| Tl	205	0.023	ug/L	0.001	2	224	917	4	Standard
| Pb	208	0.031	ug/L	0.002	6	359	1503	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 18:32:27

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	39744	2	Standard
Cl	37		ug/L			3977931	4245422	1	Standard
[> Sc	45		ug/L			439931	464965	3	Standard
| Cr	52	0.010	ug/L	0.016	163	12483	13344	2	Standard
| Cr	53	0.052	ug/L	0.009	17	120	223	4	Standard
| Mn	55	0.054	ug/L	0.007	13	1073	2336	4	Standard
[> Ge	72		ug/L			28119	28423	0	KED
| Ni	60	0.002	ug/L	0.009	547	28	30	28	KED
| Ni	62	0.034	ug/L	0.029	87	5	10	43	KED
| Cu	63	0.034	ug/L	0.010	28	42	132	19	KED
| Cu	65	0.026	ug/L	0.006	23	27	61	12	KED
| Zn	66	0.299	ug/L	0.008	2	29	128	2	KED
| Zn	67	0.230	ug/L	0.122	53	8	21	30	KED
| As	75	0.018	ug/L	0.009	47	7	10	14	KED
| Se	78	0.152	ug/L	0.096	62	11	14	11	KED
Y	89		ug/L			276255	287271	4	Standard
Kr	83		ug/L			52	62	9	Standard
[> In-1	115		ug/L			7782	7929	2	KED
| Mo	98	0.018	ug/L	0.018	99	8	21	58	KED
| Cd	111	-0.002	ug/L	0.015	634	4	3	75	KED
| Cd	114	-0.006	ug/L	0.002	36	5	2	35	KED
[> In	115		ug/L			475417	490136	1	Standard
| Ag	107	-0.003	ug/L	0.000	14	135	102	5	Standard
| Sb	121	0.089	ug/L	0.004	4	596	1473	2	Standard
| Sb	123	0.086	ug/L	0.006	7	475	1120	2	Standard
[> Tb	159		ug/L			499801	517847	3	Standard
| Tl	205	0.005	ug/L	0.000	10	224	366	3	Standard
| Pb	208	0.029	ug/L	0.002	6	359	1433	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 18:39:13

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	38115	2	Standard
Cl	37		ug/L			3977931	4530209	1	Standard
[> Sc	45		ug/L			439931	481697	2	Standard
| Cr	52	49.508	ug/L	1.869	3	12483	832783	5	Standard
| Cr	53	49.486	ug/L	1.968	3	120	95010	5	Standard
| Mn	55	47.816	ug/L	1.647	3	1073	1109573	5	Standard
[> Ge	72		ug/L			28119	28015	1	KED
| Ni	60	49.556	ug/L	1.375	2	28	45320	4	KED
| Ni	62	49.995	ug/L	1.491	2	5	7359	4	KED
| Cu	63	50.387	ug/L	1.503	2	42	129495	3	KED
| Cu	65	51.120	ug/L	1.209	2	27	65247	3	KED
| Zn	66	50.163	ug/L	1.170	2	29	16382	3	KED
| Zn	67	48.758	ug/L	0.774	1	8	2638	0	KED
| As	75	49.345	ug/L	1.340	2	7	8156	4	KED
[Se	78	47.931	ug/L	1.612	3	11	866	4	KED
Y	89		ug/L			276255	304203	1	Standard
Kr	83		ug/L			52	64	30	Standard
[> In-1	115		ug/L			7782	8064	1	KED
| Mo	98	46.569	ug/L	4.736	10	8	34884	9	KED
| Cd	111	47.404	ug/L	4.464	9	4	8655	8	KED
[Cd	114	48.130	ug/L	4.989	10	5	21262	9	KED
[> In	115		ug/L			475417	500424	1	Standard
| Ag	107	49.010	ug/L	0.758	1	135	540990	2	Standard
| Sb	121	48.692	ug/L	1.791	3	596	482140	4	Standard
[Sb	123	49.070	ug/L	1.793	3	475	367143	4	Standard
[> Tb	159		ug/L			499801	535189	2	Standard
| Tl	205	48.209	ug/L	0.304	0	224	1460538	2	Standard
[Pb	208	51.464	ug/L	0.256	0	359	1926841	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Wednesday, March 01, 2023 18:46:48

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	37364	0	Standard
Cl	37		ug/L			3977931	4308539	2	Standard
[> Sc	45		ug/L			439931	453557	6	Standard
| Cr	52	-0.020	ug/L	0.019	94	12483	12548	4	Standard
| Cr	53	0.018	ug/L	0.003	17	120	156	4	Standard
| Mn	55	0.007	ug/L	0.003	45	1073	1255	3	Standard
[> Ge	72		ug/L			28119	28418	2	KED
| Ni	60	-0.014	ug/L	0.005	32	28	15	30	KED
| Ni	62	-0.013	ug/L	0.027	204	5	3	124	KED
| Cu	63	-0.001	ug/L	0.005	797	42	41	26	KED
| Cu	65	-0.002	ug/L	0.014	871	27	25	68	KED
| Zn	66	0.012	ug/L	0.010	78	29	34	9	KED
| Zn	67	-0.036	ug/L	0.023	64	8	6	15	KED
| As	75	0.006	ug/L	0.013	207	7	8	26	KED
| Se	78	0.029	ug/L	0.217	737	11	12	30	KED
Y	89		ug/L			276255	285927	6	Standard
Kr	83		ug/L			52	59	27	Standard
[> In-1	115		ug/L			7782	7767	1	KED
| Mo	98	0.013	ug/L	0.009	71	8	17	37	KED
| Cd	111	0.002	ug/L	0.012	599	4	4	44	KED
| Cd	114	-0.006	ug/L	0.007	120	5	3	100	KED
[> In	115		ug/L			475417	476078	7	Standard
| Ag	107	-0.003	ug/L	0.002	60	135	107	8	Standard
| Sb	121	0.107	ug/L	0.028	26	596	1588	8	Standard
| Sb	123	0.107	ug/L	0.015	14	475	1231	1	Standard
[> Tb	159		ug/L			499801	498943	8	Standard
| Tl	205	0.000	ug/L	0.001	573	224	228	9	Standard
| Pb	208	-0.005	ug/L	0.001	14	359	166	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 18:51:39

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	37595	1	Standard
Cl	37		ug/L			3977931	4191187	2	Standard
[> Sc	45		ug/L			439931	452308	0	Standard
| Cr	52	-0.030	ug/L	0.010	33	12483	12368	0	Standard
| Cr	53	0.026	ug/L	0.004	16	120	171	4	Standard
| Mn	55	0.003	ug/L	0.002	75	1073	1162	4	Standard
[> Ge	72		ug/L			28119	27995	1	KED
| Ni	60	-0.013	ug/L	0.001	11	28	16	6	KED
| Ni	62	0.030	ug/L	0.046	153	5	9	72	KED
| Cu	63	0.000	ug/L	0.002	3638	42	42	14	KED
| Cu	65	0.006	ug/L	0.005	90	27	34	20	KED
| Zn	66	0.032	ug/L	0.017	54	29	40	14	KED
| Zn	67	0.000	ug/L	0.051	57339	8	8	32	KED
| As	75	0.006	ug/L	0.016	265	7	8	31	KED
| Se	78	0.091	ug/L	0.091	99	11	13	12	KED
Y	89		ug/L			276255	286290	1	Standard
Kr	83		ug/L			52	60	32	Standard
[> In-1	115		ug/L			7782	7792	1	KED
| Mo	98	0.007	ug/L	0.004	54	8	14	21	KED
| Cd	111	0.023	ug/L	0.012	51	4	8	26	KED
| Cd	114	0.004	ug/L	0.000	3	5	7	0	KED
[> In	115		ug/L			475417	485943	1	Standard
| Ag	107	-0.006	ug/L	0.001	21	135	71	21	Standard
| Sb	121	-0.006	ug/L	0.001	13	596	549	2	Standard
| Sb	123	-0.012	ug/L	0.001	4	475	396	1	Standard
[> Tb	159		ug/L			499801	506292	2	Standard
| Tl	205	-0.004	ug/L	0.000	5	224	100	7	Standard
| Pb	208	-0.007	ug/L	0.001	8	359	129	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0008-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 19:00:48**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	51234	2	Standard
Cl	37		ug/L			3977931	4266346	1	Standard
> Sc	45		ug/L			439931	481305	2	Standard
| Cr	52	0.060	ug/L	0.015	24	12483	14656	3	Standard
| Cr	53	0.075	ug/L	0.007	9	120	275	3	Standard
| Mn	55	0.002	ug/L	0.000	22	1073	1212	1	Standard
> Ge	72		ug/L			28119	28560	2	KED
| Ni	60	-0.013	ug/L	0.008	60	28	17	40	KED
| Ni	62	-0.005	ug/L	0.031	594	5	4	107	KED
| Cu	63	0.032	ug/L	0.005	15	42	128	9	KED
| Cu	65	0.019	ug/L	0.007	34	27	52	17	KED
| Zn	66	0.133	ug/L	0.031	23	29	74	12	KED
| Zn	67	0.126	ug/L	0.079	62	8	15	24	KED
| As	75	0.010	ug/L	0.014	136	7	9	29	KED
| Se	78	0.175	ug/L	0.119	68	11	15	13	KED
Y	89		ug/L			276255	297339	4	Standard
Kr	83		ug/L			52	50	28	Standard
> In-1	115		ug/L			7782	7979	4	KED
| Mo	98	0.017	ug/L	0.004	23	8	21	17	KED
| Cd	111	0.001	ug/L	0.011	959	4	4	44	KED
| Cd	114	-0.001	ug/L	0.008	1467	5	5	61	KED
> In	115		ug/L			475417	495755	0	Standard
| Ag	107	-0.005	ug/L	0.001	23	135	91	13	Standard
| Sb	121	0.021	ug/L	0.004	17	596	824	4	Standard
| Sb	123	0.022	ug/L	0.003	11	475	661	2	Standard
> Tb	159		ug/L			499801	523298	2	Standard
| Tl	205	-0.004	ug/L	0.001	17	224	126	17	Standard
| Pb	208	-0.003	ug/L	0.000	7	359	248	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0008-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 19:05:39**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	52552	4	Standard
Cl	37		ug/L			3977931	4256415	0	Standard
> Sc	45		ug/L			439931	460928	2	Standard
| Cr	52	25.701	ug/L	1.434	5	12483	419698	4	Standard
| Cr	53	25.311	ug/L	0.720	2	120	46530	1	Standard
| Mn	55	25.235	ug/L	1.195	4	1073	560292	3	Standard
> Ge	72		ug/L			28119	28793	1	KED
| Ni	60	25.372	ug/L	0.856	3	28	23847	2	KED
| Ni	62	26.103	ug/L	0.949	3	5	3950	3	KED
| Cu	63	26.051	ug/L	0.428	1	42	68819	1	KED
| Cu	65	26.472	ug/L	0.828	3	27	34731	3	KED
| Zn	66	87.602	ug/L	2.168	2	29	29369	1	KED
| Zn	67	78.076	ug/L	4.786	6	8	4339	7	KED
| As	75	25.490	ug/L	0.816	3	7	4331	2	KED
| Se	78	79.341	ug/L	3.165	3	11	1465	3	KED
Y	89		ug/L			276255	290344	0	Standard
Kr	83		ug/L			52	57	16	Standard
> In-1	115		ug/L			7782	7904	3	KED
| Mo	98	24.723	ug/L	1.254	5	8	18164	5	KED
| Cd	111	24.762	ug/L	2.186	8	4	4435	9	KED
| Cd	114	25.468	ug/L	1.746	6	5	11038	7	KED
> In	115		ug/L			475417	490069	1	Standard
| Ag	107	25.840	ug/L	0.949	3	135	279277	2	Standard
| Sb	121	25.862	ug/L	0.873	3	596	250980	2	Standard
| Sb	123	25.980	ug/L	0.759	2	475	190529	2	Standard
> Tb	159		ug/L			499801	509418	1	Standard
| Tl	205	25.976	ug/L	0.959	3	224	748868	2	Standard
| Pb	208	27.367	ug/L	0.811	2	359	975137	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0551-01**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 19:10:30**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	42076	2	Standard
Cl	37		ug/L			3977931	4369905	0	Standard
> Sc	45		ug/L			439931	471780	1	Standard
| Cr	52	0.065	ug/L	0.017	26	12483	14443	2	Standard
| Cr	53	0.100	ug/L	0.008	8	120	317	6	Standard
| Mn	55	8.883	ug/L	0.267	3	1073	202815	4	Standard
> Ge	72		ug/L			28119	28404	0	KED
| Ni	60	0.122	ug/L	0.016	13	28	142	11	KED
| Ni	62	0.230	ug/L	0.058	25	5	39	21	KED
| Cu	63	21.346	ug/L	0.565	2	42	55637	2	KED
| Cu	65	21.332	ug/L	0.600	2	27	27613	2	KED
| Zn	66	843.857	ug/L	41.090	4	29	278846	4	KED
| Zn	67	768.664	ug/L	18.933	2	8	42051	2	KED
| As	75	0.011	ug/L	0.010	93	7	9	18	KED
| Se	78	-0.041	ug/L	0.196	477	11	11	30	KED
| Y	89		ug/L			276255	292821	3	Standard
| Kr	83		ug/L			52	51	32	Standard
> In-1	115		ug/L			7782	8013	1	KED
| Mo	98	0.018	ug/L	0.007	35	8	22	21	KED
| Cd	111	0.387	ug/L	0.098	25	4	74	22	KED
| Cd	114	0.394	ug/L	0.015	3	5	178	4	KED
> In	115		ug/L			475417	495728	0	Standard
| Ag	107	-0.002	ug/L	0.001	29	135	115	6	Standard
| Sb	121	0.013	ug/L	0.004	32	596	750	5	Standard
| Sb	123	0.013	ug/L	0.002	17	475	591	2	Standard
> Tb	159		ug/L			499801	518342	3	Standard
| Tl	205	-0.004	ug/L	0.000	4	224	119	6	Standard
| Pb	208	0.067	ug/L	0.005	7	359	2810	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0551-01** RE1

Sample Dil Factor: **100**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 19:18:12**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	42343	2	Standard
Cl	37		ug/L			3977931	4218070	1	Standard
[> Sc	45		ug/L			439931	464815	1	Standard
| Cr	52	-0.023	ug/L	0.021	92	12483	12831	3	Standard
| Cr	53	0.011	ug/L	0.006	52	120	148	7	Standard
| Mn	55	0.824	ug/L	0.019	2	1073	19551	3	Standard
[> Ge	72		ug/L			28119	28179	2	KED
| Ni	60	0.014	ug/L	0.016	117	28	41	34	KED
| Ni	62	0.018	ug/L	0.040	227	5	7	75	KED
| Cu	63	2.129	ug/L	0.064	3	42	5543	2	KED
| Cu	65	2.077	ug/L	0.102	4	27	2689	2	KED
| Zn	66	80.801	ug/L	4.735	5	29	26509	5	KED
| Zn	67	73.988	ug/L	4.528	6	8	4020	4	KED
| As	75	-0.011	ug/L	0.004	34	7	5	13	KED
| Se	78	-0.065	ug/L	0.069	107	11	10	9	KED
| Y	89		ug/L			276255	282427	1	Standard
| Kr	83		ug/L			52	59	6	Standard
[> In-1	115		ug/L			7782	7772	3	KED
| Mo	98	-0.002	ug/L	0.008	428	8	7	76	KED
| Cd	111	0.025	ug/L	0.008	32	4	8	19	KED
| Cd	114	0.037	ug/L	0.019	52	5	21	40	KED
[> In	115		ug/L			475417	491966	0	Standard
| Ag	107	-0.007	ug/L	0.002	32	135	63	37	Standard
| Sb	121	-0.037	ug/L	0.002	5	596	259	8	Standard
| Sb	123	-0.041	ug/L	0.004	9	475	191	14	Standard
[> Tb	159		ug/L			499801	507820	2	Standard
| Tl	205	-0.007	ug/L	0.000	7	224	33	44	Standard
| Pb	208	0.001	ug/L	0.001	188	359	386	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23C0004-01

Sample Dil Factor: 20

DEL

Comments:

Sample Date/Time: Wednesday, March 01, 2023 19:23:03

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	53509	4	Standard
Cl	37		ug/L			3977931	4446857	1	Standard
> Sc	45		ug/L			439931	472570	2	Standard
| Cr	52	0.488	ug/L	0.017	3	12483	21324	2	Standard
| Cr	53	0.363	ug/L	0.020	5	120	813	7	Standard
| Mn	55	2.160	ug/L	0.011	0	1073	50250	3	Standard
> Ge	72		ug/L			28119	29307	1	KED
| Ni	60	0.253	ug/L	0.031	12	28	271	9	KED
| Ni	62	0.234	ug/L	0.049	21	5	41	18	KED
| Cu	63	0.010	ug/L	0.003	25	42	71	8	KED
| Cu	65	0.017	ug/L	0.014	81	27	51	37	KED
| Zn	66	0.393	ug/L	0.025	6	29	165	3	KED
| Zn	67	0.398	ug/L	0.068	17	8	31	12	KED
| As	75	0.008	ug/L	0.012	138	7	8	22	KED
| Se	78	0.046	ug/L	0.129	282	11	13	19	KED
Y	89		ug/L			276255	289924	0	Standard
Kr	83		ug/L			52	59	27	Standard
> In-1	115		ug/L			7782	7706	2	KED
| Mo	98	0.061	ug/L	0.015	25	8	52	22	KED
| Cd	111	-0.011	ug/L	0.003	26	4	2	24	KED
| Cd	114	0.003	ug/L	0.013	450	5	6	84	KED
> In	115		ug/L			475417	486999	1	Standard
| Ag	107	-0.008	ug/L	0.000	3	135	55	3	Standard
| Sb	121	-0.039	ug/L	0.000	0	596	240	2	Standard
| Sb	123	-0.042	ug/L	0.002	5	475	185	9	Standard
> Tb	159		ug/L			499801	513732	2	Standard
| Tl	205	-0.006	ug/L	0.000	5	224	46	20	Standard
| Pb	208	-0.002	ug/L	0.001	31	359	283	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23B0511-01

Sample Dil Factor:

Comments:

DEL

Sample Date/Time: Wednesday, March 01, 2023 19:28:47

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	24632	0	Standard
Cl	37		ug/L			3977931	184645048	2	Standard
> Sc	45		ug/L			439931	180994	0	Standard
Cr	52	2.454	ug/L	0.064	2	12483	20384	2	Standard
Cr	53	106.740	ug/L	2.165	2	120	76916	1	Standard
Mn	55	11.418	ug/L	0.348	3	1073	99841	2	Standard
> Ge	72		ug/L			28119	6847	2	KED
Ni	60	0.806	ug/L	0.111	13	28	186	11	KED
Ni	62	21.977	ug/L	0.841	3	5	791	4	KED
Cu	63	12.177	ug/L	0.549	4	42	7650	2	KED
Cu	65	4.089	ug/L	0.184	4	27	1281	4	KED
Zn	66	6.789	ug/L	0.468	6	29	548	8	KED
Zn	67	7.928	ug/L	0.616	7	8	106	7	KED
As	75	2.645	ug/L	0.318	12	7	108	12	KED
Se	78	8.937	ug/L	1.165	13	11	41	10	KED
Y	89		ug/L			276255	110443	1	Standard
Kr	83		ug/L			52	582334	4	Standard
> In-1	115		ug/L			7782	2264	1	KED
Mo	98	10.013	ug/L	0.491	4	8	2108	3	KED
Cd	111	0.088	ug/L	0.036	40	4	5	33	KED
Cd	114	0.015	ug/L	0.040	273	5	3	145	KED
> In	115		ug/L			475417	155828	1	Standard
Ag	107	0.014	ug/L	0.002	12	135	93	6	Standard
Sb	121	0.874	ug/L	0.090	10	596	2883	7	Standard
Sb	123	0.564	ug/L	0.021	3	475	1467	1	Standard
> Tb	159		ug/L			499801	203821	3	Standard
Tl	205	0.003	ug/L	0.001	20	224	123	7	Standard
Pb	208	0.080	ug/L	0.005	5	359	1279	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 19:35:23

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	36397	2	Standard
Cl	37		ug/L			3977931	5576847	3	Standard
[> Sc	45		ug/L			439931	443056	3	Standard
| Cr	52	0.243	ug/L	0.030	12	12483	16264	1	Standard
| Cr	53	5.155	ug/L	0.170	3	120	9202	0	Standard
| Mn	55	0.023	ug/L	0.004	17	1073	1574	3	Standard
[> Ge	72		ug/L			28119	32434	0	KED
| Ni	60	-0.024	ug/L	0.003	12	28	7	43	KED
| Ni	62	1.252	ug/L	0.033	2	5	219	1	KED
| Cu	63	0.106	ug/L	0.007	6	42	364	5	KED
| Cu	65	0.044	ug/L	0.010	23	27	95	15	KED
| Zn	66	0.043	ug/L	0.028	64	29	50	20	KED
| Zn	67	-0.083	ug/L	0.036	43	8	5	43	KED
| As	75	0.001	ug/L	0.019	2139	7	8	43	KED
[Se	78	0.186	ug/L	0.052	28	11	17	7	KED
Y	89		ug/L			276255	281758	2	Standard
Kr	83		ug/L			52	139	13	Standard
[> In-1	115		ug/L			7782	9265	3	KED
| Mo	98	-0.006	ug/L	0.002	37	8	4	39	KED
| Cd	111	0.005	ug/L	0.005	85	4	6	18	KED
[Cd	114	-0.010	ug/L	0.004	38	5	1	112	KED
[> In	115		ug/L			475417	476768	1	Standard
| Ag	107	-0.009	ug/L	0.000	5	135	42	11	Standard
| Sb	121	-0.053	ug/L	0.003	4	596	102	22	Standard
[Sb	123	-0.056	ug/L	0.002	3	475	79	15	Standard
[> Tb	159		ug/L			499801	570437	2	Standard
| Tl	205	-0.003	ug/L	0.000	3	224	147	3	Standard
[Pb	208	0.010	ug/L	0.002	16	359	794	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0004-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 19:41:17**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	81027	2	Standard
Cl	37		ug/L			3977931	4687506	2	Standard
> Sc	45		ug/L			439931	439055	4	Standard
| Cr	52	1.549	ug/L	0.064	4	12483	35789	2	Standard
| Cr	53	4.514	ug/L	0.142	3	120	7999	1	Standard
| Mn	55	8.135	ug/L	0.058	0	1073	172905	5	Standard
> Ge	72		ug/L			28119	31321	1	KED
| Ni	60	0.980	ug/L	0.081	8	28	1033	9	KED
| Ni	62	1.488	ug/L	0.076	5	5	250	3	KED
| Cu	63	0.082	ug/L	0.007	8	42	281	8	KED
| Cu	65	0.051	ug/L	0.012	23	27	102	17	KED
| Zn	66	1.199	ug/L	0.094	7	29	470	8	KED
| Zn	67	1.407	ug/L	0.258	18	8	94	14	KED
| As	75	0.054	ug/L	0.015	28	7	17	16	KED
| Se	78	0.031	ug/L	0.193	616	11	13	27	KED
Y	89		ug/L			276255	275213	3	Standard
Kr	83		ug/L			52	60	25	Standard
> In-1	115		ug/L			7782	9218	2	KED
| Mo	98	0.181	ug/L	0.021	11	8	165	13	KED
| Cd	111	0.002	ug/L	0.005	210	4	5	20	KED
| Cd	114	0.003	ug/L	0.006	182	5	8	34	KED
> In	115		ug/L			475417	457733	2	Standard
| Ag	107	-0.008	ug/L	0.001	13	135	53	21	Standard
| Sb	121	-0.007	ug/L	0.004	59	596	512	6	Standard
| Sb	123	-0.013	ug/L	0.002	13	475	367	1	Standard
> Tb	159		ug/L			499801	552209	2	Standard
| Tl	205	-0.004	ug/L	0.000	12	224	137	12	Standard
| Pb	208	0.008	ug/L	0.001	14	359	718	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0511-01**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 19:46:07**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	40081	0	Standard
Cl	37		ug/L			3977931	13510903	2	Standard
[> Sc	45		ug/L			439931	434835	1	Standard
| Cr	52	0.543	ug/L	0.059	10	12483	20460	5	Standard
| Cr	53	15.214	ug/L	0.478	3	120	26450	4	Standard
| Mn	55	0.273	ug/L	0.013	4	1073	6771	5	Standard
[> Ge	72		ug/L			28119	28319	3	KED
| Ni	60	0.007	ug/L	0.009	135	28	34	25	KED
| Ni	62	0.430	ug/L	0.072	16	5	69	17	KED
| Cu	63	0.157	ug/L	0.002	1	42	450	3	KED
| Cu	65	0.117	ug/L	0.012	10	27	179	11	KED
| Zn	66	0.300	ug/L	0.026	8	29	128	7	KED
| Zn	67	0.197	ug/L	0.040	20	8	19	11	KED
| As	75	0.055	ug/L	0.022	39	7	16	24	KED
| Se	78	0.160	ug/L	0.156	97	11	14	18	KED
Y	89		ug/L			276255	261674	3	Standard
Kr	83		ug/L			52	243	3	Standard
[> In-1	115		ug/L			7782	8105	4	KED
| Mo	98	0.146	ug/L	0.013	9	8	119	4	KED
| Cd	111	-0.001	ug/L	0.022	3026	4	4	96	KED
| Cd	114	-0.004	ug/L	0.002	52	5	4	24	KED
[> In	115		ug/L			475417	449605	1	Standard
| Ag	107	-0.008	ug/L	0.001	13	135	46	23	Standard
| Sb	121	-0.051	ug/L	0.003	6	596	112	25	Standard
| Sb	123	-0.053	ug/L	0.003	4	475	96	16	Standard
[> Tb	159		ug/L			499801	554212	2	Standard
| Tl	205	-0.006	ug/L	0.000	4	224	51	16	Standard
| Pb	208	0.002	ug/L	0.001	30	359	485	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 19:50:59

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	37253	3	Standard
Cl	37		ug/L			3977931	4648127	3	Standard
[> Sc	45		ug/L			439931	434881	2	Standard
| Cr	52	0.251	ug/L	0.025	9	12483	16090	4	Standard
| Cr	53	2.239	ug/L	0.022	0	120	3993	2	Standard
| Mn	55	0.004	ug/L	0.002	65	1073	1137	2	Standard
[> Ge	72		ug/L			28119	30870	1	KED
| Ni	60	-0.015	ug/L	0.006	38	28	16	33	KED
| Ni	62	0.216	ug/L	0.045	20	5	40	18	KED
| Cu	63	0.021	ug/L	0.005	24	42	104	12	KED
| Cu	65	0.013	ug/L	0.009	65	27	48	25	KED
| Zn	66	0.010	ug/L	0.005	48	29	36	5	KED
| Zn	67	-0.046	ug/L	0.038	81	8	6	31	KED
| As	75	-0.006	ug/L	0.014	221	7	6	37	KED
| Se	78	0.093	ug/L	0.108	116	11	14	15	KED
Y	89		ug/L			276255	270896	0	Standard
Kr	83		ug/L			52	56	24	Standard
[> In-1	115		ug/L			7782	8913	1	KED
| Mo	98	-0.004	ug/L	0.004	118	8	6	55	KED
| Cd	111	-0.005	ug/L	0.012	261	4	3	66	KED
| Cd	114	-0.003	ug/L	0.006	207	5	5	57	KED
[> In	115		ug/L			475417	471128	0	Standard
| Ag	107	-0.010	ug/L	0.000	2	135	34	6	Standard
| Sb	121	-0.056	ug/L	0.001	2	596	69	17	Standard
| Sb	123	-0.059	ug/L	0.002	3	475	59	21	Standard
[> Tb	159		ug/L			499801	550657	1	Standard
| Tl	205	-0.000	ug/L	0.001	119	224	232	5	Standard
| Pb	208	0.000	ug/L	0.001	243	359	408	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 19:56:54

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	35203	4	Standard
Cl	37		ug/L			3977931	4264691	3	Standard
[> Sc	45		ug/L			439931	441518	2	Standard
| Cr	52	49.081	ug/L	1.394	2	12483	756671	4	Standard
| Cr	53	51.136	ug/L	1.976	3	120	89947	4	Standard
| Mn	55	48.173	ug/L	1.845	3	1073	1024074	4	Standard
[> Ge	72		ug/L			28119	30252	2	KED
| Ni	60	45.749	ug/L	1.420	3	28	45144	0	KED
| Ni	62	46.991	ug/L	0.927	1	5	7465	0	KED
| Cu	63	47.207	ug/L	0.687	1	42	130970	1	KED
| Cu	65	47.344	ug/L	0.915	1	27	65226	1	KED
| Zn	66	47.641	ug/L	2.101	4	29	16787	2	KED
| Zn	67	49.230	ug/L	1.140	2	8	2876	0	KED
| As	75	48.728	ug/L	0.490	1	7	8694	1	KED
| Se	78	48.312	ug/L	1.603	3	11	942	3	KED
Y	89		ug/L			276255	277390	4	Standard
Kr	83		ug/L			52	60	32	Standard
[> In-1	115		ug/L			7782	8509	1	KED
| Mo	98	44.603	ug/L	1.085	2	8	35269	0	KED
| Cd	111	48.329	ug/L	1.745	3	4	9311	1	KED
| Cd	114	48.067	ug/L	1.587	3	5	22414	2	KED
[> In	115		ug/L			475417	463955	2	Standard
| Ag	107	54.272	ug/L	1.332	2	135	555455	4	Standard
| Sb	121	48.557	ug/L	1.447	2	596	445856	4	Standard
| Sb	123	49.154	ug/L	1.249	2	475	340898	3	Standard
[> Tb	159		ug/L			499801	550353	3	Standard
| Tl	205	44.583	ug/L	1.086	2	224	1388065	1	Standard
| Pb	208	46.929	ug/L	0.642	1	359	1806255	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 20:04:29

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	34019	4	Standard
Cl	37		ug/L			3977931	4135642	2	Standard
> Sc	45		ug/L			439931	411756	1	Standard
| Cr	52	0.015	ug/L	0.029	187	12483	11901	3	Standard
| Cr	53	1.566	ug/L	0.018	1	120	2678	1	Standard
| Mn	55	-0.007	ug/L	0.003	43	1073	870	5	Standard
> Ge	72		ug/L			28119	28669	1	KED
| Ni	60	-0.024	ug/L	0.003	13	28	6	41	KED
| Ni	62	0.075	ug/L	0.044	58	5	16	40	KED
| Cu	63	0.008	ug/L	0.003	33	42	64	11	KED
| Cu	65	-0.002	ug/L	0.003	137	27	24	15	KED
| Zn	66	0.014	ug/L	0.013	96	29	34	11	KED
| Zn	67	-0.050	ug/L	0.078	158	8	6	69	KED
| As	75	-0.009	ug/L	0.010	103	7	5	30	KED
| Se	78	0.073	ug/L	0.171	233	11	13	22	KED
Y	89		ug/L			276255	263926	2	Standard
Kr	83		ug/L			52	46	6	Standard
> In-1	115		ug/L			7782	7680	12	KED
| Mo	98	0.003	ug/L	0.002	53	8	11	21	KED
| Cd	111	0.005	ug/L	0.009	166	4	5	39	KED
| Cd	114	-0.005	ug/L	0.004	76	5	3	51	KED
> In	115		ug/L			475417	455687	2	Standard
| Ag	107	-0.007	ug/L	0.000	6	135	60	7	Standard
| Sb	121	0.047	ug/L	0.005	10	596	993	6	Standard
| Sb	123	0.042	ug/L	0.006	14	475	744	3	Standard
> Tb	159		ug/L			499801	525379	1	Standard
| Tl	205	0.004	ug/L	0.001	20	224	350	5	Standard
| Pb	208	-0.003	ug/L	0.000	19	359	283	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0501-02**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 20:09:21**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	49689	3	Standard
Cl	37		ug/L			3977931	4256608	1	Standard
> Sc	45		ug/L			439931	433106	0	Standard
| Cr	52	7.036	ug/L	0.128	1	12483	116914	0	Standard
| Cr	53	8.342	ug/L	0.150	1	120	14494	1	Standard
| Mn	55	7.707	ug/L	0.223	2	1073	161598	2	Standard
> Ge	72		ug/L			28119	26837	0	KED
| Ni	60	0.726	ug/L	0.092	12	28	662	11	KED
| Ni	62	1.029	ug/L	0.168	16	5	149	16	KED
| Cu	63	1.288	ug/L	0.082	6	42	3209	6	KED
| Cu	65	1.285	ug/L	0.040	3	27	1595	2	KED
| Zn	66	2.889	ug/L	0.199	6	29	930	6	KED
| Zn	67	2.685	ug/L	0.376	14	8	147	13	KED
| As	75	0.054	ug/L	0.018	32	7	15	18	KED
| Se	78	0.159	ug/L	0.114	72	11	13	13	KED
Y	89		ug/L			276255	271733	3	Standard
Kr	83		ug/L			52	68	12	Standard
> In-1	115		ug/L			7782	8104	3	KED
| Mo	98	4.756	ug/L	0.302	6	8	3592	7	KED
| Cd	111	0.014	ug/L	0.009	65	4	6	28	KED
| Cd	114	0.006	ug/L	0.003	43	5	8	11	KED
> In	115		ug/L			475417	440296	2	Standard
| Ag	107	-0.006	ug/L	0.001	14	135	66	13	Standard
| Sb	121	0.119	ug/L	0.002	1	596	1592	3	Standard
| Sb	123	0.137	ug/L	0.015	10	475	1343	9	Standard
> Tb	159		ug/L			499801	524667	2	Standard
| Tl	205	-0.002	ug/L	0.001	67	224	186	18	Standard
| Pb	208	0.002	ug/L	0.000	9	359	443	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0501-03**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 20:14:12**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	49326	2	Standard
Cl	37		ug/L			3977931	4251960	1	Standard
> Sc	45		ug/L			439931	434771	2	Standard
| Cr	52	4.643	ug/L	0.296	6	12483	81592	4	Standard
| Cr	53	5.891	ug/L	0.281	4	120	10304	3	Standard
| Mn	55	6.215	ug/L	0.278	4	1073	130938	1	Standard
> Ge	72		ug/L			28119	27508	0	KED
| Ni	60	0.605	ug/L	0.034	5	28	570	4	KED
| Ni	62	0.858	ug/L	0.044	5	5	128	4	KED
| Cu	63	1.581	ug/L	0.021	1	42	4029	1	KED
| Cu	65	1.560	ug/L	0.069	4	27	1980	4	KED
| Zn	66	2.021	ug/L	0.159	7	29	676	8	KED
| Zn	67	2.016	ug/L	0.148	7	8	115	7	KED
| As	75	0.071	ug/L	0.015	20	7	18	11	KED
| Se	78	0.252	ug/L	0.113	44	11	15	12	KED
Y	89		ug/L			276255	260735	1	Standard
Kr	83		ug/L			52	55	22	Standard
> In-1	115		ug/L			7782	8141	4	KED
| Mo	98	5.387	ug/L	0.133	2	8	4084	5	KED
| Cd	111	0.016	ug/L	0.007	43	4	7	15	KED
| Cd	114	0.000	ug/L	0.009	2656	5	5	65	KED
> In	115		ug/L			475417	430946	2	Standard
| Ag	107	-0.007	ug/L	0.002	28	135	54	33	Standard
| Sb	121	0.117	ug/L	0.010	8	596	1534	6	Standard
| Sb	123	0.112	ug/L	0.002	1	475	1149	2	Standard
> Tb	159		ug/L			499801	527191	3	Standard
| Tl	205	-0.004	ug/L	0.001	14	224	121	11	Standard
| Pb	208	-0.001	ug/L	0.001	62	359	333	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0501-04**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 20:19:02**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	49155	2	Standard
Cl	37		ug/L			3977931	4355160	3	Standard
> Sc	45		ug/L			439931	447008	3	Standard
| Cr	52	8.242	ug/L	0.406	4	12483	139073	3	Standard
| Cr	53	9.153	ug/L	0.363	3	120	16387	2	Standard
| Mn	55	7.190	ug/L	0.159	2	1073	155654	3	Standard
> Ge	72		ug/L			28119	27136	1	KED
| Ni	60	0.540	ug/L	0.021	3	28	505	3	KED
| Ni	62	0.814	ug/L	0.189	23	5	120	21	KED
| Cu	63	1.893	ug/L	0.003	0	42	4750	1	KED
| Cu	65	1.878	ug/L	0.039	2	27	2346	3	KED
| Zn	66	2.276	ug/L	0.146	6	29	747	6	KED
| Zn	67	1.827	ug/L	0.204	11	8	104	11	KED
| As	75	0.084	ug/L	0.010	11	7	20	6	KED
| Se	78	0.299	ug/L	0.234	78	11	16	23	KED
Y	89		ug/L			276255	271224	3	Standard
Kr	83		ug/L			52	63	35	Standard
> In-1	115		ug/L			7782	7993	1	KED
| Mo	98	5.752	ug/L	0.156	2	8	4280	1	KED
| Cd	111	-0.009	ug/L	0.006	62	4	2	43	KED
| Cd	114	0.006	ug/L	0.009	154	5	8	48	KED
> In	115		ug/L			475417	438691	3	Standard
| Ag	107	-0.007	ug/L	0.001	16	135	52	19	Standard
| Sb	121	0.100	ug/L	0.006	5	596	1413	1	Standard
| Sb	123	0.099	ug/L	0.004	3	475	1085	1	Standard
> Tb	159		ug/L			499801	533073	2	Standard
| Tl	205	-0.004	ug/L	0.001	12	224	104	15	Standard
| Pb	208	0.004	ug/L	0.001	27	359	544	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0367-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 20:23:53**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	58549	1	Standard
Cl	37		ug/L			3977931	4387395	1	Standard
[> Sc	45		ug/L			439931	444110	0	Standard
| Cr	52	0.866	ug/L	0.029	3	12483	25812	1	Standard
| Cr	53	2.181	ug/L	0.036	1	120	3975	1	Standard
| Mn	55	7.995	ug/L	0.254	3	1073	171865	2	Standard
[> Ge	72		ug/L			28119	29188	4	KED
| Ni	60	0.480	ug/L	0.073	15	28	484	10	KED
| Ni	62	0.586	ug/L	0.116	19	5	94	14	KED
| Cu	63	4.452	ug/L	0.104	2	42	11952	2	KED
| Cu	65	4.400	ug/L	0.319	7	27	5865	4	KED
| Zn	66	169.695	ug/L	12.869	7	29	57530	3	KED
| Zn	67	154.435	ug/L	9.329	6	8	8676	3	KED
| As	75	1.248	ug/L	0.105	8	7	221	5	KED
| Se	78	0.121	ug/L	0.161	133	11	14	19	KED
| Y	89		ug/L			276255	281823	0	Standard
| Kr	83		ug/L			52	47	4	Standard
[> In-1	115		ug/L			7782	8488	3	KED
| Mo	98	0.206	ug/L	0.037	17	8	171	13	KED
| Cd	111	0.059	ug/L	0.005	8	4	15	9	KED
| Cd	114	0.056	ug/L	0.012	20	5	32	18	KED
[> In	115		ug/L			475417	468227	0	Standard
| Ag	107	-0.005	ug/L	0.001	27	135	80	17	Standard
| Sb	121	0.612	ug/L	0.024	3	596	6247	2	Standard
| Sb	123	0.619	ug/L	0.026	4	475	4796	2	Standard
[> Tb	159		ug/L			499801	545374	3	Standard
| Tl	205	-0.004	ug/L	0.000	11	224	118	14	Standard
| Pb	208	0.421	ug/L	0.016	3	359	16429	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0379-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 20:28:44**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	65218	2	Standard
Cl	37		ug/L			3977931	8179615	5	Standard
[> Sc	45		ug/L			439931	464512	1	Standard
| Cr	52	13.467	ug/L	0.366	2	12483	228006	3	Standard
| Cr	53	19.435	ug/L	0.443	2	120	36050	2	Standard
| Mn	55	69.085	ug/L	0.159	0	1073	1544849	1	Standard
[> Ge	72		ug/L			28119	26831	1	KED
| Ni	60	5.236	ug/L	0.292	5	28	4610	6	KED
| Ni	62	5.584	ug/L	0.193	3	5	791	2	KED
| Cu	63	30.921	ug/L	0.468	1	42	76122	2	KED
| Cu	65	30.632	ug/L	0.987	3	27	37454	3	KED
| Zn	66	129.179	ug/L	3.585	2	29	40359	3	KED
| Zn	67	126.904	ug/L	1.513	1	8	6565	1	KED
| As	75	2.132	ug/L	0.131	6	7	343	6	KED
| Se	78	0.416	ug/L	0.097	23	11	18	10	KED
| Y	89		ug/L			276255	290776	2	Standard
| Kr	83		ug/L			52	107	13	Standard
[> In-1	115		ug/L			7782	7932	1	KED
| Mo	98	3.190	ug/L	0.187	5	8	2359	4	KED
| Cd	111	0.145	ug/L	0.034	23	4	30	19	KED
| Cd	114	0.140	ug/L	0.038	27	5	66	24	KED
[> In	115		ug/L			475417	454572	1	Standard
| Ag	107	0.038	ug/L	0.004	11	135	507	9	Standard
| Sb	121	4.765	ug/L	0.071	1	596	43367	2	Standard
| Sb	123	4.781	ug/L	0.183	3	475	32910	5	Standard
[> Tb	159		ug/L			499801	548292	1	Standard
| Tl	205	0.001	ug/L	0.001	47	224	288	5	Standard
| Pb	208	6.988	ug/L	0.162	2	359	268305	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0379-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 20:33:34**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	62708	3	Standard
Cl	37		ug/L			3977931	8752734	5	Standard
[> Sc	45		ug/L			439931	473938	2	Standard
| Cr	52	6.262	ug/L	0.182	2	12483	115376	4	Standard
| Cr	53	13.111	ug/L	0.137	1	120	24857	2	Standard
| Mn	55	63.430	ug/L	1.167	1	1073	1447539	3	Standard
[> Ge	72		ug/L			28119	28351	1	KED
| Ni	60	4.878	ug/L	0.173	3	28	4539	3	KED
| Ni	62	5.162	ug/L	0.504	9	5	772	8	KED
| Cu	63	12.605	ug/L	0.528	4	42	32804	3	KED
| Cu	65	12.311	ug/L	0.344	2	27	15918	2	KED
| Zn	66	34.224	ug/L	1.732	5	29	11314	4	KED
| Zn	67	34.716	ug/L	0.756	2	8	1904	2	KED
| As	75	0.672	ug/L	0.025	3	7	119	3	KED
| Se	78	0.117	ug/L	0.143	122	11	13	17	KED
| Y	89		ug/L			276255	289378	1	Standard
| Kr	83		ug/L			52	101	2	Standard
[> In-1	115		ug/L			7782	8024	0	KED
| Mo	98	2.611	ug/L	0.190	7	8	1956	7	KED
| Cd	111	0.048	ug/L	0.022	44	4	13	29	KED
| Cd	114	0.051	ug/L	0.014	26	5	28	20	KED
[> In	115		ug/L			475417	469895	1	Standard
| Ag	107	0.006	ug/L	0.001	22	135	192	5	Standard
| Sb	121	2.386	ug/L	0.124	5	596	22731	3	Standard
| Sb	123	2.396	ug/L	0.095	3	475	17276	3	Standard
[> Tb	159		ug/L			499801	561480	2	Standard
| Tl	205	-0.003	ug/L	0.000	11	224	153	5	Standard
| Pb	208	2.231	ug/L	0.119	5	359	87933	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0501-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 20:38:25**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	59166	1	Standard
Cl	37		ug/L			3977931	4366663	2	Standard
> Sc	45		ug/L			439931	442851	1	Standard
| Cr	52	8.881	ug/L	0.269	3	12483	147636	4	Standard
| Cr	53	9.918	ug/L	0.156	1	120	17599	2	Standard
| Mn	55	7.719	ug/L	0.309	4	1073	165556	5	Standard
> Ge	72		ug/L			28119	26966	3	KED
| Ni	60	1.039	ug/L	0.023	2	28	940	1	KED
| Ni	62	1.251	ug/L	0.133	10	5	182	13	KED
| Cu	63	1.571	ug/L	0.106	6	42	3925	7	KED
| Cu	65	1.558	ug/L	0.093	5	27	1941	9	KED
| Zn	66	3.722	ug/L	0.113	3	29	1196	4	KED
| Zn	67	2.942	ug/L	0.558	18	8	161	18	KED
| As	75	0.056	ug/L	0.021	37	7	15	22	KED
| Se	78	0.461	ug/L	0.088	18	11	19	10	KED
Y	89		ug/L			276255	267963	1	Standard
Kr	83		ug/L			52	60	14	Standard
> In-1	115		ug/L			7782	7816	2	KED
| Mo	98	4.237	ug/L	0.312	7	8	3083	4	KED
| Cd	111	0.027	ug/L	0.011	40	4	8	22	KED
| Cd	114	0.003	ug/L	0.007	266	5	6	43	KED
> In	115		ug/L			475417	436948	1	Standard
| Ag	107	-0.008	ug/L	0.001	14	135	46	23	Standard
| Sb	121	0.133	ug/L	0.006	4	596	1694	2	Standard
| Sb	123	0.134	ug/L	0.012	8	475	1313	5	Standard
> Tb	159		ug/L			499801	532505	1	Standard
| Tl	205	-0.004	ug/L	0.000	11	224	123	10	Standard
| Pb	208	0.007	ug/L	0.001	16	359	634	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0008-DUP1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 20:43:16**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	59602	5	Standard
Cl	37		ug/L			3977931	4339532	4	Standard
> Sc	45		ug/L			439931	449298	1	Standard
| Cr	52	8.482	ug/L	0.538	6	12483	143667	6	Standard
| Cr	53	9.203	ug/L	0.407	4	120	16581	5	Standard
| Mn	55	7.635	ug/L	0.462	6	1073	166180	7	Standard
> Ge	72		ug/L			28119	27542	0	KED
| Ni	60	1.072	ug/L	0.049	4	28	991	4	KED
| Ni	62	1.200	ug/L	0.149	12	5	178	11	KED
| Cu	63	1.581	ug/L	0.096	6	42	4034	5	KED
| Cu	65	1.640	ug/L	0.057	3	27	2083	3	KED
| Zn	66	3.664	ug/L	0.112	3	29	1203	2	KED
| Zn	67	3.535	ug/L	0.284	8	8	196	7	KED
| As	75	0.061	ug/L	0.014	23	7	16	14	KED
| Se	78	0.159	ug/L	0.038	23	11	14	5	KED
Y	89		ug/L			276255	276901	3	Standard
Kr	83		ug/L			52	65	32	Standard
> In-1	115		ug/L			7782	8014	2	KED
| Mo	98	4.416	ug/L	0.218	4	8	3296	3	KED
| Cd	111	0.014	ug/L	0.015	110	4	6	37	KED
| Cd	114	0.005	ug/L	0.010	197	5	8	56	KED
> In	115		ug/L			475417	452259	2	Standard
| Ag	107	-0.009	ug/L	0.001	8	135	39	22	Standard
| Sb	121	0.120	ug/L	0.016	13	596	1636	6	Standard
| Sb	123	0.120	ug/L	0.019	15	475	1264	8	Standard
> Tb	159		ug/L			499801	535416	4	Standard
| Tl	205	-0.005	ug/L	0.000	6	224	99	11	Standard
| Pb	208	0.005	ug/L	0.001	18	359	553	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0008-MS1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 20:48:06**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	57246	2	Standard
Cl	37		ug/L			3977931	4422043	1	Standard
> Sc	45		ug/L			439931	449988	4	Standard
| Cr	52	21.515	ug/L	0.531	2	12483	344963	1	Standard
| Cr	53	22.281	ug/L	0.805	3	120	39980	1	Standard
| Mn	55	20.377	ug/L	0.505	2	1073	441950	2	Standard
> Ge	72		ug/L			28119	27458	0	KED
| Ni	60	13.553	ug/L	0.638	4	28	12163	4	KED
| Ni	62	13.485	ug/L	0.410	3	5	1948	3	KED
| Cu	63	14.204	ug/L	0.457	3	42	35801	2	KED
| Cu	65	14.091	ug/L	0.124	0	27	17643	0	KED
| Zn	66	43.025	ug/L	1.343	3	29	13771	2	KED
| Zn	67	40.408	ug/L	1.239	3	8	2145	3	KED
| As	75	13.233	ug/L	0.249	1	7	2148	1	KED
| Se	78	40.807	ug/L	1.522	3	11	724	3	KED
Y	89		ug/L			276255	273960	2	Standard
Kr	83		ug/L			52	71	5	Standard
> In-1	115		ug/L			7782	7791	1	KED
| Mo	98	17.449	ug/L	1.254	7	8	12642	7	KED
| Cd	111	12.057	ug/L	0.573	4	4	2131	5	KED
| Cd	114	11.953	ug/L	0.814	6	5	5107	5	KED
> In	115		ug/L			475417	449823	4	Standard
| Ag	107	12.930	ug/L	0.583	4	135	128259	3	Standard
| Sb	121	13.310	ug/L	0.520	3	596	118746	1	Standard
| Sb	123	13.375	ug/L	0.481	3	475	90171	0	Standard
> Tb	159		ug/L			499801	527856	5	Standard
| Tl	205	11.697	ug/L	0.410	3	224	349231	2	Standard
| Pb	208	12.246	ug/L	0.534	4	359	451736	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL6

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 20:52:58

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	38738	2	Standard
Cl	37		ug/L			3977931	4534043	1	Standard
> Sc	45		ug/L			439931	446014	2	Standard
| Cr	52	0.210	ug/L	0.036	17	12483	15871	1	Standard
| Cr	53	0.670	ug/L	0.058	8	120	1310	6	Standard
| Mn	55	-0.005	ug/L	0.001	14	1073	972	4	Standard
> Ge	72		ug/L			28119	29719	3	KED
| Ni	60	-0.021	ug/L	0.002	9	28	9	20	KED
| Ni	62	0.027	ug/L	0.002	7	5	9	0	KED
| Cu	63	0.016	ug/L	0.004	27	42	88	14	KED
| Cu	65	0.005	ug/L	0.002	48	27	35	8	KED
| Zn	66	-0.018	ug/L	0.031	169	29	25	43	KED
| Zn	67	-0.087	ug/L	0.075	86	8	4	98	KED
| As	75	-0.003	ug/L	0.014	412	7	6	37	KED
| Se	78	0.025	ug/L	0.063	248	11	12	5	KED
Y	89		ug/L			276255	279642	0	Standard
Kr	83		ug/L			52	48	19	Standard
> In-1	115		ug/L			7782	8251	4	KED
| Mo	98	-0.003	ug/L	0.005	165	8	7	55	KED
| Cd	111	0.007	ug/L	0.015	207	4	5	50	KED
| Cd	114	-0.002	ug/L	0.006	275	5	4	58	KED
> In	115		ug/L			475417	478122	2	Standard
| Ag	107	-0.008	ug/L	0.001	15	135	53	21	Standard
| Sb	121	-0.054	ug/L	0.000	0	596	86	4	Standard
| Sb	123	-0.057	ug/L	0.000	0	475	71	0	Standard
> Tb	159		ug/L			499801	535219	2	Standard
| Tl	205	-0.005	ug/L	0.000	2	224	79	4	Standard
| Pb	208	-0.006	ug/L	0.000	3	359	174	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 20:58:53

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	37816	3	Standard
Cl	37		ug/L			3977931	4403381	2	Standard
[> Sc	45		ug/L			439931	452241	2	Standard
| Cr	52	49.572	ug/L	1.369	2	12483	782863	4	Standard
| Cr	53	50.023	ug/L	0.796	1	120	90155	3	Standard
| Mn	55	49.088	ug/L	0.628	1	1073	1069012	2	Standard
[> Ge	72		ug/L			28119	29062	2	KED
| Ni	60	48.616	ug/L	1.531	3	28	46115	4	KED
| Ni	62	49.510	ug/L	1.452	2	5	7561	5	KED
| Cu	63	48.764	ug/L	0.859	1	42	130012	3	KED
| Cu	65	49.640	ug/L	0.750	1	27	65733	4	KED
| Zn	66	50.570	ug/L	0.945	1	29	17132	4	KED
| Zn	67	50.977	ug/L	3.031	5	8	2864	8	KED
| As	75	50.218	ug/L	0.977	1	7	8609	3	KED
[Se	78	49.018	ug/L	1.376	2	11	918	3	KED
Y	89		ug/L			276255	289364	1	Standard
Kr	83		ug/L			52	49	19	Standard
[> In-1	115		ug/L			7782	8529	0	KED
| Mo	98	46.587	ug/L	1.492	3	8	36930	2	KED
| Cd	111	48.715	ug/L	0.656	1	4	9411	0	KED
[Cd	114	49.261	ug/L	1.944	3	5	23029	3	KED
[> In	115		ug/L			475417	482001	1	Standard
| Ag	107	51.838	ug/L	3.224	6	135	550819	5	Standard
| Sb	121	48.429	ug/L	2.059	4	596	461630	3	Standard
[Sb	123	48.407	ug/L	2.248	4	475	348588	2	Standard
[> Tb	159		ug/L			499801	555388	1	Standard
| Tl	205	45.594	ug/L	2.238	4	224	1432878	3	Standard
[Pb	208	47.478	ug/L	1.846	3	359	1844224	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 21:06:28

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	35668	2	Standard
Cl	37		ug/L			3977931	4278360	1	Standard
> Sc	45		ug/L			439931	431623	2	Standard
| Cr	52	0.033	ug/L	0.025	76	12483	12730	1	Standard
| Cr	53	0.585	ug/L	0.017	2	120	1122	1	Standard
| Mn	55	-0.018	ug/L	0.001	4	1073	681	1	Standard
> Ge	72		ug/L			28119	28774	0	KED
| Ni	60	-0.026	ug/L	0.003	11	28	4	65	KED
| Ni	62	0.016	ug/L	0.012	78	5	7	25	KED
| Cu	63	0.005	ug/L	0.001	23	42	55	5	KED
| Cu	65	-0.001	ug/L	0.006	631	27	26	31	KED
| Zn	66	-0.002	ug/L	0.008	396	29	29	9	KED
| Zn	67	-0.027	ug/L	0.034	127	8	7	25	KED
| As	75	-0.011	ug/L	0.010	86	7	5	30	KED
| Se	78	0.080	ug/L	0.102	127	11	13	14	KED
Y	89		ug/L			276255	275778	4	Standard
Kr	83		ug/L			52	40	21	Standard
> In-1	115		ug/L			7782	8195	2	KED
| Mo	98	0.003	ug/L	0.007	205	8	11	42	KED
| Cd	111	0.007	ug/L	0.015	204	4	5	50	KED
| Cd	114	0.009	ug/L	0.006	69	5	10	27	KED
> In	115		ug/L			475417	465068	2	Standard
| Ag	107	-0.005	ug/L	0.001	14	135	78	10	Standard
| Sb	121	0.045	ug/L	0.011	24	596	993	9	Standard
| Sb	123	0.048	ug/L	0.012	25	475	794	8	Standard
> Tb	159		ug/L			499801	516034	1	Standard
| Tl	205	-0.004	ug/L	0.000	6	224	111	5	Standard
| Pb	208	-0.006	ug/L	0.000	3	359	165	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0518-BLK1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 21:11:20**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	47915	2	Standard
Cl	37		ug/L			3977931	4378636	2	Standard
> Sc	45		ug/L			439931	459171	4	Standard
| Cr	52	0.044	ug/L	0.024	53	12483	13714	2	Standard
| Cr	53	0.539	ug/L	0.027	4	120	1109	0	Standard
| Mn	55	-0.013	ug/L	0.001	10	1073	827	1	Standard
> Ge	72		ug/L			28119	30027	3	KED
| Ni	60	0.040	ug/L	0.023	58	28	70	35	KED
| Ni	62	0.114	ug/L	0.026	22	5	23	18	KED
| Cu	63	0.007	ug/L	0.003	39	42	64	8	KED
| Cu	65	0.006	ug/L	0.004	62	27	37	11	KED
| Zn	66	0.337	ug/L	0.067	19	29	149	13	KED
| Zn	67	0.297	ug/L	0.083	28	8	26	18	KED
| As	75	-0.014	ug/L	0.007	47	7	5	21	KED
| Se	78	0.042	ug/L	0.173	410	11	13	20	KED
| Y	89		ug/L			276255	286258	2	Standard
| Kr	83		ug/L			52	42	32	Standard
> In-1	115		ug/L			7782	8468	3	KED
| Mo	98	-0.001	ug/L	0.007	504	8	8	69	KED
| Cd	111	-0.004	ug/L	0.017	432	4	3	90	KED
| Cd	114	-0.004	ug/L	0.008	232	5	4	91	KED
> In	115		ug/L			475417	479005	2	Standard
| Ag	107	-0.008	ug/L	0.003	34	135	55	53	Standard
| Sb	121	-0.026	ug/L	0.007	26	596	357	17	Standard
| Sb	123	-0.028	ug/L	0.002	8	475	280	4	Standard
> Tb	159		ug/L			499801	545206	1	Standard
| Tl	205	-0.005	ug/L	0.000	9	224	103	13	Standard
| Pb	208	-0.005	ug/L	0.001	11	359	218	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0518-BS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 21:16:10**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	46986	0	Standard
Cl	37		ug/L			3977931	4431271	0	Standard
[> Sc	45		ug/L			439931	456397	1	Standard
| Cr	52	25.963	ug/L	1.042	4	12483	419630	2	Standard
| Cr	53	26.333	ug/L	0.671	2	120	47930	0	Standard
| Mn	55	25.802	ug/L	1.040	4	1073	567374	2	Standard
[> Ge	72		ug/L			28119	29668	0	KED
| Ni	60	25.232	ug/L	0.622	2	28	24443	1	KED
| Ni	62	25.646	ug/L	0.801	3	5	3999	2	KED
| Cu	63	25.536	ug/L	0.215	0	42	69519	0	KED
| Cu	65	25.528	ug/L	0.580	2	27	34516	2	KED
| Zn	66	80.006	ug/L	0.278	0	29	27646	0	KED
| Zn	67	76.062	ug/L	1.341	1	8	4354	1	KED
| As	75	24.800	ug/L	0.350	1	7	4343	1	KED
| Se	78	78.467	ug/L	5.151	6	11	1493	6	KED
Y	89		ug/L			276255	286491	3	Standard
Kr	83		ug/L			52	57	24	Standard
[> In-1	115		ug/L			7782	8600	2	KED
| Mo	98	0.004	ug/L	0.003	60	8	13	15	KED
| Cd	111	24.487	ug/L	1.055	4	4	4770	3	KED
| Cd	114	24.559	ug/L	1.525	6	5	11577	5	KED
[> In	115		ug/L			475417	486689	0	Standard
| Ag	107	26.995	ug/L	0.935	3	135	289807	3	Standard
| Sb	121	-0.043	ug/L	0.002	5	596	198	11	Standard
| Sb	123	-0.043	ug/L	0.005	10	475	175	19	Standard
[> Tb	159		ug/L			499801	543743	1	Standard
| Tl	205	24.449	ug/L	0.296	1	224	752699	2	Standard
| Pb	208	25.998	ug/L	0.177	0	359	989034	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0032-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 21:21:01**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	62144	4	Standard
Cl	37		ug/L			3977931	4446967	1	Standard
Sc	45		ug/L			439931	572313	1	Standard
Cr	52	13.483	ug/L	0.293	2	12483	281138	0	Standard
Cr	53	13.919	ug/L	0.453	3	120	31843	1	Standard
Mn	55	134.324	ug/L	6.256	4	1073	3697844	3	Standard
Ge	72		ug/L			28119	30377	1	KED
Ni	60	11.114	ug/L	0.198	1	28	11042	2	KED
Ni	62	11.539	ug/L	0.513	4	5	1845	4	KED
Cu	63	55.880	ug/L	1.319	2	42	155713	3	KED
Cu	65	54.802	ug/L	0.733	1	27	75822	1	KED
Zn	66	172.532	ug/L	1.826	1	29	61004	1	KED
Zn	67	161.741	ug/L	4.971	3	8	9473	4	KED
As	75	17.671	ug/L	0.092	0	7	3171	1	KED
Se	78	0.972	ug/L	0.080	8	11	31	6	KED
Y	89		ug/L			276255	466927	0	Standard
Kr	83		ug/L			52	95	19	Standard
In-1	115		ug/L			7782	8729	0	KED
Mo	98	0.890	ug/L	0.071	8	8	732	8	KED
Cd	111	0.211	ug/L	0.045	21	4	46	19	KED
Cd	114	0.193	ug/L	0.039	19	5	98	19	KED
In	115		ug/L			475417	510904	0	Standard
Ag	107	0.126	ug/L	0.008	6	135	1564	5	Standard
Sb	121	0.139	ug/L	0.005	3	596	2044	2	Standard
Sb	123	0.141	ug/L	0.006	4	475	1590	3	Standard
Tb	159		ug/L			499801	602200	3	Standard
Tl	205	0.036	ug/L	0.003	7	224	1490	3	Standard
Pb	208	53.735	ug/L	2.771	5	359	2261310	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0032-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 21:25:52**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	64955	2	Standard
Cl	37		ug/L			3977931	4491560	0	Standard
[> Sc	45		ug/L			439931	548399	1	Standard
| Cr	52	14.289	ug/L	0.106	0	12483	284599	0	Standard
| Cr	53	14.704	ug/L	0.035	0	120	32234	0	Standard
| Mn	55	86.501	ug/L	2.667	3	1073	2283590	3	Standard
[> Ge	72		ug/L			28119	30558	0	KED
| Ni	60	8.900	ug/L	0.194	2	28	8900	1	KED
| Ni	62	8.671	ug/L	0.420	4	5	1396	4	KED
| Cu	63	24.338	ug/L	0.459	1	42	68244	1	KED
| Cu	65	24.170	ug/L	0.095	0	27	33660	0	KED
| Zn	66	62.261	ug/L	1.830	2	29	22166	2	KED
| Zn	67	60.212	ug/L	1.458	2	8	3552	2	KED
| As	75	8.944	ug/L	0.140	1	7	1618	1	KED
| Se	78	0.872	ug/L	0.061	7	11	29	4	KED
| Y	89		ug/L			276255	444361	1	Standard
| Kr	83		ug/L			52	80	23	Standard
[> In-1	115		ug/L			7782	8851	0	KED
| Mo	98	0.530	ug/L	0.040	7	8	445	6	KED
| Cd	111	0.078	ug/L	0.019	24	4	20	18	KED
| Cd	114	0.068	ug/L	0.037	55	5	39	46	KED
[> In	115		ug/L			475417	499389	1	Standard
| Ag	107	0.060	ug/L	0.006	9	135	807	6	Standard
| Sb	121	0.027	ug/L	0.002	7	596	892	3	Standard
| Sb	123	0.024	ug/L	0.003	12	475	677	2	Standard
[> Tb	159		ug/L			499801	586539	0	Standard
| Tl	205	0.029	ug/L	0.001	3	224	1212	2	Standard
| Pb	208	14.038	ug/L	0.194	1	359	576284	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0032-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 21:30:42**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	56435	5	Standard
Cl	37		ug/L			3977931	4502333	0	Standard
[> Sc	45		ug/L			439931	528873	0	Standard
| Cr	52	8.945	ug/L	0.304	3	12483	177447	3	Standard
| Cr	53	9.481	ug/L	0.472	4	120	20097	5	Standard
| Mn	55	60.106	ug/L	0.617	1	1073	1530470	1	Standard
[> Ge	72		ug/L			28119	30383	1	KED
| Ni	60	4.824	ug/L	0.121	2	28	4809	1	KED
| Ni	62	4.942	ug/L	0.321	6	5	793	6	KED
| Cu	63	10.308	ug/L	0.246	2	42	28769	3	KED
| Cu	65	10.326	ug/L	0.242	2	27	14314	2	KED
| Zn	66	20.085	ug/L	0.768	3	29	7129	2	KED
| Zn	67	19.193	ug/L	0.924	4	8	1132	3	KED
| As	75	2.394	ug/L	0.095	3	7	436	4	KED
| Se	78	0.668	ug/L	0.059	8	11	25	4	KED
| Y	89		ug/L			276255	393194	0	Standard
| Kr	83		ug/L			52	69	28	Standard
[> In-1	115		ug/L			7782	8475	4	KED
| Mo	98	0.585	ug/L	0.007	1	8	470	4	KED
| Cd	111	0.005	ug/L	0.002	40	4	5	10	KED
| Cd	114	0.009	ug/L	0.007	79	5	10	30	KED
[> In	115		ug/L			475417	495358	1	Standard
| Ag	107	0.029	ug/L	0.003	11	135	452	6	Standard
| Sb	121	-0.036	ug/L	0.001	4	596	274	6	Standard
| Sb	123	-0.041	ug/L	0.002	5	475	190	7	Standard
[> Tb	159		ug/L			499801	581407	1	Standard
| Tl	205	0.013	ug/L	0.001	8	224	700	4	Standard
| Pb	208	8.568	ug/L	0.278	3	359	348699	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0032-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 21:35:33**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	62179	3	Standard
Cl	37		ug/L			3977931	4521367	1	Standard
Sc	45		ug/L			439931	568209	3	Standard
Cr	52	15.292	ug/L	0.265	1	12483	314415	3	Standard
Cr	53	15.650	ug/L	0.167	1	120	35538	3	Standard
Mn	55	106.977	ug/L	1.175	1	1073	2925087	3	Standard
Ge	72		ug/L			28119	31225	1	KED
Ni	60	16.049	ug/L	0.857	5	28	16365	3	KED
Ni	62	16.480	ug/L	1.072	6	5	2705	4	KED
Cu	63	69.670	ug/L	2.037	2	42	199475	1	KED
Cu	65	69.809	ug/L	2.008	2	27	99260	2	KED
Zn	66	100.947	ug/L	6.152	6	29	36678	4	KED
Zn	67	93.941	ug/L	4.453	4	8	5655	3	KED
As	75	4.576	ug/L	0.286	6	7	849	4	KED
Se	78	1.037	ug/L	0.145	14	11	33	9	KED
Y	89		ug/L			276255	487185	3	Standard
Kr	83		ug/L			52	100	8	Standard
In-1	115		ug/L			7782	7951	11	KED
Mo	98	1.076	ug/L	0.100	9	8	798	1	KED
Cd	111	0.243	ug/L	0.027	10	4	48	21	KED
Cd	114	0.267	ug/L	0.069	26	5	120	18	KED
In	115		ug/L			475417	498835	3	Standard
Ag	107	0.301	ug/L	0.012	4	135	3452	6	Standard
Sb	121	0.009	ug/L	0.002	17	596	717	5	Standard
Sb	123	0.005	ug/L	0.006	115	475	534	7	Standard
Tb	159		ug/L			499801	592669	1	Standard
Tl	205	0.034	ug/L	0.002	5	224	1408	4	Standard
Pb	208	33.482	ug/L	1.413	4	359	1387593	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0518-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 21:40:24**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	68291	1	Standard
Cl	37		ug/L			3977931	4556678	2	Standard
Sc	45		ug/L			439931	563835	2	Standard
Cr	52	16.418	ug/L	0.217	1	12483	333784	0	Standard
Cr	53	16.918	ug/L	0.440	2	120	38096	0	Standard
Mn	55	98.690	ug/L	3.016	3	1073	2677033	1	Standard
Ge	72		ug/L			28119	31117	3	KED
Ni	60	12.443	ug/L	0.672	5	28	12645	2	KED
Ni	62	12.932	ug/L	0.452	3	5	2117	4	KED
Cu	63	57.627	ug/L	2.887	5	42	164348	3	KED
Cu	65	58.031	ug/L	1.919	3	27	82199	1	KED
Zn	66	92.607	ug/L	3.217	3	29	33535	1	KED
Zn	67	84.687	ug/L	5.600	6	8	5078	4	KED
As	75	4.398	ug/L	0.191	4	7	814	4	KED
Se	78	0.814	ug/L	0.194	23	11	29	13	KED
Y	89		ug/L			276255	487288	0	Standard
Kr	83		ug/L			52	97	8	Standard
In-1	115		ug/L			7782	8897	2	KED
Mo	98	0.946	ug/L	0.103	10	8	793	12	KED
Cd	111	0.194	ug/L	0.020	10	4	43	11	KED
Cd	114	0.159	ug/L	0.033	20	5	83	19	KED
In	115		ug/L			475417	504858	2	Standard
Ag	107	0.147	ug/L	0.010	6	135	1783	3	Standard
Sb	121	0.001	ug/L	0.002	157	596	646	2	Standard
Sb	123	-0.004	ug/L	0.009	212	475	472	11	Standard
Tb	159		ug/L			499801	588547	1	Standard
Tl	205	0.030	ug/L	0.001	4	224	1267	1	Standard
Pb	208	28.919	ug/L	0.683	2	359	1190495	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0518-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 21:45:15**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	64776	3	Standard
Cl	37		ug/L			3977931	4521602	2	Standard
Sc	45		ug/L			439931	563778	2	Standard
Cr	52	37.826	ug/L	1.077	2	12483	747976	1	Standard
Cr	53	38.246	ug/L	1.239	3	120	85911	1	Standard
Mn	55	125.664	ug/L	3.931	3	1073	3409571	4	Standard
Ge	72		ug/L			28119	30846	5	KED
Ni	60	40.947	ug/L	3.617	8	28	41113	5	KED
Ni	62	41.911	ug/L	2.706	6	5	6779	4	KED
Cu	63	93.101	ug/L	4.907	5	42	262903	1	KED
Cu	65	92.096	ug/L	4.639	5	27	129212	4	KED
Zn	66	217.827	ug/L	13.770	6	29	78040	2	KED
Zn	67	198.453	ug/L	9.928	5	8	11779	2	KED
As	75	27.934	ug/L	1.688	6	7	5076	2	KED
Se	78	71.275	ug/L	2.476	3	11	1410	3	KED
Y	89		ug/L			276255	482839	3	Standard
Kr	83		ug/L			52	100	25	Standard
In-1	115		ug/L			7782	8596	2	KED
Mo	98	1.362	ug/L	0.077	5	8	1096	4	KED
Cd	111	25.488	ug/L	0.704	2	4	4963	0	KED
Cd	114	25.932	ug/L	0.524	2	5	12219	0	KED
In	115		ug/L			475417	502680	0	Standard
Ag	107	25.861	ug/L	1.193	4	135	286735	4	Standard
Sb	121	0.076	ug/L	0.008	10	596	1381	5	Standard
Sb	123	0.070	ug/L	0.007	9	475	1030	4	Standard
Tb	159		ug/L			499801	591238	2	Standard
Tl	205	22.447	ug/L	0.406	1	224	751223	2	Standard
Pb	208	67.697	ug/L	1.720	2	359	2799473	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0518-MSD1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 21:50:05**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	62020	1	Standard
Cl	37		ug/L			3977931	4552692	0	Standard
Sc	45		ug/L			439931	554030	2	Standard
Cr	52	37.189	ug/L	2.587	6	12483	722270	4	Standard
Cr	53	37.827	ug/L	2.154	5	120	83462	3	Standard
Mn	55	136.371	ug/L	6.723	4	1073	3633069	3	Standard
Ge	72		ug/L			28119	30527	0	KED
Ni	60	38.543	ug/L	1.465	3	28	38396	3	KED
Ni	62	38.639	ug/L	3.360	8	5	6194	7	KED
Cu	63	85.936	ug/L	1.804	2	42	240579	1	KED
Cu	65	87.287	ug/L	2.896	3	27	121334	2	KED
Zn	66	207.846	ug/L	9.584	4	29	73828	3	KED
Zn	67	191.126	ug/L	3.435	1	8	11244	1	KED
As	75	28.698	ug/L	1.107	3	7	5169	3	KED
Se	78	73.529	ug/L	3.002	4	11	1440	3	KED
Y	89		ug/L			276255	476808	1	Standard
Kr	83		ug/L			52	118	16	Standard
In-1	115		ug/L			7782	8496	7	KED
Mo	98	1.028	ug/L	0.135	13	8	817	8	KED
Cd	111	24.737	ug/L	2.831	11	4	4734	4	KED
Cd	114	25.334	ug/L	2.433	9	5	11745	3	KED
In	115		ug/L			475417	492036	2	Standard
Ag	107	27.078	ug/L	0.919	3	135	293799	2	Standard
Sb	121	0.018	ug/L	0.003	17	596	787	4	Standard
Sb	123	0.019	ug/L	0.008	38	475	634	6	Standard
Tb	159		ug/L			499801	571706	4	Standard
Tl	205	23.219	ug/L	0.945	4	224	750906	3	Standard
Pb	208	55.193	ug/L	2.164	3	359	2204924	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0518-PS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 21:54:56**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	64280	2	Standard
Cl	37		ug/L			3977931	4588002	3	Standard
Sc	45		ug/L			439931	577213	4	Standard
Cr	52	37.216	ug/L	0.702	1	12483	753986	4	Standard
Cr	53	37.446	ug/L	0.739	1	120	86146	4	Standard
Mn	55	125.032	ug/L	1.790	1	1073	3474210	5	Standard
Ge	72		ug/L			28119	31360	1	KED
Ni	60	40.882	ug/L	2.967	7	28	41821	6	KED
Ni	62	42.397	ug/L	2.618	6	5	6980	4	KED
Cu	63	95.673	ug/L	6.308	6	42	275008	5	KED
Cu	65	95.280	ug/L	5.900	6	27	136000	4	KED
Zn	66	175.495	ug/L	10.704	6	29	64015	4	KED
Zn	67	165.642	ug/L	9.949	6	8	10006	4	KED
As	75	28.524	ug/L	1.643	5	7	5277	4	KED
Se	78	73.674	ug/L	3.361	4	11	1482	3	KED
Y	89		ug/L			276255	489985	5	Standard
Kr	83		ug/L			52	112	7	Standard
In-1	115		ug/L			7782	8799	3	KED
Mo	98	0.921	ug/L	0.015	1	8	763	3	KED
Cd	111	24.101	ug/L	0.314	1	4	4807	3	KED
Cd	114	24.333	ug/L	0.289	1	5	11738	1	KED
In	115		ug/L			475417	500347	2	Standard
Ag	107	27.559	ug/L	0.761	2	135	304310	5	Standard
Sb	121	0.008	ug/L	0.001	15	596	711	0	Standard
Sb	123	0.001	ug/L	0.006	483	475	510	9	Standard
Tb	159		ug/L			499801	581396	3	Standard
Tl	205	22.947	ug/L	0.439	1	224	755297	3	Standard
Pb	208	58.919	ug/L	1.655	2	359	2395967	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 22:00:52

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	41609	1	Standard
Cl	37		ug/L			3977931	4797575	4	Standard
[> Sc	45		ug/L			439931	485378	1	Standard
| Cr	52	49.576	ug/L	1.036	2	12483	840000	2	Standard
| Cr	53	49.968	ug/L	1.826	3	120	96623	3	Standard
| Mn	55	48.875	ug/L	1.536	3	1073	1142271	3	Standard
[> Ge	72		ug/L			28119	30581	4	KED
| Ni	60	49.623	ug/L	3.341	6	28	49426	2	KED
| Ni	62	50.354	ug/L	3.611	7	5	8072	2	KED
| Cu	63	49.914	ug/L	3.304	6	42	139748	2	KED
| Cu	65	49.743	ug/L	3.806	7	27	69139	3	KED
| Zn	66	50.749	ug/L	3.826	7	29	18047	3	KED
| Zn	67	50.202	ug/L	4.858	9	8	2957	5	KED
| As	75	49.118	ug/L	4.453	9	7	8837	4	KED
[Se	78	49.362	ug/L	3.871	7	11	970	3	KED
Y	89		ug/L			276255	296616	2	Standard
Kr	83		ug/L			52	55	10	Standard
[> In-1	115		ug/L			7782	8382	1	KED
| Mo	98	46.491	ug/L	3.096	6	8	36231	7	KED
| Cd	111	47.258	ug/L	3.362	7	4	8975	7	KED
| Cd	114	47.944	ug/L	4.513	9	5	22034	9	KED
[> In	115		ug/L			475417	491152	2	Standard
| Ag	107	53.317	ug/L	1.917	3	135	577719	5	Standard
| Sb	121	48.619	ug/L	0.703	1	596	472487	3	Standard
| Sb	123	48.839	ug/L	1.031	2	475	358587	3	Standard
[> Tb	159		ug/L			499801	557297	3	Standard
| Tl	205	46.361	ug/L	1.486	3	224	1461640	2	Standard
[Pb	208	49.350	ug/L	1.487	3	359	1922803	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 22:08:27

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	40003	3	Standard
Cl	37		ug/L			3977931	4598071	1	Standard
[> Sc	45		ug/L			439931	460440	1	Standard
| Cr	52	-0.024	ug/L	0.032	136	12483	12691	4	Standard
| Cr	53	0.305	ug/L	0.008	2	120	684	3	Standard
| Mn	55	-0.013	ug/L	0.001	4	1073	828	3	Standard
[> Ge	72		ug/L			28119	29278	3	KED
| Ni	60	-0.022	ug/L	0.002	11	28	8	26	KED
| Ni	62	0.003	ug/L	0.024	890	5	5	66	KED
| Cu	63	0.001	ug/L	0.003	302	42	46	16	KED
| Cu	65	-0.003	ug/L	0.006	195	27	24	32	KED
| Zn	66	-0.007	ug/L	0.021	291	29	28	23	KED
| Zn	67	0.017	ug/L	0.043	257	8	10	21	KED
| As	75	0.001	ug/L	0.024	1949	7	7	54	KED
| Se	78	-0.037	ug/L	0.060	161	11	11	11	KED
Y	89		ug/L			276255	285004	1	Standard
Kr	83		ug/L			52	49	38	Standard
[> In-1	115		ug/L			7782	8229	3	KED
| Mo	98	0.006	ug/L	0.005	74	8	14	29	KED
| Cd	111	0.007	ug/L	0.014	190	4	5	44	KED
| Cd	114	-0.003	ug/L	0.011	321	5	4	113	KED
[> In	115		ug/L			475417	482433	1	Standard
| Ag	107	-0.006	ug/L	0.002	33	135	75	27	Standard
| Sb	121	0.043	ug/L	0.006	13	596	1014	4	Standard
| Sb	123	0.037	ug/L	0.007	18	475	751	5	Standard
[> Tb	159		ug/L			499801	526817	1	Standard
| Tl	205	-0.003	ug/L	0.000	7	224	148	4	Standard
| Pb	208	-0.006	ug/L	0.000	4	359	158	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0724-BLK1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 22:13:18**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	47669	0	Standard
Cl	37		ug/L			3977931	4537436	0	Standard
[> Sc	45		ug/L			439931	466549	1	Standard
| Cr	52	-0.001	ug/L	0.050	4715	12483	13217	5	Standard
| Cr	53	0.308	ug/L	0.008	2	120	699	1	Standard
| Mn	55	-0.002	ug/L	0.002	116	1073	1097	3	Standard
[> Ge	72		ug/L			28119	30086	1	KED
| Ni	60	-0.014	ug/L	0.007	48	28	16	43	KED
| Ni	62	0.026	ug/L	0.021	79	5	9	34	KED
| Cu	63	0.009	ug/L	0.005	56	42	71	18	KED
| Cu	65	0.007	ug/L	0.007	105	27	38	25	KED
| Zn	66	0.180	ug/L	0.047	25	29	95	19	KED
| Zn	67	0.110	ug/L	0.054	48	8	15	18	KED
| As	75	-0.001	ug/L	0.009	793	7	7	22	KED
| Se	78	0.107	ug/L	0.255	237	11	14	32	KED
| Y	89		ug/L			276255	286234	3	Standard
| Kr	83		ug/L			52	63	45	Standard
[> In-1	115		ug/L			7782	8539	1	KED
| Mo	98	0.003	ug/L	0.003	83	8	12	18	KED
| Cd	111	0.013	ug/L	0.007	57	4	6	20	KED
| Cd	114	-0.003	ug/L	0.008	304	5	4	82	KED
[> In	115		ug/L			475417	491227	1	Standard
| Ag	107	-0.007	ug/L	0.000	4	135	63	4	Standard
| Sb	121	-0.032	ug/L	0.000	1	596	308	1	Standard
| Sb	123	-0.034	ug/L	0.003	7	475	245	8	Standard
[> Tb	159		ug/L			499801	541317	5	Standard
| Tl	205	-0.004	ug/L	0.000	10	224	123	14	Standard
| Pb	208	-0.006	ug/L	0.000	5	359	160	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0724-BS1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 22:18:09**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	49558	3	Standard
Cl	37		ug/L			3977931	4566885	2	Standard
[> Sc	45		ug/L			439931	485923	1	Standard
| Cr	52	12.597	ug/L	0.516	4	12483	223943	3	Standard
| Cr	53	12.993	ug/L	0.465	3	120	25256	4	Standard
| Mn	55	12.728	ug/L	0.904	7	1073	298518	5	Standard
[> Ge	72		ug/L			28119	30689	1	KED
| Ni	60	12.058	ug/L	0.798	6	28	12090	4	KED
| Ni	62	12.629	ug/L	0.836	6	5	2038	5	KED
| Cu	63	12.364	ug/L	0.586	4	42	34822	2	KED
| Cu	65	12.549	ug/L	0.638	5	27	17556	3	KED
| Zn	66	40.088	ug/L	1.898	4	29	14337	2	KED
| Zn	67	36.238	ug/L	4.564	12	8	2148	10	KED
| As	75	11.958	ug/L	0.678	5	7	2169	3	KED
| Se	78	37.955	ug/L	1.994	5	11	753	3	KED
| Y	89		ug/L			276255	298385	2	Standard
| Kr	83		ug/L			52	49	26	Standard
[> In-1	115		ug/L			7782	8394	0	KED
| Mo	98	0.000	ug/L	0.007	2018	8	9	59	KED
| Cd	111	13.221	ug/L	0.289	2	4	2517	1	KED
| Cd	114	12.962	ug/L	0.532	4	5	5969	4	KED
[> In	115		ug/L			475417	500605	0	Standard
| Ag	107	13.476	ug/L	0.795	5	135	148852	5	Standard
| Sb	121	-0.044	ug/L	0.002	4	596	195	8	Standard
| Sb	123	-0.045	ug/L	0.004	9	475	165	19	Standard
[> Tb	159		ug/L			499801	536353	2	Standard
| Tl	205	12.582	ug/L	0.574	4	224	381874	2	Standard
| Pb	208	13.176	ug/L	0.693	5	359	494209	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0330-29**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 22:23:00**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	51076	2	Standard
Cl	37		ug/L			3977931	4627395	0	Standard
[> Sc	45		ug/L			439931	533130	2	Standard
| Cr	52	0.102	ug/L	0.011	10	12483	16984	1	Standard
| Cr	53	0.762	ug/L	0.021	2	120	1763	2	Standard
| Mn	55	303.045	ug/L	9.613	3	1073	7769273	1	Standard
[> Ge	72		ug/L			28119	30785	1	KED
| Ni	60	0.456	ug/L	0.055	12	28	489	11	KED
| Ni	62	0.590	ug/L	0.039	6	5	100	6	KED
| Cu	63	0.189	ug/L	0.007	3	42	579	4	KED
| Cu	65	0.188	ug/L	0.021	11	27	293	9	KED
| Zn	66	0.459	ug/L	0.021	4	29	196	2	KED
| Zn	67	0.489	ug/L	0.110	22	8	38	17	KED
| As	75	5.476	ug/L	0.422	7	7	1001	8	KED
| Se	78	0.144	ug/L	0.176	122	11	15	23	KED
| Y	89		ug/L			276255	310856	0	Standard
| Kr	83		ug/L			52	62	25	Standard
[> In-1	115		ug/L			7782	8562	2	KED
| Mo	98	0.195	ug/L	0.030	15	8	165	15	KED
| Cd	111	-0.010	ug/L	0.005	51	4	2	43	KED
| Cd	114	0.007	ug/L	0.005	68	5	9	21	KED
[> In	115		ug/L			475417	506739	3	Standard
| Ag	107	-0.006	ug/L	0.000	5	135	73	3	Standard
| Sb	121	-0.042	ug/L	0.001	2	596	215	7	Standard
| Sb	123	-0.048	ug/L	0.003	6	475	146	17	Standard
[> Tb	159		ug/L			499801	555681	1	Standard
| Tl	205	-0.003	ug/L	0.000	15	224	166	6	Standard
| Pb	208	0.010	ug/L	0.001	7	359	804	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0330-39**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 22:27:50**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	52437	2	Standard
Cl	37		ug/L			3977931	4642789	1	Standard
> Sc	45		ug/L			439931	541732	2	Standard
| Cr	52	0.158	ug/L	0.020	12	12483	18305	1	Standard
| Cr	53	0.800	ug/L	0.024	3	120	1872	2	Standard
| Mn	55	752.507	ug/L	22.742	3	1073	19601625	1	Standard
> Ge	72		ug/L			28119	29796	0	KED
| Ni	60	0.393	ug/L	0.013	3	28	412	3	KED
| Ni	62	0.505	ug/L	0.007	1	5	84	1	KED
| Cu	63	0.255	ug/L	0.021	8	42	742	6	KED
| Cu	65	0.263	ug/L	0.006	2	27	386	2	KED
| Zn	66	0.442	ug/L	0.038	8	29	184	7	KED
| Zn	67	0.566	ug/L	0.168	29	8	41	23	KED
| As	75	1.813	ug/L	0.067	3	7	326	4	KED
| Se	78	0.203	ug/L	0.025	12	11	16	3	KED
Y	89		ug/L			276255	307567	2	Standard
Kr	83		ug/L			52	73	18	Standard
> In-1	115		ug/L			7782	8350	0	KED
| Mo	98	0.452	ug/L	0.022	4	8	360	4	KED
| Cd	111	0.010	ug/L	0.010	102	4	6	31	KED
| Cd	114	-0.005	ug/L	0.004	80	5	3	53	KED
> In	115		ug/L			475417	495667	1	Standard
| Ag	107	-0.007	ug/L	0.000	2	135	69	4	Standard
| Sb	121	-0.042	ug/L	0.001	1	596	215	3	Standard
| Sb	123	-0.047	ug/L	0.003	5	475	150	12	Standard
> Tb	159		ug/L			499801	554360	3	Standard
| Tl	205	-0.003	ug/L	0.000	7	224	142	7	Standard
| Pb	208	0.060	ug/L	0.001	2	359	2742	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0387-01**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 22:32:41**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	73546	4	Standard
Cl	37		ug/L			3977931	4413905	2	Standard
> Sc	45		ug/L			439931	507739	0	Standard
| Cr	52	28.788	ug/L	0.399	1	12483	516291	1	Standard
| Cr	53	28.887	ug/L	0.430	1	120	58499	1	Standard
| Mn	55	7.078	ug/L	0.243	3	1073	174103	3	Standard
> Ge	72		ug/L			28119	30803	1	KED
| Ni	60	0.180	ug/L	0.036	19	28	212	16	KED
| Ni	62	0.236	ug/L	0.052	21	5	43	19	KED
| Cu	63	0.538	ug/L	0.049	9	42	1564	7	KED
| Cu	65	0.534	ug/L	0.047	8	27	779	7	KED
| Zn	66	43.939	ug/L	2.730	6	29	15771	5	KED
| Zn	67	39.724	ug/L	2.212	5	8	2365	4	KED
| As	75	0.037	ug/L	0.007	17	7	14	8	KED
| Se	78	0.006	ug/L	0.179	2887	11	13	28	KED
| Y	89		ug/L			276255	307619	0	Standard
| Kr	83		ug/L			52	48	22	Standard
> In-1	115		ug/L			7782	8757	6	KED
| Mo	98	0.042	ug/L	0.011	27	8	44	19	KED
| Cd	111	0.271	ug/L	0.022	8	4	58	11	KED
| Cd	114	0.268	ug/L	0.065	24	5	133	17	KED
> In	115		ug/L			475417	512781	1	Standard
| Ag	107	0.006	ug/L	0.002	31	135	216	11	Standard
| Sb	121	-0.031	ug/L	0.003	8	596	328	6	Standard
| Sb	123	-0.033	ug/L	0.002	5	475	258	4	Standard
> Tb	159		ug/L			499801	560671	1	Standard
| Tl	205	-0.006	ug/L	0.000	2	224	74	7	Standard
| Pb	208	0.041	ug/L	0.003	6	359	2029	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0324-02**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 22:37:32**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	52670	3	Standard
Cl	37		ug/L			3977931	4456043	2	Standard
[> Sc	45		ug/L			439931	520555	2	Standard
| Cr	52	0.259	ug/L	0.032	12	12483	19401	5	Standard
| Cr	53	0.552	ug/L	0.026	4	120	1286	6	Standard
| Mn	55	4.311	ug/L	0.145	3	1073	109259	5	Standard
[> Ge	72		ug/L			28119	31337	1	KED
| Ni	60	0.400	ug/L	0.050	12	28	440	10	KED
| Ni	62	0.356	ug/L	0.082	22	5	64	18	KED
| Cu	63	0.374	ug/L	0.027	7	42	1120	5	KED
| Cu	65	0.356	ug/L	0.038	10	27	538	10	KED
| Zn	66	0.525	ug/L	0.078	14	29	224	10	KED
| Zn	67	0.425	ug/L	0.024	5	8	35	3	KED
| As	75	0.190	ug/L	0.017	9	7	43	9	KED
| Se	78	0.092	ug/L	0.111	120	11	14	12	KED
| Y	89		ug/L			276255	318951	3	Standard
| Kr	83		ug/L			52	53	14	Standard
[> In-1	115		ug/L			7782	8772	4	KED
| Mo	98	0.022	ug/L	0.006	25	8	28	18	KED
| Cd	111	-0.007	ug/L	0.006	79	4	3	34	KED
| Cd	114	0.002	ug/L	0.003	185	5	7	26	KED
[> In	115		ug/L			475417	525615	1	Standard
| Ag	107	-0.002	ug/L	0.002	89	135	123	20	Standard
| Sb	121	-0.043	ug/L	0.002	4	596	217	9	Standard
| Sb	123	-0.045	ug/L	0.005	10	475	176	20	Standard
[> Tb	159		ug/L			499801	567335	1	Standard
| Tl	205	-0.007	ug/L	0.001	8	224	41	42	Standard
| Pb	208	0.043	ug/L	0.001	1	359	2120	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0724-DUP1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 22:42:22**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	53546	2	Standard
Cl	37		ug/L			3977931	4323243	2	Standard
[> Sc	45		ug/L			439931	506634	1	Standard
| Cr	52	0.322	ug/L	0.042	13	12483	19976	2	Standard
| Cr	53	0.559	ug/L	0.018	3	120	1265	1	Standard
| Mn	55	4.398	ug/L	0.080	1	1073	108415	2	Standard
[> Ge	72		ug/L			28119	31380	2	KED
| Ni	60	0.380	ug/L	0.008	2	28	420	1	KED
| Ni	62	0.369	ug/L	0.083	22	5	66	22	KED
| Cu	63	0.352	ug/L	0.038	10	42	1059	8	KED
| Cu	65	0.372	ug/L	0.032	8	27	561	6	KED
| Zn	66	0.457	ug/L	0.078	17	29	200	14	KED
| Zn	67	0.625	ug/L	0.073	11	8	47	6	KED
| As	75	0.198	ug/L	0.005	2	7	44	4	KED
| Se	78	-0.021	ug/L	0.097	454	11	12	13	KED
| Y	89		ug/L			276255	305470	3	Standard
| Kr	83		ug/L			52	46	22	Standard
[> In-1	115		ug/L			7782	8826	2	KED
| Mo	98	0.031	ug/L	0.008	25	8	35	20	KED
| Cd	111	0.002	ug/L	0.010	498	4	5	39	KED
| Cd	114	-0.007	ug/L	0.005	64	5	2	79	KED
[> In	115		ug/L			475417	517494	1	Standard
| Ag	107	-0.003	ug/L	0.001	39	135	107	15	Standard
| Sb	121	-0.046	ug/L	0.003	5	596	181	13	Standard
| Sb	123	-0.047	ug/L	0.003	7	475	151	16	Standard
[> Tb	159		ug/L			499801	556197	0	Standard
| Tl	205	-0.006	ug/L	0.001	8	224	48	32	Standard
| Pb	208	0.045	ug/L	0.002	3	359	2168	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0724-MS1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 22:47:13**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	52357	1	Standard
Cl	37		ug/L			3977931	4411339	0	Standard
[> Sc	45		ug/L			439931	512589	2	Standard
| Cr	52	12.186	ug/L	0.779	6	12483	228871	4	Standard
| Cr	53	12.501	ug/L	0.808	6	120	25623	5	Standard
| Mn	55	16.550	ug/L	0.843	5	1073	409121	3	Standard
[> Ge	72		ug/L			28119	30330	6	KED
| Ni	60	12.827	ug/L	0.616	4	28	12704	5	KED
| Ni	62	13.373	ug/L	0.555	4	5	2132	5	KED
| Cu	63	12.891	ug/L	0.143	1	42	35916	7	KED
| Cu	65	12.949	ug/L	0.599	4	27	17903	6	KED
| Zn	66	40.612	ug/L	0.931	2	29	14357	5	KED
| Zn	67	38.506	ug/L	1.323	3	8	2258	7	KED
| As	75	12.307	ug/L	0.277	2	7	2206	5	KED
| Se	78	36.554	ug/L	0.551	1	11	718	7	KED
| Y	89		ug/L			276255	313157	0	Standard
| Kr	83		ug/L			52	60	25	Standard
[> In-1	115		ug/L			7782	8498	2	KED
| Mo	98	0.040	ug/L	0.011	28	8	40	19	KED
| Cd	111	12.039	ug/L	0.353	2	4	2320	1	KED
| Cd	114	12.172	ug/L	0.299	2	5	5673	1	KED
[> In	115		ug/L			475417	519349	1	Standard
| Ag	107	12.904	ug/L	0.556	4	135	147875	3	Standard
| Sb	121	-0.047	ug/L	0.002	3	596	167	9	Standard
| Sb	123	-0.048	ug/L	0.001	2	475	149	5	Standard
[> Tb	159		ug/L			499801	563624	1	Standard
| Tl	205	11.493	ug/L	0.490	4	224	366681	2	Standard
| Pb	208	12.343	ug/L	0.600	4	359	486662	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL7

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 22:52:04

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	42792	2	Standard
Cl	37		ug/L			3977931	4289242	2	Standard
[> Sc	45		ug/L			439931	475949	1	Standard
| Cr	52	-0.013	ug/L	0.011	83	12483	13289	3	Standard
| Cr	53	0.213	ug/L	0.027	12	120	533	7	Standard
| Mn	55	-0.004	ug/L	0.001	14	1073	1068	0	Standard
[> Ge	72		ug/L			28119	30412	1	KED
| Ni	60	-0.024	ug/L	0.005	21	28	7	66	KED
| Ni	62	-0.011	ug/L	0.000	3	5	3	0	KED
| Cu	63	0.012	ug/L	0.002	18	42	80	9	KED
| Cu	65	0.004	ug/L	0.009	230	27	34	35	KED
| Zn	66	-0.002	ug/L	0.021	1299	29	31	24	KED
| Zn	67	-0.056	ug/L	0.067	118	8	6	62	KED
| As	75	-0.013	ug/L	0.008	62	7	5	25	KED
[Se	78	0.024	ug/L	0.257	1055	11	13	36	KED
Y	89		ug/L			276255	292426	0	Standard
Kr	83		ug/L			52	53	10	Standard
[> In-1	115		ug/L			7782	8660	2	KED
| Mo	98	-0.006	ug/L	0.006	101	8	4	103	KED
| Cd	111	-0.012	ug/L	0.012	99	4	2	107	KED
| Cd	114	0.001	ug/L	0.008	653	5	6	58	KED
[> In	115		ug/L			475417	495036	1	Standard
| Ag	107	-0.008	ug/L	0.000	0	135	54	2	Standard
| Sb	121	-0.056	ug/L	0.001	1	596	72	9	Standard
| Sb	123	-0.060	ug/L	0.002	3	475	53	29	Standard
[> Tb	159		ug/L			499801	531431	1	Standard
| Tl	205	-0.007	ug/L	0.000	6	224	30	45	Standard
[Pb	208	-0.006	ug/L	0.001	8	359	154	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 22:56:56

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	42224	3	Standard
Cl	37		ug/L			3977931	4741313	2	Standard
[> Sc	45		ug/L			439931	499103	0	Standard
| Cr	52	46.778	ug/L	2.606	5	12483	815894	5	Standard
| Cr	53	47.309	ug/L	2.972	6	120	94098	6	Standard
| Mn	55	45.516	ug/L	2.357	5	1073	1094097	5	Standard
[> Ge	72		ug/L			28119	30746	0	KED
| Ni	60	48.826	ug/L	2.011	4	28	49002	4	KED
| Ni	62	49.109	ug/L	1.404	2	5	7932	3	KED
| Cu	63	49.382	ug/L	0.497	1	42	139282	1	KED
| Cu	65	49.506	ug/L	0.639	1	27	69338	1	KED
| Zn	66	50.417	ug/L	1.473	2	29	18069	3	KED
| Zn	67	49.300	ug/L	3.698	7	8	2929	8	KED
| As	75	48.902	ug/L	0.996	2	7	8870	2	KED
[Se	78	50.006	ug/L	2.492	4	11	991	5	KED
Y	89		ug/L			276255	302033	0	Standard
Kr	83		ug/L			52	62	30	Standard
[> In-1	115		ug/L			7782	8652	1	KED
| Mo	98	47.919	ug/L	0.532	1	8	38540	2	KED
| Cd	111	48.934	ug/L	0.915	1	4	9592	3	KED
[Cd	114	50.988	ug/L	0.442	0	5	24184	2	KED
[> In	115		ug/L			475417	496220	1	Standard
| Ag	107	49.141	ug/L	3.435	6	135	537505	5	Standard
| Sb	121	47.192	ug/L	2.905	6	596	463077	4	Standard
[Sb	123	46.478	ug/L	2.871	6	475	344609	4	Standard
[> Tb	159		ug/L			499801	548988	0	Standard
| Tl	205	45.930	ug/L	1.618	3	224	1427203	3	Standard
[Pb	208	48.585	ug/L	1.852	3	359	1865896	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 23:04:31

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	40331	2	Standard
Cl	37		ug/L			3977931	4610347	2	Standard
[> Sc	45		ug/L			439931	488594	0	Standard
| Cr	52	-0.007	ug/L	0.006	90	12483	13748	1	Standard
| Cr	53	0.210	ug/L	0.010	4	120	542	3	Standard
| Mn	55	-0.014	ug/L	0.001	3	1073	859	0	Standard
[> Ge	72		ug/L			28119	28918	5	KED
| Ni	60	-0.021	ug/L	0.009	40	28	9	87	KED
| Ni	62	0.008	ug/L	0.034	406	5	6	75	KED
| Cu	63	-0.001	ug/L	0.005	570	42	41	27	KED
| Cu	65	-0.004	ug/L	0.007	183	27	22	36	KED
| Zn	66	-0.002	ug/L	0.006	259	29	29	7	KED
| Zn	67	-0.062	ug/L	0.088	141	8	5	88	KED
| As	75	-0.008	ug/L	0.000	4	7	6	4	KED
| Se	78	0.314	ug/L	0.136	43	11	17	18	KED
Y	89		ug/L			276255	293437	0	Standard
Kr	83		ug/L			52	48	19	Standard
[> In-1	115		ug/L			7782	8272	0	KED
| Mo	98	-0.001	ug/L	0.005	743	8	8	41	KED
| Cd	111	0.005	ug/L	0.008	143	4	5	26	KED
| Cd	114	0.003	ug/L	0.011	314	5	7	65	KED
[> In	115		ug/L			475417	497215	2	Standard
| Ag	107	-0.006	ug/L	0.001	14	135	74	12	Standard
| Sb	121	0.045	ug/L	0.005	10	596	1065	3	Standard
| Sb	123	0.042	ug/L	0.008	19	475	805	7	Standard
[> Tb	159		ug/L			499801	532664	1	Standard
| Tl	205	-0.005	ug/L	0.000	1	224	73	1	Standard
| Pb	208	-0.006	ug/L	0.001	14	359	154	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0716-BLK1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 23:09:23**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	58337	2	Standard
Cl	37		ug/L			3977931	4694940	2	Standard
Sc	45		ug/L			439931	559288	1	Standard
Cr	52	0.160	ug/L	0.042	25	12483	18943	3	Standard
Cr	53	0.373	ug/L	0.002	0	120	982	0	Standard
Mn	55	0.166	ug/L	0.009	5	1073	5830	3	Standard
Ge	72		ug/L			28119	31647	1	KED
Ni	60	0.079	ug/L	0.011	13	28	113	10	KED
Ni	62	0.107	ug/L	0.058	54	5	23	41	KED
Cu	63	0.444	ug/L	0.033	7	42	1334	6	KED
Cu	65	0.462	ug/L	0.044	9	27	695	8	KED
Zn	66	1.379	ug/L	0.115	8	29	540	7	KED
Zn	67	1.212	ug/L	0.182	14	8	83	12	KED
As	75	0.006	ug/L	0.013	207	7	9	25	KED
Se	78	-0.003	ug/L	0.100	3983	11	13	14	KED
Y	89		ug/L			276255	340054	2	Standard
Kr	83		ug/L			52	49	21	Standard
In-1	115		ug/L			7782	9243	6	KED
Mo	98	0.029	ug/L	0.008	27	8	35	21	KED
Cd	111	-0.006	ug/L	0.006	100	4	3	31	KED
Cd	114	-0.004	ug/L	0.007	187	5	4	74	KED
In	115		ug/L			475417	538825	1	Standard
Ag	107	0.005	ug/L	0.002	36	135	217	9	Standard
Sb	121	-0.007	ug/L	0.002	28	596	605	4	Standard
Sb	123	-0.008	ug/L	0.004	46	475	478	5	Standard
Tb	159		ug/L			499801	583406	2	Standard
Tl	205	-0.005	ug/L	0.000	6	224	86	12	Standard
Pb	208	0.053	ug/L	0.003	6	359	2577	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0716-BS1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 23:14:13**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	55356	3	Standard
Cl	37		ug/L			3977931	4646416	1	Standard
Sc	45		ug/L			439931	550586	0	Standard
Cr	52	12.281	ug/L	0.650	5	12483	247709	3	Standard
Cr	53	12.470	ug/L	0.580	4	120	27461	3	Standard
Mn	55	12.336	ug/L	0.461	3	1073	328000	2	Standard
Ge	72		ug/L			28119	32244	1	KED
Ni	60	12.442	ug/L	0.125	1	28	13115	0	KED
Ni	62	12.578	ug/L	0.571	4	5	2134	3	KED
Cu	63	12.612	ug/L	0.191	1	42	37336	0	KED
Cu	65	12.814	ug/L	0.235	1	27	18841	0	KED
Zn	66	33.569	ug/L	0.840	2	29	12624	1	KED
Zn	67	30.174	ug/L	0.297	0	8	1883	1	KED
As	75	10.289	ug/L	0.024	0	7	1963	1	KED
Se	78	27.117	ug/L	0.529	1	11	569	2	KED
Y	89		ug/L			276255	341294	2	Standard
Kr	83		ug/L			52	54	15	Standard
In-1	115		ug/L			7782	9241	0	KED
Mo	98	0.041	ug/L	0.009	21	8	45	16	KED
Cd	111	10.414	ug/L	0.261	2	4	2183	2	KED
Cd	114	10.380	ug/L	0.377	3	5	5263	3	KED
In	115		ug/L			475417	535148	1	Standard
Ag	107	12.765	ug/L	0.255	2	135	150796	3	Standard
Sb	121	-0.033	ug/L	0.002	7	596	326	9	Standard
Sb	123	-0.034	ug/L	0.004	11	475	260	11	Standard
Tb	159		ug/L			499801	580093	1	Standard
Tl	205	11.889	ug/L	0.473	3	224	390559	3	Standard
Pb	208	12.430	ug/L	0.361	2	359	504645	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0324-02RE1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 23:19:04**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	58181	0	Standard
Cl	37		ug/L			3977931	4481657	1	Standard
Sc	45		ug/L			439931	600978	1	Standard
Cr	52	2.764	ug/L	0.081	2	12483	74097	3	Standard
Cr	53	3.062	ug/L	0.095	3	120	7488	4	Standard
Mn	55	39.684	ug/L	0.998	2	1073	1148912	3	Standard
Ge	72		ug/L			28119	32165	0	KED
Ni	60	3.924	ug/L	0.140	3	28	4148	3	KED
Ni	62	4.317	ug/L	0.188	4	5	734	3	KED
Cu	63	3.133	ug/L	0.165	5	42	9289	4	KED
Cu	65	3.196	ug/L	0.131	4	27	4711	3	KED
Zn	66	3.399	ug/L	0.085	2	29	1306	3	KED
Zn	67	4.110	ug/L	0.222	5	8	264	5	KED
As	75	0.558	ug/L	0.015	2	7	113	2	KED
Se	78	0.326	ug/L	0.123	37	11	20	12	KED
Y	89		ug/L			276255	371012	0	Standard
Kr	83		ug/L			52	70	24	Standard
In-1	115		ug/L			7782	9249	1	KED
Mo	98	0.045	ug/L	0.012	26	8	48	22	KED
Cd	111	0.002	ug/L	0.003	108	4	5	10	KED
Cd	114	0.008	ug/L	0.007	83	5	10	29	KED
In	115		ug/L			475417	541878	1	Standard
Ag	107	0.004	ug/L	0.002	48	135	206	12	Standard
Sb	121	-0.020	ug/L	0.001	3	596	469	1	Standard
Sb	123	-0.024	ug/L	0.003	10	475	350	6	Standard
Tb	159		ug/L			499801	585989	2	Standard
Tl	205	0.001	ug/L	0.001	58	224	307	7	Standard
Pb	208	0.447	ug/L	0.018	4	359	18727	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0716-DUP1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 23:23:55**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	60185	1	Standard
Cl	37		ug/L			3977931	4475271	1	Standard
Sc	45		ug/L			439931	599778	1	Standard
Cr	52	2.649	ug/L	0.091	3	12483	71569	1	Standard
Cr	53	2.901	ug/L	0.144	4	120	7085	3	Standard
Mn	55	38.488	ug/L	2.182	5	1073	1111489	4	Standard
Ge	72		ug/L			28119	31797	3	KED
Ni	60	3.969	ug/L	0.021	0	28	4148	3	KED
Ni	62	4.109	ug/L	0.240	5	5	690	2	KED
Cu	63	3.399	ug/L	0.128	3	42	9952	0	KED
Cu	65	3.423	ug/L	0.028	0	27	4986	2	KED
Zn	66	3.513	ug/L	0.188	5	29	1332	3	KED
Zn	67	4.683	ug/L	0.386	8	8	297	10	KED
As	75	0.586	ug/L	0.082	13	7	118	15	KED
Se	78	0.024	ug/L	0.182	747	11	13	23	KED
Y	89		ug/L			276255	357458	2	Standard
Kr	83		ug/L			52	66	3	Standard
In-1	115		ug/L			7782	9287	1	KED
Mo	98	0.035	ug/L	0.009	25	8	40	18	KED
Cd	111	-0.010	ug/L	0.008	81	4	2	57	KED
Cd	114	0.003	ug/L	0.008	235	5	8	46	KED
In	115		ug/L			475417	533466	2	Standard
Ag	107	0.008	ug/L	0.002	26	135	243	11	Standard
Sb	121	0.020	ug/L	0.010	50	596	875	10	Standard
Sb	123	0.015	ug/L	0.006	40	475	653	5	Standard
Tb	159		ug/L			499801	583055	3	Standard
Tl	205	0.002	ug/L	0.001	74	224	314	10	Standard
Pb	208	0.431	ug/L	0.021	4	359	17991	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0716-MS1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Wednesday, March 01, 2023 23:28:45**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	57345	1	Standard
Cl	37		ug/L			3977931	4554457	2	Standard
Sc	45		ug/L			439931	639325	3	Standard
Cr	52	14.391	ug/L	0.572	3	12483	334146	6	Standard
Cr	53	14.900	ug/L	0.717	4	120	38098	7	Standard
Mn	55	59.562	ug/L	2.033	3	1073	1834178	6	Standard
Ge	72		ug/L			28119	32070	0	KED
Ni	60	17.606	ug/L	0.486	2	28	18447	2	KED
Ni	62	17.851	ug/L	0.452	2	5	3011	2	KED
Cu	63	16.591	ug/L	0.411	2	42	48838	2	KED
Cu	65	16.517	ug/L	0.322	1	27	24148	1	KED
Zn	66	36.750	ug/L	1.139	3	29	13744	2	KED
Zn	67	35.807	ug/L	2.127	5	8	2221	5	KED
As	75	10.768	ug/L	0.251	2	7	2043	1	KED
Se	78	27.598	ug/L	0.335	1	11	576	0	KED
Y	89		ug/L			276255	380471	5	Standard
Kr	83		ug/L			52	61	25	Standard
In-1	115		ug/L			7782	9112	1	KED
Mo	98	0.044	ug/L	0.004	8	8	47	7	KED
Cd	111	10.821	ug/L	0.383	3	4	2237	4	KED
Cd	114	10.765	ug/L	0.217	2	5	5382	0	KED
In	115		ug/L			475417	539893	2	Standard
Ag	107	12.901	ug/L	0.228	1	135	153760	3	Standard
Sb	121	-0.019	ug/L	0.003	16	596	470	8	Standard
Sb	123	-0.025	ug/L	0.003	10	475	338	6	Standard
Tb	159		ug/L			499801	598416	5	Standard
Tl	205	12.046	ug/L	0.413	3	224	407732	2	Standard
Pb	208	13.167	ug/L	0.278	2	359	551111	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL8

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 23:33:37

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	43832	1	Standard
Cl	37		ug/L			3977931	4374346	3	Standard
[> Sc	45		ug/L			439931	479674	2	Standard
| Cr	52	-0.060	ug/L	0.042	70	12483	12603	3	Standard
| Cr	53	0.176	ug/L	0.001	0	120	467	2	Standard
| Mn	55	0.002	ug/L	0.003	171	1073	1203	3	Standard
[> Ge	72		ug/L			28119	29561	0	KED
| Ni	60	-0.025	ug/L	0.006	23	28	5	100	KED
| Ni	62	0.010	ug/L	0.049	476	5	6	110	KED
| Cu	63	0.012	ug/L	0.001	7	42	77	3	KED
| Cu	65	0.008	ug/L	0.005	66	27	39	18	KED
| Zn	66	0.009	ug/L	0.006	74	29	34	5	KED
| Zn	67	-0.019	ug/L	0.039	206	8	8	26	KED
| As	75	0.002	ug/L	0.003	123	7	7	6	KED
| Se	78	-0.007	ug/L	0.224	3123	11	12	35	KED
Y	89		ug/L			276255	291420	1	Standard
Kr	83		ug/L			52	54	21	Standard
[> In-1	115		ug/L			7782	8242	5	KED
| Mo	98	-0.000	ug/L	0.001	471	8	9	2	KED
| Cd	111	-0.003	ug/L	0.009	269	4	3	50	KED
| Cd	114	0.001	ug/L	0.002	404	5	6	16	KED
[> In	115		ug/L			475417	492781	2	Standard
| Ag	107	-0.008	ug/L	0.001	17	135	52	27	Standard
| Sb	121	-0.056	ug/L	0.001	1	596	72	9	Standard
| Sb	123	-0.060	ug/L	0.001	1	475	51	11	Standard
[> Tb	159		ug/L			499801	519307	3	Standard
| Tl	205	-0.007	ug/L	0.000	3	224	34	17	Standard
| Pb	208	-0.006	ug/L	0.001	8	359	138	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 23:38:28

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	43693	0	Standard
Cl	37		ug/L			3977931	4808320	1	Standard
[> Sc	45		ug/L			439931	499683	3	Standard
| Cr	52	48.449	ug/L	2.057	4	12483	844761	1	Standard
| Cr	53	48.145	ug/L	1.196	2	120	95838	3	Standard
| Mn	55	48.346	ug/L	1.642	3	1073	1162693	2	Standard
[> Ge	72		ug/L			28119	30446	1	KED
| Ni	60	47.682	ug/L	1.790	3	28	47387	4	KED
| Ni	62	49.415	ug/L	0.941	1	5	7904	2	KED
| Cu	63	48.764	ug/L	2.355	4	42	136188	4	KED
| Cu	65	48.550	ug/L	1.596	3	27	67338	3	KED
| Zn	66	48.791	ug/L	1.985	4	29	17313	4	KED
| Zn	67	49.585	ug/L	3.095	6	8	2917	6	KED
| As	75	48.108	ug/L	1.489	3	7	8640	3	KED
[Se	78	48.501	ug/L	2.069	4	11	952	3	KED
Y	89		ug/L			276255	307772	2	Standard
Kr	83		ug/L			52	60	39	Standard
[> In-1	115		ug/L			7782	8179	0	KED
| Mo	98	47.503	ug/L	3.304	6	8	36116	6	KED
| Cd	111	48.572	ug/L	2.787	5	4	8999	5	KED
| Cd	114	49.098	ug/L	3.687	7	5	22014	7	KED
[> In	115		ug/L			475417	503044	2	Standard
| Ag	107	50.271	ug/L	3.263	6	135	557285	4	Standard
| Sb	121	47.500	ug/L	2.167	4	596	472478	3	Standard
| Sb	123	47.017	ug/L	2.457	5	475	353353	3	Standard
[> Tb	159		ug/L			499801	560652	2	Standard
| Tl	205	45.571	ug/L	3.445	7	224	1444629	5	Standard
[Pb	208	48.467	ug/L	3.276	6	359	1899070	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 23:46:04

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	41947	2	Standard
Cl	37		ug/L			3977931	4602678	1	Standard
[> Sc	45		ug/L			439931	475576	2	Standard
| Cr	52	-0.049	ug/L	0.041	83	12483	12689	4	Standard
| Cr	53	0.193	ug/L	0.031	15	120	495	10	Standard
| Mn	55	-0.009	ug/L	0.000	5	1073	957	3	Standard
[> Ge	72		ug/L			28119	29738	2	KED
| Ni	60	-0.017	ug/L	0.003	16	28	13	20	KED
| Ni	62	0.002	ug/L	0.012	547	5	5	33	KED
| Cu	63	0.004	ug/L	0.000	4	42	55	3	KED
| Cu	65	-0.004	ug/L	0.004	83	27	22	22	KED
| Zn	66	0.002	ug/L	0.007	274	29	32	5	KED
| Zn	67	-0.075	ug/L	0.051	68	8	5	57	KED
| As	75	-0.003	ug/L	0.010	312	7	6	27	KED
| Se	78	-0.113	ug/L	0.059	51	11	10	8	KED
Y	89		ug/L			276255	294762	3	Standard
Kr	83		ug/L			52	50	31	Standard
[> In-1	115		ug/L			7782	8258	0	KED
| Mo	98	0.005	ug/L	0.006	123	8	13	35	KED
| Cd	111	0.000	ug/L	0.012	2972	4	4	49	KED
| Cd	114	-0.002	ug/L	0.003	114	5	4	23	KED
[> In	115		ug/L			475417	491722	2	Standard
| Ag	107	-0.006	ug/L	0.002	25	135	75	23	Standard
| Sb	121	0.043	ug/L	0.002	3	596	1035	3	Standard
| Sb	123	0.042	ug/L	0.008	18	475	797	7	Standard
[> Tb	159		ug/L			499801	519915	1	Standard
| Tl	205	-0.005	ug/L	0.001	13	224	95	20	Standard
| Pb	208	-0.005	ug/L	0.001	12	359	193	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 23:50:54

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	49350	1	Standard
Cl	37		ug/L			3977931	4710430	1	Standard
> Sc	45		ug/L			439931	584834	0	Standard
| Cr	52	0.004	ug/L	0.025	667	12483	16667	2	Standard
| Cr	53	0.145	ug/L	0.020	13	120	497	8	Standard
| Mn	55	0.004	ug/L	0.002	38	1073	1544	3	Standard
> Ge	72		ug/L			28119	31601	1	KED
| Ni	60	-0.022	ug/L	0.007	30	28	9	72	KED
| Ni	62	0.008	ug/L	0.023	311	5	6	56	KED
| Cu	63	0.003	ug/L	0.004	131	42	55	18	KED
| Cu	65	0.005	ug/L	0.007	138	27	38	26	KED
| Zn	66	-0.015	ug/L	0.011	71	29	27	15	KED
| Zn	67	-0.070	ug/L	0.033	46	8	5	33	KED
| As	75	-0.004	ug/L	0.009	231	7	7	24	KED
| Se	78	0.016	ug/L	0.166	1045	11	13	25	KED
Y	89		ug/L			276255	353157	2	Standard
Kr	83		ug/L			52	62	23	Standard
> In-1	115		ug/L			7782	9431	2	KED
| Mo	98	-0.006	ug/L	0.002	26	8	5	25	KED
| Cd	111	-0.003	ug/L	0.003	117	4	4	12	KED
| Cd	114	0.006	ug/L	0.003	43	5	10	11	KED
> In	115		ug/L			475417	557206	2	Standard
| Ag	107	-0.008	ug/L	0.000	3	135	64	4	Standard
| Sb	121	-0.012	ug/L	0.005	43	596	570	9	Standard
| Sb	123	-0.013	ug/L	0.004	27	475	448	8	Standard
> Tb	159		ug/L			499801	593603	3	Standard
| Tl	205	-0.006	ug/L	0.000	2	224	56	7	Standard
| Pb	208	-0.008	ug/L	0.000	1	359	108	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, March 01, 2023 23:55:46

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	50160	2	Standard
Cl	37		ug/L			3977931	4766555	2	Standard
[> Sc	45		ug/L			439931	589999	0	Standard
| Cr	52	0.002	ug/L	0.032	1399	12483	16791	4	Standard
| Cr	53	0.139	ug/L	0.008	5	120	487	3	Standard
| Mn	55	0.003	ug/L	0.002	62	1073	1534	4	Standard
[> Ge	72		ug/L			28119	32345	0	KED
| Ni	60	-0.025	ug/L	0.006	22	28	6	83	KED
| Ni	62	0.018	ug/L	0.007	37	5	8	12	KED
| Cu	63	0.013	ug/L	0.003	25	42	88	10	KED
| Cu	65	0.006	ug/L	0.000	2	27	40	0	KED
| Zn	66	-0.025	ug/L	0.009	33	29	24	13	KED
| Zn	67	-0.052	ug/L	0.093	177	8	6	83	KED
| As	75	-0.016	ug/L	0.009	56	7	5	35	KED
[Se	78	0.083	ug/L	0.067	80	11	15	8	KED
Y	89		ug/L			276255	359116	1	Standard
Kr	83		ug/L			52	51	9	Standard
[> In-1	115		ug/L			7782	9469	1	KED
| Mo	98	-0.006	ug/L	0.006	95	8	5	94	KED
| Cd	111	-0.011	ug/L	0.007	60	4	2	57	KED
| Cd	114	-0.004	ug/L	0.011	310	5	4	119	KED
[> In	115		ug/L			475417	558067	1	Standard
| Ag	107	-0.009	ug/L	0.001	12	135	50	28	Standard
| Sb	121	-0.037	ug/L	0.001	2	596	293	2	Standard
[Sb	123	-0.041	ug/L	0.002	5	475	214	6	Standard
[> Tb	159		ug/L			499801	599290	3	Standard
| Tl	205	-0.007	ug/L	0.000	5	224	28	40	Standard
[Pb	208	-0.008	ug/L	0.000	2	359	103	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, March 02, 2023 00:00:37

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	49902	4	Standard
Cl	37		ug/L			3977931	4617602	1	Standard
[> Sc	45		ug/L			439931	557678	2	Standard
| Cr	52	0.017	ug/L	0.026	147	12483	16154	3	Standard
| Cr	53	0.157	ug/L	0.007	4	120	501	1	Standard
| Mn	55	0.005	ug/L	0.002	35	1073	1497	1	Standard
[> Ge	72		ug/L			28119	32092	1	KED
| Ni	60	-0.023	ug/L	0.001	4	28	8	13	KED
| Ni	62	0.015	ug/L	0.013	91	5	8	26	KED
| Cu	63	0.010	ug/L	0.003	29	42	78	9	KED
| Cu	65	0.007	ug/L	0.014	185	27	41	48	KED
| Zn	66	-0.049	ug/L	0.011	22	29	15	24	KED
| Zn	67	-0.093	ug/L	0.035	37	8	4	49	KED
| As	75	-0.012	ug/L	0.004	31	7	5	12	KED
[Se	78	0.206	ug/L	0.070	33	11	17	9	KED
Y	89		ug/L			276255	345131	5	Standard
Kr	83		ug/L			52	47	4	Standard
[> In-1	115		ug/L			7782	9254	2	KED
| Mo	98	-0.002	ug/L	0.007	265	8	8	69	KED
| Cd	111	-0.013	ug/L	0.010	76	4	2	89	KED
[Cd	114	-0.003	ug/L	0.004	117	5	4	41	KED
[> In	115		ug/L			475417	533941	4	Standard
| Ag	107	-0.009	ug/L	0.001	7	135	50	11	Standard
| Sb	121	-0.047	ug/L	0.002	3	596	170	13	Standard
[Sb	123	-0.049	ug/L	0.002	3	475	147	10	Standard
[> Tb	159		ug/L			499801	570747	6	Standard
| Tl	205	-0.007	ug/L	0.000	4	224	24	46	Standard
[Pb	208	-0.008	ug/L	0.000	1	359	97	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, March 02, 2023 00:05:28

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	44295	0	Standard
Cl	37		ug/L			3977931	4400153	0	Standard
[> Sc	45		ug/L			439931	456064	1	Standard
| Cr	52	-0.060	ug/L	0.033	55	12483	11996	3	Standard
| Cr	53	0.158	ug/L	0.005	3	120	412	2	Standard
| Mn	55	0.004	ug/L	0.001	28	1073	1198	1	Standard
[> Ge	72		ug/L			28119	28952	3	KED
| Ni	60	-0.025	ug/L	0.002	8	28	5	33	KED
| Ni	62	-0.005	ug/L	0.006	118	5	4	24	KED
| Cu	63	-0.006	ug/L	0.006	103	42	28	52	KED
| Cu	65	-0.014	ug/L	0.003	21	27	10	39	KED
| Zn	66	-0.040	ug/L	0.007	17	29	17	11	KED
| Zn	67	-0.153	ug/L	0.020	13	8	0	173	KED
| As	75	-0.009	ug/L	0.002	26	7	5	4	KED
| Se	78	0.093	ug/L	0.033	35	11	13	2	KED
Y	89		ug/L			276255	280137	0	Standard
Kr	83		ug/L			52	48	8	Standard
[> In-1	115		ug/L			7782	7958	3	KED
| Mo	98	0.002	ug/L	0.002	63	8	10	9	KED
| Cd	111	0.007	ug/L	0.006	94	4	5	20	KED
| Cd	114	-0.000	ug/L	0.014	97933	5	5	102	KED
[> In	115		ug/L			475417	476446	1	Standard
| Ag	107	-0.009	ug/L	0.001	7	135	42	18	Standard
| Sb	121	-0.056	ug/L	0.001	2	596	69	17	Standard
| Sb	123	-0.059	ug/L	0.003	5	475	57	39	Standard
[> Tb	159		ug/L			499801	517769	4	Standard
| Tl	205	-0.005	ug/L	0.000	3	224	72	4	Standard
| Pb	208	-0.009	ug/L	0.000	2	359	34	22	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, March 02, 2023 00:10:19

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	44233	1	Standard
Cl	37		ug/L			3977931	4378829	1	Standard
> Sc	45		ug/L			439931	465793	1	Standard
| Cr	52	-0.061	ug/L	0.025	40	12483	12232	2	Standard
| Cr	53	0.160	ug/L	0.005	3	120	424	0	Standard
| Mn	55	-0.003	ug/L	0.001	23	1073	1068	1	Standard
> Ge	72		ug/L			28119	28885	1	KED
| Ni	60	-0.027	ug/L	0.004	14	28	3	100	KED
| Ni	62	-0.009	ug/L	0.013	136	5	3	50	KED
| Cu	63	-0.006	ug/L	0.006	101	42	27	55	KED
| Cu	65	-0.010	ug/L	0.004	43	27	14	39	KED
| Zn	66	-0.042	ug/L	0.043	101	29	16	85	KED
| Zn	67	-0.073	ug/L	0.086	117	8	5	94	KED
| As	75	-0.011	ug/L	0.005	41	7	5	13	KED
| Se	78	0.212	ug/L	0.085	40	11	15	10	KED
Y	89		ug/L			276255	280463	3	Standard
Kr	83		ug/L			52	52	15	Standard
> In-1	115		ug/L			7782	8053	3	KED
| Mo	98	0.004	ug/L	0.006	123	8	12	31	KED
| Cd	111	-0.001	ug/L	0.017	1548	4	4	81	KED
| Cd	114	-0.005	ug/L	0.007	157	5	3	86	KED
> In	115		ug/L			475417	478778	2	Standard
| Ag	107	-0.009	ug/L	0.001	7	135	36	19	Standard
| Sb	121	-0.058	ug/L	0.001	0	596	48	8	Standard
| Sb	123	-0.062	ug/L	0.002	2	475	37	33	Standard
> Tb	159		ug/L			499801	508950	4	Standard
| Tl	205	-0.005	ug/L	0.000	4	224	72	13	Standard
| Pb	208	-0.009	ug/L	0.000	3	359	42	20	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Thursday, March 02, 2023 00:15:10

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			34622	43698	2	Standard
Cl	37		ug/L			3977931	4312994	2	Standard
[> Sc	45		ug/L			439931	442849	1	Standard
| Cr	52	-0.032	ug/L	0.026	82	12483	12074	3	Standard
| Cr	53	0.166	ug/L	0.015	8	120	414	5	Standard
| Mn	55	-0.005	ug/L	0.000	1	1073	978	1	Standard
[> Ge	72		ug/L			28119	29282	1	KED
| Ni	60	-0.025	ug/L	0.006	23	28	6	86	KED
| Ni	62	-0.014	ug/L	0.007	51	5	3	34	KED
| Cu	63	-0.008	ug/L	0.000	3	42	23	4	KED
| Cu	65	-0.009	ug/L	0.006	61	27	15	48	KED
| Zn	66	-0.043	ug/L	0.008	18	29	16	17	KED
| Zn	67	-0.108	ug/L	0.019	17	8	3	34	KED
| As	75	-0.001	ug/L	0.003	400	7	7	7	KED
| Se	78	0.295	ug/L	0.080	27	11	17	8	KED
Y	89		ug/L			276255	277365	0	Standard
Kr	83		ug/L			52	40	4	Standard
[> In-1	115		ug/L			7782	8119	1	KED
| Mo	98	-0.007	ug/L	0.004	61	8	3	83	KED
| Cd	111	-0.015	ug/L	0.008	53	4	1	91	KED
| Cd	114	0.001	ug/L	0.003	327	5	6	17	KED
[> In	115		ug/L			475417	471298	1	Standard
| Ag	107	-0.010	ug/L	0.001	7	135	32	21	Standard
| Sb	121	-0.058	ug/L	0.001	1	596	47	14	Standard
| Sb	123	-0.062	ug/L	0.001	2	475	38	25	Standard
[> Tb	159		ug/L			499801	505983	3	Standard
| Tl	205	-0.006	ug/L	0.001	10	224	60	24	Standard
| Pb	208	-0.009	ug/L	0.000	1	359	36	18	Standard



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GC00021

Instrument: ICPMS1

Calibration Date: 03/06/2023 13:12

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Silver-107	0	0	0.2	17805	10	18779.4	20	18032	50	18176.18	100	17247.94
Chromium-52	0	0	0.5	80658	10	28363.1	20	26427.5	50	25143.74	100	23697.46
Chromium-53	0	0	0.5	3312	10	2946.9	20	2867.6	50	2883.06	100	2763.11
Lead-208	0	0	0.1	64340	10	63240.7	20	62056.65	50	62465.22	100	60657.47



INITIAL CALIBRATION DATA

EPA 6020B

Laboratory: Analytical Resources, LLC

Instrument: ICPMS1

Calibration: GC00021

Calibration Date: 3/6/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Silver-107	15006.75	49.1	0.9993		0.998	
Chromium-52	30714.97	86.7	0.9993		0.998	
Chromium-53	2462.112	49.6	0.9996		0.998	
Lead-208	52126.67	49.0	0.9998		0.998	



INITIAL CALIBRATION DATA
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GC00021

Instrument: ICPMS1

Calibration Date: 03/06/2023 13:12

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Arsenic-75a	0	0	0.2	265	10	237	20	234.1	50	229.18	100	232.76
Cadmium-111	0	0	0.1	250	10	251.7	20	249.85	50	243.72	100	238.61
Cadmium-114	0	0	0.1	660	10	594.1	20	601	50	596.42	100	590.77
Copper-63	0	0	0.5	4344	10	4175.6	20	4137.4	50	3904.58	100	4002.94
Copper-65	0	0	0.5	2028	10	2062.8	20	1985.05	50	1933.84	100	1914.29
Zinc-66	0	0	6	493.8333	10	494.2	20	483.8	50	466.36	100	474.45
Zinc-67	0	0	6	75	10	82	20	81.3	50	77.2	100	78.33



INITIAL CALIBRATION DATA

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

Instrument: ICPMS1

Calibration: GC00021

Calibration Date: 3/6/2023

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a	199.6733	49.4	0.9999		0.998	
Cadmium-111	205.6467	49.0	0.9998		0.998	
Cadmium-114	507.0483	49.3	1.0000		0.998	
Copper-63	3427.42	49.2	0.9997		0.998	
Copper-65	1653.997	49.1	0.9999		0.998	
Zinc-66	402.1072	49.1	0.9999		0.998	
Zinc-67	65.63833	49.1	0.9998		0.998	



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ICP/MS 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 3/6/23 Analyst: MS

Sequence: SLCΦΦ78 Cal: GCΦΦΦ21

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CAL1	L2232		
		-CAL2	L22ΦΦ		
		-CAL3	L22Φ1		
		-CAL4	L22Φ2		
		-CAL5	L22Φ3		
		-CAL6	L22Φ4		Sc + group sl. noisy - %R not, R-Values + QC OK
		-IBL1	—		
		-ICV1	LΦ243		Sc + group sl. noisy - %R + Analytes OK
		-ICB1	L2232		Ge, In, Tl sl. noisy - %R + Analytes OK
		-CCV1	L22Φ3		
		-CCB1	L2232		
		-CRL1	L22ΦΦ		Tl sl. noisy - %R + Analytes OK
	✓	-IFAI	—		Cr ↑
		-IFB1	L2ΦΦ7		
		-HCV1	L2ΦΦ8		
		-HCV2	L2ΦΦ9		Pb ↓ - Pb < 200
		-IBL2	—		
		-IFAI	L2ΦΦ6		Cr ⁵³ ↑
		-IBL3	—		
		-CCV2			Se sl. noisy - %R + Analytes OK
		-CCB2			
	✓	-CAL1			
		-CCV3			
		↓ -CCB3			



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ICP/MS 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 3/6/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLCΦΦΦ8-BLK2	REN		Cd only
		↓ -BS2	↓		↓
		BLCΦΦ45-BLK1			
		↓ -BS1			
		23CΦΦ26-Φ1		2	
		23CΦΦ27-Φ1		↓	
		23CΦΦΦ4-Φ1		5	Cd only
		23BΦ551-Φ1		10	↓
		23CΦΦ95-Φ1	↓	20	
		SEQ-IBL4			
		↓ -CCV4			
		↓ -CCB4			
		BLCΦ1Φ8-BLK1	REN		
		↓ -BS1	↓		
		23BΦ5Φ1-Φ2		2	Cd only
		↓ -Φ3		↓	↓
		↓ -Φ4			
		↓ -Φ1			
		BLCΦΦΦ8-DUP2			
		↓ -MS2		↓	↓
		23BΦ33Φ-29	↓	5	As only
		SEQ-IBL5			
		↓ -CCV5			
		↓ -CCB5			



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ICP/MS 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 3/6/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments	
		23CΦΦ47-Φ1	REV		Zn↑ Zn NR	
		23CΦΦ48-Φ1	↓			
		↓ -Φ2				
		23BΦ556-Φ2		2		
		↓ -Φ3				
		↓ -Φ4				
		↓ -Φ1				
		BLCΦ1Φ8-DUP1				
		↓ -MS1				
		23CΦΦ47-Φ1RE1			5	Zn only
		SEQ-CCV6				
		-CCB6				
		BLCΦΦ83-BLKI	REV			
		↓ -BS1			Sc st. noisy - %Rt Analytes OK	
✓		23BΦ581-Φ1		20	Zn↑	
✓		↓ -Φ2			Re-run to check C.O.	
		↓ -Φ3				
		BLCΦΦ45-DUP1				
		↓ -MS1			Cu, Zn STL	
		23BΦ387-Φ1		50	Cd only	
		23CΦΦ37-Φ1		2		
		SEQ-IBL7				
		↓ -CCV7				
		↓ -CCB7			Li, Tl st. noisy - %R Analytes OK	



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ICP/MS 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 3/6/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BLBΦ5Φ8-BLK1	SWN	20	
		↓ -BS1	↓	↓	
		BLBΦ518-BLK2			Cd only
		↓ -BS2			↓
		23AΦΦ32-Φ1			Cd, Cr only
		BLBΦ518-DUP2			↓
		↓ -MS2			
		↓ -MSD2			
		↓ -PS2	↓	↓	60 ml K7409 ↓
		SEQ-IBL8			
		↓ -CCV8			
		↓ -CCB8			
		BLCΦΦ46-BLK1	REV		Mn ↑ Re-run to confirm No Mn ↓
		↓ -BS1	↓		
		BLBΦ615-BLK1	SWN	20	
		↓ -BS1	↓	↓	
		23AΦΦ31-Φ2			
		BLBΦ5Φ8-DUP1			
		↓ -MS1			Ag % RL ↓
		↓ -MSD1			↓
		↓ -PS1	↓	↓	60 ml K7409 ↓
		SEQ-IBL9			
		↓ -CCV9			
		↓ -CCB9			



Analysis Date: 3/6/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted. MB 3/6/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23BΦ379-Φ2	REN		
		↓ -Φ4	↓		
		23BΦ388-Φ3		2	No. M
		↓ -Φ1		5	Tbst. noisy-%R & Analytes OK
		BLCΦΦ83-DUPI		↓	
		↓ -MS1	↓	↓	
		23BΦ217-Φ2	SWN	20	
		BLBΦ615-DUPI		↓	
		↓ -MS1	↓	↓	
		↓ -MSD1	↓	↓	
		SEQ-CCVA			C. 65% noisy - value OK & consistent
		↓ -CCBA			sest. noisy/Tb noisy - %R & Analytes OK
✓		↓ -CALI			
		↓ -CCVB			
		↓ -CCBB			Tbst. noisy-%R & Analytes OK
		BLBΦ6Φ7-BLKI	SWN	20	
		↓ -BSI		↓	Tb sl. noisy-%R & Analytes OK
		↓ -SRLI		100	
		23BΦ41Φ-Φ1		20	ScT - Not Needed
		BLBΦ6Φ7-DUPI		↓	↑ / sest. noisy-%R Analytes OK / match parent
		↓ -MS1		↓	
		↓ -MSD1		↓	
		↓ -PSI		↓	
		↓ -SRMI		↓ 50	↓ / 60um K7409



Analysis Date: 3/6/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted. MS 3/6/23

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-IBLC			
		↓ -CCVC			
		↓ -CCBC			
		BLBΦ687-BLK1	SWN	20	
		↓ -BS1	↓	↓	
		↓ -SRL1		100	
DEL Extn Φ		23BΦ411-Φ1		20	Sc↑ - not needed
		BLBΦ687-DUP1			↓ / To st. noisy - %R ↓ & Analytes OK
		↓ -MS1	↓	↓	
		↓ -MSD1			
		↓ -PS1			
		↓ -SRM1	↓	↓ 50	↓ / 60ml K7409
		SEQ-IBLD			
		↓ -CCVD			std Mode st. noisy - Values OK
		↓ -CCBD			
		23BΦ388-Φ4	REN		Mn↑ No Mn
		↓ -Φ2	↓		↓
		BLCΦΦ46-DUP1	↓		
		↓ -MS1	↓		
		23AΦΦ31-Φ1	SWN	20	
		↓ -Φ3	↓	↓	
		↓ -Φ4			
		↓ -Φ5			Sc↑ No Cr
		↓ -Φ6	↓	↓	



Analysis Date: 3/6/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23AΦΦ31-Φ7	SWN	20	
		SEQ-CCVE			
		↓ -CCBE			
		23AΦΦ31-Φ8	SWN	20	
		↓ -Φ9	↓	↓	
		-1Φ			
		-11			
		-12			
		-13			
		-14			
		-15			
		-16			
		↓ -17	↓	↓	
		SEQ-CCVF			
		↓ -CCBF			
		23AΦΦ31-18	SWN	20	
		↓ -19	↓	↓	
		-20			
		↓ -21			
		23AΦΦ32-Φ5			
		↓ -Φ6	↓	↓	
		-Φ7			
		-Φ8			
		↓ -11	↓	↓	



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ICP/MS 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 3/6/23 Analyst: MS Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23Bφ276-φ1	SWN	20	
		SEQ-CCVG			
		↓ -CCBG			
	✓	↓ -CALI			
		↓ -CCVH			
		↓ -CCBH			
		23Bφ396-φ1	REN	5	
		23Bφ43φ-φ1	↓	2	
		23Bφ45φ-φ1	↓	↓	
		23Aφ171-φ1	SWN	20	Sc↑ No Cr
		↓ -φ2	↓	↓	↓
		↓ -φ3	↓	↓	↓
		↓ -φ4	↓	↓	↓
		23Bφφ51-φ1			Sc↑/Pb↑ No Cr, Pb
		↓ -φ2	↓	↓	↓ No Cr
		↓ -φ3	↓	↓	
		SEQ-CCVI			
		↓ -CCBI			
		23Bφ217-φ3	SWN	20	
		↓ -φ4	↓	↓	
		↓ -φ5	↓	↓	
		↓ -φ6	↓	↓	
		23Bφ429-φ1	REN		
		23Bφ446-φ3	↓		



Analysis Date: 3/6/23 Analyst: MB Sequence: _____ Cal: _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		23BΦ446-Φ1	REN	Z	
		23BΦ448-Φ1	↓	↓	
		↓ -Φ3	↓		
		SEQ-IBLJ			
		↓ -CCVJ			
		↓ -CCBJ			
		23BΦ469-Φ1	REN		
		↓ -Φ2	↓		
		↓ -Φ3	↓		
		23BΦ421-Φ1			
		↓ -Φ3	↓		
		↓ -Φ5	↓		
		↓ -Φ7	↓		
		↓ -Φ9	↓		
		↓ -11	↓		
		SEQ-IBLK			
		↓ -CCVK			
		↓ -CCBK			Geol. noisy %R ↓ Analytes OK
		23BΦ421-13	REN		
		↓ -15	↓		
		SEQ-IBLM			
		23BΦ581-Φ2	REN	20	
		↓ -Φ1	↓	200	
		SEQ-IBLL			

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Monday, March 06, 2023 12:21:11

Sample Description:

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth

Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.5367

MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode	
Be	9.0		5866.3		5866.338		149.884		2.6	Standard	
In	114.9		62491.3		-674380.777		1360.321		0.2	Standard	
U	238.1		58721.0		58721.005		1104.489		1.9	Standard	
[	CeO	155.9		457.9		0.009		0.000		4.9	Standard
|>	Ce	139.9		53371.3		53371.269		936.684		1.8	Standard
[	Ce++	70.0		1057.2		0.020		0.001		2.8	Standard
	Bkgd	220.0		0.2		0.167		0.167		100.0	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.25	Deflector Voltage
1600.00	ICP RF Power
-1712.00	Analog Stage Voltage
1500.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-8.00	Cell Rod Offset STD [CRO]
12.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.05	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-16.50	KED Mode CRO
-12.00	KED Mode QRO
-4.00	KED Mode Cell Entrance Voltage
-39.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
5.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Monday, March 06, 2023 12:23:15

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 3/6/2023 12:21:06 PM

End Time: 3/6/2023 12:24:17 PM

STD Performance Check - [Passed] Optimum value(s): N/A

Obtained Intensity (Be 9): 5866.34

Obtained Intensity (In 115): 62491.30

Obtained Intensity (U 238): 58721.01

Obtained Intensity (Bkgd 220): 0.17

Obtained Formula (Ce++ 70 / Ce 140): 0.020 (=1057.17 / 53371.27)

Obtained Formula (CeO 156 / Ce 140): 0.009 (=457.94 / 53371.27)

Obtained RSD (Be 9): 0.0255

Obtained RSD (In 115): 0.0020

Obtained RSD (U 238): 0.0188

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.56 mm	0.46 mm	56221.41

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 3/6/2023 12:21:06 PM

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 1
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025
RSD Criterion: Be 9.0122 < 0.05
RSD Criterion: In 114.904 < 0.05
RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 5866.34
Obtained Intensity (In 115): 62491.30
Obtained Intensity (U 238): 58721.01
Obtained Intensity (Bkgd 220): 0.17
Obtained Formula (Ce++ 70 / Ce 140): 0.020 (=1057.17 / 53371.27)
Obtained Formula (CeO 156 / Ce 140): 0.009 (=457.94 / 53371.27)
Obtained RSD (Be 9): 0.0255
Obtained RSD (In 115): 0.0020
Obtained RSD (U 238): 0.0188

[Passed] Optimum value(s): N/A

Torch Alignment

Optimization Settings:

Method: Torch Alignment.mth.
Intensity Criterion: In 115 Maximum

Optimization Results:

	Vertical	Horizontal	Intensity
[Passed]	0.56 mm	0.46 mm	56221.41

End Time: 3/6/2023 12:24:17 PM

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Monday, March 06, 2023 12:30:59

Sample Description:

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth

Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.5374

MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode	
Be	9.0		11005.7		11005.706		250.649		2.3	Standard	
In	114.9		97967.1		97967.095		2154.932		2.2	Standard	
U	238.1		87812.5		87812.503		1251.614		1.4	Standard	
[	CeO	155.9		1988.4		0.026		0.001		3.9	Standard
>	Ce	139.9		75549.9		75549.857		1678.922		2.2	Standard
[	Ce++	70.0		2723.7		0.036		0.001		1.4	Standard
	Bkgd	220.0		0.1		0.067		0.091		136.9	Standard

Current Conditions File Data

Current Value	Description
1.07	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.25	Deflector Voltage
1600.00	ICP RF Power
-1712.00	Analog Stage Voltage
1500.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-8.00	Cell Rod Offset STD [CRO]
12.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.07	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-16.50	KED Mode CRO
-12.00	KED Mode QRO
-4.00	KED Mode Cell Entrance Voltage
-39.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
5.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

Sample ID: STD Performance Check

Report Date/Time: Monday, March 06, 2023 12:33:03

Page 1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 3/6/2023 12:24:28 PM

End Time: 3/6/2023 12:33:03 PM

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.75 mm	0.41 mm	69565.97

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 1.07

Obtained Intensity (In 115): 94505.57

Obtained Formula (CeO 156 / Ce 140): 0.0231 (=1660.10 / 71954.76)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.685)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.701)

Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.698)

Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.705)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.997; Intercept = -13.25

KED Mode QID - Optimum value(s): Correlation Coefficient = 1.000; Intercept = -13.46

STD Performance Check - [Failed]

Obtained Intensity (Be 9): 11005.71

Obtained Intensity (In 115): 97967.10

Obtained Intensity (U 238): 87812.50

Obtained Intensity (Bkgd 220): 0.07

Obtained Formula (Ce++ 70 / Ce 140): 0.036 (=2723.66 / 75549.86) - <Target not achieved>

Obtained Formula (CeO 156 / Ce 140): 0.026 (=1988.41 / 75549.86) - <Target not achieved>

Obtained RSD (Be 9): 0.0228

Obtained RSD (In 115): 0.0220

Obtained RSD (U 238): 0.0143

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 3/6/2023 12:24:28 PM

Torch Alignment

Optimization Settings:

Method: Torch Alignment.mth.

Intensity Criterion: In 115 Maximum

Optimization Results:

	Vertical	Horizontal	Intensity
[Passed]	0.75 mm	0.41 mm	69565.97

Nebulizer Gas Flow STD/KED [NEB]

Optimization Settings:

Method: Optimize.mth.

Initial Try - Start/End/Step: 1/1.1/0.01.

Intensity Criterion: In 115 Maximum

Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (In 115): 94505.57

Obtained Formula (CeO 156 / Ce 140): 0.0231 (=1660.10 / 71954.76)

[Passed] optimum value(s): 1.07

Mass Calibration and Resolution

Optimization Settings:

Method: Tuning.mth.

MassCal File: Default.tun

Iterations: 6

Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution

Peak height (%) for Res. Opt.: 10

Optimization Results:

Initial Try

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.685)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.701)

Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.698)

Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.705)

[Passed] optimum value(s): N/A

QID STD/DRC

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.997; Intercept = -13.25

Analyte	Mass	Points	DAC	MaxIntensity
---------	------	--------	-----	--------------

Li	7	41	-13.5	41307.6
Mg	24	41	-13.5	52383.9
In	115	41	-10.5	103320
Ce	140	41	-9	76777.8
Pb	208	41	-7.5	49140.4
U	238	41	-7	89954.3

KED Mode QID

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 1.000; Intercept = -13.46

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-13.5	34212.9
Mg	24	41	-13.5	36779.3
In	115	41	-11.5	81475.7
Ce	140	41	-10.5	68499.8
Pb	208	41	-8	32785.6
U	238	41	-7.5	57065.8

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.

Intensity Criterion: Be 9 > 2000

Intensity Criterion: In 115 > 40000

Intensity Criterion: U 238 > 30000

Intensity Criterion: Bkgd 220 <= 1

Formula Criterion: Ce++ 70 / Ce 140 <= 0.03

Formula Criterion: CeO 156 / Ce 140 <= 0.025

RSD Criterion: Be 9.0122 < 0.05

RSD Criterion: In 114.904 < 0.05

RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 11005.71

Obtained Intensity (In 115): 97967.10

Obtained Intensity (U 238): 87812.50

Obtained Intensity (Bkgd 220): 0.07

Obtained Formula (Ce++ 70 / Ce 140): 0.036 (=2723.66 / 75549.86) - <Target not achieved>

Obtained Formula (CeO 156 / Ce 140): 0.026 (=1988.41 / 75549.86) - <Target not achieved>

Obtained RSD (Be 9): 0.0228

Obtained RSD (In 115): 0.0220

Obtained RSD (U 238): 0.0143

[Failed]

[Failed]

End Time: 3/6/2023 12:33:03 PM

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 3/6/2023 12:35:44 PM

End Time: 3/6/2023 12:37:50 PM

STD Performance Check - [Passed] Optimum value(s): N/A

Obtained Intensity (Be 9): 9180.42

Obtained Intensity (In 115): 88143.84

Obtained Intensity (U 238): 80298.60

Obtained Intensity (Bkgd 220): 0.00

Obtained Formula (Ce++ 70 / Ce 140): 0.028 (=1994.47 / 70619.00)

Obtained Formula (CeO 156 / Ce 140): 0.015 (=1043.97 / 70619.00)

Obtained RSD (Be 9): 0.0165

Obtained RSD (In 115): 0.0194

Obtained RSD (U 238): 0.0118

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 3/6/2023 12:35:44 PM

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 1
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025
RSD Criterion: Be 9.0122 < 0.05
RSD Criterion: In 114.904 < 0.05
RSD Criterion: U 238.05 < 0.05

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 9180.42
Obtained Intensity (In 115): 88143.84
Obtained Intensity (U 238): 80298.60
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (Ce++ 70 / Ce 140): 0.028 (=1994.47 / 70619.00)
Obtained Formula (CeO 156 / Ce 140): 0.015 (=1043.97 / 70619.00)
Obtained RSD (Be 9): 0.0165
Obtained RSD (In 115): 0.0194
Obtained RSD (U 238): 0.0118

[Passed] Optimum value(s): N/A

End Time: 3/6/2023 12:37:50 PM

Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Monday, March 06, 2023 12:35:45

Sample Description:

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth

Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.5376

MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode	
Be	9.0		9180.4		9180.416		151.259		1.6	Standard	
In	114.9		88143.8		88143.839		1713.217		1.9	Standard	
U	238.1		80298.6		80298.601		949.439		1.2	Standard	
[	CeO	155.9		1044.0		0.015		0.001		4.1	Standard
>	Ce	139.9		70619.0		70619.003		854.502		1.2	Standard
[	Ce++	70.0		1994.5		0.028		0.000		1.4	Standard
	Bkgd	220.0		0.0		0.000		0.000			Standard

Current Conditions File Data

Current Value	Description	
1.05	Nebulizer Gas Flow STD/KED [NEB]	NEB FLOW MANUALLY LOWERED.
1.20	Auxiliary Gas Flow	-MB 3/6/23
18.00	Plasma Gas Flow	
-11.25	Deflector Voltage	
1600.00	ICP RF Power	
-1712.00	Analog Stage Voltage	
1500.00	Pulse Stage Voltage	
0.00	Quadrupole Rod Offset STD [QRO]	
-8.00	Cell Rod Offset STD [CRO]	
12.00	Discriminator Threshold	
-4.00	Cell Entrance/Exit Voltage STD	
0.00	RPa	
0.25	RPq	
1.07	DRC Mode NEB	
-10.00	DRC Mode QRO	
-3.00	DRC Mode CRO	
-7.00	DRC Mode Cell Entrance/Exit Voltage	
0.60	Cell Gas A	
0.00	Cell Gas B	
250.00	Axial Field Voltage	
-16.50	KED Mode CRO	
-12.00	KED Mode QRO	
-4.00	KED Mode Cell Entrance Voltage	
-39.00	KED Mode Cell Exit Voltage	
0.00	KED Cell Gas A	
5.00	KED Cell Gas B	
0.00	KED RPa	
0.25	KED RPq	
475.00	KED Mode Axial Field Voltage	

Sample ID: STD Performance Check

Report Date/Time: Monday, March 06, 2023 12:37:49

Page 1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 13:12:22

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L				42851	0	Standard
Cl	37		ug/L				4641047	3	Standard
[> Sc	45		ug/L				806788	2	Standard
| Cr	52		ug/L				28671	5	Standard
| Cr	53		ug/L				315	6	Standard
| Mn	55		ug/L				1039	4	Standard
[> Ge	72		ug/L				41788	5	KED
| Ni	60		ug/L				39	26	KED
| Ni	62		ug/L				6	41	KED
| Cu	63		ug/L				158	20	KED
| Cu	65		ug/L				78	13	KED
| Zn	66		ug/L				90	3	KED
| Zn	67		ug/L				14	27	KED
| As	75		ug/L				9	26	KED
Y	89		ug/L				514828	2	Standard
Kr	83		ug/L				66	28	Standard
[> In-1	115		ug/L				11154	4	KED
| Cd	111		ug/L				4	48	KED
| Cd	114		ug/L				4	22	KED
[> In	115		ug/L				844649	2	Standard
| Ag	107		ug/L				74	32	Standard
[> Tb	159		ug/L				720612	4	Standard
| Pb	208		ug/L				363	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 13:16:50

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	42811	4	Standard
Cl	37		ug/L			4641047	4723029	1	Standard
[> Sc	45		ug/L			806788	782332	4	Standard
| Cr	52	0.500	ug/L	0.001	0	28671	40329	4	Standard
| Cr	53	0.500	ug/L	0.019	3	315	1656	6	Standard
| Mn	55	0.500	ug/L	0.006	1	1039	18231	4	Standard
[> Ge	72		ug/L			41788	43607	4	KED
| Ni	60	0.500	ug/L	0.075	14	39	725	13	KED
| Ni	62	0.500	ug/L	0.070	14	6	123	17	KED
| Cu	63	0.500	ug/L	0.012	2	158	2172	2	KED
| Cu	65	0.500	ug/L	0.029	5	78	1014	0	KED
| Zn	66	6.000	ug/L	0.387	6	90	2963	2	KED
| Zn	67	6.000	ug/L	0.252	4	14	450	7	KED
| As	75	0.200	ug/L	0.010	5	9	53	8	KED
Y	89		ug/L			514828	515614	3	Standard
Kr	83		ug/L			66	62	5	Standard
[> In-1	115		ug/L			11154	11426	1	KED
| Cd	111	0.100	ug/L	0.015	15	4	25	14	KED
| Cd	114	0.100	ug/L	0.012	12	4	66	10	KED
[> In	115		ug/L			844649	832415	4	Standard
| Ag	107	0.200	ug/L	0.014	6	74	3561	5	Standard
[> Tb	159		ug/L			720612	729902	3	Standard
| Pb	208	0.100	ug/L	0.006	6	363	6434	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 13:21:18

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	55129	1	Standard
Cl	37		ug/L			4641047	4800852	4	Standard
[> Sc	45		ug/L			806788	802585	2	Standard
| Cr	52	10.000	ug/L	0.282	2	28671	283631	4	Standard
| Cr	53	10.001	ug/L	0.218	2	315	29469	3	Standard
| Mn	55	10.001	ug/L	0.259	2	1039	365595	2	Standard
[> Ge	72		ug/L			41788	44698	0	KED
| Ni	60	10.000	ug/L	0.056	0	39	14082	0	KED
| Ni	62	9.999	ug/L	0.288	2	6	2287	3	KED
| Cu	63	10.000	ug/L	0.253	2	158	41756	2	KED
| Cu	65	10.002	ug/L	0.112	1	78	20628	0	KED
| Zn	66	9.965	ug/L	0.096	0	90	4942	1	KED
| Zn	67	10.210	ug/L	0.440	4	14	820	3	KED
[As	75	10.000	ug/L	0.143	1	9	2370	1	KED
Y	89		ug/L			514828	528569	3	Standard
Kr	83		ug/L			66	71	6	Standard
[> In-1	115		ug/L			11154	11711	1	KED
| Cd	111	10.000	ug/L	0.148	1	4	2517	1	KED
[Cd	114	10.000	ug/L	0.298	2	4	5941	2	KED
[> In	115		ug/L			844649	842700	1	Standard
[Ag	107	10.000	ug/L	0.207	2	74	187794	3	Standard
[> Tb	159		ug/L			720612	757028	2	Standard
[Pb	208	10.000	ug/L	0.330	3	363	632407	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 13:25:59

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	53262	0	Standard
Cl	37		ug/L			4641047	5046059	3	Standard
[> Sc	45		ug/L			806788	803834	2	Standard
| Cr	52	19.912	ug/L	0.308	1	28671	528550	3	Standard
| Cr	53	19.905	ug/L	0.217	1	315	57352	3	Standard
| Mn	55	19.855	ug/L	0.339	1	1039	705630	3	Standard
[> Ge	72		ug/L			41788	44064	2	KED
| Ni	60	19.941	ug/L	0.554	2	39	27325	3	KED
| Ni	62	19.989	ug/L	0.435	2	6	4491	4	KED
| Cu	63	20.028	ug/L	0.404	2	158	82748	3	KED
| Cu	65	19.911	ug/L	0.163	0	78	39701	2	KED
| Zn	66	19.996	ug/L	0.682	3	90	9676	4	KED
| Zn	67	20.182	ug/L	0.785	3	14	1626	4	KED
[As	75	20.018	ug/L	0.279	1	9	4682	0	KED
Y	89		ug/L			514828	522988	3	Standard
Kr	83		ug/L			66	66	15	Standard
[> In-1	115		ug/L			11154	11832	1	KED
| Cd	111	19.932	ug/L	0.615	3	4	4997	2	KED
[Cd	114	20.007	ug/L	0.246	1	4	12020	0	KED
[> In	115		ug/L			844649	853632	4	Standard
[Ag	107	19.784	ug/L	0.147	0	74	360640	3	Standard
[> Tb	159		ug/L			720612	770789	4	Standard
[Pb	208	19.853	ug/L	0.543	2	363	1241133	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 13:30:51

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	42010	2	Standard
Cl	37		ug/L			4641047	5093756	2	Standard
[> Sc	45		ug/L			806788	794447	4	Standard
| Cr	52	49.923	ug/L	0.350	0	28671	1257187	3	Standard
| Cr	53	50.131	ug/L	0.151	0	315	144153	4	Standard
| Mn	55	50.114	ug/L	1.270	2	1039	1779002	5	Standard
[> Ge	72		ug/L			41788	43166	3	KED
| Ni	60	49.780	ug/L	1.625	3	39	65352	5	KED
| Ni	62	49.620	ug/L	1.255	2	6	10514	5	KED
| Cu	63	49.705	ug/L	1.067	2	158	195229	5	KED
| Cu	65	49.925	ug/L	0.479	0	78	96692	4	KED
| Zn	66	49.905	ug/L	1.641	3	90	23318	5	KED
| Zn	67	49.848	ug/L	0.865	1	14	3860	4	KED
| As	75	50.007	ug/L	1.063	2	9	11459	5	KED
Y	89		ug/L			514828	527443	5	Standard
Kr	83		ug/L			66	82	27	Standard
[> In-1	115		ug/L			11154	11544	1	KED
| Cd	111	49.974	ug/L	0.916	1	4	12186	1	KED
| Cd	114	50.146	ug/L	1.043	2	4	29821	0	KED
[> In	115		ug/L			844649	846109	3	Standard
| Ag	107	50.050	ug/L	1.681	3	74	908809	4	Standard
[> Tb	159		ug/L			720612	775069	3	Standard
| Pb	208	49.946	ug/L	1.320	2	363	3123261	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 13:37:22

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	46844	1	Standard
Cl	37		ug/L			4641047	5067111	3	Standard
[> Sc	45		ug/L			806788	752435	6	Standard
| Cr	52	100.117	ug/L	0.867	0	28671	2369746	5	Standard
| Cr	53	100.365	ug/L	1.640	1	315	276311	6	Standard
| Mn	55	100.029	ug/L	0.416	0	1039	3364769	6	Standard
[> Ge	72		ug/L			41788	42888	2	KED
| Ni	60	100.598	ug/L	1.269	1	39	133800	3	KED
| Ni	62	100.940	ug/L	1.302	1	6	21924	3	KED
| Cu	63	100.600	ug/L	2.010	1	158	400294	3	KED
| Cu	65	99.886	ug/L	3.608	3	78	191429	5	KED
| Zn	66	100.563	ug/L	2.163	2	90	47445	2	KED
| Zn	67	100.470	ug/L	1.100	1	14	7833	1	KED
[As	75	100.528	ug/L	0.731	0	9	23276	2	KED
Y	89		ug/L			514828	499954	5	Standard
Kr	83		ug/L			66	99	6	Standard
[> In-1	115		ug/L			11154	11600	2	KED
| Cd	111	99.386	ug/L	1.101	1	4	23861	1	KED
[Cd	114	99.733	ug/L	1.205	1	4	59077	2	KED
[> In	115		ug/L			844649	815926	4	Standard
[Ag	107	99.653	ug/L	0.793	0	74	1724794	4	Standard
[> Tb	159		ug/L			720612	766683	5	Standard
[Pb	208	99.549	ug/L	2.083	2	363	6065747	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 13:44:35

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	43609	2	Standard
Cl	37		ug/L			4641047	4994341	2	Standard
[> Sc	45		ug/L			806788	781760	5	Standard
| Cr	52	0.094	ug/L	0.046	48	28671	30052	5	Standard
| Cr	53	-0.005	ug/L	0.012	239	315	289	8	Standard
| Mn	55	0.032	ug/L	0.001	3	1039	2109	3	Standard
[> Ge	72		ug/L			41788	42374	3	KED
| Ni	60	0.053	ug/L	0.014	25	39	109	15	KED
| Ni	62	0.045	ug/L	0.037	81	6	16	43	KED
| Cu	63	0.037	ug/L	0.008	21	158	303	9	KED
| Cu	65	0.033	ug/L	0.007	20	78	142	12	KED
| Zn	66	0.528	ug/L	0.033	6	90	337	7	KED
| Zn	67	0.344	ug/L	0.029	8	14	41	5	KED
[As	75	0.009	ug/L	0.004	41	9	12	4	KED
Y	89		ug/L			514828	510336	6	Standard
Kr	83		ug/L			66	68	34	Standard
[> In-1	115		ug/L			11154	11105	4	KED
| Cd	111	0.006	ug/L	0.005	87	4	5	20	KED
[Cd	114	0.004	ug/L	0.008	214	4	6	59	KED
[> In	115		ug/L			844649	856392	4	Standard
[Ag	107	0.022	ug/L	0.001	6	74	482	1	Standard
[> Tb	159		ug/L			720612	747153	6	Standard
[Pb	208	0.013	ug/L	0.001	5	363	1154	3	Standard

Sample Information

Sample Date/Time: Monday, March 06, 2023 13:37:22

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED

Mass Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCa\Default.tun

Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	1.0000	0.031	0.50	10	20	50	100
Cr	53	1.0000	0.004	0.50	10	20	50	100
Mn	55	1.0000	0.045	0.50	10	20	50	100
Ge	72							
Ni	60	0.9999	0.031	0.50	10	20	50	100
Ni	62	0.9998	0.005	0.50	10	20	50	100
Cu	63	0.9999	0.093	0.50	10	20	50	100
Cu	65	1.0000	0.045	0.50	10	20	50	100
Zn	66	0.9999	0.011	6.00	10	20	50	100
Zn	67	0.9999	0.002	6.00	10	20	50	100
As	75	1.0000	0.005	0.20	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	0.9999	0.021	0.10	10	20	50	100
Cd	114	1.0000	0.051	0.10	10	20	50	100
In	115							
Ag	107	1.0000	0.021	0.20	10	20	50	100
Tb	159							
Pb	208	1.0000	0.080	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 13:53:41

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	42919	2	Standard
Cl	37		ug/L			4641047	4867225	3	Standard
[> Sc	45		ug/L			806788	771596	6	Standard
| Cr	52	50.883	ug/L	0.562	1	28671	1248843	6	Standard
| Cr	53	49.104	ug/L	0.748	1	315	138840	6	Standard
| Mn	55	51.191	ug/L	0.306	0	1039	1766758	6	Standard
[> Ge	72		ug/L			41788	45024	1	KED
| Ni	60	50.838	ug/L	0.787	1	39	70985	1	KED
| Ni	62	50.654	ug/L	0.903	1	6	11553	3	KED
| Cu	63	50.484	ug/L	0.592	1	158	210943	1	KED
| Cu	65	50.350	ug/L	0.684	1	78	101298	1	KED
| Zn	66	49.233	ug/L	0.913	1	90	24431	0	KED
| Zn	67	49.032	ug/L	1.646	3	14	4022	4	KED
| As	75	46.973	ug/L	0.817	1	9	11422	1	KED
Y	89		ug/L			514828	513980	8	Standard
Kr	83		ug/L			66	82	14	Standard
[> In-1	115		ug/L			11154	10969	4	KED
| Cd	111	49.469	ug/L	0.911	1	4	11228	2	KED
| Cd	114	49.909	ug/L	0.409	0	4	27963	5	KED
[> In	115		ug/L			844649	830395	4	Standard
| Ag	107	51.521	ug/L	0.463	0	74	907841	5	Standard
[> Tb	159		ug/L			720612	768575	2	Standard
| Pb	208	51.113	ug/L	1.206	2	363	3124462	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 14:00:53

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	40181	1	Standard
Cl	37		ug/L			4641047	4697704	3	Standard
[> Sc	45		ug/L			806788	761018	5	Standard
| Cr	52	0.097	ug/L	0.035	36	28671	29315	4	Standard
| Cr	53	-0.015	ug/L	0.008	54	315	255	3	Standard
| Mn	55	0.001	ug/L	0.002	157	1039	1019	8	Standard
[> Ge	72		ug/L			41788	43343	7	KED
| Ni	60	-0.013	ug/L	0.005	37	39	24	32	KED
| Ni	62	-0.013	ug/L	0.013	97	6	4	65	KED
| Cu	63	-0.001	ug/L	0.005	485	158	160	18	KED
| Cu	65	-0.008	ug/L	0.010	127	78	65	27	KED
| Zn	66	-0.081	ug/L	0.037	45	90	55	29	KED
| Zn	67	-0.110	ug/L	0.052	47	14	6	62	KED
| As	75	-0.015	ug/L	0.011	76	9	6	40	KED
Y	89		ug/L			514828	502581	6	Standard
Kr	83		ug/L			66	73	9	Standard
[> In-1	115		ug/L			11154	11644	3	KED
| Cd	111	-0.001	ug/L	0.002	303	4	4	13	KED
| Cd	114	0.002	ug/L	0.008	454	4	6	78	KED
[> In	115		ug/L			844649	841313	7	Standard
| Ag	107	0.012	ug/L	0.001	8	74	294	1	Standard
[> Tb	159		ug/L			720612	745815	6	Standard
| Pb	208	-0.000	ug/L	0.001	157	363	351	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 14:05:20

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	41748	1	Standard
Cl	37		ug/L			4641047	5088464	2	Standard
[> Sc	45		ug/L			806788	797438	4	Standard
| Cr	52	50.349	ug/L	0.903	1	28671	1276995	2	Standard
| Cr	53	48.442	ug/L	0.612	1	315	141493	2	Standard
| Mn	55	49.870	ug/L	0.397	0	1039	1778915	4	Standard
[> Ge	72		ug/L			41788	45004	2	KED
| Ni	60	49.345	ug/L	0.507	1	39	68870	2	KED
| Ni	62	49.359	ug/L	2.511	5	6	11244	3	KED
| Cu	63	49.041	ug/L	1.605	3	158	204773	3	KED
| Cu	65	49.144	ug/L	1.320	2	78	98818	3	KED
| Zn	66	49.928	ug/L	1.439	2	90	24755	0	KED
| Zn	67	50.753	ug/L	0.801	1	14	4159	2	KED
| As	75	49.488	ug/L	1.093	2	9	12025	1	KED
Y	89		ug/L			514828	528519	4	Standard
Kr	83		ug/L			66	74	16	Standard
[> In-1	115		ug/L			11154	12203	1	KED
| Cd	111	49.139	ug/L	1.514	3	4	12410	1	KED
| Cd	114	49.099	ug/L	1.799	3	4	30585	1	KED
[> In	115		ug/L			844649	876872	2	Standard
| Ag	107	50.176	ug/L	0.220	0	74	933483	2	Standard
[> Tb	159		ug/L			720612	807960	2	Standard
| Pb	208	49.677	ug/L	1.926	3	363	3190510	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 14:12:12

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	39029	0	Standard
Cl	37		ug/L			4641047	4958094	2	Standard
[> Sc	45		ug/L			806788	765568	4	Standard
| Cr	52	0.094	ug/L	0.010	10	28671	29451	4	Standard
| Cr	53	-0.011	ug/L	0.006	54	315	268	10	Standard
| Mn	55	0.000	ug/L	0.001	171	1039	1000	6	Standard
[> Ge	72		ug/L			41788	44225	1	KED
| Ni	60	-0.012	ug/L	0.009	77	39	24	50	KED
| Ni	62	-0.007	ug/L	0.038	543	6	5	145	KED
| Cu	63	-0.005	ug/L	0.005	97	158	147	14	KED
| Cu	65	-0.012	ug/L	0.010	80	78	59	30	KED
| Zn	66	-0.092	ug/L	0.016	17	90	51	16	KED
| Zn	67	-0.098	ug/L	0.084	86	14	7	90	KED
[As	75	-0.016	ug/L	0.004	23	9	6	12	KED
Y	89		ug/L			514828	513097	3	Standard
Kr	83		ug/L			66	73	33	Standard
[> In-1	115		ug/L			11154	11591	2	KED
| Cd	111	0.001	ug/L	0.013	1511	4	4	65	KED
[Cd	114	-0.002	ug/L	0.006	281	4	3	89	KED
[> In	115		ug/L			844649	854918	3	Standard
[Ag	107	0.015	ug/L	0.002	10	74	354	9	Standard
[> Tb	159		ug/L			720612	748990	0	Standard
[Pb	208	0.000	ug/L	0.001	269	363	389	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 14:16:39

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	43903	3	Standard
Cl	37		ug/L			4641047	4790219	1	Standard
[> Sc	45		ug/L			806788	780075	2	Standard
| Cr	52	0.579	ug/L	0.024	4	28671	41794	3	Standard
| Cr	53	0.465	ug/L	0.011	2	315	1631	3	Standard
| Mn	55	0.484	ug/L	0.003	0	1039	17873	3	Standard
[> Ge	72		ug/L			41788	44773	0	KED
| Ni	60	0.451	ug/L	0.019	4	39	667	3	KED
| Ni	62	0.468	ug/L	0.011	2	6	113	2	KED
| Cu	63	0.483	ug/L	0.017	3	158	2176	3	KED
| Cu	65	0.483	ug/L	0.021	4	78	1050	3	KED
| Zn	66	6.040	ug/L	0.332	5	90	3065	4	KED
| Zn	67	5.582	ug/L	0.215	3	14	469	4	KED
[As	75	0.185	ug/L	0.033	18	9	55	14	KED
Y	89		ug/L			514828	508372	3	Standard
Kr	83		ug/L			66	74	4	Standard
[> In-1	115		ug/L			11154	11578	2	KED
| Cd	111	0.096	ug/L	0.012	12	4	27	8	KED
[Cd	114	0.108	ug/L	0.011	9	4	69	11	KED
[> In	115		ug/L			844649	863871	3	Standard
[Ag	107	0.207	ug/L	0.003	1	74	3864	4	Standard
[> Tb	159		ug/L			720612	762701	6	Standard
[Pb	208	0.100	ug/L	0.004	4	363	6445	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1

Sample Dil Factor:

DEL

Comments:

Sample Date/Time: Monday, March 06, 2023 14:21:07

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	135309	3	Standard
Cl	37		ug/L			4641047	12203010	5	Standard
[> Sc	45		ug/L			806788	804955	6	Standard
| Cr	52	1.013	ug/L	0.018	1	28671	53964	5	Standard
| Cr	53	2.863	ug/L	0.032	1	315	8737	5	Standard
| Mn	55	0.087	ug/L	0.003	3	1039	4175	6	Standard
[> Ge	72		ug/L			41788	43336	3	KED
| Ni	60	0.062	ug/L	0.009	14	39	123	12	KED
| Ni	62	0.142	ug/L	0.058	40	6	38	30	KED
| Cu	63	0.048	ug/L	0.004	8	158	354	2	KED
| Cu	65	0.041	ug/L	0.006	14	78	161	9	KED
| Zn	66	0.099	ug/L	0.021	21	90	140	3	KED
| Zn	67	0.099	ug/L	0.149	150	14	22	50	KED
[As	75	0.030	ug/L	0.020	65	9	17	29	KED
Y	89		ug/L			514828	524761	4	Standard
Kr	83		ug/L			66	161	4	Standard
[> In-1	115		ug/L			11154	11572	1	KED
| Cd	111	0.068	ug/L	0.045	65	4	20	53	KED
[Cd	114	0.049	ug/L	0.013	27	4	34	24	KED
[> In	115		ug/L			844649	840466	4	Standard
[Ag	107	0.012	ug/L	0.001	4	74	289	7	Standard
[> Tb	159		ug/L			720612	812019	4	Standard
[Pb	208	0.034	ug/L	0.001	3	363	2605	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 14:25:34

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	135121	1	Standard
Cl	37		ug/L			4641047	12351805	1	Standard
[> Sc	45		ug/L			806788	810549	2	Standard
| Cr	52	20.054	ug/L	0.080	0	28671	534586	2	Standard
| Cr	53	22.295	ug/L	0.442	1	315	66399	3	Standard
| Mn	55	19.652	ug/L	0.435	2	1039	712991	3	Standard
[> Ge	72		ug/L			41788	43650	2	KED
| Ni	60	20.185	ug/L	0.184	0	39	27349	1	KED
| Ni	62	20.030	ug/L	0.399	1	6	4432	2	KED
| Cu	63	19.518	ug/L	0.500	2	158	79139	0	KED
| Cu	65	19.600	ug/L	0.211	1	78	38276	1	KED
| Zn	66	18.722	ug/L	0.352	1	90	9066	2	KED
| Zn	67	16.965	ug/L	0.776	4	14	1360	6	KED
| As	75	19.173	ug/L	0.169	0	9	4527	2	KED
Y	89		ug/L			514828	534352	3	Standard
Kr	83		ug/L			66	151	5	Standard
[> In-1	115		ug/L			11154	11521	2	KED
| Cd	111	19.158	ug/L	0.374	1	4	4570	0	KED
| Cd	114	18.639	ug/L	0.620	3	4	10966	2	KED
[> In	115		ug/L			844649	852393	2	Standard
| Ag	107	18.571	ug/L	0.200	1	74	335871	2	Standard
[> Tb	159		ug/L			720612	840357	4	Standard
| Pb	208	0.042	ug/L	0.001	1	363	3218	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 14:30:02

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	40715	1	Standard
Cl	37		ug/L			4641047	5030512	1	Standard
[> Sc	45		ug/L			806788	764286	2	Standard
| Cr	52	195.134	ug/L	1.733	0	28671	4667631	2	Standard
| Cr	53	194.875	ug/L	4.533	2	315	545008	4	Standard
| Mn	55	196.425	ug/L	1.682	0	1039	6710570	1	Standard
[> Ge	72		ug/L			41788	42605	2	KED
| Ni	60	196.562	ug/L	2.019	1	39	259674	3	KED
| Ni	62	192.606	ug/L	1.244	0	6	41549	3	KED
| Cu	63	185.632	ug/L	3.788	2	158	733529	3	KED
| Cu	65	188.244	ug/L	3.258	1	78	358274	4	KED
| Zn	66	188.703	ug/L	3.078	1	90	88389	4	KED
| Zn	67	187.386	ug/L	4.391	2	14	14508	4	KED
| As	75	198.166	ug/L	0.575	0	9	45575	2	KED
Y	89		ug/L			514828	513598	0	Standard
Kr	83		ug/L			66	152	7	Standard
[> In-1	115		ug/L			11154	11396	2	KED
| Cd	111	197.360	ug/L	3.963	2	4	46535	1	KED
| Cd	114	196.681	ug/L	5.433	2	4	114401	1	KED
[> In	115		ug/L			844649	844350	2	Standard
| Ag	107	190.674	ug/L	1.004	0	74	3415510	2	Standard
[> Tb	159		ug/L			720612	838766	3	Standard
| Pb	208	<u>183.786</u>	ug/L	4.311	2	363	12250266	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 14:34:29

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	42044	1	Standard
Cl	37		ug/L			4641047	5071309	0	Standard
[> Sc	45		ug/L			806788	762123	1	Standard
| Cr	52	291.369	ug/L	4.644	1	28671	6936269	1	Standard
| Cr	53	291.419	ug/L	1.617	0	315	812270	0	Standard
| Mn	55	291.664	ug/L	5.250	1	1039	9935736	1	Standard
[> Ge	72		ug/L			41788	41249	0	KED
| Ni	60	290.970	ug/L	8.055	2	39	372074	2	KED
| Ni	62	289.452	ug/L	10.072	3	6	60444	3	KED
| Cu	63	279.465	ug/L	16.441	5	158	1069094	5	KED
| Cu	65	282.472	ug/L	8.519	3	78	520327	2	KED
| Zn	66	277.107	ug/L	8.301	2	90	125589	2	KED
| Zn	67	275.880	ug/L	5.432	1	14	20665	1	KED
| As	75	296.477	ug/L	5.337	1	9	66006	1	KED
Y	89		ug/L			514828	513061	2	Standard
Kr	83		ug/L			66	202	4	Standard
[> In-1	115		ug/L			11154	11000	1	KED
| Cd	111	289.384	ug/L	3.122	1	4	65878	0	KED
| Cd	114	286.993	ug/L	5.827	2	4	161175	1	KED
[> In	115		ug/L			844649	838215	0	Standard
| Ag	107	278.597	ug/L	6.879	2	74	4953728	2	Standard
[> Tb	159		ug/L			720612	868323	2	Standard
| Pb	208	259.262	ug/L	7.053	2	363	17891538	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 14:41:40

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	39707	0	Standard
Cl	37		ug/L			4641047	5115939	2	Standard
[> Sc	45		ug/L			806788	796782	1	Standard
| Cr	52	0.083	ug/L	0.040	47	28671	30379	4	Standard
| Cr	53	0.013	ug/L	0.009	70	315	348	7	Standard
| Mn	55	0.033	ug/L	0.001	3	1039	2208	3	Standard
[> Ge	72		ug/L			41788	44927	4	KED
| Ni	60	-0.004	ug/L	0.004	114	39	36	11	KED
| Ni	62	0.026	ug/L	0.037	146	6	13	65	KED
| Cu	63	0.003	ug/L	0.001	43	158	182	3	KED
| Cu	65	-0.001	ug/L	0.003	443	78	83	2	KED
| Zn	66	0.036	ug/L	0.037	104	90	114	13	KED
| Zn	67	0.072	ug/L	0.013	17	14	21	5	KED
[As	75	-0.003	ug/L	0.022	662	9	9	52	KED
Y	89		ug/L			514828	508202	4	Standard
Kr	83		ug/L			66	67	25	Standard
[> In-1	115		ug/L			11154	12086	1	KED
| Cd	111	0.012	ug/L	0.013	103	4	7	43	KED
[Cd	114	0.006	ug/L	0.004	64	4	8	25	KED
[> In	115		ug/L			844649	917118	3	Standard
[Ag	107	0.043	ug/L	0.003	5	74	917	8	Standard
[> Tb	159		ug/L			720612	810033	3	Standard
[Pb	208	0.015	ug/L	0.001	4	363	1382	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 14:48:03

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	129779	3	Standard
Cl	37		ug/L			4641047	12265210	4	Standard
[> Sc	45		ug/L			806788	806746	2	Standard
| Cr	52	0.960	ug/L	0.046	4	28671	52759	0	Standard
| Cr	53	3.224	ug/L	0.101	3	315	9826	4	Standard
| Mn	55	0.091	ug/L	0.007	7	1039	4315	6	Standard
[> Ge	72		ug/L			41788	44050	2	KED
| Ni	60	0.130	ug/L	0.016	12	39	219	10	KED
| Ni	62	0.288	ug/L	0.029	9	6	71	10	KED
| Cu	63	0.041	ug/L	0.003	7	158	335	1	KED
| Cu	65	0.059	ug/L	0.012	21	78	199	13	KED
| Zn	66	0.434	ug/L	0.054	12	90	306	10	KED
| Zn	67	0.450	ug/L	0.084	18	14	51	14	KED
[As	75	0.029	ug/L	0.021	73	9	17	26	KED
Y	89		ug/L			514828	527149	3	Standard
Kr	83		ug/L			66	153	11	Standard
[> In-1	115		ug/L			11154	11262	1	KED
| Cd	111	0.056	ug/L	0.022	38	4	17	29	KED
[Cd	114	0.067	ug/L	0.020	29	4	43	27	KED
[> In	115		ug/L			844649	880162	1	Standard
[Ag	107	0.032	ug/L	0.002	6	74	667	5	Standard
[> Tb	159		ug/L			720612	859222	1	Standard
[Pb	208	0.031	ug/L	0.001	2	363	2555	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 14:52:58

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	38811	1	Standard
Cl	37		ug/L			4641047	4879002	2	Standard
[> Sc	45		ug/L			806788	778378	2	Standard
| Cr	52	0.091	ug/L	0.016	17	28671	29880	3	Standard
| Cr	53	0.070	ug/L	0.011	15	315	504	4	Standard
| Mn	55	0.036	ug/L	0.001	1	1039	2253	2	Standard
[> Ge	72		ug/L			41788	45723	0	KED
| Ni	60	-0.001	ug/L	0.005	391	39	41	17	KED
| Ni	62	0.008	ug/L	0.016	201	6	9	40	KED
| Cu	63	0.007	ug/L	0.003	51	158	200	7	KED
| Cu	65	0.005	ug/L	0.001	13	78	96	1	KED
| Zn	66	0.030	ug/L	0.033	109	90	114	14	KED
| Zn	67	0.006	ug/L	0.047	747	14	16	24	KED
[As	75	-0.009	ug/L	0.012	129	9	8	33	KED
Y	89		ug/L			514828	513878	3	Standard
Kr	83		ug/L			66	64	28	Standard
[> In-1	115		ug/L			11154	12092	1	KED
| Cd	111	0.002	ug/L	0.018	806	4	5	92	KED
[Cd	114	0.001	ug/L	0.005	355	4	6	49	KED
[> In	115		ug/L			844649	891573	2	Standard
[Ag	107	0.009	ug/L	0.001	10	74	255	9	Standard
[> Tb	159		ug/L			720612	806752	3	Standard
[Pb	208	0.014	ug/L	0.001	7	363	1316	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 14:59:20

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	39185	2	Standard
Cl	37		ug/L			4641047	5120715	2	Standard
[> Sc	45		ug/L			806788	774135	6	Standard
| Cr	52	50.655	ug/L	0.201	0	28671	1247500	5	Standard
| Cr	53	49.212	ug/L	1.300	2	315	139451	4	Standard
| Mn	55	51.377	ug/L	1.325	2	1039	1777432	4	Standard
[> Ge	72		ug/L			41788	46422	0	KED
| Ni	60	48.758	ug/L	0.962	1	39	70202	1	KED
| Ni	62	49.191	ug/L	0.759	1	6	11567	2	KED
| Cu	63	49.130	ug/L	0.341	0	158	211670	0	KED
| Cu	65	49.223	ug/L	1.245	2	78	102116	2	KED
| Zn	66	49.688	ug/L	0.647	1	90	25425	0	KED
| Zn	67	51.055	ug/L	0.601	1	14	4317	1	KED
| As	75	48.993	ug/L	0.428	0	9	12284	1	KED
Y	89		ug/L			514828	526122	4	Standard
Kr	83		ug/L			66	74	22	Standard
[> In-1	115		ug/L			11154	12144	2	KED
| Cd	111	50.441	ug/L	1.398	2	4	12677	0	KED
| Cd	114	49.967	ug/L	1.642	3	4	30975	1	KED
[> In	115		ug/L			844649	891161	2	Standard
| Ag	107	48.827	ug/L	0.505	1	74	923060	2	Standard
[> Tb	159		ug/L			720612	832730	4	Standard
| Pb	208	48.928	ug/L	1.740	3	363	3237335	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 15:06:32

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			42851	37000	4	Standard
Cl	37		ug/L			4641047	4869651	4	Standard
[> Sc	45		ug/L			806788	756537	3	Standard
| Cr	52	0.112	ug/L	0.019	16	28671	29526	4	Standard
| Cr	53	-0.001	ug/L	0.012	992	315	293	13	Standard
| Mn	55	0.013	ug/L	0.001	4	1039	1414	2	Standard
[> Ge	72		ug/L			41788	45076	2	KED
| Ni	60	-0.008	ug/L	0.009	120	39	31	38	KED
| Ni	62	0.003	ug/L	0.013	408	6	8	35	KED
| Cu	63	-0.008	ug/L	0.002	23	158	135	4	KED
| Cu	65	-0.005	ug/L	0.001	17	78	75	3	KED
| Zn	66	-0.096	ug/L	0.024	24	90	50	21	KED
| Zn	67	-0.045	ug/L	0.082	181	14	12	55	KED
[As	75	-0.006	ug/L	0.008	130	9	9	21	KED
Y	89		ug/L			514828	509651	4	Standard
Kr	83		ug/L			66	63	14	Standard
[> In-1	115		ug/L			11154	12250	1	KED
| Cd	111	-0.005	ug/L	0.002	37	4	3	17	KED
[Cd	114	0.003	ug/L	0.003	133	4	6	32	KED
[> In	115		ug/L			844649	886483	3	Standard
[Ag	107	0.017	ug/L	0.001	5	74	407	5	Standard
[> Tb	159		ug/L			720612	797382	5	Standard
[Pb	208	0.001	ug/L	0.001	90	363	442	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 15:12:38

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				36323	3	Standard
	Cl	37	ug/L				4837250	1	Standard
[>	Sc	45	ug/L				768932	1	Standard
|	Cr	52	ug/L				29685	2	Standard
|	Cr	53	ug/L				273	6	Standard
|	Mn	55	ug/L				1379	6	Standard
[>	Ge	72	ug/L				45127	2	KED
|	Ni	60	ug/L				27	24	KED
|	Ni	62	ug/L				5	33	KED
|	Cu	63	ug/L				118	8	KED
|	Cu	65	ug/L				63	17	KED
|	Zn	66	ug/L				40	11	KED
|	Zn	67	ug/L				5	0	KED
|	As	75	ug/L				7	21	KED
	Y	89	ug/L				512697	2	Standard
	Kr	83	ug/L				65	14	Standard
[>	In-1	115	ug/L				11342	6	KED
|	Cd	111	ug/L				6	28	KED
|	Cd	114	ug/L				4	51	KED
[>	In	115	ug/L				888503	0	Standard
|	Ag	107	ug/L				236	7	Standard
[>	Tb	159	ug/L				797843	4	Standard
|	Pb	208	ug/L				255	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 15:17:06

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	37598	0	Standard
Cl	37		ug/L			4837250	5126483	2	Standard
[> Sc	45		ug/L			768932	801390	1	Standard
| Cr	52	49.089	ug/L	1.077	2	29685	1254622	0	Standard
| Cr	53	48.693	ug/L	0.967	1	273	142917	0	Standard
| Mn	55	50.109	ug/L	1.657	3	1379	1795738	2	Standard
[> Ge	72		ug/L			45127	45912	1	KED
| Ni	60	50.385	ug/L	0.062	0	27	71733	1	KED
| Ni	62	48.787	ug/L	0.835	1	5	11344	2	KED
| Cu	63	48.115	ug/L	0.438	0	118	204956	0	KED
| Cu	65	48.892	ug/L	1.263	2	63	100277	1	KED
| Zn	66	50.399	ug/L	1.372	2	40	25452	4	KED
| Zn	67	49.568	ug/L	1.250	2	5	4135	3	KED
[As	75	49.752	ug/L	0.820	1	7	12334	1	KED
Y	89		ug/L			512697	531171	4	Standard
Kr	83		ug/L			65	73	21	Standard
[> In-1	115		ug/L			11342	12004	2	KED
| Cd	111	50.645	ug/L	1.375	2	6	12584	0	KED
[Cd	114	49.897	ug/L	1.589	3	4	30577	1	KED
[> In	115		ug/L			888503	895335	3	Standard
[Ag	107	47.844	ug/L	1.106	2	236	908483	0	Standard
[> Tb	159		ug/L			797843	846222	4	Standard
[Pb	208	48.885	ug/L	1.526	3	255	3286449	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 15:24:18

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	35916	1	Standard
Cl	37		ug/L			4837250	4928206	0	Standard
[> Sc	45		ug/L			768932	763038	1	Standard
| Cr	52	0.003	ug/L	0.004	119	29685	29537	1	Standard
| Cr	53	0.000	ug/L	0.000	330	273	271	1	Standard
| Mn	55	-0.004	ug/L	0.002	36	1379	1222	4	Standard
[> Ge	72		ug/L			45127	43480	4	KED
| Ni	60	-0.006	ug/L	0.004	59	27	18	29	KED
| Ni	62	0.006	ug/L	0.019	309	5	6	62	KED
| Cu	63	0.003	ug/L	0.004	160	118	125	12	KED
| Cu	65	0.000	ug/L	0.001	610	63	61	4	KED
| Zn	66	0.002	ug/L	0.015	706	40	40	14	KED
| Zn	67	-0.029	ug/L	0.015	52	5	3	34	KED
[As	75	0.005	ug/L	0.007	137	7	8	13	KED
Y	89		ug/L			512697	507479	2	Standard
Kr	83		ug/L			65	83	12	Standard
[> In-1	115		ug/L			11342	12073	3	KED
| Cd	111	-0.007	ug/L	0.008	113	6	5	36	KED
[Cd	114	0.010	ug/L	0.006	59	4	10	36	KED
[> In	115		ug/L			888503	872208	0	Standard
[Ag	107	0.009	ug/L	0.000	1	236	401	0	Standard
[> Tb	159		ug/L			797843	798551	2	Standard
[Pb	208	0.002	ug/L	0.000	25	255	362	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0008-BLK2**

Sample Dil Factor:

Comments:

Sample Date/Time: **Monday, March 06, 2023 15:30:03**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	52352	2	Standard
Cl	37		ug/L			4837250	4651415	5	Standard
Sc	45		ug/L			768932	728446	3	Standard
Cr	52	0.097	ug/L	0.031	32	29685	30316	4	Standard
Cr	53	0.060	ug/L	0.008	12	273	419	7	Standard
Mn	55	0.011	ug/L	0.001	11	1379	1662	5	Standard
Ge	72		ug/L			45127	44586	1	KED
Ni	60	-0.003	ug/L	0.004	133	27	22	22	KED
Ni	62	0.014	ug/L	0.029	205	5	8	75	KED
Cu	63	0.029	ug/L	0.002	6	118	238	2	KED
Cu	65	0.022	ug/L	0.012	55	63	105	21	KED
Zn	66	0.115	ug/L	0.034	29	40	96	16	KED
Zn	67	0.102	ug/L	0.047	45	5	13	28	KED
As	75	0.004	ug/L	0.005	118	7	8	13	KED
Y	89		ug/L			512697	473482	3	Standard
Kr	83		ug/L			65	57	8	Standard
In-1	115		ug/L			11342	11867	4	KED
Cd	111	-0.003	ug/L	0.015	564	6	6	60	KED
Cd	114	0.009	ug/L	0.009	97	4	9	49	KED
In	115		ug/L			888503	849760	3	Standard
Ag	107	0.000	ug/L	0.002	8395	236	226	13	Standard
Tb	159		ug/L			797843	761228	6	Standard
Pb	208	0.003	ug/L	0.000	11	255	445	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0008-BS2**

Sample Dil Factor:

Comments:

Sample Date/Time: **Monday, March 06, 2023 15:34:31**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	53780	2	Standard
Cl	37		ug/L			4837250	4822407	1	Standard
[> Sc	45		ug/L			768932	771041	3	Standard
| Cr	52	25.660	ug/L	0.505	1	29685	645199	2	Standard
| Cr	53	25.182	ug/L	0.820	3	273	71268	4	Standard
| Mn	55	26.062	ug/L	1.033	3	1379	899087	3	Standard
[> Ge	72		ug/L			45127	44846	0	KED
| Ni	60	26.273	ug/L	1.127	4	27	36554	4	KED
| Ni	62	26.123	ug/L	1.797	6	5	5936	7	KED
| Cu	63	26.017	ug/L	1.039	3	118	108314	3	KED
| Cu	65	26.056	ug/L	0.801	3	63	52238	3	KED
| Zn	66	84.830	ug/L	3.945	4	40	41815	5	KED
| Zn	67	79.995	ug/L	1.075	1	5	6516	2	KED
[As	75	25.680	ug/L	0.521	2	7	6222	2	KED
Y	89		ug/L			512697	509052	1	Standard
Kr	83		ug/L			65	76	17	Standard
[> In-1	115		ug/L			11342	11584	1	KED
| Cd	111	25.833	ug/L	0.635	2	6	6199	2	KED
[Cd	114	25.303	ug/L	0.162	0	4	14971	2	KED
[> In	115		ug/L			888503	901211	1	Standard
[Ag	107	24.106	ug/L	0.262	1	236	461096	1	Standard
[> Tb	159		ug/L			797843	796817	2	Standard
[Pb	208	26.368	ug/L	0.585	2	255	1670380	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0045-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Monday, March 06, 2023 15:38:58**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	52661	2	Standard
Cl	37		ug/L			4837250	4812352	4	Standard
> Sc	45		ug/L			768932	784101	3	Standard
| Cr	52	0.035	ug/L	0.020	58	29685	31109	2	Standard
| Cr	53	0.008	ug/L	0.000	5	273	302	3	Standard
| Mn	55	0.062	ug/L	0.003	4	1379	3592	5	Standard
> Ge	72		ug/L			45127	44793	3	KED
| Ni	60	0.003	ug/L	0.005	188	27	31	24	KED
| Ni	62	0.003	ug/L	0.004	135	5	6	17	KED
| Cu	63	0.020	ug/L	0.004	22	118	200	6	KED
| Cu	65	0.009	ug/L	0.008	91	63	80	18	KED
| Zn	66	0.191	ug/L	0.022	11	40	133	4	KED
| Zn	67	0.180	ug/L	0.053	29	5	20	21	KED
| As	75	0.013	ug/L	0.017	126	7	11	38	KED
Y	89		ug/L			512697	511857	3	Standard
Kr	83		ug/L			65	60	14	Standard
> In-1	115		ug/L			11342	12180	2	KED
| Cd	111	-0.011	ug/L	0.009	86	6	4	53	KED
| Cd	114	0.003	ug/L	0.008	269	4	6	73	KED
> In	115		ug/L			888503	888169	1	Standard
| Ag	107	0.007	ug/L	0.001	18	236	366	5	Standard
> Tb	159		ug/L			797843	797241	5	Standard
| Pb	208	0.004	ug/L	0.000	10	255	518	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0045-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Monday, March 06, 2023 15:43:26**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	53362	1	Standard
Cl	37		ug/L			4837250	4790194	3	Standard
> Sc	45		ug/L			768932	768332	3	Standard
| Cr	52	25.312	ug/L	0.100	0	29685	634727	3	Standard
| Cr	53	24.916	ug/L	0.263	1	273	70253	2	Standard
| Mn	55	25.569	ug/L	0.319	1	1379	879439	3	Standard
> Ge	72		ug/L			45127	45123	3	KED
| Ni	60	25.511	ug/L	0.665	2	27	35698	3	KED
| Ni	62	24.550	ug/L	1.553	6	5	5609	5	KED
| Cu	63	24.937	ug/L	0.746	2	118	104417	2	KED
| Cu	65	25.327	ug/L	0.692	2	63	51089	4	KED
| Zn	66	82.347	ug/L	5.293	6	40	40806	5	KED
| Zn	67	75.946	ug/L	2.746	3	5	6221	2	KED
| As	75	25.187	ug/L	0.981	3	7	6138	3	KED
Y	89		ug/L			512697	518296	3	Standard
Kr	83		ug/L			65	72	11	Standard
> In-1	115		ug/L			11342	11221	4	KED
| Cd	111	25.503	ug/L	0.836	3	6	5923	2	KED
| Cd	114	25.207	ug/L	0.690	2	4	14434	2	KED
> In	115		ug/L			888503	886652	2	Standard
| Ag	107	24.843	ug/L	0.735	2	236	467279	0	Standard
> Tb	159		ug/L			797843	799457	4	Standard
| Pb	208	25.744	ug/L	1.160	4	255	1634878	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0026-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 15:49:08**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	920398	0	Standard
Cl	37		ug/L			4837250	5267311	2	Standard
> Sc	45		ug/L			768932	789749	3	Standard
| Cr	52	4.316	ug/L	0.105	2	29685	136493	1	Standard
| Cr	53	1.371	ug/L	0.059	4	273	4234	1	Standard
| Mn	55	144.207	ug/L	4.033	2	1379	5089732	2	Standard
> Ge	72		ug/L			45127	41423	1	KED
| Ni	60	16.761	ug/L	0.327	1	27	21543	1	KED
| Ni	62	16.985	ug/L	0.292	1	5	3566	0	KED
| Cu	63	2.150	ug/L	0.015	0	118	8368	1	KED
| Cu	65	2.196	ug/L	0.044	1	63	4118	0	KED
| Zn	66	14.227	ug/L	0.649	4	40	6507	4	KED
| Zn	67	13.822	ug/L	0.793	5	5	1043	4	KED
| As	75	0.070	ug/L	0.005	7	7	23	6	KED
| Y	89		ug/L			512697	510979	2	Standard
| Kr	83		ug/L			65	95	9	Standard
> In-1	115		ug/L			11342	11041	2	KED
| Cd	111	0.002	ug/L	0.013	623	6	6	43	KED
| Cd	114	0.023	ug/L	0.030	127	4	17	98	KED
> In	115		ug/L			888503	806545	1	Standard
| Ag	107	0.005	ug/L	0.001	14	236	296	5	Standard
> Tb	159		ug/L			797843	780451	2	Standard
| Pb	208	0.185	ug/L	0.001	0	255	11732	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0027-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 15:53:35**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	65154	2	Standard
Cl	37		ug/L			4837250	9771942	1	Standard
> Sc	45		ug/L			768932	753577	2	Standard
| Cr	52	135.363	ug/L	1.863	1	29685	3203017	2	Standard
| Cr	53	136.794	ug/L	0.938	0	273	377177	2	Standard
| Mn	55	2.867	ug/L	0.026	0	1379	97908	1	Standard
> Ge	72		ug/L			45127	43753	4	KED
| Ni	60	1.712	ug/L	0.058	3	27	2350	7	KED
| Ni	62	1.655	ug/L	0.095	5	5	372	9	KED
| Cu	63	12.962	ug/L	0.211	1	118	52684	2	KED
| Cu	65	12.930	ug/L	0.082	0	63	25319	3	KED
| Zn	66	19.451	ug/L	1.027	5	40	9370	1	KED
| Zn	67	18.426	ug/L	0.871	4	5	1467	3	KED
| As	75	0.149	ug/L	0.010	6	7	43	9	KED
Y	89		ug/L			512697	490049	2	Standard
Kr	83		ug/L			65	93	34	Standard
> In-1	115		ug/L			11342	11152	2	KED
| Cd	111	0.944	ug/L	0.081	8	6	224	7	KED
| Cd	114	0.891	ug/L	0.032	3	4	511	2	KED
> In	115		ug/L			888503	822468	2	Standard
| Ag	107	0.027	ug/L	0.000	1	236	693	1	Standard
> Tb	159		ug/L			797843	787600	3	Standard
| Pb	208	0.329	ug/L	0.010	2	255	20835	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0004-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Monday, March 06, 2023 16:02:08**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	96867	0	Standard
Cl	37		ug/L			4837250	5359172	2	Standard
Sc	45		ug/L			768932	761990	3	Standard
Cr	52	1.546	ug/L	0.027	1	29685	66067	2	Standard
Cr	53	1.437	ug/L	0.016	1	273	4273	2	Standard
Mn	55	8.575	ug/L	0.167	1	1379	293315	1	Standard
Ge	72		ug/L			45127	44342	1	KED
Ni	60	1.060	ug/L	0.046	4	27	1483	5	KED
Ni	62	1.159	ug/L	0.089	7	5	266	9	KED
Cu	63	0.055	ug/L	0.011	19	118	342	11	KED
Cu	65	0.051	ug/L	0.003	6	63	162	6	KED
Zn	66	1.296	ug/L	0.108	8	40	671	8	KED
Zn	67	1.460	ug/L	0.082	5	5	123	6	KED
As	75	0.053	ug/L	0.017	32	7	20	17	KED
Y	89		ug/L			512697	505092	4	Standard
Kr	83		ug/L			65	73	9	Standard
In-1	115		ug/L			11342	12273	2	KED
Cd	111	0.000	ug/L	0.005	1807	6	7	19	KED
Cd	114	0.013	ug/L	0.008	65	4	12	41	KED
In	115		ug/L			888503	869423	4	Standard
Ag	107	-0.004	ug/L	0.000	8	236	165	3	Standard
Tb	159		ug/L			797843	797520	5	Standard
Pb	208	0.017	ug/L	0.001	6	255	1309	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0551-01**

Sample Dil Factor: **10**

Comments:

Sample Date/Time: **Monday, March 06, 2023 16:06:45**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	52609	1	Standard
Cl	37		ug/L			4837250	5446094	2	Standard
[> Sc	45		ug/L			768932	758893	3	Standard
| Cr	52	0.116	ug/L	0.013	11	29685	32034	4	Standard
| Cr	53	0.126	ug/L	0.005	3	273	617	2	Standard
| Mn	55	8.780	ug/L	0.074	0	1379	299226	3	Standard
[> Ge	72		ug/L			45127	44798	3	KED
| Ni	60	0.124	ug/L	0.017	13	27	200	13	KED
| Ni	62	0.179	ug/L	0.035	19	5	46	20	KED
| Cu	63	20.719	ug/L	0.577	2	118	86189	3	KED
| Cu	65	20.827	ug/L	0.350	1	63	41710	1	KED
| Zn	66	809.569	ug/L	20.545	2	40	398237	3	KED
| Zn	67	734.327	ug/L	17.353	2	5	59719	4	KED
[As	75	0.012	ug/L	0.021	167	7	10	44	KED
Y	89		ug/L			512697	499107	1	Standard
Kr	83		ug/L			65	64	1	Standard
[> In-1	115		ug/L			11342	11741	3	KED
| Cd	111	0.402	ug/L	0.012	2	6	104	2	KED
| Cd	114	0.382	ug/L	0.023	6	4	233	8	KED
[> In	115		ug/L			888503	867992	2	Standard
| Ag	107	-0.003	ug/L	0.001	46	236	184	13	Standard
[> Tb	159		ug/L			797843	782343	1	Standard
[Pb	208	0.072	ug/L	0.003	3	255	4755	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0095-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 16:14:57**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	107306	3	Standard
Cl	37		ug/L			4837250	5124158	2	Standard
> Sc	45		ug/L			768932	757553	3	Standard
| Cr	52	38.947	ug/L	0.413	1	29685	947453	4	Standard
| Cr	53	38.599	ug/L	0.471	1	273	107159	3	Standard
| Mn	55	17.725	ug/L	0.288	1	1379	601625	4	Standard
> Ge	72		ug/L			45127	43975	4	KED
| Ni	60	1.604	ug/L	0.069	4	27	2210	0	KED
| Ni	62	1.645	ug/L	0.138	8	5	371	8	KED
| Cu	63	1.177	ug/L	0.020	1	118	4914	4	KED
| Cu	65	1.151	ug/L	0.053	4	63	2319	2	KED
| Zn	66	70.896	ug/L	3.332	4	40	34224	1	KED
| Zn	67	64.611	ug/L	0.672	1	5	5162	5	KED
| As	75	0.046	ug/L	0.020	42	7	18	28	KED
Y	89		ug/L			512697	492067	6	Standard
Kr	83		ug/L			65	80	9	Standard
> In-1	115		ug/L			11342	11986	0	KED
| Cd	111	0.450	ug/L	0.034	7	6	118	8	KED
| Cd	114	0.452	ug/L	0.037	8	4	280	7	KED
> In	115		ug/L			888503	850951	2	Standard
| Ag	107	0.023	ug/L	0.003	14	236	639	10	Standard
> Tb	159		ug/L			797843	778582	1	Standard
| Pb	208	0.089	ug/L	0.003	3	255	5764	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 16:22:42

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	38303	4	Standard
Cl	37		ug/L			4837250	5200536	2	Standard
[> Sc	45		ug/L			768932	719832	2	Standard
| Cr	52	0.001	ug/L	0.028	3133	29685	27819	4	Standard
| Cr	53	0.014	ug/L	0.006	43	273	291	2	Standard
| Mn	55	0.020	ug/L	0.001	3	1379	1948	2	Standard
[> Ge	72		ug/L			45127	43283	2	KED
| Ni	60	0.078	ug/L	0.016	20	27	131	18	KED
| Ni	62	0.079	ug/L	0.011	13	5	22	8	KED
| Cu	63	0.035	ug/L	0.002	5	118	252	2	KED
| Cu	65	0.036	ug/L	0.006	17	63	129	6	KED
| Zn	66	0.605	ug/L	0.044	7	40	326	6	KED
| Zn	67	0.612	ug/L	0.169	27	5	53	22	KED
[As	75	0.003	ug/L	0.012	485	7	8	37	KED
Y	89		ug/L			512697	486089	3	Standard
Kr	83		ug/L			65	65	16	Standard
[> In-1	115		ug/L			11342	11675	3	KED
| Cd	111	-0.009	ug/L	0.010	115	6	4	52	KED
[Cd	114	0.015	ug/L	0.021	136	4	13	93	KED
[> In	115		ug/L			888503	836995	2	Standard
[Ag	107	-0.007	ug/L	0.001	16	236	106	21	Standard
[> Tb	159		ug/L			797843	749818	3	Standard
[Pb	208	0.013	ug/L	0.001	6	255	1029	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 16:27:10

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	39074	1	Standard
Cl	37		ug/L			4837250	5092335	2	Standard
[> Sc	45		ug/L			768932	731594	2	Standard
| Cr	52	49.723	ug/L	0.894	1	29685	1159898	1	Standard
| Cr	53	49.387	ug/L	0.758	1	273	132328	0	Standard
| Mn	55	50.381	ug/L	0.590	1	1379	1648795	2	Standard
[> Ge	72		ug/L			45127	43855	2	KED
| Ni	60	49.385	ug/L	0.786	1	27	67176	3	KED
| Ni	62	49.584	ug/L	1.000	2	5	11016	4	KED
| Cu	63	49.160	ug/L	1.439	2	118	200087	4	KED
| Cu	65	48.519	ug/L	0.783	1	63	95090	3	KED
| Zn	66	50.197	ug/L	0.339	0	40	24211	3	KED
| Zn	67	51.496	ug/L	0.704	1	5	4104	3	KED
| As	75	49.976	ug/L	0.455	0	7	11836	3	KED
Y	89		ug/L			512697	489719	2	Standard
Kr	83		ug/L			65	62	6	Standard
[> In-1	115		ug/L			11342	11947	3	KED
| Cd	111	49.184	ug/L	0.324	0	6	12166	2	KED
| Cd	114	48.890	ug/L	0.290	0	4	29824	2	KED
[> In	115		ug/L			888503	834557	1	Standard
| Ag	107	48.460	ug/L	0.832	1	236	858013	0	Standard
[> Tb	159		ug/L			797843	783434	2	Standard
| Pb	208	50.276	ug/L	1.028	2	255	3131118	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 16:34:22

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	35305	4	Standard
Cl	37		ug/L			4837250	4924624	4	Standard
[> Sc	45		ug/L			768932	702333	4	Standard
| Cr	52	-0.003	ug/L	0.016	561	29685	27045	3	Standard
| Cr	53	-0.007	ug/L	0.006	81	273	231	8	Standard
| Mn	55	-0.011	ug/L	0.001	13	1379	925	2	Standard
[> Ge	72		ug/L			45127	43804	2	KED
| Ni	60	-0.003	ug/L	0.004	128	27	22	24	KED
| Ni	62	0.004	ug/L	0.028	779	5	6	96	KED
| Cu	63	0.000	ug/L	0.001	334	118	116	6	KED
| Cu	65	0.001	ug/L	0.007	638	63	63	18	KED
| Zn	66	0.021	ug/L	0.015	70	40	49	15	KED
| Zn	67	0.010	ug/L	0.051	490	5	6	62	KED
| As	75	0.004	ug/L	0.006	124	7	8	12	KED
Y	89		ug/L			512697	466151	3	Standard
Kr	83		ug/L			65	74	24	Standard
[> In-1	115		ug/L			11342	12072	1	KED
| Cd	111	-0.014	ug/L	0.008	54	6	3	56	KED
| Cd	114	0.001	ug/L	0.006	1101	4	4	78	KED
[> In	115		ug/L			888503	834288	2	Standard
| Ag	107	0.003	ug/L	0.001	16	236	276	4	Standard
[> Tb	159		ug/L			797843	733768	3	Standard
| Pb	208	0.001	ug/L	0.000	2	255	307	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0108-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Monday, March 06, 2023 16:38:51**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	43448	1	Standard
Cl	37		ug/L			4837250	4981370	4	Standard
> Sc	45		ug/L			768932	717289	5	Standard
| Cr	52	0.047	ug/L	0.032	68	29685	28724	3	Standard
| Cr	53	0.041	ug/L	0.010	23	273	360	2	Standard
| Mn	55	0.011	ug/L	0.001	10	1379	1646	3	Standard
> Ge	72		ug/L			45127	44597	0	KED
| Ni	60	0.001	ug/L	0.006	550	27	28	30	KED
| Ni	62	-0.002	ug/L	0.018	727	5	5	78	KED
| Cu	63	0.012	ug/L	0.008	62	118	166	18	KED
| Cu	65	0.005	ug/L	0.003	60	63	71	8	KED
| Zn	66	0.183	ug/L	0.016	8	40	129	5	KED
| Zn	67	0.299	ug/L	0.034	11	5	29	9	KED
| As	75	0.008	ug/L	0.007	92	7	9	17	KED
Y	89		ug/L			512697	478520	5	Standard
Kr	83		ug/L			65	64	21	Standard
> In-1	115		ug/L			11342	11167	1	KED
| Cd	111	-0.005	ug/L	0.012	234	6	5	53	KED
| Cd	114	0.006	ug/L	0.007	111	4	7	52	KED
> In	115		ug/L			888503	840548	1	Standard
| Ag	107	-0.002	ug/L	0.001	29	236	179	9	Standard
> Tb	159		ug/L			797843	746259	4	Standard
| Pb	208	0.002	ug/L	0.000	6	255	365	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0108-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Monday, March 06, 2023 16:43:18**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	43184	3	Standard
Cl	37		ug/L			4837250	4816248	0	Standard
> Sc	45		ug/L			768932	693333	1	Standard
| Cr	52	25.098	ug/L	0.477	1	29685	568116	0	Standard
| Cr	53	25.104	ug/L	0.181	0	273	63882	1	Standard
| Mn	55	25.836	ug/L	0.328	1	1379	801823	0	Standard
> Ge	72		ug/L			45127	44971	2	KED
| Ni	60	24.357	ug/L	0.298	1	27	33976	2	KED
| Ni	62	23.887	ug/L	0.654	2	5	5441	1	KED
| Cu	63	24.407	ug/L	0.893	3	118	101878	3	KED
| Cu	65	24.737	ug/L	0.402	1	63	49727	1	KED
| Zn	66	81.117	ug/L	1.021	1	40	40087	1	KED
| Zn	67	75.333	ug/L	2.232	2	5	6151	2	KED
| As	75	24.607	ug/L	0.373	1	7	5978	0	KED
Y	89		ug/L			512697	461551	0	Standard
Kr	83		ug/L			65	61	18	Standard
> In-1	115		ug/L			11342	11412	0	KED
| Cd	111	24.484	ug/L	0.333	1	6	5789	0	KED
| Cd	114	24.856	ug/L	0.308	1	4	14487	0	KED
> In	115		ug/L			888503	812652	1	Standard
| Ag	107	25.097	ug/L	0.394	1	236	432834	1	Standard
> Tb	159		ug/L			797843	736413	3	Standard
| Pb	208	26.057	ug/L	0.873	3	255	1524977	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0501-02**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 16:48:17**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	54730	2	Standard
Cl	37		ug/L			4837250	4950452	3	Standard
[> Sc	45		ug/L			768932	750962	4	Standard
| Cr	52	6.436	ug/L	0.168	2	29685	179305	4	Standard
| Cr	53	6.537	ug/L	0.159	2	273	18206	3	Standard
| Mn	55	7.587	ug/L	0.181	2	1379	255909	3	Standard
[> Ge	72		ug/L			45127	40447	6	KED
| Ni	60	0.788	ug/L	0.017	2	27	1012	4	KED
| Ni	62	0.904	ug/L	0.036	3	5	190	9	KED
| Cu	63	1.310	ug/L	0.086	6	118	5006	1	KED
| Cu	65	1.351	ug/L	0.061	4	63	2491	1	KED
| Zn	66	3.186	ug/L	0.266	8	40	1447	5	KED
| Zn	67	2.929	ug/L	0.155	5	5	219	2	KED
| As	75	0.090	ug/L	0.028	30	7	26	17	KED
Y	89		ug/L			512697	490405	3	Standard
Kr	83		ug/L			65	83	3	Standard
[> In-1	115		ug/L			11342	11102	1	KED
| Cd	111	-0.004	ug/L	0.012	336	6	5	50	KED
| Cd	114	0.011	ug/L	0.002	16	4	10	9	KED
[> In	115		ug/L			888503	805676	3	Standard
| Ag	107	0.004	ug/L	0.002	60	236	280	14	Standard
[> Tb	159		ug/L			797843	765640	4	Standard
| Pb	208	0.011	ug/L	0.001	8	255	906	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0501-03**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 16:53:05**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	54419	2	Standard
Cl	37		ug/L			4837250	4877569	4	Standard
[> Sc	45		ug/L			768932	740406	2	Standard
| Cr	52	4.338	ug/L	0.112	2	29685	128477	0	Standard
| Cr	53	4.389	ug/L	0.035	0	273	12143	2	Standard
| Mn	55	6.489	ug/L	0.176	2	1379	216061	3	Standard
[> Ge	72		ug/L			45127	40661	2	KED
| Ni	60	0.630	ug/L	0.039	6	27	819	7	KED
| Ni	62	0.778	ug/L	0.054	6	5	165	4	KED
| Cu	63	1.552	ug/L	0.056	3	118	5956	2	KED
| Cu	65	1.580	ug/L	0.056	3	63	2927	5	KED
| Zn	66	2.112	ug/L	0.144	6	40	978	3	KED
| Zn	67	2.224	ug/L	0.219	9	5	169	11	KED
| As	75	0.075	ug/L	0.013	16	7	23	11	KED
Y	89		ug/L			512697	495058	2	Standard
Kr	83		ug/L			65	81	29	Standard
[> In-1	115		ug/L			11342	11221	0	KED
| Cd	111	0.013	ug/L	0.019	149	6	9	45	KED
| Cd	114	0.003	ug/L	0.007	243	4	5	68	KED
[> In	115		ug/L			888503	814572	2	Standard
| Ag	107	-0.004	ug/L	0.000	9	236	142	2	Standard
[> Tb	159		ug/L			797843	782784	4	Standard
| Pb	208	0.006	ug/L	0.000	3	255	650	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0501-04**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 16:57:32**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	54306	0	Standard
Cl	37		ug/L			4837250	4888239	2	Standard
[> Sc	45		ug/L			768932	754263	4	Standard
| Cr	52	7.859	ug/L	0.063	0	29685	213518	3	Standard
| Cr	53	7.812	ug/L	0.287	3	273	21792	2	Standard
| Mn	55	7.506	ug/L	0.139	1	1379	254264	2	Standard
[> Ge	72		ug/L			45127	41199	0	KED
| Ni	60	0.550	ug/L	0.011	2	27	727	2	KED
| Ni	62	0.763	ug/L	0.089	11	5	164	11	KED
| Cu	63	1.622	ug/L	0.040	2	118	6303	1	KED
| Cu	65	1.612	ug/L	0.072	4	63	3023	4	KED
| Zn	66	2.220	ug/L	0.170	7	40	1040	6	KED
| Zn	67	2.291	ug/L	0.024	1	5	176	1	KED
[As	75	0.079	ug/L	0.010	12	7	24	8	KED
Y	89		ug/L			512697	482266	4	Standard
Kr	83		ug/L			65	69	13	Standard
[> In-1	115		ug/L			11342	10775	1	KED
| Cd	111	0.006	ug/L	0.017	296	6	7	50	KED
[Cd	114	0.017	ug/L	0.007	42	4	13	29	KED
[> In	115		ug/L			888503	812679	2	Standard
[Ag	107	-0.005	ug/L	0.002	31	236	123	20	Standard
[> Tb	159		ug/L			797843	786820	1	Standard
[Pb	208	0.011	ug/L	0.000	3	255	948	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0501-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 17:02:41**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	63577	0	Standard
Cl	37		ug/L			4837250	4809964	1	Standard
[> Sc	45		ug/L			768932	759932	4	Standard
| Cr	52	8.456	ug/L	0.266	3	29685	229109	2	Standard
| Cr	53	8.529	ug/L	0.228	2	273	23945	2	Standard
| Mn	55	7.901	ug/L	0.242	3	1379	269546	3	Standard
[> Ge	72		ug/L			45127	44161	1	KED
| Ni	60	1.032	ug/L	0.064	6	27	1438	4	KED
| Ni	62	1.091	ug/L	0.051	4	5	249	5	KED
| Cu	63	1.516	ug/L	0.059	3	118	6326	4	KED
| Cu	65	1.525	ug/L	0.032	2	63	3069	2	KED
| Zn	66	3.481	ug/L	0.118	3	40	1727	2	KED
| Zn	67	3.385	ug/L	0.173	5	5	276	4	KED
| As	75	0.070	ug/L	0.013	18	7	24	12	KED
Y	89		ug/L			512697	503794	5	Standard
Kr	83		ug/L			65	83	32	Standard
[> In-1	115		ug/L			11342	11438	2	KED
| Cd	111	-0.005	ug/L	0.013	241	6	5	56	KED
| Cd	114	-0.000	ug/L	0.005	1283	4	4	70	KED
[> In	115		ug/L			888503	818529	3	Standard
| Ag	107	-0.006	ug/L	0.001	23	236	111	18	Standard
[> Tb	159		ug/L			797843	795337	0	Standard
| Pb	208	0.014	ug/L	0.001	5	255	1151	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0008-DUP2**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 17:10:49**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	59590	2	Standard
Cl	37		ug/L			4837250	4878587	1	Standard
[> Sc	45		ug/L			768932	756031	3	Standard
| Cr	52	8.728	ug/L	0.213	2	29685	234379	1	Standard
| Cr	53	8.713	ug/L	0.171	1	273	24340	2	Standard
| Mn	55	8.190	ug/L	0.063	0	1379	278078	3	Standard
[> Ge	72		ug/L			45127	42040	2	KED
| Ni	60	1.014	ug/L	0.032	3	27	1346	3	KED
| Ni	62	1.285	ug/L	0.062	4	5	278	4	KED
| Cu	63	1.563	ug/L	0.008	0	118	6202	2	KED
| Cu	65	1.565	ug/L	0.042	2	63	2997	5	KED
| Zn	66	3.644	ug/L	0.052	1	40	1719	2	KED
| Zn	67	3.213	ug/L	0.214	6	5	250	4	KED
| As	75	0.068	ug/L	0.009	13	7	22	11	KED
Y	89		ug/L			512697	494113	0	Standard
Kr	83		ug/L			65	78	19	Standard
[> In-1	115		ug/L			11342	11080	0	KED
| Cd	111	0.008	ug/L	0.019	247	6	8	52	KED
| Cd	114	0.011	ug/L	0.002	20	4	10	11	KED
[> In	115		ug/L			888503	832424	1	Standard
| Ag	107	-0.006	ug/L	0.000	6	236	110	7	Standard
[> Tb	159		ug/L			797843	798751	2	Standard
| Pb	208	0.013	ug/L	0.001	4	255	1058	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0008-MS2**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 17:15:16**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	60175	1	Standard
Cl	37		ug/L			4837250	4897829	3	Standard
[> Sc	45		ug/L			768932	745906	2	Standard
| Cr	52	21.269	ug/L	0.788	3	29685	522220	2	Standard
| Cr	53	21.151	ug/L	0.628	2	273	57915	1	Standard
| Mn	55	20.963	ug/L	0.603	2	1379	700092	2	Standard
[> Ge	72		ug/L			45127	42269	5	KED
| Ni	60	13.420	ug/L	0.465	3	27	17588	1	KED
| Ni	62	13.775	ug/L	0.459	3	5	2953	6	KED
| Cu	63	13.878	ug/L	0.120	0	118	54505	5	KED
| Cu	65	14.082	ug/L	0.676	4	63	26593	0	KED
| Zn	66	41.067	ug/L	1.059	2	40	19088	4	KED
| Zn	67	40.045	ug/L	0.688	1	5	3075	4	KED
| As	75	12.922	ug/L	0.475	3	7	2951	1	KED
Y	89		ug/L			512697	505764	4	Standard
Kr	83		ug/L			65	73	27	Standard
[> In-1	115		ug/L			11342	11214	0	KED
| Cd	111	12.397	ug/L	0.244	1	6	2883	1	KED
| Cd	114	12.481	ug/L	0.082	0	4	7151	1	KED
[> In	115		ug/L			888503	826743	3	Standard
| Ag	107	11.854	ug/L	0.162	1	236	208070	1	Standard
[> Tb	159		ug/L			797843	804394	1	Standard
| Pb	208	12.232	ug/L	0.321	2	255	782436	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0330-29**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Monday, March 06, 2023 17:20:16**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	49546	3	Standard
Cl	37		ug/L			4837250	4980830	1	Standard
[> Sc	45		ug/L			768932	804430	1	Standard
| Cr	52	0.084	ug/L	0.033	38	29685	33158	2	Standard
| Cr	53	0.469	ug/L	0.009	2	273	1663	0	Standard
| Mn	55	311.846	ug/L	5.412	1	1379	11214553	2	Standard
[> Ge	72		ug/L			45127	44290	4	KED
| Ni	60	0.471	ug/L	0.016	3	27	673	1	KED
| Ni	62	0.485	ug/L	0.069	14	5	114	13	KED
| Cu	63	0.174	ug/L	0.013	7	118	830	1	KED
| Cu	65	0.171	ug/L	0.012	7	63	400	5	KED
| Zn	66	0.504	ug/L	0.060	11	40	285	13	KED
| Zn	67	0.521	ug/L	0.191	36	5	47	34	KED
| [As	75	5.540	ug/L	0.188	3	7	1331	5	KED
| Y	89		ug/L			512697	523590	0	Standard
| Kr	83		ug/L			65	77	14	Standard
[> In-1	115		ug/L			11342	11851	1	KED
| Cd	111	-0.005	ug/L	0.008	157	6	5	33	KED
| Cd	114	0.011	ug/L	0.008	78	4	11	45	KED
[> In	115		ug/L			888503	885860	1	Standard
| Ag	107	-0.001	ug/L	0.000	15	236	209	0	Standard
[> Tb	159		ug/L			797843	837291	5	Standard
| Pb	208	0.018	ug/L	0.002	8	255	1492	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 17:25:59

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	40702	1	Standard
Cl	37		ug/L			4837250	4570526	4	Standard
[> Sc	45		ug/L			768932	725752	5	Standard
| Cr	52	-0.019	ug/L	0.006	29	29685	27587	4	Standard
| Cr	53	-0.007	ug/L	0.006	89	273	240	8	Standard
| Mn	55	-0.001	ug/L	0.001	209	1379	1280	2	Standard
[> Ge	72		ug/L			45127	44113	3	KED
| Ni	60	0.001	ug/L	0.003	351	27	27	17	KED
| Ni	62	0.029	ug/L	0.022	75	5	12	39	KED
| Cu	63	0.002	ug/L	0.002	139	118	122	8	KED
| Cu	65	-0.006	ug/L	0.004	72	63	50	14	KED
| Zn	66	0.029	ug/L	0.041	140	40	53	34	KED
| Zn	67	0.145	ug/L	0.007	4	5	17	0	KED
[As	75	0.003	ug/L	0.006	221	7	8	18	KED
Y	89		ug/L			512697	473979	5	Standard
Kr	83		ug/L			65	71	12	Standard
[> In-1	115		ug/L			11342	12007	2	KED
| Cd	111	-0.007	ug/L	0.016	236	6	5	73	KED
[Cd	114	0.008	ug/L	0.013	155	4	9	80	KED
[> In	115		ug/L			888503	848007	5	Standard
[Ag	107	-0.008	ug/L	0.001	12	236	90	20	Standard
[> Tb	159		ug/L			797843	770768	6	Standard
[Pb	208	0.001	ug/L	0.000	40	255	289	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 17:30:27

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	37807	5	Standard
Cl	37		ug/L			4837250	5067098	1	Standard
[> Sc	45		ug/L			768932	746244	2	Standard
| Cr	52	49.382	ug/L	0.558	1	29685	1175606	3	Standard
| Cr	53	49.556	ug/L	0.900	1	273	135497	4	Standard
| Mn	55	50.457	ug/L	0.701	1	1379	1684658	3	Standard
[> Ge	72		ug/L			45127	44514	2	KED
| Ni	60	48.454	ug/L	1.164	2	27	66908	4	KED
| Ni	62	48.364	ug/L	0.674	1	5	10903	2	KED
| Cu	63	47.535	ug/L	0.590	1	118	196367	3	KED
| Cu	65	49.014	ug/L	0.129	0	63	97488	2	KED
| Zn	66	49.413	ug/L	0.434	0	40	24189	2	KED
| Zn	67	50.004	ug/L	0.472	0	5	4045	3	KED
[As	75	49.964	ug/L	0.139	0	7	12009	2	KED
Y	89		ug/L			512697	494633	1	Standard
Kr	83		ug/L			65	78	20	Standard
[> In-1	115		ug/L			11342	11726	3	KED
| Cd	111	49.670	ug/L	0.853	1	6	12056	2	KED
| Cd	114	49.294	ug/L	1.170	2	4	29509	2	KED
[> In	115		ug/L			888503	877456	3	Standard
| Ag	107	49.037	ug/L	0.387	0	236	913139	3	Standard
[> Tb	159		ug/L			797843	816464	3	Standard
[Pb	208	48.582	ug/L	1.859	3	255	3152115	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 17:37:38

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	37355	3	Standard
Cl	37		ug/L			4837250	4968764	3	Standard
[> Sc	45		ug/L			768932	751076	3	Standard
| Cr	52	-0.053	ug/L	0.007	12	29685	27754	3	Standard
| Cr	53	-0.012	ug/L	0.002	17	273	232	6	Standard
| Mn	55	-0.011	ug/L	0.001	10	1379	963	0	Standard
[> Ge	72		ug/L			45127	44522	4	KED
| Ni	60	-0.002	ug/L	0.002	81	27	23	12	KED
| Ni	62	0.014	ug/L	0.010	68	5	8	24	KED
| Cu	63	-0.001	ug/L	0.001	127	118	113	1	KED
| Cu	65	-0.004	ug/L	0.006	153	63	54	23	KED
| Zn	66	0.001	ug/L	0.016	1440	40	40	19	KED
| Zn	67	0.000	ug/L	0.068	145185	5	5	100	KED
| As	75	0.003	ug/L	0.012	412	7	8	36	KED
Y	89		ug/L			512697	489285	3	Standard
Kr	83		ug/L			65	74	14	Standard
[> In-1	115		ug/L			11342	11821	4	KED
| Cd	111	-0.011	ug/L	0.007	60	6	4	35	KED
| Cd	114	-0.003	ug/L	0.002	56	4	2	43	KED
[> In	115		ug/L			888503	862033	2	Standard
| Ag	107	0.003	ug/L	0.001	30	236	288	4	Standard
[> Tb	159		ug/L			797843	785569	5	Standard
| Pb	208	0.001	ug/L	0.001	58	255	304	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0047-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Monday, March 06, 2023 17:43:02**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	51983	0	Standard
Cl	37		ug/L			4837250	5180464	0	Standard
[> Sc	45		ug/L			768932	758073	1	Standard
| Cr	52	4.915	ug/L	0.120	2	29685	145170	0	Standard
| Cr	53	5.300	ug/L	0.037	0	273	14957	1	Standard
| Mn	55	76.769	ug/L	2.516	3	1379	2601461	1	Standard
[> Ge	72		ug/L			45127	45237	1	KED
| Ni	60	5.015	ug/L	0.247	4	27	7056	4	KED
| Ni	62	5.206	ug/L	0.239	4	5	1197	3	KED
| Cu	63	24.700	ug/L	0.223	0	118	103730	0	KED
| Cu	65	24.687	ug/L	0.482	1	63	49923	1	KED
| Zn	66	319.781	ug/L	9.139	2	40	158846	2	KED
| Zn	67	299.869	ug/L	4.777	1	5	24620	0	KED
| As	75	2.058	ug/L	0.043	2	7	510	2	KED
Y	89		ug/L			512697	510032	0	Standard
Kr	83		ug/L			65	73	22	Standard
[> In-1	115		ug/L			11342	12014	1	KED
| Cd	111	0.074	ug/L	0.008	10	6	25	7	KED
| Cd	114	0.076	ug/L	0.009	11	4	51	8	KED
[> In	115		ug/L			888503	864626	3	Standard
| Ag	107	0.028	ug/L	0.001	3	236	735	5	Standard
[> Tb	159		ug/L			797843	804697	3	Standard
| Pb	208	7.451	ug/L	0.148	1	255	476778	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0048-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Monday, March 06, 2023 17:48:30**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	56792	1	Standard
Cl	37		ug/L			4837250	5464306	3	Standard
Sc	45		ug/L			768932	771306	5	Standard
Cr	52	0.498	ug/L	0.030	6	29685	41691	3	Standard
Cr	53	0.870	ug/L	0.017	1	273	2725	3	Standard
Mn	55	4.796	ug/L	0.109	2	1379	166606	3	Standard
Ge	72		ug/L			45127	45003	3	KED
Ni	60	0.764	ug/L	0.011	1	27	1094	4	KED
Ni	62	0.797	ug/L	0.066	8	5	187	8	KED
Cu	63	5.284	ug/L	0.077	1	118	22168	3	KED
Cu	65	5.371	ug/L	0.131	2	63	10849	1	KED
Zn	66	20.469	ug/L	0.096	0	40	10153	3	KED
Zn	67	20.208	ug/L	0.477	2	5	1655	1	KED
As	75	2.255	ug/L	0.072	3	7	555	5	KED
Y	89		ug/L			512697	493953	3	Standard
Kr	83		ug/L			65	73	19	Standard
In-1	115		ug/L			11342	11563	0	KED
Cd	111	0.002	ug/L	0.008	391	6	7	27	KED
Cd	114	0.011	ug/L	0.006	58	4	10	35	KED
In	115		ug/L			888503	860549	2	Standard
Ag	107	-0.003	ug/L	0.002	61	236	180	16	Standard
Tb	159		ug/L			797843	787210	3	Standard
Pb	208	0.340	ug/L	0.011	3	255	21500	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0048-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Monday, March 06, 2023 17:54:10**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	58766	2	Standard
Cl	37		ug/L			4837250	5175977	1	Standard
[> Sc	45		ug/L			768932	745333	0	Standard
| Cr	52	1.028	ug/L	0.029	2	29685	52614	2	Standard
| Cr	53	1.374	ug/L	0.018	1	273	4009	1	Standard
| Mn	55	20.434	ug/L	0.564	2	1379	682078	2	Standard
[> Ge	72		ug/L			45127	43770	2	KED
| Ni	60	0.895	ug/L	0.012	1	27	1240	1	KED
| Ni	62	1.019	ug/L	0.052	5	5	231	2	KED
| Cu	63	5.858	ug/L	0.223	3	118	23900	5	KED
| Cu	65	6.131	ug/L	0.112	1	63	12041	1	KED
| Zn	66	55.062	ug/L	0.733	1	40	26500	2	KED
| Zn	67	52.298	ug/L	0.857	1	5	4159	2	KED
| As	75	0.883	ug/L	0.117	13	7	215	10	KED
Y	89		ug/L			512697	495568	0	Standard
Kr	83		ug/L			65	65	11	Standard
[> In-1	115		ug/L			11342	11488	4	KED
| Cd	111	0.007	ug/L	0.019	279	6	8	52	KED
| Cd	114	0.017	ug/L	0.010	55	4	14	35	KED
[> In	115		ug/L			888503	872590	1	Standard
| Ag	107	0.001	ug/L	0.000	53	236	248	3	Standard
[> Tb	159		ug/L			797843	788106	3	Standard
| Pb	208	0.542	ug/L	0.017	3	255	34168	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0556-02**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 17:58:51**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	46074	1	Standard
Cl	37		ug/L			4837250	4911930	0	Standard
> Sc	45		ug/L			768932	732797	1	Standard
| Cr	52	8.761	ug/L	0.122	1	29685	228019	0	Standard
| Cr	53	8.689	ug/L	0.016	0	273	23538	1	Standard
| Mn	55	6.189	ug/L	0.099	1	1379	204003	1	Standard
> Ge	72		ug/L			45127	43044	2	KED
| Ni	60	0.455	ug/L	0.037	8	27	634	10	KED
| Ni	62	0.507	ug/L	0.080	15	5	116	17	KED
| Cu	63	1.517	ug/L	0.004	0	118	6169	2	KED
| Cu	65	1.560	ug/L	0.073	4	63	3056	3	KED
| Zn	66	1.535	ug/L	0.068	4	40	764	5	KED
| Zn	67	1.637	ug/L	0.022	1	5	133	2	KED
| As	75	0.071	ug/L	0.005	7	7	23	4	KED
Y	89		ug/L			512697	489167	2	Standard
Kr	83		ug/L			65	75	7	Standard
> In-1	115		ug/L			11342	11076	1	KED
| Cd	111	0.003	ug/L	0.003	72	6	7	7	KED
| Cd	114	0.009	ug/L	0.009	104	4	9	56	KED
> In	115		ug/L			888503	810765	1	Standard
| Ag	107	-0.007	ug/L	0.000	6	236	100	6	Standard
> Tb	159		ug/L			797843	775134	3	Standard
| Pb	208	0.010	ug/L	0.001	7	255	888	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0556-03**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 18:03:46**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	47016	2	Standard
Cl	37		ug/L			4837250	4896120	2	Standard
> Sc	45		ug/L			768932	740379	3	Standard
| Cr	52	10.996	ug/L	0.061	0	29685	281907	3	Standard
| Cr	53	10.936	ug/L	0.157	1	273	29861	2	Standard
| Mn	55	6.346	ug/L	0.071	1	1379	211374	3	Standard
> Ge	72		ug/L			45127	41477	0	KED
| Ni	60	0.503	ug/L	0.040	7	27	671	6	KED
| Ni	62	0.682	ug/L	0.104	15	5	148	15	KED
| Cu	63	1.815	ug/L	0.026	1	118	7090	1	KED
| Cu	65	1.837	ug/L	0.019	1	63	3460	1	KED
| Zn	66	2.221	ug/L	0.117	5	40	1048	4	KED
| Zn	67	2.022	ug/L	0.079	3	5	157	4	KED
| As	75	0.082	ug/L	0.013	15	7	25	10	KED
Y	89		ug/L			512697	492492	2	Standard
Kr	83		ug/L			65	73	18	Standard
> In-1	115		ug/L			11342	10914	0	KED
| Cd	111	-0.003	ug/L	0.007	240	6	5	28	KED
| Cd	114	0.004	ug/L	0.008	186	4	6	67	KED
> In	115		ug/L			888503	813085	3	Standard
| Ag	107	-0.009	ug/L	0.000	1	236	64	5	Standard
> Tb	159		ug/L			797843	785881	3	Standard
| Pb	208	0.011	ug/L	0.001	6	255	961	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0556-04**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 18:08:14**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	53297	1	Standard
Cl	37		ug/L			4837250	4617066	2	Standard
> Sc	45		ug/L			768932	709740	5	Standard
| Cr	52	4.923	ug/L	0.107	2	29685	136037	3	Standard
| Cr	53	4.873	ug/L	0.083	1	273	12889	4	Standard
| Mn	55	8.300	ug/L	0.086	1	1379	264494	4	Standard
> Ge	72		ug/L			45127	43081	3	KED
| Ni	60	0.896	ug/L	0.063	7	27	1222	8	KED
| Ni	62	0.928	ug/L	0.033	3	5	207	0	KED
| Cu	63	1.546	ug/L	0.064	4	118	6284	3	KED
| Cu	65	1.555	ug/L	0.048	3	63	3053	6	KED
| Zn	66	2.375	ug/L	0.076	3	40	1162	6	KED
| Zn	67	2.336	ug/L	0.107	4	5	187	2	KED
| As	75	0.081	ug/L	0.021	25	7	26	16	KED
Y	89		ug/L			512697	468191	3	Standard
Kr	83		ug/L			65	73	22	Standard
> In-1	115		ug/L			11342	10875	2	KED
| Cd	111	0.010	ug/L	0.016	164	6	8	40	KED
| Cd	114	0.002	ug/L	0.003	158	4	5	35	KED
> In	115		ug/L			888503	805947	4	Standard
| Ag	107	-0.008	ug/L	0.001	11	236	82	13	Standard
> Tb	159		ug/L			797843	776455	4	Standard
| Pb	208	0.008	ug/L	0.001	9	255	751	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0556-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 18:12:41**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	45424	3	Standard
Cl	37		ug/L			4837250	4878398	2	Standard
> Sc	45		ug/L			768932	751057	3	Standard
| Cr	52	8.834	ug/L	0.098	1	29685	235381	3	Standard
| Cr	53	8.867	ug/L	0.104	1	273	24607	3	Standard
| Mn	55	6.757	ug/L	0.069	1	1379	228197	4	Standard
> Ge	72		ug/L			45127	41689	2	KED
| Ni	60	0.579	ug/L	0.042	7	27	773	8	KED
| Ni	62	0.625	ug/L	0.092	14	5	137	13	KED
| Cu	63	1.787	ug/L	0.059	3	118	7020	4	KED
| Cu	65	1.812	ug/L	0.065	3	63	3430	1	KED
| Zn	66	2.584	ug/L	0.123	4	40	1219	2	KED
| Zn	67	2.442	ug/L	0.167	6	5	189	4	KED
| As	75	0.061	ug/L	0.005	8	7	20	3	KED
Y	89		ug/L			512697	500899	4	Standard
Kr	83		ug/L			65	88	6	Standard
> In-1	115		ug/L			11342	11348	3	KED
| Cd	111	0.001	ug/L	0.001	110	6	6	7	KED
| Cd	114	0.007	ug/L	0.006	90	4	8	47	KED
> In	115		ug/L			888503	835895	2	Standard
| Ag	107	-0.008	ug/L	0.001	9	236	73	18	Standard
> Tb	159		ug/L			797843	799584	3	Standard
| Pb	208	0.072	ug/L	0.005	6	255	4800	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0108-DUP1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 18:17:09**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	44368	1	Standard
Cl	37		ug/L			4837250	4850987	4	Standard
> Sc	45		ug/L			768932	737703	2	Standard
| Cr	52	8.945	ug/L	0.228	2	29685	233697	0	Standard
| Cr	53	8.881	ug/L	0.207	2	273	24204	0	Standard
| Mn	55	6.674	ug/L	0.173	2	1379	221444	4	Standard
> Ge	72		ug/L			45127	42854	2	KED
| Ni	60	0.507	ug/L	0.025	4	27	698	2	KED
| Ni	62	0.578	ug/L	0.021	3	5	130	3	KED
| Cu	63	1.775	ug/L	0.077	4	118	7164	3	KED
| Cu	65	1.787	ug/L	0.050	2	63	3479	2	KED
| Zn	66	1.694	ug/L	0.078	4	40	836	6	KED
| Zn	67	1.672	ug/L	0.187	11	5	135	8	KED
| As	75	0.059	ug/L	0.013	22	7	21	15	KED
Y	89		ug/L			512697	490486	2	Standard
Kr	83		ug/L			65	66	17	Standard
> In-1	115		ug/L			11342	11147	1	KED
| Cd	111	-0.008	ug/L	0.004	55	6	4	20	KED
| Cd	114	0.006	ug/L	0.008	127	4	7	58	KED
> In	115		ug/L			888503	833121	3	Standard
| Ag	107	-0.008	ug/L	0.000	2	236	88	6	Standard
> Tb	159		ug/L			797843	798747	2	Standard
| Pb	208	0.010	ug/L	0.000	2	255	880	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0108-MS1**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 18:21:36**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	43206	1	Standard
Cl	37		ug/L			4837250	4782817	1	Standard
> Sc	45		ug/L			768932	740891	1	Standard
| Cr	52	20.876	ug/L	0.252	1	29685	509785	1	Standard
| Cr	53	20.534	ug/L	0.370	1	273	55886	2	Standard
| Mn	55	18.876	ug/L	0.425	2	1379	626441	3	Standard
> Ge	72		ug/L			45127	40732	3	KED
| Ni	60	12.418	ug/L	0.351	2	27	15707	5	KED
| Ni	62	12.351	ug/L	0.246	1	5	2551	3	KED
| Cu	63	13.513	ug/L	0.202	1	118	51134	2	KED
| Cu	65	13.612	ug/L	0.264	1	63	24824	5	KED
| Zn	66	39.461	ug/L	0.262	0	40	17683	3	KED
| Zn	67	34.742	ug/L	1.416	4	5	2572	4	KED
| As	75	12.800	ug/L	0.181	1	7	2819	2	KED
Y	89		ug/L			512697	485622	3	Standard
Kr	83		ug/L			65	81	8	Standard
> In-1	115		ug/L			11342	10677	2	KED
| Cd	111	12.354	ug/L	0.096	0	6	2736	2	KED
| Cd	114	12.366	ug/L	0.313	2	4	6744	2	KED
> In	115		ug/L			888503	827549	2	Standard
| Ag	107	11.058	ug/L	0.035	0	236	194338	2	Standard
> Tb	159		ug/L			797843	792415	4	Standard
| Pb	208	11.995	ug/L	0.454	3	255	755243	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0047-01RE1**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Monday, March 06, 2023 18:27:22**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	38434	3	Standard
Cl	37		ug/L			4837250	4745715	1	Standard
> Sc	45		ug/L			768932	733738	2	Standard
| Cr	52	1.023	ug/L	0.047	4	29685	51665	2	Standard
| Cr	53	1.116	ug/L	0.029	2	273	3253	4	Standard
| Mn	55	16.437	ug/L	0.230	1	1379	540232	1	Standard
> Ge	72		ug/L			45127	45219	2	KED
| Ni	60	1.052	ug/L	0.027	2	27	1501	3	KED
| Ni	62	1.013	ug/L	0.063	6	5	237	5	KED
| Cu	63	4.908	ug/L	0.154	3	118	20691	2	KED
| Cu	65	4.975	ug/L	0.165	3	63	10106	3	KED
| Zn	66	65.519	ug/L	1.677	2	40	32565	3	KED
| Zn	67	60.066	ug/L	0.421	0	5	4934	2	KED
| As	75	0.442	ug/L	0.026	5	7	115	5	KED
| Y	89		ug/L			512697	489928	2	Standard
| Kr	83		ug/L			65	64	2	Standard
> In-1	115		ug/L			11342	11664	1	KED
| Cd	111	0.009	ug/L	0.013	146	6	8	32	KED
| Cd	114	0.022	ug/L	0.012	56	4	17	42	KED
> In	115		ug/L			888503	868513	3	Standard
| Ag	107	0.002	ug/L	0.001	44	236	273	9	Standard
> Tb	159		ug/L			797843	798880	1	Standard
| Pb	208	1.578	ug/L	0.025	1	255	100491	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 18:31:50

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	36306	2	Standard
Cl	37		ug/L			4837250	4973842	3	Standard
[> Sc	45		ug/L			768932	749653	2	Standard
| Cr	52	50.179	ug/L	0.633	1	29685	1199349	2	Standard
| Cr	53	48.812	ug/L	0.554	1	273	134031	1	Standard
| Mn	55	49.713	ug/L	0.121	0	1379	1667052	1	Standard
[> Ge	72		ug/L			45127	44540	2	KED
| Ni	60	47.074	ug/L	1.165	2	27	65034	4	KED
| Ni	62	46.681	ug/L	1.328	2	5	10534	4	KED
| Cu	63	46.529	ug/L	0.236	0	118	192314	3	KED
| Cu	65	46.900	ug/L	0.800	1	63	93362	4	KED
| Zn	66	48.860	ug/L	1.969	4	40	23922	3	KED
| Zn	67	47.916	ug/L	2.029	4	5	3876	2	KED
[As	75	49.023	ug/L	1.304	2	7	11790	3	KED
Y	89		ug/L			512697	503204	2	Standard
Kr	83		ug/L			65	77	21	Standard
[> In-1	115		ug/L			11342	11276	2	KED
| Cd	111	49.313	ug/L	0.592	1	6	11512	1	KED
[Cd	114	48.996	ug/L	1.402	2	4	28204	1	KED
[> In	115		ug/L			888503	875077	2	Standard
[Ag	107	48.394	ug/L	0.393	0	236	898596	2	Standard
[> Tb	159		ug/L			797843	838095	2	Standard
[Pb	208	47.470	ug/L	1.838	3	255	3161992	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 18:39:02

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	35843	3	Standard
Cl	37		ug/L			4837250	4897188	3	Standard
[> Sc	45		ug/L			768932	717811	4	Standard
| Cr	52	-0.013	ug/L	0.035	266	29685	27398	2	Standard
| Cr	53	-0.013	ug/L	0.004	27	273	221	2	Standard
| Mn	55	-0.013	ug/L	0.000	2	1379	885	4	Standard
[> Ge	72		ug/L			45127	43729	2	KED
| Ni	60	-0.001	ug/L	0.008	1082	27	25	43	KED
| Ni	62	0.024	ug/L	0.022	92	5	10	44	KED
| Cu	63	-0.002	ug/L	0.004	172	118	106	16	KED
| Cu	65	-0.009	ug/L	0.005	57	63	43	24	KED
| Zn	66	0.003	ug/L	0.006	229	40	40	7	KED
| Zn	67	0.042	ug/L	0.014	32	5	8	12	KED
| As	75	0.005	ug/L	0.012	234	7	8	30	KED
Y	89		ug/L			512697	464424	3	Standard
Kr	83		ug/L			65	47	16	Standard
[> In-1	115		ug/L			11342	11739	2	KED
| Cd	111	-0.004	ug/L	0.015	421	6	6	59	KED
| Cd	114	0.006	ug/L	0.008	129	4	8	55	KED
[> In	115		ug/L			888503	851050	1	Standard
| Ag	107	0.005	ug/L	0.002	34	236	319	10	Standard
[> Tb	159		ug/L			797843	778054	4	Standard
| Pb	208	0.000	ug/L	0.000	38	255	274	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0083-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Monday, March 06, 2023 18:47:30**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	46201	2	Standard
Cl	37		ug/L			4837250	4520303	2	Standard
> Sc	45		ug/L			768932	655694	2	Standard
| Cr	52	0.087	ug/L	0.025	28	29685	27080	2	Standard
| Cr	53	0.035	ug/L	0.004	11	273	317	6	Standard
| Mn	55	0.205	ug/L	0.009	4	1379	7190	2	Standard
> Ge	72		ug/L			45127	44334	1	KED
| Ni	60	0.014	ug/L	0.007	52	27	46	24	KED
| Ni	62	0.026	ug/L	0.026	99	5	11	50	KED
| Cu	63	0.023	ug/L	0.006	27	118	212	10	KED
| Cu	65	0.020	ug/L	0.007	36	63	102	12	KED
| Zn	66	0.491	ug/L	0.077	15	40	278	11	KED
| Zn	67	0.410	ug/L	0.127	30	5	38	28	KED
| As	75	0.007	ug/L	0.004	56	7	9	8	KED
Y	89		ug/L			512697	433082	3	Standard
Kr	83		ug/L			65	71	16	Standard
> In-1	115		ug/L			11342	11567	1	KED
| Cd	111	-0.001	ug/L	0.013	1930	6	6	49	KED
| Cd	114	0.005	ug/L	0.003	66	4	7	27	KED
> In	115		ug/L			888503	798265	3	Standard
| Ag	107	-0.003	ug/L	0.001	50	236	168	11	Standard
> Tb	159		ug/L			797843	729482	5	Standard
| Pb	208	0.012	ug/L	0.001	8	255	940	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0083-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Monday, March 06, 2023 18:51:57**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	51223	1	Standard
Cl	37		ug/L			4837250	4791702	1	Standard
> Sc	45		ug/L			768932	708931	7	Standard
| Cr	52	26.223	ug/L	0.993	3	29685	604674	4	Standard
| Cr	53	25.627	ug/L	1.342	5	273	66496	2	Standard
| Mn	55	26.594	ug/L	1.057	3	1379	842268	3	Standard
> Ge	72		ug/L			45127	43145	1	KED
| Ni	60	24.442	ug/L	0.367	1	27	32709	0	KED
| Ni	62	24.409	ug/L	1.055	4	5	5333	2	KED
| Cu	63	24.600	ug/L	0.599	2	118	98511	1	KED
| Cu	65	24.903	ug/L	0.318	1	63	48029	1	KED
| Zn	66	81.155	ug/L	1.847	2	40	38476	2	KED
| Zn	67	75.022	ug/L	0.818	1	5	5878	0	KED
| As	75	25.162	ug/L	0.538	2	7	5864	0	KED
Y	89		ug/L			512697	456441	4	Standard
Kr	83		ug/L			65	77	19	Standard
> In-1	115		ug/L			11342	11505	0	KED
| Cd	111	25.240	ug/L	0.860	3	6	6016	2	KED
| Cd	114	25.018	ug/L	0.413	1	4	14702	1	KED
> In	115		ug/L			888503	833784	7	Standard
| Ag	107	26.498	ug/L	0.961	3	236	468127	4	Standard
> Tb	159		ug/L			797843	764678	4	Standard
| Pb	208	26.174	ug/L	0.488	1	255	1590907	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23B0581-01

Sample Dil Factor: 20

DEL

Comments:

Sample Date/Time: Monday, March 06, 2023 18:57:59

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	44244	1	Standard
Cl	37		ug/L			4837250	4678563	5	Standard
[> Sc	45		ug/L			768932	718125	3	Standard
| Cr	52	4.794	ug/L	0.100	2	29685	134796	1	Standard
| Cr	53	4.890	ug/L	0.050	1	273	13090	2	Standard
| Mn	55	25.609	ug/L	0.250	0	1379	823448	4	Standard
[> Ge	72		ug/L			45127	44190	3	KED
| Ni	60	4.410	ug/L	0.126	2	27	6064	1	KED
| Ni	62	15.576	ug/L	0.749	4	5	3493	7	KED
| Cu	63	4728.574	ug/L	92.566	1	118	19371217	2	KED
| Cu	65	4751.937	ug/L	61.037	1	63	9373760	2	KED
| Zn	66	1322.209	ug/L	14.808	1	40	641430	2	KED
| Zn	67	1219.150	ug/L	18.452	1	5	97749	2	KED
| As	75	0.227	ug/L	0.010	4	7	61	1	KED
Y	89		ug/L			512697	474615	4	Standard
Kr	83		ug/L			65	76	12	Standard
[> In-1	115		ug/L			11342	12014	2	KED
| Cd	111	0.055	ug/L	0.021	39	6	20	25	KED
| Cd	114	0.056	ug/L	0.016	28	4	38	22	KED
[> In	115		ug/L			888503	830094	2	Standard
| Ag	107	1.073	ug/L	0.004	0	236	19124	2	Standard
[> Tb	159		ug/L			797843	788416	4	Standard
| Pb	208	28.078	ug/L	0.750	2	255	1759102	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 23B0581-02

Sample Dil Factor: 20

DEL

Comments:

Sample Date/Time: Monday, March 06, 2023 19:03:38

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	43198	1	Standard
Cl	37		ug/L			4837250	5265614	1	Standard
[> Sc	45		ug/L			768932	719952	1	Standard
| Cr	52	0.024	ug/L	0.015	63	29685	28334	2	Standard
| Cr	53	0.696	ug/L	0.010	1	273	2086	1	Standard
| Mn	55	12.389	ug/L	0.280	2	1379	400032	3	Standard
[> Ge	72		ug/L			45127	44662	0	KED
| Ni	60	0.243	ug/L	0.010	4	27	363	4	KED
| Ni	62	0.304	ug/L	0.043	14	5	74	12	KED
| Cu	63	19.093	ug/L	0.116	0	118	79195	0	KED
| Cu	65	19.347	ug/L	0.342	1	63	38641	0	KED
| Zn	66	34.041	ug/L	0.484	1	40	16732	1	KED
| Zn	67	30.929	ug/L	0.411	1	5	2512	2	KED
[As	75	0.015	ug/L	0.015	100	7	11	31	KED
Y	89		ug/L			512697	468631	1	Standard
Kr	83		ug/L			65	70	16	Standard
[> In-1	115		ug/L			11342	11587	3	KED
| Cd	111	0.021	ug/L	0.030	144	6	11	59	KED
[Cd	114	0.009	ug/L	0.002	20	4	9	12	KED
[> In	115		ug/L			888503	819761	2	Standard
[Ag	107	0.004	ug/L	0.001	32	236	289	10	Standard
[> Tb	159		ug/L			797843	764333	3	Standard
[Pb	208	0.941	ug/L	0.030	3	255	57376	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0581-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 19:08:06**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	45217	3	Standard
Cl	37		ug/L			4837250	4944947	2	Standard
> Sc	45		ug/L			768932	738112	1	Standard
| Cr	52	-0.004	ug/L	0.012	308	29685	28407	1	Standard
| Cr	53	0.412	ug/L	0.013	3	273	1374	3	Standard
| Mn	55	23.545	ug/L	0.273	1	1379	778066	1	Standard
> Ge	72		ug/L			45127	43050	1	KED
| Ni	60	1.281	ug/L	0.015	1	27	1735	2	KED
| Ni	62	1.237	ug/L	0.061	4	5	274	3	KED
| Cu	63	14.073	ug/L	0.153	1	118	56301	2	KED
| Cu	65	14.394	ug/L	0.701	4	63	27740	6	KED
| Zn	66	91.347	ug/L	2.482	2	40	43228	4	KED
| Zn	67	81.659	ug/L	1.516	1	5	6386	3	KED
| As	75	0.018	ug/L	0.013	73	7	11	26	KED
Y	89		ug/L			512697	471097	2	Standard
Kr	83		ug/L			65	73	19	Standard
> In-1	115		ug/L			11342	11509	3	KED
| Cd	111	0.009	ug/L	0.014	146	6	8	32	KED
| Cd	114	0.007	ug/L	0.002	29	4	8	12	KED
> In	115		ug/L			888503	864199	3	Standard
| Ag	107	0.006	ug/L	0.001	16	236	340	6	Standard
> Tb	159		ug/L			797843	793908	5	Standard
| Pb	208	0.276	ug/L	0.006	2	255	17651	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0045-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 19:13:58**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	43214	2	Standard
Cl	37		ug/L			4837250	4930770	1	Standard
> Sc	45		ug/L			768932	718657	0	Standard
| Cr	52	0.010	ug/L	0.021	201	29685	27978	2	Standard
| Cr	53	0.442	ug/L	0.014	3	273	1416	1	Standard
| Mn	55	24.667	ug/L	0.789	3	1379	793487	2	Standard
> Ge	72		ug/L			45127	45215	1	KED
| Ni	60	1.339	ug/L	0.028	2	27	1904	3	KED
| Ni	62	1.335	ug/L	0.042	3	5	311	1	KED
| Cu	63	13.687	ug/L	0.118	0	118	57505	0	KED
| Cu	65	13.563	ug/L	0.126	0	63	27448	2	KED
| Zn	66	95.397	ug/L	2.375	2	40	47409	3	KED
| Zn	67	85.953	ug/L	1.199	1	5	7057	0	KED
| As	75	0.019	ug/L	0.001	7	7	12	2	KED
Y	89		ug/L			512697	475446	1	Standard
Kr	83		ug/L			65	67	4	Standard
> In-1	115		ug/L			11342	11838	1	KED
| Cd	111	0.002	ug/L	0.015	1000	6	7	49	KED
| Cd	114	0.009	ug/L	0.011	120	4	9	67	KED
> In	115		ug/L			888503	858556	1	Standard
| Ag	107	0.005	ug/L	0.002	32	236	323	9	Standard
> Tb	159		ug/L			797843	786043	3	Standard
| Pb	208	0.282	ug/L	0.009	3	255	17867	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0045-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 19:18:25**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	45644	3	Standard
Cl	37		ug/L			4837250	5099374	0	Standard
> Sc	45		ug/L			768932	726175	1	Standard
| Cr	52	1.283	ug/L	0.022	1	29685	57028	1	Standard
| Cr	53	1.735	ug/L	0.036	2	273	4861	0	Standard
| Mn	55	25.550	ug/L	0.782	3	1379	830343	1	Standard
> Ge	72		ug/L			45127	44771	1	KED
| Ni	60	2.515	ug/L	0.047	1	27	3516	1	KED
| Ni	62	2.548	ug/L	0.122	4	5	582	3	KED
| Cu STL	63	14.409	ug/L	0.262	1	118	59942	2	KED
| Cu	65	14.680	ug/L	0.335	2	63	29404	1	KED
| Zn	66	98.653	ug/L	0.835	0	40	48531	0	KED
| Zn STL	67	87.991	ug/L	1.481	1	5	7154	1	KED
| As	75	1.313	ug/L	0.083	6	7	325	6	KED
Y	89		ug/L			512697	467599	0	Standard
Kr	83		ug/L			65	63	12	Standard
> In-1	115		ug/L			11342	10568	6	KED
| Cd	111	1.254	ug/L	0.120	9	6	280	9	KED
| Cd	114	1.241	ug/L	0.055	4	4	672	4	KED
> In	115		ug/L			888503	841674	2	Standard
| Ag	107	1.281	ug/L	0.011	0	236	23088	1	Standard
> Tb	159		ug/L			797843	774003	3	Standard
| Pb	208	1.555	ug/L	0.069	4	255	95864	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0387-01**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Monday, March 06, 2023 19:25:34**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	66691	3	Standard
Cl	37		ug/L			4837250	4623715	2	Standard
[> Sc	45		ug/L			768932	730713	3	Standard
| Cr	52	29.860	ug/L	0.493	1	29685	706847	1	Standard
| Cr	53	29.089	ug/L	0.307	1	273	77955	2	Standard
| Mn	55	7.438	ug/L	0.118	1	1379	244152	1	Standard
[> Ge	72		ug/L			45127	43569	1	KED
| Ni	60	0.208	ug/L	0.011	5	27	306	5	KED
| Ni	62	0.185	ug/L	0.046	24	5	46	21	KED
| Cu	63	0.519	ug/L	0.012	2	118	2212	3	KED
| Cu	65	0.524	ug/L	0.031	5	63	1080	4	KED
| Zn	66	42.097	ug/L	0.586	1	40	20176	2	KED
| Zn	67	38.811	ug/L	1.255	3	5	3073	2	KED
| As	75	0.042	ug/L	0.004	9	7	17	6	KED
Y	89		ug/L			512697	478702	3	Standard
Kr	83		ug/L			65	64	10	Standard
[> In-1	115		ug/L			11342	12299	1	KED
| Cd	111	0.290	ug/L	0.007	2	6	80	2	KED
| Cd	114	0.252	ug/L	0.040	15	4	162	14	KED
[> In	115		ug/L			888503	851740	3	Standard
| Ag	107	0.009	ug/L	0.003	32	236	393	13	Standard
[> Tb	159		ug/L			797843	783671	5	Standard
| Pb	208	0.051	ug/L	0.003	5	255	3426	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23C0037-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 19:31:25**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	44244	0	Standard
Cl	37		ug/L			4837250	4763650	1	Standard
> Sc	45		ug/L			768932	732730	2	Standard
| Cr	52	1.143	ug/L	0.015	1	29685	54359	3	Standard
| Cr	53	1.454	ug/L	0.046	3	273	4152	0	Standard
| Mn	55	2.930	ug/L	0.069	2	1379	97225	0	Standard
> Ge	72		ug/L			45127	43779	3	KED
| Ni	60	1.779	ug/L	0.128	7	27	2439	6	KED
| Ni	62	1.959	ug/L	0.142	7	5	439	6	KED
| Cu	63	9.662	ug/L	0.218	2	118	39323	1	KED
| Cu	65	9.754	ug/L	0.538	5	63	19108	3	KED
| Zn	66	7.758	ug/L	0.321	4	40	3765	2	KED
| Zn	67	7.388	ug/L	0.180	2	5	592	3	KED
| As	75	0.136	ug/L	0.015	10	7	39	7	KED
Y	89		ug/L			512697	470099	0	Standard
Kr	83		ug/L			65	73	23	Standard
> In-1	115		ug/L			11342	11631	2	KED
| Cd	111	0.006	ug/L	0.009	152	6	8	24	KED
| Cd	114	0.005	ug/L	0.005	88	4	7	38	KED
> In	115		ug/L			888503	832833	3	Standard
| Ag	107	-0.003	ug/L	0.001	41	236	168	9	Standard
> Tb	159		ug/L			797843	783398	4	Standard
| Pb	208	0.063	ug/L	0.001	2	255	4169	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL7

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 19:36:18

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	38930	3	Standard
Cl	37		ug/L			4837250	4672291	3	Standard
[> Sc	45		ug/L			768932	710436	3	Standard
| Cr	52	0.088	ug/L	0.047	53	29685	29365	4	Standard
| Cr	53	0.007	ug/L	0.009	116	273	271	4	Standard
| Mn	55	0.006	ug/L	0.001	19	1379	1473	3	Standard
[> Ge	72		ug/L			45127	43866	0	KED
| Ni	60	0.011	ug/L	0.008	74	27	41	27	KED
| Ni	62	0.038	ug/L	0.018	47	5	13	28	KED
| Cu	63	0.006	ug/L	0.002	39	118	140	6	KED
| Cu	65	0.004	ug/L	0.006	152	63	69	18	KED
| Zn	66	0.128	ug/L	0.026	20	40	100	12	KED
| Zn	67	0.185	ug/L	0.068	36	5	20	27	KED
[As	75	0.000	ug/L	0.009	3422	7	7	27	KED
Y	89		ug/L			512697	464398	4	Standard
Kr	83		ug/L			65	66	38	Standard
[> In-1	115		ug/L			11342	11641	2	KED
| Cd	111	-0.006	ug/L	0.010	165	6	5	44	KED
[Cd	114	-0.001	ug/L	0.008	1112	4	4	114	KED
[> In	115		ug/L			888503	841345	3	Standard
[Ag	107	-0.008	ug/L	0.000	3	236	73	6	Standard
[> Tb	159		ug/L			797843	766194	0	Standard
[Pb	208	0.003	ug/L	0.001	37	255	418	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 19:40:46

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	36282	0	Standard
Cl	37		ug/L			4837250	5031983	3	Standard
[> Sc	45		ug/L			768932	720219	4	Standard
| Cr	52	49.729	ug/L	1.287	2	29685	1141835	3	Standard
| Cr	53	48.829	ug/L	1.193	2	273	128789	3	Standard
| Mn	55	50.224	ug/L	0.580	1	1379	1617562	3	Standard
[> Ge	72		ug/L			45127	43458	2	KED
| Ni	60	48.047	ug/L	0.356	0	27	64742	2	KED
| Ni	62	48.543	ug/L	0.754	1	5	10681	1	KED
| Cu	63	47.674	ug/L	0.181	0	118	192253	3	KED
| Cu	65	48.759	ug/L	0.394	0	63	94663	2	KED
| Zn	66	49.393	ug/L	0.752	1	40	23606	3	KED
| Zn	67	49.738	ug/L	0.572	1	5	3927	2	KED
| As	75	49.889	ug/L	0.628	1	7	11705	1	KED
Y	89		ug/L			512697	467578	4	Standard
Kr	83		ug/L			65	67	7	Standard
[> In-1	115		ug/L			11342	11589	2	KED
| Cd	111	49.432	ug/L	1.010	2	6	11861	2	KED
| Cd	114	49.381	ug/L	1.348	2	4	29215	1	KED
[> In	115		ug/L			888503	835486	3	Standard
| Ag	107	49.695	ug/L	0.193	0	236	880974	3	Standard
[> Tb	159		ug/L			797843	777862	4	Standard
| Pb	208	48.899	ug/L	1.314	2	255	3022147	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 19:47:58

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	33392	3	Standard
Cl	37		ug/L			4837250	4785494	2	Standard
[> Sc	45		ug/L			768932	679825	5	Standard
| Cr	52	-0.005	ug/L	0.006	124	29685	26143	6	Standard
| Cr	53	-0.001	ug/L	0.007	551	273	238	11	Standard
| Mn	55	-0.001	ug/L	0.001	37	1379	1176	7	Standard
[> Ge	72		ug/L			45127	42203	6	KED
| Ni	60	-0.001	ug/L	0.006	552	27	24	31	KED
| Ni	62	0.005	ug/L	0.007	145	5	6	17	KED
| Cu	63	0.004	ug/L	0.001	20	118	125	6	KED
| Cu	65	-0.000	ug/L	0.005	1033	63	58	16	KED
| Zn	66	0.180	ug/L	0.011	6	40	121	2	KED
| Zn	67	0.185	ug/L	0.062	33	5	19	29	KED
| As	75	0.002	ug/L	0.006	239	7	7	15	KED
Y	89		ug/L			512697	446284	6	Standard
Kr	83		ug/L			65	61	21	Standard
[> In-1	115		ug/L			11342	11546	3	KED
| Cd	111	0.012	ug/L	0.014	125	6	9	36	KED
| Cd	114	0.002	ug/L	0.006	332	4	5	68	KED
[> In	115		ug/L			888503	803040	5	Standard
| Ag	107	0.003	ug/L	0.000	3	236	267	5	Standard
[> Tb	159		ug/L			797843	732756	7	Standard
| Pb	208	0.003	ug/L	0.000	5	255	424	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0508-BLK1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 19:52:26**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	48889	0	Standard
Cl	37		ug/L			4837250	4890062	1	Standard
> Sc	45		ug/L			768932	729968	0	Standard
| Cr	52	0.035	ug/L	0.023	66	29685	28967	2	Standard
| Cr	53	0.002	ug/L	0.011	544	273	264	11	Standard
| Mn	55	-0.010	ug/L	0.000	0	1379	972	0	Standard
> Ge	72		ug/L			45127	43022	1	KED
| Ni	60	0.047	ug/L	0.019	40	27	88	29	KED
| Ni	62	0.089	ug/L	0.040	44	5	24	35	KED
| Cu	63	-0.001	ug/L	0.007	1062	118	110	25	KED
| Cu	65	-0.003	ug/L	0.007	227	63	54	22	KED
| Zn	66	0.157	ug/L	0.052	32	40	113	21	KED
| Zn	67	0.207	ug/L	0.018	8	5	21	5	KED
| As	75	0.006	ug/L	0.006	94	7	9	15	KED
Y	89		ug/L			512697	470502	2	Standard
Kr	83		ug/L			65	54	16	Standard
> In-1	115		ug/L			11342	11324	3	KED
| Cd	111	-0.008	ug/L	0.014	165	6	4	69	KED
| Cd	114	0.010	ug/L	0.007	73	4	9	39	KED
> In	115		ug/L			888503	857828	1	Standard
> Ag	107	-0.002	ug/L	0.002	106	236	198	16	Standard
> Tb	159		ug/L			797843	772827	3	Standard
| Pb	208	0.006	ug/L	0.000	4	255	612	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0508-BS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 19:56:54**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	47994	0	Standard
Cl	37		ug/L			4837250	4899199	2	Standard
> Sc	45		ug/L			768932	715433	3	Standard
| Cr	52	26.859	ug/L	0.644	2	29685	625358	2	Standard
| Cr	53	26.768	ug/L	0.952	3	273	70220	0	Standard
| Mn	55	26.994	ug/L	0.431	1	1379	864223	1	Standard
> Ge	72		ug/L			45127	43893	1	KED
| Ni	60	25.663	ug/L	0.552	2	27	34935	1	KED
| Ni	62	26.107	ug/L	0.538	2	5	5806	3	KED
| Cu	63	25.592	ug/L	0.432	1	118	104273	1	KED
| Cu	65	25.946	ug/L	0.283	1	63	50918	2	KED
| Zn	66	80.077	ug/L	0.166	0	40	38629	1	KED
| Zn	67	75.821	ug/L	2.180	2	5	6045	3	KED
| As	75	25.340	ug/L	0.290	1	7	6010	2	KED
Y	89		ug/L			512697	472721	2	Standard
Kr	83		ug/L			65	61	11	Standard
> In-1	115		ug/L			11342	11751	3	KED
| Cd	111	25.780	ug/L	0.596	2	6	6273	1	KED
| Cd	114	25.331	ug/L	1.073	4	4	15187	1	KED
> In	115		ug/L			888503	843478	3	Standard
| Ag	107	26.808	ug/L	0.837	3	236	479510	0	Standard
> Tb	159		ug/L			797843	771170	4	Standard
| Pb	208	26.872	ug/L	0.623	2	255	1646985	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0518-BLK2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 20:01:21**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	47090	2	Standard
Cl	37		ug/L			4837250	4820773	3	Standard
> Sc	45		ug/L			768932	691403	2	Standard
| Cr	52	0.058	ug/L	0.026	45	29685	27927	2	Standard
| Cr	53	0.001	ug/L	0.010	1297	273	247	13	Standard
| Mn	55	-0.005	ug/L	0.001	18	1379	1082	4	Standard
> Ge	72		ug/L			45127	42810	1	KED
| Ni	60	0.009	ug/L	0.003	27	27	38	10	KED
| Ni	62	0.033	ug/L	0.022	64	5	12	37	KED
| Cu	63	0.005	ug/L	0.004	68	118	133	11	KED
| Cu	65	-0.000	ug/L	0.009	34651	63	60	30	KED
| Zn	66	0.330	ug/L	0.028	8	40	193	6	KED
| Zn	67	0.388	ug/L	0.075	19	5	35	15	KED
| As	75	0.000	ug/L	0.017	3485	7	7	50	KED
Y	89		ug/L			512697	449571	3	Standard
Kr	83		ug/L			65	55	20	Standard
> In-1	115		ug/L			11342	11653	1	KED
| Cd	111	-0.006	ug/L	0.009	150	6	5	40	KED
| Cd	114	0.007	ug/L	0.003	38	4	8	20	KED
> In	115		ug/L			888503	815391	3	Standard
| Ag	107	0.007	ug/L	0.001	11	236	340	7	Standard
> Tb	159		ug/L			797843	755451	6	Standard
| Pb	208	0.005	ug/L	0.000	9	255	533	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0518-BS2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 20:05:49**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	46438	2	Standard
Cl	37		ug/L			4837250	4810102	1	Standard
[> Sc	45		ug/L			768932	703198	7	Standard
| Cr	52	25.454	ug/L	0.400	1	29685	583814	6	Standard
| Cr	53	24.727	ug/L	0.095	0	273	63832	7	Standard
| Mn	55	25.119	ug/L	0.194	0	1379	790488	6	Standard
[> Ge	72		ug/L			45127	42538	2	KED
| Ni	60	24.718	ug/L	0.476	1	27	32609	2	KED
| Ni	62	24.244	ug/L	0.290	1	5	5226	4	KED
| Cu	63	24.979	ug/L	0.288	1	118	98643	2	KED
| Cu	65	25.220	ug/L	0.373	1	63	47953	2	KED
| Zn	66	77.344	ug/L	2.959	3	40	36154	4	KED
| Zn	67	73.220	ug/L	2.667	3	5	5655	3	KED
| As	75	24.076	ug/L	0.315	1	7	5533	1	KED
Y	89		ug/L			512697	450015	5	Standard
Kr	83		ug/L			65	65	20	Standard
[> In-1	115		ug/L			11342	11505	3	KED
| Cd	111	24.754	ug/L	0.935	3	6	5897	3	KED
| Cd	114	24.788	ug/L	0.073	0	4	14567	3	KED
[> In	115		ug/L			888503	826129	4	Standard
| Ag	107	25.210	ug/L	0.802	3	236	442264	7	Standard
[> Tb	159		ug/L			797843	755542	1	Standard
| Pb	208	25.496	ug/L	1.002	3	255	1532175	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0032-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 20:10:17**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	53727	1	Standard
Cl	37		ug/L			4837250	4854531	2	Standard
[> Sc	45		ug/L			768932	811768	2	Standard
| Cr	52	15.406	ug/L	0.230	1	29685	420377	1	Standard
| Cr	53	15.345	ug/L	0.133	0	273	45825	2	Standard
| Mn	55	104.730	ug/L	0.430	0	1379	3801655	3	Standard
[> Ge	72		ug/L			45127	43694	1	KED
| Ni	60	15.464	ug/L	0.191	1	27	20969	0	KED
| Ni	62	15.867	ug/L	0.488	3	5	3515	3	KED
| Cu	63	66.421	ug/L	0.907	1	118	269275	2	KED
| Cu	65	67.898	ug/L	1.102	1	63	132533	2	KED
| Zn	66	96.047	ug/L	1.970	2	40	46108	0	KED
| Zn	67	92.027	ug/L	2.147	2	5	7303	3	KED
| As	75	4.678	ug/L	0.082	1	7	1110	2	KED
Y	89		ug/L			512697	716086	3	Standard
Kr	83		ug/L			65	109	26	Standard
[> In-1	115		ug/L			11342	11258	2	KED
| Cd	111	0.258	ug/L	0.034	13	6	66	10	KED
| Cd	114	0.238	ug/L	0.014	5	4	140	5	KED
[> In	115		ug/L			888503	814312	3	Standard
| Ag	107	0.295	ug/L	0.011	3	236	5307	2	Standard
[> Tb	159		ug/L			797843	806920	1	Standard
| Pb	208	33.220	ug/L	1.173	3	255	2131184	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0518-DUP2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 20:14:44**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	63112	1	Standard
Cl	37		ug/L			4837250	4858792	0	Standard
> Sc	45		ug/L			768932	817493	4	Standard
| Cr	52	16.966	ug/L	0.271	1	29685	462904	3	Standard
| Cr	53	16.784	ug/L	0.536	3	273	50412	2	Standard
| Mn	55	99.395	ug/L	3.113	3	1379	3630959	3	Standard
> Ge	72		ug/L			45127	44147	1	KED
| Ni	60	12.359	ug/L	0.340	2	27	16938	2	KED
| Ni	62	12.620	ug/L	0.129	1	5	2825	1	KED
| Cu	63	56.341	ug/L	0.978	1	118	230810	3	KED
| Cu	65	57.637	ug/L	1.306	2	63	113689	3	KED
| Zn	66	91.493	ug/L	2.074	2	40	44385	2	KED
| Zn	67	88.420	ug/L	0.882	0	5	7088	0	KED
| As	75	4.425	ug/L	0.201	4	7	1061	3	KED
Y	89		ug/L			512697	728232	2	Standard
Kr	83		ug/L			65	107	25	Standard
> In-1	115		ug/L			11342	11555	1	KED
| Cd	111	0.205	ug/L	0.048	23	6	55	19	KED
| Cd	114	0.195	ug/L	0.048	24	4	119	24	KED
> In	115		ug/L			888503	829081	3	Standard
| Ag	107	0.139	ug/L	0.002	1	236	2665	3	Standard
> Tb	159		ug/L			797843	807704	1	Standard
| Pb	208	29.326	ug/L	1.188	4	255	1882721	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0518-MS2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 20:19:12**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	58787	1	Standard
Cl	37		ug/L			4837250	4853890	1	Standard
> Sc	45		ug/L			768932	816489	4	Standard
| Cr	52	38.424	ug/L	0.779	2	29685	1007184	2	Standard
| Cr	53	38.755	ug/L	0.688	1	273	115922	2	Standard
| Mn	55	125.027	ug/L	1.685	1	1379	4562689	3	Standard
> Ge	72		ug/L			45127	44396	2	KED
| Ni	60	40.379	ug/L	0.781	1	27	55580	1	KED
| Ni	62	40.758	ug/L	1.683	4	5	9159	1	KED
| Cu	63	87.557	ug/L	2.065	2	118	360589	3	KED
| Cu	65	89.618	ug/L	2.723	3	63	177669	2	KED
| Zn	66	211.435	ug/L	6.187	2	40	103058	1	KED
| Zn	67	197.711	ug/L	3.461	1	5	15930	1	KED
| As	75	28.173	ug/L	0.422	1	7	6756	1	KED
Y	89		ug/L			512697	722696	2	Standard
Kr	83		ug/L			65	122	5	Standard
> In-1	115		ug/L			11342	11366	4	KED
| Cd	111	24.087	ug/L	0.554	2	6	5668	2	KED
| Cd	114	23.855	ug/L	0.711	2	4	13836	1	KED
> In	115		ug/L			888503	825518	4	Standard
| Ag	107	24.594	ug/L	0.742	3	236	430894	5	Standard
> Tb	159		ug/L			797843	814211	4	Standard
| Pb	208	67.397	ug/L	2.180	3	255	4359752	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0518-MSD2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 20:23:39**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	58301	0	Standard
Cl	37		ug/L			4837250	4875998	3	Standard
> Sc	45		ug/L			768932	820960	2	Standard
| Cr	52	37.000	ug/L	1.089	2	29685	976406	1	Standard
| Cr	53	36.793	ug/L	0.923	2	273	110681	0	Standard
| Mn	55	130.742	ug/L	1.795	1	1379	4797949	1	Standard
> Ge	72		ug/L			45127	43840	1	KED
| Ni	60	37.531	ug/L	0.994	2	27	51039	4	KED
| Ni	62	37.200	ug/L	0.684	1	5	8260	1	KED
| Cu	63	80.305	ug/L	1.154	1	118	326624	2	KED
| Cu	65	81.583	ug/L	1.426	1	63	159792	3	KED
| Zn	66	195.558	ug/L	3.300	1	40	94182	3	KED
| Zn	67	184.291	ug/L	2.506	1	5	14669	3	KED
| As	75	28.198	ug/L	0.414	1	7	6679	3	KED
Y	89		ug/L			512697	720837	3	Standard
Kr	83		ug/L			65	131	16	Standard
> In-1	115		ug/L			11342	11572	1	KED
| Cd	111	24.393	ug/L	0.615	2	6	5847	1	KED
| Cd	114	24.141	ug/L	0.233	0	4	14268	1	KED
> In	115		ug/L			888503	826783	2	Standard
| Ag	107	24.651	ug/L	0.558	2	236	432454	1	Standard
> Tb	159		ug/L			797843	812976	2	Standard
| Pb	208	52.596	ug/L	1.091	2	255	3399311	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0518-PS2**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 20:28:07**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	59134	0	Standard
Cl	37		ug/L			4837250	5017441	1	Standard
> Sc	45		ug/L			768932	848200	1	Standard
| Cr	52	37.983	ug/L	0.661	1	29685	1035017	1	Standard
| Cr	53	36.925	ug/L	0.742	2	273	114786	0	Standard
| Mn	55	124.924	ug/L	3.493	2	1379	4736256	1	Standard
> Ge	72		ug/L			45127	44369	1	KED
| Ni	60	39.921	ug/L	0.337	0	27	54933	1	KED
| Ni	62	40.517	ug/L	1.105	2	5	9103	1	KED
| Cu	63	91.195	ug/L	1.467	1	118	375330	1	KED
| Cu	65	92.437	ug/L	1.050	1	63	183182	0	KED
| Zn	66	172.253	ug/L	2.966	1	40	83941	0	KED
| Zn	67	161.759	ug/L	5.232	3	5	13029	3	KED
| As	75	28.326	ug/L	0.197	0	7	6790	1	KED
Y	89		ug/L			512697	733108	2	Standard
Kr	83		ug/L			65	119	15	Standard
> In-1	115		ug/L			11342	11710	3	KED
| Cd	111	24.379	ug/L	0.663	2	6	5911	1	KED
| Cd	114	23.877	ug/L	0.131	0	4	14279	3	KED
> In	115		ug/L			888503	838918	0	Standard
| Ag	107	25.501	ug/L	0.423	1	236	454067	2	Standard
> Tb	159		ug/L			797843	829581	3	Standard
| Pb	208	57.153	ug/L	0.976	1	255	3768861	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL8

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 20:32:35

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	39968	1	Standard
Cl	37		ug/L			4837250	4672191	1	Standard
[> Sc	45		ug/L			768932	671414	1	Standard
| Cr	52	-0.036	ug/L	0.053	146	29685	25174	5	Standard
| Cr	53	-0.013	ug/L	0.008	58	273	205	10	Standard
| Mn	55	0.006	ug/L	0.002	42	1379	1379	6	Standard
[> Ge	72		ug/L			45127	42138	2	KED
| Ni	60	0.010	ug/L	0.007	70	27	38	22	KED
| Ni	62	0.019	ug/L	0.017	89	5	9	40	KED
| Cu	63	0.007	ug/L	0.004	56	118	140	13	KED
| Cu	65	0.009	ug/L	0.003	31	63	76	6	KED
| Zn	66	0.131	ug/L	0.023	17	40	98	8	KED
| Zn	67	0.228	ug/L	0.061	26	5	22	22	KED
[As	75	0.005	ug/L	0.001	25	7	8	5	KED
Y	89		ug/L			512697	450712	2	Standard
Kr	83		ug/L			65	71	8	Standard
[> In-1	115		ug/L			11342	10927	2	KED
| Cd	111	-0.003	ug/L	0.006	197	6	5	28	KED
[Cd	114	0.004	ug/L	0.008	228	4	6	72	KED
[> In	115		ug/L			888503	807877	1	Standard
[Ag	107	0.006	ug/L	0.001	21	236	310	8	Standard
[> Tb	159		ug/L			797843	734096	5	Standard
[Pb	208	0.006	ug/L	0.001	9	255	606	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 20:37:03

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	35864	2	Standard
Cl	37		ug/L			4837250	4993448	2	Standard
[> Sc	45		ug/L			768932	682275	4	Standard
| Cr	52	51.483	ug/L	1.142	2	29685	1118673	2	Standard
| Cr	53	50.510	ug/L	1.536	3	273	126224	4	Standard
| Mn	55	52.307	ug/L	1.525	2	1379	1595552	3	Standard
[> Ge	72		ug/L			45127	42389	1	KED
| Ni	60	48.593	ug/L	0.799	1	27	63863	0	KED
| Ni	62	49.273	ug/L	1.712	3	5	10574	2	KED
| Cu	63	48.029	ug/L	0.475	0	118	188888	0	KED
| Cu	65	47.775	ug/L	0.393	0	63	90480	1	KED
| Zn	66	49.765	ug/L	1.729	3	40	23191	2	KED
| Zn	67	50.547	ug/L	2.057	4	5	3893	3	KED
[As	75	50.488	ug/L	0.827	1	7	11555	1	KED
Y	89		ug/L			512697	451636	4	Standard
Kr	83		ug/L			65	68	10	Standard
[> In-1	115		ug/L			11342	11438	0	KED
| Cd	111	48.957	ug/L	0.097	0	6	11596	0	KED
[Cd	114	48.165	ug/L	0.620	1	4	28134	1	KED
[> In	115		ug/L			888503	800659	2	Standard
[Ag	107	50.410	ug/L	2.143	4	236	856103	3	Standard
[> Tb	159		ug/L			797843	752553	2	Standard
[Pb	208	49.902	ug/L	2.310	4	255	2983807	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 20:44:15

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	34073	2	Standard
Cl	37		ug/L			4837250	4940498	3	Standard
[> Sc	45		ug/L			768932	698052	1	Standard
| Cr	52	-0.017	ug/L	0.010	55	29685	26577	1	Standard
| Cr	53	-0.027	ug/L	0.011	40	273	178	17	Standard
| Mn	55	-0.004	ug/L	0.001	16	1379	1116	2	Standard
[> Ge	72		ug/L			45127	42005	4	KED
| Ni	60	-0.002	ug/L	0.005	248	27	22	22	KED
| Ni	62	0.002	ug/L	0.019	947	5	5	66	KED
| Cu	63	0.001	ug/L	0.001	94	118	114	1	KED
| Cu	65	0.009	ug/L	0.005	52	63	76	15	KED
| Zn	66	0.132	ug/L	0.025	18	40	99	15	KED
| Zn	67	0.105	ug/L	0.008	7	5	13	0	KED
[As	75	0.001	ug/L	0.004	435	7	7	16	KED
Y	89		ug/L			512697	456306	3	Standard
Kr	83		ug/L			65	57	17	Standard
[> In-1	115		ug/L			11342	10942	1	KED
| Cd	111	-0.003	ug/L	0.008	247	6	5	28	KED
[Cd	114	0.010	ug/L	0.010	101	4	9	59	KED
[> In	115		ug/L			888503	821257	1	Standard
[Ag	107	0.004	ug/L	0.002	53	236	291	11	Standard
[> Tb	159		ug/L			797843	736335	2	Standard
[Pb	208	0.004	ug/L	0.000	11	255	454	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0046-BLK1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Monday, March 06, 2023 20:48:44**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	47525	3	Standard
Cl	37		ug/L			4837250	4697038	1	Standard
Sc	45		ug/L			768932	667435	0	Standard
Cr	52	0.154	ug/L	0.068	43	29685	28971	4	Standard
Cr	53	0.118	ug/L	0.012	10	273	524	5	Standard
Mn	55	3.154	ug/L	0.087	2	1379	95267	2	Standard
Ge	72		ug/L			45127	40032	2	KED
Ni	60	0.019	ug/L	0.008	41	27	47	22	KED
Ni	62	0.022	ug/L	0.008	38	5	9	20	KED
Cu	63	0.028	ug/L	0.009	34	118	207	17	KED
Cu	65	0.022	ug/L	0.007	33	63	95	15	KED
Zn	66	2.434	ug/L	0.079	3	40	1106	4	KED
Zn	67	1.985	ug/L	0.084	4	5	149	3	KED
As	75	0.001	ug/L	0.004	842	7	7	11	KED
Y	89		ug/L			512697	435446	1	Standard
Kr	83		ug/L			65	57	12	Standard
In-1	115		ug/L			11342	11149	2	KED
Cd	111	-0.004	ug/L	0.001	18	6	5	0	KED
Cd	114	0.007	ug/L	0.010	146	4	8	72	KED
In	115		ug/L			888503	776387	2	Standard
Ag	107	-0.002	ug/L	0.000	20	236	173	5	Standard
Tb	159		ug/L			797843	722653	4	Standard
Pb	208	0.004	ug/L	0.001	12	255	477	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0046-BS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Monday, March 06, 2023 20:53:11**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	49716	2	Standard
Cl	37		ug/L			4837250	5013281	0	Standard
> Sc	45		ug/L			768932	707187	3	Standard
| Cr	52	25.920	ug/L	0.233	0	29685	597538	2	Standard
| Cr	53	25.090	ug/L	0.487	1	273	65096	1	Standard
| Mn	55	25.387	ug/L	0.239	0	1379	803640	2	Standard
> Ge	72		ug/L			45127	39613	7	KED
| Ni	60	25.768	ug/L	1.834	7	27	31551	2	KED
| Ni	62	25.883	ug/L	2.268	8	5	5172	2	KED
| Cu	63	24.974	ug/L	1.819	7	118	91501	1	KED
| Cu	65	25.724	ug/L	1.838	7	63	45389	1	KED
| Zn	66	84.581	ug/L	7.068	8	40	36664	1	KED
| Zn	67	79.280	ug/L	6.048	7	5	5683	2	KED
| As	75	25.950	ug/L	1.985	7	7	5532	1	KED
Y	89		ug/L			512697	447707	2	Standard
Kr	83		ug/L			65	64	15	Standard
> In-1	115		ug/L			11342	10658	0	KED
| Cd	111	24.535	ug/L	0.369	1	6	5418	1	KED
| Cd	114	23.853	ug/L	0.404	1	4	12986	2	KED
> In	115		ug/L			888503	814606	1	Standard
| Ag	107	24.961	ug/L	0.344	1	236	431613	3	Standard
> Tb	159		ug/L			797843	771034	1	Standard
| Pb	208	24.679	ug/L	0.839	3	255	1512754	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0615-BLK1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 20:57:39**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	51024	2	Standard
Cl	37		ug/L			4837250	4774647	1	Standard
> Sc	45		ug/L			768932	689205	2	Standard
| Cr	52	0.043	ug/L	0.011	24	29685	27530	1	Standard
| Cr	53	-0.010	ug/L	0.009	88	273	218	9	Standard
| Mn	55	-0.007	ug/L	0.001	13	1379	1027	1	Standard
> Ge	72		ug/L			45127	41519	4	KED
| Ni	60	0.016	ug/L	0.009	56	27	45	22	KED
| Ni	62	0.060	ug/L	0.038	63	5	17	43	KED
| Cu	63	-0.003	ug/L	0.004	141	118	97	12	KED
| Cu	65	-0.001	ug/L	0.004	316	63	56	15	KED
| Zn	66	0.114	ug/L	0.003	2	40	89	3	KED
| Zn	67	0.131	ug/L	0.107	81	5	15	54	KED
| As	75	0.002	ug/L	0.014	607	7	7	39	KED
Y	89		ug/L			512697	445325	2	Standard
Kr	83		ug/L			65	58	15	Standard
> In-1	115		ug/L			11342	11007	1	KED
| Cd	111	-0.001	ug/L	0.006	1095	6	6	22	KED
| Cd	114	0.003	ug/L	0.004	125	4	6	39	KED
> In	115		ug/L			888503	805817	1	Standard
| Ag	107	0.003	ug/L	0.001	15	236	273	5	Standard
> Tb	159		ug/L			797843	739924	2	Standard
| Pb	208	0.003	ug/L	0.000	4	255	429	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0615-BS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 21:02:06**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	48596	3	Standard
Cl	37		ug/L			4837250	4859357	0	Standard
> Sc	45		ug/L			768932	711965	0	Standard
| Cr	52	26.620	ug/L	0.661	2	29685	617169	2	Standard
| Cr	53	26.041	ug/L	0.133	0	273	68036	0	Standard
| Mn	55	26.132	ug/L	0.425	1	1379	832816	1	Standard
> Ge	72		ug/L			45127	41730	4	KED
| Ni	60	25.696	ug/L	0.598	2	27	33241	1	KED
| Ni	62	25.951	ug/L	1.033	3	5	5484	4	KED
| Cu	63	25.443	ug/L	0.738	2	118	98492	1	KED
| Cu	65	25.723	ug/L	0.379	1	63	47969	2	KED
| Zn	66	80.013	ug/L	1.391	1	40	36679	2	KED
| Zn	67	76.930	ug/L	1.843	2	5	5827	1	KED
| As	75	25.372	ug/L	0.382	1	7	5718	2	KED
Y	89		ug/L			512697	452315	2	Standard
Kr	83		ug/L			65	69	22	Standard
> In-1	115		ug/L			11342	11603	2	KED
| Cd	111	24.704	ug/L	0.471	1	6	5937	1	KED
| Cd	114	24.668	ug/L	0.874	3	4	14610	0	KED
> In	115		ug/L			888503	839144	2	Standard
> Ag	107	25.647	ug/L	1.255	4	236	456369	2	Standard
> Tb	159		ug/L			797843	758949	2	Standard
| Pb	208	26.345	ug/L	0.870	3	255	1589031	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 21:06:34**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	55920	3	Standard
Cl	37		ug/L			4837250	4664386	2	Standard
> Sc	45		ug/L			768932	799680	2	Standard
| Cr	52	12.526	ug/L	0.042	0	29685	342538	2	Standard
| Cr	53	12.632	ug/L	0.130	1	273	37217	3	Standard
| Mn	55	140.550	ug/L	0.355	0	1379	5024965	2	Standard
> Ge	72		ug/L			45127	43086	3	KED
| Ni	60	11.002	ug/L	0.132	1	27	14717	2	KED
| Ni	62	11.215	ug/L	0.195	1	5	2451	3	KED
| Cu	63	25.121	ug/L	0.493	1	118	100521	4	KED
| Cu	65	25.494	ug/L	0.304	1	63	49096	2	KED
| Zn	66	48.383	ug/L	0.444	0	40	22928	3	KED
| Zn	67	47.698	ug/L	0.508	1	5	3735	4	KED
| As	75	5.826	ug/L	0.054	0	7	1362	3	KED
Y	89		ug/L			512697	667904	3	Standard
Kr	83		ug/L			65	113	23	Standard
> In-1	115		ug/L			11342	11368	1	KED
| Cd	111	0.156	ug/L	0.023	14	6	43	13	KED
| Cd	114	0.196	ug/L	0.027	13	4	117	13	KED
> In	115		ug/L			888503	792174	1	Standard
| Ag	107	0.130	ug/L	0.005	3	236	2387	4	Standard
> Tb	159		ug/L			797843	786015	2	Standard
| Pb	208	12.399	ug/L	0.302	2	255	774916	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0508-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 21:11:02**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	55209	2	Standard
Cl	37		ug/L			4837250	4671977	2	Standard
> Sc	45		ug/L			768932	792731	5	Standard
| Cr	52	12.775	ug/L	0.400	3	29685	345612	5	Standard
| Cr	53	12.623	ug/L	0.137	1	273	36852	4	Standard
| Mn	55	143.607	ug/L	3.856	2	1379	5086404	4	Standard
> Ge	72		ug/L			45127	40454	1	KED
| Ni	60	11.083	ug/L	0.382	3	27	13921	3	KED
| Ni	62	11.332	ug/L	0.505	4	5	2326	5	KED
| Cu	63	25.454	ug/L	0.400	1	118	95597	2	KED
| Cu	65	25.307	ug/L	0.394	1	63	45768	1	KED
| Zn	66	49.862	ug/L	1.272	2	40	22184	3	KED
| Zn	67	49.481	ug/L	1.059	2	5	3637	2	KED
| As	75	6.006	ug/L	0.091	1	7	1318	1	KED
Y	89		ug/L			512697	660994	3	Standard
Kr	83		ug/L			65	104	7	Standard
> In-1	115		ug/L			11342	10512	3	KED
| Cd	111	0.217	ug/L	0.023	10	6	53	11	KED
| Cd	114	0.180	ug/L	0.022	12	4	100	8	KED
> In	115		ug/L			888503	782983	4	Standard
| Ag	107	0.147	ug/L	0.002	1	236	2655	5	Standard
> Tb	159		ug/L			797843	764153	3	Standard
| Pb	208	12.039	ug/L	0.237	1	255	731491	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0508-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 21:15:29**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	54209	3	Standard
Cl	37		ug/L			4837250	4807991	2	Standard
[> Sc	45		ug/L			768932	816331	4	Standard
| Cr	52	35.506	ug/L	0.691	1	29685	932973	3	Standard
| Cr	53	35.096	ug/L	0.502	1	273	104993	2	Standard
| Mn	55	166.761	ug/L	0.741	0	1379	6085819	4	Standard
[> Ge	72		ug/L			45127	41392	1	KED
| Ni	60	36.841	ug/L	0.804	2	27	47299	3	KED
| Ni	62	36.695	ug/L	1.065	2	5	7696	4	KED
| Cu	63	50.430	ug/L	0.861	1	118	193654	0	KED
| Cu	65	51.465	ug/L	0.755	1	63	95179	2	KED
| Zn	66	129.781	ug/L	0.777	0	40	59016	1	KED
| Zn	67	123.844	ug/L	1.180	0	5	9307	0	KED
| As	75	30.997	ug/L	0.232	0	7	6930	0	KED
Y	89		ug/L			512697	676175	5	Standard
Kr	83		ug/L			65	125	5	Standard
[> In-1	115		ug/L			11342	10749	0	KED
| Cd	111	25.267	ug/L	0.160	0	6	5627	0	KED
| Cd	114	25.569	ug/L	0.507	1	4	14038	1	KED
[> In	115		ug/L			888503	809012	2	Standard
| Ag	107	18.705	ug/L	0.246	1	236	321262	3	Standard
[> Tb	159		ug/L			797843	786378	0	Standard
| Pb	208	36.202	ug/L	0.736	2	255	2263773	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0508-MSD1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 21:19:57**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	53544	0	Standard
Cl	37		ug/L			4837250	4774320	2	Standard
> Sc	45		ug/L			768932	831894	0	Standard
| Cr	52	34.891	ug/L	0.214	0	29685	935192	0	Standard
| Cr	53	35.560	ug/L	0.541	1	273	108455	2	Standard
| Mn	55	163.670	ug/L	4.565	2	1379	6087883	3	Standard
> Ge	72		ug/L			45127	42993	1	KED
| Ni	60	36.245	ug/L	0.274	0	27	48330	1	KED
| Ni	62	36.124	ug/L	0.807	2	5	7868	3	KED
| Cu	63	49.866	ug/L	2.035	4	118	198939	4	KED
| Cu	65	50.755	ug/L	0.578	1	63	97499	1	KED
| Zn	66	127.522	ug/L	3.088	2	40	60228	2	KED
| Zn	67	122.649	ug/L	2.403	1	5	9573	0	KED
| As	75	31.201	ug/L	0.200	0	7	7246	0	KED
Y	89		ug/L			512697	699326	2	Standard
Kr	83		ug/L			65	127	6	Standard
> In-1	115		ug/L			11342	10810	3	KED
| Cd	111	25.199	ug/L	0.091	0	6	5644	4	KED
| Cd	114	25.106	ug/L	0.889	3	4	13850	1	KED
> In	115		ug/L			888503	791958	1	Standard
| Ag	107	14.933	ug/L	0.330	2	236	251134	3	Standard
> Tb	159		ug/L			797843	792205	4	Standard
| Pb	208	36.953	ug/L	1.588	4	255	2325090	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0508-PS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 21:24:24**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	60645	0	Standard
Cl	37		ug/L			4837250	4831104	0	Standard
> Sc	45		ug/L			768932	842197	0	Standard
| Cr	52	34.852	ug/L	0.647	1	29685	945821	2	Standard
| Cr	53	33.901	ug/L	0.820	2	273	104679	2	Standard
| Mn	55	160.830	ug/L	3.131	1	1379	6055268	1	Standard
> Ge	72		ug/L			45127	42512	1	KED
| Ni	60	36.383	ug/L	1.460	4	27	47950	2	KED
| Ni	62	36.459	ug/L	0.455	1	5	7850	1	KED
| Cu	63	50.805	ug/L	0.015	0	118	200401	1	KED
| Cu	65	50.756	ug/L	1.186	2	63	96379	0	KED
| Zn	66	128.449	ug/L	4.488	3	40	59968	1	KED
| Zn	67	121.436	ug/L	2.760	2	5	9375	3	KED
| As	75	31.346	ug/L	0.387	1	7	7198	1	KED
Y	89		ug/L			512697	689557	0	Standard
Kr	83		ug/L			65	113	14	Standard
> In-1	115		ug/L			11342	11613	2	KED
| Cd	111	24.664	ug/L	0.371	1	6	5932	1	KED
| Cd	114	24.550	ug/L	0.611	2	4	14555	1	KED
> In	115		ug/L			888503	823095	2	Standard
| Ag	107	26.151	ug/L	0.554	2	236	456692	0	Standard
> Tb	159		ug/L			797843	807655	2	Standard
| Pb	208	36.449	ug/L	1.209	3	255	2340002	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL9

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 21:28:53

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	39890	1	Standard
Cl	37		ug/L			4837250	4640255	4	Standard
[> Sc	45		ug/L			768932	675789	3	Standard
| Cr	52	-0.069	ug/L	0.009	13	29685	24646	2	Standard
| Cr	53	-0.014	ug/L	0.003	17	273	204	3	Standard
| Mn	55	0.006	ug/L	0.002	30	1379	1380	6	Standard
[> Ge	72		ug/L			45127	42726	4	KED
| Ni	60	0.010	ug/L	0.008	84	27	38	24	KED
| Ni	62	0.037	ug/L	0.002	6	5	13	0	KED
| Cu	63	0.008	ug/L	0.006	75	118	143	16	KED
| Cu	65	-0.001	ug/L	0.005	647	63	58	13	KED
| Zn	66	0.108	ug/L	0.021	19	40	89	14	KED
| Zn	67	0.113	ug/L	0.088	77	5	13	43	KED
[As	75	0.005	ug/L	0.005	98	7	8	11	KED
Y	89		ug/L			512697	442853	2	Standard
Kr	83		ug/L			65	70	18	Standard
[> In-1	115		ug/L			11342	11137	0	KED
| Cd	111	0.001	ug/L	0.011	1982	6	6	37	KED
[Cd	114	0.016	ug/L	0.006	36	4	13	24	KED
[> In	115		ug/L			888503	815611	1	Standard
[Ag	107	0.001	ug/L	0.002	132	236	238	13	Standard
[> Tb	159		ug/L			797843	740374	4	Standard
[Pb	208	0.005	ug/L	0.000	8	255	560	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 21:33:21

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	35943	1	Standard
Cl	37		ug/L			4837250	4963083	0	Standard
[> Sc	45		ug/L			768932	705397	0	Standard
| Cr	52	49.950	ug/L	1.747	3	29685	1123369	2	Standard
| Cr	53	49.215	ug/L	0.335	0	273	127176	1	Standard
| Mn	55	49.479	ug/L	0.232	0	1379	1561294	1	Standard
[> Ge	72		ug/L			45127	41999	3	KED
| Ni	60	48.993	ug/L	1.156	2	27	63779	1	KED
| Ni	62	47.539	ug/L	0.524	1	5	10112	3	KED
| Cu	63	46.644	ug/L	0.335	0	118	181766	2	KED
| Cu	65	48.397	ug/L	1.030	2	63	90778	1	KED
| Zn	66	48.343	ug/L	1.214	2	40	22319	1	KED
| Zn	67	50.462	ug/L	1.446	2	5	3850	2	KED
[As	75	50.032	ug/L	0.144	0	7	11347	3	KED
Y	89		ug/L			512697	458482	1	Standard
Kr	83		ug/L			65	65	21	Standard
[> In-1	115		ug/L			11342	11316	2	KED
| Cd	111	50.032	ug/L	1.825	3	6	11717	1	KED
[Cd	114	49.065	ug/L	0.794	1	4	28352	2	KED
[> In	115		ug/L			888503	816543	2	Standard
[Ag	107	49.530	ug/L	0.724	1	236	857950	1	Standard
[> Tb	159		ug/L			797843	770824	4	Standard
[Pb	208	48.663	ug/L	1.773	3	255	2979435	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 21:40:33

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	33553	1	Standard
Cl	37		ug/L			4837250	4732619	0	Standard
[> Sc	45		ug/L			768932	655340	2	Standard
| Cr	52	-0.012	ug/L	0.031	263	29685	25048	0	Standard
| Cr	53	-0.018	ug/L	0.006	34	273	189	7	Standard
| Mn	55	-0.004	ug/L	0.001	29	1379	1069	0	Standard
[> Ge	72		ug/L			45127	40414	1	KED
| Ni	60	-0.002	ug/L	0.006	359	27	22	34	KED
| Ni	62	0.021	ug/L	0.027	128	5	9	60	KED
| Cu	63	0.012	ug/L	0.008	65	118	152	20	KED
| Cu	65	0.009	ug/L	0.010	119	63	72	25	KED
| Zn	66	0.135	ug/L	0.059	43	40	96	27	KED
| Zn	67	0.224	ug/L	0.050	22	5	21	18	KED
[As	75	0.007	ug/L	0.010	147	7	8	25	KED
Y	89		ug/L			512697	426647	1	Standard
Kr	83		ug/L			65	56	14	Standard
[> In-1	115		ug/L			11342	10839	4	KED
| Cd	111	-0.006	ug/L	0.006	99	6	5	21	KED
[Cd	114	0.004	ug/L	0.004	112	4	6	35	KED
[> In	115		ug/L			888503	786015	2	Standard
[Ag	107	0.004	ug/L	0.001	18	236	280	4	Standard
[> Tb	159		ug/L			797843	714750	4	Standard
[Pb	208	0.004	ug/L	0.001	14	255	466	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0379-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Monday, March 06, 2023 21:45:02**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	58384	2	Standard
Cl	37		ug/L			4837250	10204001	2	Standard
[> Sc	45		ug/L			768932	690227	2	Standard
| Cr	52	8.848	ug/L	0.310	3	29685	216557	0	Standard
| Cr	53	12.105	ug/L	0.345	2	273	30778	0	Standard
| Mn	55	25.303	ug/L	0.440	1	1379	781637	0	Standard
[> Ge	72		ug/L			45127	39688	1	KED
| Ni	60	2.126	ug/L	0.048	2	27	2638	2	KED
| Ni	62	2.188	ug/L	0.112	5	5	444	4	KED
| Cu	63	9.206	ug/L	0.098	1	118	33990	2	KED
| Cu	65	9.101	ug/L	0.130	1	63	16185	2	KED
| Zn	66	36.840	ug/L	1.159	3	40	16092	4	KED
| Zn	67	37.819	ug/L	1.811	4	5	2729	5	KED
| As	75	1.233	ug/L	0.071	5	7	270	4	KED
Y	89		ug/L			512697	443831	2	Standard
Kr	83		ug/L			65	93	10	Standard
[> In-1	115		ug/L			11342	10404	5	KED
| Cd	111	0.055	ug/L	0.033	59	6	18	41	KED
| Cd	114	0.051	ug/L	0.011	20	4	31	13	KED
[> In	115		ug/L			888503	777365	2	Standard
| Ag	107	0.007	ug/L	0.002	29	236	320	8	Standard
[> Tb	159		ug/L			797843	743750	4	Standard
| Pb	208	0.399	ug/L	0.013	3	255	23816	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0379-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Monday, March 06, 2023 21:49:29**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	59284	1	Standard
Cl	37		ug/L			4837250	10012121	2	Standard
[> Sc	45		ug/L			768932	670808	1	Standard
| Cr	52	4.853	ug/L	0.135	2	29685	127164	1	Standard
| Cr	53	10.136	ug/L	0.040	0	273	25098	2	Standard
| Mn	55	55.979	ug/L	0.219	0	1379	1679693	2	Standard
[> Ge	72		ug/L			45127	38141	1	KED
| Ni	60	3.968	ug/L	0.108	2	27	4713	1	KED
| Ni	62	4.072	ug/L	0.057	1	5	791	2	KED
| Cu	63	6.454	ug/L	0.157	2	118	22930	3	KED
| Cu	65	6.814	ug/L	0.130	1	63	11657	0	KED
| Zn	66	14.661	ug/L	0.234	1	40	6173	0	KED
| Zn	67	16.202	ug/L	0.243	1	5	1126	2	KED
| As	75	0.470	ug/L	0.067	14	7	103	12	KED
Y	89		ug/L			512697	432536	0	Standard
Kr	83		ug/L			65	92	13	Standard
[> In-1	115		ug/L			11342	10683	2	KED
| Cd	111	0.028	ug/L	0.009	32	6	12	15	KED
| Cd	114	0.022	ug/L	0.012	55	4	15	42	KED
[> In	115		ug/L			888503	757189	1	Standard
| Ag	107	0.002	ug/L	0.001	47	236	231	5	Standard
[> Tb	159		ug/L			797843	733299	3	Standard
| Pb	208	0.451	ug/L	0.013	2	255	26518	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0388-03**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Monday, March 06, 2023 21:53:57**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	46319	1	Standard
Cl	37		ug/L			4837250	5050734	1	Standard
> Sc	45		ug/L			768932	806666	2	Standard
| Cr	52	1.371	ug/L	0.021	1	29685	65545	2	Standard
| Cr	53	1.906	ug/L	0.022	1	273	5907	2	Standard
| Mn	55	224.501	ug/L	2.534	1	1379	8097493	3	Standard
> Ge	72		ug/L			45127	41531	1	KED
| Ni	60	1.466	ug/L	0.025	1	27	1912	0	KED
| Ni	62	1.547	ug/L	0.148	9	5	330	10	KED
| Cu	63	3.309	ug/L	0.039	1	118	12854	2	KED
| Cu	65	3.308	ug/L	0.037	1	63	6191	0	KED
| Zn	66	19.090	ug/L	0.497	2	40	8740	1	KED
| Zn	67	18.504	ug/L	1.365	7	5	1400	8	KED
| As	75	0.394	ug/L	0.044	11	7	95	11	KED
Y	89		ug/L			512697	482247	0	Standard
Kr	83		ug/L			65	67	5	Standard
> In-1	115		ug/L			11342	10442	4	KED
| Cd	111	0.039	ug/L	0.018	46	6	14	30	KED
| Cd	114	0.039	ug/L	0.020	50	4	24	38	KED
> In	115		ug/L			888503	815271	4	Standard
| Ag	107	0.138	ug/L	0.003	1	236	2595	3	Standard
> Tb	159		ug/L			797843	777276	4	Standard
| Pb	208	4.000	ug/L	0.139	3	255	247221	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0388-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Monday, March 06, 2023 21:58:18**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	40442	0	Standard
Cl	37		ug/L			4837250	4755858	1	Standard
> Sc	45		ug/L			768932	734926	4	Standard
| Cr	52	0.948	ug/L	0.044	4	29685	50021	3	Standard
| Cr	53	1.182	ug/L	0.025	2	273	3434	3	Standard
| Mn	55	68.457	ug/L	1.130	1	1379	2249237	3	Standard
> Ge	72		ug/L			45127	42458	1	KED
| Ni	60	1.040	ug/L	0.108	10	27	1395	11	KED
| Ni	62	1.174	ug/L	0.093	7	5	257	8	KED
| Cu	63	2.634	ug/L	0.024	0	118	10483	1	KED
| Cu	65	2.738	ug/L	0.071	2	63	5251	2	KED
| Zn	66	9.846	ug/L	0.190	1	40	4628	3	KED
| Zn	67	9.837	ug/L	0.245	2	5	763	1	KED
| As	75	0.324	ug/L	0.059	18	7	81	17	KED
Y	89		ug/L			512697	455425	2	Standard
Kr	83		ug/L			65	58	29	Standard
> In-1	115		ug/L			11342	10239	2	KED
| Cd	111	0.075	ug/L	0.020	27	6	21	22	KED
| Cd	114	0.080	ug/L	0.015	19	4	45	20	KED
> In	115		ug/L			888503	786623	2	Standard
| Ag	107	0.000	ug/L	0.001	688	236	212	8	Standard
> Tb	159		ug/L			797843	753450	6	Standard
| Pb	208	3.196	ug/L	0.155	4	255	191334	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0083-DUP1**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Monday, March 06, 2023 22:02:46**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	40264	1	Standard
Cl	37		ug/L			4837250	4725028	2	Standard
> Sc	45		ug/L			768932	729502	2	Standard
| Cr	52	0.938	ug/L	0.077	8	29685	49441	3	Standard
| Cr	53	1.134	ug/L	0.067	5	273	3281	4	Standard
| Mn	55	66.831	ug/L	1.696	2	1379	2180366	3	Standard
> Ge	72		ug/L			45127	42866	2	KED
| Ni	60	0.999	ug/L	0.036	3	27	1353	3	KED
| Ni	62	1.108	ug/L	0.021	1	5	245	1	KED
| Cu	63	2.505	ug/L	0.019	0	118	10072	3	KED
| Cu	65	2.564	ug/L	0.028	1	63	4967	1	KED
| Zn	66	9.707	ug/L	0.599	6	40	4602	3	KED
| Zn	67	9.391	ug/L	0.612	6	5	736	8	KED
| As	75	0.318	ug/L	0.020	6	7	81	7	KED
Y	89		ug/L			512697	464110	0	Standard
Kr	83		ug/L			65	66	15	Standard
> In-1	115		ug/L			11342	11361	1	KED
| Cd	111	0.076	ug/L	0.041	53	6	24	38	KED
| Cd	114	0.068	ug/L	0.027	40	4	43	38	KED
> In	115		ug/L			888503	802681	1	Standard
| Ag	107	0.000	ug/L	0.000	233	236	215	2	Standard
> Tb	159		ug/L			797843	749573	1	Standard
| Pb	208	3.101	ug/L	0.090	2	255	185001	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0083-MS1**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Monday, March 06, 2023 22:07:08**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	41649	2	Standard
Cl	37		ug/L			4837250	4759151	1	Standard
> Sc	45		ug/L			768932	737379	1	Standard
| Cr	52	5.817	ug/L	0.174	2	29685	161918	2	Standard
| Cr	53	5.964	ug/L	0.035	0	273	16339	1	Standard
| Mn	55	74.985	ug/L	0.760	1	1379	2472884	2	Standard
> Ge	72		ug/L			45127	42728	2	KED
| Ni	60	5.963	ug/L	0.160	2	27	7920	0	KED
| Ni	62	6.000	ug/L	0.118	1	5	1303	4	KED
| Cu	63	7.363	ug/L	0.073	0	118	29285	2	KED
| Cu	65	7.491	ug/L	0.088	1	63	14352	2	KED
| Zn	66	26.228	ug/L	0.379	1	40	12340	1	KED
| Zn	67	24.833	ug/L	0.520	2	5	1931	4	KED
| As	75	5.435	ug/L	0.052	0	7	1260	2	KED
Y	89		ug/L			512697	456384	3	Standard
Kr	83		ug/L			65	62	0	Standard
> In-1	115		ug/L			11342	10751	1	KED
| Cd	111	5.367	ug/L	0.248	4	6	1201	5	KED
| Cd	114	5.177	ug/L	0.013	0	4	2845	1	KED
> In	115		ug/L			888503	807031	1	Standard
| Ag	107	5.122	ug/L	0.148	2	236	87911	3	Standard
> Tb	159		ug/L			797843	761757	4	Standard
| Pb	208	8.318	ug/L	0.261	3	255	503572	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0217-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 22:12:59**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	56833	0	Standard
Cl	37		ug/L			4837250	4842868	0	Standard
> Sc	45		ug/L			768932	758039	0	Standard
| Cr	52	15.792	ug/L	0.226	1	29685	401722	1	Standard
| Cr	53	15.840	ug/L	0.105	0	273	44167	0	Standard
| Mn	55	86.903	ug/L	0.808	0	1379	2945727	0	Standard
> Ge	72		ug/L			45127	42938	1	KED
| Ni	60	12.375	ug/L	0.671	5	27	16485	3	KED
| Ni	62	12.449	ug/L	0.328	2	5	2710	2	KED
| Cu	63	24.488	ug/L	0.920	3	118	97579	2	KED
| Cu	65	24.490	ug/L	1.077	4	63	46988	2	KED
| Zn	66	58.856	ug/L	1.914	3	40	27775	1	KED
| Zn	67	56.543	ug/L	1.781	3	5	4410	2	KED
| As	75	3.155	ug/L	0.070	2	7	738	2	KED
Y	89		ug/L			512697	565209	1	Standard
Kr	83		ug/L			65	76	11	Standard
> In-1	115		ug/L			11342	11286	0	KED
| Cd	111	0.412	ug/L	0.010	2	6	102	2	KED
| Cd	114	0.395	ug/L	0.037	9	4	231	8	KED
> In	115		ug/L			888503	811942	1	Standard
| Ag	107	0.062	ug/L	0.003	4	236	1282	3	Standard
> Tb	159		ug/L			797843	780043	2	Standard
| Pb	208	14.799	ug/L	0.421	2	255	917764	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0615-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 22:17:27**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	52168	3	Standard
Cl	37		ug/L			4837250	4867414	4	Standard
> Sc	45		ug/L			768932	721305	4	Standard
| Cr	52	15.305	ug/L	0.125	0	29685	371334	4	Standard
| Cr	53	15.555	ug/L	0.163	1	273	41279	5	Standard
| Mn	55	95.813	ug/L	3.104	3	1379	3092257	7	Standard
> Ge	72		ug/L			45127	42006	0	KED
| Ni	60	12.788	ug/L	0.158	1	27	16675	1	KED
| Ni	62	12.630	ug/L	0.585	4	5	2690	3	KED
| Cu	63	28.700	ug/L	0.146	0	118	111911	1	KED
| Cu	65	29.613	ug/L	0.506	1	63	55599	1	KED
| Zn	66	62.751	ug/L	0.998	1	40	28977	1	KED
| Zn	67	58.338	ug/L	2.246	3	5	4451	3	KED
| As	75	3.112	ug/L	0.097	3	7	713	3	KED
Y	89		ug/L			512697	554816	7	Standard
Kr	83		ug/L			65	80	13	Standard
> In-1	115		ug/L			11342	10745	3	KED
| Cd	111	0.457	ug/L	0.010	2	6	107	5	KED
| Cd	114	0.359	ug/L	0.041	11	4	201	12	KED
> In	115		ug/L			888503	787911	4	Standard
> Ag	107	0.059	ug/L	0.004	7	236	1194	1	Standard
> Tb	159		ug/L			797843	768125	3	Standard
| Pb	208	13.673	ug/L	0.659	4	255	834433	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0615-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 22:21:54**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	52292	1	Standard
Cl	37		ug/L			4837250	4775313	0	Standard
> Sc	45		ug/L			768932	727204	1	Standard
| Cr	52	39.381	ug/L	1.087	2	29685	919090	2	Standard
| Cr	53	38.651	ug/L	0.338	0	273	103010	0	Standard
| Mn	55	121.586	ug/L	1.261	1	1379	3952872	0	Standard
> Ge	72		ug/L			45127	42265	1	KED
| Ni	60	37.325	ug/L	0.749	2	27	48932	3	KED
| Ni	62	36.836	ug/L	1.034	2	5	7887	3	KED
| Cu	63	52.331	ug/L	0.916	1	118	205241	2	KED
| Cu	65	53.108	ug/L	1.190	2	63	100284	2	KED
| Zn	66	138.919	ug/L	2.102	1	40	64509	2	KED
| Zn	67	131.193	ug/L	1.324	1	5	10068	1	KED
| As	75	27.994	ug/L	0.399	1	7	6393	2	KED
Y	89		ug/L			512697	569042	2	Standard
Kr	83		ug/L			65	99	6	Standard
> In-1	115		ug/L			11342	11474	2	KED
| Cd	111	25.443	ug/L	0.505	1	6	6046	0	KED
| Cd	114	25.232	ug/L	0.099	0	4	14786	2	KED
> In	115		ug/L			888503	794875	0	Standard
| Ag	107	25.218	ug/L	0.568	2	236	425397	1	Standard
> Tb	159		ug/L			797843	763244	2	Standard
| Pb	208	41.557	ug/L	0.736	1	255	2521673	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0615-MSD1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 22:26:16**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	50546	1	Standard
Cl	37		ug/L			4837250	4914230	2	Standard
> Sc	45		ug/L			768932	757276	2	Standard
| Cr	52	38.014	ug/L	0.385	1	29685	924907	2	Standard
| Cr	53	37.849	ug/L	0.615	1	273	105060	3	Standard
| Mn	55	113.287	ug/L	1.395	1	1379	3835449	2	Standard
> Ge	72		ug/L			45127	42017	4	KED
| Ni	60	37.158	ug/L	0.984	2	27	48382	2	KED
| Ni	62	37.353	ug/L	1.398	3	5	7943	3	KED
| Cu	63	50.236	ug/L	1.236	2	118	195727	3	KED
| Cu	65	51.669	ug/L	1.520	2	63	96965	4	KED
| Zn	66	137.576	ug/L	2.368	1	40	63477	3	KED
| Zn	67	128.203	ug/L	2.119	1	5	9783	5	KED
| As	75	28.299	ug/L	0.552	1	7	6420	2	KED
Y	89		ug/L			512697	565375	3	Standard
Kr	83		ug/L			65	86	11	Standard
> In-1	115		ug/L			11342	11172	2	KED
| Cd	111	25.017	ug/L	0.560	2	6	5790	3	KED
| Cd	114	25.416	ug/L	0.789	3	4	14505	4	KED
> In	115		ug/L			888503	811148	0	Standard
> Ag	107	24.881	ug/L	0.856	3	236	428342	3	Standard
> Tb	159		ug/L			797843	788288	3	Standard
| Pb	208	37.591	ug/L	1.348	3	255	2354734	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 22:32:09

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	36241	4	Standard
Cl	37		ug/L			4837250	5023926	2	Standard
[> Sc	45		ug/L			768932	680485	1	Standard
| Cr	52	50.281	ug/L	0.535	1	29685	1090836	2	Standard
| Cr	53	49.598	ug/L	1.046	2	273	123603	0	Standard
| Mn	55	49.973	ug/L	0.484	0	1379	1521116	1	Standard
[> Ge	72		ug/L			45127	41219	5	KED
| Ni	60	47.581	ug/L	1.222	2	27	60762	3	KED
| Ni	62	47.492	ug/L	0.969	2	5	9907	3	KED
| Cu	63	47.077	ug/L	0.139	0	118	180036	5	KED
| Cu	65	47.167	ug/L	1.606	3	63	86894	7	KED
| Zn	66	48.366	ug/L	1.453	3	40	21908	4	KED
| Zn	67	49.971	ug/L	1.823	3	5	3738	2	KED
[As	75	50.034	ug/L	1.004	2	7	11128	3	KED
Y	89		ug/L			512697	448715	3	Standard
Kr	83		ug/L			65	64	7	Standard
[> In-1	115		ug/L			11342	10800	2	KED
| Cd	111	49.222	ug/L	1.244	2	6	11007	2	KED
[Cd	114	49.406	ug/L	1.060	2	4	27245	1	KED
[> In	115		ug/L			888503	799518	2	Standard
[Ag	107	48.704	ug/L	1.911	3	236	826105	3	Standard
[> Tb	159		ug/L			797843	757392	0	Standard
[Pb	208	48.770	ug/L	0.776	1	255	2937092	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 22:39:21

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			36323	33303	3	Standard
Cl	37		ug/L			4837250	4666560	3	Standard
[> Sc	45		ug/L			768932	631352	7	Standard
| Cr	52	-0.021	ug/L	0.030	141	29685	23975	9	Standard
| Cr	53	-0.002	ug/L	0.013	738	273	218	6	Standard
| Mn	55	-0.004	ug/L	0.002	46	1379	1019	3	Standard
[> Ge	72		ug/L			45127	42086	1	KED
| Ni	60	0.002	ug/L	0.003	182	27	27	15	KED
| Ni	62	0.043	ug/L	0.027	61	5	14	39	KED
| Cu	63	0.006	ug/L	0.004	76	118	132	13	KED
| Cu	65	0.012	ug/L	0.016	138	63	81	38	KED
| Zn	66	0.159	ug/L	0.019	12	40	111	6	KED
| Zn	67	0.188	ug/L	0.013	7	5	19	5	KED
| As	75	0.001	ug/L	0.014	1721	7	7	43	KED
Y	89		ug/L			512697	406421	7	Standard
Kr	83		ug/L			65	59	27	Standard
[> In-1	115		ug/L			11342	10675	2	KED
| Cd	111	0.006	ug/L	0.005	83	6	7	12	KED
| Cd	114	0.009	ug/L	0.009	101	4	8	53	KED
[> In	115		ug/L			888503	761976	4	Standard
| Ag	107	0.005	ug/L	0.000	6	236	282	3	Standard
[> Tb	159		ug/L			797843	698069	9	Standard
| Pb	208	0.004	ug/L	0.000	11	255	455	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 22:43:49

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				35047	1	Standard
	Cl	37	ug/L				4819880	3	Standard
[>	Sc	45	ug/L				670326	4	Standard
|	Cr	52	ug/L				26049	3	Standard
|	Cr	53	ug/L				231	8	Standard
|	Mn	55	ug/L				1028	4	Standard
[>	Ge	72	ug/L				40960	3	KED
|	Ni	60	ug/L				23	16	KED
|	Ni	62	ug/L				6	75	KED
|	Cu	63	ug/L				124	17	KED
|	Cu	65	ug/L				56	22	KED
|	Zn	66	ug/L				80	30	KED
|	Zn	67	ug/L				19	22	KED
|	As	75	ug/L				7	17	KED
	Y	89	ug/L				440630	3	Standard
	Kr	83	ug/L				56	10	Standard
[>	In-1	115	ug/L				11294	0	KED
|	Cd	111	ug/L				6	39	KED
|	Cd	114	ug/L				7	47	KED
[>	In	115	ug/L				792758	1	Standard
|	Ag	107	ug/L				158	17	Standard
[>	Tb	159	ug/L				735738	1	Standard
|	Pb	208	ug/L				406	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 22:48:17

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	35424	2	Standard
Cl	37		ug/L			4819880	5035791	1	Standard
[> Sc	45		ug/L			670326	690633	2	Standard
| Cr	52	50.090	ug/L	1.293	2	26049	1102727	0	Standard
| Cr	53	49.992	ug/L	1.409	2	231	126409	0	Standard
| Mn	55	50.336	ug/L	0.632	1	1028	1554564	1	Standard
[> Ge	72		ug/L			40960	40175	3	KED
| Ni	60	48.127	ug/L	0.473	0	23	59945	2	KED
| Ni	62	47.601	ug/L	0.608	1	6	9689	4	KED
| Cu	63	47.383	ug/L	0.364	0	124	176628	2	KED
| Cu	65	47.887	ug/L	0.910	1	56	85928	1	KED
| Zn	66	49.451	ug/L	1.419	2	80	21903	5	KED
| Zn	67	49.634	ug/L	1.227	2	19	3638	4	KED
[As	75	50.253	ug/L	0.359	0	7	10901	2	KED
Y	89		ug/L			440630	439073	2	Standard
Kr	83		ug/L			56	76	15	Standard
[> In-1	115		ug/L			11294	11002	3	KED
| Cd	111	49.813	ug/L	1.772	3	6	11342	3	KED
[Cd	114	49.833	ug/L	0.809	1	7	28008	4	KED
[> In	115		ug/L			792758	790337	1	Standard
[Ag	107	49.867	ug/L	0.361	0	158	836273	2	Standard
[> Tb	159		ug/L			735738	752232	3	Standard
[Pb	208	49.542	ug/L	1.405	2	406	2961691	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 22:55:29

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	33132	2	Standard
Cl	37		ug/L			4819880	4815821	0	Standard
[> Sc	45		ug/L			670326	646292	1	Standard
| Cr	52	-0.004	ug/L	0.014	340	26049	25028	0	Standard
| Cr	53	0.000	ug/L	0.007	30344	231	223	7	Standard
| Mn	55	0.001	ug/L	0.001	142	1028	1006	2	Standard
[> Ge	72		ug/L			40960	41305	1	KED
| Ni	60	0.003	ug/L	0.009	336	23	27	44	KED
| Ni	62	0.012	ug/L	0.030	242	6	8	68	KED
| Cu	63	-0.001	ug/L	0.002	384	124	123	4	KED
| Cu	65	-0.000	ug/L	0.006	3752	56	56	19	KED
| Zn	66	0.059	ug/L	0.056	94	80	107	22	KED
| Zn	67	-0.044	ug/L	0.091	204	19	16	40	KED
| As	75	-0.001	ug/L	0.006	590	7	7	16	KED
Y	89		ug/L			440630	421089	5	Standard
Kr	83		ug/L			56	66	23	Standard
[> In-1	115		ug/L			11294	10932	0	KED
| Cd	111	0.004	ug/L	0.015	397	6	6	49	KED
| Cd	114	0.002	ug/L	0.005	319	7	7	36	KED
[> In	115		ug/L			792758	766559	5	Standard
| Ag	107	0.006	ug/L	0.001	24	158	248	6	Standard
[> Tb	159		ug/L			735738	701754	6	Standard
| Pb	208	0.001	ug/L	0.001	47	406	460	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0607-BLK1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 22:59:58**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	43878	1	Standard
Cl	37		ug/L			4819880	4844313	2	Standard
[> Sc	45		ug/L			670326	694466	0	Standard
| Cr	52	0.027	ug/L	0.031	113	26049	27574	2	Standard
| Cr	53	-0.001	ug/L	0.008	927	231	237	8	Standard
| Mn	55	0.000	ug/L	0.001	306	1028	1079	3	Standard
[> Ge	72		ug/L			40960	41718	3	KED
| Ni	60	0.011	ug/L	0.004	39	23	38	13	KED
| Ni	62	0.011	ug/L	0.018	156	6	8	44	KED
| Cu	63	-0.002	ug/L	0.004	217	124	119	10	KED
| Cu	65	0.003	ug/L	0.001	42	56	63	4	KED
| Zn	66	0.063	ug/L	0.038	60	80	111	18	KED
| Zn	67	-0.032	ug/L	0.171	540	19	17	76	KED
| As	75	0.012	ug/L	0.014	113	7	10	25	KED
| Y	89		ug/L			440630	450333	1	Standard
| Kr	83		ug/L			56	53	39	Standard
[> In-1	115		ug/L			11294	11096	2	KED
| Cd	111	0.014	ug/L	0.005	36	6	9	11	KED
| Cd	114	-0.003	ug/L	0.007	218	7	5	75	KED
[> In	115		ug/L			792758	821842	2	Standard
| Ag	107	-0.000	ug/L	0.001	1065	158	162	8	Standard
[> Tb	159		ug/L			735738	745863	3	Standard
| Pb	208	0.000	ug/L	0.001	219	406	433	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0607-BS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 23:04:25**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	41547	2	Standard
Cl	37		ug/L			4819880	4751760	3	Standard
[> Sc	45		ug/L			670326	658852	4	Standard
| Cr	52	25.403	ug/L	0.416	1	26049	546381	4	Standard
| Cr	53	25.187	ug/L	0.519	2	231	60915	5	Standard
| Mn	55	25.469	ug/L	0.915	3	1028	751716	7	Standard
[> Ge	72		ug/L			40960	40613	2	KED
| Ni	60	24.309	ug/L	0.529	2	23	30625	3	KED
| Ni	62	23.968	ug/L	0.890	3	6	4934	4	KED
| Cu	63	24.099	ug/L	0.865	3	124	90931	5	KED
| Cu	65	24.695	ug/L	0.407	1	56	44850	3	KED
| Zn	66	76.564	ug/L	1.522	1	80	34228	3	KED
| Zn	67	75.714	ug/L	0.518	0	19	5599	2	KED
| As	75	24.149	ug/L	0.331	1	7	5300	3	KED
| Y	89		ug/L			440630	431010	4	Standard
| Kr	83		ug/L			56	72	5	Standard
[> In-1	115		ug/L			11294	10981	3	KED
| Cd	111	24.124	ug/L	0.235	0	6	5487	2	KED
| Cd	114	24.092	ug/L	0.238	0	7	13516	3	KED
[> In	115		ug/L			792758	791869	4	Standard
| Ag	107	24.812	ug/L	0.643	2	158	417111	6	Standard
[> Tb	159		ug/L			735738	723508	6	Standard
| Pb	208	25.015	ug/L	0.445	1	406	1438393	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLB0607-SRL1

Sample Dil Factor: 100

Comments:

Sample Date/Time: Monday, March 06, 2023 23:08:53

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	40711	0	Standard
Cl	37		ug/L			4819880	4705522	1	Standard
[> Sc	45		ug/L			670326	743330	2	Standard
| Cr	52	4.128	ug/L	0.074	1	26049	124338	1	Standard
| Cr	53	4.235	ug/L	0.049	1	231	11765	1	Standard
| Mn	55	67.447	ug/L	1.378	2	1028	2241402	0	Standard
[> Ge	72		ug/L			40960	41535	1	KED
| Ni	60	3.678	ug/L	0.086	2	23	4758	2	KED
| Ni	62	3.619	ug/L	0.273	7	6	767	6	KED
| Cu	63	7.961	ug/L	0.135	1	124	30792	2	KED
| Cu	65	8.084	ug/L	0.093	1	56	15050	2	KED
| Zn	66	24.914	ug/L	0.317	1	80	11442	1	KED
| Zn	67	24.442	ug/L	1.251	5	19	1862	6	KED
[As	75	0.731	ug/L	0.045	6	7	171	7	KED
Y	89		ug/L			440630	532873	1	Standard
Kr	83		ug/L			56	78	15	Standard
[> In-1	115		ug/L			11294	11281	0	KED
| Cd	111	0.048	ug/L	0.011	22	6	17	14	KED
[Cd	114	0.039	ug/L	0.012	29	7	29	22	KED
[> In	115		ug/L			792758	789003	2	Standard
[Ag	107	0.066	ug/L	0.003	4	158	1253	2	Standard
[> Tb	159		ug/L			735738	752088	3	Standard
[Pb	208	5.004	ug/L	0.147	2	406	299404	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0410-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 23:13:20**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	55894	3	Standard
Cl	37		ug/L			4819880	4748392	1	Standard
> Sc	45		ug/L			670326	991370	1	Standard
Cr	52	17.059	ug/L	0.319	1	26049	564750	2	Standard
Cr	53	16.989	ug/L	0.309	1	231	61913	1	Standard
Mn	55	267.405	ug/L	2.901	1	1028	11850610	2	Standard
> Ge	72		ug/L			40960	40943	2	KED
Ni	60	18.861	ug/L	0.233	1	23	23961	2	KED
Ni	62	19.095	ug/L	1.102	5	6	3966	7	KED
Cu	63	41.110	ug/L	0.767	1	124	156182	1	KED
Cu	65	41.446	ug/L	1.364	3	56	75790	1	KED
Zn	66	123.400	ug/L	1.786	1	80	55542	1	KED
Zn	67	123.552	ug/L	3.733	3	19	9198	3	KED
As	75	3.695	ug/L	0.160	4	7	823	3	KED
Y	89		ug/L			440630	972182	0	Standard
Kr	83		ug/L			56	222	9	Standard
> In-1	115		ug/L			11294	10858	1	KED
Cd	111	0.267	ug/L	0.069	25	6	65	21	KED
Cd	114	0.269	ug/L	0.028	10	7	156	10	KED
> In	115		ug/L			792758	796002	0	Standard
Ag	107	0.293	ug/L	0.010	3	158	5112	2	Standard
> Tb	159		ug/L			735738	812307	3	Standard
Pb	208	24.359	ug/L	0.737	3	406	1572811	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0607-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 23:17:48**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	55829	2	Standard
Cl	37		ug/L			4819880	4871008	3	Standard
> Sc	45		ug/L			670326	998184	2	Standard
Cr	52	17.103	ug/L	0.475	2	26049	569750	1	Standard
Cr	53	17.283	ug/L	0.144	0	231	63413	2	Standard
Mn	55	280.895	ug/L	4.320	1	1028	12530662	0	Standard
> Ge	72		ug/L			40960	40752	6	KED
Ni	60	20.100	ug/L	0.740	3	23	25376	3	KED
Ni	62	19.895	ug/L	1.628	8	6	4099	4	KED
Cu	63	41.873	ug/L	1.486	3	124	158134	3	KED
Cu	65	43.374	ug/L	2.127	4	56	78825	2	KED
Zn	66	138.534	ug/L	5.691	4	80	61963	2	KED
Zn	67	135.491	ug/L	3.764	2	19	10039	6	KED
As	75	3.864	ug/L	0.217	5	7	855	1	KED
Y	89		ug/L			440630	985923	0	Standard
Kr	83		ug/L			56	219	14	Standard
> In-1	115		ug/L			11294	10845	2	KED
Cd	111	0.253	ug/L	0.045	17	6	62	17	KED
Cd	114	0.255	ug/L	0.004	1	7	147	1	KED
> In	115		ug/L			792758	792266	1	Standard
Ag	107	0.298	ug/L	0.005	1	158	5159	2	Standard
> Tb	159		ug/L			735738	820130	4	Standard
Pb	208	26.462	ug/L	1.118	4	406	1723893	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0607-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 23:22:16**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	49337	3	Standard
Cl	37		ug/L			4819880	4681831	2	Standard
> Sc	45		ug/L			670326	924891	3	Standard
Cr	52	35.305	ug/L	0.120	0	26049	1051850	2	Standard
Cr	53	34.267	ug/L	0.184	0	231	116204	3	Standard
Mn	55	306.165	ug/L	1.549	0	1028	12658104	3	Standard
> Ge	72		ug/L			40960	41671	2	KED
Ni	60	41.995	ug/L	1.785	4	23	54245	3	KED
Ni	62	42.156	ug/L	2.039	4	6	8894	3	KED
Cu	63	65.270	ug/L	1.316	2	124	252298	1	KED
Cu	65	65.752	ug/L	1.632	2	56	122406	3	KED
Zn	66	208.338	ug/L	4.094	1	80	95377	1	KED
Zn	67	203.532	ug/L	6.378	3	19	15404	0	KED
As	75	24.060	ug/L	0.478	1	7	5418	2	KED
Y	89		ug/L			440630	937934	3	Standard
Kr	83		ug/L			56	211	1	Standard
> In-1	115		ug/L			11294	10631	0	KED
Cd	111	24.190	ug/L	0.196	0	6	5327	0	KED
Cd	114	23.922	ug/L	0.129	0	7	12992	0	KED
> In	115		ug/L			792758	768466	2	Standard
Ag	107	22.020	ug/L	0.453	2	158	359080	2	Standard
> Tb	159		ug/L			735738	785049	6	Standard
Pb	208	49.486	ug/L	1.951	3	406	3084484	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0607-MSD1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 23:26:43**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	52869	3	Standard
Cl	37		ug/L			4819880	4835226	3	Standard
Sc	45		ug/L			670326	959034	4	Standard
Cr	52	35.417	ug/L	0.746	2	26049	1093532	3	Standard
Cr	53	35.086	ug/L	0.340	0	231	123323	4	Standard
Mn	55	317.055	ug/L	3.013	0	1028	13593185	5	Standard
Ge	72		ug/L			40960	41524	2	KED
Ni	60	41.550	ug/L	1.263	3	23	53482	2	KED
Ni	62	42.295	ug/L	0.961	2	6	8898	4	KED
Cu	63	66.130	ug/L	1.005	1	124	254798	3	KED
Cu	65	67.839	ug/L	1.022	1	56	125826	2	KED
Zn	66	221.576	ug/L	4.285	1	80	101122	4	KED
Zn	67	215.289	ug/L	0.897	0	19	16244	3	KED
As	75	23.785	ug/L	0.433	1	7	5336	1	KED
Y	89		ug/L			440630	955143	5	Standard
Kr	83		ug/L			56	200	10	Standard
In-1	115		ug/L			11294	10778	2	KED
Cd	111	25.156	ug/L	0.709	2	6	5614	0	KED
Cd	114	23.773	ug/L	0.697	2	7	13086	2	KED
In	115		ug/L			792758	795152	4	Standard
Ag	107	22.570	ug/L	0.185	0	158	380888	5	Standard
Tb	159		ug/L			735738	808074	5	Standard
Pb	208	55.079	ug/L	1.746	3	406	3535216	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLB0607-PS1

Sample Dil Factor: 20

Comments:

Sample Date/Time: Monday, March 06, 2023 23:31:11

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	56760	3	Standard
Cl	37		ug/L			4819880	4914381	3	Standard
> Sc	45		ug/L			670326	993461	2	Standard
Cr	52	34.064	ug/L	0.741	2	26049	1091167	0	Standard
Cr	53	33.668	ug/L	0.224	0	231	122623	2	Standard
Mn	55	283.611	ug/L	5.334	1	1028	12591001	0	Standard
> Ge	72		ug/L			40960	43241	1	KED
Ni	60	40.595	ug/L	0.728	1	23	54432	1	KED
Ni	62	41.566	ug/L	0.073	0	6	9105	1	KED
Cu	63	62.926	ug/L	1.530	2	124	252432	2	KED
Cu	65	64.078	ug/L	1.040	1	56	123757	0	KED
Zn	66	188.857	ug/L	2.389	1	80	89753	2	KED
Zn	67	184.281	ug/L	2.317	1	19	14479	0	KED
As	75	25.839	ug/L	0.182	0	7	6037	1	KED
Y	89		ug/L			440630	986894	0	Standard
Kr	83		ug/L			56	231	5	Standard
> In-1	115		ug/L			11294	10702	0	KED
Cd	111	23.084	ug/L	0.296	1	6	5118	1	KED
Cd	114	23.054	ug/L	0.955	4	7	12605	4	KED
> In	115		ug/L			792758	808404	2	Standard
Ag	107	23.162	ug/L	0.554	2	158	397238	1	Standard
> Tb	159		ug/L			735738	823955	2	Standard
Pb	208	45.002	ug/L	1.111	2	406	2947411	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0607-SRM1**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Monday, March 06, 2023 23:35:33**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	42875	0	Standard
Cl	37		ug/L			4819880	4943075	1	Standard
[> Sc	45		ug/L			670326	705177	2	Standard
| Cr	52	84.316	ug/L	2.425	2	26049	1876743	1	Standard
| Cr	53	83.537	ug/L	2.227	2	231	215542	1	Standard
| Mn	55	201.982	ug/L	2.369	1	1028	6366295	1	Standard
[> Ge	72		ug/L			40960	40629	1	KED
| Ni	60	127.209	ug/L	2.866	2	23	160232	3	KED
| Ni	62	129.650	ug/L	3.454	2	6	26667	2	KED
| Cu	63	50.562	ug/L	0.520	1	124	190636	2	KED
| Cu	65	51.718	ug/L	0.599	1	56	93894	3	KED
| Zn	66	58.305	ug/L	1.297	2	80	26084	1	KED
| Zn	67	66.209	ug/L	2.810	4	19	4902	5	KED
| As	75	30.620	ug/L	0.338	1	7	6722	2	KED
Y	89		ug/L			440630	567194	1	Standard
Kr	83		ug/L			56	87	19	Standard
[> In-1	115		ug/L			11294	10784	0	KED
| Cd	111	59.285	ug/L	1.381	2	6	13235	1	KED
| Cd	114	59.725	ug/L	1.372	2	7	32897	3	KED
[> In	115		ug/L			792758	786341	1	Standard
| Ag	107	20.088	ug/L	0.165	0	158	335224	1	Standard
[> Tb	159		ug/L			735738	760923	3	Standard
| Pb	208	95.455	ug/L	3.652	3	406	5771109	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLC

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 23:40:01

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	38763	1	Standard
Cl	37		ug/L			4819880	4655035	1	Standard
[> Sc	45		ug/L			670326	670068	3	Standard
| Cr	52	-0.065	ug/L	0.024	37	26049	24676	1	Standard
| Cr	53	-0.007	ug/L	0.013	179	231	213	12	Standard
| Mn	55	0.013	ug/L	0.001	6	1028	1405	2	Standard
[> Ge	72		ug/L			40960	40003	1	KED
| Ni	60	0.016	ug/L	0.003	17	23	43	9	KED
| Ni	62	0.038	ug/L	0.033	85	6	13	47	KED
| Cu	63	0.004	ug/L	0.002	65	124	135	7	KED
| Cu	65	0.010	ug/L	0.005	52	56	73	11	KED
| Zn	66	0.038	ug/L	0.018	46	80	95	7	KED
| Zn	67	-0.064	ug/L	0.064	99	19	14	32	KED
[As	75	0.000	ug/L	0.008	17419	7	7	25	KED
Y	89		ug/L			440630	434570	2	Standard
Kr	83		ug/L			56	58	23	Standard
[> In-1	115		ug/L			11294	10629	3	KED
| Cd	111	-0.006	ug/L	0.002	33	6	4	12	KED
[Cd	114	-0.002	ug/L	0.007	388	7	5	68	KED
[> In	115		ug/L			792758	786999	0	Standard
[Ag	107	0.008	ug/L	0.001	11	158	283	5	Standard
[> Tb	159		ug/L			735738	728895	3	Standard
[Pb	208	0.008	ug/L	0.001	8	406	871	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 23:44:29

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	34869	4	Standard
Cl	37		ug/L			4819880	4774961	2	Standard
[> Sc	45		ug/L			670326	643386	3	Standard
| Cr	52	49.867	ug/L	0.679	1	26049	1023133	2	Standard
| Cr	53	49.474	ug/L	0.370	0	231	116581	2	Standard
| Mn	55	49.290	ug/L	0.945	1	1028	1418844	4	Standard
[> Ge	72		ug/L			40960	40024	4	KED
| Ni	60	47.780	ug/L	0.773	1	23	59302	4	KED
| Ni	62	48.245	ug/L	1.311	2	6	9777	3	KED
| Cu	63	46.954	ug/L	0.456	0	124	174438	5	KED
| Cu	65	48.448	ug/L	0.834	1	56	86604	2	KED
| Zn	66	50.061	ug/L	2.005	4	80	22069	4	KED
| Zn	67	51.026	ug/L	1.086	2	19	3723	2	KED
[As	75	49.995	ug/L	0.549	1	7	10803	3	KED
Y	89		ug/L			440630	415049	4	Standard
Kr	83		ug/L			56	64	15	Standard
[> In-1	115		ug/L			11294	10321	3	KED
| Cd	111	50.789	ug/L	1.018	2	6	10850	2	KED
[Cd	114	49.198	ug/L	0.755	1	7	25928	2	KED
[> In	115		ug/L			792758	758658	2	Standard
[Ag	107	49.148	ug/L	0.815	1	158	790900	1	Standard
[> Tb	159		ug/L			735738	723555	2	Standard
[Pb	208	48.829	ug/L	1.963	4	406	2807843	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC

Sample Dil Factor:

Comments:

Sample Date/Time: Monday, March 06, 2023 23:51:41

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	35779	0	Standard
Cl	37		ug/L			4819880	4683477	0	Standard
[> Sc	45		ug/L			670326	651477	3	Standard
| Cr	52	-0.022	ug/L	0.017	77	26049	24875	2	Standard
| Cr	53	-0.010	ug/L	0.008	81	231	202	6	Standard
| Mn	55	-0.002	ug/L	0.001	55	1028	939	2	Standard
[> Ge	72		ug/L			40960	41533	1	KED
| Ni	60	0.005	ug/L	0.009	187	23	29	38	KED
| Ni	62	-0.006	ug/L	0.005	78	6	5	21	KED
| Cu	63	-0.001	ug/L	0.001	76	124	121	1	KED
| Cu	65	0.002	ug/L	0.008	533	56	60	26	KED
| Zn	66	0.075	ug/L	0.043	57	80	116	18	KED
| Zn	67	0.115	ug/L	0.129	112	19	28	33	KED
[As	75	-0.005	ug/L	0.013	249	7	6	44	KED
Y	89		ug/L			440630	419807	3	Standard
Kr	83		ug/L			56	61	23	Standard
[> In-1	115		ug/L			11294	10978	3	KED
| Cd	111	-0.006	ug/L	0.010	158	6	4	49	KED
| Cd	114	0.001	ug/L	0.006	666	7	7	43	KED
[> In	115		ug/L			792758	778274	3	Standard
| Ag	107	0.007	ug/L	0.001	19	158	266	11	Standard
[> Tb	159		ug/L			735738	716892	1	Standard
[Pb	208	0.001	ug/L	0.001	53	406	453	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0687-BLK1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Monday, March 06, 2023 23:56:10**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	44236	3	Standard
Cl	37		ug/L			4819880	4658290	2	Standard
> Sc	45		ug/L			670326	664322	5	Standard
| Cr	52	0.037	ug/L	0.030	81	26049	26566	4	Standard
| Cr	53	0.017	ug/L	0.004	24	231	269	1	Standard
| Mn	55	0.006	ug/L	0.000	3	1028	1187	5	Standard
> Ge	72		ug/L			40960	41621	0	KED
| Ni	60	0.041	ug/L	0.014	32	23	77	23	KED
| Ni	62	0.051	ug/L	0.027	52	6	17	33	KED
| Cu	63	0.019	ug/L	0.004	18	124	200	6	KED
| Cu	65	0.029	ug/L	0.006	20	56	110	9	KED
| Zn	66	0.171	ug/L	0.046	26	80	160	13	KED
| Zn	67	0.172	ug/L	0.115	67	19	33	26	KED
| As	75	0.003	ug/L	0.013	444	7	8	34	KED
| Y	89		ug/L			440630	428274	5	Standard
| Kr	83		ug/L			56	60	33	Standard
> In-1	115		ug/L			11294	10510	1	KED
| Cd	111	0.002	ug/L	0.013	706	6	6	48	KED
| Cd	114	-0.000	ug/L	0.002	714	7	6	17	KED
> In	115		ug/L			792758	788463	3	Standard
| Ag	107	0.004	ug/L	0.000	11	158	219	6	Standard
> Tb	159		ug/L			735738	719179	1	Standard
| Pb	208	0.003	ug/L	0.000	12	406	566	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0687-BS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 00:00:37**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	41854	2	Standard
Cl	37		ug/L			4819880	4696762	2	Standard
[> Sc	45		ug/L			670326	663796	2	Standard
| Cr	52	25.353	ug/L	0.220	0	26049	549481	3	Standard
| Cr	53	25.111	ug/L	0.314	1	231	61177	3	Standard
| Mn	55	25.586	ug/L	0.370	1	1028	760224	3	Standard
[> Ge	72		ug/L			40960	39786	4	KED
| Ni	60	23.987	ug/L	0.455	1	23	29610	5	KED
| Ni	62	23.960	ug/L	0.754	3	6	4836	7	KED
| Cu	63	23.944	ug/L	0.520	2	124	88482	5	KED
| Cu	65	24.360	ug/L	0.543	2	56	43333	5	KED
| Zn	66	76.989	ug/L	1.229	1	80	33693	3	KED
| Zn	67	73.016	ug/L	0.997	1	19	5291	5	KED
| As	75	24.401	ug/L	0.194	0	7	5245	4	KED
| Y	89		ug/L			440630	430052	6	Standard
| Kr	83		ug/L			56	62	8	Standard
[> In-1	115		ug/L			11294	11147	3	KED
| Cd	111	23.549	ug/L	0.864	3	6	5433	0	KED
| Cd	114	23.410	ug/L	0.296	1	7	13328	2	KED
[> In	115		ug/L			792758	782380	4	Standard
| Ag	107	24.693	ug/L	0.248	1	158	410060	4	Standard
[> Tb	159		ug/L			735738	725547	4	Standard
| Pb	208	25.118	ug/L	0.586	2	406	1448356	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLB0687-SRL1

Sample Dil Factor: 100

Comments:

Sample Date/Time: Tuesday, March 07, 2023 00:05:05

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	42201	1	Standard
Cl	37		ug/L			4819880	4754764	2	Standard
[> Sc	45		ug/L			670326	746413	1	Standard
| Cr	52	4.467	ug/L	0.065	1	26049	132737	1	Standard
| Cr	53	4.505	ug/L	0.064	1	231	12551	1	Standard
| Mn	55	99.384	ug/L	1.570	1	1028	3316273	0	Standard
[> Ge	72		ug/L			40960	43068	1	KED
| Ni	60	3.703	ug/L	0.131	3	23	4968	4	KED
| Ni	62	3.758	ug/L	0.261	6	6	826	8	KED
| Cu	63	8.990	ug/L	0.199	2	124	36042	3	KED
| Cu	65	8.947	ug/L	0.074	0	56	17266	2	KED
| Zn	66	29.285	ug/L	0.768	2	80	13928	0	KED
| Zn	67	29.919	ug/L	1.232	4	19	2358	3	KED
[As	75	0.854	ug/L	0.037	4	7	206	5	KED
Y	89		ug/L			440630	548538	2	Standard
Kr	83		ug/L			56	66	22	Standard
[> In-1	115		ug/L			11294	10852	2	KED
| Cd	111	0.055	ug/L	0.022	40	6	18	27	KED
[Cd	114	0.048	ug/L	0.009	19	7	33	15	KED
[> In	115		ug/L			792758	814213	3	Standard
[Ag	107	0.081	ug/L	0.001	1	158	1558	4	Standard
[> Tb	159		ug/L			735738	780083	3	Standard
[Pb	208	5.329	ug/L	0.164	3	406	330715	0	Standard

23B0411

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~23B00411~~ 01

Sample Dil Factor: 20

Comments:

Sample Date/Time: Tuesday, March 07, 2023 00:09:33

MB 3/6/23

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	57372	0	Standard
Cl	37		ug/L			4819880	4754525	3	Standard
> Sc	45		ug/L			670326	957981	6	Standard
Cr	52	18.322	ug/L	0.212	1	26049	583099	5	Standard
Cr	53	18.124	ug/L	0.509	2	231	63741	3	Standard
Mn	55	400.780	ug/L	12.720	3	1028	17140018	3	Standard
> Ge	72		ug/L			40960	40782	2	KED
Ni	60	18.431	ug/L	0.725	3	23	23307	1	KED
Ni	62	18.569	ug/L	0.505	2	6	3838	2	KED
Cu	63	45.684	ug/L	0.682	1	124	172851	1	KED
Cu	65	45.428	ug/L	1.724	3	56	82758	3	KED
Zn	66	142.058	ug/L	1.938	1	80	63677	1	KED
Zn	67	139.968	ug/L	1.885	1	19	10380	3	KED
As	75	4.099	ug/L	0.240	5	7	909	3	KED
Y	89		ug/L			440630	989959	5	Standard
Kr	83		ug/L			56	200	15	Standard
> In-1	115		ug/L			11294	11030	3	KED
Cd	111	0.300	ug/L	0.050	16	6	74	15	KED
Cd	114	0.277	ug/L	0.025	9	7	162	5	KED
> In	115		ug/L			792758	784531	4	Standard
Ag	107	0.385	ug/L	0.008	2	158	6555	2	Standard
> Tb	159		ug/L			735738	812314	1	Standard
Pb	208	25.759	ug/L	0.672	2	406	1664722	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0687-DUP1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 00:14:00**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	53111	4	Standard
Cl	37		ug/L			4819880	4695128	4	Standard
> Sc	45		ug/L			670326	921671	6	Standard
Cr	52	17.872	ug/L	0.353	1	26049	548481	7	Standard
Cr	53	17.883	ug/L	0.217	1	231	60560	6	Standard
Mn	55	387.117	ug/L	4.278	1	1028	15946656	6	Standard
> Ge	72		ug/L			40960	40944	3	KED
Ni	60	18.156	ug/L	0.333	1	23	23056	1	KED
Ni	62	18.518	ug/L	0.676	3	6	3841	0	KED
Cu	63	44.923	ug/L	0.304	0	124	170712	3	KED
Cu	65	45.356	ug/L	0.492	1	56	82988	4	KED
Zn	66	136.190	ug/L	2.705	1	80	61279	1	KED
Zn	67	134.409	ug/L	3.739	2	19	10000	0	KED
As	75	3.981	ug/L	0.189	4	7	886	1	KED
Y	89		ug/L			440630	951802	5	Standard
Kr	83		ug/L			56	195	6	Standard
> In-1	115		ug/L			11294	11172	2	KED
Cd	111	0.256	ug/L	0.031	12	6	65	11	KED
Cd	114	0.295	ug/L	0.040	13	7	175	14	KED
> In	115		ug/L			792758	766047	4	Standard
Ag	107	0.380	ug/L	0.019	4	158	6332	9	Standard
> Tb	159		ug/L			735738	786493	7	Standard
Pb	208	24.757	ug/L	0.839	3	406	1546607	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0687-MS1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 00:18:28**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	51876	1	Standard
Cl	37		ug/L			4819880	4738689	3	Standard
> Sc	45		ug/L			670326	916726	4	Standard
Cr	52	35.358	ug/L	1.166	3	26049	1043161	1	Standard
Cr	53	35.949	ug/L	1.172	3	231	120687	1	Standard
Mn	55	405.572	ug/L	10.907	2	1028	16606351	2	Standard
> Ge	72		ug/L			40960	40696	3	KED
Ni	60	42.129	ug/L	0.323	0	23	53160	2	KED
Ni	62	41.042	ug/L	1.047	2	6	8457	1	KED
Cu	63	75.184	ug/L	1.622	2	124	283792	2	KED
Cu	65	76.547	ug/L	0.896	1	56	139156	3	KED
Zn	66	214.000	ug/L	1.652	0	80	95683	2	KED
Zn	67	204.667	ug/L	0.495	0	19	15135	3	KED
As	75	24.832	ug/L	0.256	1	7	5461	3	KED
Y	89		ug/L			440630	934861	3	Standard
Kr	83		ug/L			56	203	6	Standard
> In-1	115		ug/L			11294	10731	3	KED
Cd	111	22.810	ug/L	0.131	0	6	5071	3	KED
Cd	114	22.300	ug/L	0.442	1	7	12220	1	KED
> In	115		ug/L			792758	762721	3	Standard
Ag	107	22.673	ug/L	0.856	3	158	366867	4	Standard
> Tb	159		ug/L			735738	791549	2	Standard
Pb	208	47.131	ug/L	0.727	1	406	2966534	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0687-MSD1**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 00:22:55**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	50971	1	Standard
Cl	37		ug/L			4819880	4752791	1	Standard
Sc	45		ug/L			670326	938365	3	Standard
Cr	52	36.309	ug/L	0.180	0	26049	1096453	3	Standard
Cr	53	35.931	ug/L	0.776	2	231	123646	5	Standard
Mn	55	427.621	ug/L	9.633	2	1028	17926209	1	Standard
Ge	72		ug/L			40960	40310	5	KED
Ni	60	43.576	ug/L	2.074	4	23	54390	1	KED
Ni	62	44.245	ug/L	1.886	4	6	9021	1	KED
Cu	63	68.867	ug/L	2.182	3	124	257282	1	KED
Cu	65	70.535	ug/L	4.061	5	56	126793	2	KED
Zn	66	221.254	ug/L	12.512	5	80	97816	0	KED
Zn	67	217.245	ug/L	14.255	6	19	15876	1	KED
As	75	26.372	ug/L	1.330	5	7	5735	1	KED
Y	89		ug/L			440630	985822	1	Standard
Kr	83		ug/L			56	220	22	Standard
In-1	115		ug/L			11294	10797	3	KED
Cd	111	23.687	ug/L	0.667	2	6	5295	0	KED
Cd	114	23.622	ug/L	0.654	2	7	13023	0	KED
In	115		ug/L			792758	773766	2	Standard
Ag	107	22.754	ug/L	0.365	1	158	373630	2	Standard
Tb	159		ug/L			735738	799559	3	Standard
Pb	208	46.744	ug/L	0.673	1	406	2971374	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BLB0687-PS1

Sample Dil Factor: 20

Comments:

Sample Date/Time: Tuesday, March 07, 2023 00:27:23

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	58227	0	Standard
Cl	37		ug/L			4819880	4801820	1	Standard
Sc	45		ug/L			670326	928653	3	Standard
Cr	52	36.546	ug/L	1.194	3	26049	1091334	0	Standard
Cr	53	35.966	ug/L	0.933	2	231	122366	0	Standard
Mn	55	418.385	ug/L	11.214	2	1028	17357966	0	Standard
Ge	72		ug/L			40960	41524	1	KED
Ni	60	42.012	ug/L	1.209	2	23	54101	3	KED
Ni	62	41.954	ug/L	0.359	0	6	8825	2	KED
Cu	63	67.826	ug/L	0.901	1	124	261301	1	KED
Cu	65	69.169	ug/L	2.465	3	56	128280	2	KED
Zn	66	215.653	ug/L	2.658	1	80	98391	0	KED
Zn	67	206.080	ug/L	2.376	1	19	15548	1	KED
As	75	28.013	ug/L	0.157	0	7	6284	0	KED
Y	89		ug/L			440630	989695	2	Standard
Kr	83		ug/L			56	195	5	Standard
In-1	115		ug/L			11294	10801	0	KED
Cd	111	23.641	ug/L	0.674	2	6	5290	2	KED
Cd	114	23.584	ug/L	0.264	1	7	13013	0	KED
In	115		ug/L			792758	777328	3	Standard
Ag	107	23.777	ug/L	0.689	2	158	391971	1	Standard
Tb	159		ug/L			735738	799816	4	Standard
Pb	208	48.055	ug/L	2.178	4	406	3052333	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLB0687-SRM1**

Sample Dil Factor: **50**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 00:31:45**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	42144	0	Standard
Cl	37		ug/L			4819880	4901800	2	Standard
[> Sc	45		ug/L			670326	699303	1	Standard
| Cr	52	81.440	ug/L	1.921	2	26049	1798975	2	Standard
| Cr	53	81.176	ug/L	2.803	3	231	207810	4	Standard
| Mn	55	200.911	ug/L	0.645	0	1028	6280849	1	Standard
[> Ge	72		ug/L			40960	41877	3	KED
| Ni	60	124.698	ug/L	0.705	0	23	161908	4	KED
| Ni	62	125.105	ug/L	2.556	2	6	26514	1	KED
| Cu	63	48.224	ug/L	1.251	2	124	187437	5	KED
| Cu	65	50.085	ug/L	0.370	0	56	93710	3	KED
| Zn	66	56.377	ug/L	1.723	3	80	25992	3	KED
| Zn	67	66.267	ug/L	1.134	1	19	5056	4	KED
| As	75	30.317	ug/L	0.900	2	7	6855	2	KED
Y	89		ug/L			440630	548532	1	Standard
Kr	83		ug/L			56	93	10	Standard
[> In-1	115		ug/L			11294	10595	4	KED
| Cd	111	58.656	ug/L	1.611	2	6	12859	2	KED
| Cd	114	58.879	ug/L	1.779	3	7	31836	1	KED
[> In	115		ug/L			792758	794009	1	Standard
| Ag	107	19.685	ug/L	0.285	1	158	331669	0	Standard
[> Tb	159		ug/L			735738	759919	1	Standard
| Pb	208	93.737	ug/L	2.581	2	406	5662825	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLD

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 00:36:13

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	36920	1	Standard
Cl	37		ug/L			4819880	4608545	0	Standard
[> Sc	45		ug/L			670326	630760	3	Standard
| Cr	52	-0.061	ug/L	0.009	14	26049	23325	4	Standard
| Cr	53	-0.008	ug/L	0.008	89	231	198	6	Standard
| Mn	55	0.012	ug/L	0.005	40	1028	1314	10	Standard
[> Ge	72		ug/L			40960	39351	2	KED
| Ni	60	0.014	ug/L	0.007	50	23	39	21	KED
| Ni	62	0.008	ug/L	0.020	249	6	7	50	KED
| Cu	63	-0.000	ug/L	0.006	3183	124	118	17	KED
| Cu	65	0.006	ug/L	0.013	210	56	65	36	KED
| Zn	66	0.021	ug/L	0.008	37	80	86	4	KED
| Zn	67	-0.026	ug/L	0.065	253	19	17	29	KED
[As	75	0.006	ug/L	0.018	313	7	8	45	KED
Y	89		ug/L			440630	407241	3	Standard
Kr	83		ug/L			56	56	1	Standard
[> In-1	115		ug/L			11294	10359	2	KED
| Cd	111	0.005	ug/L	0.007	142	6	6	24	KED
| Cd	114	0.006	ug/L	0.002	41	7	9	11	KED
[> In	115		ug/L			792758	756516	1	Standard
| Ag	107	0.008	ug/L	0.002	30	158	273	12	Standard
[> Tb	159		ug/L			735738	705940	4	Standard
[Pb	208	0.006	ug/L	0.001	9	406	716	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVD

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 00:40:41

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	34874	3	Standard
Cl	37		ug/L			4819880	4747412	3	Standard
[> Sc	45		ug/L			670326	631975	8	Standard
| Cr	52	51.605	ug/L	0.610	1	26049	1039416	8	Standard
| Cr	53	50.799	ug/L	0.803	1	231	117532	7	Standard
| Mn	55	50.769	ug/L	0.476	0	1028	1434341	7	Standard
[> Ge	72		ug/L			40960	40560	1	KED
| Ni	60	46.622	ug/L	0.964	2	23	58651	3	KED
| Ni	62	46.887	ug/L	0.702	1	6	9634	2	KED
| Cu	63	47.089	ug/L	0.055	0	124	177240	1	KED
| Cu	65	47.844	ug/L	1.446	3	56	86730	4	KED
| Zn	66	48.545	ug/L	1.122	2	80	21695	2	KED
| Zn	67	49.598	ug/L	<u>2.484</u>	5	19	3672	6	KED
[As	75	49.590	ug/L	0.300	0	7	10861	1	KED
Y	89		ug/L			440630	418434	7	Standard
Kr	83		ug/L			56	51	14	Standard
[> In-1	115		ug/L			11294	10368	2	KED
| Cd	111	50.203	ug/L	0.225	0	6	10777	2	KED
[Cd	114	49.607	ug/L	1.322	2	7	26256	0	KED
[> In	115		ug/L			792758	753525	6	Standard
[Ag	107	48.623	ug/L	1.327	2	158	778022	8	Standard
[> Tb	159		ug/L			735738	718651	7	Standard
[Pb	208	48.721	ug/L	1.718	3	406	2780938	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBD

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 00:47:53

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	33946	1	Standard
Cl	37		ug/L			4819880	4734517	2	Standard
[> Sc	45		ug/L			670326	648763	3	Standard
| Cr	52	-0.039	ug/L	0.020	52	26049	24423	1	Standard
| Cr	53	-0.018	ug/L	0.005	25	231	182	8	Standard
| Mn	55	-0.002	ug/L	0.002	86	1028	933	6	Standard
[> Ge	72		ug/L			40960	40050	1	KED
| Ni	60	0.002	ug/L	0.002	79	23	25	8	KED
| Ni	62	0.032	ug/L	0.027	83	6	12	43	KED
| Cu	63	-0.006	ug/L	0.003	50	124	100	9	KED
| Cu	65	0.004	ug/L	0.008	193	56	62	24	KED
| Zn	66	0.037	ug/L	0.050	135	80	95	23	KED
| Zn	67	-0.028	ug/L	0.081	286	19	17	33	KED
| As	75	-0.001	ug/L	0.008	602	7	7	22	KED
Y	89		ug/L			440630	417562	1	Standard
Kr	83		ug/L			56	65	8	Standard
[> In-1	115		ug/L			11294	10351	5	KED
| Cd	111	0.009	ug/L	0.012	143	6	7	32	KED
| Cd	114	0.003	ug/L	0.010	321	7	8	58	KED
[> In	115		ug/L			792758	766226	2	Standard
| Ag	107	0.008	ug/L	0.002	28	158	284	15	Standard
[> Tb	159		ug/L			735738	712126	3	Standard
| Pb	208	0.001	ug/L	0.001	133	406	437	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0388-04**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 00:52:22**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	53331	1	Standard
Cl	37		ug/L			4819880	4991802	1	Standard
> Sc	45		ug/L			670326	797732	1	Standard
| Cr	52	0.204	ug/L	0.010	4	26049	36066	1	Standard
| Cr	53	0.679	ug/L	0.008	1	231	2254	0	Standard
| Mn	55	383.694	ug/L	12.402	3	1028	13677199	1	Standard
> Ge	72		ug/L			40960	39892	1	KED
| Ni	60	0.396	ug/L	0.035	8	23	512	9	KED
| Ni	62	0.359	ug/L	0.040	11	6	78	12	KED
| Cu	63	0.234	ug/L	0.011	4	124	988	5	KED
| Cu	65	0.249	ug/L	0.025	10	56	498	10	KED
| Zn	66	2.565	ug/L	0.089	3	80	1201	1	KED
| Zn	67	3.262	ug/L	0.127	3	19	255	2	KED
| As	75	0.204	ug/L	0.012	5	7	51	5	KED
Y	89		ug/L			440630	452116	0	Standard
Kr	83		ug/L			56	68	20	Standard
> In-1	115		ug/L			11294	9599	8	KED
| Cd	111	0.003	ug/L	0.007	215	6	5	16	KED
| Cd	114	0.006	ug/L	0.011	194	7	8	64	KED
> In	115		ug/L			792758	769637	1	Standard
| Ag	107	0.004	ug/L	0.001	37	158	213	10	Standard
> Tb	159		ug/L			735738	748294	4	Standard
| Pb	208	0.781	ug/L	0.038	4	406	46846	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0388-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 00:56:43**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	52306	1	Standard
Cl	37		ug/L			4819880	5037362	3	Standard
> Sc	45		ug/L			670326	826774	3	Standard
| Cr	52	0.035	ug/L	0.020	57	26049	33011	2	Standard
| Cr	53	0.544	ug/L	0.025	4	231	1929	2	Standard
| Mn	55	241.783	ug/L	9.710	4	1028	8928387	2	Standard
> Ge	72		ug/L			40960	38808	2	KED
| Ni	60	0.825	ug/L	0.037	4	23	1014	2	KED
| Ni	62	0.929	ug/L	0.040	4	6	188	5	KED
| Cu	63	0.134	ug/L	0.013	9	124	599	9	KED
| Cu	65	0.158	ug/L	0.019	12	56	328	11	KED
| Zn	66	1.692	ug/L	0.053	3	80	797	3	KED
| Zn	67	2.803	ug/L	0.216	7	19	215	5	KED
| As	75	0.436	ug/L	0.018	4	7	98	3	KED
Y	89		ug/L			440630	452662	4	Standard
Kr	83		ug/L			56	58	4	Standard
> In-1	115		ug/L			11294	10092	3	KED
| Cd	111	0.014	ug/L	0.001	8	6	8	6	KED
| Cd	114	0.003	ug/L	0.015	559	7	7	97	KED
> In	115		ug/L			792758	760729	4	Standard
| Ag	107	-0.001	ug/L	0.001	139	158	142	5	Standard
> Tb	159		ug/L			735738	736504	6	Standard
| Pb	208	0.742	ug/L	0.035	4	406	43775	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0046-DUP1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 01:01:05**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	50876	2	Standard
Cl	37		ug/L			4819880	4807651	0	Standard
> Sc	45		ug/L			670326	795129	2	Standard
| Cr	52	0.085	ug/L	0.039	45	26049	32995	3	Standard
| Cr	53	0.581	ug/L	0.018	3	231	1964	3	Standard
| Mn	55	246.414	ug/L	3.431	1	1028	8758039	2	Standard
> Ge	72		ug/L			40960	39027	0	KED
| Ni	60	0.803	ug/L	0.023	2	23	993	2	KED
| Ni	62	0.805	ug/L	0.089	11	6	165	10	KED
| Cu	63	0.127	ug/L	0.010	7	124	577	6	KED
| Cu	65	0.132	ug/L	0.003	2	56	284	2	KED
| Zn	66	1.631	ug/L	0.104	6	80	775	5	KED
| Zn	67	2.496	ug/L	0.140	5	19	195	4	KED
| As	75	0.415	ug/L	0.058	14	7	94	13	KED
Y	89		ug/L			440630	435387	4	Standard
Kr	83		ug/L			56	69	15	Standard
> In-1	115		ug/L			11294	10482	2	KED
| Cd	111	0.011	ug/L	0.003	28	6	7	6	KED
| Cd	114	0.008	ug/L	0.006	82	7	10	30	KED
> In	115		ug/L			792758	740664	2	Standard
| Ag	107	-0.002	ug/L	0.001	36	158	110	11	Standard
> Tb	159		ug/L			735738	720594	2	Standard
| Pb	208	0.730	ug/L	0.025	3	406	42197	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **BLC0046-MS1**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 01:05:56**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	51140	3	Standard
Cl	37		ug/L			4819880	5006972	2	Standard
> Sc	45		ug/L			670326	831217	2	Standard
| Cr	52	20.451	ug/L	0.075	0	26049	561198	2	Standard
| Cr	53	20.659	ug/L	0.357	1	231	63073	3	Standard
| Mn	55	257.262	ug/L	1.165	0	1028	9559834	2	Standard
> Ge	72		ug/L			40960	38308	3	KED
| Ni	60	25.120	ug/L	0.243	0	23	29856	3	KED
| Ni	62	25.243	ug/L	0.301	1	6	4901	3	KED
| Cu	63	23.188	ug/L	0.526	2	124	82503	4	KED
| Cu	65	23.839	ug/L	0.057	0	56	40828	2	KED
| Zn	66	74.072	ug/L	0.658	0	80	31227	2	KED
| Zn	67	70.025	ug/L	1.116	1	19	4885	2	KED
| As	75	25.527	ug/L	0.287	1	7	5285	3	KED
Y	89		ug/L			440630	444252	3	Standard
Kr	83		ug/L			56	89	9	Standard
> In-1	115		ug/L			11294	9857	2	KED
| Cd	111	23.542	ug/L	0.517	2	6	4806	1	KED
| Cd	114	23.489	ug/L	0.256	1	7	11828	2	KED
> In	115		ug/L			792758	752139	1	Standard
| Ag	107	23.482	ug/L	0.576	2	158	374915	4	Standard
> Tl	159		ug/L			735738	746562	5	Standard
| Pb	208	24.247	ug/L	0.831	3	406	1438180	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 01:11:48**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	58074	0	Standard
Cl	37		ug/L			4819880	4990733	1	Standard
> Sc	45		ug/L			670326	826429	3	Standard
| Cr	52	14.221	ug/L	0.285	2	26049	397641	1	Standard
| Cr	53	14.504	ug/L	0.383	2	231	44086	1	Standard
| Mn	55	152.866	ug/L	2.944	1	1028	5645855	1	Standard
> Ge	72		ug/L			40960	41606	4	KED
| Ni	60	12.556	ug/L	0.237	1	23	16212	3	KED
| Ni	62	12.885	ug/L	0.258	2	6	2720	4	KED
| Cu	63	29.408	ug/L	0.087	0	124	113589	4	KED
| Cu	65	28.884	ug/L	0.369	1	56	53710	3	KED
| Zn	66	57.550	ug/L	0.603	1	80	26364	3	KED
| Zn	67	57.271	ug/L	1.329	2	19	4341	2	KED
| As	75	6.314	ug/L	0.186	2	7	1424	1	KED
Y	89		ug/L			440630	710207	5	Standard
Kr	83		ug/L			56	146	19	Standard
> In-1	115		ug/L			11294	11271	0	KED
| Cd	111	0.175	ug/L	0.033	18	6	46	16	KED
| Cd	114	0.208	ug/L	0.010	5	7	126	4	KED
> In	115		ug/L			792758	802449	2	Standard
| Ag	107	0.145	ug/L	0.001	0	158	2630	3	Standard
> Tb	159		ug/L			735738	793266	2	Standard
| Pb	208	13.947	ug/L	0.121	0	406	880027	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 01:16:16**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	53882	2	Standard
Cl	37		ug/L			4819880	4953607	1	Standard
> Sc	45		ug/L			670326	798471	0	Standard
| Cr	52	13.593	ug/L	0.225	1	26049	368718	1	Standard
| Cr	53	13.666	ug/L	0.248	1	231	40166	1	Standard
| Mn	55	140.030	ug/L	3.638	2	1028	4998260	2	Standard
> Ge	72		ug/L			40960	40124	1	KED
| Ni	60	10.775	ug/L	0.085	0	23	13424	1	KED
| Ni	62	10.741	ug/L	0.251	2	6	2187	1	KED
| Cu	63	22.291	ug/L	0.277	1	124	83056	0	KED
| Cu	65	22.377	ug/L	0.309	1	56	40140	0	KED
| Zn	66	50.762	ug/L	0.841	1	80	22439	1	KED
| Zn	67	48.908	ug/L	1.193	2	19	3580	2	KED
| As	75	4.750	ug/L	0.121	2	7	1036	2	KED
Y	89		ug/L			440630	660831	2	Standard
Kr	83		ug/L			56	109	2	Standard
> In-1	115		ug/L			11294	10911	1	KED
| Cd	111	0.126	ug/L	0.036	28	6	34	21	KED
| Cd	114	0.121	ug/L	0.006	4	7	74	6	KED
> In	115		ug/L			792758	790792	0	Standard
| Ag	107	0.087	ug/L	0.006	6	158	1609	6	Standard
> Tb	159		ug/L			735738	773798	1	Standard
| Pb	208	9.234	ug/L	0.249	2	406	568433	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 01:20:43**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	58028	0	Standard
Cl	37		ug/L			4819880	4907330	0	Standard
> Sc	45		ug/L			670326	821203	2	Standard
| Cr	52	12.427	ug/L	0.243	1	26049	349356	1	Standard
| Cr	53	12.467	ug/L	0.116	0	231	37710	2	Standard
| Mn	55	138.790	ug/L	0.801	0	1028	5095086	1	Standard
> Ge	72		ug/L			40960	41932	1	KED
| Ni	60	11.075	ug/L	0.339	3	23	14416	2	KED
| Ni	62	11.131	ug/L	0.640	5	6	2369	5	KED
| Cu	63	23.751	ug/L	0.061	0	124	92486	1	KED
| Cu	65	23.936	ug/L	0.527	2	56	44869	1	KED
| Zn	66	47.569	ug/L	1.074	2	80	21980	1	KED
| Zn	67	46.105	ug/L	0.935	2	19	3528	0	KED
| As	75	4.854	ug/L	0.145	2	7	1106	2	KED
Y	89		ug/L			440630	687915	2	Standard
Kr	83		ug/L			56	113	11	Standard
> In-1	115		ug/L			11294	11309	2	KED
| Cd	111	0.118	ug/L	0.035	29	6	33	22	KED
| Cd	114	0.129	ug/L	0.015	11	7	81	12	KED
> In	115		ug/L			792758	804093	1	Standard
| Ag	107	0.101	ug/L	0.004	3	158	1879	2	Standard
> Tb	159		ug/L			735738	800498	1	Standard
| Pb	208	8.850	ug/L	0.204	2	406	563607	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-05**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 01:25:11**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	54887	2	Standard
Cl	37		ug/L			4819880	5009900	0	Standard
> Sc	45		ug/L			670326	838152	3	Standard
Cr	52	13.199	ug/L	0.259	1	26049	376639	1	Standard
Cr	53	13.080	ug/L	0.286	2	231	40354	1	Standard
Mn	55	142.958	ug/L	3.626	2	1028	5354435	1	Standard
> Ge	72		ug/L			40960	42363	1	KED
Ni	60	12.118	ug/L	0.163	1	23	15935	0	KED
Ni	62	12.213	ug/L	0.234	1	6	2625	2	KED
Cu	63	23.812	ug/L	0.037	0	124	93674	1	KED
Cu	65	23.826	ug/L	0.798	3	56	45133	4	KED
Zn	66	51.223	ug/L	0.209	0	80	23908	1	KED
Zn	67	50.332	ug/L	1.581	3	19	3890	3	KED
As	75	6.029	ug/L	0.024	0	7	1386	0	KED
Y	89		ug/L			440630	717062	2	Standard
Kr	83		ug/L			56	133	18	Standard
> In-1	115		ug/L			11294	11041	3	KED
Cd	111	0.147	ug/L	0.041	27	6	39	20	KED
Cd	114	0.132	ug/L	0.006	4	7	81	5	KED
> In	115		ug/L			792758	820851	1	Standard
Ag	107	0.099	ug/L	0.008	8	158	1888	6	Standard
> Tb	159		ug/L			735738	811244	3	Standard
Pb	208	10.789	ug/L	0.394	3	406	695803	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-06**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 01:29:38**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	55174	3	Standard
Cl	37		ug/L			4819880	4902127	0	Standard
> Sc	45		ug/L			670326	810700	2	Standard
| Cr	52	12.983	ug/L	0.249	1	26049	359083	4	Standard
| Cr	53	12.904	ug/L	0.281	2	231	38511	1	Standard
| Mn	55	136.817	ug/L	0.412	0	1028	4958626	2	Standard
> Ge	72		ug/L			40960	42602	1	KED
| Ni	60	11.340	ug/L	0.352	3	23	14997	2	KED
| Ni	62	11.379	ug/L	0.327	2	6	2461	4	KED
| Cu	63	23.212	ug/L	0.073	0	124	91830	1	KED
| Cu	65	23.338	ug/L	0.347	1	56	44452	1	KED
| Zn	66	49.606	ug/L	0.299	0	80	23285	1	KED
| Zn	67	48.181	ug/L	0.462	0	19	3745	1	KED
| As	75	5.767	ug/L	0.240	4	7	1333	2	KED
Y	89		ug/L			440630	692465	1	Standard
Kr	83		ug/L			56	106	5	Standard
> In-1	115		ug/L			11294	10766	5	KED
| Cd	111	0.153	ug/L	0.013	8	6	39	1	KED
| Cd	114	0.178	ug/L	0.035	19	7	104	12	KED
> In	115		ug/L			792758	794622	2	Standard
> Ag	107	0.095	ug/L	0.003	3	158	1759	4	Standard
> Tb	159		ug/L			735738	785721	2	Standard
| Pb	208	9.640	ug/L	0.272	2	406	602402	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-07**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 01:34:00**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	56349	1	Standard
Cl	37		ug/L			4819880	4962518	0	Standard
> Sc	45		ug/L			670326	801560	2	Standard
| Cr	52	11.666	ug/L	0.149	1	26049	322068	2	Standard
| Cr	53	11.797	ug/L	0.320	2	231	34839	2	Standard
| Mn	55	140.119	ug/L	0.826	0	1028	5020806	2	Standard
> Ge	72		ug/L			40960	41245	4	KED
| Ni	60	10.495	ug/L	0.217	2	23	13436	2	KED
| Ni	62	10.532	ug/L	0.557	5	6	2208	9	KED
| Cu	63	23.805	ug/L	0.439	1	124	91213	5	KED
| Cu	65	24.413	ug/L	0.381	1	56	45022	4	KED
| Zn	66	48.536	ug/L	1.505	3	80	22042	1	KED
| Zn	67	47.976	ug/L	0.245	0	19	3610	3	KED
| As	75	6.196	ug/L	0.032	0	7	1386	3	KED
Y	89		ug/L			440630	679487	4	Standard
Kr	83		ug/L			56	128	11	Standard
> In-1	115		ug/L			11294	10988	3	KED
| Cd	111	0.162	ug/L	0.022	13	6	42	10	KED
| Cd	114	0.108	ug/L	0.029	27	7	67	22	KED
> In	115		ug/L			792758	801036	1	Standard
| Ag	107	0.098	ug/L	0.004	3	158	1828	4	Standard
> Tb	159		ug/L			735738	785141	0	Standard
| Pb	208	10.046	ug/L	0.219	2	406	627516	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVE

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 01:39:53

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	35857	2	Standard
Cl	37		ug/L			4819880	5037538	0	Standard
[> Sc	45		ug/L			670326	677901	1	Standard
| Cr	52	50.049	ug/L	0.472	0	26049	1082055	2	Standard
| Cr	53	49.255	ug/L	0.847	1	231	122330	3	Standard
| Mn	55	50.190	ug/L	0.796	1	1028	1521486	0	Standard
[> Ge	72		ug/L			40960	40634	2	KED
| Ni	60	48.623	ug/L	0.506	1	23	61272	3	KED
| Ni	62	48.716	ug/L	1.133	2	6	10022	0	KED
| Cu	63	48.089	ug/L	1.183	2	124	181268	1	KED
| Cu	65	48.232	ug/L	0.862	1	56	87593	4	KED
| Zn	66	49.551	ug/L	1.989	4	80	22202	6	KED
| Zn	67	50.717	ug/L	1.691	3	19	3757	1	KED
| As	75	50.695	ug/L	0.671	1	7	11122	1	KED
Y	89		ug/L			440630	433564	3	Standard
Kr	83		ug/L			56	54	12	Standard
[> In-1	115		ug/L			11294	10669	5	KED
| Cd	111	50.436	ug/L	0.788	1	6	11135	3	KED
| Cd	114	50.203	ug/L	1.355	2	7	27331	3	KED
[> In	115		ug/L			792758	784998	1	Standard
| Ag	107	49.457	ug/L	1.268	2	158	823880	3	Standard
[> Tb	159		ug/L			735738	752557	2	Standard
| Pb	208	49.261	ug/L	1.388	2	406	2946972	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBE

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 01:47:05

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	35035	3	Standard
Cl	37		ug/L			4819880	4928307	1	Standard
[> Sc	45		ug/L			670326	665840	1	Standard
| Cr	52	-0.055	ug/L	0.020	35	26049	24728	2	Standard
| Cr	53	-0.023	ug/L	0.002	10	231	174	2	Standard
| Mn	55	-0.002	ug/L	0.000	27	1028	968	0	Standard
[> Ge	72		ug/L			40960	41019	0	KED
| Ni	60	-0.001	ug/L	0.004	739	23	22	22	KED
| Ni	62	-0.000	ug/L	0.014	53537	6	6	45	KED
| Cu	63	-0.009	ug/L	0.003	32	124	91	11	KED
| Cu	65	-0.002	ug/L	0.004	145	56	52	12	KED
| Zn	66	-0.055	ug/L	0.017	31	80	55	13	KED
| Zn	67	-0.154	ug/L	0.015	9	19	8	13	KED
[As	75	0.004	ug/L	0.007	163	7	8	17	KED
Y	89		ug/L			440630	439202	4	Standard
Kr	83		ug/L			56	60	9	Standard
[> In-1	115		ug/L			11294	10756	1	KED
| Cd	111	-0.007	ug/L	0.006	86	6	4	35	KED
[Cd	114	0.002	ug/L	0.005	281	7	7	36	KED
[> In	115		ug/L			792758	805444	2	Standard
[Ag	107	0.006	ug/L	0.002	35	158	262	16	Standard
[> Tb	159		ug/L			735738	733870	4	Standard
[Pb	208	0.001	ug/L	0.001	143	406	459	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-08**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 01:51:33**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	58420	0	Standard
Cl	37		ug/L			4819880	4832348	1	Standard
> Sc	45		ug/L			670326	791587	4	Standard
| Cr	52	13.023	ug/L	0.077	0	26049	351455	3	Standard
| Cr	53	13.007	ug/L	0.454	3	231	37881	1	Standard
| Mn	55	150.686	ug/L	3.168	2	1028	5329942	2	Standard
> Ge	72		ug/L			40960	40973	0	KED
| Ni	60	11.519	ug/L	0.295	2	23	14651	2	KED
| Ni	62	12.073	ug/L	0.207	1	6	2510	2	KED
| Cu	63	61.365	ug/L	1.228	2	124	233297	2	KED
| Cu	65	62.575	ug/L	1.144	1	56	114543	2	KED
| Zn	66	54.157	ug/L	0.569	1	80	24443	1	KED
| Zn	67	52.122	ug/L	1.624	3	19	3895	3	KED
| As	75	7.101	ug/L	0.200	2	7	1577	2	KED
Y	89		ug/L			440630	676304	5	Standard
Kr	83		ug/L			56	115	14	Standard
> In-1	115		ug/L			11294	10651	1	KED
| Cd	111	0.161	ug/L	0.007	4	6	41	5	KED
| Cd	114	0.203	ug/L	0.008	4	7	117	4	KED
> In	115		ug/L			792758	776120	4	Standard
> Ag	107	0.107	ug/L	0.008	7	158	1914	6	Standard
> Tb	159		ug/L			735738	765705	2	Standard
| Pb	208	11.101	ug/L	0.148	1	406	676182	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-09**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 01:56:01**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	58695	3	Standard
Cl	37		ug/L			4819880	4790534	1	Standard
> Sc	45		ug/L			670326	807040	4	Standard
| Cr	52	12.416	ug/L	0.096	0	26049	343129	4	Standard
| Cr	53	12.339	ug/L	0.194	1	231	36670	2	Standard
| Mn	55	161.094	ug/L	0.525	0	1028	5812008	3	Standard
> Ge	72		ug/L			40960	41356	1	KED
| Ni	60	11.097	ug/L	0.302	2	23	14246	1	KED
| Ni	62	11.230	ug/L	0.230	2	6	2357	1	KED
| Cu	63	26.642	ug/L	0.700	2	124	102279	1	KED
| Cu	65	27.421	ug/L	0.677	2	56	50684	1	KED
| Zn	66	54.607	ug/L	0.753	1	80	24874	1	KED
| Zn	67	51.956	ug/L	1.177	2	19	3919	2	KED
| As	75	6.950	ug/L	0.236	3	7	1558	2	KED
Y	89		ug/L			440630	680477	3	Standard
Kr	83		ug/L			56	123	7	Standard
> In-1	115		ug/L			11294	11018	3	KED
| Cd	111	0.164	ug/L	<u>0.051</u>	31	6	43	26	KED
| Cd	114	0.159	ug/L	0.033	20	7	96	20	KED
> In	115		ug/L			792758	788312	3	Standard
> Ag	107	0.113	ug/L	0.003	2	158	2047	1	Standard
> Tb	159		ug/L			735738	773936	1	Standard
| Pb	208	11.694	ug/L	0.318	2	406	719921	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-10**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 02:00:28**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	57683	3	Standard
Cl	37		ug/L			4819880	4840430	1	Standard
[> Sc	45		ug/L			670326	804927	0	Standard
| Cr	52	12.953	ug/L	0.311	2	26049	355719	2	Standard
| Cr	53	12.839	ug/L	0.452	3	231	38064	3	Standard
| Mn	55	171.386	ug/L	3.577	2	1028	6167103	2	Standard
[> Ge	72		ug/L			40960	42264	2	KED
| Ni	60	10.980	ug/L	0.227	2	23	14404	2	KED
| Ni	62	11.416	ug/L	0.401	3	6	2448	3	KED
| Cu	63	27.209	ug/L	0.759	2	124	106755	3	KED
| Cu	65	27.912	ug/L	0.889	3	56	52701	0	KED
| Zn	66	54.175	ug/L	2.072	3	80	25211	3	KED
| Zn	67	52.867	ug/L	3.201	6	19	4070	3	KED
| As	75	7.026	ug/L	0.139	1	7	1609	0	KED
Y	89		ug/L			440630	696197	3	Standard
Kr	83		ug/L			56	140	25	Standard
[> In-1	115		ug/L			11294	10342	1	KED
| Cd	111	0.177	ug/L	0.025	13	6	43	13	KED
| Cd	114	0.174	ug/L	0.044	25	7	98	24	KED
[> In	115		ug/L			792758	781794	4	Standard
| Ag	107	0.118	ug/L	0.003	2	158	2122	6	Standard
[> Tb	159		ug/L			735738	775533	3	Standard
| Pb	208	12.104	ug/L	0.351	2	406	746425	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-11**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 02:04:56**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	55674	1	Standard
Cl	37		ug/L			4819880	4857057	2	Standard
> Sc	45		ug/L			670326	809975	0	Standard
| Cr	52	12.496	ug/L	0.121	0	26049	346388	1	Standard
| Cr	53	12.414	ug/L	0.082	0	231	37042	1	Standard
| Mn	55	135.075	ug/L	4.874	3	1028	4891471	3	Standard
> Ge	72		ug/L			40960	42024	1	KED
| Ni	60	10.941	ug/L	0.272	2	23	14273	1	KED
| Ni	62	11.023	ug/L	0.303	2	6	2351	3	KED
| Cu	63	23.229	ug/L	0.519	2	124	90637	1	KED
| Cu	65	23.468	ug/L	0.448	1	56	44097	2	KED
| Zn	66	52.453	ug/L	0.982	1	80	24284	2	KED
| Zn	67	51.753	ug/L	2.010	3	19	3966	3	KED
| As	75	6.359	ug/L	0.160	2	7	1450	2	KED
Y	89		ug/L			440630	671134	2	Standard
Kr	83		ug/L			56	104	7	Standard
> In-1	115		ug/L			11294	10924	3	KED
| Cd	111	0.190	ug/L	0.039	20	6	48	15	KED
| Cd	114	0.154	ug/L	0.021	13	7	93	14	KED
> In	115		ug/L			792758	799906	1	Standard
| Ag	107	0.094	ug/L	0.009	9	158	1759	8	Standard
> Tb	159		ug/L			735738	791682	2	Standard
| Pb	208	12.753	ug/L	0.240	1	406	803083	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-12**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 02:09:24**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	56473	4	Standard
Cl	37		ug/L			4819880	4940574	2	Standard
[> Sc	45		ug/L			670326	813267	2	Standard
| Cr	52	12.824	ug/L	0.215	1	26049	356091	2	Standard
| Cr	53	12.994	ug/L	0.235	1	231	38905	0	Standard
| Mn	55	138.074	ug/L	4.510	3	1028	5017712	0	Standard
[> Ge	72		ug/L			40960	40838	2	KED
| Ni	60	11.656	ug/L	0.149	1	23	14779	3	KED
| Ni	62	11.820	ug/L	1.009	8	6	2445	5	KED
| Cu	63	24.544	ug/L	0.228	0	124	93082	3	KED
| Cu	65	25.015	ug/L	0.147	0	56	45665	2	KED
| Zn	66	54.313	ug/L	1.532	2	80	24422	1	KED
| Zn	67	51.462	ug/L	1.132	2	19	3832	2	KED
| As	75	6.644	ug/L	0.081	1	7	1471	1	KED
Y	89		ug/L			440630	672948	0	Standard
Kr	83		ug/L			56	116	13	Standard
[> In-1	115		ug/L			11294	11208	1	KED
| Cd	111	0.166	ug/L	0.027	16	6	44	14	KED
| Cd	114	0.154	ug/L	0.017	10	7	95	9	KED
[> In	115		ug/L			792758	811518	1	Standard
| Ag	107	0.101	ug/L	0.005	5	158	1906	5	Standard
[> Tb	159		ug/L			735738	794912	2	Standard
| Pb	208	10.504	ug/L	0.283	2	406	664035	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-13**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 02:13:51**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	55480	2	Standard
Cl	37		ug/L			4819880	4788648	2	Standard
> Sc	45		ug/L			670326	801374	2	Standard
| Cr	52	12.724	ug/L	0.211	1	26049	348361	2	Standard
| Cr	53	12.686	ug/L	0.129	1	231	37452	3	Standard
| Mn	55	133.591	ug/L	2.625	1	1028	4786286	2	Standard
> Ge	72		ug/L			40960	40565	2	KED
| Ni	60	11.419	ug/L	0.130	1	23	14381	2	KED
| Ni	62	11.680	ug/L	0.454	3	6	2403	2	KED
| Cu	63	23.968	ug/L	0.504	2	124	90257	0	KED
| Cu	65	24.637	ug/L	0.244	0	56	44679	2	KED
| Zn	66	52.691	ug/L	1.297	2	80	23547	3	KED
| Zn	67	52.008	ug/L	1.020	1	19	3846	0	KED
| As	75	5.819	ug/L	0.044	0	7	1281	1	KED
Y	89		ug/L			440630	689912	3	Standard
Kr	83		ug/L			56	102	31	Standard
> In-1	115		ug/L			11294	10785	2	KED
| Cd	111	0.157	ug/L	0.024	15	6	40	11	KED
| Cd	114	0.139	ug/L	0.028	20	7	83	18	KED
> In	115		ug/L			792758	791560	1	Standard
> Ag	107	0.096	ug/L	0.006	5	158	1764	6	Standard
> Tb	159		ug/L			735738	784664	4	Standard
| Pb	208	12.589	ug/L	0.406	3	406	785101	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-14**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 02:18:19**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	57000	2	Standard
Cl	37		ug/L			4819880	4764040	2	Standard
> Sc	45		ug/L			670326	756718	2	Standard
| Cr	52	11.982	ug/L	0.299	2	26049	311410	1	Standard
| Cr	53	12.185	ug/L	0.151	1	231	33970	2	Standard
| Mn	55	124.906	ug/L	1.220	0	1028	4225817	2	Standard
> Ge	72		ug/L			40960	41108	0	KED
| Ni	60	9.830	ug/L	0.256	2	23	12549	2	KED
| Ni	62	9.978	ug/L	0.059	0	6	2082	1	KED
| Cu	63	18.872	ug/L	0.122	0	124	72065	0	KED
| Cu	65	18.911	ug/L	0.113	0	56	34767	0	KED
| Zn	66	43.491	ug/L	0.656	1	80	19708	0	KED
| Zn	67	43.510	ug/L	0.569	1	19	3265	1	KED
| As	75	4.952	ug/L	0.099	1	7	1106	2	KED
Y	89		ug/L			440630	658371	3	Standard
Kr	83		ug/L			56	104	8	Standard
> In-1	115		ug/L			11294	10110	3	KED
| Cd	111	0.129	ug/L	0.003	2	6	32	5	KED
| Cd	114	0.100	ug/L	0.020	19	7	58	15	KED
> In	115		ug/L			792758	775119	3	Standard
> Ag	107	0.136	ug/L	0.008	5	158	2388	2	Standard
> Tb	159		ug/L			735738	766431	3	Standard
| Pb	208	7.635	ug/L	0.174	2	406	465539	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-15**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 02:22:46**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	56933	2	Standard
Cl	37		ug/L			4819880	4771191	2	Standard
> Sc	45		ug/L			670326	757022	2	Standard
| Cr	52	11.942	ug/L	0.060	0	26049	310688	2	Standard
| Cr	53	11.988	ug/L	0.174	1	231	33448	3	Standard
| Mn	55	121.522	ug/L	1.085	0	1028	4113071	2	Standard
> Ge	72		ug/L			40960	41418	2	KED
| Ni	60	10.916	ug/L	0.306	2	23	14032	1	KED
| Ni	62	11.030	ug/L	0.628	5	6	2317	3	KED
| Cu	63	19.043	ug/L	0.450	2	124	73257	2	KED
| Cu	65	19.240	ug/L	0.418	2	56	35629	0	KED
| Zn	66	50.636	ug/L	0.666	1	80	23103	0	KED
| Zn	67	50.961	ug/L	3.205	6	19	3846	4	KED
| As	75	7.529	ug/L	0.309	4	7	1689	1	KED
Y	89		ug/L			440630	642412	3	Standard
Kr	83		ug/L			56	100	1	Standard
> In-1	115		ug/L			11294	11140	1	KED
| Cd	111	0.134	ug/L	0.024	18	6	36	16	KED
| Cd	114	0.122	ug/L	0.022	18	7	76	18	KED
> In	115		ug/L			792758	798233	2	Standard
| Ag	107	0.071	ug/L	0.003	4	158	1367	4	Standard
> Tb	159		ug/L			735738	777487	5	Standard
| Pb	208	10.552	ug/L	0.349	3	406	651908	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-16**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 02:27:14**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	57266	1	Standard
Cl	37		ug/L			4819880	4755393	2	Standard
> Sc	45		ug/L			670326	780471	4	Standard
| Cr	52	12.225	ug/L	0.353	2	26049	327036	3	Standard
| Cr	53	12.324	ug/L	0.399	3	231	35408	2	Standard
| Mn	55	142.739	ug/L	2.741	1	1028	4977762	2	Standard
> Ge	72		ug/L			40960	41488	2	KED
| Ni	60	11.047	ug/L	0.313	2	23	14234	4	KED
| Ni	62	11.047	ug/L	0.203	1	6	2325	0	KED
| Cu	63	21.824	ug/L	0.432	1	124	84062	0	KED
| Cu	65	22.112	ug/L	0.239	1	56	41022	2	KED
| Zn	66	46.465	ug/L	1.451	3	80	21253	4	KED
| Zn	67	45.457	ug/L	1.472	3	19	3442	3	KED
| As	75	6.349	ug/L	0.061	0	7	1429	2	KED
Y	89		ug/L			440630	664692	3	Standard
Kr	83		ug/L			56	93	6	Standard
> In-1	115		ug/L			11294	10854	0	KED
| Cd	111	0.190	ug/L	0.023	12	6	48	10	KED
| Cd	114	0.134	ug/L	0.016	11	7	81	10	KED
> In	115		ug/L			792758	785073	2	Standard
> Ag	107	0.091	ug/L	0.003	3	158	1671	4	Standard
> Tb	159		ug/L			735738	778189	5	Standard
| Pb	208	10.500	ug/L	0.321	3	406	649507	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-17**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 02:31:35**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	57643	2	Standard
Cl	37		ug/L			4819880	4716029	0	Standard
> Sc	45		ug/L			670326	784300	2	Standard
| Cr	52	12.290	ug/L	0.282	2	26049	330306	1	Standard
| Cr	53	12.128	ug/L	0.309	2	231	35034	0	Standard
| Mn	55	140.215	ug/L	4.788	3	1028	4914488	2	Standard
> Ge	72		ug/L			40960	41854	2	KED
| Ni	60	10.586	ug/L	0.354	3	23	13751	1	KED
| Ni	62	10.817	ug/L	0.703	6	6	2297	5	KED
| Cu	63	24.554	ug/L	0.146	0	124	95419	1	KED
| Cu	65	24.936	ug/L	0.593	2	56	46676	4	KED
| Zn	66	58.350	ug/L	1.412	2	80	26887	1	KED
| Zn	67	55.824	ug/L	1.665	2	19	4258	1	KED
| As	75	6.785	ug/L	0.104	1	7	1540	2	KED
Y	89		ug/L			440630	662493	3	Standard
Kr	83		ug/L			56	102	16	Standard
> In-1	115		ug/L			11294	10674	1	KED
| Cd	111	0.178	ug/L	0.021	12	6	45	12	KED
| Cd	114	0.158	ug/L	0.015	9	7	92	10	KED
> In	115		ug/L			792758	792901	1	Standard
> Ag	107	0.095	ug/L	0.004	4	158	1749	4	Standard
> Tb	159		ug/L			735738	781857	1	Standard
| Pb	208	10.651	ug/L	0.201	1	406	662490	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVF

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 02:37:28

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	37415	2	Standard
Cl	37		ug/L			4819880	5039637	3	Standard
[> Sc	45		ug/L			670326	679526	4	Standard
| Cr	52	50.190	ug/L	1.618	3	26049	1086510	1	Standard
| Cr	53	49.782	ug/L	1.960	3	231	123792	2	Standard
| Mn	55	50.635	ug/L	1.624	3	1028	1537389	1	Standard
[> Ge	72		ug/L			40960	40795	1	KED
| Ni	60	49.077	ug/L	0.732	1	23	62076	0	KED
| Ni	62	47.717	ug/L	2.130	4	6	9857	3	KED
| Cu	63	47.653	ug/L	0.310	0	124	180388	0	KED
| Cu	65	48.441	ug/L	1.077	2	56	88280	1	KED
| Zn	66	50.208	ug/L	0.234	0	80	22569	1	KED
| Zn	67	50.500	ug/L	0.581	1	19	3757	0	KED
| As	75	51.120	ug/L	0.272	0	7	11261	0	KED
Y	89		ug/L			440630	434640	2	Standard
Kr	83		ug/L			56	55	12	Standard
[> In-1	115		ug/L			11294	10857	1	KED
| Cd	111	49.788	ug/L	1.115	2	6	11190	0	KED
| Cd	114	49.139	ug/L	1.460	2	7	27239	1	KED
[> In	115		ug/L			792758	777024	1	Standard
| Ag	107	50.570	ug/L	0.205	0	158	833725	1	Standard
[> Tb	159		ug/L			735738	745339	5	Standard
| Pb	208	49.905	ug/L	2.165	4	406	2953446	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBF

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 02:44:40

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	35090	2	Standard
Cl	37		ug/L			4819880	4858779	1	Standard
[> Sc	45		ug/L			670326	661549	0	Standard
| Cr	52	-0.018	ug/L	0.030	170	26049	25346	2	Standard
| Cr	53	-0.015	ug/L	0.002	14	231	192	2	Standard
| Mn	55	-0.003	ug/L	0.002	65	1028	919	6	Standard
[> Ge	72		ug/L			40960	40101	1	KED
| Ni	60	-0.002	ug/L	0.001	31	23	20	5	KED
| Ni	62	0.016	ug/L	0.010	60	6	9	20	KED
| Cu	63	-0.008	ug/L	0.002	23	124	92	6	KED
| Cu	65	0.001	ug/L	0.000	32	56	57	1	KED
| Zn	66	-0.057	ug/L	0.026	46	80	53	21	KED
| Zn	67	-0.151	ug/L	0.017	11	19	8	13	KED
[As	75	-0.003	ug/L	0.013	465	7	6	38	KED
Y	89		ug/L			440630	437392	2	Standard
Kr	83		ug/L			56	64	14	Standard
[> In-1	115		ug/L			11294	11036	2	KED
| Cd	111	-0.004	ug/L	0.002	67	6	5	10	KED
[Cd	114	0.003	ug/L	0.008	320	7	8	55	KED
[> In	115		ug/L			792758	788269	1	Standard
[Ag	107	0.004	ug/L	0.002	44	158	220	12	Standard
[> Tb	159		ug/L			735738	717419	3	Standard
[Pb	208	0.001	ug/L	0.000	40	406	448	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-18**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 02:49:09**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	56808	2	Standard
Cl	37		ug/L			4819880	4776344	3	Standard
> Sc	45		ug/L			670326	782353	0	Standard
| Cr	52	12.973	ug/L	0.145	1	26049	346199	1	Standard
| Cr	53	12.809	ug/L	0.304	2	231	36912	2	Standard
| Mn	55	148.111	ug/L	5.059	3	1028	5181114	4	Standard
> Ge	72		ug/L			40960	40505	3	KED
| Ni	60	11.157	ug/L	0.249	2	23	14037	5	KED
| Ni	62	11.578	ug/L	0.279	2	6	2379	1	KED
| Cu	63	24.889	ug/L	0.634	2	124	93646	5	KED
| Cu	65	25.349	ug/L	0.038	0	56	45902	3	KED
| Zn	66	58.700	ug/L	0.591	1	80	26189	3	KED
| Zn	67	55.401	ug/L	1.019	1	19	4092	4	KED
| As	75	21.272	ug/L	0.365	1	7	4659	4	KED
Y	89		ug/L			440630	644591	4	Standard
Kr	83		ug/L			56	116	9	Standard
> In-1	115		ug/L			11294	10547	3	KED
| Cd	111	0.155	ug/L	0.022	14	6	39	10	KED
| Cd	114	0.165	ug/L	0.006	3	7	95	1	KED
> In	115		ug/L			792758	772951	2	Standard
> Ag	107	0.099	ug/L	0.003	2	158	1774	5	Standard
> Tb	159		ug/L			735738	766990	4	Standard
| Pb	208	12.820	ug/L	0.434	3	406	781385	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-19**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 02:53:36**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	57612	0	Standard
Cl	37		ug/L			4819880	4796554	1	Standard
[> Sc	45		ug/L			670326	786201	2	Standard
| Cr	52	13.067	ug/L	0.127	0	26049	350207	3	Standard
| Cr	53	13.083	ug/L	0.212	1	231	37866	1	Standard
| Mn	55	137.429	ug/L	0.046	0	1028	4830509	2	Standard
[> Ge	72		ug/L			40960	40809	3	KED
| Ni	60	11.638	ug/L	0.512	4	23	14735	3	KED
| Ni	62	11.628	ug/L	0.175	1	6	2408	3	KED
| Cu	63	25.535	ug/L	0.418	1	124	96763	4	KED
| Cu	65	26.209	ug/L	1.196	4	56	47775	3	KED
| Zn	66	51.652	ug/L	2.118	4	80	23203	1	KED
| Zn	67	49.668	ug/L	0.934	1	19	3696	1	KED
| As	75	6.269	ug/L	0.099	1	7	1388	2	KED
Y	89		ug/L			440630	676106	3	Standard
Kr	83		ug/L			56	87	15	Standard
[> In-1	115		ug/L			11294	11145	0	KED
| Cd	111	0.190	ug/L	0.033	17	6	49	15	KED
| Cd	114	0.172	ug/L	0.016	9	7	105	9	KED
[> In	115		ug/L			792758	795966	3	Standard
| Ag	107	0.106	ug/L	0.004	3	158	1953	4	Standard
[> Tb	159		ug/L			735738	775434	3	Standard
| Pb	208	12.049	ug/L	0.510	4	406	742602	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-20**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 02:58:04**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	60504	1	Standard
Cl	37		ug/L			4819880	4839236	1	Standard
> Sc	45		ug/L			670326	794208	1	Standard
| Cr	52	20.017	ug/L	0.322	1	26049	525437	0	Standard
| Cr	53	19.933	ug/L	0.341	1	231	58145	0	Standard
| Mn	55	147.258	ug/L	4.415	2	1028	5227295	1	Standard
> Ge	72		ug/L			40960	39991	2	KED
| Ni	60	11.405	ug/L	0.033	0	23	14160	2	KED
| Ni	62	11.329	ug/L	0.667	5	6	2301	8	KED
| Cu	63	27.152	ug/L	0.272	1	124	100805	2	KED
| Cu	65	27.707	ug/L	0.120	0	56	49532	2	KED
| Zn	66	55.123	ug/L	0.624	1	80	24282	2	KED
| Zn	67	53.639	ug/L	1.657	3	19	3911	2	KED
| As	75	6.765	ug/L	0.157	2	7	1467	0	KED
Y	89		ug/L			440630	688006	1	Standard
Kr	83		ug/L			56	114	11	Standard
> In-1	115		ug/L			11294	10690	2	KED
| Cd	111	0.165	ug/L	0.039	23	6	42	19	KED
| Cd	114	0.198	ug/L	0.022	11	7	115	9	KED
> In	115		ug/L			792758	785142	0	Standard
| Ag	107	0.138	ug/L	0.004	3	158	2451	3	Standard
> Tb	159		ug/L			735738	787710	2	Standard
| Pb	208	12.895	ug/L	0.254	1	406	807835	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0031-21**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 03:02:31**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	53026	1	Standard
Cl	37		ug/L			4819880	4790270	1	Standard
> Sc	45		ug/L			670326	763133	3	Standard
| Cr	52	13.875	ug/L	0.453	3	26049	359015	3	Standard
| Cr	53	14.064	ug/L	0.166	1	231	39497	2	Standard
| Mn	55	241.076	ug/L	6.190	2	1028	8219850	1	Standard
> Ge	72		ug/L			40960	40579	1	KED
| Ni	60	13.969	ug/L	0.172	1	23	17593	1	KED
| Ni	62	13.839	ug/L	0.698	5	6	2847	3	KED
| Cu	63	36.308	ug/L	0.388	1	124	136746	1	KED
| Cu	65	37.509	ug/L	0.163	0	56	68021	2	KED
| Zn	66	115.392	ug/L	2.365	2	80	51481	1	KED
| Zn	67	107.998	ug/L	1.644	1	19	7971	0	KED
| As	75	19.936	ug/L	0.280	1	7	4372	1	KED
Y	89		ug/L			440630	631756	2	Standard
Kr	83		ug/L			56	115	10	Standard
> In-1	115		ug/L			11294	11137	3	KED
| Cd	111	0.096	ug/L	0.021	22	6	27	16	KED
| Cd	114	0.112	ug/L	0.030	26	7	70	22	KED
> In	115		ug/L			792758	784005	2	Standard
| Ag	107	0.067	ug/L	0.001	1	158	1265	1	Standard
> Tb	159		ug/L			735738	769284	4	Standard
| Pb	208	19.684	ug/L	0.409	2	406	1203750	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0032-05**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 03:06:59**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	57901	3	Standard
Cl	37		ug/L			4819880	4833291	2	Standard
> Sc	45		ug/L			670326	778861	3	Standard
| Cr	52	12.870	ug/L	0.350	2	26049	342072	3	Standard
| Cr	53	12.726	ug/L	0.402	3	231	36483	0	Standard
| Mn	55	85.876	ug/L	1.924	2	1028	2989344	0	Standard
> Ge	72		ug/L			40960	41577	0	KED
| Ni	60	9.682	ug/L	0.054	0	23	12501	0	KED
| Ni	62	9.772	ug/L	0.261	2	6	2063	2	KED
| Cu	63	18.860	ug/L	0.286	1	124	72845	2	KED
| Cu	65	18.953	ug/L	0.250	1	56	35243	1	KED
| Zn	66	46.649	ug/L	0.944	2	80	21377	2	KED
| Zn	67	44.716	ug/L	0.779	1	19	3394	2	KED
| As	75	4.808	ug/L	0.098	2	7	1086	1	KED
Y	89		ug/L			440630	662008	3	Standard
Kr	83		ug/L			56	98	17	Standard
> In-1	115		ug/L			11294	10833	2	KED
| Cd	111	0.272	ug/L	0.020	7	6	66	5	KED
| Cd	114	0.254	ug/L	0.015	5	7	147	6	KED
> In	115		ug/L			792758	792983	3	Standard
| Ag	107	0.258	ug/L	0.011	4	158	4489	2	Standard
> Tb	159		ug/L			735738	772837	4	Standard
| Pb	208	16.561	ug/L	0.446	2	406	1017330	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0032-06**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 03:11:27**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	55305	1	Standard
Cl	37		ug/L			4819880	4803429	1	Standard
[> Sc	45		ug/L			670326	763673	2	Standard
| Cr	52	11.664	ug/L	0.339	2	26049	306706	0	Standard
| Cr	53	11.613	ug/L	0.386	3	231	32670	1	Standard
| Mn	55	113.101	ug/L	2.913	2	1028	3860220	0	Standard
[> Ge	72		ug/L			40960	40347	2	KED
| Ni	60	11.348	ug/L	0.305	2	23	14213	2	KED
| Ni	62	11.172	ug/L	0.475	4	6	2286	2	KED
| Cu	63	30.997	ug/L	0.428	1	124	116074	1	KED
| Cu	65	31.397	ug/L	0.625	1	56	56600	0	KED
| Zn	66	43.552	ug/L	1.025	2	80	19366	1	KED
| Zn	67	43.624	ug/L	0.882	2	19	3213	3	KED
| [As	75	4.673	ug/L	0.106	2	7	1024	2	KED
| Y	89		ug/L			440630	625667	3	Standard
| Kr	83		ug/L			56	102	28	Standard
[> In-1	115		ug/L			11294	10828	1	KED
| Cd	111	0.044	ug/L	0.011	24	6	15	15	KED
| Cd	114	0.035	ug/L	0.019	53	7	26	38	KED
[> In	115		ug/L			792758	801768	0	Standard
| Ag	107	0.044	ug/L	0.003	6	158	914	6	Standard
[> Tb	159		ug/L			735738	772601	4	Standard
| Pb	208	58.283	ug/L	2.427	4	406	3576551	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0032-07**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 03:15:54**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	59321	4	Standard
Cl	37		ug/L			4819880	4758698	1	Standard
[> Sc	45		ug/L			670326	805264	3	Standard
| Cr	52	14.280	ug/L	0.224	1	26049	388974	1	Standard
| Cr	53	14.275	ug/L	0.160	1	231	42314	4	Standard
| Mn	55	136.885	ug/L	0.242	0	1028	4927964	3	Standard
[> Ge	72		ug/L			40960	41698	0	KED
| Ni	60	11.547	ug/L	0.336	2	23	14946	2	KED
| Ni	62	11.372	ug/L	0.458	4	6	2406	3	KED
| Cu	63	24.704	ug/L	0.835	3	124	95640	2	KED
| Cu	65	25.276	ug/L	0.835	3	56	47113	2	KED
| Zn	66	56.791	ug/L	0.485	0	80	26081	0	KED
| Zn	67	54.266	ug/L	2.524	4	19	4126	5	KED
| As	75	5.956	ug/L	0.017	0	7	1348	0	KED
Y	89		ug/L			440630	691896	4	Standard
Kr	83		ug/L			56	102	7	Standard
[> In-1	115		ug/L			11294	11000	1	KED
| Cd	111	0.167	ug/L	0.051	30	6	43	26	KED
| Cd	114	0.150	ug/L	0.022	14	7	91	14	KED
[> In	115		ug/L			792758	779237	2	Standard
| Ag	107	0.139	ug/L	0.002	1	158	2446	2	Standard
[> Tb	159		ug/L			735738	766393	2	Standard
| Pb	208	16.670	ug/L	0.539	3	406	1015622	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0032-08**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 03:20:22**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	56191	2	Standard
Cl	37		ug/L			4819880	4694147	1	Standard
> Sc	45		ug/L			670326	826962	3	Standard
| Cr	52	12.988	ug/L	0.145	1	26049	366291	3	Standard
| Cr	53	13.013	ug/L	0.175	1	231	39617	2	Standard
| Mn	55	140.492	ug/L	3.043	2	1028	5191624	1	Standard
> Ge	72		ug/L			40960	40446	3	KED
| Ni	60	12.840	ug/L	0.279	2	23	16122	4	KED
| Ni	62	13.364	ug/L	0.311	2	6	2741	3	KED
| Cu	63	23.325	ug/L	0.187	0	124	87623	4	KED
| Cu	65	23.609	ug/L	0.330	1	56	42687	3	KED
| Zn	66	53.876	ug/L	0.906	1	80	24004	3	KED
| Zn	67	52.769	ug/L	1.509	2	19	3890	1	KED
| As	75	5.679	ug/L	0.101	1	7	1246	3	KED
Y	89		ug/L			440630	738053	1	Standard
Kr	83		ug/L			56	123	9	Standard
> In-1	115		ug/L			11294	10660	1	KED
| Cd	111	0.229	ug/L	0.018	7	6	56	6	KED
| Cd	114	0.211	ug/L	0.049	23	7	121	20	KED
> In	115		ug/L			792758	777934	3	Standard
> Ag	107	0.172	ug/L	0.007	4	158	3000	6	Standard
> Tb	159		ug/L			735738	778372	5	Standard
| Pb	208	13.548	ug/L	0.337	2	406	838211	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0032-11**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 03:24:50**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	62120	3	Standard
Cl	37		ug/L			4819880	4812629	1	Standard
> Sc	45		ug/L			670326	788530	2	Standard
| Cr	52	15.024	ug/L	0.178	1	26049	399289	3	Standard
| Cr	53	15.015	ug/L	0.218	1	231	43566	3	Standard
| Mn	55	162.712	ug/L	4.995	3	1028	5737444	4	Standard
> Ge	72		ug/L			40960	40518	2	KED
| Ni	60	13.738	ug/L	0.246	1	23	17275	2	KED
| Ni	62	14.324	ug/L	0.157	1	6	2943	1	KED
| Cu	63	33.740	ug/L	0.552	1	124	126929	4	KED
| Cu	65	34.276	ug/L	0.507	1	56	62053	1	KED
| Zn	66	80.664	ug/L	0.707	0	80	35965	2	KED
| Zn	67	76.970	ug/L	1.952	2	19	5681	4	KED
| As	75	6.475	ug/L	0.142	2	7	1423	3	KED
Y	89		ug/L			440630	689971	2	Standard
Kr	83		ug/L			56	111	4	Standard
> In-1	115		ug/L			11294	10654	2	KED
| Cd	111	0.164	ug/L	0.023	14	6	41	12	KED
| Cd	114	0.180	ug/L	0.007	4	7	104	3	KED
> In	115		ug/L			792758	789461	1	Standard
| Ag	107	0.103	ug/L	0.002	1	158	1885	2	Standard
> Tb	159		ug/L			735738	775987	4	Standard
| Pb	208	15.767	ug/L	0.512	3	406	972280	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0276-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 03:29:11**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	56553	3	Standard
Cl	37		ug/L			4819880	4882332	0	Standard
> Sc	45		ug/L			670326	830635	0	Standard
| Cr	52	13.200	ug/L	0.281	2	26049	373421	1	Standard
| Cr	53	13.313	ug/L	0.177	1	231	40717	1	Standard
| Mn	55	134.964	ug/L	2.615	1	1028	5011949	1	Standard
> Ge	72		ug/L			40960	41333	1	KED
| Ni	60	12.738	ug/L	0.119	0	23	16343	1	KED
| Ni	62	12.974	ug/L	0.108	0	6	2720	1	KED
| Cu	63	24.209	ug/L	0.547	2	124	92937	3	KED
| Cu	65	24.612	ug/L	0.104	0	56	45479	1	KED
| Zn	66	50.475	ug/L	1.508	2	80	22982	2	KED
| Zn	67	50.802	ug/L	0.489	0	19	3830	1	KED
| As	75	5.343	ug/L	0.100	1	7	1199	2	KED
Y	89		ug/L			440630	726422	1	Standard
Kr	83		ug/L			56	123	1	Standard
> In-1	115		ug/L			11294	10630	1	KED
| Cd	111	0.169	ug/L	0.017	10	6	42	9	KED
| Cd	114	0.143	ug/L	0.017	11	7	84	11	KED
> In	115		ug/L			792758	786572	2	Standard
> Ag	107	0.125	ug/L	0.002	1	158	2240	1	Standard
> Tb	159		ug/L			735738	776101	4	Standard
| Pb	208	16.294	ug/L	0.526	3	406	1005040	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVG

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 03:35:04

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	36866	3	Standard
Cl	37		ug/L			4819880	4984462	1	Standard
[> Sc	45		ug/L			670326	671185	0	Standard
| Cr	52	51.807	ug/L	1.368	2	26049	1108100	3	Standard
| Cr	53	49.769	ug/L	0.545	1	231	122363	1	Standard
| Mn	55	50.342	ug/L	0.202	0	1028	1511287	0	Standard
[> Ge	72		ug/L			40960	40913	1	KED
| Ni	60	49.105	ug/L	2.082	4	23	62282	3	KED
| Ni	62	48.708	ug/L	1.251	2	6	10096	4	KED
| Cu	63	48.047	ug/L	0.859	1	124	182416	2	KED
| Cu	65	48.770	ug/L	1.225	2	56	89147	2	KED
| Zn	66	49.546	ug/L	0.602	1	80	22335	1	KED
| Zn	67	50.435	ug/L	0.866	1	19	3764	2	KED
| As	75	50.239	ug/L	1.108	2	7	11100	2	KED
Y	89		ug/L			440630	438466	0	Standard
Kr	83		ug/L			56	64	16	Standard
[> In-1	115		ug/L			11294	10751	1	KED
| Cd	111	49.647	ug/L	0.973	1	6	11050	0	KED
| Cd	114	49.147	ug/L	0.649	1	7	26985	1	KED
[> In	115		ug/L			792758	767679	0	Standard
| Ag	107	50.057	ug/L	0.820	1	158	815329	1	Standard
[> Tb	159		ug/L			735738	734951	4	Standard
| Pb	208	50.410	ug/L	1.511	2	406	2944117	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBG

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 03:42:16

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35047	34882	2	Standard
Cl	37		ug/L			4819880	4858427	2	Standard
[> Sc	45		ug/L			670326	669224	1	Standard
| Cr	52	-0.021	ug/L	0.017	80	26049	25566	1	Standard
| Cr	53	-0.029	ug/L	0.005	18	231	160	9	Standard
| Mn	55	-0.004	ug/L	0.001	14	1028	920	1	Standard
[> Ge	72		ug/L			40960	40521	2	KED
| Ni	60	-0.000	ug/L	0.005	1557	23	22	28	KED
| Ni	62	0.007	ug/L	0.020	287	6	7	50	KED
| Cu	63	-0.005	ug/L	0.003	54	124	103	12	KED
| Cu	65	-0.003	ug/L	0.003	106	56	50	10	KED
| Zn	66	-0.057	ug/L	0.027	47	80	54	22	KED
| Zn	67	-0.162	ug/L	0.023	14	19	7	25	KED
[As	75	0.004	ug/L	0.003	78	7	8	9	KED
Y	89		ug/L			440630	421971	2	Standard
Kr	83		ug/L			56	54	7	Standard
[> In-1	115		ug/L			11294	10646	1	KED
| Cd	111	-0.001	ug/L	0.002	165	6	5	10	KED
[Cd	114	0.000	ug/L	0.005	69425	7	6	42	KED
[> In	115		ug/L			792758	783641	2	Standard
[Ag	107	0.004	ug/L	0.001	24	158	226	4	Standard
[> Tb	159		ug/L			735738	722490	4	Standard
[Pb	208	0.001	ug/L	0.001	91	406	466	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 03:46:44

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L				35520	2	Standard
	Cl	37	ug/L				4716783	0	Standard
[>	Sc	45	ug/L				639427	2	Standard
|	Cr	52	ug/L				24054	2	Standard
|	Cr	53	ug/L				172	13	Standard
|	Mn	55	ug/L				973	0	Standard
[>	Ge	72	ug/L				40737	2	KED
|	Ni	60	ug/L				20	32	KED
|	Ni	62	ug/L				6	62	KED
|	Cu	63	ug/L				114	6	KED
|	Cu	65	ug/L				63	22	KED
|	Zn	66	ug/L				93	24	KED
|	Zn	67	ug/L				17	19	KED
|	As	75	ug/L				10	17	KED
	Y	89	ug/L				414325	2	Standard
	Kr	83	ug/L				60	3	Standard
[>	In-1	115	ug/L				10806	2	KED
|	Cd	111	ug/L				7	25	KED
|	Cd	114	ug/L				9	55	KED
[>	In	115	ug/L				759938	2	Standard
|	Ag	107	ug/L				119	12	Standard
[>	Tb	159	ug/L				700907	4	Standard
|	Pb	208	ug/L				382	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVH

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 03:51:12

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	36500	0	Standard
Cl	37		ug/L			4716783	5009674	1	Standard
[> Sc	45		ug/L			639427	668261	1	Standard
| Cr	52	51.416	ug/L	0.872	1	24054	1093998	0	Standard
| Cr	53	50.565	ug/L	0.580	1	172	123703	0	Standard
| Mn	55	50.444	ug/L	0.770	1	973	1507467	0	Standard
[> Ge	72		ug/L			40737	40357	2	KED
| Ni	60	48.929	ug/L	0.422	0	20	61219	1	KED
| Ni	62	48.654	ug/L	1.241	2	6	9950	5	KED
| Cu	63	47.294	ug/L	0.956	2	114	177170	4	KED
| Cu	65	47.375	ug/L	1.170	2	63	85436	3	KED
| Zn	66	48.227	ug/L	0.826	1	93	21466	3	KED
| Zn	67	49.897	ug/L	<u>2.148</u>	4	17	3673	6	KED
| As	75	50.742	ug/L	0.224	0	10	11061	2	KED
Y	89		ug/L			414325	429633	0	Standard
Kr	83		ug/L			60	66	31	Standard
[> In-1	115		ug/L			10806	10781	2	KED
| Cd	111	49.842	ug/L	0.703	1	7	11126	1	KED
| Cd	114	48.997	ug/L	1.064	2	9	26974	1	KED
[> In	115		ug/L			759938	778578	1	Standard
| Ag	107	49.369	ug/L	1.259	2	119	815321	1	Standard
[> Tb	159		ug/L			700907	736282	2	Standard
| Pb	208	50.165	ug/L	1.532	3	382	2935705	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBH

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 03:58:24

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	34772	0	Standard
Cl	37		ug/L			4716783	4784249	1	Standard
[> Sc	45		ug/L			639427	640187	1	Standard
| Cr	52	0.044	ug/L	0.009	19	24054	24964	1	Standard
| Cr	53	-0.006	ug/L	0.004	69	172	157	8	Standard
| Mn	55	-0.004	ug/L	0.001	27	973	860	4	Standard
[> Ge	72		ug/L			40737	40535	1	KED
| Ni	60	0.002	ug/L	0.003	213	20	22	17	KED
| Ni	62	0.006	ug/L	0.005	75	6	8	13	KED
| Cu	63	-0.005	ug/L	0.003	49	114	94	9	KED
| Cu	65	-0.005	ug/L	0.002	41	63	54	8	KED
| Zn	66	-0.080	ug/L	0.029	36	93	57	20	KED
| Zn	67	-0.068	ug/L	0.015	21	17	12	9	KED
[As	75	-0.001	ug/L	0.009	719	10	9	18	KED
Y	89		ug/L			414325	418633	2	Standard
Kr	83		ug/L			60	65	17	Standard
[> In-1	115		ug/L			10806	10740	0	KED
| Cd	111	0.006	ug/L	0.013	218	7	8	32	KED
[Cd	114	-0.003	ug/L	0.006	186	9	7	44	KED
[> In	115		ug/L			759938	771868	1	Standard
[Ag	107	0.007	ug/L	0.001	18	119	235	7	Standard
[> Tb	159		ug/L			700907	697972	3	Standard
[Pb	208	0.001	ug/L	0.001	61	382	428	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0396-01**

Sample Dil Factor: **5**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 04:02:53**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	106970	2	Standard
Cl	37		ug/L			4716783	5010968	1	Standard
> Sc	45		ug/L			639427	700644	3	Standard
| Cr	52	11.370	ug/L	0.107	0	24054	274187	2	Standard
| Cr	53	11.084	ug/L	0.330	2	172	28569	2	Standard
| Mn	55	14.073	ug/L	0.412	2	973	441574	1	Standard
> Ge	72		ug/L			40737	40691	0	KED
| Ni	60	1.936	ug/L	0.017	0	20	2462	0	KED
| Ni	62	1.973	ug/L	0.045	2	6	413	2	KED
| Cu	63	0.603	ug/L	0.014	2	114	2388	2	KED
| Cu	65	0.600	ug/L	0.046	7	63	1153	6	KED
| Zn	66	21.477	ug/L	0.709	3	93	9687	2	KED
| Zn	67	19.493	ug/L	0.176	0	17	1456	1	KED
| As	75	0.064	ug/L	0.011	16	10	24	9	KED
Y	89		ug/L			414325	465449	2	Standard
Kr	83		ug/L			60	63	34	Standard
> In-1	115		ug/L			10806	10894	1	KED
| Cd	111	0.101	ug/L	0.026	25	7	30	17	KED
| Cd	114	0.095	ug/L	0.032	33	9	62	29	KED
> In	115		ug/L			759938	804393	3	Standard
| Ag	107	0.010	ug/L	0.000	2	119	298	2	Standard
> Tb	159		ug/L			700907	745973	4	Standard
| Pb	208	0.050	ug/L	0.001	2	382	3346	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0430-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 04:07:44**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	49662	1	Standard
Cl	37		ug/L			4716783	14953173	3	Standard
> Sc	45		ug/L			639427	663296	1	Standard
| Cr	52	0.797	ug/L	0.023	2	24054	41404	0	Standard
| Cr	53	8.718	ug/L	0.092	1	172	21320	1	Standard
| Mn	55	20.420	ug/L	0.387	1	973	606394	2	Standard
> Ge	72		ug/L			40737	37780	2	KED
| Ni	60	0.606	ug/L	0.022	3	20	727	1	KED
| Ni	62	0.727	ug/L	0.048	6	6	145	5	KED
| Cu	63	21.661	ug/L	0.321	1	114	75982	1	KED
| Cu	65	22.301	ug/L	0.335	1	63	37671	0	KED
| Zn	66	62.394	ug/L	2.624	4	93	25955	2	KED
| Zn	67	58.915	ug/L	1.846	3	17	4053	2	KED
| As	75	0.311	ug/L	0.036	11	10	72	11	KED
Y	89		ug/L			414325	438537	0	Standard
Kr	83		ug/L			60	121	13	Standard
> In-1	115		ug/L			10806	9561	1	KED
| Cd	111	0.217	ug/L	0.033	15	7	49	11	KED
| Cd	114	0.228	ug/L	0.023	9	9	119	7	KED
> In	115		ug/L			759938	733069	0	Standard
| Ag	107	0.008	ug/L	0.001	15	119	234	7	Standard
> Tb	159		ug/L			700907	711769	3	Standard
| Pb	208	0.353	ug/L	0.013	3	382	20364	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0450-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 04:12:36**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

	Analyte Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13	ug/L			35520	44945	2	Standard
	Cl	37	ug/L			4716783	5418432	2	Standard
[>	Sc	45	ug/L			639427	715318	3	Standard
|	Cr	0.013	ug/L	0.072	559	24054	27156	2	Standard
|	Cr	53	ug/L	0.041	3	172	2916	0	Standard
|	Mn	55	ug/L	6.015	5	973	3653575	2	Standard
[>	Ge	72	ug/L			40737	39775	1	KED
|	Ni	1.163	ug/L	0.063	5	20	1454	6	KED
|	Ni	62	ug/L	0.074	6	6	239	6	KED
|	Cu	0.181	ug/L	0.006	3	114	779	4	KED
|	Cu	65	ug/L	0.024	12	63	395	11	KED
|	Zn	0.953	ug/L	0.098	10	93	507	9	KED
|	Zn	67	ug/L	0.321	15	17	162	15	KED
|	As	0.307	ug/L	0.047	15	10	75	12	KED
	Y	89	ug/L			414325	446473	1	Standard
	Kr	83	ug/L			60	62	6	Standard
[>	In-1	115	ug/L			10806	10644	1	KED
|	Cd	111	ug/L	0.013	195	7	6	48	KED
|	Cd	114	ug/L	0.014	92	9	17	45	KED
[>	In	115	ug/L			759938	773461	1	Standard
|	Ag	107	ug/L	0.001	56	119	93	18	Standard
[>	Tb	159	ug/L			700907	731790	3	Standard
|	Pb	0.014	ug/L	0.001	6	382	1230	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0171-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 04:17:28**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	56741	2	Standard
Cl	37		ug/L			4716783	5035640	0	Standard
> Sc	45		ug/L			639427	799933	2	Standard
| Cr	52	11.949	ug/L	0.157	1	24054	327476	2	Standard
| Cr	53	11.968	ug/L	0.203	1	172	35225	3	Standard
| Mn	55	146.192	ug/L	0.998	0	973	5228100	2	Standard
> Ge	72		ug/L			40737	41471	1	KED
| Ni	60	10.441	ug/L	0.232	2	20	13443	3	KED
| Ni	62	10.182	ug/L	0.210	2	6	2144	0	KED
| Cu	63	25.149	ug/L	0.413	1	114	96826	1	KED
| Cu	65	25.416	ug/L	0.312	1	63	47128	1	KED
| Zn	66	47.155	ug/L	1.578	3	93	21568	4	KED
| Zn	67	44.660	ug/L	1.272	2	17	3378	2	KED
| As	75	6.843	ug/L	0.121	1	10	1541	2	KED
| Y	89		ug/L			414325	669403	1	Standard
| Kr	83		ug/L			60	116	21	Standard
> In-1	115		ug/L			10806	10487	1	KED
| Cd	111	0.177	ug/L	0.037	20	7	45	16	KED
| Cd	114	0.158	ug/L	0.005	3	9	93	1	KED
> In	115		ug/L			759938	799357	3	Standard
| Ag	107	0.109	ug/L	0.006	5	119	1982	8	Standard
> Tb	159		ug/L			700907	784803	3	Standard
| Pb	208	10.743	ug/L	0.308	2	382	670355	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0171-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 04:21:55**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	60315	0	Standard
Cl	37		ug/L			4716783	5070454	1	Standard
> Sc	45		ug/L			639427	808147	0	Standard
| Cr	52	12.645	ug/L	0.108	0	24054	348365	1	Standard
| Cr	53	12.605	ug/L	0.272	2	172	37464	2	Standard
| Mn	55	154.513	ug/L	1.638	1	973	5582841	1	Standard
> Ge	72		ug/L			40737	40329	2	KED
| Ni	60	10.599	ug/L	0.157	1	20	13268	2	KED
| Ni	62	10.520	ug/L	0.132	1	6	2155	3	KED
| Cu	63	27.755	ug/L	0.276	0	114	103928	3	KED
| Cu	65	28.279	ug/L	0.208	0	63	50986	2	KED
| Zn	66	52.154	ug/L	0.811	1	93	23180	1	KED
| Zn	67	49.833	ug/L	1.433	2	17	3665	5	KED
| As	75	8.156	ug/L	0.191	2	10	1784	1	KED
| Y	89		ug/L			414325	665317	1	Standard
| Kr	83		ug/L			60	121	15	Standard
> In-1	115		ug/L			10806	10541	4	KED
| Cd	111	0.185	ug/L	0.039	21	7	47	22	KED
| Cd	114	0.188	ug/L	0.015	7	9	109	4	KED
> In	115		ug/L			759938	804065	2	Standard
| Ag	107	0.131	ug/L	0.003	2	119	2362	2	Standard
> Tb	159		ug/L			700907	781248	4	Standard
| Pb	208	12.470	ug/L	0.514	4	382	774094	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0171-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 04:26:23**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	60555	3	Standard
Cl	37		ug/L			4716783	5032975	1	Standard
> Sc	45		ug/L			639427	819654	2	Standard
Cr	52	12.946	ug/L	0.447	3	24054	360789	1	Standard
Cr	53	12.941	ug/L	0.470	3	172	38976	1	Standard
Mn	55	137.808	ug/L	4.420	3	973	5047242	1	Standard
> Ge	72		ug/L			40737	41054	1	KED
Ni	60	11.011	ug/L	0.175	1	20	14030	0	KED
Ni	62	11.125	ug/L	0.052	0	6	2318	0	KED
Cu	63	27.661	ug/L	0.631	2	114	105403	1	KED
Cu	65	28.330	ug/L	0.224	0	63	51996	1	KED
Zn	66	54.444	ug/L	0.892	1	93	24631	0	KED
Zn	67	54.674	ug/L	0.204	0	17	4090	1	KED
As	75	7.678	ug/L	0.149	1	10	1710	1	KED
Y	89		ug/L			414325	687499	3	Standard
Kr	83		ug/L			60	121	11	Standard
> In-1	115		ug/L			10806	10508	1	KED
Cd	111	0.189	ug/L	0.038	20	7	48	18	KED
Cd	114	0.204	ug/L	0.025	12	9	118	11	KED
> In	115		ug/L			759938	794929	2	Standard
Ag	107	0.122	ug/L	0.005	4	119	2179	1	Standard
> Tb	159		ug/L			700907	778611	3	Standard
Pb	208	12.165	ug/L	0.241	1	382	753295	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23A0171-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 04:30:51**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	55348	3	Standard
Cl	37		ug/L			4716783	4885751	1	Standard
[> Sc	45		ug/L			639427	793332	3	Standard
| Cr	52	12.151	ug/L	0.075	0	24054	329814	4	Standard
| Cr	53	12.018	ug/L	0.083	0	172	35068	3	Standard
| Mn	55	131.923	ug/L	0.929	0	973	4679245	3	Standard
[> Ge	72		ug/L			40737	40144	0	KED
| Ni	60	10.880	ug/L	0.303	2	20	13556	2	KED
| Ni	62	11.119	ug/L	0.230	2	6	2266	1	KED
| Cu	63	25.232	ug/L	0.310	1	114	94039	0	KED
| Cu	65	25.912	ug/L	0.576	2	63	46507	2	KED
| Zn	66	49.881	ug/L	1.512	3	93	22074	2	KED
| Zn	67	48.441	ug/L	1.235	2	17	3545	2	KED
| As	75	6.701	ug/L	0.240	3	10	1461	3	KED
Y	89		ug/L			414325	683448	3	Standard
Kr	83		ug/L			60	107	13	Standard
[> In-1	115		ug/L			10806	10700	1	KED
| Cd	111	0.178	ug/L	0.022	12	7	46	11	KED
| Cd	114	0.135	ug/L	0.013	9	9	82	7	KED
[> In	115		ug/L			759938	782733	1	Standard
| Ag	107	0.104	ug/L	0.004	3	119	1844	4	Standard
[> Tb	159		ug/L			700907	762010	5	Standard
| Pb	208	10.236	ug/L	0.409	3	382	619849	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0051-01**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 04:35:18**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	55048	0	Standard
Cl	37		ug/L			4716783	4971969	2	Standard
> Sc	45		ug/L			639427	811115	3	Standard
Cr	52	55.820	ug/L	1.280	2	24054	1438627	1	Standard
Cr	53	54.371	ug/L	1.576	2	172	161362	1	Standard
Mn	55	156.576	ug/L	3.165	2	973	5675894	2	Standard
> Ge	72		ug/L			40737	39285	4	KED
Ni	60	14.885	ug/L	0.595	3	20	18126	1	KED
Ni	62	14.938	ug/L	0.685	4	6	2974	2	KED
Cu	63	38.639	ug/L	2.127	5	114	140665	1	KED
Cu	65	38.542	ug/L	2.045	5	63	67572	1	KED
Zn	66	141.734	ug/L	3.929	2	93	61178	1	KED
Zn	67	139.463	ug/L	8.148	5	17	9945	2	KED
As	75	7.866	ug/L	0.373	4	10	1675	0	KED
Y	89		ug/L			414325	708974	2	Standard
Kr	83		ug/L			60	118	6	Standard
> In-1	115		ug/L			10806	10789	2	KED
Cd	111	6.839	ug/L	0.395	5	7	1533	2	KED
Cd	114	6.892	ug/L	0.156	2	9	3804	1	KED
> In	115		ug/L			759938	791012	1	Standard
Ag	107	0.256	ug/L	0.007	2	119	4412	2	Standard
> Tb	159		ug/L			700907	779302	2	Standard
Pb	208	311.566	ug/L	9.520	3	382	19296981	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0051-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 04:39:46**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	54863	1	Standard
Cl	37		ug/L			4716783	4907280	2	Standard
Sc	45		ug/L			639427	815388	1	Standard
Cr	52	15.754	ug/L	0.226	1	24054	430312	1	Standard
Cr	53	15.579	ug/L	0.240	1	172	46653	0	Standard
Mn	55	136.835	ug/L	1.257	0	973	4988376	2	Standard
Ge	72		ug/L			40737	40652	1	KED
Ni	60	11.662	ug/L	0.281	2	20	14718	3	KED
Ni	62	11.783	ug/L	0.154	1	6	2431	2	KED
Cu	63	24.657	ug/L	0.298	1	114	93065	1	KED
Cu	65	25.073	ug/L	0.710	2	63	45567	2	KED
Zn	66	96.253	ug/L	1.646	1	93	43058	2	KED
Zn	67	88.254	ug/L	2.762	3	17	6529	4	KED
As	75	132.749	ug/L	0.989	0	10	29130	1	KED
Y	89		ug/L			414325	737983	3	Standard
Kr	83		ug/L			60	112	1	Standard
In-1	115		ug/L			10806	10298	3	KED
Cd	111	0.438	ug/L	0.015	3	7	100	3	KED
Cd	114	0.408	ug/L	0.063	15	9	222	12	KED
In	115		ug/L			759938	795879	1	Standard
Ag	107	0.215	ug/L	0.007	3	119	3750	2	Standard
Tb	159		ug/L			700907	765604	2	Standard
Pb	208	19.704	ug/L	0.366	1	382	1199498	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0051-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 04:44:08**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	52912	1	Standard
Cl	37		ug/L			4716783	4817756	0	Standard
> Sc	45		ug/L			639427	786453	0	Standard
| Cr	52	18.844	ug/L	0.216	1	24054	490710	1	Standard
| Cr	53	18.887	ug/L	0.347	1	172	54514	1	Standard
| Mn	55	135.276	ug/L	1.948	1	973	4756007	0	Standard
> Ge	72		ug/L			40737	40118	2	KED
| Ni	60	13.987	ug/L	0.181	1	20	17410	1	KED
| Ni	62	13.349	ug/L	0.218	1	6	2718	3	KED
| Cu	63	24.384	ug/L	0.261	1	114	90816	1	KED
| Cu	65	25.363	ug/L	0.391	1	63	45502	3	KED
| Zn	66	141.943	ug/L	0.734	0	93	62609	1	KED
| Zn	67	135.356	ug/L	1.329	0	17	9872	3	KED
| As	75	27.360	ug/L	0.163	0	10	5932	1	KED
Y	89		ug/L			414325	706347	3	Standard
Kr	83		ug/L			60	115	13	Standard
> In-1	115		ug/L			10806	10588	0	KED
| Cd	111	0.514	ug/L	<u>0.050</u>	9	7	120	9	KED
| Cd	114	0.505	ug/L	<u>0.090</u>	17	9	281	16	KED
> In	115		ug/L			759938	784805	1	Standard
| Ag	107	0.224	ug/L	0.010	4	119	3859	4	Standard
> Tb	159		ug/L			700907	772252	2	Standard
| Pb	208	31.798	ug/L	1.057	3	382	1951693	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVI

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 04:50:00

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	36939	2	Standard
Cl	37		ug/L			4716783	5187477	0	Standard
[> Sc	45		ug/L			639427	662798	1	Standard
| Cr	52	51.190	ug/L	0.651	1	24054	1080582	1	Standard
| Cr	53	50.972	ug/L	0.456	0	172	123703	2	Standard
| Mn	55	51.696	ug/L	0.516	0	973	1532527	2	Standard
[> Ge	72		ug/L			40737	40666	1	KED
| Ni	60	47.833	ug/L	0.538	1	20	60317	1	KED
| Ni	62	48.172	ug/L	1.263	2	6	9922	2	KED
| Cu	63	46.921	ug/L	0.957	2	114	177033	1	KED
| Cu	65	48.483	ug/L	0.383	0	63	88100	1	KED
| Zn	66	50.054	ug/L	0.416	0	93	22440	0	KED
| Zn	67	51.322	ug/L	1.919	3	17	3803	2	KED
[As	75	50.133	ug/L	1.231	2	10	11011	2	KED
Y	89		ug/L			414325	444474	2	Standard
Kr	83		ug/L			60	53	7	Standard
[> In-1	115		ug/L			10806	10852	2	KED
| Cd	111	48.369	ug/L	1.143	2	7	10869	2	KED
[Cd	114	48.555	ug/L	0.893	1	9	26909	0	KED
[> In	115		ug/L			759938	782303	2	Standard
[Ag	107	49.093	ug/L	1.011	2	119	814501	0	Standard
[> Tb	159		ug/L			700907	731613	2	Standard
[Pb	208	51.023	ug/L	2.162	4	382	2966456	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBI

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 04:57:12

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	36206	1	Standard
Cl	37		ug/L			4716783	4954864	1	Standard
[> Sc	45		ug/L			639427	648939	2	Standard
| Cr	52	0.047	ug/L	0.004	9	24054	25363	2	Standard
| Cr	53	0.019	ug/L	0.004	22	172	219	5	Standard
| Mn	55	0.001	ug/L	0.002	123	973	1025	3	Standard
[> Ge	72		ug/L			40737	41061	1	KED
| Ni	60	0.003	ug/L	0.002	71	20	24	13	KED
| Ni	62	0.003	ug/L	0.024	847	6	7	66	KED
| Cu	63	0.000	ug/L	0.003	1095	114	116	8	KED
| Cu	65	-0.005	ug/L	0.005	92	63	54	16	KED
| Zn	66	-0.102	ug/L	0.006	5	93	48	4	KED
| Zn	67	-0.113	ug/L	0.029	25	17	8	24	KED
[As	75	-0.005	ug/L	0.005	97	10	8	12	KED
Y	89		ug/L			414325	434800	2	Standard
Kr	83		ug/L			60	64	11	Standard
[> In-1	115		ug/L			10806	10632	2	KED
| Cd	111	0.000	ug/L	0.008	1714	7	7	25	KED
[Cd	114	0.005	ug/L	0.014	285	9	11	65	KED
[> In	115		ug/L			759938	778407	2	Standard
[Ag	107	0.005	ug/L	0.000	4	119	204	3	Standard
[> Tb	159		ug/L			700907	714153	2	Standard
[Pb	208	0.002	ug/L	0.000	17	382	517	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0217-03**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 05:01:41**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	50458	1	Standard
Cl	37		ug/L			4716783	4925466	3	Standard
> Sc	45		ug/L			639427	748942	3	Standard
| Cr	52	14.142	ug/L	0.431	3	24054	357633	3	Standard
| Cr	53	13.972	ug/L	0.467	3	172	38441	2	Standard
| Mn	55	95.872	ug/L	1.581	1	973	3209812	2	Standard
> Ge	72		ug/L			40737	41589	1	KED
| Ni	60	12.993	ug/L	0.293	2	20	16766	0	KED
| Ni	62	13.362	ug/L	0.263	1	6	2819	2	KED
| Cu	63	28.651	ug/L	0.975	3	114	110589	2	KED
| Cu	65	29.134	ug/L	0.475	1	63	54158	0	KED
| Zn	66	59.711	ug/L	1.816	3	93	27353	1	KED
| Zn	67	56.512	ug/L	2.484	4	17	4281	3	KED
| As	75	3.686	ug/L	0.079	2	10	837	0	KED
Y	89		ug/L			414325	577550	2	Standard
Kr	83		ug/L			60	80	5	Standard
> In-1	115		ug/L			10806	10796	1	KED
| Cd	111	0.458	ug/L	<u>0.068</u>	14	7	109	13	KED
| Cd	114	0.445	ug/L	<u>0.059</u>	13	9	254	11	KED
> In	115		ug/L			759938	810104	1	Standard
| Ag	107	0.073	ug/L	0.003	3	119	1378	4	Standard
> Tb	159		ug/L			700907	766850	1	Standard
| Pb	208	15.662	ug/L	0.413	2	382	955269	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0217-04**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 05:06:09**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	54194	2	Standard
Cl	37		ug/L			4716783	4968990	1	Standard
> Sc	45		ug/L			639427	754219	2	Standard
| Cr	52	15.586	ug/L	0.080	0	24054	394141	2	Standard
| Cr	53	15.610	ug/L	0.242	1	172	43253	3	Standard
| Mn	55	134.204	ug/L	1.962	1	973	4526292	3	Standard
> Ge	72		ug/L			40737	41777	1	KED
| Ni	60	17.540	ug/L	0.532	3	20	22731	2	KED
| Ni	62	18.241	ug/L	0.416	2	6	3864	2	KED
| Cu	63	114.956	ug/L	2.852	2	114	445430	2	KED
| Cu	65	117.357	ug/L	0.876	0	63	218972	0	KED
| Zn	66	55.923	ug/L	0.926	1	93	25743	0	KED
| Zn	67	54.215	ug/L	0.588	1	17	4127	0	KED
| As	75	3.092	ug/L	0.138	4	10	707	3	KED
Y	89		ug/L			414325	597101	1	Standard
Kr	83		ug/L			60	74	9	Standard
> In-1	115		ug/L			10806	10811	1	KED
| Cd	111	0.204	ug/L	0.016	8	7	53	8	KED
| Cd	114	0.251	ug/L	0.005	1	9	147	1	KED
> In	115		ug/L			759938	795756	1	Standard
| Ag	107	0.085	ug/L	0.007	8	119	1562	9	Standard
> Tb	159		ug/L			700907	766466	2	Standard
| Pb	208	11.310	ug/L	0.403	3	382	689288	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0217-05**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 05:10:36**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	49074	0	Standard
Cl	37		ug/L			4716783	4920125	1	Standard
> Sc	45		ug/L			639427	756538	1	Standard
| Cr	52	13.689	ug/L	0.242	1	24054	350626	0	Standard
| Cr	53	13.494	ug/L	0.250	1	172	37524	2	Standard
| Mn	55	140.349	ug/L	3.303	2	973	4745733	0	Standard
> Ge	72		ug/L			40737	41441	0	KED
| Ni	60	17.763	ug/L	0.238	1	20	22838	1	KED
| Ni	62	17.767	ug/L	0.602	3	6	3733	2	KED
| Cu	63	16.702	ug/L	0.391	2	114	64297	1	KED
| Cu	65	16.994	ug/L	0.254	1	63	31509	1	KED
| Zn	66	28.705	ug/L	0.866	3	93	13157	3	KED
| Zn	67	27.557	ug/L	1.793	6	17	2089	6	KED
| As	75	1.845	ug/L	0.055	2	10	422	2	KED
Y	89		ug/L			414325	637780	3	Standard
Kr	83		ug/L			60	94	3	Standard
> In-1	115		ug/L			10806	11083	1	KED
| Cd	111	0.136	ug/L	0.021	15	7	39	13	KED
| Cd	114	0.158	ug/L	0.021	13	9	98	11	KED
> In	115		ug/L			759938	800455	2	Standard
> Ag	107	0.043	ug/L	0.001	3	119	848	4	Standard
> Tb	159		ug/L			700907	769110	4	Standard
| Pb	208	6.305	ug/L	0.230	3	382	385625	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0217-06**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 05:15:04**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	50649	1	Standard
Cl	37		ug/L			4716783	4853614	1	Standard
> Sc	45		ug/L			639427	727392	1	Standard
| Cr	52	11.497	ug/L	0.215	1	24054	287582	2	Standard
| Cr	53	11.378	ug/L	0.148	1	172	30450	0	Standard
| Mn	55	106.818	ug/L	0.735	0	973	3474032	1	Standard
> Ge	72		ug/L			40737	39549	2	KED
| Ni	60	13.883	ug/L	0.304	2	20	17033	0	KED
| Ni	62	13.428	ug/L	0.238	1	6	2694	2	KED
| Cu	63	122.046	ug/L	0.660	0	114	447705	1	KED
| Cu	65	125.813	ug/L	0.565	0	63	222244	2	KED
| Zn	66	107.640	ug/L	3.009	2	93	46813	0	KED
| Zn	67	101.493	ug/L	0.578	0	17	7300	2	KED
| As	75	3.111	ug/L	0.092	2	10	673	1	KED
Y	89		ug/L			414325	572217	2	Standard
Kr	83		ug/L			60	81	20	Standard
> In-1	115		ug/L			10806	10185	2	KED
| Cd	111	0.287	ug/L	0.024	8	7	67	7	KED
| Cd	114	0.265	ug/L	<u>0.057</u>	21	9	146	20	KED
> In	115		ug/L			759938	791040	2	Standard
| Ag	107	0.071	ug/L	0.001	1	119	1311	3	Standard
> Tb	159		ug/L			700907	750633	3	Standard
| Pb	208	15.965	ug/L	0.724	4	382	952243	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0429-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 05:19:55**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	87700	3	Standard
Cl	37		ug/L			4716783	8115695	1	Standard
[> Sc	45		ug/L			639427	656192	0	Standard
| Cr	52	0.934	ug/L	0.043	4	24054	43753	2	Standard
| Cr	53	1.606	ug/L	0.056	3	172	4029	2	Standard
| Mn	55	519.859	ug/L	12.648	2	973	15245949	1	Standard
[> Ge	72		ug/L			40737	37222	1	KED
| Ni	60	3.950	ug/L	0.221	5	20	4574	4	KED
| Ni	62	3.822	ug/L	0.123	3	6	726	2	KED
| Cu	63	1.676	ug/L	0.005	0	114	5890	1	KED
| Cu	65	1.711	ug/L	0.034	2	63	2900	1	KED
| Zn	66	4.856	ug/L	0.280	5	93	2070	6	KED
| Zn	67	6.527	ug/L	0.324	4	17	456	4	KED
| As	75	5.148	ug/L	0.052	1	10	1043	2	KED
Y	89		ug/L			414325	455275	1	Standard
Kr	83		ug/L			60	101	12	Standard
[> In-1	115		ug/L			10806	10057	0	KED
| Cd	111	0.019	ug/L	0.027	141	7	11	51	KED
| Cd	114	0.013	ug/L	0.013	104	9	15	45	KED
[> In	115		ug/L			759938	709522	2	Standard
| Ag	107	0.003	ug/L	0.001	37	119	151	8	Standard
[> Tb	159		ug/L			700907	697355	2	Standard
| Pb	208	0.127	ug/L	0.007	5	382	7424	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0446-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 05:24:23**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	57829	1	Standard
Cl	37		ug/L			4716783	8334961	2	Standard
[> Sc	45		ug/L			639427	690103	2	Standard
| Cr	52	9.141	ug/L	0.071	0	24054	222223	1	Standard
| Cr	53	11.402	ug/L	0.115	1	172	28950	1	Standard
| Mn	55	36.622	ug/L	0.854	2	973	1130378	1	Standard
[> Ge	72		ug/L			40737	38765	1	KED
| Ni	60	3.971	ug/L	0.161	4	20	4789	3	KED
| Ni	62	4.084	ug/L	0.448	10	6	807	8	KED
| Cu	63	14.982	ug/L	0.286	1	114	53956	1	KED
| Cu	65	15.447	ug/L	0.394	2	63	26793	2	KED
| Zn	66	59.803	ug/L	1.301	2	93	25541	2	KED
| Zn	67	59.128	ug/L	0.849	1	17	4175	2	KED
| As	75	1.554	ug/L	0.048	3	10	334	4	KED
| Y	89		ug/L			414325	436813	1	Standard
| Kr	83		ug/L			60	71	24	Standard
[> In-1	115		ug/L			10806	10316	3	KED
| Cd	111	0.073	ug/L	0.010	14	7	22	12	KED
| Cd	114	0.057	ug/L	0.014	24	9	38	19	KED
[> In	115		ug/L			759938	755369	2	Standard
| Ag	107	0.013	ug/L	0.001	5	119	325	2	Standard
[> Tb	159		ug/L			700907	716924	0	Standard
| Pb	208	3.106	ug/L	0.035	1	382	177429	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0446-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 05:28:51**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	49770	3	Standard
Cl	37		ug/L			4716783	6234992	3	Standard
> Sc	45		ug/L			639427	682379	1	Standard
| Cr	52	6.638	ug/L	0.204	3	24054	166643	4	Standard
| Cr	53	7.621	ug/L	0.084	1	172	19198	2	Standard
| Mn	55	42.760	ug/L	0.510	1	973	1305411	2	Standard
> Ge	72		ug/L			40737	39536	0	KED
| Ni	60	3.440	ug/L	0.114	3	20	4235	2	KED
| Ni	62	3.456	ug/L	0.182	5	6	698	5	KED
| Cu	63	15.239	ug/L	0.189	1	114	55981	1	KED
| Cu	65	15.148	ug/L	0.209	1	63	26801	0	KED
| Zn	66	68.596	ug/L	0.846	1	93	29866	0	KED
| Zn	67	68.457	ug/L	2.436	3	17	4928	3	KED
| As	75	1.066	ug/L	0.097	9	10	237	8	KED
Y	89		ug/L			414325	439681	2	Standard
Kr	83		ug/L			60	64	19	Standard
> In-1	115		ug/L			10806	10012	2	KED
| Cd	111	0.054	ug/L	0.035	65	7	18	37	KED
| Cd	114	0.076	ug/L	0.014	17	9	47	13	KED
> In	115		ug/L			759938	765881	2	Standard
| Ag	107	0.013	ug/L	0.000	3	119	329	0	Standard
> Tb	159		ug/L			700907	726720	4	Standard
| Pb	208	4.516	ug/L	0.143	3	382	261055	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0448-01**

Sample Dil Factor: **2**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 05:33:19**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	49030	0	Standard
Cl	37		ug/L			4716783	6116348	2	Standard
> Sc	45		ug/L			639427	659183	2	Standard
| Cr	52	7.295	ug/L	0.134	1	24054	174441	3	Standard
| Cr	53	8.227	ug/L	0.051	0	172	20005	2	Standard
| Mn	55	50.246	ug/L	0.387	0	973	1481585	2	Standard
> Ge	72		ug/L			40737	39209	3	KED
| Ni	60	2.753	ug/L	0.147	5	20	3361	1	KED
| Ni	62	2.800	ug/L	0.158	5	6	563	9	KED
| Cu	63	16.648	ug/L	0.275	1	114	60636	3	KED
| Cu	65	16.981	ug/L	0.225	1	63	29801	5	KED
| Zn	66	74.731	ug/L	2.324	3	93	32236	0	KED
| Zn	67	72.253	ug/L	1.194	1	17	5155	2	KED
| As	75	1.160	ug/L	0.012	0	10	255	4	KED
Y	89		ug/L			414325	433122	4	Standard
Kr	83		ug/L			60	60	24	Standard
> In-1	115		ug/L			10806	10488	0	KED
| Cd	111	0.083	ug/L	0.034	40	7	25	28	KED
| Cd	114	0.050	ug/L	0.032	64	9	35	47	KED
> In	115		ug/L			759938	761992	0	Standard
| Ag	107	0.015	ug/L	0.001	7	119	362	5	Standard
> Tb	159		ug/L			700907	722766	4	Standard
| Pb	208	5.072	ug/L	0.197	3	382	291581	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0448-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 05:37:46**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	54462	0	Standard
Cl	37		ug/L			4716783	7461768	1	Standard
> Sc	45		ug/L			639427	668986	2	Standard
| Cr	52	10.648	ug/L	0.137	1	24054	246761	2	Standard
| Cr	53	12.330	ug/L	0.164	1	172	30330	2	Standard
| Mn	55	48.816	ug/L	1.118	2	973	1460348	2	Standard
> Ge	72		ug/L			40737	38285	1	KED
| Ni	60	3.133	ug/L	0.043	1	20	3736	1	KED
| Ni	62	3.211	ug/L	0.221	6	6	629	8	KED
| Cu	63	18.865	ug/L	0.272	1	114	67095	2	KED
| Cu	65	18.908	ug/L	0.353	1	63	32387	3	KED
| Zn	66	83.965	ug/L	0.809	0	93	35378	0	KED
| Zn	67	79.679	ug/L	1.221	1	17	5552	3	KED
| As	75	1.654	ug/L	0.096	5	10	351	6	KED
Y	89		ug/L			414325	436506	1	Standard
Kr	83		ug/L			60	78	24	Standard
> In-1	115		ug/L			10806	10611	2	KED
| Cd	111	0.093	ug/L	0.024	25	7	27	19	KED
| Cd	114	0.073	ug/L	0.022	30	9	48	22	KED
> In	115		ug/L			759938	736034	3	Standard
| Ag	107	0.020	ug/L	0.001	3	119	421	0	Standard
> Tb	159		ug/L			700907	712374	2	Standard
| Pb	208	4.564	ug/L	0.006	0	382	258896	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLJ

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 05:42:15

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	36344	1	Standard
Cl	37		ug/L			4716783	4767559	0	Standard
[> Sc	45		ug/L			639427	622690	2	Standard
| Cr	52	0.048	ug/L	0.040	83	24054	24353	4	Standard
| Cr	53	0.172	ug/L	0.016	9	172	559	5	Standard
| Mn	55	0.019	ug/L	0.002	11	973	1482	2	Standard
[> Ge	72		ug/L			40737	39959	1	KED
| Ni	60	0.012	ug/L	0.004	34	20	34	14	KED
| Ni	62	0.035	ug/L	0.011	30	6	13	15	KED
| Cu	63	0.006	ug/L	0.004	66	114	135	10	KED
| Cu	65	0.002	ug/L	0.006	328	63	65	16	KED
| Zn	66	-0.019	ug/L	0.029	150	93	83	15	KED
| Zn	67	-0.004	ug/L	0.040	916	17	16	17	KED
[As	75	-0.009	ug/L	0.018	200	10	7	49	KED
Y	89		ug/L			414325	407120	4	Standard
Kr	83		ug/L			60	64	21	Standard
[> In-1	115		ug/L			10806	10408	2	KED
| Cd	111	-0.010	ug/L	0.013	124	7	5	54	KED
[Cd	114	-0.002	ug/L	0.004	249	9	7	29	KED
[> In	115		ug/L			759938	750705	2	Standard
[Ag	107	-0.003	ug/L	0.001	27	119	62	24	Standard
[> Tb	159		ug/L			700907	696184	3	Standard
[Pb	208	0.003	ug/L	0.001	28	382	536	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVJ

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 05:46:43

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	35275	4	Standard
Cl	37		ug/L			4716783	4989690	2	Standard
[> Sc	45		ug/L			639427	633071	4	Standard
| Cr	52	51.323	ug/L	1.989	3	24054	1034421	4	Standard
| Cr	53	50.989	ug/L	1.976	3	172	118133	4	Standard
| Mn	55	51.559	ug/L	1.525	2	973	1460323	5	Standard
[> Ge	72		ug/L			40737	40124	2	KED
| Ni	60	46.871	ug/L	1.931	4	20	58283	2	KED
| Ni	62	47.485	ug/L	0.904	1	6	9648	0	KED
| Cu	63	47.147	ug/L	1.141	2	114	175477	0	KED
| Cu	65	48.218	ug/L	1.494	3	63	86421	2	KED
| Zn	66	48.916	ug/L	1.139	2	93	21634	0	KED
| Zn	67	49.312	ug/L	0.938	1	17	3607	2	KED
[As	75	50.193	ug/L	1.316	2	10	10874	1	KED
Y	89		ug/L			414325	417823	4	Standard
Kr	83		ug/L			60	58	13	Standard
[> In-1	115		ug/L			10806	9926	3	KED
| Cd	111	50.416	ug/L	2.561	5	7	10352	2	KED
[Cd	114	49.918	ug/L	2.377	4	9	25280	1	KED
[> In	115		ug/L			759938	751892	4	Standard
[Ag	107	49.867	ug/L	1.091	2	119	795818	5	Standard
[> Tb	159		ug/L			700907	718748	0	Standard
[Pb	208	49.883	ug/L	1.394	2	382	2851464	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBJ

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 05:53:55

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	35660	4	Standard
Cl	37		ug/L			4716783	4803743	5	Standard
[> Sc	45		ug/L			639427	625913	1	Standard
| Cr	52	0.046	ug/L	0.025	53	24054	24436	0	Standard
| Cr	53	0.052	ug/L	0.009	17	172	287	8	Standard
| Mn	55	0.003	ug/L	0.002	72	973	1029	6	Standard
[> Ge	72		ug/L			40737	39283	3	KED
| Ni	60	-0.006	ug/L	0.004	58	20	12	36	KED
| Ni	62	0.017	ug/L	0.011	65	6	10	21	KED
| Cu	63	-0.005	ug/L	0.005	92	114	92	20	KED
| Cu	65	-0.007	ug/L	0.010	156	63	49	36	KED
| Zn	66	-0.108	ug/L	0.050	46	93	43	52	KED
| Zn	67	-0.073	ug/L	0.065	88	17	11	44	KED
[As	75	-0.006	ug/L	0.009	153	10	8	26	KED
Y	89		ug/L			414325	416616	3	Standard
Kr	83		ug/L			60	53	10	Standard
[> In-1	115		ug/L			10806	10618	1	KED
| Cd	111	0.002	ug/L	0.018	813	7	7	48	KED
[Cd	114	-0.002	ug/L	0.007	405	9	8	48	KED
[> In	115		ug/L			759938	748270	0	Standard
[Ag	107	0.006	ug/L	0.001	15	119	208	7	Standard
[> Tb	159		ug/L			700907	692970	2	Standard
[Pb	208	0.001	ug/L	0.000	5	382	419	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0469-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 05:58:23**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	58357	2	Standard
Cl	37		ug/L			4716783	5486062	1	Standard
[> Sc	45		ug/L			639427	687447	3	Standard
| Cr	52	0.398	ug/L	0.024	6	24054	34368	2	Standard
| Cr	53	1.153	ug/L	0.011	0	172	3081	2	Standard
| Mn	55	3.787	ug/L	0.131	3	973	117323	0	Standard
[> Ge	72		ug/L			40737	39358	2	KED
| Ni	60	0.611	ug/L	0.046	7	20	763	4	KED
| Ni	62	0.547	ug/L	0.082	15	6	115	12	KED
| Cu	63	1.696	ug/L	0.059	3	114	6299	2	KED
| Cu	65	1.757	ug/L	0.056	3	63	3150	5	KED
| Zn	66	6.921	ug/L	0.068	0	93	3081	3	KED
| Zn	67	7.544	ug/L	0.168	2	17	555	4	KED
| As	75	0.404	ug/L	0.012	2	10	95	4	KED
Y	89		ug/L			414325	441434	1	Standard
Kr	83		ug/L			60	61	1	Standard
[> In-1	115		ug/L			10806	10102	2	KED
| Cd	111	-0.002	ug/L	0.012	514	7	6	37	KED
| Cd	114	0.007	ug/L	0.006	86	9	12	23	KED
[> In	115		ug/L			759938	780920	1	Standard
| Ag	107	0.002	ug/L	0.001	52	119	163	12	Standard
[> Tb	159		ug/L			700907	726047	1	Standard
| Pb	208	0.102	ug/L	0.006	6	382	6282	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0469-02**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 06:02:51**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	56465	1	Standard
Cl	37		ug/L			4716783	6114035	3	Standard
[> Sc	45		ug/L			639427	685311	7	Standard
| Cr	52	0.412	ug/L	0.089	21	24054	34457	2	Standard
| Cr	53	2.509	ug/L	0.070	2	172	6464	5	Standard
| Mn	55	65.494	ug/L	4.965	7	973	2003201	7	Standard
[> Ge	72		ug/L			40737	39831	2	KED
| Ni	60	1.096	ug/L	0.026	2	20	1372	1	KED
| Ni	62	1.034	ug/L	0.120	11	6	215	10	KED
| Cu	63	1.374	ug/L	0.031	2	114	5187	2	KED
| Cu	65	1.415	ug/L	0.099	7	63	2576	4	KED
| Zn	66	24.833	ug/L	0.315	1	93	10948	1	KED
| Zn	67	24.089	ug/L	1.003	4	17	1756	1	KED
| As	75	1.080	ug/L	0.036	3	10	241	3	KED
Y	89		ug/L			414325	421058	7	Standard
Kr	83		ug/L			60	58	13	Standard
[> In-1	115		ug/L			10806	10222	2	KED
| Cd	111	0.008	ug/L	0.021	270	7	8	50	KED
| Cd	114	0.020	ug/L	0.017	86	9	19	49	KED
[> In	115		ug/L			759938	737891	5	Standard
| Ag	107	-0.000	ug/L	0.002	406	119	109	18	Standard
[> Tb	159		ug/L			700907	712673	3	Standard
| Pb	208	0.464	ug/L	0.024	5	382	26664	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0469-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 06:07:19**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	58361	2	Standard
Cl	37		ug/L			4716783	5428675	3	Standard
> Sc	45		ug/L			639427	730497	5	Standard
| Cr	52	0.842	ug/L	0.029	3	24054	46597	4	Standard
| Cr	53	2.452	ug/L	0.084	3	172	6738	2	Standard
| Mn	55	215.914	ug/L	5.294	2	973	7044632	3	Standard
> Ge	72		ug/L			40737	40804	1	KED
| Ni	60	1.586	ug/L	0.038	2	20	2025	1	KED
| Ni	62	1.672	ug/L	0.178	10	6	352	10	KED
| Cu	63	1.277	ug/L	0.041	3	114	4946	4	KED
| Cu	65	1.286	ug/L	0.067	5	63	2406	4	KED
| Zn	66	8.290	ug/L	0.206	2	93	3806	1	KED
| Zn	67	9.519	ug/L	0.338	3	17	721	2	KED
| As	75	2.898	ug/L	0.008	0	10	648	0	KED
Y	89		ug/L			414325	443137	3	Standard
Kr	83		ug/L			60	66	17	Standard
> In-1	115		ug/L			10806	10528	0	KED
| Cd	111	0.027	ug/L	0.008	31	7	13	14	KED
| Cd	114	0.006	ug/L	0.008	142	9	12	37	KED
> In	115		ug/L			759938	770967	3	Standard
| Ag	107	0.001	ug/L	0.001	144	119	137	19	Standard
> Tb	159		ug/L			700907	732043	5	Standard
| Pb	208	0.717	ug/L	0.024	3	382	42072	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0421-01**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 06:11:40**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	50170	1	Standard
Cl	37		ug/L			4716783	4711127	2	Standard
> Sc	45		ug/L			639427	690476	6	Standard
| Cr	52	0.566	ug/L	0.018	3	24054	38118	5	Standard
| Cr	53	1.579	ug/L	0.081	5	172	4163	2	Standard
| Mn	55	33.214	ug/L	1.389	4	973	1024206	2	Standard
> Ge	72		ug/L			40737	37928	0	KED
| Ni	60	0.514	ug/L	0.028	5	20	622	4	KED
| Ni	62	0.439	ug/L	0.040	9	6	90	7	KED
| Cu	63	0.855	ug/L	0.023	2	114	3112	2	KED
| Cu	65	0.859	ug/L	0.011	1	63	1514	1	KED
| Zn	66	1.517	ug/L	0.045	2	93	718	2	KED
| Zn	67	2.065	ug/L	0.122	5	17	158	5	KED
| As	75	0.899	ug/L	0.032	3	10	193	3	KED
| Y	89		ug/L			414325	413367	4	Standard
| Kr	83		ug/L			60	66	8	Standard
> In-1	115		ug/L			10806	10318	0	KED
| Cd	111	-0.001	ug/L	0.017	1195	7	6	51	KED
| Cd	114	-0.005	ug/L	0.002	39	9	6	14	KED
> In	115		ug/L			759938	735605	4	Standard
| Ag	107	0.000	ug/L	0.001	623	119	117	10	Standard
> Tb	159		ug/L			700907	692475	6	Standard
| Pb	208	0.181	ug/L	0.010	5	382	10346	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0421-03**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 06:16:08**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	50869	1	Standard
Cl	37		ug/L			4716783	4843634	2	Standard
> Sc	45		ug/L			639427	721013	3	Standard
| Cr	52	0.503	ug/L	0.056	11	24054	38395	3	Standard
| Cr	53	1.619	ug/L	0.030	1	172	4461	3	Standard
| Mn	55	69.141	ug/L	1.428	2	973	2228948	3	Standard
> Ge	72		ug/L			40737	37958	2	KED
| Ni	60	0.719	ug/L	0.047	6	20	866	8	KED
| Ni	62	0.644	ug/L	0.085	13	6	130	11	KED
| Cu	63	1.104	ug/L	0.036	3	114	3995	4	KED
| Cu	65	1.152	ug/L	0.054	4	63	2011	4	KED
| Zn	66	4.499	ug/L	0.269	5	93	1960	3	KED
| Zn	67	4.883	ug/L	0.263	5	17	352	6	KED
| As	75	0.877	ug/L	0.063	7	10	189	7	KED
| Y	89		ug/L			414325	437604	1	Standard
| Kr	83		ug/L			60	53	8	Standard
> In-1	115		ug/L			10806	10198	3	KED
| Cd	111	0.010	ug/L	0.019	188	7	9	39	KED
| Cd	114	0.005	ug/L	0.011	208	9	11	52	KED
> In	115		ug/L			759938	767234	2	Standard
| Ag	107	-0.000	ug/L	0.001	425	119	116	15	Standard
> Tb	159		ug/L			700907	722208	5	Standard
| Pb	208	0.137	ug/L	0.004	3	382	8274	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0421-05**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 06:20:35**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	52437	1	Standard
Cl	37		ug/L			4716783	4817379	1	Standard
> Sc	45		ug/L			639427	706100	3	Standard
| Cr	52	0.727	ug/L	0.043	5	24054	42511	2	Standard
| Cr	53	1.818	ug/L	0.013	0	172	4884	3	Standard
| Mn	55	14.816	ug/L	0.309	2	973	468536	2	Standard
> Ge	72		ug/L			40737	40050	1	KED
| Ni	60	0.460	ug/L	0.011	2	20	590	2	KED
| Ni	62	0.449	ug/L	0.093	20	6	97	18	KED
| Cu	63	0.568	ug/L	0.010	1	114	2223	2	KED
| Cu	65	0.609	ug/L	0.012	2	63	1151	1	KED
| Zn	66	0.951	ug/L	0.039	4	93	509	2	KED
| Zn	67	1.514	ug/L	0.231	15	17	126	14	KED
| As	75	0.676	ug/L	0.078	11	10	156	11	KED
| Y	89		ug/L			414325	435285	1	Standard
| Kr	83		ug/L			60	59	20	Standard
> In-1	115		ug/L			10806	10560	2	KED
| Cd	111	0.004	ug/L	0.015	418	7	8	40	KED
| Cd	114	-0.002	ug/L	0.006	285	9	7	39	KED
> In	115		ug/L			759938	779005	4	Standard
| Ag	107	-0.002	ug/L	0.000	16	119	94	5	Standard
> Tb	159		ug/L			700907	739954	5	Standard
| Pb	208	0.136	ug/L	0.004	2	382	8385	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0421-07**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 06:25:03**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	50264	1	Standard
Cl	37		ug/L			4716783	4696611	0	Standard
> Sc	45		ug/L			639427	698298	1	Standard
| Cr	52	0.670	ug/L	0.014	2	24054	40827	1	Standard
| Cr	53	1.594	ug/L	0.022	1	172	4258	2	Standard
| Mn	55	47.144	ug/L	0.954	2	973	1472462	2	Standard
> Ge	72		ug/L			40737	39374	1	KED
| Ni	60	0.627	ug/L	0.014	2	20	784	1	KED
| Ni	62	0.604	ug/L	0.119	19	6	126	17	KED
| Cu	63	0.943	ug/L	0.023	2	114	3554	1	KED
| Cu	65	1.016	ug/L	0.022	2	63	1846	1	KED
| Zn	66	1.830	ug/L	0.014	0	93	881	1	KED
| Zn	67	2.744	ug/L	0.088	3	17	212	4	KED
| As	75	0.968	ug/L	0.030	3	10	215	2	KED
| Y	89		ug/L			414325	420850	0	Standard
| Kr	83		ug/L			60	60	9	Standard
> In-1	115		ug/L			10806	10280	0	KED
| Cd	111	-0.001	ug/L	0.003	226	7	6	7	KED
| Cd	114	0.009	ug/L	0.005	51	9	13	17	KED
> In	115		ug/L			759938	748940	0	Standard
| Ag	107	-0.001	ug/L	0.000	45	119	107	3	Standard
> Tb	159		ug/L			700907	713532	2	Standard
| Pb	208	0.299	ug/L	0.008	2	382	17371	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0421-09**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 06:29:55**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	48985	0	Standard
Cl	37		ug/L			4716783	4750013	2	Standard
[> Sc	45		ug/L			639427	700012	2	Standard
| Cr	52	0.627	ug/L	0.030	4	24054	39975	1	Standard
| Cr	53	1.562	ug/L	0.029	1	172	4184	2	Standard
| Mn	55	86.541	ug/L	0.948	1	973	2708203	1	Standard
[> Ge	72		ug/L			40737	39310	2	KED
| Ni	60	0.618	ug/L	0.019	3	20	772	4	KED
| Ni	62	0.678	ug/L	0.014	2	6	141	2	KED
| Cu	63	0.993	ug/L	0.037	3	114	3730	4	KED
| Cu	65	1.017	ug/L	0.012	1	63	1846	3	KED
| Zn	66	2.415	ug/L	0.120	4	93	1131	2	KED
| Zn	67	2.854	ug/L	0.495	17	17	219	14	KED
| As	75	1.022	ug/L	0.031	2	10	226	1	KED
| Y	89		ug/L			414325	426162	1	Standard
| Kr	83		ug/L			60	67	21	Standard
[> In-1	115		ug/L			10806	10614	1	KED
| Cd	111	-0.002	ug/L	0.017	800	7	6	51	KED
| Cd	114	0.004	ug/L	0.011	263	9	11	52	KED
[> In	115		ug/L			759938	758913	0	Standard
| Ag	107	-0.001	ug/L	0.001	178	119	109	16	Standard
[> Tb	159		ug/L			700907	726284	2	Standard
| Pb	208	0.338	ug/L	0.011	3	382	19903	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0421-11**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 06:35:46**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	49305	1	Standard
Cl	37		ug/L			4716783	4703058	2	Standard
[> Sc	45		ug/L			639427	687996	0	Standard
| Cr	52	0.524	ug/L	0.007	1	24054	37102	1	Standard
| Cr	53	1.365	ug/L	0.022	1	172	3619	1	Standard
| Mn	55	184.815	ug/L	1.539	0	973	5684367	1	Standard
[> Ge	72		ug/L			40737	40466	3	KED
| Ni	60	0.633	ug/L	0.037	5	20	813	4	KED
| Ni	62	0.637	ug/L	0.079	12	6	137	9	KED
| Cu	63	0.840	ug/L	0.028	3	114	3265	1	KED
| Cu	65	0.863	ug/L	0.040	4	63	1621	1	KED
| Zn	66	2.245	ug/L	0.094	4	93	1090	4	KED
| Zn	67	2.943	ug/L	0.154	5	17	233	4	KED
| As	75	0.906	ug/L	0.072	7	10	207	10	KED
| Y	89		ug/L			414325	419716	1	Standard
| Kr	83		ug/L			60	69	26	Standard
[> In-1	115		ug/L			10806	9933	3	KED
| Cd	111	-0.016	ug/L	0.013	83	7	3	75	KED
| Cd	114	0.008	ug/L	0.008	98	9	12	35	KED
[> In	115		ug/L			759938	741787	1	Standard
| Ag	107	-0.001	ug/L	0.001	76	119	100	10	Standard
[> Tb	159		ug/L			700907	709650	2	Standard
| Pb	208	0.287	ug/L	0.009	3	382	16561	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLK

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 06:40:09

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	37893	1	Standard
Cl	37		ug/L			4716783	4595487	0	Standard
[> Sc	45		ug/L			639427	641014	4	Standard
| Cr	52	0.059	ug/L	0.049	83	24054	25261	2	Standard
| Cr	53	0.127	ug/L	0.012	9	172	469	2	Standard
| Mn	55	0.015	ug/L	0.002	9	973	1410	1	Standard
[> Ge	72		ug/L			40737	40617	1	KED
| Ni	60	0.008	ug/L	0.001	16	20	30	6	KED
| Ni	62	0.015	ug/L	0.014	87	6	10	28	KED
| Cu	63	0.007	ug/L	0.004	55	114	140	8	KED
| Cu	65	-0.008	ug/L	0.004	47	63	49	13	KED
| Zn	66	-0.023	ug/L	0.030	129	93	82	14	KED
| Zn	67	-0.017	ug/L	0.061	357	17	15	30	KED
[As	75	-0.014	ug/L	0.013	95	10	6	39	KED
Y	89		ug/L			414325	418605	0	Standard
Kr	83		ug/L			60	38	5	Standard
[> In-1	115		ug/L			10806	10612	2	KED
| Cd	111	-0.001	ug/L	0.003	308	7	7	7	KED
[Cd	114	0.002	ug/L	0.007	425	9	9	39	KED
[> In	115		ug/L			759938	782491	2	Standard
[Ag	107	-0.004	ug/L	0.001	23	119	63	19	Standard
[> Tb	159		ug/L			700907	720337	5	Standard
[Pb	208	0.000	ug/L	0.000	92	382	407	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVK

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 06:44:37

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	36379	1	Standard
Cl	37		ug/L			4716783	4989590	1	Standard
[> Sc	45		ug/L			639427	665656	2	Standard
| Cr	52	50.981	ug/L	1.754	3	24054	1080307	1	Standard
| Cr	53	49.980	ug/L	0.229	0	172	121813	2	Standard
| Mn	55	50.463	ug/L	0.645	1	973	1502059	1	Standard
[> Ge	72		ug/L			40737	40697	0	KED
| Ni	60	47.824	ug/L	0.764	1	20	60352	1	KED
| Ni	62	48.154	ug/L	0.721	1	6	9927	1	KED
| Cu	63	47.435	ug/L	2.006	4	114	179148	4	KED
| Cu	65	47.876	ug/L	1.208	2	63	87067	2	KED
| Zn	66	49.525	ug/L	0.201	0	93	22222	0	KED
| Zn	67	49.891	ug/L	1.416	2	17	3702	3	KED
| As	75	50.641	ug/L	0.820	1	10	11132	1	KED
Y	89		ug/L			414325	428633	1	Standard
Kr	83		ug/L			60	55	13	Standard
[> In-1	115		ug/L			10806	10643	1	KED
| Cd	111	50.857	ug/L	1.136	2	7	11208	1	KED
| Cd	114	50.253	ug/L	1.110	2	9	27316	1	KED
[> In	115		ug/L			759938	767969	1	Standard
| Ag	107	49.646	ug/L	0.822	1	119	808829	1	Standard
[> Tb	159		ug/L			700907	750333	1	Standard
| Pb	208	49.201	ug/L	1.125	2	382	2935217	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBK

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 06:51:49

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	35719	4	Standard
Cl	37		ug/L			4716783	4885399	1	Standard
[> Sc	45		ug/L			639427	647076	0	Standard
| Cr	52	0.063	ug/L	0.010	16	24054	25615	1	Standard
| Cr	53	0.072	ug/L	0.010	13	172	345	6	Standard
| Mn	55	-0.005	ug/L	0.000	3	973	831	0	Standard
[> Ge	72		ug/L			40737	38069	8	KED
| Ni	60	0.002	ug/L	0.007	285	20	21	35	KED
| Ni	62	0.006	ug/L	0.020	323	6	7	50	KED
| Cu	63	-0.001	ug/L	0.005	366	114	102	18	KED
| Cu	65	-0.010	ug/L	0.005	54	63	41	20	KED
| Zn	66	-0.096	ug/L	0.010	10	93	46	4	KED
| Zn	67	-0.151	ug/L	0.066	43	17	5	88	KED
| As	75	0.004	ug/L	0.006	141	10	10	20	KED
Y	89		ug/L			414325	423802	1	Standard
Kr	83		ug/L			60	48	15	Standard
[> In-1	115		ug/L			10806	10598	3	KED
| Cd	111	-0.001	ug/L	0.009	1028	7	7	30	KED
| Cd	114	-0.009	ug/L	0.004	44	9	4	50	KED
[> In	115		ug/L			759938	795763	0	Standard
| Ag	107	0.004	ug/L	0.001	16	119	192	6	Standard
[> Tb	159		ug/L			700907	718925	3	Standard
| Pb	208	0.001	ug/L	0.001	95	382	434	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0421-13**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 06:56:18**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	55773	0	Standard
Cl	37		ug/L			4716783	4951043	1	Standard
[> Sc	45		ug/L			639427	710476	0	Standard
| Cr	52	0.340	ug/L	0.010	2	24054	34244	1	Standard
| Cr	53	1.091	ug/L	0.030	2	172	3025	1	Standard
| Mn	55	22.099	ug/L	0.561	2	973	702887	3	Standard
[> Ge	72		ug/L			40737	39654	2	KED
| Ni	60	0.816	ug/L	0.034	4	20	1022	3	KED
| Ni	62	0.846	ug/L	0.012	1	6	176	1	KED
| Cu	63	1.428	ug/L	0.036	2	114	5360	1	KED
| Cu	65	1.433	ug/L	0.047	3	63	2598	3	KED
| Zn	66	4.117	ug/L	0.087	2	93	1883	4	KED
| Zn	67	5.558	ug/L	0.183	3	17	416	1	KED
| As	75	0.373	ug/L	0.032	8	10	89	7	KED
| Y	89		ug/L			414325	444882	2	Standard
| Kr	83		ug/L			60	57	23	Standard
[> In-1	115		ug/L			10806	10643	2	KED
| Cd	111	0.016	ug/L	0.006	38	7	11	13	KED
| Cd	114	0.012	ug/L	0.004	35	9	15	12	KED
[> In	115		ug/L			759938	778785	3	Standard
| Ag	107	0.003	ug/L	0.001	40	119	175	10	Standard
[> Tb	159		ug/L			700907	730546	5	Standard
| Pb	208	0.246	ug/L	0.015	5	382	14659	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0421-15**

Sample Dil Factor:

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 07:00:39**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	49085	3	Standard
Cl	37		ug/L			4716783	4736452	3	Standard
[> Sc	45		ug/L			639427	704678	3	Standard
| Cr	52	0.515	ug/L	0.035	6	24054	37789	1	Standard
| Cr	53	1.279	ug/L	0.027	2	172	3484	3	Standard
| Mn	55	186.160	ug/L	0.490	0	973	5864154	3	Standard
[> Ge	72		ug/L			40737	39581	2	KED
| Ni	60	0.654	ug/L	0.031	4	20	821	2	KED
| Ni	62	0.631	ug/L	0.080	12	6	133	12	KED
| Cu	63	1.698	ug/L	0.024	1	114	6343	1	KED
| Cu	65	1.781	ug/L	0.040	2	63	3209	3	KED
| Zn	66	2.296	ug/L	0.030	1	93	1088	2	KED
| Zn	67	3.078	ug/L	0.263	8	17	238	10	KED
| As	75	0.913	ug/L	0.065	7	10	204	7	KED
| Y	89		ug/L			414325	420565	5	Standard
| Kr	83		ug/L			60	69	15	Standard
[> In-1	115		ug/L			10806	10419	0	KED
| Cd	111	0.003	ug/L	0.009	338	7	7	24	KED
| Cd	114	-0.001	ug/L	0.004	452	9	8	25	KED
[> In	115		ug/L			759938	746157	2	Standard
| Ag	107	0.001	ug/L	0.001	128	119	126	7	Standard
[> Tb	159		ug/L			700907	724989	4	Standard
| Pb	208	0.287	ug/L	0.005	1	382	16950	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLM

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 07:05:02

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	36261	1	Standard
Cl	37		ug/L			4716783	4558749	2	Standard
[> Sc	45		ug/L			639427	640854	0	Standard
| Cr	52	0.064	ug/L	0.026	41	24054	25388	2	Standard
| Cr	53	0.067	ug/L	0.005	7	172	330	3	Standard
| Mn	55	0.012	ug/L	0.001	10	973	1321	2	Standard
[> Ge	72		ug/L			40737	40269	0	KED
| Ni	60	0.004	ug/L	0.002	57	20	25	11	KED
| Ni	62	0.004	ug/L	0.016	458	6	7	43	KED
| Cu	63	0.002	ug/L	0.001	25	114	122	2	KED
| Cu	65	0.001	ug/L	0.013	906	63	65	36	KED
| Zn	66	-0.026	ug/L	0.041	154	93	80	21	KED
| Zn	67	-0.032	ug/L	0.091	283	17	14	45	KED
[As	75	-0.013	ug/L	0.005	38	10	6	15	KED
Y	89		ug/L			414325	419602	1	Standard
Kr	83		ug/L			60	58	12	Standard
[> In-1	115		ug/L			10806	10582	1	KED
| Cd	111	-0.009	ug/L	0.011	121	7	5	44	KED
[Cd	114	0.005	ug/L	0.015	268	9	11	65	KED
[> In	115		ug/L			759938	776861	2	Standard
[Ag	107	-0.002	ug/L	0.000	10	119	82	7	Standard
[> Tb	159		ug/L			700907	714160	3	Standard
[Pb	208	-0.000	ug/L	0.000	4223	382	389	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0581-02**

Sample Dil Factor: **20**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 07:09:30**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	37808	2	Standard
Cl	37		ug/L			4716783	5335959	3	Standard
[> Sc	45		ug/L			639427	652440	5	Standard
| Cr	52	0.092	ug/L	0.049	53	24054	26385	2	Standard
| Cr	53	1.516	ug/L	0.046	3	172	3789	4	Standard
| Mn	55	12.754	ug/L	0.553	4	973	372459	3	Standard
[> Ge	72		ug/L			40737	41598	1	KED
| Ni	60	0.246	ug/L	0.012	5	20	338	3	KED
| Ni	62	0.299	ug/L	0.088	29	6	69	25	KED
| Cu	63	19.088	ug/L	0.344	1	114	73738	0	KED
| Cu	65	18.921	ug/L	0.331	1	63	35202	0	KED
| Zn	66	34.187	ug/L	0.411	1	93	15707	1	KED
| Zn	67	31.727	ug/L	1.246	3	17	2411	2	KED
[As	75	0.005	ug/L	0.017	306	10	11	32	KED
Y	89		ug/L			414325	427761	4	Standard
Kr	83		ug/L			60	46	6	Standard
[> In-1	115		ug/L			10806	10804	2	KED
| Cd	111	-0.000	ug/L	0.004	78908	7	7	12	KED
| Cd	114	-0.001	ug/L	0.014	1383	9	8	90	KED
[> In	115		ug/L			759938	776057	4	Standard
| Ag	107	0.004	ug/L	0.002	39	119	188	12	Standard
[> Tb	159		ug/L			700907	733370	5	Standard
[Pb	208	0.750	ug/L	0.024	3	382	44073	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: **23B0581-01**

Sample Dil Factor: **200**

Comments:

Sample Date/Time: **Tuesday, March 07, 2023 07:13:58**

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	36799	0	Standard
Cl	37		ug/L			4716783	4457525	3	Standard
> Sc	45		ug/L			639427	635342	3	Standard
| Cr	52	0.546	ug/L	0.034	6	24054	34686	2	Standard
| Cr	53	0.620	ug/L	0.011	1	172	1611	5	Standard
| Mn	55	2.665	ug/L	0.052	1	973	76628	3	Standard
> Ge	72		ug/L			40737	41086	1	KED
| Ni	60	0.428	ug/L	0.035	8	20	565	8	KED
| Ni	62	1.494	ug/L	0.141	9	6	317	7	KED
| Cu	63	470.806	ug/L	13.240	2	114	1793282	0	KED
| Cu	65	480.962	ug/L	3.409	0	63	882340	1	KED
| Zn	66	134.324	ug/L	3.889	2	93	60666	1	KED
| Zn	67	121.999	ug/L	1.359	1	17	9114	2	KED
| As	75	0.011	ug/L	0.014	128	10	12	25	KED
| Y	89		ug/L			414325	426746	3	Standard
| Kr	83		ug/L			60	57	16	Standard
> In-1	115		ug/L			10806	10935	1	KED
| Cd	111	0.001	ug/L	0.010	942	7	7	27	KED
| Cd	114	0.004	ug/L	0.012	328	9	11	58	KED
> In	115		ug/L			759938	774782	1	Standard
| Ag	107	0.108	ug/L	0.004	3	119	1890	3	Standard
> Tb	159		ug/L			700907	717036	2	Standard
| Pb	208	2.960	ug/L	0.128	4	382	169082	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBLL

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 07:18:27

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	36702	2	Standard
Cl	37		ug/L			4716783	4437151	2	Standard
[> Sc	45		ug/L			639427	634737	2	Standard
| Cr	52	0.069	ug/L	0.034	50	24054	25226	1	Standard
| Cr	53	0.063	ug/L	0.015	23	172	316	8	Standard
| Mn	55	0.012	ug/L	0.001	9	973	1315	0	Standard
[> Ge	72		ug/L			40737	39357	4	KED
| Ni	60	0.015	ug/L	0.007	45	20	37	17	KED
| Ni	62	0.018	ug/L	0.027	149	6	10	47	KED
| Cu	63	0.013	ug/L	0.005	37	114	157	6	KED
| Cu	65	0.005	ug/L	0.008	140	63	70	16	KED
| Zn	66	-0.024	ug/L	0.037	152	93	80	22	KED
| Zn	67	-0.064	ug/L	0.033	51	17	12	24	KED
| As	75	0.002	ug/L	0.008	410	10	10	22	KED
Y	89		ug/L			414325	418029	2	Standard
Kr	83		ug/L			60	49	13	Standard
[> In-1	115		ug/L			10806	10185	1	KED
| Cd	111	0.016	ug/L	0.004	23	7	10	9	KED
| Cd	114	-0.001	ug/L	0.006	474	9	8	35	KED
[> In	115		ug/L			759938	765959	1	Standard
| Ag	107	-0.002	ug/L	0.001	25	119	82	10	Standard
[> Tb	159		ug/L			700907	713004	4	Standard
| Pb	208	0.000	ug/L	0.000	102	382	414	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVL

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 07:22:55

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	36336	0	Standard
Cl	37		ug/L			4716783	4868620	0	Standard
[> Sc	45		ug/L			639427	639998	1	Standard
| Cr	52	50.893	ug/L	1.822	3	24054	1037245	2	Standard
| Cr	53	49.986	ug/L	1.103	2	172	117122	1	Standard
| Mn	55	50.742	ug/L	1.502	2	973	1452274	2	Standard
[> Ge	72		ug/L			40737	40415	0	KED
| Ni	60	48.800	ug/L	0.268	0	20	61155	1	KED
| Ni	62	48.212	ug/L	1.187	2	6	9869	1	KED
| Cu	63	47.146	ug/L	0.534	1	114	176806	0	KED
| Cu	65	47.910	ug/L	1.289	2	63	86531	3	KED
| Zn	66	49.578	ug/L	0.544	1	93	22091	0	KED
| Zn	67	49.830	ug/L	0.699	1	17	3671	1	KED
[As	75	51.063	ug/L	0.822	1	10	11147	1	KED
Y	89		ug/L			414325	418483	2	Standard
Kr	83		ug/L			60	59	14	Standard
[> In-1	115		ug/L			10806	10542	3	KED
| Cd	111	49.691	ug/L	1.423	2	7	10843	1	KED
[Cd	114	49.014	ug/L	0.491	1	9	26390	2	KED
[> In	115		ug/L			759938	766074	1	Standard
[Ag	107	48.623	ug/L	0.584	1	119	790262	1	Standard
[> Tb	159		ug/L			700907	729279	2	Standard
[Pb	208	49.537	ug/L	0.992	2	382	2872011	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBL

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 07:30:07

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	34541	1	Standard
Cl	37		ug/L			4716783	4744194	1	Standard
[> Sc	45		ug/L			639427	640418	0	Standard
| Cr	52	0.025	ug/L	0.009	37	24054	24582	1	Standard
| Cr	53	0.040	ug/L	0.002	4	172	265	1	Standard
| Mn	55	-0.003	ug/L	0.001	26	973	876	2	Standard
[> Ge	72		ug/L			40737	39767	3	KED
| Ni	60	0.003	ug/L	0.004	121	20	23	16	KED
| Ni	62	-0.022	ug/L	0.014	64	6	2	114	KED
| Cu	63	-0.005	ug/L	0.004	77	114	92	11	KED
| Cu	65	-0.010	ug/L	0.001	6	63	45	6	KED
| Zn	66	-0.081	ug/L	0.041	50	93	55	32	KED
| Zn	67	-0.110	ug/L	0.036	32	17	8	32	KED
[As	75	-0.003	ug/L	0.010	391	10	9	26	KED
Y	89		ug/L			414325	418682	3	Standard
Kr	83		ug/L			60	54	14	Standard
[> In-1	115		ug/L			10806	10492	0	KED
| Cd	111	0.002	ug/L	0.013	509	7	7	34	KED
[Cd	114	-0.000	ug/L	0.008	1726	9	8	51	KED
[> In	115		ug/L			759938	788827	3	Standard
[Ag	107	0.005	ug/L	0.001	23	119	203	9	Standard
[> Tb	159		ug/L			700907	706710	3	Standard
[Pb	208	0.001	ug/L	0.000	48	382	434	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 07:34:35

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	39710	2	Standard
Cl	37		ug/L			4716783	4966062	2	Standard
[> Sc	45		ug/L			639427	756050	3	Standard
| Cr	52	0.074	ug/L	0.007	8	24054	30182	3	Standard
| Cr	53	0.037	ug/L	0.010	26	172	305	5	Standard
| Mn	55	0.024	ug/L	0.002	6	973	1959	1	Standard
[> Ge	72		ug/L			40737	42789	0	KED
| Ni	60	-0.005	ug/L	0.003	60	20	15	25	KED
| Ni	62	0.019	ug/L	0.009	48	6	11	16	KED
| Cu	63	0.010	ug/L	0.003	30	114	161	8	KED
| Cu	65	0.010	ug/L	0.002	22	63	85	5	KED
| Zn	66	-0.109	ug/L	0.012	10	93	46	12	KED
| Zn	67	-0.134	ug/L	0.050	37	17	7	50	KED
[As	75	-0.017	ug/L	0.003	20	10	6	12	KED
Y	89		ug/L			414325	492489	2	Standard
Kr	83		ug/L			60	53	14	Standard
[> In-1	115		ug/L			10806	11910	2	KED
| Cd	111	-0.015	ug/L	0.004	29	7	4	20	KED
[Cd	114	-0.008	ug/L	0.005	71	9	5	57	KED
[> In	115		ug/L			759938	854601	1	Standard
[Ag	107	0.005	ug/L	0.001	13	119	224	6	Standard
[> Tb	159		ug/L			700907	783273	2	Standard
[Pb	208	0.000	ug/L	0.000	288	382	434	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 07:39:03

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	40602	1	Standard
Cl	37		ug/L			4716783	5004986	2	Standard
[> Sc	45		ug/L			639427	770633	3	Standard
| Cr	52	0.077	ug/L	0.039	50	24054	30808	2	Standard
| Cr	53	0.036	ug/L	0.008	23	172	308	8	Standard
| Mn	55	0.023	ug/L	0.001	5	973	1967	1	Standard
[> Ge	72		ug/L			40737	42180	1	KED
| Ni	60	-0.000	ug/L	0.006	5923	20	20	36	KED
| Ni	62	-0.013	ug/L	0.022	167	6	4	107	KED
| Cu	63	0.008	ug/L	0.003	32	114	150	7	KED
| Cu	65	0.003	ug/L	0.004	132	63	71	11	KED
| Zn	66	-0.122	ug/L	0.009	7	93	40	9	KED
| Zn	67	-0.149	ug/L	0.038	25	17	6	45	KED
[As	75	-0.003	ug/L	0.008	267	10	9	18	KED
Y	89		ug/L			414325	507128	1	Standard
Kr	83		ug/L			60	66	24	Standard
[> In-1	115		ug/L			10806	11743	1	KED
| Cd	111	-0.005	ug/L	0.016	285	7	6	55	KED
[Cd	114	-0.004	ug/L	0.005	123	9	7	44	KED
[> In	115		ug/L			759938	880943	1	Standard
[Ag	107	0.001	ug/L	0.002	304	119	149	21	Standard
[> Tb	159		ug/L			700907	804919	3	Standard
[Pb	208	-0.002	ug/L	0.001	34	382	339	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 07:43:31

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	39699	1	Standard
Cl	37		ug/L			4716783	4886543	2	Standard
[> Sc	45		ug/L			639427	734616	0	Standard
| Cr	52	0.078	ug/L	0.027	34	24054	29419	2	Standard
| Cr	53	0.041	ug/L	0.001	2	172	307	0	Standard
| Mn	55	0.023	ug/L	0.002	6	973	1864	2	Standard
[> Ge	72		ug/L			40737	41722	0	KED
| Ni	60	0.001	ug/L	0.004	615	20	21	22	KED
| Ni	62	0.008	ug/L	0.022	275	6	8	53	KED
| Cu	63	0.010	ug/L	0.003	28	114	156	6	KED
| Cu	65	0.008	ug/L	0.012	159	63	79	29	KED
| Zn	66	-0.130	ug/L	0.015	11	93	36	18	KED
| Zn	67	-0.165	ug/L	0.028	17	17	5	43	KED
[As	75	-0.019	ug/L	0.003	16	10	6	12	KED
Y	89		ug/L			414325	473419	1	Standard
Kr	83		ug/L			60	58	13	Standard
[> In-1	115		ug/L			10806	11350	2	KED
| Cd	111	-0.007	ug/L	0.010	135	7	6	37	KED
[Cd	114	-0.005	ug/L	0.004	81	9	6	31	KED
[> In	115		ug/L			759938	837026	1	Standard
[Ag	107	-0.001	ug/L	0.001	65	119	107	13	Standard
[> Tb	159		ug/L			700907	789752	3	Standard
[Pb	208	-0.001	ug/L	0.000	11	382	349	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 07:47:59

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	34824	1	Standard
Cl	37		ug/L			4716783	4352077	0	Standard
[> Sc	45		ug/L			639427	566338	1	Standard
| Cr	52	0.013	ug/L	0.021	164	24054	21524	0	Standard
| Cr	53	0.031	ug/L	0.011	34	172	217	9	Standard
| Mn	55	0.015	ug/L	0.000	2	973	1246	0	Standard
[> Ge	72		ug/L			40737	37514	4	KED
| Ni	60	-0.001	ug/L	0.006	702	20	17	43	KED
| Ni	62	-0.017	ug/L	0.006	36	6	3	34	KED
| Cu	63	-0.013	ug/L	0.002	14	114	60	5	KED
| Cu	65	-0.020	ug/L	0.005	25	63	24	38	KED
| Zn	66	-0.164	ug/L	0.010	6	93	18	26	KED
| Zn	67	-0.204	ug/L	0.001	0	17	1		KED
[As	75	-0.004	ug/L	0.004	89	10	8	13	KED
Y	89		ug/L			414325	379516	1	Standard
Kr	83		ug/L			60	53	26	Standard
[> In-1	115		ug/L			10806	9533	2	KED
| Cd	111	0.009	ug/L	0.006	61	7	8	11	KED
[Cd	114	0.011	ug/L	0.009	80	9	13	32	KED
[> In	115		ug/L			759938	699388	0	Standard
[Ag	107	-0.004	ug/L	0.001	14	119	46	20	Standard
[> Tb	159		ug/L			700907	650430	1	Standard
[Pb	208	-0.005	ug/L	0.000	2	382	85	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 07:52:27

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	35291	1	Standard
Cl	37		ug/L			4716783	4276240	3	Standard
[> Sc	45		ug/L			639427	565442	2	Standard
| Cr	52	0.023	ug/L	0.013	55	24054	21676	3	Standard
| Cr	53	0.028	ug/L	0.009	30	172	210	5	Standard
| Mn	55	0.009	ug/L	0.002	17	973	1085	1	Standard
[> Ge	72		ug/L			40737	37970	2	KED
| Ni	60	-0.002	ug/L	0.011	730	20	17	80	KED
| Ni	62	-0.014	ug/L	0.010	69	6	3	50	KED
| Cu	63	-0.016	ug/L	0.001	7	114	51	7	KED
| Cu	65	-0.014	ug/L	0.006	45	63	34	30	KED
| Zn	66	-0.154	ug/L	0.016	10	93	22	30	KED
| Zn	67	-0.139	ug/L	0.044	31	17	6	45	KED
[As	75	-0.006	ug/L	0.008	131	10	8	17	KED
Y	89		ug/L			414325	375393	1	Standard
Kr	83		ug/L			60	55	10	Standard
[> In-1	115		ug/L			10806	9488	1	KED
| Cd	111	0.016	ug/L	0.005	30	7	9	11	KED
[Cd	114	-0.001	ug/L	0.000	18	9	7	0	KED
[> In	115		ug/L			759938	707290	1	Standard
[Ag	107	-0.004	ug/L	0.001	12	119	46	16	Standard
[> Tb	159		ug/L			700907	656160	3	Standard
[Pb	208	-0.006	ug/L	0.000	4	382	70	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI

Sample Dil Factor:

Comments:

Sample Date/Time: Tuesday, March 07, 2023 07:56:55

Number of Replicates: 3

Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8_DailyMethod_KED+UCT.mth

Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun

Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac

Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\030623.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35520	35496	2	Standard
Cl	37		ug/L			4716783	4160662	0	Standard
[> Sc	45		ug/L			639427	547812	3	Standard
| Cr	52	0.019	ug/L	0.023	122	24054	20927	3	Standard
| Cr	53	0.035	ug/L	0.004	10	172	218	1	Standard
| Mn	55	0.006	ug/L	0.002	31	973	973	3	Standard
[> Ge	72		ug/L			40737	36484	3	KED
| Ni	60	0.003	ug/L	0.007	257	20	20	32	KED
| Ni	62	0.001	ug/L	0.017	2137	6	6	45	KED
| Cu	63	-0.012	ug/L	0.004	30	114	63	22	KED
| Cu	65	-0.019	ug/L	0.002	11	63	26	16	KED
| Zn	66	-0.154	ug/L	0.032	20	93	22	60	KED
| Zn	67	-0.193	ug/L	0.018	9	17	2	43	KED
| As	75	-0.001	ug/L	0.015	1121	10	8	36	KED
Y	89		ug/L			414325	358411	2	Standard
Kr	83		ug/L			60	66	11	Standard
[> In-1	115		ug/L			10806	9459	0	KED
| Cd	111	-0.003	ug/L	0.010	313	7	6	32	KED
| Cd	114	-0.006	ug/L	0.007	128	9	5	64	KED
[> In	115		ug/L			759938	676405	1	Standard
| Ag	107	-0.004	ug/L	0.001	19	119	48	23	Standard
[> Tb	159		ug/L			700907	636729	2	Standard
| Pb	208	-0.005	ug/L	0.000	1	382	79	4	Standard



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS2

Calibration: GC00005

Control Limit: +/- 10.00%

Sequence: SLC0028

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLC0028-ICV1	Arsenic-75a	50.000	45.9	91.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	48.5	97.0	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.0	98.1	ug/L	PA 6020B UCT-KE
SLC0028-CCV1	Arsenic-75a	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.3	98.5	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.7	97.5	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.2	100	ug/L	PA 6020B UCT-KE
SLC0028-CCV2	Arsenic-75a	50.000	49.3	98.7	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	48.8	97.5	ug/L	PA 6020B UCT-KE
SLC0028-CCV3	Arsenic-75a	50.000	48.7	97.5	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	47.2	94.4	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	47.3	94.7	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	47.6	95.3	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.2	98.5	ug/L	PA 6020B UCT-KE
SLC0028-CCV4	Arsenic-75a	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	48.8	97.5	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.6	99.3	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.0	102	ug/L	PA 6020B UCT-KE
SLC0028-CCV5	Arsenic-75a	50.000	49.1	98.2	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.7	99.5	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.7	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.2	100	ug/L	PA 6020B UCT-KE
SLC0028-CCV6	Arsenic-75a	50.000	48.9	97.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.5	99.0	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.4	101	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS2

Calibration: GC00005

Control Limit: +/- 10.00%

Sequence: SLC0028

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLC0028-CCV6	Zinc-67	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
SLC0028-CCV7	Arsenic-75a	50.000	48.1	96.2	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	48.8	97.5	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.6	97.1	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	48.8	97.6	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Control Limit: +/- 10.00%

Sequence: SLC0078

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLC0078-ICV1	Arsenic-75a	50.000	47.0	93.9	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.5	98.9	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.2	98.5	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.0	98.1	ug/L	PA 6020B UCT-KE
SLC0078-CCV1	Arsenic-75a	50.000	49.5	99.0	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.1	98.3	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.1	98.2	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.0	98.1	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.1	98.3	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.9	99.9	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.8	102	ug/L	PA 6020B UCT-KE
SLC0078-CCV2	Arsenic-75a	50.000	49.0	98.0	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.1	98.3	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	51.1	102	ug/L	PA 6020B UCT-KE
SLC0078-CCV3	Arsenic-75a	50.000	49.8	99.5	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	48.1	96.2	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.9	97.8	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.4	101	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.6	99.1	ug/L	PA 6020B UCT-KE
SLC0078-CCV4	Arsenic-75a	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	48.9	97.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	49.2	98.3	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	50.2	100	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Control Limit: +/- 10.00%

Sequence: SLC0078

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLC0078-CCV4	Zinc-67	50.000	51.5	103	ug/L	PA 6020B UCT-KE
SLC0078-CCV5	Arsenic-75a	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.7	99.3	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	47.5	95.1	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	49.0	98.0	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.0	100	ug/L	PA 6020B UCT-KE
SLC0078-CCV6	Arsenic-75a	50.000	49.0	98.0	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.0	98.0	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	46.5	93.1	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	46.9	93.8	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	48.9	97.7	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	47.9	95.8	ug/L	PA 6020B UCT-KE
SLC0078-CCV7	Arsenic-75a	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.4	98.9	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	47.7	95.3	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.8	97.5	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.7	99.5	ug/L	PA 6020B UCT-KE
SLC0078-CCV8	Arsenic-75a	50.000	50.5	101	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.0	97.9	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	48.2	96.3	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	48.0	96.1	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	47.8	95.6	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.8	99.5	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	50.5	101	ug/L	PA 6020B UCT-KE
SLC0078-CCV9	Arsenic-75a	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.1	98.1	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	46.6	93.3	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.4	96.8	ug/L	PA 6020B UCT-KE



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Control Limit: +/- 10.00%

Sequence: SLC0078

Lab Sample ID	Analyte	True	Found	%R	Units	Method	
SLC0078-CCV9	Zinc-66	50.000	48.3	96.7	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	50.5	101	ug/L	PA 6020B UCT-KE	
SLC0078-CCVA	Arsenic-75a	50.000	50.0	100	ug/L	PA 6020B UCT-KE	
	Cadmium-111	50.000	49.2	98.4	ug/L	PA 6020B UCT-KE	
	Cadmium-114	50.000	49.4	98.8	ug/L	PA 6020B UCT-KE	
	Copper-63	50.000	47.1	94.2	ug/L	PA 6020B UCT-KE	
	Copper-65	50.000	47.2	94.3	ug/L	PA 6020B UCT-KE	
	Zinc-66	50.000	48.4	96.7	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	50.0	99.9	ug/L	PA 6020B UCT-KE	
	SLC0078-CCVB	Arsenic-75a	50.000	50.3	101	ug/L	PA 6020B UCT-KE
SLC0078-CCVC	Cadmium-111	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE	
	Cadmium-114	50.000	49.8	99.7	ug/L	PA 6020B UCT-KE	
	Copper-63	50.000	47.4	94.8	ug/L	PA 6020B UCT-KE	
	Copper-65	50.000	47.9	95.8	ug/L	PA 6020B UCT-KE	
	Zinc-66	50.000	49.5	98.9	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	49.6	99.3	ug/L	PA 6020B UCT-KE	
	SLC0078-CCVC	Arsenic-75a	50.000	50.0	100	ug/L	PA 6020B UCT-KE
	SLC0078-CCVD	Cadmium-111	50.000	50.8	102	ug/L	PA 6020B UCT-KE
Cadmium-114		50.000	49.2	98.4	ug/L	PA 6020B UCT-KE	
Copper-63		50.000	47.0	93.9	ug/L	PA 6020B UCT-KE	
Copper-65		50.000	48.4	96.9	ug/L	PA 6020B UCT-KE	
Zinc-66		50.000	50.1	100	ug/L	PA 6020B UCT-KE	
Zinc-67		50.000	51.0	102	ug/L	PA 6020B UCT-KE	
SLC0078-CCVD		Arsenic-75a	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
SLC0078-CCVE		Cadmium-111	50.000	50.2	100	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE	
	Copper-63	50.000	47.1	94.2	ug/L	PA 6020B UCT-KE	
	Copper-65	50.000	47.8	95.7	ug/L	PA 6020B UCT-KE	
	Zinc-66	50.000	48.5	97.1	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE	
	SLC0078-CCVE	Arsenic-75a	50.000	50.7	101	ug/L	PA 6020B UCT-KE
	SLC0078-CCVE	Cadmium-111	50.000	50.4	101	ug/L	PA 6020B UCT-KE
Cadmium-114		50.000	50.2	100	ug/L	PA 6020B UCT-KE	
Copper-63		50.000	48.1	96.2	ug/L	PA 6020B UCT-KE	



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Control Limit: +/- 10.00%

Sequence: SLC0078

Lab Sample ID	Analyte	True	Found	%R	Units	Method	
SLC0078-CCVE	Copper-65	50.000	48.2	96.5	ug/L	PA 6020B UCT-KE	
	Zinc-66	50.000	49.6	99.1	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	50.7	101	ug/L	PA 6020B UCT-KE	
SLC0078-CCVF	Arsenic-75a	50.000	51.1	102	ug/L	PA 6020B UCT-KE	
	Cadmium-111	50.000	49.8	99.6	ug/L	PA 6020B UCT-KE	
	Cadmium-114	50.000	49.1	98.3	ug/L	PA 6020B UCT-KE	
	Copper-63	50.000	47.7	95.3	ug/L	PA 6020B UCT-KE	
	Copper-65	50.000	48.4	96.9	ug/L	PA 6020B UCT-KE	
	Zinc-66	50.000	50.2	100	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	50.5	101	ug/L	PA 6020B UCT-KE	
	SLC0078-CCVG	Arsenic-75a	50.000	50.2	100	ug/L	PA 6020B UCT-KE
SLC0078-CCVH	Cadmium-111	50.000	49.6	99.3	ug/L	PA 6020B UCT-KE	
	Cadmium-114	50.000	49.1	98.3	ug/L	PA 6020B UCT-KE	
	Copper-63	50.000	48.0	96.1	ug/L	PA 6020B UCT-KE	
	Copper-65	50.000	48.8	97.5	ug/L	PA 6020B UCT-KE	
	Zinc-66	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	50.4	101	ug/L	PA 6020B UCT-KE	
	SLC0078-CCVI	Arsenic-75a	50.000	50.7	101	ug/L	PA 6020B UCT-KE
SLC0078-CCVJ	Cadmium-111	50.000	49.8	99.7	ug/L	PA 6020B UCT-KE	
	Cadmium-114	50.000	49.0	98.0	ug/L	PA 6020B UCT-KE	
	Copper-63	50.000	47.3	94.6	ug/L	PA 6020B UCT-KE	
	Copper-65	50.000	47.4	94.8	ug/L	PA 6020B UCT-KE	
	Zinc-66	50.000	48.2	96.5	ug/L	PA 6020B UCT-KE	
	Zinc-67	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE	
	SLC0078-CCVI	Arsenic-75a	50.000	50.1	100	ug/L	PA 6020B UCT-KE
	SLC0078-CCVI	Cadmium-111	50.000	48.4	96.7	ug/L	PA 6020B UCT-KE
Cadmium-114		50.000	48.6	97.1	ug/L	PA 6020B UCT-KE	
Copper-63		50.000	46.9	93.8	ug/L	PA 6020B UCT-KE	
Copper-65		50.000	48.5	97.0	ug/L	PA 6020B UCT-KE	
Zinc-66		50.000	50.1	100	ug/L	PA 6020B UCT-KE	
Zinc-67		50.000	51.3	103	ug/L	PA 6020B UCT-KE	
SLC0078-CCVJ		Arsenic-75a	50.000	50.2	100	ug/L	PA 6020B UCT-KE
SLC0078-CCVJ	Cadmium-111	50.000	50.4	101	ug/L	PA 6020B UCT-KE	
	Cadmium-114	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE	



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Control Limit: +/- 10.00%

Sequence: SLC0078

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLC0078-CCVJ	Copper-63	50.000	47.1	94.3	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	48.2	96.4	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	48.9	97.8	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.3	98.6	ug/L	PA 6020B UCT-KE
SLC0078-CCVK	Arsenic-75a	50.000	50.6	101	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	50.9	102	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	50.3	101	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	47.4	94.9	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	47.9	95.8	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.5	99.1	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.9	99.8	ug/L	PA 6020B UCT-KE
SLC0078-CCVL	Arsenic-75a	50.000	51.1	102	ug/L	PA 6020B UCT-KE
	Cadmium-111	50.000	49.7	99.4	ug/L	PA 6020B UCT-KE
	Cadmium-114	50.000	49.0	98.0	ug/L	PA 6020B UCT-KE
	Copper-63	50.000	47.1	94.3	ug/L	PA 6020B UCT-KE
	Copper-65	50.000	47.9	95.8	ug/L	PA 6020B UCT-KE
	Zinc-66	50.000	49.6	99.2	ug/L	PA 6020B UCT-KE
	Zinc-67	50.000	49.8	99.7	ug/L	PA 6020B UCT-KE

* Values outside of QC limits



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS2

Calibration: GC00005

Sequence: SLC0028

Date Analyzed: 03/01/23 17:11

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0028-IBL1	Arsenic-75a	-0.00200	0.0373	0.200	ug/L	
SLC0028-IBL1	Copper-63	0.0170	0.173	0.500	ug/L	
SLC0028-IBL1	Copper-65	0.0150	0.35	0.500	ug/L	
SLC0028-IBL1	Zinc-66	-0.0030	2.92	6.00	ug/L	
SLC0028-IBL1	Zinc-67	-0.0330	0.94	6.00	ug/L	
SLC0028-ICB1	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLC0028-ICB1	Copper-63	0.00400	0.173	0.500	ug/L	
SLC0028-ICB1	Copper-65	0.00100	0.35	0.500	ug/L	
SLC0028-ICB1	Zinc-66	0.0300	2.92	6.00	ug/L	
SLC0028-ICB1	Zinc-67	-0.0110	0.94	6.00	ug/L	
SLC0028-CCB1	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLC0028-CCB1	Copper-63	0.00	0.173	0.500	ug/L	
SLC0028-CCB1	Copper-65	-0.00200	0.35	0.500	ug/L	
SLC0028-CCB1	Zinc-66	0.0070	2.92	6.00	ug/L	
SLC0028-CCB1	Zinc-67	0.0370	0.94	6.00	ug/L	
SLC0028-IBL2	Arsenic-75a	0.0790	0.0373	0.200	ug/L	
SLC0028-IBL2	Copper-63	0.0300	0.173	0.500	ug/L	
SLC0028-IBL2	Copper-65	0.0280	0.35	0.500	ug/L	
SLC0028-IBL2	Zinc-66	0.258	2.92	6.00	ug/L	
SLC0028-IBL2	Zinc-67	0.149	0.94	6.00	ug/L	
SLC0028-IBL3	Arsenic-75a	0.0180	0.0373	0.200	ug/L	
SLC0028-IBL3	Copper-63	0.0340	0.173	0.500	ug/L	
SLC0028-IBL3	Copper-65	0.0260	0.35	0.500	ug/L	
SLC0028-IBL3	Zinc-66	0.299	2.92	6.00	ug/L	
SLC0028-IBL3	Zinc-67	0.230	0.94	6.00	ug/L	
SLC0028-CCB2	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLC0028-CCB2	Copper-63	0.00	0.173	0.500	ug/L	
SLC0028-CCB2	Copper-65	0.00600	0.35	0.500	ug/L	
SLC0028-CCB2	Zinc-66	0.0320	2.92	6.00	ug/L	
SLC0028-CCB2	Zinc-67	0.00	0.94	6.00	ug/L	
SLC0028-IBL4	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLC0028-IBL4	Copper-63	0.106	0.173	0.500	ug/L	
SLC0028-IBL4	Copper-65	0.0440	0.35	0.500	ug/L	
SLC0028-IBL4	Zinc-66	0.0430	2.92	6.00	ug/L	
SLC0028-IBL4	Zinc-67	-0.0830	0.94	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS2

Calibration: GC00005

Sequence: SLC0028

Date Analyzed: 03/01/23 19:50

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0028-IBL5	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLC0028-IBL5	Copper-63	0.0210	0.173	0.500	ug/L	
SLC0028-IBL5	Copper-65	0.0130	0.35	0.500	ug/L	
SLC0028-IBL5	Zinc-66	0.0100	2.92	6.00	ug/L	
SLC0028-IBL5	Zinc-67	-0.0460	0.94	6.00	ug/L	
SLC0028-CCB3	Arsenic-75a	-0.00900	0.0373	0.200	ug/L	
SLC0028-CCB3	Copper-63	0.00800	0.173	0.500	ug/L	
SLC0028-CCB3	Copper-65	-0.00200	0.35	0.500	ug/L	
SLC0028-CCB3	Zinc-66	0.0140	2.92	6.00	ug/L	
SLC0028-CCB3	Zinc-67	-0.0500	0.94	6.00	ug/L	
SLC0028-IBL6	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLC0028-IBL6	Copper-63	0.0160	0.173	0.500	ug/L	
SLC0028-IBL6	Copper-65	0.00500	0.35	0.500	ug/L	
SLC0028-IBL6	Zinc-66	-0.0180	2.92	6.00	ug/L	
SLC0028-IBL6	Zinc-67	-0.0870	0.94	6.00	ug/L	
SLC0028-CCB4	Arsenic-75a	-0.0110	0.0373	0.200	ug/L	
SLC0028-CCB4	Copper-63	0.00500	0.173	0.500	ug/L	
SLC0028-CCB4	Copper-65	-0.00100	0.35	0.500	ug/L	
SLC0028-CCB4	Zinc-66	-0.0020	2.92	6.00	ug/L	
SLC0028-CCB4	Zinc-67	-0.0270	0.94	6.00	ug/L	
SLC0028-CCB5	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLC0028-CCB5	Copper-63	0.00100	0.173	0.500	ug/L	
SLC0028-CCB5	Copper-65	-0.00300	0.35	0.500	ug/L	
SLC0028-CCB5	Zinc-66	-0.0070	2.92	6.00	ug/L	
SLC0028-CCB5	Zinc-67	0.0170	0.94	6.00	ug/L	
SLC0028-IBL7	Arsenic-75a	-0.0130	0.0373	0.200	ug/L	
SLC0028-IBL7	Copper-63	0.0120	0.173	0.500	ug/L	
SLC0028-IBL7	Copper-65	0.00400	0.35	0.500	ug/L	
SLC0028-IBL7	Zinc-66	-0.0020	2.92	6.00	ug/L	
SLC0028-IBL7	Zinc-67	-0.0560	0.94	6.00	ug/L	
SLC0028-CCB6	Arsenic-75a	-0.00800	0.0373	0.200	ug/L	
SLC0028-CCB6	Copper-63	-0.00100	0.173	0.500	ug/L	
SLC0028-CCB6	Copper-65	-0.00400	0.35	0.500	ug/L	
SLC0028-CCB6	Zinc-66	-0.0020	2.92	6.00	ug/L	
SLC0028-CCB6	Zinc-67	-0.0620	0.94	6.00	ug/L	
SLC0028-IBL8	Arsenic-75a	0.00200	0.0373	0.200	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS2

Calibration: GC00005

Sequence: SLC0028

Date Analyzed: 03/01/23 23:33

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0028-IBL8	Copper-63	0.0120	0.173	0.500	ug/L	
SLC0028-IBL8	Copper-65	0.00800	0.35	0.500	ug/L	
SLC0028-IBL8	Zinc-66	0.0090	2.92	6.00	ug/L	
SLC0028-IBL8	Zinc-67	-0.0190	0.94	6.00	ug/L	
SLC0028-CCB7	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLC0028-CCB7	Copper-63	0.00400	0.173	0.500	ug/L	
SLC0028-CCB7	Copper-65	-0.00400	0.35	0.500	ug/L	
SLC0028-CCB7	Zinc-66	0.0020	2.92	6.00	ug/L	
SLC0028-CCB7	Zinc-67	-0.0750	0.94	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Date Analyzed: 03/06/23 13:44

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0078-IBL1	Arsenic-75a	0.00900	0.0373	0.200	ug/L	
SLC0078-IBL1	Cadmium-111	0.00600	0.03	0.100	ug/L	
SLC0078-IBL1	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLC0078-IBL1	Copper-63	0.0370	0.173	0.500	ug/L	
SLC0078-IBL1	Copper-65	0.0330	0.35	0.500	ug/L	
SLC0078-IBL1	Zinc-66	0.528	2.92	6.00	ug/L	
SLC0078-IBL1	Zinc-67	0.344	0.94	6.00	ug/L	
SLC0078-ICB1	Arsenic-75a	-0.0150	0.0373	0.200	ug/L	
SLC0078-ICB1	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLC0078-ICB1	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLC0078-ICB1	Copper-63	-0.00100	0.173	0.500	ug/L	
SLC0078-ICB1	Copper-65	-0.00800	0.35	0.500	ug/L	
SLC0078-ICB1	Zinc-66	-0.0810	2.92	6.00	ug/L	
SLC0078-ICB1	Zinc-67	-0.110	0.94	6.00	ug/L	
SLC0078-CCB1	Arsenic-75a	-0.0160	0.0373	0.200	ug/L	
SLC0078-CCB1	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLC0078-CCB1	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLC0078-CCB1	Copper-63	-0.00500	0.173	0.500	ug/L	
SLC0078-CCB1	Copper-65	-0.0120	0.35	0.500	ug/L	
SLC0078-CCB1	Zinc-66	-0.0920	2.92	6.00	ug/L	
SLC0078-CCB1	Zinc-67	-0.0980	0.94	6.00	ug/L	
SLC0078-IBL2	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLC0078-IBL2	Cadmium-111	0.0120	0.03	0.100	ug/L	
SLC0078-IBL2	Cadmium-114	0.00600	0.04	0.100	ug/L	
SLC0078-IBL2	Copper-63	0.00300	0.173	0.500	ug/L	
SLC0078-IBL2	Copper-65	-0.00100	0.35	0.500	ug/L	
SLC0078-IBL2	Zinc-66	0.0360	2.92	6.00	ug/L	
SLC0078-IBL2	Zinc-67	0.0720	0.94	6.00	ug/L	
SLC0078-IBL3	Arsenic-75a	-0.00900	0.0373	0.200	ug/L	
SLC0078-IBL3	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLC0078-IBL3	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLC0078-IBL3	Copper-63	0.00700	0.173	0.500	ug/L	
SLC0078-IBL3	Copper-65	0.00500	0.35	0.500	ug/L	
SLC0078-IBL3	Zinc-66	0.0300	2.92	6.00	ug/L	
SLC0078-IBL3	Zinc-67	0.0060	0.94	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Date Analyzed: 03/06/23 15:06

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0078-CCB2	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLC0078-CCB2	Cadmium-111	-0.00500	0.03	0.100	ug/L	
SLC0078-CCB2	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLC0078-CCB2	Copper-63	-0.00800	0.173	0.500	ug/L	
SLC0078-CCB2	Copper-65	-0.00500	0.35	0.500	ug/L	
SLC0078-CCB2	Zinc-66	-0.0960	2.92	6.00	ug/L	
SLC0078-CCB2	Zinc-67	-0.0450	0.94	6.00	ug/L	
SLC0078-CCB3	Arsenic-75a	0.00500	0.0373	0.200	ug/L	
SLC0078-CCB3	Cadmium-111	-0.00700	0.03	0.100	ug/L	
SLC0078-CCB3	Cadmium-114	0.0100	0.04	0.100	ug/L	
SLC0078-CCB3	Copper-63	0.00300	0.173	0.500	ug/L	
SLC0078-CCB3	Copper-65	0.00	0.35	0.500	ug/L	
SLC0078-CCB3	Zinc-66	0.0020	2.92	6.00	ug/L	
SLC0078-CCB3	Zinc-67	-0.0290	0.94	6.00	ug/L	
SLC0078-IBL4	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLC0078-IBL4	Cadmium-111	-0.00900	0.03	0.100	ug/L	
SLC0078-IBL4	Cadmium-114	0.0150	0.04	0.100	ug/L	
SLC0078-IBL4	Copper-63	0.0350	0.173	0.500	ug/L	
SLC0078-IBL4	Copper-65	0.0360	0.35	0.500	ug/L	
SLC0078-IBL4	Zinc-66	0.605	2.92	6.00	ug/L	
SLC0078-IBL4	Zinc-67	0.612	0.94	6.00	ug/L	
SLC0078-CCB4	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLC0078-CCB4	Cadmium-111	-0.0140	0.03	0.100	ug/L	
SLC0078-CCB4	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLC0078-CCB4	Copper-63	0.00	0.173	0.500	ug/L	
SLC0078-CCB4	Copper-65	0.00100	0.35	0.500	ug/L	
SLC0078-CCB4	Zinc-66	0.0210	2.92	6.00	ug/L	
SLC0078-CCB4	Zinc-67	0.0100	0.94	6.00	ug/L	
SLC0078-IBL5	Arsenic-75a	0.00300	0.0373	0.200	ug/L	
SLC0078-IBL5	Cadmium-111	-0.00700	0.03	0.100	ug/L	
SLC0078-IBL5	Cadmium-114	0.00800	0.04	0.100	ug/L	
SLC0078-IBL5	Copper-63	0.00200	0.173	0.500	ug/L	
SLC0078-IBL5	Copper-65	-0.00600	0.35	0.500	ug/L	
SLC0078-IBL5	Zinc-66	0.0290	2.92	6.00	ug/L	
SLC0078-IBL5	Zinc-67	0.145	0.94	6.00	ug/L	
SLC0078-CCB5	Arsenic-75a	0.00300	0.0373	0.200	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Date Analyzed: 03/06/23 17:37

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0078-CCB5	Cadmium-111	-0.0110	0.03	0.100	ug/L	
SLC0078-CCB5	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLC0078-CCB5	Copper-63	-0.00100	0.173	0.500	ug/L	
SLC0078-CCB5	Copper-65	-0.00400	0.35	0.500	ug/L	
SLC0078-CCB5	Zinc-66	0.0010	2.92	6.00	ug/L	
SLC0078-CCB5	Zinc-67	0.00	0.94	6.00	ug/L	
SLC0078-CCB6	Arsenic-75a	0.00500	0.0373	0.200	ug/L	
SLC0078-CCB6	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLC0078-CCB6	Cadmium-114	0.00600	0.04	0.100	ug/L	
SLC0078-CCB6	Copper-63	-0.00200	0.173	0.500	ug/L	
SLC0078-CCB6	Copper-65	-0.00900	0.35	0.500	ug/L	
SLC0078-CCB6	Zinc-66	0.0030	2.92	6.00	ug/L	
SLC0078-CCB6	Zinc-67	0.0420	0.94	6.00	ug/L	
SLC0078-IBL7	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLC0078-IBL7	Cadmium-111	-0.00600	0.03	0.100	ug/L	
SLC0078-IBL7	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLC0078-IBL7	Copper-63	0.00600	0.173	0.500	ug/L	
SLC0078-IBL7	Copper-65	0.00400	0.35	0.500	ug/L	
SLC0078-IBL7	Zinc-66	0.128	2.92	6.00	ug/L	
SLC0078-IBL7	Zinc-67	0.185	0.94	6.00	ug/L	
SLC0078-CCB7	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLC0078-CCB7	Cadmium-111	0.0120	0.03	0.100	ug/L	
SLC0078-CCB7	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLC0078-CCB7	Copper-63	0.00400	0.173	0.500	ug/L	
SLC0078-CCB7	Copper-65	0.00	0.35	0.500	ug/L	
SLC0078-CCB7	Zinc-66	0.180	2.92	6.00	ug/L	
SLC0078-CCB7	Zinc-67	0.185	0.94	6.00	ug/L	
SLC0078-IBL8	Arsenic-75a	0.00500	0.0373	0.200	ug/L	
SLC0078-IBL8	Cadmium-111	-0.00300	0.03	0.100	ug/L	
SLC0078-IBL8	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLC0078-IBL8	Copper-63	0.00700	0.173	0.500	ug/L	
SLC0078-IBL8	Copper-65	0.00900	0.35	0.500	ug/L	
SLC0078-IBL8	Zinc-66	0.131	2.92	6.00	ug/L	
SLC0078-IBL8	Zinc-67	0.228	0.94	6.00	ug/L	
SLC0078-CCB8	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLC0078-CCB8	Cadmium-111	-0.00300	0.03	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Date Analyzed: 03/06/23 20:44

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0078-CCB8	Cadmium-114	0.0100	0.04	0.100	ug/L	
SLC0078-CCB8	Copper-63	0.00100	0.173	0.500	ug/L	
SLC0078-CCB8	Copper-65	0.00900	0.35	0.500	ug/L	
SLC0078-CCB8	Zinc-66	0.132	2.92	6.00	ug/L	
SLC0078-CCB8	Zinc-67	0.105	0.94	6.00	ug/L	
SLC0078-IBL9	Arsenic-75a	0.00500	0.0373	0.200	ug/L	
SLC0078-IBL9	Cadmium-111	0.00100	0.03	0.100	ug/L	
SLC0078-IBL9	Cadmium-114	0.0160	0.04	0.100	ug/L	
SLC0078-IBL9	Copper-63	0.00800	0.173	0.500	ug/L	
SLC0078-IBL9	Copper-65	-0.00100	0.35	0.500	ug/L	
SLC0078-IBL9	Zinc-66	0.108	2.92	6.00	ug/L	
SLC0078-IBL9	Zinc-67	0.113	0.94	6.00	ug/L	
SLC0078-CCB9	Arsenic-75a	0.00700	0.0373	0.200	ug/L	
SLC0078-CCB9	Cadmium-111	-0.00600	0.03	0.100	ug/L	
SLC0078-CCB9	Cadmium-114	0.00400	0.04	0.100	ug/L	
SLC0078-CCB9	Copper-63	0.0120	0.173	0.500	ug/L	
SLC0078-CCB9	Copper-65	0.00900	0.35	0.500	ug/L	
SLC0078-CCB9	Zinc-66	0.135	2.92	6.00	ug/L	
SLC0078-CCB9	Zinc-67	0.224	0.94	6.00	ug/L	
SLC0078-CCBA	Arsenic-75a	0.00100	0.0373	0.200	ug/L	
SLC0078-CCBA	Cadmium-111	0.00600	0.03	0.100	ug/L	
SLC0078-CCBA	Cadmium-114	0.00900	0.04	0.100	ug/L	
SLC0078-CCBA	Copper-63	0.00600	0.173	0.500	ug/L	
SLC0078-CCBA	Copper-65	0.0120	0.35	0.500	ug/L	
SLC0078-CCBA	Zinc-66	0.159	2.92	6.00	ug/L	
SLC0078-CCBA	Zinc-67	0.188	0.94	6.00	ug/L	
SLC0078-CCBB	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLC0078-CCBB	Cadmium-111	0.00400	0.03	0.100	ug/L	
SLC0078-CCBB	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLC0078-CCBB	Copper-63	-0.00100	0.173	0.500	ug/L	
SLC0078-CCBB	Copper-65	0.00	0.35	0.500	ug/L	
SLC0078-CCBB	Zinc-66	0.0590	2.92	6.00	ug/L	
SLC0078-CCBB	Zinc-67	-0.0440	0.94	6.00	ug/L	
SLC0078-IBLC	Arsenic-75a	0.00	0.0373	0.200	ug/L	
SLC0078-IBLC	Cadmium-111	-0.00600	0.03	0.100	ug/L	
SLC0078-IBLC	Cadmium-114	-0.00200	0.04	0.100	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Date Analyzed: 03/06/23 23:40

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0078-IBLC	Copper-63	0.00400	0.173	0.500	ug/L	
SLC0078-IBLC	Copper-65	0.0100	0.35	0.500	ug/L	
SLC0078-IBLC	Zinc-66	0.0380	2.92	6.00	ug/L	
SLC0078-IBLC	Zinc-67	-0.0640	0.94	6.00	ug/L	
SLC0078-CCBC	Arsenic-75a	-0.00500	0.0373	0.200	ug/L	
SLC0078-CCBC	Cadmium-111	-0.00600	0.03	0.100	ug/L	
SLC0078-CCBC	Cadmium-114	0.00100	0.04	0.100	ug/L	
SLC0078-CCBC	Copper-63	-0.00100	0.173	0.500	ug/L	
SLC0078-CCBC	Copper-65	0.00200	0.35	0.500	ug/L	
SLC0078-CCBC	Zinc-66	0.0750	2.92	6.00	ug/L	
SLC0078-CCBC	Zinc-67	0.115	0.94	6.00	ug/L	
SLC0078-IBLD	Arsenic-75a	0.00600	0.0373	0.200	ug/L	
SLC0078-IBLD	Cadmium-111	0.00500	0.03	0.100	ug/L	
SLC0078-IBLD	Cadmium-114	0.00600	0.04	0.100	ug/L	
SLC0078-IBLD	Copper-63	0.00	0.173	0.500	ug/L	
SLC0078-IBLD	Copper-65	0.00600	0.35	0.500	ug/L	
SLC0078-IBLD	Zinc-66	0.0210	2.92	6.00	ug/L	
SLC0078-IBLD	Zinc-67	-0.0260	0.94	6.00	ug/L	
SLC0078-CCBD	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLC0078-CCBD	Cadmium-111	0.00900	0.03	0.100	ug/L	
SLC0078-CCBD	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLC0078-CCBD	Copper-63	-0.00600	0.173	0.500	ug/L	
SLC0078-CCBD	Copper-65	0.00400	0.35	0.500	ug/L	
SLC0078-CCBD	Zinc-66	0.0370	2.92	6.00	ug/L	
SLC0078-CCBD	Zinc-67	-0.0280	0.94	6.00	ug/L	
SLC0078-CCBE	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLC0078-CCBE	Cadmium-111	-0.00700	0.03	0.100	ug/L	
SLC0078-CCBE	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLC0078-CCBE	Copper-63	-0.00900	0.173	0.500	ug/L	
SLC0078-CCBE	Copper-65	-0.00200	0.35	0.500	ug/L	
SLC0078-CCBE	Zinc-66	-0.0550	2.92	6.00	ug/L	
SLC0078-CCBE	Zinc-67	-0.154	0.94	6.00	ug/L	
SLC0078-CCBF	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLC0078-CCBF	Cadmium-111	-0.00400	0.03	0.100	ug/L	
SLC0078-CCBF	Cadmium-114	0.00300	0.04	0.100	ug/L	
SLC0078-CCBF	Copper-63	-0.00800	0.173	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Date Analyzed: 03/07/23 02:44

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0078-CCBF	Copper-65	0.00100	0.35	0.500	ug/L	
SLC0078-CCBF	Zinc-66	-0.0570	2.92	6.00	ug/L	
SLC0078-CCBF	Zinc-67	-0.151	0.94	6.00	ug/L	
SLC0078-CCBG	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLC0078-CCBG	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLC0078-CCBG	Cadmium-114	0.00	0.04	0.100	ug/L	
SLC0078-CCBG	Copper-63	-0.00500	0.173	0.500	ug/L	
SLC0078-CCBG	Copper-65	-0.00300	0.35	0.500	ug/L	
SLC0078-CCBG	Zinc-66	-0.0570	2.92	6.00	ug/L	
SLC0078-CCBG	Zinc-67	-0.162	0.94	6.00	ug/L	
SLC0078-CCBH	Arsenic-75a	-0.00100	0.0373	0.200	ug/L	
SLC0078-CCBH	Cadmium-111	0.00600	0.03	0.100	ug/L	
SLC0078-CCBH	Cadmium-114	-0.00300	0.04	0.100	ug/L	
SLC0078-CCBH	Copper-63	-0.00500	0.173	0.500	ug/L	
SLC0078-CCBH	Copper-65	-0.00500	0.35	0.500	ug/L	
SLC0078-CCBH	Zinc-66	-0.0800	2.92	6.00	ug/L	
SLC0078-CCBH	Zinc-67	-0.0680	0.94	6.00	ug/L	
SLC0078-CCBI	Arsenic-75a	-0.00500	0.0373	0.200	ug/L	
SLC0078-CCBI	Cadmium-111	0.00	0.03	0.100	ug/L	
SLC0078-CCBI	Cadmium-114	0.00500	0.04	0.100	ug/L	
SLC0078-CCBI	Copper-63	0.00	0.173	0.500	ug/L	
SLC0078-CCBI	Copper-65	-0.00500	0.35	0.500	ug/L	
SLC0078-CCBI	Zinc-66	-0.102	2.92	6.00	ug/L	
SLC0078-CCBI	Zinc-67	-0.113	0.94	6.00	ug/L	
SLC0078-IBLJ	Arsenic-75a	-0.00900	0.0373	0.200	ug/L	
SLC0078-IBLJ	Cadmium-111	-0.0100	0.03	0.100	ug/L	
SLC0078-IBLJ	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLC0078-IBLJ	Copper-63	0.00600	0.173	0.500	ug/L	
SLC0078-IBLJ	Copper-65	0.00200	0.35	0.500	ug/L	
SLC0078-IBLJ	Zinc-66	-0.0190	2.92	6.00	ug/L	
SLC0078-IBLJ	Zinc-67	-0.0040	0.94	6.00	ug/L	
SLC0078-CCBJ	Arsenic-75a	-0.00600	0.0373	0.200	ug/L	
SLC0078-CCBJ	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLC0078-CCBJ	Cadmium-114	-0.00200	0.04	0.100	ug/L	
SLC0078-CCBJ	Copper-63	-0.00500	0.173	0.500	ug/L	
SLC0078-CCBJ	Copper-65	-0.00700	0.35	0.500	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Date Analyzed: 03/07/23 05:53

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0078-CCBJ	Zinc-66	-0.108	2.92	6.00	ug/L	
SLC0078-CCBJ	Zinc-67	-0.0730	0.94	6.00	ug/L	
SLC0078-IBLK	Arsenic-75a	-0.0140	0.0373	0.200	ug/L	
SLC0078-IBLK	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLC0078-IBLK	Cadmium-114	0.00200	0.04	0.100	ug/L	
SLC0078-IBLK	Copper-63	0.00700	0.173	0.500	ug/L	
SLC0078-IBLK	Copper-65	-0.00800	0.35	0.500	ug/L	
SLC0078-IBLK	Zinc-66	-0.0230	2.92	6.00	ug/L	
SLC0078-IBLK	Zinc-67	-0.0170	0.94	6.00	ug/L	
SLC0078-CCBK	Arsenic-75a	0.00400	0.0373	0.200	ug/L	
SLC0078-CCBK	Cadmium-111	-0.00100	0.03	0.100	ug/L	
SLC0078-CCBK	Cadmium-114	-0.00900	0.04	0.100	ug/L	
SLC0078-CCBK	Copper-63	-0.00100	0.173	0.500	ug/L	
SLC0078-CCBK	Copper-65	-0.0100	0.35	0.500	ug/L	
SLC0078-CCBK	Zinc-66	-0.0960	2.92	6.00	ug/L	
SLC0078-CCBK	Zinc-67	-0.151	0.94	6.00	ug/L	
SLC0078-IBLM	Arsenic-75a	-0.0130	0.0373	0.200	ug/L	
SLC0078-IBLM	Cadmium-111	-0.00900	0.03	0.100	ug/L	
SLC0078-IBLM	Cadmium-114	0.00500	0.04	0.100	ug/L	
SLC0078-IBLM	Copper-63	0.00200	0.173	0.500	ug/L	
SLC0078-IBLM	Copper-65	0.00100	0.35	0.500	ug/L	
SLC0078-IBLM	Zinc-66	-0.0260	2.92	6.00	ug/L	
SLC0078-IBLM	Zinc-67	-0.0320	0.94	6.00	ug/L	
SLC0078-IBLL	Arsenic-75a	0.00200	0.0373	0.200	ug/L	
SLC0078-IBLL	Cadmium-111	0.0160	0.03	0.100	ug/L	
SLC0078-IBLL	Cadmium-114	-0.00100	0.04	0.100	ug/L	
SLC0078-IBLL	Copper-63	0.0130	0.173	0.500	ug/L	
SLC0078-IBLL	Copper-65	0.00500	0.35	0.500	ug/L	
SLC0078-IBLL	Zinc-66	-0.0240	2.92	6.00	ug/L	
SLC0078-IBLL	Zinc-67	-0.0640	0.94	6.00	ug/L	
SLC0078-CCBL	Arsenic-75a	-0.00300	0.0373	0.200	ug/L	
SLC0078-CCBL	Cadmium-111	0.00200	0.03	0.100	ug/L	
SLC0078-CCBL	Cadmium-114	0.00	0.04	0.100	ug/L	
SLC0078-CCBL	Copper-63	-0.00500	0.173	0.500	ug/L	
SLC0078-CCBL	Copper-65	-0.0100	0.35	0.500	ug/L	
SLC0078-CCBL	Zinc-66	-0.0810	2.92	6.00	ug/L	



INSTRUMENT BLANKS
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Date Analyzed: 03/07/23 07:30

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLC0078-CCBL	Zinc-67	-0.110	0.94	6.00	ug/L	



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0028

Instrument: ICPMS2

Calibration: GC00005

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLC0028-CAL1	XDT_m2230301-013	NA	03/01/23 16:36
CAL 1 - LOW CHECK	SLC0028-CAL2	XDT_m2230301-014	NA	03/01/23 16:41
CAL 2	SLC0028-CAL3	XDT_m2230301-015	NA	03/01/23 16:46
CAL 3	SLC0028-CAL4	XDT_m2230301-016	NA	03/01/23 16:51
CAL 4	SLC0028-CAL5	XDT_m2230301-017	NA	03/01/23 16:56
CAL 5	SLC0028-CAL6	XDT_m2230301-018	NA	03/01/23 17:03
RINSE	SLC0028-IBL1	XDT_m2230301-019	NA	03/01/23 17:11
Initial Cal Check	SLC0028-ICV1	XDT_m2230301-021	NA	03/01/23 17:23
Initial Cal Blank	SLC0028-ICB1	XDT_m2230301-022	NA	03/01/23 17:31
Calibration Check	SLC0028-CCV1	XDT_m2230301-023	NA	03/01/23 17:37
Calibration Blank	SLC0028-CCB1	XDT_m2230301-024	NA	03/01/23 17:44
Instrument RL Check	SLC0028-CRL1	XDT_m2230301-025	NA	03/01/23 17:49
Interference Check A	SLC0028-IFA1	XDT_m2230301-026	NA	03/01/23 17:55
Interference Check B	SLC0028-IFB1	XDT_m2230301-028	NA	03/01/23 18:08
LR200	SLC0028-HCV1	XDT_m2230301-029	NA	03/01/23 18:13
LR300	SLC0028-HCV2	XDT_m2230301-030	NA	03/01/23 18:18
Instrument Blank	SLC0028-IBL2	XDT_m2230301-031	NA	03/01/23 18:25
Instrument Blank	SLC0028-IBL3	XDT_m2230301-032	NA	03/01/23 18:32
Calibration Check	SLC0028-CCV2	XDT_m2230301-033	NA	03/01/23 18:39
Calibration Blank	SLC0028-CCB2	XDT_m2230301-035	NA	03/01/23 18:51
ZZZZZ	BLC0008-BLK1	XDT_m2230301-036	Water	03/01/23 19:00
ZZZZZ	BLC0008-BS1	XDT_m2230301-037	Water	03/01/23 19:05
Instrument Blank	SLC0028-IBL4	XDT_m2230301-042	NA	03/01/23 19:35
Instrument Blank	SLC0028-IBL5	XDT_m2230301-045	NA	03/01/23 19:50
Calibration Check	SLC0028-CCV3	XDT_m2230301-046	NA	03/01/23 19:56
Calibration Blank	SLC0028-CCB3	XDT_m2230301-047	NA	03/01/23 20:04
ZZZZZ	23B0501-01	XDT_m2230301-054	Water	03/01/23 20:38
ZZZZZ	BLC0008-DUP1	XDT_m2230301-055	Water	03/01/23 20:43
ZZZZZ	BLC0008-MS1	XDT_m2230301-056	Water	03/01/23 20:48



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0028

Instrument: ICPMS2

Calibration: GC00005

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Instrument Blank	SLC0028-IBL6	XDT_m2230301-057	NA	03/01/23 20:52
Calibration Check	SLC0028-CCV4	XDT_m2230301-058	NA	03/01/23 20:58
Calibration Blank	SLC0028-CCB4	XDT_m2230301-059	NA	03/01/23 21:06
Blank	BLB0518-BLK1	XDT_m2230301-060	Solid	03/01/23 21:11
LCS	BLB0518-BS1	XDT_m2230301-061	Solid	03/01/23 21:16
LDW23-IT1264	23A0032-02	XDT_m2230301-062	Solid	03/01/23 21:21
LDW23-IT1269	23A0032-03	XDT_m2230301-063	Solid	03/01/23 21:25
LDW23-IT1272	23A0032-04	XDT_m2230301-064	Solid	03/01/23 21:30
LDW23-IT1246	23A0032-01	XDT_m2230301-065	Solid	03/01/23 21:35
LDW23-IT1246	23A0032-01	XDT_m2230301-065	Solid	03/01/23 21:35
LDW23-IT1246	23A0032-01	XDT_m2230301-065	Solid	03/01/23 21:35
LDW23-IT1246	BLB0518-DUP1	XDT_m2230301-066	Solid	03/01/23 21:40
LDW23-IT1246	BLB0518-DUP1	XDT_m2230301-066	Solid	03/01/23 21:40
LDW23-IT1246	BLB0518-DUP1	XDT_m2230301-066	Solid	03/01/23 21:40
LDW23-IT1246	BLB0518-DUP1	XDT_m2230301-066	Solid	03/01/23 21:40
LDW23-IT1246	BLB0518-DUP1	XDT_m2230301-066	Solid	03/01/23 21:40
LDW23-IT1246	BLB0518-DUP1	XDT_m2230301-066	Solid	03/01/23 21:40
LDW23-IT1246	BLB0518-MS1	XDT_m2230301-067	Solid	03/01/23 21:45
LDW23-IT1246	BLB0518-MS1	XDT_m2230301-067	Solid	03/01/23 21:45
LDW23-IT1246	BLB0518-MS1	XDT_m2230301-067	Solid	03/01/23 21:45
LDW23-IT1246	BLB0518-MS1	XDT_m2230301-067	Solid	03/01/23 21:45
LDW23-IT1246	BLB0518-MS1	XDT_m2230301-067	Solid	03/01/23 21:45
LDW23-IT1246	BLB0518-MS1	XDT_m2230301-067	Solid	03/01/23 21:45
LDW23-IT1246	BLB0518-MSD1	XDT_m2230301-068	Solid	03/01/23 21:50
LDW23-IT1246	BLB0518-MSD1	XDT_m2230301-068	Solid	03/01/23 21:50
LDW23-IT1246	BLB0518-MSD1	XDT_m2230301-068	Solid	03/01/23 21:50
LDW23-IT1246	BLB0518-MSD1	XDT_m2230301-068	Solid	03/01/23 21:50
LDW23-IT1246	BLB0518-MSD1	XDT_m2230301-068	Solid	03/01/23 21:50
LDW23-IT1246	BLB0518-PS1	XDT_m2230301-069	Solid	03/01/23 21:54
LDW23-IT1246	BLB0518-PS1	XDT_m2230301-069	Solid	03/01/23 21:54
LDW23-IT1246	BLB0518-PS1	XDT_m2230301-069	Solid	03/01/23 21:54



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0028

Instrument: ICPMS2

Calibration: GC00005

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW23-IT1246	BLB0518-PS1	XDT_m2230301-069	Solid	03/01/23 21:54
LDW23-IT1246	BLB0518-PS1	XDT_m2230301-069	Solid	03/01/23 21:54
Calibration Check	SLC0028-CCV5	XDT_m2230301-070	NA	03/01/23 22:00
Calibration Blank	SLC0028-CCB5	XDT_m2230301-071	NA	03/01/23 22:08
Instrument Blank	SLC0028-IBL7	XDT_m2230301-080	NA	03/01/23 22:52
Calibration Check	SLC0028-CCV6	XDT_m2230301-081	NA	03/01/23 22:56
Calibration Blank	SLC0028-CCB6	XDT_m2230301-082	NA	03/01/23 23:04
Instrument Blank	SLC0028-IBL8	XDT_m2230301-088	NA	03/01/23 23:33
Calibration Check	SLC0028-CCV7	XDT_m2230301-089	NA	03/01/23 23:38
Calibration Blank	SLC0028-CCB7	XDT_m2230301-090	NA	03/01/23 23:46



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SLC0078-CAL1	XDT_m2230306-006	NA	03/06/23 13:12
CAL 1 - LOW CHECK	SLC0078-CAL2	XDT_m2230306-007	NA	03/06/23 13:16
CAL 2	SLC0078-CAL3	XDT_m2230306-008	NA	03/06/23 13:21
CAL 3	SLC0078-CAL4	XDT_m2230306-009	NA	03/06/23 13:25
CAL 4	SLC0078-CAL5	XDT_m2230306-010	NA	03/06/23 13:30
CAL 5	SLC0078-CAL6	XDT_m2230306-011	NA	03/06/23 13:37
RINSE	SLC0078-IBL1	XDT_m2230306-012	NA	03/06/23 13:44
Initial Cal Check	SLC0078-ICV1	XDT_m2230306-014	NA	03/06/23 13:53
Initial Cal Blank	SLC0078-ICB1	XDT_m2230306-015	NA	03/06/23 14:00
Calibration Check	SLC0078-CCV1	XDT_m2230306-016	NA	03/06/23 14:05
Calibration Blank	SLC0078-CCB1	XDT_m2230306-017	NA	03/06/23 14:12
Instrument RL Check	SLC0078-CRL1	XDT_m2230306-018	NA	03/06/23 14:16
Interference Check B	SLC0078-IFB1	XDT_m2230306-020	NA	03/06/23 14:25
LR200	SLC0078-HCV1	XDT_m2230306-021	NA	03/06/23 14:30
LR300	SLC0078-HCV2	XDT_m2230306-022	NA	03/06/23 14:34
Instrument Blank	SLC0078-IBL2	XDT_m2230306-023	NA	03/06/23 14:41
Interference Check A	SLC0078-IFA1	XDT_m2230306-024	NA	03/06/23 14:48
Instrument Blank	SLC0078-IBL3	XDT_m2230306-025	NA	03/06/23 14:52
Calibration Check	SLC0078-CCV2	XDT_m2230306-026	NA	03/06/23 14:59
Calibration Blank	SLC0078-CCB2	XDT_m2230306-027	NA	03/06/23 15:06
Calibration Check	SLC0078-CCV3	XDT_m2230306-029	NA	03/06/23 15:17
Calibration Blank	SLC0078-CCB3	XDT_m2230306-030	NA	03/06/23 15:24
ZZZZZ	BLC0008-BLK2	XDT_m2230306-031	Water	03/06/23 15:30
ZZZZZ	BLC0008-BS2	XDT_m2230306-032	Water	03/06/23 15:34
ZZZZZ	BLC0045-BLK1	XDT_m2230306-033	Water	03/06/23 15:38
ZZZZZ	BLC0045-BS1	XDT_m2230306-034	Water	03/06/23 15:43
Instrument Blank	SLC0078-IBL4	XDT_m2230306-040	NA	03/06/23 16:22
Calibration Check	SLC0078-CCV4	XDT_m2230306-041	NA	03/06/23 16:27
Calibration Blank	SLC0078-CCB4	XDT_m2230306-042	NA	03/06/23 16:34



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23B0501-01	XDT_m2230306_PRE-048	Water	03/06/23 17:02
ZZZZZ	BLC0008-DUP2	XDT_m2230306-049	Water	03/06/23 17:10
ZZZZZ	BLC0008-MS2	XDT_m2230306-050	Water	03/06/23 17:15
Instrument Blank	SLC0078-IBL5	XDT_m2230306-052	NA	03/06/23 17:25
Calibration Check	SLC0078-CCV5	XDT_m2230306-053	NA	03/06/23 17:30
Calibration Blank	SLC0078-CCB5	XDT_m2230306-054	NA	03/06/23 17:37
Calibration Check	SLC0078-CCV6	XDT_m2230306-065	NA	03/06/23 18:31
Calibration Blank	SLC0078-CCB6	XDT_m2230306-066	NA	03/06/23 18:39
ZZZZZ	23B0581-03	XDT_m2230306-071	Water	03/06/23 19:08
ZZZZZ	BLC0045-DUP1	XDT_m2230306-072	Water	03/06/23 19:13
ZZZZZ	BLC0045-MS1	XDT_m2230306-073	Water	03/06/23 19:18
Instrument Blank	SLC0078-IBL7	XDT_m2230306-076	NA	03/06/23 19:36
Calibration Check	SLC0078-CCV7	XDT_m2230306-077	NA	03/06/23 19:40
Calibration Blank	SLC0078-CCB7	XDT_m2230306-078	NA	03/06/23 19:47
ZZZZZ	BLB0508-BLK1	XDT_m2230306-079	Solid	03/06/23 19:52
ZZZZZ	BLB0508-BS1	XDT_m2230306-080	Solid	03/06/23 19:56
Blank	BLB0518-BLK2	XDT_m2230306-081	Solid	03/06/23 20:01
LCS	BLB0518-BS2	XDT_m2230306-082	Solid	03/06/23 20:05
LDW23-IT1246	23A0032-01	XDT_m2230306-083	Solid	03/06/23 20:10
LDW23-IT1246	BLB0518-DUP2	XDT_m2230306-084	Solid	03/06/23 20:14
LDW23-IT1246	BLB0518-DUP2	XDT_m2230306-084	Solid	03/06/23 20:14
LDW23-IT1246	BLB0518-MS2	XDT_m2230306-085	Solid	03/06/23 20:19
LDW23-IT1246	BLB0518-MS2	XDT_m2230306-085	Solid	03/06/23 20:19
LDW23-IT1246	BLB0518-MSD2	XDT_m2230306-086	Solid	03/06/23 20:23
LDW23-IT1246	BLB0518-MSD2	XDT_m2230306-086	Solid	03/06/23 20:23
Instrument Blank	SLC0078-IBL8	XDT_m2230306-088	NA	03/06/23 20:32
Calibration Check	SLC0078-CCV8	XDT_m2230306-089	NA	03/06/23 20:37
Calibration Blank	SLC0078-CCB8	XDT_m2230306-090	NA	03/06/23 20:44
ZZZZZ	BLB0615-BLK1	XDT_m2230306-093	Solid	03/06/23 20:57



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	BLB0615-BS1	XDT_m2230306-094	Solid	03/06/23 21:02
ZZZZZ	23A0031-02	XDT_m2230306-095	Solid	03/06/23 21:06
ZZZZZ	23A0031-02	XDT_m2230306-095	Solid	03/06/23 21:06
ZZZZZ	23A0031-02	XDT_m2230306-095	Solid	03/06/23 21:06
ZZZZZ	23A0031-02	XDT_m2230306-095	Solid	03/06/23 21:06
ZZZZZ	BLB0508-DUP1	XDT_m2230306-096	Solid	03/06/23 21:11
ZZZZZ	BLB0508-MS1	XDT_m2230306-097	Solid	03/06/23 21:15
ZZZZZ	BLB0508-MSD1	XDT_m2230306-098	Solid	03/06/23 21:19
Instrument Blank	SLC0078-IBL9	XDT_m2230306-100	NA	03/06/23 21:28
Calibration Check	SLC0078-CCV9	XDT_m2230306-101	NA	03/06/23 21:33
Calibration Blank	SLC0078-CCB9	XDT_m2230306-102	NA	03/06/23 21:40
ZZZZZ	23B0217-02	XDT_m2230306-109	Solid	03/06/23 22:12
ZZZZZ	23B0217-02	XDT_m2230306-109	Solid	03/06/23 22:12
ZZZZZ	23B0217-02	XDT_m2230306-109	Solid	03/06/23 22:12
ZZZZZ	23B0217-02	XDT_m2230306-109	Solid	03/06/23 22:12
ZZZZZ	BLB0615-DUP1	XDT_m2230306-110	Solid	03/06/23 22:17
ZZZZZ	BLB0615-MS1	XDT_m2230306-111	Solid	03/06/23 22:21
ZZZZZ	BLB0615-MSD1	XDT_m2230306-112	Solid	03/06/23 22:26
Calibration Check	SLC0078-CCVA	XDT_m2230306-113	NA	03/06/23 22:32
Calibration Blank	SLC0078-CCBA	XDT_m2230306-114	NA	03/06/23 22:39
Calibration Check	SLC0078-CCVB	XDT_m2230306-116	NA	03/06/23 22:48
Calibration Blank	SLC0078-CCBB	XDT_m2230306-117	NA	03/06/23 22:55
ZZZZZ	BLB0607-BLK1	XDT_m2230306-118	Solid	03/06/23 22:59
ZZZZZ	BLB0607-BS1	XDT_m2230306-119	Solid	03/06/23 23:04
ZZZZZ	BLB0607-SRL1	XDT_m2230306-120	Solid	03/06/23 23:08
ZZZZZ	23B0410-01	XDT_m2230306-121	Solid	03/06/23 23:13
ZZZZZ	23B0410-01	XDT_m2230306-121	Solid	03/06/23 23:13
ZZZZZ	23B0410-01	XDT_m2230306-121	Solid	03/06/23 23:13
ZZZZZ	23B0410-01	XDT_m2230306-121	Solid	03/06/23 23:13



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	BLB0607-DUP1	XDT_m2230306-122	Solid	03/06/23 23:17
ZZZZZ	BLB0607-MS1	XDT_m2230306-123	Solid	03/06/23 23:22
ZZZZZ	BLB0607-MSD1	XDT_m2230306-124	Solid	03/06/23 23:26
ZZZZZ	BLB0607-SRM1	XDT_m2230306-126	Solid	03/06/23 23:35
Instrument Blank	SLC0078-IBLC	XDT_m2230306-127	NA	03/06/23 23:40
Calibration Check	SLC0078-CCVC	XDT_m2230306-128	NA	03/06/23 23:44
Calibration Blank	SLC0078-CCBC	XDT_m2230306-129	NA	03/06/23 23:51
ZZZZZ	BLB0687-BLK1	XDT_m2230306-130	Solid	03/06/23 23:56
ZZZZZ	BLB0687-BS1	XDT_m2230306-131	Solid	03/07/23 00:00
ZZZZZ	BLB0687-SRL1	XDT_m2230306-132	Solid	03/07/23 00:05
ZZZZZ	23B0411-01	XDT_m2230306-133	Solid	03/07/23 00:09
ZZZZZ	23B0411-01	XDT_m2230306-133	Solid	03/07/23 00:09
ZZZZZ	23B0411-01	XDT_m2230306-133	Solid	03/07/23 00:09
ZZZZZ	23B0411-01	XDT_m2230306-133	Solid	03/07/23 00:09
ZZZZZ	BLB0687-DUP1	XDT_m2230306-134	Solid	03/07/23 00:14
ZZZZZ	BLB0687-MS1	XDT_m2230306-135	Solid	03/07/23 00:18
ZZZZZ	BLB0687-MSD1	XDT_m2230306-136	Solid	03/07/23 00:22
ZZZZZ	BLB0687-SRM1	XDT_m2230306-138	Solid	03/07/23 00:31
Instrument Blank	SLC0078-IBLD	XDT_m2230306-139	NA	03/07/23 00:36
Calibration Check	SLC0078-CCVD	XDT_m2230306-140	NA	03/07/23 00:40
Calibration Blank	SLC0078-CCBD	XDT_m2230306-141	NA	03/07/23 00:47
ZZZZZ	23A0031-01	XDT_m2230306-146	Solid	03/07/23 01:11
ZZZZZ	23A0031-01	XDT_m2230306-146	Solid	03/07/23 01:11
ZZZZZ	23A0031-01	XDT_m2230306-146	Solid	03/07/23 01:11
ZZZZZ	23A0031-01	XDT_m2230306-146	Solid	03/07/23 01:11
ZZZZZ	23A0031-03	XDT_m2230306-147	Solid	03/07/23 01:16
ZZZZZ	23A0031-03	XDT_m2230306-147	Solid	03/07/23 01:16
ZZZZZ	23A0031-03	XDT_m2230306-147	Solid	03/07/23 01:16
ZZZZZ	23A0031-03	XDT_m2230306-147	Solid	03/07/23 01:16



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0031-04	XDT_m2230306-148	Solid	03/07/23 01:20
ZZZZZ	23A0031-04	XDT_m2230306-148	Solid	03/07/23 01:20
ZZZZZ	23A0031-04	XDT_m2230306-148	Solid	03/07/23 01:20
ZZZZZ	23A0031-04	XDT_m2230306-148	Solid	03/07/23 01:20
ZZZZZ	23A0031-05	XDT_m2230306-149	Solid	03/07/23 01:25
ZZZZZ	23A0031-05	XDT_m2230306-149	Solid	03/07/23 01:25
ZZZZZ	23A0031-05	XDT_m2230306-149	Solid	03/07/23 01:25
ZZZZZ	23A0031-05	XDT_m2230306-149	Solid	03/07/23 01:25
ZZZZZ	23A0031-06	XDT_m2230306-150	Solid	03/07/23 01:29
ZZZZZ	23A0031-06	XDT_m2230306-150	Solid	03/07/23 01:29
ZZZZZ	23A0031-06	XDT_m2230306-150	Solid	03/07/23 01:29
ZZZZZ	23A0031-06	XDT_m2230306-150	Solid	03/07/23 01:29
ZZZZZ	23A0031-07	XDT_m2230306-151	Solid	03/07/23 01:34
ZZZZZ	23A0031-07	XDT_m2230306-151	Solid	03/07/23 01:34
ZZZZZ	23A0031-07	XDT_m2230306-151	Solid	03/07/23 01:34
ZZZZZ	23A0031-07	XDT_m2230306-151	Solid	03/07/23 01:34
Calibration Check	SLC0078-CCVE	XDT_m2230306-152	NA	03/07/23 01:39
Calibration Blank	SLC0078-CCBE	XDT_m2230306-153	NA	03/07/23 01:47
ZZZZZ	23A0031-08	XDT_m2230306-154	Solid	03/07/23 01:51
ZZZZZ	23A0031-08	XDT_m2230306-154	Solid	03/07/23 01:51
ZZZZZ	23A0031-08	XDT_m2230306-154	Solid	03/07/23 01:51
ZZZZZ	23A0031-08	XDT_m2230306-154	Solid	03/07/23 01:51
ZZZZZ	23A0031-09	XDT_m2230306-155	Solid	03/07/23 01:56
ZZZZZ	23A0031-09	XDT_m2230306-155	Solid	03/07/23 01:56
ZZZZZ	23A0031-09	XDT_m2230306-155	Solid	03/07/23 01:56
ZZZZZ	23A0031-09	XDT_m2230306-155	Solid	03/07/23 01:56
ZZZZZ	23A0031-10	XDT_m2230306-156	Solid	03/07/23 02:00
ZZZZZ	23A0031-10	XDT_m2230306-156	Solid	03/07/23 02:00
ZZZZZ	23A0031-10	XDT_m2230306-156	Solid	03/07/23 02:00



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23A0031-10	XDT_m2230306-156	Solid	03/07/23 02:00
ZZZZZ	23A0031-11	XDT_m2230306-157	Solid	03/07/23 02:04
ZZZZZ	23A0031-11	XDT_m2230306-157	Solid	03/07/23 02:04
ZZZZZ	23A0031-11	XDT_m2230306-157	Solid	03/07/23 02:04
ZZZZZ	23A0031-11	XDT_m2230306-157	Solid	03/07/23 02:04
ZZZZZ	23A0031-12	XDT_m2230306-158	Solid	03/07/23 02:09
ZZZZZ	23A0031-12	XDT_m2230306-158	Solid	03/07/23 02:09
ZZZZZ	23A0031-12	XDT_m2230306-158	Solid	03/07/23 02:09
ZZZZZ	23A0031-12	XDT_m2230306-158	Solid	03/07/23 02:09
ZZZZZ	23A0031-13	XDT_m2230306-159	Solid	03/07/23 02:13
ZZZZZ	23A0031-13	XDT_m2230306-159	Solid	03/07/23 02:13
ZZZZZ	23A0031-13	XDT_m2230306-159	Solid	03/07/23 02:13
ZZZZZ	23A0031-13	XDT_m2230306-159	Solid	03/07/23 02:13
ZZZZZ	23A0031-14	XDT_m2230306-160	Solid	03/07/23 02:18
ZZZZZ	23A0031-14	XDT_m2230306-160	Solid	03/07/23 02:18
ZZZZZ	23A0031-14	XDT_m2230306-160	Solid	03/07/23 02:18
ZZZZZ	23A0031-14	XDT_m2230306-160	Solid	03/07/23 02:18
ZZZZZ	23A0031-15	XDT_m2230306-161	Solid	03/07/23 02:22
ZZZZZ	23A0031-15	XDT_m2230306-161	Solid	03/07/23 02:22
ZZZZZ	23A0031-15	XDT_m2230306-161	Solid	03/07/23 02:22
ZZZZZ	23A0031-15	XDT_m2230306-161	Solid	03/07/23 02:22
ZZZZZ	23A0031-16	XDT_m2230306-162	Solid	03/07/23 02:27
ZZZZZ	23A0031-16	XDT_m2230306-162	Solid	03/07/23 02:27
ZZZZZ	23A0031-16	XDT_m2230306-162	Solid	03/07/23 02:27
ZZZZZ	23A0031-16	XDT_m2230306-162	Solid	03/07/23 02:27
ZZZZZ	23A0031-17	XDT_m2230306-163	Solid	03/07/23 02:31
ZZZZZ	23A0031-17	XDT_m2230306-163	Solid	03/07/23 02:31
ZZZZZ	23A0031-17	XDT_m2230306-163	Solid	03/07/23 02:31
ZZZZZ	23A0031-17	XDT_m2230306-163	Solid	03/07/23 02:31



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SLC0078-CCVF	XDT_m2230306-164	NA	03/07/23 02:37
Calibration Blank	SLC0078-CCBF	XDT_m2230306-165	NA	03/07/23 02:44
ZZZZZ	23A0031-18	XDT_m2230306-166	Solid	03/07/23 02:49
ZZZZZ	23A0031-18	XDT_m2230306-166	Solid	03/07/23 02:49
ZZZZZ	23A0031-18	XDT_m2230306-166	Solid	03/07/23 02:49
ZZZZZ	23A0031-18	XDT_m2230306-166	Solid	03/07/23 02:49
ZZZZZ	23A0031-19	XDT_m2230306-167	Solid	03/07/23 02:53
ZZZZZ	23A0031-19	XDT_m2230306-167	Solid	03/07/23 02:53
ZZZZZ	23A0031-19	XDT_m2230306-167	Solid	03/07/23 02:53
ZZZZZ	23A0031-19	XDT_m2230306-167	Solid	03/07/23 02:53
ZZZZZ	23A0031-20	XDT_m2230306-168	Solid	03/07/23 02:58
ZZZZZ	23A0031-20	XDT_m2230306-168	Solid	03/07/23 02:58
ZZZZZ	23A0031-20	XDT_m2230306-168	Solid	03/07/23 02:58
ZZZZZ	23A0031-20	XDT_m2230306-168	Solid	03/07/23 02:58
ZZZZZ	23A0031-21	XDT_m2230306-169	Solid	03/07/23 03:02
ZZZZZ	23A0031-21	XDT_m2230306-169	Solid	03/07/23 03:02
ZZZZZ	23A0031-21	XDT_m2230306-169	Solid	03/07/23 03:02
ZZZZZ	23A0031-21	XDT_m2230306-169	Solid	03/07/23 03:02
LDW23-IT1224	23A0032-05	XDT_m2230306-170	Solid	03/07/23 03:06
LDW23-IT1224	23A0032-05	XDT_m2230306-170	Solid	03/07/23 03:06
LDW23-IT1224	23A0032-05	XDT_m2230306-170	Solid	03/07/23 03:06
LDW23-IT1224	23A0032-05	XDT_m2230306-170	Solid	03/07/23 03:06
LDW23-IT1235	23A0032-06	XDT_m2230306-171	Solid	03/07/23 03:11
LDW23-IT1202	23A0032-07	XDT_m2230306-172	Solid	03/07/23 03:15
LDW23-SC1226B	23A0032-08	XDT_m2230306-173	Solid	03/07/23 03:20
LDW23-SC1226B	23A0032-08	XDT_m2230306-173	Solid	03/07/23 03:20
LDW23-SC1226B	23A0032-08	XDT_m2230306-173	Solid	03/07/23 03:20
LDW23-SC1226B	23A0032-08	XDT_m2230306-173	Solid	03/07/23 03:20
LDW23-SC1212	23A0032-11	XDT_m2230306-174	Solid	03/07/23 03:24



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW23-SC1212	23A0032-11	XDT_m2230306-174	Solid	03/07/23 03:24
LDW23-SC1212	23A0032-11	XDT_m2230306-174	Solid	03/07/23 03:24
LDW23-SC1212	23A0032-11	XDT_m2230306-174	Solid	03/07/23 03:24
ZZZZZ	23B0276-01	XDT_m2230306-175	Solid	03/07/23 03:29
ZZZZZ	23B0276-01	XDT_m2230306-175	Solid	03/07/23 03:29
ZZZZZ	23B0276-01	XDT_m2230306-175	Solid	03/07/23 03:29
ZZZZZ	23B0276-01	XDT_m2230306-175	Solid	03/07/23 03:29
Calibration Check	SLC0078-CCVG	XDT_m2230306-176	NA	03/07/23 03:35
Calibration Blank	SLC0078-CCBG	XDT_m2230306-177	NA	03/07/23 03:42
Calibration Check	SLC0078-CCVH	XDT_m2230306-179	NA	03/07/23 03:51
Calibration Blank	SLC0078-CCBH	XDT_m2230306-180	NA	03/07/23 03:58
ZZZZZ	23A0171-01	XDT_m2230306-184	Solid	03/07/23 04:17
ZZZZZ	23A0171-01	XDT_m2230306-184	Solid	03/07/23 04:17
ZZZZZ	23A0171-01	XDT_m2230306-184	Solid	03/07/23 04:17
ZZZZZ	23A0171-01	XDT_m2230306-184	Solid	03/07/23 04:17
ZZZZZ	23A0171-02	XDT_m2230306-185	Solid	03/07/23 04:21
ZZZZZ	23A0171-02	XDT_m2230306-185	Solid	03/07/23 04:21
ZZZZZ	23A0171-02	XDT_m2230306-185	Solid	03/07/23 04:21
ZZZZZ	23A0171-02	XDT_m2230306-185	Solid	03/07/23 04:21
ZZZZZ	23A0171-03	XDT_m2230306-186	Solid	03/07/23 04:26
ZZZZZ	23A0171-03	XDT_m2230306-186	Solid	03/07/23 04:26
ZZZZZ	23A0171-03	XDT_m2230306-186	Solid	03/07/23 04:26
ZZZZZ	23A0171-03	XDT_m2230306-186	Solid	03/07/23 04:26
ZZZZZ	23A0171-04	XDT_m2230306-187	Solid	03/07/23 04:30
ZZZZZ	23A0171-04	XDT_m2230306-187	Solid	03/07/23 04:30
ZZZZZ	23A0171-04	XDT_m2230306-187	Solid	03/07/23 04:30
ZZZZZ	23A0171-04	XDT_m2230306-187	Solid	03/07/23 04:30
ZZZZZ	23B0051-01	XDT_m2230306-188	Solid	03/07/23 04:35
ZZZZZ	23B0051-01	XDT_m2230306-188	Solid	03/07/23 04:35



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	23B0051-01	XDT_m2230306-188	Solid	03/07/23 04:35
ZZZZZ	23B0051-01	XDT_m2230306-188	Solid	03/07/23 04:35
ZZZZZ	23B0051-02	XDT_m2230306-189	Solid	03/07/23 04:39
ZZZZZ	23B0051-02	XDT_m2230306-189	Solid	03/07/23 04:39
ZZZZZ	23B0051-02	XDT_m2230306-189	Solid	03/07/23 04:39
ZZZZZ	23B0051-02	XDT_m2230306-189	Solid	03/07/23 04:39
ZZZZZ	23B0051-02	XDT_m2230306-189	Solid	03/07/23 04:39
ZZZZZ	23B0051-03	XDT_m2230306-190	Solid	03/07/23 04:44
ZZZZZ	23B0051-03	XDT_m2230306-190	Solid	03/07/23 04:44
ZZZZZ	23B0051-03	XDT_m2230306-190	Solid	03/07/23 04:44
ZZZZZ	23B0051-03	XDT_m2230306-190	Solid	03/07/23 04:44
ZZZZZ	23B0051-03	XDT_m2230306-190	Solid	03/07/23 04:44
Calibration Check	SLC0078-CCVI	XDT_m2230306-191	NA	03/07/23 04:50
Calibration Blank	SLC0078-CCBI	XDT_m2230306-192	NA	03/07/23 04:57
ZZZZZ	23B0217-03	XDT_m2230306-193	Solid	03/07/23 05:01
ZZZZZ	23B0217-03	XDT_m2230306-193	Solid	03/07/23 05:01
ZZZZZ	23B0217-03	XDT_m2230306-193	Solid	03/07/23 05:01
ZZZZZ	23B0217-03	XDT_m2230306-193	Solid	03/07/23 05:01
ZZZZZ	23B0217-04	XDT_m2230306-194	Solid	03/07/23 05:06
ZZZZZ	23B0217-04	XDT_m2230306-194	Solid	03/07/23 05:06
ZZZZZ	23B0217-04	XDT_m2230306-194	Solid	03/07/23 05:06
ZZZZZ	23B0217-04	XDT_m2230306-194	Solid	03/07/23 05:06
ZZZZZ	23B0217-05	XDT_m2230306-195	Solid	03/07/23 05:10
ZZZZZ	23B0217-05	XDT_m2230306-195	Solid	03/07/23 05:10
ZZZZZ	23B0217-05	XDT_m2230306-195	Solid	03/07/23 05:10
ZZZZZ	23B0217-05	XDT_m2230306-195	Solid	03/07/23 05:10
ZZZZZ	23B0217-06	XDT_m2230306-196	Solid	03/07/23 05:15
ZZZZZ	23B0217-06	XDT_m2230306-196	Solid	03/07/23 05:15
ZZZZZ	23B0217-06	XDT_m2230306-196	Solid	03/07/23 05:15
ZZZZZ	23B0217-06	XDT_m2230306-196	Solid	03/07/23 05:15
Instrument Blank	SLC0078-IBLJ	XDT_m2230306-202	NA	03/07/23 05:42



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLC0078

Instrument: ICPMS1

Calibration: GC00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SLC0078-CCVJ	XDT_m2230306-203	NA	03/07/23 05:46
Calibration Blank	SLC0078-CCBJ	XDT_m2230306-204	NA	03/07/23 05:53
Instrument Blank	SLC0078-IBLK	XDT_m2230306-214	NA	03/07/23 06:40
Calibration Check	SLC0078-CCVK	XDT_m2230306-215	NA	03/07/23 06:44
Calibration Blank	SLC0078-CCBK	XDT_m2230306-216	NA	03/07/23 06:51
Instrument Blank	SLC0078-IBLM	XDT_m2230306-219	NA	03/07/23 07:05
ZZZZZ	23B0581-02	XDT_m2230306-220	Water	03/07/23 07:09
ZZZZZ	23B0581-01	XDT_m2230306-221	Water	03/07/23 07:13
Instrument Blank	SLC0078-IBLL	XDT_m2230306-222	NA	03/07/23 07:18
Calibration Check	SLC0078-CCVL	XDT_m2230306-223	NA	03/07/23 07:22
Calibration Blank	SLC0078-CCBL	XDT_m2230306-224	NA	03/07/23 07:30



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS2

Calibration: GC00005

Sequence: SLC0028

Standard ID: L002006

Lab Sample ID	Analyte	True	Found	%R	Units
SLC0028-IFA1	Arsenic-75a	0	0.0350		ug/L
	Copper-63	0	0.0740		ug/L
	Copper-65	0	0.0630		ug/L
	Zinc-66	0	0.3380		ug/L
	Zinc-67	0	0.2180		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS2

Calibration: GC00005

Sequence: SLC0028

Standard ID: L002006

Lab Sample ID	Analyte	True	Found	%R	Units
SLC0028-IFB1	Arsenic-75a	20.000	18.233	91.2	ug/L
	Copper-63	20.000	19.273	96.4	ug/L
	Copper-65	20.000	19.304	96.5	ug/L
	Zinc-66	20.000	19.020	95.1	ug/L
	Zinc-67	20.000	16.721	83.6	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Standard ID: L002006

Lab Sample ID	Analyte	True	Found	%R	Units
SLC0078-IFA1	Arsenic-75a	0	0.0290		ug/L
	Cadmium-111	0	0.0560		ug/L
	Cadmium-114	0	0.0670		ug/L
	Copper-63	0	0.0410		ug/L
	Copper-65	0	0.0590		ug/L
	Zinc-66	0	0.4340		ug/L
	Zinc-67	0	0.4500		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



ICP INTERFERENCE CHECK SAMPLE
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Standard ID: L002006

Lab Sample ID	Analyte	True	Found	%R	Units
SLC0078-IFB1	Arsenic-75a	20.000	19.173	95.9	ug/L
	Cadmium-111	20.000	19.158	95.8	ug/L
	Cadmium-114	20.000	18.639	93.2	ug/L
	Copper-63	20.000	19.518	97.6	ug/L
	Copper-65	20.000	19.600	98.0	ug/L
	Zinc-66	20.000	18.722	93.6	ug/L
	Zinc-67	20.000	16.965	84.8	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.



DETECTION LEVEL STANDARD
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS2

Calibration: GC00005

Sequence: SLC0028

Lab Sample ID: SLC0028-CRL1

Analyte	True	Found	%R	Units	QC Limits
Arsenic-75a	0.20000	0.185	92.5	ug/L	50 - 150
Copper-63	0.50000	0.492	98.4	ug/L	50 - 150
Copper-65	0.50000	0.460	92.0	ug/L	50 - 150
Zinc-66	6.0000	6.17	103	ug/L	50 - 150
Zinc-67	6.0000	5.40	89.9	ug/L	50 - 150

* Values outside of QC limits



DETECTION LEVEL STANDARD
EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: ICPMS1

Calibration: GC00021

Sequence: SLC0078

Lab Sample ID: SLC0078-CRL1

Analyte	True	Found	%R	Units	QC Limits
Arsenic-75a	0.20000	0.185	92.5	ug/L	50 - 150
Cadmium-111	0.10000	0.0960	96.0	ug/L	50 - 150
Cadmium-114	0.10000	0.108	108	ug/L	50 - 150
Copper-63	0.50000	0.483	96.6	ug/L	50 - 150
Copper-65	0.50000	0.483	96.6	ug/L	50 - 150
Zinc-66	6.0000	6.04	101	ug/L	50 - 150
Zinc-67	6.0000	5.58	93.0	ug/L	50 - 150

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GC00005

Laboratory ID: SLC0028-HCV1

Sequence: SLC0028

Standard ID: L002008

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	200.00	201	0.6	10.00
Copper-63	200.00	199	-0.4	10.00
Copper-65	200.00	202	1.2	10.00
Zinc-66	200.00	200	-0.09	10.00
Zinc-67	200.00	198	-0.9	10.00

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION**

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GC00005

Laboratory ID: SLC0028-HCV2

Sequence: SLC0028

Standard ID: L002009

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	300.00	287	-4.3	10.00
Copper-63	300.00	285	-4.9	10.00
Copper-65	300.00	285	-5.1	10.00
Zinc-66	300.00	278	-7.4	10.00
Zinc-67	300.00	276	-7.8	10.00

* Values outside of QC limits



**HIGH-CONCENTRATION
CALIBRATION VERIFICATION
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GC00021

Laboratory ID: SLC0078-HCV1

Sequence: SLC0078

Standard ID: L002008

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	200.00	198	-0.9	10.00
Cadmium-111	200.00	197	-1.3	10.00
Cadmium-114	200.00	197	-1.7	10.00
Copper-63	200.00	186	-7.2	10.00
Copper-65	200.00	188	-5.9	10.00
Zinc-66	200.00	189	-5.6	10.00
Zinc-67	200.00	187	-6.3	10.00

* Values outside of QC limits



HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GC00021

Laboratory ID: SLC0078-HCV2

Sequence: SLC0078

Standard ID: L002009

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a	300.00	296	-1.2	10.00
Cadmium-111	300.00	289	-3.5	10.00
Cadmium-114	300.00	287	-4.3	10.00
Copper-63	300.00	279	-6.8	10.00
Copper-65	300.00	282	-5.8	10.00
Zinc-66	300.00	277	-7.6	10.00
Zinc-67	300.00	276	-8.0	10.00

* Values outside of QC limits



HOLDING TIME SUMMARY

Analysis: EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-IT1246 23A0032-01	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/01/23 21:35	58	180	
LDW23-IT1246 23A0032-01	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/06/23 20:10	62	180	
LDW23-IT1246 23A0032-01	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	365	03/01/23 21:35	58	365	
LDW23-IT1264 23A0032-02	01/03/23 09:12	01/03/23 16:57	02/24/23 16:23	52	365	03/01/23 21:21	58	365	
LDW23-IT1269 23A0032-03	01/03/23 09:36	01/03/23 16:57	02/24/23 16:23	52	365	03/01/23 21:25	57	365	
LDW23-IT1272 23A0032-04	01/03/23 10:45	01/03/23 16:57	02/24/23 16:23	52	365	03/01/23 21:30	57	365	
LDW23-IT1224 23A0032-05	01/03/23 13:21	01/03/23 16:57	02/24/23 16:23	52	365	03/07/23 03:06	63	365	
LDW23-IT1235 23A0032-06	01/03/23 13:34	01/03/23 16:57	02/24/23 16:23	52	365	03/07/23 03:11	63	365	
LDW23-IT1202 23A0032-07	01/03/23 14:36	01/03/23 16:57	02/24/23 16:23	52	365	03/07/23 03:15	63	365	
LDW23-SC1226B 23A0032-08	01/03/23 12:35	01/03/23 16:57	02/24/23 16:23	52	365	03/07/23 03:20	63	365	
LDW23-SC1212 23A0032-11	01/03/23 14:01	01/03/23 16:57	02/24/23 16:23	52	365	03/07/23 03:24	63	365	
Duplicate BLB0518-DUP1	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/01/23 21:40	58	180	
Duplicate BLB0518-DUP1	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	365	03/01/23 21:40	58	365	
Duplicate BLB0518-DUP2	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/06/23 20:14	62	180	
Matrix Spike BLB0518-MS1	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	365	03/01/23 21:45	58	365	
Matrix Spike BLB0518-MS1	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/01/23 21:45	58	180	
Matrix Spike BLB0518-MS2	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/06/23 20:19	62	180	
Matrix Spike Dup BLB0518-MSD1	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	365	03/01/23 21:50	58	365	
Matrix Spike Dup BLB0518-MSD1	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/01/23 21:50	58	180	
Matrix Spike Dup BLB0518-MSD2	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/06/23 20:23	62	180	
Post Spike BLB0518-PS1	01/03/23 08:52	01/03/23 16:57	02/24/23 16:23	52	180	03/01/23 21:54	58	180	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS
EPA 6020B UCT-KED**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: ICPMS1

Analyte	MDL	RL	Units
Arsenic-75a	0.04	0.20	mg/kg
Cadmium-111	0.03	0.10	mg/kg
Cadmium-114	0.04	0.10	mg/kg
Copper-63	0.17	0.50	mg/kg
Copper-65	0.35	0.50	mg/kg
Zinc-66	2.9	6.0	mg/kg
Zinc-67	0.9	6.0	mg/kg



**METHOD DETECTION
AND REPORTING LIMITS**

EPA 6020B UCT-KED

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor OEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: ICPMS2

Analyte	MDL	RL	Units
Arsenic-75a	0.04	0.20	mg/kg
Copper-63	0.17	0.50	mg/kg
Copper-65	0.35	0.50	mg/kg
Zinc-66	2.9	6.0	mg/kg
Zinc-67	0.9	6.0	mg/kg

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGCU10
 Lot Number: P2-CU682108
 Matrix: 3% (v/v) HNO₃
 Value / Analyte(s): 10 000 µg/mL ea:
 Copper
 Starting Material: Cu Metal
 Starting Material Lot#: 2095
 Starting Material Purity: 99.9996%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10013 ± 30 µg/mL
Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9977 ± 50 µg/mL ICP Assay NIST SRM 3114 Lot Number: 121207
Assay Method #2	10024 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10007 ± 46 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.007542	M Eu < 0.000942	O Na < 0.001434	M Se < 0.016971	M Zn < 0.005657
O Al < 0.000609	O Fe < 0.008700	M Nb < 0.000942	O Si < 0.003052	M Zr < 0.000942
M As < 0.010371	M Ga < 0.000942	M Nd < 0.000942	M Sm < 0.000942	
M Au < 0.001885	M Gd < 0.000942	M Ni < 0.003781	M Sn < 0.005657	
O B < 0.003663	M Ge < 0.005657	M Os < 0.000942	M Sr < 0.000942	
M Ba < 0.004253	M Hf < 0.000942	O P < 0.031668	M Ta < 0.000942	
M Be < 0.000942	O Hg < 0.007064	M Pb < 0.005789	M Tb < 0.000942	
M Bi < 0.000942	M Ho < 0.000942	M Pd < 0.000942	M Te < 0.004714	
O Ca < 0.002304	M In < 0.000942	M Pr < 0.000942	M Th < 0.000942	
M Cd < 0.000942	M Ir < 0.000942	M Pt < 0.000942	O Ti < 0.002801	
M Ce < 0.000942	O K < 0.000763	M Rb < 0.000942	M Tl < 0.000942	
M Co < 0.001890	M La < 0.000942	M Re < 0.000942	M Tm < 0.000942	
M Cr < 0.005657	O Li < 0.000243	i Rh <	M U < 0.000942	
M Cs < 0.000942	M Lu < 0.000942	M Ru < 0.039588	M V < 0.003771	
s Cu <	O Mg < 0.000320	O S < 0.007174	M W < 0.005657	
M Dy < 0.000942	O Mn < 0.000793	M Sb < 0.001885	M Y < 0.000942	
M Er < 0.000942	M Mo < 0.005657	M Sc < 0.000942	M Yb < 0.000942	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 63.55 +2 6 Cu(H₂O)₆2+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Cu Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 63 amu	10 ppt	n/a	40Ar23Na 47Ti16O, 14N12C37Cl, 16O12C35Cl, 23Na40Ca
ICP-OES 219.958 nm	0.01/.002 µg/mL	1	Th, Ta, Nb, U, Hf
ICP-OES 224.700 nm	0.01/.001 µg/mL	1	Pb, Ir, Ni, W
ICP-OES 324.754 nm	0.06/.001 µg/mL		Nb, U, Th, Mo, Hf

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 24, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 24, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGPB10
Lot Number: S2-PB713228
Matrix: 0.5% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Lead
Starting Material: Lead Nitrate
Starting Material Lot#: 2343
Starting Material Purity: 99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10042 ± 31 µg/mL
Density: 1.015 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10024 ± 41 µg/mL**
ICP Assay NIST SRM 3128 Lot Number: 101026

Assay Method #2 **10054 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000310	M Eu < 0.000310	M Na < 0.001470	M Se < 0.009100	O Zn < 0.006155
O Al < 0.017098	O Fe < 0.002496	M Nb < 0.000310	O Si < 0.003761	O Zr < 0.001700
M As < 0.003100	M Ga < 0.000310	M Nd < 0.000310	M Sm < 0.000310	
M Au < 0.000910	M Gd < 0.000310	O Ni < 0.001709	M Sn < 0.001300	
O B < 0.005600	M Ge < 0.002200	M Os < 0.000310	O Sr < 0.000444	
O Ba < 0.007865	M Hf < 0.000310	O P < 0.038000	M Ta < 0.000310	
O Be < 0.000320	M Hg < 0.002200	s Pb < 0.000610	M Tb < 0.000610	
M Bi < 0.028000	M Ho < 0.000310	M Pd < 0.000610	M Te < 0.000310	
O Ca < 0.019834	M In < 0.000310	M Pr < 0.000310	M Th < 0.000310	
O Cd < 0.000630	M Ir < 0.000310	M Pt < 0.000910	O Ti < 0.005129	
M Ce < 0.004787	O K < 0.008207	M Rb < 0.006700	M Tl < 0.016000	
M Co < 0.000610	M La < 0.001900	M Re < 0.000310	M Tm < 0.000310	
O Cr < 0.001500	O Li < 0.000110	O Rh < 0.007700	M U < 0.000310	
M Cs < 0.006100	M Lu < 0.000310	M Ru < 0.001300	M V < 0.001600	
M Cu < 0.001600	O Mg < 0.003317	O S < 0.052000	M W < 0.000910	
M Dy < 0.000310	O Mn < 0.001600	O Sb < 0.015000	M Y < 0.000310	
M Er < 0.000310	M Mo < 0.000610	O Sc < 0.000630	M Yb < 0.000310	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 207.20 +2 6 Pb(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, HF and HNO₃. Avoid H₂SO₄. Stable with most metals and inorganic anions forming insoluble carbonate, borate, sulfate, sulfite, sulfide, phosphate, oxalate, chromate, tannate, iodate, and cyanide in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Pb Containing Samples (Preparation and Solution) -Metal (Best dissolved in 1:1 H₂O / HNO₃); Oxides (The many different Pb oxides are soluble in HNO₃ with the exception of PbO₂ which is soluble in HCl or HF); Ores and Alloys (Best attacked using 1:1 H₂O / HNO₃); Organic Matrices (Dry ash and dissolve in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 208 amu	5 ppt	n/a	192Pt16O, 192Os16O
ICP-OES 168.215 nm	0.03 / 0.003 µg/mL	1	Co
ICP-OES 217.000 nm	0.09 / 0.03 µg/mL	1	W, Ir, Hf, Sb, Th
ICP-OES 220.353 nm	0.04 / 0.006 µg/mL	1	Bi, Nb

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGZN10
Lot Number: S2-ZN711249
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Zinc
Starting Material: Zinc Metal
Starting Material Lot#: 2349
Starting Material Purity: 99.9988%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL
Density: 1.029 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9981 ± 56 µg/mL ICP Assay NIST SRM 3168a Lot Number: 120629
Assay Method #2	9987 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10002 ± 32 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.002000	M Eu < 0.000500	O Na < 0.008713	M Se < 0.048000	s Zn <
O Al < 0.011000	O Fe < 0.015467	M Nb < 0.000500	O Si < 0.007842	M Zr < 0.000500
O As < 0.012000	M Ga < 0.004900	M Nd < 0.000500	M Sm < 0.000500	
M Au < 0.006500	M Gd < 0.000500	O Ni < 0.003049	M Sn < 0.002614	
O B < 0.019000	M Ge < 0.009100	M Os < 0.000500	M Sr < 0.000500	
M Ba < 0.000500	M Hf < 0.000500	O P < 0.059000	M Ta < 0.000500	
O Be < 0.000230	O Hg < 0.003800	M Pb < 0.016774	M Tb < 0.000500	
M Bi < 0.002400	M Ho < 0.000500	M Pd < 0.001000	M Te < 0.017000	
O Ca < 0.052283	M In < 0.003500	M Pr < 0.000500	M Th < 0.000500	
O Cd < 0.000588	M Ir < 0.001000	M Pt < 0.000500	M Ti < 0.002000	
M Ce < 0.000500	O K < 0.017209	M Rb < 0.002500	M Tl < 0.000500	
M Co < 0.000653	M La < 0.000500	M Re < 0.000500	M Tm < 0.000500	
O Cr < 0.001089	O Li < 0.000230	M Rh < 0.000500	M U < 0.000500	
M Cs < 0.000500	M Lu < 0.000500	M Ru < 0.005000	M V < 0.000500	
O Cu < 0.001938	O Mg < 0.000871	O S < 0.048000	M W < 0.001000	
M Dy < 0.000500	O Mn < 0.000172	M Sb < 0.004300	M Y < 0.000500	
M Er < 0.000500	M Mo < 0.001500	O Sc < 0.000900	M Yb < 0.000500	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 65.39 +2 4 Zn(OH)(aq)1+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media forming insoluble carbonate and hydroxide. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Zn Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃); Organic based (dry ash at 4500C and dissolve ash in HCl) (sulfuric/peroxide acid digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 66 amu	7 ppt	N/A	50Ti16O,50Cr16O, 50V16O, 34S16O2, 32S16O18O, 32S17O2, 33S16O17O, 32S34S, 33S2
ICP-OES 202.548 nm	0.004/0.0002 µg/mL	1	Nb, Cu, Co, Hf
ICP-OES 206.200 nm	0.006/0.0006 µg/mL	1	Sb, Ta, Bi, Os
ICP-OES 213.856 nm	0.002/0.0004 µg/mL	1	Ni, Cu, V

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 22, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGSE10
Lot Number: S2-SE711004
Matrix: 3% (v/v) HNO3
Value / Analyte(s): 10 000 µg/mL ea:
Selenium
Starting Material: Se Metal
Starting Material Lot#: 1962
Starting Material Purity: 99.9991%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9955 ± 61 µg/mL
Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **9955 ± 50 µg/mL**
ICP Assay NIST SRM 3149 Lot Number: 100901

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/(u_{char i}^2)))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 u_{char} = $[\sum((w_i)^2 (u_{char i})^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.002242	M	Eu <	0.000373	O Na	0.013654	s	Se <		O Zn	0.002374
M Al	0.004450	M	Fe	0.008478	O Nb <	0.002975	O Si	0.006249	M Zr <	0.001868	
O As <	0.022040	M	Ga <	0.000373	M Nd <	0.000373	M Sm <	0.000373			
M Au <	0.000373	M	Gd <	0.000373	O Ni	0.001843	M Sn	0.000847			
O B <	0.007714	M	Ge <	0.002616	M Os <	0.000373	M Sr <	0.001121			
M Ba <	0.001495	M	Hf <	0.000373	O P <	0.022040	M Ta <	0.000373			
M Be <	0.001495	M	Hg <	0.002240	M Pb	0.006358	M Tb <	0.006353			
M Bi <	0.000373	M	Ho <	0.000373	M Pd <	0.000373	M Te <	0.012707			
O Ca	0.006530	M	In <	0.000373	M Pr <	0.001495	M Th <	0.002990			
M Cd	0.001165	M	Ir <	0.000373	M Pt <	0.000373	M Ti <	0.003363			
M Ce <	0.000373	O K	0.001999	M Rb <	0.001868	M Tl	0.008584				
M Co <	0.000373	M La <	0.001121	M Re <	0.000373	M Tm <	0.000373				
M Cr	0.002861	O Li	0.000062	M Rh <	0.000373	M U <	0.000373				
M Cs <	0.001121	M Lu <	0.000373	M Ru <	0.001493	M V <	0.000747				
M Cu <	0.000747	O Mg	0.001156	O S	0.024591	M W <	0.002242				
M Dy <	0.000373	M Mn <	0.000373	M Sb <	0.002242	M Y <	0.000373				
M Er <	0.000373	O Mo <	0.003195	M Sc <	0.001121	M Yb <	0.000373				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 78.96 +4 6 H₂SeO₃

Chemical Compatibility -Soluble in HCl, HNO₃,H₃PO₄, H₂SO₄ and HF aqueous matrices and water. It is stable with most inorganic anions but many cationic metals form the insoluble selenites under pH neutral conditions. When fluorinated and/or under acidic conditions precipitation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Se Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (readily soluble in water); Minerals and alloys (acid digestion with HNO₃or HNO₃ / HF); Organic Matrices (acid digestion with hot concentrated H₂SO₄ accompanied by the careful dropwise addition of H₂O₂ until clear).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 82 amu	200 ppt	N/A	12C35Cl2
ICP-OES 196.026 nm	0.08/0.006 µg/mL	1	Fe
ICP-OES 203.985 nm	0.2/0.05 µg/mL	1	Sb, Ir, Cr, Ta
ICP-OES 206.279 nm	0.3/0.16 µg/mL	1	Cr, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 17, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMO10
Lot Number: S2-MO706255
Matrix: H2O
tr. NH4OH
Value / Analyte(s): 10 000 µg/mL ea:
Molybdenum
Starting Material: Ammonium Molybdate
Starting Material Lot#: 2361
Starting Material Purity: 99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10026 ± 47 µg/mL
Density: 1.011 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10032 ± 68 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

Assay Method #2 **10020 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000590	M Eu < 0.000300	M Na < 0.008739	M Se < 0.008000	M Zn < 0.005942
M Al < 0.005592	M Fe < 0.006500	M Nb < 0.029000	i Si < 0.001800	M Zr < 0.001800
M As < 0.002100	M Ga < 0.000300	i Nd < 0.000300	M Sm < 0.000300	
M Au < 0.000300	M Gd < 0.000300	M Ni < 0.008000	M Sn < 0.008900	
M B < 0.003300	M Ge < 0.000300	M Os < 0.000590	M Sr < 0.001747	
M Ba < 0.016778	M Hf < 0.001800	i P < 0.004200	M Ta < 0.004200	
M Be < 0.000890	M Hg < 0.003300	M Pb < 0.000300	M Tb < 0.000300	
M Bi < 0.000890	M Ho < 0.000300	M Pd < 0.001800	M Te < 0.021000	
O Ca < 0.062920	M In < 0.032000	M Pr < 0.013000	M Th < 0.000300	
O Cd < 0.026000	M Ir < 0.000300	M Pt < 0.000300	O Ti < 0.032000	
M Ce < 0.008300	M K < 1.293372	M Rb < 0.045442	M Tl < 0.012584	
M Co < 0.005942	M La < 0.000300	M Re < 0.000300	M Tm < 0.000300	
M Cr < 0.005243	O Li < 0.000594	M Rh < 0.000300	M U < 0.005300	
M Cs < 0.005243	M Lu < 0.000300	M Ru < 0.079000	M V < 0.000890	
M Cu < 0.022371	M Mg < 0.005592	i S < 0.873900	M W < 0.873900	
M Dy < 0.000300	M Mn < 0.005900	M Sb < 0.015031	M Y < 0.000300	
M Er < 0.000300	s Mo < 0.000300	M Sc < 0.001200	M Yb < 0.000300	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9

[MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCI5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br1 60,190Os2+,190Pt 2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 04, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 04, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGTL10
Lot Number: T2-TL714687
Matrix: 5% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Thallium
Starting Material: TINO₃
Starting Material Lot#: 2118
Starting Material Purity: 99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10030 ± 42 µg/mL
Density: 1.036 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10040 ± 43 µg/mL**
ICP Assay NIST SRM 3158 Lot Number: 151215

Assay Method #2 **10010 ± 65 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000200	M Eu < 0.000200	O Na < 0.002489	M Se < 0.011019	O Zn < 0.002298
O Al < 0.004184	O Fe < 0.002824	M Nb < 0.000200	O Si < 0.003760	M Zr < 0.000200
M As < 0.002003	M Ga < 0.000200	M Nd < 0.000200	M Sm < 0.000200	
O Au < 0.002824	M Gd < 0.000200	M Ni < 0.001724	M Sn < 0.000601	
O B < 0.004184	M Ge < 0.000801	M Os < 0.000198	O Sr < 0.000313	
M Ba < 0.000400	M Hf < 0.000200	O P < 0.010460	M Ta < 0.000200	
O Be < 0.000104	M Hg < 0.000794	M Pb < 0.000811	M Tb < 0.000200	
M Bi < 0.005209	M Ho < 0.000200	M Pd < 0.000400	M Te < 0.005008	
O Ca < 0.002436	M In < 0.000200	M Pr < 0.000200	M Th < 0.000200	
M Cd < 0.001318	M Ir < 0.000198	M Pt < 0.000801	O Ti < 0.001255	
M Ce < 0.000200	O K < 0.006175	M Rb < 0.000200	s Tl <	
M Co < 0.000601	M La < 0.000200	M Re < 0.000200	M Tm < 0.000200	
M Cr < 0.000801	O Li < 0.000177	M Rh < 0.000200	M U < 0.000200	
M Cs < 0.003606	M Lu < 0.000200	M Ru < 0.000397	M V < 0.002203	
M Cu < 0.001001	O Mg < 0.000529	O S < 0.015690	M W < 0.000601	
M Dy < 0.000200	M Mn < 0.000801	M Sb < 0.000400	M Y < 0.000200	
M Er < 0.000200	M Mo < 0.001202	O Sc < 0.000711	M Yb < 0.000200	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 204.38 +1 6 Ti(H₂O)₆¹⁺
Chemical Compatibility - Soluble in HCl, HNO₃, and H₂SO₄. Stable with most metals and inorganic anions. The sulfite, thiocyanate and oxalate are moderately soluble; the phosphate and arsenite are slightly soluble and the sulfide is insoluble.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Ti Containing Samples)Preparation and Solution) -Metal (Best dissolved in HNO₃ which forms chiefly the Ti¹⁺ ion.); Oxide (The thalious oxide is readily soluble in water. The thallic oxide requires high levels of acid); Ores (Carbonate fusion in Pt₀ followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 205 amu	2 ppt	N/A	189Os16O
ICP-OES 190.864 nm	0.04 / 0.004 µg/mL	1	V, Ti
ICP-OES 276.787 nm	0.1 / 0.01 µg/mL	1	Ta, V, Fe, Cr
ICP-OES 351.924 nm	0.2 / 0.02 µg/mL	1	Th, Ce, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 08, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **February 08, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCD10
Lot Number: S2-CD710508
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Cadmium
Starting Material: Cd Metal
Starting Material Lot#: 1953
Starting Material Purity: 99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10008 ± 30 µg/mL
Density: 1.029 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10010 ± 32 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	10011 ± 30 µg/mL ICP Assay NIST SRM 3108 Lot Number: 130116
Assay Method #3	10003 ± 30 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

O Ag < 0.003200	O Eu < 0.002500	O Na < 0.005499	M Se < 0.005700	O Zn < 0.001100
O Al < 0.008903	O Fe < 0.000602	M Nb < 0.000400	O Si < 0.016758	O Zr < 0.002600
M As < 0.003600	M Ga < 0.001200	M Nd < 0.000800	M Sm < 0.000400	
M Au < 0.000810	M Gd < 0.000400	M Ni < 0.003600	M Sn < 0.003200	
O B < 0.004189	O Ge < 0.012000	M Os < 0.000810	O Sr < 0.000330	
M Ba < 0.002400	M Hf < 0.000400	O P < 0.022000	M Ta < 0.000800	
M Be < 0.000400	M Hg < 0.001700	M Pb < 0.002400	M Tb < 0.000400	
M Bi < 0.000400	M Ho < 0.000400	M Pd < 0.001200	M Te < 0.008000	
O Ca < 0.011259	O In < 0.013000	M Pr < 0.000400	M Th < 0.000400	
s Cd < 0.000400	M Ir < 0.000410	M Pt < 0.000400	O Ti < 0.000602	
M Ce < 0.000400	O K < 0.005237	M Rb < 0.004400	M Tl < 0.000523	
M Co < 0.000400	M La < 0.000400	M Re < 0.000400	M Tm < 0.000400	
O Cr < 0.005100	O Li < 0.000054	M Rh < 0.000400	M U < 0.000400	
M Cs < 0.002400	M Lu < 0.000400	M Ru < 0.002500	M V < 0.002000	
O Cu < 0.004800	O Mg < 0.000288	O S < 0.022000	M W < 0.000400	
M Dy < 0.000400	O Mn < 0.000860	O Sb < 0.018000	M Y < 0.000400	
M Er < 0.000400	M Mo < 0.001600	O Sc < 0.000430	M Yb < 0.000400	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 112.41 +2 4 Cd₂(OH)₃⁺ and Cd(OH)₂(aq)

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, and HF. Avoid basic media forming insoluble carbonate and hydroxide.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO₃ / LDPE container.

Cd Containing Samples (Preparation and Solution) -Metal (soluble in HNO₃); Oxides (soluble in HCl or HNO₃); Ores (dissolve in HCl /HNO₃ then take to fumes with H₂SO₄. The silica and lead sulfate are filtered off after the addition of water); Organic based (dry ash at 450°C and dissolve ash in HCl), (sulfuric / peroxide acid digestion).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 111 amu	11 ppt	n/a	95Mo16O
ICP-OES 214.438 nm	0.003 / 0.0003 µg/mL	1	Pt, Ir
ICP-OES 226.502 nm	0.003 / 0.0003 µg/mL	1	Ir
ICP-OES 228.802 nm	0.003 / 0.0003 µg/mL	1	Co, Ir, As, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 01, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 01, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMN10
Lot Number: S2-MN704240
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Manganese
Starting Material: Mn Metal
Starting Material Lot#: 2275
Starting Material Purity: 99.9909%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10011 ± 30 µg/mL
Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9989 ± 69 µg/mL ICP Assay NIST SRM 3132 Lot Number: 050429
Assay Method #2	10011 ± 25 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10024 ± 47 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i})^2 / (\sum(1/(u_{char\ j})^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.001500	M Eu < 0.000730	O Na 0.176097	M Se < 0.006600	M Zn 0.009925
O Al 0.004322	M Fe < 0.650000	M Nb < 0.000730	O Si 0.097654	M Zr < 0.000730
M As < 0.008000	M Ga 0.004322	M Nd < 0.001500	M Sm < 0.000730	
M Au < 0.000730	M Gd < 0.000730	M Ni 0.024013	M Sn < 0.002200	
M B 0.068838	M Ge < 0.004400	M Os < 0.000730	O Sr 0.000928	
M Ba < 0.001500	M Hf < 0.000730	i P <	M Ta < 0.000730	
M Be < 0.000730	M Hg < 0.002200	M Pb 0.007364	M Tb < 0.000730	
M Bi < 0.003000	M Ho < 0.000730	M Pd < 0.000730	M Te < 0.019000	
O Ca 0.062434	M In < 0.003000	M Pr < 0.000730	M Th < 0.000730	
M Cd < 0.001500	M Ir < 0.000730	M Pt < 0.000730	O Ti < 0.006500	
M Ce < 0.007300	O K 0.006403	M Rb < 0.006600	M Tl < 0.000730	
O Co 0.014728	M La < 0.003000	M Re < 0.000730	M Tm < 0.000730	
O Cr 0.272151	O Li 0.000416	M Rh < 0.003000	M U < 0.001500	
M Cs < 0.000730	M Lu < 0.000730	M Ru < 0.004400	M V < 0.000730	
O Cu 0.007684	O Mg 0.320177	i S <	M W < 0.004400	
M Dy < 0.001500	s Mn <	M Sb < 0.021000	O Y 0.001360	
M Er < 0.001500	M Mo 0.010245	O Sc < 0.004100	M Yb < 0.000730	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 54.94 +2 6 Mn(H₂O)₆2+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO₃/LDPE container.

Mn Containing Samples (Preparation and Solution) -Metal (Soluble in dilute acids); Oxides (Soluble in dilute acids); Ores (Dissolve with HCl. If silica is present add HF and then fume off silica by adding H₂SO₄ and heat to SO₃ fumes - dense white fumes).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 55 amu	10 ppt	n/a	40Ar14N1H,39K16 O,37Cl18O,40Ar15 N,38Ar17O,36Ar18O 1H ,38Ar16O1H,37Cl17 O1H,23Na32S
ICP-OES 257.610 nm	0.0014 / 0.00002 µg/mL	1	Ce, W, Re
ICP-OES 259.373 nm	0.0016 / 0.00002 µg/mL	1	U, Ta, Mo, Fe, Nb
ICP-OES 260.569 nm	0.0021 / 0.00002 µg/mL	1	Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 17, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGSB10
 Lot Number: R2-SB688559
 Matrix: 3% (v/v) HNO3
 3% (w/v) tartaric acid
 Value / Analyte(s): 10 000 µg/mL ea:
 Antimony
 Starting Material: Antimony Metal
 Starting Material Lot#: 1857
 Starting Material Purity: 99.9894%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10003 ± 47 µg/mL
Density: 1.061 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 10003 ± 41 µg/mL
 ICP Assay NIST SRM 3102a Lot Number: 140911

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char\ i})^2 / (\sum(1/(u_{char\ i})^2))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 u_{char} = $[\sum((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with
 $u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char\ a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.000200	M Eu <	0.000300	O Na	0.140000	M Se <	0.007300	O Zn	0.005000
M Al	0.003200	O Fe	0.060000	M Nb <	0.000100	O Si	0.150000	O Zr <	0.006300
M As <	0.004400	M Ga <	0.000400	M Nd <	0.000100	M Sm <	0.000100		
M Au <	0.000210	M Gd <	0.000100	O Ni	0.004800	M Sn <	0.001800		
M B <	0.011000	M Ge <	0.000600	M Os <	0.000110	O Sr	0.000750		
O Ba <	0.004900	M Hf <	0.000100	O P	0.540000	M Ta	0.003300		
M Be <	0.000400	M Hg <	0.000110	M Pb <	0.000400	M Tb <	0.000100		
M Bi <	0.000200	M Ho <	0.000100	M Pd <	0.000210	M Te <	0.000600		
O Ca	0.110000	M In <	0.000100	M Pr <	0.001600	M Th <	0.000100		
M Cd <	0.000200	M Ir <	0.000110	M Pt <	0.000600	M Ti <	0.002800		
M Ce	0.006500	O K	0.020000	M Rb <	0.001000	M Tl <	0.000100		
M Co <	0.000200	O La <	0.016000	M Re <	0.000100	M Tm <	0.000100		
M Cr	0.006900	O Li <	0.000430	M Rh <	0.000300	M U <	0.000100		
M Cs <	0.000200	M Lu <	0.000100	M Ru <	0.000310	M V <	0.000800		
M Cu <	0.000600	O Mg	0.021000	n S <		M W <	0.000200		
M Dy <	0.000100	O Mn	0.001900	s Sb <		M Y <	0.000100		
M Er <	0.000100	M Mo <	0.000500	O Sc <	0.002300	M Yb <	0.000100		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 121.75 +3 6 Sb(O)C₄H₄O₆-1

Chemical Compatibility -Stable in conc. HCl, dilute or conc. HF. Stable in dilute HNO₃ as the fluoride or tartrate complex. Avoid basic media. Stable with most metals and inorganic anions in acidic media as the tartrate provided the acidity is not too high or the acid is oxidizing causing loss of the stabilizing tartrate ion. The fluoride complex of antimony is stable in strong acid but you should only mix with other metals that are fluorinated.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-2% HNO₃ / LDPE container.

Sb Containing Samples (Preparation and Solution) -Metal and alloys (Soluble in H₂O / HF / HNO₃ mixture); Oxides (Soluble in HCl and tartaric acid or H₂O / HF / HNO₃ mixtures); Ores (fusion with Na₂CO₃ in PtO followed by dissolving the fuseate in a H₂O / HF / HNO₃ mixture); Organic based (sulfuric acid / hydrogen peroxide digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 121 amu	5 ppt	N/A	105Pd16O, 89Y16O2
ICP-OES 206.833 nm	0.03/0.003 µg/mL	1	Ta, Cr, Ge, Hf
ICP-OES 217.581 nm	0.05/0.005 µg/mL	1	Nb, W, Re, Fe
ICP-OES 231.147 nm	0.06/0.006 µg/mL	1	Ni, Co, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 30, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 30, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAS10
Lot Number: T2-AS718260
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Arsenic
Starting Material: As Metal
Starting Material Lot#: 2208
Starting Material Purity: 99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10060 ± 40 µg/mL
Density: 1.037 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10062 ± 46 µg/mL**
ICP Assay NIST SRM 3103a Lot Number: 100818

Assay Method #2 **10055 ± 76 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.003200	M Eu < 0.000530	O Na < 0.032544	M Se < 0.006300	O Zn < 0.001952
M Al < 0.007593	O Fe < 0.001475	O Nb < 0.012000	O Si < 0.238658	O Zr < 0.004100
s As < 0.000530	M Ga < 0.000530	M Nd < 0.000530	M Sm < 0.000530	
M Au < 0.003100	M Gd < 0.000530	M Ni < 0.002100	M Sn < 0.000530	
M B < 0.026035	M Ge < 0.001600	M Os < 0.000520	M Sr < 0.000530	
M Ba < 0.000530	M Hf < 0.000530	O P < 0.043000	M Ta < 0.000530	
O Be < 0.000360	M Hg < 0.001600	M Pb < 0.002100	M Tb < 0.000530	
M Bi < 0.000530	M Ho < 0.000530	M Pd < 0.001100	M Te < 0.004700	
O Ca < 0.004339	M In < 0.023000	M Pr < 0.005300	M Th < 0.000530	
M Cd < 0.001100	M Ir < 0.000520	M Pt < 0.000530	O Ti < 0.002300	
M Ce < 0.000530	O K < 0.002061	M Rb < 0.000530	M Tl < 0.000530	
M Co < 0.000530	M La < 0.001100	M Re < 0.000530	M Tm < 0.000530	
O Cr < 0.001800	O Li < 0.000120	M Rh < 0.000530	M U < 0.000530	
M Cs < 0.005300	M Lu < 0.000530	M Ru < 0.000520	M V < 0.002700	
M Cu < 0.001600	O Mg < 0.000154	O S < 0.028205	M W < 0.012000	
M Dy < 0.000530	O Mn < 0.000154	M Sb < 0.000530	M Y < 0.000530	
M Er < 0.000530	M Mo < 0.000530	O Sc < 0.001700	M Yb < 0.000530	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 74.92 ; mix of +3 and +5 ; 6 ; H3AsO4 and HAsO2

Chemical Compatibility - Arsenic has no cationic chemistry. It is soluble in HCl, HNO3, H3PO4, H2SO4 and HF aqueous matrices water and NH4OH . It is stable with most inorganic anions (forms arsenate when boiled with chromate) but many cationic metals form the insoluble arsenates under pH neutral conditions. When fluorinated and / or under acidic conditions arsenate formation is typically not a problem at moderate to low concentrations.

Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO3 / LDPE container.

As Containing Samples (Preparation and Solution) - Metal (soluble in 1:1 H2O / HNO3); Oxides (the oxide exists in crystalline and amorphous forms where the amorphous form is more water soluble. The oxides typically dissolve in dilute acidic solutions when boiled); Minerals (one gram of powdered sample is fused in a Ni crucible with 10 grams of a 1:1 mix of K2CO3 and KNO3 and the melt extracted with hot water); Organic Matrices (0.2 to 0.5 grams of sample are fused with 15 grams of a 1:1 Na2CO3 / Na2O2 mix in a Ni crucible. The fuseate is extracted with water and acidified with HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 75 amu	20 ppt	N/A	40Ar35Cl, 59Co16O, 36Ar38Ar1H,8Ar37C I,Ar39K, 150Nd2+,150Sm2+
ICP-OES 189.042 nm	0.05/0.005 µg/mL	1	Cr
ICP-OES 193.696 nm	0.1/0.01 µg/mL	1	V, Ge
ICP-OES 228.812 nm	0.1/0.01 µg/mL	1	Cd, Pt, Ir, Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 10, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 10, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGBA10
 Lot Number: R2-BA692576
 Matrix: 2% (v/v) HNO₃
 Value / Analyte(s): 10 000 µg/mL ea:
 Barium
 Starting Material: Barium Nitrate
 Starting Material Lot#: 1969
 Starting Material Purity: 99.9982%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL
Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10018 ± 50 µg/mL ICP Assay NIST SRM 3104a Lot Number: 140909
Assay Method #2	10023 ± 31 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #3	10023 ± 30 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/CRM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char i})^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an UPLA-Filtered Clean Room. An UPLA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000410	O Eu < 0.005200	O Na < 0.004610	M Se < 0.003700	O Zn < 0.000658
M Al < 0.003100	O Fe < 0.015707	M Nb < 0.000210	O Si < 0.005573	M Zr < 0.001300
M As < 0.001300	M Ga < 0.000210	M Nd < 0.000210	O Sm < 0.021000	
M Au < 0.001300	M Gd < 0.000210	M Ni < 0.000810	M Sn < 0.000410	
O B < 0.005200	M Ge < 0.002500	M Os < 0.000410	O Sr < 0.003850	
s Ba < 0.000320	M Hf < 0.000810	O P < 0.026000	M Ta < 0.000410	
O Be < 0.000320	M Hg < 0.000210	M Pb < 0.002300	M Tb < 0.000210	
M Bi < 0.000210	M Ho < 0.000210	M Pd < 0.000210	M Te < 0.001900	
O Ca < 0.007093	M In < 0.000210	M Pr < 0.000210	M Th < 0.000210	
M Cd < 0.000210	M Ir < 0.000210	M Pt < 0.000210	M Ti < 0.002100	
M Ce < 0.001300	O K < 0.035467	M Rb < 0.002100	M Tl < 0.000210	
M Co < 0.000410	O La < 0.005200	M Re < 0.000210	M Tm < 0.000410	
M Cr < 0.001700	O Li < 0.000630	M Rh < 0.000210	M U < 0.000210	
M Cs < 0.003300	M Lu < 0.001700	M Ru < 0.000210	O V < 0.005200	
M Cu < 0.001300	O Mg < 0.000861	O S < 0.268539	M W < 0.000410	
M Dy < 0.000210	M Mn < 0.000410	M Sb < 0.001300	O Y < 0.005200	
M Er < 0.001300	M Mo < 0.000410	M Sc < 0.000410	M Yb < 0.001300	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 137.33 +2 6 Ba(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, and HNO₃. Avoid H₂SO₄, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, iodate, molybdate, sulfite and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1 -10,000 ppm solutions chemically stable for years in 1-3.5% HNO₃ / LDPE container.

Ba Containing Samples (Preparation and Solution) -Metal(is best dissolved in diluted HNO₃); Ores(Carbonate fusion in Pt0 followed by HCl dissolution. If sulfate is present dissolve the fuseate using HCl / tartaric acid to prevent BaSO₄ precipitate); Organic Matrices (dry ash and dissolve in dilute HCl.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 138 amu	1 ppt	N/A	122Sn16O, 122Te16O
ICP-OES 230.424 nm	0.004/0.0005 µg/mL	1	Mo, Ir, Co
ICP-OES 233.527 nm	0.004/0.0003 µg/mL	1	
ICP-OES 455.403 nm	0.002/0.0001 µg/mL	1	Zr, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 11, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 11, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGBE10
Lot Number: R2-BE692992
Matrix: 6% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Beryllium
Starting Material: Beryllium Acetate
Starting Material Lot#: 2281
Starting Material Purity: 99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10032 ± 41 µg/mL
Density: 1.128 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10042 ± 67 µg/mL**
ICP Assay NIST SRM 3105a Lot Number: 090514

Assay Method #2 **10025 ± 51 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.001100	M Eu < 0.000270	O Na < 0.040962	M Se < 0.005000	M Zn < 0.013054
O Al < 0.016205	O Fe < 0.015754	M Nb < 0.000270	O Si < 0.024307	O Zr < 0.001900
M As < 0.002900	M Ga < 0.000270	M Nd < 0.000270	M Sm < 0.000270	
M Au < 0.000520	M Gd < 0.000270	M Ni < 0.003700	M Sn < 0.000790	
M B < 0.091000	M Ge < 0.000270	M Os < 0.000260	M Sr < 0.000630	
M Ba < 0.002700	M Hf < 0.000270	O P < 0.066000	M Ta < 0.000270	
s Be < 0.000530	M Hg < 0.000520	M Pb < 0.000270	M Tb < 0.000270	
M Bi < 0.072022	M Ho < 0.000270	M Pd < 0.000520	M Te < 0.003700	
O Ca < 0.000790	M In < 0.000790	M Pr < 0.000270	M Th < 0.000270	
M Cd < 0.000270	M Ir < 0.000260	M Pt < 0.000270	O Ti < 0.000400	
M Ce < 0.000270	O K < 0.045014	M Rb < 0.000270	M Tl < 0.000790	
O Co < 0.003200	M La < 0.000270	M Re < 0.000270	M Tm < 0.000270	
O Cr < 0.001800	O Li < 0.000660	M Rh < 0.001100	M U < 0.000270	
M Cs < 0.001440	M Lu < 0.000270	M Ru < 0.000260	M V < 0.000790	
M Cu < 0.002100	O Mg < 0.016205	i S < 0.000270	M W < 0.000530	
M Dy < 0.000270	M Mn < 0.001215	M Sb < 0.000270	M Y < 0.000270	
M Er < 0.000270	M Mo < 0.000530	O Sc < 0.000930	M Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 9.01 +2 4 Be(H₂O)₄+2

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1 % HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 5-10 % HNO₃ / LDPE container.

Be Containing Samples (Preparation and Solution) - Meta I(is best dissolved in diluted H₂SO₄); BeO (boiling nitric, hydrochloric, or sulfuric acids or KHSO₄ fusion); Ores (H₂SO₄/HF digestion or carbonate fusion in Pt0); Organic Matrices (sulfuric/peroxide digestion or nitric/sulfuric/perchloric acid decomposition, or dry ash and dissolution according to the BeO procedure above).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 9 amu	4 ppt	N/A	
ICP-OES 234.861 nm	0.0003/0.00016 µg/mL	1	Fe, Ta, Mo
ICP-OES 313.042 nm	0.0003/0.00009 µg/mL	1	V, Ce, U
ICP-OES 313.107 nm	0.0007/0.0005 µg/mL	1	Ce, Th, Tm

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION, PERIOD OF VALIDITY AND REVISION HISTORY

11.1 Certification Issue Date

May 13, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 13, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

11.4 Revision Status

- Revision 1 - Revised on Thursday, Jan 14, 2021 by utruong. Revision was made for the following reason: Modified Section 7 Chemical Form in Solution.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGCO10
 Lot Number: R2-CO695285
 Matrix: 3% (v/v) HNO3
 Value / Analyte(s): 10 000 µg/mL ea:
 Cobalt
 Starting Material: Co Metal
 Starting Material Lot#: 2326
 Starting Material Purity: 99.9934%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10012 ± 31 µg/mL
Density: 1.056 g/mL (measured at 20 ± 4 °C)

Assay Information:

- Assay Method #1** **10031 ± 67 µg/mL**
 ICP Assay NIST SRM 3113 Lot Number: 190630

- Assay Method #2** **10019 ± 32 µg/mL**
 EDTA NIST SRM 928 Lot Number: 928

- Assay Method #3** **10000 ± 35 µg/mL**
 Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/CRM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) X_i$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an UPLA-Filtered Clean Room. An UPLA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag	0.014660	M Eu	<	0.000590	O Na	0.007534	M Se	<	0.019000	M Zn	0.003461	
M Al	<	0.024000	M Fe	0.050905	M Nb	<	0.000590	O Si	0.075340	M Zr	<	0.001200
i As	<		M Ga	<	0.000590	M Nd	<	0.000590	M Sm	<	0.000590	
M Au	<	0.004100	M Gd	<	0.000590	O Ni	0.427608	M Sn	<	0.001200		
M B	<	0.031000	M Ge	<	0.003000	M Os	<	0.000590	O Sr	<	0.000260	
M Ba	<	0.000590	M Hf	<	0.000590	n P	<		M Ta	<	0.001200	
O Be	<	0.001300	M Hg	<	0.001800	M Pb	0.003257	M Tb	<	0.000590		
M Bi	<	0.003000	M Ho	<	0.000590	M Pd	<	0.000590	M Te	<	0.005300	
O Ca	0.010588	M In	<	0.001200	M Pr	<	0.000590	M Th	<	0.000590		
M Cd	<	0.004700	M Ir	<	0.001200	M Pt	<	0.002400	M Ti	<	0.014000	
M Ce	<	0.000590	O K	0.008144	M Rb	<	0.000590	M Tl	0.002647			
s Co	<		M La	<	0.000590	M Re	<	0.000590	M Tm	<	0.000590	
M Cr	<	0.021000	O Li	<	0.000130	M Rh	<	0.000590	M U	<	0.000590	
M Cs	<	0.002400	M Lu	<	0.000590	M Ru	<	0.007100	O V	<	0.000880	
M Cu	0.189369	O Mg	0.001893	n S	<			M W	<	0.000590		
M Dy	<	0.000590	M Mn	<	0.001800	M Sb	<	0.003600	M Y	<	0.000590	
M Er	<	0.000590	M Mo	<	0.002400	O Sc	<	0.001600	M Yb	<	0.000590	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.93 +2 6 Co(H₂O)₆2+

Chemical Compatibility - Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Co Containing Samples (Preparation and Solution) - Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ores (dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 59 amu	2 ppt	n/a	42Ca16O1H , 40Ar18O1H , 36Ar23Na, 43Ca16O, 24Mg35Cl
ICP-OES 228.616 nm	0.01/0.001 µg/mL	1	
ICP-OES 237.862 nm	0.01/0.002 µg/mL	1	W, Re, Al, Ta
ICP-OES 238.892 nm	0.01/0.002 µg/mL	1	Fe, W, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 04, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 04, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAG10
Lot Number: S2-AG712977
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Silver
Starting Material: Ag Shot
Starting Material Lot#: 2289
Starting Material Purity: 99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10051 ± 30 µg/mL
Density: 1.056 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10051 ± 52 µg/mL ICP Assay NIST SRM 3151 Lot Number: 160729
Assay Method #2	10051 ± 19 µg/mL Volhard NIST SRM 999c Lot Number: 999c
Assay Method #3	10049 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

s Ag <	M Eu <	0.000260	O Na	0.003811	M Se <	0.003900	O Zn	0.048146	
M Al	0.002688	O Fe	0.006419	M Nb <	0.000260	O Si	0.005215	M Zr <	0.000260
M As <	0.001100	M Ga <	0.000260	M Nd <	0.000260	M Sm <	0.000260		
M Au <	0.000260	M Gd <	0.000260	O Ni	0.001765	M Sn	0.020060		
O B <	0.004300	M Ge <	0.002300	M Os <	0.001100	O Sr <	0.000110		
M Ba <	0.000520	M Hf <	0.000260	O P <	0.017000	M Ta <	0.000260		
O Be <	0.001100	M Hg <	0.000770	M Pb <	0.003600	M Tb <	0.000260		
M Bi	0.004814	M Ho <	0.000260	M Pd	0.044134	M Te <	0.009000		
O Ca	0.005215	M In	0.003691	M Pr <	0.000260	M Th <	0.000260		
M Cd <	0.000260	M Ir <	0.000520	M Pt <	0.001100	O Ti <	0.000440		
M Ce <	0.002100	O K <	0.008700	M Rb <	0.001100	M Tl <	0.004100		
O Co <	0.000330	M La <	0.000260	M Re <	0.000260	M Tm <	0.000260		
O Cr <	0.002500	O Li <	0.000110	M Rh <	0.000520	M U <	0.000260		
M Cs <	0.002600	M Lu <	0.000260	M Ru <	0.000260	M V <	0.000260		
O Cu	0.357085	O Mg	0.001203	O S <	0.017000	M W <	0.000260		
M Dy <	0.000260	O Mn <	0.000220	M Sb <	0.014000	M Y <	0.000260		
M Er <	0.000260	M Mo <	0.000260	O Sc <	0.000220	M Yb <	0.000260		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 107.87 +1 6 Ag(H₂O)₆⁺
Chemical Compatibility - Stable in HNO₃, and HF. Avoid basic media. Ag forms more insoluble salts than any other metal. It also is subject to photochemical reduction to the metal in HCl media although 10 µg/mL solutions in 10% HCl [AgCl_x1-x] are commonly used in the analytical laboratory. The most common solubility problems exist with arsenate, arsenite, bromide, chloride, iodide, carbonate, chromate, cyanide, iodate, oxalate, oxide, sulfate, sulfide, tartrate, and thiocyanate in aqueous media. The addition of nitric acid renders many of these salts soluble.

Stability - 2-100 ppb levels stable for 75+ days when mixed with equivalent levels of all other elements including the precious metals (where chloride is present) when in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Ag Containing Samples (Preparation and Solution) - Metal (Soluble in HNO₃); Oxides (Soluble in HNO₃); Ores (Digestion with conc. HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 107 amu	1 ppt	N/A	91Zr16O
ICP-OES 243.779 nm	0.12/0.01 µg/mL	1	Mn, Th, Ni, Rh
ICP-OES 328.068 nm	0.007/0.0007 µg/mL	1	Ce, Rh, V
ICP-OES 338.289 nm	0.013/0.001 µg/mL	1	Ce, Cr, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCR(3)10
Lot Number: S2-CR709784
Matrix: 10% (v/v) HNO3
Value / Analyte(s): 10 000 µg/mL ea:
Chromium
Starting Material: Cr Metal
Starting Material Lot#: 2328
Starting Material Purity: 99.9951%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10027 ± 41 µg/mL
Density: 1.072 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10027 ± 40 µg/mL**
ICP Assay NIST SRM 3112a Lot Number: 170630

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 u_{char} = $[\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char\ a})$$

X_a = mean of Assay Method A with
 $u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char\ a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.001700	M	Eu <	0.003400	O	Na	0.090372	M	Se <	0.012000	O	Zn <	0.006100
M Al	0.034916	O	Fe	0.246471	M	Nb <	0.017000	n	Si <		M	Zr <	0.007800
M As <	0.028000	O	Ga <	0.013000	M	Nd <	0.013000	M	Sm <	0.006900			
M Au <	0.001700	M	Gd <	0.000560	M	Ni	0.016020	M	Sn	0.006983			
O B <	0.025000	O	Ge <	0.014000	M	Os <	0.000560	M	Sr	0.006367			
M Ba <	0.008900	M	Hf <	0.000560	i	P <		M	Ta <	0.000560			
M Be <	0.013000	M	Hg <	0.001700	M	Pb	0.010064	M	Tb <	0.000560			
M Bi <	0.002300	M	Ho <	0.000560	M	Pd <	0.021000	M	Te <	0.010000			
O Ca	0.075995	M	In <	0.000560	M	Pr <	0.001700	M	Th <	0.000560			
M Cd <	0.000560	M	Ir <	0.000560	M	Pt <	0.001200	O	Ti	0.013555			
M Ce <	0.001200	O	K	0.043132	i	Rb <		M	Tl <	0.000560			
M Co <	0.002600	M	La <	0.001200	M	Re <	0.001200	O	Tm <	0.013000			
s Cr <		O	Li	0.000390	M	Rh <	0.095000	M	U <	0.000560			
M Cs <	0.007800	M	Lu <	0.000560	M	Ru <	0.087000	O	V	0.014993			
O Cu	0.007599	O	Mg	0.000883	i	S <		M	W <	0.049000			
M Dy <	0.000560	M	Mn	0.008626	M	Sb <	0.003400	M	Y <	0.001700			
M Er <	0.019000	M	Mo <	0.032000	M	Sc	0.003080	M	Yb <	0.000560			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 52.00 +3 6 Cr(H₂O)₆3+

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Cr₃ Containing Samples (Preparation and Solution) -Metal (soluble in HCl); Oxides/Ores (Chrome ore/oxides are very difficult to dissolve. The following procedures [A-D] are commonly used: A. Fusion with KHSO₄ and extraction with hot KCl. The residue fused with Na₂CO₃ and KClO₃, 3:1. B. Fusion with NaKSO₄ and NaF 2:1, C. Fusion with magnesia or lime and sodium or potassium carbonates, 4:1. D. Fusion with Na₂O₂ or NaOH and KNO₃ or NaOH and Na₂O₂. Nickel, iron, copper, or silver crucibles should be used for D. Platinum may be used for A, <, C); Organic Matrices (ash at 4500C followed by one of the fusion methods above or sulfuric/hydrogen peroxide acid digestions may be applicable to non oxide containing samples).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 52 amu	40 ppt	N/A	36S16O, 36Ar16O - The 50Cr, 53Cr, 54Cr lines suffer from many more potential interferences from sulfur, chlorine and argon compounds of oxygen, nitrogen and carbon.
ICP-OES 205.552 nm	0.006/0.0008 µg/mL	1	Os
ICP-OES 276.654 nm	0.01/0.001 µg/mL	1	Cu, Ta, V
ICP-OES 284.325 nm	0.008/0.0007 µg/mL	1	

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 26, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 26, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGNI10
 Lot Number: P2-NI686384
 Matrix: 3% (v/v) HNO3
 Value / Analyte(s): 10 000 µg/mL ea:
 Nickel
 Starting Material: Ni Metal
 Starting Material Lot#: 2277 and 2282
 Starting Material Purity: 99.9992%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9979 ± 30 µg/mL
Density: 1.038 g/mL (measured at 20 ± 4 °C)

Assay Information:

- Assay Method #1** **9971 ± 54 µg/mL**
 ICP Assay NIST SRM 3136 Lot Number: 120619

- Assay Method #2** **9970 ± 32 µg/mL**
 EDTA NIST SRM 928 Lot Number: 928

- Assay Method #3** **9993 ± 33 µg/mL**
 Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag	0.002606	M Eu	<	0.001100	O Na	0.004965	O Se	<	0.067000	M Zn	0.006578	
M Al	<	0.013000	O Fe	0.018618	M Nb	<	0.001100	O Si	0.010923	M Zr	<	0.001100
O As	<	0.067000	M Ga	<	0.001100	M Nd	<	0.001100	M Sm	<	0.001100	
M Au	<	0.002100	M Gd	<	0.001100	s Ni	<		M Sn	<	0.016000	
M B	<	0.017000	M Ge	<	0.004200	M Os	0.002110	O Sr	<	0.000940		
M Ba	<	0.001100	M Hf	<	0.001100	i P	<		M Ta	<	0.001100	
O Be	<	0.000410	M Hg	0.014895	M Pb	0.006578	M Tb	<	0.001100			
M Bi	<	0.004200	M Ho	<	0.001100	M Pd	<	0.001100	M Te	<	0.015000	
O Ca	0.003351	M In	<	0.001100	M Pr	<	0.001100	M Th	<	0.001100		
M Cd	0.001365	M Ir	0.004716	M Pt	<	0.001100	M Ti	<	0.004200			
M Ce	<	0.001100	O K	0.004716	M Rb	<	0.001100	M Tl	<	0.001100		
O Co	0.017377	M La	<	0.001100	M Re	0.001737	M Tm	<	0.001100			
O Cr	<	0.006700	O Li	<	0.000140	M Rh	<	0.006300	M U	<	0.001100	
M Cs	<	0.007300	M Lu	<	0.001100	M Ru	<	0.019000	M V	<	0.002100	
M Cu	0.004096	O Mg	0.000372	i S	<			M W	<	0.006300		
M Dy	<	0.001100	O Mn	<	0.001900	M Sb	0.005833	O Y	<	0.000540		
M Er	<	0.001100	M Mo	<	0.008400	M Sc	<	0.002100	M Yb	<	0.001100	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.69 +2 6 Ni(H₂O)₆²⁺

Chemical Compatibility -Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Ni Containing Samples (Preparation and Solution) -Metal (Soluble in HNO₃); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 60 amu	100 ppt	n/a	43Ca16O1H , 44Ca16O, 23Na37Cl
ICP-OES 221.647 nm	0.01 / 0.0009 µg/mL	1	Si
ICP-OES 231.604 nm	0.02 / 0.002 µg/mL	1	Sb, Ta, Co
ICP-OES 232.003 nm	0.02 / 0.006 µg/mL	1	Cr, Re, Os, Nb, Ag, Pt, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 02, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGV10
Lot Number: S2-V711005
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Vanadium
Starting Material: Vanadium Pentoxide
Starting Material Lot#: 1782
Starting Material Purity: 99.9877%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10014 ± 30 µg/mL
Density: 1.104 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10017 ± 42 µg/mL**
ICP Assay NIST SRM 3165 Lot Number: 160906

Assay Method #2 **10013 ± 30 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000110	M Eu < 0.000110	O Na 0.120000	M Se < 0.009400	M Zn 0.009400
O Al 0.120000	O Fe 0.460000	M Nb < 0.001300	O Si 0.270000	M Zr < 0.002900
M As < 0.000210	M Ga < 0.009300	M Nd < 0.000610	M Sm < 0.000110	
M Au < 0.004700	M Gd < 0.000110	M Ni 0.012000	M Sn 0.003900	
M B 0.051000	M Ge < 0.000410	M Os < 0.000110	O Sr 0.007100	
M Ba 0.003600	M Hf < 0.000110	O P < 0.034000	M Ta < 0.000110	
O Be < 0.000560	M Hg < 0.000410	M Pb 0.001400	M Tb < 0.000110	
M Bi < 0.000210	M Ho < 0.000110	M Pd < 0.000410	M Te < 0.000110	
O Ca 0.730000	M In < 0.000110	M Pr < 0.000110	M Th < 0.000210	
M Cd < 0.000610	M Ir < 0.000110	M Pt < 0.000110	M Ti 0.017000	
M Ce < 0.000610	M K 0.052000	M Rb < 0.000310	M Tl < 0.000110	
M Co < 0.001300	M La < 0.000410	M Re 0.001700	M Tm < 0.000110	
O Cr 0.170000	M Li < 0.000810	M Rh < 0.000110	M U < 0.000410	
M Cs 0.005600	M Lu < 0.000110	M Ru < 0.000110	s V <	
M Cu < 0.001300	M Mg 0.053000	i S <	M W 0.002000	
M Dy < 0.000110	M Mn 0.007900	M Sb 0.078000	M Y < 0.000110	
M Er < 0.000110	M Mo 0.094000	M Sc < 0.000410	M Yb < 0.000110	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 50.94 +5 6 H₂V₁₀O₂₈4-

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄, HF, H₃PO₄ and strong basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

V Containing Samples (Preparation and Solution) -Metal (Fusion with NaOH or KOH in NiO or Na₂CO₃ / KNO₃); Oxides (V₂O₃ - use HCl, V₂O₄ - use HCl or HNO₃, V₂O₅ - use concentrated acids); Ores (Na₂CO₃ / KNO₃ in PtO caution - nitrates attack PtO followed by water extraction of fuseate); Organic Matrices (Ash at 450 EC followed by dissolving according to V₂O₅ above) .

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

<u>Technique/Line</u>	<u>Estimated D.L.</u>	<u>Order</u>	<u>Interferences</u> (underlined indicates severe)
ICP-MS 51 amu	4 ppt	N/A	34S16O1H, 35Cl16O, 38Ar13C, 36Ar15N, 36Ar14N1H, 37Cl14N,36S15N, 33S18O, 34S17O, 102Ru+2,02Pd+2
ICP-OES 290.882 nm	0.008 / 0.0008 µg/mL	1	Hf, Nb
ICP-OES 292.402 nm	0.006 / 0.001 µg/mL	1	Th
ICP-OES 309.311 nm	0.005 / 0.001 µg/mL	1	Mg, U, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity


- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGAL10
Lot Number: T2-AL716102
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Aluminum
Starting Material: Aluminum Nitrate Nonahydrate
Starting Material Lot#: 2460
Starting Material Purity: 99.9938%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10049 ± 31 µg/mL
Density: 1.087 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10059 ± 40 µg/mL ICP Assay NIST SRM 3101a Lot Number: 140903
Assay Method #2	10044 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10049 ± 35 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.002100	M Eu < 0.002100	O Na < 0.352819	M Se < 0.005200	M Zn < 0.006018
s Al < 0.002100	O Fe < 0.074714	M Nb < 0.000520	O Si < 0.017848	O Zr < 0.004358
M As < 0.008716	O Ga < 0.112072	M Nd < 0.000520	M Sm < 0.000520	
M Au < 0.008400	M Gd < 0.001100	O Ni < 0.006000	M Sn < 0.000747	
O B < 0.014000	M Ge < 0.005200	M Os < 0.000650	O Sr < 0.000518	
O Ba < 0.012867	M Hf < 0.004100	n P < 0.000520	M Ta < 0.000520	
O Be < 0.000270	M Hg < 0.002000	M Pb < 0.002282	M Tb < 0.000520	
M Bi < 0.001930	M Ho < 0.000520	M Pd < 0.000520	M Te < 0.001100	
O Ca < 0.076790	M In < 0.002100	M Pr < 0.000520	M Th < 0.000520	
M Cd < 0.000520	M Ir < 0.000650	M Pt < 0.000520	O Ti < 0.001930	
M Ce < 0.001100	O K < 0.043583	M Rb < 0.000520	M Tl < 0.000520	
O Co < 0.005400	M La < 0.002100	M Re < 0.000520	M Tm < 0.000520	
O Cr < 0.006018	O Li < 0.000112	M Rh < 0.000520	M U < 0.000520	
M Cs < 0.000643	M Lu < 0.000520	M Ru < 0.002000	M V < 0.001286	
O Cu < 0.008300	O Mg < 0.068488	i S < 0.000520	M W < 0.009800	
M Dy < 0.002100	O Mn < 0.000913	M Sb < 0.003100	M Y < 0.001100	
M Er < 0.000520	M Mo < 0.005396	O Sc < 0.000950	M Yb < 0.000520	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 26.98 +3 6 Al(H₂O)₆+3

Chemical Compatibility -Soluble in HCl, HNO₃, vF and v₂SO₄. Avoid neutral media. Soluble in strongly basic NaOH forming the Al(OH)₄(H₂O)₂⁻ species. Stable with most metals and inorganic anions. The phosphate is insoluble in water and only slightly soluble in acid.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Al Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO₃); a- Al₂O₃ (Na₂CO₃ fusion in PtO);

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 27 amu	30 ppt	N/A	12C15N, 13C14N, 1H12C14N, 11B16O, 54Cr2+, 54Fe2+
ICP-OES 167.078 nm	0.1/0.009 µg/mL	1	Fe
ICP-OES 394.401 nm	0.05/0.006 µg/mL	1	U, Ce
ICP-OES 396.152 nm	0.03/0.006 µg/mL	1	Mo, Zr, Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 22, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 22, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGK10
Lot Number: S2-K711973
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Potassium
Starting Material: KNO₃
Starting Material Lot#: 2313
Starting Material Purity: 99.9971%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9992 ± 30 µg/mL
Density: 1.024 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9987 ± 24 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #2	10004 ± 84 µg/mL ICP Assay NIST SRM 3141a Lot Number: 140813
Assay Method #3	10007 ± 45 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.001400	M Eu < 0.000660	O Na < 0.246220	M Se < 0.007900	O Zn < 0.018056
O Al < 0.001592	O Fe < 0.005909	M Nb < 0.000660	O Si < 0.011490	O Zr < 0.001600
M As < 0.005300	M Ga < 0.000660	M Nd < 0.000660	M Sm < 0.000660	
M Au < 0.002000	M Gd < 0.000660	O Ni < 0.004900	M Sn < 0.000660	
O B < 0.005600	M Ge < 0.002000	M Os < 0.003300	O Sr < 0.000055	
O Ba < 0.000860	M Hf < 0.000660	O P < 0.032000	M Ta < 0.000660	
O Be < 0.000082	M Hg < 0.002000	M Pb < 0.002300	M Tb < 0.000660	
M Bi < 0.006600	M Ho < 0.000660	M Pd < 0.000660	M Te < 0.017000	
O Ca < 0.031187	M In < 0.000660	M Pr < 0.000660	M Th < 0.000660	
O Cd < 0.000450	M Ir < 0.000660	M Pt < 0.002700	M Ti < 0.000660	
M Ce < 0.000660	s K <	M Rb < 0.476026	M Tl < 0.000660	
O Co < 0.000780	M La < 0.000660	M Re < 0.000660	M Tm < 0.000660	
O Cr < 0.000541	O Li < 0.000084	M Rh < 0.000660	M U < 0.000660	
M Cs < 0.000660	M Lu < 0.000660	M Ru < 0.000660	O V < 0.001100	
M Cu < 0.002700	O Mg < 0.006237	O S < 0.027905	M W < 0.000660	
M Dy < 0.000660	O Mn < 0.000476	M Sb < 0.000660	M Y < 0.000660	
M Er < 0.000660	M Mo < 0.000660	O Sc < 0.000340	O Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 39.10 +1 (6) K+(aq)

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Avoid use of HClO₄ due to insolubility of the perchlorate. Stable with all metals and inorganic anions except ClO₄⁻.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

K Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Sodium carbonate fusion in Pt0 followed by HCl dissolution-blank levels of K in sodium carbonate critical); Organic Matrices (Sulfuric/peroxide digestion)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 39 amu	10 ppt	n/a	38ArH, 23Na16O, 78Se
ICP-OES 404.721 nm	1.1 / 0.05 µg/mL	1	U, Ce
ICP-OES 766.490 nm	0.4 / 0.001 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 771.531 nm	1.0 / 0.03 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 10, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 10, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMG10
Lot Number: S2-MG704239
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Magnesium
Starting Material: Magnesium Metal
Starting Material Lot#: 2168
Starting Material Purity: 99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10053 ± 30 µg/mL
Density: 1.053 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10022 ± 62 µg/mL ICP Assay NIST SRM 3131a Lot Number: 140110
Assay Method #2	10078 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10033 ± 26 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O Ag	0.002106	M	Eu <	0.000910	O Na	0.071075	O Se <	0.048000	O Zn	0.003299
M Al	0.003553	M	Fe	0.002538	M Nb <	0.000460	O Si <	0.032000	O Zr <	0.002700
M As <	0.001400	M	Ga <	0.000460	M Nd <	0.000910	M Sm <	0.000460		
M Au <	0.001400	M	Gd <	0.000460	O Ni <	0.001600	M Sn <	0.002300		
O B	0.006853	M	Ge <	0.001400	M Os <	0.000460	O Sr	0.000279		
O Ba	0.000964	M	Hf <	0.000460	O P	0.015230	M Ta <	0.000460		
O Be <	0.000120	M	Hg <	0.000460	M Pb <	0.000460	M Tb <	0.000460		
M Bi <	0.000460	M	Ho <	0.000460	M Pd <	0.003200	M Te <	0.007300		
O Ca	0.053306	M	In <	0.000460	M Pr <	0.000460	M Th <	0.000460		
O Cd <	0.000360	M	Ir <	0.000460	M Pt <	0.001900	O Ti <	0.001700		
M Ce <	0.002300	M	K	0.048229	M Rb	0.002411	M Tl	0.003046		
M Co <	0.000910	M	La <	0.002800	M Re <	0.000460	M Tm <	0.000460		
M Cr <	0.002300	O	Li	0.027922	M Rh <	0.000460	M U <	0.000460		
M Cs	0.001040	M	Lu <	0.000460	M Ru <	0.000460	M V <	0.000460		
O Cu <	0.003000	s	Mg <		O S <	0.190000	M W <	0.000460		
M Dy <	0.000460	O	Mn	0.015230	M Sb	0.020814	O Y <	0.000720		
M Er <	0.000460	M	Mo <	0.000910	O Sc <	0.000480	M Yb <	0.000460		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 24.31 +2 6 Mg(H₂O)₆+2

Chemical Compatibility -Soluble in HCl, HNO₃, and H₂SO₄ avoid HF, H₃PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicates, carbonates, hydroxides, oxides, and tungstates in neutral and slightly acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO₃ / LDPE container.

Mg Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO₃); Oxide (Readily soluble in above compatible aqueous acidic solutions); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric / peroxide digestion or nitric / sulfuric / perchloric acid decomposition, or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 24 amu	42 ppt	n/a	7Li17O, 48Ti+2 , 48Ca+2
ICP-OES 279.553 nm	0.0002 / 0.00003 µg/mL	1	Th
ICP-OES 280.270 nm	0.0003 / 0.00005 µg/mL	1	U, V
ICP-OES 285.213 nm	0.002 / 0.00003 µg/mL	1	U, Hf, Cr, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 23, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 23, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGCA10
Lot Number: T2-CA716103
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Calcium
Starting Material: CaCO₃
Starting Material Lot#: 2472
Starting Material Purity: 99.9950%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10005 ± 30 µg/mL
Density: 1.039 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10005 ± 45 µg/mL ICP Assay NIST SRM 3109a Lot Number: 130213
Assay Method #2	10005 ± 25 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10005 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.001200	M Eu < 0.001200	O Na < 0.006112	M Se < 0.024000	M Zn < 0.005362
M Al < 0.065419	O Fe < 0.009115	M Nb < 0.001200	O Si < 0.139417	O Zr < 0.006700
O As < 0.013000	M Ga < 0.015000	M Nd < 0.020000	M Sm < 0.001200	
M Au < 0.017000	M Gd < 0.004800	O Ni < 0.000793	M Sn < 0.003600	
O B < 0.001179	M Ge < 0.003600	M Os < 0.001200	M Sr < 0.081505	
O Ba < 0.002788	M Hf < 0.001200	O P < 0.041000	M Ta < 0.001200	
O Be < 0.000410	M Hg < 0.004800	M Pb < 0.001608	M Tb < 0.001200	
M Bi < 0.001608	M Ho < 0.001200	M Pd < 0.001200	M Te < 0.003600	
s Ca <	M In < 0.001200	M Pr < 0.000257	M Th < 0.001200	
O Cd < 0.001300	M Ir < 0.001200	M Pt < 0.003600	O Ti < 0.001900	
M Ce < 0.001029	O K < 0.009759	M Rb < 0.001200	M Tl < 0.001200	
O Co < 0.000418	M La < 0.001823	M Re < 0.001200	M Tm < 0.001200	
O Cr < 0.003324	O Li < 0.007300	M Rh < 0.001200	M U < 0.002144	
M Cs < 0.007399	M Lu < 0.000128	M Ru < 0.001200	M V < 0.001286	
O Cu < 0.011000	M Mg < 1.286934	O S < 0.055767	O W < 0.024000	
M Dy < 0.002400	O Mn < 0.004611	M Sb < 0.009600	O Y < 0.000536	
M Er < 0.002400	M Mo < 0.003539	O Sc < 0.001400	M Yb < 0.001200	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 40.08 +2 6 Ca(H₂O)₆+2

Chemical Compatibility - Soluble in HCl and HNO₃. Avoid H₂SO₄, vF, v3PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate, and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO₃ / LDPE container.

Ca Containing Samples)Preparation and Solution -Metal (best dissolved in diluted HNO₃); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (dry ash and dissolution in dilute HCl. Do not heat when dissolving to avoid precipitation of SiO₂). The oxide, hydroxide, carbonate, phosphate, and fluoride of calcium are soluble in % levels of HCl or HNO₃. The sulfates (gypsum, anhydrite, etc.), certain silicates, and complex compounds require fusion with Na₂CO₃ followed by HCl / water dissolution. Note that contamination is a very real problem when analyzing for trace levels.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 44 amu	1200 ppt	n/a	16O ₂ 12C, 28Si16O, 88Sr
ICP-OES 393.366 nm	0.0002 / 0.00004 µg/mL	1	U, Ce
ICP-OES 396.847 nm	0.0005 / 0.00006 µg/mL	1	Th
ICP-OES 422.673 nm	0.01 / 0.001 µg/mL	1	Ge

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 14, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 14, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGNA10
Lot Number: T2-NA717221
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Sodium
Starting Material: Na₂CO₃
Starting Material Lot#: 2358 and 2453
Starting Material Purity: 99.9977%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9977 ± 30 µg/mL
Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	9974 ± 18 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #2	9977 ± 34 µg/mL ICP Assay NIST SRM 3152a Lot Number: 200413
Assay Method #3	9987 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000930	M Eu < 0.000930	s Na <	M Se < 0.003800	O Zn < 0.000138
M Al < 0.004409	O Fe < 0.002393	M Nb < 0.000930	O Si < 0.056696	O Zr < 0.003200
O As < 0.023000	M Ga < 0.000930	M Nd < 0.000930	M Sm < 0.000930	
O Au < 0.004100	M Gd < 0.000930	O Ni < 0.003000	M Sn < 0.002800	
O B < 0.001385	M Ge < 0.004700	M Os < 0.000930	O Sr < 0.000251	
M Ba < 0.004031	M Hf < 0.000930	O P < 0.010205	M Ta < 0.000930	
O Be < 0.000130	M Hg < 0.000930	M Pb < 0.000930	M Tb < 0.000930	
M Bi < 0.000930	M Ho < 0.000930	M Pd < 0.000930	M Te < 0.001900	
O Ca < 0.176388	M In < 0.000930	M Pr < 0.000930	M Th < 0.000352	
O Cd < 0.000860	M Ir < 0.000930	M Pt < 0.000930	O Ti < 0.000592	
M Ce < 0.001900	O K < 0.302380	M Rb < 0.000930	M Tl < 0.000930	
O Co < 0.001800	O La < 0.002100	M Re < 0.000930	M Tm < 0.000930	
M Cr < 0.002800	O Li < 0.000031	M Rh < 0.000930	M U < 0.000930	
M Cs < 0.000930	M Lu < 0.000930	M Ru < 0.001900	O V < 0.001600	
O Cu < 0.003900	O Mg < 0.026458	O S < 0.040317	O W < 0.028000	
M Dy < 0.000930	O Mn < 0.000740	M Sb < 0.000930	O Y < 0.000860	
M Er < 0.000930	O Mo < 0.003600	O Sc < 0.000610	O Yb < 0.000250	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 22.99 +1 (6) Na+(aq) largely ionic in nature

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Na Containing Samples (Preparation and Solution) - Metal (Dissolves very rapidly in water); Ores (Lithium carbonate fusion in graphite crucible followed by HCl dissolution - blank levels of Na in lithium carbonate critical); Organic Matrices (Sulfuric / peroxide digestion or nitric/sulfuric/perchloric acid decomposition).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 23 amu	310 ppt	n/a	46Ti+2 , 46Ca+2
ICP-OES 330.237 nm	2.0 / 0.09 µg/mL	1	Pd, Zn
ICP-OES 588.995 nm	0.03 / 0.006 µg/mL	1	2nd order radiation from R.E.s on some optical designs
ICP-OES 589.595 nm	0.07 / 0.00009 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 20, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 20, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGU1
Lot Number: S2-U707914
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Uranium
Starting Material: Uranyl Nitrate Hexahydrate
Starting Material Lot#: P2-2322
Starting Material Purity: 99.9997%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 5 µg/mL
Density: 1.010 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 5 µg/mL**
ICP Assay NIST SRM 3164 Lot Number: 080521

Assay Method #2 **1001 ± 6 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i}^2) / (\sum(1/u_{char\ i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000270	M Eu < 0.000270	M Na < 0.011000	M Se < 0.009300	M Zn < 0.002358
M Al < 0.011000	M Fe < 0.003222	M Nb < 0.000270	M Si < 0.160000	M Zr < 0.001100
M As < 0.002400	M Ga < 0.000270	M Nd < 0.000270	M Sm < 0.000270	
M Au < 0.000270	M Gd < 0.000270	M Ni < 0.020000	M Sn < 0.011000	
M B < 0.000270	M Ge < 0.000800	M Os < 0.001900	M Sr < 0.000270	
M Ba < 0.003800	M Hf < 0.000270	i P <	M Ta < 0.000270	
M Be < 0.000270	M Hg < 0.000540	M Pb < 0.002200	M Tb < 0.000270	
M Bi < 0.000270	M Ho < 0.000270	M Pd < 0.000540	M Te < 0.003800	
M Ca < 0.140000	M In < 0.000270	M Pr < 0.000270	M Th < 0.000129	
M Cd < 0.000270	M Ir < 0.000270	M Pt < 0.000270	M Ti < 0.002700	
M Ce < 0.000540	O K < 0.250000	M Rb < 0.000800	M Tl < 0.000270	
M Co < 0.000800	M La < 0.000117	M Re < 0.064000	M Tm < 0.000270	
M Cr < 0.000943	M Li < 0.003000	M Rh < 0.000270	s U <	
M Cs < 0.000106	M Lu < 0.000270	M Ru < 0.000540	M V < 0.000540	
M Cu < 0.001100	M Mg < 0.003000	i S <	M W < 0.000540	
M Dy < 0.000270	M Mn < 0.006900	M Sb < 0.000270	M Y < 0.000270	
M Er < 0.000270	M Mo < 0.006400	M Sc < 0.000540	M Yb < 0.000270	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 238.03 +6 8 UO₂²⁺(uranyl)

Chemical Compatibility - Soluble in HCl and HNO₃. Avoid H₃PO₄. H₂SO₄ and HF matrices should not be a problem depending upon [U]. Although the UO₂²⁺ ion is distinctly basic, any U+4 will precipitate in basic media. UO₂²⁺salts are generally soluble in water and UO₂²⁺ is stable with most metals and inorganic anions. The uranyl phosphate is insoluble in water. UF₄ and UF₆ are water soluble.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

U Containing Samples (Preparation and Solution) -Metal (Dissolves rapidly in HCl and HNO₃); Oxide (Soluble in HNO₃); Ores (Digest for 1-2 hours with 1 gram of ore to 30 mL 1:1 HNO₃. Silica insolubles are removed by filtration after bringing the sample to fumes with conc. H₂SO₄.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 238 amu	2 ppt	N/A	206Pb16O2
ICP-OES 263.553 nm	0.3 / 0.01 µg/mL	1	Ce, Ir, Th, Rh, W, Zr, Ta, Ti, V, Hf, Fe, Re, Ru
ICP-OES 367.007 nm	0.3 / 0.02 µg/mL	1	Th, Ce
ICP-OES 385.958 nm	0.3 / 0.01 µg/mL	1	Th, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 28, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 28, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: AR-ICVMS-2
Lot Number: T2-MEB719895
Matrix: 3% (v/v) HNO3
tr. HF
Value / Analyte(s): 2.5 µg/mL ea:
Molybdenum, Antimony

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	2.499 ± 0.015 µg/mL	Molybdenum, Mo	2.500 ± 0.017 µg/mL

Density: 1.014 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Sb	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i})^2 / (\sum(1/(u_{char\ i})^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

u_{char} = $[\sum((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity


- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution	
Catalog Number:	AR-ICVMS-3	
Lot Number:	T2-MEB719896	
Matrix:	7% (v/v) HNO ₃	
Value / Analyte(s):	250 µg/mL ea:	
	Aluminum,	Calcium,
	Iron,	Potassium,
	Magnesium,	Sodium,
	4 µg/mL ea:	
	Selenium,	
	2.5 µg/mL ea:	
	Thorium,	Thallium,
	Uranium,	Vanadium,
	Zinc,	Manganese,
	Cadmium,	Cobalt,
	Chromium,	Copper,
	Arsenic,	Barium,
	Beryllium,	Nickel,
	Lead,	Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	250.0 ± 0.9 µg/mL	Arsenic, As	2.500 ± 0.018 µg/mL
Barium, Ba	2.501 ± 0.013 µg/mL	Beryllium, Be	2.501 ± 0.015 µg/mL
Cadmium, Cd	2.501 ± 0.013 µg/mL	Calcium, Ca	250.0 ± 1.3 µg/mL
Chromium, Cr	2.500 ± 0.015 µg/mL	Cobalt, Co	2.500 ± 0.014 µg/mL
Copper, Cu	2.500 ± 0.014 µg/mL	Iron, Fe	250.0 ± 1.0 µg/mL
Lead, Pb	2.500 ± 0.013 µg/mL	Magnesium, Mg	250.0 ± 1.3 µg/mL
Manganese, Mn	2.500 ± 0.014 µg/mL	Nickel, Ni	2.500 ± 0.014 µg/mL
Potassium, K	250.0 ± 1.2 µg/mL	Selenium, Se	4.002 ± 0.024 µg/mL
Silver, Ag	2.501 ± 0.017 µg/mL	Sodium, Na	250.0 ± 1.2 µg/mL
Thallium, Tl	2.500 ± 0.017 µg/mL	Thorium, Th	2.499 ± 0.013 µg/mL
Uranium, U	2.501 ± 0.015 µg/mL	Vanadium, V	2.500 ± 0.014 µg/mL
Zinc, Zn	2.500 ± 0.014 µg/mL		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Cd	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Cu	Calculated		See Sec. 4.2
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Mn	Calculated		See Sec. 4.2
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2

V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928
Zn	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/(u_{\text{char } j}^2)))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2 (u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

<u>Isotope</u>	<u>Atom %</u>
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

<https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver>

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 06, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

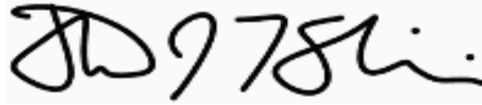
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: AR-6020ICS-0A10
 Lot Number: T2-MEB719898
 Matrix: 1.4% (v/v) HNO3
 Value / Analyte(s):
 1 000 µg/mL ea:
 Chloride,
 200 µg/mL ea:
 Carbon,
 100 µg/mL ea:
 Calcium, Aluminum,
 Iron, Potassium,
 Magnesium, Sodium,
 Phosphorus, Sulfur,
 2 µg/mL ea:
 Titanium, Molybdenum

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Calcium, Ca	100.0 ± 0.5 µg/mL
Carbon, C	200.1 ± 0.5 µg/mL	Chloride, Cl	1 000 ± 5 µg/mL
Iron, Fe	100.0 ± 0.5 µg/mL	Magnesium, Mg	100.0 ± 0.5 µg/mL
Molybdenum, Mo	2.001 ± 0.014 µg/mL	Phosphorus, P	100.0 ± 0.6 µg/mL
Potassium, K	100.0 ± 0.5 µg/mL	Sodium, Na	100.0 ± 0.5 µg/mL
Sulfur, S	100.0 ± 0.5 µg/mL	Titanium, Ti	2.001 ± 0.015 µg/mL

Density: 1.009 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
C	Acidimetric	84L	84L
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cl	Acidimetric	84L	84L
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mo	ICP Assay	3134	130418
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
S	Acidimetric	84L	84L
S	ICP Assay	traceable to 3154	P2-S680745
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 07, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 07, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

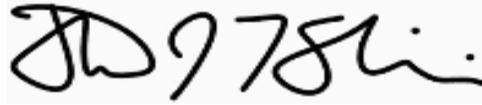
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Form I
INORGANIC ANALYSIS DATA SHEET
EPA 7471B
Total Metals

LDW23-IT1224

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-05 A SDG: 23A0032
 Sampled: 01/03/23 13:21 Prepared: 02/23/23 11:49 File ID: SMM 02-27-23-048
 % Solids: 67.49 Preparation: SMM EPA 7471B Analyzed: 02/27/23 12:35
 Batch: BLB0517 Sequence: SLB0365 Initial/Final: 0.241 g Wet / 50 mL
 Instrument: HYDRA Calibration: GB00073

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	0.140	1	0.00646	0.0307	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 7471B
Total Metals

LDW23-SC1226B

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-08 C SDG: 23A0032
 Sampled: 01/03/23 12:35 Prepared: 02/23/23 11:49 File ID: SMM 02-27-23-054
 % Solids: 61.74 Preparation: SMM EPA 7471B Analyzed: 02/27/23 12:49
 Batch: BLB0517 Sequence: SLB0365 Initial/Final: 0.285 g Wet / 50 mL
 Instrument: HYDRA Calibration: GB00073

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	0.0966	1	0.00597	0.0284	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 7471B
Total Metals

LDW23-SC1212

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-11 B SDG: 23A0032
 Sampled: 01/03/23 14:01 Prepared: 02/23/23 11:49 File ID: SMM 02-27-23-055
 % Solids: 52.58 Preparation: SMM EPA 7471B Analyzed: 02/27/23 12:51
 Batch: BLB0517 Sequence: SLB0365 Initial/Final: 0.213 g Wet / 50 mL
 Instrument: HYDRA Calibration: GB00073

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	0.133	1	0.00938	0.0446	



PREPARATION BATCH SUMMARY
EPA 7471B

Laboratory: Analytical Resources, LLC SDG: 23A0032
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Batch: BLB0517 Batch Matrix: Solid Preparation: SMM EPA 7471B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1224	23A0032-05	SMM 02-27-23-048	02/23/23 11:49	FROZEN VOLUME USED
LDW23-SC1226B	23A0032-08	SMM 02-27-23-054	02/23/23 11:49	FROZEN VOLUME USED
LDW23-SC1212	23A0032-11	SMM 02-27-23-055	02/23/23 11:49	FROZEN VOLUME USED
Blank	BLB0517-BLK1	SMM 02-27-23-046	02/23/23 11:49	
LCS	BLB0517-BS1	SMM 02-27-23-047	02/23/23 11:49	
LDW23-IT1224	BLB0517-DUP1	SMM 02-27-23-049	02/23/23 11:49	
LDW23-IT1224	BLB0517-MS1	SMM 02-27-23-050	02/23/23 11:49	
LDW23-IT1224	BLB0517-MSD1	SMM 02-27-23-051	02/23/23 11:49	
Reference	BLB0517-SRM1	SMM 02-27-23-066	02/23/23 11:49	



Mercury Digestion Log

Prep Code: SMM Balance ID: 10 Matrix: Soil
 Analyst: ML Block ID: 9 Date: 02/23/23
 Bath Temp: 95 Start Time: 1048 End Time: 1149

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) Volume (mL)	Final Volume (mL)	# KMnO ₄ Aliquots	CLP	Comments
23A032-05	A	|	0.241	50	1		
↓ -08	C	|	0.285	↓	↓		
↓ -11	B	|	0.213	↓	↓		
23A0171-01		|	0.249	↓	↓		
↓ -02		|	0.291	↓	↓		
↓ -03		|	0.200	↓	↓		
↓ -04	↓	|	0.258	↓	↓		
23B0051-01	A	|	0.215	↓	↓		
↓ -02	↓	|	0.244	↓	↓		
↓ -03	↓	|	0.252	↓	↓		
23B0276-01	C	|	0.270	↓	↓		
B1B0517-b1k1	-	|	-	↓	↓		
↓ -b1l	-	|	-	↓	↓		
↓ -DPI	-	|	0.245	↓	↓		23A0032-05
↓ -MSI	-	|	0.246	↓	↓		↓
↓ -MSDI	-	|	0.246	↓	↓		
↓ -SRM	-	|	0.267	↓	↓		
ML 02/23/23							

Chemical/Reagent ID:

HNO₃: L492 H₂SO₄: L112 HCl: -
 5% K₂S₂O₈: L437 5% KMnO₄: K11727 Digest Tube Lot: 2208065

① 0.246



Form I
METHOD BLANK DATA SHEET
EPA 7471B
Total Metals

Blank

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLB0517

Laboratory ID: BLB0517-BLK1

Prepared: 02/23/23 11:49

Matrix: Solid

Preparation: SMM EPA 7471B

Analyzed: 02/27/23 12:30

Sequence: SLB0365

Calibration: GB00073

Instrument: HYDRA

CAS NO.	Analyte	Concentration (mg/kg wet)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	ND	1	0.00525	0.0250	U



DUPLICATES

EPA 7471B

Total Metals

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLB0517-DUP1

Batch: BLB0517

Lab Source ID: 23A0032-05

Preparation: SMM EPA 7471B

Initial/Final: 0.245 g / 50 mL

Source Sample Name: LDW23-IT1224

% Solids: 67.49

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Mercury	0.08 - 0.14	0.140	0.108	25.8	L

*: Values outside of QC limits

L: Analyte concentration is ≤ 5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD



MS / MS DUPLICATE RECOVERY
EPA 7471B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>02/27/23 12:39</u>
Batch:	<u>BLB0517</u>	Laboratory ID:	<u>BLB0517-MS1</u>
Preparation:	<u>SMM EPA 7471B</u>	Sequence Name:	<u>Matrix Spike</u>
Initial/Final:	<u>0.246 g / 50 mL</u>	Source Sample:	<u>LDW23-IT1224</u>

COMPOUND	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	Q	MS CONCENTRATION (mg/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Mercury	0.301	0.140		0.478		112	75 - 125

* Values outside of QC limits



MS / MS DUPLICATE RECOVERY
EPA 7471B

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>02/27/23 12:42</u>
Batch:	<u>BLB0517</u>	Laboratory ID:	<u>BLB0517-MSD1</u>
Preparation:	<u>SMM EPA 7471B</u>	Sequence Name:	<u>Matrix Spike Dup</u>
Initial/Final:	<u>0.246 g / 50 mL</u>	Source Sample:	<u>LDW23-IT1224</u>

COMPOUND	SPIKE ADDED (mg/kg dry)	MSD CONCENTRATION (mg/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Mercury	0.301	0.467		108	2.40	20	75 - 125

* Values outside of QC limits



STANDARD REFERENCE MATERIAL RECOVERY
EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLB0517-SRM1

Batch: BLB0517

Initial/Final: 0.207 g / 50 mL

Preparation: SMM EPA 7471B

Analyzed: 02/27/2023 13:17

Standard ID: K008376

Expires: 04/20/2025

Standard Lot#: D112-540

Description: Metals In Soil

ANALYTE	TRUE (mg/kg wet)	FOUND (mg/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Mercury	3.3100	3.69	0.0507	0.242	D	112	86.1 - 139.9

* Values outside of QC limits



INITIAL CALIBRATION DATA

EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: GB00073

Instrument: HYDRA

Calibration Date: 02/27/2023 16:35

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Mercury	0	0	0.0001	6920000	0.0005	6610000	0.001	6467000	0.002	6401000	0.005	6280600

Sample ID	Mean	Units	Date/Method
SEQ-CAL1	70	PPB	27 Feb 2023 10:17:58ARI 5 ppb (NO 0.05)
SEQ-CAL2	692	PPB	27 Feb 2023 10:20:19ARI 5 ppb (NO 0.05)
SEQ-CAL3	3305	PPB	27 Feb 2023 10:22:41ARI 5 ppb (NO 0.05)
SEQ-CAL4	6467	PPB	27 Feb 2023 10:25:01ARI 5 ppb (NO 0.05)
SEQ-CAL5	12802	PPB	27 Feb 2023 10:27:22ARI 5 ppb (NO 0.05)
SEQ-CAL6	31403	PPB	27 Feb 2023 10:29:42ARI 5 ppb (NO 0.05)
SEQ-ICV	103.3% 4.1310	PPB ✓	27 Feb 2023 10:34:09ARI 5 ppb (NO 0.05)
SEQ-ICB	-0.0218	PPB ✓	27 Feb 2023 10:36:28ARI 5 ppb (NO 0.05)
SEQ-CRL	81.5% 0.0815	PPB ✓	27 Feb 2023 10:38:50ARI 5 ppb (NO 0.05)
SEQ-CCV	104.1% 4.1620	PPB ✓	27 Feb 2023 10:41:11ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0242	PPB ✓	27 Feb 2023 10:43:29ARI 5 ppb (NO 0.05)
BLB0507-BLK1	-0.0210	PPB	27 Feb 2023 10:45:51ARI 5 ppb (NO 0.05)
BLB0507-BS1	1.8784	PPB ✓	27 Feb 2023 10:48:10ARI 5 ppb (NO 0.05)
SEQ-CCV	104.3% 4.1724	PPB ✓	27 Feb 2023 10:50:29ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0236	PPB ✓	27 Feb 2023 10:52:47ARI 5 ppb (NO 0.05)
SEQ-CCV	101.8% 4.0732	PPB ✓	27 Feb 2023 11:20:43ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0234	PPB ✓	27 Feb 2023 11:23:01ARI 5 ppb (NO 0.05)
23A0031-01	0.4658	PPB	27 Feb 2023 11:25:23ARI 5 ppb (NO 0.05)
BLB0507-DUP1	0.3509	PPB	27 Feb 2023 11:27:42ARI 5 ppb (NO 0.05)
BLB0507-MS1	1.5444	PPB ✓	27 Feb 2023 11:30:01ARI 5 ppb (NO 0.05)
BLB0507-MSD1	1.5029	PPB ✓	27 Feb 2023 11:32:20ARI 5 ppb (NO 0.05)
23A0031-03	0.2027	PPB	27 Feb 2023 11:34:39ARI 5 ppb (NO 0.05)
23A0031-04	0.3273	PPB	27 Feb 2023 11:36:58ARI 5 ppb (NO 0.05)
23A0031-05	0.3475	PPB	27 Feb 2023 11:39:18ARI 5 ppb (NO 0.05)
23A0031-06	0.2598	PPB	27 Feb 2023 11:41:37ARI 5 ppb (NO 0.05)
23A0031-07	0.2847	PPB	27 Feb 2023 11:43:57ARI 5 ppb (NO 0.05)
23A0031-08	0.4059	PPB	27 Feb 2023 11:46:17ARI 5 ppb (NO 0.05)
SEQ-CCV	103.2% 4.1289	PPB ✓	27 Feb 2023 11:48:37ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0229	PPB ✓	27 Feb 2023 11:50:55ARI 5 ppb (NO 0.05)
23A0031-09	0.3516	PPB	27 Feb 2023 11:53:17ARI 5 ppb (NO 0.05)
23A0031-10	0.3750	PPB	27 Feb 2023 11:55:38ARI 5 ppb (NO 0.05)
23A0031-11	0.3578	PPB	27 Feb 2023 11:57:59ARI 5 ppb (NO 0.05)
23A0031-12	0.3277	PPB	27 Feb 2023 12:00:18ARI 5 ppb (NO 0.05)
23A0031-13	0.3034	PPB	27 Feb 2023 12:02:37ARI 5 ppb (NO 0.05)
23A0031-14	0.2277	PPB	27 Feb 2023 12:04:56ARI 5 ppb (NO 0.05)
23A0031-15	0.2295	PPB	27 Feb 2023 12:07:15ARI 5 ppb (NO 0.05)
23A0031-16	0.3961	PPB	27 Feb 2023 12:09:34ARI 5 ppb (NO 0.05)
23A0031-17	0.3510	PPB	27 Feb 2023 12:11:53ARI 5 ppb (NO 0.05)
23A0031-18	0.3295	PPB	27 Feb 2023 12:14:12ARI 5 ppb (NO 0.05)
SEQ-CCV	102.4% 4.0975	PPB ✓	27 Feb 2023 12:16:32ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0232	PPB ✓	27 Feb 2023 12:18:51ARI 5 ppb (NO 0.05)
23A0031-19	0.3130	PPB	27 Feb 2023 12:21:13ARI 5 ppb (NO 0.05)
23A0031-20	0.2795	PPB	27 Feb 2023 12:23:33ARI 5 ppb (NO 0.05)
23A0031-21	0.1490	PPB	27 Feb 2023 12:25:54ARI 5 ppb (NO 0.05)
BLB0507-SRM1	1.5829	PPB ✓	27 Feb 2023 12:28:14ARI 5 ppb (NO 0.05)
BLB0517-BLK1	-0.0169	PPB	27 Feb 2023 12:30:35ARI 5 ppb (NO 0.05)
BLB0517-BS1	1.8111	PPB ✓	27 Feb 2023 12:32:54ARI 5 ppb (NO 0.05)
23A0032-05	0.4565	PPB	27 Feb 2023 12:35:14ARI 5 ppb (NO 0.05)
BLB0517-DUP1	0.3581	PPB	27 Feb 2023 12:37:33ARI 5 ppb (NO 0.05)
BLB0517-MS1	1.5873	PPB ✓	27 Feb 2023 12:39:52ARI 5 ppb (NO 0.05)
BLB0517-MSD1	1.5496	PPB ✓	27 Feb 2023 12:42:12ARI 5 ppb (NO 0.05)
SEQ-CCV	103.0% 4.1197	PPB ✓	27 Feb 2023 12:44:31ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0212	PPB ✓	27 Feb 2023 12:46:50ARI 5 ppb (NO 0.05)
23A0032-08	0.3399	PPB	27 Feb 2023 12:49:11ARI 5 ppb (NO 0.05)
23A0032-11	0.2981	PPB	27 Feb 2023 12:51:30ARI 5 ppb (NO 0.05)
23A0171-01	0.4313	PPB	27 Feb 2023 12:53:51ARI 5 ppb (NO 0.05)
23A0171-02	0.4172	PPB	27 Feb 2023 12:56:10ARI 5 ppb (NO 0.05)
23A0171-03	0.3359	PPB	27 Feb 2023 12:58:31ARI 5 ppb (NO 0.05)
23A0171-04	0.3962	PPB	27 Feb 2023 13:00:51ARI 5 ppb (NO 0.05)
23B0051-01	0.5168	PPB	27 Feb 2023 13:03:13ARI 5 ppb (NO 0.05)

SMM 02-27-23

Method: ARI 5 ppb (NO 0.05)

Operator: Admin

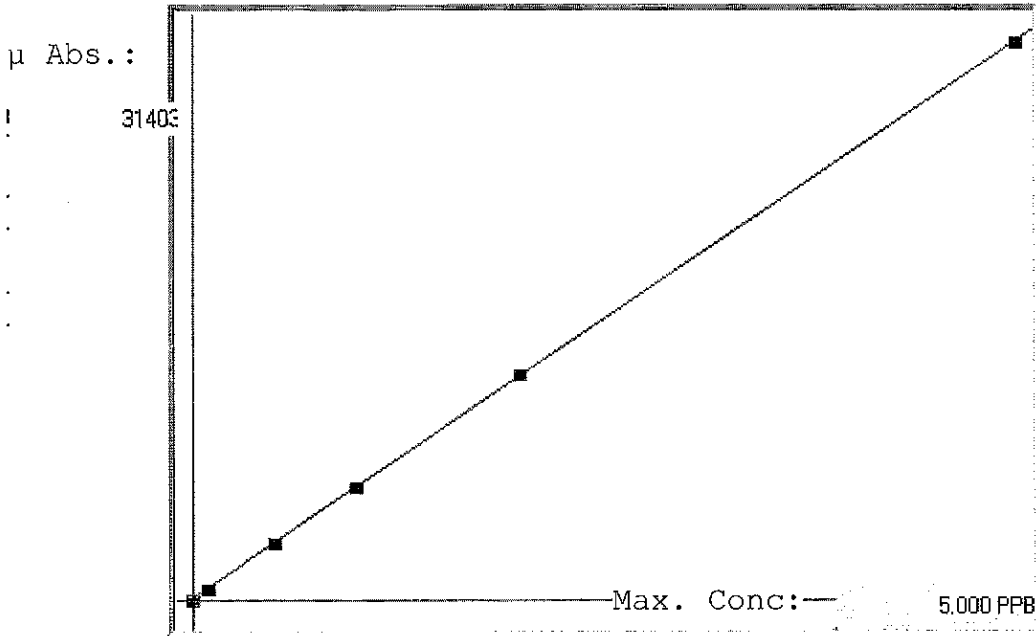
Date of Analysis: 27 Feb 2023 10:15:47

Sample ID	Mean	Units	Date	Method
23B0051-02	0.5256	PPB	27 Feb 2023 13:05:33	ARI 5 ppb (NO 0.05)
23B0051-03	0.5067	PPB	27 Feb 2023 13:07:52	ARI 5 ppb (NO 0.05)
23B0276-01	0.3388	PPB	27 Feb 2023 13:10:11	ARI 5 ppb (NO 0.05)
SEQ-CCV	101.2% 4.0490	PPB	27 Feb 2023 13:12:30	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0224	PPB	27 Feb 2023 13:14:49	ARI 5 ppb (NO 0.05)
BLB0517-SRM1	1.5296	PPB	27 Feb 2023 13:17:11	ARI 5 ppb (NO 0.05)
BLB0595-BLK1	-0.0132	PPB	27 Feb 2023 13:19:30	ARI 5 ppb (NO 0.05)
BLB0595-BS1	1.8365	PPB	27 Feb 2023 13:21:49	ARI 5 ppb (NO 0.05)
23B0261-01	0.1046	PPB	27 Feb 2023 13:24:09	ARI 5 ppb (NO 0.05)
BLB0595-DUP1	0.1114	PPB	27 Feb 2023 13:26:29	ARI 5 ppb (NO 0.05)
BLB0595-MS1	1.1135	PPB	27 Feb 2023 13:28:49	ARI 5 ppb (NO 0.05)
BLB0595-MSD1	1.1221	PPB	27 Feb 2023 13:31:10	ARI 5 ppb (NO 0.05)
23A0598-01	0.9669	PPB	27 Feb 2023 13:33:31	ARI 5 ppb (NO 0.05)
23B0194-01	1.3587	PPB	27 Feb 2023 13:35:53	ARI 5 ppb (NO 0.05)
23B0227-04	0.8879	PPB	27 Feb 2023 13:38:12	ARI 5 ppb (NO 0.05)
SEQ-CCV	101.8% 4.0733	PPB	27 Feb 2023 13:40:32	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0236	PPB	27 Feb 2023 13:42:50	ARI 5 ppb (NO 0.05)
23B0261-04	0.1087	PPB	27 Feb 2023 13:45:11	ARI 5 ppb (NO 0.05)
23B0261-07	0.1433	PPB	27 Feb 2023 13:47:31	ARI 5 ppb (NO 0.05)
23B0261-10	0.1464	PPB	27 Feb 2023 13:49:50	ARI 5 ppb (NO 0.05)
23B0261-13	0.1699	PPB	27 Feb 2023 13:52:10	ARI 5 ppb (NO 0.05)
23B0261-16	0.2121	PPB	27 Feb 2023 13:54:30	ARI 5 ppb (NO 0.05)
23B0261-19	0.1623	PPB	27 Feb 2023 13:56:50	ARI 5 ppb (NO 0.05)
23B0261-22	0.1618	PPB	27 Feb 2023 13:59:10	ARI 5 ppb (NO 0.05)
23B0261-25	0.1510	PPB	27 Feb 2023 14:01:30	ARI 5 ppb (NO 0.05)
23B0261-28	0.1307	PPB	27 Feb 2023 14:03:50	ARI 5 ppb (NO 0.05)
23B0261-31	0.1460	PPB	27 Feb 2023 14:06:11	ARI 5 ppb (NO 0.05)
SEQ-CCV	100.2% 4.0095	PPB	27 Feb 2023 14:08:31	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0234	PPB	27 Feb 2023 14:10:49	ARI 5 ppb (NO 0.05)
SEQ-CCV	102.9% 4.1169	PPB	27 Feb 2023 14:13:11	ARI 5 ppb (NO 0.05)
23B0335-01	-0.0228	PPB	27 Feb 2023 14:15:29	ARI 5 ppb (NO 0.05)
23B0261-34	0.1321	PPB	27 Feb 2023 14:15:46	ARI 5 ppb (NO 0.05)
23B0335-01	0.9609	PPB	27 Feb 2023 14:18:06	ARI 5 ppb (NO 0.05)
BLB0595-SRM1	1.6074	PPB	27 Feb 2023 14:20:26	ARI 5 ppb (NO 0.05)
BLB0614-BLK1	-0.0145	PPB	27 Feb 2023 14:22:45	ARI 5 ppb (NO 0.05)
BLB0614-BS1	1.8795	PPB	27 Feb 2023 14:25:05	ARI 5 ppb (NO 0.05)
23B0217-02	0.2389	PPB	27 Feb 2023 14:27:25	ARI 5 ppb (NO 0.05)
BLB0614-DUP1	0.2499	PPB	27 Feb 2023 14:29:45	ARI 5 ppb (NO 0.05)
BLB0614-MS1	1.4459	PPB	27 Feb 2023 14:32:05	ARI 5 ppb (NO 0.05)
BLB0614-MSD1	1.3678	PPB	27 Feb 2023 14:34:25	ARI 5 ppb (NO 0.05)
23B0217-03	0.2419	PPB	27 Feb 2023 14:36:45	ARI 5 ppb (NO 0.05)
SEQ-CCV	103.4% 4.1348	PPB	27 Feb 2023 14:39:07	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0229	PPB	27 Feb 2023 14:41:25	ARI 5 ppb (NO 0.05)
23B0217-04	0.3339	PPB	27 Feb 2023 14:43:47	ARI 5 ppb (NO 0.05)
23B0217-05	0.2869	PPB	27 Feb 2023 14:46:08	ARI 5 ppb (NO 0.05)
23B0217-06	0.6728	PPB	27 Feb 2023 14:48:29	ARI 5 ppb (NO 0.05)
SEQ-CCV	101.4% 4.0569	PPB	27 Feb 2023 14:50:50	ARI 5 ppb (NO 0.05)
SEQ-CCB	-0.0218	PPB	27 Feb 2023 14:53:09	ARI 5 ppb (NO 0.05)

D₂₁

ARI 5 ppb (NO 0.05)

Linear



A= 0.0000e+000

B= 1.5961e-004

C= -2.2812e-002

Rho= 0.9999740

Accept=Accepted

Accepted Date=

02/27/23 10:34

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
SEQ-CAL1 - Blank	0.000	-0.012	-0.012	69	4.110	65	69	75		
SEQ-CAL2 - 0.1 PPB	0.100	0.088	-0.012	691	0.6 %	694	695	686		
SEQ-CAL3 - 0.5 PPB	0.500	0.505	0.005	3305	1.6 %	3341	3343	3231		
SEQ-CAL4 - 1.0 PPB	1.000	1.009	0.009	6466	1.4 %	6353	6472	6575		
SEQ-CAL5 - 2.0 PPB	2.000	2.021	0.021	12802	0.6 %	12849	12870	12687		
SEQ-CAL6 - 5.0 PPB	5.000	4.990	-0.010	31403	0.7 %	31099	31643	31467		

Mercury Analysis Log

Analyst: ML
 Instrument: HYDRA

Date: 02/27/23
 Page: 1 of 4

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
SEA -C011	SMM	1X		
-C012				
-C013				
-C014				
-C015				
-C016				
-ICV			✓ 4.13	
-ICB			✓ -0.02	
-CRL			✓ 0.081	
-CCV			✓ 4.16	
↓ -CCB			✓ -0.02	
BLB0507 -B1K1				
↓ -BS1			✓ 1.878	93.9%R
SEA -CCV			✓ 4.17	
↓ -CCB			✓ -0.02	
↓ -CCV			✓ 4.07	
↓ -CCB			✓ -0.02	
23A0031 -02				
BLB0507 -Dup1				NO RPD
↓ -MS1			✓ 1.544	107.8%R
↓ -MSD1			✓ 1.502	103.7%R
23A0031 -03				
↓ -04				
↓ -05				
↓ -06				
↓ -07				
↓ -08				
SEA -CCV			✓ 4.12	
↓ -CCB			✓ -0.02	
23A0031 -09				

Chemical/Reagent ID:
 10% SnCl₂: L2064

14% NH₂OH/NaCl: L716

Standard ID:
 Standard: L2056 - L2061

ICV/CCV: L2053

Mercury Analysis Log

Analyst: ML
 Instrument: HYDRA

Date:

Page: 2 of 4

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
-10	S			
-11				
-12				
-13				
-14				
-15				
-16				
-17				
↓ -18				
SEA -CCV			✓ 4.09	
↓ -CCB			✓ -0.02	
23A0031 -19				
↓ -20				
↓ -21				
BLB0507 -SPM1		10X	✓ 1.58	118.1R
BLB0517 -BIK1		1X		
↓ -BS1			✓ 1.811	
23A0032 -05				
BLB0517 -LUM1				NO RPD
↓ -MS1			✓ 1.587	113.1R
↓ -MDD1			✓ 1.549	109.31R
SEA -CCV			✓ 4.11	
↓ -CCB			✓ -0.021	
23A0032 -08				
↓ -11				
23A0171 -01				
↓ -02				
↓ -03				
↓ -04				
23B0051 -01				

Chemical/Reagent ID:
 10% SnCl₂:
 Standard ID:
 Standard:

14% NH₂OH/NaCl:
 ICV/CCV:

Mercury Analysis Log

Analyst:

Date:

Instrument:

Page: 3 of 4

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
↓ -02				
↓ -03				
23B0276 -01				
SEO -CCV			√ 4.04	
↓ -CCB			√ -0.02	
BLB0517 -SRMI		10X	√ 1.529	112 %R
BLB0595 -BIKI		1X		
↓ -BSI			√ 1.836	91.8 %R
23B0261 -01				
BLB0295 -DUPI				PPD= 6.29
↓ -MSI			√ 1.113	
↓ -MSDI			√ 1.122	
23A0598 -01				
23B0194 -01				
23B0227 -04				
SEO -CCV			√ 4.07	
↓ -CCB			√ -0.02	
23B0261 -02				
↓ -07				
↓ -10				
↓ -13				
↓ -16				
↓ -19				
↓ -22				
↓ -25				
↓ -28				
↓ -31				
SEO -CCV			√ 4.00	
↓ -CCB			√ -0.02	
↓ -CCV			√ 4.11	

Chemical/Reagent ID:
10% SnCl₂:

14% NH₂OH/NaCl:

Standard ID:
Standard:

ICV/CCV:

Mercury Analysis Log

Analyst: _____
Instrument: _____

Date: _____
Page: 4 of 4

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
23B0335 -01				No read; del
23B0261 -34				
23B0335 -01				
BLB0595 -SEM		10x	✓ 1.607	120.7R
BLB0614 -B1K		1x		
↓ -B31			1.879	93.9.1R
23B0217 -02				
BLB0614 -DUP1				RPD=4.50
↓ -MS1			✓ 1.445	120.7.1R
↓ -MSD1			✓ 1.367	112.8.1R
23B0217 -03				
SEQ -CCV			✓ 4.13	
↓ -CCB			✓ -0.02	
23B0217 -04				
↓ -05				
↓ -06				
SEQ -CCV				
↓ -CCB	✓	✓		
<div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.5;"> <p>ML 021-120</p> </div>				

Chemical/Reagent ID:
10% SnCl₂: _____
Standard ID: _____
Standard: _____

14% NH₂OH/NaCl: _____
ICV/CCV: _____



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 7471B**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: HYDRA

Calibration: GB00073

Control Limit: +/- 20.00%

Sequence: SLB0365

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLB0365-ICV1	Mercury	0.0040000	0.00413	103	mg/L	EPA 7471B
SLB0365-CCV1	Mercury	0.0040000	0.00416	104	mg/L	EPA 7471B
SLB0365-CCV2	Mercury	0.0040000	0.00417	104	mg/L	EPA 7471B
SLB0365-CCV3	Mercury	0.0040000	0.00407	102	mg/L	EPA 7471B
SLB0365-CCV4	Mercury	0.0040000	0.00413	103	mg/L	EPA 7471B
SLB0365-CCV5	Mercury	0.0040000	0.00410	102	mg/L	EPA 7471B
SLB0365-CCV6	Mercury	0.0040000	0.00412	103	mg/L	EPA 7471B
SLB0365-CCV7	Mercury	0.0040000	0.00405	101	mg/L	EPA 7471B
SLB0365-CCV8	Mercury	0.0040000	0.00407	102	mg/L	EPA 7471B
SLB0365-CCV9	Mercury	0.0040000	0.00401	100	mg/L	EPA 7471B
SLB0365-CCVA	Mercury	0.0040000	0.00413	103	mg/L	EPA 7471B
SLB0365-CCVB	Mercury	0.0040000	0.00406	101	mg/L	EPA 7471B

* Values outside of QC limits



INSTRUMENT BLANKS
EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: HYDRA

Calibration: GB00073

Sequence: SLB0365

Date Analyzed: 02/27/23 10:36

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLB0365-ICB1	Mercury	-0.000022	0.000021	0.000100	mg/L	
SLB0365-CCB1	Mercury	-0.000024	0.000021	0.000100	mg/L	
SLB0365-CCB2	Mercury	-0.000024	0.000021	0.000100	mg/L	
SLB0365-CCB3	Mercury	-0.000023	0.000021	0.000100	mg/L	
SLB0365-CCB4	Mercury	-0.000023	0.000021	0.000100	mg/L	
SLB0365-CCB5	Mercury	-0.000023	0.000021	0.000100	mg/L	
SLB0365-CCB6	Mercury	-0.000021	0.000021	0.000100	mg/L	
SLB0365-CCB7	Mercury	-0.000022	0.000021	0.000100	mg/L	
SLB0365-CCB8	Mercury	-0.000024	0.000021	0.000100	mg/L	
SLB0365-CCB9	Mercury	-0.000023	0.000021	0.000100	mg/L	
SLB0365-CCBA	Mercury	-0.000023	0.000021	0.000100	mg/L	
SLB0365-CCBB	Mercury	-0.000022	0.000021	0.000100	mg/L	



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0365

Instrument: HYDRA

Calibration: GB00073

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Cal Standard	SLB0365-CAL1	SMM 02-27-23-001	NA	02/27/23 10:17
Cal Standard	SLB0365-CAL2	SMM 02-27-23-002	NA	02/27/23 10:20
Cal Standard	SLB0365-CAL3	SMM 02-27-23-003	NA	02/27/23 10:22
Cal Standard	SLB0365-CAL4	SMM 02-27-23-004	NA	02/27/23 10:25
Cal Standard	SLB0365-CAL5	SMM 02-27-23-005	NA	02/27/23 10:27
Cal Standard	SLB0365-CAL6	SMM 02-27-23-006	NA	02/27/23 10:29
Initial Cal Check	SLB0365-ICV1	SMM 02-27-23-007	NA	02/27/23 10:34
Initial Cal Blank	SLB0365-ICB1	SMM 02-27-23-008	NA	02/27/23 10:36
Instrument RL Check	SLB0365-CRL1	SMM 02-27-23-009	NA	02/27/23 10:38
Calibration Check	SLB0365-CCV1	SMM 02-27-23-010	NA	02/27/23 10:41
Calibration Blank	SLB0365-CCB1	SMM 02-27-23-011	NA	02/27/23 10:43
Calibration Check	SLB0365-CCV2	SMM 02-27-23-014	NA	02/27/23 10:50
Calibration Blank	SLB0365-CCB2	SMM 02-27-23-015	NA	02/27/23 10:52
Calibration Check	SLB0365-CCV3	SMM 02-27-23-016	NA	02/27/23 11:20
Calibration Blank	SLB0365-CCB3	SMM 02-27-23-017	NA	02/27/23 11:23
Calibration Check	SLB0365-CCV4	SMM 02-27-23-028	NA	02/27/23 11:48
Calibration Blank	SLB0365-CCB4	SMM 02-27-23-029	NA	02/27/23 11:50
Calibration Check	SLB0365-CCV5	SMM 02-27-23-040	NA	02/27/23 12:16
Calibration Blank	SLB0365-CCB5	SMM 02-27-23-041	NA	02/27/23 12:18
Blank	BLB0517-BLK1	SMM 02-27-23-046	Solid	02/27/23 12:30
LCS	BLB0517-BS1	SMM 02-27-23-047	Solid	02/27/23 12:32
LDW23-IT1224	23A0032-05	SMM 02-27-23-048	Solid	02/27/23 12:35
LDW23-IT1224	BLB0517-DUP1	SMM 02-27-23-049	Solid	02/27/23 12:37
LDW23-IT1224	BLB0517-MS1	SMM 02-27-23-050	Solid	02/27/23 12:39
LDW23-IT1224	BLB0517-MSD1	SMM 02-27-23-051	Solid	02/27/23 12:42
Calibration Check	SLB0365-CCV6	SMM 02-27-23-052	NA	02/27/23 12:44
Calibration Blank	SLB0365-CCB6	SMM 02-27-23-053	NA	02/27/23 12:46
LDW23-SC1226B	23A0032-08	SMM 02-27-23-054	Solid	02/27/23 12:49
LDW23-SC1212	23A0032-11	SMM 02-27-23-055	Solid	02/27/23 12:51



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SLB0365

Instrument: HYDRA

Calibration: GB00073

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SLB0365-CCV7	SMM 02-27-23-064	NA	02/27/23 13:12
Calibration Blank	SLB0365-CCB7	SMM 02-27-23-065	NA	02/27/23 13:14
Reference	BLB0517-SRM1	SMM 02-27-23-066	Solid	02/27/23 13:17
Calibration Check	SLB0365-CCV8	SMM 02-27-23-076	NA	02/27/23 13:40
Calibration Blank	SLB0365-CCB8	SMM 02-27-23-077	NA	02/27/23 13:42
Calibration Check	SLB0365-CCV9	SMM 02-27-23-088	NA	02/27/23 14:08
Calibration Blank	SLB0365-CCB9	SMM 02-27-23-089	NA	02/27/23 14:10
Calibration Check	SLB0365-CCVA	SMM 02-27-23-102	NA	02/27/23 14:39
Calibration Blank	SLB0365-CCBA	SMM 02-27-23-103	NA	02/27/23 14:41
Calibration Check	SLB0365-CCVB	SMM 02-27-23-107	NA	02/27/23 14:50
Calibration Blank	SLB0365-CCBB	SMM 02-27-23-108	NA	02/27/23 14:53



DETECTION LEVEL STANDARD
EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: HYDRA

Calibration: GB00073

Sequence: SLB0365

Lab Sample ID: SLB0365-CRL1

Analyte	True	Found	%R	Units	QC Limits
Mercury	0.000100	0.000082	81.5	mg/L	70 - 130

* Values outside of QC limits



HOLDING TIME SUMMARY

Analysis: EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-IT1224 23A0032-05	01/03/23 13:21	01/03/23 16:57	02/23/23 11:49	50	365	02/27/23 12:35	55	365	
LDW23-SC1226B 23A0032-08	01/03/23 12:35	01/03/23 16:57	02/23/23 11:49	50	365	02/27/23 12:49	55	365	
LDW23-SC1212 23A0032-11	01/03/23 14:01	01/03/23 16:57	02/23/23 11:49	50	365	02/27/23 12:51	55	365	
Duplicate BLB0517-DUP1	01/03/23 13:21	01/03/23 16:57	02/23/23 11:49	50	365	02/27/23 12:37	55	365	
Matrix Spike BLB0517-MS1	01/03/23 13:21	01/03/23 16:57	02/23/23 11:49	50	365	02/27/23 12:39	55	365	
Matrix Spike Dup BLB0517-MSD1	01/03/23 13:21	01/03/23 16:57	02/23/23 11:49	50	365	02/27/23 12:42	55	365	

* Indicates hold time exceedance.



Analytical Resources, LLC
Analytical Chemists and Consultants

METHOD DETECTION AND REPORTING LIMITS

EPA 7471B

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: HYDRA

Analyte	MDL	RL	Units
Mercury	0.00525	0.0250	mg/kg

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGHG1
Lot Number: S2-HG711246
Matrix: 5% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Mercury
Starting Material: Hg Metal
Starting Material Lot#: 1959
Starting Material Purity: 99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1000 ± 3 µg/mL
Density: 1.026 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	1004 ± 6 µg/mL ICP Assay NIST SRM 3133 Lot Number: 160921
Assay Method #2	998 ± 3 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	1001 ± 3 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char j}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000210	M Eu < 0.000210	O Na < 0.000626	M Se < 0.008100	M Zn < 0.000810
M Al < 0.000161	O Fe < 0.001600	M Nb < 0.000410	O Si < 0.000626	M Zr < 0.000410
M As < 0.002500	M Ga < 0.000210	M Nd < 0.000210	M Sm < 0.000210	
O Au < 0.001700	M Gd < 0.000210	O Ni < 0.001400	M Sn < 0.000410	
M B < 0.008500	M Ge < 0.000410	M Os < 0.003900	O Sr < 0.000110	
M Ba < 0.000210	M Hf < 0.000210	O P < 0.029000	M Ta < 0.000210	
O Be < 0.000110	s Hg < 0.000210	M Pb < 0.000210	M Tb < 0.000210	
M Bi < 0.001100	M Ho < 0.000210	M Pd < 0.003500	M Te < 0.005700	
O Ca < 0.004754	M In < 0.000210	M Pr < 0.000210	M Th < 0.000210	
M Cd < 0.000210	M Ir < 0.000210	M Pt < 0.000210	O Ti < 0.000430	
M Ce < 0.000210	O K < 0.000731	M Rb < 0.000210	O Tl < 0.005400	
M Co < 0.000210	M La < 0.000210	M Re < 0.000210	M Tm < 0.000210	
O Cr < 0.003300	O Li < 0.000110	M Rh < 0.001100	M U < 0.000410	
M Cs < 0.000410	M Lu < 0.000210	M Ru < 0.000810	M V < 0.000210	
M Cu < 0.000810	O Mg < 0.000104	O S < 0.022000	M W < 0.001100	
M Dy < 0.000210	O Mn < 0.000430	M Sb < 0.000210	M Y < 0.000210	
M Er < 0.000210	M Mo < 0.000210	M Sc < 0.000210	M Yb < 0.000210	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+
Chemical Compatibility - Stable in HNO₃. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO₃ / LDPE container, stable in 10% HNO₃ packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO₃ packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO₃ / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO₃); Oxide (Soluble in HNO₃); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 18, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 18, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: QCP-QCS-4
 Lot Number: R2-MEB695951
 Matrix: 7% (v/v) HNO₃
 Value / Analyte(s): 5 µg/mL ea:
 Mercury

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Mercury, Hg	5.011 ± 0.023 µg/mL		

Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	061204
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u^2_{char} + u^2_{bb} + u^2_{Its} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

u_{char} = $[\sum(w_i)^2(u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u^2_{char a} + u^2_{bb} + u^2_{Its} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 20, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 20, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



K8376

▪ Certificate of Analysis ▪

1. The **Certified Values** are the actual gravimetric/volumetric "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.
2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor (k=2). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:

$$U_{\text{expanded}} = k * \text{SQRT}((U_{\text{char}})^2 + (U_{\text{homogen}})^2 + (U_{\text{LTS}})^2 + (U_{\text{STS}})^2 + (U_{\text{RSS}})^2)$$

Where:

 - U_{expanded} = Expanded uncertainty.
 - k = Coverage factor.
 - U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.
 - U_{homogen} = Standard uncertainty of the homogeneity assessment.
 - U_{LTS} = Standard uncertainty associated with long-term stability.
 - U_{STS} = Standard uncertainty associated with short-term (transport) stability.
 - U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).
3. The **QC Performance Acceptance Limits (QC PALs™)** are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.
4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this certified reference material alongside USEPA and NELAC compliant PT study materials. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and therefore, the acceptance limits of this certified reference material and any PT study material may differ relative to their difference in concentrations.
5. The **PT Performance Data** include the mean value, percent recovery and number of data points reported by laboratories in our Proficiency Testing study compared to the Certified Values. In the event this lot was not used in a proficiency testing scheme, the data displayed was generated internally by ERA.
6. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = [(% recovery ERA certified reference material)/(% recovery NIST SRM)]*100
 The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.
7. **Metrological Traceability.** This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.
8. For additional information on this product such as intended use, storage information, instructions for use, minimum sample size, and safety information, please refer to the Product Use Instructions provided.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller

Quality Officer

Matthew Seebeck



▪ Certificate of Analysis ▪

ANALYTICAL VERIFICATION

Parameter	Certified Value ¹	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery ⁵	n	SRM Number ⁶	Recovery
		mg/kg	%			%
Aluminum	10100	7970	78.9	144	-	-
Antimony	277	136	49.1	161	-	-
Arsenic	101	87.4	86.6	188	-	-
Barium	411	347	84.5	173	-	-
Beryllium	124	103	82.8	162	-	-
Boron	220	133	60.4	105	-	-
Cadmium	212	160	75.5	190	-	-
Calcium	5190	4100	79.0	131	-	-
Chromium	282	231	82.0	184	-	-
Cobalt	310	241	77.8	166	-	-
Copper	165	144	87.4	188	-	-
Iron	15000	14200	94.7	144	-	-
Lead	289	266	92.1	196	-	-
Lithium	6.42	6.37	99.2	33	-	-
Magnesium	2570	2220	86.5	132	-	-
Manganese	670	555	82.8	165	-	-
Mercury	3.31	3.74	113	117	-	-
Molybdenum	253	211	83.6	158	-	-
Nickel	458	350	76.5	187	-	-
Potassium	2420	1940	80.2	136	-	-
Selenium	154	130	84.7	174	-	-
Silver	65.0	57.1	87.9	166	-	-
Sodium	161	117	73.0	123	-	-
Strontium	98.8	84.5	85.5	113	-	-
Thallium	87.4	75.4	86.3	163	-	-
Tin	112	93.8	83.8	114	-	-
Titanium	463	333	71.8	115	-	-
Uranium	208	186	89.5	43	-	-
Vanadium	103	88.6	86.0	161	-	-
Zinc	187	160	85.5	186	-	-

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No.: D115-540
Certificate Issue Date: September 14, 2021
Expiration Date: April 20, 2025
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 090119.

CERTIFICATION

Parameter	Certified Value ¹	Reference Value	Uncertainty ²	QC Performance Acceptance Limits ³	PT Performance Acceptance Limits ⁴
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	7970	10.4	3760 - 12200	3960 - 12000
Antimony	277	136	11.1	D.L. - 275	27.7 - 339
Arsenic	101	87.4	14.2	71.5 - 103	61.2 - 114
Barium	411	347	9.45	279 - 415	261 - 452
Beryllium	124	103	6.07	83.1 - 122	77.0 - 136
Boron	220	133	32.2	84.5 - 181	79.7 - 242
Cadmium	212	160	8.65	127 - 193	120 - 233
Calcium	5190	4100	11.2	3220 - 4970	2940 - 5710
Chromium	282	231	14.9	184 - 279	162 - 310
Cobalt	310	241	12.8	193 - 289	181 - 341
Copper	165	144	13.1	119 - 170	108 - 182
Iron	15000	14200	19.2	8600 - 19800	5010 - 23400
Lead	289	266	34.5	217 - 315	197 - 335
Lithium	6.42	6.37	18.0	4.19 - 8.54	3.13 - 9.60
Magnesium	2570	2220	6.94	1660 - 2780	1360 - 3080
Manganese	670	555	10.5	439 - 670	429 - 737
Mercury	3.31	3.74	7.72	2.85 - 4.63	2.24 - 5.23
Molybdenum	253	211	26.1	167 - 256	151 - 278
Nickel	458	350	19.3	277 - 424	245 - 504
Potassium	2420	1940	6.65	1330 - 2550	1130 - 2750
Selenium	154	130	5.42	101 - 160	87.0 - 174
Silver	65.0	57.1	9.66	44.8 - 69.5	40.1 - 74.1
Sodium	161	117	23.8	79.3 - 156	35.7 - 199
Strontium	98.8	84.5	9.49	66.6 - 102	60.3 - 109

Certified Reference Material

▪ **Certificate of Analysis** ▪

Parameter	Certified Value ¹	Reference Value	Uncertainty ²	QC Performance Acceptance Limits ³	PT Performance Acceptance Limits ⁴
	mg/kg	mg/kg	%	mg/kg	mg/kg
Thallium	87.4	75.4	4.33	60.1 - 90.7	48.5 - 102
Tin	112	93.8	10.1	71.9 - 116	52.7 - 135
Titanium	463	333	10.9	54.7 - 610	14.7 - 650
Uranium	208	186	7.30	137 - 235	125 - 247
Vanadium	103	88.6	12.2	68.6 - 109	58.1 - 119
Zinc	187	160	8.03	126 - 194	112 - 208



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-IT1246

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23A0032-01 E SDG: 23A0032

Sampled: 01/03/23 08:52 Prepared: 01/05/23 15:40 File ID:

% Solids: 56.86 Preparation: No Prep Wet Chem Analyzed: 01/05/23 15:41

Batch: BLA0113 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	56.86	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-IT1264

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-02 E SDG: 23A0032
 Sampled: 01/03/23 09:12 Prepared: 01/05/23 15:40 File ID:
 % Solids: 62.95 Preparation: No Prep Wet Chem Analyzed: 01/05/23 15:41
 Batch: BLA0113 Sequence:
 Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	62.95	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-IT1269

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23A0032-03 D SDG: 23A0032

Sampled: 01/03/23 09:36 Prepared: 01/05/23 15:40 File ID:

% Solids: 63.13 Preparation: No Prep Wet Chem Analyzed: 01/05/23 15:41

Batch: BLA0113 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	63.13	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-IT1272

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23A0032-04 D SDG: 23A0032

Sampled: 01/03/23 10:45 Prepared: 01/05/23 15:40 File ID:

% Solids: 78.22 Preparation: No Prep Wet Chem Analyzed: 01/05/23 15:41

Batch: BLA0113 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	78.22	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-IT1224

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-05 D SDG: 23A0032
 Sampled: 01/03/23 13:21 Prepared: 01/05/23 15:40 File ID:
 % Solids: 67.49 Preparation: No Prep Wet Chem Analyzed: 01/05/23 15:41
 Batch: BLA0113 Sequence:
 Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	67.49	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-IT1235

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-06 D SDG: 23A0032
 Sampled: 01/03/23 13:34 Prepared: 01/05/23 15:40 File ID:
 % Solids: 74.20 Preparation: No Prep Wet Chem Analyzed: 01/05/23 15:41
 Batch: BLA0113 Sequence:
 Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	74.20	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-IT1202

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23A0032-07 D SDG: 23A0032

Sampled: 01/03/23 14:36 Prepared: 01/05/23 15:40 File ID:

% Solids: 64.33 Preparation: No Prep Wet Chem Analyzed: 01/05/23 15:41

Batch: BLA0113 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	64.33	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1226B

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-08 D SDG: 23A0032
 Sampled: 01/03/23 12:35 Prepared: 01/05/23 15:40 File ID:
 % Solids: 61.74 Preparation: No Prep Wet Chem Analyzed: 01/05/23 15:41
 Batch: BLA0113 Sequence:
 Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	61.74	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1203

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-09 C SDG: 23A0032
 Sampled: 01/03/23 14:21 Prepared: 01/05/23 15:40 File ID:
 % Solids: 67.90 Preparation: No Prep Wet Chem Analyzed: 01/05/23 15:41
 Batch: BLA0113 Sequence:
 Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	67.90	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1203-FD

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23A0032-10 C SDG: 23A0032

Sampled: 01/03/23 14:21 Prepared: 01/05/23 15:40 File ID:

% Solids: 69.24 Preparation: No Prep Wet Chem Analyzed: 01/05/23 15:41

Batch: BLA0113 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	69.24	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW23-SC1212

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23A0032-11 D SDG: 23A0032

Sampled: 01/03/23 14:01 Prepared: 01/05/23 15:40 File ID:

% Solids: 52.58 Preparation: No Prep Wet Chem Analyzed: 01/05/23 15:41

Batch: BLA0113 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	52.58	1	0.04	0.04	

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET for Solid samples													Batch: BLA0113								
Method: PSEP 1986, SM2540, EPA 160.1													Date: 1/5/2023 15:41								
(dry at 104 (12-24 hr) then combust at 550 (30 min))													Analyst: UW								
Instrumentation			Drying Ovens: 12			Analytical Balance: BAL2			Muffle Furnace: 2												
Batch drying time			TS (%) calculated as:			Oven Temps, °C			TVS (mg/kg dry wt) calculated as:												
record times as mm/dd/yy hh:mm			Final dry wt (g) = (Dry Wt - Tare Wt)			Start Temp 105			Final ash wt (g) = (min ash wt - tare wt)												
date/time in oven: 1/5/2023 16:45			TS = (Final Dry Wt)/(grams Sample-Tare)			Dry Cycle 1 105			TVS (mg/kg) = [(Dry wt-Ash wt)/(dry weight)] *1,000,000												
date/time out: 1/6/2023 11:50						Dry Cycle 2			if ash wt > dry wt, "Chk for Err"												
elapsed hrs = 19.1 OK						Dry Cycle 3			if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000												
Balance Calibration Check																					
Record weights to 4 places													CV-02			CV-02			CV-02		
Cal Weight ID:			CV-02			CV-02			CV-02			CV-02									
Date & Time:			1/5/23 15:40			1/5/23 15:50			1/6/23 12:15												
Cal Wt (g):			10.0000			10.0000			10.0000												
			Cal OK!			Cal OK!			Cal OK!												
Sample ID	Dish #	Tare Wt. (g)	Dish & Sample (g)	Dry Wt 104C (grams)			dry Wt (g)	TS (%)	Notes	ASH WT 550C (grams)			Ash Wt (g)	TVS		Notes					
				1	2	3				1	2	3		(mg/kg)	(%)						
BLA0113-BLK1	47	0.7783	0.0000	0.7783			0.0000	0.00%													
23A0031-13	48	0.7987	6.6173	4.0545			3.2558	55.96%													
23A0031-14	49	0.7960	8.1501	5.6533			4.8573	66.05%													
23A0031-15	50	0.8112	8.7794	6.1108			5.2996	66.51%													
23A0031-16	51	0.7940	8.5417	5.1653			4.3713	56.42%													
23A0031-17	52	0.7965	9.2366	5.8316			5.0351	59.66%													
23A0031-18	53	0.7936	7.1716	3.8440			3.0504	47.83%													
23A0031-19	54	0.8226	8.0630	4.4744			3.6518	50.44%													
23A0031-20	55	0.8121	7.2735	4.0068			3.1947	49.44%													
23A0031-21	56	0.8390	6.6392	4.5322			3.6932	63.67%													
23A0032-01	57	0.8128	8.0928	4.9520			4.1392	56.86%													
BLA0113-DUP1	58	0.7980	6.4322	4.0303			3.2323	57.37%	RPD=0.9												
BLA0113-DUP2	59	0.8072	7.9890	4.9205			4.1133	57.27%	RSD=0.5												
23A0032-02	60	0.7908	8.1628	5.4314			4.6406	62.95%													
23A0032-03	61	0.8001	9.3970	6.2271			5.4270	63.13%													
23A0032-04	62	0.8076	6.7861	5.4838			4.6762	78.22%													
23A0032-05	63	0.8119	8.1338	5.7538			4.9419	67.49%													
23A0032-06	64	0.7961	8.8298	6.7575			5.9614	74.20%													
23A0032-07	65	0.8098	7.8355	5.3297			4.5199	64.33%													
23A0032-08	66	0.7982	9.0344	5.8832			5.0850	61.74%													
23A0032-09	67	0.8261	8.5268	6.0547			5.2286	67.90%													
23A0032-10	68	0.8053	8.5885	6.1942			5.3889	69.24%													
23A0032-11	69	0.7850	8.3633	4.7697			3.9847	52.58%													



Form I
METHOD BLANK DATA SHEET
SM 2540 G-97
TotalAnalytes

Blank

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLA0113

Laboratory ID: BLA0113-BLK1

Prepared: 01/05/23 15:40

Matrix: Solid

Preparation: No Prep Wet Chem

Analyzed: 01/05/23 15:41

Sequence:

Calibration:

Instrument: BAL2

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	ND	1	0.04	0.04	U



DUPLICATES
SM 2540 G-97

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLA0113-DUP1

Batch: BLA0113

Lab Source ID: 23A0032-01

Preparation: No Prep Wet Chem

Initial/Final: 5 g / 5 g

Source Sample Name: LDW23-IT1246

% Solids: 56.86

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Total Solids	20	56.86	57.37	0.897	

*: Values outside of QC limits

L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD



DUPLICATES
SM 2540 G-97

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLA0113-DUP2

Batch: BLA0113

Lab Source ID: 23A0032-01

Preparation: No Prep Wet Chem

Initial/Final: 5 g / 5 g

Source Sample Name: LDW23-IT1246

% Solids: 56.86

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Total Solids	20	56.86	57.27	0.730	

*: Values outside of QC limits

L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD



HOLDING TIME SUMMARY

Analysis: SM 2540 G-97

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-IT1246 23A0032-01	01/03/23 08:52	01/03/23 16:57	01/05/23 15:40	2	28	01/05/23 15:41	2	28	
LDW23-IT1264 23A0032-02	01/03/23 09:12	01/03/23 16:57	01/05/23 15:40	2	28	01/05/23 15:41	2	28	
LDW23-IT1269 23A0032-03	01/03/23 09:36	01/03/23 16:57	01/05/23 15:40	2	28	01/05/23 15:41	2	28	
LDW23-IT1272 23A0032-04	01/03/23 10:45	01/03/23 16:57	01/05/23 15:40	2	28	01/05/23 15:41	2	28	
LDW23-IT1224 23A0032-05	01/03/23 13:21	01/03/23 16:57	01/05/23 15:40	2	28	01/05/23 15:41	2	28	
LDW23-IT1235 23A0032-06	01/03/23 13:34	01/03/23 16:57	01/05/23 15:40	2	28	01/05/23 15:41	2	28	
LDW23-IT1202 23A0032-07	01/03/23 14:36	01/03/23 16:57	01/05/23 15:40	2	28	01/05/23 15:41	2	28	
LDW23-SC1226B 23A0032-08	01/03/23 12:35	01/03/23 16:57	01/05/23 15:40	2	28	01/05/23 15:41	2	28	
LDW23-SC1203 23A0032-09	01/03/23 14:21	01/03/23 16:57	01/05/23 15:40	2	28	01/05/23 15:41	2	28	
LDW23-SC1203-FD 23A0032-10	01/03/23 14:21	01/03/23 16:57	01/05/23 15:40	2	28	01/05/23 15:41	2	28	
LDW23-SC1212 23A0032-11	01/03/23 14:01	01/03/23 16:57	01/05/23 15:40	2	28	01/05/23 15:41	2	28	
Duplicate BLA0113-DUP1	01/03/23 08:52	01/03/23 16:57	01/05/23 15:40	2	28	01/05/23 15:41	2	28	
Duplicate BLA0113-DUP2	01/03/23 08:52	01/03/23 16:57	01/05/23 15:40	2	28	01/05/23 15:41	2	28	

* Indicates hold time exceedance.



Analytical Resources, LLC
Analytical Chemists and Consultants

METHOD DETECTION AND REPORTING LIMITS

SM 2540 G-97

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument:

Analyte	MDL	RL	Units
Total Solids	0.04	0.04	%



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-IT1246

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23A0032-01 E SDG: 23A0032

Sampled: 01/03/23 08:52 Prepared: 01/06/23 09:50 File ID: CubeData_01112023@0728-275

% Solids: 56.86 Preparation: Plumb 1981 Analyzed: 01/08/23 12:35

Batch: BLA0124 Sequence: SLA0065 Initial/Final: 0.5109 g Wet / 0.5109 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.70	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-IT1264

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment Laboratory ID: 23A0032-02 E SDG: 23A0032

Sampled: 01/03/23 09:12 Prepared: 01/06/23 09:50 File ID: CubeData_01112023@0728-280

% Solids: 62.95 Preparation: Plumb 1981 Analyzed: 01/08/23 13:05

Batch: BLA0124 Sequence: SLA0065 Initial/Final: 0.514 g Wet / 0.514 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.60	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-IT1269

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-03 D SDG: 23A0032
 Sampled: 01/03/23 09:36 Prepared: 01/06/23 09:50 File ID: CubeData_01112023@0728-287
 % Solids: 63.13 Preparation: Plumb 1981 Analyzed: 01/08/23 13:36
 Batch: BLA0124 Sequence: SLA0065 Initial/Final: 0.6012 g Wet / 0.6012 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.14	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-IT1272

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-04 D SDG: 23A0032
 Sampled: 01/03/23 10:45 Prepared: 01/06/23 09:50 File ID: CubeData_01112023@0728-293
 % Solids: 78.22 Preparation: Plumb 1981 Analyzed: 01/08/23 14:07
 Batch: BLA0124 Sequence: SLA0065 Initial/Final: 0.5431 g Wet / 0.5431 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	0.16	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-IT1224

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-05 D SDG: 23A0032
 Sampled: 01/03/23 13:21 Prepared: 01/06/23 09:50 File ID: CubeData_01112023@0728-330
 % Solids: 67.49 Preparation: Plumb 1981 Analyzed: 01/08/23 17:10
 Batch: BLA0124 Sequence: SLA0065 Initial/Final: 0.5604 g Wet / 0.5604 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.02	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-IT1235

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Sediment

Laboratory ID: 23A0032-06 D

SDG: 23A0032

Sampled: 01/03/23 13:34

Prepared: 01/06/23 09:50

File ID: CubeData_01112023@0728-339

% Solids: 74.20

Preparation: Plumb 1981

Analyzed: 01/08/23 17:41

Batch: BLA0124

Sequence: SLA0065

Initial/Final: 0.5199 g Wet / 0.5199 g

Instrument: TOC Cube

Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.13	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-IT1202

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-07 D SDG: 23A0032
 Sampled: 01/03/23 14:36 Prepared: 01/06/23 09:50 File ID: CubeData_01112023@0728-340
 % Solids: 64.33 Preparation: Plumb 1981 Analyzed: 01/08/23 18:11
 Batch: BLA0124 Sequence: SLA0065 Initial/Final: 0.5014 g Wet / 0.5014 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.18	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1226B

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-08 D SDG: 23A0032
 Sampled: 01/03/23 12:35 Prepared: 01/06/23 09:50 File ID: CubeData_01112023@0728-345
 % Solids: 61.74 Preparation: Plumb 1981 Analyzed: 01/08/23 18:42
 Batch: BLA0124 Sequence: SLA0065 Initial/Final: 0.5284 g Wet / 0.5284 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.53	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1203

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-09 C SDG: 23A0032
 Sampled: 01/03/23 14:21 Prepared: 01/06/23 09:50 File ID: CubeData_01112023@0728-350
 % Solids: 67.90 Preparation: Plumb 1981 Analyzed: 01/08/23 19:12
 Batch: BLA0124 Sequence: SLA0065 Initial/Final: 0.5164 g Wet / 0.5164 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.14	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1203-FD

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-10 C SDG: 23A0032
 Sampled: 01/03/23 14:21 Prepared: 01/06/23 09:50 File ID: CubeData_01112023@0728-355
 % Solids: 69.24 Preparation: Plumb 1981 Analyzed: 01/08/23 19:43
 Batch: BLA0124 Sequence: SLA0065 Initial/Final: 0.5116 g Wet / 0.5116 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.19	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW23-SC1212

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC5 MR Phase 1
 Matrix: Sediment Laboratory ID: 23A0032-11 D SDG: 23A0032
 Sampled: 01/03/23 14:01 Prepared: 01/06/23 09:50 File ID: CubeData_01112023@0728-363
 % Solids: 52.58 Preparation: Plumb 1981 Analyzed: 01/08/23 20:13
 Batch: BLA0124 Sequence: SLA0065 Initial/Final: 0.5196 g Wet / 0.5196 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.66	1	0.02	0.02	



PREPARATION BATCH SUMMARY

EPA 9060A m

Laboratory: Analytical Resources, LLC SDG: 23A0032
Client: Anchor QEA, LLC Project: AOC5 MR Phase 1
Batch: BLA0124 Batch Matrix: Solid Preparation: Plumb 1981

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW23-IT1246	23A0032-01	eData_01112023@0728-	01/06/23 09:50	
LDW23-IT1264	23A0032-02	eData_01112023@0728-	01/06/23 09:50	
LDW23-IT1269	23A0032-03	eData_01112023@0728-	01/06/23 09:50	
LDW23-IT1272	23A0032-04	eData_01112023@0728-	01/06/23 09:50	
LDW23-IT1224	23A0032-05	eData_01112023@0728-	01/06/23 09:50	
LDW23-IT1235	23A0032-06	eData_01112023@0728-	01/06/23 09:50	
LDW23-IT1202	23A0032-07	eData_01112023@0728-	01/06/23 09:50	
LDW23-SC1226B	23A0032-08	eData_01112023@0728-	01/06/23 09:50	
LDW23-SC1203	23A0032-09	eData_01112023@0728-	01/06/23 09:50	
LDW23-SC1203-FD	23A0032-10	eData_01112023@0728-	01/06/23 09:50	
LDW23-SC1212	23A0032-11	eData_01112023@0728-	01/06/23 09:50	
Blank	BLA0124-BLK1	eData_01112023@0728-	01/06/23 09:50	
LCS	BLA0124-BS1	eData_01112023@0728-	01/06/23 09:50	
MRL Check	BLA0124-MRL1	eData_01112023@0728-	01/06/23 09:50	
Reference	BLA0124-SRM1	eData_01112023@0728-	01/06/23 09:50	



Form I
METHOD BLANK DATA SHEET
EPA 9060A m
TotalAnalytes

Blank

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Batch: BLA0124

Laboratory ID: BLA0124-BLK1

Prepared: 01/06/23 09:50

Matrix: Solid

Preparation: Plumb 1981

Analyzed: 01/08/23 08:31

Sequence: SLA0065

Calibration: FD00070

Instrument: TOC Cube

CAS NO.	Analyte	Concentration (% wet)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	ND	1	0.02	0.02	U



LCS / LCS DUPLICATE RECOVERY
EPA 9060A m

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>01/08/23 09:01</u>
Batch:	<u>BLA0124</u>	Laboratory ID:	<u>BLA0124-BS1</u>
Preparation:	<u>Plumb 1981</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>0.0219 g / 0.0219 g</u>		

COMPOUND	SPIKE ADDED (% wet)	LCS CONCENTRATION (% wet)	Q	LCS % REC. #	QC LIMITS REC.
Total Organic Carbon	44.4	44.5		100	80 - 120

* Indicates values outside of QC limits



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sequence: SKD0371

Instrument: TOC Cube

Calibration: FD00070

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Cal Standard	SKD0371-CAL1	CubeData_04272022@1136-001	NA	04/26/22 12:30
Cal Standard	SKD0371-CAL2	CubeData_04272022@1136-002	NA	04/26/22 13:00
Cal Standard	SKD0371-CAL3	CubeData_04272022@1136-003	NA	04/26/22 13:30
Cal Standard	SKD0371-CAL4	CubeData_04272022@1136-004	NA	04/26/22 14:00
Cal Standard	SKD0371-CAL5	CubeData_04272022@1136-005	NA	04/26/22 14:30
Cal Standard	SKD0371-CAL6	CubeData_04272022@1136-006	NA	04/26/22 15:00
Cal Standard	SKD0371-CAL7	CubeData_04272022@1136-007	NA	04/26/22 15:30
Cal Standard	SKD0371-CAL8	CubeData_04272022@1136-008	NA	04/26/22 16:00
Cal Standard	SKD0371-CAL9	CubeData_04272022@1136-009	NA	04/26/22 16:30
Cal Standard	SKD0371-CALA	CubeData_04272022@1136-010	NA	04/26/22 17:00
Cal Standard	SKD0371-CALB	CubeData_04272022@1136-011	NA	04/26/22 17:30
Cal Standard	SKD0371-CALC	CubeData_04272022@1136-012	NA	04/26/22 18:00
Cal Standard	SKD0371-CALD	CubeData_04272022@1136-013	NA	04/26/22 18:30
Cal Standard	SKD0371-CALE	CubeData_04272022@1136-014	NA	04/26/22 19:00
Cal Standard	SKD0371-CALF	CubeData_04272022@1136-015	NA	04/26/22 19:31
Cal Standard	SKD0371-CALG	CubeData_04272022@1136-016	NA	04/26/22 20:01
Cal Standard	SKD0371-CALH	CubeData_04272022@1136-017	NA	04/26/22 20:31
Cal Standard	SKD0371-CALI	CubeData_04272022@1136-018	NA	04/26/22 21:01
Cal Standard	SKD0371-CALJ	CubeData_04272022@1136-019	NA	04/26/22 21:31
Cal Standard	SKD0371-CALK	CubeData_04272022@1136-020	NA	04/26/22 22:01
Initial Cal Check	SKD0371-ICV1	CubeData_04272022@1136-027	NA	04/27/22 02:03
Initial Cal Blank	SKD0371-ICB1	CubeData_04272022@1136-028	NA	04/27/22 02:33
Cal Standard	SKD0371-CALL	CubeData_04272022@1136-021	NA	04/27/22 11:08
Cal Standard	SKD0371-CALM	CubeData_04272022@1136-022	NA	04/27/22 11:08
Cal Standard	SKD0371-CALN	CubeData_04272022@1136-023	NA	04/27/22 11:09
Cal Standard	SKD0371-CALO	CubeData_04272022@1136-024	NA	04/27/22 11:09



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 9060A m

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>23A0032</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC5 MR Phase 1</u>
Sequence:	<u>SLA0065</u>	Instrument:	<u>TOC Cube</u>
		Calibration:	<u>FD00070</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Initial Cal Check	SLA0065-ICV1	CubeData_01112023@0728-017	NA	01/07/23 15:45
Initial Cal Blank	SLA0065-ICB1	CubeData_01112023@0728-024	NA	01/07/23 16:15
Calibration Check	SLA0065-CCV1	CubeData_01112023@0728-091	NA	01/07/23 21:50
Calibration Blank	SLA0065-CCB1	CubeData_01112023@0728-099	NA	01/07/23 22:20
Calibration Check	SLA0065-CCV2	CubeData_01112023@0728-167	NA	01/08/23 03:56
Calibration Blank	SLA0065-CCB2	CubeData_01112023@0728-174	NA	01/08/23 04:26
MRL Check	BLA0124-MRL1	CubeData_01112023@0728-217	Solid	01/08/23 08:00
Blank	BLA0124-BLK1	CubeData_01112023@0728-225	Solid	01/08/23 08:31
LCS	BLA0124-BS1	CubeData_01112023@0728-229	Solid	01/08/23 09:01
Reference	BLA0124-SRM1	CubeData_01112023@0728-235	Solid	01/08/23 09:32
Calibration Check	SLA0065-CCV3	CubeData_01112023@0728-244	NA	01/08/23 10:02
Calibration Blank	SLA0065-CCB3	CubeData_01112023@0728-250	NA	01/08/23 10:33
LDW23-IT1246	23A0032-01	CubeData_01112023@0728-275	Solid	01/08/23 12:35
LDW23-IT1264	23A0032-02	CubeData_01112023@0728-280	Solid	01/08/23 13:05
LDW23-IT1269	23A0032-03	CubeData_01112023@0728-287	Solid	01/08/23 13:36
LDW23-IT1272	23A0032-04	CubeData_01112023@0728-293	Solid	01/08/23 14:07
Calibration Check	SLA0065-CCV4	CubeData_01112023@0728-316	NA	01/08/23 16:09
Calibration Blank	SLA0065-CCB4	CubeData_01112023@0728-322	NA	01/08/23 16:39
LDW23-IT1224	23A0032-05	CubeData_01112023@0728-330	Solid	01/08/23 17:10
LDW23-IT1235	23A0032-06	CubeData_01112023@0728-339	Solid	01/08/23 17:41
LDW23-IT1202	23A0032-07	CubeData_01112023@0728-340	Solid	01/08/23 18:11
LDW23-SC1226B	23A0032-08	CubeData_01112023@0728-345	Solid	01/08/23 18:42
LDW23-SC1203	23A0032-09	CubeData_01112023@0728-350	Solid	01/08/23 19:12
LDW23-SC1203-FD	23A0032-10	CubeData_01112023@0728-355	Solid	01/08/23 19:43
LDW23-SC1212	23A0032-11	CubeData_01112023@0728-363	Solid	01/08/23 20:13
Calibration Check	SLA0065-CCV5	CubeData_01112023@0728-386	NA	01/08/23 22:15
Calibration Blank	SLA0065-CCB5	CubeData_01112023@0728-392	NA	01/08/23 22:45
Calibration Check	SLA0065-CCV6	CubeData_01112023@0728-460	NA	01/09/23 04:21
Calibration Blank	SLA0065-CCB6	CubeData_01112023@0728-466	NA	01/09/23 04:52



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

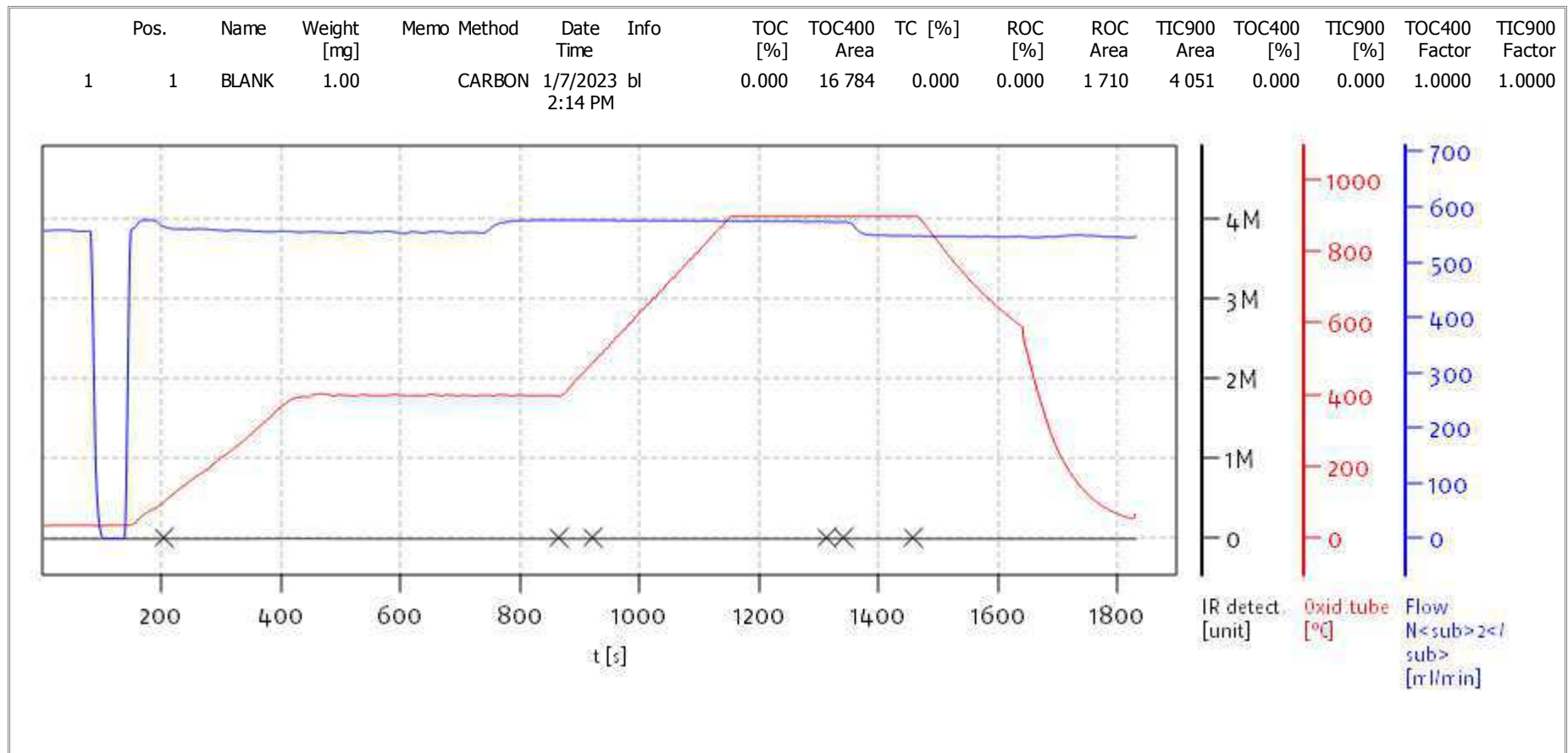
Sequence: SLA0065

Instrument: TOC Cube

Calibration: FD00070

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SLA0065-CCV7	CubeData_01112023@0728-495	NA	01/09/23 10:29
Calibration Blank	SLA0065-CCB7	CubeData_01112023@0728-496	NA	01/09/23 10:59
Calibration Check	SLA0065-CCV8	CubeData_01112023@0728-058	NA	01/09/23 16:35
Calibration Blank	SLA0065-CCB8	CubeData_01112023@0728-063	NA	01/09/23 17:06
Calibration Check	SLA0065-CCV9	CubeData_01112023@0728-136	NA	01/09/23 22:42
Calibration Blank	SLA0065-CCB9	CubeData_01112023@0728-141	NA	01/09/23 23:12
Calibration Check	SLA0065-CCVA	CubeData_01112023@0728-212	NA	01/10/23 04:48
Calibration Blank	SLA0065-CCBA	CubeData_01112023@0728-218	NA	01/10/23 05:19
Calibration Check	SLA0065-CCVB	CubeData_01112023@0728-286	NA	01/10/23 10:55
Calibration Blank	SLA0065-CCBB	CubeData_01112023@0728-294	NA	01/10/23 11:26
Calibration Check	SLA0065-CCVC	CubeData_01112023@0728-356	NA	01/10/23 17:02
Calibration Blank	SLA0065-CCBC	CubeData_01112023@0728-362	NA	01/10/23 17:33
Calibration Check	SLA0065-CCVD	CubeData_01112023@0728-429	NA	01/10/23 23:09
Calibration Blank	SLA0065-CCBD	CubeData_01112023@0728-434	NA	01/10/23 23:40
Calibration Check	SLA0065-CCVE	CubeData_01112023@0728-482	NA	01/11/23 03:45
Calibration Blank	SLA0065-CCBE	CubeData_01112023@0728-488	NA	01/11/23 04:15

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



Name:

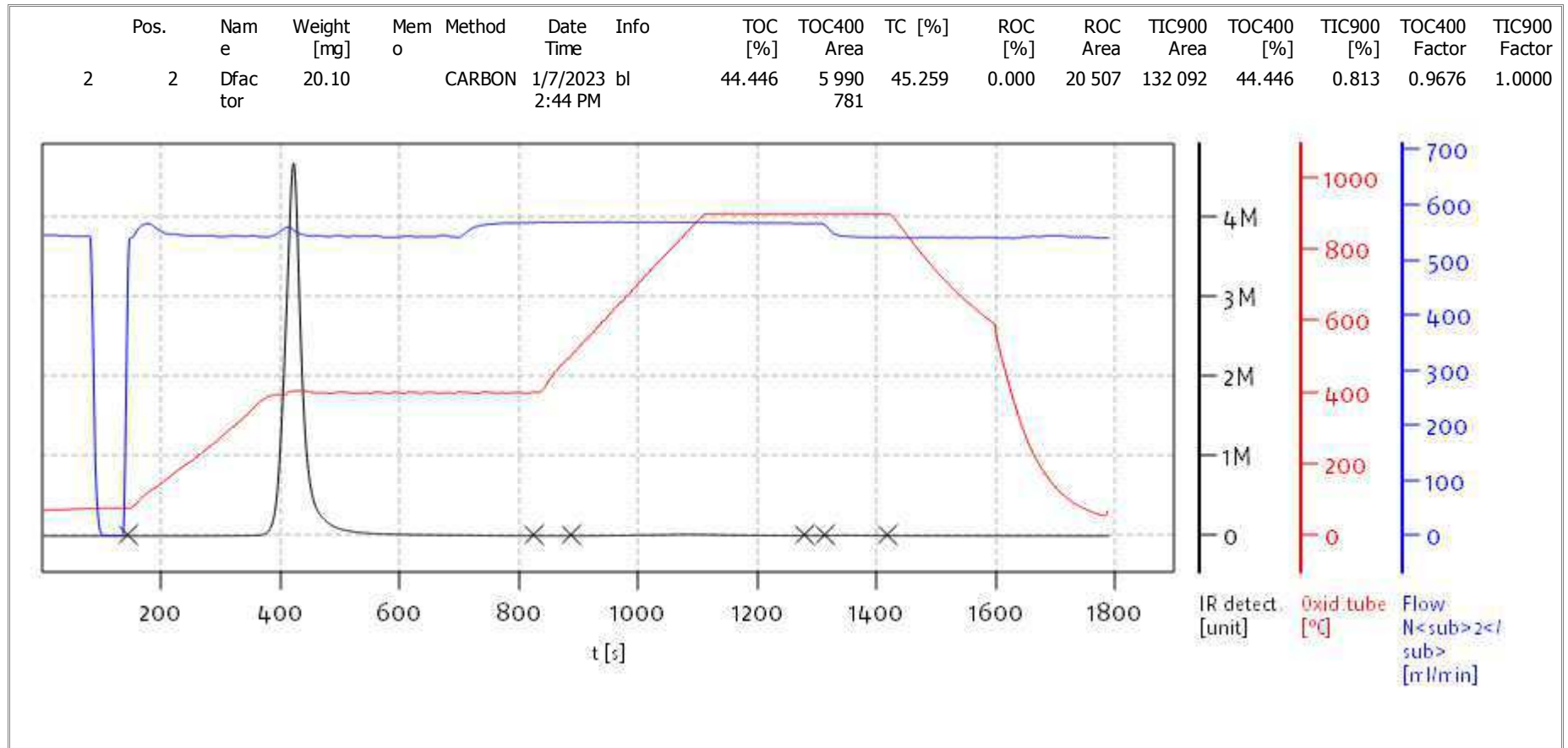
Access: soliTOC superuser

Date: Wed Jan 11 07:24:43 2023



soliTOC V2.0.2 (31015f9) 2018-11-19
 Serial No: 0300.181017
 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



Name:

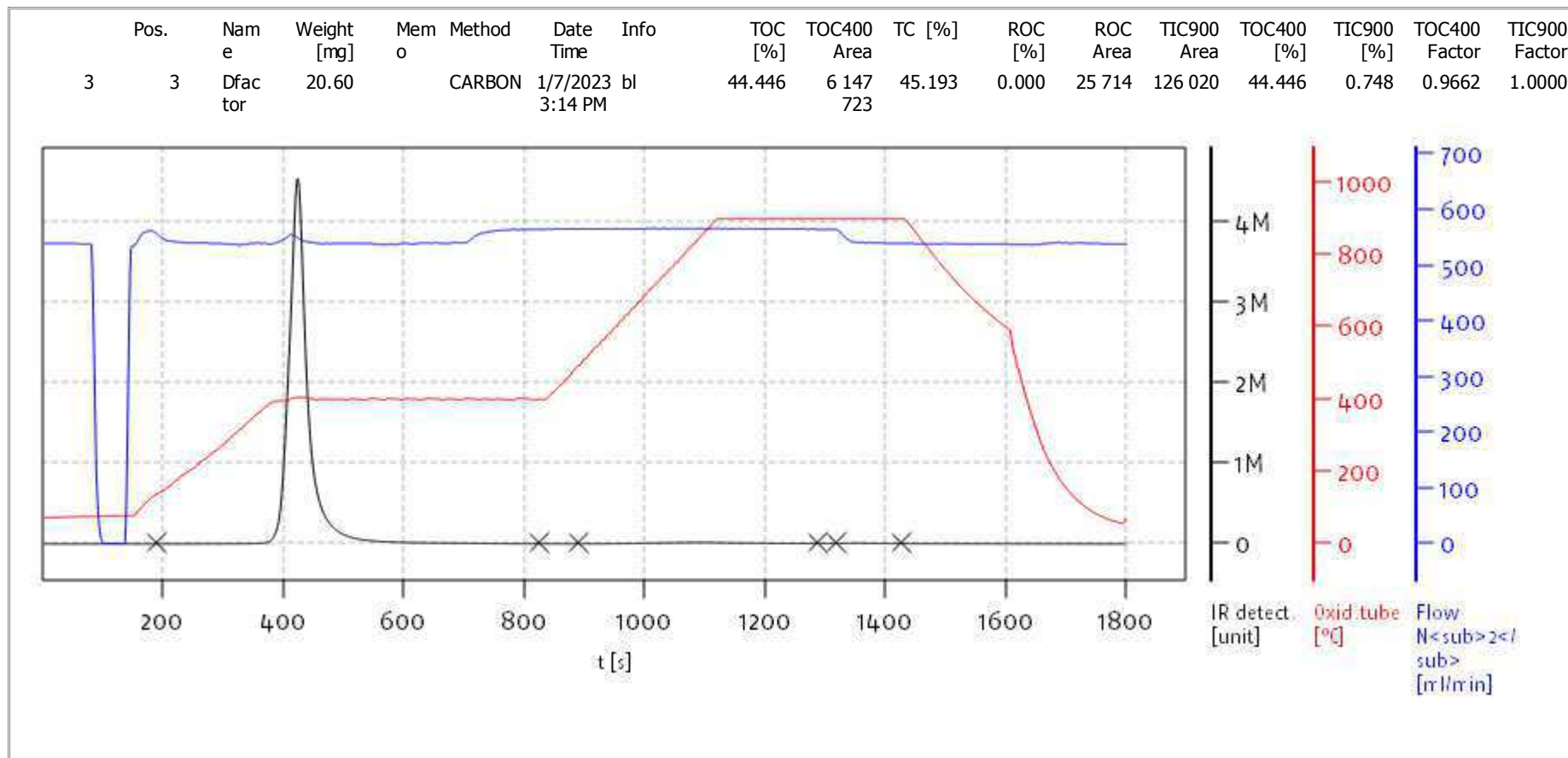
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Date: Wed Jan 11 07:24:43 2023



soliTOC V2.0.2 (31015f9) 2018-11-19
 Serial No: 0300.181017
 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



Name:

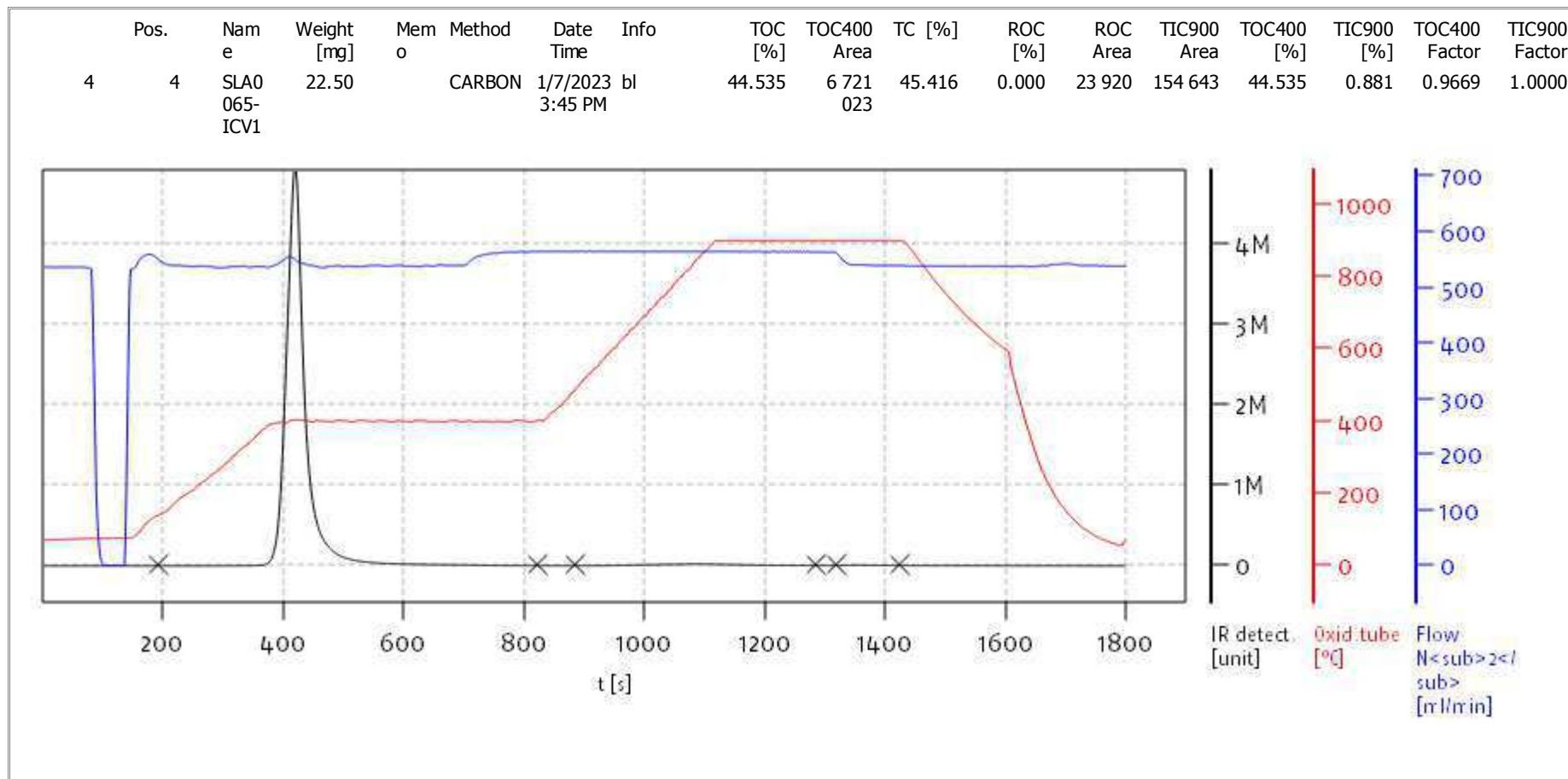
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Date: Wed Jan 11 07:24:43 2023



soliTOC V2.0.2 (31015f9) 2018-11-19
 Serial No: 0300.181017
 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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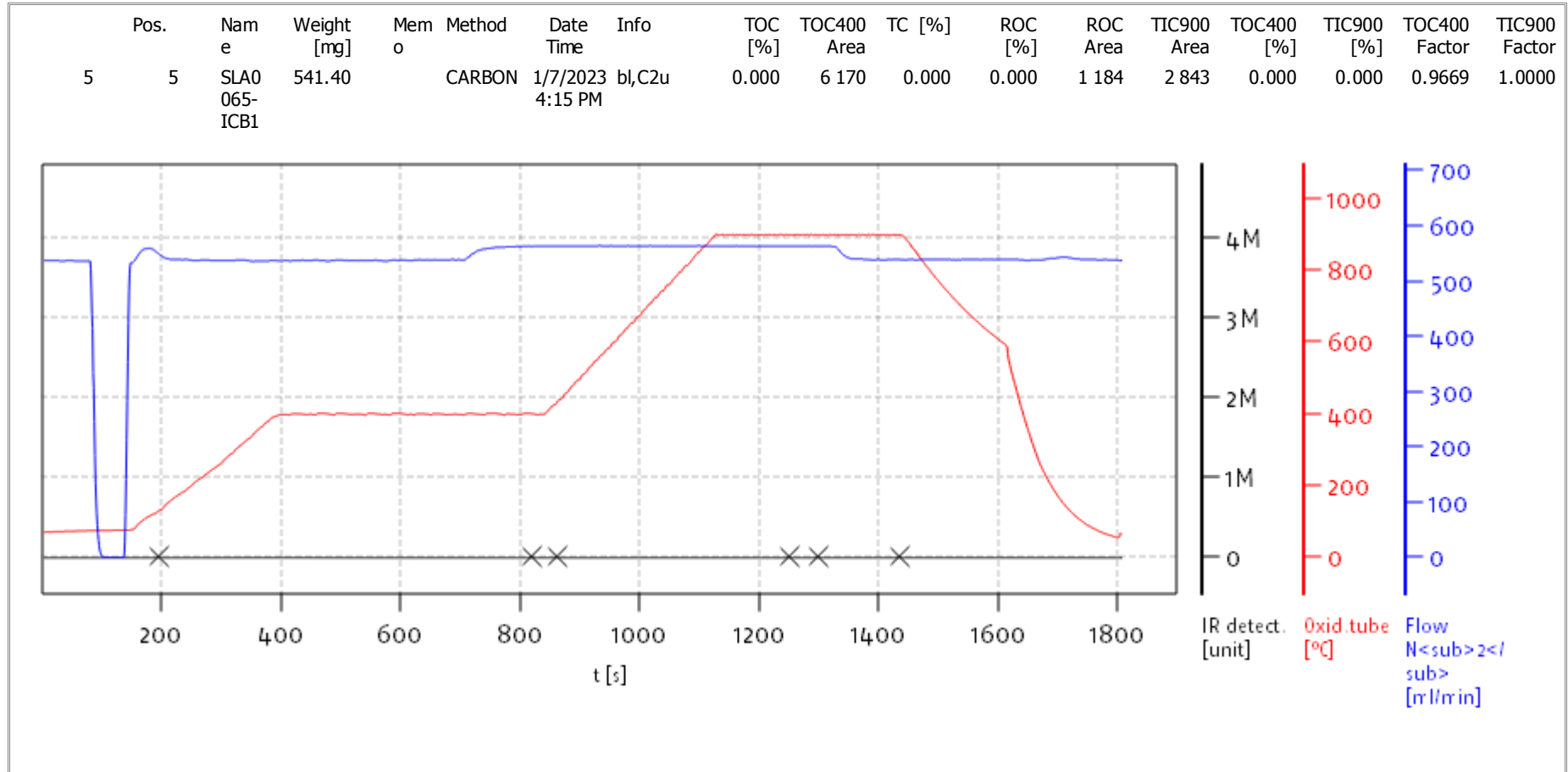
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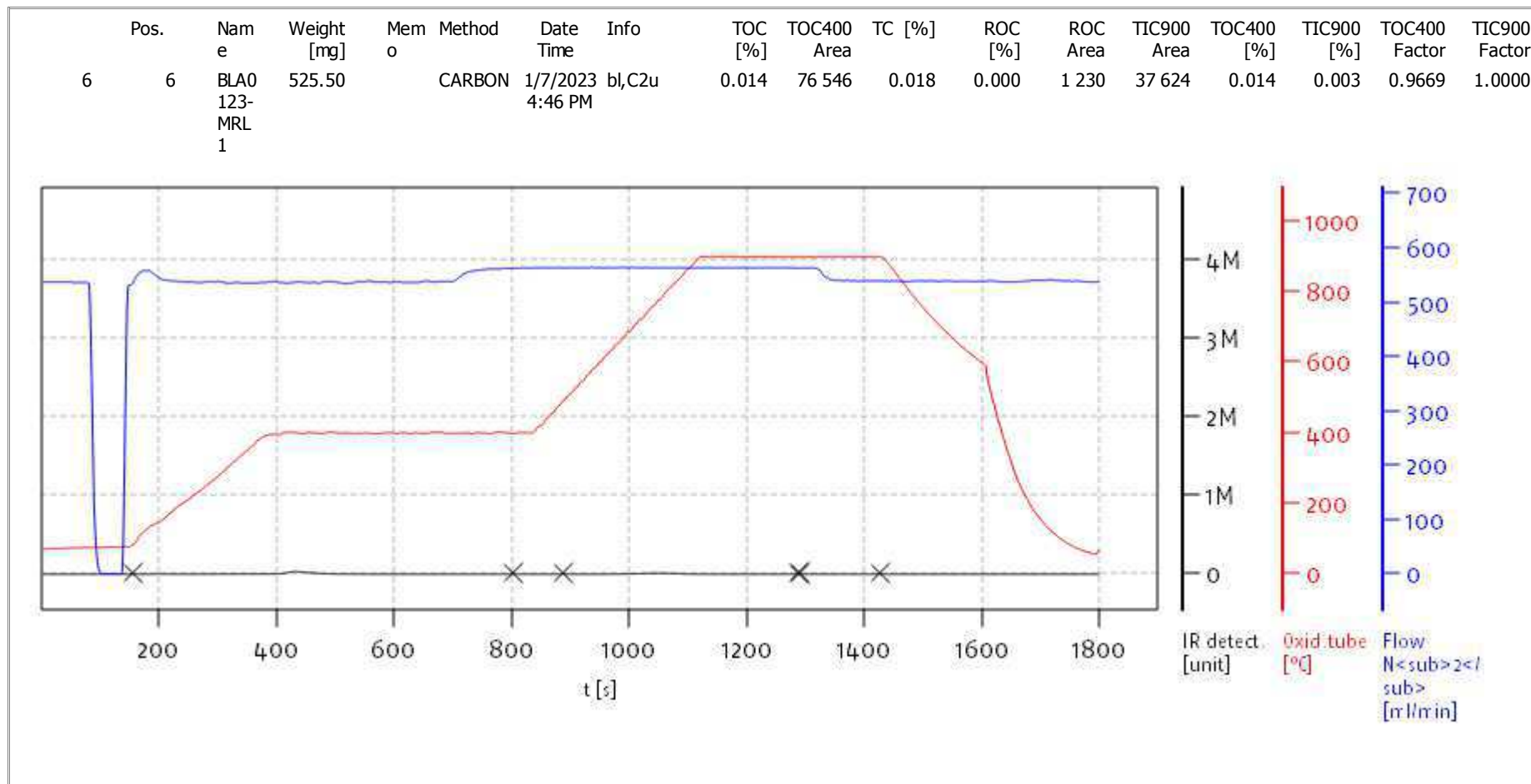
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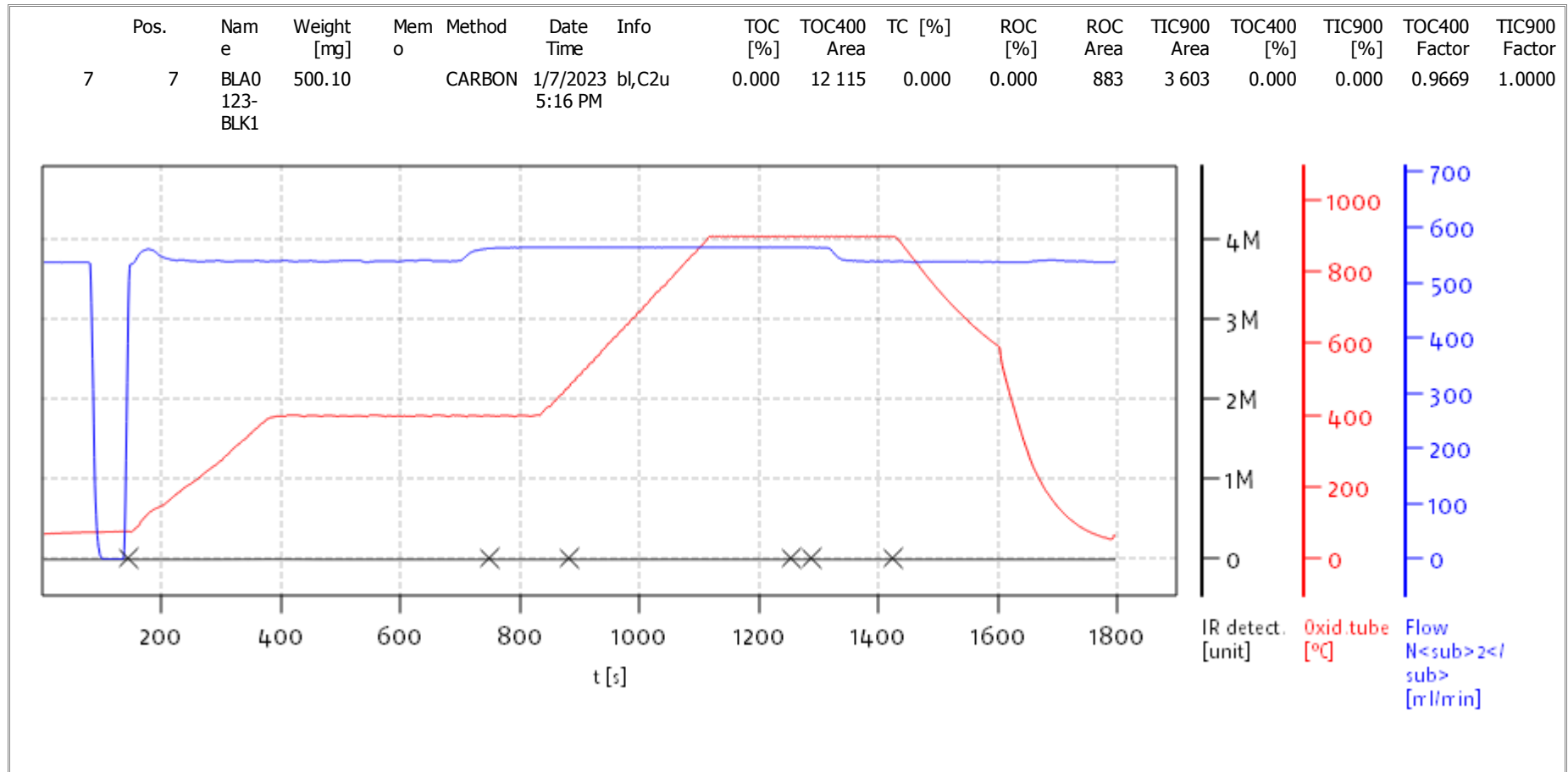
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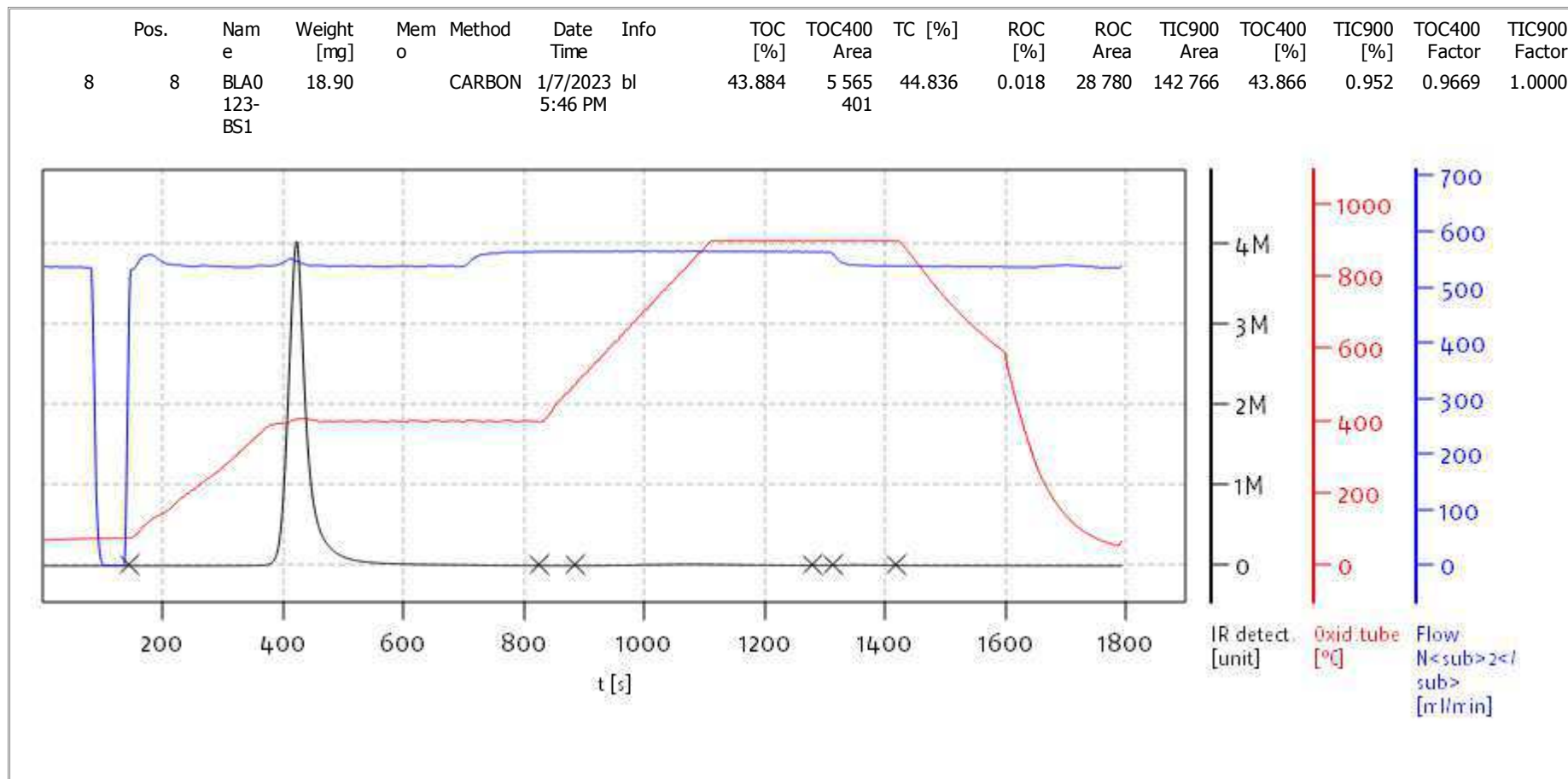
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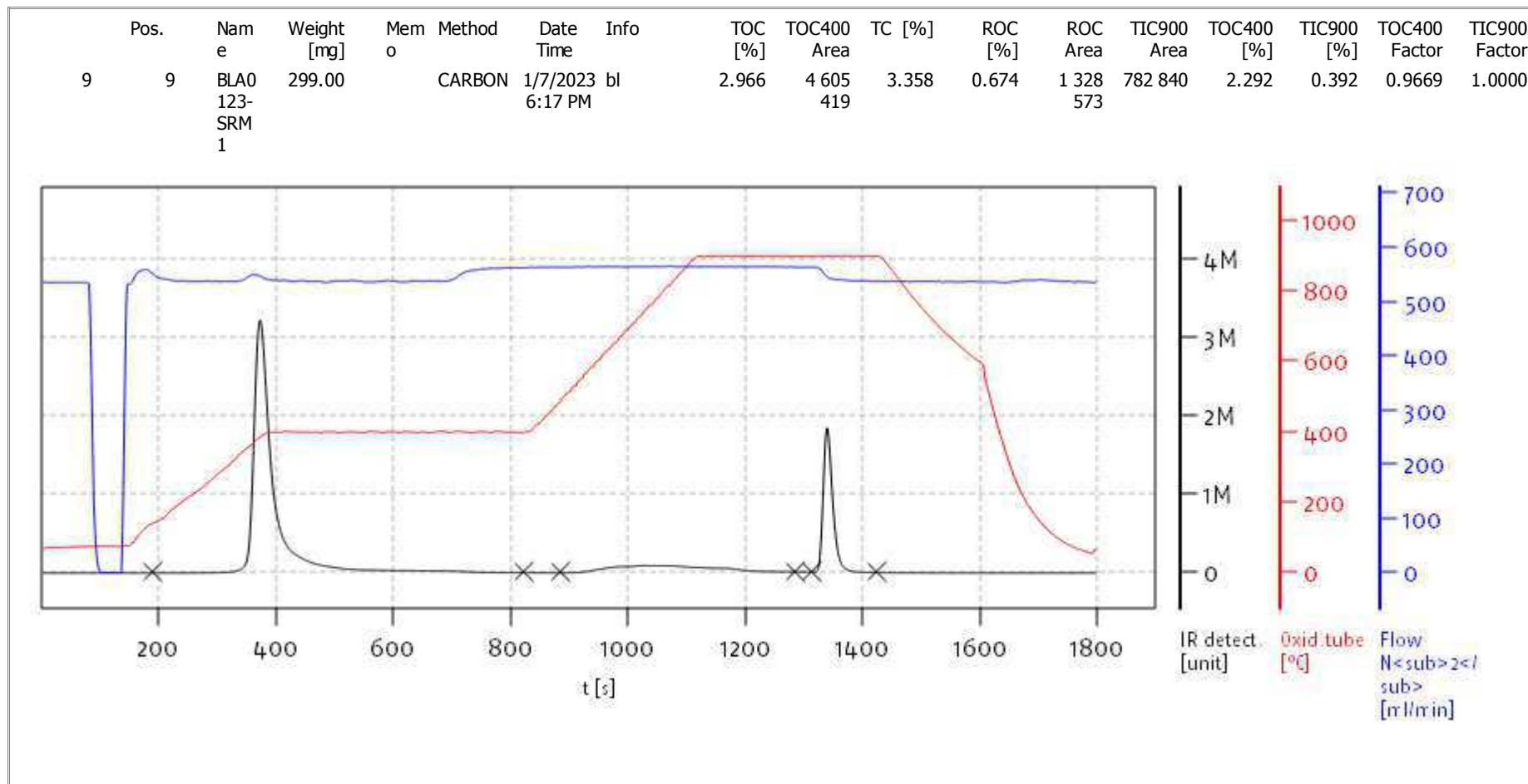
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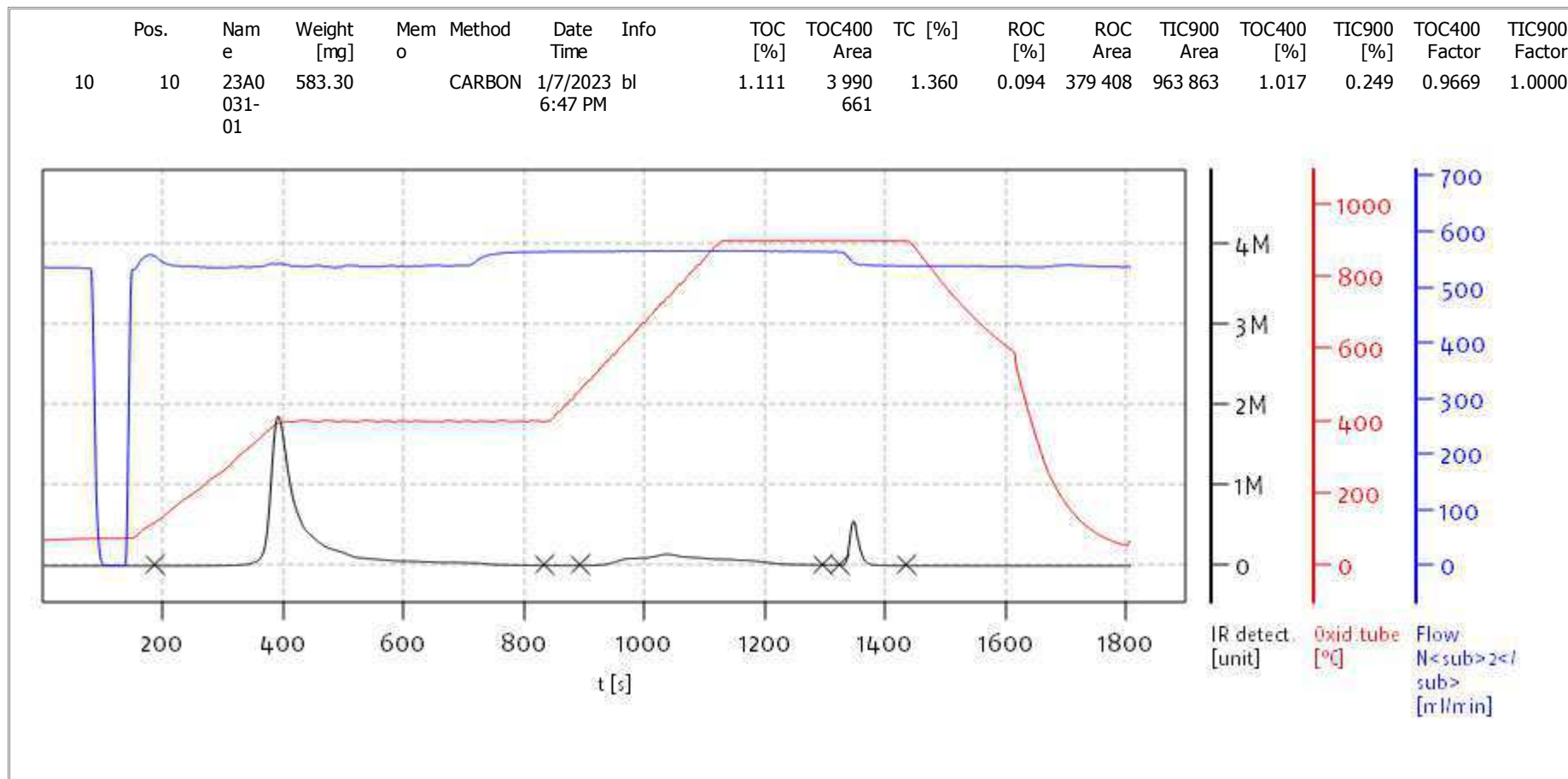
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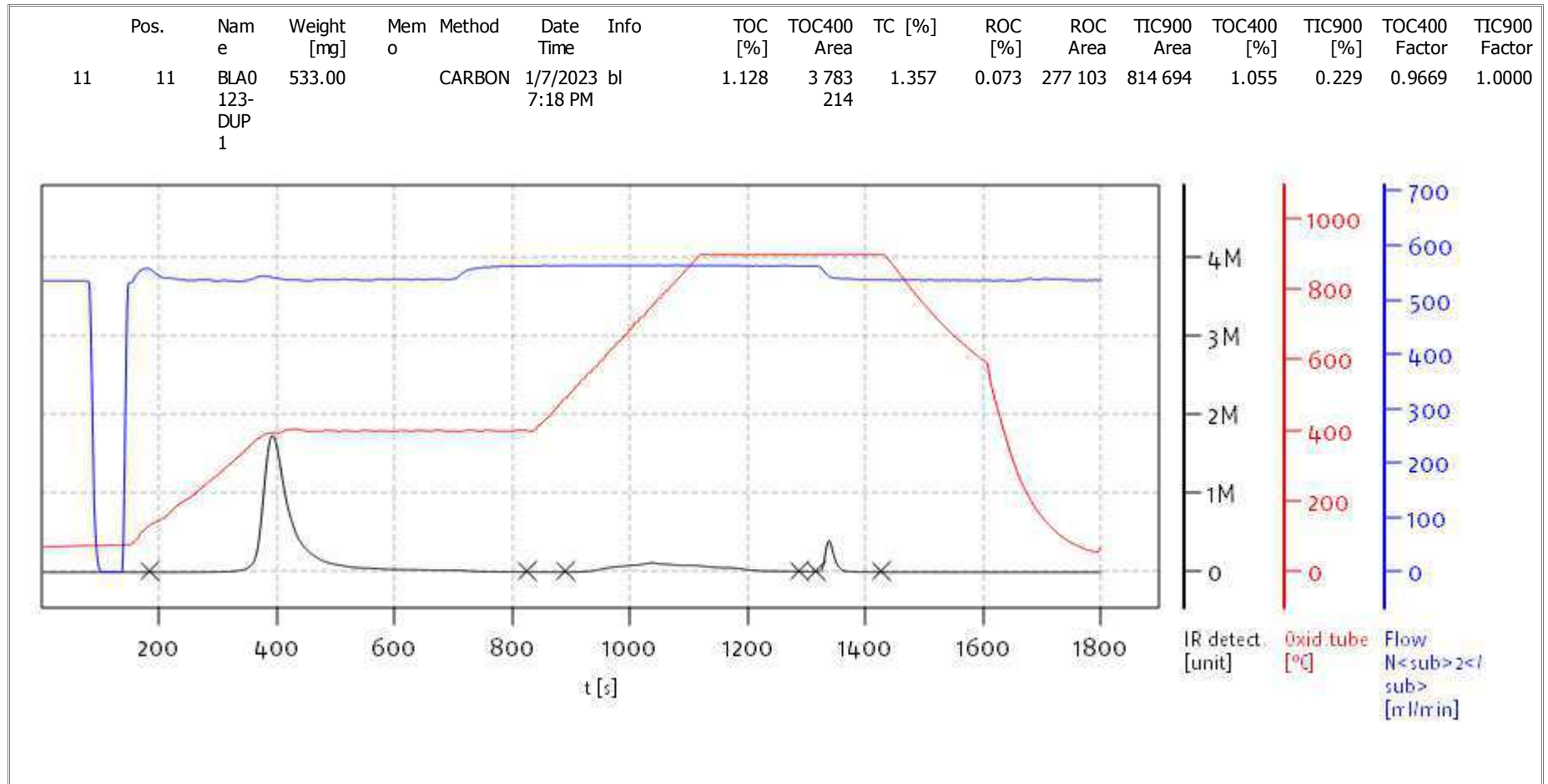
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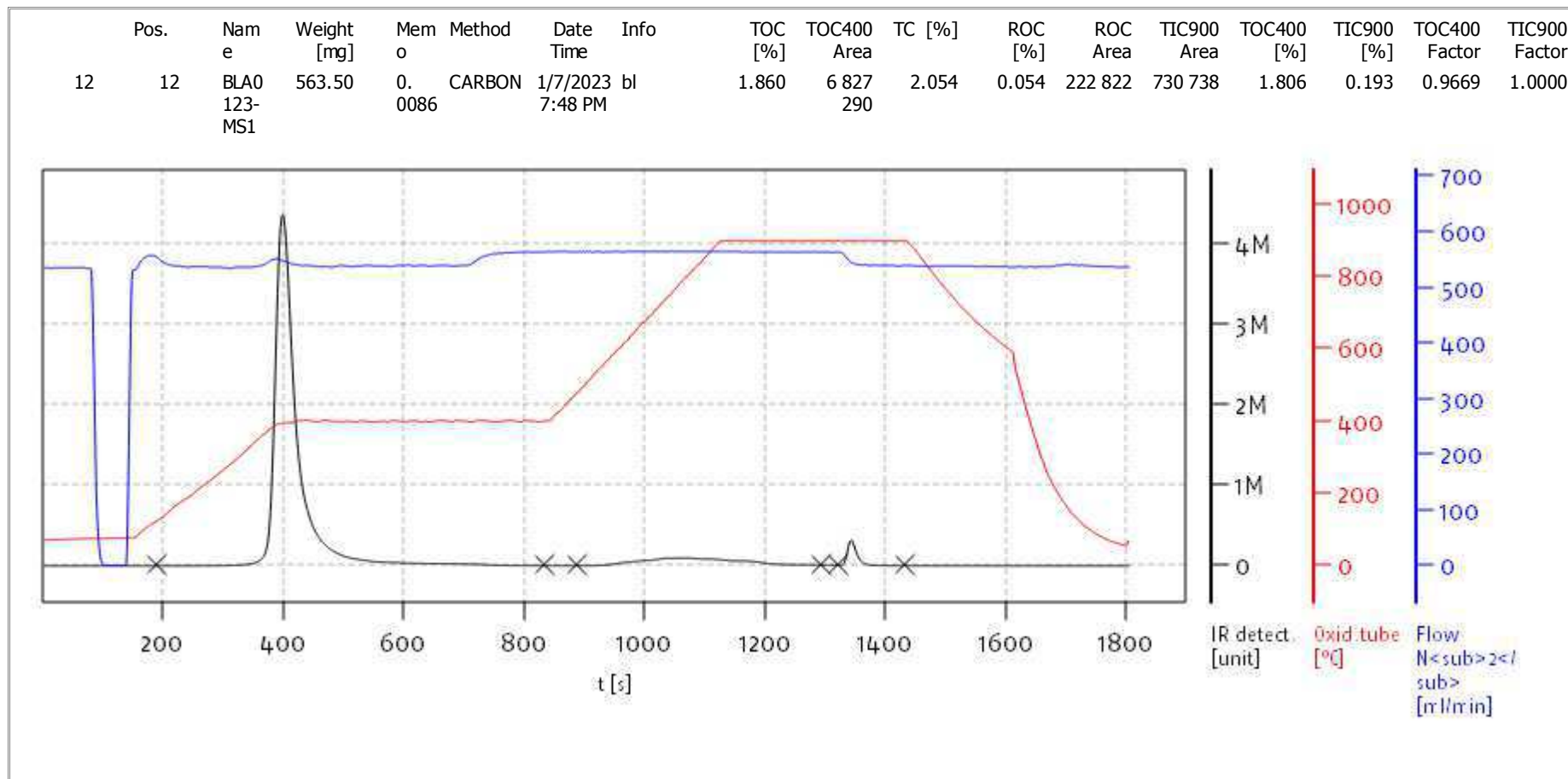
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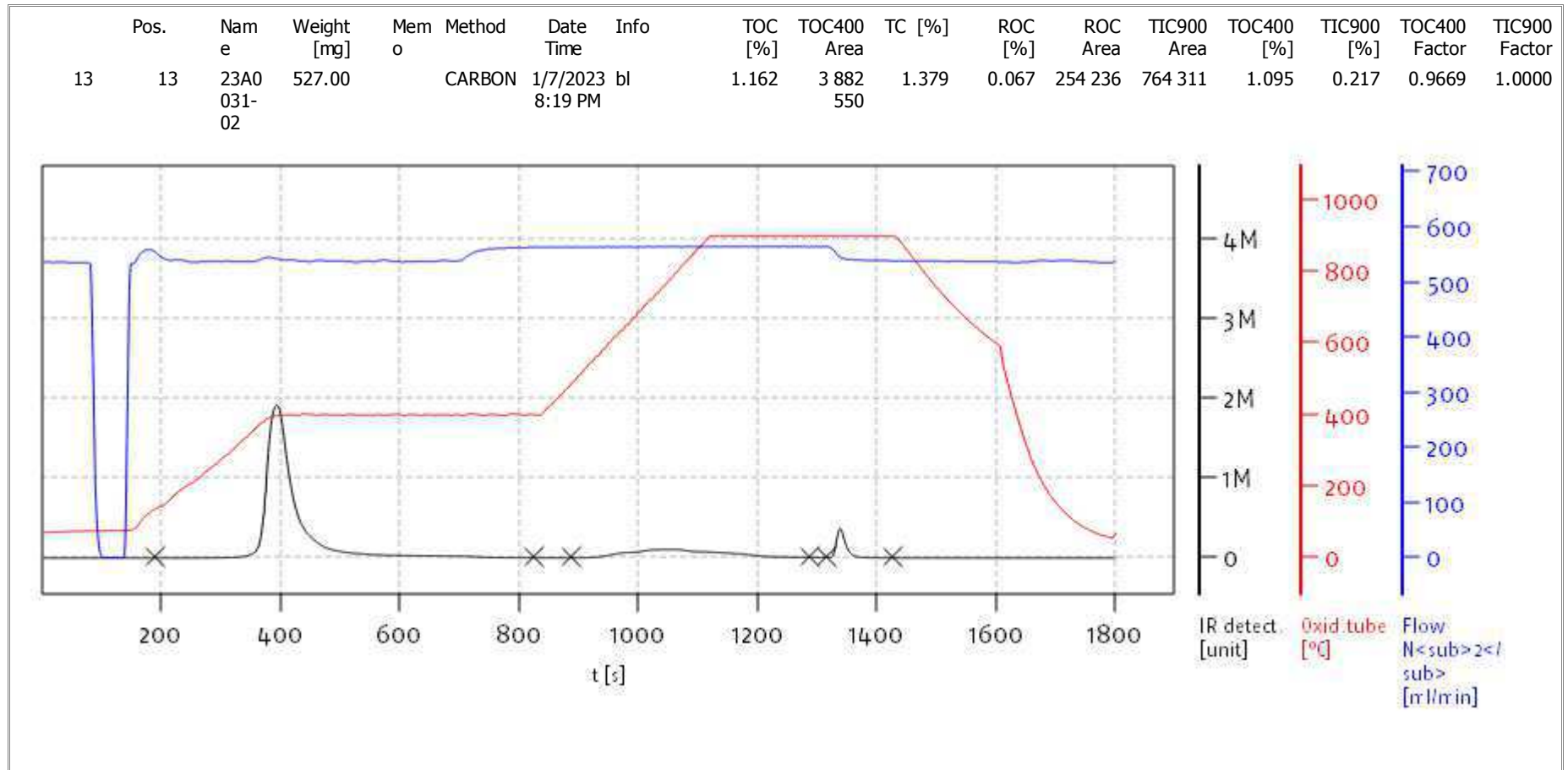
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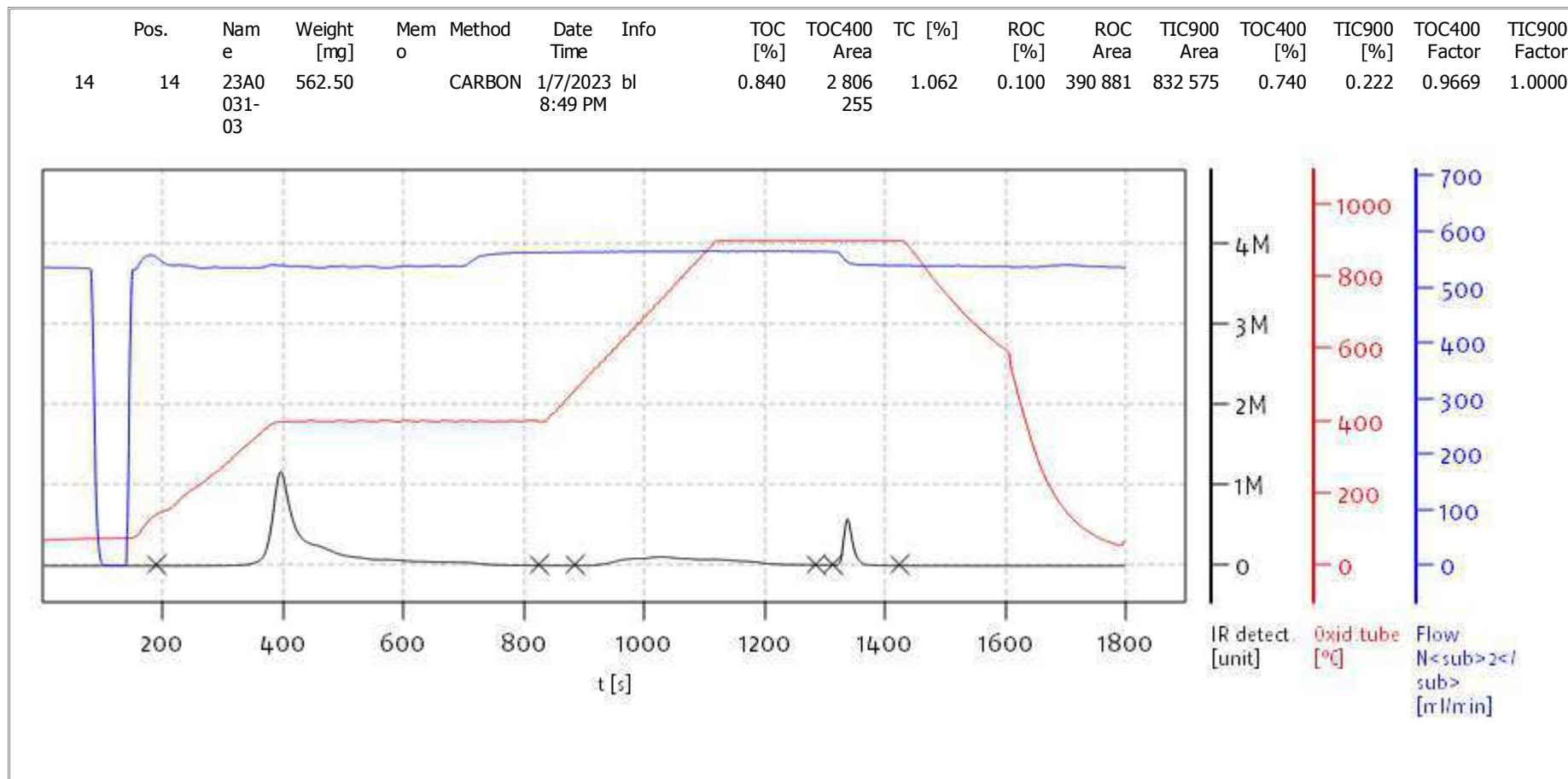
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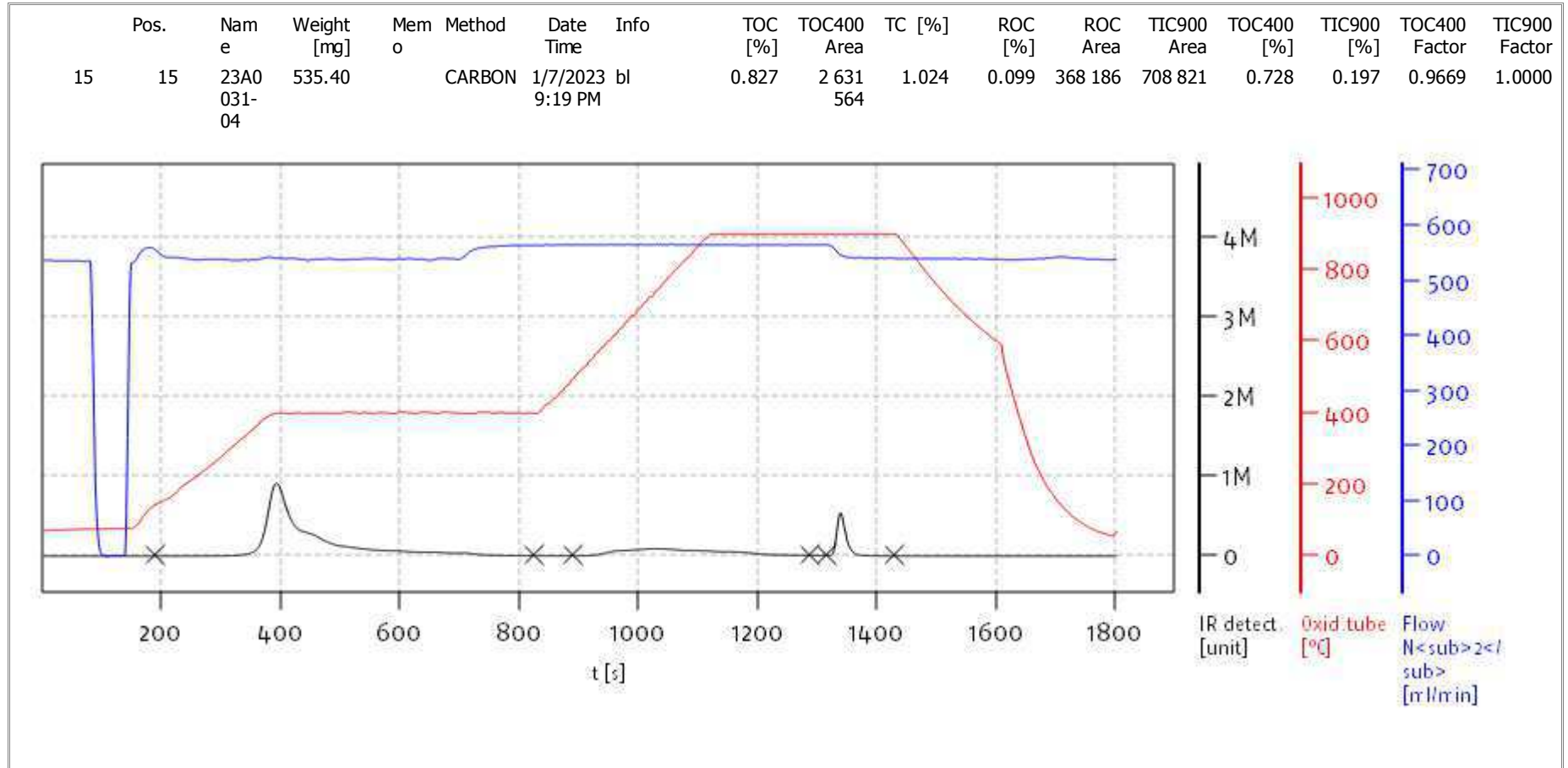
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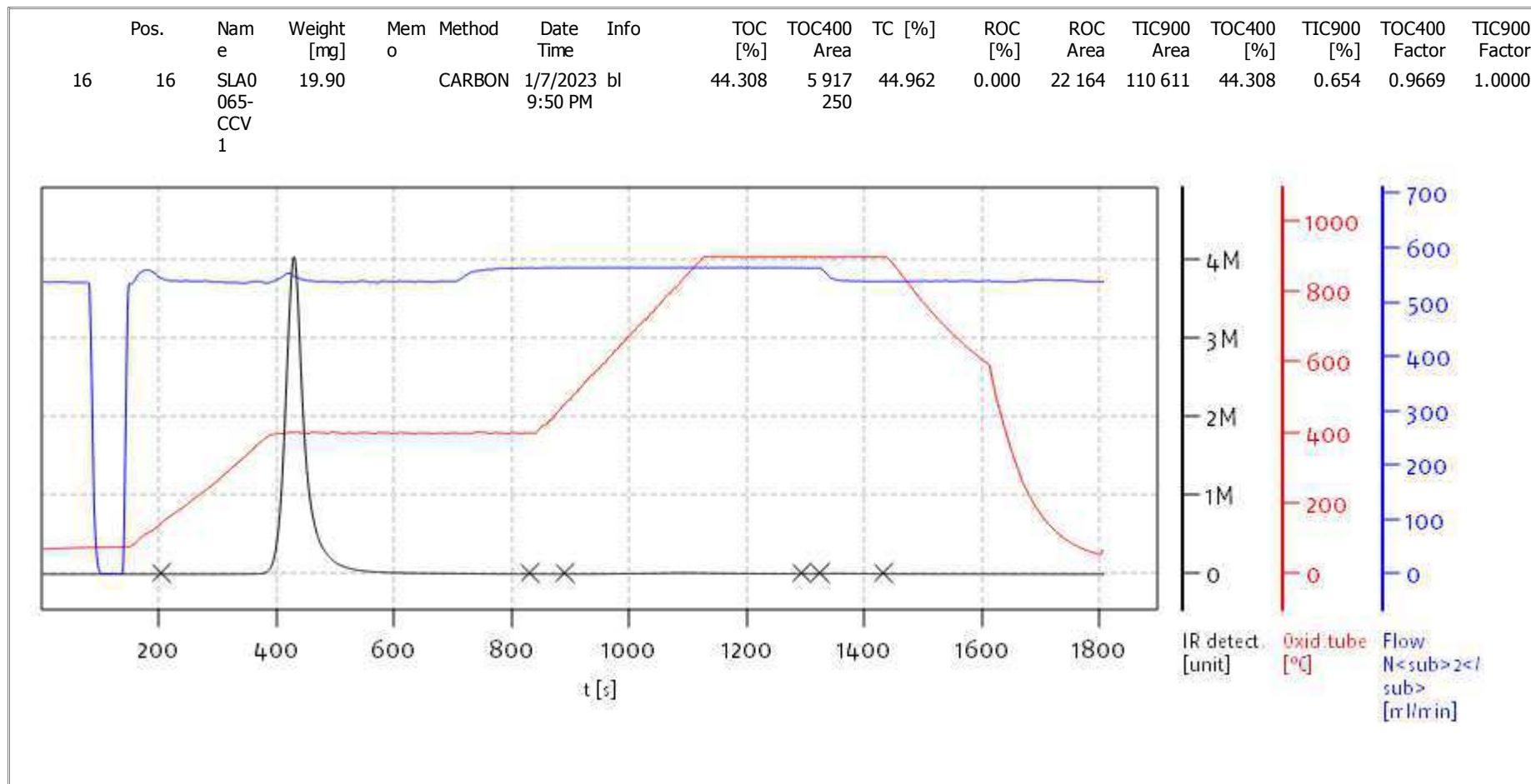
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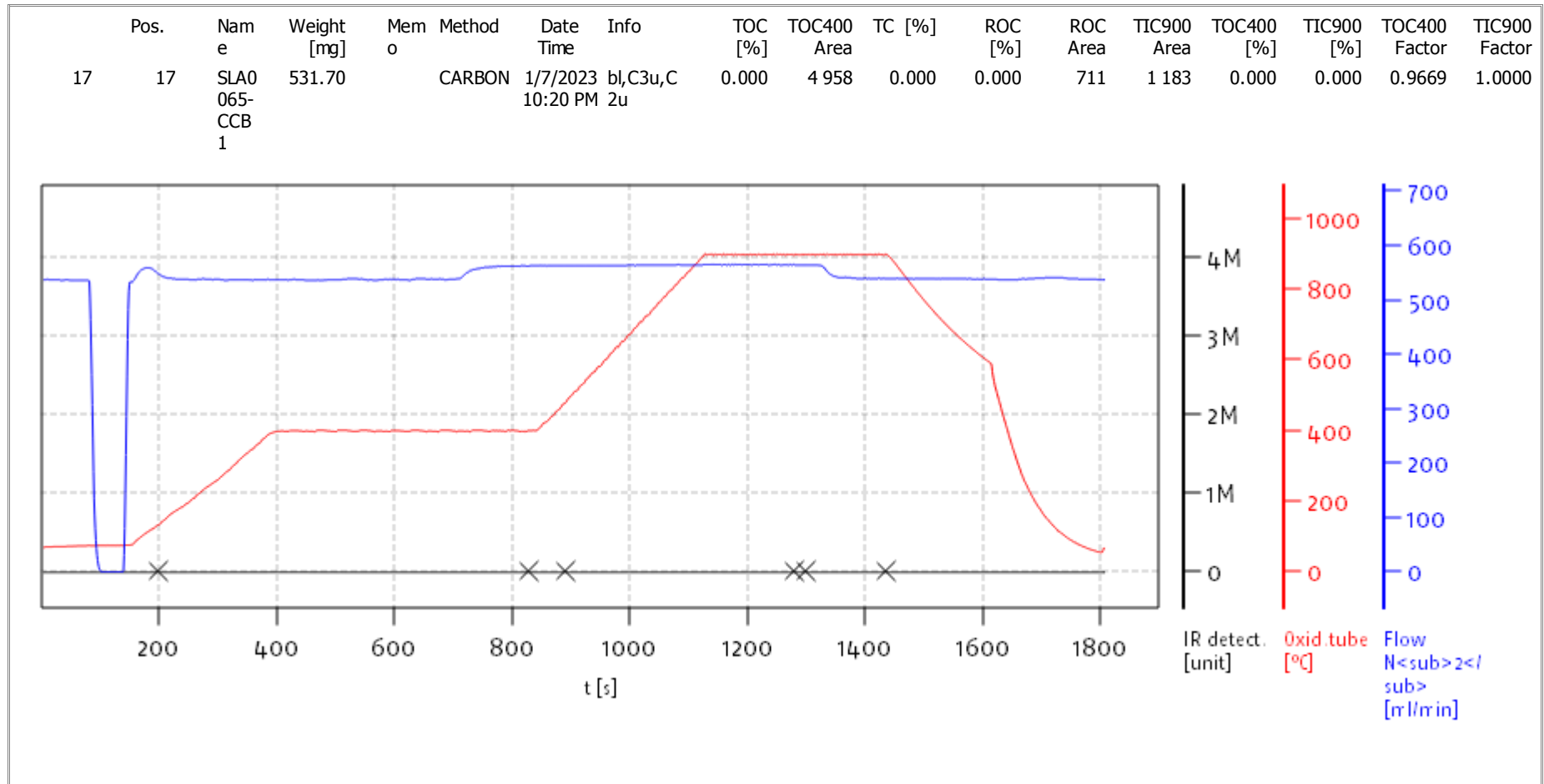
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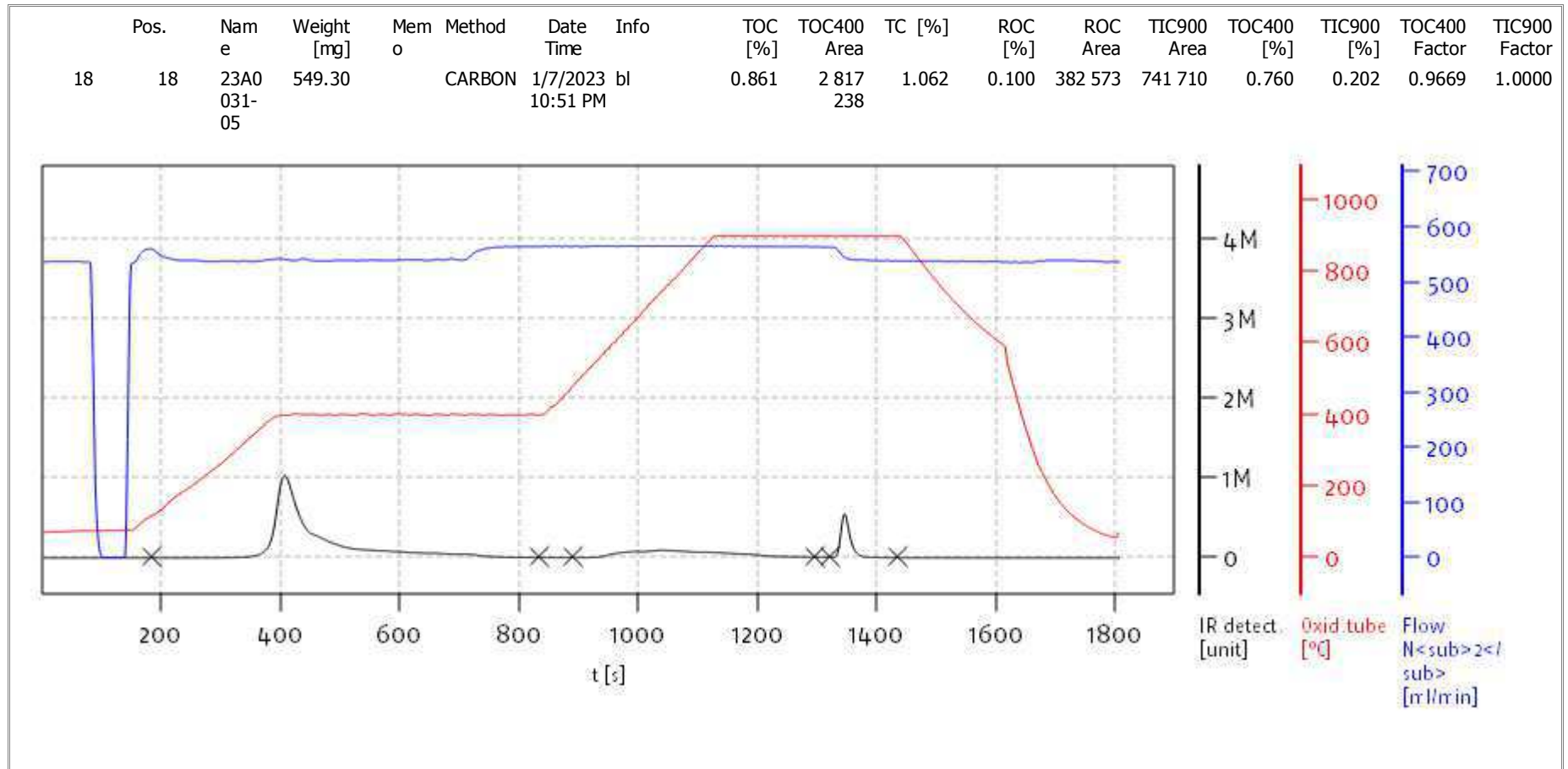
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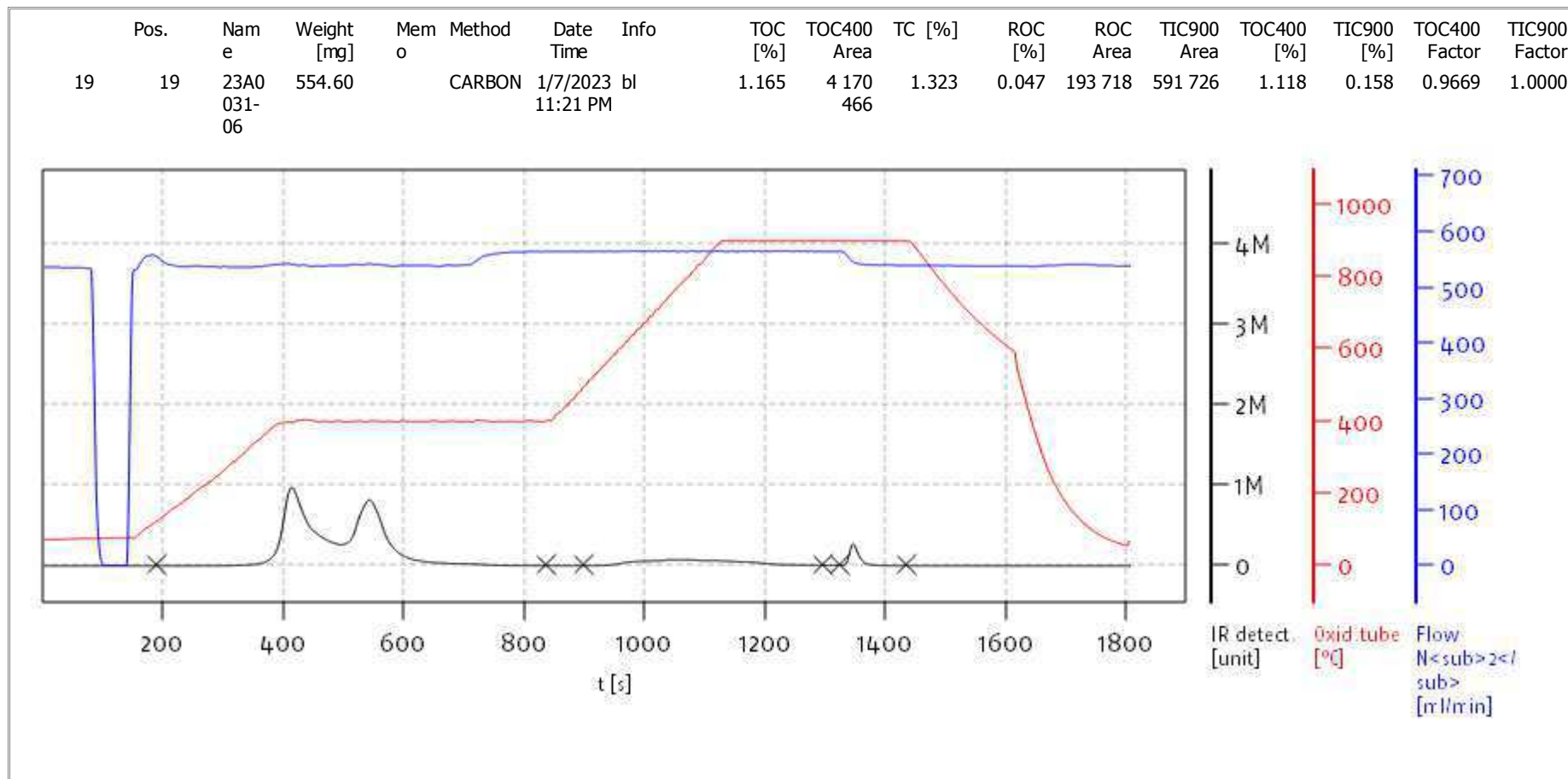
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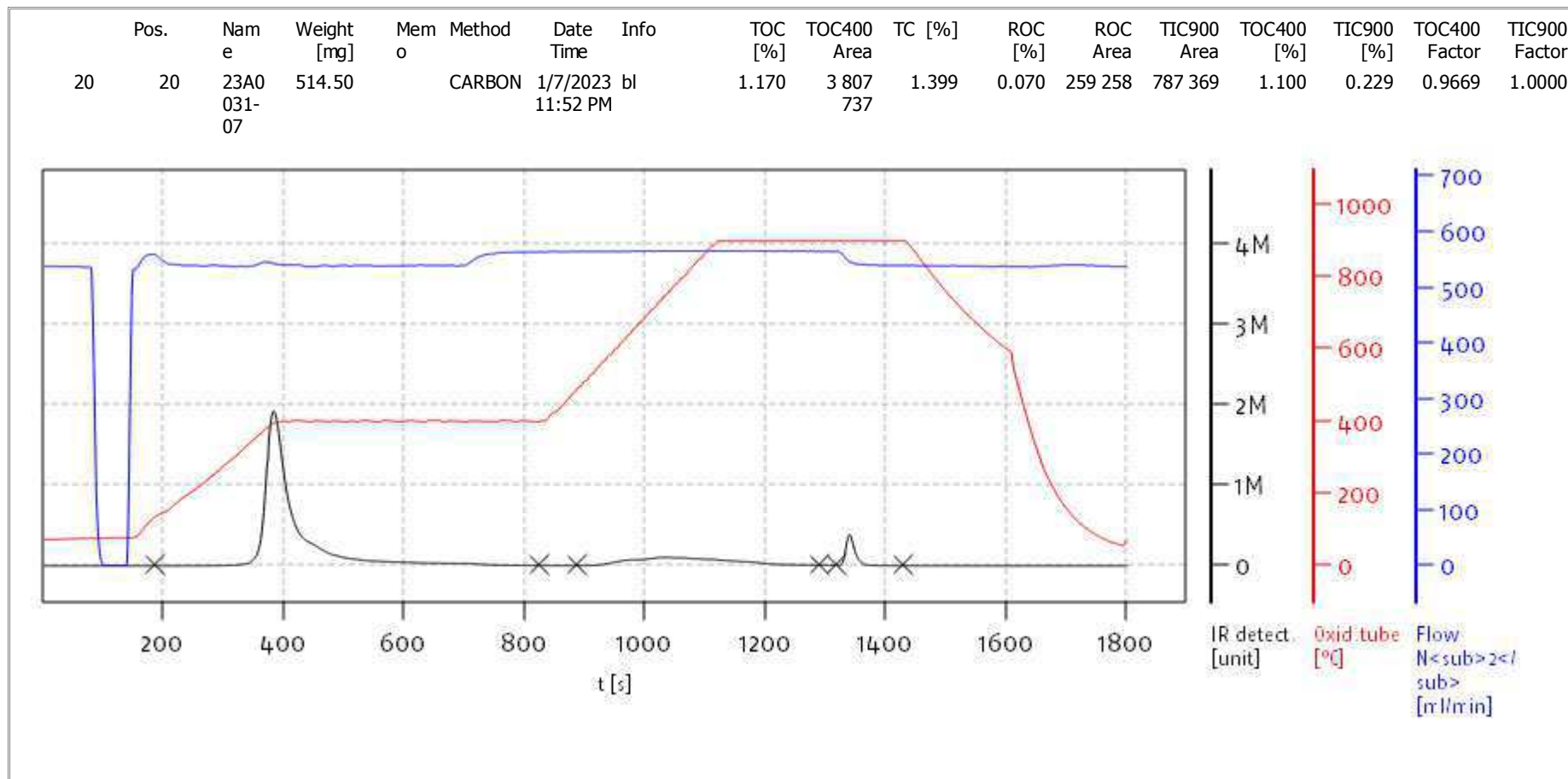
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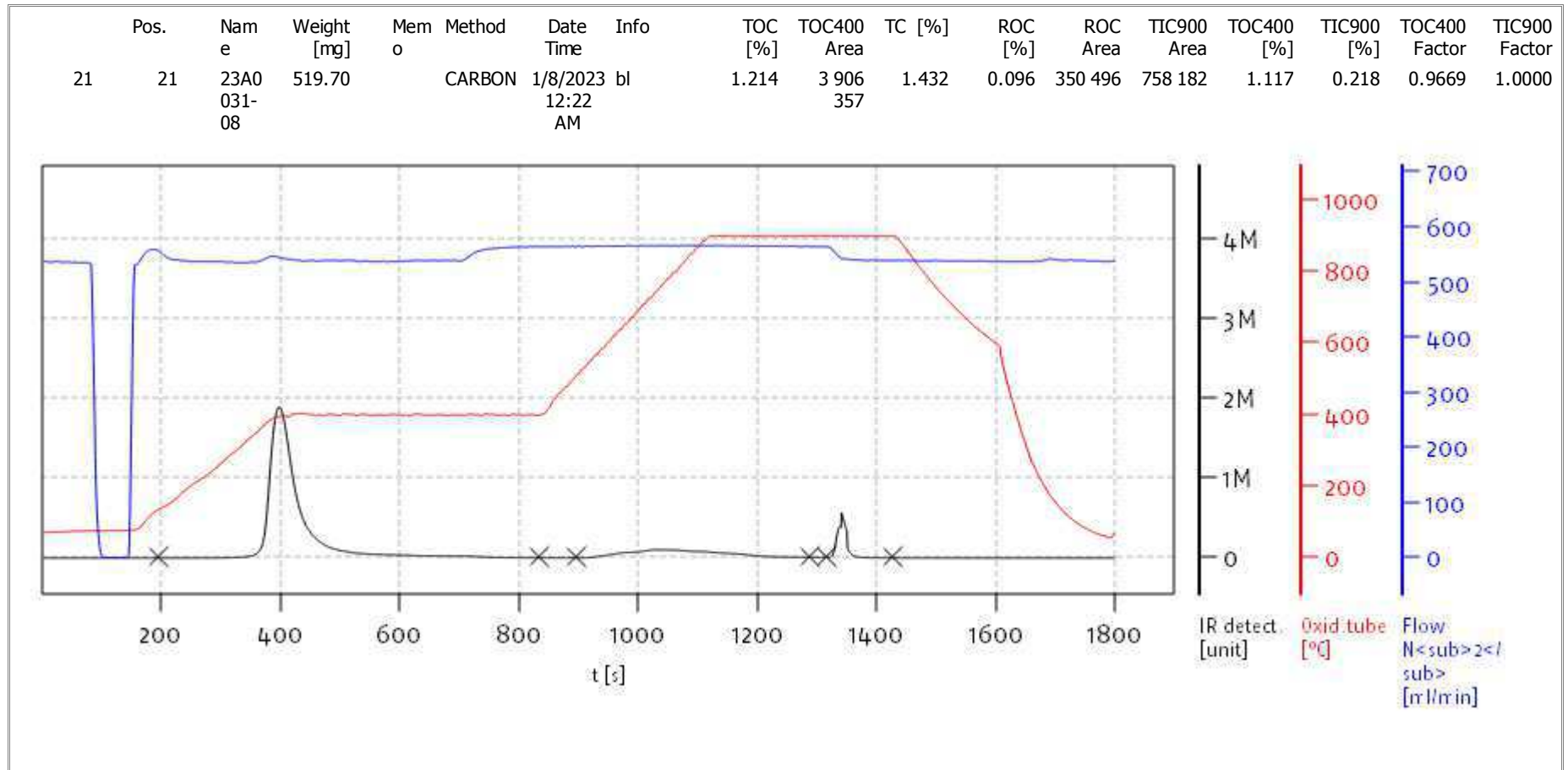
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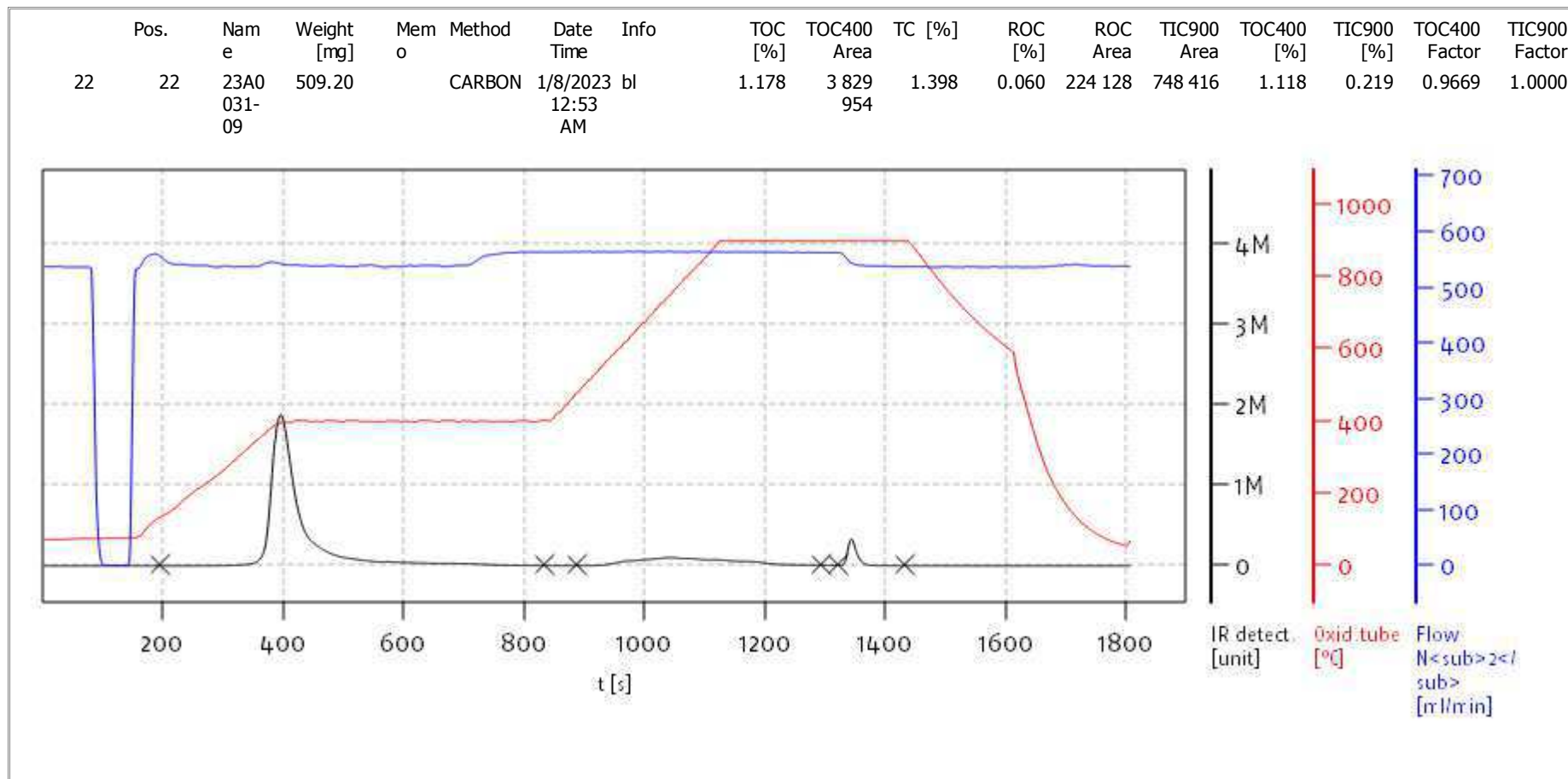
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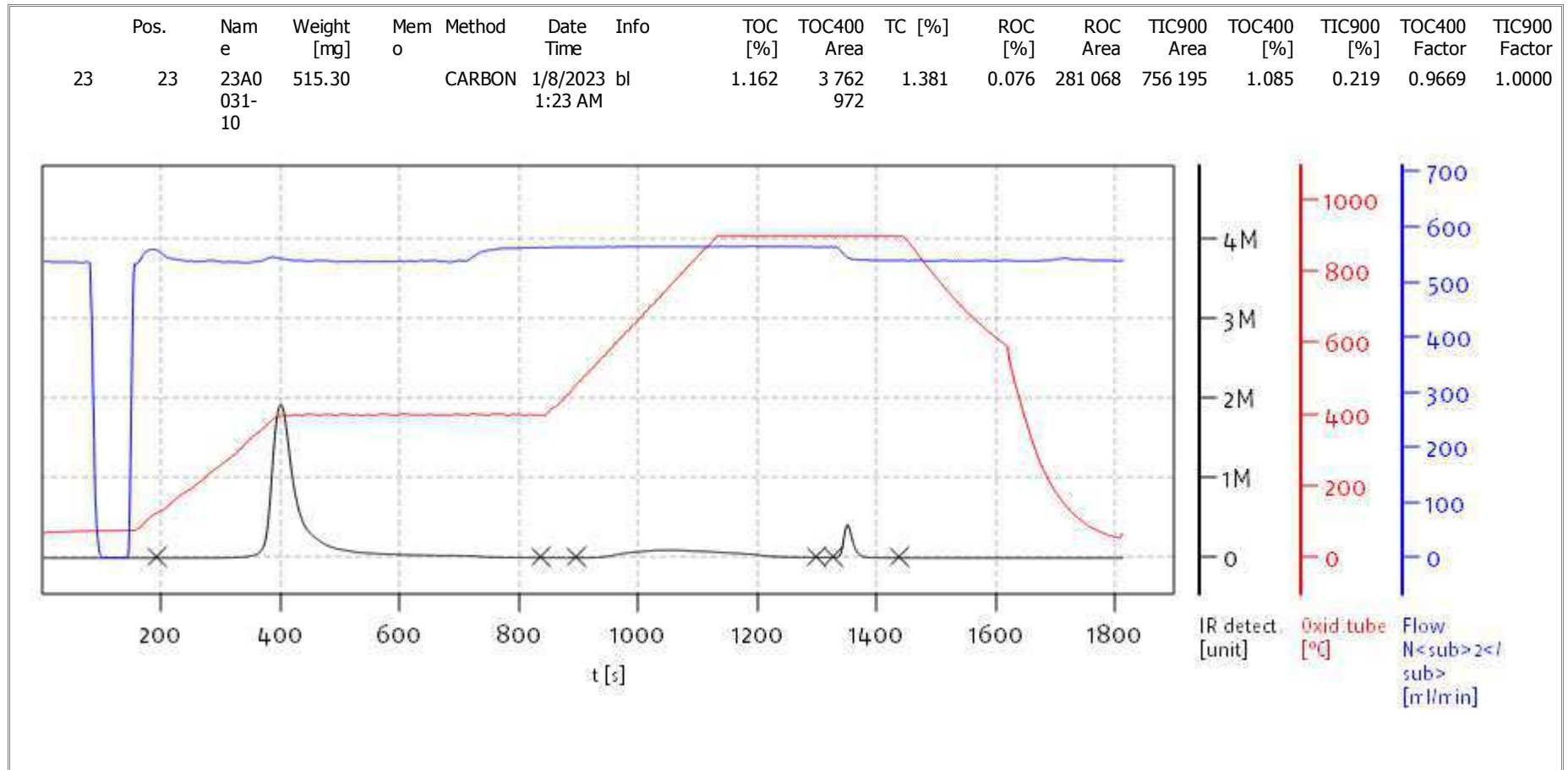
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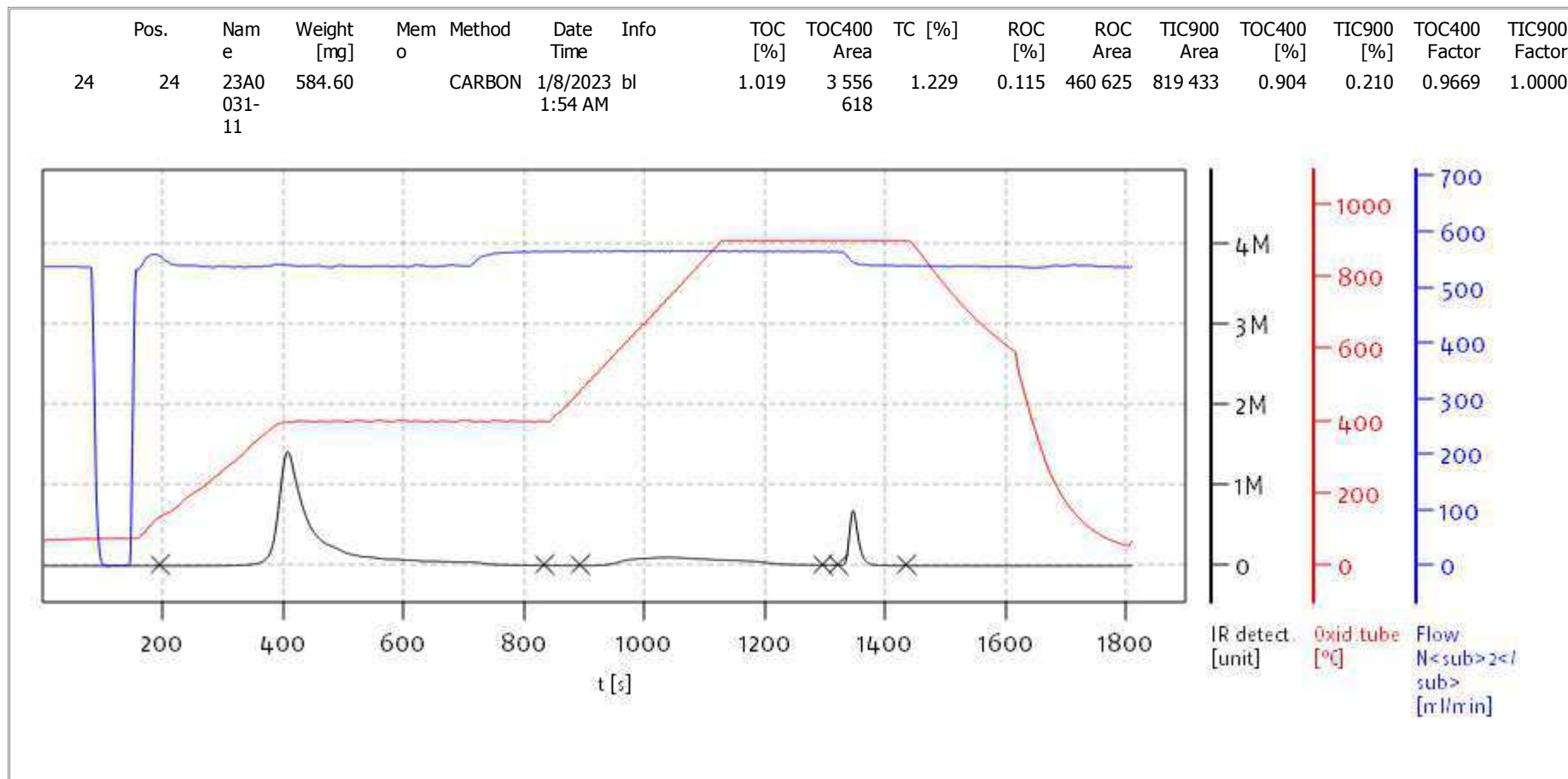
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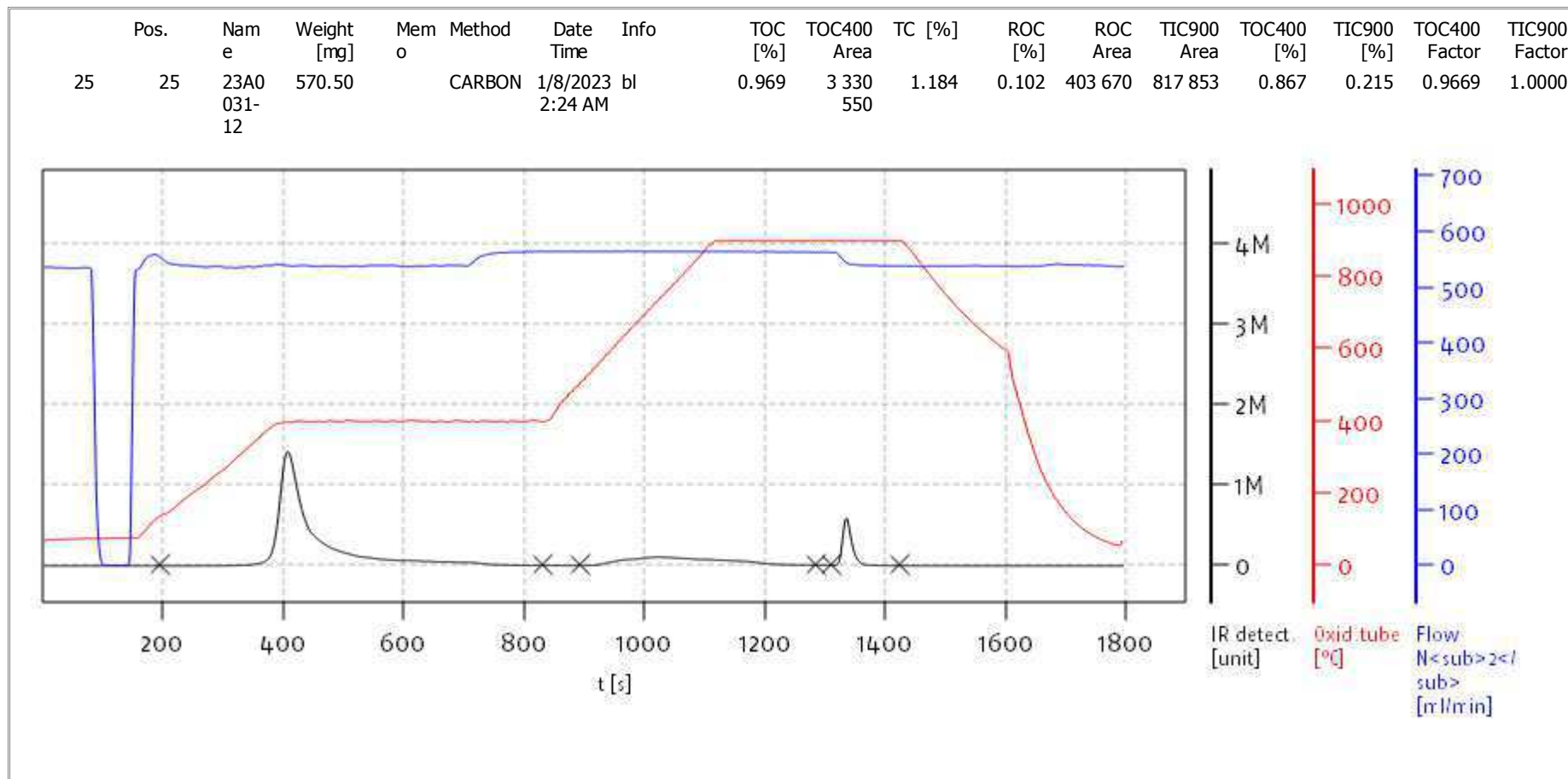
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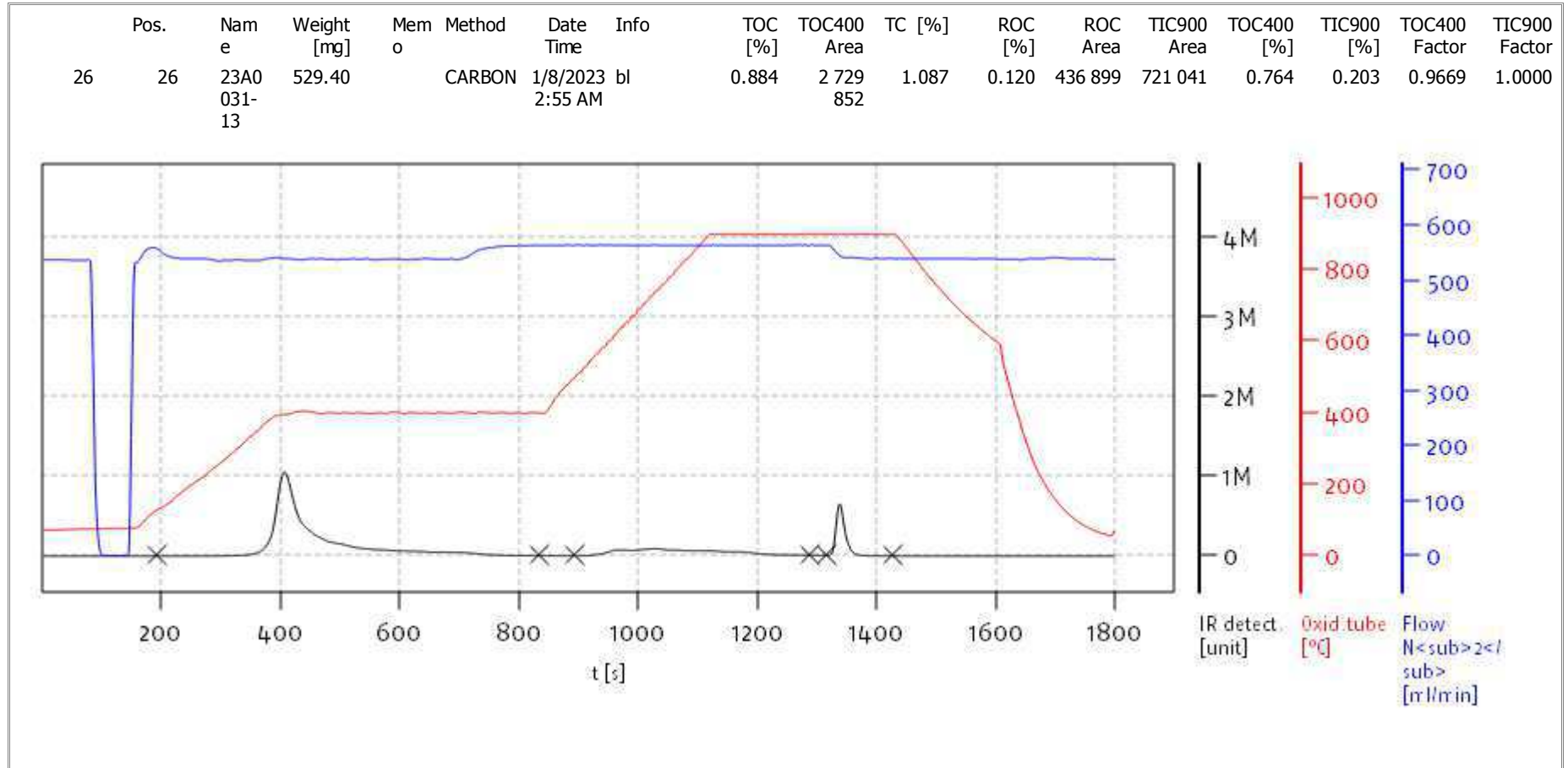
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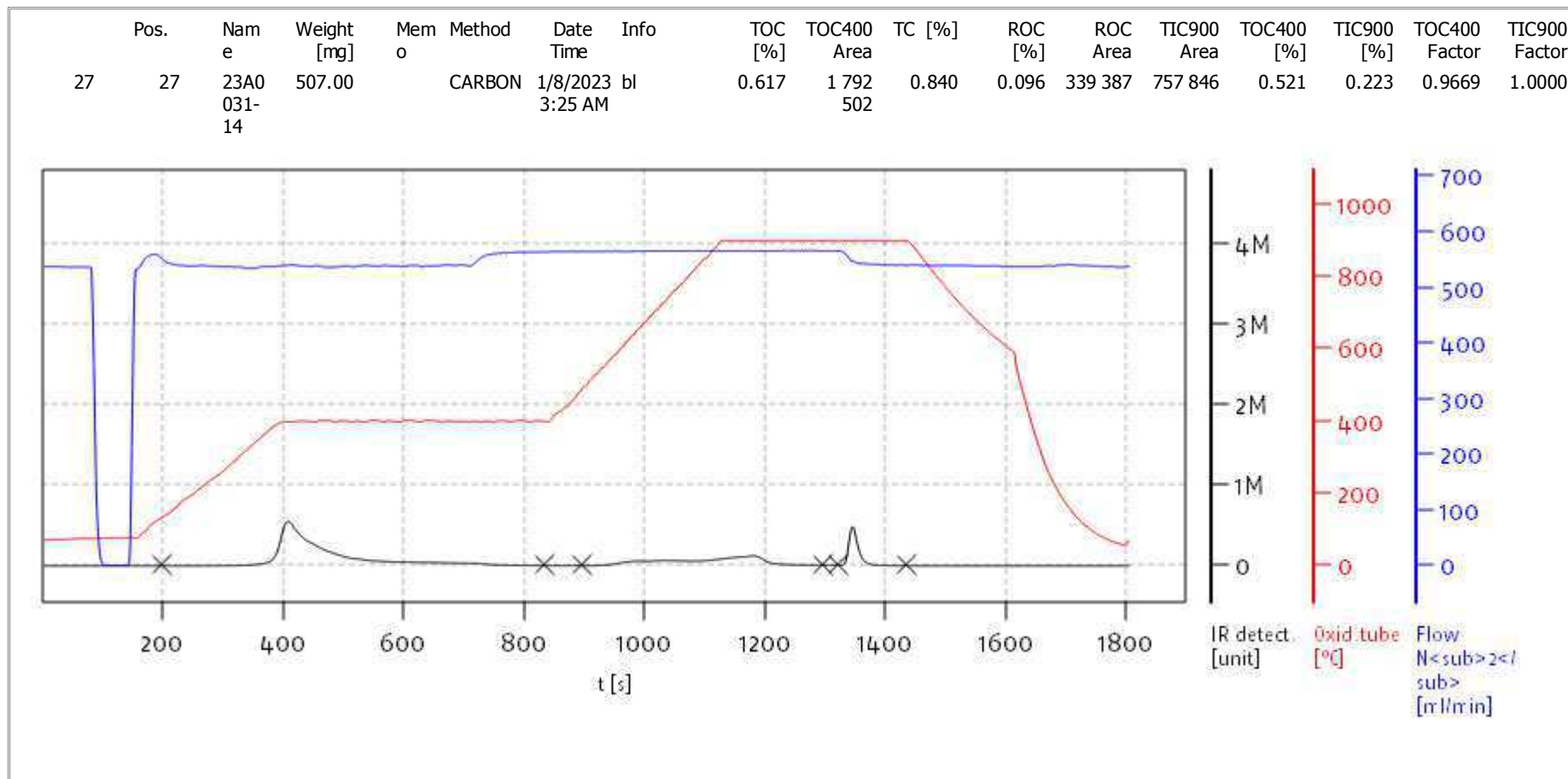
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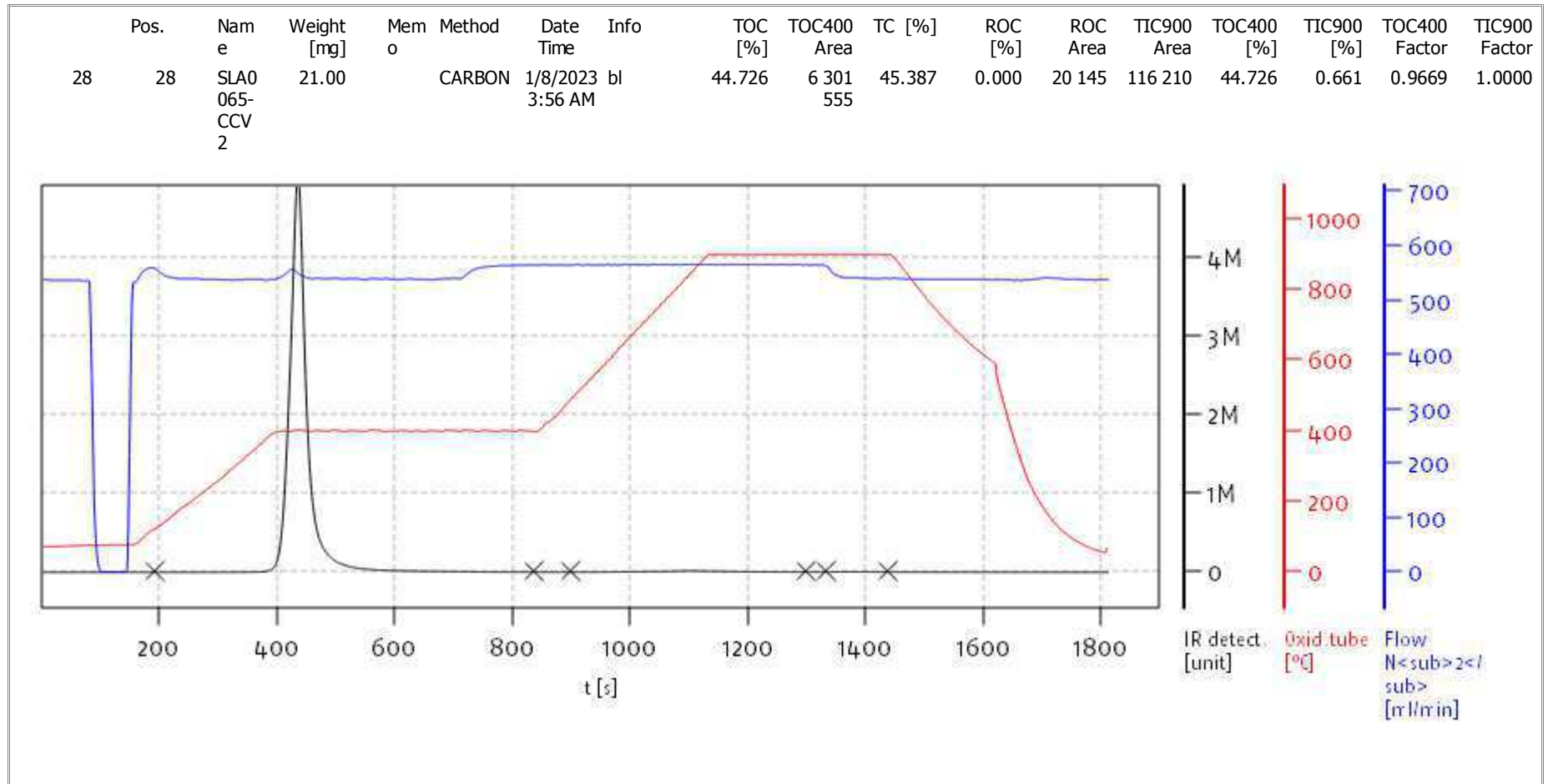
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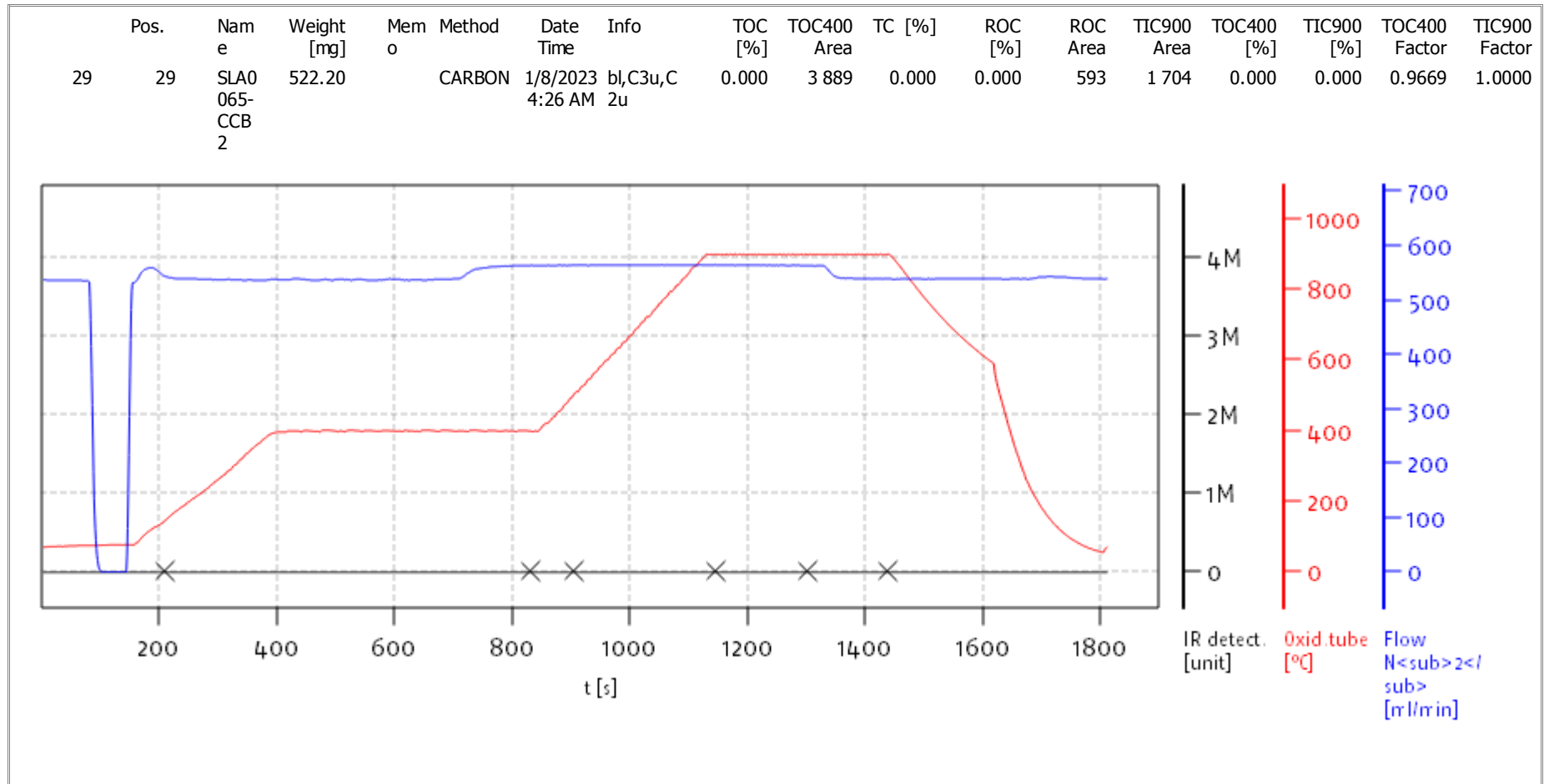
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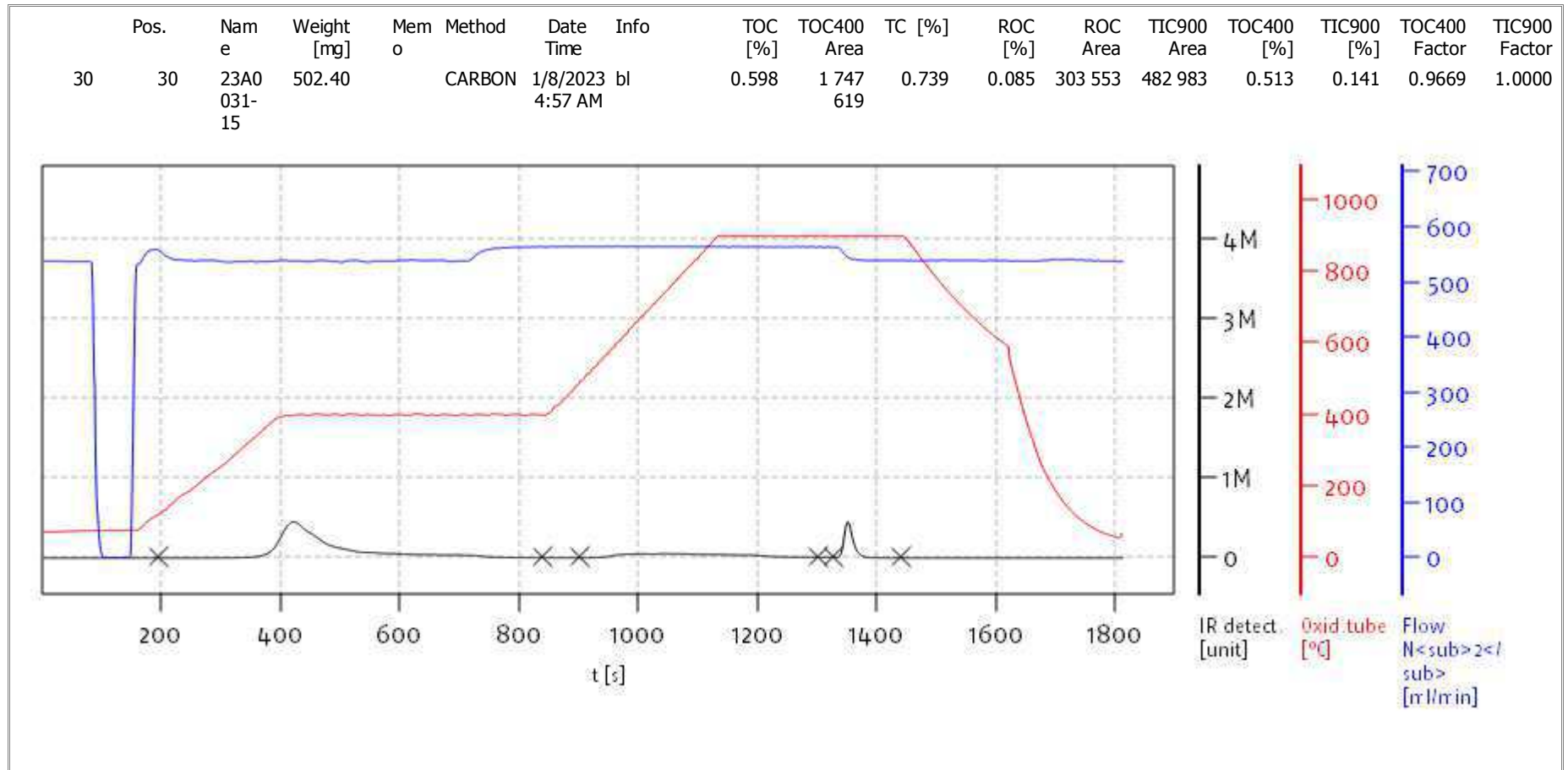
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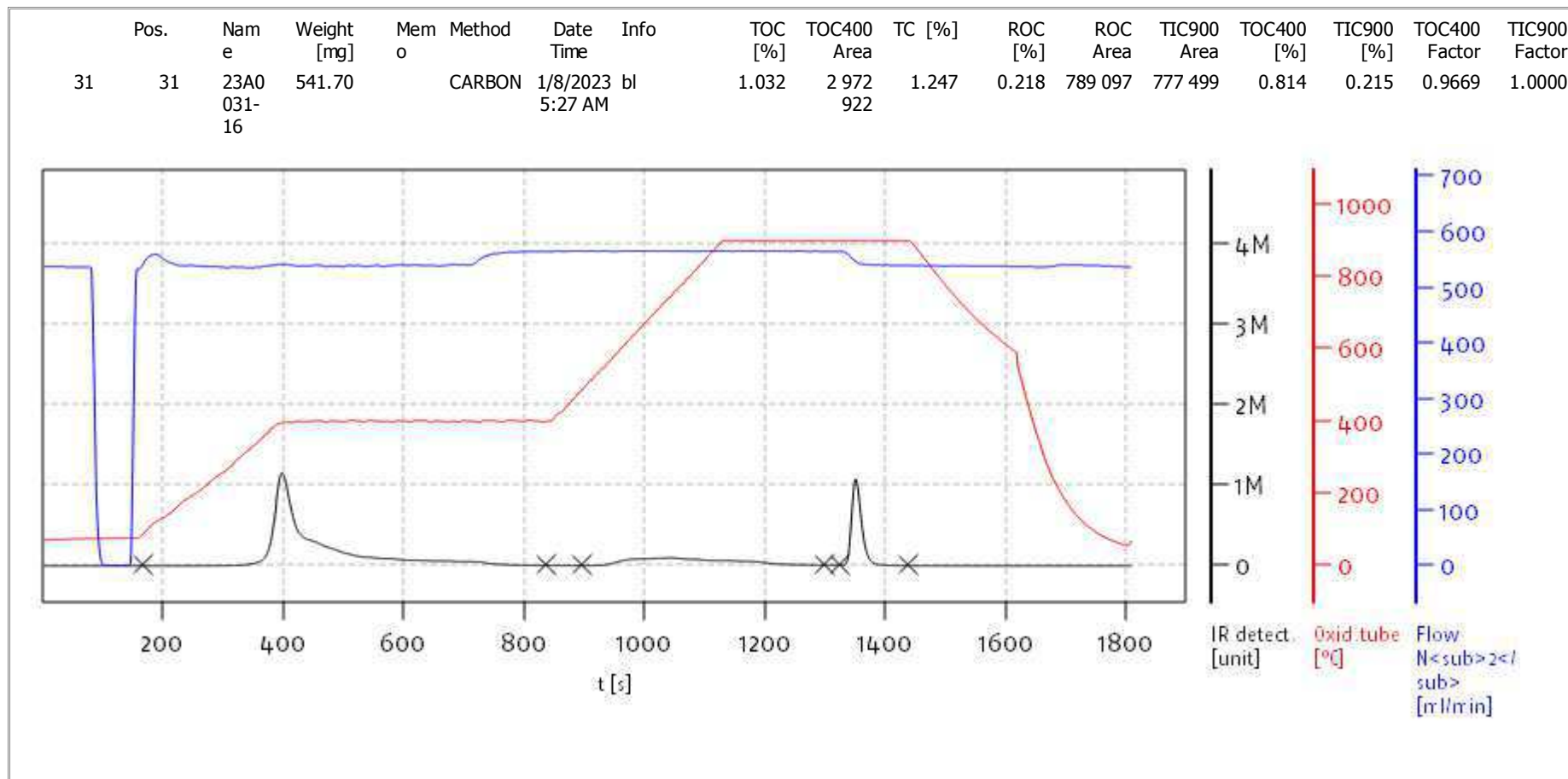
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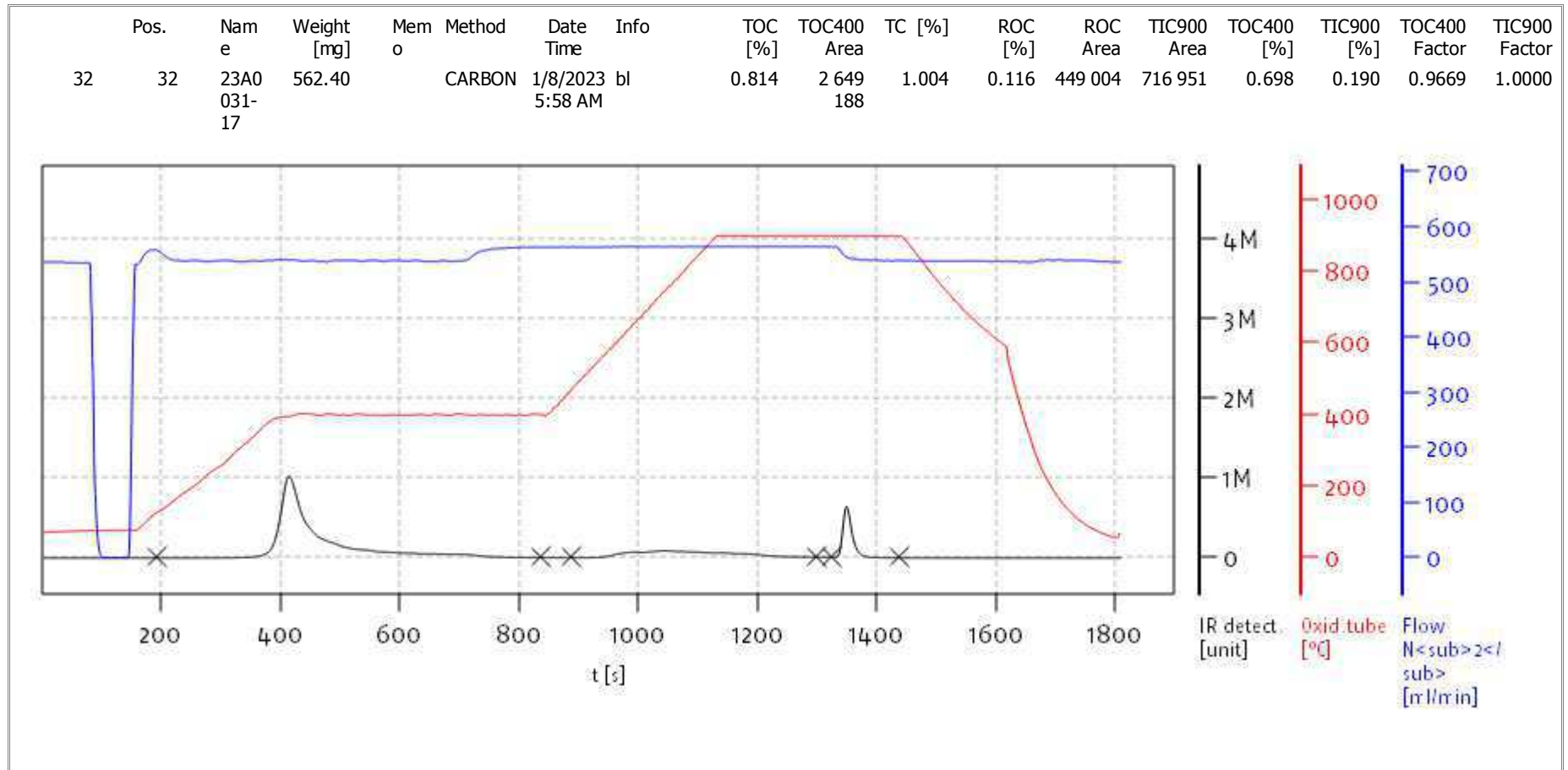
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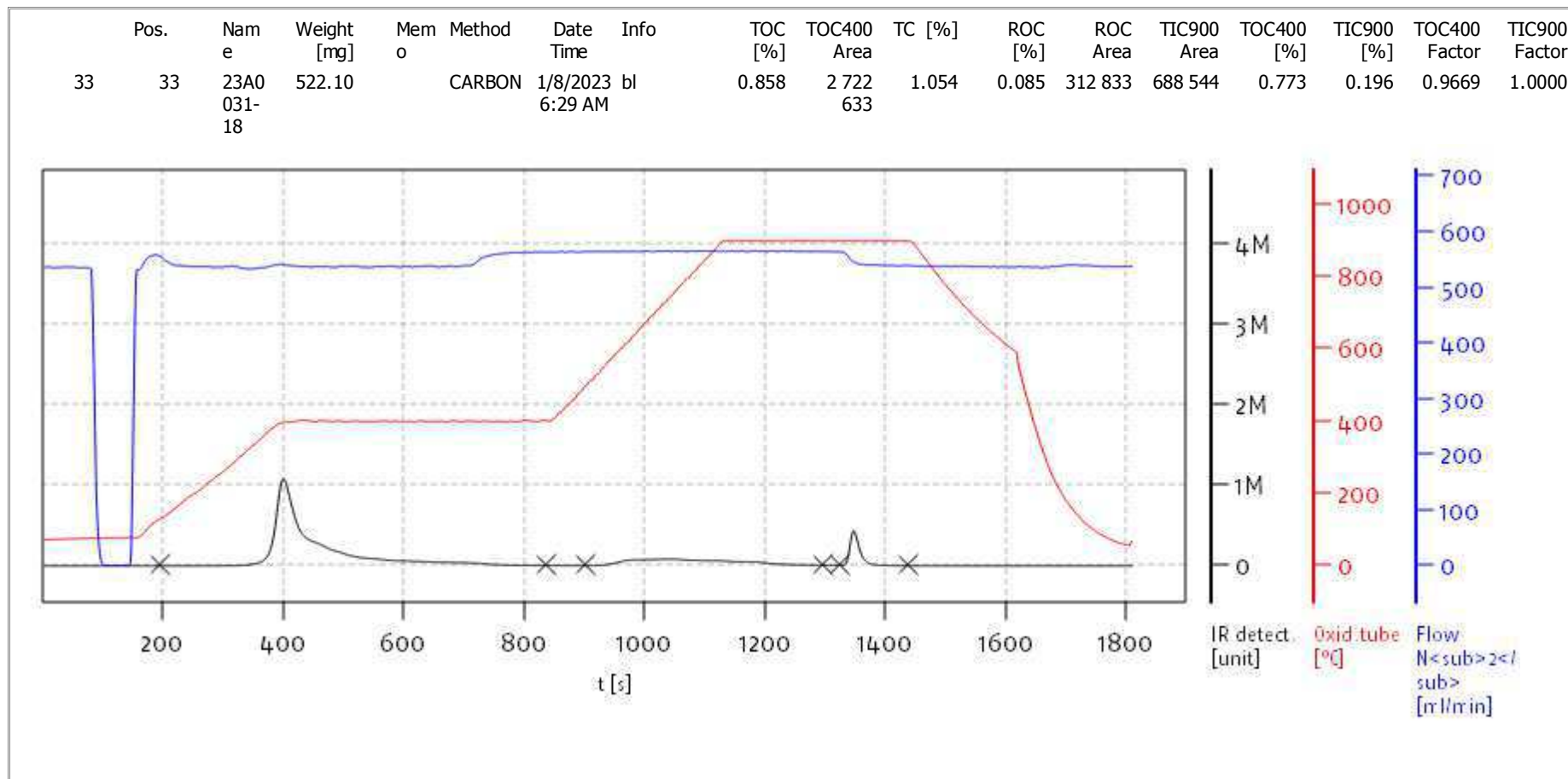
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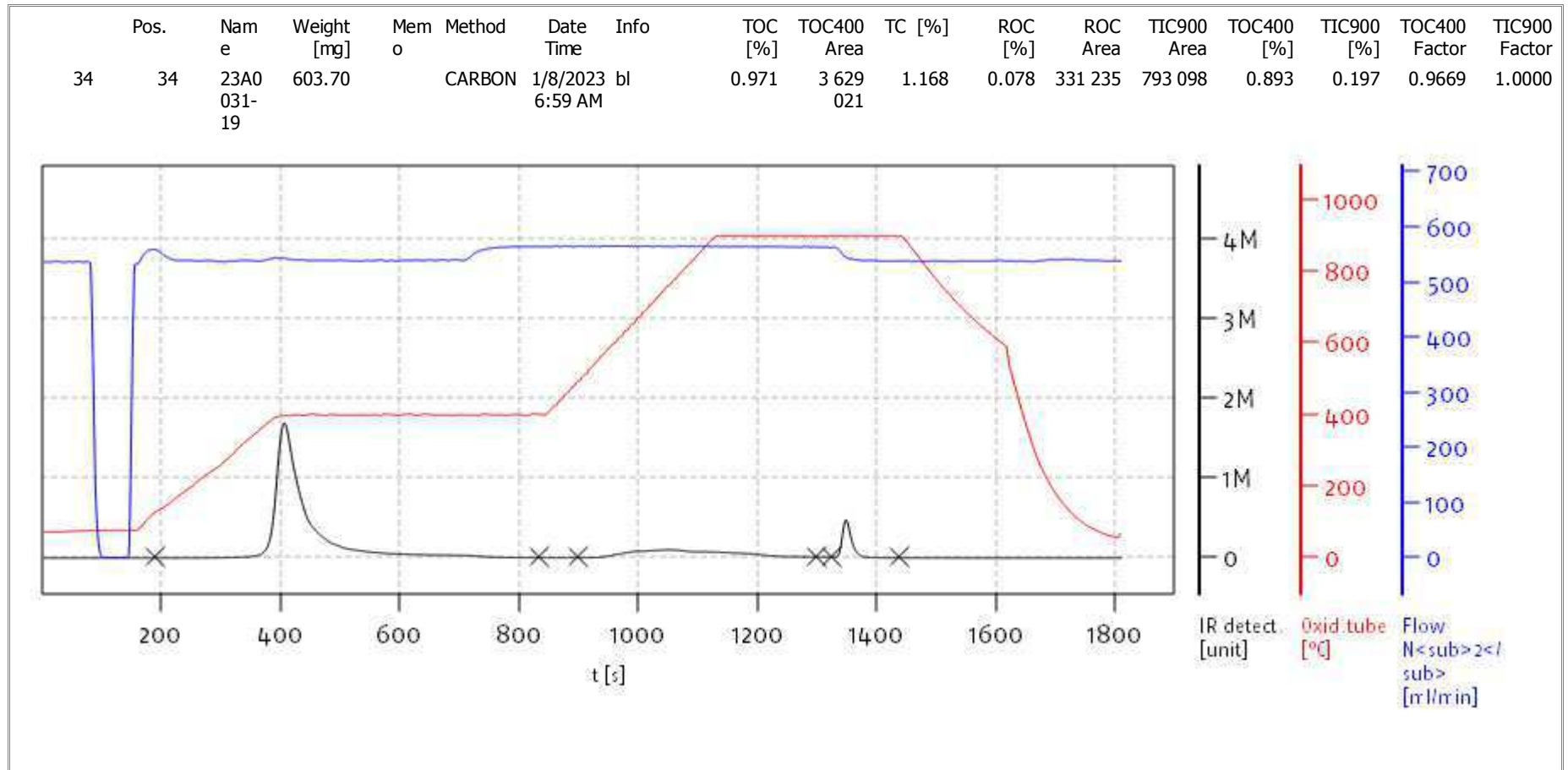
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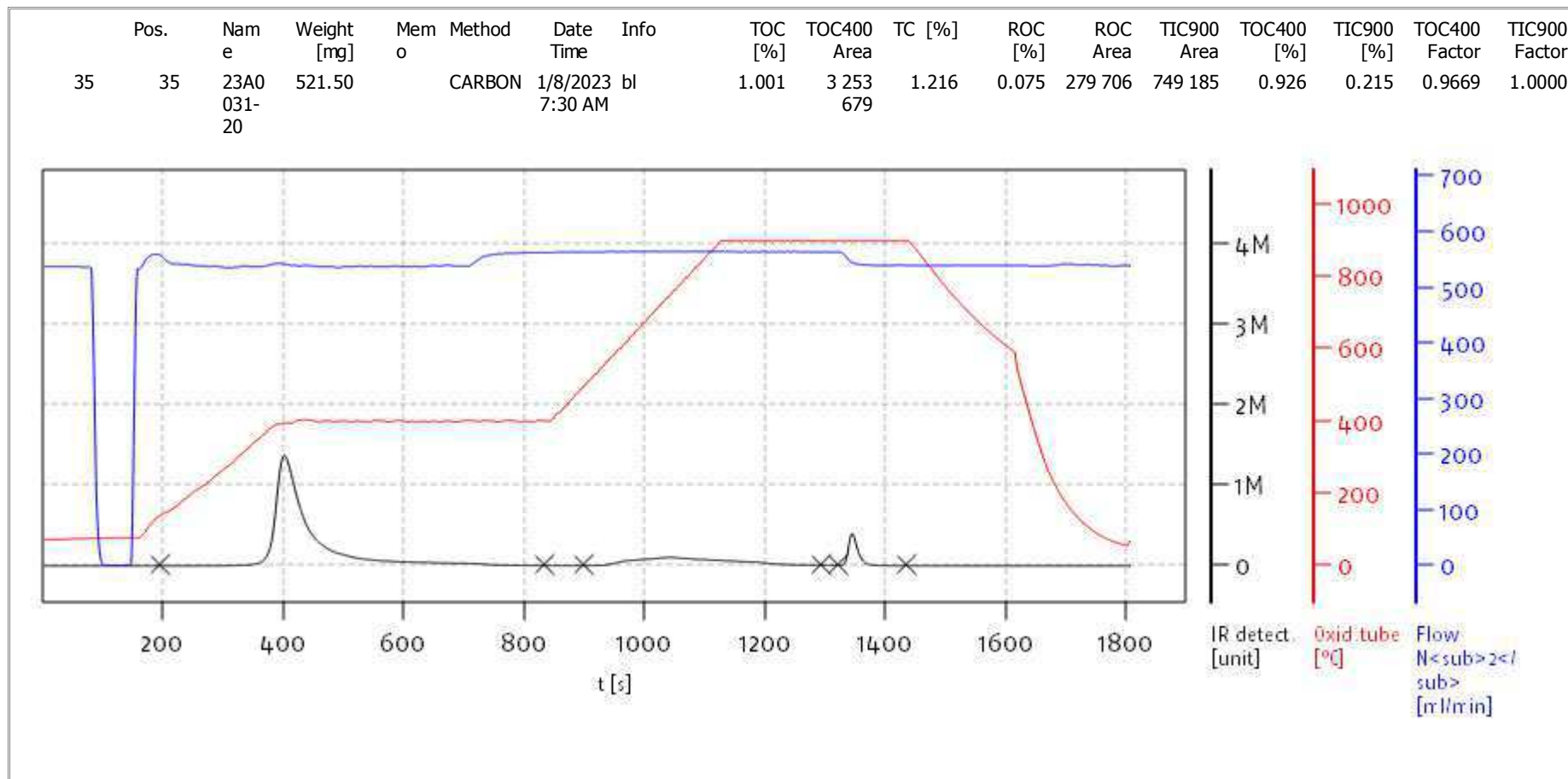
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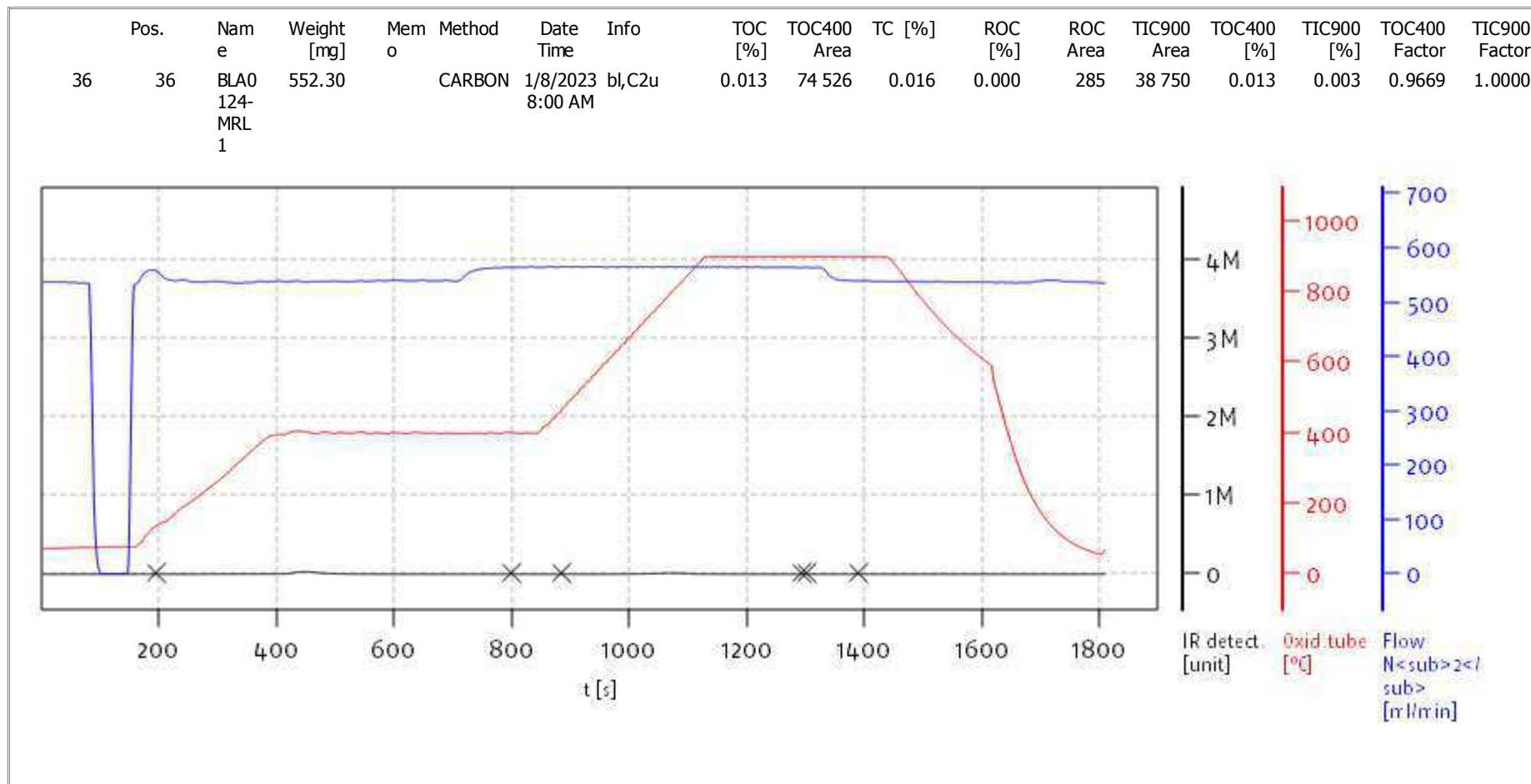
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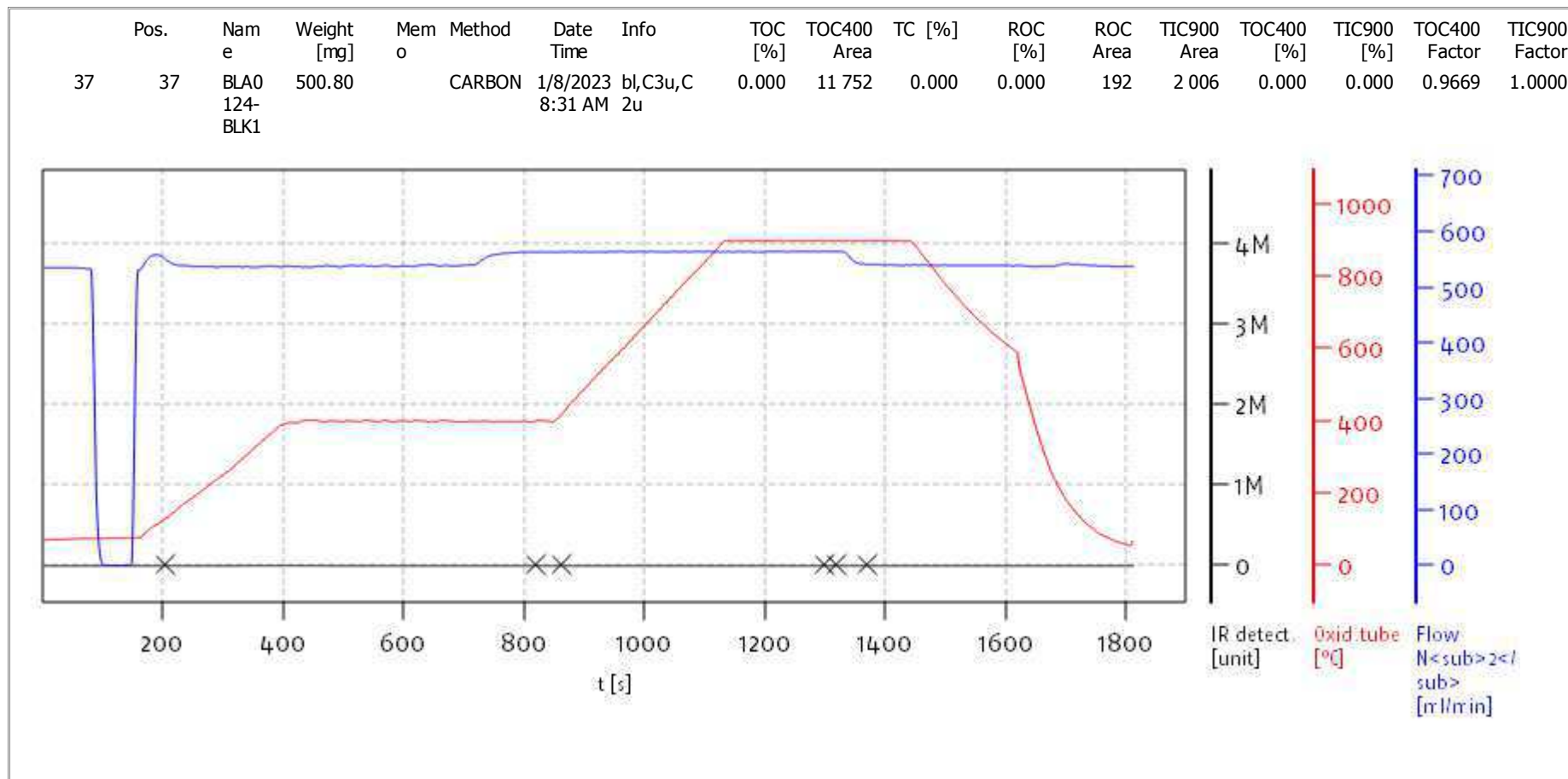
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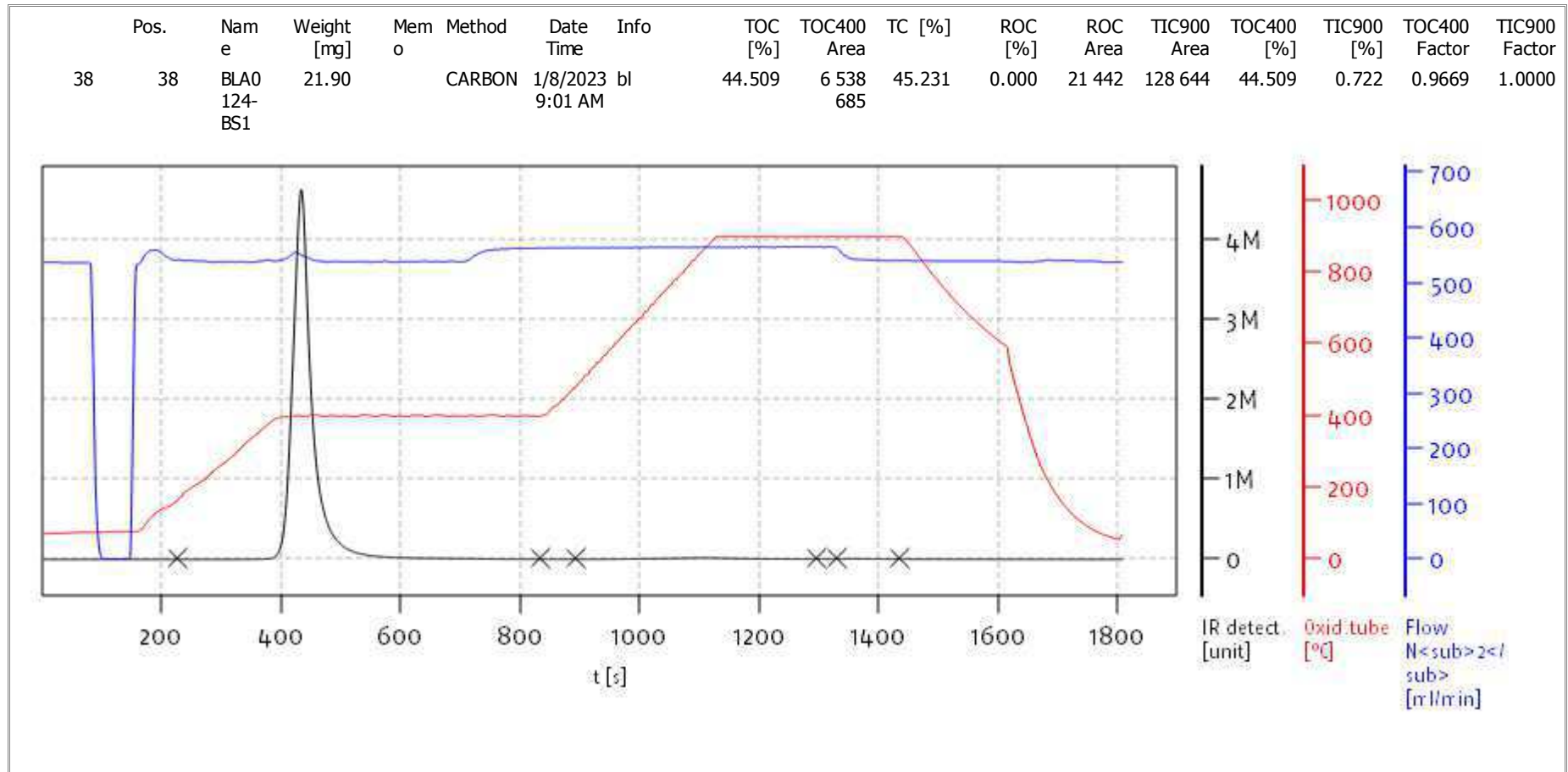
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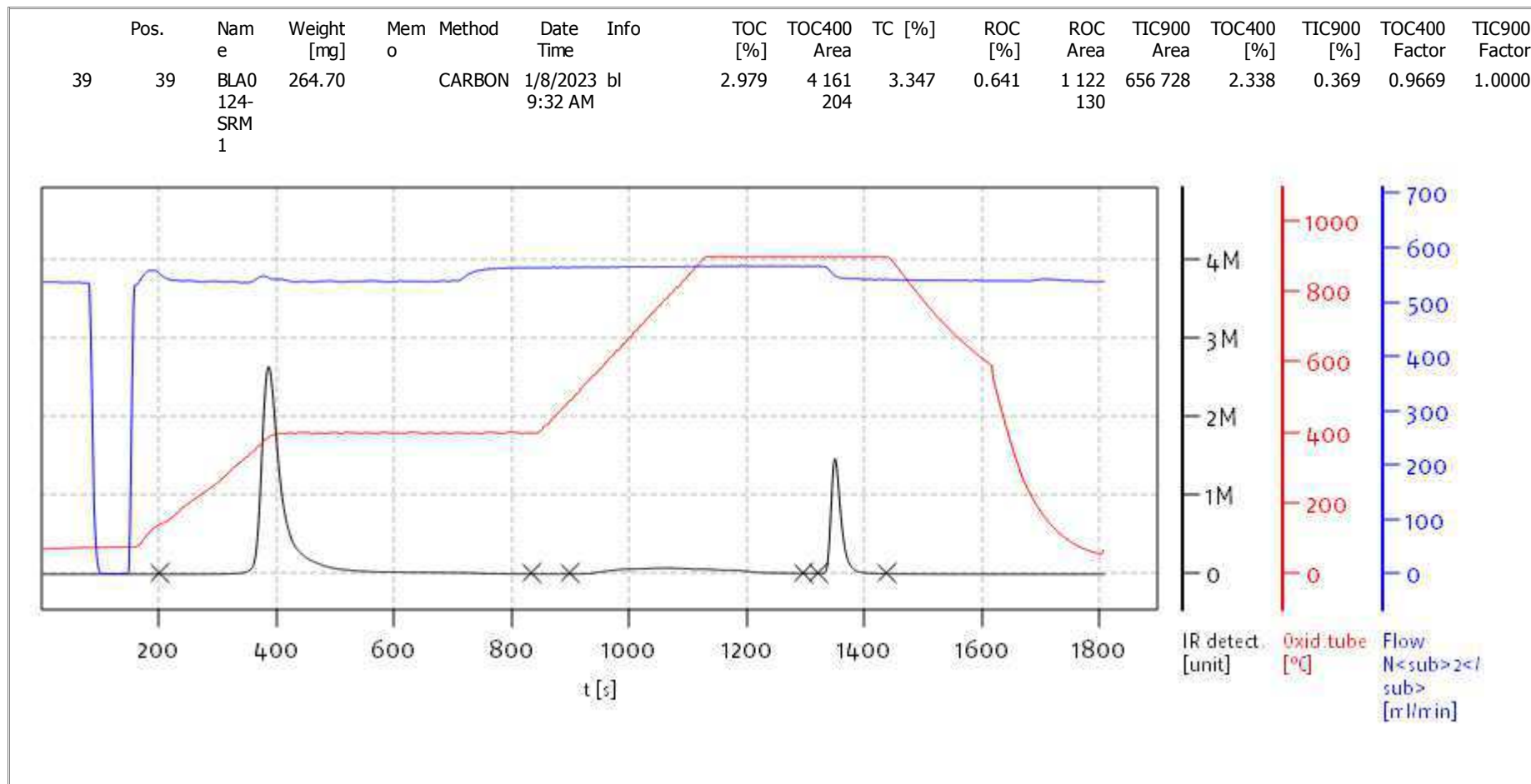
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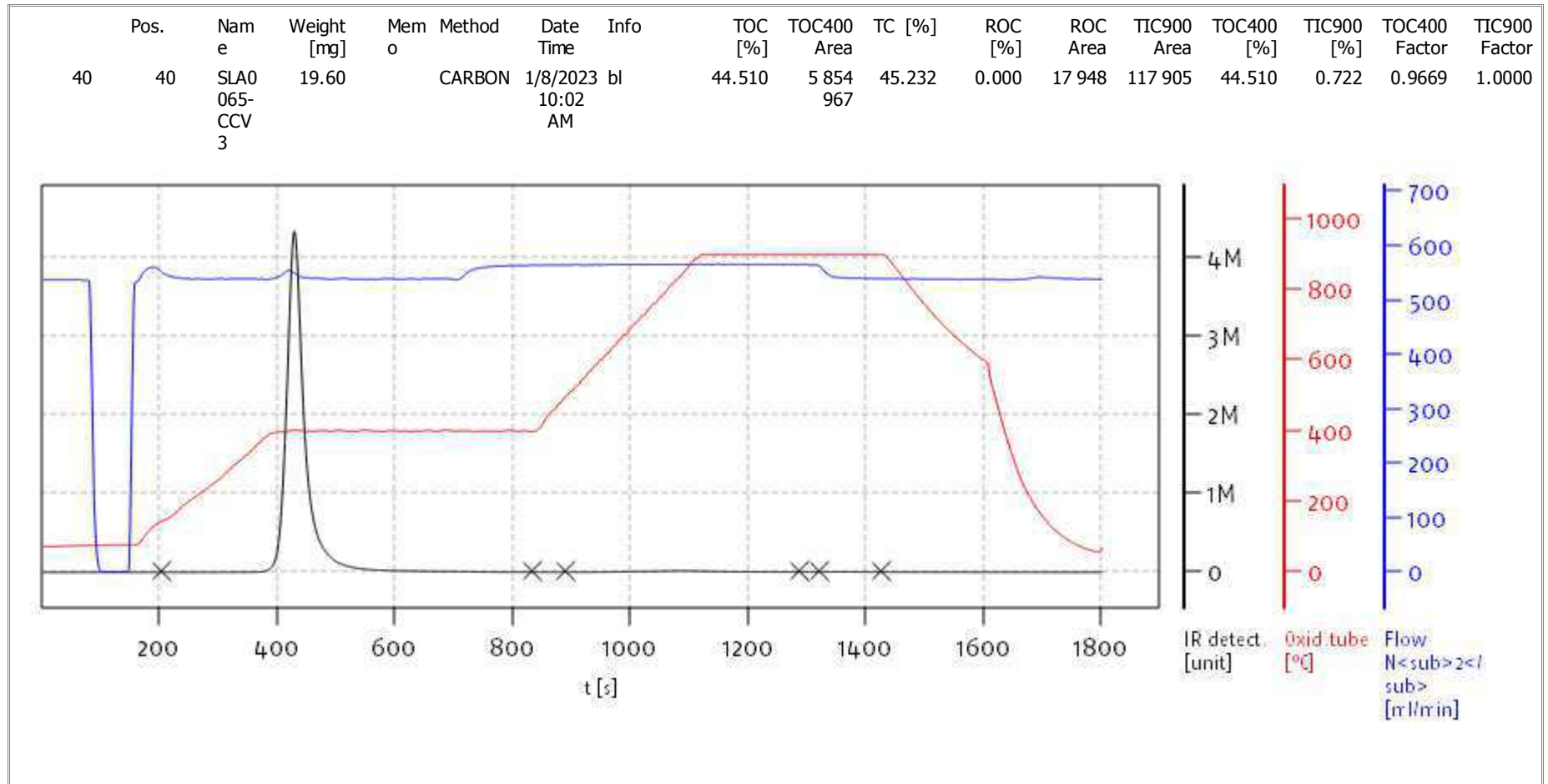
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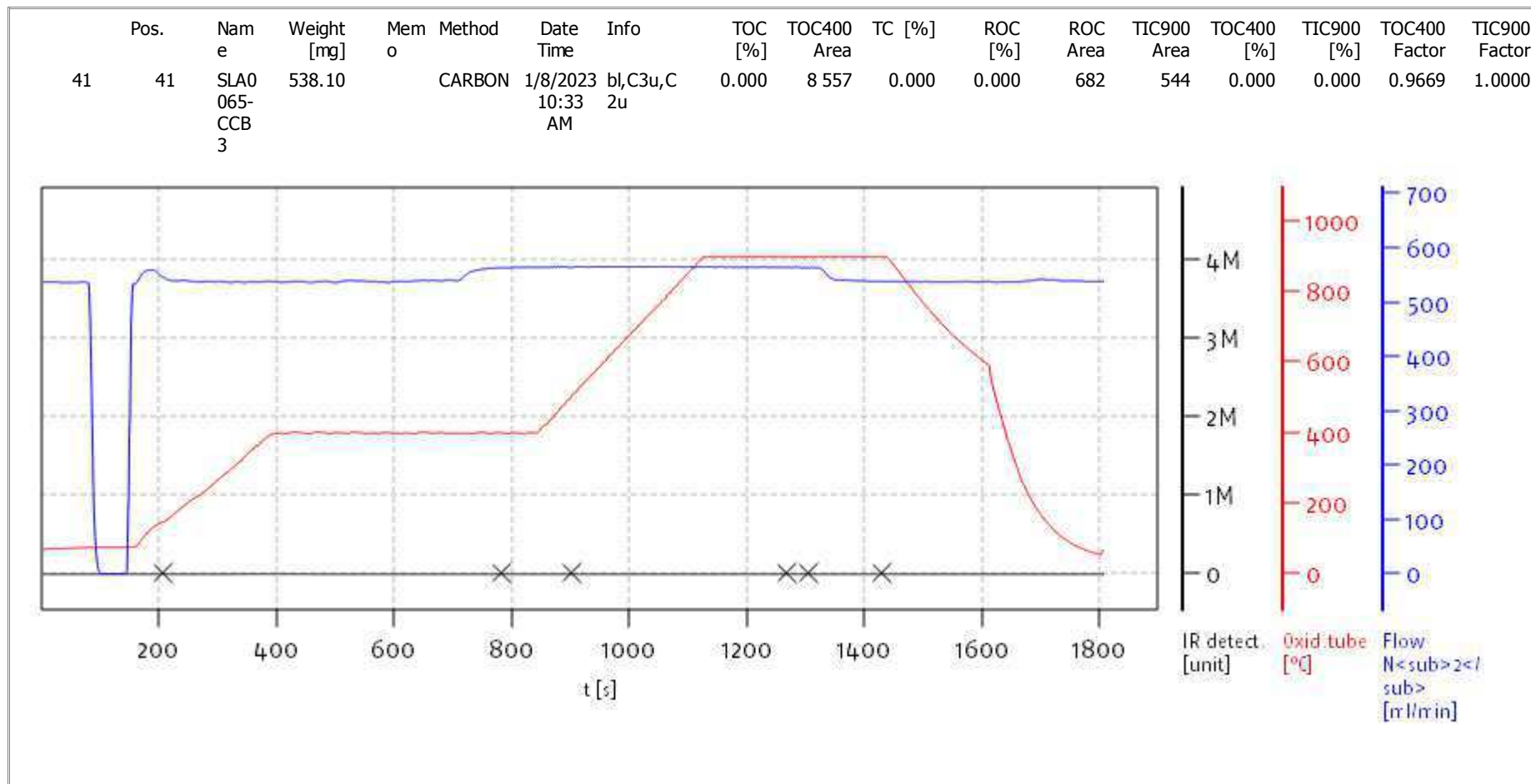
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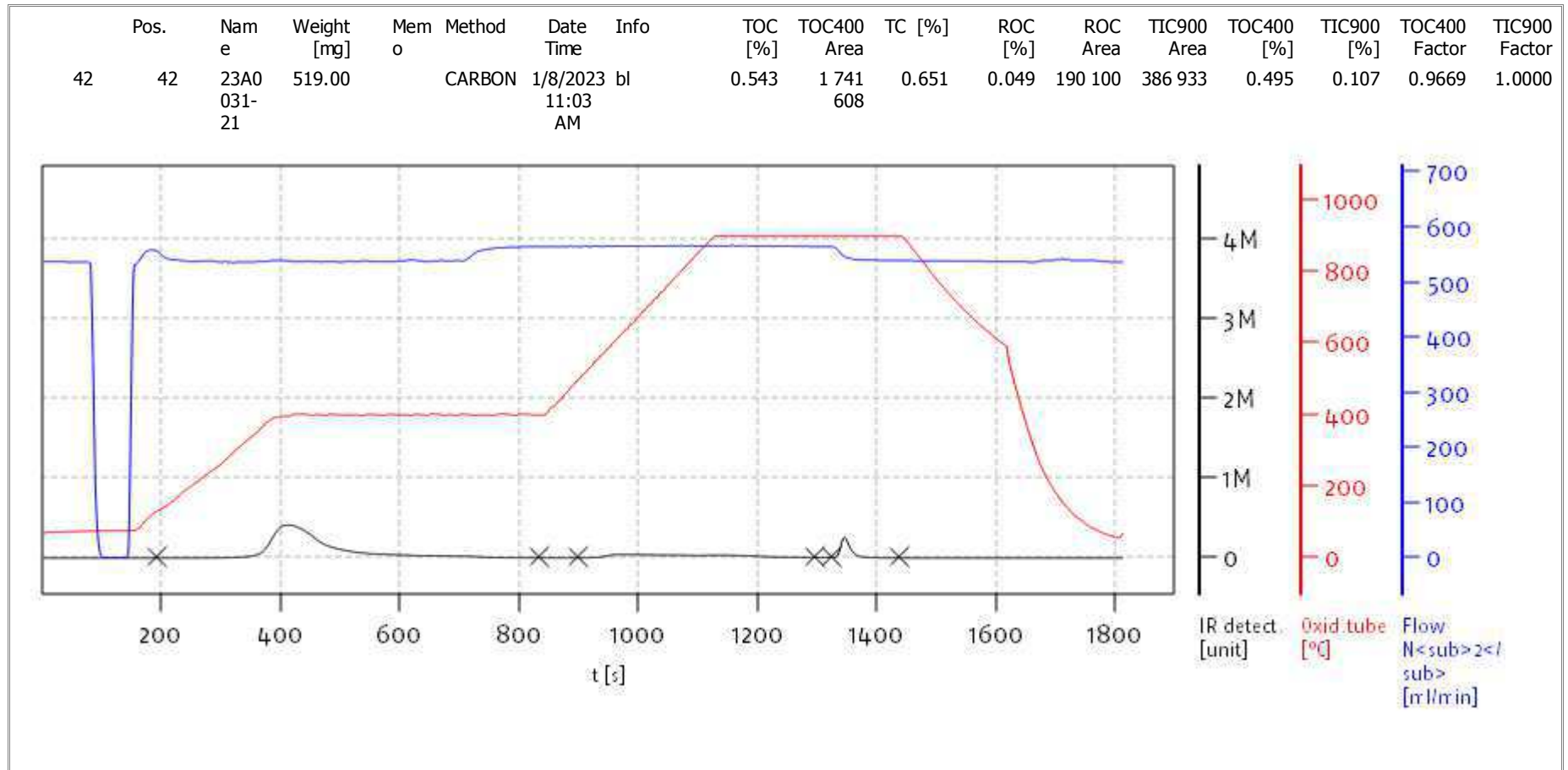
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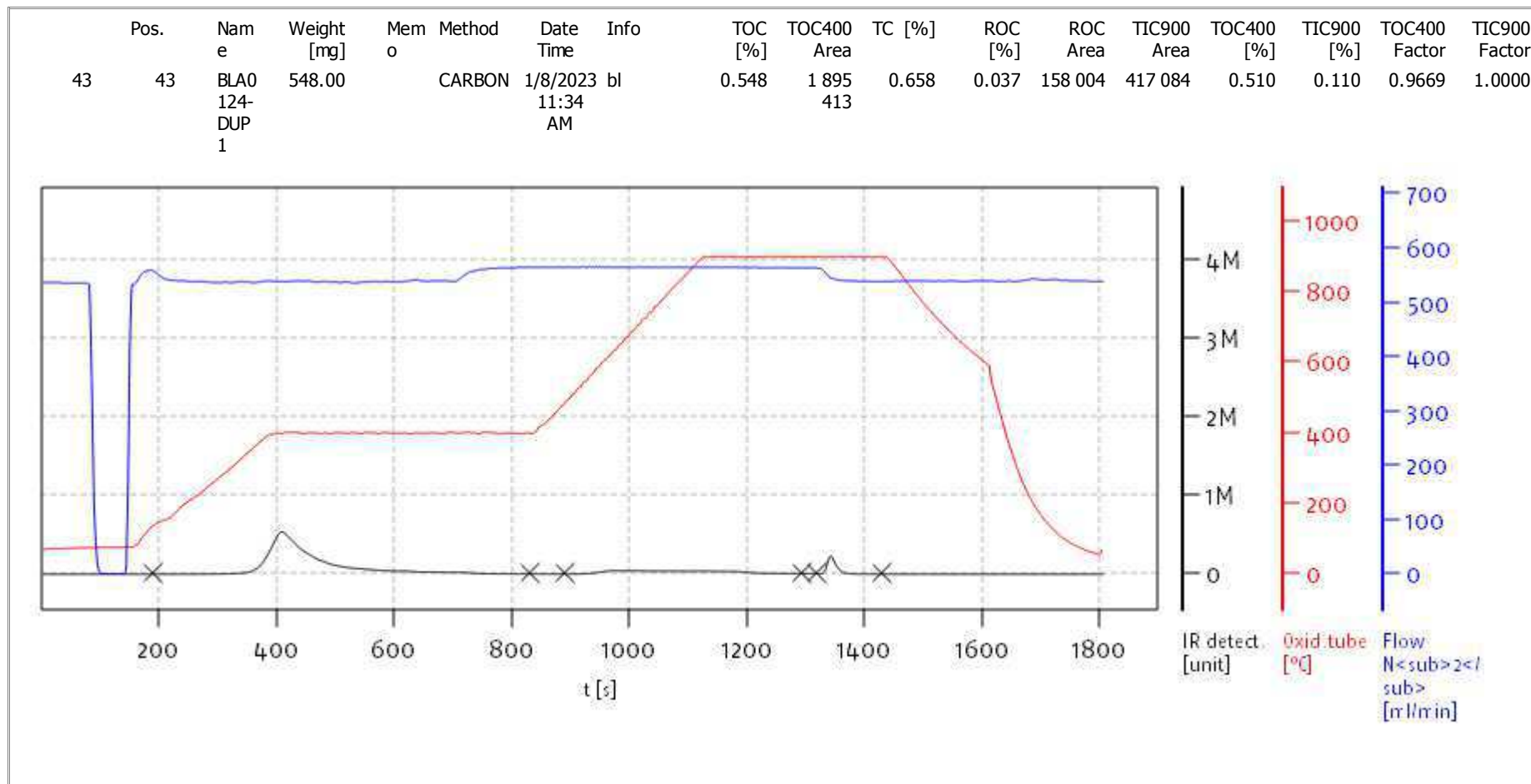
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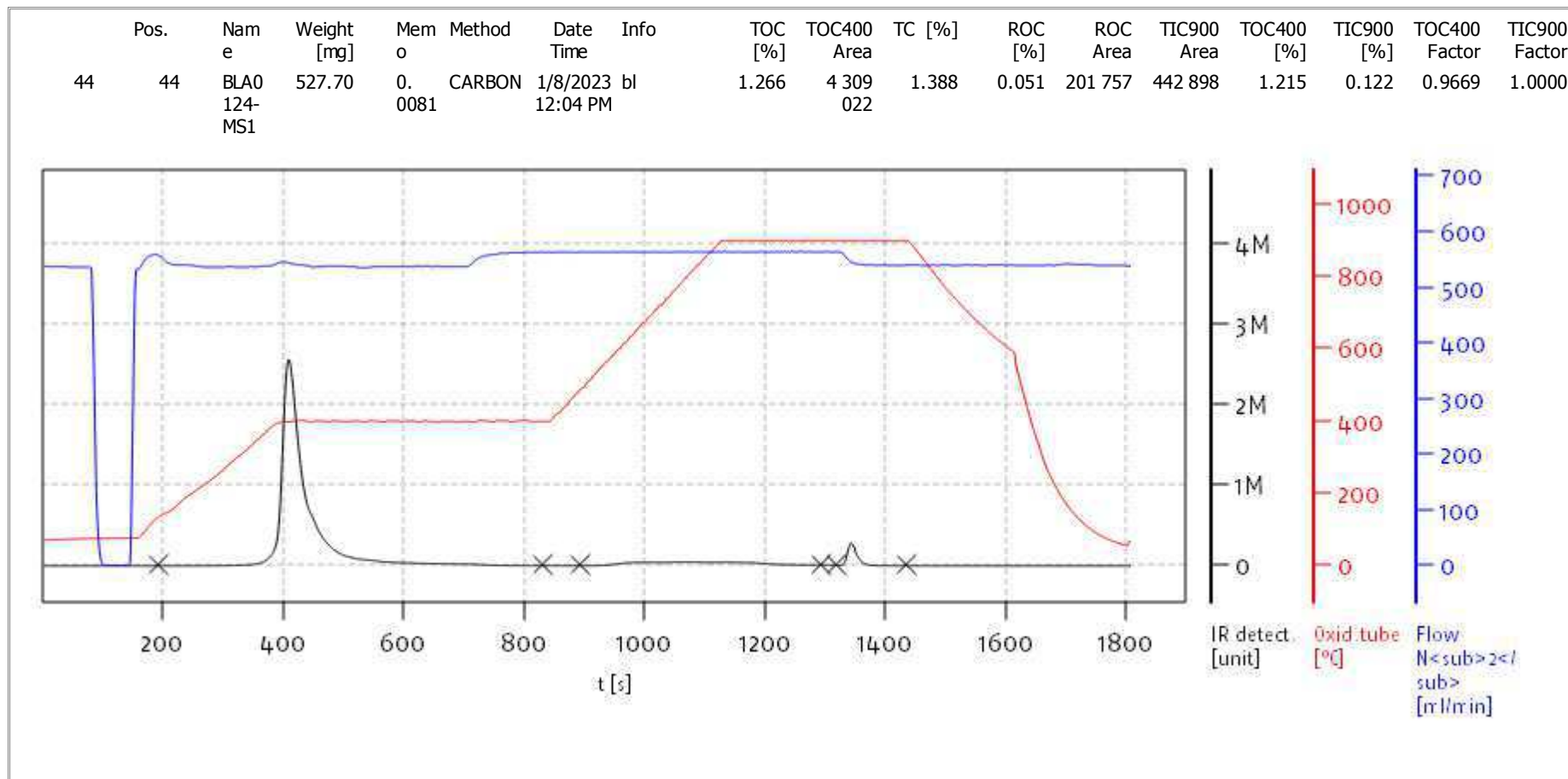
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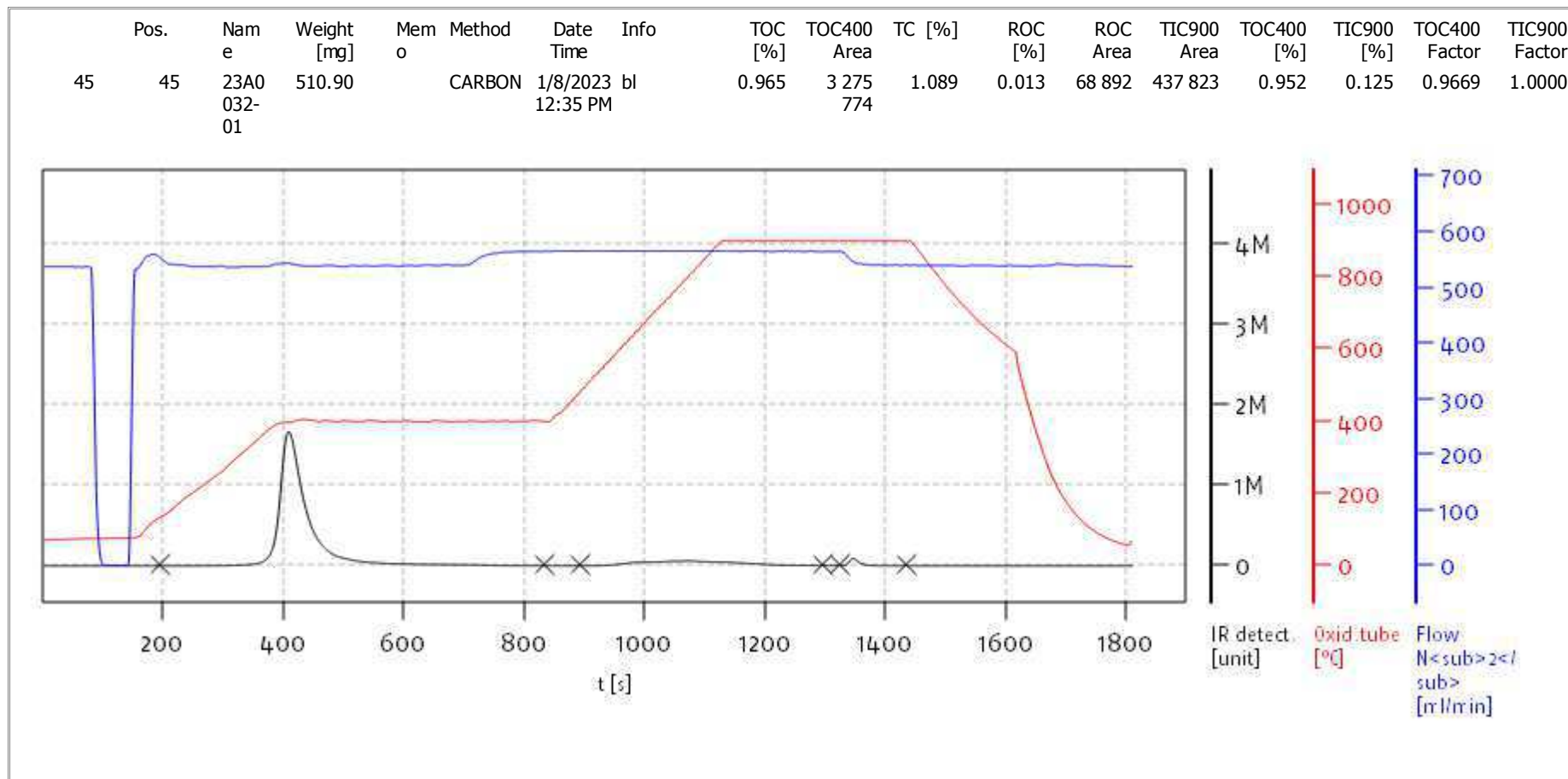
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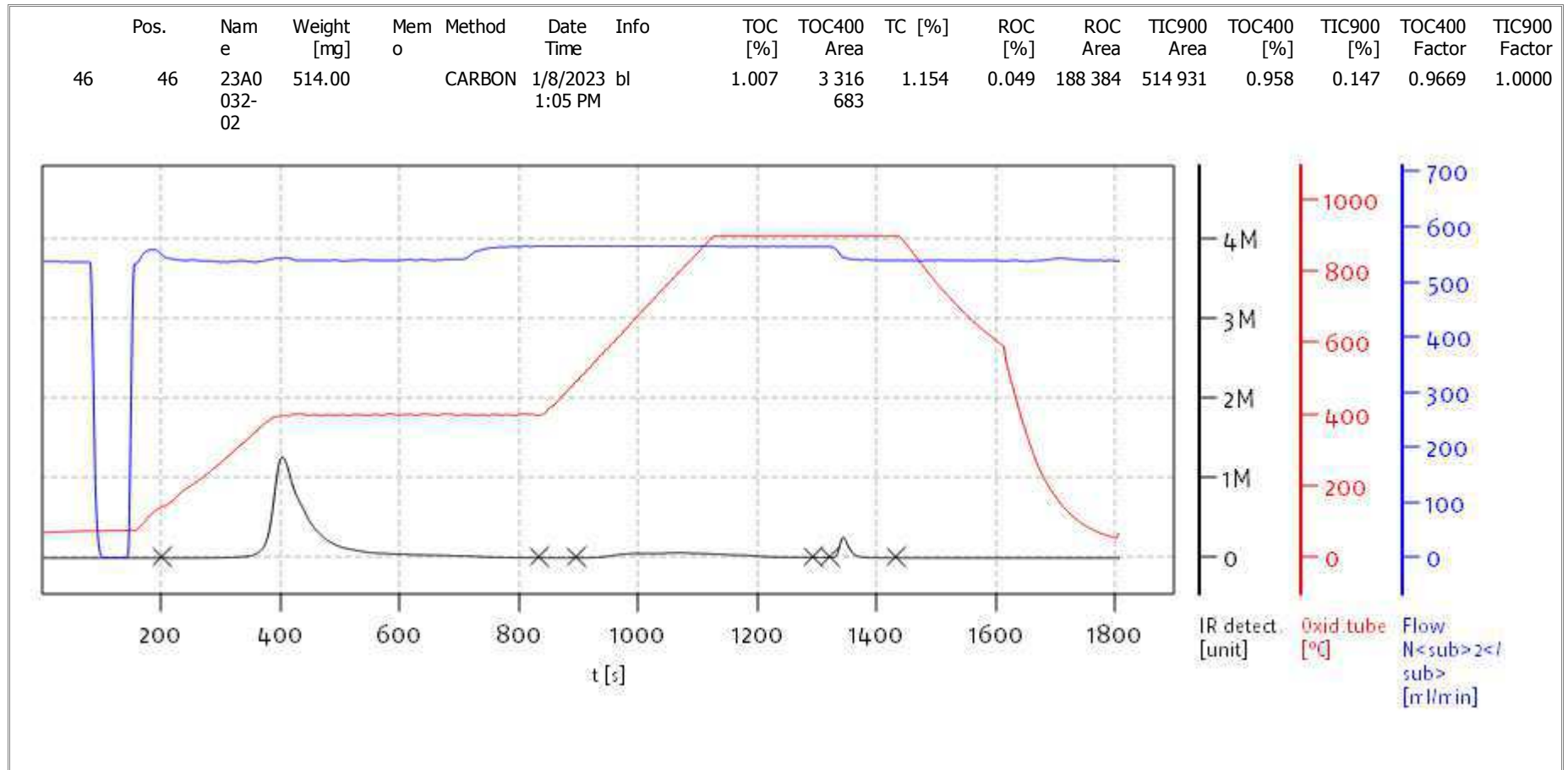
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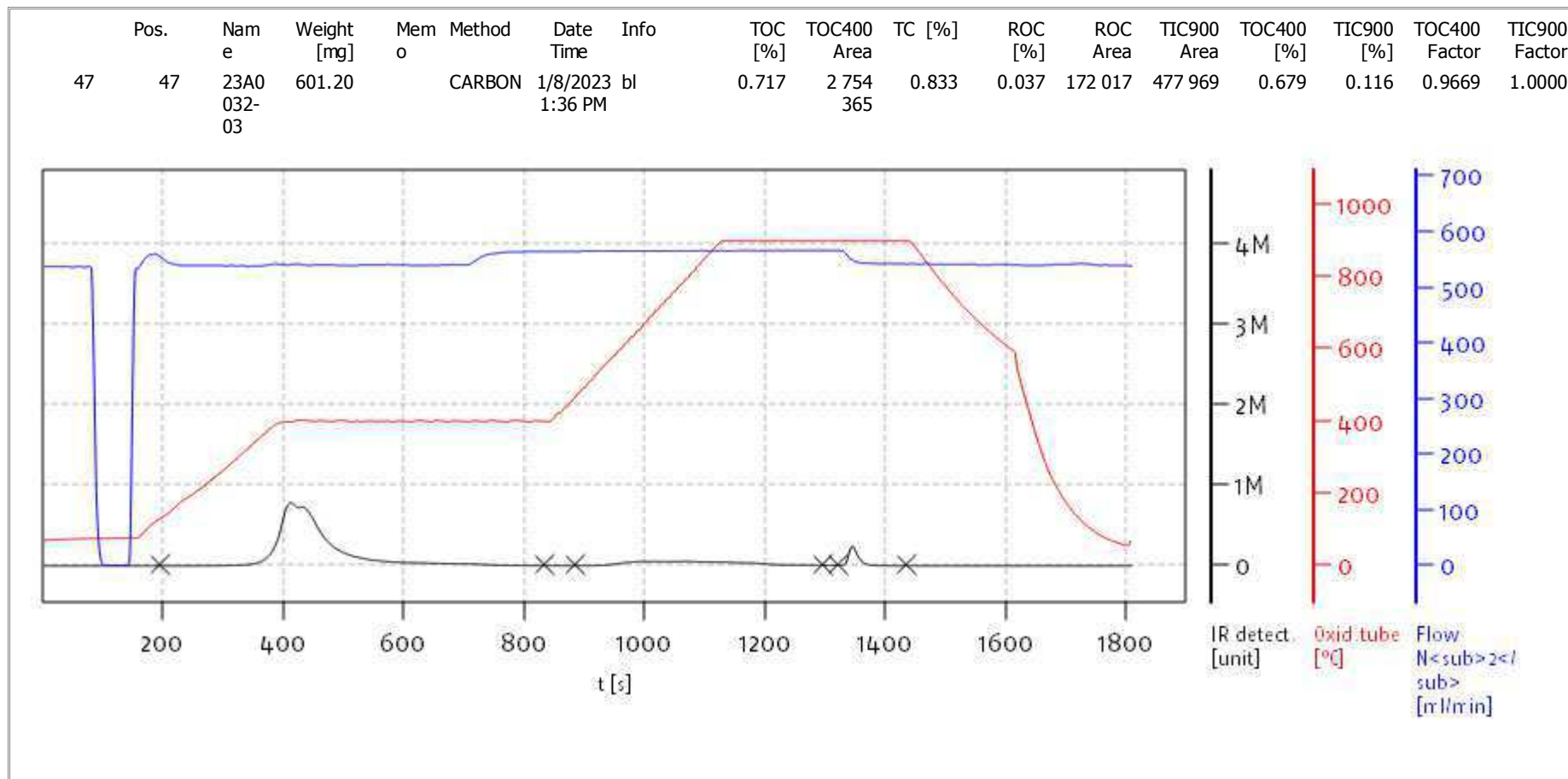
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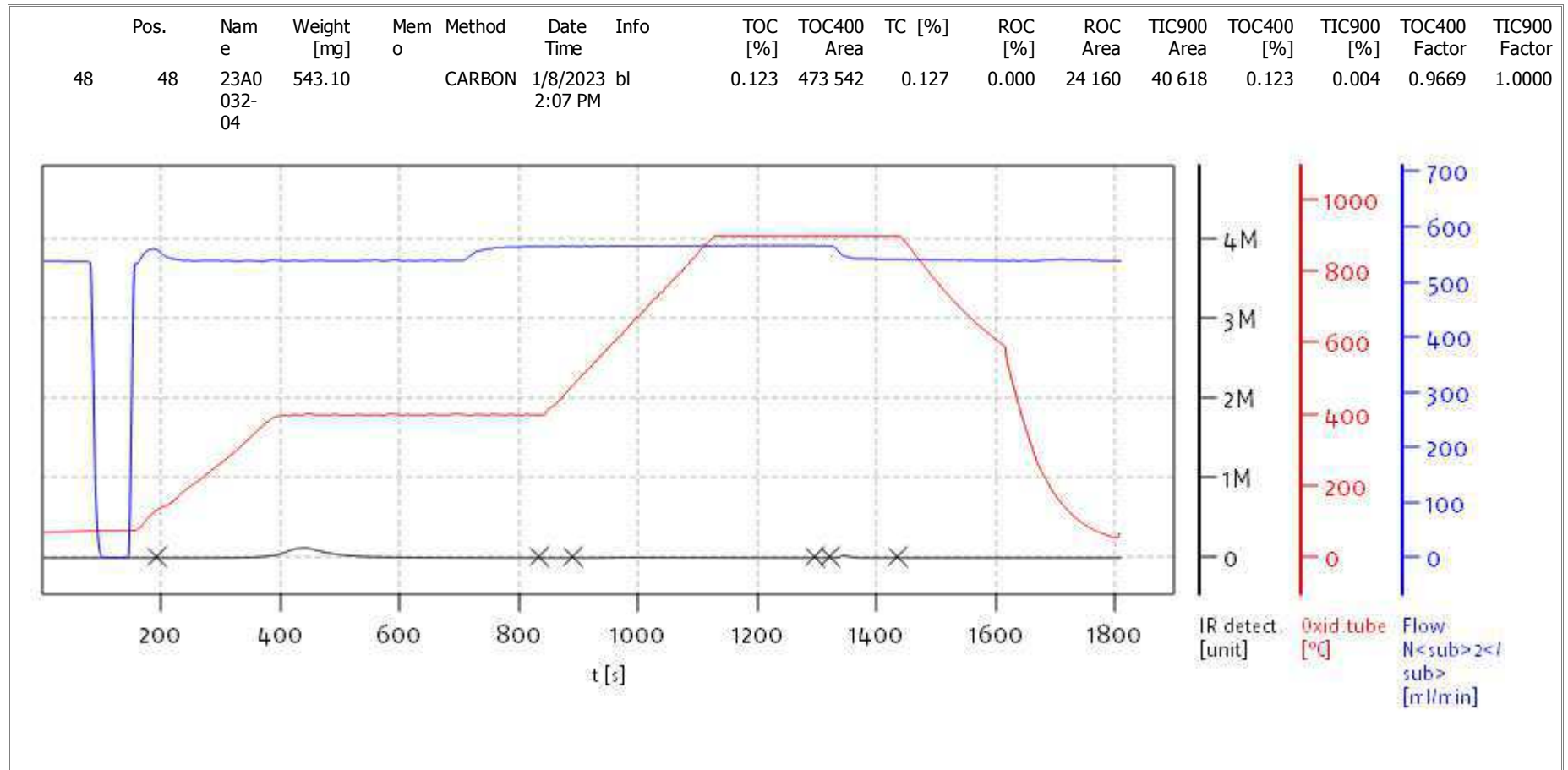
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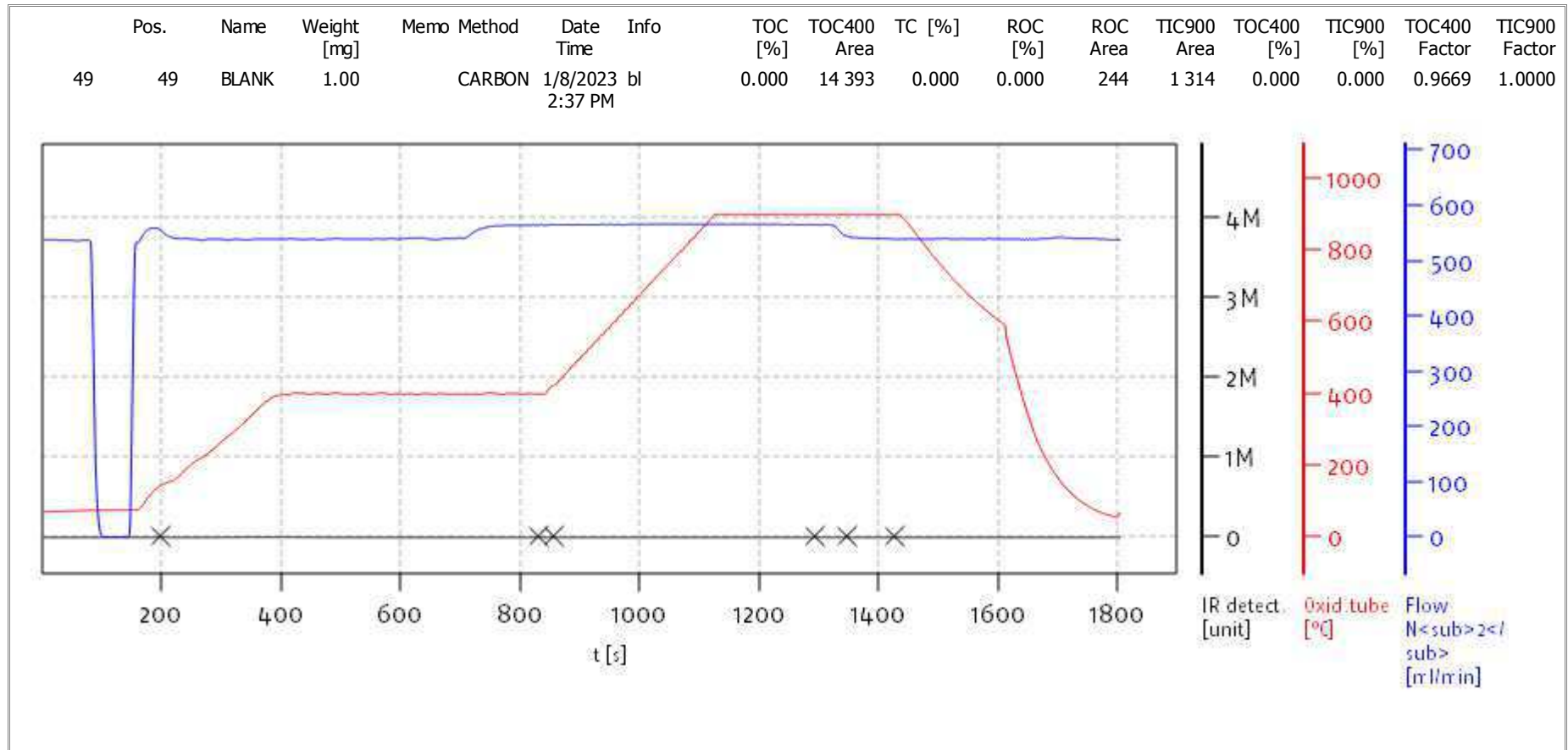
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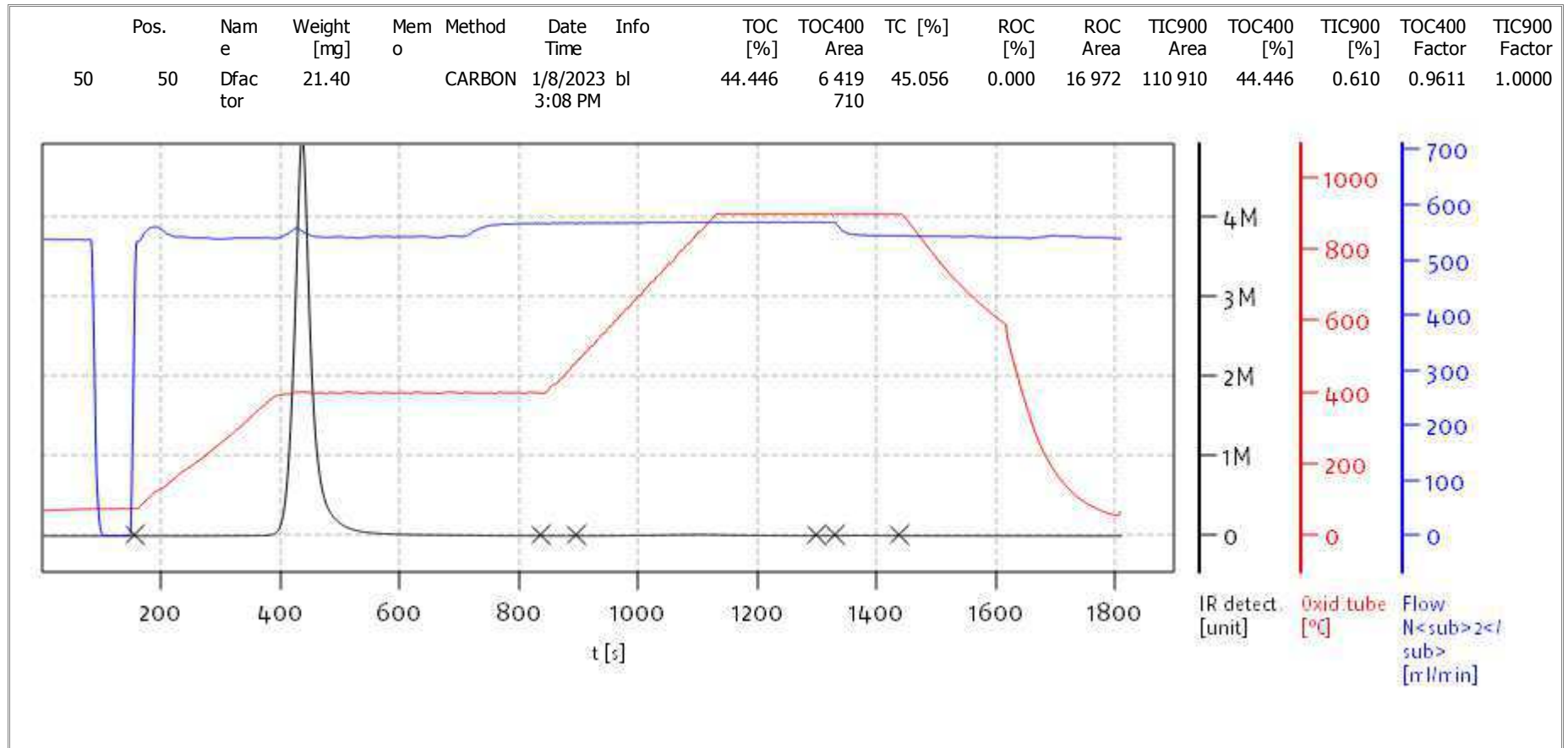
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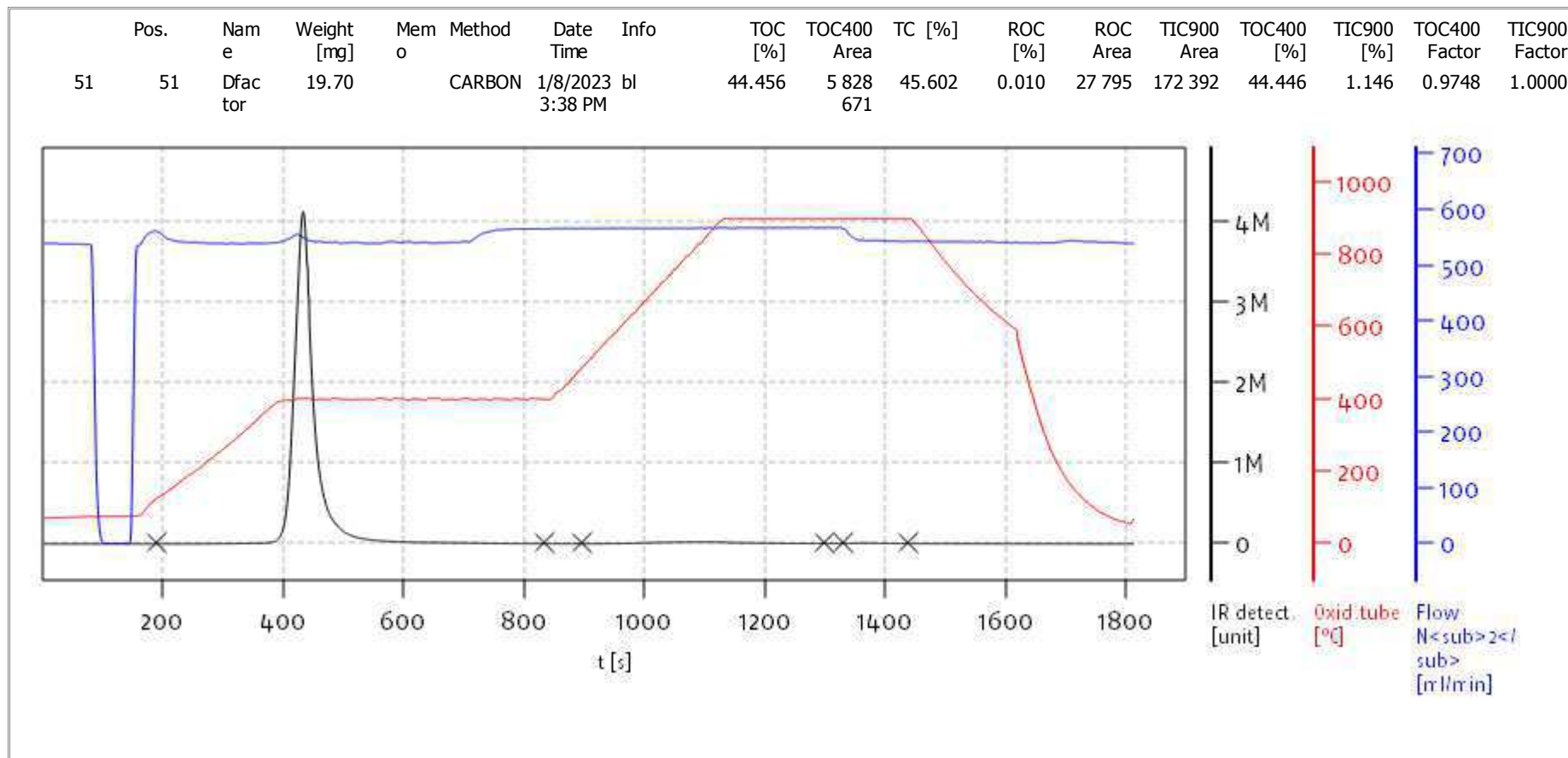
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soliTOC V2.0.2 (31015f9) 2018-11-19
 Serial No: 0300.181017
 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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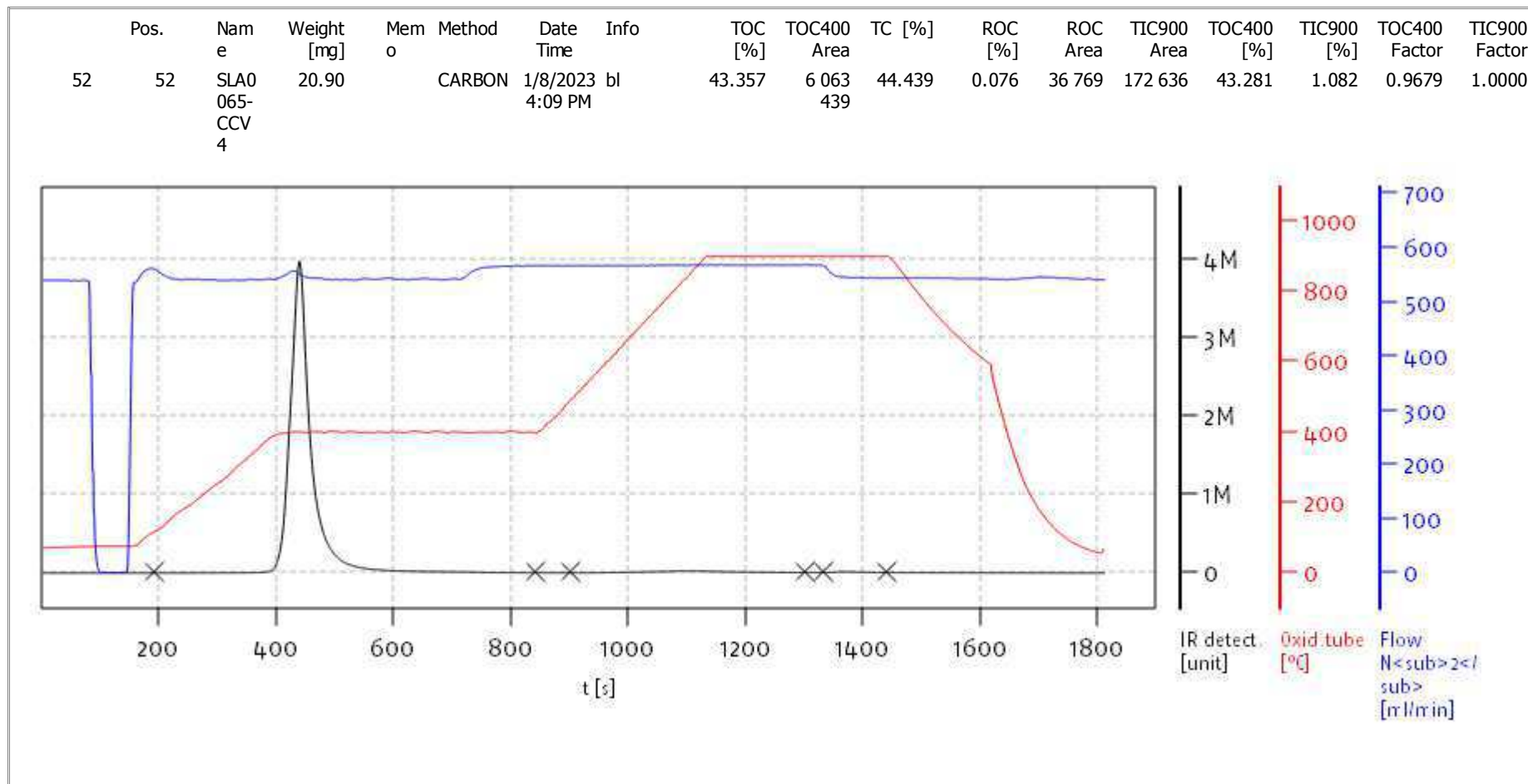
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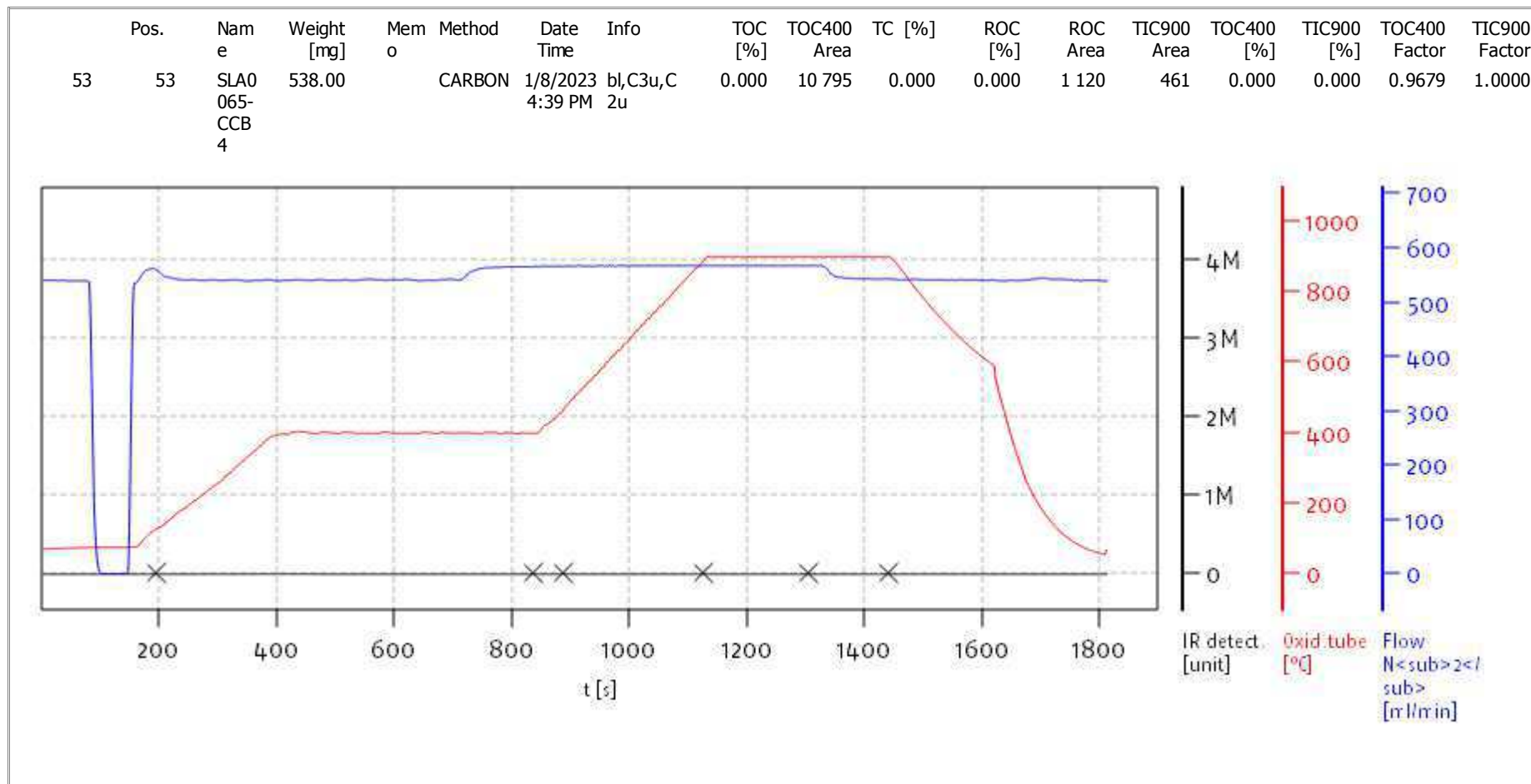
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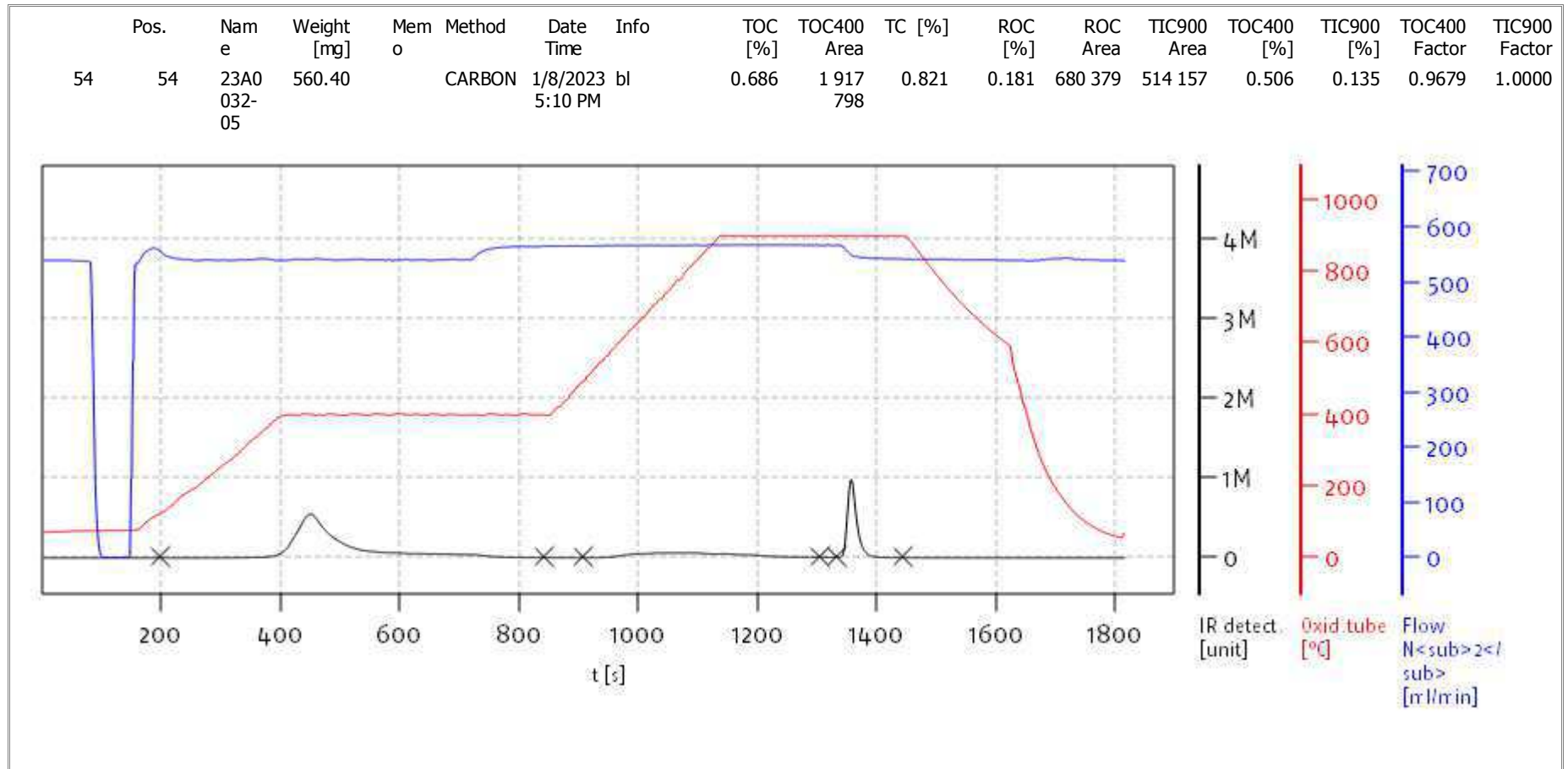
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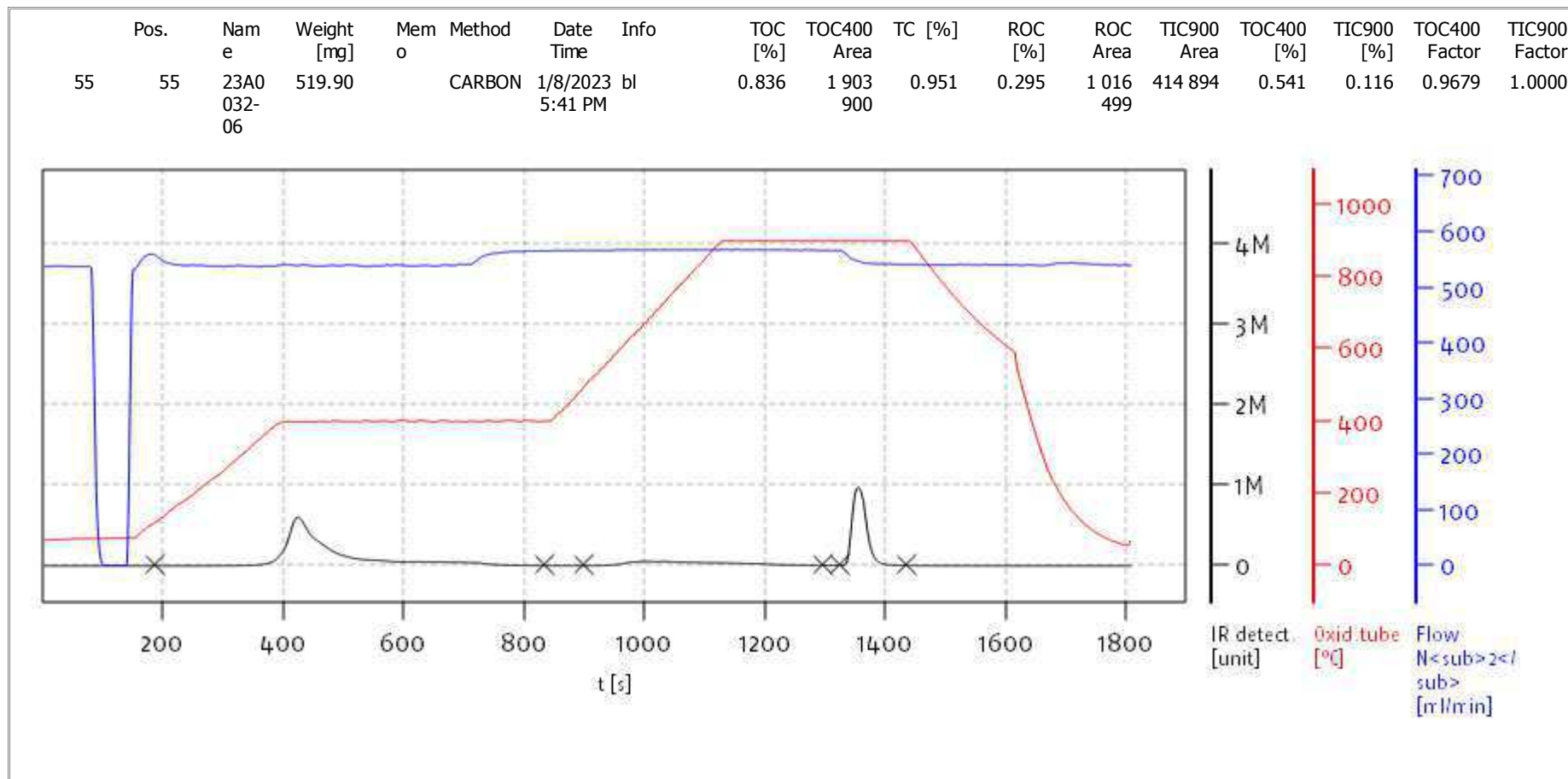
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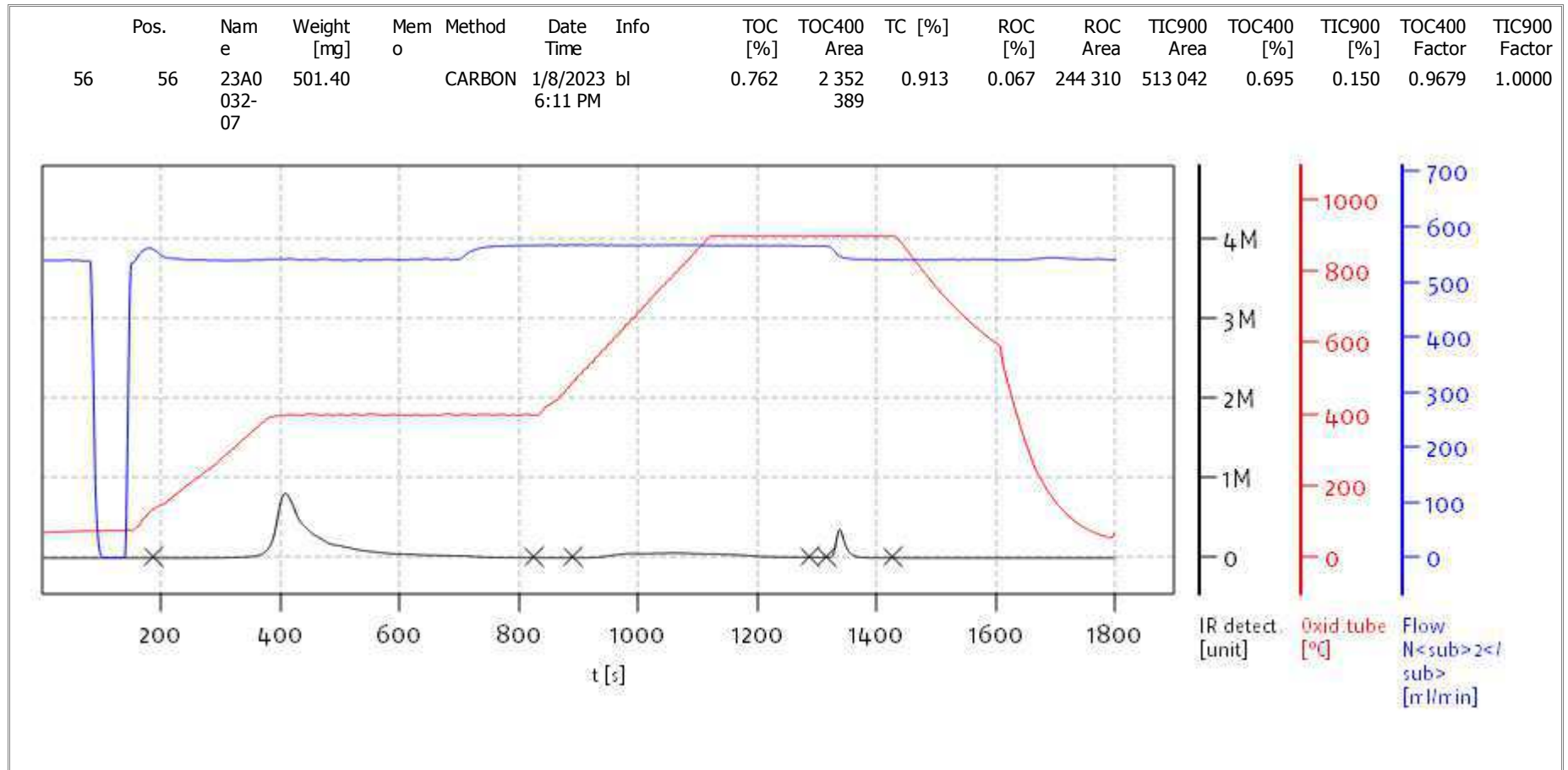
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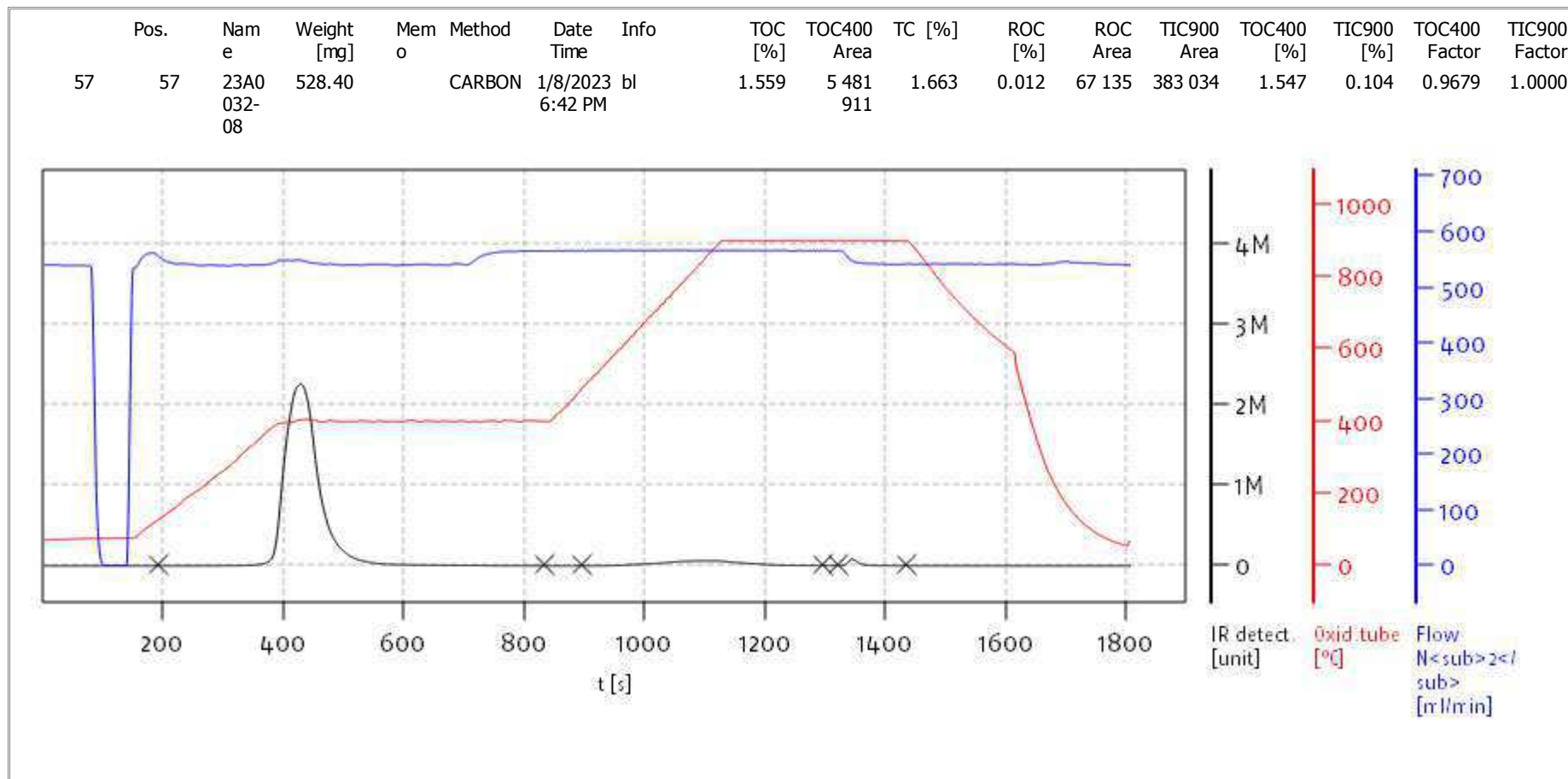
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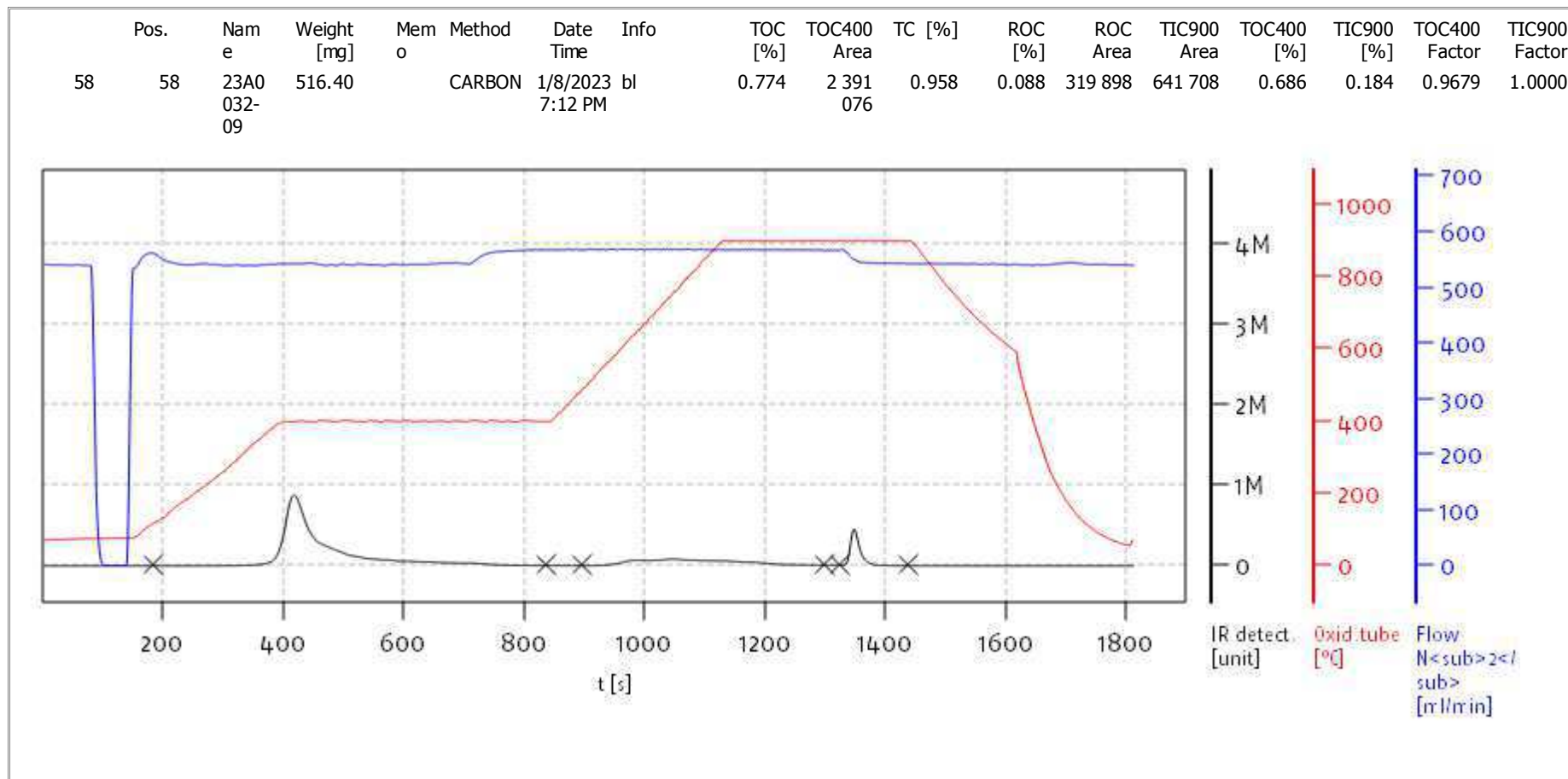
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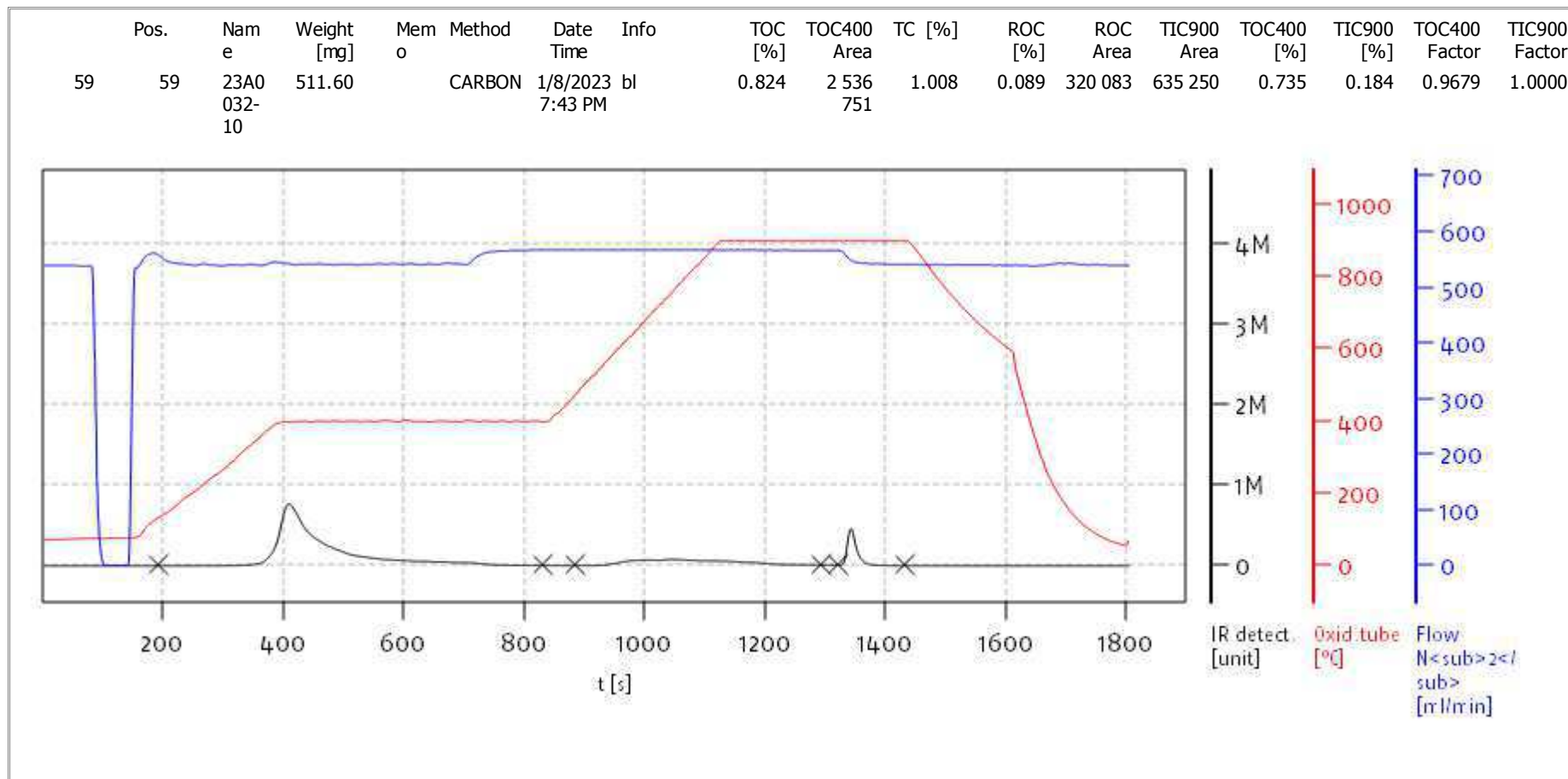
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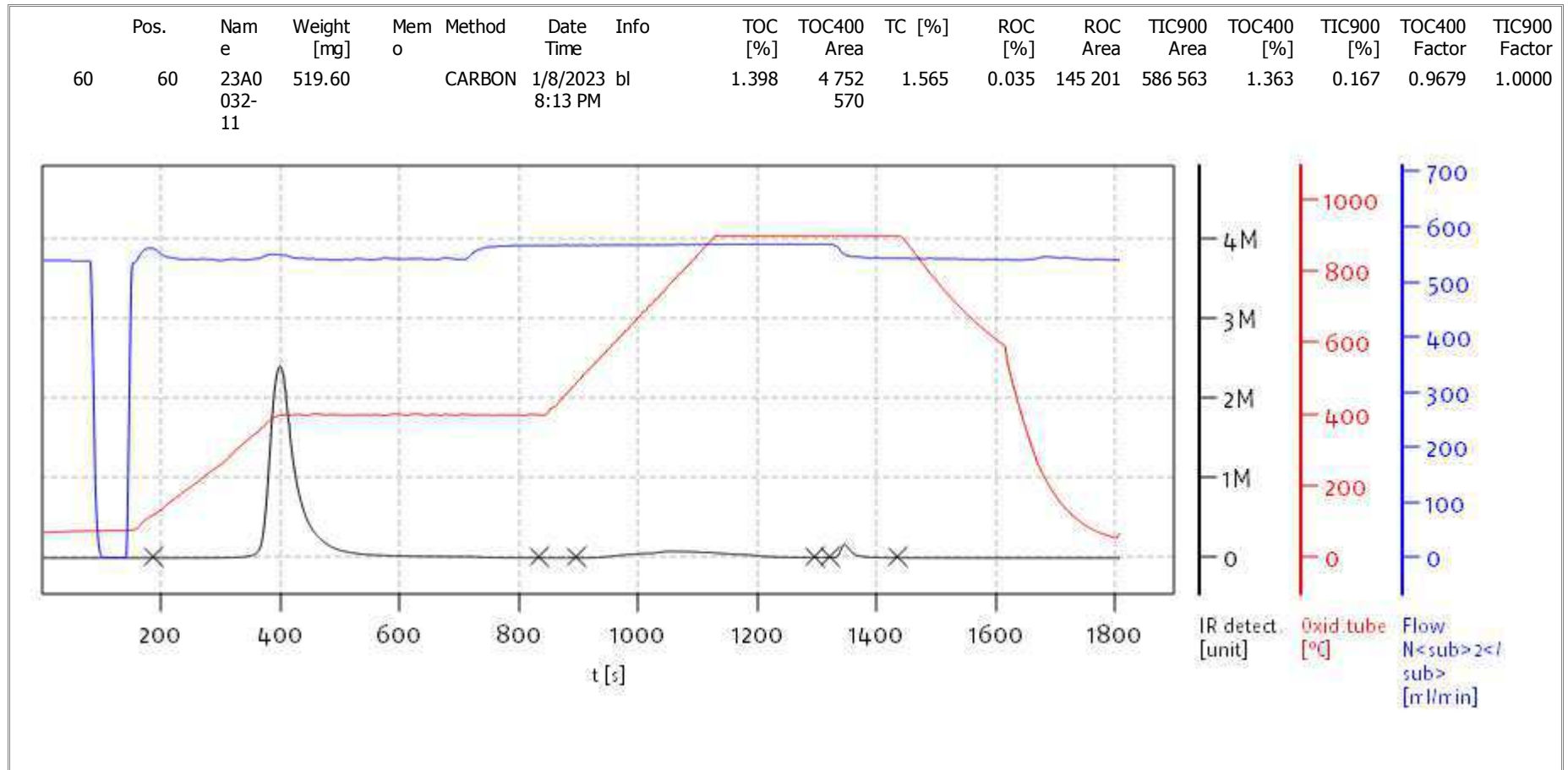
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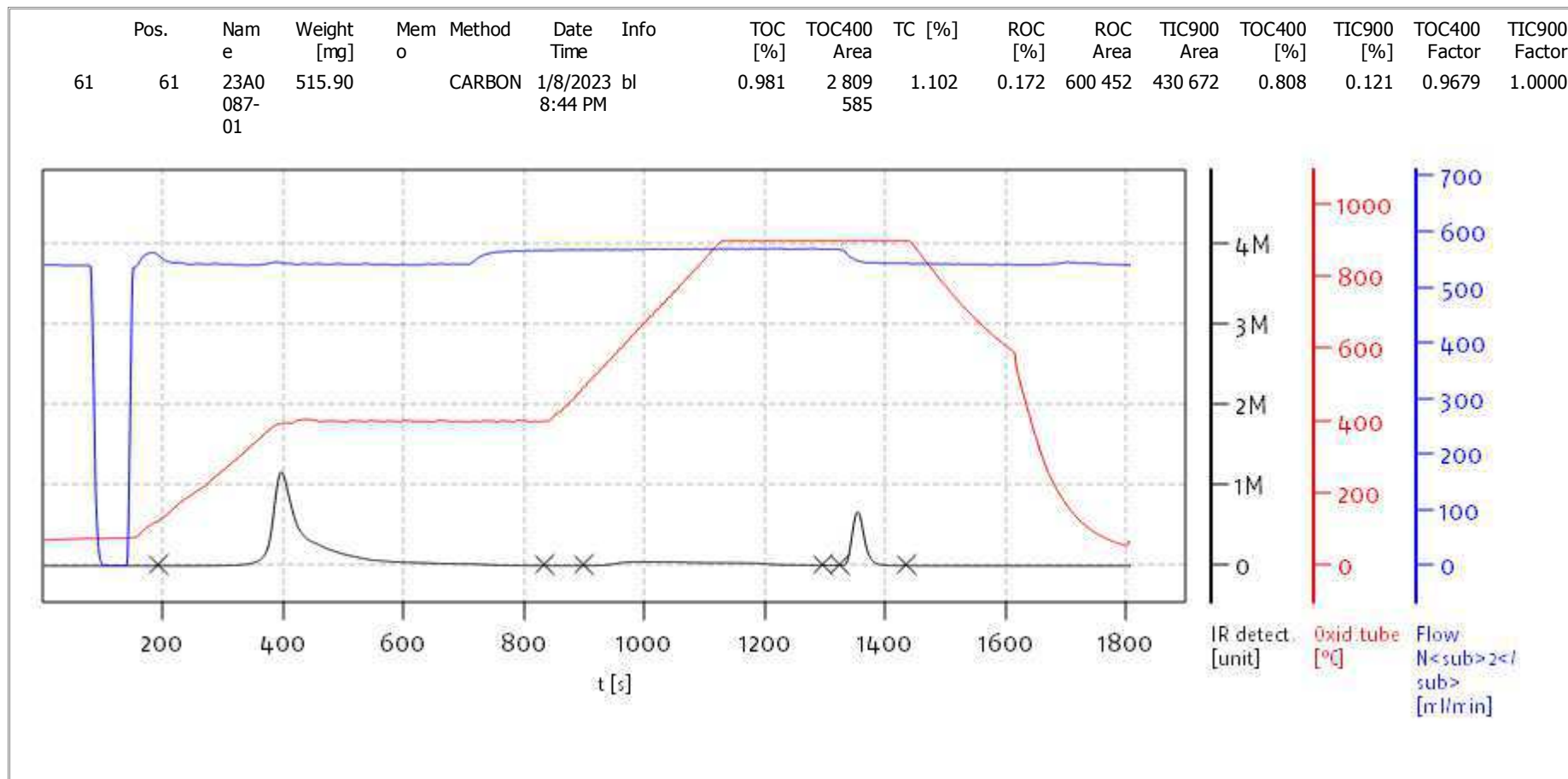
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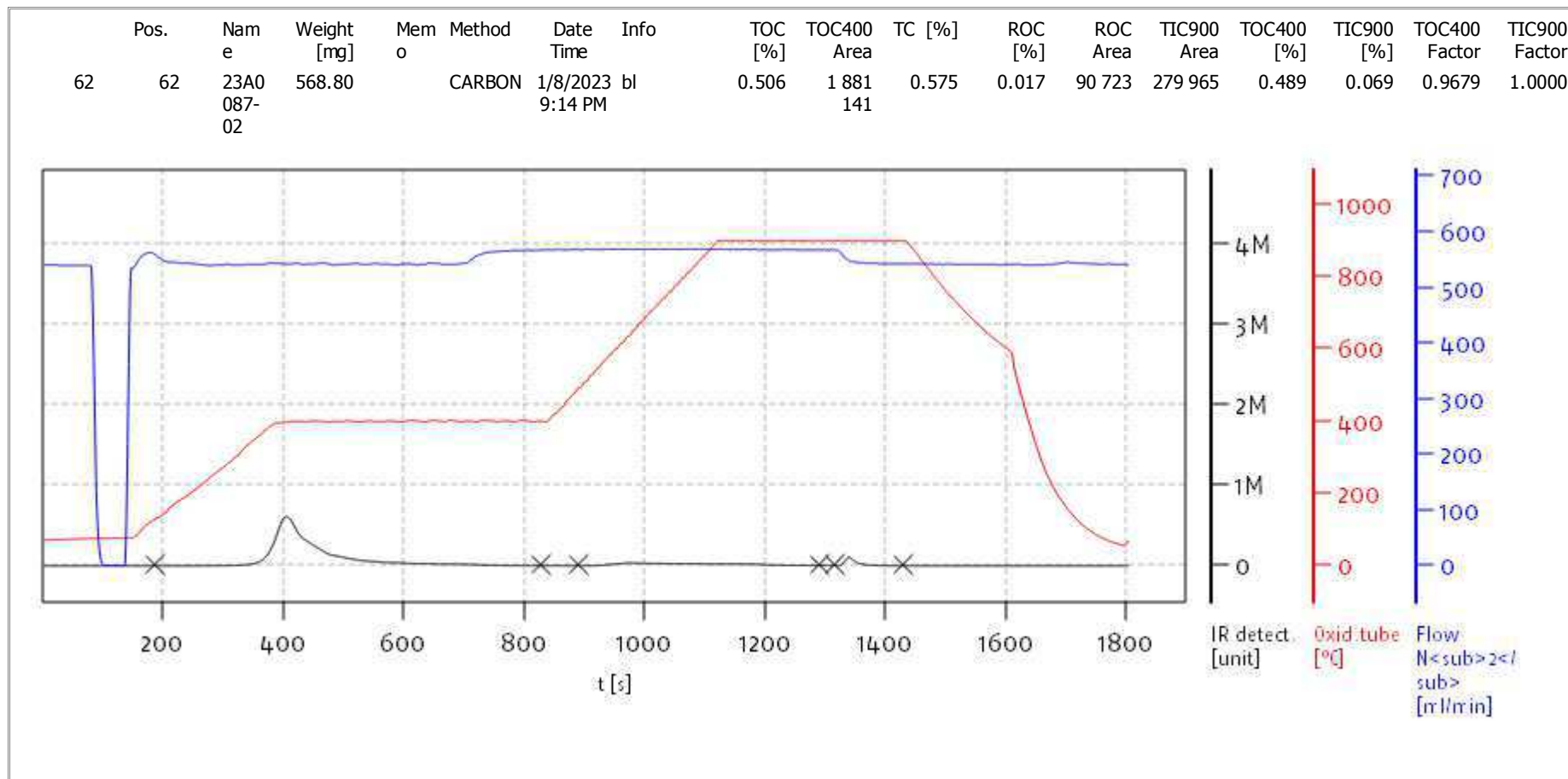
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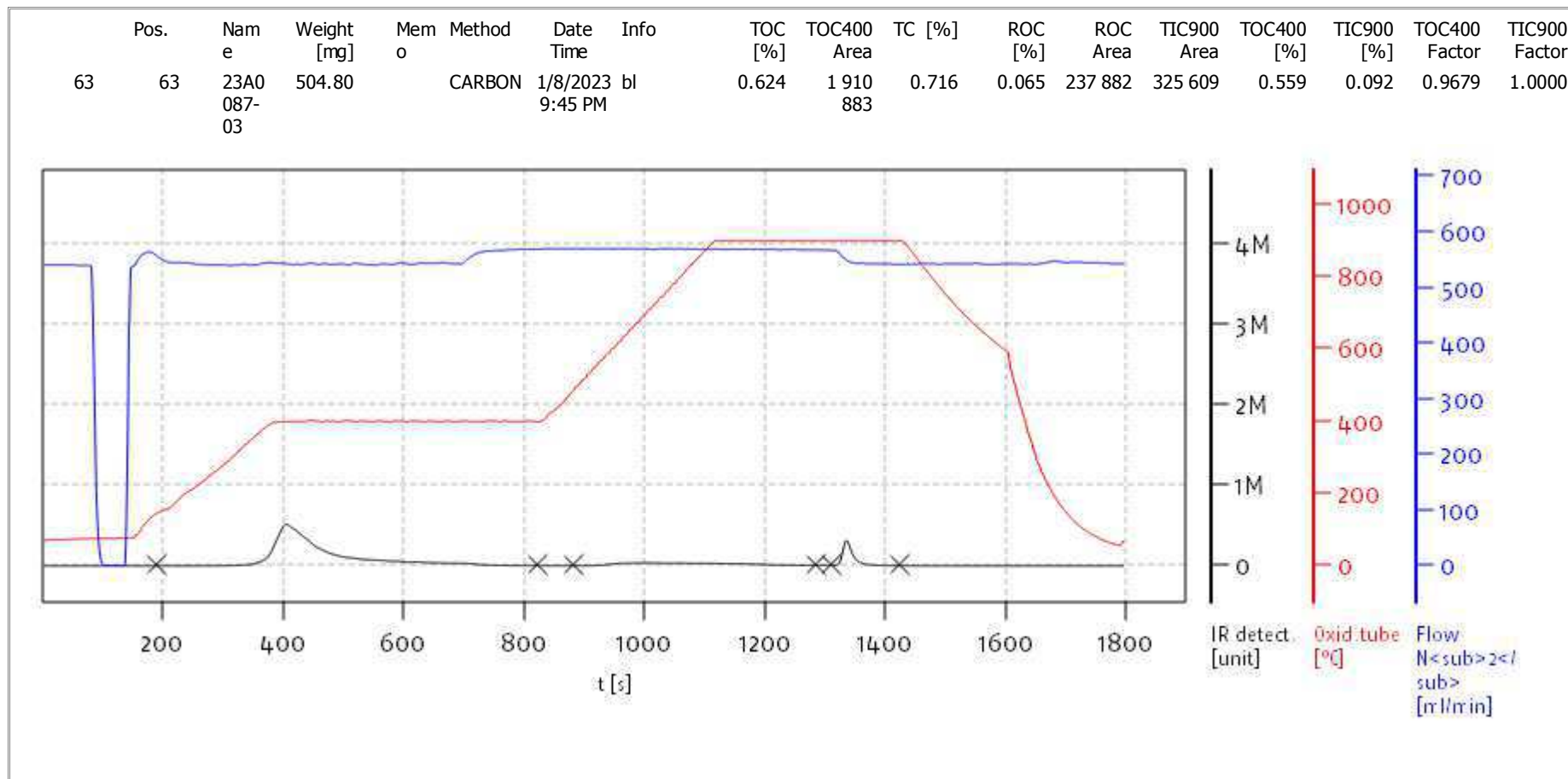
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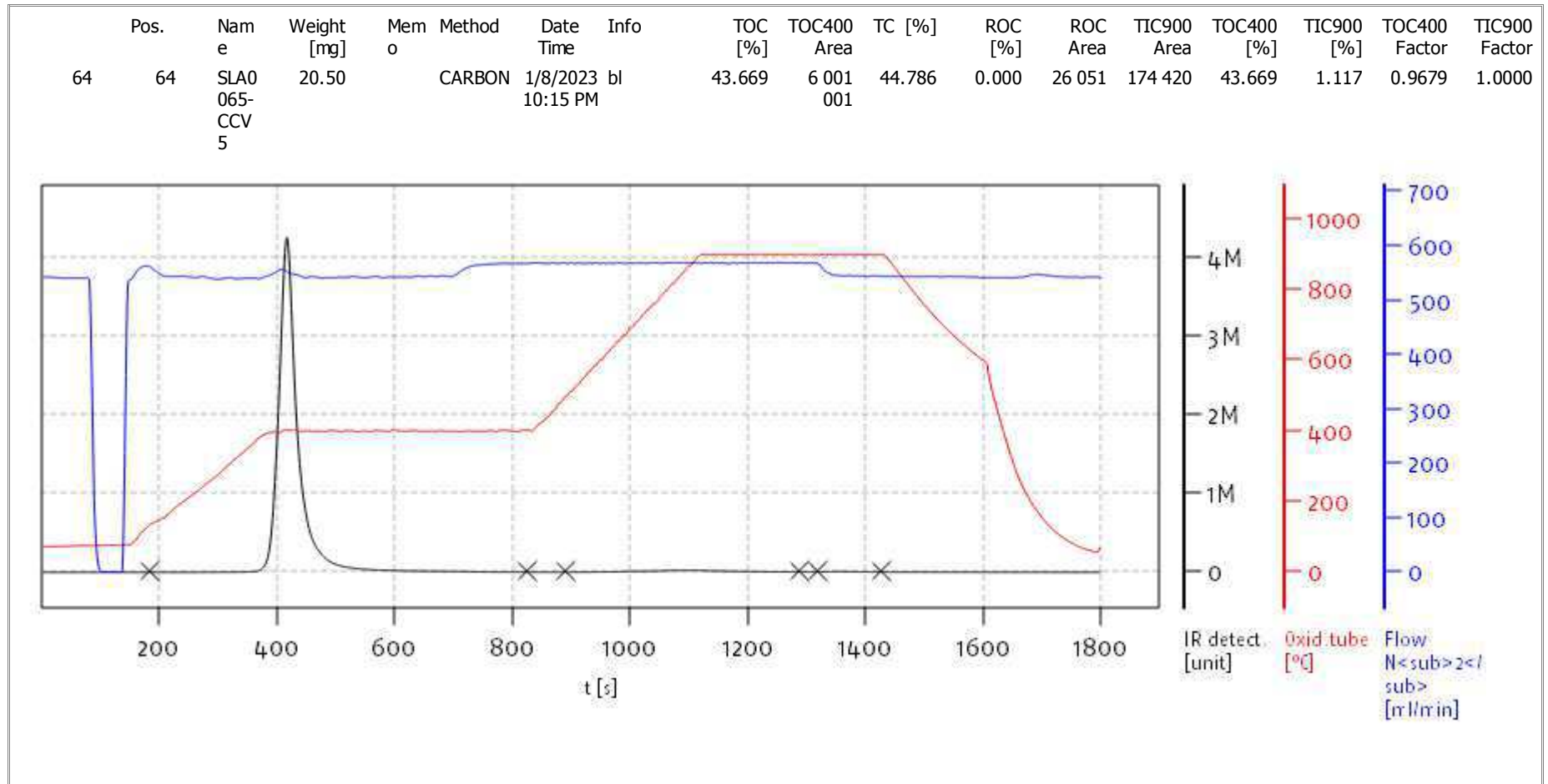
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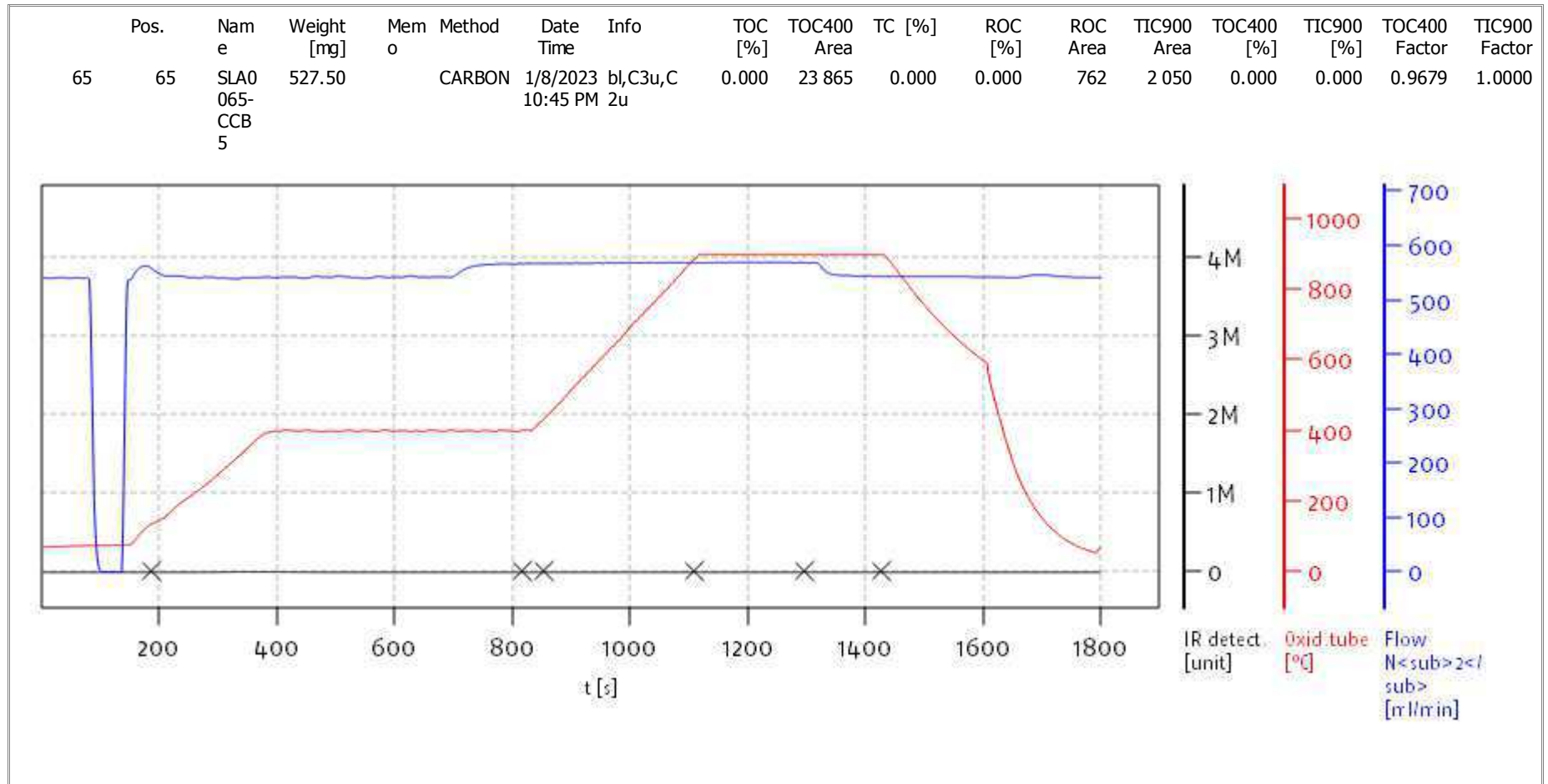
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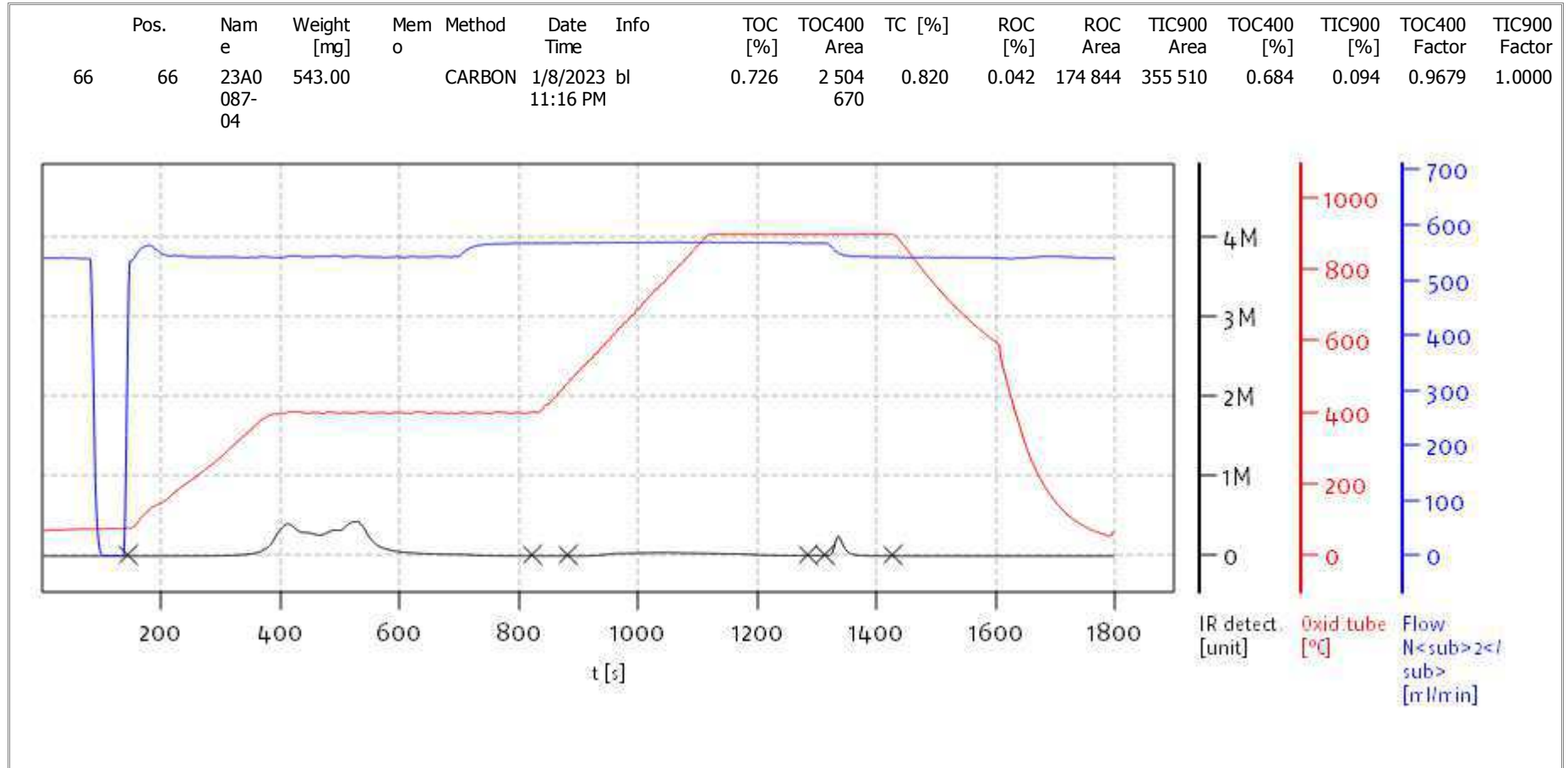
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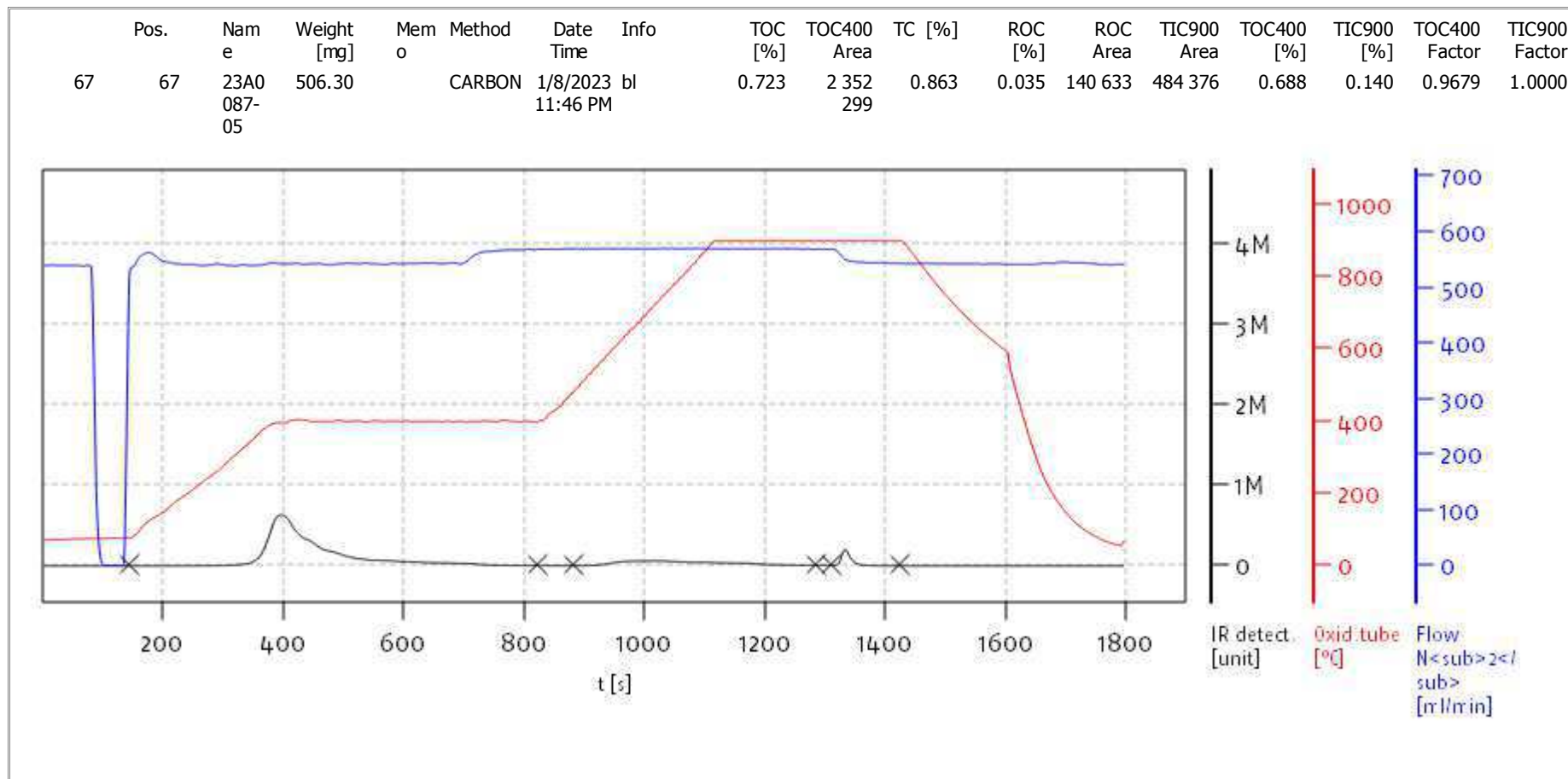
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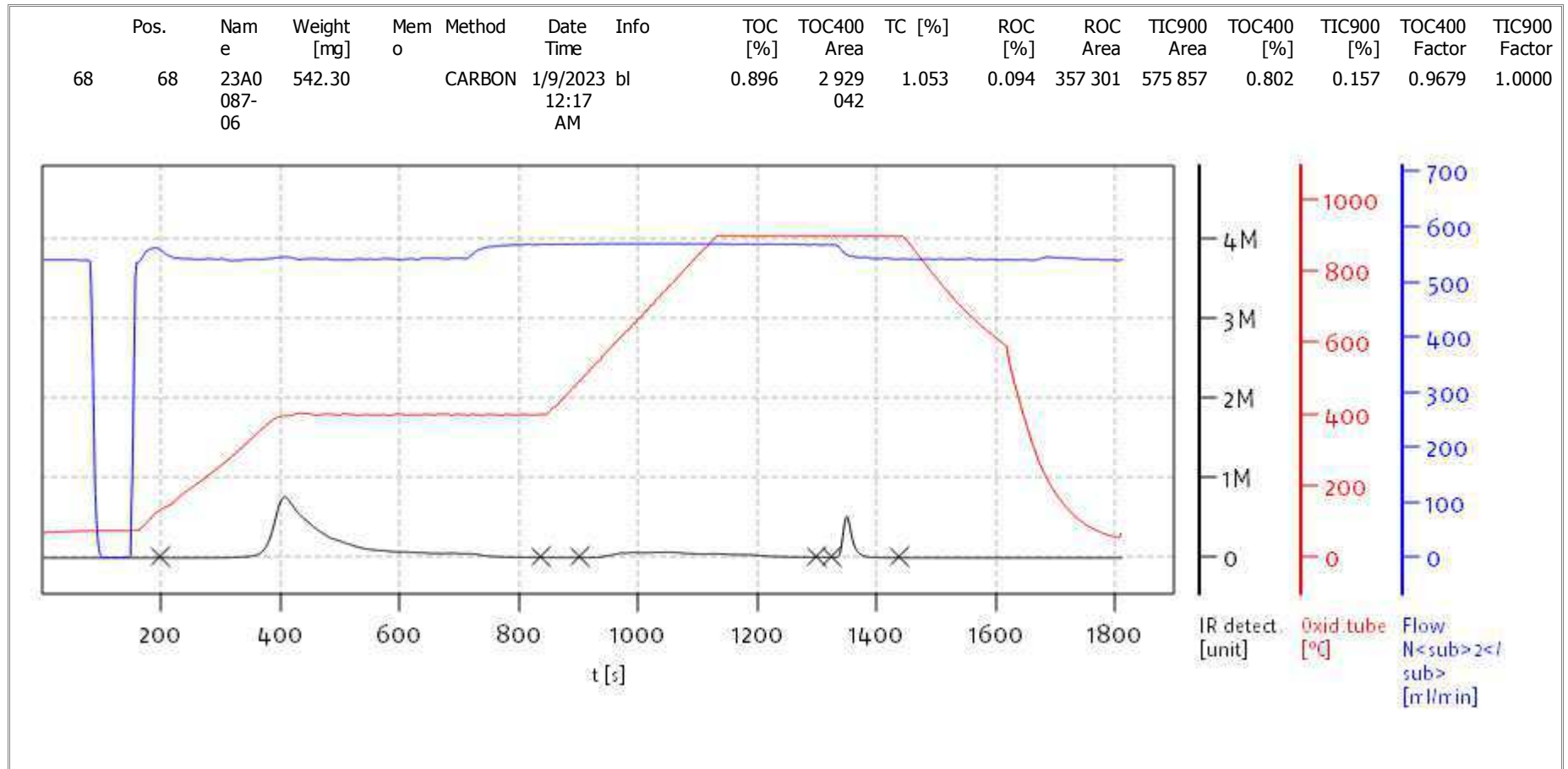
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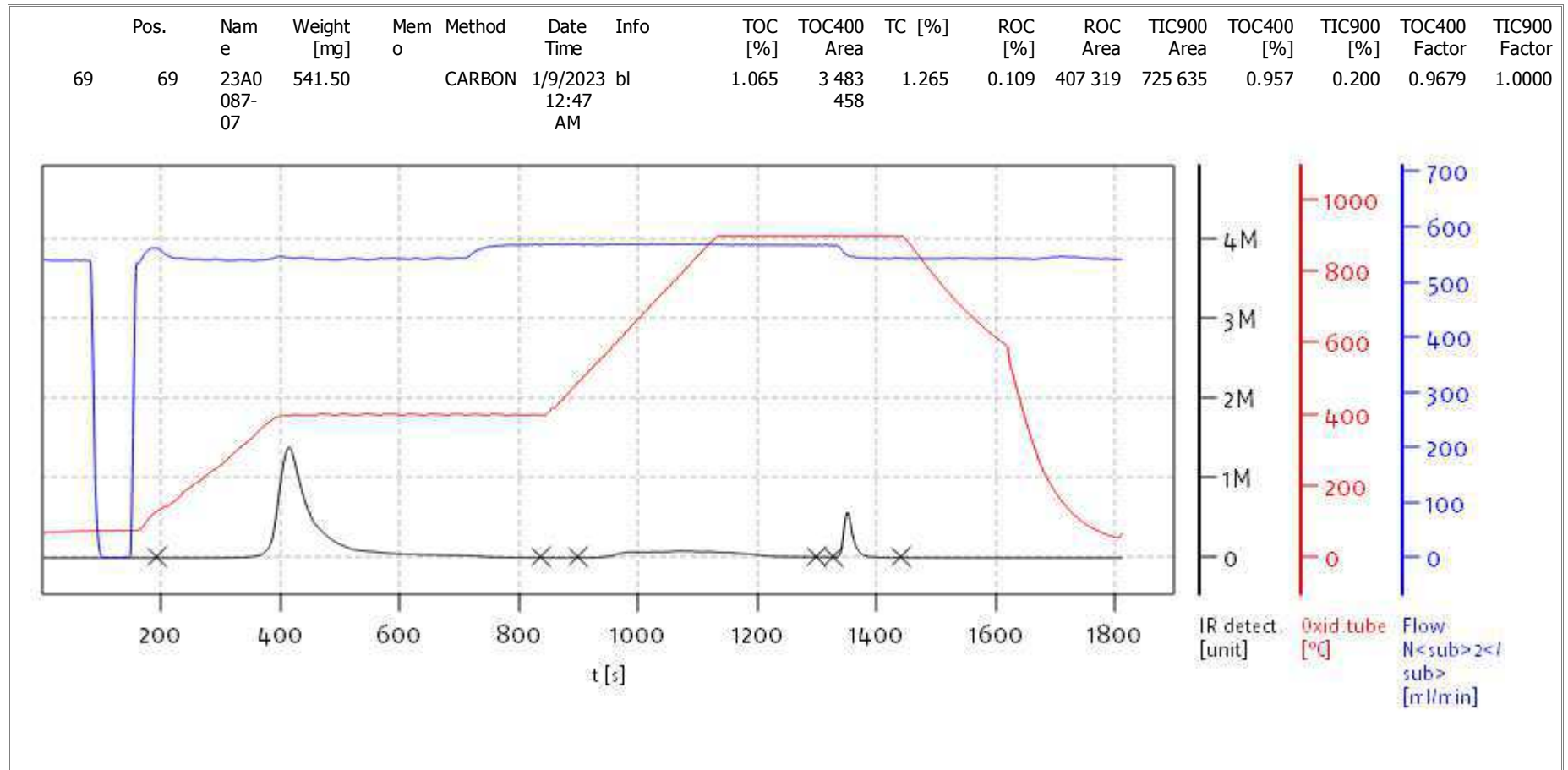
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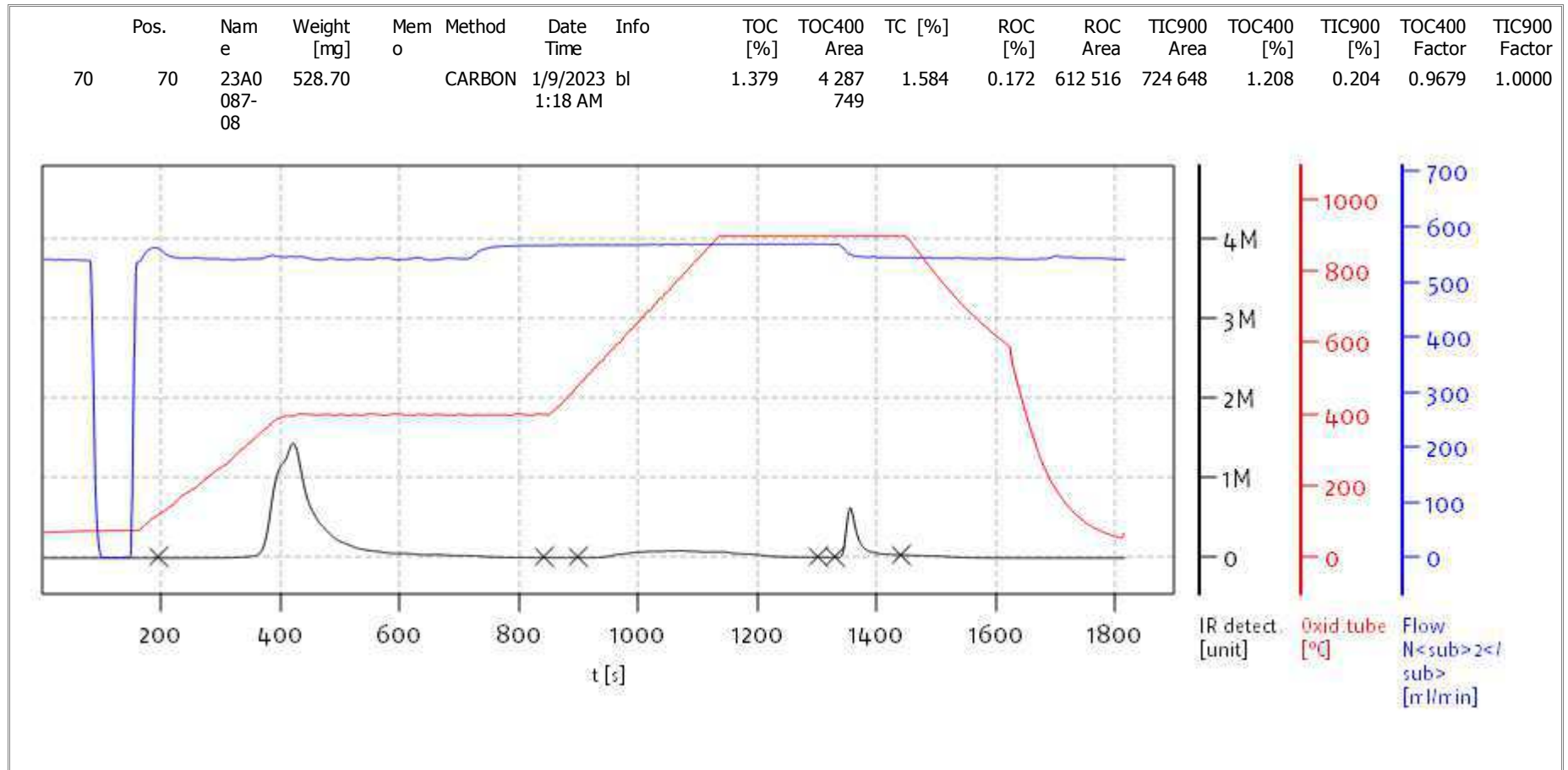
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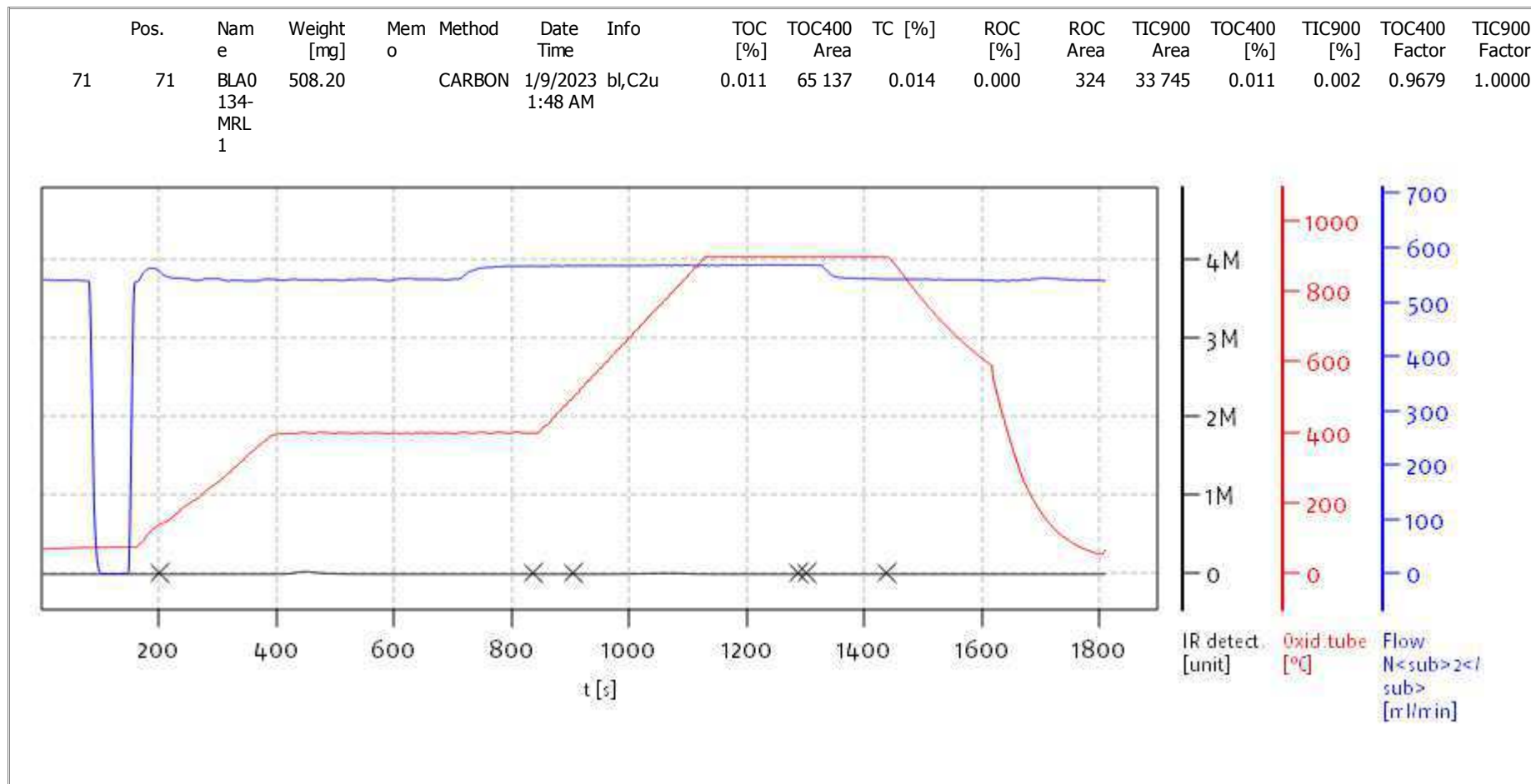
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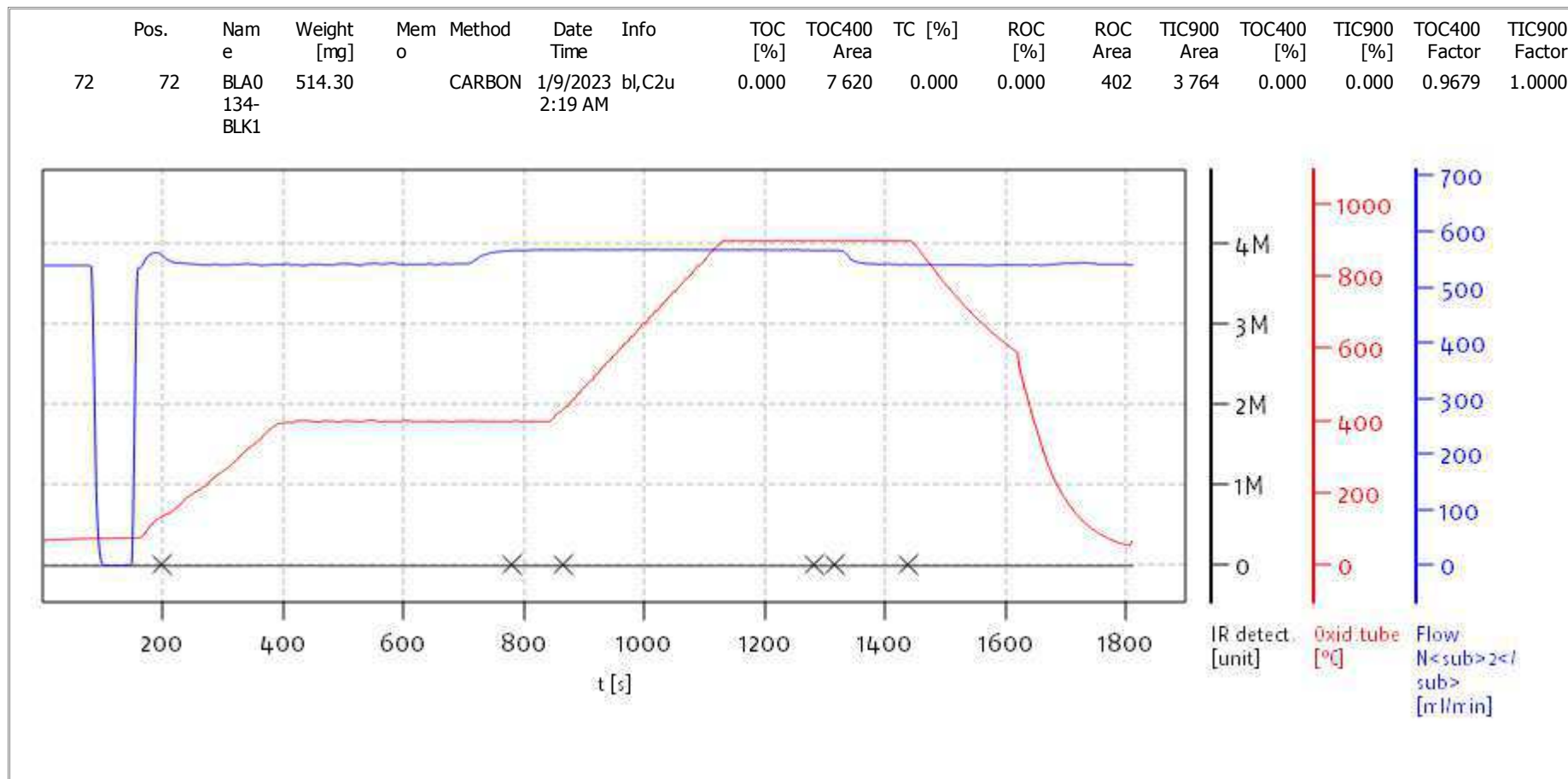
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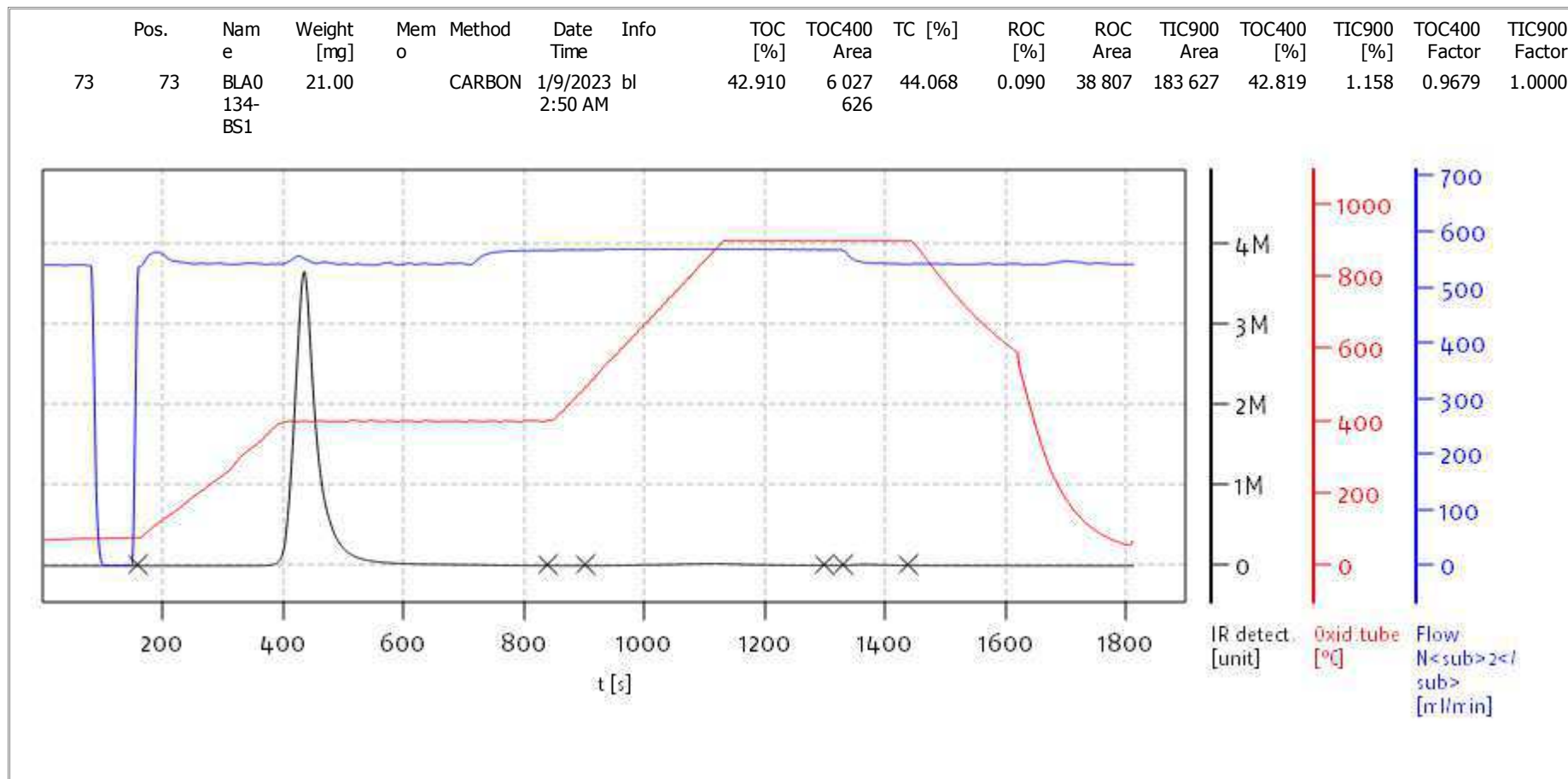
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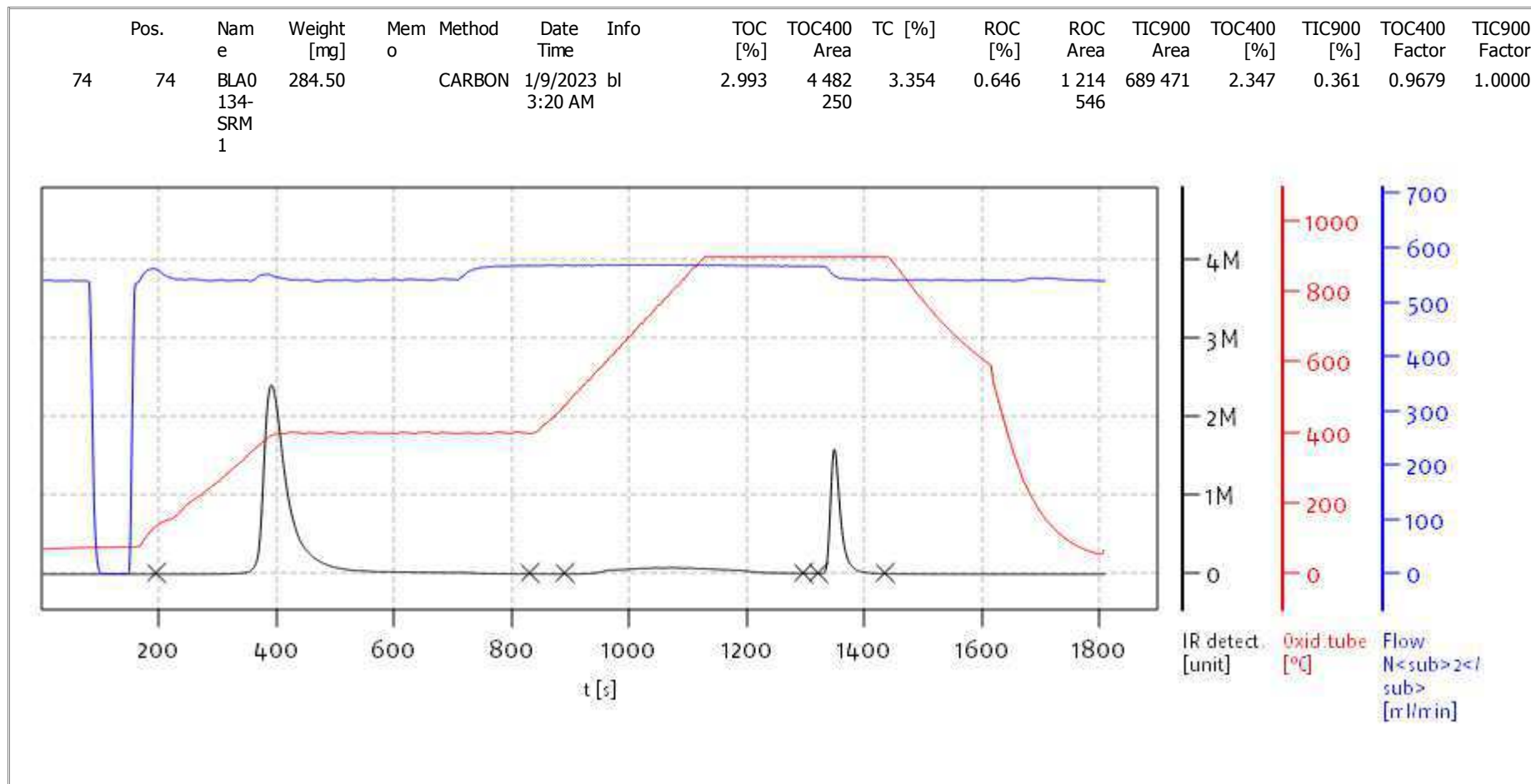
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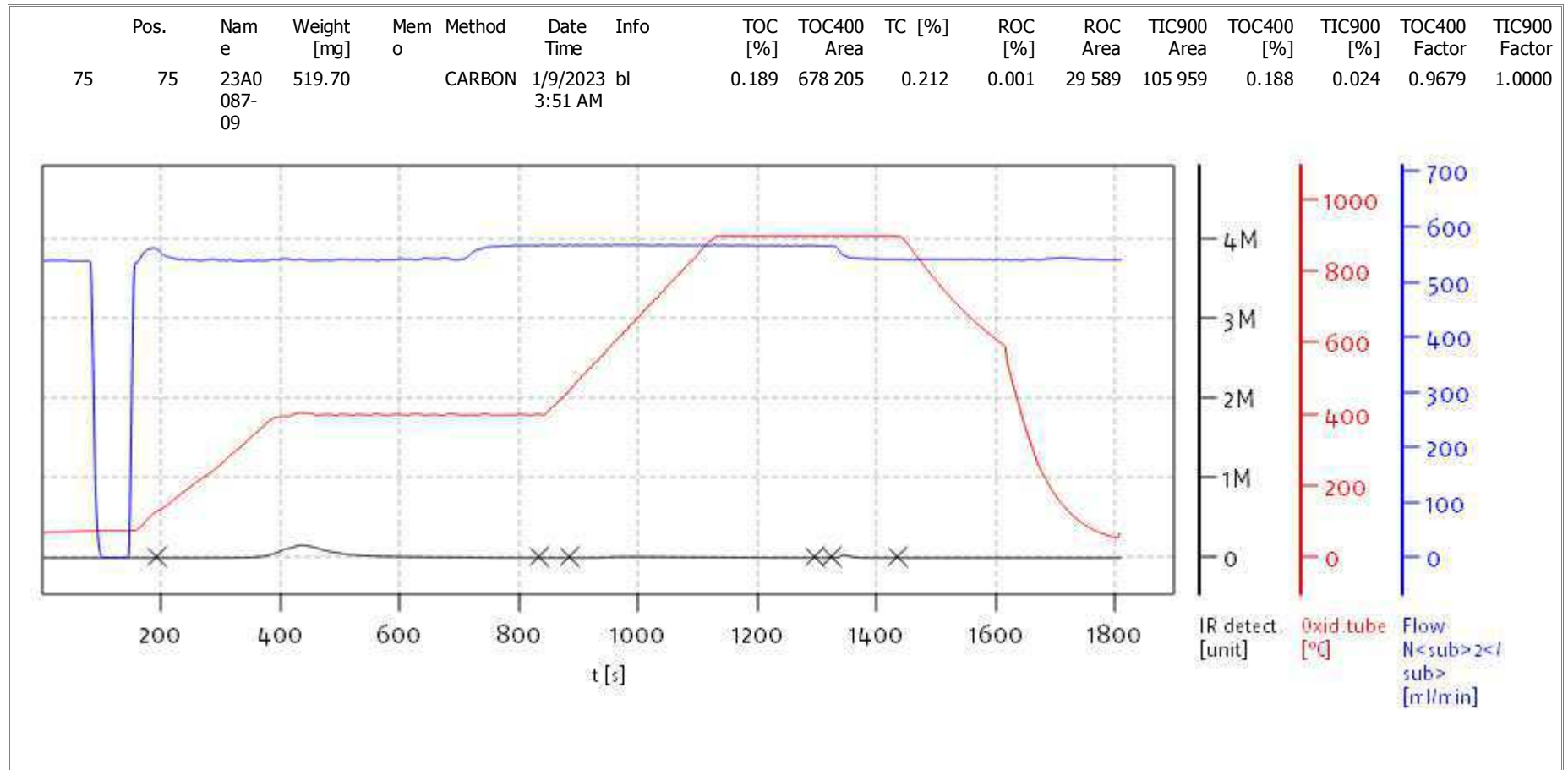
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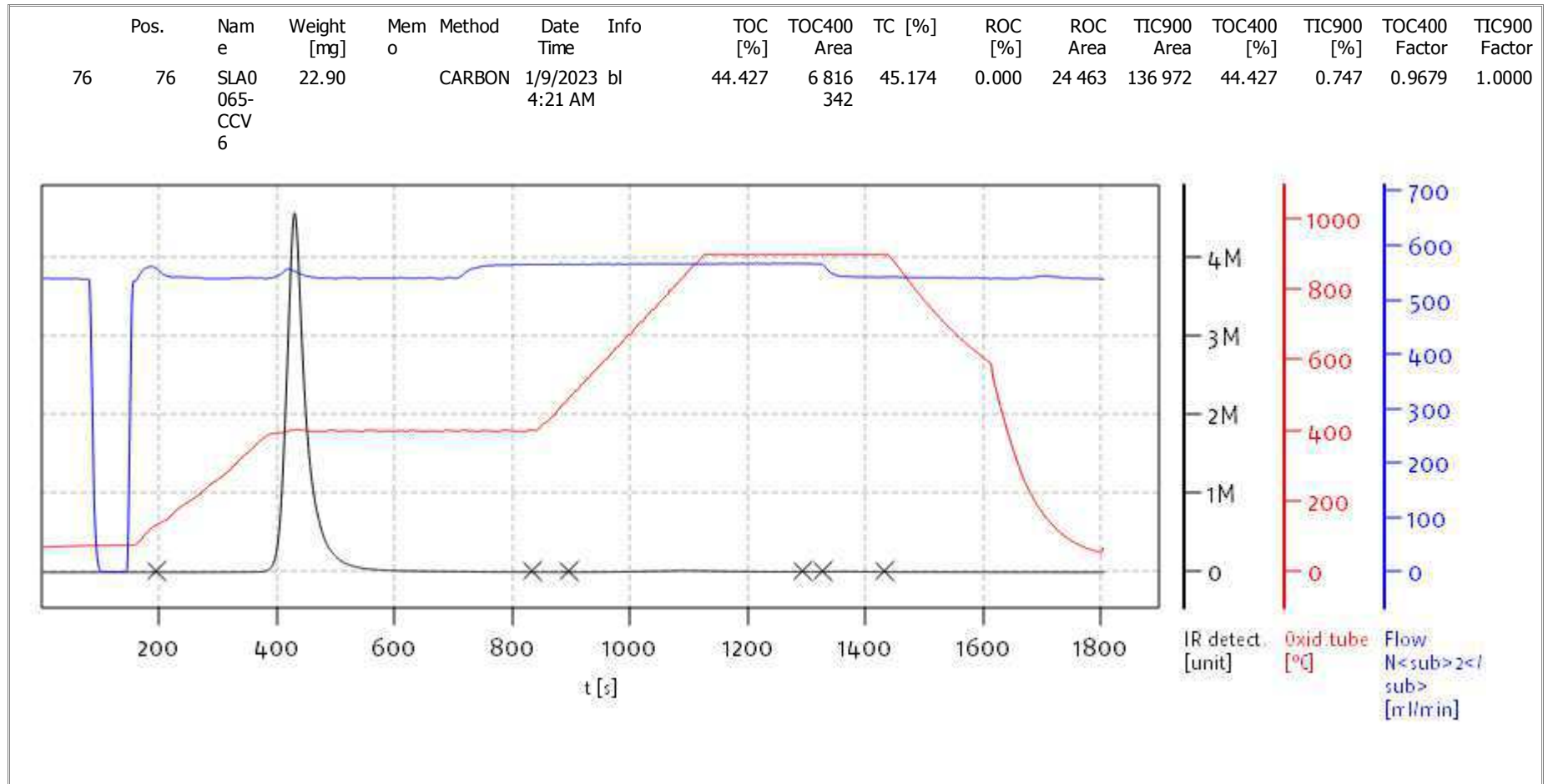
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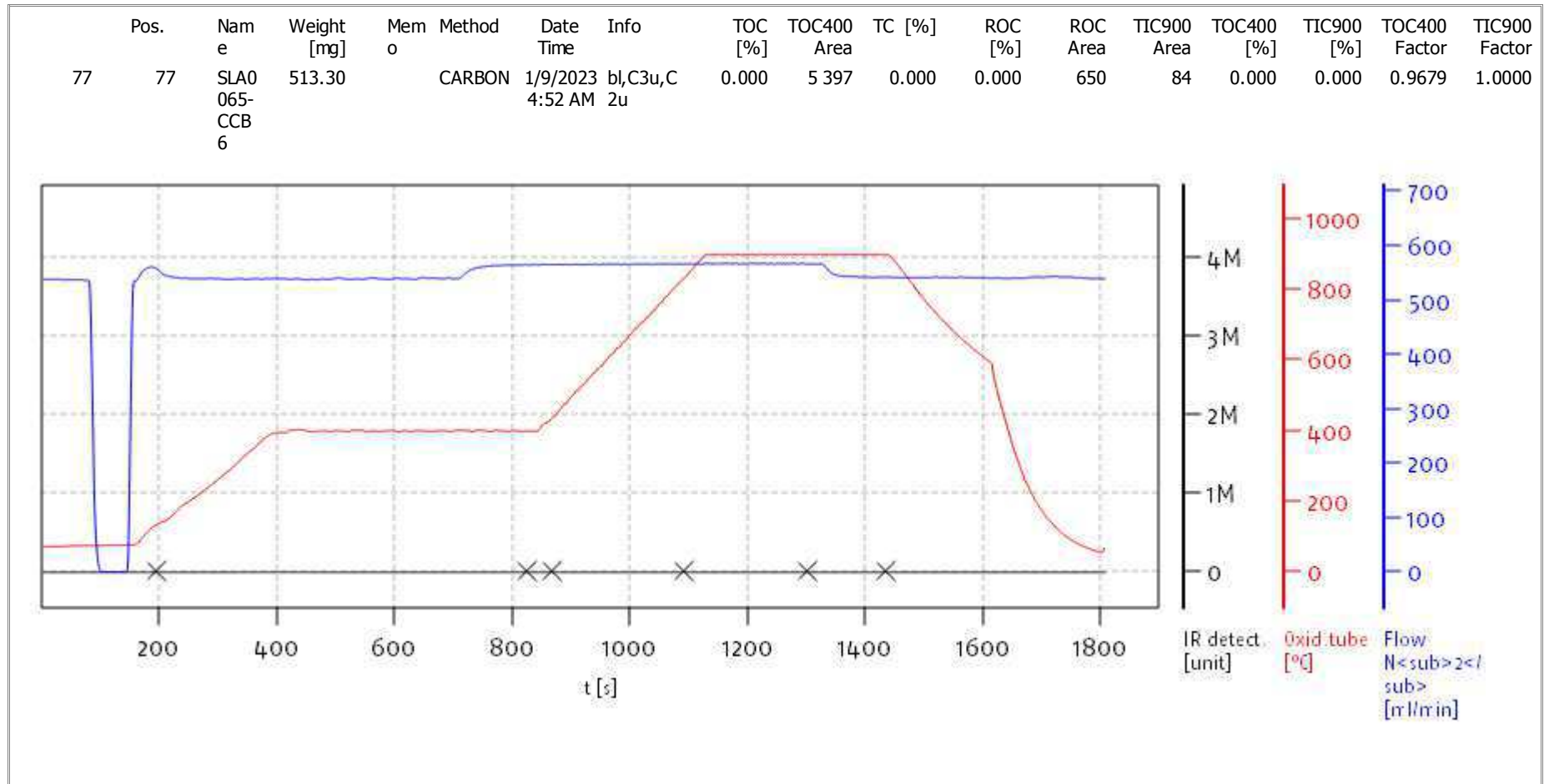
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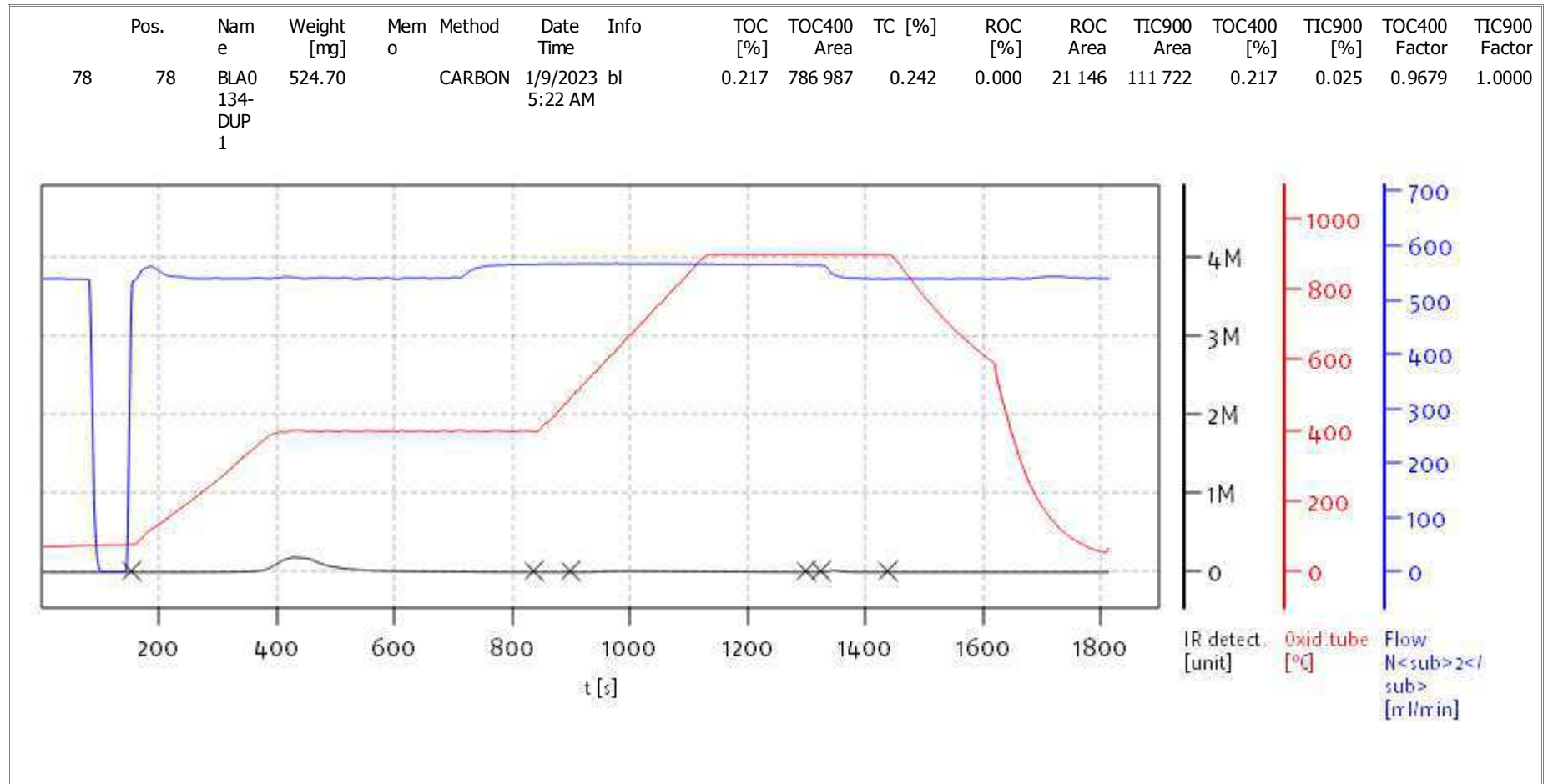
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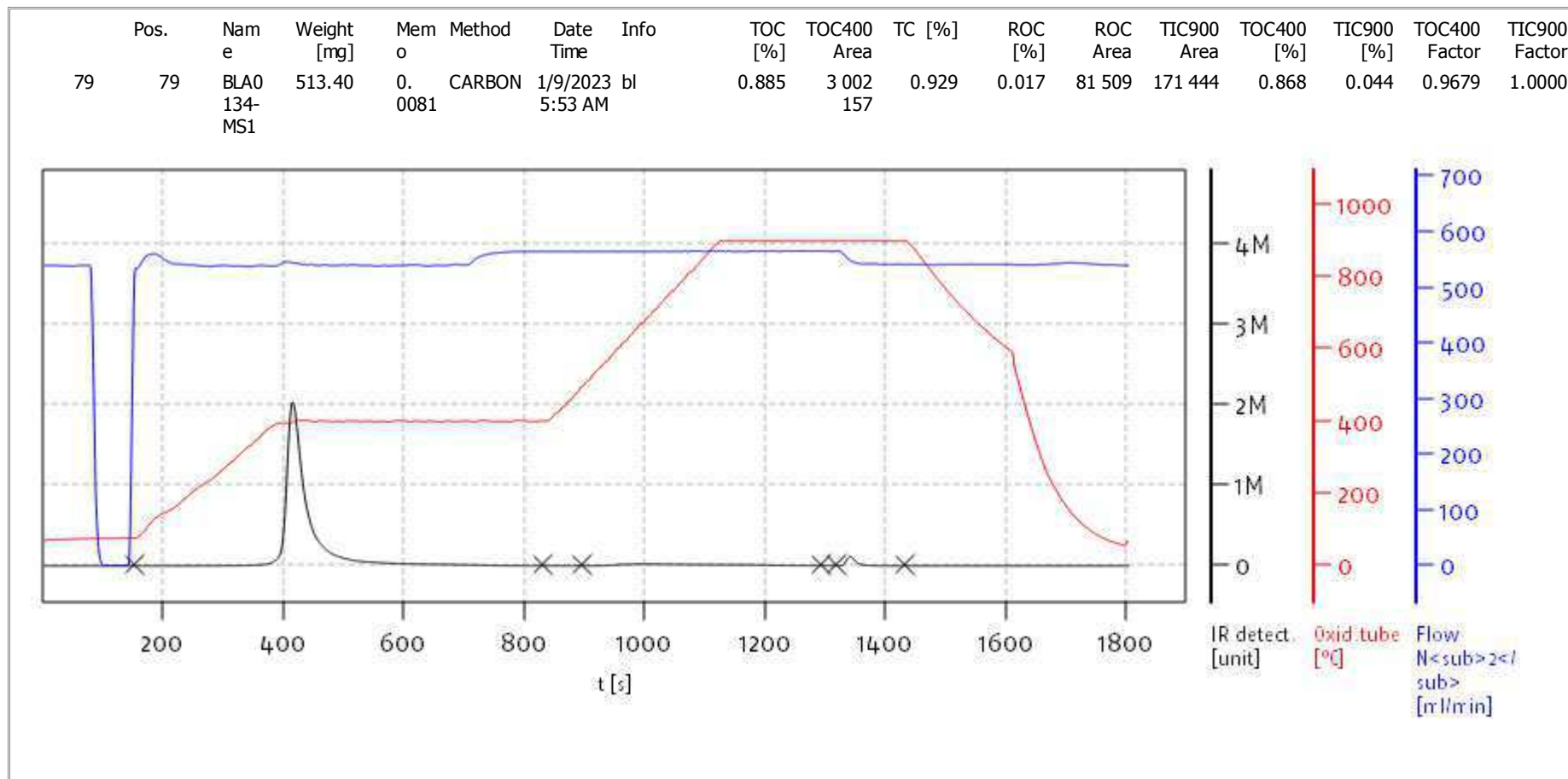
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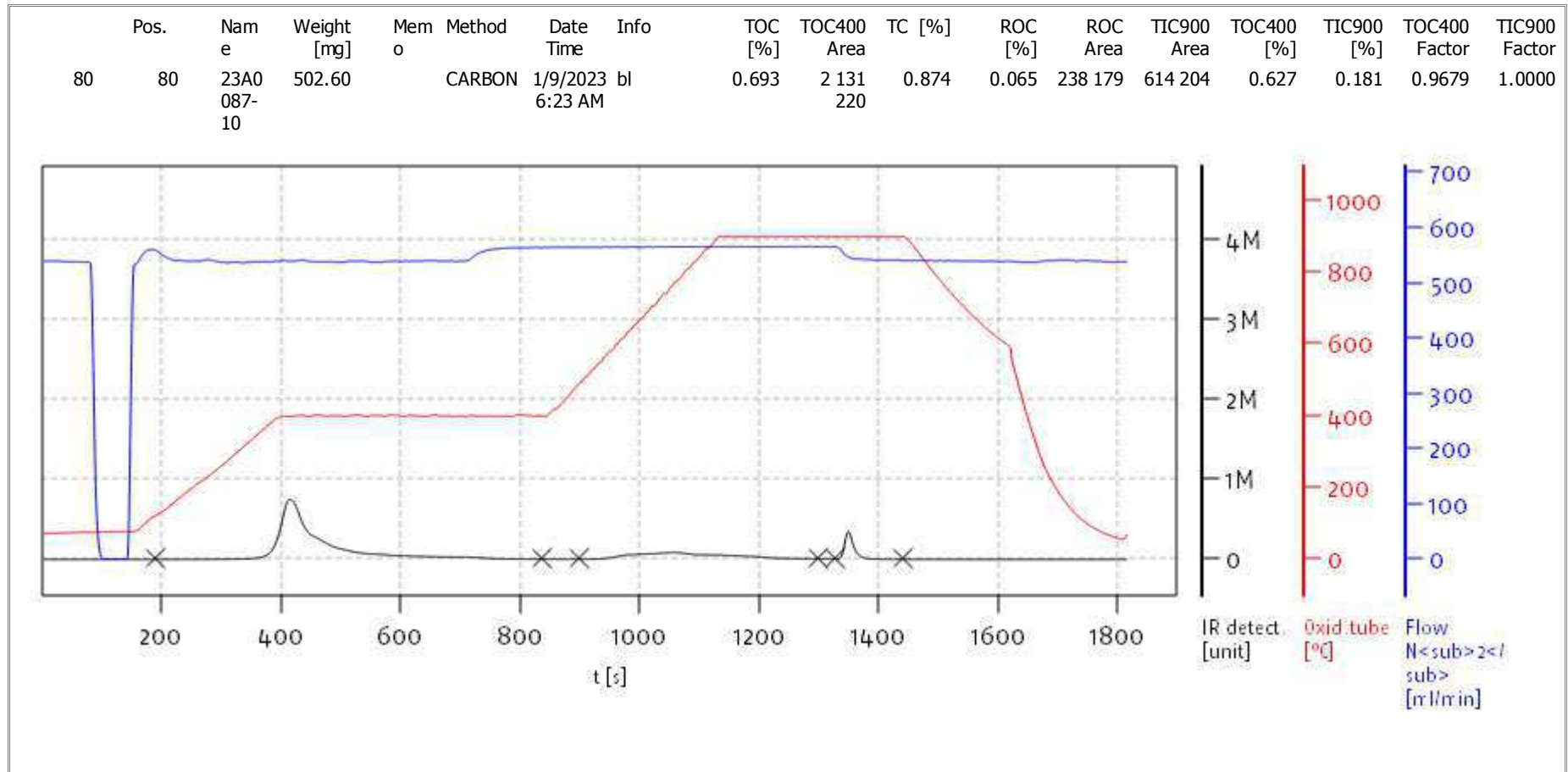
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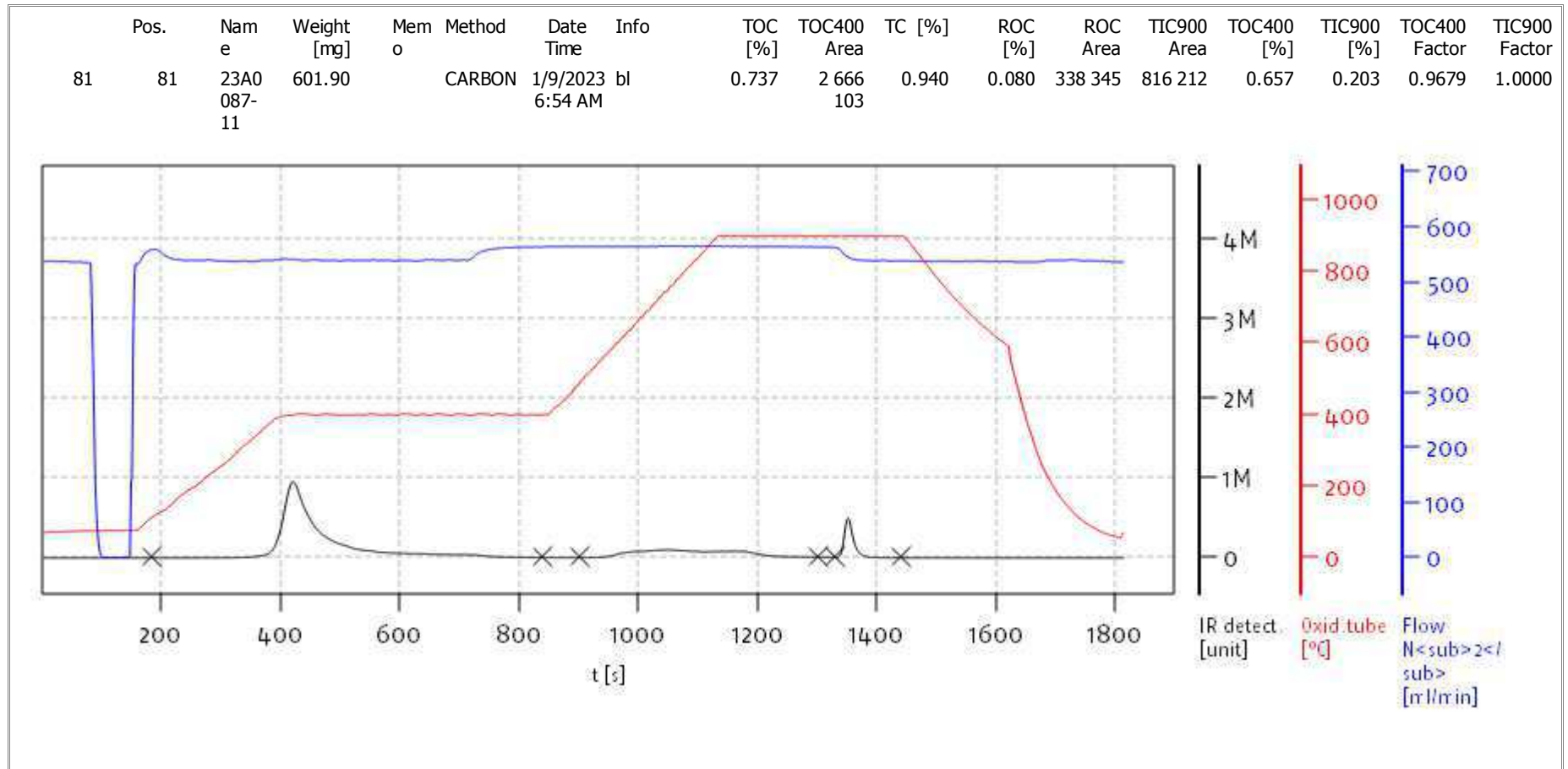
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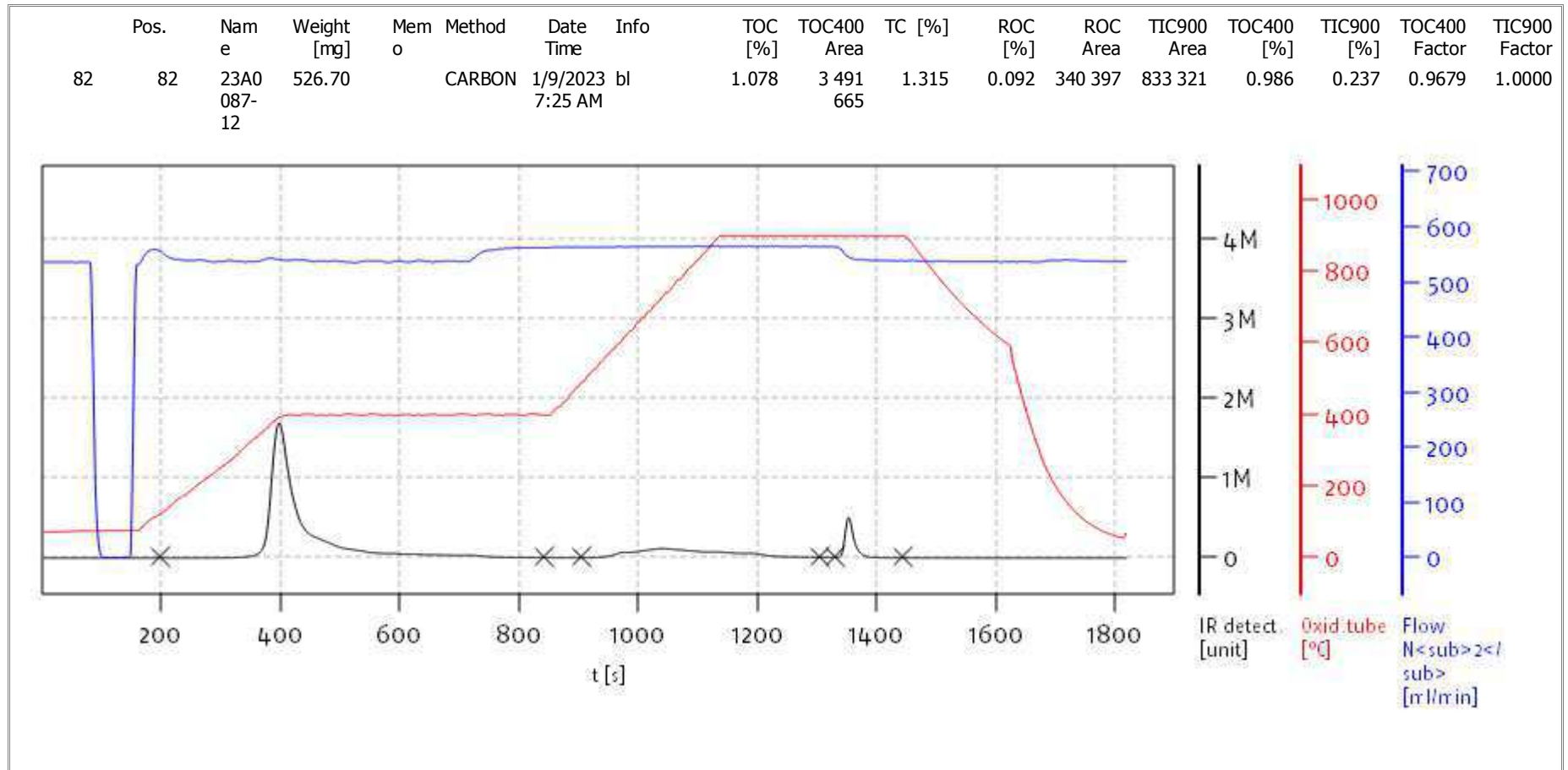
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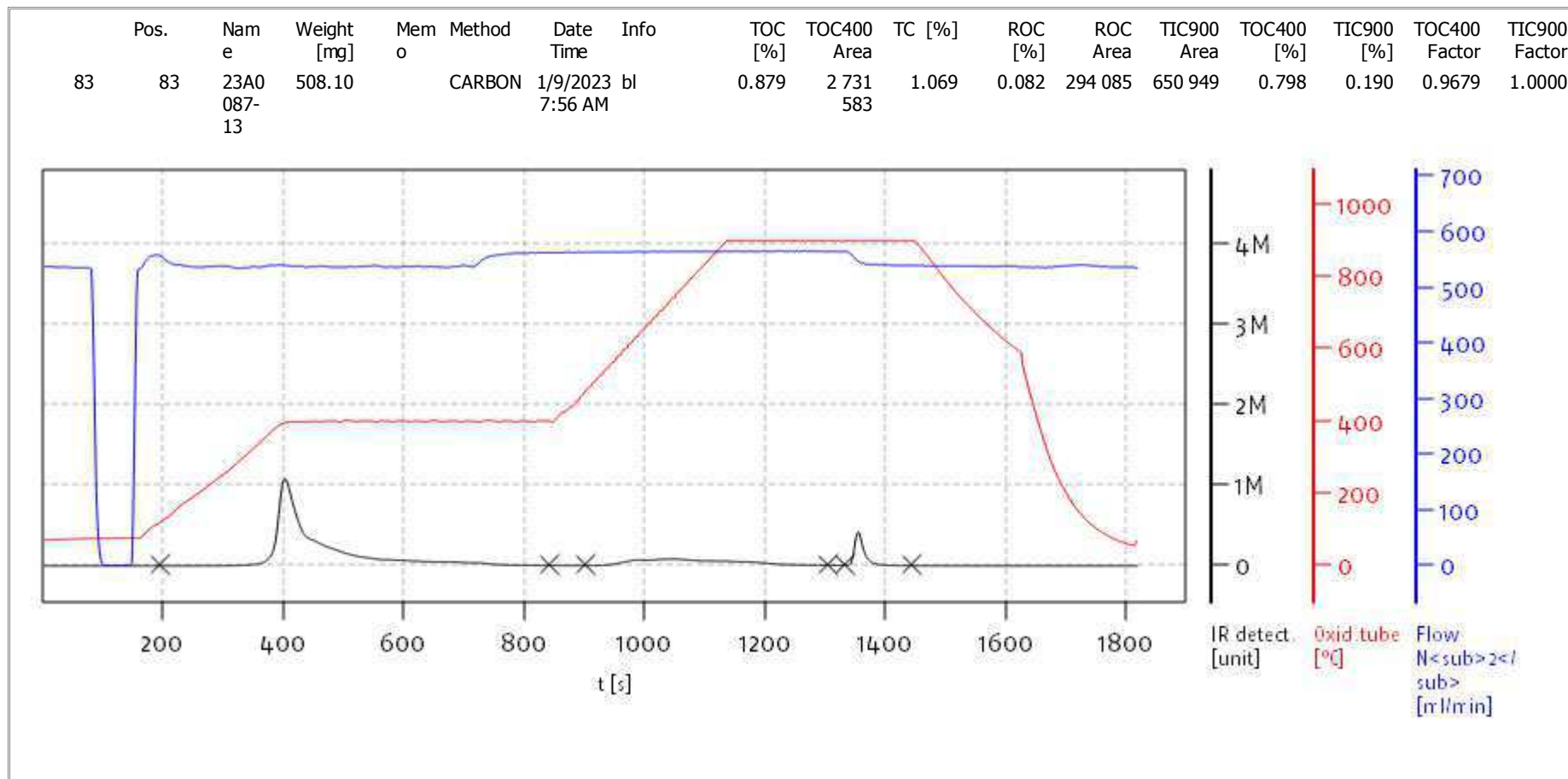
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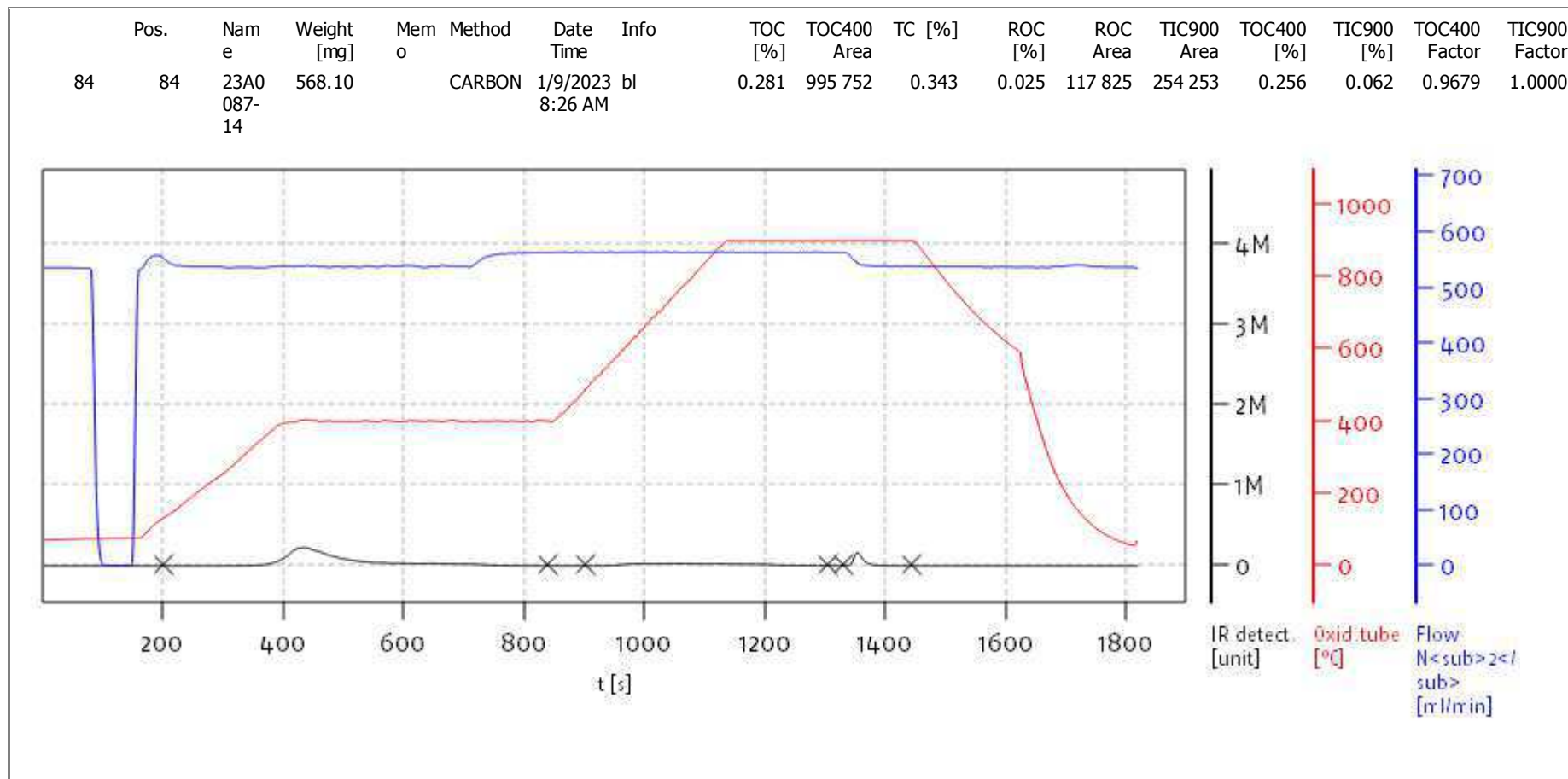
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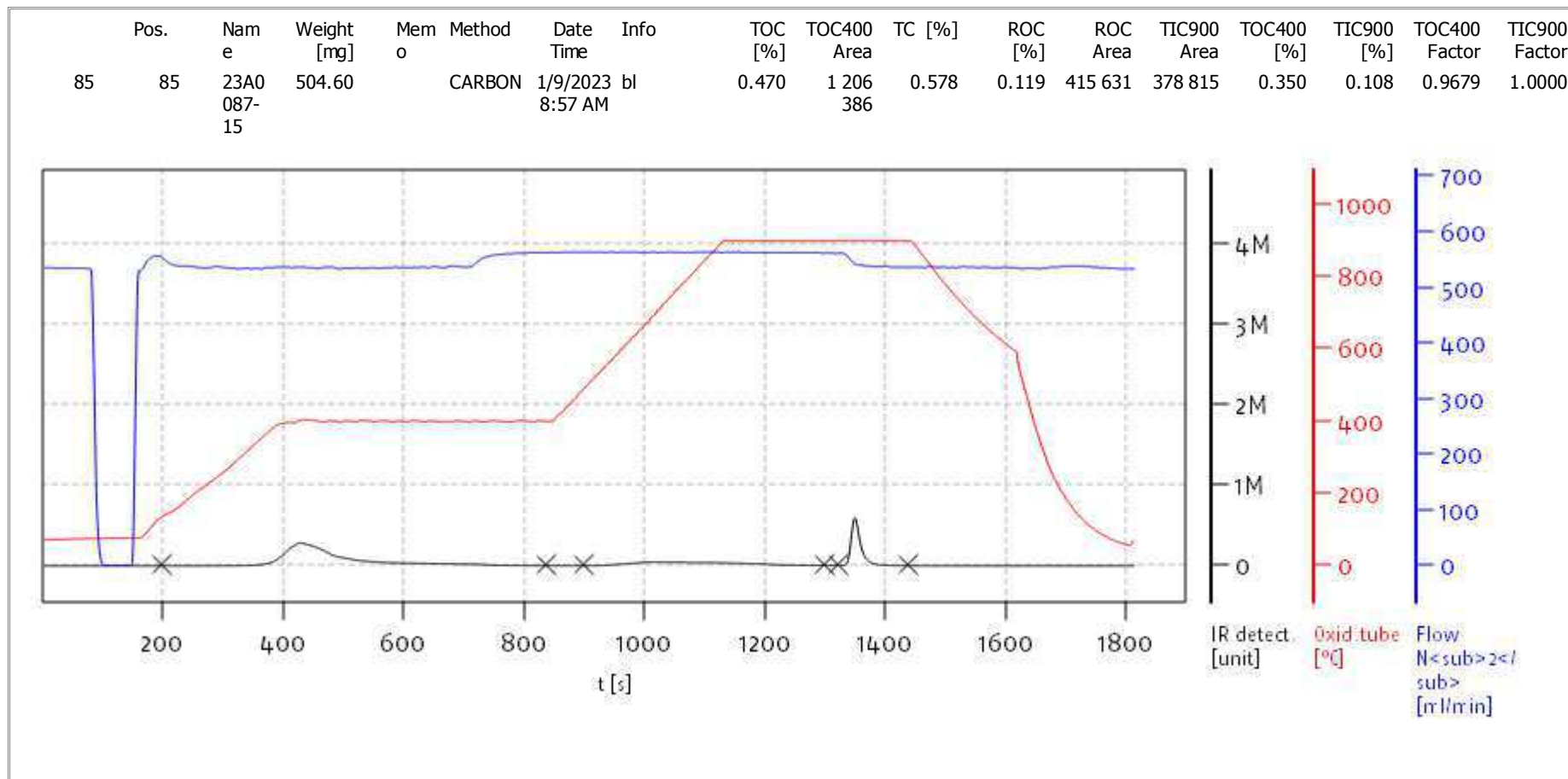
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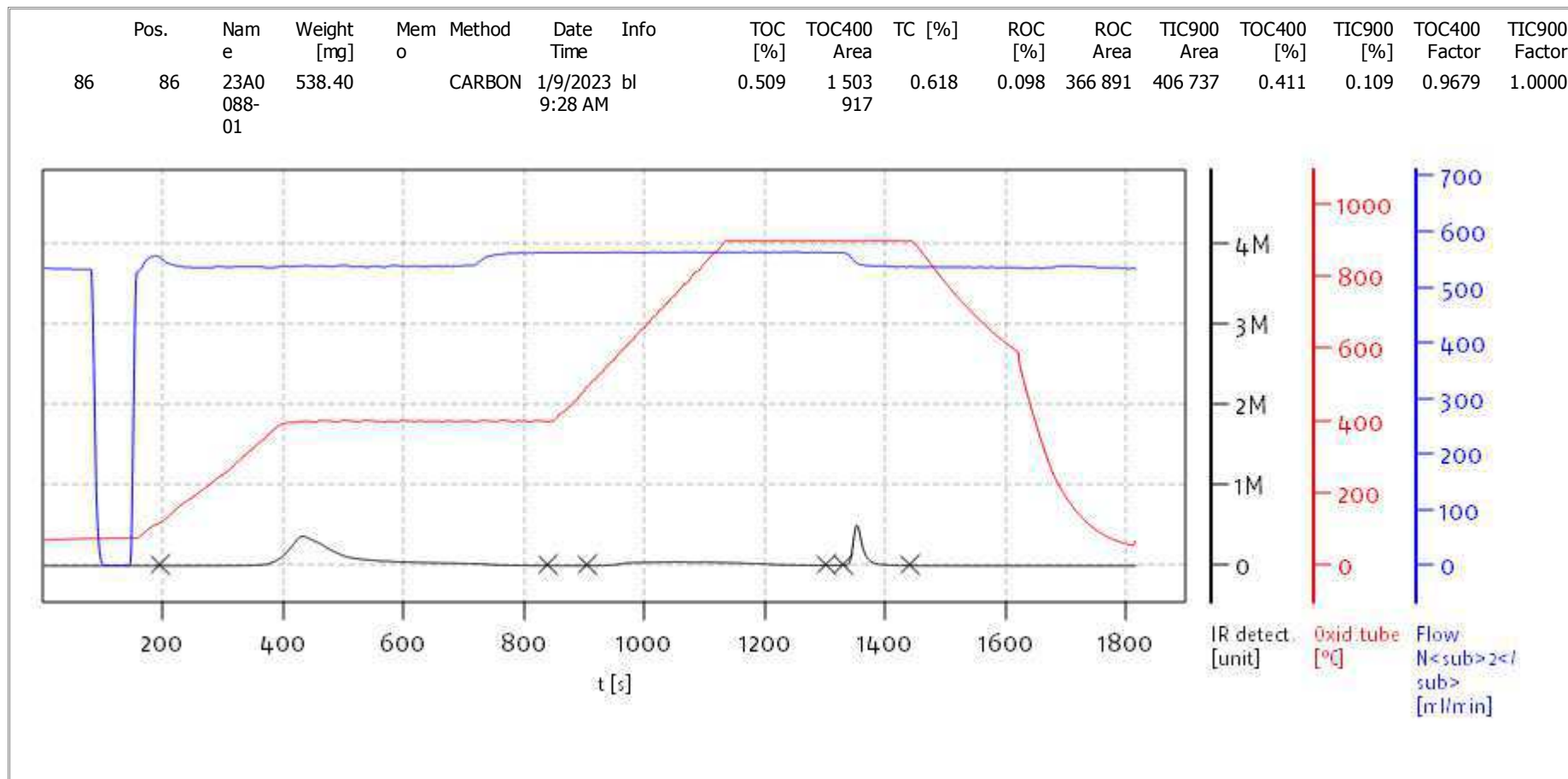
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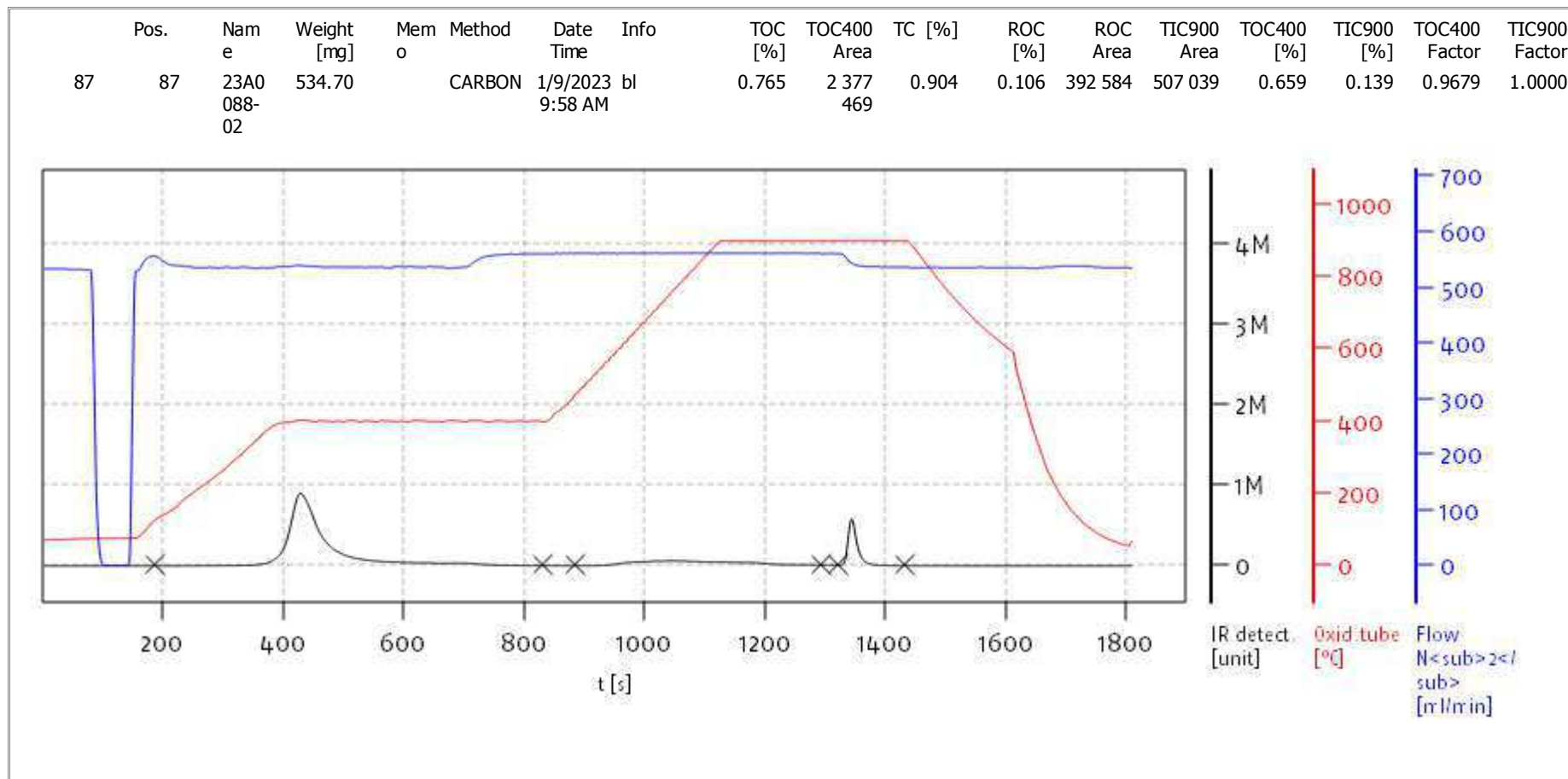
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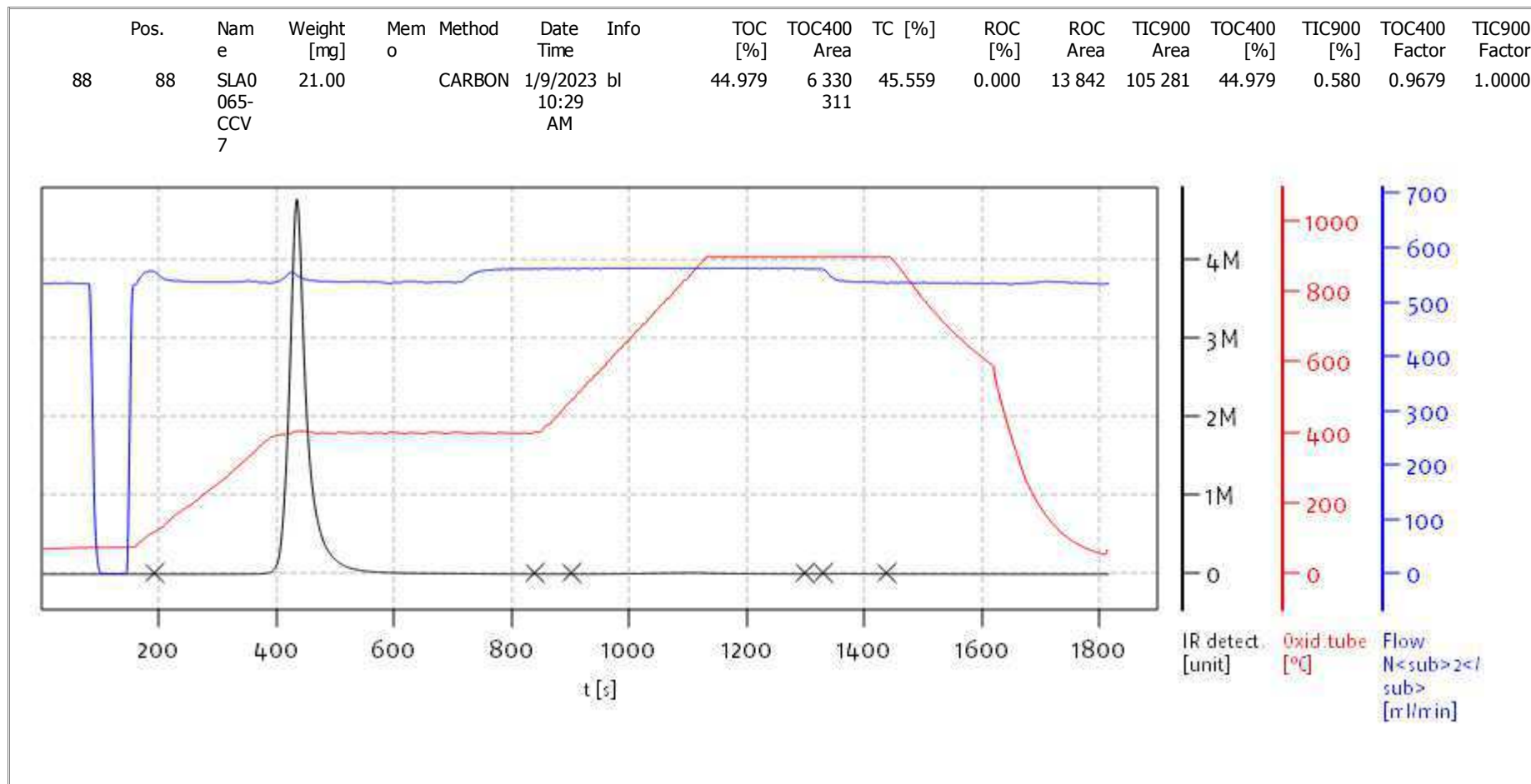
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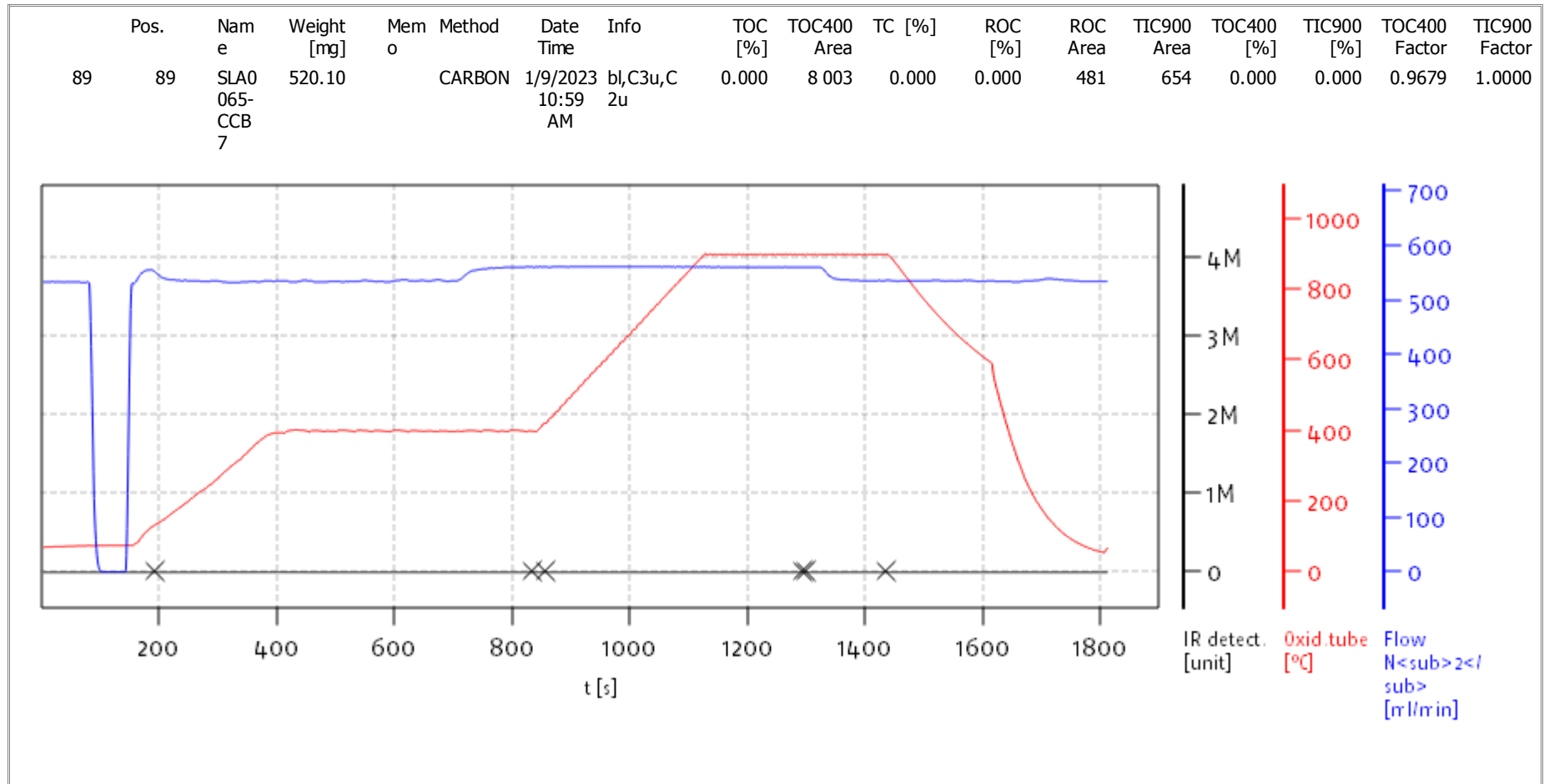
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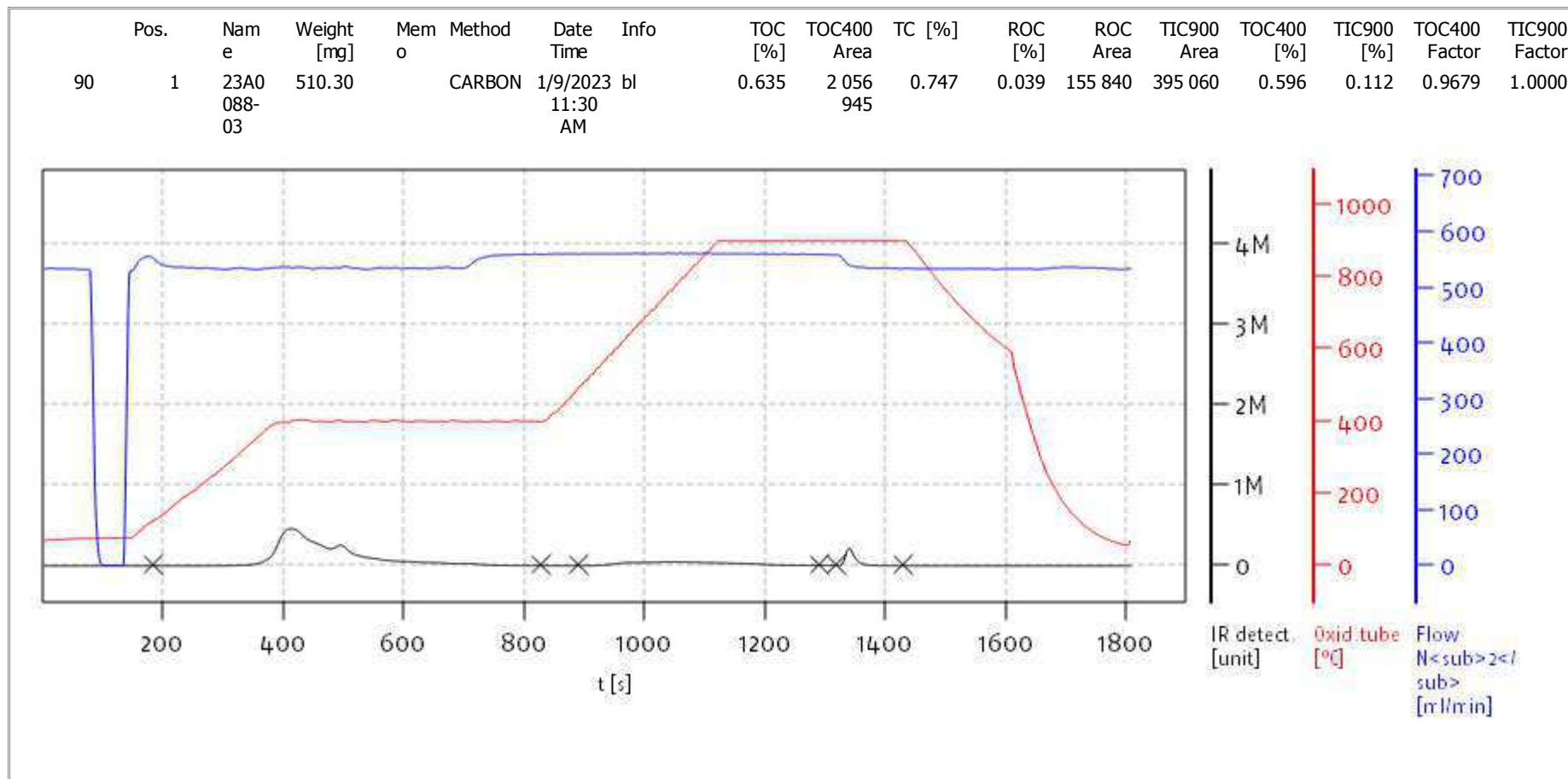
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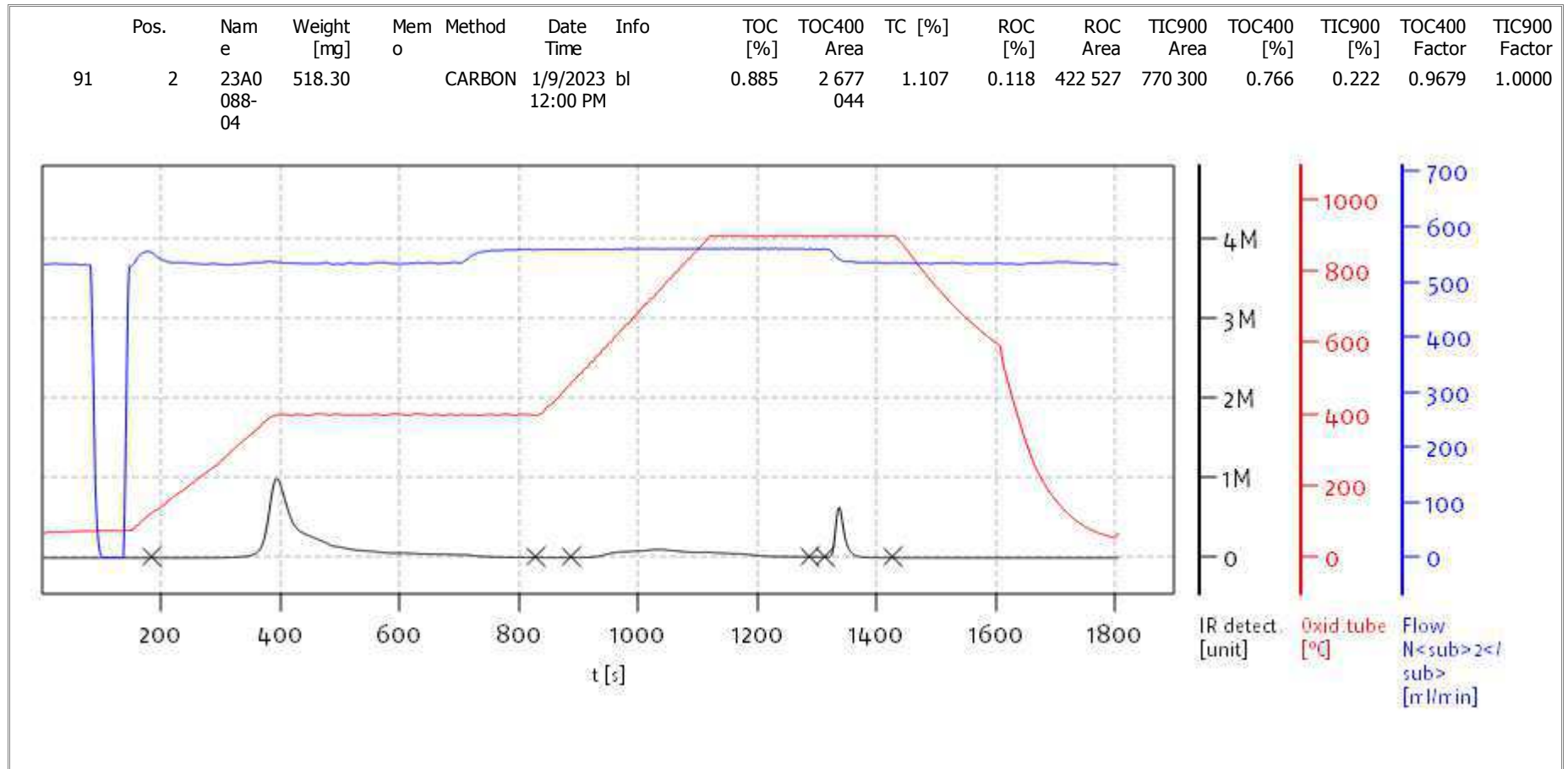
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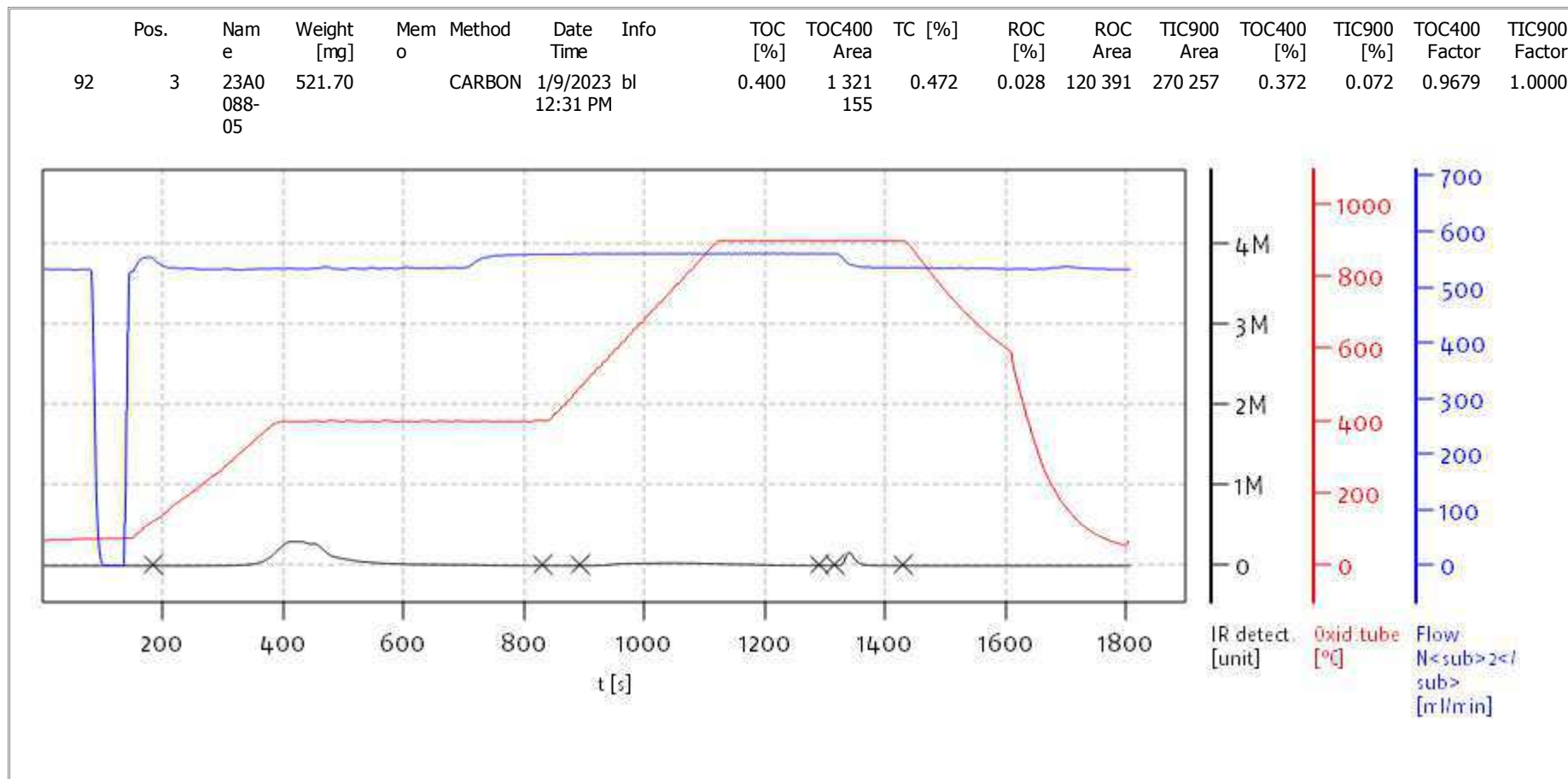
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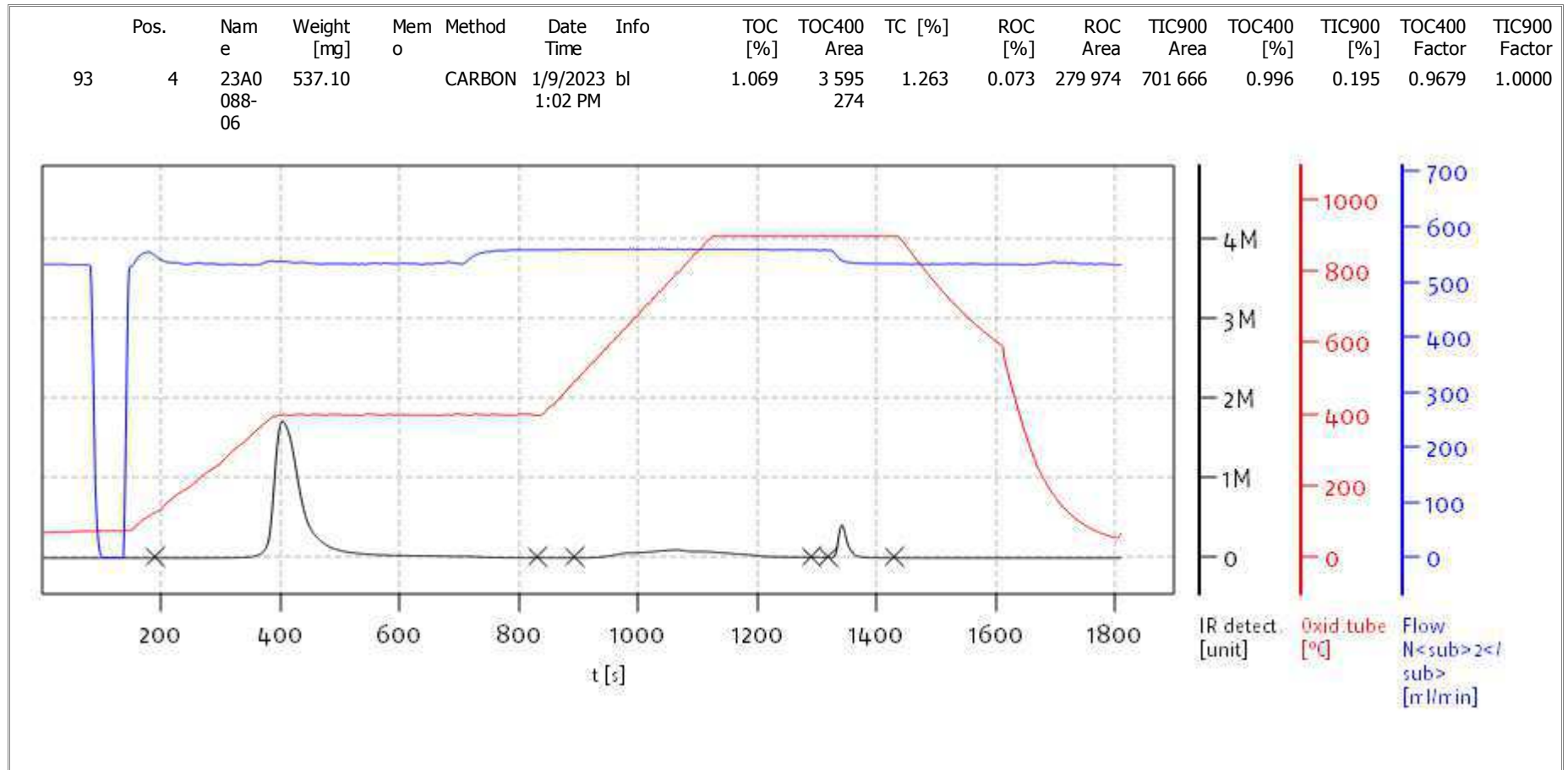
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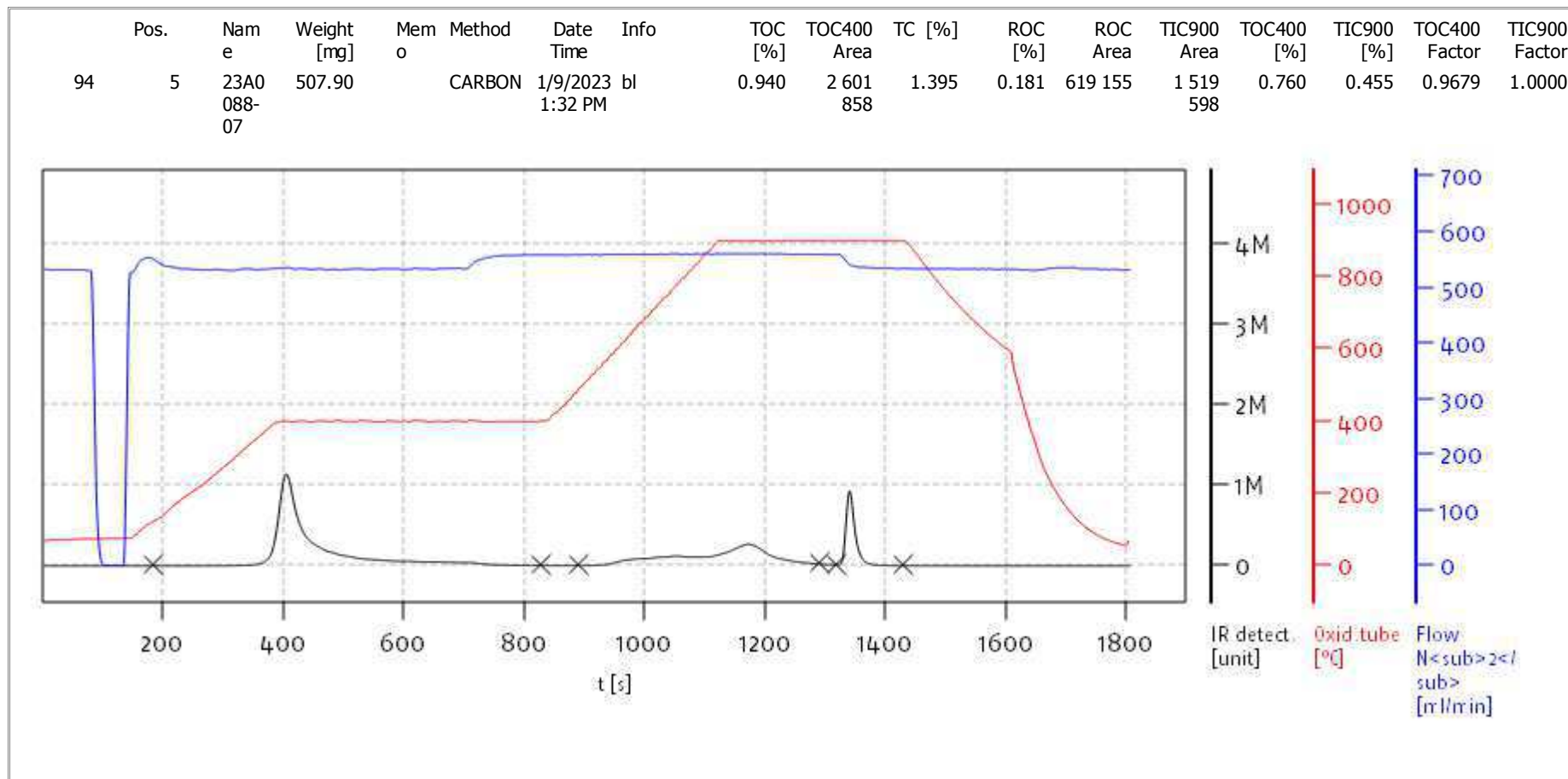
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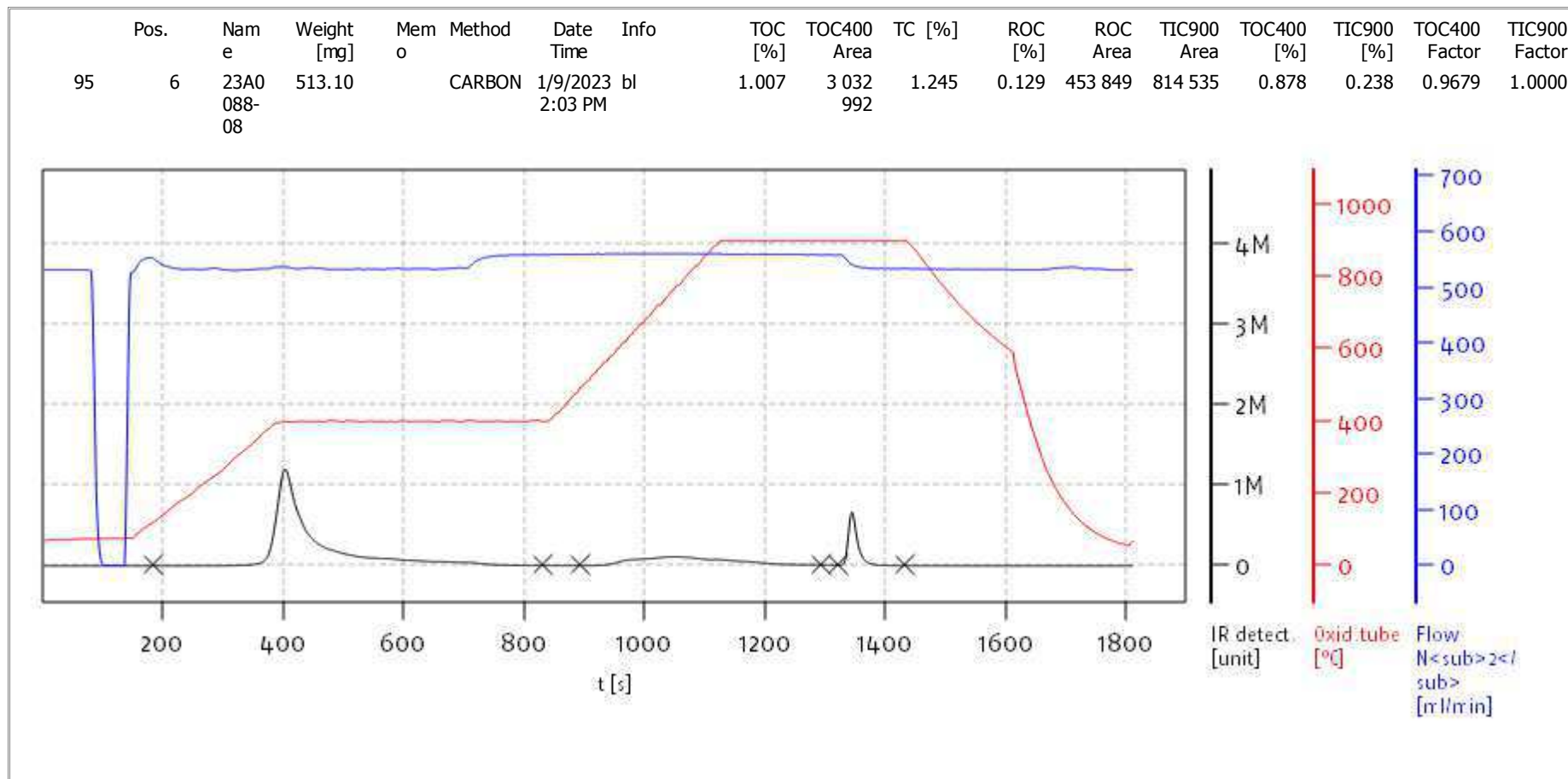
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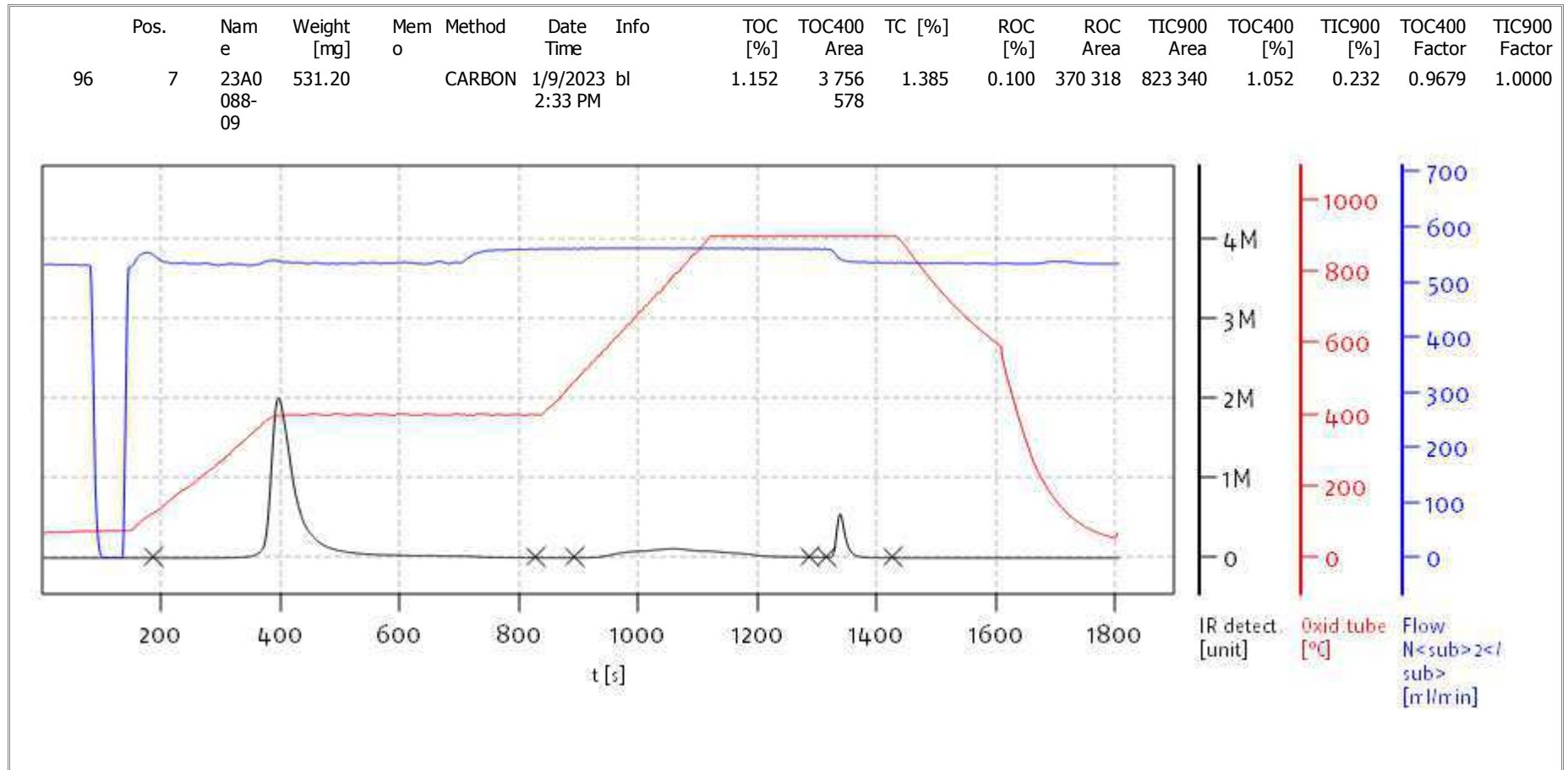
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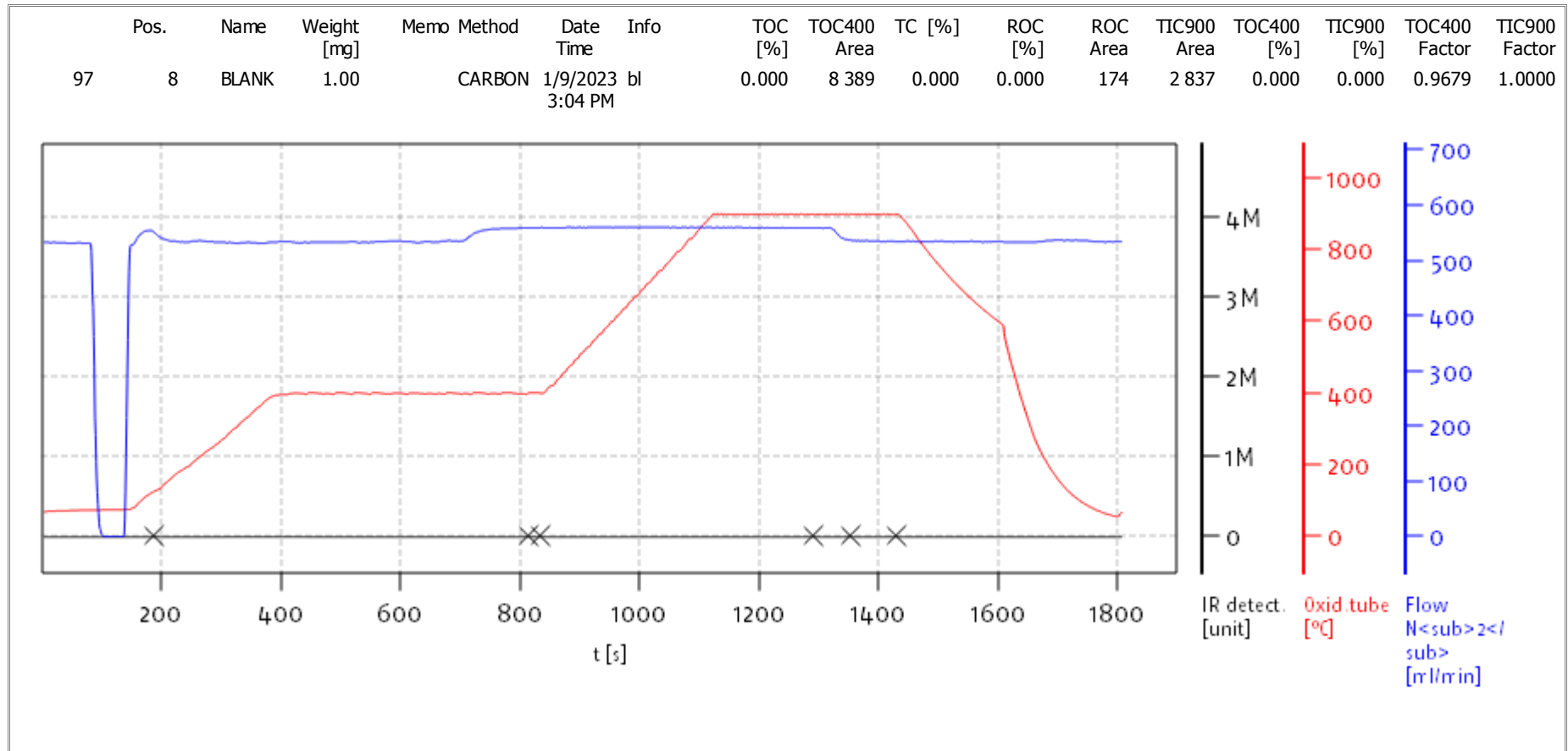
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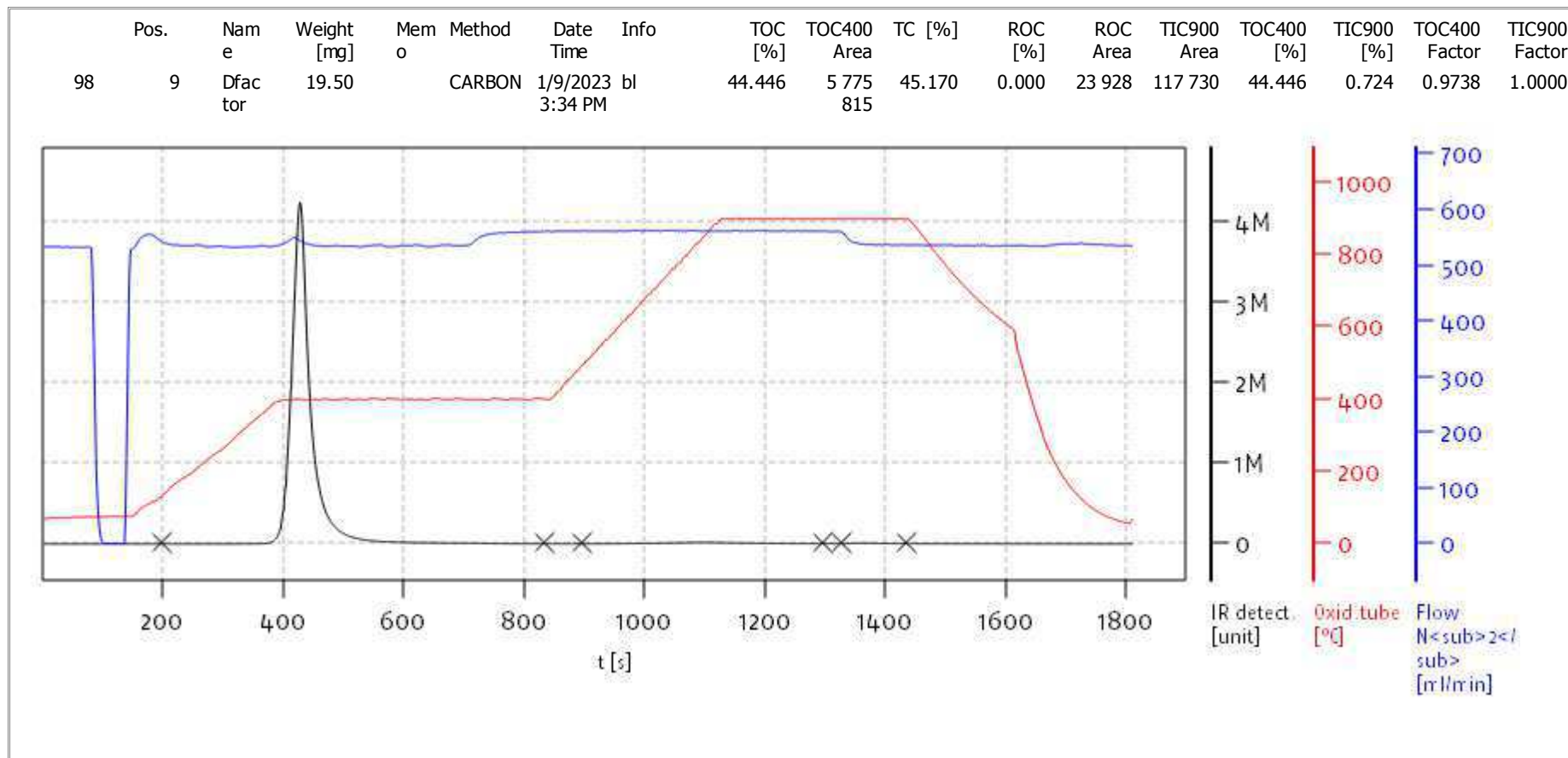
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Date: Wed Jan 11 07:24:43 2023



soliTOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

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 Balance: BAL3
 Analyst: DOE



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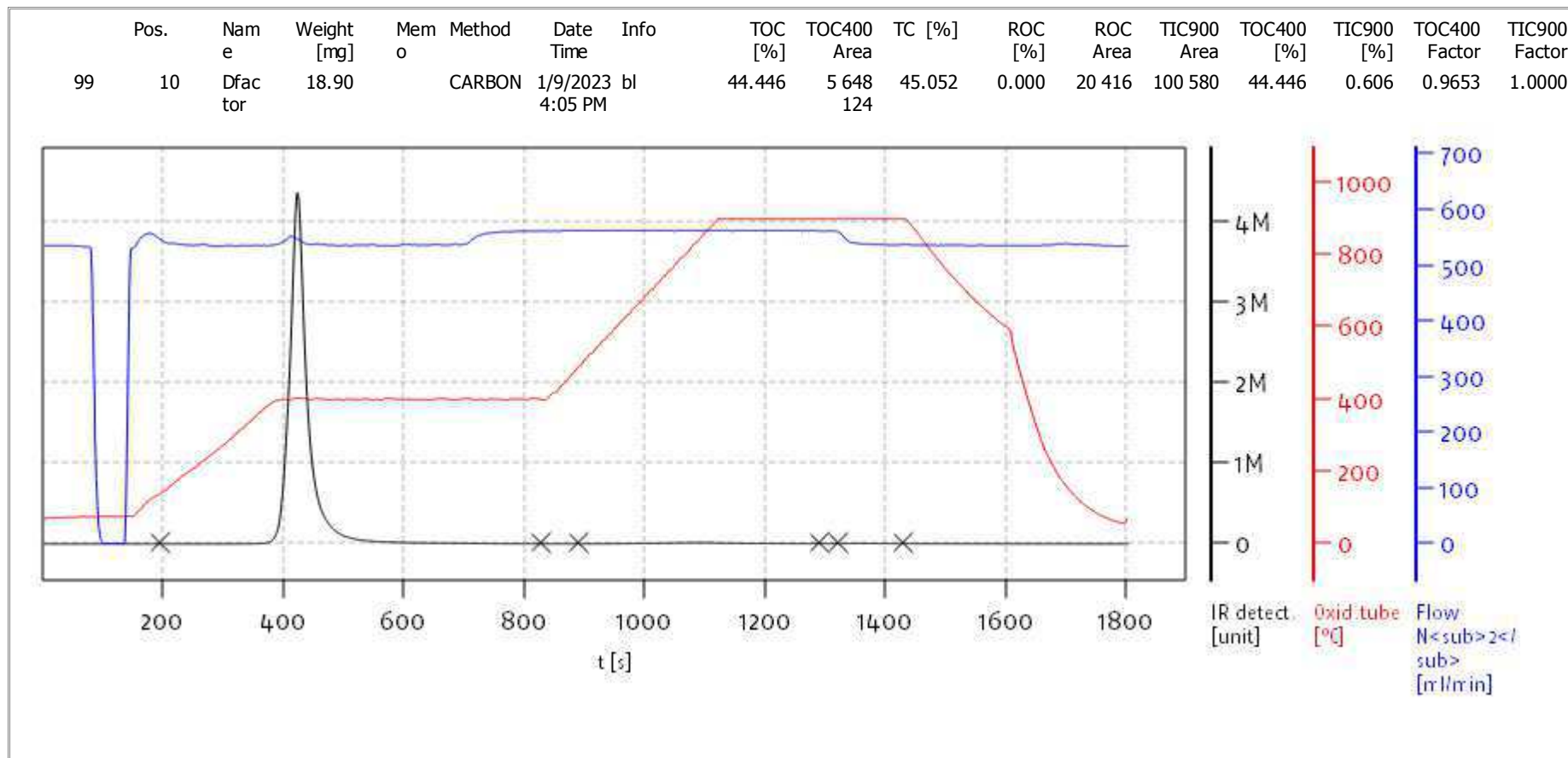
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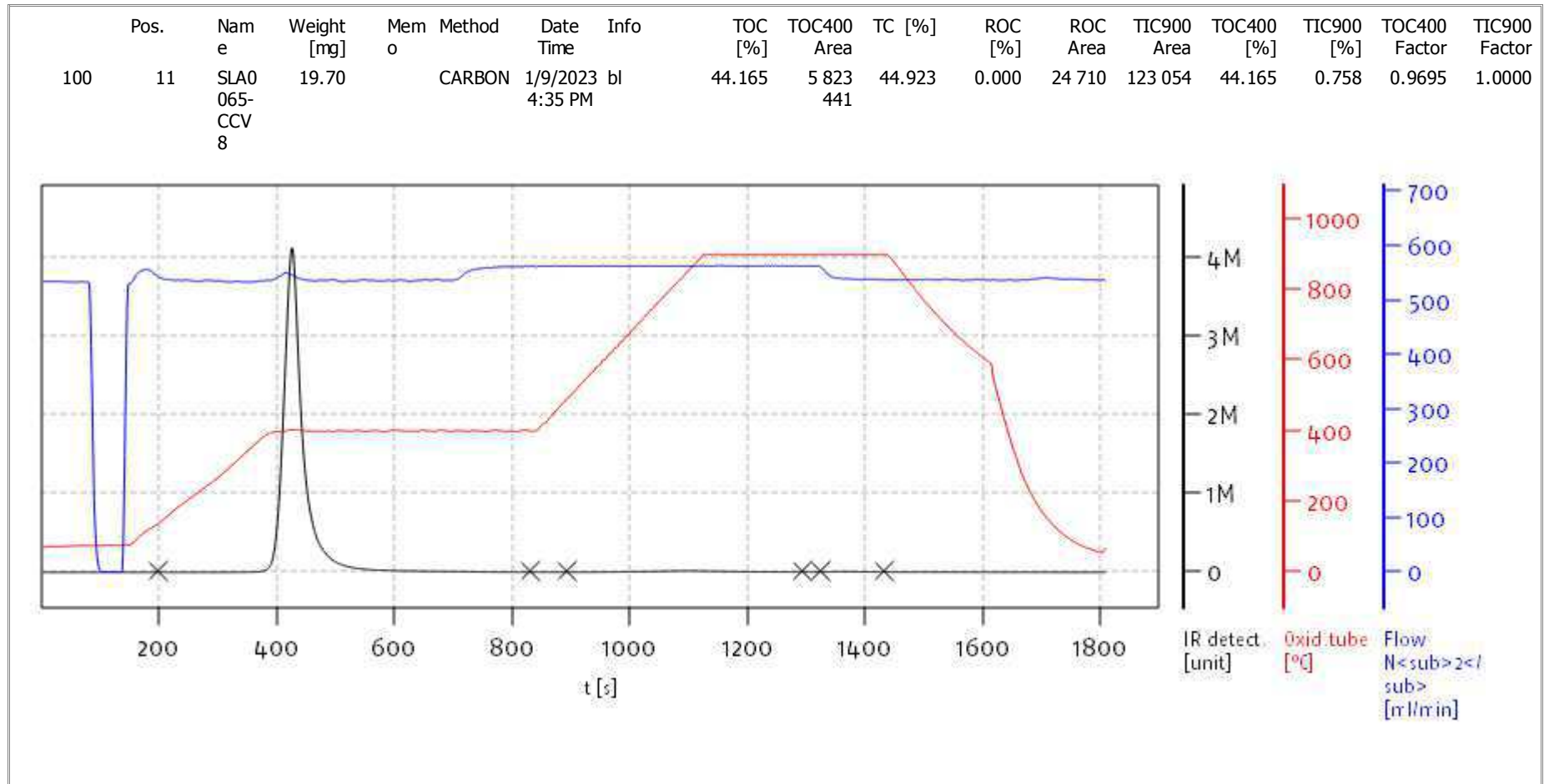
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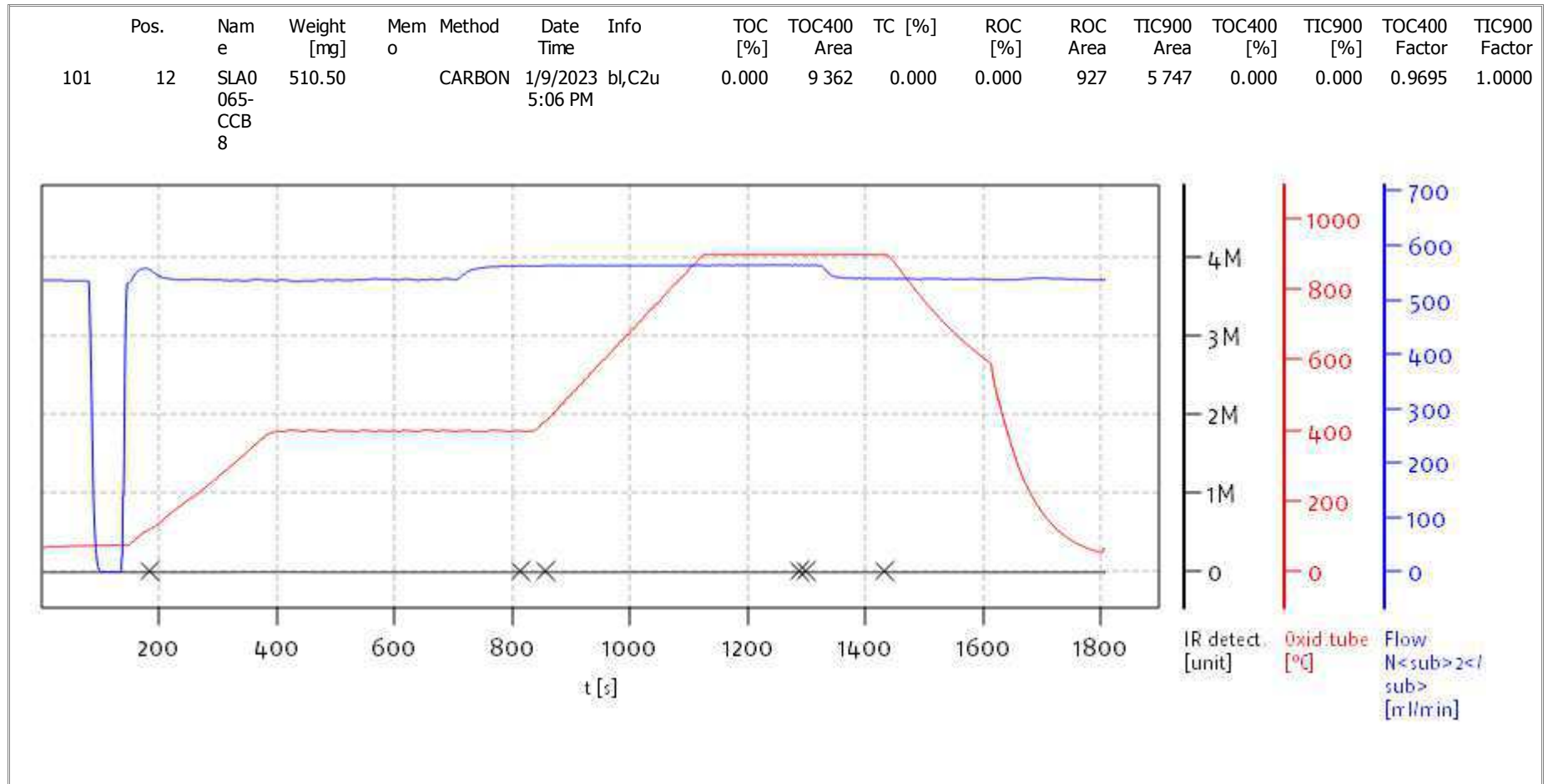
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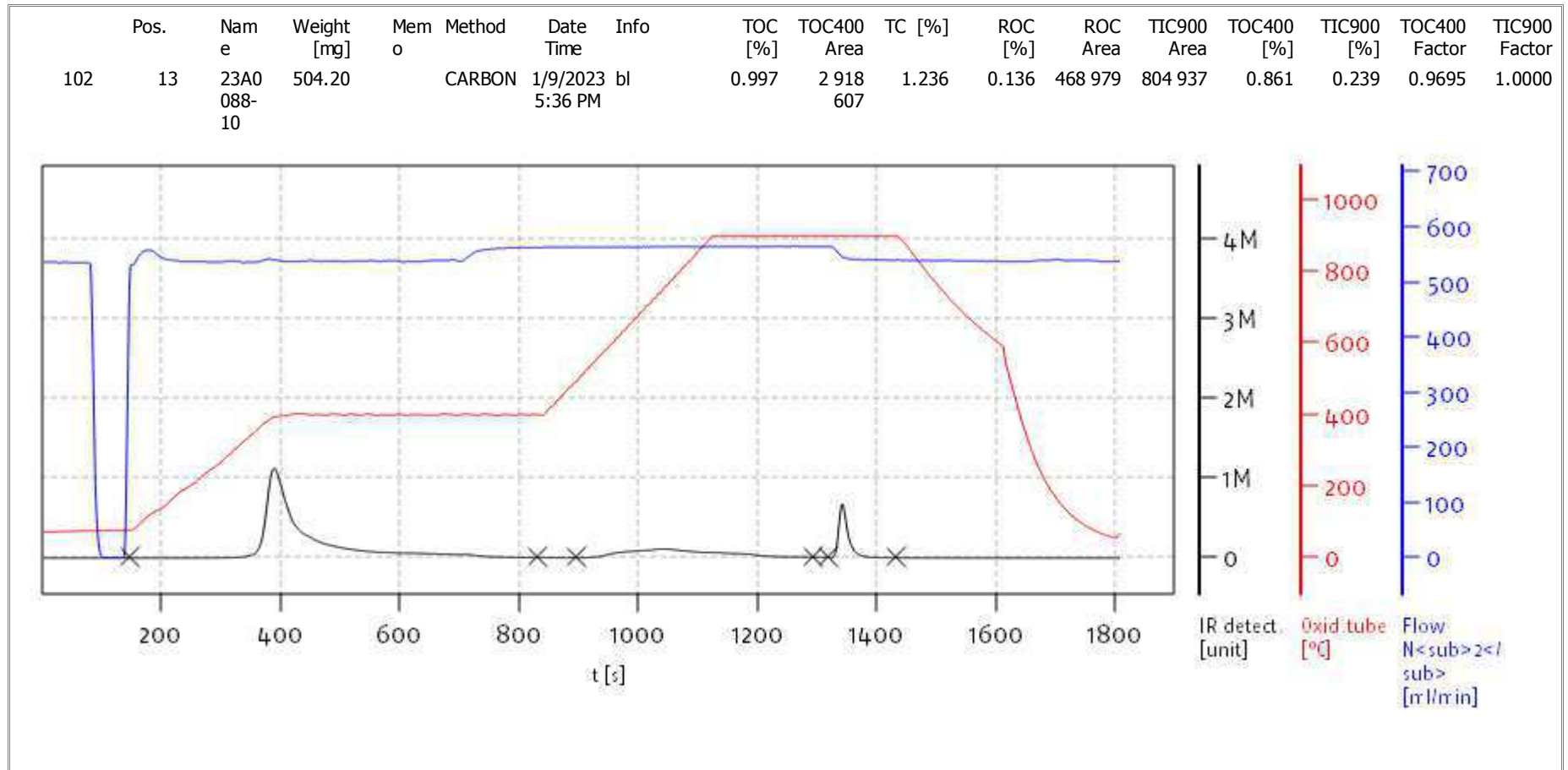
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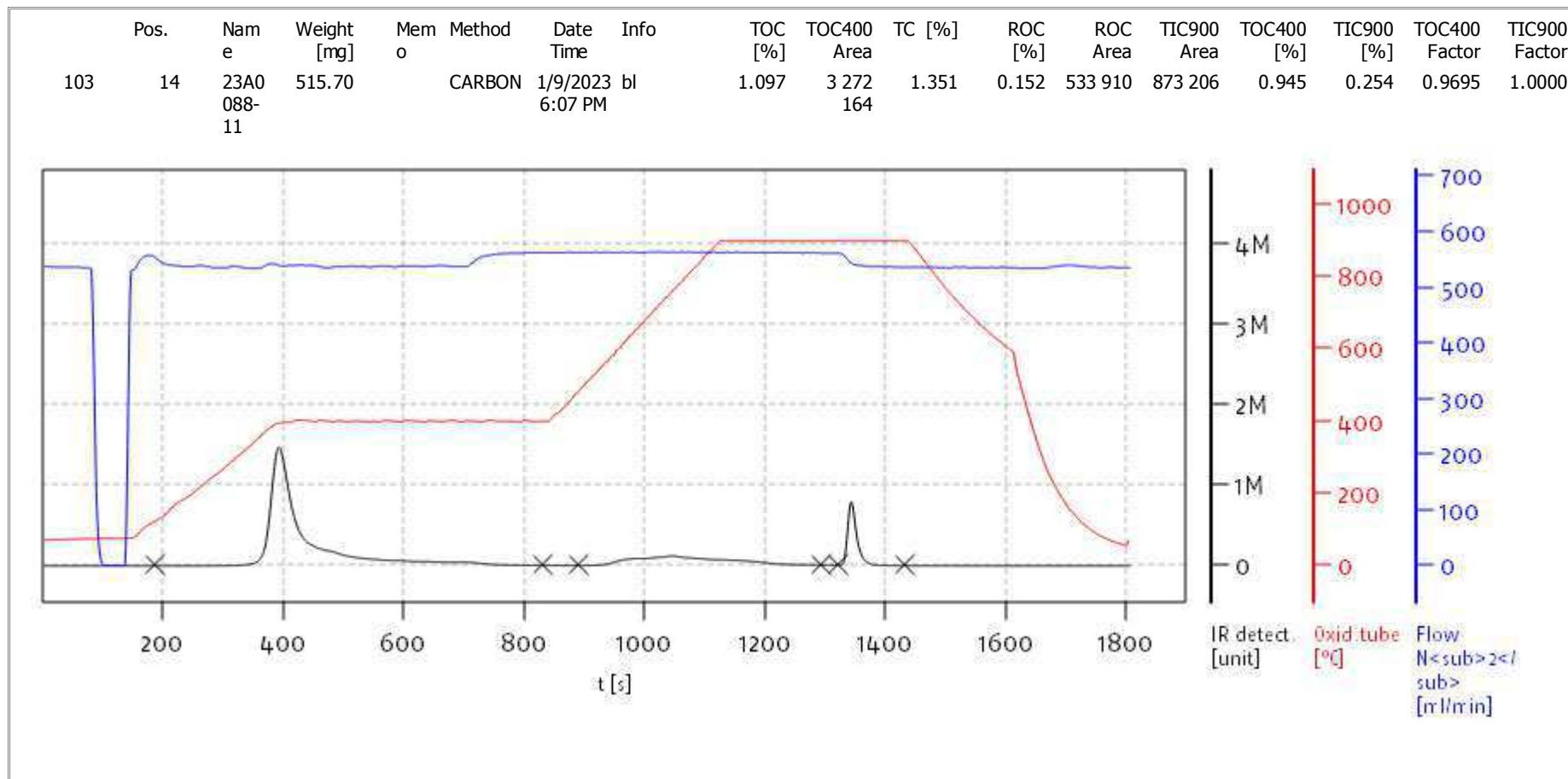
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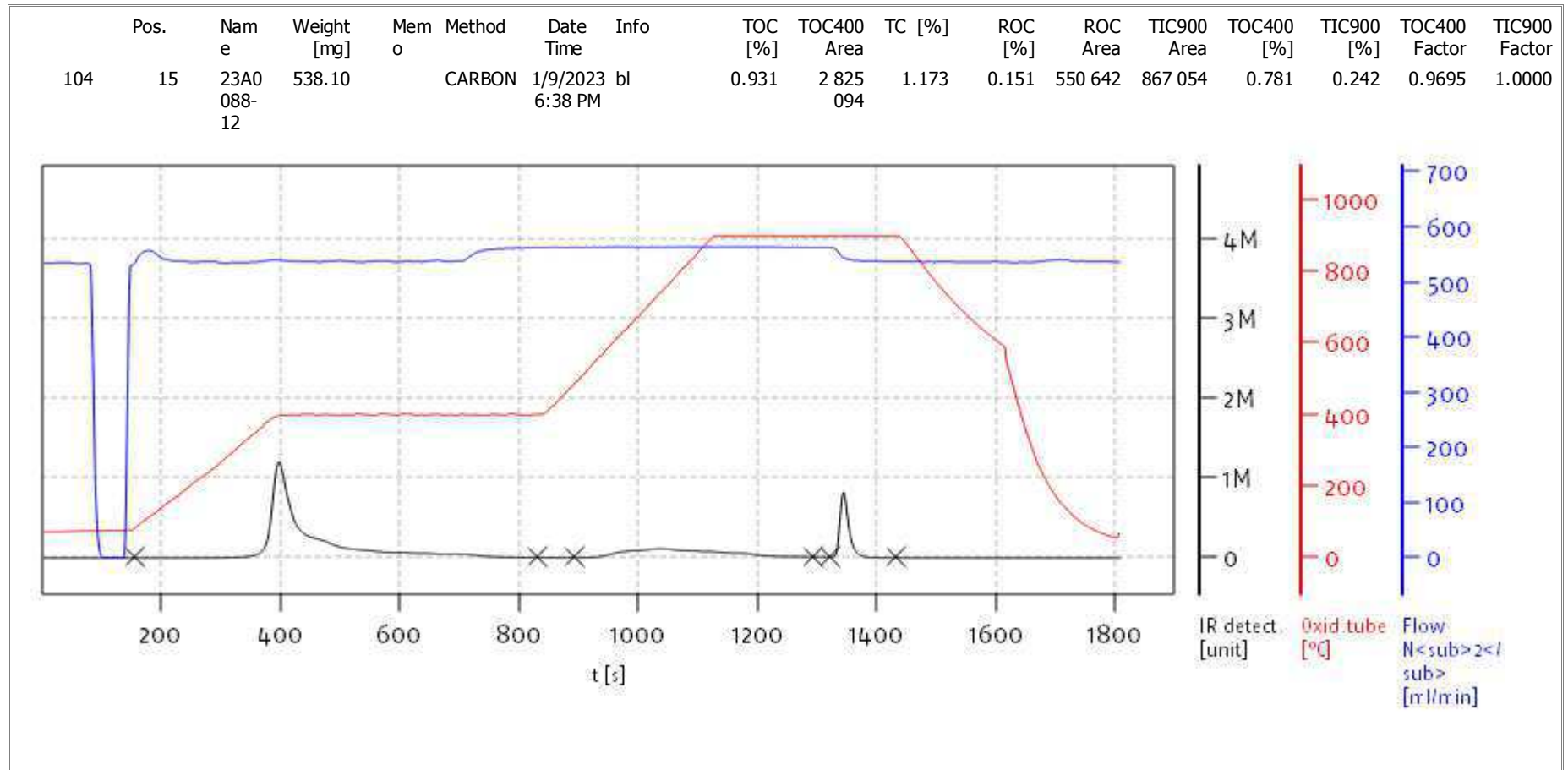
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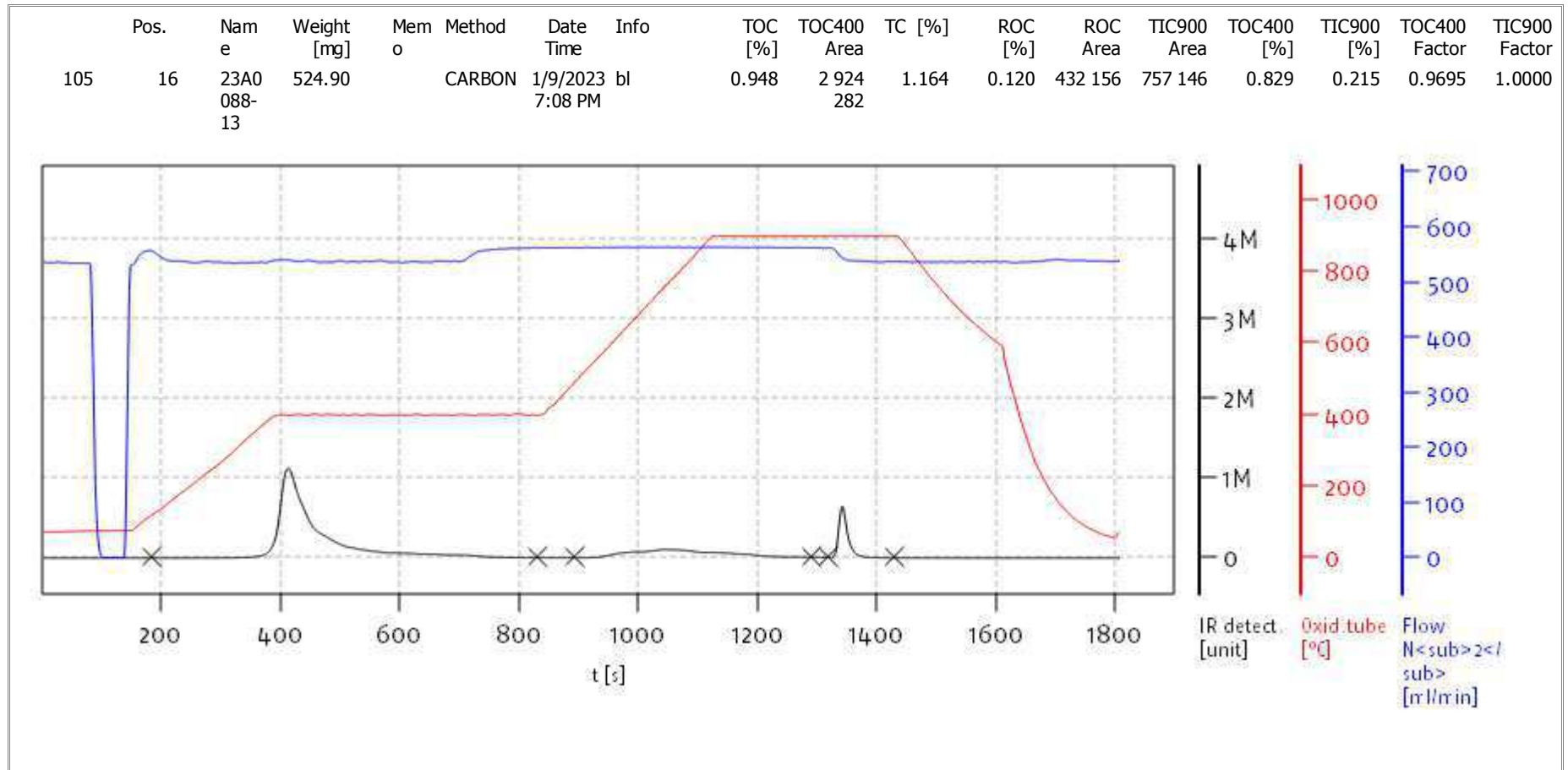
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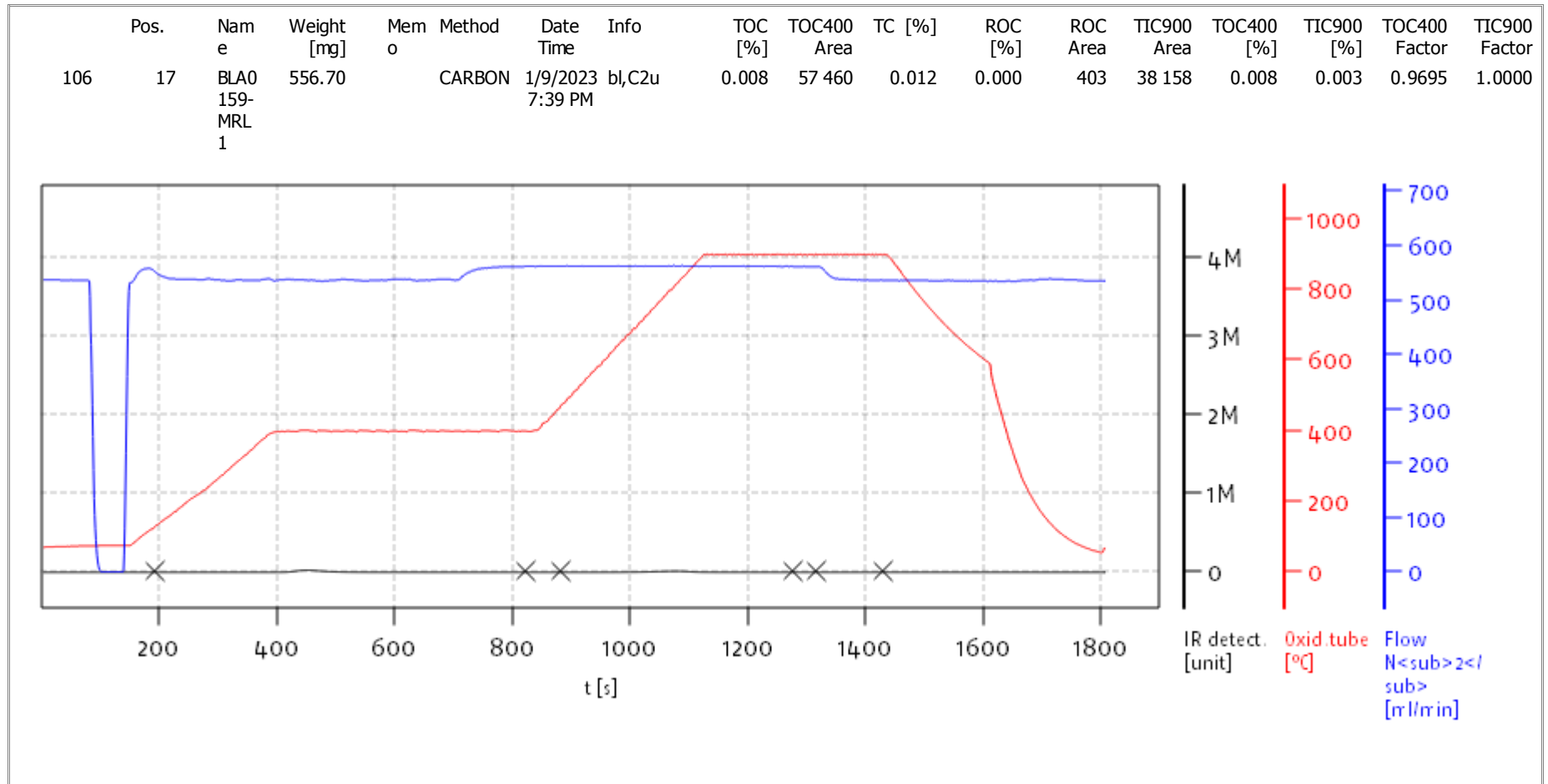
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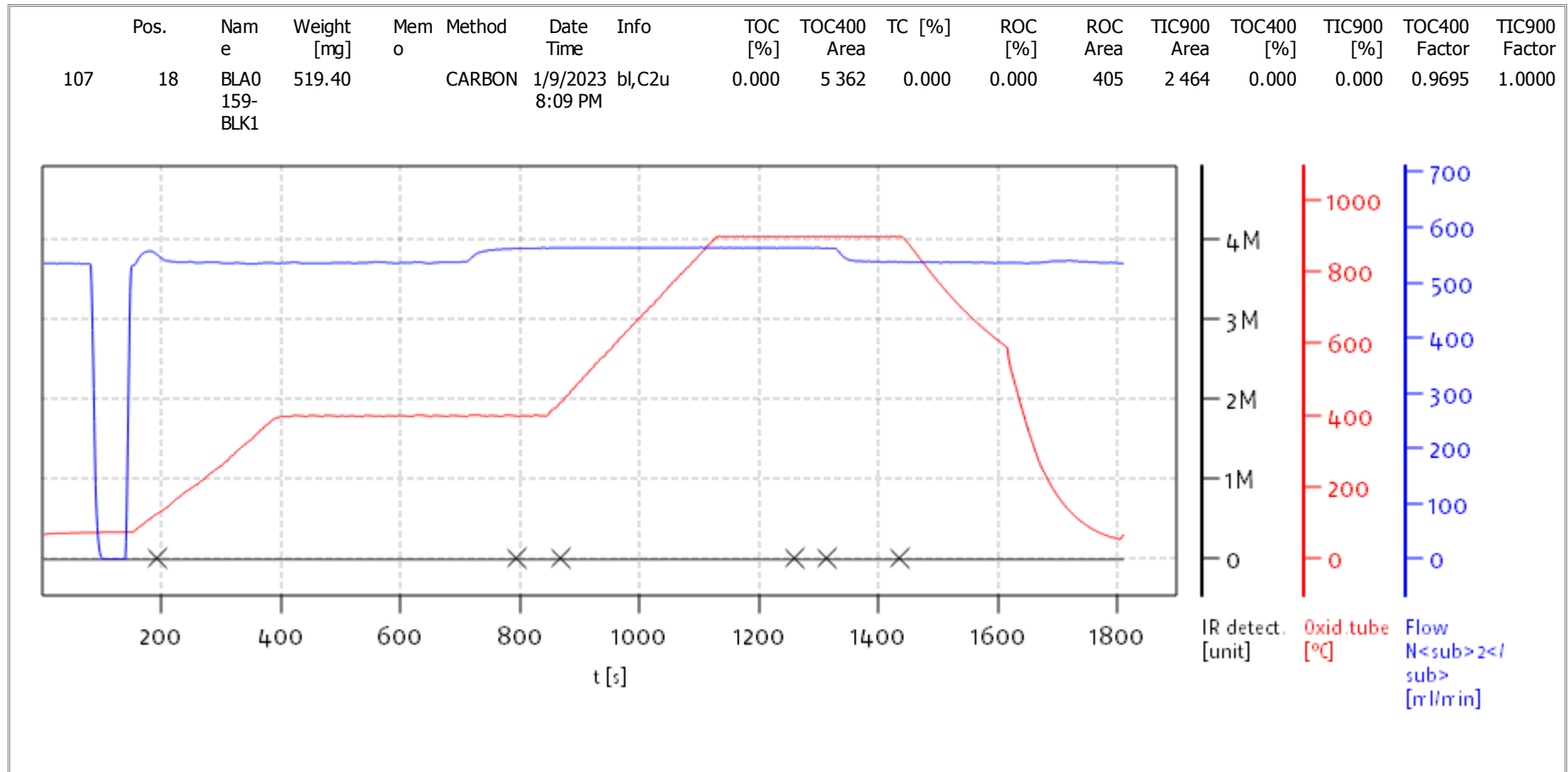
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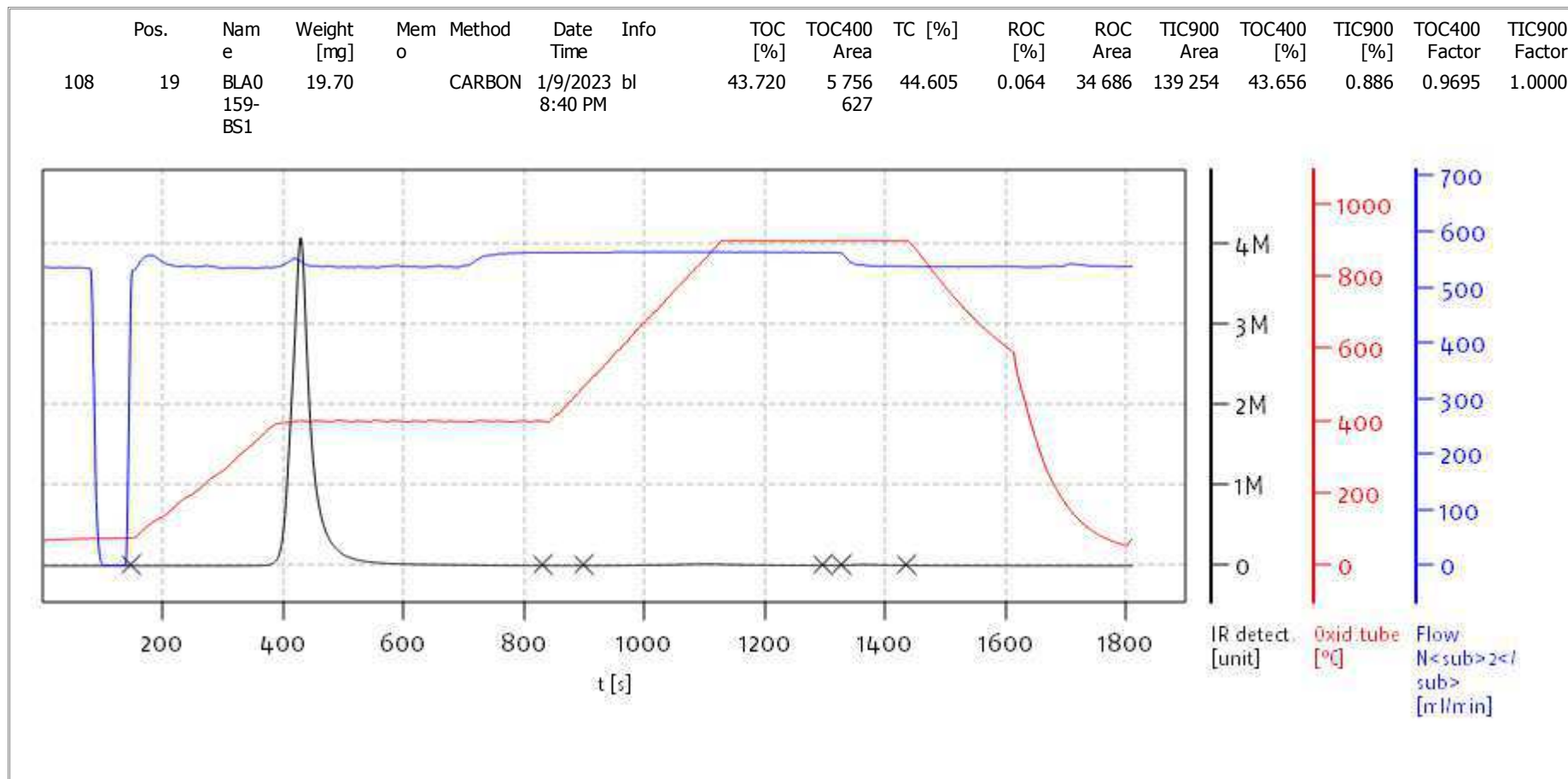
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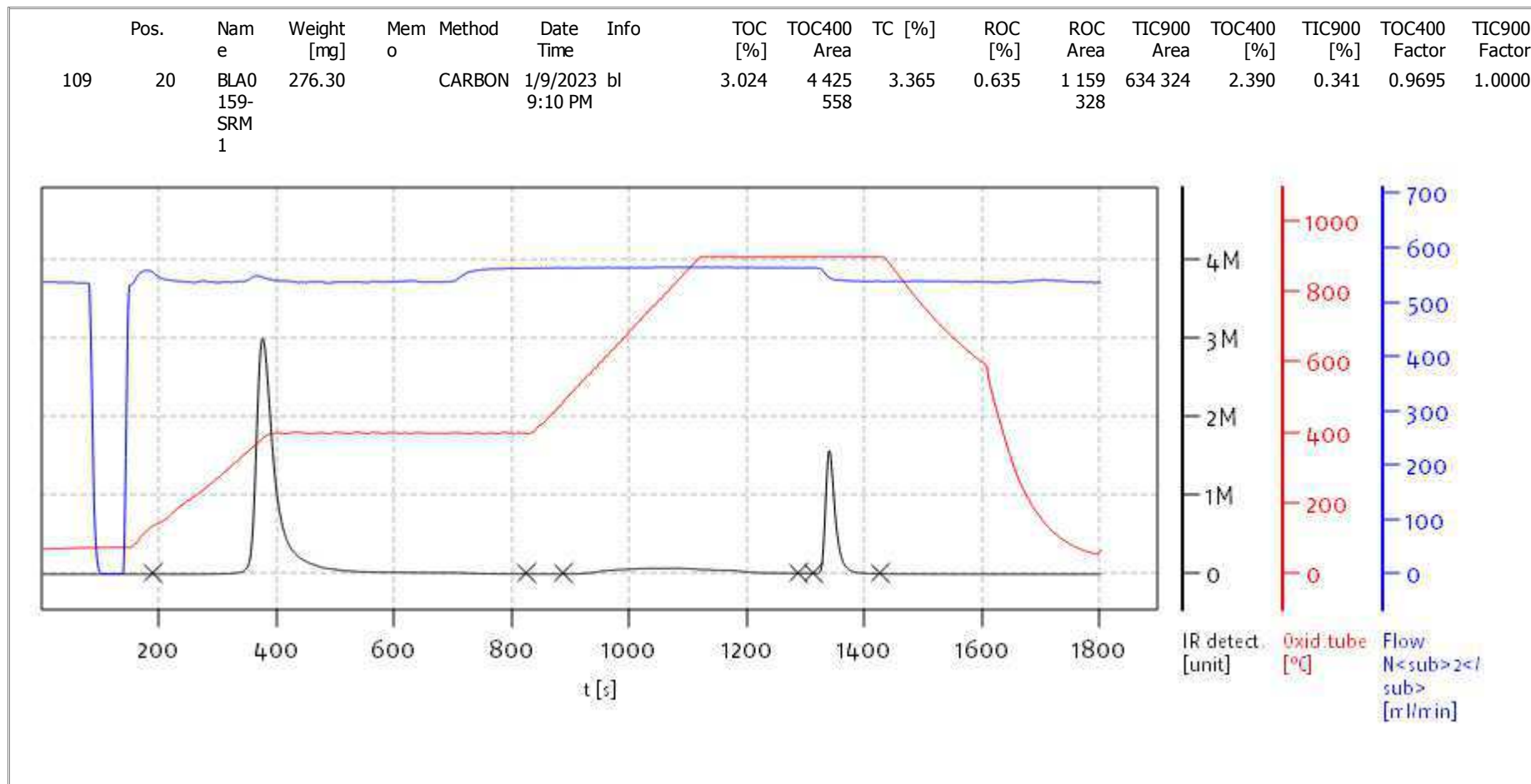
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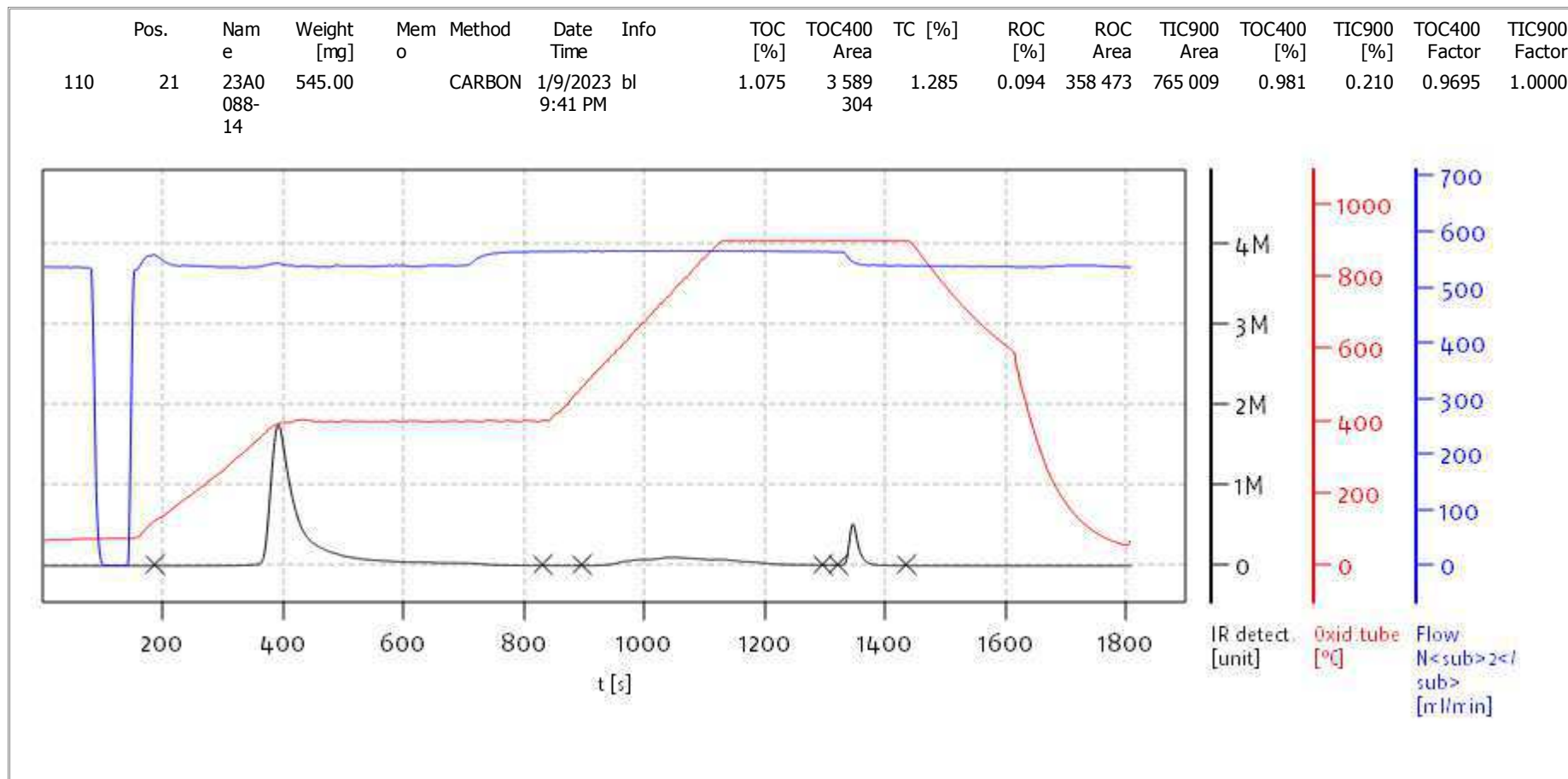
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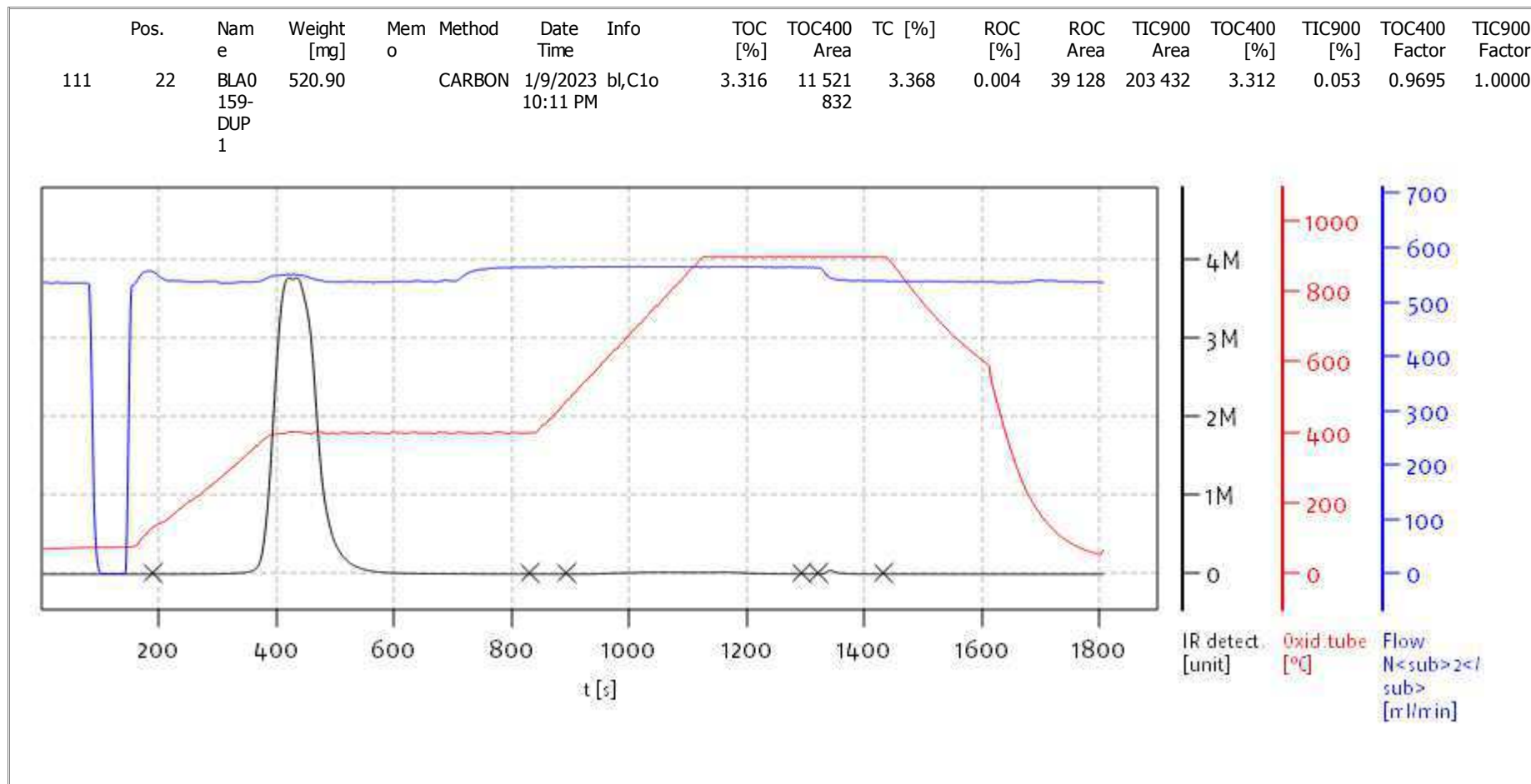
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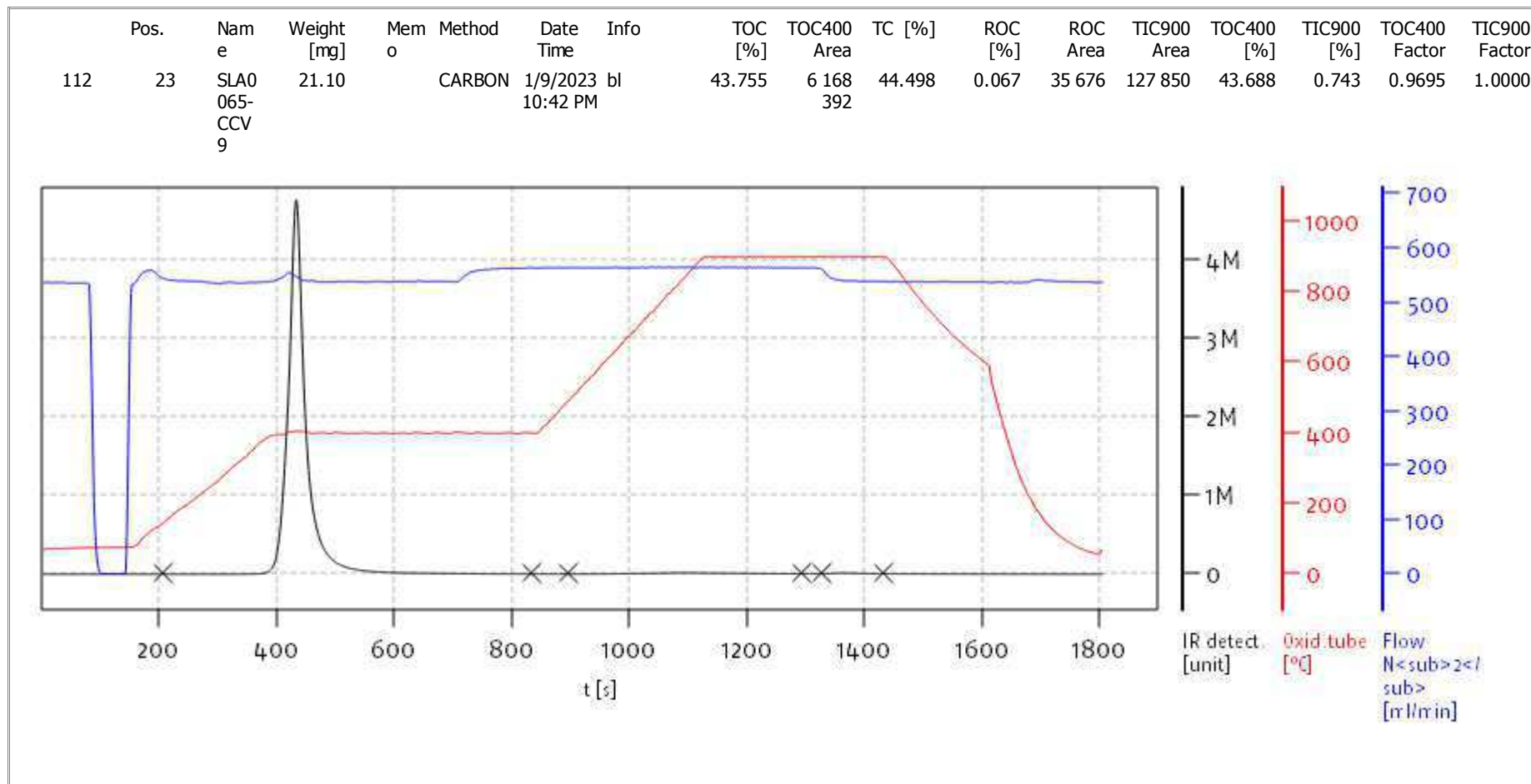
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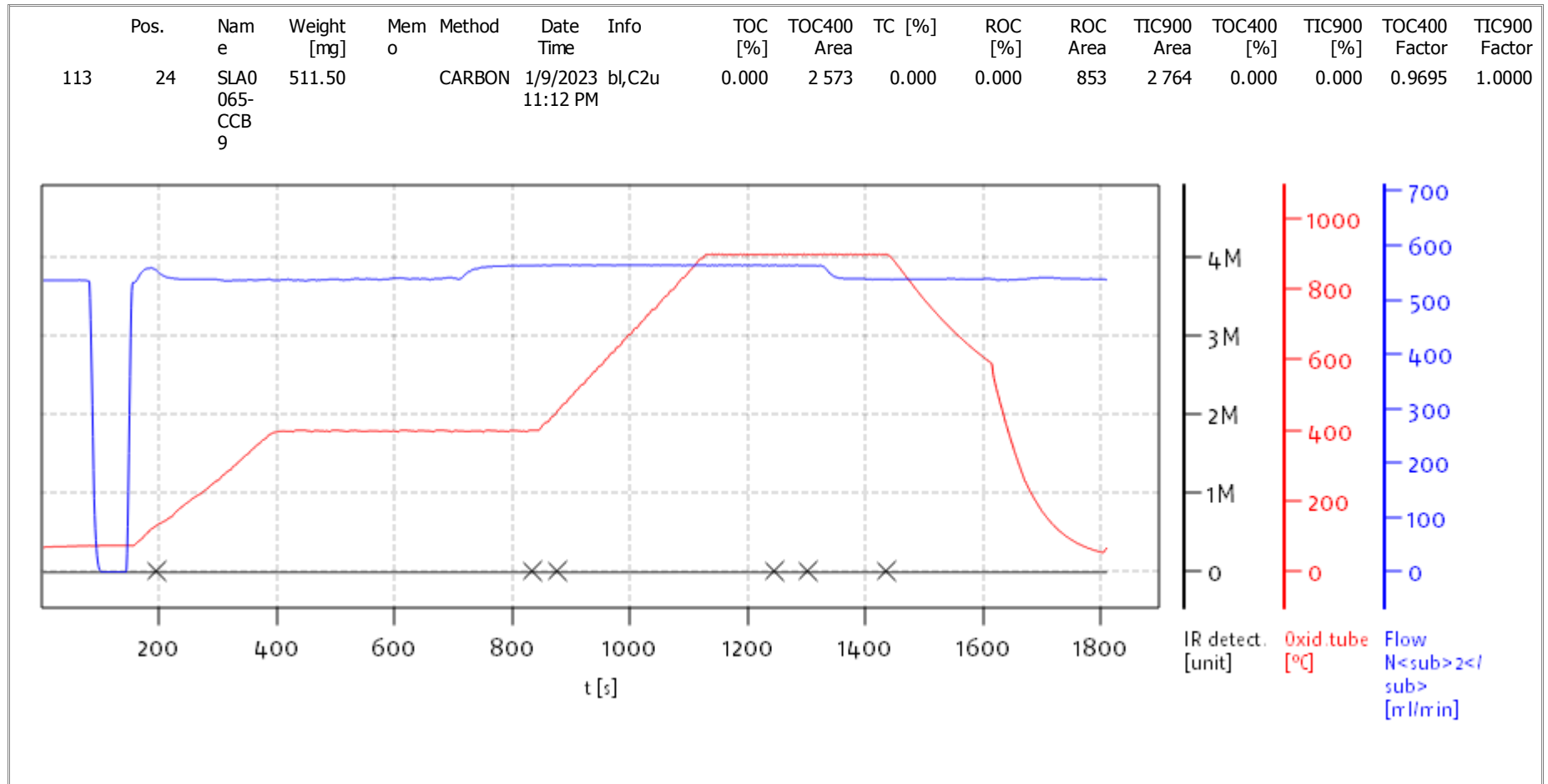
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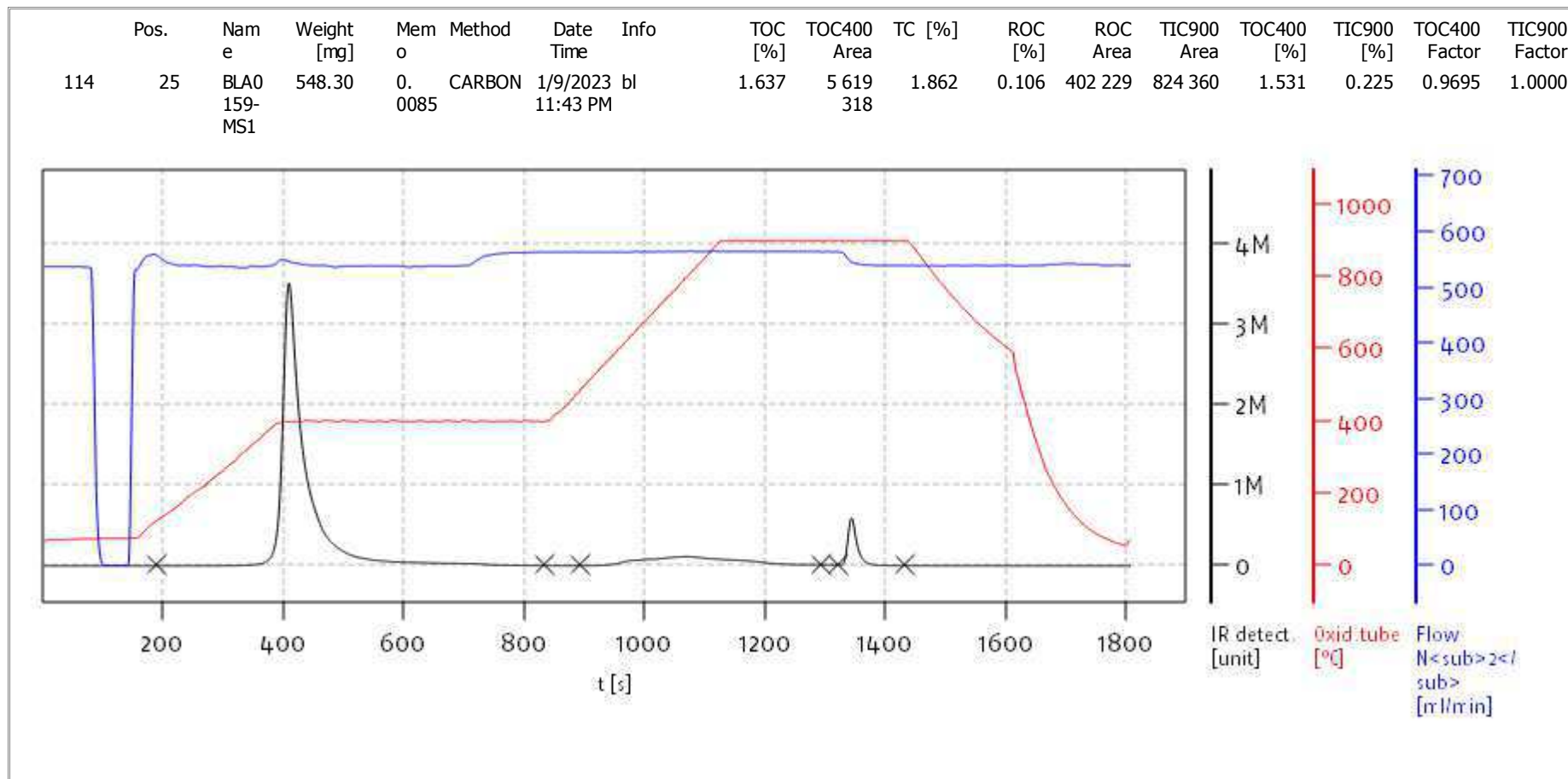
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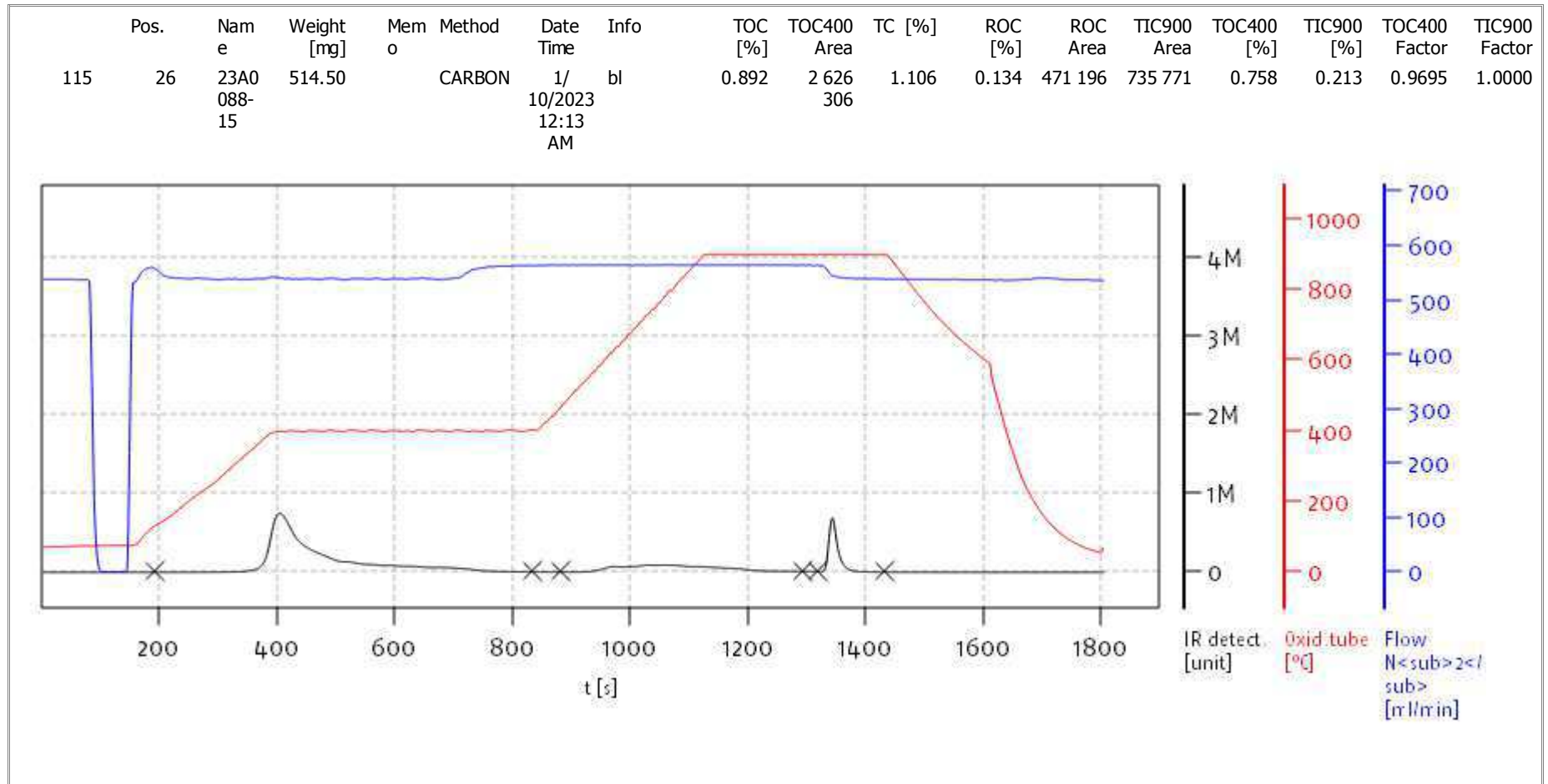
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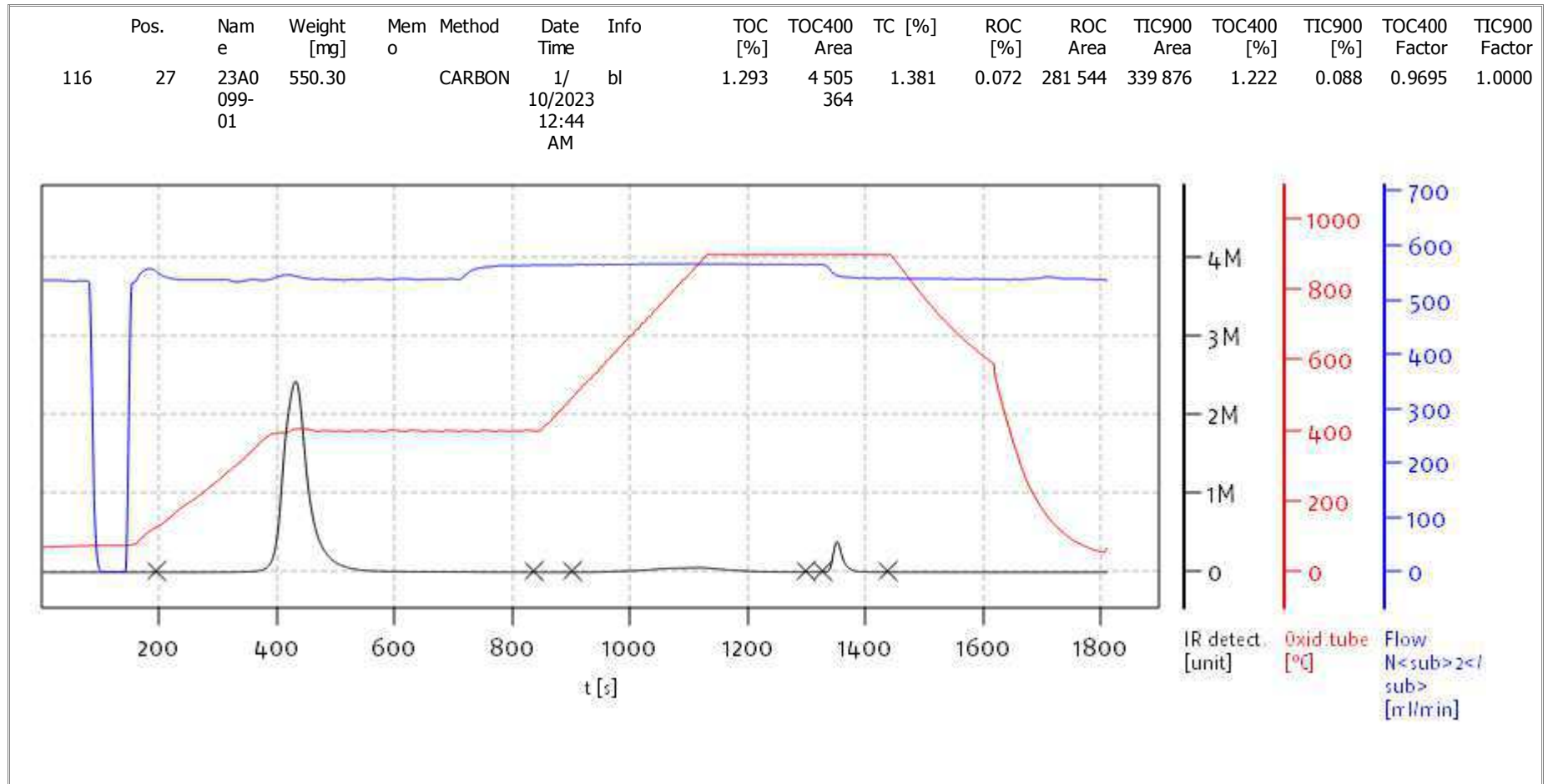
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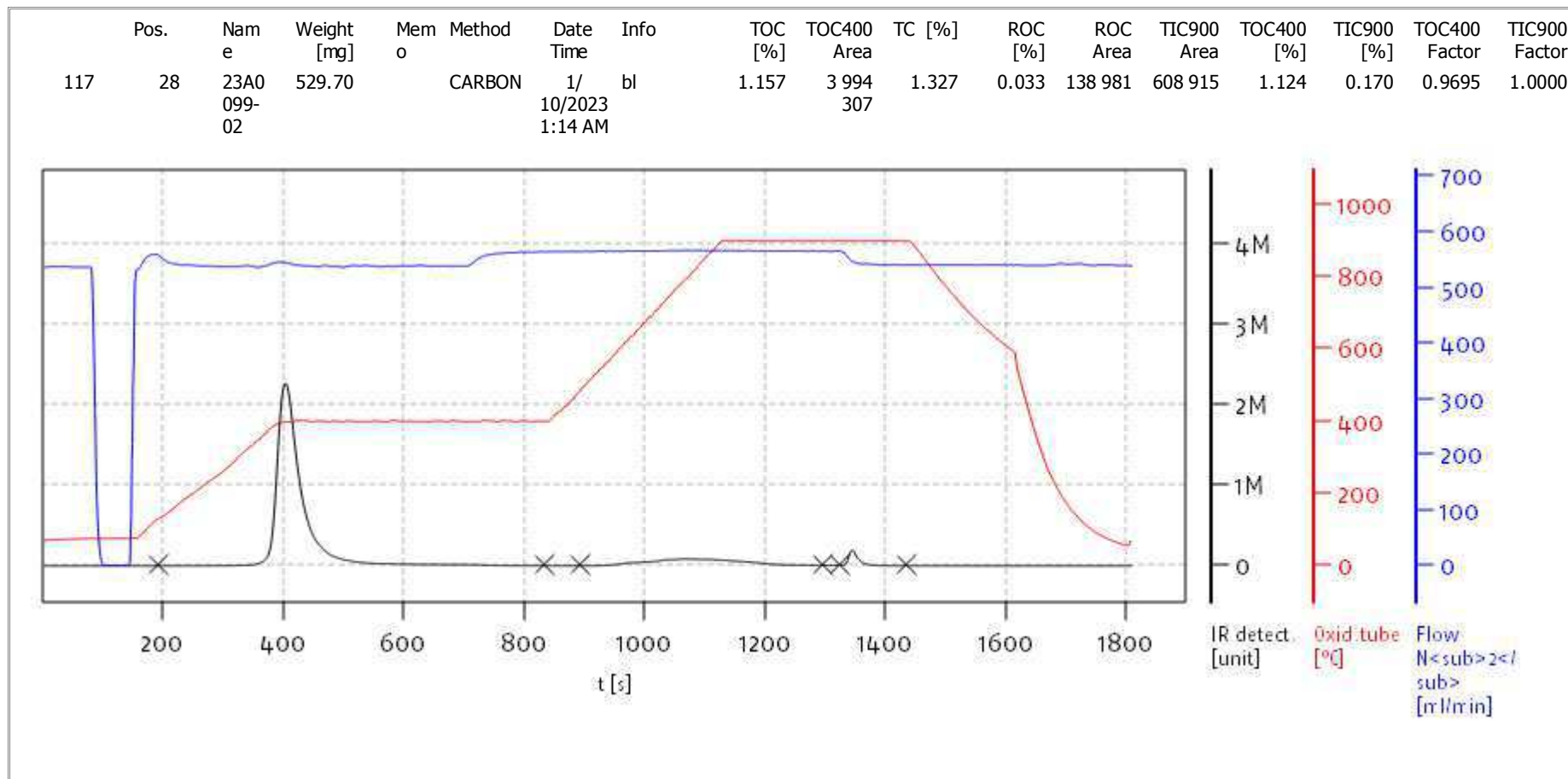
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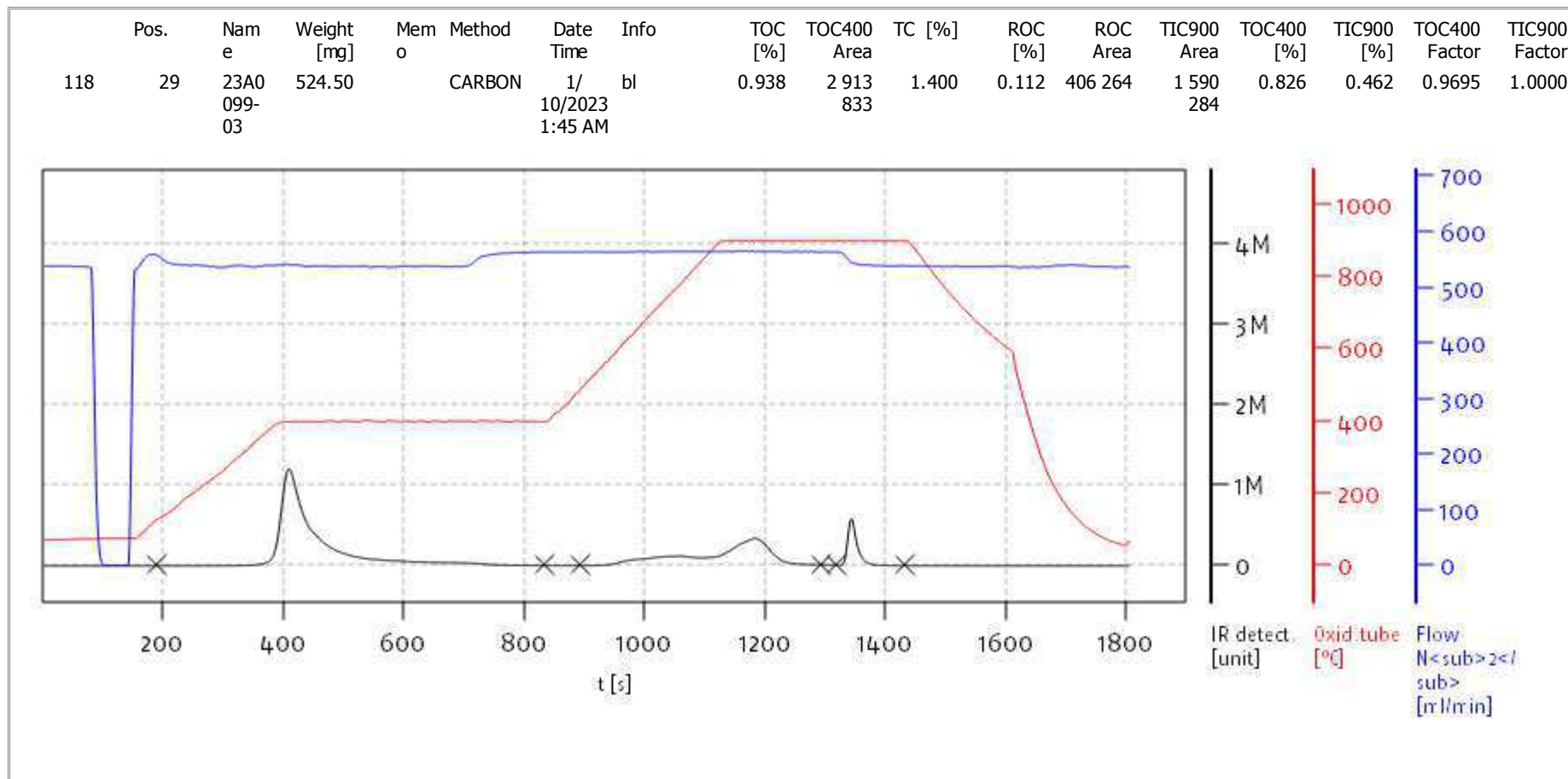
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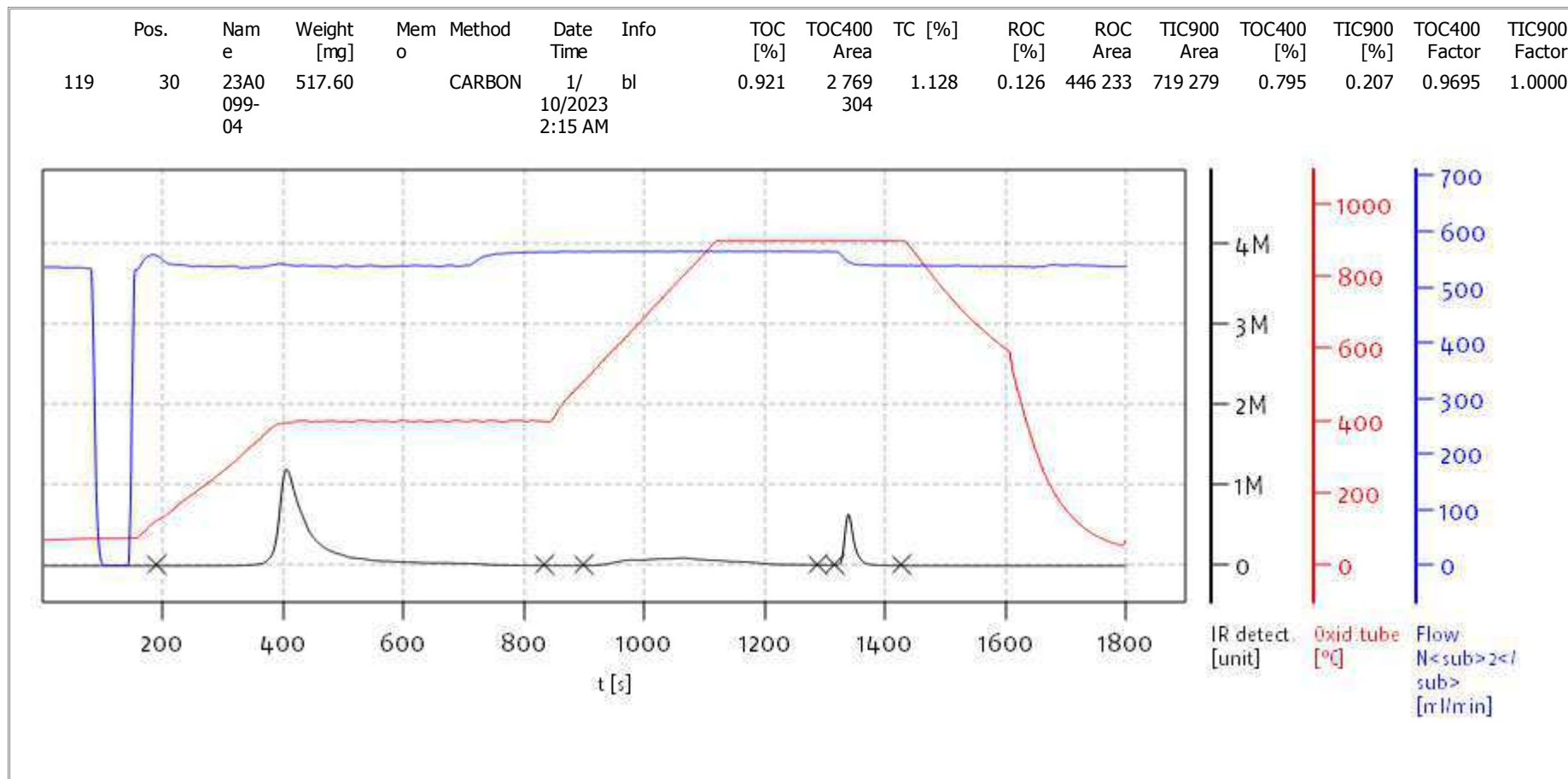
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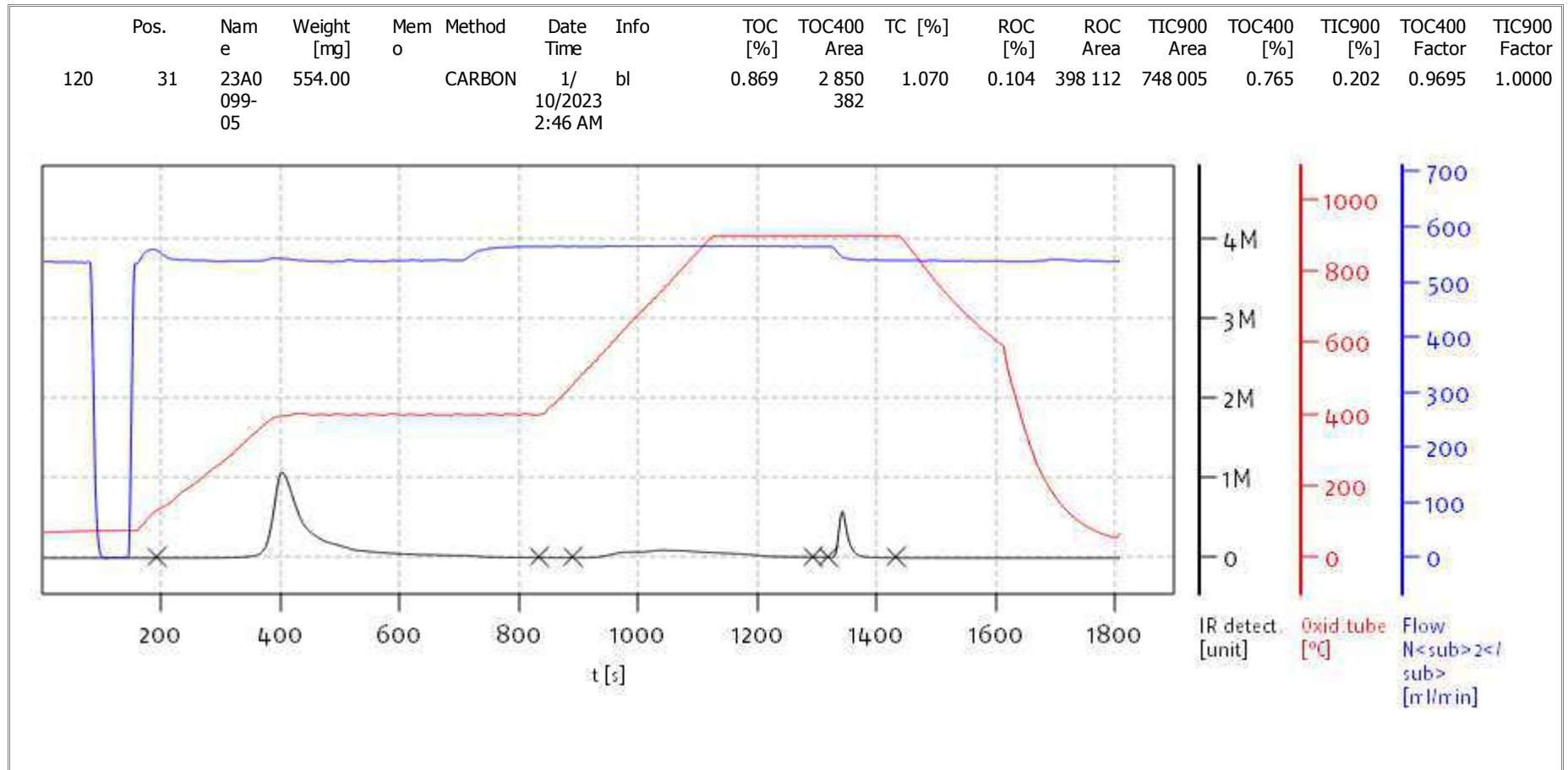
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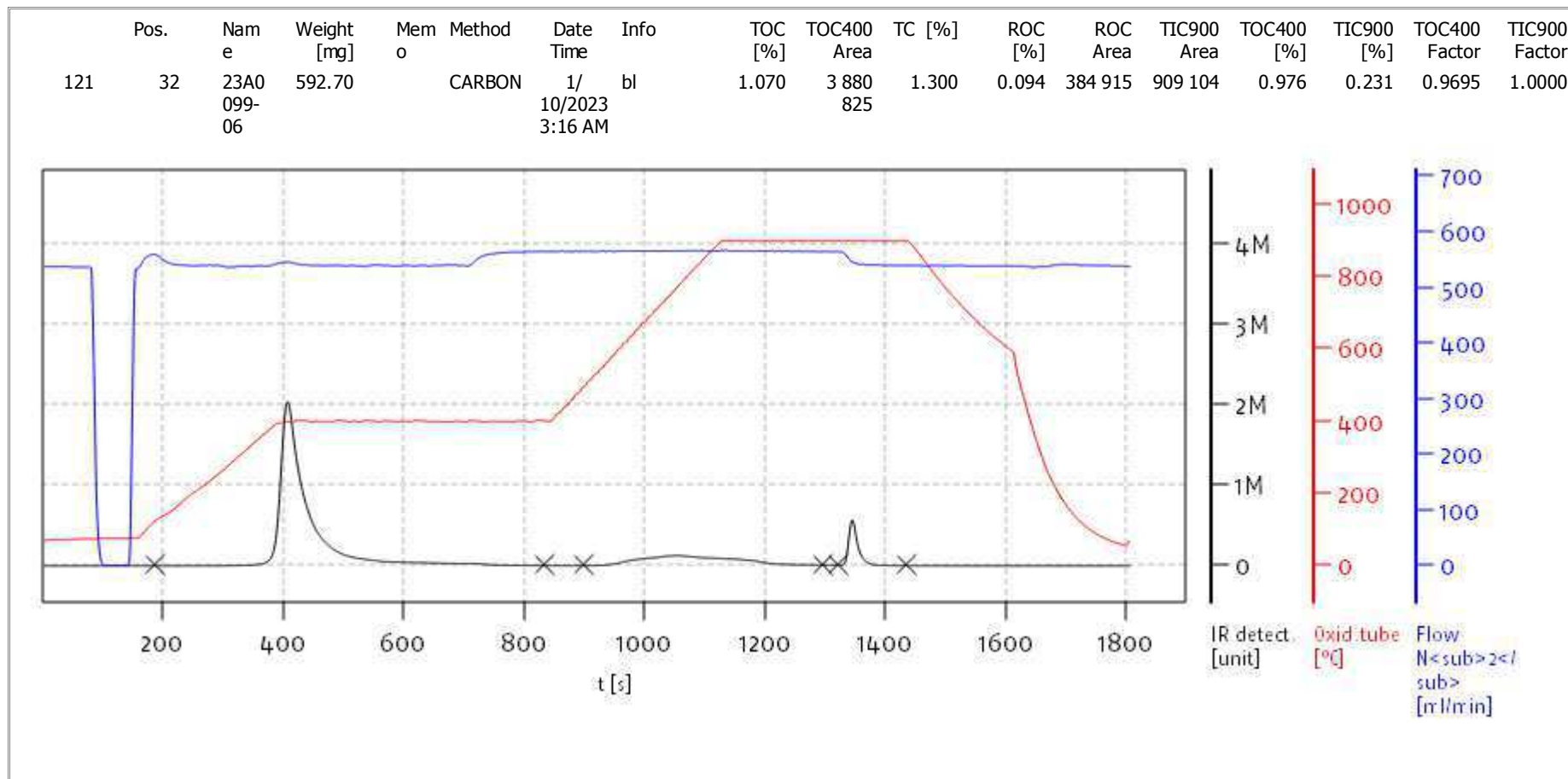
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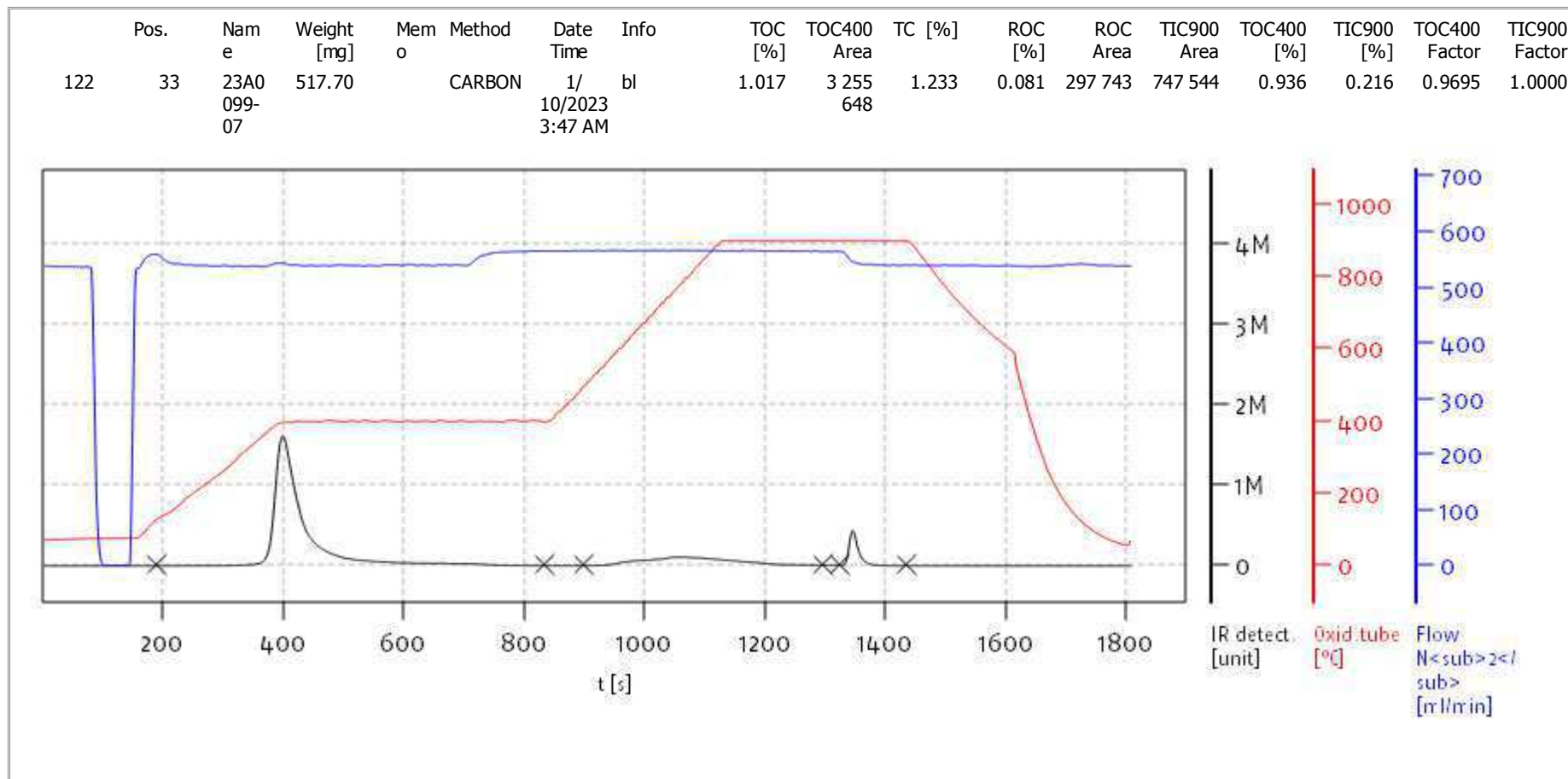
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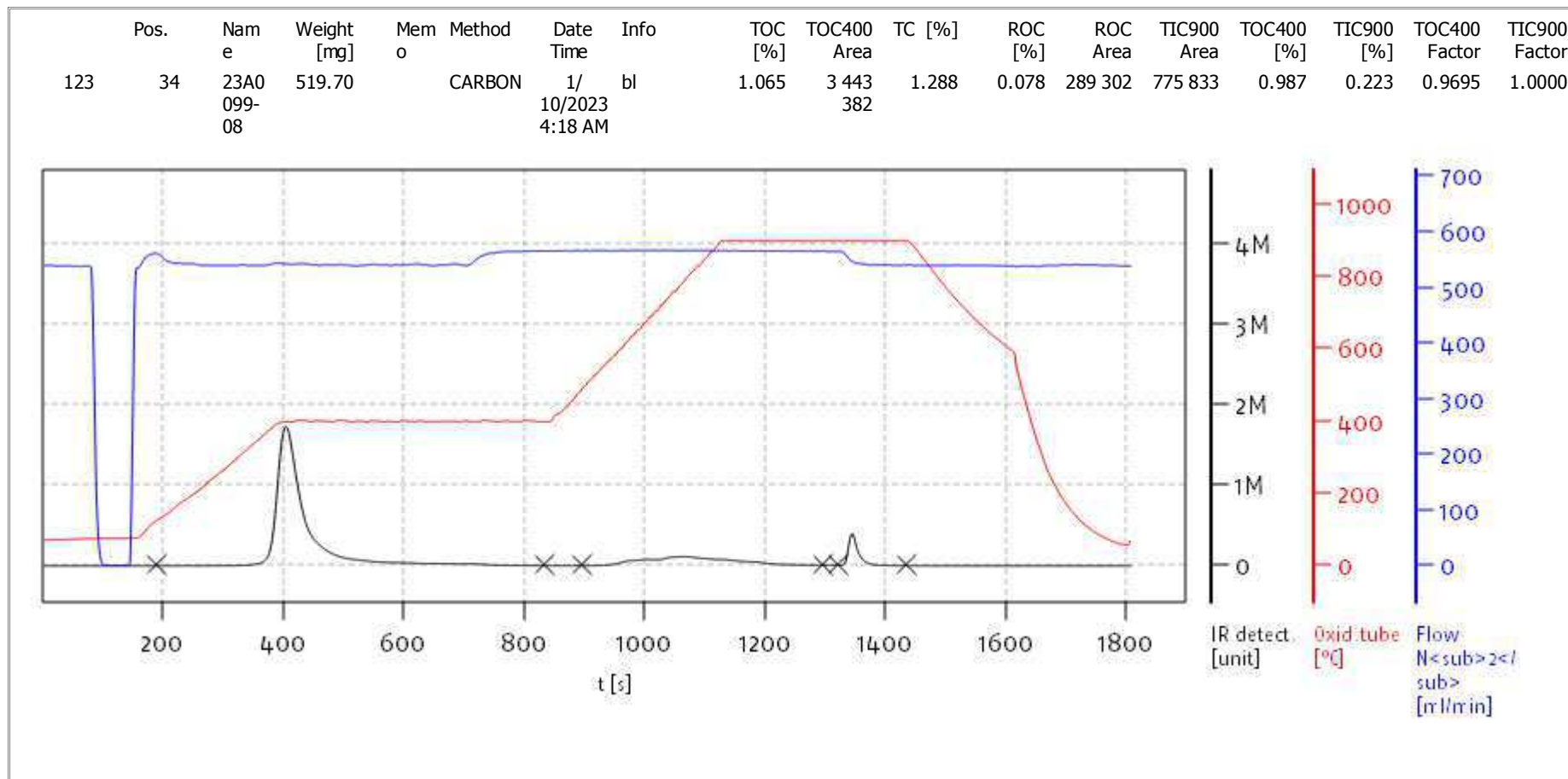
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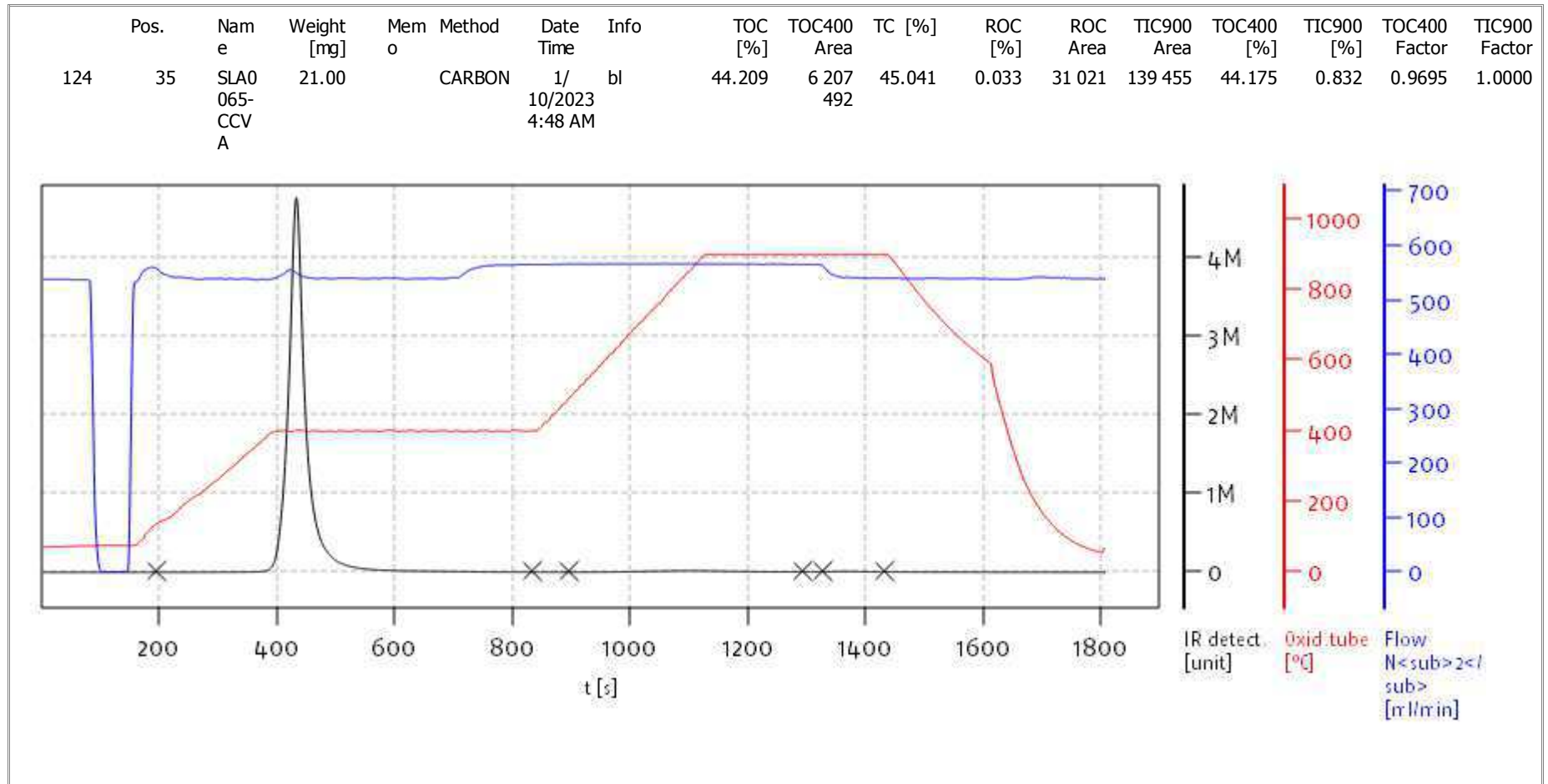
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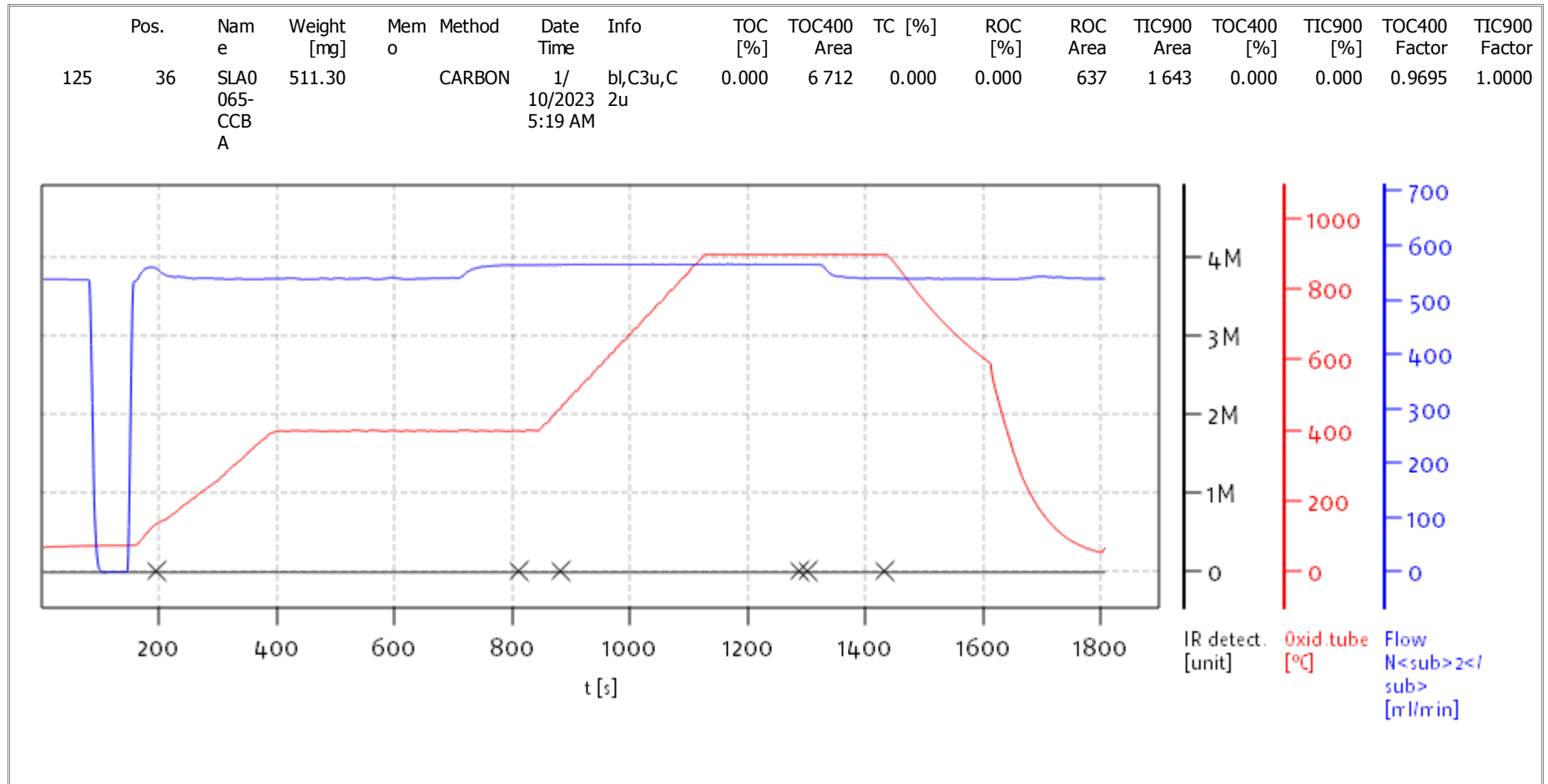
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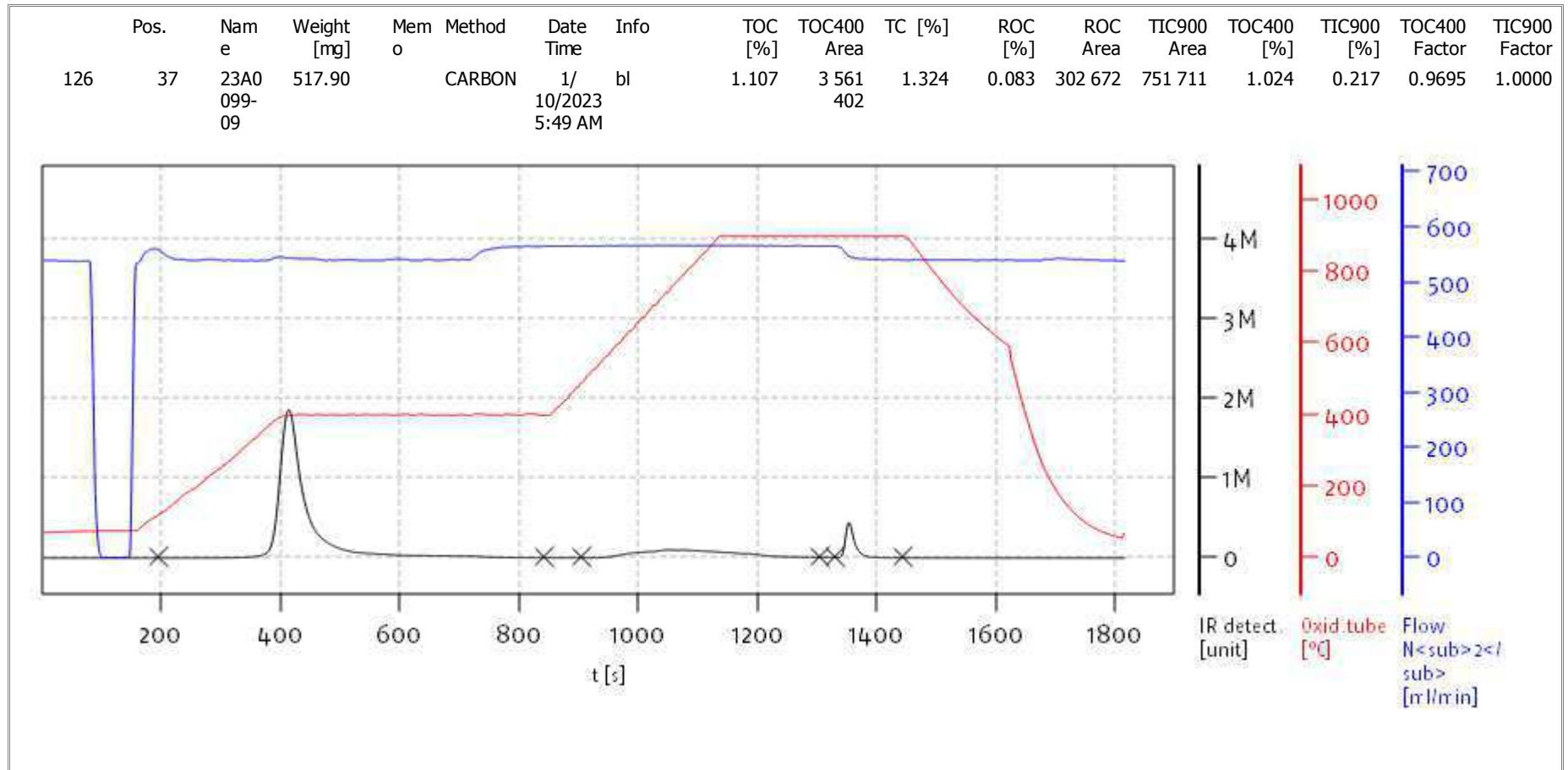
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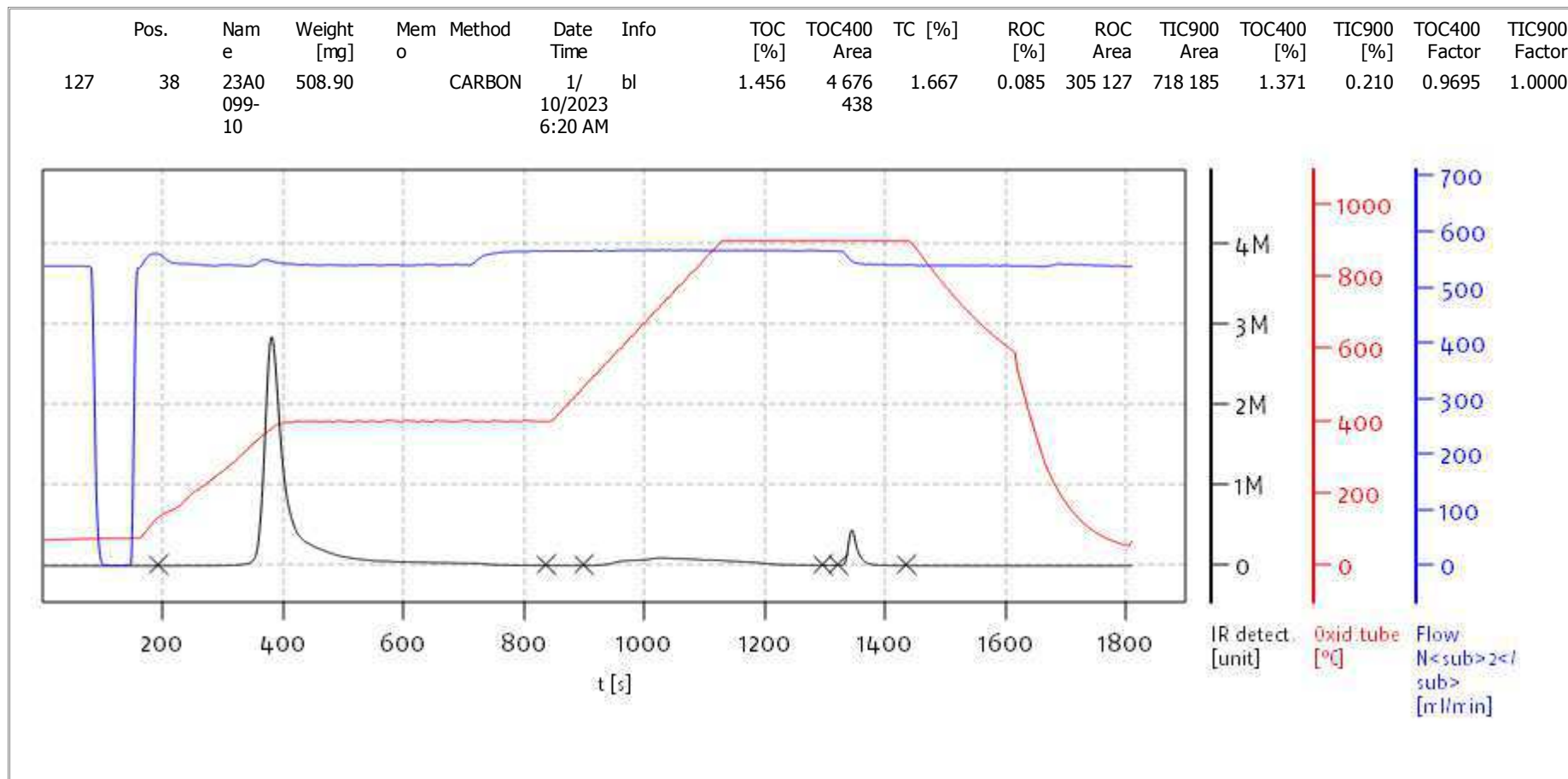
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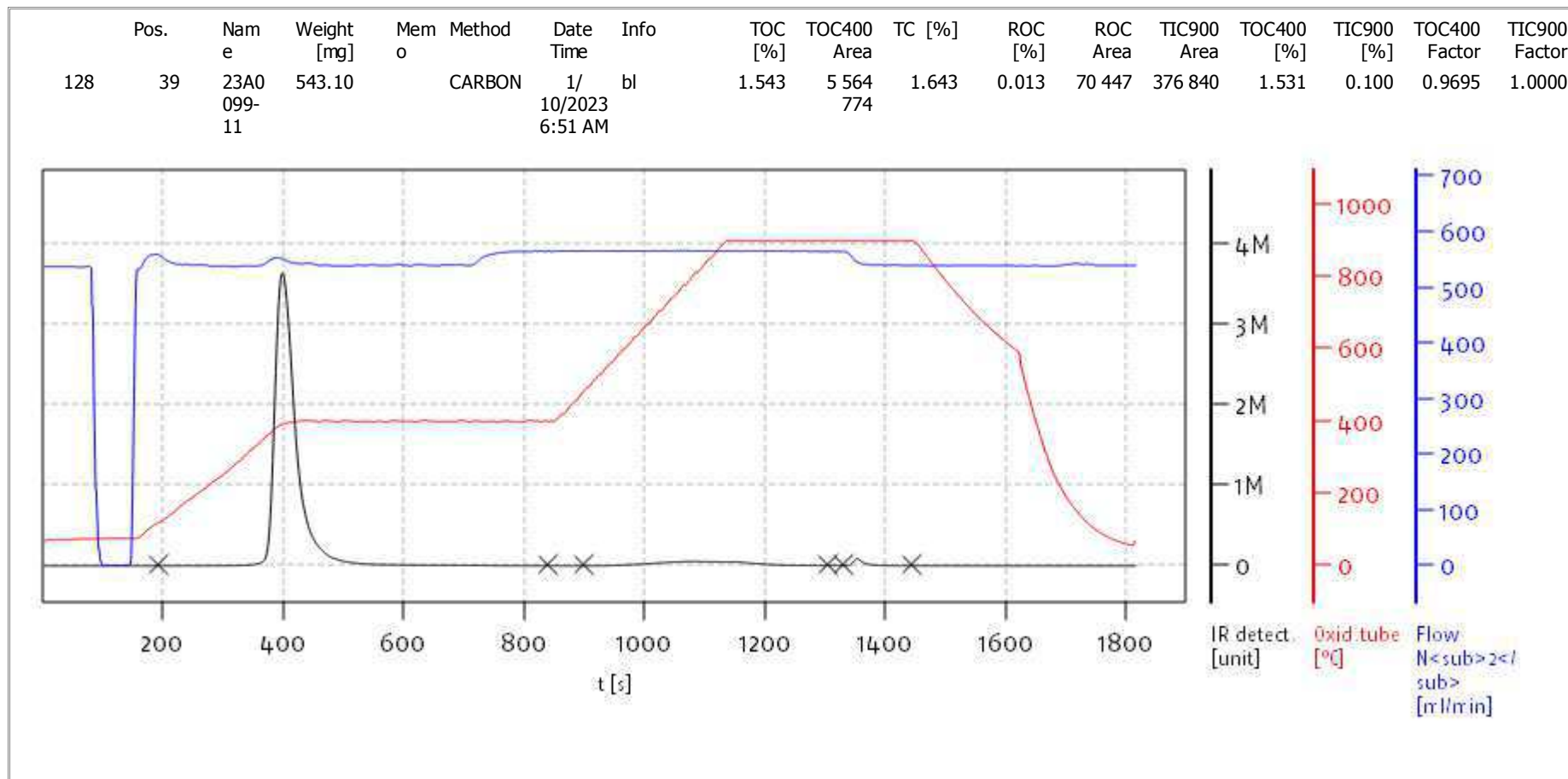
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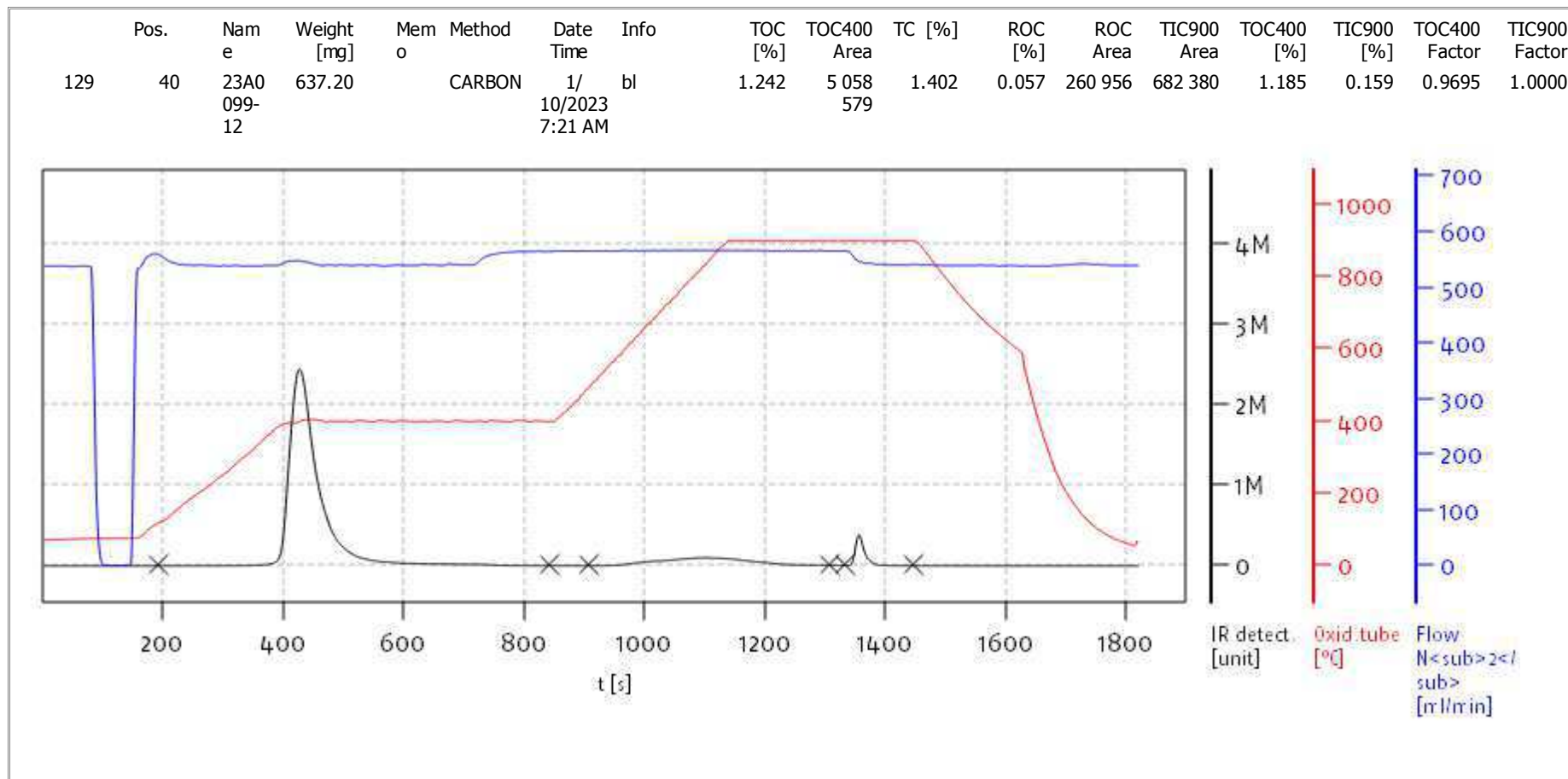
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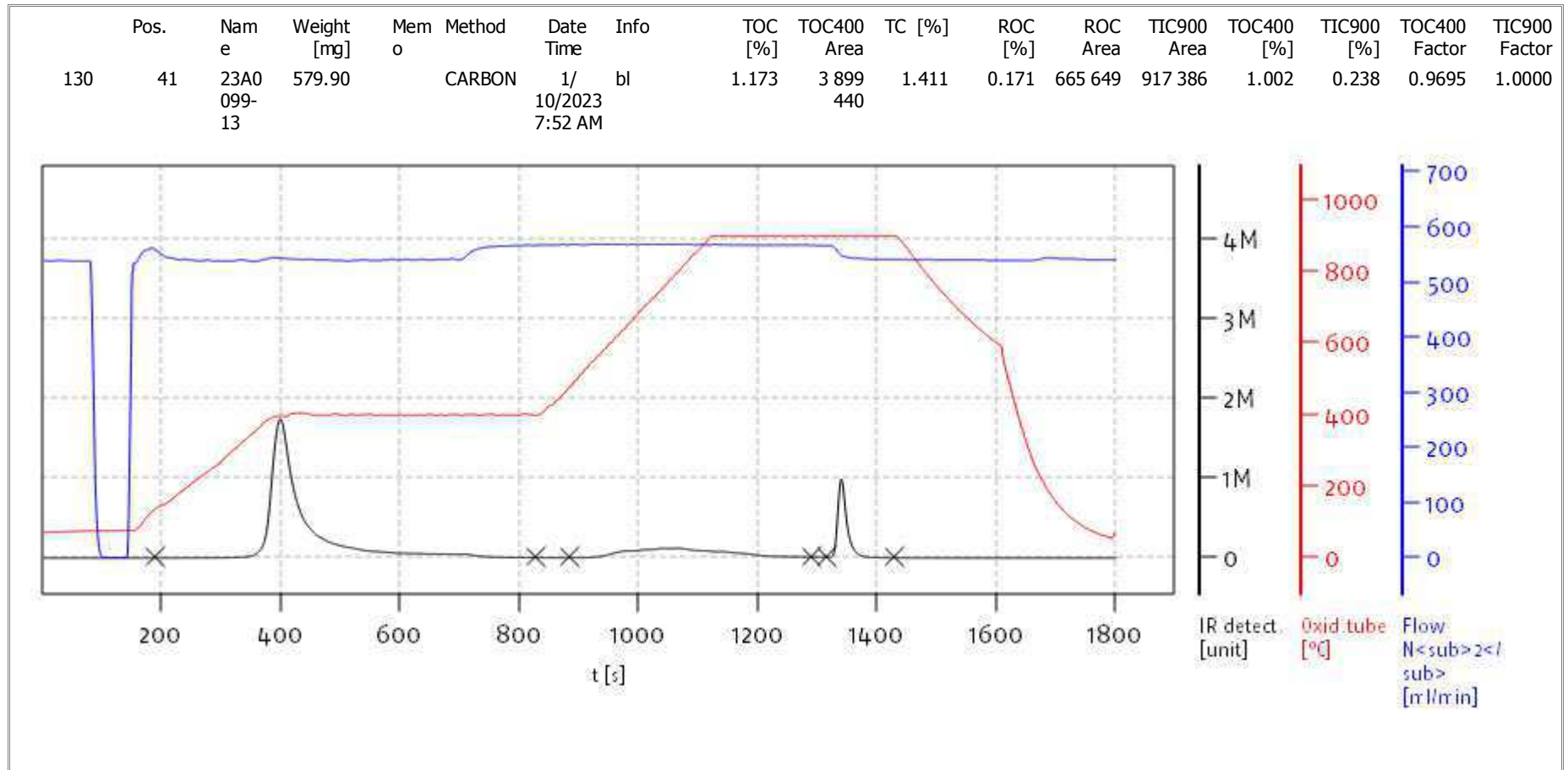
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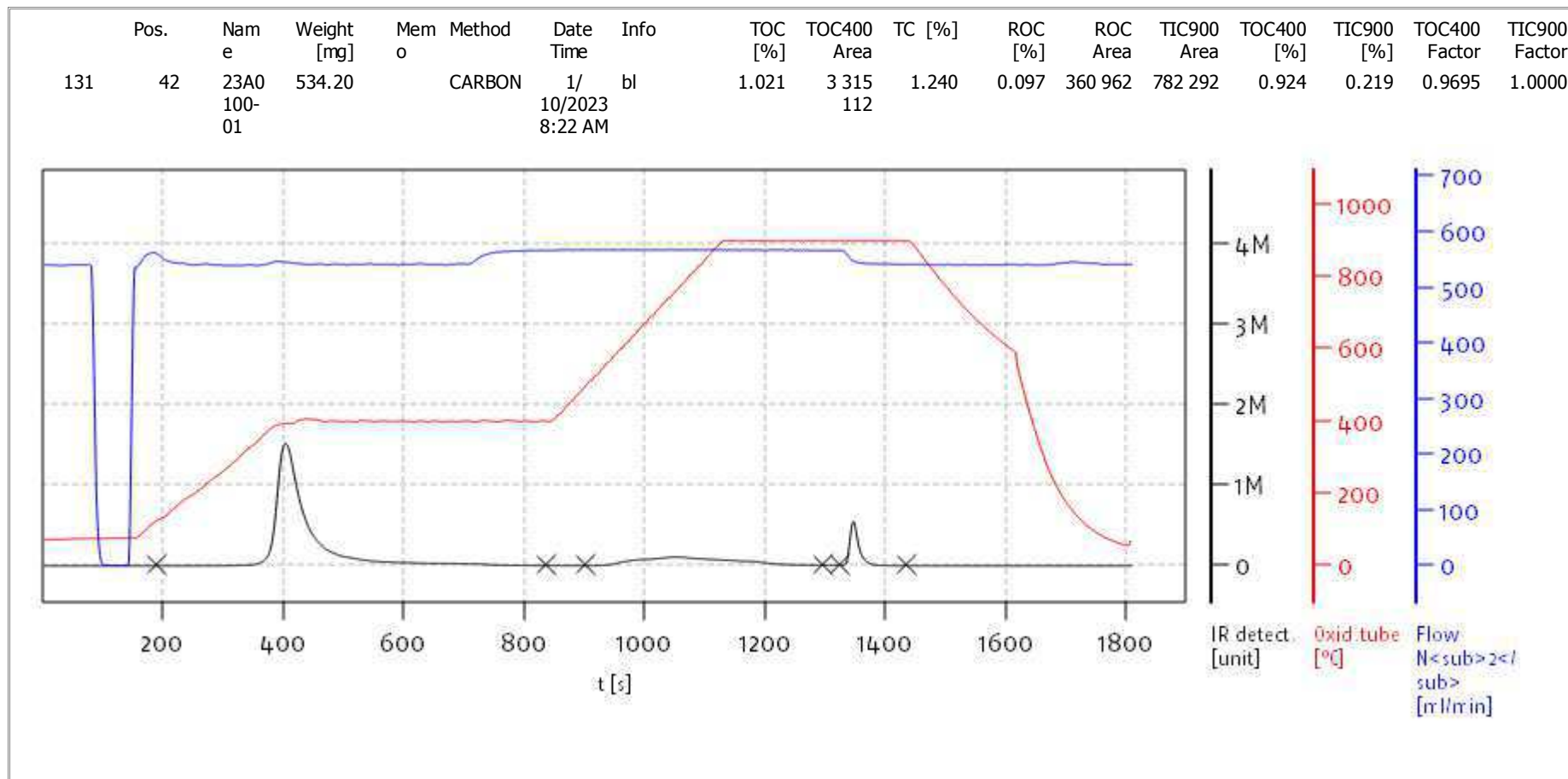
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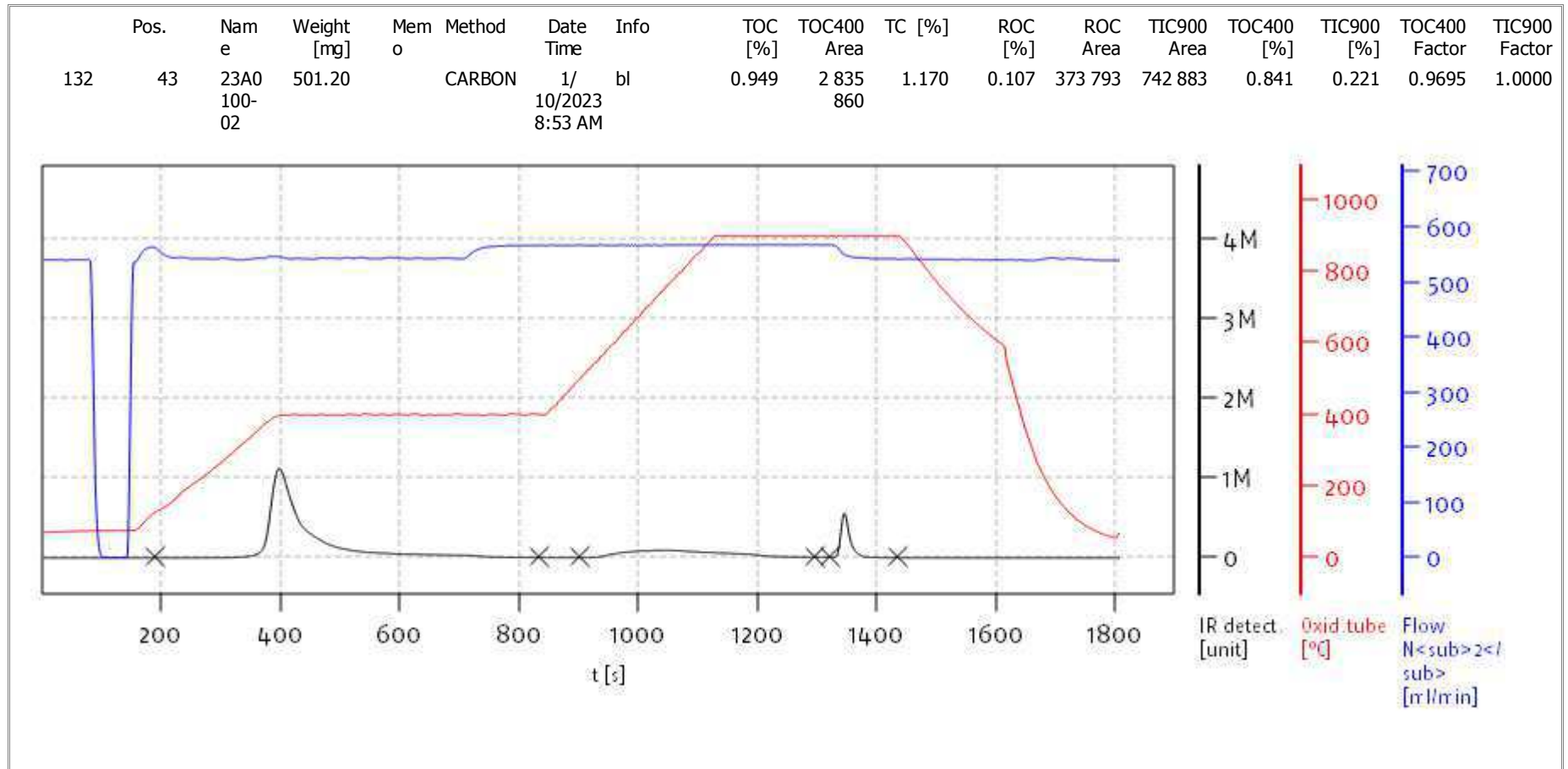
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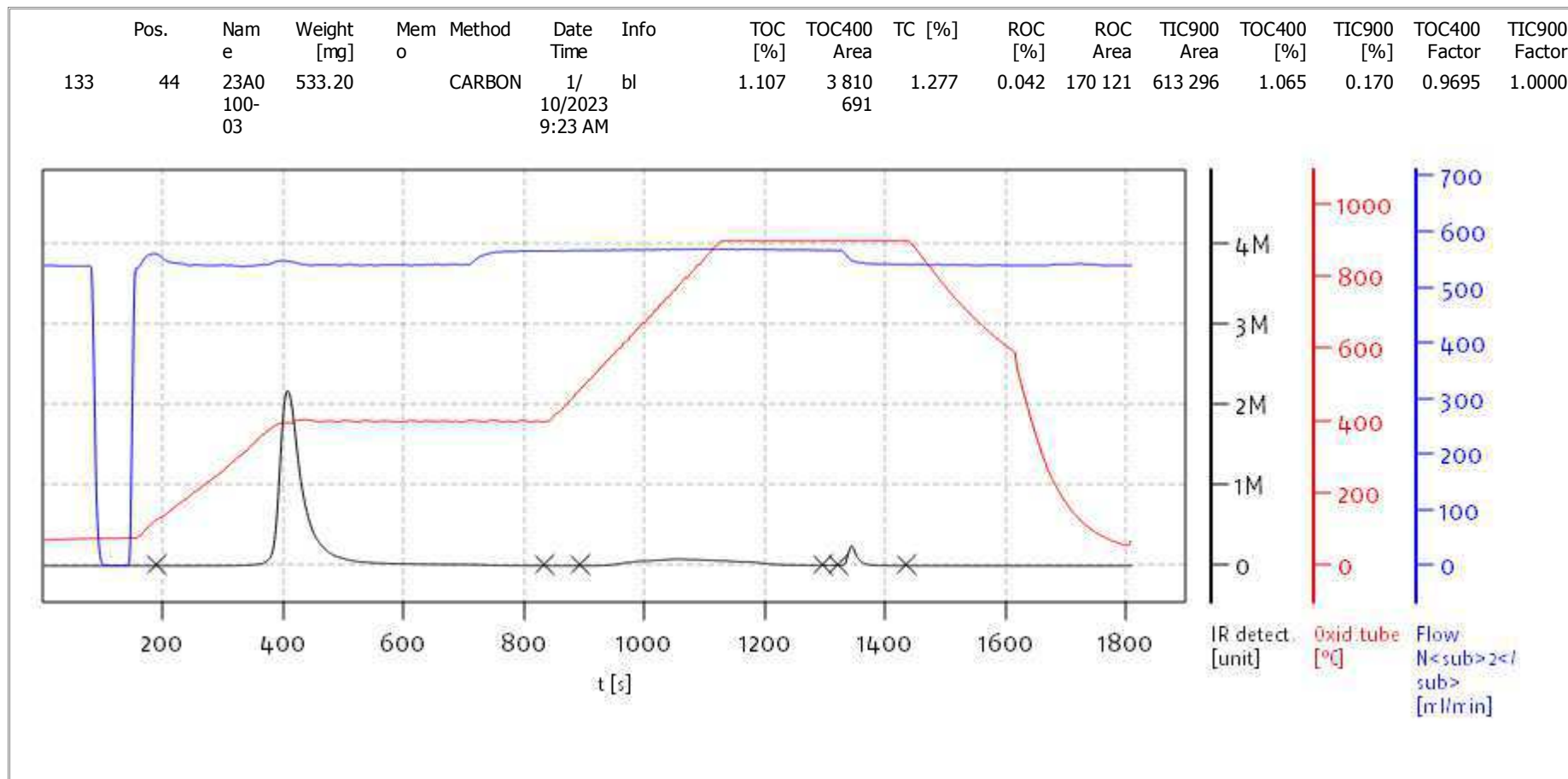
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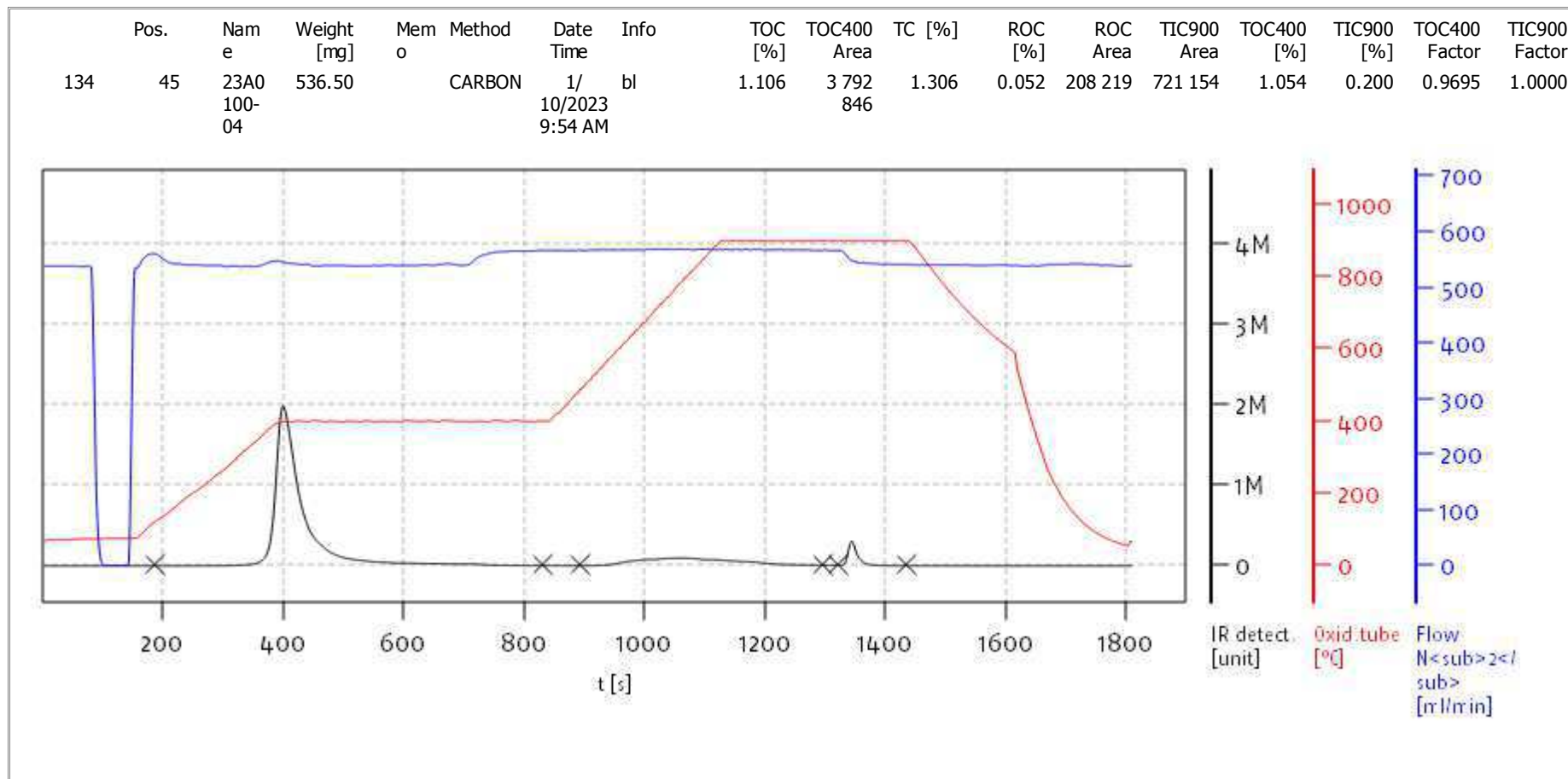
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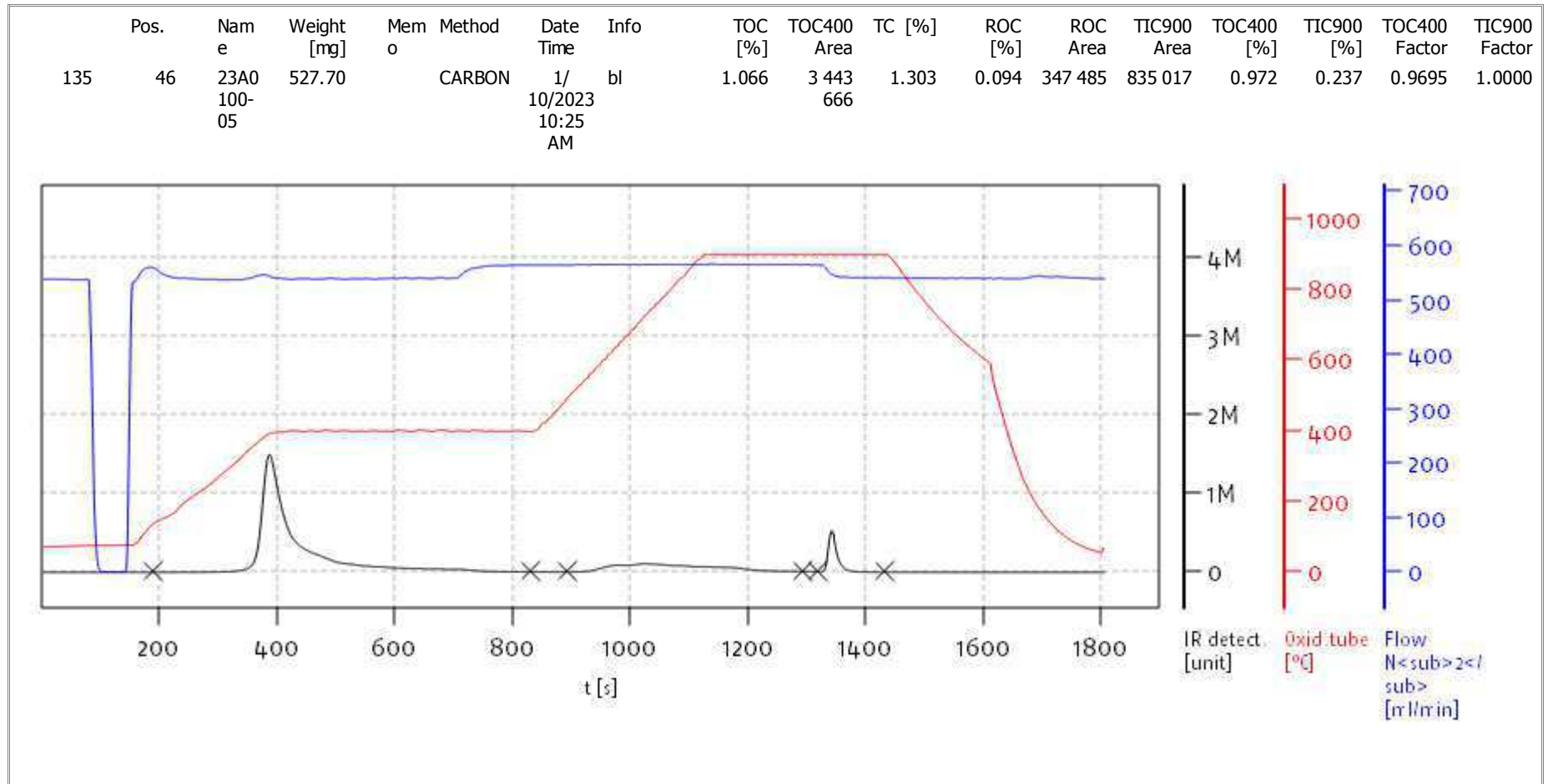
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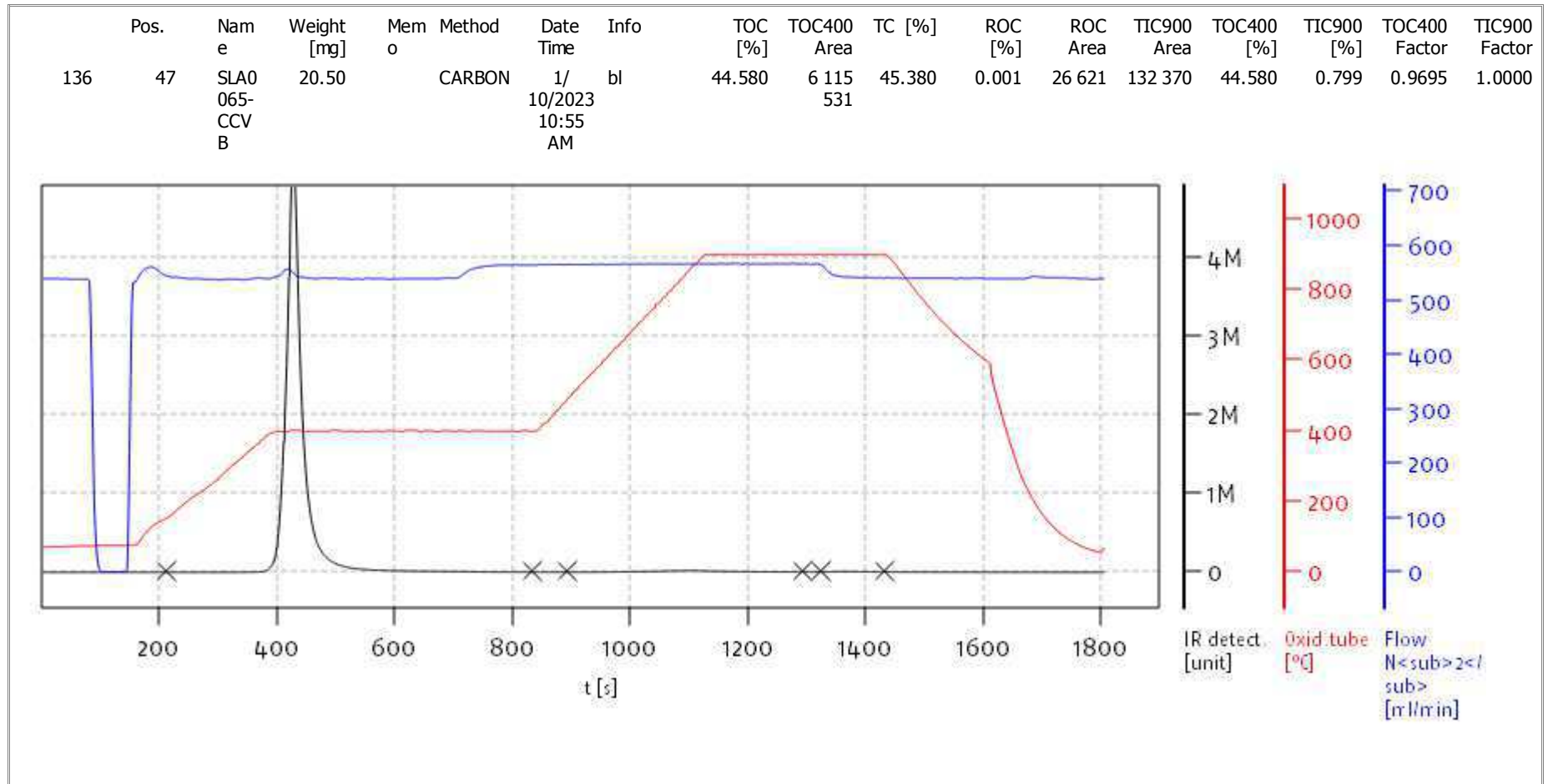
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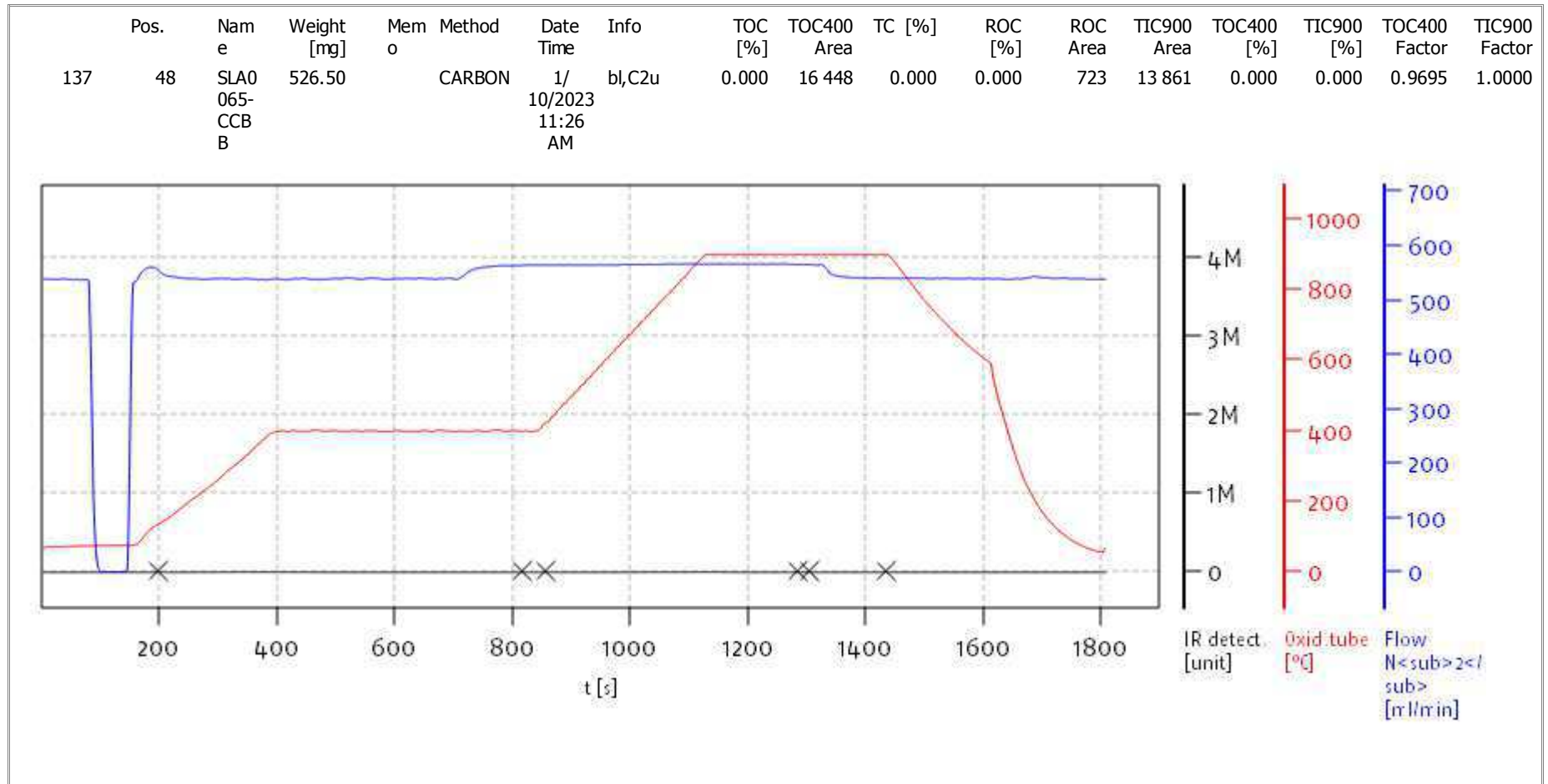
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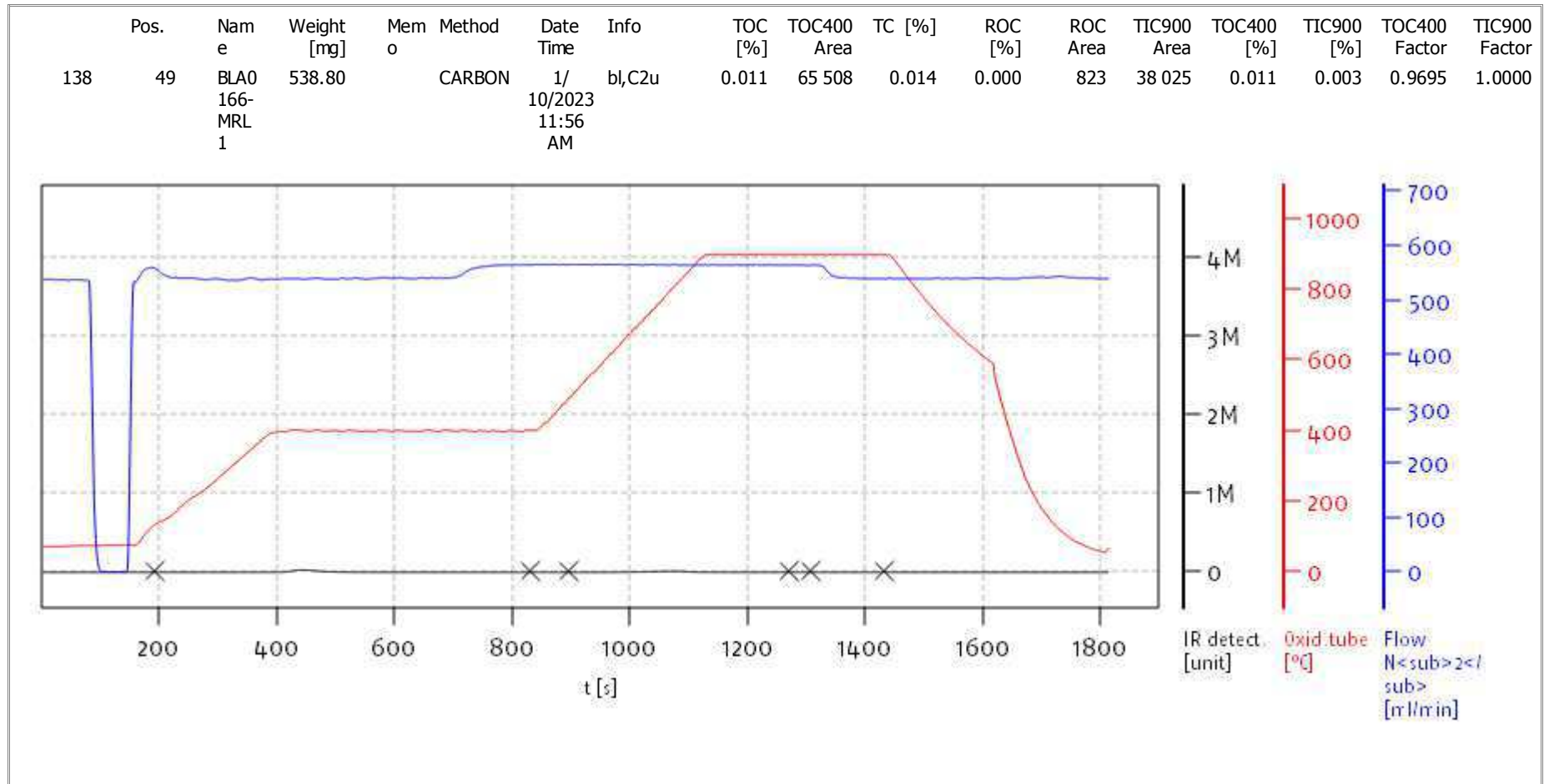
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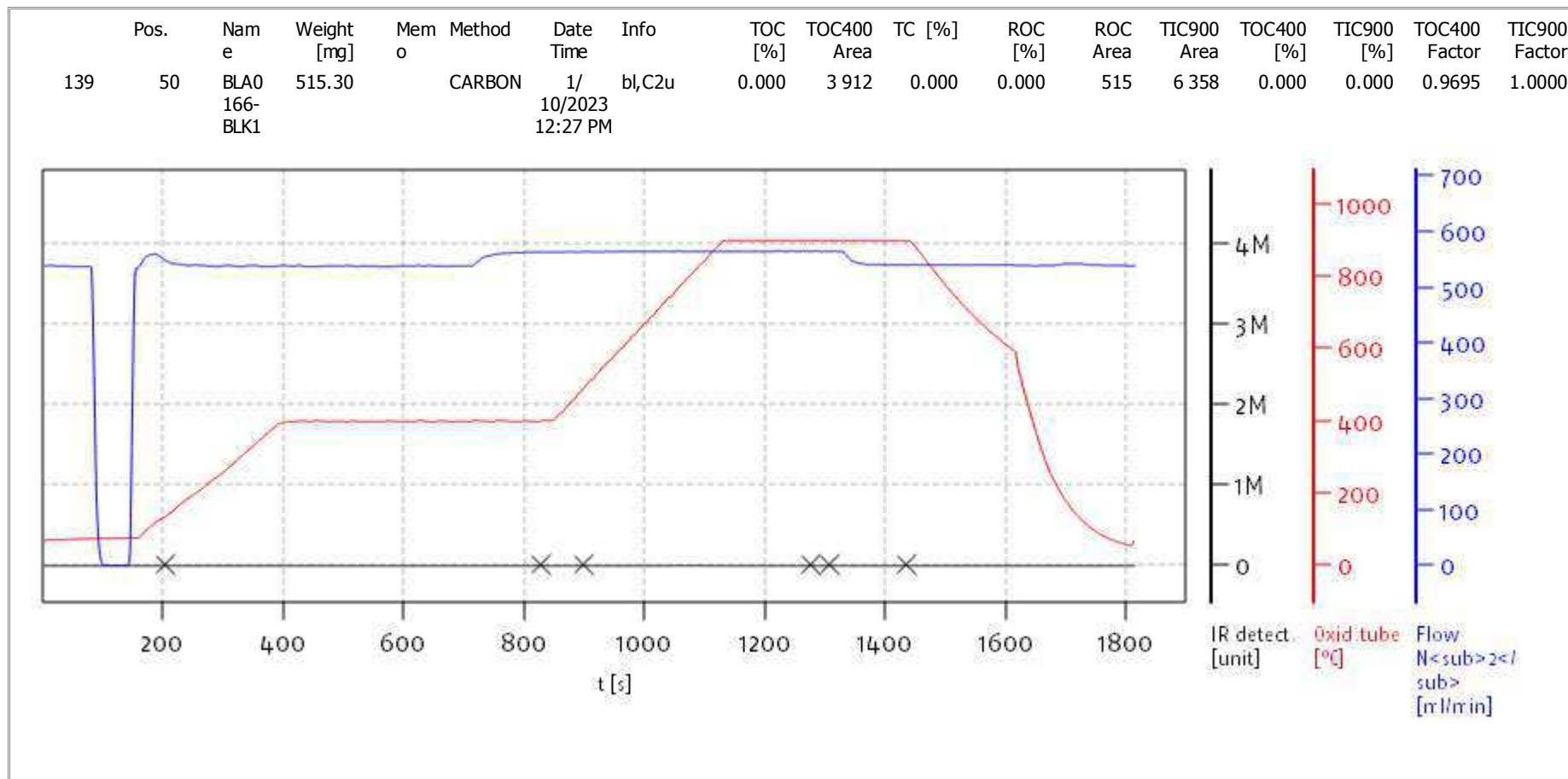
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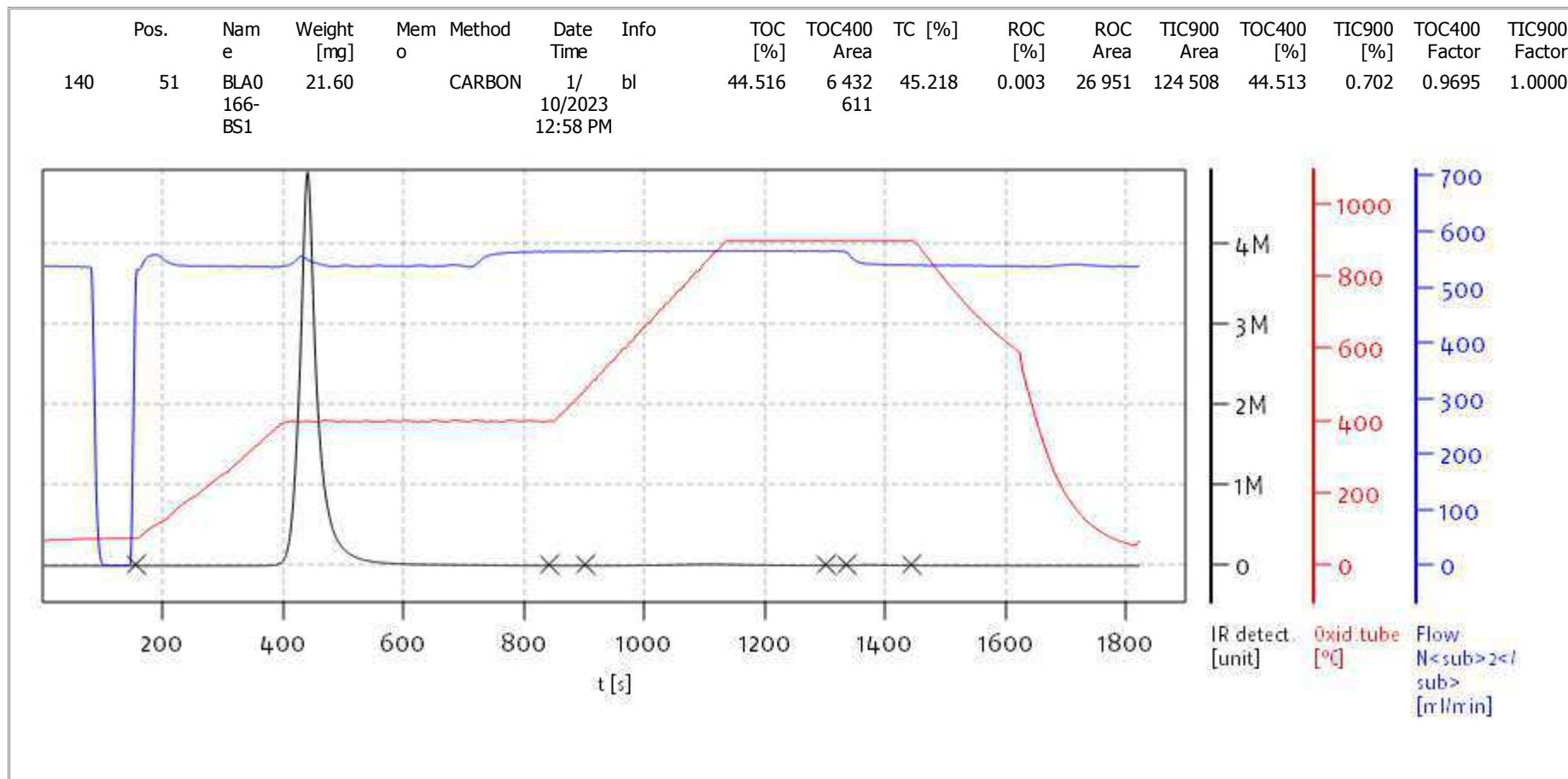
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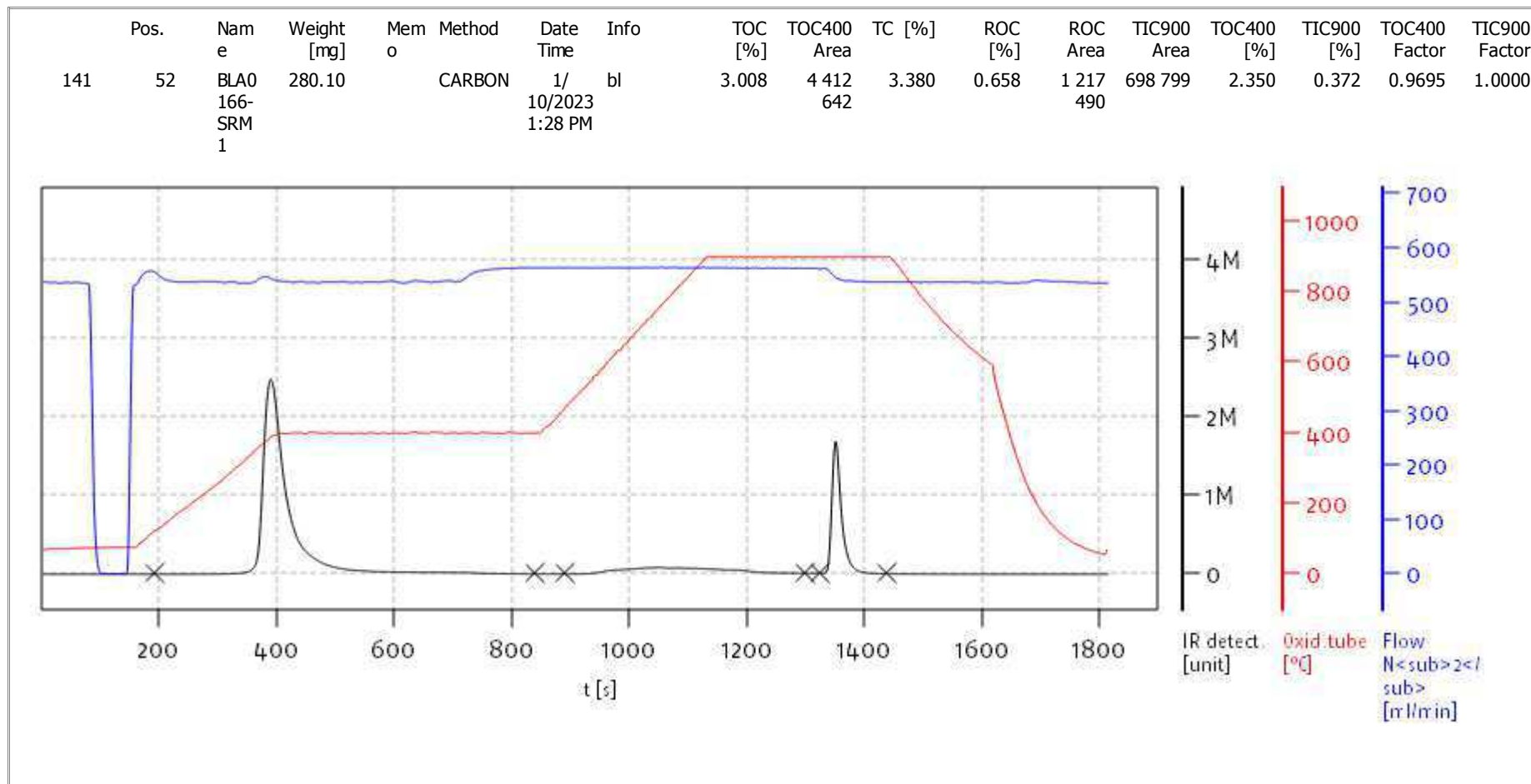
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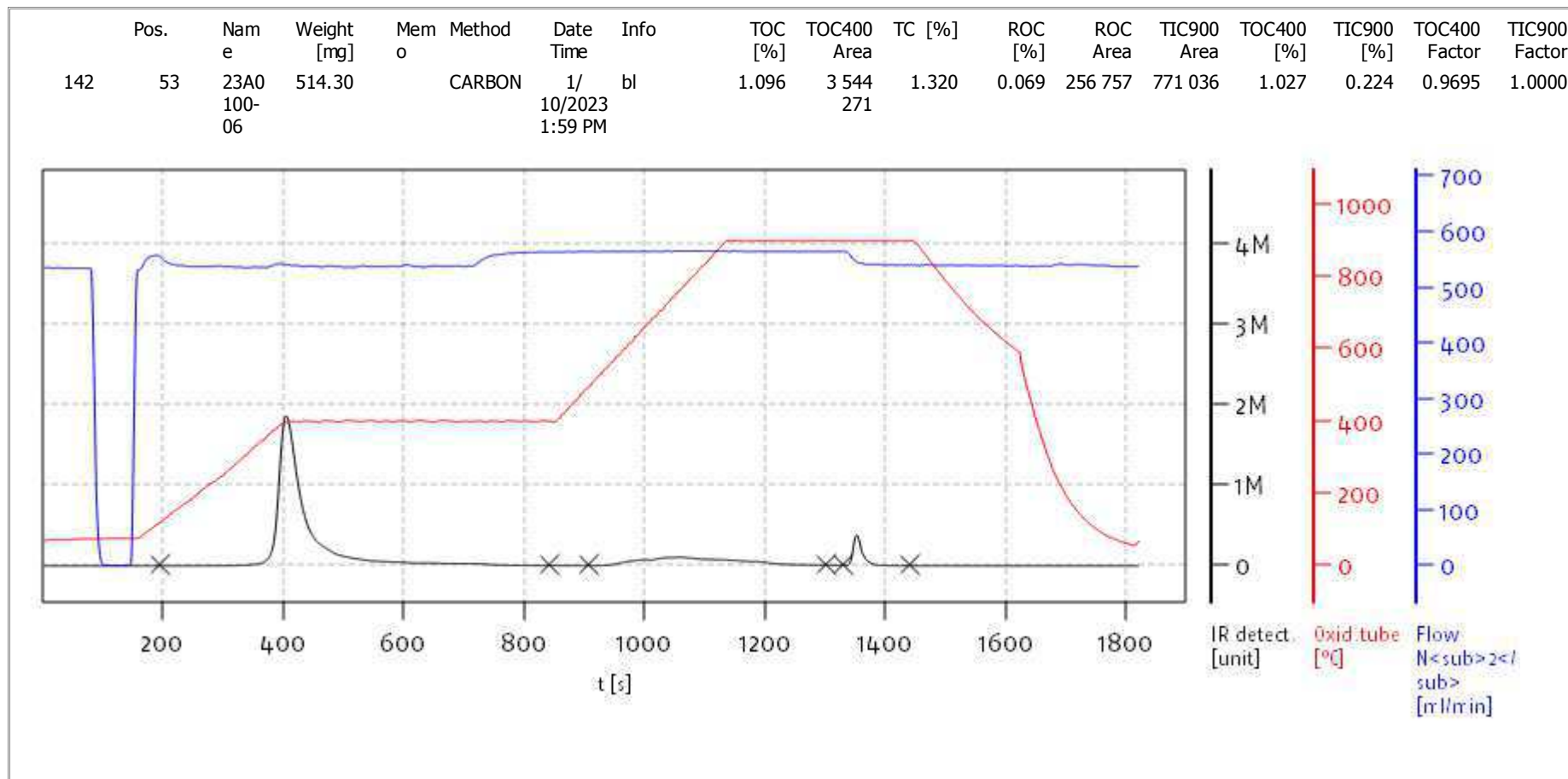
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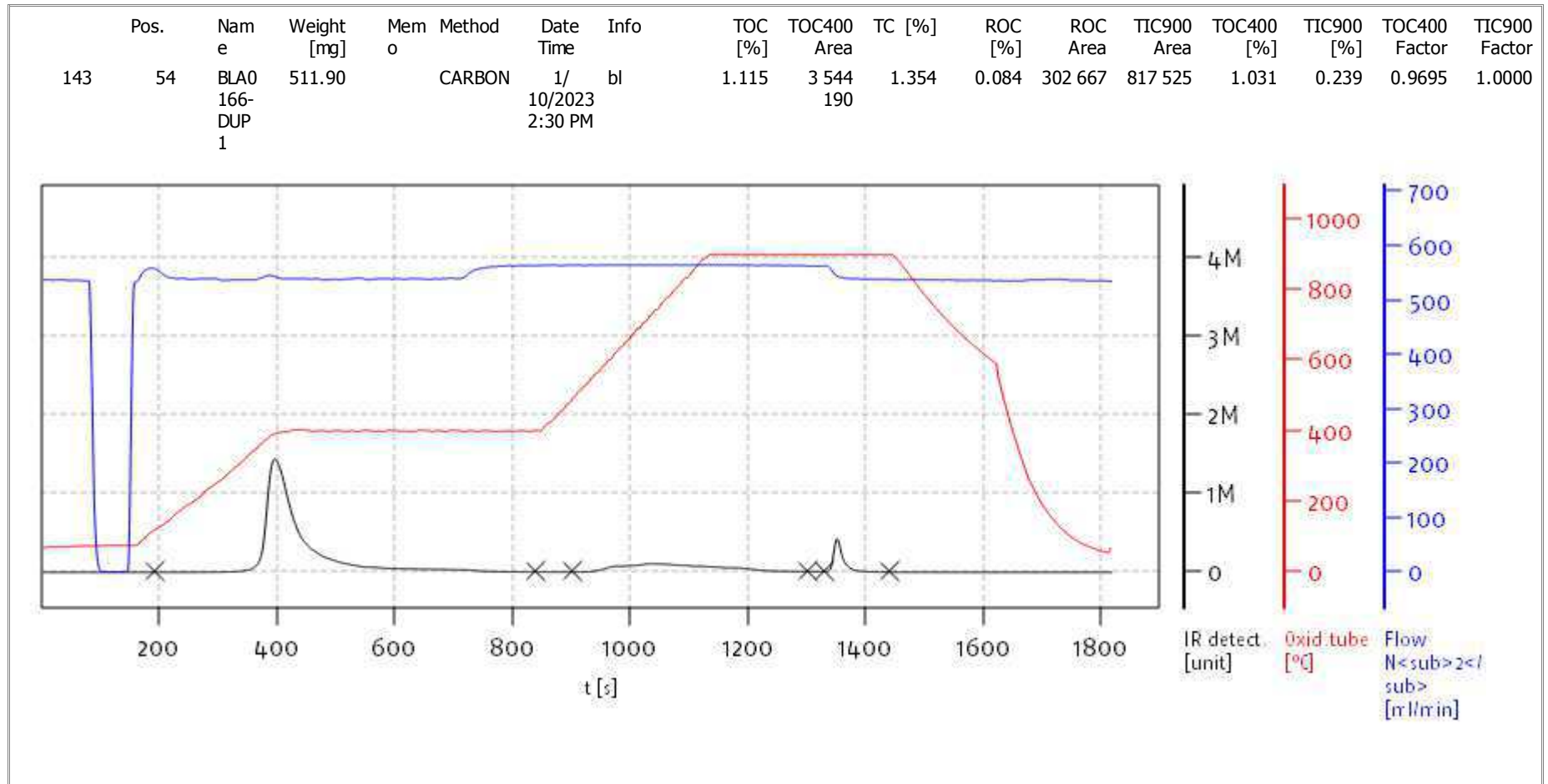
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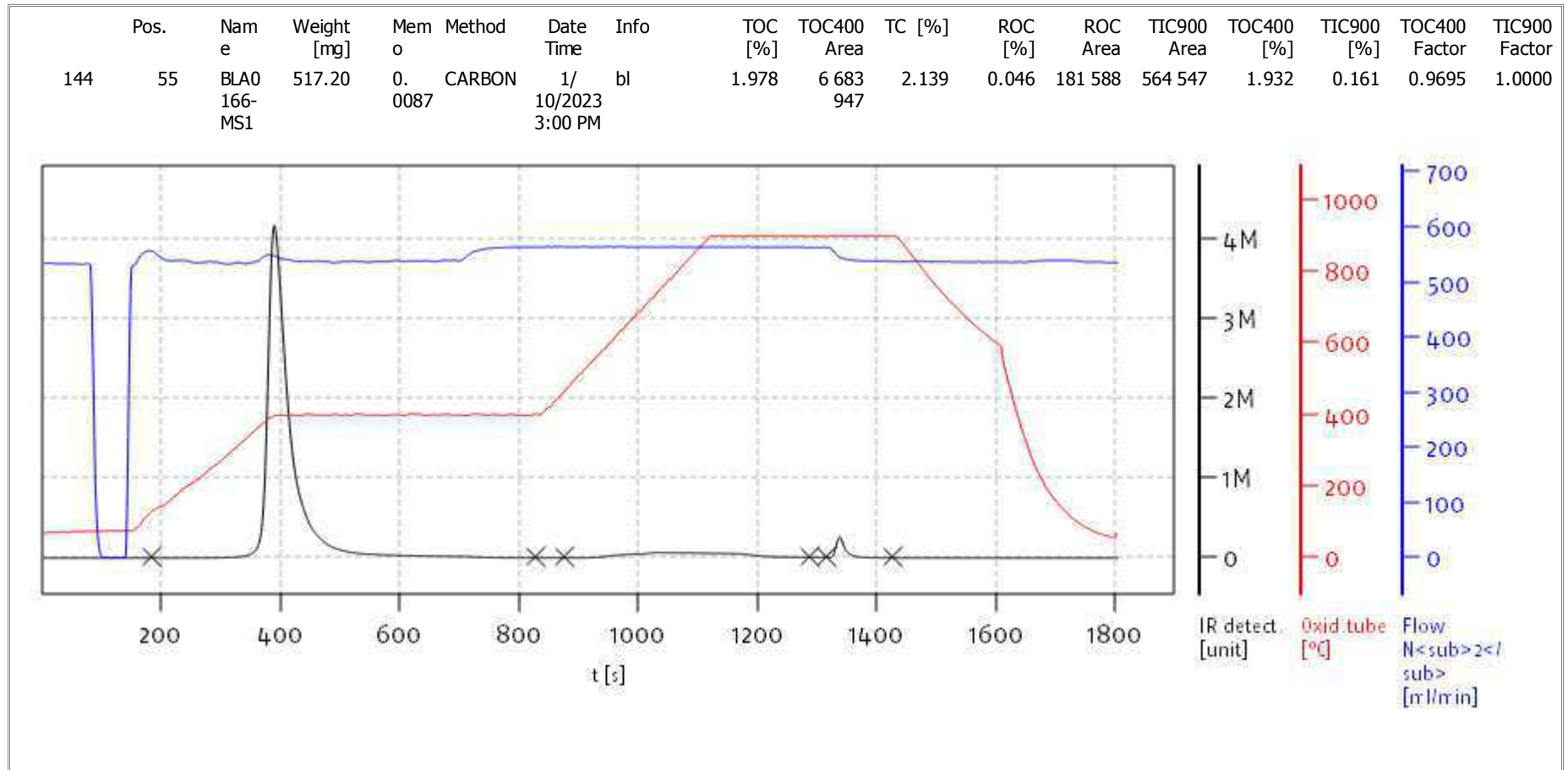
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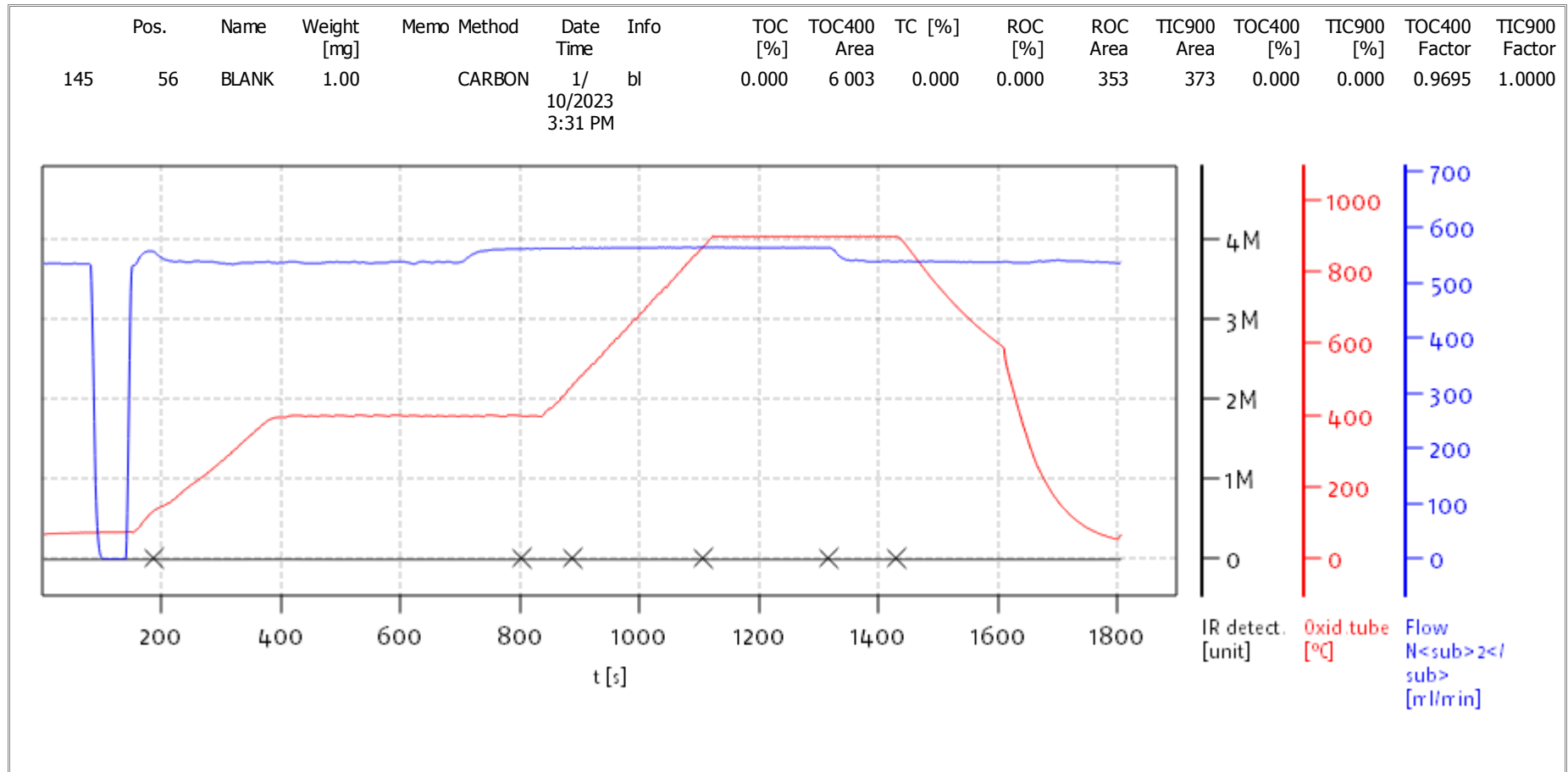
Date: Wed Jan 11 07:24:43 2023



solITOC V2.0.2 (31015f9) 2018-11-19
 Serial No: 0300.181017
 Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



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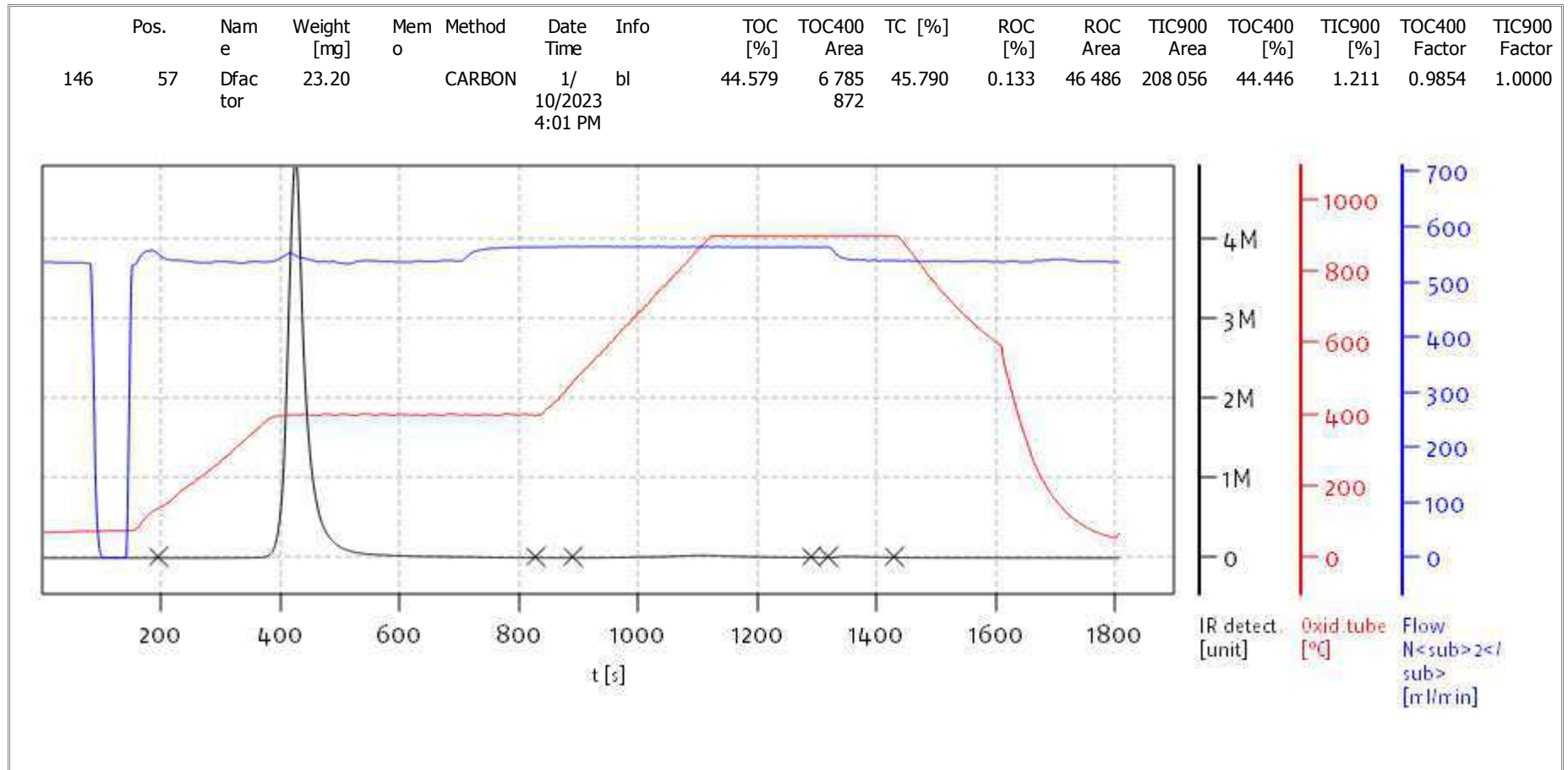
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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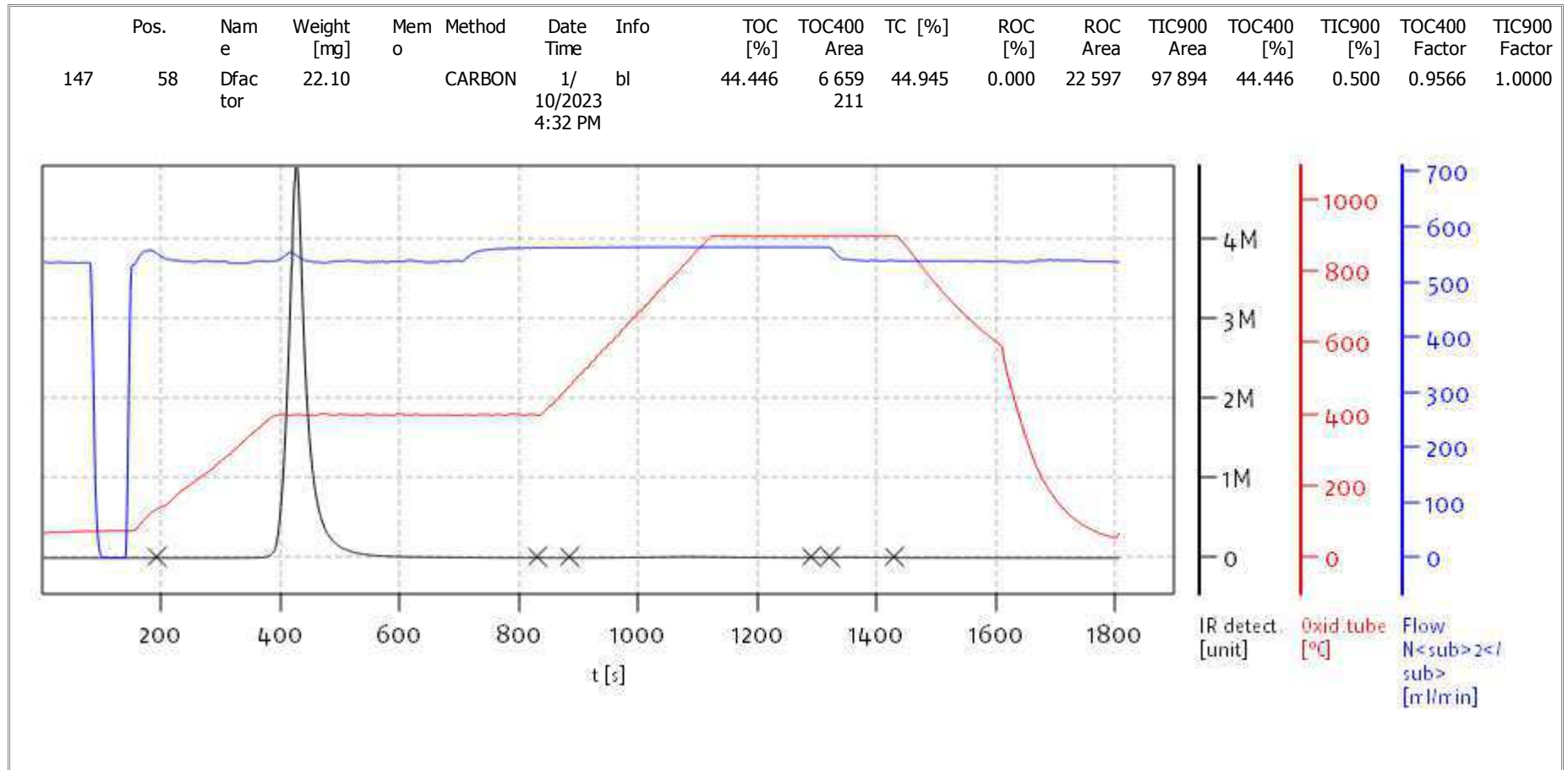
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Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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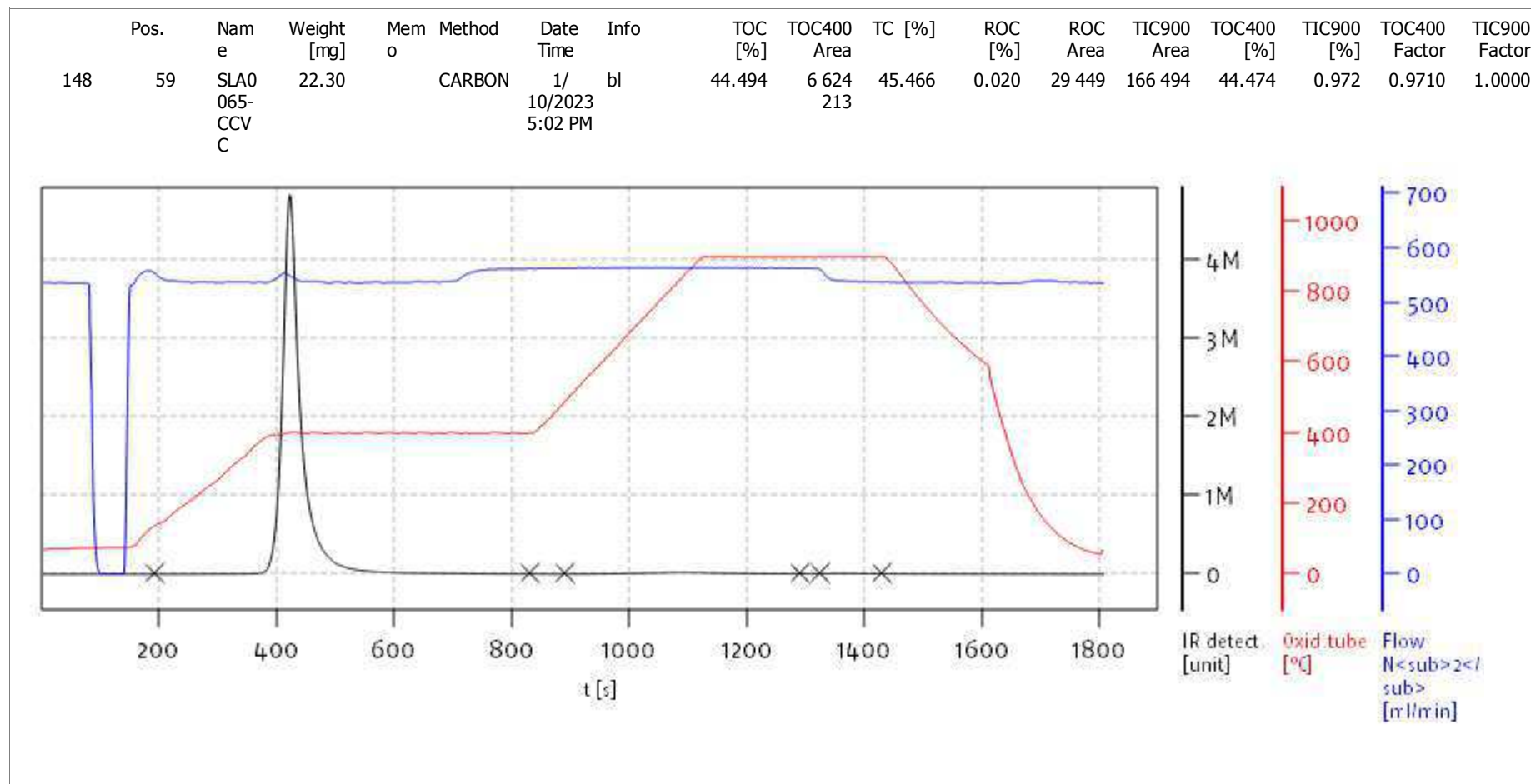
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solITOC V2.0.2 (31015f9) 2018-11-19
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Soli TOC Cube, Carbon
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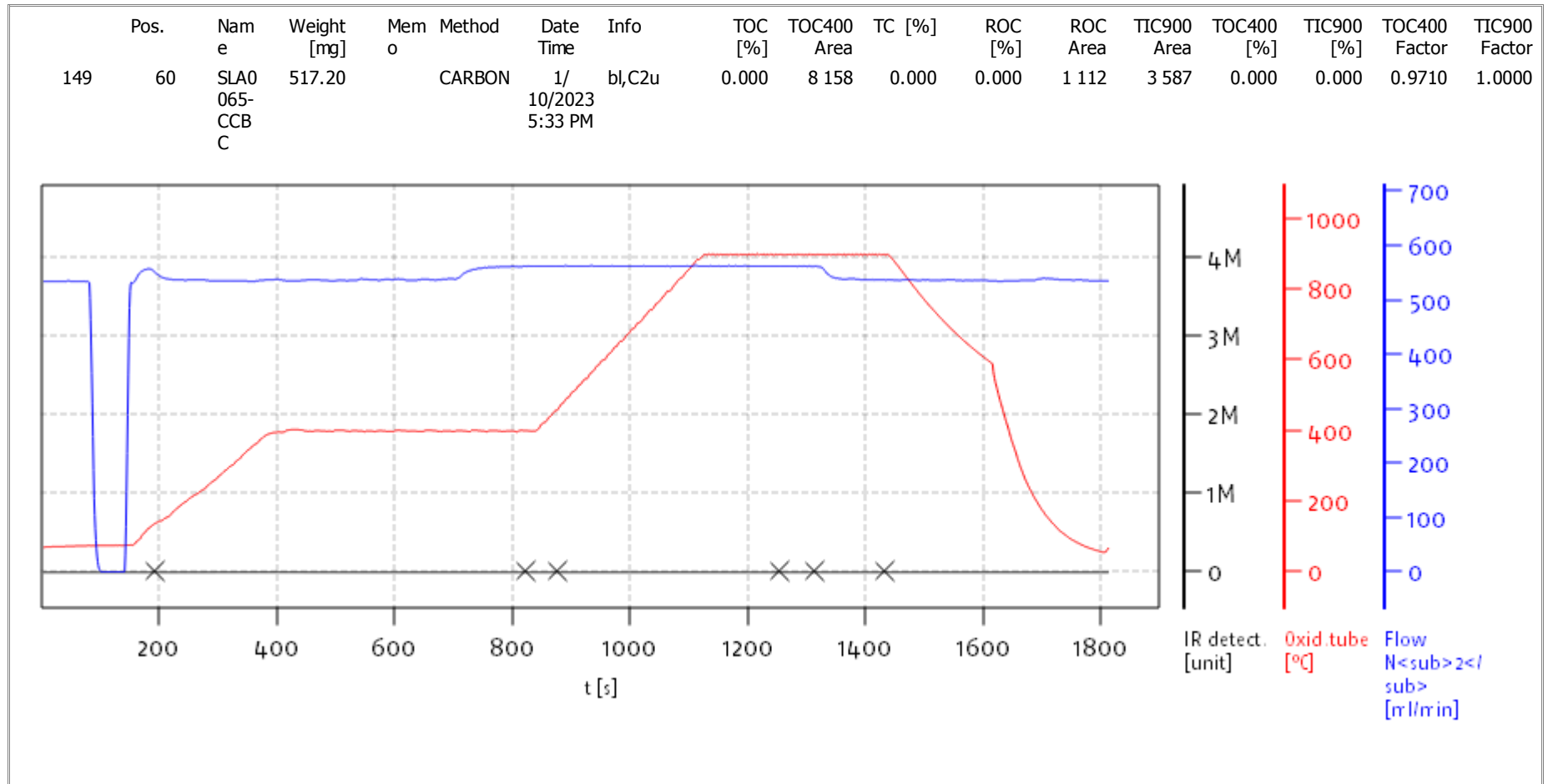
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Soli TOC Cube, Carbon
 Balance: BAL3
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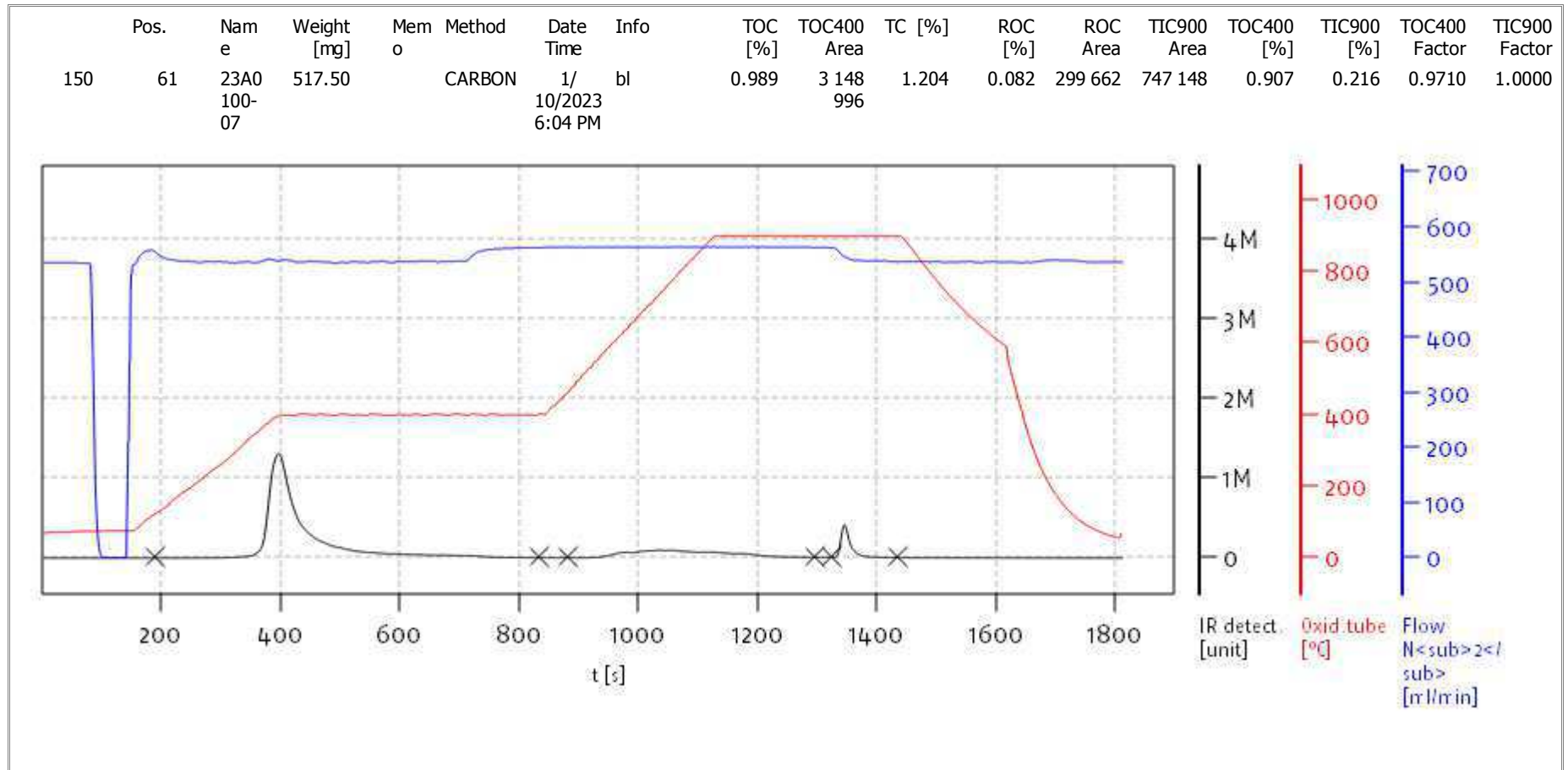
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Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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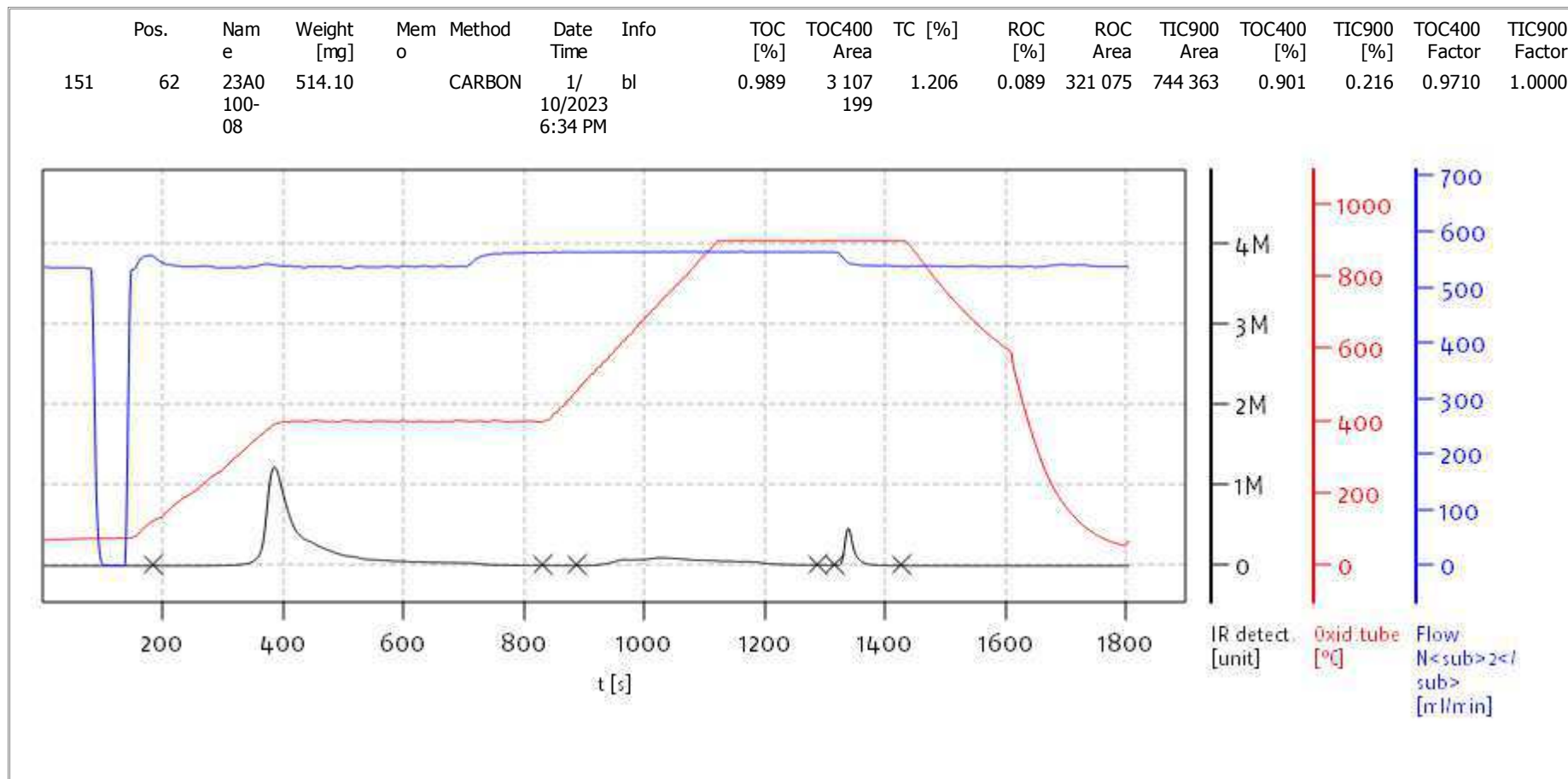
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 Balance: BAL3
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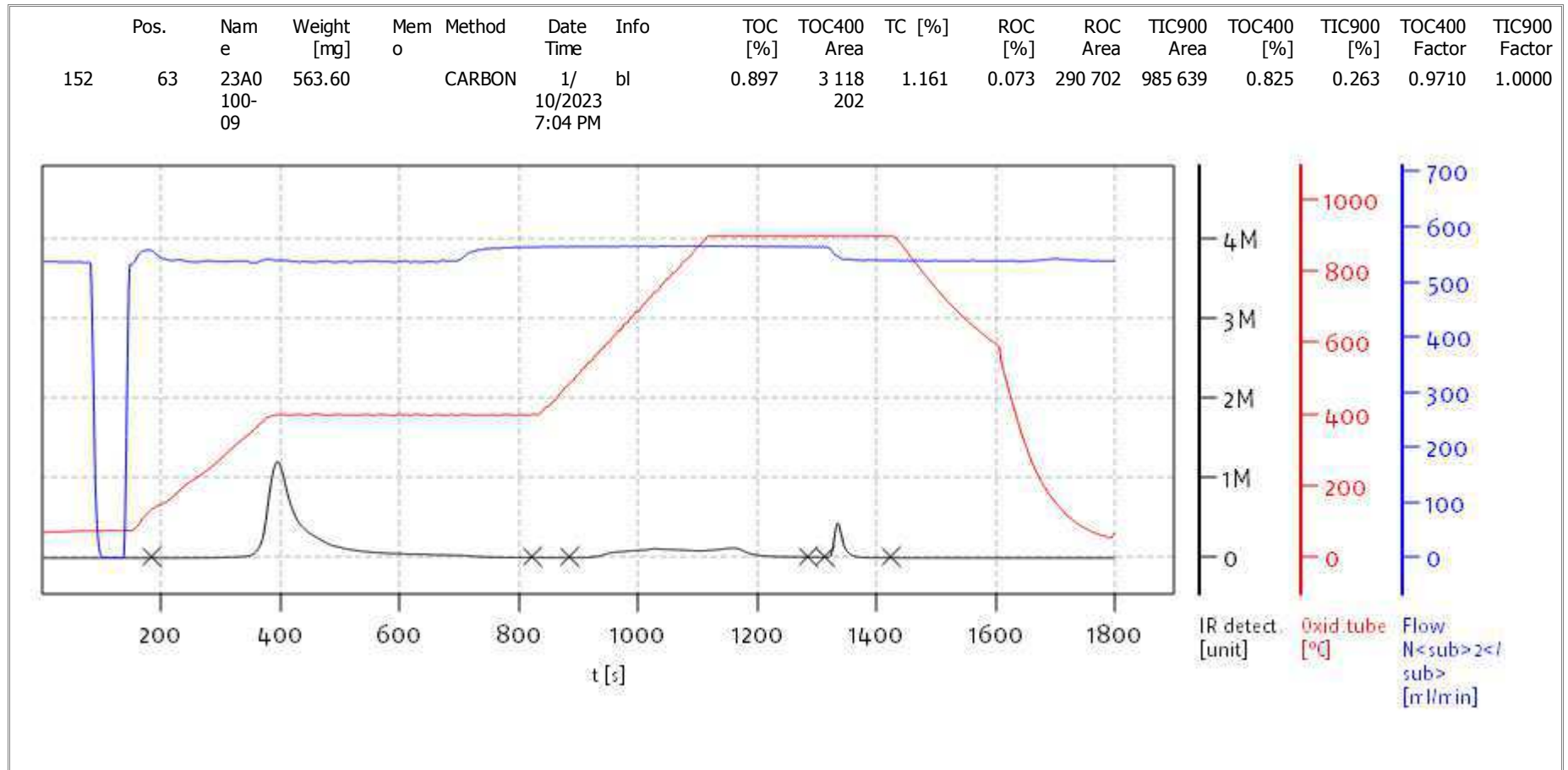
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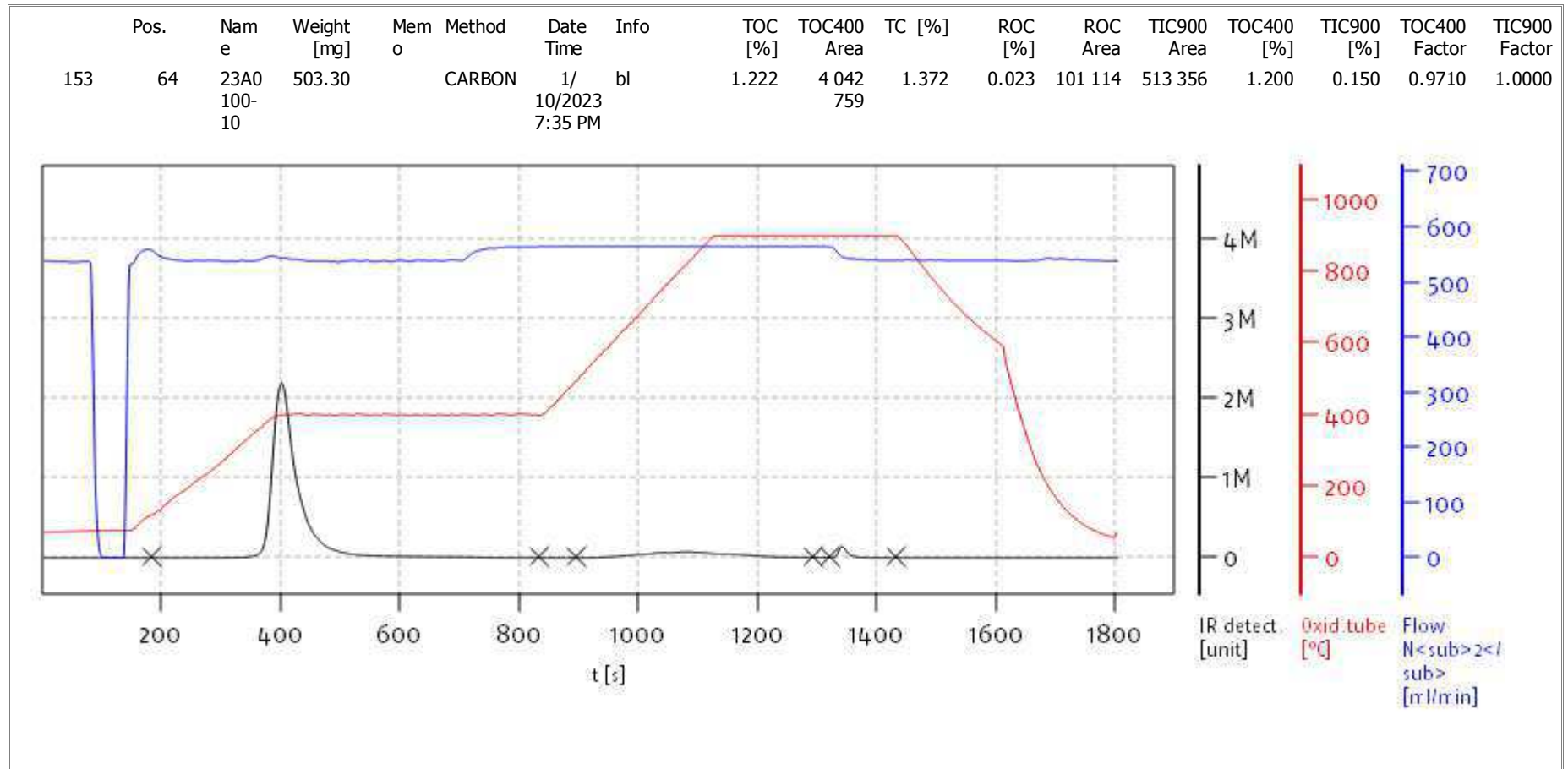
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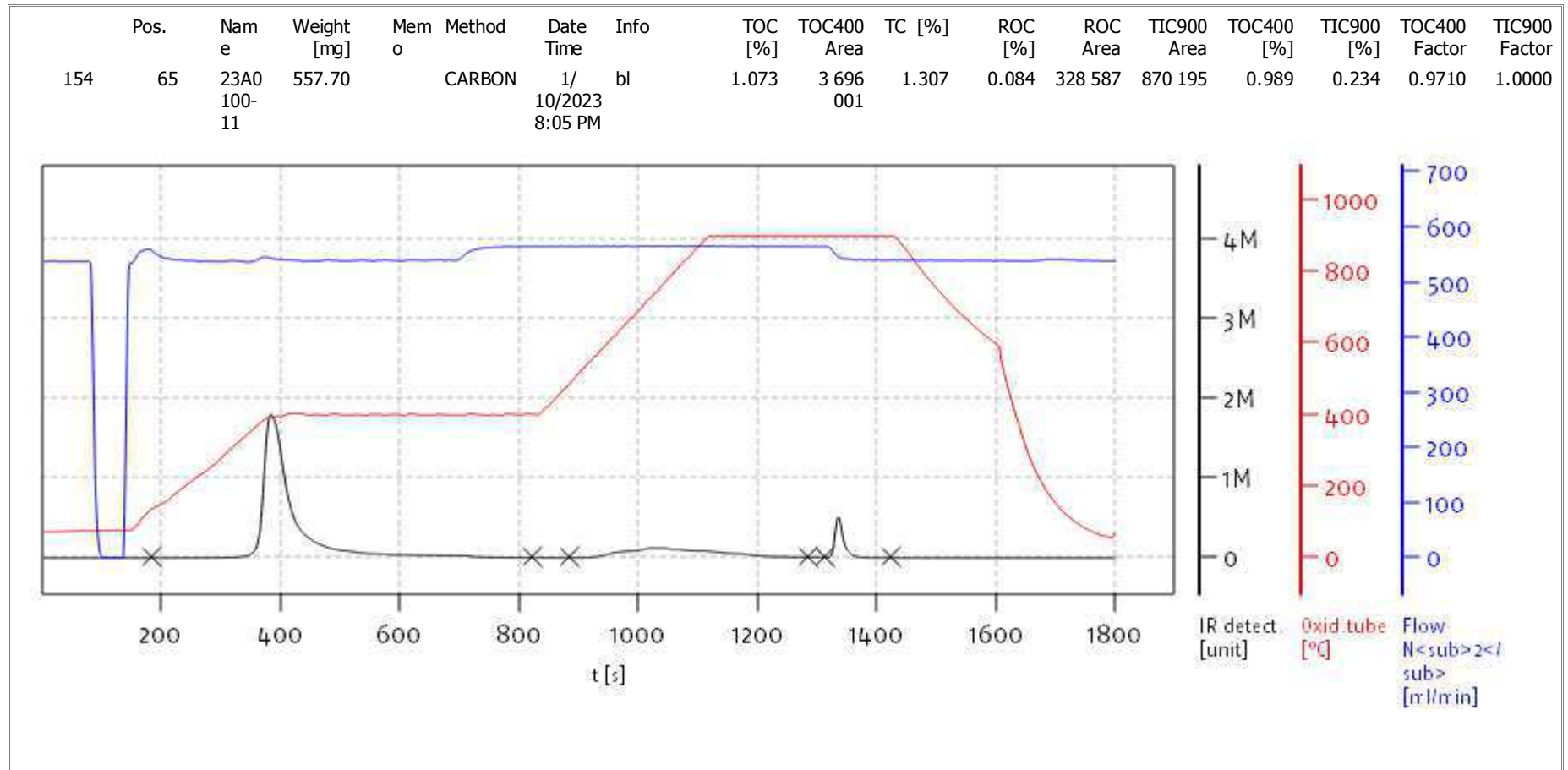
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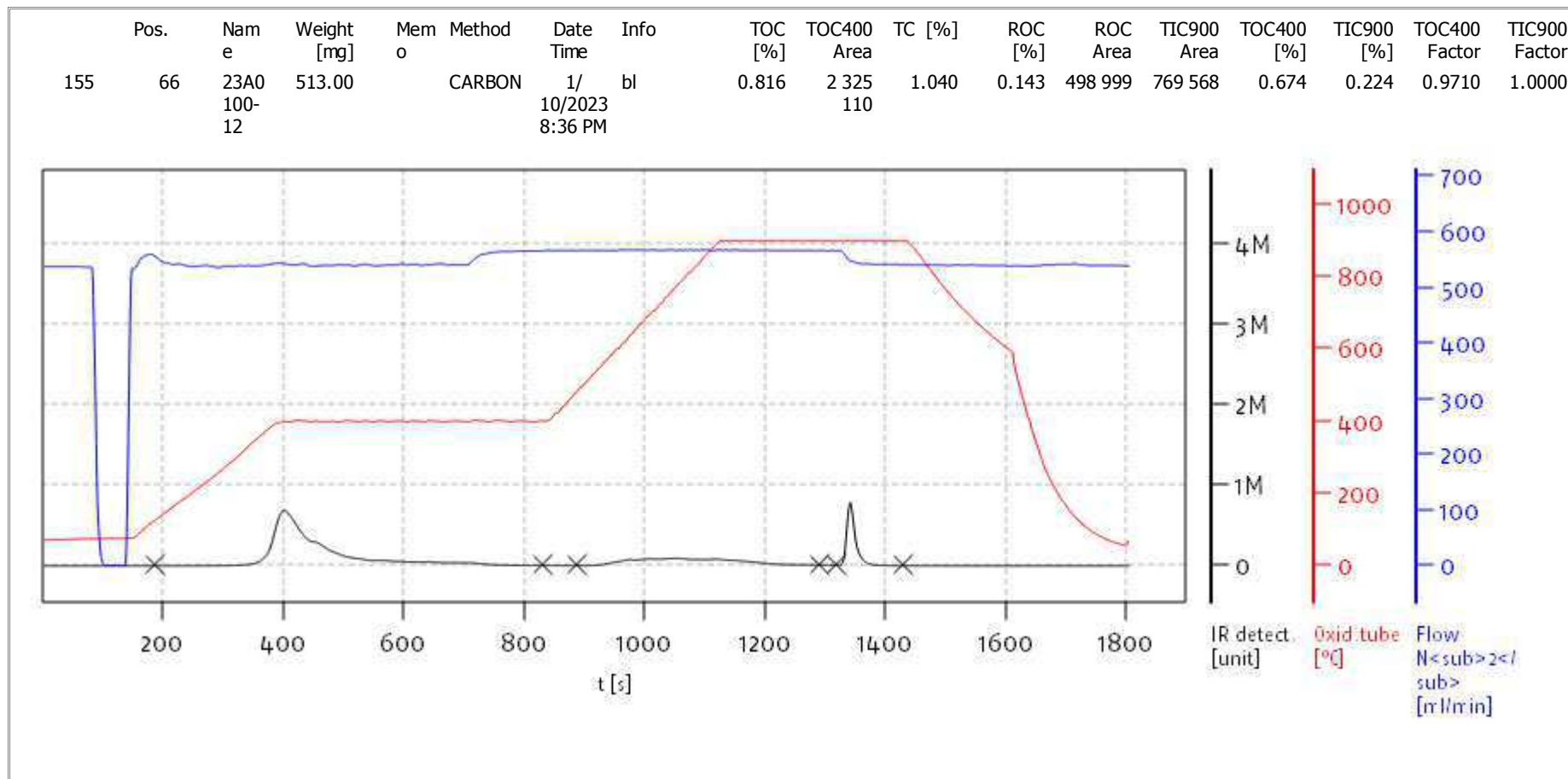
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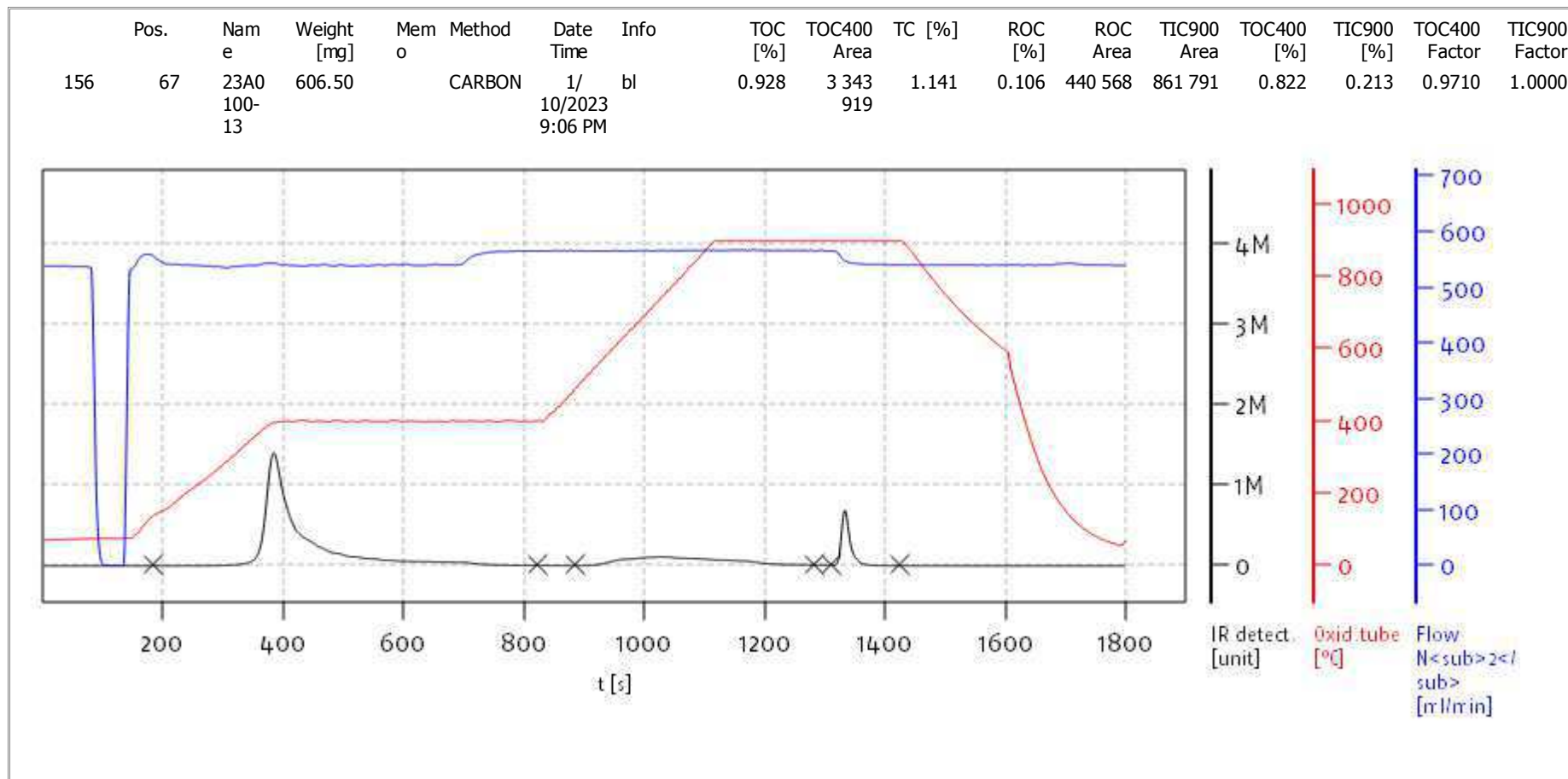
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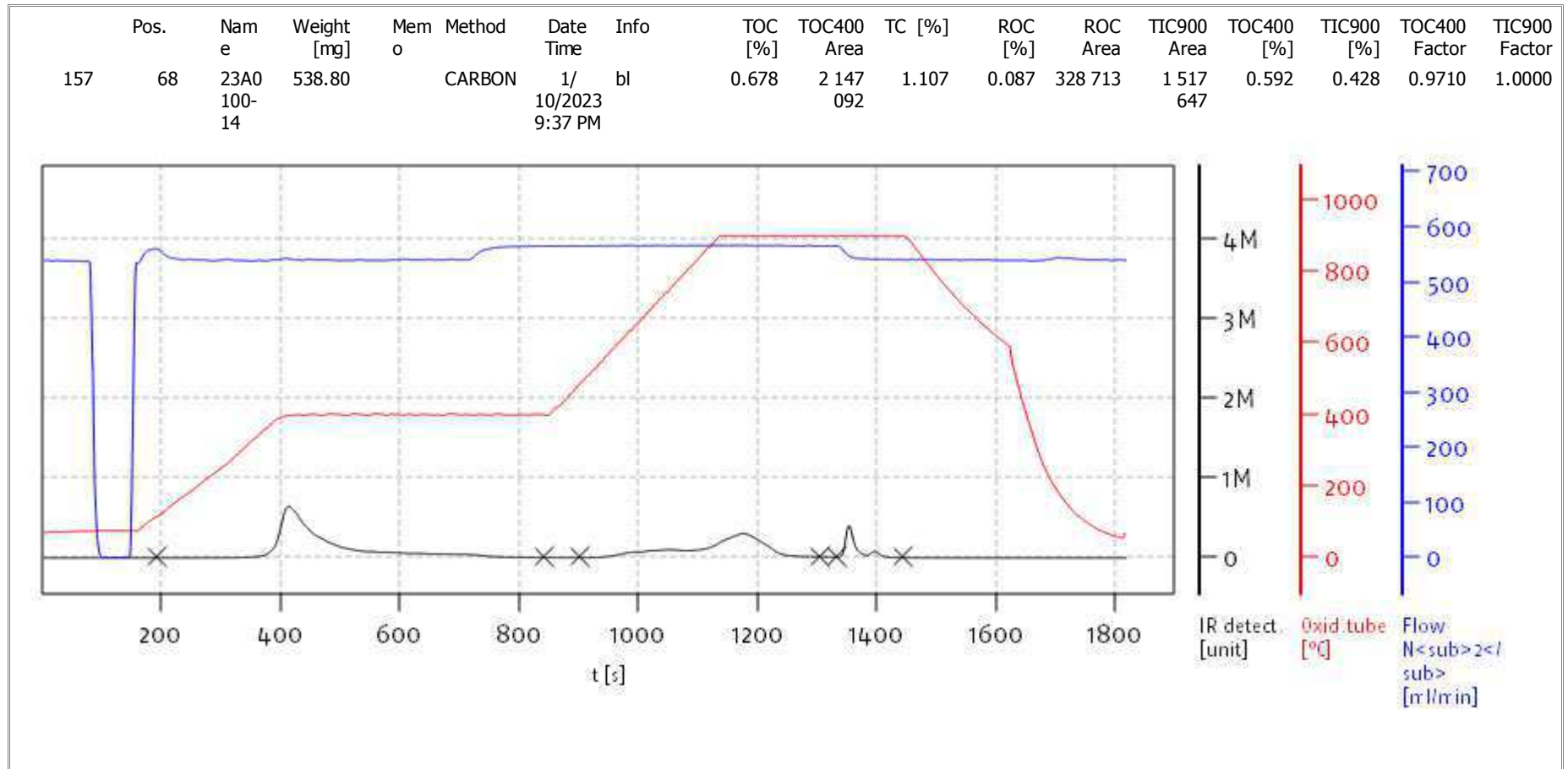
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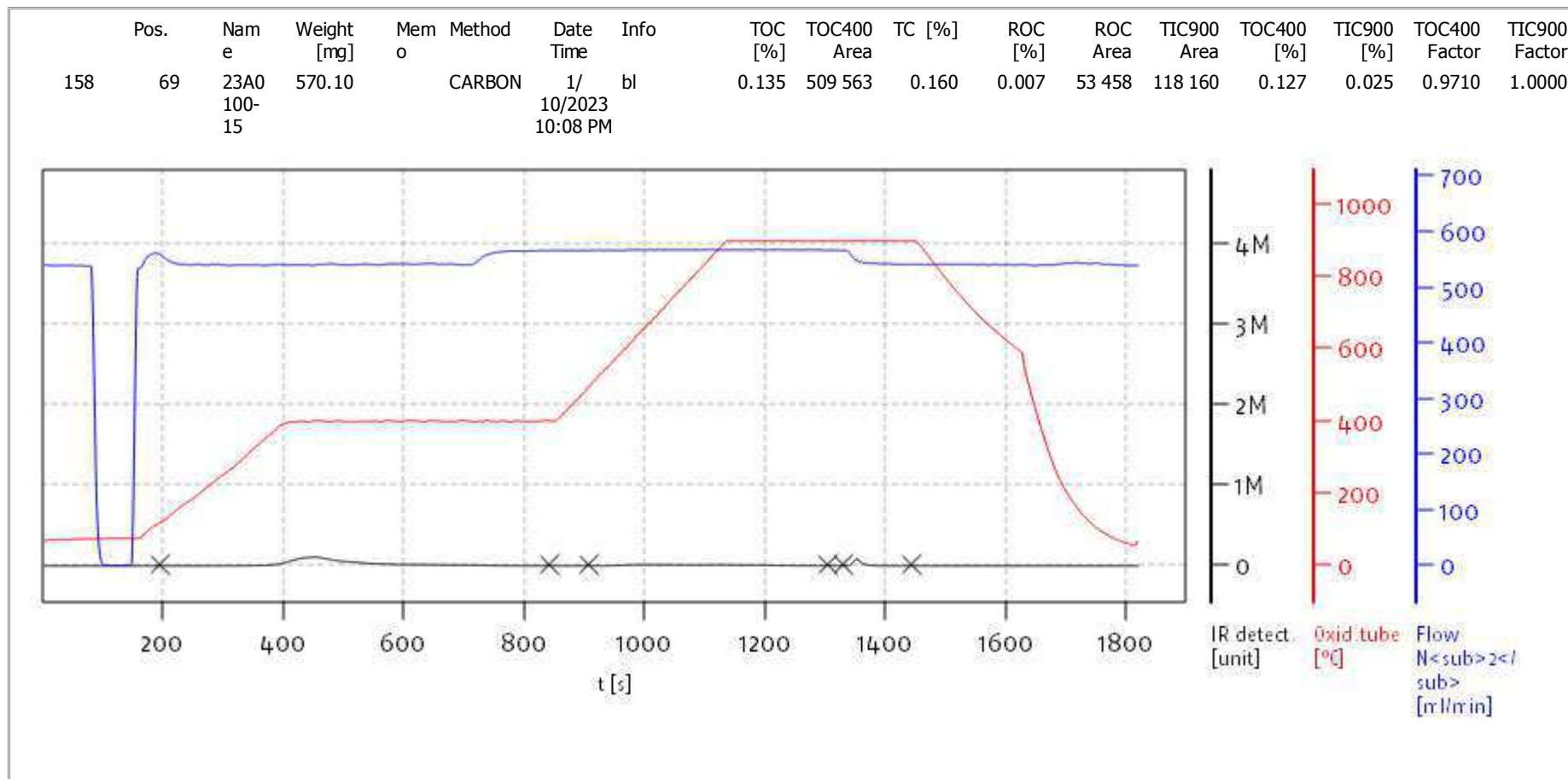
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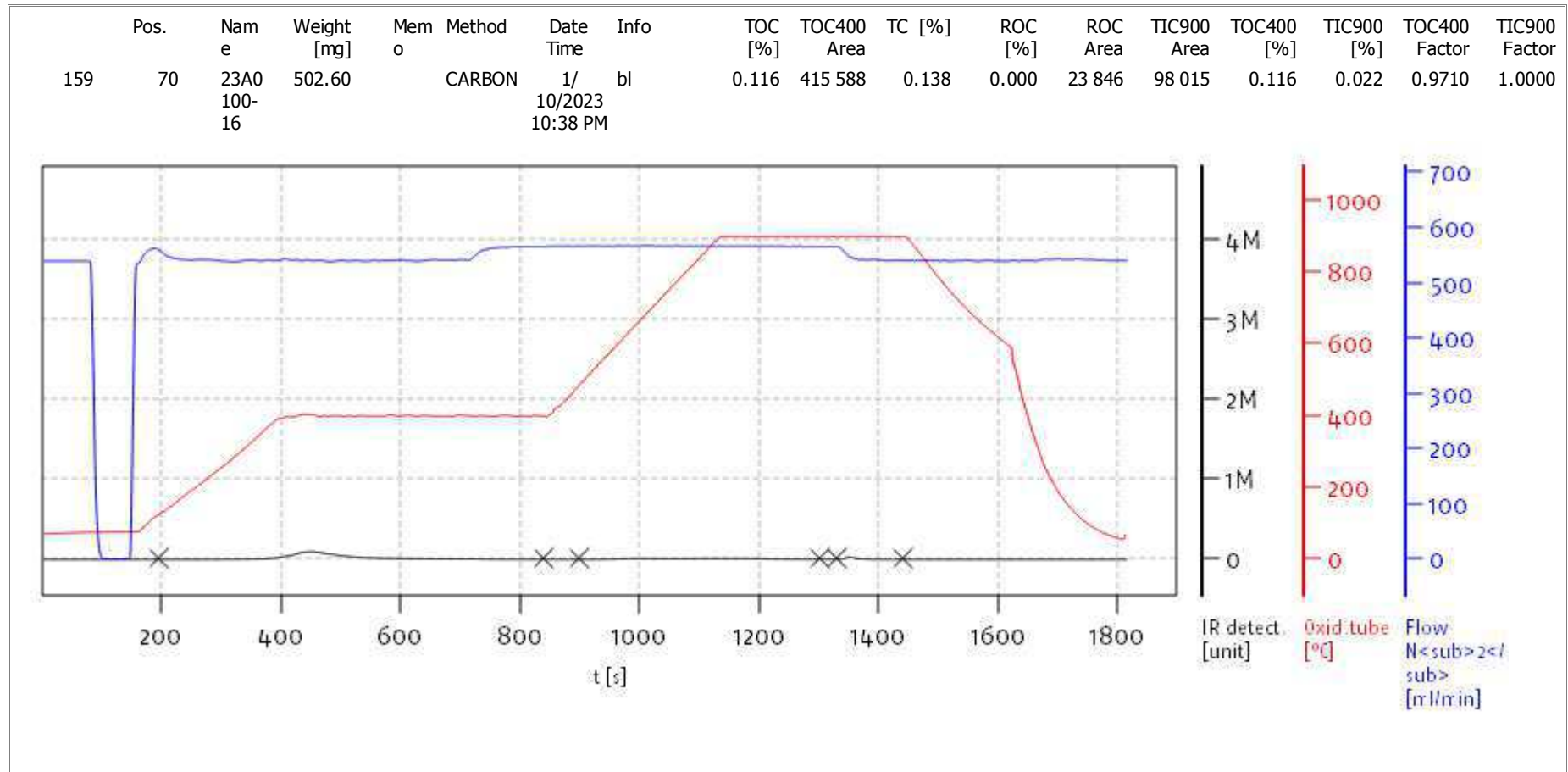
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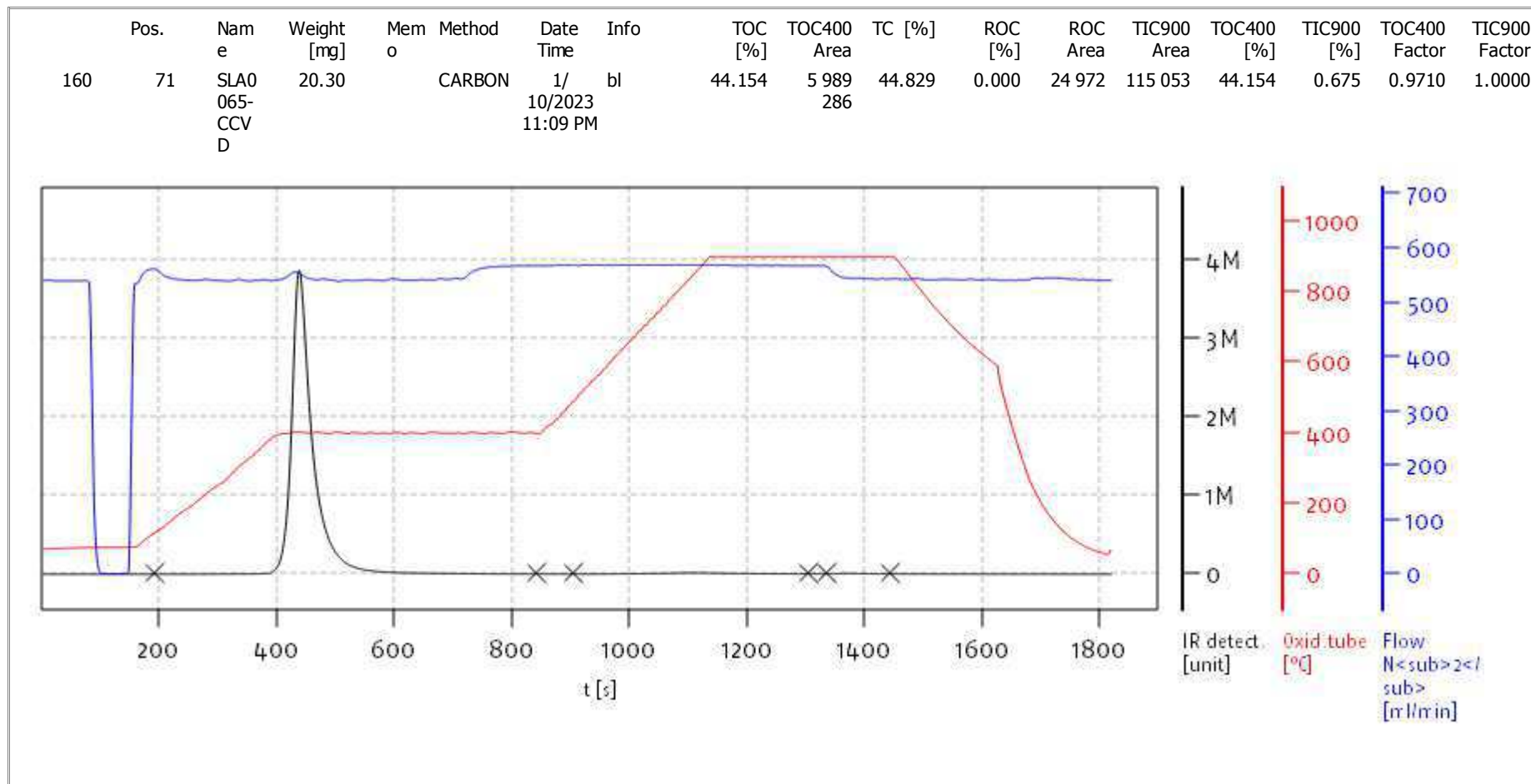
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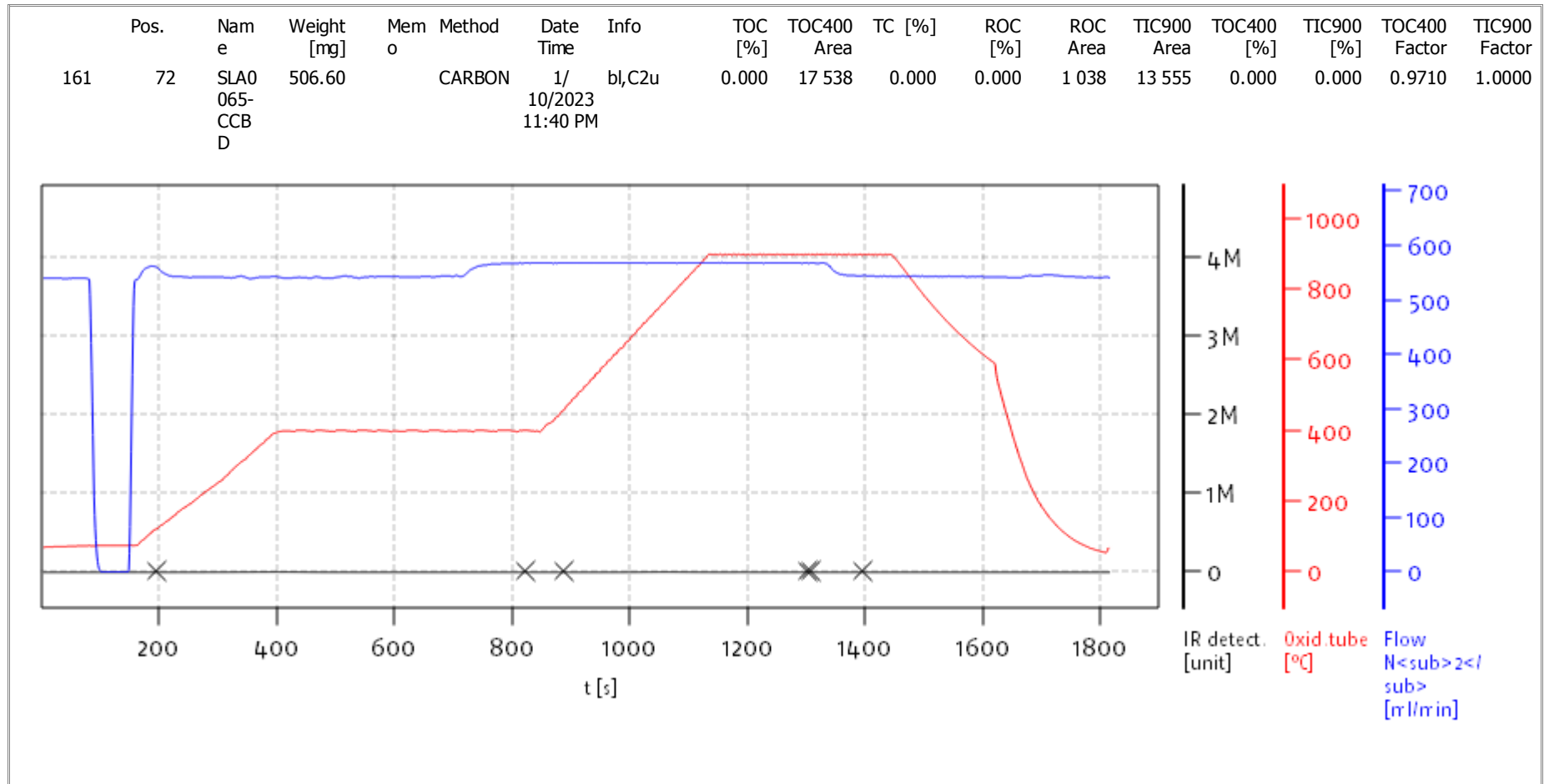
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Soli TOC Cube, Carbon
Balance: BAL3
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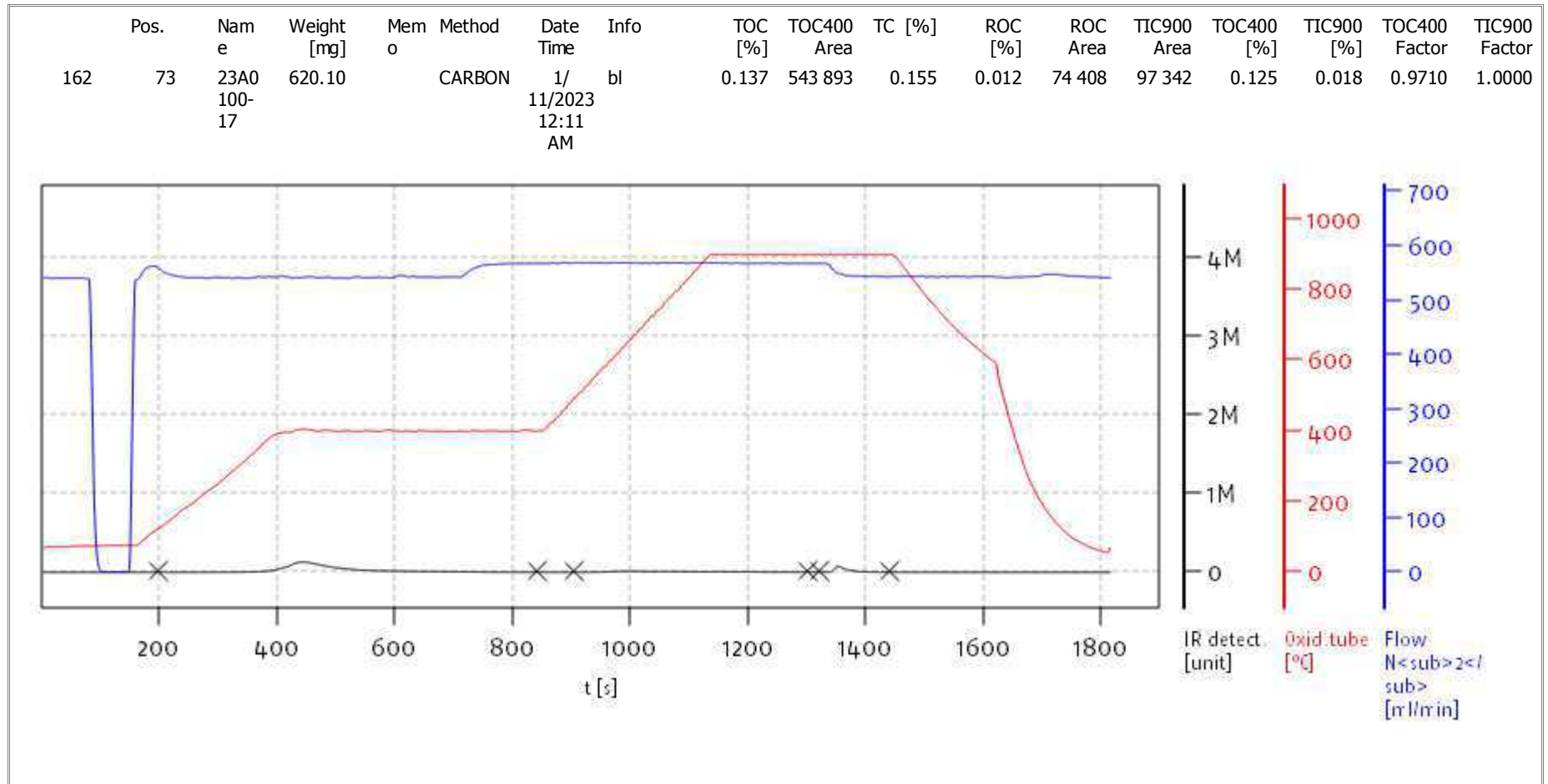
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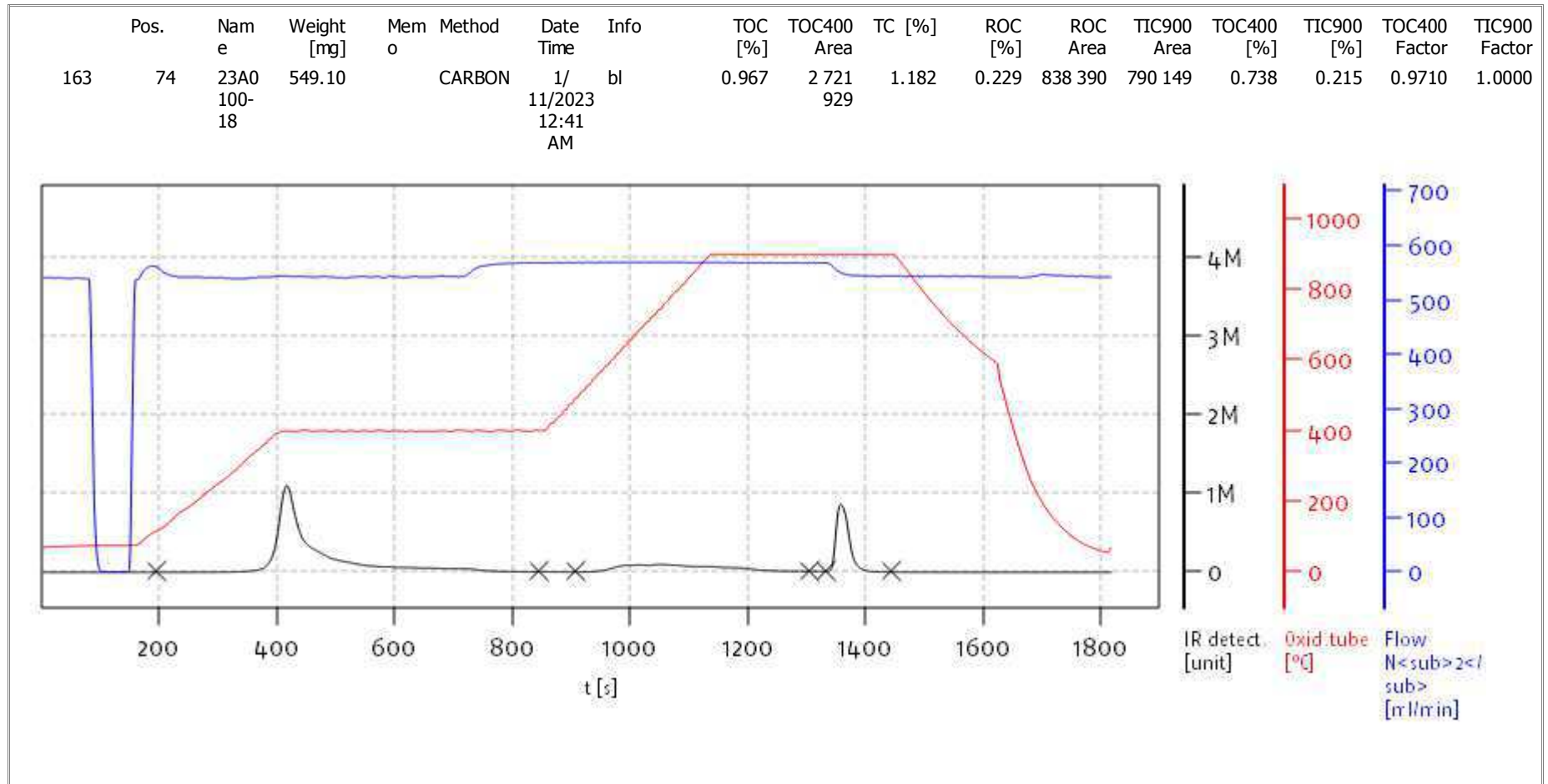
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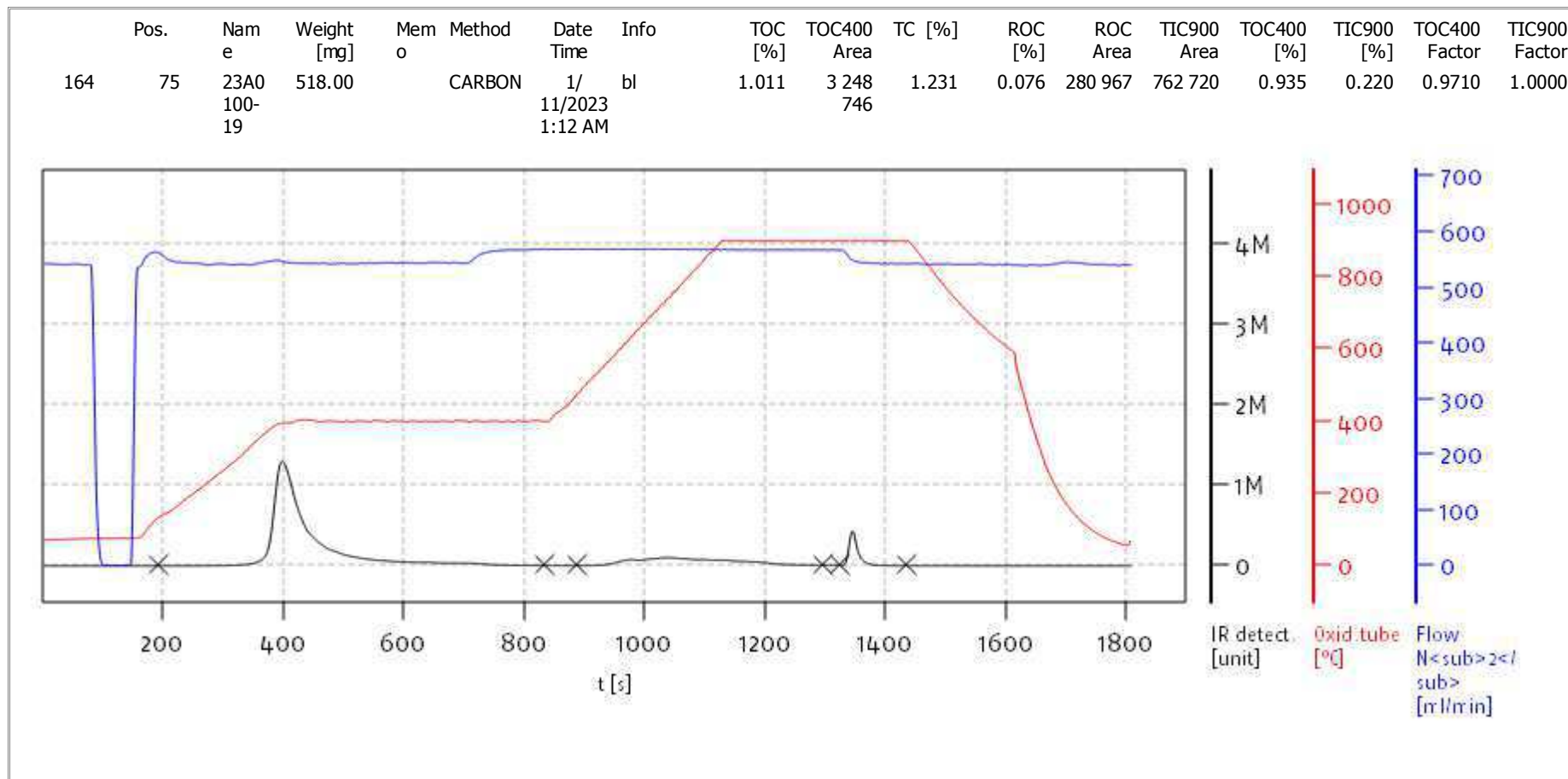
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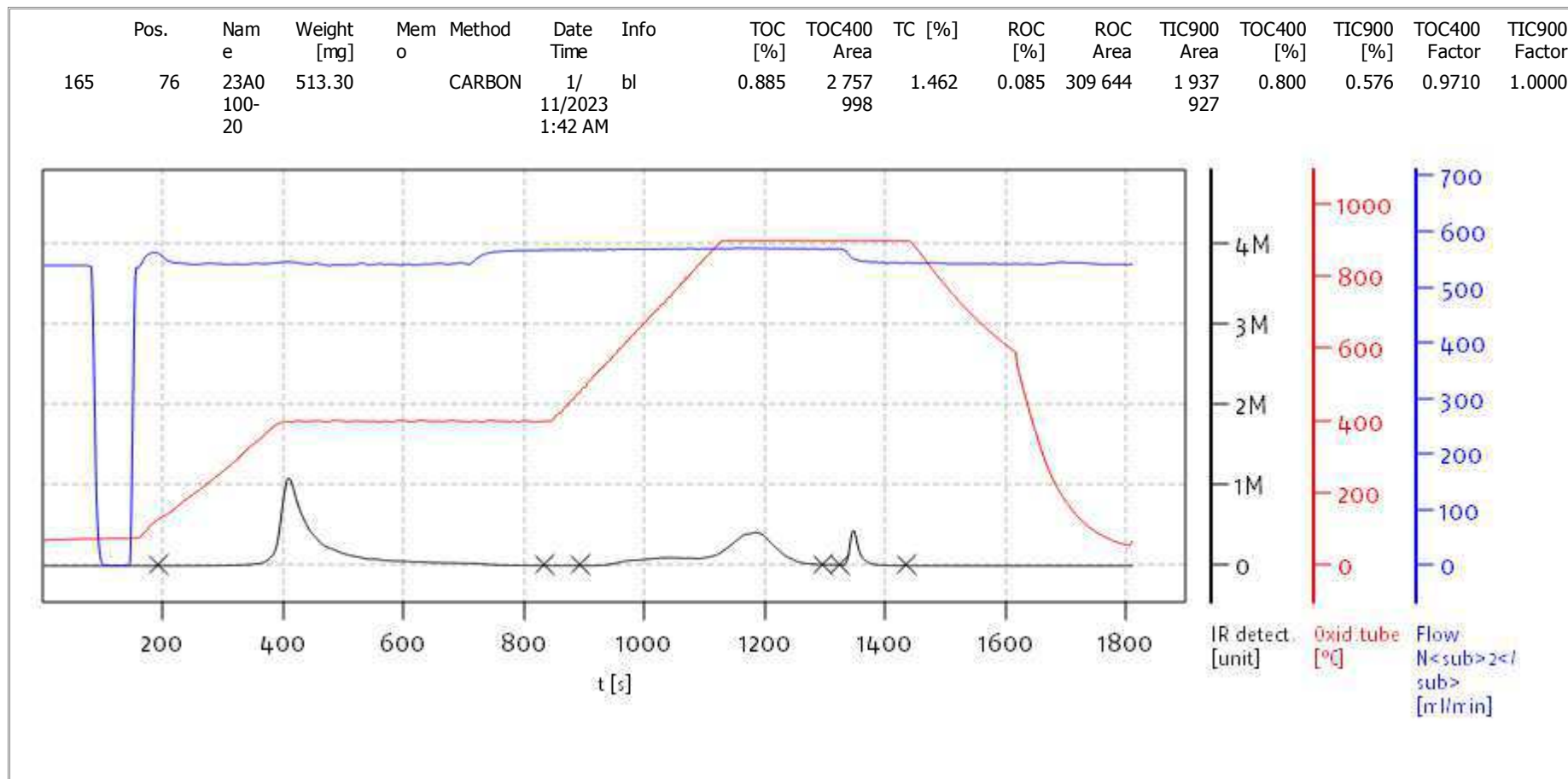
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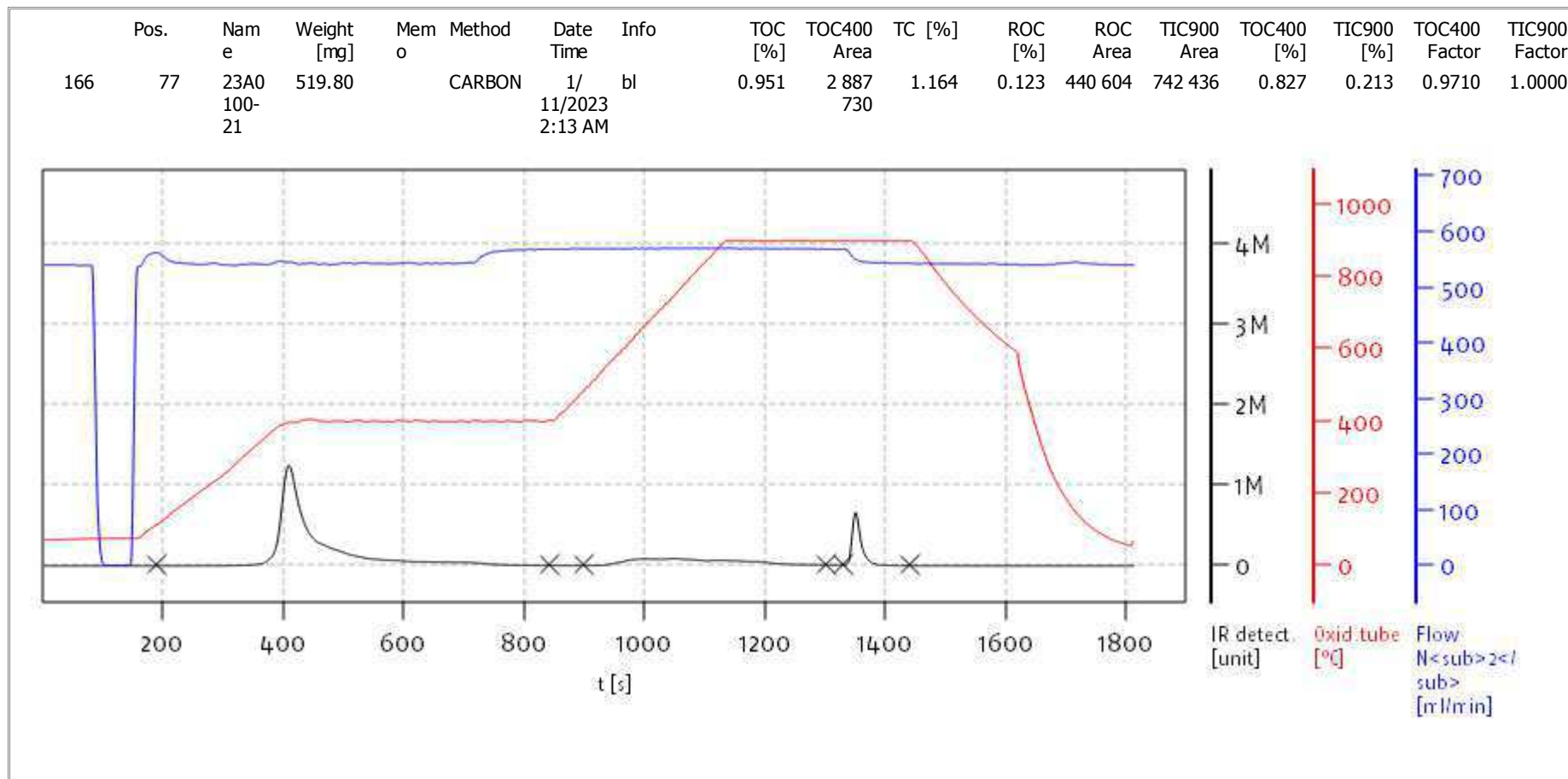
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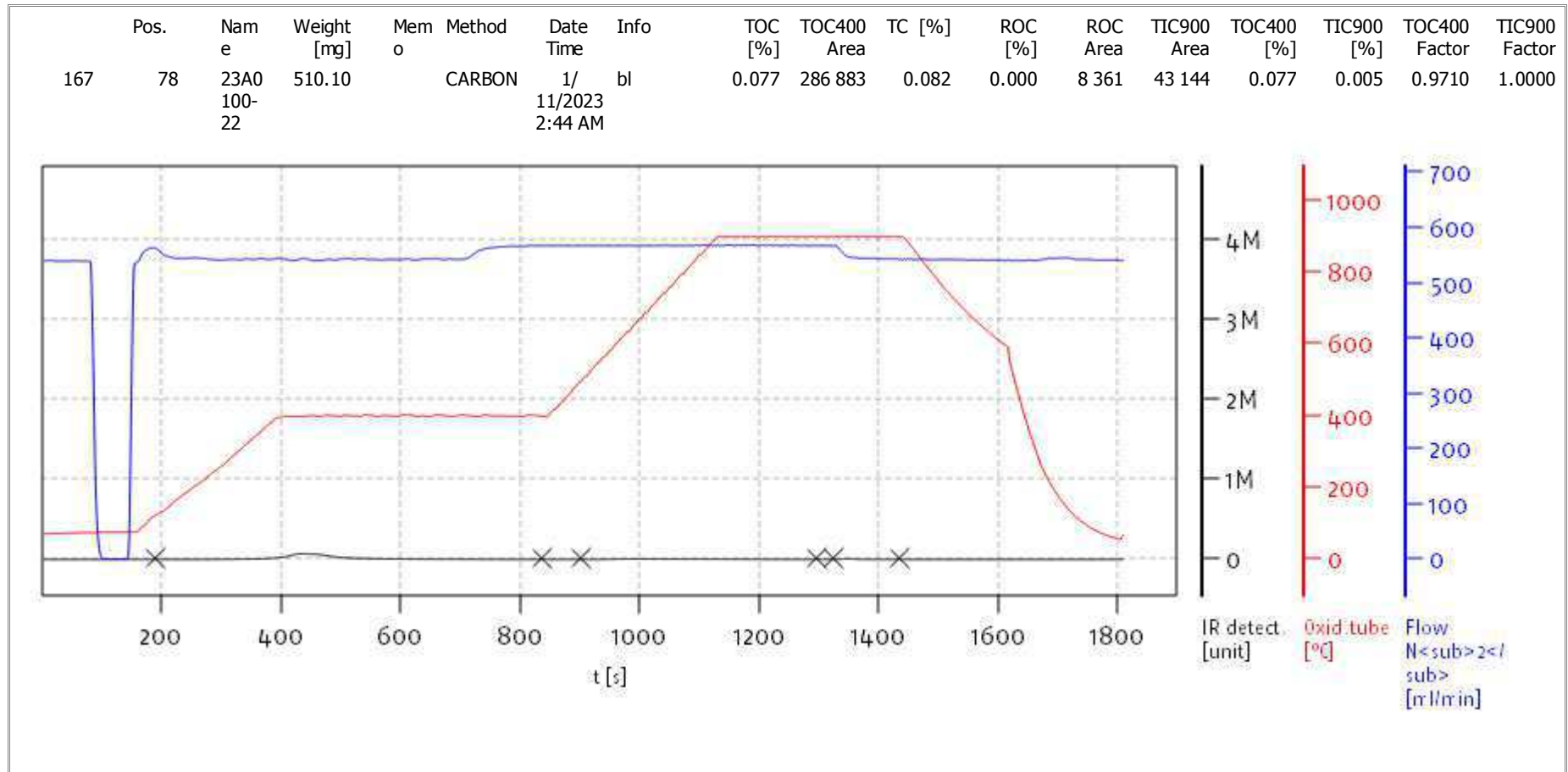
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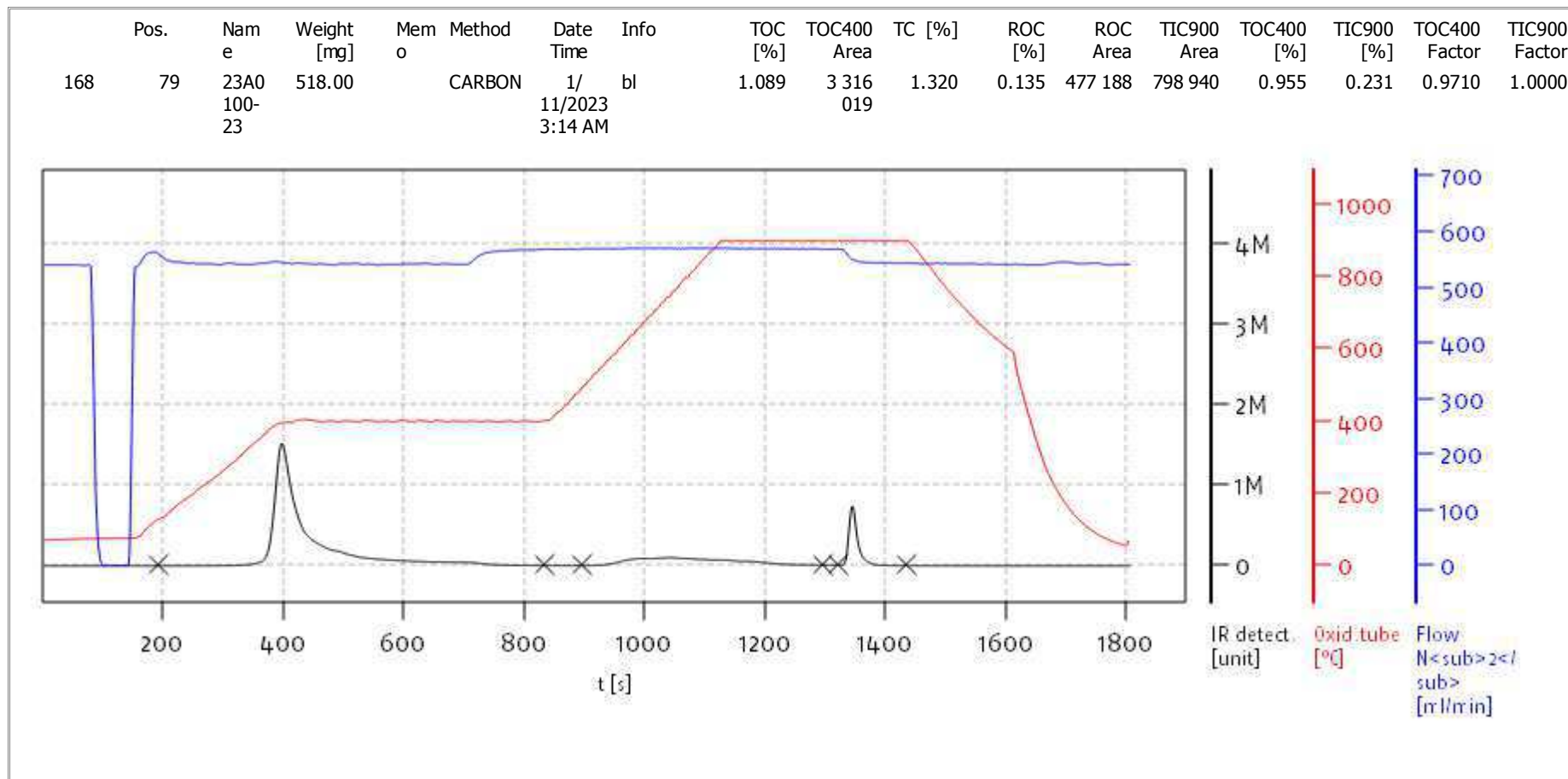
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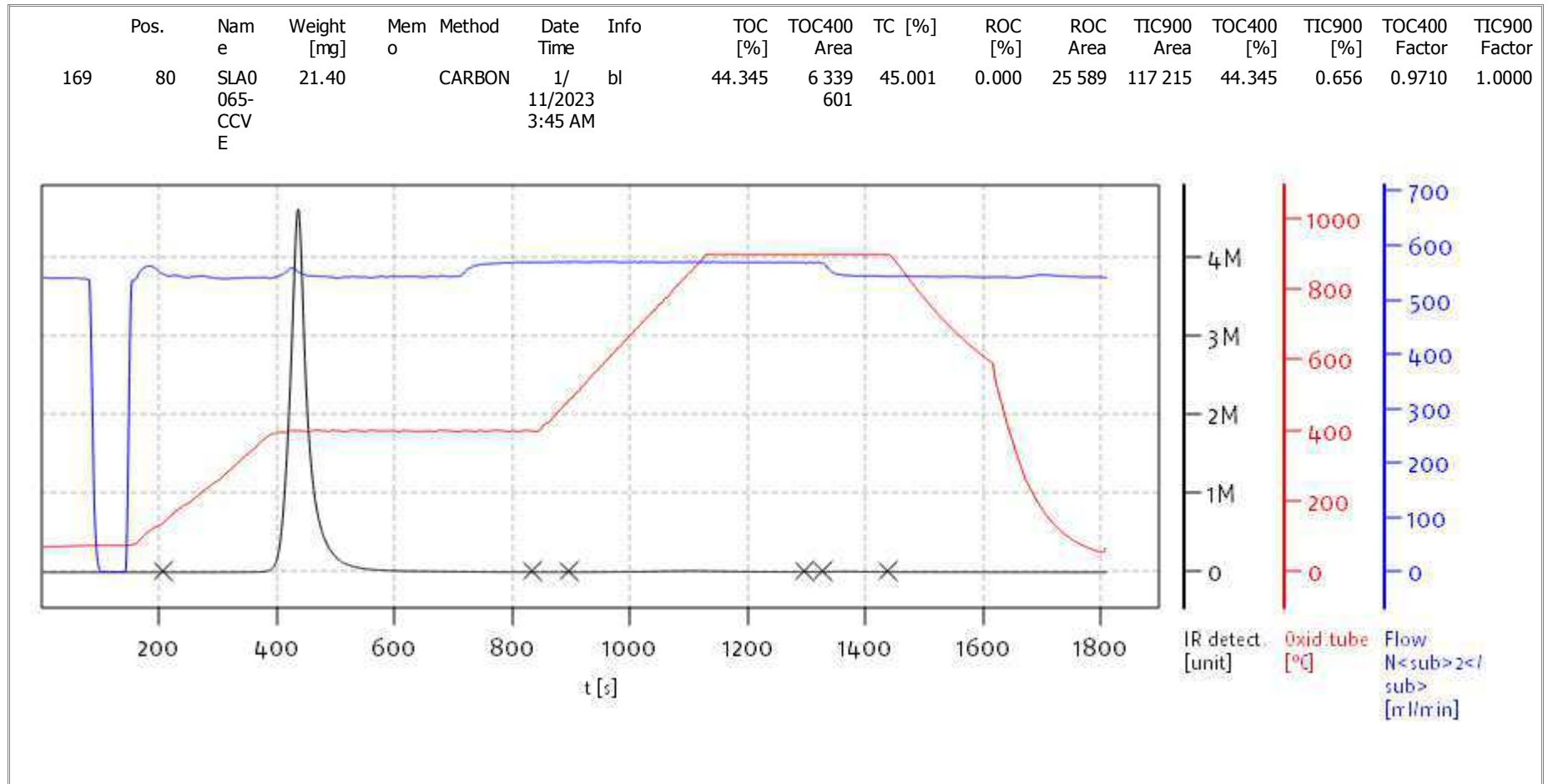
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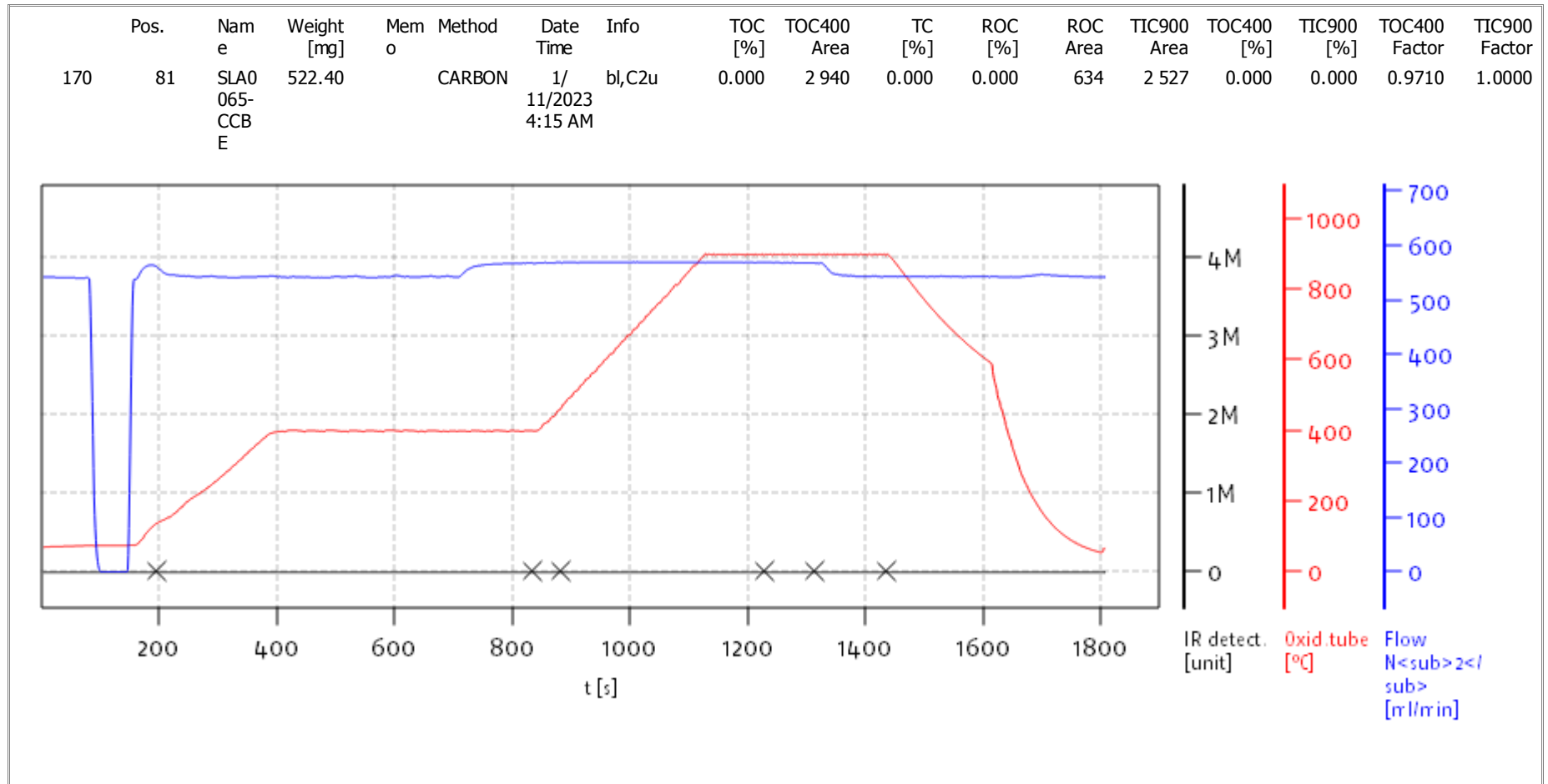
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Soli TOC Cube, Carbon
Balance: BAL3
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Name:

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Date: Wed Jan 11 07:24:43 2023



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: FD00070

Instrument: TOC Cube

Calibration Date: 04/26/2022 11:29

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	0.0080973	1449743	0.014695	1300238	0.021293	1292913	0.02939	1293535	0.044385	2094063	0.05878	1400085
Total Carbon	0.0080973	1449743	0.014695	1300238	0.021293	1292913	0.02939	1293535	0.044385	2094063	0.05878	1400085
Total Inorganic Carbon	0.0080973	1449743	0.014695	1300238	0.021293	1292913	0.02939	1293535	0.044385	2094063	0.05878	1400085
% Soot	0.0080973	1449743	0.014695	1300238	0.021293	1292913	0.02939	1293535	0.044385	2094063	0.05878	1400085



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: FD00070

Instrument: TOC Cube

Calibration Date: 04/26/2022 11:29

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	0.074075	1370638	0.08937	1351930	0.12056	2158544	0.14995	1559046	0.24	1346463	0.288	1430135
Total Carbon	0.074075	1370638	0.08937	1351930	0.12056	2158544	0.14995	1559046	0.24	1346463	0.288	1430135
Total Inorganic Carbon	0.074075	1370638	0.08937	1351930	0.12056	2158544	0.14995	1559046	0.24	1346463	0.288	1430135
% Soot	0.074075	1370638	0.08937	1351930	0.12056	2158544	0.14995	1559046	0.24	1346463	0.288	1430135



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: FD00070

Instrument: TOC Cube

Calibration Date: 04/26/2022 11:29

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	0.414	1337053	0.606	1385937	0.894	1382774	1.188	1379790	1.5	1375927	1.818	1372882
Total Carbon	0.414	1337053	0.606	1385937	0.894	1382774	1.188	1379790	1.5	1375927	1.818	1372882
Total Inorganic Carbon	0.414	1337053	0.606	1385937	0.894	1382774	1.188	1379790	1.5	1375927	1.818	1372882
% Soot	0.414	1337053	0.606	1385937	0.894	1382774	1.188	1379790	1.5	1375927	1.818	1372882



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Calibration: FD00070

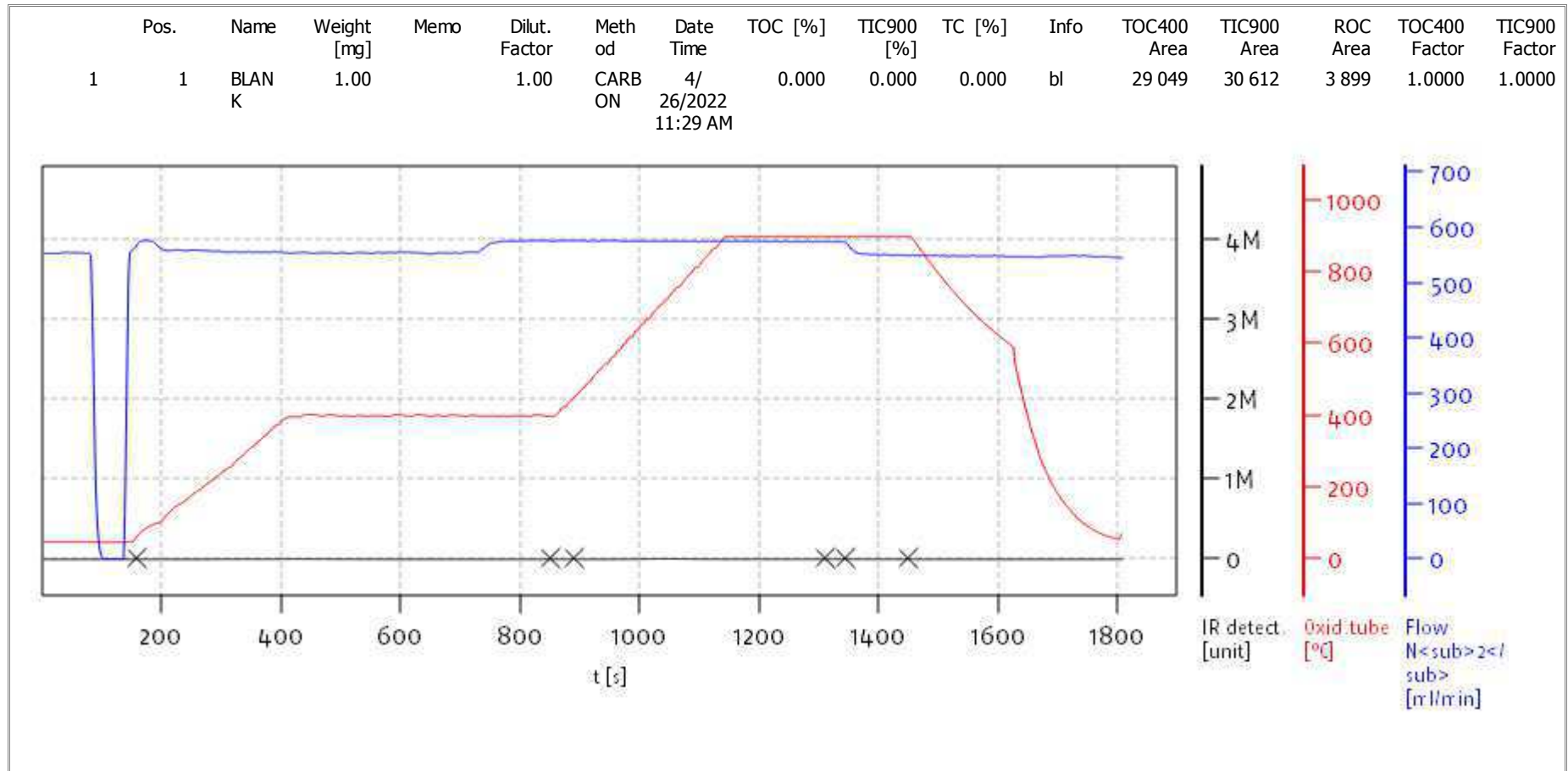
Instrument: TOC Cube

Calibration Date: 04/26/2022 11:29

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	2.49	1398606	2.982	1376871	4.188	1256057	4.818	1279542	5.406	1283358	7.2	1301408
Total Carbon	2.49	1398606	2.982	1376871	4.188	1256057	4.818	1279542	5.406	1283358	7.2	1301408
Total Inorganic Carbon	2.49	1398606	2.982	1376871	4.188	1256057	4.818	1279542	5.406	1283358	7.2	1301408
% Soot	2.49	1398606	2.982	1376871	4.188	1256057	4.818	1279542	5.406	1283358	7.2	1301408



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

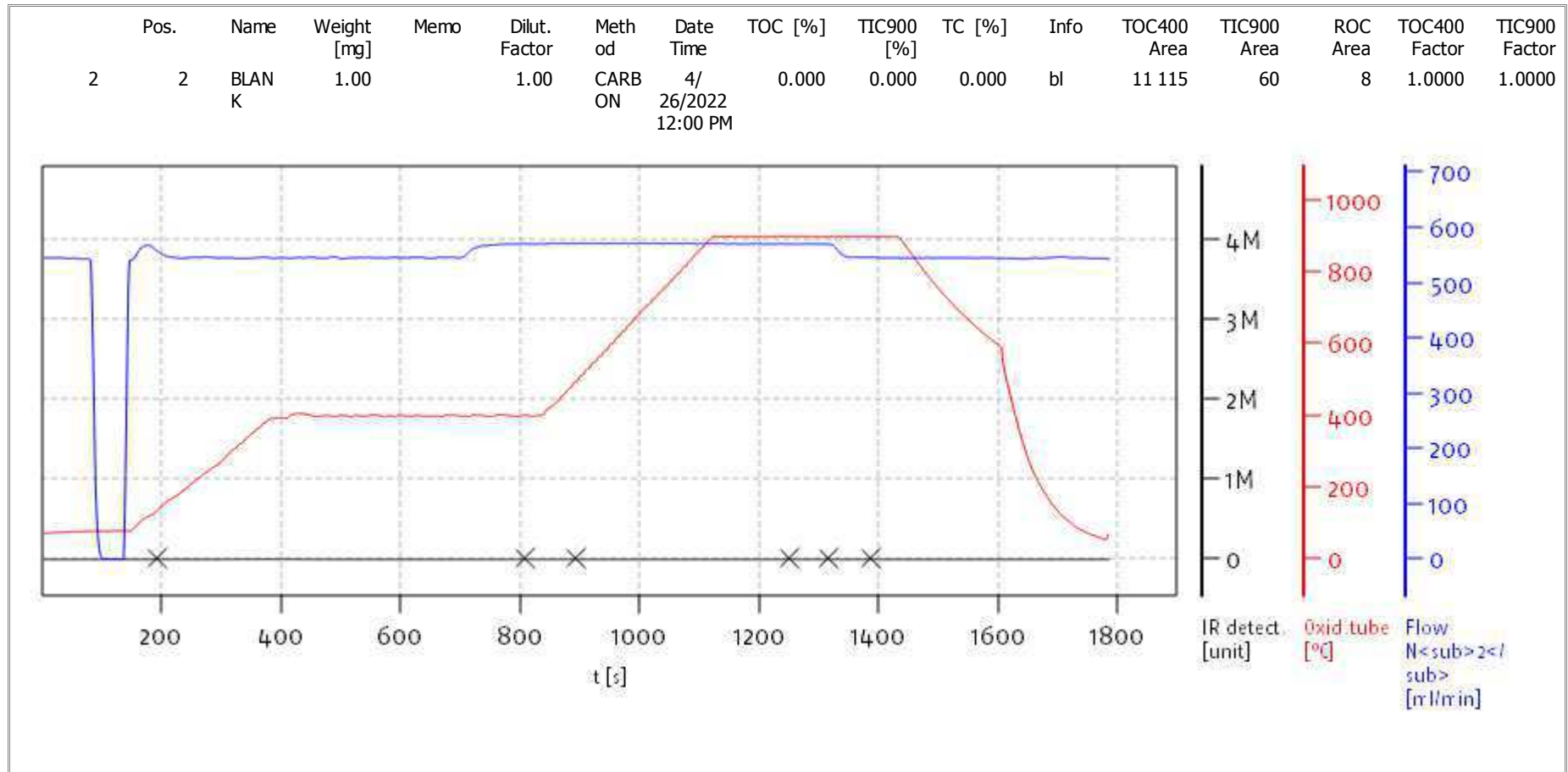
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

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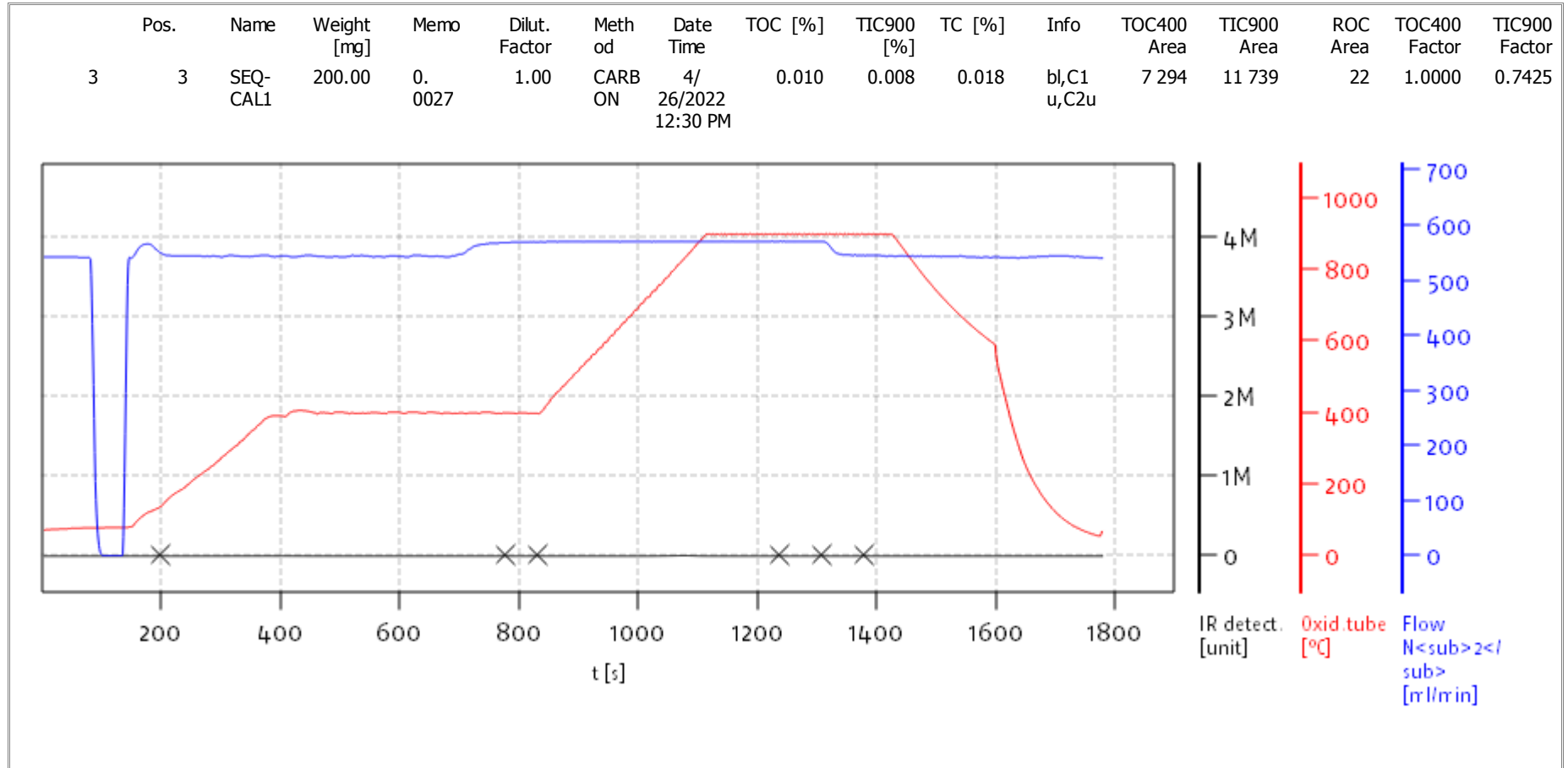
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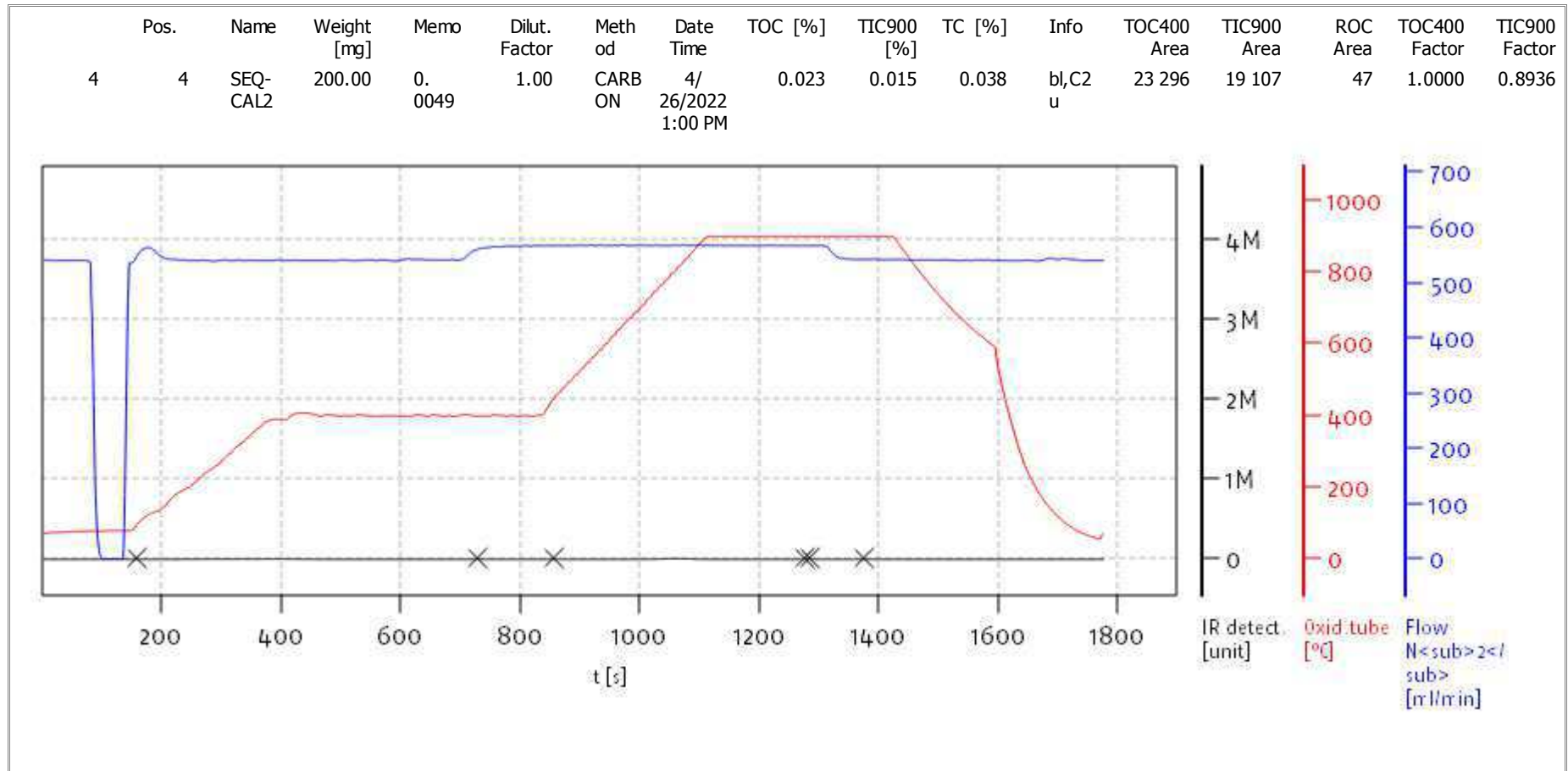
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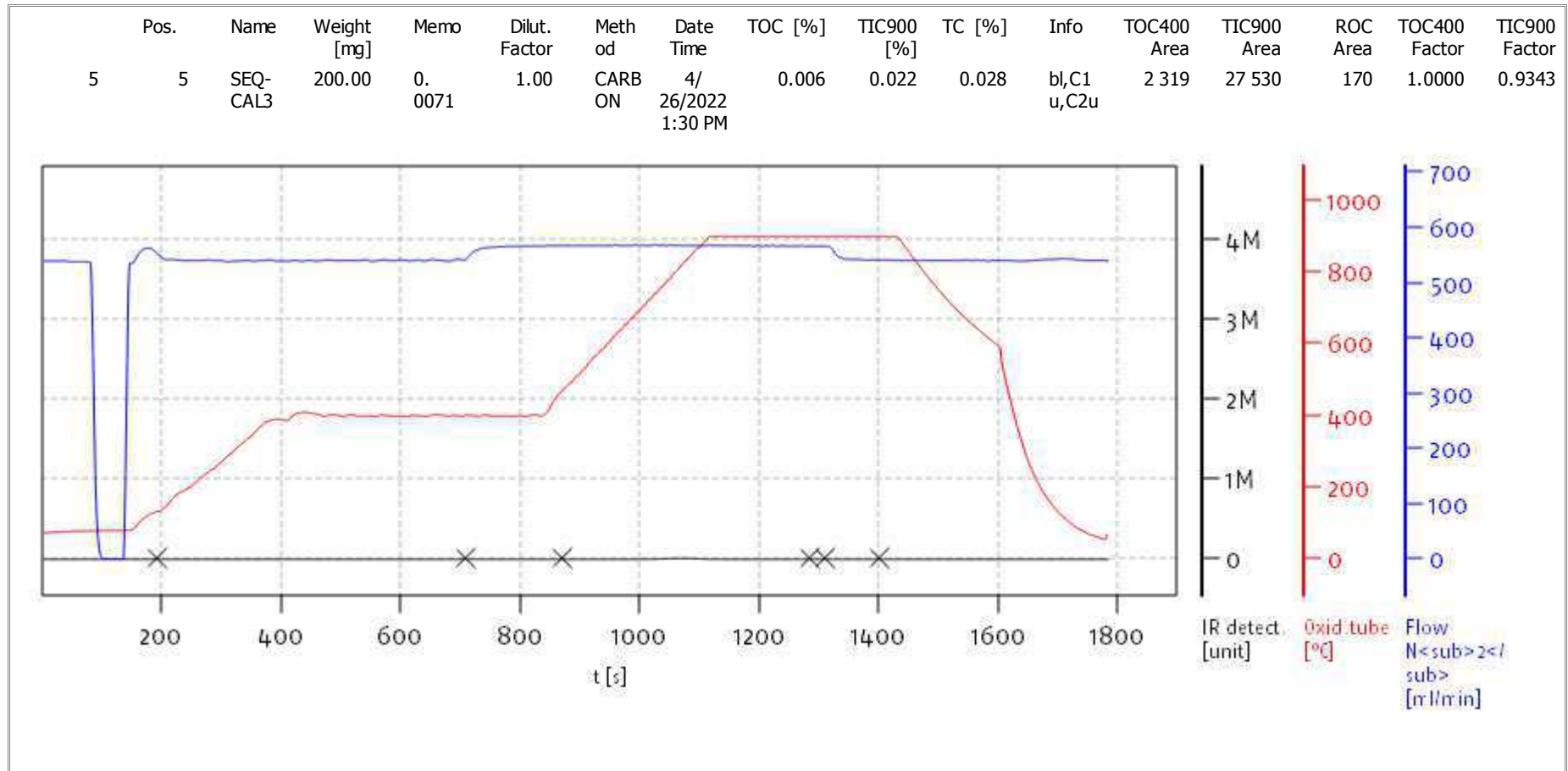
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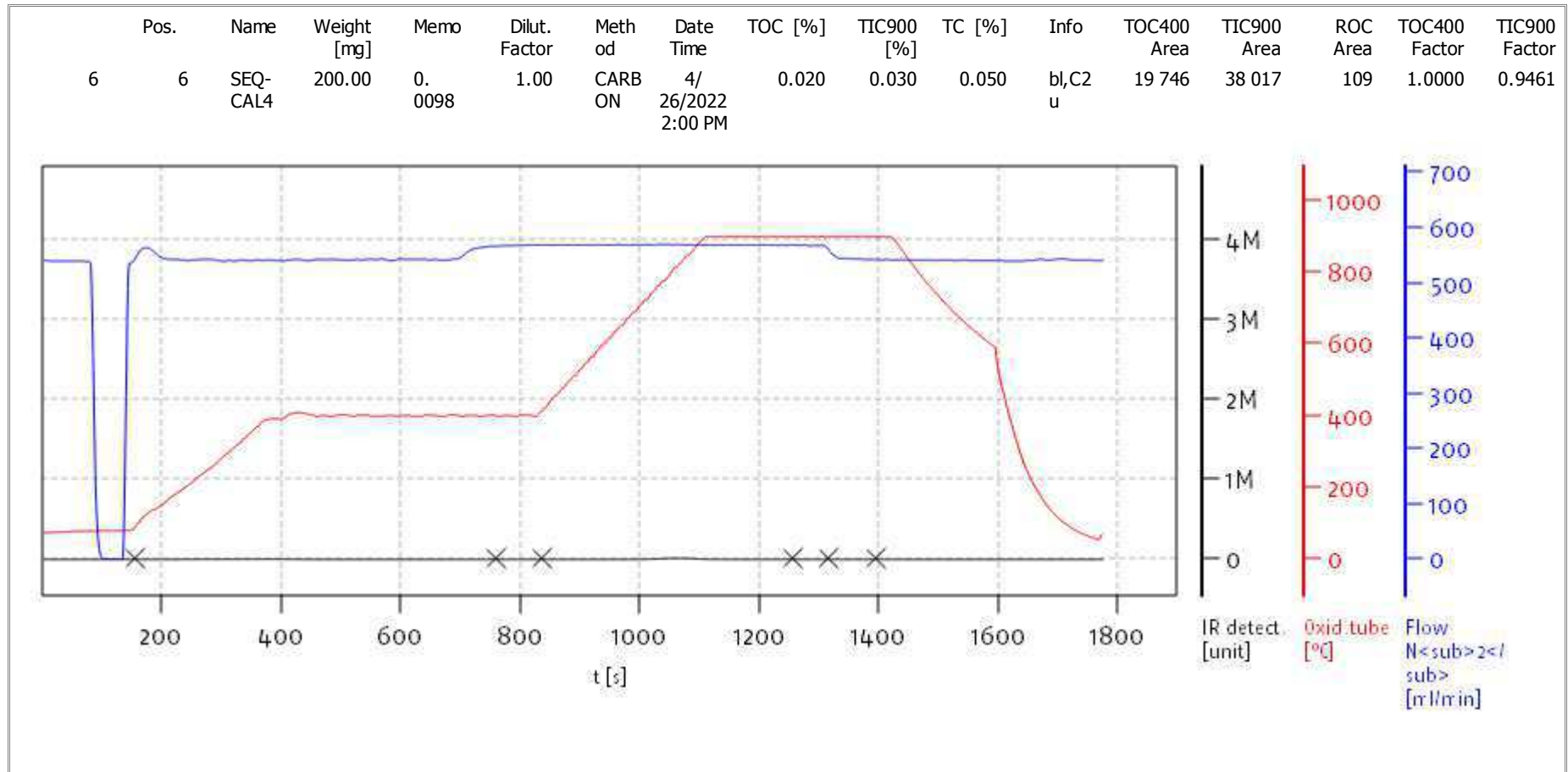
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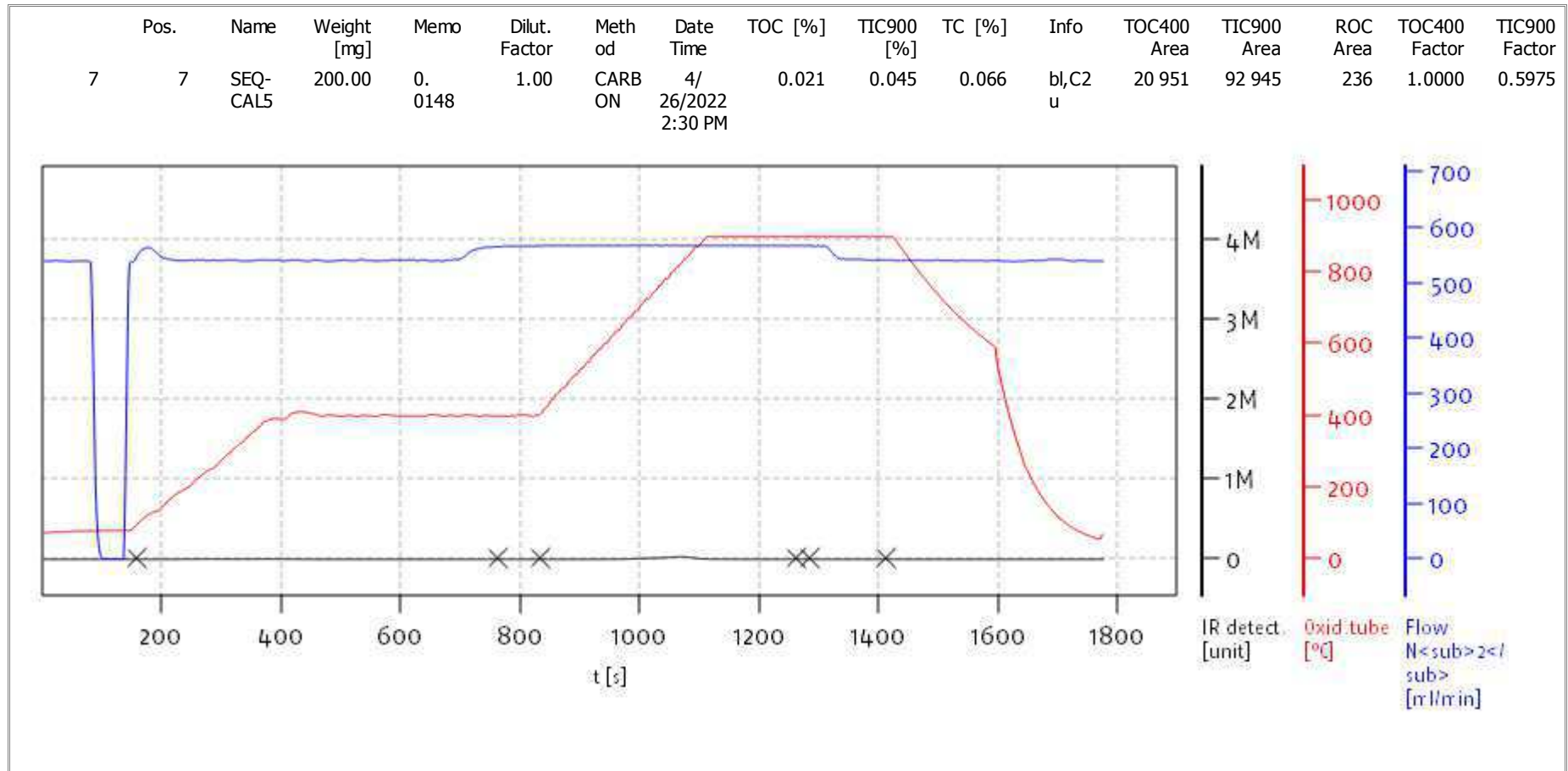
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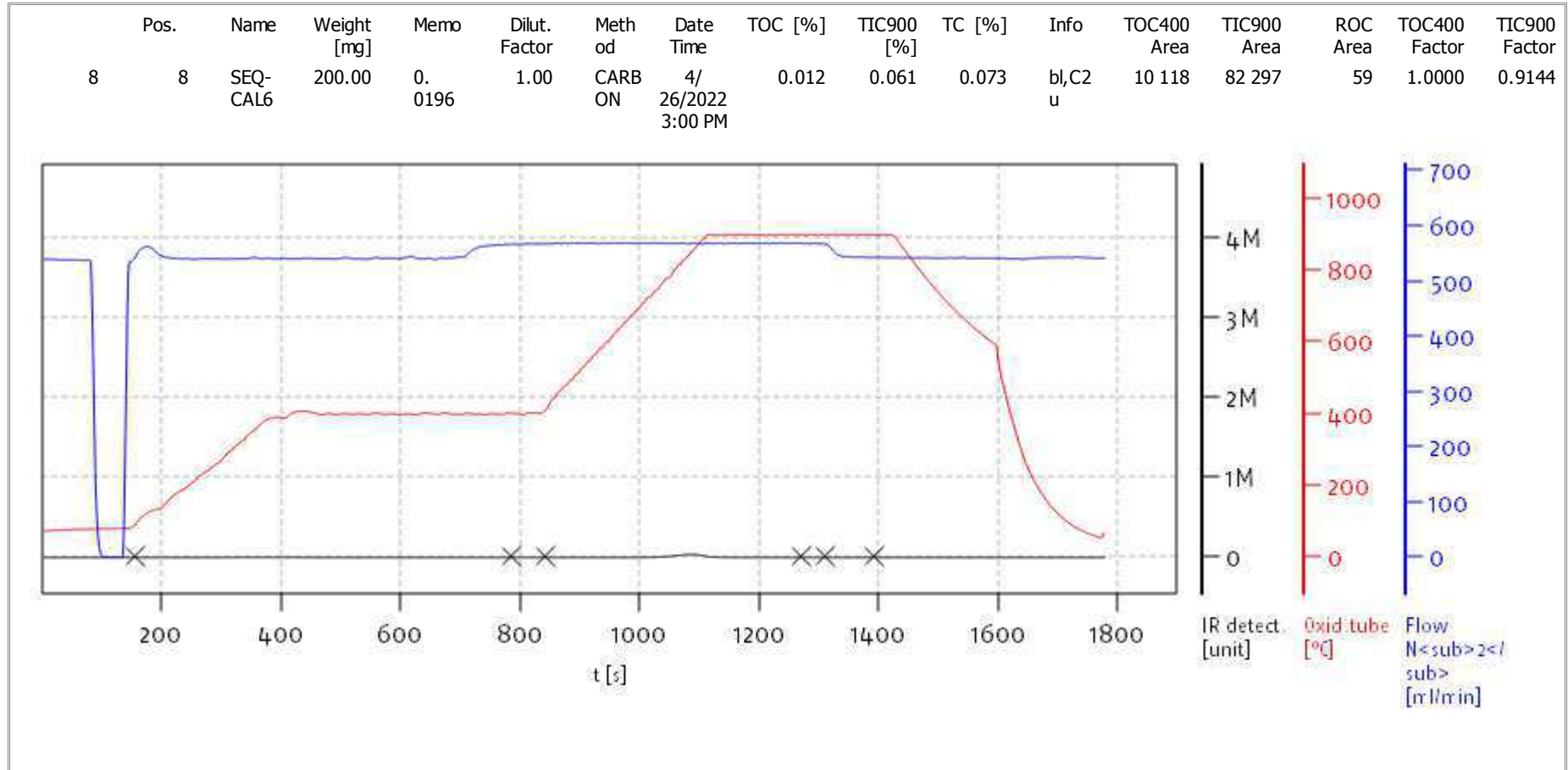
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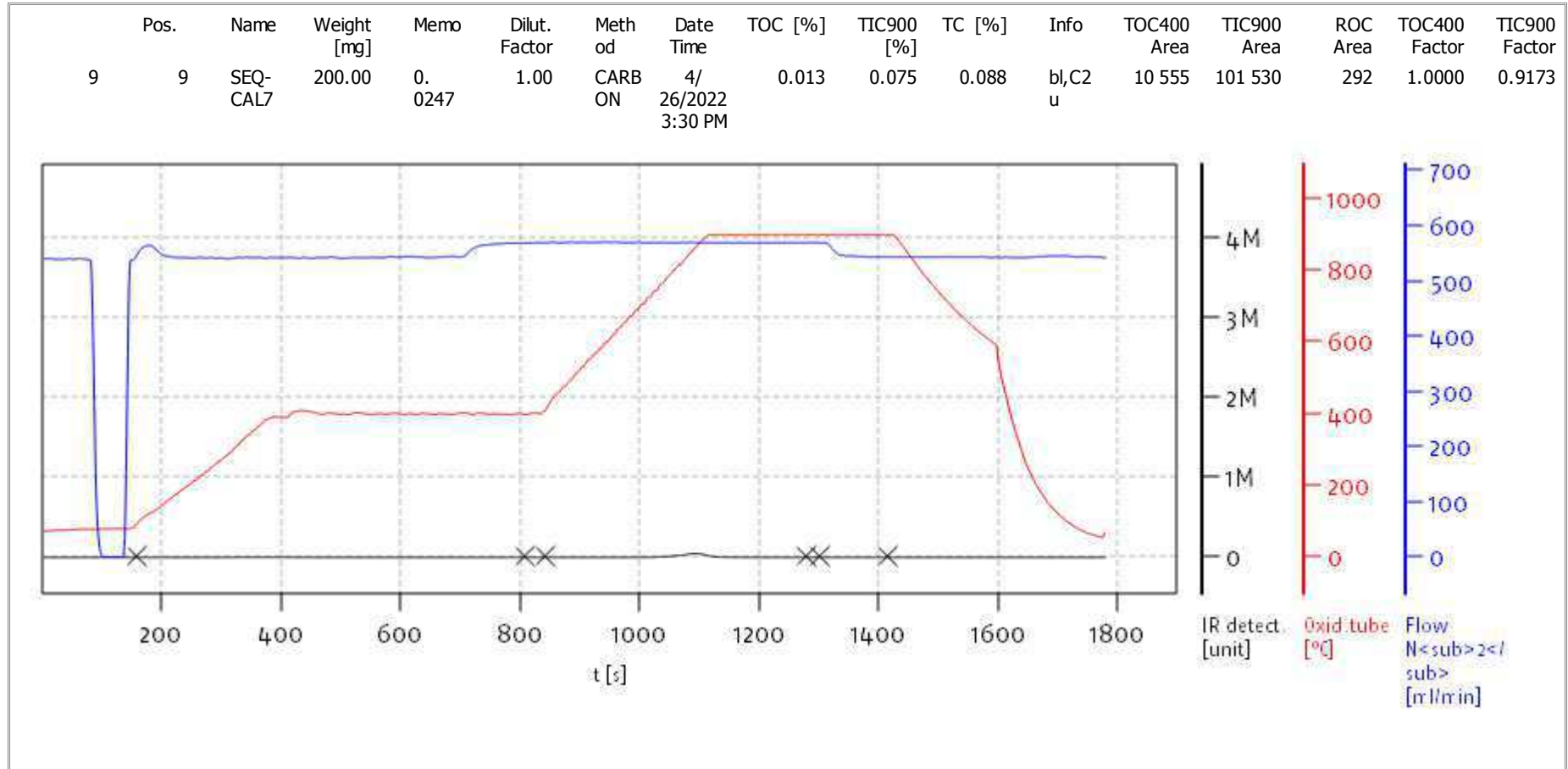
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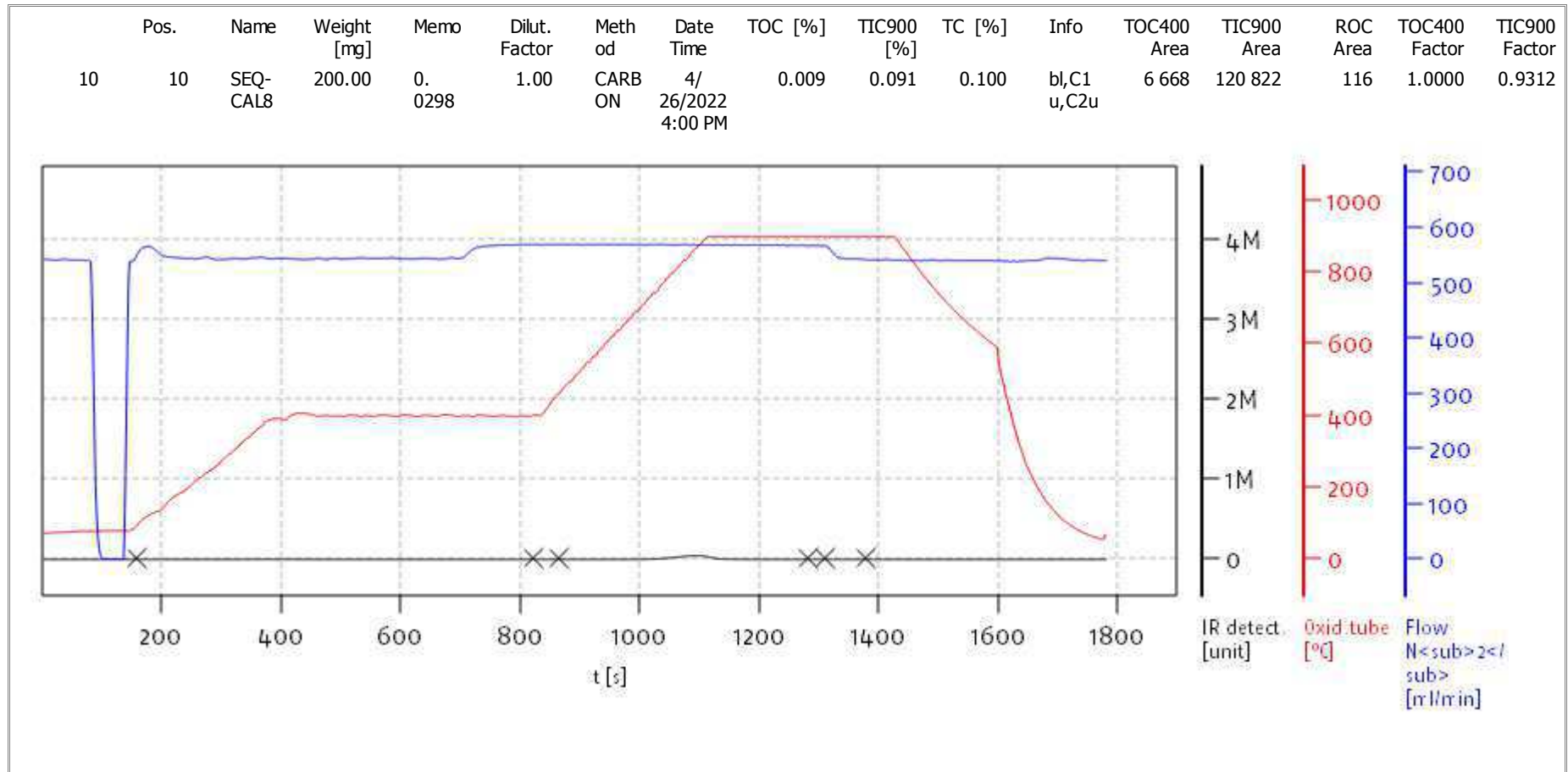
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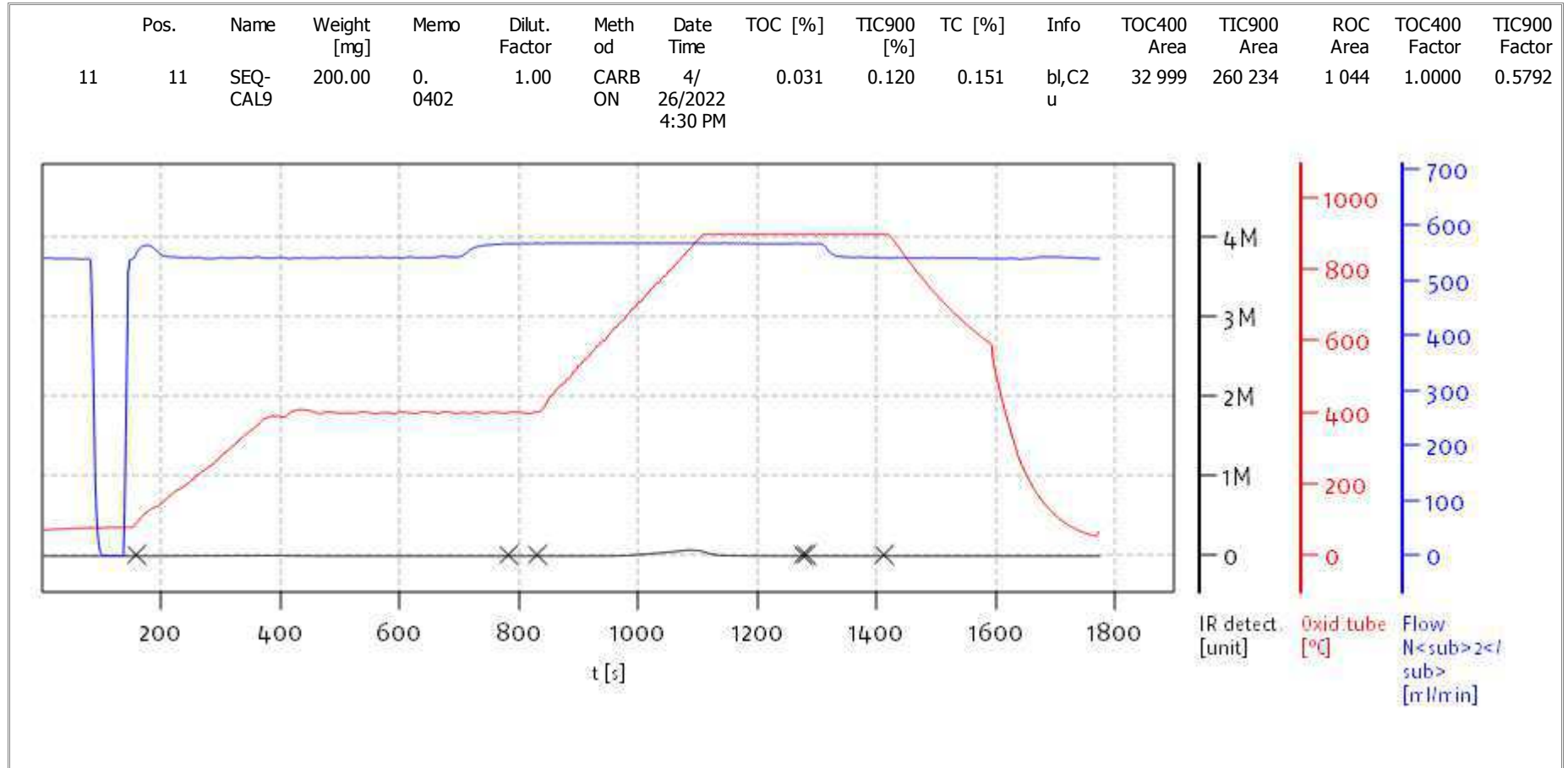
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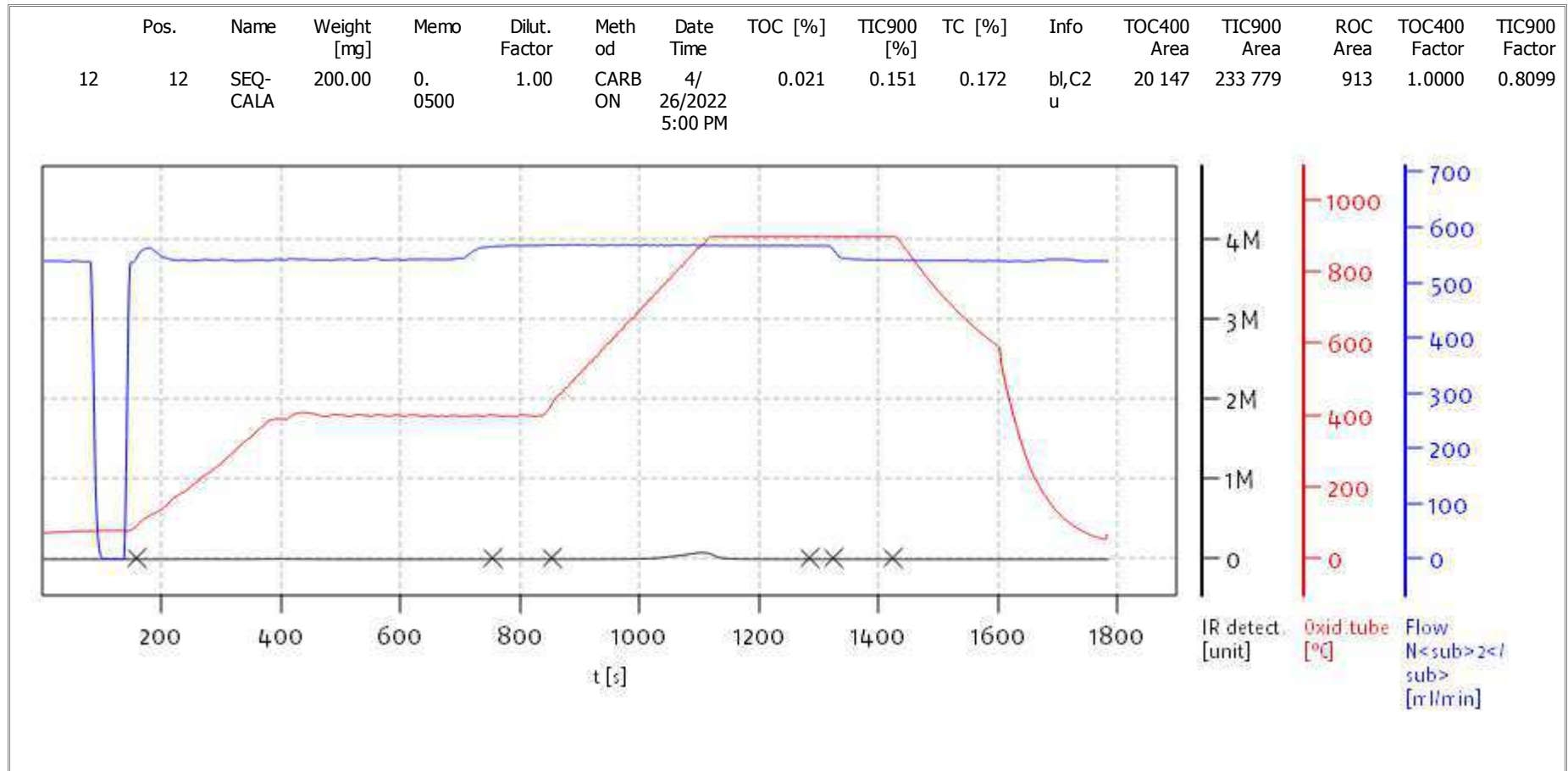
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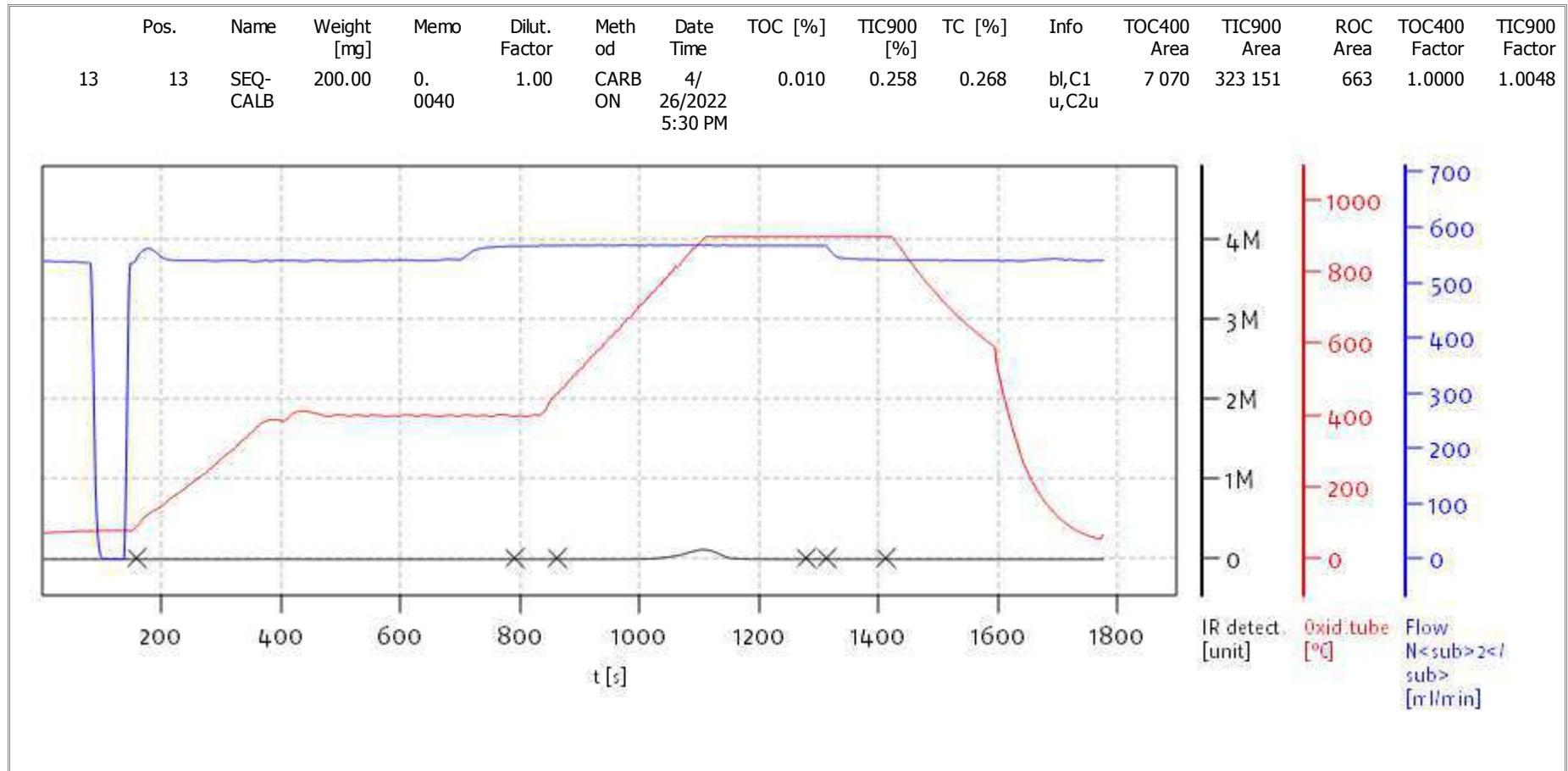
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

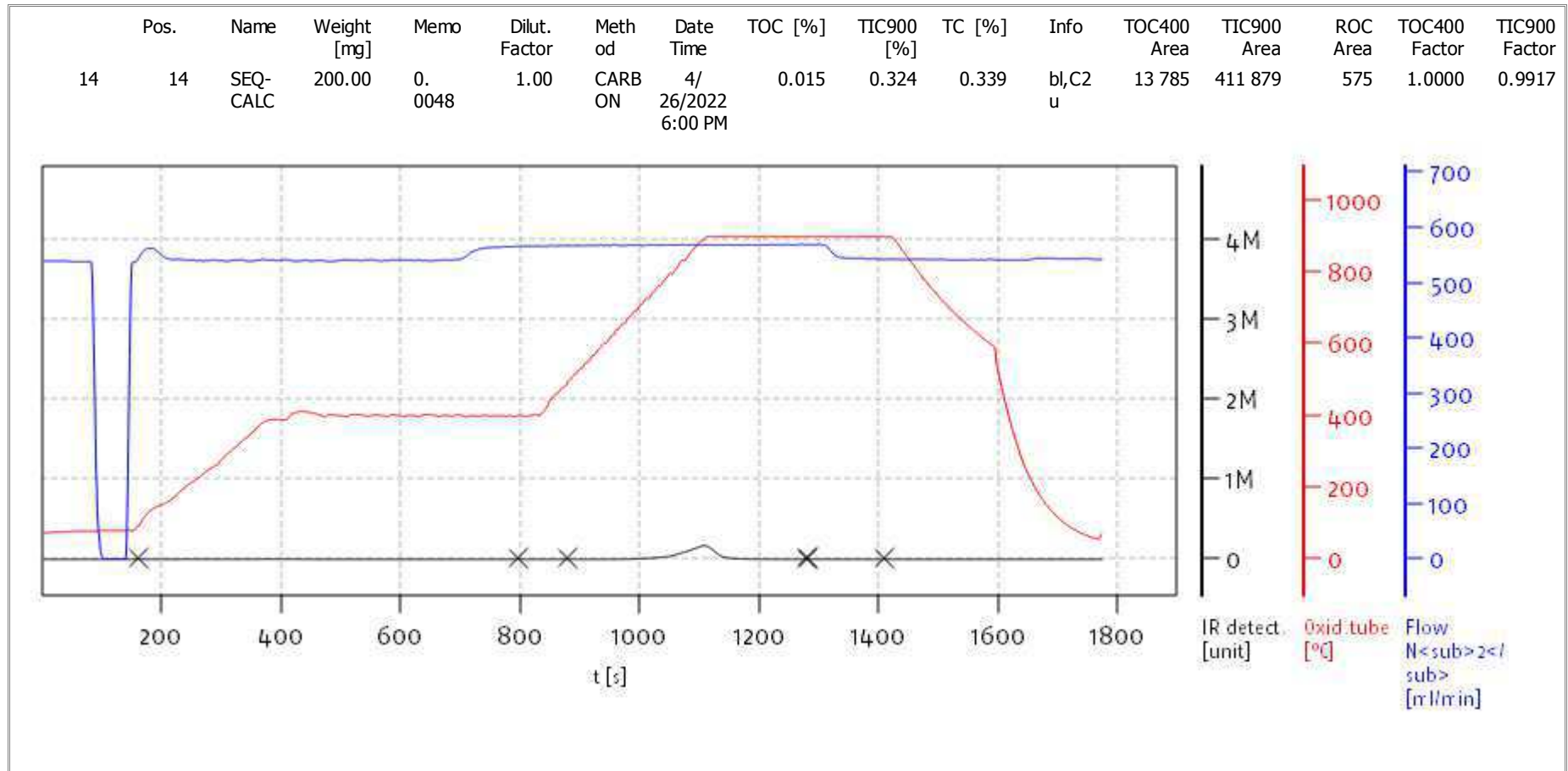
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

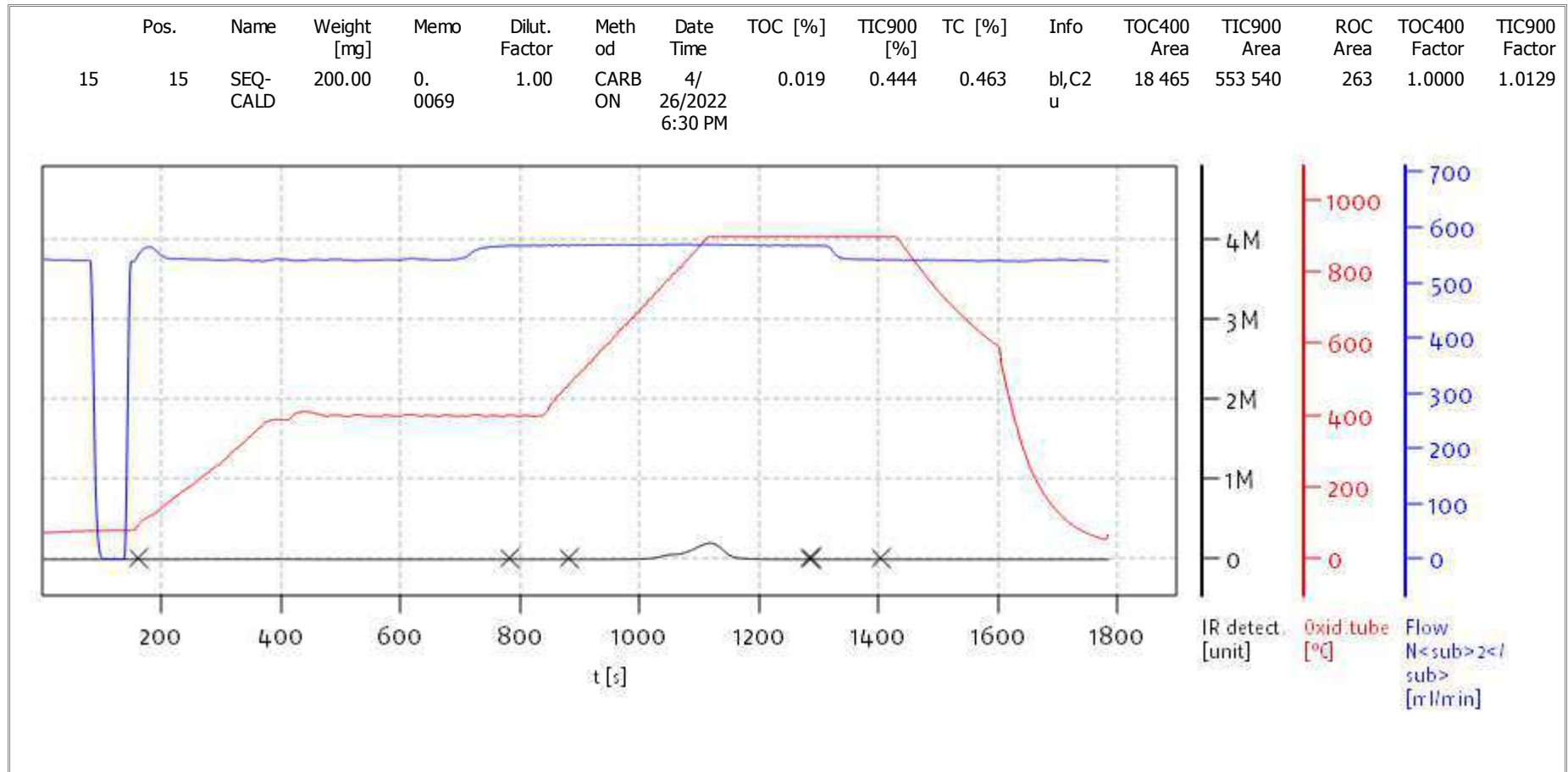
Date: Wed Apr 27 11:07:12 2022



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Name:

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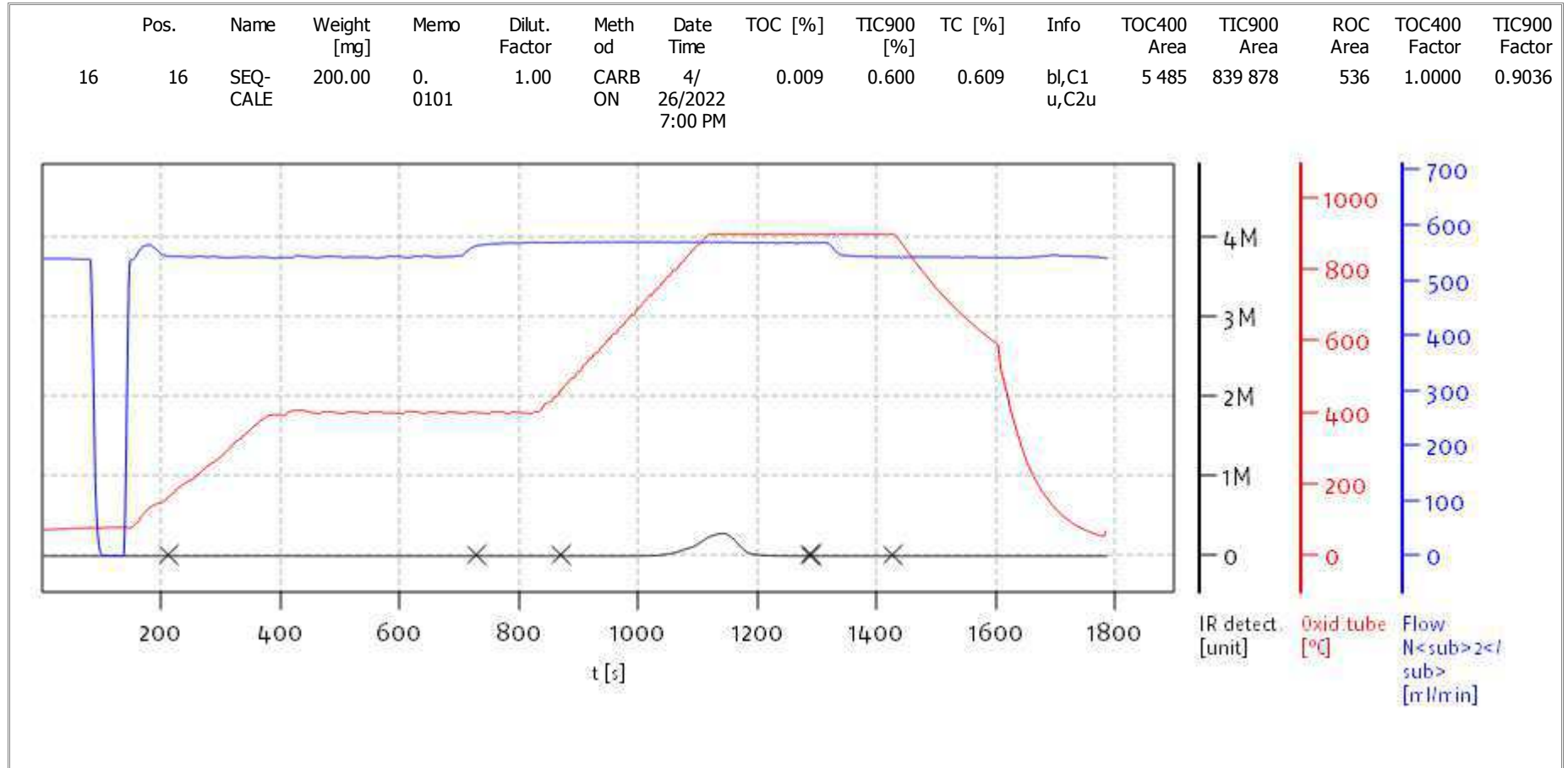
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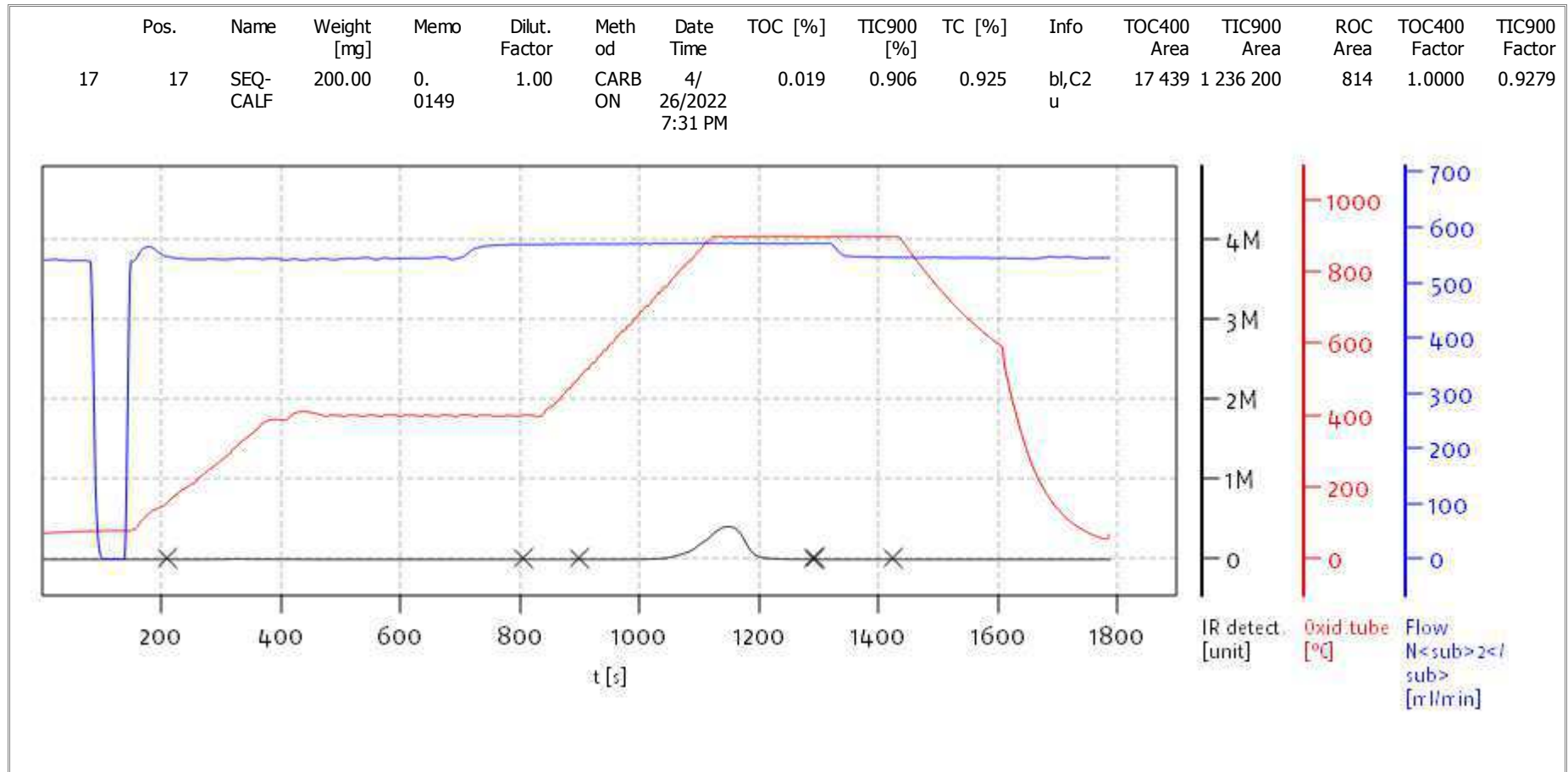
Date: Wed Apr 27 11:07:12 2022



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Balance: BAL3
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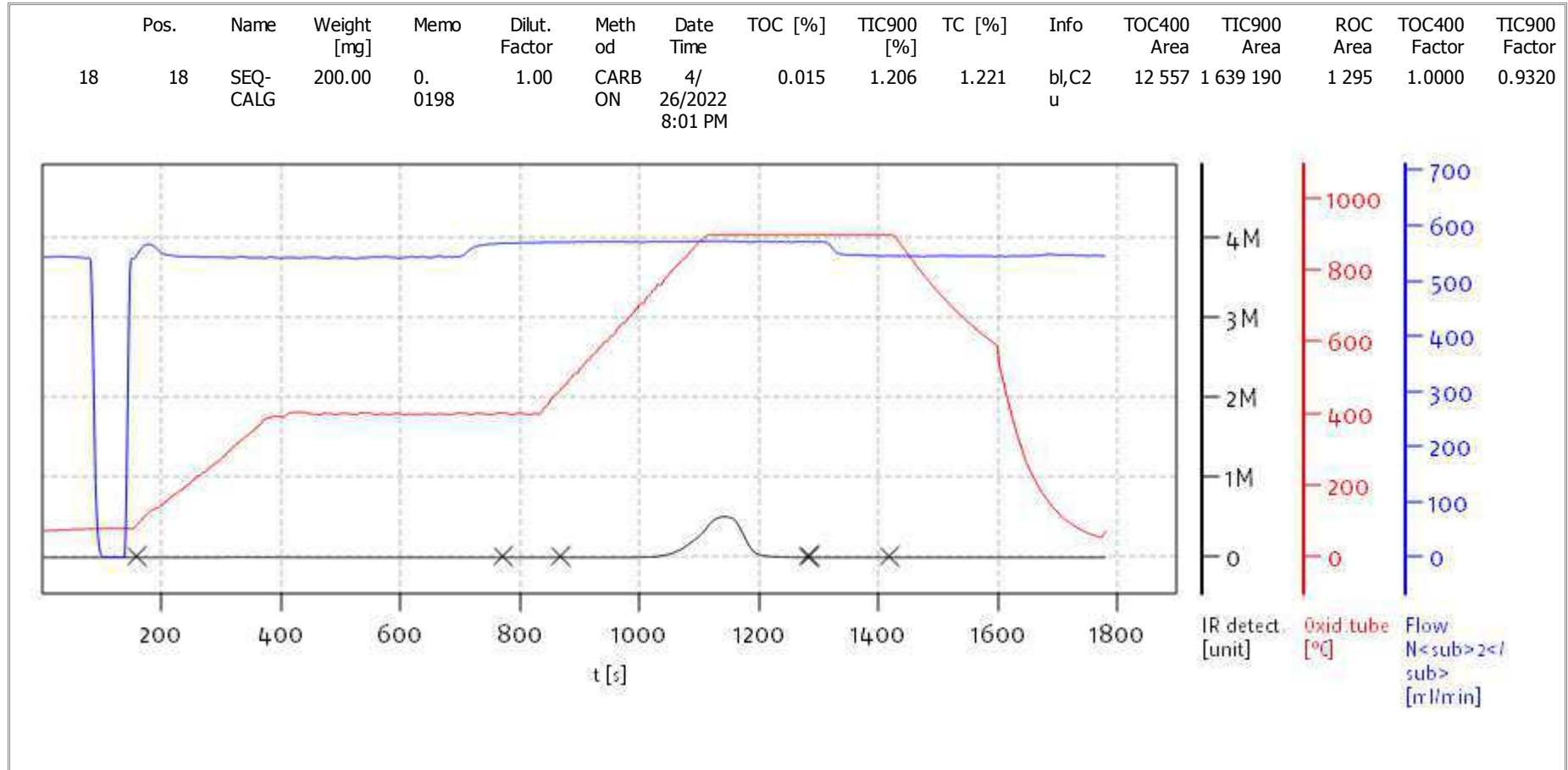
Date: Wed Apr 27 11:07:12 2022



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Balance: BAL3
Analyst: DOE



Name:

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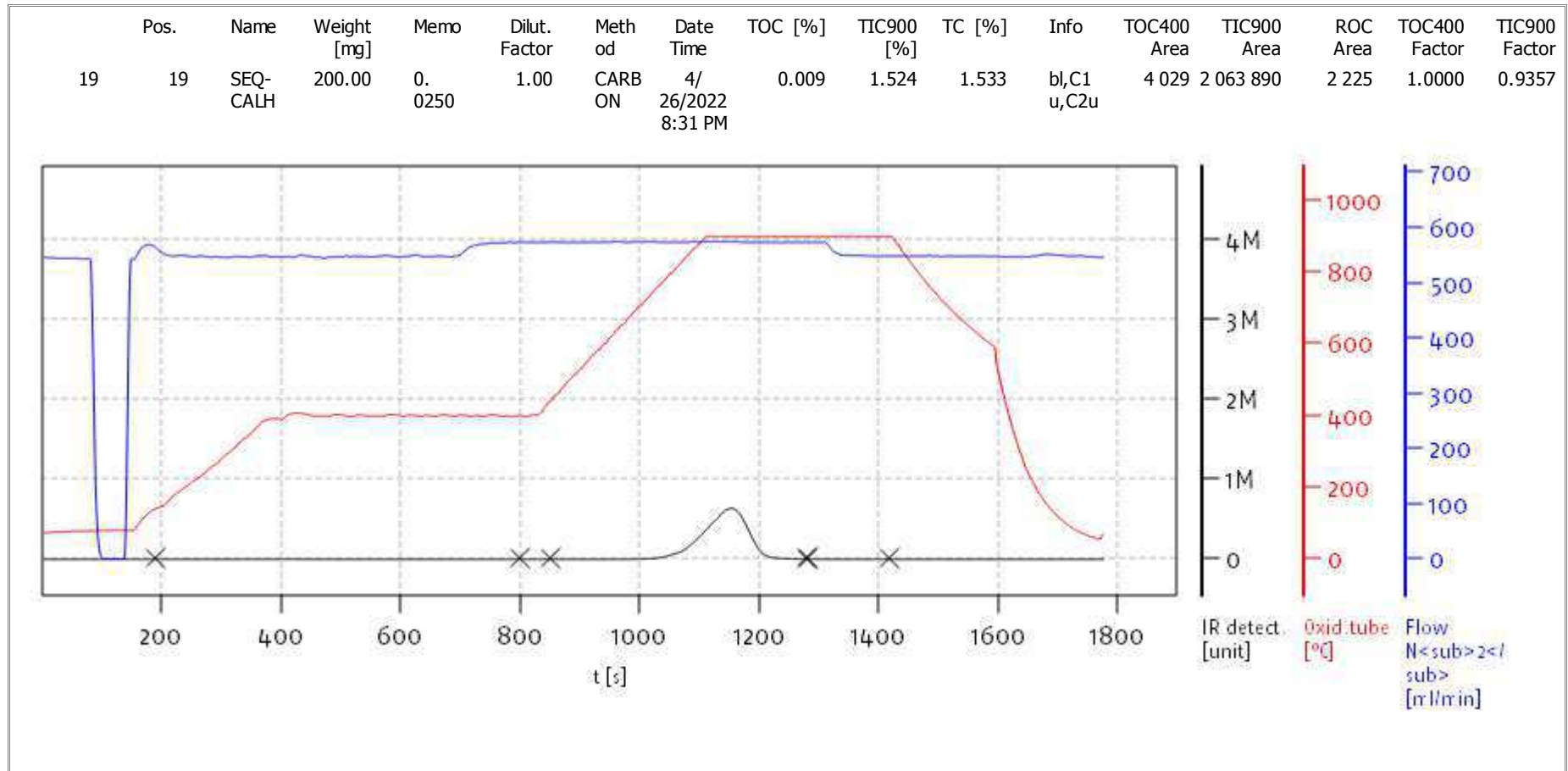
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

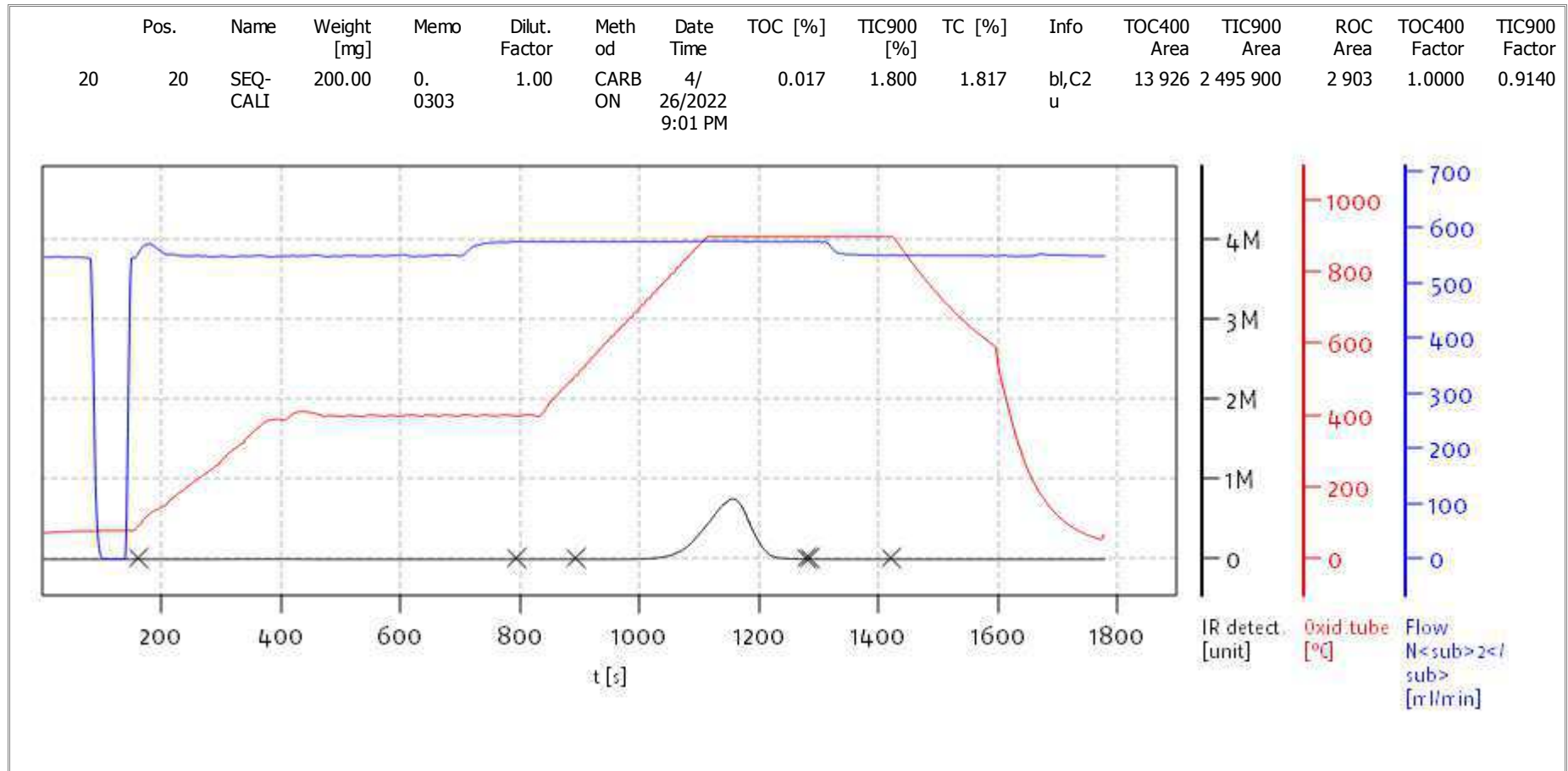
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

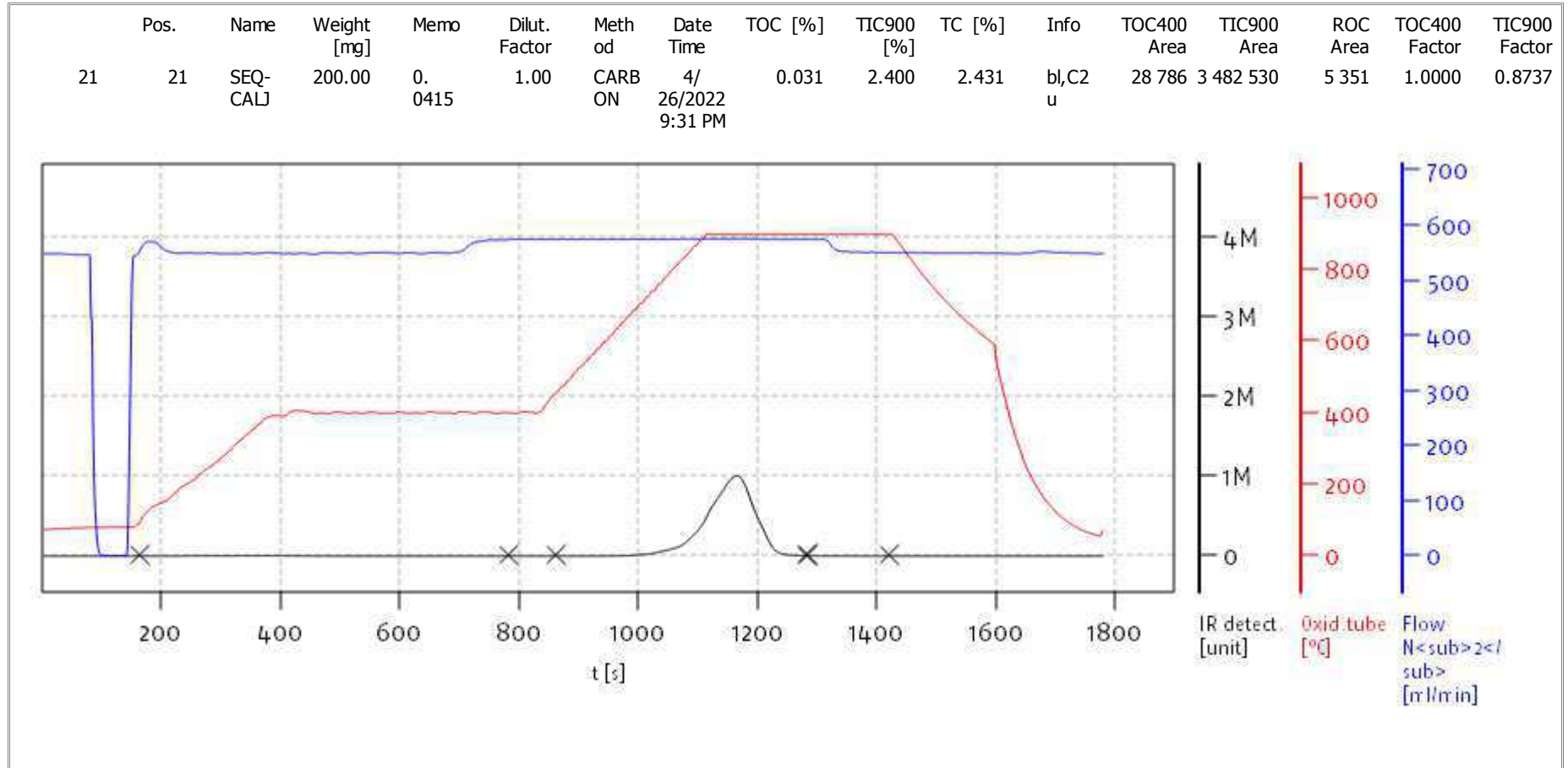
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

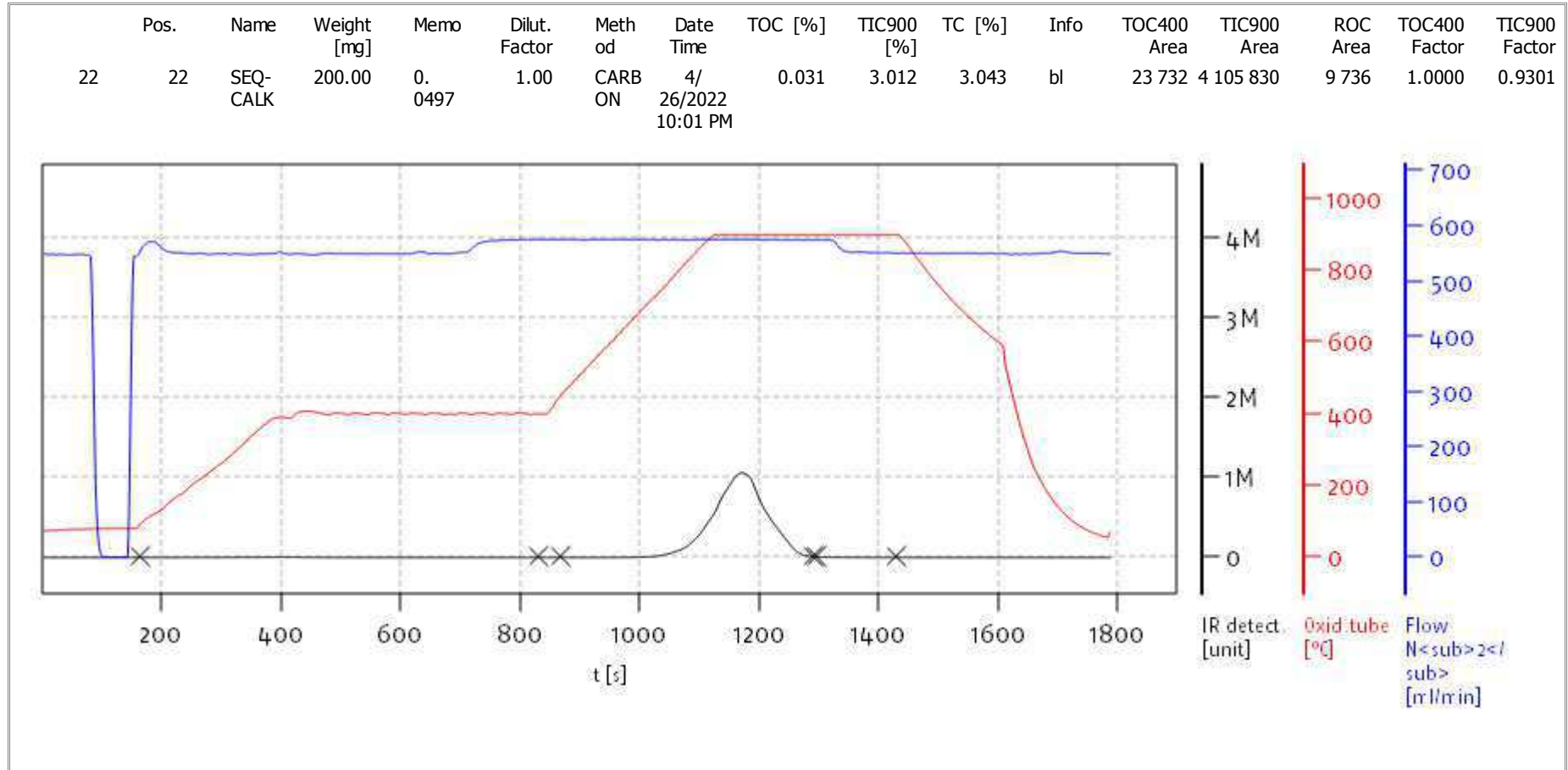
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Soli TOC Cube, Carbon
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Analyst: DOE



Name:

Access: solITOC superuser

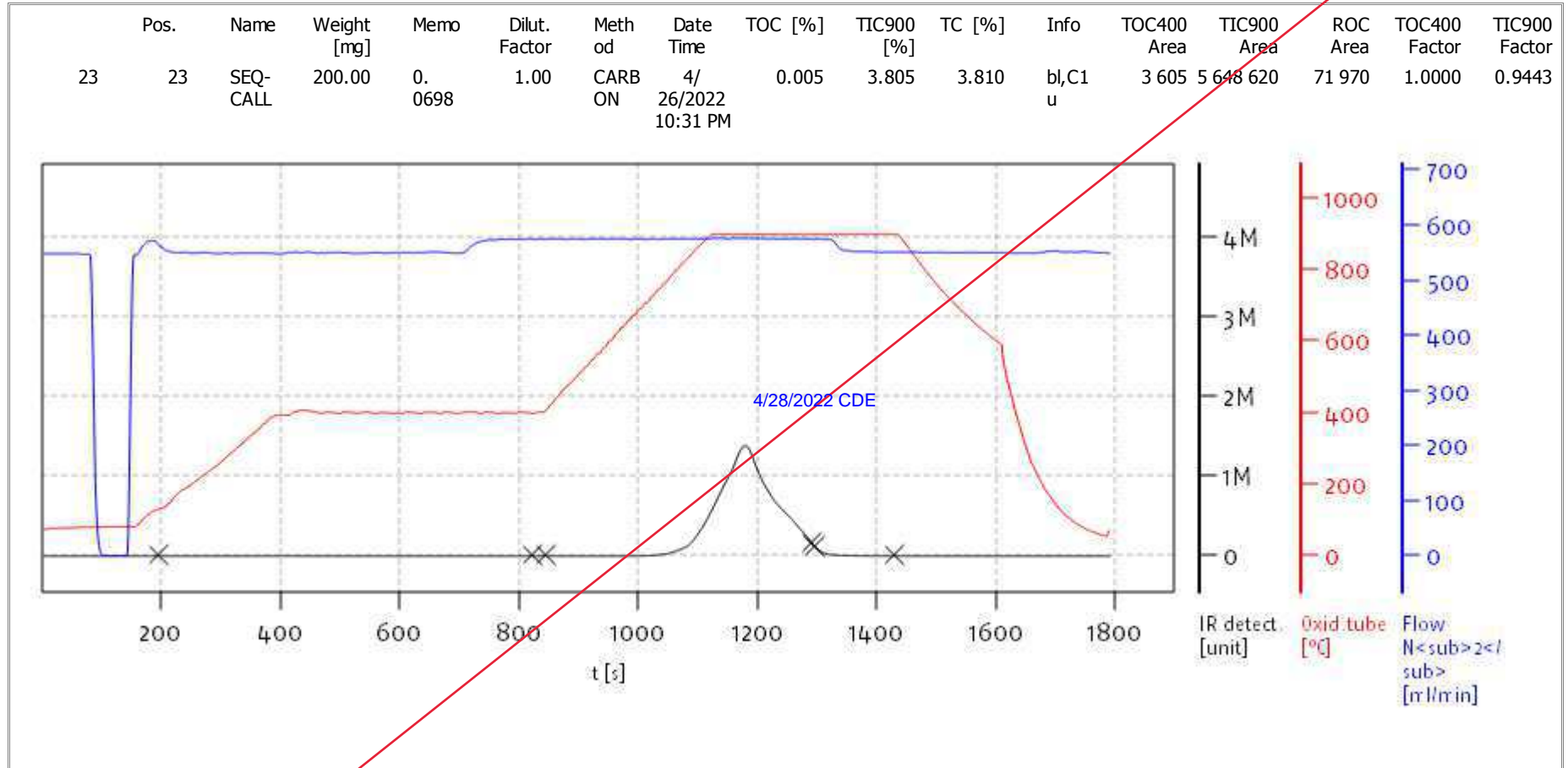
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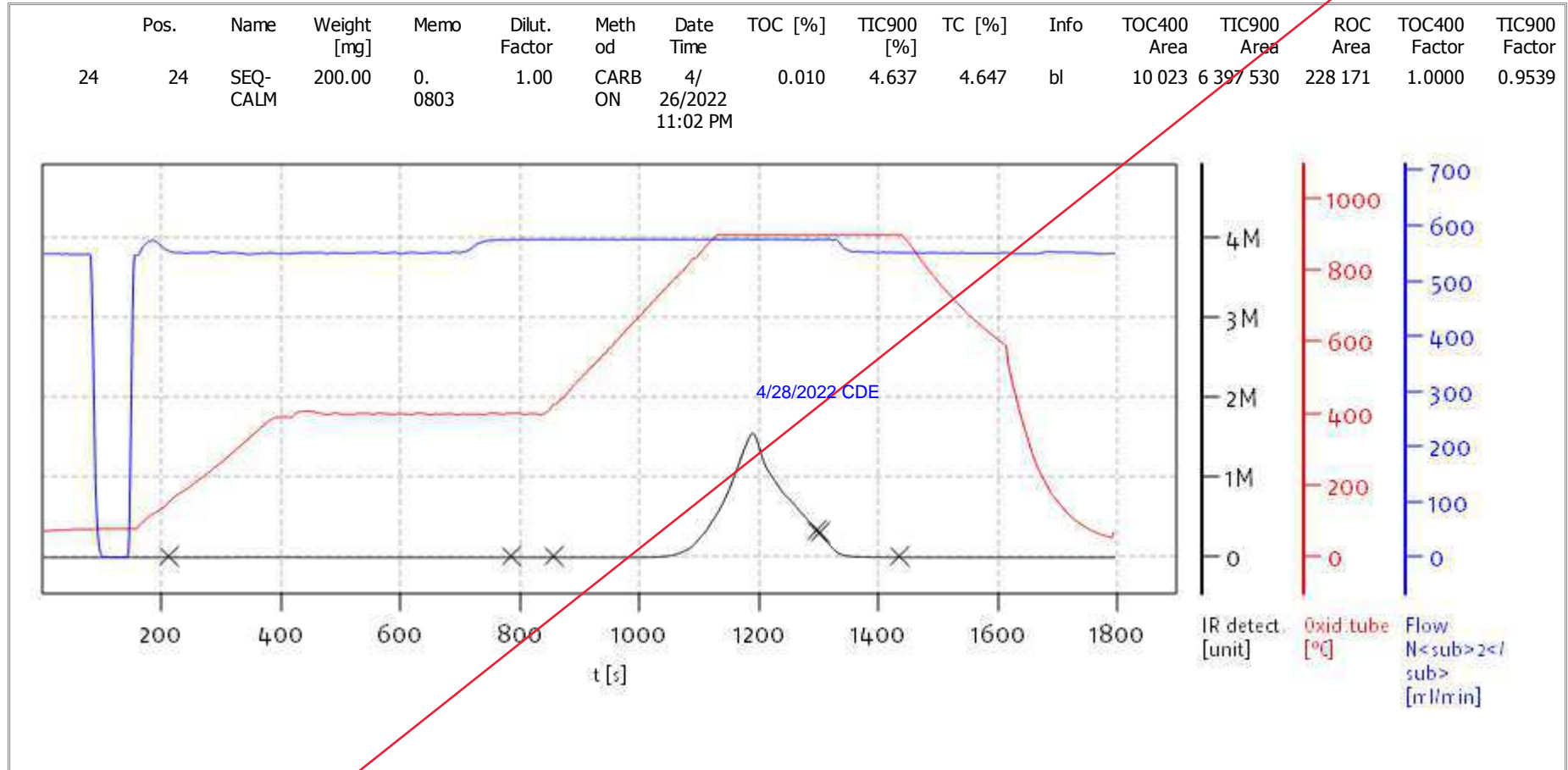
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Name:

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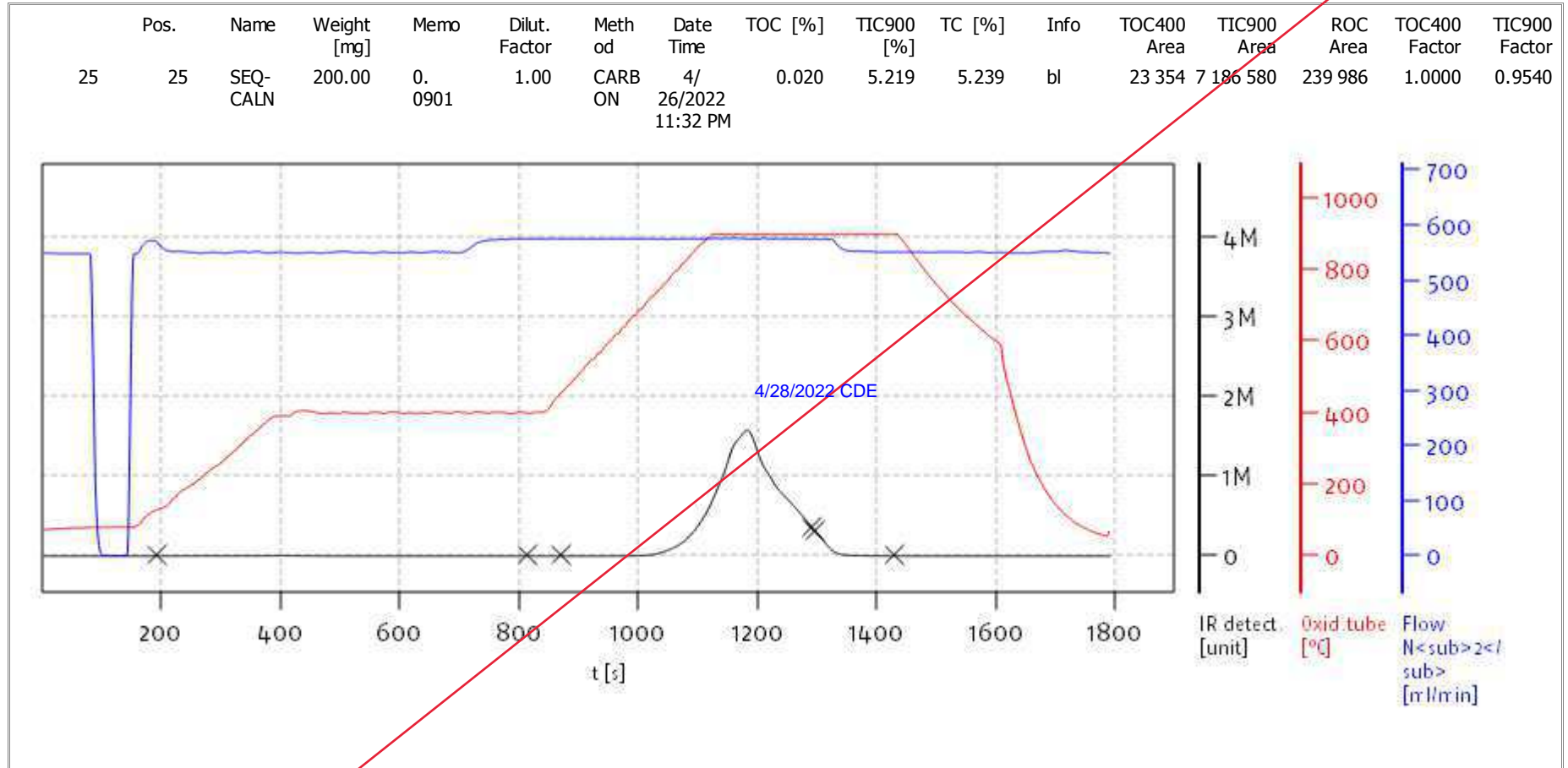
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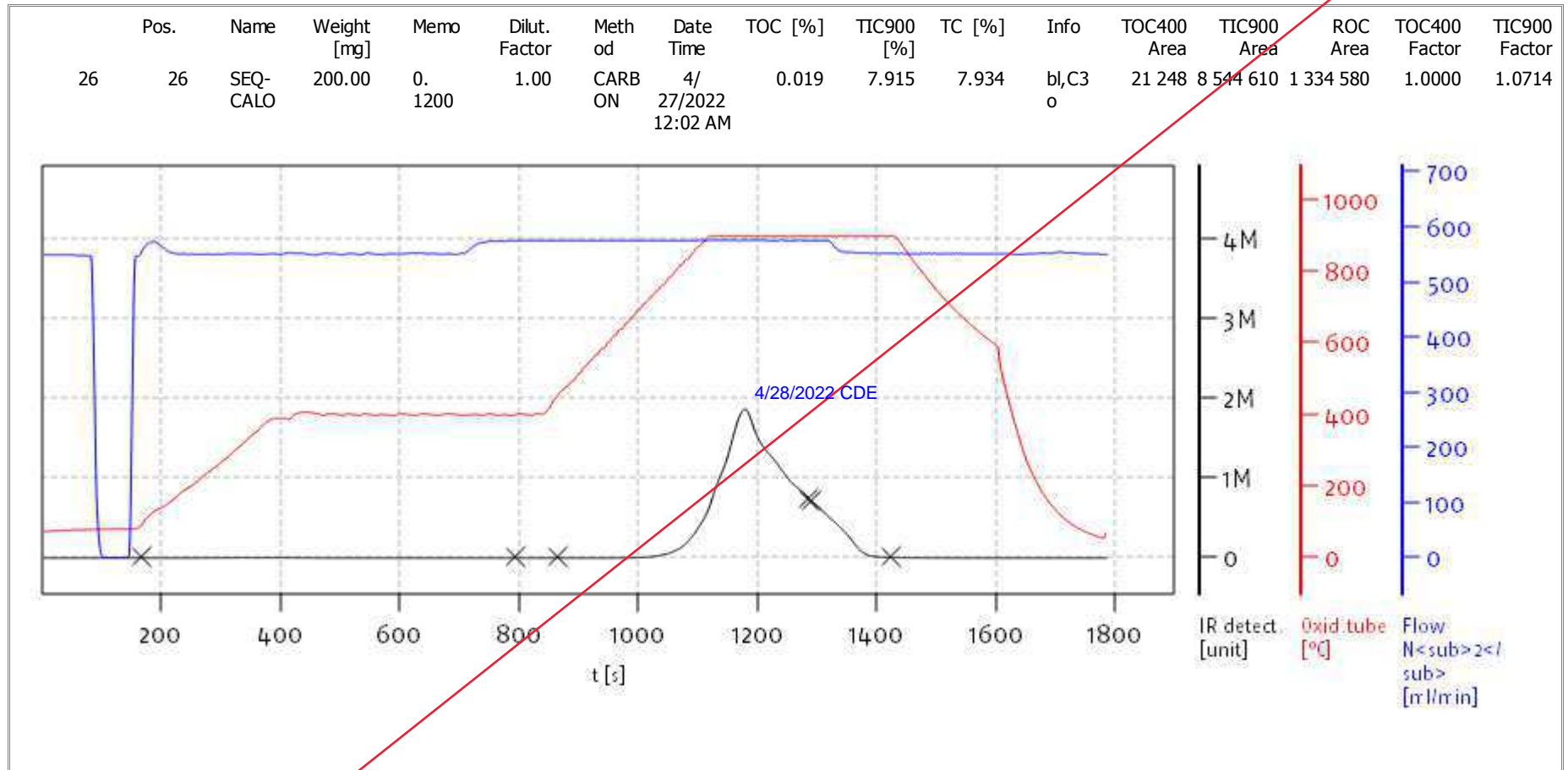
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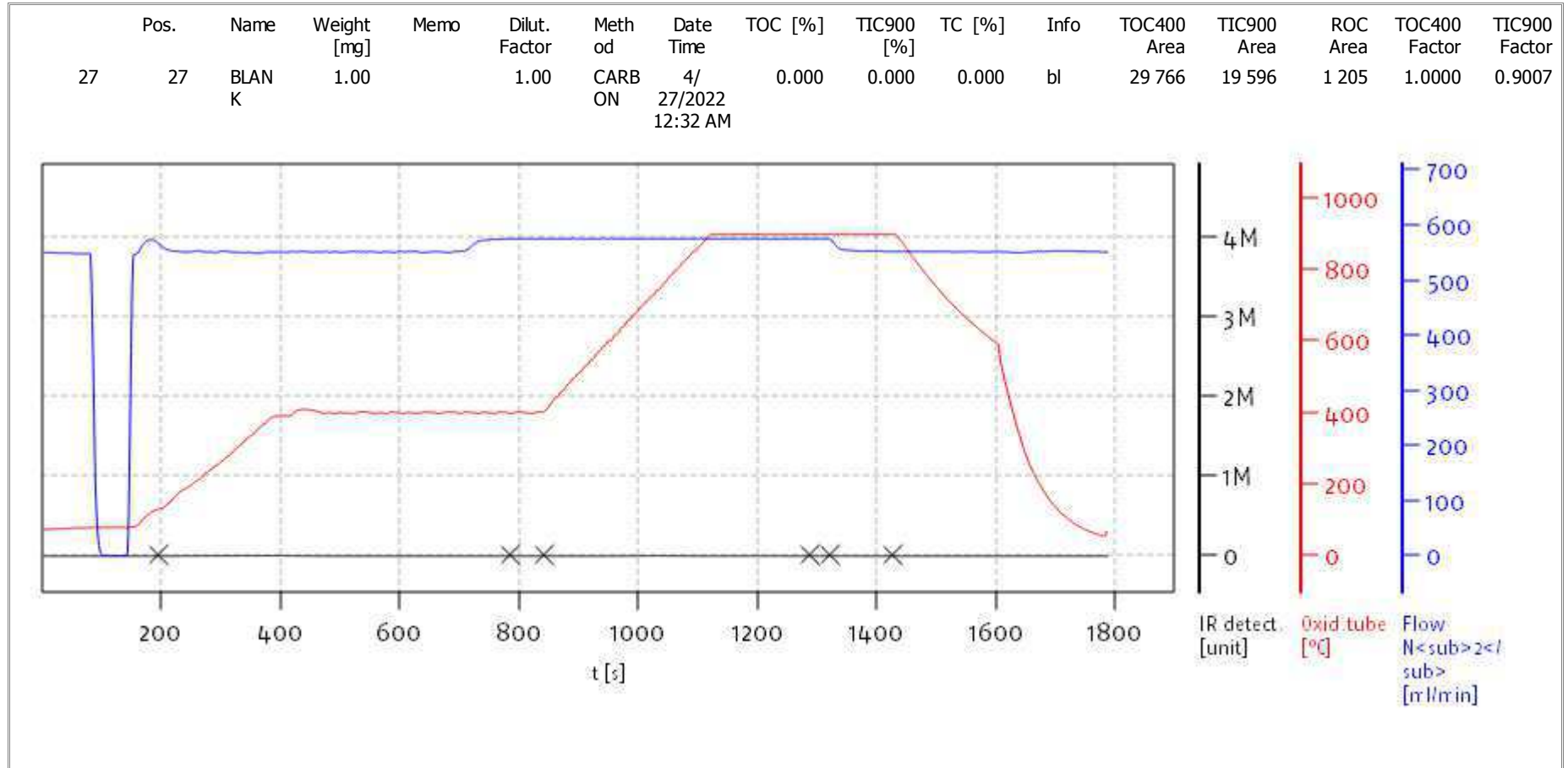
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Serial No: 0300.181017
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Name:

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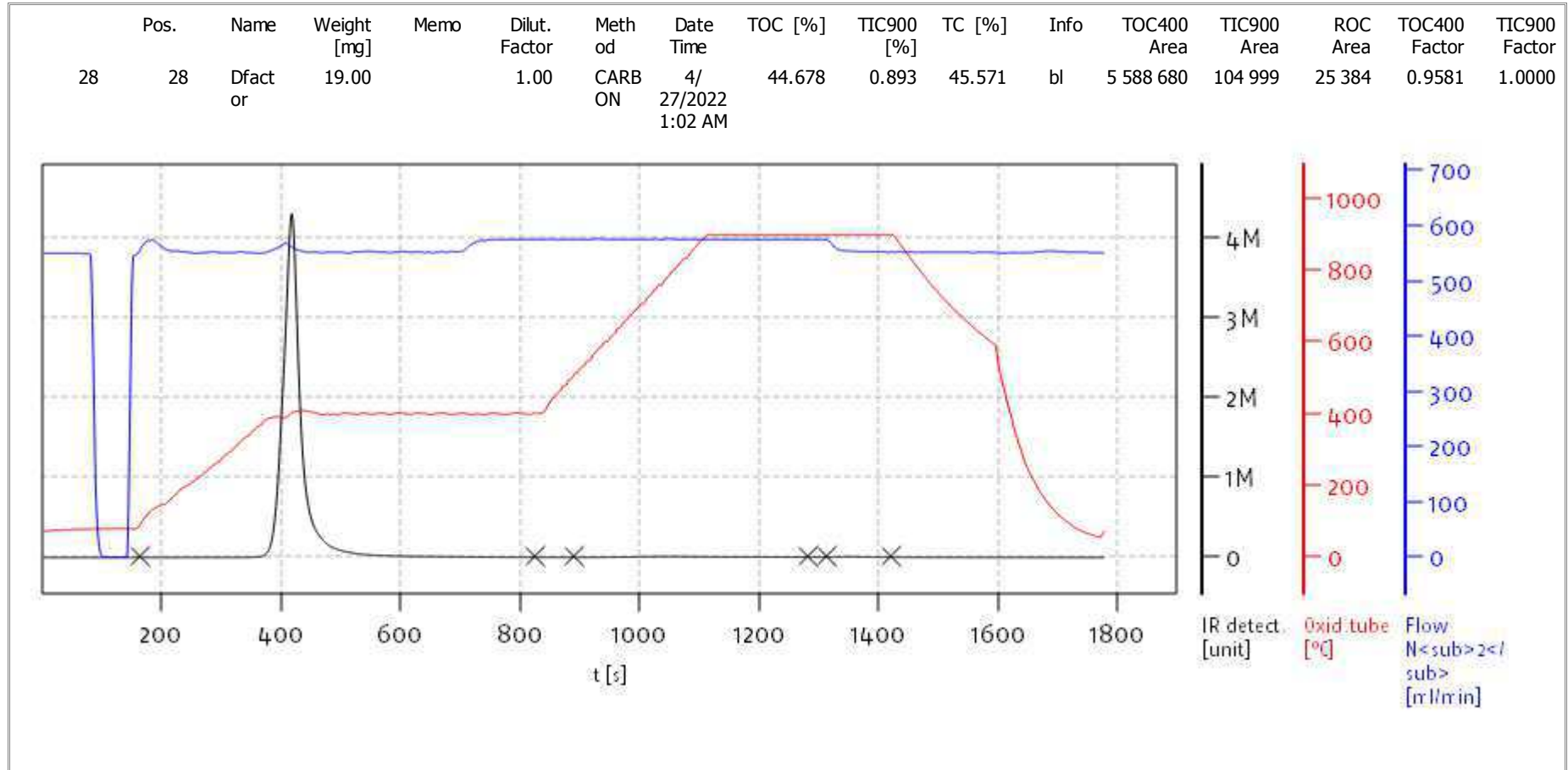
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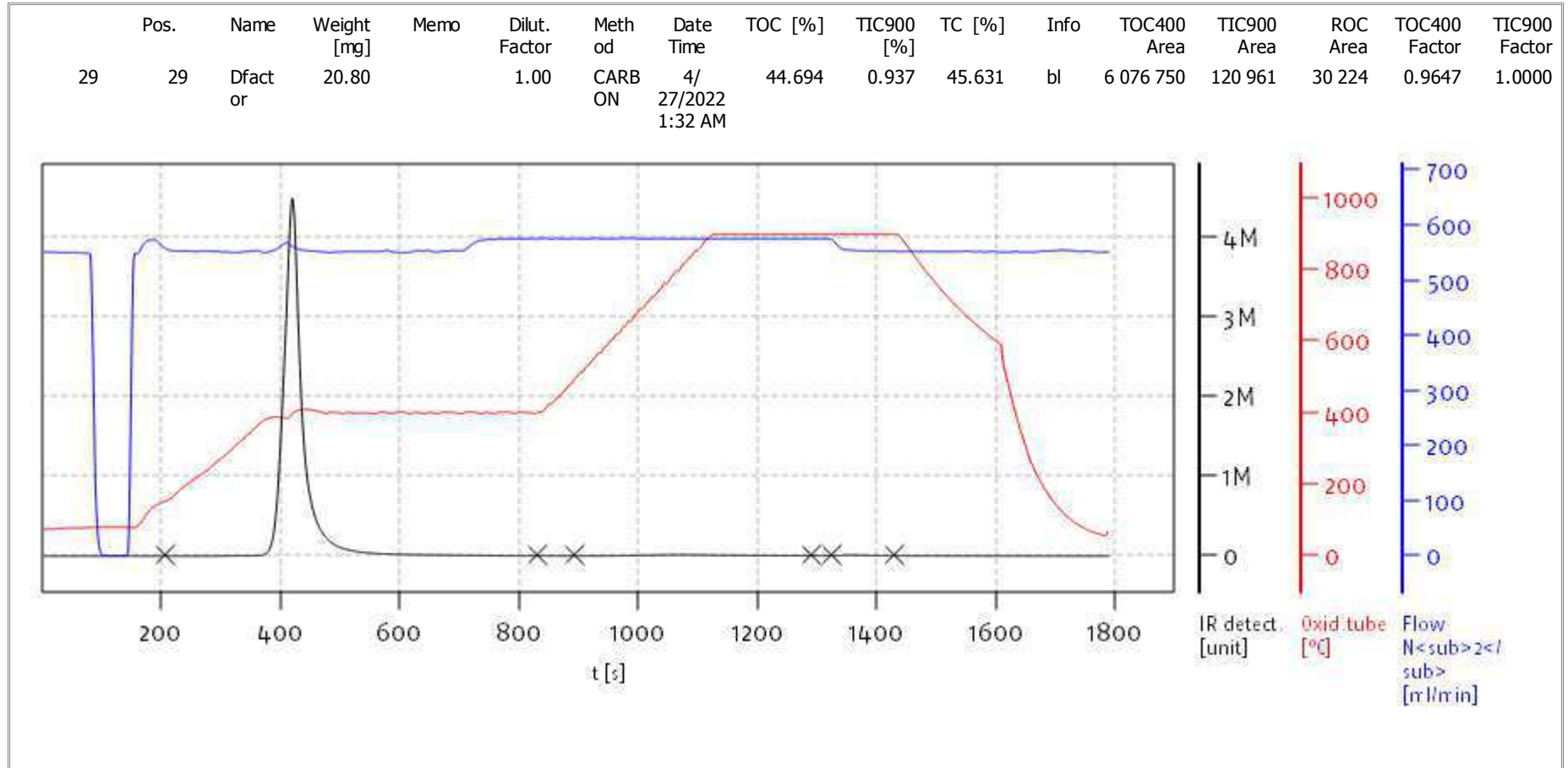
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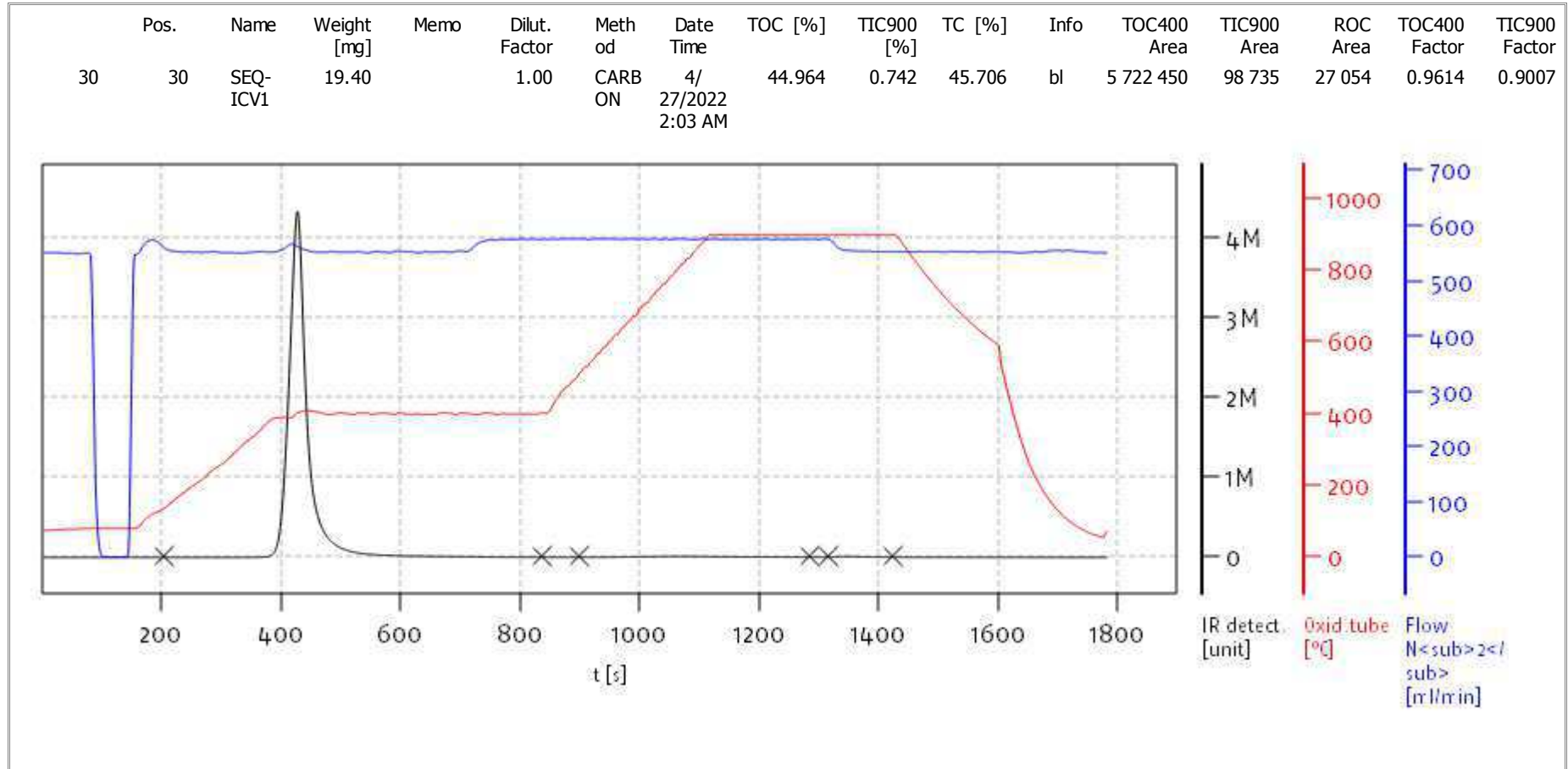
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Serial No: 0300.181017
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Balance: BAL3
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Name:

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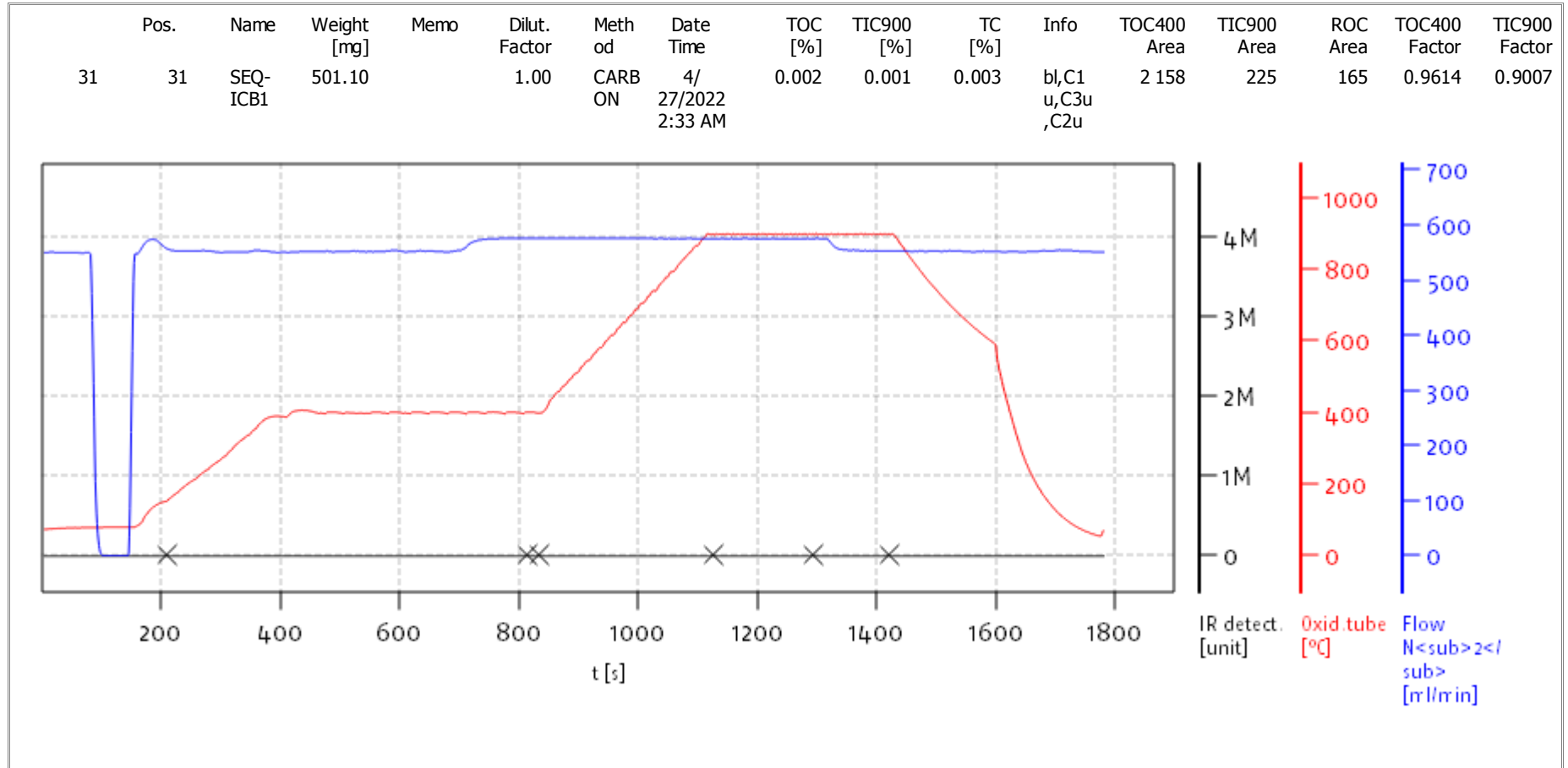
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
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Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

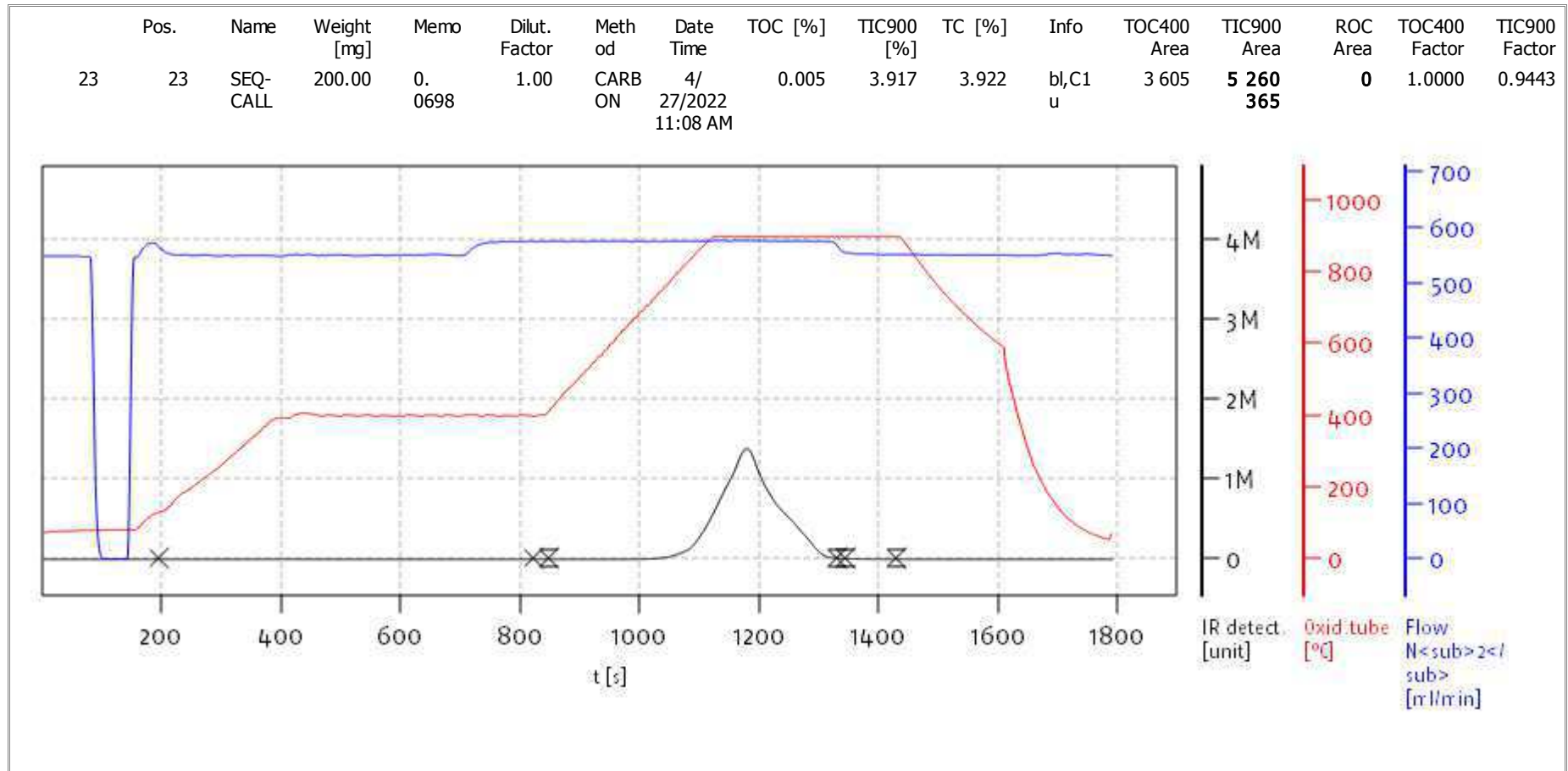
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Serial No: 0300.181017
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Balance: BAL3
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Name:

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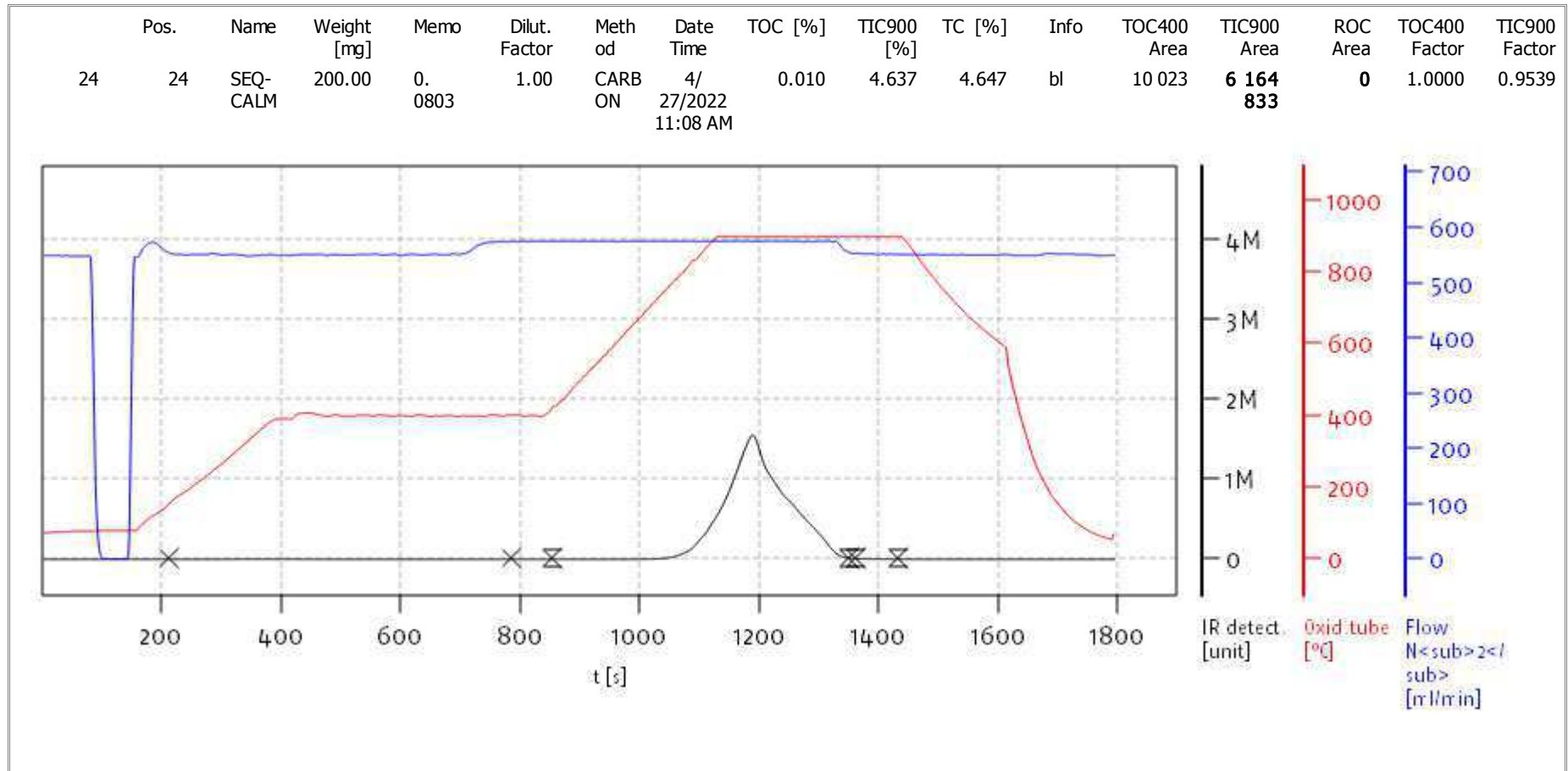
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



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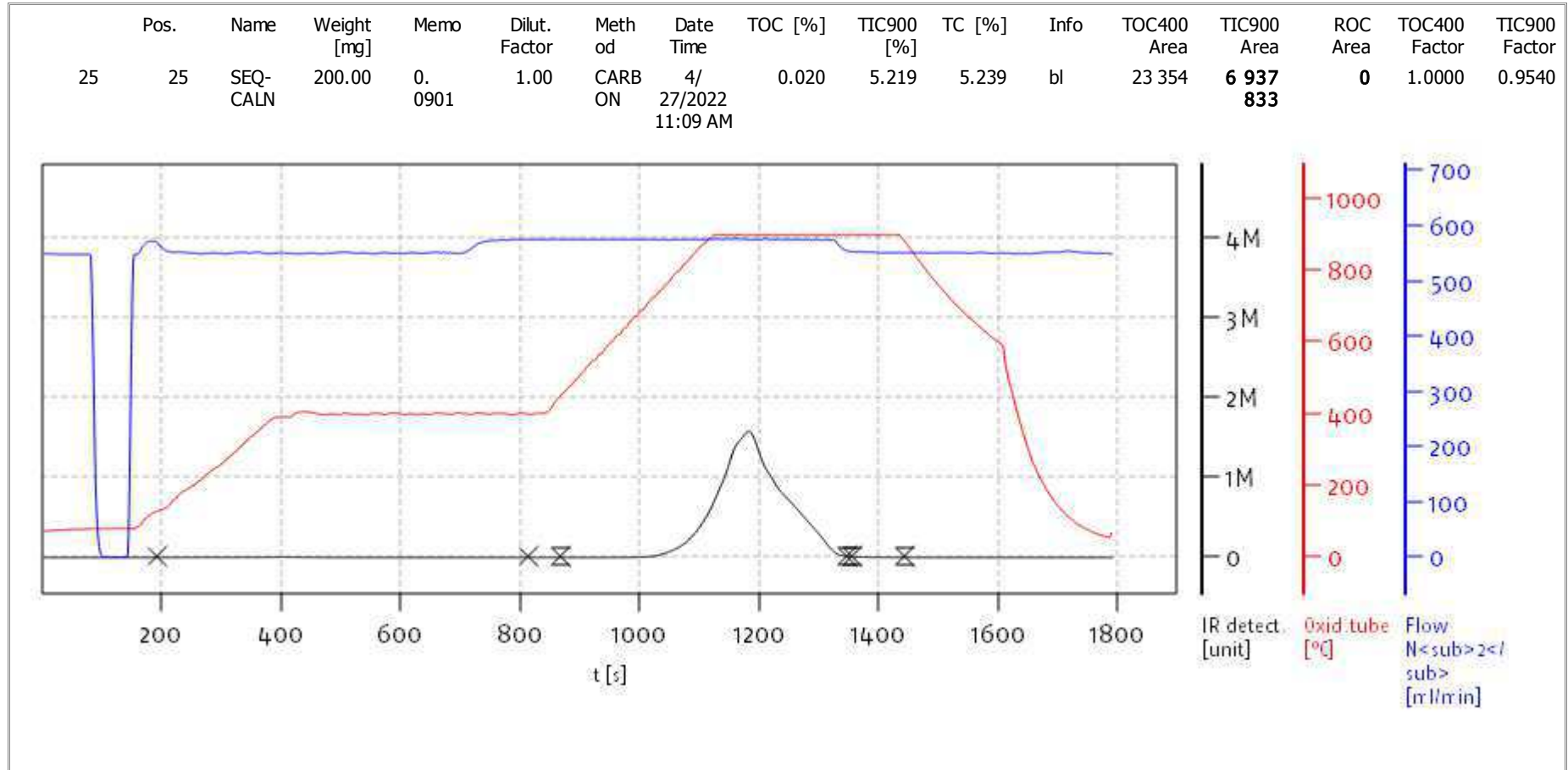
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

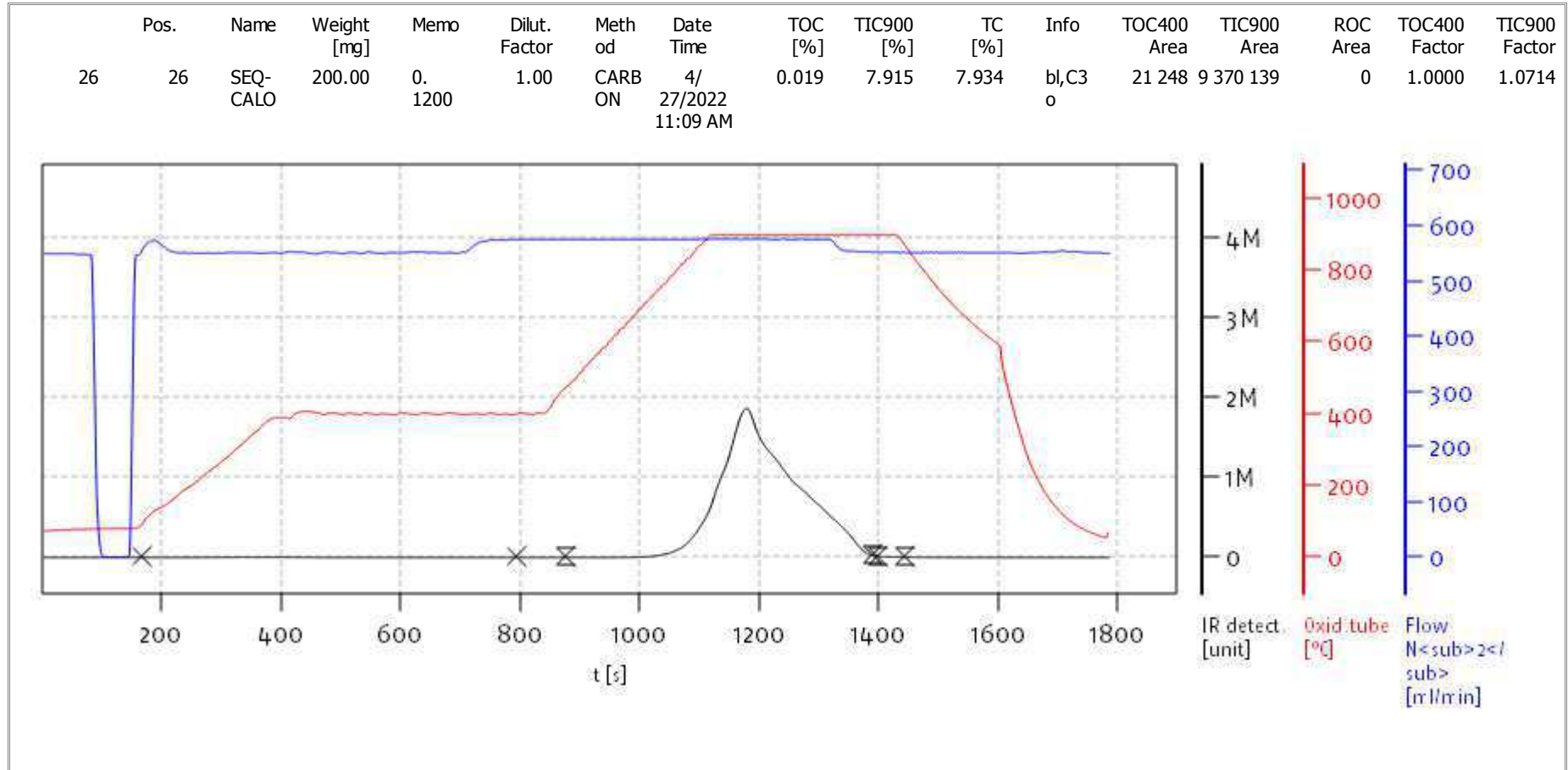
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

Date: Wed Apr 27 11:10:16 2022

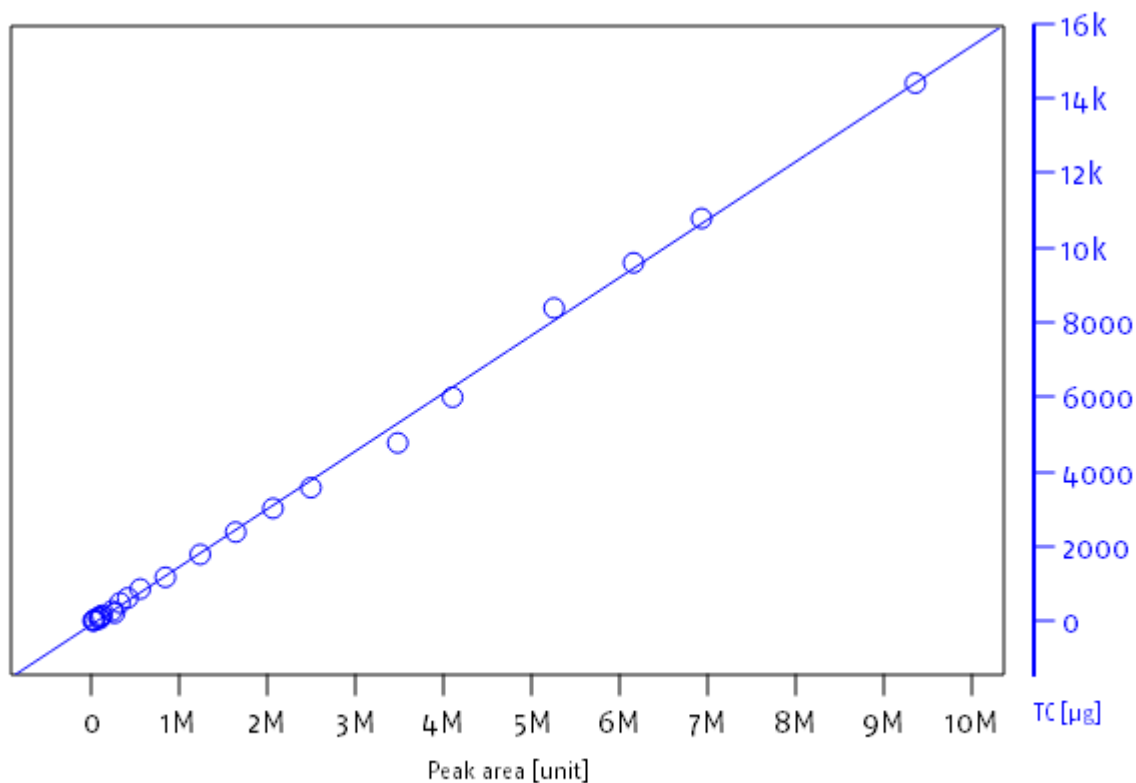


solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Calibration parameters TC, Whole range

a	-4.107546e-02
b	+1.548032e-06
c	+0.000000e+00
d	+0.000000e+00
e	+0.000000e+00
r	0.998372
r_old	0.998372
Proc.-SD	166.070255 µg

Calibration graph TC, Whole range



Name:

Access: solITOC superuser

Date: Wed Apr 27 11:19:56 2022



solITOC V2.0.2 (31015f9) 2018-11-19

Serial No: 0300.181017

Mode CCC



INSTRUMENT BLANKS
EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: TOC Cube

Calibration: FD00070

Sequence: SKD0371

Date Analyzed: 04/27/22 02:33

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SKD0371-ICB1	Total Organic Carbon	0.00	0.02	0.02	%	



INSTRUMENT BLANKS
EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: TOC Cube

Calibration: FD00070

Sequence: SLA0065

Date Analyzed: 01/07/23 16:15

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SLA0065-ICB1	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0065-CCB1	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0065-CCB2	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0065-CCB3	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0065-CCB4	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0065-CCB5	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0065-CCB6	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0065-CCB7	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0065-CCB8	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0065-CCB9	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0065-CCBA	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0065-CCBB	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0065-CCBC	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0065-CCBD	Total Organic Carbon	0.00	0.02	0.02	%	
SLA0065-CCBE	Total Organic Carbon	0.00	0.02	0.02	%	



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 9060A m**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: TOC Cube

Calibration: FD00070

Control Limit: +/- 10.00%

Sequence: SKD0371

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SKD0371-ICV1	Total Organic Carbon	44.446	43.7	98.3	%	EPA 9060A m
	Total Carbon	44.446	44.1	99.2	%	EPA 9060A m
	Total Inorganic Carbon	0.0000	0.40		%	EPA 9060A m
	% Soot	0.0000	0.004		%	EPA 9060A m

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 9060A m**

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Instrument ID: TOC Cube

Calibration: FD00070

Control Limit: +/- 10.00%

Sequence: SLA0065

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SLA0065-ICV1	Total Organic Carbon	44.446	44.5	100	%	EPA 9060A m
SLA0065-CCV1	Total Organic Carbon	44.446	44.3	99.7	%	EPA 9060A m
SLA0065-CCV2	Total Organic Carbon	44.446	44.7	101	%	EPA 9060A m
SLA0065-CCV3	Total Organic Carbon	44.446	44.5	100	%	EPA 9060A m
SLA0065-CCV4	Total Organic Carbon	44.446	43.4	97.5	%	EPA 9060A m
SLA0065-CCV5	Total Organic Carbon	44.446	43.7	98.3	%	EPA 9060A m
SLA0065-CCV6	Total Organic Carbon	44.446	44.4	100	%	EPA 9060A m
SLA0065-CCV7	Total Organic Carbon	44.446	45.0	101	%	EPA 9060A m
SLA0065-CCV8	Total Organic Carbon	44.446	44.2	99.4	%	EPA 9060A m
SLA0065-CCV9	Total Organic Carbon	44.446	43.8	98.4	%	EPA 9060A m
SLA0065-CCVA	Total Organic Carbon	44.446	44.2	99.5	%	EPA 9060A m
SLA0065-CCVB	Total Organic Carbon	44.446	44.6	100	%	EPA 9060A m
SLA0065-CCVC	Total Organic Carbon	44.446	44.5	100	%	EPA 9060A m
SLA0065-CCVD	Total Organic Carbon	44.446	44.2	99.3	%	EPA 9060A m
SLA0065-CCVE	Total Organic Carbon	44.446	44.3	99.8	%	EPA 9060A m

* Values outside of QC limits



STANDARD REFERENCE MATERIAL RECOVERY

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Laboratory ID: BLA0124-SRM1

Batch: BLA0124

Initial/Final: 0.2647 g / 0.2647 g

Preparation: Plumb 1981

Analyzed: 01/08/2023 9:32

Standard ID: K011789

Expires: 12/24/2023

Standard Lot#: NA

Description: 1941B - Organics in Marine Sediment (Conv

ANALYTE	TRUE (% wet)	FOUND (% wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Total Organic Carbon	2.9900	2.98	0.02	0.02		99.6	80 - 120

* Values outside of QC limits



HOLDING TIME SUMMARY

Analysis: EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-IT1246 23A0032-01	01/03/23 08:52	01/03/23 16:57	01/06/23 09:50	3	28	01/08/23 12:35			
LDW23-IT1264 23A0032-02	01/03/23 09:12	01/03/23 16:57	01/06/23 09:50	3	28	01/08/23 13:05			
LDW23-IT1269 23A0032-03	01/03/23 09:36	01/03/23 16:57	01/06/23 09:50	3	28	01/08/23 13:36			
LDW23-IT1272 23A0032-04	01/03/23 10:45	01/03/23 16:57	01/06/23 09:50	2	28	01/08/23 14:07			
LDW23-IT1224 23A0032-05	01/03/23 13:21	01/03/23 16:57	01/06/23 09:50	2	28	01/08/23 17:10			
LDW23-IT1235 23A0032-06	01/03/23 13:34	01/03/23 16:57	01/06/23 09:50	2	28	01/08/23 17:41			
LDW23-IT1202 23A0032-07	01/03/23 14:36	01/03/23 16:57	01/06/23 09:50	2	28	01/08/23 18:11			
LDW23-SC1226B 23A0032-08	01/03/23 12:35	01/03/23 16:57	01/06/23 09:50	2	28	01/08/23 18:42			
LDW23-SC1203 23A0032-09	01/03/23 14:21	01/03/23 16:57	01/06/23 09:50	2	28	01/08/23 19:12			
LDW23-SC1203-FD 23A0032-10	01/03/23 14:21	01/03/23 16:57	01/06/23 09:50	2	28	01/08/23 19:43			
LDW23-SC1212 23A0032-11	01/03/23 14:01	01/03/23 16:57	01/06/23 09:50	2	28	01/08/23 20:13			

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument: TOC Cube

Analyte	MDL	RL	Units
Total Organic Carbon	0.02	0.02	%



National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material® 1941b

Organics in Marine Sediment

This Standard Reference Material (SRM) is marine sediment collected at the mouth of the Baltimore (MD) Harbor. SRM 1941b is intended for use in evaluating analytical methods for the determination of selected polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and chlorinated pesticides in marine sediment and similar matrices. Information values are also provided for total organic carbon (TOC), total carbon, hydrogen, and nitrogen. All of the constituents for which certified, reference, and information values are provided in SRM 1941b were naturally present in the sediment before processing. A unit of SRM 1941b consists of a bottle containing 50 g of radiation-sterilized, freeze-dried sediment.

Certified Mass Fraction Values: Certified mass fraction values for PAHs, PCB congeners, and chlorinated pesticides are provided in Table 1 through Table 3. The certified values for the PAHs, PCB congeners, and chlorinated pesticides are based on the agreement of results obtained at NIST from two or more chemically independent analytical techniques along with results from an interlaboratory comparison study [1]. A NIST certified value is a value for which NIST has the highest confidence in its accuracy in that all known or suspected sources of bias have been investigated or taken into account [1].

Reference Mass Fraction Values: Reference mass fraction values for additional PAHs (some in combination), additional PCB congeners, and additional chlorinated pesticides are provided in Table 4 through Table 7. Reference values for alkylated PAH groups are provided in Table 8 and for selected hopanes and steranes in Table 9. A reference value for total organic carbon is provided in Table 10. Reference values are noncertified values that are the best estimate of the true value; however, the values do not meet the NIST criteria for certification and are provided with associated uncertainties that may reflect only measurement precision, may not include all sources of uncertainty, or may reflect a lack of sufficient statistical agreement among multiple analytical methods [1].

Information Mass Fraction Values: Information mass fraction values are provided in Table 11 for carbon, hydrogen, and nitrogen. An information value is considered to be a value that will be of use to the SRM user, but insufficient information is available to assess the uncertainty associated with the value [1]. Information values cannot be used to establish metrological traceability.

Expiration of Certification: The certification of SRM 1941b is valid, within the measurement uncertainty specified, until **01 October 2020**, provided the SRM is handled and stored in accordance with the instructions given in this certificate (see "Instructions for Handling, Storage, and Use"). This certification is nullified if the SRM is damaged, contaminated, or otherwise modified.

Maintenance of SRM Certification: NIST will monitor this SRM over the period of its certification. If substantive technical changes occur that affect the certification before the expiration of this certificate, NIST will notify the purchaser. Registration (see attached sheet or register online) will facilitate notification.

Coordination of the technical measurements leading to the certification of this material was under the leadership of M.M. Schantz and S.A. Wise of the NIST Chemical Sciences Division.

Analytical measurements for the certification of SRM 1941b were performed at NIST by J.R. Kucklick, B.J. Porter, D.L. Poster, M.M. Schantz, P. Schubert, S. Tutschku, and L.L. Yu of the NIST Chemical Sciences Division.

Carlos A. Gonzalez, Chief
Chemical Sciences Division

Measurements for TOC were provided by a commercial laboratory and T.L. Wade of the Geochemical and Environmental Research Group, Texas A&M University (College Station, TX). The carbon, hydrogen, and nitrogen data were provided by a commercial laboratory. Results for the PAHs, PCBs, and chlorinated pesticides from 38 laboratories (see Appendix A) that participated in an interlaboratory comparison exercise coordinated by NIST were used. Results for the alkylated PAH groups, hopanes, and steranes from 33 laboratories (see Appendix B) that participated in another interlaboratory comparison exercise coordinated by NIST were also used.

Collection and preparation of SRM 1941b were performed by M.P. Cronise and C.N. Fales of the NIST Office of Reference Materials and B.J. Porter and M.M. Schantz of the NIST Chemical Sciences Division. The sediment material was collected with the assistance of G.G. Lauenstein, J. Collier, and J. Lewis (National Oceanic and Atmospheric Administration, Silver Spring, MD).

Consultation on the statistical design of the experimental work and evaluation of the data were provided by S.D. Leigh and J.H. Yen of the NIST Statistical Engineering Division.

Support aspects involved in the issuance of this SRM were coordinated through the NIST Office of Reference Materials.

INSTRUCTIONS FOR HANDLING, STORAGE, AND USE

Handling: This material is naturally occurring marine sediment from an urban area and may contain constituents of unknown toxicities; therefore, caution and care should be exercised during its handling and use.

Storage: SRM 1941b must be stored in its original bottle at temperatures less than 30 °C and away from direct sunlight.

Use: Prior to removal of subsamples for analysis, the contents of the bottle should be mixed. The mass fractions of constituents in SRM 1941b are reported on a dry-mass basis. The SRM, as received, contains a mass fraction of approximately 2.4 % moisture (see "Conversion to Dry-Mass Basis"). The sediment sample should be dried to a constant mass before weighing for analysis; or a separate subsample of the sediment should be removed from the bottle at the time of analysis and dried to determine the mass fraction on a dry-mass basis. If the constituents of interest are volatile, then the moisture must be determined with a separate subsample.

PREPARATION AND ANALYSIS⁽¹⁾

Sample Collection and Preparation: The sediment used to prepare this SRM was collected from the Chesapeake Bay at the mouth of the Baltimore (MD) Harbor near the Francis Scott Key Bridge (39°12.3'N and 76°31.4'W). This location is very near the site where SRM 1941 and SRM 1941a were collected. The sediment was collected using a Kynar-coated modified Van Veen-type grab sampler. A total of approximately 3300 kg of wet sediment was collected from the site. The sediment was freeze-dried, sieved at 150 µm (100 % passing), homogenized in a cone blender, radiation sterilized (⁶⁰Co), and then packaged in screw-capped amber glass bottles each containing approximately 50 g.

Conversion to Dry-Mass Basis: The results for the constituents in SRM 1941b are reported on a dry-mass basis; however, the material "as received" contains residual moisture. The amount of moisture in SRM 1941b was determined by measuring the mass loss after freeze-drying subsamples of 1.1 g to 1.3 g for four days at 1 Pa with a -10 °C shelf temperature and a -50 °C condenser temperature. The moisture content in SRM 1941b at the time of the certification analyses was 2.39 % ± 0.08 % (95 % confidence level). Analytical results for the organic constituents were determined on an as-received basis and then converted to a dry-mass basis by dividing by the conversion factor of 0.9761 (gram dry mass per gram as-received mass).

Polycyclic Aromatic Hydrocarbons: The general approach used for the value assignment of the PAHs in SRM 1941b was similar to that reported in detail elsewhere [2]. The approach consisted of combining results from analyses using various combinations of different extraction techniques and solvents, clean-up/isolation procedures, and chromatographic separation and detection techniques: Soxhlet extraction and pressurized-fluid extraction (PFE) using dichloromethane (DCM) or a hexane/acetone mixture, cleanup of the extracts using solid-phase extraction (SPE) or normal-phase liquid chromatography (LC), followed by analysis using the following techniques: (1) reversed-phase liquid chromatography with fluorescence detection (LC-FL) analysis of the total PAH fraction, (2) reversed-phase

⁽¹⁾ Certain commercial equipment, instruments or materials are identified in this certificate to adequately specify the experimental procedure. Such identification does not imply recommendation or endorsement by the National Institute of Standards and Technology.

LC-FL analysis of isomeric PAH fractions isolated by normal-phase LC (i.e., multidimensional LC), (3) gas chromatography/mass spectrometry (GC/MS) analysis of the PAH fraction on three stationary phases of different selectivity, i.e., a 5 % (all column compositions are given as mole fractions in %) phenyl-substituted methylpolysiloxane phase, a 50 % phenyl-substituted methylpolysiloxane phase, and a relatively non-polar proprietary phase.

Three sets of GC/MS results, designated as GC/MS (I), GC/MS (II), and GC/MS (III), were obtained using three columns with different selectivities for the separation of PAHs. For GC/MS (I) analyses, duplicate subsamples of approximately 1 g from ten bottles of SRM 1941b were extracted using PFE with DCM. Copper powder was added to the extract to remove elemental sulfur. The concentrated extract was passed through an aminopropyl SPE cartridge and eluted with 2 % DCM in hexane (all solvent concentrations are given as volume fractions in %). The processed extract was then analyzed by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a 5 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-5 MS, J&W Scientific, Folsom, CA). The GC/MS (II) analyses were performed using 5 g subsamples from six bottles of SRM 1941b. These samples were extracted using PFE with DCM. The high molecular mass compounds were removed from the extracts using size exclusion chromatography (SEC) with a preparative-scale divinylbenzene-polystyrene column (10 μm particle size with 10 nm diameter pores), and the sulfur was removed from the extracts by adding copper powder. The concentrated extract was passed through an aminopropyl SPE cartridge and eluted with 10 % DCM in hexane. The analysis was by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a 50 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-17 MS, J&W Scientific). For the GC/MS (III), 9 g subsamples from six bottles of SRM 1941b were Soxhlet-extracted for 18 h with 250 mL of a mixture of 50 % hexane/50 % acetone. Copper powder was added to the extract to remove elemental sulfur, and the concentrated extract was passed through a silica SPE cartridge and eluted with 10 % DCM in hexane. The processed extract was then analyzed by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a relatively non-polar proprietary phase (0.25 μm film thickness; DB-XLB, J&W Scientific).

Two sets of LC-FL results, designated as LC-FL (total) and LC-FL (isomer), were used in the certification process. For the LC-FL (total), subsamples of approximately 1 g from six bottles of SRM 1941b were extracted using PFE with a mixture of 50 % hexane/50 % acetone. The extracts were concentrated and then processed through an aminopropylsilane SPE cartridge using 2 % DCM in hexane to obtain the total PAH fraction. For the LC-FL (isomer), a 5 g subsample from the six bottles was extracted using PFE with DCM and processed through an aminopropylsilane SPE cartridge using 10 % DCM in hexane; the PAH fraction was then fractionated further on a semi-preparative aminopropylsilane column (μBondapak NH₂, 9 mm i.d. × 30 cm, Waters Associates, Milford, MA) to isolate isomeric PAH fractions as described previously [3–6]. The total PAH fraction and the isomeric PAH fractions were analyzed using a 5 μm particle-size polymeric octadecylsilane (C₁₈) column (4.6 mm i.d. × 25 cm, Hypersil-PAH, Keystone Scientific, Inc., Bellefonte, PA) with wavelength-programmed fluorescence detection [4,5].

For the GC/MS and LC-FL measurements described above, selected perdeuterated PAHs were added to the sediment prior to solvent extraction for use as internal standards for quantification purposes.

In addition to the analyses performed at NIST, SRM 1941b was used in an interlaboratory comparison exercise in 1999 as part of the NIST Intercomparison Exercise Program for Organic Contaminants in the Marine Environment [7]. Results from 38 laboratories that participated in this exercise were used as the sixth data set in the determination of the certified values for PAHs in SRM 1941b. The laboratories participating in this exercise used the analytical procedures routinely used in their laboratories to measure the analytes of interest.

Homogeneity Assessment for PAHs: The homogeneity of SRM 1941b was assessed by analyzing duplicate samples of approximately 1 g from ten bottles selected by stratified random sampling. Samples were extracted, processed, and analyzed as described above for GC/MS (I). No statistically significant differences among bottles were observed for the PAHs at this sample size.

PAH Isomers of Molecular Mass 300 and 302: For the determination of the molecular mass 300 and 302 isomers, three subsamples of approximately 5 g each were extracted using PFE with DCM. The extracts were then concentrated with a solvent change to hexane and passed through an aminopropyl SPE cartridge and eluted with 10 % DCM in hexane. The processed extract was then analyzed by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a 50 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-17MS, J&W Scientific). Perdeuterated dibenzo[*a,i*]pyrene was added to the sediment prior to extraction for use as an internal standard [8].

PCBs and Chlorinated Pesticides: The general approach used for the determination of PCBs and chlorinated pesticides in SRM 1941b consisted of combining results from analyses using various combinations of different extraction techniques and solvents, cleanup/isolation procedures, and chromatographic separation and detection techniques. Techniques and solvents included Soxhlet extraction and PFE using DCM or a hexane/acetone mixture.

clean-up/isolation using SPE or LC, followed by analysis using GC/MS and gas chromatography with electron capture detection (GC-ECD) on two columns with different selectivity for the separation of PCBs and chlorinated pesticides. The analytical methods are described in detail elsewhere [2].

Six sets of results were obtained and designated as GC-ECD (I) A and B, GC/MS (I) A and B, GC/MS (II), and Interlaboratory Comparison Exercise. For the GC-ECD (I) analyses, approximately 10 g subsamples from six bottles of SRM 1941b were extracted using PFE with DCM. Copper powder was added to the extract to remove elemental sulfur, and SEC, as described above, was used to remove the high molecular mass compounds. The concentrated extract was then fractionated on a semi-preparative aminopropylsilane column to isolate two fractions containing: (1) the PCBs and lower-polarity pesticides and (2) the more polar pesticides. GC-ECD analyses of the two fractions were performed on two columns of different selectivities for PCB separations: 0.25 mm × 60 m fused silica capillary column with a 5 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-5, J&W Scientific), and a 0.25 mm × 60 m fused silica capillary column with a non-polar proprietary phase (0.25 μm film thickness; DB-XLB, J&W Scientific). The results from the 5 % phenyl phase are designated as GC-ECD (IA) and the results from the proprietary phase are designated as GC-ECD (IB). For the GC-ECD analyses, two PCB congeners that are not significantly present in the sediment extract (PCB 103 and PCB 198 [9,10]) and endosulfan I-*d*₄, 4,4'-DDE-*d*₈, 4,4'-DD-*d*₈, and 4,4'-DDT-*d*₈ were added to the sediment prior to extraction for use as internal standards for quantification purposes.

Two sets of results were obtained by GC/MS. For GC/MS (I), approximately 9 g subsamples from six bottles were Soxhlet- extracted with a mixture of 50 % hexane/50 % acetone for approximately 18 h. Copper powder was added to the extract to remove elemental sulfur, and the concentrated extract was passed through a silica SPE cartridge and eluted with 10 % DCM in hexane. The processed extract was then analyzed by GC/MS with two ionization modes, electron impact (EI) and negative ion chemical ionization (NICI). The GC/MS EI method, GC/MS (IA), used a 0.25 mm i.d. × 60 m fused silica capillary column with a relatively non-polar proprietary phase (0.25 μm film thickness; DB-XLB, J&W Scientific). The GC/MS NICI method, GC/MS (IB), used a 0.25 mm i.d. × 60 m fused silica capillary column with a 5 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-5MS, J&W Scientific). The GC/MS (II) results were obtained in the same manner as the GC/MS (IA) analyses except that three subsamples were Soxhlet-extracted with DCM for approximately 18 h. For the GC/MS analyses, selected carbon-13 labeled PCB congeners and chlorinated pesticides were added to the sediment prior to extraction for use as internal standards for quantification purposes.

In addition to the analyses performed at NIST, SRM 1941b was used in an interlaboratory comparison exercise in 1999 as part of the NIST Intercomparison Exercise Program for Organic Contaminants in the Marine Environment [7]. Results from 38 laboratories that participated in this exercise were used as the sixth data set in the determination of the certified values for PCB congeners and chlorinated pesticides in SRM 1941b. The laboratories participating in this exercise used the analytical procedures routinely used in their laboratories to measure the analytes of interest.

The reference value for PCB 77 was determined from a separate fraction. The samples were extracted and processed as for GC-ECD (I) above. The first (PCB and lower-polarity pesticide) fraction from the semi-preparative aminopropylsilane column was further fractionated using a Cosmosil PYE (pyrenylethyl group bonded) column (5 μm particle size, 4.6 mm i.d. × 25 cm; Phenomenex, Torrance, CA) [11]. Three fractions were collected: the first fraction contained the pesticides and multi-*ortho* PCBs, the second fraction contained the polychlorinated naphthalenes, non-*ortho* PCB congeners, and some mono-*ortho* PCB congeners, and the third fraction removed the residual planar compounds from the column. The second fraction was analyzed by GC/MS NICI using the same column as GC/MS (IB) above. Carbon-13 labeled PCB 77 was used as an internal standard for quantification purposes.

Alkylated PAH Groups, Hopanes, and Steranes: SRM 1941b was used in an interlaboratory comparison exercise in 2011 [12]. Results from 33 laboratories that participated in this exercise were used in the determination of the reference values for alkylated PAH groups, hopanes, and steranes in SRM 1941b. Note that not all laboratories returned data for each analyte. The laboratories participating in this exercise used the analytical procedures routinely used in their laboratories to measure the analytes of interest. For the alkylated PAHs, the majority of the laboratories (>90 %) used the parent PAH for determination of the response factor for the corresponding alkylated group.

Total Organic Carbon (TOC): Two laboratories provided results for TOC using similar procedures. Briefly, subsamples of approximately 200 mg were reacted with 6 mol/L hydrochloric acid and rinsed with deionized water prior to combustion in a gas fusion furnace. The carbon monoxide and carbon dioxide produced were measured and compared to a blank for calculation of the percent TOC. Each laboratory analyzed subsamples from three bottles of SRM 1941b. One of the laboratories also analyzed three subsamples from three bottles of SRM 1941b for carbon, hydrogen, and nitrogen.

Table 1. Certified Mass Fraction Values for PAHs in SRM 1941b

PAHs	Mass Fractions ^(a) ($\mu\text{g}/\text{kg}$)	
Naphthalene ^(b,c,d,e,f,g)	848	\pm 95 ^(h)
Fluorene ^(b,c,d,e,f,g)	85	\pm 15 ^(h)
Phenanthrene ^(b,c,d,e,f,g)	406	\pm 44 ^(h)
Anthracene ^(b,c,d,e,f,g)	184	\pm 18 ^(h)
3-Methylphenanthrene ^(b,c,d)	105	\pm 13 ^(h)
2-Methylphenanthrene ^(b,c,d)	128	\pm 14 ^(h)
1-Methylphenanthrene ^(b,c,d,g)	73.2	\pm 5.9 ^(h)
Fluoranthene ^(b,c,d,e,f,g)	651	\pm 50 ^(h)
Pyrene ^(b,c,d,e,f,g)	581	\pm 39 ^(h)
Benz[<i>a</i>]anthracene ^(b,c,d,e,f,g)	335	\pm 25 ^(h)
Chrysene ^(d,f)	291	\pm 31 ^(h)
Triphenylene ^(d,f)	108	\pm 5 ⁽ⁱ⁾
Benzo[<i>b</i>]fluoranthene ^(c,e)	453	\pm 21 ^(h)
Benzo[<i>k</i>]fluoranthene ^(b,c,d,e)	225	\pm 18 ^(h)
Benzo[<i>e</i>]pyrene ^(b,c,d,g)	325	\pm 25 ^(h)
Benzo[<i>a</i>]pyrene ^(b,c,d,f,g)	358	\pm 17 ^(h)
Perylene ^(b,c,d,f,g)	397	\pm 45 ^(h)
Benzo[<i>ghi</i>]perylene ^(b,c,d,f,g)	307	\pm 45 ^(h)
Indeno[1,2,3- <i>cd</i>]pyrene ^(b,c,d,f,g)	341	\pm 57 ^(h)
Dibenz[<i>a,j</i>]anthracene ^(b,c,d,f)	48.9	\pm 4.6 ^(h)
Dibenz[<i>a,c</i>]anthracene ^(c,f)	36.7	\pm 5.2 ^(h)
Dibenz[<i>a,h</i>]anthracene ^(c,f)	53	\pm 10 ^(h)
Benzo[<i>b</i>]chrysene ^(b,c,d,f)	53	\pm 12 ^(h)
Picene ^(b,c,d)	46.6	\pm 4.7 ^(h)

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) GC/MS (I) on 5 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(c) GC/MS (II) on 50 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(d) GC/MS (III) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(e) LC-FL (total) of total PAH fraction after PFE with DCM.

^(f) LC-FL (isomer) of isomeric PAH fractions after PFE with DCM.

^(g) 1999 Interlaboratory Comparison Study [7] with 21 to 29 laboratories submitting data for each PAH.

^(h) Certified values are weighted means of the results from two to six analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

⁽ⁱ⁾ The certified value is an unweighted mean of the results from two analytical methods. The uncertainty listed with the value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the value is metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

Table 2. Certified Mass Fraction Values for PCB Congeners^(a) in SRM 1941b

PCB Congeners		Mass Fractions ^(b) ($\mu\text{g}/\text{kg}$)
PCB	8 (2,4'-Dichlorobiphenyl) ^(c,d,e,f,g)	1.65 \pm 0.19 ^(h)
PCB	18 (2,2',5-Trichlorobiphenyl) ^(c,d,e,f,g)	2.39 \pm 0.29 ^(h)
PCB	28 (2,4,4'-Trichlorobiphenyl) ^(c,d,e,f,g)	4.52 \pm 0.57 ^(h)
PCB	31 (2,4',5-Trichlorobiphenyl) ^(c,e,f)	3.18 \pm 0.41 ^(h)
PCB	44 (2,2',3,5'-Tetrachlorobiphenyl) ^(c,d,e,f,g)	3.85 \pm 0.20 ⁽ⁱ⁾
PCB	49 (2,2',4,5'-Tetrachlorobiphenyl) ^(c,d,e,f)	4.34 \pm 0.28 ⁽ⁱ⁾
PCB	52 (2,2',5,5'-Tetrachlorobiphenyl) ^(c,d,e,f,g)	5.24 \pm 0.28 ⁽ⁱ⁾
PCB	66 (2,3',4,4'-Tetrachlorobiphenyl) ^(c,e,f,g,j)	4.96 \pm 0.53 ⁽ⁱ⁾
PCB	87 (2,2',3,4,5'-Pentachlorobiphenyl) ^(c,d,f,j)	1.14 \pm 0.16 ^(h)
PCB	95 (2,2',3,5',6-Pentachlorobiphenyl) ^(c,e,f,g)	3.93 \pm 0.62 ⁽ⁱ⁾
PCB	99 (2,2',4,4',5-Pentachlorobiphenyl) ^(c,d,e,f,g)	2.90 \pm 0.36 ⁽ⁱ⁾
PCB	101 (2,2',4,5,5'-Pentachlorobiphenyl) ^(c,e,f,g,j)	5.11 \pm 0.34 ⁽ⁱ⁾
PCB	105 (2,3,3',4,4'-Pentachlorobiphenyl) ^(c,d,e,f,g,j)	1.43 \pm 0.10 ⁽ⁱ⁾
PCB	110 (2,3,3',4',6-Pentachlorobiphenyl) ^(c,e,f,j)	4.62 \pm 0.36 ⁽ⁱ⁾
PCB	118 (2,3',4,4',5-Pentachlorobiphenyl) ^(c,d,e,f,g,j)	4.23 \pm 0.19 ⁽ⁱ⁾
PCB	128 (2,2',3,3',4,4'-Hexachlorobiphenyl) ^(c,d,e,f,g,j)	0.696 \pm 0.044 ⁽ⁱ⁾
PCB	138 (2,2',3,4,4',5'-Hexachlorobiphenyl) ^(c,e,f,j)	3.60 \pm 0.28 ⁽ⁱ⁾
PCB	149 (2,2',3,4',5',6-Hexachlorobiphenyl) ^(c,d,e,j)	4.35 \pm 0.26 ^(h)
PCB	153 (2,2',4,4',5,5'-Hexachlorobiphenyl) ^(c,d,e,f,g,j)	5.47 \pm 0.32 ⁽ⁱ⁾
PCB	156 (2,3,3',4,4',5-Hexachlorobiphenyl) ^(c,d,e,f,j)	0.507 \pm 0.090 ^(h)
PCB	170 (2,2',3,3',4,4',5-Heptachlorobiphenyl) ^(c,d,e,f,g,j)	1.35 \pm 0.09 ⁽ⁱ⁾
PCB	180 (2,2',3,4,4',5,5'-Heptachlorobiphenyl) ^(c,d,e,f,g,j)	3.24 \pm 0.51 ⁽ⁱ⁾
PCB	183 (2,2',3,4,4',5',6-Heptachlorobiphenyl) ^(c,d,e,j)	0.979 \pm 0.087 ^(h)
PCB	187 (2,2',3,4',5,5',6-Heptachlorobiphenyl) ^(c,d,e,f,g,j)	2.17 \pm 0.22 ⁽ⁱ⁾
PCB	194 (2,2',3,3',4,4',5,5'-Octachlorobiphenyl) ^(c,d,e,j)	1.04 \pm 0.06 ^(h)
PCB	195 (2,2',3,3',4,4',5,6-Octachlorobiphenyl) ^(c,e,g,j)	0.645 \pm 0.060 ⁽ⁱ⁾
PCB	201 (2,2',3,3',4,5',6,6'-Octachlorobiphenyl) ^(c,e,j)	0.777 \pm 0.034 ^(h)
PCB	206 (2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl) ^(c,e,f,g,j)	2.42 \pm 0.19 ⁽ⁱ⁾
PCB	209 Decachlorobiphenyl ^(c,d,e,f,g,j)	4.86 \pm 0.45 ⁽ⁱ⁾

^(a) PCB congeners are numbered according to the scheme proposed by Ballschmiter and Zell [9] and later revised by Schulte and Malisch [10] to conform to IUPAC rules, except PCB 201. Under the Ballschmiter and Zell numbering system, the IUPAC PCB 201 is listed as PCB 200.

^(b) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(c) GC/MS (IA) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(d) GC-ECD (IA) on 5 % phenyl-substituted methylpolysiloxane phase after PFE extraction with DCM.

^(e) GC-ECD (IB) on a relatively non-polar proprietary phase; same extracts analyzed as in GC-ECD (IA).

^(f) GC/MS (II) on a relatively non-polar proprietary phase after Soxhlet extraction with DCM.

^(g) 1999 Interlaboratory Comparison Study [7] with 13 to 31 laboratories submitting data for each PCB congener.

^(h) Certified values are unweighted means of the results from three to five analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

⁽ⁱ⁾ Certified values are weighted means of the results from three to six analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(j) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

Table 3. Certified Mass Fraction Values for Chlorinated Pesticides in SRM 1941b

Chlorinated Pesticides	Mass Fractions ^(a) ($\mu\text{g}/\text{kg}$)
Hexachlorobenzene ^(b,c,d,e)	5.83 \pm 0.38 ^(f)
<i>cis</i> -Chlordane ^(b,c,d,e,g)	0.85 \pm 0.11 ^(h)
<i>trans</i> -Chlordane ^(b,c,e)	0.566 \pm 0.093 ^(f)
<i>cis</i> -Nonachlor ^(b,e,g)	0.378 \pm 0.053 ^(h)
<i>trans</i> -Nonachlor ^(b,c,d,e,g)	0.438 \pm 0.073 ^(f)
4,4'-DDE ^(b,d,e,g)	3.22 \pm 0.28 ^(h)
4,4'-DDD ^(b,d,e,g)	4.66 \pm 0.46 ^(h)

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) GC/MS (IA) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(c) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

^(d) GC/MS (II) on a relatively non-polar proprietary phase after Soxhlet extraction with DCM.

^(e) 1999 Interlaboratory Comparison Study [7] with 13 to 31 laboratories submitting data for each pesticide.

^(f) Certified values are unweighted means of the results from three to five analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(g) GC-ECD (IA) on 5 % phenyl-substituted methylpolysiloxane phase after PFE extraction with DCM.

^(h) Certified values are weighted means of the results from three to five analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the chlorinated pesticides listed and the values listed are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

Table 4. Reference Mass Fraction Values for PAHs in SRM 1941b

PAHs	Mass Fractions ^(a)		
	(μg/kg)		
1-Methylnaphthalene ^(b,c,d,e)	127	±	14 ^(f)
2-Methylnaphthalene ^(b,c,d,e)	276	±	53 ^(f)
2,6-Dimethylnaphthalene ^(b,c,d,e)	75.9	±	4.5 ^(f)
2,3,5-Trimethylnaphthalene ^(b,c,d,e)	25.5	±	5.1 ^(f)
Biphenyl ^(b,c,d,e)	74.0	±	8.0 ^(f)
Acenaphthylene ^(b,c,d,e)	53.3	±	6.4 ^(f)
Acenaphthene ^(b,c,d,e)	38.4	±	5.2 ^(f)
9-Methylphenanthrene ^(c)	63.5	±	2.5 ^(g)
4-Methylphenanthrene and 9-Methylphenanthrene ^(b,d)	80.1	±	4.8 ^(f)
2-Methylanthracene ^(c,d)	36	±	15 ^(f)
8-Methylfluoranthene ^(b)	49.5	±	2.7 ^(g)
7-Methylfluoranthene ^(b)	45.4	±	1.5 ^(g)
1-Methylfluoranthene ^(b)	42.4	±	2.1 ^(g)
3-Methylfluoranthene ^(b)	28.8	±	1.3 ^(g)
2-Methylpyrene ^(b)	78.7	±	4.0 ^(g)
4-Methylpyrene ^(b)	66.4	±	2.6 ^(g)
1-Methylpyrene ^(b)	52.5	±	2.3 ^(g)
Acephenanthrene ^(d)	30.5	±	1.9 ^(g)
Benzo[<i>c</i>]phenanthrene ^(b,c,d)	58	±	15 ^(f)
Benzo[<i>a</i>]fluoranthene ^(b,c,d)	73	±	18 ^(f)
Benzo[<i>j</i>]fluoranthene ^(c)	217	±	5 ^(g)
Indeno[1,2,3- <i>cd</i>]fluoranthene ^(d)	9.63	±	0.34 ^(g)
Pentaphene ^(d)	25.3	±	1.0 ^(g)

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) GC/MS (I) on 5 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(c) GC/MS (II) on 50 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(d) GC/MS (III) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(e) 1999 Interlaboratory Comparison Study [7] with 14 to 26 laboratories submitting data for each PAH.

^(f) Reference values are weighted means of the results from two to four analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of PAHs listed as determined by the methods indicated. The values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(g) Reference values are the means of results obtained by NIST using one analytical technique. The expanded uncertainty, U , is calculated as $U = k u_c$, where u_c is one standard deviation of the analyte mean, and the coverage factor, k , is determined from the Student's t -distribution for the associated degrees of freedom (19 for footnote b and 5 for footnotes c and d) and 95 % confidence level for each analyte. The measurand is the total mass fraction of the PAHs listed as determined by the method indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

Table 5. Reference Mass Fraction Values for PAHs of Molecular Mass 300 and 302 in SRM 1941b

PAHs of Molecular Mass 300 and 302	Mass Fractions ^(a,b,c) ($\mu\text{g}/\text{kg}$)
Coronene	72.6 \pm 4.7
Dibenzo[<i>b,e</i>]fluoranthene	10.3 \pm 0.3
Naphtho[1,2- <i>b</i>]fluoranthene	91.0 \pm 3.1
Naphtho[1,2- <i>k</i>]fluoranthene and Naphtho[2,3- <i>j</i>]fluoranthene	79.8 \pm 2.5
Naphtho[2,3- <i>b</i>]fluoranthene	23.5 \pm 0.3
Dibenzo[<i>b,k</i>]fluoranthene	95.6 \pm 3.1
Dibenzo[<i>a,k</i>]fluoranthene	26.6 \pm 0.4
Dibenzo[<i>j,l</i>]fluoranthene	63.8 \pm 1.8
Dibenzo[<i>a,l</i>]pyrene	11.1 \pm 1.0
Naphtho[2,3- <i>k</i>]fluoranthene	10.7 \pm 0.6
Naphtho[1,2- <i>a</i>]pyrene	16.7 \pm 1.4
Naphtho[2,3- <i>e</i>]pyrene	33.2 \pm 2.3
Dibenzo[<i>a,e</i>]pyrene	76.1 \pm 3.6
Naphtho[2,1- <i>a</i>]pyrene	59.2 \pm 1.8
Dibenzo[<i>e,i</i>]pyrene	35.0 \pm 2.4
Naphtho[2,3- <i>a</i>]pyrene	16.5 \pm 0.6
Benzo[<i>b</i>]perylene	38.2 \pm 1.2
Dibenzo[<i>a,i</i>]pyrene	25.5 \pm 1.0
Dibenzo[<i>a,h</i>]pyrene	6.94 \pm 0.29

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) Reference values are the means of results obtained by NIST using one analytical technique. The expanded uncertainty, U , is calculated as $U = ku_c$, where u_c is one standard deviation of the analyte mean, and the coverage factor, k , is determined from the Student's t -distribution for two degrees of freedom and 95 % confidence level for each analyte. The measurand is the total mass fraction of the constituent listed as determined by the method indicated. The values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(c) GC/MS on 50 % phenyl-substituted methylpolysiloxane phase after PFE with DCM [8].

Table 6. Reference Mass Fraction Values for PCB Congeners^(a) in SRM 1941b

PCB Congeners			Mass Fractions ^(b,c) ($\mu\text{g}/\text{kg}$)		
PCB	45	(2,2',3,6-Tetrachlorobiphenyl) ^(d,e)	0.73	\pm	0.12
PCB	56	(2,3,3',4'-Tetrachlorobiphenyl) ^(d,f,g)	1.21	\pm	0.11
PCB	63	(2,3,4',5-Tetrachlorobiphenyl) ^(e,f,g)	0.213	\pm	0.040
PCB	70	(2,3',4',5-Tetrachlorobiphenyl) ^(e,f,g)	4.99	\pm	0.29
PCB	74	(2,4,4',5-Tetrachlorobiphenyl) ^(e,f,g)	2.04	\pm	0.15
PCB	77	(3,3',4,4'-Tetrachlorobiphenyl) ^(h)	0.31	\pm	0.03
PCB	107	(2,3,3',4',5-Pentachlorobiphenyl) ^(d,e,f,g)	0.628	\pm	0.028
PCB	132	(2,2',3,3',4,6'-Hexachlorobiphenyl) ^(d,f,g)	1.28	\pm	0.27
PCB	146	(2,2',3,4',5,5'-Hexachlorobiphenyl) ^(e,f,g)	1.22	\pm	0.12
PCB	158	(2,3,3',4,4',6-Hexachlorobiphenyl) ^(d,e,f,g)	0.65	\pm	0.15
PCB	163	(2,3,3',4',5,6-Hexachlorobiphenyl) ^(e,f,g)	1.28	\pm	0.06
PCB	174	(2,2',3,3',4,5,6'-Heptachlorobiphenyl) ^(d,e,f,g)	1.51	\pm	0.39
PCB	193	(2,3,3',4',5,5',6-Heptachlorobiphenyl) ^(d,e,f,g)	0.292	\pm	0.075

^(a) PCB congeners are numbered according to the scheme proposed by Ballschmiter and Zell [9] and later revised by Schulte and Malisch [10] to conform with IUPAC rules, except PCB 107. Under the Ballschmiter and Zell numbering system, the IUPAC PCB 107 is listed as PCB 108.

^(b) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(c) For these PCB congeners except PCB 77, the reference values are unweighted means of the results from two to four analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled within-method variance following the ISO/JCGM Guide [14,15]. For PCB 77, the reference value is the mean of results obtained by NIST using one analytical technique. The expanded uncertainty, U , is calculated as $U = k u_c$, where u_c is one standard deviation of the analyte mean, and the coverage factor, k , is determined from the Student's t -distribution corresponding to two degrees of freedom and 95 % confidence level for PCB 77. The measurand is the total mass fraction of the PCB Congeners listed as determined by the method or methods indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as microgram per kilogram on a dry-mass basis.

^(d) GC-ECD (IA) on 5 % phenyl-substituted methylpolysiloxane phase after PFE extraction with DCM.

^(e) GC-ECD (IB) on a relatively non-polar proprietary phase; same extracts analyzed as in GC-ECD (IA).

^(f) GC/MS (IA) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(g) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

^(h) GC/MS NICI on a 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC-ECD (I) fractionated using a PYE column.

Table 7. Reference Mass Fraction Values for Selected Chlorinated Pesticides in SRM 1941b

Chlorinated Pesticides	Mass Fractions ^(a,b) ($\mu\text{g}/\text{kg}$)
2,4'-DDE ^(c,d)	0.38 \pm 0.12
4,4'-DDT ^(e,f)	1.12 \pm 0.42

^(a) Mass Fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) The reference values are unweighted means of the results from two analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the chlorinated pesticides listed as determined by the methods indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(c) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

^(d) GC-ECD (IB) on a relatively non-polar proprietary phase; same extracts analyzed as in GC-ECD (IA).

^(e) GC/MS (II) on a relatively non-polar proprietary phase after Soxhlet extraction with DCM.

^(f) 1999 Interlaboratory Comparison Study [7] with 10 laboratories submitting data for 4,4'-DDT.

Table 8. Reference Mass Fraction Values for Alkylated PAH Groups in SRM 1941b

Alkylated PAH Group	Mass Fraction ^(a,b) ($\mu\text{g}/\text{kg}$)
C2-decalins	18 \pm 5
C4-decalins	41 \pm 4
C2-naphthalenes	187 \pm 53
C3-naphthalenes	158 \pm 42
C1-benzothiophenes	25 \pm 14
C2-benzothiophenes	20 \pm 11
C3-benzothiophenes	22 \pm 13
C4-benzothiophenes	18 \pm 5
C1-fluorenes	57 \pm 18
C2-fluorenes	122 \pm 43
C3-fluorenes	128 \pm 31
C1-phenanthrenes/anthracenes	313 \pm 99
C2-phenanthrenes/anthracenes	247 \pm 62
C3-phenanthrenes/anthracenes	165 \pm 46
C4-phenanthrenes/anthracenes	87 \pm 36
C1-dibenzothiophenes	54 \pm 13
C2-dibenzothiophenes	91 \pm 18
C3-dibenzothiophenes	84 \pm 15
C4-dibenzothiophenes	57 \pm 13
C1-fluoranthenes/pyrenes	252 \pm 48
C2-fluoranthenes/pyrenes	205 \pm 38
C3-fluoranthenes/pyrenes	102 \pm 22
C4-fluoranthenes/pyrenes	121 \pm 59
C1-benzanthracenes/chrysenes/triphenylenes	208 \pm 43
C2-benzanthracenes/chrysenes/triphenylenes	120 \pm 24
C3-benzanthracenes/chrysenes/triphenylenes	73 \pm 31
C4-benzanthracenes/chrysenes/triphenylenes	41 \pm 11

^(a) The reference mass fraction value reported on a dry-mass basis is the median of results using one analytical technique. The expanded uncertainty, U , is calculated as $U = ku_c$, where u_c is one standard deviation of the median, and the coverage factor, $k = 2$. The measurand is the total mass fraction of the alkylated PAH groups listed as determined by the interlaboratory study methods. The values listed are metrologically traceable to the SI unit of mass fraction, expressed as micrograms per kilogram on a dry-mass basis.

^(b) Data from the interlaboratory study [12].

Table 9. Reference Mass Fraction Values for Hopanes and Steranes in SRM 1941b

Hopane or Sterane	Mass Fraction ^(a,b) (µg/kg)
17α(H)-22,29,30-Trisnorhopane	54 ± 18
17α(H)-21β(H)-30-Norhopane	137 ± 21
17α(H)-21β(H)-30-Hopane	215 ± 44
17α(H)-21β(H)-22R-Homohopane	44 ± 10
17α(H)-21β(H)-22S-Homohopane	48 ± 13
5α(H)-14α(H),17α(H)-Cholestane 20R	41 ± 11
5α(H)-14β(H),17β(H)-Cholestane 20R	27 ± 6
5α(H)-14β(H),17β(H)-24-Methylcholestane 20R	21 ± 8
5α(H)-14α(H),17α(H)-24-Ethylcholestane 20R	19 ± 5
5α(H)-14β(H),17β(H)-24-Ethylcholestane 20R	41 ± 9

- ^(a) The reference mass fraction value reported on a dry-mass basis is the median of results using one analytical technique. The expanded uncertainty, U , is calculated as $U = k u_c$, where u_c is one standard deviation of the median, and the coverage factor, $k = 2$. The measurand is the total mass fraction of the constituent listed as determined by the methods used during the interlaboratory study. The values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.
- ^(b) Data from the interlaboratory study [12].

Table 10. Reference Mass Fraction Value for Total Organic Carbon in SRM 1941b

Total Organic Carbon (TOC)	2.99 % ± 0.24 % ^(a,b)
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- ^(a) Mass fraction is reported on a dry-mass basis; material as received contains approximately 2.4 % moisture.
- ^(b) The reference value for total organic carbon is a weighted mean value from routine measurements made by two laboratories [21]. The uncertainty listed is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance. The reporting follows the ISO/JCGM Guides [2]. The measurand is the total mass fraction of TOC listed as determined by the methods indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as a percent on a dry-mass basis.

Table 11. Information Mass Fraction Values for Carbon, Hydrogen, and Nitrogen in SRM 1941b

Elements	Mass Fractions ^(a) (%)
Carbon	3.3
Hydrogen	1.2
Nitrogen	<0.5

- ^(a) Mass fraction is reported on a dry-mass basis; material as received contains approximately 2.4 % moisture.

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Certificate Revision History: 16 January 2015 (Corrected IUPAC name for PCB-56 and PCB-107; editorial changes); 10 June 2014 (Units corrected from mg/kg to µg/kg in Tables 8 and 9; editorial changes); 10 April 2012 (Reference value added for alkylated PAH groups, hopanes, and steranes; extension of certification period; editorial changes); 16 August 2004 (Reference values for the butyl tins removed; editorial changes); 15 July 2002 (Original certificate date).

Users of this SRM should ensure that the Certificate of Analysis in their possession is current. This can be accomplished by contacting the SRM Program: telephone (301) 975-2200; fax (301) 948-3730; e-mail srminfo@nist.gov; or via the Internet at <http://www.nist.gov/srm>.

APPENDIX A

The laboratories listed below performed measurements that contributed to the certification of PAHs, PCBs, and chlorinated pesticides in SRM 1941b Organics in Marine Sediment.

Arthur D. Little, Inc; Cambridge, MA
Axys Analytical Services; Sidney, BC, Canada
B & B Laboratories; College Station, TX
Battelle Ocean Sciences; Duxbury, MA
Bedford Institute of Oceanography; Dartmouth, NS, Canada
California Department of Fish and Game; Rancho Cordova, CA
Central Contra Costa Sanitary District; Martinez, CA
Chesapeake Biological Laboratory; Solomons, MD
Centro de Investigaciones Energeticas Medioambientales y Tecnologicas; Madrid, Spain
City of Los Angeles Environmental Monitoring Division; Playa del Rey, CA
City of San Jose Environmental Services Department; San Jose, CA
Columbia Analytical Services; Kelso, WA
East Bay Municipal Utility District; Oakland, CA
Florida Department of Environmental Protection; Tallahassee, FL
Manchester Environmental Laboratory; Port Orchard, WA
Murray State University; Murray, KY
Massachusetts Water Resources Authority Central Lab; Winthrop, MA
National Research Council of Canada; Ottawa, Ontario, Canada
National Oceanic and Atmospheric Association (NOAA), National Marine Fisheries Service (NMFS), Auke Bay Laboratory; Juneau, AK
NOAA, National Ocean Service/Center for Coastal Environmental Health and Biomolecular Research; Charleston, SC
NOAA, NMFS, Sandy Hook Marine Laboratory; Highlands, NJ
NOAA, NMFS, Northwest Fisheries Science Center; Seattle, WA
Orange County Sanitation District; Fountain Valley, CA
Philip Analytical Services; Burlington, Ontario, Canada
Serv de Hidrografia Naval; Buenos Aires, Argentina
Skidaway Institute of Technology; Savannah, GA
Southwest Laboratory of Oklahoma; Broken Arrow, OK
Severn Trent Knoxville Laboratory; Knoxville, TN
Texas A&M University, Geochemical and Environmental Research Group; College Station, TX
Texas Parks and Wildlife Department; San Marcos, TX
University of California at Los Angeles, Institute of Geophysics and Planetary Physics; Los Angeles, CA
University of Connecticut, Environmental Research Institute; Storrs, CT
University of Rhode Island, Graduate School of Oceanography; Narragansett, RI
US Department of Agriculture, Environmental Chemistry Laboratory; Beltsville, MD
US Environmental Protection Agency, Atlantic Ecology Division; Narragansett, RI
US Geological Survey, National Water Quality Laboratory; Denver, CO
Woods Hole Group Environmental Lab; Raynham, MA
Wright State University; Dayton, OH

APPENDIX B

The laboratories listed below performed measurements that contributed to the certification of alkylated PAH groups, hopanes, and steranes in SRM 1941b Organics in Marine Sediment.

Alpha Analytical, Inc.; Mansfield, MA
Analytical Resources, Inc.; Tukwila, WA
Axy's Analytical Services; Sydney, BC, Canada
Battelle Analytical & Environmental Chemistry Laboratory; Duxbury, MA
Center for Laboratory Sciences; Pasco, WA
Columbia Analytical Services; Jacksonville, FL
Columbia Analytical Services; Rochester, NY
Columbia Analytical Services, Kelso, WA
Florida Department of Environmental Protection; Tallahassee, FL
Florida International University; North Miami, FL
Michigan Department of Natural Resources and Environment; Lansing, MI
Mississippi State Chemical Laboratory; Mississippi State, MS
NIST; Charleston, SC
NIST; Gaithersburg, MD
NOAA/NCCOS/NOS; Charleston, SC
NOAA/NMFS/Alaska Fisheries Science Center; Juneau, AK
NY State Department of Health; Albany, NY
Pace Analytical Services, Inc. Minneapolis; Minneapolis, MN
RJ Lee Group, Inc; Monroeville, PA
TDI/B&B Laboratories, Inc.; College Station, TX
TestAmerica Laboratories; Mobile, AL
TestAmerica Laboratories; West Sacramento, CA
TestAmerica Laboratories; University Park, IL
TestAmerica Laboratories; Schriever, LA
TestAmerica Laboratories; Edison, NJ
TestAmerica Laboratories; Knoxville, TN
TestAmerica Laboratories; Pittsburgh, PA
TestAmerica Laboratories; South Burlington, VT
TestAmerica Laboratories; Tacoma, WA
US Army Engineer Research and Development Center; Vicksburg, MS
USGS Columbia Environmental Research Center; Columbia, MO
University of Iowa, State Hygienic Laboratory; Iowa City, IO
Washington State Public Health Laboratories; Shoreline, WA



Date of Issue:
31 March 2014

SAFETY DATA SHEET

1. SUBSTANCE AND SOURCE IDENTIFICATION

Product Identifier

SRM Number: 1941b
SRM Name: Organics in Marine Sediment
Other Means of Identification: Not applicable.

Recommended Use of This Material and Restrictions of Use

This Standard Reference Material (SRM) is marine sediment collected at the mouth of the Baltimore (MD) Harbor. SRM 1941b is intended for use in evaluating analytical methods for the determination of selected polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and chlorinated pesticides in marine sediment and similar matrices. All of the constituents for which certified, reference, and information values are provided in SRM 1941b were naturally present in the sediment before processing. A unit of SRM 1941b consists of a bottle containing 50 g of radiation-sterilized, freeze-dried sediment.

Company Information

National Institute of Standards and Technology
Standard Reference Materials Program
100 Bureau Drive, Stop 2300
Gaithersburg, Maryland 20899-2300

Telephone: 301-975-2200
FAX: 301-948-3730
E-mail: SRMMSDS@nist.gov
Website: <http://www.nist.gov/srm>

Emergency Telephone ChemTrec:
1-800-424-9300 (North America)
+1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Classification

Physical Hazard: Not classified.
Health Hazard: Not classified.

Label Elements

Symbol
No Symbol/Pictogram

Signal Word
Not applicable.

Hazard Statement(s): Not applicable.

Precautionary Statement(s): Not applicable.

Hazards Not Otherwise Classified: Not applicable.

Ingredients(s) with Unknown Acute Toxicity: Not applicable.

3. COMPOSITION AND INFORMATION ON HAZARDOUS INGREDIENTS

Substance: Marine sediment

Other Designations: Sediment.

This material is naturally occurring marine sediment from an urban area. The material contains trace amounts of polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and should be handled with care. Components are listed in compliance with OSHA's 29 CFR 1910.1200; for the actual values see the Certificate of Analysis.

Hazardous Component(s)	CAS Number	EC Number (EINECS)	Nominal Mass Concentration (%)
Marine Sediment	Not available	Not available	23A0032 CLPLIKE (Rev2) -Page 6579 of 6595 100

4. FIRST AID MEASURES

Description of First Aid Measures:

Inhalation: If adverse effects occur, remove to uncontaminated area. If not breathing, give artificial respiration or oxygen by qualified personnel. Seek immediate medical attention.

Skin Contact: Wash skin with soap and water.

Eye Contact: Flush eyes with water for at least 15 minutes. If necessary, seek medical attention.

Ingestion: If adverse effects occur after ingestion, seek medical treatment.

Most Important Symptoms/Effects, Acute and Delayed: May cause irritation.

Indication of any immediate medical attention and special treatment needed, if necessary: If any of the above symptoms are present, seek medical attention if needed.

5. FIRE FIGHTING MEASURES

Fire and Explosion Hazards: Negligible fire hazard. Avoid generating dust. See Section 9, "Physical and Chemical Properties" for flammability properties.

Extinguishing Media:

Suitable: Use extinguishing media appropriate for surrounding fire.

Unsuitable: None listed.

Specific Hazards Arising from the Chemical: None listed.

Special Protective Equipment and Precautions for Fire-Fighters: Avoid inhalation of material or combustion byproducts. Wear full protective clothing and NIOSH approved self-contained breathing apparatus (SCBA).

NFPA Ratings (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health = 1

Fire = 0

Reactivity = 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Any accumulated material on surfaces should be removed and properly disposed of. Use suitable protective equipment; see Section 8, "Exposure Controls and Personal Protection".

Methods and Materials for Containment and Clean up: Collect spilled material in appropriate container for disposal. Keep out of water supplies and sewers. Keep unnecessary people away, isolate hazard area and deny entry.

7. HANDLING AND STORAGE

Safe Handling Precautions: Minimize dust generation and accumulation on surfaces. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. See Section 8, "Exposure Controls and Personal Protection".

Storage: Store and handling in accordance with all current regulations and standards.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits: No occupational exposure limits have been established for marine sediment. This material is a particulate matter and adequate inhalation/respiratory protection should be used to minimize exposure. The exposure limits for Particulates Not Otherwise Regulated (PNOR) are applicable.

OSHA (PEL): 15 mg/m³ (TWA, total particulates not otherwise regulated)

OSHA (PEL) 5 mg/m³ (TWA, respirable particulates not otherwise regulated)

NIOSH (REL): 10 mg/m³ (TWA, total particulates not otherwise regulated, 8 h)

NIOSH (REL): 5 mg/m³ (TWA, respirable particulates not otherwise regulated)

Engineering Controls: Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Personal Protection: In accordance with OSHA 29 CFR 1910.132, subpart I, wear appropriate Personal Protective Equipment (PPE) to minimize exposure to this material.

Respiratory Protection: If workplace conditions warrant a respirator, a respiratory protection program that meets OSHA 29CFR 1910.134 must be followed. Refer to NIOSH 42 CFR 84 for applicable certified respirators.

Eye/Face Protection: Wear splash resistant safety goggles with a face shield. An eye wash station should be readily available near areas of use.

Skin and Body Protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Chemical-resistant gloves should be worn at all times when handling chemicals.

9. PHYSICAL AND CHEMICAL PROPERTIES

Descriptive Properties:

Appearance (physical state, color, etc.):	amorphous powder
Molecular Formula:	not applicable
Molar Mass (g/mol):	not applicable
Odor:	not available
Odor threshold:	not available
pH:	not available
Evaporation rate:	not applicable
Melting point/freezing point (°C):	not available
Specific Gravity (water=1)	not available
Vapor Pressure (mmHg):	not applicable
Vapor Density (air = 1):	not applicable
Viscosity (cP):	not applicable
Solubility(ies):	not available
Partition coefficient (n-octanol/water):	not available
Particle Size:	<150 µm

Thermal Stability Properties:

Autoignition Temperature (°C):	not available
Thermal Decomposition (°C):	not available
Initial boiling point and boiling range (°C):	not available
Explosive Limits, LEL (Volume %):	not available
Explosive Limits, UEL (Volume %):	not available
Flash Point (°C):	not available
Flammability (solid, gas):	not available

10. STABILITY AND REACTIVITY

Reactivity: Stable at normal temperatures and pressure.

Stability: X Stable Unstable

Possible Hazardous Reactions: None listed.

Conditions to Avoid: Avoid generating dust.

Incompatible Materials: None listed.

Fire/Explosion Information: See Section 5, "Fire Fighting Measures".

Hazardous Decomposition: Thermal decomposition will produce oxides of carbon.

Hazardous Polymerization: Will Occur X Will Not Occur

11. TOXICOLOGICAL INFORMATION

Route of Exposure: Inhalation Skin Ingestion

Symptoms Related to the Physical, Chemical and Toxicological Characteristics: Generated dust may cause irritation if inhaled.

Potential Health Effects (Acute, Chronic and Delayed):

Inhalation: Generated dust may cause irritation.

Skin Contact: May cause mechanical irritation.

Eye Contact: May cause mechanical irritation.

Ingestion: No data available.

Numerical Measures of Toxicity:

Acute Toxicity: Not classified; no data available.

Skin Corrosion/Irritation: Not classified; no data available.

Serious Eye damage/ Eye irritation: Not classified; no data available.

Respiratory Sensitization: Not classified; no data available.

Skin Sensitization: Not classified; no data available.

Germ Cell Mutagenicity: Not classified; no data available.

Carcinogenicity: Not classified.

Listed as a Carcinogen/Potential Carcinogen Yes No
Marine sediment is not listed by NTP, IARC or OSHA as a carcinogen.

Reproductive Toxicity: Not classified; no data available.

Specific Target Organ Toxicity, Single Exposure: Not classified; no data available.

Specific Target Organ Toxicity, Repeated Exposure: Not classified; no data available.

Aspiration Hazard: Not classified; no data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity Data: No data available.

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other Adverse effects: No data available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of waste in accordance with all applicable federal, state, and local regulations.

14. TRANSPORTATION INFORMATION

U.S. DOT and IATA: Not regulated by DOT or IATA.

15. REGULATORY INFORMATION

U.S. Regulations:

CERCLA Sections 102a/103 (40 CFR 302.4): Not regulated.

SARA Title III Section 302 (40 CFR 355.30): Not regulated.

SARA Title III Section 304 (40 CFR 355.40): Not regulated.

SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21):

ACUTE HEALTH: No.
CHRONIC HEALTH: No.
FIRE: No.
REACTIVE: No.
PRESSURE: No.

State Regulations:

California Proposition 65: Not listed.

U.S. TSCA Inventory: Not listed.

TSCA 12(b), Export Notification: Not listed.

Canadian Regulations:

WHMIS Information: Not provided for this material.

16. OTHER INFORMATION

Issue Date: 31 March 2014

Sources: 29 CFR Occupational Health and Safety Office (OSHA) 1910.1000, *Limits for Air Contaminants*, Table Z-1; available at http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9992 (accessed Mar 2014).

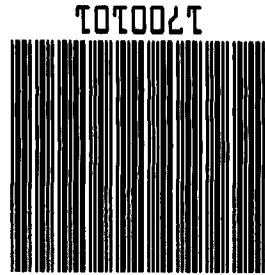
Center for Disease Control (CDC) NIOSH Pocket Guide to Chemical Hazards, *Particulates not otherwise regulated*; available at <http://www.cdc.gov/niosh/npg/npgd0480.html> (accessed Mar 2014).

Key of Acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists	NRC	Nuclear Regulatory Commission
ALI	Annual Limit on Intake	NTP	National Toxicology Program
CAS	Chemical Abstracts Service	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
CFR	Code of Federal Regulations	RCRA	Resource Conservation and Recovery Act
DOT	Department of Transportation	REL	Recommended Exposure Limit
EC50	Effective Concentration, 50 %	RM	Reference Material
EINECS	European Inventory of Existing Commercial Chemical Substances	RQ	Reportable Quantity
EPCRA	Emergency Planning and Community Right-to-Know Act	RTECS	Registry of Toxic Effects of Chemical Substances
IARC	International Agency for Research on Cancer	SARA	Superfund Amendments and Reauthorization Act
IATA	International Air Transportation Agency	SCBA	Self-Contained Breathing Apparatus
IDLH	Immediately Dangerous to Life and Health	SRM	Standard Reference Material
LC50	Lethal Concentration, 50 %	STEL	Short Term Exposure Limit
LD50	Lethal Dose, 50 %	TLV	Threshold Limit Value
LEL	Lower Explosive Limit	TPQ	Threshold Planning Quantity
MSDS	Material Safety Data Sheet	TSCA	Toxic Substances Control Act
NFPA	National Fire Protection Association	TWA	Time Weighted Average
NIOSH	National Institute for Occupational Safety and Health	UEL	Upper Explosive Limit
NIST	National Institute of Standards and Technology	WHMIS	Workplace Hazardous Materials Information System

Disclaimer: Physical and chemical data contained in this SDS are provided only for use in assessing the hazardous nature of the material. The SDS was prepared carefully, using current references; however, NIST does not certify the data in the SDS. The certified values for this material are given in the NIST Certificate of Analysis.

Users of this SRM should ensure that the SDS in their possession is current. This can be accomplished by contacting the SRM Program: telephone (301) 975-2200; fax (301) 948-3730. SRMUsers@nist.gov, Page 65 of 65
Internet at <http://www.nist.gov/srm>



Weight	
# of pieces	
Packed by	
Picked by	

9/21/16 04:04 PM

NOT FOR HUMAN CONSUMPTION,
LABORATORY USE ONLY.

1 / EACH

Organics in Marine Sediment

Total qty:

1941B

0 EACH

0

1 EACH

1

1 EACH

1

Order	UOM	Ship	UOM	B/O	UOM	Item	Description
-------	-----	------	-----	-----	-----	------	-------------

Order discrepancies (other than back ordered items) must be reported to our Customer Relations Department at 301-975-6776 within 5 days of receipt of shipment or this order will be considered complete. NIST SRMs/RMs are generally not returnable - with the exception of defective goods or shipments made in error by NIST. To return a SRM/RM, please call for instructions and a Return SRM/RM Authorization Number before shipment. Returns WILL NOT BE ACCEPTED without prior authorization.

Ship via	UFS Ground	Description	
Salesmen	MCMIDM2	Instructions	
Contact	DAVE MITCHELL	Prof	
		Truck#	
		Blanket	
		Ship from	

DAVE MITCHELL
ANALYTICAL RESOURCES INC
4611 S 134TH PLACE
SUITE 100
TUKWILA, WA 98168-3240
1 (206) 695-6205

DAVE MITCHELL
ANALYTICAL RESOURCES INC
4611 S 134TH PLACE
SUITE 100
TUKWILA, WA 98168-3240
1 (206) 695-6205

Ship to: 68456



MP Biomedicals, LLC

29525 Fountain Parkway
Solon, Ohio 44139

Telephone: 440/337-1200
Toll Free: 800/854-0530

Fax: 440/337-1180
web: www.mpbio.com

Certificate of Analysis

Product Description: Microcrystalline Cellulose Powder_
Catalog Number: 191499_
Lot: Q9483_


Formula: (C₆H₁₀O₅)_n **Formula Weight:** N/A
CAS #: 9004-34-6 **Storage:** 15 - 30°C
Physical Description: White Powder

Test	Specification	Result
Identity Test	Passes	Passes
Purity	97.0 - 102.0%	97.0 - 102.0%
Moisture	<5.0%	3.4%
Particle Size/Mesh	Wt %	
+60 mesh	<8%	<1%
+200 mesh	>45%	55%
pH	5 - 7	6.73
Residue on Ignition	<0.05%	<0.05%
Water Soluble Substances	<12.0 mg/5 g	4.5 mg/5 g
Heavy Metals	<10 ppm	<10 ppm

H001822
Microcrystalline Cellulose Powder (TOC)
Expires 11/30/2022
Prepared By Casey English 2/22/2019

Identification A & B: Passes
Bulk Density: 0.29 g/ml
Bulk Density (graduated cylinder): 0.31 g/ml
Conductivity: 18 µS/cm
Starch: Negative
Ether Soluble Substances: 0.01%
Total Aerobic microbial Count: 100 cfu/g
Total Mold and Yeast Count: 20 cfu/g
Staphylococcus aureus: Absent/1 g
Pseudomonas aeruginosa: Absent/1 g
E. coli: Absent/1 g
Salmonella: Absent/10 g
Particle size:

- 450 mesh: 77%
- d10: 37 um
- d50: 139 um
- d90: 271 um
TUP: <9/600 cm²
Degree of brightness: >88%
Powder flow-angle of repose: <42°
Recommended Retest Date: 11/30/2022



07/26/2018 - John Huang, PhD
MP Biomedicals, LLC.
Quality Control Manager

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<http://www.mpbio.com>

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E. coli: Absent/1 g
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07/26/2018 - John Huang, PhD
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HOLDING TIME SUMMARY

Analysis: ASTM D2216

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW23-IT1264 23A0032-02	01/03/23 09:12	01/03/23 16:57	01/10/23 12:03	7	28	01/11/23 05:17	8	28	
LDW23-IT1272 23A0032-04	01/03/23 10:45	01/03/23 16:57	01/10/23 12:03	7	28	01/11/23 05:17	8	28	
LDW23-IT1235 23A0032-06	01/03/23 13:34	01/03/23 16:57	01/10/23 12:03	6	28	01/11/23 05:17	8	28	
LDW23-IT1202 23A0032-07	01/03/23 14:36	01/03/23 16:57	01/10/23 12:03	6	28	01/11/23 05:17	8	28	
LDW23-SC1226B 23A0032-08	01/03/23 12:35	01/03/23 16:57	01/10/23 12:03	6	28	01/11/23 05:17	8	28	
LDW23-SC1212 23A0032-11	01/03/23 14:01	01/03/23 16:57	01/10/23 12:03	6	28	01/11/23 05:17	8	28	

* Indicates hold time exceedance.



Analytical Resources, LLC
Analytical Chemists and Consultants

**METHOD DETECTION
AND REPORTING LIMITS**
ASTM D2216

Laboratory: Analytical Resources, LLC

SDG: 23A0032

Client: Anchor QEA, LLC

Project: AOC5 MR Phase 1

Matrix: Solid

Instrument:

Analyte	MDL	RL	Units
Total Solids		0.01	%

TOTAL SOLIDS BENCHSHEET						Batch:	BLA0147	
Method: PSEP 1986						Date:	1/6/2023 12:50	
(dry at 103-105 C)						Analyst:	YL	
Instrumentation						Drying Oven:	15	
						Analytical Balance:	b146462614	
Batch drying time			Oven Temp, C				TS (%) calculated as:	
Record times as mm/dd/yy hh:mm			Final dry wt (g) = (Dry Wt - Tare Wt)				Oven Temps, °C	
Date/time in oven:	1/7/2023 11:43		106				Start Temp:	106
Date/time out:	1/9/2023 8:50		102				End Temp:	102
Elapsed hrs:	45.1	> 24 hr	TS = (Final Dry Wt X 100)/ (sample & dish -dish tare)					
SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted		
23A0032-01	0.8200	11.8100	7.2400	6.42	58.42%	Yes		
23A0032-02	0.8000	11.3700	7.3000	6.50	61.49%	Yes		
23A0032-03	0.7900	12.2200	8.2500	7.46	65.27%	Yes		
23A0032-04	0.8000	11.4700	9.3500	8.55	80.13%	No		
23A0032-05	0.7900	11.3200	7.9400	7.15	67.90%	Yes		
23A0032-06	0.8000	11.6900	8.8800	8.08	74.20%	Yes		
23A0032-07	0.8000	11.4600	7.5900	6.79	63.70%	Yes		
23A0032-08	0.8000	11.4500	7.3900	6.59	61.88%	Yes		
23A0032-09	0.7900	11.3400	7.8800	7.09	67.20%	No		
23A0032-10	0.8000	11.5500	8.2100	7.41	68.93%	No		
23A0032-11	0.8000	11.5800	6.5200	5.72	53.06%	Yes		

TOTAL SOLIDS BENCHSHEET		Batch:	BLA0147
Method: PSEP 1986		Date:	1/6/2023 12:50
(dry at 103-105 C)		Analyst:	J
Instrumentation		Drying Oven:	ϕ15
		Analytical Balance:	BA6462614

Batch drying time		Oven Temp, C	TS (%) calculated as:	Oven Temps, °C	
Record times as mm/dd/yy hh:mm				Final dry wt (g) = (Dry Wt - Tare Wt)	Start Temp:	ϕ6
Date/time in oven:	ϕ1/07/23 11:43		TS = (Final Dry Wt X 100) / (sample & dish - dish tare)	End Temp:	ϕ2
Date/time out:	ϕ1/09/23 08:54				
Elapsed hrs:	0.0				

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
23A0032-01 A	ϕ.82	11.81	7.24			No <i>.55</i>
23A0032-02	ϕ.8ϕ	11.37	7.3ϕ			No <i>yes</i>
23A0032-03	ϕ.79	12.22	8.25			No <i>yes</i>
23A0032-04	ϕ.8ϕ	11.47	9.35			No
23A0032-05	ϕ.79	11.32	7.94			No <i>yes</i>
23A0032-06	ϕ.8ϕ	11.69	8.78			No <i>yes</i>
23A0032-07	ϕ.8ϕ	11.46	7.59			No <i>yes</i>
23A0032-08	ϕ.8ϕ	11.45	7.39			No <i>yes</i>
23A0032-09	ϕ.79	11.34	7.88			No
23A0032-10	ϕ.8ϕ	11.55	8.21			No
23A0032-11 A	ϕ.8ϕ	11.58	6.52			No <i>yes</i>

*T/S + Screens
3 copies*